

1. Legal Ad

Documents: [PB LEGAL AD 5-19-15.DOCX](#)

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3. 72 Bishop Street

3.I. Memo

Documents: [BISHOP ST. - 72 \(MEMO\).PDF](#)

3.II. Report Attachments

Documents: [BISHOP ST. - 72 \(REPORT ATTACHMENTS\).PDF](#)

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4. 1342 Congress Street

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4.III. Public Comments

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4.IV. Applicants Submittal (1 Of 2) (Congress St.)

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4.V. Applicants Submittal (2 Of 2) Congress St.

Documents: [CONGRESS ST. - 1342 \(APPLICANTS SUBMITTAL\) \(2 OF 2\).PDF](#)

4.VI. Plans (1 Of 2) (Congress St.)

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5. Housing Policy Incentives

5.I. Memo

Documents: [HOUSING INCENTIVES \(MEMO\).PDF](#)

5.II. Memo Attachments

Documents: [HOUSING INCENTIVES \(MEMO ATTACHMENTS\).PDF](#)

5.III. Public Comment

Documents: [HOUSING INCENTIVES \(PUBLIC COMMENT\).PDF](#)

5.IV. Housing And Community Development Materials On Housing Policy, January-April 2015

5.IV.i. Background Item 1: Memo On Workforce Study

Documents: [MEMO ON WF STUDY.PDF](#)

5.IV.ii. Background Item 2: Portland Housing Plan - 2002

Documents: [PORTLAND HOUSING PLAN 2002.PDF](#)

5.IV.iii. Background Item 3: Handbook On Dev. Inclusionary Zoning And Policy Tool Developing

Documents: [HANDBOOK AND POLICY TOOL.PDF](#)

5.IV.iv. Background Item 4: HCDC Requests For Additional Info.

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5.IV.v. Background Item 5: Forum On Housing Production And Affordability

Documents: [FORUM.PDF](#)

5.IV.vi. Background Item 6: HCDC Referral To Planning Board And Materials

Documents: [HOUSING AND CDC REFERRAL.PDF](#)

**LEGAL ADVERTISEMENT
PORTLAND PLANNING BOARD MEETING**

The Portland Planning Board will hold a meeting on Tuesday, May 19, 2015, Council Chambers, 2nd Floor, City Hall, 389 Congress Street. **Public comments will be taken at this meeting.**

Workshop – 4:30 p.m.

- i. Level III site Plan and Subdivision; 72 Bishop Street; AVESTA 72 Bishop Street, L.P., Applicant (4:30 -5:15 p.m. estimated time). The Board will consider a proposal by the applicant to construct a 21,274 sq. ft. building at 72 Bishop Street. Thirty (30) efficiency units are proposed for homeless individuals under the “housing first” approach, which will include support services for the residents. The lot has 52,383 sq. ft. with 50 feet of frontage along Bishop Street. Site improvements include 12 vehicle parking spaces and 12 bicycle spaces.
- ii. Level III Site Plan and Conditional Use; 1342 Congress Street; Jewish Community Alliance of Southern Maine, Applicant (5:15 – 6 p.m. estimated time). The Board will consider a proposal by the applicant to construct a neighborhood center at 1342 Congress Street. The 91,146 sq. ft. lot is located in the R-5 zone on the site of the former St. Patrick’s Church. The proposal is to demolish the existing building and construct a 19,146 sq. ft. building for a neighborhood center with a portion of the building used for a pre-school/day care center.

Evening Workshop – 6:30 p.m.

- i. Housing Policy Incentives, City of Portland, Applicant. The Board will consider the following Land Use Code text amendments: 1) Division 30 (Affordable Housing) to increase the density bonus for providing affordable units and to add a section requiring inclusion of workforce housing units in developments of 10 units or more; 2) Division 6 (R-5 Residential Zone) Section 14-117 to modify the standards for accessory dwelling units in pre-existing buildings; and 3) Division 7.2 (IR-2 Island Residential Zone) and Section 14-145.9 to modify the standards for accessory dwelling units. The Board will consider a map amendment to the Downtown Height Overlay Map to increase the maximum building height from 45' to 65' in the vicinity of York, Maple and Danforth Streets.

STUART O’BRIEN, CHAIR - PORTLAND PLANNING BOARD

Stuart G. O'Brien, Chair
Elizabeth Boepple, Vice Chair
Sean Dundon
Bill Hall
Carol Morrisette
Jack Soley
David Eaton

AGENDA
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(THERE IS NO PUBLIC HEARING PORTION OF THIS MEETING)

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STUART O'BRIEN, CHAIR - PORTLAND PLANNING BOARD



Memorandum

Planning and Urban Development Department

Planning Division

To: Stuart O'Brien, Chair and Members of the Portland Planning Board
From: Nell Donaldson, Development Review Services Manager
Date: May 15, 2015
Re: Bishop Street Apartments, 72-78 Bishop Street, Avesta 72 Bishop Street, LP
Project #: 2015-060 **CBL:** 293 C002001
Meeting Date: May 19, 2015



Figure 1: 72 Bishop Street, aerial view

I. INTRODUCTION

Avesta Housing has requested a Level III site plan and subdivision review for a 3-story, 30-unit housing project, the Bishop Street Apartments, proposed for 72 Bishop Street near Morrill's Corner. The building is designed for chronically homeless individuals around the Housing First approach, and includes a large entry lobby, community kitchen, common seating areas, and a library. A sidewalk connection to Morrill's Corner, landscaping, 12 spaces of surface parking, and stormwater treatment facilities are included in the proposal. The planning board previously considered the plans for the site, at least in conceptual form, as part of a zoning map amendment application reviewed in the fall of 2014.

Public notice of the planning board workshop appeared in the *Portland Press Herald* on May 11 and 12, 2015, was posted on the web site, and was sent by mail or e-mail to 60 property owners within 500 feet as well as interested citizens.

Applicant: Brooks More, Avesta 72 Bishop Street, LP

Consultants: Bob Metcalf, Mitchell & Associates; Stephen Bradstreet, Ransom Consulting; Ben Walter, CWS Architects; Owen Haskell

II. REQUIRED REVIEWS

Waiver Requests	Applicable Standards
Street trees – To plant 1 street tree, with contribution for remainder to street tree fund	Site Plan Standard, <i>Section 14-526(b)2.b(iii)</i> and Technical Manual, <i>Section 4.6.1</i> . All multi-family development shall provide one street tree per unit. Waiver permitted where site constraints prevent it, with applicant contributing proportionate amount to Tree Fund. <i>30 units = 30 street trees required</i>
Review	Applicable Standards
Site Plan	<i>Section 14-526</i>
Subdivision	<i>Section 14-497</i>

III. PROJECT DATA

Existing Zoning	B-2c
Existing Use	Single-family residential
Proposed Use	Multi-family residential
Proposed Development Program	30 efficiency units, including common spaces, totaling 21, 374 SF
Parcel Size	52,383 SF

	Existing	Proposed	Net Change
Building Footprint	826 SF	7,804 SF	6,978 SF
Building Floor Area	1,600 SF	21,347 SF	19,747 SF
Impervious Surface Area	1,340 SF	18,686 SF	17,346 SF
Parking Spaces (on site)	2	12	10
Bicycle Parking Spaces	0	12	12
Estimated Cost of Project	\$5,586,058		



Figure 2: 72 Bishop Street, existing conditions

IV. BACKGROUND & EXISTING CONDITIONS

72-78 Bishop Street lies on the south side of Bishop Street approximately 900 feet west of Morrill's Corner. The site is presently occupied by a single-family home. Forested wetlands, housing three headwaters of the Capisic Brook, lie at the rear of the property. An office building and taxi dispatch facility sit to the east of the site, a Masonic Hall to the west, UNE property across the wetlands to the south, and Maine Moped Factory and Portland Collision lie across Bishop Street to the north.



Figure 3: Existing zoning, 72 Bishop Street

The site and its neighboring properties were recently rezoned from Moderate Impact Industrial (IM) to Business B-2c. An IM zone lies across Bishop Street and a Residential R-5 zone lies at the site's rear. A single-family residential neighborhood is located approximately 300 feet to the east on Mayfield Street in an R-5 zone.

V. PROPOSED DEVELOPMENT

The proposal for the Bishop Street Apartments focuses around the development of a three-story, 30-unit building to house formerly homeless individuals, many with significant medical conditions, much in the same vein as Avesta Housing's two other Housing First projects, Florence House and Logan Place. The proposal is a direct response to a call from the City Council identifying the need for additional permanent housing for homeless individuals in locations beyond the city's peninsula. The building's 30 efficiency units would be constructed with shared library, kitchen, meeting, laundry, and interior and exterior social spaces. The main entrance is proposed via a vestibule off Bishop Street, and the plans include a sidewalk connection in the right-of-way east to Morrill's Corner. 12 parking spaces are proposed, as is landscaping. Stormwater treatment would also be provided on site (Figure 4).

While Avesta would develop the site, provide building maintenance, and serve as the landlord for the eventual tenants of the building, the applicant has stated that they anticipate partnering with Preble Street to provide on-site supportive services. In a memo to the planning board, Preble Street describes a plan to staff 10 full-time employees at the site, including "one coordinator, one supervisor, and one team leader managing seven housing support workers," and provide a minimum of two staff members "on duty at all times, with as many as four on-site between the hours of 8 a.m. and 8 p.m." (Attachment M) Based on the Preble Street web site for Logan Place, it is assumed that these staff would not only monitor the building, but support tenants in "developing and enhancing life skills," "help with...household management, shopping, use of transportation, and meal preparation," and "facilitate access to community resources, such as health clinics, and mental health and substance abuse services." The project narrative further states that outside health care providers would likely be engaged "to both address specific health concerns and ensure that residents have access to the health and/or personal care services that medically compromised individuals" often need in their home setting (Attachment D).

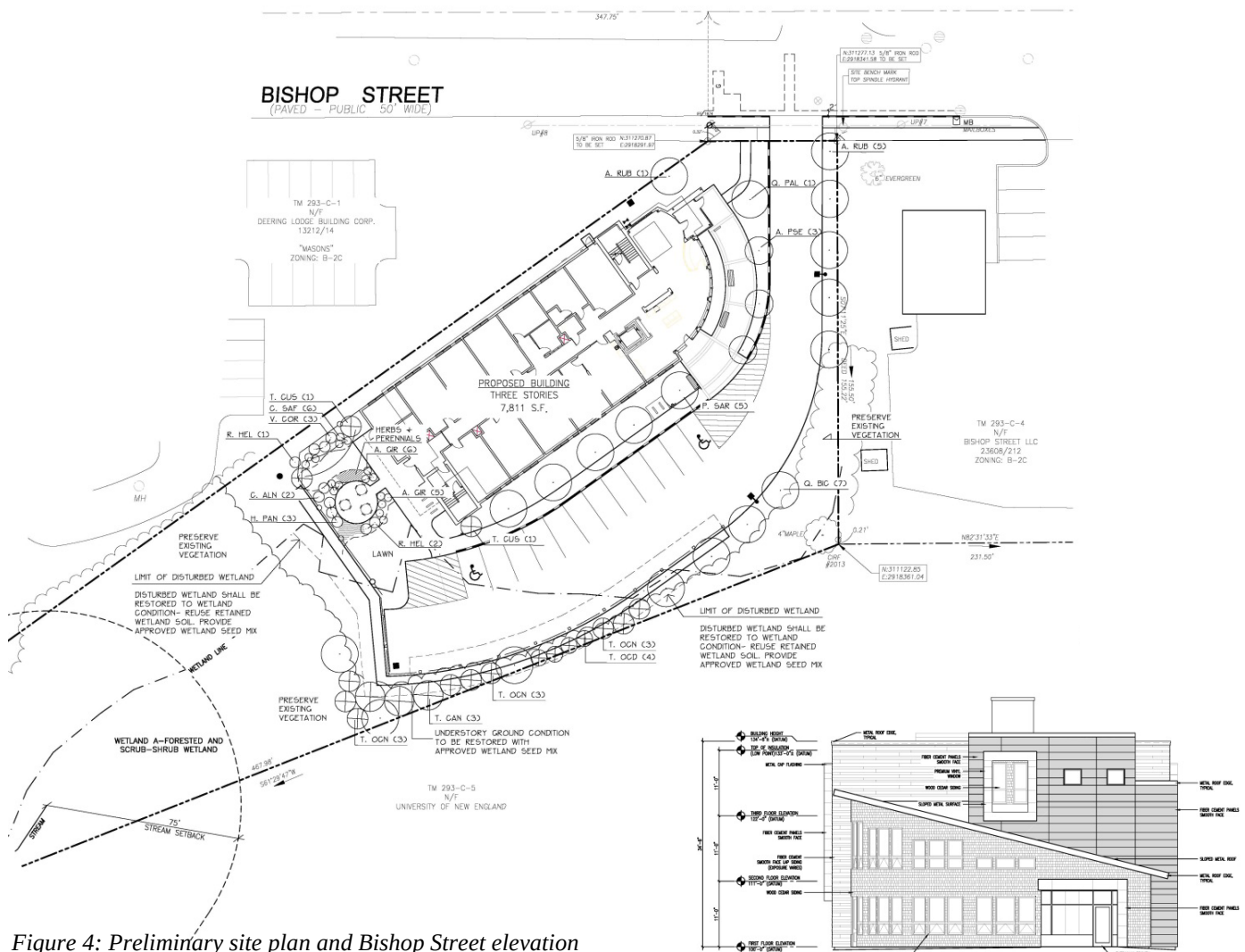


Figure 4: Preliminary site plan and Bishop Street elevation

VI. PUBLIC COMMENT

The Planning Division received no public comments on the redevelopment proposal. However, it should be noted that, during the associated zoning map amendment review, a number of neighbors expressed concerns. Neighbors questioned the project's environmental, traffic, and security impacts, as well as the project's scale. Light and noise trespass were discussed. Neighbors also expressed concerns regarding the proposed sidewalk connection to Morrill's Corner, including its implications for existing trees and maintenance.

The applicant has held their required public meeting on the proposal, but minutes have not yet been submitted. Neighborhood meeting minutes will be required as part of the final plan review.

RIGHT, TITLE, & INTEREST

The applicant has provided a deed as evidence of right, title, and interest (*Attachment Y*).

VII. FINANCIAL & TECHNICAL CAPACITY

The applicant has provided two letters as evidence of Avesta's technical capacity to develop affordable housing. The applicant has also provided a letter from Gorham Savings Bank expressing an interest in financing the project (*Attachment H*).

VIII. ZONING ANALYSIS

The applicant has submitted a zoning analysis, which notes that the development, as proposed, does not meet two requirements of the B-2c zone (*Attachment I*). These include the following:

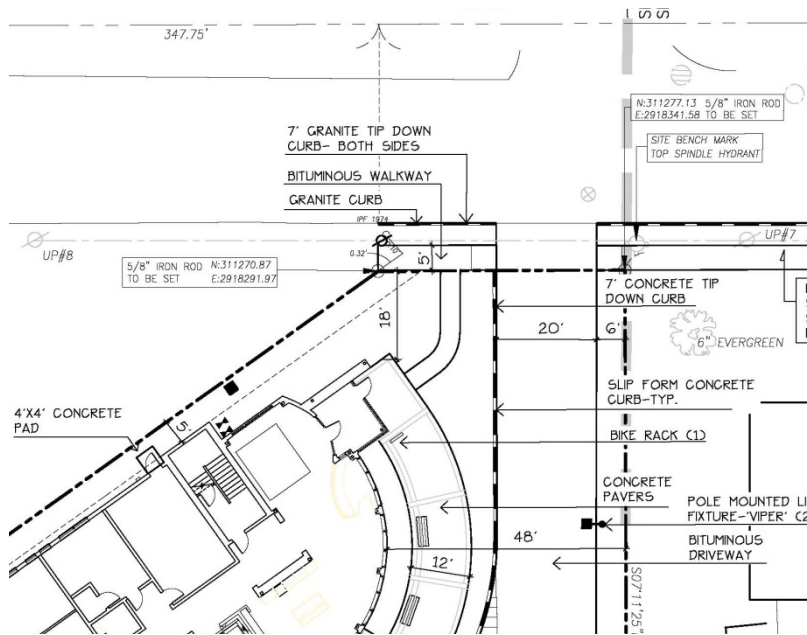


Figure 5: Bishop Street frontage and setback

need for a driveway entrance, the building could not be located as close to the street as prescribed by the ordinance to qualify as an “active street frontage.” In a continuation of this argument, the applicant has claimed again in their preliminary site plan submittal that 72 Bishop is an irregularly shaped lot and that they have sited the building as close to the street as possible. The applicant writes,

“[t]he property is 50 feet wide at the property line and does not offer the ability to locate a 24 foot driveway and the primary building façade towards the street. Because of the low traffic volume entering the site and to allow the building to be as close to the road as possible, the driveway was designed as 20’ wide. The building is located as close as possible to the front property line (18’) to achieve the appearance of an active street front” (*Attachment I*).

The applicant is requesting that the board approve the project with the proposed deviation from the front yard maximum of the B-2c.

Related to this discussion, the B-2 dimensional requirements also include a provision that, “[w]here setbacks exceed 10 feet, a continuous, attractive, and pedestrian-scaled edge treatment shall be constructed along the street, consisting of street trees spaced at no more than 15 feet on center, approved by City arborist, and a combinations of landscaping no less than 4 feet deep, ornamental brick or stone walls or ornamental fencing” (*Section 14-185*). The plans do not currently provide such a treatment. Assuming that the board is agreeable to the extension in setback, staff has requested that the applicant address this provision in the final site plan submittal.

2. **Residential Parking Requirement.** Division 20 of the land use ordinance requires one parking space per dwelling unit for residential development in the B-2, B-2b, and B-2c zones. At this ratio, the project would be required to provide 30 parking spaces for the 30 residential units. However, *Section 14-*

332.2(b) of the ordinance also provides an exception for affordable housing, whereby “the planning board may establish a parking requirement for affordable housing units for rent or sale within an eligible project that is less than one parking space per affordable housing unit, regardless of the size of the structure.” The applicant has proposed 12 spaces, less than the 30 required, explaining that the demand calculations were based on Avesta’s experience at Logan Place. The applicant’s traffic engineer, Gorrill-Palmer, writes that the parking demand at Logan Place is generally a product of staff, outside medical providers, and social workers. Given anticipated staffing levels, they calculate a total demand for the Bishop Street site of 11 spaces (*Attachment M*).

Tom Errico, the city’s traffic engineer, has reviewed this analysis and notes the following,

Gorrill-Palmer has provided a summary of parking needs based primarily on staffing requirements. According to the analysis, 12 parking spaces will be sufficient for demand needs. This demand calculation assumes that none of the proposed tenants will be allowed to have vehicles. In general I find the estimate to be reasonable, but I would suggest that a condition of approval note that if automobile ownership is permitted for residents, the project shall return to the Planning Board for review .

At the time of final review, a condition of approval will be drafted to address this concern.

IX. SITE PLAN SUBMISSION REQUIREMENTS (*Section 14-527*) and SUBDIVISION PLAT AND RECORDING PLAT REQUIREMENTS (*Section 14-496*)

Per the city’s land use ordinance, the following materials should be submitted at time of final review:

1. A subdivision plat meeting all plat requirements as noted in 14-496 (including the depiction of any proposed easements); and
2. Final plan submittal requirements as noted in 14-527(e) and (f), including:
 - A construction management plan;
 - A boundary survey stamped by a Maine Licensed Professional Surveyor showing all existing easements, including an easement for a stormwater drain which crosses the applicant’s property; and
 - A revised civil set including the following details:
 - Detectable Warning Strip;
 - Catch Basin;
 - Storm Drain Trench; and
 - J-Drain.

X. SUBDIVISION REVIEW (*Section 14-497(a)*)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland’s subdivision ordinance. Staff comments are below.

1. Water, Air Pollution

Currently, the vast majority of the site is covered in grass or low scrub brush, and drains to the wetlands to the south, which serve as the headwaters of the Capisic Brook, an urban impaired stream. The proposed development would result in an increase of over 17,000 SF in impervious surface, and change drainage patterns on the site. All runoff is proposed to flow through treatment systems which will mitigate for both quality and quantity. David Senus, consulting civil engineer, and David Margolis-Pineo, of the city’s Department of Public Services, have reviewed the stormwater management plans (*Attachment N and Plans 10, 11, and 12*). Comments are discussed in detail under site plan review below. Given the findings of these reviews, the proposal is not expected to generate undue air or water quality impacts.

2 & 3. Adequacy of Water Supply

The applicant has provided evidence of capacity from the Portland Water District (*Attachment G*).

4. Soil Erosion

The applicant has provided a soil survey noting that “soils on the site are representative of the urban environment,” including “fill material, relic topsoil and glaciomarine deposits including silty clay.” The geotechnical report recommends excavation of fill material and backfilling with compacted granular borrow below the development site. The project is not expected to cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition results.

5. Impacts on Existing or Proposed Highways and Public Roads

As noted above, the applicant has provided a traffic analysis, prepared by Gorrill-Palmer Consulting Engineers. Tom Errico, the city’s consulting traffic engineer, has reviewed this traffic study and provided comments, discussed in detail under site plan review below.

6. Sanitary Sewer/Stormwater Disposal

The applicant has submitted a wastewater capacity application to the Department of Public Services (*Attachment G*). Verification of capacity will be required at the time of final plan. As noted above, a review of the proposed stormwater management system is discussed in detail below.

7. Solid Waste

The applicant has proposed an internal trash and recycling room for residential use and has stated that a private hauler will be contracted for the removal of solid waste. The application states that the “hauler will back into the driveway off of Bishop Street [and]...wheel container units to the truck.” Given this, the development is not anticipated to cause a burden on the city’s system.

8. Scenic Beauty

This proposal is not deemed to have an adverse impact on the scenic beauty of the area.

9. Comprehensive Plan

The applicant has provided a narrative regarding consistency with the city’s comprehensive plan (*Attachment K*). Consistency with the comprehensive plan is discussed in more detail under site plan review below.

10. Financial and Technical Capacity

As noted above, the applicant has submitted a letter from Gorham Savings Bank indicating the intent to consider project financing (*Attachment H*). Letters attesting to the proficiency of Avesta Housing have also been provided (*Attachment H*).

11. Wetland/Water Body Impacts

Altogether, the proposed development would impact 3,105 SF of wetlands. The applicant has made efforts to minimize this impact by siting the building as far from the wetland as possible, proposing limited parking and thus limited pavement, and designing retaining walls rather than grading at the project’s rear. As noted above, the applicant proposes to treat all stormwater proposed to enter these wetlands. This system and wetland impacts are discussed in detail below.

12. Groundwater Impacts

There are no anticipated detrimental impacts to groundwater supplies.

13. Flood-Prone Area

Per the city’s existing flood maps, the development is not proposed in a flood zone.

XI. SITE PLAN REVIEW (Section 14-526)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's site plan ordinance. Staff comments are below.

1. Transportation Standards

a. Impact on Surrounding Street Systems

The applicant has provided trip generation, access, and crash analyses prepared by Tom Gorrill of Gorrill-Palmer Consulting Engineers (*Attachment Y*). The Gorrill-Palmer study estimates trip generation based on data collected at Logan Place, which is managed by Preble Street in much the same fashion as is anticipated at Bishop Street. Based on the Logan Place data, Gorrill-Palmer estimates a total of 13 AM peak hour and 11 PM peak hour vehicular trip ends to/from the site, mostly as a product of staff. Preble Street has written that all tenants will be afforded bus passes, that Preble Street has an account with Elite Taxi for emergency use, and that many clients will qualify for subsidized paratransit service. Given the low anticipated traffic volumes, no vehicular level of service analysis for area intersections was conducted.

Mr. Errico has reviewed the trip generation estimates and provided the following comments,

I have reviewed the traffic generation estimate prepared by Gorrill-Palmer and concur with the estimate that approximately 13 trips are projected to be generated during the AM peak hour and 11 trips during the PM peak hour. Based upon this level of traffic, I do not expect the project to have a significant impact to traffic safety and operations in the study area. It should be emphasized that while the tenants of the project are not expected to own cars, it is expected that they will be using the proposed sidewalk to gain access to METRO buses at Forest Avenue and general commercial land uses in the area.

The study also pulled crash data from the area, including Morrill's Corner and the intersection of Bishop Street and Warren Avenue. Of this, Mr. Errico writes,

The crash data provided by the applicant notes that the Morrill's Corner intersection(s) had significant crashes over the report 2011 to 2013 three-year period. While the Forest Avenue/Stevens Avenue/Bishop Street intersection was not classified as a High Crash Location, it still had 30 reported crashes. The Forest Avenue/Allen Avenue intersection is a High Crash Location and had 53 reported collisions. Given that the project is not generating a significant amount of traffic, I do not expect safety conditions to be exacerbated.

b. Access and Circulation

As a corollary to the low vehicular trip generation noted above, the development poses that potential to generate significant pedestrian traffic. In fact, pedestrian access to goods, services, and transit connections at Morrill's Corner formed a central component of the applicant's argument for the location of this housing during the associated zone change review. During that review, Mr. Errico noted that, at the time of development, a grade-separated sidewalk would be required between the site and Morrill's Corner in order to serve pedestrian traffic generated by the site. In response, the applicant has provided preliminary plans for approximately 600 feet of this sidewalk (*Plan 8*).

The preliminary plans show the sidewalk, with a grassed esplanade, extending east from the site, past Mayfield Street, to the location of an existing sidewalk segment at 12 Bishop Street. However, the current plans do not show a proposed sidewalk connection to the east of the 12 Bishop Street property and all the way to the Stevens Avenue/Forest Avenue intersection at Morrill's Corner. This outstanding section abuts only one property owner but would replace what now constitutes a single, large curb cut.

The city has contacted the property owner in order to discuss a possible design. Mr. Errico writes,

A sidewalk is being constructed on Bishop Street, as identified during the zoning amendment process. I find it to be acceptable although the sidewalk should be extended to the corner at Forest Avenue/Stevens Avenue. I would suggest that the applicant develop a concept plan for review and approval. I can work with the applicant in the development of the plan from a traffic perspective, particularly how it interfaces with the existing parking lot.

Mr. Margolis-Pineo adds,

The applicant has agreed to extend a sidewalk to Forest Avenue. The plans show the sidewalk terminating at the parking lot prior to Forest Ave. It is desirable to have the sidewalk continued through this parking area to Forest Ave. Drive cut location(s) will need to[be] determine[d] with the parking lot owner.

In his review of the plans, Mr. Margolis-Pineo has also noted the need for grading and construction easements associated with this sidewalk. David Senus, the city's consulting civil engineer, has also documented the need for several related details in the plans,

The Bituminous Sidewalk with Granite Curb – City of Portland detail on Sheet L5 should be modified to comply with the City of Portland Technical Manual.

The Applicant should provide details for proposed sidewalk ramps in accordance with the City of Portland Technical Manual for the Bishop Street Sidewalk Improvements.

On-site pedestrian circulation is proposed via a bituminous walkway from Bishop Street. This walkway wraps around the east and south sides of the proposed building. Vehicular access is proposed via a 20' curb cut from Bishop Street.

c. *Public Transit Access*

The proposed development is not located along a public transit route. As such, no provisions for transit access are required on the site. The proposed sidewalk to Morrill's Corner will serve as a pedestrian connection to transit service.

d. *Parking*

As noted under the zoning review above, Division 20 of the land use ordinance requires one parking space/unit for residential development located in the B-2, B-2b, or B-2c zone, but the applicant has requested an exception under the affordable housing provisions of the land use ordinance. Mr. Errico has generally expressed his support. Mr. Errico has also reviewed the parking lot layout and driveway condition and found them acceptable (*Attachment I*).

The preliminary plans include 6 bicycle racks providing 12 bike parking spaces. One of these is proposed at the building's front; the other five are at the side or rear. The 12 spaces proposed meet the site plan standard of two spaces/five dwelling units for residential structures.

e. *Transportation Demand Management*

A transportation demand management plan is not required. However, as noted above, the project has been designed to incorporate some transportation demand management strategies, including paratransit services and transit subsidies.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features

As noted previously, the Capisic Brook crosses onto the southwestern corner of the site. This segment of the Capisic is often cited by the Department of Public Services as one of the city's cleanest water resources; the *Capisic Brook Watershed Management Plan*, which was published in 2012, documents results of a 2003 biological monitoring program on the Capisic Brook which determined that the east tributary of the Capisic, which roughly parallels Bishop Street here, had "a healthy macroinvertebrate community, good water quality, and adequate habitat" and met Class C water quality standards. Doug Roncarati, of the city's Department of Public Services, has noted that staff from the Maine Department of Environmental Protection have stated that water quality in this segment of the brook has actually improved since the 2003 monitoring program and now meets Class A water quality standards (*Attachment 2*).

Given this, there are concerns about stream impacts and wetland disturbance on the site. The applicant has made efforts to site the building over 75 feet from the stream, minimize wetland disturbance to just over 3,000 SF (less than the .1 acre threshold for DEP permitting), and develop adequate plans to treat stormwater prior to discharge. In addition to providing comments on the stormwater treatment system, discussed below, Mr. Senus has asked for additional analysis regarding state and federal regulations related to the proposed wetland disturbance,

The Applicant should provide a written summary of their assessment of state and federal wetland regulations relative to the proposed plan (types of wetlands present on the site, setback requirements, acceptable amount of wetland disturbance/fill).

Mr. Margolis-Pineo adds,

This Department has concerns regarding the wetland impacts and encroachment on the stream. We would like to see the wetland delineation line shown on the post-construction site plan to more clearly define the area of impact. A comparison of pre and post wetlands delineation is requested. Please show the limits of temporary construction activity on the wetlands area.

Similarly, it should be noted that a peer review conducted in 2007 by Call of the Wild Consulting and Environmental Services for the Gullivers Field area immediately south of Bishop Street found that that site provides "very significant migratory passerine (songbird) stopover habitat for both the spring and fall migrations. In fact, this area is a premier destination site for spring birding because of the large variety of bird species and numbers." The review concludes, "this area is a well-documented, important ecological area in Portland that Call of the Wild recommends permanent protection [sic]..." Again, the applicant has made efforts to minimize the impact of the development on the forested area at the property's rear.

Regarding these natural resources more generally, including existing mature trees which provide habitat on site, Jeff Tarling, the city's arborist, writes,

The proposed project is wedged into a narrow space with important wetlands that drain into Capisic Brook watershed. Wetland protection and keeping a 'natural feel' to the site is important both from a wildlife aspect and fitting into the surrounding area.

The woodlands near this project ha[ve] been noted for important habitat area. Thus defining the tree clearing limits and work zone is important. I would ask as a condition that Note 10 be straightened to include protection measures that requires the project

team vs the general contractor identify, before any clearing or site work to begin, actual work zones and construction fencing for tree saves, wetlands and existing vegetation save areas.



Figure 6: 72 Bishop Street, existing vegetation as seen from the north, with Gullivers Field at rear

b. Landscaping and Landscape Preservation

The site is currently forested at rear around the Capisic Brook and associated wetlands (Figure 6). In the preliminary plans, the applicant proposes to preserve a considerable amount of this forested area, including existing vegetation on the eastern and southwestern sides of the site. As noted above, Mr. Tarling has requested that notes regarding protection measures be added to

the plan. Planning staff have also requested that the applicant provide documentation as to the plan's conformance with the landscape preservation standards of the site plan ordinance, which require that 30% of trees 10 inches DBH or greater within setbacks be preserved.

The applicant proposes evergreen plantings along the eastern property line in an effort to buffer the development from nearby single-family residential uses, which arose as an area of concern during the associated zone change request. The applicant has also proposed understory plantings at the rear of the building. The eastern and street-facing facades are proposed with maples, oaks, and cherry trees. Regarding the plant selection, Mr. Tarling has commented,

The landscape plant material selected for the UNE edge should be exclusively native plants to New England. Native plants like Red or White Spruce, Amelanchier, Hop-Hornbeam, Yellow Birch and American Mountain Ash would be preferable. Evergreen trees in this area should be a mix of 5-6', 4-5' trees. (note - the UNE property is already impacted by non-native species & invasive plants)

Staff has also commented on the location of the plantings, requesting that the applicant consider adding or relocating some of the understory plantings to the eastern side of the building, western side of the building, or to the Bishop Street frontage to improve the visual experience from the street. This request relates to the zoning requirement related to a continuous edge treatment. Mr. Tarling writes,

The project currently is wide open visually on the Bishop Street side near the Deering Lodge. Landscape buffering is recommended. This can be on the narrow strip of project land or on Deering Lodge property by agreement. Larger shade trees would be ideal. Planting trees along or within the Bishop Street right of way would be acceptable as well. This would also be a landscape condition.

Also related to the edge treatment along Bishop Street, the applicant has requested a waiver from the street tree provisions of the ordinance, which require that a proposal include street trees at a ratio of one per unit planted in the right-of-way at 30 – 45 feet on center. The site plan ordinance includes language which allows the planting of street trees in the front yard within 10 feet of the property line in cases when site constraints prevent planting in the right-of-way. One of the applicant's trees falls within this range. Staff has requested that the applicant add a street tree to the west of the driveway entrance within 10 feet. Contributions to the tree fund for the remaining trees will be required.

Staff has also requested that the applicant provide details for the fences and guardrail proposed around the rear parking area.

c. *Water Quality/Storm Water Management/Erosion Control*

The applicant has submitted a stormwater management narrative by Ransom Consulting which describes the plan to treat the stormwater from 17,000 SF of additional impervious surface through the use of paver drain and filtered roof drain systems, both of which would outlet to R-Tanks for storage. These systems would be supplemented by a drain along the western edge of the site. Each of these systems would outlet near the wetlands at rear. Mr. Senus has reviewed the narrative and the associated stormwater plans and has provided the following comments,

In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:

- a) *General Standards: The project will result in a net increase in impervious area of approximately 17,382 square feet. As such, the project is required to include stormwater management features for stormwater quality control. The following comments should be addressed:*
 - i) *From the HydroCAD model, it appears that the Applicant has proposed to treat a sufficient amount of impervious area with a paver drain system and filter cartridges for roof runoff; however, the area proposed to receive treatment should be identified on a plan and tabulated/calculated to show compliance with the General Standards (95% of new impervious area treated, 80% of new developed area treated).*
 - ii) *Documentation/calculations should be provided to demonstrate that the proposed porous pavers have been adequately designed per Chapter 7.7 of Volume III of the MaineDEP Stormwater BMP Manual to provide the necessary level of treatment.*
 - iii) *Details and pollutant removal data should be provided for the proposed filter cartridges and the plans should indicate whether the treatment unit will be located internal to the building; at this time, no provisions for the proposed filter cartridges have been included on the plans.*
 - iv) *It appears that some roof drainage is directed to a crushed stone drip strip; the Applicant should clarify if this is the proposed treatment method for a portion of the roof runoff.*
- b) *Flooding Standard: The project will result in a net increase in impervious area of approximately 17,382 square feet. As such, the project is required to include stormwater management features to control the rate of stormwater runoff from the site. The Applicant has provided a HydroCAD Report that indicates the peak rate of runoff from the proposed development will not exceed that from existing conditions; however, the following comments should be addressed:*

- i) *It is unclear from the plans how the stormwater management system will be interconnected; it does not appear that the equalizing pipe connecting the two R-Tank systems is shown, and the method of discharging from the outlet control structure is unclear. It is also unclear how the roof drainage crushed stone drip strip will connect to the R-Tank system. Proposed storm drain piping should be clearly labeled with size, material, slopes, and invert elevations and more detail should be provided on the interconnections between the various stormwater management systems on the site.*
- c) *The Bishop Street Stormwater Management Narrative prepared by Ransom Consulting, Inc., dated April 10, 2015, refers to Appendices A and B, which include a Post-Construction Stormwater Management Plan and Stormwater BMP Inspection and Maintenance Requirements; however, it does not appear that these appendices have been received at this time. The Stormwater Management Plan should include a stormwater inspection and maintenance plan developed in accordance with and in reference to Manufacturer recommendations for the proposed filter cartridges, MaineDEP Stormwater BMP Manual Maintenance Criteria for Manmade Pervious Surfaces, manufacturer specific requirements for the R-Tanks, and Chapter 32 of the City of Portland Code of Ordinances.*
- d) *The R-Tank system does not appear to be lined with a watertight liner. The paver/tank/retaining wall section on L9 proposes a system that would likely not hold or retain water, instead, drainage may daylight through or below the wall system. Additional design detail is necessary to address drainage and water storage behind the retaining wall structure.*
- e) *It appears that the Applicant is proposing to daylight the outlet of the Outlet Control Structure. Outlet protection measures should be provided at the discharge location. The Applicant should also clarify whether the proposed J-drain will daylight adjacent to the Outlet Control Structure, or if it is intended to connect to the Outlet Control Structure. The plans should be clarified in this area.*
- f) *The Applicant has proposed an NDS 12-inch Square Shallow Catchbasin with flat grate for use as a field inlet; the Applicant should consider utilizing beehive grates for proposed field inlets.*

Mr. Senus has also noted that the Capisic Brook qualifies as an urban impaired stream. He writes,

The project is located within the Capisic Brook Watershed, which is identified as an Urban Impaired Stream by the Maine DEP. Section 5 of the City of Portland Technical Manual requires that all development within the Capisic Brook watershed, except single and two family homes, comply with the Urban Impaired Stream Standard pursuant to MaineDEP Chapter 500 Rules. To meet the Urban Impaired Stream Standard, the Applicant must either pay an in-lieu compensation fee or mitigate project impacts by treating, reducing, or eliminating an off-site or on-site pre-development impervious stormwater source. The Applicant has noted that the project will adhere to the Urban Impaired Stream Standard for development; however, it is unclear how the Applicant is proposing to meet the Standard. The Applicant should provide calculations of the in-lieu fee compensation amount or identify mitigation measures in accordance with the Urban Impaired Stream Standard.

On the matter of discharging in to an Urban Impaired Stream, Mr. Margolis-Pineo adds,

All catchbasins capturing stormwater discharging into an urban impaired watershed, the applicant is requested to install four foot diameter catchbasins with three foot sumps.

It should be noted that the applicant has proposed a retaining wall, at some points over 6 feet in height, at the southern and eastern sides of the parking area adjacent to the proposed porous paver strip. This wall will require its own building permit. Mr. Senus also notes,

The Applicant has proposed a porous paver strip along the proposed retaining wall, which exceeds five feet in height. A geotechnical report has been provided that specifies the parameters for the wall design engineer; however, at this time, the geotechnical report does not appear to include an evaluation of the impact of the porous pavement and associated R-Tank storage system on the wall design. The Applicant should clarify whether infiltration from the porous pavers adjacent to the proposed retaining wall and the adjacent, below grade stormwater storage has been evaluated/considered by the geotechnical engineer.

Mr. Margolis-Pineo adds,

The grading plan needs to show the existing stormwater drainage system including drain manholes adjacent and on the applicant's property. Show all field inlets, rim elevation, pipe size and pipe invert elevations.

3. Public Infrastructure and Community Safety Standards

a. Consistency with Related Master Plans

As noted above, the project is generally deemed consistent with related master plans, especially those plans addressing the need for affordable housing. *Housing: Sustaining Portland's Future* highlights the need for supportive housing with a goal particularly targeted towards this housing type. The housing plan recommends that the city should "[e]ncourage proposals from developers that will transition homeless families and individuals out of emergency shelters and transitional facilities into permanent housing, including single room occupancy (SRO) units." In addition, the report of the city's Homelessness Prevention Task Force, issued in November 2012, includes recommendations designed to address the city's issues with homelessness, many of which apply here. Among these, the report recommends "a focus on providing appropriate permanent housing and support in the community for individuals, families, and youth as quickly as possible...Meeting this goal will...require constructing three new housing first units consisting of 35 units each and appropriate supports for people who are chronically homeless (4)."

b. Public Safety and Fire Prevention

At prior meetings related to the related zone change request, responding to neighborhood concerns, board members requested that the applicant provide information related to the potential security and safety impacts of the proposed development. Board members asked explicitly for police department data related to security around Avesta's existing Housing First developments. The applicant provided a testimonial from Vernon Malloch of the Portland Police Department regarding Logan Place, stating that "Logan Place has successfully served as a tested model with no significant impact on the surrounding neighborhood" (*Attachment R*), but the board stressed the importance of additional information.

In response, the Portland Police Department provided an analysis of calls for service at Logan Place between 2005 and 2014 (*Attachment S*). The analysis includes explanations of the number of calls of various types, including, most prominently, refusing to leave/bothering and behavioral complaints. The memo also addresses drug-, assault-, and weapons-related calls, noting that many of these involved false alarms or repeat violators. The memo states that "few calls [at Logan Place] resulted in police reports or arrests. None of the [calls for service] were for serious crime types," and concludes that "[w]e can anticipate an increase in police calls for service with development of any otherwise vacant parcel.

Housing of the chronically homeless as takes place at Logan Place further increases the likelihood of an increase. Data review suggests there has been no negative impact on the neighborhood from a public safety standpoint. Other reports and studies have shown the population targeted for housing in this model draw significantly more police resources when they are homeless.”

Given the concerns about public safety and security on site, the applicant has generally made efforts to use site design to balance issues regarding natural surveillance and visual impacts to adjacent residential properties, which tend to conflict. In the revised submittal, the applicant should provide additional information related to surveillance of concrete paver seating area at rear, a portion of the site which is not immediately visible from the street or parking area.

With respect to fire prevention, the applicant proposes to provide 6” water service from Bishop Street for the building’s internal sprinkler system. An existing hydrant is located just to the east of the site entrance. Keith Gautreau, of the city’s Fire Prevention Bureau, has reviewed the plans and provided comments requesting fire lane signs and several additional plan notes (*Attachment 5*). The applicant should address these comments in the final submittal.

c. *Availability and Capacity of Public Utilities*

The applicant has proposed to bring water for both fire suppression and domestic service from a 12” water main in Bishop Street. Sewer will be serviced from an existing 8” line in Bishop Street and natural gas will be supplied from an existing 8” line in Bishop Street. Electrical, telephone, and cable service is proposed from either a pole directly north of the property on the south side of Bishop Street or from a pole to the west. The second of these options would require an easement from the Masonic Lodge. In the final plan set, the applicant should confirm the plan for electrical service, include accommodations for an easement as necessary, and note that electrical/communications service will be underground in accordance with the site plan standards.

Regarding water and sewer capacity, Mr. Sensus writes,

The Applicant has requested letters from utilities confirming capacity to serve the proposed development. The Portland Water District confirmed ability to serve the proposed development, but noted that approval of plans will be required prior to construction. A letter documenting approval of the proposed project from the Portland Water District and a letter confirming ability to serve sanitary sewer for the proposed development should be forwarded upon receipt.

4. Site Design Standards

a. *Massing, Ventilation, and Wind Impact*

No comments at this time.

b. *Shadows*

No comments at this time.

c. *Snow and Ice Loading*

The applicant has indicated in their preliminary submittal that they will contract with a private plow company to maintain the driveway and sidewalk in the event of snow. Snow storage is depicted at the southwest edge of the parking lot in the plans. The applicant has stated explicitly that snow will not be placed in the adjacent wetland.

d. *View Corridors*

There are no comments at this time.

e. *Historic Resources*

There are no comments at this time.

f. *Exterior Lighting*

The applicant has provided a cut sheet for a pole-mounted parking area light which depicts a full cutoff fixture. A photometric plan should be submitted at the time of final review. This lighting plan should be sensitive to concerns voiced previously from neighbors to the east regarding light trespass.

g. *Noise and Vibration*

Information on the location of HVAC vents and mechanical equipment should be provided with the final plans.

h. *Signage and Wayfinding*

No signage or wayfinding is proposed at this time.

i. *Zoning-Related Design Standards*

Planning staff reviewed the plans for conformance with the multi-family design standards (*Design Manual, Section (i)*). Caitlin Cameron, the city's urban designer, documented the findings of the review, writing,

Standard 1 – *The surrounding context tends to be more commercial in use and character. Additionally, the neighboring residential context is most often single-family or other small-scale buildings. Therefore, the multi-family, large-scale building proposed is not the same type of residential project and is therefore not able to have the same character. The project uses a mix of building materials that, in combination with the fenestration, projections, and the varying forms and roof lines, provide positive visual interest as stipulated in the Standard. Staff would like to see the “bay” elements extended to the ground level which currently have an awkward relationship to the façade as floating elements.*

Standard 2 – *A building in a B-2 zone should contribute to the street wall. However, this property has an usual lot configuration and very little frontage. As such, it is understandably difficult to build to the street. The principal entry is relatively close to the street and provides good visibility.*

Standard 3 – *The project provides a garden space and screening and landscaping elements as required by the Standard.*

Standard 4 – *Overall the project has a high level of fenestration to provide resident access to light and air. Storage is provided.*

Standard 5 – *Parking is well screened and positioned away from the street. However, more detail is requested regarding the height and material of fences around the property – visual and sound screening is desirable between the parking and neighboring property as well as between the outdoor seating area and neighboring property. What will be the landscape treatment at the Northeast face of the building?*

Standard 6 – *Not Applicable*

XIII. NEXT STEPS

- Address staff comments;
- Address additional comments of the Planning Board;
- Prepare final plan submission, including subdivision and site plan submittal requirements as included in 14-496(a) and (b) and 14-527(e) and (f) for review by the Planning Authority and Planning Board; and
- Hold final Planning Board Hearing.

IV. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Traffic Engineer review (memo from Thomas Errico, 5/13/15)
2. Department of Public Services review (memo from David Margolis-Pineo, 5/12/15)
3. Civil Engineer review (memo from David Senus, 5/11/15)
4. City Arborist review (memo from Jeff Tarling, 5/12/15)
5. Fire Prevention Bureau review (memo from Keith Gautreau, 4/27/15)
6. Design review (memo from Caitlin Cameron, 4/29/15)

APPLICANT'S SUBMITTALS

- A. Cover Letter (from Bob Metcalf, Mitchell Associates, 4/10/15)
- B. Development Review Application, Project Data, and Checklist
- C. Right, Title, or Interest
- D. Project Description, Project Data, and Maps
- E. Abutting Property Owners
- F. Existing Soils Condition
- G. Public Utilities
- H. Technical Capability, Financial Capability, and Letter of Authorization
- I. Compliance with Applicable Zoning
- J. Waiver Request
- K. Consistency with City's Master Plan and Conformity with Design Standards
- L. Fire Department Checklist and HVAC Emissions Requirements
- M. Traffic and Parking Study
- N. Stormwater Management Plan
- O. Solid Waste Disposal and Snow Removal
- P. Light Fixtures
- Q. Environmental Quality Standards
- R. Letter from PDD
- S. PDD Calls for Service Analysis

PLANS

- Plan 1. Existing Conditions Plan
- Plan 2. Boundary & Topographic Survey
- Plan 3. Layout and Lighting Plan
- Plan 4. Grading, Drainage, and Utilities Plan
- Plan 5. Planting Plan
- Plan 6. Site Details
- Plan 7. Site Details
- Plan 8. Bishop Street Sidewalk Plan
- Plan 9. Erosion & Sedimentation Control Plan
- Plan 10. Stormwater Details
- Plan 11. Pre-Development Stormwater Plan

- Plan 12. Post-Development Stormwater Plan
- Plan 13. First Floor Plan
- Plan 14. Second Floor Plan
- Plan 15. Third Floor Plan
- Plan 16. Roof Plan
- Plan 17. Exterior Elevations

From: Tom Errico <thomas.errico@tylin.com>
To: Helen Donaldson <HCD@portlandmaine.gov>
CC: David Margolis-Pineo <DMP@portlandmaine.gov>, Katherine Earley <KAS@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Jeff Tarling <JST@portlandmaine.gov>
Date: 5/13/2015 1:12 PM
Subject: 72 Bishop Street

Hi Nell - I have reviewed the application materials and offer the following traffic comments:

- * I find the parking lot layout and driveway condition to be acceptable.
- * A sidewalk is being constructed on Bishop Street, as identified during the zoning amendment process. I find it to be acceptable although the sidewalk should be extended to the corner at Forest Avenue/Stevens Avenue. I would suggest that the applicant develop a concept plan for review and approval. I can work with the applicant in the development of the plan from a traffic perspective, particularly how it interfaces with the existing parking lot.
- * The applicant has requested a waiver from the City's Technical Standards as it relates to off-street parking requirements. Gorrill-Palmer has provided a summary of parking needs based primarily on staffing requirements. According to the analysis, 12 parking spaces will be sufficient for demand needs. This demand calculation assumes that none of the proposed tenants will be allowed to have vehicles. In general I find the estimate to be reasonable, but I would suggest that a condition of approval note that if automobile ownership is permitted for residents, the project shall return to the Planning Board for review.
- * The applicant should provide general details as it relates to a construction management plan. I do not support a waiver for this request.
- * I have reviewed the traffic generation estimate prepared by Gorrill-Palmer and concur with the estimate that approximately 13 trips are projected to be generated during the AM peak hour and 11 trips during the PM peak hour. Based upon this level of traffic, I do not expect the project to have a significant impact to traffic safety and operations in the study area. It should be emphasized that while the tenants of the project are not expected to own cars, it is expected that they will be using the proposed sidewalk to gain access to METRO buses at Forest Avenue and general commercial land uses in the area.
- * The crash data provided by the applicant notes that the Morrill's Corner intersection(s) had significant crashes over the report 2011 to 2013 three-year period. While the Forest Avenue/Stevens Avenue/Bishop Street intersection was not classified as a High Crash Location, it still had 30 reported crashes. The Forest Avenue/Allen Avenue intersection is a High Crash Location and had 53 reported collisions. Given that the project is not generating a significant amount of traffic, I do not expect safety conditions to be exacerbated.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director
[T.Y. Lin International] T.Y. Lin International
12 Northbrook Drive
Falmouth, ME 04105
207.781.4721 (main)
207.347.4354 (direct)
207.400.0719 (mobile)
207.781.4753 (fax)
thomas.errico@tylin.com<mailto:thomas.errico@tylin.com>
Visit us online at www.tylin.com<http://www.tylin.com>
Twitter | Facebook | LinkedIn | YouTube

"One Vision, One Company"

Please consider the environment before printing.

From: David Margolis-Pineo
To: Barbara Barhydt; Helen Donaldson
CC: DEVELOPMENT REVIEW GROUP
Date: 5/12/2015 4:33 PM
Subject: Review Comments - 72 Bishop St - AVESTA Housing

Comments have also been placed in Urban Insight.

May 12, 2015

Memo To: Nell Donaldson
Barbara Barhydt
From: David Margolis-Pineo
Re: 72 Bishop Street – AVESTA Housing (2015-060)

The Department of Public Services has the following preliminary comments on the above mentioned site plan.

1. Surveying comments will be forwarded by William Clark of this office under a separate cover. Survey plan will require a Professional Surveyor stamp.
2. The applicant has agreed to extend a sidewalk to Forest Avenue. The plans show the sidewalk terminating at the parking lot prior to Forest Ave. It is desirable to have the sidewalk continued through this parking area to Forest Ave. Drive cut location(s) will need to determine with the parking lot owner.
3. Please show the sidewalk being constructed along the street right of way. It is realized that several trees impeded the alignment. Do the best you can. As indicated on the plan, grading and construction easements will need to be executed by the applicant for construction of the sidewalk.
4. An existing stormwater drain is shown crossing the applicant's property. An easement will need to be shown on the survey plan for this utility. For an accurate easement, the cross-country drain manholes will need to be located. If necessary, the City can assist with locating.
5. The grading plan needs to show the existing stormwater drainage system including drain manholes adjacent and on the applicant's property. Show all field inlets, rim elevation, pipe size and pipe invert elevations.
6. The applicant is indicating that an existing house on the property will be removed for this project. Please be aware that Demolition and Seal Drain Permit is required. No response required.
7. This Department has concerns regarding the wetland impacts and encroachment on the stream. We would like to see the wetland delineation line shown on the post-construction site plan to more clearly define the area of impact. A comparison of pre and post wetlands delineation is requested. Please show the limits of temporary construction activity on the wetlands area.
8. Note that DEP staff has indicated that this section of brook meets Class A standards, the State's highest water quality class. No comment necessary.
9. All catchbasins capturing stormwater discharging into an urban impaired watershed, the applicant is requested to install four foot diameter catchbasins with three foot sumps.

We have no further comments at this time.

MEMORANDUM



TO: Nell Donaldson, Planner
FROM: David Senus, P.E.
DATE: May 11, 2015
RE: 72 Bishop Street Efficiencies, Final Level III Site Plan Application

Woodard & Curran has reviewed the Final Level III Site Plan Application for the proposed efficiencies located at 72 Bishop Street in Portland, Maine. The project involves the construction of 30 housing units with 12 parking spaces and associated site improvements.

Documents Reviewed by Woodard & Curran

- Final Level III Site Plan Application and attachments, dated April 10, 2015, prepared by Mitchell & Associates, on behalf of Avesta 72 Bishop Street, LP.
- Plans, Sheets L1.0-L9.0, dated April 10, 2015, prepared by Mitchell & Associates & Ransom Engineering, on behalf of Avesta 72 Bishop Street, LP.
- Boundary & Topographic Survey, dated January 20, 2015, prepared by Owen Haskell, Inc., on behalf of Avesta Housing.
- Pre- and Post-Development Stormwater Plans, dated April 10, 2015, prepared by Ransom Engineering/Mitchell & Associates, on behalf of Avesta 72 Bishop Street, LP.

Comments

- 1) Per Section 13 of the City's Technical Manual, the Applicant is required to submit a Boundary Survey that has been stamped by a Maine Licensed Professional Surveyor; at this time, stamped copy of the Boundary & Topographic Survey has not been received for review.
- 2) The Applicant has requested a temporary waiver for several items required for a Final Level III Site Plan Application including a summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site; a Construction Management Plan; and an exterior lighting plan. The Applicant has noted that a photometric plan will be provided before the public hearing, and that proposed electric and communication services may require an easement from the abutting masonic lodge, which they are currently pursuing and will provide upon receipt. These items will need to be provided for review prior to approval.
- 3) The Applicant should note that electrical / communications service to the project site will be required to be underground.
- 4) In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:
 - a) Basic Standards: Plans, notes, and details have been provided to address erosion and sediment control requirements, during-construction inspection and maintenance requirements, and good housekeeping practices in general accordance with Appendix A, B, & C of MaineDEP Chapter 500.
 - b) General Standards: The project will result in a net increase in impervious area of approximately 17,382 square feet. As such, the project is required to include stormwater management features for stormwater quality control. The following comments should be addressed:
 - i) From the HydroCAD model, it appears that the Applicant has proposed to treat a sufficient amount of impervious area with a paver drain system and filter cartridges for roof runoff; however, the area proposed to receive treatment should be identified on a plan and tabulated/calculated to show compliance with the General Standards (95% of new impervious area treated, 80% of new developed area treated).



- ii) Documentation/calculations should be provided to demonstrate that the proposed porous pavers have been adequately designed per Chapter 7.7 of Volume III of the MaineDEP Stormwater BMP Manual to provide the necessary level of treatment.
- iii) Details and pollutant removal data should be provided for the proposed filter cartridges and the plans should indicate whether the treatment unit will be located internal to the building; at this time, no provisions for the proposed filter cartridges have been included on the plans.
- iv) It appears that some roof drainage is directed to a crushed stone drip strip; the Applicant should clarify if this is the proposed treatment method for a portion of the roof runoff.
- c) Flooding Standard: The project will result in a net increase in impervious area of approximately 17,382 square feet. As such, the project is required to include stormwater management features to control the rate of stormwater runoff from the site. The Applicant has provided a HydroCAD Report that indicates the peak rate of runoff from the proposed development will not exceed that from existing conditions; however, the following comments should be addressed:
 - i) It is unclear from the plans how the stormwater management system will be interconnected; it does not appear that the equalizing pipe connecting the two R-Tank systems is shown, and the method of discharging from the outlet control structure is unclear. It is also unclear how the roof drainage crushed stone drip strip will connect to the R-Tank system. Proposed storm drain piping should be clearly labeled with size, material, slopes, and invert elevations and more detail should be provided on the interconnections between the various stormwater management systems on the site.
- 5) *Urban Impaired Stream Standard*: The project is located within the Capisic Brook Watershed, which is identified as an Urban Impaired Stream by the Maine DEP. Section 5 of the City of Portland Technical Manual requires that all development within the Capisic Brook watershed, except single and two family homes, comply with the Urban Impaired Stream Standard pursuant to MaineDEP Chapter 500 Rules. To meet the Urban Impaired Stream Standard, the Applicant must either pay an in-lieu compensation fee or mitigate project impacts by treating, reducing, or eliminating an off-site or on-site pre-development impervious stormwater source. The Applicant has noted that the project will adhere to the Urban Impaired Stream Standard for development; however, it is unclear how the Applicant is proposing to meet the Standard. The Applicant should provide calculations of the in-lieu fee compensation amount or identify mitigation measures in accordance with the Urban Impaired Stream Standard.
- 6) The Bishop Street Stormwater Management Narrative prepared by Ransom Consulting, Inc., dated April 10, 2015, refers to Appendices A and B, which include a Post-Construction Stormwater Management Plan and Stormwater BMP Inspection and Maintenance Requirements; however, it does not appear that these appendices have been received at this time. The Stormwater Management Plan should include a stormwater inspection and maintenance plan developed in accordance with and in reference to Manufacturer recommendations for the proposed filter cartridges, MaineDEP Stormwater BMP Manual Maintenance Criteria for Manmade Pervious Surfaces, manufacturer specific requirements for the R-Tanks, and Chapter 32 of the City of Portland Code of Ordinances.
- 7) The Applicant has proposed a porous paver strip along the proposed retaining wall, which exceeds five feet in height. A geotechnical report has been provided that specifies the parameters for the wall design engineer; however, at this time, the geotechnical report does not appear to include an evaluation of the impact of the porous pavement and associated R-Tank storage system on the wall design. The Applicant should clarify whether infiltration from the porous pavers adjacent to the proposed retaining wall and the adjacent, below grade stormwater storage has been evaluated/considered by the geotechnical engineer.
- 8) The R-Tank system does not appear to be lined with a watertight liner. The paver/tank/retaining wall section on L9 proposes a system that would likely not hold or retain water, instead, drainage may daylight through or below the wall system. Additional design detail is necessary to address drainage and water storage behind the retaining wall structure.



- 9) It appears that the Applicant is proposing to daylight the outlet of the Outlet Control Structure. Outlet protection measures should be provided at the discharge location. The Applicant should also clarify whether the proposed J-drain will daylight adjacent to the Outlet Control Structure, or if it is intended to connect to the Outlet Control Structure. The plans should be clarified in this area.
- 10) The Bituminous Sidewalk with Granite Curb – City of Portland detail on Sheet L5 should be modified to comply with the City of Portland Technical Manual.
- 11) The Applicant should provide details for proposed sidewalk ramps in accordance with the City of Portland Technical Manual for the Bishop Street Sidewalk Improvements.
- 12) The Applicant should provide the following details:
 - a) Detectable Warning Strip;
 - b) Catch Basin;
 - c) Storm Drain Trench; and
 - d) J-Drain.
- 13) The Applicant has proposed an NDS 12-inch Square Shallow Catchbasin with flat grate for use as a field inlet; the Applicant should consider utilizing beehive grates for proposed field inlets.
- 14) The Applicant has requested letters from utilities confirming capacity to serve the proposed development. The Portland Water District confirmed ability to serve the proposed development, but noted that approval of plans will be required prior to construction. A letter documenting approval of the proposed project from the Portland Water District and a letter confirming ability to serve sanitary sewer for the proposed development should be forwarded upon receipt.
- 15) The Applicant should provide a written summary of their assessment of state and federal wetland regulations relative to the proposed plan (types of wetlands present on the site, setback requirements, acceptable amount of wetland disturbance/fill).

From: Jeff Tarling
To: Helen Donaldson
CC: David Margolis-Pineo
Date: 5/12/2015 5:20 PM
Subject: 72 Bishop Street Project

Hi Nell -

The proposed project is wedged into a narrow space with important wetlands that drain into Capisic Brook watershed. Wetland protection and keeping a 'natural feel' to the site is important both from a wildlife aspect and fitting into the surrounding area. Due to the existing site conditions and characteristics I would recommend the following:

1) Tree & habitat protection measures - The woodlands near this project has been noted for important habitat area. Thus defining the tree clearing limits and work zone is important. I would ask as a condition that Note 10 be straightened to include protection measures that requires the project team vs the general contractor identify before any clearing or site work to begin to have actual work zones identified and construction fencing for tree saves, wetlands and existing vegetation save areas.

See: <http://maineaudubon.org/events/warbler-weeks-at-evergreen-cemetery-3/>

2) Native plants - The landscape plant material selected for the UNE edge should be exclusively native plants to New England. Native plants like Red or White Spruce, Amelanchier, Hop- Hornbeam, Yellow Birch and American Mountain Ash would be preferable. Evergreen trees in this area should be a mix of 5-6', 4-5' trees. (note - the UNE property is already impacted by non-native species & invasive plants)

3) Bishop Street buffering / landscape & tree planting - The project currently is wide open visually on the Bishop Street side near the Deering Lodge. Landscape buffering is recommended. This can be on the narrow strip of project land or on Deering Lodge property by agreement. Larger shade trees would be ideal. Planting trees along or within the Bishop Street right of way would be acceptable as well. This would also be a landscape condition.

These recommendations would improve the impact of the proposed project.

Thanks

Jeff Tarling

MEMORANDUM

To: FILE
From: Nell Donaldson
Subject: Application ID: 2015-060
Date: 5/12/2015

Comments Submitted by: Keith Gautreau/Fire on 4/27/2015**Premises Identification**

The main entrance of the building must be the address for the property. This should be consistent with 911, tax assessor, Inspections Division and future mailing address.

Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer.

If the building entry faces a different street, both the street name and number should be large enough to read from the street.

Address numbers must be a minimum of 4 inches high.

The number should be in Arabic numerals rather than spelled out (for example, "130" instead of "One Hundred and Thirty").

Color: Addresses should be in a color that contrasts with the background.

Whenever possible, should be illuminated.

Provide additional address signs at entrances to the property when the building address is not legible from the public street.

Buildings set back in groups that share common entrances can make quickly locating a specific building and the shortest route difficult. On such sites, additional signs with directional arrows and/or diagrams of the buildings and access layout should be posted.

Comments Submitted by: Keith Gautreau/Fire on 4/27/2015

New Fire Hydrants. Any hydrant installed, replaced or upgraded shall meet all standards utilized by the Portland Water District at the time of such installation, NFPA 24, Standard for Installation of Private Fire Service Mains and Their Appurtenances, and Section 2.4.

All construction shall comply with City Code Chapter 10.

<http://www.portlandmaine.gov/citycode/chapter010.pdf>

Comments Submitted by: Keith Gautreau/Fire on 4/27/2015

Hydrant location looks good. (same side of street)

Access to three sides of building is acceptable. Would like to see "No Parking Fire Lane" adjacent to proposed striping in parking lot.

New elevators shall be able to fit 80" stretcher for medical response.

Planning and Urban Development Department Planning Division



Subject: B-2c Design Review – 72 Bishop Street
Written by: Caitlin Cameron, Urban Designer
Date of Review: Wednesday, April 29, 2015

On Wednesday, April 29, a design review was performed for 72 Bishop Street by Caitlin Cameron, Urban Designer, Nell Donaldson, Planner, and Alex Jaegerman, Planning Division Director, all within the Planning Division of the Department of Planning & Urban Development. The project was reviewed against the *Two-family, Special Needs Independent Living Units, Multiple-family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters Standards* (Section (i) of the Design Manual).

Design Review Comments (*red text denotes standards that are not met*):

Standard 1 – The surrounding context tends to be more commercial in use and character. Additionally, the neighboring residential context is most often single-family or other small-scale buildings. Therefore, the multi-family, large-scale building proposed is not the same type of residential project and is therefore not able to have the same character. The project uses a mix of building materials that, in combination with the fenestration, projections, and the varying forms and roof lines, provide positive visual interest as stipulated in the Standard. **Staff would like to see the “bay” elements extended to the ground level which currently have an awkward relationship to the façade as floating elements.**

Standard 2 – A building in a B-2 zone should contribute to the street wall. However, this property has an unusual lot configuration and very little frontage. As such, it is understandably difficult to build to the street. The principal entry is relatively close to the street and provides good visibility.

Standard 3 – The project provides a garden space and screening and landscaping elements as required by the Standard.

Standard 4 – Overall the project has a high level of fenestration to provide resident access to light and air. Storage is provided.

Standard 5 – Parking is well screened and positioned away from the street. **However, more detail is requested regarding the height and material of fences around the property – visual and sound screening is desirable between the parking and neighboring property as well as between the outdoor seating area and neighboring property. What will be the landscape treatment at the Northeast face of the building?**

Standard 6 – Not Applicable

72 Bishop Street



Site Plan and Subdivision Plan Application

April 10, 2015

APPLICANT:

AVESTA 72 Bishop Street, L.P.
307 Cumberland Avenue
Portland, Maine 04101

AGENT:

MITCHELL & ASSOCIATES
70 Center Street
Portland, Maine 04101

April 10, 2015

Mr. Alexander Jaegerman,
Director of the Portland Planning Division
and Planning Board Members
City of Portland
389 Congress Street
Portland, Maine 04101

**Re: Bishop Street Apartments
72 Bishop Street
Site Plan and Subdivision Plan Review**

Dear Alex:

On behalf of Avesta 72 Bishop Street, LP, we are pleased to submit the following Site Plan and Subdivision Application for the proposed "72 Bishop Street Efficiencies" located at 72-78 Bishop Street in Portland. This submission has been prepared in compliance with requirements of the City of Portland Zoning, Site Plan and Subdivision Ordinance. The project is intended to provide housing options and needed support services for the chronically homeless.

The Site

72 Bishop Street consists of a single family residence and a vacant lot. The combined property is a 52,383 square foot lot with 50 feet of frontage on Bishop Street. The property has an 826 +/- square foot (footprint) residence with a small gravel driveway. The rear of the property is primary woodland growth with 14,203 square feet of forested and shrub scrub wetland. Abutting properties include a single story, 3 unit professional office building, to the east at 68 Bishop Street and a Masonic Hall to the west. To the south is the University of New England athletic field.

Project Description

Avesta Housing proposes to develop the combined lots of 72 & 78 Bishop Street to create 30 efficiency units at 72 Bishop Street in Portland for chronically homeless individuals, using a "housing first" approach. As was the case at Logan

Place and Florence House, Avesta's two prior 'housing first' projects, Avesta anticipates partnering with Preble Street for the provision of 24-hour, on-site support services and Portland Housing Authority for project-based rental assistance. Bishop Street Apartments will provide housing and support services for those chronically homeless individuals who are currently most vulnerable due to their significant medical conditions.

The proposed facility is in close proximity to employment opportunities, public transportation services, retail and amenities, yet beyond the high paced downtown urban environment. Avesta's vision for the property is to create a high quality housing resource for the neediest population within the City of Portland that combines the best features of affordable housing and quality design.

During the zoning amendment process, the applicant and the Planning Board discussed the need to provide a public sidewalk along Bishop Street. We have prepared a sidewalk plan that extends a new bituminous sidewalk, esplanade and granite curb, extending approximately 500 linear feet to meet the existing sidewalk near the intersection with Forest and Stevens Avenues.

This submission includes the following information:

1. Cover letter, dated April 10, 2015
2. Site Plan and Subdivision Application & Checklist
3. Application Fee: \$1,500 (Per Sec 14-486 Affordable Housing Reduction)
4. Submission Booklet of required documentation and exhibits
5. One set of plans (24" x 36")
6. One set of plans (11"x17")

We trust that the Planning Board will consider this a complete application for a workshop meeting. If you desire any additional information, please do not hesitate to contact us. We look forward to our meeting with the Board at its earliest convenience.

Sincerely,
Mitchell & Associates

A handwritten signature in black ink, appearing to read 'R. Metcalf', is written over a light gray rectangular background.

Robert Metcalf, Principal
Maine Licensed Landscape Architect

Enclosure

cc. Brooks More, Avesta
Ben Walter, CWS Architect

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Level III – Preliminary and Final Site Plans Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level III: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Level III: Site Plan Development includes:

- New structures with a total floor area of 10,000 sq. ft. or more except in Industrial Zones.
- New structures with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- New temporary or permanent parking area(s) or paving of existing unpaved parking areas for more than 75 vehicles.
- Building addition(s) with a total floor area of 10,000 sq. ft. or more (cumulatively within a 3 year period) except in Industrial Zones.
- Building addition(s) with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- A change in the use of a total floor area of 20,000 sq. ft. or more in any existing building (cumulatively within a 3 year period).
- Multiple family development (3 or more dwelling units) or the addition of any additional dwelling unit if subject to subdivision review.
- Any new major or minor auto business in the B-2 or B-5 Zone, or the construction of any new major or minor auto business greater than 10,000 sq. ft. of building area in any other permitted zone.
- Correctional prerelease facilities.
- Park improvements: New structures greater than 10,000 sq. ft. and/or facilities encompassing 20,000 sq. ft. or more (excludes rehabilitation or replacement of existing facilities); new nighttime outdoor lighting of sports, athletic or recreation facilities not previously illuminated.
- Land disturbance of 3 acres or more (includes stripping, grading, grubbing, filling or excavation).

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

PROJECT NAME: 72 Bishop Street

PROPOSED DEVELOPMENT ADDRESS:

72 & 78 Bishop Street, Portland

PROJECT DESCRIPTION:

Plan to develop 30 housing units with. 12 parking spaces

CHART/BLOCK/LOT: 293-C-2 & 3

PRELIMINARY PLAN _____ (date)

FINAL PLAN _____ (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Avesta 72 Bishop, L.P., Brooks More Business Name, if applicable: Address: 307 Cumberland Ave City/State : Portland, ME Zip Code: 04101	Applicant Contact Information Work # 207. 553 7780 Home# Cell # Fax# e-mail: bmore@avestahousing.org
Owner – (if different from Applicant) Name: Address: City/State : Zip Code:	Owner Contact Information Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: Mitchell & Associates, Bob Metcalf Address: 70 Center Street City/State : Portland, ME Zip Code: 04101	Agent/Representative Contact information Work # 207.774.4427 Cell # e-mail: rmetcalf@mitchellassociates.biz
Billing Information Name: Avesta 72 Bishop , L.P. Address: 307 Cumberland Ave City/State : Portland, ME Zip Code: 04101	Billing Information Work # 207.553.7780 Cell # Fax# e-mail: bmore@avestahousing.org

Engineer Name: Ransom Consulting Engineers, Stephen Bradstreet, PE Address: 400 Commercial Street City/State : Portland, ME Zip Code: 04101	Engineer Contact Information Work # 207.772.2891 Cell # Fax# e-mail: stephen.bradstreet@ransomenv.com
Surveyor Name: Owen Haskell Surveyors, Inc. Address: 390 U.S. Rt 1, Unit 10 City/State : Falmouth, ME Zip Code: 04105	Surveyor Contact Information Work # 207.774.4424 Cell # Fax# e-mail: www.owenhaskell.com
Architect Name: CWS Architects, Ben Walter Address: 434 Cumberland Avenue City/State : Portland, ME Zip Code: 04101	Architect Contact Information Work # 207.774.4441 Cell # Fax# e-mail: bwalter@cwsarch.com
Attorney Name: Cito Selinger, Curtis Thaxter Address: 1 Canal Plaza Suite 1000 City/State : Portland, ME Zip Code: 04101	Attorney Contact Information Work # 207.774.9000 Cell # Fax# e-mail: mselinger@curtisthaxter.com

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews) ☒ Less than 50,000 sq. ft. (\$500.00) ☐ 50,000 - 100,000 sq. ft. (\$1,000) ☐ 100,000 – 200,000 sq. ft. (\$2,000) ☐ 200,000 – 300,000 sq. ft. (\$3,000) ☐ over \$300,00 sq. ft. (\$5,000) ☐ Parking lots over 11 spaces (\$1,000) ☐ After-the-fact Review (\$1,000.00 plus applicable application fee) Plan Amendments (check applicable reviews) ☐ Planning Staff Review (\$250) ☐ Planning Board Review (\$500) The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	Other Reviews (check applicable reviews) ☐ Traffic Movement (\$1,000) ☒ Stormwater Quality (\$250) ☒ Subdivisions (\$500 + \$25/lot) # of Lots <u>30</u> x \$25/lot = 750 ☐ Site Location (\$3,000, except for residential projects which shall be \$200/lot) # of Lots <u> </u> x \$200/lot = <u> </u> ☐ Other <u> </u> ☐ Change of Use ☐ Flood Plain ☐ Shoreland ☐ Design Review ☐ Housing Replacement ☐ Historic Preservation
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APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the **Electronic Plan and Document Submittal** page of the City's website at <http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal>
2. In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

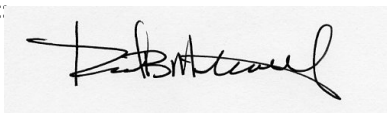
1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - a. Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-525 2. (c)), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level II Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant: 	Date: April 10, 2015
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PROJECT DATA

The following information is required where applicable, in order to complete the application.

Total Area of Site	52,383	sq. ft.
Proposed Total Disturbed Area of the Site	28,446	sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.		
Impervious Surface Area		
Impervious Area (Total Existing)	1,340	sq. ft.
Impervious Area (Total Proposed)	18,686	sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	826	sq. ft.
Building Footprint (Total Proposed)	7,804	sq. ft.
Building Floor Area (Total Existing)	1,600	sq. ft.
Building Floor Area (Total Proposed)	21,374	sq. ft.
Zoning		
Existing	B-2c	
Proposed, if applicable		
Land Use		
Existing	Residential	
Proposed	Multi-family Low Income Residential	
Residential, If applicable		
# of Residential Units (Total Existing)	1 Single family residence	
# of Residential Units (Total Proposed)	30 units	
# of Lots (Total Proposed)	1	
# of Affordable Housing Units (Total Proposed)	30 units	
Proposed Bedroom Mix		
# of Efficiency Units (Total Proposed)	30 efficiency units	
# of One-Bedroom Units (Total Proposed)		
# of Two-Bedroom Units (Total Proposed)		
# of Three-Bedroom Units (Total Proposed)		
Parking Spaces		
# of Parking Spaces (Total Existing)	2	
# of Parking Spaces (Total Proposed)	10	
# of Handicapped Spaces (Total Proposed)	2	
Bicycle Parking Spaces		
# of Bicycle Spaces (Total Existing)	0	
# of Bicycle Spaces (Total Proposed)	12	
Estimated Cost of Project	\$5,586,058	

PRELIMINARY PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST
		1	Completed Application form
		1	Application fees
		1	Written description of project
		1	Evidence of right, title and interest
		1	Evidence of state and/or federal approvals, if applicable
		1	Written assessment of proposed project's compliance with applicable zoning requirements
		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
		1	Written requests for waivers from site plan or technical standards, if applicable.
		1	Evidence of financial and technical capacity
		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST
X		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		1	Preliminary Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase)
X			Proposed grading and contours;
X			Existing structures with distances from property line;
X			Proposed site layout and dimensions for all proposed structures (including piers, docks or wharves in Shoreland Zone), paved areas, and pedestrian and vehicle access ways;
X			Preliminary design of proposed stormwater management system in accordance with Section 5 of the Technical Manual (note that Portland has a separate applicability section);
X			Preliminary infrastructure improvements;
X			Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;
X			Location of significant natural features (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features) located on the site as defined in Section 14-526 (b) (1);
X			Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526 (b) (1);
X			Location , dimensions and ownership of easements, public or private rights of way, both existing and proposed;
X			Exterior building elevations.

FINAL PLAN - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
X		1	* Completed Application form
X		1	* Application fees
X		1	* Written description of project
X		1	* Evidence of right, title and interest
*		1	* Evidence of state and/or federal permits
X		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
*		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
X		1	* Evidence of financial and technical capacity
*		1	Construction Management Plan
X		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
X		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
X		1	Stormwater management plan and stormwater calculations
X		1	Written summary of project's consistency with related city master plans
**		1	Evidence of utility capacity to serve
X		1	Written summary of solid waste generation and proposed management of solid waste
X		1	A code summary referencing NFPA 1 and all Fire Department technical standards
N/A		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
*		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

* Temporary Waiver requested.

** CMP, UNITIL and PWD Ability to Serve letters have been submitted; City of Portland Wastewater Ability to Serve letter has been requested.

Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
X		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		1	Final Site Plans including the following:
X			Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);
X			Existing and proposed structures on parcels abutting site;
X			All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;
X			Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;
X			Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;
X			Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;
N/A			Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;
X			Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;
X			Location of all snow storage areas and/or a snow removal plan;
X			A traffic control plan as detailed in Section 1 of the Technical Manual;
X			Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);
N/A			Location and proposed alteration to any watercourse;
X			A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;
X			Proposed buffers and preservation measures for wetlands;
X			Existing soil conditions and location of test pits and test borings;
X			Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;
X			A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;
X			Grading plan;
N/A			Ground water protection measures;
X			Existing and proposed sewer mains and connections;

- Continued on next page -

X		Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
X		Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;
X		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
X		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
X		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
N/A		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
N/A		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
*		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
*		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
*		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
*		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.

* Temporary Waiver requested.

RIGHT, TITLE OR INTEREST

Please see attached Quitclaim Deed recorded in the Cumberland County Registry of Deeds, Book 31827, Page 271.

SHORT FORM QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, THAT WILLIAM F. DIXON, of Cumberland County, Maine, and J. WESLEY WRIGHT, JR., of Cumberland County, Maine, each individually and together doing business as Hed/Way Development, FOR CONSIDERATION PAID, grant to AVESTA BISHOP STREET LP, a Maine limited partnership with a mailing address of 307 Cumberland Avenue, Portland, ME 04101, WITH QUITCLAIM COVENANT, the following described real property located in Portland, Cumberland County, State of Maine:

A certain lot or parcel of land, with the buildings thereon, situated on the southerly side of Bishop Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

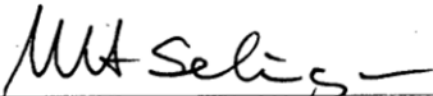
Beginning on the southerly sideline of Bishop Street at the northwesterly corner of land conveyed by George Wilson to Eri A. Mowatt by deed dated March 12, 1949 and recorded in Cumberland County Registry of Deeds in Book 1952, Page 227; thence North 82° 18' West by Bishop Street fifty (50) feet to the easterly corner of land conveyed by Tilcon-Warren Minerals Inc. to Tilcon Minerals Inc. by deed dated August 17, 1981 and recorded in said Registry of Deeds in Book 4942, Page 143; thence southwesterly by said land of Tilcon-Minerals Inc. four hundred seventy-five (475) feet, more or less, to an angle in the line of land conveyed by the City of Portland to Westbrook College by deed dated November 8, 1973 and recorded in said Registry of Deeds in Book 3481, Page 255; thence South 5° East by said land of Westbrook College forty-two and twenty-four hundredths (42.24) feet to an angle; thence North 76° 24' East by said land of Westbrook College to the southwesterly corner of said Mowatt land; thence North 7° 42' East by said Mowatt land one hundred fifty-five and twenty-two hundredths (155.22) feet to the point of beginning.

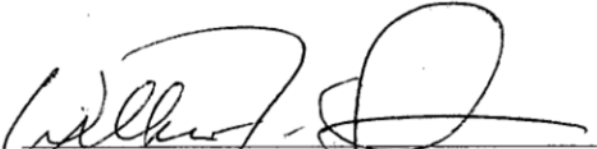
Being the same premises conveyed to William F. Dixon and J. Wesley Wright, Jr. d/b/a Hed/Way Development by deed dated November 30, 1988 and recorded in said Registry of Deeds in Book 8575, Page 272.

The undersigned certify that they are the only partners of a general partnership called Hed/Way Development

IN WITNESS WHEREOF, William F. Dixon and J. Wesley Wright, Jr., individually and together doing business as Hed/Way Development, have hereunto set their hands and seals this 6th day of October, 2014.

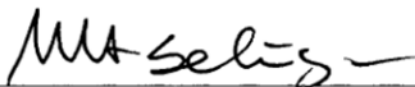
WITNESS:





William F. Dixon, individually and as
Partner of Hed/Way Development

MAINE REAL ESTATE TAX PAID



J. Wesley Wright, Jr. individually and as
Partner of Hed/Way Development

STATE OF MAINE
COUNTY OF CUMBERLAND, SS.

October 6, 2014

Personally appeared the above-named William F. Dixon, in his said capacities as aforesaid, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said Hed/Way Development.

Before me,



~~Notary Public~~/Attorney-at-Law

Print name: **MA SELINGER**

STATE OF MAINE
COUNTY OF CUMBERLAND, SS.

October 6, 2014

Personally appeared the above-named J. Wesley Wright, in his said capacities as aforesaid, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said Hed/Way Development.

Before me,



~~Notary Public~~/Attorney-at-Law

Print name: **MA SELINGER**

O:\MAS\99475 Avesta\Bishop Street\Transfer documents\Quitclaim Deed With Covenant-Short.docx

Received
Recorded Register of Deeds
Oct 06, 2014 11:58:25A
Cumberland County
Pamela E. Lovley

PROJECT DESCRIPTION

Housing Objective of the Project

Avesta Housing proposes to develop the combined lots of 72 & 78 Bishop Street to create 30 efficiency units at 72 Bishop Street in Portland for chronically homeless individuals, using a “housing first” approach. As was the case at Logan Place and Florence House, Avesta’s two prior ‘housing first’ projects, Avesta anticipates partnering with Preble Street for the provision of 24-hour, on-site support services and Portland Housing Authority for project-based rental assistance. In addition to the 30 apartments, the property will include common space for residents as well as office space for Avesta and Preble Street staff. Bishop Street Apartments will provide housing and support services for those chronically homeless individuals who are currently most vulnerable due to their significant medical conditions. The project will likely include a partnership with a health care provider, to both address specific health concerns and ensure that residents have access to the health and/or personal care services that medically compromised individuals typically benefit from in their homes.

The proposed facility is in close proximity to employment opportunities, public transportation services, retail and amenities, yet beyond the high paced downtown urban environment. Avesta’s vision for the property is to create a high quality housing resource for the neediest population within the City of Portland that combines the best features of affordable housing and quality design.

The Site

72-78 Bishop Street consists of a single family residence with 50 feet of frontage on Bishop Street. The (combined) lot is 52,383 square feet. Abutting properties include a single story 3 unit professional office building to the east at 68 Bishop Street and a Masonic Hall to the west. The property was recently re-zoned as B2c (Business Community). The lot slopes gently to the southwest and has forested/ scrub-shrub wetlands within the southeast portion of the lot.



Building Program

Avesta proposes to demolish the existing single family residence and construct a 3 story apartment building. The main entrance vestibule and reception will be accessed from the first floor as well as building services including community

rooms and offices. Six efficiency units will be located on the first level along with laundry, staff rooms and mechanical and electrical facilities. The remaining 24 efficiency units will be located on the upper second and third levels. The complex will contain 30 total efficiency units. The gross square footage of the proposed building is 21,374 square feet with a 7,804 square foot building footprint.

A driveway with access off of Bishop Street will accommodate a 12 space surface parking lot. A small outdoor recreation space will be located on the south side of the building and a landscaped seating area will be located on the northeast side of the building near the main entrance.

Stormwater Management

The current site is a single family residence with 2 percent of the lot impervious. The proposed building cover and site improvements will cover approximately 40 percent of the property. The project is within the Capisic Brook Watershed and shall adhere to the Urban Impaired Stream Standard for development. Stormwater runoff generated by the site will be treated in an underground treatment system below the parking lot. The majority of runoff will be from the paved driveway and will be designed to flow into the treatment system prior to being discharged. More detail on the stormwater system can be found in the included stormwater management plan.

PROJECT DATA

Applicant	Avesta 72 Bishop Street, LP c/o AVESTA Housing 307 Cumberland Avenue Portland, Maine 04101
Owner	Avesta 72 Bishop Street, LP c/o AVESTA Housing 307 Cumberland Avenue Portland, Maine 04101
Existing Zone	B2c –Business Community Zone
Tax Map & Lot Number	Map 293, Block C, Lots 2 & 3
Land Area	52,383 SF, or 1.20 Acres
Existing Land Use	Single Family Residence & Undeveloped Area
Proposed Land Use	30 unit SRO Housing for Homeless
Water	12 inch main in Bishop Street
Sanitary Sewer	8 inch main in Bishop Street
Storm Drainage	18 in storm drain in Bishop Street

Natural Gas

8 inch line in Bishop Street

Electric

Overhead Service on Bishop
Street.

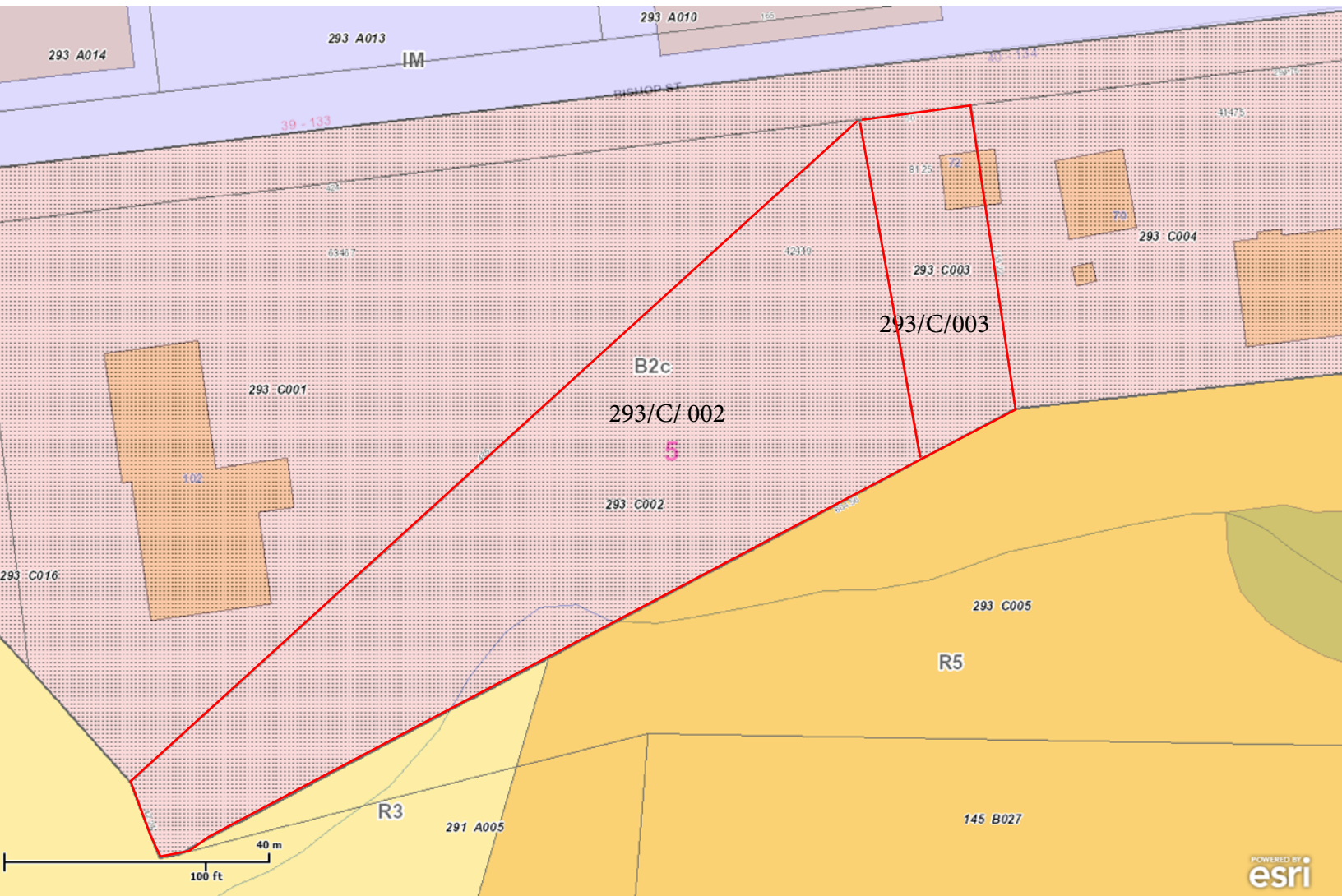
Telephone & Cable TV

Overhead services on Bishop
Street.

To be extended underground

72 Bishop St

Tax & Zoning Map



Copyright 2011 Esri. All rights reserved. Tue Mar 31 2015 11:39:29 AM.

ABUTTING PROPERTY OWNERS

Map 293, Block C, Lot 1
Deering Lodge Building Corp.
651 Forest Avenue
Portland, ME 04101

Map 293, Block C, Lot 5
University of New England
11 Beach Road
Biddeford, ME 04005

Map 293, Block C, Lot 4
Bishop Street L.L.C.
70 Bishop Street
Portland, ME 04103

EXISTING SOIL CONDITIONS

Soils on the site are representative of the urban environment.

The following tests results are included in our submission:

- Test borings by S.W.Cole performed on site in February 2015 revealed fill material, relic topsoil and glaciomarine deposits including silty clay. Refer to the attached geotechnical report prepared March 11, 2015.

R E P O R T

March 11, 2015

14-0696 S

Geotechnical Engineering Services

Proposed Apartment Building

72 Bishop Street

Portland, Maine

PREPARED FOR:

Avesta Housing

Attn: Gregory Payne

Director of Real Estate Development

307 Cumberland Avenue

Portland, ME 04101

PREPARED BY:

S. W. Cole Engineering, Inc.

286 Portland Road

Gray, ME 04039

T: (207) 657-2866



S.W.COLE
ENGINEERING, INC.

- *Geotechnical Engineering*
- *Construction Materials Testing*
- *GeoEnvironmental Services*
- *Ecological Services*

www.swcole.com

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Attachment A	Limitations
Sheet 1	Exploration Location Plan
Sheets 2 - 6	Exploration Logs
Sheet 7	Key to the Notes and Symbols
Sheet 8	Gradation Test Results
Sheet 9	Foundation Underdrain

14-0696 S

March 11, 2015

Avesta Housing
Attn: Gregory Payne
Director of Real Estate Development
307 Cumberland Avenue
Portland, ME 04101

Subject: Explorations and Geotechnical Engineering Services
Proposed Apartment Building
72 Bishop Street
Portland, Maine

Dear Greg:

In accordance with our Agreement, dated January 21, 2015, we have completed subsurface explorations for the subject project. This report summarizes our findings and geotechnical recommendations and its contents are subject to the limitations set forth in Attachment A.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of our services was to obtain subsurface information in order to develop geotechnical recommendations relative to foundations, earthwork and pavement associated with the proposed construction. Our scope of services included five test boring explorations, a geotechnical analysis of the subsurface findings and preparation of this report.

1.2 Site and Proposed Construction

The site is located at 72 Bishop Street in Portland, Maine. We understand development plans call for construction of a three-story, 30-unit apartment building with a footprint of 7,097 square-feet. Based on the "Concept Site Plan" prepared by Mitchell & Associates (landscape architects), we understand the proposed site generally slopes to the south

with about 3 feet of surface relief ranging from about elevation 96 to 99 feet within the proposed building footprint.

We anticipate the building will be wood framed with spread footing foundations and on-grade floor slabs. We understand preliminary column loads of 20 to 60 kips and wall loads of 2.5 to 3.5 kips/foot are anticipated for the proposed three-story structure. A new access road off Bishop Street and paved parking is planned on the south side of the proposed building. Detailed site grading information is not available at this time.

Proposed and existing site features are shown on the "Exploration Location Plan" attached as Sheet 1.

2.0 EXPLORATION AND TESTING

2.1 Explorations

Five test borings (B-1 through B-5) were made at the site on February 23, 2015 by S. W. Cole Explorations, LLC. The exploration locations were selected and established in the field by S. W. Cole Engineering, Inc. (S.W.COLE) using a mapping grade GPS receiver and taped measurements from existing site features. The approximate exploration locations are shown on the "Exploration Location Plan" attached as Sheet 1. Logs of the test borings are attached as Sheets 2 through 6. A key to the notes and symbols used on the logs is attached as Sheet 7.

2.2 Testing

The test borings were drilled using hollow-stem auger drilling techniques. The soils were sampled at 2 to 5 foot intervals using a split spoon sampler and Standard Penetration Testing (SPT) techniques. Pocket Penetrometer Testing (PPT) was performed where stiffer silty clay soils were encountered. SPT blow counts and PPT results are shown on the logs.

Soil samples obtained from the explorations were returned to our laboratory for further classification and testing. The results of one grain-size test on a combined sample of the existing fill soils from borings B-2, B-3 and B-5 is attached as Sheet 8.

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 Surficial

The site is an irregular shaped lot at 72 Bishop Street in Portland, Maine with an existing residential structure in the northeast corner of the site. The northern and central portions of the site are generally flat and slope gently downward from northwest to southeast. The southern and western edges of the site drop about 6 feet to a wetland area. The site is generally open lawn area with lightly wooded areas on the western and southern edges.

3.2 Soil and Bedrock

Underlying a surficial layer of topsoil, test borings B-1 through B-5 encountered a soils profile generally consisting of loose to medium dense granular fill overlying a relic topsoil layer overlying glaciomarine deposits of silt, clay and sand overlying refusal surfaces (probable bedrock) at depths of 6.6 to 24.2 feet.

In borings B-1, B-2, B-3 and B-5 (proposed building footprint), the glaciomarine deposits generally consisted of stiff to very stiff silty clay with sandy silt seams becoming silty sand with silty clay layers. At boring B-4 (proposed pavement area), the stiffer silty clay was followed by a relatively thin layer of softer, compressible silty clay between a depth interval of approximately 13 to 19 feet overlying glacial outwash sands and gravel.

Not all the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information.

3.3 Groundwater

The soils encountered at the test borings generally were moist to wet from the ground surface. Saturated soils were encountered at depths varying from 4 to 8 feet. Groundwater was encountered at borings B-2 and B-5 at depths of about 6 and 4.5 feet. Groundwater likely becomes perched on the relatively impervious silty clay and bedrock encountered at the test borings. Long term groundwater information is not available. It should be anticipated that seasonal groundwater levels will fluctuate, particularly following during periods of snowmelt and precipitation.

3.4 Frost and Seismic

The 100-year Air Freezing Index for the Portland, Maine area is about 1,410-Fahrenheit degree-days, which corresponds to a frost penetration depth on the order of 4.5 feet. Based on the subsurface findings, we interpret the site soils to correspond to Seismic Soil Site Class D according to 2009 IBC.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General Findings

Based on the subsurface findings, the proposed construction appears feasible from a geotechnical standpoint. The principle geotechnical considerations are as follows:

- The proposed building footprint is underlain by uncontrolled fills and relic topsoil. We recommend complete removal of the uncontrolled fills and relic topsoil to exposed undisturbed non-organic native soils and then backfilling the building pad with compacted Granular Borrow up to the bottom of slab base gravel.
- Portions of the proposed site are also occupied by existing structures. We recommend complete removal of existing foundations and utilities and backfilling with compacted Granular Borrow.
- Spread footing foundations and on-grade floor slabs bearing on properly prepared subgrades, as recommended herein, appear suitable for the proposed building. Perimeter footings should be underlain with at least 6 inches of Crushed Stone wrapped in geotextile fabric with a perimeter foundation drain on the outside edge of crushed stone mat. Interior footings are anticipated to be founded on compacted Granular Borrow. On-grade floor slabs should bear on at least 12-inches of compacted Structural Fill underlain by properly prepared subgrades.
- Uncontrolled fills and relic topsoil are problematic for support of pavements and utilities. We recommend removal and replacement of uncontrolled fills to at least 1 foot below pavement subbase gravels. We recommend the complete removal of fills and relic topsoil below gravity utilities.

- The site soils are sensitive to moisture and frost. Earthwork and grading activities should occur during drier Spring, Summer and Fall seasons. Rubber tired construction equipment should not operate directly on the native silt and clays.
- Imported Granular Borrow, Structural Fill, and Crushed Stone are recommended for fill and backfill. The existing fills and native non-organic soils are unsuitable for reuse below building areas, but may be suitable for reuse as fills to raise paved and landscape areas.

4.2 Site and Subgrade Preparation

We recommend site preparation begin with the construction of an erosion control system to protect adjacent drainage ways and areas outside the construction limits. Surficial organics, uncontrolled fills, relic topsoil, and foundations should be completely removed from areas of proposed fill and construction. As much vegetation as possible should remain outside the construction areas to lessen the potential for erosion.

Building Pad and Footings: As discussed, the site has been previously developed with uncontrolled fills overlying relic topsoil encountered to depths of about 4 to 7 feet. The uncontrolled fills and relic topsoil must be completely removed from beneath the proposed buildings. The extent of removal should extend 1 foot laterally outward from outside edge of perimeter footings for every 1-foot of excavation depth (1H:1V bearing splay). The overexcavated area should be backfilled with compacted Granular Borrow up to the bottom of slab base gravel. General details of uncontrolled fill removal and Granular Borrow backfill are attached as Sheet 9.

In general, native subgrades for the proposed building will consist of stiff to very stiff silty clay with areas of shallow bedrock. We recommend that excavation to subgrades be completed with a smooth-edged bucket to lessen disturbance of subgrade soils. If bedrock is encountered, we recommend removal to 6 inches below footing subgrade.

We recommend that perimeter foundations be underlain with 6 inches of Crushed Stone wrapped in geotextile fabric, such as Mirafi 180N or approved equivalent, overlying compacted Granular Borrow, stable native non-organic soils or bedrock. We anticipate that interior footings will be founded on compacted Granular Borrow.

Paved Areas and Utilities: Uncontrolled fills encountered beneath proposed paved areas should be removed to a depth of at least 1 foot below pavement gravels and then proof-rolled and densified with a 10-ton vibratory roller compactor. Areas that become soft or continue to yield after densification should be removed and replaced with compacted Structural Fill.

The uncontrolled fills and relic topsoil must be completely removed from beneath gravity utilities. The overexcavated area should be backfilled with compacted Granular Borrow up to the bottom of customary bedding materials.

Segmental Retaining Wall: Uncontrolled fills and relic topsoil must be completely removed from beneath the wall facing blocks. The extent of removal should extend 1 foot laterally outward from inner and outside edge of the facing block for every 1-foot of excavation depth (1H:1V bearing splay). The overexcavated area should be backfilled with compacted Granular Borrow to within 1 foot of the bottom of wall.

4.3 Excavation, Blasting and Dewatering

Excavation work will generally encounter uncontrolled fill, relic topsoil, native silty clay and bedrock. Care must be exercised during construction to limit disturbance of the native bearing soils. Earthwork and grading activities should occur during drier Spring, Summer and Fall seasons. Rubber tired construction equipment should not operate directly on the native silt and clays. Low ground pressure tracked equipment will be needed and temporary haul roads overlying geotextile fabric may be necessary. Final cuts to subgrade should be performed with a smooth-edged bucket to help minimize soil disturbance.

Based on the subsurface findings, we anticipate bedrock removal may be necessary, particularly in the vicinity of boring B-1 where bedrock was encountered at depths of 4 to 7 feet below the ground surface. Bedrock may be removed by hoe-ramming or blasting. If blasting is necessary, we recommend that a licensed drilling and blasting contractor be engaged to provide rock removal and pre-blast surveys should be completed on surrounding structures and infrastructure prior to commencing blasting activities. Vibrations due to blasting should be monitored during construction.

Sumping and pumping dewatering techniques should be adequate to control groundwater in excavations. Controlling the water levels to at least one foot below planned excavation

depths will help stabilize subgrades during construction. Excavations must be properly shored or sloped in accordance with OSHA regulations to prevent sloughing and caving of the sidewalls during construction. The design and planning of excavations, excavation support and dewatering is the responsibility of the contractor.

4.4 Foundations

We recommend the proposed building be supported on spread footings. Perimeter spread footings should be founded on at least 6 inches of Crushed Stone wrapped in non-woven geotextile fabric, such as Mirafi 180N, bearing on compacted Granular Borrow, stiff silty clay or bedrock. Blasted bedrock surfaces should be cleaned of loose blast rock and backfilled with compacted crushed stone. Interior spread footings are anticipated to be founded on compacted Granular Borrow underlain by stable native soils.

For foundations bearing on properly prepared subgrades, we recommend the following geotechnical parameters for design consideration:

Geotechnical Parameters for Spread Footings and Foundation Walls	
Design Frost Depth	4.5 feet
Net Allowable Soil Bearing Pressure	3.0 ksf or less
Base Friction Factor	0.35
Total Unit Weight of Backfill (compacted Structural Fill)	130 pcf
Internal Friction Angle of Backfill (compacted Structural Fill)	30°
At-Rest Lateral Earth Pressure Coefficient	0.5
Active Lateral Earth Pressure Coefficient	0.3
Total Post-Construction Settlement	1 inch or less
Differential Post-Construction Settlement	½ inch or less

Based on the subsurface findings, we interpret the site soils to correspond to Seismic Soil Site Class D according to IBC 2009/ASCE 7. We recommend the following seismic design parameters for the 2,500-year design earthquake:

RECOMMENDED SEISMIC DESIGN PARAMETERS (2,500-year Design Earthquake)		
Peak Ground Acceleration (PGA)	0.2-second Spectral Acceleration (S _s)	1-second Spectral Acceleration (S ₁)
0.173 g	0.319 g	0.078 g

NOTE: Seismic design parameters from USGS accessed March 10, 2015 (<http://geohazards.usgs.gov/deaggint/2002>).

Liquefiable soils typically consist of loose, fine sands and non-plastic silts below the groundwater table. Based on the subsurface findings, it is our opinion the soils at the site are not susceptible to liquefaction during a seismic event and therefore the risk of lateral spread and seismic induced settlement are negligible.

4.5 Foundation Drainage

We recommend a foundation underdrain pipe be installed within the 6-inch layer of Crushed Stone wrapped in geotextile filter fabric recommended below perimeter footings. The underdrain pipe should consist of a 4-inch diameter, perforated SDR-35 foundation drain pipe bedded in Crushed Stone surrounded with non-woven geotextile fabric. The underdrain pipe must be connected to a positive gravity outlet protected from freezing, clogging and backflow. Surface grades should be sloped away from the building for positive surface water drainage. General underdrain details are shown on Sheet 9.

4.6 Slab-On-Grade

On-grade floor slabs in heated areas may be designed using a subgrade reaction modulus of 100 pci (pounds per cubic inch) provided the slab is underlain by at least 12-inches of compacted Structural Fill overlying properly prepared subgrades. The structural engineer or concrete consultant must design steel reinforcing and joint spacing appropriate to slab thickness and function.

We recommend a sub-slab vapor retarder particularly in areas of the building where the concrete slab will be covered with an impermeable surface treatment or floor covering that may be sensitive to moisture vapors. The vapor retarder must have a permeance that is less than the floor cover or surface treatment that is applied to the slab. The vapor retarder must have sufficient durability to withstand direct contact with the sub-slab base material and construction activity. The vapor retarder material should be placed according to the manufacturer's recommended method, including the taping and lapping of all joints and wall connections. The architect and/or flooring consultant should select the vapor retarder products compatible with flooring and adhesive materials.

The floor slab should be appropriately cured using moisture retention methods after casting. Typical floor slab curing methods should be used for at least 7 days. The architect or flooring consultant should assign curing methods consistent with current

applicable American Concrete Institute (ACI) procedures with consideration of curing method compatibility to proposed surface treatments, flooring and adhesive materials.

4.7 Entrance Slabs and Sidewalks

Entrance slabs and sidewalks adjacent to the building must be designed to reduce the effects of differential frost action between adjacent pavement, doorways, and entrances. We recommend that non-frost susceptible Structural Fill be provided to a depth of at least 4.5 feet (2.5 feet over bedrock) below the top of entrance slabs. This thickness of Structural Fill should extend the full width of the entrance slab and outward at least 4.5 feet, thereafter transitioning up to the bottom of the adjacent sidewalk or pavement gravels at a 3H:1V or flatter slope. General details of this frost transition zone are attached as Sheet 9.

4.8 Segmental Retaining Wall

We anticipate an exterior segmental retaining wall (SRW), such as Redi-Scape, will be needed on the southerly edge of the proposed paved area to retain up to 8 feet of soil. We recommend the facing blocks be founded on a minimum 12-inch thick leveling course of compacted Crushed Stone overlying undisturbed stiff silty clay or compacted Granular Borrow overlying native undisturbed stiff silty clay. We anticipate it will be necessary remove and replace uncontrolled fills and relic topsoil below the wall.

Based on the site soils and our understanding of the proposed construction, we provide the following soil parameters for use by a wall design engineer in their design of the segmental retaining wall:

Geotechnical Parameters of Segmental Block Retaining Wall			
Wall Segment	Friction Angle	Cohesion	Unit Weight
Retained Backfill (Granular Borrow)	30 degrees	0 psf	125 pcf
Retained Backfill (Crushed Stone)	34 degrees	0 psf	100 pcf
Foundation (Brown Silty Clay)	0 degrees	1,500 psf	120 pcf
Foundation (Granular Borrow)	30 degrees	0 psf	125 pcf
Net Allowable Bearing Capacity	2 ksf (properly prepared subgrade)		
Anticipated Settlement	up to 1 inch (during construction) up to 1 inch (post-construction)		
Seismic Soil Site Class	D (IBC 2009)		

Design of the retaining wall and evaluation of base sliding, overturning and internal stability of the wall are the responsibility of the wall design engineer. The wall designer must account for construction surcharge loads and future live load conditions. S.W.COLE is available to provide SRW design.

S.W.COLE should be retained to perform a global stability analysis of the SRW and to review the SRW submittal if designed by others.

4.9 Backfill and Compaction

The native soils and existing fills are unsuitable for reuse in building areas, but may be suitable as Common Borrow for compacted fill in paved and landscape areas. We recommend the following fill and backfill materials:

Common Borrow: Fill to raise grades in paved and landscape areas should be non-organic, mineral soils meeting the requirements of MaineDOT 703.18 Common Borrow.

Granular Borrow: Fill to raise grades in building areas and backfill of excavations from removal of existing foundations and utilities should be sand or silty sand meeting the requirements for MaineDOT 703.19 Granular Borrow. A 1-foot lift of Granular Borrow is also recommended below pavement subbase gravel.

Structural Fill: Fill to repair soft areas, backfill for foundations, slab base material and material below exterior entrances and sidewalks should be clean, non-frost susceptible sand and gravel meeting the gradation requirements for Structural Fill as given below:

Structural Fill	
Sieve Size	Percent Finer by Weight
4 inch	100
3 inch	90 to 100
¾ inch	25 to 90
#40	0 to 30
#200	0 to 5

Crushed Stone: Crushed Stone, used beneath perimeter foundations and for underdrain aggregate, should meet the gradation requirements of ASTM No. 57 Stone. A nominally sized ¾-inch washed crushed stone usually meets this requirement.

Placement and Compaction: Fill should be placed in horizontal lifts and compacted such that the desired density is achieved throughout the lift thickness with 3 to 5 passes of the compaction equipment. Loose lift thicknesses for grading, fill and backfill activities should not exceed 12 inches. We recommend that fill and backfill in building and paved areas be compacted to at least 95 percent of its maximum dry density as determined by ASTM D-1557. Crushed Stone should be compacted with 3 to 5 passes of a vibratory plate compactor having a static weight of at least 500 pounds.

4.10 Paved Areas

We anticipate paved areas will be subjected primarily to passenger and light delivery truck traffic. Considering the site soils and proposed usage, we offer the following pavement section for consideration. Materials are based on Maine Department of Transportation Standard Specifications.

Asphalt Pavement Section	
Material	Thickness (inches)
9.5 mm Hot Mix Asphalt (50 Gyrations Design)	1 ¼
19.0 mm Hot Mix Asphalt (50 Gyrations Design)	2 ¼
MaineDOT 703.06 Type A, Crushed Aggregate Base	3
MaineDOT 703.06 Type D, Crushed Aggregate Subbase	15
MaineDOT 703.19 Granular Borrow, Granular Subbase	12

Pavement subgrades should be densified with 3 to 5 passes of a vibratory roller. The base and subbase materials should be compacted to at least 95 percent of their maximum dry density as determined by ASTM D-1557. Hot mix asphalt pavement should be compacted to 92 to 97 percent of its theoretical maximum density as determined by ASTM D-2041. A tack coat should be used between successive lifts of bituminous pavement.

It should be understood that frost penetration can be on the order of 4.5 feet in the project area. In the absence of full depth excavation of frost susceptible soils and subsequent replacement with non-frost susceptible compacted fill, frost penetration into the subgrade will occur and some heaving and distress of pavement must be anticipated.

4.11 Weather Considerations

Earthwork and foundation construction should be completed during non-freezing Spring, Summer and Fall weather. The site soils may require drying before construction activities may occur and the contractor should anticipate the need for water to temper fills in order to facilitate compaction during dry weather.

If construction takes place during cold weather, subgrades, foundations and floor slabs must be protected during freezing conditions. Concrete and fill must not be placed on frozen soil; and once placed, the concrete and soil beneath the structure must be protected from freezing.

4.12 Design Review and Construction Testing

S.W.COLE should be retained to review the construction documents to determine that our foundation, earthwork and pavement recommendations have been properly interpreted and implemented.

A soils and concrete testing program should be implemented during construction to observe compliance with the design concepts, plans, and specifications. S.W.COLE is available to provide geotechnical observations during earthwork, provide subgrade observations for foundations and pavements as well as provide and testing and special inspection services for soils, concrete, asphalt, steel and spray-applied fireproofing construction materials.

5.0 CLOSURE

It has been a pleasure to be of assistance to you with this phase of your project. We look forward to working with you during the construction phase of the project.

Sincerely,

S. W. Cole Engineering, Inc.

Timothy J. Boyce, P.E.
Senior Geotechnical Engineer

MAS:tjb

Attachment A Limitations

This report has been prepared for the exclusive use of Avesta Housing for specific application to the Proposed Apartment Building at 72 Bishop Street in Portland, Maine. S. W. Cole Engineering, Inc. (S.W.COLE) has endeavored to conduct our services in accordance with generally accepted soil and foundation engineering practices. No warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this investigation and recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

S.W.COLE's scope of services has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S.W.COLE should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless the changes are reviewed by S.W.COLE.

Sheet: 1



BORING NO.:	B-1
SHEET:	1 OF 1
PROJECT NO.:	14-0696
DATE START:	2/23/2015
DATE FINISH:	2/23/2015
ELEVATION:	98' +/-
S.W.COLE REP:	M. ST. PIERRE
ER LEVEL INFORMATION	
REE WATER OBSERVED	

S.W.COLE REP: M. ST. PIERRE
WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

[illegible]

REMARKS:	
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.	2
BORING NO.:	B-1



BORING NO.:	B-2
SHEET:	1 OF 1
PROJECT NO.:	14-0696
DATE START:	2/23/2015
DATE FINISH:	2/23/2015
ELEVATION:	97' +/-

PROJECT:	PROPOSED APARTMENT BUILDING	
CLIENT:	AVESTA HOUSING-MAINE AFFORDABLE HOUSING COLLABORATION	
LOCATION:	72 & 78 BISHOP STREET, PORTLAND, MAINE	
DRILLING CO. :	S.W.COLE EXPLORATIONS, LLC.	DRILLER: BOB MARCOUX

CASING:	HSA	4 1/4"		
SAMPLER:	SS	1 3/8"	140 LBS	30"
CORE BARREL:				

S.W.COLE REP: M. ST. PIERRE
WATER LEVEL INFORMATION
WATER AT $\pm 6'$
SOILS WET BELOW 4'

[illegible]

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

X

DRILLER - VISUALLY
SOIL TECH. - VISUALLY
LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: B-2



BORING NO.:	B-3
SHEET:	1 OF 1
PROJECT NO.:	14-0696
DATE START:	2/23/2015
DATE FINISH:	2/23/2015
ELEVATION:	97.5' +/-
S.W.COLE REP:	M. ST. PIERRE

S.W.COLE REP: M. ST. PIERRE
WATER LEVEL INFORMATION
SOILS WET BELOW $\pm 6'$
SOILS SATURATED BELOW $\pm 7.5'$

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24			
									0.5'	TOPSOIL OVER BROWN FINE SANDY SILT WITH ROOTLETS	
	1D	24"	22"	2.0'	4	6	7	9	2.0'	BROWN AND GRAY SAND, SOME SILT WITH FINE ASPHALT FRAGMENTS (FILL)	
									4.5'	BROWN SILTY SAND, SOME GRAVEL (FILL) ~LOOSE TO MEDIUM DENSE~	
										DARK BROWN ORGANIC SILT, SOME FINE SAND (RELIC TOPSOIL) ~VERY LOOSE~	
	2D	24"	12"	6.0'	1	1	1	1	5.5'	MOTTLED SILTY CLAY WITH OCCASIONAL SILTY FINE SAND SEAMS ~VERY STIFF~ ...BECOMES BROWN SILTY CLAY WITH FREQUENT SILTY FINE SAND LAYERS ~STIFF~	
	3D	24"	24"	8.0'	4	4	6	8		q _p = 6.5 - 7 ksf	
										q _p = 3.5 - 5 ksf	
	4D	24"	24"	11.0'	3	4	5	5			
									11.9'	REFUSAL AT 11.9' PROBABLE BEDROCK ±6" OF FROST	
SAMPLES:					SOIL CLASSIFIED BY:				REMARKS:		
D = SPLIT SPOON									STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.		
C = 2" SHELBY TUBE					DRILLER - VISUALLY						
S = 3" SHELBY TUBE					SOIL TECH. - VISUALLY						
U = 3.5" SHELBY TUBE					LABORATORY TEST						
									BORING NO.: B-3		



BORING NO.:	B-4
SHEET:	1 OF 1
PROJECT NO.:	14-0696
DATE START:	2/23/2015
DATE FINISH:	2/23/2015
ELEVATION:	92' +/-
S.W.COLE REP:	M. ST. PIERRE

WATER LEVEL INFORMATION

SOILS SATURATED BELOW ±8'

[illegible]

REMARKS:		5
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.		
BORING NO.:		B-4



BORING NO.:	B-5
SHEET:	1 OF 1
PROJECT NO.:	14-0696
DATE START:	2/23/2015
DATE FINISH:	2/23/2015
ELEVATION:	96' +/-
S.W.COLE REP:	M. ST. PIERRE
ER LEVEL INFORMATION	
WATER AT ±4.5'	

S.W.COLE REP: M. ST. PIERRE
WATER LEVEL INFORMATION
WATER AT $\pm 4.5'$

[illegible]

REMARKS:		6
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.		
BORING NO.:		B-5

KEY TO THE NOTES & SYMBOLS

Test Boring and Test Pit Explorations

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q_u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S_v	-	field vane shear strength, kips/sq. ft.
L_v	-	lab vane shear strength, kips/sq. ft.
q_p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W_L	-	liquid limit - Atterberg test
W_P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ_T	-	total soil weight
γ_B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	1/2" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: Test Boring Explorations - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.

Project Name PORTLAND ME - PROPOSED BISHOP STREET APARTMENT
BUILDING - GEOTECHNICAL ENGINEERING SERVICES
Client AVESTA HOUSING
Exploration **B-2, B-3 & B-5**
Material Source **BLENDED SAMPLE 0-2'**

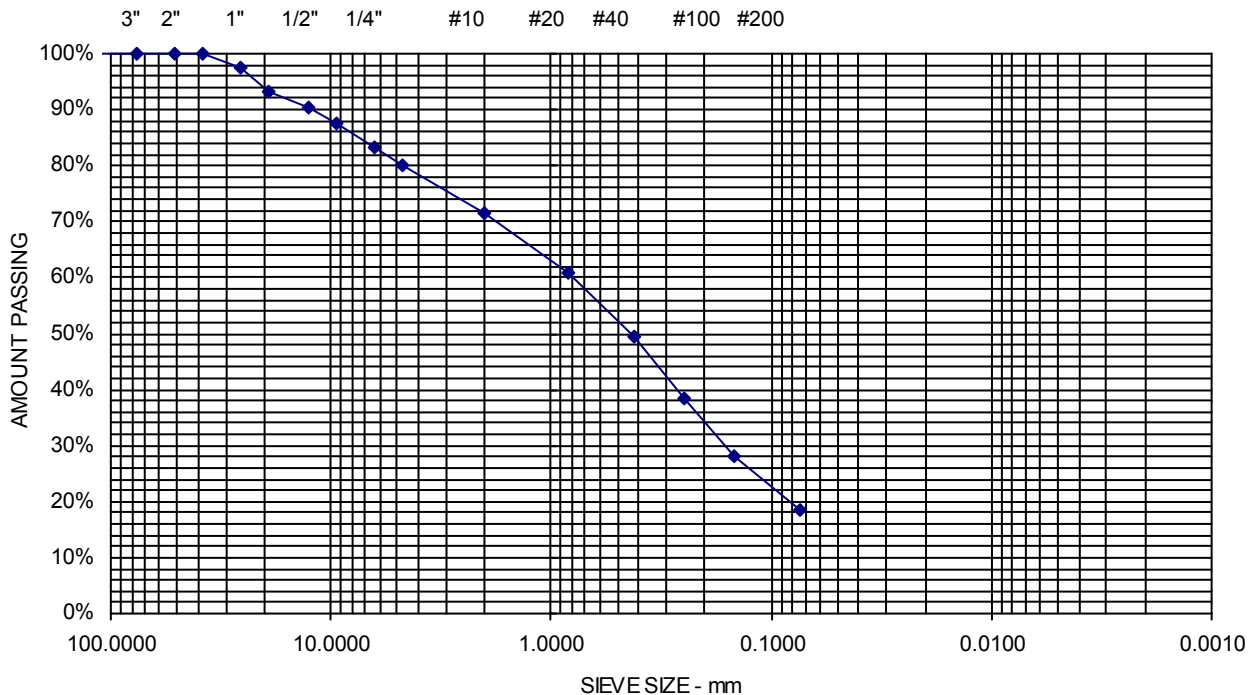
Project Number 14-0696
Lab ID 8784A
Date Received 3/2/2015
Date Completed 3/2/2015
Tested By NEIL DAVIS

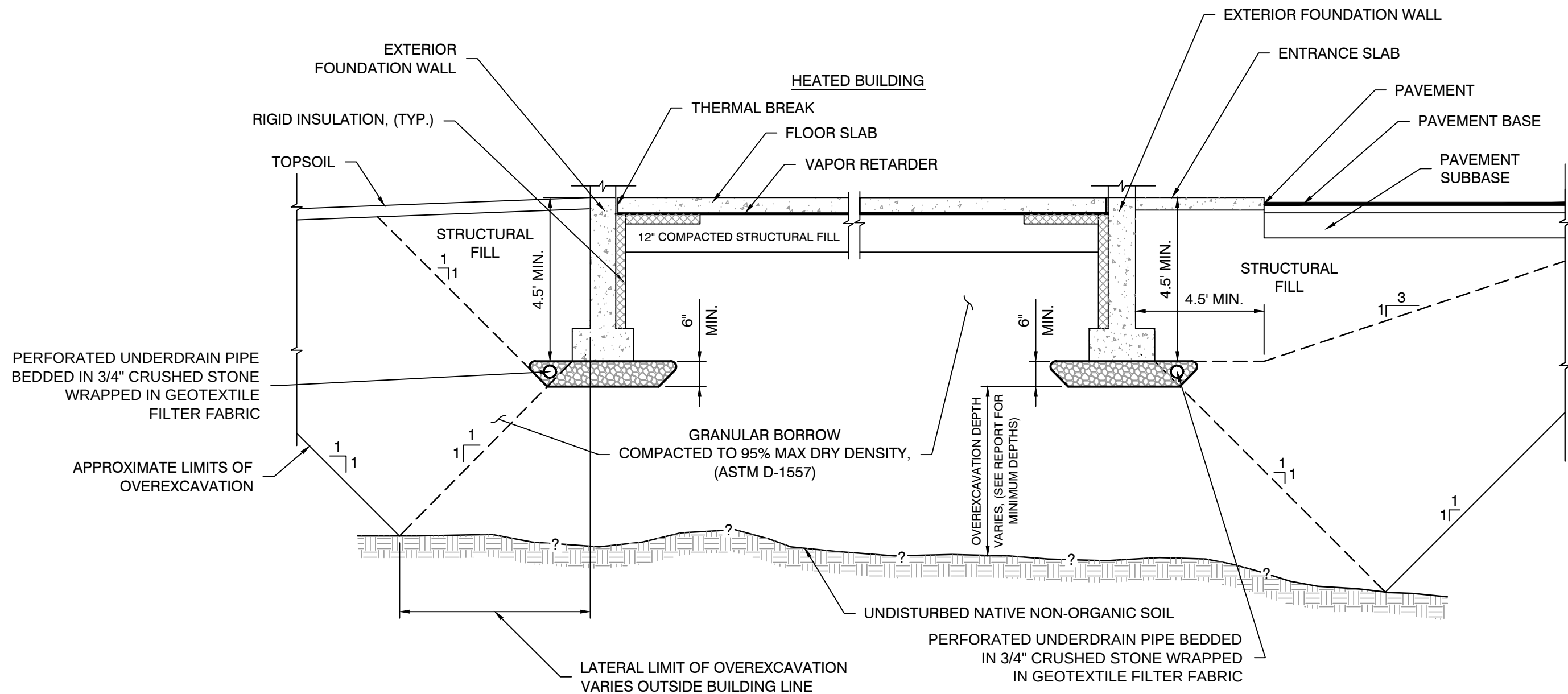
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>
150 mm	6"	100
125 mm	5"	100
100 mm	4"	100
75 mm	3"	100
50 mm	2"	100
38.1 mm	1-1/2"	100
25.0 mm	1"	97
19.0 mm	3/4"	93
12.5 mm	1/2"	91
9.5 mm	3/8"	88
6.3 mm	1/4"	83
4.75 mm	No. 4	80
2.00 mm	No. 10	71
850 μm	No. 20	61
425 μm	No. 40	49
250 μm	No. 60	38
150 μm	No. 100	28
75 μm	No. 200	18.3

20% Gravel

61.7% Sand

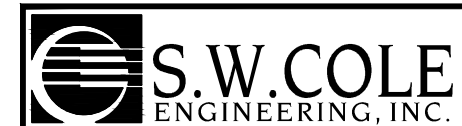
18.3% Fines





NOTE:

1. UNDERDRAIN INSTALLATION AND MATERIAL GRADATION RECOMMENDATIONS ARE CONTAINED WITHIN THIS REPORT.
2. DETAIL IS PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY, NOT FOR CONSTRUCTION.



AVESTA HOUSING

UNDERDRAIN DETAIL

PROPOSED 3-STORY APARTMENT BUILDING
72 BISHOP STREET
PORTLAND, MAINE

Job No.: 14-0696

Date : 03/11/2015

Scale: Not to Scale

Sheet: 9

PUBLIC UTILITIES

72 Bishop Street will be served by existing utility services located in Bishop Street. There is no moratorium for excavation on this street. The following public utilities are available:

Water

Water for both fire suppression and domestic service will be supplied from an existing 12 inch water main located in Bishop Street. Proposed service connections include 6 inch fire service and 2 inch domestic service. Refer to the attached letter from Portland Water District stating their ability to service this project.

Sanitary Sewer

Sanitary sewer will be supplied from an existing 8 inch public sewer main located in Bishop Street. Proposed service connection will be a 6 inch line. A Wastewater Capacity Application has been filed with this Site Plan Application.

Natural Gas

Natural gas will be supplied from an existing 8 inch HDPE gas main located in Bishop Street. A 2 inch service will connect to the building. Refer to the attached letter from Unitil.

Electric

Electric service will be connected from an existing pole along Bishop Street. Service will be routed underground to the project site. Refer to the attached letter from Central Maine Power

Telephone and Cable TV

Telephone and cable TV will be connected from the existing utility pole along Bishop Street. Service will be routed underground to the project site.



February 17, 2015

Ms. Sashie Misner
Mitchell & Associates
The Staples School
70 Center Street
Portland, ME 04106

Re: 72 Bishop Street Efficiencies

Dear Ms. Misner:

Thank you for your interest in using natural gas for the above referenced project.

Unitil has natural gas in the vicinity of this project to provide service. The main in this vicinity is 8" HDPE plastic intermediate pressure. The evaluation to complete the design, costs and determining what the customer contribution is can be completed once Unitil receives the completed design and load information. Unitil welcomes the opportunity for further discussions regarding this project.

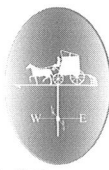
If you have any further questions or require additional information, please contact me directly at (207) 541-2536 or at Harmon@unitil.com.

Sincerely,

Bridget L. Harmon
Business Development Representative
Unitil Corporation
(o) 207-541-2536 (f) 207-541-2586

ME GAS CUSTOMER ENERGY SOLUTIONS
1075 Forest Avenue
Portland, ME 04103-3586

T 888-486-4845 www.unitil.com



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

March 30, 2015

Mitchell & Associates
The Staples School
70 Center Street
Portland, ME 04101

Attn: Sashie Misner
Re: 72 Bishop Street Efficiencies, Portland
Ability to Serve with PWD Water

Dear Ms. Misner:

The Portland Water District has received your request for an Ability to Serve determination for the noted site submitted on February 16, 2015. Based on the information provided, we can confirm that the District will be able to serve the proposed project as further described in this letter.

Conditions of Service

The following conditions of service apply:

- Our records show that the site is currently served with a ¾-inch domestic water service; please note that the size of this service is below our minimum service size of 1-inch. This existing ¾-inch water service must be terminated by shutting the corporation valve and cutting the pipe from the water main.
- New service(s) may be installed from the water main in Bishop Street. The services(s) should enter through the properties frontage at least 10-feet from side property lines. Please note that only one meter and one bill will be associated to each domestic service line. This one master meter would be located in a common space that all tenants could gain access to if necessary.
- Approval of plans will be required for the project prior to construction. As your project progresses, we advise that you submit any preliminary design plans to MEANS for review of the water service line configuration. We will work with you to ensure that the design meets our current standards.

Existing Site Service

According to District records, the project site does currently have existing water service. A 3/4-inch diameter copper water service line, located as shown on the attached water service card, provides water service to this site. Please refer to the "Conditions of Service" section of this letter for requirements related to the use of this service.



Water System Characteristics

According to District records, there is a 12-inch diameter cast iron, cement lined water main on the south side of Bishop Street and a public fire hydrant located adjacent to the site.

The current data from the nearest hydrant with flow test information is as follows:

Hydrant Location:	Bishop Street 550' west of Mayfield Street	
Hydrant Number:	POD-HYD01616	
Last Tested:	2/14/2013	7/19/2006
Static Pressure:	74 psi	70 psi
Residual Pressure:	Not Measured	Not Measured
Flow:	Not Measured	1,255 GPM

Public Fire Protection

It is not anticipated that this project will include the installation of new public hydrants to be accepted into the District water system. The decision to require new hydrants and to determine their locations is solely that of the local fire department. It is your responsibility to contact the Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

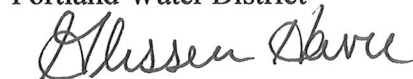
The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project.

Private Fire Protection Water Needs

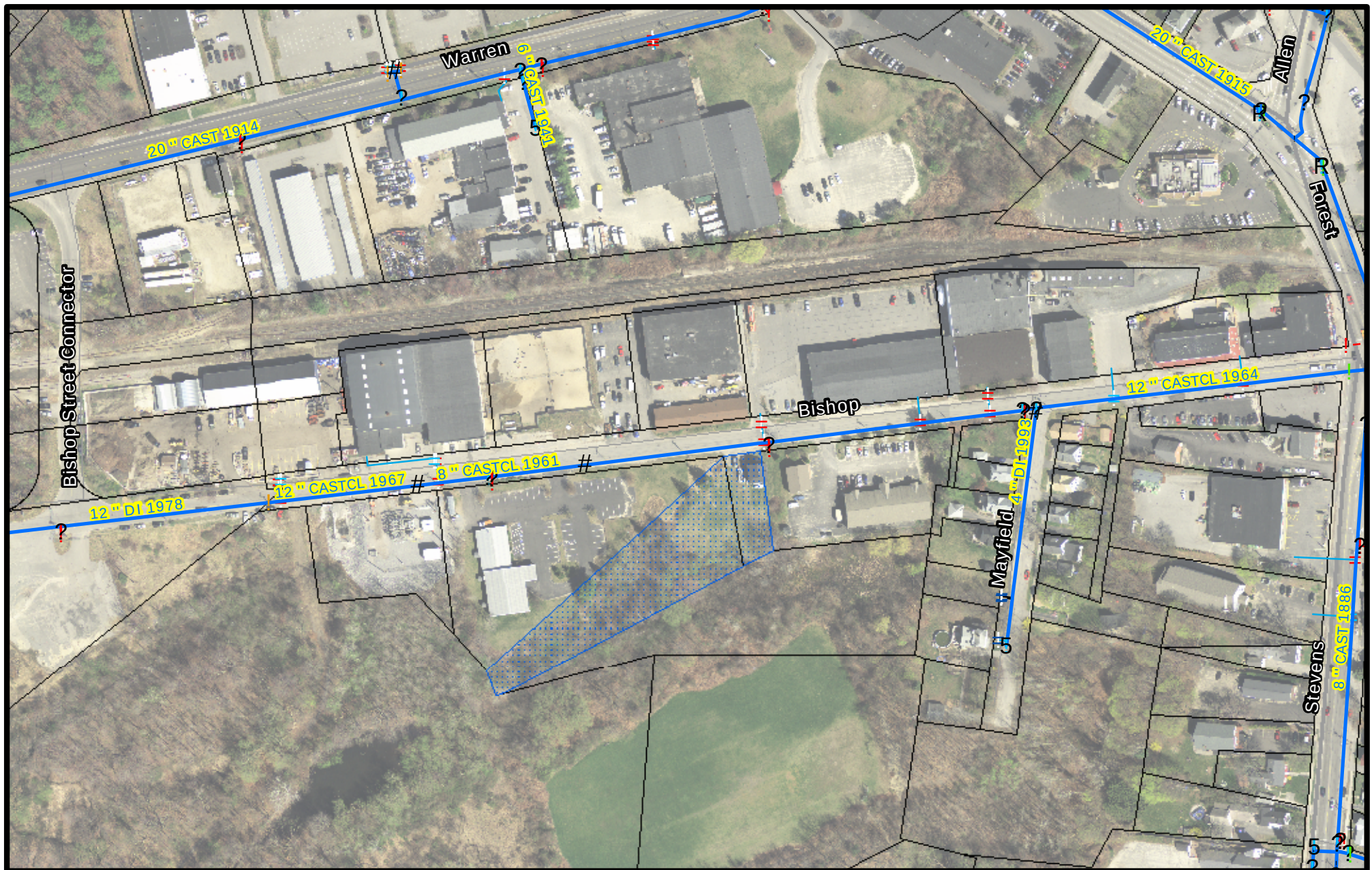
It is anticipated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact the MEANS Division to request a hydrant flow test and we will work with you to get more complete data.

As your project progresses, please remain in contact with the District to ensure that the design meets our current standards. If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District



Glissen Havu, E.I.
Design Engineer



72 Bishop Street

Portland



PORTLAND WATER DISTRICT
225 Douglass Street
Portland, ME 04104

Scale 0 50 100 200 300 400 Feet 1 inch = 200 feet

Legend

! Air Valve	● Connection	= Combined Service	! Manhole
5 Blow Off	! Attribute Change	= Domestic Service	(CSO
R By Pass	# Reducer	= Fire Service	→ Gravity
? Distribution	! Hydrant	= Private Hydrants	→ Force
? Transmission	? Hydrant Control	= Meter Pits	



Disclaimer: This map is suitable for preliminary study and analysis and is based on PWD record information. PWD is not liable for any damages whatsoever resulting from inaccurate data or from errors made in the location and marking of its infrastructure.

Drawn By: GJH

Prepared For: Mitchell & Associates

Scale: As Noted

Date: March 30, 2015



2/17/2015

Sashie Misner

Mitchell and Associates

70 Center Street

Portland, ME 04101

Sent via email to: SMisner@MitchellAssociates.biz

RE: Ability to Serve Letter for Avesta Housing 72 Bishop Street, Portland, ME.

Dear Ms. Misner:

CMP has the ability to serve the proposed project located at 72 Bishop in Portland, Maine, in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Standards Handbook. If you have any questions on the process, or need help in completion of the documents, please feel free to contact me. Should the process be single phase, you will work directly with our Portland Service Center.

New Service Milestones

- Call 1-800-565-3181 to establish a new account and an SAP work order.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Submit Load information. Please complete this CMP spreadsheet using load information
- Submit the easement information worksheet. Please complete this CMP form and either email or fax back to us.
- Preliminary meetings with CMP to determine the details of job
- Field planner design appointment to cost out job and develop CMP Invoice.
- Submit invoice for payment.
- Easements signed and payment received.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer delivery, potential substation upgrades, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com



An equal opportunity employer



For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements:

[CMP Handbook of Standard Requirements](http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf)

(<http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf>)

If you have any questions, please contact me.

Regards,

A handwritten signature in black ink that reads "Jamie Cough".

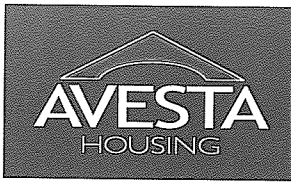
Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com



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Att. H

Quality Affordable Living

To: Interested Parties

From: Greg Payne, Development Officer

A handwritten signature in dark ink, appearing to be "GRP", written over the printed name "Greg Payne".

Re: Statement of Technical Capability

Avesta Housing is Maine's largest and most sophisticated non-profit housing developer and manager. Incorporated in 1972, Avesta is driven by the vision that decent, affordable housing should be available to all Mainers, without exception. Avesta owns and manages 56 properties containing over 1,500 affordable apartments. These apartments serve low-income seniors and families, as well as persons with special needs, primarily in York and Cumberland Counties.

Avesta Housing is chartered as a nonprofit corporation in the state of Maine and is tax exempt under Section 501(c)3 of the federal Internal Revenue Code. Avesta is governed by a 15-member board of directors representing a variety of banking, business, public, community, social service and housing organizations. Its administrative headquarters is in Portland, Maine. It has a staff of 90 full-time and part-time employees.



February 17, 2015

City of Portland
389 Congress Street
Portland, ME 04101

RE: Avesta Housing, Bishop Street Apartments, Portland, Maine

Dear Sir or Madam,

It is a pleasure to confirm for you that Avesta Housing is a valued customer of Gorham Savings Bank in good standing. We believe, based on our relationship with them, that they have the financial and managerial capability to successfully complete the above project.

While this is not a commitment to lend, we welcome the opportunity to assist Avesta Housing with their financing needs for this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew W. Early", with a long horizontal flourish extending to the right.

Matthew W. Early
Senior Vice President

MWE/ckb



LETTER OF AUTHORIZATION

June 17, 2014

To: City of Portland Planning Department

This letter authorizes Robert Metcalf, Michael King and/or Sashie Misner of Mitchell & Associates and Ben Walter of CWS Architects to act as agents on behalf of Avesta Housing Development Corporation in public meetings and the submission of any and all application materials that relate to our proposed development of Bishop Street Apartments on Bishop Street in Portland.

Sincerely,

Greg Payne
Development Officer

COMPLIANCE WITH APPLICABLE ZONING REQUIREMENTS

The proposed development will be located within the Community Business District (B-2-C zone). A mix of business, industry and single family residences exists within this Bishop Street neighborhood. The proposed 30 efficiency units at 72 Bishop Street will provide housing for chronically homeless individuals, using a “housing first” approach. The project is close to Forest Avenue and will provide much needed housing in urban neighborhoods along arterials. The proposed development intends to meld with the neighborhood and be a positive addition to the surrounding services provided.

The B-2-C zone supports moderate to high density residential uses located in close proximity to business uses. 72 Bishop Street will replace the single family residence with 30 efficiency units and providing residential development similar in scale to the surrounding structures. The height of the proposed 3-level building is 39 feet. While B-2-C zone encourages active street frontages, the irregular shape of the lot and program do not allow for the building to be located 10 feet from the front property line. The building will be angled and located as close as possible to the front property line (18’). No parking is proposed within the front of the building. Onsite parking consists of ten parking spaces and two handicap parking spaces.

The proposed development is in compliance with the applicable zoning requirements set-forth the Portland Land Use Ordinance conforming to provisions of the Site Plan and Subdivision Regulations and the zoning provisions of the B-2-C designated district with the following exceptions.

The applicant is requesting a waiver from Section 14-188 Active Street Frontages and 14-185 Dimensional Requirements (Front Yard Maximum). The request is based on the limitations the irregular shaped lot offers in regards to building location. The property is 50 feet wide at the property line and does not offer the ability to locate a 24 foot driveway and the primary building façade towards the street. Because of the low traffic volume entering the site and to allow the building to be as close to the road as possible, the driveway was designed as 20’ wide. The building is located as close as possible to the front property line (18’) to achieve the appearance of an Active Street Front.

The applicant is requesting a waiver from Section 14-332 (4) (a) multi-family residential parking requirement of one parking space per dwelling unit. The applicant is proposing to provide 12 parking spaces (10 spaces and 2 handicap spaces). The proposed reduced amount of parking is based on prior experience serving the target homeless population whom do not typically own vehicles as well as an understanding of future employee parking needs.

WAIVER REQUEST

1. Waiver request from Section 14-185 Dimensional Requirements (Front Yard Maximum). The request is based on the limitations the irregular shaped lot offers in regards to building location. The property is 50 feet wide at the property line and does not offer the ability to locate a 24 foot driveway and the primary building façade within the ten (10) foot setback at the street. To locate the structure as close as possible to the street, we have reduced the width of the access drive from 24 feet to 20 feet allowing the closest point of the building to be 18 feet from the property line. The driveway width for the parking meets the required 24 foot width.
2. Waiver request from Section 14-332 (4) (a) multi-family residential parking requirement of one parking space per dwelling unit. The applicant is proposing to provide 12 parking spaces (10 spaces and two handicap spaces). The proposed reduced amount of parking is based on prior experience serving the target homeless population whom do not typically own vehicles, as well as, an understanding of future employee parking needs.
3. Waiver request from Section 14-526 2.b.iii. a. & Technical Design Manual 4.6.1, Multi-family residential street tree requirement of one street tree per unit spaced 30'-45' within the right of way. The facility proposes 30 units although has only 50 feet of road frontage. Due to the irregular shape of the site and driveway and sidewalk requirements the applicant is not proposing any street trees within the right of way. The applicant would like planning staff to consider the three trees located along the front of the building to apply towards the 30 required trees. The applicant is requesting a waiver for the remaining 27 trees and will provide the fee in lieu.

Temporary Waiver Request

The applicant requests the following temporary waivers:

1. Construction Management Plan. At this stage in development we are unable to provide a detailed construction management plan. We request the ability to provide this at a later time.
2. Lighting Photometric Plan. We have selected the attached fixtures for site lighting. We are requesting a temporary waiver for the submission of the

photometric plan, a plan will be provided before a scheduled public hearing.

3. Manufacturers' Verification of Mechanical Systems, HVAC equipment will be mounted on the roof. Sizing and selection of equipment is currently being developed. Appropriate documentation will be submitted for staff review. We request the ability to provide at a later date.
4. Sign Plan. The Sign Plan will be in conformance with city zoning. We have shown the intended signage location and request the ability to provide the detailed sign information at a later time for staff review.
5. Easements. The location of electric and communication services has not been finalized. Option one shown on plan sheet L3 will require an easement from the abutting masonic lodge. The applicant is pursuing this and will provide any easements as may be required.

CONSISTENCY WITH CITY'S COMPREHENSIVE PLAN

The Project is consistent with the City's Comprehensive Plan and, more specifically, the housing component of that plan, *Housing: Sustaining Portland's Future*.

Housing: Sustaining Portland's Future lays out six major policy objectives to achieve the City's housing goals and address Portland's housing shortage. Each of these primary policies outlines a number of secondary policy goals. The proposed Project is consistent with many of the housing policy goals detailed in the city comprehensive housing plan;

Policy #1: Ensure an Adequate and Diverse Supply of Housing for All

i. *Ensure the construction of a diverse mix of housing types that offers a continuum of options across all income levels, which are both renter and owner-occupied.*

Homelessness is an issue that plagues many urban communities. This project will provide housing for the chronically homeless contributing long term solutions to this greater community issue. The project is located within a business district along an arterial.

ii. *A variety of housing choices should be available such that no one should have to spend more than 30% of their income for housing.*

This 'housing first' project will provide 30 efficiency apartment units. Avesta will partner with Preble Street for the provision of 24-hour, on-site support services and Portland Housing Authority for project-based rental assistance. This housing project will provide quality services and living space for Portland's neediest population.

iii. *Encourage higher density housing located near services, such as schools, businesses, institutions, employers, and public transportation.*

The Project is a moderate density development near Forest Avenue the services and facilities listed above.

iv. *Increase Portland's rental housing stock to maintain a reasonable balance between supply and demand yielding consumer choice, affordable rents, and reasonable return to landlords.*

The Project will bring 30 efficiency apartments to the neediest of Portland. In addition to providing housing, the project includes counselling services for homeless individuals with mental disorders. This step is aimed at providing not just a living space but support to establish stability and a hopeful future.

- v. *Identify vacant land and redevelopment opportunities throughout the City to facilitate the construction of new housing.*

The Project involves replacing a single family residence located on the edge of an industrial zone and within a business zone. This redevelopment opportunity will create higher density housing similar in scale to the surrounding neighborhood.

Policy #3: Neighborhood Stability and Integrity

- i. *Encourage innovative new housing development, which is designed to be compatible with the scale, character, and traditional development patterns of the City's residential neighborhoods.*

The Project involves replacing a single family residence located on the edge of an industrial zone and within a business zone. This project will create building architecture similar in scale to the surrounding neighborhood.

- ii. *Encourage new housing development in proximity to neighborhood assets such as open space, schools, community services and public transportation.*

The Project is located in close proximity to the neighborhood assets listed above.

Policy #5: Sustainable Development

- i. *Encourage growth in Portland that strives for a dynamic balance of the essential elements of the city, such as excellent schools, diverse housing choices, proximity to services and employment, increased public transit usage, expanded economic base, high quality services and an affordable tax rate.*

The Project will provide diverse housing choices that are close in proximity to services and employment.

- ii. *Maximize development where public infrastructure and amenities, such as schools, parks, public/alternative transportation, sewer lines and roads, exist or may be expanded at minimal costs.*

As documented previously, the Project is located in an urban setting that is serviced by the public infrastructure and amenities listed above.

- iii. *Locate and design housing to reduce impacts on environmentally sensitive areas.*

As an urban infill development with a goal to contribute positively on surrounding neighborhood, the Project is designed to reduce environmental impacts associated with new development.

iv. *Design housing to use new technologies and materials that reduce costs and increase energy efficiency.*

The Project is being designed to achieve maximum energy efficiency.

Policy #6: Freedom of Choice

a. *Increase and ensure equal access to housing opportunities for minorities, low-income people and persons with disabilities and special needs.*

As documented, the Project will increase access to high quality housing for the chronically homeless.

i. *Ensure that an adequate supply of new and existing housing is accessible to persons with physical disabilities.*

The project provides fully-ADA compliant units as required under state and federal building codes.

FIRE DEPARTMENT CHECKLIST

1. Name, address, telephone number of applicant

Avesta 72 Bishop Street, LP
307 Cumberland Avenue
Portland, Maine 04101
Contact: Brooks More
Phone: 207.553.7777

2. Name, address, telephone number of architect

CWS Architects
434 Cumberland Avenue
Portland, Maine 04101
Contact: Ben Walter
Phone: 207.774.4441

3. Proposed uses of any structures [NFPA and IBC classification]

IBC: R-2 Apartments

NFPA: Residential – New Apartment Building

4. Square footage of all structures [total and per story]

First Floor: 7,804 SF
Second Floor: 7,035 SF
Third Floor: 6,535 SF
Total: 21,374 SF

5. Elevation of all structures

Building Height is 36.0 feet as measured by IBC definitions

6. Proposed fire protection of all structures
NFPA 13R system throughout.

7. Hydrant locations:

There is a hydrant adjacent to the proposed driveway on Bishop Street.

8. A 12 inch water main is located within Bishop Street. Two water services are proposed for the building, one 6 inch service for fire and one 2 inch service for domestic.

9. Access to all structures [min. 2 sides]

The proposed structure is accessible from Bishop Street and a driveway along the east side of the building.

10. A code summary shall be included referencing NFPA 1 and all fire department Technical standards.

Preliminary Code Summary provided to PFD under separate cover (CWS to review details with Portland Fire Department).

11. The elevator shall be sized to fit an 80" x 24" stretcher and two personnel

Elevator Cab Size to meet PFD Requirements (CWS to review details with Portland Fire Department).

12. Some structures may require Fire flows using annex H of NFPA 1

Fire Flows to meet PFD Requirements (CWS to review details with Portland Fire Department).

April 7, 2015

Robert B. Metcalf, Principal
Maine Licensed Landscape Architect
Mitchell & Associates
70 Center Street
Portland, Maine 04101

Subject: Trip Generation, Crash History and Access Review
Avesta Housing Project on Bishop St.

Dear Bob:

Gorrill Palmer (GP) has completed a trip generation forecast, crash history review, access review and on-site parking forecast per your request for the proposed Avesta Housing project at 72 Bishop Street in Portland. The project will be similar to the Logan Place at Frederick Street in Portland which has 30 units. The Bishop Street project will be a first housing project for the homeless and will consist of 30 units and twelve parking spaces. It is our understanding that the housing is to be targeted for low-income, formerly-homeless individuals, some with medical disability. We understand they will tend to be an older population than Logan Place and less likely to own a car.

Background Data

GP based the study on the following information:

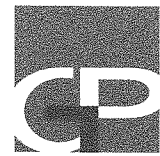
- A layout and lighting plan, L2, prepared by Mitchell & Associates dated April 10, 2015.
- Crash data for 2011-2013 provided by the Maine Department of Transportation (MaineDOT).
- Memo to the City Planning Board from Mark Swann dated August 1, 2014.

Sight Distance Evaluation

The Maine Department of Transportation has guidelines for sight distances at driveways within urban compacts. The sight line standards for driveways in an urban compact are as follows:

Maine DOT Standards for Sight Distance

Posted Speed (mph)	Sight Distance
25	200
30	250
35	305
40	360



GP has evaluated the available sight lines at the proposed 72 Bishop Street driveway in accordance with Maine DOT standards.

The Maine DOT standards are as follows:

Driveway observation point:	10 feet off major street travelway
Height of eye at driveway:	3 ½ feet above ground
Height of approaching vehicle:	4 ¼ feet above road surface

The posted speed on Bishop Street in the vicinity of the site driveway is 25 mph. The results of this sight line analysis exiting the site drive is summarized in the following table:

72 Bishop Street Apartments Driveway Sight Line Evaluation			
Direction	Posted Speed (mph)	Recommended Sight Line (ft)	Actual Sight Line (ft)
Exiting onto Bishop Street Looking			
Left	25	200	+300
Right	25	200	+300

As shown, the sight lines for the driveway exceeds MaineDOT requirements. GP recommends that all plantings, which will be located within the right of way, not exceed 3 feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

Crash Data

In order to evaluate whether a location has a crash problem, Maine DOT uses two criteria to define High Crash Locations (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual accident rate to the rate for similar intersections in the State. A CRF of less than 1.00 indicates a rate less than average) and;
2. A minimum of 8 crashes over a three-year period.

Our office reviewed the 2011-2013 crash data in this area and found there were no high crash locations in the immediate area of the project site on Bishop Street. A copy of the collision history is included in the Appendix.

Trip Generation

Forecast based on ITE. Traffic engineers traditionally use the Institute of Transportation Engineers (ITE) publication *Trip Generation*, 9th Edition to estimate the potential trip generation for the proposed project. Based on Land Use Code (LUC) 220, Apartment, with 30 units, the proposed site would be forecast to generate the following trips during the peak hour of the adjacent street traffic:

AM Peak Hour 15 trip ends
PM Peak Hour 19 trip ends



A trip end is either an entering or exiting vehicle, thus a round trip equals two trip ends. ITE trip rates are based on surveys of predominantly suburban locations rather than urban and does not reflect the type of tenant proposed for this project and therefore is not appropriate for use in this project.

Data based in Preble Street Memo: Given these results, the fact that the project is in an urban area, and that the housing is to be targeted for low-income, formerly-homeless individuals with some disability, most of the traffic for the project is anticipated to come from staff, outside medical providers and social workers. GP has utilized a memo dated August 1, 2014 to the Portland Planning board from Mark Swann of Preble Street concerning staffing at the proposed project. A copy of the memo has been included with this letter. The following peak hour trips are estimated based on that memo.

Project staff- a maximum of 4 staff members are anticipated to be on site at any one time between the hours of 8 AM and 8 PM along with a maximum of 3 management staff. Assuming these staff all arrive in the same hour which is very conservative yields 7 trips into the site. Assuming two overnight staff leaving within the same hour yields a combined total of 9 trip ends for staff during the AM peak hour. For the PM peak hour, we have assumed 2 staff arrive and 2 leave and that 3 management staff leave for a total of 7 trip ends.

Service and healthcare providers- up to 12 individuals visit the site to provide case management, assistance with daily activities or a follow-up to a medical appointment. The attached memo from Preble Street states that there were an average of 4 service workers visit clients each day at Logan Place with a typical appointment lasting 60 minutes with the maximum number on site at the same time of 2. GP has estimated 2 trip ends in both the morning and afternoon peak hours based on this information.

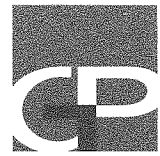
Non-service guest visits- The Preble Street memo estimates a total number of non-service guest visits of approximately 6 per day. GP has estimated 2 trip ends in both the morning and afternoon peak hours based on this information.

Based on the information presented in the memo from Preble Street, GP estimates the following peak hour trip ends:

AM Peak hour: 13 trip ends
PM Peak hour: 11 trip ends

Pedestrian Circulation

The Applicant is proposing to construct approximately 600 feet of 5 foot sidewalk along the southerly side of Bishop Street from the site easterly to match into the existing 300 foot sidewalk at the easterly end of Bishop Street. This will enable tenants to access Metro Route 3 which stops on Stevens Ave approximately 350 feet south of Bishop Street in front of Bogusha', or Metro Route 2 which stops on Forest Avenue approximately 375 feet southerly of Bishop Street near Meineke. Since some of the residents may have medical issues, case managers from several organizations including Maine Health, Catholic Charities, and Preble Street can transport tenants for shopping. These resources are also available to assist able individuals in learning how to use the Metro.



Parking Evaluation

The City ordinance suggests one parking space per housing unit which would result in the Applicant needing to provide a total of 30 spaces. Providing more parking than needed to meet the demand would result in loss of open space, increases stormwater impacts, and underutilization of valuable urban land. At the same time, providing too little parking would have adverse impacts on residents and the surrounding neighborhood. The applicant's goal through the parking demand analysis process is to find the appropriate ratio of parking spaces. It is the opinion of GP that the parking needs for this project will be far less than one space per unit based on the following information. First, Logan Place, the most similar project to the proposed project, has had only one tenant since they have been leasing that owned a car. Secondly, the parking needs for the project is most likely to come from staff, outside medical providers and social workers. The Preble Street memo referenced earlier in this letter in the trip generation discussion, states that for Logan Place (30 units), it is rare for there to be more than 5 cars on site at any one time. Based on the staffing and visitation information presented in the trip generation discussion, we anticipate the parking demand to be as follows:

Staff: 4 spaces
Supervisors: 3 spaces
Service and healthcare providers: 2 spaces
Visitors: 2 spaces
Total: 11

There are 12 spaces planned as part of the project which should be adequate based on this forecast.

Closure

In summary, it is our opinion that the project should generate 11 and 13 trip ends during the AM and PM peak hours respectively and that the proposed 12 on site spaces should adequately serve the project.

Please contact us with any questions.

Sincerely,

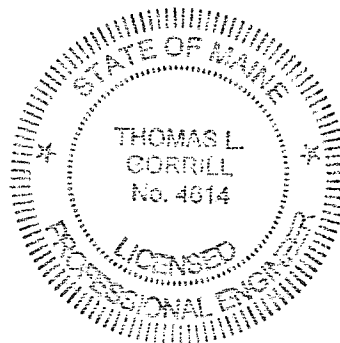
Gorrill-Palmer Consulting Engineers, Inc.

A handwritten signature in black ink, appearing to read 'Tom Gorrill', is written over the printed name.

Thomas L Gorrill, P.E., PTOE

Enc.

TLG/tlg/JN2976 /Trip generation and parking study 4-7-15.doc





Preble Street

Turning Hunger and Homelessness into Opportunity and Hope

Anti-Trafficking Coalition

Clinical Intervention Program

First Place

Florence House

Food Programs

Joe Kreisler Teen Shelter

Logan Place

Maine Hunger

Initiative & Advocacy

Resource Center

Teen Center

Veterans Housing Services

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Mark R. Swann
Executive Director

38 Preble Street
Portland, ME 04101
207.775.0026 Phone
info@preblestreet.org
www.preblestreet.org



United Way of
Greater Portland

Memo to: City of Portland Planning Board

From: Mark R. Swann

Date: August 1, 2014

Re: Zoning Changing for 72 Bishop Street

Thank you for your consideration of this important addition to the Portland community. We look forward to being a valuable and contributing neighbor on Bishop Street. We hope the information below will assist in your assessment.

We remain available to answer any questions you may have.

Staffing Requirements on site at any one time:

A minimum of two staff members will be on duty at all times, with as many as four on-site between the hours of 8 a.m. and 8 p.m. We expect to have 10 full time employees: one coordinator, one supervisor, and one team leader managing seven housing support workers. Full-time staff will be supplemented by as-needed staff to cover vacations and sick days. Management personnel will be onsite during daytime hours, and overnight shifts will have a team leader on site. Preble Street's Chief Program Officer will oversee the program, and Preble Street provides a 24-hour on-call system, staffed by a clinical manager, to address clinically challenging situations. Additional staffing will include social work, counseling, and occupational therapy interns, as well as trained volunteers.

Staff/service traffic volume:

The staff/service traffic volume at Logan Place, the first housing development of this kind in Portland, varies greatly from day to day. Service and healthcare providers make individual appointments with tenants, and there may be a dozen individuals coming to provide case management or assistance with activities of daily living or a follow up to a medical appointment in a given day. Over a two month period from May 1, 2014, through June 30, 2014, Logan Place had an average of four service workers visiting clients each day. This number is slightly inflated due to one tenant being seriously ill and requiring daily hospice visits. A typical service appointment usually lasts 60 minutes or less. These visits are spread throughout the day, sometimes into the evening. The volume at any one time of day is typically one or two, maximum. It is rare for there to be more than five cars in the Logan Place parking lot at any one time. Non-service guest visits total approximately six per day.

Potential number of outside medical providers that would visit residents, including frequency:

As noted above, the average number of outside medical visits at Logan Place, is one or two a day. At the Bishop Street facility, because the target population is individuals who are medically compromised, we anticipate this number will be slightly higher. However, we anticipate being able to mitigate this factor by engaging with a healthcare partner and having medically credentialed staff as part of the program. This will lead to increased efficiency due to coordination of visits.

Transportation options provided to residents:

Transportation is a critical part of service planning for each tenant. Case managers from several organizations including Maine Health, Catholic Charities, and Preble Street can transport individuals for shopping and assist individuals in learning to be comfortable

with available public transportation. All tenants can get bus passes. Preble Street has an account with Elite Taxi service for emergency use. Additionally, most clients in the Bishop Street building will qualify for Medicaid assistance for rides to appointments. Preble Street is working closely with Maine's new Mainecare ride contractor, Logisticare, to transport clients to scheduled medical, case management, mental health, substance abuse counseling or treatment appointments. Tenants and Preble Street staff make these arrangements, which include pick up and return after any appointment. Many tenants who are mobile will be able to walk to local convenience stores and grocers.

Services provided by Preble Street and other partners:

Preble Street provides case management services to all tenants to ensure that individuals succeed in making the transition from chronic homelessness to permanent housing. A key role of Preble Street staff is working alongside tenants to develop service plans for improving independent living skills such as cooking or budgeting, meeting vocational or school goals, or beginning treatment for mental illnesses. Preble Street staff collaborate with tenants to reach goals, and establish new ones over time, making referrals to other providers and organizations as needed to assist tenant in achieving those goals and maintaining health and stability. Outside agencies are welcome at any time to visit and work with tenants, at tenants' discretion. Many tenants routinely receive services ranging from behavioral health to personal care attendants to housekeeping assistance.

Because many long term homeless individuals need assistance with household responsibilities, such as cleaning and cooking, staff often focus on these issues, and for disabled tenants, will find resources from the community to assist with these tasks.

How the facility will be managed:

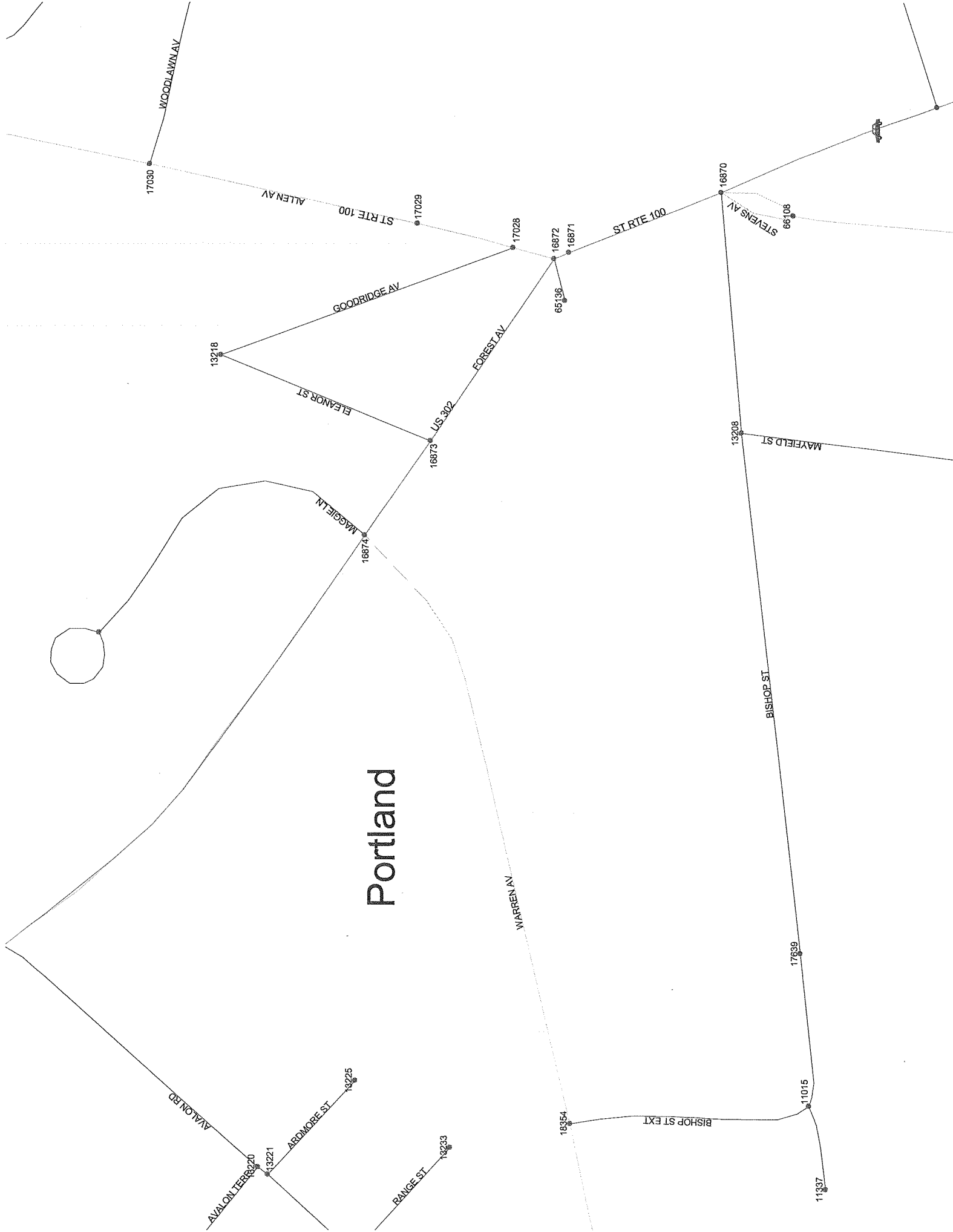
Avesta Housing provides building maintenance and is the landlord for all tenants. Preble Street staff work closely with the building manager, facilitating communication and supporting clients with maintaining stable housing.

Preble Street takes building management and security very seriously. Staff provide on-site monitoring and support to deal with any crisis that emerges and to ensure tenant safety. Each residential site has a front desk that is staffed 24 hours a day. The doors to each building are locked and visitors are required to check in at the front desk and produce identification which is copied and filed by staff. The staff member at the front desk monitors the building exterior through strategically placed cameras. The front desk is also the place where tenants can seek assistance if they have a question or concern. An intercom in each room allows tenants to contact the desk, and makes it easy for staff to check in with tenants regarding visitors.

Tenants are allowed a maximum of five overnight visits per month in accordance with public housing leases, and staff maintains a visitor log noting every guest entry and exit. Staff members do regular rounds, ensuring the security of the building and monitoring living spaces. Preble Street offers 24-hour clinical support through an on-call system staffed by managers, and staff are trained to call for medical or law enforcement support in the case of any disturbance.

Tenants at Logan Place have created a strong community, supported by staff and volunteers. Tenants at Logan Place prepare communal dinners, participate in regular house meetings to address their concerns and issues, and enjoy activities and outings such as hikes, cooking contests, and game tournaments.

Portland



Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS
☒ Crash Summary I ☐ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary
REPORT DESCRIPTION

Bishop St area

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: 0560062

Start Node: 11015
End Node: 16870Start Offset: 0
End Offset: 0☐ Exclude First Node
☐ Exclude Last Node

Route: 0561237

Start Node: 11015
End Node: 18354Start Offset: 0
End Offset: 0☒ Exclude First Node
☐ Exclude Last Node

Route: 0100X

Start Node: 16870
End Node: 17030Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0560767

Start Node: 18354
End Node: 16874Start Offset: 0
End Offset: 0☒ Exclude First Node
☐ Exclude Last Node

Route: 0302X

Start Node: 16872
End Node: 16874Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Route: 0560249

Start Node: 13218
End Node: 16873Start Offset: 0
End Offset: 0☐ Exclude First Node
☒ Exclude Last Node

Route: 0560320

Start Node: 13218
End Node: 17028Start Offset: 0
End Offset: 0☒ Exclude First Node
☒ Exclude Last Node

Crash Summary I

Nodes															
Node	Route - MP	Node Description	U/R	Total Crashes	K	A	B	C	PD	Injury Crashes	Percent Annual M Injury Ent-Veh	Crash Rate	Critical Rate	CRF	
11015	0560062 - 0.03	0501427 POR,BISHOP ST,BISHOP ST EXT	2	1	0	0	0	0	1	0.0	0.404	0.83	0.60	1.37	
17639	0560062 - 0.09	0508057 POR,BISHOP ST.,22WO MAYFIELD	2	0	0	0	0	0	0	0.0	0.425	0.00	0.60	0.00	
13208	0560062 - 0.31	0503622 POR,MAYFIELD,BISHOP ST.	2	0	0	0	0	0	0	0.0	0.601	0.00	0.58	0.00	
16870	0560062 - 0.40	Int of BISHOP ST FOREST AV STEVENS AV	9	30	0	0	2	7	21	30.0	12.739	0.78	0.97	0.00	
18354	0561237 - 0.10	Int of BISHOP ST EXT WARREN AV	2	2	0	0	0	1	1	50.0	5.153	0.13	0.35	0.00	
16871	0100X - 2.80	Non Int FOREST AV	2	0	0	0	0	0	0	0.0	5.970	0.00	0.30	0.00	
16872	0100X - 2.81	Int of ALLEN AV ENTRANCE TO MCDONALDS Z RD FORE	9	53	0	0	4	17	32	39.6	15.378	1.15	0.94	1.22	
17028	0100X - 2.83	Int of ALLEN AV GOODRIDGE AV	2	3	0	0	0	1	2	33.3	6.998	0.14	0.33	0.00	
17029	0100X - 2.87	Non-Int ALLEN AV	2	1	0	0	0	1	0	100.0	6.934	0.05	0.33	0.00	
16874	0560767 - 1.89	Int of FOREST AV MAGGIE LN WARREN AV	9	29	0	0	0	8	21	27.6	11.834	0.82	0.98	0.00	
16873	0302X - 2.40	Int of ELEANOR ST, FOREST AV	2	2	0	0	0	1	1	50.0	11.411	0.06	0.26	0.00	
13218	0560249 - 0	0503632 POR,GOODRIDGE AVE,PW AHD.	2	0	0	0	0	0	0	0.0	0.024	0.00	-3.31	0.00	
Study Years: 3.00			NODE TOTALS:				121	0	0	6	36	79	34.7	77.871	1.03
												0.52	0.50		

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF	
11015 0501427 POR,BISHOP ST, BISHOP ST EXT	17639	184811	0 - 0.06	0560062 - 0.03 RD INV 05 60062	0.06	2	0	0	0	0	0	0.0	0.00019	0.00	1478.63 Statewide Crash Rate: 346.93	0.00	
13208 0503622 POR,MAYFIELD,BISHOP ST.	17639	187890	0 - 0.22	0560062 - 0.09 RD INV 05 60062	0.22	2	2	0	0	0	2	0.0	0.00117	570.21	1014.53 Statewide Crash Rate: 346.93	0.00	
13208 0503622 POR,MAYFIELD,BISHOP ST.	16870	187889	0 - 0.09	0560062 - 0.31 RD INV 05 60062	0.09	2	1	0	0	0	1	0.0	0.00054	614.98	1229.30 Statewide Crash Rate: 346.93	0.00	
11015 0501427 POR,BISHOP ST, BISHOP ST EXT	18354	184812	0 - 0.10	0561237 - 0 RD INV 05 61237	0.10	2	0	0	0	0	0	0.0	0.00039	0.00	1319.62 Statewide Crash Rate: 346.93	0.00	
16870 Int of BISHOP ST, FOREST AV, STEVENS AV	16871	3106426	0 - 0.07	0100X - 2.73 ST RTE 100	0.07	2	10	0	0	4	6	40.0	0.00836	398.84	366.48 Statewide Crash Rate: 172.66	1.09	
16871 Non Int FOREST AV	16872	3120028	0 - 0.01	0100X - 2.80 ST RTE 100	0.01	2	0	0	0	0	0	0.0	0.00119	0.00	598.64 Statewide Crash Rate: 172.66	0.00	
16872 Int of ALLEN AV, ENTRANCE TO MCDONALDS Z RD, FOREST AV	17028	3120112	0 - 0.02	0100X - 2.81 ST RTE, 100	0.02	2	3	0	0	0	3	0.0	0.00140	715.22	610.28 Statewide Crash Rate: 186.42	1.17	
17028 Int of ALLEN AV, GOODRIDGE AV	17029	3106523	0 - 0.04	0100X - 2.83 ST RTE 100	0.04	2	2	0	0	1	1	50.0	0.00278	239.55	511.45 Statewide Crash Rate: 186.42	0.00	
17029 Non-Int ALLEN AV	17030	3106524	0 - 0.11	0100X - 2.87 ST RTE 100	0.11	2	5	0	0	4	1	80.0	0.00760	219.24	397.39 Statewide Crash Rate: 186.42	0.00	
16874 Int of FOREST AV, MAGGIE LN, WARREN AV	18354	3106429	0 - 0.26	0560767 - 1.63 RD INV 05 60767	0.26	2	8	0	1	1	2	4	0.01246	214.01	354.96 Statewide Crash Rate: 186.42	0.00	
16872 Int of ALLEN AV, ENTRANCE TO MCDONALDS Z RD, FOREST AV	16873	3106427	0 - 0.09	0302X - 2.31 US 302	0.09	2	11	0	0	1	2	8	0.01023	358.44	349.59 Statewide Crash Rate: 172.66	1.03	
16873 Int of ELEANOR ST, FOREST AV	16874	3119258	0 - 0.05	0302X - 2.40 US 302	0.05	2	5	0	0	0	2	3	0.00570	292.16	402.19 Statewide Crash Rate: 172.66	0.00	
13218 0503632 POR, GOODRIDGE AVE, PW AHD.	16873	187898	0 - 0.08	0560249 - 0 RD INV 05 60249	0.08	2	0	0	0	0	0	0.0	0.00004	0.00	435.87 Statewide Crash Rate: 346.93	0.00	
13218 0503632 POR, GOODRIDGE AVE, PW AHD.	17028	187899	0 - 0.10	0560320 - 0 RD INV 05 60320	0.10	2	1	0	0	0	1	0.0	0.00005	7079.40	844.29 Statewide Crash Rate: 346.93	8.39	
Study Years:		3.00		Section Totals:		1.30	48	0	1	2	15	30	37.5	0.05211	307.04	272.92	1.13
Grand Totals:				1.30		169	0	1	8	51	109	35.5	0.05211	1081.04	391.52	2.76	

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
11015	17639	184811	0 - 0.06	0560062 - 0.03	0	0	0	0	0	0	2012-49919	11/18/2012	0.11	PD
13208	17639	187890	0 - 0.22	0560062 - 0.09	2	0	0	0	0	2	2011-952C	01/20/2011	0.13	PD
13208	16870	187889	0 - 0.09	0560062 - 0.31	1	0	0	0	0	1	2011-14828	11/06/2011	0.38	PD
11015	18354	184812	0 - 0.10	0561237 - 0	0	0	0	0	0	0				
16870	16871	3106426	0 - 0.07	0100X - 2.73	10	0	0	0	4	6	2012-36460	08/24/2012	2.76	C
											2013-25544	10/14/2013	2.76	C
											2012-36610	08/26/2012	2.76	PD
											2012-41209	10/16/2012	2.77	C
											2013-16294	07/05/2013	2.77	PD
											2011-8015	08/16/2011	2.77	PD
											2012-29274	05/29/2012	2.77	PD
											2011-7939C	04/30/2011	2.79	C
											2012-40747	10/10/2012	2.79	PD
											2012-47725	12/13/2012	2.79	PD
16871	16872	3120028	0 - 0.01	0100X - 2.80	0	0	0	0	0	0				
16872	17028	3120112	0 - 0.02	0100X - 2.81	3	0	0	0	0	3	2013-22613	09/11/2013	2.82	PD
											2013-3646	02/12/2013	2.82	PD
											2011-5719C	03/22/2011	2.82	PD
17028	17029	3106523	0 - 0.04	0100X - 2.83	2	0	0	0	1	1	2011-8543C	05/18/2011	2.85	PD
											2011-6139C	04/01/2011	2.86	C
17029	17030	3106524	0 - 0.11	0100X - 2.87	5	0	0	0	4	1	2011-5964	07/28/2011	2.90	C
											2013-33044	12/12/2013	2.92	C
											2013-33241	12/08/2013	2.94	C
											2011-12770	10/14/2011	2.95	C
											2011-8667C	06/09/2011	2.96	PD
16874	18354	3106429	0 - 0.26	0560767 - 1.63	8	0	1	1	2	4	2011-1710C	01/29/2011	1.64	PD
											2011-5315C	03/03/2011	1.75	PD
											2012-26093	04/11/2012	1.76	PD
											2013-14899	06/21/2013	1.79	PD
											2013-1666	01/20/2013	1.84	A
											2013-4581	02/19/2013	1.84	C
											2013-6821	03/12/2013	1.84	C
											2013-9426	04/13/2013	1.87	B

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
16872	16873	3106427	0 - 0.09	0302X - 2.31	11	0	0	1	2	8	2012-31797 2012-35127 2013-13399 2012-38683 2013-29142 2013-21392 2013-31149 2012-29378 2013-2143 2011-5215 2013-26365	06/26/2012 08/09/2012 06/04/2013 09/14/2012 11/19/2013 08/27/2013 12/03/2013 05/30/2012 01/26/2013 07/19/2011 10/23/2013	2.32 2.35 2.35 2.36 2.36 2.36 2.37 2.37 2.37 2.39 2.39	C PD PD B C PD PD PD PD PD PD
16873	16874	3119258	0 - 0.05	0302X - 2.40	5	0	0	0	2	3	2013-2937 2013-19733 2011-39C 2013-29987 2012-23666	02/04/2013 08/12/2013 01/03/2011 11/22/2013 03/08/2012	2.43 2.43 2.44 2.44 2.44	C PD C PD PD
13218	16873	187898	0 - 0.08	0560249 - 0	0	0	0	0	0	0				
13218	17028	187899	0 - 0.10	0560320 - 0	1	0	0	0	0	1	2012-34503	08/07/2012	0.09	PD
Totals:					48	0	1	2	15	30				

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	1	0	0	0	0	0	0	1	1	0	0	1	1	0	0	1	0	0	0	2	3	0	0	0	11
MONDAY	0	0	0	0	0	0	6	3	3	1	1	1	1	5	0	2	1	2	1	0	0	0	0	0	0	26
TUESDAY	0	0	0	0	0	1	0	1	2	2	1	2	2	3	2	3	3	3	1	2	0	0	1	0	0	29
WEDNESDAY	0	0	0	0	0	0	2	6	2	1	0	3	2	2	2	3	2	4	0	0	1	0	0	0	0	30
THURSDAY	0	0	0	0	0	0	0	1	3	5	4	2	0	2	1	0	6	2	1	0	1	0	1	0	0	29
FRIDAY	0	0	0	0	1	1	0	3	1	1	3	1	5	0	1	2	1	5	0	1	1	0	0	0	0	27
SATURDAY	0	0	0	0	0	0	0	2	1	1	2	2	3	0	2	0	1	0	0	1	0	1	1	0	0	17
Totals	0	1	0	0	1	2	2	19	13	14	11	11	14	13	8	10	15	16	3	4	5	4	3	0	0	169

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	224	23-Bicyclist	3
2-(Sport) Utility Vehicle	55	24-Witness	17
3-Passenger Van	7	25-Other	7
4-Cargo Van (10K lbs or Less)	3	Total	370
5-Pickup	42		
6-Motor Home	1		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	1		
11-Motorcycle	0		
12-Moped	1		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	1		
17-Medium/Heavy Trucks (More than 10,000 lbs)	4		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	4		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	68	65	12	1	0	0	146
Ran Off Roadway	6	0	0	0	0	0	6
Failed to Yield Right-of-Way	25	11	0	0	0	0	36
Ran Red Light	0	1	1	0	0	0	2
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	1	0	0	0	1
Disregarded Other Road Markings	1	0	0	0	0	0	1
Exceeded Posted Speed Limit	3	2	0	0	0	0	5
Drove Too Fast For Conditions	3	3	0	0	0	0	6
Improper Turn	2	2	0	0	0	0	4
Improper Backing	1	1	0	0	0	0	2
Improper Passing	0	4	0	0	0	0	4
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	21	29	6	0	0	0	56
Failed to Keep in Proper Lane	2	4	0	0	0	0	6
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	1	1	0	0	0	3
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	1	0	0	0	0	0	1
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	4	3	1	0	0	0	8
Unknown	3	4	1	0	0	0	8
Total	141	130	23	1	0	0	295

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	155	144	23	1	0	4	327
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional/(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	1	0	0	0	0	0	1
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	4	0	0	0	0	2	6
Other	3	3	0	0	0	0	6
Total	163	147	23	1	0	6	340

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	23	0	0	0	0	23
20-24	39	0	0	0	0	39
25-29	39	0	0	0	0	39
30-39	65	0	0	0	0	65
40-49	67	0	0	0	0	67
50-59	51	0	0	0	0	51
60-69	31	0	0	0	0	31
70-79	13	0	0	0	0	13
80-Over	5	0	0	0	0	5
Unknown	13	3	0	4	0	20
Total	346	3	0	4	0	353

Crash Summary II - Characteristics

Most Harmful Event		Injury Data	
Most Harmful Event	Total	Severity Code	Number Of Injuries
1-Overturn / Rollover	3	K	0
2-Fire / Explosion	0	A	1
3-Immersion	0	B	10
4-Jackknife	0	C	58
5-Cargo / Equipment Loss Or Shift	0	PD	0
6-Fell / Jumped from Motor Vehicle	0	Total	69
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	1		
13-Motor Vehicle in Transport	249		
14-Parked Motor Vehicle	4		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	2		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	3		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Most Harmful Event		Injury Data	
Most Harmful Event	Total	Severity Code	Number Of Injuries
38-Other Fixed Object (wall, building, tunnel, etc.)	0	K	0
39-Unknown	13	A	1
40-Gate or Cable	0	B	10
41-Pressure Ridge	0	C	58
Total	278	PD	0
		Total	69

Traffic Control Devices		Road Character	
Traffic Control Device	Total	Road Grade	Total
1-Traffic Signals (Stop & Go)	132	1-Level	158
2-Traffic Signals (Flashing)	2	2-On Grade	11
3-Advisory/Warning Sign	0	3-Top of Hill	0
4-Stop Signs - All Approaches	0	4-Bottom of Hill	0
5-Stop Signs - Other	5	5-Other	0
6-Yield Sign	0	Total	169
7-Curve Warning Sign	0		
8-Officer, Flagman, School Patrol	0		
9-School Bus Stop Arm	0		
10-School Zone Sign	0		
11-R.R. Crossing Device	1		
12-No Passing Zone	0		
13-None	28		
14-Other	1		
Total	169		

Light		Road Character	
Light Condition	Total	Road Grade	Total
1-Daylight	132	1-Level	158
2-Dawn	3	2-On Grade	11
3-Dusk	2	3-Top of Hill	0
4-Dark - Lighted	32	4-Bottom of Hill	0
5-Dark - Not Lighted	0	5-Other	0
6-Dark - Unknown Lighting	0	Total	169
7-Unknown	0		
Total	169		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2011	2012	2013	Total
JANUARY	9	6	5	20
FEBRUARY	6	3	8	17
MARCH	7	2	3	12
APRIL	5	4	3	12
MAY	3	4	2	9
JUNE	3	5	6	14
JULY	6	3	3	12
AUGUST	5	6	4	15
SEPTEMBER	3	5	2	10
OCTOBER	2	6	7	15
NOVEMBER	2	3	5	10
DECEMBER	7	11	5	23
Total	58	58	53	169

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	27	0	1	86	1	7	0	0	0	0	0	0	1	123
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	5	13	0	10	0	0	0	0	0	0	0	28
Pedestrians	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	4	1	1	4	0	0	0	0	0	0	0	0	0	10
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	2	0	1	0	0	0	0	0	0	0	3
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	31	1	7	110	1	18	0	0	0	0	0	0	0	169

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	19	0	0	0	0	0	0	1	0	0	2	22
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	2	1	0	0	0	0	0	0	0	0	0	3
Daylight	89	2	0	0	0	0	1	1	0	0	3	96
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	3	0	0	0	0	0	0	0	0	0	0	3
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	10	0	0	0	0	0	0	0	0	0	4	14
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	1	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	5	5
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	14	14
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	1	0	0	0	0	0	1	0	0	0	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	2	0	0	0	0	0	4	0	0	1	7
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	124	6	0	0	0	0	1	7	0	0	0	169



Consulting
Engineers
and Scientists

Bishop Street Stormwater Management Narrative

Date: April 10, 2015
To: City of Portland
From: Stephen J. Bradstreet, P.E.
Peer Review: Maureen P. McGlone, P.E.
Location: 72 Bishop Street, Portland, Maine

List of Appendices:

Appendix A: Post Construction Stormwater Management Plan
Appendix B: Stormwater BMP Inspection and Maintenance Requirements
Appendix C: Pre Development Hydro CAD Calculations
Appendix D: Post Development Hydro CAD Calculations

Existing Conditions:

The site is a 52,383 SF (1.203 acre) lot located on the south side of 72 Bishop Street, west of Mayfield Street and adjacent to the Masonic Lodge. The parcel is trapezoidal in shape and is primarily vegetated (wooded/scrub brush) on the southern 2/3 of the site and grass on the northern 1/3 of the site adjacent to Bishop Street. The northern portion appears to be a fill area and fairly flat though sloping in a south-southeasterly direction into a wetland area. The southern portion of the site is primarily wetlands with some upland area sloping steeply up to the adjacent Masonic Lodge site. The parcel is at the headwaters of the Capisic Brook which is an impaired stream. Stormwater runoff from the site flows into the on-site wetlands and then off-site and onto the abutting property of the University of New England.

Proposed Development:

The applicant, Avesta Housing proposes to construct a 7,811 SF, 3 story building, and housing for the homeless. The site will have 12 spaces of parking, access aisle, sidewalk, outdoor sitting spaces and landscaped areas. The proposed building, pavement and sidewalk areas will increase the impervious area from 1,206 SF to 18,588 SF.

Stormwater Management – Basic Standards:

Erosion and sedimentation control measures are detailed within the design plans. Good housekeeping practices will be in accordance with Maine DEP Best Management Practices. A post construction stormwater management plan is provided in [Appendix A](#). Stormwater BMP inspection and maintenance requirements are provided in [Appendix B](#).

Stormwater Management - Quality:

The existing site is currently a mix of grass and vegetated (wooded/scrub brush) upland areas and wetlands with a small area of impervious (1,206 SF). The site currently drains to the wetlands on site which is also the headwaters of the Capisic Brook, an impaired stream. The site's new impervious area is now 18,588 SF. For water quality treatment, the site design incorporates a 5 foot wide paver drain system along the retaining wall on the southeast side of the parking area. This will capture the sidewalk and parking area runoff, with only a small area exiting the site toward Bishop Street. The paver drain system is comprised of the pavers underlain by a layer of 3/8" stone, then a layer of 3/4" crushed stone and finally a layer of bio-filter media for filtration for the stormwater runoff. The paver drain system overlays an R-Tank system that will be used for detention during larger storm events. The roof will drain internal to the building and will be filtered through filter cartridges. The roof drains will then outlet into a separate set of R-Tanks for detention.

Stormwater Management - Quantity:

The use of the R-Tanks will detain the stormwater runoff to below pre-development conditions. The proposed detention system consists of a 5 foot wide row of R-Tanks adjacent to the retaining wall and under the paver drains. These R-Tanks are then connected into a supplemental R-Tank system at the end of the parking area. The additional storage is required for site stormwater capacity reasons. The roof drains outlet at the south end of the building into a separate set of R-Tanks for detention. The parking lot R-Tanks and roof drain R-Tanks are connected with an equalizing pipe. Stormwater from the downstream roof drain R-Tanks will flow into an outlet control structure that will control the flow with orifices and a weir. The stormwater then discharges into the upland area at the southwest area of the developed site. During larger storm events there is a catch basin in the southern most area of the parking lot that will collect the additional stormwater and direct it into the R-Tank system for detention.

Hydraulic Analysis:

Stormwater runoff calculations for quantity were made using the HydroCAD 10.0 computer program, which is based on the Soil Conservation Service's TR-20 methodology. Runoff hydrographs are generated based on a standard Type III 24 hour storm.

Five storm events were modeled as follows:

1. 1" storm: The 1" storm event was analyzed to simulate a heavy weather event that would typically happen multiple times over a given year and may impact the CSO frequency and volume.
2. 2-year frequency flood event: 3" rainfall
3. 10-year frequency flood event: 4.7" rainfall
4. 25-year frequency flood event: 5.5" rainfall
5. 100-year frequency flood event: 6.7" rainfall

City of Portland

Runoff Curve numbers were determined based on land coverage and hydro-geological soil type D. Times of concentration were developed based on runoff flow paths for each subarea and shown on the Pre and Post-Development plans. A minimum Tc of 6 minutes was set in the HydroCAD model.

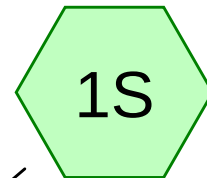
Peak runoff flow rates and runoff volumes are provided at the analysis point, which is identified on the Pre and Post-Development plans.

Storm Event	PRE-Development Peak Runoff RATES cubic feet per second (CFS)
	Analysis Point A Upland
1" Storm	0.25
2 Year Frequency Storm	1.99
10 Year Frequency Storm	3.65
25 Year Frequency Storm	4.44
100 Year Frequency Storm	5.61

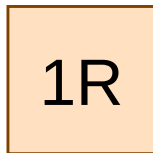
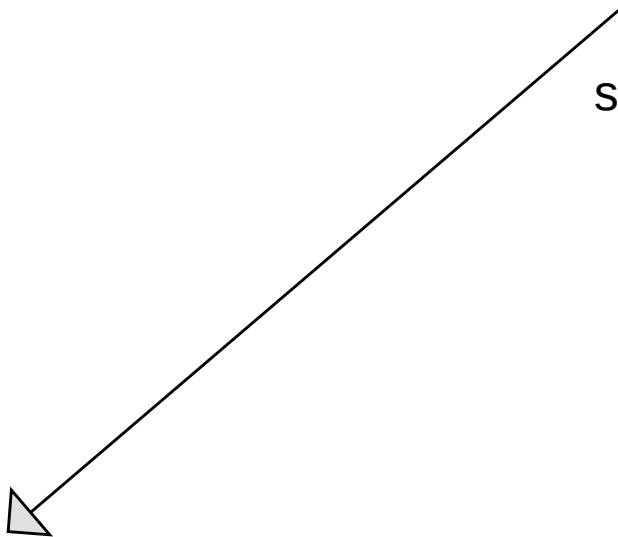
Storm Event	POST-Development Peak Runoff RATES cubic feet per second (CFS)
	Analysis Point A Upland
1" Storm	0.25
2 Year Frequency Storm	1.34
10 Year Frequency Storm	2.89
25 Year Frequency Storm	4.03
100 Year Frequency Storm	5.71

Storm Event	PRE-Development Runoff VOLUMES acre feet (AF) volume of water 1' deep over one acre
	Analysis Point A Upland
1" Storm	0.02
2 Year Frequency Storm	0.17
10 Year Frequency Storm	0.32
25 Year Frequency Storm	0.39
100 Year Frequency Storm	0.50

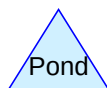
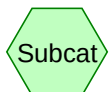
Storm Event	POST-Development Runoff VOLUMES acre feet (AF) volume of water 1' deep over one acre
	Analysis Point A Upland
1" Storm	0.017
2 Year Frequency Storm	0.134
10 Year Frequency Storm	0.287
25 Year Frequency Storm	0.360
100 Year Frequency Storm	0.471



subcatch 1



ANALYSIS POINT A:
wetland



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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.336	79	50-75% Grass cover, Fair, HSG C (1S)
0.009	96	Gravel surface, HSG C (1S)
0.019	98	Paved parking & roofs (1S)
0.839	92	wooded wetlands area (1S)
1.203	88	TOTAL AREA

Bishop St Pre Develomment

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.345	HSG C	1S
0.000	HSG D	
0.858	Other	1S
1.203		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.336	0.000	0.000	0.336	50-75% Grass cover, Fair	1S
0.000	0.000	0.009	0.000	0.000	0.009	Gravel surface	1S
0.000	0.000	0.000	0.000	0.019	0.019	Paved parking & roofs	1S
0.000	0.000	0.000	0.000	0.839	0.839	wooded wetlands area	1S
0.000	0.000	0.345	0.000	0.858	1.203	TOTAL AREA	

Bishop St Pre Develomment

Type III 24-hr 1-inch Rainfall=1.00"

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Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: subcatch1

Runoff Area=52,383 sf 1.58% Impervious Runoff Depth>0.23"
Flow Length=213' Tc=14.0 min CN=88 Runoff=0.24 cfs 0.023 af

Reach 1R: ANALYSISPOINT A: wetland

Inflow=0.24 cfs 0.023 af
Outflow=0.24 cfs 0.023 af

Total Runoff Area = 1.203 ac Runoff Volume = 0.023 af Average Runoff Depth = 0.23"
98.42% Pervious = 1.184 ac 1.58% Impervious = 0.019 ac

Bishop St Pre Development

Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment 1S: subcatch 1

Runoff = 0.24 cfs @ 12.21 hrs, Volume= 0.023 af, Depth> 0.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
826	98	Paved parking & roofs
380	96	Gravel surface, HSG C
14,646	79	50-75% Grass cover, Fair, HSG C
* 36,531	92	wooded wetlands area
52,383	88	Weighted Average
51,557		98.42% Pervious Area
826		1.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.0300	0.08		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.00"
0.3	27	0.1110	1.67		Shallow Concentrated Flow, B-C
					Woodland Kv= 5.0 fps
0.6	38	0.0530	1.15		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
2.3	98	0.0200	0.71		Shallow Concentrated Flow, D-E
					Woodland Kv= 5.0 fps
14.0	213	Total			

Summary for Reach 1R: ANALYSIS POINT A: wetland

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.203 ac, 1.58% Impervious, Inflow Depth > 0.23" for 1-inch event

Inflow = 0.24 cfs @ 12.21 hrs, Volume= 0.023 af

Outflow = 0.24 cfs @ 12.21 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

Bishop St Pre Develomment

Type III 24-hr 2-Year Rainfall=3.00"

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Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: subcatch1

Runoff Area=52,383 sf 1.58% Impervious Runoff Depth>1.70"
Flow Length=213' Tc=14.0 min CN=88 Runoff=1.99 cfs 0.170 af

Reach 1R: ANALYSISPOINT A: wetland

Inflow=1.99 cfs 0.170 af
Outflow=1.99 cfs 0.170 af

Total Runoff Area = 1.203 ac Runoff Volume = 0.170 af Average Runoff Depth = 1.70"
98.42% Pervious = 1.184 ac 1.58% Impervious = 0.019 ac

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Type III 24-hr 2-Year Rainfall=3.00"

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Summary for Subcatchment 1S: subcatch 1

Runoff = 1.99 cfs @ 12.19 hrs, Volume= 0.170 af, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.00"

Area (sf)	CN	Description
826	98	Paved parking & roofs
380	96	Gravel surface, HSG C
14,646	79	50-75% Grass cover, Fair, HSG C
* 36,531	92	wooded wetlands area
52,383	88	Weighted Average
51,557		98.42% Pervious Area
826		1.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.0300	0.08		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.00"
0.3	27	0.1110	1.67		Shallow Concentrated Flow, B-C
					Woodland Kv= 5.0 fps
0.6	38	0.0530	1.15		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
2.3	98	0.0200	0.71		Shallow Concentrated Flow, D-E
					Woodland Kv= 5.0 fps
14.0	213	Total			

Summary for Reach 1R: ANALYSIS POINT A: wetland

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.203 ac, 1.58% Impervious, Inflow Depth > 1.70" for 2-Year event

Inflow = 1.99 cfs @ 12.19 hrs, Volume= 0.170 af

Outflow = 1.99 cfs @ 12.19 hrs, Volume= 0.170 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

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Type III 24-hr 10-Year Rainfall=4.70"

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Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: subcatch1

Runoff Area=52,383 sf 1.58% Impervious Runoff Depth>3.18"
Flow Length=213' Tc=14.0 min CN=88 Runoff=3.65 cfs 0.319 af

Reach 1R: ANALYSISPOINT A: wetland

Inflow=3.65 cfs 0.319 af
Outflow=3.65 cfs 0.319 af

Total Runoff Area = 1.203 ac Runoff Volume = 0.319 af Average Runoff Depth = 3.18"
98.42% Pervious = 1.184 ac 1.58% Impervious = 0.019 ac

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment 1S: subcatch 1

Runoff = 3.65 cfs @ 12.18 hrs, Volume= 0.319 af, Depth> 3.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
826	98	Paved parking & roofs
380	96	Gravel surface, HSG C
14,646	79	50-75% Grass cover, Fair, HSG C
* 36,531	92	wooded wetlands area
52,383	88	Weighted Average
51,557		98.42% Pervious Area
826		1.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.0300	0.08		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.00"
0.3	27	0.1110	1.67		Shallow Concentrated Flow, B-C
					Woodland Kv= 5.0 fps
0.6	38	0.0530	1.15		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
2.3	98	0.0200	0.71		Shallow Concentrated Flow, D-E
					Woodland Kv= 5.0 fps
14.0	213	Total			

Summary for Reach 1R: ANALYSIS POINT A: wetland

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.203 ac, 1.58% Impervious, Inflow Depth > 3.18" for 10-Year event

Inflow = 3.65 cfs @ 12.18 hrs, Volume= 0.319 af

Outflow = 3.65 cfs @ 12.18 hrs, Volume= 0.319 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

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Type III 24-hr 25-Year Rainfall=5.50"

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Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: subcatch1

Runoff Area=52,383 sf 1.58% Impervious Runoff Depth>3.91"
Flow Length=213' Tc=14.0 min CN=88 Runoff=4.44 cfs 0.391 af

Reach 1R: ANALYSISPOINT A: wetland

Inflow=4.44 cfs 0.391 af
Outflow=4.44 cfs 0.391 af

Total Runoff Area = 1.203 ac Runoff Volume = 0.391 af Average Runoff Depth = 3.91"
98.42% Pervious = 1.184 ac 1.58% Impervious = 0.019 ac

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Type III 24-hr 25-Year Rainfall=5.50"

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Summary for Subcatchment 1S: subcatch 1

Runoff = 4.44 cfs @ 12.18 hrs, Volume= 0.391 af, Depth> 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.50"

Area (sf)	CN	Description
826	98	Paved parking & roofs
380	96	Gravel surface, HSG C
14,646	79	50-75% Grass cover, Fair, HSG C
* 36,531	92	wooded wetlands area
52,383	88	Weighted Average
51,557		98.42% Pervious Area
826		1.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.0300	0.08		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.00"
0.3	27	0.1110	1.67		Shallow Concentrated Flow, B-C
					Woodland Kv= 5.0 fps
0.6	38	0.0530	1.15		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
2.3	98	0.0200	0.71		Shallow Concentrated Flow, D-E
					Woodland Kv= 5.0 fps
14.0	213	Total			

Summary for Reach 1R: ANALYSIS POINT A: wetland

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.203 ac, 1.58% Impervious, Inflow Depth > 3.91" for 25-Year event

Inflow = 4.44 cfs @ 12.18 hrs, Volume= 0.391 af

Outflow = 4.44 cfs @ 12.18 hrs, Volume= 0.391 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3

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Type III 24-hr 100-Year Rainfall=6.70"

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Time span=2.00-20.00 hrs, dt=0.01 hrs, 1801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: subcatch1

Runoff Area=52,383 sf 1.58% Impervious Runoff Depth>5.01"
Flow Length=213' Tc=14.0 min CN=88 Runoff=5.61 cfs 0.502 af

Reach 1R: ANALYSISPOINT A: wetland

Inflow=5.61 cfs 0.502 af
Outflow=5.61 cfs 0.502 af

Total Runoff Area = 1.203 ac Runoff Volume = 0.502 af Average Runoff Depth = 5.01"
98.42% Pervious = 1.184 ac 1.58% Impervious = 0.019 ac

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Type III 24-hr 100-Year Rainfall=6.70"

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Summary for Subcatchment 1S: subcatch 1

Runoff = 5.61 cfs @ 12.18 hrs, Volume= 0.502 af, Depth> 5.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
826	98	Paved parking & roofs
380	96	Gravel surface, HSG C
14,646	79	50-75% Grass cover, Fair, HSG C
* 36,531	92	wooded wetlands area
52,383	88	Weighted Average
51,557		98.42% Pervious Area
826		1.58% Impervious Area

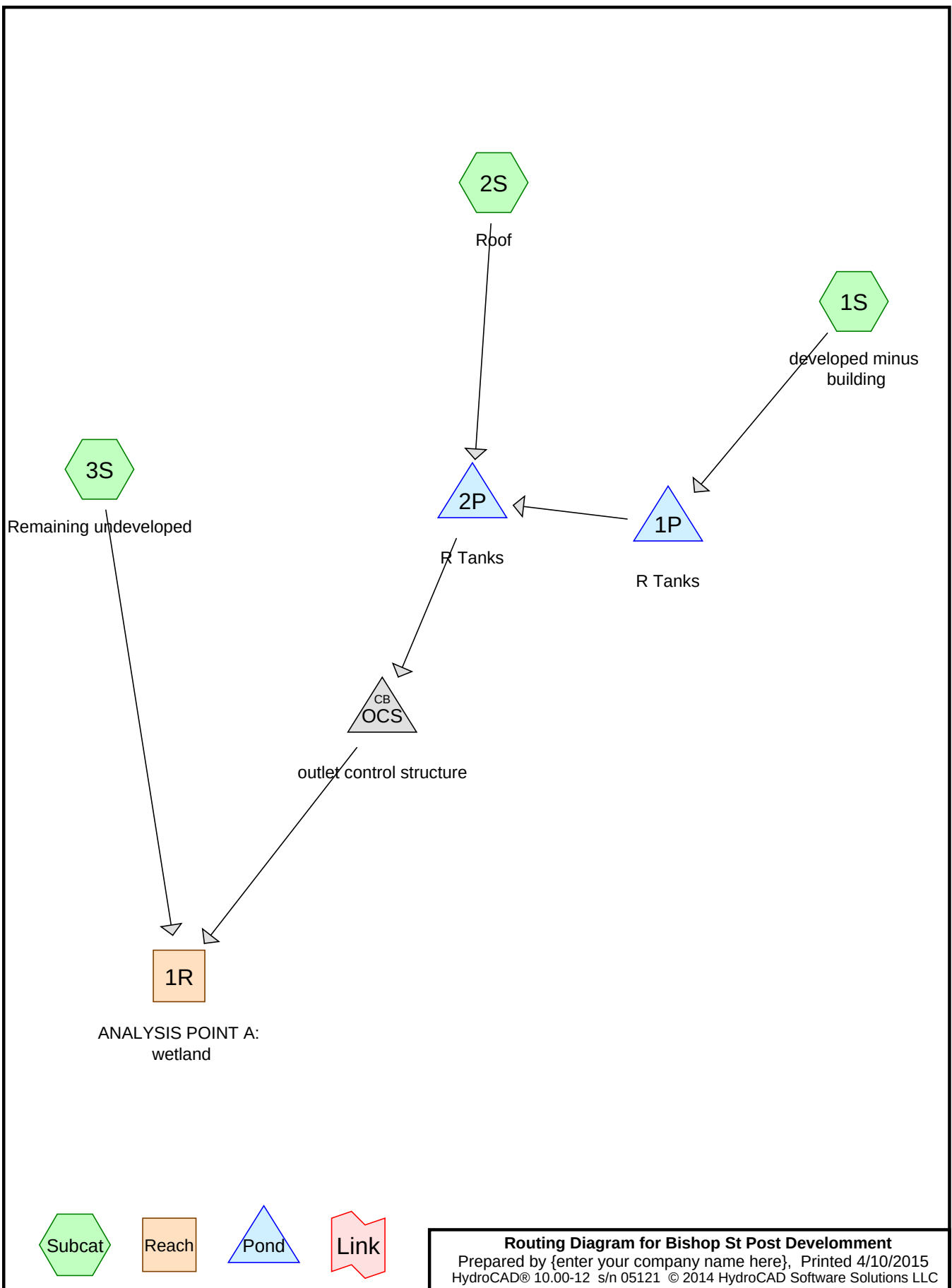
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	50	0.0300	0.08		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.00"
0.3	27	0.1110	1.67		Shallow Concentrated Flow, B-C
					Woodland Kv= 5.0 fps
0.6	38	0.0530	1.15		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
2.3	98	0.0200	0.71		Shallow Concentrated Flow, D-E
					Woodland Kv= 5.0 fps
14.0	213	Total			

Summary for Reach 1R: ANALYSIS POINT A: wetland

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.203 ac, 1.58% Impervious, Inflow Depth > 5.01" for 100-Year event
 Inflow = 5.61 cfs @ 12.18 hrs, Volume= 0.502 af
 Outflow = 5.61 cfs @ 12.18 hrs, Volume= 0.502 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 2.00-20.00 hrs, dt= 0.01 hrs / 3



Bishop St Post Development

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.225	74	>75% Grass cover, Good, HSG C (1S)
0.247	98	Paved parking & roofs (1S)
0.179	98	Unconnected roofs, HSG C (2S)
0.550	92	wooded wetland (3S)
1.203	91	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.405	HSG C	1S, 2S
0.000	HSG D	
0.798	Other	1S, 3S
1.203		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.225	0.000	0.000	0.225	>75% Grass cover, Good	1S
0.000	0.000	0.000	0.000	0.247	0.247	Paved parking & roofs	1S
0.000	0.000	0.179	0.000	0.000	0.179	Unconnected roofs	2S
0.000	0.000	0.000	0.000	0.550	0.550	wooded wetland	3S
0.000	0.000	0.405	0.000	0.798	1.203	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1S	0.00	0.00	85.0	0.0050	0.010	12.0	0.0	0.0
2	1P	92.63	92.63	60.0	0.0000	0.013	12.0	0.0	0.0
3	2P	93.35	93.35	20.0	0.0000	0.013	12.0	0.0	0.0

Bishop St Post Development

Type III 24-hr 1-inch Rainfall=1.00"

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Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: developed minus Runoff Area=20,596 sf 52.33% Impervious Runoff Depth>0.20"
Flow Length=410' Tc=6.0 min CN=87 Runoff=0.11 cfs 0.008 af

Subcatchment2S: Roof Runoff Area=7,811 sf 100.00% Impervious Runoff Depth>0.75"
Tc=6.0 min CN=98 Runoff=0.16 cfs 0.011 af

Subcatchment3S: Remaining undeveloped Runoff Area=23,976 sf 0.00% Impervious Runoff Depth>0.37"
Flow Length=90' Slope=0.0300 '/' Tc=6.5 min CN=92 Runoff=0.25 cfs 0.017 af

Reach 1R: ANALYSISPOINT A: wetland Inflow=0.25 cfs 0.017 af
Outflow=0.25 cfs 0.017 af

Pond 1P: R Tanks Peak Elev=92.45' Storage=344 cf Inflow=0.11 cfs 0.008 af
12.0" Round Culvert n=0.013 L=60.0' S=0.0000 '/' Outflow=0.00 cfs 0.000 af

Pond 2P: R Tanks Peak Elev=92.53' Storage=487 cf Inflow=0.16 cfs 0.011 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0000 '/' Outflow=0.00 cfs 0.000 af

Pond OCS: outlet control structure Peak Elev=92.80' Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 1.203 ac Runoff Volume = 0.036 af Average Runoff Depth = 0.36"
64.52% Pervious = 0.776 ac 35.48% Impervious = 0.427 ac

Bishop St Post Development

Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment 1S: developed minus building

Runoff = 0.11 cfs @ 12.10 hrs, Volume= 0.008 af, Depth> 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
10,777	98	Paved parking & roofs
9,819	74	>75% Grass cover, Good, HSG C
20,596	87	Weighted Average
9,819		47.67% Pervious Area
10,777		52.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0130	1.12		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.00"
1.5	130	0.0050	1.44		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.3	85	0.0050	4.17	3.28	Pipe Channel, C-D 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
1.8	95	0.0300	0.87		Shallow Concentrated Flow, D-E Woodland Kv= 5.0 fps
5.1	410	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: Roof

Runoff = 0.16 cfs @ 12.08 hrs, Volume= 0.011 af, Depth> 0.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
7,811	98	Unconnected roofs, HSG C
7,811		100.00% Impervious Area
7,811		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,
5.0	0	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment 3S: Remaining undeveloped

Runoff = 0.25 cfs @ 12.10 hrs, Volume= 0.017 af, Depth> 0.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
* 23,976	92	wooded wetland
23,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	20	0.0300	0.06		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 3.00"
1.3	70	0.0300	0.87		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
6.5	90	Total			

Summary for Reach 1R: ANALYSIS POINT A: wetland

Inflow Area = 1.203 ac, 35.48% Impervious, Inflow Depth > 0.17" for 1-inch event
 Inflow = 0.25 cfs @ 12.10 hrs, Volume= 0.017 af
 Outflow = 0.25 cfs @ 12.10 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: R Tanks

Inflow Area = 0.473 ac, 52.33% Impervious, Inflow Depth > 0.20" for 1-inch event
 Inflow = 0.11 cfs @ 12.10 hrs, Volume= 0.008 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 92.45' @ 20.00 hrs Surf.Area= 1,209 sf Storage= 344 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	91.94'	918 cf	9.25'W x 130.67'L x 2.69'H Field A 3,256 cf Overall - 960 cf Embedded = 2,296 cf x 40.0% Voids
#2A	92.19'	912 cf	ACF R-Tank HD 1.0 x 216 Inside #1 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 4 Rows of 54 Chambers
		1,830 cf	Total Available Storage

Storage Group A created with Chamber Wizard

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Type III 24-hr 1-inch Rainfall=1.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	92.63'	12.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 92.63' / 92.63' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=91.94' TW=91.94' (Dynamic Tailwater)↑**1=Culvert** (Controls 0.00 cfs)**Summary for Pond 2P: R Tanks**

Inflow Area = 0.652 ac, 65.43% Impervious, Inflow Depth > 0.21" for 1-inch event
Inflow = 0.16 cfs @ 12.08 hrs, Volume= 0.011 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 92.53' @ 20.00 hrs Surf.Area= 1,273 sf Storage= 487 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	91.94'	886 cf	25.00'W x 50.92'L x 3.42'H Field A 4,347 cf Overall - 2,133 cf Embedded = 2,214 cf x 40.0% Voids
#2A	92.19'	2,026 cf	ACF R-Tank HD 1.5 x 320 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 16 Rows of 20 Chambers
		2,912 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	93.35'	12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 93.35' / 93.35' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=91.94' TW=92.80' (Dynamic Tailwater)↑**1=Culvert** (Controls 0.00 cfs)**Summary for Pond OCS: outlet control structure**

Inflow Area = 0.652 ac, 65.43% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

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Peak Elev= 92.80' @ 0.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	94.30'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#2	Primary	93.80'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	93.30'	4.0" Vert. Orifice/Grate C= 0.600
#4	Primary	92.80'	4.0" Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=92.80' TW=0.00' (Dynamic Tailwater)

- ↑ **1=Sharp-Crested Rectangular Weir**(Controls 0.00 cfs)
- **2=Orifice/Grate** (Controls 0.00 cfs)
- **3=Orifice/Grate** (Controls 0.00 cfs)
- **4=Orifice/Grate** (Controls 0.00 cfs)

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Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: developed minus Runoff Area=20,596 sf 52.33% Impervious Runoff Depth>1.62"
Flow Length=410' Tc=6.0 min CN=87 Runoff=0.96 cfs 0.064 af

Subcatchment2S: Roof Runoff Area=7,811 sf 100.00% Impervious Runoff Depth>2.64"
Tc=6.0 min CN=98 Runoff=0.52 cfs 0.039 af

Subcatchment3S: Remaining undeveloped Runoff Area=23,976 sf 0.00% Impervious Runoff Depth>2.04"
Flow Length=90' Slope=0.0300 '/' Tc=6.5 min CN=92 Runoff=1.34 cfs 0.093 af

Reach 1R: ANALYSISPOINT A: wetland Inflow=1.34 cfs 0.134 af
Outflow=1.34 cfs 0.134 af

Pond 1P: R Tanks Peak Elev=93.62' Storage=1,337 cf Inflow=0.96 cfs 0.064 af
12.0" Round Culvert n=0.013 L=60.0' S=0.0000 '/' Outflow=0.48 cfs 0.036 af

Pond 2P: R Tanks Peak Elev=93.62' Storage=1,631 cf Inflow=0.88 cfs 0.075 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0000 '/' Outflow=0.13 cfs 0.041 af

Pond OCS: outlet control structure Peak Elev=92.97' Inflow=0.13 cfs 0.041 af
Outflow=0.13 cfs 0.041 af

Total Runoff Area = 1.203 ac Runoff Volume = 0.197 af Average Runoff Depth = 1.96"
64.52% Pervious = 0.776 ac 35.48% Impervious = 0.427 ac

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Summary for Subcatchment 1S: developed minus building

Runoff = 0.96 cfs @ 12.09 hrs, Volume= 0.064 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.00"

Area (sf)	CN	Description
10,777	98	Paved parking & roofs
9,819	74	>75% Grass cover, Good, HSG C
20,596	87	Weighted Average
9,819		47.67% Pervious Area
10,777		52.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0130	1.12		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.00"
1.5	130	0.0050	1.44		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.3	85	0.0050	4.17	3.28	Pipe Channel, C-D 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
1.8	95	0.0300	0.87		Shallow Concentrated Flow, D-E Woodland Kv= 5.0 fps
5.1	410	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: Roof

Runoff = 0.52 cfs @ 12.08 hrs, Volume= 0.039 af, Depth> 2.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.00"

Area (sf)	CN	Description
7,811	98	Unconnected roofs, HSG C
7,811		100.00% Impervious Area
7,811		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,
5.0	0	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 2-Year Rainfall=3.00"

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Summary for Subcatchment 3S: Remaining undeveloped

Runoff = 1.34 cfs @ 12.09 hrs, Volume= 0.093 af, Depth> 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.00"

Area (sf)	CN	Description
* 23,976	92	wooded wetland
23,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	20	0.0300	0.06		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 3.00"
1.3	70	0.0300	0.87		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
6.5	90	Total			

Summary for Reach 1R: ANALYSIS POINT A: wetland

Inflow Area = 1.203 ac, 35.48% Impervious, Inflow Depth > 1.34" for 2-Year event
 Inflow = 1.34 cfs @ 12.09 hrs, Volume= 0.134 af
 Outflow = 1.34 cfs @ 12.09 hrs, Volume= 0.134 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: R Tanks

Inflow Area = 0.473 ac, 52.33% Impervious, Inflow Depth > 1.62" for 2-Year event
 Inflow = 0.96 cfs @ 12.09 hrs, Volume= 0.064 af
 Outflow = 0.48 cfs @ 12.15 hrs, Volume= 0.036 af, Atten= 50%, Lag= 3.8 min
 Primary = 0.48 cfs @ 12.15 hrs, Volume= 0.036 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 93.62' @ 13.09 hrs Surf.Area= 1,209 sf Storage= 1,337 cf

Plug-Flow detention time= 158.8 min calculated for 0.036 af (56% of inflow)

Center-of-Mass det. time= 80.6 min (867.3 - 786.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	91.94'	918 cf	9.25'W x 130.67'L x 2.69'H Field A 3,256 cf Overall - 960 cf Embedded = 2,296 cf x 40.0% Voids
#2A	92.19'	912 cf	ACF R-Tank HD 1.0 x 216 Inside #1 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 4 Rows of 54 Chambers
		1,830 cf	Total Available Storage

Storage Group A created with Chamber Wizard

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Type III 24-hr 2-Year Rainfall=3.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	92.63'	12.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 92.63' / 92.63' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.43 cfs @ 12.15 hrs HW=93.20' TW=93.09' (Dynamic Tailwater)↑**1=Culvert** (Outlet Controls 0.43 cfs @ 1.34 fps)**Summary for Pond 2P: R Tanks**

Inflow Area = 0.652 ac, 65.43% Impervious, Inflow Depth > 1.39" for 2-Year event
Inflow = 0.88 cfs @ 12.14 hrs, Volume= 0.075 af
Outflow = 0.13 cfs @ 13.08 hrs, Volume= 0.041 af, Atten= 86%, Lag= 56.5 min
Primary = 0.13 cfs @ 13.08 hrs, Volume= 0.041 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 93.62' @ 13.08 hrs Surf.Area= 1,273 sf Storage= 1,631 cf

Plug-Flow detention time= 225.9 min calculated for 0.041 af (55% of inflow)

Center-of-Mass det. time= 117.7 min (913.2 - 795.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	91.94'	886 cf	25.00'W x 50.92'L x 3.42'H Field A 4,347 cf Overall - 2,133 cf Embedded = 2,214 cf x 40.0% Voids
#2A	92.19'	2,026 cf	ACF R-Tank HD 1.5 x 320 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 16 Rows of 20 Chambers
		2,912 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	93.35'	12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 93.35' / 93.35' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.13 cfs @ 13.08 hrs HW=93.62' TW=92.97' (Dynamic Tailwater)↑**1=Culvert** (Barrel Controls 0.13 cfs @ 1.11 fps)**Summary for Pond OCS: outlet control structure**

Inflow Area = 0.652 ac, 65.43% Impervious, Inflow Depth > 0.76" for 2-Year event
Inflow = 0.13 cfs @ 13.08 hrs, Volume= 0.041 af
Outflow = 0.13 cfs @ 13.08 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min
Primary = 0.13 cfs @ 13.08 hrs, Volume= 0.041 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

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Type III 24-hr 2-Year Rainfall=3.00"

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Peak Elev= 92.97' @ 13.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	94.30'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#2	Primary	93.80'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	93.30'	4.0" Vert. Orifice/Grate C= 0.600
#4	Primary	92.80'	4.0" Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=0.13 cfs @ 13.08 hrs HW=92.97' TW=0.00' (Dynamic Tailwater)

- 1=Sharp-Crested Rectangular Weir(Controls 0.00 cfs)
- 2=Orifice/Grate (Controls 0.00 cfs)
- 3=Orifice/Grate (Controls 0.00 cfs)
- 4=Orifice/Grate (Orifice Controls 0.13 cfs @ 1.41 fps)

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Type III 24-hr 10-Year Rainfall=4.70"

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Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: developed minus Runoff Area=20,596 sf 52.33% Impervious Runoff Depth>3.09"
Flow Length=410' Tc=6.0 min CN=87 Runoff=1.79 cfs 0.122 af

Subcatchment2S: Roof Runoff Area=7,811 sf 100.00% Impervious Runoff Depth>4.26"
Tc=6.0 min CN=98 Runoff=0.82 cfs 0.064 af

Subcatchment3S: Remaining undeveloped Runoff Area=23,976 sf 0.00% Impervious Runoff Depth>3.59"
Flow Length=90' Slope=0.0300 '/' Tc=6.5 min CN=92 Runoff=2.29 cfs 0.165 af

Reach 1R: ANALYSISPOINT A: wetland Inflow=2.89 cfs 0.287 af
Outflow=2.89 cfs 0.287 af

Pond 1P: R Tanks Peak Elev=94.26' Storage=1,649 cf Inflow=1.79 cfs 0.122 af
12.0" Round Culvert n=0.013 L=60.0' S=0.0000 '/' Outflow=1.08 cfs 0.093 af

Pond 2P: R Tanks Peak Elev=94.18' Storage=2,217 cf Inflow=1.86 cfs 0.157 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0000 '/' Outflow=1.20 cfs 0.122 af

Pond OCS: outlet control structure Peak Elev=93.97' Inflow=1.20 cfs 0.122 af
Outflow=1.20 cfs 0.122 af

Total Runoff Area = 1.203 ac Runoff Volume = 0.350 af Average Runoff Depth = 3.50"
64.52% Pervious = 0.776 ac 35.48% Impervious = 0.427 ac

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment 1S: developed minus building

Runoff = 1.79 cfs @ 12.09 hrs, Volume= 0.122 af, Depth> 3.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
10,777	98	Paved parking & roofs
9,819	74	>75% Grass cover, Good, HSG C
20,596	87	Weighted Average
9,819		47.67% Pervious Area
10,777		52.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0130	1.12		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.00"
1.5	130	0.0050	1.44		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.3	85	0.0050	4.17	3.28	Pipe Channel, C-D 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
1.8	95	0.0300	0.87		Shallow Concentrated Flow, D-E Woodland Kv= 5.0 fps
5.1	410	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: Roof

Runoff = 0.82 cfs @ 12.08 hrs, Volume= 0.064 af, Depth> 4.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
7,811	98	Unconnected roofs, HSG C
7,811		100.00% Impervious Area
7,811		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,
5.0	0	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment 3S: Remaining undeveloped

Runoff = 2.29 cfs @ 12.09 hrs, Volume= 0.165 af, Depth> 3.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
* 23,976	92	wooded wetland
23,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	20	0.0300	0.06		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 3.00"
1.3	70	0.0300	0.87		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
6.5	90	Total			

Summary for Reach 1R: ANALYSIS POINT A: wetland

Inflow Area = 1.203 ac, 35.48% Impervious, Inflow Depth > 2.86" for 10-Year event
 Inflow = 2.89 cfs @ 12.12 hrs, Volume= 0.287 af
 Outflow = 2.89 cfs @ 12.12 hrs, Volume= 0.287 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: R Tanks

Inflow Area = 0.473 ac, 52.33% Impervious, Inflow Depth > 3.09" for 10-Year event
 Inflow = 1.79 cfs @ 12.09 hrs, Volume= 0.122 af
 Outflow = 1.08 cfs @ 12.12 hrs, Volume= 0.093 af, Atten= 40%, Lag= 2.3 min
 Primary = 1.08 cfs @ 12.12 hrs, Volume= 0.093 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 94.26' @ 12.25 hrs Surf.Area= 1,209 sf Storage= 1,649 cf

Plug-Flow detention time= 105.6 min calculated for 0.093 af (76% of inflow)

Center-of-Mass det. time= 47.3 min (818.8 - 771.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	91.94'	918 cf	9.25'W x 130.67'L x 2.69'H Field A 3,256 cf Overall - 960 cf Embedded = 2,296 cf x 40.0% Voids
#2A	92.19'	912 cf	ACF R-Tank HD 1.0 x 216 Inside #1 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 4 Rows of 54 Chambers
		1,830 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Bishop St Post Development

Type III 24-hr 10-Year Rainfall=4.70"

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Device	Routing	Invert	Outlet Devices
#1	Primary	92.63'	12.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 92.63' / 92.63' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.91 cfs @ 12.12 hrs HW=94.09' TW=93.99' (Dynamic Tailwater)↑**1=Culvert** (Inlet Controls 0.91 cfs @ 1.16 fps)**Summary for Pond 2P: R Tanks**

Inflow Area = 0.652 ac, 65.43% Impervious, Inflow Depth > 2.88" for 10-Year event
Inflow = 1.86 cfs @ 12.10 hrs, Volume= 0.157 af
Outflow = 1.20 cfs @ 12.26 hrs, Volume= 0.122 af, Atten= 36%, Lag= 9.7 min
Primary = 1.20 cfs @ 12.26 hrs, Volume= 0.122 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 94.18' @ 12.26 hrs Surf.Area= 1,273 sf Storage= 2,217 cf

Plug-Flow detention time=117.4 min calculated for 0.122 af (78% of inflow)

Center-of-Mass det. time= 56.9 min (836.3 - 779.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	91.94'	886 cf	25.00'W x 50.92'L x 3.42'H Field A 4,347 cf Overall - 2,133 cf Embedded = 2,214 cf x 40.0% Voids
#2A	92.19'	2,026 cf	ACF R-Tank HD 1.5 x 320 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 16 Rows of 20 Chambers
		2,912 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	93.35'	12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 93.35' / 93.35' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.20 cfs @ 12.26 hrs HW=94.18' TW=93.97' (Dynamic Tailwater)↑**1=Culvert** (Barrel Controls 1.20 cfs @ 2.34 fps)**Summary for Pond OCS: outlet control structure**

Inflow Area = 0.652 ac, 65.43% Impervious, Inflow Depth > 2.24" for 10-Year event
Inflow = 1.20 cfs @ 12.26 hrs, Volume= 0.122 af
Outflow = 1.20 cfs @ 12.26 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min
Primary = 1.20 cfs @ 12.26 hrs, Volume= 0.122 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-Year Rainfall=4.70"

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Peak Elev= 93.97' @ 12.26 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	94.30'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#2	Primary	93.80'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	93.30'	4.0" Vert. Orifice/Grate C= 0.600
#4	Primary	92.80'	4.0" Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=1.20 cfs @ 12.26 hrs HW=93.97' TW=0.00' (Dynamic Tailwater)

- 1=Sharp-Crested Rectangular Weir(Controls 0.00 cfs)
- 2=Orifice/Grate (Orifice Controls 0.06 cfs @ 1.40 fps)
- 3=Orifice/Grate (Orifice Controls 0.30 cfs @ 3.41 fps)
- 4=Orifice/Grate (Orifice Controls 0.84 cfs @ 4.82 fps)

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Type III 24-hr 25-Year Rainfall=5.50"

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Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: developed minus Runoff Area=20,596 sf 52.33% Impervious Runoff Depth>3.81"
Flow Length=410' Tc=6.0 min CN=87 Runoff=2.19 cfs 0.150 af

Subcatchment2S: Roof Runoff Area=7,811 sf 100.00% Impervious Runoff Depth>5.02"
Tc=6.0 min CN=98 Runoff=0.97 cfs 0.075 af

Subcatchment3S: Remaining undeveloped Runoff Area=23,976 sf 0.00% Impervious Runoff Depth>4.34"
Flow Length=90' Slope=0.0300 '/' Tc=6.5 min CN=92 Runoff=2.74 cfs 0.199 af

Reach 1R: ANALYSISPOINT A: wetland Inflow=4.03 cfs 0.360 af
Outflow=4.03 cfs 0.360 af

Pond 1P: R Tanks Peak Elev=94.78' Storage=1,830 cf Inflow=2.19 cfs 0.150 af
12.0" Round Culvert n=0.013 L=60.0' S=0.0000 '/' Outflow=1.57 cfs 0.121 af

Pond 2P: R Tanks Peak Elev=94.57' Storage=2,511 cf Inflow=2.41 cfs 0.196 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0000 '/' Outflow=2.15 cfs 0.161 af

Pond OCS: outlet control structure Peak Elev=94.41' Inflow=2.15 cfs 0.161 af
Outflow=2.15 cfs 0.161 af

Total Runoff Area = 1.203 ac Runoff Volume = 0.424 af Average Runoff Depth = 4.23"
64.52% Pervious = 0.776 ac 35.48% Impervious = 0.427 ac

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Type III 24-hr 25-Year Rainfall=5.50"

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Summary for Subcatchment 1S: developed minus building

Runoff = 2.19 cfs @ 12.09 hrs, Volume= 0.150 af, Depth> 3.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.50"

Area (sf)	CN	Description
10,777	98	Paved parking & roofs
9,819	74	>75% Grass cover, Good, HSG C
20,596	87	Weighted Average
9,819		47.67% Pervious Area
10,777		52.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0130	1.12		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.00"
1.5	130	0.0050	1.44		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.3	85	0.0050	4.17	3.28	Pipe Channel, C-D 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
1.8	95	0.0300	0.87		Shallow Concentrated Flow, D-E Woodland Kv= 5.0 fps
5.1	410	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: Roof

Runoff = 0.97 cfs @ 12.08 hrs, Volume= 0.075 af, Depth> 5.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.50"

Area (sf)	CN	Description
7,811	98	Unconnected roofs, HSG C
7,811		100.00% Impervious Area
7,811		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,
5.0	0	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 25-Year Rainfall=5.50"

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Summary for Subcatchment 3S: Remaining undeveloped

Runoff = 2.74 cfs @ 12.09 hrs, Volume= 0.199 af, Depth> 4.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.50"

Area (sf)	CN	Description
* 23,976	92	wooded wetland
23,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	20	0.0300	0.06		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 3.00"
1.3	70	0.0300	0.87		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
6.5	90	Total			

Summary for Reach 1R: ANALYSIS POINT A: wetland

Inflow Area = 1.203 ac, 35.48% Impervious, Inflow Depth > 3.59" for 25-Year event
 Inflow = 4.03 cfs @ 12.10 hrs, Volume= 0.360 af
 Outflow = 4.03 cfs @ 12.10 hrs, Volume= 0.360 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: R Tanks

Inflow Area = 0.473 ac, 52.33% Impervious, Inflow Depth > 3.81" for 25-Year event
 Inflow = 2.19 cfs @ 12.09 hrs, Volume= 0.150 af
 Outflow = 1.57 cfs @ 12.18 hrs, Volume= 0.121 af, Atten= 28%, Lag= 5.6 min
 Primary = 1.57 cfs @ 12.18 hrs, Volume= 0.121 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 94.78' @ 12.20 hrs Surf.Area= 1,209 sf Storage= 1,830 cf

Plug-Flow detention time= 94.9 min calculated for 0.121 af (81% of inflow)

Center-of-Mass det. time= 43.1 min (809.6 - 766.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	91.94'	918 cf	9.25'W x 130.67'L x 2.69'H Field A 3,256 cf Overall - 960 cf Embedded = 2,296 cf x 40.0% Voids
#2A	92.19'	912 cf	ACF R-Tank HD 1.0 x 216 Inside #1 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 4 Rows of 54 Chambers
		1,830 cf	Total Available Storage

Storage Group A created with Chamber Wizard

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Type III 24-hr 25-Year Rainfall=5.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	92.63'	12.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 92.63' / 92.63' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.46 cfs @ 12.18 hrs HW=94.77' TW=94.53' (Dynamic Tailwater)↑**1=Culvert** (Inlet Controls 1.46 cfs @ 1.86 fps)**Summary for Pond 2P: R Tanks**

Inflow Area = 0.652 ac, 65.43% Impervious, Inflow Depth > 3.61" for 25-Year event
Inflow = 2.41 cfs @ 12.10 hrs, Volume= 0.196 af
Outflow = 2.15 cfs @ 12.22 hrs, Volume= 0.161 af, Atten= 11%, Lag= 6.9 min
Primary = 2.15 cfs @ 12.22 hrs, Volume= 0.161 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 94.57' @ 12.21 hrs Surf.Area= 1,273 sf Storage= 2,511 cf

Plug-Flow detention time=101.7 min calculated for 0.161 af (82% of inflow)

Center-of-Mass det. time= 50.1 min (825.1 - 775.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	91.94'	886 cf	25.00'W x 50.92'L x 3.42'H Field A 4,347 cf Overall - 2,133 cf Embedded = 2,214 cf x 40.0% Voids
#2A	92.19'	2,026 cf	ACF R-Tank HD 1.5 x 320 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 16 Rows of 20 Chambers
		2,912 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	93.35'	12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 93.35' / 93.35' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.21 cfs @ 12.22 hrs HW=94.57' TW=94.40' (Dynamic Tailwater)↑**1=Culvert** (Inlet Controls 1.21 cfs @ 1.54 fps)**Summary for Pond OCS: outlet control structure**

Inflow Area = 0.652 ac, 65.43% Impervious, Inflow Depth > 2.96" for 25-Year event
Inflow = 2.15 cfs @ 12.22 hrs, Volume= 0.161 af
Outflow = 2.15 cfs @ 12.22 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min
Primary = 2.15 cfs @ 12.22 hrs, Volume= 0.161 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-Year Rainfall=5.50"

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Peak Elev= 94.41' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	94.30'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#2	Primary	93.80'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	93.30'	4.0" Vert. Orifice/Grate C= 0.600
#4	Primary	92.80'	4.0" Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=2.13 cfs @ 12.22 hrs HW=94.40' TW=0.00' (Dynamic Tailwater)

- 1=Sharp-Crested Rectangular Weir(Weir Controls 0.44 cfs @ 1.06 fps)
- 2=Orifice/Grate (Orifice Controls 0.28 cfs @ 3.18 fps)
- 3=Orifice/Grate (Orifice Controls 0.41 cfs @ 4.66 fps)
- 4=Orifice/Grate (Orifice Controls 1.01 cfs @ 5.77 fps)

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Type III 24-hr 100-Year Rainfall=6.70"

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Time span=0.00-20.00 hrs, dt=0.01 hrs, 2001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: developed minus Runoff Area=20,596 sf 52.33% Impervious Runoff Depth>4.90"
Flow Length=410' Tc=6.0 min CN=87 Runoff=2.78 cfs 0.193 af

Subcatchment2S: Roof Runoff Area=7,811 sf 100.00% Impervious Runoff Depth>6.17"
Tc=6.0 min CN=98 Runoff=1.18 cfs 0.092 af

Subcatchment3S: Remaining undeveloped Runoff Area=23,976 sf 0.00% Impervious Runoff Depth>5.47"
Flow Length=90' Slope=0.0300 '/' Tc=6.5 min CN=92 Runoff=3.40 cfs 0.251 af

Reach 1R: ANALYSISPOINT A: wetland Inflow=5.71 cfs 0.471 af
Outflow=5.71 cfs 0.471 af

Pond 1P: R Tanks Peak Elev=96.32' Storage=1,830 cf Inflow=2.78 cfs 0.193 af
12.0" Round Culvert n=0.013 L=60.0' S=0.0000 '/' Outflow=3.60 cfs 0.164 af

Pond 2P: R Tanks Peak Elev=95.31' Storage=2,889 cf Inflow=4.77 cfs 0.256 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0000 '/' Outflow=2.73 cfs 0.221 af

Pond OCS: outlet control structure Peak Elev=94.48' Inflow=2.73 cfs 0.221 af
Outflow=2.73 cfs 0.221 af

Total Runoff Area = 1.203 ac Runoff Volume = 0.536 af Average Runoff Depth = 5.35"
64.52% Pervious = 0.776 ac 35.48% Impervious = 0.427 ac

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Type III 24-hr 100-Year Rainfall=6.70"

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Summary for Subcatchment 1S: developed minus building

Runoff = 2.78 cfs @ 12.09 hrs, Volume= 0.193 af, Depth> 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
10,777	98	Paved parking & roofs
9,819	74	>75% Grass cover, Good, HSG C
20,596	87	Weighted Average
9,819		47.67% Pervious Area
10,777		52.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0130	1.12		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.00"
1.5	130	0.0050	1.44		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.3	85	0.0050	4.17	3.28	Pipe Channel, C-D 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
1.8	95	0.0300	0.87		Shallow Concentrated Flow, D-E Woodland Kv= 5.0 fps
5.1	410	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: Roof

Runoff = 1.18 cfs @ 12.08 hrs, Volume= 0.092 af, Depth> 6.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
7,811	98	Unconnected roofs, HSG C
7,811		100.00% Impervious Area
7,811		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,
5.0	0	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 100-Year Rainfall=6.70"

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Summary for Subcatchment 3S: Remaining undeveloped

Runoff = 3.40 cfs @ 12.09 hrs, Volume= 0.251 af, Depth> 5.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=6.70"

Area (sf)	CN	Description
* 23,976	92	wooded wetland
23,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	20	0.0300	0.06		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 3.00"
1.3	70	0.0300	0.87		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
6.5	90	Total			

Summary for Reach 1R: ANALYSIS POINT A: wetland

Inflow Area = 1.203 ac, 35.48% Impervious, Inflow Depth > 4.70" for 100-Year event
 Inflow = 5.71 cfs @ 12.12 hrs, Volume= 0.471 af
 Outflow = 5.71 cfs @ 12.12 hrs, Volume= 0.471 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: R Tanks

Inflow Area = 0.473 ac, 52.33% Impervious, Inflow Depth > 4.90" for 100-Year event
 Inflow = 2.78 cfs @ 12.09 hrs, Volume= 0.193 af
 Outflow = 3.60 cfs @ 12.09 hrs, Volume= 0.164 af, Atten= 0%, Lag= 0.3 min
 Primary = 3.60 cfs @ 12.09 hrs, Volume= 0.164 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
 Peak Elev= 96.32' @ 12.13 hrs Surf.Area= 1,209 sf Storage= 1,830 cf

Plug-Flow detention time=83.0 min calculated for 0.164 af (85% of inflow)
 Center-of-Mass det. time= 38.6 min (799.0 - 760.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	91.94'	918 cf	9.25'W x 130.67'L x 2.69'H Field A 3,256 cf Overall - 960 cf Embedded = 2,296 cf x 40.0% Voids
#2A	92.19'	912 cf	ACF R-Tank HD 1.0 x 216 Inside #1 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 4 Rows of 54 Chambers
		1,830 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Bishop St Post Development

Type III 24-hr 100-Year Rainfall=6.70"

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Device	Routing	Invert	Outlet Devices
#1	Primary	92.63'	12.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 92.63' / 92.63' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.41 cfs @ 12.09 hrs HW=96.12' TW=94.82' (Dynamic Tailwater)↑**1=Culvert** (Inlet Controls 3.41 cfs @ 4.34 fps)**Summary for Pond 2P: R Tanks**

Inflow Area = 0.652 ac, 65.43% Impervious, Inflow Depth > 4.71" for 100-Year event
Inflow = 4.77 cfs @ 12.09 hrs, Volume= 0.256 af
Outflow = 2.73 cfs @ 12.16 hrs, Volume= 0.221 af, Atten= 43%, Lag= 4.5 min
Primary = 2.73 cfs @ 12.16 hrs, Volume= 0.221 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Peak Elev= 95.31' @ 12.17 hrs Surf.Area= 1,273 sf Storage= 2,889 cf

Plug-Flow detention time=86.4 min calculated for 0.221 af (86% of inflow)

Center-of-Mass det. time= 43.7 min (813.0 - 769.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	91.94'	886 cf	25.00'W x 50.92'L x 3.42'H Field A 4,347 cf Overall - 2,133 cf Embedded = 2,214 cf x 40.0% Voids
#2A	92.19'	2,026 cf	ACF R-Tank HD 1.5 x 320 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 16 Rows of 20 Chambers
		2,912 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	93.35'	12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 93.35' / 93.35' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.72 cfs @ 12.16 hrs HW=95.31' TW=94.48' (Dynamic Tailwater)↑**1=Culvert** (Inlet Controls 2.72 cfs @ 3.47 fps)**Summary for Pond OCS: outlet control structure**

Inflow Area = 0.652 ac, 65.43% Impervious, Inflow Depth > 4.06" for 100-Year event
Inflow = 2.73 cfs @ 12.16 hrs, Volume= 0.221 af
Outflow = 2.73 cfs @ 12.16 hrs, Volume= 0.221 af, Atten= 0%, Lag= 0.0 min
Primary = 2.73 cfs @ 12.16 hrs, Volume= 0.221 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

Bishop St Post Development

Type III 24-hr 100-Year Rainfall=6.70"

Prepared by {enter your company name here}

Printed 4/10/2015

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Peak Elev= 94.48' @ 12.16 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	94.30'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#2	Primary	93.80'	4.0" Vert. Orifice/Grate C= 0.600
#3	Primary	93.30'	4.0" Vert. Orifice/Grate C= 0.600
#4	Primary	92.80'	4.0" Vert. Orifice/Grate X 2.00 C= 0.600

Primary OutFlow Max=2.72 cfs @ 12.16 hrs HW=94.48' TW=0.00' (Dynamic Tailwater)

- 1=Sharp-Crested Rectangular Weir(Weir Controls 0.97 cfs @ 1.38 fps)
- 2=Orifice/Grate (Orifice Controls 0.30 cfs @ 3.44 fps)
- 3=Orifice/Grate (Orifice Controls 0.42 cfs @ 4.84 fps)
- 4=Orifice/Grate (Orifice Controls 1.03 cfs @ 5.92 fps)

SOLID WASTE DISPOSAL

72 Bishop Street will contract with a private hauler for removal of solid waste generated within the building. A waste management room is located on the first floor of the building and accessible from an exterior door along the southwest side of the building. The trash hauler will back into the driveway off of Bishop Street. The hauler will wheel container units to the truck. These units will provide recycling and solid waste disposal.

Please refer to the trash demand analysis for estimated needs.

SNOW REMOVAL

72 Bishop Street will contract with a snow plow company to maintain driveway and sidewalk access after snow storms. Snow can be piled at the edge of the parking lot as shown on the plan or, in extreme situations, hauled off site. Snow will not be placed in wetland areas.

72 Bishop Street TRASH ANALYSIS

The following analysis is based on MaineHousing guideline of 0.25 cubic yards per week per bedroom. Recycling based on experience of PineTree Waste and Avesta.

NEEDED TRASH CAPACITY

	Cubic Yards
# Bedrooms	30
times 0.25 cu. yd. per BR	7.5
TOTAL NEEDED (rounded up) without recycling program	8

NEEDED RECYCLE CAPACITY

Max 45% of trash volume	3.6
Max Recycling Capacity	4
Min 30% of trash volume	2.4
Minimum Recycling Capacity	2
Total Yards Trash with recycling	6

PROPOSED DUMPSTER CAPACITY

Weekly Collection

TRASH	4 yards
RECYCLING	2 yards
TOTAL CAPACITY	6 yards

LIGHT FIXTURES

Site lighting locations are identified on Sheet L2, Layout Plan. Fixture cut sheets are included in this submission.

SSS SERIES POLES

SQUARE STRAIGHT STEEL

Cat. #		Approvals
Job	Type	

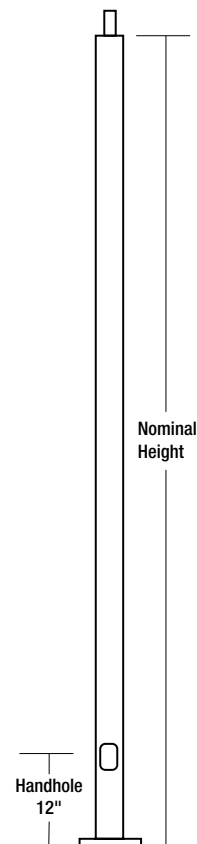
SPAULDING
LIGHTING

APPLICATIONS

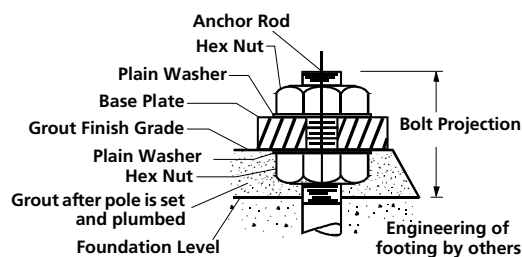
- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location.

FEATURES

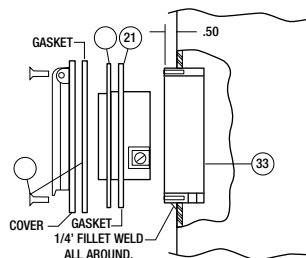
- SHAFT:** One-piece straight steel with square cross section, flat sides and minimum 0.36" radius on all corners. Minimum yield of 46,000 psi (ASTM-A500, Grade B). Longitudinal weld seam to appear flush with shaft side wall. Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ATM-A36).
- BASE COVER:** Two-piece square aluminum base cover included standard.
- POLE CAP:** Pole shaft covered with removable non-metallic cover when applicable. Tenon and post-top configurations also available.
- HAND HOLE:** Rectangular steel-reinforced hand hole (2.5" x 4.5"). Pole grounding lug located behind gasketed cover.
- ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (modified ASTM-A36). Galvanized hardware with two washers/nuts per bolt for leveling meet or exceed bolt strength.
- FINISH:** Durable Lektrocote® TGIC thermoset polyester powder coat paint finish with nominal 3.0 mil thickness. Zinc-rich powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method. Decorative finish coat available in seven standard colors. Custom colors available. RAL number preferable. Internal protective coating available.



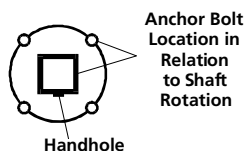
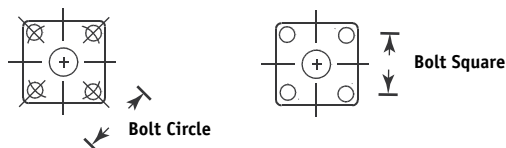
BASE DETAIL



15 AMP GFCI RECEPTACLE & COVER



Q18 OPTION



ORDERING INFORMATION

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S - **S** - **S** - **25** - **40** - **1** - **TA** - **DB**
 Cross Section Style Material Nominal Length Nominal Shaft Dia. Shaft Thickness Mounting Type Finish

Catalog Number	Pole Ht.		Nominal Shaft Dim.	Wind Load Rating ¹					Wall Thick.	Bolt Circle (Sug.)	Bolt Circle	Bolt Sq.	Base Plate (sq.)	Anchor Bolt Size	Bolt Proj.	Pole Wt (lbs)
	ft	m		70 MPH	80 MPH	90 MPH	100 MPH	120 MPH								
SSS-10-40-1-XX-XX	10	3.0	4"	25	25	22	17	11.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	91
SSS-10-50-1-XX-XX	10	3.0	5"	25	25	25	23	15	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	106
SSS-12-40-1-XX-XX	12	3.7	4"	25	21	16	13.0	8.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	104
SSS-12-50-1-XX-XX	12	3.7	5"	25	25	23	18	11.8	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	122
SSS-14-40-1-XX-XX	14	4.3	4"	24	18	14.2	11.0	6.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	116
SSS-14-40-7-XX-XX	14	4.3	4"	25	25	23	18	12.2	.179"	11"	8 1/2 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	158
SSS-14-50-1-XX-XX	14	4.3	5"	25	24	19	14.4	9.0	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	138
SSS-16-40-1-XX-XX	16	4.9	4"	16	12.2	9.0	6.8	3.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	128
SSS-16-40-7-XX-XX	16	4.9	4"	25	20	15	12.2	7.6	.179"	11"	8 1/2 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	176
SSS-16-50-1-XX-XX	16	4.9	5"	22	16	12.2	9.2	5.2	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	153
SSS-16-50-7-XX-XX	16	4.9	5"	25	25	24	19	12.4	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	214
SSS-18-40-1-XX-XX	18	5.5	4"	13.8	10.0	7.2	5.2	2.4	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	147
SSS-18-40-7-XX-XX	18	5.5	4"	23	17	13.0	10.0	6.0	.179"	11"	10 - 13.5"	7.1 - 9.5"	11 x 1"	3/4 x 30 x 3"	4"	201
SSS-18-50-1-XX-XX	18	5.5	5"	18	13.2	9.6	7.0	3.4	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	175
SSS-18-50-7-XX-XX	18	5.5	5"	25	25	20	16	9.8	.179"	11"	8 1/2 - 12"	6 - 8.4"	12 x 1"	3/4 x 30 x 3"	4"	243
SSS-20-40-1-XX-XX	20	6.1	4"	11.4	8.0	5.6	3.8	1.4	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	160
SSS-20-40-7-XX-XX	20	6.1	4"	19	14.6	10.8	8.0	4.4	.179"	11"	8 1/2 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	225
SSS-20-50-1-XX-XX	20	6.1	5"	15	10.8	7.6	5.2	2.0	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	191
SSS-20-50-7-XX-XX	20	6.1	5"	25	23	17	13.2	7.6	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	266
SSS-20-60-7-XX-XX	20	6.1	6"	25	25	24	18	11.2	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	312
SSS-25-40-1-XX-XX	25	7.6	4"	7.0	4.2	2.2	NR	NR	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	190
SSS-25-40-7-XX-XX	25	7.6	4"	13.4	9.4	6.4	4.2	1.4	.179"	11"	8.5 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	266
SSS-25-50-1-XX-XX	25	7.6	5"	9.6	6.0	3.4	1.4	NR	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	231
SSS-25-50-7-XX-XX	25	7.6	5"	22	15	11.2	7.8	3.4	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	324
SSS-25-50-3-XX-XX	25	7.6	5"	25	22	16	12.4	6.6	.250"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	437
SSS-25-60-7-XX-XX	25	7.6	6"	25	22	16	11.6	5.6	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	404
SSS-27-40-7-XX-XX	27	8.2	4"	11.4	7.8	5.0	3.0	NR	.179"	11"	8.5 - 12"	6 - 8.4"	11 x 1"	1 x 36 x 4"	4"	290
SSS-30-40-7-XX-XX	30	9.1	4"	8.2	5.0	2.8	1.2	NR	.179"	11"	8.5 - 12"	6 - 8.4"	11 x 1"	1 x 36 x 4"	4"	313
SSS-30-50-7-XX-XX	30	9.1	5"	14.2	9.4	6.0	3.4	NR	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	398
SSS-30-50-3-XX-XX	30	9.1	5"	20	14.6	10.2	6.8	2.4	.250"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	537
SSS-30-60-7-XX-XX	30	9.1	6"	20	13.8	9.2	5.8	1.2	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	467
SSS-30-60-3-XX-XX	30	9.1	6"	25	24	17	12.8	6.2	.250"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1.25 x 42 x 6"	4"	630
SSS-35-60-7-XX-XX	35	10.7	6"	14.2	8.4	4.6	1.6	NR	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	538
SSS-35-60-3-XX-XX	35	10.7	6"	25	17	11.6	7.4	1.8	.250"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1.25 x 42 x 6"	4"	726
SSS-40-60-7-XX-XX	40	12.2	6"	9.0	4.0	NR	NR	NR	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	614
SSS-40-60-3-XX-XX	40	12.2	6"	18	11.8	6.8	3.2	NR	.250"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1.25 x 42 x 6"	4"	802

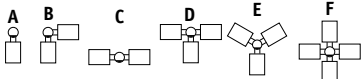
¹ Allowable EPA with 1.3 gust factor. To determine max. pole loading weight, multiply allowable EPA by 30 lbs.

NOTE Factory supplied template must be used when setting anchor bolts. Hubbell Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

COMPLETE PART NUMBER REQUIRES SHAFT ABOVE PLUS MOUNTING TYPE, FINISH & APPROPRIATE OPTIONS BELOW

MOUNTING TYPE

AX ¹	Side - Single
BX ¹	Side - Double at 90°
CX ¹	Side - Double at 180°
DX ¹	Side - Triple at 90°
FX ¹	Side - Quad at 90°
P1	Pad Mount - Spider Type
P2	Pad Mount - Yoke Type
P3	Pad Mount - Yoke Type (Proformer XL only)
TA	Tenon (2.375" OD)
TB	Tenon (2.875" OD)
TR ²	Removable Tenon (2.375 x 4.25)
CD	Concord Luminaire
OT	No drilling (includes pole cap)



FINISH

DB	Dark Bronze
BL	Black
WH	White
GR	Gray
PS	Platinum Silver
RD	Red (Premium Color)
FG	Forest Green (Premium Color)
CC	Custom Color (Consult Factory)
PR	Primer Only

- 1 DRILL PATTERNS: Replace **X** with
1 = Spaulding luminaires with a straight pole (4-bolt),
2 = Cimarron CR1, MSV and Raven Series luminaires.
4 = MSS & DS luminaires,
5 = Spaulding Detroit III luminaires,
6 = DM luminaires

- 2 Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: **SSS-25-40-7-C6-TR-DB**

- 3 Specify option location using logic found on cover.

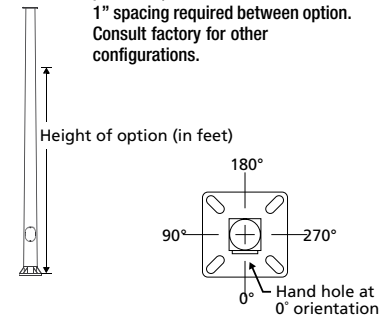
Denotes handhole location

OPTIONS

Q55	Internal Coating (Hubbell Seal)
Q18 ³	15 Amp GFCI Receptacle and Cover
Q22 ³	Extra Handhole
Q26 ³	.5" Coupling
Q27 ³	.75" Coupling
Q30 ³	2" Coupling
Q32 ³	Mid-pole Luminaire Bracket
Q40	Vibration Damper
LAB	Less Anchor Bolts
CSA	CSA Certified (consult factory)

OPTION ORIENTATION

Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option Q26 should be ordered as: **SSS-20-40-1-TA-DB-Q26-0-15** (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1" spacing required between option. Consult factory for other configurations.



Due to our continued efforts to improve our products, product specifications are subject to change without notice.

SPAULDING
LIGHTING

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For more information visit our web site: www.spauldinglighting.com

Type:

Ordering Code:

Job Name:

Notes:

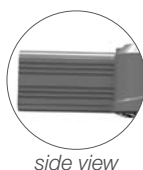
VIPER

VP-L (Viper - Large) - shown with 2" slip fitter (SF2)	VP-S (Viper - Small) - shown with rectangular arm (RA)
weight: 25lbs epa: 1 ft²	weight: 15lbs epa: 0.67 ft²

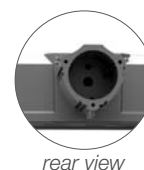
ORDERING EXAMPLE: VP-L / 96NB-280 / T5R / UNV / PEC-TL / SF2 / BB

model	engine-watts	optics	voltage	electrical options	mounting	color
VP-S <i>(small)</i>	22NB-50	T2 type II	UNV 120-277 347 480 12VDC <i>(consult factory)</i>	PEC-TL twistlock photocell <i>(specify voltage)</i>	SF2 2-3/8" OD slip-fitter	BB black
	22NB-70	T3 type III			PK2 2-3/8" adjustable knuckle	BZ bronze
	30NB-70	T4 type IV		2PF dual power feed	RA rectangular arm	BW white
	30NB-90	T5R rectangular		standard electrical options	USA upswept arm	BG green
VP-L <i>(large)</i>	64NB-135	T5QW square wide	LifeShield™ thermal protection 20k-Surge protection Dimming Drivers		WB wall bracket	BY gray
	64NB-190	T5QM square medium				MB metallic bronze
	80NB-180	T5W round wide				MT metallic titanium
	80NB-235					___ RAL
	96NB-220					___ OTHER
	96NB-280					

RECTANGULAR ARM



2" SLIPFITTER



GENERAL: The Beacon Viper luminaire is available in two sizes with a wide choice of different LED wattage configurations and optical distributions designed to replace HID lighting up to 1000W MH or HPS and with 5 different mounting options for application in a wide variety of new and existing installations. Luminaires are suitable for wet locations.

BEZEL OPTICAL SYSTEM: Each Viper luminaire is supplied with an one piece optical cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system. Two-piece silicone and microcellular polyurethane foam gasket ensures a weather-proof seal around each individual LED.

The optical cartridge is secured to the die cast housing with fasteners. The optics are held in place without the use of adhesives. The cartridge assembly is available in various lighting distributions using TIR designed acrylic optical lenses over each LED.

LIFESHIELD™ CIRCUIT: Thermal circuit shall protect the luminaire from excessive temperature by interfacing with the 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range.

A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F). The thermal circuit will allow higher maximum wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure or lumen depreciation. Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point. Thermal circuit shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage. The device shall be located in an area of the luminaire that is protected from the elements. Thermal circuit shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers.

Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded.

PRINTED CIRCUIT BOARD (PCB): Aluminum thermal clad board with 0.062" thick aluminum base layer, thermally conductive dielectric layer, 0.0014" thick copper circuit layer circuit layer designed with copper pours to minimize thermal impedance across dielectric. Board will be mounted to the heat sink using minimum 12 #4-40 screws to ensure contact with thermal pad and heat sink. Use of thermal grease will not be allowed.

HOUSING AND LED THERMAL MANAGEMENT: The Viper' monolithic housing design creates over 4.5 square feet (small Viper) or 7.7 square feet (large Viper) of heat-sinking surface area. Vertical fins, combined with flow-thru openings prevent sediment and moisture buildup on critical heat sinking surfaces without the need for grates, screens or other debris control tactics. The Viper housing, electrical compartment and fitter are made from die cast aluminum that is pre-treated and powder-coated to meet the most rugged industry standards. The finish is corrosion resistant to meet ASTM-B-117, resists cracking or loss of adhesion per ASTM D522, resists surface impacts of up to 160 inch-pound. All external hardware is corrosion resistant. The housing serves as a heat-sink for the LED bezel with a separate compartment for the drivers.

ELECTRICAL ASSEMBLY: The fixture electrical compartment shall contain all LED driver components and shall be provided with a push-button terminal block for AC power connections. The housing is designed for an optional twist lock photo control receptacle.

ACCESSIBILITY: Although the Viper luminaire is designed to operate for many years without maintenance, accessibility is a key component in its design. The Drivers are mounted on a removable door that is secured with keyslotted screws and hinges down for convenient access. The drivers are field replaceable using quick disconnects.

DRIVERS: Luminaires are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNIV), or a driver that accepts 347V or 480V input. Power factor is .92 at full load. All electrical components are rated at 50,000 hours at full load and 25°C ambient conditions per MIL- 217F Notice 2. Dimming drivers are standard, with connections for external dimming equipment available upon request. Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only.

SURGE PROTECTOR: The onboard surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 20,000 Amps using the industry standard 8/20 pSec wave. The LSP shall have a clamping voltage of 925V and surge rating of 540J. The case shall be a high-temperature, flame resistant plastic enclosure.

FASTENERS: All fasteners shall be stainless steel. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, consult factory).

AGENCY CERTIFICATION: The luminaire shall bear a CSA label and be marked suitable for wet locations.

WARRANTY: Beacon luminaires feature a 5 year limited warranty. Beacon LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer. See Warranty Information on www.beaconproducts.com complete details and exclusions.

Power/Lumens & Distributions

Engine	nominal wattage	lumen output (500k) varies by optic	delivered LPW	TM21 reported L95/85C	TM21 calculated L70/85C
VP-S					
VP-S-22NB	50	4700-5300	93-103	60,000	215,000
VP-S-22NB	70	5780-6540	82-93	60,000	215,000
VP-S-30NB	70	6408-7250	91-103	60,000	215,000
VP-S-30NB	90	7700-8717	85-97	60,000	215,000
VP-L					
VP-L-64NB	135	12500-13900	93-103	60,000	215,000
VP-L-64NB	190	16500-18000	86-95	60,000	215,000
VP-L-80NB	180	17000-19000	93-103	60,000	215,000
VP-L-80NB	235	20000-22500	86-95	60,000	215,000
VP-L-96NB	220	20500-22460	93-103	60,000	215,000
VP-L-96NB	280	24700-27000	88-96	60,000	215,000

TM21 is the framework for taking LM-80 data and making useful LED lifetime projections. Reported and calculated lifetimes shown are based on hours at the time of this printing. For current Reported and Calculated hours please contact factory of Beacon's web site.

Environmental Quality Standards

The property is a 52,383 square foot lot with 14,203 SF of forested and shrub scrub wetlands that encumber the southwest portion of the parcel. A small tributary stream begins in the southwest corner of the site that flows southwest. The stream is tributary to Capisic Brook, which has been defined by Maine Department of Environmental Protection (MDEP) as an urban impaired stream. In addition, the City has a watershed management plan in place to protect the watershed.

The project has been developed to minimize the wetland impact and provide a stormwater management plan that responds to the water quality requirements for an urban impaired stream. The total wetland impact will be 3,105 SF. To limit the amount of impact, a retaining wall will be constructed to the extent necessary to construct the limited parking, circulation, underground stormwater treatment infrastructure and safety guard rail. Temporary wetland impacts associated with construction of the wall will be restored to wetland conditions by using saved wetland soils and planting of wetland vegetation.

Portland, Maine



Yes. Life's good here.

Portland Police Department

July 11, 2014

Jon Bradley
Associate Director
38 Preble Street
Portland, ME 04101

Sent via email to jbradley@preblestreet.org

Dear Mr. Bradley,

Today I write in support of the successful partnerships between Preble Street Resources and Avesta Housing in providing an exceptional model that offers staff and support to those in need here in Portland. I firmly believe this partnership has increased success rates and improved outcomes for our homeless population.

I understand there is a proposal forthcoming of a housing development opportunity near Morrill's Corner. In light of the process moving forward, I would like to illustrate that a similar development, Logan Place, has successfully served as a tested model with no significant impact on the surrounding neighborhood.

The Portland Police Department believes the working relationship between Preble Street Resources and Avesta Housing continues to provide a valuable service to Portland's homeless population, our visitors, families, friends and neighbors.

Sincerely,

A handwritten signature in black ink, appearing to read "VW Malloch".

Vernon W. Malloch
Assistant Chief of Police

Portland Police Department**Memorandum****To:** Helen Donaldson**Date:** October 10, 2014**From:** Asst. Chief Vern Malloch 

The Police Department has been asked by Planning Board staff to provide an analysis of calls for service (CFS) at Logan Place, 52 Frederick Street. We have provided raw data showing all the calls for police service from 2005 to September 22, 2014.

Annual CFS in the specified range average 72 with a high of 89 in 2013 and a low of 46 in 2008. As part of the analysis I have reviewed the type of calls and the outcome of some of the more serious call types in order to bring some context to the raw data. A spreadsheet contains the tally for certain call types by year. Not all call types were listed in the spreadsheet. I have focused on those believed to be of significance either because of number or type.

It is important to note that many of the calls fall into the behavioral health or mental health call type. During these calls the role of the police is usually to provide crisis stabilization and assist staff or emergency medical personnel. Call types such as follow ups and check the well-being are often a part of our ongoing efforts in responding to individuals with behavioral health problems.

Between 2005 and 2007 a significant number of CFS related to persons refusing to leave and persons bothering. This number reduced significantly after discussions with staff and policy changes were implemented. These call types remain relatively low in number.

Calls related to drug violations were examined for any patterns. During the period under review there were 38 of these calls. None resulted in arrests or police reports being generated. Five calls reported suspicious activity outside that might have been drug transactions. None were ever substantiated. Six of the calls were suicide attempts or accidental overdoses of prescription medication by residents. The remainder of the drug related CFS were all staff and residents reporting the smell of marijuana coming from various apartments. None of these calls resulted in any police reports or enforcement action. Enforcement of marijuana violations is difficult in residential settings like this because of the use of medical marijuana and an inability to distinguish legal uses from illegal. In 2014 there have been no calls of this nature.

In 2013 and 2014 there were 20 CFS for assaults. This is an alarmingly high number and represents a significant increase over earlier years under review. A closer examination revealed that sixteen of the calls involved the same resident acting as the aggressor toward other residents and staff. He suffers from severe dementia and in many instances he was transported to a hospital for evaluation. Six of the calls resulted in police reports. He was arrested or summonsed several times. None of the assaults resulted in serious injury and the victims never required medical attention. Most of the assaults involved pushing, slapping, or pouring beverages on someone.

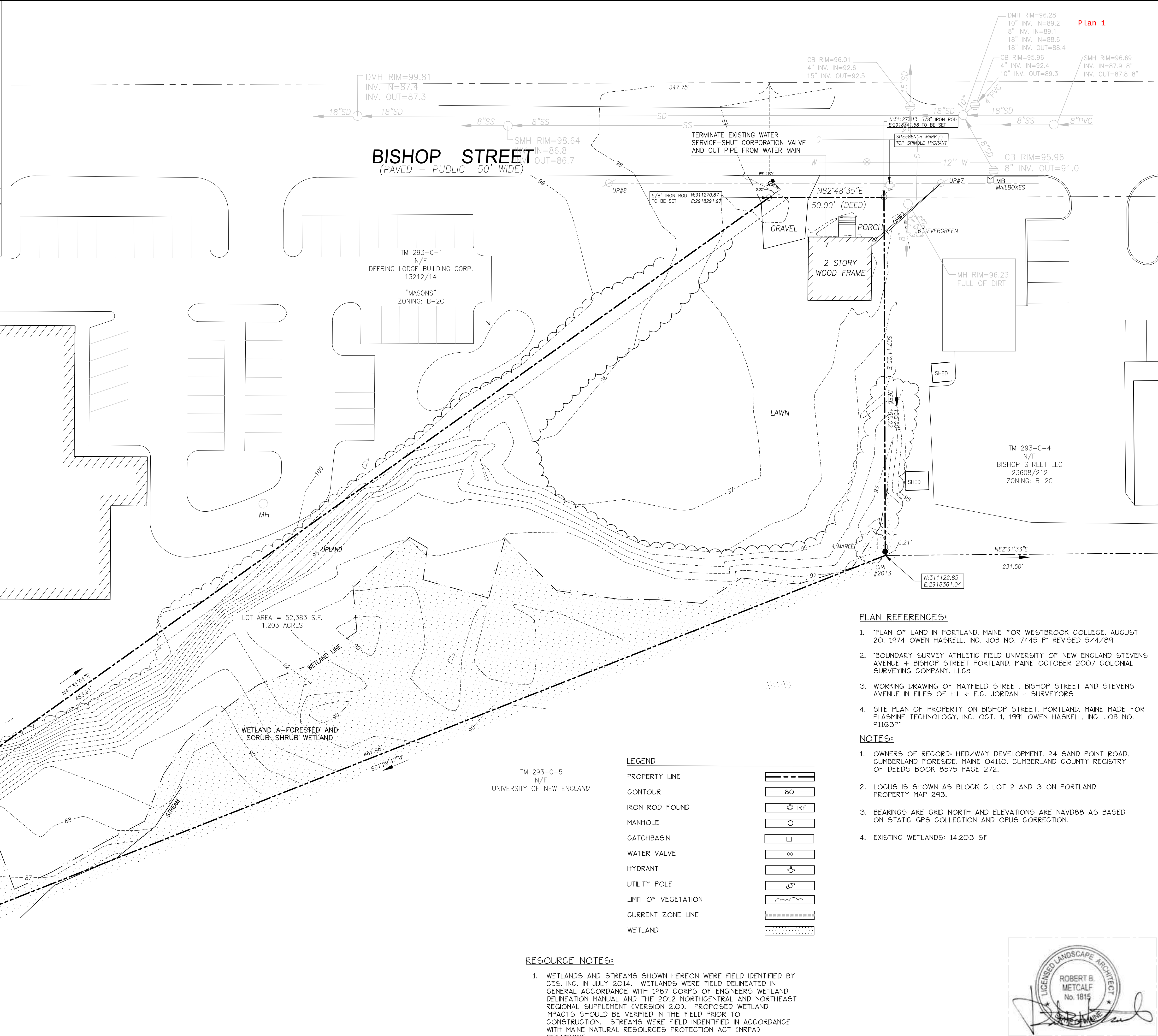
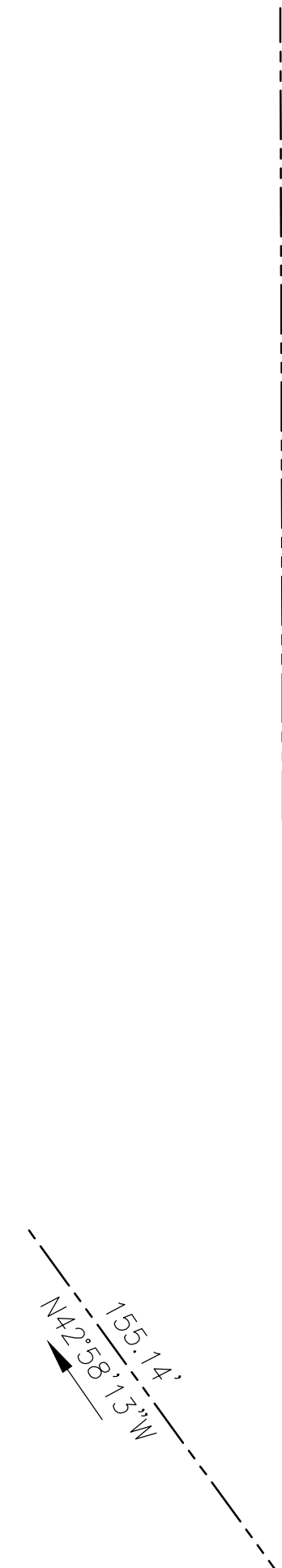
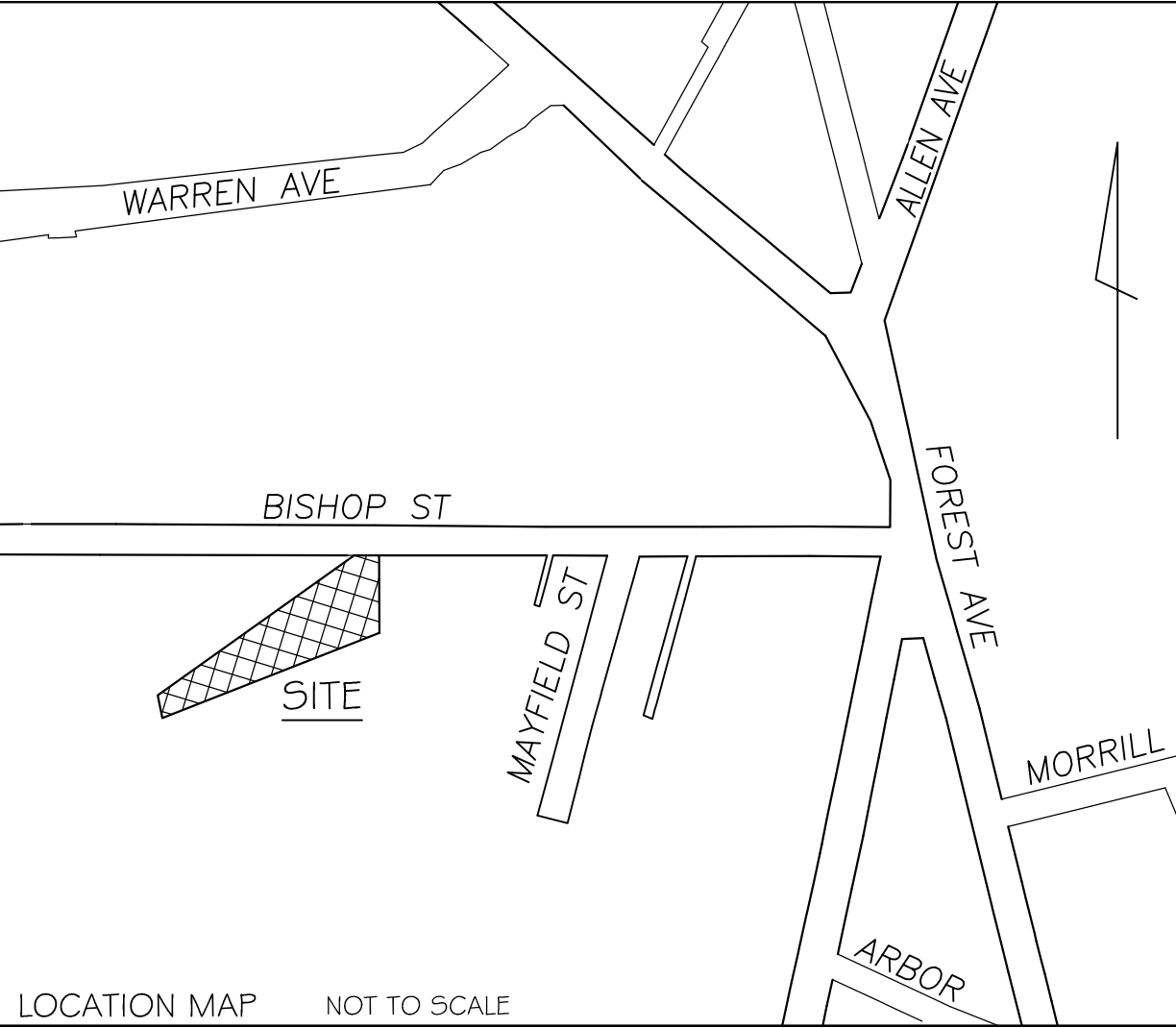
In 2014 there were four weapons violations listed. In prior years there had been none. In reviewing the calls two were found to have been reported by residents and involved unknown people on a nearby walking path who were displaying knives or swords. One call was for a person hunting ducks with a firearm

along the Fore River. In the fourth incident a resident was arrested for possession of an illegal knife. This was the only weapons call related to Logan Place.

Analysis concludes that calls for service are higher than we would like. On a positive note, few calls resulted in police reports or arrests. None of the CFS were for serious crime types. The majority of CFS examined were generated by staff or residents, not neighbors.

We can anticipate an increase in police calls for service with development of any otherwise vacant parcel. Housing of the chronically homeless as takes place at Logan Place further increases the likelihood of an increase. Data review suggests there has been no negative impact on the neighborhood from a public safety standpoint. Other reports and studies have shown the population targeted for housing in this model draw significantly more police resources when they are homeless.

year	total cfs	RTL/bothe	Behavior	Asst FD	Intox Per	Drugs	Assault	Threat/har	Indecent	Theft	Fight	Weapons
2005	88	29	14	4	6	1	2	6	0	2	0	0
2006	82	23	16	2	4	0	3	3	0	3	1	0
2007	80	15	18	3	5	6	1	4	1	4	0	0
2008	46	4	11	3	2	2	4	3	0	0	0	0
2009	49	4	9	5	2	5	4	1	0	3	0	0
2010	65	5	18	6	0	6	2	3	0	2	0	0
2011	77	11	10	8	4	8	3	4	2	0	0	0
2012	71	4	4	15	1	8	6	5	0	5	1	0
2013	89	7	13	10	1	2	10	4	0	4	1	0
2014	74	6	8	5	6	0	10	1	0	0	2	4



PLAN REFERENCES:

1. "PLAN OF LAND IN PORTLAND, MAINE FOR WESTBROOK COLLEGE, AUGUST 20, 1974 OWEN HASKELL, INC. JOB NO. 7445 P" REVISED 5/4/89
2. "BOUNDARY SURVEY ATHLETIC FIELD UNIVERSITY OF NEW ENGLAND STEVENS AVENUE + BISHOP STREET PORTLAND, MAINE OCTOBER 2007 COLONIAL SURVEYING COMPANY, LLC
3. WORKING DRAWING OF MAYFIELD STREET, BISHOP STREET AND STEVENS AVENUE IN FILES OF H.J. + E.C. JORDAN - SURVEYORS
4. SITE PLAN OF PROPERTY ON BISHOP STREET, PORTLAND, MAINE MADE FOR PLASMINE TECHNOLOGY, INC. OCT. 1, 1991 OWEN HASKELL, INC. JOB NO. 91163P"

NOTES:

1. OWNERS OF RECORD: HED/WAY DEVELOPMENT, 24 SAND POINT ROAD, CUMBERLAND FORESIDE, MAINE 04110. CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 8575 PAGE 272.
2. LOCUS IS SHOWN AS BLOCK C LOT 2 AND 3 ON PORTLAND PROPERTY MAP 293.
3. BEARINGS ARE GRID NORTH AND ELEVATIONS ARE NAVD88 AS BASED ON STATIC GPS COLLECTION AND OPUS CORRECTION.
4. EXISTING WETLANDS: 14,203 SF

RESOURCE NOTES:

1. WETLANDS AND STREAMS SHOWN HEREON WERE FIELD IDENTIFIED BY CES, INC. IN JULY 2014. WETLANDS WERE FIELD DELINEATED IN GENERAL ACCORDANCE WITH 1987 CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND THE 2012 NORTHCENTRAL AND NORTHEAST REGIONAL SUPPLEMENT (VERSION 2.0). PROPOSED WETLAND IMPACTS SHOULD BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. STREAMS WERE FIELD IDENTIFIED IN ACCORDANCE WITH MAINE NATURAL RESOURCES PROTECTION ACT (NRPD) DEFINITIONS.



Prepared For:
Owner:
AVESTA BISHOP STREET LP
307 Cumberland Avenue
Portland, Maine 04101
Tel.: 207-553-7777

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel.: 207-774-4427

72 BISHOP STREET

Bishop Street

Portland, Maine

Date:
APRIL 10, 2015

Issued For:
SITE PLAN AND SUBDIVISION
PLAN REVIEW

Revisions:

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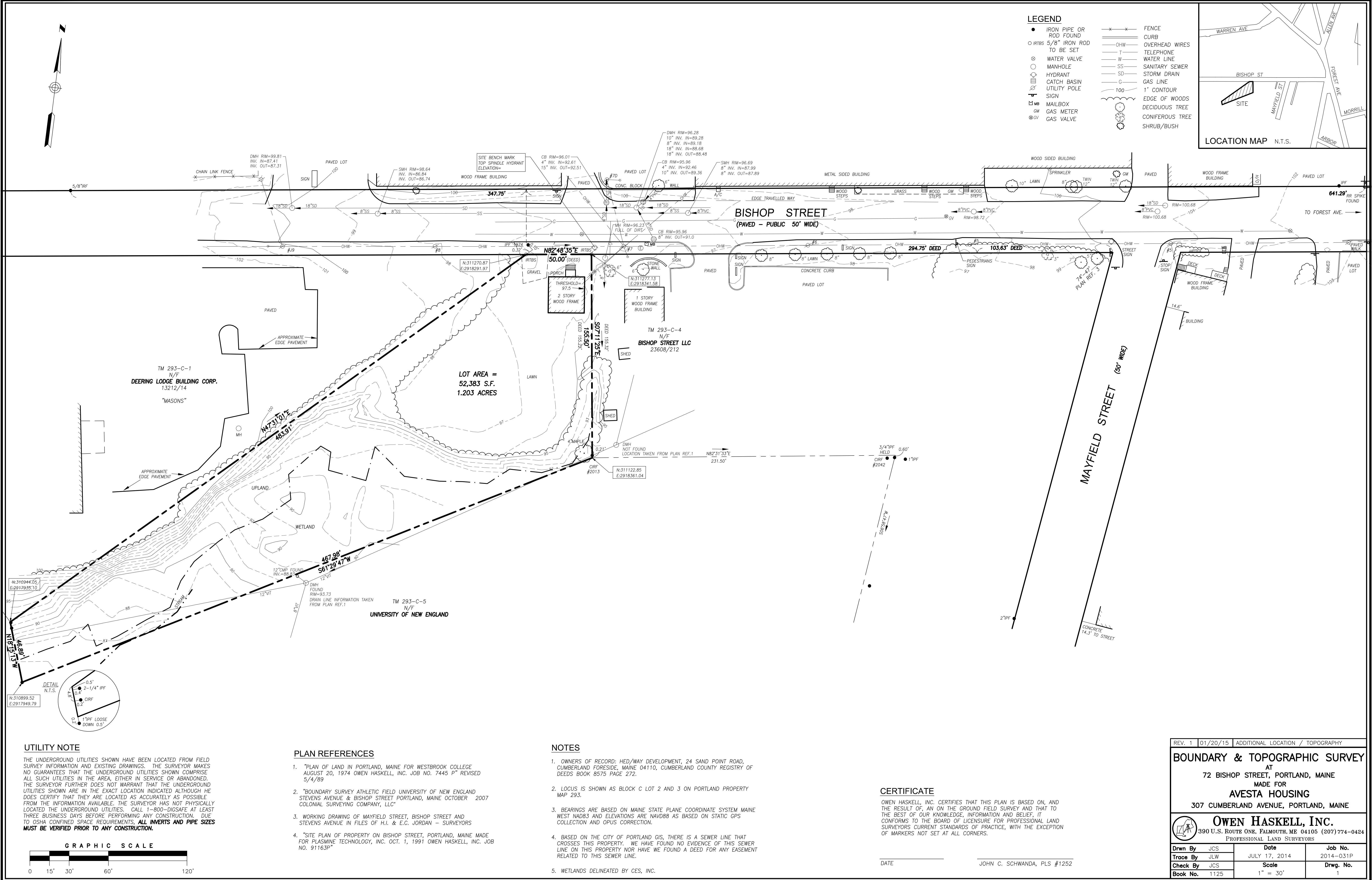
Title:
EXISTING
CONDITIONS PLAN

Scale: 1"= 20'

0 10 20 40 ft.

North:

Sheet No.:
L1.0



- GENERAL NOTES:**
1. SITE AREA: 52,383 SF OR 1.20 ACRES
 2. APPLICANT: AVESTA 72 BISHOP, LP
307 CUMBERLAND AVENUE
PORTLAND, MAINE 04101
 3. OWNER: AVESTA HOUSING DEVELOPMENT CORP.
307 CUMBERLAND AVENUE
PORTLAND, MAINE 04101
 4. ZONING DISTRICT: B-2-C COMMUNITY BUSINESS DISTRICT
 5. PARCEL IS SHOWN AS LOT 2 AND LOT 3, BLOCK C ON CITY OF PORTLAND ASSESSORS MAP 293.
 6. DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 31827, PAGE 271.
 7. SPACE AND BULK STANDARDS:

	REQUIRED	PROPOSED
MINIMUM LOT SIZE:	NONE	52,383 SF
MINIMUM STREET FRONTAGE:	20 FEET	50 FEET
FRONT YARD SETBACK:	NONE	18 FEET
REAR YARD SETBACK:	10 FEET	10 FEET
SIDE YARD SETBACK:	NONE	5 FEET
FRONT YARD MAXIMUM IMPERVIOUS SURFACE RATIO:	NONE	35%
MAXIMUM HEIGHT OF STRUCTURES:	45 FEET	39 FEET
MAXIMUM RESIDENTIAL DENSITY:	1,500 SF/UNIT	1,746 SF/UNIT
 8. EXISTING CONDITIONS AND BOUNDARY INFORMATION TAKEN FROM A PLAN ENTITLED 'BOUNDARY + TOPOGRAPHIC SURVEY AT 72 BISHOP STREET, PORTLAND, MAINE' PREPARED BY OWEN HASKELL, INC. DATED JULY 17, 2014.
 9. BEARINGS ARE GRID NORTH AND ELEVATIONS ARE NAVD88 AS BASED ON STATIC GPS COLLECTION AND OPUS CORRECTION.
 10. WETLAND DELINEATION PERFORMED BY C.E.S. INC., LEWISTON MAINE, JUNE 2014. FLAGGED WETLAND AREA WAS SURVEYED BY OWEN HASKELL, INC., FALMOUTH, MAINE, JULY 2014.
 11. PROPOSED DWELLING UNITS: 30 (50%) EFFICIENCY APARTMENT UNITS
 12. OFF-STREET PARKING REQUIREMENTS:

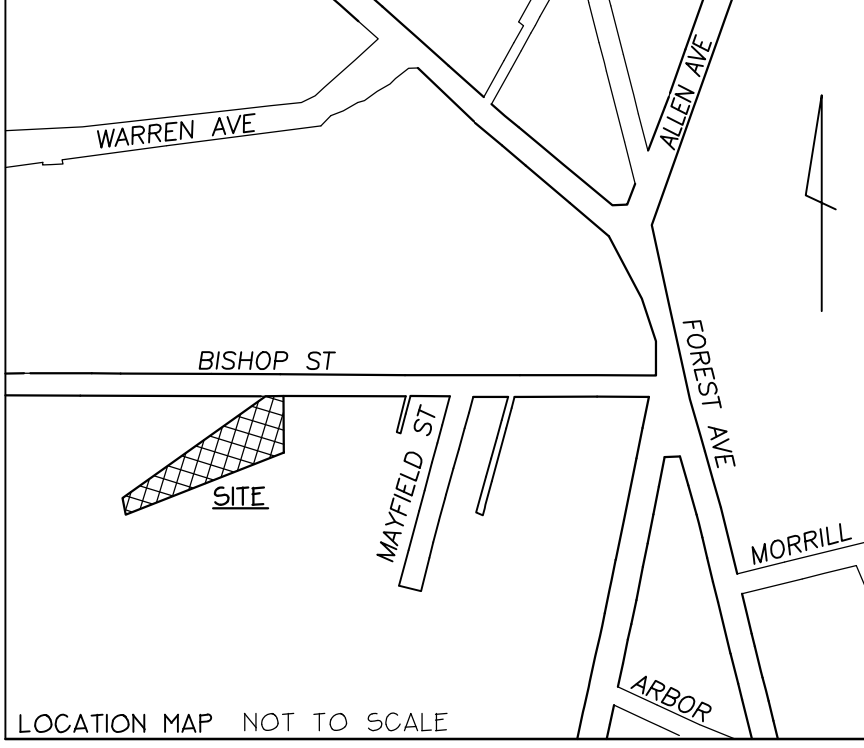
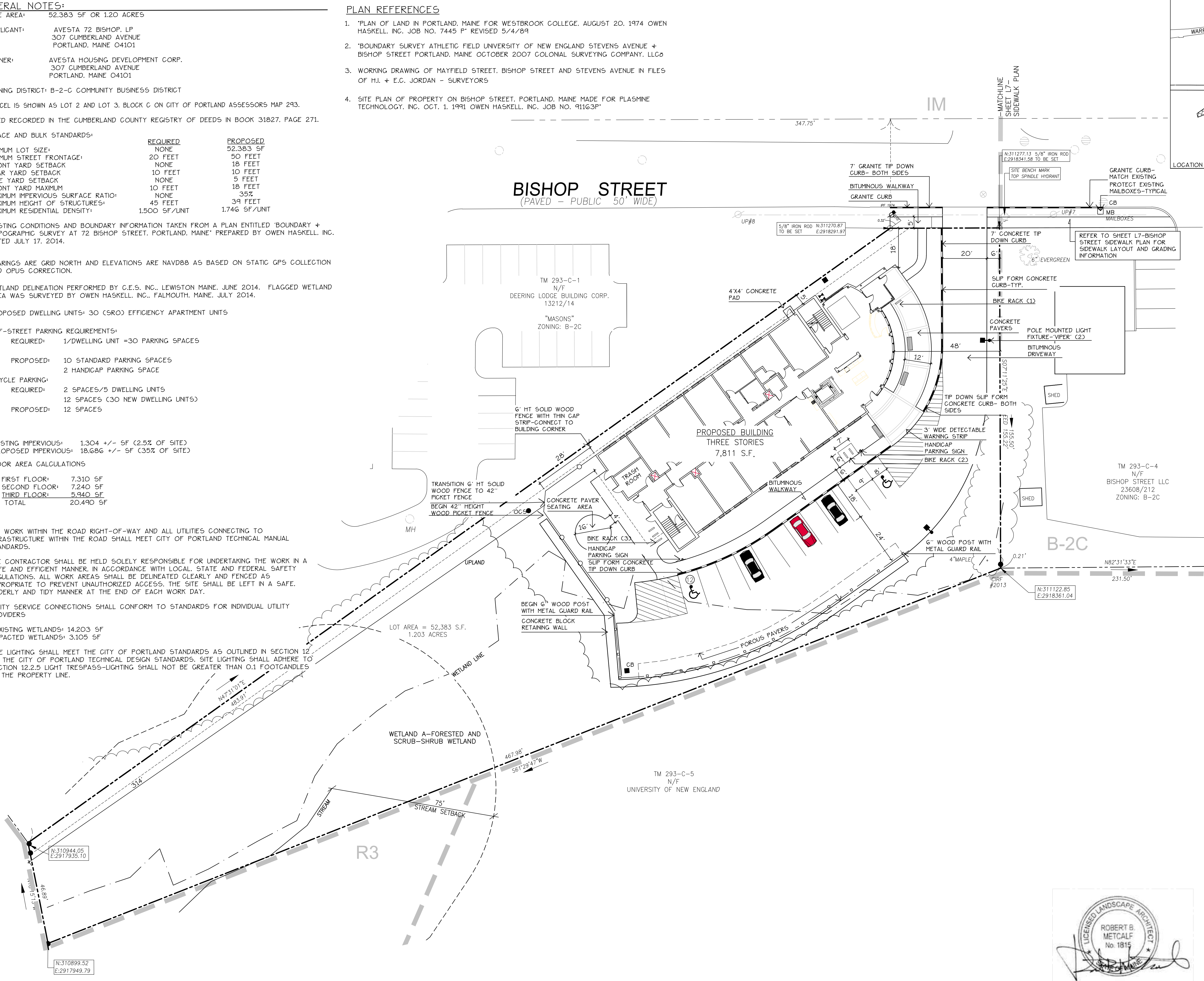
REQUIRED:	1/DWELLING UNIT = 30 PARKING SPACES
PROPOSED:	10 STANDARD PARKING SPACES 2 HANDICAP PARKING SPACE
 13. BICYCLE PARKING:

REQUIRED:	2 SPACES/5 DWELLING UNITS
PROPOSED:	12 SPACES (30 NEW DWELLING UNITS)
 14. EXISTING IMPERVIOUS: 1,304 +/- SF (2.5% OF SITE)
PROPOSED IMPERVIOUS: 18,686 +/- SF (35% OF SITE)
 15. FLOOR AREA CALCULATIONS

FIRST FLOOR:	7,310 SF
SECOND FLOOR:	7,240 SF
THIRD FLOOR:	5,940 SF
TOTAL:	20,490 SF
 17. ALL WORK WITHIN THE ROAD RIGHT-OF-WAY AND ALL UTILITIES CONNECTING TO INFRASTRUCTURE WITHIN THE ROAD SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
 18. THE CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR UNDERTAKING THE WORK IN A SAFE AND EFFICIENT MANNER, IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL SAFETY REGULATIONS. ALL WORK AREAS SHALL BE DELINEATED CLEARLY AND FENCED AS APPROPRIATE TO PREVENT UNAUTHORIZED ACCESS. THE SITE SHALL BE LEFT IN A SAFE, ORDERLY AND TIDY MANNER AT THE END OF EACH WORK DAY.
 19. UTILITY SERVICE CONNECTIONS SHALL CONFORM TO STANDARDS FOR INDIVIDUAL UTILITY PROVIDERS
 20. EXISTING WETLANDS: 14,203 SF
IMPACTED WETLANDS: 3,105 SF
 21. SITE LIGHTING SHALL MEET THE CITY OF PORTLAND STANDARDS AS OUTLINED IN SECTION 12 OF THE CITY OF PORTLAND TECHNICAL DESIGN STANDARDS. SITE LIGHTING SHALL ADHERE TO SECTION 12.2.5 LIGHT TRESPASS-LIGHTING SHALL NOT BE GREATER THAN 0.1 FOOTCANDLES AT THE PROPERTY LINE.

PLAN REFERENCES

1. 'PLAN OF LAND IN PORTLAND, MAINE FOR WESTBROOK COLLEGE, AUGUST 20, 1974 OWEN HASKELL, INC. JOB NO. 7445 P' REVISED 5/4/89
2. 'BOUNDARY SURVEY ATHLETIC FIELD UNIVERSITY OF NEW ENGLAND STEVENS AVENUE + BISHOP STREET PORTLAND, MAINE OCTOBER 2007 COLONIAL SURVEYING COMPANY, LLC
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Prepared For:

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Tel.: 207-553-7777

Prepared By:

MITCHELL & ASSOCIATES
Landscape Architects
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70 Center Street
Portland, Maine 04101
Tel.: 207-774-4427

72 BISHOP STREET

Portland, Maine

Bishop Street

Date:

APRIL 10, 2015

Issued For:

SITE PLAN AND SUBDIVISION
PLAN REVIEW

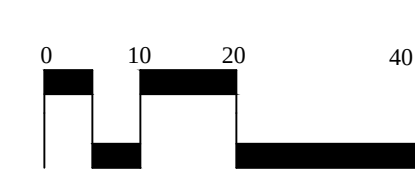
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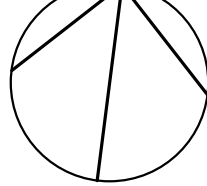
Title:

LAYOUT AND LIGHTING
PLAN

Scale: 1"= 20'



North:



Sheet No.:

L2

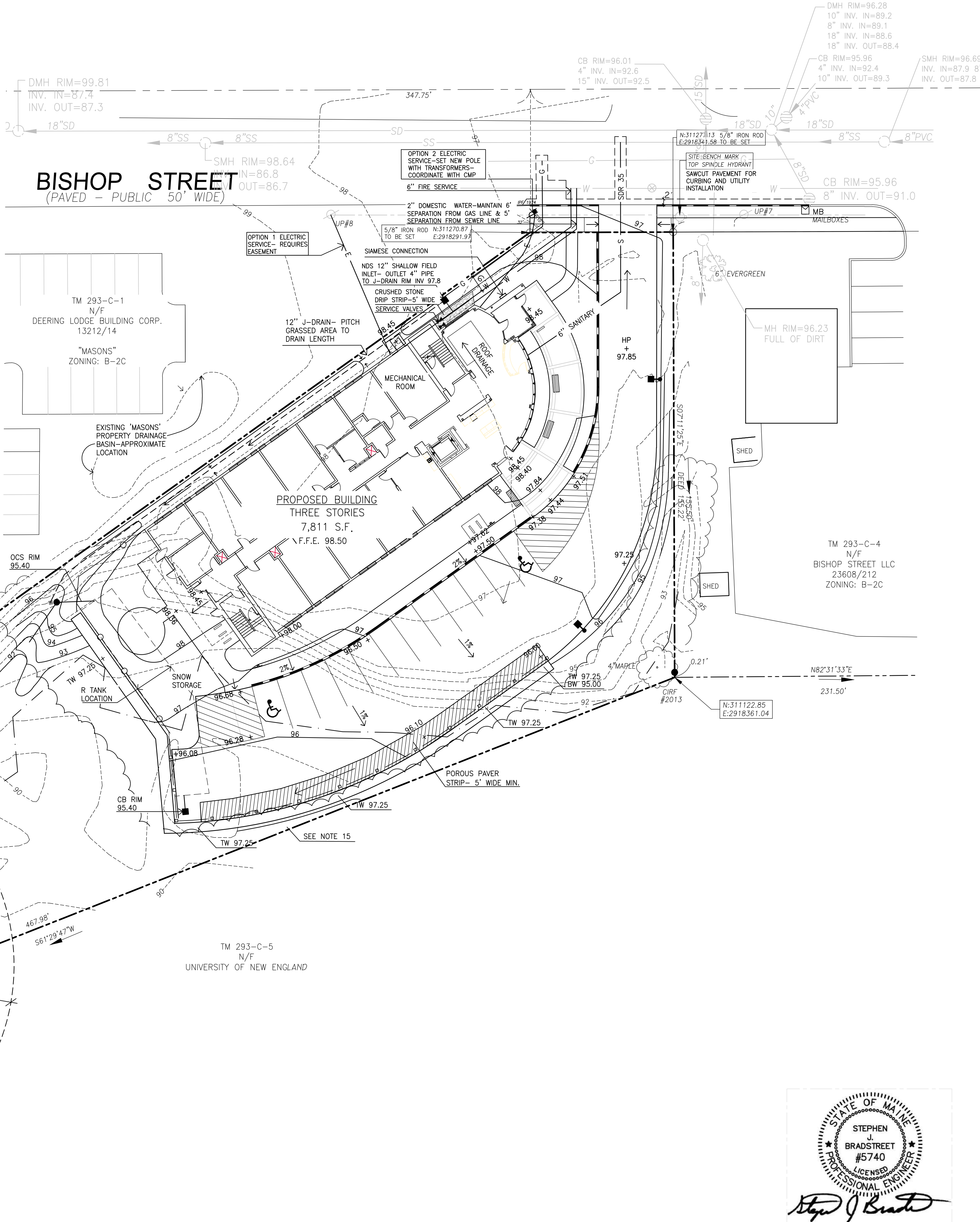


GRADING AND DRAINAGE NOTES:

- DO NOT SCALE THESE DRAWINGS. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ADDITIONAL WORK PROCEEDS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT FOR DIRECTION AND RESOLUTION PRIOR TO ANY FURTHER WORK.
- CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO EXCAVATION OF OR INSTALLATION OF ANY PART OF THIS WORK.
- CONTRACTOR SHALL AVOID ALL AREAS NOT REQUIRING GRADING. CONTRACTOR SHALL NOT DISTURB THESE AREAS.
- THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL DIGSAFE (1-888-344-7233) AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION.
- CONTRACTOR SHALL CONDUCT TEST PIT EXCAVATION TO CONFIRM LOCATION OF EXISTING UTILITIES WHERE NEW BUILDING SANITARY SERVICE AND WATER SERVICE ARE PROPOSED.
- WHERE STORM DRAINS OR SEWER MAINS HAVE LESS THAN FOUR (4) FEET OF COVER BETWEEN TOP OF PIPE AND FINISH GRADE, INSULATE PIPE USING TWO (2) INCH THICK STYROFOAM INSULATION BOARD OVER AND ALONG SIDES OF THE PIPE.
- EXISTING DRAINAGE MANHOLES SHALL BE CORED TO ACCEPT NEW DRAINAGE PIPES AS NOTED.
- PIPE LENGTH EQUALS THE CENTER TO CENTER DISTANCES BETWEEN CATCH BASINS AND/OR MANHOLES MINUS ONE-HALF OF THE DIAMETER OF EACH CATCH BASIN OR MANHOLE.
- ALL UTILITIES SHALL BE INSTALLED IN CONFORMANCE WITH INDIVIDUAL UTILITY DISTRICT REQUIREMENTS; CONTRACTOR SHALL COORDINATE INSTALLATION WITH APPROPRIATE UTILITY DISTRICT BEFORE INSTALLATION.
- ALL WORK WITHIN THE ROAD RIGHT-OF-WAY AND ALL UTILITIES CONNECTING TO INFRASTRUCTURE WITHIN THE ROAD SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
- DISCONTINUED UTILITY SERVICES INCLUDING WATER, GAS AND SANITARY SEWER SHALL BE PERMANENTLY CAPPED CONFORMING TO UTILITY COMPANY AND CITY OF PORTLAND STANDARDS. CONTRACTOR SHALL COORDINATE WITH PUBLIC SERVICES AND/OR UTILITY COMPANY.
- THE PROJECT BENCH MARK IS TOP OF HYDRANT SPINDLE AT THE CORNER OF EASTERN PROPERTY LINE AND BISHOP STREET.
- BMP INSPECTIONS:** THE OWNER SHALL HIRE A QUALIFIED POST-CONSTRUCTION STORMWATER INSPECTOR TO ANNUALLY, INSPECT THE BMPs, INCLUDING CATCH BASIN, DRYWELL, IN-LINE ROOF FILTERS, PIPES AND RELATED STRUCTURES, IN ACCORDANCE WITH ALL MUNICIPAL AND STATE INSPECTION, CLEANING AND MAINTENANCE REQUIREMENTS OF THE APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (PER SECTION 32 OF THE CITY OF PORTLAND CODE OF ORDINANCES).
- WETLAND DISTURBANCE: CONTRACTOR SHALL STOCKPILE WETLAND SOIL IN AMOUNT SUFFICIENT TO RESTORE WETLAND IMPACTS ASSOCIATED WITH CONSTRUCTION OF RETAINING WALL. REPLACE A MINIMUM OF 12 INCHES OF WETLAND SOIL ALONG BASE OF RETAINING WALL TO RESTORE WETLAND CONDITION. SEED DISTURBED AREA WITH SPECIFIED WETLAND SEED MIX OR PLANTINGS: SEE PLAN SHEET L4: PLANTING PLAN.

LEGEND

EXISTING	PROPOSED
PROPERTY LINE	
IRON PIPE/MAG NAIL	
GRANITE MONUMENT	
CATCHBASIN	CB
FIELD INLET	FI
HYDRANT	
UTILITY POLE	
CONTOUR	23
SPOT GRADE	+72.76
FENCE	
DEC. TREE	
EVERGREEN TREE	
LIGHT POLE	
CURB	
OVERHEAD WIRES	EOHW
SOIL BORINGS	
WATER VALVE	
GAS VALVE	
SANITARY SEWER	S
STORM DRAIN	SD
WATER	W
GAS	G
ELECTRIC	E
FIRE ALARM	FA
TELEPHONE LINE	ET
SIGN	
WETLAND	
OUTLET CONTROL STRUCTURE	OCS



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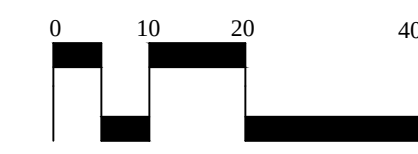
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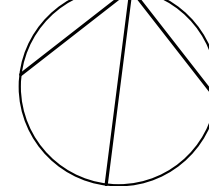
Title:

GRADING, DRAINAGE &
UTILITIES PLAN

Scale: 1"= 20'

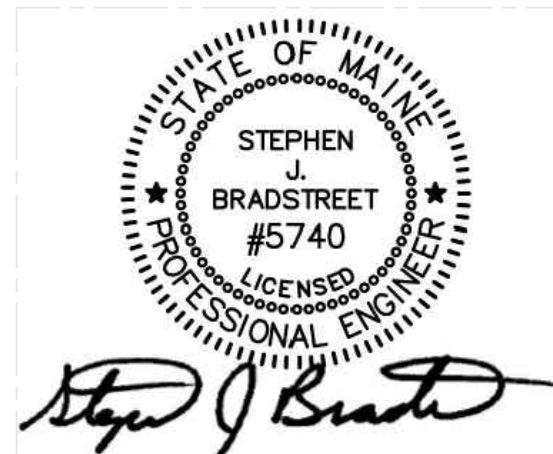


North:



Sheet No.:

L3



PLANT LIST

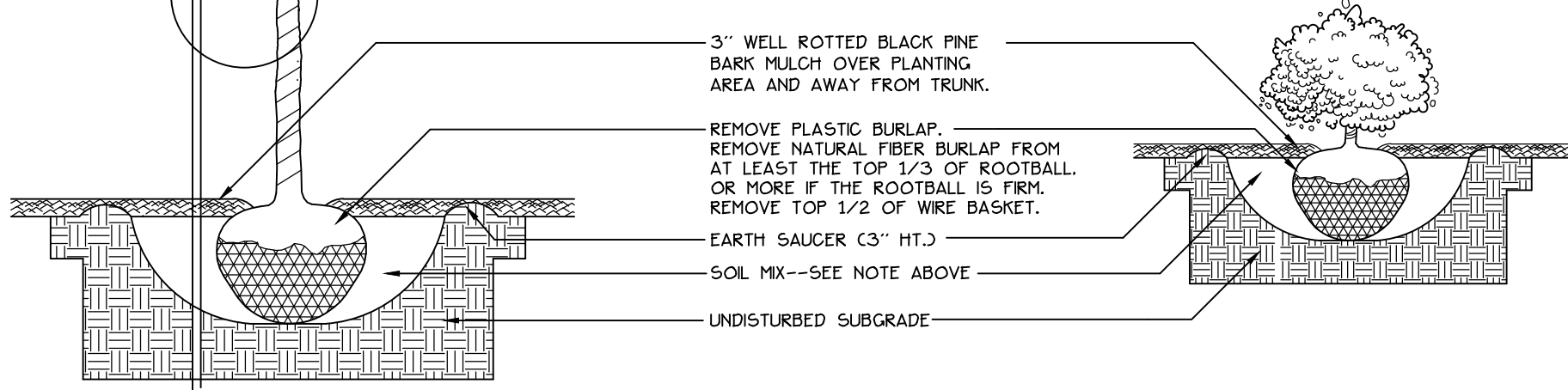
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
A. PSE	3	ACER PSEUDOSIEBOLDIANUM	KOREAN MAPLE	#7
A. RUB	6	ACER RUBRUM	RED MAPLE	2" CAL
P. SAR	5	PRUNUS SARGENTII	SARGENT CHERRY	2" CAL
Q. BIC	7	QUERCUS BICOLOR	SWAMP WHITE OAK	2" CAL
Q. PAL	1	QUERCUS PALUSTRIS	PIN OAK	2" CAL
T. CUS	3	TAXUS CUSPIDATA 'CAPITATA'	UPRIGHT JAPANESE YEW	4'-5' HT.
T. OCD	4	THUGA OCCIDENTALIS 'DOUGLASII'	DOUGLAS ARBORVITAE	4'-5' HT.
T. OCN	9	THUGA OCCIDENTALIS 'NIGRA'	AMERICAN ARBORVITAE	4'-5' HT.
T. CAN	3	TSUGA CANADENSIS	CANADIAN HEMLOCK	4'-5' HT.

SHRUBS				
A. GIR	11	AZALEA GIRARD'S FUSCHIA	RUBY SPICE SUMMERSWEET	#3
C. ALN	2	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	#3
C. SAF	3	CORNUS SERICEA 'ARCTIC FIRE'	RED TWIG DOGWOOD	#3
H. PAN	3	HYDRANGEA PANCULATA 'QUICKFIRE'	QUICKFIRE HYDRANGEA	#3
R. HEL	3	RHODODENDRON 'HELLINI'	HELLINI RHODODENDRON	#3
V. COR	3	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	#3

GENERAL PLANTING NOTES

- CALL DIG-SAFE (1-888-344-7233) PRIOR TO BEGINNING WORK. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES PAVING, WALKS, CURBING, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
- DO NOT SCALE FROM DRAWINGS. ANY OMISSIONS IN DIMENSIONING SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ANY ADDITIONAL WORK PROCEEDS.
- PROVIDE SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.
- CONTRACTOR SHALL FURNISH AND PLACE 12 INCHES OF LOAM IN ALL SHRUB BEDS, 30 INCHES IN ALL TREE PITS, AND 6 INCHES UNDER ALL TURF AREAS. THE LANDSCAPE CONTRACTOR SHALL COORDINATE SUBGRADE PREPARATION WITH THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
- ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARDS FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN" LATEST EDITION.
- ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
- ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING, STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM THE OWNER.
- ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
- EXISTING TREES TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH (DO NOT EXCEED 3" DEPTHS).
- ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY, OR CONDITION SHALL BE REVIEWED AND APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT (AND MUNICIPAL AUTHORITY, IF APPLICABLE) PRIOR TO INSTALLATION ON SITE.
- WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.
- DAMAGE TO EXISTING SITE IMPROVEMENTS DURING INSTALLATION OF LANDSCAPE MATERIAL SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- ALL WORK WITHIN THE ROAD RIGHT-OF-WAY AND ALL UTILITIES CONNECTING TO INFRASTRUCTURE WITHIN THE ROAD SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.

•NOTES:
DIG HOLE AT LEAST 2 TIMES THE WIDTH OF ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH TOP AT GROUND LEVEL OR SLIGHTLY HIGHER. CORRECT HOLE DEPTH AS NEEDED.
FOR DECIDUOUS AND NEEDLED EVERGREEN TREES AND SHRUBS 1 FULL WHEELBARROW EXISTING SOIL, 2 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL, FOR BROADLEAVED EVERGREENS AND RELATED EVERGAE PLANTS: 1 FULL WHEELBARROW EXISTING SOIL, 3-4 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL OF LOW PH (RECOMMENDATIONS ARE FOR ACCEPTABLE PLANTING AREAS).
CONTAINER GROWN STOCK:
REMOVE CONTAINER PROTECTING ROOT BALL. GENTLY COMB OUT ROOTS. PRUNE DAMAGED ROOTS.
BACKFILL 2/3 OF HOLE WITH AMENDED SOIL THEN FILL HOLE WITH WATER. LET DRAIN, REPEAT WATER AND DRAIN. BACK FILL TO FINISH GRADE, TAMP GENTLY, AND CREATE EARTH SAUCER. WATER THOROUGHLY ONCE AGAIN TO REMOVE REMAINING AIR POCKETS.
2" X 2" OF 2 1/2" DIAMETER STAKES WITH 2 #12 GAUGE WIRES ENCASED IN 2-PLY REINFORCED RUBBER HOSE 1/2" DIAMETER OR CHAINLOCK AS APPROVED BY LANDSCAPE ARCHITECT. 2 STAKES LOCATED 180° APART (STAKES SHALL BE FIRMLY SET TO PROVIDE NECESSARY TENSION).

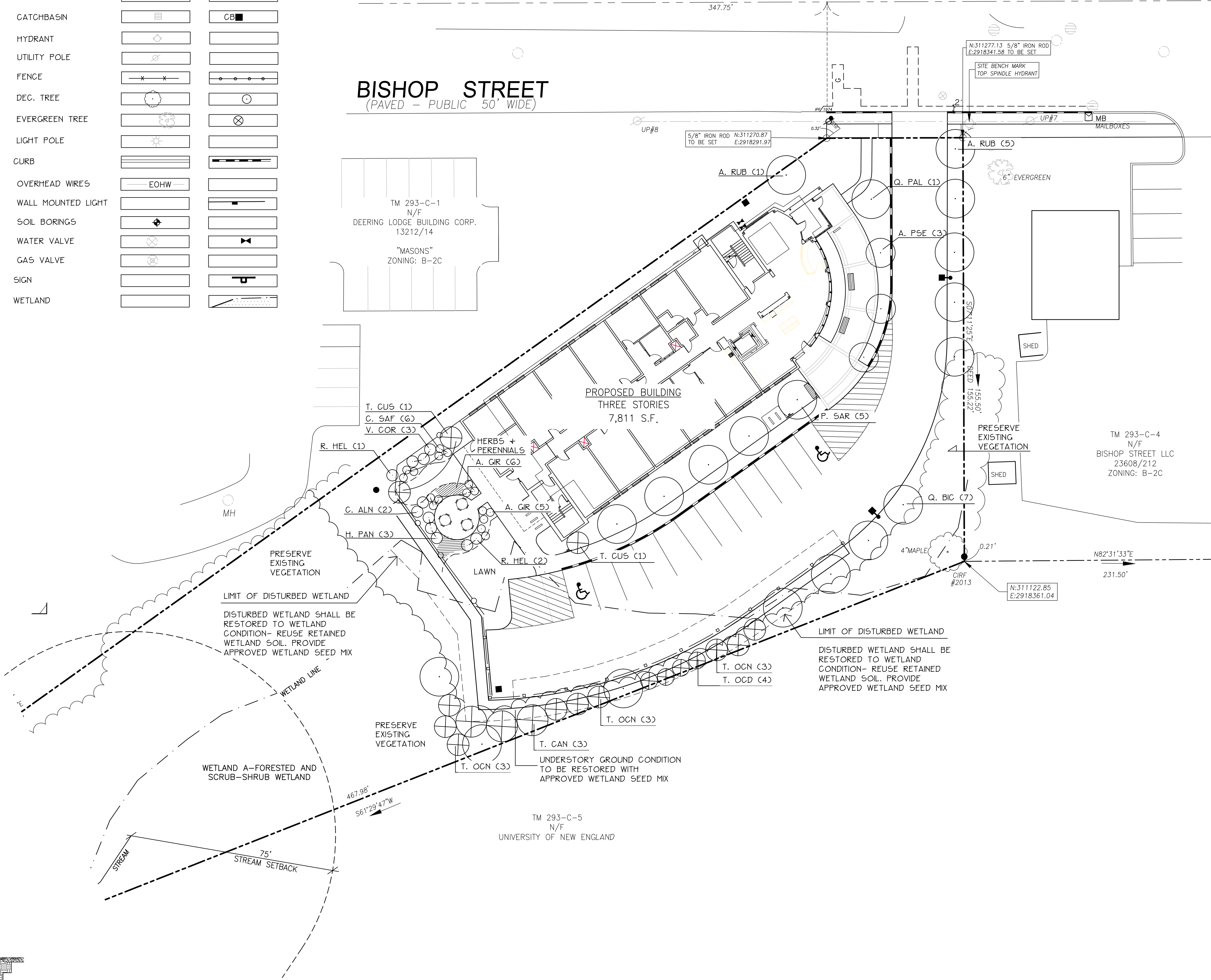


TREE AND SHRUB INSTALLATION

NOT TO SCALE

LEGEND

PROPERTY LINE	EXISTING	PROPOSED
IRON PIPE/MAG NAIL	O I.R.F./I.P.F.	● ▲
GRANITE MONUMENT	□	
CATCHBASIN	■	CB■
HYDRANT	◇	
UTILITY POLE	⊗	
FENCE	× × ×	● ● ●
DEC. TREE	○	○
EVERGREEN TREE	⊗	⊗
LIGHT POLE	☆	
CURB	▬	▬
OVERHEAD WIRES	EOHW	
WALL MOUNTED LIGHT	■	■
SOIL BORINGS	⬇	
WATER VALVE	⊗	▶
GAS VALVE	⊗	
SIGN		■
WETLAND		▨



Prepared For:

Owner:

AVESTA BISHOP STREET LP
307 Cumberland Avenue
Portland, Maine 04101
Tel.: 207-553-7777

Prepared By:

MITCHELL & ASSOCIATES
Landscape Architects
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Portland, Maine 04101
Tel.: 207-774-4427

72 BISHOP STREET

Portland, Maine

Bishop Street

Date:

APRIL 10, 2015

Issued For:

SITE PLAN AND SUBDIVISION
PLAN REVIEW

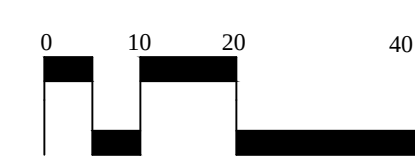
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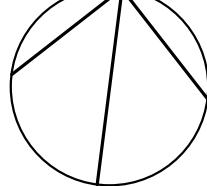
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PLANTING PLAN

Scale: 1"= 20'



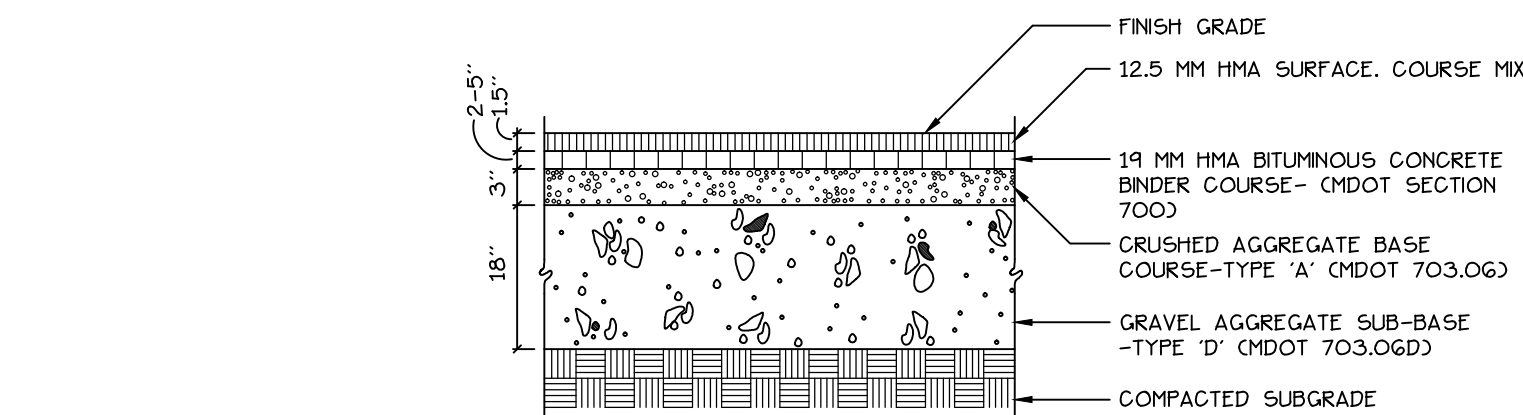
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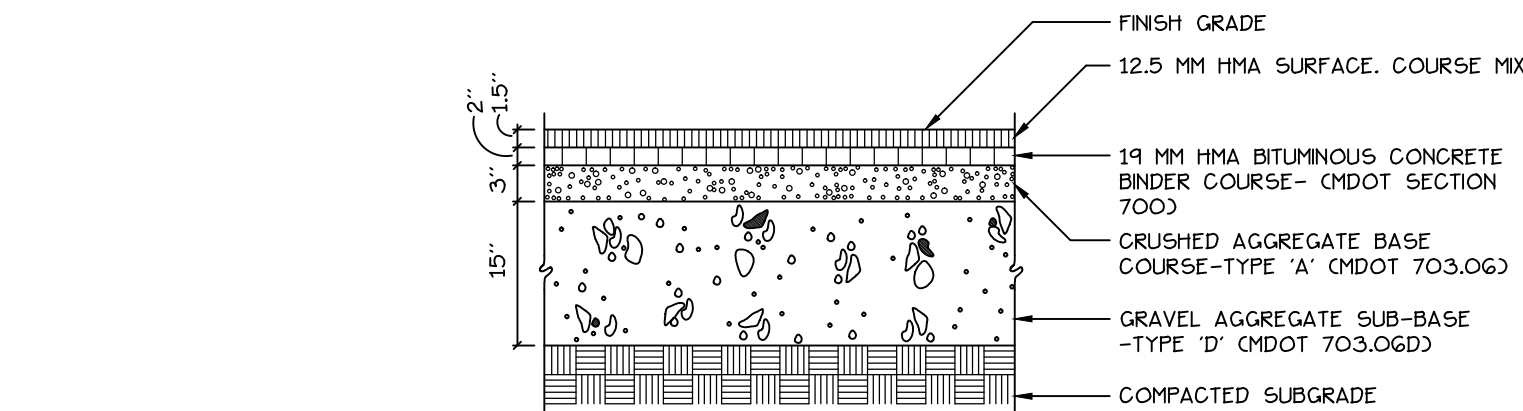
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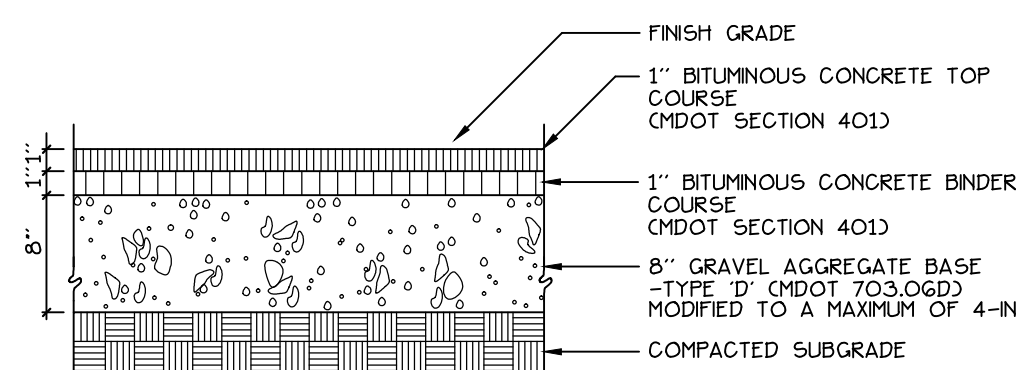




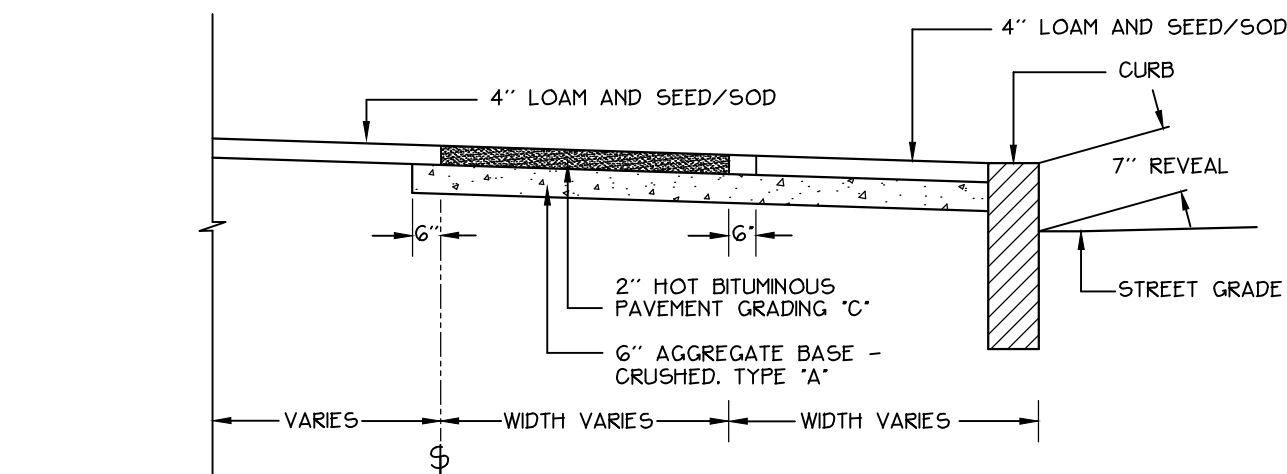
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NOT TO SCALE



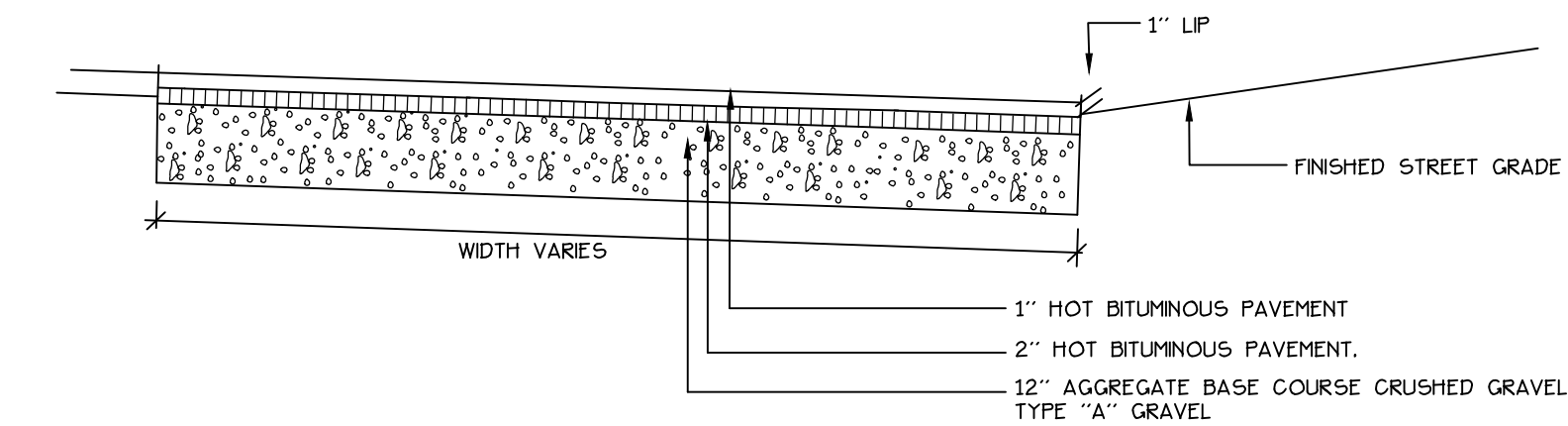
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L5 BITUMINOUS PAVEMENT- PARKING LOT
NOT TO SCALE



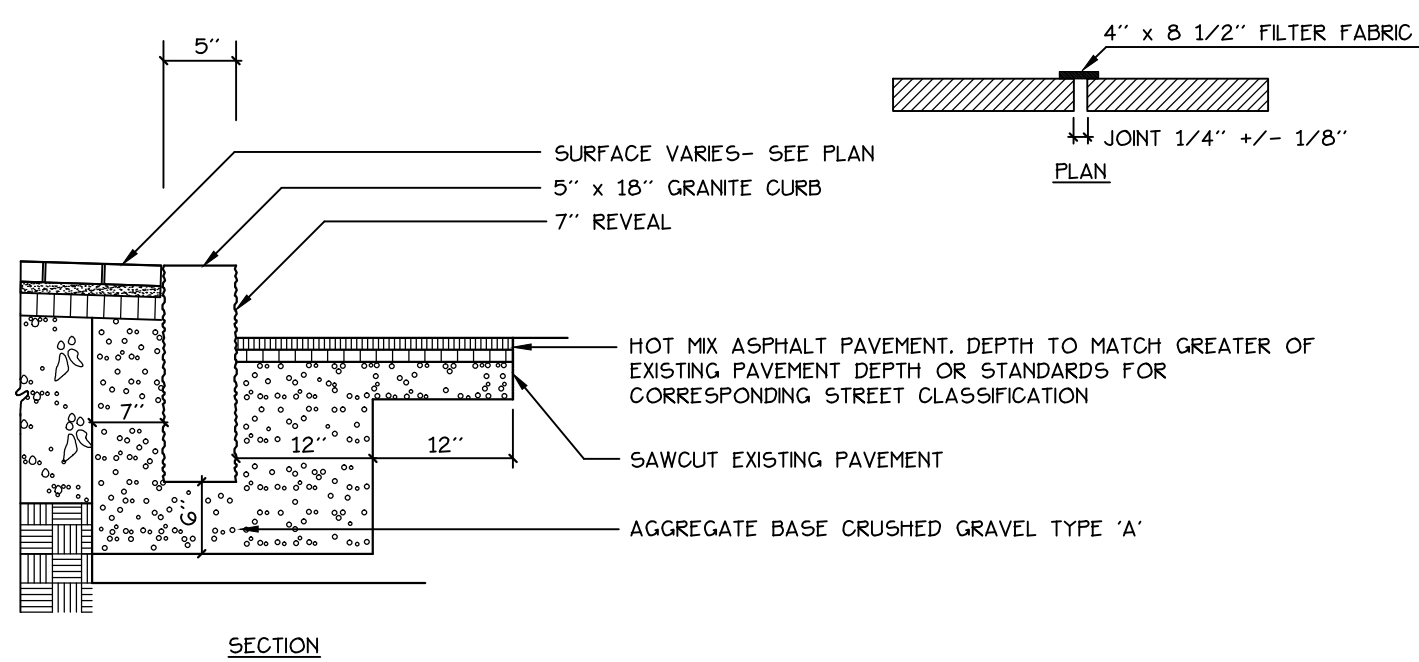
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L5 BITUMINOUS SIDEWALK
NOT TO SCALE



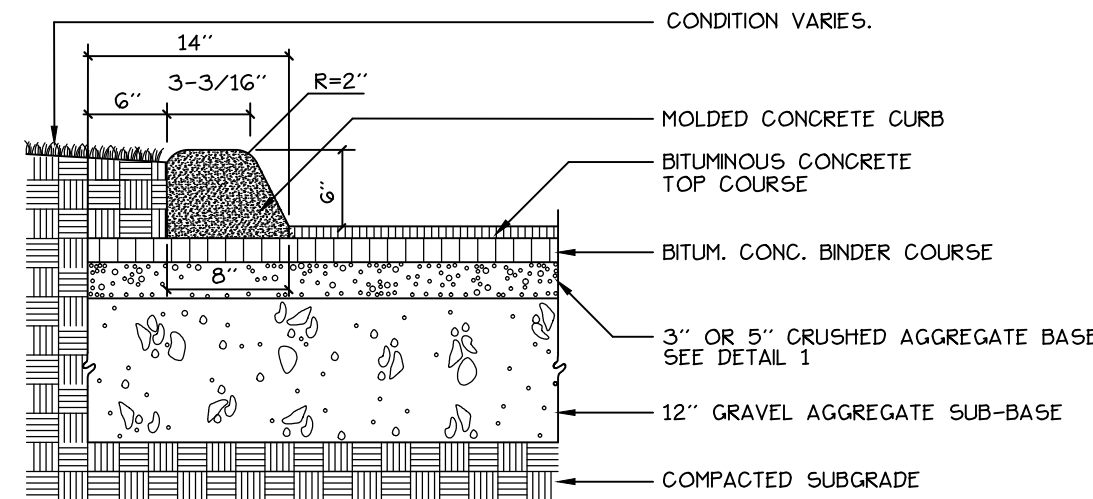
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L5 BITUMINOUS SIDEWALK WITH GRANITE CURB- CITY OF PORTLAND
NOT TO SCALE



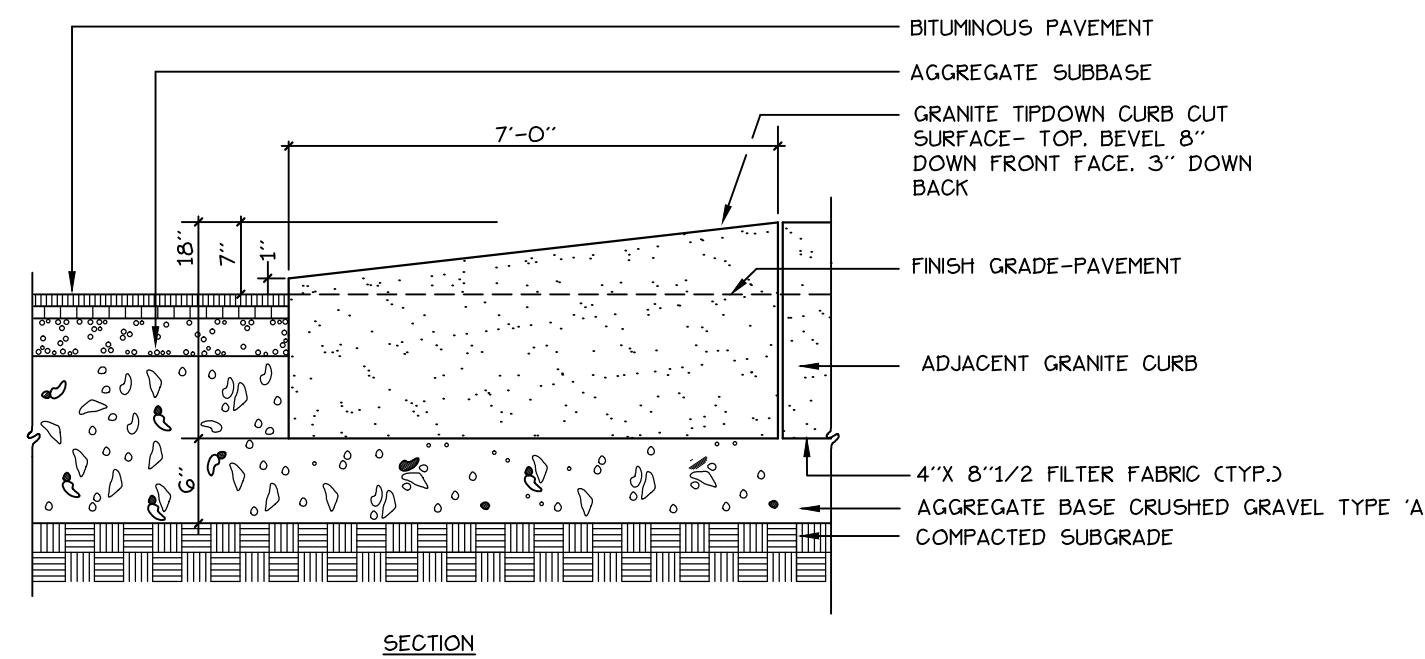
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L5 BITUMINOUS DRIVEWAY APRON
NOT TO SCALE



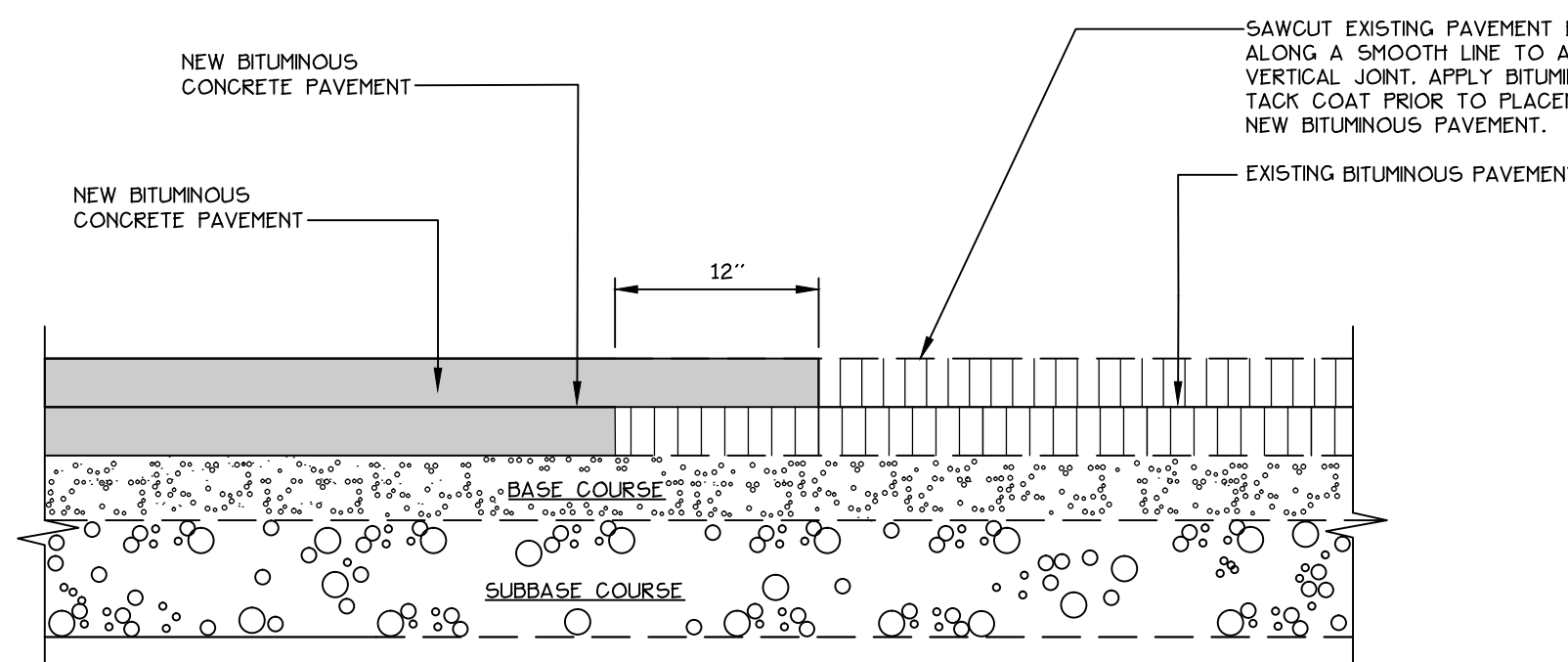
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L5 VERTICAL GRANITE CURB- CITY RIGHT OF WAY
NOT TO SCALE



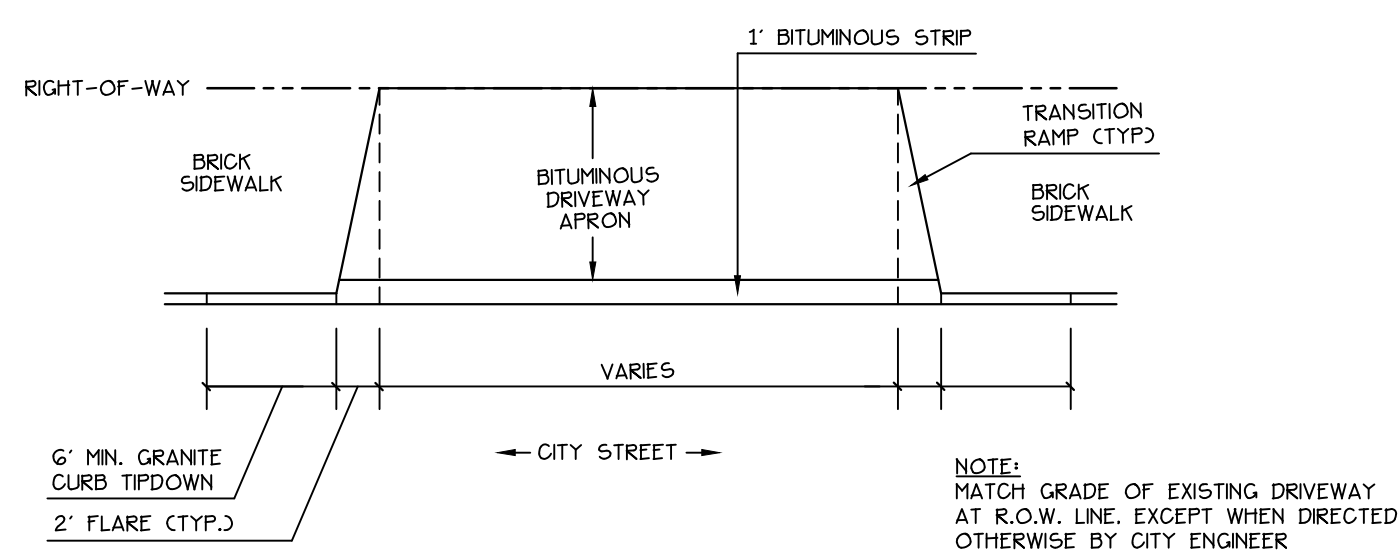
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L5 SLIPFORM CONCRETE CURB-DRIVEWAY
NOT TO SCALE



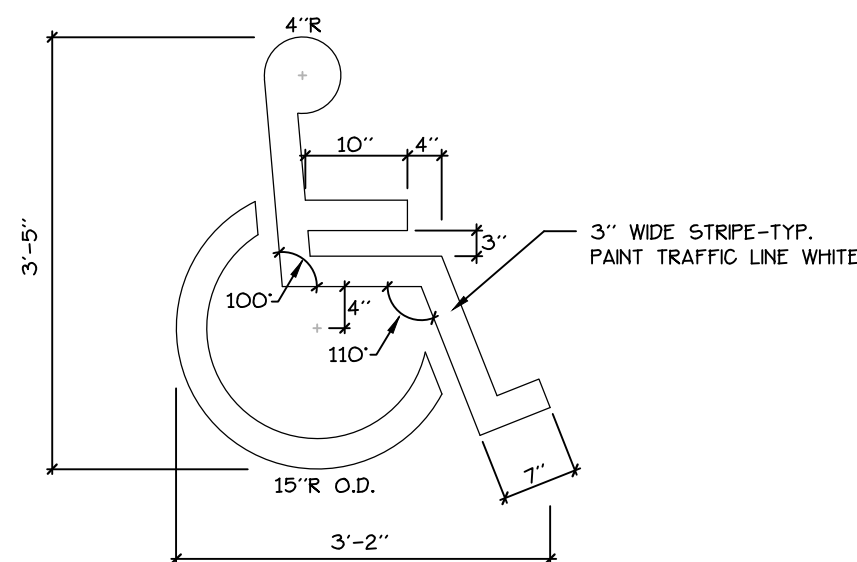
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L5 GRANITE TIP-DOWN CURB
NOT TO SCALE



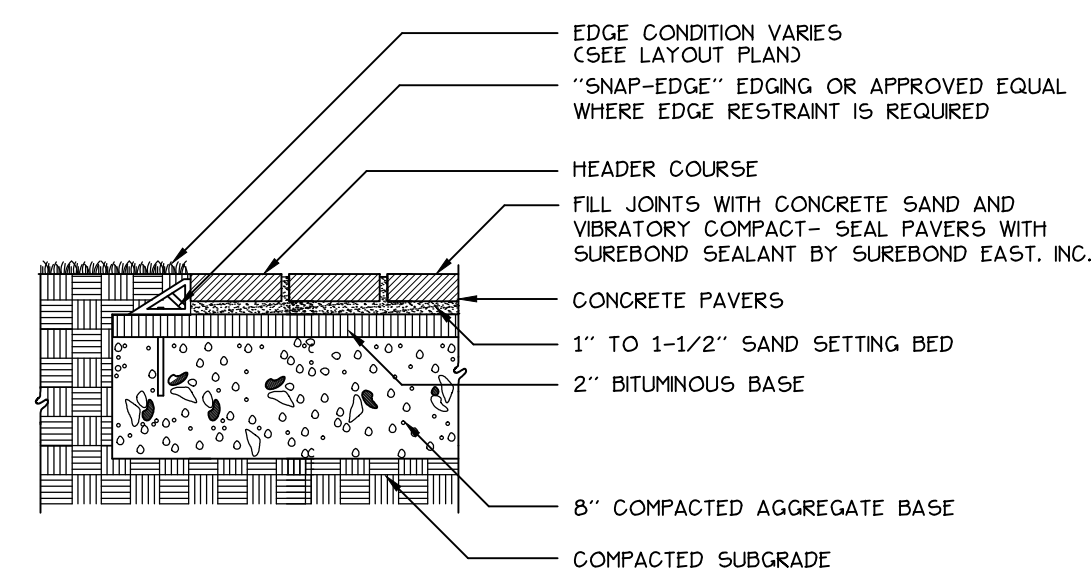
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L5 PAVEMENT SAWCUT DETAIL
NOT TO SCALE



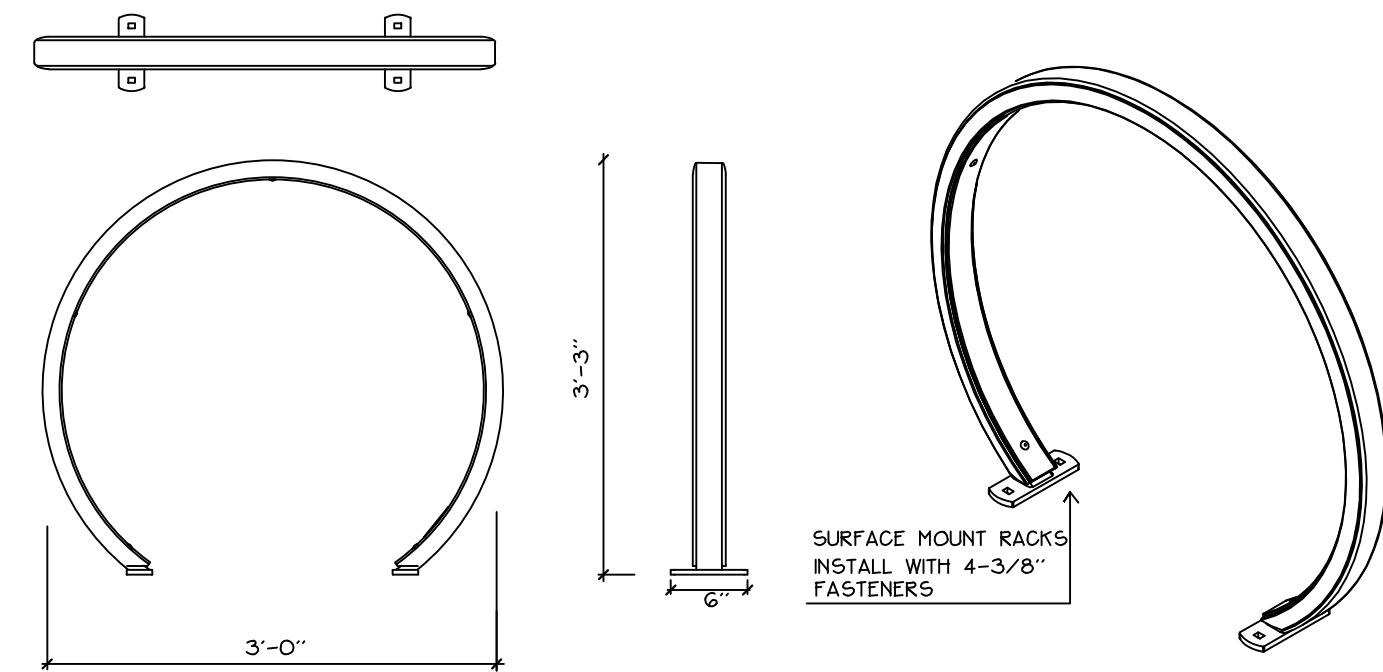
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L5 DRIVEWAY APRON LAYOUT
NOT TO SCALE



11
L5 ACCESSIBLE SPACE MARKINGS
NOT TO SCALE



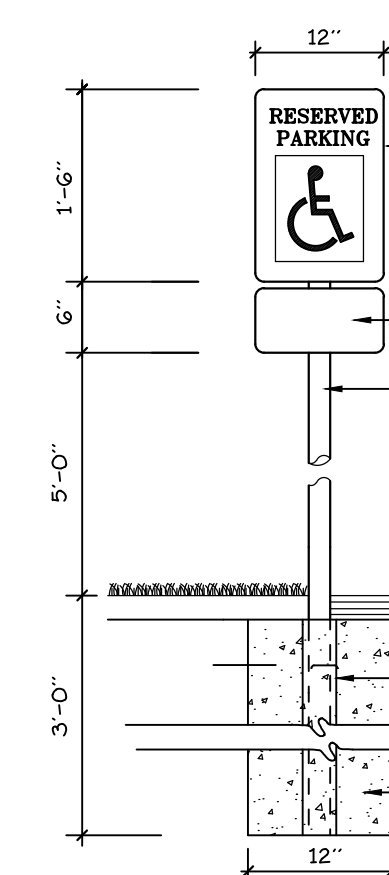
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L5 CONCRETE PAVERS
NOT TO SCALE



13
L5 SPORTWORKS 'OAHU' BIKE RACK DETAIL
NOT TO SCALE



WHITE BACKGROUND
GREEN LETTERING



NOTE: ALL REGULATORY SIGNS SHALL
CONFORM TO MDOT OR NATIONAL
HIGHWAY STANDARDS- SIGN HEIGHT TO
BE 5 FT HIGH TO BOTTOM OF SIGN.
INTERIOR WALL MOUNTED SIGNS SHALL
CONFORM WITH POLE MOUNTING HEIGHTS.

UNIVERSAL HANDICAP SIGN

PROVIDE 'VAN ACCESSIBLE'
SIGN WHERE REQUIRED

2" GALVANIZED SCHEDULE
40" STEEL PIPE WITH END CAP

PAVEMENT OR TURF -
CONDITION VARIES

PROVIDE PVC SLEEVE AND
MORTAR FOR SIDEWALK
INSTALLATION

CONCRETE SIGN BASE 12"
SONO TUBE- ALTERNATE
INSTALLATION- SIGN POST MAY
BE AIR DRIVEN. EMBED PIPE A
MINIMUM OF 4 FT IN GROUND.

14
L5 HANDICAP PARKING SIGNAGE AND REGULATORY SIGNS
NOT TO SCALE

Owner:



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**Mitchell
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72 Bishop Street

Date:

APRIL 10, 2015

Issued For:

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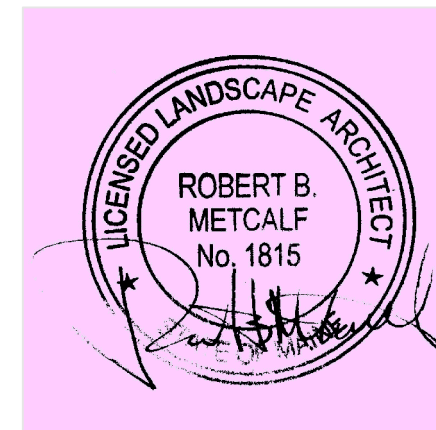
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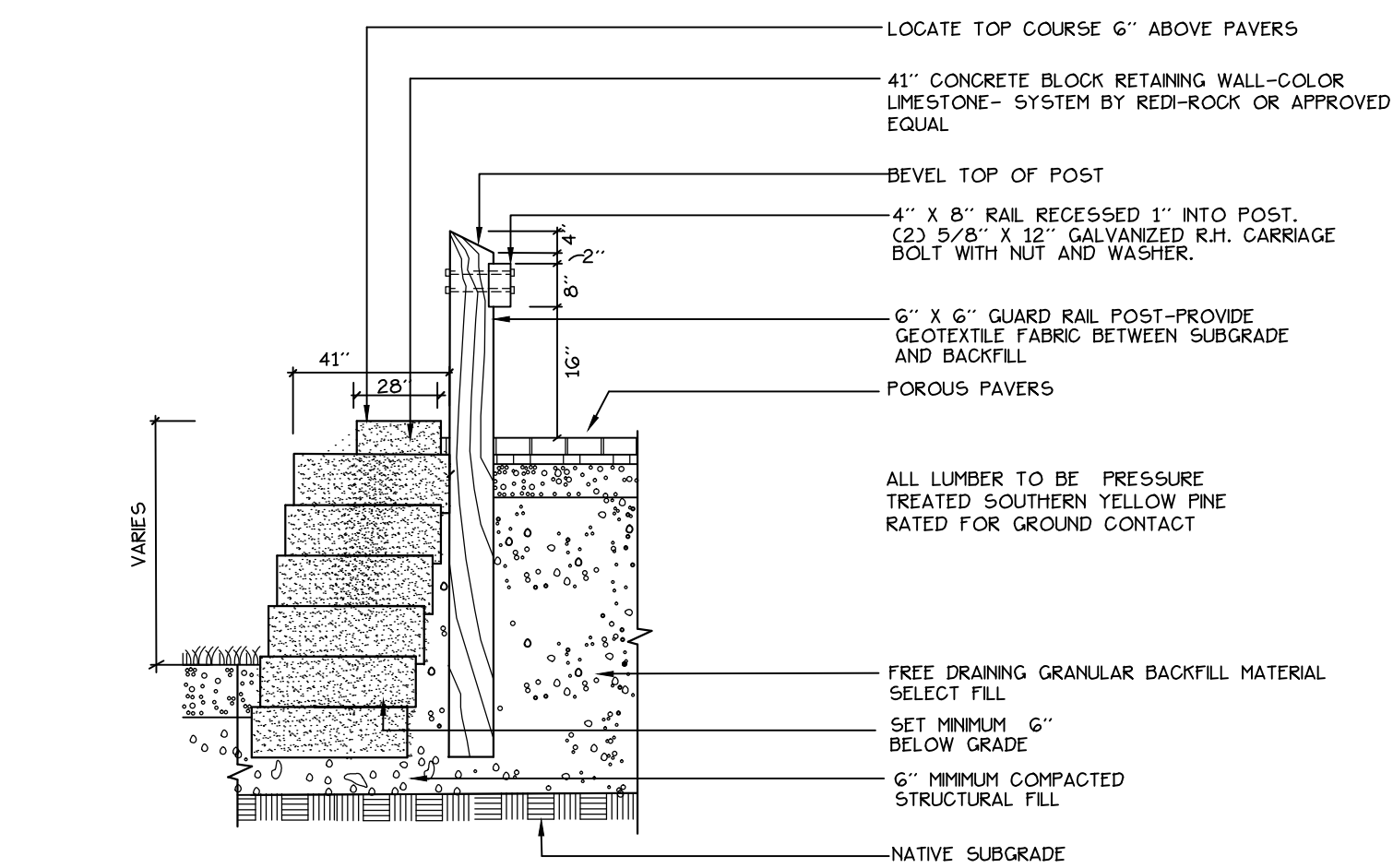
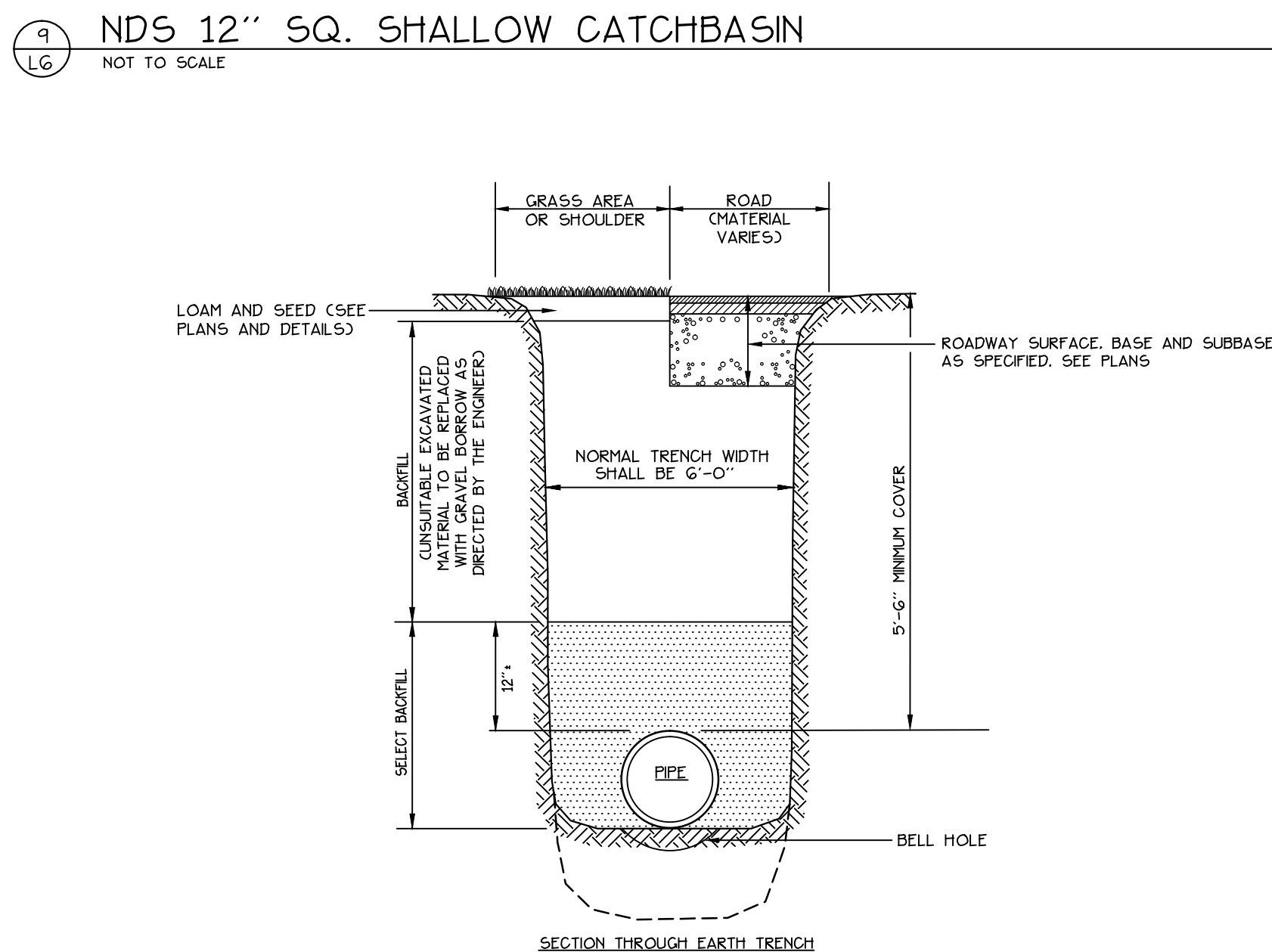
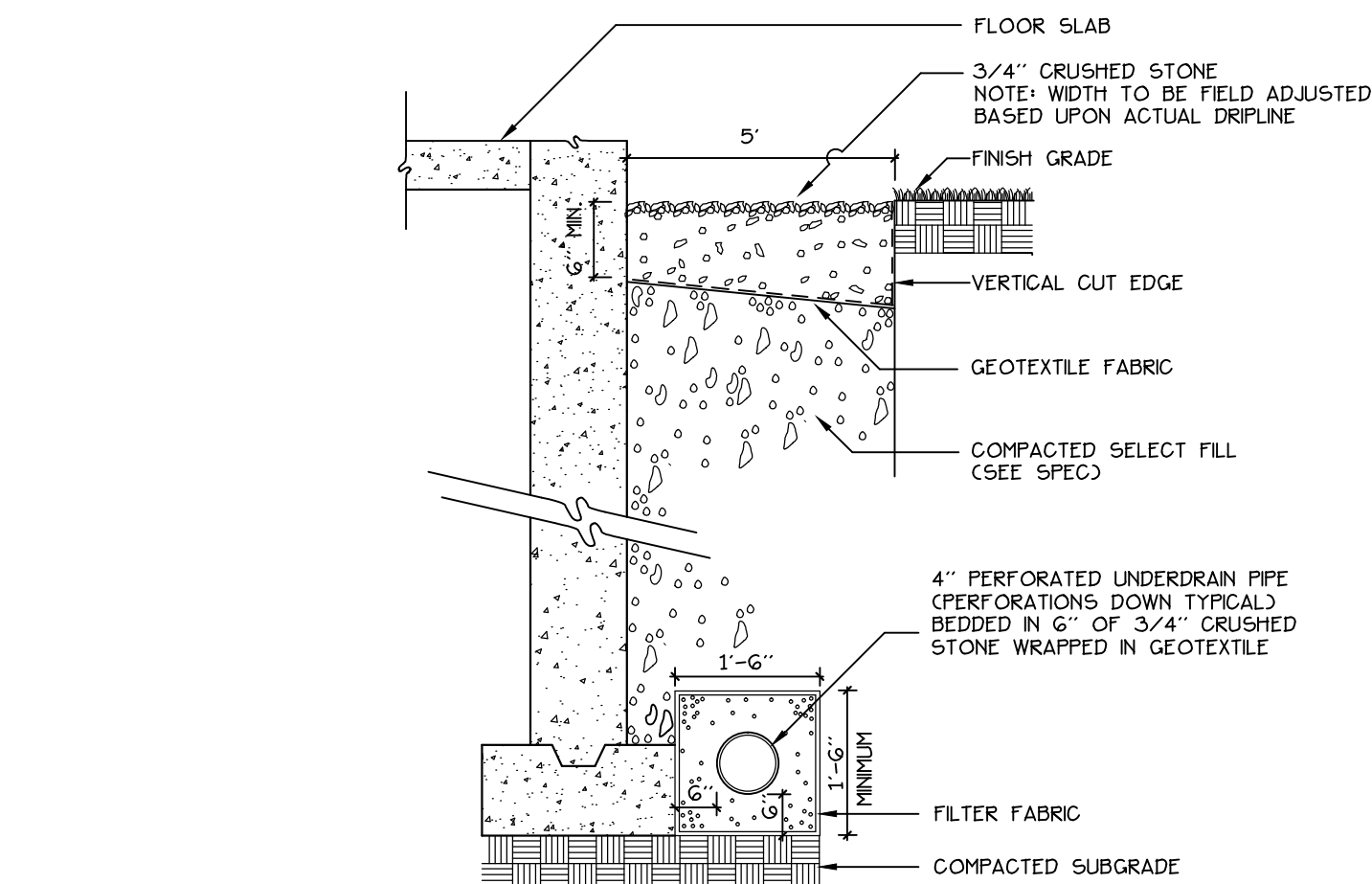
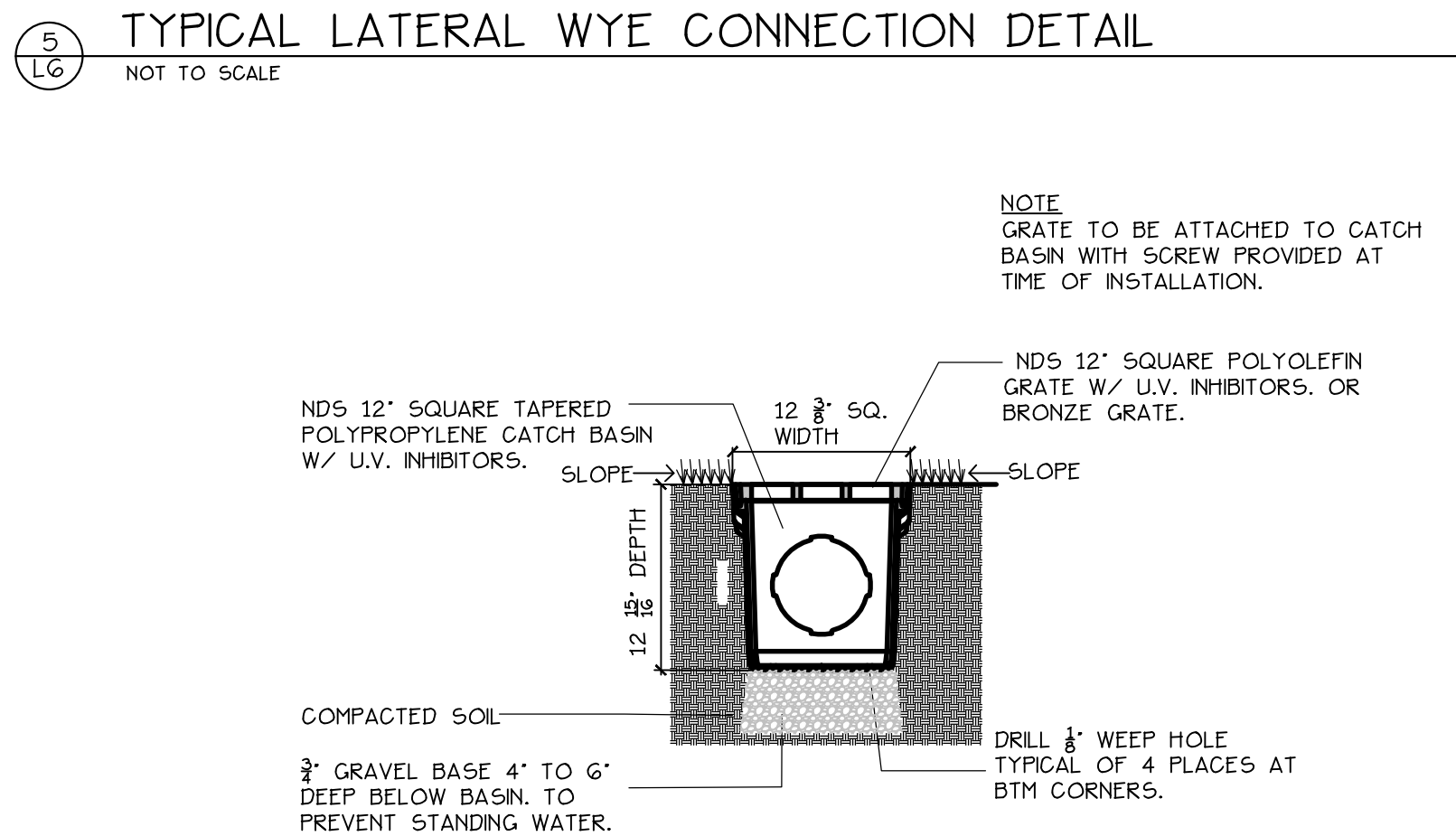
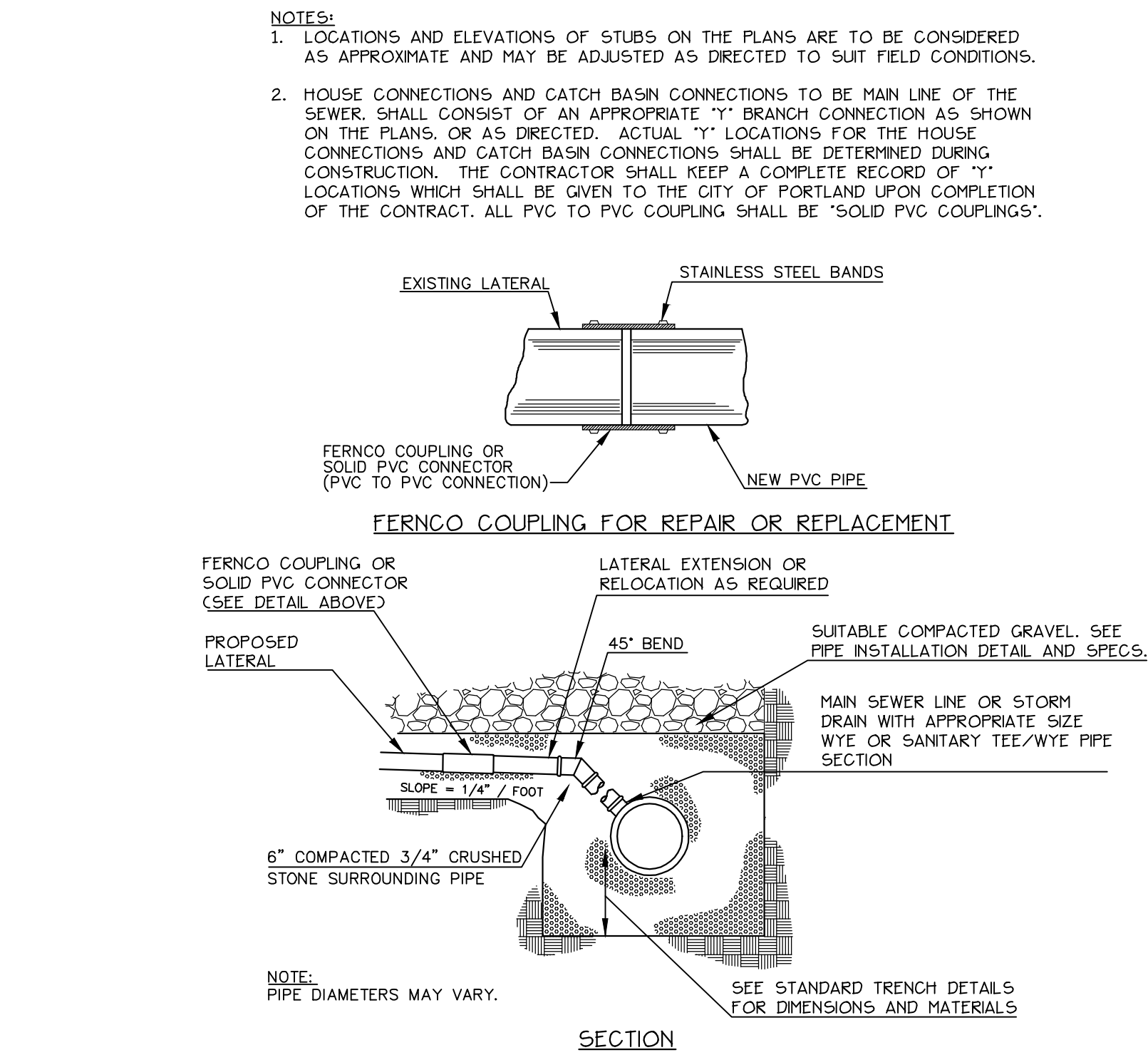
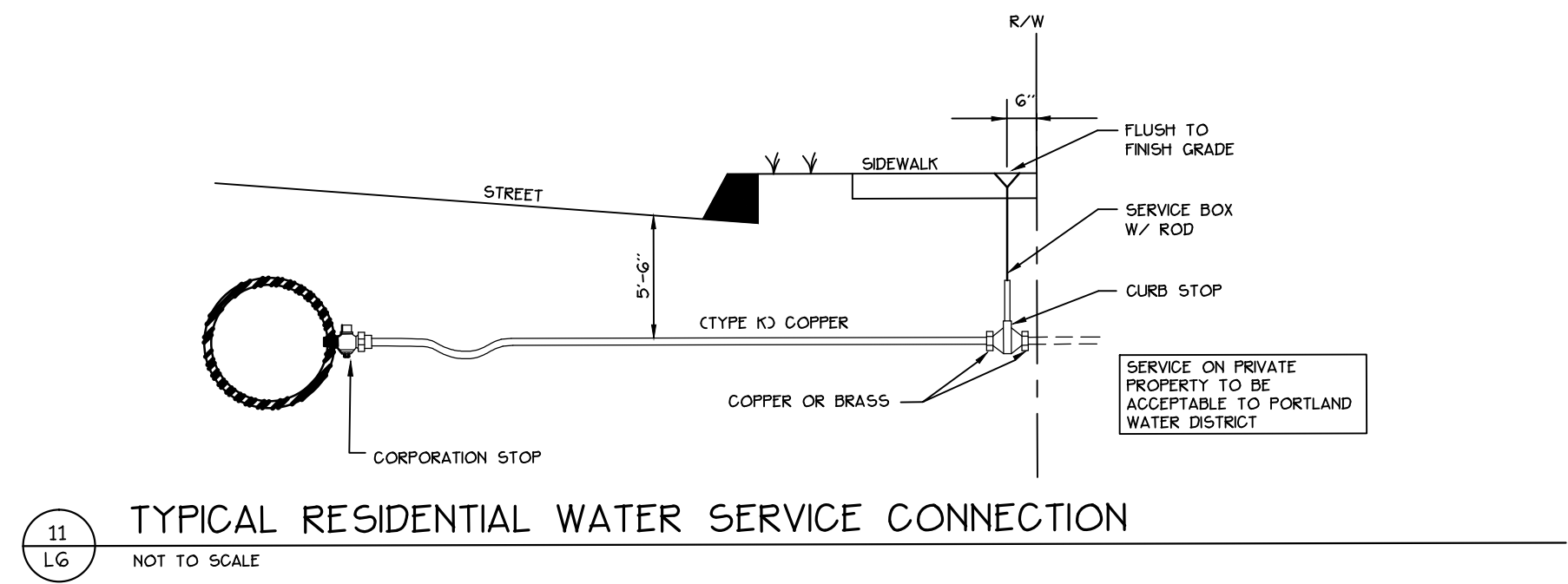
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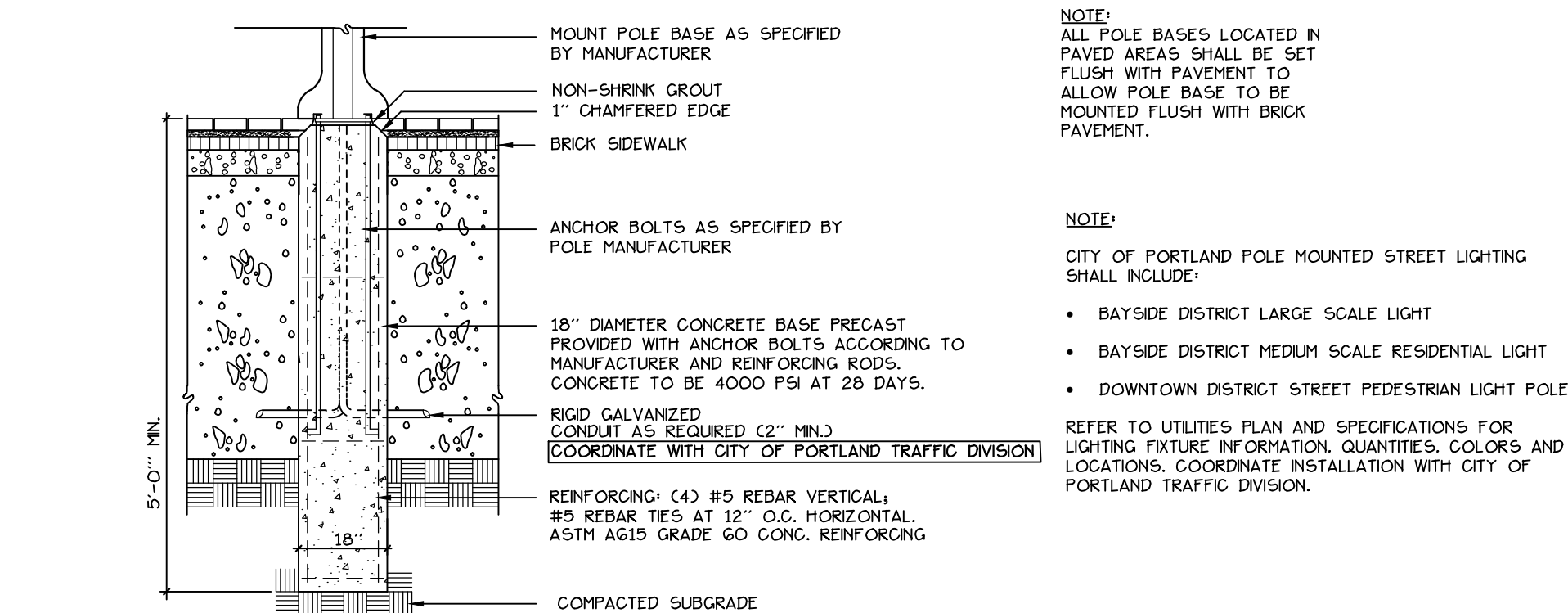
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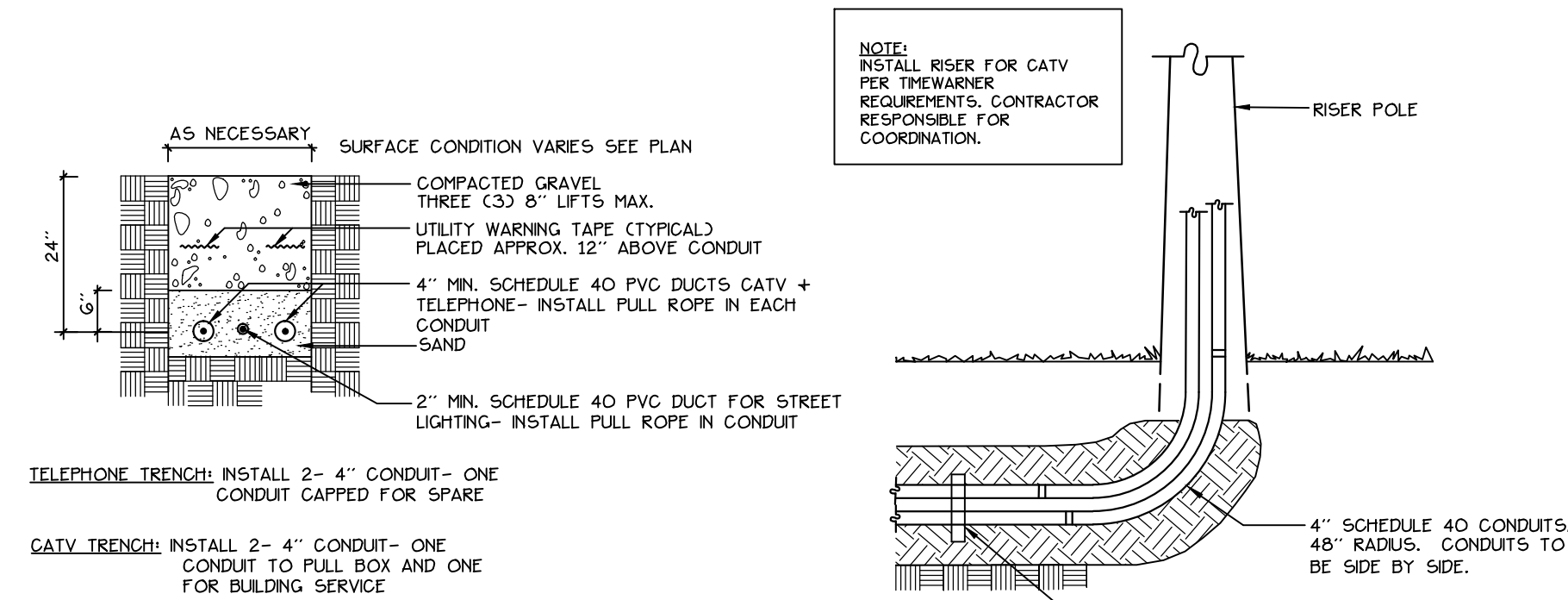




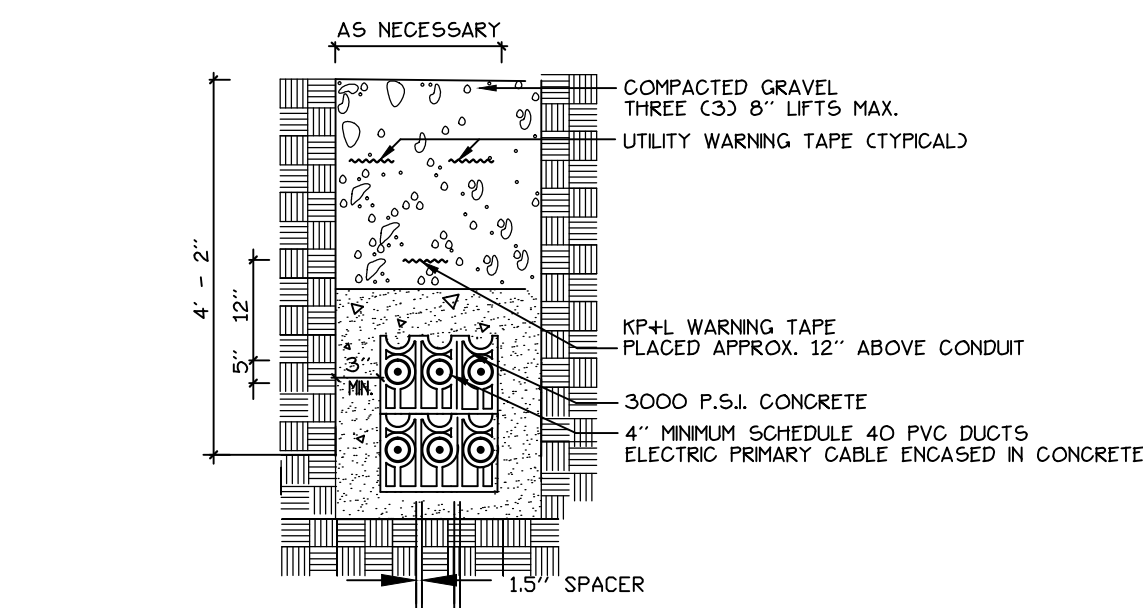
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LG CONCRETE SEGMENTAL RETAINING WALL WITH GUARDRAIL
NOT TO SCALE



2 LIGHT POLE BASE
LG NOT TO SCALE



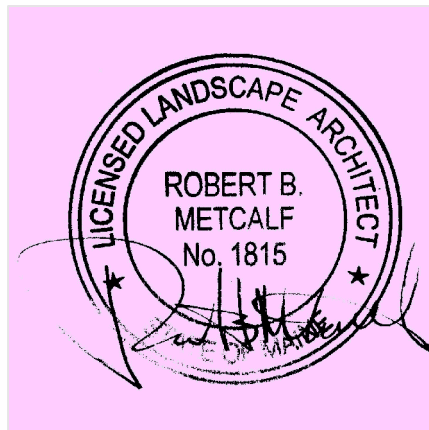
3 TELEPHONE / CABLE T.V. + STREET LIGHTING TRENCH
LG NOT TO SCALE

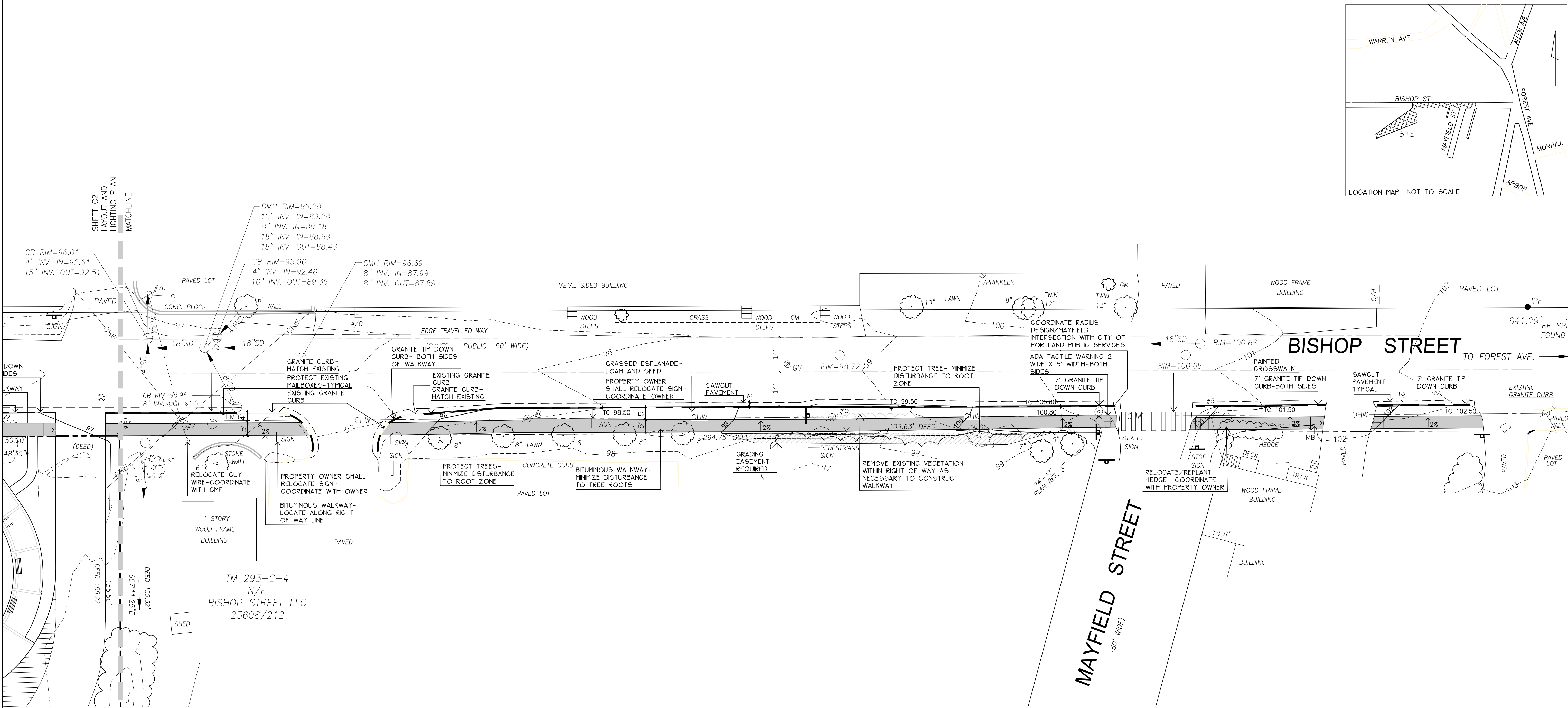


4
LG

ELECTRIC TRENCH

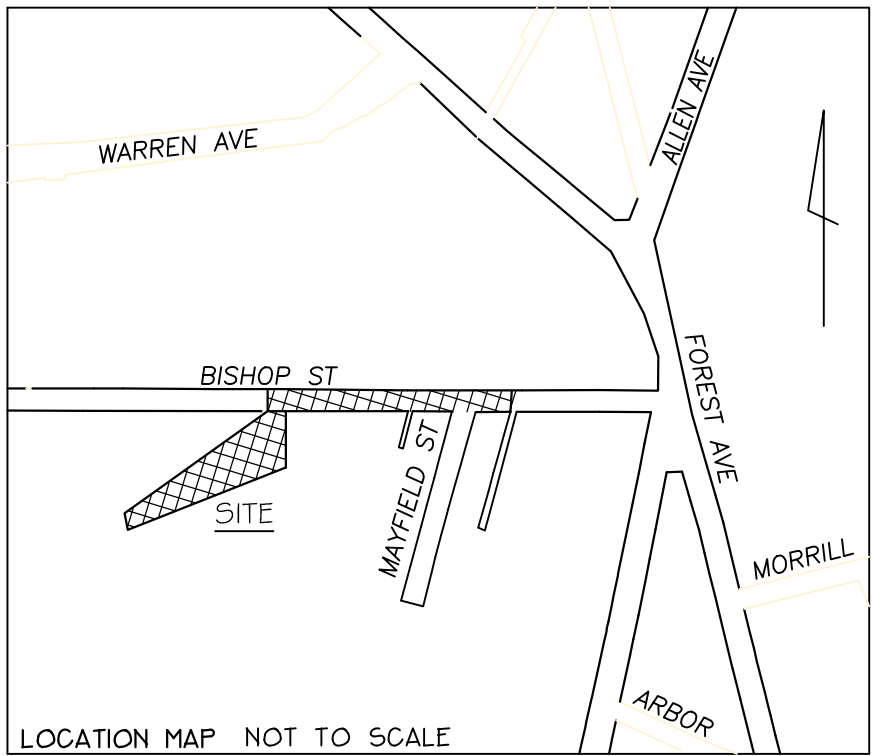
NOT TO SCALE





GENERAL NOTES:

- EXISTING CONDITIONS AND BOUNDARY INFORMATION TAKEN FROM A PLAN ENTITLED 'BOUNDARY + TOPOGRAPHIC SURVEY AT 72 BISHOP STREET, PORTLAND, MAINE' PREPARED BY OWEN HASKELL, INC. DATED JULY 17, 2014.
- BEARINGS ARE GRID NORTH AND ELEVATIONS ARE NAVD88 AS BASED ON STATIC GPS COLLECTION AND OPUS CORRECTION.
- THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-800-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.



Prepared For:

Owner:
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Tel.: 207-553-7777

Prepared By:

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72 BISHOP STREET

Portland, Maine

Bishop Street

Date:

APRIL 10, 2015

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SITE PLAN AND SUBDIVISION
PLAN REVIEW

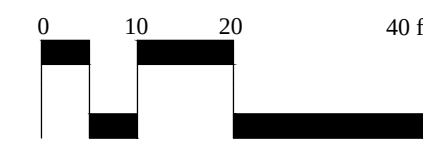
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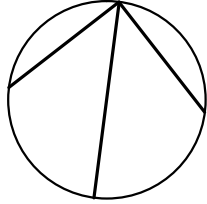
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SIDEWALK PLAN

Scale: 1"= 20'



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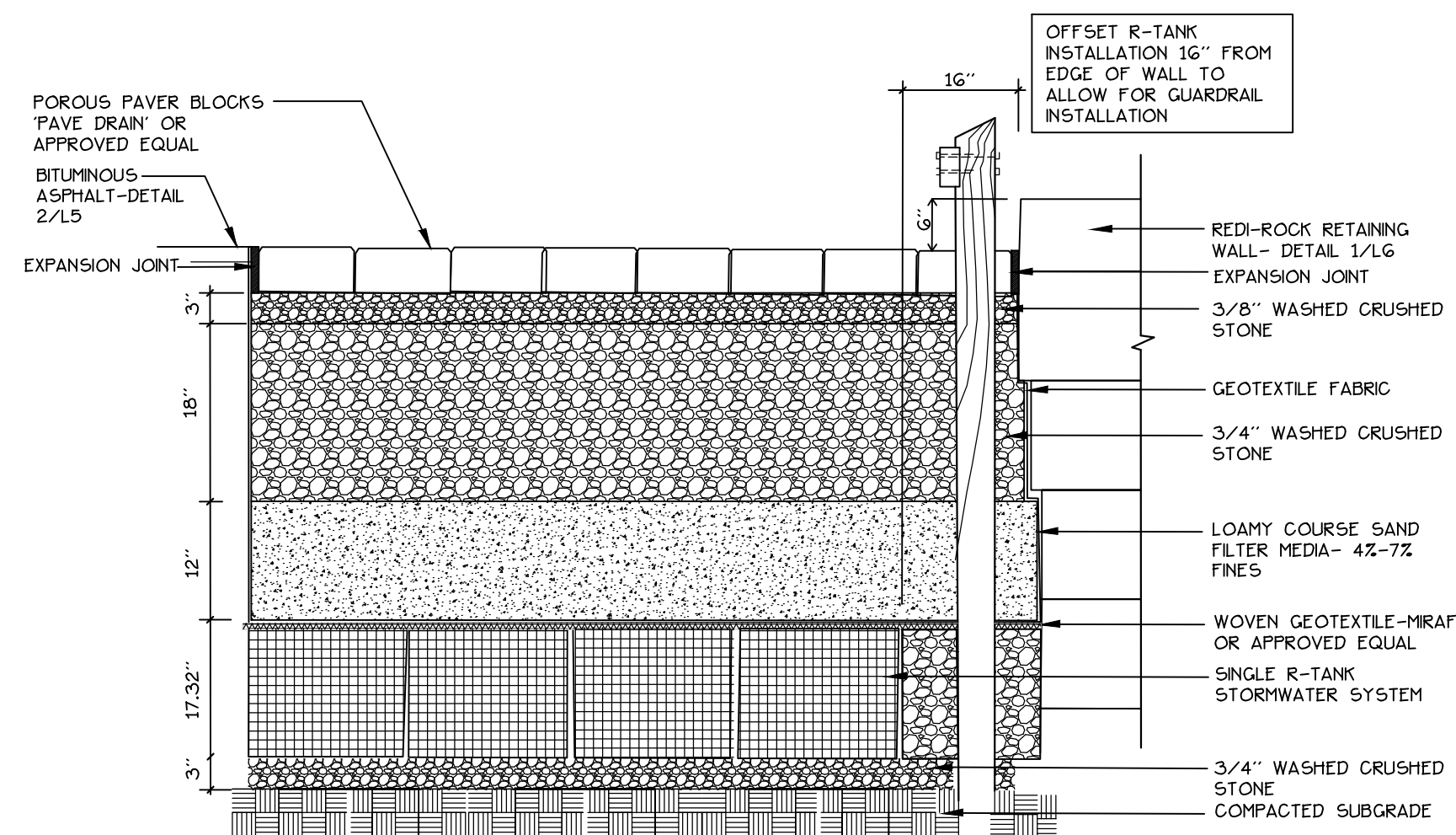


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L7

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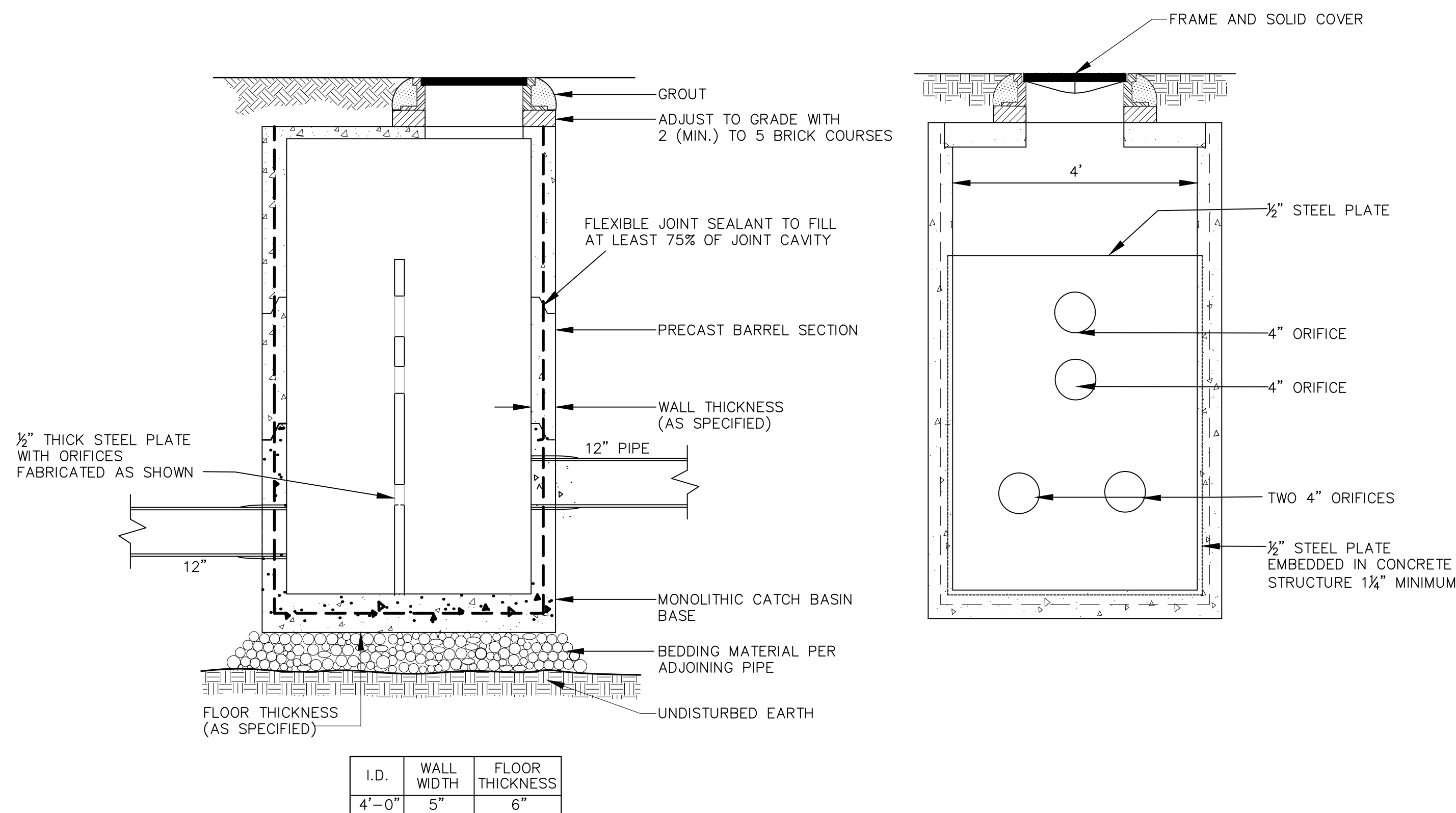
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	EXISTING	PROPOSED
PROPERTY LINE		
IRON PIPE/MAG NAIL		
GRANITE MONUMENT		
CATCHBASIN		
FIELD INLET		
HYDRANT		
UTILITY POLE		
CONTOUR		
SPOT GRADE		
FENCE		
DEC. TREE		
EVERGREEN TREE		
LIGHT POLE		
CURB		
SOIL BORINGS		
WATER VALVE		
GAS VALVE		
SIGN		
WETLAND		
SILT FENCE		



1
L9

POROUS PAVERS + R-TANK STORMWATER SYSTEM

NOT TO SCALE



2
L9

FLOW CONTROL STRUCTURE

NOT TO SCALE

Owner:



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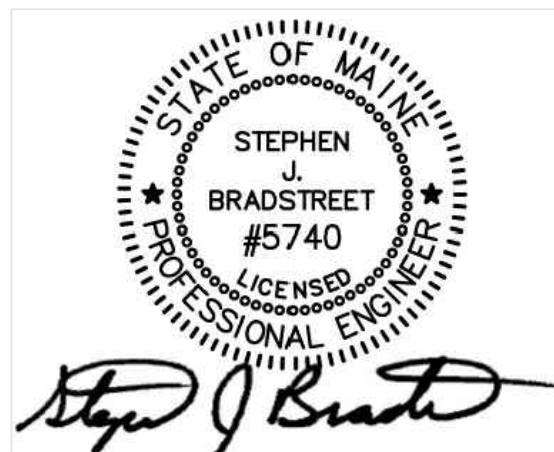
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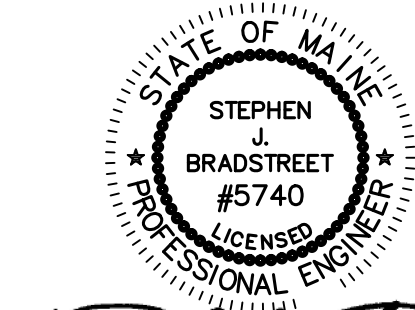
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Sheet No.:

L9



- GENERAL NOTES:
1. SITE AREA: 52,383 SF OR 1.20 ACRES
 2. IMPERVIOUS AREA: 826 S.F. BUILDING
380 S.F. GRAVEL DRIVE
1,206 S.F. TOTAL
 3. LANDSCAPED AREA: 14,646 S.F. GRASS
36,531 S.F. VEGETATED WETLANDS
51,177 S.F. TOTAL



Stephen J. Bradstreet



Prepared For:
Owner:
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307 Cumberland Avenue
Portland, Maine 04101
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Portland, Maine

Bishop Street

72 BISHOP STREET

Date:
April 10, 2015

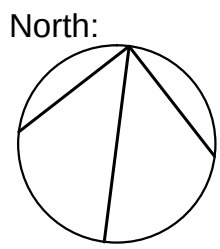
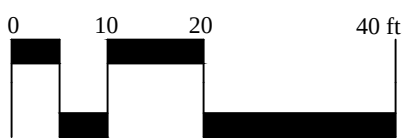
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Site Plan and Subdivision Plan
Review

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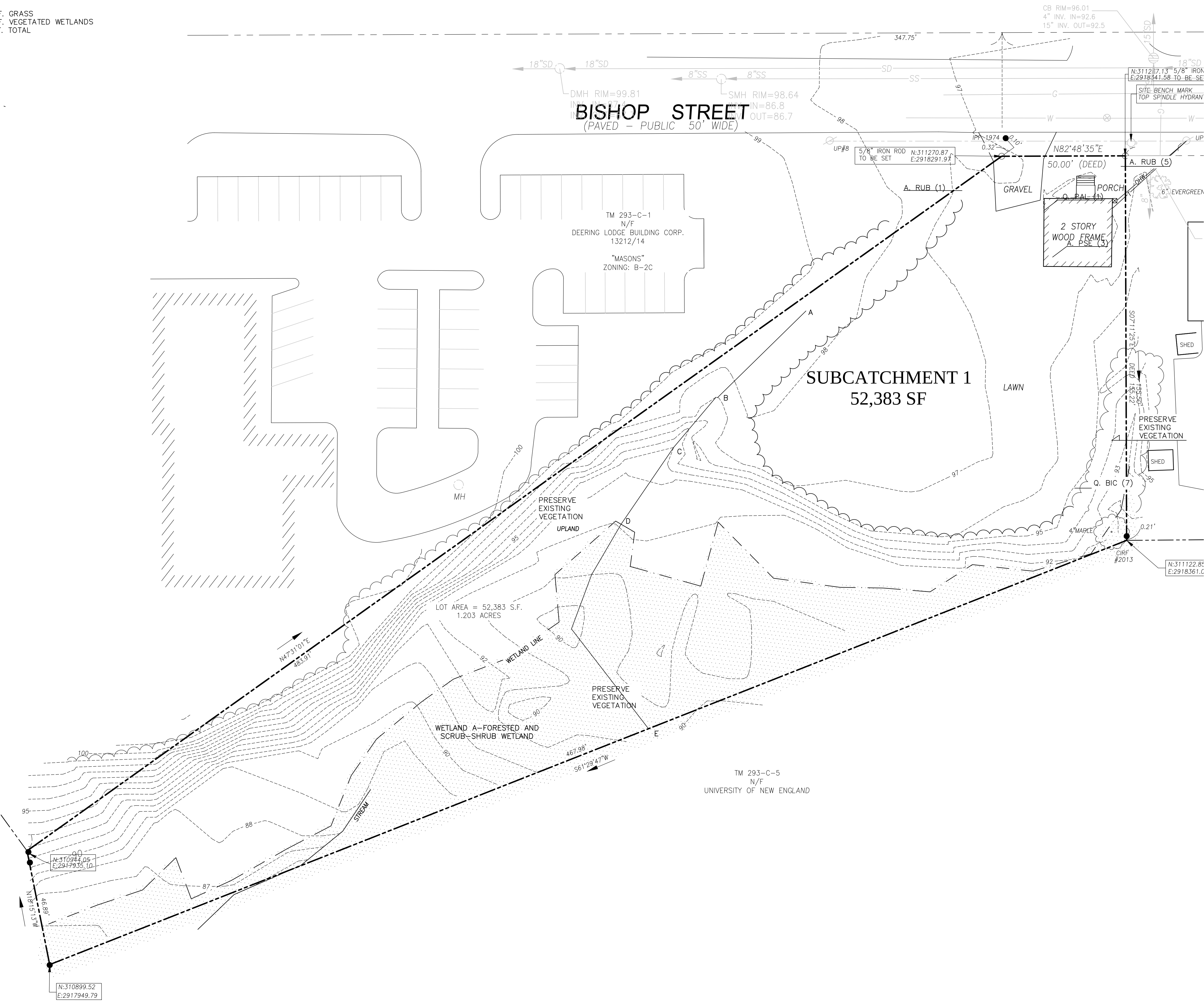
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STORMWATER PLAN

Scale: 1"= 20'

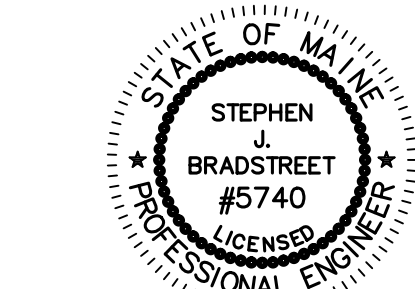


Sheet No.:

SW 1



- GENERAL NOTES:
1. SITE AREA: 52,383 SF OR 1.20 ACRES
 2. IMPERVIOUS AREA: SUBCATCHMENT 1: 10,777 S.F. PARKING/SIDEWALK
SUBCATCHMENT 2: 7,811 S.F. BUILDING
SUBCATCHMENT 3: 0 S.F.
 3. LANDSCAPED AREA: SUBCATCHMENT 1: 9,819 S.F.
SUBCATCHMENT 2: 0 S.F.
SUBCATCHMENT 3: 23,976 S.F. VEGETATED WETLANDS
 4. DEVELOPED AREA: 28,407 S.F. (18,588 S.F. IMPERVIOUS; 9,819 S.F. LANDSCAPED)
 5. UNDEVELOPED AREA: 23,976 S.F.



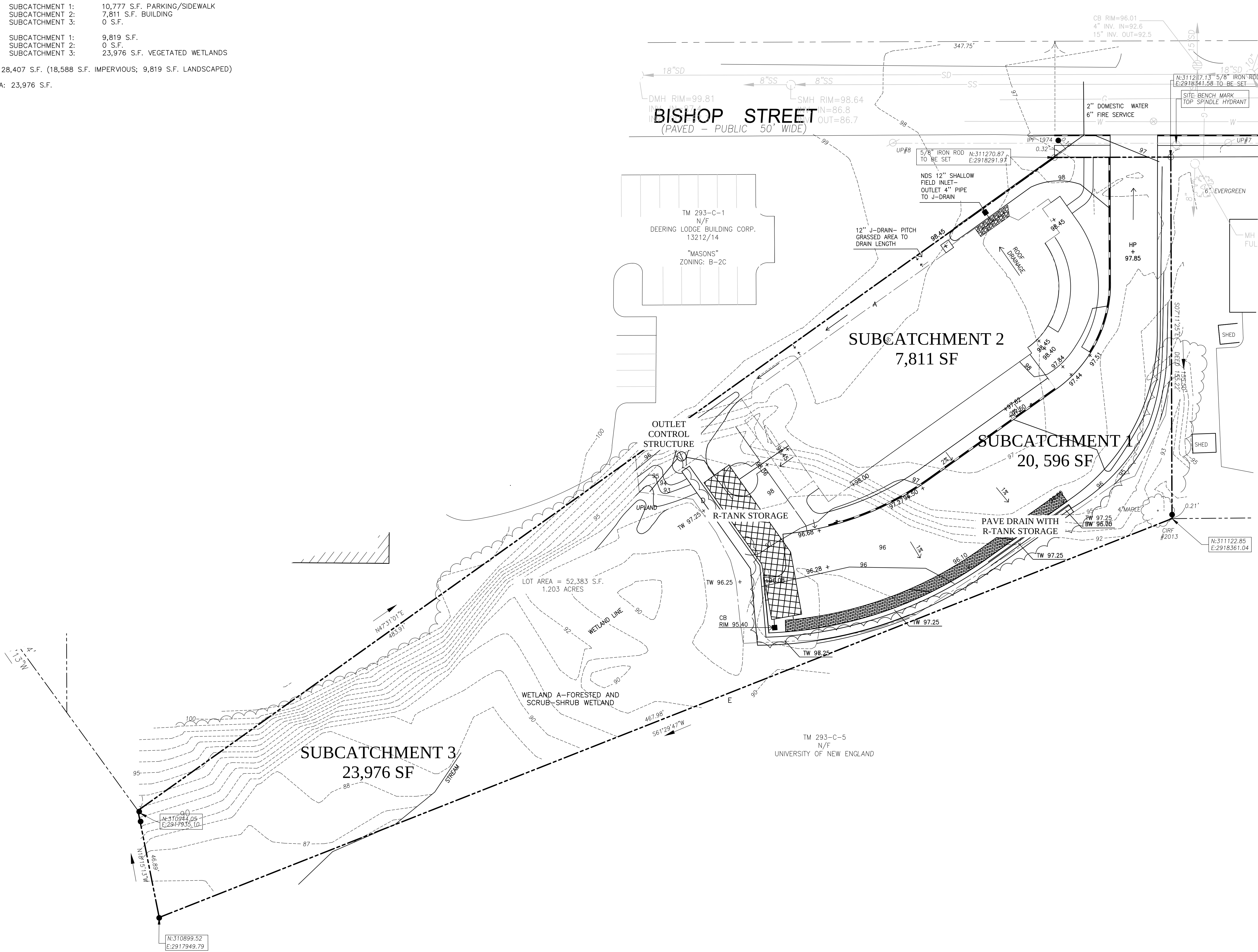
Stephen J. Bradstreet



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72 BISHOP STREET
Portland, Maine
Bishop Street

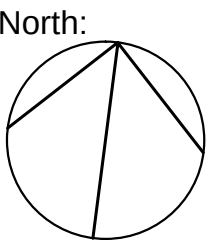
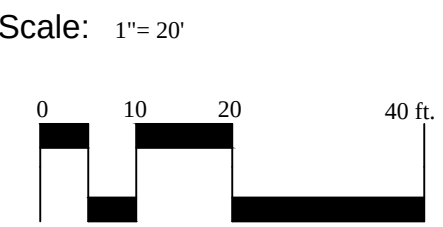
Date:
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Site Plan and Subdivision Plan
Review

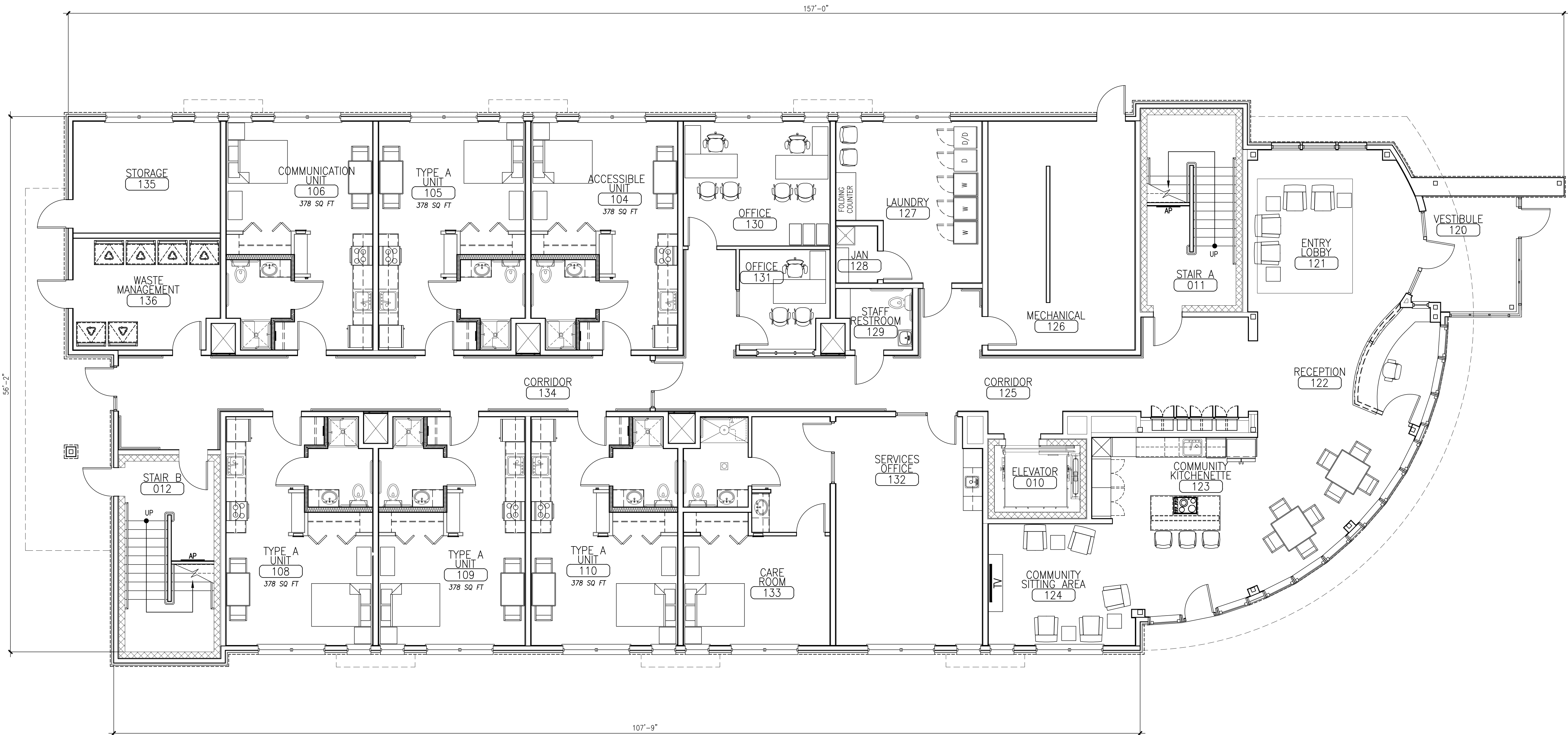
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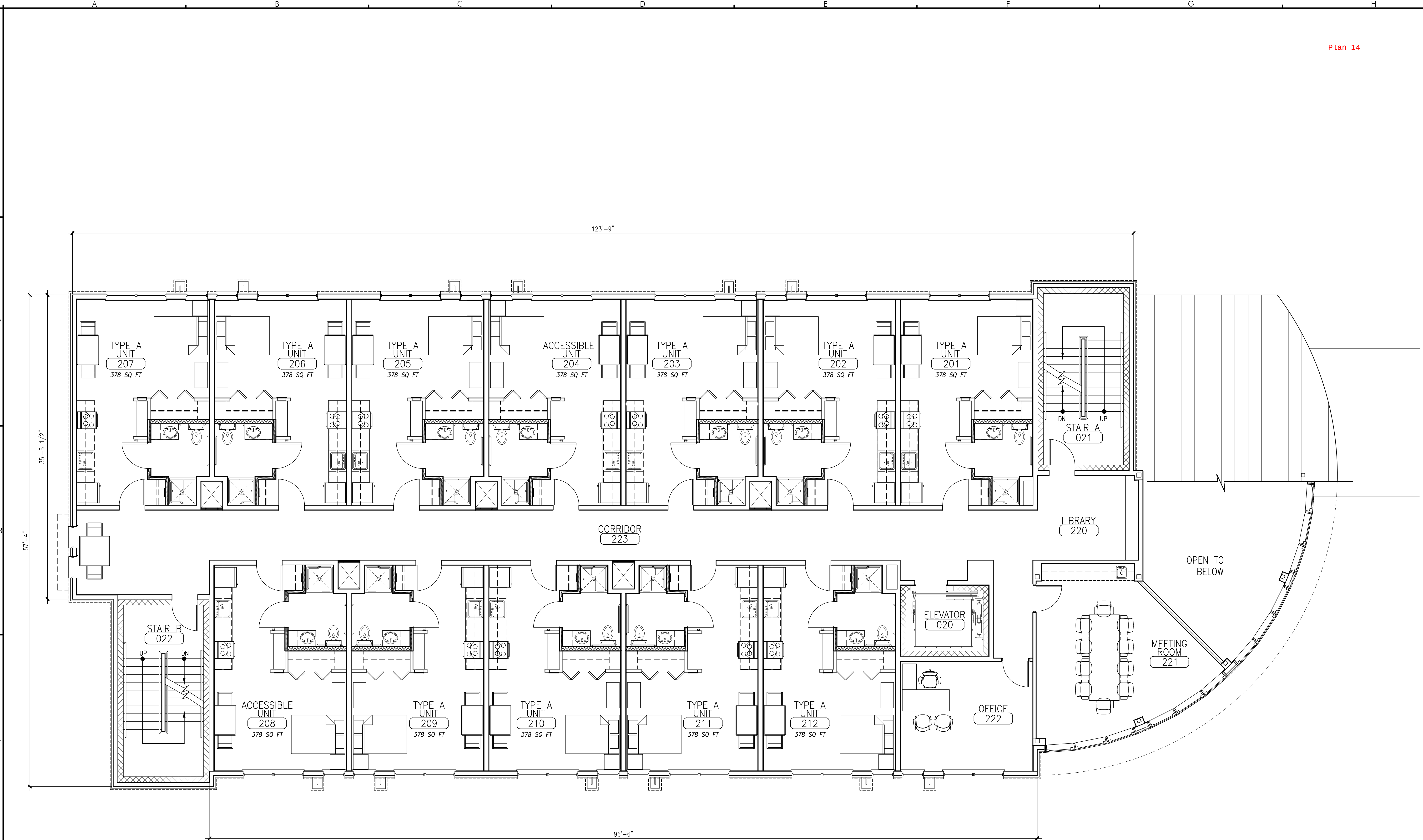
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Title:
POST DEVELOPMENT
STORMWATER PLAN



Sheet No.:
SW 2





A5 SECOND FLOOR PLAN

SCALE: 3/16" = 1'-0"



DRAWING NUMBER
A1.02
SCALE: AS NOTED
DATE: 04/10/15

REVIEW

CWS ARCHITECTS
ARCHITECTURE | INTERIOR DESIGN

PLANNING + DESIGN
CONSTRUCTION SERVICES

DESIGNER

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OWNER

AVESTA

307 CUMBERLAND AVE.,
PORTLAND, MAINE
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PROJECT

72 BISHOP STREET

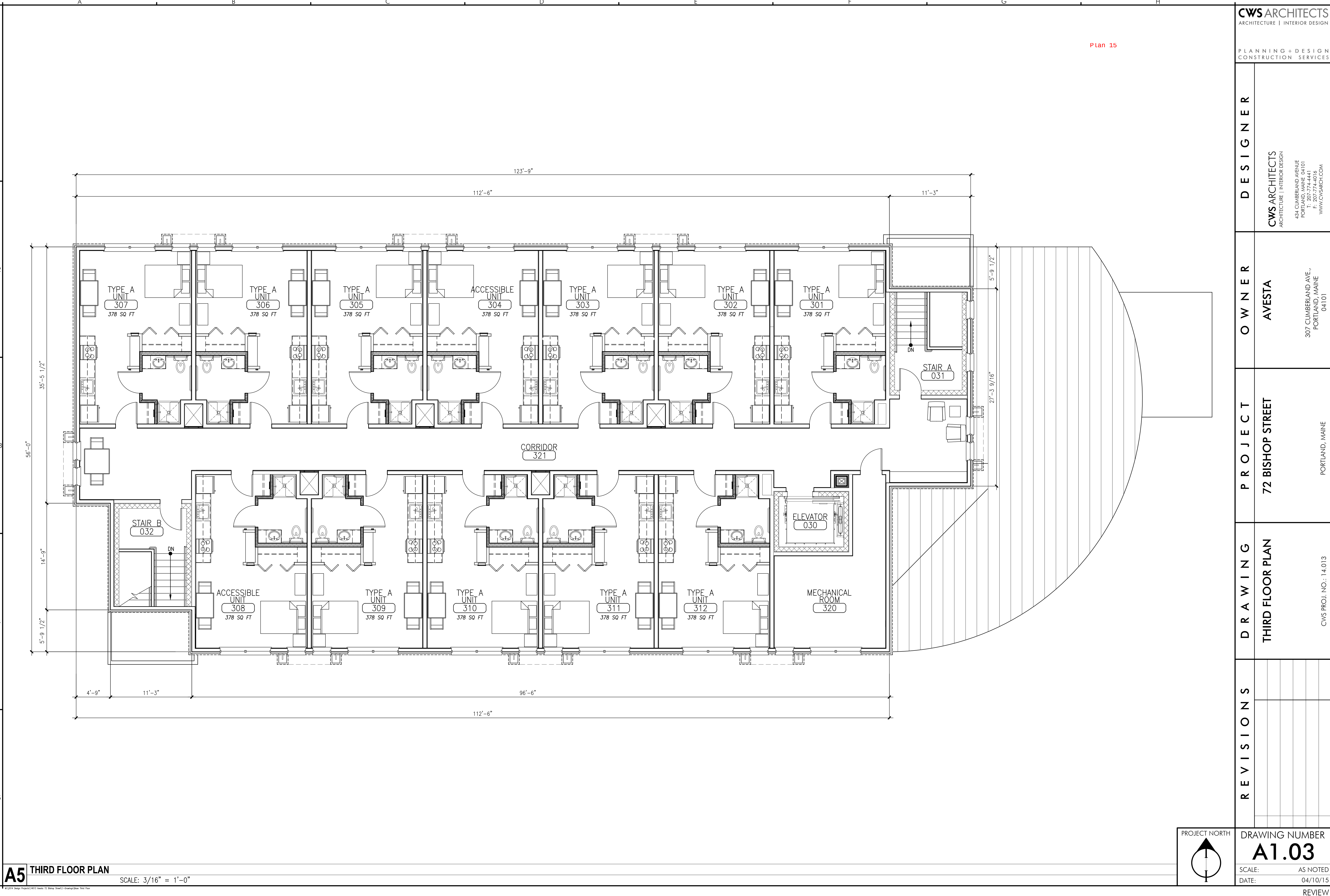
PORTLAND, MAINE

DRAWING

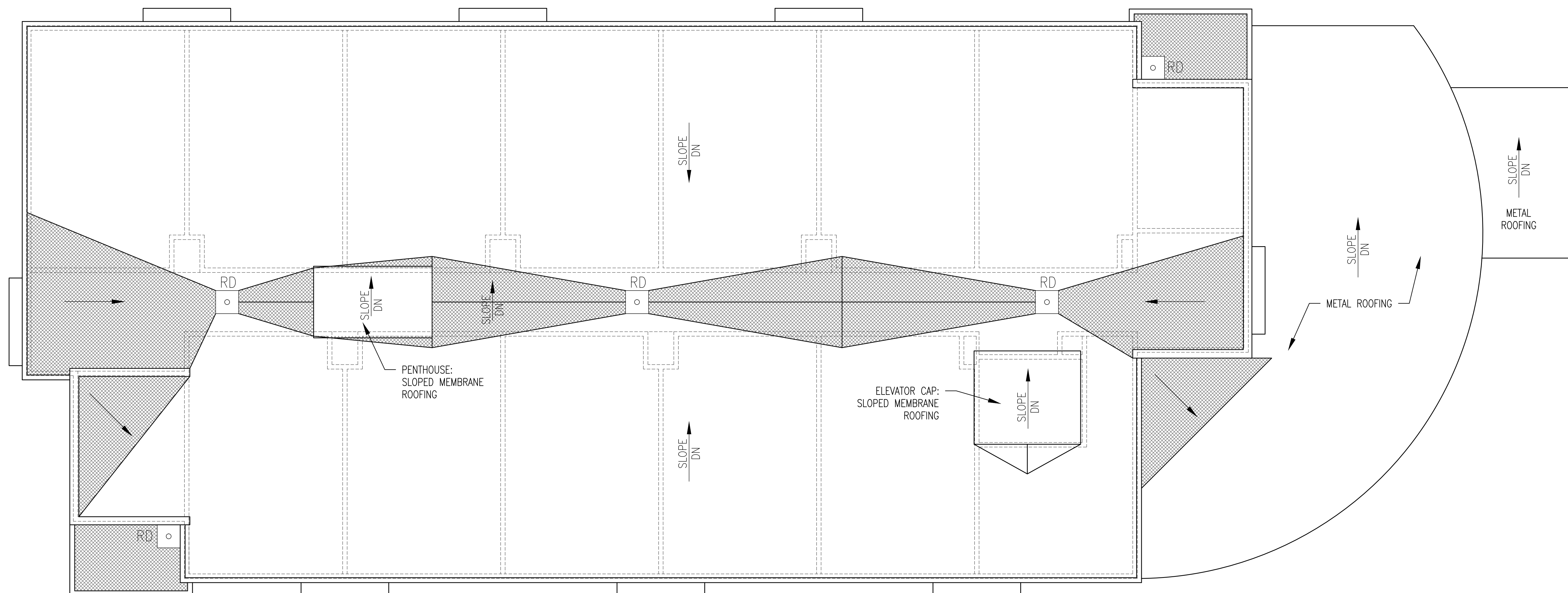
SECOND FLOOR PLAN

CWS PROJ. NO.: 14.013

REVISIONS

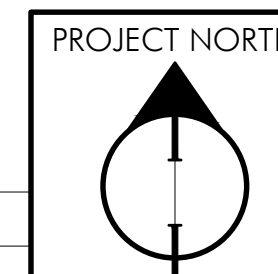


Plan 16



A5 ROOF PLAN

SCALE: $3/16" = 1'-0"$





SCALE: 1/8" = 1'-0"



SCALE: 1/8" = 1'-0"



SCALE: 1/8" = 1'-0"



SCALE: $1/8" = 1'-0"$

Memorandum

Planning and Urban Development Department

Planning Division



To: Stuart O'Brien, Chair and Members of the Portland Planning Board

From: Jean Fraser, Planner

Date: May 15th, 2015

Re: Neighborhood Center and Preschool/Daycare
1342 Congress Street
Site Plan and Conditional Use(s)
Jewish Community Alliance of Southern Maine, Applicant

Project #: 2015-058 CBL: 191 B016001

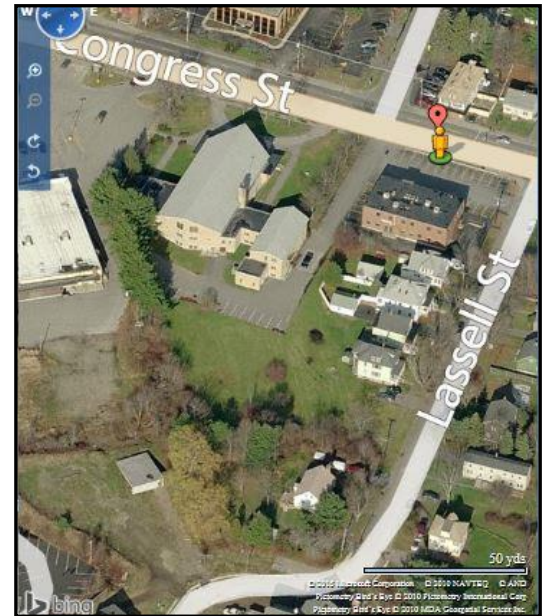
Meeting Date: May 19th, 2015

I. INTRODUCTION

The Jewish Community Alliance of Southern Maine, as represented by Bradlee Mezquita of Tighe & Bond, has submitted a Level III Site Plan and Conditional Use application for the construction of a single story 19,300 sq ft neighborhood center (defined as a "Place of Assembly") and preschool/daycare on the site of the existing St Patricks Church next to Westgate Shopping Center and extending back to Lassall Street behind residential properties.

The existing church was closed in 2013 and its removal is a requirement in the terms of the sale (P&S Agreement in Attachment D) from the Roman Catholic Bishop of Portland. It will be demolished and a new building constructed. The existing church is not designated an historic landmark nor is within an historic district, so the demolition is not part of the current review.

The two acre site is located in the R5 residential zone where both "Places of Assembly" and "Day care facilities" are conditional uses, although in this case the Planning Board is the reviewing authority for the "Places of Assembly" aspect of the proposal, and the Zoning Board of Appeals (ZBA) is the reviewing authority for the preschool/day care element of the project. The ZBA is considering the conditional use appeal for the day care use on May 21, 2015, and any issues of concern that are raised at this Workshop (covered by the conditional use standards applicable to the day care) will be brought to the attention of the ZBA at their review.



Required reviews:

<i>Applicant's Proposal</i>	<i>Applicable Standards</i>
New structure of 19,300 sq ft	Level III Site Plan
Place of Assembly (Neighborhood Center) of 10,000 sq ft or less	Institutional Conditional Use in the R5 zone [14.118 (b) 3] (Planning Board review)
Day care facilities	Other Conditional Use in the R5 zone [14.118 (c) 3] (Zoning Board of Appeals review)

Requested Waivers: The applicant has requested a waiver for completing a soil survey, as they have undertaken soil borings as part of an earlier environmental assessment. The Traffic Engineering reviewer has advised that a waiver is required for the width of the drive directly from Congress Street (Att 3).

A total of 147 notices of this workshop were sent to property owners within 500 feet and to interested citizens and a notice was published in the May 11th and 12th, 2015 editions of the *Portland Press Herald*. As of the time of completing this memo, the Planning office has received 2 public comments (Attached as PC1- PC2) and 2 telephone inquiries.

II. PROJECT DATA:

<i>SUBJECT</i>	<i>DATA</i>
Existing Zoning	R-5 Residential
Existing Use	Vacant church
Proposed Use	Place of assembly and Day Care (new building)
Parcel Size	2 acres (91,146 sq ft)
Impervious Surface Area	
--Existing	36,810 sq ft
--Proposed	48,310 sq ft
--Net Change	11,500 sq ft
Total Disturbed Area	Approx 85,000 sq ft
Building Footprint	(both are single story buildings)
--Existing	14,960 sq ft
--Proposed	19,300 sq ft
--Net Change	4,340 sq ft
Parking Spaces	
-Existing	13
-Proposed	50
# handicapped	2
Bicycle parking Spaces	
-Existing	0
-Proposed	3
Estimated cost of the project	TBD

III. EXISTING CONDITIONS

The parcel is in the R5 zone and located between the Westgate Shopping center (B2 zone) to the west and the 1330 Dental offices to the east, on the south side of Congress Street. The paved area alongside the dental building is part of the site and includes one of the existing access drives, which would be enhanced for the proposed neighborhood center. The Congress Street sidewalk is in good condition (Att 4), but the area of the drive access is not clearly defined and the proposal will remove the row of five (5) trees along the side. There is other existing peripheral vegetation that is also proposed to be removed.



The existing St Patricks Church faces Congress Street with a looped drop off drive to the door.

The Westgate Plaza parking lot hugs the western edge of the site, and there is a shared access driveway that links the Plaza and the rear part of the church site. It is understood that the owners of the Plaza are willing to formalize the continued shared use (Att G).



The triangular site includes a large area of grass at the rear (with some edge vegetation) and is bounded on the east by 5 properties: a commercial dental office and four residential buildings that front Lassall Street. Two of the residential owners are concerned about the fencing of the grassed area that connects to Lassall Street (see right).



IV. PROPOSED DEVELOPMENT

The applicant proposes to demolish the existing church building and construct a new single story building with a larger footprint (19,300 sq ft) to accommodate a neighborhood center and day care facility (described in Attachment A and shown in Plans P3 to P12).



The upper elevation shown right (and in Plan P12) is the proposed new building as viewed from Congress Street; the lower is as viewed from the east (dental offices) and shows the rear day care "wing".



The neighborhood center is at the front of the building and falls under the ordinance definition (14-47) of a neighborhood center:

Neighborhood Center: A building or portion of a building used for recreational, artistic, social, educational, health, culture, or similar activities and services, usually owned and operated by a public or nonprofit group or agency. A neighborhood center is 10,000 square feet or less.

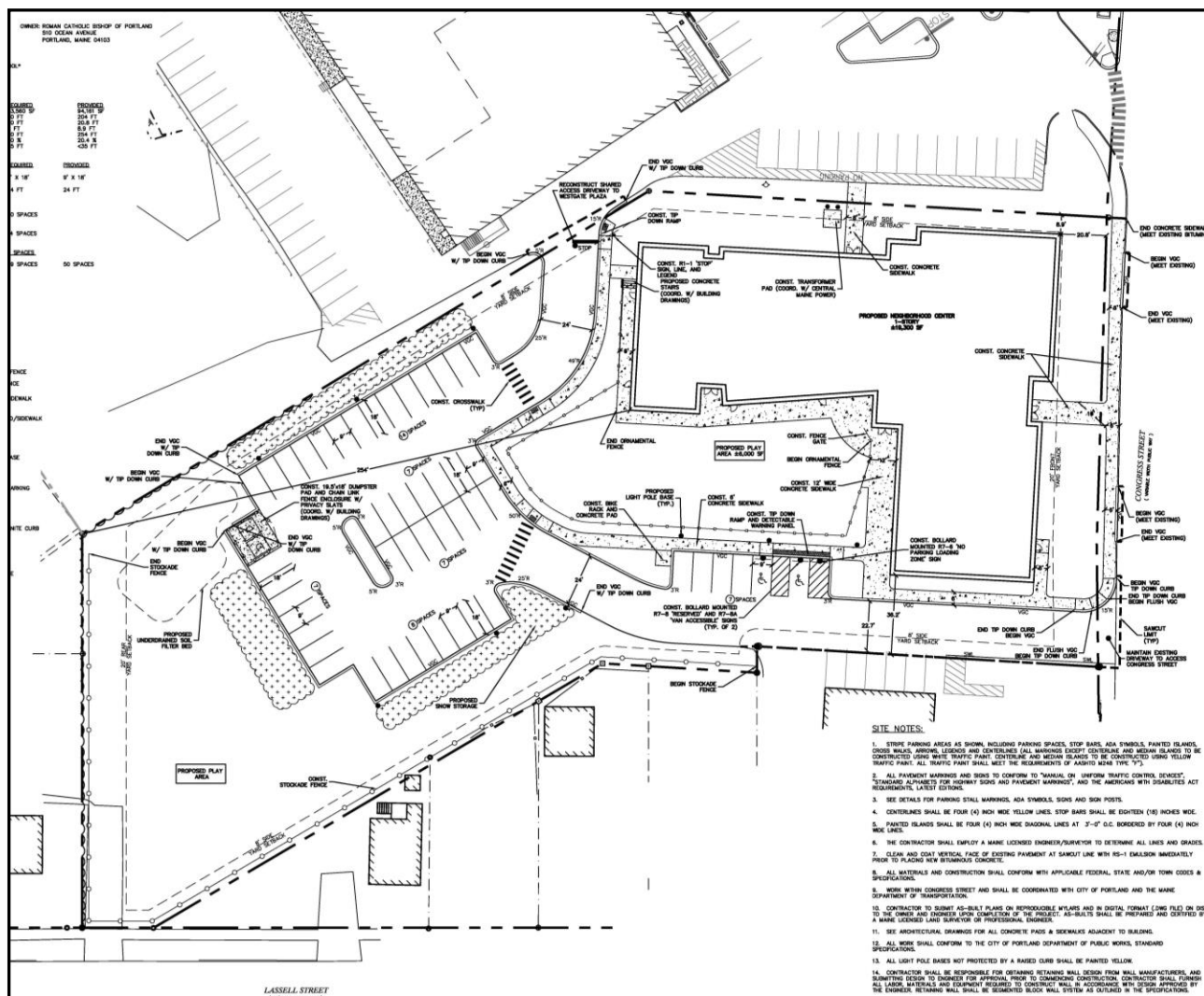
The floor plan helps to understand how the site will work in terms of pedestrian and vehicle access, and play areas for the children. In the floor plan (right) Congress Street is to the right and:

- Orange: Approx 4000 sq ft assembly area
- Blue: Offices
- Green: Day care

The Site Plan below (and in Plans P3 and P4) includes:

- Two drives (drop off loop at front removed)
- Parking lot for 49 -50 vehicles
- Two play areas, both fenced
- Lighting in the rear part of the site
- Snow storage around parking lot
- Stormwater management
- Stockade fence along the two sides of the rear boundary to enclose the existing grassed area down to Lassall Street (note: detail shows chain link fence)

A Landscape Plan is included in Plan P10 but does not include tree planting along the side facing the dental offices where 5 large trees have been removed. It is not clear how servicing vehicles will be handled, but a fire truck turning template was submitted (Plan P8).



V. STAFF REVIEW

A. ZONING ASSESSMENT

The site is located in the R5 residential zone and the submitted site plan includes a zoning assessment in respect of dimensions, and the proposal meets these zoning requirements. The day care is a conditional use in this zone (14-118) and is being reviewed by the ZBA for compliance with standards that include the following requirements that overlap with site plan standards:

c. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.

d. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

The ZBA also would apply section 14-474 which include standards regarding traffic and other impacts. The traffic review comments as they relate to the day care part of the proposal will be brought to the attention of the ZBA at their 5.21.2015 ZBA.

B. CONDITIONAL USE REVIEW

The site was previously a religious place of assembly and is now proposed as a neighborhood center with a large day care facility. The day care use is a ZBA conditional use review. The proposed neighborhood center is approximately 6500 sq ft (according to the data on the site plan (Plan P4) and comprises an assembly room of about 4000 sq ft and offices and conference rooms in the wing nearest Congress Street. The applicant's cover letter partially addresses the conditional use standards what require a substantive response (Attachment A).

Per 14-118 (b) 3, the Planning Board are the reviewing authority for the Neighborhood Center which is classified as a Place of Assembly, as defined:

Place of assembly: A building or portion of a building used as a community hall, neighborhood center, private and fraternal organization or place of religious assembly. This definition shall not include buildings or portions of buildings used as a community hall, neighborhood center, private and fraternal organization or place of religious assembly where fifteen (15) or fewer people, not including the permanent residents of a single family dwelling, assemble.

The ordinance standards and staff comments are listed below (ordinance text is in *italics*):

Sec. 14-118. Conditional uses.

The following uses shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) and any special provisions, standards or requirements specified below:

(b) Institutional: Any of the following conditional uses provided that, notwithstanding section 14-474(a) (conditional uses) of this article, or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

3. Places of assembly;

Such uses shall be subject to the following conditions and standards in addition to the provisions of section 14-474:

a. In the case of expansion of existing such uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential areas; and

Staff comment: The proposal is replacing a religious place of assembly with a neighborhood center place of assembly with no expansion.

b. The proposed use will not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or thereafter; and

Staff comment: The proposal does not displace any residential uses.

c. In the case of a use or use expansion which constitutes a combination of the above-listed uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative; and

Staff comment: The day care facility is not considered an institutional use and therefore there is just the neighborhood center to be considered.

d. Article V (site plan) sections 14-522 and 14-523 notwithstanding, in the case of places of assembly the proposed use shall be subject to the requirements of article V (site plan) of this chapter; and

Staff comment: The applicant has submitted a level III site plan application which is being reviewed concurrently.

The following standards apply to all conditional uses:

2. Standards. The Board shall, after review of required materials, authorize issuance of a conditional use permit, upon a showing that the proposed use, at the size and intensity contemplated at the proposed location, will not have substantially greater negative impacts than would normally occur from surrounding uses or other allowable uses in the same zoning district. The Board shall find that this standard is satisfied if it finds that:

a. The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone; and

Staff comment: The site is in the R5 zone which allows schools, hospitals, colleges and universities, most of which would have greater traffic generation and parking requirements than the proposed use. It is located immediately adjacent to the B2 zone, which allows a range of business uses (eg restaurants, theatres and performance halls) as well as the institutional uses allowed in the R5 zone.

b. The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter; and

Staff comment: The proposal would not create harmful conditions. The lighting would need to be carefully designed to avoid any impacts on abutters and that would be addressed in the site plan review.

c. The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.

Staff comment: The place of assembly use is similar to the former church, with gatherings generally occurring at off-peak hours and with potentially less traffic (due to the proposed assembly room areas being smaller - see details in the Traffic Memo in Attachment F). Larger gatherings will be accommodated with on-site parking and shared use parking at the adjacent shopping center, with similar or fewer impacts than those associated with surrounding uses or other allowable uses in the zone. The associated day care use introduces some different impacts that are being closely reviewed under the ZBA conditional use review and the Planning Board Level III site plan review.

C. DEVELOPMENT REVIEW (SITE PLAN STANDARDS in Section 14-526)

The applicant has provided a comprehensive application and additional comments in response to staff reviews (Atts A-K). The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations, and meets the standards except for several areas where staff have requested further consideration and potential revisions. The comments below focus on the areas where staff have not been able to confirm compliance with the site plan standards.

A. Transportation Standards

Impact on Surrounding Street system

The proposed neighborhood center and day care would utilize the two main existing drives which currently serve about a dozen parking spaces. The proposed site plan shows that these drives would be providing access to 50 space parking spaces, which would be used regularly for dropping off and picking up children from the day care part of the use. There are two issues:

- The number of vehicles likely to be entering and leaving via the unrestricted drive directly from Congress Street; and
- The question of whether cars accessing that drive to drop off or pick up children might stop in the drive and cause back ups onto Congress Street or noise/pollution for nearby residents.

The applicant has submitted the following:

- An initial Traffic Study (Attachment F);
- Responses to the Traffic Reviewer Tom Errico's comments below (Attachment J); and
- Further traffic data (Attachment K).

Tom Errico, Traffic engineering reviewer has commented (Attachments 2 and 3) regarding the traffic generation (below), but the "Response" and data in Attachments J & K could not be reviewed in time for inclusion in this Memo as it arrived recently; an update will be provided at the meeting:

- *Maine Traffic Resources conducted a Trip Generation Analysis for the project and concludes that the proposed Jewish Community Center will generate less traffic as compared to St Patrick's Church. The applicant should provide an estimated comparison between the former Church use and the proposed project during the weekday AM and PM peak hours. My general sense is that during the AM peak hour the net change may not be significant given weekday morning Church services. During the weekday PM peak hour, I suspect the Church did not have regular weekday activities, while the proposed use will add traffic in conjunction with the day-care use.*
- *I'm concerned that the ITE data is not a good source for estimating traffic for the proposed project. I would suggest that the applicant conduct traffic counts/surveys at existing facilities to better estimate traffic levels. I would also like to get a better understanding on historic traffic activity at St. Patrick's Church. I recognize that traffic volumes are not likely to be available, but information on daily services and other event details would be helpful for my review and understanding of project impacts. The applicant should attempt to provide specific church service information, if available. (Traffic Engineering Reviewer, Attachments 2 and 3)*

The second concern relates to the management of the Congress Street drive when children are being dropped off and picked up. The information submitted (Attachments F and K) suggest that pickups will be staggered, but further discussion is suggested. Mr Errico's comments are: (Attachments 2 and 3):

- *The pick-up and drop-off of daycare and others will need to be carefully managed. Accordingly, the applicant should provide specific details on how this process will take place. This should include what building entrances will be used, sidewalk facilities between parking spaces and the noted entrance, etc. I would note that the pick-up/drop-off program must be managed such that vehicles are not parking along the driveway off Congress Street.*

Related to this issue is the proposed pedestrian circulation within the site. It is understood that parents dropping off and picking up young children from the day care will need to park and come into the day care to drop off or collect their child. However, the pedestrian routes between the parking lot and what appears to be the day care entrance appear circuitous (Site Plan in Plan P4) and further information and discussion is necessary to confirm that direct access is provided. This is important, as if this walking distance is long and inconvenient, parents will be more likely to stop and wait in the drive access or near one of the paths into the day care rather than park.

Access and circulation

The Congress Street driveway is proposed to be improved and extended to serve the new project and the 50 space parking lot, and will incorporate 6 parking spaces along it. This drive is along the boundary with the dental offices parking area and along the rear boundary of two of the residential properties on Lassall Street.

As shown in the photograph (right), there currently is no delineation between the access drive and the parking lot for the dental offices. Mr Errico recommends (in addition to several other detailed design comments in Attachments 2 and 3) that some formal delineation should be made at the Congress Street interface. This suggestion is reinforced by the City Arborist's suggestion (see below) that the delineation could be combined with street trees/landscape feature to compensate for the loss of the existing trees along the drive.



DPS has confirmed that the existing concrete sidewalk along the front of the site is in good condition (Attachment 4). Further comments from DPS arrived too late for inclusion in this Memo (largely technical comments) and will be circulated at the workshop.

The project also relies for some access on the other driveway (west side) connecting to the shopping plaza. The applicant has submitted a letter from the owners of Westgate Plaza (Charter Westgate LLC; Att. G) that confirms they are willing to formalize an agreement to maintain this shared access. Given its importance to the project, staff recommends that a formal agreement be in place before the proposed new development is considered at a Planning Board hearing. Mr Errico comments (Attachment 2):

- *I find the vehicular connection to Westgate Shopping Center to be an excellent access management strategy that will allow traffic from the Community Center to utilize the traffic signal at Stevens Avenue. I would note that this connection can also serve traffic from the abutting medical office building and traffic from Lassell Street. Accordingly, I would suggest that access use rights be provided. While I would prefer that the connection to the Westgate Shopping Center to be more direct, given the potential for vehicle/pedestrian conflict, the proposed plan appears acceptable. The applicant should provide a response on this issue and how they see traffic circulation interacting with site activity.*

Parking: The Site Plan (Plan P4) shows 49 spaces on the plan, but the zoning assessment on that plan (in the notes) state that 50 spaces have been provided.

The ordinance Division 20 requirement requires 50 spaces, as follows:

- 30 spaces for the neighborhood center – based on 1 parking space for each 150 sq ft of floor area used for the neighborhood center, which the Zoning Administrator advises applies to the assembly room/ multipurpose rooms only (4375 sq ft; accommodating 309 people (see Att F);
- 14 spaces for the day care - based on 1 space for each of the 14 day care staff members; and
- 5 spaces for the office component- based on 2000 sq ft of offices and 1 space per 400 sq ft.

Staff are concerned that, even with 50 proposed parking spaces, that parking for the parents dropping off/collecting the 68 (+ 20 afterschool) children does not appear to have been fully addressed. Although parking for the assembly room and multi-purpose rooms would also be provided by shared –use parking in the adjacent shopping center, the dental office parking area is much closer for day care access and may be impacted if there is overflow parking. Therefore the Traffic Engineer has requested (Attachment 2):

- *The applicant shall provide a Parking Supply analysis that documents parking needs both under a typical weekday scenario and during Community Center events.*

B. Environmental Quality Standards

Landscape Preservation, Buffers and Parking Lot Landscaping

The Demolition Plan in Plan P2 shows the proposed removal of the 5 trees alongside the drive by the dental offices, and a considerable area of vegetation around the back of the site is also removed including near Lassall Street. A further 12 conifer trees are removed along the west boundary, which will become snow storage and parking area. The Landscape Plan in Plan P10 includes some replacement planting.

The City Arborist has reviewed the proposals and has the following comments (Attachment 7):

I have reviewed the proposed landscape plan for the Jewish Neighborhood Center on Congress Street and offer the following recommendations:

- *Looking at the back property line and the graphic showing a proposed fence, which is recommended, wanted to request a fence spec. My first thought is that the fence should be wooden 6' in height or something equal.*
- *The project removes several mature trees on the side entranceway and does not appear to replace them. Looking at the space it appears to be wide enough that several, 3 - 4 small trees such as Magnolia, Dogwood or Cherry could be successfully planted back in this location. We have also seen good use of the several upright Oak varieties that stay very narrow but with height that could help replace the lost trees. Improving this space should be a priority. See: <http://www.jfschmidt.com/pdfs/regalprinceoak.pdf>.*
- *Also noted that a small center landscaped island near the entranceway could be used to improve or define the drive into the site.*

Overall the rest of the landscape plan appears to meet our landscape & tree standards with recommended varieties and plant sizes.

Water quality; Stormwater Management; Erosion control:

The proposal creates an additional 12,500 sq ft of impervious surface and includes an improved stormwater management and treatment system comprising Stormtech chambers and an underdrained soil filter bed. The applicant submitted a Drainage Study as part of the original submission and revised it in response to the Peer Engineer Dave Senus comments; the revised version is included as Attachment I along with revised Plans (P2-P7). The revised proposals have been reviewed by Mr Senus and largely address the review comments, with three outstanding issues as outlined in the review comments (Attachment 1):

- The Pre-Development Watershed Plan (WS-1) indicates that runoff from the existing building roof is part of catchments WS-1 and WS-2; however, runoff from some of these roof areas is collected in downspouts that enter into the ground and which do not appear to flow to PA-1 and PA-2. The Applicant should determine the discharge location for the building's roof downspouts and re-evaluate the catchment areas and stormwater model based on their findings.

Update: The Applicant's engineer has stated that they are actively working with the Owner to determine the outlet locations of the roof drains. As part of the future, final submittal, the Applicant will revise the Pre- Development Watershed Plan (WS-1) and drainage design (if needed) to account for updated roof drainage information.

- The Applicant has proposed to discharge the majority of the site's drainage to a new outfall located at the southwest edge of the site, adjacent to an existing drainage ditch that flows across a residential property located south of the site. Although the pre/post stormwater analysis is intended to show that the flow at this study point will not increase in the 2, 10 and 25 year storm event conditions, there will be a new outfall with a concentrated discharge at this location. We recommend that the Applicant work with the adjacent property owner to determine if there are existing concerns over drainage in this area, and based on input from that property owner, determine if improvements can or should be made to the drainage ditch as part of this project.

Update: The Applicant has acknowledged that they will work with the adjacent property owner to determine if there are any existing concerns over drainage in this area and determine if improvements are necessary. Information regarding these discussions/decisions should be provided with the final submittal.

- The proposed Underdrained Soil Filter Bed detail refers to a Rain Garden Planting Plan for proposed plantings; however, it does not appear that this plan has been provided at this time.

Update: The Applicant has acknowledged that the Landscape Plan, Sheet L-1, will be updated to include an appropriate planting plan for the Underdrained Soil Filter with the Final Site Plan Submission.

One of the earlier concerns was that the snow storage for east edge of the parking lot would drain towards the nearby residential properties. The applicant has revised the grading in this area to include a shallow swale and Mr Senus considers this acceptable ([Attachment 1](#)).

C. Public Infrastructure and Community Safety Standards (1)

The proposal are generally acceptable in relation to these standards; the Fire Department has reviewed the fire truck turning templates and considers the access satisfactory ([Attachment 6](#)).

D. Site Design Standards

Historic Resources:

One of the public comments ([PC 2](#)) has suggested that the existing building has historic value and should not be demolished. The City's Historic Preservation Program Manager has been consulted and she confirmed that this question was raised with her in the past and at that time she researched the building/architecture and determined that it did not meet the criteria for historic designation. The church that is selling the property has made it a requirement of the sale that the building be demolished. Whether it should be designated historic is a decision for the Historic Preservation Program Manager and the Historic Preservation Board.

Exterior Lighting:

The proposals include lighting for the parking lot area ([Plan P9](#)) and the specifications and photometric data are generally acceptable, although there are some unacceptably high levels of light trespass onto residential

neighbor's property and some revisions are requested. There is no lighting proposed along the improved access drive from Congress Street (at the Congress Street end) nor along/ on the front of the building by the entrance from the sidewalk. Staff request additional information to evaluate the existing lighting in these areas and whether some additional lighting should be added to address safety and security in those areas.

VI NEXT STEPS

The following need to be addressed as part of the final submissions for consideration at a Planning Board hearing:

- Secure a formal agreement with the owners of Westgate Plaza for the shared drive prior to the Planning Board hearing;
- Provide additional information on traffic impacts and operation/management of the day care traffic and parking, including pedestrian links between the parking lot and the day care entrance;
- Submit a parking supply analysis;
- Develop designs to delineate the Congress Street access drive where it abuts the dental offices, to incorporate street trees/landscape and possibly lighting (and clarify re a waiver for the width of the drive);
- Revise the landscaping proposals to address the City Arborist comments (including fence specs) and the comment from the Peer Engineer regarding planting for the underdrained soil filter;
- Undertake further research and discussions with neighbors to address the two substantial concerns outlined by the Peer Engineer regarding the stormwater flow impacts;
- Revise lighting to avoid light trespass and clarify whether existing lighting is adequate along the Congress Street drive and building entrance; and
- Address any comments of the Planning Board.

ATTACHMENTS:

Memo attachments

1. Peer Engineering Reviewer, Dave Senus 5.13.2015
2. Traffic Eng. Reviewer Tom Errico 4.29.2015
3. Traffic Eng. Reviewer, Tom Errico 5.13.2015
4. Dept of Public Services re sidewalk, 5.6.2015
5. Fire Dept. Keith Gautreau comments 5.6.2015
6. Fire Dept. re truck turning 5.13.2015
7. City Arborist comments 5.15.2015

Public Comments

- PC 1 P Barnard
PC 2 P Jeffrey

Applicants submittal

- A. Tighe & Bond cover letter 4.3.2015
- B. Site Plan application
- C. Conditional use application (Places of Assembly)
- D. P&S Agreement
- E. Letter of financial capacity (Key Bank) 4.2.2015
- F. Traffic Memo 3.19.2015
- G. Letter from Westgate plaza owners re drive 4.2.2015

Applicants submittal, con't

- H. Tighe & Bond Response to Eng.Review comments 5.8.2015
- I. Tighe & Bond Drainage Study revised 5.5.2015
- J. Tighe & Bond Response to Traffic comments 5.13.2013
- K. Additional Traffic Information Memo 5.13.2013

Plans

- P1. Survey
- P2. Existing Conditions and Demolition Plan
- P3. Overall site Plan
- P4. Site plan
- P5. Grading, Drainage and Erosion Control Plan
- P6. Utilities Plan
- P7. Details (5 plans)
- P8. Fire Truck Turning Plan
- P9. Photometric Plan
- P10. Landscape Plan
- P11. Floor Plan
- P12. Exterior Elevations

MEMORANDUM



TO: Jean Fraser, Planner
FROM: David Senus, P.E.
DATE: May 13, 2015
RE: 1342 Congress Street Neighborhood Center, Preliminary Level III Site Plan Application

Woodard & Curran has reviewed the Preliminary Level III Site Plan Application response to comments submittal for the for the proposed Neighborhood Center at 1342 Congress Street. The project involves the construction of a 19,300 SF building with associated site improvements that include a surface parking lot, stormwater management system, utilities, site lighting, and landscaping. The project will disturb approximately 85,000 SF and result in 12,500 SF of additional impervious area.

Documents Reviewed by Woodard & Curran

- Response to Comments Memorandum dated May 8, 2015, prepared by Tighe & Bond, on behalf of the Jewish Community Alliance of Southern Maine.
- Revised Drainage Study for the Proposed Neighborhood Center located at 1342 Congress Street, revision date May 5, 2015, prepared by Tighe & Bond on behalf of the Jewish Community Alliance of Southern Maine.
- Engineering Plans, Sheets C-2A through C-9, rev dated May 8, 2015, prepared by Tighe & Bond, on behalf of the Jewish Community Alliance of Southern Maine.

Comments (Previous review comment with update in **bold**)

- 1) The project will disturb more than one acre of area and will therefore require filing a notice of intent to comply with the Maine Construction General Permit with the MaineDEP.

Acknowledged by Applicant.

- 2) The application is preliminary. As such, additional documents will be submitted for the final application, including letters from utilities confirming capacity to serve the proposed development and a Construction Management Plan. Woodard & Curran will perform a review of the Final Application upon receipt of those documents.

Acknowledged by Applicant.

- 3) In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:

- a) Basic Standards: Plans, notes, and details have been provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in general accordance with Appendix A, B, & C of MaineDEP Chapter 500.

Acknowledged by Applicant.

- b) General Standards: The project will result in a net increase in impervious area of approximately 12,500 square feet. As such, the project is required to include stormwater management features for water quality control. The Applicant is proposing an underdrained soil filter to meet the General Standards. The following comments should be addressed:

- i) The Applicant has requested a waiver from the requirement for pre-treatment of runoff directed to filter BMPs due to topographic and geometric constraints of the site. Pre-treatment is particularly important for filter systems to ensure that sediment does not clog the filter and impede its function. It appears that there is ample space on the southern portion of the site to provide the MaineDEP recommended forebay area. We recommend that the applicant include a sediment forebay at the inlet point to the filter.

Comment adequately addressed - A sediment forebay has been added to design.



- ii) The Applicant should provide calculations demonstrating that an area equivalent to 95% of the new impervious area will be treated by the Underdrained Soil Filter system in accordance with the General Standards.
Comment adequately addressed – Calculations have been provided. An adequate area will be treated and the soil filter system is designed to detain and treat the water quality volume in accordance with the General Standards.
- iii) Per Chapter 7.1 of Volume III of the MaineDEP Stormwater BMP Manual, the Applicant should provide appropriate sizing calculations, including treatment volumes, filter area, and peak water quality storage depths, for the proposed Underdrained Soil Filter system.
Comment adequately addressed – Calculations have been provided.
- c) Flooding Standard: The project will result in net increase in impervious area of approximately 12,500 square feet.. As such, the project is required to include stormwater management features to control the rate of stormwater runoff from the site. The Applicant has provided HydroCAD Reports to demonstrate compliance with the Flooding Standard. The following comments should be addressed:
 - i) Without site-specific soil infiltration testing data, the HydroCAD model cannot include the discarding of flow by means of infiltration within the soil filter area.
Comment adequately addressed – Model has been revised.
 - ii) Future submittals should include details for the outlet control structures associated with the soil filter and the StormTech Chamber system, including orifices and weirs.
Comment adequately addressed – Details provided.
 - iii) Future submittals should identify key elevations for the StormTech Chamber detail matching to the elevations utilized in the HydroCAD model.
Comment adequately addressed – Details provided.
 - iv) The Pre-Development Watershed Plan (WS-1) indicates that runoff from the existing building roof is part of catchments WS-1 and WS-2; however, runoff from some of these roof areas is collected in downspouts that enter into the ground and which do not appear to flow to PA-1 and PA-2. The Applicant should determine the discharge location for the building's roof downspouts and re-evaluate the catchment areas and stormwater model based on their findings.
The Applicant's engineer has stated that they are actively working with the Owner to determine the outlet locations of the roof drains. As part of the future, final submittal, the Applicant will revise the Pre- Development Watershed Plan (WS-1) and drainage design (if needed) to account for updated roof drainage information.
 - v) The Applicant has proposed to discharge the majority of the site's drainage to a new outfall located at the southwest edge of the site, adjacent to an existing drainage ditch that flows across a residential property located south of the site. Although the pre/post stormwater analysis is intended to show that the flow at this study point will not increase in the 2, 10 and 25 year storm event conditions, there will be a new outfall with a concentrated discharge at this location. We recommend that the Applicant work with the adjacent property owner to determine if there are existing concerns over drainage in this area, and based on input from that property owner, determine if improvements can or should be made to the drainage ditch as part of this project.
The
The Applicant has acknowledged that they will work with the adjacent property owner to determine if there are any existing concerns over drainage in this area and determine if improvements are necessary. Information regarding these discussions/decisions should be provided with the final submittal.
- 4) Sheet C-2b depicts snow storage along the east edge of the rear parking lot, adjacent to several residential properties. The grading plan (C-3) indicates that runoff from this area would potentially flow onto these properties. The Applicant should limit snow storage in this area and should revisit the



proposed grading to ensure that runoff from the project property is not directed onto these abutting residential lots.

Comment adequately addressed - The grading plan has been revised to provide for a shallow swale on the project property.

- 5) The Long Term Operations & Maintenance Plan for stormwater management systems should include a reference to Chapter 32 of the City of Portland Code of Ordinances related to annual reporting requirements.

Comment adequately addressed – Annual reporting requirements per Chapter 32 added to O&M Plan.

- 6) The proposed Underdrained Soil Filter Bed detail refers to a Rain Garden Planting Plan for proposed plantings; however, it does not appear that this plan has been provided at this time.

The Applicant has acknowledged that the Landscape Plan, Sheet L-1, will be updated to include an appropriate planting plan for the Underdrained Soil Filter with the Final Site Plan Submission.

- 7) The proposed Vertical Granite Curb, Concrete Sidewalk, and Utility Trench details should be revised to comply with the City of Portland Technical Manual for work within the City Right-of-Way.

Comment adequately addressed – Details provided.

From: Tom Errico <thomas.errico@tylin.com>
To: Jean Fraser <JF@portlandmaine.gov>
CC: "Margolis-Pineo, David" <DMP@portlandmaine.gov>, Katherine Earley <KAS@p...>
Date: 4/29/2015 1:34 PM
Subject: 1342 Congress Street/Jewish Community Center -- Preliminary Traffic Comments

Jean - I have reviewed the application materials and the following summarizes my preliminary traffic comments.

* Maine Traffic Resources conducted a Trip Generation Analysis for the project and concludes that the proposed Jewish Community Center will generate less traffic as compared to St Patrick's Church. The applicant should provide an estimated comparison between the former Church use and the proposed project during the weekday AM and PM peak hours. My general sense is that during the AM peak hour the net change may not be significant given weekday morning Church services. During the weekday PM peak hour, I suspect the Church did not have regular weekday activities, while the proposed use will add traffic in conjunction with the day-care use.

* I find driveway conditions along Congress Street to be improved with the elimination of existing driveways.

* The driveway entering the site from Congress Street is noted as having a width of 22.7 feet. This width (in the area where parking maneuvers occur) does not meet City standards and thus a formal waiver should be requested by the applicant.

* A detectible warning panel is not required at the site driveway on Congress Street.

* I would suggest a tip-down curb entering the driveway on Congress Street, as currently provided.

* The applicant shall provide a Parking Supply analysis that documents parking needs both under a typical weekday scenario and during Community Center events.

* I find the vehicular connection to Westgate Shopping Center to be an excellent access management strategy that will allow traffic from the Community Center to utilize the traffic signal at Stevens Avenue. I would note that this connection can also serve traffic from the abutting medical office building and traffic from Lassell Street. Accordingly, I would suggest that access use rights be provided. While I would prefer that the connection to the Westgate Shopping Center to be more direct, given the potential for vehicle/pedestrian conflict, the proposed plan appears acceptable. The applicant should provide a response on this issue and how they see traffic circulation interacting with site activity.

* The applicant shall consider the formal delineation of the driveway along the medical office property boundary, when entering from Congress Street.

* The applicant should provide specifics about how the Daycare pick-up and drop-off activity will be managed from a traffic perspective.

Please contact me if you have any questions.

Best regards,

Thomas A. Errico, PE
 Senior Associate
 Traffic Engineering Director
 [T.Y. Lin International] T.Y. Lin International
 12 Northbrook Drive

Falmouth, ME 04105
207.781.4721 (main)
207.347.4354 (direct)
207.400.0719 (mobile)
207.781.4753 (fax)
thomas.errico@tylin.com<mailto:thomas.errico@tylin.com>
Visit us online at www.tylin.com<http://www.tylin.com>
Twitter | Facebook | LinkedIn | YouTube

"One Vision, One Company"

Please consider the environment before printing.

From: Tom Errico <thomas.errico@tylin.com>
To: Jean Fraser <JF@portlandmaine.gov>
CC: David Margolis-Pineo <DMP@portlandmaine.gov>, Katherine Earley <KAS@port...>
Date: 5/13/2015 1:41 PM
Subject: Jewish Community Center

Jean - I have reviewed updated trip generation information provided by the applicant and have the following additional comments.

* I'm concerned that the ITE data is not a good source for estimating traffic for the proposed project. I would suggest that the applicant conduct traffic counts/surveys at existing facilities to better estimate traffic levels. I would also like to get a better understanding on historic traffic activity at St. Patrick's Church. I recognize that traffic volumes are not likely to be available, but information on daily services and other event details would be helpful for my review and understanding of project impacts. The applicant should attempt to provide specific church service information, if available.

* The pick-up and drop-off of daycare and others will need to be carefully managed. Accordingly, the applicant should provide specific details on how this process will take place. This should include what building entrances will be used, sidewalk facilities between parking spaces and the noted entrance, etc. I would note that the pick-up/drop-off program must be managed such that vehicles are not parking along the driveway off Congress Street.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
 Senior Associate
 Traffic Engineering Director
 [T.Y. Lin International]T.Y. Lin International
 12 Northbrook Drive
 Falmouth, ME 04105
 207.781.4721 (main)
 207.347.4354 (direct)
 207.400.0719 (mobile)
 207.781.4753 (fax)
 thomas.errico@tylin.com<mailto:thomas.errico@tylin.com>
 Visit us online at www.tylin.com<http://www.tylin.com>
 Twitter | Facebook | LinkedIn | YouTube

"One Vision, One Company"

Please consider the environment before printing.

From: David Margolis-Pineo
To: Tom Errico
CC: Barbara Barhydt; Helen Donaldson; Jean Fraser
Date: 5/6/2015 1:44 PM
Subject: Sidewalk material Policy

Bishop St is asphalt.

1242 Congress St is concrete. It appears in good condition (Google earth) We will not require concrete unless more than 50% is disturbed.

MEMORANDUM

To: FILE
From: Jean Fraser
Subject: Application ID: 2015-058
Date: 5/6/2015

Comments Submitted by: Keith Gautreau/Fire on 5/6/2015

1.) A Life Safety Evacuation Plan shall be submitted with the Building Permit detailing the exiting and waiting area for occupants.

Construction Management Plan

Streets must maintain a 20' width for Fire Department access at all times.

Fire Hydrants shall not be blocked or enclosed by fencing. A 3' foot clearance must be kept at all times around the fire hydrant.

If gates are locked, a Portland Fire Department Knox padlock must be purchased by the applicant to allow access for the Fire Department.

The Construction Company's emergency contact information shall be posted on the property in case of an after hours emergency.

All construction shall comply with 2009 NFPA 1 Chapter 16 Safeguards During Building Construction, Alteration, and Demolition Operations.

Any cutting and welding done will require a Hot Work Permit from Fire Department.

Comments Submitted by: Keith Gautreau/Fire on 5/6/2015

All construction and installation shall comply with 2009 NFPA 1, 2009 NFPA 101.

All construction and installation shall comply with City of Portland Fire Department Building Regulations.

<http://www.portlandmaine.gov/fireprevention/fdrulesandregulations.pdf>

All construction and installation shall comply with City Code Chapter 10.

<http://www.portlandmaine.gov/citycode/chapter010.pdf>

Comments Submitted by: Keith Gautreau/Fire on 5/6/2015

2. Fire Vehicle Access

1.) Largest Fire Department Vehicle must be able to navigate through the parking lot to access building.

2.) Fire Department Access shall have an unobstructed vertical clearance of not less than 13 ft 6 in.

Comments Submitted by: Keith Gautreau/Fire on 5/6/2015

Premises Identification

The main entrance of the building must be the address for the property. This should be consistent with 911, tax assessor, Inspections Division and future mailing address.

Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer.

If the building entry faces a different street, both the street name and number should be large enough to read from the street.

Address numbers must be a minimum of 4 inches high.

The number should be in Arabic numerals rather than spelled out (for example, "130" instead of "One Hundred and Thirty").

Color: Addresses should be in a color that contrasts with the background.

Whenever possible, should be illuminated.

Provide additional address signs at entrances to the property when the building address is not legible from the public street.

MEMORANDUM

To: FILE
From: Jean Fraser
Subject: Application ID: 2015-058
Date: 5/6/2015

Comments Submitted by: Keith Gautreau/Fire on 5/6/2015

Building

The new building shall not affect the egress or required Fire Department access for the neighboring building.

Hydrants

2009 NFPA 1 18.3 Water Supplies and Fire Hydrants

-Fire Department Connections shall not be located where large diameter hose may block egress.

From: Keith Gautreau
To: Errico Thomas; Jean Fraser
Date: 5/12/2015 11:17 AM
Subject: Re: 1342 Congress- Neigh Center 2015-058

Hi Jean,

I am good with the turning radius plan that has been provided. It's not my area of expertise but I agree that would be a significant safety issue with cars stopping on Congress St. (especially during rush hour)

Thanks,
Keith

Keith Gautreau, Acting Asst. Chief
Fire Prevention/Community Outreach
Portland Fire Department
380 Congress Street
Portland, ME 04101
(207)874-8400
kng@portlandmaine.gov

From: Jeff Tarling
To: Jean Fraser
CC: David Margolis-Pineo
Date: 5/15/2015 10:48 AM
Subject: Congress Street Jewish Center

Hi Jean -

I have reviewed the proposed landscape plan for the Jewish Neighborhood Center on Congress Street and offer the following recommendations:

Looking at the back property line and the graphic showing a proposed fence, which is recommended, wanted to request a fence spec. My first thought is that the fence should be wooden 6' in height or something equal.

The project removes several mature trees on the side entranceway and does not appear to replace them. Looking at the space it appears to be wide enough that several, 3 - 4 small trees such as Magnolia, Dogwood or Cherry could be successfully planted back in this location. We have also seen good use of the several upright Oak varieties that stay very narrow but with height that could help replace the lost trees, see: <http://www.jfschmidt.com/pdfs/regalprinceoak.pdf> Improving this space should be a priority. Also noted that a small center landscaped island near the entranceway could be used to improve or define the drive into the site.

Overall the rest of the landscape plan appears to meet our landscape & tree standards with recommended varieties and plant sizes.

Thanks

Jeff Tarling
City Arborist

From: Jean Fraser
To: Bernard, Patricia
Date: 5/11/2015 12:42 PM
Subject: Revised plans and PB Workshop for Neigh Center, Congress St
Attachments: J0094-C-3-GRADING, DRAINAGE, AND EROSION CONTROL PLAN-5-8-15.pdf; J0094-C-2B-SITE PLAN-5-8-15.pdf; floor plan (1).pdf

Pat,

Staff have raised a number of concerns with the applicant (including those that you mentioned to me) and the applicant has just sent revised plans- I attach the key ones that might affect your property.

I also wanted to check the you had received a postcard from my administrative colleagues advising you that the PB workshop is scheduled for Tuesday, May 19th late afternoon. (A workshop is for the Board to better understand the project and hear from neighbors- the Board does not make a decision at that meeting)

I am preparing a PB Memo that goes up on the city's website on Friday (5.15.15); I will be including the comments you have sent so far in the memo, but if you want to send additional comments (for inclusion in that Memo) please get them to me by the end of Thursday.

If you send written comments to me after the Memo goes out but before noon on the Tuesday (day of the meeting), I will print them and circulate to the Planning Board before the meeting.

In any case, you can speak at the Workshop during the "public comments" section.

Please do not hesitate to contact me with any questions, and please forward these plans to anyone who is interested and they can also send me public comments and/or speak at the meeting.

thank you
 Jean

*Jean Fraser, Planner
 City of Portland
 874 8728*

>>> Patricia Bernard <mainemama@hotmail.com> 4/27/2015 4:25 PM >>>

Even though it's a concern, the grading info is all Greek to me. I liked the landscaping and it looks like it would soften the lines of the building. I hope the tree planned for in back of my yard is interesting/unique enough to draw your eyes to it and not the stockade fence. Now that I'm retired I hope to work on straightening out the chaos that's my back yard.

Can I share this info with my neighbors? djbheah is my son who grew up here and likes to know what's happening.

Thanks again, obviously I got the emails ok.

From: mainemama@hotmail.com
 To: djbheah@yahoo.com
 Subject: RE: 4 add'l plans for Neigh Center, Congress St
 Date: Mon, 27 Apr 2015 20:12:48 +0000

From: mainemama@hotmail.com
To: djbheah@yahoo.com
Subject: FW: 4 add'l plans for Neigh Center, Congress St
Date: Mon, 27 Apr 2015 19:58:35 +0000

Date: Mon, 27 Apr 2015 11:53:47 -0400
From: JF@portlandmaine.gov
To: mainemama@hotmail.com
Subject: 4 add'l plans for Neigh Center, Congress St

Pat,

Attached to this e-mail are:
Grading and Drainage plan
Landscape Plan
Elevations

I would appreciate it if you could let me know that you got these OK.

Please do not hesitate to contact me with any further questions or comments; when it gets nearer to the date of the Planning Board workshop I can clarify the timetable for any comments you might like to bring to the attention of the Board members at that meeting.

thank you
Jean

*Jean Fraser, Planner
City of Portland
874 8728*

Notice: Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested. 22

From: Jean Fraser
To: jeffery, paul
Date: 5/11/2015 10:45 AM
Subject: Re: Fw: st patricks church

Paul

Thank you for following up.

Yes, I have spoken with the Historic Preservation Program Manager. I understand that this question was raised with her in the past and she researched the building/architecture and determined that it did not meet the criteria for historic designation.

The Historic Preservation Program Manager is Deb Andrews at DGA@portlandmaine.gov

The church that is selling the property has made it a requirement of the sale that the building be demolished. While some may feel this is regrettable, it is not a Site Plan/conditional Use review issue and the Planning Board would not have a remit regarding its retention.

thank you
 Jean

*Jean Fraser, Planner
 City of Portland
 874 8728*

>>> paul jeffery <pj6481@yahoo.com> 5/8/2015 8:45 PM >>>
 hi jean
 have you heard from the
 citys historic preservation manager
 PLEASE ADVISE
 PAUL

On Friday, May 1, 2015 3:50 PM, Jean Fraser <JF@portlandmaine.gov> wrote:

Paul

Thank you for your comments.

I have forwarded your comments to the City's Historic Preservation Program Manager and am awaiting her advice on this and whether there is information supporting your suggestion that the existing building is of historic architectural importance.

I will get back to you as soon as possible; this will not be going to the first Planning Board meeting for several weeks. Your comments would be included in the packet that goes to the Planning Board (and on to the city's web site) on the Friday before the meeting.

thank you
 Jean

Jean Fraser, Planner
City of Portland
874 8728

>>> paul jeffery <pj6481@yahoo.com> 5/1/2015 3:08 PM >>>

On Friday, May 1, 2015 3:05 PM, paul jeffery <pj6481@yahoo.com> wrote:

On Thursday, April 30, 2015 8:44 PM, paul jeffery <pj6481@yahoo.com> wrote:

IM AM NOT IN FAVOR OF CURRENT PROPSAL FOR THE REUSE OF ST PATS

MY REASONS

ITS PART OF PORTLAND 1960S ERA BUILDING DESIGNS
ITS UNION STATION!!

GREATER PORTLAND LANDMARKS
CITY OF PORTLAND HISTORIC PRESERVATION

NEEDS TO FIGHT TO SAVE THIS BUILDING

THIS BUILDING IS JUST AS IMPORTMENT AS THE PORTLAND COMPANY

IF YOU A TRUE PORTLAND ME NATIVE
YOU WILL DO YOUR JOB
TO SAVE THIS BUILDING

THIS BUILDING IS WHAT PORTLAND ABOUT

*****PLEASE ADVISE*****

Notice: Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested. 22



J-0096-1
April 3, 2015

Ms. Barbara Barhydt, Development Review Manager
City of Portland Planning Division
389 Congress Street
Portland, ME 04101

Re: **Preliminary Site Plan Development Review and Conditional Use Applications
Proposed Neighborhood Center – 1342 Congress Street**

Dear Ms. Barhydt:

On behalf of the Jewish Community Alliance of Southern Maine we are pleased to submit the following information relative to a Preliminary Site Plan Development Review and Conditional Use Application:

Level III Site Plan Development Review

- Level III Preliminary Site Plan Development Review Application form.
- Check in the amount of \$750.00 made payable to the City of Portland for the Site Plan Development Review Application fee.
- ALTA/ASCM Land Title Survey, dated December 31, 2014
- Site Plans dated April 3, 2015
- Drainage Study dated April 3, 2015
- Purchase and Sales Agreement dated December 9, 2014
- Letter providing evidence of financial capacity dated April 2, 2015
- Traffic Memorandum dated March 19, 2015
- Letter of Endorsement from Charter Westgate, LLC dated April 2, 2015
- Fire Department Site Review Checklist

Conditional Use Review Application

- Conditional Use Review Application form.
- Check in the amount of \$100.00 made payable to the City of Portland for the Conditional Use Review Application fee.

In addition to the electronic submission, a hardcopy of the complete submission package with payment for the application fees will be sent to the Building Inspections Office via US Mail as required.

Project Description

The proposed project will be constructed on a previously developed parcel identified as Map 191 B-16 & 17, which is located in the R-5 Residential Zoning District. Prior to closing in 2013, the land was in use by St Patrick's Catholic Church.

The proposed project consists of the construction of a (1) story, 19,300 SF Neighborhood Center with associated site improvements that include a surface parking lot, stormwater management system, utilities, site lighting, and landscaping. The existing building and associated site features will be demolished in accordance with conditions set forth by the seller. The proposed project will disturb approximately 85,000 SF of the site and result in

12,500 SF of additional impervious area. The proposed stormwater management system has been designed in accordance with the City of Portland Technical Manual and serves to minimize the impacts of the additional impervious area. A Drainage Study has been enclosed with this submission.

The existing project site has a shared access driveway with Westgate Plaza, which will be re-constructed as part of the proposed project. The Owner of Westgate Plaza, Charter Westgate, LLC, has provided a letter of authorization to the Applicant that demonstrates their willingness to formalize the driveway connection with an easement, which is currently being negotiated.

Zoning Description

On February 25, 2015, the Applicant met with the City of Portland Staff for a pre-application meeting. Based on feedback from the City it was determined that the proposed uses are allowed in the R-5 Residential Zone and are classified under the Institutional Uses in Section 14-118 of the Land Use Code. A portion of the building that is less than 10,000 SF will be used as a neighborhood center, which is included in the definition of a place of assembly under Section 14-118 of the Land Use Code. The remaining portion of the proposed building will be used for pre-school/daycare programs, which are also allowed with conditional use approval.

The following addresses the Standards for set forth by Section 14-474(3)(c)(2) of the City of Portland Land Use Code for Condition Use:

- A. *The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone; and*

A Trip Generation analysis was prepared and has been included with this submission. Based on this analysis, it is anticipated that the neighborhood center will generate fewer trips than the former Catholic Church overall and during peak periods. The number of parking spaces proposed meets the minimum amount required.

- B. *The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter; and*

It is not anticipated that the proposed uses at this site will create any objectionable or harmful conditions.

- C. *The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.*

The operation of the proposed project is not anticipated to have a greater effect or impact on surrounding properties than the former Church. The layout of the site and proposed landscaping have been designed to minimize effects on surrounding properties by maintaining and improving natural buffers.

Waiver Requests

1. Section 7 of the City of Portland Technical Manual requires a soil survey be completed as part of a Level III Site Plan Development. We are requesting a waiver from this requirement based on soil borings that were completed as part of the Phase I/II Environmental Site Assessment completed at this parcel. This information has been included in the Appendix of the Drainage Study enclosed with this submission.
2. Section 8(B)(c) of the City of Portland Technical Manual requires pre-treatment for runoff directed to filter BMP's. We are requesting a waiver from this requirement due to topographic and geometric constraints of the site. As explained in the Drainage Study, to mitigate any potential impacts from the waiver request, the proposed underdrained soil filter has been designed to completely treat and detain the 2-year and 10-year 24-hour storms, which is a larger volume than required by Section 8(B)(b).

We look forward to working with the City of Portland on this project. Please don't hesitate to call if you have any questions.

Very Truly Yours,

TIGHE & BOND, INC



Bradlee Mezquita, P.E.
Vice President



Greg Halsey
Staff Engineer

Enclosures

Cc: Steve Brinn, JCA (by email)
Charles E. Miller, Esq. Bernstein Shur (by email)
Mark Lee, Harriman (by email)



Portland, Maine



Yes. Life's good here.

Jeff Levine, AICP, Director
Planning & Urban Development Department

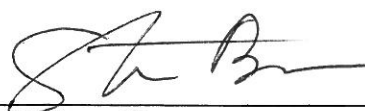
Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are ***paid in full*** to the Inspections Office, City of Portland Maine by method noted below:

- ☐ Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- ☐ Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- ☒ I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.


Applicant Signature:

3/31/15
Date:

I have provided digital copies and sent them on:

4/6/15
Date:

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.



Level III – Preliminary and Final Site Plans Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level III: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Level III: Site Plan Development includes:

- New structures with a total floor area of 10,000 sq. ft. or more except in Industrial Zones.
- New structures with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- New temporary or permanent parking area(s) or paving of existing unpaved parking areas for more than 75 vehicles.
- Building addition(s) with a total floor area of 10,000 sq. ft. or more (cumulatively within a 3 year period) except in Industrial Zones.
- Building addition(s) with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- A change in the use of a total floor area of 20,000 sq. ft. or more in any existing building (cumulatively within a 3 year period).
- Multiple family development (3 or more dwelling units) or the addition of any additional dwelling unit if subject to subdivision review.
- Any new major or minor auto business in the B-2 or B-5 Zone, or the construction of any new major or minor auto business greater than 10,000 sq. ft. of building area in any other permitted zone.
- Correctional prerelease facilities.
- Park improvements: New structures greater than 10,000 sq. ft. and/or facilities encompassing 20,000 sq. ft. or more (excludes rehabilitation or replacement of existing facilities); new nighttime outdoor lighting of sports, athletic or recreation facilities not previously illuminated.
- Land disturbance of 3 acres or more (includes stripping, grading, grubbing, filling or excavation).

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division

Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours

Monday thru Friday
8:00 a.m. – 4:30 p.m.

PROJECT NAME: Proposed Neighborhood Center

PROPOSED DEVELOPMENT ADDRESS:

1342 Congress Street Portland, ME

PROJECT DESCRIPTION:

Construction of a 19,300 SF Neighborhood Center with associated site improvements that include surface parking, a stormwater management system, utilities, site lighting, and landscaping.

CHART/BLOCK/LOT: 191/B/16 & 17

PRELIMINARY PLAN

4/3/15 (date)

FINAL PLAN

 (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Steve Brinn Business Name, if applicable: Jewish Community Alliance of Southern Maine Address: 57 Ashmont Street City/State : Portland, ME Zip Code: 04103	Applicant Contact Information Work # 207-772-1959 Home# Cell # 207-712-8237 Fax# e-mail: stvbrinn@gmail.com
Owner – (if different from Applicant) Name: Roman Catholic Bishop of Portland Address: 510 Ocean Road City/State : Portland ME Zip Code: 04103	Owner Contact Information Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: Bradlee Mezquita, P.E. Address: 177 Corporate Drive City/State : Portsmouth NH Zip Code: 03801	Agent/Representative Contact information Work # 603-433-8818 Cell # e-mail: BLMezquita@tighebond.com
Billing Information Name: Address: City/State : Zip Code:	Billing Information Work # Cell # Fax# e-mail:

Engineer Name: Tighe & Bond Bradlee Mezquita, P.E. Address: 177 Corporate Drive City/State : Portsmouth, NH Zip Code: 03801	Engineer Contact Information Work # 603-433-8818 Cell # Fax# e-mail: BLMezquita@tighebond.com
Surveyor Name: Northeast Civil Solutions, Inc. Address: 153 US Route 1 City/State : Scarborough ME Zip Code: 04074	Surveyor Contact Information Work # 207-883-1000 Cell # Fax# e-mail:
Architect Name: Harriman Mark Lee Address: 123 Middle Street City/State : Portland, ME Zip Code: 04101	Architect Contact Information Work # 207-775-0053 Cell # Fax# e-mail: mlee@harriman.com
Attorney Name: Bernstein Shur Beth Smith Address: 100 Middle Street City/State : Portland, ME Zip Code: 04104	Attorney Contact Information Work # 207-774-1200 Cell # Fax# e-mail: bsmith@bernsteinshur.com

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews) ☒ Less than 50,000 sq. ft. (\$500.00) ☐ 50,000 - 100,000 sq. ft. (\$1,000) ☐ 100,000 – 200,000 sq. ft. (\$2,000) ☐ 200,000 – 300,000 sq. ft. (\$3,000) ☐ over \$300,00 sq. ft. (\$5,000) ☐ Parking lots over 11 spaces (\$1,000) ☐ After-the-fact Review (\$1,000.00 plus applicable application fee) Plan Amendments (check applicable reviews) ☐ Planning Staff Review (\$250) ☐ Planning Board Review (\$500) The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	Other Reviews (check applicable reviews) ☐ Traffic Movement (\$1,000) ☒ Stormwater Quality (\$250) ☐ Subdivisions (\$500 + \$25/lot) # of Lots ___ x \$25/lot = ____ ☐ Site Location (\$3,000, except for residential projects which shall be \$200/lot) # of Lots ___ x \$200/lot = ____ ☐ Other _____ ☐ Change of Use ☐ Flood Plain ☐ Shoreland ☐ Design Review ☐ Housing Replacement ☐ Historic Preservation
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APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the **Electronic Plan and Document Submittal** page of the City's website at <http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal>
2. In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - a. Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level II Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant: 	Date: 3/31/15
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PROJECT DATA

The following information is required where applicable, in order to complete the application.

Total Area of Site	91,146	sq. ft.
Proposed Total Disturbed Area of the Site	85,000	sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.		
Impervious Surface Area		
Impervious Area (Total Existing)	36,810	sq. ft.
Impervious Area (Total Proposed)	48,310	sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	14,960	sq. ft.
Building Footprint (Total Proposed)	19,300	sq. ft.
Building Floor Area (Total Existing)		sq. ft.
Building Floor Area (Total Proposed)		sq. ft.
Zoning		
Existing	R-5 Residential	
Proposed, if applicable		
Land Use		
Existing	Catholic Church	
Proposed	Neighborhood Center / Preschool Daycare	
Residential, If applicable	N/A	
# of Residential Units (Total Existing)		
# of Residential Units (Total Proposed)		
# of Lots (Total Proposed)		
# of Affordable Housing Units (Total Proposed)		
Proposed Bedroom Mix	N/A	
# of Efficiency Units (Total Proposed)		
# of One-Bedroom Units (Total Proposed)		
# of Two-Bedroom Units (Total Proposed)		
# of Three-Bedroom Units (Total Proposed)		
Parking Spaces		
# of Parking Spaces (Total Existing)	13	
# of Parking Spaces (Total Proposed)	50	
# of Handicapped Spaces (Total Proposed)	2	
Bicycle Parking Spaces		
# of Bicycle Spaces (Total Existing)	0	
# of Bicycle Spaces (Total Proposed)	3	
Estimated Cost of Project	TBD	

PRELIMINARY PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST
X		1	Completed Application form
X		1	Application fees
X		1	Written description of project
X		1	Evidence of right, title and interest
N/A		1	Evidence of state and/or federal approvals, if applicable
X		1	Written assessment of proposed project's compliance with applicable zoning requirements
X		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
X		1	Written requests for waivers from site plan or technical standards, if applicable.
X		1	Evidence of financial and technical capacity
X		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST
X		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		1	Preliminary Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase)
X			Proposed grading and contours;
X			Existing structures with distances from property line;
X			Proposed site layout and dimensions for all proposed structures (including piers, docks or wharves in Shoreland Zone), paved areas, and pedestrian and vehicle access ways;
X			Preliminary design of proposed stormwater management system in accordance with Section 5 of the Technical Manual (note that Portland has a separate applicability section);
X			Preliminary infrastructure improvements;
X			Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;
X			Location of significant natural features (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features) located on the site as defined in Section 14-526 (b) (1);
X			Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526 (b) (1);
X			Location , dimensions and ownership of easements, public or private rights of way, both existing and proposed;
X			Exterior building elevations.

FINAL PLAN - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
		1	* Completed Application form
		1	* Application fees
		1	* Written description of project
		1	* Evidence of right, title and interest
		1	* Evidence of state and/or federal permits
		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
		1	* Evidence of financial and technical capacity
		1	Construction Management Plan
		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
		1	Stormwater management plan and stormwater calculations
		1	Written summary of project's consistency with related city master plans
		1	Evidence of utility capacity to serve
		1	Written summary of solid waste generation and proposed management of solid waste
		1	A code summary referencing NFPA 1 and all Fire Department technical standards
		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.



Conditional Use for Planning Board Review Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Conditional Use where the Planning Board is listed as the reviewing authority rather than the Zoning Board of Appeals. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

A. Conditional Use: Standards and Criteria – Section 14-474 and Zone Related Criteria

Conditional uses are listed in the Zoning Ordinance for each zone and these proposed uses must address the criteria contained in Section 14-474 in the written application. In addition to the criteria in Section 14-474, each application must address any applicable conditional use standards contained in the applicable zone and the proposed specific use. The Zoning Ordinance specifies when the Planning Board is designated as the reviewing authority rather than the Zoning Board of Appeals. This application is for Planning Board reviews only.

Upon showing that a proposed use is a conditional use under this article, a conditional use permit shall be granted unless the Board determines that:

- a. The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone; and
- b. The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter; and
- c. The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.

B. Site Plan Application: Please submit the Conditional Use Application in addition to the applicable Site Plan Application.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

PROJECT NAME: Proposed Neighborhood Center

PROPOSED DEVELOPMENT ADDRESS:

1342 Congress Street Portland, ME

ASSESSOR'S CHART/BLOCK/LOT (s): 191/B/16 &17

Applicable Zone: R-5 Residential

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Steve Brinn Business Name, if applicable: Jewish Community Alliance of Southern Maine Address: 57 Ashmont Street City/State : Portland, ME Zip Code: 04103	Applicant Contact Information Work # 207-772-1959 Home# Cell # 207-712-8237 Fax# e-mail: stvbrinn@gmail.com
Owner – (if different from Applicant) Name: Roman Catholic Bishop of Portland Address: 510 Ocean Road City/State : Portland, ME Zip Code: 04103	Owner Contact Information Work # Home# Cell # Fax# e-mail:
Billing Information Name: Address: City/State : Zip Code:	Billing Information Work # Cell # Fax# e-mail:

RIGHT, TITLE OR INTEREST:

See Sales Agreement Enclosed

(Please identify the status provide documentary evidence, attached to this application, of the applicant's right, title, or interest in the subject property (ex: deed, option or contract to purchase or lease the property.)

VICINITY MAP: (Please attach a map showing the subject parcel and abutting parcels, labeled as to ownership and/or current use.) See ALTA/ASCM Land Title Survey Enclosed with Application

EXISTING USE: Describe the existing use of the subject property.

Catholic Church

PROPOSED USE: Describe the proposed use of the subject property

Neighborhood Center and Preschool/Daycare

TYPE OF CONDITIONAL USE PROPOSED (Refer To Specific Provisions Of Land Use Code Authorizing The Proposed Conditional Use).

The proposed uses are authorized in R-5 Residential Zone per Section 14 -118 (b)

SITE PLAN: Submit a separate site plan application for the proposal that provides a site plan for the property, showing existing and proposed improvements, which meets the submission requirements of the applicable level of site plan review.

CONDITIONAL USE STANDARDS AND CONDITIONS – 14-474

Address the following criteria in your written application and any applicable conditional use standards contained in the zoning code for the specific use. Upon showing that a proposed use is a conditional use under this article, a conditional use permit shall be granted unless the Board determines that:

- a. The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone; and
- b. The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter; and
- c. The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.

CONDITIONAL USE AUTHORIZED BY: SECTION 14- 118

Address any specific conditional use standards for the specific use contained in the zoning code in the written submission.

APPLICATION FEES:

(Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

<u> X </u> Conditional Use Review (\$100.00) (Please submit a separate application for the applicable site plan review. Fees and charges are listed within the application)	The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.
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APPLICATION SUBMISSION:

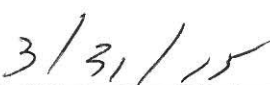
1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the Electronic Plan and Document Submittal page of the City's website at
<http://me-portland.civicplus.com/764/Electronic-Plan-and-Documents-Submittal>
2. In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.
3. The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:
 1. One (1) full size site plans that must be folded.
 2. One (1) copy of all written materials or as follows, unless otherwise noted:

Applicant Checklist	Planner Checklist	# of Copies	
X		1	Application form that is completed and signed.
X		1	Cover letter stating the nature of the project.
X		1	Evidence of right, title and interest.
X		1	Written Submittals that address the conditional use standards of Sec. 14-474.
X		1	Written submittals that address any applicable standards of review contained in the zoning code for the specific use.
X		1	A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet and containing the information required for the applicable level of site plan review.
X		1	An accompanying site plan application, as applicable.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Conditional Use Review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant: 	Date: 
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AGREEMENT FOR THE SALE OF COMMERCIAL REAL ESTATE

RECEIVED from THE JEWISH COMMUNITY ALLIANCE OF SOUTHERN MAINE (as successor by merger between The Jewish Community Center a/k/a The Jewish Community Center of Portland and the Jewish Federation of Southern Maine), a not-for-profit corporation organized and existing under the laws of the State of Maine, and having a mailing address of 57 Ashmont Street, Portland, Maine 04103 (the "Purchaser"), the sum of [REDACTED] as Earnest Money Deposit within forty-eight (48) hours after the Effective Date as set forth in paragraph 19 herein toward purchase of real estate owned by ROMAN CATHOLIC BISHOP OF PORTLAND, a not-for-profit corporation organized and existing under the laws of the State of Maine, and having a mailing address of 510 Ocean Avenue, Portland, Maine 04101 (the "Seller") and located at 1342 & 1348 Congress Street in the city of Portland, County of Cumberland, State of Maine, described as all that certain parcel of land situated in the City of Portland, County of Cumberland, State of Maine and more particularly described in Exhibit A attached hereto (the "Premises" or the "Property") upon the terms and conditions indicated below.

1. **PERSONAL PROPERTY:** The following items of personal property are included in this sale (if applicable): N/A
2. **PURCHASE PRICE:** The total Purchase Price is [REDACTED] payable pursuant to Section 1 of the Addendum, with payment to be made as follows:

Earnest Money Deposit	\$	SEE ADDENDUM
Other: SEE ADDENDUM	\$	SEE ADDENDUM
Other: SEE ADDENDUM	\$	SEE ADDENDUM
Balance due at closing, in cash or certified funds:	\$	SEE ADDENDUM
3. **EARNEST MONEY/ACCEPTANCE:** This offer shall be valid until December 12, 2014 at 5:00 PM Eastern Time. King Real Estate ("Escrow Agent") shall hold the Earnest Money Deposit in a non-interest bearing account and shall act as Escrow Agent until closing. The Earnest Money Deposit shall be tendered to the Escrow Agent within forty-eight (48) hours after this Agreement for the Sale of Commercial Real Estate is fully executed.
4. **TITLE AND CLOSING:** That a deed, conveying the Premises in fee simple with good and marketable title in accordance with Standards of Title adopted by the Maine Bar Association shall be delivered to Purchaser and that Purchaser shall pay the Purchase Price as provided herein and execute all necessary papers for the completion of the purchase on or before SEE SECTIONS 3 AND 4 OF THE ADDENDUM. ~~If Seller is unable to convey title to the premises in accordance with the provisions of paragraph 5 below, then Seller shall have a reasonable time period, not to exceed 30 days from the time Seller receives written notice of the defect, unless otherwise agreed to by both parties, to remedy the title, after which time, if such defect is not corrected so that there is marketable title, Purchaser may within _____ days thereafter, at Purchaser's option, withdraw the Earnest Money Deposit and neither party shall have any further obligation hereunder, or Purchaser may, at Purchaser's option, close notwithstanding such un cured defects as may then exist. Seller hereby agrees to make a good faith effort to cure any title defect identified pursuant to paragraph 5 below during such period.~~
5. **DEED:** That the Property shall be conveyed by a Maine Short Form Deeds Act Quit Claim with Covenant Deed (the "Deed"), and shall be subject to all encumbrances (other than liens and mortgages), except covenants, conditions, easements and restrictions of record that materially and negatively impair the current use of the Premises and usual public utilities servicing the Premises and shall be subject to applicable land use and building laws and regulations.
6. **LEASES/TENANT SECURITY DEPOSITS:** The Premises shall be transferred free and clear of all leases, tenants, and/or occupants.
7. **POSSESSION/OCCUPANCY:** Possession of Premises shall be given to Purchaser immediately at closing unless otherwise agreed by both parties in writing.
8. **RISK OF LOSS:** Until transfer of title, the risk of loss or damage to the Premises by fire or otherwise is assumed by Seller unless otherwise agreed in writing. The Premises shall at closing be in substantially the same condition as at present, excepting reasonable use and wear. If the Premises are materially damaged or destroyed prior to closing, Purchaser may either terminate this Agreement and be refunded the Earnest Money Deposit if such damage or destruction occurs within the Preliminary Due Diligence Period, and in any case may elect to close this transaction and accept the Premises in their as-is condition together and with no assignment of the Seller's right to any insurance proceeds relating thereto; provided, however, that if Purchaser's cost to demolish the building and/or abate and dispose of asbestos on the Premises should increase due to said damage or destruction of the Premises, Seller agrees to make a contribution of said insurance proceeds to the full extent of the difference.
9. **PRORATIONS:** The following items shall be prorated as of the date of closing:
 - a. Real Estate Taxes based on the municipality's tax year. Seller is responsible for any unpaid taxes for prior years.
 - b. Fuel
 - c. Metered utilities, such as water and sewer, shall be paid by the Seller through the date of closing.
 - d. Purchaser and Seller shall each pay one-half of the transfer tax as required by the laws of the State of Maine.
 - e. ~~Rents, monthly common area maintenance charges, and all other additional rents received by Seller pursuant to leases of the property;~~ [N/A]
 - f. Property tax payments shall be prorated to the extent applicable.

10. INSPECTIONS: Purchaser is advised to seek information from professionals regarding any specific issue of concern. Purchaser acknowledges receipt of disclosure form attached hereto. Except as set forth in this Agreement, neither Seller nor the Real Estate Licensees identified below make any representations or warranties regarding the condition, permitted use or value of Seller's real or personal property. This Contract is subject to the following inspections, with the results being satisfactory to Purchaser:

TYPE OF INSPECTION	YES	NO	RESULTS REPORTED	TYPE OF INSPECTION	YES	NO	RESULTS REPORTED
a. General Building	<u>X</u>		Within <u>60</u> days	i. Lead Paint			Within <u> </u> days
b. Sewage Disposal			Within <u> </u> days	j. Pests			Within <u> </u> days
c. Water Quality			Within <u> </u> days	k. ADA			Within <u> </u> days
d. Radon Air Quality			Within <u> </u> days	l. Wetlands			Within <u> </u> days
e. Radon Water Quality			Within <u> </u> days	m. Environmental Scan	<u>X</u>		Within <u>90</u> days
f. Asbestos Air Quality			Within <u> </u> days	n. Zoning	<u>X</u>		Within <u>90*</u> days
g. Code Conformance			Within <u> </u> days	o. Insurance			Within <u> </u> days
h. Flood Plain			Within <u> </u> days	p. Other: All Permits and Approvals	<u>X</u>		Within <u>90*</u> days
				q. Other: Survey	<u>X</u>		Within <u>60</u> days

* Or as such date may be extended pursuant to Section 1 of the Addendum.

All inspections (including, without limitation, survey) will be done by inspectors chosen and paid for by Purchaser. If the result of any inspection or other condition specified herein is unsatisfactory to Purchaser, Purchaser may declare the Contract null and void by notifying Seller in writing within the specified number of days set forth above, and the Earnest Money Deposit (except for any non-refundable portions of said Earnest Money Deposit) shall be returned to Purchaser if such notice is delivered prior to the expiration of the Preliminary Due Diligence Period. If Purchaser does not notify Seller that an inspection is unsatisfactory within the time period set forth above, this contingency is waived by Purchaser. In the absence of inspection(s) mentioned above, Purchaser is relying completely upon Purchaser's own opinion as to the condition of the Premises.

11. REVIEW OF LEASES AND INCOME AND EXPENSE INFORMATION. [N/A]

12. FINANCING: Purchaser's obligation to close hereunder is contingent upon Purchaser's obtaining within N/A days from the effective date of this contract a written commitment (the "Commitment") from a lender for a mortgage loan of not less than N/A % of the purchase price at an initial interest rate not to exceed N/A % per annum and amortized over a period of not less than N/A years. Purchaser acknowledges that a breach of this good faith obligation to seek and accept financing on the above-described terms shall be a breach of this Contract.

In the event that Purchaser is unable to obtain the Commitment and Purchaser notifies Seller within N/A days from the effective date of this Contract, then Seller shall return the earnest money to Purchaser and this Contract shall terminate and neither party shall be under any further obligation hereunder. If Purchaser is unable to obtain the Commitment and does not notify Seller that Purchaser has failed to obtain the Commitment within the time limit set forth above, then Purchaser shall be in default of this Agreement.

13. AGENCY DISCLOSURE: Purchaser and Seller acknowledge that they have been informed that Joseph Malone of Malone Commercial Brokers ("Selling Agent") is acting as Selling Agent in this transaction and is representing Roman Catholic Bishop of Portland and that Michael Jacobson of King Real Estate ("Purchaser Agent") is acting as Purchaser Agent in this transaction and is representing The Jewish Community Alliance of Southern Maine (Selling Agent and Purchaser Agent are referred to elsewhere herein as "Licensees").

14. DEFAULT: In the event of breach by Purchaser of its obligations herein, Seller shall have as its sole remedy, in lieu of all other legal and equitable remedies, the right to terminate the Agreement and retain, as liquidated damages for such breach, the Earnest Money Deposit and all other non-refundable deposit(s) tendered to it pursuant to the Addendum, the parties agreeing that damages for such breach are difficult to measure, and that such amount represents a fair and proper determination of such damages. In the event of Seller's breach of Seller's obligations hereunder, Purchaser shall elect either (a) to receive a refund of the Earnest Money Deposit and all other non-refundable deposit(s) tendered to it pursuant to the Addendum, or (b) to enforce the right to seek specific performance, but shall have no other remedy; provided, however, that if Purchaser successfully enforces said right to specific performance, Seller agrees to pay Purchaser's reasonable attorneys' fees and costs related thereto. In the event of an undisputed default by either party, the Escrow Agent may return the earnest money to Purchaser or Seller with written notice to both parties pursuant to Maine Real Estate Commission regulations. If a dispute arises between Purchaser and Seller as to the existence of a default hereunder and said dispute is not resolved by the parties within thirty (30) days, Escrow Agent may elect to file an action in interpleader and deposit the earnest money in the court to resolve said dispute, or otherwise disburse the earnest money pursuant to Maine Real Estate Commission regulations. Purchaser and Seller, jointly and severally, shall indemnify Escrow Agent for all costs, losses, expenses, and damages, including reasonable attorneys' fees, incurred by Escrow Agent in connection with said action and/or in connection with any dispute relating to this Contract and/or the Deposit.

15. MEDIATION: Any dispute or claim arising out of or relating to this Contract or the Premises addressed in this Contract shall be submitted to mediation in accordance with the Maine Residential Real Estate Mediation Rules of the Maine Association of Dispute Resolution Professionals or its successor organization. This clause shall survive the closing of this transaction.

16. PRIOR STATEMENTS: This Contract sets forth the entire agreement between the parties, and there are no other representations, agreements or understandings with respect to the subject matter of this Contract. This Contract shall be construed according to the laws of the State of Maine.

17. HEIRS/ASSIGNS: This Contract shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the respective parties.
18. COUNTERPARTS: This Contract may be signed on any number of identical counterparts, including PDF or scanned copies, or electronically transmitted copies with the same binding effect as if all the signatures were on one instrument.
19. EFFECTIVE DATE: This Contract is a binding contract when signed by both Seller and Purchaser and when that fact has been communicated to all parties or to their agents. Time is of the essence of this Contract. Seller or Transaction Broker is given permission by the parties to complete the Effective Date blank below with the date of the last signature of the parties, and that date shall be the Effective Date for all purposes under this Contract, and if that blank is not completed, then the Effective Date shall be the date of the last signature of the parties. Except as expressly set forth to the contrary in this Contract, the use of the term "days" in this Contract, including all addenda made a part hereof, shall mean calendar days. Deadlines in this Contract, including all addenda, expressed as "within x days" or the like shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 PM, Eastern Time, on the last day counted.
20. Seller and Purchaser acknowledge receipt of the Maine Real Estate Brokerage Relationships Form.
21. ADDENDA: This contract has an addendum containing additional terms and conditions: Yes ☒ No ☐.
22. EXTENSION: Seller and Purchaser agree to extend the following date(s) set forth in this Contract to the new dates shown:

Date for SEE ADDENDUM, changed from SEE ADDENDUM to SEE ADDENDUM, 20__.

Date for SEE ADDENDUM, changed from SEE ADDENDUM to SEE ADDENDUM, 20__.

Date for SEE ADDENDUM, changed from SEE ADDENDUM to SEE ADDENDUM, 20__.

The parties agree that none of the above are collateral agreements. It is the intent of the parties that except as expressly set forth in this Contract, all covenants, representations, statements and obligations of both parties herein shall not survive closing.

A COPY OF THIS CONTRACT IS TO BE RECEIVED BY ALL PARTIES AND, BY SIGNATURE, RECEIPT OF A COPY IS HEREBY ACKNOWLEDGED. IF NOT FULLY UNDERSTOOD, CONSULT AN ATTORNEY.

Seller acknowledges that the laws of the State of Maine provide that every buyer of real property located in Maine must withhold a withholding tax equal to 2½% of the consideration unless Seller furnishes to Purchaser a certificate by the Seller stating, under penalty of perjury, that Seller is a resident of Maine or the transfer is otherwise exempt from withholding.

Legal Name of Purchaser

E. Chaleff

Signature

Emily Chaleff

Social Security # or Tax ID # *Emily Chaleff Executive Direct*

Name/Title, thereunto duly authorized

Seller accepts and agrees to the terms and conditions set forth in this Contract and agrees to pay the Licensees the commission for services according to the terms of the listing agreement or if there is no listing agreement, the sum of _____ Dollars (\$_____.00). In the event the Earnest Money Deposit is forfeited by Purchaser, it shall be evenly distributed between (1) Licensees and (2) Seller; provided, however, that the Licensees' portion shall not exceed the full amount of the commission specified.

Signed this _____ day of _____, 20__

ROMAN CATHOLIC BISHOP OF PORTLAND

Seller

[Signature]

Signature

Escrow Agent

Signature

Social Security # or Tax I.D.#

CHIEF FINANCIAL OFFICER

Name/Title, thereunto duly authorized

DAVID P TWOMEY

Name/Title

The Purchasing Agent is _____ of _____ (Agency)

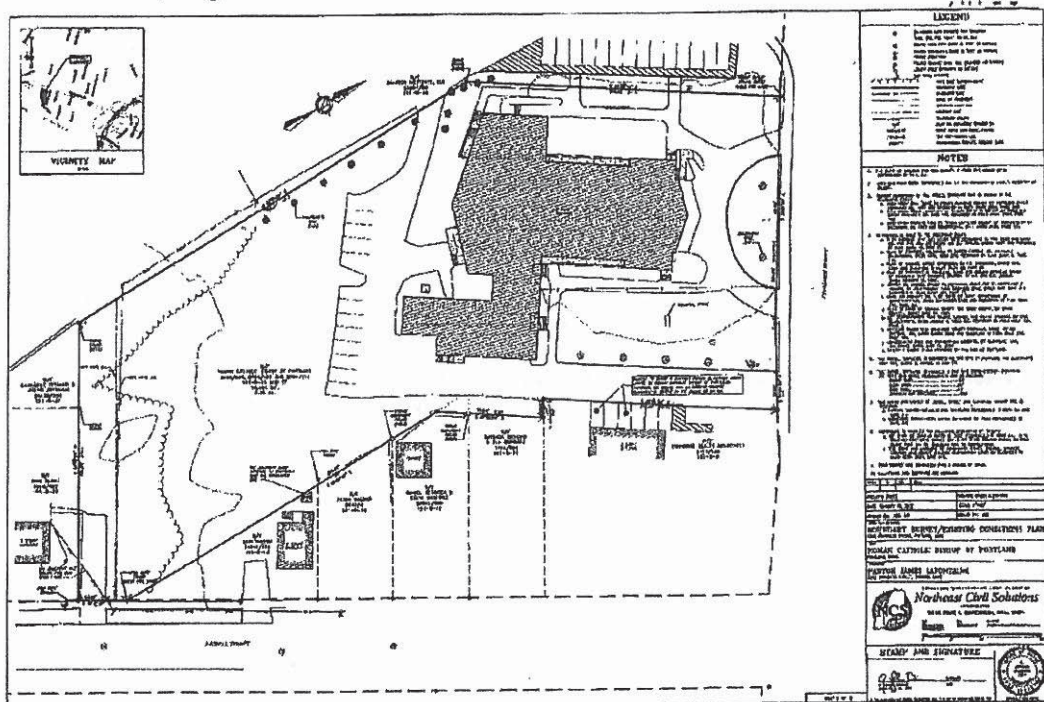
The Selling Agent is _____ of _____ (Agency)

EFFECTIVE DATE OF CONTRACT: _____, 20__.

Exhibit A

Legal Description

The survey below will be replaced by a legal description acceptable to both parties and prepared by the surveyor retained by Purchaser at closing; provided, however, that said legal description shall include all three (3) parcels conveyed to Seller by virtue of three (3) deeds recorded in the Cumberland County Registry of Deeds in Book 2338, Page 240; Book 2724, Page 109; and Book 2724, Page 111, the associated legal descriptions of which are attached hereto, subject to Notice of Layout and Taking by the State of Maine, Department of Transportation, dated January 18, 1983 and recorded in said registry at Book 6110, Page 287 and subject to easement rights granted to Central Maine Power Company and New England Telephone and Telegraph Company in instrument dated July 22, 1959 and recorded in Book 2491, Page 118.



Parcel 1:

A certain lot or parcel of land, with the buildings thereon, situated on the Southwesterly side of Congress Street, in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning on the Southwesterly side line of Congress Street at the Northerly corner of land conveyed by P.H. & J.M. Brown Company to Martin Curran, Jr., by deed dated May 13, 1902, Book 717, page 129; thence North 57° 10' West by the Southwesterly side line of Congress Street two hundred and five (205) feet more or less to the Easterly corner of land formerly of Edward H. Davels; thence South 32° 50' West by said Davels land two hundred eleven and two tenths (211.1) feet; thence South 1° 41' East by said Davels land three hundred two and one tenth (302.1) feet to an angle in said Davels land; thence Southeasterly by a line at right angles with the northwesterly side line of Lassell Street, as extended, one hundred ninety (190) feet more or less to said Northwesterly side line of Lassell Street; thence Northeasterly by the Northwesterly side line of Lassell Street, as extended, forty (40) feet more or less to the Westerly side line of said Curran land; thence North 1° 27' West by said Curran land two hundred sixty (260) feet more or less to an angle in said Curran line; thence North 33° East by said Curran land two hundred nine and eighty-two hundredths (209.82) feet to the point of beginning.

Being the premises described in a warranty deed to Roman Catholic Bishop of Portland from Norman E. Blake and Irma B. Blake dated February 28, 1957 and recorded in the Cumberland County Registry of Deeds in Book 2338, Page 240.

Parcel 2:

A certain lot or parcel of land in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Being a rear portion of Lot #5 as shown on a Plan of Lots of Martin Curran, Jr., recorded in Cumberland County Registry of Deeds Plan Book 9, Page 121. Said lot is located on the westerly side of Lassell Street in the City of Portland, County of Cumberland, State of Maine and is more particularly bounded and described as follows:

Beginning at the point formed by the intersection of the division line between lots 4 and 5 on said Plan with the easterly line of land conveyed to the Grantee herein by Norman E. Blake et.al. by deed dated February 28, 1957 and recorded in said Registry in Book 2338, Page 240. Said point of beginning is located along said easterly property line of the Grantee at a point that is distant S 33° 04' W, 207.42' from its intersection with the southerly side of Congress Street. Thence continuing by said easterly property line S 33° 04' W, 2.48' to an iron marking an angle in said line. Thence S 0° 57 1/2' E, 21.45' to a point on the rear property line of said Lot #5. Thence through said Lot #5 N 33° 04' E, 20.97' to the southerly side of said lot #4. Thence by the southerly side of lot #4 N 60° 22' W, 12.02' to the point of beginning.

Said above described lot being a portion of the lot of land conveyed to Albert D. Keniston and Iva L. Keniston by Elizabeth A. Curran and Thomas E. Curran by deed dated June 7, 1946 and recorded in Cumberland County Registry of Deeds in Book 1825, Page 95.

Said above-described courses are magnetic and of the date of 1904.

Being the premises described in a warranty deed to Roman Catholic Bishop of Portland from Albert D. Keniston and Iva L. Keniston dated December 22, 1962 and recorded in said Registry in Book 2724, Page 109.

Parcel 3:

A certain lot or parcel of land in the City of Portland, County of Cumberland and State of Maine, bounded and

Exhibit A - Description

described as follows:

Being the rear portion of Lot #4 as shown on a Plan of Lots of Martin Curran, Jr., recorded in Cumberland County Registry of Deeds Plan Book 9, Page 121. Said lot is located on the westerly side of Lassell Street in the City of Portland, County of Cumberland, State of Maine and is more particularly bounded and described as follows:

Beginning at the point formed by the intersection of the division line between Lots 3 and 4 on said plan with the easterly line of land conveyed to the Grantee herein by Norman E. Blake et.al. by deed dated February 28, 1957 and recorded in said Registry in Book 2338, Page 240. Said point of beginning is located along said easterly property line of the Grantee at a point that is distant S 33° 04' W, 157.33' from its intersection with the southerly side of Congress Street. Thence continuing by said easterly property line S 33° 04' W, 50.09' to the most northwesterly corner of Lot #5 as shown on said plan. Thence by the northerly side of said Lot #5 S 60° 22' E, 12.02' to a point. Thence through said Lot #4 N 33° 04' E, 50.09' to the southerly side of Lot #3. Thence by the southerly side of said Lot #3 N 60° 22' W 12.02' to the point of beginning.

Said above described lot being a portion of the lot of land acquired by Richard M. King as son and one of the two heirs at law of Richard J. King, late of Portland, deceased, and by deed of Helen K. Curran, daughter and the other heir at law of said Richard J. King, said deed dated November 10, 1943 and recorded in Cumberland County Registry of Deeds in Book 1730 at Page 139.

Said above described courses are magnetic and of the date of 1904.

Being the premises described in a warranty deed to Roman Catholic Bishop of Portland from Richard M. King dated December 21, 1962 and recorded in said Registry in Book 2724, Page 111.

Addendum to Agreement

Addendum to Agreement for the Sale of Commercial Real Estate dated December 10, 2014 between **THE JEWISH COMMUNITY ALLIANCE OF SOUTHERN MAINE** (as successor by merger between The Jewish Community Center a/k/a The Jewish Community Center of Portland and the Jewish Federation of Southern Maine), a not-for-profit corporation organized and existing under the laws of the State of Maine (the "Purchaser") and **ROMAN CATHOLIC BISHOP OF PORTLAND**, a not-for-profit corporation organized and existing under the laws of the State of Maine (the "Seller") as owner of the property located at 1342 & 1348 Congress Street, Portland, Maine and as more fully described in the main body of the Agreement (the "Premises" or the "Property"). This Addendum is made a part of the Agreement to which it is intended to be attached, and the Agreement form and this Addendum together are referred to as the "Contract" or "Agreement".

In the event that any provision of this Addendum conflicts in whole or in part with any provision of the main body of the Agreement form to which it is attached, the terms of this Addendum shall control and the conflicting provisions or portions of provisions of the main body of the Contract shall be considered waived and deleted.

1. **Purchase Price.** The total Purchase Price is [REDACTED], payable by Purchaser to Seller as follows:

- (a)
 - (i) Within forty-eight (48) hours after the execution hereof, Purchaser shall deliver an earnest money deposit of [REDACTED] (the "Earnest Money Deposit") to King Real Estate, as Escrow Agent, to be held in a non-interest bearing account. The Earnest Money Deposit shall remain fully refundable to Purchaser until February 15, 2015 (the "Preliminary Due Diligence Period"), immediately following which the Earnest Money Deposit shall be non-refundable, and Purchaser agrees to make commercially reasonable efforts to file a preliminary application with the City Planning Board within the Preliminary Due Diligence Period.
 - (ii) If, following the expiration of the Preliminary Due Diligence Period on February 15, 2015, Purchaser has demonstrated that it is diligently pursuing its permits and approvals but has not yet received them, Seller agrees to furnish to Purchaser an additional one hundred and twenty (120) day due diligence period (the "Second Due Diligence Period"), which will (except as provided below) extend until June 15, 2015, in exchange for an additional non-refundable Earnest Money Deposit payment of [REDACTED] (the "First Additional Earnest Money Deposit"); Purchaser further affirmatively agrees in the event of payment of the First Additional Earnest Money Deposit that, notwithstanding the above June 15, 2015 date, the Second Due Diligence Period shall instead terminate early, on April 16, 2015, unless the Purchaser by April 16, 2015 shall have submitted to the Planning Board its preliminary application for approval and paid its application fee therefor, and that in the event of such early termination Purchaser shall elect by April 17, 2015 whether to waive the permitting contingency and close within thirty (30) days of said election or instead to terminate the Agreement and forfeit all earnest money deposits made, and if no such election is made, then the Purchaser shall be deemed to have terminated the Agreement and forfeited all earnest money deposits paid to date.
 - (iii) If, following the expiration of the Second Due Diligence Period on June 15, 2015, Purchaser has presented its preliminary application at a meeting of the Planning Board scheduled to consider sketch plan approval and has otherwise demonstrated that it is actively pursuing its permits, Seller agrees to furnish to Purchaser an additional ninety (90) day due diligence period (the "Third Due Diligence Period"), which will extend until September 14, 2015, in exchange for an additional non-refundable Earnest Money Deposit payment of [REDACTED] (the "Second Additional Earnest Money Deposit").

- (iv) The Earnest Money Deposit and First Additional Earnest Money Deposit shall be applied to the Purchase Price at closing. The Second Additional Earnest Money Deposit shall be non-refundable and shall not be applied to the Purchase Price at closing.
- (v) The above Due Diligence Periods and extensions thereof have no bearing on the inspection periods under Paragraph 10 (a), (l), and (p) for "General Building," "Environmental Scan," and "Survey," the lengths of which periods are established instead by reference to said Paragraph 10 (a), (l), and (p).
- (b) The Sum of [REDACTED], if the closing occurs after payment of the First Additional Earnest Money Deposit), as adjusted for all prorations, closing costs, and adjustments, which Purchaser shall pay to Seller at closing by wire transfer, bank check, or closing agent's check upon recording of the deed.

2. Deed and Removal of Religious Items.

- (a) The Premises shall be subject to the following Diocesan real estate restrictions, to be included in the Deed: "The above-described premises are conveyed SUBJECT to the restrictions that for so long as the present building (but not the foundation, which Grantee may use or maintain in an unrestricted manner) on the premises has not been removed or has not been razed, the Grantee, Grantee's successors assigns, shall not use the premises in any way relating to (1) counseling regarding or performance of abortions; (2) sale or distribution of pornographic materials; or (3) erotic displays or activities. The burden of this restriction shall run with the land conveyed hereby to the Grantee. The benefit of this restriction is held by the Roman Catholic Bishop of Portland, corporation sole, its successors and assigns."
- (b) Seller has requested as part of this transaction that Purchaser remove or raze the building (other than the foundation) after closing, and Purchaser agrees to Seller's request to remove or raze said building (other than the foundation) at Purchaser's cost. To that end, Seller shall apply at its cost for a demolition permit for the Premises at Purchaser's request, and to such extent as may be needed to provide the benefit of the permit to Purchaser, Purchaser shall join the application. Cost of any asbestos studies, abatement, storage, transportation and removal shall be borne by Purchaser, and Purchaser agrees to conduct in accordance with applicable environmental, permitting, handling, transportation, demolition and storage regulations any such abatement (whether required as a condition of the permit or in order to comply with environmental laws or regulations applicable to the demolition and associated work) and to conduct the same following closing. The Purchaser wishes to honor the Seller's longstanding (over fifty (50) years) presence at the Premises. Accordingly, before removing or razing the building located on the Premises or performing site work on the Premises, the Purchaser will provide the Seller a ten- (10-) day period of time after closing to remove stained glass windows and any religious objects still located in the building of which the Premises is a part and from other portions of the Premises.

3. Title. Purchaser agrees to conduct a title investigation on the Premises within forty-five (45) days of the Effective Date of the Agreement, and waives any title defect not identified to Seller within said forty-five days, except for title defects that first arise thereafter, as to which Purchaser shall notify Buyer within seven (7) days of learning of the same. If Seller, as the result of any such defect, would in the event of a closing lack the ability to convey title in accordance with the provisions of paragraph 4 of the Agreement, then Seller shall have forty-five (45) days from the time Seller is notified of the defect, unless otherwise agreed in writing by both Purchaser and Seller, to cure the defect or obtain a title insurance commitment providing Purchaser with affirmative coverage over any such defect. Seller hereby agrees to make good-faith and best efforts to remedy any title defect during such period, provided that, except for liens, Seller need not expend more than \$15,000 to effectuate said cure. If, at the expiration of the forty-five (45) day cure period, Seller is unable to remedy the title, Purchaser may at its option (i) waive the title defect as of the expiration of said cure period and accept the deed at closing notwithstanding any defects, or (ii) cancel and terminate the Agreement, in which case the Earnest Money Deposit shall be promptly returned to Purchaser, this Agreement shall be null and void, and both parties shall be relieved of any further obligations hereunder. Notwithstanding any provision herein to the contrary, if new title

issues arise after the expiration of the forty-five (45) day period herein described, Seller agrees to cure said title issues irrespective of the cost and without any limit.

4. Closing. The closing shall take place within thirty (30) days of Purchaser's obtaining all required and non-appealable local, state, and federal (if any) permits and approvals, including but not limited to a demolition permit, necessary to erect the new Jewish Community Center on the Premises, but in no event later than October 15, 2015. In the event that a demolition permit cannot be obtained, all Earnest Money Deposits shall be refunded to Purchaser, notwithstanding the provisions of Section 1 of this Addendum to agreements to the contrary. Seller agrees to execute and deliver to Purchaser at closing such affidavits and certificates as are reasonably necessary for Purchaser's acquisition of the Premises, including, without limitation, a Certificate of Non-Foreign Status (as required by the Internal Revenue Service), the applicable Maine Real Estate Withholding forms (as required by Maine Revenue Services), a title insurance "Seller's Affidavit" regarding mechanic's liens and persons in possession, an affidavit regarding underground storage tanks (as required by Maine Law), and evidence of Seller's legal existence, good standing, and authority to convey the Premises. Purchaser agrees to execute and deliver at closing evidence of Purchaser's legal existence, good standing, and authority to purchase the Premises, as well as any other instruments reasonably requested by Seller to consummate the transaction intended hereby.

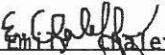
5. Inspection and Seller's Delivery of Information. Seller agrees that Purchaser may enter onto the Premises at reasonable times designated by Seller prior to closing in order to inspect the Premises, perform due diligence, conduct surveys and engineering studies, and do any other such things as are reasonably necessary to its acquisition of the Premises, including, but not limited to, a Phase 1 Environmental Study. Seller further agrees to furnish to Purchaser, upon execution of this Agreement, all materials and studies in Seller's possession relating to the Premises or its condition, including, without limitation, copies of any Phase 1 Environmental Study, Seller's title insurance policy, any engineering and/or structural studies, and any environmental studies. Seller will provide said information without warranting the correctness of the information. Purchaser further reserves the right to view the Premises within forty-eight (48) hours prior to closing.

6. Conditions Precedent. The following are Conditions Precedent to Purchaser's obligation to close this transaction. Purchaser and only Purchaser may waive any or all of these Conditions Precedent. In the event that all Conditions Precedent are not fulfilled as of the date of the closing, Purchaser may elect not to close this transaction, whereupon Purchaser shall have the right to terminate this Agreement and all Earnest Money Deposits shall be distributed in accordance with Section 1 of the Addendum; provided, however, that if a demolition permit cannot be obtained, all Earnest Money Deposits shall be refunded to Purchaser, notwithstanding the provisions of Section 1 of this Addendum to agreements to the contrary: (a) Subject to the use by Seller of proceeds to clear title or dismiss suits, there are no suits filed or claims made against Seller that would in any way create a lien on the Premises or jeopardize Seller's right and authority to convey the Premises, or any portion thereof, or interest therein, to Purchaser. (b) Subject to any matters of title waived by Purchaser, Purchaser shall have obtained, at its cost, a Title Commitment at closing that is satisfactory to Purchaser and shall have been furnished with a satisfactory survey. (c) The zoning of the Premises permits the Buyer's proposed use for the Premises, which includes the establishment and operation of a new Jewish Community Center of up to 20,000± SF to contain, without limitation, an elementary school and preschool/daycare facility, together with at least fifty (50) surface parking spaces and adjacent space suitable for an outdoor play area that is satisfactory to Purchaser (the "Proposed Use"). (d) Purchaser shall have obtained all required local, state, and federal (if any) permits and approvals, including but not limited to demolition permit(s) that expire not less than sixty (60) days following closing (but this condition for issuance of the permit may be subject to a requirement for post-closing asbestos remediation), necessary to erect the new Jewish Community Center on the Premises.

[SIGNATURES ON FOLLOWING PAGE]

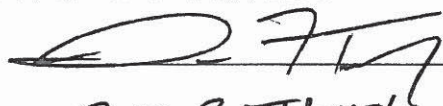
Agreed to: **PURCHASER**

THE JEWISH COMMUNITY ALLIANCE OF SOUTHERN MAINE

By:  Emily Chaleff
Name: Emily Chaleff Executive Director
Title: 12/9/2014
Date: _____

Agreed to: **SELLER**

ROMAN CATHOLIC BISHOP OF PORTLAND

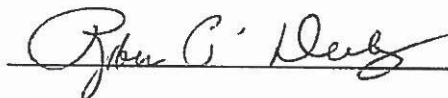
By: 
Name: DAVID P TWOMEY
Title: CHIEF FINANCIAL OFFICER
Date: 12/10/14

AUTHORIZATION

On behalf of the Roman Catholic Bishop of Portland, corporation sole, I authorize either David Twomey or Msgr. Andrew Dubois to negotiate and sign a purchase contract between the Roman Catholic Bishop of Portland, corporation sole, and the Jewish Community Alliance of Southern Maine for the purchase of St. Patrick's church property in Portland, Maine, as well as any amendment to the same. This authorization shall continue until revoked.

DATE: 12/9, 2014

ROMAN CATHOLIC BISHOP OF PORTLAND

A handwritten signature in dark ink, appearing to read "Robert P. Deeley", is written over a horizontal line.

Robert P. Deeley, Roman Catholic Bishop of Portland



April 2, 2015

City of Portland
Planning Department
389 Congress Street
Portland, Maine 04101

Re: Letter of Intent / Jewish Community Alliance – 1342 & 1348 Congress Street

Dear Planning Department:

This Letter of Intent is to verify that KeyBank has reviewed the financing needs of the Jewish Community Alliance ("JCA") for the above-referenced project and that it is the opinion of KeyBank that the JCA has the financial capacity to undertake the purchase construction of the same.

The JCA has maintained a deposit relationship with KeyBank since 2000 and a lending relationship since 2010. The JCA has advised us that in addition to having raised \$3,000,000.00 in dedicated cash, its capital campaign has yielded an additional \$1,250,000.00 in firm pledges (including the value of its building on Ashmont Street to be sold as part of this transaction) to support the project. Based on KeyBank's longstanding relationship with the JCA, our review of the JCA's financial representations and our understanding of projected project costs, KeyBank will be pleased to consider issuing a commitment to make a loan to the JCA for the purchase and subsequent construction of the project. This Letter of Intent, however, is not a contract or an offer to enter into a contract, nor a commitment to make any loan, and does not obligate us to issue any commitment or obligate us in any other way.

Should the Planning Department need anything further, please do not hesitate to contact me directly at 207-874-7222.

Sincerely,

A handwritten signature in black ink, appearing to read "ADiSotto", written over a horizontal line.

Anthony DiSotto
Vice President
Business Banking

cc: Steven Brinn, President, JCA
Elinor G. Miller, Interim Director, JCA

SUMMARY MEMORANDUM

TO: Mr. Greg Halsey, Staff Engineer
Tighe & Bond
177 Corporate Drive
Portsmouth, NH 03801

DATE: March 19, 2015

RE: Trip Generation Analysis for Proposed JCA Community Center in Portland

Introduction

The purpose of this memorandum is to summarize trip generation analysis prepared for the proposed Jewish Community Alliance (JCA) of Southern Maine's proposed new community center on Congress Street in Portland, Maine. The proposed community center is being located on the Saint Patrick Catholic Church site on Congress Street. It is understood that the proposed new building will be approximately 19,075 square feet (S.F.) in size. The building is expected to include a preschool/daycare facility for up to 68 students. In addition, the center is expected to provide an after school program for up to 20 students. There will be approximately 2,000 square feet of office space. The remainder of the building will provide for the community center purposes, which will include an assembly room for up to 260 persons and a multi-purpose room that will hold up to 49 persons. A copy of the current JCA building program is attached for information.

Trip Generation Analysis

The number of trips that will be generated by the proposed pre-school and the office component on a daily basis were estimated using the most recent Institute of Transportation Engineers (ITE) "Trip Generation, 9th Edition" report, published in 2012. Land use code (LUC) 568 "Day Care Center" was used. There is no pre-school code and this LUC is described as "a facility where care for pre-school age children is provided, normally during the daytime hours. Day care facilities include classrooms, offices, eating areas and playgrounds. Some centers also provide after-school care for school-age children".

The community center is also expecting to provide an after-school program for up to 20 school-age children. These children will be transported to the center in a van and picked up by parents. As a result, the day care calculations were performed on the basis of 88 (68 pre-school and 20 after-school) total students. LUC 710 "General Office Building" was used on the basis of 2,000 S.F. for the office component. The results are summarized in the following table:

ITE Trip Generation Summary – One Way-Trip Ends

<u>Time Period</u>	<u>Day Care</u>	<u>Offices</u>	<u>Total</u>
Weekday	386	22	408
AM Peak Hour i Adj. Street	70	3	73
AM Peak Hour - Generator	71	3	74
PM Peak Hour i Adj. Street	71	3	74
PM Peak Hour i Generator	74	3	77

As can be seen above, the pre-school, after-school program and program offices are expected to generate a maximum of 77 one-way trips during peak hours on weekdays. The remaining community center component is more difficult to estimate since there is no ITE land use code that describes this particular use, however, it will be compared to previous grandfathered trips of the Church.

Since the church was in use until 2013 their former uses were compared to those of the proposed Jewish Community Center. It is understood, from information provided by the diocese, that Saint Patrick's Church seated 500 persons in the pews. Additional seating was brought in for Easter and Christmas services. Again, based upon information provided by the church, their weekday masses typically had 100 attendees while weekend masses had 250 to 400 attendees. In addition to daily and weekend masses, the church held marriages, funerals and also private events, with attendances ranging from 200 to 500. The private events included dances, wedding receptions and birthday parties. A table provided by the Church listing all of these activities and events is attached to this memorandum.

In contrast, the proposed community center will provide an assembly room, for up to 260 persons. In addition, the multi-purpose room will provide for 49 additional persons. The assembly room is expected to provide for such events as occasional lectures, an annual meeting and performances. It is important to note that the JCA will not hold any events on Saturdays. However, other community uses could possibly occur on a Saturday. The majority of these events would be expected to occur off-peak (not during the weekday AM or PM peak hours), similar to the former Church's weekend masses, with lesser attendance than the former Church activities/events. The multi-purpose room is expected to be used for such activities as exercise classes and the after school program which has already been considered in the above trip generation calculations. Based upon all of this information, it is my professional opinion that the Jewish Community Center activities and events, with a lesser building capacity than the Church, will generate fewer trips than the former Saint Patrick's Church both overall and during peak periods.

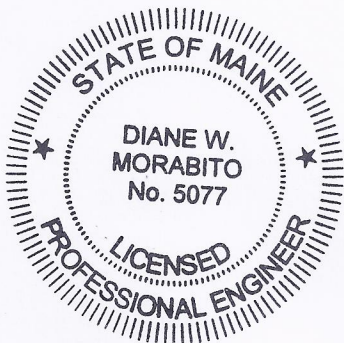
It is also important to note that while overall trip generation for the Jewish Community Center is expected to be less than the former Church use, as well as less frequent than the Church activities, the proposed site plan greatly enhances access management. The Church had three curb cuts to Congress Street. The proposed JCA site plan reduces the Congress Street curb cuts to just one, closing the two closest to the signalized Stevens Avenue intersection, thus improving both safety by reducing conflict points and the capacity of Congress Street.

To summarize, trip generation is expected to be reduced for the Jewish Community Center from the former Church use and access management will be greatly improved. It is also understood that the nearby signalized Stevens Avenue has been recently improved/upgraded. As a result of all of these factors, no additional traffic study should be necessary. As always, please do not hesitate to contact me if you or the City of Portland have any questions or concerns regarding this analysis or if you need any additional information.

Sincerely,



Diane W. Morabito, P.E. PTOE
President



cc: Steven Brinn



JCA of Southern Maine
Jewish Community Center
Draft Building Program

March 5, 2015

- **School**

o Infant (up to 8 students)	600 SF
o Young Toddler (up to 10 students)	500 SF
o Older Toddler (up to 12 students)	700 SF
o Nursery (up to 18 students)	700 SF
o Pre-K (up to 20 students)	900 SF
o Teachers Room	250 SF
o Laundry	100 SF
o Staff Toilets	150 SF
o Storage	200 SF
o Multi-purpose Activity Room	900 SF
o <u>Cubbies</u>	<u>200 SF</u>
Net Area Subtotal	5,200 SF

- **Community Center**

o Assembly Room (dividable assumed occupant load of 260)	3,900 SF
o Multipurpose Room (occupant load: 49)	750 SF
o Kitchen	200 SF
o Food Pantry	400 SF
o Lobby	500 SF
o Public Toilets	300 SF
o Mothers Room	80 SF
o <u>Storage</u>	<u>200 SF</u>
Net Area Subtotal	6,030 SF

- **Offices**

o Private Offices (12 single use offices)	1,200 SF
o Front Desk (1 staff receptionist)	100 SF
o Conference Room (occupant load: 20)	300 SF
o Work Room	200 SF
o <u>Break Room</u>	<u>200 SF</u>
Net Area Subtotal	2,000 SF

- **General**

o Mechanical Room	400 SF
o Electrical/Telecom Room	200 SF
o <u>Building Storage</u>	<u>300 SF</u>
Net Area Subtotal	900 SF

Net Program Area Subtotal **14,130 SF**

Gross Building Area (1.35) **19,075 SF**

YEAR	MASSES	BAPTISMS	MARRIAGE	FUNERALS	1ST C/Conf	PRIVATE EVENTS
2005	D-312 / WkE-208	33	15	54	45/43	Approx a dozen
2006	D-312 / WkE-208	26	10	32	32/11	Approx a dozen
2007	D-132 / WkE-156	10	5	27	31/31	" "
2008	D-132 / WkE-156	14	5	26	At St. Pius X	" "
2009	WkE. 156	11	2	37	21/93	20 separate
2010	WkE. 156	9	2	31	At. St. Joseph	25 separate
2011	WkE. 156	6	1	31	68/73	5 separate
2012	WkE. 156		2	29		
2013	WkE. 66			9		
2014						

Private

Events: Large # attending Birthday, Bridal, Dances Receptions; etc. #'s = 200 to 500+
per event

Weekley: Choir Practice Rug Hookers; Masses; Water Color

Monthly: (2X) Tues & Thurs) K.C.; Boy Scouts; Worship & Baptism Prep; Hibernians;
PCM 4th Degree Spirituality Classes Railroad Mtgs.

Women: Membership Coummun Year 2 - 4 X yr.
Banquet Breakfast Ending Various Type
w/Mass Banquet Dinners

School: 7th & 8th Grade 8th Grade Graduations Dances Spagh. Dinners
Luncheons Spelling Bee & Receptions 3 - 4 annually

Annual: St. Patty's Dinner; Parish Daffodil Days; GPCCM Rummage Sale Christmas
Picnic Meeting 2 x year Bazaar

Thanksgiving Precinct Christmas YMCA Altar, Eucharist Recitals - Various
Baskets Voting Baskets Banquets Ministers & Types
6-8 Annually Lector Training
Various Sport

Choral Art K.C. Dinners Respect
Society Sing- Various Life Comm.
A-Long Programs

1st Communion Mass &	/ Confirmation Receptions
-------------------------	------------------------------

MISC: 3 Schooner Fare Lifeline International MCCCW People to People Guitar Society
Concerts Screening Piano Festival All Day Mtg. Student 4 - 6 X month
Coffee & Donuts A/Mass All Day 1 week Ambassador

Masses: Holiday - Easter Reconcil. - Lenten Holy Days
Christmas, Lent Wkly & Stations of of Obligation
Ash Wednesday Holiday The Cross

CHARTER WESTGATE, LLC
C/O CHARTER REALTY & DEVELOPMENT, CORP.
800 WESTCHESTER AVE., SUITE S-632
RYE BROOK, NY 10573

April 2, 2015

Steve Brinn, President
Jewish Community Alliance of Southern Maine
57 Ashmont Street
Portland, Maine 04103

Re: **Jewish Community Alliance of Southern Maine**
Congress Street, Portland Maine
Letter of Authorization

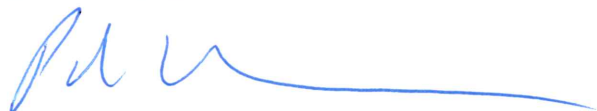
Dear Mr. Brinn:

We are very pleased with your proposal to redevelop the former St. Patrick's Church adjacent to Westgate Shopping Center for the new community center for the Jewish Community Alliance of Southern Maine. As you know, historically the two properties have maintained a driveway connection when the property functioned as St. Patrick's Church and you have requested a formalization of this agreement. Please consider this letter an acknowledgement that we are pursuing an agreement subject to working out the appropriate legal instrument.

If you have any questions or require any additional information regarding this authorization, please do not hesitate to contact me.

Very truly yours,

Charter Westgate, LLC



Paul S. Brandes,
Manager

Response to Comments 1342 Congress Street - Proposed Neighborhood Center

TO: Jean Fraser, Planner; City of Portland
FROM: Greg Halsey, Tighe & Bond, Inc.
CC: Steve Brinn, Jewish Community Alliance of Southern Maine
DATE: May 8, 2015

The comments below were prepared by Woodard & Curran and provided to Tighe & Bond by Jean Fraser, Planner, City of Portland on May 1, 2015. Tighe & Bond's responses are in **bold**.

A. Reviewer: David Senus, P.E. Woodard & Curran
Date: May 1, 2015

COMMENTS

- 1) *The project will disturb more than one acre of area and will therefore require filing a notice of intent to comply with the Maine Construction General Permit with the MaineDEP.*

Agreed.

- 2) *The application is preliminary. As such, additional documents will be submitted for the final application, including letters from utilities confirming capacity to serve the proposed development and a Construction Management Plan. Woodard & Curran will perform a review of the Final Application upon receipt of those documents.*

Agreed.

- 3) *In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:*

- a) *Basic Standards: Plans, notes, and details have been provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in general accordance with Appendix A, B, & C of MaineDEP Chapter 500.*

Agreed.

- b) *General Standards: The project will result in a net increase in impervious area of approximately 12,500 square feet. As such, the project is required to include stormwater management features for water quality control. The Applicant is proposing an underdrained soil filter to meet the General Standards. The following comments should be addressed:*

- i) *The Applicant has requested a waiver from the requirement for pre-*

treatment of runoff directed to filter BMPs due to topographic and geometric constraints of the site. Pre-treatment is particularly important for filter systems to ensure that sediment does not clog the filter and impede its function. It appears that there is ample space on the southern portion of the site to provide the MaineDEP recommended forebay area. We recommend that the applicant include a sediment forebay at the inlet point to the filter.

A sediment forebay has been provided at the inlet to the Underdrained Soil Filter. A waiver from the pretreatment requirements is no longer requested. See Sheet C-3 Grading, Drainage, and Erosion Control Plan included with this response.

- ii) *The Applicant should provide calculations demonstrating that an area equivalent to 95% of the new impervious area will be treated by the Underdrained Soil Filter system in accordance with the General Standards.*

A total area equivalent to 115 % of the new impervious area will be treated by the Underdrained Soil Filter. Treatment volume calculations are provided in the revised Drainage Study included with this response.

- iii) *Per Chapter 7.1 of Volume III of the MaineDEP Stormwater BMP Manual, the Applicant should provide appropriate sizing calculations, including treatment volumes, filter area, and peak water quality storage depths, for the proposed Underdrained Soil Filter system.*

The requested calculations are provided in the revised Drainage Study submitted with this response. Treatment volumes and water quality depths for the 2-year, 10-year, and 25-year storm are detailed in the HydroCAD calculations included in the Drainage Study.

- c) *Flooding Standard: The project will result in net increase in impervious area of approximately 12,500 square feet. As such, the project is required to include stormwater management features to control the rate of stormwater runoff from the site. The Applicant has provided HydroCAD Reports to demonstrate compliance with the Flooding Standard. The following comments should be addressed:*

- i) *Without site-specific soil infiltration testing data, the HydroCAD model cannot include the discarding of flow by means of infiltration within the soil filter area.*

The drainage design and calculations have been revised to eliminate exfiltration within the soil filter. See revised drainage calculations provided with this response.

- ii) *Future submittals should include details for the outlet control structures associated with the soil filter and the StormTech Chamber system, including orifices and weirs.*

Details of the outlet control structures for the soil filter and

StormTech Chambers have been provided. See Sheets C-7 / C-9, Details Sheets, provided with this response.

- iii) *Future submittals should identify key elevations for the StormTech Chamber detail matching to the elevations utilized in the HydroCAD model.*

Key elevations for the StormTech Chamber have been provided on Sheet C-9. Revised HydroCAD calculations with corresponding elevations have been included in the revised Drainage Study.

- iv) *The Pre-Development Watershed Plan (WS-1) indicates that runoff from the existing building roof is part of catchments WS-1 and WS-2; however, runoff from some of these roof areas is collected in downspouts that enter into the ground and which do not appear to flow to PA-1 and PA-2. The Applicant should determine the discharge location for the building's roof downspouts and re-evaluate the catchment areas and stormwater model based on their findings.*

The deep snow cover and lack evidence on the existing condition plan at the time of the preliminary submission required assumptions to be made regarding the roof drainage pattern as shown on the Pre-development Watershed Plan. The Applicant is actively working with the Owner to determine the outlet location of the roof drains. At this time the Pre-Development Watershed Plan (WS-1) remains unchanged. The proposed stormwater management system has been designed conservatively to account for this issue, which is evidenced by the StormTech detention system that has been designed to detain the entire roof runoff volume and discharge it at a lower peak runoff rate than pre-development conditions. The Applicant will revise the Pre-Development Watershed Plan (WS-1) and drainage design with the Final Site Plan submission to account for updated roof drainage information if needed. This may result in a reduction in the StormTech Chamber detention system size.

- v) *The Applicant has proposed to discharge the majority of the site's drainage to a new outfall located at the southwest edge of the site, adjacent to an existing drainage ditch that flows across a residential property located south of the site. Although the pre/post stormwater analysis is intended to show that the flow at this study point will not increase in the 2, 10 and 25 year storm event conditions, there will be a new outfall with a concentrated discharge at this location. We recommend that the Applicant work with the adjacent property owner to determine if there are existing concerns over drainage in this area, and based on input from that property owner, determine if improvements can or should be made to the drainage ditch as part of this project.*

As shown in the Drainage Study, the post-development peak runoff rates in the 2-year, 10-year, and 25-year storm events at PA-1 are lower than the pre-development conditions. The Applicant will work with the adjacent property owner to determine if there are any existing concerns over drainage in this area and

determine if improvements are necessary.

- 4) *Sheet C-2b depicts snow storage along the east edge of the rear parking lot, adjacent to several residential properties. The grading plan (C-3) indicates that runoff from this area would potentially flow onto these properties. The Applicant should limit snow storage in this area and should revisit the proposed grading to ensure that runoff from the project property is not directed onto these abutting residential lots.*

The proposed grading in this area has been revised to provide a shallow swale that will convey runoff from snow melt or rain to the rear of the site and away from abutting properties, which is consistent with the existing drainage pattern in this area.

- 5) *The Long Term Operations & Maintenance Plan for stormwater management systems should include a reference to Chapter 32 of the City of Portland Code of Ordinances related to annual reporting requirements.*

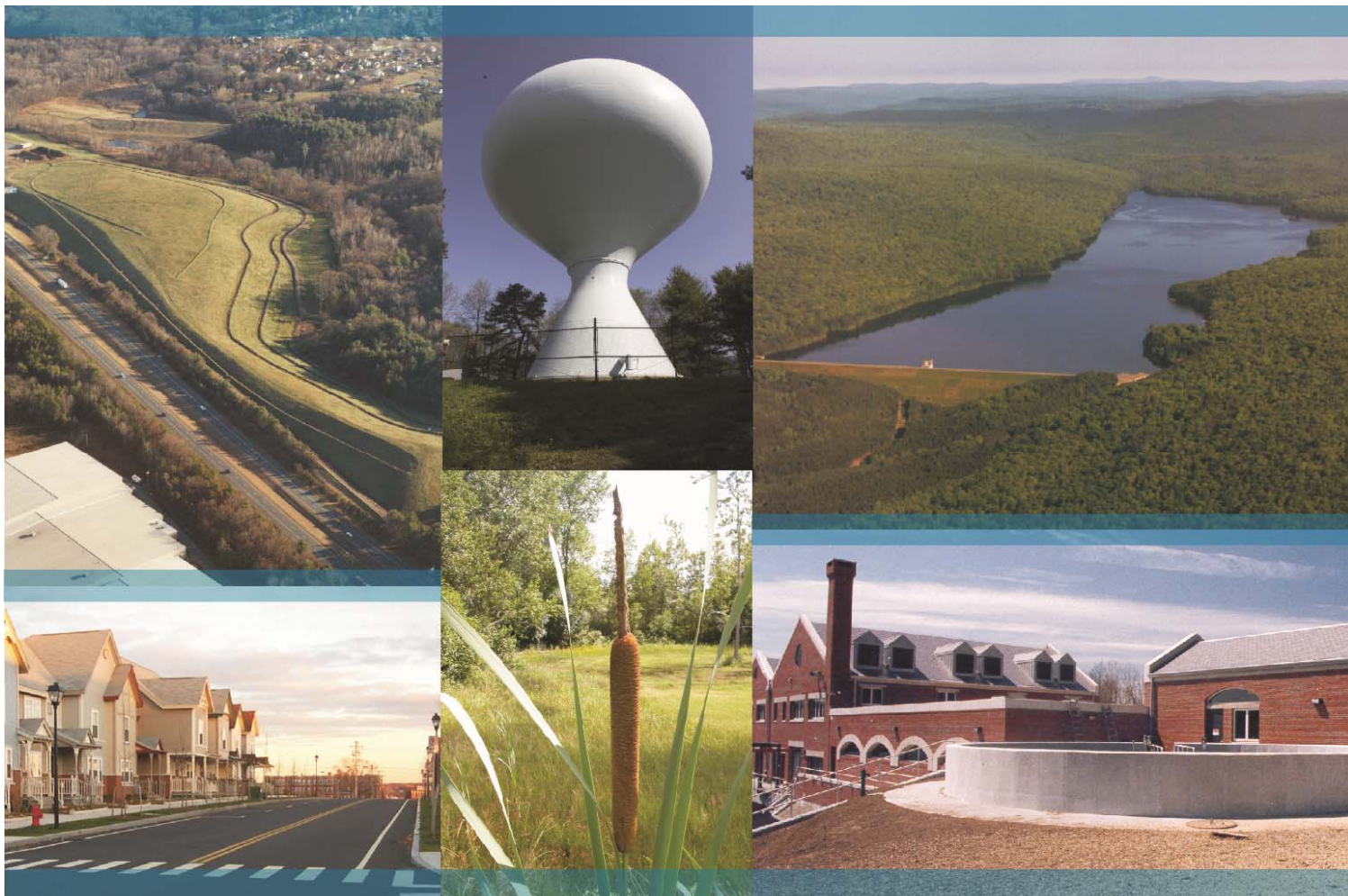
The Long Term Operations & Maintenance Plan, included in the Drainage Study, has been revised to reference Chapter 32 of the City of Portland Code of Ordinances regarding annual reporting requirements.

- 6) *The proposed Underdrained Soil Filter Bed detail refers to a Rain Garden Planting Plan for proposed plantings; however, it does not appear that this plan has been provided at this time.*

The Landscape Plan, Sheet L-1, included with the Preliminary Site Plan Submission acknowledges plantings are needed in this area, but provided no specifics on plant species or layout. The Landscape Plan, Sheet L-1, will be updated to include an appropriate planting plan for the Underdrained Soil Filter with the Final Site Plan Submission.

- 7) *The proposed Vertical Granite Curb, Concrete Sidewalk, and Utility Trench details should be revised to comply with the City of Portland Technical Manual for work within the City Right-of-Way.*

Additional details for Vertical Granite Curb and a Typical Utility Trench have been provided for work within the City ROW. The concrete sidewalk detail has been revised to comply with City of Portland Technical Manual. See Sheet C-6 / C-8, Details Sheet.



Tighe&Bond

Proposed Neighborhood Center
1342 Congress Street
Portland, ME

Drainage Study

Prepared For:

**Jewish Community Alliance of
Southern Maine**

Last Revised May 5, 2015

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A	Plans Bound Separately
B	Precipitation Table
C	Boring Logs

Section 1 Narrative

The proposed project consists on the construction of a one (1) story Neighborhood Center on a 2.16 acre lot in the R-5 Residential Zone There will also be associated site improvements that include surface parking lot, utilities, site lighting, landscaping, and stormwater management system.

The site is currently developed with a 14,960 SF Church that includes associated parking lot and driveways. The existing building and parking lot will be demolished as part of the proposed project. Currently, the runoff from the majority of the site including the parking lot and roof flows to the south of the property where it enters an existing drainage swale. Due to the lack of any stormwater treatment infrastructure, all runoff leaves the site untreated.

The proposed project includes substantial improvements to manage and treat runoff through the use of Stormtech Chambers and an underdrained soil filter bed. The proposed redevelopment will increase impervious area by approximately 12,500 SF. The proposed stormwater management system has been designed to mitigate additional impervious areas by decreasing peak runoff rates for the 2-year, 10-year, and 25-year design storms.

The proposed stormwater management system has been designed to meet the requirements and design principles outlined in the City of Portland Technical Manual and the Maine Stormwater Best Management Practices Manual.

1.1 On Site Soil Description

Section 7 of the City of Portland Technical Manual requires a Soil Survey be completed by a Maine Certified Soil Scientist for Level III Site Plan Submissions. We are requesting a waiver from this requirement as soil borings were completed as part of a Phase I/II Environmental Site Assessment at this site. Based on the soil information the runoff analyzed within this study area has been modeled assuming Class C soils. The boring logs have been included in the Appendix of this report. Due to the low infiltration rates associated with Class C soils, the drainage design has been completed assuming no exfiltration.

Section 2

Drainage Analysis

2.1 Calculation Methods

The design storms analyzed in this study are the 2-year, 10-year and 50-year 24-hour duration storm events. The stormwater modeling system, HydroCAD 10.0 was utilized to predict the peak runoff rates from these storm events. A Type III storm pattern was used in the model.

The time of concentration was computed using the TR-55 Method, which provides a means of determining the time for an entire watershed to contribute runoff to a specific location via sheet flows, shallow concentrated flow and channel flow. Runoff curve numbers were calculated by estimating the coverage areas and then summing the curve number for the coverage area as a percent of the entire watershed.

References:

1. HydroCAD Stormwater Modeling System, by HydroCAD Software Solutions LLC, Chocorua, New Hampshire.

2.2 Pre-Development Conditions

Pre-development conditions are considered, for this study, to be the conditions of the site prior to the start of the ongoing excavation operations. In order to analyze the pre-development condition, the site has been divided into three (3) contributing watershed areas modeled at three (3) points of analysis. These points of analysis and watersheds are depicted on the plan entitled "Pre-Development Watershed Plan", Sheet WS-1.

Each of the points of analysis and their contributing watershed areas are described below:

Point of Analysis (PA-1)

Point of Analysis One (PA-1) is comprised of Pre-Development Watershed 1 (WS-1), which accounts for approximately 75% of the total watershed area. WS-1 consists of runoff generated from a portion of the roof of the existing building, parking lot, driveway, and grass/wooded areas at the south side of the parcel. Runoff travels in a southwestern direction via overland flow where it enters an existing drainage swale at PA-1.

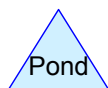
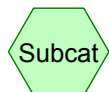
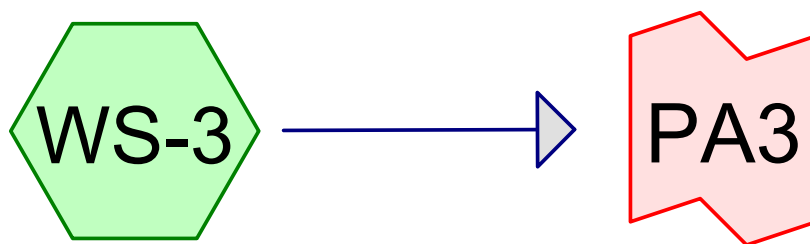
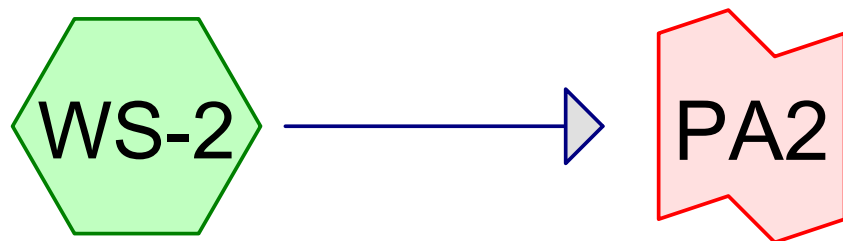
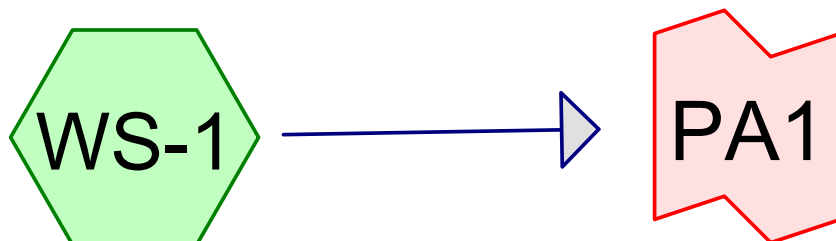
Point of Analysis (PA-2)

Point of Analysis Two (PA-2) is comprised of Pre-Development Watershed 2 (WS-2). WS-2 consists primarily of runoff generated from the roof of the existing building, sidewalks, and grass areas. Runoff travels west via overland flow onto the adjacent parking lot of Westgate Plaza at PA-2.

Point of Analysis (PA-3)

Point of Analysis Three (PA-3) is comprised of Pre-Development Watershed 3 (WS-3). WS-3 consists of runoff generated from the driveway and grass on the north side of the site. Runoff generated travels via overland flow north onto Congress Street and eventually into the City's closed drainage system.

2.2.1 Pre-Development Calculations**2.2.2 Pre-Development Watershed Plan, WS-1**



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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.106	74	>75% Grass cover, Good, HSG C (WS-1, WS-2, WS-3)
0.490	98	Paved parking, HSG C (WS-1, WS-2, WS-3)
0.355	98	Roofs, HSG C (WS-1, WS-2)
0.227	72	Woods/grass comb., Good, HSG C (WS-1)
2.179	83	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
2.179	HSG C	WS-1, WS-2, WS-3
0.000	HSG D	
0.000	Other	
2.179		TOTAL AREA

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Type III 24-hr 2-YR Rainfall=3.00"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment WS-1:Runoff Area=73,134 sf 34.73% Impervious Runoff Depth>1.38"
Flow Length=451' Tc=8.0 min CN=82 Runoff=2.51 cfs 0.193 af**Subcatchment WS-2:**Runoff Area=11,975 sf 66.91% Impervious Runoff Depth>1.98"
Flow Length=44' Slope=0.0150 '/' Tc=5.9 min CN=90 Runoff=0.64 cfs 0.045 af**Subcatchment WS-3:**Runoff Area=9,792 sf 34.74% Impervious Runoff Depth>1.38"
Flow Length=87' Tc=5.0 min CN=82 Runoff=0.37 cfs 0.026 af**Link PA1:**Inflow=2.51 cfs 0.193 af
Primary=2.51 cfs 0.193 af**Link PA2:**Inflow=0.64 cfs 0.045 af
Primary=0.64 cfs 0.045 af**Link PA3:**Inflow=0.37 cfs 0.026 af
Primary=0.37 cfs 0.026 af**Total Runoff Area = 2.179 ac Runoff Volume = 0.264 af Average Runoff Depth = 1.45"**
61.20% Pervious = 1.333 ac 38.80% Impervious = 0.845 ac

Summary for Subcatchment WS-1:

Runoff = 2.51 cfs @ 12.12 hrs, Volume= 0.193 af, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.00"

Area (sf)	CN	Description
16,283	98	Paved parking, HSG C
9,120	98	Roofs, HSG C
37,846	74	>75% Grass cover, Good, HSG C
9,885	72	Woods/grass comb., Good, HSG C
73,134	82	Weighted Average
47,731		65.27% Pervious Area
25,403		34.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.0400	0.19		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
0.4	90	0.0350	3.80		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.2	311	0.0120	1.64		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
8.0	451	Total			

Summary for Subcatchment WS-2:

Runoff = 0.64 cfs @ 12.09 hrs, Volume= 0.045 af, Depth> 1.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.00"

Area (sf)	CN	Description
1,663	98	Paved parking, HSG C
6,350	98	Roofs, HSG C
3,962	74	>75% Grass cover, Good, HSG C
11,975	90	Weighted Average
3,962		33.09% Pervious Area
8,013		66.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	44	0.0150	0.12		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"

Summary for Subcatchment WS-3:

Runoff = 0.37 cfs @ 12.08 hrs, Volume= 0.026 af, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.00"

Area (sf)	CN	Description
3,402	98	Paved parking, HSG C
6,390	74	>75% Grass cover, Good, HSG C
9,792	82	Weighted Average
6,390		65.26% Pervious Area
3,402		34.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0500	1.51		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.3	57	0.0350	2.81		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
0.6	87	Total, Increased to minimum Tc = 5.0 min			

Summary for Link PA1:

Inflow Area = 1.679 ac, 34.73% Impervious, Inflow Depth > 1.38" for 2-YR event
Inflow = 2.51 cfs @ 12.12 hrs, Volume= 0.193 af
Primary = 2.51 cfs @ 12.12 hrs, Volume= 0.193 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA2:

Inflow Area = 0.275 ac, 66.91% Impervious, Inflow Depth > 1.98" for 2-YR event
Inflow = 0.64 cfs @ 12.09 hrs, Volume= 0.045 af
Primary = 0.64 cfs @ 12.09 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA3:

Inflow Area = 0.225 ac, 34.74% Impervious, Inflow Depth > 1.38" for 2-YR event
Inflow = 0.37 cfs @ 12.08 hrs, Volume= 0.026 af
Primary = 0.37 cfs @ 12.08 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

J0096-PRE

Prepared by Tighe & Bond

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Type III 24-hr 10-YR Rainfall=4.70"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment WS-1:Runoff Area=73,134 sf 34.73% Impervious Runoff Depth>2.81"
Flow Length=451' Tc=8.0 min CN=82 Runoff=5.16 cfs 0.393 af**Subcatchment WS-2:**Runoff Area=11,975 sf 66.91% Impervious Runoff Depth>3.58"
Flow Length=44' Slope=0.0150 '/' Tc=5.9 min CN=90 Runoff=1.12 cfs 0.082 af**Subcatchment WS-3:**Runoff Area=9,792 sf 34.74% Impervious Runoff Depth>2.81"
Flow Length=87' Tc=5.0 min CN=82 Runoff=0.77 cfs 0.053 af**Link PA1:**Inflow=5.16 cfs 0.393 af
Primary=5.16 cfs 0.393 af**Link PA2:**Inflow=1.12 cfs 0.082 af
Primary=1.12 cfs 0.082 af**Link PA3:**Inflow=0.77 cfs 0.053 af
Primary=0.77 cfs 0.053 af**Total Runoff Area = 2.179 ac Runoff Volume = 0.528 af Average Runoff Depth = 2.91"**
61.20% Pervious = 1.333 ac 38.80% Impervious = 0.845 ac

Summary for Subcatchment WS-1:

Runoff = 5.16 cfs @ 12.11 hrs, Volume= 0.393 af, Depth> 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.70"

Area (sf)	CN	Description
16,283	98	Paved parking, HSG C
9,120	98	Roofs, HSG C
37,846	74	>75% Grass cover, Good, HSG C
9,885	72	Woods/grass comb., Good, HSG C
73,134	82	Weighted Average
47,731		65.27% Pervious Area
25,403		34.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.0400	0.19		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
0.4	90	0.0350	3.80		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.2	311	0.0120	1.64		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
8.0	451	Total			

Summary for Subcatchment WS-2:

Runoff = 1.12 cfs @ 12.08 hrs, Volume= 0.082 af, Depth> 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.70"

Area (sf)	CN	Description
1,663	98	Paved parking, HSG C
6,350	98	Roofs, HSG C
3,962	74	>75% Grass cover, Good, HSG C
11,975	90	Weighted Average
3,962		33.09% Pervious Area
8,013		66.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	44	0.0150	0.12		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"

Summary for Subcatchment WS-3:

Runoff = 0.77 cfs @ 12.07 hrs, Volume= 0.053 af, Depth> 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.70"

Area (sf)	CN	Description
3,402	98	Paved parking, HSG C
6,390	74	>75% Grass cover, Good, HSG C
9,792	82	Weighted Average
6,390		65.26% Pervious Area
3,402		34.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0500	1.51		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.3	57	0.0350	2.81		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
0.6	87	Total, Increased to minimum Tc = 5.0 min			

Summary for Link PA1:

Inflow Area = 1.679 ac, 34.73% Impervious, Inflow Depth > 2.81" for 10-YR event
Inflow = 5.16 cfs @ 12.11 hrs, Volume= 0.393 af
Primary = 5.16 cfs @ 12.11 hrs, Volume= 0.393 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA2:

Inflow Area = 0.275 ac, 66.91% Impervious, Inflow Depth > 3.58" for 10-YR event
Inflow = 1.12 cfs @ 12.08 hrs, Volume= 0.082 af
Primary = 1.12 cfs @ 12.08 hrs, Volume= 0.082 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA3:

Inflow Area = 0.225 ac, 34.74% Impervious, Inflow Depth > 2.81" for 10-YR event
Inflow = 0.77 cfs @ 12.07 hrs, Volume= 0.053 af
Primary = 0.77 cfs @ 12.07 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

J0096-PRE*Type III 24-hr 25-YR Rainfall=5.50"*

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment WS-1: Runoff Area=73,134 sf 34.73% Impervious Runoff Depth>3.52"
Flow Length=451' Tc=8.0 min CN=82 Runoff=6.45 cfs 0.493 af

Subcatchment WS-2: Runoff Area=11,975 sf 66.91% Impervious Runoff Depth>4.36"
Flow Length=44' Slope=0.0150 '/' Tc=5.9 min CN=90 Runoff=1.35 cfs 0.100 af

Subcatchment WS-3: Runoff Area=9,792 sf 34.74% Impervious Runoff Depth>3.53"
Flow Length=87' Tc=5.0 min CN=82 Runoff=0.96 cfs 0.066 af

Link PA1: Inflow=6.45 cfs 0.493 af
Primary=6.45 cfs 0.493 af

Link PA2: Inflow=1.35 cfs 0.100 af
Primary=1.35 cfs 0.100 af

Link PA3: Inflow=0.96 cfs 0.066 af
Primary=0.96 cfs 0.066 af

Total Runoff Area = 2.179 ac Runoff Volume = 0.659 af Average Runoff Depth = 3.63"
61.20% Pervious = 1.333 ac 38.80% Impervious = 0.845 ac

Summary for Subcatchment WS-1:

Runoff = 6.45 cfs @ 12.11 hrs, Volume= 0.493 af, Depth> 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.50"

Area (sf)	CN	Description
16,283	98	Paved parking, HSG C
9,120	98	Roofs, HSG C
37,846	74	>75% Grass cover, Good, HSG C
9,885	72	Woods/grass comb., Good, HSG C
73,134	82	Weighted Average
47,731		65.27% Pervious Area
25,403		34.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.0400	0.19		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
0.4	90	0.0350	3.80		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.2	311	0.0120	1.64		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
8.0	451	Total			

Summary for Subcatchment WS-2:

Runoff = 1.35 cfs @ 12.08 hrs, Volume= 0.100 af, Depth> 4.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.50"

Area (sf)	CN	Description
1,663	98	Paved parking, HSG C
6,350	98	Roofs, HSG C
3,962	74	>75% Grass cover, Good, HSG C
11,975	90	Weighted Average
3,962		33.09% Pervious Area
8,013		66.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	44	0.0150	0.12		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"

Summary for Subcatchment WS-3:

Runoff = 0.96 cfs @ 12.07 hrs, Volume= 0.066 af, Depth> 3.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.50"

Area (sf)	CN	Description
3,402	98	Paved parking, HSG C
6,390	74	>75% Grass cover, Good, HSG C
9,792	82	Weighted Average
6,390		65.26% Pervious Area
3,402		34.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0500	1.51		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.3	57	0.0350	2.81		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
0.6	87	Total, Increased to minimum Tc = 5.0 min			

Summary for Link PA1:

Inflow Area = 1.679 ac, 34.73% Impervious, Inflow Depth > 3.52" for 25-YR event
Inflow = 6.45 cfs @ 12.11 hrs, Volume= 0.493 af
Primary = 6.45 cfs @ 12.11 hrs, Volume= 0.493 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA2:

Inflow Area = 0.275 ac, 66.91% Impervious, Inflow Depth > 4.36" for 25-YR event
Inflow = 1.35 cfs @ 12.08 hrs, Volume= 0.100 af
Primary = 1.35 cfs @ 12.08 hrs, Volume= 0.100 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA3:

Inflow Area = 0.225 ac, 34.74% Impervious, Inflow Depth > 3.53" for 25-YR event
Inflow = 0.96 cfs @ 12.07 hrs, Volume= 0.066 af
Primary = 0.96 cfs @ 12.07 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

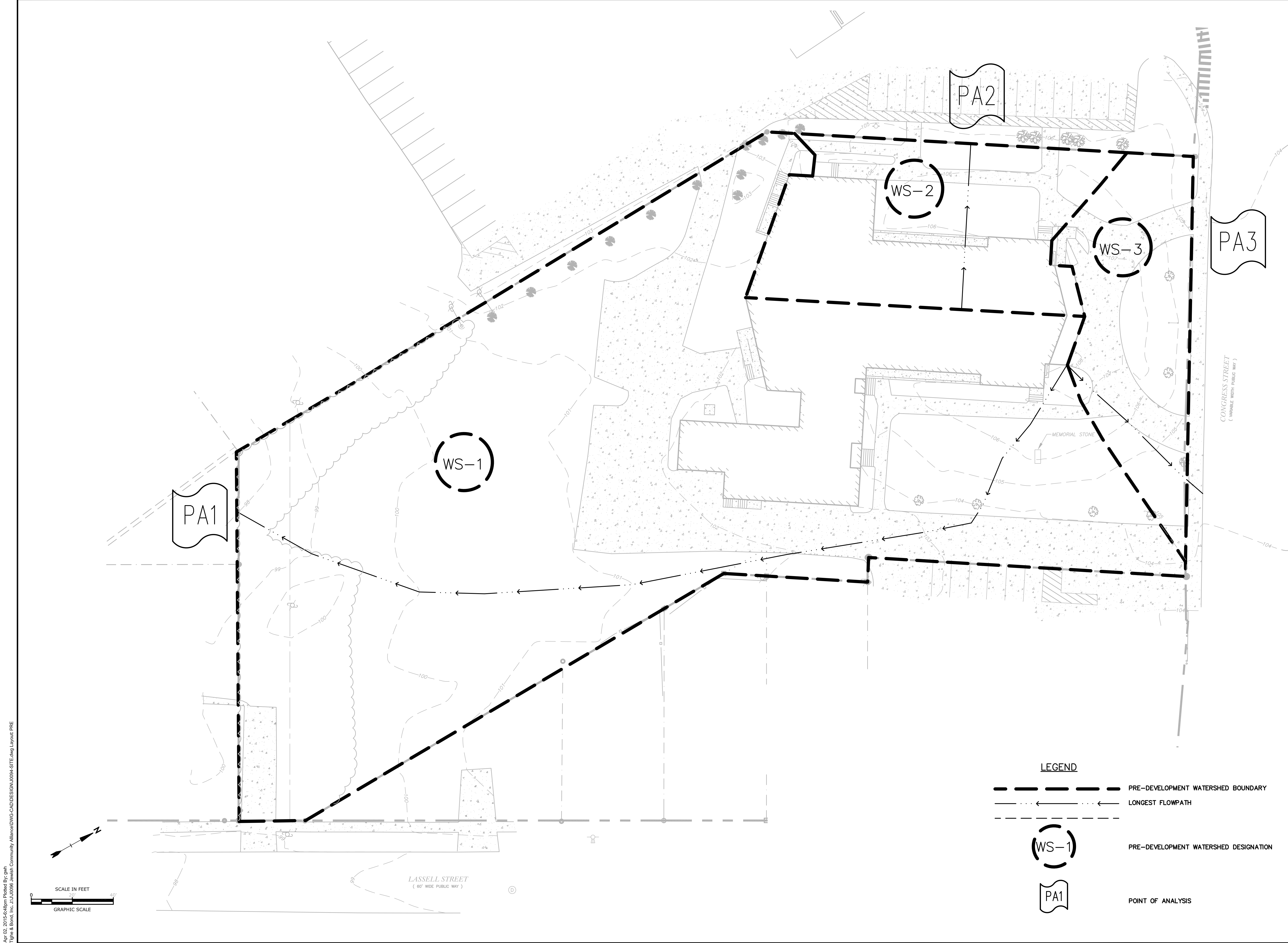
Jewish
Community
Alliance of
Southern Maine

Proposed
Neighborhood
Center

Portland, Maine

April 03, 2015

Mark	Date	Description
PROJECT NO:		J-0096
FILE:		J0094-SITE.dwg
DRAWN BY:		GWH
CHECKED:		BLM
APPROVED BY:		BLM
PRE-DEVELOPMENT WATERSHED PLAN		
SCALE:		AS SHOWN
WS-1		



2.3 Post-Development Conditions

The post-development drainage condition is also characterized by three (3) watershed areas modeled at the same three (3) points of analysis as the pre-development condition. These three (3) watershed areas are depicted on the Post-Development Watershed Plan, WS-2.

Point of Analysis (PA-1)

Point of Analysis One (PA-1) is comprised Post-Development Watershed 1A (WS-1A), Watershed 1B (WS-1B), and Watershed 1C (WS-1C). WS-1A consists of the proposed parking lot, sidewalks, and landscaped areas in the southwestern side of the site. Runoff from WS-1A travels via sheetflow into the underdrained soil filter bed to the rear of the parking lot.

WS-1B is a redeveloped area as the characteristics of this watershed remain largely unchanged from the pre-development condition. This watershed consists of the driveway that provides access to Congress Street, a small portion of sidewalk near the proposed building, and lawn at the south side of the site. Runoff generated travels via overland flow in the same pattern as the pre-development condition to PA-1.

WS-1C consists of the roof of the proposed building and the designated play area directly adjacent to the building. Runoff generated from the roof and play area is collected and conveyed to an underground detention area in the parking lot. Detained stormwater is conveyed via closed drainage to PA-1.

Point of Analysis (PA-2)

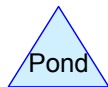
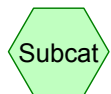
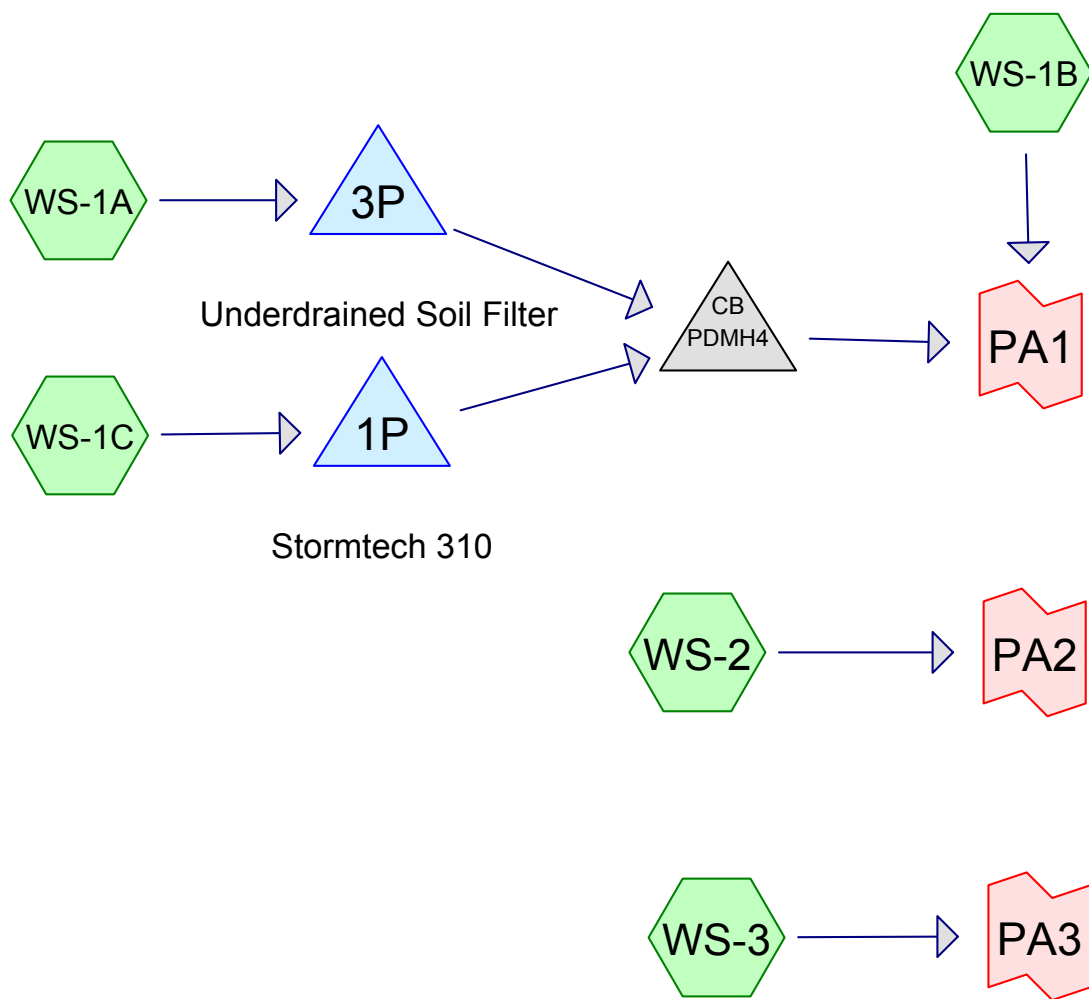
Point of Analysis Two (PA-2) is comprised of Post-Development Watershed 2 (WS-2A). WS-2 consists of runoff generated from the lawn and landscaping on the west side of the building. The runoff travels via overland flow in the same pattern as the pre-development condition.

Point of Analysis (PA-3)

Point of Analysis Three (PA-3) is comprised of Post Development Watershed 3 (WS-3). WS-3 is comprised of the sidewalk and landscaped areas along Congress Street. The runoff generated travels via overland flow in the same pattern as the pre-development condition.

2.3.1 Post-Development Calculations

2.3.2 Post-Development Watershed Plan, WS-2



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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.047	74	>75% Grass cover, Good, HSG C (WS-1A, WS-1B, WS-1C, WS-2, WS-3)
0.689	98	Paved parking, HSG C (WS-1A, WS-1B, WS-1C, WS-2, WS-3)
0.443	98	Roofs, HSG C (WS-1C)
2.179	86	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
2.179	HSG C	WS-1A, WS-1B, WS-1C, WS-2, WS-3
0.000	HSG D	
0.000	Other	
2.179		TOTAL AREA

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Type III 24-hr 2-YR Rainfall=3.00"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment WS-1A: Runoff Area=23,512 sf 61.28% Impervious Runoff Depth>1.90"
 Flow Length=130' Slope=0.0200 '/' Tc=5.0 min CN=89 Runoff=1.24 cfs 0.085 af

Subcatchment WS-1B: Runoff Area=34,411 sf 34.55% Impervious Runoff Depth>1.38"
 Flow Length=475' Tc=5.1 min CN=82 Runoff=1.31 cfs 0.091 af

Subcatchment WS-1C: Runoff Area=28,800 sf 75.69% Impervious Runoff Depth>2.16"
 Flow Length=234' Tc=5.0 min CN=92 Runoff=1.70 cfs 0.119 af

Subcatchment WS-2: Runoff Area=3,505 sf 17.12% Impervious Runoff Depth>1.13"
 Flow Length=22' Slope=0.0150 '/' Tc=5.0 min CN=78 Runoff=0.11 cfs 0.008 af

Subcatchment WS-3: Runoff Area=4,685 sf 13.06% Impervious Runoff Depth>1.07"
 Flow Length=30' Slope=0.0200 '/' Tc=5.0 min CN=77 Runoff=0.14 cfs 0.010 af

Pond 1P: Stormtech 310 Peak Elev=100.31' Storage=1,203 cf Inflow=1.70 cfs 0.119 af
 Outflow=0.92 cfs 0.112 af

Pond 3P: Underdrained Soil Filter Peak Elev=99.50' Storage=1,082 cf Inflow=1.24 cfs 0.085 af
 Outflow=0.49 cfs 0.079 af

Pond PDMH4: Peak Elev=98.16' Inflow=1.40 cfs 0.190 af
 15.0" Round Culvert n=0.013 L=10.0' S=0.0100 '/' Outflow=1.40 cfs 0.190 af

Link PA1: Inflow=2.50 cfs 0.281 af
 Primary=2.50 cfs 0.281 af

Link PA2: Inflow=0.11 cfs 0.008 af
 Primary=0.11 cfs 0.008 af

Link PA3: Inflow=0.14 cfs 0.010 af
 Primary=0.14 cfs 0.010 af

Total Runoff Area = 2.179 ac Runoff Volume = 0.312 af Average Runoff Depth = 1.72"
48.05% Pervious = 1.047 ac 51.95% Impervious = 1.132 ac

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Type III 24-hr 2-YR Rainfall=3.00"

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Summary for Subcatchment WS-1A:

Runoff = 1.24 cfs @ 12.07 hrs, Volume= 0.085 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.00"

Area (sf)	CN	Description
14,408	98	Paved parking, HSG C
9,104	74	>75% Grass cover, Good, HSG C
23,512	89	Weighted Average
9,104		38.72% Pervious Area
14,408		61.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.16		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.5	80	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.2	130	Total, Increased to minimum Tc = 5.0 min			

Summary for Subcatchment WS-1B:

Runoff = 1.31 cfs @ 12.08 hrs, Volume= 0.091 af, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.00"

Area (sf)	CN	Description
11,890	98	Paved parking, HSG C
22,521	74	>75% Grass cover, Good, HSG C
34,411	82	Weighted Average
22,521		65.45% Pervious Area
11,890		34.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	50	0.0150	1.03		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.9	115	0.0120	2.22		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.4	310	0.0100	1.50		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
5.1	475	Total			

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Type III 24-hr 2-YR Rainfall=3.00"

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Summary for Subcatchment WS-1C:

Runoff = 1.70 cfs @ 12.07 hrs, Volume= 0.119 af, Depth> 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.00"

Area (sf)	CN	Description
19,300	98	Roofs, HSG C
2,500	98	Paved parking, HSG C
7,000	74	>75% Grass cover, Good, HSG C
28,800	92	Weighted Average
7,000		24.31% Pervious Area
21,800		75.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	75	0.0150	1.12		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.8	159	0.0050	3.21	2.52	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.9	234	Total, Increased to minimum Tc = 5.0 min			

Summary for Subcatchment WS-2:

Runoff = 0.11 cfs @ 12.08 hrs, Volume= 0.008 af, Depth> 1.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.00"

Area (sf)	CN	Description
2,905	74	>75% Grass cover, Good, HSG C
600	98	Paved parking, HSG C
3,505	78	Weighted Average
2,905		82.88% Pervious Area
600		17.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	22	0.0150	0.11		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
3.4	22	Total, Increased to minimum Tc = 5.0 min			

Summary for Subcatchment WS-3:

Runoff = 0.14 cfs @ 12.08 hrs, Volume= 0.010 af, Depth> 1.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.00"

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Type III 24-hr 2-YR Rainfall=3.00"

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Area (sf)	CN	Description
612	98	Paved parking, HSG C
4,073	74	>75% Grass cover, Good, HSG C
4,685	77	Weighted Average
4,073		86.94% Pervious Area
612		13.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	30	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
3.9	30	Total, Increased to minimum Tc = 5.0 min			

Summary for Pond 1P: Stormtech 310

Inflow Area = 0.661 ac, 75.69% Impervious, Inflow Depth > 2.16" for 2-YR event
 Inflow = 1.70 cfs @ 12.07 hrs, Volume= 0.119 af
 Outflow = 0.92 cfs @ 12.19 hrs, Volume= 0.112 af, Atten= 46%, Lag= 6.8 min
 Primary = 0.92 cfs @ 12.19 hrs, Volume= 0.112 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 100.31' @ 12.19 hrs Surf.Area= 1,647 sf Storage= 1,203 cf
 Flood Elev= 101.50' Surf.Area= 1,647 sf Storage= 2,099 cf

Plug-Flow detention time= 65.1 min calculated for 0.112 af (94% of inflow)
 Center-of-Mass det. time= 32.9 min (831.6 - 798.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	99.10'	1,162 cf	31.50'W x 52.28'L x 2.33'H Field A 3,843 cf Overall - 937 cf Embedded = 2,906 cf x 40.0% Voids
#2A	99.60'	937 cf	ADS StormTech SC-310 x 63 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 2.07 sf x 9 rows
		2,099 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	99.50'	12.0" Round Culvert L= 145.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 99.50' / 97.55' S= 0.0134 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	99.50'	7.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	101.10'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=0.92 cfs @ 12.19 hrs HW=100.31' TW=98.16' (Dynamic Tailwater)

1=Culvert (Passes 0.92 cfs of 2.07 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.92 cfs @ 3.45 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 3P: Underdrained Soil Filter

Inflow Area = 0.540 ac, 61.28% Impervious, Inflow Depth > 1.90" for 2-YR event
 Inflow = 1.24 cfs @ 12.07 hrs, Volume= 0.085 af
 Outflow = 0.49 cfs @ 12.32 hrs, Volume= 0.079 af, Atten= 61%, Lag= 14.5 min
 Primary = 0.49 cfs @ 12.32 hrs, Volume= 0.079 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 99.50' @ 12.30 hrs Surf.Area= 2,578 sf Storage= 1,082 cf
 Flood Elev= 101.50' Surf.Area= 4,128 sf Storage= 3,151 cf

Plug-Flow detention time= 76.0 min calculated for 0.079 af (92% of inflow)
 Center-of-Mass det. time= 35.7 min (847.9 - 812.2)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,875 cf	Pond Storage (Prismatic) Listed below (Recalc)
#2	98.50'	580 cf	Soil Filter (Prismatic) Listed below (Recalc)
			1,934 cf Overall x 30.0% Voids
#3	97.15'	696 cf	Stone Reservoir (Prismatic) Listed below (Recalc)
			1,740 cf Overall x 40.0% Voids
		3,151 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	950	0	0
101.00	1,350	1,150	1,150
101.50	1,550	725	1,875

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
98.50	1,289	0	0
100.00	1,289	1,934	1,934

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
97.15	1,289	0	0
98.50	1,289	1,740	1,740

Device	Routing	Invert	Outlet Devices
#1	Primary	97.55'	12.0" Round Culvert L= 5.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 97.55' / 97.50' S= 0.0100 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	101.00'	16.0" x 16.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	97.65'	4.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.49 cfs @ 12.32 hrs HW=99.50' TW=98.15' (Dynamic Tailwater)

- 1=Culvert (Passes 0.49 cfs of 4.39 cfs potential flow)
- 2=Orifice/Grate (Controls 0.00 cfs)
- 3=Orifice/Grate (Orifice Controls 0.49 cfs @ 5.59 fps)

Summary for Pond PDMH4:

Inflow Area = 1.201 ac, 69.22% Impervious, Inflow Depth > 1.90" for 2-YR event
 Inflow = 1.40 cfs @ 12.21 hrs, Volume= 0.190 af
 Outflow = 1.40 cfs @ 12.21 hrs, Volume= 0.190 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.40 cfs @ 12.21 hrs, Volume= 0.190 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 98.16' @ 12.21 hrs

Flood Elev= 102.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	97.50'	15.0" Round Culvert L= 10.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 97.50' / 97.40' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.40 cfs @ 12.21 hrs HW=98.16' TW=0.00' (Dynamic Tailwater)

↑**1=Culvert** (Barrel Controls 1.40 cfs @ 3.09 fps)

Summary for Link PA1:

Inflow Area = 1.991 ac, 55.46% Impervious, Inflow Depth > 1.69" for 2-YR event
 Inflow = 2.50 cfs @ 12.10 hrs, Volume= 0.281 af
 Primary = 2.50 cfs @ 12.10 hrs, Volume= 0.281 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA2:

Inflow Area = 0.080 ac, 17.12% Impervious, Inflow Depth > 1.13" for 2-YR event
 Inflow = 0.11 cfs @ 12.08 hrs, Volume= 0.008 af
 Primary = 0.11 cfs @ 12.08 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA3:

Inflow Area = 0.108 ac, 13.06% Impervious, Inflow Depth > 1.07" for 2-YR event
 Inflow = 0.14 cfs @ 12.08 hrs, Volume= 0.010 af
 Primary = 0.14 cfs @ 12.08 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-YR Rainfall=4.70"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment WS-1A: Runoff Area=23,512 sf 61.28% Impervious Runoff Depth>3.48"
 Flow Length=130' Slope=0.0200 '/ Tc=5.0 min CN=89 Runoff=2.23 cfs 0.157 af

Subcatchment WS-1B: Runoff Area=34,411 sf 34.55% Impervious Runoff Depth>2.81"
 Flow Length=475' Tc=5.1 min CN=82 Runoff=2.69 cfs 0.185 af

Subcatchment WS-1C: Runoff Area=28,800 sf 75.69% Impervious Runoff Depth>3.79"
 Flow Length=234' Tc=5.0 min CN=92 Runoff=2.91 cfs 0.209 af

Subcatchment WS-2: Runoff Area=3,505 sf 17.12% Impervious Runoff Depth>2.46"
 Flow Length=22' Slope=0.0150 '/ Tc=5.0 min CN=78 Runoff=0.24 cfs 0.016 af

Subcatchment WS-3: Runoff Area=4,685 sf 13.06% Impervious Runoff Depth>2.37"
 Flow Length=30' Slope=0.0200 '/ Tc=5.0 min CN=77 Runoff=0.31 cfs 0.021 af

Pond 1P: Stormtech 310 Peak Elev=101.12' Storage=1,894 cf Inflow=2.91 cfs 0.209 af
 Outflow=1.53 cfs 0.202 af

Pond 3P: Underdrained Soil Filter Peak Elev=100.68' Storage=2,019 cf Inflow=2.23 cfs 0.157 af
 Outflow=0.65 cfs 0.150 af

Pond PDMH4: Peak Elev=98.35' Inflow=2.15 cfs 0.351 af
 15.0" Round Culvert n=0.013 L=10.0' S=0.0100 '/ Outflow=2.15 cfs 0.351 af

Link PA1: Inflow=4.48 cfs 0.536 af
 Primary=4.48 cfs 0.536 af

Link PA2: Inflow=0.24 cfs 0.016 af
 Primary=0.24 cfs 0.016 af

Link PA3: Inflow=0.31 cfs 0.021 af
 Primary=0.31 cfs 0.021 af

Total Runoff Area = 2.179 ac Runoff Volume = 0.588 af Average Runoff Depth = 3.24"
48.05% Pervious = 1.047 ac 51.95% Impervious = 1.132 ac

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Type III 24-hr 10-YR Rainfall=4.70"

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Summary for Subcatchment WS-1A:

Runoff = 2.23 cfs @ 12.07 hrs, Volume= 0.157 af, Depth> 3.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.70"

Area (sf)	CN	Description
14,408	98	Paved parking, HSG C
9,104	74	>75% Grass cover, Good, HSG C
23,512	89	Weighted Average
9,104		38.72% Pervious Area
14,408		61.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.16		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.5	80	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.2	130	Total, Increased to minimum Tc = 5.0 min			

Summary for Subcatchment WS-1B:

Runoff = 2.69 cfs @ 12.08 hrs, Volume= 0.185 af, Depth> 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.70"

Area (sf)	CN	Description
11,890	98	Paved parking, HSG C
22,521	74	>75% Grass cover, Good, HSG C
34,411	82	Weighted Average
22,521		65.45% Pervious Area
11,890		34.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	50	0.0150	1.03		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.9	115	0.0120	2.22		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.4	310	0.0100	1.50		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
5.1	475	Total			

Summary for Subcatchment WS-1C:

Runoff = 2.91 cfs @ 12.07 hrs, Volume= 0.209 af, Depth> 3.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.70"

Area (sf)	CN	Description
19,300	98	Roofs, HSG C
2,500	98	Paved parking, HSG C
7,000	74	>75% Grass cover, Good, HSG C
28,800	92	Weighted Average
7,000		24.31% Pervious Area
21,800		75.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	75	0.0150	1.12		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.8	159	0.0050	3.21	2.52	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.9	234	Total, Increased to minimum Tc = 5.0 min			

Summary for Subcatchment WS-2:

Runoff = 0.24 cfs @ 12.08 hrs, Volume= 0.016 af, Depth> 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.70"

Area (sf)	CN	Description
2,905	74	>75% Grass cover, Good, HSG C
600	98	Paved parking, HSG C
3,505	78	Weighted Average
2,905		82.88% Pervious Area
600		17.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	22	0.0150	0.11		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
3.4	22	Total, Increased to minimum Tc = 5.0 min			

Summary for Subcatchment WS-3:

Runoff = 0.31 cfs @ 12.08 hrs, Volume= 0.021 af, Depth> 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.70"

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Type III 24-hr 10-YR Rainfall=4.70"

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Area (sf)	CN	Description
612	98	Paved parking, HSG C
4,073	74	>75% Grass cover, Good, HSG C
4,685	77	Weighted Average
4,073		86.94% Pervious Area
612		13.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	30	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
3.9	30	Total, Increased to minimum Tc = 5.0 min			

Summary for Pond 1P: Stormtech 310

Inflow Area = 0.661 ac, 75.69% Impervious, Inflow Depth > 3.79" for 10-YR event
 Inflow = 2.91 cfs @ 12.07 hrs, Volume= 0.209 af
 Outflow = 1.53 cfs @ 12.19 hrs, Volume= 0.202 af, Atten= 47%, Lag= 7.1 min
 Primary = 1.53 cfs @ 12.19 hrs, Volume= 0.202 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 101.12' @ 12.19 hrs Surf.Area= 1,647 sf Storage= 1,894 cf
 Flood Elev= 101.50' Surf.Area= 1,647 sf Storage= 2,099 cf

Plug-Flow detention time= 50.0 min calculated for 0.202 af (96% of inflow)
 Center-of-Mass det. time= 29.2 min (812.4 - 783.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	99.10'	1,162 cf	31.50'W x 52.28'L x 2.33'H Field A 3,843 cf Overall - 937 cf Embedded = 2,906 cf x 40.0% Voids
#2A	99.60'	937 cf	ADS StormTech SC-310 x 63 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 2.07 sf x 9 rows
		2,099 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	99.50'	12.0" Round Culvert L= 145.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 99.50' / 97.55' S= 0.0134 ' /' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	99.50'	7.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	101.10'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=1.53 cfs @ 12.19 hrs HW=101.12' TW=98.35' (Dynamic Tailwater)

1=Culvert (Passes 1.53 cfs of 4.00 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.48 cfs @ 5.55 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 0.04 cfs @ 0.48 fps)

Summary for Pond 3P: Underdrained Soil Filter

Inflow Area = 0.540 ac, 61.28% Impervious, Inflow Depth > 3.48" for 10-YR event
 Inflow = 2.23 cfs @ 12.07 hrs, Volume= 0.157 af
 Outflow = 0.65 cfs @ 12.46 hrs, Volume= 0.150 af, Atten= 71%, Lag= 23.1 min
 Primary = 0.65 cfs @ 12.46 hrs, Volume= 0.150 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 100.68' @ 12.40 hrs Surf.Area= 3,801 sf Storage= 2,019 cf
 Flood Elev= 101.50' Surf.Area= 4,128 sf Storage= 3,151 cf

Plug-Flow detention time= 61.8 min calculated for 0.150 af (95% of inflow)
 Center-of-Mass det. time= 36.5 min (831.6 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,875 cf	Pond Storage (Prismatic) Listed below (Recalc)
#2	98.50'	580 cf	Soil Filter (Prismatic) Listed below (Recalc)
			1,934 cf Overall x 30.0% Voids
#3	97.15'	696 cf	Stone Reservoir (Prismatic) Listed below (Recalc)
			1,740 cf Overall x 40.0% Voids
		3,151 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	950	0	0
101.00	1,350	1,150	1,150
101.50	1,550	725	1,875

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
98.50	1,289	0	0
100.00	1,289	1,934	1,934

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
97.15	1,289	0	0
98.50	1,289	1,740	1,740

Device	Routing	Invert	Outlet Devices
#1	Primary	97.55'	12.0" Round Culvert L= 5.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 97.55' / 97.50' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	101.00'	16.0" x 16.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	97.65'	4.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.65 cfs @ 12.46 hrs HW=100.67' TW=98.28' (Dynamic Tailwater)

- 1=Culvert (Passes 0.65 cfs of 5.85 cfs potential flow)
- 2=Orifice/Grate (Controls 0.00 cfs)
- 3=Orifice/Grate (Orifice Controls 0.65 cfs @ 7.45 fps)

Summary for Pond PDMH4:

Inflow Area = 1.201 ac, 69.22% Impervious, Inflow Depth > 3.51" for 10-YR event
 Inflow = 2.15 cfs @ 12.19 hrs, Volume= 0.351 af
 Outflow = 2.15 cfs @ 12.19 hrs, Volume= 0.351 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.15 cfs @ 12.19 hrs, Volume= 0.351 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 98.35' @ 12.19 hrs

Flood Elev= 102.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	97.50'	15.0" Round Culvert L= 10.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 97.50' / 97.40' S= 0.0100 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.15 cfs @ 12.19 hrs HW=98.35' TW=0.00' (Dynamic Tailwater)

↑**1=Culvert** (Barrel Controls 2.15 cfs @ 3.41 fps)

Summary for Link PA1:

Inflow Area = 1.991 ac, 55.46% Impervious, Inflow Depth > 3.23" for 10-YR event
 Inflow = 4.48 cfs @ 12.09 hrs, Volume= 0.536 af
 Primary = 4.48 cfs @ 12.09 hrs, Volume= 0.536 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA2:

Inflow Area = 0.080 ac, 17.12% Impervious, Inflow Depth > 2.46" for 10-YR event
 Inflow = 0.24 cfs @ 12.08 hrs, Volume= 0.016 af
 Primary = 0.24 cfs @ 12.08 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA3:

Inflow Area = 0.108 ac, 13.06% Impervious, Inflow Depth > 2.37" for 10-YR event
 Inflow = 0.31 cfs @ 12.08 hrs, Volume= 0.021 af
 Primary = 0.31 cfs @ 12.08 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment WS-1A: Runoff Area=23,512 sf 61.28% Impervious Runoff Depth>4.25"
 Flow Length=130' Slope=0.0200 '/' Tc=5.0 min CN=89 Runoff=2.69 cfs 0.191 af

Subcatchment WS-1B: Runoff Area=34,411 sf 34.55% Impervious Runoff Depth>3.53"
 Flow Length=475' Tc=5.1 min CN=82 Runoff=3.36 cfs 0.232 af

Subcatchment WS-1C: Runoff Area=28,800 sf 75.69% Impervious Runoff Depth>4.58"
 Flow Length=234' Tc=5.0 min CN=92 Runoff=3.47 cfs 0.252 af

Subcatchment WS-2: Runoff Area=3,505 sf 17.12% Impervious Runoff Depth>3.14"
 Flow Length=22' Slope=0.0150 '/' Tc=5.0 min CN=78 Runoff=0.31 cfs 0.021 af

Subcatchment WS-3: Runoff Area=4,685 sf 13.06% Impervious Runoff Depth>3.04"
 Flow Length=30' Slope=0.0200 '/' Tc=5.0 min CN=77 Runoff=0.40 cfs 0.027 af

Pond 1P: Stormtech 310 Peak Elev=101.30' Storage=2,011 cf Inflow=3.47 cfs 0.252 af
 Outflow=2.74 cfs 0.245 af

Pond 3P: Underdrained Soil Filter Peak Elev=101.05' Storage=2,490 cf Inflow=2.69 cfs 0.191 af
 Outflow=0.86 cfs 0.184 af

Pond PDMH4: Peak Elev=98.62' Inflow=3.34 cfs 0.428 af
 15.0" Round Culvert n=0.013 L=10.0' S=0.0100 '/' Outflow=3.34 cfs 0.428 af

Link PA1: Inflow=6.20 cfs 0.661 af
 Primary=6.20 cfs 0.661 af

Link PA2: Inflow=0.31 cfs 0.021 af
 Primary=0.31 cfs 0.021 af

Link PA3: Inflow=0.40 cfs 0.027 af
 Primary=0.40 cfs 0.027 af

Total Runoff Area = 2.179 ac Runoff Volume = 0.724 af Average Runoff Depth = 3.99"
48.05% Pervious = 1.047 ac 51.95% Impervious = 1.132 ac

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Type III 24-hr 25-YR Rainfall=5.50"

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Summary for Subcatchment WS-1A:

Runoff = 2.69 cfs @ 12.07 hrs, Volume= 0.191 af, Depth> 4.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.50"

Area (sf)	CN	Description
14,408	98	Paved parking, HSG C
9,104	74	>75% Grass cover, Good, HSG C
23,512	89	Weighted Average
9,104		38.72% Pervious Area
14,408		61.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.16		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.5	80	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.2	130	Total, Increased to minimum Tc = 5.0 min			

Summary for Subcatchment WS-1B:

Runoff = 3.36 cfs @ 12.07 hrs, Volume= 0.232 af, Depth> 3.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.50"

Area (sf)	CN	Description
11,890	98	Paved parking, HSG C
22,521	74	>75% Grass cover, Good, HSG C
34,411	82	Weighted Average
22,521		65.45% Pervious Area
11,890		34.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	50	0.0150	1.03		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.9	115	0.0120	2.22		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.4	310	0.0100	1.50		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
5.1	475	Total			

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Type III 24-hr 25-YR Rainfall=5.50"

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Summary for Subcatchment WS-1C:

Runoff = 3.47 cfs @ 12.07 hrs, Volume= 0.252 af, Depth> 4.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.50"

Area (sf)	CN	Description
19,300	98	Roofs, HSG C
2,500	98	Paved parking, HSG C
7,000	74	>75% Grass cover, Good, HSG C
28,800	92	Weighted Average
7,000		24.31% Pervious Area
21,800		75.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	75	0.0150	1.12		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.8	159	0.0050	3.21	2.52	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.9	234	Total, Increased to minimum Tc = 5.0 min			

Summary for Subcatchment WS-2:

Runoff = 0.31 cfs @ 12.07 hrs, Volume= 0.021 af, Depth> 3.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.50"

Area (sf)	CN	Description
2,905	74	>75% Grass cover, Good, HSG C
600	98	Paved parking, HSG C
3,505	78	Weighted Average
2,905		82.88% Pervious Area
600		17.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	22	0.0150	0.11		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
3.4	22	Total, Increased to minimum Tc = 5.0 min			

Summary for Subcatchment WS-3:

Runoff = 0.40 cfs @ 12.07 hrs, Volume= 0.027 af, Depth> 3.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.50"

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Type III 24-hr 25-YR Rainfall=5.50"

Printed 5/8/2015

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Area (sf)	CN	Description
612	98	Paved parking, HSG C
4,073	74	>75% Grass cover, Good, HSG C
4,685	77	Weighted Average
4,073		86.94% Pervious Area
612		13.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	30	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
3.9	30	Total, Increased to minimum Tc = 5.0 min			

Summary for Pond 1P: Stormtech 310

Inflow Area = 0.661 ac, 75.69% Impervious, Inflow Depth > 4.58" for 25-YR event
 Inflow = 3.47 cfs @ 12.07 hrs, Volume= 0.252 af
 Outflow = 2.74 cfs @ 12.13 hrs, Volume= 0.245 af, Atten= 21%, Lag= 3.5 min
 Primary = 2.74 cfs @ 12.13 hrs, Volume= 0.245 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 101.30' @ 12.13 hrs Surf.Area= 1,647 sf Storage= 2,011 cf
 Flood Elev= 101.50' Surf.Area= 1,647 sf Storage= 2,099 cf

Plug-Flow detention time= 45.3 min calculated for 0.245 af (97% of inflow)
 Center-of-Mass det. time= 27.3 min (805.7 - 778.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	99.10'	1,162 cf	31.50'W x 52.28'L x 2.33'H Field A 3,843 cf Overall - 937 cf Embedded = 2,906 cf x 40.0% Voids
#2A	99.60'	937 cf	ADS StormTech SC-310 x 63 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 2.07 sf x 9 rows
		2,099 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	99.50'	12.0" Round Culvert L= 145.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 99.50' / 97.55' S= 0.0134 ' /' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	99.50'	7.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	101.10'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=2.73 cfs @ 12.13 hrs HW=101.30' TW=98.62' (Dynamic Tailwater)

1=Culvert (Passes 2.73 cfs of 4.19 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.58 cfs @ 5.91 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 1.15 cfs @ 1.46 fps)

Summary for Pond 3P: Underdrained Soil Filter

Inflow Area = 0.540 ac, 61.28% Impervious, Inflow Depth > 4.25" for 25-YR event
 Inflow = 2.69 cfs @ 12.07 hrs, Volume= 0.191 af
 Outflow = 0.86 cfs @ 12.36 hrs, Volume= 0.184 af, Atten= 68%, Lag= 17.3 min
 Primary = 0.86 cfs @ 12.36 hrs, Volume= 0.184 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 101.05' @ 12.36 hrs Surf.Area= 3,947 sf Storage= 2,490 cf
 Flood Elev= 101.50' Surf.Area= 4,128 sf Storage= 3,151 cf

Plug-Flow detention time= 59.5 min calculated for 0.184 af (96% of inflow)
 Center-of-Mass det. time= 37.9 min (827.6 - 789.7)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,875 cf	Pond Storage (Prismatic) Listed below (Recalc)
#2	98.50'	580 cf	Soil Filter (Prismatic) Listed below (Recalc)
			1,934 cf Overall x 30.0% Voids
#3	97.15'	696 cf	Stone Reservoir (Prismatic) Listed below (Recalc)
			1,740 cf Overall x 40.0% Voids
		3,151 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	950	0	0
101.00	1,350	1,150	1,150
101.50	1,550	725	1,875

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
98.50	1,289	0	0
100.00	1,289	1,934	1,934

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
97.15	1,289	0	0
98.50	1,289	1,740	1,740

Device	Routing	Invert	Outlet Devices
#1	Primary	97.55'	12.0" Round Culvert L= 5.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 97.55' / 97.50' S= 0.0100 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	101.00'	16.0" x 16.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	97.65'	4.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.86 cfs @ 12.36 hrs HW=101.05' TW=98.38' (Dynamic Tailwater)

- 1=Culvert (Passes 0.86 cfs of 6.17 cfs potential flow)
- 2=Orifice/Grate (Weir Controls 0.18 cfs @ 0.71 fps)
- 3=Orifice/Grate (Orifice Controls 0.69 cfs @ 7.86 fps)

Summary for Pond PDMH4:

Inflow Area = 1.201 ac, 69.22% Impervious, Inflow Depth > 4.28" for 25-YR event
 Inflow = 3.34 cfs @ 12.13 hrs, Volume= 0.428 af
 Outflow = 3.34 cfs @ 12.13 hrs, Volume= 0.428 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.34 cfs @ 12.13 hrs, Volume= 0.428 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 98.62' @ 12.13 hrs
 Flood Elev= 102.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	97.50'	15.0" Round Culvert L= 10.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 97.50' / 97.40' S= 0.0100 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.34 cfs @ 12.13 hrs HW=98.62' TW=0.00' (Dynamic Tailwater)
 ↑ **1=Culvert** (Barrel Controls 3.34 cfs @ 3.81 fps)

Summary for Link PA1:

Inflow Area = 1.991 ac, 55.46% Impervious, Inflow Depth > 3.98" for 25-YR event
 Inflow = 6.20 cfs @ 12.12 hrs, Volume= 0.661 af
 Primary = 6.20 cfs @ 12.12 hrs, Volume= 0.661 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA2:

Inflow Area = 0.080 ac, 17.12% Impervious, Inflow Depth > 3.14" for 25-YR event
 Inflow = 0.31 cfs @ 12.07 hrs, Volume= 0.021 af
 Primary = 0.31 cfs @ 12.07 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link PA3:

Inflow Area = 0.108 ac, 13.06% Impervious, Inflow Depth > 3.04" for 25-YR event
 Inflow = 0.40 cfs @ 12.07 hrs, Volume= 0.027 af
 Primary = 0.40 cfs @ 12.07 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-YR Rainfall=6.70"

Printed 5/8/2015

Summary for Pond 3P: Underdrained Soil Filter

Inflow Area = 0.540 ac, 61.28% Impervious, Inflow Depth > 5.41" for 100-YR event
 Inflow = 3.38 cfs @ 12.07 hrs, Volume= 0.243 af
 Outflow = 1.94 cfs @ 12.17 hrs, Volume= 0.236 af, Atten= 43%, Lag= 6.2 min
 Primary = 1.94 cfs @ 12.17 hrs, Volume= 0.236 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 101.18' @ 12.17 hrs Surf.Area= 4,000 sf Storage= 2,674 cf
 Flood Elev= 101.50' Surf.Area= 4,128 sf Storage= 3,151 cf

Plug-Flow detention time= 52.3 min calculated for 0.236 af (97% of inflow)
 Center-of-Mass det. time= 34.5 min (817.6 - 783.2)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,875 cf	Pond Storage (Prismatic) Listed below (Recalc)
#2	98.50'	580 cf	Soil Filter (Prismatic) Listed below (Recalc)
			1,934 cf Overall x 30.0% Voids
#3	97.15'	696 cf	Stone Reservoir (Prismatic) Listed below (Recalc)
			1,740 cf Overall x 40.0% Voids
		3,151 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	950	0	0
101.00	1,350	1,150	1,150
101.50	1,550	725	1,875

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
98.50	1,289	0	0
100.00	1,289	1,934	1,934

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
97.15	1,289	0	0
98.50	1,289	1,740	1,740

Device	Routing	Invert	Outlet Devices
#1	Primary	97.55'	12.0" Round Culvert L= 5.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 97.55' / 97.50' S= 0.0100 1' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	101.00'	16.0" x 16.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	97.65'	4.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=1.95 cfs @ 12.17 hrs HW=101.18' TW=98.94' (Dynamic Tailwater)

- 1=Culvert (Passes 1.95 cfs of 5.66 cfs potential flow)
- 2=Orifice/Grate (Weir Controls 1.32 cfs @ 1.38 fps)
- 3=Orifice/Grate (Orifice Controls 0.63 cfs @ 7.21 fps)

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Type III 24-hr 100-YR Rainfall=6.70"

Printed 5/8/2015

Summary for Pond 1P: Stormtech 310

Inflow Area = 0.661 ac, 75.69% Impervious, Inflow Depth > 5.75" for 100-YR event
 Inflow = 4.30 cfs @ 12.07 hrs, Volume= 0.317 af
 Outflow = 4.06 cfs @ 12.10 hrs, Volume= 0.309 af, Atten= 6%, Lag= 1.6 min
 Primary = 4.06 cfs @ 12.10 hrs, Volume= 0.309 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 101.43' @ 12.10 hrs Surf.Area= 1,647 sf Storage= 2,095 cf
 Flood Elev= 101.50' Surf.Area= 1,647 sf Storage= 2,099 cf

Plug-Flow detention time= 40.0 min calculated for 0.309 af (98% of inflow)
 Center-of-Mass det. time= 24.8 min (797.3 - 772.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	99.10'	1,162 cf	31.50'W x 52.28'L x 2.33'H Field A 3,843 cf Overall - 937 cf Embedded = 2,906 cf x 40.0% Voids
#2A	99.60'	937 cf	ADS StormTech SC-310 x 63 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 2.07 sf x 9 rows
		2,099 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	99.50'	12.0" Round Culvert L= 145.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 99.50' / 97.55' S= 0.0134 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	99.50'	7.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	101.10'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=4.05 cfs @ 12.10 hrs HW=101.43' TW=98.92' (Dynamic Tailwater)

1=Culvert (Passes 4.05 cfs of 4.06 cfs potential flow)

2=Orifice/Grate (Orifice Controls 1.65 cfs @ 6.16 fps)

3=Sharp-Crested Rectangular Weir (Weir Controls 2.40 cfs @ 1.87 fps)

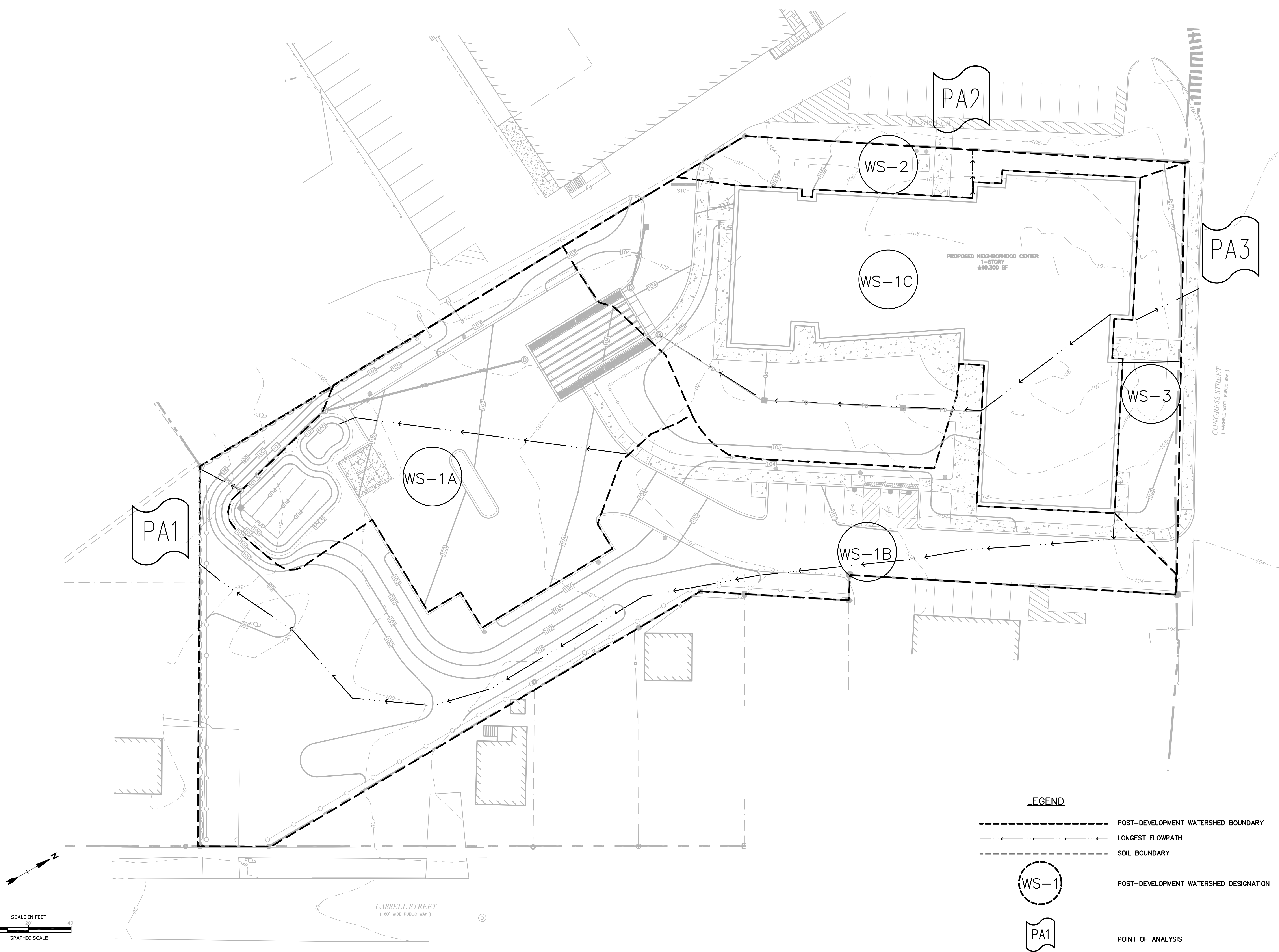
Jewish
Community
Alliance of
Southern Maine

Proposed
Neighborhood
Center

Portland, Maine

April 03, 2015

1.	5/8/15	REVISED FOR PB WORKSHOP
Mark	Date	Description
PROJECT NO: J-0096		
FILE: J0094-SITE.dwg		
DRAWN BY: GWH		
CHECKED: BLM		
APPROVED BY: BLM		
POST-DEVELOPMENT WATERSHED PLAN		
SCALE: AS SHOWN		
WS-2		



2.4 Peak Rate Comparisons

The following table summarizes and compares the pre- and post-development peak runoff rates for the 2-year, 10-year, and 50-year storm events. The post-development peak rate of runoff for each discharge point has been determined to be less than the peak runoff rate generated during the pre-development condition.

Point of Analysis	Pre/ Post 2-Year Storm (cfs)	Pre/ Post 10-Year Storm (cfs)	Pre/ Post 25-Year Storm (cfs)
PA1	2.51/ 2.50	5.16/ 4.48	6.45/ 6.20
PA2	0.64/ 0.11	1.12/ 0.24	1.35/ 0.31
PA3	0.37/ 0.14	0.77/ 0.31	0.96/ 0.40

2.5 Stormwater Treatment Volume

Table 6.1 - Underdrained Soil Filter Treatment Volume Calculations		
VARIABLE	DESCRIPTION	VALUE
Pi	1 Inch of Rainfall for Impervious Area	1 inch
Pv	0.4 Inch of Rainfall for Vegetated Area	0.4 inch
A	Total Area Draining to Design Structure	23,512 SF
Ai	Impervious Area Draining to Design Structure	14,408 SF
Av	Vegetated Area Draining to Design Structure	9,104 SF
ITV	Impervious Area Treatment Volume = Pi*Ai	1,200 CF
VTV	Vegetated Area Treatment Volume = Pv*Av	304 CF
	Total Treatment Volume Required	1,504 CF
Vs	Total Treatment Volume Provided (see HydroCAD)	2,426 CF

The Treatment Volume provided is greater than the Treatment Volume required. The total storage volume provided below the overflow rim elevation is 2,426 CF. The proposed Underdrained Soil Filter is treating a total of 14,408 SF of impervious area, which is equivalent to approximately 115% of the new impervious area and exceeds the requirements of the MaineDEP Chapter 500 General Standards.

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Type III 24-hr 100-YR Rainfall=6.70"

Printed 5/8/2015

Stage-Area-Storage for Pond 3P: Underdrained Soil Filter

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	
97.15	0	99.80	1,199	
97.20	26	99.85	1,218	
97.25	52	99.90	1,237	
97.30	77	99.95	1,257	
97.35	103	100.00	1,276	
97.40	129	100.05	1,324	
97.45	155	100.10	1,373	
97.50	180	100.15	1,423	
97.55	206	100.20	1,474	
97.60	232	100.25	1,526	
97.65	258	100.30	1,579	
97.70	284	100.35	1,633	
97.75	309	100.40	1,688	
97.80	335	100.45	1,744	
97.85	361	100.50	1,801	
97.90	387	100.55	1,859	
97.95	412	100.60	1,918	
98.00	438	100.65	1,978	
98.05	464	100.70	2,039	
98.10	490	100.75	2,101	
98.15	516	100.80	2,164	
98.20	541	100.85	2,228	
98.25	567	100.90	2,293	
98.30	593	100.95	2,359	
98.35	619	101.00	2,426	Overflow Rim Elevation = 101.00
98.40	645	101.05	2,494	
98.45	670	101.10	2,563	
98.50	696	101.15	2,633	
98.55	715	101.20	2,704	
98.60	735	101.25	2,776	
98.65	754	101.30	2,849	
98.70	773	101.35	2,923	
98.75	793	101.40	2,998	
98.80	812	101.45	3,074	
98.85	831	101.50	3,151	
98.90	851			
98.95	870			
99.00	889			
99.05	909			
99.10	928			
99.15	947			
99.20	967			
99.25	986			
99.30	1,005			
99.35	1,025			
99.40	1,044			
99.45	1,063			
99.50	1,083			
99.55	1,102			
99.60	1,121			
99.65	1,141			
99.70	1,160			
99.75	1,179			

2.6 Mitigation Description and Best Management Practices

In order to mitigate the increase in impervious area required for the proposed project, a stormwater system has been designed for this project utilizing low impact development measures.

The intent of the stormwater management system design is for runoff to be collected, detained, and treated, where possible. An Underdrained Soil Filter has been provided to mitigate potential impacts from the increase in impervious area. The Underdrained Soil Filter has been designed to treat the entire runoff volume from the 2 and 10-year 24 hour storms. As shown in Section 2.5, the treatment volume provided is greater than the volume required by the stormwater regulations.

The underground detention basin, which consists of Stormtech SC-310 chambers, has been designed to detain and mitigate peak flows generated by the roof and grass play area. Runoff generated from the roof will not be treated as it is inherently clean. Deep sump catch basins with Casco traps will provide pre-treatment for stormwater that is collected within the play area adjacent to the building prior to discharge into the detention basin.

All soil erosion and sediment control measures shall be in accordance with regulations and principles as outlined in the Stormwater Management for Maine: Best Management Practices and Maine Erosion and Sediment Control Handbook for Construction. The intent of the outlined measures is to minimize erosion and sedimentation during construction, stabilize and protect the site from erosion after construction is complete and improve stormwater quality from the site. Best Management Practices for this project include:

- Temporary practices to be implemented during construction.
- Permanent practices to be implemented after construction.
- Stormwater treatment devices.

TEMPORARY PRACTICES

Sequencing:

1. Construct temporary and permanent sediment, erosion and detention control facilities. Erosion, sediment and detention measures shall be installed prior to any earth moving operations that will influence stormwater runoff such as:
 - New construction
 - Development of borrow pit areas
 - Disposal of sediment spoil, stump and other solid waste
 - Control of dust
2. All permanent ditches, swales, detention, retention and sedimentation basins to be stabilized using the vegetative and nonstructural BMPs prior to directing runoff to them.
3. Clear and dispose of debris.

4. Construct temporary culverts and diversion channels as required.
5. Begin permanent and temporary seeding and mulching. All cut and fill slopes shall be seeded and mulched immediately after their construction.
6. Daily, or as required, construct temporary berms, drains, ditches, silt fences, sediment traps etc., mulch and seed as required.
7. Finish pave all roadways and parking lots.
8. Inspect and maintain all erosion and sediment control measures.
9. Complete permanent seeding and landscaping.
10. Remove trapped sediment from collection devices as appropriate and then remove temporary erosion control measures.

Stabilization Practices:

1. Install stabilized construction entrance at the location shown on plans.
2. Loam stockpiles shall be mulched, seeded and contained by a silt fence barrier.
3. All erosion control devices, including silt fences and storm drain inlet filters, shall be inspected at least once per week and following any rainfall of 1/4 inch or greater. All necessary maintenance shall be completed within 48 hours. A Maintenance Inspection Report shall be kept on site and made available by the contractor at the city's request.
4. Inactivity: Area of the site which has been disturbed, where construction activity will not occur for more than twenty-one (21) days, shall be temporarily stabilized by mulching and seeding.
5. Waste Disposal/Spill Prevention: The Erosion Control Notes and Details Sheet of the Site Plans fully detail the waste disposal and spill prevention procedures. All waste from construction activities shall be collected and stored in receptacles. No construction materials shall be buried on site. The Spill Prevention Plan focuses on personnel training, housekeeping, storage and standard practices for use and disposal of materials.

PERMANENT PRACTICES

The objectives for developing permanent Best Management Practices for this site include the following:

- Develop a plan that provides the best hydrologic condition both on site and downstream.
- Provide a higher level of removal of pollutants from stormwater runoff.
- Minimize impact on the natural environment.
- Minimize future maintenance.

Section 3

Long Term Operation & Maintenance Plan

It is the intent of this Operation and Maintenance Plan to identify the areas of this site that need special attention and consideration, as well as implementing a plan to assure routine maintenance. By identifying the areas of concern as well as implementing a frequent and routine maintenance schedule the site will maintain a high quality of stormwater runoff.

Annual Reporting Requirements

The owner or operator of a BMP or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification to City of Portland Department of Public Services (DPS) in a form provided by DPS, certifying that the person has inspected the BMP(s) and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective action(s) taken.

3.1 Contact / Responsible Party

Steve Brinn
Jewish Community Alliance of Southern Maine
57 Ashmont Street
Portland, Maine

(Note: The contact information for the Contact/Responsible Party shall be kept current. If ownership changes, the Operation and Maintenance Plan must be transferred to the new party.)

3.2 Maintenance Items

Maintenance of the following items shall be recorded:

- Litter/Debris Removal
- Landscaping
- Catch basin/Yard drain Cleaning
- Pavement Sweeping
- Stormtech Chamber Cleaning
- Underdrained Soil Filter Cleaning and Maintenance

The following maintenance items and schedule represent the minimum action required. Periodic site inspections shall be conducted and all measures must be maintained in effective operating condition. The following items shall be observed during site inspection and maintenance:

- Inspect vegetated areas, particularly slopes and embankments for areas of erosion. Replant and restore as necessary
- Inspect catch basins for sediment buildup
- Inspect site for trash and debris

3.3 Overall Site Operation & Maintenance Schedule

Overall Site Operation and Maintenance Schedule		
Maintenance Item	Frequency of Maintenance	Operation
Litter/Debris Removal	Weekly	Management Company
Pavement Sweeping - Sweep impervious areas to remove sand and litter.	2 - 4 times annually	Parking Lot Sweeper
Underdrain Soil Filter - Trash and debris to be removed. - Any required maintenance shall be addressed.	Two (2) times annually and after any rainfall event exceeding 2.5" in a 24-hr period	Management Company
Stormtech Chambers - Visual inspection and cleaning.	Twice Yearly	Management Company / Vacuum Truck
Rip Rap Aprons - Trash and debris to be removed. - Any required maintenance shall be addressed.	Annually	Management Company
Catch Basin (CB) / Yard Drain (YD) Cleaning - CBs/YDs to be cleaned of solids and oils.	Annually	Vacuum Truck
Landscaping - Landscaped islands to be maintained and mulched.	Maintained as required and mulched each Spring	Management Company

Underdrained Soil Filter Inspection / Maintenance Requirements		
Inspection / Maintenance	Frequency	Action
Monitor to ensure that Rain Gardens function effectively after storms	Four (4) times annually (quarterly) and after any rainfall event exceeding 2.5" in a 24-hr period	- Trash and debris to be removed - Any required maintenance shall be addressed
Inspect Vegetation	Annually	- Inspect the condition of all Rain Garden vegetation - Prune back overgrowth - Replace dead vegetation - Remove any invasive species
Inspect Drawdown Time - The system shall drawdown within 48-hours following a rainfall event.	Annually	- Assess the condition of the facility to determine measures required to restore the filtration function, including but not limited to removal of accumulated sediments or reconstruction of the filter.

StormTech Inspection / Maintenance Requirements		
Inspection / Maintenance	Frequency	Action
Inspection with maintenance following as warranted	Twice Yearly	- Trash and debris to be removed - Any required maintenance shall be addressed.

Rip Rap Inspection / Maintenance Requirements		
Inspection / Maintenance	Frequency	Action
Visual Inspection	Annually	- Visually inspect for damage and deterioration - Repair damages immediately

3.3.1 Disposal Requirements

Disposal of debris, trash, sediment and other waste material should be done at suitable disposal/recycling sites and in compliance with all applicable local, state and federal waste regulations.

3.3.2 Snow & Ice Management for Standard Asphalt and Walkways

Snow storage areas shall be located such that no direct untreated discharges are possible to receiving waters from the storage site (snow storage areas have been shown on the Site Plan). Curb cuts shown on the plan shall remain free of snow and ice buildup. Salt storage areas shall be covered or located such that no direct untreated discharges are possible to receiving waters from the storage site.

3.3.3 Annual Updates and Log Requirements

The Owner and/or Contact/Responsible Party shall review this Operation and Maintenance Plan once per year for its effectiveness and adjust the plan and deed as necessary.

A log of all preventative and corrective measures for the stormwater system shall be kept on-site and be made available upon request by any public entity with administrative, health environmental or safety authority over the site.

Stormwater Management Report						
Project Name		Proposed Neighborhood Center, 1342 Congress St, Portland, ME				
BMP Description	Date of Inspection	Inspector	BMP Installed and Operating Properly?	Cleaning / Corrective Action Needed	Date of Cleaning / Repair	Performed By
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			

J:\J0096 Jewish Community Alliance\RAINAGE\RAINAGE STUDIES\Revised 5-8-15\J0096-Drainage Study-(Revised 5-8-15).doc

Table 2-1
24 Hour Duration Rainfalls for Various Return Periods
Natural Resources Conservation Service County Rainfall Data

Return Interval or Frequency										
County	Storm Type	1-Yr	2-Yr	5-Yr	10-Yr	25-Yr	100-Yr	500-Yr	Annual	
Androscoggin		2.5	3.0	3.9	4.6	5.4	6.5	7.8	45.3	
Aroostook C		2.1	2.1	3.2	3.6	4.2	5.0	5.9	36.1	(Presque Isle Area)
Aroostook N	S	2.0	2.3	3.0	3.5	4.0	4.8	5.7	36.1	(Fort Kent Area)
Aroostook S	E	2.2	2.5	3.3	3.8	4.4	5.3	6.4	39.0	(Houlton Area)
Cumberland NW	E	2.8	3.3	4.3	5.0	5.8	6.9	8.3	43.4	(NW of St. Route 11)
Cumberland SE		2.5	3.0	4.0	4.7	5.5	6.7	8.1	44.4	(SE of St. Route 11)
Franklin	N	2.4	2.9	3.7	4.2	4.9	5.9	7.0	45.6	
Hancock	O	2.4	2.7	3.6	4.2	4.9	6.0	7.2	45.2	
Kennebec	T	2.4	3.0	3.8	4.4	5.1	6.1	7.2	41.7	
Knox-Lincoln	E	2.5	2.9	3.8	4.4	5.1	6.2	7.4	46.1	
Oxford E	S	2.5	3.0	4.0	4.6	5.3	6.4	7.6	43.0	(E of St. Route 26)
Oxford W		3.0	3.5	4.5	5.2	6.0	7.1	8.4	43.8	(W of St. Route 26)
Penobscot N	1	2.2	2.5	3.3	3.8	4.4	5.4	6.4	41.5	(N of Can. -Atl. Rwy)
Penobscot S		2.4	2.7	3.5	4.1	4.8	5.8	6.9	39.5	(S of Can. -Atl. Rwy)
Piscataquis N		2.2	2.5	3.3	3.8	4.4	5.3	6.3	38.5	(N of Can. - Atl. Rwy)
Piscataquis S	A	2.3	2.6	3.4	4.0	4.6	5.5	6.6	41.0	(S of Can. - Atl. Rwy)
Sagadahoc	N	2.5	3.0	3.9	4.6	5.4	6.5	7.8	45.3	
Somerset N	D	2.2	2.5	3.3	3.8	4.4	5.3	6.3	37.3	(N of Can. - Atl. Rwy)
Somerset S		2.4	2.7	3.5	4.1	4.7	5.7	6.8	39.5	(S of Can. - Atl. Rwy)
Waldo	2	2.5	2.8	3.7	4.3	4.9	6.0	7.1	47.2	
Washington		2.4	2.5	3.4	4.0	4.8	5.9	7.1	44.2	
York		2.5	3.0	4.0	4.6	5.4	6.6	7.8	46.7	

NOTES: REVISED 4/10/92 Lew P. Crosby
 24-HR DURATION RAINFALL

SOURCES: 24-HR. DATA - TP 40
 ANNUAL DATA - CDAN

Note 1: ¹Use **Type II** for Oxford County (with the exception of towns listed below) and Penobscot County (with the exception of towns listed below) and all Main counties not listed below)

Note 2: ²Use **Type III** for York, Cumberland, Androscoggin, Sagadahoc, Kennebec, Waldo, Knox, Piscataquis, Somerset, Franklin, Aroostook, Lincoln, Hancock, Washington Counties; the following Oxford County Towns: Porter, Brownfield, Hiram, Denmark, Oxford, Hebron, Buckfield and Hartford; and the following Penobscot County Towns: Dixmont, Newburgh, Hampden, Bangor, Veazie, Orono, Bradley, Clifton, Eddington, Holden, Brewer, Orrington, Plymouth, Etna, Carmel, Hermon, Glenburn, Old Town, Milford and Greenfield.

March 18, 2013

Karen Johnson
Charter Realty & Development Corporation
800 Westchester Avenue, Suite S-632
Rye Brook, NY 10573

Re: Phase II Environmental Site Assessment
St. Patrick's Church
1342 and 1348 Congress Street
Portland, Maine
St.Germain Collins File No.: 3410.2

Dear Ms. Johnson:

St.Germain Collins is providing you with the results of a Phase II Environmental Site Assessment (ESA) conducted at St. Patrick's Church in Portland, Maine (Site) (see **Figure 1 – Site Location**). This work was in response to our identification of a 3,000-gallon #2 fuel oil underground storage tank (UST) formerly present on the Site. During completion of a Phase I ESA, St.Germain Collins determined that contaminated soil was observed during removal of this UST in 1991, and it therefore was considered a Recognized Environmental Condition (REC). The purpose of the Phase II ESA was to determine if the REC represented a threat to human health or the environment, and in turn could limit Site redevelopment.

Background and Site Description

The Site is located at 1342 and 1348 Congress Street in Portland, Maine in a mixed residential and light commercial neighborhood (see Figure 1). It encompasses approximately 2.2 acres and is occupied by a church and rectory, surrounded by paved driveways, parking, and vegetated areas (see **Figure 2 – Site Plan**).

The church was built on the Site in 1964, and prior to its construction the Site was occupied by a farm and a small residence. The topography of the Site and surrounding area slopes gently to the south and west toward the Fore River. The Site and surrounding area are served by public water and sewer.

According to Maine Geological Survey maps, the Site is underlain by the Presumpscot Formation consisting of silt, clay and minor deposits of sand to unknown depth.

EXPERIENCE YOU CAN RELY ON

WHEN IT COUNTS

Phase II ESA Tasks

On March 4, 2013, St.Germain Collins supervised the advancement of four geoprobe soil borings in the area of the former UST located in a grassed area north of the Rectory (see Figure 2). All borings were continuously sampled and field screened with the Oil in Soil® shake test for petroleum hydrocarbons and a photoionization detector (PID) following Maine Department of Environmental Protection (MEDEP) Standard Operating Procedure TS-004 (Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil). One soil sample was collected for analysis of extractable petroleum hydrocarbons (EPH) by Analytics Environmental Laboratory (Analytics) in Portsmouth, New Hampshire. **Soil Boring Logs** are provided as **Attachment A** and the **Laboratory Report** is included as **Attachment B**.

Results

As shown on the boring logs in Attachment A, site geology consists of interbedded sand, silt, and clay. Boring SB-1 encountered refusal at a depth of 9.5 feet; the other borings did not reach refusal with the deepest boring SB-2 terminated at 24 feet. Groundwater was not encountered in any of the borings, though the low permeability clay may have limited groundwater flow into the borings.

No headspace readings exceeding the MEDEP notification limit of 40 parts per million (ppm) were recorded in any of the borings; the highest PID reading was 6 ppm at 8 to 9 feet below grade in SB-1. One soil sample was collected from this interval for laboratory analysis of EPH. None of the samples showed the presence of free product based on the field tests.

The analyzed soil sample had detectable levels of three EPH constituents (C9-C18 Aliphatics, C19-C36 Aliphatics, and C11-C22 Aromatics). The detection of the aliphatic and aromatic hydrocarbons confirms that a petroleum release occurred. None of the detected constituents exceeded the 2009 MEDEP Petroleum Remediation Guidelines (PRGs), including the Residential PRG.

Dibenzo(a,h)anthracene was reported as non-detect, but had a practical quantization limit (PQL) above the Residential and Park User PRGs. This means that it is possible this compound is present about these two PRGs; the PQL is below the Construction/Excavation Worker and Outdoor Commercial Worker PRGs. With this soil being 8 to 9 feet below grade, it does not pose a risk under the Residential or Parker User PRGs unless brought to the surface.

Although the impacted soil at SB-1 does not currently pose a risk, if this soil is brought to the surface it must be managed appropriately. The MEDEP typically allows such soil to be reused on-site, especially if the soil remains below the ground surface. Otherwise, the soil would need to be disposed of or recycled at a MEDEP-approved facility.

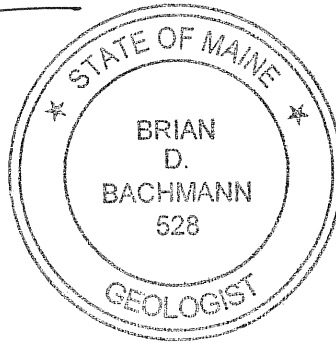
Closure

Based upon the March 2013 subsurface investigation and sample results, St.Germain Collins does not recommend any additional actions be taken at this time. If you have any questions, please do not hesitate to contact us at (207) 591-7000.

ST.GERMAIN COLLINS



Brian Bachmann, C.G.
Geologist



Attachments

Figure 1 - Site Location

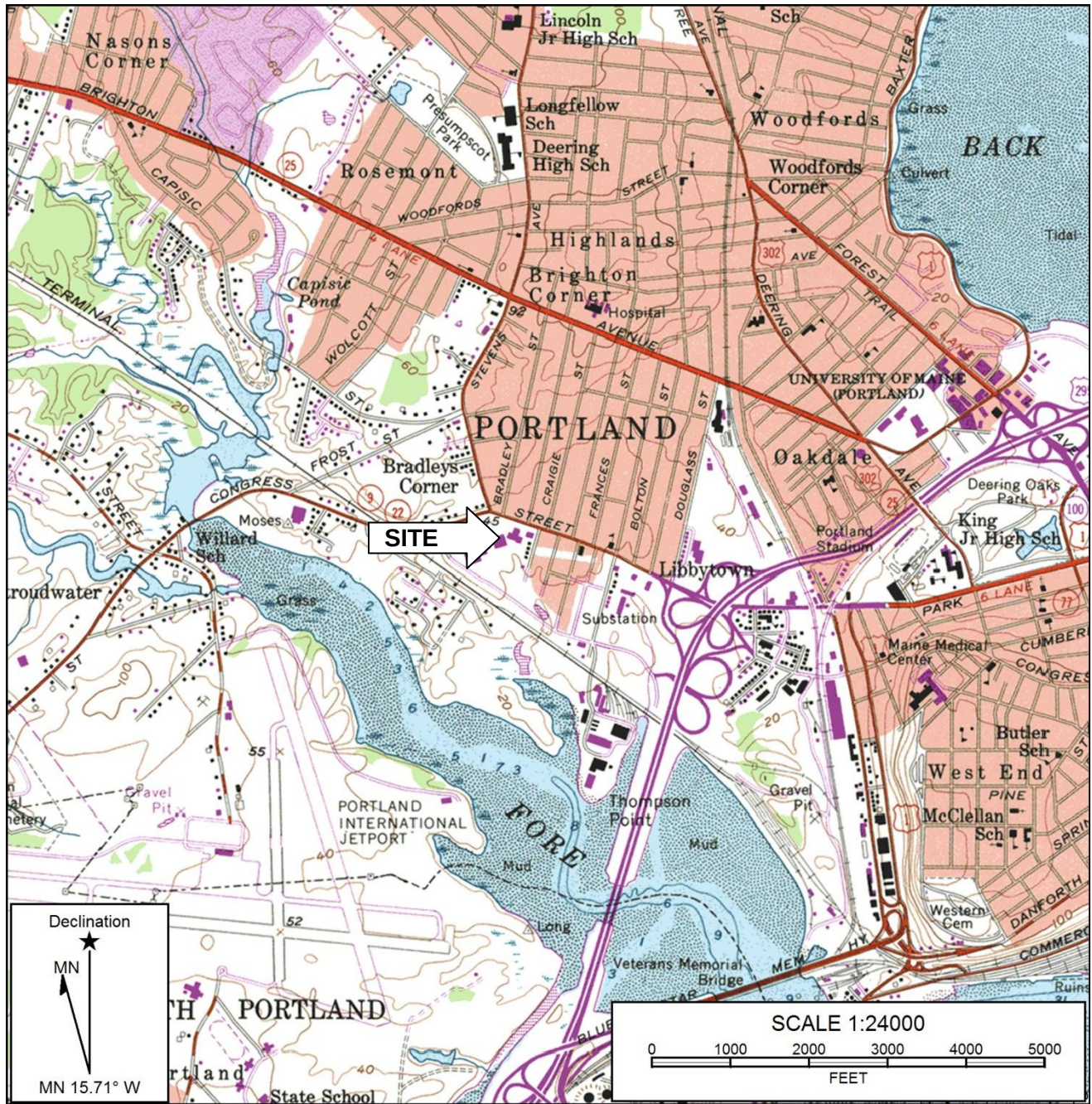
Figure 2 - Site Plan

Attachment A

Soil Boring Logs

Attachment B

Laboratory Report



REFERENCE:
USGS PORTLAND WEST, MAINE 7.5 MIN TOPGRAPHICAL MAP

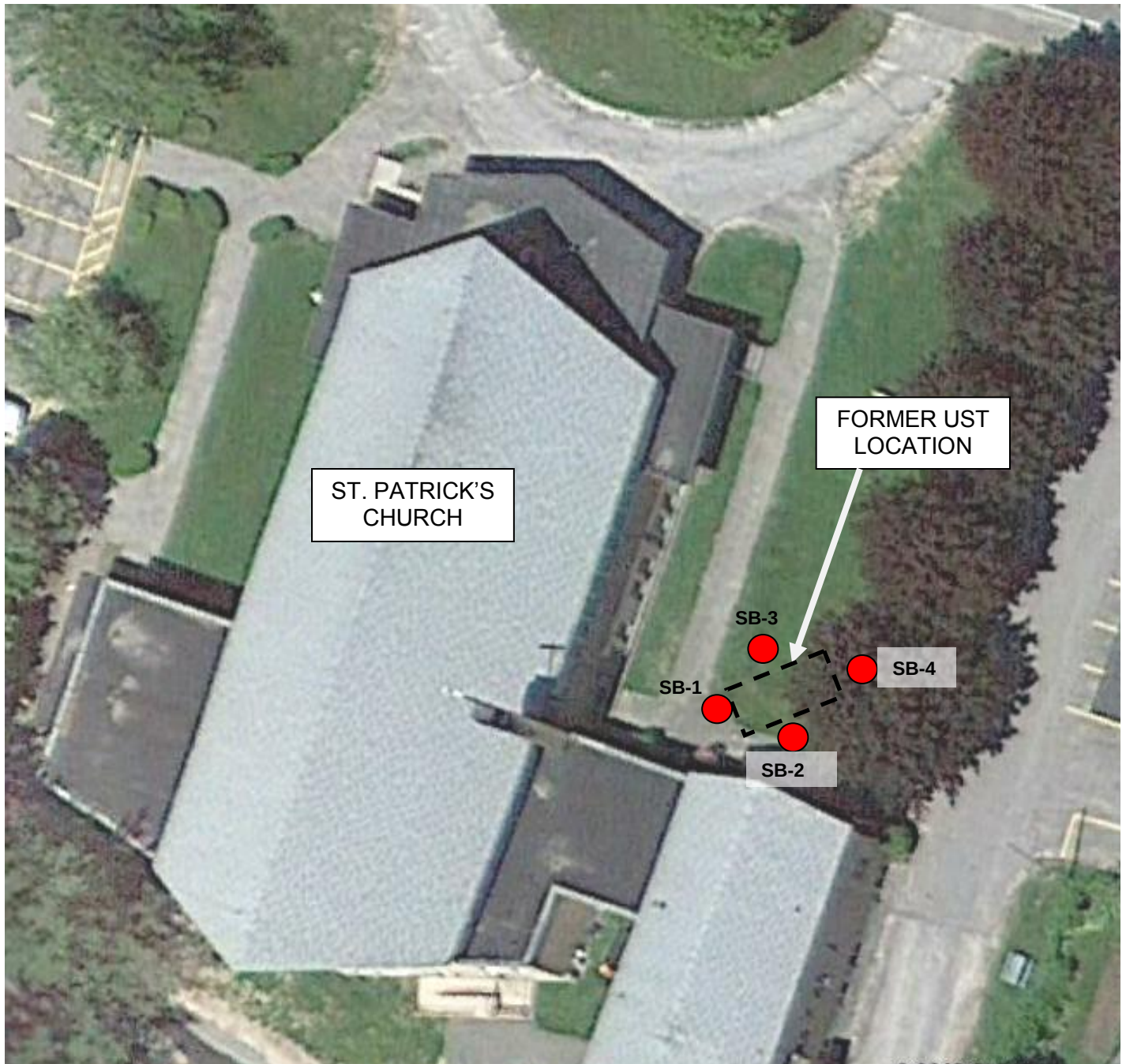
SITE LOCATION MAP

ST. PATRICK'S CHURCH
1342 AND 1348 CONGRESS STREET
PORTLAND, MAINE

CHARTER REALTY & DEVELOPMENT CORP.
800 WESTCHESTER AVENUE
RYE BROOK, NY

ENVIRONMENTAL CONSULTING GROUP
St.Germain • Collins

FIGURE
1



REFERENCE: GOOGLE EARTH 2010

LEGEND



APPROXIMATE SOIL BORING LOCATIONS



FORMER UNDERGROUND
STORAGE TANK (UST)

0

50 ft.



SCALE APPROXIMATE



SITE PLAN
ST.PATRICK'S CHURCH
1342 AND 1348 CONGRESS STREET
PORTLAND, MAINE

CHARTER REALTY & DEVELOPMENT CORP.
800 WESTCHESTER AVENUE
RYE BROOK, NY

ENVIRONMENTAL CONSULTING GROUP
St.Germain • Collins

FIGURE
2

ATTACHMENT A

Soil Boring Logs

BORING AND MONITORING WELL LOG							BORING #:		SB-1		
St.Germain Collins  846 Main Street Westbrook, Maine 04092 www.stgermaincollins.com					Project Number:	3410.2	Client/Location:	Charter Realty, St. Patricks Church			
					Date of Installation:	3/4/13	Representative:	Brian Bachmann			
					Total Depth of Boring:	9.5 feet	Drilling Company:	EPI			
					Depth to Water:	NA	Drilling Technology:	Direct push			
					Depth of Well:	NA	Sampler:	Dual Tube			
					Well Screen Interval:	NA	Well Screen Type:	NA			
					Well Riser Interval:	NA	Well Riser Type:	NA			
Depth (ft)	Sample number	Sample Interval	Blows	Rec/Driven (in.)	Description	Stratum	Headspace Results (ppm)	Saturation Test Result	Depth (ft)	Well Construction	
0	S-1	0-2	NA	31/48	organic SILT with sand, 2.5Y 3/3 dark olive brown, loose, slightly plastic, moist	SILT	0.4		0	No well installed at this location.	
1									1		
2	S-2	2-4							2		
					CLAY with gravel, 2.5Y 4/2 dark grayish brown, medium stiff, plastic, dry	CLAY	1.7	Neg	3		
3									4		
4	S-3	4-6	NA	24/48					5		
5					same as above	CLAY	1.9		6		
6	S-4	6-8							7		
7									8		
8	S-5	8-10	NA	40/48	clayey SAND , 5Y 5/1 gray, very soft, very plastic, moist	SAND	4.2	Neg	9		
									10		
9									11		
					same as above (8.0 to 9.5 interval submitted for laboratory analysis of Extractable Petroleum Hydrocarbons)	SAND	6.0	Neg	12		
									13		
					Refusal at 9.5 feet below ground surface.				14		

Notes:

NA = not applicable.

NS = not sampled.

ppm = parts per million.

Soil headspace screening completed with a MiniRae 3000 Photoionization Detector (PID).

Neg = negative result using Oil in Soil shaker test kit as prescribed by MEDEP SOP TS 004

BORING AND MONITORING WELL LOG							BORING #:		SB-2		
St.Germain Collins 846 Main Street Westbrook, Maine 04092 www.stgermaincollins.com					Project Number: 3410.2		Client/Location: Charter Realty, St. Patricks Church				
					Date of Installation: 3/4/13		Representative: Brian Bachmann				
					Total Depth of Boring: 24.0		Drilling Company: EPI				
					Depth to Water: NA		Drilling Technology: Direct push				
					Depth of Well: NA		Sampler: Dual Tube				
					Well Screen Interval: NA		Well Screen Type: NA				
Well Riser Interval: NA		Well Riser Type: NA									
Depth (ft)	Sample number	Sample Interval	Blows	Rec/Driven (in.)	Description	Stratum	Headspace Results (ppm)	Saturation Test Result	Depth (ft)	Well Construction	
0	S-1	0-2	NA	48/48	organic SILT, 2.5Y 3/3 dark olive brown, medium dense, slightly plastic, dry	SILT	4.8		0	No well installed at this location.	
1									1		
2	S-2	2-4			same as above		4.8	Neg	2		
3									3		
4	S-3	4-6	NA	48/48	clayey SAND, 2.5Y 5/3 light olive brown, stiff, plastic, dry	SAND	3.8		4		
5									5		
6	S-4	6-8			same as above		3.2	Neg	6		
7									7		
8	S-5	8-10	NA	48/48	CLAY, 2.5Y 4/2 dark grayish brown, stiff, very plastic, dry	CLAY	1.8		8		
9									9		
10	S-6	10-12			same as above		2.3		10		
11									11		
12	S-7	12-14	NA	48/48	CLAY, 2.5Y 4/2 dark grayish brown, soft, very plastic, dry		NA	NA			12
13											13
14	S-8	14-16			CLAY, 2.5Y 5/0 gray, very soft, very plastic, moist						14
15											15
16	S-9	16-18	NA	48/48	same as above						16
17											17
18	S-10	18-20			same as above						18
19											19
20	S-11	20-22	NA	48/48	clayey SAND, 2.5Y 3/0 very dark gray, very soft, very plastic, moist	SAND		20			
21								21			
22	S-12	22-24						22			
23								23			
24					Terminated boring at 24.0 feet below ground surface			24			

Notes:

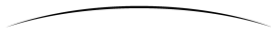
NA = not applicable.

NS = not sampled.

ppm = parts per million.

Soil headspace screening completed with a MiniRae 3000 Photoionization Detector (PID).

Neg = negative result using Oil in Soil shaker test kit as prescribed by MEDEP Standard Operating Procedure TS 004.

BORING AND MONITORING WELL LOG							BORING #:		SB-3		
St.Germain Collins  846 Main Street Westbrook, Maine 04092 www.stgermaincollins.com					Project Number:		3410.2	Client/Location:		Charter Realty, St. Patricks Church	
					Date of Installation:		3/4/13	Representative:		Brian Bachmann	
					Total Depth of Boring:		12.0	Drilling Company:		EPI	
					Depth to Water:		NA	Drilling Technology:		Direct push	
					Depth of Well:		NA	Sampler:		Dual Tube	
					Well Screen Interval:		NA	Well Screen Type:		NA	
					Well Riser Interval:		NA	Well Riser Type:		NA	
Depth (ft)	Sample number	Sample Interval	Blows	Rec/Driven (in.)	Description	Stratum	Headspace Results (ppm)	Saturation Test Result	Depth (ft)	Well Construction	
0	S-1	0-2	NA	48/48	organic SILT , 2.5Y 3/3 dark olive brown, medium dense, slightly plastic, dry	SILT	1.7		0	No well installed at this location.	
1									1		
2	S-2	2-4		same as above					2		
3					1.8		Neg	3			
4	S-3	4-6	NA	24/48				4			
5								5			
6	S-4	6-8		same as above	SAND	2.9		6			
7								7			
8	S-5	8-10	NA	40/48				CLAY	3.6		Neg
9					9						
10	S-6	10-12		same as above	2.8		10				
11							11				
12				Terminated boring at 12.0 feet below ground surface			12				

Notes:

NA = not applicable.

NS = not sampled.

ppm = parts per million.

Soil headspace screening completed with a MiniRae 3000 Photoionization Detector (PID).

Neg = negative result using Oil in Soil shaker test kit as prescribed by MEDEP Standard Operating Procedure TS 004.

BORING AND MONITORING WELL LOG							BORING #:		SB-4		
St.Germain Collins  846 Main Street Westbrook, Maine 04092 www.stgermaincollins.com					Project Number:		3410.2	Client/Location:		Charter Realty, St. Patricks Church	
					Date of Installation:		3/4/13	Representative:		Brian Bachmann	
					Total Depth of Boring:		12.0	Drilling Company:		EPI	
					Depth to Water:		NA	Drilling Technology:		Direct push	
					Depth of Well:		NA	Sampler:		Dual Tube	
					Well Screen Interval:		NA	Well Screen Type:		NA	
					Well Riser Interval:		NA	Well Riser Type:		NA	
Depth (ft)	Sample number	Sample Interval	Blows	Rec/Driven (in.)	Description	Stratum	Headspace Results (ppm)	Saturation Test Result	Depth (ft)	Well Construction	
0	S-1	0-2	NA	48/48	organic SILT , 2.5Y 3/3 dark olive brown, medium dense, slightly plastic, dry	SILT	1.1		0	No well installed at this location.	
1									1		
2	S-2	2-4							2		
3					1.5		Neg	3			
4	S-3	4-6	NA	24/48				4			
5					SAND		1.0		5		
6	S-4	6-8				6					
7						2.4	Neg	7			
8	S-5	8-10	NA	40/48				8			
9					CLAY	0.9		9			
10	S-6	10-12						10			
11						0.9	Neg	11			
12								12			
						Terminated boring at 12.0 feet below ground surface					

Notes:

NA = not applicable.

NS = not sampled.

ppm = parts per million.

Soil headspace screening completed with a MiniRae 3000 Photoionization Detector (PID).

Neg = negative result using Oil in Soil shaker test kit as prescribed by MEDEP Standard Operating Procedure TS 004.

Response to Comments 1342 Congress Street - Proposed Neighborhood Center

TO: Jean Fraser, Planner; City of Portland
FROM: Greg Halsey, Tighe & Bond, Inc.
CC: Steve Brinn, Jewish Community Alliance of Southern Maine
DATE: May 13, 2015

The comments below were prepared by T.Y. Lin International and provided to Tighe & Bond by Jean Fraser, Planner, City of Portland on April 29, 2015. Tighe & Bond's responses are in **bold**.

A. Reviewer: Tom Errico, P.E.
Date: April 29, 2015

COMMENTS

- 1) *Maine Traffic Resources conducted a Trip Generation Analysis for the project and concludes that the proposed Jewish Community Center will generate less traffic as compared to St Patrick's Church. The applicant should provide an estimated comparison between the former Church use and the proposed project during the weekday AM and PM peak hours. My general sense is that during the AM peak hour the net change may not be significant given weekday morning Church services. During the weekday PM peak hour, I suspect the Church did not have regular weekday activities, while the proposed use will add traffic in conjunction with the day-care use.*

Maine Traffic Resources completed an additional trip generation analysis in response Mr. Errico's request. The findings are included in the summary memorandum included with this response. The extent of historic data available regarding daily and weekend activities at the Church was included with the Trip Generation Analysis prepared by Maine Traffic Resources on March 19, 2015. The Church has been closed for the last 2-3 years, so more recent data is not available.

- 2) *I find driveway conditions along Congress Street to be improved with the elimination of existing driveways.*

Agreed.

- 3) *The driveway entering the site from Congress Street is noted as having a width of 22.7 feet. This width (in the area where parking maneuvers occur) does not meet City standards and thus a formal waiver should be requested by the applicant.*

The vertical granite curb line proposed will be reconstructed in the location of the existing curb line. In this location the width is 22.7'. The driveway width where on-site parking maneuvers occur widens to 24 feet as required by City Standards. To clarify this item a dimension has been provided on the

Site Plan.

- 4) *A detectible warning panel is not required at the site driveway on Congress Street.*

The detectable warning panel has been removed from the Site Plans.

- 5) *I would suggest a tip-down curb entering the driveway on Congress Street, as currently provided.*

Agreed.

- 6) *The applicant shall provide a Parking Supply analysis that documents parking needs both under a typical weekday scenario and during Community Center events.*

The parking provided is based on the requirements of the City of Portland Land Use Code. Therefore, it is anticipated that the (50) proposed parking spaces will adequate for typical weekday scenarios as well as neighborhood center events. If it is anticipated that parking may not be sufficient periodically for special events, the Applicant is aware they will need to make arrangements for additional parking off site.

- 7) *I would suggest a tip-down curb entering the driveway on Congress Street, as currently provided.*

Agreed.

- 7) *I find the vehicular connection to Westgate Shopping Center to be an excellent access management strategy that will allow traffic from the Community Center to utilize the traffic signal at Stevens Avenue. I would note that this connection can also serve traffic from the abutting medical office building and traffic from Lassell Street. Accordingly, I would suggest that access use rights be provided. While I would prefer that the connection to the Westgate Shopping Center to be more direct, given the potential for vehicle/pedestrian conflict, the proposed plan appears acceptable. The applicant should provide a response on this issue and how they see traffic circulation interacting with site activity.*

The Applicant is currently working on a formal Access Easement Agreement with the Owner of Westgate Shopping Center. The formal Agreement will be included with the final Site Plan Submission. The layout of the site took into account pedestrian safety within the parking lot by designating crosswalks and providing sidewalks along the perimeter of the parking lot, so pedestrian travel within the parking lot is minimized. The layout of the parking lot will require traffic to circulate through the lot in the longest route possible so there is no shortcut to the shared driveway with Westgate Shopping Center that exists in the Church parking lot today. The layout of the parking lot also provides a buffer between the traffic circulation and site activities that will predominantly occur within and directly outside the proposed building.

- 8) *The applicant shall consider the formal delineation of the driveway along the medical office property boundary, when entering from Congress Street.*

A single white line has been added to the Site Plan to formally delineate the driveway along the medical office property boundary.

- 9) *The applicant should provide specifics about how the Daycare pick-up and drop-off activity will be managed from traffic perspective.*

The Applicant already has a procedure in place for daycare pick up and drop off activities that are in use at the existing JCA facility at 57 Ashmont Street in Portland. Parents are required to park in the lot and walk the children into the building. The Applicant will not allow queuing in the drive aisle for curb side drop offs and pickups as this is not allowed at the existing facility. Drop off and pick up times are typically staggered in both the morning and afternoons and carpooling is a common occurrence, which will help spread out the traffic volume over a larger time period. It is also important to note that the parking lot at the existing facility is much smaller than the proposed parking provided at 1342 Congress Street, which will provide adequate space for daycare drop off and pick up.

SUMMARY MEMORANDUM

TO: Mr. Greg Halsey, Staff Engineer
Tighe & Bond
177 Corporate Drive
Portsmouth, NH 03801

DATE: May 13, 2015

RE: Additional Trip Generation Analysis for Proposed JCA Community Center, Portland

This is written to respond to additional information requested by Tom Errico in his April 29, 2015 email to Jean Fraser regarding the proposed Jewish Community Alliance (JCA) of Southern Maine's proposed new community center on Congress Street in Portland, Maine. Specifically, under his first bullet Mr. Errico requests weekday AM and PM peak hour trip generation data for the former Saint Patrick Catholic Church and a comparison to the expected JCA trips during this period. Based upon information you provided the church is 25,076 square feet in size.

Trip Generation Analysis

Since specific information was not available from the church regarding daily masses, former weekday AM and PM peak hour church trips were estimated using the most recent Institute of Transportation Engineers (ITE) "Trip Generation, 9th Edition" report, published in 2012. Land use code (LUC) 560 - Church was used on the basis of 25,076 square feet. The results are shown below:

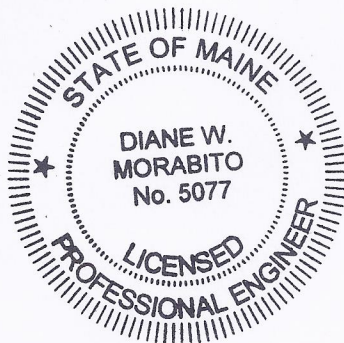
ITE Trip Generation Summary	
<u>Time Period</u>	<u>One-way Trips</u>
AM Peak Hour - Adj. Street	14
AM Peak Hour - Generator	22
PM Peak Hour - Adj. Street	14
PM Peak Hour - Generator	24

In comparison, the regular components of the JCA center were previously estimated by Maine Traffic Resources and are repeated in the following table along with the former church trips:

<u>Time Period</u>	<u>JCA Pre-School</u>	<u>JCA Offices</u>	<u>JCA Total</u>	<u>Former Church</u>	<u>Increase</u>
AM Peak Hour – Adj. Street	70	3	73	14	59
AM Peak Hour - Generator	71	3	74	22	52
PM Peak Hour – Adj. Street	71	3	74	14	60
PM Peak Hour – Generator	74	3	77	22	55

Based upon the ITE data, the JCA community center will generate from 50 to 60 additional one-way trips during the weekday AM and PM peak hour periods. However, based upon information provided by the JCA this likely will not occur. For instance, the pre-school component was estimated based upon the day care code, which assumes parent pick-ups during the PM peak hour periods. Currently, approximately 16 students get picked up at 12:30, 4 or 5 students at 1:15 and 28 at 3:30. So, very few would be expected to occur in the PM peak hours in contrast to the above analysis. Also, as noted by Tom Errico, the Church did previously hold daily masses but we have no information regarding times or number of attendees to estimate these trips. However, they were likely greater than the trips indicated by the above ITE analysis.

As always, please do not hesitate to contact me if you or the City of Portland have any additional questions or concerns regarding this trip generation analysis.



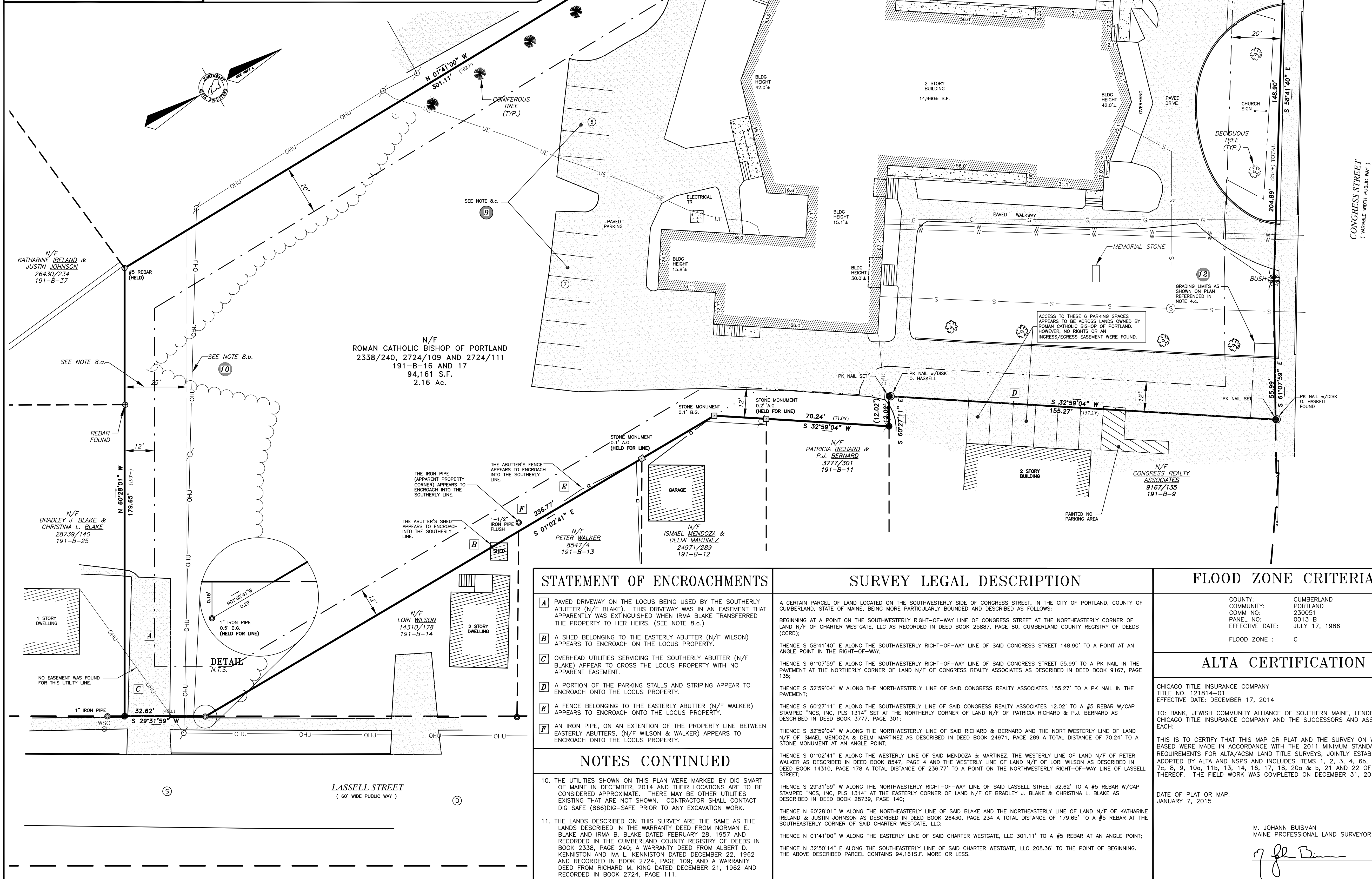
Sincerely,

Diane W. Morabito, P.E. PTOE
President

cc: Steven Brinn

SCHEDULE B EXCEPTIONS

- 1-8 THESE ITEMS ARE NOT SURVEY MATTERS.
- 9 RIGHTS OF THE TENANTS IN POSSESSION AT WILL OR UNDER UNRECORDED LEASES.
- PARKING RIGHTS AS SHOWN ON THIS PLAN GRANTED TO CONGRESS REALTY ASSOCIATES. SEE NOTE 8.c.
- 10 RIGHTS AND EASEMENTS GRANTED BY THE ROMAN CATHOLIC BISHOP OF PORTLAND TO CENTRAL MAINE POWER COMPANY AND NEW ENGLAND TELEPHONE & TELEGRAPH COMPANY BY INSTRUMENT DATED JULY 22, 1959 AND RECORDED IN DEED BOOK 2491, PAGE 118.
- AS SHOWN ON THIS PLAN
- 11 RIGHTS AND EASEMENTS GRANTED BY ROMAN CATHOLIC BISHOP OF PORTLAND TO MOBIL PIPE LINE COMPANY BY INSTRUMENT DATED JULY 25, 1967 AND RECORDED IN DEED BOOK 3006, PAGE 705.
- THE RIGHTS AND EASEMENTS DO NOT FALL WITHIN THE SURVEYED PREMISES.
- 12 NOTICE OF LAYOUT AND TAKING BY THE STATE OF MAINE, DEPARTMENT OF TRANSPORTATION, DATED JANUARY 18, 1983 AND RECORDED IN DEED BOOK 6110, PAGE 287, AND RELATED PLAN RECORDED IN PLAN BOOK 155, PAGE 39.
- AS SHOWN ON THIS PLAN
- 13 SUCH STATE OF FACTS INCLUDING NOTES DISCLOSED ON PLAN ENTITLED ALTA/ACSM LAND TITLE SURVEY OF ST. PATRICK'S CHURCH, CONGRESS STREET, LASSELL STREET, PORTLAND, MAINE PREPARED BY DOUCET SURVEY, INC. DATED JANUARY 15, 2013.
- AS SHOWN ON SAID PLAN
- 14 RIGHTS, EASEMENTS AND RESTRICTIONS SET FORTH IN THE DEED FROM ROMAN CATHOLIC BISHOP OF PORTLAND TO THE JEWISH COMMUNITY ALLIANCE OF SOUTHERN MAINE TO BE RECORDED AT CUMBERLAND COUNTY REGISTRY OF DEEDS.
- THIS DEED HAS NOT YET BEEN WRITTEN. DESCRIPTION DEPENDANT UPON THIS SURVEY.
- 15 THIS ITEM IS NOT A SURVEY MATTER.

VICINITY MAP
N.T.S.

LEGEND

- #5 REBAR WITH PLASTIC CAP STAMPED "NCS, INC. PLS 1314" (UNLESS NOTED OTHERWISE) SET ON DECEMBER 31, 2014
- FOUND IRON PIPE (SIZE & TYPE AS NOTED)
- FOUND MONUMENT (SIZE & TYPE AS NOTED)
- FOUND IRON ROD
- FOUND CAPPED IRON ROD (NUMBER AS NOTED)
- FOUND PK NAIL
- UTILITY POLE (NUMBER AS NOTED)
- GUY WIRE ANCHOR
- FOUND DECIDUOUS TREE
- FOUND CONIFEROUS TREE
- TREE LINE (APPROXIMATE)
- BOUNDARY LINE
- EASEMENT LINE
- EDGE OF PAVEMENT
- RIGHT-OF-WAY LINE
- ABUTTER LINE
- OVERHEAD UTILITY
- NOW OR FORMERLY OWNED BY DEED BOOK AND PAGE (CCRD)
- TAX MAP--LOT
- PARENTHESIS DENOTE RECORD DATA

NOTES

- THE BASIS OF BEARING FOR THIS SURVEY WAS FROM THE LOCUS DEED REFERENCED IN NOTE 3.a.
- DEED AND PLAN BOOK REFERENCES ARE TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- RECORD OWNERSHIP OF THE PARCEL SURVEYED CAN BE FOUND IN THE FOLLOWING DEEDS:
 - DEED FROM IRMA BLAKE TO ROMAN CATHOLIC BISHOP OF PORTLAND DATED FEBRUARY 28, 1957 AND RECORDED IN DEED BOOK 2338, PAGE 240.
 - DEED FROM ALBERT KENISTON TO ROMAN CATHOLIC BISHOP OF PORTLAND DATED DECEMBER 22, 1962 AND RECORDED IN DEED BOOK 2724, PAGE 109.
 - DEED FROM RICHARD KING TO ROMAN CATHOLIC BISHOP OF PORTLAND DATED DECEMBER 21, 1962 AND RECORDED IN DEED BOOK 2724, PAGE 111.
- REFERENCE IS MADE TO THE FOLLOWING PLANS:
 - BOUNDARY SURVEY / EXISTING CONDITIONS PLAN, 1342 CONGRESS STREET, PORTLAND, MAINE BY NORTHEAST CIVIL SOLUTIONS, INC., DATED JANUARY 12, 2009, NOT RECORDED.
 - ALTA / ACSM LAND TITLE SURVEY OF ST. PATRICK'S CHURCH BY DOUCET SURVEY, INC., DATED JANUARY 15, 2013, NOT RECORDED.
- THE PARCEL SURVEYED IS IDENTIFIED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP 191, BLOCK B, PARCEL 16 AND 17.
- THE PARCEL SURVEYED IS LOCATED IN THE R-5 ZONE/DISTRICT. PORTIONS OF BULK AND SPACE REQUIREMENTS ARE AS FOLLOWS:

FRONT YARD.....	20'
REAR YARD.....	20'
SIDE YARD.....	14'
MAXIMUM LOT COVERAGE.....	40%
MAXIMUM BUILDING HEIGHT.....	35'
PARKING (CHURCH).....	1 SPACE / 5 FIXED SEATS
- *OTHER MUNICIPAL AND STATE OVERLAY ZONES MAY EXIST AND APPLY. BEFORE PROCEEDING ON ANY PROJECT, WE RECOMMEND VERIFYING THE CURRENT ZONING / SETBACKS / RESTRICTIONS WITH THE APPROPRIATE AGENCIES.
- THE WIDTH AND LAYOUT OF LASSELL STREET AND CONGRESS STREET ARE AS FOLLOWS:
 - LASSALL STREET - 60' AS SHOWN ON PLAN REFERENCED IN NOTE 4.a.
 - CONGRESS STREET - WIDTH VARIES AS SHOWN ON PLAN REFERENCED IN NOTE 4.a.
- REFERENCE IS MADE TO THE FOLLOWING EASEMENTS OF RECORD:
 - 25' STRIP OF LAND AS NOTED IN DEED REFERENCED IN NOTE 3.a. BASED ON THE WORDING IN THE DOCUMENT, THAT THE EASEMENT DOES NOT RUN WITH THE PROPERTY, IT IS BELIEVED THAT SINCE PARCEL 191-B-25 IS NO LONGER OWNED BY IRMA BLAKE THAT THE 25' EASEMENT HAS BEEN EXTINGUISHED.
 - THE RIGHT AND EASEMENT TO CENTRAL MAINE POWER COMPANY AND NEW ENGLAND TELEPHONE & TELEGRAPH COMPANY, DATED JULY 22, 1959 TO CONSTRUCT, ERECT, REBUILD, OPERATE, MAINTAIN AND REMOVE ELECTRIC DISTRIBUTION LINES AS DESCRIBED IN DEED BOOK 2491, PAGE 118.
 - AN AT-WILL LICENSE AGREEMENT BETWEEN CONGRESS REALTY ASSOCIATES AND THE CHURCH ALLOWING CONGRESS EMPLOYEES TO PARK IN THE DESIGNATED SPACES ON THE CHURCH PROPERTY AS DESCRIBED IN A DOCUMENT DATED JULY 1, 2013, NOT RECORDED.

Revisions:	By:	Date:	Change:
1	JAP	1/20/2015	REVISED PER ATTORNEY COMMENTS

PROJECT: 31211.01	DRAWING NAME: 31211-ALTA.DWG
DATE: JANUARY 7, 2015	SCALE: 1"= 20'
FIELD BY: JAP / BS	FIELD DATE: 12/31/2014
	DRAWN BY: JAP

Drawing Name and Location:
ALTA / ACSM LAND TITLE SURVEY
1342 CONGRESS STREET, PORTLAND, MAINE

Owner:
ROMAN CATHOLIC BISHOP OF PORTLAND
PORTLAND, MAINE

Prepared For:
JEWISH COMMUNITY ALLIANCE OF SOUTHERN MAINE
57 ASHMOOT STREET, PORTLAND, MAINE 04103

SURVEYING ENGINEERING LAND PLANNING
Northeast Civil Solutions
INCORPORATED
153 US ROUTE 1, SCARBOROUGH, MAINE 04074
tel 207.883.1000 fax 207.883.1001 e-mail info@northeastcivilsolutions.com
800.882.2227

0 20' 40' 80'

STAMP AND SIGNATURE

M. JOHANN BUISMAN
MAINE PROFESSIONAL LAND SURVEYOR NO. 1314

7 fl Buisman 1/20/2015
DATE

M. JOHANN BUISMAN
MAINE No. 1314

EMBOSSED SEAL ABOVE

STATEMENT OF ENCROACHMENTS

- A PAVED DRIVEWAY ON THE LOCUS BEING USED BY THE SOUTHERLY ABUTTER (N/F BLAKE). THIS DRIVEWAY WAS IN AN EASEMENT THAT APPARENTLY WAS EXTINGUISHED WHEN IRMA BLAKE TRANSFERRED THE PROPERTY TO HER HEIRS. (SEE NOTE 8.a.)
- B A SHED BELONGING TO THE EASTERLY ABUTTER (N/F WILSON) APPEARS TO ENCROACH ON THE LOCUS PROPERTY.
- C OVERHEAD UTILITIES SERVICING THE SOUTHERLY ABUTTER (N/F BLAKE) APPEAR TO CROSS THE LOCUS PROPERTY WITH NO APPARENT EASEMENT.
- D A PORTION OF THE PARKING STALLS AND STRIPING APPEAR TO ENCROACH ONTO THE LOCUS PROPERTY.
- E A FENCE BELONGING TO THE EASTERLY ABUTTER (N/F WALKER) APPEARS TO ENCROACH ONTO THE LOCUS PROPERTY.
- F AN IRON PIPE, ON AN EXTENSION OF THE PROPERTY LINE BETWEEN EASTERLY ABUTTERS, (N/F WILSON & WALKER) APPEARS TO ENCROACH ONTO THE LOCUS PROPERTY.

NOTES CONTINUED

10. THE UTILITIES SHOWN ON THIS PLAN WERE MARKED BY DIG SMART OF MAINE IN DECEMBER, 2014 AND THEIR LOCATIONS ARE TO BE CONSIDERED APPROXIMATE. THERE MAY BE OTHER UTILITIES EXISTING THAT ARE NOT SHOWN. CONTRACTOR SHALL CONTACT DIG SAFE (866)DIG-SAFE PRIOR TO ANY EXCAVATION WORK.
11. THE LANDS DESCRIBED ON THIS SURVEY ARE THE SAME AS THE LANDS DESCRIBED IN THE WARRANTY DEED FROM NORMAN E. BLAKE AND IRMA B. BLAKE DATED FEBRUARY 28, 1957 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 2338, PAGE 240; A WARRANTY DEED FROM ALBERT D. KENNISTON AND IVA L. KENNISTON DATED DECEMBER 22, 1962 AND RECORDED IN BOOK 2724, PAGE 109; AND A WARRANTY DEED FROM RICHARD M. KING DATED DECEMBER 21, 1962 AND RECORDED IN BOOK 2724, PAGE 111.

SURVEY LEGAL DESCRIPTION

A CERTAIN PARCEL OF LAND LOCATED ON THE SOUTHWESTERLY SIDE OF CONGRESS STREET, IN THE CITY OF PORTLAND, COUNTY OF CUMBERLAND, STATE OF MAINE, BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF CONGRESS STREET AT THE NORTHEASTERLY CORNER OF LAND N/F OF CHARTER WESTGATE, LLC AS RECORDED IN DEED BOOK 25887, PAGE 80, CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD);

THENCE S 58°41'40" E ALONG THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF SAID CONGRESS STREET 148.90' TO A POINT AT AN ANGLE POINT IN THE RIGHT-OF-WAY;

THENCE S 61°07'59" E ALONG THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF SAID CONGRESS STREET 55.99' TO A PK NAIL IN THE PAVEMENT AT THE NORTHERLY CORNER OF LAND N/F OF CONGRESS REALTY ASSOCIATES AS DESCRIBED IN DEED BOOK 9167, PAGE 135;

THENCE S 32°59'04" W ALONG THE NORTHWESTERLY LINE OF SAID CONGRESS REALTY ASSOCIATES 155.27' TO A PK NAIL IN THE PAVEMENT;

THENCE S 60°27'11" E ALONG THE SOUTHWESTERLY LINE OF SAID CONGRESS REALTY ASSOCIATES 12.02' TO A #5 REBAR W/CAP STAMPED "NCS, INC. PLS 1314" AT THE NORTHERLY CORNER OF LAND N/F OF PATRICIA RICHARD & P.J. BERNARD AS DESCRIBED IN DEED BOOK 3777, PAGE 301;

THENCE S 32°59'04" W ALONG THE NORTHWESTERLY LINE OF SAID RICHARD & BERNARD AND THE NORTHWESTERLY LINE OF LAND N/F OF ISMAEL MENDOZA & DELMI MARTINEZ AS DESCRIBED IN DEED BOOK 24971, PAGE 289 A TOTAL DISTANCE OF 70.24' TO A STONE MONUMENT AT AN ANGLE POINT;

THENCE S 01°02'41" E ALONG THE WESTERLY LINE OF SAID MENDOZA & MARTINEZ, THE WESTERLY LINE OF LAND N/F OF PETER WALKER AS DESCRIBED IN DEED BOOK 8547, PAGE 4 AND THE WESTERLY LINE OF LAND N/F OF LORI WILSON AS DESCRIBED IN DEED BOOK 14310, PAGE 178 A TOTAL DISTANCE OF 236.77' TO A POINT ON THE NORTHWESTERLY RIGHT-OF-WAY LINE OF LASSELL STREET;

THENCE S 29°31'59" W ALONG THE NORTHWESTERLY RIGHT-OF-WAY LINE OF SAID LASSELL STREET 32.62' TO A #5 REBAR W/CAP STAMPED "NCS, INC. PLS 1314" AT THE EASTERLY CORNER OF LAND N/F OF BRADLEY J. BLAKE & CHRISTINA L. BLAKE AS DESCRIBED IN DEED BOOK 26430, PAGE 234 A TOTAL DISTANCE OF 179.65' TO A #5 REBAR AT THE SOUTHEASTERLY CORNER OF SAID CHARTER WESTGATE, LLC;

THENCE N 01°41'00" W ALONG THE EASTERLY LINE OF SAID CHARTER WESTGATE, LLC 301.11' TO A #5 REBAR AT AN ANGLE POINT;

THENCE N 32°50'14" E ALONG THE SOUTHEASTERLY LINE OF SAID CHARTER WESTGATE, LLC 208.36' TO THE POINT OF BEGINNING. THE ABOVE DESCRIBED PARCEL CONTAINS 94,161 S.F. MORE OR LESS.

FLOOD ZONE CRITERIA

COUNTY: CUMBERLAND
COMMUNITY: PORTLAND
PANEL NO: 230051
EFFECTIVE DATE: 0013 B JULY 17, 1986
FLOOD ZONE: C

ALTA CERTIFICATION

CHICAGO TITLE INSURANCE COMPANY
TITLE NO. 121814-01
EFFECTIVE DATE: DECEMBER 17, 2014

TO: BANK, JEWISH COMMUNITY ALLIANCE OF SOUTHERN MAINE, LENDER AND CHICAGO TITLE INSURANCE COMPANY AND THE SUCCESSORS AND ASSIGNS OF EACH.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS AND INCLUDES ITEMS 1, 2, 3, 4, 6b, 7c, 7b(1), 7c, 8, 9, 10g, 11b, 13, 14, 16, 17, 18, 20a & b, 21 AND 22 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON DECEMBER 31, 2013.

DATE OF PLAT OR MAP:
JANUARY 7, 2015

M. JOHANN BUISMAN
MAINE PROFESSIONAL LAND SURVEYOR NO. 1314

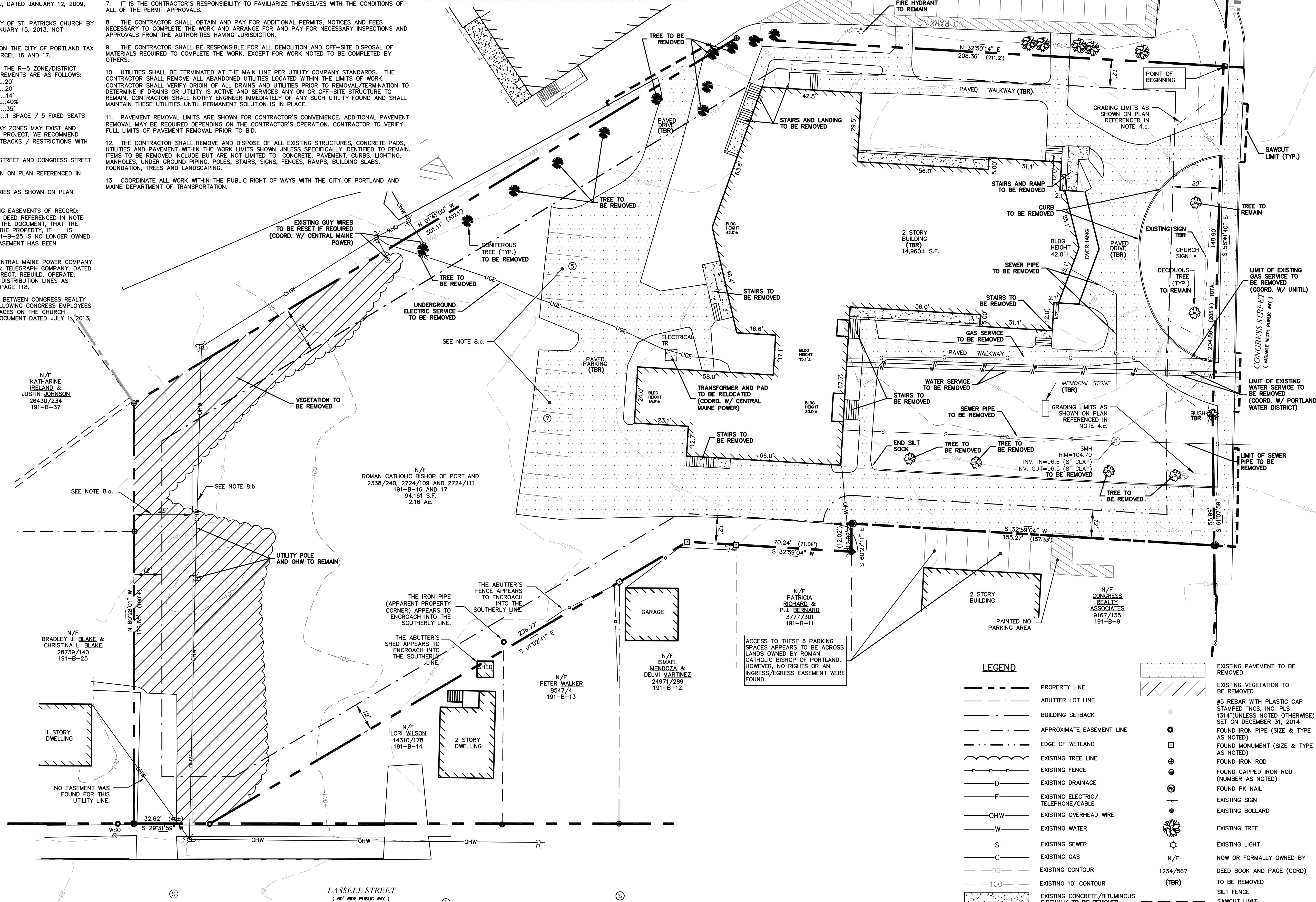
7 fl Buisman

1. THE BASIS OF BEARING FOR THIS SURVEY WAS FROM THE LOCUS DEED REFERENCED IN NOTE 3.A.
2. DEED AND PLAN BOOK REFERENCES ARE TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
3. RECORD OWNERSHIP OF THE PARCEL SURVEYED CAN BE FOUND IN THE FOLLOWING DEEDS:
 - A. DEED FROM IRMA BLAKE TO ROMAN CATHOLIC BISHOP OF PORTLAND DATED DECEMBER 28, 1957 AND RECORDED IN DEED BOOK 2724, PAGE 240.
 - B. DEED FROM ALBERT KENISTON TO ROMAN CATHOLIC BISHOP OF PORTLAND DATED DECEMBER 22, 1962 AND RECORDED IN DEED BOOK 2724, PAGE 109.
 - C. DEED FROM RICHARD KING TO ROMAN CATHOLIC BISHOP OF PORTLAND DATED DECEMBER 21, 1962 AND RECORDED IN DEED BOOK 2724, PAGE 111.
4. REFERENCE IS MADE TO THE FOLLOWING PLANS:
 - A. BOUNDARY SURVEY / EXISTING CONDITIONS PLAN, 1342 CONGRESS STREET, PORTLAND, MAINE BY NORTHEAST CIVIL SOLUTIONS, INC., DATED JANUARY 12, 2009, NOT RECORDED.
 - B. ALTA / ACSM LAND TITLE SURVEY OF ST. PATRICKS CHURCH B DOUCET SURVEY, INC., DATED JANUARY 15, 2013, NOT RECORDED.
5. THE PARCEL SURVEYED IS IDENTIFIED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP 191, BLOCK B, PARCEL 16 AND 17.
6. THE PARCEL SURVEYED IS LOCATED IN THE R-5 ZONE/DISTRICT. PORTIONS OF BULK AND SPACE REQUIREMENTS ARE AS FOLLOWS:

FRONT YARD.....	20'
REAR YARD.....	20'
SIDE YARD.....	14'
MAXIMUM LOT COVERAGE.....	40%
MAXIMUM BUILDING HEIGHT.....	35'
PARKING (CHURCH).....	1 SPACE / 5 FIXED SEATS
- *OTHER MUNICIPAL AND STATE OVERLAY ZONES MAY EXIST AND APPLY. BEFORE PROCEEDING ON ANY PROJECT, WE RECOMMEND VERIFYING THE CURRENT ZONING / SETBACKS / RESTRICTIONS WITH THE APPROPRIATE AGENCIES.
7. THE WIDTH AND LAYOUT OF LASSELL STREET AND CONGRESS STREET ARE AS FOLLOWS:
 - A. LASSELL STREET – 60' AS SHOWN ON PLAN REFERENCED IN NOTE 4.A.
 - B. CONGRESS STREET – WIDTH VARIES AS SHOWN ON PLAN REFERENCED IN NOTE 4.A.
8. REFERENCE IS MADE TO THE FOLLOWING EASEMENTS OF RECORD:
 - A. 25' STRIP OF LAND AS NOTED IN DEED REFERENCED IN NOTE 3.A. BASED ON THE WORDING IN THE DOCUMENT, THAT THE EASEMENT DOES NOT RUN WITH THE PROPERTY, IT IS BELIEVED THAT SINCE PARCEL 191-B-25 IS NO LONGER OWNED BY IRMA BLAKE THAT THE 25' EASEMENT HAS BEEN EXTINGUISHED.
 - B. THE RIGHT AND EASEMENT TO CENTRAL MAINE POWER COMPANY AND NEW ENGLAND TELEPHONE & TELEGRAPH COMPANY, DATED JULY 12, 1959 TO REBUILD, REPAIR, RECONSTRUCT, OPERATE, MAINTAIN AND REMOVE ELECTRIC DISTRIBUTION LINES AS DESCRIBED IN DEED BOOK 2491, PAGE 118.
 - C. AN AT-WILL LICENSE AGREEMENT BETWEEN CONGRESS REALTY ASSOCIATES AND THE CHURCH ALLOWING CONGRESS EMPLOYEES TO PARK IN THE DESIGNATED SPACES ON THE CHURCH PROPERTY AS DESCRIBED IN A DOCUMENT DATED JULY 1, 2013, NOT RECORDED.

1. THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
2. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES.
3. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
4. ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
6. SCAVOT AND REMOVE PAVEMENT ONE FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ADJUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
8. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
10. UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK. CONTRACTOR SHALL VERIFY ORIGIN OF ALL DRAINS AND UTILITIES PRIOR TO REMOVAL/TERMINATION TO DETERMINE IF DRAINS OR UTILITY IS ACTIVE AND SERVICES ANY ON OR OFF-SITE STRUCTURE TO REMAIN. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY SUCH UTILITY FOUND AND SHALL MAINTAIN THESE UTILITIES UNTIL PERMANENT SOLUTION IS IN PLACE.
11. PAYEMENT REMOVAL LIMITS ARE SHOWN FOR CONTRACTOR'S CONVENIENCE. ADDITIONAL PAYEMENT REMOVAL MAY BE REQUIRED DEPENDING ON THE CONTRACTOR'S OPERATION. CONTRACTOR TO VERIFY FULL LIMITS OF PAYEMENT REMOVAL PRIOR TO BID.
12. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADs, UTILITIES AND PAYEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: CONCRETE, PAVEMENT, CURBS, LIGHTING, MANHOLES, UNDER GROUND PIPING, POLES, STAIRS, SIGNS, FENCES, RAMPS, BUILDING SLABS, FOUNDATION, TREES AND LANDSCAPING.
13. COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTLAND AND MAINE DEPARTMENT OF TRANSPORTATION.

14. REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
15. CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED BY THE CONTRACTOR, HE SHALL EMPLOY A LICENSED SURVEYOR TO REPLACE IT.
16. PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS WITHIN CONSTRUCTION LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE "HIGH FLOW SLIT SACK" BY ACF ENVIRONMENTAL OR APPROVED EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.
17. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
18. THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
19. SAWCUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL UTILITIES TO BE REMOVED AND PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
20. THE CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING GRANITE CURB FOR REUSE.



Plan 2



**Jewish
Community
Alliance of
Southern Maine**

Proposed
Neighborhood
Center

Portland, Maine

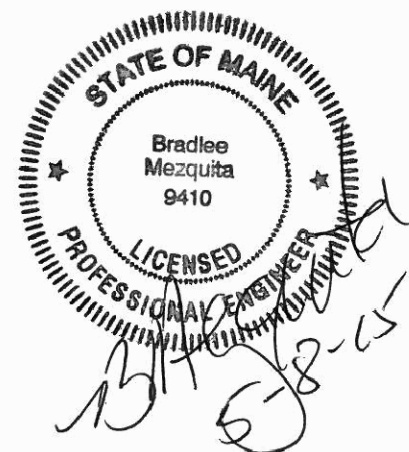
April 03, 2015

Mark	Date	Description
PROJECT NO:		J-0096
FILE:		J0094-SITE.dwg
DRAWN BY:		GWH
CHECKED:		BLM
APPROVED BY:		BLM

EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: AS SHOWN

C-1



Jewish
Community
Alliance of
Southern Maine

Proposed
Neighborhood
Center

Portland, Maine

April 03, 2015

1.	5/8/15	REVISED FOR PB WORKSHOP
Mark	Date	Description
PROJECT NO: J-0096		
FILE: J0094-SITE.dwg		
DRAWN BY: GWH		
CHECKED: BLM		
APPROVED BY: BLM		

OVERALL SITE PLAN

SCALE: AS SHOWN

C-2A

SITE DATA
LOCATION: 1342 CONGRESS STREET
PORTLAND, MAINE
TAX MAP 191 LOTS B-16/17
OWNER: ROMAN CATHOLIC BISHOP OF PORTLAND
510 OCEAN AVENUE
PORTLAND, MAINE 04103

ZONING DISTRICT: R-5 RESIDENTIAL ZONE
PROPOSED USE: NEIGHBORHOOD CENTER AND SCHOOL*

*ALLOWED WITH CONDITIONAL USE APPROVAL

DIMENSIONAL REQUIREMENTS:

MINIMUM LOT AREA:	REQUIRED 43,560 SF	PROVIDED 94,161 SF
MINIMUM STREET FRONTAGE:	50 FT	204 FT
MINIMUM FRONT YARD SETBACK:	20 FT	20.8 FT
SIDE SETBACK - 1 STORY BUILDING:	8 FT	8.9 FT
REAR SETBACK:	20 FT	254 FT
MAXIMUM BUILDING LOT COVERAGE:	40 %	20.4 %
MAXIMUM HEIGHT:	35 FT	<35 FT

PARKING REQUIREMENTS:

PARKING STALL LAYOUT:	REQUIRED 9' X 18'	PROVIDED 9' X 18'
STANDARD 90°:		
DRIVE AISLE WIDTH:	24 FT	24 FT
90° (2-WAY TRAFFIC):		
PARKING SPACES REQUIRED:		
NEIGHBORHOOD CENTER = 1 SPACE/150 SF (4,375 SF)*1 SPACE/150SF =	30 SPACES	
SCHOOL = 1 SPACE/STAFF MEMBER (14 STAFF MEMBERS)*1 SPACE =	14 SPACES	
OFFICE = 1 SPACE/400 SF (2,000 SF)*1 SPACE/400SF =	5 SPACES	
TOTAL PARKING REQUIRED	49 SPACES	50 SPACES

SITE DATA
LOCATION: 1342 CONGRESS STREET
PORTLAND, MAINE
TAX MAP 191 LOTS B-16/17

OWNER: ROMAN CATHOLIC BISHOP OF PORTLAND
510 OCEAN AVENUE
PORTLAND, MAINE 04103

ZONING DISTRICT: R-5 RESIDENTIAL ZONE

PROPOSED USE: NEIGHBORHOOD CENTER AND SCHOOL*

*ALLOWED WITH CONDITIONAL USE APPROVAL

DIMENSIONAL REQUIREMENTS:

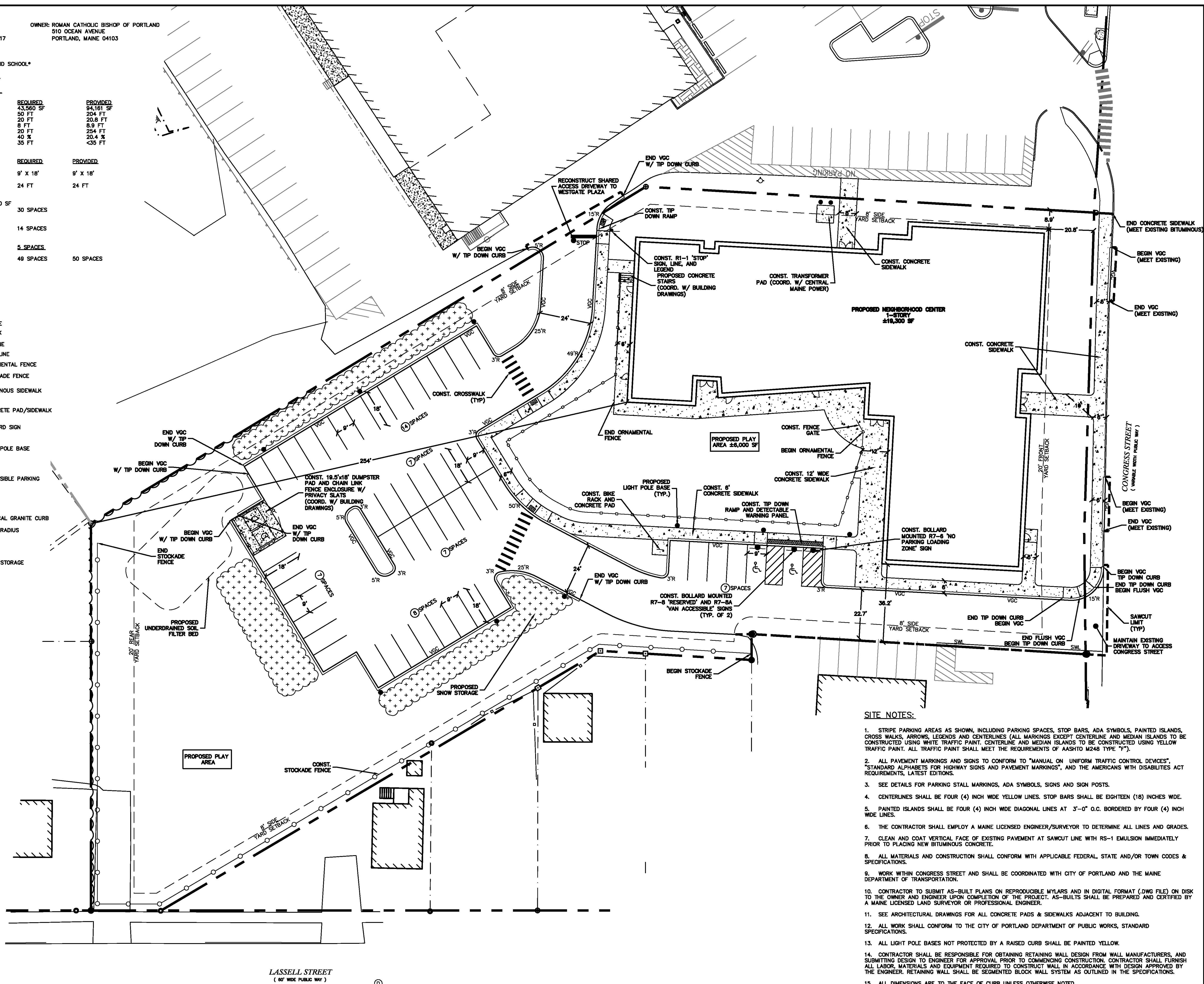
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SIDE SETBACK - 1 STORY BUILDING:	8 FT	8.9 FT
REAR SETBACK:	20 FT	254 FT
MAXIMUM BUILDING LOT COVERAGE:	40 %	20.4 %
MAXIMUM HEIGHT:	35 FT	<35 FT

PARKING REQUIREMENTS:

PARKING STALL LAYOUT:	REQUIRED 9' X 18'	PROVIDED 9' X 18'
DRIVE AISLE WIDTH: 90' (2-WAY TRAFFIC):	24 FT	24 FT
PARKING SPACES REQUIRED: NEIGHBORHOOD CENTER = 1 SPACE/150 SF (4,375 SF)*1 SPACE/150SF =	30 SPACES	
SCHOOL = 1 SPACE/STAFF MEMBER (14 STAFF MEMBERS)*1 SPACE =	14 SPACES	
OFFICE = 1 SPACE/400 SF (2,000 SF)*1 SPACE/400SF =	5 SPACES	
TOTAL PARKING REQUIRED	49 SPACES	50 SPACES

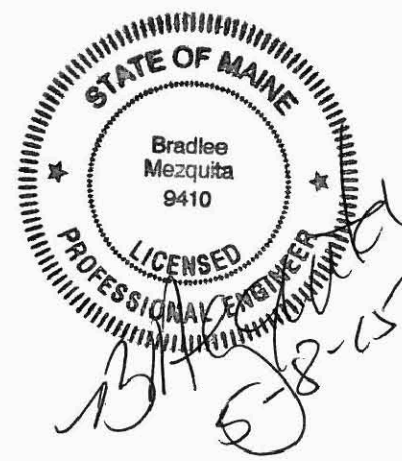
LEGEND

	PROPERTY LINE
	ABUTTER LOT LINE
	BUILDING SETBACK
	EXISTING TREE LINE
	PROPOSED TREE LINE
	PROPOSED ORNAMENTAL FENCE
	PROPOSED STOCKADE FENCE
	PROPOSED BITUMINOUS SIDEWALK
	PROPOSED CONCRETE PAD/SIDEWALK
	PROPOSED BOLLARD SIGN
	PROPOSED SIGN
	PROPOSED LIGHT POLE BASE
	PROPOSED ACCESSIBLE PARKING
	PROPOSED VERTICAL GRANITE CURB
	PROPOSED CURB RADIUS
	COORDINATE CONSTRUCT
	PROPOSED SNOW STORAGE



SITE NOTES:

1. STRIPE PARKING AREAS AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES (ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT, CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F").
2. ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
3. SEE DETAILS FOR PARKING STALL MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
4. CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES. STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE.
5. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
6. THE CONTRACTOR SHALL EMPLOY A MAINE LICENSED ENGINEER/SURVEYOR TO DETERMINE ALL LINES AND GRADES.
7. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND/OR TOWN CODES & SPECIFICATIONS.
9. WORK WITHIN CONGRESS STREET AND SHALL BE COORDINATED WITH CITY OF PORTLAND AND THE MAINE DEPARTMENT OF TRANSPORTATION.
10. CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILE) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A MAINE LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.
11. SEE ARCHITECTURAL DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
12. ALL WORK SHALL CONFORM TO THE CITY OF PORTLAND DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS.
13. ALL LIGHT POLE BASES NOT PROTECTED BY A RAISED CURB SHALL BE PAINTED YELLOW.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING RETAINING WALL DESIGN FROM WALL MANUFACTURERS, AND SUBMITTING DESIGN TO ENGINEER FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO CONSTRUCT WALL IN ACCORDANCE WITH DESIGN APPROVED BY THE ENGINEER. RETAINING WALL SHALL BE SEGMENTED BLOCK WALL SYSTEM AS OUTLINED IN THE SPECIFICATIONS.
15. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.



Jewish Community Alliance of Southern Maine

Proposed Neighborhood Center

Portland, Maine

April 03, 2015

1. 5/8/15 REVISED FOR PB WORKSHOP

Mark Date Description

PROJECT NO: J-0096

FILE: J0094-SITE.dwg

DRAWN BY: GWH

CHECKED: BLM

APPROVED BY: BLM

SITE PLAN

SCALE: AS SHOWN

C-2B

**Jewish
Community
Alliance of
Southern Maine**

**Proposed
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Portland, Maine

April 03, 2015

PROJECT NO:	J-0096
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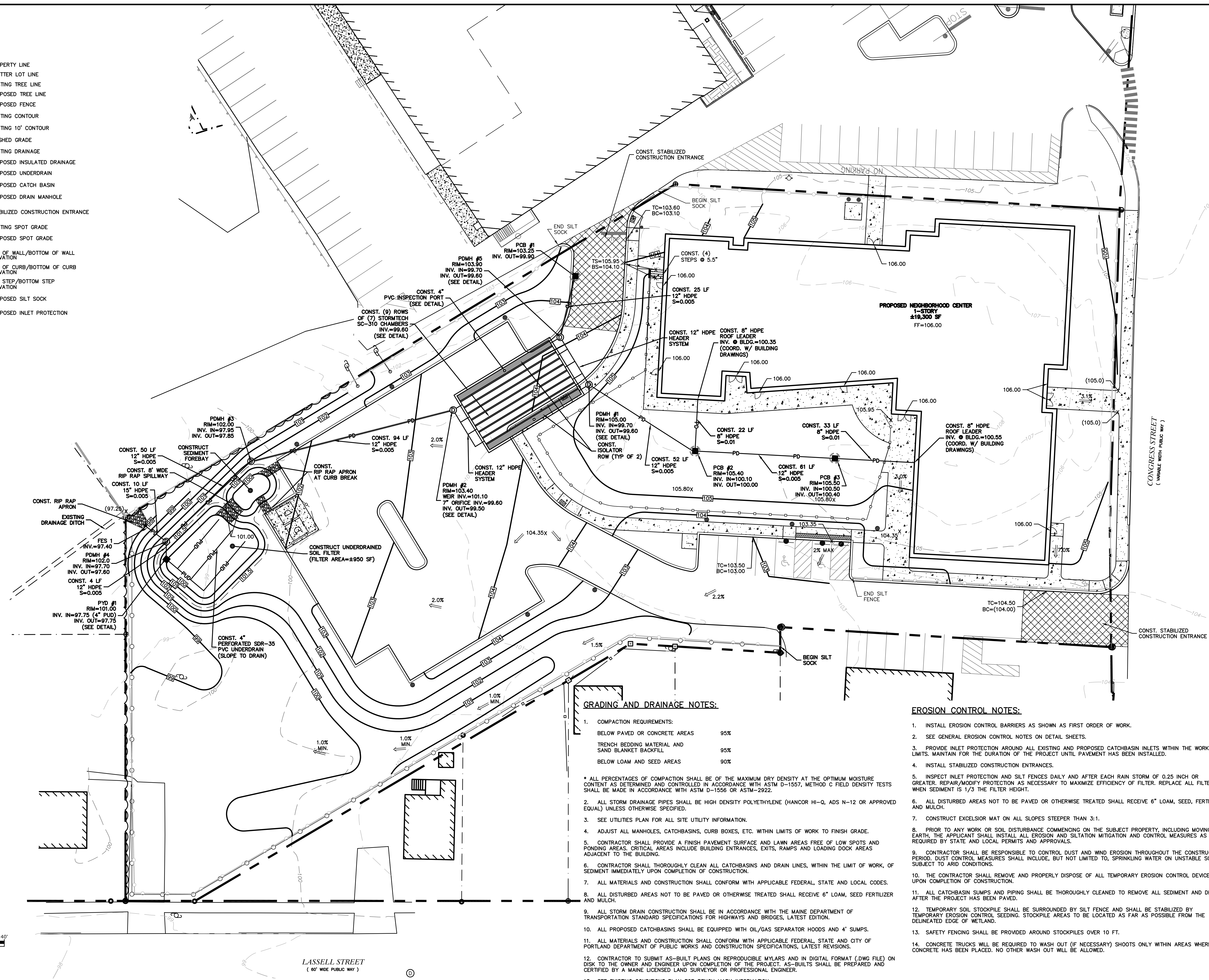
**GRADING, DRAINAGE, AND
EROSION CONTROL PLAN**

SCALE: AS SHOWN

C-3

LEGEND

---	PROPERTY LINE
- - -	ABUTTER LOT LINE
~ ~ ~	EXISTING TREE LINE
- - -	PROPOSED TREE LINE
- - -	PROPOSED FENCE
- - -	EXISTING CONTOUR
- - -	EXISTING 10' CONTOUR
- - -	FINISHED GRADE
- - -	EXISTING DRAINAGE
- - -	PROPOSED INSULATED DRAINAGE
- - -	PROPOSED UNDERDRAIN
- - -	PROPOSED CATCH BASIN
- - -	PROPOSED DRAIN MANHOLE
- - -	STABILIZED CONSTRUCTION ENTRANCE
(97.25)X	EXISTING SPOT GRADE
100.50X	PROPOSED SPOT GRADE
TW=105.90 BW=104.50	TOP OF WALL/BOTTOM OF WALL ELEVATION
TC=105.90 BC=105.40	TOP OF CURB/BOTTOM OF CURB ELEVATION
TS=105.90 BS=105.40	TOP STEP/BOTTOM STEP ELEVATION
- - -	PROPOSED SILT SOCK
- - -	PROPOSED INLET PROTECTION



GRADING AND DRAINAGE NOTES:

1. COMPACTION REQUIREMENTS:
BELOW PAVED OR CONCRETE AREAS 95%
TRENCH BEDDING MATERIAL AND
SAND BLANKET BACKFILL 95%
BELOW LOAM AND SEED AREAS 90%

- * ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.
2. ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR APPROVED EQUAL) UNLESS OTHERWISE SPECIFIED.
 3. SEE UTILITIES PLAN FOR ALL SITE UTILITY INFORMATION.
 4. ADJUST ALL MANHOLES, CATCHBASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
 5. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
 6. CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCHBASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
 7. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
 8. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
 9. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
 10. ALL PROPOSED CATCHBASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4' SUMPS.
 11. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND CITY OF PORTLAND DEPARTMENT OF PUBLIC WORKS AND CONSTRUCTION SPECIFICATIONS, LATEST REVISIONS.
 12. CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILE) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A MAINE LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.
 13. SEE EXISTING CONDITIONS PLAN FOR BENCH MARK INFORMATION.

EROSION CONTROL NOTES:

1. INSTALL EROSION CONTROL BARRIERS AS SHOWN AS FIRST ORDER OF WORK.
2. SEE GENERAL EROSION CONTROL NOTES ON DETAIL SHEETS.
3. PROVIDE INLET PROTECTION AROUND ALL EXISTING AND PROPOSED CATCHBASIN INLETS WITHIN THE WORK LIMITS. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
5. INSPECT INLET PROTECTION AND SILT FENCES DAILY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
6. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER AND MULCH.
7. CONSTRUCT EXCELSIOR MAT ON ALL SLOPES STEEPER THAN 3:1.
8. PRIOR TO ANY WORK OR SOIL DISTURBANCE COMMENCING ON THE SUBJECT PROPERTY, INCLUDING MOVING OF EARTH, THE APPLICANT SHALL INSTALL ALL EROSION AND SILTATION MITIGATION AND CONTROL MEASURES AS REQUIRED BY STATE AND LOCAL PERMITS AND APPROVALS.
9. CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, SPRINKLING WATER ON UNSTABLE SOILS SUBJECT TO ARID CONDITIONS.
10. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
11. ALL CATCHBASIN SUMPS AND PIPING SHALL BE THOROUGHLY CLEANED TO REMOVE ALL SEDIMENT AND DEBRIS AFTER THE PROJECT HAS BEEN PAVED.
12. TEMPORARY SOIL STOCKPILE SHALL BE SURROUNDED BY SILT FENCE AND SHALL BE STABILIZED BY TEMPORARY EROSION CONTROL SEEDING. STOCKPILE AREAS TO BE LOCATED AS FAR AS POSSIBLE FROM THE DELINEATED EDGE OF WETLAND.
13. SAFETY FENCING SHALL BE PROVIDED AROUND STOCKPILES OVER 10 FT.
14. CONCRETE TRUCKS WILL BE REQUIRED TO WASH OUT (IF NECESSARY) SHOOTS ONLY WITHIN AREAS WHERE CONCRETE HAS BEEN PLACED. NO OTHER WASH OUT WILL BE ALLOWED.

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Portland, Maine

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1. 5/8/15 REVISED FOR PB WORKSHOP

PROJECT NO: J-0096

FILE: J0094-SITE.dwg

DRAWN BY: GWH

CHECKED: BLM

APPROVED BY: BLM

UTILITIES PLAN

SCALE: AS SHOWN

C-4

LEGEND

- PROPERTY LINE
--- ABUTTER LOT LINE
--- EXISTING TREE LINE
--- PROPOSED TREE LINE
--- PROPOSED FENCE
--- EXISTING DRAINAGE
--- PD --- PROPOSED INSULATED DRAINAGE
--- PUD --- PROPOSED UNDERDRAIN
--- PROPOSED YARD DRAIN
--- E --- EXISTING ELECTRIC
--- OHW --- EXISTING OVERHEAD WIRE
--- PUGE --- PROPOSED UNDERGROUND ELECTRIC
--- PE&C --- PROPOSED UNDERGROUND ELECTRIC AND TELECOMMUNICATIONS
--- W --- EXISTING WATER
--- PW --- PROPOSED WATER
--- S --- EXISTING SEWER
--- PS --- PROPOSED SEWER
--- G --- EXISTING GAS
--- PG --- PROPOSED GAS
--- S --- PROPOSED SEWER MANHOLE

CONST. RISER FOR
PRIMARY ELECTRIC AND
TELECOMMUNICATIONS SERVICES
(COORD. WITH CENTRAL
MAINE POWER AND FAIRPOINT)

EXISTING FIRE HYDRANT
PROPOSED TRANSFORMER
AND CONCRETE PAD
(COORD. WITH CENTRAL
MAINE POWER)

PE&C
CONST. SECONDARY ELECTRIC
AND TELECOMMUNICATION SERVICES
(COORD. W/
BUILDING DRAWINGS)

CONST. NATURAL GAS
SERVICE AND METER
(COORD. W/ BUILDING
DRAWINGS)

CONST. 2" LF
DOMESTIC SERVICE
(COORD. W/ BUILDING
DRAWINGS)

CONST. 6" DI
FIRE SERVICE
(COORD. W/ BUILDING
DRAWINGS)

CONST. 1,000 GALLON
GREASE TRAP
-RIM=FINISHED GRADE
INV. IN=102.00
INV. OUT=101.75

CONST. (3) LF 4" PVC SDR-35
GREASE SERVICE
INV. OUT @ BLDG=102.10
(COORD. W/ BUILDING DRAWINGS)

CONST. 6" DI
FIRE SERVICE

CONST. 2" TYPE K COPPER
DOMESTIC SERVICE

CONNECT TO EXISTING 2" COPPER DOMESTIC SERVICE
(COORD. W/ PORTLAND WATER DISTRICT)

CONNECT TO EXISTING 6" CI
(COORD. W/ PORTLAND WATER DISTRICT)

CONST. 6" SANITARY
SEWER SERVICE
INV. @ BLDG=98.65

CONST. 12 LF
6" SDR-35 PVC
S=0.02
INV. IN=98.40
INV. OUT=96.5 (8" CLAY)
(VERIFY EXISTING INVERTS IN FIELD)

PSMH 1 (DROP)
RIM=105.00
INV. IN=98.40

CONGRESS STREET
(VARIABLE WIDTH PUBLIC HWY.)

APPROXIMATE
LOCATION
OF 8" CI WATER MAIN

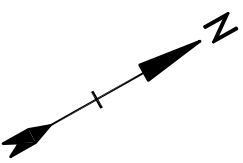
CONNECT TO
EXISTING NATURAL
GAS SERVICE
(COORD. W/ UNITIL)

EXISTING 8" CLAY SEWER PIPE

UTILITY NOTES:

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
2. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
NATURAL GAS -UNITIL
WATER -PORTLAND WATER DISTRICT
SEWER -CITY OF PORTLAND SEWER DEPARTMENT
ELECTRIC -CENTRAL MAINE POWER
TELEPHONE -FAIRPOINT COMMUNICATIONS
3. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
4. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
5. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
6. ALL WATERMAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE PORTLAND WATER DISTRICT.
7. ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
8. ALL WORK WITHIN CITY ROWS SHALL BE COORDINATED WITH CITY OF PORTLAND.
9. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION.
10. CONNECTION TO EXISTING WATERMAIN SHALL BE CONSTRUCTED TO PORTLAND WATER DISTRICT STANDARDS.
11. EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
12. ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.

13. THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE UTILITY COMPANIES.
14. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
15. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
16. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
17. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
18. CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
19. A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
20. THE CONTRACTOR SHALL CONTACT "DIG-SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON SITE AT ALL TIMES.
21. CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILES) TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A MAINE LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.
22. SAWCUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
23. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTLAND SEWER DEPARTMENT.
24. ALL SEWER PIPE WITH LESS THAN 4' OF COVER SHALL BE INSULATED.
25. CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.



SCALE IN FEET
20' 40'
GRAPHIC SCALE

LASSELL STREET
(60' WIDE PUBLIC WAY)

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②

PROJECT NAME AND LOCATION

PROPOSED NEIGHBORHOOD CENTER
1342 CONGRESS STREET
PORTLAND, MAINE 04103

DESCRIPTION

THE PROJECT CONSISTS OF THE CLEARING AND DEMOLITION OF EXISTING FEATURES ON SITE FOR A PROPOSED 1-STORY 19,300 SF NEIGHBORHOOD CENTER WITH 49 PARKING SPACES AND ASSOCIATED SITE IMPROVEMENTS INCLUDING SIDEWALK, STORMWATER MANAGEMENT, UTILITIES AND LANDSCAPING.

THE WORK IS ANTICIPATED TO START IN SUMMER 2015, AND BE COMPLETED BY SPRING 2016.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 1.90 ACRES.

SOIL CHARACTERISTICS

BASED ON THE PHASE 1 SITE ASSESSMENT PREPARED BY ST GERMAIN COLLINS AND DATED FEBRUARY 10, 2015 THE SOILS CONSIST OF SILTY CLAY SOILS THAT ARE ASSUMED TO BE HYDROLOGIC GROUP C SOILS.

SEQUENCE OF MAJOR ACTIVITIES

- CUT AND CLEAR TREES
- CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
 - NEW CONSTRUCTION
 - DEVELOPMENT OF BORROW PIT AREAS
 - DISPOSAL OF SEDIMENT SPOIL, STUMP AND OTHER SOLID WASTE
 - CONTROL OF DUST
 - CONSTRUCTION OF SITE ACCESS
 - NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS
 - CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
- ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPs PRIOR TO DIRECTING RUNOFF TO THEM.
- CLEAR AND DISPOSE OF DEBRIS
- CONSTRUCT TEMPORARY OULVERTS AND DIVERSION CHANNELS AS REQUIRED.
- GRADE AND GRAVEL DRIVES AND PARKING AREAS – ALL DRIVES AND PARKING AREA SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
- BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION.
- DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES, SILT SOCKS, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
- FINISH PAVING ALL DRIVES AND PARKING AREAS.
- INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

NOTE: THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.

NAME OF RECEIVING WATERS

THE STORM WATER RUNOFF FLOWS OFFSITE TO AN EXISTING DRAINAGE SWALE.

EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

- STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES AND DISTURBED AREAS WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR MORE THAN TWENTY ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
 - TEMPORARY SEEDING
 - MULCHING
- DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY NOVEMBER 15.
- AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED.
- WINTER STABILIZATION PRACTICES:
 - ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY NOVEMBER 15TH, OR WHICH ARE DISTURBED AFTER NOVEMBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURE WITH ANCHOR NETTING, ELSEWHERE.
 - ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITION.
 - AFTER NOVEMBER 15TH, INCOMPLETE DRIVE OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL PER WHOLE ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.

OFF SITE VEHICLE TRACKING

THE CONTRACTOR SHALL CONSTRUCT THE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO ANY EXCAVATION ACTIVITIES.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES OF EROSION AND SEDIMENT CONTROLS

- GENERAL:

THESE ARE THE GENERAL INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO IMPLEMENT THE PLAN.

 - ALL SWALES SHALL BE STABILIZED PRIOR TO DIRECTING FLOW TO THEM.
 - THE SMALLEST PRACTICAL PORTION OF THE SITE WILL BE DEMONED AT ONE TIME.
 - ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.
 - ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
 - BUILT UP SEDIMENT WILL BE REMOVED FROM SILT SOCK WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF THE SILT SOCK.
 - ALL DIVERSION DIKES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
 - TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY DRYING.
 - A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
 - A REPRESENTATIVE OF THE SITE CONTRACTOR, WILL BE REQUIRED FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
 - THE EROSION CONTROL PROCEDURES SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL MANUAL.
 - ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL CODES OR SPECIFICATIONS.
 - THE USE OF SAND FOR THE PURPOSE OF PEDESTRIAN SAFETY AND SAFE DRIVING CONDITION SHALL BE MINIMIZED.
 - THE OWNER SHALL CLEAN ALL CATCH BASINS, DRAIN MANHOLES AND SWEEP THE PARKING LOT ON AN ANNUAL BASIS.
- FILTERS:
 - SILT SOCK
 - APPLICATION
 - SILT SOCK ARE TO BE INSTALLED DOWN SLOPE OF ANY DISTURBED AREA REQUIRING EROSION AND SEDIMENT CONTROL. FILTRATION OF SOLUBLE POLLUTANTS FROM RUNOFF. SILT SOCK ARE EFFECTIVE WHEN INSTALLED PERPENDICULAR TO SHEET OR LOW CONCENTRATED FLOW.
 - INSTALLATION DETAILS
 - SILT SOCK USED FOR PERIMETER CONTROL OF SEDIMENT AND SOLUBLE POLLUTANTS IN STORM RUNOFF SHALL MEET FILTREXX SOXX MATERIAL SPECIFICATIONS, OR APPROVED EQUAL, AND USE CERTIFIED FILTREXX FILTER MEDIA, OR APPROVED EQUAL.
 - CONTRACTOR IS REQUIRED TO BE FILTREXX CERTIFIED AS DETERMINED BY FILTREXX INTERNATIONAL, LLC, OR APPROVED EQUAL. CERTIFICATION SHALL BE CONSIDERED CURRENT IF APPROPRIATE IDENTIFICATION IS SHOWN DURING TIME OF BID OR AT TIME OF APPLICATION. LOOK FOR THE FILTREXX CERTIFIED SEAL, OR APPROVED EQUAL. SILT SOCK WILL BE PLACED AT LOCATIONS IDENTIFIED ON PLANS AS DIRECTED BY THE ENGINEER.
 - SILT SOCK SHOULD BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER DISTURBED AREA. IN EXTREME CONDITIONS (I.E. 2:1 SLOPES), A SECOND SILT SOCK SHALL BE CONSTRUCTED AT THE TOP OF THE SLOPE.
 - STAKES SHALL BE INSTALLED THROUGH THE MIDDLE OF THE SILT SOCK ON 10 FT CENTERS, USING 2 INCH BY 2 INCH BY 3 FEET WOODEN STAKES. IN THE EVENT STAKING IS NOT POSSIBLE, I.E. WHEN SILT SOCK ARE USED ON PAVEMENT, HEAVY WEIGHT CONCRETE BLOCKS SHALL BE USED BEHIND THE SILT SOCK TO HELP STABILIZE DURING RAINFALL/RUNOFF EVENTS.
 - STAKING DEPTH FOR SAND AND SILT LOAM SOILS SHALL BE 12 INCHES, AND 8 INCHES FOR CLAY SOILS.
 - LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE SILT SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.
 - IF THE SILT SOCK IS TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
 - SILT SOCK ARE NOT TO BE USED IN PERENNIAL, EPHEMERAL, OR INTERMITTENT STREAMS.
 - SEE DETAIL FOR CORRECT SILT SOCK INSTALLATION.
- SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE

- CONTRIBUTING DRAINAGE AREA ABOVE THEM.
 - MAINTENANCE:
 - SILT SOCK BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
 - SHOULD THE FABRIC ON A SILT SOCK BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
 - SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD (1/3) THE HEIGHT OF THE BARRIER.
 - ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT SOCK BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.
 - MULCHING:
 - TIMING:
 - IN ORDER FOR MULCH TO BE EFFECTIVE, IT MUST BE IN PLACE PRIOR TO MAJOR STORM EVENTS. THERE ARE TWO (2) TYPES OF STANDARDS WHICH SHALL BE USED TO ASSURE THIS:
 - APPLY MULCH PRIOR TO ANY STORM EVENT. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS, USUALLY BY CONTACTING THE NATIONAL WEATHER SERVICE IN CONCORD, TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
 - REQUIRED MULCHING WITHIN A SPECIFIED TIME PERIOD. THE TIME PERIOD CAN RANGE FROM 14 TO 21 DAYS OF INACTIVITY ON A AREA, THE LENGTH OF TIME VARYING WITH SITE CONDITIONS. PROFESSIONAL JUDGMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS (SOIL EROIBILITY, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS TO CHOOSE AN APPROPRIATE TIME RESTRICTION.
 - APPLICATION RATE:
 - MULCH SHALL BE APPLIED AT A RATE OF BETWEEN 1.5 TO 2 TONS PER ACRE, OR 90 TO 100 POUNDS PER 1000 SQUARE FEET. THE MINIMUM MULCH REQUIREMENT, REGARDLESS OF APPLICATION RATE, SHALL BE THAT WHICH IS NECESSARY TO BE VISIBLE.
 - GUIDELINES FOR WINTER MULCH APPLICATION:
 - WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT A RATE OF 6,000 POUNDS OF HAY OR STRAW PER ACRE. A TACKIFIER MAY BE ADDED TO THE MULCH. NO MULCH IS TO BE APPLIED OVER MORE THAN TWO (2) INCHES OF SNOW. IF SNOW DEPTH IS GREATER THAN TWO (2) INCHES IT SHALL BE REMOVED BEFORE MULCHING.
 - MAINTENANCE:
 - ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED.
 - EXCELSIOR MATTING SHALL BE USED IN PLACE OF MULCH ON ALL SLOPES STEEPER THAN 3:1.
- SLOPES:
 - ALL SLOPES GREATER THAN 15% DURING THE REGULAR CONSTRUCTION SEASON ARE TO HAVE NETTING OVER MULCH OR COMBINATION EROSION CONTROL MAT USED (MULCH AND NET). THIS APPLIES TO ALL SLOPES GREATER THAN 8% AFTER OCTOBER 1. MULCHING IS REQUIRED OVER HYDROSEEDING.
- EXCELSIOR MATTING SHALL BE USED IN PLACE OF MULCH ON ALL SLOPES STEEPER THAN 3:1.
- TEMPORARY
 - SEEDBED PREPARATION:
 - APPLY FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OF 10-10-10 FERTILIZER.
 - APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF THREE (3) TONS PER ACRE.
 - SEEDING:
 - UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE.
 - WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
 - APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDROSEEDINGS, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.
 - MAINTENANCE:
 - TEMPORARY SEEDINGS SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.).
- PERMANENT MULCHING
 - TIMING:
 - APPLYING PLANT RESIDUES OR OTHER SUITABLE MATERIALS THAT RESIST DECOMPOSITION SUCH AS WOOD CHIPS OR CRUSHED STONE TO THE SOIL SURFACE WHERE VEGETATION STABILIZATION IS EITHER IMPRACTICAL OR DIFFICULT TO ESTABLISH.
 - WINTER STABILIZATION SHALL MEET OR EXCEED THE FOLLOWING REQUIREMENTS.
 - PERMANENT MULCHING SHALL BE USED TO STABILIZE CHRONIC EROSION AREAS WHICH RECEIVE HEAVY FOOT OR VEHICLE TRAFFIC. NOT INTENDED FOR AREAS OF CONCENTRATED FLOWS.
 - IF WOOD CHIPS ARE USED IN LANDSCAPED AREAS (TREES & SHRUBS), A SUPPLEMENTAL APPLICATION OF CHEMICAL FERTILIZER SHOULD BE APPLIED AT A RATE OF TWO POUNDS OF 5-10-5 PER 100 SQUARE FEET OF MULCH.
 - IF CRUSHED STONE IS USED, A PLASTIC FILTER CLOTH SHALL BE PLACED BETWEEN THE GROUND AND THE STONE.
 - SPECIFICATIONS:
 - WOOD CHIPS OR AGGREGATE SHALL BE USED ON SLOPES NO STEEPER THAN 3 HORIZONTALLY ON 1 VERTICALLY.
 - PERMANENT MULCH SHALL BE 3 INCHES OR MORE IN DEPTH.
 - WOOD CHIPS SHALL BE APPLIED AT A RATE OF 500-600 POUNDS PER 1,000 SQUARE FEET OR 10-20 TONS PER ACRE. WOOD CHIPS SHALL BE GREEN OR AIR-DRIED AND FREE OF OBJECTIONABLE COARSE MATERIALS.
 - AGGREGATE COVER (GRAVEL, CRUSHED STONE OR SLAG) SHALL BE WASHED, 0.25 INCHES TO 2.5 INCHES AND APPLIED AT A RATE OF 9 CUBIC YARDS PER 1,000 SQUARE FEET.
 - MAINTENANCE:
 - WOOD CHIPS SHALL BE MONITORED FOR DECOMPOSITION AND NEW APPLICATIONS MADE.
 - CRUSHED STONE SHALL BE MONITORED FOR WASH OUT AND SLIPPING DOWN SLOPE. IF EITHER OCCUR, NEW MATERIAL SHALL BE PROVIDED ON THE BARREN AREAS.
- VEGETATIVE PRACTICE:
 - FOR PERMANENT MEASURES AND PLANTINGS.
 - LIMESTONE SHALL BE INCORPORATED INTO THE LOAM LAYER AT A RATE OF 3 TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5.
 - FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 800 POUNDS PER ACRE OF 10-20-20 FERTILIZER.
 - SOIL CONDITIONERS AND FEE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE SLOPE. THE SOIL SHALL BE RAKED WITH APPROVED ROLLERS WEIGHING BETWEEN 4.5 POUNDS AND 5.5 POUNDS PER INCH OF WIDTH.
 - SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH.
 - HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AS INDICATED ABOVE.
 - THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED.
 - THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED.
 - A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE APPLIED AT THE INDICATED RATE:

SEEDING RATE:		XX LBS/ACRE
CREEPING RED FESCUE		XX LBS/ACRE
TALL FESCUE		XX LBS/ACRE
REDTOP		X LBS/ACRE

IN NO CASE SHALL THE WEED CONTENT EXCEED ONE (1) PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH SEEDING STANDARDS AS SET FORTH IN 10A CMR 1.00(2) NO LATER THAN SEPTEMBER 15. IN NO CASE SHALL SEEDING TAKE PLACE OVER SNOW.
 - DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL) FOLLOW PERMANENT MEASURES SLOPE, LIME, FERTILIZER AND GRADING REQUIREMENTS. APPLY SEED MIXTURE AT THE INDICATED RATE. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.
- STORM DRAIN INLET PROTECTION:
 - SILT SACK
 - INSTALLATION SHALL BE INSTALLED WITHIN CATCH BASIN, MAKING SURE EMPTY STRAPS ARE LAID FLAT OUTSIDE THE BASIN.
 - SACK SHALL FIT TIGHTLY WITHIN THE BASIN TO PREVENT SEDIMENT FROM GOING THROUGH ANY GAPS.
 - ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAINSTORM AND REPAIRS MADE AS NECESSARY.
 - SEDIMENT SHOULD BE REMOVED FROM THE DEVICES AFTER THE SEDIMENT HAS REACHED A MAXIMUM OF ONE INCH OF WATER.
 - SILT SACK SHALL BE REMOVED UPON THE COMPLETION OF PROJECT.
- STABILIZED CONSTRUCTION ENTRANCE:
 - SPECIFICATIONS:
 - AGGREGATE SIZE: USE TWO (2) INCHES STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - AGGREGATE THICKNESS: NOT LESS THAN SIX (6) INCHES.
 - WIDTH: TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS.

- LENGTH: AS REQUIRED, BUT NOT LESS THAN FIFTY (50) FEET
- GEOTEXTILE: TO BE PLACED OVER THE ENTIRE AREA TO BE COVERED WITH AGGREGATE.
- CRITERIA FOR GEOTEXTILE: THE FABRICS SHALL BE TREVA SPUNBOND 1135, MIRAFI 600X OR APPROVED EQUAL.
- MAINTENANCE:
 - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH AGGREGATE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES OR WATERWAYS.

TIMING OF CONTROLS/MEASURES

- THE MAXIMUM AREA TO BE DISTURBED AT ONE TIME SHALL BE KEPT UNDER FIVE (5) ACRES. A PHASING PLAN DESCRIBING THE AREAS TO BE DISTURBED SHALL BE SUBMITTED TO THE DESIGN ENGINEER AND NHDES. AN INDEPENDENT MONITORING COMPANY SHALL BE HIRED BY THE CONTRACTOR TO MONITOR ALL EROSION CONTROL DEVICES.
- AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES THE EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY ONE (21) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF ANY WETLAND OR STREAM, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, SILT FENCES AND HAYBALE BARRIERS AND ANY EARTH/DIKES WILL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.

WASTE DISPOSAL

- WASTE MATERIALS:
 - ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN A DUMPSTER. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ON SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
- HAZARDOUS WASTE:
 - ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION ACTURE. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
- SANITARY WASTE:
 - ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

SPILL PREVENTION

- MATERIAL MANAGEMENT PRACTICES:

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF.

 - GOOD HOUSEKEEPING:

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:

 - AN EFFORT WILL BE MADE TO STORE ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB.
 - ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
 - MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
 - THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
 - SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
 - WHENEVER POSSIBLE ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE MATERIALS.
 - HAZARDOUS PRODUCTS:

THE FOLLOWING PRACTICES WILL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

 - PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
 - ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION.
 - SURPLUS PRODUCT THAT MUST BE DISPOSED OF WILL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.
 - PRODUCT SPECIFICATION PRACTICES:

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:

 - PETROLEUM PRODUCTS:

ALL ON SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO MAINTENANCE TO REDUCE LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
 - FERTILIZERS:

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS. ONCE APPLIED FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
 - PAINTS:

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
 - SPILL CONTROL PRACTICES:

IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

 - MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
 - MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
 - ALL SPILLS WILL BE IMMEDIATELY CLEANED UP.
 - THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
 - SPILLS OF TOXIC OR HAZARDOUS MATERIALS WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
 - THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING AND HOW TO CLEANUP THE SPILL IF IT RECURS. A DESCRIPTION OF THE SPILL, ITS CAUSE, AND THE CLEANUP MEASURES WILL BE INCLUDED.
 - THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.
 - VEHICLE FUELING AND MAINTENANCE PRACTICE:
 - EFFORTS SHOULD BE MADE TO PERFORM EQUIPMENT/VEHICLE FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY.
 - CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY.
 - IF POSSIBLE KEEP AREA COVERED.
 - KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA.
 - VEHICLES SHALL BE INSPECTED REGULARLY FOR LEAKS AND DAMAGE.
 - USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.

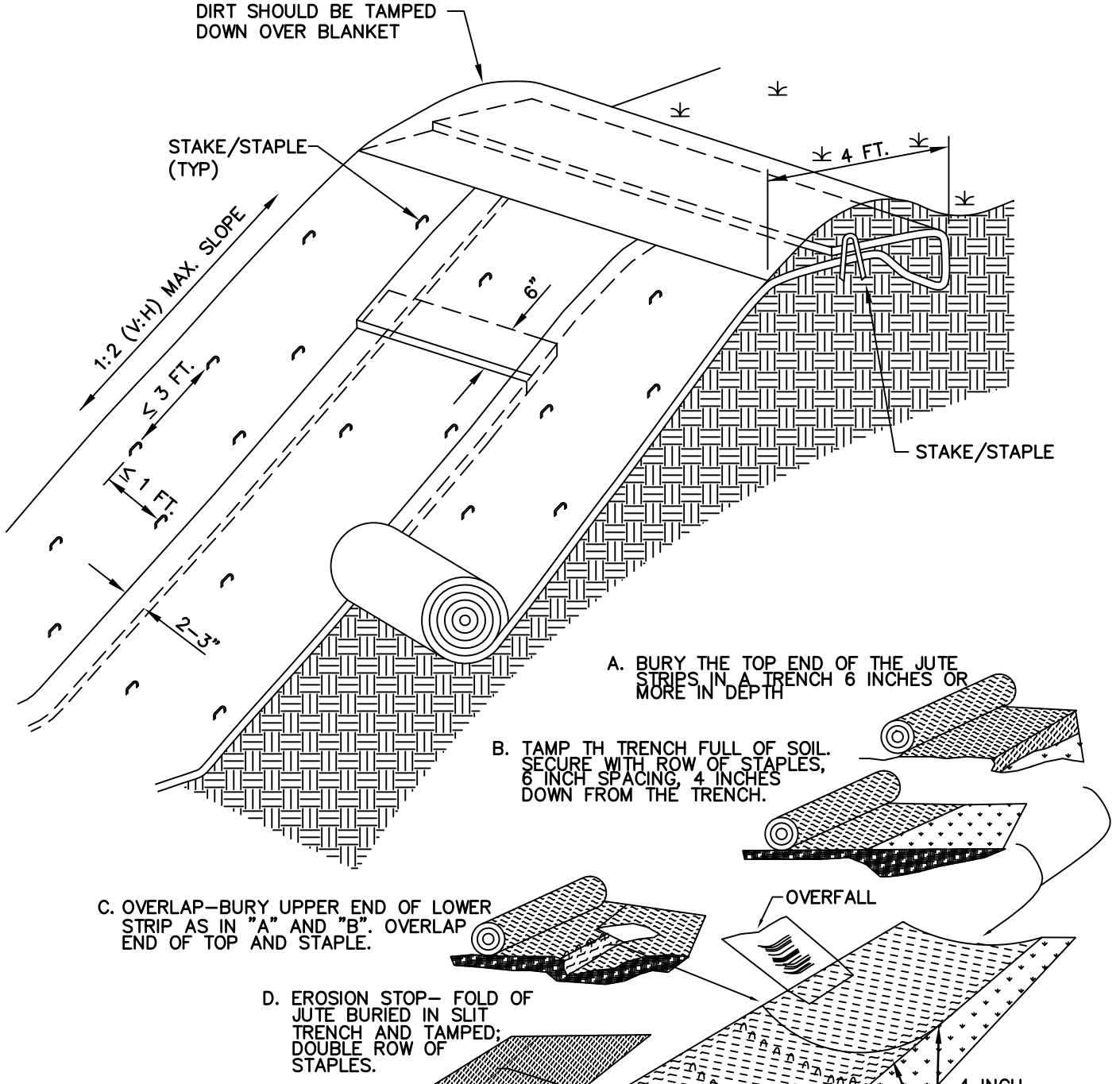
- CONCRETE WASHOUT AREA:
 - THE CONTRACTOR SHOULD BE ENCOURAGED WHERE POSSIBLE, TO USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY.
 - IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER.
 - WASHOUT AREAS SHOULD ALSO BE PROVIDED FOR PAINT AND STUCCO OPERATIONS.
 - ATTEMPTS SHOULD BE MADE TO LOCATE WASHOUT AREA A LEAST 50 YARDS AWAY FROM STORM DRAINS AND WATER WAYS WHENEVER POSSIBLE.
 - INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

STABILIZED CONSTRUCTION ENTRANCE

- THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ADJUTING AREAS.
- CONCRETE WASHOUT AREA:
 - THE CONTRACTOR SHOULD BE ENCOURAGED WHERE POSSIBLE, TO USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY.
 - IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER.
 - WASHOUT AREAS SHOULD ALSO BE PROVIDED FOR PAINT AND STUCCO OPERATIONS.
 - ATTEMPTS SHOULD BE MADE TO LOCATE WASHOUT AREA A LEAST 50 YARDS AWAY FROM STORM DRAINS AND WATER WAYS WHENEVER POSSIBLE.
 - INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

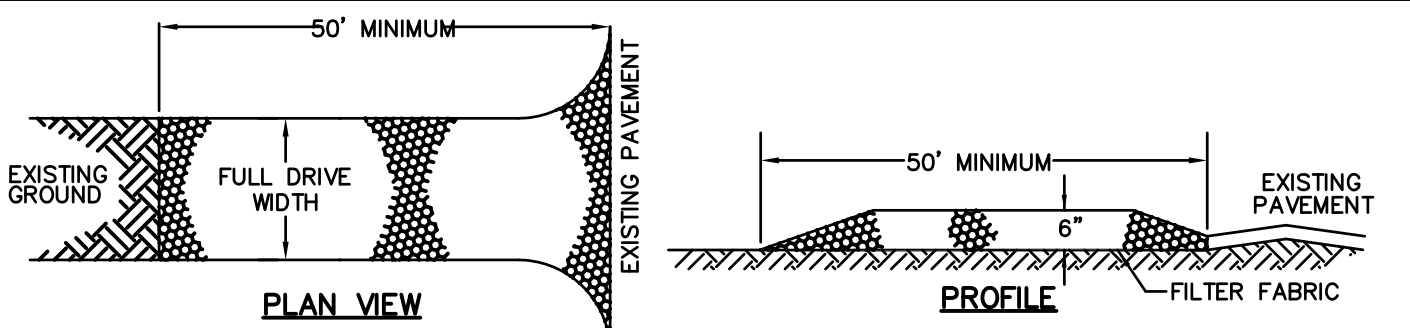
ALLOWABLE NON-STORMWATER DISCHARGES

- DISCHARGES FROM FIRE-FIGHTING ACTIVITIES
- FIRE HYDRANT FLUSHINGS
- WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED
- WATER USED TO CONTROL DUST
- POTABLE WATER INC. UNCONTAMINATED WATER LINE FLUSHINGS
- ROUTINE EXTERNAL BUILDING WASH DOWN –NO DETERGENTS
- PAVEMENT WASHING –NO SPILLS OR DETERGENTS
- UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATE
- UNCONTAMINATED GROUND WATER OR SPRING WATER
- FOUNDATION OR FOOTING DRAINS –NOT CONTAMINATED
- UNCONTAMINATED EXCAVATION DEWATERING
- LANDSCAPE IRRIGATION



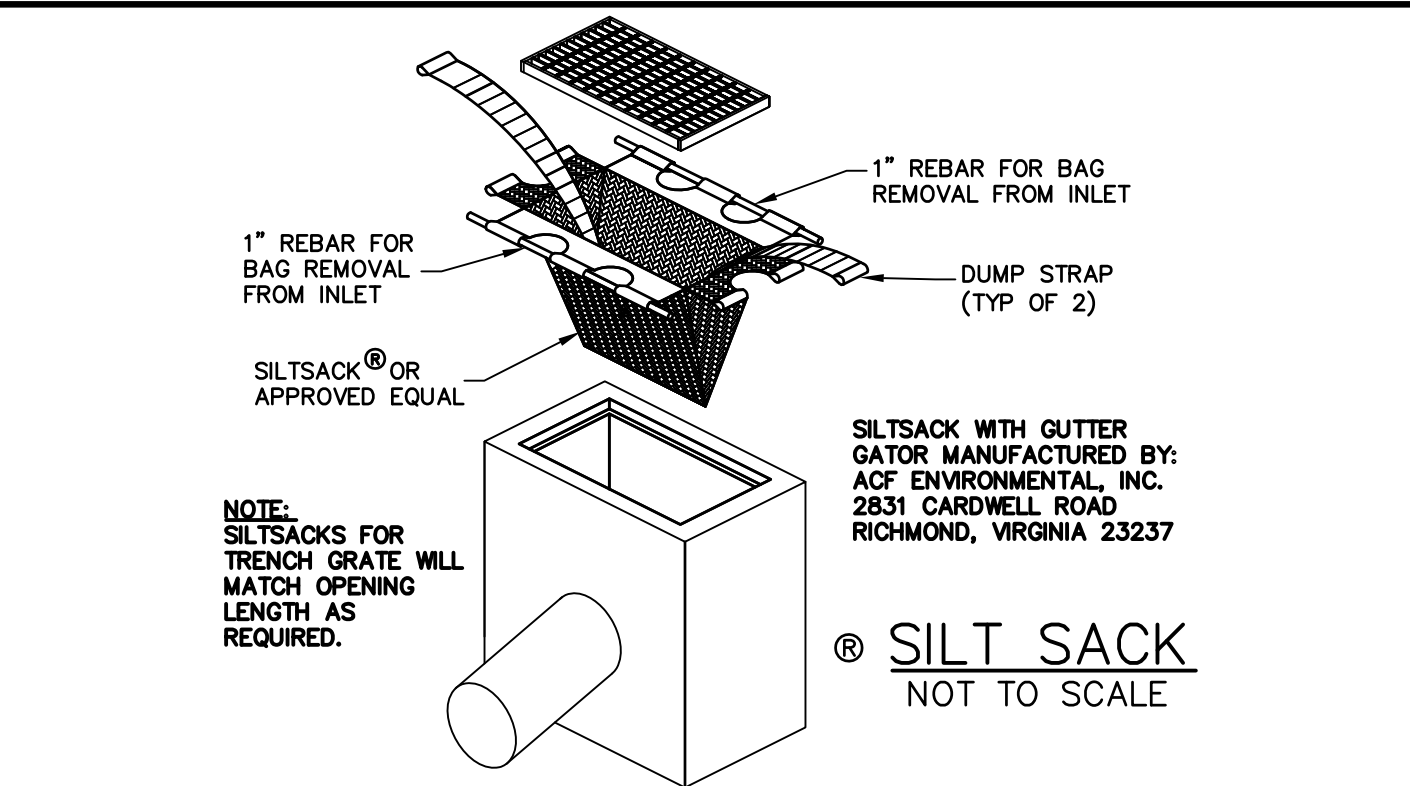
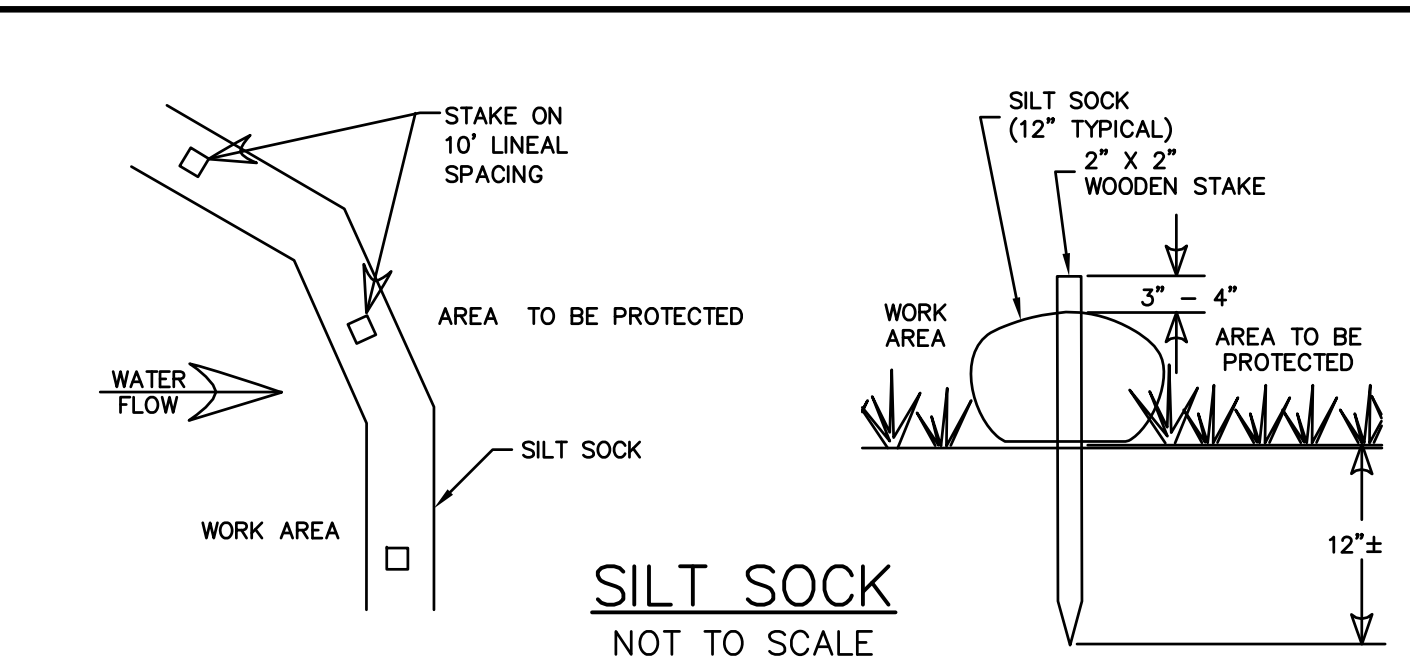
NOTES:

- EROSION CONTROL BLANKET SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.
- STAKES/STAPLES SHOULD BE PLACED NO MORE THAN 3 FT. APART VERTICALLY, AND 1 FT. APART HORIZONTALLY.
- SLOPE SURFACE SHOULD BE FREE OF STICKS, ROCKS, AND OTHER OBSTRUCTIONS.
- BLANKETS SHOULD BE ROLLED OUT LOOSELY AND STAKED/STAPLED TO MAINTAIN DIRECT SOIL CONTACT. DO NOT STRETCH THE BLANKETS.

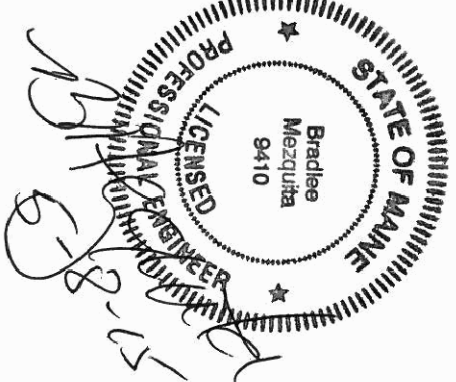


- SEE EROSION CONTROL NOTES FOR MATERIAL, INSTALLATION AND MAINTENANCE REQUIREMENTS.

STABILIZED CONSTRUCTION ENTRANCE



Mark	Date	Description
PROJECT NO:	J-0096	
FILE:	J0096-DETAILS.dwg	
DRAWN BY:	GWH	
CHECKED:	BLM	
APPROVED BY:	BLM	

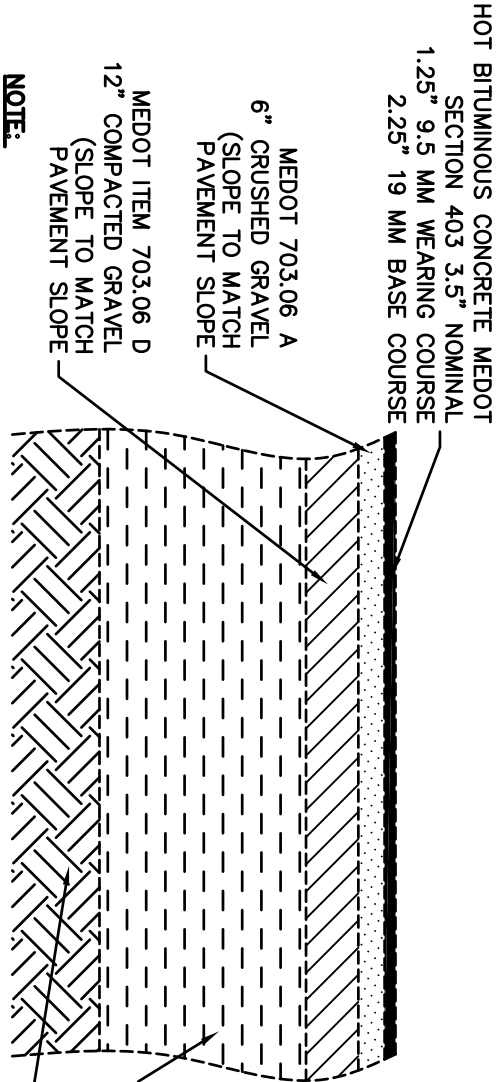


**Jewish
Community
Alliance of
Southern Maine
Proposed
Neighborhood
Center**
Portland, Maine

April 03, 2015

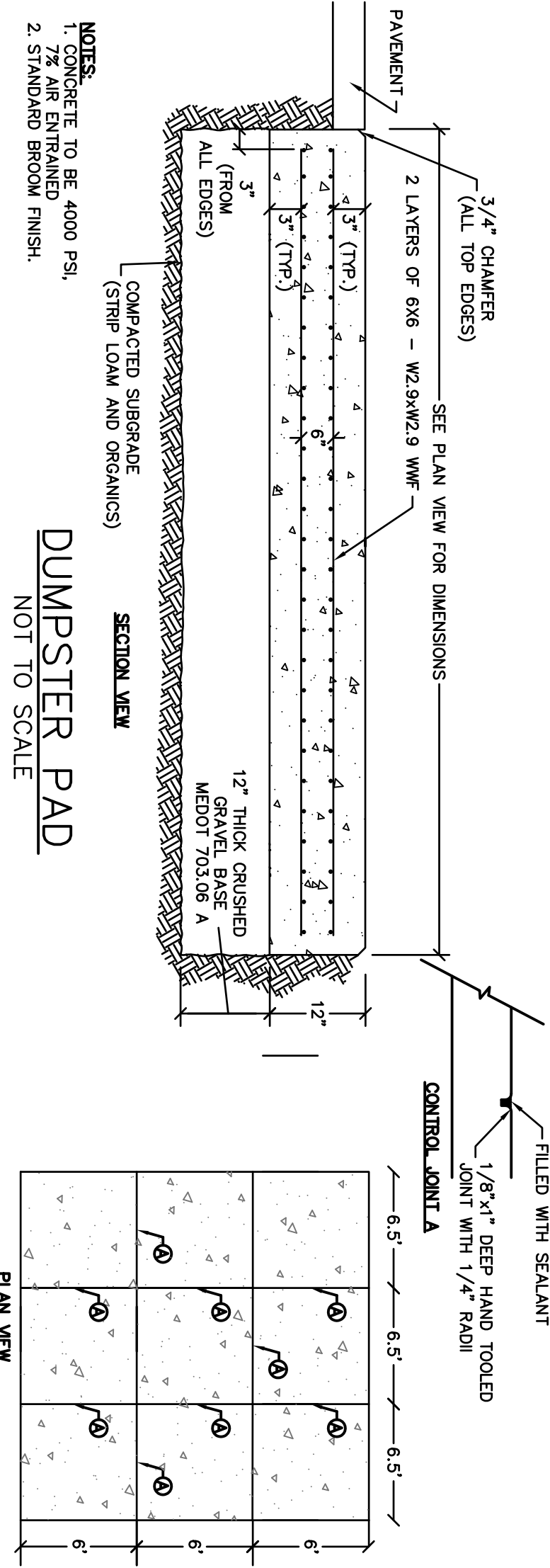
1.	3/8"15 REVISED FOR PB WORKSHOP
2.	3/8"15 REVISED FOR PB WORKSHOP
3.	3/8"15 REVISED FOR PB WORKSHOP
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100.	3/8"15 REVISED FOR PB WORKSHOP

STANDARD DUTY PAVEMENT SECTION
NOT TO SCALE

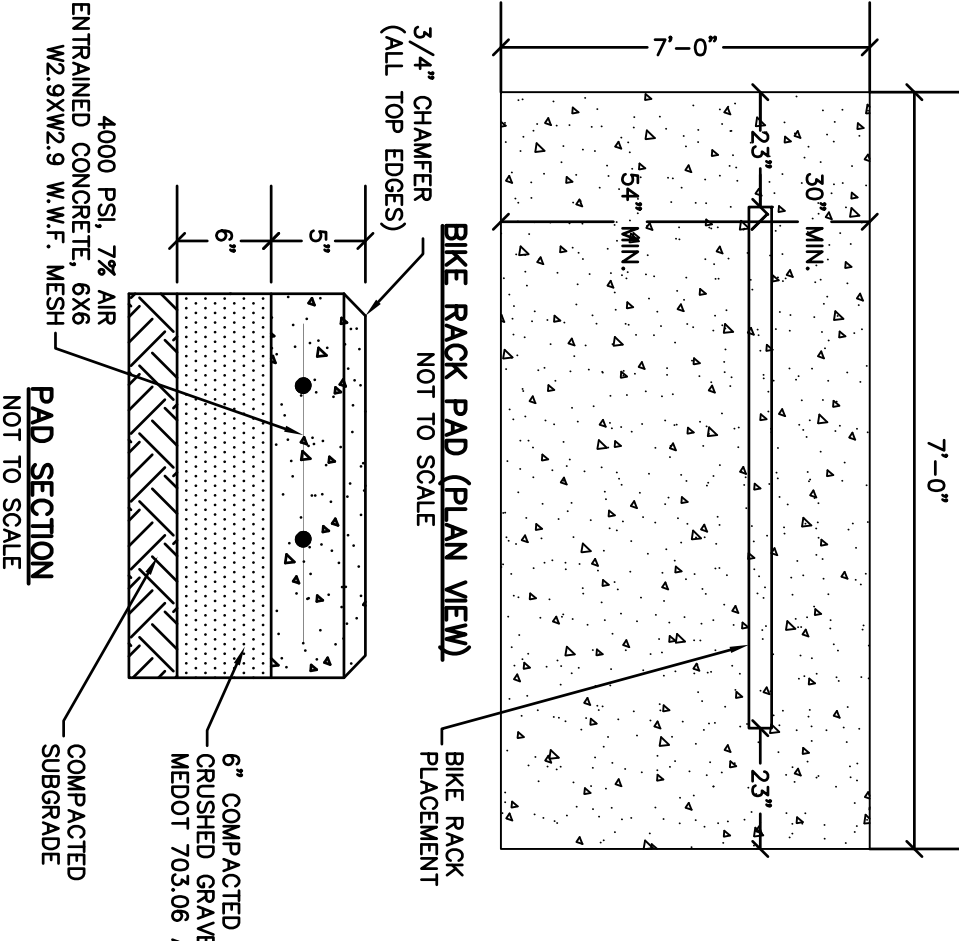


- NOTES:**
1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
 2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND WEARING COURSE.
 3. A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
 4. THE MATERIAL SHALL HAVE THE OPTION OF RECLAIMING THE EXISTING PAVEMENT AND REINFORCING THE MATERIAL, THEN REUSING THE RECLAIMED MATERIAL AS A PAVEMENT SUBGRADE.

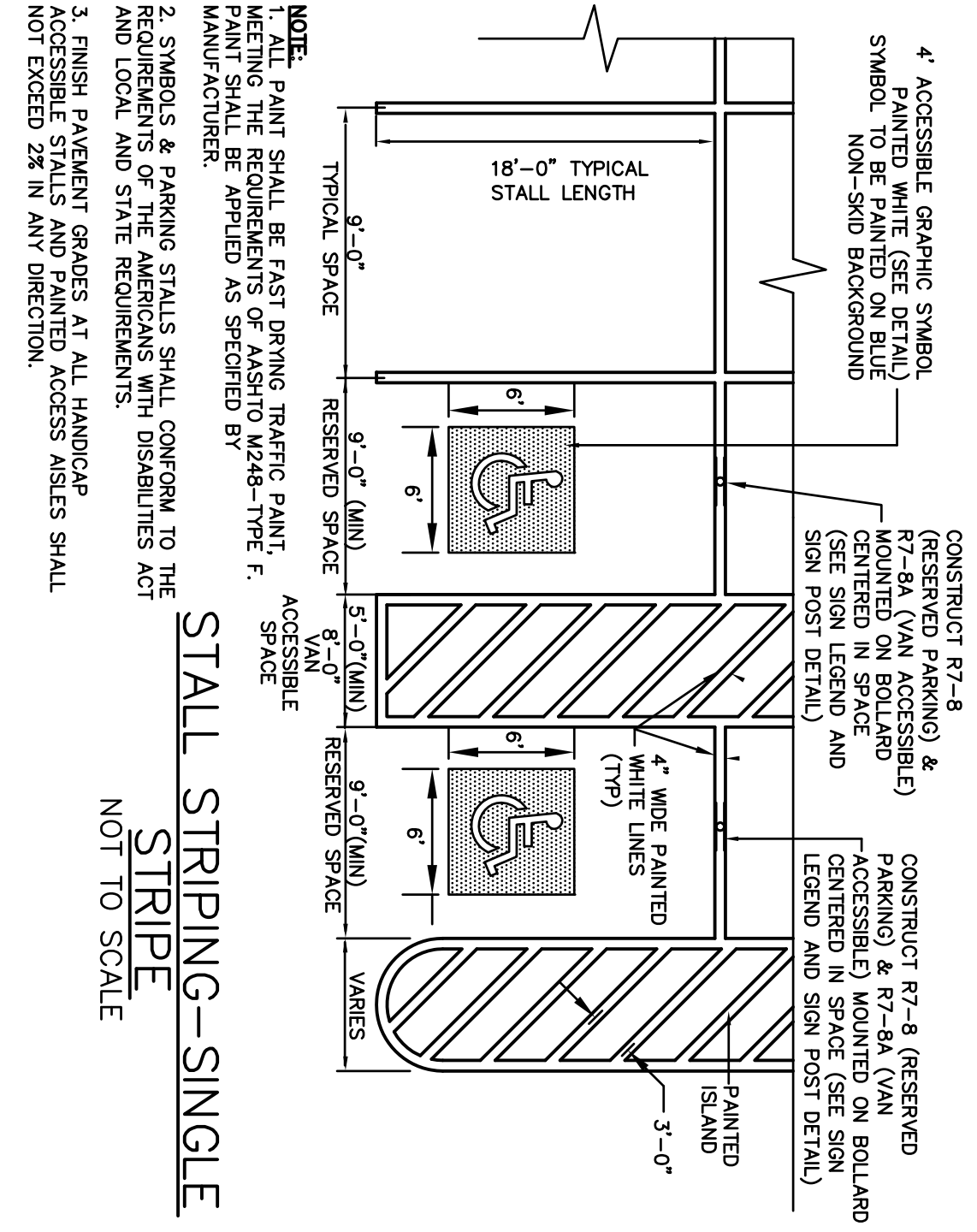
DUMPMSTER PAD
NOT TO SCALE



**BIKE RACK AND PAD DETAIL
(MODEL RB 05)**
NOT TO SCALE

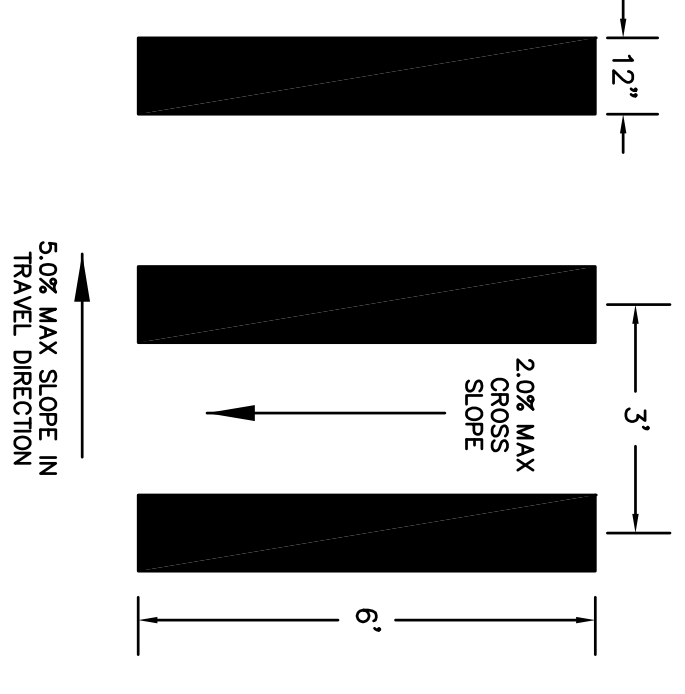


STALL STRIPING-SINGLE STRIPE
NOT TO SCALE



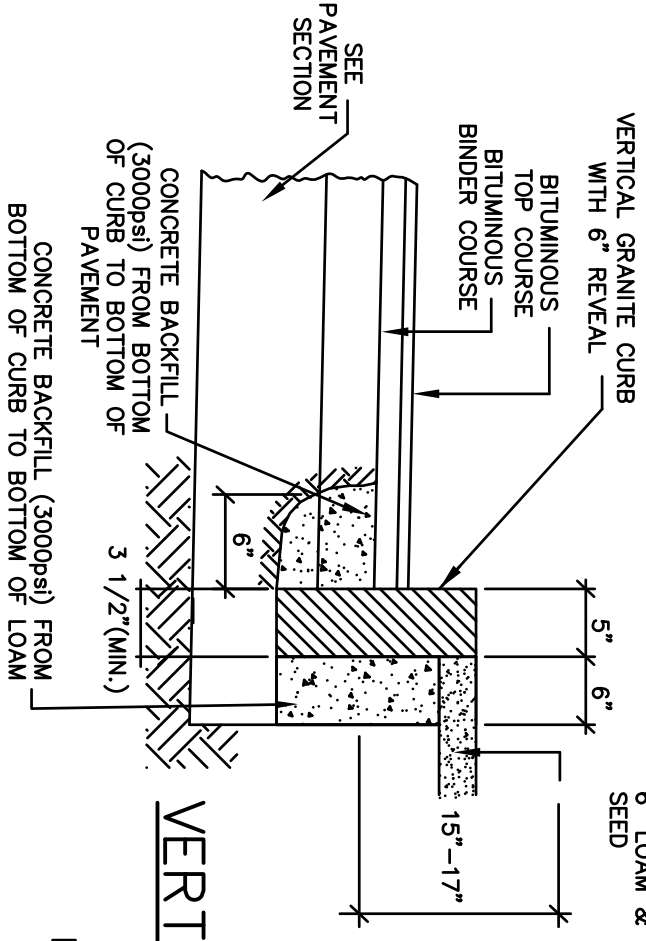
- NOTES:**
1. FINISH PAVEMENT GRADES AT ALL HANDCUPS SHALL EXCEED 2% IN ANY DIRECTION.
 2. STANDARD BROOK FINISH.
 3. FINISH PAVEMENT GRADES AT ALL HANDCUPS SHALL EXCEED 2% IN ANY DIRECTION.

CROSSWALK STRIPING
NOT TO SCALE



- NOTE:**
- ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF ASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.

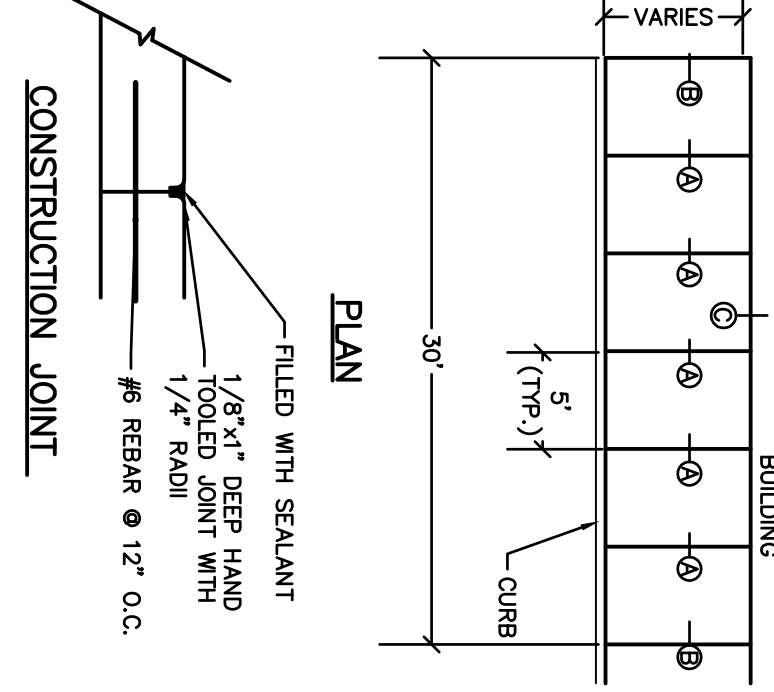
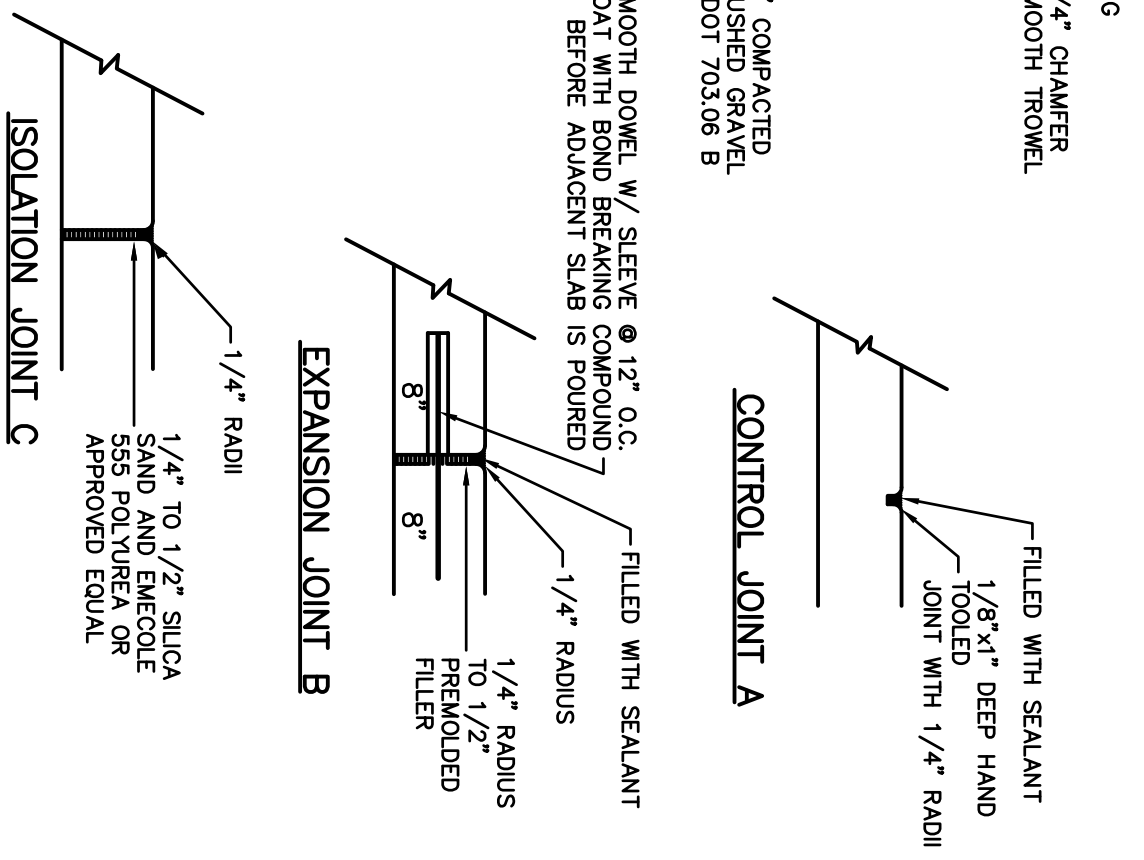
VERTICAL GRANITE CURB
NOT TO SCALE



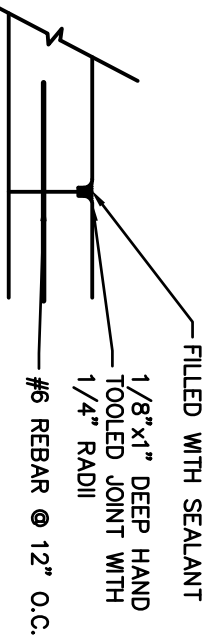
RADIUS	MAX. LENGTH
<20'	USE CURBED CUBES
21'-22'	3'
23'-28'	4'
29'-35'	5'
36'-42'	6'
43'-50'	7'
51'-56'	8'
57'-60'	9'
OVER 60'	10'

- NOTES:**
1. SEE SITE PLAN FOR LIMITS OF CURBING.
 2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
 3. MINIMUM LENGTH OF CURB STONES = 3'
 4. MAXIMUM LENGTH OF CURB STONES = 10'
 5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAD ON CURVES (SEE CHART).
 6. ALL RADI 20 FEET AND SMALLER SHALL BE CONSTRUCTED USING CURVED SECTIONS.
 7. JOINTS BETWEEN STONES SHALL BE MORTARED.

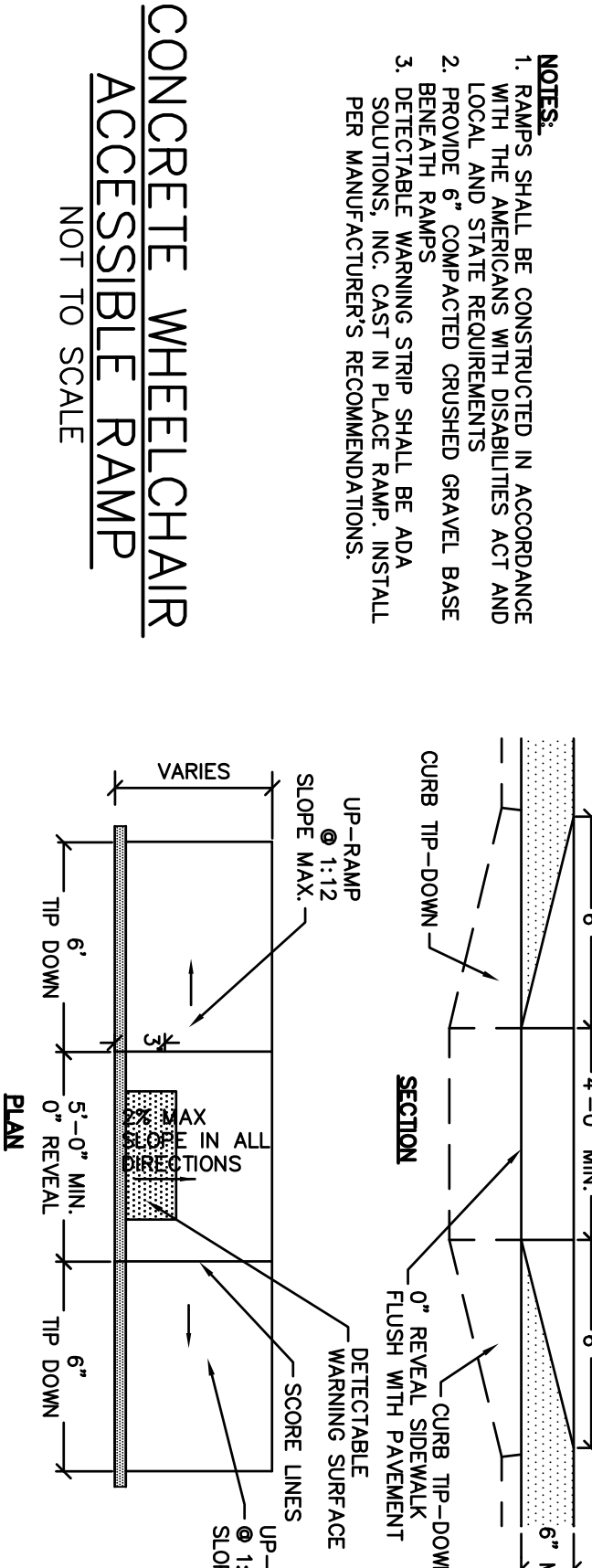
CONCRETE SIDEWALK WITH GRANITE CURB
NOT TO SCALE



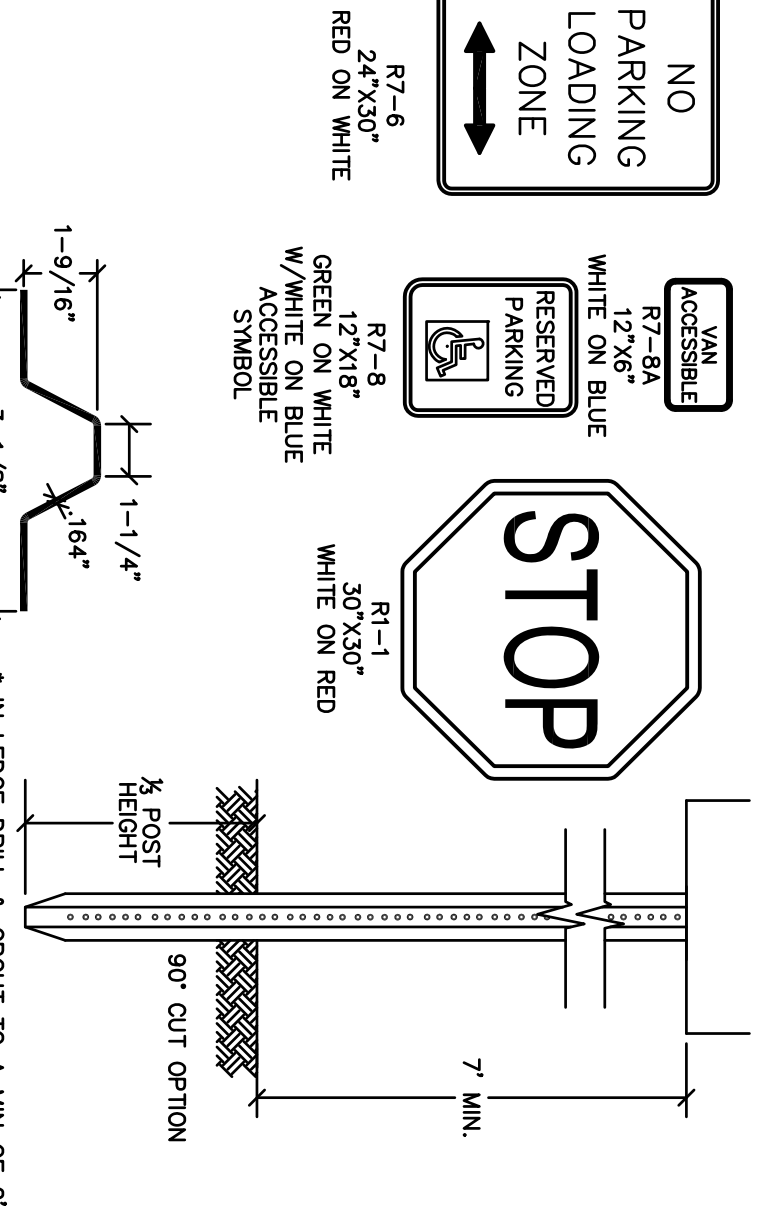
CONSTRUCTION JOINT



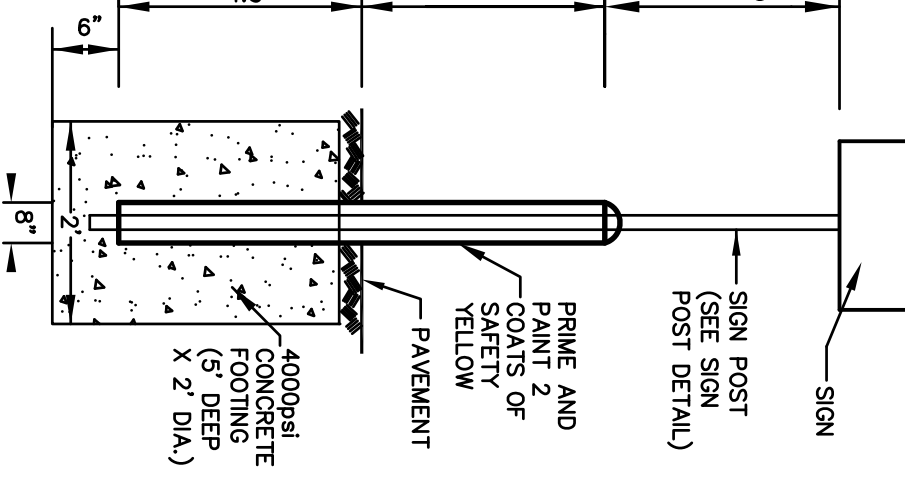
CONCRETE WHEELCHAIR ACCESSIBLE RAMP
NOT TO SCALE



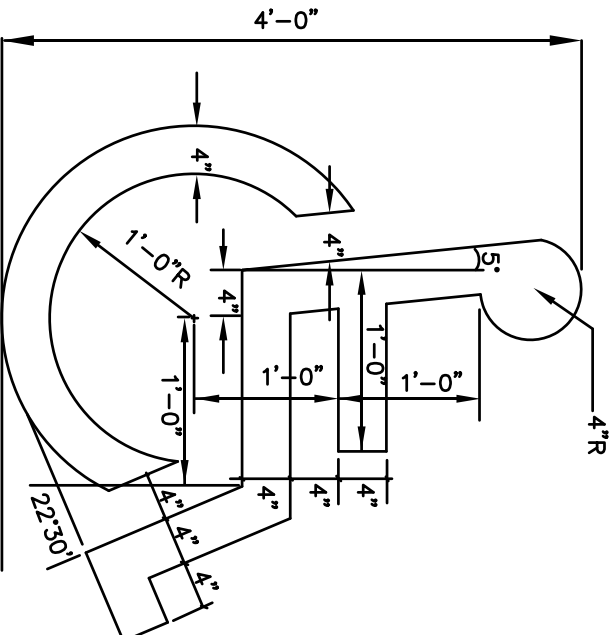
SIGN LEGEND & SIGN POST
NOT TO SCALE



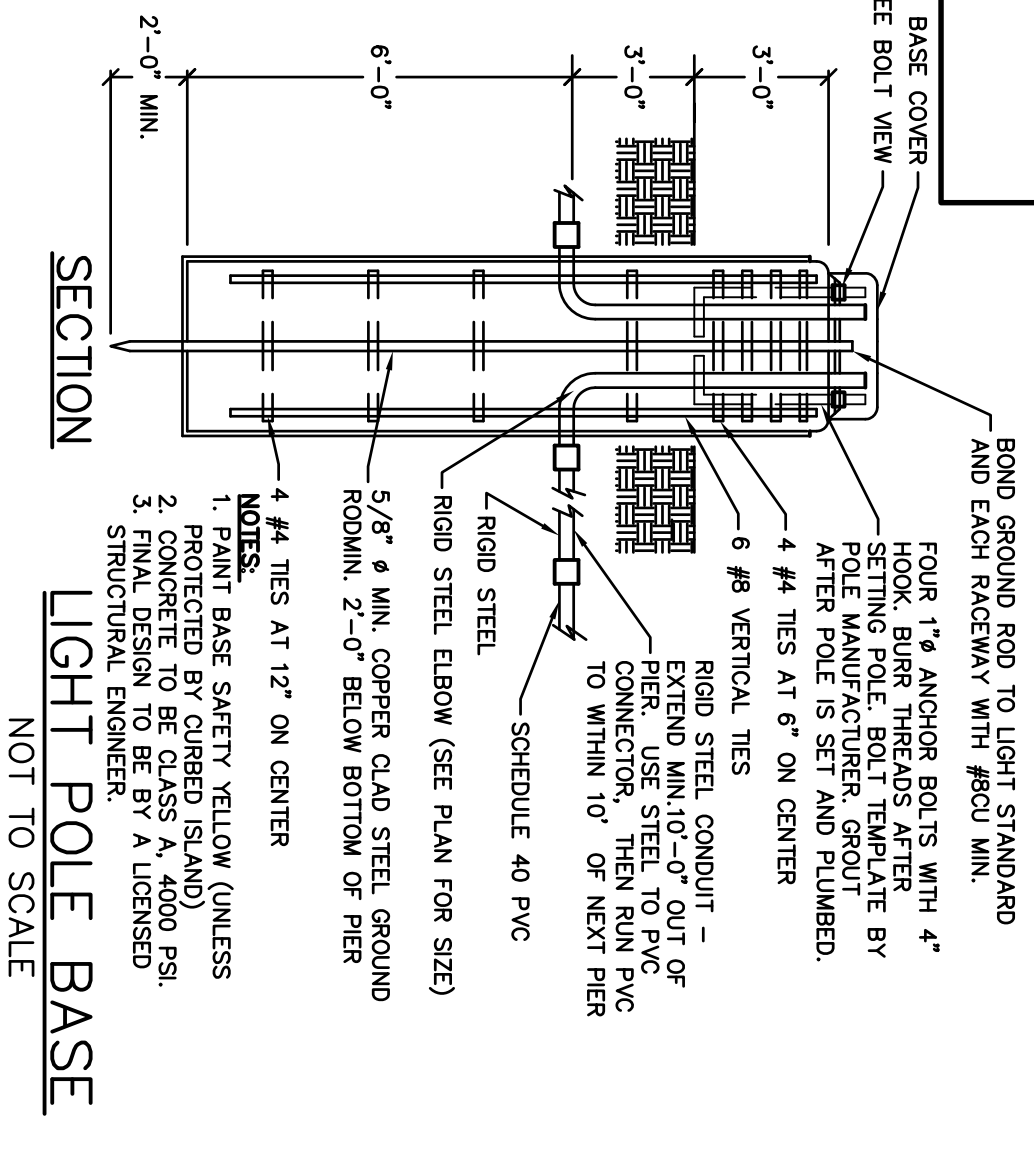
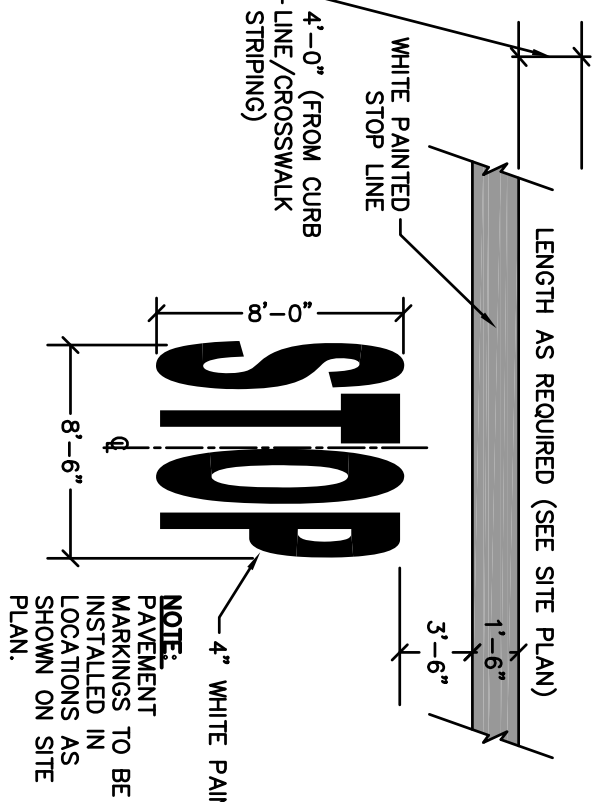
SIGN BOLLARD
NOT TO SCALE

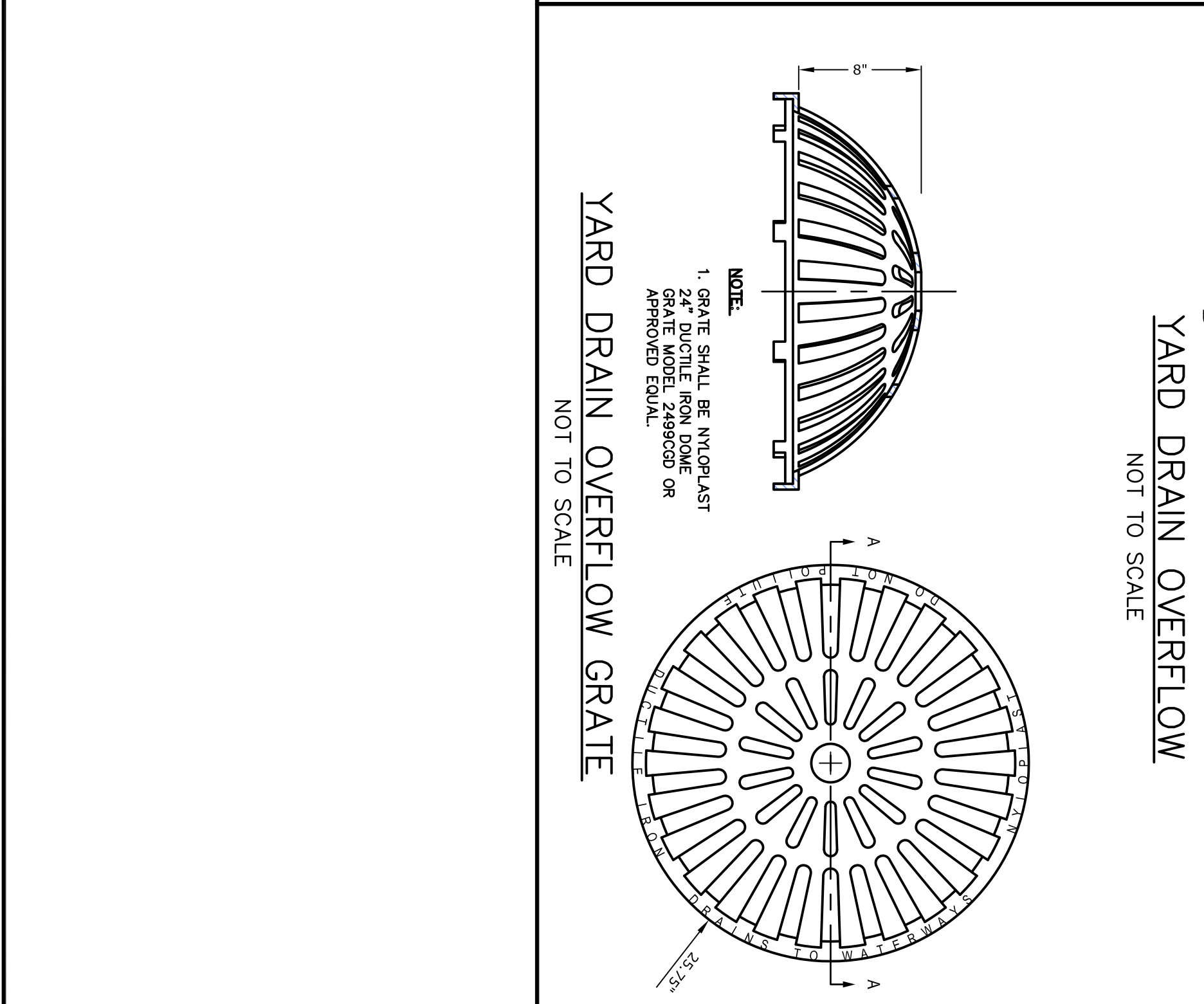
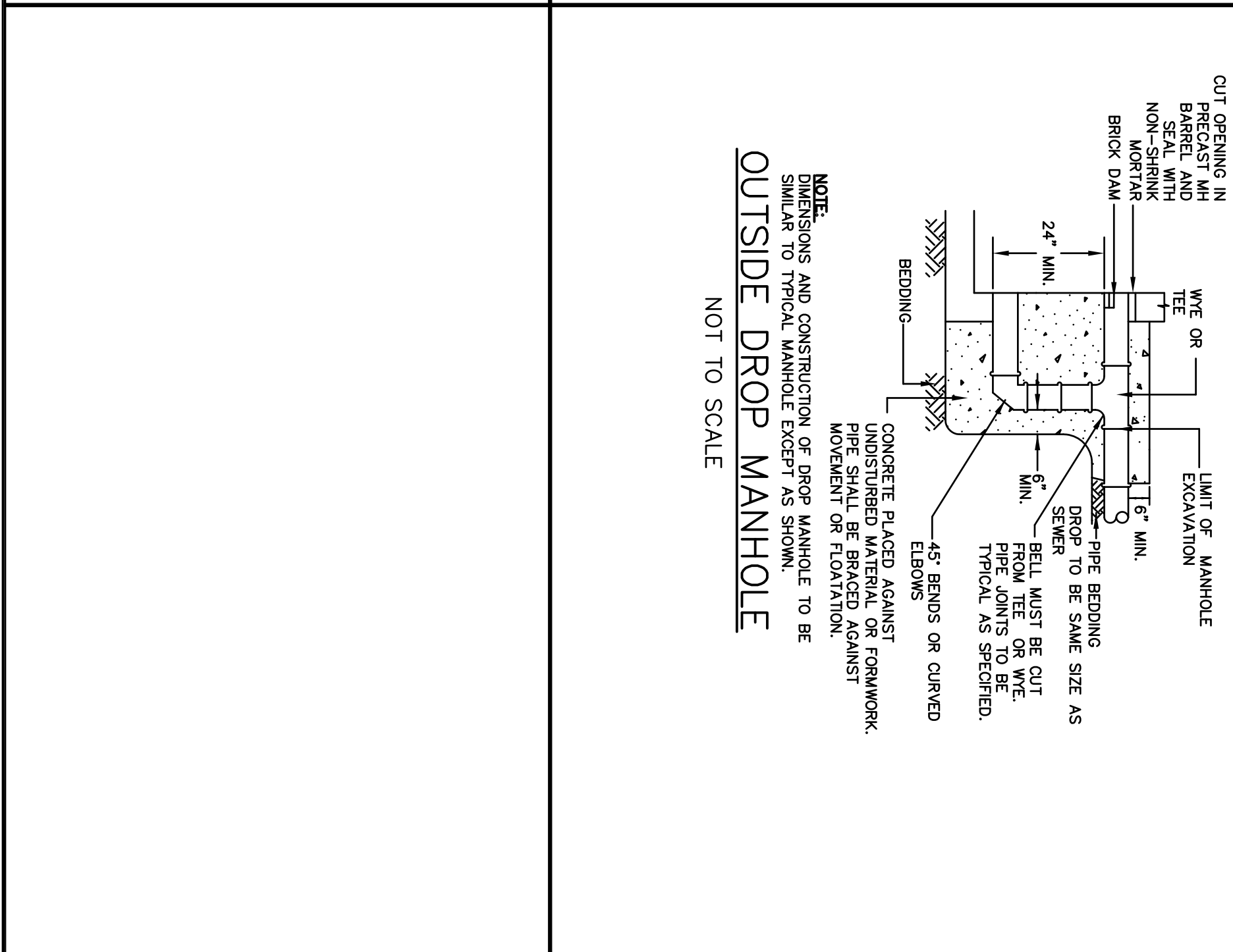
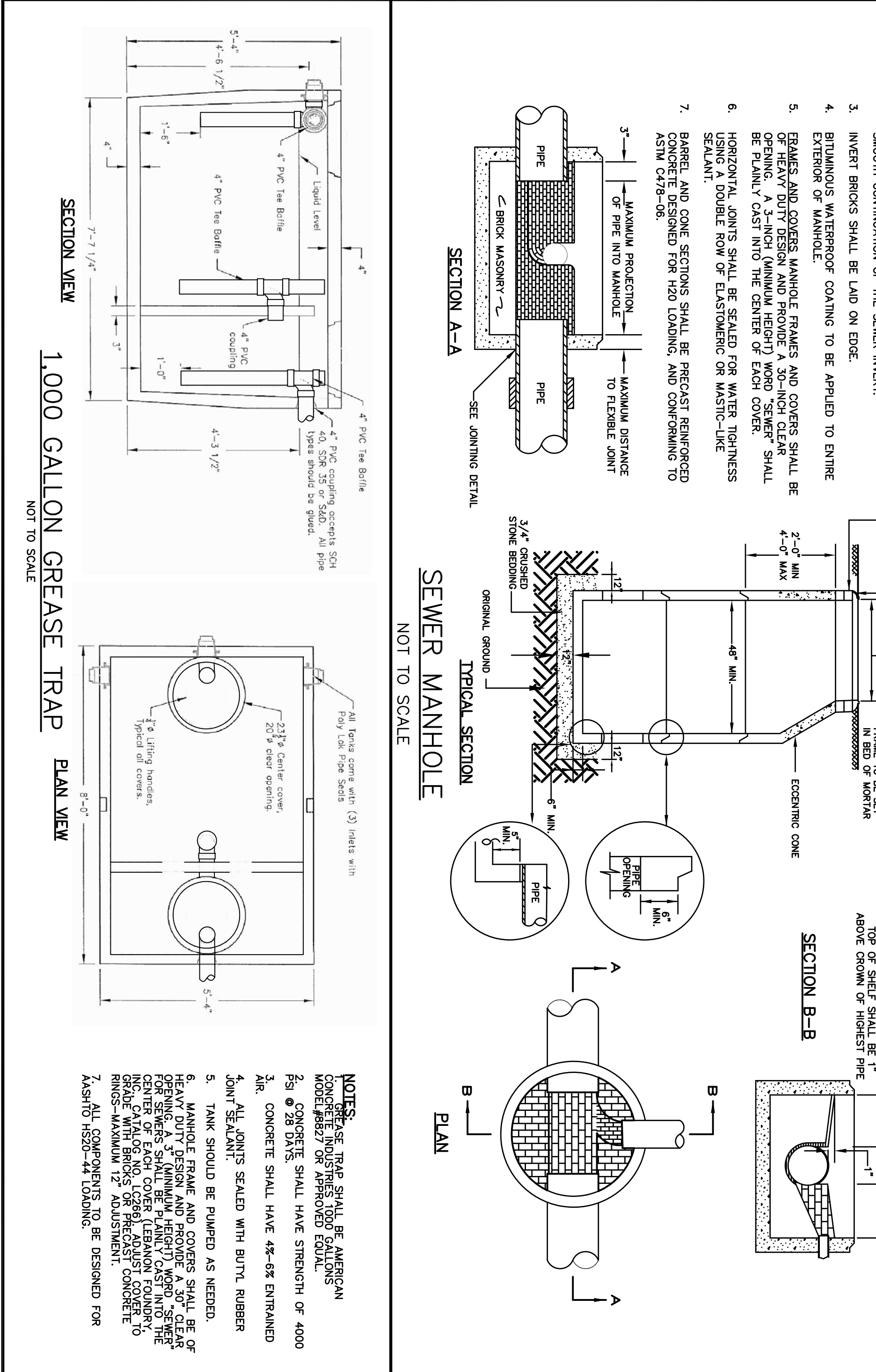
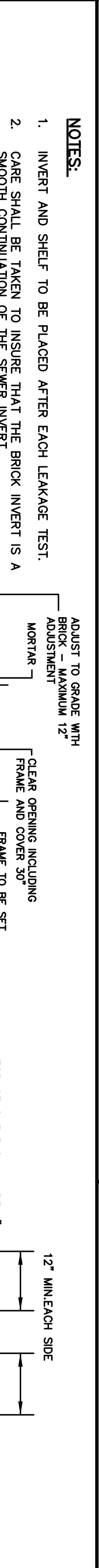
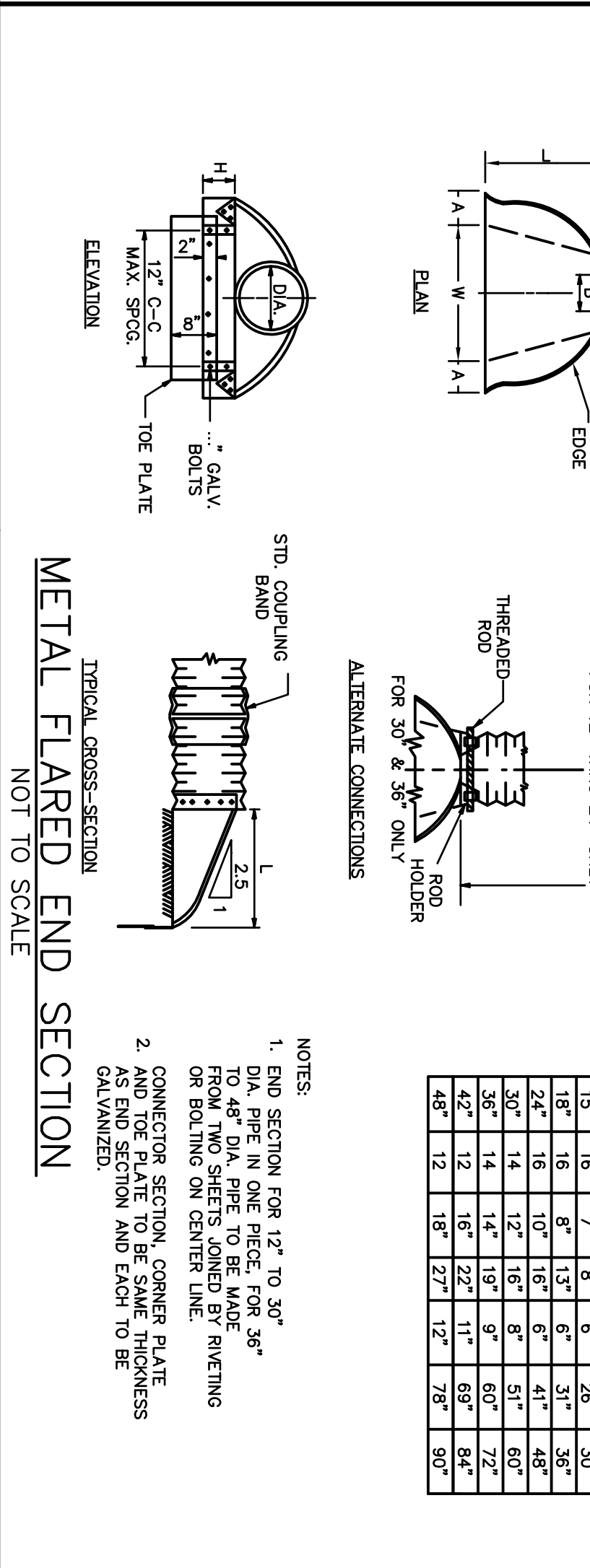
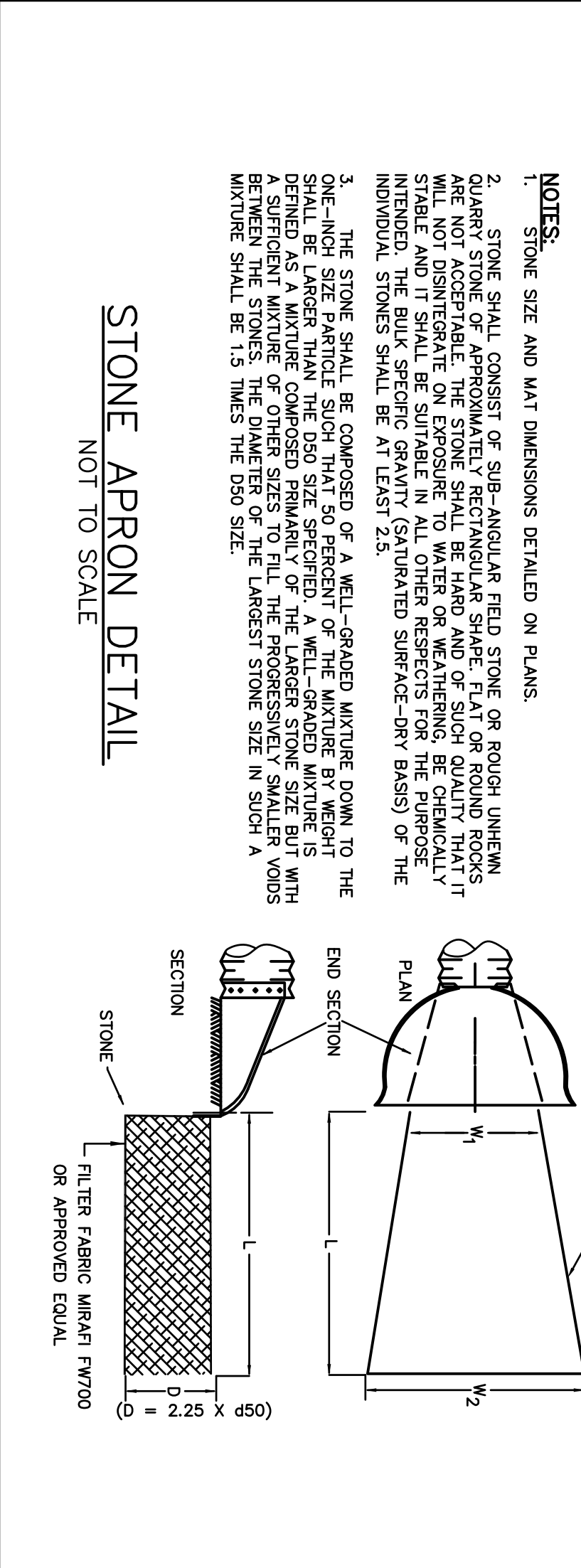
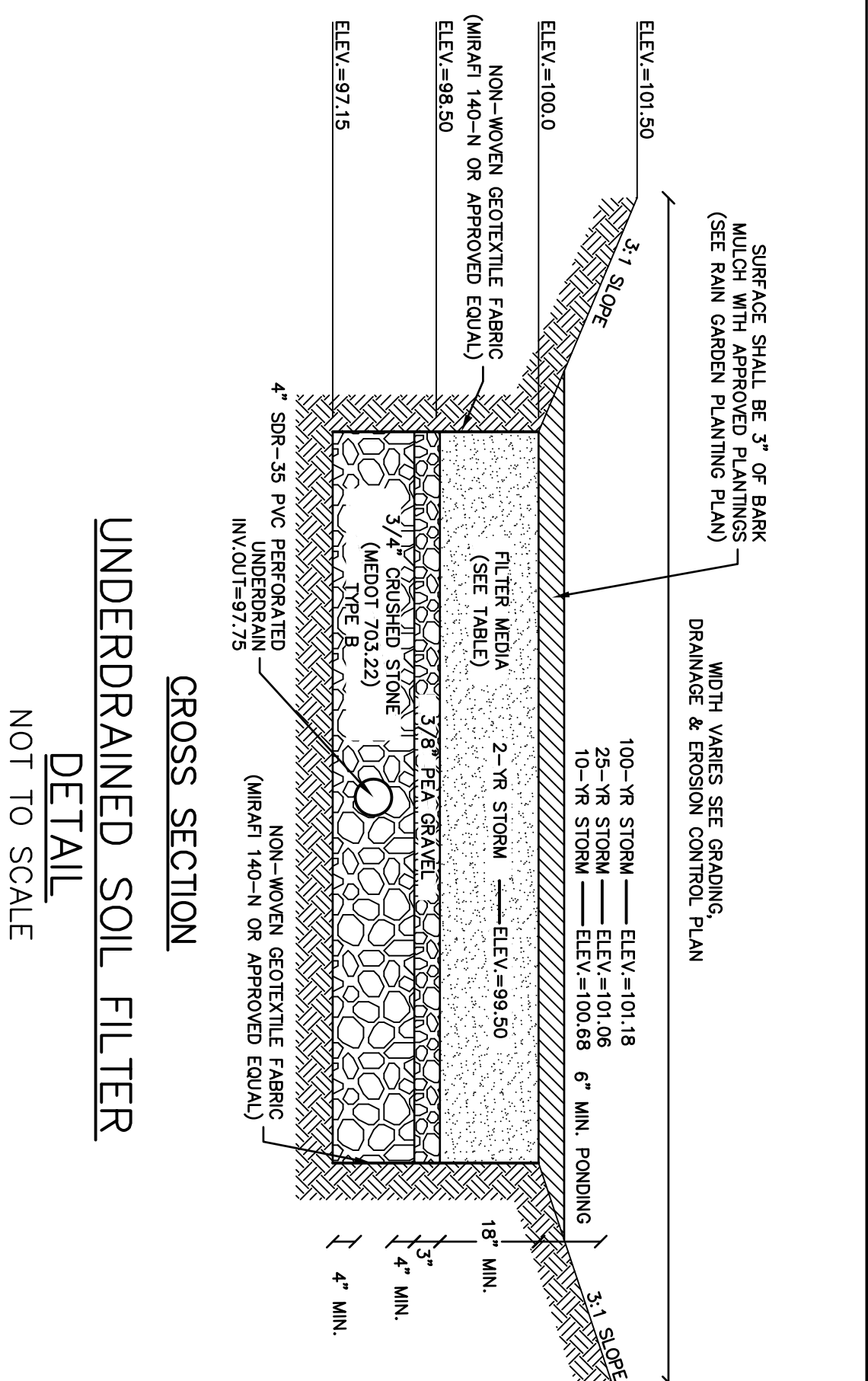
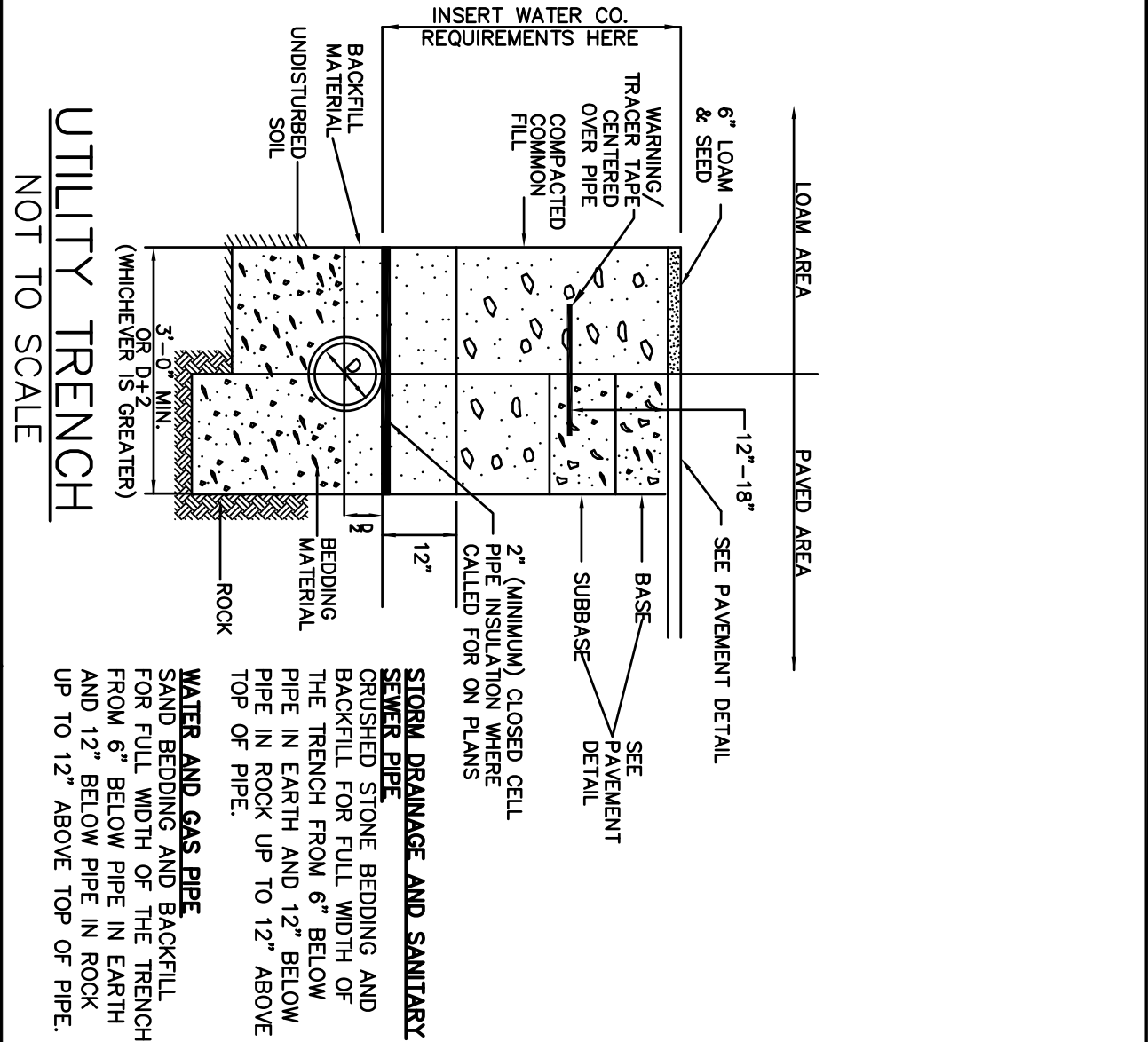
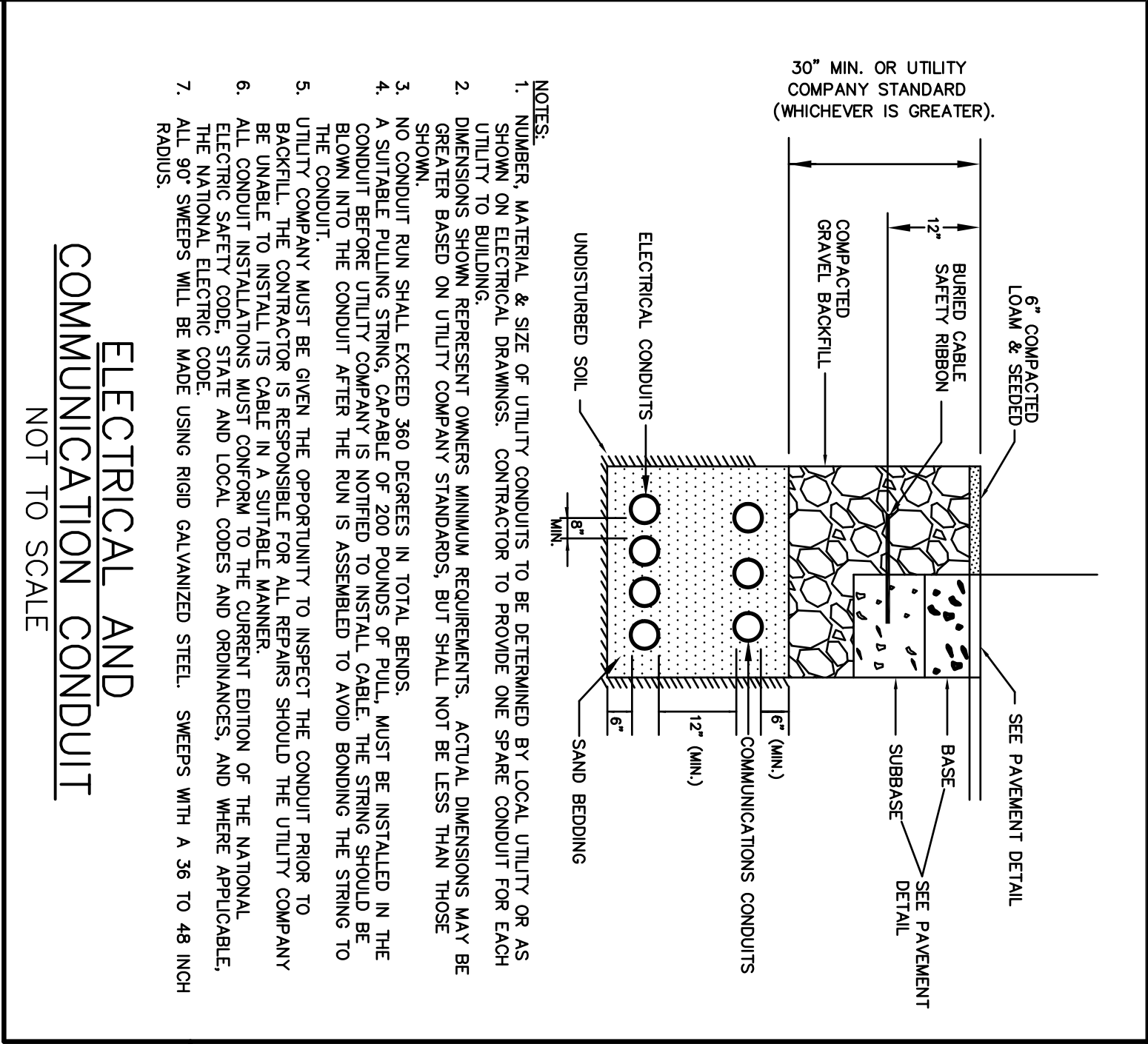


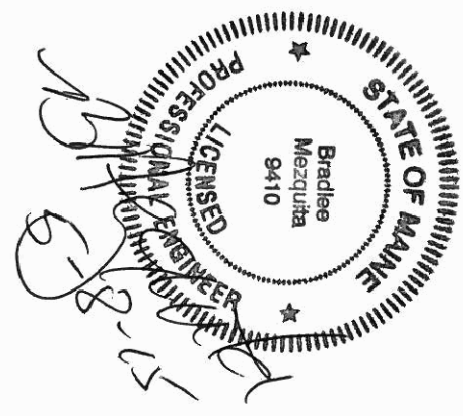
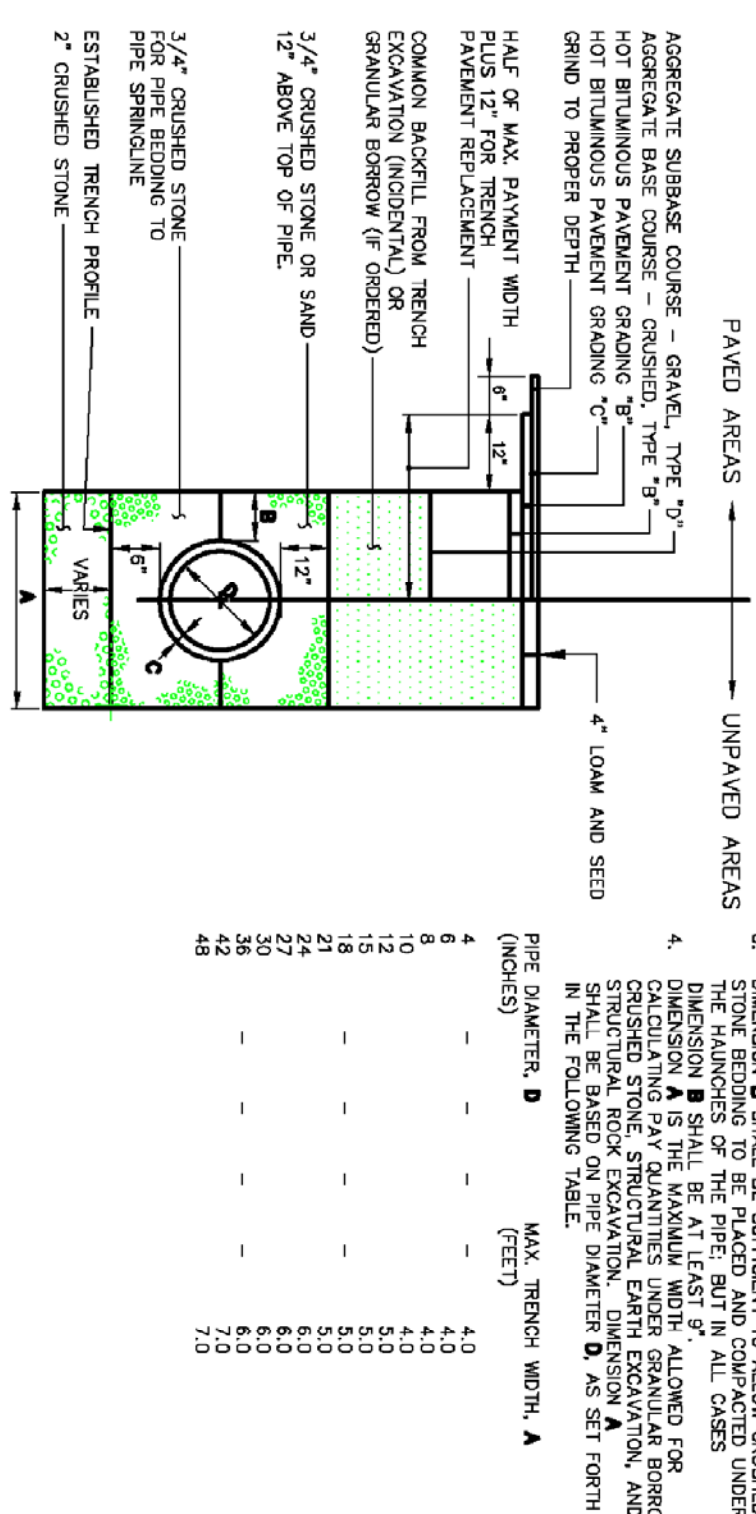
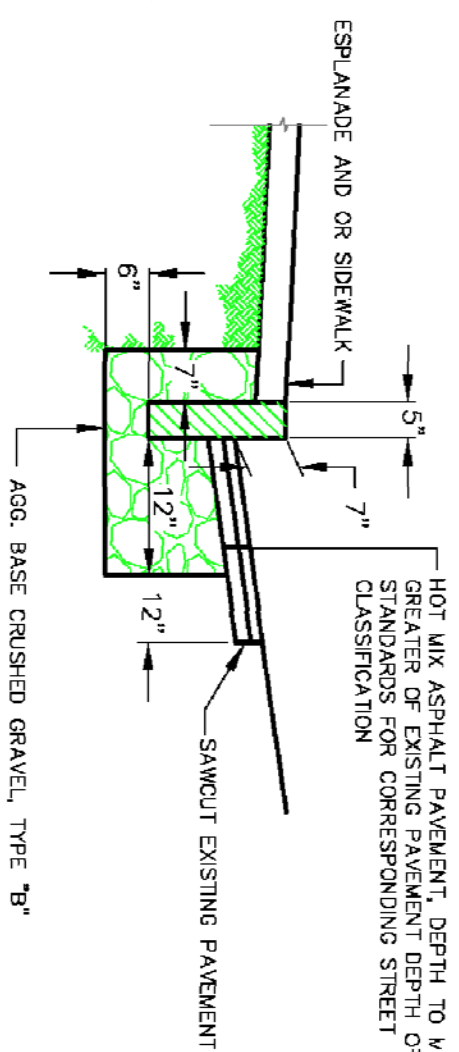
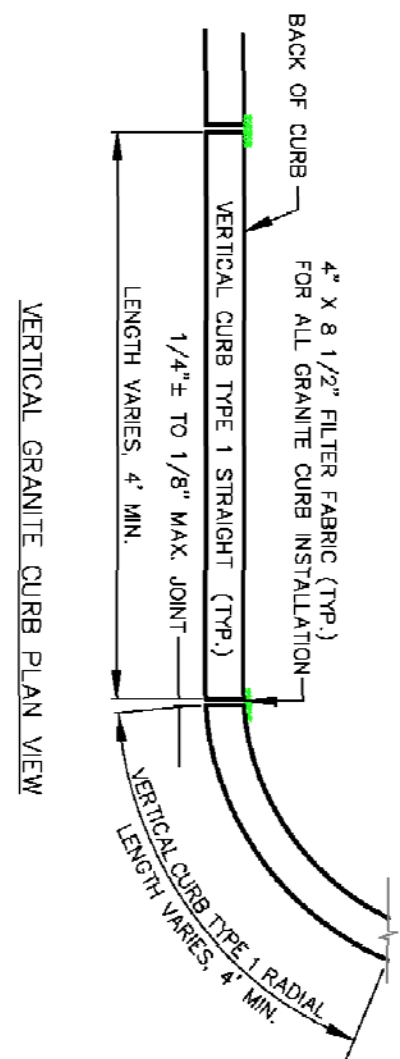
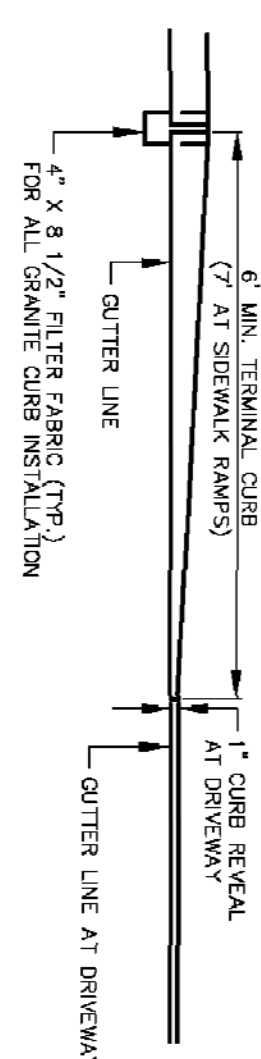
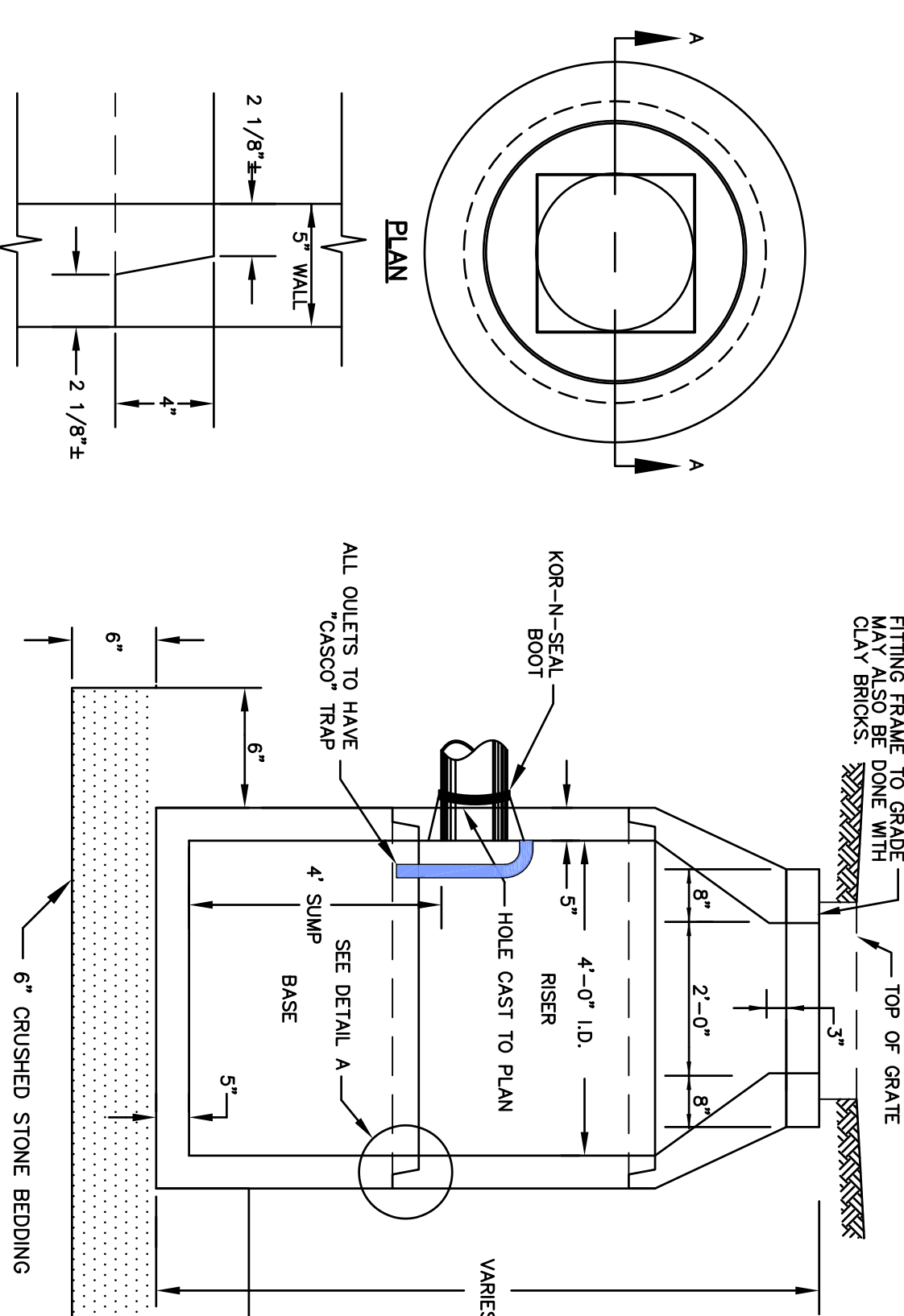
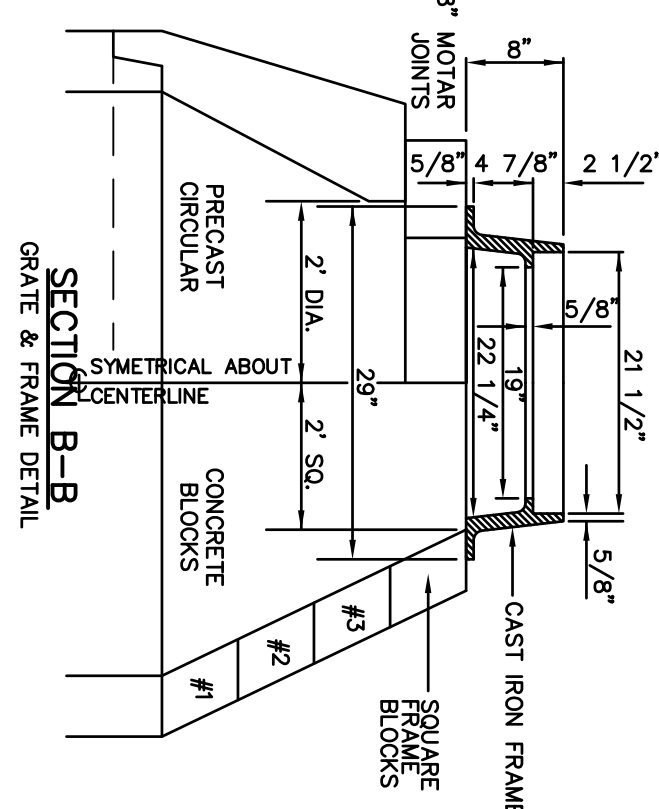
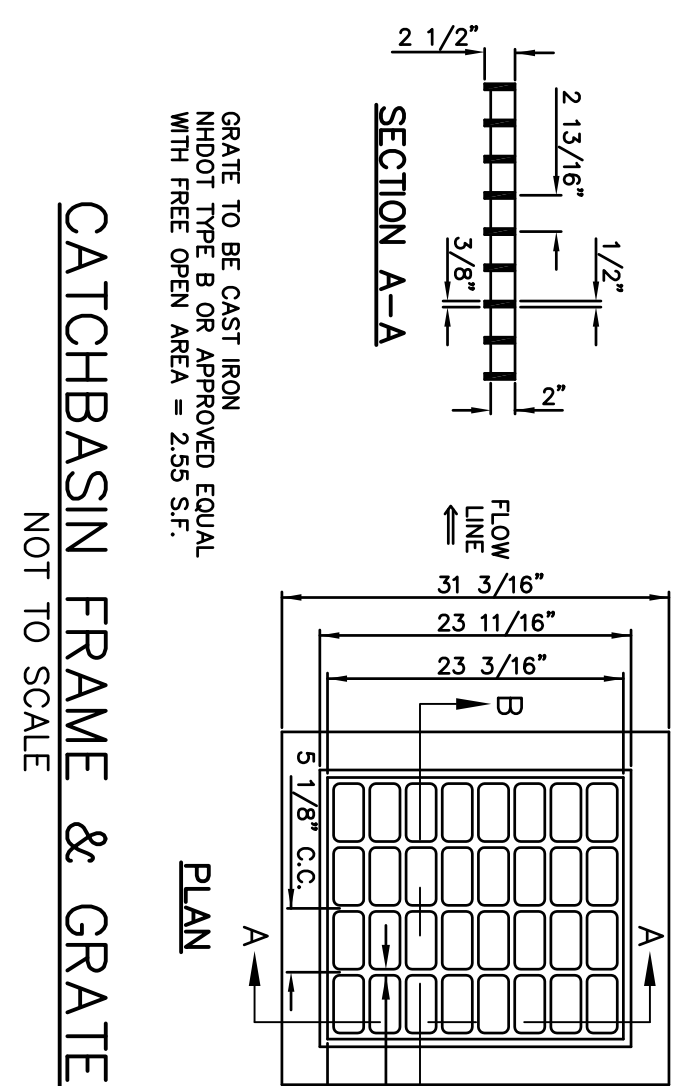
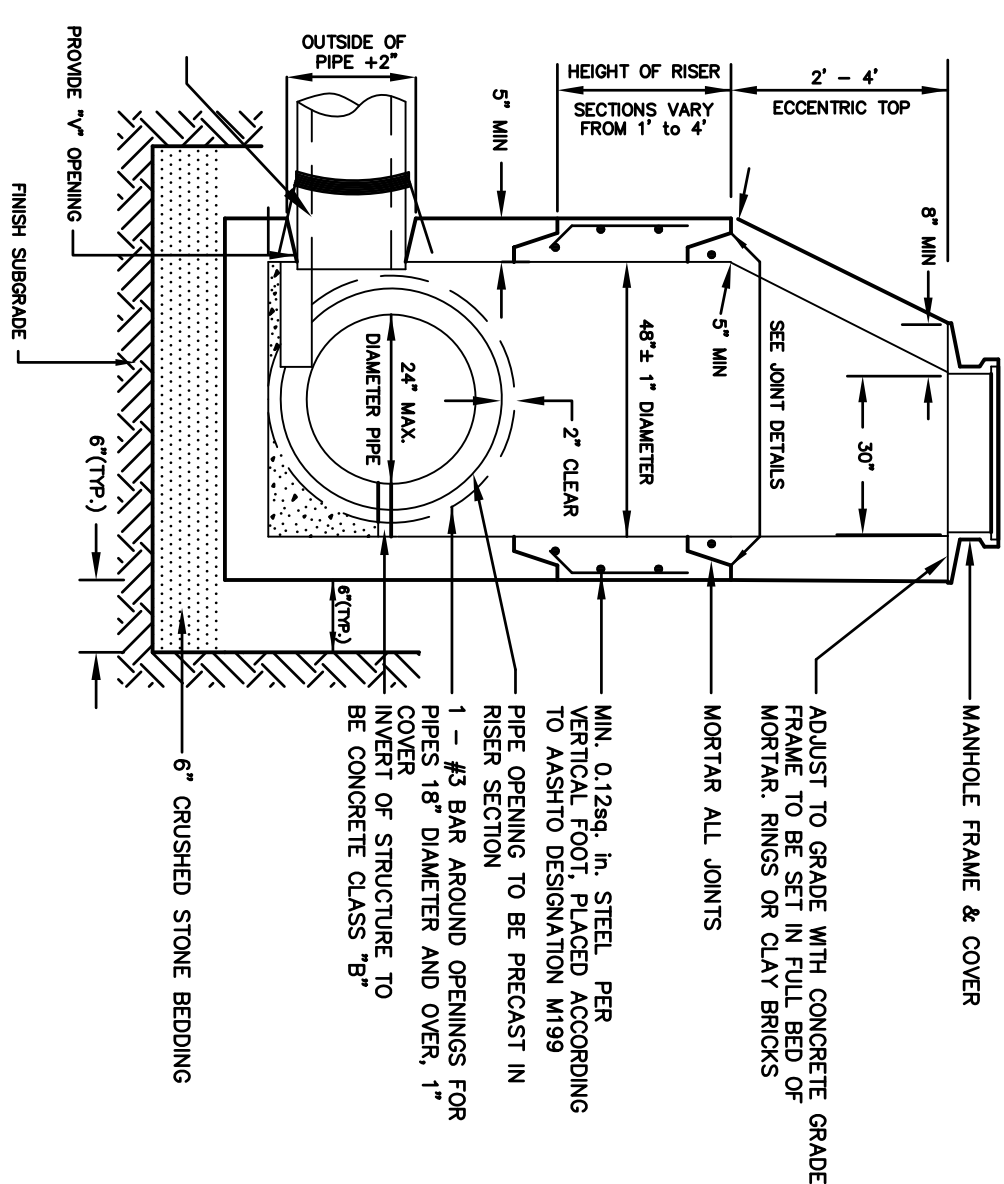
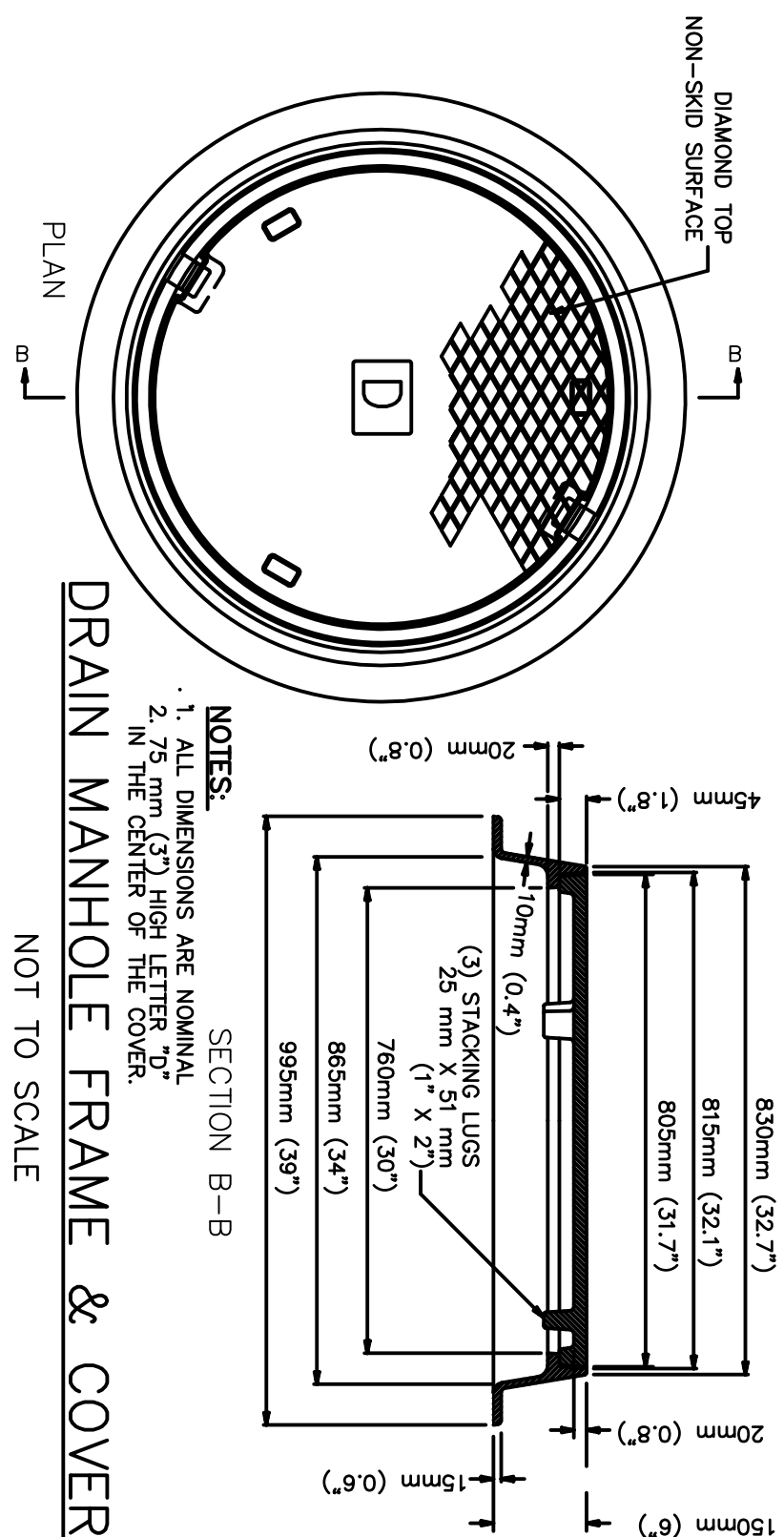
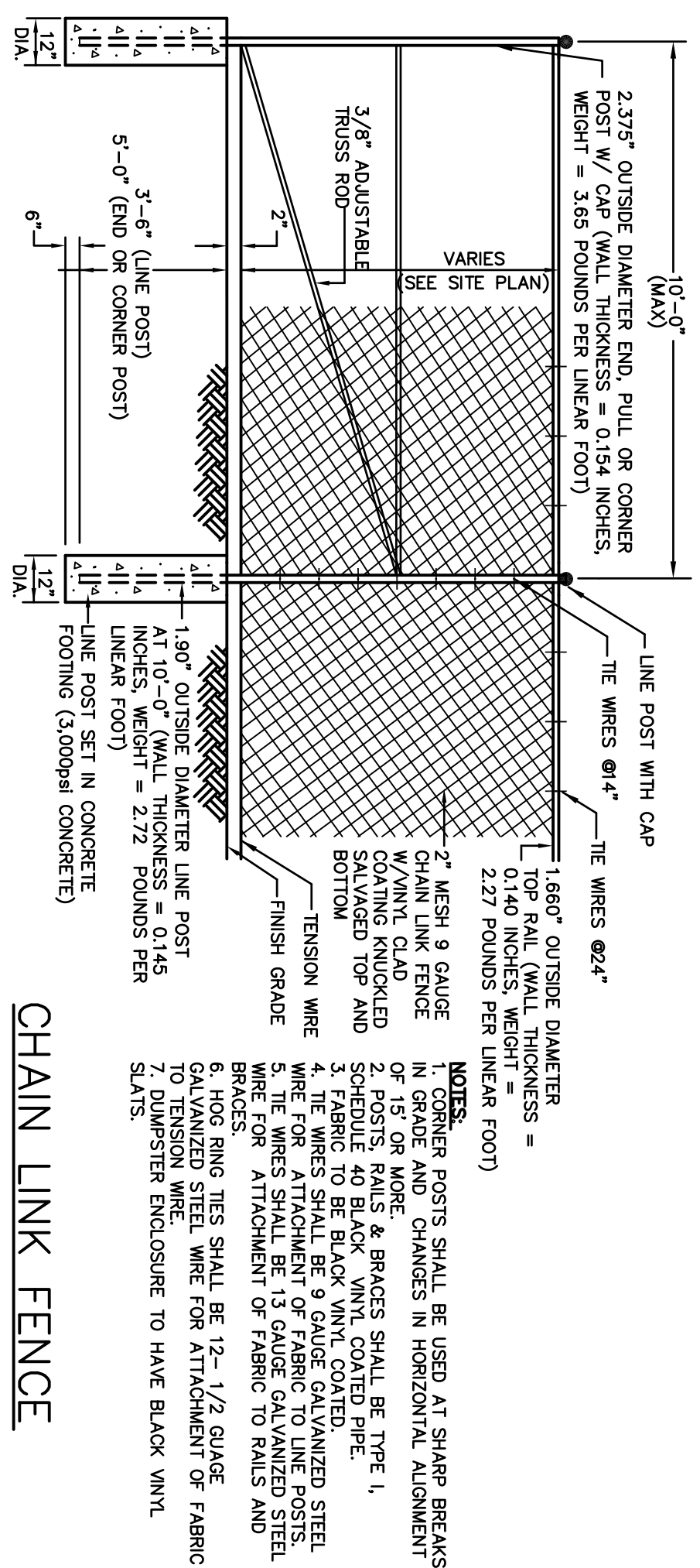
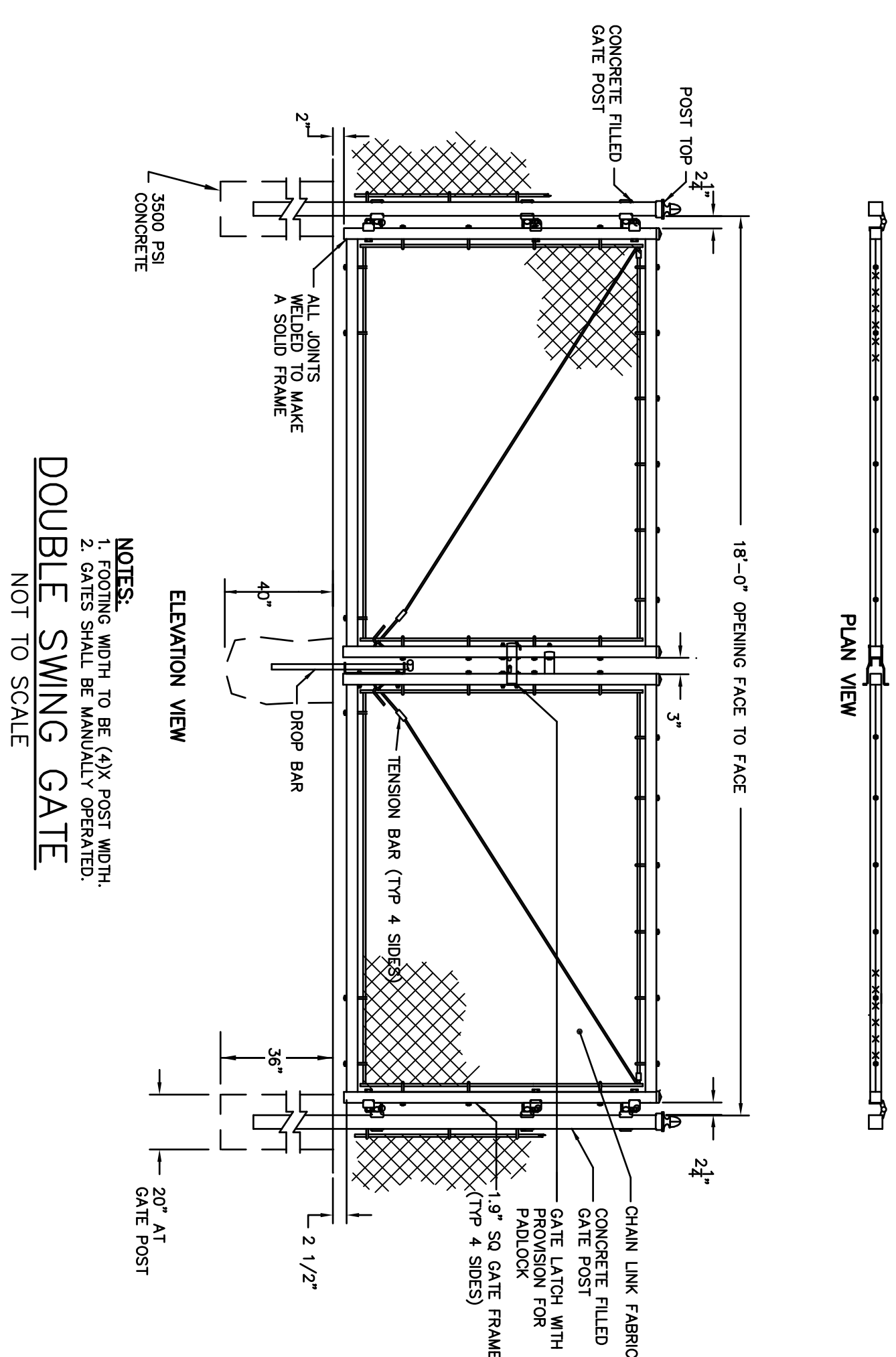
ACCESSIBLE SYMBOL
NOT TO SCALE

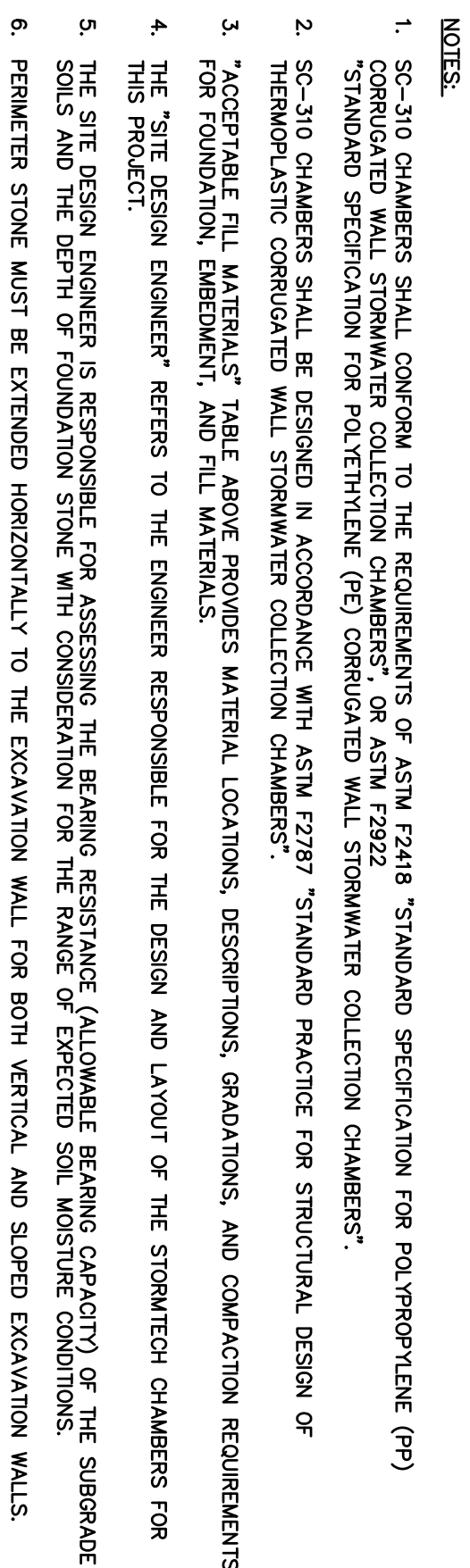


STOP BAR AND LEGEND
NOT TO SCALE

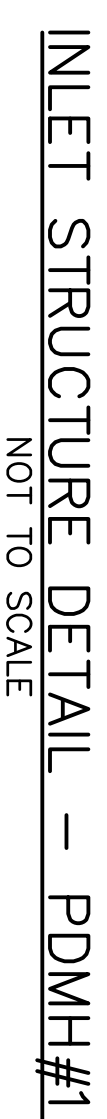
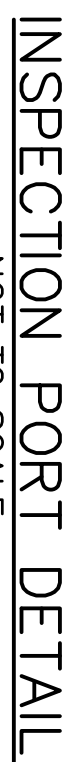
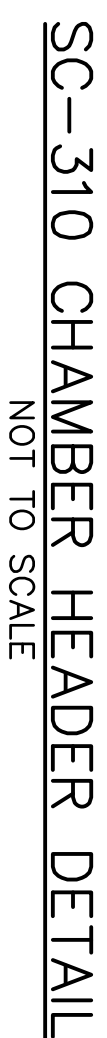




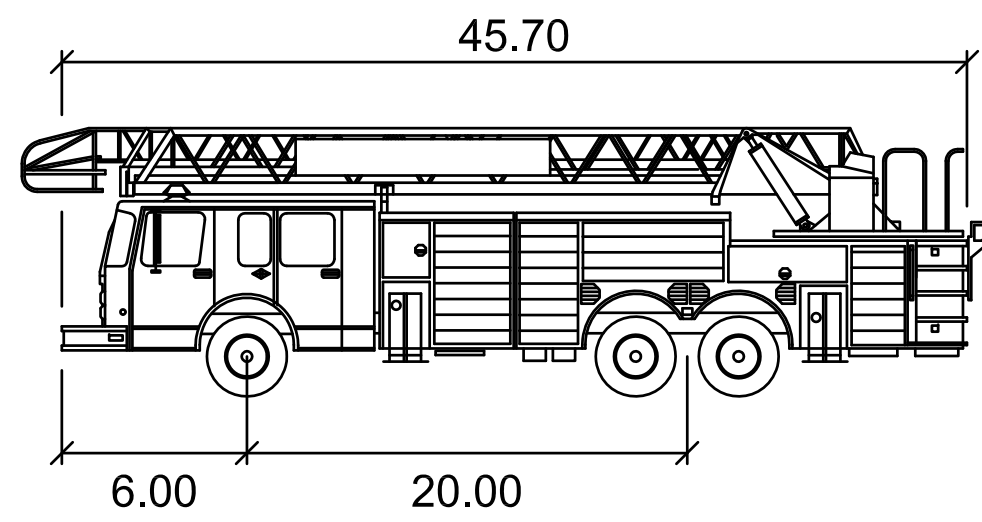




NOT TO SCALE

C-9

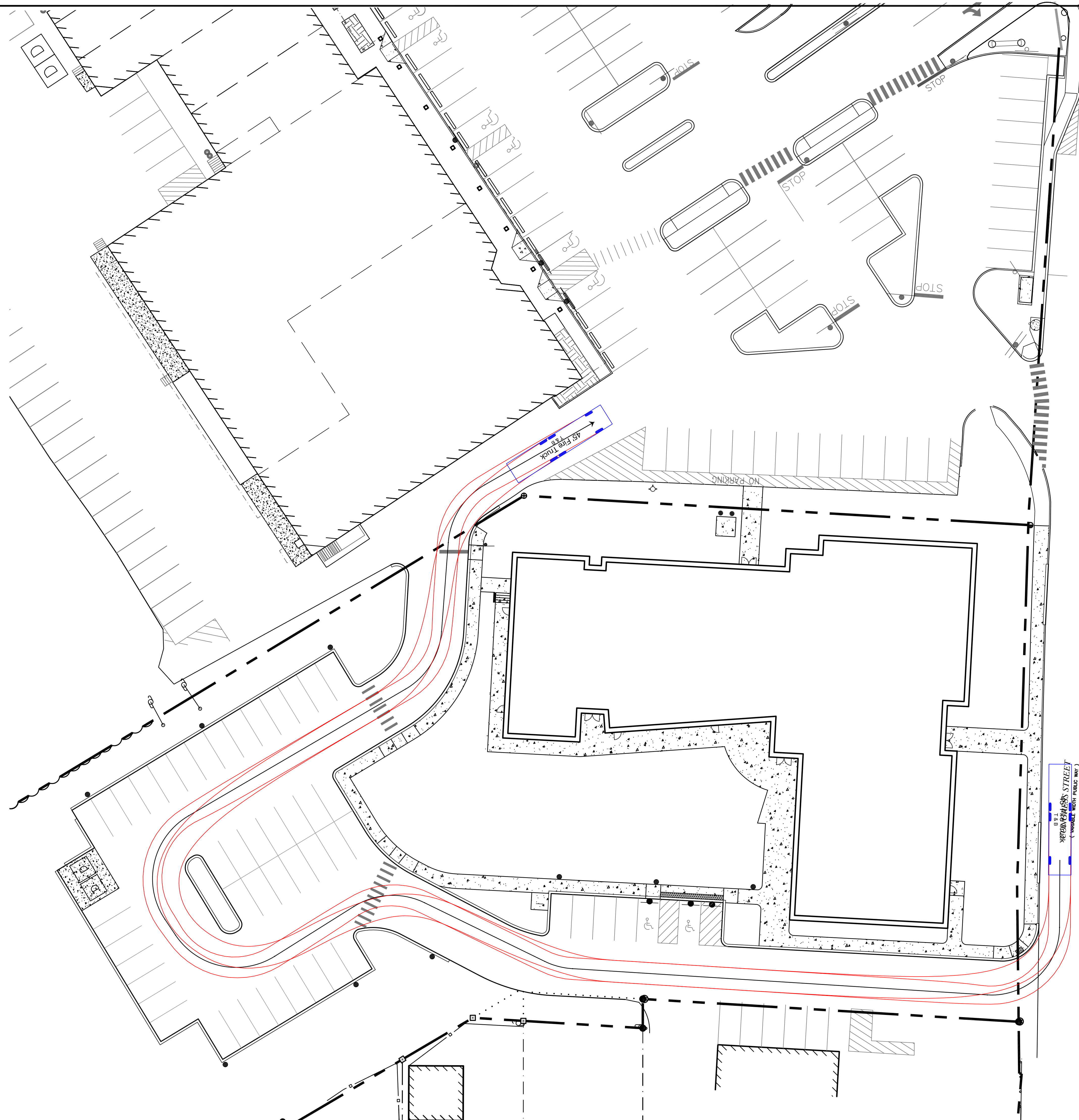
**Jewish
Community
Alliance of
Southern Maine**



45' Fire Truck

feet

Width	: 9.33
Track	: 9.00
Lock to Lock Time	: 6.0
Steering Angle	: 40.0



Tighe&Bond
Consulting Engineers
www.tighebond.com

Plan 8

**Jewish
Community
Alliance of
Southern Maine**

Proposed
Neighborhood
Center

Portland, Maine

Mark	Date	Description
PROJECT NO:		J-0096
FILE:		J0094-SITE-BUS.dwg
DRAWN BY:		GWH
CHECKED:		BLM
APPROVED BY:		BLM

FIRE TRUCK TURNING PLAN

SCALE: AS SHOWN

1 OF 1

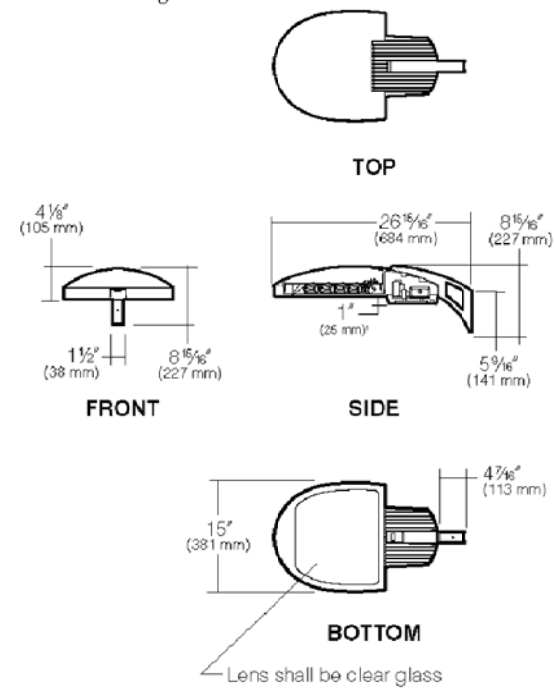
KIM LIGHTING

Type:
Job:
Catalog number:

Fig. Figure Electrical Module Finish Options
See page 2 See pages 3-4

Specifications

WP9S-LED
Small Electronic
60 Light Emitting Diodes
Total Max System Watts = 65W
Maximum weight: 30 lbs.



NOTE: Driver compartment door extends down 1" on small housing to accommodate integral step down transformer on 347V and 480V models only.

PROPOSED SITE
LIGHTING FIXTURE

HARRIMAN U.S. Patent D568,521,
Patent Pending Optics

© 2014 KIM LIGHTING • 16555 EAST GALE AVENUE, CITY OF INDUSTRY, CA 91745-1786 • TEL: 626/988-0266 • FAX: 626/985-5718

WP9S-LED
WARP9® Small PicoEmitter™ LED
revision 8/18/14 • kim_wp9sled_spec.pdf

Approvals:

Date:

Page: 1 of 6

Housing: One-piece die-cast, low copper (<0.5% Cu) aluminum alloy with integral cooling ribs over the electrical compartment. Solid barrier wall separates optical and electrical components. A single die-cast aluminum cam-latch provides positive locking and sealing of the optical chamber. A one-piece extruded and vulcanized silicone gasket seals the housing against the lens surface.

Lens: Clear 3/4" thick tempered glass lens retained by a stainless steel piano hinge and a single die-cast aluminum cam-latch. The edges are chamfered to conceal the outer portion of the housing.

Electronic Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory pre-wired with quick-disconnect plugs. Module includes a driver, thermal control device and surge protector. Electrical module attaches to housing with notched hinges and latches, accessible by opening the lens frame only. Driver is rated for 40°F starting and has a 0-10V dimming interface for multi-level illumination options.

Optical Module: Precision, replaceable PicoEmitters are positioned to achieve directional control toward desired task. The entire Emitting Diode (LED) array is mounted on a single plate and factory pre-wired with quick-disconnect plugs. Module includes a driver, thermal control device and surge protector. Electrical module attaches to housing with notched hinges and latches, accessible by opening the lens frame only. Driver is rated for 40°F starting and has a 0-10V dimming interface for multi-level illumination options.

Dimming: The WARP9 LED luminaire can be dimmed from 0% to 100% by the use of its standard 0-10V interface driver. To activate the dimming system, a wiring harness is supplied and attached to the DIM Port (CNA IN) on the LifeShield Protection System. This port allows the 0-10V interface to bypass the LifeShield and control the driver. The LifeShield works in conjunction with the control system to assure that overheating will not harm the LEDs. The wiring harness is connected with the use of the Purple lead as the positive (+) and the Grey lead as the negative (-) to an available control signal (if any).

Support Arm: Heavy cast, low copper aluminum alloy with stainless steel mounting bolts. A pole reinforcing plate is provided with wire strain relief. Arm is circular cut for specified round pole.

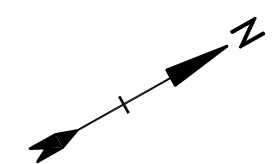
Finish: Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, rigidized isocyanate (EPO) polyester powdercoat finish. Standard colors include: (BL) Black, (DB) Dark Bronze, (WH) White, (PS) Platinum Silver, (SG) Stealth Gray, (LC) Light Gray, and (CC) Custom Color (include RAL®).

Listed to: UL 1598 Standard for Luminaires - UL 61030 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products and CSA C22.2/250.0 Luminaires. RoHS compliant. Meets Buy American provisions within ASRA.

Warranty: Kim Lighting warrants WARP9 LED products (Production) sold by Kim Lighting to be free from defects in material and workmanship for (1) a period of five (5) years for metal parts, (2) a period of ten (10) years for exterior housing paint finishes, (3) a period of six (6) years for LED Light Engines (PicoEmitters) and (4) a period of five (5) years for LED power components (LED Drivers, LifeShield device, Surge Protector), from the date of sale of such goods to the buyer as specified in Kim Lighting shipment documents for each product.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

NOTE: KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

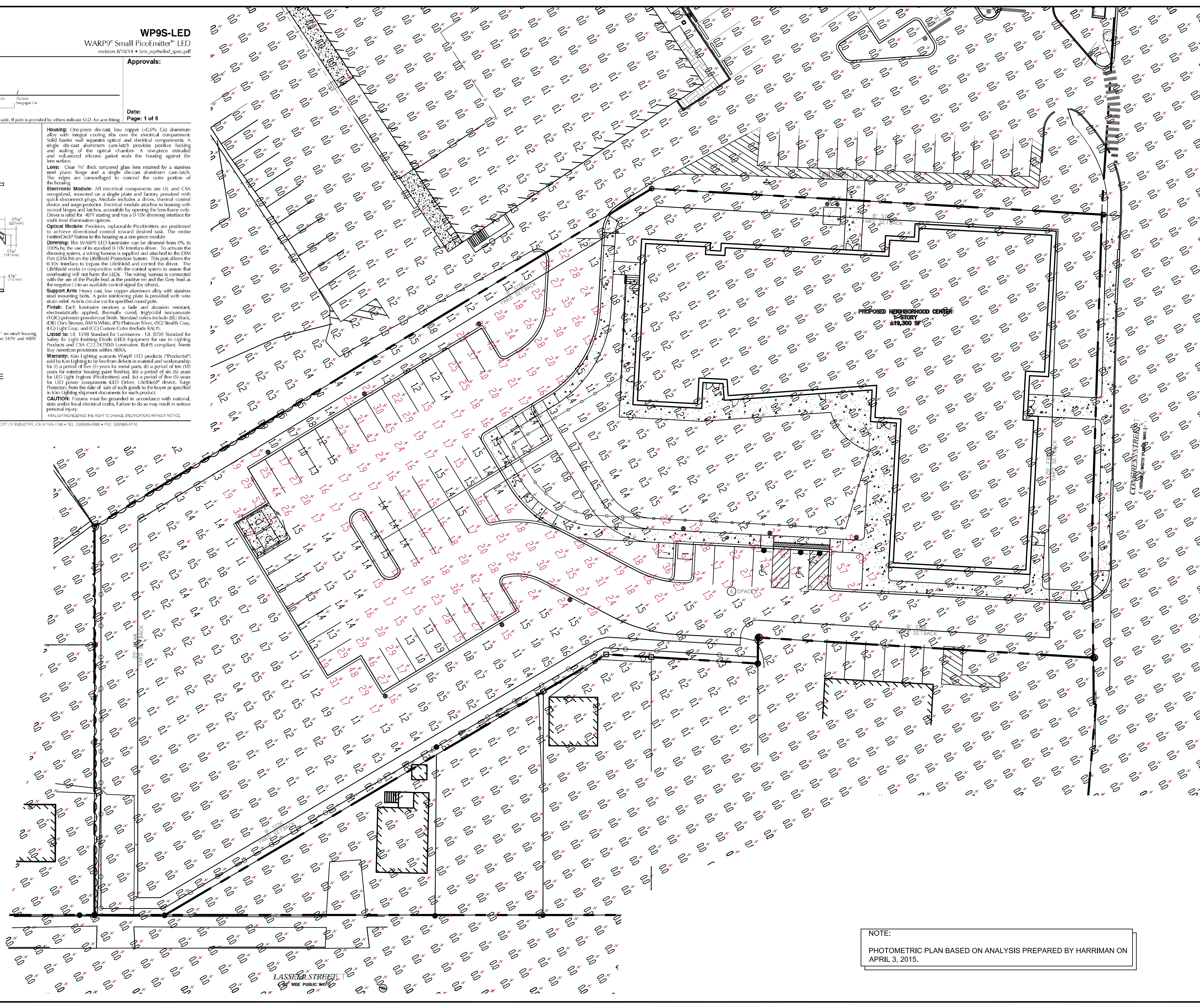


SCALE IN FEET
20' 40'
GRAPHIC SCALE

May 08, 2015 3:28pm Plotted By: gwh
Tighe & Bond, Inc. C:\J0094\J0094-SITE.dwg Layout: PHOTO

Tighe & Bond
Consulting Engineers
www.tighebond.com

Plan 9



NOTE:
PHOTOMETRIC PLAN BASED ON ANALYSIS PREPARED BY HARRIMAN ON
APRIL 3, 2015.

**Jewish
Community
Alliance of
Southern Maine**

**Proposed
Neighborhood
Center**

Portland, Maine

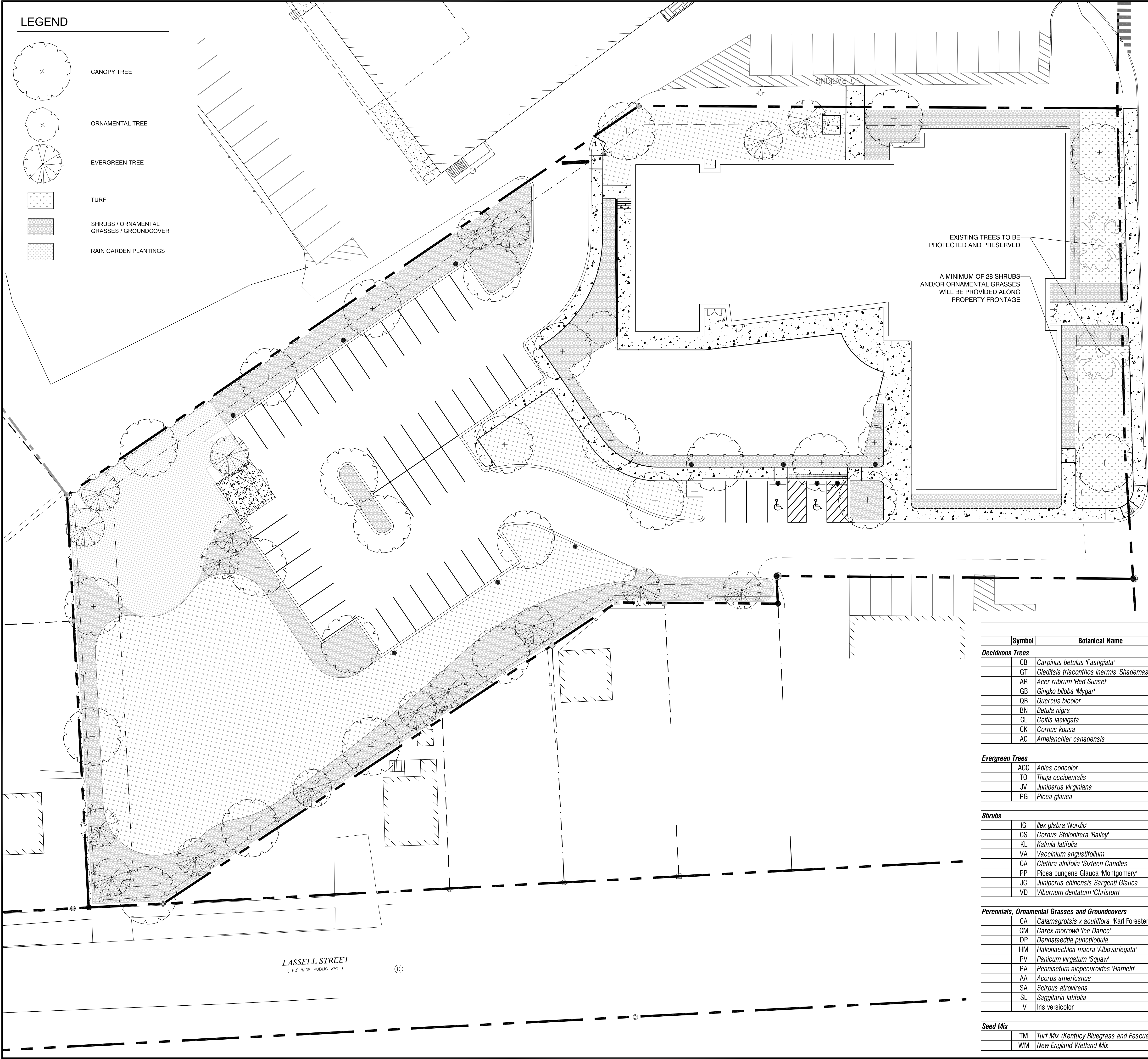
April 03, 2015

Mark	Date	Description
PROJECT NO:	J-0096	
FILE:	J0094-SITE.dwg	
DRAWN BY:	GWH	
CHECKED:	BLM	
APPROVED BY:	BLM	

PHOTOMETRIC PLAN

SCALE: AS SHOWN

C-10



LANDSCAPE REQUIREMENTS

REMOVED TREES	14
REQUIRED REPLACEMENT TREES	*14 - 28
LINEAR FRONTAGE	204.89 FT
REQUIRED SHRUBS AT FRONT	28
PARKING SPACES	50
REQUIRED TREES AT PARKING AREA	10
REQUIRED SHRUBS AT PARKING AREA	30
PROVIDED TREES	47
PROVIDED SHRUBS AT FRONT	28+
TOTAL PROVIDED SHRUBS	50+

*FINAL NUMBER OF REQUIRED REPLACEMENT TREES WILL DEPEND UPON THE CALIPER DBH OF THE REMOVED TREES AS OUTLINED IN SECTION 14-526 OF THE CITY OF PORTLAND CODE OF ORDINANCES.

Jewish
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Alliance of
Southern Maine

Proposed
Neighborhood
Center

Portland, Maine

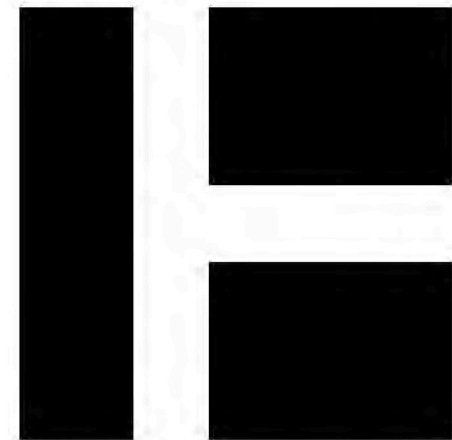
Plant List					
Symbol	Botanical Name	Common Name	Size	Container	Comments
Deciduous Trees					
CB	<i>Carpinus betulus</i> 'Fastigiata'	Pyramidal European Hornbeam	3.5" Caliper	B&B	
GT	<i>Gleditsia triacanthos inermis</i> 'Shademaster'	Honeylocust	3.5" Caliper	B&B	
AR	<i>Acer rubrum</i> 'Red Sunset'	Red Maple	3.5" Caliper	B&B	
GB	<i>Ginkgo biloba</i> 'Myger'	Ginkgo	3.5" Caliper	B&B	
QB	<i>Quercus bicolor</i>	Swamp White Oak	3.5" Caliper	B&B	
BN	<i>Betula nigra</i>	River Birch	3.5" Caliper	B&B	
CL	<i>Celtis laevigata</i>	Caevigata	3.5" Caliper	B&B	
CK	<i>Cornus kousa</i>	Kousa Dogwood	3" Caliper	B&B	
AC	<i>Amelanchier canadensis</i>	Serviceberry	3" Caliper	B&B	
Evergreen Trees					
ACC	<i>Abies concolor</i>	Concolor Fir	7'-8' HT.	B&B	
TO	<i>Thuja occidentalis</i>	White Cedar	6'-7' HT.	B&B	
JV	<i>Juniperus virginiana</i>	Red Cedar	7'-8' HT.	B&B	
PG	<i>Picea glauca</i>	White Spruce	7'-8' HT.	B&B	
Shrubs					
IG	<i>Ilex glabra</i> 'Nordic'	Nordic Inkberry	18"-24" HT.	CONT.	
CS	<i>Cornus stolonifera</i> 'Bailey'	Red-Twigged Dogwood	2 1/2' -3' HT.	CONT.	
KL	<i>Kalmia latifolia</i>	Mountain Laurel	3'-4' HT.	CONT.	
VA	<i>Vaccinium angustifolium</i>	Lowbush Blueberry	18"-24"	CONT.	Rain Garden
CA	<i>Clethra alnifolia</i> 'Sixteen Candles'	Dwarf Summersweet	2 1/2'-3' HT.	CONT.	
PP	<i>Picea pungens</i> 'Glauca' 'Montgomery'	Montgomery Blue Spruce	2 1/2' -3' HT.	CONT.	
JC	<i>Juniperus chinensis</i> 'Sargentii' 'Glauca'	Blue Sargent Juniper	18" - 24" HT	CONT.	
VD	<i>Viburnum dentatum</i> 'Christom'	Blue Muffin Arrowwood	3 gal	CONT.	
Perennials, Ornamental Grasses and Groundcovers					
CA	<i>Calamagrostis x acutiflora</i> 'Karl Forester'	Karl Foerster Reed Grass		#1 Pot	
CM	<i>Carex morrowii</i> 'Ice Dance'	Sedge		#1 Pot	
DP	<i>Dennstaedtia punctilobula</i>	Hay Scented Fern		15" O.C.	
HM	<i>Hakoneaechloa macra</i> 'Albovariegata'	Variegated Hakone Grass		#1 Pot	
PV	<i>Panicum virgatum</i> 'Squaw'	Squaw Switchgrass		2 Gal.	
PA	<i>Pennisetum alopecuroides</i> 'Hamelr'	Dwarf Fountain Grass		2 Gal.	
AA	<i>Acorus americanus</i>	Sweetflag		2" Plug	Rain Garden
SA	<i>Scirpus atrovirens</i>	Green Bulrush		2" Plug	Rain Garden
SL	<i>Sagittaria latifolia</i>	Northern Arrowhead		2" Plug	Rain Garden
IV	<i>Iris versicolor</i>	Blue Flag Iris		2" Plug	Rain Garden
Seed Mix					
TM	<i>Turf Mix (Kentucky Bluegrass and Fescue Mix)</i>				
WM	<i>New England Wetland Mix</i>				Rain Garden

04/03/15		
Mark	Date	Description
PROJECT NO:		J-0096
FILE:		
DRAWN BY:	ARW	
CHECKED:	JF	
APPROVED BY:		

LANDSCAPE PLAN

SCALE: 1" = 20'-0"





HARRIMAN

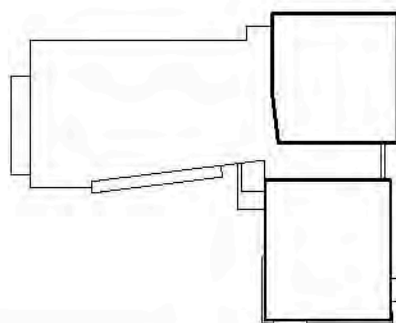
AUBURN PORTLAND MANCHESTER

JEWISH COMMUNITY ALLIANCE
OF SOUTHERN MAINE

SOMEWHERE, USA

Harriman Project No.	Project Number
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Key Plan	Proj North
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Issues and Revisions		
Mark	Date	Description

PRELIMINARY
NOT FOR
CONSTRUCTION

Drawing Scales		
As indicated		
PA / PE	Designer	© 2015 Harriman Associates
Drawn By	Author	

EXTERIOR ELEVATIONS

A201



NORTHEAST ELEVATION



SOUTHEAST ELEVATION



Jeff Levine, AICP
Director, Planning & Urban Development Department

Memorandum

To: Planning Board

From: Jeff Levine, Director

Date: May 14, 2015

Re: Package of "Encourage and Ensure" Housing Amendments

You have before you a set of four amendments to Article 14. Collectively, along with the R-6 zoning changes recently enacted by the City Council and the B-2 zoning changes adopted by the Council previously, these constitute what we are referring to as the "Encourage and Ensure" package of amendments. That name is because they are designed to "encourage" additional housing development through thoughtful zoning changes to modernize our ordinance and allow for additional housing development; and further that changes proposed to Division 30 are designed to "ensure" that a reasonable percentage of the housing developed in Portland is affordable to those making the area median income.

The ordinance amendments before you, in Attachment A, are as follows:

1. Changes to the Downtown Height Overlay Map to increase allowed heights in some areas from 45' to 65';
2. Changes to the Accessory Dwelling Unit (ADU) language for the IR-2 island residential zone to allow ADU's on more parcels, provided certain conditions are met;
3. Changes to the Accessory Dwelling Unit language for the R-5 zoning district to allow more use of existing building space for ADU's; and
4. Changes to Division 30 that:
 - a. Clarify terminology related to affordable housing;
 - b. Expand density bonuses for developments providing affordable housing; and
 - c. Require that new developments of 10 units or more restrict at least 10% of the units to be affordable to those making 100-120% of the area median income or below (currently about \$77,500-96,875 for a family of four) or contribute a fee-in-lieu of \$100,000 per unit to the Housing Trust. These developments would also be eligible for a 25% density bonus, and consideration for an Affordable Housing Tax Increment Finance District.

This package of amendments, in addition to the R-6 and B-2 changes, will allow production of additional housing in Portland by reducing the per-unit cost of housing,

while at the same time making sure that some portion of that additional housing remain affordable to the workers Portland needs to attract, such as entry level professionals and career blue collar workers. For context, a unit affordable to a median income family of four would rent for about \$1,900 a month, or have a mortgage of about \$350,000. These numbers seem attainable now without much market intervention. However, the need for deed-restricted units at this level stems from the fact that the gap between what is affordable to such a family and what the market produces is likely to continue to grow.

Median Income	FY 2015 Income Limits	Persons in Family							
		1	2	3	4	5	6	7	8
\$77,100	80% Income Limits	\$ 43,200	\$ 49,400	\$ 55,550	\$ 61,700	\$ 66,650	\$ 71,600	\$ 76,550	\$ 81,450
	Housing Expense at 30% of Income	\$ 1,080	\$ 1,235	\$ 1,389	\$ 1,543	\$ 1,666	\$ 1,790	\$ 1,914	\$ 2,036
	100% Income Limits	\$ 53,970	\$ 61,680	\$ 69,390	\$ 77,100	\$ 83,268	\$ 89,436	\$ 95,604	\$ 101,772
	Housing Expense at 30% of Income	\$ 1,349	\$ 1,542	\$ 1,735	\$ 1,928	\$ 2,082	\$ 2,236	\$ 2,390	\$ 2,544
	120% Income Limits	\$ 64,932	\$ 74,208	\$ 83,484	\$ 92,760	\$ 100,181	\$ 107,602	\$ 115,022	\$ 122,443
	Housing Expense at 30% of Income	\$ 1,623	\$ 1,855	\$ 2,087	\$ 2,319	\$ 2,505	\$ 2,690	\$ 2,876	\$ 3,061

Background

These submissions were developed over the course of several months of meetings between City staff, the public and the Housing and Community Development Committee (HCDC). In February, HCDC convened a Housing Forum in City Hall, where city staff could present city goals and possible tools to address them, and answer questions or concerns raised by the public. Public testimony was also taken at several HCDC meetings on this issue. After reviewing a long list of possible ordinance changes, and refining staff language proposed for inclusionary zoning as well as other changes to Division 30, the submission was refined to the set of ordinance changes before you.

In 2002, the City approved an amendment to its Comprehensive Plan entitled “Housing: Sustaining Portland’s Future.”

In 2014, the City Council set a goal to “Promote Housing Availability [and p]rovide increased availability in all segments of the housing market while insuring that there is a suitable balance of housing opportunities among those sectors.” HCDC put this issue in its workplan for calendar year 2014.

In late 2014 and early 2015, following from this goal and the interests of the Housing and Community Development Committee to address this goal, the City commissioned the Greater Portland Council of Governments to complete a study of the housing market in Portland. That study (Attachment C) was designed to answer the following questions:

1. What is the state of the housing production market in Portland?
2. What kinds of housing are being produced?
3. How does that production compare to City goals and plans with respect to affordability, such as “Housing Portland”?
4. How does that production result in the need for additional housing at different income levels through economic multiplier effects?

The key findings of this study were as follows:

- Our current housing production is not producing enough units for those making below median income
- Our existing housing rental stock appears to generally be reasonably affordable, but in part because the renters may be "sizing down" to a unit they can afford.
- Family sized rentals appear to be less affordable
- Our existing owner-occupied units appear to be primarily affordable to those making above the median income.
- There is a gap between the City’s housing policy goals and what is being produced by the market.
- Every unit of high end housing that is produced in the City brings with it the need for housing for those with lower incomes – for example, to provide services for those high end housing residents

On January 15, 2015, HCDC heard the findings from the Housing Study, along with a universe of possible policy responses to these findings. Following that presentation they instructed staff to come back to their meeting on January 28th with some refined recommendations for actions to take in response.

On February 25, 2015, in lieu of their regular meeting, HCDC held a housing forum to present some possible actions and hear from the public. That forum was recorded and is available for viewing from the City web site. The slideshow from that presentation is Attachment D.

On March 11, 2015, the HCDC met to debrief from the forum and hear staff recommendations for policy actions. Staff proposed a laundry list of 17 actions that could be taken, including a proposed inclusionary zoning ordinance. Staff noted that best practices in New England and nationally involved an inclusionary component to permitting housing of a certain scale, and recommended the ordinance be kept fairly simple for implementation reasons. That list of actions was as follows:

1. Revisions to the B-2 zoning district for 500 acres in key commercial corridors/nodes
2. Revisions to the R-6 zoning district for 530 acres of residential land on the Peninsula
3. Rezoning 10 acres of land along the eastern waterfront to B-6 to allow for multifamily housing development
4. Eliminate Parking Requirements for Residential Uses in B3, B5, B6, and B7
5. Eliminate Residential Density Limits in B1 and B2
6. Harmonize off-peninsula residential parking requirements with those of the peninsula
7. Allow the use of the fee in lieu of parking in all off-peninsula (citywide) business zones
8. Update definitions & dimensional standards to promote the viability of lodging houses
9. Amend Downtown Height Overlay Map where to increase 45' heights
10. Allow 1 ADU per owner-occupied single-family homes in all IR zones if leased annually
11. Begin R5 rewrite to reflect current patterns & legalize most nonconforming structures
12. Begin R3 rewrite to reflect current patterns & legalize most nonconforming structures
13. Consider rewriting R7 zone & consider applying it to the zoning map in downtown R6s
14. Limit the removal of dwelling units from the rental market in favor of vacation rentals
15. Limit the conversion of rental housing into condominiums
16. Look at Housing Trust Fund ordinance for revisions to reflect its role in these efforts
17. Changes to Division 30 (Affordable Housing) to provide more useful density bonuses, and to add an inclusionary zoning requirement.

HCDC recommended eight, unimplemented policies in this list be explored in more detail:

1. Rezoning 10 acres of land along the eastern waterfront to B-6 to allow for multifamily housing development
2. Eliminate Parking Requirements for Residential Uses in B3, B5, B6, and B7
3. Eliminate Residential Density Limits in B1 and B2
4. Allow the use of the fee in lieu of parking in all off-peninsula (citywide) business zones
5. Amend Downtown Height Overlay Map where to increase 45' heights
6. Look at Accessory Dwelling Units in Island Residential Zones
7. Look at R5 Zone Accessory Dwelling Unit Requirements & Reuse of Existing Structures
8. Amend Division 30 (Affordable Housing) to (1) Provide Additional Density through Incentives and (2) Add Workforce Housing Requirement (Inclusionary Zoning)

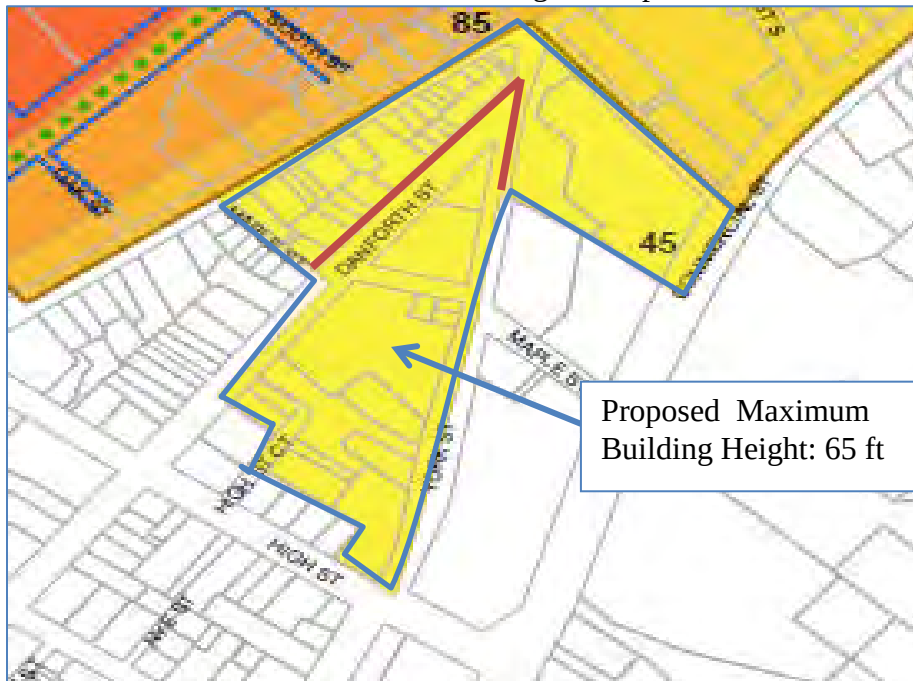
On April 8, 2015, HCDC took up this issue again. The staff memo from that meeting is Attachment E. They refined the list down to seven options to “encourage” further housing and a more specific recommendation for an Inclusionary Zoning Ordinance. They voted 3-1 to forward the Inclusionary Zoning Ordinance to the Planning Board for formal review, and asked that staff prioritize the seven options at their next meeting.

On April 22, 2015, HCDC took up those seven options and recommended the items before you for further study in conjunction with the Inclusionary Zoning Ordinance. The other items may be forwarded at a future dates but the HCDC did not recommend they move forward at this time.

ITEMS BEFORE THE BOARD

1. Changes to the Downtown Height Overlay Map to increase allowed heights in some areas from 45' to 65'

There is an area of the downtown height overlay that is 45'. As you probably know, that area was recently rezoned to allow for mixed-use development and the height was examined at that time. The HCDC is asking that the height in this area be potentially increased to 65' to allow for more housing development.



Staff is recommending that any change in height from 45' to 65' be focussed on the block between Danforth, York and High as shown on the map above. The other areas include existing buildings with significant character that should be preserved or expanded without the wholesale pressure to demolish them that such an increased height might create.

2. Changes to the Accessory Dwelling Unit (ADU) language for the IR-2 island residential zone to allow ADU's on more parcels, provided certain conditions are met

A Peaks Island organization called HomeStart has been seeking changes to the ADU language on Peaks Island to allow for year-round, affordable dwelling units in a context sensitive way. The goal is to allow residents the option of creating units that would not be rented on a seasonal basis but instead be available to workers who live year round on Peaks. That organization suggested a model from Wellfleet, MA, a similar community to Peaks Island. Staff adopted this model to the language before you.

Currently, ADU's are limited to lots of 30,000 square feet or more. These changes would allow ADU's on smaller lots as long as certain conditions are met:

- ✓ The unit must be rented year-round
- ✓ The unit must be affordable

This seems to be a reasonable way to develop additional workforce housing in an island context.

3, Changes to the Accessory Dwelling Unit language for the R-5 zoning district to allow more use of existing building space for ADU's

The R-5 zones in Deering Center, Oakdale, and other relatively dense off-Peninsula locations allows more than one unit on a lot but the conditions required mean that, in practice, it is difficult to have more than one unit on many lots. At the same time, there are existing built spaces in the R-5 zone, such as carriage houses, attics, basements and even formerly used buildings. This amendment would expand the conditions under which ADU's can be added to allow the reuse of existing built space for ADU's provided that the units are affordable.

4. Changes to Division 30 (Affordable Housing) including an Inclusionary Zoning Requirement

:

This amendment updates the affordable housing section of the ordinance to make three key changes:

- a) Clarify terminology related to affordable housing;

For example, the current ordinance uses the term "affordable" somewhat loosely. These amendments would differentiate between "affordable," meaning 30% or less of a household income is spent on housing; and income levels such as "low income" and "workforce."

- b) Expand density bonuses for developments providing affordable housing

The current provisions only take effect when housing is affordable at 80% of area median income. This change would allow units at a workforce housing level to qualify for these density bonuses. There was some talk of increasing the bonuses as well, but the final recommendation was to leave the density bonus levels as currently existing and rely on other, systematic zoning changes such as the R-6 amendments to go farther where appropriate.

- c) Require that new developments of 10 units or more restrict at least 10% of the units to be affordable to those making 100-120% of the area median income or below.

HCDC had a great deal of discussion about issues such as if and when to permit off-site units or fee-in-lieu to count towards that total; whether to require a comparable finishes and sizes for market-rate and required workforce units; whether to require the locations of the required workforce units to be mixed throughout a development; and the cost of cashing out of this requirement. The language before you includes the HCDC's final recommendations on these issues, as well as some additional draft language on terms of affordability. Based on some public comment received since the last HCDC meeting on this subject, we have developed a sliding scale for affordability terms based on the number of workforce units provided in a project. Projects only meeting the minimum requirements would have longer deed restriction terms than projects providing additional units that meet affordability requirements.

Finally, the HCDC recommended that this section have a sunset provision so it can be reexamined after a few years of implementation. They discussed, but did not recommend, limiting this requirement to certain zones or areas of the City.

Inclusionary Zoning

For many of you, the idea behind Inclusionary Zoning is not new. However, it is worth providing a quick summary of the concept here. There is more material in the backup to this memo and in the material from the HCDC meetings. Attachment B to this report is one of the more comprehensive reports on this policy tool I have found.

Inclusionary zoning is a set of related tools that essentially require that developments over a certain size provide for units that are affordable for low-, moderate- or even median income households. The justification for such a requirement is that there is a market failure in the form of a gap between the what the market is producing and what the needs of the community are. Further, there is often a nexus identified between the production of higher-end units and the need for housing that is affordable at lower incomes, due to the fact that people who live in high-end units tend to eat at restaurants, get professional services like dry cleaning and housekeeping, and increase the need for public services. The people who will fill those jobs also need housing in the community, or they will have to live far away and use more of their limited income for transportation, further exacerbating their financial issues.

Usually an inclusionary ordinance requires that a certain percentage of units meet these standards, have a term under which these affordability levels must be maintained, and provide options for either providing the units off-site and/or providing a fee-in-lieu option.

Over 500 communities around the country, in more than half the states, have inclusionary zoning requirements. They are most common in markets that are having affordability issues.

The issue of the impact of an inclusionary zoning requirement on housing prices and supply has been extensively studied and discussed. It is a reasonable concern that, if you add a requirement to housing production it may either increase the cost of production or reduce supply, or both. However, the most extensive studies I have found to date suggest that inclusionary zoning requirements have a minor impact on housing production or pricing. These impacts are in the 2 to 3 percent range. Given the various “encourage” policies the City is pursuing, which are designed to drive down the cost of housing production by making it easier to produce housing in Portland, I believe we are more than compensating for such an impact by driving down costs in other ways by removing regulatory barriers.

The ordinance before you is a flexible form of inclusionary zoning that chooses a relatively high threshold (10 units or more) and does not limit a developer’s option to pay a fee-in-lieu of the units. While it does require that units be comparable in terms of number of bedrooms, it does not require comparable finishes nor that the units be mixed into the development equally. Finally, this draft is written to sunset in six years, to give the City a chance to evaluate how it is operating and whether it is effective. All of these details were discussed at the HCDC and voted on as policy directions they wanted the Planning Board to know they supported.

ATTACHMENT A: PROPOSED ORDINANCE AMENDMENTS

A1: IR-2 ADU Language (clean version of proposed language, followed by markup version)

(a) *Residential:*

1. One additional accessory dwelling unit clearly subordinate to a principal single-family or legal multi-family dwelling provided that:
 - a. The accessory unit shall be no more than thirty-five (35) percent of the gross floor area of the largest unit in the principal building and shall have a minimum floor area of four hundred (400) square feet;
 - b. Lot shall be thirty thousand (30,000) square feet in area, or be an existing lawfully non-conforming lot as of May 1, 2015;
 - c. There shall be no open outside stairways or fire escapes above the ground floor;
 - d. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the single-family appearance of the building. The exterior design of new construction including facade materials, building form, roof pitch and exterior doors shall have a single-family appearance;
 - e. A lower level dwelling unit shall have a minimum two-thirds of its floor-to-ceiling height above the average adjoining ground level;
 - f. Either the accessory unit or the principal dwelling shall be occupied by the owner of the lot on which the principal building is located, except for bona fide temporary absences;
 - g. Accessory units on lots of less than 30,000 square feet must remain under common ownership with the primary unit on the lot;
 - h. Any units created under this section may not be sold as condominium units or otherwise

separated from the ownership of the pre-existing unit on the site;

- i. Any units created under this section on lots of less than 30,000 square feet must be rented as "workforce housing unit for rent" as per Division 30 and are subject to income verification as further outlined in implementing regulations;
- j. On lots of less than 30,000 square feet, the property must have City water and sewer. All sanitary waste shall be disposed of by a public sewer, subsurface sewerage system or other method in compliance with state and local regulations.
- k. The accessory unit must be rented on an annual basis and may not be used for seasonal or weekly rentals.

(a) *Residential:*

1. ~~Accessory~~One additional accessory dwelling unit ~~within and~~ clearly subordinate to a principal single-family ~~detached~~or legal multi-family dwelling provided that:
 - a. The accessory unit shall be no more than thirty-five (35) percent of the gross floor area of the largest unit in the principal building and shall have a minimum floor area of four hundred (400) square feet;
 - b. Lot ~~area~~ shall be thirty thousand (30,000) square feet in area, or be an existing lawfully non-conforming lot as of May 1, 2015;
 - c. There shall be no open outside stairways or fire escapes above the ground floor;
 - d. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the single-family appearance of the building. The exterior design of new construction including facade materials, building form, roof pitch and exterior doors shall have a single-family appearance;
 - e. A lower level dwelling unit shall have a minimum two-thirds of its floor-to-ceiling height above the average adjoining ground level;
 - f. Either the accessory unit or the principal dwelling shall be occupied by the owner of the lot on which the principal building is located, except for bona fide temporary absences; ~~and~~
 - ~~g.~~
g. Accessory units on lots of less than 30,000 square feet must remain under common ownership with the primary unit on the lot;

- h. Any units created under this section may not be sold as condominium units or otherwise separated from the ownership of the pre-existing unit on the site;
- i. Any units created under this section on lots of less than 30,000 square feet must be rented as "workforce housing unit for rent" as per Division 30 and are subject to income verification as further outlined in implementing regulations;
- j. On lots of less than 30,000 square feet, the property must have City water and sewer. All sanitary waste shall be disposed of by a public sewer, subsurface sewerage system or other method in compliance with state and local regulations.
- k. The accessory unit must be rented on an annual basis and may not be used for seasonal or weekly rentals.

A2: R-5 ADU Language (clean version of proposed language, followed by markup version)

5. Use of space existing as of September 3, 2008 to accommodate additional dwelling units under the following conditions:
- a. This section shall under no conditions permit more than four dwelling units on a lot and shall not allow more than two additional dwelling units on a lot above what would otherwise be permitted;
 - b. Any units created under this section may not be sold as condominium units or otherwise separated from the ownership of at least one of the pre-existing units on the site;
 - c. Any units created under this section must be "low-income housing unit[s] for rent" as per Division 30 and are subject to income verification as further outlined in implementing regulations;
 - d. The additional units shall have a minimum floor area of four hundred (400) square feet and may not involve removing more than ten percent of the gross floor area of an existing dwelling unit into a new dwelling unit. Gross floor area shall exclude any floor area that has less than two-thirds of its floor-to-ceiling height above the average adjoining ground level and may include the attic if such space is habitable.
 - e. Modifications to existing structures shall be minimal, and be limited to new doors, windows and other openings;
 - f. Parking shall be provided as required by Division 20 of this article;
 - g. There shall be no open, outside stairways or fire escapes above the ground floor; and
 - f. The project shall be subject to Article V for site plan review and approval and the following additional standards:

- i. Any additions or exterior alterations such as façade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the single family appearance of the building; and
- ii. The scale and surface area of parking, driveways and paved areas shall be arranged and landscaped properly to screen vehicles from adjacent properties and streets.

5. AlterationUse of a single-family dwelling space existing as of September 3, 2008 on a nonconforming lot to accommodate an accessory additional dwelling units under the following conditions:

a. This section shall under no conditions permit more than four dwelling units on a lot and shall not allow more than two additional dwelling units on a lot above what would otherwise be permitted;

b. Any units created under this section may not be sold as condominium units or otherwise separated from the ownership of at least one of the pre-existing units on the site;

a-c. Any units created under this section must be "low-income housing unit within and clearly subordinate the principal structure provided that:[s] for rent" as per Division 30 and are subject to income verification as further outlined in implementing regulations;

b-d. a. The accessory unitadditional units shall have a minimum floor area of four hundred (400) square feet that represents noand may not involve removing more than thirty (30)ten percent of the gross floor area of the principalan existing dwelling unit into a new dwelling unit. Gross floor area shall exclude any floor area that has less than two-thirds of its floor-to-ceiling height above the average adjoining ground level and may include the attic if such space is habitable.

b. The principal dwelling unit shall be located on a lot of no less than four thousand (4,000) square feet and no more than six thousand (6,000) square feet;

c. Either the accessory or principal dwelling unit shall be occupied by the owner of the lot, except for bona fide absences of a temporary nature;

e. d. Modifications to existing structures shall

be minimal, and be limited to new doors, windows and other openings;

~~e.f.~~ Parking shall be provided as required by Division 20 of this article-~~i~~

~~d.g. e.~~ There shall be no open, outside stairways or fire escapes above the ground floor; and

f.-The project shall be subject to Article V for site plan review and approval and the following additional standards:

- i. Any additions or exterior alterations such as façade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the single family appearance of the building; and
- ii. The scale and surface area of parking, driveways and paved areas shall be arranged and landscaped properly to screen vehicles from adjacent properties and streets.

A3: Division 30 (Affordable Housing) i density bonuses and inclusionary zoning

DRAFT

DIVISION 30. ~~INCENTIVES FOR~~ AFFORDABLE HOUSING

Sec. 14-484. Purpose.

~~The City believes that i~~It is in the public interest to promote an adequate supply of affordable housing for its residents. The purpose of this Division therefore is to offer incentives to developers to include units of affordable housing within development projects, thereby mitigating the impact of market rate housing construction on the limited supply of available land for suitable housing, and helping to meet the housing needs of all economic groups within the City. The City believes that this Division will assist in meeting the City's comprehensive goals for affordable housing, in the prevention of overcrowding and deterioration of the limited supply of affordable housing, and by doing so promote the health, safety and welfare of its citizens.

Sec. 14-485. Definitions.

"Affordable" means that the percentage of income a household is charged in rent and other housing expenses, or must pay in monthly mortgage payments (including insurance and taxes), does not exceed 30% of a household's income, or other amount established in City regulations that does not vary significantly from this amount.

"Affordable-Low-income housing unit for rent" means a dwelling unit for which: (1) the rent is affordable to a household earning 80% or less of the U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that sizeArea Median Income (AMI) as defined by the U.S. Department of Housing and Urban Development (HUD); and (2) annual rent increases for that unit are limited in perpetuity by deed restriction or other legally binding agreement to the percentage increase in the U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that size.

"Affordable-Low-income housing unit for sale" means a dwelling unit for which: (1) the sale price is affordable to a household earning 12080% or less of the U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that sizeHUD AMI; and (2) the resale price is limited by deed restriction or other legally binding agreement for all future

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sales of the unit to an amount that is affordable to a household earning 120% of the U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that size, as calculated for the year in which the sale takes place.

"Development fees" means: (1) the following fees, as described in this chapter: site plan review and inspection fees; subdivision review and inspection fees; condominium conversion permit fees; and administrative fees; and (2) construction and permit fees as described in chapter 6. "Development fees" does not include any fees charged for reviews conducted by a party other than the City.

"Dwelling unit" has the same meaning as that term is defined in section 14-47.

"Eligible project" means a development project: (1) to which the City has not committed nor will commit any funding, reduced-interest loans or other subsidies or incentives other than those described in this Division; and (2) that creates new dwelling units, among which is at least one affordable housing unit for rent or sale, through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a non-residential use to residential use, or any combination of these elements. Affordable housing units for sale or rent may not differ in exterior design from other units within an eligible project.

"Workforce housing unit for rent" means a dwelling unit which: (1) Is affordable to a household earning less than 100% of HUD AMI and (2) Annual rent increases for that unit are limited by deed restriction or other legally binding agreement to the percentage increase in the U.S. Department of Housing and Urban Development Greater Portland Metropolitan Statistical Area median income figures for a household of that size.

"Workforce housing unit for sale" means a dwelling unit for which (1) the purchase price is affordable to a household at 120% of HUD AMI and (2) The resale price is limited by deed restriction or other legally binding agreement for all future sales of the unit, or a lesser term as permitted in regulations, to the percentage increase in the HUD Greater Portland Metropolitan Statistical Area median income figures for a household of that size.

Sec. 14-486. Reduction of Fees and Priority Review.

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Notwithstanding any other provision of this chapter or chapter 6 to the contrary, development fees shall be reduced by the City for an eligible project in the manner described in the following table:

Percentage of new units that are affordable low-income or workforce <u>housing</u> units	Percentage discount of development fees
5% up to but not including 10%	5% reduction
10% up to but not including 15%	10% reduction
15% up to but not including 20%	15% reduction
20% up to but not including 25%	20% reduction
25% or more	25% reduction

~~Sec. 14-487. Priority Review.~~

—The Planning Division shall perform its review of an eligible project in as expedited a manner as is practical. The Planning Division may adopt administrative procedures to prioritize review of eligible projects and facilitate this expedited review.

The Planning Board shall make its best efforts to hear, review, and approve, conditionally approve or deny within one workshop and one public hearing any plans or applications required for an eligible project that are within the Planning Board's jurisdiction, and shall rely on reviews prepared by the Planning Division to the greatest extent practical and appropriate. At the conclusion of these public meetings, the Planning Board shall promptly issue a decision on all such plans and applications before it for consideration.

Sec. 14-487. Ensuring Workforce Housing.

1. Purpose

Based on the City's Comprehensive Plan and the housing study completed in 2015, ~~the City believes that it is in the~~

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public interest to promote an adequate supply of housing that is affordable to a range of households at different income levels. The purpose of this section is to ensure that ~~large~~ housing developments over a certain size provide a portion of workforce housing units, and by doing so, promoting the health, safety, and welfare of Portland citizens.

2. Applicability/Conditional Use Requirement/Sunset

This division shall apply to development projects that create ten or more new dwelling units for rent or for sale through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a non-residential use to residential use, or any combination of these elements. This division shall not apply to projects that have submitted complete Master Development Plan, Level III Site Plan, or comparable applications to move forward prior to its effective date.

All Developments of Ten Units or More Conditional Uses

Notwithstanding any language to the contrary in Article 14, all developments of ten units or more are conditional uses subject to Planning Board review on the condition that they comply with the requirements of this section 14-487.

This section 14-487 shall be in effect for six years following its passage, at which time the overall effectiveness of this section shall be assessed and either this expiration date shall be deleted or the entire section shall be removed from the City's Code of Ordinances

3. Workforce Housing Minimum

At least ten percent of the units in the project shall meet the definition of workforce housing unit for sale or for rent. The number of units required is rounded down to a whole number if providing units as per 4.b. below, or shall include a fractional value in cases where a project prefers to pay a fee-in-lieu as per 4.c. below.

4. Standards

a. Projects shall not be segmented or phased to avoid compliance with these provisions. In cases where projects are completed in phases, affordable units shall be provided in proportion to the

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development of market rate units unless otherwise permitted through regulations.

b. Workforce units are encouraged to be integrated with the rest of the development, should use a common entrance and should provide no indications from common areas that these units are workforce housing units.

c. Workforce units need not be the same size as other units in the development but the number of bedrooms in such units, either on- or off-site, shall be 10 percent of the total number of bedrooms in the development. For the purposes of this section, for every 400 square feet in a market rate unit will count as a bedroom if the actual number of bedrooms in the unit is lower.

d. As an alternative to providing workforce housing units, projects may pay a fee in lieu of some or all of the units. In-lieu fees shall be paid into the Housing Trust Fund as defined in Sec. 14-489. The fee for affordable units not provided shall be \$100,000 per unit, adjusted annually in the same way as the fee under Division 29 for Housing Replacement.

e. Workforce housing units for sale, if converted to workforce housing units for rent, shall become subject to the income limits and other requirements of such units.

f. If at least 33 percent of the units in a development are workforce units, the development is eligible for subsidy through an Affordable Housing TIF, subject to City Council approval.

g. The term of affordability for the required 10 percent workforce units provided shall be defined as follows.

<u>Percentage of Workforce Units Provided</u>	<u>Minimum Term of Affordability for Required Workforce Units</u>
<u>10%</u>	<u>Longest term permitted under federal, state and local laws and ordinances</u>
<u>25%</u>	<u>30 years</u>
<u>50%</u>	<u>20 years</u>
<u>100%</u>	<u>10 years</u>

5. Implementing Regulations

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Regulations to further specify the details of this section shall be developed, including, but not limited to:

- Specific methodology for income verification;
- Situations where less than permanent affordability might be considered;
- Guidelines for meeting the requirement that off-site units be "in the same neighborhood".

6. Reporting to City Council

In conjunction with the annual report on the Housing Trust, City staff shall report on developments subject to this section, the number of units produced, the amount of fee-in-lieu collected, and the overall effectiveness of this section in achieving its stated purpose.

Sec. 14-488. Density, Parking and Dimensional Bonuses and Reductions.

Notwithstanding any other provision of this chapter to the contrary:

(a) Density bonuses. The maximum number of units that would otherwise be allowed under this chapter shall be increased for an eligible project in the manner described in the following table:

Percentage of new units that are affordable low-income or workforce units	Percentage increase in maximum number of units allowed
5% up to but not including 10%	5% increase
10% up to but not including 15%	10% increase
15% up to but not including 20%	15% increase
20% up to but not including 25%	20% increase
25% or more	25% increase
<u>Projects Under 14-487</u>	<u>25% increase</u>

(b) Parking requirement reduction. For each ~~affordable low-income or workforce~~ housing unit for rent or sale within an eligible project, no more than one (1) parking space shall be required. The Planning Board may establish a parking requirement

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for affordable housing units for rent or sale within an eligible project that is less than one (1) parking space per affordable housing unit, regardless of the size of the structure.

ATTACHMENT B



Handbook On: Developing Inclusionary Zoning

For the Comprehensive
Housing Production and Rehabilitation Act of 2004



Harrisville Village
Burrillville, Rhode Island



Updated , 2006
Statewide Planning Program,
Division of Planning,
Rhode Island Department of Administration

www.planning.ri.gov

Abstract

The Rhode Island Statewide Planning Program is established by *Chapter 42-11-10 of the Rhode Island General Laws* as the central planning agency for state government. The State Planning Council comprised of state, local, and public representatives, and federal and other advisors, guides the work of the Program.

The objectives of the Program are:

- (1) to prepare strategic and systems plans for the state
- (2) to coordinate activities of the public and private sectors within this framework of policies and programs
- (3) to assist local governments in management, and
- (4) to advise the Governor and others concerned on physical, social, and economic topics.

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The cover images are from the Burrillville Planning Office for the Harrisville Village redevelopment project located in Burrillville, RI. For information on the project contact Thomas Kravitz, Burrillville Town Planner and Economic Development Director, at 401-4300 ext. 130 or look on the web at

http://www.burrillville.org/Public_Documents/BurrillvilleRI_EconDev/Redevelopment_Projects.

Preface

The affordability of housing is not a problem restricted to lower-income populations of inner cities and declining urban areas. It is, in fact, an issue for all municipalities, affecting the poor and lower-income as well as a large portion of the middle-income population of every city and town. The cost of land and basic building construction are matters largely beyond the control of local governments, but housing opportunities and affordability can be promoted through land use codes and development controls that reduce development costs.

Factors Limiting Housing Affordability in Rhode Island

- High land costs, aggravated by requirements in excess of environmental or social need
- High construction costs
- High rents or sales prices
- High median household income and low vacancy rates
- Deterioration of older housing stock
- Elimination of housing stock by demolition or conversion to other uses
- Marginal funding of federal and state housing programs
- Unemployment and under-employment
- Attraction of employment opportunities without consideration of housing supply availability and cost for workers
- Municipal development moratoria, time-consuming procedures and permit limits, and fees
- Lack of municipal facilities and services for potentially suitable housing and development sites
- Failure to use federal, state or private programs designed to enhance housing opportunity and availability
- Local opposition to affordable housing development

This handbook examines the use of inclusionary zoning to promote affordable housing. This edition of the handbook was updated to provide Rhode Island communities with a recommended set of guidelines, derived from the “Rhode Island Five Year Strategic Housing Plan”, for the drafting of inclusionary zoning provisions in order to promote affordable housing in the State. It is intended to assist municipalities in developing actions for compliance with the **Comprehensive Housing Production and Rehabilitation Act of 2004 (R.I. Gen. Law 42-128.8.1)**.

The Act finds that the “state in partnership with local communities must remove barriers to housing development”. It goes on to require “affordable housing plans” to be prepared and adopted by cities and towns to satisfy the requirements of the *Low and Moderate Income Housing Act* (R.I. Gen. Law 45-53.). These “affordable housing plans” developed by each community establish guidelines for higher density development including inclusionary zoning.

Acknowledgements

In recognition of the adoption of the **Comprehensive Housing Production and Rehabilitation Act of 2004 (R.I. Gen. Law 42-128.8.1)** this handbook was prepared by the RI Statewide Planning Program to help municipal officials begin to address expanding opportunities for affordable housing in their community. The handbook represents a sum of efforts contributed by numerous individuals of the Program. The following individuals assisted with the writing of this handbook:

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In addition to the individuals above, the RI Statewide Planning Program would like to thank a number of persons who took time to read and provide valuable comments on the handbook content as it was developed. Therefore, RI Statewide Planning would like to acknowledge and thank the following readers for their assistance and generous contribution of their time to this handbook:

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Part 1: Introduction

This handbook is intended to be a guide for municipal governments to utilize, as a reference tool, to craft an inclusionary housing section for their zoning ordinance that fits the needs and staffing levels of their own community. This handbook is a compilation of existing work condensed for use by Rhode Island communities. This handbook does not attempt to outline all the possible options concerning affordable housing; however, it does outline those items to be considered along with legal counsel concerning inclusionary zoning for affordable housing. Furthermore, every community must realize that inclusionary zoning is not a cure-all for Rhode Island's housing problems; it is one of many tools available to local agencies to develop affordable housing units in their communities. Therefore, each community will have to draft its own text, and use the type of provisions for affordable housing that will work for them based on the advice presented herein and the requirements of the Comprehensive Housing Production and Rehabilitation Act of 2004 and recommended guidelines from the "Rhode Island Five Year Strategic Housing Plan".

***This handbook is not a
substitute for legal
advice.***

The handbook is divided into five sections. The first and second sections provide a brief explanation and general introduction to inclusionary housing. The third section contains excerpts from national, regional, and local case studies that deal with established inclusionary affordable housing programs. The fourth section looks at provisions to consider before crafting the ordinance. Lastly, the fifth section looks at the technical aspects involved in the writing of such ordinance provisions and it provides excerpts of inclusionary housing ordinances from other local New England municipalities to illustrate the various techniques in use. The fifth section, also presents recommended guidelines from the "Rhode Island Five Year Strategic Housing Plan", which have been highlighted in bold print. At the end of the handbook is the Bibliography Section, which contains the citations, world-wide-web addresses and a list of additional housing resources should the reader wish to find more information on the topics. Access is provided purely as a public service. The State of Rhode Island does not endorse any of the linked sites or any products or services found at the linked sites.

Part 2: What is Inclusionary Zoning?

The fundamental purpose of inclusionary zoning is to allow the development of affordable housing to become an integral part of other kinds of development taking place in a community. Inclusionary housing provisions promote the production of affordable housing by requiring developers to set aside a certain percentage of the housing units in a proposed development to be priced affordable to low- and moderate-income households. It is to the benefit of the public that a minimum percentage of affordable units be constructed to meet the affordable housing needs of the community that adopts the ordinance. The goal of such a process is to establish a relatively permanent stock of affordable housing units provided by the private market. Typically, inclusionary provisions require that new developments include “mandatory set-asides” of affordable units, which are made available to low and moderate-income households within future market-level developments. According to recent studies by the American Planning Association¹, mandatory programs have produced the most affordable housing units across the United States.

The *amended Zoning Enabling Act*, R.I. Gen. Law 46-24-46.1, requires that an inclusionary housing section of a zoning ordinance must address the following:

1. Affordable housing, as defined by the Act in subsection 42-128.81(d), be constructed.
2. A minimum of 10 % of the total units in the development must comply with the above-cited affordable definition of the Act.
3. The affordable units must remain affordable for a period of not less than 30 years from initial occupancy enforced through a land lease and/ or deed restriction.

The types of housing that are required can vary from community to community as well as within a municipality and will relate to the specific needs as defined in the approved Affordable Housing Plan. Some inclusionary zoning programs include a payment in lieu of construction of affordable units option. These payments may support a dedicated fund such as a housing trust fund that would finance future affordable units. Some programs include incentives such as density bonuses, allowing a developer to create more units on a parcel of land, the relaxation of development regulations, or the reduction or waiver of fees to encourage more affordable housing than the minimum percentage mandated.

¹ *Zoning Practice*, no. 9 (Washington, DC: American Planning Association, September 2004).

Part 3: Case Studies

There is a range of programs in use around the country as providing affordable housing is a national issue all communities face today. This part reviews several programs that have adopted procedures through zoning ordinances to provide for affordable housing. These programs vary and have been adopted to fit local housing needs and market conditions and many use a combination of providing affordable housing units along with market rate units to produce affordable housing.

A. NATIONAL CASE STUDY

Montgomery County, Maryland

Inclusionary zoning started in the Washington, D.C. metropolitan area. In 1973, Montgomery County, Maryland, instituted countywide mandatory inclusionary zoning, known as the Moderately Priced Dwelling Unit (MPDU) ordinance. Montgomery County is the leading national example of the use of this technique at the county level. According to the Innovative Housing Institute, the Montgomery County program has produced nearly 10,000 units of affordable housing. Most jurisdictions can trace some aspect of their inclusionary zoning ordinances to the Montgomery County program.²

The MPDU ordinance requires that developments of 50 units or more include 15% MPDUs. Of that 15%, two-thirds are sold to moderate-income homebuyers and the remainder is offered to housing commissions and non-profits for use in their affordable housing programs (many of which retain rental units). Developers receive a density bonus of up to 22% through this program.³ Throughout the program's history, nearly 10,600 affordable units have been created. However, roughly 6,800 units are no longer governed by inclusionary zoning requirements or any other affordability regulations. According to the ordinance, rental units must be regulated under the inclusionary zoning provisions for 20 years and owner-occupied units for 10 years.⁴ Montgomery County's program targets households earning 65% or less of the area median income of \$82,800 in the fiscal year 2000.⁵

One of the greatest challenges facing the Montgomery County program is that the first units built by the program are quickly becoming unregulated and the development of new affordable units is slow. Many policy think tanks and housing advocates, including the Brookings Institution, suggest that one-way to remedy the situation is to make it easier for non-profits and housing authorities to purchase the units once the affordable price regulations expire. Perhaps by extending the non-profit agency's right of first refusal so that they may pre-empt private developers from purchasing the affordable units.⁶

B. MASSACHUSETTS (MA) CASE STUDIES

Federal and state low and moderate-income housing programs have created more than eight % of Massachusetts's housing stock. The creation of new affordable units, however, has slowed due to scarce developable land, opposition to development in general, and the reputation of large affordable housing projects.⁷ In 1975 Massachusetts enacted a state zoning act authorizing the use of incentives for the development of low and moderate-income housing. While more than a third of the communities in

² Robert W. Burchell and Catherine C. Galley, "Inclusionary Zoning: A Viable Solution to the Affordable Housing Crisis? Inclusionary Zoning: Pros and Cons," *New Century Housing Newsletter* 1, no.2 (Washington DC: Center for Housing Policy, October 2000).

³ Karen Destorel Brown, "Expanding Affordable Housing Through Inclusionary Zoning: Lessons from the Washington Metropolitan Area," *Cities and Suburbs* (Washington DC: The Brookings Institution, October 2001).

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

⁷ Phillip B. Herr & Associates, "Zoning for Affordability," *Community Strategies* (Boston, MA: Massachusetts Housing Partnership, 1999).

Massachusetts have adopted zoning incentives for affordable developments, very few units are generally created.⁸ The zoning statute, Chapter 40B commonly known as the “anti-snob” zoning ordinance, exempts developers of affordable units from certain zoning regulations if 20-25% of units in municipalities have affordability restrictions. The restrictions include being affordable for households earning less than 80% of the area's median income and must remain affordable for 30 years.⁹ Much of land use control is local in Massachusetts, so depending on the community, inclusionary zoning programs may or may not be directly influenced by 40B.¹⁰ The following are two different examples of the impact of Chapter 40B, and the successes and failures of inclusionary zoning.

Barnstable, MA.

In an attempt to address the state's 10 % affordability requirement, the town of Barnstable, Massachusetts on Cape Cod drafted an Inclusionary Housing Ordinance that charged developers a fee that was placed in an Inclusionary Housing Fund to purchase land and develop affordable units. A suit was brought against the town, claiming that the fee was an illegal tax. A Superior Court ruled in favor of the plaintiff in *Dacey v. Town of Barnstable*. A part of the inclusionary ordinance was struck down when the court ruled that the Town's imposition of an Inclusionary Housing Fee on developers whose projects were not covered under the ordinance constituted an exaction.¹¹ ***The lesson learned from Barnstable is that an inclusionary zoning program can be implemented in several different ways, and that it is important to find a program that suits an individual town.*** In the case of Barnstable, the courts ruled that imposing an exaction places the burden of developing affordable units on developers only. Rather, an inclusionary zoning program should be viewed as a community program. The Comprehensive Permit Law in Massachusetts (under Chapter 40B) expedites the permitting process for developers building affordable units, thus providing incentives for private development- making it the better option to achieve affordable housing goals.

Newton, MA.

Newton, Massachusetts is an older suburb of Boston with a population of 85,000. In 1977, Newton drafted its own inclusionary zoning ordinance, which has since provided 225 units of affordable housing over a thirty-year period. In addition, almost 450 units have been constructed in the community under the mandate of Chapter 40B. Newton's ordinance mandates that all units created have to be rental and leased through the Newton Housing Authority. Other options for developers such as off-site units and cash payments in lieu of construction are available, although tightly regulated. Newton's program also contains strict regulation in the design of affordable units. The units must be equal in character to market rate units, in order to avoid stigmatization.

One of the challenges of the Newton program is that there is a fee for developments under 10 units that do not come under the town ordinance. Therefore, many developers choose to pay the fee and under-develop. However, the Newton Housing Authority does not have an effective method to allocate funds received by the fee and in lieu payments. This case study shows the difficulty in creating many cash payment loopholes for developers. One remedy would be to mandate the construction of affordable units in all developments in return for a density bonus.¹²

⁸ National Housing Conference (NHC), “Inclusionary Zoning: Lessons Learned in Massachusetts,” *NHC Affordable Housing Policy Review* 2, no. 1 (Washington, DC: Center for Housing Policy, January 2002).

⁹ Ibid.

¹⁰ Phillip B. Herr & Associates, “Zoning for Affordability,” *Community Strategies* (Boston, MA: Massachusetts Housing Partnership, 1999).

¹¹ Commonwealth of Massachusetts Superior Court, Civil Action No. 00-53 (October 18, 2000), *Brian Dacey vs. Town of Barnstable*.

¹² National Housing Conference (NHC), “Inclusionary Zoning: Lessons Learned in Massachusetts,” *NHC Affordable Housing Policy Review* 2, no. 1 (Washington, DC: Center for Housing Policy, January 2002).

C. RHODE ISLAND (RI) CASE STUDIES

Rhode Island's municipal affordable housing provisions within existing zoning ordinances are widely varied. In Rhode Island at this time, only East Providence and Tiverton have mandatory inclusionary zoning in use. There are 8 other municipalities that have some sort of an incentive zoning provision in the local zoning ordinance relating to affordable housing. These municipalities are Barrington, Burrillville, East Greenwich, Hopkinton, New Shoreham, North Kingstown, Richmond, and South Kingstown. This section provides a brief summary of the various incentive zoning techniques currently in use. The local ordinance citations follow each summary with a web link to the homepage of the municipality where on-line information is available for more information about each community and the ordinance cited.

- ◆ **Barrington, RI:** density bonus in an Elderly Housing District as part of a zoning ordinance amendment, with a 30-year affordability provision, but there is no provision for a percentage of low/moderate income family units. [Section 185-139-B] <http://www.ci.barrington.ri.us/>.
- ◆ **Burrillville, RI:** In Village Planned Development Districts flexibility in siting units is permitted by the Planning Board for all dimensional requirements but the 12,000 square feet minimum lot size. [Section 11-8.9.4] http://www.burrillville.org/Public_Documents/index.
- ◆ **East Greenwich, RI:** density bonus to a maximum of six units per acre provided that 10% of the units within the development are affordable in Mixed Use Planned Development Districts. [Article VIII, 6.3] <http://www.eastgreenwichri.com/>.
- ◆ **East Providence, RI:** a density bonus of up to 10% may be permitted according to the number of affordable units developed [Article VIII, Section 19-456]. Also the new Waterfront Development District (WWD) requires that all new residential development or property conversions resulting in 5 or more parcels or new dwelling units must supply a minimum of 10% of low to moderate income housing units as part of the development. An In-Lieu fee option is allowed per the rules and regulations of the East Providence Waterfront Special Development District Commission. [Article 9,(j), Affordable Housing] <http://www.eastprovidence.com/>.
- ◆ **Hopkinton, RI:** a density bonus of up to 10% may be permitted by the Planning Board according to the number of affordable units developed in cluster developments. [Section 14(A)(2)]
- ◆ **New Shoreham, RI:** density bonus of 100% may be granted to accommodate affordable units by the Zoning Board as a special-use permit. [Section 405]
- ◆ **North Kingstown, RI:** 10% density bonus may be granted for 10% of all dwelling units to be marketed at a moderate price in a Planned Unit Development by the Planning Commission. [Section 21-487(m)] <http://www.northkingstown.org/>.
- ◆ **Richmond, RI:** 20% affordable units in subdivisions (if the Planning Board determines that the development meets critical needs), the development is exempt from Growth Rate Control [Section 18.72.020(C)], and affordable units are also exempt from impact fees. [Section 18.33.040(A)] <http://www.richmondri.com/>.
- ◆ **South Kingstown, RI:** Affordable Housing is exempted from the Fair Share Development Fee. [Section 1101 D 1] <http://www.southkingstownri.com/>.
- ◆ **Tiverton, RI:** A mandatory alternative concept plan for all major land developments showing a 20% set-aside for low or moderate income housing is required. Planning Board will endorse or reject concept plan. A density bonus up to 30% over allowed density for additional units of low or moderate housing may be granted at the discretion of the Planning Board. [Article XXI, Section 9, a & b]

Part 4: Items to Consider

Developing an inclusionary housing section for a zoning ordinance is difficult, and many components of such an ordinance must be taken into consideration before the section can be written. Before proceeding, it is critical to familiarize oneself with the Rhode Island General Laws establishing the planning framework for housing development and zoning in general, along with the requirements of the *Comprehensive Housing Production and Rehabilitation Act of 2004* and the associated amendments to 7 other related enabling acts concerning affordable housing. The following 12 items are considered essential for communities to address concerning inclusionary housing and were adopted from an Enterprise Foundation Brief.¹³

A good World Wide Web site to review the RI planning and development laws is located at:

<http://www.rilin.state.ri.us/Statutes/TITLE45/INDEX.HTM>.

To view the House and Senate bills related to the *Comprehensive Housing Production and Rehabilitation Act of 2004* see:

[H-8574A](#), [S-3148](#).

1. How does the ordinance provision relate to adopted Municipal Plans?

When drafting inclusionary provisions for a zoning ordinance, a nexus needs to be established between the approved Affordable Housing Plan of the municipality and the purpose of the ordinance. The ordinance sections concerning Findings and Purpose should restate the community need for affordable housing, environmental and infrastructure constraints, and recommendations from the approved Affordable Housing Plan and the Housing Element of the Comprehensive Plan.

2. Will the inclusionary requirement be mandatory or voluntary?

The decision to make your requirement mandatory or voluntary is an important one. It seems most inclusionary zoning ordinances are voluntary. Voluntary programs are harder to challenge in court, but they should have incentives included to be successful. Mandatory programs, on the other hand, are obviously easy to enforce and evidence supports that they produce more units. The combination of approaches is probably best. Included within regulatory strategies usually are requirements to insure that developments mitigate the impacts of their projects on the community's need for affordable housing and incentives for developers to volunteer to provide affordable housing.

3. What will be the development threshold size for applicability?

The threshold size describes how the size of a development will trigger an affordability requirement.¹⁴ In the examples that follow in Part 5, there is a low of 3 units to a high of 50. In the Burlington example, a redevelopment of project of 10 acres or 50 or more units or a development using more than 10 acres or 50 or more units will trigger an affordability requirement.

¹³ Peter Werwath, "Program Design Considerations," *An Enterprise Issue Brief* (Columbia, MD: The Enterprise Foundation, 1994).

¹⁴ Business and Professional People for the Public Interest. "Issues to Consider in Developing an Inclusionary Zoning Ordinance," *Inclusionary Zoning Policy Briefs*, (Chicago, IL: Business and Professional People for Regional Affordable Housing Publications, Winter 2003).

4. What “set aside” of affordable units must be included?

It is important to gauge your community's needs (by referencing your municipality's Affordable Housing Plan) and determine a percentage of the total development's units that will be deemed as a “set aside.” Certain inclusionary zoning ordinances either only include for-sale housing or rental housing. It appears that including both types of housing stock would benefit because the ordinance could target both low and moderate-income households. Some inclusionary programs have found that a key to success is an appropriate mix of affordable units coupled with a density bonus for market units. **Keep in mind that under the recent changes to the *Zoning Enabling Act*, any inclusionary housing zoning must provide that at least 10% of the total units in a development satisfy the affordable definition of the Act.**

5. What income groups are to be served?

A statement of the income group to be served must be drafted. Income eligibility standards are adjusted by family size, and most ordinances have a system for certifying income eligibility by an agreed-to standard. An ordinance may include a tiered income standard to aid developers: a lower percentage of affordable units can be built if the units are lower priced. Every ordinance should have some type of system to verify and certify incomes, or other special characteristics (such as disabilities).¹⁵ The system will have to adjust for varying incomes and family sizes. Whose regulations will you use to target a specific income group? In some communities, nonprofit organizations qualify homebuyers and renters for inclusionary developments, and they may also regulate trust fund monies, and other monies. It is important to establish who will supervise and enforce your inclusionary zoning ordinance.

6. What types of housing stock will be developed?

Another element to take into consideration is the style and design of affordable housing units. Some ordinances include strict design regulations. It would be beneficial for the community if the affordable units were compatible and similar to market rate design construction in the community.¹⁶

7. When will the affordable units be developed?

A sensitive issue for the developer and the municipality involves the timing of the affordable unit construction. While a developer may argue that s/he needs revenues from the market-rate units in order to feasibly construct the affordable units, a common goal is to have both types built concurrently to avoid any community controversy or having the developer leave the affordable units un-built. A compromise solution that appears in a number of ordinances is a phased construction of affordable rate units at an agreeable ratio to market-rate construction (e.g., one affordable unit for every five market-rate units constructed). Additionally, fees would be paid at the appropriate juncture (Netter, 2000).¹⁷

8. What type of cost- offsets and / or incentive(s) will you provide the developer?

There are ways of reducing the costs of a development to enable the construction of affordable housing such as the waiving of certain review fees or the amount of parking to be provided (see Part 5 for more details). These cost offsets allow a municipality to decrease the costs developers would incur for affordable housing, and minimize the possibility of a developer showing that mandatory inclusionary zoning causes an excessive loss such that it effects a taking. The cost offsets give developers certain benefits to compensate the developer for pricing some units below market rates. One of the most common incentives for an inclusionary zoning ordinance is to provide density bonuses to developers. Density bonuses allow developers to increase the number of units allowed on a piece of property if they

¹⁵ Peter Werwath, “Program Design Considerations,” *An Enterprise Issue Brief* (Columbia, MD: The Enterprise Foundation, 1994).

¹⁶ Joyce Siegel, “Inclusionary Zoning Around the Country” (Baltimore, MD: Innovative Housing Institute, 2 March 2000).

¹⁷ Edith Netter, Esq., “Inclusionary Zoning Guidelines for Cities and Towns,” *Community Strategies*. (Boston, MA: Massachusetts Housing Partnership, September 2000).

agree to make some percentage of those units affordable. Developers use additional cash flow from these bonus units to offset the revenue lost from the affordable units.¹⁸

9. How will the municipality sustain an ongoing inclusionary program?

It is important to ensure a total program when adopting an inclusionary zoning ordinance. If developers create affordable units without long-term affordability controls (30 year minimum in RI) or site units close too far from community and social services then the program will fail. This is important to consider as the community may want to stipulate special conditions for preserving the affordable housing created above and beyond the provisions required by the housing program funders. Special siting factors such as proximity to employment and other public services are necessary for affordable units. For example, one siting requirement may be that affordable units be located close to major employers and or public transportation routes where possible.

10. What will be the type of controls on rental and for-sale housing?

A successful inclusionary zoning ordinance must include explicit restrictions on the future rental or sale of affordable units. Again, this is important to consider as the community may want to stipulate special conditions for preserving the affordable housing created above and beyond the provisions required by the housing program funders. The ordinance must require the units to remain affordable for a minimum of thirty years, and it may also specify that the affordable units must continue to be available to income-qualified occupants. Restricting income levels and rents for rental units is simple- the jurisdiction can specify rent limits and require verification of new tenant's incomes as they move into the development. Maintaining affordability on for-sale housing is more complicated. The ordinance may require that homeowners sell their unit to income-qualified buyers at a price that incorporates inflation and the cost of home improvement, but remains affordable. One compromise would be that homeowners could sell their home with affordability restrictions and donate a certain percentage of the profits to a housing trust fund.¹⁹ The ordinance should take into consideration inflation and the cost of living adjustments over time and who will be qualified in later years (see Part 5, numbers 10 & 11 for more details).

11. Can the developer make in-lieu-of payments?

A town may determine that the developer not be required to build affordable units if he pays a fee-in-lieu of development either (a) in cash or (b) by dedication of land. This fee is usually dedicated to a land trust or land bank for future affordable housing for the town, which may need to be established if none exists. A dedication of land may be advantageous to a community that has prioritized conservation along with affordable housing as a complementary goal. The community should specify whether the developer has the option of a fee-in-lieu by right, or require that the developer demonstrate that building the units as required presents a financial hardship.

In deciding the amount of a fee-in-lieu the ordinance needs to consider what the developer's costs might be to produce a unit of affordable housing, including current land costs, the need for infrastructure, current construction costs, etc. The object is to create a fee that is not too low so as to make it economically advantageous for the developer to opt out of building affordable units and high enough to make a reasonable gain by the community's affordable housing trust fund or land bank if they choose to allow the developer to opt out.

12. Can the developer build affordable units off-site?

Allowing developers the flexibility of delivering affordable housing off-site can help them economically. For example, if they are developing on expensive land, they can build more affordable units on other land. Also, affordable units may have special needs such as proximity to transportation

¹⁸ Regulatory Barriers Clearinghouse, "Considerations for Density Bonus Ordinance," *Breakthroughs: Solutions that support affordable housing* 2, no. 4, Washington, DC.

¹⁹ Anne Ray, "Inclusionary Housing A Discussion of Policy Issues," (Gainesville, FL: Shimberg Center for Affordable Housing, 15 June 2001).

and employment. Alternatively, while a municipality may allow the developer to build the affordable units off-site; however, this practice is less favored since one of the goals of inclusionary zoning is to promote the mixture of affordable units among market-rate housing to soften opposition to the construction as well as for the beneficial socio-economic impact. If off-site building is permitted, it is recommended that the units continue serving the same geographic locality.

Part 5: Developing an Ordinance

During the development of an inclusionary housing section for a municipal zoning ordinance, it is critical to tailor the section to the unique local housing conditions/ needs, governmental structure, and staffing levels - as defined by each locally approved Affordable Housing Plan. Therefore, the drafting of an effective inclusionary zoning ordinance requires the municipality to present a wide array of options that need to be viewed separately, and then evaluated in terms of how they work together.

This handbook is a reference tool not a model ordinance.

This section addresses those variables and options to be weighed in developing an effective inclusionary zoning ordinance. Communities should utilize this section as a guide to explain those issues that contribute to their unique needs, as there does not exist a one-size fits all solution. A municipality seeking to draft and implement an inclusionary zoning ordinance should consult with their legal counsel.

In addition, this section is formatted to resemble a general municipal zoning ordinance provision and includes the recommended guidelines presented within the "Rhode Island Five Year Strategic Housing Plan".

The eleven items below are standard items for a community to include when drafting an inclusionary zoning ordinance. These standard items were adopted from a multitude of sources and a regional housing educational publication by the Business and Professional People for the Public Interest. An explanation of each item is presented, along with a bolded description of the recommended guideline for each, if applicable, from the "Rhode Island Five Year Strategic Housing Plan". Following the explanation and recommendation is actual ordinance language examples that have been underlined to identify the illustrated State law and guideline requirements. Lastly, the language municipalities use to draft the inclusionary zoning ordinance should be checked for consistency with Rhode Island law by legal counsel.

1. Findings

An ordinance section on inclusionary housing should begin with findings stating the need for affordable housing in the municipality as cited in the approved local Affordable Housing Plan. Typically this is the section that would summarize the planning process the community has undertaken, trends in housing stock, the need for and benefits of affordable housing, the constraints to be addressed and the benefits anticipated by enactment of an inclusionary zoning ordinance provision.

The first findings below are cited from the newly adopted **Comprehensive Housing Production and Rehabilitation Act of 2004 (R.I.G.L 42-128-8.1)**. A findings section should mirror the general statewide findings in addition to any local findings from the local approved Affordable Housing Plan. Additional sample findings are from other places using inclusionary housing provisions in their zoning ordinances.

42-128-8.1. Housing production and rehabilitation.

(a) Short title. This section shall be known and may be cited as the "Comprehensive Housing Production and Rehabilitation Act of 2004."

(b) Findings. The general assembly finds and declares that: (excerpts)

(2) Efforts and programs to increase the production of housing must be sensitive to the distinctive characteristics of cities and towns, neighborhoods and areas and the need to manage growth and to pace and phase development, especially in high growth areas.

(3) The state in partnership with local communities must remove barriers to housing development and update and maintain zoning and building regulations to facilitate the construction, rehabilitation of properties and retrofitting of buildings for use as safe affordable housing.

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(4) Creative funding mechanisms are needed at the local and state levels that provide additional resources for housing development, because there is an inadequate amount of federal and state subsidies to support the affordable housing needs of Rhode Island's current and projected population.

(5) Innovative community planning tools, including, but not limited to, density bonuses and permitted accessory dwelling units, are needed to offset escalating land costs and project financing costs that contribute to the overall cost of housing and tend to restrict the development and preservation of housing affordable to very low income, low income and moderate income persons.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

A Findings: A diverse housing stock is necessary in this community in order to serve people of all income levels. Based upon the review and consideration of the recent Lincoln Affordable Housing Production Plan, it has become clear that the provisions of the Article are necessary in order to preserve some diversity of housing opportunities for the residents and the working people of Lincoln.

The program defined by this article is necessary to provide continuing housing opportunities for low and moderate income persons in Lincoln. It is necessary to help maintain a diverse housing stock and allow residents and employees of Lincoln to have better access to housing and jobs. The local and statewide trend of increasing housing costs as identified in the Lincoln Affordable Housing Production Plan will, without intervention; result in inadequate supplies of affordable housing here for low and moderate income residents and employees.

Remaining land for residential development in Lincoln is limited. It is essential that at least ten percent (10%) of such land be developed into housing units affordable to low and moderate income households. The primary objective of this article is to obtain affordable rental and homeownership units within qualified subdivisions or land development projects. Some provisions of this chapter provide for alternatives to the production of such on-site units. Those provisions recognize the fact that individual site and economic factors can make on-site production less desirable than the alternatives for particular developers. However, the intent and preference of this article is that wherever possible, affordable units constructed pursuant to this Article be located on site.

2. Statement of Purpose

Purpose statements typically explain broad policy directives of an ordinance.

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

- a. To encourage and perpetuate the historic diversity of the community through the development of housing and housing for all populations within the Town, including, but not limited to, housing for the resident workforce and housing for special needs populations;*
- b. To promote mixed income Household occupancy in new subdivisions and land development projects throughout the Town;*
- c. To promote affordable housing production in the Town in accordance with the goals and policies of the South Kingstown Comprehensive Community Plan's Housing Element and Affordable Housing Production Plan;*
- d. To encourage the development and availability of housing that qualifies as low and moderate income housing as mandated by RIGL 45-53, the Rhode Island Low and Moderate Income Housing Act, and the Rhode Island Comprehensive Housing Production and Rehabilitation Act of 2004, as amended;*
- e. To allow landowners and/or developers a reasonable return in all zones permitting residential development where the applicant proposes a development that would be classified as a major subdivision (6 residential units or greater) or major land development project under the South Kingstown Subdivision and Land Development Regulations.*

(Lincoln, RI) [DRAFT: 02-06 Article VII]

The purposes of this article are to:

- (1) Maintain a balanced community that provides housing for people of all income levels, and*
- (2) Promote the construction of rental and homeownership housing that is affordable for the low and moderate income households of Lincoln.*

- (3) *Implement the Lincoln Affordable Housing Production Plan, and the Housing Element of the Lincoln Comprehensive Plan, and Help Lincoln achieve the 10% low-moderate income housing goal set by the State.*

3. Definitions

This part provides explanations to clarify certain specific terms used in the inclusionary zoning ordinance. Any housing, planning, or zoning terms that are not commonly used should be included in this section. Knowledge of existing definitions as established by the various Rhode Island General Laws (<http://www.rilin.state.ri.us/Statutes/TITLE45/INDEX.HTM>) concerning housing development is necessary for this section. Definitions are already provided in the legislation for many terms relevant to an inclusionary zoning ordinance provision such as:

- Affordable Housing
- Approved Affordable Housing Plan
- Moderate Income Household
- Seasonal housing
- Year-round Housing
- Low and Moderate Income Housing

- (1) **"Affordable housing"** means residential housing that has a sales price or rental amount that is within the means of a household that is moderate income or less. In the case of dwelling units for sale, housing that is affordable means housing in which principal, interest, taxes, which may be adjusted by state and local programs for property tax relief, and insurance constitute no more than thirty percent (30%) of the gross household income for a household with less than one hundred and twenty percent (120%) of area median income, adjusted for family size. In the case of dwelling units for rent, housing that is affordable means housing for which the rent, heat, and utilities other than telephone constitute no more than thirty percent (30%) of the gross annual household income for a household with eighty percent (80%) or less of area median income, adjusted for family size. Affordable housing shall include all types of year-round housing, including, but not limited to, manufactured housing, housing originally constructed for workers and their families, accessory dwelling units, housing accepting rental vouchers and/or tenant-based certificates under Section 8 of the United States Housing Act of 1937, as amended, and assisted living housing, where the sales or rental amount of such housing, adjusted for any federal, state, or municipal government subsidy, is less than or equal to thirty percent (30%) of the gross household income of the low and/or moderate income occupants of the housing [§ 42-128-8.1(d)-1].
- (2) **"Affordable housing plan"** - means a plan prepared and adopted by a town or city either to meet the requirements of chapter 45-53 or to meet the requirements of [§ 45-22.2-10(f)], which require that comprehensive plans and the elements thereof be revised to conform with amendments to the state guide plan.
- (3) **"Approved affordable housing plan"** - means an affordable housing plan that has been reviewed and approved in accordance with [§ 45-22.2-9].
- (4) **"Moderate income household"** - means a single person, family, or unrelated persons living together whose adjusted gross income is more than eighty percent (80%) but less than one hundred twenty percent (120%) of the area median income, adjusted for family size.
- (5) **"Seasonal housing"** - means housing that is intended to be occupied during limited portions of the year.
- (6) **"Year-round housing"** - means housing that is intended to be occupied by people as their usual residence and/or vacant units that are intended by their owner for occupancy at all times of the year; occupied rooms or suites of rooms in hotels are year-round housing only when occupied by permanent residents as their usual place of residence.
- (7) **"Minor subdivision"** - A plan for a subdivision of land consisting of five (5) or fewer units or lots, provided that the subdivision does not require waivers or modifications as specified in this chapter [§45-23-32 (25)].

- (8) **“Major subdivision”** - Any subdivision not classified as either an administrative subdivision or a minor subdivision [§45-23-32 (22)].
- (9) **“Cluster”** - A site planning technique that concentrates buildings in specific areas on the site to allow the remaining land to be used for recreation, common open space, and/or preservation of environmentally, historically, culturally, or other sensitive features and/or structures. The techniques used to concentrate buildings shall be specified in the ordinance and may include, but are not limited to, reduction in lot areas, setback requirements, and/or bulk requirements, with the resultant open land being devoted by deed restrictions for one or more uses. Under cluster development there is no increase in the number of lots that would be permitted under conventional development except where ordinance provisions include incentive bonuses for certain types or conditions of development [§ 45-24-31 (13)].
- (10) **“Incentive Zoning”** - The process whereby the local authority may grant additional development capacity in exchange for the developer's provision of a public benefit or amenity as specified in local ordinances [§ 45-24-31 (35)].

4. Standards - Threshold Size and Applicability

Threshold size and applicability is a two-fold standard requirement, by which the developer must comply. Therefore, the language within the inclusionary zoning ordinance must identify a standardized number of units or acres to be established as the threshold size. If the number of units or acres within the proposed land and/or building rehab development meets or exceeds the threshold size, then the threshold size will function as a trigger for the application of a set-aside provision requirement. For instance, **the “Rhode Island Five Year Strategic Housing Plan” guidelines suggest the minimum threshold trigger for this inclusionary zoning provision to be six for-sale or six rental units. This standard trigger of six for-sale or six rental units is based on R.I. enabling legislation, which differentiates a major subdivision from a minor subdivision based upon a standard of six or more units.** Nonetheless, the State would not discourage a reduction of this standard trigger as every municipality possesses unique local housing conditions/ needs, governmental structure, staffing levels, and locally approved Affordable Housing Plans. Furthermore, in some cases where large redevelopment projects are involved, a standardized number of acres must be identified as the trigger. Additionally, and only if applicable, this section of the ordinance should state whether the threshold size be applicable to all zoning districts or just specific zoning districts.

Details for the income groups to be served by the set-aside provision will be established in the “certifying buyers and renters and maintaining affordability” provision within the inclusionary zoning ordinance.

(Burlington, VT) *The following residential development projects shall be Covered Projects and shall be subject to the requirements of this Article: all development of residential property larger than 10 acres or containing 50 or more dwelling units taking place through the construction of new structures or through the substantial rehabilitation of existing structures. Covered Projects shall include all development of residential property in excess of 10 acres or containing 50 or more dwelling units in the City by the same responsible party in any calendar year.*

(A covered project in Burlington, VT is defined as - units that are offered for sale via the conveyance of a deed or share for individual units).

(Lexington, MA) *These provisions shall apply to all residential developments with three or more dwelling units which are authorized through special permits with site plan review, including residential developments in CD or RD Districts.*

(Lincoln, RI) [DRAFT: 02-06 Article VII]

- E. *Number of Inclusionary Units: Any development containing five or more dwelling units is required to include at least twenty percent (20%) of the total number of dwelling units within the development as affordable units.*

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

- B. Applicability. This section shall be applicable in all zones permitting residential development where the applicant proposes a development that would be classified as a major subdivision (6 residential units or greater) or major land development project under the South Kingstown Subdivision and Land Development Regulations.*

5. Standards - Set-Asides

A set-aside provision pertains to the required percentage of a proposed development that a developer must price as affordable. There is no one-size-fits-all set-aside that can be used to do this. **The Zoning Enabling Act [R.I.G.L. 45-24-46.1] mandates that inclusionary zoning set-asides must be at least 10% of the total units proposed for development. In an attempt to maintain progress towards achieving the State's 10% goal, the "Rhode Island Five Year Strategic Housing Plan" guidelines suggest that municipalities consider a higher affordability set-aside, which will be off-set with a higher density bonus.** Based upon the State law and guidelines, perhaps the best general set-aside for a municipality would be to allow no less than 12.5% to 15%, but no greater than 25%.

Additionally, the municipality must decide what income tier to target for the affordable units, and balance those requirements with projects thought to have economic feasibility. Within this provision of the ordinance, the developer's pricing schedule must be consistent with the municipal affordable housing element of the comprehensive plan and the fiscal boundaries pre-established by the municipality. (The set-aside should be related directly to the Findings Section for ordinance consistency).

(Lincoln, RI) [DRAFT: 02-06 Article VII]

- E. Number of Inclusionary Units: Any development containing five or more dwelling units is required to include at least twenty percent (20%) of the total number of dwelling units within the development as affordable units.*

(Canton, MA)

Ten percent (10%) of the dwelling units in the Continued Care Retirement Community shall be available to and permanently affordable for households earning less than or equal to 80% of the median income for Worcester County. An increase in the number of units of up to twenty percent (20%) of the maximum dwelling units allowed may be permitted on a one to one basis for units above and beyond the required ten percent (10%).

(Duxbury, MA) [DRAFT]

At least ten (10) percent of the lots in a division of land or units in a multiple unit development subject to this Bylaw shall be established as affordable housing units in any one or combination of methods provided for below. Fractions of a lot or dwelling unit shall be rounded up to the nearest whole number, such that a development proposing six (6) dwelling units shall require one affordable unit, a development proposing eleven (11) dwelling units shall require two affordable units and so on.

6. Standards - Design and Building Requirements

Within the inclusionary zoning ordinance, it is important to establish the specific site design and architectural standards that will be implemented to move forward with the construction of the affordable housing units. In addition, while the type and design of a proposed development will be determined by the needs of the community, **the inclusionary zoning ordinance should implement guidelines that require affordable units to be similar in outward appearance to market rate units in the municipality.** More often than not, visual compatibility positively contributes to the overall aesthetic quality of the municipality; and this can make it easier for low or moderate income residents to both accommodate and assimilate themselves into the municipality. **In addition, the ordinance should provide implementation guidelines for developments that may include a mix of housing types and lot sizes, such as single-family units, duplexes, triplexes, and quadraplexes.**

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Lastly, the inclusionary zoning ordinance should address two additional building alternatives: off-site construction and land dedication. In the event a developer proves that the construction of on-site affordable units is infeasible (due to environmental constraints or other fiscal considerations); he may be granted the option, with approval from the municipal Planning Board, for off-site construction. An approval of this nature should require the developer to construct both the market and the affordable units simultaneously. A land dedication provision would allow a developer, demonstrating a unique hardship, to **substitute a donation of land suitable for development that can accommodate affordable units in place of constructing the units.**

Presented below are six examples of either approved ordinances or ordinances still in the drafting phase demonstrating those guidelines set within the "Rhode Island Statewide Strategic Housing Plan". Examples one and two demonstrate guideline language for development design and location; examples three and four demonstrate guideline language for a variety of different mixed use developments; example five demonstrates guideline language for the circumstances and requirements for off-site developments; lastly, example six demonstrates guideline language for the requirements for land dedication.

Example One

(Lexington, MA)

6. *Development Design. Location and design of Inclusionary Units shall comply with the following:*

- (a) Inclusionary Units shall be sited in no less desirable locations than the other units located on the same site.*
- (b) The materials used and the quality of construction for Inclusionary Units, including heating, ventilation, and air conditioning systems, shall be equal to those of the other units in the development, but amenities such as designer or high end appliances and fixtures need not be provided for Inclusionary Units.*
- (c) To be credited towards the count of Inclusionary Units any existing dwelling units must be in full compliance with all applicable construction and occupancy codes, and shall be sufficiently maintained or rehabilitated so that all major systems (including, but not limited to, roof, windows and building envelope, HVAC, plumbing, and electrical) meet standards comparable to new construction.*
- (d) The exterior appearance of the Inclusionary Units shall be compatible with the other units on the same site.*

Example Two

(Lincoln, RI) [DRAFT: 02-06 Article VII]

J. *Design Guidelines*

- (1.) The exterior appearance of the Inclusionary units in any development shall be visually compatible with the market rate units in the development. External building materials and finishes shall be substantially the same in type and quality for inclusionary units as for market rate units and have the appearance of a single family home.*

Example Three

(Providence Inclusionary Zoning Recommendations) [PolicyLink]

Design Standards for Inclusionary Units

Affordable units must be similar to and compatible with market rate units in outward appearance and in number of bedrooms, but size of affordable units may be reduced to a minimum standard, e.g. for apartments, the minimum sizes could be:

- Efficiencies at 450 sq. ft.*
- One bedrooms at 600 sq. ft.*
- Two bedrooms at 850 sq. ft.*
- Three bedrooms at 1,050 sq. ft.*
- Four bedrooms at 1,120 sq. ft.*

Townhouses, multiplex, and single family units would generally be larger than these minimums due to developer design and compatibility goals. Interior finishes, appliances, and amenities need not be compatible with market rate units.

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Example Four

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

C. Permitted Uses. (Note: the section below is modeled after the existing provisions of Section 502.5 Flexible Design Residential Projects.).

a) The following residential uses are permitted (Y) in subdivisions or land development projects to these inclusionary provisions.

<u>Use Code</u>	<u>Description</u>
10	Single household detached structure
11	Two household detached structure
12	Multi-household detached structure (up to four-dwelling units per structure in subdivisions, up to 12 units per structure LDP, Land Development Project)
12.1	Multi-household Land Development Project (see Appendix A, Use Code Descriptions)
12.2	Multi-household Detached Structure-Elderly Only, LDP (see Appendix A, Use Code Descriptions)
12.3	Multi-household Land Development Project - Elderly Only, LDP (see Appendix A, Use Code Descriptions)
12.4	Residential Compound (see Appendix A, Use Code Descriptions)
16.1	Mobile or Manufactured Home Park, Land Development Project (see Appendix A, Use Code Descriptions)
16.2	Senior Residential Community – LDP (Land Development Project) – Elderly-Only, (see Section 501.7, permitted only in the R40 zoning district subject to the additional requirements listed therein)

I. Design Standards for Inclusionary Dwelling Units in Major Subdivisions and Major Land Development Projects

1 Intent

It is the intent of this Section to establish general design and procedural standards for the siting and construction of affordable dwelling units (inclusionary zoning) in major land developments and major subdivisions. By the application of these standards and procedural requirements it is intended to create subdivision neighborhoods and land development projects that have long desirability, provide housing opportunities for a broad range of households with varying incomes and housing needs and are compatible with the surrounding community.

a) Inclusionary Dwelling Unit Design Considerations -...For conventional subdivisions or Flexible Design Residential Projects (FDRP's) such units may be designed as single household units, duplexes, triplexes or in a quadraplex configuration.

Example Five

(Lincoln, RI) [DRAFT: 02-06 Article VII]

M. Off-site Construction of Inclusionary Units: Inclusionary units may be constructed off-site only upon the determination by the Planning Board or Zoning Board that on-site construction is infeasible. If this option is chosen, then the off-site inclusionary units must be constructed prior to or concurrently with the construction of the on-site project. The inclusionary unit size and count must meet the same requirements as if the inclusionary units were constructed on-site.

Example Six

(Towns in Barnstable County, MA) [Inclusionary Housing Bylaw]*

05 Provision of Affordable Units:

4. An applicant may offer, and SPGA may accept, donations of land in fee simple, on or off-site, that the SPGA in its sole discretion determines are suitable for the construction of affordable housing units. The value of donated land shall be equal to or greater than the value of the construction or set-aside of the affordable units. The SPGA may require, prior to accepting land as satisfaction of the requirements of this provision/ordinance, that the applicant submit appraisals of the land in question, as well as other data relevant to the determination of equivalent value.

*Note: If item 4 were to be incorporated into the language of a RI ordinance, replace the "SPGA" with "Zoning Board of Review or Planning Board (ZBR or PB)"; and replace the word "bylaw" with the word "ordinance".

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7. Standards - Timing of construction

It is important to establish when the affordable units shall be constructed. Most municipalities require affordable units to be built concurrently with market units to ensure integration of affordable and market units, and to prevent developers from abandoning projects prior to completing the affordable units. This section can be used to stipulate when phasing is used how many affordable units are to be constructed as part of each phase. **The “Rhode Island Five Year Strategic Housing Plan” guidelines state that the inclusionary ordinance may stipulate an upfront commitment from developers to create affordable units in a timely manner through the use of bonds or the requirement of phased construction plans, encouraging developers to construct affordable units either before or concurrent with market rate units.**

(Burlington, VT) *Inclusionary units shall be made available for occupancy on approximately the same schedule as a Covered Project's market units, except that certificates of occupancy for the last ten percent of the market units shall be withheld until certificates of occupancy have been issued for all of the inclusionary units. A schedule setting forth the phasing of the total number of units in a Covered Project, along with a schedule setting forth the phasing of the required inclusionary units, shall be established prior to the issuance of a building permit for any development subject to the provisions of this Article.*

(A covered project in Burlington, VT is defined as - units that are offered for sale via the conveyance of a deed or share for individual units).

(Lexington, MA) *POLICY 4.15: TIMING OF CONSTRUCTION: Building permits should not be issued for the construction of any dwelling unit in the second 50% of the market rate dwelling units, which are linked to affordable dwelling units, whether on the same site or elsewhere in town, until construction has begun on ALL the affordable dwelling units.*

(Massachusetts Smart Growth Model IZ Bylaw)

05.0 Provisions Applicable to Affordable Housing Units On- and Off-Site:

3. *Timing of construction or provision of affordable units or lots. Where feasible, affordable housing units shall be provided coincident to the development of market-rate units, but in no event shall the development of affordable units be delayed beyond the schedule noted below:*

<u>Market rate Unit (% Complete)</u>	<u>Affordable Housing Unit (% Required)</u>
<30%	-
30% plus 1 unit	10%
Up to 50%	30%
Up to 75%	50%
75% plus 1 unit	70%
Up to 90%	100%

Fractions of units shall not be counted.

(Charlton, MA) [DRAFT]

- (4.) *The construction of the affordable units will be built (a unit is considered “built” upon the issuance of an Occupancy Permit) coincident with the development of market-rate units, but in no event shall the development of affordable units be delayed beyond the schedule noted below:*

<u>Market rate units (% built)</u>	<u>Affordable housing units (% built)</u>
Up to 30%	None required
30% to 50%	At least 30%
51% to 75%	At least 75%
76% or more	100%

8. Cost Offsets and Density Bonuses

State inclusionary zoning guidelines suggest ways of reducing the costs of a development to enable the construction of affordable housing. Municipalities may implement cost offsets in a variety of ways. These include waivers from development standards such as set-back requirements, parking and landscaping requirements, waivers of impact fees and streamlining permitting to reduce the cost of constructing affordable units. These cost offsets allow a municipality to decrease the developer costs to be incurred while constructing affordable housing. In addition, the cost offsets minimize the possibility of a developer showing that inclusionary zoning causes an excessive loss such that it presents itself as a taking. Furthermore, the cost offsets give developers certain benefits to compensate themselves for pricing some units at below market rates.

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

502.6 A. Fair Share Development Fee Exemption. Per section 1101.D. 1. of this Ordinance, required Inclusionary dwelling units in major land development projects, major subdivisions or off-site exactions shall be exempt from payment of Fair Share Development Fees for both school facilities and open space, conservation, park and recreation land and/or facilities.

One of the most popular developer incentives used by a municipality is the density bonus. Consequently, the incorporation of the density bonus provision has become an essential component of the inclusionary zoning ordinance, as it has proven advantageous to both the developer and municipality. **The State guidelines indicate that for the density bonus provision to be effective, it must be offered at a higher percentage than the affordable set-aside requirement in order to offset the cost of the affordable unit requirements.**

(Charlton, MA) [DRAFT]

0. Provision of Affordable Units and Density Bonus

- (1.) Utilizing the Affordable Housing Incentive Option will require the granting of a Special Permit from the Planning Board.*
- (2.) *Density Bonus Applicability: The density bonus is only available in those areas of Charlton serviced by **both** municipal water and sewer, or upon approval of **both** the Planning Board and the Board of Health.*
- (3.) Density Bonus Formula: For projects resulting in a net increase of six (6) or more dwelling units, the applicant has the option of obtaining a density bonus in exchange for the provision of affordable housing. The number of additional lots derived from the density bonus shall not exceed 25% of the total lots that could be created under a conventional definitive subdivision plan design. The density bonus shall be calculated according to the following formula:*
 - 3-a. For those residential development projects that will set aside a minimum of fifteen percent (15%) of the total proposed housing units for affordable housing, the minimum lot area per dwelling normally required in the applicable zoning district may be reduced by the amount necessary to permit up to two (2) additional units for each one affordable housing unit provided.*
 - 3-b. For those residential development projects that will set aside a minimum of ten percent (10%) of the total proposed housing units for affordable housing, the minimum lot area per dwelling normally required in the applicable zoning district may be reduced by the amount necessary to permit up to one (1) additional unit for each one affordable housing unit provided.*
 - 3-c. Fractions: If when applying the above percentages to the total number of units to determine the number of affordable units, the resulting number of affordable units includes a fraction of a unit, this fraction shall be rounded up to the next whole number.*

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*Note – If item (2) were to be incorporated into the language of a RI ordinance, the language would need to be specific with regard to the type of water supply (i.e. – municipal water source; or a private/public well water source) available to it and its wastewater management system. Furthermore, if specific approvals need to be obtained, the municipality would need to identify those particular municipal and state departments.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

Density Bonus: All projects shall be entitled to a density increase of twenty-five percent (25%) in accordance with the provisions of this section. This density bonus qualifies as a locally provided subsidy. Any project shall be entitled to an increase in the maximum lot coverage allowed for the site on which the project is located following the calculation of density, lot coverage, and setbacks.

(Somerville, MA) The affordable housing requirements of this Article shall apply to all residential developments seeking special permits with site plan review to develop 8 or more dwelling units, whether new construction, substantial rehabilitation, or adaptive reuse. Developments shall not be segmented or phased in a manner to avoid compliance with these provisions. Developers providing more than 12.5% of the total units in the development as affordable units may apply for an additional density bonus under the terms of this Article. Bonuses may be awarded on the basis of a 2 to 1 ratio of market rate units to affordable housing units. For every additional unit provided beyond the 12.5% required, 2 additional market rate units may be authorized.

9. Fee In Lieu

An inclusionary zoning ordinance may allow the option for the developer to pay a fee in lieu should it not be possible to construct the required affordable units for a variety of reasons. Several methods exist for the use of fee in lieu of construction. Such fees can be established that permit payment as a right. **In addition, an alternative is to require developers to show that constructing units would constitute a unique hardship, or that a fee would produce a greater benefit. State guidelines recommend that each community adopt a schedule of in-lieu fees that is based on a sound methodology, such as a percentage of the appraised value of the market-rate units. The fee should not exceed the difference between the cost of development and the sales price for an affordable unit.** The fee in lieu paid, is linked to the cost of producing a unit, and typically varies in every community, as the formulas for calculating an appropriate fee in lieu are dependent upon the local housing market.

(Massachusetts Smart Growth Model IZ Bylaw)

07.0 Fees-in-Lieu-of Affordable Housing Unit Provision: [Commentary Included]

1. As an alternative to the requirements of Section 05.0 or Section 06.0, an applicant may contribute to an established local housing trust fund to be used for the development of affordable housing in lieu of constructing and offering affordable units within the locus of the proposed development or at an off-site locus.

(a) Calculation of fee-in-lieu-of units. The applicant for development subject to this bylaw may pay fees-in-lieu of the construction of affordable units. For the purposes of this bylaw/ordinance the fee-in-lieu of the construction or provision of affordable units will be determined as a per-unit cost as calculated from regional construction and sales reports. The SPGA will make the final determination of acceptable value.

COMMENT: *This Section provides a cash payment option in lieu of providing affordable units. The payment value may differ for each municipality and will depend on the size of the affordable housing unit discount that would be necessary to make the unit affordable (e.g. median sale price of market rate unit minus maximum sale price of a three-bedroom affordable dwelling unit). Fees in-lieu will need to be recalculated regularly to account for inflation and other market changes. Furthermore, the local housing trust fund will need to be closely regulated to ensure that dollars contributed to the fund are spent exclusively on the provisioning of affordable housing. This is the appropriate section for specifying guidelines for administering the housing trust and stipulating the governance structure by which the trust will be managed. Municipalities that significantly lack*

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affordable housing opportunities should consider heavily restricting the fee-in-lieu payment option. In built-out communities, housing trust funds often grow and sit unused because sites appropriate for affordable housing development are not available. Additionally, affordable housing trusts can force municipal agents into the role of real estate developers, which local government officials may be poorly suited for or reluctant to do. Cities such as Cambridge have eliminated the fee-in-lieu payment option in almost all cases except for extreme hardship in order to ensure that affordable housing is built by the developers at the same time that new development is under construction.

(Duxbury, MA) [DRAFT]

560.12 Fees-in Lieu of Affordable Housing Unit Provision

As an alternative to the requirements of Section 560.5, and as allowed by law, an applicant may contribute to the Duxbury Housing Trust Fund to be used for the development of affordable housing in lieu of constructing and offering affordable units within the locus of the proposed development or off-site.

Calculation of fees-in-lieu of units. The applicant for development subject to this Bylaw may pay fees in lieu of the construction of affordable units. For the purposes of this Bylaw, the fee in lieu of the construction or provision of affordable units is determined to be \$200,000 per unit. For example, if the applicant is required to construct two affordable income units, they may opt to pay \$400,000 in lieu of constructing or providing the units. Unless and until adjusted by Town Meeting, the fee in lieu of the construction of affordable units shall increase three (3%) percent every twelve months from the effective date of this Bylaw.

10. Certifying Buyers and Renters and Maintaining Affordability

An inclusionary zoning ordinance can provide regulations with extensive instructions for marketing to and certifying buyers and renters of affordable units. **Affordable dwelling units for sale cost guidelines comprise: the principal, interest, property insurance, and taxes - which may be adjusted by state and local programs for property tax relief. These consolidated costs may not constitute more than 30 percent of the gross household income for a moderate income household. In the case of affordable dwelling units for rent cost guidelines comprise: the rent, heat, and utilities - other than telephone - and may not constitute more than 30 percent of the gross annual household income for a household with 80 percent or less of Area Median Income (AMI), adjusted for household size. State guidelines suggest that income ranges targeted in local zoning ordinances be consistent with the needs identified in the community's affordable housing plan.**

In addition, the provisions must have a system to make sure that eligible families are being housed in the affordable units over the long-term. **The Zoning Enabling Act [R.I.G.L. 45-24-46] mandates that the minimum time period for affordability maintenance shall be 30 years; and the State guidelines recommend that the period of affordability can be established in the ordinance as perpetuity meaning 99 years or the useful life of the building.**

The methods utilized to maintain the time frames for affordability vary with regard to the staffing and enforcement capabilities of each municipality. Typically affordability is maintained by certain legal mechanisms such as deed restrictions and covenants that can be used to guarantee the units remain affordable for that time period maintained through deed restrictions or covenants recorded against the property. These affordability controls often specify that a unit must be sold or rented to an income eligible buyer at an affordable price. Most ordinances impose price restrictions that keep units affordable when they pass to new occupants. More recently, municipalities have incorporated specific affordability maintenance periods, which would subsequently reinstate the original time period of affordability.

Lastly, guidelines need to be provided on the subject of resale pricing and maintaining the affordability of the housing units. Municipalities must address whether sellers should be allowed to recoup the value of capital investments in their homes. All of the aforementioned considerations can be facilitated by designating a monitoring agent in the ordinance. **The State inclusionary zoning guidelines recommends that the local municipality should select an agent approved to**

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monitor the affordable units for long-term compliance from RI Housing's list of approved monitoring agents, which may include local housing authorities, RI Housing, a community housing land trust, or the state or federal agency providing subsidies.

(Duxbury, MA) [DRAFT]

560.10 Maximum Incomes and Selling Prices: Initial Sale

To ensure that only eligible households purchase affordable units, the purchaser of an affordable unit shall be required to submit copies of the last three years' federal and state income tax returns and certify, in writing and prior to transfer of title, to the developer of the housing units or his/her agent, and within thirty (30) days following transfer of title, to the Duxbury Housing Authority, that his/her or their family's annual income level does not exceed the maximum level as established by the Commonwealth's Division of Housing and Community Development, and as may be revised from time to time.

The maximum housing cost for affordable units created under this Bylaw is as established by the Commonwealth's Division of Housing and Community Development or as revised by the Town.

560.11 Preservation of Affordability: Restrictions on Resale

Each affordable unit created in accordance with this Bylaw shall have the following limitations governing its resale. The purpose of these limitations is to preserve the long-term affordability of the unit and to ensure its continued availability for affordable income households. The resale controls shall be established through a deed restriction on the property, recorded at the Plymouth County Registry of Deeds or the Land Court, and shall be in force for as long a period as is lawful.

Resale Price – Sales beyond the initial sale to a qualified affordable income purchaser shall include the initial discount rate between the sale price to and the unit's appraised value at the time of resale. This percentage shall be recorded as part of the restriction on the property noted in Section 560.11. For example, if a unit appraised for \$300,000 is sold for \$225,000 as a result of this Bylaw, it has sold for 75% of its appraised value. If several years later, the appraised value of the unit at the time of proposed resale is \$325,000, the unit may be sold for no more than \$243,750, or 75% of the appraised value of \$325,000.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

O. Requirements

(2) Determination of Rental Rates for Affordable Units:

Maximum Rents: Rents charged for inclusionary rental units in any one project must average, be affordable to households earning eighty percent (80%) or less of the Area Median Income (AMI) as determined by HUD. No unit may rent at a rate, which exceeds affordability for a household earning fifty percent (50%) to eighty percent (80%) of AMI as determined by HUD. Latest AMI statistics may be obtained from Rhode Island Housing at www.rihousing.com.

(3) Sales Prices for Affordable Units: The maximum sales price for an affordable ownership unit shall be set by Rhode Island Housing according to their accepted formula. The home price for affordable units in any development shall be a price affordable to a household earning no more than eighty (80%) of the AMI as defined by HUD if subsidized with federal funds. The home price for affordable units in any development not being subsidized by federal funds the price must be affordable as follows:

a One unit shall be made available at a price affordable to a household earning no more than eighty percent (80%) of the AMI as defined by HUD.

b One unit shall be made available at a price affordable to a household earning no more than one hundred percent (100%) of the AMI as defined by HUD.

c Any additional units may be made available at a price affordable to a household earning no more than one hundred twenty percent (120%) of AMI as defined by HUD.

(4.) Approved Purchasers of Affordable Units: A developer or owner shall select an eligible purchaser after completing a good faith marketing and selection process. Upon request, the Town may provide the developer or owner of an affordable unit with a list of households certified by the Town as eligible to purchase the unit. However, a developer or property owner may select an income eligible purchaser who is not on a furnished list so long as the Town can verify the purchaser's income and asset eligibility and the unit is sold at an affordable price as described in this chapter.

(5.) Purchasers of Affordable Units Required to Reside in Those Units: A purchaser of an affordable unit shall occupy the purchased unit as their primary residence. No person shall rent an affordable

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ownership unit. Ownership units must remain exclusively owner occupied for the entire required affordability period.

- (6.) Resale Restrictions; Applicable to Affordable Units: All affordable ownership units as developed under this Article shall be subject to the following restrictions: A seller of an affordable unit must select a low-income purchaser by a method that complies with an approved good faith marketing and selection process. At the request of the applicant, the Town will provide the seller with the description of a process that meets this requirement. Upon request, the Town may provide the seller with a list of households certified by the Town as income eligible to purchase the unit. All purchasers of affordable units shall be part of an income eligible household.
- (7.) Resale Price for Affordable Units: The resale price of any affordable unit shall not exceed that which is affordable to a household earning no more than eighty percent (80%) to one-hundred twenty percent (120%) of the AMI as defined in Section N.(3).

11. Housing Agency Right to Purchase

Where appropriate, some inclusionary zoning ordinances give the municipality and/or designated not-for-profit entities a right to purchase a fixed percentage of affordable units. This can be required when the units are first offered for sale or rent, so that the units will stay permanently affordable. Lastly, the local trends in housing stock, the need for and benefits of affordable housing, and the staff capability of each community and/or the presence of a qualified community development corporation should dictate how this guideline shall be incorporated within the municipality's inclusionary zoning ordinance.

(Duxbury, MA) [DRAFT]

560.11 Preservation of Affordability: Restrictions on Resale

Right of first refusal to purchase – The purchaser of an affordable housing unit developed as a result of this Bylaw shall agree to execute a deed rider prepared by the Town, granting, among other things, the Town's right of first refusal for a period not less than one hundred and eighty (180) days to purchase the property of assignment thereof, in the event that, despite diligent efforts to sell the property, a subsequent qualified purchaser cannot be located.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

O. Requirements

- (8.) Deed Restriction or Incorporation into a Community Land Trust Required: No person offering an affordable unit for sale shall fail to lawfully reference in the grant deed conveying title of any such unit and recorded with the Register of Deeds, a covenant or Declaration of Restrictions in a form approved by the Town. Such covenant or Declaration of Restrictions shall reference applicable contractual arrangements, restrictive covenants, and resale restrictions as are necessary to carry out the purposes of this Article.

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Rhode Island State Agency World Wide Web Pages:

RI Statewide Planning Program	http://www.planning.state.ri.us .
RI Housing and Mortgage Finance Corporation	http://rihousing.com .
Rhode Island Government	www.ri.gov .
Rhode Island General Laws	http://www.rilin.state.ri.us/Statutes/TITLE45/INDEX.HTM .

World Wide Web Pages of Various Case Studies & Sample Ordinances

Barrington, RI	http://www.ci.barrington.ri.us .
Barnstable, MA	www.capecodcommission.org/bylaws/affordhous.html .
Boston, MA	http://www.cityofboston.gov .
Burlington, VT	http://www.ci.burlington.vt.us .
Burrillville, RI	http://www.burrillville.org .
Cambridge, MA	http://www.cambridgema.gov/index.cfm .
Canton, MA	http://www.town.canton.ma.us .
Charlton, MA [DRAFT]	http://www.townofcharlton.net .
Duxbury, MA [DRAFT]	http://www.town.duxbury.ma.us .
East Greenwich, RI	http://www.eastgreenwichri.com .
East Providence, RI	http://www.eastprovidence.com .
Lexington, MA	http://ci.lexington.ma.us .
Lincoln, RI [DRAFT: 02-06 Article VII]	http://www.lincolnri.org .
Massachusetts	http://www.state.ma.us/dhcd/components/hac/zone.htm .
Massachusetts Smart Growth Model IZ Bylaw	http://www.mass.gov/ocd .
Montgomery County, MD	www.inhousing.org/InclusionaryZoning/zonelaws.htm .
North Kingstown, RI	http://www.northkingstown.org .
Providence Inclusionary Zoning Recommendations [PolicyLink]	http://www.policylink.org/Projects/IZ/ .
Richmond, RI	http://www.richmondri.com .

***Handbook on Developing Inclusionary Zoning
References and More Information***

Somerville, MA

<http://www.ci.somerville.ma.us>.

South Kingstown, RI [FINAL DRAFT:
Inclusionary Zoning Ordinance and Subdivision
Regulations; Revised February, 2006]

<http://www.southkingstownri.com>.

Links

If you are looking for additional housing-related information, you may want to visit one of the following sites. Access is provided purely as a public service. The State of Rhode Island does not endorse any of the linked sites or any products or services found at the linked sites.

Citizens' Housing and Planning Association
www.chapa.org.

Enterprise Foundation www.enterprisefoundation.org.

Fannie Mae www.fanniemae.com.

Federal Home Loan Bank of Boston
www.fhlbboston.com.

Freddie Mac www.freddiemac.com.

Grow Smart Rhode Island
<http://www.growsmartri.com/affordablehousing.html>.

Harvard University Joint Center for Housing Studies
www.jchs.harvard.edu.

HUD www.hud.gov.

LISC www.liscnet.org.

Massachusetts Housing Partnership Fund
www.mhp.net/termsheets/inclusionaryzoning.pdf.

Minority Business Enterprise Commission
www.rimbe.org.

National Association of Housing & Redevelopment
Officials www.nahro.org.

National Association of Realtors www.realtor.com.

National Association of Home Builders www.nahb.com.

National Coalition for the Homeless
www.nationalhomeless.org.

National Council of State Housing Agencies
www.ncsha.org.

National Housing Conference www.nhc.org.

National Low Income Housing Coalition www.nlihc.org.

Neighborworks www.nw.org.

Pioneer Institute www.pioneerinstitute.org.

Research Institute for Housing America
www.housingamerica.org.

Rhode Island Association of Realtors www.riliving.com.

RI Builders Association www.ribuilders.org.

RI Chapter of the American Planning Association
www.riapa.org.

RI Coalition for the Homeless www.rihomeless.com.

RI Housing Resources Commission
www.hrc.state.ri.us.

Southeastern Regional Planning and Economic
Development District <http://www.srpedd.org>.

Statewide Housing Action Coalition www.shac-ri.org.

ATTACHMENT C: CITY WORKFORCE HOUSING STUDY 2015

Portland

2030 Workforce Housing Demand



Greater Portland Council of Governments
970 Baxter Boulevard, Suite 201
Portland, Maine 04103

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This report was produced under a fee-for-service contract with the City of Portland. The substance and findings of the work are dedicated to the public. The publisher is solely responsible for the accuracy of the statements and interpretations contained in this publication. Such interpretations do not necessarily reflect the views of the City.

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EXECUTIVE SUMMARY

Purpose

In 2002, the City of Portland adopted a Housing Plan with a policy goal to ensure an adequate supply of housing to meet the needs, preferences, and financial capabilities of all Portland households. In order to reach this goal, the City established a target of maintaining Portland's current proportion of subsidized units at 20% of the housing stock. Since the plan's adoption, over 2,000 housing units have been permitted in the city for the construction of apartments, condominiums, and single-family homes. This study examines recent trends in the Portland housing market in order to help policymakers determine what gaps, if any, may exist between what is currently being provided in the market and the city's housing needs.

Methodology

In August of 2014, the City of Portland contacted the Greater Portland Council of Governments to discuss the design of a study to assess progress in meeting the city's housing production goals. Staff conducted a literature review of studies used in other states and presented these approaches to the city for consideration.

- *Massachusetts Approach:* This method, so named for its prevalence amongst cities and towns in the Commonwealth, is based on the goals articulated in a municipality's comprehensive plan. In the future, Portland will capture a certain percentage of the region's population growth. People form households, whose demand can be projected by the current distribution of housing units by tenure and affordability.
- *California Approach:* This technique has been piloted in cities throughout California by the consulting firm of Keyser Marston Associates, Inc. The underlying philosophy is that the construction of market-rate units attracts high income households. Through the purchase of goods and services, these households support low-paid service jobs, which in turn support lesser income households whose needs might best be met by living near where they work.

For purposes of this analysis, "affordable" and "workforce" are used interchangeably to refer to housing units that a household earning 100% of the county's median income can afford, assuming they spend no more than 30% of their income for housing. The term "subsidized," which is also confused with "affordable," generally refers to public investment to make housing affordable to households earning up to 80% of the county's median income.

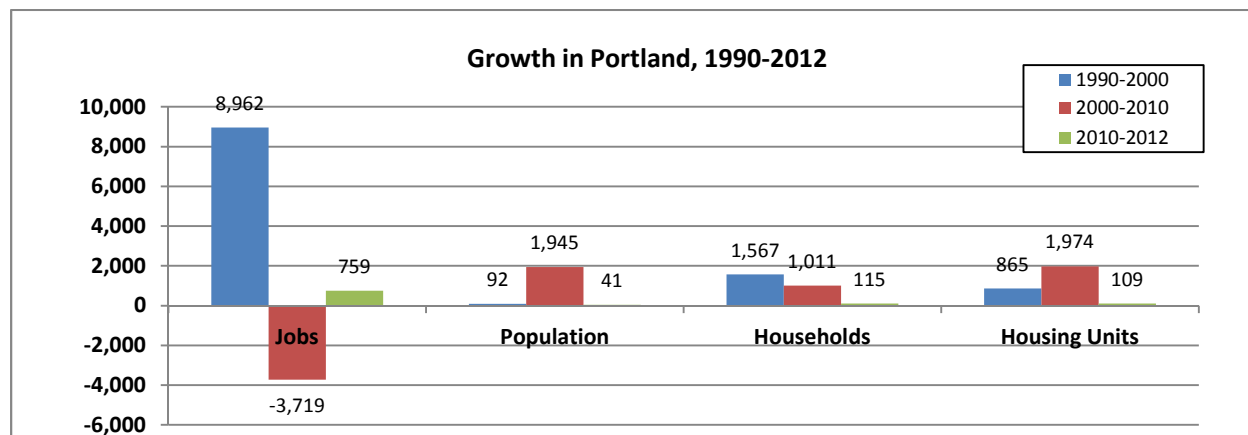
Findings

Sixty-two percent of Portland households earn less than the county's median income, including 38% of homeowners and 81% of renters. Over the last decade, the number of households earning less than median income has increased 10%. While rising incomes have narrowed the affordability of existing homes and apartments, new construction is well beyond the means of the middle class. From 2010 to 2014, 1,130 housing units were permitted and/or built in Portland, including apartments, condominiums and single-family homes. Just 29% were offered at a rent or sales price affordable to a household earning the median income. If robust growth continues, Portland will continue to lose the affordability of its housing stock.

Two approaches were deployed to help policymakers determine what percentage of new construction should be made affordable by policy to increase diversity in the city's housing stock.

- Under the Massachusetts approach, the gap between future demand for workforce housing units and potential supply is 33%.
- Under the California approach, the gap between future demand for workforce housing units and potential supply is 24%.

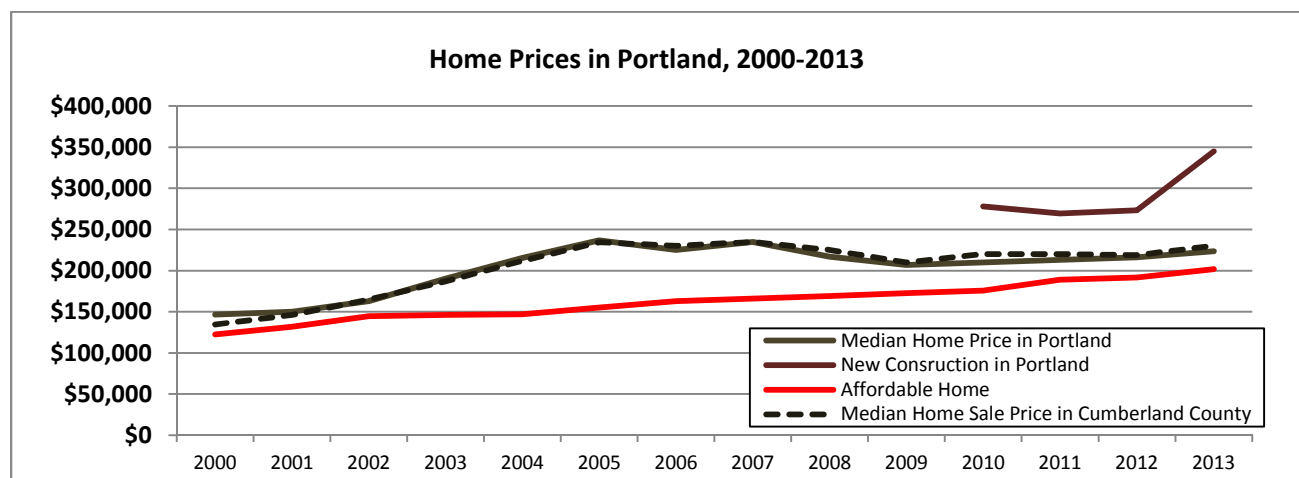
HOUSING MARKET TRENDS



Source: Maine Department of Labor, American Community Survey

The economic recession of 1991 ushered in an era of slow growth throughout the nation. In just twelve months, the unemployment rate in Cumberland County soared from 3.7% to a decade high of 7.4%. The sluggish economy led to a lag in home construction. Driven by the dramatic increase in single people living alone, the formation of new households in Portland outstripped the construction of housing units by almost a 2:1 margin. By the late 1990's, the economy rebounded with the "dot com" revolution. Job growth and rising incomes created a pent-up demand for housing that set the stage for the boom of the 2000's.

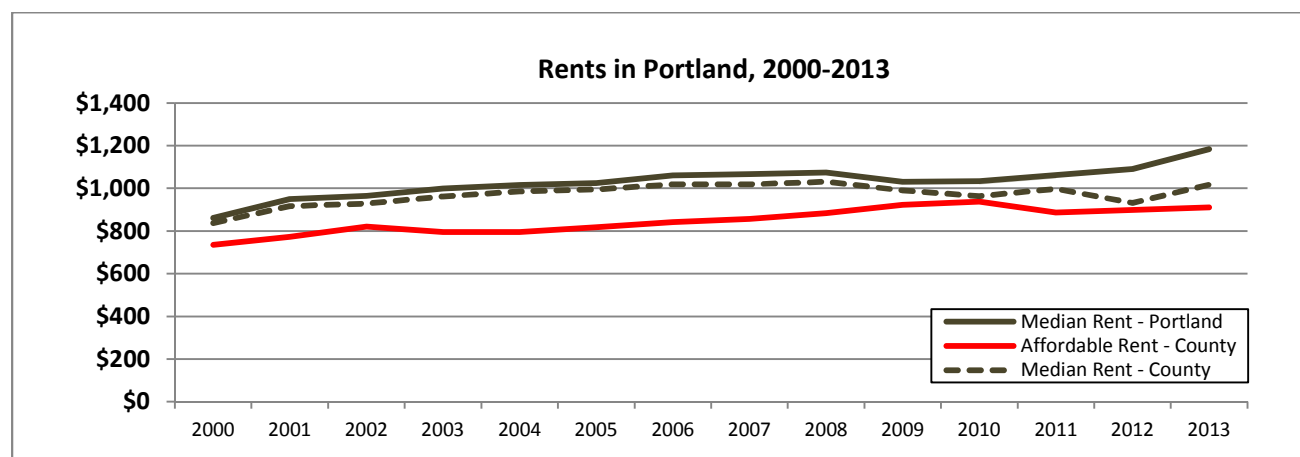
In 2000, the "dot com" bubble burst, triggering another economic downturn. With its relatively small technology sector, Greater Portland weathered the recession better than the rest of New England and the nation. Fueled by the lowest interest rates in 40 years, real estate proved to be a lucrative investment. In Portland, new housing construction outpaced the formation of new households by almost a 2:1 margin. Without real job growth, however, the boom could not be sustained. In 2008, the collapse of the credit market ushered in the greatest economic recession since the Great Depression.



Source: Maine Housing, Portland Assessing Office

Home prices in the region peaked at \$235,000 before dropping 12% in 2009. Since then, rising incomes and low interest rates have improved affordability. In 2013, a household in Cumberland County earning the median income of \$58,500 could afford a home price of \$202,000, while the median home was \$223,500. In 2005, the gap

between the median and affordable home price was \$68,985. By 2013, the gap had narrowed to \$21,500. New construction, however, remains out of reach for all but the wealthiest households. From 2000 to 2014, 282 new condominiums and single-family homes were sold in Portland posting a median price of \$313,000, 55% over the affordable price. For example, in 2013, 85 condominiums at the Bay House in Portland's India Street neighborhood sold for a median of \$366,350, 64% above the median home price and 81% above the affordable home price.



Source: Maine Housing, Portland Assessing Office

Rents in Portland continue to outpace incomes. In 2013, a household earning the median renter income of \$36,438 could afford a rent of \$911. The median rent in Portland, however, is \$1,183, 30% more than what is affordable. Market rents associated with new construction are even higher. West End Place, a new 39-unit apartment complex at the corner of Brackett and Pine streets, is courting rents at \$1,300 to \$2,500, 43% to 170% higher than what is affordable.

MASSACHUSETTS APPROACH

Portland's Housing Plan established as a goal to maintain the city's 25% share of the county's population. In order to create enough affordable housing for the future, this share can be applied to the county's future growth projections. The following is a breakdown of the methodology.

1. Establish a long range population forecast at the county level

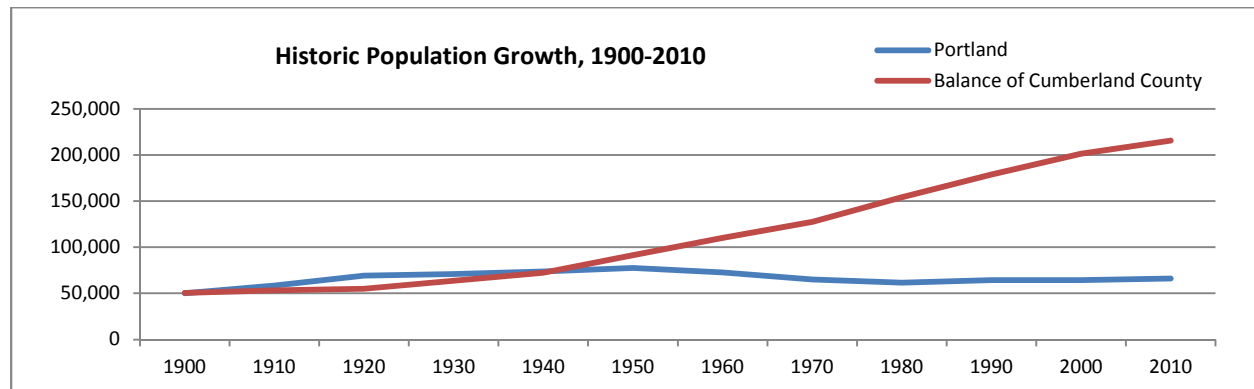
In Maine, there are two sources for population projections at the county level:

State Office of Policy and Management: In 2013, Maine's Economist released the State's 2030 Forecast. These projections assume that fertility of the current population is the primary driver of growth. Future growth is expected to be much slower than the past because Maine has a higher proportion of Baby Boomers, who are past their child-bearing years, along with a high proportion of non-Hispanic Whites, who have the lowest birth rates of any racial or ethnic group. From 2010 to 2030, the State projects that Cumberland County will grow by just 8,427 people, an increase of 1.5% per decade. This data comprises the "Low Growth" forecast.

Center for Business and Economic Research: In 2009, the University of Southern Maine's Muskie School of Public Service prepared a 2035 forecast for the Portland Area Comprehensive Transportation System (PACTS), the Metropolitan Planning Organization for the Portland, Maine Urbanized Area. This forecast, generated through Regional Economic Models, Inc. (REMI), assumes that the economy will drive population growth. From 2010 to 2030, Muskie projects that Cumberland County will grow by 79,924 people, an increase of 14% per decade. This data comprises the "High Growth" forecast.

The “Medium Growth” forecast is the average of the Low and High forecasts. Under this scenario, Cumberland County would grow by 44,176, people, an increase of 8% per decade.

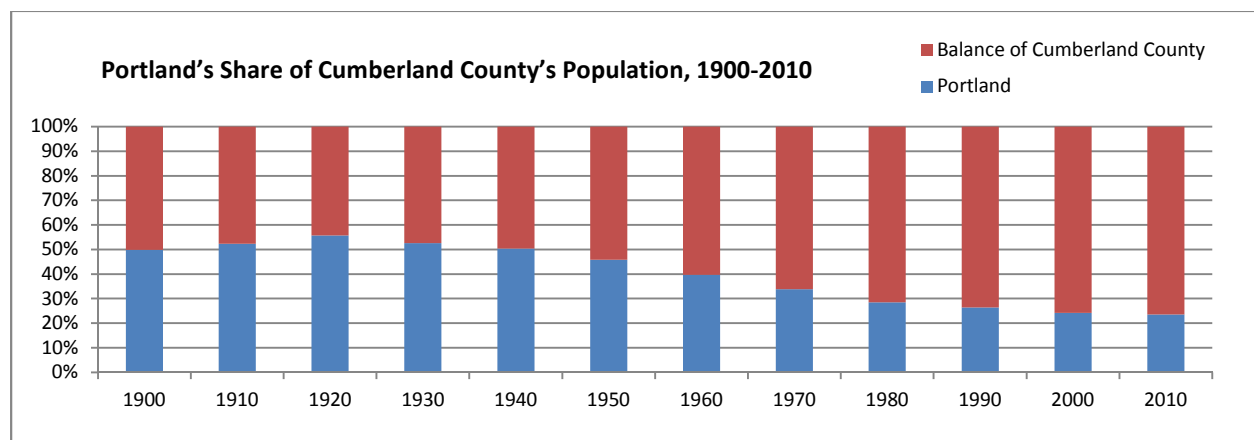
Over the last century, the county’s decennial growth rate has ranged from a high of 16% during the 1940’s to a low of 5% during the 1960’s. Therefore, the Low forecast, at 3% growth, represents a rate lower than in any decade of the last century, while the High forecast, at 14%, is only slightly higher than the pattern of the 1990’s. At 8%, the Medium forecast reflects the average growth rate per decade of the past century.



Source: U.S. Census Bureau

2. Assign Portland a 25% share of the county’s 2030 population growth

Portland’s goal of maintaining a 25% share of the county’s population is paramount to its vitality and its influence over state and regional politics. As the largest city in one of the nation’s smallest states, Portland exerts an extraordinary influence over Maine’s economy out of proportion with its actual size. Indeed, the number of jobs in the city now outstrips population, making Portland the engine of the largest labor market in Northern New England. Over the last century, Portland’s share of the county’s population has declined from a peak of 56% in 1920 to 24% in 2010. While this share is on a definite downward trajectory, Portland did not yield any ground during the 2000’s.



Source: U.S. Census Bureau

Low Growth: To claim a 25% share of the county’s population, Portland would need to grow by 6,331 people, or 317 people per year, a growth rate of 4.8% per decade. In order to reach this 25% share, which in 2010 slipped to 24%, Portland would need to claim 75% of the county’s future growth. Although this would represent a reversal of the sprawling choices made by residents during the 1970’s, 80’s and 90’s, this trend has already begun in the 2000’s. In order to accommodate new residents, Portland would need to build 4,188 housing units, or 210 units

per year over a 20-year period. This modest housing growth is in line with the development patterns of the 2000's, which resulted in the construction of approximately 1,974 units, or 198 units per year.

Medium Growth: To claim a 25% share of the county's population, Portland would need to grow by 15,268 people, or 764 people per year, a growth rate of 11.5% per decade.. This would bring Portland's population to 81,462 people, just past its 1950 peak. In order to reach this 25% share, Portland would need to claim 35% of the county's future growth. In order to accommodate new residents, Portland would need to build 8,636 housing units, or 432 units per year over a 20-year period. This robust growth would be double that witnessed in the 2000's and five times the growth of the 1990's.

High Growth: To claim a 25% share of the county's population, Portland would need to grow by 24,206 people, or 1,211 people per year, a growth rate of 18.3% per decade. In order to reach this 25% share, Portland would need to claim 30% of the county's future growth. In order to accommodate new residents, Portland would need to build 13,084 housing units, or 654 units per year over a 20-year period. In terms of new construction, this represents three times the growth of the 2000's and eight times the growth of the 1990's.

2030 Housing Forecast for Portland								
	2010		2030					
	Total	Change	Low Growth		Medium Growth		High Growth	
	Total	Change	Total	Change	Total	Change	Total	Change
Population of Cumberland County	281,674	24%	290,101	8,427	325,850	44,176	361,598	79,924
Population of Portland	66,194	100.0%	72,525	6,331	81,462	15,268	90,400	24,206
Population in ownership units	30,317	45.8%	33,217	45.8%	37,310	45.8%	41,403	45.8%
Population in rental units	33,264	50.3%	36,446	50.3%	40,937	50.3%	45,428	50.3%
Population in group quarters	2,613	3.9%	2,863	3.9%	3,216	3.9%	3,569	3.9%
Households	30,725		34,945	4,220	39,252	8,527	43,558	12,833
Population in households	63,581	96.1%	69,662	96.1%	78,247	96.1%	86,831	96.1%
Average household size	2.07		1.99		1.99		1.99	
Ownership	2.31		2.23		2.23		2.23	
Rental	1.89		1.82		1.82		1.82	
Housing Units	31,908		36,096	4,188	40,544	8,636	44,992	13,084
Ownership	13,321	41.7%	15,077	1,756	16,935	3,614	18,792	5,472
Occupied	13,124	98.5%	14,927	99.0%	16,767	99.0%	18,606	99.0%
Vacant	197	1.5%	149	1.0%	168	1.0%	186	1.0%

Source: Prepared by the Greater Portland Council of Governments based on the 2010 Census and County Population Forecasts from the State Office of Policy and Management and the Center for Business and Economic Research

3. Breakout Portland Forecast by Household Income and Tenure

Owners: As of 2011, 38% of Portland's 13,845 homeowners earned less than the county's median income. This is unchanged from the 2000 Census. Approximately 28% of homeowners are considered to be of low to moderate income because they earn 80% or less of the county's median income. This is slightly lower than in 2000. The U.S. Department of Housing and Urban Development classifies households earning less than 80% as follows:

- Less than 30%: *Very low income*
- 30%-50%: *Low income*
- 50%-80%: *Moderate income*

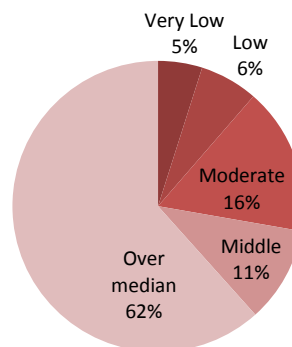
For this analysis, middle income refers to those households earning from 80%-100% of median income. From 2000-2011, the greatest change was in the number of these middle income households, which increased by 52%.

Income of Owners in Portland, 2000-2011

	2000		2011		Net	%
	Households	%	Households	%		
Very Low	605	5%	680	5%	75	12%
Low	1,020	8%	895	6%	-125	-12%
Moderate	2,240	18%	2,265	16%	25	1%
Middle	970	8%	1,470	11%	500	52%
Over Median	7,865	62%	8,535	62%	670	9%
Total	12,605	100%	13,845	100%	1,240	10%
Low to Moderate	3,865	31%	3,840	28%	-25	-1%
Under Median	4,835	38%	5,310	38%	475	10%

Source: Special tabulation by the U.S. Department of Housing and Urban Development based on the 2007-2011 American Community Survey

Income of Portland Homeowners (2011)



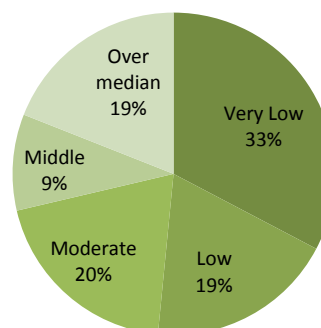
Renters: As of 2011, 81% of Portland's 17,260 renters earned less than the county's median income. Approximately 71% of renters are considered to be of low to moderate income. From 2000-2011, the greatest change was in the number of very low income households, which increased by 30%.

Income of Renters in Portland, 2000-2011

	2000		2011		Net	%
	Households	%	Households	%		
Very Low	4,330	26%	5,630	33%	1,300	30%
Low	2,755	17%	3,260	19%	505	18%
Moderate	4,165	25%	3,415	20%	-750	-18%
Middle	1,415	9%	1,665	10%	250	18%
Over Median	3,700	23%	3,290	19%	-410	-11%
Total	16,365	100%	17,260	100%	895	5%
Low to Moderate	11,250	69%	12,305	71%	1,055	9%
Under Median	12,665	77%	13,970	81%	1,305	10%

Source: Special tabulation by the U.S. Department of Housing and Urban Development based on the 2007-2011 American Community Survey

Income of Portland Renters (2011)



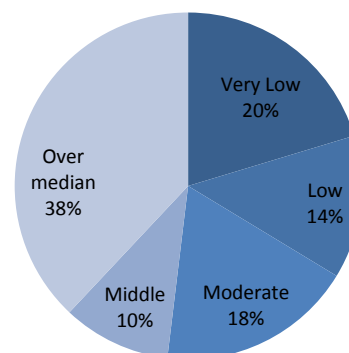
All households. As of 2011, 62% of Portland's 31,105 households earned less than the county's median income. Approximately 52% of all households are considered to be of low to moderate income. From 2000-2011, the greatest change was in the number of very low income households, which increased by 28%.

Income of All Households in Portland, 2000-2011

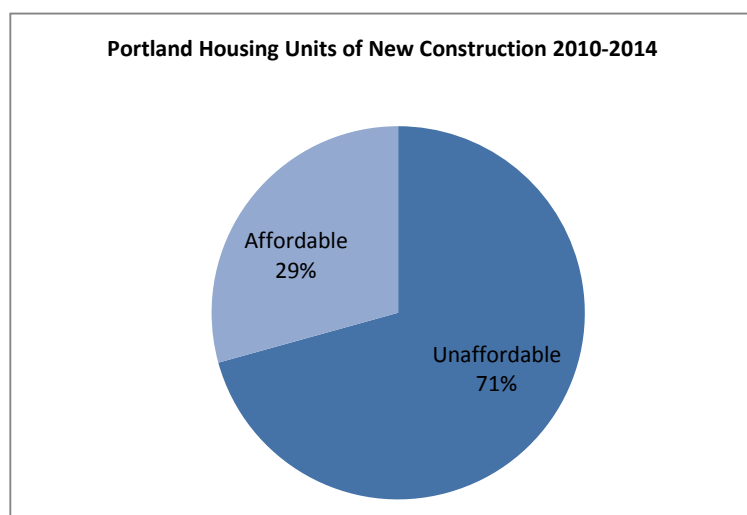
	2000		2011		Net	%
	Households	%	Households	%		
Very Low	4,935	17%	6,310	20%	1,375	28%
Low	3,775	13%	4,155	13%	380	10%
Moderate	6,405	22%	5,680	18%	-725	-11%
Middle	2,385	8%	3,135	10%	750	31%
Over Medium	11,565	40%	11,825	38%	260	2%
Total	29,065	100%	31,105	100%	2,040	7%
Low to Moderate	15,115	52%	16,145	52%	1,030	7%
Under median	17,500	60%	19,280	62%	1,780	10%

Source: Special tabulation by the U.S. Department of Housing and Urban Development based on the 2007-2011 American Community Survey

Income of All Households in Portland (2011)



4. Calculate Gap between Current Production Trends and Future Demand



While the median price of new construction is beyond the reach of the middle class, some proportion of new homes is affordable. From 2010-2014, 384 new condominiums and single-family homes were permitted in Portland. The percentage of units sold or marketed for sale at an affordable price was 7%. During the same period, 746 new rental units were permitted. The percentage of units marketed for rent at an affordable price was 41%. Overall, 29% of new housing units permitted from 2010-2014 were offered to the market at a price affordable to a household earning 100% of median income.

Approximately 62% of Portland households earn less than the county's median income. If recent construction trends hold, the market, without compulsion, will build affordable units to meet 29% of demand. This leaves a gap between supply and demand of 33%.

Supply and Demand for Housing Affordable to Households at 100% of Median Income

		Low Growth	Medium Growth	High Growth
Housing Units	Percent of Market	4,188	8,636	13,084
Projected 2030 Demand	62%	2,597	5,354	8,112
Projected 2030 Supply	29%	1,215	2,504	3,794
Gap	33%	1,382	2,850	4,318

CALIFORNIA APPROACH

This method is based on the underlying theory that the construction of market-rate units attracts high income households. Through the purchase of goods and services, these households support low-paid service jobs, which in turn support lesser income households whose needs might best be met by living near where they work. The following is a breakdown of the methodology.

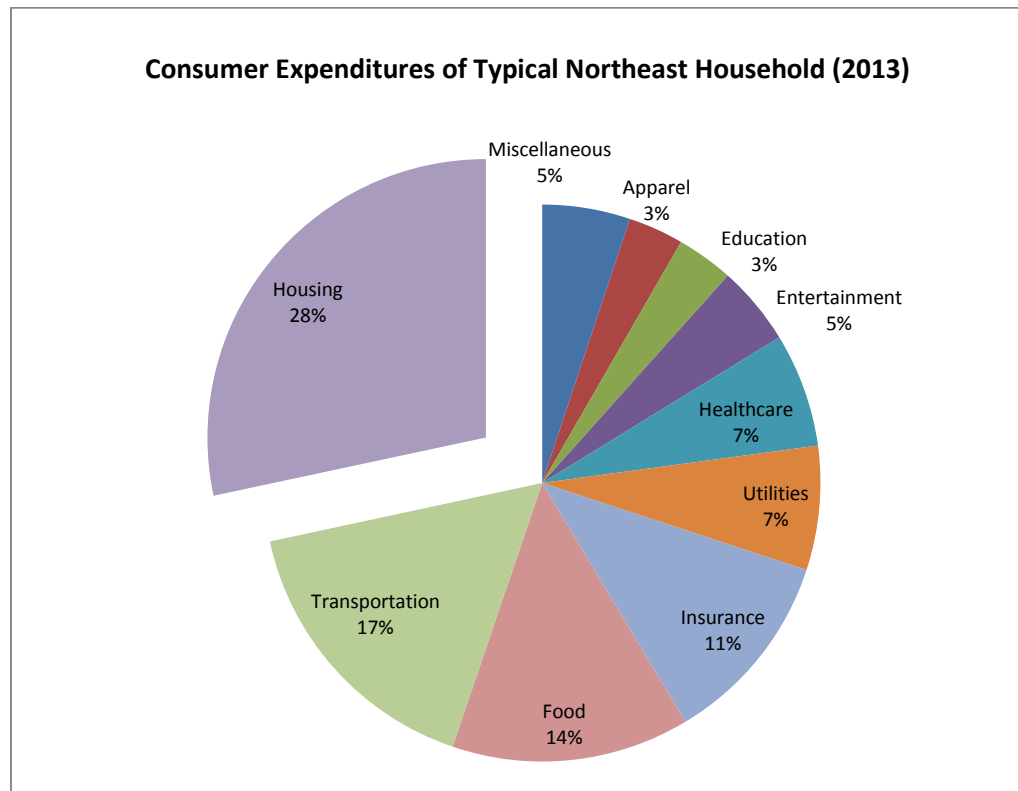
1. Calculate the income of market-rate households

A household must earn approximately \$90,000 to afford the market price of a newly constructed home (\$313,000) or rental unit (\$2,500 per month), presuming it spends no more than 30% of its income for housing. This percentage is consistent with mortgage underwriting practice, traditional credit analysis, and housing policy.

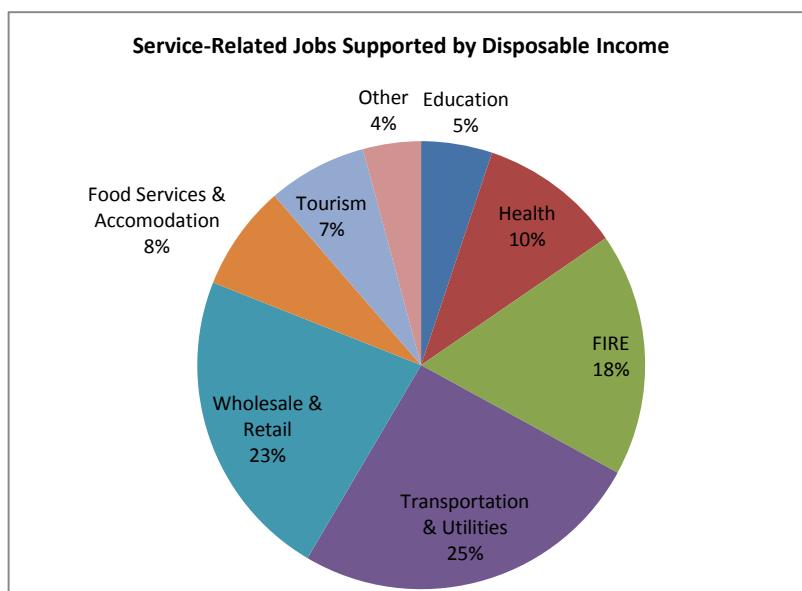
2. Quantify the collective purchasing power of market-rate households

The National Consumer Expenditure Survey was used to calculate the disposable income of market rate households. A typical household in the Northeast spends the largest chunk of its income, 28%, on housing, including mortgage, insurance, and property taxes as well as home maintenance and furnishings. At 17%, the second largest category is transportation, including vehicle payments, registration, maintenance, and fuel. The third largest expenditure, 14%, is food, which includes meals eaten at restaurants as well as produce, meat, dairy, and other products purchased at supermarkets and eaten at home. Other categories include insurance, utilities,

health care, entertainment, education, and apparel. Once taxes and housing costs are eliminated, the market-rate household has \$45,900 in disposable income accounting for 51% of gross household income. One hundred market-rate households would have a collective purchasing power of \$4,590,000.



3. Translate collecting purchasing power to jobs



Estimates were made to correlate household spending by category with service jobs by industry sector. Jobs generated by mortgage and rent payments were excluded from analysis. The goods-producing sector, which includes jobs in agriculture, fisheries, forestry, mining, construction, and manufacturing, was also excluded. Thus, while food purchased at the supermarket may be grown in the field and processed in a factory, only the retail jobs supported by household spending are counted. Food eaten at home, for example, was assigned to the Wholesale and Retail sector, while meals eaten away from home were assigned to the Accommodation and Food Services sector. Similarly, income paid to utilities was assigned to Transportation and Utilities.

4. Calculate the economic impact of job creation

The disposable income of 100 households purchasing market-rate homes in Portland would generate an economic impact of 121 jobs, \$4.8 million wages, \$13.4 million in GDP, and \$20.9 million in total output, which is broken down on the following chart. Each job has an average income of \$40,020.

Economic Impact of 100 Households Purchasing Market Rate Ownership Units

	Employment	Earnings	GDP	Output
Direct	80	\$3,336,816	\$9,984,358	\$15,617,667
Indirect + Induced	41	\$1,505,576	\$3,382,239	\$5,309,542
Total	121	\$4,842,392	\$13,366,597	\$20,927,209

Outputs were generated from the 2011 version of the *Connect Northern New England Economic Scenario Model* developed by Vital Economy and FairPoint Communications. Outputs were adjusted for inflation to 2014 dollars. The model is designed to provide order of magnitude estimates of economic impact resulting from the gain or loss of jobs, including the following:

- **Direct Employment:** Employment attributed to a particular business, activity or industry.
- **Indirect Employment:** Employment in down-stream industries that supply or provide services to the direct business, activity or industry.
- **Induced Employment:** Employment generated because of expenditures made by individuals employed directly or indirectly by the particular business, activity or industry.
- **Earnings:** Sum of wage and salary disbursements, supplements, and proprietors' income.
- **GDP:** Total market value of all final goods and services produced in the region.
- **Output:** Total economic output of a firm, industry, or economy without deducting intermediate inputs such as goods and services consumed by industries in the production of other final goods and services.

The Economic Scenario Model derives its data from the U.S. Bureau of Economic Analysis (BEA), which produces detailed data on economic activity by region and state. In order to calculate the indirect and induced effects on employment, earnings, output, and GDP, the Model uses BEA RIMS II multipliers, which are based on estimates of local area personal income and on the national input-output accounts.

5. Calculate the number of median households supported by new jobs

Cumberland County's labor force is comprised of 167,365 workers age 16 and over. In the 2010 Census, 117,339 households were recorded in the county. Thus, there are 1.43 households for every job in the region. The disposable income from 100 new market rate households generates 121 jobs in the local economy, which can support 85 workforce households. The number of workforce households is multiplied by 62%, which is the percentage of Portland households earning less than the county's median income. The result, 53%, is the percentage of workforce housing demand generated by these 100 market-rate units. If the market, in keeping with current production patterns, supplies 29 affordable units for every 100 built, there would still be an unmet gap for 24 affordable units.

Median Housing Demand Generated by Market Rate Households

Jobs per Household	1.43
Median income households in Portland	62%
Total jobs generated by 100 market-rate households	121
Households supported by jobs	85
Affordable housing demand generated per job	53%
Potential market supply of affordable units	29%
Gap	24%

AFFORDABILITY OF CURRENT HOUSING STOCK

Rental Units

While recent trends demonstrate that new construction is increasingly unaffordable, there are still thousands of existing housing units in Portland that are affordable due to condition, size, turnover and other factors. Thanks to a special Census tabulation prepared by HUD, the chart below outlines the income of households who were living in these affordable units in 2011. In 2011, the HUD Area Median Family Income (HAMFI) for the Portland area was \$72,300. HUD's basic affordability assumption is that rent should consume no more than 30% of a household's gross income.

There are several important issues left answered by the data. Because respondents to the households are the renters themselves and not the landlords, it is impossible to determine the following: 1) which units are located in a housing project where rents are subsidized; 2) whether the rent reported is the actual rent charged to the tenant or the rent paid by a tenant minus a Section 8 voucher; and 3) what the rent would be if the unit were available to the marketplace. For example, certain housing units might be rented by family members of the landlord, who would charge a higher rent to the general public. Also, many landlords purposefully keep rents low for longtime tenants in order to avoid turnover. Turnover often commands higher rents, particularly if renovations occur during the vacancy.

Of the city's 17,585 rental units, 90%, or 15,800, are offered at rents affordable to households earning up to 80% of the region's median income. At first glance, these numbers seem to indicate that there is no affordable housing problem in the rental market. The reality, however, is that there is a mismatch between income and availability because renters do not seek to maximize their incomes on rent. While many households seek to buy "more house" than they need, renters tend to seek out the best bargain for their preferred location and/or the smallest unit that they can squeeze into. Some renters want to spend as little as possible so that they can save money for a home. Other renters may not compete well for housing in the private market against higher income renters with more stable jobs, incomes, and credit ratings. Another problem is size. Virtually half of the city's affordable rental units are studios, efficiencies, and one-bedroom apartments. Families are hard pressed to find large units at rents they can afford.

Rent Affordable to Very Low Income Households Earning $\leq$ 30% of Median Income - These are units with a gross rent affordable to households at or below 30% HAMFI. Of the 3,390 rental units offered at this rent level, 92% are occupied by households earning up to 100% HAMFI. Judging by the vacancy rate, competition is stiffest for units with three or more bedrooms.

Rent Affordable to Low Income Households Earning >30 to $\leq 50\%$ of Median Income - These are units with a gross rent affordable to households earning 30% to 50% of HAMFI. Of the 2,490 rental units offered at this level, 86% are occupied by households earning up to 100% HAMFI. Judging by the vacancy rate of 0%, competition is stiffest for units with three or more bedrooms.

Rent Affordable to Moderate Income Households Earning >50 to $\leq 80\%$ of Median Income - These are units with a gross rent affordable to households earning 50% to 80% of HAMFI. Of the 9,145 rental units offered at this price range, 74% are occupied by households earning up to 100% of HAMFI. Vacancy is tightest in this price range.

Rent Affordable to Households Earning $>80\%$ of Median Income - These are units with a gross rent affordable to households with incomes above 80% of HAMFI. Of the 1,790 units offered at this rent level, 47% are occupied by households earning up to 100% of HAMFI. At 12.1%, the vacancy rate is highest amongst 3-bedroom units.

Name of Jurisdiction: Portland, Maine		Source of Data: 2007-2011 CHAS databook			
		Rental Units by # of bedrooms			
Rental Units by Affordability		0-1	2	3+	Total
Units with gross rent affordable to a household earning 30% HAMFI					
Household income 30% or less		1,320	480	425	2,225
Household income 30.1%-50%		365	100	205	670
Household income 50.1%-80%		80	65	60	205
Household income 80.1%-100%		15	0	0	15
Household income over 100%		10	10	95	110
Total occupied units		1,790	655	785	3,225
Vacant for Rent		80	60	25	165
Vacancy Rate		4.3%	8.4%	3.1%	4.9%
Units with gross rent affordable to 50% HAMFI					
Household income 30% or less		470	155	75	700
Household income 30.1%-50%		350	385	150	885
Household income 50.1%-80%		300	305	80	680
Household income 80.1%-100%		165	55	0	225
Household income over 100%		85	170	45	295
Total occupied units		1,370	1,070	350	2,790
Vacant for Rent		90	25	0	115
Vacancy Rate		6.2%	2.3%	0.0%	4.0%
Units with gross rent affordable to 80% HAMFI					
Household income 30% or less		1,270	695	410	2,375
Household income 30.1%-50%		660	600	115	1,375
Household income 50.1%-80%		915	945	310	2,165
Household income 80.1%-100%		530	405	220	1,155
Household income over 100%		720	920	435	2,075
Total occupied units		4,095	3,565	1,490	9,145
Vacant for Rent		170	135	55	360
Vacancy Rate		4.0%	3.6%	3.6%	3.8%
Units with gross rent affordable to household earning over 80% HAMFI					
Household income 30% or less		85	120	25	230
Household income 30.1%-50%		50	45	70	170
Household income 50.1%-80%		75	140	50	265
Household income 80.1%-100%		80	70	35	185
Household income over 100%		190	280	330	800
Total occupied units		480	655	510	1,650
Vacant for Rent		25	50	70	140
Vacancy Rate		5.0%	7.1%	12.1%	7.8%
Total Occupied		7,735	5,945	3,135	16,805
Number vacant for rent		365	270	150	780
Vacancy Rate		4.5%	4.3%	4.6%	4.4%
Units affordable to households earning up to 80% of AMI		7,595	5,510	2,705	15,800
Percent of housing stock that is affordable		94%	89%	82%	90%

Home Ownership Units

In 2011, 66% of existing homes, or 6,895 units, were affordable to households earning 100% of the region's median household income. Thanks to a special tabulation of the American Community Survey, the chart on the next page illustrates the income of households who were living in these affordable units in 2011.

The data should be used with caution. Unlike rents which can rise and fall with the economy, most homeowners lock themselves into a 30-year mortgage with a fixed interest rate. Except for fluctuations in taxes and insurance, they make the same monthly mortgage for the life of the loan. The Census asks homeowners to estimate what they think their home is worth. Some homeowners may consult their tax bill while others find out the selling prices earned by neighbors. Still others simply make a guess. Because this value does not necessarily align with the price the home would sell for if it was listed on the market, it is substantially different from the market data used earlier in this report, which was provided by Maine Housing and the City Assessor based on actual sales of new and existing homes. While it may be unreliable, particularly in light of the boom and bust of the housing market, it is the best source of data for determining who lives in the region's affordable ownership stock, including condominiums, ranches, capes and bungalows. Mobile homes, boats, and recreational vehicles are not included in the data.

Another caution is that the data is not indicative of cost burden. For example, in 2011, there were 555 homes with a value affordable to households earning over 100% of median income that were occupied by households earning 50% or less of median income. This does not mean that the home is unaffordable to them. Certainly a large percentage of homeowners have owned their homes for a very long time: while initially the mortgage payment may have been more than 30% of their income, as wages rise, mortgage payments gradually decline as a percentage of household income. Some low income owners, such as senior citizens, have paid off their mortgage completely, leaving them "house-rich" but "cash-poor."

To determine the maximum home value affordable to households by income, HUD utilized a series of assumptions: a 31% monthly payment standard, a 4.5% down payment, a 5.5% interest rate, a 1.75% upfront insurance premium, a .55% annual insurance premium, and 2% for annual taxes and insurance. Based on these assumptions, HUD's estimated value to income ratio for an affordable home is 3.36, i.e., a household can afford a home costing no more than 3.36 times its income. In 2011, the HUD Area Median Family Income (HAMFI) for the Portland area was \$72,300. A household earning this median income could afford a home price up to \$242,928, which is 22% than Maine Housing's estimate for the same base year. The reason for this discrepancy is a different definition of median income. HAMFI, the reference point for the HUD data, is scaled to a family of four. Maine Housing's estimate, however, encompasses for all households, including single people living alone. Thus, while the HAMFI for the Portland area was \$72,300, Maine Housing's estimate for the same year was \$54,944, and for the American Community Survey, it was \$57,267.

Value Affordable to Low Income Households Earning 50% of Median Income – The value of these homes are less than or equal to the maximum amount that would be affordable to a household earning 50% of median family income, or \$36,150. Under HUD's financing assumptions, such a family could afford a home of no more than \$122,000. There were 540 occupied units with a value in this range: 75% were occupied by households earning 100% or less of median income. There were 100 vacant homes at this value accounting for a vacancy rate of 15.6%. Such a high rate is indicative of foreclosure and/or deferred maintenance.

Value Affordable to Moderate Income Households 80% of Median Income - A household earning 50.1-80% HAMFI, or \$36,151-\$57,840, could afford a home of \$122,000-\$194,000. There were 3,080 occupied units with a value in this range: 54% were occupied by households earning up to 100% HAMFI. While homes in this price range might be small, suffer from deferred maintenance, and/or be located in high traffic areas, the tight vacancy rate of 0.5% indicates they are in high demand.

Value Affordable to Households Earning 100% of Median Income - A household earning 80.1%-100% of median income, or \$57,841-\$72,300, could afford a home of \$194,000-\$243,000. There were 3,125 occupied units with a

value in this range: 39% were occupied by households earning up to 100% HAMFI. These homes might in good condition and in desirable neighborhoods, but lack high value amenities, such as a water view, two-car garage, and/or historic character. Vacancy is lowest among homes with 0-2 bedrooms.

Value Affordable to Households Earning over 100% of Median Income – These homes, worth over \$243,000, exceed affordability for a household earning 100% of HAMFI, or \$72,300. There are 7,005 occupied units with a value in this range: 28% are occupied by households earning up to 100% HAMFI. At 3.9%, the vacancy rate is highest among homes with 0-1 bedrooms, which are probably condominiums.

Name of Jurisdiction: Portland, Maine				Source of Data: 2007-2011 CHAS databook					
	With a mortgage				Without a mortgage				
Homes by Affordability	Homes by # of bedrooms				Homes by # of bedrooms				
Occupancy by Income	0-1	2	3+	Total	0-1	2	3+	Total	Total
Units with a value less than \$122,000 (affordable to a household earning 50% area median family income)									
Household income 30% or less	0	15	4	20	0	10	40	55	75
Household income 30.1%-50%	0	0	35	35	0	20	20	40	75
Household income 50.1%-80%	0	10	55	65	0	25	50	75	140
Household income 80.1%-100%	0	10	90	100	0	0	15	15	115
Household income over 100%	0	0	80	80	0	0	50	50	130
Total occupied units	0	35	264	305	0	55	175	235	540
Vacant for Sale	25	45	25	100					
Vacancy Rate	100.0%	33.3%	5.4%	15.6%					
Units worth \$122,000-\$194,000 (affordable to a household earning 50.1-80% of area median family income)									
Household income 30% or less	0	95	25	120	0	0	55	55	175
Household income 30.1%-50%	0	50	115	165	10	100	50	160	325
Household income 50.1%-80%	20	105	245	370	0	115	190	300	670
Household income 80.1%-100%	0	175	235	405	0	40	65	110	515
Household income over 100%	40	250	810	1,100	0	65	225	290	1,390
Total occupied units	60	675	1,430	2,165	10	320	585	915	3,080
Vacant for Sale	0	15	0	15					
Vacancy Rate	0.0%	1.5%	0.0%	0.5%					
Units worth \$194,000-\$243,000 (affordable to a household earning 80.1-100% of area median family income)									
Household income 30% or less	0	10	105	115	10	10	50	70	185
Household income 30.1%-50%	25	0	75	100	0	0	70	70	170
Household income 50.1%-80%	0	125	320	440	0	4	75	80	520
Household income 80.1%-100%	0	40	135	175	0	65	110	170	345
Household income over 100%	45	250	1,390	1,685	0	35	180	215	1,900
Total occupied units	70	425	2,025	2,520	10	114	485	605	3,125
Vacant for Sale	0	0	35	35					
Vacancy Rate	0.0%	0.0%	1.4%	1.1%					
Units worth over \$243,000 (affordable to a household earning over 100% of area median family income)									
Household income 30% or less	30	70	25	130	30	60	25	115	245
Household income 30.1%-50%	60	20	75	155	0	70	85	155	310
Household income 50.1%-80%	115	295	215	620	15	90	170	280	900
Household income 80.1%-100%	30	125	190	350	0	50	90	140	490
Household income over 100%	125	1,100	2,730	3,960	85	335	680	1,100	5,060
Total occupied units	360	1,610	3,235	5,215	130	605	1,050	1,790	7,005
Vacant for Sale	20	0	35	55					
Vacancy Rate	3.9%	0.0%	0.8%	0.8%					
Total Occupied	490	2,745	6,954	10,200	150	1,094	2,295	3,545	
Number vacant for sale	45	60	95	205					
Vacancy Rate	6.6%	1.5%	1.0%	1.5%					
Units affordable to households up to 100% of AMI	175	1,684	5,024	6,895					
Percent of housing stock that is affordable	33%	60%	71%	66%					

TOOLS TO INCREASE HOUSING AFFORDABILITY

The Great Recession of 2008 ushered in a market correction that has increased the affordability of Portland's existing housing stock. At the same time, however, the recovery, has generated a certain bullishness to create new housing at the high end of the market. Without incentive or control, new construction remains out of reach of the middle class. The following tools may inform the development of policy to balance access to the newest housing boom.

Density Bonus: This tool grants an increase in the number of units allowed by right in order to provide an incentive for the construction of affordable housing. While the incentive can work as a stand alone tool, it is typically incorporated into a contract zone, overlay district, or cluster subdivision. A model ordinance developed by the American Planning Association posits 20% as a reasonable target for affordable housing. The Town of Brunswick, Maine has incorporated a density bonus into their zoning ordinance, complemented by a provision for the reduction of fees, including building permits, stormwater, solid waste, recreation and traffic impacts.

<https://www.planning.org/research/smartgrowth/pdf/section44.pdf>
<http://www.brunswickme.org/wp-content/uploads/2012/04/Web.Version.Zoning.Ordinance.pdf>

Inclusionary Zoning: This tool requires that a certain percentage of units in a new development be set aside as affordable, with or without an increase in density. Inclusionary zoning is widely used by cities throughout the states of California, Massachusetts, New Jersey, Virginia, and Maryland. In Burlington, Vermont, the mandatory set-aside ranges from 15%-25%, depending on the market price of the rest of the units. The Town of Cape Elizabeth, Maine requires that 10% of the units in a subdivision be set aside for moderate income households, or 5% for low income.

http://www.nhc.org/media/documents/IZ_lessons_in_MA.pdf
<http://www.burlingtonvt.gov/CEDO/Inclusionary-Zoning>
http://www.capeelizabeth.com/government/rules_regs/ordinances/zoning/zoning.pdf

Reduction in Parking: This tool reduces the number of parking spaces that must be constructed to support each housing unit. Eliminating the typical suburban requirement of two spaces per unit can not only slash housing construction costs by 25%, but free up land that can be used to increase density. Concentrating homes, jobs, services, and stores increases the likelihood that people will walk, bike or take the bus to get from one place to another. On the Portland peninsula for example, 77% of households own just 0-1 vehicles, compared with 43% in the U.S. as a whole. The City of Portland, Oregon has reduced or eliminated parking requirements for new development based on the proximity of transit services.

<http://www.vtpi.org/park-hou.pdf>
<http://www.portlandonline.com/shared/cfm/image.cfm?id=53320>

Rent control: This tool establishes a ceiling on rent increases permitted in the public and private rental market. Los Angeles, San Francisco, New York City, and Cambridge, Massachusetts have previously adopted rent control policies. While rent control can act as a temporary "breather" from soaring prices, it has the potential to create housing shortages in the long run by discouraging new construction.

<http://www.nycrgb.org/html/resources/faq/rentcontrol.html>

Do Nothing: At first glance, the construction of luxury housing in any downtown would be considered a boon, not a burden. In the long run, however, neighboring property owners will follow suit, running up sales prices and rents unsustained by real growth in wages, incomes, jobs, or property improvements. For workers, the consequence is longer commutes from suburbs and rural areas. Others will establish themselves in less expensive urban markets, such as Biddeford, Lewiston, Gardiner, and Bath. Absent a correction by regulation or the market, these forces

could take shape, first as a collection of individual choices which then swell into an undeniable movement. And they did happen during the 2000's.

CONCLUSION

Portland's vitality depends on the availability of a diverse array of housing options, particularly apartments, which are often the first and only choice for working professionals, immigrants, and families. Over the last five years, a number of trends have solidified:

- 62% of Portland households earn less than the county's median income, including 38% of homeowners and 81% of renters. Over the last decade, the number of households earning less than median income has increased 10%.
- The Great Recession of 2008 was a market correction that increased the affordability of existing housing – by giving wages a chance to catch up while stalling home sales and rents.
- Current housing production is not meeting the needs of households earning 80%-100% of median income. If recent trends continue, there will be a gap between supply and demand of workforce housing units ranging from 24%-33%.
- While the Portland housing market contains units in a variety of price ranges, the reality is that those with higher incomes, stable jobs, and good credit ratings are in a better position to compete for affordable units that are subsidized and unsubsidized. This creates a glut of affordable units at the low end of the range that may be in rough condition, with deferred maintenance issues.
- The rental market is extremely tight for 3-bedroom units that can accommodate working families.
- Based on the vacancy rate, the inventory of one-bedroom condos targeting households earning over the median income is reaching a point of saturation.

Well into the recovery, the region is on the pathway to another boom marked by a rise in new construction, low vacancy rates, and increasing rents and home prices. But the recovery also represents an opportunity for balance. By increasing the diversity of housing through incentive and regulation, the region can forestall the possibility of another crash due to soaring prices unsustained by real job growth. Trend or choice? It is up to us.

ATTACHMENT D: SLIDESHOW FROM FEBRUARY HOUSING FORUM



City of Portland Public Forum on Housing Production and Affordability

Sponsored by the City Council's
Housing and Community Development Committee
February 25, 2015

Terminology

- “Low Income Housing”: Housing, of any sort, for rent or to own, that is affordable to households at 80% of area median income or below (about \$60,000 for a family of four.)
- “Workforce Housing”: Housing, of any sort, for rent or to own, that is affordable to households at 100% of area median income (about \$75,000 for a family of four)
- “Affordable”: Paying 30% or less of your income on housing costs (rent or mortgage payments, insurance, taxes, etc.)
- “Deed Restricted”: The housing is not just affordable by chance, but by a written requirement that residents meet those restrictions. That restriction may last 20+ years or be in perpetuity.

2002 Housing Plan

- Approved by City Council in 2002 as part of the City's Comprehensive Plan
- Called for five key policies:
 1. *Adequate and diverse supply of housing for all*
 2. *Preserving a quality housing stock*
 3. *Building on neighborhood stability and integrity*
 4. *Housing as a regional issue*
 5. *Sustainable development*
 6. *Freedom of choice*
- Set goal of keeping Portland's population at 25% of County
- Called for Housing Replacement Ordinance
- Set goal of 20% of new units to be affordable at 80% AMI
- Set goal of 200 new affordable home-ownership units, most for families

Housing: Sustaining Portland's Future



**Housing Component of the Comprehensive Plan
City of Portland, Maine**

Prepared by: Housing Comprehensive Plan Committee
Co-Chairs: Councilor Nicholas Mavodones and
Councilor Nathan Smith

Adopted November 18, 2002

India Street Process

- India Street Sustainable Neighborhood Plan process had a working group on housing and equity
- Initially was recommending a requirement that part of all new larger developments in the neighborhood be affordable
- Decided that the requirement should be City-wide so as to not discourage investment in the district
- Prepared a draft ordinance
- Housing affordability is a goal of the draft plan

2030 Workforce Housing Demand

- GPCOG Study completed January 2015
 - 62% of Portland households earn less than the county's median income (38% of homeowners and 81% of renters) which is a 10% increase over last decade
 - 2010-2014 – 1,130 housing units permitted and/or built; only 29% were affordable to household earning median income.
 - There is a predicted gap in affordable housing production of between 24-33%. In other words, the production rate should roughly double



2030 Workforce Housing Demand

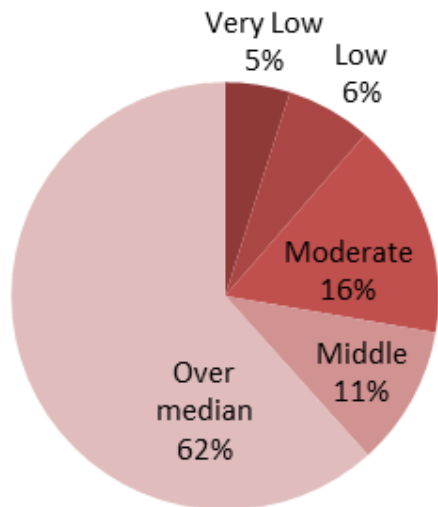
Prepared by Greater Portland Council of Governments January 2015

Less than 30% AMI = *Very low income*

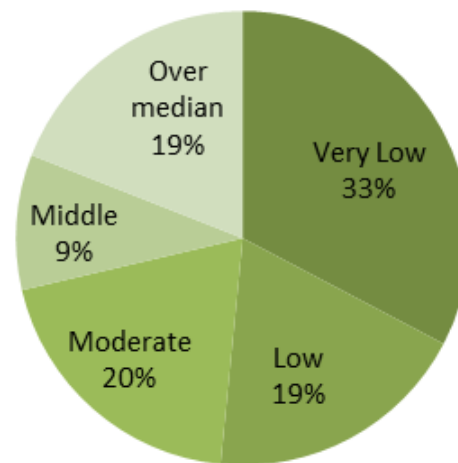
30%-50% AMI = *Low income*

50%-80% AMI = *Moderate income*

Income of Portland Homeowners (2011)



Income of Portland Renters (2011)



2030 Workforce Housing Demand

Why do anything?

- 62% of Portland households earn less than the county's median income(38% of homeowners & 81% of renters). Over the last decade, the number of households earning less than median income has increased 10%.
- The Great Recession of 2008 was a market correction that increased the affordability of existing housing – by giving wages a chance to catch up while stalling home sales and rents.
- Current housing production is not meeting the needs of households earning 80%-100% of median income. If recent trends continue, there will be a gap between supply and demand of workforce housing units ranging from 24%-33%.

2030 Workforce Housing Demand

- While the Portland housing market contains units in a variety of price ranges, the reality is that those with higher incomes, stable jobs, and good credit ratings are in a better position to compete for affordable units that are subsidized and unsubsidized. This creates a glut of affordable units at the low end of the range that may be in rough condition, with deferred maintenance issues.
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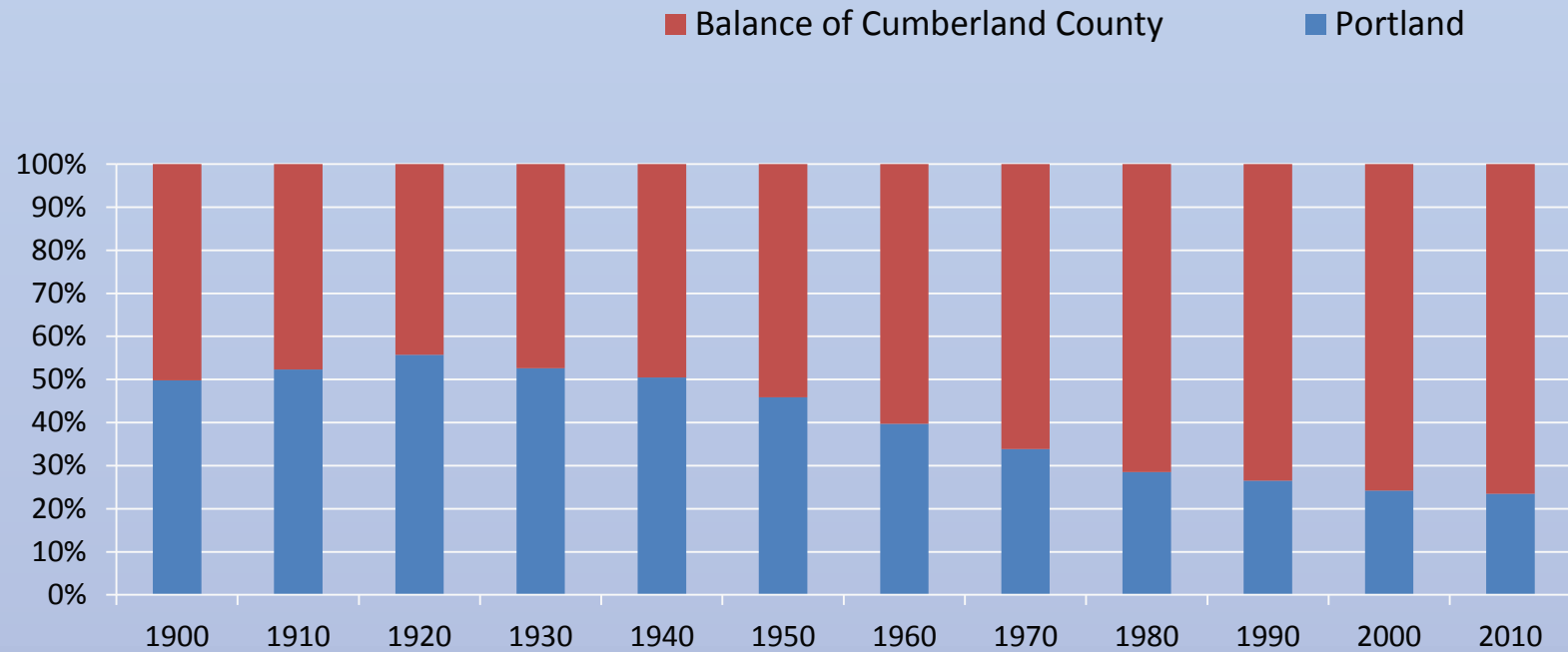
MEREDA 2015 ANNUAL REAL ESTATE FORECAST CONFERENCE

- “A higher end rental market expands and spurs investment”
- Rents up 8-12% this year, predicted another 5% next year
- Sales prices in Portland up 19% since 2009
- **Market Rate/mo**
 - ✓ Studio: \$750 - \$800 (Federal Fair Market: \$739)
 - ✓ 1 Bd: \$925 - \$1,000 (Federal Fair Market: \$880)
 - ✓ 2 Bd: \$1,100 – 1,400 (Federal Fair Market: \$1,087)
 - ✓ 3 Bd: \$1,400 – 1,600 (Federal Fair Market: \$1,405)



PORTLAND'S GROWTH

- 500 units of housing permitted in past two years
- Not quite meeting the 20% of county growth goal but doing OK



Source: U.S. Census Bureau – Included in GPCOG 2030 Portland Workforce Housing Demand Report

The housing production rate south of I-295 is higher than that north of I-295.

	Peninsula	Off-Peninsula	Island	Total
Affordable	320	16	0	336
Market Rate	675	108	11	794
Total	995	124	11	1130

Source: Greater Portland Council of Governments

WHAT ARE OUR EXISTING CITY ORDINANCES?

Housing Replacement Ordinance

Section 14-483 City Code of Ordinances

Primary source of capitalization for the Housing Trust Fund.

Currently at \$64,700 per unit removed from the market and not replaced

Density Bonus

Section 14-484 City Code of Ordinances

Allows up to a 25% bonus in density for affordable housing developments.

WHAT ARE OUR EXISTING CITY PROGRAMS?

FINANCIAL SUPPORT:

U.S. Dept. of HUD- CDBG and HOME – affordable at or below 80% AMI

Since 2000 the City has invested \$8.8 million of HUD funding to assist in the creation of over 800 units almost 700 of which are affordable at 50% to 80% of AMI

City's Housing Trust Fund – affordable at or below 120% AMI currently funded through the Housing Replacement Ordinance

Since 2002 the fund has received approximately \$1 million and expended \$455,585 (Avesta's Oak Street Lofts – 37 efficiency units; two pre-development grants to create Housing First units)

Current balance is approximately \$640,000

How would increased density incentives and new requirements work together?

Changes to density of housing development allowed in key zoning districts. B-2 zone (approved by Council,) R-6 zone (before the Planning Board,) other business zones such as the B-6 zone.

Limited density bonus changes for workforce and affordable housing. The existing language amended to include all deed-restricted units at less than 120% of AMI. consider increasing the density bonuses - existing bonuses at (25%)

Inclusionary Zoning focused on 80-120% AMI Production. Increased densities alone will not address the need to increase development of low, moderate and average-income housing by 24-33%. If such a requirement had been in place over the past 10 years, 77 units of workforce housing would have been produced, in addition to \$630,000 for the Housing Trust.

Examples of Inclusionary Zoning in other places

500 municipalities have requirements in more than half the states and DC

Sample Inclusionary Zoning Requirements from other Cities in the US

CITY	Year Enacted (est.)	Requirement	Units Produced	Target Incomes	Notes
Arlington, MA		15% of units			
Belmont, MA		10-15%, no minimum units			
Boulder, CO		20%, no minimum units		60% AMI	
Brookline, MA	1998	15% of 6 or more units and 15% of all bedrooms		80-100% AMI	Cash out up to 15 units
Burlington, VT		25% of 6 or more units			
Cambridge, MA	1998	15% of 10 or more units	450	65% AMI	30% density bonus
Cape Elizabeth, ME		5% (low)-10% (moderate income) of 5 or more units		Below 80% AMI	Also includes Accessory Dwelling Unit language
Carlsbad, CA	1994	15% of 7 units or more	1246	Below 80% AMI	
Emeryville, CA	1990	10-20% of 30 or more units			
Fairfax County, VA	1992	Over 20 Units	2448	"Affordable"	
Lincoln, RI	2006	20% of over 5 units		80% AMI	Given density bonus
Montgomery County, MD	1976	Over 50 Units	13000	"Moderate"	
Newton, MA		15% of units			
Petaluma, CA	1984	15% of 3 units or more	1157		
Pittsburg, CA	2004	6-20% of 5 units or more	11	Below 100% AMI	
Santa Fe, NM	2006	15% of 25 units or more		Up to 120% AMI	City provides up to \$10,000 subsidy per unit
Tallahassee, FL	2004	10% of 50 or more units		70-100% AMI	
Waltham, MA		5% (if given to WHA) or 10%			
Washington, DC	2006	8-10%		50-80% AMI	
Watertown, MA		12.5% of 5 or more units		80% AMI	Rounds up to next full unit

Many of these requirements allow cash out (fee in lieu) as an option, although that option often only exists for smaller projects and/or fractional unit requirements

Some of these ordinances allow for off-site provision of affordable units



Inclusionary Zoning focused on 80-120% AMI Production.

	OPTION 1	OPTION 2	
# of Units	Required Affordable Unit	In-Lieu Fees	Incremental Unit Fee %
10	1	100%	n/a
11	1 + Incremental Fee	100% + Incremental Fee	10%
12	1 + Incremental Fee	100% + Incremental Fee	20%
13	1 + Incremental Fee	100% + Incremental Fee	30%
14	1 + Incremental Fee	100% + Incremental Fee	40%
15	1 + Incremental Fee	100% + Incremental Fee	50%
16	1 + Incremental Fee	100% + Incremental Fee	60%
17	1 + Incremental Fee	100% + Incremental Fee	70%
18	1 + Incremental Fee	100% + Incremental Fee	80%
19	1 + Incremental Fee	100% + Incremental Fee	90%
20	2	n/a	n/a
21+	2 + Incremental Fee	n/a	10%
30	3	n/a	n/a
31+	3 + Incremental Fee	n/a	10%
40	4	n/a	n/a
41+	4 + Incremental Fee	n/a	10%

Fee in lieu of providing affordable housing of \$100,000

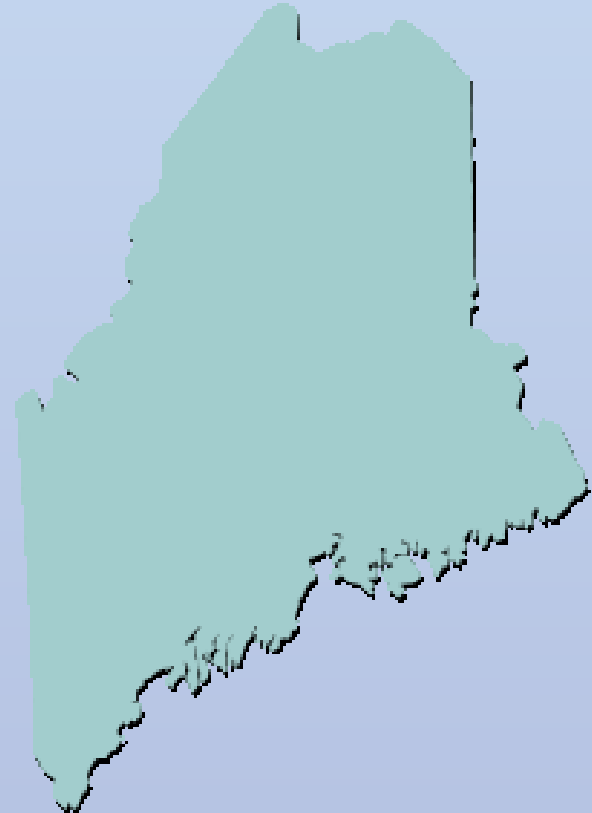
Developments of twenty (20) units or greater, not eligible for the fee in lieu provision.

In-lieu fees shall be paid into the Housing Trust Fund as defined in Sec. 14-489.

Fee in lieu = number of required affordable units not provided multiplied by \$100,000.

What are other communities in Maine doing?

- Cape Elizabeth is the only community in Maine with a mandatory inclusionary zoning requirement.
- Many communities have incentive based ordinances similar to those currently existing in Portland.



Effectiveness of Tools

- Density bonuses have some effectiveness in some circumstances. In Massachusetts and New Jersey, state level affordable housing requirements can trump local zoning.
- While economic arguments against inclusionary zoning suggest that it reduces housing production and/or increases market rate housing costs, most studies suggest there is either no such effect or that the effect is very modest

TWO PRONGED APPROACH RECOMMENDED

ENCORAGE HOUSING DEVELOPMENT
BY REMOVING BARRIERS TO
TRADITIONAL URBAN HOUSING TYPES

Under Way or Completed

- *R-6 Changes*
- *B-1 Changes*
- *B-2 Changes*

Additional Tasks

- *Looking at current accessory dwelling units and how we view “abandoned” residential space*
- *Density Bonuses*
- *Examining other zoning districts*
- *Remove regulatory barriers through ordinance streamlining*

ENSURE INCLUSION OF WORKFORCE
HOUSING IN SIGNIFICANT PROJECTS

Inclusionary Zoning - “10/10/100”

- *Start a requirement at a development of 10 units or more*
- *Require that 10% of units be workforce or affordable housing*
- *The required portion would be affordable at 100% of median income, and possibly eligible for funding if below 80%*
- *Cash-out (to the Housing Trust) and off-site provisions (within the same neighborhood) for many developments*

QUESTIONS? COMMENTS?

Jennifer Munson - Public Comment on Inclusionary Zoning Provisions

From: Todd Alexander <TAlexander@RenewalHousing.com>
To: Jeff Levine <JLEVINE@portlandmaine.gov>
Date: 5/13/2015 10:32 AM
Subject: Public Comment on Inclusionary Zoning Provisions
CC: Mary Davis <mpd@portlandmaine.gov>, Alex Jaegerman <AQJ@portlandmaine.go...

Hi Jeff:

I am submitting this email in response to the proposed changes to the City's Zoning Ordinance, Division 30 – Affordable Housing that the Planning Board will consider at its May 19th meeting. By way of background, I am a Portland resident and have been working as an affordable housing developer since 2003. My comments are focused specifically on **for-sale housing developments involving more than 10 units** and the impact of deed restrictions on the marketability of a housing unit.

Long-term deed restrictions have proven to work well on rental projects; units with restrictive covenants benefit current and future renters by ensuring that some portion of a market's housing stock will be available at rents that are affordable to low and moderate income households. However, when applied to a home ownership, a restrictive covenant can generate a number of unintended consequences; it a) reduces the value of the housing unit versus comparable unrestricted units that otherwise might have the same market value, b) generates re-sale risk for the buyer and c) limits the amount of equity an owner may realize in their home.

All of these factors taken collectively can discourage the buyers the policy is intended to serve and, in turn, dissuade developers from pursuing the projects the city is trying to encourage. It appears that staff recognizes this issue and has attempted to deal with it in the definition section under "Workforce Housing Unit for Sale". My concern is that the proposed language may add complexity, uncertainty and risk for buyers and developers. Affordable for-sale housing projects are the most challenging type of housing to bring to market, and it would be unfortunate if a well-intended policy made these projects more difficult. I have two suggestions:

1. **Limit the term of the deed restrictions to 10 years from the date the project is placed in service.** This provides a homebuyer/homeowner some level of certainty regarding the issues described above. Over time, this change will result in for-sale housing units transitioning out of the city's affordable housing stock, but new affordable units will continue to come on line through new developments – and that ebb and flow can be healthy for both the city's overall housing market and middle income homeowners/buyers of these units. The state recognized this issue when crafting the Affordable Housing TIF program and addressed it by limiting deed restrictions for affordable for-sale units to 10 years.
2. **Projects that provide a percentage of affordable units that exceeds a higher threshold – for example, 50% of the project -- are exempt from recording any restrictive covenant on the affordable units after initial sale.** The definition of an affordable for-sale units is 120% AMI—which for certain housing types in certain locations, may be close to the true market value of the housing unit. For example, the value/sales price of a new 1-bedroom condo in East Bayside might currently meet the city's definition of affordable. If a housing developer proposes a 10-unit project in East Bayside and prices 100% of the units at or below 120% AMI, it seems unreasonable that he/she should be burdened with a deed restriction on one unit the same as a 10-unit high-end condo development on the top of Munjoy Hill. This provision would eliminate a back-door punishment applied to projects that are otherwise delivering the type of housing units that the city is encouraging—and, it will provide an added incentive to provide a higher percentage of affordable units. Perhaps, this provision could be coupled with 'bonus' density boost – *if 50% of the units are affordable, then the project is exempt from any restrictive covenants AND it is eligible for 33% density boost.*

Thank you in advance for considering these suggestions.

Respectfully,
 Todd

Todd M. Alexander
Renewal Housing Associates, LLC | Leon N. Weiner & Associates, Inc.
p. 207 347-3018
c. 207 749-7257



Jeff Levine, AICP
Director, Planning & Urban Development Department

Memorandum

To: Housing and Community Development Committee
From: Jeff Levine, Director
Date: January 9, 2015
Re: Workforce Housing Study

Attached is the housing study the City commissioned from the Greater Portland Council of Governments. This study was developed to help answer the following questions:

- What is the state of the housing market in Portland?
- What kind of housing is being developed in the City today?
- What is the existing housing stock like?
- How does the housing being produced compare to the City's policies with respect to housing?
- What are some policy options the City has to address any differences between what the market is producing and what the City's needs and policies require?

Also attached is an excerpt from the housing portion of the City's Comprehensive Plan, "*Housing: Sustaining Portland's Future*." This section of the Comprehensive Plan was adopted by the City Council in 2002 and still serves as our policy guide for housing policy. That document calls for several housing policies which were part of the input for this study.

Caroline Paras, who authored the report, will present it in greater detail. However, I wanted to highlight some basic findings from the study:

- Our current housing production is not producing enough units for those making below median income
- Our existing housing rental stock appears to generally be reasonably affordable, but in part because the renters may be "sizing down" to a unit they can afford.
- Family sized rentals appear to be less affordable
- Our existing owner-occupied units appear to be primarily affordable to those making above the median income.
- There is a gap between the City's housing policy goals and what is being produced by the market.

- Every unit of high end housing that is produced in the City brings with it the need for housing for those with lower incomes – for example, to provide services for those high end housing residents

Based on this study, it seems that some public policy response to these findings would be warranted. Some policy options include:

- *No new actions.* The HCDC could determine that the City should continue to subsidize lower-income housing as we currently do, and try to find opportunities for workforce housing through providing land, but not make any regulatory changes beyond what we already have. The City's ordinances currently include some regulatory incentives for affordable housing. For example, we allow for flexibility in terms of parking requirements. The City also provides for some density bonuses for provision of affordable housing. While some affordable housing developers have taken advantage of the parking relief, the density bonuses have not been used, and likely are not enough of an incentive to produce any additional affordable housing. This approach is the current status, and based on the findings in this study, does not appear to be fully addressing the City's housing policy goals.
- *Additional Density Bonuses.* As outlined in the housing study, the City could look towards providing stronger density bonuses for affordable housing production. The current bonuses do not appear to be adequate to produce many affordable or workforce housing units. Staff recommends that we explore providing a strong density bonus in our ordinances. However, we feel we need to be careful not to create a situation where neighborhoods feel that they are being asked to allow for dense developments "in the name of affordability." We think there are ways to provide additional bonuses without causing this stress. For example, we can look at ways to allow additional units within an existing floorplan by allowing more efficient use of building space within a similar shell. Under this model, units may be somewhat smaller but have a similar external appearance and feel as fewer market-rate units.
- *Inclusionary Zoning.* As outlined in the housing study, this is a very common approach to producing workforce or affordable units by leveraging market rate production. To quote the study: "This tool requires that a certain percentage of units in a new development be set aside as affordable, with or without an increase in density. Inclusionary zoning is widely used by cities throughout the states of California, Massachusetts, New Jersey, Virginia, and Maryland. In Burlington, Vermont, the mandatory set-aside ranges from 15%-25%, depending on the market price of the rest of the units. The Town of Cape Elizabeth, Maine requires that 10% of the units in a subdivision be set aside for moderate income households, or 5% for low income." This is an approach that was examined as part of the India Street Sustainable Neighborhood Plan but was determined to best be implemented on a City-wide, or at least Peninsula-wide level. Staff believes this approach has much merit, especially in that it can be easily

customized to address the specific gaps in Portland's housing market. For example, we might focus our requirements on production of "workforce housing" at 80-120% of area median income, and choose a percentage requirement and minimum threshold that are appropriate to our market.

- *Additional Parking Incentives:* The housing study raises the issue of using parking relief as an incentive for producing more affordable housing. The current system appears to provide as much of an incentive for affordable housing through parking relief as possible. Staff can look at our parking incentive system for additional changes but we are unlikely to find that additional changes would address policy goals.
- *Rent or Price Control.* This approach would involve creating a system by which a board would regulate sales or rental prices city-wide. This is a model that is used in some large cities, such as New York. Rent control was in effect in some cities in Massachusetts for many years until a statewide referendum abolished it in 1994. This is a somewhat extreme approach and is not recommended.

Portland

2030 Workforce Housing Demand



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EXECUTIVE SUMMARY

Purpose

In 2002, the City of Portland adopted a Housing Plan with a policy goal to ensure an adequate supply of housing to meet the needs, preferences, and financial capabilities of all Portland households. In order to reach this goal, the City established a target of maintaining Portland's current proportion of subsidized units at 20% of the housing stock. Since the plan's adoption, over 2,000 housing units have been permitted in the city for the construction of apartments, condominiums, and single-family homes. This study examines recent trends in the Portland housing market in order to help policymakers determine what gaps, if any, may exist between what is currently being provided in the market and the city's housing needs.

Methodology

In August of 2014, the City of Portland contacted the Greater Portland Council of Governments to discuss the design of a study to assess progress in meeting the city's housing production goals. Staff conducted a literature review of studies used in other states and presented these approaches to the city for consideration.

- *Massachusetts Approach:* This method, so named for its prevalence amongst cities and towns in the Commonwealth, is based on the goals articulated in a municipality's comprehensive plan. In the future, Portland will capture a certain percentage of the region's population growth. People form households, whose demand can be projected by the current distribution of housing units by tenure and affordability.
- *California Approach:* This technique has been piloted in cities throughout California by the consulting firm of Keyser Marston Associates, Inc. The underlying philosophy is that the construction of market-rate units attracts high income households. Through the purchase of goods and services, these households support low-paid service jobs, which in turn support lesser income households whose needs might best be met by living near where they work.

For purposes of this analysis, "affordable" and "workforce" are used interchangeably to refer to housing units that a household earning 100% of the county's median income can afford, assuming they spend no more than 30% of their income for housing. The term "subsidized," which is also confused with "affordable," generally refers to public investment to make housing affordable to households earning up to 80% of the county's median income.

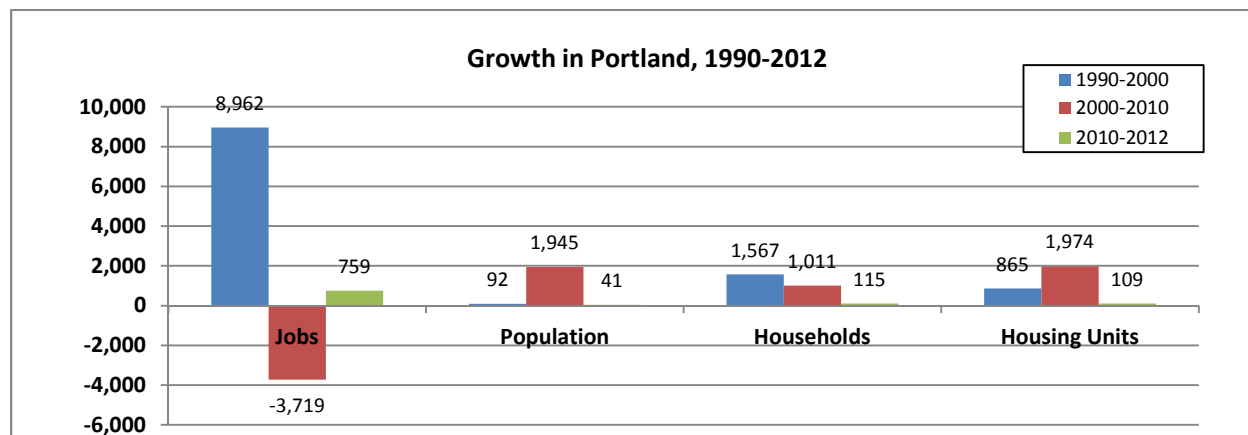
Findings

Sixty-two percent of Portland households earn less than the county's median income, including 38% of homeowners and 81% of renters. Over the last decade, the number of households earning less than median income has increased 10%. While rising incomes have narrowed the affordability of existing homes and apartments, new construction is well beyond the means of the middle class. From 2010 to 2014, 1,130 housing units were permitted and/or built in Portland, including apartments, condominiums and single-family homes. Just 29% were offered at a rent or sales price affordable to a household earning the median income. If robust growth continues, Portland will continue to lose the affordability of its housing stock.

Two approaches were deployed to help policymakers determine what percentage of new construction should be made affordable by policy to increase diversity in the city's housing stock.

- Under the Massachusetts approach, the gap between future demand for workforce housing units and potential supply is 33%.
- Under the California approach, the gap between future demand for workforce housing units and potential supply is 24%.

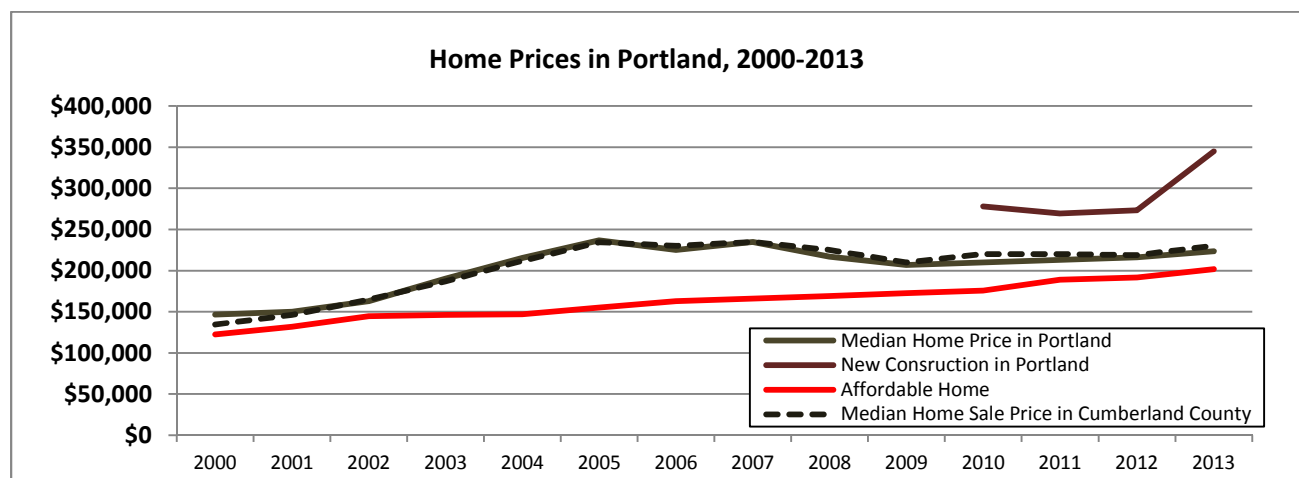
HOUSING MARKET TRENDS



Source: Maine Department of Labor, American Community Survey

The economic recession of 1991 ushered in an era of slow growth throughout the nation. In just twelve months, the unemployment rate in Cumberland County soared from 3.7% to a decade high of 7.4%. The sluggish economy led to a lag in home construction. Driven by the dramatic increase in single people living alone, the formation of new households in Portland outstripped the construction of housing units by almost a 2:1 margin. By the late 1990's, the economy rebounded with the "dot com" revolution. Job growth and rising incomes created a pent-up demand for housing that set the stage for the boom of the 2000's.

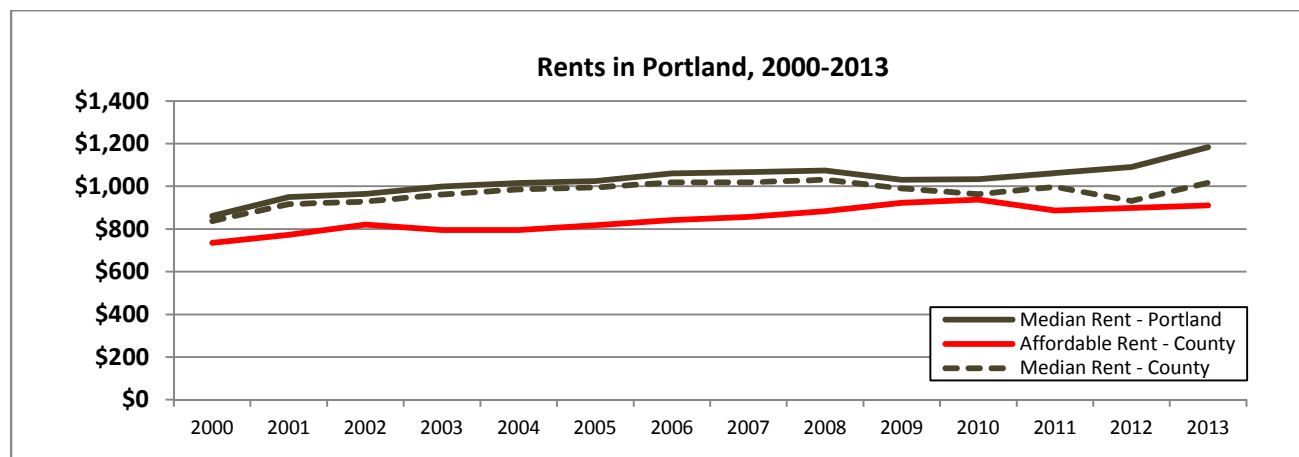
In 2000, the "dot com" bubble burst, triggering another economic downturn. With its relatively small technology sector, Greater Portland weathered the recession better than the rest of New England and the nation. Fueled by the lowest interest rates in 40 years, real estate proved to be a lucrative investment. In Portland, new housing construction outpaced the formation of new households by almost a 2:1 margin. Without real job growth, however, the boom could not be sustained. In 2008, the collapse of the credit market ushered in the greatest economic recession since the Great Depression.



Source: Maine Housing, Portland Assessing Office

Home prices in the region peaked at \$235,000 before dropping 12% in 2009. Since then, rising incomes and low interest rates have improved affordability. In 2013, a household in Cumberland County earning the median income of \$58,500 could afford a home price of \$202,000, while the median home was \$223,500. In 2005, the gap

between the median and affordable home price was \$68,985. By 2013, the gap had narrowed to \$21,500. New construction, however, remains out of reach for all but the wealthiest households. From 2000 to 2014, 282 new condominiums and single-family homes were sold in Portland posting a median price of \$313,000, 55% over the affordable price. For example, in 2013, 85 condominiums at the Bay House in Portland's India Street neighborhood sold for a median of \$366,350, 64% above the median home price and 81% above the affordable home price.



Source: Maine Housing, Portland Assessing Office

Rents in Portland continue to outpace incomes. In 2013, a household earning the median renter income of \$36,438 could afford a rent of \$911. The median rent in Portland, however, is \$1,183, 30% more than what is affordable. Market rents associated with new construction are even higher. West End Place, a new 39-unit apartment complex at the corner of Brackett and Pine streets, is courting rents at \$1,300 to \$2,500, 43% to 170% higher than what is affordable.

MASSACHUSETTS APPROACH

Portland's Housing Plan established as a goal to maintain the city's 25% share of the county's population. In order to create enough affordable housing for the future, this share can be applied to the county's future growth projections. The following is a breakdown of the methodology.

1. Establish a long range population forecast at the county level

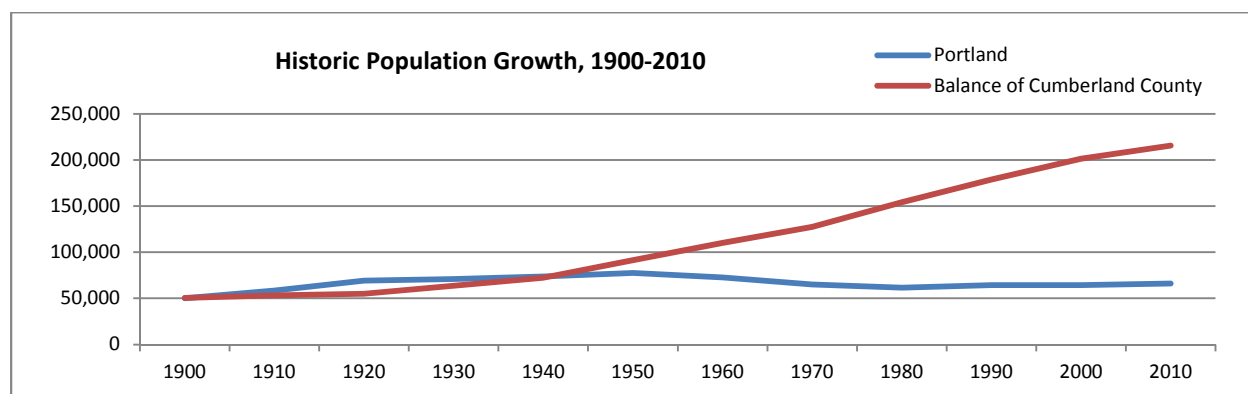
In Maine, there are two sources for population projections at the county level:

State Office of Policy and Management: In 2013, Maine's Economist released the State's 2030 Forecast. These projections assume that fertility of the current population is the primary driver of growth. Future growth is expected to be much slower than the past because Maine has a higher proportion of Baby Boomers, who are past their child-bearing years, along with a high proportion of non-Hispanic Whites, who have the lowest birth rates of any racial or ethnic group. From 2010 to 2030, the State projects that Cumberland County will grow by just 8,427 people, an increase of 1.5% per decade. This data comprises the "Low Growth" forecast.

Center for Business and Economic Research: In 2009, the University of Southern Maine's Muskie School of Public Service prepared a 2035 forecast for the Portland Area Comprehensive Transportation System (PACTS), the Metropolitan Planning Organization for the Portland, Maine Urbanized Area. This forecast, generated through Regional Economic Models, Inc. (REMI), assumes that the economy will drive population growth. From 2010 to 2030, Muskie projects that Cumberland County will grow by 79,924 people, an increase of 14% per decade. This data comprises the "High Growth" forecast.

The “Medium Growth” forecast is the average of the Low and High forecasts. Under this scenario, Cumberland County would grow by 44,176, people, an increase of 8% per decade.

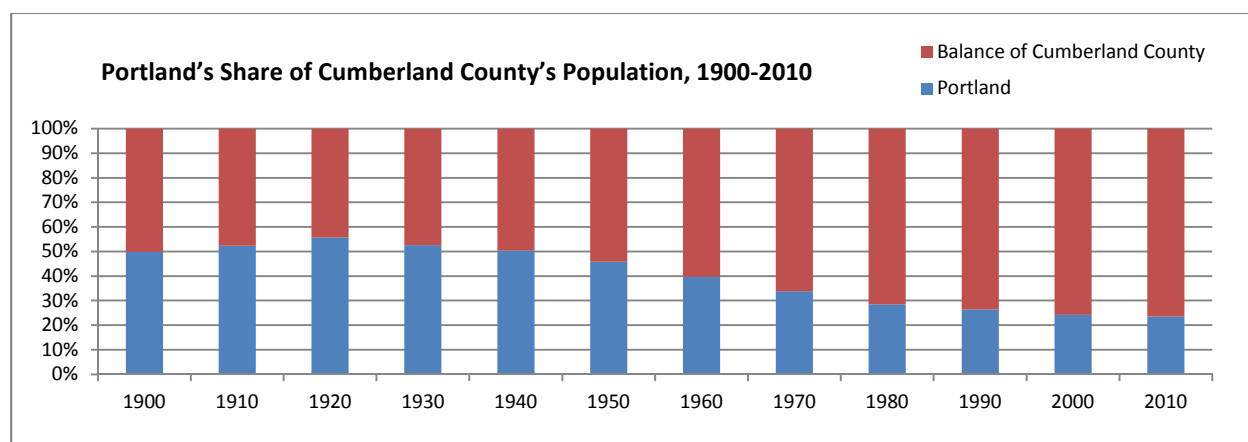
Over the last century, the county’s decennial growth rate has ranged from a high of 16% during the 1940’s to a low of 5% during the 1960’s. Therefore, the Low forecast, at 3% growth, represents a rate lower than in any decade of the last century, while the High forecast, at 14%, is only slightly higher than the pattern of the 1990’s. At 8%, the Medium forecast reflects the average growth rate per decade of the past century.



Source: U.S. Census Bureau

2. Assign Portland a 25% share of the county’s 2030 population growth

Portland’s goal of maintaining a 25% share of the county’s population is paramount to its vitality and its influence over state and regional politics. As the largest city in one of the nation’s smallest states, Portland exerts an extraordinary influence over Maine’s economy out of proportion with its actual size. Indeed, the number of jobs in the city now outstrips population, making Portland the engine of the largest labor market in Northern New England. Over the last century, Portland’s share of the county’s population has declined from a peak of 56% in 1920 to 24% in 2010. While this share is on a definite downward trajectory, Portland did not yield any ground during the 2000’s.



Source: U.S. Census Bureau

Low Growth: To claim a 25% share of the county’s population, Portland would need to grow by 6,331 people, or 317 people per year, a growth rate of 4.8% per decade. In order to reach this 25% share, which in 2010 slipped to 24%, Portland would need to claim 75% of the county’s future growth. Although this would represent a reversal of the sprawling choices made by residents during the 1970’s, 80’s and 90’s, this trend has already begun in the 2000’s. In order to accommodate new residents, Portland would need to build 4,188 housing units, or 210 units

per year over a 20-year period. This modest housing growth is in line with the development patterns of the 2000's, which resulted in the construction of approximately 1,974 units, or 198 units per year.

Medium Growth: To claim a 25% share of the county's population, Portland would need to grow by 15,268 people, or 764 people per year, a growth rate of 11.5% per decade.. This would bring Portland's population to 81,462 people, just past its 1950 peak. In order to reach this 25% share, Portland would need to claim 35% of the county's future growth. In order to accommodate new residents, Portland would need to build 8,636 housing units, or 432 units per year over a 20-year period. This robust growth would be double that witnessed in the 2000's and five times the growth of the 1990's.

High Growth: To claim a 25% share of the county's population, Portland would need to grow by 24,206 people, or 1,211 people per year, a growth rate of 18.3% per decade. In order to reach this 25% share, Portland would need to claim 30% of the county's future growth. In order to accommodate new residents, Portland would need to build 13,084 housing units, or 654 units per year over a 20-year period. In terms of new construction, this represents three times the growth of the 2000's and eight times the growth of the 1990's.

2030 Housing Forecast for Portland								
	2010		2030					
	Total	Change	Low Growth		Medium Growth		High Growth	
	Total	Change	Total	Change	Total	Change	Total	Change
Population of Cumberland County	281,674	24%	290,101	8,427	325,850	44,176	361,598	79,924
Population of Portland	66,194	100.0%	72,525	6,331	81,462	15,268	90,400	24,206
Population in ownership units	30,317	45.8%	33,217	45.8%	37,310	45.8%	41,403	45.8%
Population in rental units	33,264	50.3%	36,446	50.3%	40,937	50.3%	45,428	50.3%
Population in group quarters	2,613	3.9%	2,863	3.9%	3,216	3.9%	3,569	3.9%
Households	30,725		34,945	4,220	39,252	8,527	43,558	12,833
Population in households	63,581	96.1%	69,662	96.1%	78,247	96.1%	86,831	96.1%
Average household size	2.07		1.99		1.99		1.99	
Ownership	2.31		2.23		2.23		2.23	
Rental	1.89		1.82		1.82		1.82	
Housing Units	31,908		36,096	4,188	40,544	8,636	44,992	13,084
Ownership	13,321	41.7%	15,077	1,756	16,935	3,614	18,792	5,472
Occupied	13,124	98.5%	14,927	99.0%	16,767	99.0%	18,606	99.0%
Vacant	197	1.5%	149	1.0%	168	1.0%	186	1.0%

Source: Prepared by the Greater Portland Council of Governments based on the 2010 Census and County Population Forecasts from the State Office of Policy and Management and the Center for Business and Economic Research

3. Breakout Portland Forecast by Household Income and Tenure

Owners: As of 2011, 38% of Portland's 13,845 homeowners earned less than the county's median income. This is unchanged from the 2000 Census. Approximately 28% of homeowners are considered to be of low to moderate income because they earn 80% or less of the county's median income. This is slightly lower than in 2000. The U.S. Department of Housing and Urban Development classifies households earning less than 80% as follows:

- Less than 30%: *Very low income*
- 30%-50%: *Low income*
- 50%-80%: *Moderate income*

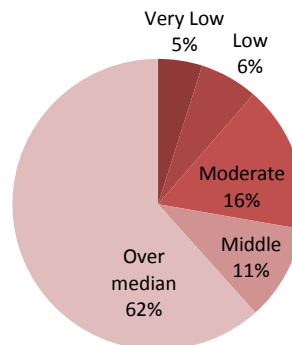
For this analysis, middle income refers to those households earning from 80%-100% of median income. From 2000-2011, the greatest change was in the number of these middle income households, which increased by 52%.

Income of Owners in Portland, 2000-2011

	2000		2011		Net	%
	Households	%	Households	%		
Very Low	605	5%	680	5%	75	12%
Low	1,020	8%	895	6%	-125	-12%
Moderate	2,240	18%	2,265	16%	25	1%
Middle	970	8%	1,470	11%	500	52%
Over Median	7,865	62%	8,535	62%	670	9%
Total	12,605	100%	13,845	100%	1,240	10%
Low to Moderate	3,865	31%	3,840	28%	-25	-1%
Under Median	4,835	38%	5,310	38%	475	10%

Source: Special tabulation by the U.S. Department of Housing and Urban Development based on the 2007-2011 American Community Survey

Income of Portland Homeowners (2011)



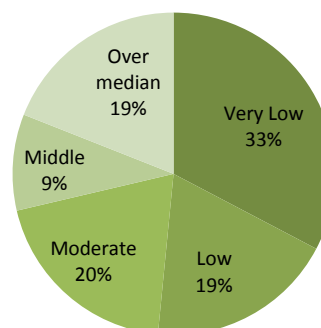
Renters: As of 2011, 81% of Portland's 17,260 renters earned less than the county's median income. Approximately 71% of renters are considered to be of low to moderate income. From 2000-2011, the greatest change was in the number of very low income households, which increased by 30%.

Income of Renters in Portland, 2000-2011

	2000		2011		Net	%
	Households	%	Households	%		
Very Low	4,330	26%	5,630	33%	1,300	30%
Low	2,755	17%	3,260	19%	505	18%
Moderate	4,165	25%	3,415	20%	-750	-18%
Middle	1,415	9%	1,665	10%	250	18%
Over Median	3,700	23%	3,290	19%	-410	-11%
Total	16,365	100%	17,260	100%	895	5%
Low to Moderate	11,250	69%	12,305	71%	1,055	9%
Under Median	12,665	77%	13,970	81%	1,305	10%

Source: Special tabulation by the U.S. Department of Housing and Urban Development based on the 2007-2011 American Community Survey

Income of Portland Renters (2011)



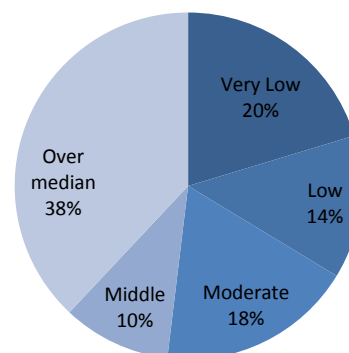
All households. As of 2011, 62% of Portland's 31,105 households earned less than the county's median income. Approximately 52% of all households are considered to be of low to moderate income. From 2000-2011, the greatest change was in the number of very low income households, which increased by 28%.

Income of All Households in Portland, 2000-2011

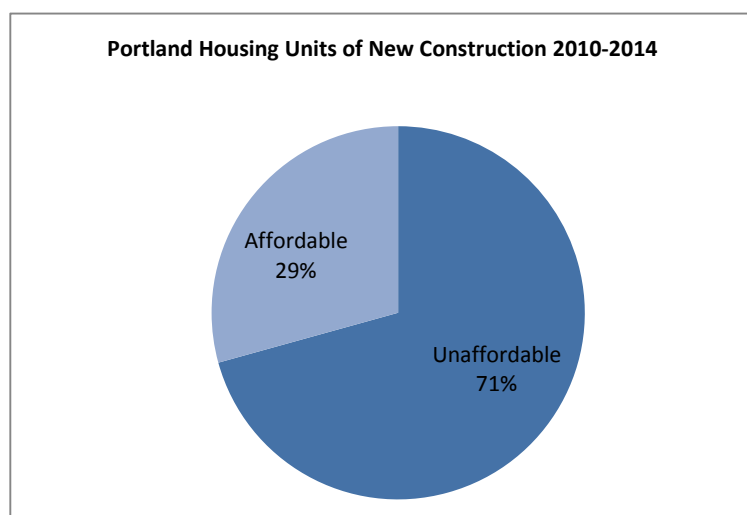
	2000		2011		Net	%
	Households	%	Households	%		
Very Low	4,935	17%	6,310	20%	1,375	28%
Low	3,775	13%	4,155	13%	380	10%
Moderate	6,405	22%	5,680	18%	-725	-11%
Middle	2,385	8%	3,135	10%	750	31%
Over Medium	11,565	40%	11,825	38%	260	2%
Total	29,065	100%	31,105	100%	2,040	7%
Low to Moderate	15,115	52%	16,145	52%	1,030	7%
Under median	17,500	60%	19,280	62%	1,780	10%

Source: Special tabulation by the U.S. Department of Housing and Urban Development based on the 2007-2011 American Community Survey

Income of All Households in Portland (2011)



4. Calculate Gap between Current Production Trends and Future Demand



While the median price of new construction is beyond the reach of the middle class, some proportion of new homes is affordable. From 2010-2014, 384 new condominiums and single-family homes were permitted in Portland. The percentage of units sold or marketed for sale at an affordable price was 7%. During the same period, 746 new rental units were permitted. The percentage of units marketed for rent at an affordable price was 41%. Overall, 29% of new housing units permitted from 2010-2014 were offered to the market at a price affordable to a household earning 100% of median income.

Approximately 62% of Portland households earn less than the county's median income. If recent construction trends hold, the market, without compulsion, will build affordable units to meet 29% of demand. This leaves a gap between supply and demand of 33%.

Supply and Demand for Housing Affordable to Households at 100% of Median Income

		Low Growth	Medium Growth	High Growth
Housing Units	Percent of Market	4,188	8,636	13,084
Projected 2030 Demand	62%	2,597	5,354	8,112
Projected 2030 Supply	29%	1,215	2,504	3,794
Gap	33%	1,382	2,850	4,318

CALIFORNIA APPROACH

This method is based on the underlying theory that the construction of market-rate units attracts high income households. Through the purchase of goods and services, these households support low-paid service jobs, which in turn support lesser income households whose needs might best be met by living near where they work. The following is a breakdown of the methodology.

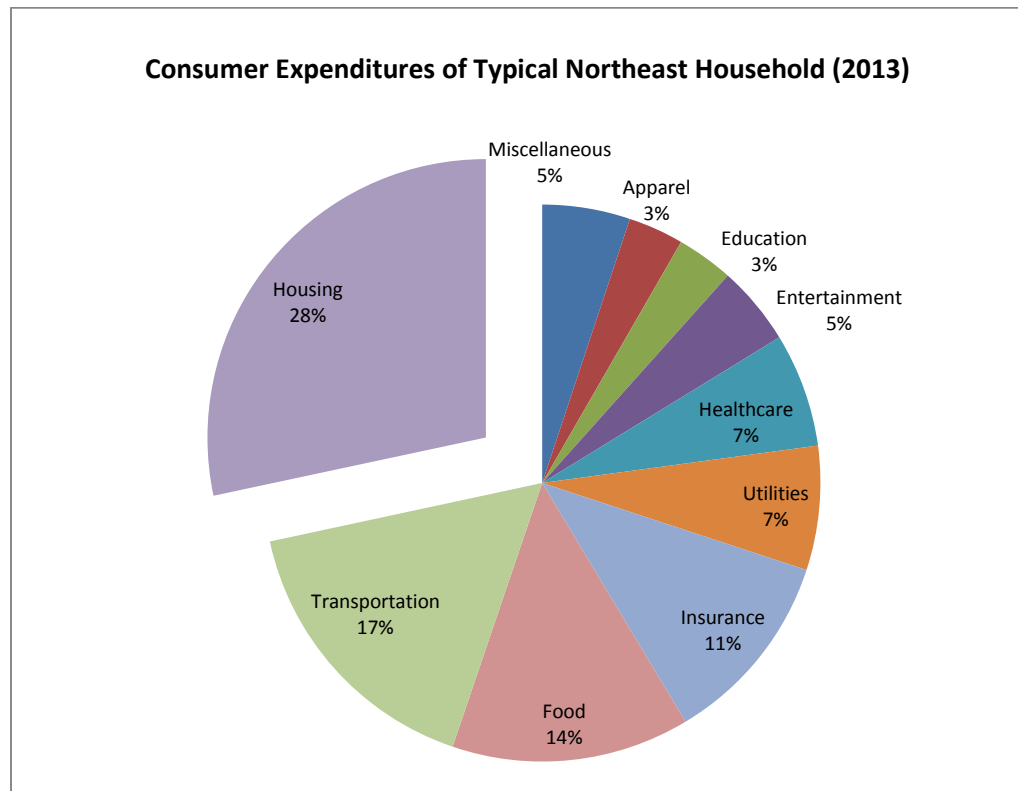
1. Calculate the income of market-rate households

A household must earn approximately \$90,000 to afford the market price of a newly constructed home (\$313,000) or rental unit (\$2,500 per month), presuming it spends no more than 30% of its income for housing. This percentage is consistent with mortgage underwriting practice, traditional credit analysis, and housing policy.

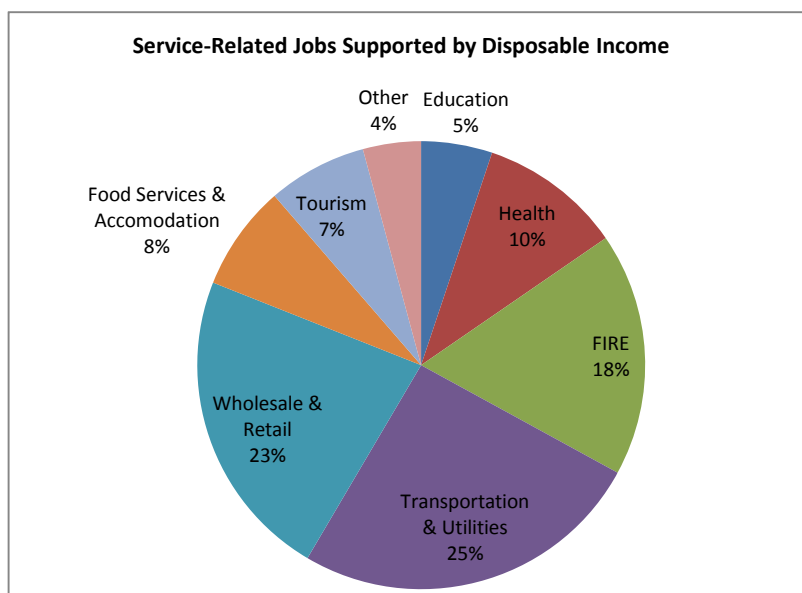
2. Quantify the collective purchasing power of market-rate households

The National Consumer Expenditure Survey was used to calculate the disposable income of market rate households. A typical household in the Northeast spends the largest chunk of its income, 28%, on housing, including mortgage, insurance, and property taxes as well as home maintenance and furnishings. At 17%, the second largest category is transportation, including vehicle payments, registration, maintenance, and fuel. The third largest expenditure, 14%, is food, which includes meals eaten at restaurants as well as produce, meat, dairy, and other products purchased at supermarkets and eaten at home. Other categories include insurance, utilities,

health care, entertainment, education, and apparel. Once taxes and housing costs are eliminated, the market-rate household has \$45,900 in disposable income accounting for 51% of gross household income. One hundred market-rate households would have a collective purchasing power of \$4,590,000.



3. Translate collecting purchasing power to jobs



Estimates were made to correlate household spending by category with service jobs by industry sector. Jobs generated by mortgage and rent payments were excluded from analysis. The goods-producing sector, which includes jobs in agriculture, fisheries, forestry, mining, construction, and manufacturing, was also excluded. Thus, while food purchased at the supermarket may be grown in the field and processed in a factory, only the retail jobs supported by household spending are counted. Food eaten at home, for example, was assigned to the Wholesale and Retail sector, while meals eaten away from home were assigned to the Accommodation and Food Services sector. Similarly, income paid to utilities was assigned to Transportation and Utilities.

4. Calculate the economic impact of job creation

The disposable income of 100 households purchasing market-rate homes in Portland would generate an economic impact of 121 jobs, \$4.8 million wages, \$13.4 million in GDP, and \$20.9 million in total output, which is broken down on the following chart. Each job has an average income of \$40,020.

Economic Impact of 100 Households Purchasing Market Rate Ownership Units

	Employment	Earnings	GDP	Output
Direct	80	\$3,336,816	\$9,984,358	\$15,617,667
Indirect + Induced	41	\$1,505,576	\$3,382,239	\$5,309,542
Total	121	\$4,842,392	\$13,366,597	\$20,927,209

Outputs were generated from the 2011 version of the *Connect Northern New England Economic Scenario Model* developed by Vital Economy and FairPoint Communications. Outputs were adjusted for inflation to 2014 dollars. The model is designed to provide order of magnitude estimates of economic impact resulting from the gain or loss of jobs, including the following:

- **Direct Employment:** Employment attributed to a particular business, activity or industry.
- **Indirect Employment:** Employment in down-stream industries that supply or provide services to the direct business, activity or industry.
- **Induced Employment:** Employment generated because of expenditures made by individuals employed directly or indirectly by the particular business, activity or industry.
- **Earnings:** Sum of wage and salary disbursements, supplements, and proprietors' income.
- **GDP:** Total market value of all final goods and services produced in the region.
- **Output:** Total economic output of a firm, industry, or economy without deducting intermediate inputs such as goods and services consumed by industries in the production of other final goods and services.

The Economic Scenario Model derives its data from the U.S. Bureau of Economic Analysis (BEA), which produces detailed data on economic activity by region and state. In order to calculate the indirect and induced effects on employment, earnings, output, and GDP, the Model uses BEA RIMS II multipliers, which are based on estimates of local area personal income and on the national input-output accounts.

5. Calculate the number of median households supported by new jobs

Cumberland County's labor force is comprised of 167,365 workers age 16 and over. In the 2010 Census, 117,339 households were recorded in the county. Thus, there are 1.43 households for every job in the region. The disposable income from 100 new market rate households generates 121 jobs in the local economy, which can support 85 workforce households. The number of workforce households is multiplied by 62%, which is the percentage of Portland households earning less than the county's median income. The result, 53%, is the percentage of workforce housing demand generated by these 100 market-rate units. If the market, in keeping with current production patterns, supplies 29 affordable units for every 100 built, there would still be an unmet gap for 24 affordable units.

Median Housing Demand Generated by Market Rate Households

Jobs per Household	1.43
Median income households in Portland	62%
Total jobs generated by 100 market-rate households	121
Households supported by jobs	85
Affordable housing demand generated per job	53%
Potential market supply of affordable units	29%
Gap	24%

AFFORDABILITY OF CURRENT HOUSING STOCK

Rental Units

While recent trends demonstrate that new construction is increasingly unaffordable, there are still thousands of existing housing units in Portland that are affordable due to condition, size, turnover and other factors. Thanks to a special Census tabulation prepared by HUD, the chart below outlines the income of households who were living in these affordable units in 2011. In 2011, the HUD Area Median Family Income (HAMFI) for the Portland area was \$72,300. HUD's basic affordability assumption is that rent should consume no more than 30% of a household's gross income.

There are several important issues left answered by the data. Because respondents to the households are the renters themselves and not the landlords, it is impossible to determine the following: 1) which units are located in a housing project where rents are subsidized; 2) whether the rent reported is the actual rent charged to the tenant or the rent paid by a tenant minus a Section 8 voucher; and 3) what the rent would be if the unit were available to the marketplace. For example, certain housing units might be rented by family members of the landlord, who would charge a higher rent to the general public. Also, many landlords purposefully keep rents low for longtime tenants in order to avoid turnover. Turnover often commands higher rents, particularly if renovations occur during the vacancy.

Of the city's 17,585 rental units, 90%, or 15,800, are offered at rents affordable to households earning up to 80% of the region's median income. At first glance, these numbers seem to indicate that there is no affordable housing problem in the rental market. The reality, however, is that there is a mismatch between income and availability because renters do not seek to maximize their incomes on rent. While many households seek to buy "more house" than they need, renters tend to seek out the best bargain for their preferred location and/or the smallest unit that they can squeeze into. Some renters want to spend as little as possible so that they can save money for a home. Other renters may not compete well for housing in the private market against higher income renters with more stable jobs, incomes, and credit ratings. Another problem is size. Virtually half of the city's affordable rental units are studios, efficiencies, and one-bedroom apartments. Families are hard pressed to find large units at rents they can afford.

Rent Affordable to Very Low Income Households Earning $\leq$ 30% of Median Income - These are units with a gross rent affordable to households at or below 30% HAMFI. Of the 3,390 rental units offered at this rent level, 92% are occupied by households earning up to 100% HAMFI. Judging by the vacancy rate, competition is stiffest for units with three or more bedrooms.

Rent Affordable to Low Income Households Earning >30 to $\leq 50\%$ of Median Income - These are units with a gross rent affordable to households earning 30% to 50% of HAMFI. Of the 2,490 rental units offered at this level, 86% are occupied by households earning up to 100% HAMFI. Judging by the vacancy rate of 0%, competition is stiffest for units with three or more bedrooms.

Rent Affordable to Moderate Income Households Earning >50 to $\leq 80\%$ of Median Income - These are units with a gross rent affordable to households earning 50% to 80% of HAMFI. Of the 9,145 rental units offered at this price range, 74% are occupied by households earning up to 100% of HAMFI. Vacancy is tightest in this price range.

Rent Affordable to Households Earning $>80\%$ of Median Income - These are units with a gross rent affordable to households with incomes above 80% of HAMFI. Of the 1,790 units offered at this rent level, 47% are occupied by households earning up to 100% of HAMFI. At 12.1%, the vacancy rate is highest amongst 3-bedroom units.

Name of Jurisdiction: Portland, Maine		Source of Data: 2007-2011 CHAS databook			
		Rental Units by # of bedrooms			
Rental Units by Affordability		0-1	2	3+	Total
Units with gross rent affordable to a household earning 30% HAMFI					
Household income 30% or less		1,320	480	425	2,225
Household income 30.1%-50%		365	100	205	670
Household income 50.1%-80%		80	65	60	205
Household income 80.1%-100%		15	0	0	15
Household income over 100%		10	10	95	110
Total occupied units		1,790	655	785	3,225
Vacant for Rent		80	60	25	165
Vacancy Rate		4.3%	8.4%	3.1%	4.9%
Units with gross rent affordable to 50% HAMFI					
Household income 30% or less		470	155	75	700
Household income 30.1%-50%		350	385	150	885
Household income 50.1%-80%		300	305	80	680
Household income 80.1%-100%		165	55	0	225
Household income over 100%		85	170	45	295
Total occupied units		1,370	1,070	350	2,790
Vacant for Rent		90	25	0	115
Vacancy Rate		6.2%	2.3%	0.0%	4.0%
Units with gross rent affordable to 80% HAMFI					
Household income 30% or less		1,270	695	410	2,375
Household income 30.1%-50%		660	600	115	1,375
Household income 50.1%-80%		915	945	310	2,165
Household income 80.1%-100%		530	405	220	1,155
Household income over 100%		720	920	435	2,075
Total occupied units		4,095	3,565	1,490	9,145
Vacant for Rent		170	135	55	360
Vacancy Rate		4.0%	3.6%	3.6%	3.8%
Units with gross rent affordable to household earning over 80% HAMFI					
Household income 30% or less		85	120	25	230
Household income 30.1%-50%		50	45	70	170
Household income 50.1%-80%		75	140	50	265
Household income 80.1%-100%		80	70	35	185
Household income over 100%		190	280	330	800
Total occupied units		480	655	510	1,650
Vacant for Rent		25	50	70	140
Vacancy Rate		5.0%	7.1%	12.1%	7.8%
Total Occupied		7,735	5,945	3,135	16,805
Number vacant for rent		365	270	150	780
Vacancy Rate		4.5%	4.3%	4.6%	4.4%
Units affordable to households earning up to 80% of AMI		7,595	5,510	2,705	15,800
Percent of housing stock that is affordable		94%	89%	82%	90%

Home Ownership Units

In 2011, 66% of existing homes, or 6,895 units, were affordable to households earning 100% of the region's median household income. Thanks to a special tabulation of the American Community Survey, the chart on the next page illustrates the income of households who were living in these affordable units in 2011.

The data should be used with caution. Unlike rents which can rise and fall with the economy, most homeowners lock themselves into a 30-year mortgage with a fixed interest rate. Except for fluctuations in taxes and insurance, they make the same monthly mortgage for the life of the loan. The Census asks homeowners to estimate what they think their home is worth. Some homeowners may consult their tax bill while others find out the selling prices earned by neighbors. Still others simply make a guess. Because this value does not necessarily align with the price the home would sell for if it was listed on the market, it is substantially different from the market data used earlier in this report, which was provided by Maine Housing and the City Assessor based on actual sales of new and existing homes. While it may be unreliable, particularly in light of the boom and bust of the housing market, it is the best source of data for determining who lives in the region's affordable ownership stock, including condominiums, ranches, capes and bungalows. Mobile homes, boats, and recreational vehicles are not included in the data.

Another caution is that the data is not indicative of cost burden. For example, in 2011, there were 555 homes with a value affordable to households earning over 100% of median income that were occupied by households earning 50% or less of median income. This does not mean that the home is unaffordable to them. Certainly a large percentage of homeowners have owned their homes for a very long time: while initially the mortgage payment may have been more than 30% of their income, as wages rise, mortgage payments gradually decline as a percentage of household income. Some low income owners, such as senior citizens, have paid off their mortgage completely, leaving them "house-rich" but "cash-poor."

To determine the maximum home value affordable to households by income, HUD utilized a series of assumptions: a 31% monthly payment standard, a 4.5% down payment, a 5.5% interest rate, a 1.75% upfront insurance premium, a .55% annual insurance premium, and 2% for annual taxes and insurance. Based on these assumptions, HUD's estimated value to income ratio for an affordable home is 3.36, i.e., a household can afford a home costing no more than 3.36 times its income. In 2011, the HUD Area Median Family Income (HAMFI) for the Portland area was \$72,300. A household earning this median income could afford a home price up to \$242,928, which is 22% than Maine Housing's estimate for the same base year. The reason for this discrepancy is a different definition of median income. HAMFI, the reference point for the HUD data, is scaled to a family of four. Maine Housing's estimate, however, encompasses for all households, including single people living alone. Thus, while the HAMFI for the Portland area was \$72,300, Maine Housing's estimate for the same year was \$54,944, and for the American Community Survey, it was \$57,267.

Value Affordable to Low Income Households Earning 50% of Median Income – The value of these homes are less than or equal to the maximum amount that would be affordable to a household earning 50% of median family income, or \$36,150. Under HUD's financing assumptions, such a family could afford a home of no more than \$122,000. There were 540 occupied units with a value in this range: 75% were occupied by households earning 100% or less of median income. There were 100 vacant homes at this value accounting for a vacancy rate of 15.6%. Such a high rate is indicative of foreclosure and/or deferred maintenance.

Value Affordable to Moderate Income Households 80% of Median Income - A household earning 50.1-80% HAMFI, or \$36,151-\$57,840, could afford a home of \$122,000-\$194,000. There were 3,080 occupied units with a value in this range: 54% were occupied by households earning up to 100% HAMFI. While homes in this price range might be small, suffer from deferred maintenance, and/or be located in high traffic areas, the tight vacancy rate of 0.5% indicates they are in high demand.

Value Affordable to Households Earning 100% of Median Income - A household earning 80.1%-100% of median income, or \$57,841-\$72,300, could afford a home of \$194,000-\$243,000. There were 3,125 occupied units with a

value in this range: 39% were occupied by households earning up to 100% HAMFI. These homes might in good condition and in desirable neighborhoods, but lack high value amenities, such as a water view, two-car garage, and/or historic character. Vacancy is lowest among homes with 0-2 bedrooms.

Value Affordable to Households Earning over 100% of Median Income – These homes, worth over \$243,000, exceed affordability for a household earning 100% of HAMFI, or \$72,300. There are 7,005 occupied units with a value in this range: 28% are occupied by households earning up to 100% HAMFI. At 3.9%, the vacancy rate is highest among homes with 0-1 bedrooms, which are probably condominiums.

Name of Jurisdiction: Portland, Maine				Source of Data: 2007-2011 CHAS databook					
	With a mortgage				Without a mortgage				
Homes by Affordability	Homes by # of bedrooms				Homes by # of bedrooms				
Occupancy by Income	0-1	2	3+	Total	0-1	2	3+	Total	Total
Units with a value less than \$122,000 (affordable to a household earning 50% area median family income)									
Household income 30% or less	0	15	4	20	0	10	40	55	75
Household income 30.1%-50%	0	0	35	35	0	20	20	40	75
Household income 50.1%-80%	0	10	55	65	0	25	50	75	140
Household income 80.1%-100%	0	10	90	100	0	0	15	15	115
Household income over 100%	0	0	80	80	0	0	50	50	130
Total occupied units	0	35	264	305	0	55	175	235	540
Vacant for Sale	25	45	25	100					
Vacancy Rate	100.0%	33.3%	5.4%	15.6%					
Units worth \$122,000-\$194,000 (affordable to a household earning 50.1-80% of area median family income)									
Household income 30% or less	0	95	25	120	0	0	55	55	175
Household income 30.1%-50%	0	50	115	165	10	100	50	160	325
Household income 50.1%-80%	20	105	245	370	0	115	190	300	670
Household income 80.1%-100%	0	175	235	405	0	40	65	110	515
Household income over 100%	40	250	810	1,100	0	65	225	290	1,390
Total occupied units	60	675	1,430	2,165	10	320	585	915	3,080
Vacant for Sale	0	15	0	15					
Vacancy Rate	0.0%	1.5%	0.0%	0.5%					
Units worth \$194,000-\$243,000 (affordable to a household earning 80.1-100% of area median family income)									
Household income 30% or less	0	10	105	115	10	10	50	70	185
Household income 30.1%-50%	25	0	75	100	0	0	70	70	170
Household income 50.1%-80%	0	125	320	440	0	4	75	80	520
Household income 80.1%-100%	0	40	135	175	0	65	110	170	345
Household income over 100%	45	250	1,390	1,685	0	35	180	215	1,900
Total occupied units	70	425	2,025	2,520	10	114	485	605	3,125
Vacant for Sale	0	0	35	35					
Vacancy Rate	0.0%	0.0%	1.4%	1.1%					
Units worth over \$243,000 (affordable to a household earning over 100% of area median family income)									
Household income 30% or less	30	70	25	130	30	60	25	115	245
Household income 30.1%-50%	60	20	75	155	0	70	85	155	310
Household income 50.1%-80%	115	295	215	620	15	90	170	280	900
Household income 80.1%-100%	30	125	190	350	0	50	90	140	490
Household income over 100%	125	1,100	2,730	3,960	85	335	680	1,100	5,060
Total occupied units	360	1,610	3,235	5,215	130	605	1,050	1,790	7,005
Vacant for Sale	20	0	35	55					
Vacancy Rate	3.9%	0.0%	0.8%	0.8%					
Total Occupied	490	2,745	6,954	10,200	150	1,094	2,295	3,545	
Number vacant for sale	45	60	95	205					
Vacancy Rate	6.6%	1.5%	1.0%	1.5%					
Units affordable to households up to 100% of AMI	175	1,684	5,024	6,895					
Percent of housing stock that is affordable	33%	60%	71%	66%					

TOOLS TO INCREASE HOUSING AFFORDABILITY

The Great Recession of 2008 ushered in a market correction that has increased the affordability of Portland's existing housing stock. At the same time, however, the recovery, has generated a certain bullishness to create new housing at the high end of the market. Without incentive or control, new construction remains out of reach of the middle class. The following tools may inform the development of policy to balance access to the newest housing boom.

Density Bonus: This tool grants an increase in the number of units allowed by right in order to provide an incentive for the construction of affordable housing. While the incentive can work as a stand alone tool, it is typically incorporated into a contract zone, overlay district, or cluster subdivision. A model ordinance developed by the American Planning Association posits 20% as a reasonable target for affordable housing. The Town of Brunswick, Maine has incorporated a density bonus into their zoning ordinance, complemented by a provision for the reduction of fees, including building permits, stormwater, solid waste, recreation and traffic impacts.

<https://www.planning.org/research/smartgrowth/pdf/section44.pdf>
<http://www.brunswickme.org/wp-content/uploads/2012/04/Web.Version.Zoning.Ordinance.pdf>

Inclusionary Zoning: This tool requires that a certain percentage of units in a new development be set aside as affordable, with or without an increase in density. Inclusionary zoning is widely used by cities throughout the states of California, Massachusetts, New Jersey, Virginia, and Maryland. In Burlington, Vermont, the mandatory set-aside ranges from 15%-25%, depending on the market price of the rest of the units. The Town of Cape Elizabeth, Maine requires that 10% of the units in a subdivision be set aside for moderate income households, or 5% for low income.

http://www.nhc.org/media/documents/IZ_lessons_in_MA.pdf
<http://www.burlingtonvt.gov/CEDO/Inclusionary-Zoning>
http://www.capeelizabeth.com/government/rules_regs/ordinances/zoning/zoning.pdf

Reduction in Parking: This tool reduces the number of parking spaces that must be constructed to support each housing unit. Eliminating the typical suburban requirement of two spaces per unit can not only slash housing construction costs by 25%, but free up land that can be used to increase density. Concentrating homes, jobs, services, and stores increases the likelihood that people will walk, bike or take the bus to get from one place to another. On the Portland peninsula for example, 77% of households own just 0-1 vehicles, compared with 43% in the U.S. as a whole. The City of Portland, Oregon has reduced or eliminated parking requirements for new development based on the proximity of transit services.

<http://www.vtpi.org/park-hou.pdf>
<http://www.portlandonline.com/shared/cfm/image.cfm?id=53320>

Rent control: This tool establishes a ceiling on rent increases permitted in the public and private rental market. Los Angeles, San Francisco, New York City, and Cambridge, Massachusetts have previously adopted rent control policies. While rent control can act as a temporary "breather" from soaring prices, it has the potential to create housing shortages in the long run by discouraging new construction.

<http://www.nycrgb.org/html/resources/faq/rentcontrol.html>

Do Nothing: At first glance, the construction of luxury housing in any downtown would be considered a boon, not a burden. In the long run, however, neighboring property owners will follow suit, running up sales prices and rents unsustained by real growth in wages, incomes, jobs, or property improvements. For workers, the consequence is longer commutes from suburbs and rural areas. Others will establish themselves in less expensive urban markets, such as Biddeford, Lewiston, Gardiner, and Bath. Absent a correction by regulation or the market, these forces

could take shape, first as a collection of individual choices which then swell into an undeniable movement. And they did happen during the 2000's.

CONCLUSION

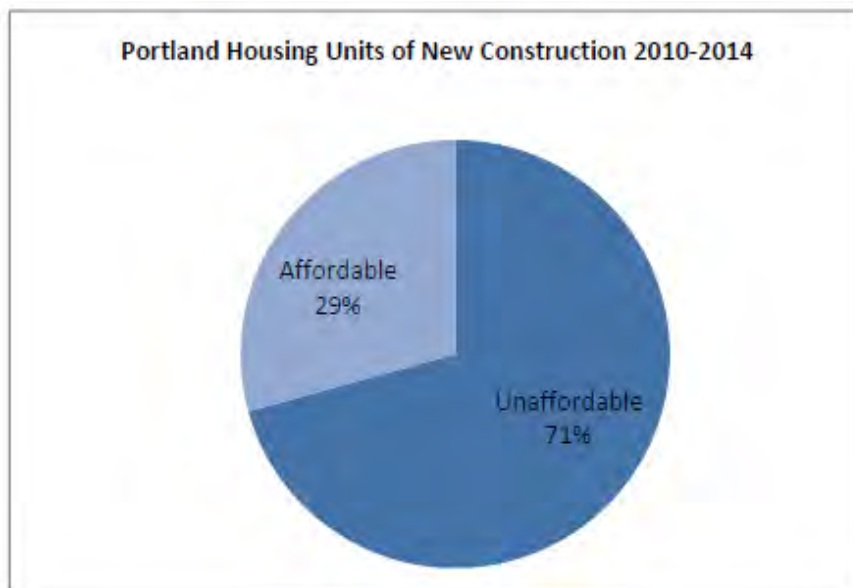
Portland's vitality depends on the availability of a diverse array of housing options, particularly apartments, which are often the first and only choice for working professionals, immigrants, and families. Over the last five years, a number of trends have solidified:

- 62% of Portland households earn less than the county's median income, including 38% of homeowners and 81% of renters. Over the last decade, the number of households earning less than median income has increased 10%.
- The Great Recession of 2008 was a market correction that increased the affordability of existing housing – by giving wages a chance to catch up while stalling home sales and rents.
- Current housing production is not meeting the needs of households earning 80%-100% of median income. If recent trends continue, there will be a gap between supply and demand of workforce housing units ranging from 24%-33%.
- While the Portland housing market contains units in a variety of price ranges, the reality is that those with higher incomes, stable jobs, and good credit ratings are in a better position to compete for affordable units that are subsidized and unsubsidized. This creates a glut of affordable units at the low end of the range that may be in rough condition, with deferred maintenance issues.
- The rental market is extremely tight for 3-bedroom units that can accommodate working families.
- Based on the vacancy rate, the inventory of one-bedroom condos targeting households earning over the median income is reaching a point of saturation.

Well into the recovery, the region is on the pathway to another boom marked by a rise in new construction, low vacancy rates, and increasing rents and home prices. But the recovery also represents an opportunity for balance. By increasing the diversity of housing through incentive and regulation, the region can forestall the possibility of another crash due to soaring prices unsustained by real job growth. Trend or choice? It is up to us.

PURPOSE

In 2002, the City of Portland adopted a Housing Plan with a policy goal to ensure an adequate supply of housing to meet the needs, preferences, and financial capabilities of all Portland households. In order to reach this goal, the City established a target of maintaining Portland's current proportion of subsidized units at 20% of the housing stock. Since the plan's adoption, over 2,000 housing units have been permitted in the city for the construction of apartments, condominiums, and single-family homes. This study examines recent trends in the Portland housing market in order to help policymakers determine what gaps, if any, may exist between what is currently being provided in the market and the city's housing needs.



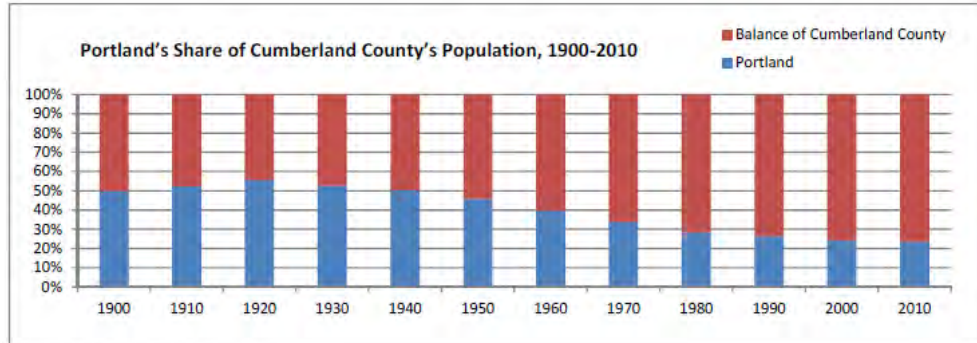
Compiled by GPCOG based on City Assessing and Planning data

FINDINGS

- 62% of Portland households earn less than the county's median income, including 38% of homeowners and 81% of renters. Over the last decade, the number of households earning less than median income has increased 10%.
- The Great Recession of 2008 was a market correction that increased the affordability of existing housing – by giving wages a chance to catch up while stalling home sales and rents.
- Current housing production is not meeting the needs of households earning 80%-100% of median income. If recent trends continue, there will be a gap between supply and demand of workforce housing units ranging from 24%-33%.
- While the Portland housing market contains units in a variety of price ranges, the reality is that those with higher incomes, stable jobs, and good credit ratings are in a better position to compete for affordable units that are subsidized and unsubsidized. This creates a glut of affordable units at the low end of the range that may be in rough condition, with deferred maintenance issues.
- The rental market is extremely tight for 3-bedroom units that can accommodate working families.
- Based on the vacancy rate, the inventory of one-bedroom condos targeting households earning over the median income is reaching a point of saturation.

MASSACHUSETTS APPROACH

This method, so named for its prevalence amongst cities and towns in the Commonwealth, is based on the goals articulated in a municipality's comprehensive plan. In the future, Portland will capture a certain percentage of the region's population growth. People form households, whose demand can be projected by the current distribution of housing units by tenure and affordability.

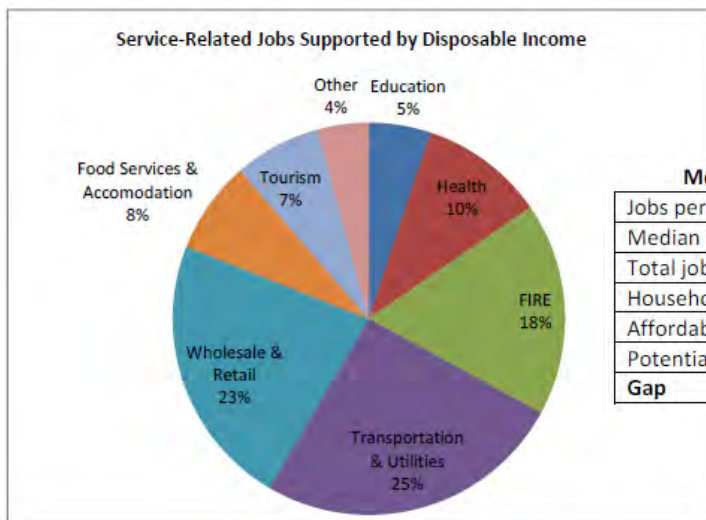


Source: U.S. Census Bureau

Supply and Demand for Housing Affordable to Households at 100% of Median Income				
Housing Units	Percent of Market	Low Growth	Medium Growth	High Growth
Projected 2030 Demand	62%	2,597	5,354	8,112
Projected 2030 Supply	29%	1,215	2,504	3,794
Gap	33%	1,382	2,850	4,318

CALIFORNIA APPROACH

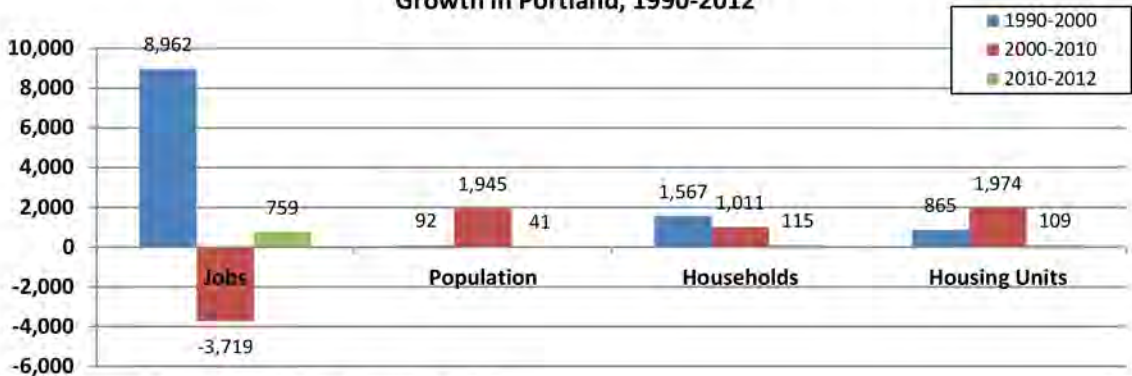
This technique has been piloted in cities throughout California by the consulting firm of Keyser Marston Associates, Inc. The underlying philosophy is that the construction of market-rate units attracts high income households. Through the purchase of goods and services, these households support low-paid service jobs, which in turn support lesser income households whose needs might best be met by living near where they work.



Median Housing Demand Generated by Market Rate Households	
Jobs per Household	1.43
Median income households in Portland	62%
Total jobs generated by 100 market-rate households	121
Households supported by jobs	85
Affordable housing demand generated per job	53%
Potential market supply of affordable units	29%
Gap	24%

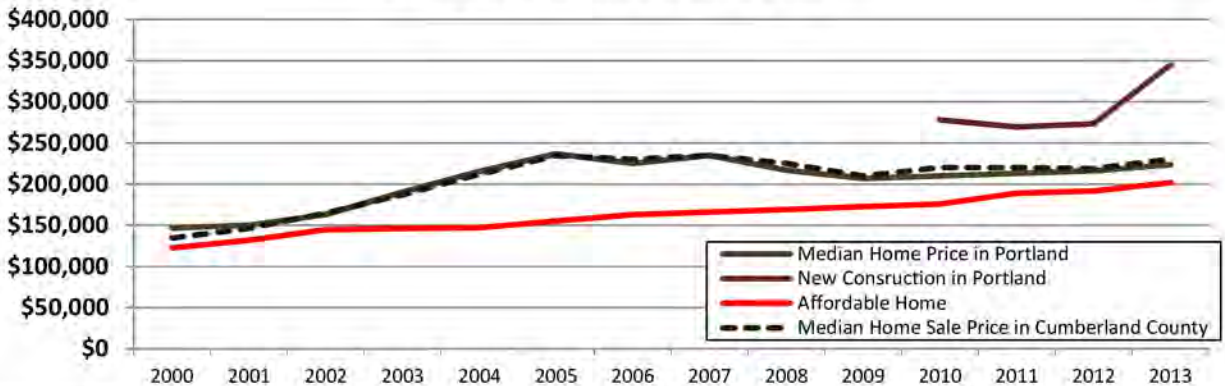
HOUSING MARKET TRENDS

Growth in Portland, 1990-2012



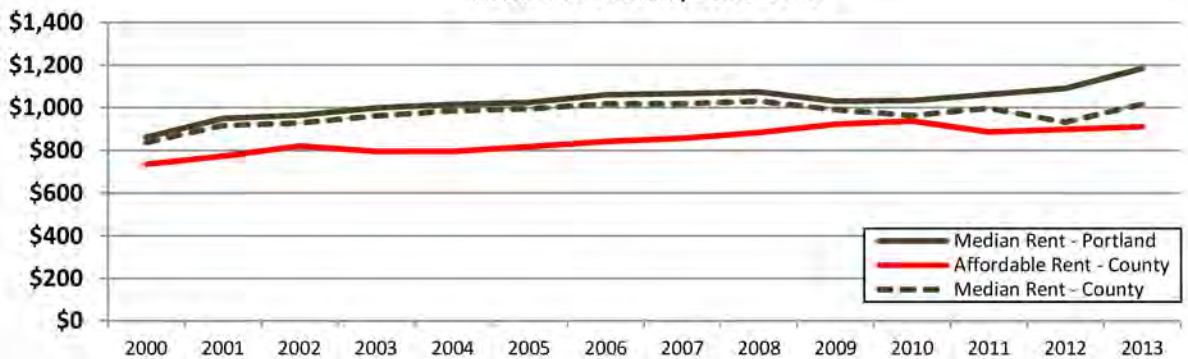
Source: Maine Department of Labor, American Community Survey

Home Prices in Portland, 2000-2013



Source: Maine Housing, Portland Assessing Office

Rents in Portland, 2000-2013



Source: Maine Housing, Portland Assessing Office

Housing: Sustaining Portland's Future



Housing Component of the Comprehensive Plan City of Portland, Maine

Prepared by: Housing Comprehensive Plan Committee
Co-Chairs: Councilor Nicholas Mavodones and
Councilor Nathan Smith

Adopted November 18, 2002

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Housing: Sustaining Portland's Future



**Housing Component of the Comprehensive Plan for Portland Maine
Adopted November 18, 2002**

**Prepared by: Housing Comprehensive Plan Committee
Co-Chairs: Councilor Nicholas Mavodones and
Councilor Nathan Smith**

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Housing: Sustaining Portland's Future **Housing Element to the Comprehensive Plan**

Introduction and Acknowledgments

Portland is in the midst of a housing shortage. Rents and purchase prices are escalating. Residents are struggling with their housing costs and many households have chosen or been forced to move to other municipalities. At the same time, public dissatisfaction with proposed housing developments has led to harsh criticism of Portland's housing policies. In response to these issues, former Mayor Cheryl Leeman appointed 27 citizens to the Housing Comprehensive Plan Advisory Committee, which was co-chaired by Councilors Nicholas Mavodones, Jr. and Nathan Smith. The Committee was charged with developing a new plan that addresses Portland's housing issues. The Committee and the City are pleased to present Housing: Sustaining Portland's Future as a new element of Portland's Comprehensive Plan.

Housing: Sustaining Portland's Future is the result of an intensive one year planning effort. The process began with three community forums, which were held on Peaks Island, the peninsula, and off-peninsula. In a round table format, the participants at each forum were asked a series of questions designed to envision Portland's future and to identify housing issues and opportunities. The Committee developed a draft plan based on input received at these forums and from technical information and Census data presented at subsequent Committee meetings.

As public and Committee discussion on the plan evolved, it became clear that the primary theme of the plan is to encourage and manage growth over the next 10 to 20 years that will preserve and enhance Portland's quality of life. First, the plan contains a community-wide vision, which identifies attributes of Portland to value, preserve and build upon and then offers goals for a future direction. An overarching housing goal sets a policy direction for the city for the next decade. Six broad housing policies with accompanying objectives and actions were then created to achieve Portland's community vision and housing goal.

The draft plan was presented at six community meetings in December 2001: a meeting in each of the five Council Districts and one on Peaks Island. The meetings were well attended and residents provided additional guidance on the contents of the plan. The Committee has incorporated revisions to the plan to reflect public comments. The final component of the plan is an implementation plan intended to guide the sequence of recommended actions to achieve the housing policies. The City Council adopted Housing: Sustaining Portland's Future as the housing element of the Comprehensive Plan on November 18, 2002.

The Housing Comprehensive Plan Advisory Committee members are commended for their dedication, insightfulness, and thoroughness under the wise direction of Councilors Mavodones and Smith. The Committee also received excellent technical assistance from Karen Martin, Senior Analyst, GPCOG, which was essential to this planning process. A special thanks is given to the Brackett Memorial Church on Peaks Island and the Portland School District for opening their facilities for neighborhood meetings.

Housing:
Sustaining Portland's Future

Community Vision

and

Housing Goal For Portland



Aerial of Rosemont Neighborhood

SHAPING A COMMUNITY VISION FOR PORTLAND

DISTINCTIVE FEATURES OF PORTLAND TO VALUE, PRESERVE & BUILD UPON

Portland is an intimate city, small in scale but big in urban amenities and a high quality of life, which is situated around a scenic Maine coastal peninsula. Portland is a city of neighborhoods around a vibrant downtown, which make up the building blocks to the community as a whole.

I. A City that Provides for People

- Portland is the largest city in Maine and is the economic and service center for the region.
- Portland continues to attract people of workforce age due to diverse job opportunities (particularly in business and technology), quality employment, and a stable economy.
- Portland has a vital working waterfront with diverse coastal commerce activities and water dependent uses.
- Portland is the center for many regional service institutions, which offer high quality medical care, an extensive range of social services for those in need, and numerous higher education opportunities.

II. A City that is a Good Place to Live

- Portland retains a small town feel with a built environment that is scaled for people, is pedestrian friendly, and is accessible to the community. Residents value and seek to enhance the safety of the community, the proximity of commercial uses near residences, and the walkable nature of the city.
- Portland enjoys a personable and congenial atmosphere that makes it a welcoming place to work, live and visit.
- Portland offers the amenities and services of a big city. Throughout Portland there are diverse arts, cultural and educational offerings, assorted shopping opportunities, numerous scenic parks and active athletic facilities, and high quality municipal services and infrastructure.
- Portland has an active and vibrant downtown both day and night due to its interwoven mix of residential, commercial, institutional, and cultural land uses.
- Portland is the visual and performing arts center of Maine.
- Portland is a city of neighborhoods with a range of residential neighborhood types, such as high-density areas on the peninsula, early 20th century neighborhoods off the peninsula, suburban neighborhoods, and the more rural areas of the Islands.
- Portland is a great place for families with good neighborhood schools that serve families throughout their life cycle.

III. A City that Values Its Natural, Architectural, and Cultural Heritage

- Portland is a coastal community that is geographically varied and dynamic with:
 - Spectacular views of Casco Bay and the Islands, Back Cove, and Maine's Mountains from the City's promontories; and
 - Three meandering rivers with significant saltwater estuaries and streams that flow through neighborhoods;
 - Significant wildlife and fisheries resources; and
 - Access to our natural features through the City's trails, parks and scenic viewpoints.
- Portland is a culturally and ethnically diverse community that values its shared history, is proud of its cultural diversity and is working together for a cohesive community.
- Portland is a historic maritime city, which
 - Retains a rich historic character for both commercial and residential neighborhoods,
 - Offers a broad spectrum of architecture and distinctive landmarks, and
 - Maintains unifying features: such as brick buildings and sidewalks, and established and traditional neighborhoods with narrow and interconnected streets.

SHAPING A COMMUNITY VISION FOR PORTLAND

FUTURE DIRECTIONS FOR PORTLAND

Portland is Maine's principal city, the center of employment, housing, and services for the region. In the future Portland will evolve as an extension, continuation and enhancement of the best qualities and characteristics of Portland today. Progress and prosperity will result from both incremental growth and bold initiatives tempered by careful consideration and foresight in planning. Portland's future will:

I. Build a Vibrant Small City

- Build upon the distinctive fabric of Portland's built environment by **rehabilitating historic resources** and by **developing new buildings that respect the scale and character of traditional development patterns**. New development shall be pedestrian oriented and accessible.
- Strive for innovation and bold initiatives that increase the livability and quality of life in Portland.
- Support a **dynamic downtown** that embraces an intertwining of uses, including residential, business, retail, institutional, service, and arts and cultural uses.
- **Promote, support and celebrate the arts and cultural community** that enriches the lives of our citizens.
- **Capitalize on Portland's economic assets** and develop a strong economy based upon traditional industries, a strong retail and office center, and emergent opportunities in industry, business, and coastal commerce.

II. Serve the People

- **Provide compassionate services** for the City's vulnerable citizens, while leading regional approaches to share the responsibility of caring for citizens in need.
- Foster **expanded opportunities, innovative solutions and exemplary services** from Portland's institutions for higher education, health care, and community services.
- **Achieve and operate excellent neighborhood schools** with state of the art facilities, which serve the educational needs of all students. Establish wide recognition that Portland schools meet or exceed the educational performance of any other public school system in the region.
- Support and encourage the creation and preservation of an **adequate supply of quality housing** for all.

III. Provide High Quality Leadership

- Create a **sustainable community** with vital neighborhoods, high quality infrastructure, a strong economy, and a healthy environment, while keeping municipal taxes affordable.
- Encourage **excellence in City government and comprehensive planning** through increased civic involvement, responsive local government, accountable decision making, and creative and adaptive local and regional planning. Innovative thinking and leadership will preserve those attributes of Portland that we value.
- **Incorporate environmental, economic and neighborhood considerations** in municipal decision-making.
- Take the lead in developing **clear standards and rules** and ensure adherence thereto.

IV. Protect Our Community Attributes

- **Protect the natural environment and historic resources**.
- **Preserve and enhance the park system** with its trails, active recreation facilities and natural areas.
- **Strengthen alternative transportation options** to create an accessible city that promotes ease of movement for all citizens, serving neighborhood needs, pedestrians, handicapped persons, bicyclists, and vehicles.
- **Listen to, embrace, empower and support our diverse citizenry**.

Housing Goal for Portland

Portland, as Maine's largest city, will strive to provide a sufficient supply of quality housing commensurate with a manageable level of growth to sustain the City as a healthy urban center in which to live and work, and its position as a growing regional economic and service center.

Housing in the city will be varied and affordable to accommodate Portland's socially and economically diverse population.

The existing housing stock will be enhanced and preserved, and a wide variety of new housing will be designed and created to support Portland's continued economic development, insure the safety of its citizens, and maintain its vibrant and stable neighborhoods.

When seeking solutions to Portland's housing needs and issues, the City will strive for innovation and creativity in the areas of urban design, expenditure of its financial resources, and the use and reuse of land and buildings to ensure that residential development fits within Portland's unique living environment.

Housing: Sustaining Portland's Future

Executive Summary of Housing Policies



Planned Residential Unit Development off Allen Avenue

Ensure an Adequate and Diverse Supply of Housing for All

Policy #1: Ensure that an adequate supply of housing is available to meet the needs, preferences, and financial capabilities of all Portland households, now and in the future.

Ensure the construction of a diverse mix of housing types that offers a continuum of options across all income levels, which are both renter and owner-occupied.

Zoning: Encourage all types of high quality and compatible housing to enhance neighborhoods.

Building Code: Flexible provisions to encourage a variety of quality housing types.

Incentives: Develop financial incentives, partnerships, and zoning incentives to increase the diversity of housing.

Neighborhood Plans: Encourage neighborhood plans to address a diverse mix of housing and city needs.

A variety of housing choices should be available such that no one should have to spend more than 30% of their income for housing.

20% Target for Subsidized Housing: Maintain Portland's current proportion of subsidized units. Establish a target of at least 20% of the total number of new housing units will be subsidized for households earning 80% or less of the region's median income.

Portland Housing Authority: Encourage and support PHA to become active in development of more housing.

Creative collaborations: Seek incentives and partnerships to increase affordable housing options for moderate-income households.

Legislation: Support state and federal legislation for new incentives to develop housing, such as tax increment financing, employer assisted housing and housing trust funds.

Financial Incentives: Employ a range of financial incentives to create housing.

Annual HUD Funding: Significantly increase share of City's annual HUD funding used for affordable housing. Support programs that assist with land acquisition, construction, mortgages, infrastructure, and conversion of non-residential buildings to housing.

Non-profit Developers: Use a portion of HUD funding to build capacity of non-profit developers to build and manage housing.

PILOT: Establish a policy on paying taxes or a PILOT (Payment in Lieu of Taxes) Program for non-profit housing developers.

Encourage higher density housing located near services, such as schools, businesses, institutions, employers, and public transportation.

Higher Density Housing: Encourage higher density multi-family developments and mixed-use projects with housing, along major public transportation routes, near service areas, and in redevelopment or infill areas.

Small Lot Subdivisions: Support development of higher density

subdivisions with smaller lots and a variety of housing types.

Housing Downtown: Encourage varied housing options downtown by updating zoning.

Parking: Encourage innovative approaches to address residential parking needs.

Housing in Business zones: Combine housing and economic development strategies to create high-density housing and mixed-use developments in business zones.

Increase Portland's rental housing stock to maintain a reasonable balance between supply and demand yielding consumer choice, affordable rents, and reasonable return to landlords.

Implement Bayside Plan: Create 300 units within 5 years and 500 additional units in 25 years, a significant portion of which will be rental units.

Rental & Accessory Units: Remove zoning barriers to rental housing and accessory units in single-family homes & accessory structures, where compatible with existing neighborhood character.

Large Units: Encourage construction of 3 or more bedroom units for large families.

Fair Market Rents: Monitor FMR's and seek exception rents from HUD when needed.

Senior Citizen Rental Options:
Support a variety of affordable rental options for senior citizens.

Increase home ownership opportunities for all types of households and all income levels.

Implement Bayside Plan: Create 300 units within 5 years and 500 additional units in 25 years, a significant portion of which will be owner-occupied units.

200 Home Ownership Units:
Facilitate development of 200 affordable owner-occupied units in Portland, with an emphasis on starter homes for families with children.

Move-up Market: Encourage the development of units for those moving up in the real estate market, so Portland can remain competitive with suburban communities.

Affordable Home Ownership:
Strengthen and expand opportunities for home ownership assistance through City programs, such as New Neighbors and Homeport.

Senior Citizen Housing: Support affordable home ownership options for senior citizens.

Ensure that a continuum of housing is available for people with special needs and circumstances ranging from emergency shelters and transitional housing to permanent housing (rental and homeownership), which offer appropriate supportive services.

Supportive Housing: Increase quantity of supportive housing for persons with special needs who desire and need to live in an urban area where services are available.

10% Handicapped Accessible:
Ensure in total, at least ten percent (10%) of all new housing will be designed as handicapped accessible units. Encourage universal design standards for handicapped accessibility in new housing.

Beds for the Homeless: Create enough beds to ensure that no one is forced to sleep outside due to a lack of beds in emergency shelters.

Supportive Housing: Support funding proposals for new supportive housing facilities.

Senior Citizen Options: Promote creation of assisted and congregate living facilities for low-income senior citizens.

Transitional Housing: Ensure an adequate supply of transitional housing facilities.

Transition to Permanent Housing:
Encourage proposals to transition homeless families and individuals out of emergency shelters and transitional facilities into permanent housing, including single room occupancy (SRO) units.

Identify vacant land and redevelopment opportunities throughout the City to facilitate the construction of new housing.

Real Estate Inventory: Coordinate with Land Bank Commission to create a real estate inventory where housing can be developed in each neighborhood.

Property Disposition: Develop disposition policy for City-owned and tax-acquired property that is in keeping with the City's adopted housing plan.

Pilot Projects: Develop a pilot housing project with a neighborhood, a developer and the City as partners, which utilizes City property and other incentives (i.e. Unity Village).

Promote Portland as a Pro-Housing Community.

One Stop Housing Office: Create a "one stop housing office" to assist developers.

- Integrate neighborhood based planning and neighborhood interaction
- Information about City's development review rules and procedures
- Financial Resources, Land Inventory, and Demographic Data

Workforce Housing: Assist new or expanding businesses to create or locate housing for new employees.

Public Relations: Develop a campaign to promote the benefits of living in Portland for the public and real estate industry.

Public Education: Develop an educational campaign to inform the public of housing needs and de-stigmatize perceptions about affordable housing.

Preserve a Quality Housing Stock

Policy #2: Maintain, rehabilitate, and restore the existing housing stock as a safe and important physical, economic and architectural resource for the community.

Assist with the restoration and rehabilitation of architecturally significant residential properties within and outside Portland's historic districts.

Building Codes: Update local codes to allow historically accurate and sensitive rehabilitation/maintenance of residential properties. Create a balance in codes between accurate restoration and the need for compatible but affordable preservation alternatives.

Financial Incentives: Provide incentives to rehabilitate and restore historic and architecturally significant homes without using resources designated for creation of new low and moderate-income housing.

Historic Districts: Evaluate where historic districts should be expanded or created.

Public Education: Develop brochures to answer frequently asked questions regarding minor repairs and the options to sensitively restore and rehabilitate older homes.

Tax Credits: Evaluate option of a local tax credit for historic preservation properties.

Foster safe and high quality housing through appropriate building codes and financial assistance.

Safe Codes: Update housing codes to adequately protect the health and safety of residents in existing buildings.

Enforcement: Ensure adequate staffing to aggressively enforce local code inspections of multi-family housing at least once every five years for safe housing and consider incentives and disincentives to improve compliance.

Code Education: Increase public education efforts to improve overall code compliance.

Rehabilitation: Use HUD funds for rehabilitation of all types of housing units, including energy conservation:

Collaborations: Create partnerships for joint rehabilitation projects.

Remain in Homes: Assist elderly and disabled homeowners to stay in their homes with HUD funds for rehabilitation and handicapped accessibility improvements.

Public Education: Provide educational programs on topics such as:

- Landlord and Tenant Education, Homebuyer Training, and Condominium and Homeowner Association Information

Target vacant buildings for maintenance, rehabilitation and reuse.

Inventory: Inventory vacant and underutilized buildings suitable for more housing.

Inspect Vacant Buildings: Inspect all vacant residential buildings at least annually.

Maintenance: Require owners to repair vacant residential buildings with structural problems.

Reuse: Seek creative and architecturally compatible reuse of buildings for housing or mixed-use projects with housing using financial incentives and partnerships.

Improve the safety of Portland's housing stock by eliminating public health hazards from single and multi-family residential properties.

Lead Paint: Use HUD funds to help eliminate lead paint from housing, with a priority for households with young children.

Education: Offer preventive actions and outreach to protect against health hazards found in housing through public health programs.

Establish a standard of "no net loss of housing" for all proposed development.

Replacement Housing: Amend zoning to encourage or require a one for one replacement of any housing units lost as part of a development proposal.

Housing Linkage Fund: Evaluate creating a housing linkage fund, so developers can contribute funding for housing, rather than replace demolished units on their own.

Preserve Housing: Find alternatives to the proposed demolition of housing.

Neighborhood Stability and Integrity

Policy #3: Maintain and enhance the livability of Portland's neighborhoods as the city grows and evolves through careful land use regulation, design and public participation that respects neighborhood integrity.

While accommodating needed services and facilities, protect the stability of Portland's residential neighborhoods from excessive encroachment by inappropriately scaled and obtrusive commercial, institutional, governmental, and other non-residential uses.

Housing Along Arterials: Maintain residential zoning along arterials and encourage increased residential densities and mixed uses within business zones.

Demolition: Discourage demolition or conversion of residential properties for non-residential uses.

Compatible Development: Encourage well-planned developments and uses to enhance compatibility between residential and non-residential uses.

Student Housing: Encourage construction of affordable student housing to meet current and future needs.

Support Portland's livable neighborhoods by encouraging a mix of uses that provide needed goods and services, within walking distance of most residents.

Neighborhood Livability: Promote through City policies a mix of housing types, retail and service businesses, community services, and open space/recreation opportunities of appropriate size, scale and type within neighborhoods.

Uphold Zoning: Enforce approved density regulations in the Zoning Ordinance.

Encourage innovative new housing development, which is designed to be compatible with the scale, character, and traditional development patterns of the City's residential neighborhoods.

Municipal Regulations: Update codes to encourage new residential development that:

- Offers diverse and quality living options.
- Encourages traditional neighborhood elements.
- Promotes a walkable city.
- Are compatible with Portland's existing neighborhoods.

Design Guidelines: Adopt design guidelines for new housing and rehabilitation that are compatible with the character and patterns of development in each neighborhood.

Encourage new housing development in proximity to neighborhood assets such as open space, schools, community services and public transportation.

Assets: Inventory neighborhood assets, such as open space, recreation facilities, schools, services and public transportation.

Suitable Housing Sites: Use asset inventories and agreed upon neighborhood priorities to select potential housing sites as part of the Neighborhood Based Planning Process.

Walkable neighborhoods: Give preference to projects that are located within a walkable distance to neighborhood assets, particularly when seeking City funds.

Ensure the integrity and economic value of Portland's neighborhoods.

Enforcement: Aggressively enforce codes that require owners to maintain properties.

Maintain Property: Ensure all properties are kept clear of debris and derelict vehicles.

Redevelopment: Work to find productive uses for vacant and underutilized lots.

Public Improvements: Ensure neighborhood improvements are safe, attractive and well maintained.

Public Safety: The Portland Police Department will continue to work with neighborhoods on community policing, crime watch and other public safety programs to ensure neighborhoods remain safe for residents and visitors.

Traffic: Work with neighborhoods to address traffic issues and enforce traffic laws.

Public Parks: Preserve public amenities, such as trails, athletic fields, and parks.

Open Space: Work with neighborhoods to update, "Green Spaces/Blue Edges".

Encourage Portland's neighborhoods to address the City's housing issues through the Neighborhood Based Planning Process.

Housing Solutions: Involve each neighborhood in creating housing solutions.

Public Education: Support outreach efforts to discuss the benefits, issues, and potential design solutions for increased densities in residential neighborhoods.

Encourage neighborhood populations that are economically, socially, culturally and ethnically diverse.

Mix of Housing: Encourage a mix of housing types for all ages, household sizes, and incomes, so neighborhoods are socially, culturally, ethnically, and economically diverse.

Displacement: Discourage displacement through enforcement of municipal ordinances, and adoption of long-term affordability restrictions on City assisted housing.

Housing Programs: Obtain resources and implement programs to enable residents to remain in their neighborhoods, such as rental housing vouchers.

Retain Assisted Housing: Preserve Portland's existing affordable housing units as assisted developments.

Higher Density: Increase density where appropriate to achieve neighborhood diversity.

Housing is a Regional Issue

Policy #4: Seek opportunities for economic and social integration throughout the Greater Portland region by encouraging the development of a range of housing options that are available and affordable to all income levels in the region.

Educate the public, neighboring municipalities, the State legislature, and our Congressional delegation on the need for affordable housing throughout the Greater Portland area.

Public Education: Work with regional organizations to develop a public education campaign on the need for affordable housing throughout the region.

Leadership: Portland will be a leader within the region and State to change policies that limit an adequate supply of affordable housing.

Initiate the development of a regional housing plan.

Regional Housing Plan: Initiate and lead efforts with municipalities and regional organizations to develop a regional housing strategy that will strive to create a wide range of affordable housing options in each municipality.

Seek innovative solutions and collaborations with municipalities, regional organizations, housing authorities and developers to implement the regional housing plan.

Regional Housing Administration: Create regional cooperation agreements for the planning and administration of housing development programs.

Regional Funding Consortium: Investigate establishing a consortium of municipalities to apply for and administer state and federal funding for affordable housing development.

Regional Cooperation: Support developer and municipal proposals to obtain resources and develop affordable housing throughout Greater Portland.

Housing and Transportation: With efforts to develop more affordable housing, create viable public transportation options.

Sustainable Development

Policy #5: Portland's Comprehensive Plan encourages a manageable level of growth that will sustain the city as a healthy urban center in which to live and work and to achieve our shared vision for Portland. Portland should encourage sustainable development patterns and opportunities within the city by promoting efficient land use, conservation of natural resources, and easy access to public transportation, services, and public amenities.

Encourage growth in Portland that strives for a dynamic balance of the essential elements of the city, such as excellent schools, diverse housing choices, proximity to services and employment, increased public transit usage, expanded economic base, high quality services, and an affordable tax rate.

Target to grow: Achieve and maintain a 25% share of Cumberland County's population.

Public relations: Analyze and promote the public benefits of growth.

Incentives: Integrate housing and economic development incentives to encourage growth and take advantage of the City's capacity to accommodate more people.

Monitor: Assess the impacts of growth on infrastructure and adjust policies accordingly.

Maximize development where public infrastructure and amenities, such as schools, parks, public/alternative transportation, sewer lines, and roads, exist or may be expanded at minimal costs.

Transit Oriented Development: Locate new housing along or within walking distance of major transportation corridors to increase use of METRO and encourage alternative modes of transportation.

Infill Development: Encourage development on vacant lots along accepted city streets.

Proximity to Services: Encourage housing near schools, parks and athletic facilities.

Denser Development: Encourage higher density housing along arterial and in or near downtown, particularly the redevelopment of Bayside according to the Bayside Plan.

Create new housing to support Portland as an employment center and to achieve an improved balance between jobs and housing.

Work Force Housing: Encourage major institutions and employers to invest in housing in proximity to work places.

Incentives for Mixed-Use: Combine housing and economic development initiatives for mixed-use developments near employment centers.

Build Streets: Explore building streets to encourage infill housing near existing infrastructure and neighborhood centers.

Encourage neighborhood business centers throughout the city to reduce dependence on the car and to make neighborhood life without a car more practical.

Neighborhood Centers: Build neighborhood centers with small-scale retail and service businesses at appropriate locations within neighborhoods.

Pedestrian Links: Encourage pedestrian links between residential and business areas.

Innovative Development: Encourage higher density development, which incorporates housing above businesses through flexible reviews and shared parking options.

Redevelopment: Encourage redevelopment of underutilized land, such as surface parking lots, to more efficiently use available land.

Locate and design housing to reduce impacts on environmentally sensitive areas.

Open Space: Support Land Bank Commission's work to preserve sensitive natural areas.

Environmentally Sensitive Development: Encourage development that minimizes environmental impacts and encourages stormwater

management through natural means.
Environmentally Sensitive Zoning:
Explore zoning and regulatory tools
for environmentally friendly
development.

*Design housing to use new
technologies and materials that
reduce costs and increase energy
efficiency.*

Public Education: Collaborate
with construction industry and
environmental organizations to
develop educational outreach
efforts to encourage the design,
construction, and rehabilitation
of energy efficient homes.

Energy Efficient: Encourage
energy efficient rehabilitation &
construction for City assisted
housing.

Update Codes: Periodically review
codes to minimize conflicts for
emerging or new cost efficient
technology.

Freedom of Choice

Policy #6: Strive to ensure freedom of choice in housing type, tenure, and neighborhood for all, regardless of race, color, age, gender, familial status, sexual orientation, religion, national origin, source of income or disability.

Increase and ensure equal access to housing opportunities for minorities, low-income people and persons with disabilities and special needs.

Development: Create programs and resources to increase housing opportunities for minorities, low-income people and persons with disabilities and special needs.

Financial: Encourage equitable lending.

Homeownership: Foster partnerships and programs with financial institutions that enable low and moderate-income households to become homeowners.

Work to prohibit discrimination in selling and renting of all types of housing.

Lending practices: Monitor mortgage lending practices to ensure equal opportunity.

Education: Educate public on housing discrimination and process for filing a complaint.

Fair Housing Report: Update the HUD report "Analysis of Impediments to Fair Housing".

Ensure that an adequate supply of new and existing housing is accessible to persons with physical disabilities.

Accessible Design: Develop designs, rules and procedures for the construction of accessible housing.

Building Codes: Ensure local codes are consistent with federal laws governing handicapped accessible construction.

Remain home: Develop strategies to enable people with physical limitations and disabilities to remain and/or age in place.

Work to educate the public about housing laws and opportunities.

Homebuyer Education: Create and maintain homebuyer education programs.

Landlord Education: Encourage landlord education classes on fair housing laws and practices for managing rental property.

Tenant Services: Evaluate the need for a tenant services office to assist in mediating and resolving conflicts between landlords and tenants.

Public Education: Develop brochures and public service announcements on their rights and obligations under local, state and federal fair housing laws

Housing: **Sustaining Portland's Future**

Current Conditions

and

Housing Policies



Single family construction in North Deering



Example of infill development

Policy #1

**Ensure an Adequate and Diverse Supply
of Housing for All**

Portland Today: A Shortage of Housing

Introduction

Portland is experiencing a significant shortage of all types of housing and thus, current housing demands are unmet. Changes in the city's demographics and the limited amount of housing created over the past decade all contribute to the shortage. Portland seeks to encourage construction of new housing units through land use regulations and financial incentives. Increasing Portland's housing stock in developed urban areas of the city is challenging, but necessary for the long-term health of the city. The Housing Plan sets out policy and provides incentives to decrease barriers to new construction and increase the supply of housing for both renters and owners citywide.

Condition One: Portland has a shortage of housing units because nearly two households were formed for every new housing unit created since 1990.

Facts (Between 1990 and 2000)

Portland Data

- Added 1,560 new households
- Added 854 new housing units
- Added less than 92 new residents
- Vacancy rate 2.3%
- Average household size decreased by 6%

Cumberland County Data

- Added 13,477 households
- Added 12,710 new housing units
- Added 22,477 residents
- Vacancy rate 1.7%

The number of people living in Portland is essentially the same as in 1990. However, during this period, the demand for housing increased significantly due to a change in the average number of people living in each housing unit. Each occupied housing unit is referred to as a household. The number of households increased by 1,560, but only 854 housing units were built. Because the number of new households exceeded the number of new units built, the supply of vacant units decreased to an unusually low number. This limited supply affects all types of housing units and all income levels. In addition, the demand for housing for persons with disabilities continues to grow. Many persons with disabilities seek to live in the city to be in proximity to employment, public transportation, medical services, and support services.

Condition Two: Lack of housing supply causes price increases for both renters and owners.

Facts (In 2000)

Rental Statistics

- 57.5% of Portland households are renters
- 47.6% of all renters in Cumberland County live in Portland
- Rental rates increased 70% over last ten years.

Home Ownership Statistics

- Sales prices increased 44% in Portland and 39% in the County between 1992 and 2000.
- 43% of Portland residents own their home
- 67% of County residents and 72% of Maine residents own their home.

Portland is home to 24% of Cumberland County's population (a decrease since 1960 when we were 40% of the County's population) and nearly 50% of all renters in the county. While the homeownership rate in Portland is lower than the County's overall rate, it is higher than many other comparable cities. The low vacancy rate in rental housing has increased rent levels and put it out of reach of many Portland residents; particularly those employed in lower wage jobs or on a fixed income. In 1990, 48.5% of Portland's population earned 80% or less of the median income for the Portland MSA. Current estimates indicate this income breakdown has remained constant. Also, 25% of the households under 80% of the median pay more than 30% of their income for

housing costs.¹ Paying a disproportionate share of household income for housing increases the risk of homelessness. Portland's emergency shelters reached an all time high for bed-nights provided in 2000/01.

Condition Three: Portland has limited vacant land suitable for new development, thus infill sites and redevelopment options are the primary opportunities for creating new housing.

As a developed urban center, Portland has limited vacant land available for new housing. In this regard, Portland differs from most municipalities in Cumberland County, which have large open areas suitable for residential construction. Thus, in-fill development and redevelopment are the primary opportunities for creating housing within our established neighborhoods.

The Housing Plan recommends higher residential densities to address Portland's housing needs and encourage efficient use of infrastructure and land resources. The objective states, "Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation." This objective is balanced by housing policies to preserve the existing housing stock, to maintain and enhance the livability of Portland's neighborhoods, and to encourage a manageable level of growth that will sustain Portland as a healthy urban center in which to live, work, and achieve our shared community vision.

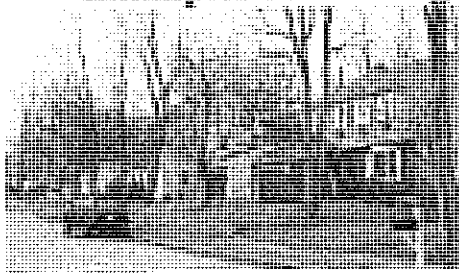
What is housing density? Housing density is defined as the number of housing units per acre. In Portland, housing density varies among its neighborhoods. The peninsula neighborhoods have the highest housing densities; which include some of the city's most attractive housing. Typical densities range between 20 and 40 units per acre with higher densities over 60 units per acre in Parkside and Downtown. While these areas have dense housing patterns, the neighborhood population has remained level or declined due to the population trend toward smaller household size. Many of the Census Block Groups located within the inner ring of suburbs, such as Oakdale and Deering Center, have densities between 5 and 20 units per acre. North Deering, Riverton, and Nason's Corner typically have housing densities near 5 units per acre, with lower densities (close to 1 unit per acre) in Stroudwater. Exceptions to these figures exist in all neighborhoods where housing densities for specific census blocks exceed or are well below typical patterns of development.

What do these recommendations mean for Portland? In some neighborhoods, the existing pattern of development and residential density cannot be replicated under current zoning regulations. One objective is to promote residential densities that are consistent with past development patterns, such as permitting smaller single-family lot subdivisions, modifying lot setbacks and/or encouraging accessory apartments. Locations along arterials, near services, or adjoining public amenities may be appropriate for a medium or high-rise apartment building given appropriate controls, high quality design and neighborhood compatibility. The intent is to identify areas suitable for higher density housing without adversely impacting the character of Portland's neighborhoods.

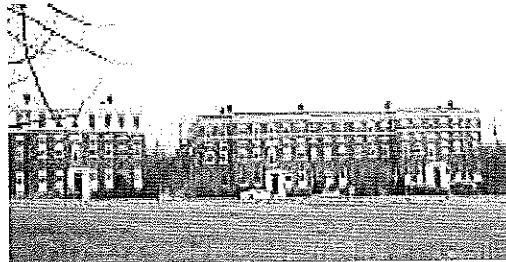
¹ 2000-2005 Consolidated Housing and Community Development Plan, May 15, 2000, City of Portland Housing and Neighborhood Services Division, Portland Maine

Examples of Housing Density in Portland

1-5
units/
acre



5-10 units/
acre



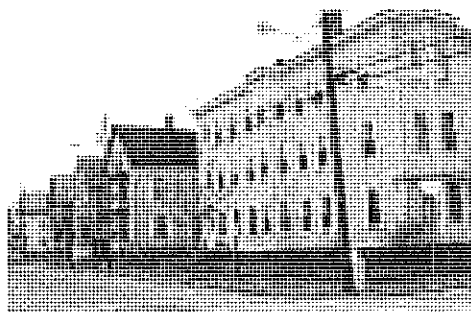
10-20
units/
acre



20-30
units /
acre



30-40
units/
acre



50-60 units



Portland's Future: Ensure an Adequate and Diverse Supply of Housing for All

Policy #1: Ensure that an adequate supply of housing is available to meet the needs, preferences, and financial capabilities of all Portland households, now and in the future.

OBJECTIVES FOR POLICY #1

Objective 1.a: Ensure the construction of a diverse mix of housing types that offers a continuum of options across all income levels for both renter and owner-occupied, including but not limited to the following:

- i. Affordable housing², including starter homes;
- ii. Housing units for decreasing household sizes, such as young professionals, empty nesters, single-parent households, and senior citizens;
- iii. Medium and high priced options for the "move-up" market;
- iv. Housing for special markets, such as Single Room Occupancy (SRO) units, student or dormitory housing, group homes, and artist housing including live/work opportunities;
- v. Higher density housing, such as row houses, small lots, reuse of non-residential buildings, and mixed use buildings;
- vi. Rental units for large families with children;
- vii. Housing development that encourages community, such as co-op housing;
- viii. Housing with a range of services and medical support for the elderly and special needs population, including assisted living, congregate care, group homes and nursing homes; and
- ix. Emergency Shelters for the homeless and transitional housing for individuals and families striving for independence.

Actions:

- 1.a.1. Evaluate and update current zoning to incorporate flexible provisions and incentives to encourage all types of housing. Establish zoning provisions that enhance neighborhoods with compatible and high quality housing developments.
- 1.a.2. Evaluate and update, as needed, the building code with reasonable and flexible provisions to encourage a variety of housing types that are well built and safe.
- 1.a.3. Develop financial incentives, partnerships, zoning incentives³ and non-regulatory options to increase the diversity of Portland's housing stock.
- 1.a.4. Encourage all neighborhood based planning efforts to include within neighborhood plans the development of a diverse mix of housing types to aid in addressing the city's need for both rental and home ownership opportunities.

² Affordable Housing: Housing that costs 30% or less of a household's gross income. The term is generally used in this plan to refer to housing that is affordable to households earning less than 80% of the median for the Portland MSA (Metropolitan Statistical Area).

³ Zoning incentives may include, but are not limited to, density bonuses for public benefits such as handicapped accessibility (universal design), long-term affordable housing, quality design, open space, and other desired community amenities.

Objective 1.b: A variety of housing choices should be available such that no one should have to spend more than 30% of their income for housing.

Actions:

- 1.b.1. Maintain Portland's current proportion of subsidized⁴ units to its total housing stock. Establish a target of at least 20% of the total number of new housing units will be subsidized for households earning 80% or less of the region's median income.
- 1.b.2. Encourage the Portland Housing Authority to become active in the development of more housing and support them in their efforts.
- 1.b.3. Seek financial incentives and partnerships that increase the affordable housing options for households earning less than 120% of the Portland MSA's median income.
- 1.b.4. Support state and federal legislation that would provide new incentives for development of both rental and home ownership housing, such as tax increment financing, employer assisted housing and housing trust funds.
- 1.b.5. Evaluate financial incentives that could be employed by the City to create housing, including TIF program, the assessment of impact fees and linkage fees, and other incentives.
- 1.b.6. Significantly increase the percentage of Portland's annual HUD funding allocated for the creation of affordable housing, including rental, home-ownership and supportive housing options. Support financing programs that assist with land acquisition, new construction, mortgage assistance, new infrastructure, and conversion of non-residential structures to housing.
- 1.b.7. Allocate a portion of Portland's annual HUD funding to build the capacity of non-profit community development corporations to build and manage rental and/or home ownership housing.
- 1.b.8. Establish a consistent City policy regarding the payment of taxes or a PILOT (Payment in Lieu of Taxes) Program for non-profit housing developers.

Objective 1.c: Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation.

Actions:

- 1.c.1. Evaluate and update current zoning, as needed, to encourage higher density multi-family developments and mixed use projects that incorporate housing, particularly along major public transportation routes, near service areas, and in redevelopment or infill areas, where appropriate.
- 1.c.2. Evaluate land use patterns and update current zoning, as needed, to support development of higher density subdivisions with smaller lots and a variety of housing types, where appropriate, to increase Portland's attractiveness to new markets of home buyers and address changing demographic trends, including:

⁴ Subsidized Housing: Housing that has received financial or other forms of government assistance, e.g. density bonuses and other mechanisms to offset costs and to achieve the goal for more affordable housing.

- Affordable starter homes for families with children;
 - Affordable retirement homes;
 - Townhouse style homes; and
 - New condominiums.
- 1.c.3. Encourage housing within and adjacent to the downtown. Evaluate and update current zoning and building codes, as needed, to facilitate new housing and redevelopment opportunities, including:
- Condominiums;
 - Townhouses;
 - 2 to 4 unit buildings;
 - Live/work options; and
 - High-density multi-family housing.
- 1.c.4. Seek and encourage implementation of innovative approaches to addressing residential parking needs by the city and private developers, such as the shared use of commercial parking lots, overnight use of parking garages and other off-site solutions.
- 1.c.5. Seek and encourage implementation of options to combine economic development strategies and public/private partnerships with housing policies to create higher density housing and mixed-use developments in business zones.

Objective 1.d: Increase Portland's rental housing stock to maintain a reasonable balance between supply and demand yielding consumer choice, affordable rents, and reasonable return to landlords.

Actions:

- 1.d.1. Implement the existing Bayside Plan, which has the stated goal of creating 300 units in the Bayside area over the next five years and an additional 500 units in the next 25 years; a significant portion of which will be rental units.
- 1.d.2. Evaluate and update current zoning, as needed, to eliminate barriers to the creation of rental housing and facilitate development of accessory rental units within existing single-family dwellings and accessory structures where compatible with existing neighborhood character.
- 1.d.3. Encourage all developers, especially those seeking City funds, to build rental units of three or more bedrooms to accommodate larger families.
- 1.d.4. Monitor fair market rent levels and work with the Portland Housing Authority to request exception rents from HUD when needed.
- 1.d.5. Support a variety of affordable rental options for senior citizens.

Objective 1.e: Increase home ownership opportunities for all types of households and all income levels.

Actions:

- 1.e.1. Implement the existing Bayside Plan, which has the stated goal of creating 300 units in the Bayside area over the next five years and an additional 500 units in the next 25 years; a significant portion of which will be owner-occupied.
- 1.e.2. Facilitate the development of 200 affordable owner occupied units throughout the remainder of Portland, with an emphasis on starter homes for families with children.
- 1.e.3. Encourage opportunities for the development of homes that are attractive to those households moving up in the real estate market, whether in traditional settings, or other innovative developments, so Portland can remain competitive with surrounding suburban communities.
- 1.e.4. Maintain, strengthen, and expand opportunities for home ownership assistance through City programs, such as New Neighbors and Homeport.
- 1.e.5. Support affordable home ownership options for senior citizens.

Traditional neighborhood with small cape style homes off Ocean Avenue



Objective: 1.f: Ensure that a continuum of housing is available for people with special needs and circumstances ranging from emergency shelters and transitional housing to permanent housing (rental and homeownership), which offers appropriate supportive services.

Actions:

- 1.f.1. Increase the amount of supportive housing for persons with disabilities, the frail elderly, homeless families and individuals, and person with other special needs that desire and need to live in an urban area where services are available.
- 1.f.2. Ensure in total, at least ten percent (10%) of all new housing will be designed as handicapped accessible units for both young adults and senior citizens. Encourage universal design standards for handicapped accessibility in new housing.
- 1.f.3. Create enough shelter beds to ensure that no one is forced to sleep outside due to a lack of beds in emergency shelters.
- 1.f.4. Support funding applications to state and federal agencies from non-profit developers for new supportive housing facilities.
- 1.f.5. Promote proposals for the creation of new assisted-living⁵ and congregate living facilities for frail low-income senior citizens who require supportive housing.

⁵ Assisted-living: Housing that offers a range of services for elderly or special needs residents.

- 1.f.6. Encourage proposals from developers that will transition homeless families and individuals out of emergency shelters and transitional facilities into permanent housing, including single room occupancy (SRO) units.
- 1.f.7. Ensure an adequate supply of transitional housing facilities.

Objective 1.g: Identify vacant land and redevelopment opportunities throughout the city to facilitate the construction of new housing.

Actions:

- 1.g.1. Coordinate with the Land Bank Commission to create a real estate inventory, including vacant land and potential redevelopment opportunities, where new housing can be developed in each neighborhood.
- 1.g.2. Develop a disposition policy for City-owned and tax-acquired property that is in keeping with the City's adopted Housing Plan.
- 1.g.3. Continue to develop housing projects as pilot ventures with a neighborhood, a developer and the City as partners, which utilizes City-owned or tax acquired property and other incentives (i.e. Unity Village model).



Example of a Vacant Lot

Objective 1.h: Promote Portland as a Pro-Housing Community.

Actions:

- 1.h.1. Create a "one stop shopping" housing office in the City to assist developers who are proposing new housing projects in Portland. Provide assistance and information in the following areas as needed:
 - Integrate neighborhood based planning and neighborhood interaction;
 - Information about the City's development review rules and procedures;
 - Financial resources;
 - Available real estate; and
 - Demographic data.
- 1.h.2. The City's Planning and Development Department should assist existing businesses and new businesses seeking to expand or locate in Portland with creating and locating housing opportunities for new employees.

- 1.h.3. Develop an educational and public relations campaign to educate the public and the real estate industry on the benefits of living in the City of Portland, including services, accessibility, trails/open space /recreation opportunities, educational opportunities, cultural life, and other attributes, so that the home buying market is well informed about the qualities of Portland.
- 1.h.4. Develop an educational and public relations campaign about Portland's housing needs to destigmatize public perceptions about affordable housing.

Policy #2

Preserve a Quality Housing Stock

Portland Today: An Aging Housing Stock Worth Preserving



Introduction

As with any older American city, it is important to make maximum use of Portland's existing housing stock by preventing deterioration, minimizing demolition, and encouraging rehabilitation and code enforcement.

Condition One: Portland has a wealth of historic structures that contribute to its distinctive community character.

Facts (in 2000)

- Portland has approximately 1,500 structures in 7 Historic Districts
- Portland has 73 Individual Landmarks (buildings listed on the National Historic Register)

Portland is frequently cited for its rich historic character. Commercial and residential neighborhoods boast an impressive array of architectural styles reflecting over 250 years of development. The City uses a Historic Preservation regulatory program to preserve these historic resources. Portland has also been instrumental in facilitating the adaptive

reuse of many non-residential historic buildings, such as former school buildings. Attention to historic assets and innovative approaches to redevelopment, which honor and preserve the city's history, contribute to the quality and character of the community.

Condition Two: Portland's many older residential structures necessitate ongoing City efforts to address safety and substandard conditions

Facts (in 2000)

- Our housing stock is old with 50% of the housing stock built prior to 1939
- 10-20 units per year are lost to demolition
- An estimated 80% of housing units have lead based paint.

A significant percentage of Portland's housing stock was built prior to 1939. While much of it has been renovated and rehabilitated over the years, preserving this stock is an ongoing responsibility. Safety is a concern with an older housing stock, which may need to be upgraded to address lead based paint and fire safety hazards. At the same time, concerns have been raised about institutional expansions, which have converted or demolished housing or purchased residential structures only to neglect them until they are a blight in the neighborhood. Housing is a critical component of the city's infrastructure. Any redevelopment initiatives, commercial or residential, should result in a no "net loss" of housing for the city as a whole.



House in need of repair

Portland's Future: Preserve a Quality Housing Stock

Policy #2: Maintain, rehabilitate, and restore the existing housing stock as a safe and important physical, economic and architectural resource for the community.

OBJECTIVES FOR POLICY # 2

Objective 2.a: Assist with the restoration and rehabilitation of architecturally significant residential properties within and outside of Portland's historic districts.

Actions:

- 2.a.1. Evaluate and update Portland's existing housing and building codes, as needed, to allow for the historically accurate and sensitive restoration, rehabilitation and maintenance of historic and architecturally significant residential properties. Create a balance in local regulations between accurate restoration and the need for compatible, but affordable preservation alternatives.
- 2.a.2. Provide financial incentives for rehabilitation and restoration of historic and architecturally significant homes without using resources designated for creation of new low and moderate-income housing.
- 2.a.3. Evaluate areas of the city where an historic district should be expanded or created to facilitate the restoration of historic and architecturally significant homes.
- 2.a.4. Develop educational brochures that answer frequently asked questions regarding minor repairs and present the options available to sensitively restore and rehabilitate older homes.
- 2.a.5. Evaluate the need to enact a local option tax credit for historic preservation of properties.

Objective 2.b: Foster safe and high quality housing through appropriate building codes and financial assistance.

Actions:

- 2.b.1. Evaluate and update, as needed, Portland's housing and building codes to ensure they adequately protect the health and safety of Portland residents in existing buildings.
- 2.b.2. Ensure adequate staffing to aggressively enforce the housing and building codes, including inspections of all multi-family housing at least once every five years, to ensure all Portland residents live in safe housing. Consider incorporating rewards for excellent compliance and disincentives, such as penalties and re-inspection charges, to improve compliance.
- 2.b.3. Increase public education techniques and efforts to improve overall understanding of code compliance.

- 2.b.4. Continue to use HUD funding to assist income eligible owners and tenants with housing rehabilitation, including energy conservation. Current rehabilitation programs to be extended include:
- Single family grants and loans;
 - Multi-family grants and loans;
 - Lead based paint hazard control grants and loans; and
 - Special needs housing grants and loans.
- 2.b.5. Create collaborative partnerships with other organizations for joint rehabilitation projects.
- 2.b.6. Assist the elderly and disabled homeowners to stay in their homes by using HUD funds for rehabilitation and handicapped accessibility improvements.
- 2.b.7. Provide educational programs that present housing information and expertise on topics such as:
- Landlord and tenant education;
 - Homebuyer training;
 - Condominium and homeowner association information; and
 - Safety and housing code regulations.

Objective 2.c: Target vacant buildings for maintenance, rehabilitation and reuse.

Actions:

- 2.c.1. Create an inventory of all vacant and underutilized residential and non-residential buildings in Portland that can accommodate more housing.
- 2.c.2. Amend the City's Housing Code to require that all vacant residential buildings be inspected at least annually.
- 2.c.3. Minimize the deterioration and demolition of vacant residential buildings by amending the Housing Code to require the repair of all vacant residential buildings with structural problems that are contributing to deterioration be paid for by the owner.
- 2.c.4. Seek creative and architecturally compatible reuse of vacant non-residential buildings for housing or for mixed-use projects that incorporate housing by using creative financial incentives and partnerships.

Objective 2.d: Improve the safety of Portland's housing stock by eliminating public health hazards from single and multi-family residential properties.

Actions:

- 2.d.1. Utilize HUD funds to help eliminate lead paint hazards from single-family homes and multi-family buildings, with a priority for households with young children.
- 2.d.2. Offer preventive actions and educational outreach to protect residents from health hazards found in housing through the Portland Public Health Program and the State of Maine's public health programs.

Objective 2.c: Establish a standard of “no net loss of housing” for all proposed development.

Actions:

- 2.e.1. Amend the zoning ordinance to encourage or require one for one replacement of any housing units proposed for demolition or conversion for non-residential reuse as part of a new development proposal.
- 2.e.2. Evaluate the creation of a housing linkage fund, administered by the City, so that developers can contribute funding for housing, rather than replace demolished housing units on their own.
- 2.e.3. Work with developers and institutions to find alternatives to demolition of existing housing within proposed developments.

Policy #3

Neighborhood Stability and Integrity

Portland Today: Current Impacts on Neighborhood Stability and Integrity

Introduction

Portland's neighborhoods are diverse in character and design offering a broad spectrum of housing choices for residents, from dense urban neighborhoods to island communities. Citizens maintain a strong sense of community in each neighborhood. This creates a common bond throughout the city's eighteen (18) neighborhoods. Building on the integrity and quality of Portland's neighborhoods is key to encouraging the type of growth Portland needs both to support itself in the future and counter regional sprawl.

Condition One: Since 1990, the number of people in Portland has not really changed, but within neighborhoods the population has shifted.

Facts (Between 1990 and 2000)

<u>Gained 5% or more</u>		<u>Stable Neighborhoods</u>		<u>Lost 5% or more</u>	
West Bayside	15%	Westend	+1%	East End	(-10%)
Islands	14%	Ocean Ave	0%	Libbytown	(-10%)
Riverton	13%	Rosemont	(-2%)	Nason's Corner	(-6%)
Stroudwater	12%	Oakdale	(-2%)	Deering Center	(-5%)
Parkside	9%	Valley Street	(-2%)	East Deering	(-5%)
North Deering	5%	East Bayside	(-4%)		
		Downtown	(-4%)		

Portland's total population has remained relatively stable since 1990, but population shifts have occurred between neighborhoods. Six neighborhoods gained population, with Riverton adding 600 new residents. Seven (7) neighborhoods remained relatively constant, while five (5) neighborhoods lost more than 5% of their population. East End (Munjoy Hill) lost the most, decreasing by 541 residents. The number of households increased while the population declined due to a 10% drop in the average number of people living in each household. The change in distribution of the city's population is reflected in school enrollment. Some schools are over-crowded and others are losing students.

Condition Two: There are more jobs than residents in the City of Portland and the city is the central service center for the region.

Facts (in 2000)

- | | |
|--|--------|
| • Residents in the City of Portland in April 2000: | 64,249 |
| • % of Cumberland County | 24.2% |
| • Jobs in the City of Portland in April 2000: | 70,144 |
| • % of Cumberland County | 43.0% |
| • Ratio of Jobs to Residents over 18: | 1.34 |

Portland continues to be the employment center for Cumberland County, but the city's share of the overall county population has dropped from 40% in 1960 to 24.2 % today. Meanwhile, other communities in the county have grown in a traditional urban sprawl pattern. According to a national study, Greater Portland is one of the fastest urbanizing metropolitan areas in the U.S.⁶ Development in the region negatively impacts Portland and its neighborhoods as commuter traffic congestion increases and the demand for many municipal services rises without a commensurate growth in the city's tax base.

Condition Three: Portland is the central service center for the region with large institutions, such as medical and higher educational facilities.

Facts (in 2000)

- Higher education enrollment: 12,250
- Medical institution employment: 10,000

Portland is home to the region's major institutions, which provide numerous employment opportunities and create a demand for housing for employees and students. These benefits can be offset by increased traffic, parking and housing demands that may adversely impact neighborhoods. Residents express concern about the transitory nature of student tenants, shortage of parking, and upkeep of residential buildings. The City will continue to work on balancing neighborhood stability with the needs of institutions to expand and provide required services.

⁶ "Who Sprawls Most? How Growth Patterns Differ Across the U.S.", William Fulton, Rolf Pendall, Maie Nguyen, and Alicia Harrison, *The Brookings Institutions Survey Series*, July 2001.

Portland's Future: Building on Neighborhood Stability and Integrity

Policy #3: Maintain and enhance the livability of Portland's neighborhoods as the City grows and evolves through careful land use regulation, design and public participation that respects neighborhood integrity.

OBJECTIVES FOR POLICY #3

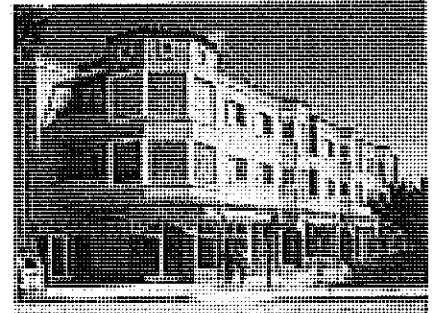
Objective 3.a: While accommodating needed services and facilities, protect the stability of Portland residential neighborhoods from excessive encroachment by inappropriately scaled and obtrusive commercial, institutional, governmental, and other non-residential uses.

Actions:

3.a.1. Maintain residential zoning along arterials where it currently exists and encourage increased residential densities and mixed uses within the business zones in the downtown and throughout the community.

3.a.2. Evaluate and update, as needed, the current residential zoning to discourage the demolition or conversion of residential properties for non-residential uses.

3.a.3. Encourage well-planned developments and uses to enhance compatibility between residential and non-residential uses.



Example of commercial uses on first floor and residential units above.

3.a.4. The City should work with its colleges and universities to assure new construction of affordable student housing, to meet the current and future needs created by their long-term goals for expansion.

Objective 3.b: Support Portland's livable neighborhoods by encouraging a mix of needed uses and services within walking distance of most residents.

Actions:

3.b.1. Promote a mix of housing types, small retail and service businesses, community services, and open space/recreation opportunities of appropriate size, scale and type within each neighborhood through City policies and programs such as zoning for mixed use

neighborhood centers, housing pilot projects, Land Bank Commission efforts and parks planning.



3.b.2. Protect safety and stability of Portland neighborhoods by enforcing the approved density regulations as prescribed in the Portland Zoning Ordinance.

Mix of uses along Stevens Avenue

Objective 3.c: Encourage innovative new housing development, which is designed to be compatible with the scale, character, and traditional development patterns of each individual residential neighborhood.

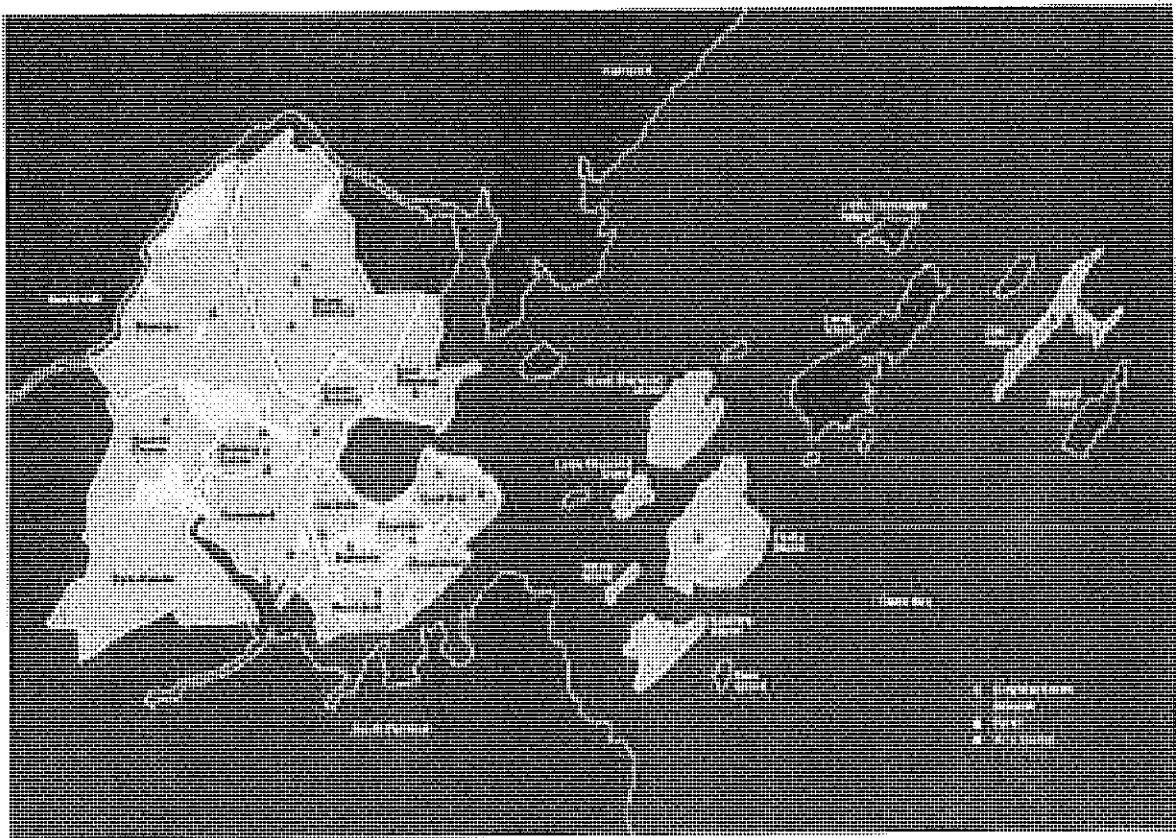
Actions:

3.c.1. Evaluate and update, as needed, the current zoning and subdivision codes to encourage new residential development that:

- Offers diverse and quality living options;
- Provides traditional neighborhood elements;
- Promotes a walkable city; and
- Is compatible with Portland's existing neighborhoods.

3.c.2. Adopt neighborhood design guidelines as part of Portland's land use code for new housing and substantial rehabilitation that are compatible with the character and patterns of development found within each neighborhood.

Portland Neighborhoods



Objective 3.d: Encourage new housing development in proximity to neighborhood assets such as open space, schools, community services and public transportation.

Actions:

3.d.1. Create neighborhood inventories of assets such as open space, recreation facilities, schools, services and public transportation.

- 3.d.2. Use neighborhood asset inventories to identify housing sites for new development as part of the neighborhood based planning process. Establish priorities for selecting properties for housing development.
- 3.d.3. When projects seek City funds, give preference to projects seeking City funds that are located within a walkable distance to neighborhood assets.

Objective 3.e: Ensure the integrity and economic value of Portland's neighborhoods.

Actions:

- 3.e.1. Aggressively enforce the City's housing and health codes that require owners to maintain their properties.
- 3.e.2. Ensure that all properties are kept clear of debris and derelict vehicles.
- 3.e.3. Work with owners and developers to find productive uses for vacant and underutilized lots.
- 3.e.4. The Departments of Public Works and Parks and Recreation will continue to work together to ensure neighborhood public improvements are safe, attractive and well maintained.
- 3.e.5. The Portland Police Department will continue to increase public safety by working with neighborhoods on community policing, crime watch and other public safety programs to ensure neighborhoods remain safe for residents and visitors.
- 3.e.6. The Department of Public Works and Portland Police Department will continue to work with neighborhoods to address traffic issues and enforce traffic laws.
- 3.e.7. The City will preserve publicly owned neighborhood amenities, such as trails, athletic fields, and parks.
- 3.e.8. The Departments of Planning and Development and Parks and Recreation will work with neighborhoods to update the City's open space plan, "Green Spaces Blue Edges".

Objective 3.f: Encourage Portland's neighborhoods to address the City's housing issues through the neighborhood based planning process.

Actions:

- 3.f.1. Involve Portland's neighborhoods in creating and supporting innovative housing solutions in each neighborhood.
- 3.f.2. Support educational outreach efforts to discuss and illustrate the benefits, issues, and potential design solutions associated with increased densities in residential neighborhoods.

Objective 3.g: Encourage neighborhood populations that are economically, socially, culturally and ethnically diverse.

Actions:

- 3.g.1. Encourage a mix of housing types for all ages, household sizes, and incomes throughout the city.
- 3.g.2. Discourage displacement of long-term neighborhood residents through enforcement of the City's ordinances, such as the condominium conversion ordinance, and the adoption of long-term affordability restrictions on City assisted housing developments.
- 3.g.3. Work with local, state and federal housing agencies and organizations to obtain resources and implement housing programs that enable residents to remain in their neighborhoods, such as rental housing vouchers.
- 3.g.4. Work with local, state and federal housing agencies and housing developers to preserve Portland's existing affordable housing units as assisted developments.
- 3.g.5. Increase density where appropriate in order to achieve neighborhood diversity.

Policy #4

Housing is a Regional Issue

Portland Today: Affordable Housing is a Regional Issue

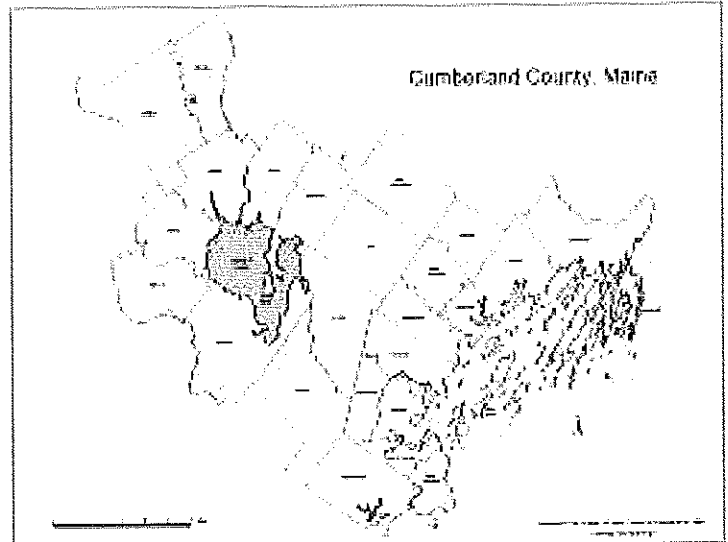
Introduction

Housing issues do not follow municipal boundaries and housing affordable to all income levels is needed throughout Cumberland County. Portland needs partners to address the growing demand for reasonably priced units. Portland citizens seek strong City leadership to address housing through regional collaborations, organizations and solutions.

Condition One: Portland provides a significant amount of housing affordable to households earning 80% or less than the county's median income.

Facts (in 2000)

- Portland has over 3,168 subsidized units
- Portland Housing Authority provides Section 8 housing assistance to 1,900 households
- The subsidized units represent 15% of all occupied housing units



Portland offers financially assisted housing for over 5,000 households, which includes subsidized units and rental assistance certificates available for use in the private market. Thus, at least 15% of Portland's total occupied housing units are subsidized and this estimate does not include group homes and other assisted-living arrangements. There are special needs housing options for the homeless, victims of domestic abuse, youth, persons with substance abuse or mental health issues, AIDS/HIV, and others. While there is a range of subsidized housing options in Portland, there is not enough housing to meet the demand. Lower income persons are hurt the most in a tight housing market and are often forced to move due to escalating rents.

Condition Two: There is an insufficient supply of affordable housing opportunities throughout Cumberland County.

Facts (in 1990 and 2000)

- 22% of home owners are paying 30% or more of the income toward housing costs in Portland (1990 Census)
- 21% of home owners are paying more than 30% of their income for housing in Cumberland County (1990 Census)
- 43% of Portland renters pay 30% or more of their income toward housing costs
- 39% of County renters pay 30% or more of their income toward housing costs
- 53% of all renters in the County paying 30% or more of their income to housing costs live in Portland.

Housing is one area that would benefit from strong regional leadership that encourages collaboration among municipalities. Every community in Cumberland County must grapple with affordable housing needs. A growing percentage of the county's residents are spending more for their housing. The housing issue must be addressed regionally and solutions must be sought that increase the supply of affordable rental and home ownership options throughout the region.

Portland's Future: Housing is a Regional Issue

Policy #4: Seek opportunities for economic and social integration throughout the Greater Portland region by encouraging the development of a range of housing options that are available and affordable to all income levels in the region.

OBJECTIVES FOR POLICY #4

Objective 4.a: Educate the public, neighboring municipalities, the State legislature, and our Congressional delegation on the need for affordable housing throughout the Greater Portland area.

Actions:

- 4.a.1. Work with existing regional organizations, such as Greater Portland Council of Governments, Cumberland County, PROP, Greater Portland Chamber of Commerce, and the Southern Maine Affordable Rental Housing Coalition, to develop and implement a public education campaign on the need for more affordable housing throughout the region.
- 4.a.2. Portland will be a leader within the region and the State to change policies that limit the construction of an adequate supply of affordable housing.

Objective 4.b: Initiate the development of a regional housing plan.

Actions:

- 4.b.1. Initiate and lead efforts with other municipalities and regional organizations to develop a regional housing strategy that will strive to create a wide range of housing options in each municipality that are available and affordable to all income levels in the Greater Portland area.

Objective 4.c: Seek innovative solutions and collaborations with municipalities, regional organizations, housing authorities and developers to implement the regional housing plan.

Actions:

- 4.c.1. Create regional cooperation agreements between municipalities and regional organizations for the planning and administration of housing development programs in Greater Portland, such as the merger of currently independent Housing Authorities.
- 4.c.2. Investigate the advantages of establishing a regional consortium of municipalities that could apply for, receive and administer state and federal funding for affordable housing development.
- 4.c.3. Support the efforts and proposals of other municipalities and developers to obtain resources for the development of affordable housing for low and moderate households throughout Greater Portland.
- 4.c.4. In conjunction with efforts to develop more affordable housing in the region, additional efforts must be taken to expand and/or create viable public transportation options in the Greater Portland region.

Policy #5

Sustainable Development

Portland Today: Sustaining Portland as a Healthy City

Introduction

Growth is a part of sustaining Portland as a healthy city and maintaining its role as the economic, cultural, and residential center for the region. Appropriate growth is needed to provide housing near employment centers, support public transportation, attract families with children, expand the tax base, and stabilize neighborhoods. Portland needs to grow along with Cumberland County and maintain a 25% share of the County's population. Portland must grow to remain an attractive urban center in which to live and work and to achieve its shared vision for the future.

Condition One: Portland's share of the County and State's population is declining.

Facts (Between 1960 and 2000, Portland's population as a share of the County)

<u>Year</u>	<u>Portland Pop</u>	<u>Cumberland Pop</u>	<u>Portland Share of County Population</u>
• 1960	72,376	182,202	40%
• 1970	64,926	195,029	33%
• 1980	61,382	215,789	28%
• 1990	64,358	243,135	26%
• 2000	64,249	265,000	24%

Cumberland County's population has grown over the past decades, whereas Portland's population has declined and then stabilized. The City's share of the county population has dropped to its current level of 24%. A declining share of the County's population could result in a smaller legislative delegation, less influence in the region, a declining tax base, and underutilized public infrastructure. Portland's prominence as the central city is threatened by these trends.

Condition Two: Families are leaving Portland and school enrollment is declining.

Facts (In 2000, Portland's population & age distribution compared to Cumberland County)

<u>Total Population</u>	24% of County	<u>Residents 45 to 54</u>	22% of County
<u>Residents under 5</u>	21% of County	<u>Residents 55 to 64</u>	20% of County
<u>Residents 5 to 19</u>	19% of County	<u>Residents 65 to 74</u>	23% of County
<u>Residents 20 to 34</u>	34% of County	<u>Residents 75 to 84</u>	26% of County
<u>Residents 35 to 44</u>	23% of County	<u>Residents 85 & over</u>	31% of County

- Total enrollment in Portland schools has decreased by 500 students since 1996.
- In 1995, there were 823 children born to Portland residents. Only 533 of these children were enrolled in Portland kindergarten classes in 2000.

Compared to other Cumberland County municipalities, Portland has the largest percentage of young adults, the lowest percentage of population between 30 and 65, and the highest percentage of population over 75. This age distribution, combined with the declining school enrollments, suggests that families with children are leaving Portland. The movement of families out of the city is also indicated by the declining percentage of children born to Portland residents actually entering the school system. In the early 1990's, the number of children entering kindergarten equaled the number of children born to Portland parents five years earlier. By 2000, only 65% of the children born to Portland parents entered the public school system.

Condition Three: Cumberland County has one of the highest conversion rates of rural to urbanized land. The low-density development consumes increasingly more land than past patterns of development.

Facts (Between 1982 and 1997)

- Developed land in the County increased by 108%
- Population increased in the county by 17.4%
- Population density in the County decreased by 47%

The expanding development of the region results in some of Portland's public investments and infrastructure being underutilized, such as public transportation, schools and sewers, while the City's roads are congested with commuter traffic. The Brookings Institute Study* identified Greater Portland as one of the fastest urbanizing metropolitan areas (measured by the percent change of rural to urbanized land). These expanding development patterns do not support higher density housing and mixed use projects that are within walking distance of employment centers, parks, schools, and public transit lines. In Portland, new development is desired that is efficient, well designed and created at a manageable rate for the community.

* "Who Sprawls Most? How Growth Patterns Differ Across the U.S.", William Fulton, Rolf Pendall, Maie Nguyen, and Alicia Harrison, *The Brookings Institutions Survey Series*, July 2001.

Portland's Future: Sustainable Development

Policy #5: Portland's Comprehensive Plan encourages a manageable level of growth that will sustain the City as a healthy urban center in which to live and work and to achieve a shared vision for Portland. Portland should encourage sustainable development patterns and opportunities within the City by promoting efficient land use, conservation of natural resources, and easy access to public transportation, services, and public amenities.

OBJECTIVES FOR POLICY # 5:

Objective 5a: Encourage growth in Portland that strives for a dynamic balance of the essential elements of the city, such as excellent schools, diverse housing choices, proximity to services and employment, increased public transit usage, expanded economic base, high quality services, and an affordable tax rate.

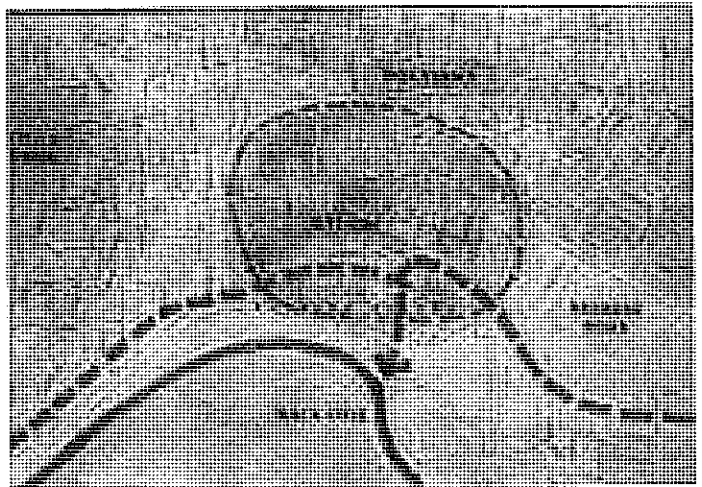
Actions:

- 5.a.1. Target Portland to achieve and maintain a 25% share of Cumberland County's population.
- 5.a.2. Analyze and promote the public benefits of growth for Portland as the County's urban center.
- 5.a.3. Integrate Portland's housing and economic development incentives to encourage growth and take advantage of the city's capacity to accommodate more people.
- 5.a.4. Monitor and assess the impacts of growth on the City's infrastructure and adjust policies accordingly.

Objective 5 b: Maximize development where public infrastructure and amenities, such as schools, parks, public/alternative transportation, sewer lines, and roads exist or may be expanded at minimal costs.

Actions:

- 5.b.1. Locate new housing along or within walking distance of major transportation corridors to increase use of METRO and encourage alternative modes of transportation.
- 5.b.2. Encourage infill development on vacant lots along accepted city streets.
- 5.b.3. Encourage new housing near neighborhood schools and in proximity of public parks and athletic facilities throughout the city. *Concept of Bayside for neighborhood redevelopment plan.*
- 5.b.4. Encourage higher density housing along arterials and in and near the downtown, with particular attention to the redevelopment of Bayside according to the adopted Bayside Plan.



Objective 5.c.: Create new housing to support Portland as an employment center and to achieve an improved balance between jobs and housing.

Actions:

- 5.c.1. Encourage major institutions and employers to invest in housing in proximity to work places.
- 5.c.2. Explore opportunities to combine housing and economic development initiatives for more integrated mixed-use developments near employment centers.
- 5.c.3. Explore the potential of Portland constructing streets within undeveloped right-of-ways to encourage infill housing near existing infrastructure and neighborhood centers.

Objective 5.d.: Encourage neighborhood business centers throughout the city to reduce dependence on the car and to make neighborhood life without a car more practical.

Actions:

- 5.d.1. Encourage and build neighborhood centers with small-scale retail and service businesses at appropriate areas within neighborhoods.
- 5.d.2. Encourage strong pedestrian links between residential areas and business areas.
- 5.d.3. Encourage innovative development and redevelopment proposals that increase density and incorporate residential housing above first floor businesses by facilitating the review process and considering flexible shared parking options.
- 5.d.4. Encourage redevelopment of underdeveloped land such as surface parking lots, where appropriate; to more efficiently utilize available land.



Neighborhood businesses in Rosemont

Objective 5.e: Locate and design housing to reduce impacts on environmentally sensitive areas.

Actions:

- 5.e.1. Support the efforts of Portland's Land Bank Commission to preserve the most sensitive and important natural areas within the city.
- 5.e.2. Encourage sensitive land development designs and construction methods that minimize impacts on the environment and investigate innovative solutions and collaborative approaches to address stormwater separation and management through natural means.
- 5.e.3. Explore ways to use zoning and other regulatory tools to encourage environmentally friendly development.

Objective 5.f: Design housing using new technologies and materials that reduce costs and increase energy efficiency.

Actions:

- 5.f.1. Collaborate with the construction industry and environmental organizations to develop educational materials and public outreach efforts to encourage the design, construction, and rehabilitation of energy efficient homes.
- 5.f.2. Encourage energy efficient rehabilitation and new construction for City assisted housing.
- 5.f.3. Periodically review City codes to minimize conflicts between existing codes, and emerging or new cost-efficient technology.

Policy #6

Freedom of Choice

Portland Today: Equal Access in Housing

Introduction

In the 1980's, Portland was designated a Refugee Resettlement community. The religious, cultural and ethnic diversity of Portland has increased significantly since then. As Portland becomes more diverse, we need to ensure that housing is equally available to all residents.

Condition One: Incidents of housing discrimination have occurred in Portland, particularly against large families with children, people of color who are recent immigrants, and people with disabilities.

Facts (in 2000)

- 8.7% of Portland residents are People of Color
- 14.4% of all of Maine's People of Color live in Portland
- 49.6% of all of Cumberland County's People of Color live in Portland.
- International In-migration is a significant factor in city and county Population

As a Refugee Resettlement Community, Portland has over 40 languages spoken in its public schools with most of the recent immigrants coming from Cambodia, Vietnam, Eastern Europe, Africa and Islamic nations. "Analysis of Impediments to Fair Housing" completed by the City of Portland in November 1996, concluded that the principle form of housing discrimination encountered in the city was against people of low income. The rental market has tightened since 1996 and Portland is now facing a scarcity of multi-family units and escalating rental rates. Most of the recent calls received by the Fair Housing Office are tenant/landlord complaints and difficulties with rising rents. The 1996 survey data did reveal incidents of discrimination against protected classes, particularly large families with children, people of color who are recent immigrants, and people with disabilities.



Portland's Future: Freedom of Housing Choice

Policy #6: Strive to ensure freedom of choice in housing type, tenure, and neighborhood for all, regardless of race, color, age, gender, familial status, sexual orientation, religion, national origin, source of income or disability.

OBJECTIVES FOR POLICY #6

Objective 6.a: Increase and ensure equal access to housing opportunities for minorities, low-income people and persons with disabilities and special needs.

Actions:

- 6.a.1. Work with housing providers and developers to create programs and secure resources to increase housing opportunities, both rental and homeownership, for minorities, low-income people and persons with disabilities and special needs.
- 6.a.2. Encourage equitable lending by financial institutions in all city neighborhoods by monitoring their community reinvestment act ratings and performance.
- 6.a.3. Foster partnerships and programs with financial institutions that enable low and moderate-income households to become homeowners.

Objective 6.b: Work to prohibit discrimination in selling and renting of all types of housing.

Actions:

- 6.b.1. Monitor mortgage lending practices to ensure equal opportunity in Portland.
- 6.b.2. Educate and assist the public on what constitutes housing discrimination and the process for filing a complaint in collaboration with the Maine Human Rights Commission.
- 6.b.3. Update the report "Analysis of Impediments to Fair Housing" as required by HUD.

Objective 6.c: Ensure that an adequate supply of new and existing housing is accessible to persons with physical disabilities.



Actions:

- 6.c.1. Work with organizations that provide services to persons with disabilities to develop designs, rules and procedures for the construction of accessible housing.

Handicapped ramp at Longfellow Commons

- 6.c.2. Review building codes to ensure they are consistent with federal laws governing handicapped accessible construction, and revise as needed.
- 6.c.3. Develop strategies to enable people with physical limitations and disabilities to remain and/or age in place.

Objective 6.d: Work to educate the public about housing laws and opportunities.

Actions:

- 6.d.1. Create and maintain homebuyer education programs in partnership with local, state and federal housing finance and service providers for all potential new homebuyers including first time buyers, immigrants and persons with disabilities.
- 6.d.2. Encourage the provision of landlord education classes to inform rental property owners and managers of fair housing laws and practices for managing rental property.
- 6.d.3. Evaluate the need for a tenant services office to assist in mediating and resolving conflicts between landlords and tenants.
- 6.d.4. Produce an educational program informing the public of their rights and obligations under local, state and federal fair housing laws, including brochures and public service announcements.

Housing: Sustaining Portland's Future

Implementation Strategy



Unity Village on Stone Street and Cumberland Avenue

Housing: Sustaining Portland's Future

Appendix



Congress Street on Munjoy Hill



Handbook On: Developing Inclusionary Zoning

For the Comprehensive
Housing Production and Rehabilitation Act of 2004



Harrisville Village
Burrillville, Rhode Island



Updated , 2006
Statewide Planning Program,
Division of Planning,
Rhode Island Department of Administration

www.planning.ri.gov

Abstract

The Rhode Island Statewide Planning Program is established by *Chapter 42-11-10 of the Rhode Island General Laws* as the central planning agency for state government. The State Planning Council comprised of state, local, and public representatives, and federal and other advisors, guides the work of the Program.

The objectives of the Program are:

- (1) to prepare strategic and systems plans for the state
- (2) to coordinate activities of the public and private sectors within this framework of policies and programs
- (3) to assist local governments in management, and
- (4) to advise the Governor and others concerned on physical, social, and economic topics.

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The cover images are from the Burrillville Planning Office for the Harrisville Village redevelopment project located in Burrillville, RI. For information on the project contact Thomas Kravitz, Burrillville Town Planner and Economic Development Director, at 401-4300 ext. 130 or look on the web at

http://www.burrillville.org/Public_Documents/BurrillvilleRI_EconDev/Redevelopment_Projects.

Preface

The affordability of housing is not a problem restricted to lower-income populations of inner cities and declining urban areas. It is, in fact, an issue for all municipalities, affecting the poor and lower-income as well as a large portion of the middle-income population of every city and town. The cost of land and basic building construction are matters largely beyond the control of local governments, but housing opportunities and affordability can be promoted through land use codes and development controls that reduce development costs.

Factors Limiting Housing Affordability in Rhode Island

- High land costs, aggravated by requirements in excess of environmental or social need
- High construction costs
- High rents or sales prices
- High median household income and low vacancy rates
- Deterioration of older housing stock
- Elimination of housing stock by demolition or conversion to other uses
- Marginal funding of federal and state housing programs
- Unemployment and under-employment
- Attraction of employment opportunities without consideration of housing supply availability and cost for workers
- Municipal development moratoria, time-consuming procedures and permit limits, and fees
- Lack of municipal facilities and services for potentially suitable housing and development sites
- Failure to use federal, state or private programs designed to enhance housing opportunity and availability
- Local opposition to affordable housing development

This handbook examines the use of inclusionary zoning to promote affordable housing. This edition of the handbook was updated to provide Rhode Island communities with a recommended set of guidelines, derived from the “Rhode Island Five Year Strategic Housing Plan”, for the drafting of inclusionary zoning provisions in order to promote affordable housing in the State. It is intended to assist municipalities in developing actions for compliance with the **Comprehensive Housing Production and Rehabilitation Act of 2004 (R.I. Gen. Law 42-128.8.1)**.

The Act finds that the “state in partnership with local communities must remove barriers to housing development”. It goes on to require “affordable housing plans” to be prepared and adopted by cities and towns to satisfy the requirements of the *Low and Moderate Income Housing Act* (R.I. Gen. Law 45-53.). These “affordable housing plans” developed by each community establish guidelines for higher density development including inclusionary zoning.

Acknowledgements

In recognition of the adoption of the **Comprehensive Housing Production and Rehabilitation Act of 2004 (R.I. Gen. Law 42-128.8.1)** this handbook was prepared by the RI Statewide Planning Program to help municipal officials begin to address expanding opportunities for affordable housing in their community. The handbook represents a sum of efforts contributed by numerous individuals of the Program. The following individuals assisted with the writing of this handbook:

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Part 1: Introduction

This handbook is intended to be a guide for municipal governments to utilize, as a reference tool, to craft an inclusionary housing section for their zoning ordinance that fits the needs and staffing levels of their own community. This handbook is a compilation of existing work condensed for use by Rhode Island communities. This handbook does not attempt to outline all the possible options concerning affordable housing; however, it does outline those items to be considered along with legal counsel concerning inclusionary zoning for affordable housing. Furthermore, every community must realize that inclusionary zoning is not a cure-all for Rhode Island's housing problems; it is one of many tools available to local agencies to develop affordable housing units in their communities. Therefore, each community will have to draft its own text, and use the type of provisions for affordable housing that will work for them based on the advice presented herein and the requirements of the Comprehensive Housing Production and Rehabilitation Act of 2004 and recommended guidelines from the "Rhode Island Five Year Strategic Housing Plan".

***This handbook is not a
substitute for legal
advice.***

The handbook is divided into five sections. The first and second sections provide a brief explanation and general introduction to inclusionary housing. The third section contains excerpts from national, regional, and local case studies that deal with established inclusionary affordable housing programs. The fourth section looks at provisions to consider before crafting the ordinance. Lastly, the fifth section looks at the technical aspects involved in the writing of such ordinance provisions and it provides excerpts of inclusionary housing ordinances from other local New England municipalities to illustrate the various techniques in use. The fifth section, also presents recommended guidelines from the "Rhode Island Five Year Strategic Housing Plan", which have been highlighted in bold print. At the end of the handbook is the Bibliography Section, which contains the citations, world-wide-web addresses and a list of additional housing resources should the reader wish to find more information on the topics. Access is provided purely as a public service. The State of Rhode Island does not endorse any of the linked sites or any products or services found at the linked sites.

Part 2: What is Inclusionary Zoning?

The fundamental purpose of inclusionary zoning is to allow the development of affordable housing to become an integral part of other kinds of development taking place in a community. Inclusionary housing provisions promote the production of affordable housing by requiring developers to set aside a certain percentage of the housing units in a proposed development to be priced affordable to low- and moderate-income households. It is to the benefit of the public that a minimum percentage of affordable units be constructed to meet the affordable housing needs of the community that adopts the ordinance. The goal of such a process is to establish a relatively permanent stock of affordable housing units provided by the private market. Typically, inclusionary provisions require that new developments include “mandatory set-asides” of affordable units, which are made available to low and moderate-income households within future market-level developments. According to recent studies by the American Planning Association¹, mandatory programs have produced the most affordable housing units across the United States.

The *amended Zoning Enabling Act*, R.I. Gen. Law 46-24-46.1, requires that an inclusionary housing section of a zoning ordinance must address the following:

1. Affordable housing, as defined by the Act in subsection 42-128.81(d), be constructed.
2. A minimum of 10 % of the total units in the development must comply with the above-cited affordable definition of the Act.
3. The affordable units must remain affordable for a period of not less than 30 years from initial occupancy enforced through a land lease and/ or deed restriction.

The types of housing that are required can vary from community to community as well as within a municipality and will relate to the specific needs as defined in the approved Affordable Housing Plan. Some inclusionary zoning programs include a payment in lieu of construction of affordable units option. These payments may support a dedicated fund such as a housing trust fund that would finance future affordable units. Some programs include incentives such as density bonuses, allowing a developer to create more units on a parcel of land, the relaxation of development regulations, or the reduction or waiver of fees to encourage more affordable housing than the minimum percentage mandated.

¹ *Zoning Practice*, no. 9 (Washington, DC: American Planning Association, September 2004).

Part 3: Case Studies

There is a range of programs in use around the country as providing affordable housing is a national issue all communities face today. This part reviews several programs that have adopted procedures through zoning ordinances to provide for affordable housing. These programs vary and have been adopted to fit local housing needs and market conditions and many use a combination of providing affordable housing units along with market rate units to produce affordable housing.

A. NATIONAL CASE STUDY

Montgomery County, Maryland

Inclusionary zoning started in the Washington, D.C. metropolitan area. In 1973, Montgomery County, Maryland, instituted countywide mandatory inclusionary zoning, known as the Moderately Priced Dwelling Unit (MPDU) ordinance. Montgomery County is the leading national example of the use of this technique at the county level. According to the Innovative Housing Institute, the Montgomery County program has produced nearly 10,000 units of affordable housing. Most jurisdictions can trace some aspect of their inclusionary zoning ordinances to the Montgomery County program.²

The MPDU ordinance requires that developments of 50 units or more include 15% MPDUs. Of that 15%, two-thirds are sold to moderate-income homebuyers and the remainder is offered to housing commissions and non-profits for use in their affordable housing programs (many of which retain rental units). Developers receive a density bonus of up to 22% through this program.³ Throughout the program's history, nearly 10,600 affordable units have been created. However, roughly 6,800 units are no longer governed by inclusionary zoning requirements or any other affordability regulations. According to the ordinance, rental units must be regulated under the inclusionary zoning provisions for 20 years and owner-occupied units for 10 years.⁴ Montgomery County's program targets households earning 65% or less of the area median income of \$82,800 in the fiscal year 2000.⁵

One of the greatest challenges facing the Montgomery County program is that the first units built by the program are quickly becoming unregulated and the development of new affordable units is slow. Many policy think tanks and housing advocates, including the Brookings Institution, suggest that one-way to remedy the situation is to make it easier for non-profits and housing authorities to purchase the units once the affordable price regulations expire. Perhaps by extending the non-profit agency's right of first refusal so that they may pre-empt private developers from purchasing the affordable units.⁶

B. MASSACHUSETTS (MA) CASE STUDIES

Federal and state low and moderate-income housing programs have created more than eight % of Massachusetts's housing stock. The creation of new affordable units, however, has slowed due to scarce developable land, opposition to development in general, and the reputation of large affordable housing projects.⁷ In 1975 Massachusetts enacted a state zoning act authorizing the use of incentives for the development of low and moderate-income housing. While more than a third of the communities in

² Robert W. Burchell and Catherine C. Galley, "Inclusionary Zoning: A Viable Solution to the Affordable Housing Crisis? Inclusionary Zoning: Pros and Cons," *New Century Housing Newsletter* 1, no.2 (Washington DC: Center for Housing Policy, October 2000).

³ Karen Destorel Brown, "Expanding Affordable Housing Through Inclusionary Zoning: Lessons from the Washington Metropolitan Area," *Cities and Suburbs* (Washington DC: The Brookings Institution, October 2001).

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

⁷ Phillip B. Herr & Associates, "Zoning for Affordability," *Community Strategies* (Boston, MA: Massachusetts Housing Partnership, 1999).

Massachusetts have adopted zoning incentives for affordable developments, very few units are generally created.⁸ The zoning statute, Chapter 40B commonly known as the “anti-snob” zoning ordinance, exempts developers of affordable units from certain zoning regulations if 20-25% of units in municipalities have affordability restrictions. The restrictions include being affordable for households earning less than 80% of the area's median income and must remain affordable for 30 years.⁹ Much of land use control is local in Massachusetts, so depending on the community, inclusionary zoning programs may or may not be directly influenced by 40B.¹⁰ The following are two different examples of the impact of Chapter 40B, and the successes and failures of inclusionary zoning.

Barnstable, MA.

In an attempt to address the state's 10 % affordability requirement, the town of Barnstable, Massachusetts on Cape Cod drafted an Inclusionary Housing Ordinance that charged developers a fee that was placed in an Inclusionary Housing Fund to purchase land and develop affordable units. A suit was brought against the town, claiming that the fee was an illegal tax. A Superior Court ruled in favor of the plaintiff in *Dacey v. Town of Barnstable*. A part of the inclusionary ordinance was struck down when the court ruled that the Town's imposition of an Inclusionary Housing Fee on developers whose projects were not covered under the ordinance constituted an exaction.¹¹ ***The lesson learned from Barnstable is that an inclusionary zoning program can be implemented in several different ways, and that it is important to find a program that suits an individual town.*** In the case of Barnstable, the courts ruled that imposing an exaction places the burden of developing affordable units on developers only. Rather, an inclusionary zoning program should be viewed as a community program. The Comprehensive Permit Law in Massachusetts (under Chapter 40B) expedites the permitting process for developers building affordable units, thus providing incentives for private development- making it the better option to achieve affordable housing goals.

Newton, MA.

Newton, Massachusetts is an older suburb of Boston with a population of 85,000. In 1977, Newton drafted its own inclusionary zoning ordinance, which has since provided 225 units of affordable housing over a thirty-year period. In addition, almost 450 units have been constructed in the community under the mandate of Chapter 40B. Newton's ordinance mandates that all units created have to be rental and leased through the Newton Housing Authority. Other options for developers such as off-site units and cash payments in lieu of construction are available, although tightly regulated. Newton's program also contains strict regulation in the design of affordable units. The units must be equal in character to market rate units, in order to avoid stigmatization.

One of the challenges of the Newton program is that there is a fee for developments under 10 units that do not come under the town ordinance. Therefore, many developers choose to pay the fee and under-develop. However, the Newton Housing Authority does not have an effective method to allocate funds received by the fee and in lieu payments. This case study shows the difficulty in creating many cash payment loopholes for developers. One remedy would be to mandate the construction of affordable units in all developments in return for a density bonus.¹²

⁸ National Housing Conference (NHC), “Inclusionary Zoning: Lessons Learned in Massachusetts,” *NHC Affordable Housing Policy Review* 2, no. 1 (Washington, DC: Center for Housing Policy, January 2002).

⁹ Ibid.

¹⁰ Phillip B. Herr & Associates, “Zoning for Affordability,” *Community Strategies* (Boston, MA: Massachusetts Housing Partnership, 1999).

¹¹ Commonwealth of Massachusetts Superior Court, Civil Action No. 00-53 (October 18, 2000), *Brian Dacey vs. Town of Barnstable*.

¹² National Housing Conference (NHC), “Inclusionary Zoning: Lessons Learned in Massachusetts,” *NHC Affordable Housing Policy Review* 2, no. 1 (Washington, DC: Center for Housing Policy, January 2002).

C. RHODE ISLAND (RI) CASE STUDIES

Rhode Island's municipal affordable housing provisions within existing zoning ordinances are widely varied. In Rhode Island at this time, only East Providence and Tiverton have mandatory inclusionary zoning in use. There are 8 other municipalities that have some sort of an incentive zoning provision in the local zoning ordinance relating to affordable housing. These municipalities are Barrington, Burrillville, East Greenwich, Hopkinton, New Shoreham, North Kingstown, Richmond, and South Kingstown. This section provides a brief summary of the various incentive zoning techniques currently in use. The local ordinance citations follow each summary with a web link to the homepage of the municipality where on-line information is available for more information about each community and the ordinance cited.

- ◆ **Barrington, RI:** density bonus in an Elderly Housing District as part of a zoning ordinance amendment, with a 30-year affordability provision, but there is no provision for a percentage of low/moderate income family units. [Section 185-139-B] <http://www.ci.barrington.ri.us/>.
- ◆ **Burrillville, RI:** In Village Planned Development Districts flexibility in siting units is permitted by the Planning Board for all dimensional requirements but the 12,000 square feet minimum lot size. [Section 11-8.9.4] http://www.burrillville.org/Public_Documents/index.
- ◆ **East Greenwich, RI:** density bonus to a maximum of six units per acre provided that 10% of the units within the development are affordable in Mixed Use Planned Development Districts. [Article VIII, 6.3] <http://www.eastgreenwichri.com/>.
- ◆ **East Providence, RI:** a density bonus of up to 10% may be permitted according to the number of affordable units developed [Article VIII, Section 19-456]. Also the new Waterfront Development District (WWD) requires that all new residential development or property conversions resulting in 5 or more parcels or new dwelling units must supply a minimum of 10% of low to moderate income housing units as part of the development. An In-Lieu fee option is allowed per the rules and regulations of the East Providence Waterfront Special Development District Commission. [Article 9,(j), Affordable Housing] <http://www.eastprovidence.com/>.
- ◆ **Hopkinton, RI:** a density bonus of up to 10% may be permitted by the Planning Board according to the number of affordable units developed in cluster developments. [Section 14(A)(2)]
- ◆ **New Shoreham, RI:** density bonus of 100% may be granted to accommodate affordable units by the Zoning Board as a special-use permit. [Section 405]
- ◆ **North Kingstown, RI:** 10% density bonus may be granted for 10% of all dwelling units to be marketed at a moderate price in a Planned Unit Development by the Planning Commission. [Section 21-487(m)] <http://www.northkingstown.org/>.
- ◆ **Richmond, RI:** 20% affordable units in subdivisions (if the Planning Board determines that the development meets critical needs), the development is exempt from Growth Rate Control [Section 18.72.020(C)], and affordable units are also exempt from impact fees. [Section 18.33.040(A)] <http://www.richmondri.com/>.
- ◆ **South Kingstown, RI:** Affordable Housing is exempted from the Fair Share Development Fee. [Section 1101 D 1] <http://www.southkingstownri.com/>.
- ◆ **Tiverton, RI:** A mandatory alternative concept plan for all major land developments showing a 20% set-aside for low or moderate income housing is required. Planning Board will endorse or reject concept plan. A density bonus up to 30% over allowed density for additional units of low or moderate housing may be granted at the discretion of the Planning Board. [Article XXI, Section 9, a & b]

Part 4: Items to Consider

Developing an inclusionary housing section for a zoning ordinance is difficult, and many components of such an ordinance must be taken into consideration before the section can be written. Before proceeding, it is critical to familiarize oneself with the Rhode Island General Laws establishing the planning framework for housing development and zoning in general, along with the requirements of the *Comprehensive Housing Production and Rehabilitation Act of 2004* and the associated amendments to 7 other related enabling acts concerning affordable housing. The following 12 items are considered essential for communities to address concerning inclusionary housing and were adopted from an Enterprise Foundation Brief.¹³

A good World Wide Web site to review the RI planning and development laws is located at:

<http://www.rilin.state.ri.us/Statutes/TITLE45/INDEX.HTM>.

To view the House and Senate bills related to the *Comprehensive Housing Production and Rehabilitation Act of 2004* see:

[H-8574A](#), [S-3148](#).

1. How does the ordinance provision relate to adopted Municipal Plans?

When drafting inclusionary provisions for a zoning ordinance, a nexus needs to be established between the approved Affordable Housing Plan of the municipality and the purpose of the ordinance. The ordinance sections concerning Findings and Purpose should restate the community need for affordable housing, environmental and infrastructure constraints, and recommendations from the approved Affordable Housing Plan and the Housing Element of the Comprehensive Plan.

2. Will the inclusionary requirement be mandatory or voluntary?

The decision to make your requirement mandatory or voluntary is an important one. It seems most inclusionary zoning ordinances are voluntary. Voluntary programs are harder to challenge in court, but they should have incentives included to be successful. Mandatory programs, on the other hand, are obviously easy to enforce and evidence supports that they produce more units. The combination of approaches is probably best. Included within regulatory strategies usually are requirements to insure that developments mitigate the impacts of their projects on the community's need for affordable housing and incentives for developers to volunteer to provide affordable housing.

3. What will be the development threshold size for applicability?

The threshold size describes how the size of a development will trigger an affordability requirement.¹⁴ In the examples that follow in Part 5, there is a low of 3 units to a high of 50. In the Burlington example, a redevelopment of project of 10 acres or 50 or more units or a development using more than 10 acres or 50 or more units will trigger an affordability requirement.

¹³ Peter Werwath, "Program Design Considerations," *An Enterprise Issue Brief* (Columbia, MD: The Enterprise Foundation, 1994).

¹⁴ Business and Professional People for the Public Interest. "Issues to Consider in Developing an Inclusionary Zoning Ordinance," *Inclusionary Zoning Policy Briefs*, (Chicago, IL: Business and Professional People for Regional Affordable Housing Publications, Winter 2003).

4. What “set aside” of affordable units must be included?

It is important to gauge your community's needs (by referencing your municipality's Affordable Housing Plan) and determine a percentage of the total development's units that will be deemed as a “set aside.” Certain inclusionary zoning ordinances either only include for-sale housing or rental housing. It appears that including both types of housing stock would benefit because the ordinance could target both low and moderate-income households. Some inclusionary programs have found that a key to success is an appropriate mix of affordable units coupled with a density bonus for market units. **Keep in mind that under the recent changes to the *Zoning Enabling Act*, any inclusionary housing zoning must provide that at least 10% of the total units in a development satisfy the affordable definition of the Act.**

5. What income groups are to be served?

A statement of the income group to be served must be drafted. Income eligibility standards are adjusted by family size, and most ordinances have a system for certifying income eligibility by an agreed-to standard. An ordinance may include a tiered income standard to aid developers: a lower percentage of affordable units can be built if the units are lower priced. Every ordinance should have some type of system to verify and certify incomes, or other special characteristics (such as disabilities).¹⁵ The system will have to adjust for varying incomes and family sizes. Whose regulations will you use to target a specific income group? In some communities, nonprofit organizations qualify homebuyers and renters for inclusionary developments, and they may also regulate trust fund monies, and other monies. It is important to establish who will supervise and enforce your inclusionary zoning ordinance.

6. What types of housing stock will be developed?

Another element to take into consideration is the style and design of affordable housing units. Some ordinances include strict design regulations. It would be beneficial for the community if the affordable units were compatible and similar to market rate design construction in the community.¹⁶

7. When will the affordable units be developed?

A sensitive issue for the developer and the municipality involves the timing of the affordable unit construction. While a developer may argue that s/he needs revenues from the market-rate units in order to feasibly construct the affordable units, a common goal is to have both types built concurrently to avoid any community controversy or having the developer leave the affordable units un-built. A compromise solution that appears in a number of ordinances is a phased construction of affordable rate units at an agreeable ratio to market-rate construction (e.g., one affordable unit for every five market-rate units constructed). Additionally, fees would be paid at the appropriate juncture (Netter, 2000).¹⁷

8. What type of cost- offsets and / or incentive(s) will you provide the developer?

There are ways of reducing the costs of a development to enable the construction of affordable housing such as the waiving of certain review fees or the amount of parking to be provided (see Part 5 for more details). These cost offsets allow a municipality to decrease the costs developers would incur for affordable housing, and minimize the possibility of a developer showing that mandatory inclusionary zoning causes an excessive loss such that it effects a taking. The cost offsets give developers certain benefits to compensate the developer for pricing some units below market rates. One of the most common incentives for an inclusionary zoning ordinance is to provide density bonuses to developers. Density bonuses allow developers to increase the number of units allowed on a piece of property if they

¹⁵ Peter Werwath, “Program Design Considerations,” *An Enterprise Issue Brief* (Columbia, MD: The Enterprise Foundation, 1994).

¹⁶ Joyce Siegel, “Inclusionary Zoning Around the Country” (Baltimore, MD: Innovative Housing Institute, 2 March 2000).

¹⁷ Edith Netter, Esq., “Inclusionary Zoning Guidelines for Cities and Towns,” *Community Strategies*. (Boston, MA: Massachusetts Housing Partnership, September 2000).

agree to make some percentage of those units affordable. Developers use additional cash flow from these bonus units to offset the revenue lost from the affordable units.¹⁸

9. How will the municipality sustain an ongoing inclusionary program?

It is important to ensure a total program when adopting an inclusionary zoning ordinance. If developers create affordable units without long-term affordability controls (30 year minimum in RI) or site units close too far from community and social services then the program will fail. This is important to consider as the community may want to stipulate special conditions for preserving the affordable housing created above and beyond the provisions required by the housing program funders. Special siting factors such as proximity to employment and other public services are necessary for affordable units. For example, one siting requirement may be that affordable units be located close to major employers and or public transportation routes where possible.

10. What will be the type of controls on rental and for-sale housing?

A successful inclusionary zoning ordinance must include explicit restrictions on the future rental or sale of affordable units. Again, this is important to consider as the community may want to stipulate special conditions for preserving the affordable housing created above and beyond the provisions required by the housing program funders. The ordinance must require the units to remain affordable for a minimum of thirty years, and it may also specify that the affordable units must continue to be available to income-qualified occupants. Restricting income levels and rents for rental units is simple- the jurisdiction can specify rent limits and require verification of new tenant's incomes as they move into the development. Maintaining affordability on for-sale housing is more complicated. The ordinance may require that homeowners sell their unit to income-qualified buyers at a price that incorporates inflation and the cost of home improvement, but remains affordable. One compromise would be that homeowners could sell their home with affordability restrictions and donate a certain percentage of the profits to a housing trust fund.¹⁹ The ordinance should take into consideration inflation and the cost of living adjustments over time and who will be qualified in later years (see Part 5, numbers 10 & 11 for more details).

11. Can the developer make in-lieu-of payments?

A town may determine that the developer not be required to build affordable units if he pays a fee-in-lieu of development either (a) in cash or (b) by dedication of land. This fee is usually dedicated to a land trust or land bank for future affordable housing for the town, which may need to be established if none exists. A dedication of land may be advantageous to a community that has prioritized conservation along with affordable housing as a complementary goal. The community should specify whether the developer has the option of a fee-in-lieu by right, or require that the developer demonstrate that building the units as required presents a financial hardship.

In deciding the amount of a fee-in-lieu the ordinance needs to consider what the developer's costs might be to produce a unit of affordable housing, including current land costs, the need for infrastructure, current construction costs, etc. The object is to create a fee that is not too low so as to make it economically advantageous for the developer to opt out of building affordable units and high enough to make a reasonable gain by the community's affordable housing trust fund or land bank if they choose to allow the developer to opt out.

12. Can the developer build affordable units off-site?

Allowing developers the flexibility of delivering affordable housing off-site can help them economically. For example, if they are developing on expensive land, they can build more affordable units on other land. Also, affordable units may have special needs such as proximity to transportation

¹⁸ Regulatory Barriers Clearinghouse, "Considerations for Density Bonus Ordinance," *Breakthroughs: Solutions that support affordable housing* 2, no. 4, Washington, DC.

¹⁹ Anne Ray, "Inclusionary Housing A Discussion of Policy Issues," (Gainesville, FL: Shimberg Center for Affordable Housing, 15 June 2001).

and employment. Alternatively, while a municipality may allow the developer to build the affordable units off-site; however, this practice is less favored since one of the goals of inclusionary zoning is to promote the mixture of affordable units among market-rate housing to soften opposition to the construction as well as for the beneficial socio-economic impact. If off-site building is permitted, it is recommended that the units continue serving the same geographic locality.

Part 5: Developing an Ordinance

During the development of an inclusionary housing section for a municipal zoning ordinance, it is critical to tailor the section to the unique local housing conditions/ needs, governmental structure, and staffing levels - as defined by each locally approved Affordable Housing Plan. Therefore, the drafting of an effective inclusionary zoning ordinance requires the municipality to present a wide array of options that need to be viewed separately, and then evaluated in terms of how they work together.

This handbook is a reference tool not a model ordinance.

This section addresses those variables and options to be weighed in developing an effective inclusionary zoning ordinance. Communities should utilize this section as a guide to explain those issues that contribute to their unique needs, as there does not exist a one-size fits all solution. A municipality seeking to draft and implement an inclusionary zoning ordinance should consult with their legal counsel.

In addition, this section is formatted to resemble a general municipal zoning ordinance provision and includes the recommended guidelines presented within the "Rhode Island Five Year Strategic Housing Plan".

The eleven items below are standard items for a community to include when drafting an inclusionary zoning ordinance. These standard items were adopted from a multitude of sources and a regional housing educational publication by the Business and Professional People for the Public Interest. An explanation of each item is presented, along with a bolded description of the recommended guideline for each, if applicable, from the "Rhode Island Five Year Strategic Housing Plan". Following the explanation and recommendation is actual ordinance language examples that have been underlined to identify the illustrated State law and guideline requirements. Lastly, the language municipalities use to draft the inclusionary zoning ordinance should be checked for consistency with Rhode Island law by legal counsel.

1. Findings

An ordinance section on inclusionary housing should begin with findings stating the need for affordable housing in the municipality as cited in the approved local Affordable Housing Plan. Typically this is the section that would summarize the planning process the community has undertaken, trends in housing stock, the need for and benefits of affordable housing, the constraints to be addressed and the benefits anticipated by enactment of an inclusionary zoning ordinance provision.

The first findings below are cited from the newly adopted **Comprehensive Housing Production and Rehabilitation Act of 2004 (R.I.G.L 42-128-8.1)**. A findings section should mirror the general statewide findings in addition to any local findings from the local approved Affordable Housing Plan. Additional sample findings are from other places using inclusionary housing provisions in their zoning ordinances.

42-128-8.1. Housing production and rehabilitation.

(a) Short title. This section shall be known and may be cited as the "Comprehensive Housing Production and Rehabilitation Act of 2004."

(b) Findings. The general assembly finds and declares that: (excerpts)

(2) Efforts and programs to increase the production of housing must be sensitive to the distinctive characteristics of cities and towns, neighborhoods and areas and the need to manage growth and to pace and phase development, especially in high growth areas.

(3) The state in partnership with local communities must remove barriers to housing development and update and maintain zoning and building regulations to facilitate the construction, rehabilitation of properties and retrofitting of buildings for use as safe affordable housing.

(4) Creative funding mechanisms are needed at the local and state levels that provide additional resources for housing development, because there is an inadequate amount of federal and state subsidies to support the affordable housing needs of Rhode Island's current and projected population.

(5) Innovative community planning tools, including, but not limited to, density bonuses and permitted accessory dwelling units, are needed to offset escalating land costs and project financing costs that contribute to the overall cost of housing and tend to restrict the development and preservation of housing affordable to very low income, low income and moderate income persons.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

A Findings: A diverse housing stock is necessary in this community in order to serve people of all income levels. Based upon the review and consideration of the recent Lincoln Affordable Housing Production Plan, it has become clear that the provisions of the Article are necessary in order to preserve some diversity of housing opportunities for the residents and the working people of Lincoln.

The program defined by this article is necessary to provide continuing housing opportunities for low and moderate income persons in Lincoln. It is necessary to help maintain a diverse housing stock and allow residents and employees of Lincoln to have better access to housing and jobs. The local and statewide trend of increasing housing costs as identified in the Lincoln Affordable Housing Production Plan will, without intervention; result in inadequate supplies of affordable housing here for low and moderate income residents and employees.

Remaining land for residential development in Lincoln is limited. It is essential that at least ten percent (10%) of such land be developed into housing units affordable to low and moderate income households. The primary objective of this article is to obtain affordable rental and homeownership units within qualified subdivisions or land development projects. Some provisions of this chapter provide for alternatives to the production of such on-site units. Those provisions recognize the fact that individual site and economic factors can make on-site production less desirable than the alternatives for particular developers. However, the intent and preference of this article is that wherever possible, affordable units constructed pursuant to this Article be located on site.

2. Statement of Purpose

Purpose statements typically explain broad policy directives of an ordinance.

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

- a. To encourage and perpetuate the historic diversity of the community through the development of housing and housing for all populations within the Town, including, but not limited to, housing for the resident workforce and housing for special needs populations;*
- b. To promote mixed income Household occupancy in new subdivisions and land development projects throughout the Town;*
- c. To promote affordable housing production in the Town in accordance with the goals and policies of the South Kingstown Comprehensive Community Plan's Housing Element and Affordable Housing Production Plan;*
- d. To encourage the development and availability of housing that qualifies as low and moderate income housing as mandated by RIGL 45-53, the Rhode Island Low and Moderate Income Housing Act, and the Rhode Island Comprehensive Housing Production and Rehabilitation Act of 2004, as amended;*
- e. To allow landowners and/or developers a reasonable return in all zones permitting residential development where the applicant proposes a development that would be classified as a major subdivision (6 residential units or greater) or major land development project under the South Kingstown Subdivision and Land Development Regulations.*

(Lincoln, RI) [DRAFT: 02-06 Article VII]

The purposes of this article are to:

- (1) Maintain a balanced community that provides housing for people of all income levels, and*
- (2) Promote the construction of rental and homeownership housing that is affordable for the low and moderate income households of Lincoln.*

- (3) *Implement the Lincoln Affordable Housing Production Plan, and the Housing Element of the Lincoln Comprehensive Plan, and Help Lincoln achieve the 10% low-moderate income housing goal set by the State.*

3. Definitions

This part provides explanations to clarify certain specific terms used in the inclusionary zoning ordinance. Any housing, planning, or zoning terms that are not commonly used should be included in this section. Knowledge of existing definitions as established by the various Rhode Island General Laws (<http://www.rilin.state.ri.us/Statutes/TITLE45/INDEX.HTM>) concerning housing development is necessary for this section. Definitions are already provided in the legislation for many terms relevant to an inclusionary zoning ordinance provision such as:

- Affordable Housing
- Approved Affordable Housing Plan
- Moderate Income Household
- Seasonal housing
- Year-round Housing
- Low and Moderate Income Housing

- (1) **"Affordable housing"** means residential housing that has a sales price or rental amount that is within the means of a household that is moderate income or less. In the case of dwelling units for sale, housing that is affordable means housing in which principal, interest, taxes, which may be adjusted by state and local programs for property tax relief, and insurance constitute no more than thirty percent (30%) of the gross household income for a household with less than one hundred and twenty percent (120%) of area median income, adjusted for family size. In the case of dwelling units for rent, housing that is affordable means housing for which the rent, heat, and utilities other than telephone constitute no more than thirty percent (30%) of the gross annual household income for a household with eighty percent (80%) or less of area median income, adjusted for family size. Affordable housing shall include all types of year-round housing, including, but not limited to, manufactured housing, housing originally constructed for workers and their families, accessory dwelling units, housing accepting rental vouchers and/or tenant-based certificates under Section 8 of the United States Housing Act of 1937, as amended, and assisted living housing, where the sales or rental amount of such housing, adjusted for any federal, state, or municipal government subsidy, is less than or equal to thirty percent (30%) of the gross household income of the low and/or moderate income occupants of the housing [§ 42-128-8.1(d)-1].
- (2) **"Affordable housing plan"** - means a plan prepared and adopted by a town or city either to meet the requirements of chapter 45-53 or to meet the requirements of [§ 45-22.2-10(f)], which require that comprehensive plans and the elements thereof be revised to conform with amendments to the state guide plan.
- (3) **"Approved affordable housing plan"** - means an affordable housing plan that has been reviewed and approved in accordance with [§ 45-22.2-9].
- (4) **"Moderate income household"** - means a single person, family, or unrelated persons living together whose adjusted gross income is more than eighty percent (80%) but less than one hundred twenty percent (120%) of the area median income, adjusted for family size.
- (5) **"Seasonal housing"** - means housing that is intended to be occupied during limited portions of the year.
- (6) **"Year-round housing"** - means housing that is intended to be occupied by people as their usual residence and/or vacant units that are intended by their owner for occupancy at all times of the year; occupied rooms or suites of rooms in hotels are year-round housing only when occupied by permanent residents as their usual place of residence.
- (7) **"Minor subdivision"** - A plan for a subdivision of land consisting of five (5) or fewer units or lots, provided that the subdivision does not require waivers or modifications as specified in this chapter [§45-23-32 (25)].

- (8) **“Major subdivision”** - Any subdivision not classified as either an administrative subdivision or a minor subdivision [§45-23-32 (22)].
- (9) **“Cluster”** - A site planning technique that concentrates buildings in specific areas on the site to allow the remaining land to be used for recreation, common open space, and/or preservation of environmentally, historically, culturally, or other sensitive features and/or structures. The techniques used to concentrate buildings shall be specified in the ordinance and may include, but are not limited to, reduction in lot areas, setback requirements, and/or bulk requirements, with the resultant open land being devoted by deed restrictions for one or more uses. Under cluster development there is no increase in the number of lots that would be permitted under conventional development except where ordinance provisions include incentive bonuses for certain types or conditions of development [§ 45-24-31 (13)].
- (10) **“Incentive Zoning”** - The process whereby the local authority may grant additional development capacity in exchange for the developer's provision of a public benefit or amenity as specified in local ordinances [§ 45-24-31 (35)].

4. Standards - Threshold Size and Applicability

Threshold size and applicability is a two-fold standard requirement, by which the developer must comply. Therefore, the language within the inclusionary zoning ordinance must identify a standardized number of units or acres to be established as the threshold size. If the number of units or acres within the proposed land and/or building rehab development meets or exceeds the threshold size, then the threshold size will function as a trigger for the application of a set-aside provision requirement. For instance, **the “Rhode Island Five Year Strategic Housing Plan” guidelines suggest the minimum threshold trigger for this inclusionary zoning provision to be six for-sale or six rental units. This standard trigger of six for-sale or six rental units is based on R.I. enabling legislation, which differentiates a major subdivision from a minor subdivision based upon a standard of six or more units.** Nonetheless, the State would not discourage a reduction of this standard trigger as every municipality possesses unique local housing conditions/ needs, governmental structure, staffing levels, and locally approved Affordable Housing Plans. Furthermore, in some cases where large redevelopment projects are involved, a standardized number of acres must be identified as the trigger. Additionally, and only if applicable, this section of the ordinance should state whether the threshold size be applicable to all zoning districts or just specific zoning districts.

Details for the income groups to be served by the set-aside provision will be established in the “certifying buyers and renters and maintaining affordability” provision within the inclusionary zoning ordinance.

(Burlington, VT) *The following residential development projects shall be Covered Projects and shall be subject to the requirements of this Article: all development of residential property larger than 10 acres or containing 50 or more dwelling units taking place through the construction of new structures or through the substantial rehabilitation of existing structures. Covered Projects shall include all development of residential property in excess of 10 acres or containing 50 or more dwelling units in the City by the same responsible party in any calendar year.*

(A covered project in Burlington, VT is defined as - units that are offered for sale via the conveyance of a deed or share for individual units).

(Lexington, MA) *These provisions shall apply to all residential developments with three or more dwelling units which are authorized through special permits with site plan review, including residential developments in CD or RD Districts.*

(Lincoln, RI) [DRAFT: 02-06 Article VII]

- E. *Number of Inclusionary Units: Any development containing five or more dwelling units is required to include at least twenty percent (20%) of the total number of dwelling units within the development as affordable units.*

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

- B. *Applicability. This section shall be applicable in all zones permitting residential development where the applicant proposes a development that would be classified as a major subdivision (6 residential units or greater) or major land development project under the South Kingstown Subdivision and Land Development Regulations.*

5. Standards - Set-Asides

A set-aside provision pertains to the required percentage of a proposed development that a developer must price as affordable. There is no one-size-fits-all set-aside that can be used to do this. **The Zoning Enabling Act [R.I.G.L. 45-24-46.1] mandates that inclusionary zoning set-asides must be at least 10% of the total units proposed for development. In an attempt to maintain progress towards achieving the State's 10% goal, the "Rhode Island Five Year Strategic Housing Plan" guidelines suggest that municipalities consider a higher affordability set-aside, which will be off-set with a higher density bonus.** Based upon the State law and guidelines, perhaps the best general set-aside for a municipality would be to allow no less than 12.5% to 15%, but no greater than 25%.

Additionally, the municipality must decide what income tier to target for the affordable units, and balance those requirements with projects thought to have economic feasibility. Within this provision of the ordinance, the developer's pricing schedule must be consistent with the municipal affordable housing element of the comprehensive plan and the fiscal boundaries pre-established by the municipality. (The set-aside should be related directly to the Findings Section for ordinance consistency).

(Lincoln, RI) [DRAFT: 02-06 Article VII]

- E. *Number of Inclusionary Units: Any development containing five or more dwelling units is required to include at least twenty percent (20%) of the total number of dwelling units within the development as affordable units.*

(Canton, MA)

Ten percent (10%) of the dwelling units in the Continued Care Retirement Community shall be available to and permanently affordable for households earning less than or equal to 80% of the median income for Worcester County. An increase in the number of units of up to twenty percent (20%) of the maximum dwelling units allowed may be permitted on a one to one basis for units above and beyond the required ten percent (10%).

(Duxbury, MA) [DRAFT]

At least ten (10) percent of the lots in a division of land or units in a multiple unit development subject to this Bylaw shall be established as affordable housing units in any one or combination of methods provided for below. Fractions of a lot or dwelling unit shall be rounded up to the nearest whole number, such that a development proposing six (6) dwelling units shall require one affordable unit, a development proposing eleven (11) dwelling units shall require two affordable units and so on.

6. Standards - Design and Building Requirements

Within the inclusionary zoning ordinance, it is important to establish the specific site design and architectural standards that will be implemented to move forward with the construction of the affordable housing units. In addition, while the type and design of a proposed development will be determined by the needs of the community, **the inclusionary zoning ordinance should implement guidelines that require affordable units to be similar in outward appearance to market rate units in the municipality.** More often than not, visual compatibility positively contributes to the overall aesthetic quality of the municipality; and this can make it easier for low or moderate income residents to both accommodate and assimilate themselves into the municipality. **In addition, the ordinance should provide implementation guidelines for developments that may include a mix of housing types and lot sizes, such as single-family units, duplexes, triplexes, and quadraplexes.**

Handbook on Developing Inclusionary Zoning

Part 5: Developing an Ordinance

Lastly, the inclusionary zoning ordinance should address two additional building alternatives: off-site construction and land dedication. In the event a developer proves that the construction of on-site affordable units is infeasible (due to environmental constraints or other fiscal considerations); he may be granted the option, with approval from the municipal Planning Board, for off-site construction. An approval of this nature should require the developer to construct both the market and the affordable units simultaneously. A land dedication provision would allow a developer, demonstrating a unique hardship, to **substitute a donation of land suitable for development that can accommodate affordable units in place of constructing the units.**

Presented below are six examples of either approved ordinances or ordinances still in the drafting phase demonstrating those guidelines set within the "Rhode Island Statewide Strategic Housing Plan". Examples one and two demonstrate guideline language for development design and location; examples three and four demonstrate guideline language for a variety of different mixed use developments; example five demonstrates guideline language for the circumstances and requirements for off-site developments; lastly, example six demonstrates guideline language for the requirements for land dedication.

Example One

(Lexington, MA)

6. *Development Design. Location and design of Inclusionary Units shall comply with the following:*

- (a) Inclusionary Units shall be sited in no less desirable locations than the other units located on the same site.*
- (b) The materials used and the quality of construction for Inclusionary Units, including heating, ventilation, and air conditioning systems, shall be equal to those of the other units in the development, but amenities such as designer or high end appliances and fixtures need not be provided for Inclusionary Units.*
- (c) To be credited towards the count of Inclusionary Units any existing dwelling units must be in full compliance with all applicable construction and occupancy codes, and shall be sufficiently maintained or rehabilitated so that all major systems (including, but not limited to, roof, windows and building envelope, HVAC, plumbing, and electrical) meet standards comparable to new construction.*
- (d) The exterior appearance of the Inclusionary Units shall be compatible with the other units on the same site.*

Example Two

(Lincoln, RI) [DRAFT: 02-06 Article VII]

J. *Design Guidelines*

- (1.) The exterior appearance of the Inclusionary units in any development shall be visually compatible with the market rate units in the development. External building materials and finishes shall be substantially the same in type and quality for inclusionary units as for market rate units and have the appearance of a single family home.*

Example Three

(Providence Inclusionary Zoning Recommendations) [PolicyLink]

Design Standards for Inclusionary Units

Affordable units must be similar to and compatible with market rate units in outward appearance and in number of bedrooms, but size of affordable units may be reduced to a minimum standard, e.g. for apartments, the minimum sizes could be:

- Efficiencies at 450 sq. ft.*
- One bedrooms at 600 sq. ft.*
- Two bedrooms at 850 sq. ft.*
- Three bedrooms at 1,050 sq. ft.*
- Four bedrooms at 1,120 sq. ft.*

Townhouses, multiplex, and single family units would generally be larger than these minimums due to developer design and compatibility goals. Interior finishes, appliances, and amenities need not be compatible with market rate units.

Handbook on Developing Inclusionary Zoning Part 5: Developing an Ordinance

Example Four

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

C. Permitted Uses. (Note: the section below is modeled after the existing provisions of Section 502.5 Flexible Design Residential Projects.).

a) The following residential uses are permitted (Y) in subdivisions or land development projects to these inclusionary provisions.

<u>Use Code</u>	<u>Description</u>
10	Single household detached structure
11	Two household detached structure
12	Multi-household detached structure (up to four-dwelling units per structure in subdivisions, up to 12 units per structure LDP, Land Development Project)
12.1	Multi-household Land Development Project (see Appendix A, Use Code Descriptions)
12.2	Multi-household Detached Structure-Elderly Only, LDP (see Appendix A, Use Code Descriptions)
12.3	Multi-household Land Development Project - Elderly Only, LDP (see Appendix A, Use Code Descriptions)
12.4	Residential Compound (see Appendix A, Use Code Descriptions)
16.1	Mobile or Manufactured Home Park, Land Development Project (see Appendix A, Use Code Descriptions)
16.2	Senior Residential Community – LDP (Land Development Project) – Elderly-Only, (see Section 501.7, permitted only in the R40 zoning district subject to the additional requirements listed therein)

I. Design Standards for Inclusionary Dwelling Units in Major Subdivisions and Major Land Development Projects

1 Intent

It is the intent of this Section to establish general design and procedural standards for the siting and construction of affordable dwelling units (inclusionary zoning) in major land developments and major subdivisions. By the application of these standards and procedural requirements it is intended to create subdivision neighborhoods and land development projects that have long desirability, provide housing opportunities for a broad range of households with varying incomes and housing needs and are compatible with the surrounding community.

a) Inclusionary Dwelling Unit Design Considerations -...For conventional subdivisions or Flexible Design Residential Projects (FDRP's) such units may be designed as single household units, duplexes, triplexes or in a quadraplex configuration.

Example Five

(Lincoln, RI) [DRAFT: 02-06 Article VII]

M. Off-site Construction of Inclusionary Units: Inclusionary units may be constructed off-site only upon the determination by the Planning Board or Zoning Board that on-site construction is infeasible. If this option is chosen, then the off-site inclusionary units must be constructed prior to or concurrently with the construction of the on-site project. The inclusionary unit size and count must meet the same requirements as if the inclusionary units were constructed on-site.

Example Six

(Towns in Barnstable County, MA) [Inclusionary Housing Bylaw]*

05 Provision of Affordable Units:

4. An applicant may offer, and SPGA may accept, donations of land in fee simple, on or off-site, that the SPGA in its sole discretion determines are suitable for the construction of affordable housing units. The value of donated land shall be equal to or greater than the value of the construction or set-aside of the affordable units. The SPGA may require, prior to accepting land as satisfaction of the requirements of this provision/ordinance, that the applicant submit appraisals of the land in question, as well as other data relevant to the determination of equivalent value.

*Note: If item 4 were to be incorporated into the language of a RI ordinance, replace the "SPGA" with "Zoning Board of Review or Planning Board (ZBR or PB)"; and replace the word "bylaw" with the word "ordinance".

Handbook on Developing Inclusionary Zoning Part 5: Developing an Ordinance

7. Standards - Timing of construction

It is important to establish when the affordable units shall be constructed. Most municipalities require affordable units to be built concurrently with market units to ensure integration of affordable and market units, and to prevent developers from abandoning projects prior to completing the affordable units. This section can be used to stipulate when phasing is used how many affordable units are to be constructed as part of each phase. **The “Rhode Island Five Year Strategic Housing Plan” guidelines state that the inclusionary ordinance may stipulate an upfront commitment from developers to create affordable units in a timely manner through the use of bonds or the requirement of phased construction plans, encouraging developers to construct affordable units either before or concurrent with market rate units.**

(Burlington, VT) *Inclusionary units shall be made available for occupancy on approximately the same schedule as a Covered Project's market units, except that certificates of occupancy for the last ten percent of the market units shall be withheld until certificates of occupancy have been issued for all of the inclusionary units. A schedule setting forth the phasing of the total number of units in a Covered Project, along with a schedule setting forth the phasing of the required inclusionary units, shall be established prior to the issuance of a building permit for any development subject to the provisions of this Article.*

(A covered project in Burlington, VT is defined as - units that are offered for sale via the conveyance of a deed or share for individual units).

(Lexington, MA) *POLICY 4.15: TIMING OF CONSTRUCTION: Building permits should not be issued for the construction of any dwelling unit in the second 50% of the market rate dwelling units, which are linked to affordable dwelling units, whether on the same site or elsewhere in town, until construction has begun on ALL the affordable dwelling units.*

(Massachusetts Smart Growth Model IZ Bylaw)

05.0 Provisions Applicable to Affordable Housing Units On- and Off-Site:

3. *Timing of construction or provision of affordable units or lots. Where feasible, affordable housing units shall be provided coincident to the development of market-rate units, but in no event shall the development of affordable units be delayed beyond the schedule noted below:*

<u>Market rate Unit (% Complete)</u>	<u>Affordable Housing Unit (% Required)</u>
<30%	-
30% plus 1 unit	10%
Up to 50%	30%
Up to 75%	50%
75% plus 1 unit	70%
Up to 90%	100%

Fractions of units shall not be counted.

(Charlton, MA) [DRAFT]

- (4.) *The construction of the affordable units will be built (a unit is considered “built” upon the issuance of an Occupancy Permit) coincident with the development of market-rate units, but in no event shall the development of affordable units be delayed beyond the schedule noted below:*

<u>Market rate units (% built)</u>	<u>Affordable housing units (% built)</u>
Up to 30%	None required
30% to 50%	At least 30%
51% to 75%	At least 75%
76% or more	100%

8. Cost Offsets and Density Bonuses

State inclusionary zoning guidelines suggest ways of reducing the costs of a development to enable the construction of affordable housing. Municipalities may implement cost offsets in a variety of ways. These include waivers from development standards such as set-back requirements, parking and landscaping requirements, waivers of impact fees and streamlining permitting to reduce the cost of constructing affordable units. These cost offsets allow a municipality to decrease the developer costs to be incurred while constructing affordable housing. In addition, the cost offsets minimize the possibility of a developer showing that inclusionary zoning causes an excessive loss such that it presents itself as a taking. Furthermore, the cost offsets give developers certain benefits to compensate themselves for pricing some units at below market rates.

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

502.6 A. Fair Share Development Fee Exemption. Per section 1101.D. 1. of this Ordinance, required Inclusionary dwelling units in major land development projects, major subdivisions or off-site exactions shall be exempt from payment of Fair Share Development Fees for both school facilities and open space, conservation, park and recreation land and/or facilities.

One of the most popular developer incentives used by a municipality is the density bonus. Consequently, the incorporation of the density bonus provision has become an essential component of the inclusionary zoning ordinance, as it has proven advantageous to both the developer and municipality. **The State guidelines indicate that for the density bonus provision to be effective, it must be offered at a higher percentage than the affordable set-aside requirement in order to offset the cost of the affordable unit requirements.**

(Charlton, MA) [DRAFT]

0. Provision of Affordable Units and Density Bonus

- (1.) Utilizing the Affordable Housing Incentive Option will require the granting of a Special Permit from the Planning Board.*
- (2.) *Density Bonus Applicability: The density bonus is only available in those areas of Charlton serviced by **both** municipal water and sewer, or upon approval of **both** the Planning Board and the Board of Health.*
- (3.) Density Bonus Formula: For projects resulting in a net increase of six (6) or more dwelling units, the applicant has the option of obtaining a density bonus in exchange for the provision of affordable housing. The number of additional lots derived from the density bonus shall not exceed 25% of the total lots that could be created under a conventional definitive subdivision plan design. The density bonus shall be calculated according to the following formula:*
 - 3-a. For those residential development projects that will set aside a minimum of fifteen percent (15%) of the total proposed housing units for affordable housing, the minimum lot area per dwelling normally required in the applicable zoning district may be reduced by the amount necessary to permit up to two (2) additional units for each one affordable housing unit provided.*
 - 3-b. For those residential development projects that will set aside a minimum of ten percent (10%) of the total proposed housing units for affordable housing, the minimum lot area per dwelling normally required in the applicable zoning district may be reduced by the amount necessary to permit up to one (1) additional unit for each one affordable housing unit provided.*
 - 3-c. Fractions: If when applying the above percentages to the total number of units to determine the number of affordable units, the resulting number of affordable units includes a fraction of a unit, this fraction shall be rounded up to the next whole number.*

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*Note – If item (2) were to be incorporated into the language of a RI ordinance, the language would need to be specific with regard to the type of water supply (i.e. – municipal water source; or a private/public well water source) available to it and its wastewater management system. Furthermore, if specific approvals need to be obtained, the municipality would need to identify those particular municipal and state departments.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

Density Bonus: All projects shall be entitled to a density increase of twenty-five percent (25%) in accordance with the provisions of this section. This density bonus qualifies as a locally provided subsidy. Any project shall be entitled to an increase in the maximum lot coverage allowed for the site on which the project is located following the calculation of density, lot coverage, and setbacks.

(Somerville, MA) The affordable housing requirements of this Article shall apply to all residential developments seeking special permits with site plan review to develop 8 or more dwelling units, whether new construction, substantial rehabilitation, or adaptive reuse. Developments shall not be segmented or phased in a manner to avoid compliance with these provisions. Developers providing more than 12.5% of the total units in the development as affordable units may apply for an additional density bonus under the terms of this Article. Bonuses may be awarded on the basis of a 2 to 1 ratio of market rate units to affordable housing units. For every additional unit provided beyond the 12.5% required, 2 additional market rate units may be authorized.

9. Fee In Lieu

An inclusionary zoning ordinance may allow the option for the developer to pay a fee in lieu should it not be possible to construct the required affordable units for a variety of reasons. Several methods exist for the use of fee in lieu of construction. Such fees can be established that permit payment as a right. **In addition, an alternative is to require developers to show that constructing units would constitute a unique hardship, or that a fee would produce a greater benefit. State guidelines recommend that each community adopt a schedule of in-lieu fees that is based on a sound methodology, such as a percentage of the appraised value of the market-rate units. The fee should not exceed the difference between the cost of development and the sales price for an affordable unit.** The fee in lieu paid, is linked to the cost of producing a unit, and typically varies in every community, as the formulas for calculating an appropriate fee in lieu are dependent upon the local housing market.

(Massachusetts Smart Growth Model IZ Bylaw)

07.0 Fees-in-Lieu-of Affordable Housing Unit Provision: [Commentary Included]

1. As an alternative to the requirements of Section 05.0 or Section 06.0, an applicant may contribute to an established local housing trust fund to be used for the development of affordable housing in lieu of constructing and offering affordable units within the locus of the proposed development or at an off-site locus.

(a) Calculation of fee-in-lieu-of units. The applicant for development subject to this bylaw may pay fees-in-lieu of the construction of affordable units. For the purposes of this bylaw/ordinance the fee-in-lieu of the construction or provision of affordable units will be determined as a per-unit cost as calculated from regional construction and sales reports. The SPGA will make the final determination of acceptable value.

COMMENT: *This Section provides a cash payment option in lieu of providing affordable units. The payment value may differ for each municipality and will depend on the size of the affordable housing unit discount that would be necessary to make the unit affordable (e.g. median sale price of market rate unit minus maximum sale price of a three-bedroom affordable dwelling unit). Fees in-lieu will need to be recalculated regularly to account for inflation and other market changes. Furthermore, the local housing trust fund will need to be closely regulated to ensure that dollars contributed to the fund are spent exclusively on the provisioning of affordable housing. This is the appropriate section for specifying guidelines for administering the housing trust and stipulating the governance structure by which the trust will be managed. Municipalities that significantly lack*

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affordable housing opportunities should consider heavily restricting the fee-in-lieu payment option. In built-out communities, housing trust funds often grow and sit unused because sites appropriate for affordable housing development are not available. Additionally, affordable housing trusts can force municipal agents into the role of real estate developers, which local government officials may be poorly suited for or reluctant to do. Cities such as Cambridge have eliminated the fee-in-lieu payment option in almost all cases except for extreme hardship in order to ensure that affordable housing is built by the developers at the same time that new development is under construction.

(Duxbury, MA) [DRAFT]

560.12 Fees-in Lieu of Affordable Housing Unit Provision

As an alternative to the requirements of Section 560.5, and as allowed by law, an applicant may contribute to the Duxbury Housing Trust Fund to be used for the development of affordable housing in lieu of constructing and offering affordable units within the locus of the proposed development or off-site.

Calculation of fees-in-lieu of units. The applicant for development subject to this Bylaw may pay fees in lieu of the construction of affordable units. For the purposes of this Bylaw, the fee in lieu of the construction or provision of affordable units is determined to be \$200,000 per unit. For example, if the applicant is required to construct two affordable income units, they may opt to pay \$400,000 in lieu of constructing or providing the units. Unless and until adjusted by Town Meeting, the fee in lieu of the construction of affordable units shall increase three (3%) percent every twelve months from the effective date of this Bylaw.

10. Certifying Buyers and Renters and Maintaining Affordability

An inclusionary zoning ordinance can provide regulations with extensive instructions for marketing to and certifying buyers and renters of affordable units. **Affordable dwelling units for sale cost guidelines comprise: the principal, interest, property insurance, and taxes - which may be adjusted by state and local programs for property tax relief. These consolidated costs may not constitute more than 30 percent of the gross household income for a moderate income household. In the case of affordable dwelling units for rent cost guidelines comprise: the rent, heat, and utilities - other than telephone - and may not constitute more than 30 percent of the gross annual household income for a household with 80 percent or less of Area Median Income (AMI), adjusted for household size. State guidelines suggest that income ranges targeted in local zoning ordinances be consistent with the needs identified in the community's affordable housing plan.**

In addition, the provisions must have a system to make sure that eligible families are being housed in the affordable units over the long-term. **The Zoning Enabling Act [R.I.G.L. 45-24-46] mandates that the minimum time period for affordability maintenance shall be 30 years; and the State guidelines recommend that the period of affordability can be established in the ordinance as perpetuity meaning 99 years or the useful life of the building.**

The methods utilized to maintain the time frames for affordability vary with regard to the staffing and enforcement capabilities of each municipality. Typically affordability is maintained by certain legal mechanisms such as deed restrictions and covenants that can be used to guarantee the units remain affordable for that time period maintained through deed restrictions or covenants recorded against the property. These affordability controls often specify that a unit must be sold or rented to an income eligible buyer at an affordable price. Most ordinances impose price restrictions that keep units affordable when they pass to new occupants. More recently, municipalities have incorporated specific affordability maintenance periods, which would subsequently reinstate the original time period of affordability.

Lastly, guidelines need to be provided on the subject of resale pricing and maintaining the affordability of the housing units. Municipalities must address whether sellers should be allowed to recoup the value of capital investments in their homes. All of the aforementioned considerations can be facilitated by designating a monitoring agent in the ordinance. **The State inclusionary zoning guidelines recommends that the local municipality should select an agent approved to**

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monitor the affordable units for long-term compliance from RI Housing's list of approved monitoring agents, which may include local housing authorities, RI Housing, a community housing land trust, or the state or federal agency providing subsidies.

(Duxbury, MA) [DRAFT]

560.10 Maximum Incomes and Selling Prices: Initial Sale

To ensure that only eligible households purchase affordable units, the purchaser of an affordable unit shall be required to submit copies of the last three years' federal and state income tax returns and certify, in writing and prior to transfer of title, to the developer of the housing units or his/her agent, and within thirty (30) days following transfer of title, to the Duxbury Housing Authority, that his/her or their family's annual income level does not exceed the maximum level as established by the Commonwealth's Division of Housing and Community Development, and as may be revised from time to time.

The maximum housing cost for affordable units created under this Bylaw is as established by the Commonwealth's Division of Housing and Community Development or as revised by the Town.

560.11 Preservation of Affordability: Restrictions on Resale

Each affordable unit created in accordance with this Bylaw shall have the following limitations governing its resale. The purpose of these limitations is to preserve the long-term affordability of the unit and to ensure its continued availability for affordable income households. The resale controls shall be established through a deed restriction on the property, recorded at the Plymouth County Registry of Deeds or the Land Court, and shall be in force for as long a period as is lawful.

Resale Price – Sales beyond the initial sale to a qualified affordable income purchaser shall include the initial discount rate between the sale price to and the unit's appraised value at the time of resale. This percentage shall be recorded as part of the restriction on the property noted in Section 560.11. For example, if a unit appraised for \$300,000 is sold for \$225,000 as a result of this Bylaw, it has sold for 75% of its appraised value. If several years later, the appraised value of the unit at the time of proposed resale is \$325,000, the unit may be sold for no more than \$243,750, or 75% of the appraised value of \$325,000.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

O. Requirements

(2) Determination of Rental Rates for Affordable Units:

Maximum Rents: Rents charged for inclusionary rental units in any one project must average, be affordable to households earning eighty percent (80%) or less of the Area Median Income (AMI) as determined by HUD. No unit may rent at a rate, which exceeds affordability for a household earning fifty percent (50%) to eighty percent (80%) of AMI as determined by HUD. Latest AMI statistics may be obtained from Rhode Island Housing at www.rihousing.com.

(3) Sales Prices for Affordable Units: The maximum sales price for an affordable ownership unit shall be set by Rhode Island Housing according to their accepted formula. The home price for affordable units in any development shall be a price affordable to a household earning no more than eighty (80%) of the AMI as defined by HUD if subsidized with federal funds. The home price for affordable units in any development not being subsidized by federal funds the price must be affordable as follows:

a One unit shall be made available at a price affordable to a household earning no more than eighty percent (80%) of the AMI as defined by HUD.

b One unit shall be made available at a price affordable to a household earning no more than one hundred percent (100%) of the AMI as defined by HUD.

c Any additional units may be made available at a price affordable to a household earning no more than one hundred twenty percent (120%) of AMI as defined by HUD.

(4.) Approved Purchasers of Affordable Units: A developer or owner shall select an eligible purchaser after completing a good faith marketing and selection process. Upon request, the Town may provide the developer or owner of an affordable unit with a list of households certified by the Town as eligible to purchase the unit. However, a developer or property owner may select an income eligible purchaser who is not on a furnished list so long as the Town can verify the purchaser's income and asset eligibility and the unit is sold at an affordable price as described in this chapter.

(5.) Purchasers of Affordable Units Required to Reside in Those Units: A purchaser of an affordable unit shall occupy the purchased unit as their primary residence. No person shall rent an affordable

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ownership unit. Ownership units must remain exclusively owner occupied for the entire required affordability period.

- (6.) Resale Restrictions; Applicable to Affordable Units: All affordable ownership units as developed under this Article shall be subject to the following restrictions: A seller of an affordable unit must select a low-income purchaser by a method that complies with an approved good faith marketing and selection process. At the request of the applicant, the Town will provide the seller with the description of a process that meets this requirement. Upon request, the Town may provide the seller with a list of households certified by the Town as income eligible to purchase the unit. All purchasers of affordable units shall be part of an income eligible household.
- (7.) Resale Price for Affordable Units: The resale price of any affordable unit shall not exceed that which is affordable to a household earning no more than eighty percent (80%) to one-hundred twenty percent (120%) of the AMI as defined in Section N.(3).

11. Housing Agency Right to Purchase

Where appropriate, some inclusionary zoning ordinances give the municipality and/or designated not-for-profit entities a right to purchase a fixed percentage of affordable units. This can be required when the units are first offered for sale or rent, so that the units will stay permanently affordable. Lastly, the local trends in housing stock, the need for and benefits of affordable housing, and the staff capability of each community and/or the presence of a qualified community development corporation should dictate how this guideline shall be incorporated within the municipality's inclusionary zoning ordinance.

(Duxbury, MA) [DRAFT]

560.11 Preservation of Affordability: Restrictions on Resale

Right of first refusal to purchase – The purchaser of an affordable housing unit developed as a result of this Bylaw shall agree to execute a deed rider prepared by the Town, granting, among other things, the Town's right of first refusal for a period not less than one hundred and eighty (180) days to purchase the property of assignment thereof, in the event that, despite diligent efforts to sell the property, a subsequent qualified purchaser cannot be located.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

O. Requirements

- (8.) Deed Restriction or Incorporation into a Community Land Trust Required: No person offering an affordable unit for sale shall fail to lawfully reference in the grant deed conveying title of any such unit and recorded with the Register of Deeds, a covenant or Declaration of Restrictions in a form approved by the Town. Such covenant or Declaration of Restrictions shall reference applicable contractual arrangements, restrictive covenants, and resale restrictions as are necessary to carry out the purposes of this Article.

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Rhode Island State Agency World Wide Web Pages:

RI Statewide Planning Program	http://www.planning.state.ri.us .
RI Housing and Mortgage Finance Corporation	http://rihousing.com .
Rhode Island Government	www.ri.gov .
Rhode Island General Laws	http://www.rilin.state.ri.us/Statutes/TITLE45/INDEX.HTM .

World Wide Web Pages of Various Case Studies & Sample Ordinances

Barrington, RI	http://www.ci.barrington.ri.us .
Barnstable, MA	www.capecodcommission.org/bylaws/affordhous.html .
Boston, MA	http://www.cityofboston.gov .
Burlington, VT	http://www.ci.burlington.vt.us .
Burrillville, RI	http://www.burrillville.org .
Cambridge, MA	http://www.cambridgema.gov/index.cfm .
Canton, MA	http://www.town.canton.ma.us .
Charlton, MA [DRAFT]	http://www.townofcharlton.net .
Duxbury, MA [DRAFT]	http://www.town.duxbury.ma.us .
East Greenwich, RI	http://www.eastgreenwichri.com .
East Providence, RI	http://www.eastprovidence.com .
Lexington, MA	http://ci.lexington.ma.us .
Lincoln, RI [DRAFT: 02-06 Article VII]	http://www.lincolnri.org .
Massachusetts	http://www.state.ma.us/dhcd/components/hac/zone.htm .
Massachusetts Smart Growth Model IZ Bylaw	http://www.mass.gov/ocd .
Montgomery County, MD	www.inhousing.org/InclusionaryZoning/zonelaws.htm .
North Kingstown, RI	http://www.northkingstown.org .
Providence Inclusionary Zoning Recommendations [PolicyLink]	http://www.policylink.org/Projects/IZ/ .
Richmond, RI	http://www.richmondri.com .

***Handbook on Developing Inclusionary Zoning
References and More Information***

Somerville, MA

<http://www.ci.somerville.ma.us>.

South Kingstown, RI [FINAL DRAFT:
Inclusionary Zoning Ordinance and Subdivision
Regulations; Revised February, 2006]

<http://www.southkingstownri.com>.

Links

If you are looking for additional housing-related information, you may want to visit one of the following sites. Access is provided purely as a public service. The State of Rhode Island does not endorse any of the linked sites or any products or services found at the linked sites.

Citizens' Housing and Planning Association
www.chapa.org.

Enterprise Foundation www.enterprisefoundation.org.

Fannie Mae www.fanniemae.com.

Federal Home Loan Bank of Boston
www.fhlbboston.com.

Freddie Mac www.freddiemac.com.

Grow Smart Rhode Island
<http://www.growsmartri.com/affordablehousing.html>.

Harvard University Joint Center for Housing Studies
www.jchs.harvard.edu.

HUD www.hud.gov.

LISC www.liscnet.org.

Massachusetts Housing Partnership Fund
www.mhp.net/termsheets/inclusionaryzoning.pdf.

Minority Business Enterprise Commission
www.rimbe.org.

National Association of Housing & Redevelopment
Officials www.nahro.org.

National Association of Realtors www.realtor.com.

National Association of Home Builders www.nahb.com.

National Coalition for the Homeless
www.nationalhomeless.org.

National Council of State Housing Agencies
www.ncsha.org.

National Housing Conference www.nhc.org.

National Low Income Housing Coalition www.nlihc.org.

Neighborworks www.nw.org.

Pioneer Institute www.pioneerinstitute.org.

Research Institute for Housing America
www.housingamerica.org.

Rhode Island Association of Realtors www.riliving.com.

RI Builders Association www.ribuilders.org.

RI Chapter of the American Planning Association
www.riapa.org.

RI Coalition for the Homeless www.rihomeless.com.

RI Housing Resources Commission
www.hrc.state.ri.us.

Southeastern Regional Planning and Economic
Development District <http://www.srpedd.org>.

Statewide Housing Action Coalition www.shac-ri.org.

Regional Inclusionary Housing Initiative

Policy Tools Series

POLICY TOOL #1

DEVELOPING AN INCLUSIONARY ZONING ORDINANCE

Inclusionary housing programs can effectively create affordable housing in a variety of communities. The most common route to creating an inclusionary housing program is through a zoning ordinance that sets the specific requirements linking the development of new residential units with the creation of affordable housing units. This Policy Tool provides a brief overview of inclusionary housing and a detailed analysis of issues that need to be considered when developing an inclusionary zoning ordinance.

What is Inclusionary Housing? Inclusionary zoning requires residential developers to set aside a portion of the homes they build as affordable for low- and moderate-income families. In addition to increasing the supply of affordable housing, inclusionary zoning disperses affordable housing throughout the growth areas of a region. It enables low- and moderate- income families to live in homes indistinguishable from, and adjacent to, market-rate housing, and to live in communities with better access to employment and educational opportunities. Inclusionary zoning has been implemented in a variety of locales, ranging from older cities, such as Boston, to growing towns like Longmont, Colorado.

What are the benefits of Inclusionary Housing? Inclusionary housing programs help municipalities serve the needs of local employers, including business, schools, and the municipalities themselves:

- Businesses find it easier to hire and retain employees who are able to live within a reasonable commuting distance
- Municipal governments, school districts, fire and police departments benefit from employees living in the communities they serve because they are more invested in its future.

Inclusionary housing helps meet the needs of current and future residents:

- Senior citizens have the choice to remain in the communities where they have raised their children.
- Younger parents and single parent families can find homes in communities with good schools, parks and services.

Inclusionary housing is effective in a variety of housing market conditions:

- In gentrifying communities, the affordable units created through an inclusionary program can help offset the displacement of residents.
- In new and growing suburban communities, the inclusionary units can broadly disperse affordable housing needed by area jobholders and prevent exclusive communities.

ISSUES TO CONSIDER IN DEVELOPING AN INCLUSIONARY ZONING ORDINANCE

The development of an inclusionary zoning ordinance requires consideration of a range of variables. The local decision making process that tailors the ordinance to local conditions is critical. There is no perfect inclusionary zoning ordinance but rather a range of options that need to be viewed separately and then evaluated in terms of how they work together. The following report addresses each variable and options to be weighed in developing an effective ordinance. It should be used as a guidebook through these issues, not as a magic recipe.

#1 Findings

Many ordinances begin with findings about the need for affordable housing and planning study results. The section would summarize any planning process the community has undertaken, trends in housing stock, the need for and benefits of affordable housing, and the benefits anticipated by enactment of an inclusionary zoning ordinance. Findings sections are often lengthy. Below is language based on Sacramento's ordinance.

The City Council makes the following findings:

- It is a public purpose of the City to achieve a diverse and balanced community with housing available for households of all income levels. Economic diversity fosters social and environmental conditions that protect and enhance the social fabric of the City and are beneficial to the health, safety, and welfare of its residents.
 - The City is experiencing an increasing shortage of housing affordable to low income households. New residential development does not provide housing opportunities for low income households due to the high cost of newly constructed housing in the City. As a result, low income families are *de facto* excluded from many neighborhoods, creating economic stratification detrimental to the public health, safety, and welfare. An increasing number of low income persons live in overcrowded or substandard housing and devote an overly large percentage of their income to pay for housing.
 - The amount of land in the City available for residential development is limited by City General Plan policies and principles embodied in state law pertaining to general plans and annexation. Scarce remaining opportunities for affordable housing would be lost by the consumption of this remaining land for residential development without providing housing affordable to persons of all incomes.
 - Therefore, to implement the City General Plan, to carry out the policies of state law, and to ensure the benefits of economic diversity to the residents of the City, it is essential that new residential development in the remaining new growth areas of the City contain housing opportunities to low income households, and that the City provide a regulatory and incentive framework which ensures development of an adequate supply and mix of new housing to meet the future housing needs of all income segments of the community.
- (Sacramento)

#2 Statement of Purpose

Purpose Statements typically are broad policy directives. The first purpose statement below is based on language from Fairfax County, Virginia's ordinance, and the second statement is based on language from Boulder, Colorado.

This program is established to assist in the provision of affordable housing for persons of low and moderate income. The program is designed to promote a full range of housing choices and to require the construction and continued existence of dwelling units affordable to households whose income is 115% or less than the median income for the Chicago Standard Metropolitan Statistical Area. (Fairfax County)

The purposes of this chapter are to:

- (a) Implement the housing goals of the City Master Plan;
- (b) Promote the construction of housing that is affordable to the community's workforce;
- (c) Retain opportunities for people that work in the City to also live in the City;
- (d) Maintain a balanced community that provides housing for people of all income levels; and
- (e) Insure that housing options continue to be available for very low-income, low-income, and moderate-income residents, for special needs populations and for a significant proportion of those who both work and wish to live in the City. (Boulder)

#3 Definitions

The terms that follow are typical of those that are defined in inclusionary zoning ordinances:

Affordable Housing Price	Eligible Homebuyer	Median Income
Affordable Rent	Eligible Renter	Moderate Income
Affordable Dwelling Unit	Extreme Hardship	Permanently Affordable
Control Period	Housing Commission	Residential Project
Developer	Housing Trust Fund	Very Low Income
Development Agreement	Low Income	
Dwelling Unit	Market Unit	

#4 Threshold Size

Some ordinances limit their application to developments exceeding a threshold size. The first example below is based on language from Boulder's ordinance. In one sentence, it sets a threshold size, a set-aside percentage, and a period of affordability. The second is based on Burlington, Vermont's ordinance, and is notable because it applies to rehabilitation projects and the threshold level is applicable to development on more than a single site. Either example could be abbreviated to simply state what size developments trigger application of a set aside requirement.

Any development on a site larger than 10 acres or containing 50 or more dwelling units shall include at least twenty percent of the total number of dwelling units within the development as permanent affordable units. (Boulder)

The following residential development projects shall be Covered Projects and shall be subject to the requirements of this Article: all development of residential property larger than 10 acres or containing 50 or more dwelling units taking place through the construction of new structures or through the substantial rehabilitation of existing structures. Covered Projects shall include all development of residential property in excess of 10 acres or containing 50 or more dwelling units in the City by the same responsible party in any calendar year. (Burlington)

#5 Set-Aside—Targeted

A critical decision in developing an inclusionary zoning ordinance is the percentage of housing units required to be set aside as affordable. Often the set aside requirements are linked to specific income eligibility targets. Two examples of affordable housing set-asides targeted to specific income tiers follow below. The first example is based on language from Sacramento's ordinance. The second example, based on provisions of Davis, California's ordinance applicable to rental housing, also targets affordable housing to different income tiers, but varies the target percentages based on the size of the project. (Davis's numbers and percentages are used for ease of understanding.)

In developments covered by this section, the inclusionary housing component shall consist of affordable units leased or sold as follows: x% to very low income families (earning no more than 50% of area median income); x% to low income (earning more than 50% of area median income but no more than 80% of area median income); and x% to moderate income families (earning more than 80% of area median income but no more than 115% of area median income). (Sacramento)

A developer of multifamily rental developments containing 50 or more units shall provide at least 25% of the units affordable to low income households (earning more than 50% of area median income but no more than 80% of area median income) and at least 10% percent of the units affordable to very low income households (earning no more than 50% of area median income). A developer of multifamily rental developments containing between five and nineteen units, inclusive, shall provide 15% percent of the units to low income households and 10% percent to very low income households. (Davis)

#6 Housing Commission Right to Purchase

Some ordinances give the municipality and not-for-profit entities a right to purchase a fixed percentage of affordable units when they are first offered for sale or rent, so that they can keep the units permanently affordable. The first example below is based on language from Montgomery County, Maryland's ordinance, and the second is based on Fairfax County, Virginia's ordinance. (The percentages identified are Montgomery County's and Fairfax County's, respectively.)

The Housing Commission and any other not-for-profit corporation designated by the Commission has the option to buy or lease, for its own programs or programs administered by it, up to 40% percent of all affordable units. The Commission may buy or lease up to 33%. Any other designated corporation may purchase or lease any affordable units in the first 33% that the Commission has not bought or leased, and the remainder of the 40%. Units purchased or leased under this option shall be assigned to very-low or low-income persons. The Commission shall establish standards for designating not-for-profit corporations which shall require the corporations to demonstrate their ability to operate and maintain affordable units satisfactorily on a long-term basis. (Montgomery County)

The Housing Commission shall have an exclusive right to purchase up to one-third of the for sale affordable dwelling units within a development for a 90 day period beginning on the date of receipt of written notification from the developer advising the Housing Commission that a particular affordable dwelling unit is or will be completed and ready for purchase. The

remaining two thirds of the for sale affordable units within a development and any units which the Housing Commission does not elect to purchase shall be offered for sale exclusively for a 90 day period to persons who meet the income criteria established by the Housing Commission. After the expiration of 60 days of the 90 day period referenced above, the affordable dwelling units not sold shall be offered for sale to nonprofit housing groups, as designated by the Housing Commission, subject to the established affordable dwelling unit prices. (Fairfax County)

#7 Design and Building Requirements

Most ordinances require that affordable units be visually compatible with market rate units in the same development. The language below illustrates how this preference is drafted into an ordinance. The first example is based on Burlington's ordinance, the second is based on Sacramento's, and the third is based on Fairfax County's.

Affordable inclusionary units may differ from the market units in a Covered Project with regard to interior amenities and gross floor area, provided that:

- (i) these differences, excluding differences related to size differentials, are not apparent in the general exterior appearance of the Project's units; and
- (ii) these differences do not include insulation, windows, heating systems, and other improvements related to the energy efficiency of the Project's units;
- (iii) the gross floor area of the affordable inclusionary units is not less than minimum requirements established by the City.

(Burlington)

Inclusionary Units shall be visually compatible with Market Rate Units. External Building materials and finishes shall be the same type and quality for Inclusionary Units as for Market Rate Units. Upon application by the developer to the City, the City may, to the maximum extent appropriate in light of project design elements as determined by the Planning Director, allow builders to finish out the interior of Inclusionary Units with less expensive finishes and appliances. (Sacramento)

The Housing Commission shall develop specifications for the prototype affordable housing products both for sale and rental, which shall be structured to make the units affordable to very low-, low-, and moderate-income households. All building plans for affordable dwelling units shall comply with such specifications. Any applicant or owner may voluntarily construct affordable dwelling units to a standard in excess of such specifications, but only 50 percent of the added cost for exterior architectural compatibility upgrades (such as brick facades, shutters, bay windows, etc.) and additional landscaping on the affordable dwelling unit shall be included within recoverable costs, up to a maximum of 2 percent of the sales price of the affordable dwelling unit, with the allowance for additional landscaping not to exceed one half of the above-noted 2 percent maximum. (Fairfax County)

#8 Timing of affordable unit construction

Most municipalities require affordable units to be built concurrently with market units to ensure integration of affordable and market units, and to prevent developers from abandoning projects prior to completing the affordable units. The first example below is from Burlington's ordinance, and the second is from Montgomery County's.

Inclusionary units shall be made available for occupancy on approximately the same schedule as a Covered Project's market units, except that certificates of occupancy for the last ten percent of the market units shall be withheld until certificates of occupancy have been issued for all of the inclusionary units. A schedule setting forth the phasing of the total number of units in a Covered Project, along with a schedule setting forth the phasing of the required inclusionary units, shall be established prior to the issuance of a building permit for any development subject to the provisions of this Article. (Burlington)

The affordable dwelling unit agreement must include the number, type, location, and plan for staging construction of all dwelling units and other such information as the Commission requires to determine the applicant's compliance with this Chapter. The affordable dwelling unit staging plan must be consistent with any applicable land use plan, subdivision, plan, or site plan. The staging plan included in the affordable dwelling unit agreement for all dwelling units must be sequenced so that:

- (1) no or few market rate dwelling units are built before any affordable units are built;
 - (2) the pace of affordable unit production must reasonably coincide with the construction of market rate units; and
 - (3) the last building built must not contain only affordable units.
- (Montgomery County)

#9 Fee In Lieu Formula

Some municipalities permit developers to pay a fee in lieu of developing hard affordable units. While some municipalities permit payment as a right, others require developers to show that constructing hard units would constitute a unique hardship, or that a fee would produce a greater benefit.¹ Because the fee paid is typically linked to the cost of producing a hard unit, fee in lieu formulas are necessarily dependent upon the local housing market. The first example below is based on the Boston Executive Order, and the second is based on Boulder's ordinance. The third and fourth examples, based on Montgomery County's and Brookline, Massachusetts' ordinances, respectively, authorize

¹ The following are summaries of the requirements that developers must satisfy to qualify to pay a fee in lieu of development in some municipalities:

Montgomery County: Developers may pay a fee in lieu if they can show that a resident's housing expenses for a hard unit would exceed what a participant in the affordable housing program could pay. A developer must justify why fees for facilities and services should not reasonably be excluded or reduced for affordable unit occupants. A fee paid must be sufficient to produce more units or units that are more affordable to low and moderate income families. The County has allowed fees in lieu of development on only 11 occasions.

Boulder: Fees in lieu of half of the required affordable units is permitted as a right. Developers may only pay fees in lieu of a larger percentage of units if a developer can demonstrate that payment of a fee would accomplish more benefit to the City than construction on site.

Santa Fe: Developers may pay a fee in lieu of developing hard units if they show that as a direct consequence of the inclusionary zoning ordinance they (1) are deprived of all economically viable use of their property as a whole, or (2) would lose money on the development as a whole and can demonstrate to the Housing Opportunity Program administrator's satisfaction that the loss is an unavoidable consequence of the affordable housing requirement.

a fee in lieu of development and provide that procedures for implementing such a fee shall be determined by administrative regulations.

Subject to the approval of the head of the relevant City agency, developers may also propose to achieve these affordable housing obligations by making a dollar contribution to an affordable housing fund calculated by multiplying the total number of dwelling units in the proposed residential development by 0.15, and by multiplying the result by the Affordable Housing Cost Factor, currently standing at \$52,000. This Affordable Housing Cost Factor is defined as the average total public subsidy per new construction affordable housing unit permitted in the City for the previous calendar year, and will be adjusted annually on July 1 of each year in an amount commensurate with the cost of producing affordable housing. (Boston)

Whenever this chapter permits a cash-in-lieu contribution as an alternative to the provision of a single permanently affordable housing unit, the cash-in-lieu contribution shall be as follows:

- (a) For each unrestricted detached dwelling unit, the cash-in-lieu contribution shall be the lesser of \$13,200.00, or \$55.00 multiplied by twenty percent of the total floor area of the unrestricted unit.²
- (b) For each unrestricted attached dwelling unit, the cash-in-lieu contribution shall be the lesser of \$12,000.00, or \$50.00 multiplied by twenty percent of the total floor area of the unrestricted unit

The city manager is authorized to adjust the cash-in-lieu contribution on an annual basis to reflect changes in the median sale price for detached an attached housing, using information provided by County Assessor records for the City. (Boulder)

In exceptional cases, instead of building the required number of affordable dwelling units, a developer may offer to contribute to the Housing Initiative Fund an amount that will produce significantly more affordable dwelling units. The procedures for considering and implementing contribution offers must be established by executive regulation. To implement an offer, the developer must sign an agreement with the Director of the Department of Housing and Community Development not later than a time provided in the regulations. (Montgomery County)

At the option of the City, the requirements of this Section may be met through a cash payment to the City or its designee in an amount based on the guidelines adopted as per (f) below if the cash payment is found by the City, in its discretion, to be advantageous to the City in creating or preserving affordable housing. Cash contributions shall be used only for purposes of providing affordable housing for very low, low, and moderate income persons. . . .

(f) The Planning Commission, in consultation with the Housing Commission and after public notice and hearing, shall adopt guidelines to aid in the interpretation and determination of the requirements of this Section. (Brookline)

#10 Cost Offsets

As is contemplated in the language below, some municipalities allow developers to request waivers from development standards such as set-back requirements, parking and landscaping requirements, or building material requirements, which reduce the cost of constructing affordable units. These cost offsets allow a municipality to decrease the

² The 20% floor area calculation reflects Boulder's 20% set-aside. The fee is based on 20% of the floor area of a development rather than 20% of the number of units. To determine the amount of the fee, Boulder conducted a study to determine the gap between the allowable sales price of an affordable unit and the actual cost to construct a unit; the gap figure was then lowered to a politically feasible amount.

burden placed on developers of affordable housing, and minimize the possibility of a developer showing that inclusionary zoning causes an excessive loss such that it effects a taking. The offsets in the examples below are incorporated into the ordinances, but municipalities may implement cost offsets in a variety of ways. For example, Brookline does not include offsets in its set-aside ordinance, but provides for an offset—a floor area bonus—in a separate ordinance. Though I am not aware of a municipality which has done so, an ordinance could generally authorize cost offsets which would be detailed in administrative regulations.³ The first example below is based on the Santa Fe ordinance, and incorporates cost offsets mentioned in the Highland Park Affordable Housing Plan. The second is based on provisions in the Sacramento ordinance, and lists offsets from that ordinance to provide a sense of the range of offsets available.

Impact fees, building permit fees, and tap-on fees (or portions thereof) may be waived for affordable units, subject to agreement of the entities receiving revenues from such fees. Any developer of affordable units may submit a request for a waiver of other City development standards, and the City shall respond within thirty calendar days of its receipt. The City shall approve a waiver if each of the following requirements are met:

- (a) The proposed waiver will make the housing more affordable. The developer must show how real costs will be reduced and how the savings will be passed on affordable home buyers or renters.
- (b) The proposed waiver does not compromise health, safety or welfare as determined by the City.
- (c) Vehicular and pedestrian circulation, storm drainage and utilities are provided for adequately.

(Santa Fe)

Upon application as provided herein, (1) the City shall make available to a Residential Project Developer a program of waiver, reduction or deferral of development fees, administrative and financing fees for affordable units; (2) the City may modify for affordable units, to the extent feasible, in light of the uses, design, and infrastructure needs of the Development Project, standards relating to road widths, curbs and gutters, parking, lot coverage, and minimum lot sizes; and (3) the City may, to the maximum extent appropriate in light of project design elements, allow builders to finish out the interior of affordable units with less expensive finishes and appliances. The Planning Director may issue Special Permits for Inclusionary Projects, and shall develop further procedures for streamlining and priority processing which relieve affordable units of permit processing requirements to the maximum extent feasible consistent with the public health, safety, and welfare. The developer may apply to the City's Housing Trust Fund for assistance in the financing and development of the affordable units in a development. (Sacramento)

#11 Density Bonus

A number of municipalities grant a density bonus—permission to develop more units than zoning would otherwise allow. Like other cost offsets, density bonuses may decrease the likely success of a taking claim by mitigating the economic impact of developing affordable housing. Though some communities tout density bonuses as the most effective cost offsets, others that do not desire denser development avoid them

³ Such a provision could look much like the Montgomery County and Brookline provisions which authorize fees in lieu of development, but leave determination of a fee formula or amount to administrative regulations.

altogether. Some municipalities automatically award a density bonus to developers of affordable housing, while others permit smaller developments as of right without any set-aside, and set up larger developments with increased density as a desirable variance, to which an affordable housing set-aside is attached. The first example below, based on Cambridge, Massachusetts' density bonus, follows the former strategy, and permits developers to split the additional density between affordable and market rate units. The bonus is structured so that the developer's profit on additional market units directly offsets the loss on affordable units. The second example is based on Somerville, Massachusetts' ordinance, and follows the latter strategy. In Somerville, up to 7 units may be developed as of right, but development of 8 or more units requires a special permit and a concomitant obligation to set aside 12.5% of all units as affordable. Some argue that structuring a density bonus as a variance with an accompanying affordable housing set-aside may prevent the set-aside from being labeled an exaction—a land use decision conditioning approval of development on the dedication of property to public use. This is advantageous because exactions are more vulnerable to taking claims than zoning of general application.

To facilitate the objectives of this Section, modifications to the dimensional requirements in any zoning district shall be permitted as of right for an Inclusionary Project, as set forth below:

- (i) The Floor Area Ratio⁴ (FAR) normally permitted in the applicable zoning district for residential uses shall be increased by 40% percent, and at least 50% of the additional FAR should be allocated for the Affordable Units required by this Section. In a Mixed Use Development, the increased FAR permitted in this paragraph (i) may be applied to the entire lot; however, any gross floor area arising from such increased FAR shall be occupied by residential uses, exclusive of any hotel or motel use.
- (ii) The minimum lot area per dwelling unit normally required in the applicable zoning district shall be reduced by that amount necessary to permit up to 2 additional units on the lot for each 1 affordable unit required by this Section.⁵

(Cambridge)

The affordable housing requirements of this Article shall apply to all residential developments seeking special permits with site plan review to develop 8 or more dwelling units, whether new construction, substantial rehabilitation, or adaptive reuse. Developments shall not be segmented or phased in a manner to avoid compliance with these provisions. Developers providing more than 12.5% of the total units in the development as affordable units may apply for an additional density bonus under the terms of this Article. Bonuses may be awarded on the basis of a 2 to 1 ratio of market rate units to affordable housing units. For every additional unit provided beyond the 12.5% required, 2 additional market rate units may be authorized.

(Somerville)

⁴ Floor Area Ratio is the ratio of gross floor area (the sum, in square feet, of the gross horizontal areas of all floors of a building) to the total area of the lot.

⁵ Implementation of a density bonus under this section would work as follows: Assume a 50 unit development, and a 20% set-aside. Thus, 10 of the 50 units must be affordable. Paragraph (ii) of the density bonus above awards a bonus of two market units for every one affordable unit, so 20 units would be permitted. In addition, paragraph (i) would permit a 40% increase in the lot's FAR, which corresponds to the 40% increase in units over the original 50. If considered in reference to the base number of units, the developer essentially gets 10 additional market units to offset the 10 required affordable units.

#12 Marketing

Some ordinances and regulations provide extensive instructions for marketing to and certifying buyers and renters of affordable units. The first example below is based on Santa Fe's ordinance pertaining to for-sale units, and provides broad guidance with regard to marketing. The second example is based on Santa Fe detailed regulations which implement the ordinance.

A. Developers shall market affordable homes in accordance with the requirements set forth in the administrative procedures. There shall be an efficient matching of the incomes of prospective affordable unit buyers to specific affordable unit prices. There shall be a reasonable matching of the household sizes of prospective affordable unit buyers to the sizes and types of affordable units. Any marketing materials shall clearly state the policies of the affordable housing program with regard to the pricing of affordable units and buyer eligibility.

B. In marketing affordable units the City or seller shall give preference to individuals who are citizens of the City or are presently employed or under contract with an employer within the City.

C. The City or its agent shall maintain and make available lists of prospective affordable unit buyers who have passed preliminary prequalifications for financing. For affordable developments for which the city expects immediate effective demand to outstrip supply, the city or its agent, at the city's sole discretion, may establish and maintain an equitable process for allocating rights to purchase the homes. For developments other than those described above, the developer shall establish and maintain an equitable process of marketing homes, including waiting lists where demand exceeds supply.

D. Prior to executing a purchase contract for any affordable unit, the prospective affordable unit buyer shall be certified as meeting affordable housing program requirements by the City or its agent. The certification process shall be set forth in the administrative procedures. Developers and affordable unit buyers may execute only purchase agreements that are approved as to form by the City and include language provided by the City which shall require that an appropriate disclosure form be provided to and explained to the affordable unit buyer prior to execution of the contract. The disclosure form shall explain any deed restrictions, restrictive covenants and/or liens that are placed on the affordable unit to ensure long-term affordability. (Santa Fe ordinance)

Developers shall market affordable homes in accordance with the following requirements:

- (1) There should be an efficient matching of the incomes of prospective affordable home buyers to specific home prices, as follows:

Household income of a buyer should not exceed the price level of a home by more than five percent. For example, only households with incomes at or below 65 percent of median income should be allowed to buy a home made affordable to households at 60 percent of median income. Thus, lower priced homes will be reserved for lower-income households. Alteration of this requirement may be based only on the unavailability of a qualified buyer with the required level of income for a period of 30 days or more after the home was legally ready for occupancy (assuming good-faith marketing efforts by the developer to find a qualified buyer).

- (2) There should be reasonable matching of the household sizes of prospective affordable homebuyers to the sizes/types of affordable homes as follows:

3 BR, 1.5 BA ----- Minimum household size = 4

4 BR, 2 BA ----- Minimum household size = 5

The City shall not market or sell an affordable home to a household which is smaller than the household sizes indicated, unless the City approves in writing fewer persons based on the unavailability of a buyer of the proper household size for a period of 30 days or more after the home was legally ready for occupancy

(assuming good-faith marketing efforts by the developer to find a qualified buyer), or the demonstrated need of a household for a dwelling unit with more bedrooms than allowed in this section.

- (3) In marketing affordable homes the City or seller shall give preferences to individuals who are citizens of the City or are presently employed or under contract with an employer within the City.
- (4) Brochures, advertisements and other marketing materials shall clearly state the policies of the affordable housing program with regard to the pricing of affordable units and buyer eligibility.
- (5) The City or its agent may maintain lists of prospective affordable homebuyers who have passed preliminary pre-qualifications for financing. Such lists will be made available to developers for marketing purposes.
- (6) For developments for which the City expects immediate effective demand to outstrip supply, the City or its agent, at the City's sole discretion, may establish and maintain an equitable process for allocating rights to purchase the homes. For example, the City could require a lottery or use of a ranked waiting list.
- (7) Prior to executing a purchase contract for any affordable home, a prospective buyer must be certified by the City or its agent as meeting program requirements. The certification must have been made within 90 calendar days immediately prior to the full execution of the purchase contract. Developers may sign purchase contracts with non-certified prospective buyers, conditional upon certification within 10 working days, if the developer is reasonably certain that he prospective buyer can be certified.
- (8) Developers and buyers of affordable units may execute only purchase contracts that are approved for form by the City and include language provided by the City, which will require that an appropriate disclosure form be provided to and explained to the buyer prior to execution of the contract. The disclosure form will explain any deed restrictions, restrictive covenants, and/or liens that are placed on home to insure long-term affordability.

(Santa Fe regulations)

#13 Administration of Affordability Control

Original sales prices and rental rates for affordable units are typically regulated so that that a low- or moderate-income purchaser or renter need not spend more than 30% of his or her income on housing expenses. Most municipalities also impose price restrictions which keep units affordable when they pass to new occupants. The first three examples below deal with the resale pricing of for-sale affordable housing. The first example is from Highland Park's Central Avenue Senior Development, and the second is based on the Boulder and Montgomery County ordinances. The third example is based Santa Fe regulations, and provides only general guidance on the subject of resale pricing. The last example, based on language from the Sacramento and Santa Fe ordinances deals with maintaining affordability of rental units, and is less complicated.

The resale price shall be the lower of:

- (a) the then-fair market value of the unit as determined by an appraisal performed by an appraiser approved by the Housing Commission taking into account applicable use and occupancy restrictions which may be binding on the unit; and
- (b) the purchase price under the agreement by which the unit owner purchased the unit, increased by an amount equal to the lesser of (i) three percent (3%) for each year (or part thereof) after the closing date during which the unit owner resided in the unit and (ii)

inflation as measured by the Consumer Price Index (All Urban Consumers, All Cities average, residential real estate) for the period of time that the unit owner resided in the unit.

(Highland Park, IL)

The resale price of any permanently affordable housing unit shall not exceed the purchase price paid by the seller of that unit plus:

- (a) A percentage of the unit's original purchase price equal to the increase in the cost of living since the unit was purchased by the seller, as determined by the Consumer Price Index;
- (b) The fair market value of improvements made to the unit by the seller⁶;
- (c) Customary closing costs and costs of sale; and
- (d) Costs of a real estate commission paid by the seller if a licensed real estate agent is employed.

(Boulder/Montgomery County)

The City requires that developers impose resale controls which are designed to achieve the following purposes:

- (a) reducing the potential for windfall profits by an owner-occupant;
- (b) recapturing any such windfall profits for use in an approved housing trust fund;
- (c) providing incentives for owner-occupants to resell to lower-income households, which are most in need of affordable housing;
- (d) maintaining the affordability of affordable units to subsequent buyers to a reasonable extent, while considering the sellers' rights to reasonable returns on equity; and
- (e) preventing speculative profits on affordable units by renting them to another household.

(Santa Fe)

The owner of affordable rental units shall be responsible for certifying the income of eligible tenants to the Housing Commission at the time of initial rental and annually thereafter. Rental rates shall be in accordance with the formula set forth in the administrative procedures.⁷ This requirement shall be made applicable to successors in title, if any, by means of a deed restriction. (Santa Fe/Sacramento)

Municipalities typically maintain affordability through deed restrictions or covenants recorded against the property. These affordability controls often specify that a unit must be sold or rented to an income eligible buyer at an affordable price; others give the municipality a right of first refusal to purchase affordable units. For a discussion of the validity and permissible duration of such affordability controls, please see the attached memorandum from BPI intern, Rebecca Onie.

⁶ In evaluating whether to allow sellers to recoup the value of capital investments in their homes, municipalities weigh a desire to provide sellers with some of the benefits of ownership against a desire to keep the sale price of the unit affordable. Some ordinances, such as Montgomery County's, Fairfax County's, and Santa Fe's do not impose restrictions on the capital expenditures homeowners may recover upon the sale of their homes. In contrast, Davis, California, in its lone for-sale development with resale restrictions, does not allow homeowners to recoup capital investments. (Davis is rethinking this issue with regard to future developments.) Boulder requires homeowners to obtain city approval for capital improvements, and limits recovery of expenditures to approximately \$1000 for each year the homeowner has owned the property. (Boulder's 2001 Homeownership Capital Improvements Policy is attached.)

⁷ Both ordinances target rental rates at 30% of a family's income less an allowance for tenant-paid utilities.

#14 Other Issues for Consideration

Land Dedication

Another possibility that may interest some municipalities is allowing a developer, at the City's discretion, the option to satisfy some of his affordable housing obligation via dedication of land to the City's contemplated land trust. For example, under Boulder's ordinance developers may satisfy their affordable housing obligation either by:

- (1) conveying land to the City of equivalent value to the fee-in-lieu contribution that would otherwise be required, plus an additional fifty percent, to cover costs associated with holding, developing, improving, or conveying the land; or
- (2) conveying land to the City that is of equivalent value to land upon which the required affordable units would otherwise have been constructed. Such land must be zoned to allow construction of at least as many affordable units as would otherwise have been required.



Jeff Levine, AICP
Director, Planning & Urban Development Department

Memorandum

To: Housing and Community Development Committee
From: Jeff Levine, Director
Date: January 22, 2015
Re: Requests for Additional Information on Housing Policy

SUMMARY OF ISSUE

Staff recommends that the HCDC consider and endorse the recommendation policy direction outlined below, with some target answers to the questions posed in that section, and instruct staff to move forward on drafting these various ordinances and bringing them forward to Planning Board review and eventual City Council votes.

At your last meeting, we presented the *2030 Workforce Housing Demand Study* prepared by the Greater Portland Council of Governments to look at the housing market in Portland. That study found that 29 percent of the housing produced is affordable to low-, moderate-, or average-income families, either intentionally or because of the type of housing and how it is priced in the market. That study further found that the need for housing at those prices is between 24 and 33 percent of production, depending on how it is calculated. There is therefore a market failure taking place, where the product being developed, welcome as it is, does not entirely match the needs of the market.

After the presentation of the housing study at your last meeting, you requested the following information as next steps:

City Growth Goals and Strategies

1. What is the goal of City growth and is there any indication of our "carrying capacity"?

Middle Class Housing Strategies

2. Examples of Inclusionary Zoning in other places and how it is working
3. How have our existing policies resulted in more affordable housing?
4. Would we consider doing something by part of the city such as by district? What about Peaks Island?
5. What are other communities in Maine doing?
6. How would increased density incentives and new requirements work together?

Status and Future of Outreach

7. How do we engage the business community and public?

COMMITTEE GOAL/COUNCIL GOAL ADDRESSED

Promote Housing Availability – Provide increased availability in all segments of the housing market while insuring that there is a suitable balance of housing opportunities among those sectors. Objective: Complete assessment of and, as appropriate, begin to offer city owned property to construct affordable housing.

FINANCIAL IMPACT

These actions may have a positive financial impact on the City by allowing for increased housing production at a range of income levels. Given that there is already significant growth in the housing market, however, that impact may be minimal.

STAFF RECOMMENDATION

City Growth Goals and Strategies

1. What is the Goal of City Growth/Does the City have a “Carrying Capacity?”

These are interesting questions and somewhat separate ones.

The City set a goal in 2002 of including 25% of the County’s population. The purpose of that goal is to ensure that the region thrives in a sustainable and livable way. By preserving a core of population in Portland, the center of the region, quality of life can be maintained by supporting public transit, walkability, and infrastructure required for economic growth. The counterargument is that there is no public purpose in promoting urban growth and density. In this scenario, the City would have to be reimagined as just another suburban community in the region. Cities such as Youngstown, Ohio, have embraced this approach and attempted to right-size their infrastructure to their new, reduced role in their region, with mixed results. This does not appear to be consistent with City Council goals and the needs of the community.

The issue of the “carrying capacity” of the City is an interesting one. The great thing about urban development, as opposed to suburban development, is that the style of development has a dramatically increased carrying capacity. If the City did not have municipal water and sewer, and public transit, there would be a carrying capacity indicated by the limits to these services. The Cape Cod Commission conducted studies of parts of their region in the 1990’s to measure the carrying capacity of those parts of Cape

Cod¹, which indicated that continued growth at the rates then occurring would result in impaired water quality as septic systems overloaded the aquifer, and in winter traffic worse than summer traffic at that time. These studies resulted in the passage of the Cape Cod Land Bank as a way of reducing the rate of growth in the region, as well as increased investment in public water and sewer systems.

In an urban area, where these capacity constraints can be offset by public infrastructure and the density to support alternatives to single-occupant vehicles, these limitations are much higher. Cities are designed to be able to grow as systems, if that is what their leaders desire. In the case of Portland, where we are advancing improvements to our sewer systems to reduce our impact on water quality; working to improve and expand our transit system; created an extensive roadway system; have a park system that exceeds national standards for open space per capita; and have worked with utilities to expand energy options, carrying capacity is not a major issue.

On the islands, carrying capacity is a real issue. Even on Peaks Island, with some water and sewer infrastructure, there is a capacity to new development and growth based on the limitations of those systems. That is why tools with limited impacts on that capacity, like Accessory Dwelling Units, make more sense on the Islands.

Middle Class Housing Strategies

2. Examples of Inclusionary Zoning

Attachment A is a summary of inclusionary zoning ordinances in a range of communities around the country. Inclusionary zoning ordinances are most popular in California, where over 30 cities have some sort of ordinance, and Massachusetts, where over 20 do. Inclusionary zoning ordinances also exist in Vermont, Rhode Island, the District of Columbia, Colorado, Maryland, and New Mexico, as well as here in Maine. The state of New Jersey has a state-wide program requiring proactive affordable housing goals be met, and Rhode Island and Massachusetts have similar state-wide requirements. For example, in Massachusetts, every city and town is expected to include at least 10 percent affordable housing, as defined by the state. In municipalities that have not met that goal, developers can seek a “Comprehensive Permit” for a project that includes at least 20 percent affordable housing. A Comprehensive Permit application must be approved unless the municipality can clearly explain why the project is not in the public interest. In effect, a Comprehensive Permit allows a developer to ignore zoning in these communities.

It is slightly more difficult to gauge how effective these inclusionary zoning ordinances have been. The attachment indicates for some communities how many affordable or workforce units have been created under the ordinance. The numbers range widely.

¹ *Outer Cape Capacity Study* (1996) and *Monomoy Capacity Study* (1997)

Attachment B is a study by the Furman Center for Real Estate and Urban Policy at New York University about the effectiveness of inclusionary zoning in various locations. Attachment B also contains some information from the State of Rhode Island about developing Inclusionary Zoning ordinances, as well as a similar document from housingpolicy.org, a web site produced by the Center for Housing Policy and the National Housing Conference.

In general, it seems that Inclusionary Zoning ordinances can be an effective part of an affordable housing program. However, the requirements should be tailored to the needs of a community and efforts should be made to ensure, as much as possible, that the inclusionary requirements will have a minimal impact on housing production and pricing.

Attachment C is a model Inclusionary Zoning ordinance drafted as part of a Smart Growth Tool Kit in Massachusetts. Attachment D is a draft ordinance that was under development in Portland as part of the India Street Sustainable Neighborhood Plan.

3. How have existing City policies resulted in affordable housing?

City policies are broadly divided into two categories: financial supports, and city ordinances.

City financial support for affordable housing consists of federal programs administered by the City, as well as local funding from the City's Housing Trust. Attachment E is a summary of affordable housing production from these financial supports. It is important to note that almost all of this housing is affordable at levels of 50-80% of area median income. Very few projects have produced workforce housing in Portland to date. One- at the Munjoy Street site- is currently under development. This limited production is because the Federal HOME and CDBG programs cannot be used to produce workforce housing. Instead, these projects have to rely on the City's Housing Trust, which is limited, and/or federal programs like the Neighborhood Stabilization Fund, which are only rarely available.

City ordinances include the housing replacement ordinance – which is currently the primary source of capitalization for the Housing Trust – and density bonuses offered in the Land Use Code. The housing replacement ordinance requires that, in some cases, when a housing unit of any type is demolished and not replaced, an amount be given to the Housing Trust. This amount began at a baseline of \$50,000 and indexes up based on the Consumer Price Index. It is currently at about \$64,700. While this is an effective tool to discourage removal of existing housing units, the amount contributed to the Housing Trust is generally not sufficient to actually replace the lost unit. In most cases, the cost of producing an affordable unit is about twice that amount. One notable exception you recently approved, the Rosa True School, was unusual in that the City was enabling the creation of two new affordable units for about \$104,000. However, those were additional units in an existing building, and therefore were a low outlier.

The density bonus provision of the Land Use Ordinance allows up to a 25% bonus in density for affordable housing developments. This provision is used occasionally by developers but only in conjunction with the financial supports described above. It is likely insufficient in itself to produce affordable units that are not getting other public subsidies.

4. Would we consider doing something by district? What about Peak's Island?

Any inclusionary zoning requirement could theoretically be by district, as is done in some cities on Attachment A. The advantage of such an approach is that it might allow the city to target affordable and workforce housing production in some parts of the city, either where the need is greatest or where the goal is to focus such housing production.

The India Street Sustainable Neighborhood Plan's Housing and Equity Working Group studied the issue of affordable housing production and even drafted a sample ordinance (Attachment D.) In the end, however, the Working Group decided that the requirement should not only apply to the India Street neighborhood, out of concern that it would create an uneven playing field between housing production in that area as opposed to other neighborhoods. The Working Group recommended that any inclusionary requirement be applied city-wide.

If there were a determination that any requirement should be focused in one particular area, the logical divide would be I-295. Many other land use ordinance requirements, such as the parking requirement, vary between south of I-295 and north of I-295. In this case, the housing production rate south of I-295 is much higher than that north of I-295. Specifically, 995 of the 1130 units developed since 2010 have been south of I-295:

Housing Production since 2010

	Peninsula	Off-Peninsula	Island	Total
Affordable	320	16	0	336
Market Rate	675	108	11	794
Total	995	124	11	1130

Source: Greater Portland Council of Governments

That variation may justify focusing a requirement. On the other hand, it may also indicate that such a focus is not necessary, since the rate of production would determine the inclusionary production rate.

As for Peaks Island, there has been interest in an expansion of the existing Accessory Dwelling Unit ordinance to encourage production of affordable accessory units on Peak's Island. Such an ordinance should be considered as part of an overall package of policy changes to produce workforce and affordable housing. A sample of such an ordinance from Wellfleet, MA, is attached as Attachment F.

5. What are other communities in Maine doing?

As indicated in Attachment A, Cape Elizabeth has an inclusionary zoning requirement. That requirement is the only one we are aware of in Maine. However, some other communities have incentives such as the ones already on the books here in Portland, with similarly few results. Conversations with the Town Planner in Cape Elizabeth indicate that their program has been reasonably effective and does not appear to have reduced the interest in developing housing in that town.

Many other communities in Maine use financial incentives to produce housing for low- and moderate-income residents, either through the HOME program or other federal funding. However, none appear to proactively work on production of workforce housing. This is likely because in many of the communities in Maine, either there is no shortage of housing at that price point (such as in the other urban cities) or there is not much demand for housing at that price point (such as in the more affluent suburbs.)

6. How would increased density incentives and new requirements work together?

Based on all this information, and additional research on best practices in housing policy, I recommend that HCDC propose that staff develop a package of policy changes to respond to the housing study as follows:

- *Changes to density of housing development allowed in key zoning districts*, such as the B-2 zone (approved by Council,) the R-6 zone (before the Planning Board,) and other business zones such as the B-6 zone. These density increases should be done with public outreach and with sensitivity to the built environment in these areas. As an example, as part of the R-6 zoning changes, staff met with all of the neighborhood organizations on the peninsula, as well as with other interested parties, to explain the goals and get feedback on how the language should read. As a result of this process, the language is both more context sensitive and more effective.
- *Limited density bonus changes for workforce and affordable housing*. The existing language should be amended to include all deed-restricted units at less than 120% of area median income. Staff should also consider increasing the density bonuses somewhat. However, given that the existing bonuses are already fairly large (25%), any changes to them should be limited. In addition, there is a concern that increasing the density bonus for affordable housing would create resentment in neighborhoods towards affordable or deed-restricted housing. The primary tool for promoting housing should be changes to the overall densities.
- *Inclusionary Zoning focused on 80-120% AMI Production*. Staff does not feel that these increased densities alone will address the need to increase the development of low-, moderate- and average-income housing by 24 to 33 percent. We strongly

recommend that the HCDC include in any package of policy responses an inclusionary zoning ordinance based on the model language enclosed.

As you can see from Attachment A, inclusionary zoning can be tailored to each community's needs and policies. For example, some ordinances have no minimum number of units, and some only apply to larger projects. Some ordinances have high affordability requirements and others have lower requirements. The type of "affordable" units also vary, with some place focusing on production of very low income housing, some on workforce housing, and some seeking a mix.

For your consideration, we offer a range of options for each of these three key issues to guide staff in this process:

Issue	Low Option	Medium Option	High Option
Minimum Threshold	5 units	10 units	20 units
Inclusionary Requirement	5% of units	10% of units	15% of units
Affordability Target	80% AMI	Mix of 80% and 100% AMI	100-120% AMI

Note that, for a family-sized residence (2-3 bedrooms), units for 50% AMI would have to rent for approximately \$1000, or sell for about \$150,000. Units for 80% of AMI would have to rent for approximately \$1,800 or sell for about \$250,000. "Workforce" units for 100% AMI would rent for about \$2000 or sell for about \$300,000.

To aid you in this consideration, Attachment G is a table developed during the India Street Sustainable Neighborhood Plan's Housing and Equity Working Group process showing the various projects that might have been required to meet an inclusionary requirement and how many units they would have had to provide in a 10% requirement beginning at 10 units.

- *Accessory Dwelling Units:* For Peaks Island, and perhaps for the other residential zones in Portland, we believe that the ability to create affordable accessory dwelling units can be a nice complement to these other strategies. We do not believe that the R-1 through R-5 zones should be changed to allow increased density generally. However, an affordable accessory dwelling unit provision that is applied to these zones, in addition to the IR (island residential) zones, may help increase appropriate, affordable housing units with minimal negative impacts to these neighborhoods.

Even this package is unlikely to meet the needs of the community entirely. However, staff is concerned that taking more aggressive action at this time might adversely impact the housing production market at a time when the City is promoting appropriate housing development at all income levels. We feel that this combination of upzoning, density increases and small affordability requirements is a prudent step to take to address the problem identified in the *2030 Workforce Housing Study*.

Status and Future of Outreach

7. How do we engage the business community, housing advocates, and the public?

Staff has been meeting with interested parties on this issue over the past year. The Portland Society for Architecture is holding an event on housing just before your January 28th meeting. In addition, I have offered to present on this issue to MEREDA and/or the Portland Chamber. I am optimistic that the business community can arrange for an event on this issue in the near future, prior to a final vote by the Council on any actions.

Staff also proposed holding our own public meeting on this issue once we have a draft set of ordinances to present, based on HCDC guidance.

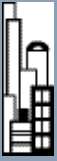
ATTACHMENT A

Sample Inclusionary Zoning Requirements from other Cities in the US

CITY	Year Enacted (est.)	Requirement	Units Produced	Target Incomes	Notes
<i>Arlington, MA</i>		15% of units			
<i>Belmont, MA</i>		10-15%, no minimum units			
<i>Boulder, CO</i>		20%, no minimum units		60% AMI	
<i>Brookline, MA</i>	1998	15% of 6 or more units and 15% of all bedrooms		80-100% AMI	Cash out up to 15 units
<i>Burlington, VT</i>		25% of 6 or more units			
<i>Cambridge, MA</i>	1998	15% of 10 or more units	450	65% AMI	30% density bonus
<i>Cape Elizabeth, ME</i>		5% (low)-10% (moderate income) of 5 or more units		Below 80% AMI	Also includes Accessory Dwelling Unit language
<i>Carlsbad, CA</i>	1994	15% of 7 units or more	1246	Below 80% AMI	
<i>Emeryville, CA</i>	1990	10-20% of 30 or more units			
<i>Fairfax County, VA</i>	1992	Over 20 Units	2448	"Affordable"	
<i>Lincoln, RI</i>	2006	20% of over 5 units		80% AMI	Given density bonus
<i>Montgomery County, MD</i>	1976	Over 50 Units	13000	"Moderate"	
<i>Newton, MA</i>		15% of units			
<i>Petaluma, CA</i>	1984	15% of 3 units or more	1157		
<i>Pittsburg, CA</i>	2004	6-20% of 5 units or more	11	Below 100% AMI	
<i>Santa Fe, NM</i>	2006	15% of 25 units or more		Up to 120% AMI	City provides up to \$10,000 subsidy per unit
<i>Tallahassee, FL</i>	2004	10% of 50 or more units		70-100% AMI	
<i>Waltham, MA</i>		5% (if given to WHA) or 10%			
<i>Washington, DC</i>	2006	8-10%		50-80% AMI	
<i>Watertown, MA</i>		12.5% of 5 or more units		80% AMI	Rounds up to next full unit

Many of these requirements allow cash out (fee in lieu) as an option, although that option often only exists for smaller projects and/or fractional unit requirements
Some of these ordinances allow for off-site provision of affordable units

ATTACHMENT B



HOUSING POLICY BRIEF

The Effects of Inclusionary Zoning on Local Housing Markets: Lessons from the San Francisco, Washington DC and Suburban Boston Areas

Inclusionary zoning (IZ) is an affordable housing tool that links the production of affordable housing to the production of market-rate housing. IZ policies either require or encourage new residential developments to make a certain percentage of the housing units affordable to low- or moderate-income residents. In exchange, many IZ programs provide cost offsets to developers, such as density bonuses that allow the developer to build more units than conventional zoning would allow, or fast-track permitting that allows developers to build more quickly.

There is tremendous diversity in the structure and goals of inclusionary zoning programs throughout the country: some IZ programs are voluntary while others are mandatory; they are triggered by different sizes and types of market-rate developments; they target the affordable units to different income levels; they have different rules about whether the affordable units must be located within the market-rate development or may be located off-site; and they impose the affordability restriction for different lengths of time.

Since the first program was established in 1972, the number of jurisdictions that have adopted inclusionary zoning policies has grown steadily, with a significant number of jurisdictions adopting programs in the last decade. While it is difficult to identify an exact number, well over 300 jurisdictions – cities, towns and counties – have an inclusionary zoning ordinance on the books.



Arguments For and Against IZ

Despite, or perhaps because of, the rapid spread of inclusionary zoning across the nation, IZ programs often generate significant controversy. Among supporters, IZ is heralded as an important evolution in affordable housing policy because it requires less direct public subsidy than traditional affordable housing programs, and therefore is considered more fiscally sustainable. Proponents also argue that IZ programs that require affordable and market-rate units to be located in the same development promote economic and racial integration.¹ While proponents recognize that developers may lose money on the affordable units, they believe that developers can recoup lost profits through incentives such as density bonuses.

Critics, on the other hand, argue that IZ programs, particularly mandatory ones, will constrict development of market-rate housing by causing developers to build instead in jurisdictions that don't require developers to sell or rent a portion of the units at below-market levels. By constraining the supply of housing, the argument follows, IZ programs will cause the prices of market-rate housing in the jurisdiction to rise,

ultimately reducing rather than increasing affordability. Opponents also argue that it is unfair to place the entire burden of providing affordable units on the developers and purchasers of new market-rate housing units; to the extent the community believes affordable housing is an important good, the whole community ought to pay for it.

What Do We Know About the Impacts of IZ Programs?

In spite of its popularity among housing advocates and policymakers and steady opposition from critics, we know relatively little about the effects of inclusionary zoning policies. At the center of the debate over IZ are two empirical questions. First, have IZ programs had the effect of restricting the supply of market-rate housing and increasing its costs in the jurisdictions adopting IZ? Second, have IZ programs been successful at producing affordable units? Unfortunately, few researchers have tried to answer these questions, and many of the studies that have been completed suffer from significant data and methodological limitations. It is difficult to obtain accurate data on the



¹ Not all IZ programs require the affordable units to be produced on-site; some allow developers to build the affordable units elsewhere in the community, and some allow developers to pay an in-lieu fee that the jurisdiction can use to build affordable housing wherever it chooses.



adoption and characteristics of inclusionary zoning programs across jurisdictions and over time, and to track the number of units produced under these programs.

Recognizing the need for objective, rigorous analysis to help inform the academic and policy debate about IZ, the Center for Housing Policy asked NYU's Furman Center for Real Estate and Urban Policy to conduct an in-depth, longitudinal analysis of the effects of IZ.² Our research addresses three primary questions:

- 1) What kinds of jurisdictions have adopted IZ?**
- 2) How much affordable housing has been produced in different IZ programs, and what factors have influenced production levels?**
- 3) What effects has IZ had on the price and production of market-rate housing?**

To answer these questions, we selected three metropolitan areas in which IZ programs are fairly prevalent and well-documented, and for which the data about housing supply and prices are available: the San Francisco area, suburban Boston,³ and the Washington D.C. region. Due to data constraints, we were not able to completely and definitively answer each of these questions for each of the regions we studied. In particular, the small number of jurisdictions in the D.C. area prevented us from conducting statistical analysis on that region. Despite these challenges, our findings significantly advance the current understanding of the effects of IZ policies and have important implications that advocates, critics, and jurisdictions considering adopting an IZ program should bear in mind.

Variation Among IZ Programs and Regions

The design of inclusionary zoning programs varies tremendously across jurisdictions. This variation reflects a number of key differences among the jurisdictions themselves, including the composition of their population and housing stock and their political goals. For example, some jurisdictions place a higher priority on achieving economic integration through IZ while others are more concerned with maximizing the number of affordable housing units produced. The diversity also reflects differences in the larger regulatory framework in which the jurisdictions work: some states allow jurisdictions a great deal of freedom to enact new forms of land use legislation, while others are more restrictive of local controls.

The IZ programs in our three study areas reflect this diversity. Table A provides an overview of some key elements of the IZ programs in these regions. Please note that these statistics reflect the data we used in our study; more recent data may now be available from each region. Because IZ programs may take some time to have an impact, we were not able to evaluate the impacts of the most recently adopted IZ policies.

Table A illustrates significant differences among the programs in our study areas. IZ programs in the San Francisco area were established earlier, are more likely to be mandatory, and are more broadly applicable to different types and sizes of developments than the programs in suburban Boston.

² This policy brief presents a summary of our findings; the entire study can be found at: <http://furmancenter.nyu.edu/publications/index.html> or <http://www.nhc.org/housing/iz>.

³ While the City of Boston has an IZ program, it was not included in the database that forms the basis of our study because Boston has different authority over land use regulations than other jurisdictions in the state.



Table A: Variation Among IZ Programs in Our Three Study Areas

	San Francisco Area (as of 2004)	Suburban Boston (as of 2004)	Washington D.C. Area (as of 2000)
Prevalence of IZ (# of all jurisdictions adopting)	7/10 counties 48/104 cities/towns ⁴	99/187 cities/towns	5/23 counties
Year program was adopted: <i>Median</i> <i>Range</i>	1992 1973-2004	2001 1972-2004	1992 1974-1996
% of programs that are mandatory	93%	58%	80%
Breadth of applicability to different types and sizes of developments	Broad	Narrow	Fairly Broad
% of programs providing density bonus	67%	71%	100%
% of programs allowing developers to pay fees in lieu of building units	86%	38%	100%
% of units that must be affordable <i>Median</i> <i>Range</i>	15% 5-25%	10% 5-60%	8.13% 6.25-15%
Incomes targeted for affordable units	Very low to moderate	Low to moderate	Low to moderate
How long units must remain affordable	The median length of affordability is 45 yrs.	One-third of the programs require permanent afford- ability; half don't specify.	For owners, range is from 5-15 years; for renters range is 5-20.

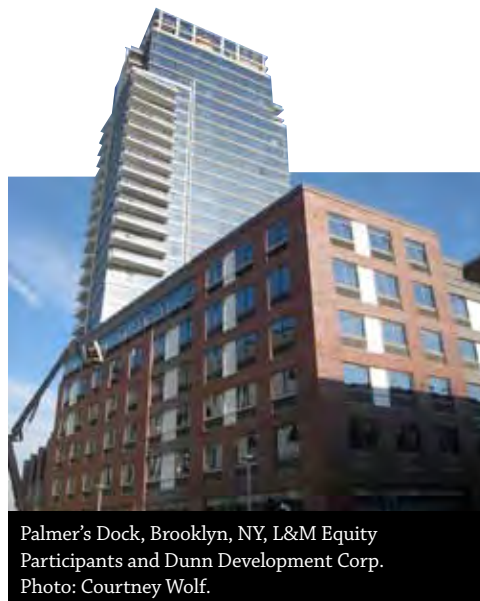
Source: This table combines data from various sources, including: Calavita & Grimes (1998); Brown (2001); CCRH and NPH (2003); Fox & Rose (2003); Vandell (2003), adapted from Rusk (2003); Pioneer Institute for Public Policy and the Rappaport Institute for Greater Boston Local Housing Regulation Database (2004); CCRH Inclusionary Housing Policy Database (2007); NPH (2007); and a supplemental telephone survey of the San Francisco and D.C. areas, conducted by the Furman Center in June, 2007. Because each of these data sources used a different survey methodology and because the content of IZ programs varies greatly, the data across jurisdictions are not always comparable. Our analysis excludes newer programs that have not existed long enough to produce measurable results. Data for the San Francisco region and suburban Boston cover programs enacted through 2004, and data for the Washington D.C. area include programs adopted prior to 2000. See reference list for full citations.

⁴ In order to assess the impacts of IZ on housing prices and permits, our study used data on IZ programs in the San Francisco area as of 2004. According to NPH (2007), there are now 77 jurisdictions in the San Francisco area with IZ.



Programs in the San Francisco area also are more likely to allow developers to satisfy requirements by paying in-lieu fees rather than building the units themselves. In Washington D.C., most programs are mandatory, but the requirements are limited only to larger developments, rather than the broader set of developments subject to IZ in the San Francisco area. In the D.C. region, programs require the units to remain affordable for less time than in either of the other study areas. In addition to this variation across regions, there is also significant variation in the structure of IZ programs within each region.

Table A does not reveal the complicated regulatory structure within which each of these regions operate, which may affect the likelihood of adoption of IZ, the form in which IZ takes, and the ultimate impacts of an IZ policy. State or regional regulatory regimes may enhance or impede the formation and success of local IZ programs in a number of ways. For example, California grants local governments broad authority over land use decisions but also has a number of state-wide affordable housing policies. Similarly,



Palmer's Dock, Brooklyn, NY, L&M Equity Participants and Dunn Development Corp.
Photo: Courtney Wolf.

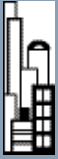
Massachusetts has a strong tradition of local self-governance, and towns and cities (but not counties) have a tremendous amount of authority over land use decisions. The Massachusetts state law known as Chapter 40B, which requires cities to provide expedited permitting and other benefits to developments that set aside a specified percentage of affordable units, complicates the incentives a jurisdiction has to adopt IZ. Some municipalities may adopt IZ to help them respond to 40B, while others may find 40B to be a sufficient mechanism for producing affordable housing on its own, and accordingly think they do not need an IZ program. Our study was unable to unpack these complicated incentives and constraints, but it is worth noting that state regulations play a significant and somewhat unpredictable role in jurisdictions' decisions to adopt IZ.

Which Jurisdictions Adopt IZ and How Does it Affect Their Housing Markets?

What kinds of jurisdictions adopt IZ?

Our analysis of jurisdictions in the San Francisco area and suburban Boston helps us understand some of the characteristics that predict whether a jurisdiction is likely to adopt an IZ program.⁵ We find that larger, more affluent jurisdictions are more likely to adopt IZ. Those near other jurisdictions with IZ also are more likely to adopt IZ. For example, in suburban Boston, we find that the probability of adopting an IZ program increases as the number of other jurisdictions in the same county with IZ

⁵ Because of the small number of jurisdictions in the Washington D.C. area with IZ, we were unable to perform a regression analysis for this region. Accordingly, most of the findings summarized in this brief are based only on data from the San Francisco and suburban Boston areas. However, the full report contains detailed information on IZ programs in the Washington D.C. area, as well as findings on IZ production and other observations on the effects of IZ in this area.



increases. This makes sense; if neighboring jurisdictions already have an IZ program in place, it may be less likely that IZ will scare development to other locations. It also may indicate that jurisdictions learn from the experiences of their neighbors, or that there is a “bandwagon” effect for promising or trendy policies. Finally, in suburban Boston, we find that jurisdictions with growth management policies and cluster zoning are more likely to adopt IZ.⁶

Our interviews with program administrators revealed that some jurisdictions adopt IZ programs because of a desire to satisfy state regulations or expectations, rather than out of a desire to adopt a progressive affordable housing policy. These differing motives may impact the amount of housing

produced. If the program is adopted solely to satisfy external requirements, it may be written, implemented or enforced in a different way than if it resulted from more local political pressure. Specifically, one might think that communities that adopted IZ merely to satisfy a state mandate may have adopted policies that are less effective or less carefully crafted; additional research would be needed to test this hypothesis.

What influences how much affordable housing has been produced under IZ?

We find that the strongest predictor of how many affordable units a jurisdiction’s IZ program has produced is the length of time the program has been in place. This makes sense for a number of reasons: projects that trigger the IZ program are likely to take several years to be completed and generate new IZ units, developers and administrators undoubtedly need some time to become more familiar with the program and work out any kinks, and the production of affordable units through IZ adds up over time.

We also find evidence that programs in the San Francisco region that exempt smaller projects or provide density bonuses tend to produce more units, indicating that more flexible programs may result in greater production.

While nearly all IZ programs in the San Francisco area have produced some affordable units, some 43% of the jurisdictions in suburban Boston with an IZ program on the books have not produced any units, and over one-third are unable to report how many units have been produced. This may indicate that jurisdictions in the Boston area have adopted IZ programs for reasons other than producing affordable housing, such as creat-

KEY FINDINGS ON IZ ADOPTION

Jurisdictions are more likely
to adopt an IZ program
when they:

Are larger and more affluent

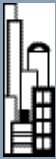


Have more neighboring
jurisdictions that have IZ



Have adopted other land
use regulations (specifically
cluster zoning or growth
management)

⁶ Cluster zoning provisions allow developers more flexibility than conventional zoning allows, such as reductions in the minimum lot size or other dimensional requirements, in exchange for setting aside protected open space. Many of the suburban Boston IZ programs are designed as part of cluster zoning, allowing developers to receive increases in the total allowable units in return for producing affordable housing (or some other form of community benefit). The prevalence of IZ programs among jurisdictions with growth management policies, such as annual caps on building permits, may suggest that those communities are concerned both with the pace of residential growth and pressures on housing affordability.



KEY FINDINGS ON IZ PRODUCTION

The longer IZ programs have been in place,
the more affordable units they have produced



In the Washington D.C. area, IZ programs have produced
a total of 15,252 affordable units (as of 2003).

- *Nearly three-quarters of the units come from Montgomery County which adopted one of the first IZ programs in the country, dating back to 1974.*



In suburban Boston:

- *As of 2004, 43% of jurisdictions with IZ had not produced any affordable units.*
- *Precise counts are not available, but surveys suggest that IZ programs have produced relatively few affordable units, probably in part because so many IZ programs in the area were enacted relatively recently.*



In the San Francisco area:

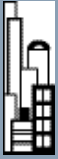
- *Almost all jurisdictions report having produced some affordable units.*
- *The median annual production across all programs is 9 affordable units/year.*
- *For the region as a whole, IZ programs have produced 9,154 affordable units (as of 2004).**
- *Programs with density bonuses and exemptions for smaller projects have produced more affordable units.*

* Updated production numbers are available in NPH's 2007 report, *Affordable by Choice: Trends in California Inclusionary Housing Programs* available at: <http://www.nonprofithousing.org/>.

ing a mechanism to satisfy the requirements of state law 40B. It also may be a function of the fact that IZ programs are a relatively new phenomenon in the region, and these jurisdictions simply have not yet brought their programs to scale. Another explanation for the low production could be that many of the Boston-area programs are voluntary and apply to a narrow range of developments.

What effects have IZ programs had on the price and production of market-rate housing?

The final question we try to answer is the most important, and the most difficult, of the issues surrounding the debate over IZ: how do IZ programs impact housing prices and production? In order to get a better understanding of the underlying issues, it is helpful to consider a simplified theoretical model to predict developers' behavior.



The amount of revenue a developer can gain by selling or renting a unit required to be affordable by a mandatory IZ policy is generally lower than the costs of developing that unit, so unless developers can offset these losses, IZ programs may cause developers to earn lower profits. Economic models predict that developers are likely to react in a number of ways to mandatory IZ programs that do not provide meaningful benefits to offset developers' revenue losses. First, developers may build or invest in other jurisdictions that do not have IZ programs. Second, they may try to make up the lost revenues by raising the prices they charge for market-rate units. Third, they may lower the prices they are willing to pay for land. Their ability to do any of these options will depend on a number of market factors, but under each scenario, the production of housing in the jurisdiction is likely to fall. If the number of new housing units produced in the area falls, and demand and other market factors remain constant, housing prices will likely increase due to the law of supply and demand. The theoretical models predict that the size of the impact on housing production and prices will depend upon many factors, including the extent to which the IZ programs offer cost offsets such as density bonuses, the stringency of the IZ requirements, the dynamics of housing supply and demand, the extent to which other types of supply constraints have been adopted in the community and broader area, and the extent to which neighboring jurisdictions have adopted IZ.

Previous studies have tried to test these theoretical models and gauge the impact of IZ programs on prices and production, but the methodologies and data used in those studies are widely questioned.⁷ We use well-accepted regression analysis techniques to isolate

KEY FINDINGS ON IZ'S IMPACT ON PRODUCTION AND PRICES OF MARKET- RATE HOUSING

In the San Francisco area,
there is no evidence that
IZ impacts either the prices
or production of single-
family houses.



In suburban Boston, IZ
seems to have resulted in
small decreases in production
and slight increases in the
prices of single-family houses.

the effects of IZ programs on jurisdictions' housing markets. Specifically, we control for variations in the jurisdictions' characteristics that may contribute to changes in housing prices and production, such as population size, density, and demographic composition, including race, age and education levels.

Our analysis finds no evidence that IZ programs have had an impact on either the prices or production rates of market-rate single-family houses in the San Francisco area.⁸ In suburban Boston, however, we see some evidence that IZ has constrained production and increased the prices of single-family houses. The number of affordable housing units produced under the suburban Boston IZ programs, and the estimated size of the programs' impact on the supply and

⁷ Previous studies include Powell and Stringham (2004a) and Powell and Stringham (2004b); for critiques of those studies, see, e.g., Basolo and Calavita (2004).

⁸ We chose to use single-family permits because they make up the overwhelming majority of all housing permits issued in all three areas during the period from 1980 to 2005. In any given year, single-family permits average over 90 percent of total permits, and between 50 and 90 percent of jurisdictions in our sample issued no permits for multifamily housing.



price of housing are both relatively modest. These results reflect the most appropriate analysis of the best available data. Because of limitations in the scope and quality of the available data, however, both the San Francisco and the suburban Boston results should be interpreted with caution.⁹

Given the variation among the programs in the two regions, it is not surprising that our analysis of the two regions produced different results. As we cautioned earlier, IZ is not a one-size-fits-all tool. Not only can the design and scope of a program vary greatly, but its impacts may depend on many variables specific to the jurisdiction. The different results from the San Francisco and suburban Boston analyses are an important reminder that IZ policies come in many shapes and sizes and need to be thought of as a piece of the larger regulatory framework, not a stand-alone solution. The impact of an IZ policy may be affected by the specific design of the IZ program and the effectiveness of its cost offsets, a jurisdiction's reliance on other affordable housing tools, its reasons for adopting IZ, the nature and strength of its housing market, and the state regulatory framework in which it operates.



15 Quincy, Brooklyn, NY, BFC Partners
and Pratt Area Community Council.
Photo: Courtney Wolf.

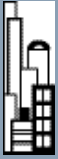
What are the Implications for IZ Policies?

The findings from our research suggest a number of points that policymakers should bear in mind as they consider whether to adopt – and if so, how to structure – inclusionary zoning policies:

Each individual ordinance should be considered on its own merits. We found tremendous variation in the details of IZ policies from one jurisdiction to the next. This suggests that IZ is not a single policy but rather an umbrella term for describing many different but related housing policies, each of which may well have different effects on the number of affordable housing units produced and on the price and supply of market-rate homes. In light of this variation, broad generalizations about IZ would seem to be less helpful than case-by-case analysis of particular proposals or ordinances.

Many IZ policies produce affordable units, but IZ is not a panacea for solving a community's housing challenges. The IZ policies that we examined had varied success in producing affordable units. Some have produced very few or no affordable units, while others have produced thousands of units, making a significant contribution to the availability of affordable homes. Even those ordinances that have produced the most affordable housing units, however, have not solved the community's housing challenges. This suggests that communities should think of IZ as one piece of a broader and more comprehensive housing strategy, rather than as a stand-alone policy response.

⁹ Please consult the full study for a discussion of the data limitations.



More flexible IZ policies may lead to greater production of affordable units.

Our analysis of the IZ programs in the San Francisco metro area found that more flexible IZ policies – those that grant density bonuses or exempt smaller projects – were associated with a greater production of affordable units. The study was not able to determine why policies that provide density bonuses and exempt smaller projects produced more affordable housing units, but one possible explanation is that this flexibility contributed to (or was a manifestation of) a regulatory climate that encouraged new development.

In considering whether to adopt, and if so how to structure, IZ policies, the potential impacts on the price and supply of market-rate housing should be considered.

Both our theoretical analysis and our analysis of IZ policies in suburban Boston suggest that in some settings, IZ programs may lead to impacts on the price and supply of market-rate housing that reduce its affordability. While the average size of the price increases and supply decreases of market-rate housing across all jurisdictions in the Boston sample were fairly small, they were nevertheless significant and could be larger in some communities.

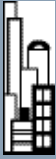
On the other hand, we found no evidence that IZ caused an increase in the price or a decrease in the supply of market-rate housing in the San Francisco area, despite the fact that 93 percent of those programs were mandatory. These results suggest that adverse price and supply effects are not inevitable outcomes of IZ. As explained more fully in the next point, it seems likely that the details of the policies – particularly the inclusion of effective cost offsets – matter considerably.

IZ policies that provide meaningful and achievable density bonuses or other benefits to offset the profits lost on affordable units should be less likely to impact adversely the price and supply of market-rate housing.

Data limitations prevented us from separately analyzing how different types of IZ ordinances impacted the price and supply of market-rate housing. However, our theoretical analysis suggests that adverse impacts on the price and supply of market-rate homes can be mitigated or even avoided entirely by providing benefits to developers that fully compensate them for losses associated with selling or renting IZ units at below-market prices. The most common compensatory benefit included in the IZ ordinances we studied was an increase in allowable density. Other compensatory benefits include fast-track permitting (which decreases the time and costs of new development) and reduced parking requirements (which reduce the amount of land needed per unit). To the extent that such benefits allow developers to realize the same or similar profit under an IZ policy as might have been achieved without one, we would expect that there would be fewer impacts on the price and supply of market-rate homes.

Different cost offsets may be needed in different communities and in different market cycles.

The economics of the development process vary significantly from community to community. They also vary significantly over time, even within a single community. For this reason, it is likely that different communities will need to adopt different offset policies to ensure that IZ policies fully compensate for losses associated with below-market units. These policies also will need to be reviewed over time to ensure they remain meaningful and effective.



Cost offsets need to work in practice, and not just on paper. Practitioners report that in many communities, density bonuses or other offsets that are provided in an IZ ordinance are not in fact realizable because of opposition from community members, planning department staff, and others, or because other policies – such as height caps – prevent developers from building the additional units. To the extent that promised offsets do not materialize in particular communities, developers may become less inclined to build there, or may need to raise the price of housing for market-rate customers.

Broad-based consultations with stakeholders may be helpful in designing effective policies and monitoring their implementation. To ensure that IZ policies are truly effective in offsetting the costs associated with below-market units, it may be helpful to engage a broad range of stakeholders, including both for-profit and nonprofit developers. These stakeholders can help communities develop policies that take into account the realities of construction costs and market dynamics and provide invaluable feedback on how the policies are working once they are implemented. These stakeholders also can help advise jurisdictions on whether there are particular types of housing or particular areas of the community in which IZ policies may not be needed, may be counterproductive, or may need to be more flexible to work effectively.

Related Housing Policies

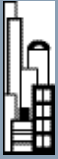
The following are two housing policies that are closely related to IZ that communities may wish to consider as part of a comprehensive housing strategy;

Reductions in Regulatory Barriers to Development. There are many regulations and other practices at the local level that make it difficult or expensive to develop new housing and do not produce sufficient benefits to justify those extra expenses. Other research suggests that these regulatory barriers are driving up housing prices by constraining the ability of the market to respond effectively to demand. Reducing those barriers can help to expand the supply of housing, moderating home prices, and mitigating concerns that IZ might constrain new development. By increasing the amount of new development, such policies also might increase the number of affordable units produced through an IZ ordinance.*

Shared equity homeownership. Units produced through IZ policies may be affordable when originally produced, but will likely become much less affordable once any affordability restrictions expire. Through community land trusts and other shared equity homeownership strategies, communities can ensure that affordable units produced through IZ stay affordable over time, while still providing residents with an opportunity to build assets.** Similar policies can be applied to retain the affordability of rental units over time, though ongoing operating subsidies may be needed in some cases.

* For more information, see HUD's Regulatory barriers clearinghouse (www.huduser.org/rbc), the Center for Housing Policy's online guide to state and local housing policy (www.housingpolicy.org) and the following publications: Glaeser et. al. (2005) and Schuetz (2007).

**For more information, see the Center for Housing Policy's suite of materials on shared equity homeownership at <http://www.nhc.org/housing/sharedequity>.



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Fairbanks Ridge, San Diego, CA, Chelsea Investment Corporation. Photo: Lynn Schmid.

Authored by Amy Armstrong, Vicki Been, Rachel Meltzer, Jenny Schuetz

The Furman Center for Real Estate and Urban Policy is a joint research center of the New York University School of Law and the Robert F. Wagner Graduate School of Public Service at NYU. Since its founding in 1995, the Furman Center has become the leading academic research center in New York City dedicated to providing objective academic and empirical research on the legal and public policy issues involving land use, real estate, housing and urban affairs in the United States, with a particular focus on New York City. More information about the Furman Center can be found at www.furmancenter.nyu.edu.

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Handbook On: Developing Inclusionary Zoning

For the Comprehensive
Housing Production and Rehabilitation Act of 2004



Harrisville Village
Burrillville, Rhode Island



Updated , 2006
Statewide Planning Program,
Division of Planning,
Rhode Island Department of Administration

www.planning.ri.gov

Abstract

The Rhode Island Statewide Planning Program is established by *Chapter 42-11-10 of the Rhode Island General Laws* as the central planning agency for state government. The State Planning Council comprised of state, local, and public representatives, and federal and other advisors, guides the work of the Program.

The objectives of the Program are:

- (1) to prepare strategic and systems plans for the state
- (2) to coordinate activities of the public and private sectors within this framework of policies and programs
- (3) to assist local governments in management, and
- (4) to advise the Governor and others concerned on physical, social, and economic topics.

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The cover images are from the Burrillville Planning Office for the Harrisville Village redevelopment project located in Burrillville, RI. For information on the project contact Thomas Kravitz, Burrillville Town Planner and Economic Development Director, at 401-4300 ext. 130 or look on the web at

http://www.burrillville.org/Public_Documents/BurrillvilleRI_EconDev/Redevelopment_Projects.

Preface

The affordability of housing is not a problem restricted to lower-income populations of inner cities and declining urban areas. It is, in fact, an issue for all municipalities, affecting the poor and lower-income as well as a large portion of the middle-income population of every city and town. The cost of land and basic building construction are matters largely beyond the control of local governments, but housing opportunities and affordability can be promoted through land use codes and development controls that reduce development costs.

Factors Limiting Housing Affordability in Rhode Island

- High land costs, aggravated by requirements in excess of environmental or social need
- High construction costs
- High rents or sales prices
- High median household income and low vacancy rates
- Deterioration of older housing stock
- Elimination of housing stock by demolition or conversion to other uses
- Marginal funding of federal and state housing programs
- Unemployment and under-employment
- Attraction of employment opportunities without consideration of housing supply availability and cost for workers
- Municipal development moratoria, time-consuming procedures and permit limits, and fees
- Lack of municipal facilities and services for potentially suitable housing and development sites
- Failure to use federal, state or private programs designed to enhance housing opportunity and availability
- Local opposition to affordable housing development

This handbook examines the use of inclusionary zoning to promote affordable housing. This edition of the handbook was updated to provide Rhode Island communities with a recommended set of guidelines, derived from the “Rhode Island Five Year Strategic Housing Plan”, for the drafting of inclusionary zoning provisions in order to promote affordable housing in the State. It is intended to assist municipalities in developing actions for compliance with the **Comprehensive Housing Production and Rehabilitation Act of 2004 (R.I. Gen. Law 42-128.8.1)**.

The Act finds that the “state in partnership with local communities must remove barriers to housing development”. It goes on to require “affordable housing plans” to be prepared and adopted by cities and towns to satisfy the requirements of the *Low and Moderate Income Housing Act* (R.I. Gen. Law 45-53.). These “affordable housing plans” developed by each community establish guidelines for higher density development including inclusionary zoning.

Acknowledgements

In recognition of the adoption of the **Comprehensive Housing Production and Rehabilitation Act of 2004 (R.I. Gen. Law 42-128.8.1)** this handbook was prepared by the RI Statewide Planning Program to help municipal officials begin to address expanding opportunities for affordable housing in their community. The handbook represents a sum of efforts contributed by numerous individuals of the Program. The following individuals assisted with the writing of this handbook:

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Part 1: Introduction

This handbook is intended to be a guide for municipal governments to utilize, as a reference tool, to craft an inclusionary housing section for their zoning ordinance that fits the needs and staffing levels of their own community. This handbook is a compilation of existing work condensed for use by Rhode Island communities. This handbook does not attempt to outline all the possible options concerning affordable housing; however, it does outline those items to be considered along with legal counsel concerning inclusionary zoning for affordable housing. Furthermore, every community must realize that inclusionary zoning is not a cure-all for Rhode Island's housing problems; it is one of many tools available to local agencies to develop affordable housing units in their communities. Therefore, each community will have to draft its own text, and use the type of provisions for affordable housing that will work for them based on the advice presented herein and the requirements of the Comprehensive Housing Production and Rehabilitation Act of 2004 and recommended guidelines from the "Rhode Island Five Year Strategic Housing Plan".

***This handbook is not a
substitute for legal
advice.***

The handbook is divided into five sections. The first and second sections provide a brief explanation and general introduction to inclusionary housing. The third section contains excerpts from national, regional, and local case studies that deal with established inclusionary affordable housing programs. The fourth section looks at provisions to consider before crafting the ordinance. Lastly, the fifth section looks at the technical aspects involved in the writing of such ordinance provisions and it provides excerpts of inclusionary housing ordinances from other local New England municipalities to illustrate the various techniques in use. The fifth section, also presents recommended guidelines from the "Rhode Island Five Year Strategic Housing Plan", which have been highlighted in bold print. At the end of the handbook is the Bibliography Section, which contains the citations, world-wide-web addresses and a list of additional housing resources should the reader wish to find more information on the topics. Access is provided purely as a public service. The State of Rhode Island does not endorse any of the linked sites or any products or services found at the linked sites.

Part 2: What is Inclusionary Zoning?

The fundamental purpose of inclusionary zoning is to allow the development of affordable housing to become an integral part of other kinds of development taking place in a community. Inclusionary housing provisions promote the production of affordable housing by requiring developers to set aside a certain percentage of the housing units in a proposed development to be priced affordable to low- and moderate-income households. It is to the benefit of the public that a minimum percentage of affordable units be constructed to meet the affordable housing needs of the community that adopts the ordinance. The goal of such a process is to establish a relatively permanent stock of affordable housing units provided by the private market. Typically, inclusionary provisions require that new developments include “mandatory set-asides” of affordable units, which are made available to low and moderate-income households within future market-level developments. According to recent studies by the American Planning Association¹, mandatory programs have produced the most affordable housing units across the United States.

The *amended Zoning Enabling Act*, R.I. Gen. Law 46-24-46.1, requires that an inclusionary housing section of a zoning ordinance must address the following:

1. Affordable housing, as defined by the Act in subsection 42-128.81(d), be constructed.
2. A minimum of 10 % of the total units in the development must comply with the above-cited affordable definition of the Act.
3. The affordable units must remain affordable for a period of not less than 30 years from initial occupancy enforced through a land lease and/ or deed restriction.

The types of housing that are required can vary from community to community as well as within a municipality and will relate to the specific needs as defined in the approved Affordable Housing Plan. Some inclusionary zoning programs include a payment in lieu of construction of affordable units option. These payments may support a dedicated fund such as a housing trust fund that would finance future affordable units. Some programs include incentives such as density bonuses, allowing a developer to create more units on a parcel of land, the relaxation of development regulations, or the reduction or waiver of fees to encourage more affordable housing than the minimum percentage mandated.

¹ *Zoning Practice*, no. 9 (Washington, DC: American Planning Association, September 2004).

Part 3: Case Studies

There is a range of programs in use around the country as providing affordable housing is a national issue all communities face today. This part reviews several programs that have adopted procedures through zoning ordinances to provide for affordable housing. These programs vary and have been adopted to fit local housing needs and market conditions and many use a combination of providing affordable housing units along with market rate units to produce affordable housing.

A. NATIONAL CASE STUDY

Montgomery County, Maryland

Inclusionary zoning started in the Washington, D.C. metropolitan area. In 1973, Montgomery County, Maryland, instituted countywide mandatory inclusionary zoning, known as the Moderately Priced Dwelling Unit (MPDU) ordinance. Montgomery County is the leading national example of the use of this technique at the county level. According to the Innovative Housing Institute, the Montgomery County program has produced nearly 10,000 units of affordable housing. Most jurisdictions can trace some aspect of their inclusionary zoning ordinances to the Montgomery County program.²

The MPDU ordinance requires that developments of 50 units or more include 15% MPDUs. Of that 15%, two-thirds are sold to moderate-income homebuyers and the remainder is offered to housing commissions and non-profits for use in their affordable housing programs (many of which retain rental units). Developers receive a density bonus of up to 22% through this program.³ Throughout the program's history, nearly 10,600 affordable units have been created. However, roughly 6,800 units are no longer governed by inclusionary zoning requirements or any other affordability regulations. According to the ordinance, rental units must be regulated under the inclusionary zoning provisions for 20 years and owner-occupied units for 10 years.⁴ Montgomery County's program targets households earning 65% or less of the area median income of \$82,800 in the fiscal year 2000.⁵

One of the greatest challenges facing the Montgomery County program is that the first units built by the program are quickly becoming unregulated and the development of new affordable units is slow. Many policy think tanks and housing advocates, including the Brookings Institution, suggest that one-way to remedy the situation is to make it easier for non-profits and housing authorities to purchase the units once the affordable price regulations expire. Perhaps by extending the non-profit agency's right of first refusal so that they may pre-empt private developers from purchasing the affordable units.⁶

B. MASSACHUSETTS (MA) CASE STUDIES

Federal and state low and moderate-income housing programs have created more than eight % of Massachusetts's housing stock. The creation of new affordable units, however, has slowed due to scarce developable land, opposition to development in general, and the reputation of large affordable housing projects.⁷ In 1975 Massachusetts enacted a state zoning act authorizing the use of incentives for the development of low and moderate-income housing. While more than a third of the communities in

² Robert W. Burchell and Catherine C. Galley, "Inclusionary Zoning: A Viable Solution to the Affordable Housing Crisis? Inclusionary Zoning: Pros and Cons," *New Century Housing Newsletter* 1, no.2 (Washington DC: Center for Housing Policy, October 2000).

³ Karen Destorel Brown, "Expanding Affordable Housing Through Inclusionary Zoning: Lessons from the Washington Metropolitan Area," *Cities and Suburbs* (Washington DC: The Brookings Institution, October 2001).

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

⁷ Phillip B. Herr & Associates, "Zoning for Affordability," *Community Strategies* (Boston, MA: Massachusetts Housing Partnership, 1999).

Massachusetts have adopted zoning incentives for affordable developments, very few units are generally created.⁸ The zoning statute, Chapter 40B commonly known as the “anti-snob” zoning ordinance, exempts developers of affordable units from certain zoning regulations if 20-25% of units in municipalities have affordability restrictions. The restrictions include being affordable for households earning less than 80% of the area’s median income and must remain affordable for 30 years.⁹ Much of land use control is local in Massachusetts, so depending on the community, inclusionary zoning programs may or may not be directly influenced by 40B.¹⁰ The following are two different examples of the impact of Chapter 40B, and the successes and failures of inclusionary zoning.

Barnstable, MA.

In an attempt to address the state’s 10 % affordability requirement, the town of Barnstable, Massachusetts on Cape Cod drafted an Inclusionary Housing Ordinance that charged developers a fee that was placed in an Inclusionary Housing Fund to purchase land and develop affordable units. A suit was brought against the town, claiming that the fee was an illegal tax. A Superior Court ruled in favor of the plaintiff in *Dacey v. Town of Barnstable*. A part of the inclusionary ordinance was struck down when the court ruled that the Town’s imposition of an Inclusionary Housing Fee on developers whose projects were not covered under the ordinance constituted an exaction.¹¹ ***The lesson learned from Barnstable is that an inclusionary zoning program can be implemented in several different ways, and that it is important to find a program that suits an individual town.*** In the case of Barnstable, the courts ruled that imposing an exaction places the burden of developing affordable units on developers only. Rather, an inclusionary zoning program should be viewed as a community program. The Comprehensive Permit Law in Massachusetts (under Chapter 40B) expedites the permitting process for developers building affordable units, thus providing incentives for private development- making it the better option to achieve affordable housing goals.

Newton, MA.

Newton, Massachusetts is an older suburb of Boston with a population of 85,000. In 1977, Newton drafted its own inclusionary zoning ordinance, which has since provided 225 units of affordable housing over a thirty-year period. In addition, almost 450 units have been constructed in the community under the mandate of Chapter 40B. Newton’s ordinance mandates that all units created have to be rental and leased through the Newton Housing Authority. Other options for developers such as off-site units and cash payments in lieu of construction are available, although tightly regulated. Newton’s program also contains strict regulation in the design of affordable units. The units must be equal in character to market rate units, in order to avoid stigmatization.

One of the challenges of the Newton program is that there is a fee for developments under 10 units that do not come under the town ordinance. Therefore, many developers choose to pay the fee and under-develop. However, the Newton Housing Authority does not have an effective method to allocate funds received by the fee and in lieu payments. This case study shows the difficulty in creating many cash payment loopholes for developers. One remedy would be to mandate the construction of affordable units in all developments in return for a density bonus.¹²

⁸ National Housing Conference (NHC), “Inclusionary Zoning: Lessons Learned in Massachusetts,” *NHC Affordable Housing Policy Review* 2, no. 1 (Washington, DC: Center for Housing Policy, January 2002).

⁹ Ibid.

¹⁰ Phillip B. Herr & Associates, “Zoning for Affordability,” *Community Strategies* (Boston, MA: Massachusetts Housing Partnership, 1999).

¹¹ Commonwealth of Massachusetts Superior Court, Civil Action No. 00-53 (October 18, 2000), *Brian Dacey vs. Town of Barnstable*.

¹² National Housing Conference (NHC), “Inclusionary Zoning: Lessons Learned in Massachusetts,” *NHC Affordable Housing Policy Review* 2, no. 1 (Washington, DC: Center for Housing Policy, January 2002).

C. RHODE ISLAND (RI) CASE STUDIES

Rhode Island's municipal affordable housing provisions within existing zoning ordinances are widely varied. In Rhode Island at this time, only East Providence and Tiverton have mandatory inclusionary zoning in use. There are 8 other municipalities that have some sort of an incentive zoning provision in the local zoning ordinance relating to affordable housing. These municipalities are Barrington, Burrillville, East Greenwich, Hopkinton, New Shoreham, North Kingstown, Richmond, and South Kingstown. This section provides a brief summary of the various incentive zoning techniques currently in use. The local ordinance citations follow each summary with a web link to the homepage of the municipality where on-line information is available for more information about each community and the ordinance cited.

- ◆ **Barrington, RI:** density bonus in an Elderly Housing District as part of a zoning ordinance amendment, with a 30-year affordability provision, but there is no provision for a percentage of low/moderate income family units. [Section 185-139-B] <http://www.ci.barrington.ri.us/>.
- ◆ **Burrillville, RI:** In Village Planned Development Districts flexibility in siting units is permitted by the Planning Board for all dimensional requirements but the 12,000 square feet minimum lot size. [Section 11-8.9.4] http://www.burrillville.org/Public_Documents/index.
- ◆ **East Greenwich, RI:** density bonus to a maximum of six units per acre provided that 10% of the units within the development are affordable in Mixed Use Planned Development Districts. [Article VIII, 6.3] <http://www.eastgreenwichri.com/>.
- ◆ **East Providence, RI:** a density bonus of up to 10% may be permitted according to the number of affordable units developed [Article VIII, Section 19-456]. Also the new Waterfront Development District (WWD) requires that all new residential development or property conversions resulting in 5 or more parcels or new dwelling units must supply a minimum of 10% of low to moderate income housing units as part of the development. An In-Lieu fee option is allowed per the rules and regulations of the East Providence Waterfront Special Development District Commission. [Article 9,(j), Affordable Housing] <http://www.eastprovidence.com/>.
- ◆ **Hopkinton, RI:** a density bonus of up to 10% may be permitted by the Planning Board according to the number of affordable units developed in cluster developments. [Section 14(A)(2)]
- ◆ **New Shoreham, RI:** density bonus of 100% may be granted to accommodate affordable units by the Zoning Board as a special-use permit. [Section 405]
- ◆ **North Kingstown, RI:** 10% density bonus may be granted for 10% of all dwelling units to be marketed at a moderate price in a Planned Unit Development by the Planning Commission. [Section 21-487(m)] <http://www.northkingstown.org/>.
- ◆ **Richmond, RI:** 20% affordable units in subdivisions (if the Planning Board determines that the development meets critical needs), the development is exempt from Growth Rate Control [Section 18.72.020(C)], and affordable units are also exempt from impact fees. [Section 18.33.040(A)] <http://www.richmondri.com/>.
- ◆ **South Kingstown, RI:** Affordable Housing is exempted from the Fair Share Development Fee. [Section 1101 D 1] <http://www.southkingstownri.com/>.
- ◆ **Tiverton, RI:** A mandatory alternative concept plan for all major land developments showing a 20% set-aside for low or moderate income housing is required. Planning Board will endorse or reject concept plan. A density bonus up to 30% over allowed density for additional units of low or moderate housing may be granted at the discretion of the Planning Board. [Article XXI, Section 9, a & b]

Part 4: Items to Consider

Developing an inclusionary housing section for a zoning ordinance is difficult, and many components of such an ordinance must be taken into consideration before the section can be written. Before proceeding, it is critical to familiarize oneself with the Rhode Island General Laws establishing the planning framework for housing development and zoning in general, along with the requirements of the *Comprehensive Housing Production and Rehabilitation Act of 2004* and the associated amendments to 7 other related enabling acts concerning affordable housing. The following 12 items are considered essential for communities to address concerning inclusionary housing and were adopted from an Enterprise Foundation Brief.¹³

A good World Wide Web site to review the RI planning and development laws is located at:

<http://www.rilin.state.ri.us/Statutes/TITLE45/INDEX.HTM>.

To view the House and Senate bills related to the *Comprehensive Housing Production and Rehabilitation Act of 2004* see:

[H-8574A](#), [S-3148](#).

1. How does the ordinance provision relate to adopted Municipal Plans?

When drafting inclusionary provisions for a zoning ordinance, a nexus needs to be established between the approved Affordable Housing Plan of the municipality and the purpose of the ordinance. The ordinance sections concerning Findings and Purpose should restate the community need for affordable housing, environmental and infrastructure constraints, and recommendations from the approved Affordable Housing Plan and the Housing Element of the Comprehensive Plan.

2. Will the inclusionary requirement be mandatory or voluntary?

The decision to make your requirement mandatory or voluntary is an important one. It seems most inclusionary zoning ordinances are voluntary. Voluntary programs are harder to challenge in court, but they should have incentives included to be successful. Mandatory programs, on the other hand, are obviously easy to enforce and evidence supports that they produce more units. The combination of approaches is probably best. Included within regulatory strategies usually are requirements to insure that developments mitigate the impacts of their projects on the community's need for affordable housing and incentives for developers to volunteer to provide affordable housing.

3. What will be the development threshold size for applicability?

The threshold size describes how the size of a development will trigger an affordability requirement.¹⁴ In the examples that follow in Part 5, there is a low of 3 units to a high of 50. In the Burlington example, a redevelopment of project of 10 acres or 50 or more units or a development using more than 10 acres or 50 or more units will trigger an affordability requirement.

¹³ Peter Werwath, "Program Design Considerations," *An Enterprise Issue Brief* (Columbia, MD: The Enterprise Foundation, 1994).

¹⁴ Business and Professional People for the Public Interest. "Issues to Consider in Developing an Inclusionary Zoning Ordinance," *Inclusionary Zoning Policy Briefs*, (Chicago, IL: Business and Professional People for Regional Affordable Housing Publications, Winter 2003).

4. What “set aside” of affordable units must be included?

It is important to gauge your community's needs (by referencing your municipality's Affordable Housing Plan) and determine a percentage of the total development's units that will be deemed as a “set aside.” Certain inclusionary zoning ordinances either only include for-sale housing or rental housing. It appears that including both types of housing stock would benefit because the ordinance could target both low and moderate-income households. Some inclusionary programs have found that a key to success is an appropriate mix of affordable units coupled with a density bonus for market units. **Keep in mind that under the recent changes to the *Zoning Enabling Act*, any inclusionary housing zoning must provide that at least 10% of the total units in a development satisfy the affordable definition of the Act.**

5. What income groups are to be served?

A statement of the income group to be served must be drafted. Income eligibility standards are adjusted by family size, and most ordinances have a system for certifying income eligibility by an agreed-to standard. An ordinance may include a tiered income standard to aid developers: a lower percentage of affordable units can be built if the units are lower priced. Every ordinance should have some type of system to verify and certify incomes, or other special characteristics (such as disabilities).¹⁵ The system will have to adjust for varying incomes and family sizes. Whose regulations will you use to target a specific income group? In some communities, nonprofit organizations qualify homebuyers and renters for inclusionary developments, and they may also regulate trust fund monies, and other monies. It is important to establish who will supervise and enforce your inclusionary zoning ordinance.

6. What types of housing stock will be developed?

Another element to take into consideration is the style and design of affordable housing units. Some ordinances include strict design regulations. It would be beneficial for the community if the affordable units were compatible and similar to market rate design construction in the community.¹⁶

7. When will the affordable units be developed?

A sensitive issue for the developer and the municipality involves the timing of the affordable unit construction. While a developer may argue that s/he needs revenues from the market-rate units in order to feasibly construct the affordable units, a common goal is to have both types built concurrently to avoid any community controversy or having the developer leave the affordable units un-built. A compromise solution that appears in a number of ordinances is a phased construction of affordable rate units at an agreeable ratio to market-rate construction (e.g., one affordable unit for every five market-rate units constructed). Additionally, fees would be paid at the appropriate juncture (Netter, 2000).¹⁷

8. What type of cost- offsets and / or incentive(s) will you provide the developer?

There are ways of reducing the costs of a development to enable the construction of affordable housing such as the waiving of certain review fees or the amount of parking to be provided (see Part 5 for more details). These cost offsets allow a municipality to decrease the costs developers would incur for affordable housing, and minimize the possibility of a developer showing that mandatory inclusionary zoning causes an excessive loss such that it effects a taking. The cost offsets give developers certain benefits to compensate the developer for pricing some units below market rates. One of the most common incentives for an inclusionary zoning ordinance is to provide density bonuses to developers. Density bonuses allow developers to increase the number of units allowed on a piece of property if they

¹⁵ Peter Werwath, “Program Design Considerations,” *An Enterprise Issue Brief* (Columbia, MD: The Enterprise Foundation, 1994).

¹⁶ Joyce Siegel, “Inclusionary Zoning Around the Country” (Baltimore, MD: Innovative Housing Institute, 2 March 2000).

¹⁷ Edith Netter, Esq., “Inclusionary Zoning Guidelines for Cities and Towns,” *Community Strategies*. (Boston, MA: Massachusetts Housing Partnership, September 2000).

agree to make some percentage of those units affordable. Developers use additional cash flow from these bonus units to offset the revenue lost from the affordable units.¹⁸

9. How will the municipality sustain an ongoing inclusionary program?

It is important to ensure a total program when adopting an inclusionary zoning ordinance. If developers create affordable units without long-term affordability controls (30 year minimum in RI) or site units close too far from community and social services then the program will fail. This is important to consider as the community may want to stipulate special conditions for preserving the affordable housing created above and beyond the provisions required by the housing program funders. Special siting factors such as proximity to employment and other public services are necessary for affordable units. For example, one siting requirement may be that affordable units be located close to major employers and or public transportation routes where possible.

10. What will be the type of controls on rental and for-sale housing?

A successful inclusionary zoning ordinance must include explicit restrictions on the future rental or sale of affordable units. Again, this is important to consider as the community may want to stipulate special conditions for preserving the affordable housing created above and beyond the provisions required by the housing program funders. The ordinance must require the units to remain affordable for a minimum of thirty years, and it may also specify that the affordable units must continue to be available to income-qualified occupants. Restricting income levels and rents for rental units is simple- the jurisdiction can specify rent limits and require verification of new tenant's incomes as they move into the development. Maintaining affordability on for-sale housing is more complicated. The ordinance may require that homeowners sell their unit to income-qualified buyers at a price that incorporates inflation and the cost of home improvement, but remains affordable. One compromise would be that homeowners could sell their home with affordability restrictions and donate a certain percentage of the profits to a housing trust fund.¹⁹ The ordinance should take into consideration inflation and the cost of living adjustments over time and who will be qualified in later years (see Part 5, numbers 10 & 11 for more details).

11. Can the developer make in-lieu-of payments?

A town may determine that the developer not be required to build affordable units if he pays a fee-in-lieu of development either (a) in cash or (b) by dedication of land. This fee is usually dedicated to a land trust or land bank for future affordable housing for the town, which may need to be established if none exists. A dedication of land may be advantageous to a community that has prioritized conservation along with affordable housing as a complementary goal. The community should specify whether the developer has the option of a fee-in-lieu by right, or require that the developer demonstrate that building the units as required presents a financial hardship.

In deciding the amount of a fee-in-lieu the ordinance needs to consider what the developer's costs might be to produce a unit of affordable housing, including current land costs, the need for infrastructure, current construction costs, etc. The object is to create a fee that is not too low so as to make it economically advantageous for the developer to opt out of building affordable units and high enough to make a reasonable gain by the community's affordable housing trust fund or land bank if they choose to allow the developer to opt out.

12. Can the developer build affordable units off-site?

Allowing developers the flexibility of delivering affordable housing off-site can help them economically. For example, if they are developing on expensive land, they can build more affordable units on other land. Also, affordable units may have special needs such as proximity to transportation

¹⁸ Regulatory Barriers Clearinghouse, "Considerations for Density Bonus Ordinance," *Breakthroughs: Solutions that support affordable housing* 2, no. 4, Washington, DC.

¹⁹ Anne Ray, "Inclusionary Housing A Discussion of Policy Issues," (Gainesville, FL: Shimberg Center for Affordable Housing, 15 June 2001).

and employment. Alternatively, while a municipality may allow the developer to build the affordable units off-site; however, this practice is less favored since one of the goals of inclusionary zoning is to promote the mixture of affordable units among market-rate housing to soften opposition to the construction as well as for the beneficial socio-economic impact. If off-site building is permitted, it is recommended that the units continue serving the same geographic locality.

Part 5: Developing an Ordinance

During the development of an inclusionary housing section for a municipal zoning ordinance, it is critical to tailor the section to the unique local housing conditions/ needs, governmental structure, and staffing levels - as defined by each locally approved Affordable Housing Plan. Therefore, the drafting of an effective inclusionary zoning ordinance requires the municipality to present a wide array of options that need to be viewed separately, and then evaluated in terms of how they work together.

This handbook is a reference tool not a model ordinance.

This section addresses those variables and options to be weighed in developing an effective inclusionary zoning ordinance. Communities should utilize this section as a guide to explain those issues that contribute to their unique needs, as there does not exist a one-size fits all solution. A municipality seeking to draft and implement an inclusionary zoning ordinance should consult with their legal counsel.

In addition, this section is formatted to resemble a general municipal zoning ordinance provision and includes the recommended guidelines presented within the "Rhode Island Five Year Strategic Housing Plan".

The eleven items below are standard items for a community to include when drafting an inclusionary zoning ordinance. These standard items were adopted from a multitude of sources and a regional housing educational publication by the Business and Professional People for the Public Interest. An explanation of each item is presented, along with a bolded description of the recommended guideline for each, if applicable, from the "Rhode Island Five Year Strategic Housing Plan". Following the explanation and recommendation is actual ordinance language examples that have been underlined to identify the illustrated State law and guideline requirements. Lastly, the language municipalities use to draft the inclusionary zoning ordinance should be checked for consistency with Rhode Island law by legal counsel.

1. Findings

An ordinance section on inclusionary housing should begin with findings stating the need for affordable housing in the municipality as cited in the approved local Affordable Housing Plan. Typically this is the section that would summarize the planning process the community has undertaken, trends in housing stock, the need for and benefits of affordable housing, the constraints to be addressed and the benefits anticipated by enactment of an inclusionary zoning ordinance provision.

The first findings below are cited from the newly adopted **Comprehensive Housing Production and Rehabilitation Act of 2004 (R.I.G.L 42-128-8.1)**. A findings section should mirror the general statewide findings in addition to any local findings from the local approved Affordable Housing Plan. Additional sample findings are from other places using inclusionary housing provisions in their zoning ordinances.

42-128-8.1. Housing production and rehabilitation.

(a) Short title. This section shall be known and may be cited as the "Comprehensive Housing Production and Rehabilitation Act of 2004."

(b) Findings. The general assembly finds and declares that: (excerpts)

(2) Efforts and programs to increase the production of housing must be sensitive to the distinctive characteristics of cities and towns, neighborhoods and areas and the need to manage growth and to pace and phase development, especially in high growth areas.

(3) The state in partnership with local communities must remove barriers to housing development and update and maintain zoning and building regulations to facilitate the construction, rehabilitation of properties and retrofitting of buildings for use as safe affordable housing.

(4) Creative funding mechanisms are needed at the local and state levels that provide additional resources for housing development, because there is an inadequate amount of federal and state subsidies to support the affordable housing needs of Rhode Island's current and projected population.

(5) Innovative community planning tools, including, but not limited to, density bonuses and permitted accessory dwelling units, are needed to offset escalating land costs and project financing costs that contribute to the overall cost of housing and tend to restrict the development and preservation of housing affordable to very low income, low income and moderate income persons.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

A Findings: A diverse housing stock is necessary in this community in order to serve people of all income levels. Based upon the review and consideration of the recent Lincoln Affordable Housing Production Plan, it has become clear that the provisions of the Article are necessary in order to preserve some diversity of housing opportunities for the residents and the working people of Lincoln.

The program defined by this article is necessary to provide continuing housing opportunities for low and moderate income persons in Lincoln. It is necessary to help maintain a diverse housing stock and allow residents and employees of Lincoln to have better access to housing and jobs. The local and statewide trend of increasing housing costs as identified in the Lincoln Affordable Housing Production Plan will, without intervention; result in inadequate supplies of affordable housing here for low and moderate income residents and employees.

Remaining land for residential development in Lincoln is limited. It is essential that at least ten percent (10%) of such land be developed into housing units affordable to low and moderate income households. The primary objective of this article is to obtain affordable rental and homeownership units within qualified subdivisions or land development projects. Some provisions of this chapter provide for alternatives to the production of such on-site units. Those provisions recognize the fact that individual site and economic factors can make on-site production less desirable than the alternatives for particular developers. However, the intent and preference of this article is that wherever possible, affordable units constructed pursuant to this Article be located on site.

2. Statement of Purpose

Purpose statements typically explain broad policy directives of an ordinance.

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

- a. To encourage and perpetuate the historic diversity of the community through the development of housing and housing for all populations within the Town, including, but not limited to, housing for the resident workforce and housing for special needs populations;*
- b. To promote mixed income Household occupancy in new subdivisions and land development projects throughout the Town;*
- c. To promote affordable housing production in the Town in accordance with the goals and policies of the South Kingstown Comprehensive Community Plan's Housing Element and Affordable Housing Production Plan;*
- d. To encourage the development and availability of housing that qualifies as low and moderate income housing as mandated by RIGL 45-53, the Rhode Island Low and Moderate Income Housing Act, and the Rhode Island Comprehensive Housing Production and Rehabilitation Act of 2004, as amended;*
- e. To allow landowners and/or developers a reasonable return in all zones permitting residential development where the applicant proposes a development that would be classified as a major subdivision (6 residential units or greater) or major land development project under the South Kingstown Subdivision and Land Development Regulations.*

(Lincoln, RI) [DRAFT: 02-06 Article VII]

The purposes of this article are to:

- (1) Maintain a balanced community that provides housing for people of all income levels, and*
- (2) Promote the construction of rental and homeownership housing that is affordable for the low and moderate income households of Lincoln.*

- (3) *Implement the Lincoln Affordable Housing Production Plan, and the Housing Element of the Lincoln Comprehensive Plan, and Help Lincoln achieve the 10% low-moderate income housing goal set by the State.*

3. Definitions

This part provides explanations to clarify certain specific terms used in the inclusionary zoning ordinance. Any housing, planning, or zoning terms that are not commonly used should be included in this section. Knowledge of existing definitions as established by the various Rhode Island General Laws (<http://www.rilin.state.ri.us/Statutes/TITLE45/INDEX.HTM>) concerning housing development is necessary for this section. Definitions are already provided in the legislation for many terms relevant to an inclusionary zoning ordinance provision such as:

- Affordable Housing
- Approved Affordable Housing Plan
- Moderate Income Household
- Seasonal housing
- Year-round Housing
- Low and Moderate Income Housing

- (1) **"Affordable housing"** means residential housing that has a sales price or rental amount that is within the means of a household that is moderate income or less. In the case of dwelling units for sale, housing that is affordable means housing in which principal, interest, taxes, which may be adjusted by state and local programs for property tax relief, and insurance constitute no more than thirty percent (30%) of the gross household income for a household with less than one hundred and twenty percent (120%) of area median income, adjusted for family size. In the case of dwelling units for rent, housing that is affordable means housing for which the rent, heat, and utilities other than telephone constitute no more than thirty percent (30%) of the gross annual household income for a household with eighty percent (80%) or less of area median income, adjusted for family size. Affordable housing shall include all types of year-round housing, including, but not limited to, manufactured housing, housing originally constructed for workers and their families, accessory dwelling units, housing accepting rental vouchers and/or tenant-based certificates under Section 8 of the United States Housing Act of 1937, as amended, and assisted living housing, where the sales or rental amount of such housing, adjusted for any federal, state, or municipal government subsidy, is less than or equal to thirty percent (30%) of the gross household income of the low and/or moderate income occupants of the housing [§ 42-128-8.1(d)-1].
- (2) **"Affordable housing plan"** - means a plan prepared and adopted by a town or city either to meet the requirements of chapter 45-53 or to meet the requirements of [§ 45-22.2-10(f)], which require that comprehensive plans and the elements thereof be revised to conform with amendments to the state guide plan.
- (3) **"Approved affordable housing plan"** - means an affordable housing plan that has been reviewed and approved in accordance with [§ 45-22.2-9].
- (4) **"Moderate income household"** - means a single person, family, or unrelated persons living together whose adjusted gross income is more than eighty percent (80%) but less than one hundred twenty percent (120%) of the area median income, adjusted for family size.
- (5) **"Seasonal housing"** - means housing that is intended to be occupied during limited portions of the year.
- (6) **"Year-round housing"** - means housing that is intended to be occupied by people as their usual residence and/or vacant units that are intended by their owner for occupancy at all times of the year; occupied rooms or suites of rooms in hotels are year-round housing only when occupied by permanent residents as their usual place of residence.
- (7) **"Minor subdivision"** - A plan for a subdivision of land consisting of five (5) or fewer units or lots, provided that the subdivision does not require waivers or modifications as specified in this chapter [§45-23-32 (25)].

- (8) **“Major subdivision”** - Any subdivision not classified as either an administrative subdivision or a minor subdivision [§45-23-32 (22)].
- (9) **“Cluster”** - A site planning technique that concentrates buildings in specific areas on the site to allow the remaining land to be used for recreation, common open space, and/or preservation of environmentally, historically, culturally, or other sensitive features and/or structures. The techniques used to concentrate buildings shall be specified in the ordinance and may include, but are not limited to, reduction in lot areas, setback requirements, and/or bulk requirements, with the resultant open land being devoted by deed restrictions for one or more uses. Under cluster development there is no increase in the number of lots that would be permitted under conventional development except where ordinance provisions include incentive bonuses for certain types or conditions of development [§ 45-24-31 (13)].
- (10) **“Incentive Zoning”** - The process whereby the local authority may grant additional development capacity in exchange for the developer's provision of a public benefit or amenity as specified in local ordinances [§ 45-24-31 (35)].

4. Standards - Threshold Size and Applicability

Threshold size and applicability is a two-fold standard requirement, by which the developer must comply. Therefore, the language within the inclusionary zoning ordinance must identify a standardized number of units or acres to be established as the threshold size. If the number of units or acres within the proposed land and/or building rehab development meets or exceeds the threshold size, then the threshold size will function as a trigger for the application of a set-aside provision requirement. For instance, **the “Rhode Island Five Year Strategic Housing Plan” guidelines suggest the minimum threshold trigger for this inclusionary zoning provision to be six for-sale or six rental units. This standard trigger of six for-sale or six rental units is based on R.I. enabling legislation, which differentiates a major subdivision from a minor subdivision based upon a standard of six or more units.** Nonetheless, the State would not discourage a reduction of this standard trigger as every municipality possesses unique local housing conditions/ needs, governmental structure, staffing levels, and locally approved Affordable Housing Plans. Furthermore, in some cases where large redevelopment projects are involved, a standardized number of acres must be identified as the trigger. Additionally, and only if applicable, this section of the ordinance should state whether the threshold size be applicable to all zoning districts or just specific zoning districts.

Details for the income groups to be served by the set-aside provision will be established in the “certifying buyers and renters and maintaining affordability” provision within the inclusionary zoning ordinance.

(Burlington, VT) *The following residential development projects shall be Covered Projects and shall be subject to the requirements of this Article: all development of residential property larger than 10 acres or containing 50 or more dwelling units taking place through the construction of new structures or through the substantial rehabilitation of existing structures. Covered Projects shall include all development of residential property in excess of 10 acres or containing 50 or more dwelling units in the City by the same responsible party in any calendar year.*

(A covered project in Burlington, VT is defined as - units that are offered for sale via the conveyance of a deed or share for individual units).

(Lexington, MA) *These provisions shall apply to all residential developments with three or more dwelling units which are authorized through special permits with site plan review, including residential developments in CD or RD Districts.*

(Lincoln, RI) [DRAFT: 02-06 Article VII]

- E. *Number of Inclusionary Units: Any development containing five or more dwelling units is required to include at least twenty percent (20%) of the total number of dwelling units within the development as affordable units.*

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

- B. *Applicability. This section shall be applicable in all zones permitting residential development where the applicant proposes a development that would be classified as a major subdivision (6 residential units or greater) or major land development project under the South Kingstown Subdivision and Land Development Regulations.*

5. Standards - Set-Asides

A set-aside provision pertains to the required percentage of a proposed development that a developer must price as affordable. There is no one-size-fits-all set-aside that can be used to do this. **The Zoning Enabling Act [R.I.G.L. 45-24-46.1] mandates that inclusionary zoning set-asides must be at least 10% of the total units proposed for development. In an attempt to maintain progress towards achieving the State's 10% goal, the "Rhode Island Five Year Strategic Housing Plan" guidelines suggest that municipalities consider a higher affordability set-aside, which will be off-set with a higher density bonus.** Based upon the State law and guidelines, perhaps the best general set-aside for a municipality would be to allow no less than 12.5% to 15%, but no greater than 25%.

Additionally, the municipality must decide what income tier to target for the affordable units, and balance those requirements with projects thought to have economic feasibility. Within this provision of the ordinance, the developer's pricing schedule must be consistent with the municipal affordable housing element of the comprehensive plan and the fiscal boundaries pre-established by the municipality. (The set-aside should be related directly to the Findings Section for ordinance consistency).

(Lincoln, RI) [DRAFT: 02-06 Article VII]

- E. *Number of Inclusionary Units: Any development containing five or more dwelling units is required to include at least twenty percent (20%) of the total number of dwelling units within the development as affordable units.*

(Canton, MA)

Ten percent (10%) of the dwelling units in the Continued Care Retirement Community shall be available to and permanently affordable for households earning less than or equal to 80% of the median income for Worcester County. An increase in the number of units of up to twenty percent (20%) of the maximum dwelling units allowed may be permitted on a one to one basis for units above and beyond the required ten percent (10%).

(Duxbury, MA) [DRAFT]

At least ten (10) percent of the lots in a division of land or units in a multiple unit development subject to this Bylaw shall be established as affordable housing units in any one or combination of methods provided for below. Fractions of a lot or dwelling unit shall be rounded up to the nearest whole number, such that a development proposing six (6) dwelling units shall require one affordable unit, a development proposing eleven (11) dwelling units shall require two affordable units and so on.

6. Standards - Design and Building Requirements

Within the inclusionary zoning ordinance, it is important to establish the specific site design and architectural standards that will be implemented to move forward with the construction of the affordable housing units. In addition, while the type and design of a proposed development will be determined by the needs of the community, **the inclusionary zoning ordinance should implement guidelines that require affordable units to be similar in outward appearance to market rate units in the municipality.** More often than not, visual compatibility positively contributes to the overall aesthetic quality of the municipality; and this can make it easier for low or moderate income residents to both accommodate and assimilate themselves into the municipality. **In addition, the ordinance should provide implementation guidelines for developments that may include a mix of housing types and lot sizes, such as single-family units, duplexes, triplexes, and quadraplexes.**

Handbook on Developing Inclusionary Zoning

Part 5: Developing an Ordinance

Lastly, the inclusionary zoning ordinance should address two additional building alternatives: off-site construction and land dedication. In the event a developer proves that the construction of on-site affordable units is infeasible (due to environmental constraints or other fiscal considerations); he may be granted the option, with approval from the municipal Planning Board, for off-site construction. An approval of this nature should require the developer to construct both the market and the affordable units simultaneously. A land dedication provision would allow a developer, demonstrating a unique hardship, to **substitute a donation of land suitable for development that can accommodate affordable units in place of constructing the units.**

Presented below are six examples of either approved ordinances or ordinances still in the drafting phase demonstrating those guidelines set within the "Rhode Island Statewide Strategic Housing Plan". Examples one and two demonstrate guideline language for development design and location; examples three and four demonstrate guideline language for a variety of different mixed use developments; example five demonstrates guideline language for the circumstances and requirements for off-site developments; lastly, example six demonstrates guideline language for the requirements for land dedication.

Example One

(Lexington, MA)

6. *Development Design. Location and design of Inclusionary Units shall comply with the following:*

- (a) Inclusionary Units shall be sited in no less desirable locations than the other units located on the same site.*
- (b) The materials used and the quality of construction for Inclusionary Units, including heating, ventilation, and air conditioning systems, shall be equal to those of the other units in the development, but amenities such as designer or high end appliances and fixtures need not be provided for Inclusionary Units.*
- (c) To be credited towards the count of Inclusionary Units any existing dwelling units must be in full compliance with all applicable construction and occupancy codes, and shall be sufficiently maintained or rehabilitated so that all major systems (including, but not limited to, roof, windows and building envelope, HVAC, plumbing, and electrical) meet standards comparable to new construction.*
- (d) The exterior appearance of the Inclusionary Units shall be compatible with the other units on the same site.*

Example Two

(Lincoln, RI) [DRAFT: 02-06 Article VII]

J. *Design Guidelines*

- (1.) The exterior appearance of the Inclusionary units in any development shall be visually compatible with the market rate units in the development. External building materials and finishes shall be substantially the same in type and quality for inclusionary units as for market rate units and have the appearance of a single family home.*

Example Three

(Providence Inclusionary Zoning Recommendations) [PolicyLink]

Design Standards for Inclusionary Units

Affordable units must be similar to and compatible with market rate units in outward appearance and in number of bedrooms, but size of affordable units may be reduced to a minimum standard, e.g. for apartments, the minimum sizes could be:

- Efficiencies at 450 sq. ft.*
- One bedrooms at 600 sq. ft.*
- Two bedrooms at 850 sq. ft.*
- Three bedrooms at 1,050 sq. ft.*
- Four bedrooms at 1,120 sq. ft.*

Townhouses, multiplex, and single family units would generally be larger than these minimums due to developer design and compatibility goals. Interior finishes, appliances, and amenities need not be compatible with market rate units.

Handbook on Developing Inclusionary Zoning Part 5: Developing an Ordinance

Example Four

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

C. Permitted Uses. (Note: the section below is modeled after the existing provisions of Section 502.5 Flexible Design Residential Projects.).

a) The following residential uses are permitted (Y) in subdivisions or land development projects to these inclusionary provisions.

<u>Use Code</u>	<u>Description</u>
10	Single household detached structure
11	Two household detached structure
12	Multi-household detached structure (up to four-dwelling units per structure in subdivisions, up to 12 units per structure LDP, Land Development Project)
12.1	Multi-household Land Development Project (see Appendix A, Use Code Descriptions)
12.2	Multi-household Detached Structure-Elderly Only, LDP (see Appendix A, Use Code Descriptions)
12.3	Multi-household Land Development Project - Elderly Only, LDP (see Appendix A, Use Code Descriptions)
12.4	Residential Compound (see Appendix A, Use Code Descriptions)
16.1	Mobile or Manufactured Home Park, Land Development Project (see Appendix A, Use Code Descriptions)
16.2	Senior Residential Community – LDP (Land Development Project) – Elderly-Only, (see Section 501.7, permitted only in the R40 zoning district subject to the additional requirements listed therein)

I. Design Standards for Inclusionary Dwelling Units in Major Subdivisions and Major Land Development Projects

1 Intent

It is the intent of this Section to establish general design and procedural standards for the siting and construction of affordable dwelling units (inclusionary zoning) in major land developments and major subdivisions. By the application of these standards and procedural requirements it is intended to create subdivision neighborhoods and land development projects that have long desirability, provide housing opportunities for a broad range of households with varying incomes and housing needs and are compatible with the surrounding community.

a) Inclusionary Dwelling Unit Design Considerations -...For conventional subdivisions or Flexible Design Residential Projects (FDRP's) such units may be designed as single household units, duplexes, triplexes or in a quadraplex configuration.

Example Five

(Lincoln, RI) [DRAFT: 02-06 Article VII]

M. Off-site Construction of Inclusionary Units: Inclusionary units may be constructed off-site only upon the determination by the Planning Board or Zoning Board that on-site construction is infeasible. If this option is chosen, then the off-site inclusionary units must be constructed prior to or concurrently with the construction of the on-site project. The inclusionary unit size and count must meet the same requirements as if the inclusionary units were constructed on-site.

Example Six

(Towns in Barnstable County, MA) [Inclusionary Housing Bylaw]*

05 Provision of Affordable Units:

4. An applicant may offer, and SPGA may accept, donations of land in fee simple, on or off-site, that the SPGA in its sole discretion determines are suitable for the construction of affordable housing units. The value of donated land shall be equal to or greater than the value of the construction or set-aside of the affordable units. The SPGA may require, prior to accepting land as satisfaction of the requirements of this provision/ordinance, that the applicant submit appraisals of the land in question, as well as other data relevant to the determination of equivalent value.

*Note: If item 4 were to be incorporated into the language of a RI ordinance, replace the "SPGA" with "Zoning Board of Review or Planning Board (ZBR or PB)"; and replace the word "bylaw" with the word "ordinance".

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7. Standards - Timing of construction

It is important to establish when the affordable units shall be constructed. Most municipalities require affordable units to be built concurrently with market units to ensure integration of affordable and market units, and to prevent developers from abandoning projects prior to completing the affordable units. This section can be used to stipulate when phasing is used how many affordable units are to be constructed as part of each phase. **The “Rhode Island Five Year Strategic Housing Plan” guidelines state that the inclusionary ordinance may stipulate an upfront commitment from developers to create affordable units in a timely manner through the use of bonds or the requirement of phased construction plans, encouraging developers to construct affordable units either before or concurrent with market rate units.**

(Burlington, VT) *Inclusionary units shall be made available for occupancy on approximately the same schedule as a Covered Project's market units, except that certificates of occupancy for the last ten percent of the market units shall be withheld until certificates of occupancy have been issued for all of the inclusionary units. A schedule setting forth the phasing of the total number of units in a Covered Project, along with a schedule setting forth the phasing of the required inclusionary units, shall be established prior to the issuance of a building permit for any development subject to the provisions of this Article.*

(A covered project in Burlington, VT is defined as - units that are offered for sale via the conveyance of a deed or share for individual units).

(Lexington, MA) *POLICY 4.15: TIMING OF CONSTRUCTION: Building permits should not be issued for the construction of any dwelling unit in the second 50% of the market rate dwelling units, which are linked to affordable dwelling units, whether on the same site or elsewhere in town, until construction has begun on ALL the affordable dwelling units.*

(Massachusetts Smart Growth Model IZ Bylaw)

05.0 Provisions Applicable to Affordable Housing Units On- and Off-Site:

3. *Timing of construction or provision of affordable units or lots. Where feasible, affordable housing units shall be provided coincident to the development of market-rate units, but in no event shall the development of affordable units be delayed beyond the schedule noted below:*

<u>Market rate Unit (% Complete)</u>	<u>Affordable Housing Unit (% Required)</u>
<30%	-
30% plus 1 unit	10%
Up to 50%	30%
Up to 75%	50%
75% plus 1 unit	70%
Up to 90%	100%

Fractions of units shall not be counted.

(Charlton, MA) [DRAFT]

- (4.) *The construction of the affordable units will be built (a unit is considered “built” upon the issuance of an Occupancy Permit) coincident with the development of market-rate units, but in no event shall the development of affordable units be delayed beyond the schedule noted below:*

<u>Market rate units (% built)</u>	<u>Affordable housing units (% built)</u>
Up to 30%	None required
30% to 50%	At least 30%
51% to 75%	At least 75%
76% or more	100%

8. Cost Offsets and Density Bonuses

State inclusionary zoning guidelines suggest ways of reducing the costs of a development to enable the construction of affordable housing. Municipalities may implement cost offsets in a variety of ways. These include waivers from development standards such as set-back requirements, parking and landscaping requirements, waivers of impact fees and streamlining permitting to reduce the cost of constructing affordable units. These cost offsets allow a municipality to decrease the developer costs to be incurred while constructing affordable housing. In addition, the cost offsets minimize the possibility of a developer showing that inclusionary zoning causes an excessive loss such that it presents itself as a taking. Furthermore, the cost offsets give developers certain benefits to compensate themselves for pricing some units at below market rates.

(South Kingstown, RI) [FINAL DRAFT: Inclusionary Zoning Ordinance and Subdivision Regulations: Revised February, 2006]

502.6 A. Fair Share Development Fee Exemption. Per section 1101.D. 1. of this Ordinance, required Inclusionary dwelling units in major land development projects, major subdivisions or off-site exactions shall be exempt from payment of Fair Share Development Fees for both school facilities and open space, conservation, park and recreation land and/or facilities.

One of the most popular developer incentives used by a municipality is the density bonus. Consequently, the incorporation of the density bonus provision has become an essential component of the inclusionary zoning ordinance, as it has proven advantageous to both the developer and municipality. **The State guidelines indicate that for the density bonus provision to be effective, it must be offered at a higher percentage than the affordable set-aside requirement in order to offset the cost of the affordable unit requirements.**

(Charlton, MA) [DRAFT]

0. Provision of Affordable Units and Density Bonus

- (1.) Utilizing the Affordable Housing Incentive Option will require the granting of a Special Permit from the Planning Board.*
- (2.) *Density Bonus Applicability: The density bonus is only available in those areas of Charlton serviced by **both** municipal water and sewer, or upon approval of **both** the Planning Board and the Board of Health.*
- (3.) Density Bonus Formula: For projects resulting in a net increase of six (6) or more dwelling units, the applicant has the option of obtaining a density bonus in exchange for the provision of affordable housing. The number of additional lots derived from the density bonus shall not exceed 25% of the total lots that could be created under a conventional definitive subdivision plan design. The density bonus shall be calculated according to the following formula:*
 - 3-a. For those residential development projects that will set aside a minimum of fifteen percent (15%) of the total proposed housing units for affordable housing, the minimum lot area per dwelling normally required in the applicable zoning district may be reduced by the amount necessary to permit up to two (2) additional units for each one affordable housing unit provided.*
 - 3-b. For those residential development projects that will set aside a minimum of ten percent (10%) of the total proposed housing units for affordable housing, the minimum lot area per dwelling normally required in the applicable zoning district may be reduced by the amount necessary to permit up to one (1) additional unit for each one affordable housing unit provided.*
 - 3-c. Fractions: If when applying the above percentages to the total number of units to determine the number of affordable units, the resulting number of affordable units includes a fraction of a unit, this fraction shall be rounded up to the next whole number.*

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*Note – If item (2) were to be incorporated into the language of a RI ordinance, the language would need to be specific with regard to the type of water supply (i.e. – municipal water source; or a private/public well water source) available to it and its wastewater management system. Furthermore, if specific approvals need to be obtained, the municipality would need to identify those particular municipal and state departments.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

Density Bonus: All projects shall be entitled to a density increase of twenty-five percent (25%) in accordance with the provisions of this section. This density bonus qualifies as a locally provided subsidy. Any project shall be entitled to an increase in the maximum lot coverage allowed for the site on which the project is located following the calculation of density, lot coverage, and setbacks.

(Somerville, MA) The affordable housing requirements of this Article shall apply to all residential developments seeking special permits with site plan review to develop 8 or more dwelling units, whether new construction, substantial rehabilitation, or adaptive reuse. Developments shall not be segmented or phased in a manner to avoid compliance with these provisions. Developers providing more than 12.5% of the total units in the development as affordable units may apply for an additional density bonus under the terms of this Article. Bonuses may be awarded on the basis of a 2 to 1 ratio of market rate units to affordable housing units. For every additional unit provided beyond the 12.5% required, 2 additional market rate units may be authorized.

9. Fee In Lieu

An inclusionary zoning ordinance may allow the option for the developer to pay a fee in lieu should it not be possible to construct the required affordable units for a variety of reasons. Several methods exist for the use of fee in lieu of construction. Such fees can be established that permit payment as a right. **In addition, an alternative is to require developers to show that constructing units would constitute a unique hardship, or that a fee would produce a greater benefit. State guidelines recommend that each community adopt a schedule of in-lieu fees that is based on a sound methodology, such as a percentage of the appraised value of the market-rate units. The fee should not exceed the difference between the cost of development and the sales price for an affordable unit.** The fee in lieu paid, is linked to the cost of producing a unit, and typically varies in every community, as the formulas for calculating an appropriate fee in lieu are dependent upon the local housing market.

(Massachusetts Smart Growth Model IZ Bylaw)

07.0 Fees-in-Lieu-of Affordable Housing Unit Provision: [Commentary Included]

1. As an alternative to the requirements of Section 05.0 or Section 06.0, an applicant may contribute to an established local housing trust fund to be used for the development of affordable housing in lieu of constructing and offering affordable units within the locus of the proposed development or at an off-site locus.

(a) Calculation of fee-in-lieu-of units. The applicant for development subject to this bylaw may pay fees-in-lieu of the construction of affordable units. For the purposes of this bylaw/ordinance the fee-in-lieu of the construction or provision of affordable units will be determined as a per-unit cost as calculated from regional construction and sales reports. The SPGA will make the final determination of acceptable value.

COMMENT: *This Section provides a cash payment option in lieu of providing affordable units. The payment value may differ for each municipality and will depend on the size of the affordable housing unit discount that would be necessary to make the unit affordable (e.g. median sale price of market rate unit minus maximum sale price of a three-bedroom affordable dwelling unit). Fees in-lieu will need to be recalculated regularly to account for inflation and other market changes. Furthermore, the local housing trust fund will need to be closely regulated to ensure that dollars contributed to the fund are spent exclusively on the provisioning of affordable housing. This is the appropriate section for specifying guidelines for administering the housing trust and stipulating the governance structure by which the trust will be managed. Municipalities that significantly lack*

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affordable housing opportunities should consider heavily restricting the fee-in-lieu payment option. In built-out communities, housing trust funds often grow and sit unused because sites appropriate for affordable housing development are not available. Additionally, affordable housing trusts can force municipal agents into the role of real estate developers, which local government officials may be poorly suited for or reluctant to do. Cities such as Cambridge have eliminated the fee-in-lieu payment option in almost all cases except for extreme hardship in order to ensure that affordable housing is built by the developers at the same time that new development is under construction.

(Duxbury, MA) [DRAFT]

560.12 Fees-in Lieu of Affordable Housing Unit Provision

As an alternative to the requirements of Section 560.5, and as allowed by law, an applicant may contribute to the Duxbury Housing Trust Fund to be used for the development of affordable housing in lieu of constructing and offering affordable units within the locus of the proposed development or off-site.

Calculation of fees-in-lieu of units. The applicant for development subject to this Bylaw may pay fees in lieu of the construction of affordable units. For the purposes of this Bylaw, the fee in lieu of the construction or provision of affordable units is determined to be \$200,000 per unit. For example, if the applicant is required to construct two affordable income units, they may opt to pay \$400,000 in lieu of constructing or providing the units. Unless and until adjusted by Town Meeting, the fee in lieu of the construction of affordable units shall increase three (3%) percent every twelve months from the effective date of this Bylaw.

10. Certifying Buyers and Renters and Maintaining Affordability

An inclusionary zoning ordinance can provide regulations with extensive instructions for marketing to and certifying buyers and renters of affordable units. **Affordable dwelling units for sale cost guidelines comprise: the principal, interest, property insurance, and taxes - which may be adjusted by state and local programs for property tax relief. These consolidated costs may not constitute more than 30 percent of the gross household income for a moderate income household. In the case of affordable dwelling units for rent cost guidelines comprise: the rent, heat, and utilities - other than telephone - and may not constitute more than 30 percent of the gross annual household income for a household with 80 percent or less of Area Median Income (AMI), adjusted for household size. State guidelines suggest that income ranges targeted in local zoning ordinances be consistent with the needs identified in the community's affordable housing plan.**

In addition, the provisions must have a system to make sure that eligible families are being housed in the affordable units over the long-term. **The Zoning Enabling Act [R.I.G.L. 45-24-46] mandates that the minimum time period for affordability maintenance shall be 30 years; and the State guidelines recommend that the period of affordability can be established in the ordinance as perpetuity meaning 99 years or the useful life of the building.**

The methods utilized to maintain the time frames for affordability vary with regard to the staffing and enforcement capabilities of each municipality. Typically affordability is maintained by certain legal mechanisms such as deed restrictions and covenants that can be used to guarantee the units remain affordable for that time period maintained through deed restrictions or covenants recorded against the property. These affordability controls often specify that a unit must be sold or rented to an income eligible buyer at an affordable price. Most ordinances impose price restrictions that keep units affordable when they pass to new occupants. More recently, municipalities have incorporated specific affordability maintenance periods, which would subsequently reinstate the original time period of affordability.

Lastly, guidelines need to be provided on the subject of resale pricing and maintaining the affordability of the housing units. Municipalities must address whether sellers should be allowed to recoup the value of capital investments in their homes. All of the aforementioned considerations can be facilitated by designating a monitoring agent in the ordinance. **The State inclusionary zoning guidelines recommends that the local municipality should select an agent approved to**

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monitor the affordable units for long-term compliance from RI Housing's list of approved monitoring agents, which may include local housing authorities, RI Housing, a community housing land trust, or the state or federal agency providing subsidies.

(Duxbury, MA) [DRAFT]

560.10 Maximum Incomes and Selling Prices: Initial Sale

To ensure that only eligible households purchase affordable units, the purchaser of an affordable unit shall be required to submit copies of the last three years' federal and state income tax returns and certify, in writing and prior to transfer of title, to the developer of the housing units or his/her agent, and within thirty (30) days following transfer of title, to the Duxbury Housing Authority, that his/her or their family's annual income level does not exceed the maximum level as established by the Commonwealth's Division of Housing and Community Development, and as may be revised from time to time.

The maximum housing cost for affordable units created under this Bylaw is as established by the Commonwealth's Division of Housing and Community Development or as revised by the Town.

560.11 Preservation of Affordability: Restrictions on Resale

Each affordable unit created in accordance with this Bylaw shall have the following limitations governing its resale. The purpose of these limitations is to preserve the long-term affordability of the unit and to ensure its continued availability for affordable income households. The resale controls shall be established through a deed restriction on the property, recorded at the Plymouth County Registry of Deeds or the Land Court, and shall be in force for as long a period as is lawful.

Resale Price – Sales beyond the initial sale to a qualified affordable income purchaser shall include the initial discount rate between the sale price to and the unit's appraised value at the time of resale. This percentage shall be recorded as part of the restriction on the property noted in Section 560.11. For example, if a unit appraised for \$300,000 is sold for \$225,000 as a result of this Bylaw, it has sold for 75% of its appraised value. If several years later, the appraised value of the unit at the time of proposed resale is \$325,000, the unit may be sold for no more than \$243,750, or 75% of the appraised value of \$325,000.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

O. Requirements

(2) Determination of Rental Rates for Affordable Units:

Maximum Rents: Rents charged for inclusionary rental units in any one project must average, be affordable to households earning eighty percent (80%) or less of the Area Median Income (AMI) as determined by HUD. No unit may rent at a rate, which exceeds affordability for a household earning fifty percent (50%) to eighty percent (80%) of AMI as determined by HUD. Latest AMI statistics may be obtained from Rhode Island Housing at www.rihousing.com.

(3) Sales Prices for Affordable Units: The maximum sales price for an affordable ownership unit shall be set by Rhode Island Housing according to their accepted formula. The home price for affordable units in any development shall be a price affordable to a household earning no more than eighty (80%) of the AMI as defined by HUD if subsidized with federal funds. The home price for affordable units in any development not being subsidized by federal funds the price must be affordable as follows:

a One unit shall be made available at a price affordable to a household earning no more than eighty percent (80%) of the AMI as defined by HUD.

b One unit shall be made available at a price affordable to a household earning no more than one hundred percent (100%) of the AMI as defined by HUD.

c Any additional units may be made available at a price affordable to a household earning no more than one hundred twenty percent (120%) of AMI as defined by HUD.

(4.) Approved Purchasers of Affordable Units: A developer or owner shall select an eligible purchaser after completing a good faith marketing and selection process. Upon request, the Town may provide the developer or owner of an affordable unit with a list of households certified by the Town as eligible to purchase the unit. However, a developer or property owner may select an income eligible purchaser who is not on a furnished list so long as the Town can verify the purchaser's income and asset eligibility and the unit is sold at an affordable price as described in this chapter.

(5.) Purchasers of Affordable Units Required to Reside in Those Units: A purchaser of an affordable unit shall occupy the purchased unit as their primary residence. No person shall rent an affordable

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ownership unit. Ownership units must remain exclusively owner occupied for the entire required affordability period.

- (6.) Resale Restrictions; Applicable to Affordable Units: All affordable ownership units as developed under this Article shall be subject to the following restrictions: A seller of an affordable unit must select a low-income purchaser by a method that complies with an approved good faith marketing and selection process. At the request of the applicant, the Town will provide the seller with the description of a process that meets this requirement. Upon request, the Town may provide the seller with a list of households certified by the Town as income eligible to purchase the unit. All purchasers of affordable units shall be part of an income eligible household.
- (7.) Resale Price for Affordable Units: The resale price of any affordable unit shall not exceed that which is affordable to a household earning no more than eighty percent (80%) to one-hundred twenty percent (120%) of the AMI as defined in Section N.(3).

11. Housing Agency Right to Purchase

Where appropriate, some inclusionary zoning ordinances give the municipality and/or designated not-for-profit entities a right to purchase a fixed percentage of affordable units. This can be required when the units are first offered for sale or rent, so that the units will stay permanently affordable. Lastly, the local trends in housing stock, the need for and benefits of affordable housing, and the staff capability of each community and/or the presence of a qualified community development corporation should dictate how this guideline shall be incorporated within the municipality's inclusionary zoning ordinance.

(Duxbury, MA) [DRAFT]

560.11 Preservation of Affordability: Restrictions on Resale

Right of first refusal to purchase – The purchaser of an affordable housing unit developed as a result of this Bylaw shall agree to execute a deed rider prepared by the Town, granting, among other things, the Town's right of first refusal for a period not less than one hundred and eighty (180) days to purchase the property of assignment thereof, in the event that, despite diligent efforts to sell the property, a subsequent qualified purchaser cannot be located.

(Lincoln, RI) [DRAFT: 02-06 Article VII]

O. Requirements

- (8.) Deed Restriction or Incorporation into a Community Land Trust Required: No person offering an affordable unit for sale shall fail to lawfully reference in the grant deed conveying title of any such unit and recorded with the Register of Deeds, a covenant or Declaration of Restrictions in a form approved by the Town. Such covenant or Declaration of Restrictions shall reference applicable contractual arrangements, restrictive covenants, and resale restrictions as are necessary to carry out the purposes of this Article.

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Rhode Island State Agency World Wide Web Pages:

RI Statewide Planning Program	http://www.planning.state.ri.us .
RI Housing and Mortgage Finance Corporation	http://rihousing.com .
Rhode Island Government	www.ri.gov .
Rhode Island General Laws	http://www.rilin.state.ri.us/Statutes/TITLE45/INDEX.HTM .

World Wide Web Pages of Various Case Studies & Sample Ordinances

Barrington, RI	http://www.ci.barrington.ri.us .
Barnstable, MA	www.capecodcommission.org/bylaws/affordhous.html .
Boston, MA	http://www.cityofboston.gov .
Burlington, VT	http://www.ci.burlington.vt.us .
Burrillville, RI	http://www.burrillville.org .
Cambridge, MA	http://www.cambridgema.gov/index.cfm .
Canton, MA	http://www.town.canton.ma.us .
Charlton, MA [DRAFT]	http://www.townofcharlton.net .
Duxbury, MA [DRAFT]	http://www.town.duxbury.ma.us .
East Greenwich, RI	http://www.eastgreenwichri.com .
East Providence, RI	http://www.eastprovidence.com .
Lexington, MA	http://ci.lexington.ma.us .
Lincoln, RI [DRAFT: 02-06 Article VII]	http://www.lincolnri.org .
Massachusetts	http://www.state.ma.us/dhcd/components/hac/zone.htm .
Massachusetts Smart Growth Model IZ Bylaw	http://www.mass.gov/ocd .
Montgomery County, MD	www.inhousing.org/InclusionaryZoning/zonelaws.htm .
North Kingstown, RI	http://www.northkingstown.org .
Providence Inclusionary Zoning Recommendations [PolicyLink]	http://www.policylink.org/Projects/IZ/ .
Richmond, RI	http://www.richmondri.com .

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References and More Information***

Somerville, MA

<http://www.ci.somerville.ma.us>.

South Kingstown, RI [FINAL DRAFT:
Inclusionary Zoning Ordinance and Subdivision
Regulations; Revised February, 2006]

<http://www.southkingstownri.com>.

Links

If you are looking for additional housing-related information, you may want to visit one of the following sites. Access is provided purely as a public service. The State of Rhode Island does not endorse any of the linked sites or any products or services found at the linked sites.

Citizens' Housing and Planning Association
www.chapa.org.

Enterprise Foundation www.enterprisefoundation.org.

Fannie Mae www.fanniemae.com.

Federal Home Loan Bank of Boston
www.fhlbboston.com.

Freddie Mac www.freddiemac.com.

Grow Smart Rhode Island
<http://www.growsmartri.com/affordablehousing.html>.

Harvard University Joint Center for Housing Studies
www.jchs.harvard.edu.

HUD www.hud.gov.

LISC www.liscnet.org.

Massachusetts Housing Partnership Fund
www.mhp.net/termsheets/inclusionaryzoning.pdf.

Minority Business Enterprise Commission
www.rimbe.org.

National Association of Housing & Redevelopment
Officials www.nahro.org.

National Association of Realtors www.realtor.com.

National Association of Home Builders www.nahb.com.

National Coalition for the Homeless
www.nationalhomeless.org.

National Council of State Housing Agencies
www.ncsha.org.

National Housing Conference www.nhc.org.

National Low Income Housing Coalition www.nlihc.org.

Neighborworks www.nw.org.

Pioneer Institute www.pioneerinstitute.org.

Research Institute for Housing America
www.housingamerica.org.

Rhode Island Association of Realtors www.riliving.com.

RI Builders Association www.ribuilders.org.

RI Chapter of the American Planning Association
www.riapa.org.

RI Coalition for the Homeless www.rihomeless.com.

RI Housing Resources Commission
www.hrc.state.ri.us.

Southeastern Regional Planning and Economic
Development District <http://www.srpedd.org>.

Statewide Housing Action Coalition www.shac-ri.org.

Regional Inclusionary Housing Initiative

Policy Tools Series

POLICY TOOL #1

DEVELOPING AN INCLUSIONARY ZONING ORDINANCE

Inclusionary housing programs can effectively create affordable housing in a variety of communities. The most common route to creating an inclusionary housing program is through a zoning ordinance that sets the specific requirements linking the development of new residential units with the creation of affordable housing units. This Policy Tool provides a brief overview of inclusionary housing and a detailed analysis of issues that need to be considered when developing an inclusionary zoning ordinance.

What is Inclusionary Housing? Inclusionary zoning requires residential developers to set aside a portion of the homes they build as affordable for low- and moderate-income families. In addition to increasing the supply of affordable housing, inclusionary zoning disperses affordable housing throughout the growth areas of a region. It enables low- and moderate- income families to live in homes indistinguishable from, and adjacent to, market-rate housing, and to live in communities with better access to employment and educational opportunities. Inclusionary zoning has been implemented in a variety of locales, ranging from older cities, such as Boston, to growing towns like Longmont, Colorado.

What are the benefits of Inclusionary Housing? Inclusionary housing programs help municipalities serve the needs of local employers, including business, schools, and the municipalities themselves:

- Businesses find it easier to hire and retain employees who are able to live within a reasonable commuting distance
- Municipal governments, school districts, fire and police departments benefit from employees living in the communities they serve because they are more invested in its future.

Inclusionary housing helps meet the needs of current and future residents:

- Senior citizens have the choice to remain in the communities where they have raised their children.
- Younger parents and single parent families can find homes in communities with good schools, parks and services.

Inclusionary housing is effective in a variety of housing market conditions:

- In gentrifying communities, the affordable units created through an inclusionary program can help offset the displacement of residents.
- In new and growing suburban communities, the inclusionary units can broadly disperse affordable housing needed by area jobholders and prevent exclusive communities.

ISSUES TO CONSIDER IN DEVELOPING AN INCLUSIONARY ZONING ORDINANCE

The development of an inclusionary zoning ordinance requires consideration of a range of variables. The local decision making process that tailors the ordinance to local conditions is critical. There is no perfect inclusionary zoning ordinance but rather a range of options that need to be viewed separately and then evaluated in terms of how they work together. The following report addresses each variable and options to be weighed in developing an effective ordinance. It should be used as a guidebook through these issues, not as a magic recipe.

#1 Findings

Many ordinances begin with findings about the need for affordable housing and planning study results. The section would summarize any planning process the community has undertaken, trends in housing stock, the need for and benefits of affordable housing, and the benefits anticipated by enactment of an inclusionary zoning ordinance. Findings sections are often lengthy. Below is language based on Sacramento's ordinance.

The City Council makes the following findings:

- It is a public purpose of the City to achieve a diverse and balanced community with housing available for households of all income levels. Economic diversity fosters social and environmental conditions that protect and enhance the social fabric of the City and are beneficial to the health, safety, and welfare of its residents.
 - The City is experiencing an increasing shortage of housing affordable to low income households. New residential development does not provide housing opportunities for low income households due to the high cost of newly constructed housing in the City. As a result, low income families are *de facto* excluded from many neighborhoods, creating economic stratification detrimental to the public health, safety, and welfare. An increasing number of low income persons live in overcrowded or substandard housing and devote an overly large percentage of their income to pay for housing.
 - The amount of land in the City available for residential development is limited by City General Plan policies and principles embodied in state law pertaining to general plans and annexation. Scarce remaining opportunities for affordable housing would be lost by the consumption of this remaining land for residential development without providing housing affordable to persons of all incomes.
 - Therefore, to implement the City General Plan, to carry out the policies of state law, and to ensure the benefits of economic diversity to the residents of the City, it is essential that new residential development in the remaining new growth areas of the City contain housing opportunities to low income households, and that the City provide a regulatory and incentive framework which ensures development of an adequate supply and mix of new housing to meet the future housing needs of all income segments of the community.
- (Sacramento)

#2 Statement of Purpose

Purpose Statements typically are broad policy directives. The first purpose statement below is based on language from Fairfax County, Virginia's ordinance, and the second statement is based on language from Boulder, Colorado.

This program is established to assist in the provision of affordable housing for persons of low and moderate income. The program is designed to promote a full range of housing choices and to require the construction and continued existence of dwelling units affordable to households whose income is 115% or less than the median income for the Chicago Standard Metropolitan Statistical Area. (Fairfax County)

The purposes of this chapter are to:

- (a) Implement the housing goals of the City Master Plan;
- (b) Promote the construction of housing that is affordable to the community's workforce;
- (c) Retain opportunities for people that work in the City to also live in the City;
- (d) Maintain a balanced community that provides housing for people of all income levels; and
- (e) Insure that housing options continue to be available for very low-income, low-income, and moderate-income residents, for special needs populations and for a significant proportion of those who both work and wish to live in the City. (Boulder)

#3 Definitions

The terms that follow are typical of those that are defined in inclusionary zoning ordinances:

Affordable Housing Price	Eligible Homebuyer	Median Income
Affordable Rent	Eligible Renter	Moderate Income
Affordable Dwelling Unit	Extreme Hardship	Permanently Affordable
Control Period	Housing Commission	Residential Project
Developer	Housing Trust Fund	Very Low Income
Development Agreement	Low Income	
Dwelling Unit	Market Unit	

#4 Threshold Size

Some ordinances limit their application to developments exceeding a threshold size. The first example below is based on language from Boulder's ordinance. In one sentence, it sets a threshold size, a set-aside percentage, and a period of affordability. The second is based on Burlington, Vermont's ordinance, and is notable because it applies to rehabilitation projects and the threshold level is applicable to development on more than a single site. Either example could be abbreviated to simply state what size developments trigger application of a set aside requirement.

Any development on a site larger than 10 acres or containing 50 or more dwelling units shall include at least twenty percent of the total number of dwelling units within the development as permanent affordable units. (Boulder)

The following residential development projects shall be Covered Projects and shall be subject to the requirements of this Article: all development of residential property larger than 10 acres or containing 50 or more dwelling units taking place through the construction of new structures or through the substantial rehabilitation of existing structures. Covered Projects shall include all development of residential property in excess of 10 acres or containing 50 or more dwelling units in the City by the same responsible party in any calendar year. (Burlington)

#5 Set-Aside—Targeted

A critical decision in developing an inclusionary zoning ordinance is the percentage of housing units required to be set aside as affordable. Often the set aside requirements are linked to specific income eligibility targets. Two examples of affordable housing set-asides targeted to specific income tiers follow below. The first example is based on language from Sacramento's ordinance. The second example, based on provisions of Davis, California's ordinance applicable to rental housing, also targets affordable housing to different income tiers, but varies the target percentages based on the size of the project. (Davis's numbers and percentages are used for ease of understanding.)

In developments covered by this section, the inclusionary housing component shall consist of affordable units leased or sold as follows: x% to very low income families (earning no more than 50% of area median income); x% to low income (earning more than 50% of area median income but no more than 80% of area median income); and x% to moderate income families (earning more than 80% of area median income but no more than 115% of area median income). (Sacramento)

A developer of multifamily rental developments containing 50 or more units shall provide at least 25% of the units affordable to low income households (earning more than 50% of area median income but no more than 80% of area median income) and at least 10% percent of the units affordable to very low income households (earning no more than 50% of area median income). A developer of multifamily rental developments containing between five and nineteen units, inclusive, shall provide 15% percent of the units to low income households and 10% percent to very low income households. (Davis)

#6 Housing Commission Right to Purchase

Some ordinances give the municipality and not-for-profit entities a right to purchase a fixed percentage of affordable units when they are first offered for sale or rent, so that they can keep the units permanently affordable. The first example below is based on language from Montgomery County, Maryland's ordinance, and the second is based on Fairfax County, Virginia's ordinance. (The percentages identified are Montgomery County's and Fairfax County's, respectively.)

The Housing Commission and any other not-for-profit corporation designated by the Commission has the option to buy or lease, for its own programs or programs administered by it, up to 40% percent of all affordable units. The Commission may buy or lease up to 33%. Any other designated corporation may purchase or lease any affordable units in the first 33% that the Commission has not bought or leased, and the remainder of the 40%. Units purchased or leased under this option shall be assigned to very-low or low-income persons. The Commission shall establish standards for designating not-for-profit corporations which shall require the corporations to demonstrate their ability to operate and maintain affordable units satisfactorily on a long-term basis. (Montgomery County)

The Housing Commission shall have an exclusive right to purchase up to one-third of the for sale affordable dwelling units within a development for a 90 day period beginning on the date of receipt of written notification from the developer advising the Housing Commission that a particular affordable dwelling unit is or will be completed and ready for purchase. The

remaining two thirds of the for sale affordable units within a development and any units which the Housing Commission does not elect to purchase shall be offered for sale exclusively for a 90 day period to persons who meet the income criteria established by the Housing Commission. After the expiration of 60 days of the 90 day period referenced above, the affordable dwelling units not sold shall be offered for sale to nonprofit housing groups, as designated by the Housing Commission, subject to the established affordable dwelling unit prices. (Fairfax County)

#7 Design and Building Requirements

Most ordinances require that affordable units be visually compatible with market rate units in the same development. The language below illustrates how this preference is drafted into an ordinance. The first example is based on Burlington's ordinance, the second is based on Sacramento's, and the third is based on Fairfax County's.

Affordable inclusionary units may differ from the market units in a Covered Project with regard to interior amenities and gross floor area, provided that:

- (i) these differences, excluding differences related to size differentials, are not apparent in the general exterior appearance of the Project's units; and
- (ii) these differences do not include insulation, windows, heating systems, and other improvements related to the energy efficiency of the Project's units;
- (iii) the gross floor area of the affordable inclusionary units is not less than minimum requirements established by the City.

(Burlington)

Inclusionary Units shall be visually compatible with Market Rate Units. External Building materials and finishes shall be the same type and quality for Inclusionary Units as for Market Rate Units. Upon application by the developer to the City, the City may, to the maximum extent appropriate in light of project design elements as determined by the Planning Director, allow builders to finish out the interior of Inclusionary Units with less expensive finishes and appliances. (Sacramento)

The Housing Commission shall develop specifications for the prototype affordable housing products both for sale and rental, which shall be structured to make the units affordable to very low-, low-, and moderate-income households. All building plans for affordable dwelling units shall comply with such specifications. Any applicant or owner may voluntarily construct affordable dwelling units to a standard in excess of such specifications, but only 50 percent of the added cost for exterior architectural compatibility upgrades (such as brick facades, shutters, bay windows, etc.) and additional landscaping on the affordable dwelling unit shall be included within recoverable costs, up to a maximum of 2 percent of the sales price of the affordable dwelling unit, with the allowance for additional landscaping not to exceed one half of the above-noted 2 percent maximum. (Fairfax County)

#8 Timing of affordable unit construction

Most municipalities require affordable units to be built concurrently with market units to ensure integration of affordable and market units, and to prevent developers from abandoning projects prior to completing the affordable units. The first example below is from Burlington's ordinance, and the second is from Montgomery County's.

Inclusionary units shall be made available for occupancy on approximately the same schedule as a Covered Project's market units, except that certificates of occupancy for the last ten percent of the market units shall be withheld until certificates of occupancy have been issued for all of the inclusionary units. A schedule setting forth the phasing of the total number of units in a Covered Project, along with a schedule setting forth the phasing of the required inclusionary units, shall be established prior to the issuance of a building permit for any development subject to the provisions of this Article. (Burlington)

The affordable dwelling unit agreement must include the number, type, location, and plan for staging construction of all dwelling units and other such information as the Commission requires to determine the applicant's compliance with this Chapter. The affordable dwelling unit staging plan must be consistent with any applicable land use plan, subdivision, plan, or site plan. The staging plan included in the affordable dwelling unit agreement for all dwelling units must be sequenced so that:

- (1) no or few market rate dwelling units are built before any affordable units are built;
 - (2) the pace of affordable unit production must reasonably coincide with the construction of market rate units; and
 - (3) the last building built must not contain only affordable units.
- (Montgomery County)

#9 Fee In Lieu Formula

Some municipalities permit developers to pay a fee in lieu of developing hard affordable units. While some municipalities permit payment as a right, others require developers to show that constructing hard units would constitute a unique hardship, or that a fee would produce a greater benefit.¹ Because the fee paid is typically linked to the cost of producing a hard unit, fee in lieu formulas are necessarily dependent upon the local housing market. The first example below is based on the Boston Executive Order, and the second is based on Boulder's ordinance. The third and fourth examples, based on Montgomery County's and Brookline, Massachusetts' ordinances, respectively, authorize

¹ The following are summaries of the requirements that developers must satisfy to qualify to pay a fee in lieu of development in some municipalities:

Montgomery County: Developers may pay a fee in lieu if they can show that a resident's housing expenses for a hard unit would exceed what a participant in the affordable housing program could pay. A developer must justify why fees for facilities and services should not reasonably be excluded or reduced for affordable unit occupants. A fee paid must be sufficient to produce more units or units that are more affordable to low and moderate income families. The County has allowed fees in lieu of development on only 11 occasions.

Boulder: Fees in lieu of half of the required affordable units is permitted as a right. Developers may only pay fees in lieu of a larger percentage of units if a developer can demonstrate that payment of a fee would accomplish more benefit to the City than construction on site.

Santa Fe: Developers may pay a fee in lieu of developing hard units if they show that as a direct consequence of the inclusionary zoning ordinance they (1) are deprived of all economically viable use of their property as a whole, or (2) would lose money on the development as a whole and can demonstrate to the Housing Opportunity Program administrator's satisfaction that the loss is an unavoidable consequence of the affordable housing requirement.

a fee in lieu of development and provide that procedures for implementing such a fee shall be determined by administrative regulations.

Subject to the approval of the head of the relevant City agency, developers may also propose to achieve these affordable housing obligations by making a dollar contribution to an affordable housing fund calculated by multiplying the total number of dwelling units in the proposed residential development by 0.15, and by multiplying the result by the Affordable Housing Cost Factor, currently standing at \$52,000. This Affordable Housing Cost Factor is defined as the average total public subsidy per new construction affordable housing unit permitted in the City for the previous calendar year, and will be adjusted annually on July 1 of each year in an amount commensurate with the cost of producing affordable housing. (Boston)

Whenever this chapter permits a cash-in-lieu contribution as an alternative to the provision of a single permanently affordable housing unit, the cash-in-lieu contribution shall be as follows:

- (a) For each unrestricted detached dwelling unit, the cash-in-lieu contribution shall be the lesser of \$13,200.00, or \$55.00 multiplied by twenty percent of the total floor area of the unrestricted unit.²
- (b) For each unrestricted attached dwelling unit, the cash-in-lieu contribution shall be the lesser of \$12,000.00, or \$50.00 multiplied by twenty percent of the total floor area of the unrestricted unit

The city manager is authorized to adjust the cash-in-lieu contribution on an annual basis to reflect changes in the median sale price for detached an attached housing, using information provided by County Assessor records for the City. (Boulder)

In exceptional cases, instead of building the required number of affordable dwelling units, a developer may offer to contribute to the Housing Initiative Fund an amount that will produce significantly more affordable dwelling units. The procedures for considering and implementing contribution offers must be established by executive regulation. To implement an offer, the developer must sign an agreement with the Director of the Department of Housing and Community Development not later than a time provided in the regulations. (Montgomery County)

At the option of the City, the requirements of this Section may be met through a cash payment to the City or its designee in an amount based on the guidelines adopted as per (f) below if the cash payment is found by the City, in its discretion, to be advantageous to the City in creating or preserving affordable housing. Cash contributions shall be used only for purposes of providing affordable housing for very low, low, and moderate income persons. . . .

(f) The Planning Commission, in consultation with the Housing Commission and after public notice and hearing, shall adopt guidelines to aid in the interpretation and determination of the requirements of this Section. (Brookline)

#10 Cost Offsets

As is contemplated in the language below, some municipalities allow developers to request waivers from development standards such as set-back requirements, parking and landscaping requirements, or building material requirements, which reduce the cost of constructing affordable units. These cost offsets allow a municipality to decrease the

² The 20% floor area calculation reflects Boulder's 20% set-aside. The fee is based on 20% of the floor area of a development rather than 20% of the number of units. To determine the amount of the fee, Boulder conducted a study to determine the gap between the allowable sales price of an affordable unit and the actual cost to construct a unit; the gap figure was then lowered to a politically feasible amount.

burden placed on developers of affordable housing, and minimize the possibility of a developer showing that inclusionary zoning causes an excessive loss such that it effects a taking. The offsets in the examples below are incorporated into the ordinances, but municipalities may implement cost offsets in a variety of ways. For example, Brookline does not include offsets in its set-aside ordinance, but provides for an offset—a floor area bonus—in a separate ordinance. Though I am not aware of a municipality which has done so, an ordinance could generally authorize cost offsets which would be detailed in administrative regulations.³ The first example below is based on the Santa Fe ordinance, and incorporates cost offsets mentioned in the Highland Park Affordable Housing Plan. The second is based on provisions in the Sacramento ordinance, and lists offsets from that ordinance to provide a sense of the range of offsets available.

Impact fees, building permit fees, and tap-on fees (or portions thereof) may be waived for affordable units, subject to agreement of the entities receiving revenues from such fees. Any developer of affordable units may submit a request for a waiver of other City development standards, and the City shall respond within thirty calendar days of its receipt. The City shall approve a waiver if each of the following requirements are met:

- (a) The proposed waiver will make the housing more affordable. The developer must show how real costs will be reduced and how the savings will be passed on affordable home buyers or renters.
- (b) The proposed waiver does not compromise health, safety or welfare as determined by the City.
- (c) Vehicular and pedestrian circulation, storm drainage and utilities are provided for adequately.

(Santa Fe)

Upon application as provided herein, (1) the City shall make available to a Residential Project Developer a program of waiver, reduction or deferral of development fees, administrative and financing fees for affordable units; (2) the City may modify for affordable units, to the extent feasible, in light of the uses, design, and infrastructure needs of the Development Project, standards relating to road widths, curbs and gutters, parking, lot coverage, and minimum lot sizes; and (3) the City may, to the maximum extent appropriate in light of project design elements, allow builders to finish out the interior of affordable units with less expensive finishes and appliances. The Planning Director may issue Special Permits for Inclusionary Projects, and shall develop further procedures for streamlining and priority processing which relieve affordable units of permit processing requirements to the maximum extent feasible consistent with the public health, safety, and welfare. The developer may apply to the City's Housing Trust Fund for assistance in the financing and development of the affordable units in a development. (Sacramento)

#11 Density Bonus

A number of municipalities grant a density bonus—permission to develop more units than zoning would otherwise allow. Like other cost offsets, density bonuses may decrease the likely success of a taking claim by mitigating the economic impact of developing affordable housing. Though some communities tout density bonuses as the most effective cost offsets, others that do not desire denser development avoid them

³ Such a provision could look much like the Montgomery County and Brookline provisions which authorize fees in lieu of development, but leave determination of a fee formula or amount to administrative regulations.

altogether. Some municipalities automatically award a density bonus to developers of affordable housing, while others permit smaller developments as of right without any set-aside, and set up larger developments with increased density as a desirable variance, to which an affordable housing set-aside is attached. The first example below, based on Cambridge, Massachusetts' density bonus, follows the former strategy, and permits developers to split the additional density between affordable and market rate units. The bonus is structured so that the developer's profit on additional market units directly offsets the loss on affordable units. The second example is based on Somerville, Massachusetts' ordinance, and follows the latter strategy. In Somerville, up to 7 units may be developed as of right, but development of 8 or more units requires a special permit and a concomitant obligation to set aside 12.5% of all units as affordable. Some argue that structuring a density bonus as a variance with an accompanying affordable housing set-aside may prevent the set-aside from being labeled an exaction—a land use decision conditioning approval of development on the dedication of property to public use. This is advantageous because exactions are more vulnerable to taking claims than zoning of general application.

To facilitate the objectives of this Section, modifications to the dimensional requirements in any zoning district shall be permitted as of right for an Inclusionary Project, as set forth below:

- (i) The Floor Area Ratio⁴ (FAR) normally permitted in the applicable zoning district for residential uses shall be increased by 40% percent, and at least 50% of the additional FAR should be allocated for the Affordable Units required by this Section. In a Mixed Use Development, the increased FAR permitted in this paragraph (i) may be applied to the entire lot; however, any gross floor area arising from such increased FAR shall be occupied by residential uses, exclusive of any hotel or motel use.
- (ii) The minimum lot area per dwelling unit normally required in the applicable zoning district shall be reduced by that amount necessary to permit up to 2 additional units on the lot for each 1 affordable unit required by this Section.⁵

(Cambridge)

The affordable housing requirements of this Article shall apply to all residential developments seeking special permits with site plan review to develop 8 or more dwelling units, whether new construction, substantial rehabilitation, or adaptive reuse. Developments shall not be segmented or phased in a manner to avoid compliance with these provisions. Developers providing more than 12.5% of the total units in the development as affordable units may apply for an additional density bonus under the terms of this Article. Bonuses may be awarded on the basis of a 2 to 1 ratio of market rate units to affordable housing units. For every additional unit provided beyond the 12.5% required, 2 additional market rate units may be authorized.

(Somerville)

⁴ Floor Area Ratio is the ratio of gross floor area (the sum, in square feet, of the gross horizontal areas of all floors of a building) to the total area of the lot.

⁵ Implementation of a density bonus under this section would work as follows: Assume a 50 unit development, and a 20% set-aside. Thus, 10 of the 50 units must be affordable. Paragraph (ii) of the density bonus above awards a bonus of two market units for every one affordable unit, so 20 units would be permitted. In addition, paragraph (i) would permit a 40% increase in the lot's FAR, which corresponds to the 40% increase in units over the original 50. If considered in reference to the base number of units, the developer essentially gets 10 additional market units to offset the 10 required affordable units.

#12 Marketing

Some ordinances and regulations provide extensive instructions for marketing to and certifying buyers and renters of affordable units. The first example below is based on Santa Fe's ordinance pertaining to for-sale units, and provides broad guidance with regard to marketing. The second example is based on Santa Fe detailed regulations which implement the ordinance.

A. Developers shall market affordable homes in accordance with the requirements set forth in the administrative procedures. There shall be an efficient matching of the incomes of prospective affordable unit buyers to specific affordable unit prices. There shall be a reasonable matching of the household sizes of prospective affordable unit buyers to the sizes and types of affordable units. Any marketing materials shall clearly state the policies of the affordable housing program with regard to the pricing of affordable units and buyer eligibility.

B. In marketing affordable units the City or seller shall give preference to individuals who are citizens of the City or are presently employed or under contract with an employer within the City.

C. The City or its agent shall maintain and make available lists of prospective affordable unit buyers who have passed preliminary prequalifications for financing. For affordable developments for which the city expects immediate effective demand to outstrip supply, the city or its agent, at the city's sole discretion, may establish and maintain an equitable process for allocating rights to purchase the homes. For developments other than those described above, the developer shall establish and maintain an equitable process of marketing homes, including waiting lists where demand exceeds supply.

D. Prior to executing a purchase contract for any affordable unit, the prospective affordable unit buyer shall be certified as meeting affordable housing program requirements by the City or its agent. The certification process shall be set forth in the administrative procedures. Developers and affordable unit buyers may execute only purchase agreements that are approved as to form by the City and include language provided by the City which shall require that an appropriate disclosure form be provided to and explained to the affordable unit buyer prior to execution of the contract. The disclosure form shall explain any deed restrictions, restrictive covenants and/or liens that are placed on the affordable unit to ensure long-term affordability. (Santa Fe ordinance)

Developers shall market affordable homes in accordance with the following requirements:

- (1) There should be an efficient matching of the incomes of prospective affordable home buyers to specific home prices, as follows:

Household income of a buyer should not exceed the price level of a home by more than five percent. For example, only households with incomes at or below 65 percent of median income should be allowed to buy a home made affordable to households at 60 percent of median income. Thus, lower priced homes will be reserved for lower-income households. Alteration of this requirement may be based only on the unavailability of a qualified buyer with the required level of income for a period of 30 days or more after the home was legally ready for occupancy (assuming good-faith marketing efforts by the developer to find a qualified buyer).

- (2) There should be reasonable matching of the household sizes of prospective affordable homebuyers to the sizes/types of affordable homes as follows:

3 BR, 1.5 BA ----- Minimum household size = 4

4 BR, 2 BA ----- Minimum household size = 5

The City shall not market or sell an affordable home to a household which is smaller than the household sizes indicated, unless the City approves in writing fewer persons based on the unavailability of a buyer of the proper household size for a period of 30 days or more after the home was legally ready for occupancy

(assuming good-faith marketing efforts by the developer to find a qualified buyer), or the demonstrated need of a household for a dwelling unit with more bedrooms than allowed in this section.

- (3) In marketing affordable homes the City or seller shall give preferences to individuals who are citizens of the City or are presently employed or under contract with an employer within the City.
- (4) Brochures, advertisements and other marketing materials shall clearly state the policies of the affordable housing program with regard to the pricing of affordable units and buyer eligibility.
- (5) The City or its agent may maintain lists of prospective affordable homebuyers who have passed preliminary pre-qualifications for financing. Such lists will be made available to developers for marketing purposes.
- (6) For developments for which the City expects immediate effective demand to outstrip supply, the City or its agent, at the City's sole discretion, may establish and maintain an equitable process for allocating rights to purchase the homes. For example, the City could require a lottery or use of a ranked waiting list.
- (7) Prior to executing a purchase contract for any affordable home, a prospective buyer must be certified by the City or its agent as meeting program requirements. The certification must have been made within 90 calendar days immediately prior to the full execution of the purchase contract. Developers may sign purchase contracts with non-certified prospective buyers, conditional upon certification within 10 working days, if the developer is reasonably certain that he prospective buyer can be certified.
- (8) Developers and buyers of affordable units may execute only purchase contracts that are approved for form by the City and include language provided by the City, which will require that an appropriate disclosure form be provided to and explained to the buyer prior to execution of the contract. The disclosure form will explain any deed restrictions, restrictive covenants, and/or liens that are placed on home to insure long-term affordability.

(Santa Fe regulations)

#13 Administration of Affordability Control

Original sales prices and rental rates for affordable units are typically regulated so that that a low- or moderate-income purchaser or renter need not spend more than 30% of his or her income on housing expenses. Most municipalities also impose price restrictions which keep units affordable when they pass to new occupants. The first three examples below deal with the resale pricing of for-sale affordable housing. The first example is from Highland Park's Central Avenue Senior Development, and the second is based on the Boulder and Montgomery County ordinances. The third example is based Santa Fe regulations, and provides only general guidance on the subject of resale pricing. The last example, based on language from the Sacramento and Santa Fe ordinances deals with maintaining affordability of rental units, and is less complicated.

The resale price shall be the lower of:

- (a) the then-fair market value of the unit as determined by an appraisal performed by an appraiser approved by the Housing Commission taking into account applicable use and occupancy restrictions which may be binding on the unit; and
- (b) the purchase price under the agreement by which the unit owner purchased the unit, increased by an amount equal to the lesser of (i) three percent (3%) for each year (or part thereof) after the closing date during which the unit owner resided in the unit and (ii)

inflation as measured by the Consumer Price Index (All Urban Consumers, All Cities average, residential real estate) for the period of time that the unit owner resided in the unit.

(Highland Park, IL)

The resale price of any permanently affordable housing unit shall not exceed the purchase price paid by the seller of that unit plus:

- (a) A percentage of the unit's original purchase price equal to the increase in the cost of living since the unit was purchased by the seller, as determined by the Consumer Price Index;
- (b) The fair market value of improvements made to the unit by the seller⁶;
- (c) Customary closing costs and costs of sale; and
- (d) Costs of a real estate commission paid by the seller if a licensed real estate agent is employed.

(Boulder/Montgomery County)

The City requires that developers impose resale controls which are designed to achieve the following purposes:

- (a) reducing the potential for windfall profits by an owner-occupant;
- (b) recapturing any such windfall profits for use in an approved housing trust fund;
- (c) providing incentives for owner-occupants to resell to lower-income households, which are most in need of affordable housing;
- (d) maintaining the affordability of affordable units to subsequent buyers to a reasonable extent, while considering the sellers' rights to reasonable returns on equity; and
- (e) preventing speculative profits on affordable units by renting them to another household.

(Santa Fe)

The owner of affordable rental units shall be responsible for certifying the income of eligible tenants to the Housing Commission at the time of initial rental and annually thereafter. Rental rates shall be in accordance with the formula set forth in the administrative procedures.⁷ This requirement shall be made applicable to successors in title, if any, by means of a deed restriction. (Santa Fe/Sacramento)

Municipalities typically maintain affordability through deed restrictions or covenants recorded against the property. These affordability controls often specify that a unit must be sold or rented to an income eligible buyer at an affordable price; others give the municipality a right of first refusal to purchase affordable units. For a discussion of the validity and permissible duration of such affordability controls, please see the attached memorandum from BPI intern, Rebecca Onie.

⁶ In evaluating whether to allow sellers to recoup the value of capital investments in their homes, municipalities weigh a desire to provide sellers with some of the benefits of ownership against a desire to keep the sale price of the unit affordable. Some ordinances, such as Montgomery County's, Fairfax County's, and Santa Fe's do not impose restrictions on the capital expenditures homeowners may recover upon the sale of their homes. In contrast, Davis, California, in its lone for-sale development with resale restrictions, does not allow homeowners to recoup capital investments. (Davis is rethinking this issue with regard to future developments.) Boulder requires homeowners to obtain city approval for capital improvements, and limits recovery of expenditures to approximately \$1000 for each year the homeowner has owned the property. (Boulder's 2001 Homeownership Capital Improvements Policy is attached.)

⁷ Both ordinances target rental rates at 30% of a family's income less an allowance for tenant-paid utilities.

#14 Other Issues for Consideration

Land Dedication

Another possibility that may interest some municipalities is allowing a developer, at the City's discretion, the option to satisfy some of his affordable housing obligation via dedication of land to the City's contemplated land trust. For example, under Boulder's ordinance developers may satisfy their affordable housing obligation either by:

- (1) conveying land to the City of equivalent value to the fee-in-lieu contribution that would otherwise be required, plus an additional fifty percent, to cover costs associated with holding, developing, improving, or conveying the land; or
- (2) conveying land to the City that is of equivalent value to land upon which the required affordable units would otherwise have been constructed. Such land must be zoned to allow construction of at least as many affordable units as would otherwise have been required.

ATTACHMENT C

Inclusionary Zoning Bylaw

Introduction

This model bylaw provides a menu of options for crafting inclusionary zoning bylaws that respond directly to local housing demands and real estate financial conditions. The zoning structure begins as a mandatory inclusionary zoning provision, then offers a series of optional exemptions to affordable housing development that mitigate hardships associated with affordable housing development. Section 04.2 includes a variety of incentives that can be used spur affordable housing development and mitigate the costs borne by developers. Commentary below specific provisions details the development implications of each exemption and incentive. Municipalities should carefully consider the development consequences of each of these policy choices in order to assemble zoning bylaws that respond directly to local economies. However, note that previous studies, [<http://www.mhp.net/vision/zoning.php>], indicate that mandatory provisions combined with strong incentives are most effective in promoting affordable housing development.

01.0 Purpose and Intent: The purpose of this bylaw is to encourage development of new housing that is affordable to low and moderate-income households. At minimum, affordable housing produced through this regulation should be in compliance with the requirements set forth in G.L. c. 40B sect. 20-24 and other affordable housing programs developed by state, county and local governments. It is intended that the affordable housing units that result from this bylaw/ordinance be considered as Local Initiative Units, in compliance with the requirements for the same as specified by the Department of Housing and Community Development. Definitions for affordable housing unit and eligible household can be found in the Definitions Section.

02.0 Applicability

1. In all zoning districts, the inclusionary zoning provisions of this section shall apply to the following uses:

- (a) Any project that results in a net increase of [ten (10)] or more dwelling units, whether by new construction or by the alteration, expansion, reconstruction, or change of existing residential or non-residential space; and

COMMENT: *The number of units required to trigger the applicability of the inclusionary zoning provisions should reflect local real estate development demands. In built-out communities, inclusionary zoning could apply to developments with fewer units. For example, Brookline's affordable housing requirements apply when six new residential units are proposed. Other Massachusetts communities, including Boston and Cambridge bylaws specify ten (10) as the threshold number of new units required to trigger the application inclusionary zoning bylaws. The Cape Cod Commission regulations specify 30 units, but encourage the member towns to specify a 10-unit minimum.*

- (b) Any subdivision of land for development of ten (10) or more dwelling units; and

COMMENT: *It is recommended that the Town adopt a companion regulation to prevent intentional segmentation of projects designed to avoid the requirements of this bylaw (e.g. subdividing one large tract into two smaller tracts, each of which will contain fewer than 10 units or phasing a development such that each phase will contain fewer than 10 units). This “anti-segmentation” bylaw can specify that parcels held in common ownership as of the passage of this bylaw cannot later defeat the requirements of this regulation by segmenting the development. Note that the division of land trigger is accomplished by either filing a plan for the subdivision of land or the filing of a so-called approval not required plan.*

- (c) Any life care facility development that includes ten (10) or more assisted living units and accompanying services.

COMMENT: *It is recommended that the Town review zoning definitions for life care facilities to ensure coordination between sections.*

03.0 Special Permit: The development of any project set forth in Section 02.0 (above) shall require the grant of a Special Permit from the Board of Appeals or other designated Special Permit Granting Authority (SPGA). A Special Permit shall be granted if the proposal meets the requirements of this bylaw. The application procedure for the Special permit shall be as defined in Section _____ of the Town’s zoning bylaw.

04.0 Mandatory Provision of Affordable Units:

1. As a condition of approval for a Special Permit, the applicant shall contribute to the local stock of affordable unit in accordance with the following requirements:

(a) At least ten (10) percent of the units in a division of land or multiple unit development subject to this bylaw shall be established as affordable housing units in any one or combination of methods provided for below:

- (1) constructed or rehabilitated on the locus subject to the Special Permit (see Section 05.0); or
- (2) constructed or rehabilitated on a locus different than the one subject to the Special Permit (see Section 06.0); or
- (3) an equivalent fees-in-lieu of payment may be made (see Section 07.0); or
- (4) An applicant may offer, and the SPGA may accept, donations of land in fee simple, on or off-site, that the SPGA in its sole discretion determines are suitable for the construction of affordable housing units. The value of donated land shall be equal to or greater than the value of the construction or set-aside of the affordable units. The SPGA may require, prior to accepting land as satisfaction of the requirements of this bylaw/ordinance,

that the applicant submit appraisals of the land in question, as well as other data relevant to the determination of equivalent value.

(b) The applicant may offer, and the SPGA may accept, any combination of the Section 04.1(a)(1)-(4) requirements provided that in no event shall the total number of units or land area provided be less than the equivalent number or value of affordable units required by this bylaw/ordinance.

COMMENT: The provisions above establish the minimum number of, and methods for, provision of affordable units. Note that the applicant has four choices for providing affordable units. First, they may construct or rehabilitate units on the site subject to the Special Permit. Second, they may construct or rehabilitate units at a different site than the one subject to the Special Permit. Third, they may offer fees-in-lieu of the construction of affordable housing units, more fully discussed in Section 07. Fourth, they may offer, and the SPGA may accept, land on- or off-site for the purposes of constructing affordable units, perhaps by the Town or a non-profit entity or a subsequent developer. Finally, the applicant may propose and the SPGA may accept any combination of options one through four.

(c) As a condition for the granting of a Special Permit, all affordable housing units shall be subject to an affordable housing restriction and a regulatory agreement in a form acceptable to the Planning Board. The regulatory agreement shall be consistent with any applicable guidelines issued by the Department of Housing and Community Development and shall ensure that affordable units can be counted toward the [town]’s Subsidized Housing Inventory. The regulatory agreement shall also address all applicable restrictions listed in Section 0.9 of this bylaw. The Special Permit shall not take effect until the restriction, the regulatory agreement and the special permit are recorded at the Registry of Deeds and a copy provided to the Planning Board and the Inspector of Buildings.

COMMENT: Regulatory agreements are an essential component to any affordable housing development as they are the primary vehicle for recording these restrictions in a manner recognized by the Commonwealth. The content of agreements will vary depending on a variety of factors including: the type of housing (rental or ownership), the method of property transferal, the income limits, the town’s housing administrative structure, etc. Sample restrictions can often be found attached to approved Plan Production Plans (<http://www.mass.gov/dhcd/components/SCP/PProd/plans.htm>).

2. To facilitate the objectives of this Section 04.0, modifications to the dimensional requirements in any zoning district may be permitted for any project under these regulations, as the applicant may offer and the SPGA may accept, subject to the conditions below:

(a) FAR Bonus. The FAR normally permitted in the applicable zoning district for residential uses may be increased by up to thirty (30) percent for the inclusion of affordable units in accordance with Section 04.1 (above), and at least fifty (50) percent of the additional FAR should be allocated to the affordable units. In a mixed use

development, the increased FAR may be applied to the entire lot, however any gross floor area increase resulting from increased FAR shall be occupied only by residential uses, exclusive of any hotel or motel use.

(b) Density Bonus. The SPGA may allow the addition of two market rate units for each affordable unit provided as part of compliance with the Special Permit. The minimum lot area per dwelling unit normally required in the applicable zoning district may be reduced by that amount necessary to permit up to two (2) additional market rate units on the lot for each one affordable unit required in Section 04.1 (above).

COMMENT: *The provisions above provide a baseline density bonus of two market rate units for every one affordable unit provided by an applicant. This density bonus will likely cover the cost to the developer of providing each required affordable unit. These provisions may also make the adoption of mandatory inclusionary zoning more politically feasible. Communities may choose to omit this provision in favor of offering density bonuses for affordable units above and beyond the baseline requirement of 10%. However, the two different approaches may be used together as in this model bylaw. The following provision (04.2(c)) illustrates how density bonuses can be provided for affordable units beyond the baseline 10%.*

(c) Voluntary Inclusionary Housing Bonus. New affordable housing development that is not subject to Section 02.0 and exceeds the requirements specified in Section 04.1(a) may receive the same benefits specified in Sections 04.2(a) and 04.2(b) when the development is approved by the SPGA. The net increase in housing units shall not exceed [fifty percent 50%] of the original property yield before any density bonuses were applied.

COMMENT: *Where communities are willing to allow density increases for associated with affordable units provided above and beyond the baseline 10%, the important issue to address is what the overall “cap” will be for the density bonus. The model uses a net 50% over the property yield as a potential cap for density increase, but communities could consider higher increases depending on the existing minimum lot size and the goals of their Comprehensive Plan.*

05.0 Provisions Applicable to Affordable Housing Units On- and Off-Site:

1. Siting of affordable units. All affordable units constructed or rehabilitated under this bylaw shall be situated within the development so as not to be in less desirable locations than market-rate units in the development and shall, on average, be no less accessible to public amenities, such as open space, as the market-rate units.

2. Minimum design and construction standards for affordable units. Affordable housing units shall be integrated with the rest of the development and shall be compatible in design, appearance, construction, and quality of materials with other units. Interior features and mechanical systems of affordable units shall conform to the same specifications as apply to market-rate units.

COMMENT: The provisions above provide general guidelines meant to ensure that the affordable housing is well integrated with and visually indistinguishable from market rate housing. These goals can be strengthened by specifying site plan and building material standards.

Market-rate Unit (% Complete)	Affordable Housing Unit (% Required)
<30%	-
30% plus 1 unit	10%
Up to 50%	30%
Up to 75%	50%
75% plus 1 unit	70%
Up to 90%	100%

Fractions of units shall not be counted.

3. Timing of construction or provision of affordable units or lots. Where feasible, affordable housing units shall be provided coincident to the development of market-rate units, but in no event shall the development of affordable units be delayed beyond the schedule noted below:

COMMENT: The table above establishes the required schedule for completion of affordable units in conjunction with the completion of market rate units. For example, a 100-lot subdivision requires 10 affordable units. Assume all 10 affordable units are to be constructed on-site. Upon completion of the 31st market rate unit, the developer must construct at least 1 affordable unit (10% of 10). After completion of the 50th unit, the applicant must have constructed at least 3 affordable units (30% of 10), and so on. Towns are free to adjust this schedule, but should bear in mind that a minimum number of market rate units are often needed to create sufficient cash flow to make the overall project work. To that end, it is recommended that the initial affordable unit requirement not be triggered until at least one-third of the market units are constructed.

4. Marketing Plan for Affordable Units. Applicants under this bylaw/ordinance shall submit a marketing plan or other method approved by the Town through its local comprehensive plan, to the SPGA for its approval, which describes how the affordable units will be marketed to potential home buyers or tenants. This plan shall include a description of the lottery or other process to be used for selecting buyers or tenants.

COMMENT: A marketing plan is considered essential to the success of affordable housing development in many parts of Massachusetts. Issues of how the units are advertised, how qualified applicants are sought and determined, and methods for reducing delays for qualified applicants are key to the use of this bylaw/ordinance. As an option, the responsibilities under this provision could be transferred to a local housing partnership or authority.

06.0 Provision of Affordable Housing Units Off-Site:

1. As an alternative to the requirements of Section 05.0, an applicant subject to the bylaw/ordinance may develop, construct or otherwise provide affordable units equivalent to those required by Section 04.0 off-site. All requirements of this bylaw/ordinance that apply to on-site provision of affordable units, shall apply to provision of off-site affordable units. In addition, the location of the off-site units to be provided shall be approved by the SPGA as an integral element of the Special Permit review and approval process.

COMMENT: *Allowing off-site provision of affordable units gives flexibility to developers and allows municipalities to more carefully control the siting of new affordable housing development. Towns should add review criteria for the approval of off-site locations to ensure that new affordable housing development promotes the goal of creating mixed-income neighborhoods and encourages development or conversion of affordable units near areas with municipal services or access to public transportation may. Relegating the provision of the affordable units to undesirable portions of the community does little to promote the purposes of this bylaw/ordinance. Furthermore, towns and cities with more economically segregated neighborhoods should consider striking this provision from the bylaws to ensure that each new residential development built in any neighborhood contains some affordable housing.*

07.0 Fees-in-Lieu-of Affordable Housing Unit Provision:

1. As an alternative to the requirements of Section 05.0 or Section 06.0, an applicant may contribute to an established local housing trust fund to be used for the development of affordable housing in lieu of constructing and offering affordable units within the locus of the proposed development or at an off-site locus.

(a) Calculation of fee-in-lieu-of units. The applicant for development subject to this bylaw may pay fees-in-lieu of the construction of affordable units. For the purposes of this bylaw/ordinance the fee-in-lieu of the construction or provision of affordable units will be determined as a per-unit cost as calculated from regional construction and sales reports. The SPGA will make the final determination of acceptable value.

COMMENT: *This Section provides a cash payment option in lieu of providing affordable units. The payment value may differ for each municipality and will depend on the size of the affordable housing unit discount that would be necessary to make the unit affordable (e.g. median sale price of market rate unit minus maximum sale price of a three-bedroom affordable dwelling unit). Fees-in-lieu will need to be recalculated regularly to account for inflation and other market changes. Furthermore, the local housing trust fund will need to be closely regulated to ensure that dollars contributed to the fund are spent exclusively on the provisioning of affordable housing. This is the appropriate section for specifying guidelines for administering the housing trust and stipulating the governance structure by which the trust will be managed.*

Municipalities that significantly lack affordable housing opportunities should consider heavily restricting the fee-in-lieu payment option. In built-out communities, housing trust funds often grow and sit unused because sites appropriate for affordable housing development are not available. Additionally, affordable housing trusts can force municipal agents into the role of real estate developers, which local government officials may be poorly suited for or reluctant to do. Cities such as Cambridge have eliminated the fee-in-lieu payment option in almost all cases except for extreme hardship in order to ensure that affordable housing is built by the developers at the same time that new development is under construction.

(b) Schedule of fees-in-lieu-of-units payments. Fees-in-lieu-of-units payments shall be made according to the schedule set forth in Section 05.3, above.

COMMENT: This section establishes the fee-in-lieu of payments schedule to coincide with the schedule for provision of units established by Section 05.3. For example, a 50-lot subdivision requires five affordable units. An applicant choosing to make fee-in-lieu of payments would be required to pay \$5X (5 units @ \$X per unit). The payment schedule would require 10 percent of the \$5X after the 16th market rate unit was built, and \$100,000 after the 38th market rate unit was built and so on, according to the schedule noted in Section 05.3.

- (c) Creation of Affordable Units. Cash contributions and donations of land and/or buildings made to the Town or its Housing Trust in accordance with Section 07.1 shall be used only for purposes of providing affordable housing for low or moderate income households. Using these contributions and donations, affordable housing may be provided through a variety of means, including but not limited to the provision of favorable financing terms, subsidized prices for purchase of sites, or affordable units within larger developments.

08.0 Maximum Incomes and Selling Prices: Initial Sale:

1. To ensure that only eligible households purchase affordable housing units, the purchaser of a affordable unit shall be required to submit copies of the last three years' federal and state income tax returns and certify, in writing and prior to transfer of title, to the developer of the housing units or his/her agent, and within thirty (30) days following transfer of title, to the local housing trust, community development corporation, housing authority or other agency as established by the Town, that his/her or their family's annual income level does not exceed the maximum level as established by the Commonwealth's Department of Housing and Community Development, and as may be revised from time to time.
2. The maximum housing cost for affordable units created under this bylaw is as established by the Commonwealth's Department of Housing and Community Development, Local Initiative Program or as revised by the Town.

COMMENT: The Department of Housing and Community Development publishes maximum income, selling prices and monthly rent ceilings for occupants of affordable income housing units (Department of Housing and Community Development, Local Initiative Program, July 1996). Individual towns are free to adjust these numbers to accommodate local needs and concerns; however, it is recommended that the Department's guidelines be reviewed prior to setting local ceilings. These provisions may be more appropriately handled by the local housing partnerships rather than the developer.

09.0 Preservation of Affordability; Restrictions on Resale:

1. Each affordable unit created in accordance with this bylaw shall have limitations governing its resale through the use of a regulatory agreement (Section 0.4.1(c)). The purpose of these limitations is to preserve the long-term affordability of the unit and to ensure its continued availability for affordable income households. The resale controls shall be established through a restriction on the property and shall be in force in perpetuity.
 - (a) Resale price. Sales beyond the initial sale to a qualified affordable income purchaser shall include the initial discount rate between the sale price and the unit's appraised value at the time of resale. This percentage shall be recorded as part of the restriction on the property noted in Section 9.1, above.

COMMENT: For example, if a unit appraised for \$100,000 is sold for \$75,000 as a result of this bylaw, it has sold for 75 percent of its appraised value. If the appraised value of the unit at the time of proposed resale is \$150,000, the unit may be sold for no more than \$112,500-- 75 percent of the appraised value of \$150,000.

(b) Right of first refusal to purchase. The purchaser of an affordable housing unit developed as a result of this bylaw shall agree to execute a deed rider prepared by the Town, consistent with model riders prepared by Department of Housing and Community Development, granting, among other things, the municipality's right of first refusal to purchase the property in the event that a subsequent qualified purchaser cannot be located.

(c) The SPGA shall require, as a condition for Special Permit under this bylaw, that the applicant comply with the mandatory set-asides and accompanying restrictions on affordability, including the execution of the deed rider noted in Section 10.1(b), above. The Building Commissioner/Inspector shall not issue an occupancy permit for any affordable unit until the deed restriction is recorded.

COMMENT: This Section provides language to ensure that the affordable housing units remain affordable by restricting re-sales in perpetuity and by granting the Town a right of first refusal to purchase the dwelling unit should a qualified purchaser, beyond the initial purchaser, not be found. The restrictions on resale are designed to encourage the homeowner to maintain and improve the property while at the same time ensure that if and when sold, the new qualified buyer is able to enjoy the same discount between sale price and appraised value. It is important to emphasize that the restrictions on resale do not block, in any way, the property owner from realizing a profit on the resale of the dwelling unit. Rather, as noted, the resale restriction passes on the initial discounted rate enjoyed by the initial buyer to the new, qualified buyer.

10.0 Conflict with Other Bylaws/Ordinances: The provisions of this bylaw/ordinance shall be considered supplemental of existing zoning bylaws/ordinances. To the extent that a conflict exists between this bylaw/ordinance and others, the more restrictive bylaw/ordinance, or provisions therein, shall apply.

COMMENT: This provision establishes that where a conflict exists between this bylaw/ordinance and an existing (or future) bylaw/ordinance, the more restrictive provisions of either would apply. For example, this bylaw/ordinance requires a Special Permit for the division of land into ten or more lots, whereas that requirement may not currently exist in existing town bylaws/ordinances. Section 10.0 states that the more restrictive provision applies during a conflict, thus the Special Permit requirements of this bylaw/ordinance would supersede (overrule) the provisions of existing bylaws/ordinances.

11.0 Severability: If any provision of this bylaw is held invalid by a court of competent jurisdiction, the remainder of the bylaw shall not be affected thereby. The invalidity of any section or sections or parts of any section or sections of this bylaw shall not affect the validity of the remainder of the [town]'s zoning bylaw.

COMMENT: *This Section is a generic severability clause. Severability clauses are intended to allow a court to strike or delete portions of a regulation that it determines to violate state or federal law. In addition, the severability clause provides limited insurance that a court will not strike down the entire bylaw should it find one or two offending sections.*

ATTACHMENT D

DRAFT Inclusionary Zoning Ordinance as of July 7, 2014

[Note: This draft is written as a city wide provision.]

Purpose

The City believes that it is in the public interest to promote an adequate supply of affordable housing for its residents. The purpose of this division, therefore, is to require developers to include units of affordable housing within development projects, thereby mitigating the limited supply of affordable housing, and by doing so, promoting the health, safety, and welfare of Portland citizens.

Definitions

- a) Affordable housing unit shall be a dwelling unit for which:
 - a. The rent does not exceed 30% of the annual income for a household earning less than 80% of area median income for the Greater Portland Metropolitan Statistical Area as defined by the U.S. Department of Housing and Urban Development or
 - b. Where the purchase price will not result in mortgage payments that exceed 30% of annual income for households earning less than 120% of area median income for the Greater Portland Metropolitan Statistical Area as defined by the U.S. Department of Housing and Urban Development.
 - c. Annual rent increases for that unit are limited in perpetuity by deed restriction or other legally binding agreement to the percentage increase in the U.S. Department of Housing and Urban Development Greater Portland Metropolitan Statistical Area median income figures for a household of that size, or
 - d. The resale price is limited by deed restriction or other legally binding agreement for all future sales of the unit to the percentage increase in the U.S. Department of Housing and Urban Development Greater Portland Metropolitan Statistical Area median income figures for a household of that size.

Applicability

This division shall apply to development projects that:

- a) Are permissible under the provisions of this chapter in the zone in which they are proposed
- b) Will be a multi-family dwelling as defined in section 14-47, and will not be located in an R-1 or R-2 zone
- c) Reserve
- d) Create ten or more new dwelling units for rent or for sale through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a non-residential use to residential use, or any combination of these elements.
- ~~d)e) Have not received, prior to the adoption of this ordinance, a Level III site plan approval, a Master Plan approval or a Building Permit.~~

Requirement of Inclusion of Affordable Housing Units

Such development projects shall set aside at least ten percent (10%) of the units in the project as affordable housing.

Standards

Projects shall not be segmented or phased to avoid compliance with these provisions and affordable units shall be provided in proportion to the development of market rate units.

Affordable housing units shall be integrated with the rest of the development and shall be reasonably compatible in unit type, appearance, construction, and quality of materials with other units as determined by the planning authority.

In-lieu Fees

Projects may pay a fee in lieu of providing affordable housing except that for developments of twenty (20) units or greater, all of the required affordable units shall be incorporated within the development and shall not be eligible for the substitution of the fee in lieu provision. In-lieu fees shall be paid into the Housing Trust Fund as defined in Sec. 14-489. The fee for affordable units not provided shall be equal to the number of required affordable units not provided multiplied by \$an amount to be determined. Beginning on January 1, 2016 and annually thereafter, the amount of the in-lieu fee shall be adjusted by multiplying this amount originally deposited for each unit by a fraction, the denominator of which shall be the "Consumer Price Index for Urban Wage Earners and Clerical Workers ("CPI-W"), U.S. City Average, "All Items Index," as published by the United States Bureau of Labor Statistics ("the Index") for January 1, 2015 Year, and the numerator of which shall be the index for the same month in each subsequent year. In the event that the Index is not then in existence, the parties shall use such equivalent price index as is published by any successor governmental agency then in existence; or, if none, then by such equivalent price index, in lieu of and adjusted to the Index. If the Index shall cease to use 1982-84 equals 100 as the basis of calculation, or if a substantial change is made in the terms or number of items contained in the Index, the Base Index shall be adjusted to conform to such change, using such computation thereof, if available, as shall be employed by the United States Department of Labor in computing same. Notwithstanding anything herein to the contrary, contributions made after January 1, 2016 shall not be less than the amount originally required to be deposited pursuant to this sub-section.

Incremental Unit Fee

A development with ten units will be subject to the provision of one complete affordable unit, or 100% of the required fee in lieu of providing the affordable unit within the project. Each additional unit in excess of ten will be subject to an incremental 10% fee per unit in addition to the provision of the required affordable unit, or an incremental fee per unit in addition to the 100% fee in lieu of the one unit. A development with more than 20 units will be subject to an incremental 10% fee per unit in addition to the provision of the required affordable units. [See chart below]

	OPTION 1	OPTION 2	
# of Units	Required Affordable Unit	In-Lieu Fees	Incremental Unit Fee %
10	1	100%	n/a
11	1 + Incremental Fee	100% + Incremental Fee	10%
12	1 + Incremental Fee	100% + Incremental Fee	20%
13	1 + Incremental Fee	100% + Incremental Fee	30%
14	1 + Incremental Fee	100% + Incremental Fee	40%
15	1 + Incremental Fee	100% + Incremental Fee	50%
16	1 + Incremental Fee	100% + Incremental Fee	60%
17	1 + Incremental Fee	100% + Incremental Fee	70%
18	1 + Incremental Fee	100% + Incremental Fee	80%
19	1 + Incremental Fee	100% + Incremental Fee	90%
20	2	n/a	n/a
21+	2 + Incremental Fee	n/a	10%
30	3	n/a	n/a
31+	3 + Incremental Fee	n/a	10%
40	4	n/a	n/a
41+	4 + Incremental Fee	n/a	10%

ATTACHMENT E

Affordable Housing Production and Funding Report

Owner/Project Address	HOME Units	Low/Mod Units	Total Units	HOME \$	HDF \$ (Housing Development Fund)	CDBG \$	HTF \$ (Housing Trust Fund)
Rosa True School	2	10	10	\$103,500.00	\$0.00	\$0.00	\$0.00
53 Danforth Street	3	43	43	\$325,000.00	\$0.00	\$0.00	\$0.00
Bayside Anchor (construction expected to begin in Aug or Sept)	5	45	45	\$500,000.00	\$0.00	\$0.00	\$0.00
Avesta 134 Washington Ave (constructed expected to begin in February)	4	18	18	\$522,448.00	\$0.00	\$0.00	\$0.00
Avesta 409 Cumberland	5	46	57	\$500,000.00	\$0.00	\$0.00	\$0.00
Avesta Florence House	3	25	25	\$240,000.00	\$0.00	\$0.00	\$0.00
Avesta Fore River	4	20	20	\$388,474.00	\$0.00	\$0.00	\$0.00
Avesta IRIS Park Apartments	0	30	31	\$0.00	\$250,000.00	\$0.00	\$0.00
Avesta Logan Place	6	30	30	\$435,000.00	\$0.00	\$0.00	\$0.00
Avesta Oak Street	0	37	37	\$0.00	\$0.00	\$0.00	\$380,585.00
Avesta Pearl Place Phase I	3	60	60	\$427,000.00	\$0.00	\$0.00	\$0.00
Avesta Pearl Place Phase II	3	54	54	\$400,000.00	\$0.00	\$0.00	\$0.00
Avesta Unity Village	1	26	33	\$86,500.00	\$0.00	\$363,863.00	\$0.00
Bayside East (PROP)	3	20	20	\$250,000.00	\$0.00	\$0.00	\$0.00
CHOM - Elm Terrace	2	38	38	\$403,795.00	\$0.00	\$0.00	\$0.00
HFP Management Shalom House	2	10	10	\$93,000.00	\$0.00	\$0.00	\$0.00
Island View Apartments	5	29	70	\$71,015.00	\$192,639.00	\$136,346.00	\$0.00
Peaks Senior Housing	11	11	12	\$150,000.00	\$0.00	\$0.00	\$0.00
PROP/Penisula Community II LP	3	16	16	\$307,700.00	\$0.00	\$0.00	\$0.00
PROP/Penisula Community IIILP	7	10	10	\$200,000.00	\$0.00	\$0.00	\$0.00
PROP/Penisula Community LP	1	12	12	\$300,000.00	\$0.00	\$0.00	\$0.00
St. Doms Family Housing	0	12	12	\$0.00	\$260,000.00	\$0.00	\$0.00
Valley Street	3	24	24	\$320,000.00	\$0.00	\$0.00	\$0.00
Walker Terrace	4	20	40	\$382,000.00	\$220,000.00	\$0.00	\$0.00
Wellesley Estates	0	19	45	\$0.00	\$256,000.00	\$0.00	\$0.00
Yale Court	2	30	30	\$150,000.00	\$200,000.00	\$0.00	\$0.00
SubTotals =	82	695	802	\$6,555,432.00	\$1,378,639.00	\$500,209.00	\$380,585.00

TOTAL City Invesment	\$ 8,814,865.00
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ATTACHMENT F

Appendix E — Town of Wellfleet, Massachusetts, 6.21 Affordable Accessory Dwelling Units

Purpose: For the purpose of promoting the development of affordable rental housing in Wellfleet for year-round residents, a maximum of three affordable accessory dwelling units per lot may be allowed subject to the requirements, standards and conditions listed below:

6.21.1 Up to three affordable accessory dwelling units per lot may be allowed in any district by Special Permit from the Zoning Board of Appeals.

6.21.2 Affordable accessory dwelling units created under this by-law shall be occupied exclusively by income-eligible households, as defined by the guidelines in numbers 6.21.4 and 6.21.5 below. The affordability requirements of this by-law shall be imposed through conditions attached to the Special Permit issued by the Zoning Board of Appeals. No accessory apartment shall be constructed or occupied until proof of recording is provided to the Inspector of Buildings.

6.21.3 Requirements and Standards

- A. Affordable accessory dwelling units may be located within or attached to a principal dwelling, principal structure, a garage or constructed as a detached unit.
- B. Affordable accessory dwelling units shall not be larger than one thousand two hundred (1,200) square feet of Livable Floor Area as that term is defined in Section II of this Zoning By-law.
- C. Affordable accessory dwelling units within or attached to a principal dwelling, principal structure or garage that is pre-existing nonconforming shall not increase the nonconforming nature of that structure, except that any pre-existing accessory building may be eligible for conversion to an affordable accessory dwelling unit.
- D. Newly constructed detached accessory units shall comply with all applicable provisions of the Zoning By-law unless they are specifically waived by this by-law. Newly constructed detached accessory units shall comply with all setback requirements listed in Sections 5.4.2 of this Zoning By-law.
- E. Owners of residential property may occupy as a primary residence either the principal or accessory dwelling. For the purposes of this section, the “owner” shall mean one who holds legal or beneficial

title.

- F. Septic systems are required to meet current Title 5 standards and shall be reviewed and approved by the Health Agent.
- G. The Inspector of Buildings and Health Agent shall inspect the premises for compliance with public safety and public health codes.
- H. No affordable accessory dwelling unit shall be separated by ownership from the principal dwelling unit or principal structure. Any lot containing an affordable accessory dwelling unit shall be subject to a recorded restriction that shall restrict the lot owner's ability to convey interest in the affordable accessory dwelling unit, except leasehold estates, for the term of the restriction.

6.21.4 All occupants of the affordable accessory dwelling unit shall upon initial application and annually thereafter on the first of September, submit to the Town or its agent necessary documentation to confirm their eligibility for the dwelling unit. Specifically, all dwelling units must be rented to those meeting the guidelines for a low or moderate-income

E - 1

family. For the purpose of this section, low income families shall have an income less than eighty (80) percent of the Town of Wellfleet median family income, and moderate income families shall have an income between eighty (80) and one hundred twenty (120) percent of the Town of Wellfleet median family income, as determined by the United States Department of Housing and Urban Development (HUD) Published Income Guidelines, and as may from time to time be amended.

6.21.5 Maximum rents shall be established in accordance with HUD published Fair Market Rental Guidelines. Property owners are required to submit to the Town or its agent information on the rents to be charged. Each year thereafter on the first of September, they shall submit information on annual rents charged to the Town or its agent. Forms for this purpose shall be provided. Rents may be adjusted annually in accordance with amendments to the Fair Market Rental Guidelines.

6.21.6 Procedure

A. The property owner shall complete and submit an application for a Special Permit to the Zoning Board of Appeals in accordance with the Wellfleet Zoning Board of Appeals Rules and Procedures.

B. The Zoning Board of Appeals shall hold a public hearing in accordance with the procedures and requirements set forth in Section 9 of Massachusetts General Law, Chapter 40A and the Wellfleet Zoning By-law, Section 8.4.2 .

C. Appeal under this section shall be taken in accordance with Section 17 of Massachusetts General Law, Chapter 40A.

D. The property owner shall complete and submit to the Inspector of Buildings an application for a Building Permit to allow a change in use.

E. The property owner shall obtain a Certificate of Occupancy from the Inspector of Buildings prior to the affordable accessory dwelling unit being occupied.

Penalty – Failure to comply with any provision of this section may result in fines established in Section 8.3 of the Wellfleet Zoning By-laws.

E

ATTACHMENT G

Development	Total Units	Affordable Units (Requirement starting at 10 units w/10%)	Affordable Units (Requirement Starting at 20 units w/20%)
Canco Woods II	127	12 + 70% fee	25 + 40% fee
Bayside Student Housing	100	10	20
Bay House	94	9 + 40% fee	18 + 80% fee
Ocean East-Presumpscot/oc	86	8 + 60% fee	17 + 20% fee
Congress Street-645	56	5 + 60% fee	11 + 20% fee
Ocean Ridge	46	4 + 60% fee	9 + 20% fee
Crescent Street Lodging	44	4 + 40% fee	8 + 80% fee
51-59 Danforth	43	4 + 30% fee	8 + 60% fee
Carriage Lane	42	4 + 20% fee	8 + 40% fee
Total (40+ units)	638	60 + 380% fee	124 + 400% fee
Chestnut Street Lofts	34	3 + 40% fee	6 + 80% fee
Radcliffe Glen	33	3 + 30% fee	6 + 60% fee
Maggie Lane	30	3	6
41 State St	27	2 + 70% fee	5 + 40% fee
Sheridan St	24	2 + 40% fee	4 + 80% fee
Maggie Lane (9 apts, 5 3-plex, 15 duplex)	24	2 + 40% fee	4 + 80% fee
490 Congress	23	2 + 30% fee	4 + 60% fee
Total (20-39 units)	195	17 + 250% fee	35 + 400% fee
Jarita Court	16	1 + 60% fee	0
Winslow Lofts, 545 Congress	15	1 + 50% fee	0
St. Patricks	15	1 + 50% fee	0
208 Fore Street	12	1 + 20% fee	0
Congress Street - 531	10	1	0
Shalom-180 Auburn	10	1	0
Metropolitan Apts (439 Congress St)	9	0	0
Guilford Ct - R-6 infill	8	0	0
Anderson Artist Loft	8	0	0
Sheriden St.	8	0	0
Waterville Condos	8	0	0
532 Congress Street	8	0	0
The Earl (341 Cumberland Ave)	7	0	0
44 Federal St.	7	0	0
Harborview Townhouses - York Street	7	0	0
Hammond Street	6	0	0
Hicks Street Subdivision	5	0	0
Wilson Street (infill)	4	0	0
116/118 State Street	4	0	0
Lafayett House	4	0	0
Mariner's Court	3	0	0
62 Cumberland Ave	3	0	0
Waterville Triad	3	0	0
130 E. Prom	3	0	0
43 Cumberland Ave	2	0	0
Ivy Duplex	2	0	0
Pennell Duplex	2	0	0
158 Grant St	2	0	0
Cornell Duplex	2	0	0
Salem Duplex	2	0	0
Providence Duplex	2	0	0
Saunders Duplex	2	0	0
St. John Duplex	2	0	0
Orange Street	2	0	0
Randall Condos	2	0	0
Sherwood St	2	0	0
Hicks Street 204	2	0	0
Cumberland Ave 44-46	2	0	0
Morse Street Duplex	2	0	0
Maplewood Street	2	0	0
1415 Congress Street	2	0	0
True Street	2	0	0
61 India Street	1	0	0
Total (1-19 units)	220	9 + 280% fee	0
Total	1,053	86 + 910% fee	159 + 800% fee
scattered	394		



Jeff Levine, AICP
Director, Planning & Urban Development Department

City of Portland Public Forum on Housing Production and Affordability
February 25, 2015

RECOMMENDATION: ENCOURAGE HOUSING DEVELOPMENT

Completed

- ✓ Comprehensive rewrite of the B-2 zoning districts (along Forest Avenue and elsewhere) to more than double the number of housing units that can be built
- ✓ Changes to the B-1 neighborhood business districts

Under Way

- ✓ Comprehensive rewrite of the B-6 (Peninsula residential) zoning district to significantly increase number of housing units that can be built. This process included a three month outreach phase during which staff met with neighborhood groups
- ✓ Form Based Code in the India Street neighborhood will focus on the built form rather than the number of units in a residential development

Proposed

- ✓ Exploration of ways that accessory dwelling units and reuse of existing buildings can help produce additional housing with minimal impacts
- ✓ Changes to the density bonus provisions to make them more effective

RECOMMENDATION:

ENSURE HOUSING DEVELOPMENT

DRAFT Inclusionary Zoning Ordinance

Purpose

The City believes that it is in the public interest to promote an adequate supply of affordable housing for its residents. The purpose of this division, therefore, is to require developers to include units of affordable housing within development projects, thereby mitigating the limited supply of affordable housing, and by doing so, promoting the health, safety, and welfare of Portland citizens.

Definitions

- a) Affordable housing unit shall be a dwelling unit for which:
 - a. The rent does not exceed 30% of the annual income for a household earning less than 100% of area median income for the Greater Portland Metropolitan Statistical Area as defined by the U.S. Department of Housing and Urban Development or
 - b. Where the purchase price will not result in mortgage payments that exceed 30% of annual income for households earning less than 100% of area median income for the Greater Portland Metropolitan Statistical Area as defined by the U.S. Department of Housing and Urban Development.
 - c. Annual rent increases for that unit are limited in perpetuity by deed restriction or other legally binding agreement to the percentage increase in the U.S. Department of Housing and Urban Development Greater Portland Metropolitan Statistical Area median income figures for a household of that size, or
 - d. The resale price is limited by deed restriction or other legally binding agreement for all future sales of the unit to the percentage increase in the U.S. Department of Housing and Urban Development Greater Portland Metropolitan Statistical Area median income figures for a household of that size.

Applicability

This division shall apply to development projects that:

- a) Are permissible under the provisions of this chapter in the zone in which they are proposed
- b) Will be a multi-family dwelling as defined in section 14-47, and will not be located in an R-1 or R-2 zone
- c) Reserve
- d) Create ten or more new dwelling units for rent or for sale through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a non-residential use to residential use, or any combination of these elements.
- e) Have not received, prior to the adoption of this ordinance, a Level III site plan approval, a Master Plan approval or a Building Permit.

Requirement of Inclusion of Affordable Housing Units

Such development projects shall set aside at least ten percent (10%) of the units in the project as affordable housing.

Standards

Projects shall not be segmented or phased to avoid compliance with these provisions and affordable units shall be provided in proportion to the development of market rate units.

Affordable housing units shall be integrated with the rest of the development and shall be reasonably compatible in unit type, appearance, construction, and quality of materials with other units as determined by the planning authority.

In-lieu Fees

Projects may pay a fee in lieu of providing affordable housing except that for developments of twenty (20) units or greater, all of the required affordable units shall be incorporated within the development and shall not be eligible for the substitution of the fee in lieu provision. In-lieu fees shall be paid into the Housing Trust Fund as defined in Sec. 14-489. The fee for affordable units not provided shall be equal to the number of required affordable units not provided multiplied by \$100,000. Beginning on January 1, 2016 and annually thereafter, the amount of the in-lieu fee shall be adjusted by multiplying this amount originally deposited for each unit by a fraction, the denominator of which shall be the "Consumer Price Index for Urban Wage Earners and Clerical Workers ("CPI-W"), U.S. City Average, "All Items Index," as published by the United States Bureau of Labor Statistics ("the Index") for January 1, 2015 Year, and the numerator of which shall be the index for the same month in each subsequent year. In the event that the Index is not then in existence, the parties shall use such equivalent price index as is published by any successor governmental agency then in existence; or, if none, then by such equivalent price index, in lieu of and adjusted to the Index. If the Index shall cease to use 1982-84 equals 100 as the basis of calculation, or if a substantial change is made in the terms or number of items contained in the Index, the Base Index shall be adjusted to conform to such change, using such computation thereof, if available, as shall be employed by the United States Department of Labor in computing same. Notwithstanding anything herein to the contrary, contributions made after January 1, 2016 shall not be less than the amount originally required to be deposited pursuant to this sub-section.

Incremental Unit Fee

A development with ten units will be subject to the provision of one complete affordable unit, or 100% of the required fee in lieu of providing the affordable unit within the project. Each additional unit in excess of ten will be subject to an incremental 10% fee per unit in addition to the provision of the required affordable unit, or an incremental fee per unit in addition to the 100% fee in lieu of the one unit. A development with more than 20 units will be subject to an incremental 10% fee per unit in addition to the provision of the required affordable units. [See chart below]

	OPTION 1	OPTION 2	
# of Units	Required Affordable Unit	In-Lieu Fees	Incremental Unit Fee %
10	1	100%	n/a
11	1 + Incremental Fee	100% + Incremental Fee	10%
12	1 + Incremental Fee	100% + Incremental Fee	20%
13	1 + Incremental Fee	100% + Incremental Fee	30%
14	1 + Incremental Fee	100% + Incremental Fee	40%
15	1 + Incremental Fee	100% + Incremental Fee	50%
16	1 + Incremental Fee	100% + Incremental Fee	60%
17	1 + Incremental Fee	100% + Incremental Fee	70%
18	1 + Incremental Fee	100% + Incremental Fee	80%
19	1 + Incremental Fee	100% + Incremental Fee	90%
20	2	n/a	n/a
21+	2 + Incremental Fee	n/a	10%
30	3	n/a	n/a
31+	3 + Incremental Fee	n/a	10%
40	4	n/a	n/a
41+	4 + Incremental Fee	n/a	10%



City of Portland Public Forum on Housing Production and Affordability

Sponsored by the City Council's
Housing and Community Development Committee
February 25, 2015

Terminology

- “Low Income Housing”: Housing, of any sort, for rent or to own, that is affordable to households at 80% of area median income or below (about \$60,000 for a family of four.)
- “Workforce Housing”: Housing, of any sort, for rent or to own, that is affordable to households at 100% of area median income (about \$75,000 for a family of four)
- “Affordable”: Paying 30% or less of your income on housing costs (rent or mortgage payments, insurance, taxes, etc.)
- “Deed Restricted”: The housing is not just affordable by chance, but by a written requirement that residents meet those restrictions. That restriction may last 20+ years or be in perpetuity.

2002 Housing Plan

- Approved by City Council in 2002 as part of the City's Comprehensive Plan
- Called for five key policies:
 1. *Adequate and diverse supply of housing for all*
 2. *Preserving a quality housing stock*
 3. *Building on neighborhood stability and integrity*
 4. *Housing as a regional issue*
 5. *Sustainable development*
 6. *Freedom of choice*
- Set goal of keeping Portland's population at 25% of County
- Called for Housing Replacement Ordinance
- Set goal of 20% of new units to be affordable at 80% AMI
- Set goal of 200 new affordable home-ownership units, most for families

Housing: Sustaining Portland's Future



**Housing Component of the Comprehensive Plan
City of Portland, Maine**

Prepared by: Housing Comprehensive Plan Committee
Co-Chairs: Councilor Nicholas Mavodones and
Councilor Nathan Smith

Adopted November 18, 2002

India Street Process

- India Street Sustainable Neighborhood Plan process had a working group on housing and equity
- Initially was recommending a requirement that part of all new larger developments in the neighborhood be affordable
- Decided that the requirement should be City-wide so as to not discourage investment in the district
- Prepared a draft ordinance
- Housing affordability is a goal of the draft plan

2030 Workforce Housing Demand

- GPCOG Study completed January 2015
 - 62% of Portland households earn less than the county's median income (38% of homeowners and 81% of renters) which is a 10% increase over last decade
 - 2010-2014 – 1,130 housing units permitted and/or built; only 29% were affordable to household earning median income.
 - There is a predicted gap in affordable housing production of between 24-33%. In other words, the production rate should roughly double



2030 Workforce Housing Demand

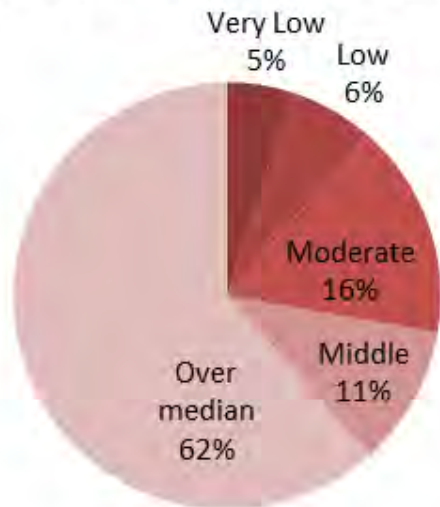
Prepared by Greater Portland Council of Governments January 2015

Less than 30% AMI = *Very low income*

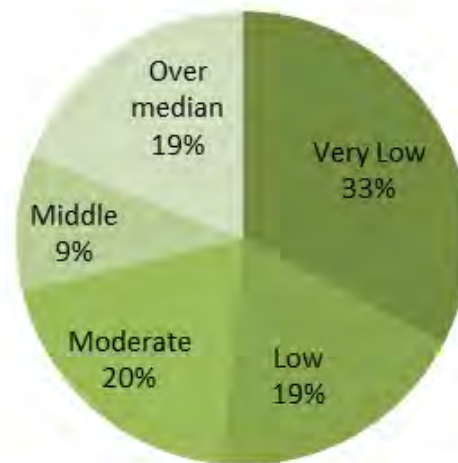
30%-50% AMI = *Low income*

50%-80% AMI = *Moderate income*

Income of Portland Homeowners (2011)



Income of Portland Renters (2011)



2030 Workforce Housing Demand

Why do anything?

- 62% of Portland households earn less than the county's median income(38% of homeowners & 81% of renters). Over the last decade, the number of households earning less than median income has increased 10%.
- The Great Recession of 2008 was a market correction that increased the affordability of existing housing – by giving wages a chance to catch up while stalling home sales and rents.
- Current housing production is not meeting the needs of households earning 80%-100% of median income. If recent trends continue, there will be a gap between supply and demand of workforce housing units ranging from 24%-33%.

2030 Workforce Housing Demand

- While the Portland housing market contains units in a variety of price ranges, the reality is that those with higher incomes, stable jobs, and good credit ratings are in a better position to compete for affordable units that are subsidized and unsubsidized. This creates a glut of affordable units at the low end of the range that may be in rough condition, with deferred maintenance issues.
- The rental market is extremely tight for 3-bedroom units that can accommodate working families.
- Based on the vacancy rate, the inventory of one-bedroom condos targeting households earning over the median income is reaching a point of saturation.

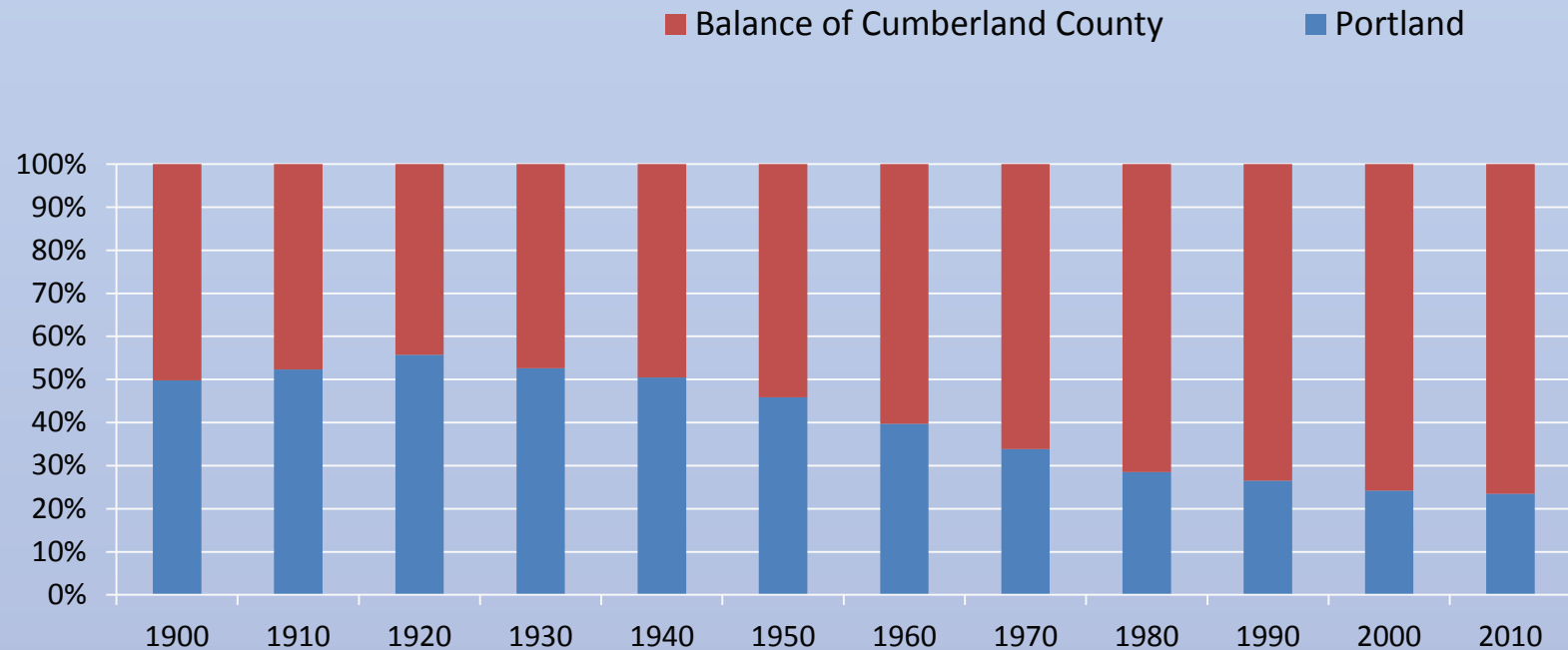
MEREDA 2015 ANNUAL REAL ESTATE FORECAST CONFERENCE

- “A higher end rental market expands and spurs investment”
- Rents up 8-12% this year, predicted another 5% next year
- Sales prices in Portland up 19% since 2009
- **Market Rate/mo**
 - ✓ Studio: \$750 - \$800 (Federal Fair Market: \$739)
 - ✓ 1 Bd: \$925 - \$1,000 (Federal Fair Market: \$880)
 - ✓ 2 Bd: \$1,100 – 1,400 (Federal Fair Market: \$1,087)
 - ✓ 3 Bd: \$1,400 – 1,600 (Federal Fair Market: \$1,405)



PORTLAND'S GROWTH

- 500 units of housing permitted in past two years
- Not quite meeting the 20% of county growth goal but doing OK



Source: U.S. Census Bureau – Included in GPCOG 2030 Portland Workforce Housing Demand Report

The housing production rate south of I-295 is higher than that north of I-295.

	Peninsula	Off-Peninsula	Island	Total
Affordable	320	16	0	336
Market Rate	675	108	11	794
Total	995	124	11	1130

Source: Greater Portland Council of Governments

WHAT ARE OUR EXISTING CITY ORDINANCES?

Housing Replacement Ordinance

Section 14-483 City Code of Ordinances

Primary source of capitalization for the Housing Trust Fund.

Currently at \$64,700 per unit removed from the market and not replaced

Density Bonus

Section 14-484 City Code of Ordinances

Allows up to a 25% bonus in density for affordable housing developments.

WHAT ARE OUR EXISTING CITY PROGRAMS?

FINANCIAL SUPPORT:

U.S. Dept. of HUD- CDBG and HOME – affordable at or below 80% AMI

Since 2000 the City has invested \$8.8 million of HUD funding to assist in the creation of over 800 units almost 700 of which are affordable at 50% to 80% of AMI

City's Housing Trust Fund – affordable at or below 120% AMI currently funded through the Housing Replacement Ordinance

Since 2002 the fund has received approximately \$1 million and expended \$455,585 (Avesta's Oak Street Lofts – 37 efficiency units; two pre-development grants to create Housing First units)

Current balance is approximately \$640,000

How would increased density incentives and new requirements work together?

Changes to density of housing development allowed in key zoning districts. B-2 zone (approved by Council,) R-6 zone (before the Planning Board,) other business zones such as the B-6 zone.

Limited density bonus changes for workforce and affordable housing. The existing language amended to include all deed-restricted units at less than 120% of AMI. consider increasing the density bonuses - existing bonuses at (25%)

Inclusionary Zoning focused on 80-120% AMI Production. Increased densities alone will not address the need to increase development of low, moderate and average-income housing by 24-33%. If such a requirement had been in place over the past 10 years, 77 units of workforce housing would have been produced, in addition to \$630,000 for the Housing Trust.

Examples of Inclusionary Zoning in other places

500 municipalities have requirements in more than half the states and DC

Sample Inclusionary Zoning Requirements from other Cities in the US

CITY	Year Enacted (est.)	Requirement	Units Produced	Target Incomes	Notes
Arlington, MA		15% of units			
Belmont, MA		10-15%, no minimum units			
Boulder, CO		20%, no minimum units		60% AMI	
Brookline, MA	1998	15% of 6 or more units and 15% of all bedrooms		80-100% AMI	Cash out up to 15 units
Burlington, VT		25% of 6 or more units			
Cambridge, MA	1998	15% of 10 or more units	450	65% AMI	30% density bonus
Cape Elizabeth, ME		5% (low)-10% (moderate income) of 5 or more units		Below 80% AMI	Also includes Accessory Dwelling Unit language
Carlsbad, CA	1994	15% of 7 units or more	1246	Below 80% AMI	
Emeryville, CA	1990	10-20% of 30 or more units			
Fairfax County, VA	1992	Over 20 Units	2448	"Affordable"	
Lincoln, RI	2006	20% of over 5 units		80% AMI	Given density bonus
Montgomery County, MD	1976	Over 50 Units	13000	"Moderate"	
Newton, MA		15% of units			
Petaluma, CA	1984	15% of 3 units or more	1157		
Pittsburg, CA	2004	6-20% of 5 units or more	11	Below 100% AMI	
Santa Fe, NM	2006	15% of 25 units or more		Up to 120% AMI	City provides up to \$10,000 subsidy per unit
Tallahassee, FL	2004	10% of 50 or more units		70-100% AMI	
Waltham, MA		5% (if given to WHA) or 10%			
Washington, DC	2006	8-10%		50-80% AMI	
Watertown, MA		12.5% of 5 or more units		80% AMI	Rounds up to next full unit

Many of these requirements allow cash out (fee in lieu) as an option, although that option often only exists for smaller projects and/or fractional unit requirements

Some of these ordinances allow for off-site provision of affordable units



Inclusionary Zoning focused on 80-120% AMI Production.

	OPTION 1	OPTION 2	
# of Units	Required Affordable Unit	In-Lieu Fees	Incremental Unit Fee %
10	1	100%	n/a
11	1 + Incremental Fee	100% + Incremental Fee	10%
12	1 + Incremental Fee	100% + Incremental Fee	20%
13	1 + Incremental Fee	100% + Incremental Fee	30%
14	1 + Incremental Fee	100% + Incremental Fee	40%
15	1 + Incremental Fee	100% + Incremental Fee	50%
16	1 + Incremental Fee	100% + Incremental Fee	60%
17	1 + Incremental Fee	100% + Incremental Fee	70%
18	1 + Incremental Fee	100% + Incremental Fee	80%
19	1 + Incremental Fee	100% + Incremental Fee	90%
20	2	n/a	n/a
21+	2 + Incremental Fee	n/a	10%
30	3	n/a	n/a
31+	3 + Incremental Fee	n/a	10%
40	4	n/a	n/a
41+	4 + Incremental Fee	n/a	10%

Fee in lieu of providing affordable housing of \$100,000

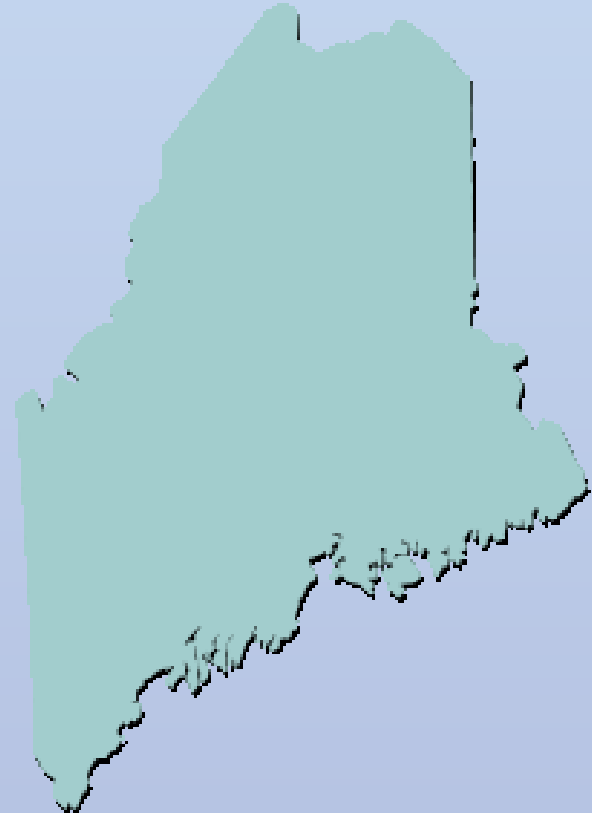
Developments of twenty (20) units or greater, not eligible for the fee in lieu provision.

In-lieu fees shall be paid into the Housing Trust Fund as defined in Sec. 14-489.

Fee in lieu = number of required affordable units not provided multiplied by \$100,000.

What are other communities in Maine doing?

- Cape Elizabeth is the only community in Maine with a mandatory inclusionary zoning requirement.
- Many communities have incentive based ordinances similar to those currently existing in Portland.



Effectiveness of Tools

- Density bonuses have some effectiveness in some circumstances. In Massachusetts and New Jersey, state level affordable housing requirements can trump local zoning.
- While economic arguments against inclusionary zoning suggest that it reduces housing production and/or increases market rate housing costs, most studies suggest there is either no such effect or that the effect is very modest

TWO PRONGED APPROACH RECOMMENDED

ENCORAGE HOUSING DEVELOPMENT
BY REMOVING BARRIERS TO
TRADITIONAL URBAN HOUSING TYPES

Under Way or Completed

- *R-6 Changes*
- *B-1 Changes*
- *B-2 Changes*

Additional Tasks

- *Looking at current accessory dwelling units and how we view “abandoned” residential space*
- *Density Bonuses*
- *Examining other zoning districts*
- *Remove regulatory barriers through ordinance streamlining*

ENSURE INCLUSION OF WORKFORCE
HOUSING IN SIGNIFICANT PROJECTS

Inclusionary Zoning - “10/10/100”

- *Start a requirement at a development of 10 units or more*
- *Require that 10% of units be workforce or affordable housing*
- *The required portion would be affordable at 100% of median income, and possibly eligible for funding if below 80%*
- *Cash-out (to the Housing Trust) and off-site provisions (within the same neighborhood) for many developments*

QUESTIONS? COMMENTS?



Jeff Levine, AICP
Director, Planning & Urban Development Department

Memorandum

To: Housing and Community Development Committee
From: Jeff Levine, Director
Date: March 5, 2015
Re: Proposed Inclusionary Zoning Ordinance- Next Steps

As part of the proposed “encourage and ensure” approach to addressing housing issues, staff has continued to work on the outline of an Inclusionary Zoning Ordinance. Staff has started with the draft developed by the Housing and Equity Working Group of the India Street Neighborhood Advisory Council. Based on input from HCDC in February, we will be adjusting the ordinance to the so-called “10/10/100” goals:

- Inclusionary requirements start in a ten unit development
- Ten percent (or equivalent) of the units would be affordable
- Affordability would be set at “workforce” levels of 100% of area median income (as opposed to the 80% AMI level commonly used.)

At the Housing Forum, there was support for this approach to a new ordinance, at least as a starting point. The Chamber of Commerce’s housing working group meetings, which I attend, include a variety of viewpoints on this issue, ranging from the view that there should not be an inclusionary ordinance to the view that such an ordinance is common nationally and is seen as a “best practice” as part of a set of tools.

Based on this input, I have revised the draft ordinance from the India Street process to incorporate those new numbers. However, there remain a few policy issues that still require direction:

- ✓ **“Cashout” or Fee-in-Lieu Options:** The draft ordinance from the India Street process allows cash-out in lieu of units for projects below 20 units, and for partial requirements. That is generally the state of the practice in many inclusionary ordinances. One thing we have heard in the process to date is an interest in being somewhat more flexible in permitting fee-in-lieu. Options that have been raised include allowing a fee at any level; having more flexibility for fee-in-lieu for ownership projects than for rental projects; and various options related to the fee level.

Given that the City has an existing Housing Trust Fund and would have the capacity to utilize fees in lieu, I would recommend that we consider some flexibility on this issue. It’s important

to keep in mind that the fee-in-lieu is theoretically supposed to cover the cost of creating an affordable unit at the target income levels. While it is hard to find a specific number that meets that goal, we generally find that the cost of producing an affordable unit is about \$125,000.

We offer three options for consideration and discussion to help resolve this issue:

- A. *Fee-in-Lieu allowed for any sized development with a cash-out cost at the true net development cost of producing units (\$125,000, indexed);*
 - B. *Fee-in-Lieu allowed for any size ownership development, and for rental developments up to 20 units, at the cost recommended by the India Street process (\$100,000, indexed); or*
 - C. *Fee-in-Lieu allowed for developments up to 20 units in size, as recommended by the India Street process, at the same cash-out level as the Housing Replacement Ordinance (currently about \$64,700 per unit, indexed.)*
- ✓ **Finishes and sizes of units:** The India Street process recommended that inclusionary units should be “reasonably compatible in unit type, appearance, construction, and quality of materials with other units.” Various approaches are taken in Inclusionary Zoning ordinances, from requiring that inclusionary units be exactly the same in size, distribution and finishes; to a requirement that the number of bedrooms be comparable; to allowing flexibility in terms of finishes as long as the units look the same from the exterior.

We offer three options for consideration and discussion to help resolve this issue:

- A. *Inclusionary units shall be the same size and finish as other units, distributed reasonably throughout the development;*
- B. *Inclusionary units shall have the same number of bedrooms on average as other units in the development, but can use less expensive finishes as long as they do not appear different from the exterior of the building, and shall be distributed reasonably throughout the development;*
- C. *Inclusionary units can be smaller and/or located in less lucrative parts of a development plan, and can use less expensive finishes than the other units in a development.*

Another question that has come up is the administration of an ordinance. I am confident that we have the capacity in our office to administer the ordinance. We would propose a change to the Housing Trust Fund ordinance at some point to leave the option open to use some small portion of the fund for administration of the Inclusionary Zoning ordinance if necessary. Given that the Inclusionary Zoning ordinance would also be a major source of revenue for the Housing Trust, we think that is a prudent option. HCDC would still have to approve such use of the funds on an annual basis as part of the Housing Trust annual plan. This possibility does argue for slightly higher fee-in-lieu levels.

Once these issues are resolved, I believe I am ready to finalize a draft ordinance for consideration by the Planning Board and, ultimately, the City Council, if that is the guidance from your Committee.



Jeff Levine, AICP
Director, Planning & Urban Development Department

Memorandum

To: Housing and Community Development Committee
From: Jeff Levine, Director
Date: March 5, 2015
Re: Proposed ordinance changes to encourage/enable housing development

As part of the proposed “encourage and ensure” approach to addressing housing issues, staff has developed a list of possible changes that would loosen restrictions on housing development while still preserving City residents’ quality of life. These proposed changes are based on an earlier list handed out at the Housing Forum, as well as input from that forum and from the Chamber of Commerce’s ongoing housing working group meetings.

These changes have been prioritized in terms of timeframes for implementation. Staff is seeking input as to this list, with the understanding that, most likely, only some of these items will end up being fully developed or enacted:

HOUSING PRODUCTION STRATEGIES COMPLETE OR IN PROCESS

1. Revisions to the B-2 zoning district for 500 acres in key commercial corridors/nodes
2. Revisions to the R-6 zoning district for 530 acres of residential land on the Peninsula
3. Rezoning 10 acres of land along the eastern waterfront to B-6 to allow for multifamily housing development

IMMEDIATE TERM HOUSING PRODUCTION STRATEGIES

4. Eliminate Parking Requirements for Residential Uses in B3, B5, B6, and B7
5. Eliminate Residential Density Limits in B1 and B2

SHORT TERM HOUSING PRODUCTION STRATEGIES

6. Harmonize off-peninsula residential parking requirements with those of the peninsula
7. Allow the use of the fee in lieu of parking in all off-peninsula (citywide) business zones
8. Update definitions & dimensional standards to promote the viability of lodging houses
9. Amend Downtown Height Overlay Map where to increase 45’ heights

MEDIUM TERM HOUSING PRODUCTION STRATEGIES

10. Allow 1 ADU per owner-occupied single-family homes in all IR zones if leased annually
11. Begin R5 rewrite to reflect current patterns & legalize most nonconforming structures

12. Begin R3 rewrite to reflect current patterns & legalize most nonconforming structures
13. Consider rewriting R7 zone & consider applying it to the zoning map in downtown R6s

PRESERVATION STRATEGIES FOR FURTHER DISCUSSION

14. Limit the removal of dwelling units from the rental market in favor of vacation rentals
15. Limit the conversion of rental housing into condominiums
16. Look at Housing Trust Fund ordinance for revisions to reflect its role in these efforts

One item that was mentioned at the Housing Forum to encourage additional housing was a so-called “Linkage Fee” for commercial development. Many cities have a requirement that commercial developments pay a per-square-foot fee into a Housing Trust to encourage housing production. These requirements are based on studies that document that commercial development causes a need for additional housing development. For example, the Linkage Fee requirement in Somerville, MA, is \$5.15 per square foot of commercial development. We do not recommend including a Linkage Fee in this package at this time.



Jeff Levine, AICP
Director, Planning & Urban Development Department

Memorandum

To: Housing and Community Development Committee
From: Jeff Levine, Director
Date: March 19, 2015
Re: Proposed ordinance changes on workforce housing development

At your last meeting we discussed priorities with respect to the various strategies to both encourage and ensure that housing development that meets the needs of the City. I was asked to return with some more specific thoughts about the higher priority strategies you identified.

Please refer to the zoning map at the end of this packet to help identify specific zoning districts.

Changes to the B2 and R6 Zones

Current Practice

The B2 zone includes commercial corridors such as Forest Avenue and Congress Street (though not others such as Brighton Avenue or Washington Street off-Peninsula) as well as most of the shopping centers in the City. This zone was amended recently to increase allowed housing densities to 100 units an acre under most conditions. The R6 zone currently allows about 45 units per acre and requires a lot size of 4,500 square feet. These zones cover over 1,000 acres of land in the City.

Possible Changes

The Planning Board has recommended and forwarded to Council changes to the R6 zone that would permit a higher density of housing, 60 units an acre, as well as reducing the minimum lot size.

Economic of these Changes

The changes to the R6 zone would allow context-sensitive, smaller scale infill housing to be built on many vacant lots on the Peninsula. We estimate that these changes reduce the cost of development on these sites by at least 20%.

Eliminate Parking Requirements for Residential Uses (B3, B5, B6 & B7 Business Zones)

Current Practice

Division 20 outlines most of the parking requirements for the City. Currently, parking for residential uses in the B3 zone is one space per unit on the Peninsula and two spaces per unit elsewhere. No off-street parking is required in the B5 zone. For projects above 50,000 square

feet in the B3 and B5 zones, and for all projects in the B6 and B7 zones, parking requirements are set through the site plan review process. Affordable housing units also have their parking set by the Planning Board. Historic structures do not usually have to provide additional parking.

Possible Changes

This change would amend Division 20 so the B3, B6 and B7 zones match the current B5 zone requirement of no parking requirement. There would be no prohibition on providing parking if a development wishes to provide it.

Economics of this Change

This change would reduce the soft costs of developments by saving developers the cost of a parking study if they wish to vary from these parking requirements. It may also save them the cost of providing parking they don't feel they need. As a result, we could expect a reduction in development costs of approximately 0.2-0.5%.

Eliminate Residential Density Limits in B1 & B2 Business Zones

Current Practice

The B1 zone covers neighborhood business nodes both on- and off-Peninsula. Currently the B-2 zone allows up to 100 units an acre, and the B-1 zone allows 100 units per acre on the Peninsula, and generally 43.5 units per acre off the Peninsula.

Possible Changes

This change would eliminate these limits and allow as many units as could otherwise be built on a site, given setback, height, parking, and other site plan constraints.

Economics of this Change

The current 100 unit per acre limit is fairly high, and is likely not to be a limiting factor in these zones. However, eliminating it would send a message that the City supported development of additional units, and would also allow developers to consider building smaller units than they might otherwise build. Given this change might help some developers produce more units, and therefore slightly more revenue per net square foot, we would expect a small reduction in development costs from this change, perhaps in the range of 0.5%.

Allow the Use of the Fee-in-Lieu of Parking in Off-Peninsula Business Zones

Current Practice

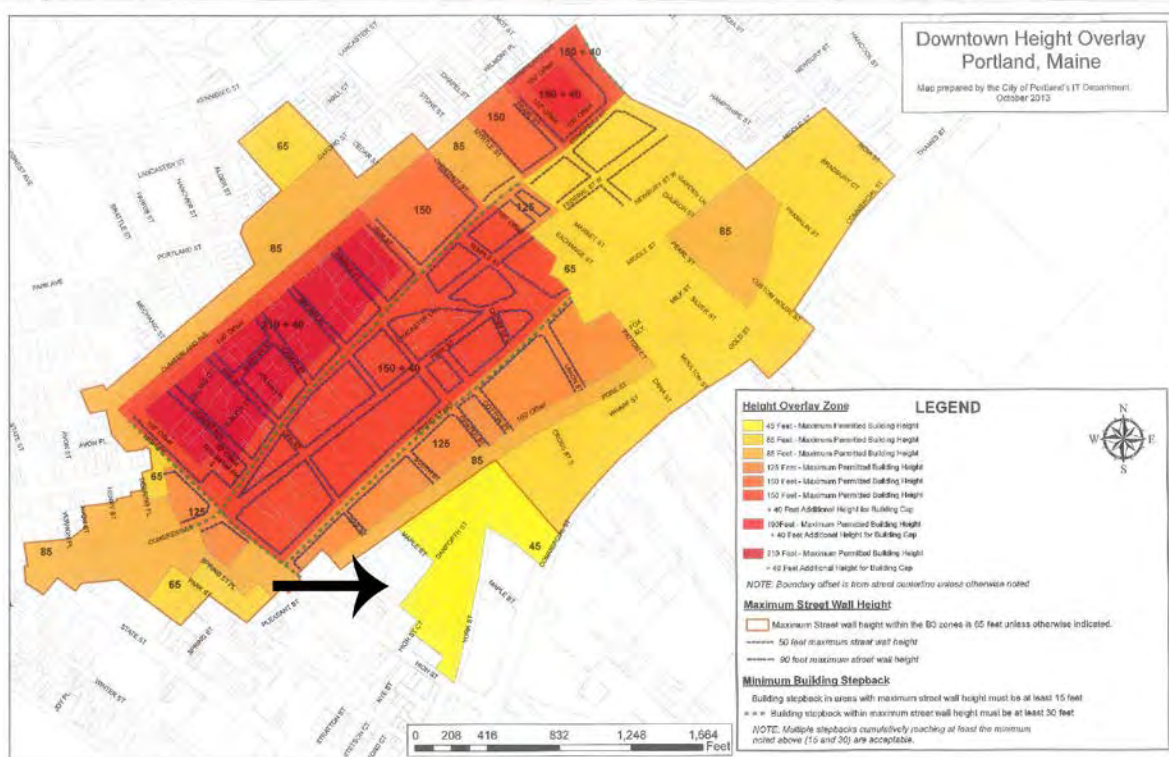
Section 14-345 establishes the option of a fee-in-lieu of parking for developments in non-residential zones on the Peninsula. Under this section, developers can reduce their parking requirements by paying into the City's Sustainable Transportation Fund in the amount of about \$5,000 per space. In practice, most developments that have sought reduced parking requirements have been able to use other clauses in the zoning ordinance, such as the one that authorizes the Planning Board to set a parking requirement in business zones. HCDC approved some language changes last year that would help close these loopholes. In the meantime, we have seen our first projects utilizing the fee-in-lieu language in the past year.

Possible Changes

This change would expand this option to off-Peninsula business zones as well as those on the Peninsula. It would not require payment, nor would it propose any parking maximums. It would also not apply to any residential zones.

Economics of this Change

Many off-Peninsula developments provide parking because they feel they need to do so, regardless of what is required in the ordinance. However, there are some situations where the parking requirements may be excessive along major corridors where ample parking already exists. In particular, this change might encourage infill housing on commercial corridors in locations where an existing large parking field is already provided. Currently, such infill developments are hampered by the fact that not only would a development need to provide the parking for that new development, but would also have to replace the parking spaces on which that infill might occur. Remaining parking might be able to take advantage of the fact that residential parking is primarily used at night, whereas retail and office parking is primarily used during the day. A single space might therefore serve a dual purpose. We estimate that this possibility, if applied prudently, might reduce development costs significantly in these business areas by precluding a need to move towards structured parking. Structured parking spaces can cost in the range of \$20-25,000 per space. Changing this requirement would therefore reduce the cost of housing development on these sites by \$15-\$20,000, or about 8 to 10% of total development costs on a per unit basis.



Amend the Downtown Height Overlay Map to Increase 45' Height Limits

Current Practice

The building heights downtown are determined by a height overlay map. That map is based on a 1989 Downtown Height Study. Currently, a section of downtown around Gorham's Corner (York and Danforth Streets) limits heights to 45 feet as per that study. The zoning district in that area was changed from R-6 and B-1 to B-3 in 2013 to allow additional development, but the heights remained at 45 feet.

Possible Changes

This change would increase that permitted height from 45 feet to a taller amount to be established through further analysis. The abutting height districts are 85 feet and 65 feet, so the recommended number would likely be in that range. There are some existing structures between Danforth, Maple and Pleasant that may be recommended for exclusion from these height changes.

Economics of this Change

The timing of this proposed change is particularly good in that some of the parcels under discussion were rezoned in the recent past to prepare them for redevelopment, likely as housing. Increasing the heights may allow that development to increase the number of units provided by up to 25 percent without changing construction types. That increase could provide additional net profits to a development. However, we would need to verify with the property owner that there is an interest and ability to go to this height.

Look at Accessory Dwelling Units in Island Residential Zones

Current Practice

The IR-1 and IR-2 (Island Residential) zones permit accessory dwelling units (ADU's) under certain circumstances. Specifically, the site must be on public sewer, the ADU must be below 400 square feet, the unit shall generally be hard to determine is a separate unit from the street, and the building must be owner-occupied. In the IR-2 zone, a minimum lot size of 30,000 square feet also applies.

Possible Changes

Peaks Island residents have suggested that some of the factors listed above limit the number of ADU's possible on the Island, particularly in the IR-2 zone. They have submitted some possible changes and a model ordinance from Wellfleet, MA, that they feel would encourage more ADU's. In their proposal, there would be an affordability requirement in order to take advantage of these relaxed requirements. Please see Attachment #1 for more information on this proposal.

Economics of this Change

The opportunities for more ADU's on Peaks Island is an interesting and context-sensitive way to look at increasing housing stock and affordability in a resource-constrained area. While they may not produce many units, we see the economics of this proposal as producing some affordability on Peaks Island.

Look at R5 Zone Accessory Dwelling Unit Requirements & Reuse of Existing Structures

Current Practice

Currently, the R-5 zoning district practically limits the number of units on a lot to two. There are some allowances for larger developments, but only at a density that is generally not feasible (requiring 6,000 square feet of land per unit.) There are some homes with carriage houses or other out-buildings that cannot currently be used for housing.

Possible Changes

There has been some interest in being able to use existing structures as accessory units in the R-5 zone. While these buildings may require some changes to bring them up to housing code, they are already part of the built environment, and like ADU's, could provide more housing with few external impacts. The proposed change would be to consider allowing these existing spaces to be used as housing provided certain conditions were met. See Attachment #2 for a proposal submitted by a property owner in the R-5 district for such a change.

Economics of this Change

This change would provide some additional housing in these traditional streetcar neighborhoods with few external impacts, and allow currently empty buildings that are potentially nuisances, or at least eyesores, to be renovated and added to the City's housing stock. Even with an affordability requirement, such changes would be profitable to a homeowner and beneficial to the neighborhood. Issues such as whether these additional units would have to provide additional parking spaces would have to be worked out.

Amend Division 30 (Affordable Housing)

(1) Provide Additional Density through Incentives

Current Practice

Division 30 provides density bonuses for housing affordable at 80% of AMI for rentals or 120% of AMI for home ownership units. The bonuses provide for up to 25% additional units as the number of units affordable at those levels increase. This bonus has been rarely used, except in cases where a development was already planning to provide affordable units.

Possible Changes

Attachment #3 outlines some possible changes to this section. Most notably, we are proposing increasing the affordability levels to allow for rental properties affordable at up to 100% AMI. In addition, we are looking at the density bonus numbers to see if they provide sufficient incentives.

Economics of this Change

Since a development can collect up to 20% additional rent from a unit at 100% AMI than from a unit at 80% AMI, this change should inherently increase revenue from those units accordingly. In a case where a development used the full 25% bonus, the revenue from the development would therefore be increased by 5%.

(2) Add Workforce Housing Requirement (Inclusionary Zoning)

Current Practice

There is currently no requirement for workforce housing as part of a development.

Possible Changes

Based on your input and the draft ordinance developed by the India Street Housing and Equity Working Group, we have drafted possible amendments to Division 30 that would:

- Require 10 percent of units in a development of 10 units or more to meet affordability requirements at 100% AMI (approximately \$1,900 a month in rent for a family of four);
- Allow a cash-out option at the same level as the Housing Replacement Ordinance (currently about \$63,500 per unit) with the understanding that this level of cash-out does not cover the full cost of producing a unit;
- Allow for off-site provision of workforce housing units as long as the units are in the same neighborhood;
- Not require that the units be dispersed evenly across the development, that the finishes be comparable, or that the units be of comparable size to the other units but that they have the same general number of bedrooms.

Economics of this Change

Studies cited by both our research and the research completed on behalf of the Portland Regional Chamber of Commerce by Planning Decisions indicate that inclusionary zoning requirements generally appear to increase the cost of market-rate housing in the same community by about 2 to 3%. These studies are based on inclusionary requirements at

generally lower income levels than workforce housing and also do not fully account for zoning changes to encourage housing that may offset any potential increases.

Overall Economic Impact of these Changes

This package of changes would lower development costs and increase revenues for developers who wish to take advantage of them. While it is very difficult to quantify these increased revenues, they appear to be of comparable, and in some areas, significantly greater order of magnitude as the potential impacts of a modest inclusionary zoning ordinance as proposed. It is important to weight the potential market impacts with the policy goals of these various changes to determine which of these changes, if any, should be forwarded to the Planning Board, and ultimately the full City Council, at this time.

ATTACHMENT #1: Peaks Island ADU

ADU meeting 1.12.15

Present: Barbara Barhydt, Planning Review Manager, City of Portland
Mary Davis, Director of Housing and Community Development, City of Portland
Alex Jaegerman, Director of Planning, City of Portland

Betsey Remage-Healey, Homestar t
Rachel Conly, Peaks resident and architectural designer
Tim Wyant, Peaks resident, PIC member and land use planner

Positive first meeting re the possible introduction of ADUs on Peaks to address the need for year round rental housing. Issues include:

1. Size of lot to permit an ADU; currently at 30,000 sq. ft in R-2, but general agreement that is unrealistic for Peaks, with most houses currently on much smaller lots; Rachel to research more about lots of record that are much smaller but legal because deeds preceded zoning requirement.
2. Probably limiting variance to homes on city water and sewer, essentially most of R-2 zoned area on Peaks; Rachel to try to track down map of exactly where the water and sewer lines go.
3. Tim will continue his research into how many homes in R-2 currently are on lots more than 20,000 sq ft.; likely to be very few
4. Who would oversee the certification of rent and renters to meet affordability guidelines? Possibly the Housing and Community Development Dept. - to be decided later
Mary did like the review structure spelled out in Wellfleet's ordinance. Betsey mentioned that there would likely be only a small number of ADUs created (est. 5 or less) due to cost.
5. Need for tax exemption on new building to remove deterrent to building ADUs. City unlikely to be able to do that because property taxes are decided at the state level. Barbara and Mary will consult with Jennifer Thompson and Rick Blackburn to clarify.
6. City will present Housing Study on Wednesday evening, Jan 14. Would be good to learn about it and to contact Kevin Donahue, who is Peaks' rep on the Council and a long time advocate of affordable housing. Betsey will follow up.
7. Barbara suggested that ADU language might be incorporated into the Portland Land Use Code. Division 30, Section 14, items 4.8.4 tp 4.8.8 refer to incentives for affordable housing. Betsey will research this.

Appendix E — Town of Wellfleet, Massachusetts, 6.21 Affordable Accessory Dwelling Units

Purpose: For the purpose of promoting the development of affordable rental housing in Wellfleet for year-round residents, a maximum of three affordable accessory dwelling units per lot may be allowed subject to the requirements, standards and conditions listed below:

6.21.1 Up to three affordable accessory dwelling units per lot may be allowed in any district by Special Permit from the Zoning Board of Appeals.

6.21.2 Affordable accessory dwelling units created under this by-law shall be occupied exclusively by income-eligible households, as defined by the guidelines in numbers 6.21.4 and 6.21.5 below. The affordability requirements of this by-law shall be imposed through conditions attached to the Special Permit issued by the Zoning Board of Appeals. No accessory apartment shall be constructed or occupied until proof of recording is provided to the Inspector of Buildings.

6.21.3 Requirements and Standards

- A. Affordable accessory dwelling units may be located within or attached to a principal dwelling, principal structure, a garage or constructed as a detached unit.
- B. Affordable accessory dwelling units shall not be larger than one thousand two hundred (1,200) square feet of Livable Floor Area as that term is defined in Section II of this Zoning By-law.
- C. Affordable accessory dwelling units within or attached to a principal dwelling, principal structure or garage that is pre-existing nonconforming shall not increase the nonconforming nature of that structure, except that any pre-existing accessory building may be eligible for conversion to an affordable accessory dwelling unit.
- D. Newly constructed detached accessory units shall comply with all applicable provisions of the Zoning By-law unless they are specifically waived by this by-law. Newly constructed detached accessory units shall comply with all setback requirements listed in Sections 5.4.2 of this Zoning By-law.
- E. Owners of residential property may occupy as a primary residence either the principal or accessory dwelling. For the purposes of this section, the “owner” shall mean one who holds legal or beneficial

title.

- F. Septic systems are required to meet current Title 5 standards and shall be reviewed and approved by the Health Agent.
- G. The Inspector of Buildings and Health Agent shall inspect the premises for compliance with public safety and public health codes.
- H. No affordable accessory dwelling unit shall be separated by ownership from the principal dwelling unit or principal structure. Any lot containing an affordable accessory dwelling unit shall be subject to a recorded restriction that shall restrict the lot owner's ability to convey interest in the affordable accessory dwelling unit, except leasehold estates, for the term of the restriction.

6.21.4 All occupants of the affordable accessory dwelling unit shall upon initial application and annually thereafter on the first of September, submit to the Town or its agent necessary documentation to confirm their eligibility for the dwelling unit. Specifically, all dwelling units must be rented to those meeting the guidelines for a low or moderate-income

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family. For the purpose of this section, low income families shall have an income less than eighty (80) percent of the Town of Wellfleet median family income, and moderate income families shall have an income between eighty (80) and one hundred twenty (120) percent of the Town of Wellfleet median family income, as determined by the United States Department of Housing and Urban Development (HUD) Published Income Guidelines, and as may from time to time be amended.

6.21.5 Maximum rents shall be established in accordance with HUD published Fair Market Rental Guidelines. Property owners are required to submit to the Town or its agent information on the rents to be charged. Each year thereafter on the first of September, they shall submit information on annual rents charged to the Town or its agent. Forms for this purpose shall be provided. Rents may be adjusted annually in accordance with amendments to the Fair Market Rental Guidelines.

6.21.6 Procedure

A. The property owner shall complete and submit an application for a Special Permit to the Zoning Board of Appeals in accordance with the Wellfleet Zoning Board of Appeals Rules and Procedures.

B. The Zoning Board of Appeals shall hold a public hearing in accordance with the procedures and requirements set forth in Section 9 of Massachusetts General Law, Chapter 40A and the Wellfleet Zoning By-law, Section 8.4.2 .

C. Appeal under this section shall be taken in accordance with Section 17 of Massachusetts General Law, Chapter 40A.

D. The property owner shall complete and submit to the Inspector of Buildings an application for a Building Permit to allow a change in use.

E. The property owner shall obtain a Certificate of Occupancy from the Inspector of Buildings prior to the affordable accessory dwelling unit being occupied.

Penalty – Failure to comply with any provision of this section may result in fines established in Section 8.3 of the Wellfleet Zoning By-laws.

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ATTACHMENT #2: Possible R-5 Existing Building Language

Proposed Sec. 14-488 (d)

Historical Reversion. The purpose of this section is to provide a mechanism whereby a structure that was clearly arranged and designed for more dwelling units than presently utilized may be permitted to be restored to its previous use, even if such use would result in an increase in the nonconformity of the use as it pertains to number of dwelling units. Notwithstanding the requirements of Division 23 of this ordinance, a structure may revert to a historical use as to number of dwelling units provided it meets to following criteria:

1. Restored dwelling units are affordable as defined in Division 30;
2. That the historical use for purposes of applicability of this section is demonstrated by the owner by proof of documentary evidence including, but not limited to, assessing records, building permits, photographs and sworn affidavits;
3. That it is located within the R-4, R-5, R-5A, R-6, R-6A, R-7, B-2 or B-2b zone;
4. That no portion of the structure enlarged after April 1, 1995 shall be eligible for consideration under this section;
5. Shall not restore more than two (2) dwelling units and result in not more than four (4) total dwelling units;
6. Each restored dwelling unit shall be configured utilizing its historical layout as much as practicable but shall have a minimum floor area of four hundred (400) square feet. The net finished square footage of all restored dwelling units shall not exceed 50% of the gross finished square footage of all units
7. Restored dwelling units shall comply with current standards of the National Fire Protection Association Life Safety Code (§16-1) and the National Fire Protection Association 1: Fire Prevention Code (§10-16), as amended;
8. Off-street parking is required as provided in Division 20 (off-street parking) of this article.

Attachment #3: Possible Changes to Division 30 (Affordable Housing)

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DIVISION 30. ~~INCENTIVES FOR~~ AFFORDABLE HOUSING

Sec. 14-484. Purpose.

The City believes that it is in the public interest to promote an adequate supply of affordable housing for its residents. The purpose of this Division therefore is to offer incentives to developers to include units of affordable housing within development projects, thereby mitigating the impact of market rate housing construction on the limited supply of available land for suitable housing, and helping to meet the housing needs of all economic groups within the City. The City believes that this Division will assist in meeting the City's comprehensive goals for affordable housing, in the prevention of overcrowding and deterioration of the limited supply of affordable housing, and by doing so promote the health, safety and welfare of its citizens.

Sec. 14-485. Definitions.

"Affordable" means that the percentage of income a household is charged in rent and other housing expenses, or must pay in monthly mortgage payments (including insurance and taxes), does not exceed 30% of a household's income, or other amount established in City regulations that does not vary significantly from this amount.

"~~Affordable~~ ~~Low-income~~ housing unit for rent" means a dwelling unit for which: (1) the rent is affordable to a household earning 80% or less of the ~~U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that size~~ Area Median Income (AMI) as defined by the U.S. Department of Housing and Urban Development (HUD); and (2) annual rent increases for that unit are limited in perpetuity by deed restriction or other legally binding agreement to the percentage increase in the U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that size.

"~~Affordable~~ ~~Low-income~~ housing unit for sale" means a dwelling unit for which: (1) the sale price is affordable to a household earning ~~120~~80% or less of the ~~U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that size~~ HUD AMI; and (2) the resale price is limited by deed restriction or other legally binding agreement for all future sales of the unit to an amount that is affordable to a household

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earning 120% of the U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that size, as calculated for the year in which the sale takes place.

"Development fees" means: (1) the following fees, as described in this chapter: site plan review and inspection fees; subdivision review and inspection fees; condominium conversion permit fees; and administrative fees; and (2) construction and permit fees as described in chapter 6. "Development fees" does not include any fees charged for reviews conducted by a party other than the City.

"Dwelling unit" has the same meaning as that term is defined in section 14-47.

"Eligible project" means a development project: (1) to which the City has not committed nor will commit any funding, reduced-interest loans or other subsidies or incentives other than those described in this Division; and (2) that creates new dwelling units, among which is at least one affordable housing unit for rent or sale, through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a non-residential use to residential use, or any combination of these elements. Affordable housing units for sale or rent may not differ in exterior design from other units within an eligible project.

"Workforce housing unit for rent" means a dwelling unit which: (1) Is affordable to a household earning less than 100% of HUD AMI and (2) Annual rent increases for that unit are limited by deed restriction or other legally binding agreement to the percentage increase in the U.S. Department of Housing and Urban Development Greater Portland Metropolitan Statistical Area median income figures for a household of that size.

"Workforce housing unit for sale" means a dwelling unit for which (1) the purchase price is affordable to a household at 120% of HUD AMI and (2) The resale price is limited by deed restriction or other legally binding agreement for all future sales of the unit, or a lesser term as permitted in regulations, to the percentage increase in the HUD Greater Portland Metropolitan Statistical Area median income figures for a household of that size.

Sec. 14-486. Reduction of Fees and Priority Review

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Notwithstanding any other provision of this chapter or chapter 6 to the contrary, development fees shall be reduced by the City for an eligible project in the manner described in the following table:

Percentage of new units that are affordable low-income or workforce <u>housing</u> units	Percentage discount of development fees
5% up to but not including 10%	5% reduction
10% up to but not including 15%	10% reduction
15% up to but not including 20%	15% reduction
20% up to but not including 25%	20% reduction
25% or more	25% reduction

~~Sec. 14-487. Priority Review.~~

~~_____~~The Planning Division shall perform its review of an eligible project in as expedited a manner as is practical. The Planning Division may adopt administrative procedures to prioritize review of eligible projects and facilitate this expedited review.

The Planning Board shall make its best efforts to hear, review, and approve, conditionally approve or deny within one workshop and one public hearing any plans or applications required for an eligible project that are within the Planning Board's jurisdiction, and shall rely on reviews prepared by the Planning Division to the greatest extent practical and appropriate. At the conclusion of these public meetings, the Planning Board shall promptly issue a decision on all such plans and applications before it for consideration.

Sec. 14-487. Ensuring Workforce Housing.

1. Purpose

Based on the City's Comprehensive Plan and the housing study completed in 2015, the City believes that it is in the public interest to promote an adequate supply of housing that is affordable to a range of households at different income levels.

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The purpose of this section is to ensure that large housing developments provide a portion of workforce housing units, and by doing so, promoting the health, safety, and welfare of Portland citizens.

2. Applicability

This division shall apply to development projects that create ten or more new dwelling units for rent or for sale through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a non-residential use to residential use, or any combination of these elements. This division shall not apply to projects that have submitted complete Master Development Plan, Level III Site Plan, or comparable applications to move forward prior to its effective date.

3. Workforce Housing Minimum

At least ten percent of the units in the project shall meet the definition of workforce housing unit for sale or for rent. The number of units required is rounded down to a whole number if providing units as per 4.b. below, or shall include a fractional value in cases where a project prefers to pay a fee-in-lieu as per 4.c. below.

4. Standards

a. Projects shall not be segmented or phased to avoid compliance with these provisions. In cases where projects are completed in phases, affordable units shall be provided in proportion to the development of market rate units unless otherwise permitted through regulations.

b. Workforce units are encouraged to be integrated with the rest of the development, should use a common entrance and should provide no indications from common areas that these units are workforce housing units. Subject to planning authority approval, provision of units off-site shall also be considered as meeting these standards, provided these units are located in the same neighborhood, defined as same U.S. Census Tract unless otherwise defined in regulations.

c. Workforce units need not be the same size as other units in the development but they must have the same general mix of number of bedrooms as the other units.

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d. As an alternative to providing workforce housing units, projects may pay a fee in lieu of some or all of the units. In-lieu fees shall be paid into the Housing Trust Fund as defined in Sec. 14-489. The fee for affordable units not provided shall be equal to the fee under Division 29 for Housing Replacement.

5. Implementing Regulations

Regulations to further specify the details of this section shall be developed, including, but not limited to:

- Specific methodology for income verification;
- Situations where less than permanent affordability might be considered;
- Guidelines for meeting the requirement that off-site units be "in the same neighborhood";

Sec. 14-488. Density, Parking and Dimensional Bonuses and Reductions.

Notwithstanding any other provision of this chapter to the contrary:

(a) Density bonuses. The maximum number of units that would otherwise be allowed under this chapter shall be increased for an eligible project in the manner described in the following table:

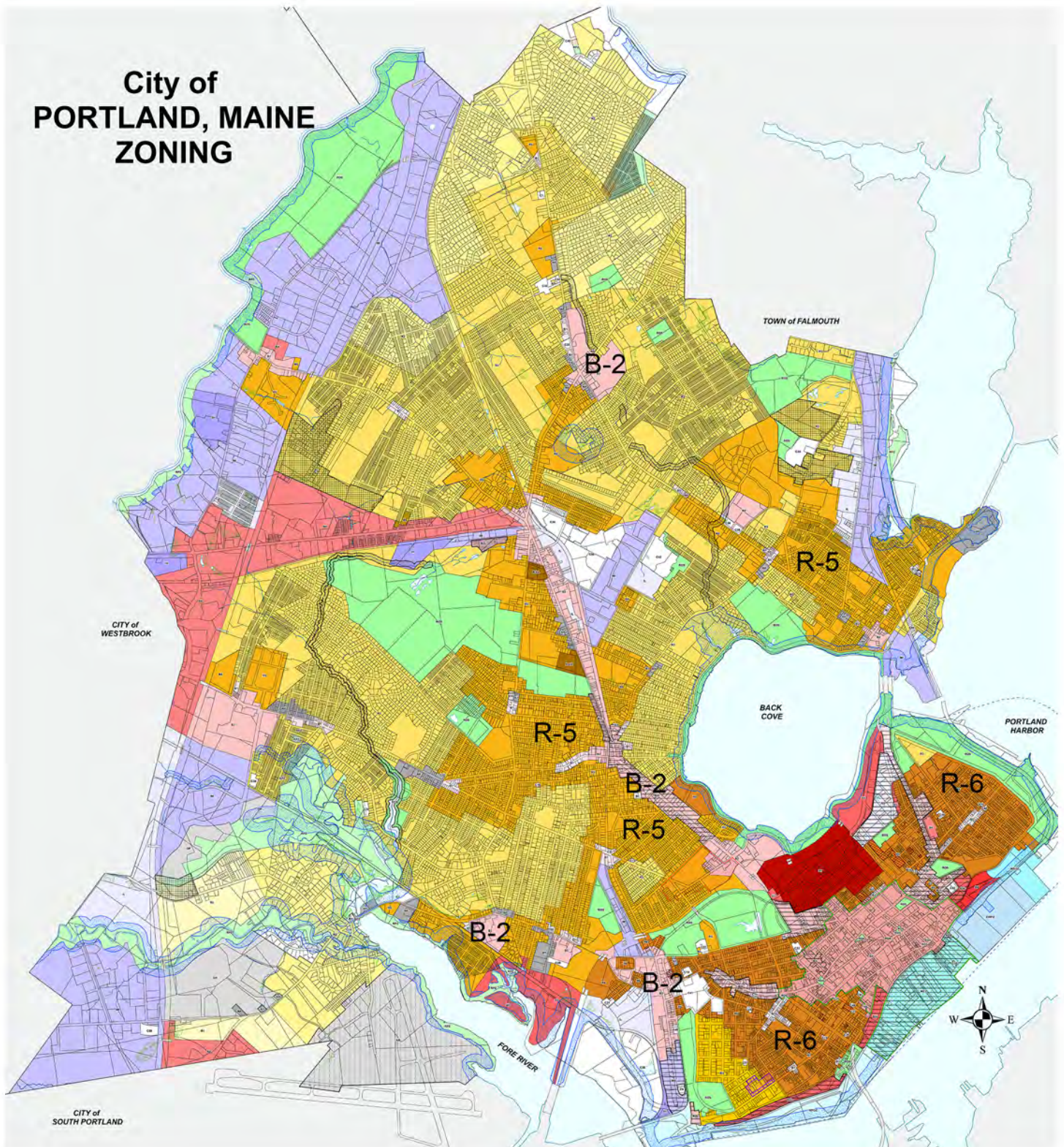
Percentage of new units that are <u>affordable low-income or workforce</u> units	Percentage increase in maximum number of units allowed
5% up to but not including 10%	5% increase
10% up to but not including 15%	10% increase
15% up to but not including 20%	15% increase
20% up to but not including 25%	20% increase
25% or more	25% increase
<u>Projects Under 14-487</u>	<u>25% increase</u>

(b) Parking requirement reduction. For each affordable low-income or workforce housing unit for rent or sale within an eligible project, no more than one (1) parking space shall be required. The Planning Board may establish a parking requirement

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for affordable housing units for rent or sale within an eligible project that is less than one (1) parking space per affordable housing unit, regardless of the size of the structure.

Attachment #4: Zoning Map with Key Zones Identified





Jeff Levine, AICP
Director, Planning & Urban Development Department

Memorandum

To: Housing and Community Development Committee
From: Jeff Levine, Director
Date: April 3, 2015
Re: Inclusionary Zoning and Zoning Changes to Encourage Housing Development

At your last meeting, you reviewed my memorandum regarding various approaches to increasing workforce housing in Portland. You asked for some additional information on each option, including, when appropriate, additional maps or charts that would help you as you contemplate each of these options.

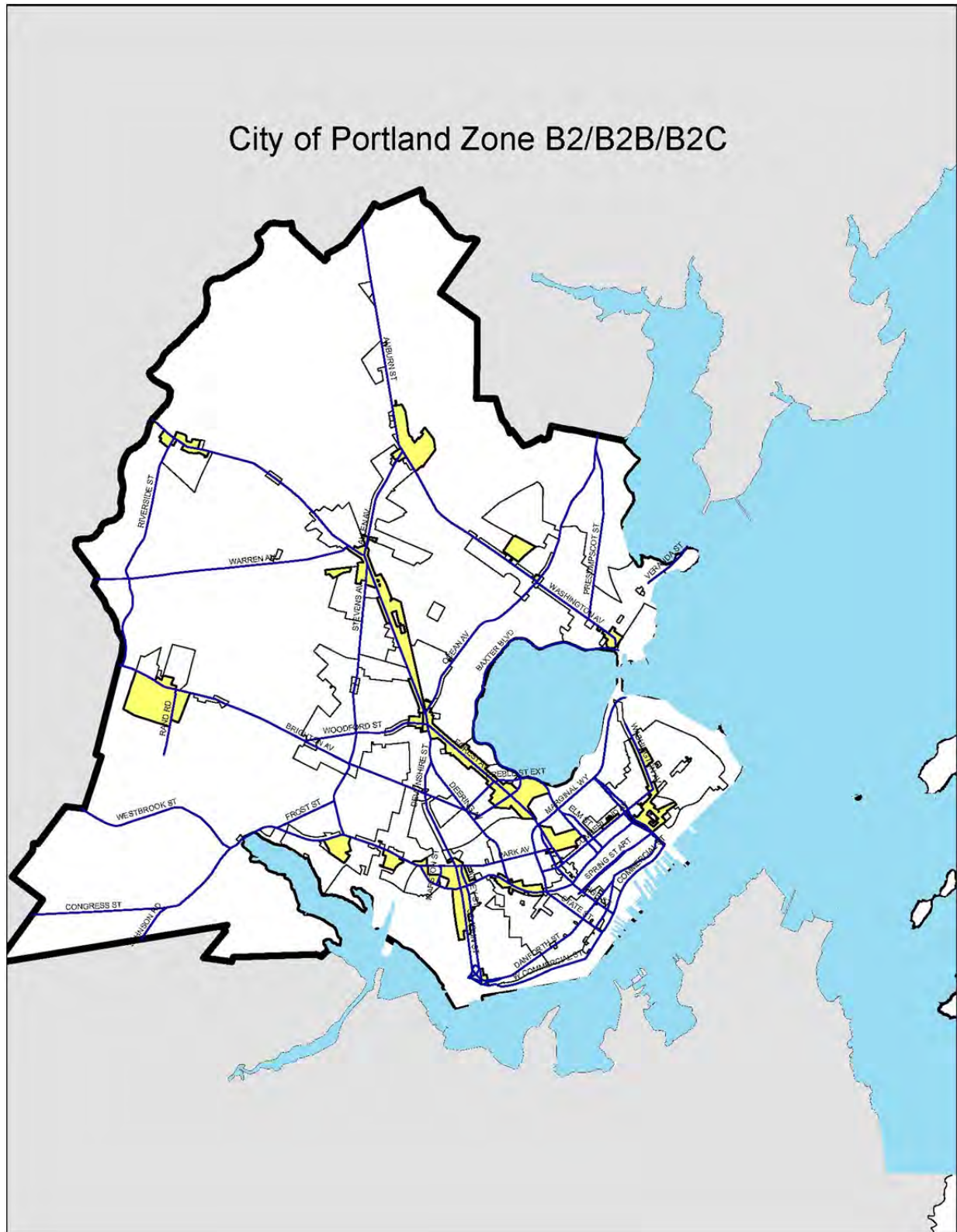
At the end of this memo is some information about the Portland Development Corporation (PDC) and any potential role funding from the PDC might play in workforce housing development.

Changes to the B2/B2b/B2c Zone

The B2 zone changes have already been approved by the City Council. They affect the following areas:

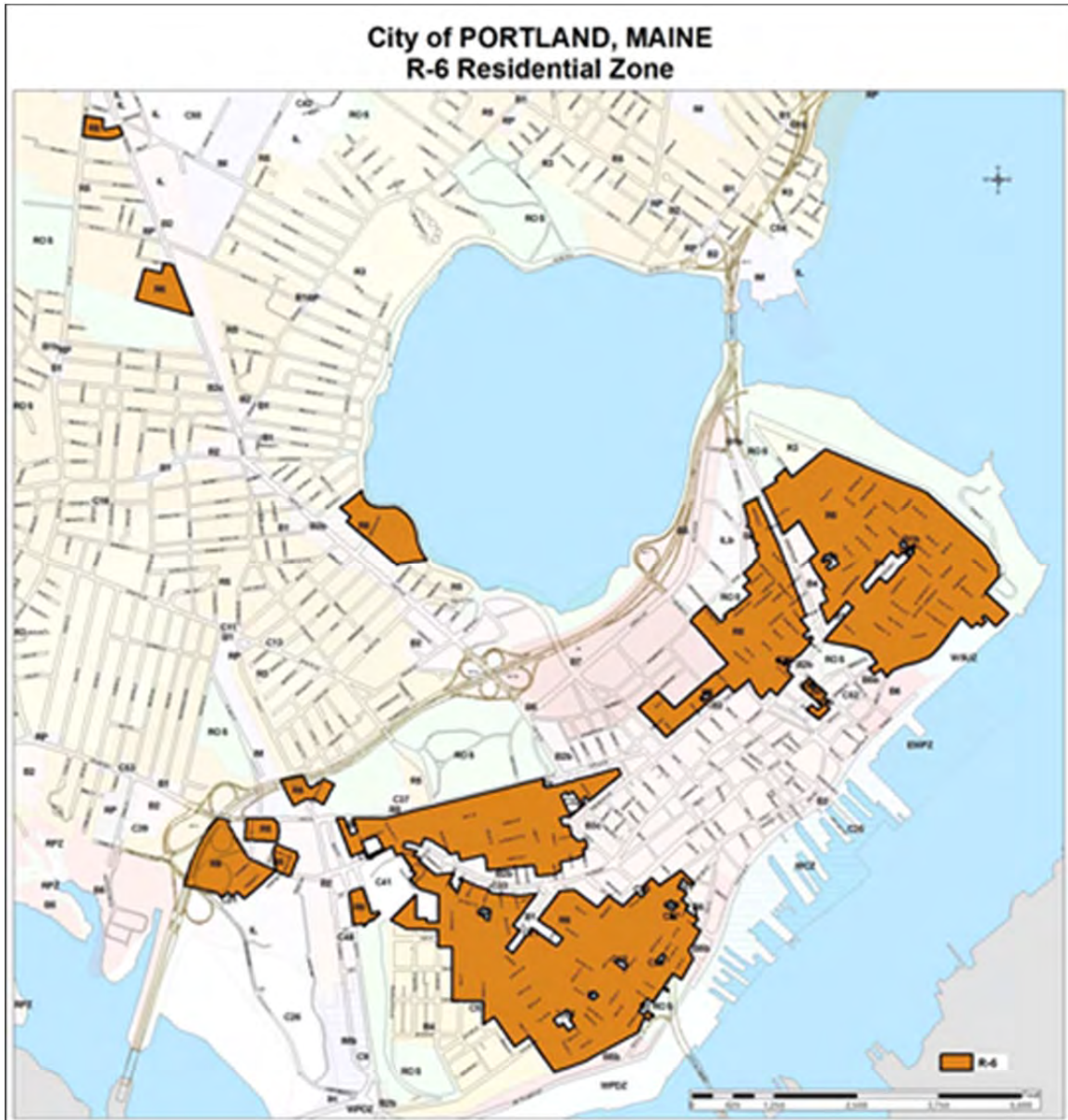
- Commercial corridors on Forest Avenue and Congress Street
- Washington Street on the Peninsula
- Most of the shopping centers in the City, including Westgate and Northgate.

The rewrite reduced the complexity of the B2 zone and increased the allowable residential densities under certain conditions.

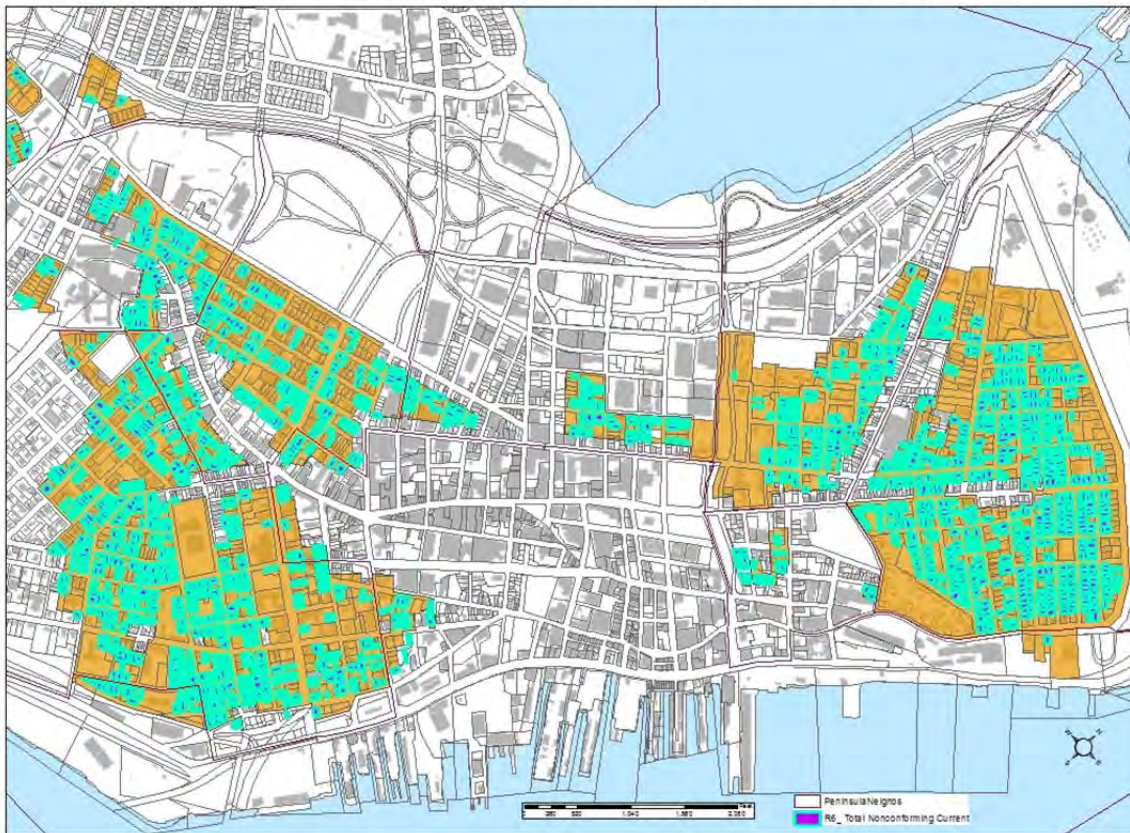


Changes to the R6 Zone

The R6 zone consists of most of the residential areas on the Peninsula (other than the West End.) Two small areas off the Peninsula are zoned R-6A and therefore are shown as R-6 on the map below. There is also a map on the next page that shows how many of the parcels in that existing zone are currently not conforming to zoning requirements, and therefore would not be able to be built on today.



R-6 Total Non-Conforming Parcels (by lot size) Under Current Zoning

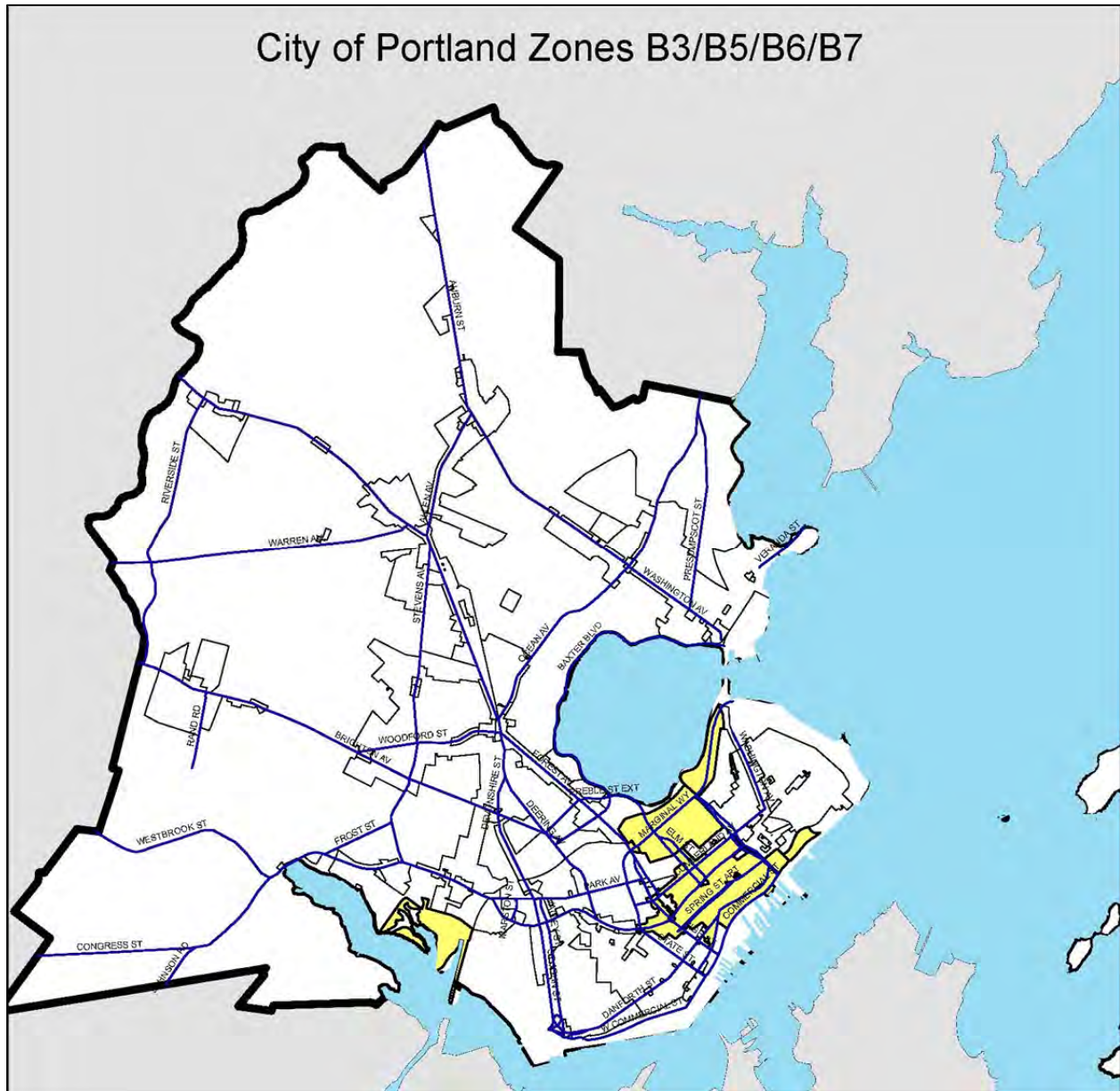


The proposed rewrite, recommended unanimously by the Planning Board, will be heard by the full City Council shortly. A chart is included below showing the most significant of the proposed changes:

R-6 Dimensional Requirements		
	<i>Existing</i>	<i>Proposed</i>
Minimum Lot Size	Residential Uses: 4,500 sf	Residential Uses: 2,000 sf, except that in R-6A the min. residential lot size is four (4) acres.
Min. Lot Area/Dwelling Unit	<i>Minimum land area per dwelling unit:</i> One thousand (1,000) square feet per dwelling unit; and in the case of building additions and new construction, one thousand two hundred (1,200) square feet for each dwelling unit after the first three (3) units. This requirement may be reduced by up to twenty (20) percent for a special needs independent living unit.	725 s.f.
Street Frontage	40 feet	20 feet
Minimum Front Yard Setback for Principal and Accessory Structures	Principal or accessory structures: Ten (10) feet. A front yard need not exceed the average depth of front yards on either side of the lot. A lot of record existing as of June 5, 1957, and less than one hundred (100) feet deep need not be deeper than twenty (20) percent of the depth of the lot.	5 ft, or no more than average depths of adjacent front yards.
Minimum Rear Yard Setback for Principal and Accessory Structures	i. Principal and attached accessory structures with ground coverage greater than one hundred (100) square feet: Twenty (20) feet.	10 feet, except that accessory structures with a ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet.
	ii. Detached accessory structures with a ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet.	
Minimum Side Yard Setback for Principal and Accessory Structures	i. Principal and attached accessory structures with ground coverage greater than one hundred (100) square feet: Twenty (20) feet. ii. Detached accessory structures with a ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet. i. Principal and attached accessory structures with ground coverage greater than one hundred (100) square feet:	5 ft, except that a side yard in the R-6 zone may be reduced to zero, provided that the cumulative side yard setbacks are not less than 10 ft. A permanent maintenance easement a minimum of 5 ft. in width shall be provided on the parcel adjacent to the lot line with the reduced side setback. Side yards in R-6A shall be 10 ft. for principal structures up to 45 ft. in height and 15 ft. for principal structures greater than 45 ft.in height.

	<i>Height of Structure Required Side Yard</i> 1 story 10 feet 2 stories 10 feet 3 stories 10 feet 4 stories 12 feet 5 stories 15 feet The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than ten (10) feet. In the case of a lot of record existing as of June 5, 1957, and held under separate and distinct ownership from adjacent lots, the required side yard may be reduced in order to provide a buildable width of up to twenty-four (24) feet, but in no case shall the resulting side yards be less than ten (10) feet.	
Side Yard on Side Street	10 feet	None
Structure Stepbacks		Portions of a structure above 35 ft shall be no closer than 10 ft from the side property line and no closer than 15 feet from the rear property line when such property line abuts a residential zone. <i>Does not apply to side yards on side streets.</i>
Maximum Lot Coverage	Forty (40) percent of lot area for lots which contain twenty (20) or more dwelling units; fifty (50) percent for lots which contain fewer than twenty (20) dwelling units.	60%
Minimum Lot Width	50 feet	20 feet
Maximum Height	Principal and attached accessory structure: Forty-five (45) feet.	Principal and attached accessory structure: 45 ft
	Accessory detached structure: Eighteen (18) feet.	Detached accessory structure: 18 ft
		In R-6A the maximum principal and attached accessory structure height shall be 65 ft.

Eliminate Parking Requirements for Residential Uses (B3, B5, B6 & B7 Business Zones)



ZONE	CURRENT REQUIREMENT	REVISED REQUIREMENT
B3	1 space per unit on Peninsula 2 spaces per unit elsewhere Set by Planning Board for large projects (over 50,000 sf.)	No requirement
B5	No requirement	No requirement
B6	Set by Planning Board for all projects	No requirement
B7	Set by Planning Board for all projects	No requirement

At your last meeting, there were questions about what this proposed change might mean in terms of development. Some specific questions were:

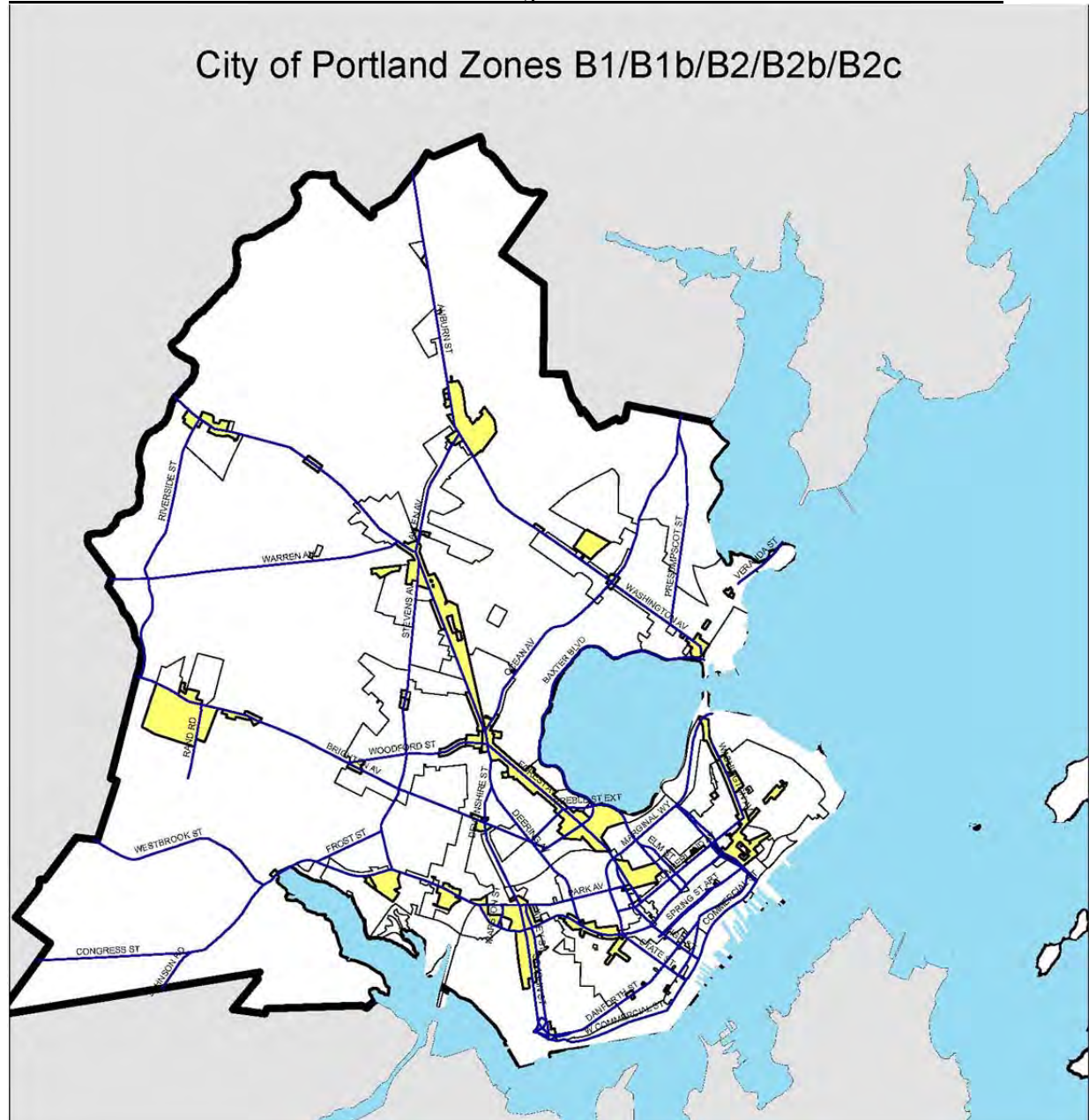
- Are there projects that are not happening because of the current parking restrictions?
- Would this change induce any new housing development?
- Would these changes result in any unintended parking issues in these zones?

We are not aware of any projects that are not happening at this time due to the current parking requirements. In reality, most large projects have their parking set by the Planning Board during review, so there is already some flexibility on these requirements. However, that process requires submission of a parking study, at some cost to the developer. In addition, needing Planning Board sign-off means that there is uncertainty about whether a development needs to provide parking at all. It seems reasonable to assume that there have been possible developments discouraged by these requirements. This issue has also been raised by the Chamber's Housing Task Force members as part of their discussion.

The issue of unintended consequences is also hard to definitely answer. However, by limiting these changes to business zones, where overnight on-street parking can be accommodated without necessarily impacting residential zones, reduces the risk.

These are all good questions, and ones that would be further explored during the Planning Board review process. Ultimately, when the Planning Board brings a recommendation back to the full Council, there would be an opportunity to explore this issue again.

Eliminate Residential Density Limits in B1 & B2 Zones



ZONE	CURRENT DENSITY LIMIT	REVISED DENSITY LIMIT
B1	100 units/acre on Peninsula 43.5 units/acre elsewhere	No limit
B2	100 units/acre generally	No limit

I would not expect this change to necessarily result in immediate production of new housing. However, the amount of housing in these districts is far more likely to be limited by other dimensional requirements, and therefore I believe this change is ready for submission to the Planning Board for further study.

Allow the Use of the Fee-in-Lieu of Parking in Off-Peninsula Business Zones

Most of the off-Peninsula business zones in question are the B1 and B2 zones shown above. There are some B5 zones up by the Maine Turnpike but I would not recommend extending the fee-in-lieu option to those zones, given how auto-dependent those areas remain.

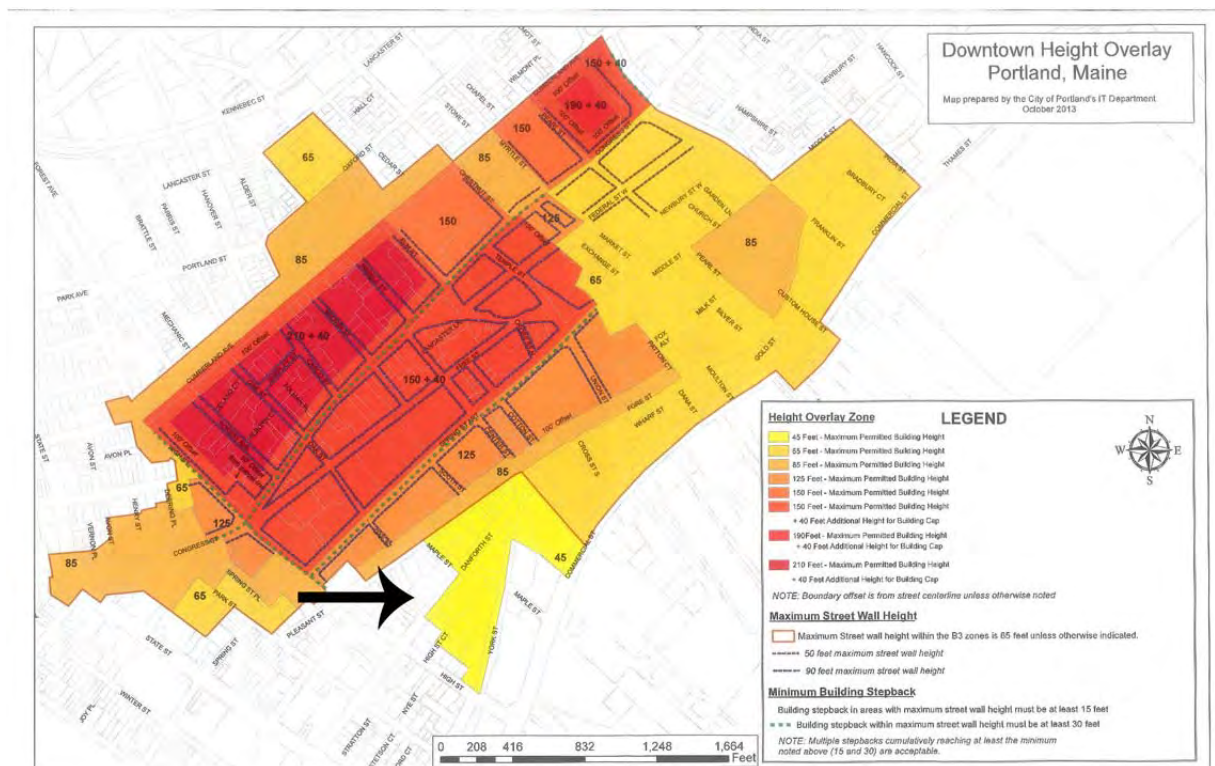
Zone	Current Requirement for Residential Parking	Proposed Requirement for Residential Parking
B1 (off-Peninsula)	2 spaces per unit	2 spaces per unit or a fee-in-lieu
B2	1 space per unit	1 space per unit or a fee-in-lieu
B5 (off-Peninsula)	2 spaces per unit	<i>NOT RECOMMENDED TO CHANGE</i>

As mentioned at your last meeting, this would not limit the ability of a developer to provide parking for residential developments in these zones. I would expect that most developments would expect to provide at least 1 space per unit at night. This change would however, allow a developer to consider using the same parking space for different uses based on time of day. For example, a retail development with a surface parking lot of 100 spaces might be able to also support 50 units of housing, given the overall use of the spaces might be as follows:

- ✓ Morning Use: 50 spaces for housing, 20 spaces for retail
- ✓ Daytime Use: 25 spaces for housing, 75 spaces for retail
- ✓ Evening Use: 50 spaces for housing, 10 spaces for retail

Under this realistic scenario, housing and retail uses could share the same spaces efficiently. Similar, and even greater, synergy exists between daytime office uses and nighttime residential uses.

Amend Downtown Height Overlay: Increase 45' Limits



At the last meeting we discussed how much of this 45' area to propose for increase. Staff proposed only including the redevelopment area south of Danforth, and there did not appear to be any objections. I don't believe there were additional questions about this item. It is ready for Planning Board review.

Look at Accessory Dwelling Units: Island Residential Zones

Below is some additional information from Homestart regarding their proposed changes to the Accessory Dwelling Units provision on the islands. We would propose to work with them to draft a proposal for Planning Board review.

Homestart ADU proposal to Housing and Community Development Committee 2.25.15

Why

- Need for more year round rental housing
- Need for more affordable housing
- Need for income for homeowners to help with taxes

What

- Provide a zoning variance to allow current Peaks Island homeowners to build one additional rental unit; (known as an Accessory Dwelling Unit or ADU);
- Variance given only for providing year round rental to people with incomes no more than 120% of median income;; 2014 median household income for Portland is about \$46,000
- Rents must fall within HUD Fair Market Rental Guidelines; in 2014, they are \$819/month for a one-bedroom; \$1012 for a 2 bedroom.

How

- Allow lot size to be the lot of record as of July 15, 1985;
- Focus on properties (primarily in IR-2 zoning area) that have City water and sewer
- Specific requirements and standards adapted from those of Wellfleet MA
- Property tax exemption for affordable unit
- No interest loans

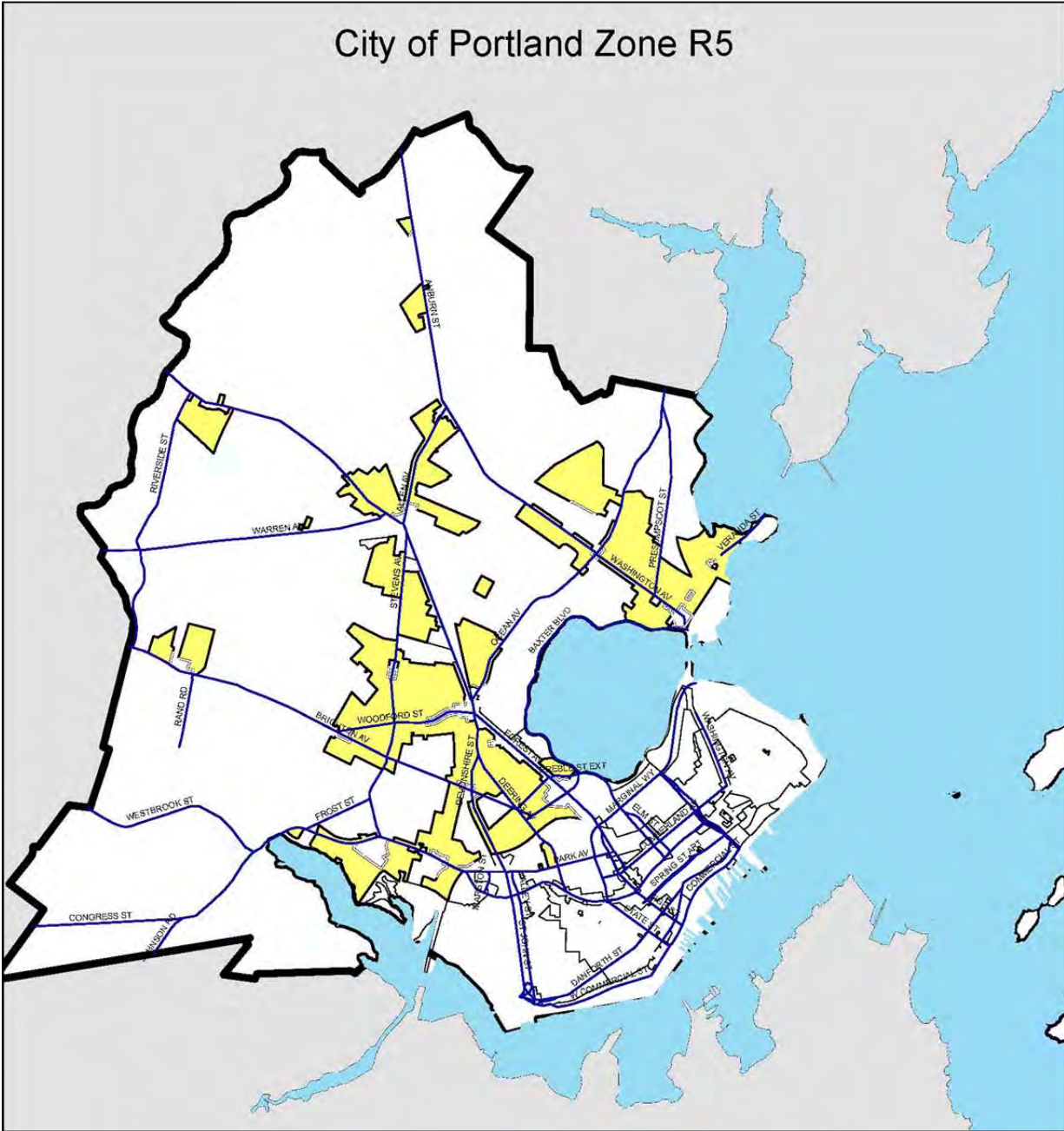
Impact

- Because of the expense of any new construction and the rent restrictions,
- it is anticipated that only a small number of ADUs will be built; based on the experience of Wellfleet, we estimate no more than 4 units over a 6 year period.

To Be Determined

- Mechanisms for oversight/compliance (minimal due to small number of projects)

Look at R5 Zone Accessory Dwelling Unit Requirements & Reuse of Existing Structures



The issues regarding possible conversion of existing structures in this district to housing are somewhat minimized by how few existing out buildings exist that could be converted to housing, and, of those, how many people would be willing to place affordability restrictions on those units.

Amend Division 30 (Affordable Housing)

(1) Provide Additional Density through Incentives

I believe there were no additional questions or information regarding this item.

(2) Add Workforce Housing Requirement (Inclusionary Zoning)

Based on your comments and public comments, I have made some changes to the draft amendments to Division 30. The changes, marked in red on the new draft, are as follows:

- Eliminating Planning Authority approval from the determination to provide off-site units;
- Providing two options for area or time limitations on the ordinance. Option 1 would provide geographic constraints on where the ordinance would apply. Option 2 would sunset the ordinance after six years;
- Suggesting additional language to clarify how the size of affordable workforce units would be determined. Under the suggested language, the total number of bedrooms in the affordable workforce units would be proportional to the overall number of bedrooms in the development. In addition, if large open-floorplan market rate units were built, they would be converted into units with a certain number of bedrooms for the purposes of this determination. Other methods of making this determination are possible as well;
- Clarifying how the affordability might be affected by a decision to convert the ownership structure of a development from condominium to rental. This change would clarify that, in this situation, the affordability threshold would convert from the ownership level to the rental level.

One additional comment that has come up relates to whether having an inclusionary workforce housing requirement begin at 10 units may result in developers deciding to produce 9 unit projects rather than larger ones, therefore reducing the amount of housing developed. However, as drafted, these changes would discourage that response. The draft ordinance provides for a 25% bonus for developments subject to the inclusionary requirement. Therefore, a developer could produce 9 units without any requirement, or 12.5 (10 + the 25% bonus) units with a 10% inclusionary requirement. The net result would be the ability to build an additional 1.25 market rate units in return for meeting the inclusionary requirement.

You also asked for a chart comparing the plusses and minuses of rentals and home-ownership units at various income levels. That chart is on the following page. I have also added some information on the current Area Median Incomes at various household sizes, and the equivalent affordable rents or mortgage costs.

<i>Affordability Level</i>	<i>Rental Units</i>	<i>Home Ownership Units</i>
80% of Area Median Income or less	Most likely to prefer a rental situation where unexpected costs are minimized; able to keep up with housing expenses	Least able to afford a mortgage payment and unexpected maintenance expenses
100% of Area Median Income	Depending on circumstances, may prefer a rental situation to home ownership	Generally able to afford a mortgage payment and unexpected maintenance expenses
120% of Area Median Income	Some may prefer rental situation if transient, or simply not interested in ownership. Many will want to own. Has the benefit of tying the income levels to Affordable Housing TIF levels if a project meets the 33% minimum requirement, rather than a minimum 10%	Most able to afford a mortgage payment and unexpected maintenance expenses. Has the benefit of tying the income levels to Affordable Housing TIF levels if a project meets the 33% minimum requirement, rather than a minimum 10%.

A related question that came up was whether to tie the affordability levels in this ordinance to the 120% limit in the state's Affordable Housing Tax Increment Finance program. While the current draft of the ordinance allows for such a limit for home ownership units, it has a limit of 100% of AMI for rental units. This approach raises some issues. First, the need for affordable rentals is higher at the 100% AMI level than the 120% AMI level. Second, the state's Affordable Housing TIF requires that at least 33% of the units in a TIF area be affordable at those levels. In short, there will inevitably be some differences between the use of the Affordable Housing TIF tool and any possible inclusionary zoning ordinance, whether the affordability levels are linked or not.

Median Income	FY 2015 Income Limits	Persons in Family							
		1	2	3	4	5	6	7	8
\$77,100	80% Income Limits	\$ 43,200	\$ 49,400	\$ 55,550	\$ 61,700	\$ 66,650	\$ 71,600	\$ 76,550	\$ 81,450
	Housing Expense at 30% of Income	\$ 1,080	\$ 1,235	\$ 1,389	\$ 1,543	\$ 1,666	\$ 1,790	\$ 1,914	\$ 2,036
	100% Income Limits	\$ 53,970	\$ 61,680	\$ 69,390	\$ 77,100	\$ 83,268	\$ 89,436	\$ 95,604	\$ 101,772
	Housing Expense at 30% of Income	\$ 1,349	\$ 1,542	\$ 1,735	\$ 1,928	\$ 2,082	\$ 2,236	\$ 2,390	\$ 2,544
	120% Income Limits	\$ 64,932	\$ 74,208	\$ 83,484	\$ 92,760	\$ 100,181	\$ 107,602	\$ 115,022	\$ 122,443
	Housing Expense at 30% of Income	\$ 1,623	\$ 1,855	\$ 2,087	\$ 2,319	\$ 2,505	\$ 2,690	\$ 2,876	\$ 3,061

The issue of using the Affordable Housing TIF as a way to encourage additional workforce housing is worth exploring further. There is a memo on this issue that will be discussed separately. To summarize staff view on this issue, this is a tool that should be part of our strategy but it is not likely that it will accomplish the same goals as an inclusionary zoning requirement, in part because the Affordable Housing TIF sets a minimum percentage of affordability at 33%, rather than the 10% outlined in the draft ordinance. The Affordable Housing TIF also does not appear to have a fee-in-lieu or cash out option, as proposed in the draft ordinance.

Portland Development Corporation (PDC)

You also asked if the Portland Development Corporation might be able to play a role in producing more workforce housing in the City. I have consulted with Greg Mitchell, who staffs the PDC, and he offered the following thoughts.

PDC Overview. The Portland Development Corporation (PDC) was established by the City Council as a 501(c)3 non-profit organization per their By-laws "to receive donations and contributions in support of the City of Portland economic development efforts that enhance and create business and employment opportunities." The PDC Board includes eleven members, nine of whom are appointed by the City Council and two members including the Mayor or City Council member and City Manager serve by virtue of holding their positions. PDC assets include \$3.2 million in loan and grant "gap financing" sources across a number of programs designed to stimulate and leverage private sector investment associated with job retention/creation. PDC programs have been capitalized with city debt, state and federal sources.

PDC Possible Housing Role. The PDC Board at their March, 2015 Board meeting, was approached and agreed to move forward with discussion and action on playing an intermediary property ownership role to support the proposed 65 Munjoy Street residential condominium Project. The PDC's intermediary role is planned to include PDC property ownership of 65 Munjoy Street, during site environmental clean up only, to provide access to federal grant funds which otherwise could not be invested in cleaning up contaminated city property. I note that the City Council has final decision authority on PDC real estate matters. The PDC justification to become involved in the 65 Munjoy Street Housing Project is due to the city's ownership of the property and the recognition that housing is economic development. It is expected that the City/PDC/ 65 Munjoy Street Housing Project partnership documents will be presented to the PDC Board and City Council for review and action during the next sixty days. Other than this one situation, the PDC commercial loan and grant programs have not invested in housing projects nor has the PDC played a role to support housing development. Therefore, a policy discussion with the PDC Board is needed to determine the Board's interest to play an expanded role in housing program/project investment. This discussion should include the need to establish possible housing programs with funding to assist multi-family property owners to comply with life safety code requirements and create new workforce

housing incentive programs which are complimentary to existing city, local and state housing agency housing programs.

In brief, while there may be a limited role for PDC to play in workforce housing, it would likely be limited at this time to serving as a holding company for land when needed, rather than a proactive lending approach. The PDC's funds are intended for commercial and industrial users.

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DIVISION 30. ~~INCENTIVES FOR~~ AFFORDABLE HOUSING

Sec. 14-484. Purpose.

The City believes that it is in the public interest to promote an adequate supply of affordable housing for its residents. The purpose of this Division therefore is to offer incentives to developers to include units of affordable housing within development projects, thereby mitigating the impact of market rate housing construction on the limited supply of available land for suitable housing, and helping to meet the housing needs of all economic groups within the City. The City believes that this Division will assist in meeting the City's comprehensive goals for affordable housing, in the prevention of overcrowding and deterioration of the limited supply of affordable housing, and by doing so promote the health, safety and welfare of its citizens.

Sec. 14-485. Definitions.

"Affordable" means that the percentage of income a household is charged in rent and other housing expenses, or must pay in monthly mortgage payments (including insurance and taxes), does not exceed 30% of a household's income, or other amount established in City regulations that does not vary significantly from this amount.

"~~Affordable~~ ~~Low-income~~ housing unit for rent" means a dwelling unit for which: (1) the rent is affordable to a household earning 80% or less of the ~~U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that size~~ Area Median Income (AMI) as defined by the U.S. Department of Housing and Urban Development (HUD); and (2) annual rent increases for that unit are limited in perpetuity by deed restriction or other legally binding agreement to the percentage increase in the U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that size.

"~~Affordable~~ ~~Low-income~~ housing unit for sale" means a dwelling unit for which: (1) the sale price is affordable to a household earning ~~120~~80% or less of the ~~U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that size~~ HUD AMI; and (2) the resale price is limited by deed restriction or other legally binding agreement for all future sales of the unit to an amount that is affordable to a household

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earning 120% of the U.S. Department of Housing and Urban Development moderate-income figure for Metropolitan Cumberland County Maine for a household of that size, as calculated for the year in which the sale takes place.

"Development fees" means: (1) the following fees, as described in this chapter: site plan review and inspection fees; subdivision review and inspection fees; condominium conversion permit fees; and administrative fees; and (2) construction and permit fees as described in chapter 6. "Development fees" does not include any fees charged for reviews conducted by a party other than the City.

"Dwelling unit" has the same meaning as that term is defined in section 14-47.

"Eligible project" means a development project: (1) to which the City has not committed nor will commit any funding, reduced-interest loans or other subsidies or incentives other than those described in this Division; and (2) that creates new dwelling units, among which is at least one affordable housing unit for rent or sale, through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a non-residential use to residential use, or any combination of these elements. Affordable housing units for sale or rent may not differ in exterior design from other units within an eligible project.

"Workforce housing unit for rent" means a dwelling unit which: (1) Is affordable to a household earning less than 100% of HUD AMI and (2) Annual rent increases for that unit are limited by deed restriction or other legally binding agreement to the percentage increase in the U.S. Department of Housing and Urban Development Greater Portland Metropolitan Statistical Area median income figures for a household of that size.

"Workforce housing unit for sale" means a dwelling unit for which (1) the purchase price is affordable to a household at 120% of HUD AMI and (2) The resale price is limited by deed restriction or other legally binding agreement for all future sales of the unit, or a lesser term as permitted in regulations, to the percentage increase in the HUD Greater Portland Metropolitan Statistical Area median income figures for a household of that size.

Sec. 14-486. Reduction of Fees and Priority Review

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Notwithstanding any other provision of this chapter or chapter 6 to the contrary, development fees shall be reduced by the City for an eligible project in the manner described in the following table:

Percentage of new units that are affordable low-income or workforce <u>housing</u> units	Percentage discount of development fees
5% up to but not including 10%	5% reduction
10% up to but not including 15%	10% reduction
15% up to but not including 20%	15% reduction
20% up to but not including 25%	20% reduction
25% or more	25% reduction

~~Sec. 14-487. Priority Review.~~

~~_____~~The Planning Division shall perform its review of an eligible project in as expedited a manner as is practical. The Planning Division may adopt administrative procedures to prioritize review of eligible projects and facilitate this expedited review.

The Planning Board shall make its best efforts to hear, review, and approve, conditionally approve or deny within one workshop and one public hearing any plans or applications required for an eligible project that are within the Planning Board's jurisdiction, and shall rely on reviews prepared by the Planning Division to the greatest extent practical and appropriate. At the conclusion of these public meetings, the Planning Board shall promptly issue a decision on all such plans and applications before it for consideration.

Sec. 14-487. Ensuring Workforce Housing.

1. Purpose

Based on the City's Comprehensive Plan and the housing study completed in 2015, the City believes that it is in the public interest to promote an adequate supply of housing that is affordable to a range of households at different income levels.

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The purpose of this section is to ensure that ~~large~~ housing developments over a certain size provide a portion of workforce housing units, and by doing so, promoting the health, safety, and welfare of Portland citizens.

2. Applicability

This division shall apply to development projects that create ten or more new dwelling units for rent or for sale through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a non-residential use to residential use, or any combination of these elements. This division shall not apply to projects that have submitted complete Master Development Plan, Level III Site Plan, or comparable applications to move forward prior to its effective date.

OPTION 1

[This section 14-487 shall only apply to developments located in business or industrial zones] [on the Peninsula, defined as south of I-295]]

OPTION 2

[This section 14-487 shall be in effect for six years following its passage, at which time the overall effectiveness of this section shall be assessed and either this expiration date shall be deleted or the entire section shall be removed from the City's Code of Ordinances]

3. Workforce Housing Minimum

At least ten percent of the units in the project shall meet the definition of workforce housing unit for sale or for rent. The number of units required is rounded down to a whole number if providing units as per 4.b. below, or shall include a fractional value in cases where a project prefers to pay a fee-in-lieu as per 4.c. below.

4. Standards

a. Projects shall not be segmented or phased to avoid compliance with these provisions. In cases where projects are completed in phases, affordable units shall be provided in proportion to the development of market rate units unless otherwise permitted through regulations.

b. Workforce units are encouraged to be integrated with the rest of the development, should use a common entrance and should

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provide no indications from common areas that these units are workforce housing units. Subject to planning authority approval, provision of units off-site shall also be considered as meeting these standards, provided these units are located in the same neighborhood, defined as same U.S. Census Tract unless otherwise defined in regulations.

c. Workforce units need not be the same size as other units in the development but the number of bedrooms in such units, either on- or off-site, shall be 10 percent of the total number of bedrooms in the development they must have the same general mix of number of bedrooms as the other units. For the purposes of this section, for every 400 square feet in a market rate unit will count as a bedroom if the actual number of bedrooms in the unit is lower.

d. As an alternative to providing workforce housing units, projects may pay a fee in lieu of some or all of the units. In-lieu fees shall be paid into the Housing Trust Fund as defined in Sec. 14-489. The fee for affordable units not provided shall be equal to the fee under Division 29 for Housing Replacement.

e. Workforce housing units for sale, if converted to workforce housing units for rent, shall become subject to the income limits and other requirements of such units.

5. Implementing Regulations

Regulations to further specify the details of this section shall be developed, including, but not limited to:

- Specific methodology for income verification;
- Situations where less than permanent affordability might be considered;
- Guidelines for meeting the requirement that off-site units be "in the same neighborhood".

6. Reporting to City Council

In conjunction with the annual report on the Housing Trust, City staff shall report on developments subject to this section, the number of units produced, the amount of fee-in-lieu collected, and the overall effectiveness of this section in achieving its stated purpose.

Sec. 14-488. Density, Parking and Dimensional Bonuses and Reductions.

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Notwithstanding any other provision of this chapter to the contrary:

(a) Density bonuses. The maximum number of units that would otherwise be allowed under this chapter shall be increased for an eligible project in the manner described in the following table:

Percentage of new units that are <u>affordable low-income or workforce</u> units	Percentage increase in maximum number of units allowed
5% up to but not including 10%	5% increase
10% up to but not including 15%	10% increase
15% up to but not including 20%	15% increase
20% up to but not including 25%	20% increase
25% or more	25% increase
<u>Projects Under 14-487</u>	<u>25% increase</u>

(b) Parking requirement reduction. For each affordable low-income or workforce housing unit for rent or sale within an eligible project, no more than one (1) parking space shall be required. The Planning Board may establish a parking requirement for affordable housing units for rent or sale within an eligible project that is less than one (1) parking space per affordable housing unit, regardless of the size of the structure.

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April 2, 2015

Kevin Donoghue, Chair
Housing and Community Development Committee
c/o City of Portland Planning Department
Portland City Hall
389 Congress Street
Portland, Maine 04101

Dear Councilor Donoghue:

The Board of Directors of the Creative Portland Corporation met on April 1, 2015 and heard a presentation by Jeff Levine, Director of Planning and Urban Development for the City of Portland, on the status of the Workforce Housing Study and the Proposed Ordinance on Workforce Housing Development. Mr. Levine explained the specific approaches his department is offering, the reasoning behind those approaches and the anticipated effects they might produce.

After discussion, the board of Creative Portland passed a motion (9 to 1, with 4 abstentions) to express support for the proposals being made by Mr. Levine and the Planning Department, and requested that a letter be sent to the Housing and Community Development Committee expressing that support.

Since 2008, Creative Portland has focused on unique strategies to increase Portland's population as a means to support and grow the creative economy. The intention was to attract people who would support creative individuals, enterprises and organizations by becoming their patrons, customers, and advocates, and helping to ensure the creative community's long-term sustainability. Our success has contributed to higher housing costs and a dwindling supply of affordable housing.

At our last board retreat, the Board decided to expand our programmatic efforts by exploring and engaging with issues on equitable development and inclusion in Portland, especially as they pertain to our creative economy and core arts constituency.

Creative Portland supports the Planning Department, the Planning Board, and the City Council in addressing the workforce housing issue in Portland, and, specifically, endorses the ideas Mr. Levine and the Planning Department have put before you.

Thank you for your time and consideration.

Sincerely,



Jennifer Hutchins
Executive Director

CITY OF PORTLAND, MAINE

PLANNING BOARD

April 8, 2015

Housing and Community Development Committee
Kevin Donoghue, Chair
City Hall
Room 209
389 Congress St.
Portland, ME 01401

Chairman Donoghue and Councilors Brenerman, Mavodones and Marshall,

I have been asked to comment on the package before you this evening regarding ordinance changes to encourage and ensure housing development in the Portland, specifically, whether the package has progressed to a stage where it is ready for Planning Board review and whether it provides sufficient guidance for the Planning Board to undertake a thorough analysis. After reviewing the latest package before you this evening, I feel confident that the materials and instructions are sufficiently developed for the Planning Board to schedule a workshop and begin to formulate a recommendation. The package reflects the extensive work completed by your committee to date, which makes our task more manageable.

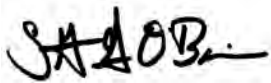
The Planning Board's role in this process is laid out in Section 30 of Chapter 14 of the Code of Ordinances. Section 30 states that the Planning Board has the jurisdiction and authority, "to hear, review and offer its recommendations to the city council on applications for zoning changes and amendments to, or revisions of, the zoning ordinance and to initiate recommendations for zoning changes and amendments to, or revisions of, the zoning ordinance." As with any revision or amendments to the land use code, whether from a property owner or your committee, the planning board works with staff to establish a schedule for outreach and input on the changes including a variety of neighborhood meetings and/or workshops, makes a determination on the proposal with or without amendments and returns that recommendation to the council to aid in your decision making. The recently completed B-2 and R-6 processes provide an excellent blue print for how we should go about gathering additional input, testing and/or refining this package of changes. As I mentioned, in this case, there has already been a great deal of work undertaken to develop this proposal, which will clearly help to inform the Planning Board of the various opportunities, costs, strengths and weaknesses of the proposals from the viewpoint of variety of constituencies.

The City Council has been clear in its guidance to us that increasing the amount and diversity of housing supply is a priority, this proposal clearly articulates this; however, it is also clear from your process that in working toward this goal the HCDC is focused on achieving the proper balance between regulatory and market mechanisms. I don't make any comment on the contents of this specific package, other than to say it is at a point where we can undertake our review, gather additional community input and return to you with a recommendation.

Finally, the Planning Board has focused on increasing the level of predictability, clarity and efficiency in Chapter 14 and in general looking to modernize the zoning in Portland to meet the needs of the city going forward. A key requirement of zoning is to provide a coherent and concrete regulatory structure to achieve the goals of the Comprehensive Plan. We seek to advocate for zoning that treats similarly situated properties similarly, that allows for consistent interpretation and that provides for an understandable process for both project proponents and affected neighborhoods. We have attempted to rigorously test zoning language to make sure the language is precise, accessible and not overly burdened. In taking this approach, we have focused on the efficiency of the requirements and process. Inefficient process increases capital costs that in most cases are better allocated elsewhere. Efficient process does not mean less rigorous, transparent or comprehensive, but having a system where issues and concerns are able to be raised, to be thoroughly addressed and a clear decision is reached promptly after properly weighing that input. I see this package as another potential step to achieving these priorities as well.

I apologize for being unable to attend the meeting this evening. Please feel free to contact me with any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Stuart O'Brien", with a stylized flourish at the end.

Stuart O'Brien
Chairman,
Portland Planning Board



Preliminary Findings

By the Portland Community Chamber

**For the City of Portland Housing and
Community Development Committee**

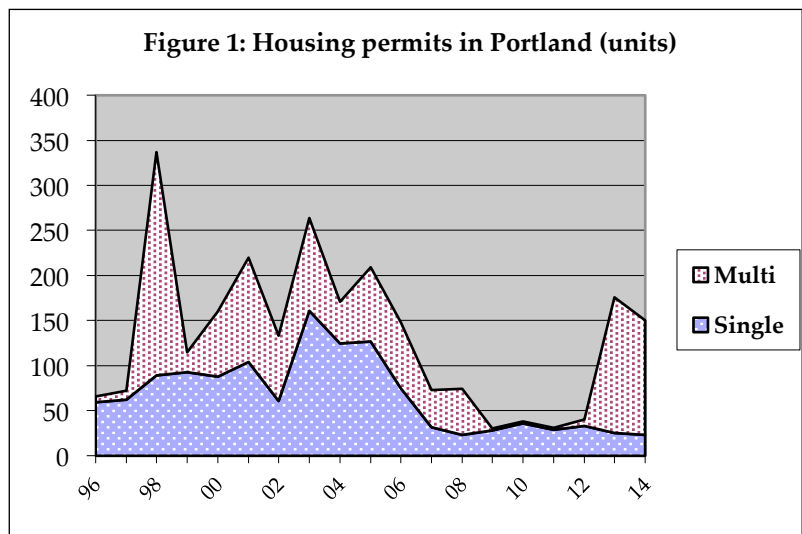
March 31, 2015

I. The Importance of Production to the Goal of Affordability

Portland is undergoing the potential beginnings of a boom in housing production. As attorney Paul Peck said at the groundbreaking of West End Place in May of 2014, “There hasn’t been a market-rate apartment building built in Portland in a long, long time.”

It has been a long time. The last major private apartment complex built in Portland was Back Bay Towers, erected 25 years ago. Before that, most activity had been in the 1970s, in various projects around the Back Cove and along Washington Avenue.

The word “boom” has a negative connotation in the public mind. It is associated with stock market speculation and crashes. But in housing, there is nothing wrong with booms. That is the way housing production occurs. Without booms, there would be little housing at all. Portland had a housing boom in the late 90s and early 2000s, and, with luck and supportive public policy, one may be starting again this year.



Booms are fragile. They may only last a few years. They provide a window of opportunity for a community to make progress on its housing goals. Jonathan Culley, a partner in the West End Place project, has pointed out that if interest rates rise by a single percentage point in the next year, the ability of developers to produce market-rate rental projects will again be jeopardized. From the perspective of a community in the midst of a short-term boom, the first caution is not to cut the production short. The production will end soon enough on its own.

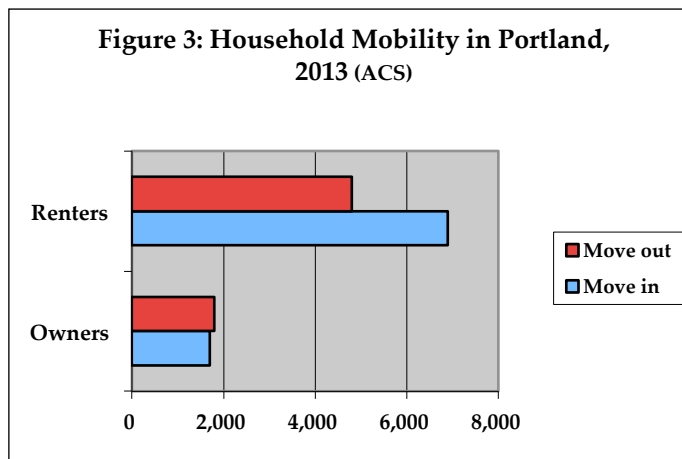
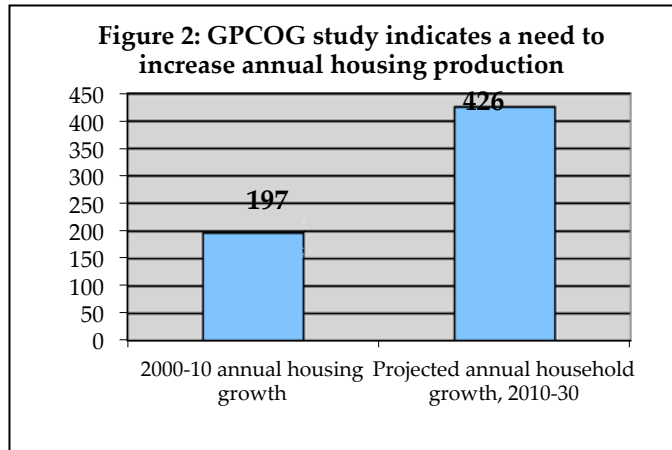
Production is essential to having an affordable stock for all residents. The Greater Portland Council of Governments, in a report prepared for the City of Portland¹, has estimated that the rate of housing production in Portland will need to be double the rate of the 2000s in order to meet the expected “medium” level of demand (see Figure 2).

¹ Portland: 2030 Workforce Housing Demand, GPCOG, 2015.

² “Perspectives: The ‘Trickledown’ Effect; Freeing Older Housing with New,” *New York Times*, *Portland Chamber*, March 31, 2015 Page 1

The current recovery, as of 2014, is still only meeting half of the GPCOG-projected level of supply needed (see Figure 1).

Why does it matter to affordability whether production is sufficient to meet new demand? It matters because when new supply keeps pace with or exceeds demand, people in the local market are able to “move up” or “upgrade.” When a local household moves into a new unit, it frees up an existing home or apartment, which in turn another household can benefit from. The general consensus is that 2.0 to 3.5 households can benefit from one move into new housing².



However, the reverse is also true. If new demand exceeds new supply, then the higher income household is likely to move “down” into a less desirable unit. This in turn displaces lower income people, and the process known as “gentrification” occurs.

There’s a lot of movement every year in the City of Portland. In 2013, the Census estimates that 40% of renters were on the move, and 13% of owners.

In the case of renters, more households moved into the city than moved out. If production of rental housing does not meet the net new demand over the coming years, affordability for all Portland households will suffer. That is why the first requirement of an affordable housing strategy is to maintain an adequate level of production.

² “Perspectives: The ‘Trickledown’ Effect; Freeing Older Housing with New,” *New York Times*, Alan Oser, August 31, 1986 and “‘The Economics of Inclusionary Zoning Reclaimed:’ How Effective are price controls?” Powell and Stringham, *Florida State University Law Review*, 2005, pp 496.

II. Questions about Inclusionary Zoning

Inclusionary zoning is, in simplest terms, a tax. It is a tax on market-rate units, with the revenues used to subsidize rents or purchase prices of affordable units. Sometimes it is also referred to as a “price control,” since it involves government setting the price for a given product.

From the point of view of economic theory, the consequences of a tax are clear. A tax can be expected to reduce the supply and raise the price of the good in question.

Of course, the real world does not always follow economic theory. Inclusionary zoning has been practiced in the Washington, DC area (particularly Montgomery County) and in California for several decades now. As inclusionary zoning is not practiced by every county or municipality in metropolitan DC or California, this situation creates the conditions for a natural experiment. How do the housing markets perform in inclusionary zoning jurisdictions compared to similar jurisdictions next door that don’t have inclusionary zoning?

There are many complications in making such an analysis. Inclusionary zoning ordinances vary in their requirements from one community to another; and in fact, in a longitudinal study, they may vary considerably within the same community from year to year. Housing markets can vary from town to town; Cape Elizabeth is near to Portland, but it is hard to say that their markets behave in similar ways.

With these caveats in mind, two studies in particular have been done, one in California and one in Massachusetts, which have attempted to scientifically address these concerns. This is what the studies have found.

1. There is no conclusive evidence that inclusionary zoning ordinances have affected the overall production of units.

There are anecdotal stories of inclusionary zoning ordinances in particular communities that were poorly designed and that discouraged housing production. One example is Watsonville, California.

In 1990, the City (Watsonville, California) passed a law imposing price controls on 25% of new homes. The law was so restrictive that between 1990 and 1999, with the exception of a few small, nonprofit developments, almost no new construction occurred....

Watsonville Mayor Judy Doering-Nielsen said, “Our inclusionary zoning ordinance was so onerous that developers wouldn’t come in” ... After a decade with no new developments, construction began on a 114-unit development, a 351-home development, a 389-unit development and a number of smaller developments, once affordable housing requirements were lowered.”³

However, the California study of 65 communities with inclusionary zoning ordinances found that inclusionary zoning programs had a “small and insignificant effect” on total housing starts⁴ (the Massachusetts study did not address overall production, only single family production, as is noted in the next point).

2. There is evidence that inclusionary zoning ordinances depress the volume of market rate single family production.

The California study found that there was a 10% shift from multi-family to single family production in inclusionary zoning communities.⁵ The Massachusetts study found that communities with inclusionary zoning issued 10% fewer single family permits than non-inclusionary-zoning communities⁶, but additional analysis raised questions about whether this difference could be attributed to differences in local markets.

There certainly is anecdotal evidence that affordable housing ownership programs are more difficult to administer and manage than affordable housing rental programs, and this might contribute to the reported shift away from single family owner housing reported above. An extreme example was reported in the Washington Post last fall:

Since 2011, flawed rules and official ineptitude have blocked Linde from selling a pair of two-bedroom condos in a building she owns on Georgia Avenue NW near Howard University. There’s no problem with the asking price or location. Rather, the District required him to sell the units as affordable housing to winners of a lottery for low-income residents – yet the City has repeatedly failed to meet its obligation to provide a qualified, interested buyer... He said that the District has given him more than 1,000 names of potential buyers, but none worked out. Some couldn’t get mortgages or provide the necessary paperwork... an eligible buyer could have purchased one of his units in 2011

³ Powell and Stringham, pp 480-481.

⁴ “Housing Market Effects of Inclusionary Zoning,” Bento et al, Cityscape: A Journal of Policy Development and Research, 2009, page 16.

⁵ Ibid., page 17.

⁶ “Silver Bullet or Trojan Horse? The Effects of Inclusionary Zoning on Local Housing Markets in Greater Boston,” Schuetz et al, Harvard Kennedy School Rappaport Institute for Greater Boston, 2009, page 5.

for \$124,900, compared with an actual sales price for an identical unit in the same building of \$299,900.. Since the program began in 2009, the number of people who have used it to buy homes is only four, with three more deals under contract. One reason is that only a sliver of people have incomes that are simultaneously low enough to qualify for affordable housing – and high enough to get a mortgage.⁷

HUD-sponsored research has raised a different problem with prospective buyers – they don't like the limitations on making money on the resale of the home:

A housing advocate shared anecdotal information about the drawback of the homeownership component of the ADU program. When the economy and housing markets were strong, some prospective buyers did not want to participate in the program because of the limit placed on the resale price and the requirement to share equity with the County.⁸

Affordable housing providers at the Portland Chamber meetings reported that these kinds of issues have been experienced by Maine projects as well. One said that the group that fits the criteria for buying such homes is just a “sliver” of the market:

- well enough off to have savings for a downpayment and qualify for bank financing;
- low enough in income to qualify for the program; and
- not able to buy a comparable private unit where the full appreciation of the home value could be gained.

3. There is evidence that inclusionary zoning ordinances raise the general housing market inflation rate.

In the case of Massachusetts, the researchers found that “Prices in jurisdictions with IZ programs in place for 5-14 years are 3.75 to 3.95 percent higher than prices in similar jurisdictions with very recent or no IZ programs.”⁹ In California, the researchers reported that “...our estimates indicate that inclusionary zoning programs raise housing prices by approximately 2.2%.”¹⁰

In essence, in these cases the two effects of the inclusionary zoning ordinance work at cross purposes. One effect of the ordinance is to produce units at costs below the

⁷ “Flawed DC housing program sticks developer with 2 unsold condos for 3 years,” Washington Post, Robert McCartney, November 1, 2014.

⁸ “Expanding Housing Opportunities through Inclusionary Zoning: Lessons from Two Counties,” The Urban Institute, published at HUD User online, 2012, page 46.

⁹ “Silver Bullet,” page 5.

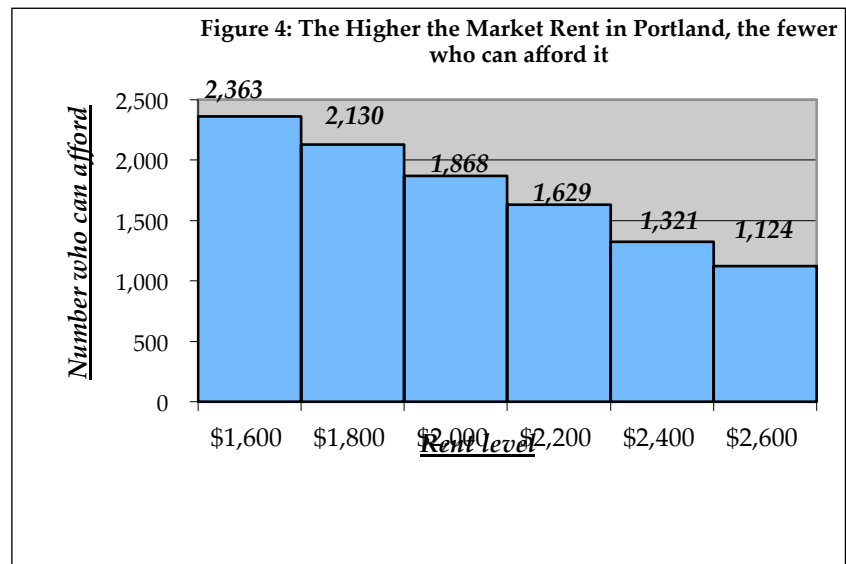
¹⁰ Bento et al, page 18.

market average. The other effect is to raise the market average more than it would otherwise increase.

In thinking about this effect in Portland, consider the number of renters who can afford housing at different rent levels (see Figure 4).

A unit built at \$1,600/month can be afforded by 2,400 Portland renters. But raise the rent by \$200, and 200 fewer households can afford it.

Raise it by \$1,000 a month, and only 1,100 Portland renters can afford it. City policies need to be designed in ways that don't push market rates up the scale.



Sometimes when people talk about inclusionary zoning, they assume that any additional cost burdens that it causes will be borne by the developer. This is not likely to be the case, for the reasons explained below.

The additional costs imposed on a development can be made up in several ways: by raising market rental rates, by reducing the overall quality of construction, by reducing the rate of return to investors, or by reducing the price to the party who is selling the land. Of all of these options, raising the rents is the simplest. Investors and land sellers want to get a certain rate of return, regardless of the developer's problems. Reducing the quality of construction – while it can and does happen – makes units harder to sell. Raising market rate rents is the path of least resistance. This is the reason that inclusionary zoning ordinances are associated with higher rates of housing inflation.

4. The evidence shows that affordable housing gains from inclusionary zoning are modest.

Of the 99 communities in Massachusetts with inclusionary zoning who were surveyed in 2008, only 21, or a fifth, reported having had some affordable units built.¹¹ Of the

¹¹ "Silver Bullet," page 4.

remainder, 43 reported having had no affordable units built, and 35 didn't know if any had been built at all.

Most of these communities were newer to inclusionary zoning. In the San Francisco area, where inclusionary zoning rules were adopted somewhat earlier (median of 1992), almost all of the 65 municipalities reported that some affordable housing was built. Still, the median annual production of affordable housing for each municipality was only 9 units per year.¹² In short, inclusionary zoning ordinances produce no new affordable housing in many municipalities, and when they do produce new affordable housing, the numbers are very modest.

Key lessons from inclusionary zoning experience

An excellent study of the effects of inclusionary zoning was distributed by the Portland Planning staff to the Council's Housing and Community Development Committee in January. Its title is "The Effect of Inclusionary Zoning on Local Housing Markets: Lessons from the San Francisco, Washington DC and Suburban Boston Areas."

After reviewing the data from these areas, the paper concluded by listing "a number of points that policymakers should bear in mind as they consider whether to adopt – and if so, how to structure – inclusionary zoning policies."¹³ A few of their major points:

- *Inclusionary zoning is not a panacea for solving a community's housing challenges... communities should think of IZ as one piece of a broader and more comprehensive housing strategy, rather than as a stand-alone policy response.*
- *In considering whether to adopt, and if so how to structure IZ policies, the potential impacts on the price and supply of market-rate housing should be considered.*
- *IZ policies that provide meaningful and achievable density bonuses or other benefits to offset the profits lost on affordable units should be less likely to impact adversely the price and supply of market-rate housing.*
- *Different cost offsets may be needed in different communities and in different market cycles. The economics of the development process vary significantly from community to community. They also vary significantly over time, even within a single community. For this reason, it is likely that different communities will need to adopt different offset*

¹² "The Effects of Inclusionary Zoning on Local Housing Markets: Lessons from the San Francisco, Washington DC and Suburban Boston Areas," The Center for Housing Policy and the Furman Center for Real Estate and Urban Policy, page 7

¹³ "The Effects," page 9.

policies to ensure that IZ policies fully compensate for losses associated with below-market units.

- *Cost offsets need to work in practice, and not just on paper.*
- *Broad-based consultations with stakeholders may be helpful in designing effective policies and monitoring their implementation.*

At this point, the Housing and Community Development Committee has an inclusionary zoning concept, with requirements and in-lieu fees and other details, but does not have a clear analysis explaining the effects of these requirements and fees on production and prices in the broader housing market. While the intent of the proposed ordinance is praiseworthy – increasing the number of affordable units in Portland -- there may be unintended consequences of the ordinance that reduce the supply of available housing in the market.

The following information could help:

1. An assessment of land that can be developed for new housing in the next 10 years in ways that are compatible with neighborhood values and scale (if such an analysis does not already exist); and
2. An economic study of the supply side costs of new housing development in Portland (to complement the demand-side study done by GPCOG), in order to get a better understanding of where incentives might be most effective (a good model of such a study was done in Sarasota, Florida in 2006¹⁴).

This does not contemplate years of study. These two reports could be performed over the spring and summer, and in the fall the City could use them to highlight its goals and outline its strategy. The City could also use the fall as the opportunity to engage the public to determine whether reform as drastic as inclusionary zoning is needed, and if so what precise design would cause the fewest unintended consequences and the least harm.

The Affordable Housing TIF Opportunity

¹⁴ See <http://www.sarasotagov.com/PDF/NDS/2006%20ERA-CompPlan-Downtown%20DensityReport%20.pdf>

A TIF (tax increment financing) is a tool that enables a community to capture the increased property tax revenues from a development to use for special purposes. In the process, the TIF structure shields the community from the increases in county taxes and reductions in state aid that usually accompany new property tax revenues.

The TIF for economic development is commonly used in Maine, There is also a TIF for affordable housing which is less well known and less commonly used. We believe a more aggressive use of the Affordable Housing TIF could contribute to more affordable housing in a variety of ways in Portland, including by being a constant source of funds to replenish housing trust fund coffers.

When the economic development tax increment financing tool was introduced in Maine in the 1980s, it was seen as a specialized tool, only to be used for an expanding business that needed additional public infrastructure, like a sewer line extension. It was only used rarely. Over the years, municipalities saw that the tool could be adapted to meet a number of broader community redevelopment needs, such as downtown renewal, and its use has ballooned. Today the affordable housing TIF is in somewhat the same position as the economic development TIF was in during the 1980s. It is a new tool, with its use largely limited to assisting in the financing of low income tax credit projects. But its potential is much greater.

The affordable housing TIF can be used to financially support housing or neighborhoods in which one-third of the residents have incomes no more than 120% of median. The funds it generates can be used to subsidize rents for lower-income households; or to provide infrastructure for the project; or to replenish the housing trust fund; or to support child care or other social services; or to provide infrastructure elsewhere in the community in support of affordable housing.

Currently the only significant affordable housing tool in Maine is the Low Income Housing Tax Credit, and it is funding 6 projects statewide in 2015, with around 300 units. The affordable housing TIF could support this level of activity in a single community, if the market and administrative support was there. In Portland Oregon, for example, affordable housing TIF generated roughly \$20 million a year between 2010 and 2014. Translating this to Portland, Maine (one-tenth the size of Portland Oregon), this would be a revenue source of \$2 million/year.¹⁵

¹⁵ See <https://www.portlandoregon.gov/phb/article/510208>



Jeff Levine, AICP
Director, Planning & Urban Development Department

Memorandum

To: Housing and Community Development Committee

From: Jeff Levine, Director

Date: April 16, 2015

Re: Prioritization of “encourage” strategies for Housing Development

At your last meeting some members suggested that, in order to assist in your discussion of ways to encourage housing development, I offer thoughts as to the relative importance of pursuing various strategies. I offer them in relative rank order with some thoughts below. Also attached is my memorandum from your April 8 meeting for reference.

1. Changes to the R6 Zone: These will be heard by the Council on May 4th. They remain one of the best tools for encouraging housing development.
2. Look at Accessory Dwelling Units: Island Residential Zones: While exact language has yet to be developed, this seems like a very low-impact, context-sensitive way to produce some additional year-round housing on Peaks Island.
3. Look at R5 Zone Accessory Dwelling Unit Requirements & Reuse of Existing Structures: Regardless of the City’s housing goals, this is an interesting way to balance concerns about additional density in the R5 zones with an interest in preventing blighted buildings. It has the additional benefit of potentially creating additional housing units in a context-sensitive way. Exact language will have to be developed prior to submission to the Planning Board. Some thought should also be given to whether a similar provision might apply in the R4 zone as well.
4. Amend Downtown Height Overlay: Increase 45’ Limits: There is likely to be concern from some nearby property owners about this proposal, but it is worth bringing forward to the Planning Board to have that public process and review. In reality, there is only a small area being proposed for this change. Given the likelihood that area will be redeveloped for housing in the near future, this might be a relatively simply way to produce more housing.
5. Eliminate Parking Requirements for Residential Uses (B3, B5, B6 & B7 Business Zones): This change might encourage additional housing on the Peninsula by allowing developers to produce parking as needed rather than having to justify parking levels with the Planning Board. This might have some benefit in terms of streamlining the review process. However, that benefit will have to be balanced with the concerns of off-site parking impacts.
6. Allow the Use of the Fee-in-Lieu of Parking in Off-Peninsula Business Zones: This change might allow the use of shared parking strategies in some existing “greyfield” sites, or sites dominated by large parking areas that are rarely fully

used. However, such an option is already available on these sites via Planning Board review, albeit without the fee-in-lieu collection.

7. Eliminate Residential Density Limits in B1 & B2 Zones: Given other constraints in these districts, I don't see much value in the existing residential density limits in place in these zones. However, given that those limits are already fairly high, I don't see this change having a significant impact at this time, either.

In the interest of moving a clear, manageable package of amendments forward simultaneously, I would recommend that you propose moving strategies 1 through 5 to the Planning Board. There are already amendments to the Fee-in-Lieu that have been forwarded to the Planning Board for consideration. Strategy 7 does not seem to address a limiting factor in housing development to date.

I look forward to your discussion on April 22.