

City of Portland, Maine
Finance Committee Meeting
Thursday, August 2nd, 2018
5:00 p.m., Room 209

1. Finance Committee Meeting Agenda

Documents:

[FC AGENDA 8-2-2018.PDF](#)

2. Appropriation Of \$2.11M Of 0 Hancock Street Sale Proceeds

Documents:

[APPROPRIATION OF 2.11M OF 0 HANCOCK STREET SALE PROCEEDS.PDF](#)

3. Allen Avenue Fire Station - 7-27-18 Construction Drawings

Documents:

[ALLEN AVENUE FIRE STATION - 7-27-18 CONSTRUCTION DRAWINGS.PDF](#)

3.I. Housing Committee 7-31-18 Recommendations

Documents:

[HOUSING COMMITTEE 7-31 RECOMMENDATIONS.PDF](#)

4. Public Record Of Proceedings - Finance Committee

Documents:

[FINANCE COMMITTEE PUBLIC RECORDS MEMO.PDF](#)

**City of Portland, Maine
Finance Committee Meeting
Thursday, August 2nd, 2018
5:00 p.m., Room 209**

AGENDA

- 1. Introductions**

- 2. Appropriation of \$2.11M of the \$3.3M of 0 Hancock Street Sale Proceeds (Public Hearing and Vote)**
 - a) \$1M for Allen Avenue Fire Station Rehabilitation**
 - b) \$1M for Housing Trust Fund**
 - c) \$110,000 for Climate Action Plan (joint effort with South Portland)**

See attached memorandum *Appropriation of \$2.11M of 0 Hancock Street Sale Proceeds*

- 3. Housekeeping Discussion Items**
 - a. Public Record of Proceedings**

 - b. Future Meeting Dates:**

Thursday, September 13th and Thursday, September 27th
Thursday, October 11th and Thursday, October 25th
Thursday, November 8th – Second meeting date TBD

- 4. Adjournment**

**MEMORANDUM**

DISTRIBUTE TO: Members of the Finance Committee

FROM: Jon P. Jennings, City Manager

DATE: July 27, 2018

SUBJECT: **Appropriation of \$2.11M of 0 Hancock Street, LLC Sale Proceeds**

On August 21, 2017, the City Council approved a \$3.3 million purchase and sale agreement with 0 Hancock Street, LLC for the sale of 48,000 square feet of the City-owned Thames Street property along the Eastern Waterfront. In October 2017, groundbreaking occurred on the 100,000 square foot, 4-story mixed-use development that will serve as the world headquarters of WEX with additional retail space.

The full \$3.3M of property sale proceeds were collected in fiscal year 2018. The City does not typically budget for significant amounts of property sale revenue, so this inflow of funding is above and beyond our FY18 budgeted revenues and will result in an increase in fund balance above our recommended level. Upon initial discussion of the Finance Committee I am formally requesting that the Finance Committee and City Council vote to appropriate \$2.11M of these funds the following purposes:

- \$1,000,000 to support the rehabilitation of the Allen Avenue Fire Station
- \$1,000,000 to support the Housing Trust Fund
- \$110,000 to support the Climate Action Plan - the joint venture with South Portland

Funding for Rehabilitation of the Allen Avenue Fire Station

During September 2017 a fire broke out in the kitchen area of the Allen Avenue fire station, caused moderate damage to the kitchen and smoke damage throughout the one-story building, which houses the Ladder 4 and Medcu 4 fire companies. The station is currently closed due to the damage. The Allen Avenue ladder truck was relocated to the fire station on Forest Avenue and the ambulance crew was moved to the fire station on Ocean Avenue. The current cost estimate to repair the station (attached in Appendix A) is approximately \$1.3M. The cost is more extensive than simple damage repairs as the building is very old and needs to be brought up to current code in many areas. Although the insurance company will pay for a percentage of the repairs, the appropriation request is for \$1M of the \$1.3M to cover deductible and City share of expenses. Our Corporation Counsel staff is working with the insurance company to make a final determination of what is covered. Any excess insurance proceeds received will be deposited back into fund balance. Acting Fire Chief Keith Gautreau and Liability and Insurance Claims Manager Lori Smith are available to answer Committee questions about the project.

100% Construction Drawings have also been added to the August 2nd Finance Committee meeting backup materials.

Housing Trust Funds

In recent years there has been an increased focus on providing funding for the Housing Trust. The Council's Housing Committee, led by Councilor Duson, has made it a priority to increase the funding for the Housing Trust Fund. Historically the trust has been funded through fees assessed under the Housing Replacement Ordinance. More recently, the trust has been funded via contributions from developers under inclusionary zoning requirements. However these fees are paid when a project is issued a certificate of occupancy.

The Housing Trust provides a valuable source of funding for projects that have sought the other funding sources for affordable housing development, but that still have a financing gap. It also helps projects that do not meet the criteria for other funding sources (for example, workforce housing projects not eligible for HOME funds and Housing Tax Credits.) The most recent Housing Trust annual plan includes a waivable minimum balance of \$500,000 in the Trust. This minimum balance is held in reserve to cure defects in existing affordable housing developments if necessary in order to avoid losing existing units. For example, should a deed-restricted workforce condominium go into foreclosure, the minimum balance would give the City the flexibility to resolve the foreclosure and keep the unit affordable. Otherwise, the bank's mortgage may supercede any affordability restriction. In this case, the City could potentially then resell the unit with the deed restriction and recapture the funds for the Housing Trust. This minimum balance, while waivable, is in keeping with best practices for Housing Trusts nationally.

This year, in part due to the existence of the Housing Trust, the City has active proposals for over 200 units of affordable housing. It will not be possible to fund these projects while maintaining a minimum balance, and hopefully a reserve for future years, without the allocation of funds from the 0 Hancock Street sale into the Trust. Receiving these funds before the current round of allocations from the Trust at the first September Council meeting will be important to providing full utilization of these resources in 2018.

With the development boom in Portland, it is anticipated that the Housing Trust will grow, but as the first chart below shows, many projects have been approved, but only three are currently under construction. With this additional \$1,000,000 in contribution, the fund will have nearly quadrupled in just over two years. The second chart below outlines the historical sources and uses of the Housing Trust Funds.

Inclusionary Zoning Development Projects: December 2015 - November 2017

Address	Status	# of Units	Type	Workforce Units	Off-Site	Fee-in-lieu
169 Newbury St (Luminato)	Under Construction	26	Condo	2 off site	2	\$0
62 India Street	Under Construction	29	Condo	0	0	\$290,000
443 Congress St	Under Construction	28	Apt	0	0	\$280,000
70 Anderson St	Approved (2016)	10	Town House	1	0	\$0
75 Chestnut St	Approved (2016)	54	Apt	5	0	\$0
20 Thames St	Approved (2017)	28	Condo	0	0	\$280,000
161 York St	Approved (2017)	11	Condo	0	0	\$110,000
221 Congress St	Approved (2017)	17	Condo	0	0	\$170,000
153-165 Sheridan St	Approved (2017)	19	Condo	1	0	\$0
1 Joy Place	Approved (2017)	12	Condo	1	0	\$0
218-220 Washington St	Approved (2017)	45	Condo	0	0	\$416,250
22 Hope Ave Subdivision (Brandy Ln)	Under Review	16	SF Home	1	0	\$0
383 Commercial St	Under Review	82	Condo	9	TBD	TBD
1700 Westbrook St (Stroudwater)	Under Review	123	SF/Townhouse	12		\$0

Sources and Uses of Housing Trust Fund

DEPOSITS		EXPENDITURES	
Maine Medical Center HRO 2002-2003	\$ 315,580.00	Avesta Oak Street Lofts 2011	\$ (380,585.00)
Sportsmand's Grill HRO 2002	\$ 40,000.00	Housing First Pre-Development RFP 2014	\$ (75,000.00)
Berlin City Auto HRO 2009	\$ 116,000.00	65 Hanover & 62 Alder Sts Feasibility Study 2015	\$ (9,250.00)
Stop n Shop HRO 2010	\$ 289,250.00	65 Munjoy Street 2017	\$ (175,000.00)
Rockbridge/Eastland Park HRO 2012	\$ 42,500.00		
Riverwalk/Ocean Gateway HRO 2012	\$ 250,000.00	Total Expenditures	\$ (639,835.00)
118 Congress LLC HRO 2014	\$ 3,500.00		
Sale of Tax Acquired Property 91 & 97 Belfort Street 2017	\$ 86,424.00		
Sale of Tax Acquired Property 116 Upper A Street 2017	\$ 78,527.00		
443 Congress Street IZ 2017	\$ 280,000.00		
62 India Street IZ 2018	\$ 276,500.00		
Short Term Rental Fee transfer 2018	\$ 33,318.80		
Previous INTEREST EARNED	\$ 51,556.00		
Total Deposits	\$1,863,155.80	BALANCE	\$1,223,320.80

HRO - Housing Replacement Ordinance; IZ = Inclusionary Zoning Fee-in-lieu
as of 7-13-2018

Climate Action Plan

The City Council has taken a number of steps recently to emphasize its commitment climate action. In May, 2017 the Council adopted a resolution committing the City to use 100% renewable energy by 2040. In June, 2017, the Council passed a resolution to join the Mayors Climate Action Agenda (Climate Mayors) that commits the City to take actions to achieve the goals established by the 2016 Paris Climate Accords. The Sustainability and Transportation Committee, led by Councilor Thibodeau, has made developing a plan to achieve these goals a priority for 2018. City staff recently made a presentation to the committee about joining with the City of South Portland to develop complementary climate action plans for each city. This would allow the cities to share costs associated with consulting and technical analysis. The resulting plans will describe actions each city should take to mitigate the effects of climate change as well as strategies to adapt to impacts such as sea level rise. The climate action plans will cover all sectors of the community -- residential, commercial, and industrial -- as well as municipal operations. Portland's share of the cost will be \$110,000.

Appendix A - Allen Avenue Fire Station Repairs Cost Estimate

NORTH DEERING FIRE STATION RENOVATION			PROGRESS COST ESTIMATE	
 PREFERRED CONSTRUCTION MANAGEMENT	NEW		PROJ. NO:	23-027
	500 sf		REVISION:	
	RENOVATED		EST DATE:	7/9/2018
	5162 sf		GROSS SF:	5662
DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
DIVISION 2 - INTERIOR DEMOLITION	5,662	SF	\$ 4.15	\$ 23,487.50
DIVISION 2 - SITE WORK	5,662	SF	\$ 8.10	\$ 45,867.60
DIVISION 3 - BUILDING CONCRETE	5,662	SF	\$ 4.13	\$ 23,410.76
DIVISION 4 - MASONRY	5,662	SF	\$ 5.87	\$ 33,255.60
DIVISION 5 - STEEL	5,662	SF	\$ 1.82	\$ 10,320.50
DIVISION 6 - CARPENTRY	5,662	SF	\$ 0.32	\$ 1,837.50
DIVISION 7 - THERMAL MOISTURE PROTECTION	5,662	SF	\$ 8.39	\$ 47,495.03
DIVISION 8 - DOORS AND HARDWARE	5,662	SF	\$ 12.50	\$ 70,770.00
DIVISION 9 - FINISHES	5,662	SF	\$ 18.01	\$ 101,961.48
DIVISION 10 - SPECIALTIES	5,662	SF	\$ 6.04	\$ 34,180.00
DIVISION 11 - EQUIPMENT	5,662	SF	\$ 1.55	\$ 8,750.00
DIVISION 12 - FURNISHINGS	5,662	SF	\$ 0.76	\$ 4,312.50
DIVISION 12 - CASEWORK AND MILLWORK	5,662	SF	\$ 8.65	\$ 48,975.00
DIVISION 13 - SPECIAL CONSTRUCTION	5,662	SF	\$ -	\$ -
DIVISION 14 - CONVEYING	5,662	SF	\$ -	\$ -
DIVISION 21 - SPRINKLER	5,662	SF	\$ 5.48	\$ 31,054.00
DIVISION 22 - PLUMBING	5,662	SF	\$ 17.66	\$ 99,967.52
DIVISION 23 - HVAC	5,662	SF	\$ 38.19	\$ 216,243.00
DIVISION 26 - ELECTRICAL	5,662	SF	\$ 42.52	\$ 240,748.79
BLDG. CONSTR. SUBTOTAL	5,662	SF	\$ 184.15	\$ 1,042,637
GENERAL CONDITIONS	12.00	%		\$ 125,116
BLDG. CONSTR. SUB TOTAL	5,662	SF	\$ 206.24	\$ 1,167,753
OVERHEAD AND PROFIT	5.00	%		\$ 58,388
BLDG. CONSTR. SUB TOTAL	5,662	SF	\$ 216.56	\$ 1,226,141
DESIGN CONTINGENCY	5.00	%		\$ 61,307
BLDG. CONSTR. SUB TOTAL	5,662	SF	\$ 227.38	\$ 1,287,448
BOND AND INSURANCE	2.00	%		\$ 25,749
BLDG. CONSTR. GRAND TOTAL	5,662	SF	\$ 231.93	\$ 1,313,197

NORTH DEERING FIRE STATION RENOVATIONS & EXPANSION

386 Allen Avenue, Portland, Maine 04103

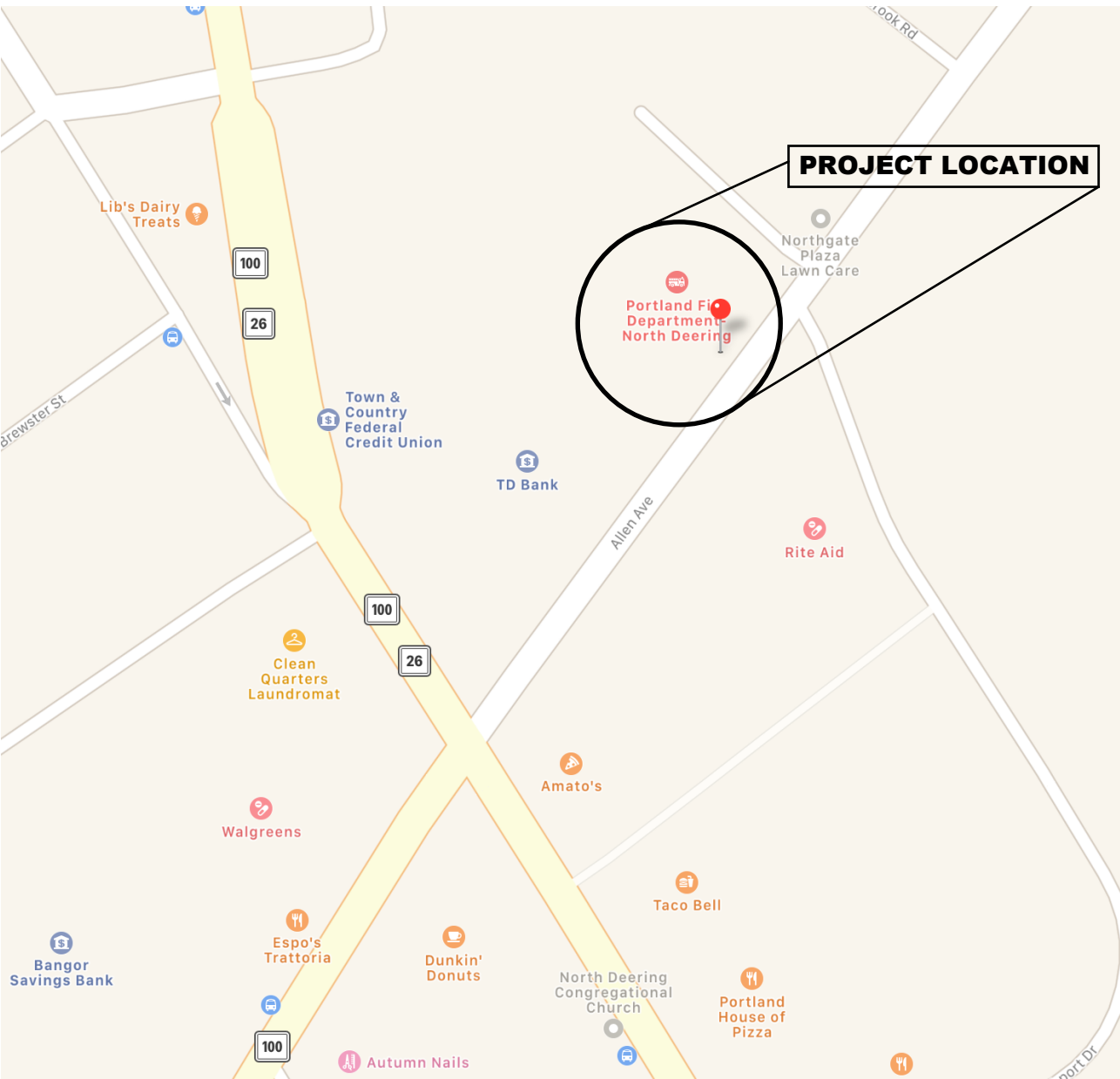
BID # XXXX

Owner: City of Portland - Public Buildings Division

PROJECT DRAWING LIST

C1	SITE PLAN EXISTING CONDITIONS PAGE 1 of 5
C2	SITE PLAN PAGE 2 of 5
C3	SITE UTILITY PLAN PAGE 3 of 5
C4	SITE DETAILS PAGE 4 of 5
C5	SITE DETAILS PAGE 5 of 5
D1.1	DEMOLITION FLOOR PLAN
D2.1	DEMOLITION BUILDING ELEVATIONS
A1.1	PROPOSED FLOOR PLAN
A2.1	PROPOSED BUILDING ELEVATIONS
A3.1	BUILDING SECTIONS
A4.1	KITCHEN & BATHROOMS ENLARGED PLANS & ELEVATIONS
A4.2	KITCHEN & BATHROOMS DETAILS
A5.1	REFLECTED CEILING PLAN
A6.1	EXTERIOR WALL SECTIONS
A7.1	FINISH SCHEDULE, DETAILS, AND PARTITIONS TYPES
A8.1	DOOR SCHEDULE, TYPES, AND DETAILS
A9.1	WINDOW SCHEDULES AND DETAILS
S0.1	STRUCTURAL GENERAL NOTES
S1.1	FOUNDATION PLAN
S1.2	ROOF FRAMING PLAN
S2.1	STRUCTURAL DETAILS

P1	PLUMBING SANITARY & SEWER PLAN
P2	PLUMBING WATER & GAS PLAN
P3	PLUMBING DETAILS & NOTES
P4	PLUMBING LEGENDS & SCHEDULES
M1	MECHANICAL PIPING PLAN
M2	MECHANICLA DUCTWORK PLAN
M3	ENLARGED BOILER ROOM AND MECHANICAL DETAILS
M4	MECHANICAL EQUIPMENT SCHEDULES
E0.0	ELECTRICAL GENERAL NOTES & LEGENDS
ED1.0	ELECTRICAL DEMOLITION PLAN
E1.0	ELECTRICAL POWER PLAN
E1.1	ELECTRICAL SCHEDULES & ONE-LINE DIAGRAM
E2.0	ELECTRICAL LIGHTING PLAN
E2.1	ELECTRICAL LIGHTING SCHEDULE & CONTROL DIAGRAM
E3.0	ELECTRICAL FIRE ALARM & SYSTEMS PLAN



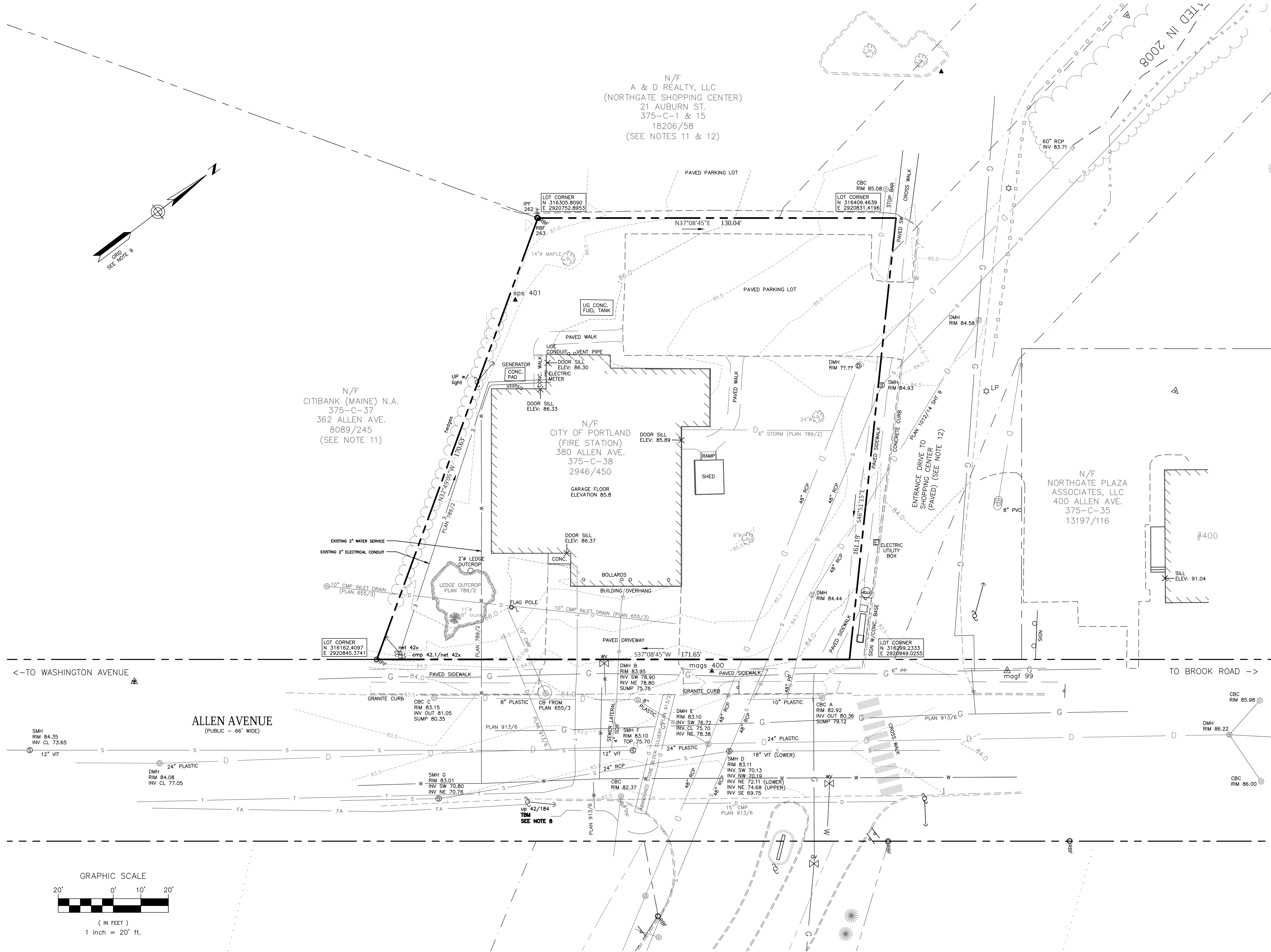
LOCATION MAP

Design Team

Winton Scott Architects, PA	City of Portland Department of Public Works	Structural Integrity Consulting Engineers, Inc.	Mechanical Systems Engineers	SwiftCurrent Engineering Services, Inc
Architects	Civil Engineers	Structural Engineer	Mechanical Engineer	Electrical Engineer
207-774-4811	207-874-8846	207-774-4614	207-846-1441	207-847-9280

07.25.2018

C:\CIVIL3D PROJECTS\ALLEN_V FIRE_STATION_2018.DWG\ALLEN_V FIRE_STATION_EC_2018.DWG EX COND PLAN 7/19/2018



LEGEND

- IRON PIPE/ROD FOUND
MAG NAIL SET
MAG NAIL FOUND
PK NAIL SET
PK NAIL FOUND
SPIKE SET
SPIKE FOUND
CATCH BASIN (ROUND GRATE)
DRAIN MANHOLE
GAS VALVE
SEWER MANHOLE
WATER VALVE
CONIFEROUS TREE
DECIDUOUS TREE
END POINTS OF DIMENSION SHOWN
- IPF/RBF/CRF
MAGS
MAGF
PKS
PKF
SPS
SPF

- STREET LINE
ABUTTER PROPERTY LINE
CITY PROPERTY LINE
SEWER RIGHT-OF-WAY LINE
- DRAIN LINE
ELECTRIC LINE
FIRE ALARM LINE
GAS LINE
SEWER LINE
TELEPHONE LINE
WATER LINE
- 1.0' CONTOURS
0.5' CONTOURS
EDGE OF CURB
EDGE OF ROAD / DRIVEWAY
EDGE OF SIDEWALK / WALKWAY
TREE LINE / EDGE OF VEGETATION

MONUMENTATION:

- IPF 2 ☐ IRON PIPE FOUND LOCATED ☐ TITCOM ☐ SUR ☐ NOT FOUND IN 201 ☐
IPF 2/2 ☐ IRON PIPE FOUND, ☐ ELO ☐ GROUND
IPF 2 ☐ IRON REAR FOUND, ☐ ENT NORTH ☐ LOCATED AT ☐ ASE ☐ ELO ☐ GROUND

GENERAL NOTES

- THIS PLAN REPRESENTS THE RESULTS OF A FIELD SURVEY PERFORMED IN JUL 2011 USING A LEICA TCPR 120 ROTOTIC TOTAL STATION INSTRUMENT AND A CARLSON SURVEOR2 DATA COLLECTOR. MONUMENTATION IS SHOWN AS LOCATED ON A PREVIOUS SURVEY BY TITCOM ASSOCIATES FOR THE FALL 2000 CSO PROJECT (SEE PLAN 1012).
- NO SURVEY REPORT OR DEED DESCRIPTION WAS PREPARED FOR THIS SURVEY OR AS A RESULT OF THIS SURVEY. NO NEW MONUMENTATION HAS BEEN SET TO DATE.
- ALL DEED BOOK AND PAGE NUMBERS REFERENCE THE CUMBERLAND COUNTY REGISTER OF DEEDS.
- STREET LINES AND BOUNDARY LINES ARE BASED ON THE AFOREMENTIONED SURVEY BY TITCOM ASSOCIATES.
- ADJUTING PARCEL LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND DO NOT NECESSARILY REPRESENT A BOUNDARY OPINION OF THIS SURVEYOR.
- ALL BEARINGS AND DISTANCES ARE LAID-OUT AS MEASURED, EXCEPT WHERE NOTED OTHERWISE.
- BEARINGS ARE GRID NORTH, BASED ON THE AFOREMENTIONED SURVEY BY TITCOM ASSOCIATES.
- ELEVATIONS ARE CITT DATUM (MEAN TIDE) BASED ON THE AFOREMENTIONED SURVEY BY TITCOM ASSOCIATES. SITE TUM IS A MAG NAIL FOUND IN THE NORTHEASTLY SIDE OF UTILIT POLE (2) 1.1 FEET ABOVE GROUND. ELEVATION (2) 2.
- SOME UTILIT LINES WERE MARKED WITHIN ALLEN AVENUE AT THE TIME OF THIS SURVEY. SOME LINES AND STRUCTURES ARE TAKEN FROM RECORD SOURCES (NOTED).
- THE SEWER RIGHT-OF-WAY LIMIT ACROSS THE CITY'S LOT IS SHOWN FOR HISTORICAL PURPOSES. THE CITY'S COMMON OWNERSHIP OF THE LOT AND THE RIGHT-OF-WAY HAS PROBABLY BEING LOST TO THE PORTION OF THE RIGHT-OF-WAY FROM A LEGAL PERSPECTIVE.
- THE CITY LOT IS SUBJECT TO DRAINAGE RIGHTS GRANTED TO PORTLAND ASSOCIATES (NO CITIZANSHIP) AND FLOODAGE RIGHTS TO SAUNDERS REALTY CO. (NO SAUNDERS REALTY, INC.).
- THE CITY LOT BENEFITS FROM A 20-FOOT WIDE EASEMENT TO ALLOW ACCESS TO THE REAR OF THE PROPERTY FROM ALLEN AVENUE ACROSS LAND OF A SAUNDERS REALTY, INC.
- SEE REFERENCE LOC FOR PLAN REFERENCES.

SURVEY DATABASE: Allen_V Fire Station_2018_DB
DRAWING: Allen_V Fire Station_EC_2018.dwg

REFERENCES:

PROJECT FIELD BOOK:
L 850 PP 34-40
VAULT PLANS:
1371/1421/9
913/16 SHT 2
789/2
655/3



WILLIAM G. SCOTT, P.E. #542239

REV	SUBMISSION	DATE
1	SUBMITTED TO PURCHASING	07/26/2018

**NORTH DEERING FIRE STATION
RENOVATION & EXPANSION**
386 ALLEN AVENUE
PORTLAND, ME 04103

CITY OF PORTLAND, MAINE
DEPARTMENT OF PUBLIC WORKS
55 PORTLAND ST., PORTLAND, MAINE 04101
PHONE (207) 874-8846 FAX (207) 874-8852



DESIGN BY:

DRAWN BY: LKS

CHECKED BY: WGS

SHEET NAME:

EXISTING CONDITIONS

DATE: 07/26/2018

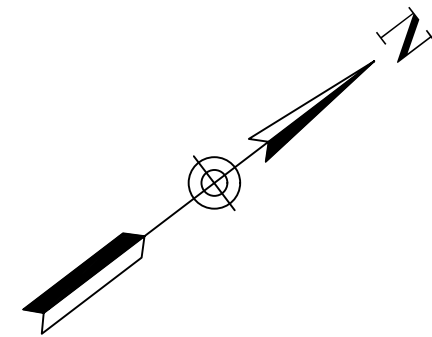
PAGE 1 OF 5

SHEET NO.: 1-EC

VAULT #:

REV:

C:\CIVIL 3D PROJECTS\ALLEN_AV_FIRE_STATION_2018\DBROWGALLEN_AV_FIRE_STATION_PROPOSED_SITELDWG 24X36 SITE PLAN
5/2/2018



N/F
CITIBANK (MAINE) N.A.
375-C-37
362 ALLEN AVE.
8089/245
(SEE NOTE 11)

EXISTING GENERATOR
TO REMAIN BY BASE BID.
NEW GENERATOR TO BE
INSTALLED WITH ALTERNATE 1.

CONTRACTOR TO COORDINATE
UG ELECTRIC INSTALLATION
WITH UTILITY COMPANY. UG
ELECTRIC TO BE ROUTED
AROUND GENERATOR PAD AS
NECESSARY.

N/F
CITY OF PORTLAND
(FIRE STATION)
380 ALLEN AVE.
375-C-38
2946/450

CONTRACTOR TO
ENSURE FOUNDATION
OF RELOCATED SHED
IS STRUCTURALLY
SOUND AFTER
REMOVAL OF TANK.

OIL TANK TO BE
DECOMMISSIONED AND
REMOVED PER STATE
REGULATIONS.

PAVED PARKING LOT

RELOCATE SHED TO
NORTH OF BUILDING.

RELOCATE EXISTING TREE
AS NECESSARY AND
VERIFY WITH ENGINEER
PRIOR TO WORK.

SAWCUT FOR UTILITY
INSTALLATION. SEE BITUMINOUS
PAVEMENT SECTION DETAIL.

SAWCUT FOR UTILITY
INSTALLATION. SEE
BITUMINOUS SIDEWALK
RECONSTRUCTION DETAIL.

AREA CALCULATIONS:

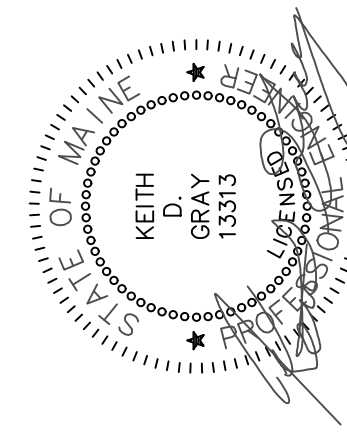
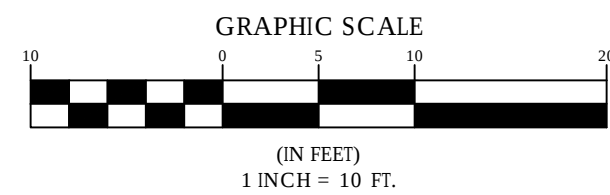
EXISTING:

BUILDING(BUILDING/SHED): 5400 SF
PAVEMENT(DRIVEWAYS/PARKING LOTS/SIDEWALKS: 6155 SF
CONCRETE: 186 SF
TOTAL IMPERVIOUS: 11,741 SF (0.27 ACRES)
TOTAL LANDSCAPED: 12,441 SF (0.29 ACRES)

PROPOSED:

BUILDING(ADDITION): 500 SF
PAVEMENT: 6140 SF
CONCRETE: 120 SF
TOTAL IMPERVIOUS: 12,159 SF (0.28 ACRES)
TOTAL LANDSCAPED: 12,023 SF (0.27 ACRES)

TOTAL PARCEL: 24,182 SF (0.56 ACRES)



PROJECT NAME:
NORTH DEERING FIRE STATION
RENOVATION & EXPANSION
386 ALLEN AVENUE
PORTLAND, ME 04103

CITY OF PORTLAND, MAINE
DIVISION
DEPARTMENT OF PUBLIC WORKS
55 PORTLAND ST. PORTLAND, MAINE 04101
PHONE (207) 674-6606 FAX (207) 674-4822



DESIGN BY: CCA
DRAWN BY: CCA
CHECKED BY: KDG

SHEET NAME:

SITE PLAN

DATE: 07/26/18

PAGE 2 OF 5

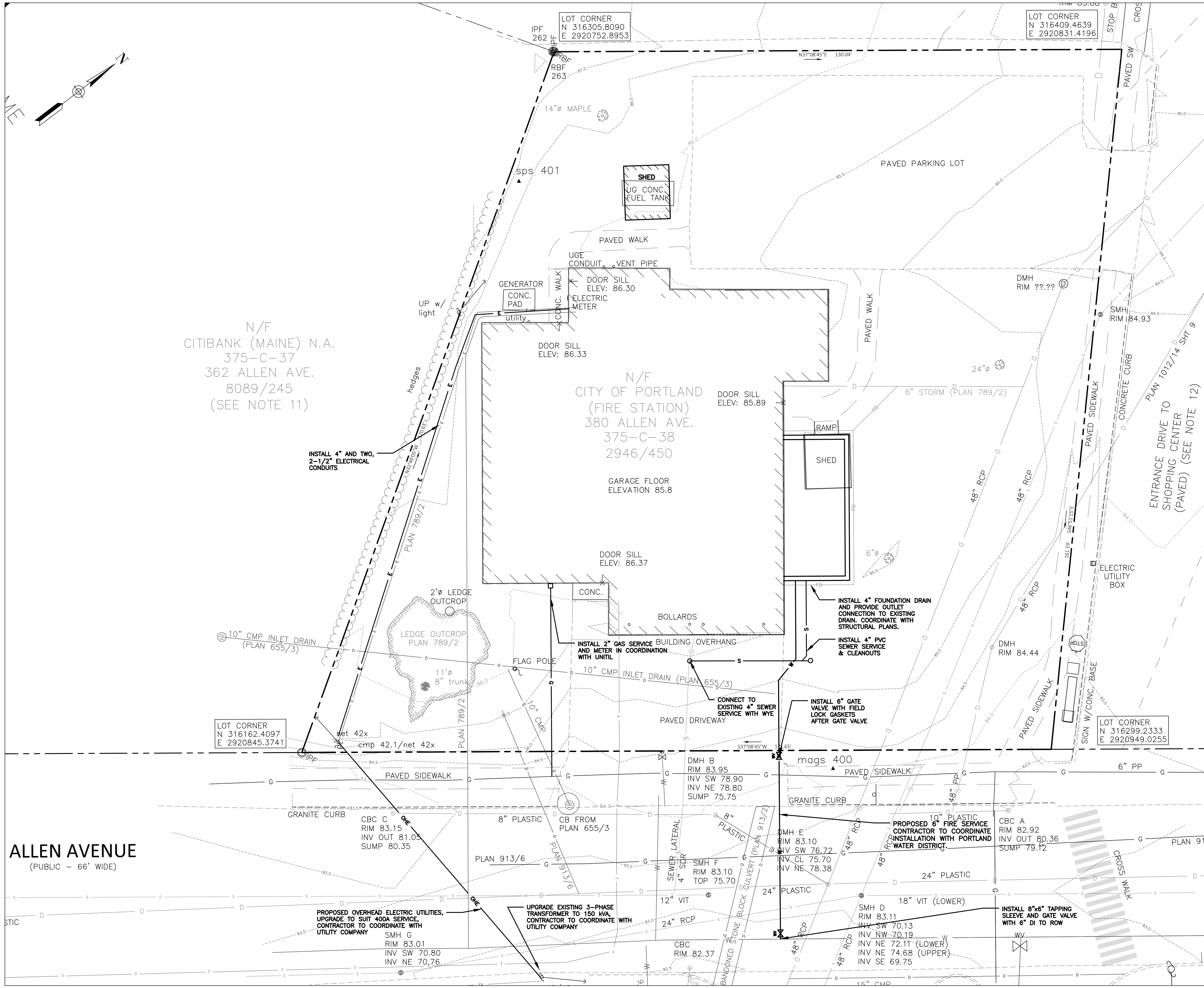
SHEET NO.:

X-XX

VAULT #:

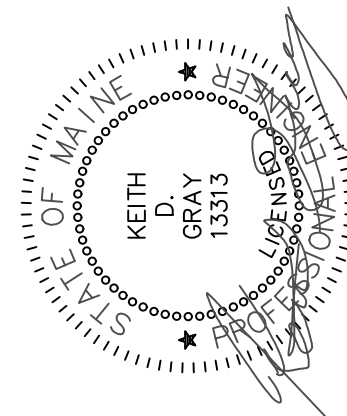
REV.:

C:\CIVIL\3D PROJECTS\ALLEN_AVE_FIRE_STATION_2018\DRAWING\ALLEN_AVE_FIRE_STATION_PROPOSED_UTILITIES_24X36L.DWG
PLAN 53.2018



GRADING & UTILITY NOTES:

- UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE FIELD AND PRECEDING PLANS. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
- THE PROJECT IS TO BE SERVICED BY PUBLIC WATER AND SEWER. PRIOR TO INSTALLATION, COORDINATE WATER SERVICE WITH PORTLAND WATER DISTRICT AND THE SEWER SERVICE WITH WATER RESOURCES. SERVICE EXTENSIONS SHALL MEET WATER AND SEWER STANDARDS.
- ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL BMP'S" MANUAL, PUBLISHED BY BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
- ALL SIDESLOPES STEEPER THAN 3:1 (H: V) SHALL BE LINED WITH EROSION CONTROL BLANKET OR ROCK WALL AS SHOWN ON THIS PLAN.
- INSTALL SEDIMENT INLET PROTECTION AT ALL CATCH BASIN ADJACENT TO SITE.
- SEE DETAIL SHEETS FOR EROSION CONTROL NOTES.
- SOIL STOCKPILES SHALL NOT BE LOCATED WITHIN 100 FEET OF ANY NATURAL RESOURCES. STOCKPILES SHALL BE CONTAINED WITH A DOUBLE BOUNDARY OF FILTRATION BARRIER. SEE EROSION CONTROL NOTES.
- PIPE MATERIALS:
 - STORM DRAIN: SMOOTH WALL CORRUGATED HDPE
 - UNDER DRAIN: 6" PERFORATED HDPE
 - SANITARY SEWER: SDR-35 HDPE
 - WATER MAIN: PER WATER DISTRICT STANDARDS
 - CONDUITS: SCH 40 PVC
- CONTRACTOR TO COORDINATE WITH UNTIL FOR GAS SERVICE INSTALLATION REQUIREMENT AND CONSTRUCTION STANDARDS.
- CONTRACTOR TO COORDINATE WITH PORTLAND WATER DISTRICT FOR WATER SERVICE INSTALLATION AND CONSTRUCTION STANDARDS/SPECIFICATIONS.



REV	SUBMISSION	DATE
1	SUBMITTED TO PURCHASING	07/26/18

PROJECT NAME:
NORTH DEERING FIRE STATION
RENOVATION & EXPANSION
386 ALLEN AVENUE
PORTLAND, ME 04103

CITY OF PORTLAND, MAINE
DEPARTMENT OF PUBLIC WORKS
DIVISION
55 PORTLAND ST. PORTLAND, MAINE 04101
PHONE (207) 674-6666 FAX (207) 674-4822



DESIGN BY:	CCA
DRAWN BY:	CCA
CHECKED BY:	KDG
SHEET NAME:	UTILITY PLAN
DATE:	07/26/2018
PAGE 3 OF 5	
SHEET NO.:	X-XX
REVISIONS:	

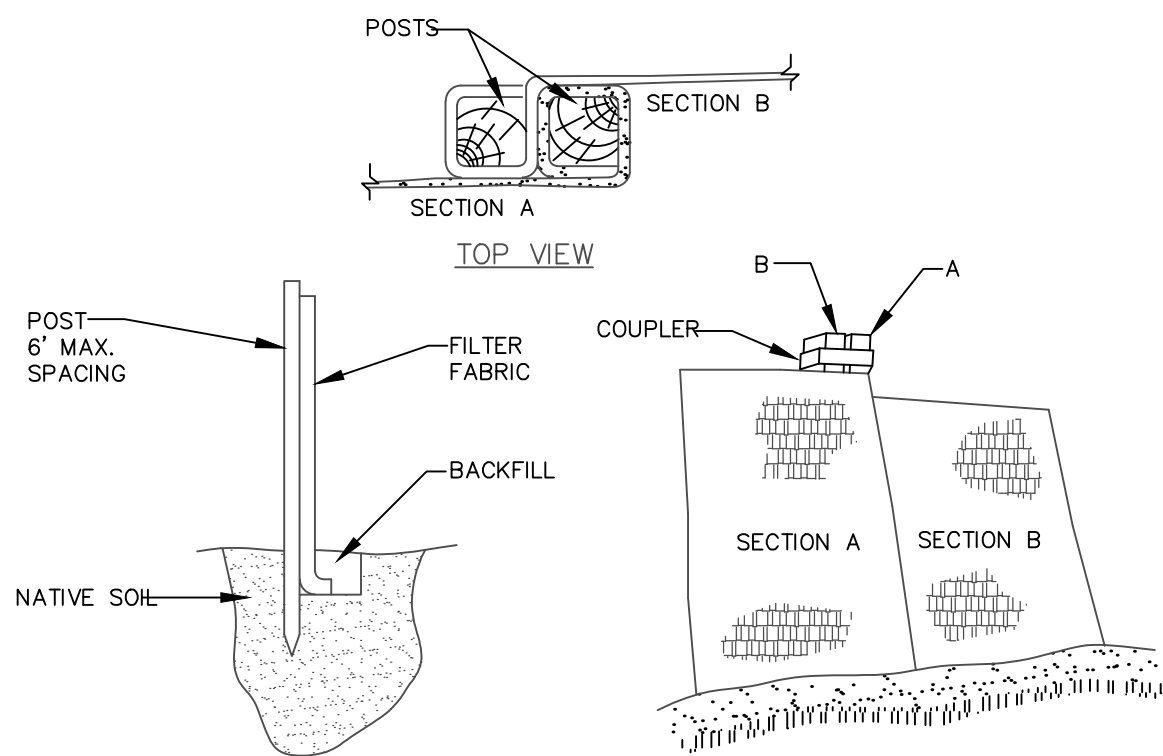
A. **SPILL PREVENTION:** CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON-SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE SPILLS AND CONTROLS TO PREVENT AND CORRECT APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.

B. **GROUNDWATER PROTECTION:** DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY BE STORED IN A PAVED AREA OF THE SITE. AN "INTEGRATED GROUNDWATER PROTECTION AREA" (INTEGRATION AREA) IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS, ACCUMULATES RUNOFF THAT CAN BE INFILTRATED INTO THE GROUNDWATER. GROUNDWATER PROTECTION MEASURES TO PREVENT CONTAMINATION THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.

C. **FUGITIVE SEDIMENT AND DUST:** ACTIONS MUST BE TAKEN TO INSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL.

D. **DEBRIS AND OTHER MATERIALS:** LITTER, CONSTRUCTION DEBRIS, AND REMOVALS EXPOSED TO WATERWAYS MUST BE REMOVED FROM THE SITE TO PREVENT POLLUTION OF THE SOURCE.

E. **TRENCH OR FOUNDATION Dewatering:** TRENCH DEWATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFERDAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION ZONE. TRENCH DEWATERING IS THE REMOVAL OF WATER FROM A TRENCH OR FOUNDATION. THE COLLECTED WATER IS HEAVILY SILENT AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER BY PUMPING TO A GRAVITY DRAINAGE SYSTEM OR BY PUMPING TO A POND. THE POND MUST BE BUFFERED OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. THE POND MUST BE MAINTAINED AND NEVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED.



1. EXCAVATE A 6' x 6' TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH. BUTT JOINTS IN TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.
5. JOIN SECTION AS SHOWN ABOVE.
6. BARRIER SHALL BE MIRAFI SILT FENCE OR EQUAL.

NOTE:

1. GRIND EXISTING PAVEMENT, TO 1 1/2" DEPTH.

1'

MATCH EXISTING PAVEMENT

SEE BITUMINOUS PAVEMENT SECTION

EXISTING PAVEMENT THICKNESS (VARIES)

EXISTING GRAVEL THICKNESS (VARIES)

A cross-sectional diagram of a pavement structure showing five distinct layers. From top to bottom, the layers are: a thin surface layer with a stippled texture, a thin binder layer with a horizontal line texture, a thick aggregate base layer with a coarse aggregate texture, a thick aggregate subbase layer with a coarse aggregate texture, and a bottom subgrade layer with a brick-like pattern. Arrows point from text labels on the right to each layer.

- SURFACE COURSE HOT MIX ASPHALT (GRADING "C")
- BINDER COURSE HOT MIX ASPHALT (GRADING "B")
- AGGREGATE BASE MDOT 703.06 TYPE B
- AGGREGATE SUBBASE MDOT 703.06 TYPE D
- SUBGRADE

NOTE:
COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN
ACCORDANCE WITH ASTM D-1557

RESIDENTIAL STREET	LAYERS	ARTERIAL STREET (AUBURN STREET)	COLLECTOR ROAD (WASHINGTON AVE)	NORTH GATE PLAZA
1 1/2"	HOT MIX ASPHALT GRADING "C" (12.5mm)	2"	1 1/2"	1 1/2"
2"	HOT MIX ASPHALT GRADING "B" (19mm)	3"	2 1/2"	2 1/2"
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B	3"	3"	3"
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D	18"	18"	18"

Cross-Section View:

- 12" AGGREGATE BASE COURSE CRUSHED GRAVEL, TYPE "B"
- 2" HOT BITUMINOUS PAVEMENT, GRADING "B" (19 mm)
- 1" HOT BITUMINOUS PAVEMENT, GRADING "C" (12.5 mm)
- S = 2% MAX.
- COMPACT SMOOTH
- S = 5% - 25%
- 1" LIP
- FINISHED STREET GRADE
- EXISTING DRIVEWAY
- VARIES (5' PREFERRED, 3' ABSOLUTE MINIMUM)
- 1'-0" MIN. TO 3'-0" MAX.

SECTION A-A

PLAN View:

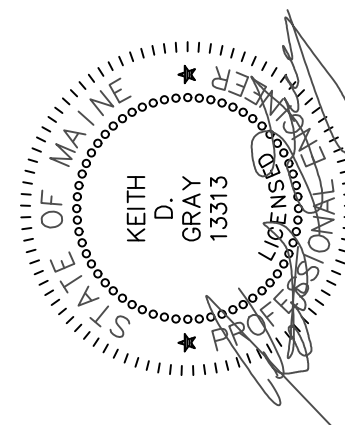
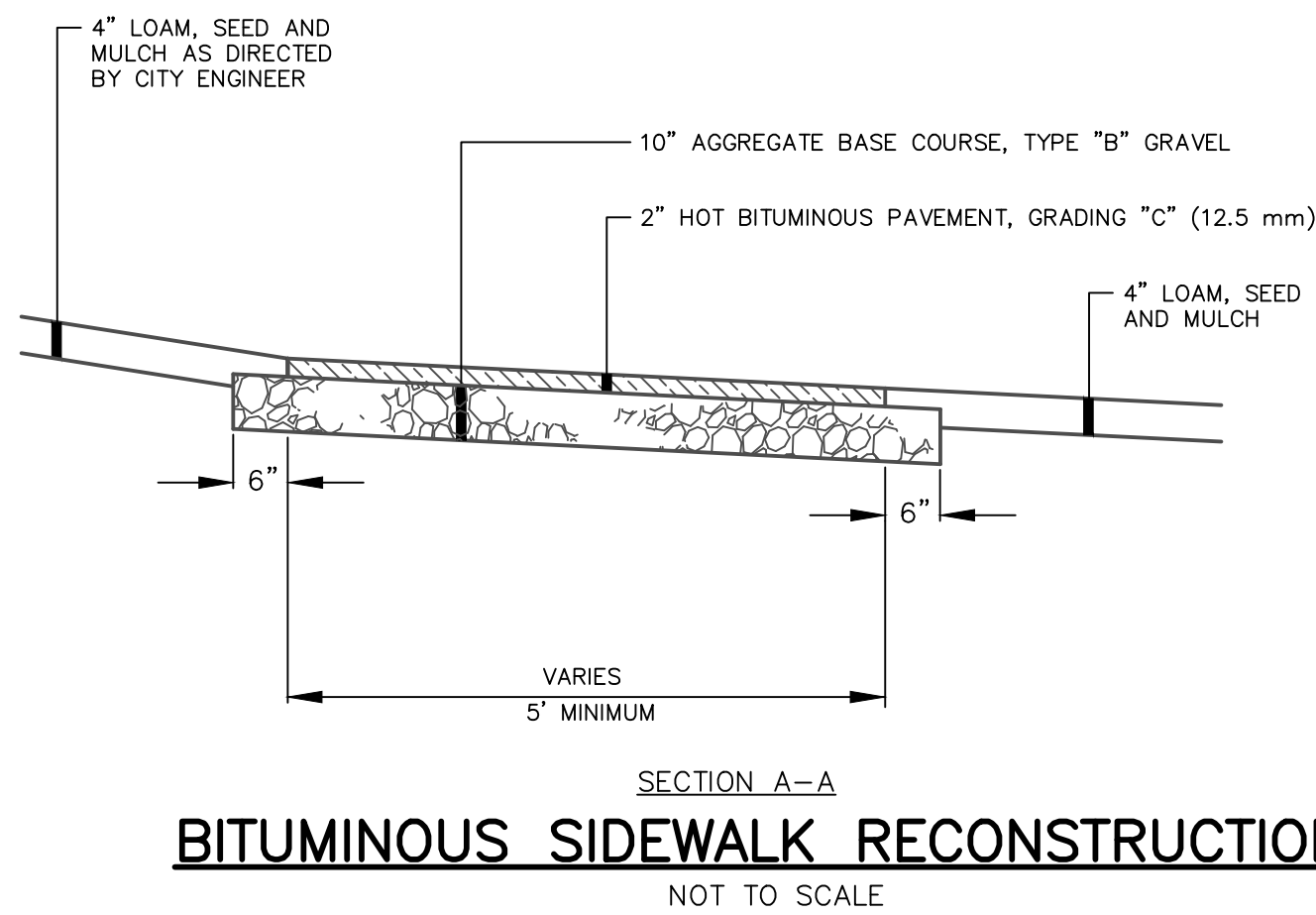
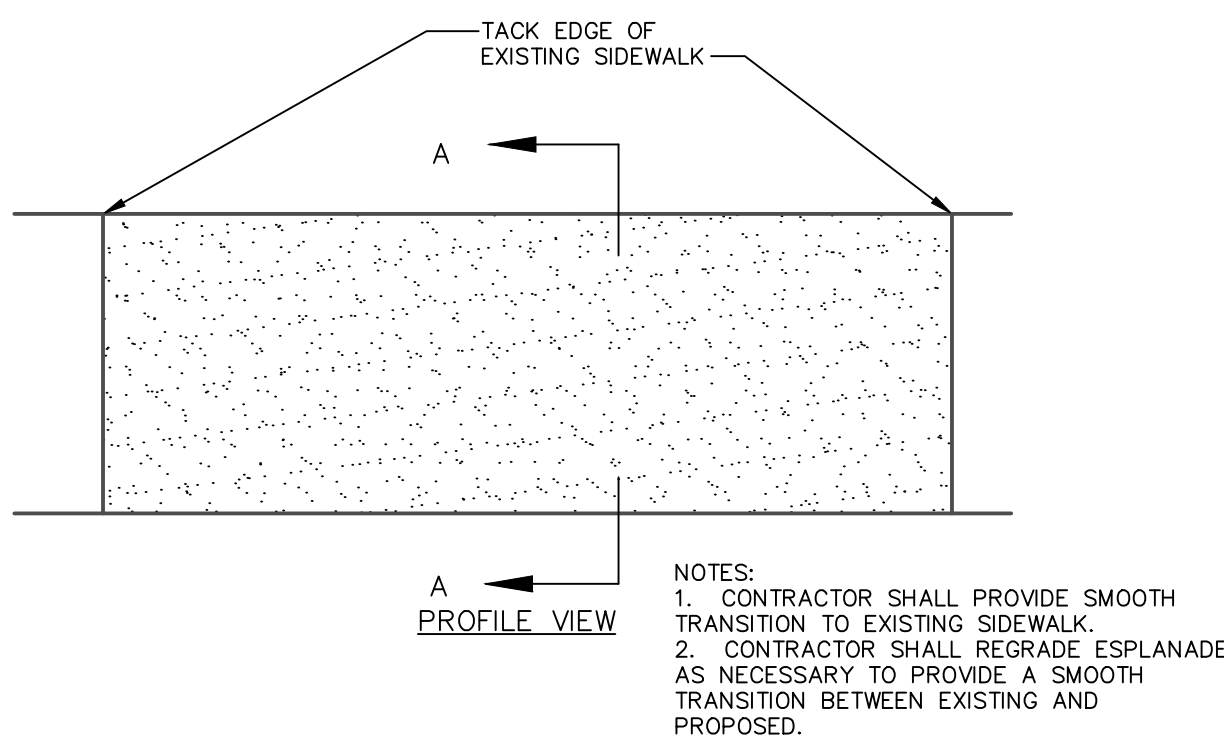
- BITUMINOUS DRIVEWAY
- RIGHT OF WAY
- SIDEWALK (5' PREFERRED) (3' ABSOLUTE MINIMUM)
- ESPLANADE
- MATCH EXISTING OR GRADES INDICATED IN CONTRACT DRAWINGS
- GRANITE TIP DOWN (TYP.)
- 6" MINIMUM (TYP.)
- 2' FLARE (TYP.)
- VARIES
- 2% MAX.
- 5% - 15%
- ROADWAY
- VARIES
- VERTICAL GRANITE CURB
- SIDEWALK
- BITUMINOUS DRIVEWAY APRON

PLAN

2% CROSS-SLOPE MAXIMUM ALONG PEDESTRIAN ACCESS ROUTE

BITUMINOUS CONCRETE DRIVEWAY APRON

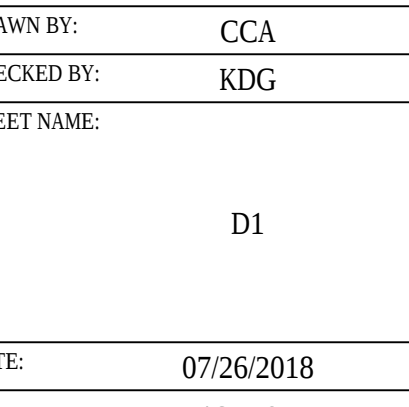
NOT TO SCALE

[illegible]

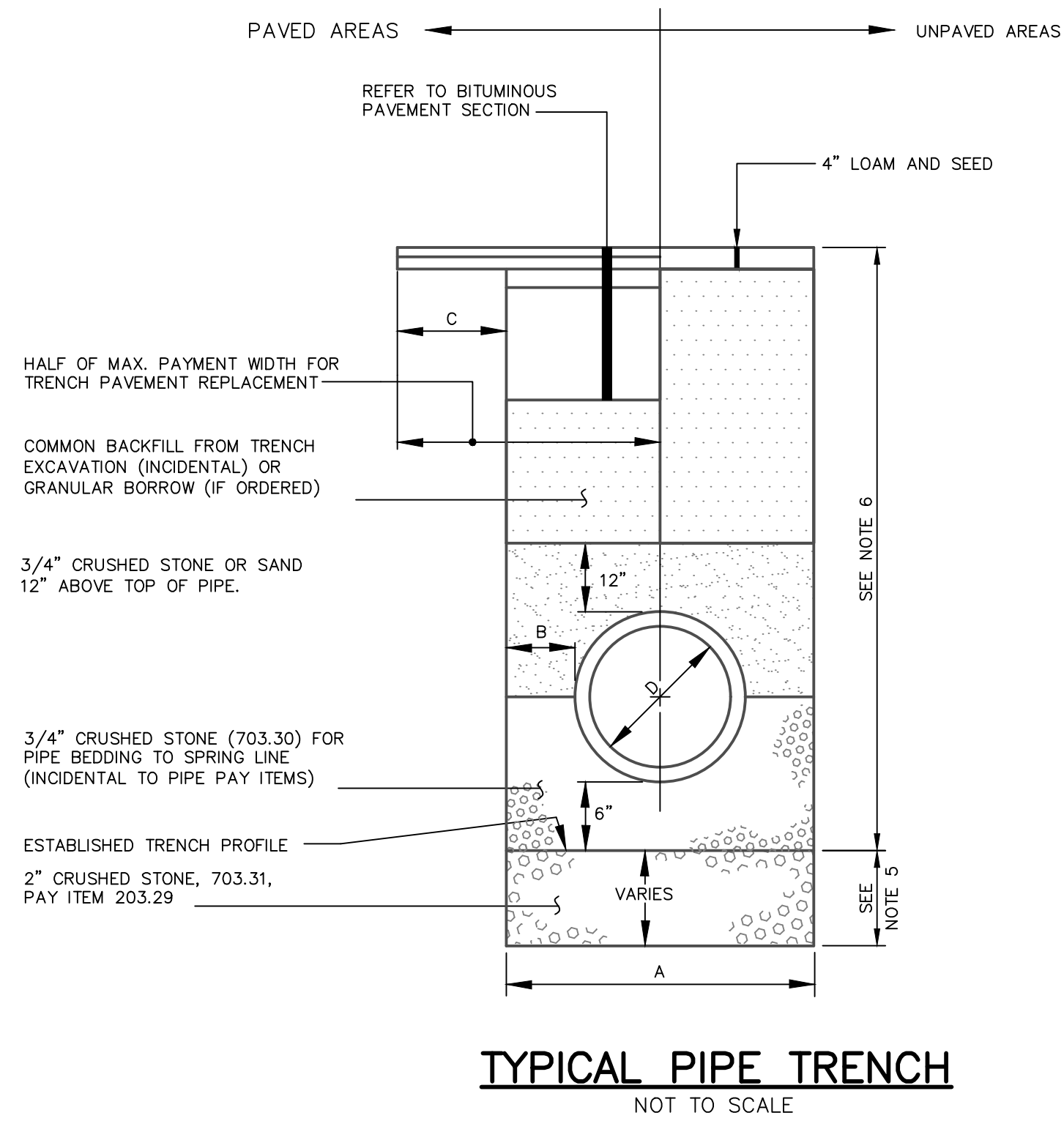
SUBJECT NAME:
NORTH DEERING FIRE STATION
386 ALLEN AVENUE
PORTLAND, MAINE 04103

CITY OF PORTLAND, MAINE
DEPARTMENT OF PUBLIC WORKS



DESIGN BY:	CCA				
DRAWN BY:	CCA				
CHECKED BY:	KDG				
SHEET NAME:	D1				
DATE:	07/26/2018				
PAGE 4 OF 5		REV: <table data-bbox="2948 1763 2972 1815"><tr><td> </td></tr><tr><td> </td></tr><tr><td> </td></tr></table>			
SHEET NO.:	1-D				
VAULT #:					

G:\CIVIL 3D PROJECTS\ALLENV. FIRE STATION. 2018.DBD\GALLEN. AV. FIRE STATION DETAILS.DWG D2 5/2018

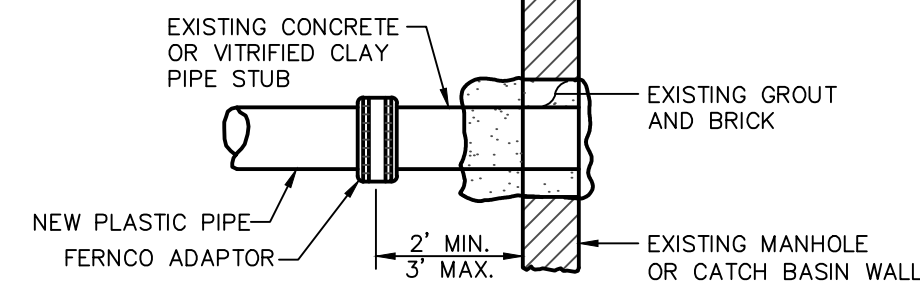


NOTES

1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. IN PAVED AREAS REFER TO BITUMINOUS PAVEMENT SECTION FOR DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT BASED ON THE CORRESPONDING STREET CLASSIFICATION.
3. DIMENSION "B" SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES "B" SHALL BE AT LEAST 9".
4. DIMENSION "A" IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION "A" SHALL BE BASED ON PIPE DIAMETER "D", AS SET FORTH IN THE FOLLOWING TABLE.
5. EXCAVATION BELOW ESTABLISHED TRENCH PROFILE (IF ORDERED), PAY ITEM 206,061.
6. EXCAVATION INCIDENTAL TO PIPE PAY ITEMS (PAVED AND SEEDED AREAS)
7. DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
8. ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES..

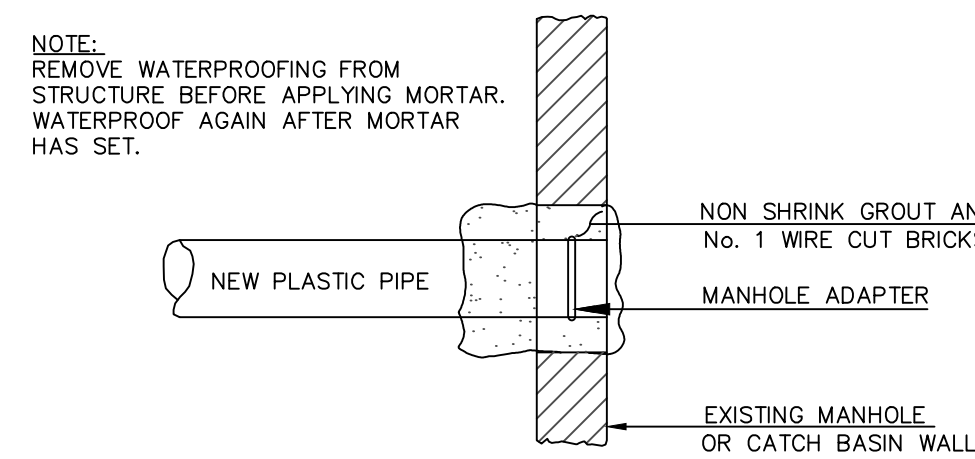
PIPE DIAMETER, "D" (INCHES)	MAX. TRENCH WIDTH, "A" (FEET)	PAVEMENT WIDTH OUTSIDE TRENCH, "C" (FEET)
4	4.0	2.5
6	4.0	2.5
8	4.0	2.5
10	4.0	2.5
12	4.0	2.5
15	4.0	2.5
18	5.0	2.0
21	5.0	2.0
24	5.5	1.75
27	6.0	1.5
30	6.0	1.5
36	7.0	1.0
42	8.0	1.0
48	8.0	1.0

NOTE:
REMOVE WATERPROOFING FROM
STRUCTURE BEFORE APPLYING MORTAR.
WATERPROOF AGAIN AFTER MORTAR
HAS SET.

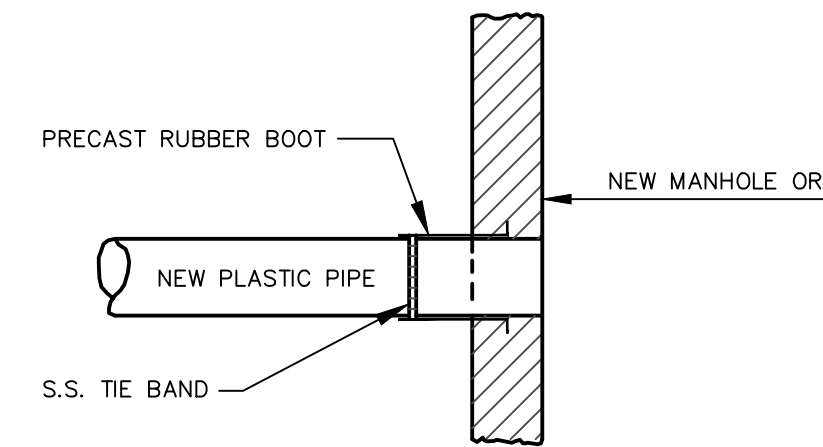


METHOD 4 - NEW PIPE TO EXISTING STRUCTURE STUB

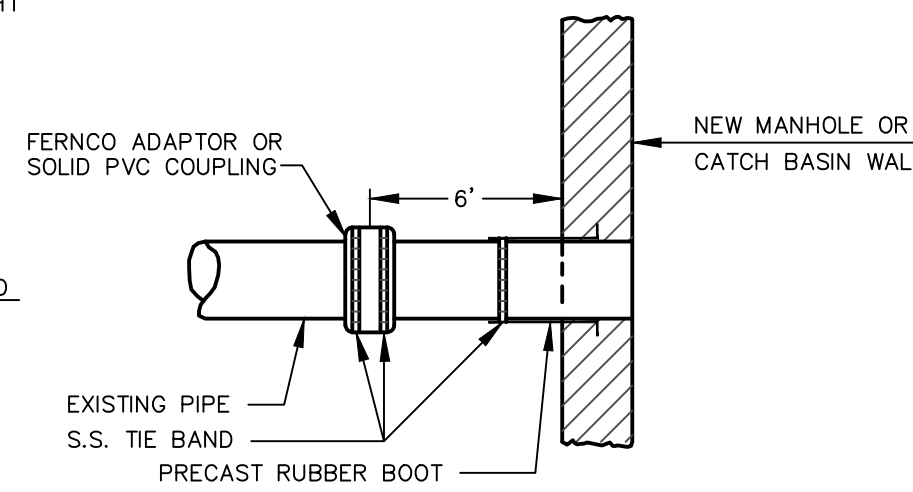
NOTE: EXISTING MANHOLE OR CATCH BASIN SHALL BE CORE DRILLED FOR PIPE INSTALLATION. IF PIPE DIAMETER IS SO LARGE THAT CORE DRILLING IS PROHIBITED, THE CONTRACTOR MAY SAW CUT THE STRUCTURE TO CREATE PIPE OPENING. THE NEW OPENING MUST THEN BE SEALED AND WATERTIGHT BOTH INSIDE AND OUTSIDE THE STRUCTURE.



METHOD 3 - NEW PIPE INTO EXISTING STRUCTURE



METHOD 2 - NEW CONSTRUCTION



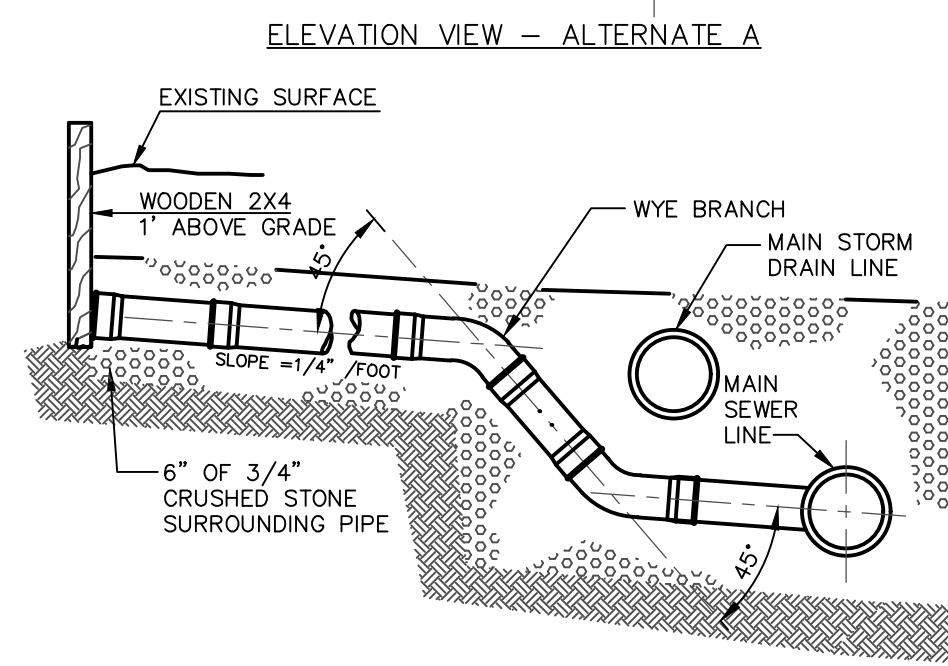
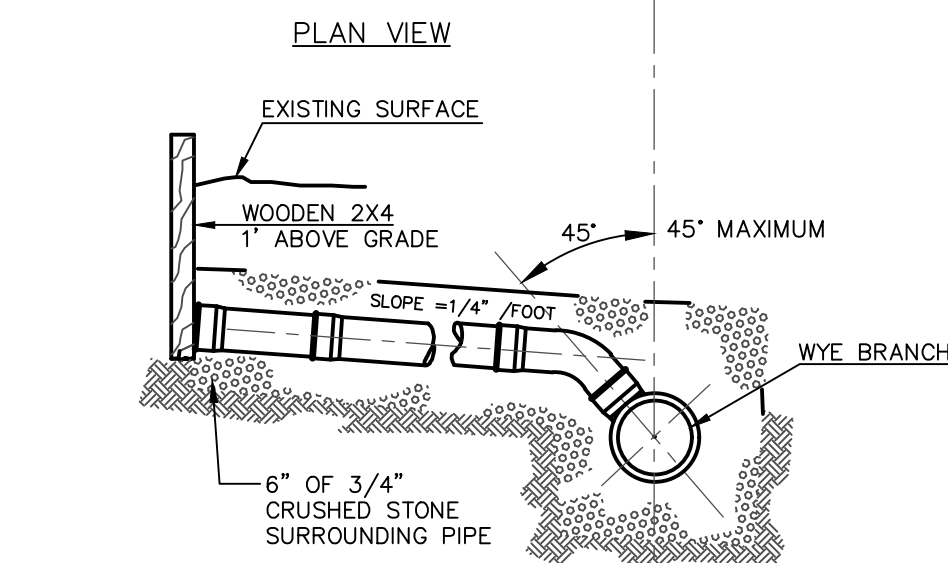
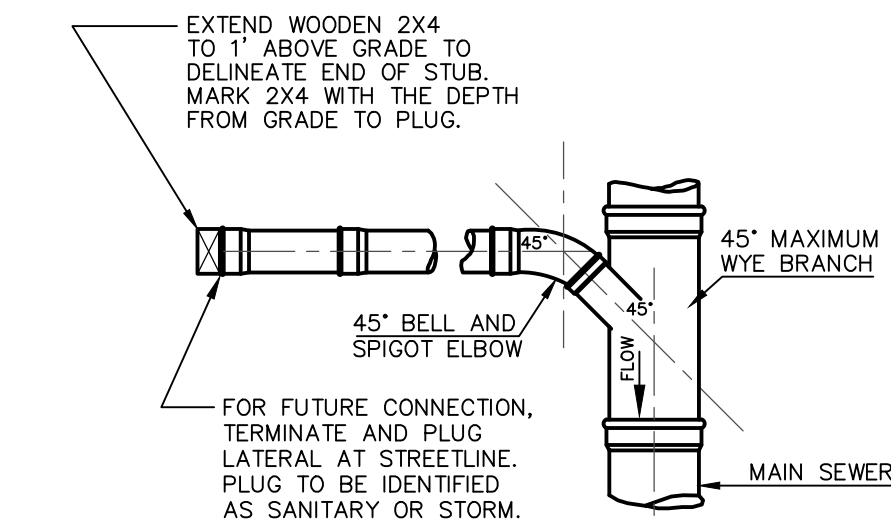
METHOD 1 - EXISTING PIPE INTO NEW STRUCTURE

PLASTIC PIPE CONNECTIONS

NOT TO SCALE

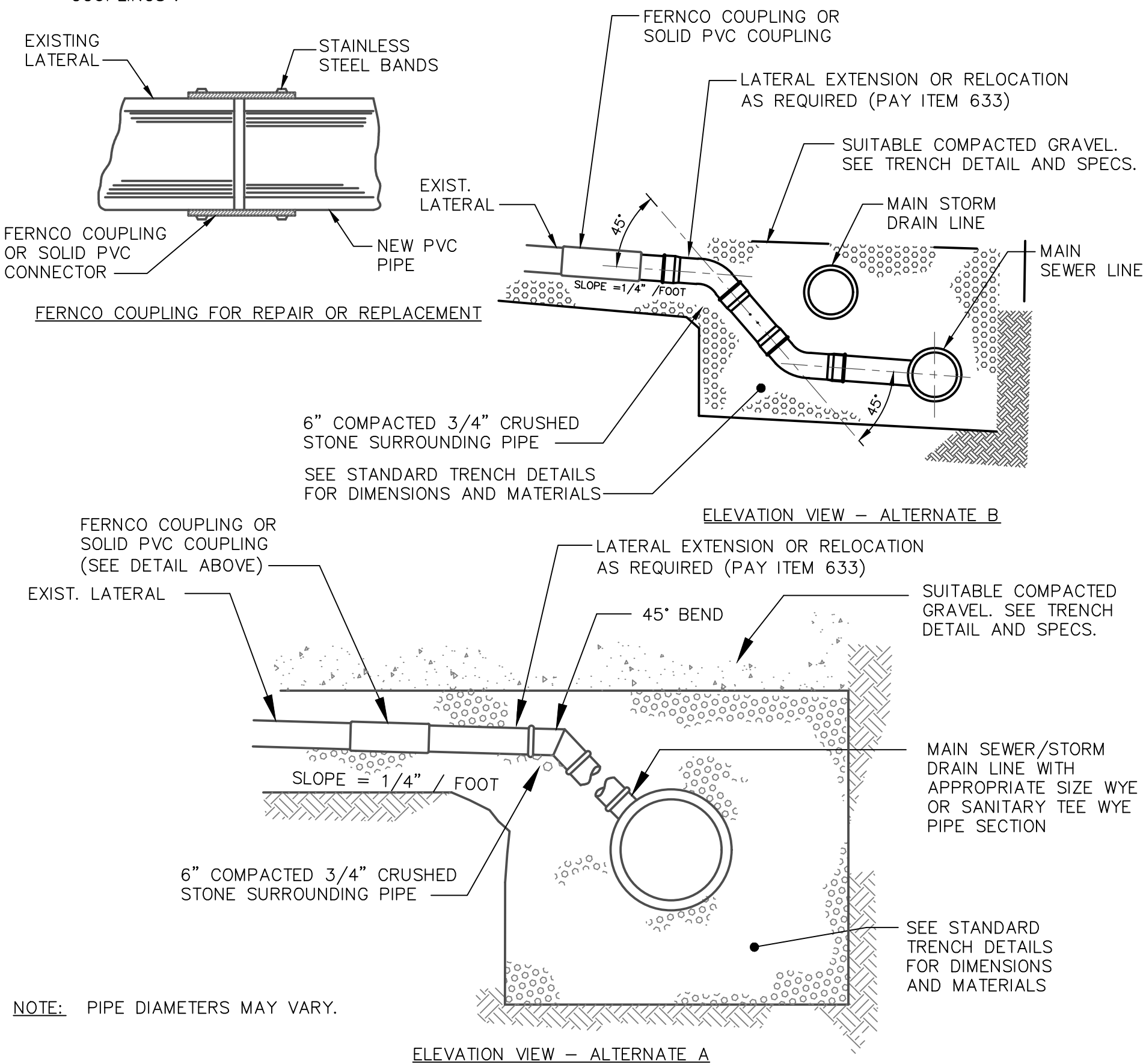
1. LOCATIONS AND ELEVATIONS OF STUBS SHOWN ON THE PLANS ARE TO BE CONSIDERED AS APPROXIMATE AND MAY BE ADJUSTED AS DIRECTED TO SUIT FIELD CONDITIONS.
2. HOUSE CONNECTIONS AND CATCH BASIN CONNECTIONS TO THE MAIN LINE OF THE SEWER SHALL CONSIST OF AN APPROPRIATE "Y" BRANCH CONNECTION AS SHOWN ON THE PLANS, OR AS DIRECTED. ACTUAL "Y" LOCATIONS FOR HOUSE CONNECTIONS AND CATCH BASIN CONNECTIONS SHALL BE DETERMINED DURING CONSTRUCTION. THE CONTRACTOR SHALL KEEP A COMPLETE RECORD OF "Y" LOCATIONS WHICH SHALL BE GIVEN TO THE CITY OF PORTLAND UPON COMPLETION OF THE CONTRACT. ALL PVC COUPLING SHALL BE "SOLID PVC COUPLINGS".

NOTE:
LOCATION / WARNING TAPE SHALL BE
INSTALLED OVER CENTERLINE OF PIPE AT A
MAXIMUM OF 24 INCHES BELOW FINISH GRADE.



TYPICAL HOUSE LATERAL TEE/WYE CONNECTION

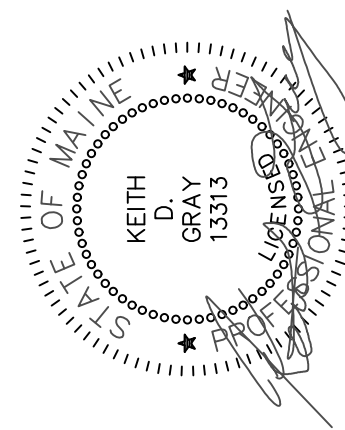
NOT TO SCALE



NOTE: PIPE DIAMETERS MAY VARY.

TYPICAL EXISTING LATERAL CONNECTION

NOT TO SCALE



REV	DESCRIPTION	DATE
3	SUBMITTED TO PURCHASING	07/26/2018
2	PROGRESS SET TO FIRE STATION	07/17/18
1	FOR PORTLAND WATER DISTRICT REVIEW	07/13/18

PROJECT NAME:
NORTH DEERING FIRE STATION
386 ALLEN AVENUE
PORTLAND, MAINE 04103

CITY OF PORTLAND, MAINE
DIVISION
DEPARTMENT OF PUBLIC WORKS

55 PORTLAND ST. PORTLAND, MAINE 04101
PHONE (207) 878-6664 FAX (207) 878-6662



DESIGN BY:	CCA
DRAWN BY:	CCA
CHECKED BY:	KDG
SHEET NAME:	

DATE:	07/26/2018
PAGE 5 OF 5	
SHEET NO.:	2-D
VAULT #:	
REV.:	



WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
**STRUCTURAL INTEGRITY
CONSULTING
ENGINEERS, INC.**

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

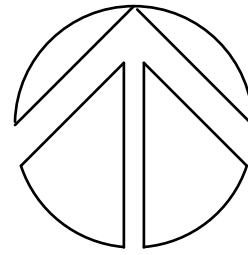
HVAC & Plumbing Engineering:
**MECHANICAL SYSTEMS
ENGINEERS**

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
**SWIFT CURRENT
ENGINEERING SERVICES**

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



CITY OF PORTLAND NORTH DEERING FIRE STATION

Renovation & Expansion

386 Allen Avenue
Portland, ME 04103



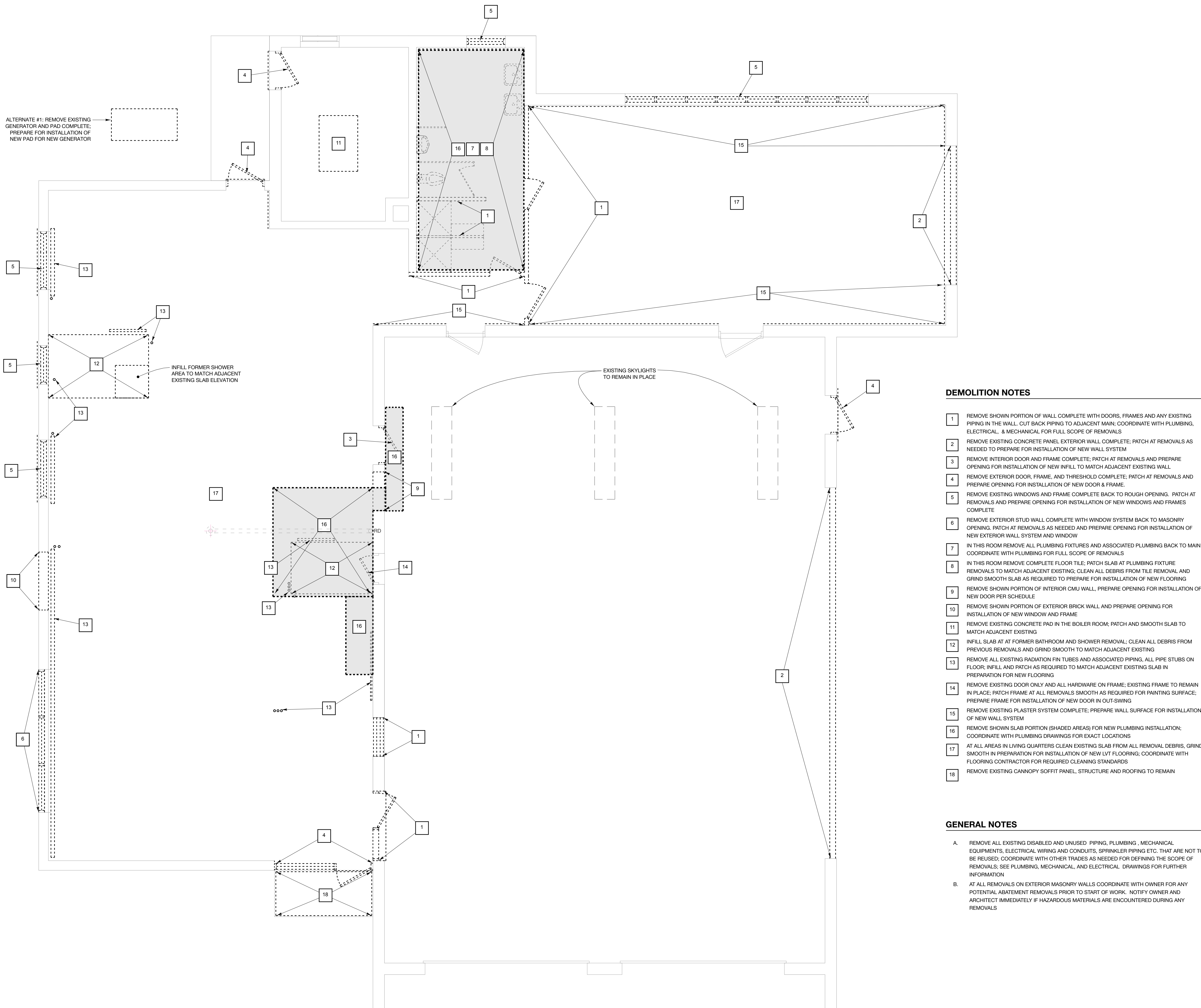
BIDDING & CONSTRUCTION DRAWINGS

Scale: 1/4" = 1'-0"

DEMOLITION FLOOR PLAN

D1.1

July 25, 2018





WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
**STRUCTURAL INTEGRITY
CONSULTING
ENGINEERS, INC.**

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

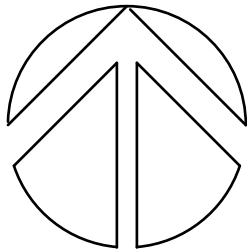
HVAC & Plumbing Engineering:
**MECHANICAL SYSTEMS
ENGINEERS**

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
**SWIFT CURRENT
ENGINEERING SERVICES**

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



**CITY OF
PORTLAND
NORTH
DEERING FIRE
STATION**

**Renovation &
Expansion**

386 Allen Avenue
Portland, ME 04103



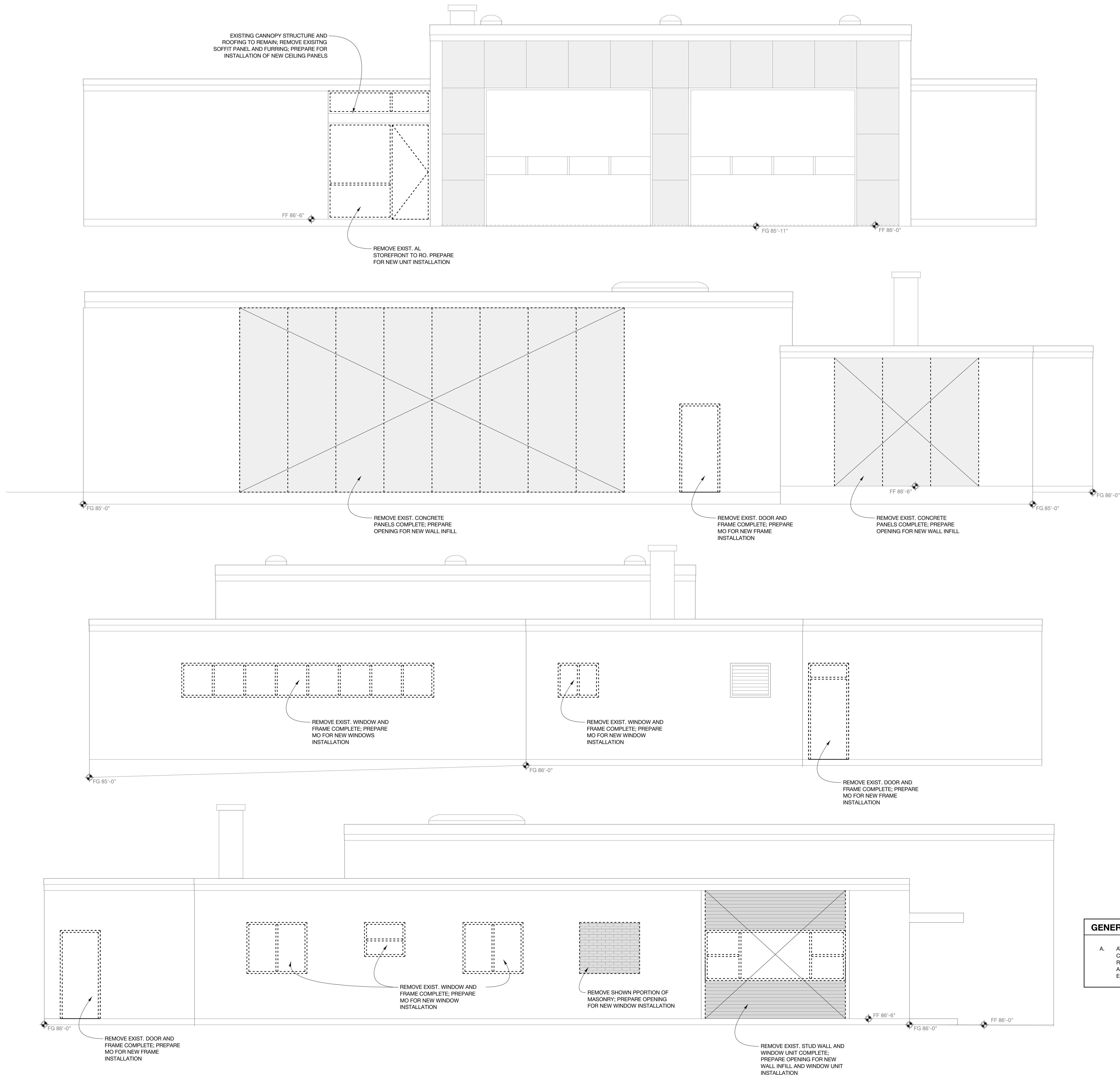
**BIDDING & CONSTRUCTION
DRAWINGS**

Scale: 1/4" = 1'-0"

**DEMOLITION
ELEVATIONS**

D2.1

July 25, 2018



GENERAL NOTES

- A. AT ALL REMOVALS ON EXTERIOR MASONRY WALLS
COORDINATE WITH OWNER FOR ANY POTENTIAL ABATEMENT
REMOVALS PRIOR TO START OF WORK. NOTIFY OWNER AND
ARCHITECT IMMEDIATELY IF HAZARDOUS MATERIALS ARE
ENCOUNTERED DURING ANY REMOVALS



WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
**STRUCTURAL INTEGRITY
CONSULTING
ENGINEERS, INC.**

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

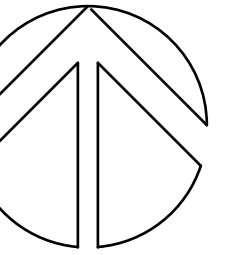
HVAC & Plumbing Engineering:
**MECHANICAL SYSTEMS
ENGINEERS**

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
**SWIFT CURRENT
ENGINEERING SERVICES**

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



CITY OF PORTLAND NORTH DEERING FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION
DRAWINGS

Scale: 1/4" = 1'-0"

PROPOSED
FLOOR PLAN

A1.1

July 25, 2018



Structural Engineering:
**STRUCTURAL INTEGRITY
CONSULTING
ENGINEERS, INC.**

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

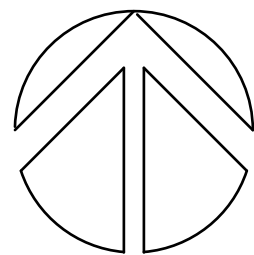
HVAC & Plumbing Engineering:
**MECHANICAL SYSTEMS
ENGINEERS**

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
**SWIFT CURRENT
ENGINEERING SERVICES**

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



**CITY OF
PORTLAND
NORTH
DEERING FIRE
STATION**

**Renovation &
Expansion**

386 Allen Avenue
Portland, ME 04103



**BIDDING & CONSTRUCTION
DRAWINGS**

Scale: 1/4" = 1'-0"

**PROPOSED
ELEVATIONS**

A2.1

July 25, 2018





WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
**STRUCTURAL INTEGRITY
CONSULTING
ENGINEERS, INC.**

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

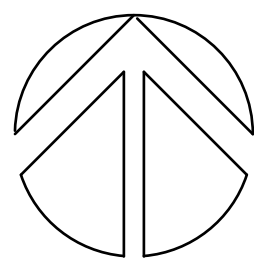
H/VAC & Plumbing Engineering:
**MECHANICAL SYSTEMS
ENGINEERS**

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
**SWIFT CURRENT
ENGINEERING SERVICES**

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



CITY OF PORTLAND NORTH DEERING FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



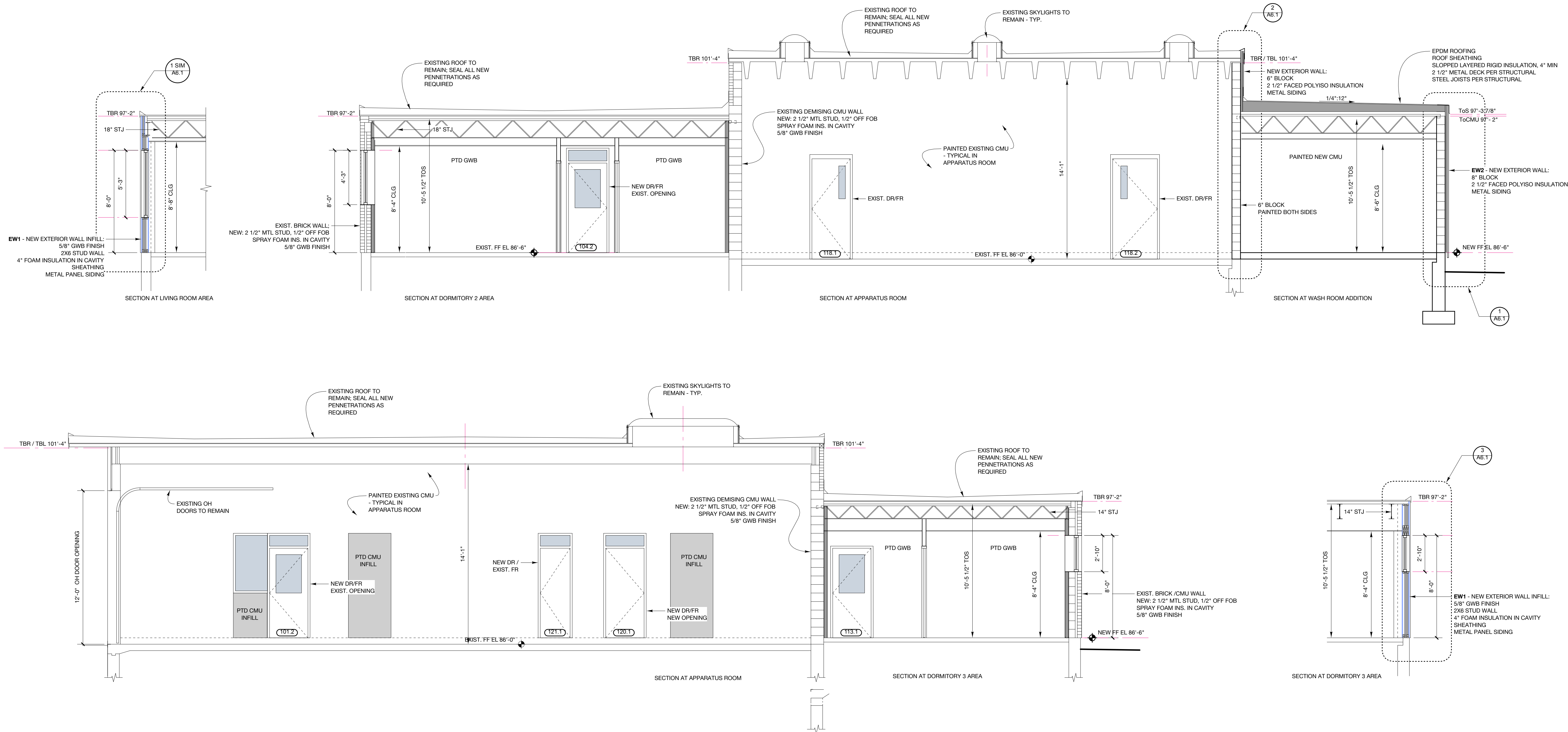
BIDDING & CONSTRUCTION
DRAWINGS

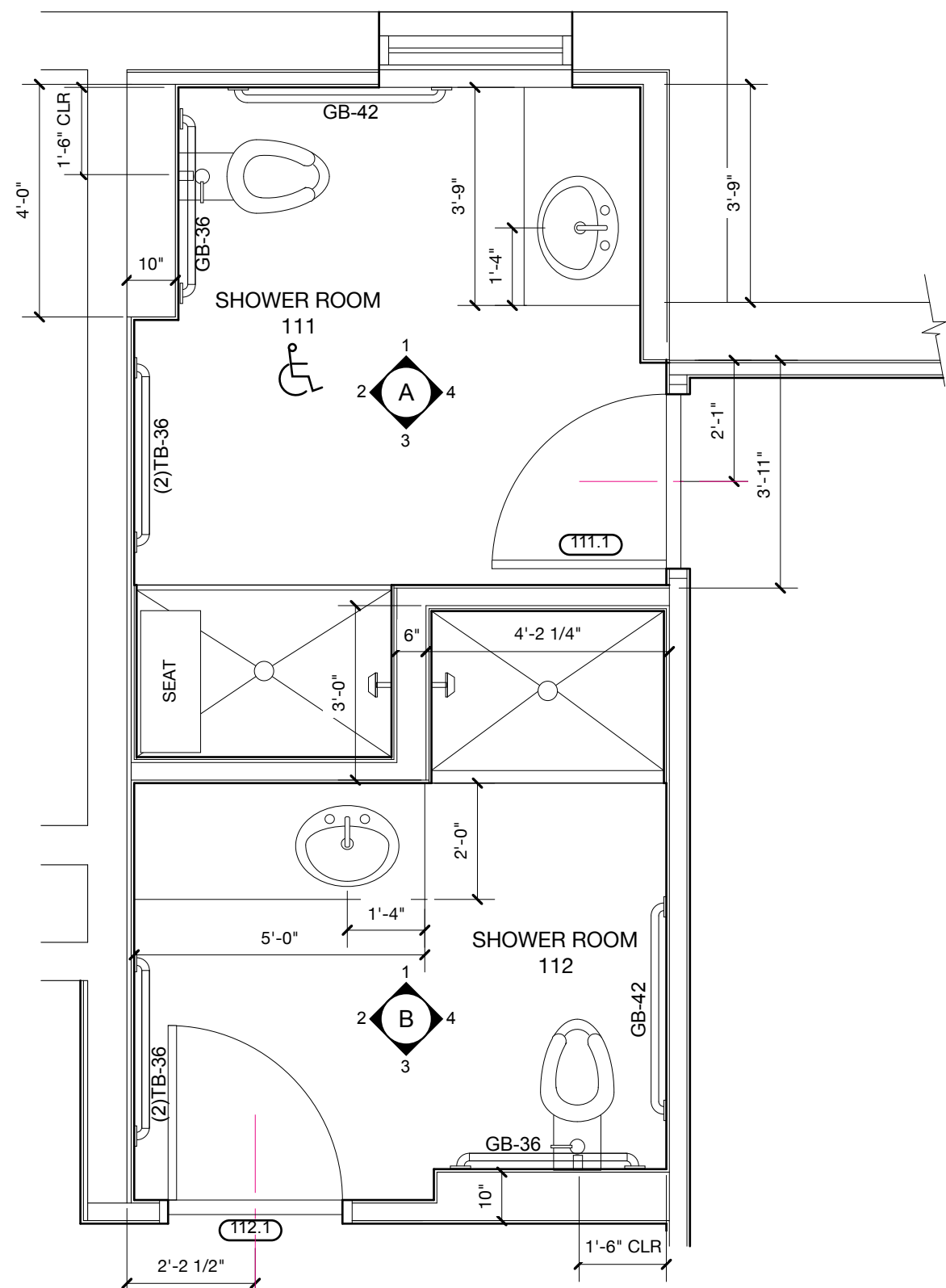
Scale: 1/4" = 1'-0"

BUILDING
SECTIONS

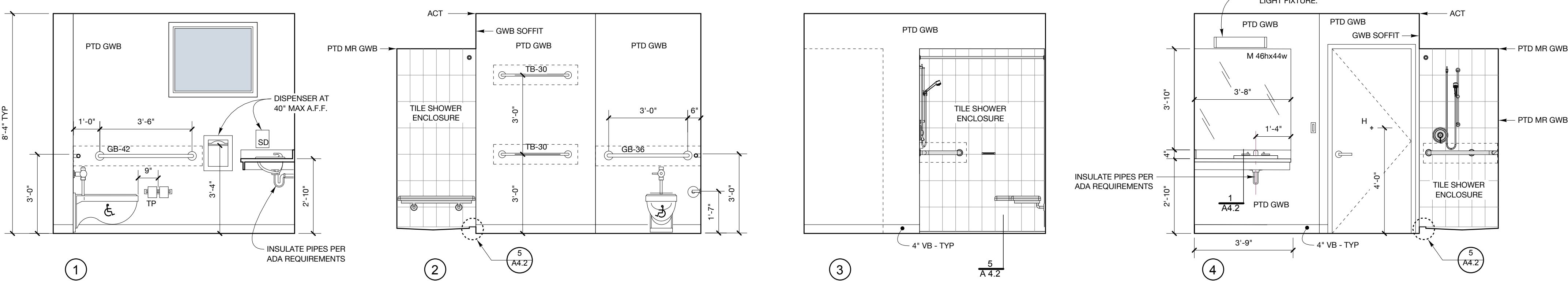
A3.1

July 25, 2018



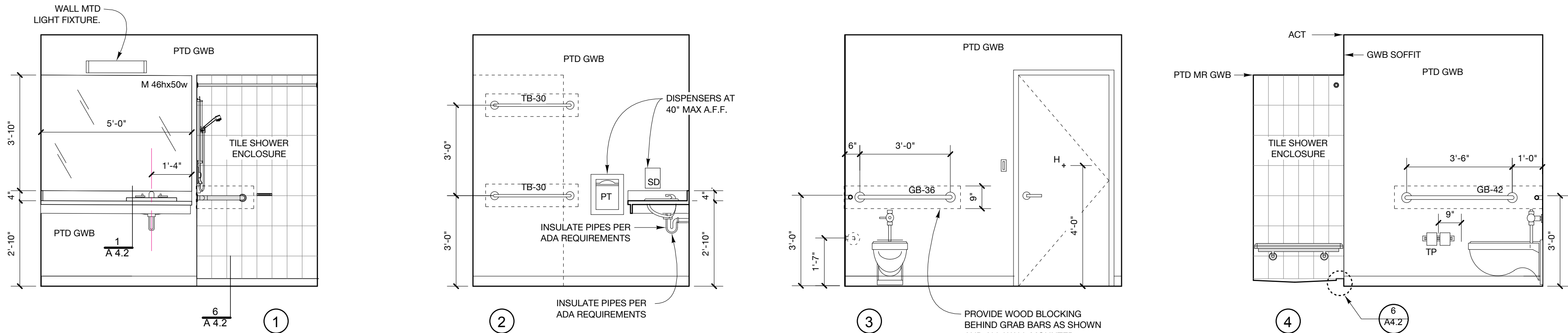


BATHROOM ENLARGED PLAN - ROOM #111, #112



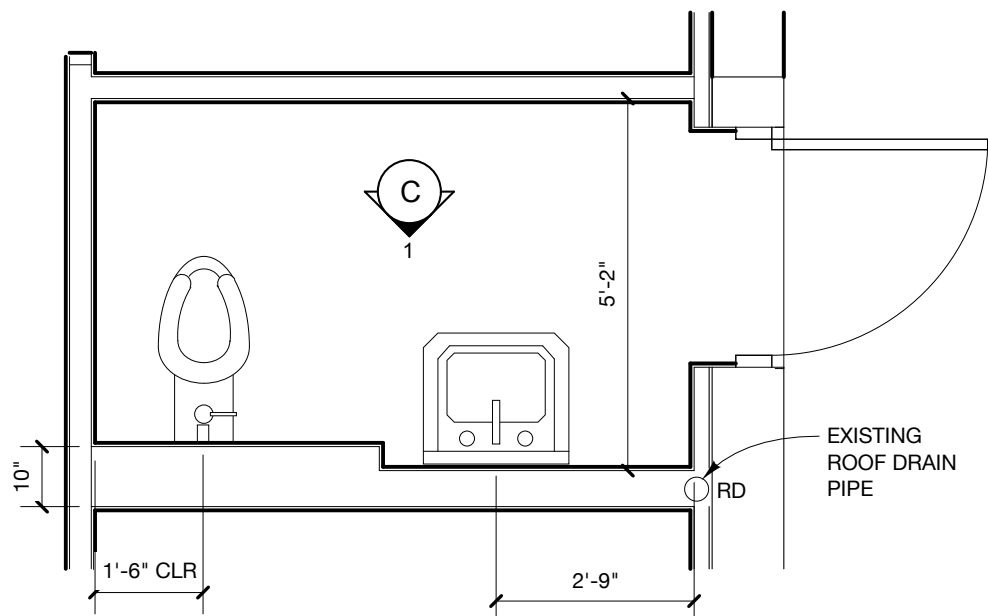
BATHROOM ELEVATIONS - ROOM #111

SCALE: 3/8" = 1'-0"

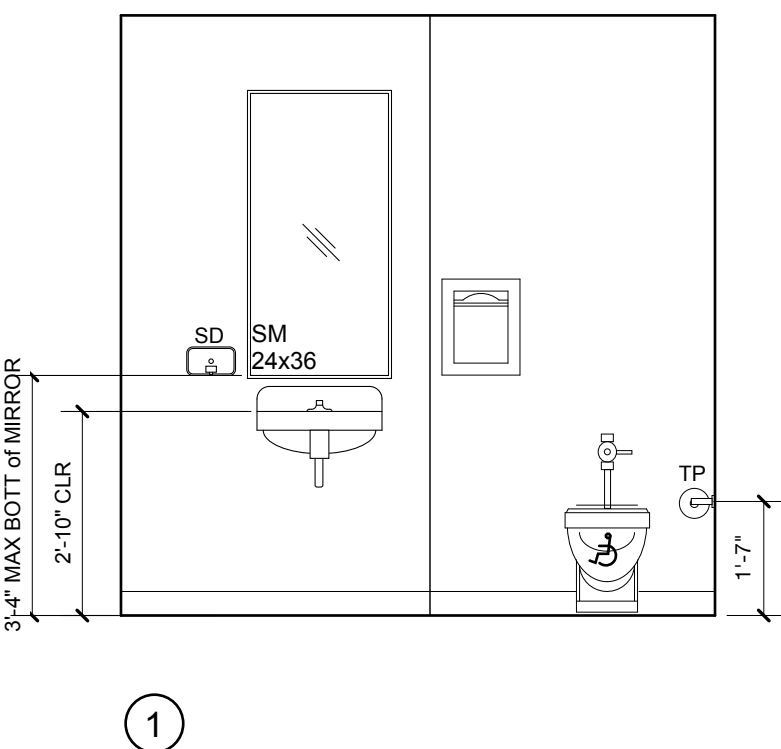


BATHROOM ELEVATIONS - ROOM #112

SCALE: 3/8" = 1'-0"

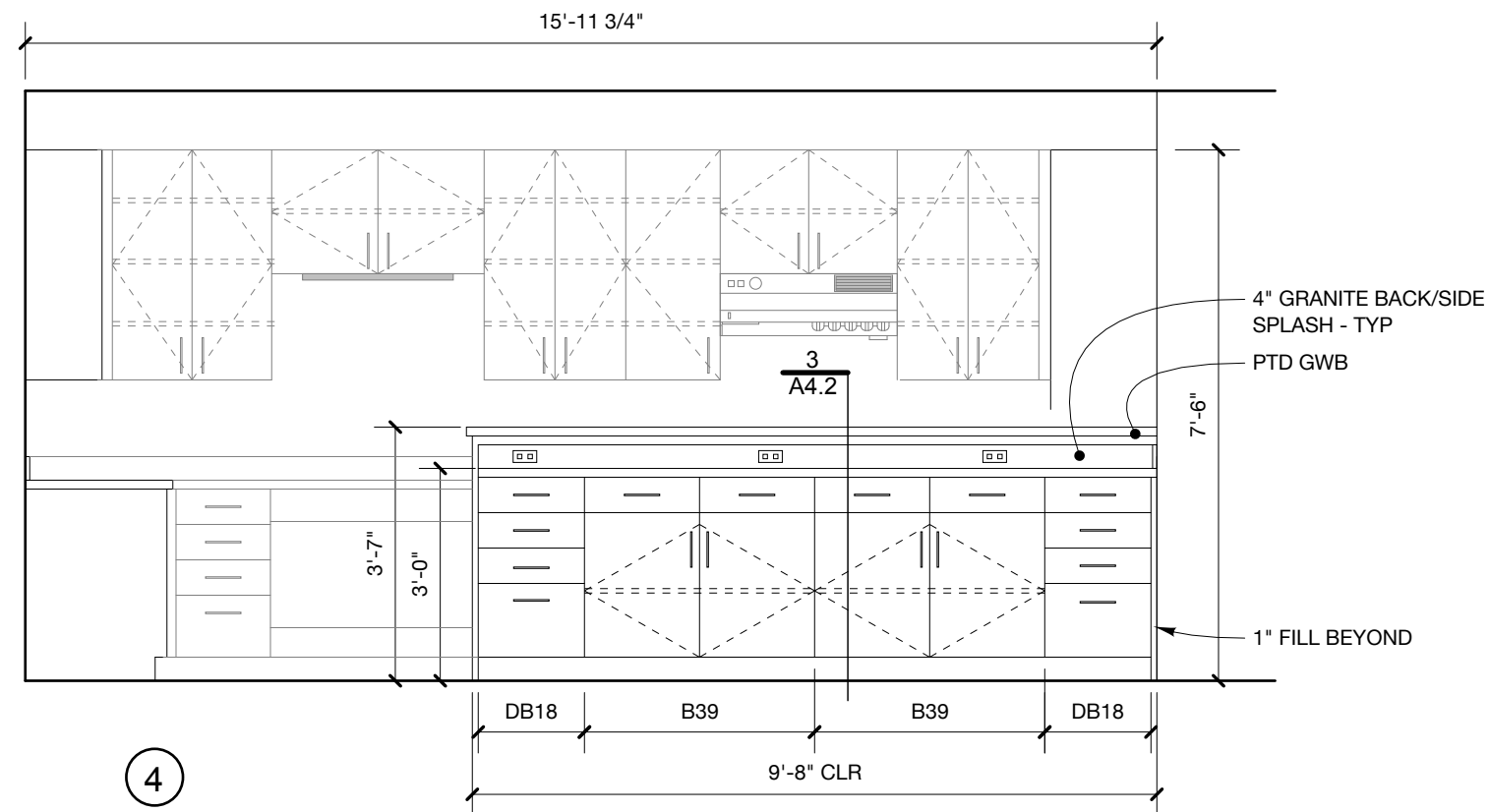


BATHROOM ENLARGED PLAN - ROOM #120



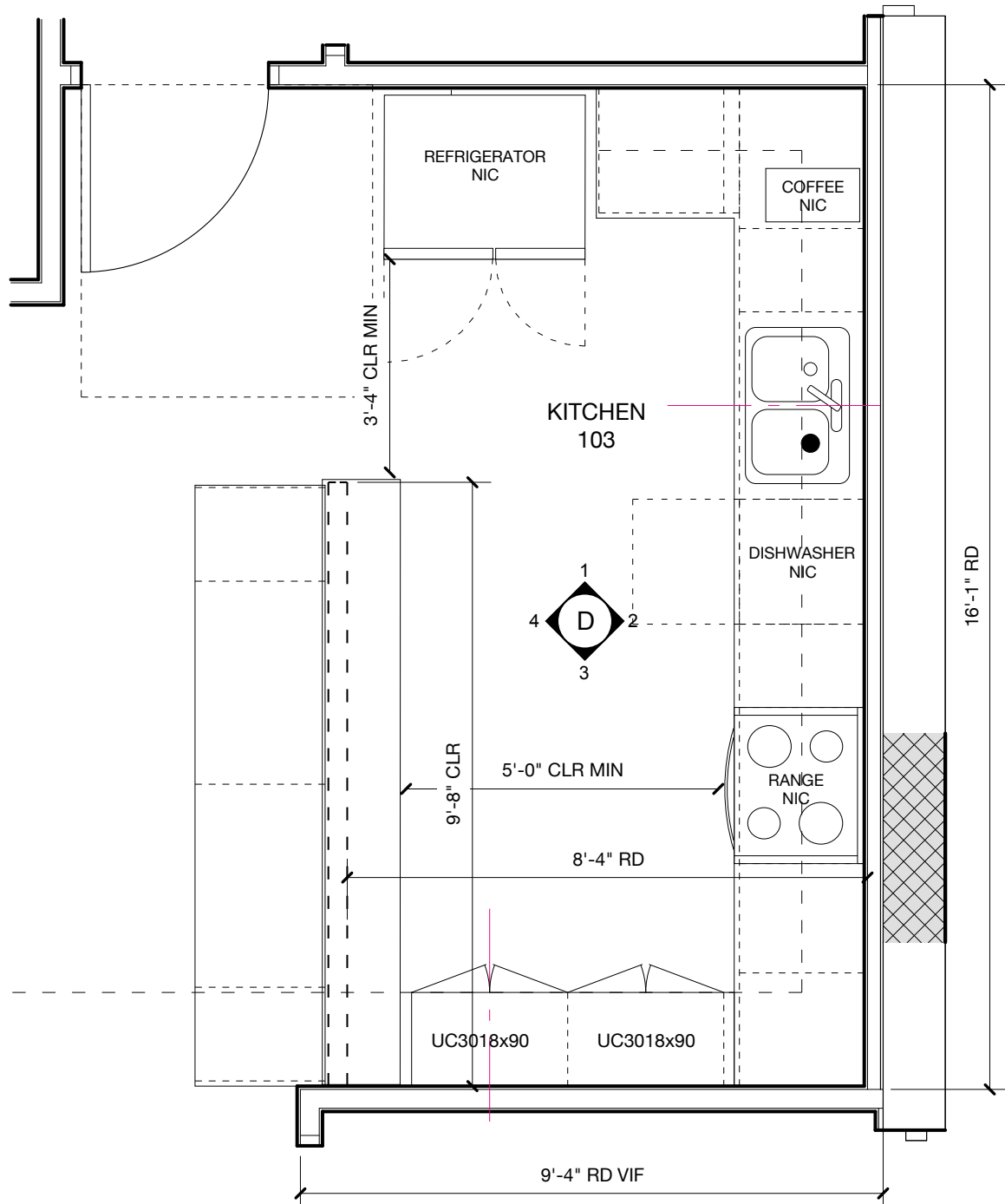
BATHROOM ELEVATIONS - ROOM #120

SCALE: 3/8" = 1'-0"

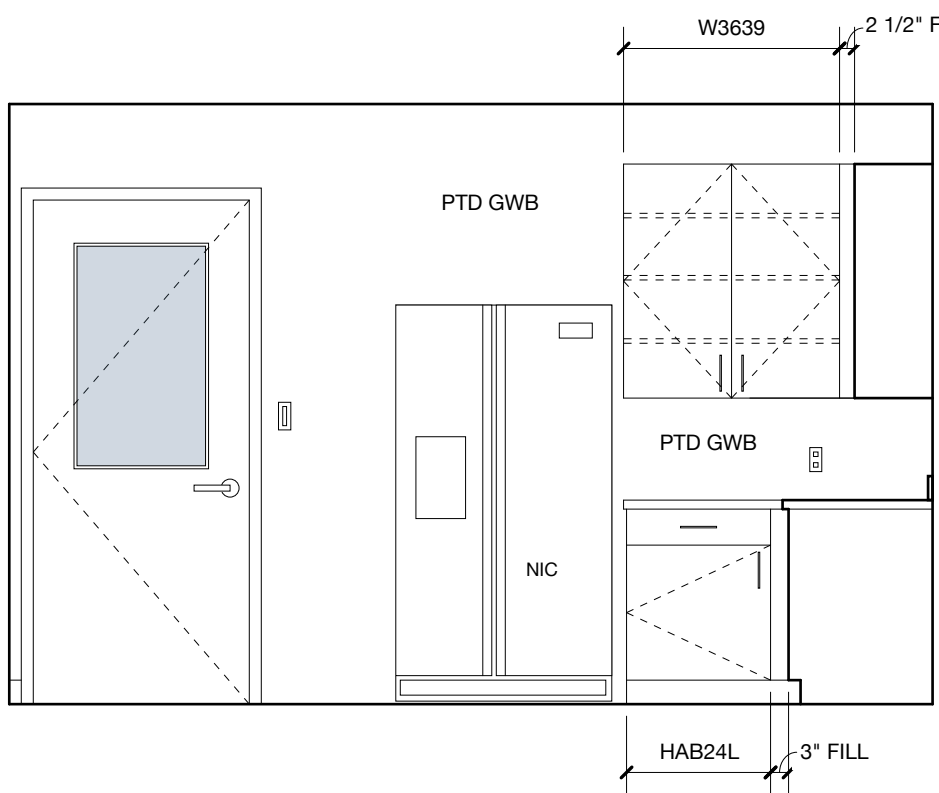


BATHROOM ELEVATIONS - ROOM #120

SCALE: 3/8" = 1'-0"

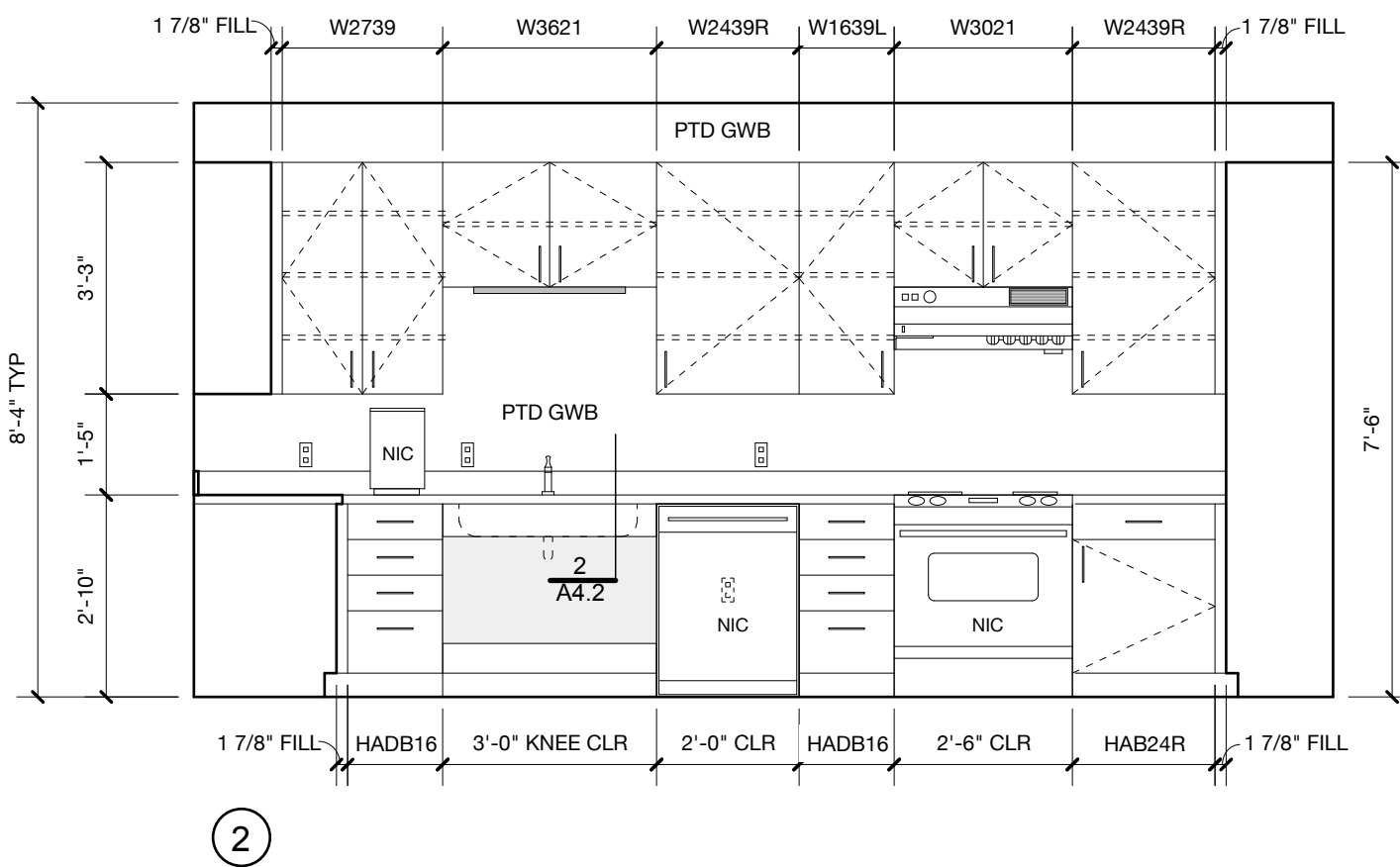


KITCHEN ENLARGED PLAN - ROOM #103

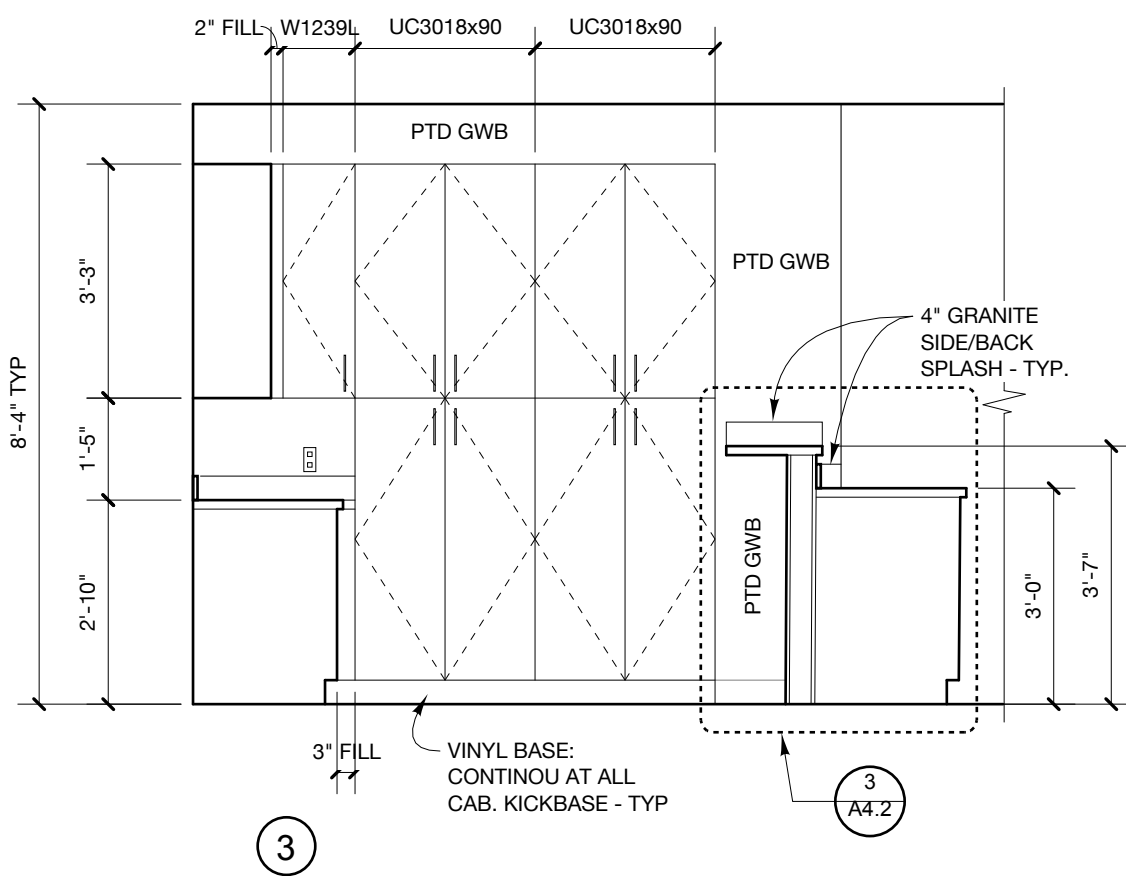


KITCHEN ELEVATIONS - ROOM #103

SCALE: 3/8" = 1'-0"



KITCHEN ELEVATIONS - ROOM #103



KITCHEN ELEVATIONS - ROOM #103

GENERAL NOTES

1. PROVIDE SOLID BLOCKING BEHIND ALL WALL MOUNTED ACCESSORIES.
2. REFER TO SPECIFICATIONS AND DETAILS FOR ACCESSORIES DESCRIPTIONS.
3. DIMENSIONS ARE CLEAR TO FACE OF FINISHED WALL, AND EDGE OF FIXTURE/ ACCESSORY UNLESS INDICATED OTHERWISE. CONTACT ARCHITECT IF DISCREPANCIES ARE FOUND.
4. INSULATE ALL EXPOSED PIPES AT SINKS PER ADA REQUIREMENTS, TYPICAL.
5. KITCHEN AND VANITY COUNTER TOPS SHALL BE GRANITE WITH 1 1/2" NOSING WITH EASED EDGE.
6. ALL KITCHEN CABINETS SHALL BE AS DESCRIBED IN SPECIFICATIONS. CABINET NUMBERS ON PLANS & ELEVATIONS REFER TO ADVANTA CABINETS NUMBERING SYSTEM
7. G.C. SHALL VERIFY ALL FIELD DIMENSIONS BEFORE CABINET FABRICATION
8. COORDINATE WITH ELECTRICAL DRAWINGS FOR OUTLETS AND SWITCH LOCATIONS
9. ALL KITCHEN APPLIANCES, BUT THE RANGE HOOD, ARE PROVIDED BY OWNER (FURNISH AND INSTALL) GC TO PROVIDE ALL REQUIRED HOOK-UPS. RANGE HOOD PROVIDED BY MECHANICAL CONTRACTOR

LEGEND

- SEE SPECIFICATIONS FOR TOILET ACCESSORIES
- M _____ FRAMELESS MIRROR W/ POLISHED EDGES
- GB-42 _____ 42" GRAB BAR
- GB-36 _____ 36" GRAB BAR
- PT _____ PAPER TOWEL DISPENSER
- TP _____ SURFACE MOUNTED TOILET PAPER
- SD _____ SOAP DISPENSER
- H _____ ROBE HOOK
- TB-30 _____ 30" TOWEL BAR

CITY OF PORTLAND NORTH DEERING FIRE STATION

Renovation & Expansion

386 Allen Avenue
Portland, ME 04103

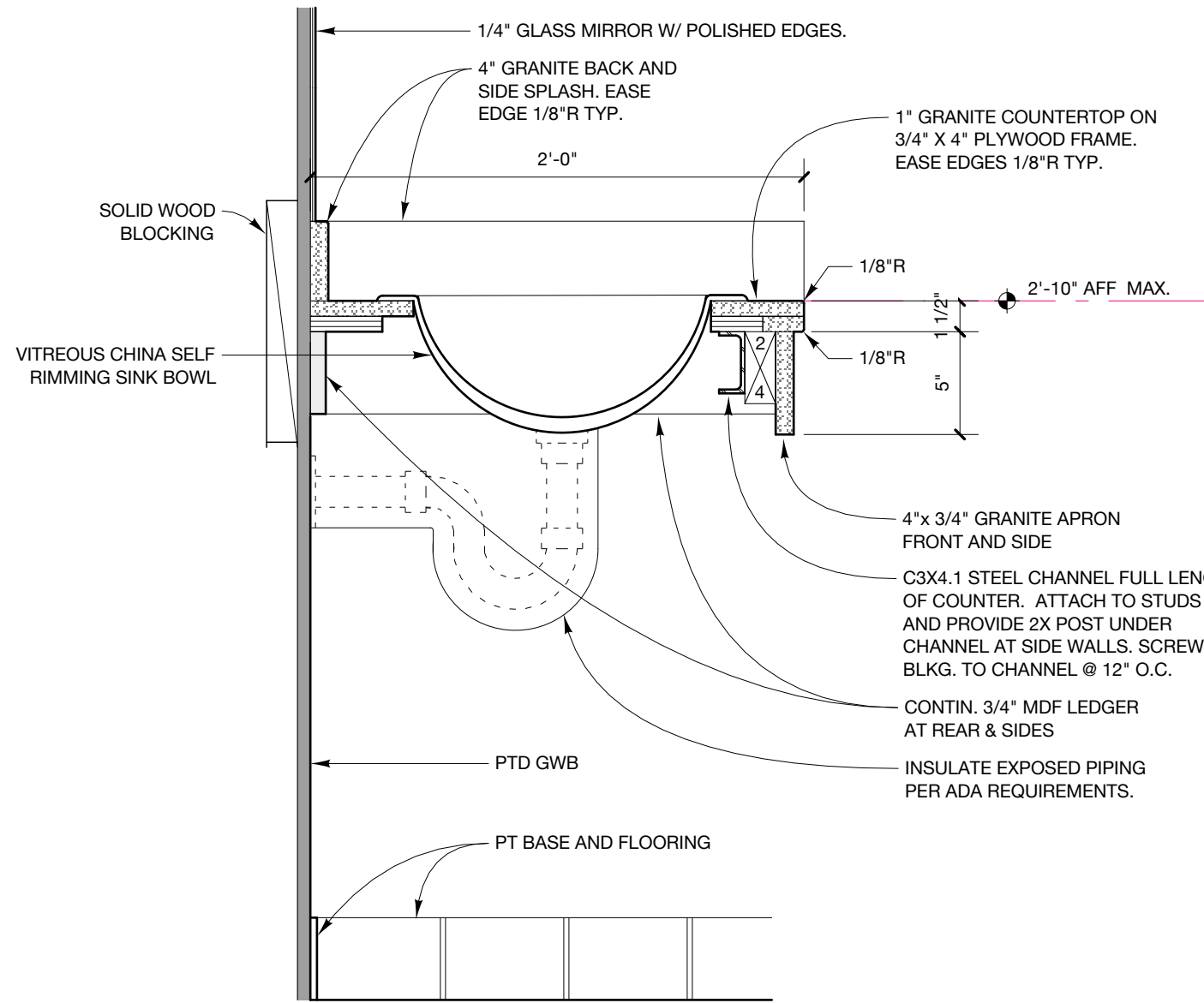


BIDDING & CONSTRUCTION DRAWINGS

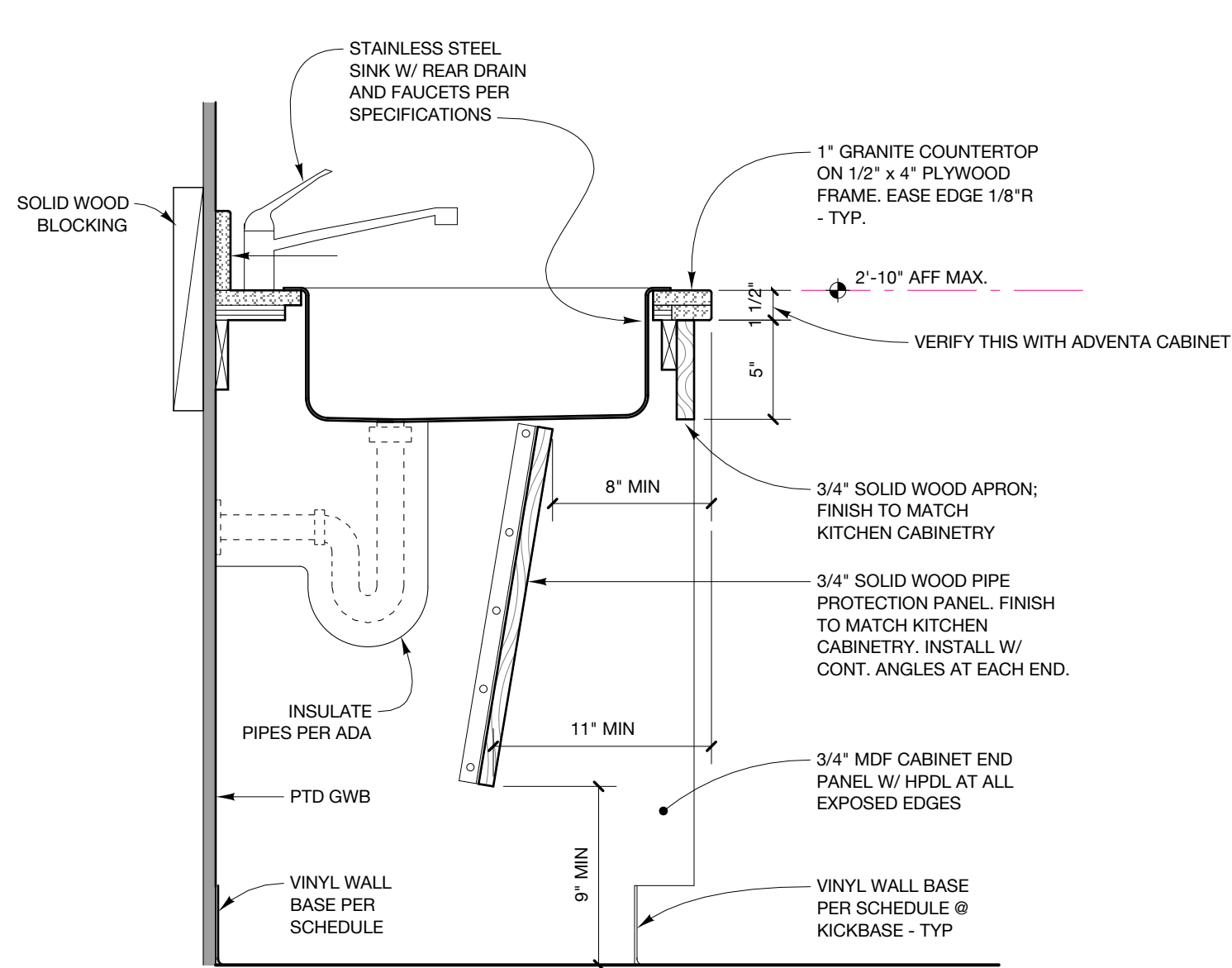
Scale: 3/8" = 1'-0"

KITCHEN / BATHROOMS PLANS & ELEVATIONS

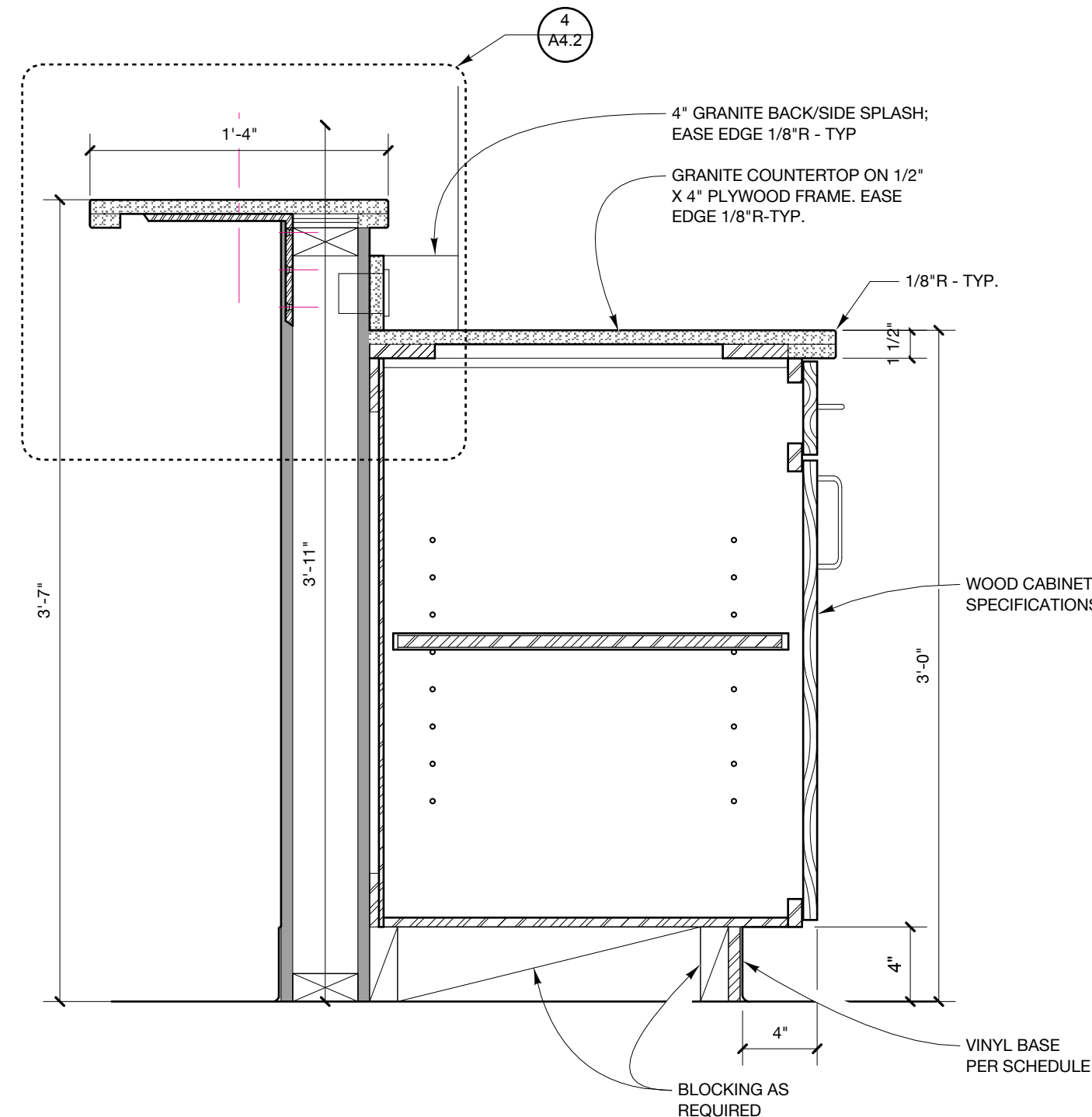
A4.1



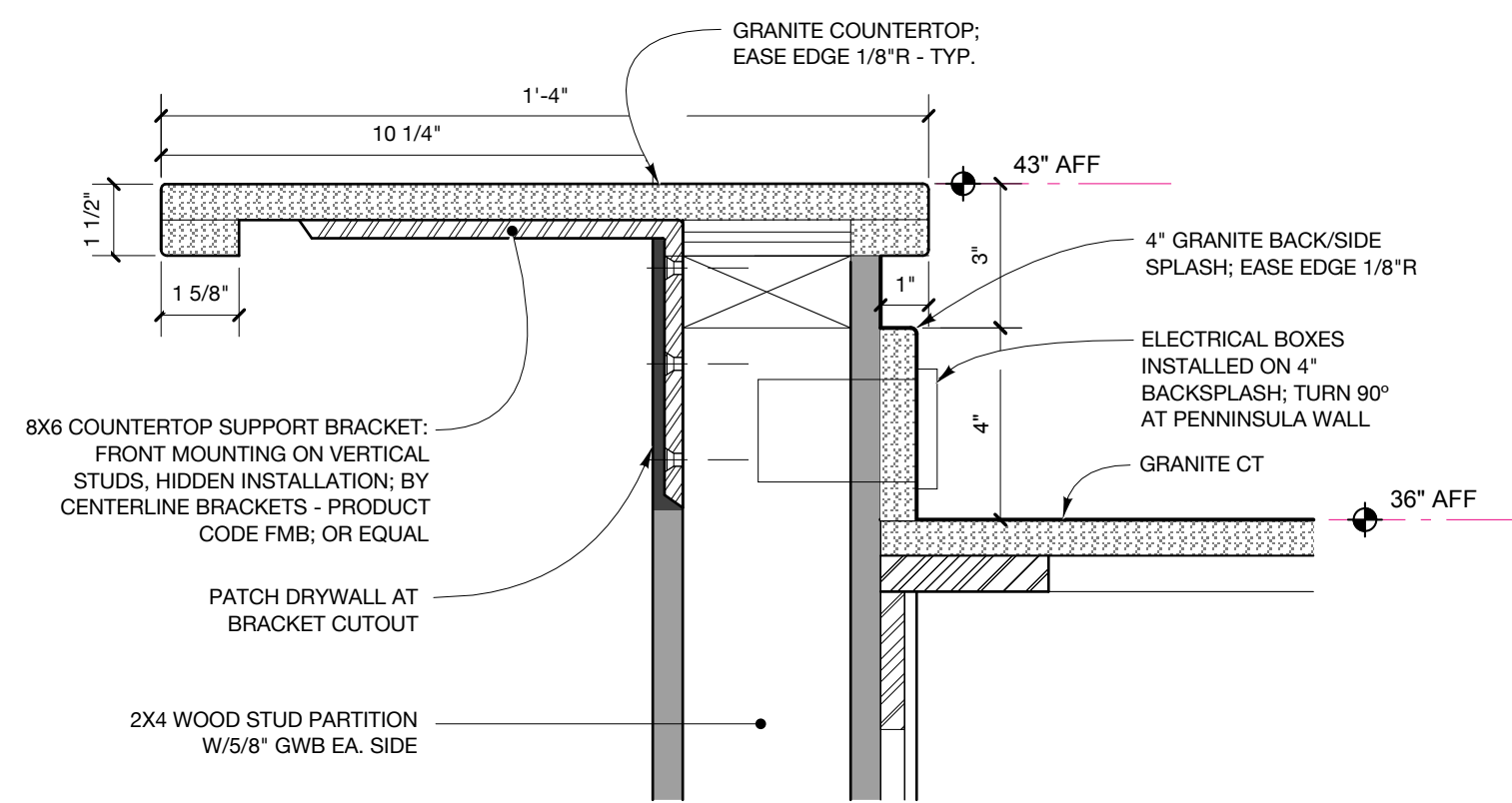
1 LAVATORY DETAIL
SCALE: 1 1/2" = 1'-0"



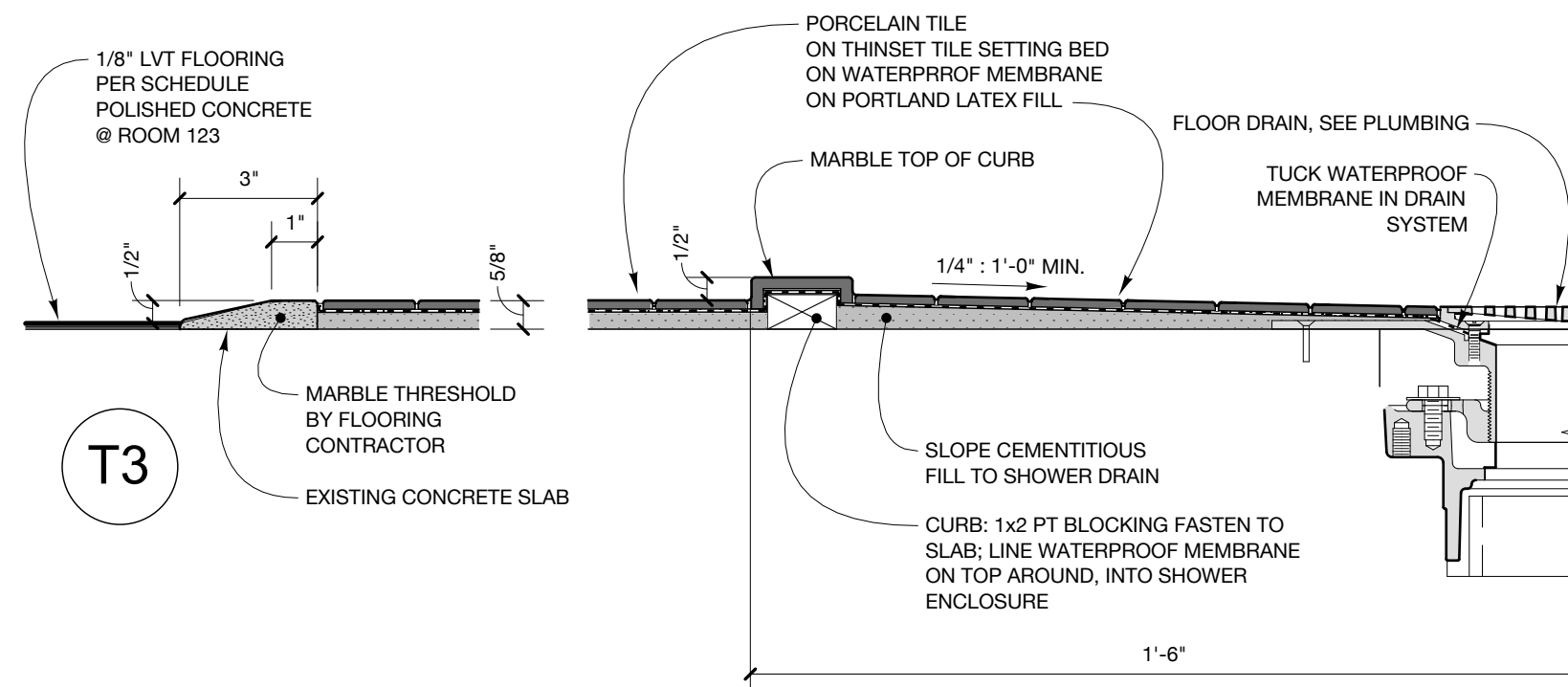
2 SECTION DETAIL AT KITCHEN SINK
SCALE: 1 1/2" = 1'-0"



3 SECTION DETAIL AT PENINSULA CABINET
SCALE: 1 1/2" = 1'-0"



4 SECTION DETAIL AT PENINSULA CABINET
SCALE: 4" = 1'-0"



5 SECTION DETAIL AT TRANSFER SHOWER ENCLOSURE
SCALE: 4" = 1'-0"
ROOM 111; SIMILAR AT ROOM 123

Structural Engineering:
**STRUCTURAL INTEGRITY
CONSULTING
ENGINEERS, INC.**

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

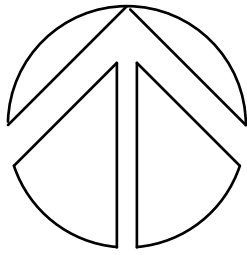
HVAC & Plumbing Engineering:
**MECHANICAL SYSTEMS
ENGINEERS**

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
**SWIFT CURRENT
ENGINEERING SERVICES**

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



**CITY OF
PORTLAND
NORTH
DEERING FIRE
STATION**

**Renovation &
Expansion**

386 Allen Avenue
Portland, ME 04103



**BIDDING & CONSTRUCTION
DRAWINGS**

Scale: 1/4" = 1'-0"

REFLECTED
CEILING PLAN

A5.1



GENERAL NOTES

- SEE ELECTRICAL DRAWINGS FOR LIGHTING FIXTURES TYPES AND SPECIFICATIONS
- COORDINATE WITH MECHANICAL PLANS FOR DIFFUSERS AND REGISTERS LOCATIONS



WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
**STRUCTURAL INTEGRITY
CONSULTING
ENGINEERS, INC.**

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

HVAC & Plumbing Engineering:
**MECHANICAL SYSTEMS
ENGINEERS**

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
**SWIFT CURRENT
ENGINEERING SERVICES**

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

CITY OF PORTLAND NORTH DEERING FIRE STATION

Renovation & Expansion

386 Allen Avenue
Portland, ME 04103



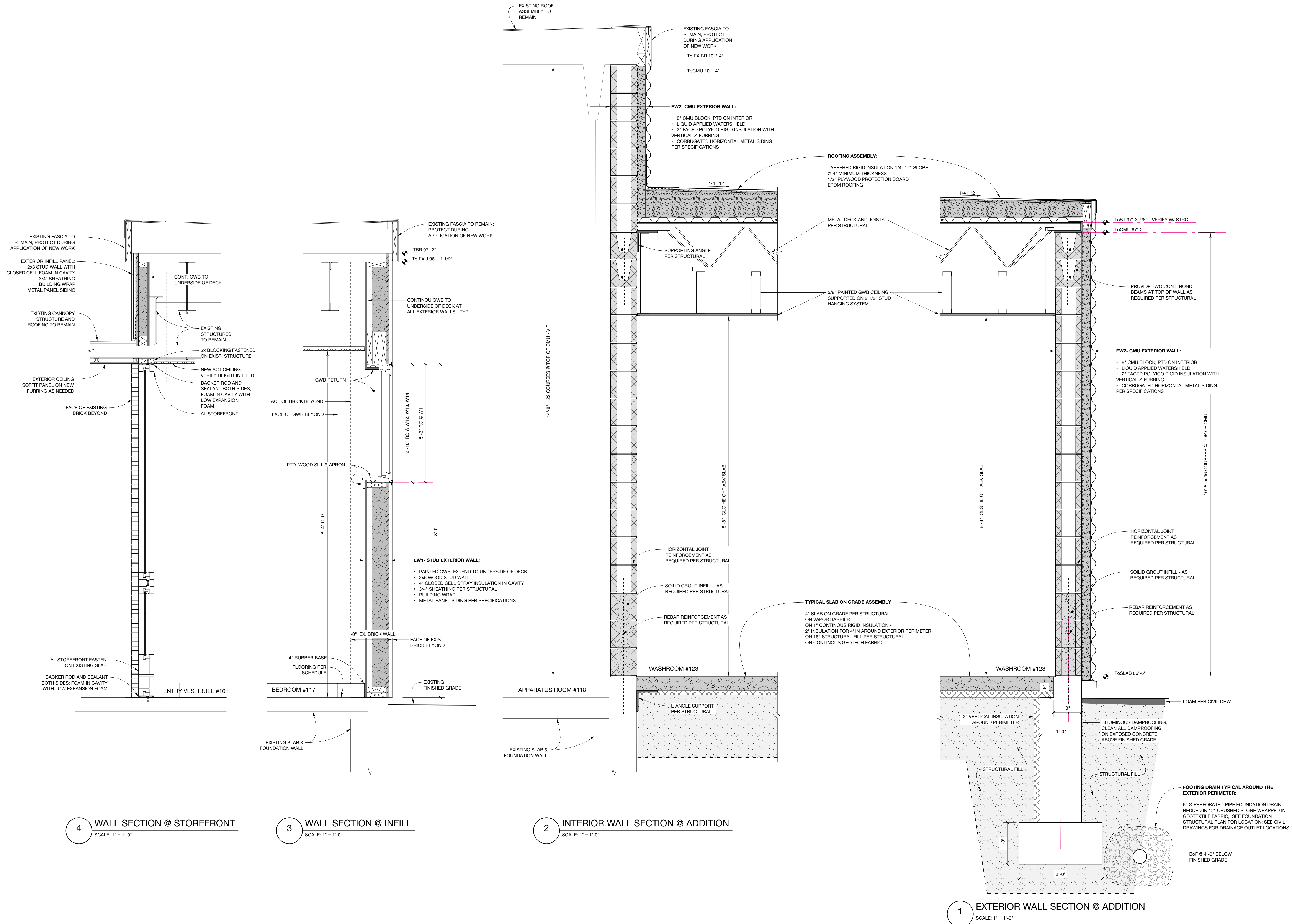
BIDDING & CONSTRUCTION DRAWINGS

Scale: 1" = 1'-0"

EXTERIOR WALL SECTIONS

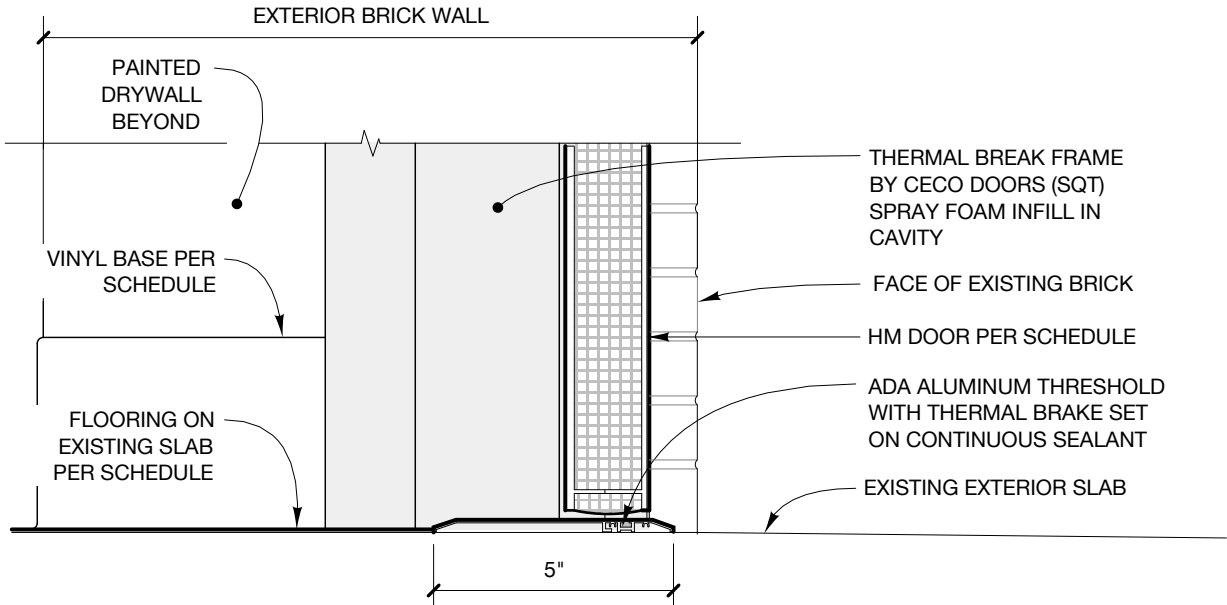
A6.1

July 25, 2018

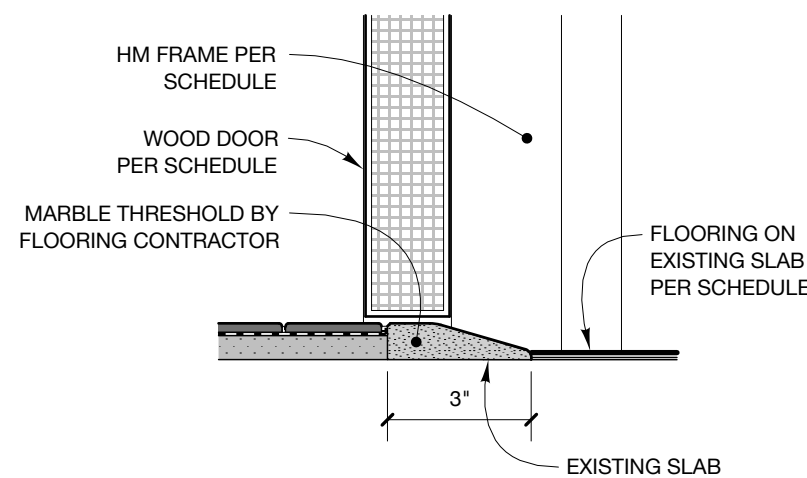


ROOM FINISH SCHEDULE

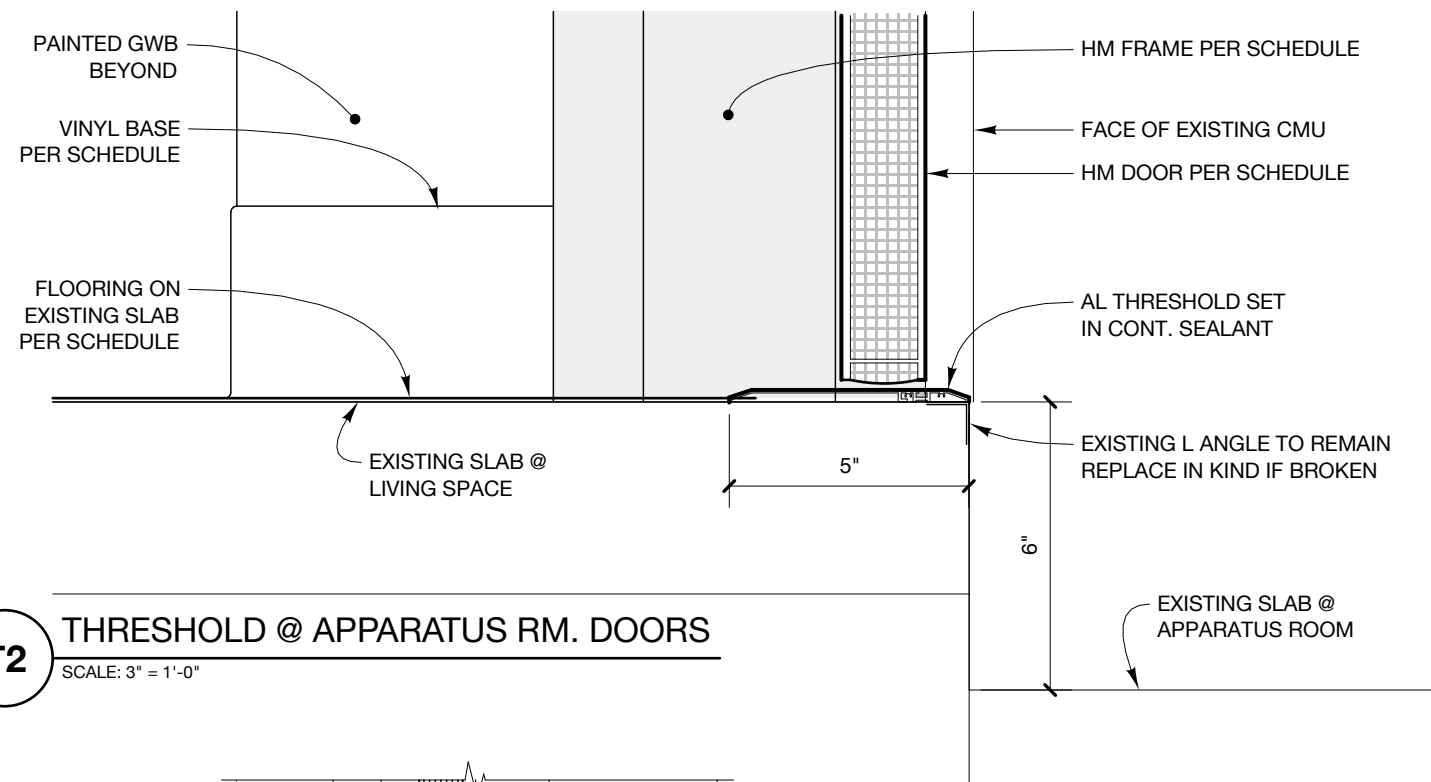
ROOM NUMBER	ROOM NAME	FLOOR	WALL BASE	WALLS	CEILING	NOTES
101	ENTRY VESTIBULE	LVT	VINYL	PTD. GWB	ACT	
102	LIVING ROOM	LVT	VINYL	PTD. GWB	ACT	
103	KITCHEN	LVT	VINYL	PTD. GWB	ACT	
104	HALL	LVT	VINYL	PTD. GWB	ACT	
105	DORMITORY 1	LVT	VINYL	PTD. GWB	ACT	
106	DORMITORY 2	LVT	VINYL	PTD. GWB	ACT	
107	OFFICE	LVT	VINYL	PTD. GWB	ACT	
108	EXERCISE ROOM	RECYCLED RUBBER	VINYL	PTD. GWB	PTD. EXPOSED STRUCTURE	
109	HOUSE STORAGE	LVT	VINYL	PTD. GWB	PTD. GWB	
110	BOILER ROOM	EXISTING CONCRETE	EXISTING	PTD EXISTING CMU	PTD EXPOSED STRUCTURE	
111	SHOWER ROOM	PORCELAIN TILE	PORCELAIN TILE	PTD. GWB / PORCELAIN TILE	ACT	
112	SHOWER ROOM	PORCELAIN TILE	PORCELAIN TILE	PTD. GWB / PORCELAIN TILE	ACT	
113	HALL	LVT	VINYL	PTD. GWB	ACT	
114	DORMITORY 3	LVT	VINYL	PTD. GWB	ACT	
115	DORMITORY 4	LVT	VINYL	PTD. GWB	ACT	
116	DORMITORY 5	LVT	VINYL	PTD. GWB	ACT	
117	DORMITORY 6	LVT	VINYL	PTD. GWB	ACT	
118	APPARATUS ROOM	EXISTING CONCRETE	EXISTING	PTD. EXISTING CMU	PTD EXPOSED STRUCTURE	
119	PPE STORAGE AND WASHROOM	POLISHED CONCRETE	NONE	PTD. CMU / PORCELAIN TILE	PTD. GWB	
120	TOILET	PORCELAIN TILE	PORCELAIN TILE	PTD. GWB	PTD. GWB	
121	EMT STORAGE	LVT	VINYL	PTD. GWB	PTD. GWB	
122	IT / DATA ROOM	LVT	VINYL	PTD. PLYWOOD	PTD. GWB	
123	DECONTAMINATION SHOWER	POLISHED CONCRETE	PORCELAIN TILE	PORCELAIN TILE	PTD. GWB	



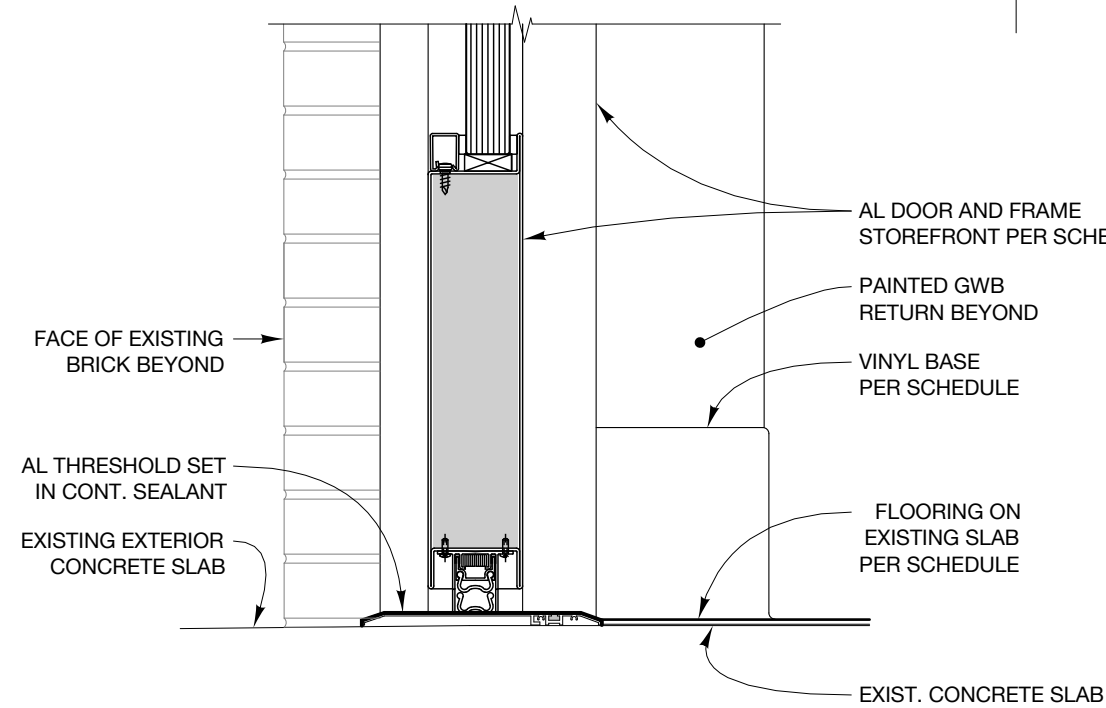
T1 THRESHOLD @ EXTERIOR DOORS
SCALE: 3" = 1'-0"



T3 THRESHOLD @ TILE FLOORING
SCALE: 3" = 1'-0"

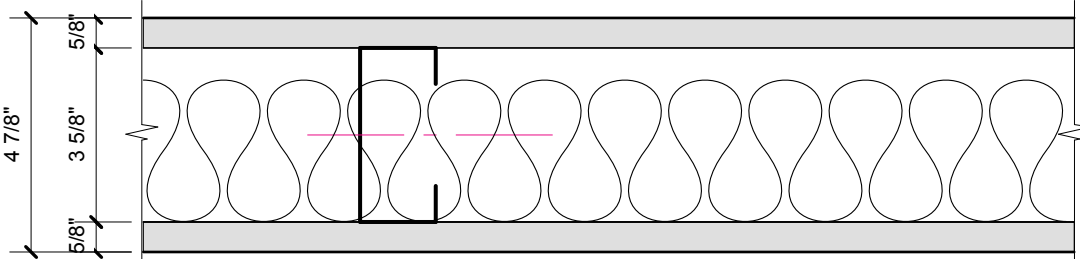


T2 THRESHOLD @ APPARATUS RM. DOORS
SCALE: 3" = 1'-0"

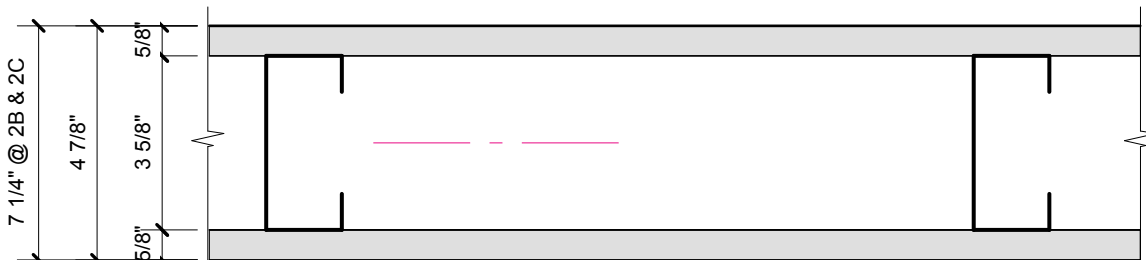


T4 THRESHOLD @ AL STOREFRONT
SCALE: 3" = 1'-0"

- 1
- INTERIOR NON-BEARING WALL - NON-RATED ACOUSTICAL PARTITION
wall to extend to underside of deck; apply acoustical seal to all perimeter
- 3 5/8" 25 GA MTL STUD @ 16" O.C.
 - 5/8" GWB EACH SIDE
 - 3" SOUND ATTENUATION BATT INSULATION IN CAVITY



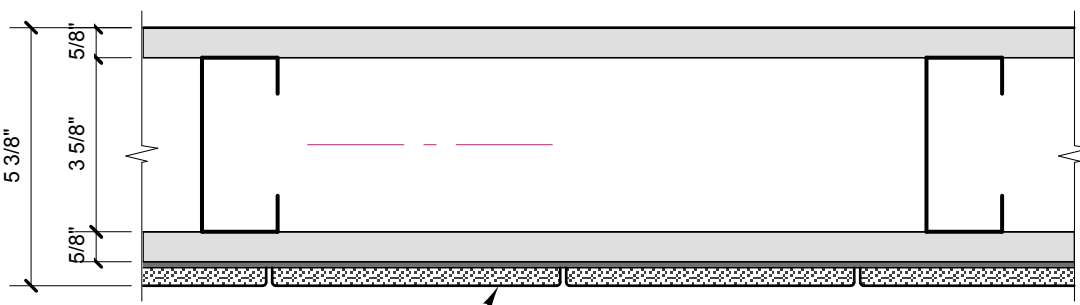
- 2
- INTERIOR NON-BEARING WALL - NON-RATED PARTITION
wall to extend 4" above ceiling
- 3 5/8" 25 GA MTL STUD @ 16" O.C.
 - 5/8" GWB EACH SIDE



- 2A
- 3 5/8" 25 GA MTL STUD @ 16" O.C.
 - 5/8" GWB EACH SIDE; MR BOARD GWB ON BATHROOM SIDE

- 2B
- 6" 25 GA MTL STUD @ 16" O.C.
 - 5/8" GWB EACH SIDE; MR BOARD GWB ON BATHROOM SIDE

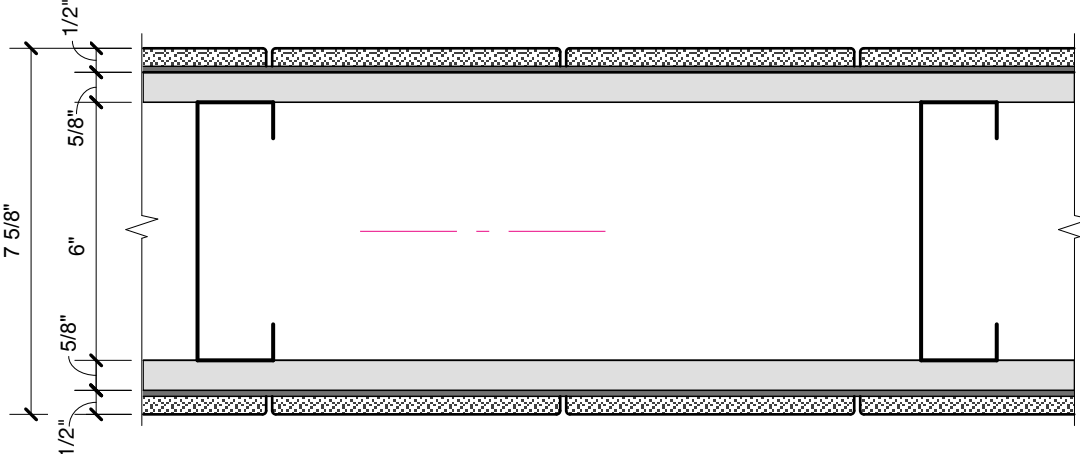
- 2C
- 6" 25 GA MTL STUD @ 16" O.C.
 - 5/8" GWB EACH SIDE



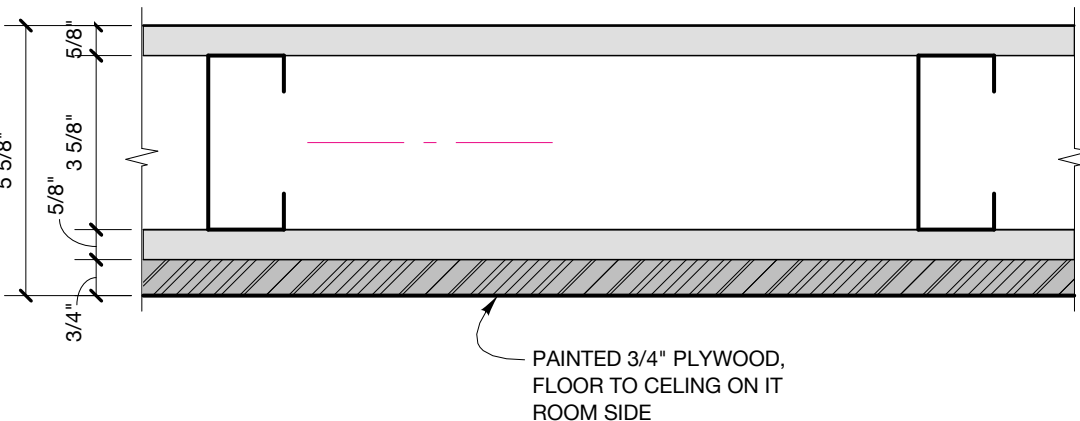
- 2C
- 3 5/8" 25 GA MTL STUD @ 16" O.C.
 - 5/8" MR GWB EACH SIDE
 - TILE ON SHOWER SIDE, FULL HEIGHT



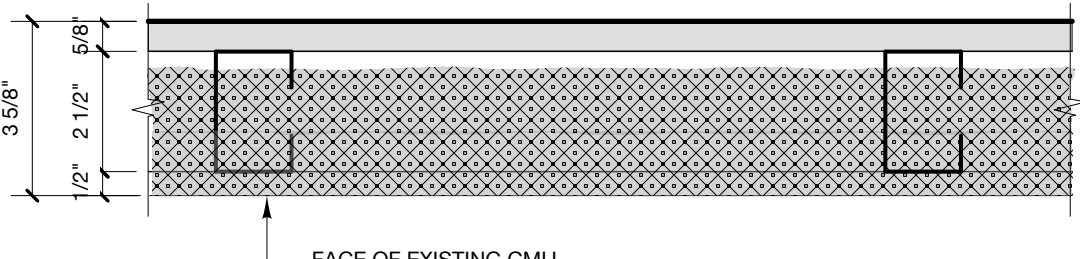
- 2D
- 6" 25 GA MTL STUD @ 16" O.C.
 - 5/8" MR GWB EACH SIDE
 - TILE ON SHOWER EACH SIDE, FULL HEIGHT



- 2E
- 3 5/8" 25 GA MTL STUD @ 16" O.C.
 - 5/8" GWB EACH SIDE
 - 3/4" PAINTED PLYWOOD FULL HEIGHT ON IT ROOM SIDE

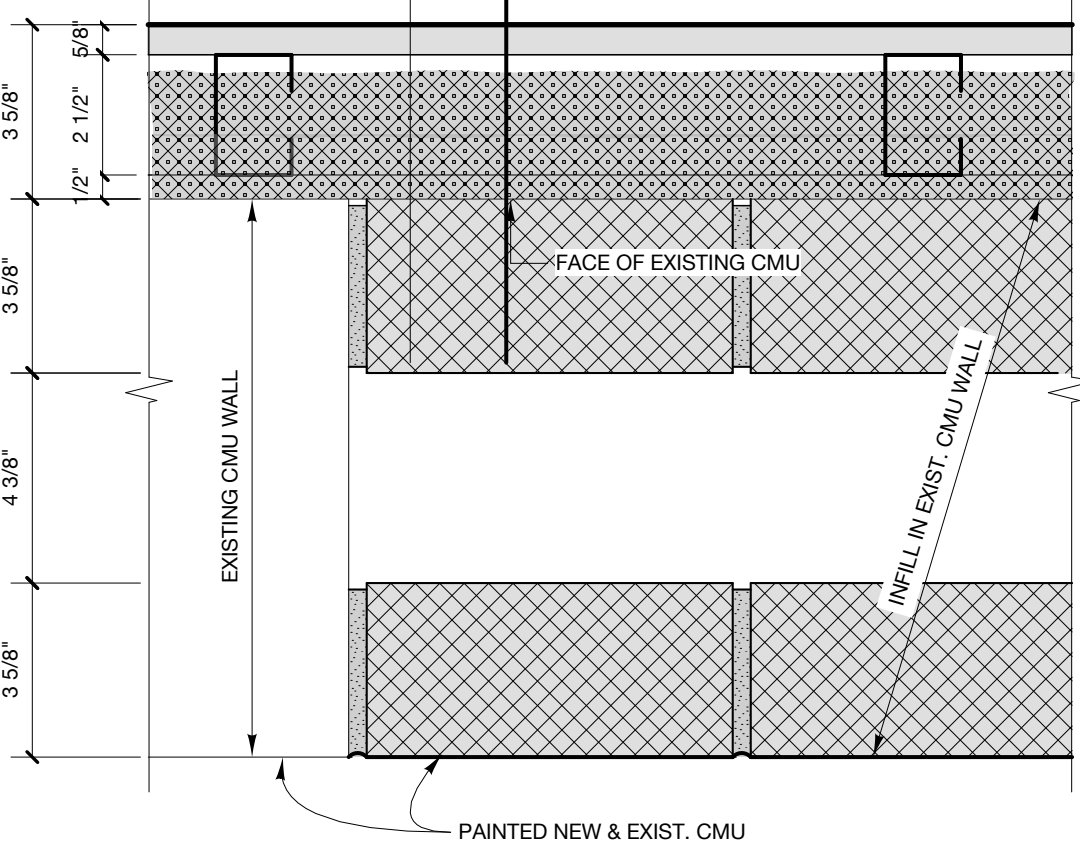


- 3
- INTERIOR INSULATING PARTITION AT EXISTING CMU WALLS - wall to extend 4" above ceiling
- 2 1/2" 25 GA MTL STUD @ 16" O.C.; KEEP STUDS 1/2" OFF FACE OF CMU
 - 2 1/2" CLOSED CELL SPRAY FOAM
 - 5/8" GWB FINISHED SIDE

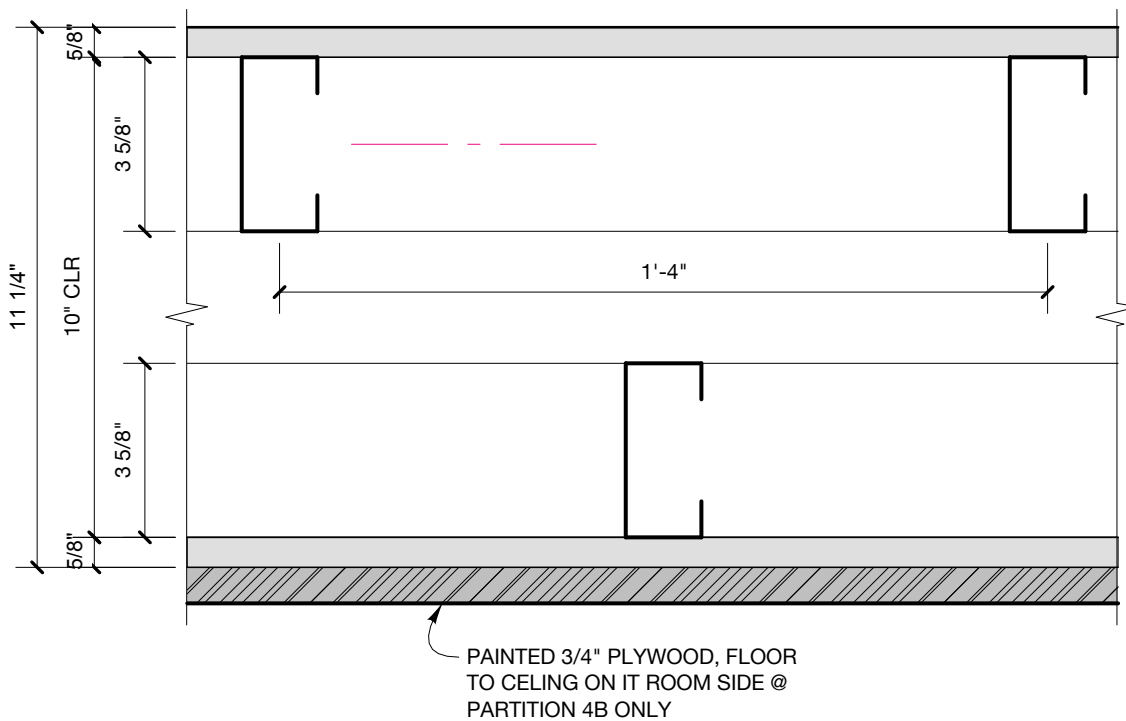


- 3A
- 2 1/2" 25 GA MTL STUD @ 16" O.C.; KEEP STUDS 1/2" OFF FACE OF CMU
 - 2 1/2" CLOSED CELL SPRAY FOAM
 - 5/8" MR GWB IN TOILET SIDE

- 3B
- 2 1/2" 25 GA MTL STUD @ 16" O.C.
 - KEEP STUDS 1/2" OFF FACE OF CMU
 - 2 1/2" CLOSED CELL SPRAY FOAM
 - 5/8" GWB FINISHED SIDE
 - 4" CMU INFILL BOTH SIDES OF OPENING IN EXISTING 12" CMU



- 4
- INTERIOR TOILET WALL - NON-RATED
wall to extend 4" above ceiling
- (2) 3 5/8" 25 GA MTL STUD @ 16" O.C.; ALTERNATE LOCATION EACH SIDE
 - 5/8" GWB EACH SIDE; MR BOARD ON BATHROOM SIDE
 - 10" CLEAR CAVITY FOR TOILET INSTALLATION

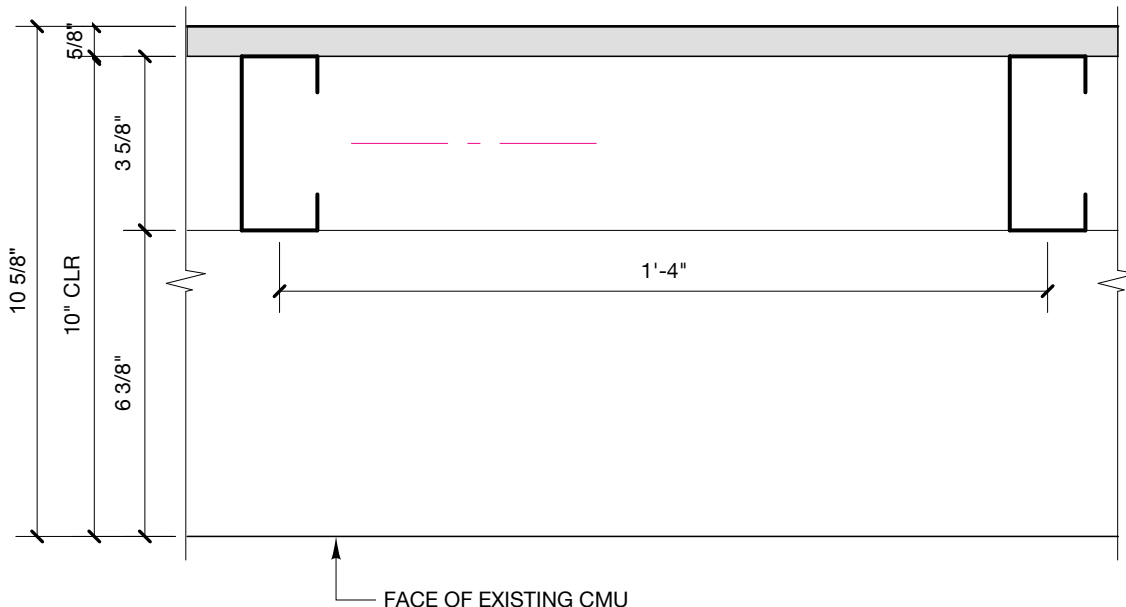


- 4B
- SAME AS TYPE 4 & ADD 3/4" PAINTED PLYWOOD FULL HEIGHT ON IT ROOM SIDE

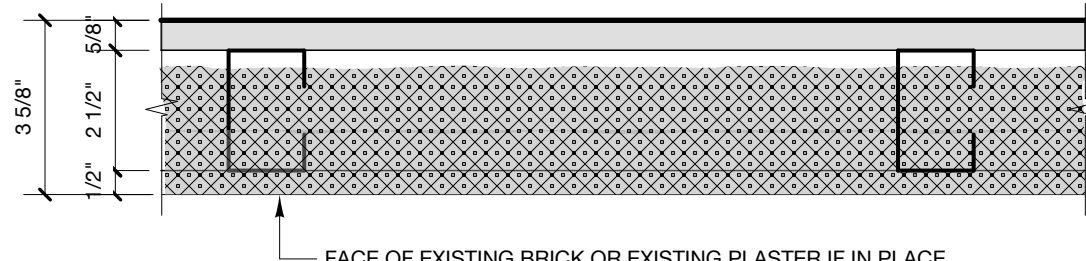
note: coordinate with plumbing contractor for location of studs vs. toilet carrier location

- 4C
- 3 5/8" 25 GA MTL STUD @ 16" O.C.; KEEP 6 3/8" OFF FACE OF CMU
 - 5/8" MR GWB FINISHED SIDE
 - 10" CLEAR CAVITY FOR TOILET INSTALLATION

note: coordinate with plumbing contractor for location of studs vs. toilet carrier location



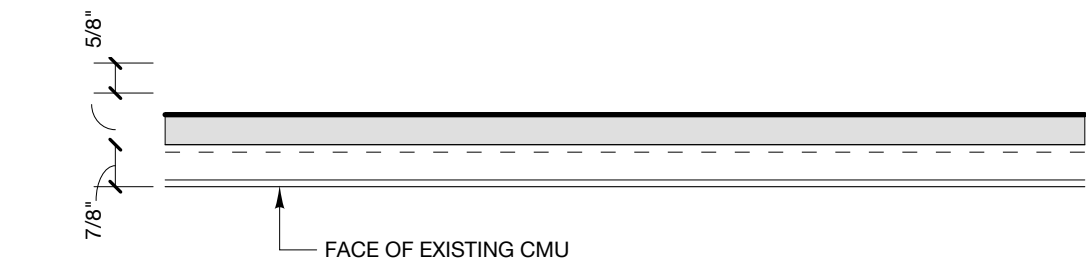
- 5
- EXTERIOR INSULATING PARTITION AT EXISTING BRICK WALLS - wall to extend to underside of deck
- 2 1/2" 25 GA MTL STUD @ 16" O.C.; KEEP STUDS 1/2" OFF FACE OF CMU
 - 2 1/2" CLOSED CELL SPRAY FOAM
 - 5/8" GWB FINISHED SIDE



- 5A
- 2 1/2" 25 GA MTL STUD @ 16" O.C.; KEEP STUDS 1/2" OFF FACE OF CMU
 - 2 1/2" CLOSED CELL SPRAY FOAM
 - 5/8" MR GWB IN TOILET SIDE

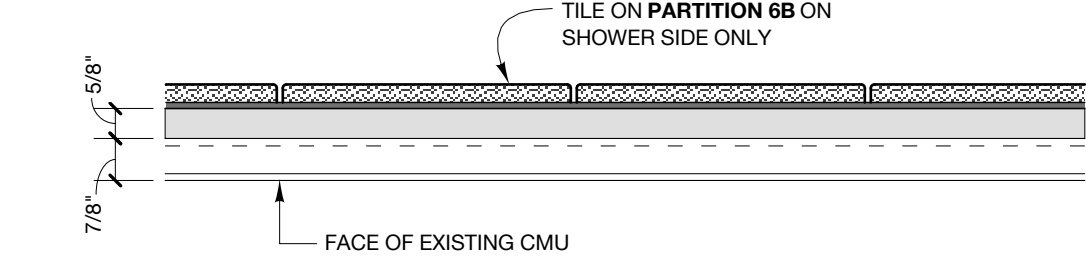
- 5B
- 6" 25 GA MTL STUD @ 16" O.C.; KEEP STUDS 1/2" OFF FACE OF CMU
 - 2 1/2" CLOSED CELL SPRAY FOAM
 - 5/8" MR GWB FINISHED SIDE

- 6
- 7/8" MTL CHANNEL HORIZONTAL FURRING
 - 5/8" GWB FINISHED SIDE



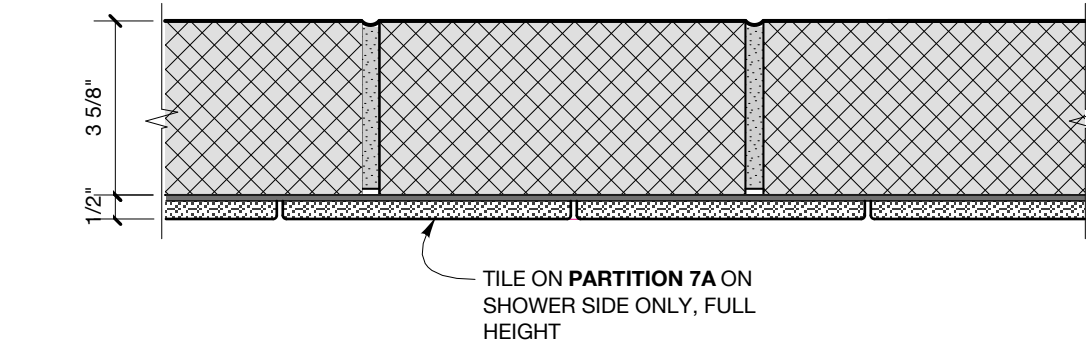
- 6A
- 7/8" MTL CHANNEL HORIZONTAL FURRING
 - 5/8" MR GWB FINISHED SIDE IN BATHROOMS

- 6B
- 7/8" MTL CHANNEL HORIZONTAL FURRING
 - 5/8" CEMENT BOARD
 - TILES IN SHOWER AREA

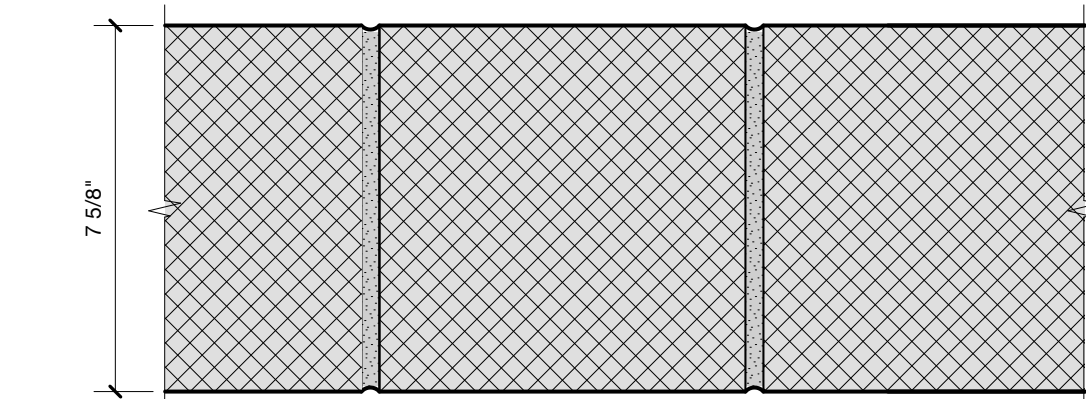


- 7
- 4" CMU PAINTED BOTH SIDES

- 7A
- 4" CMU PAINTED FINISHED SIDE
 - TILES FLOOR TO CEILING ON SHOWER SIDE



- 8
- 8" CMU PAINTED BOTH SIDES; INFILL FULL HEIGHT EXISTING OPENING



DOOR & FRAME SCHEDULE

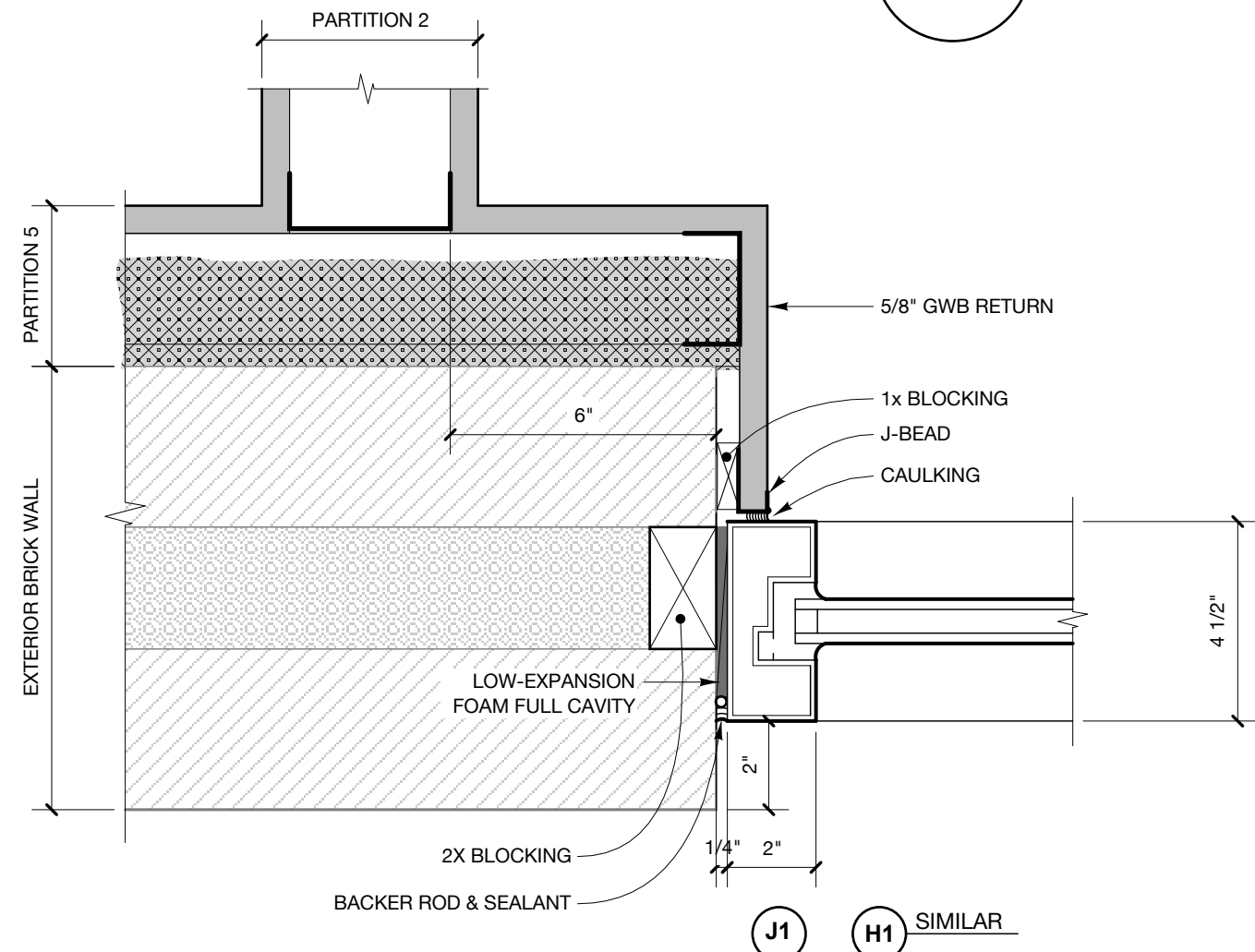
Door												Frame												Hardware														
Door No.	Size	Thickness	Material	Finish	Type	Material	Finish	Type	Jamb	Head	Sill	Hinges	Lever Trim Mortise Lockset	Lever Trim HD Cylindrical Lockset	Lockset Function	Dummy Lever	ADA Closer	ADA Closer Cushion Stop Arm	Kickplate	Stop	Weatherstripping	Door Sweep	Key Pad	Electric Strike	Threshold	Label	Remarks											
101.1	3' 0" x 7' 0"	1 3/4"	AL	ANOD	B	AL	ANOD	F2	J1 / J2	H1	S1	x	x	-	E	-	x	x	-	x	x	x	x	x	x	T4	-	AL STOREFRONT IN EXISTING MO; HW BY AL DOOR SUPPLIER; COORDINATE WITH ELEC. FOR ELEC. STRIKE WIRING										
101.2	3' 0" x 7' 0"	1 3/4"	HM	PTD	D	HM	PTD	F3	J3 / J4	H3 / H4	S2	x	-	x	P	-	-	-	-	-	x	x	-	-	T2	-	IN EXISTING MO											
101.3	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	D	HM	PTD	F1	J5	H5	-	x	-	x	E	-	-	-	-	x	-	-	x	x	-	-	COORDINATE WITH ELEC. FOR ELEC. STRIKE WIRING											
104.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	D	HM	PTD	F1	J5	H5	-	x	-	x	P	-	-	-	-	x	-	-	-	-	-	-	-											
104.2	3' 0" x 7' 0"	1 3/4"	INS HM	PTD	D	INS HM	PTD	F4	J6	H6	-	x	x	-	E	-	x	x	-	-	x	x	x	x	T1	-	IN EXISTING MO; COORDINATE WITH ELEC. FOR ELEC. STRIKE WIRING											
105.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	A	HM	PTD	F1	J5	H5	-	x	-	x	PP	-	-	-	-	x	-	-	-	-	-	-	-											
106.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	A	HM	PTD	F1	J5	H5	-	x	-	x	PP	-	-	-	-	x	-	-	-	-	-	-	-											
107.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	D	HM	PTD	F1	J5	H5	-	x	-	x	O	-	-	-	-	x	-	-	-	-	-	-	-											
108.1	PR 3' 0" x 7' 0"	1 3/4"	SCWD	CLR	F	HM	PTD	F1	J7	H7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POCKET DOOR; HW BY DOOR MANUFACTIRER											
109.1	PR 2' 0" x 7' 0"	1 3/4"	SCWD	CLR	G	HM	PTD	F1	J5	H5	-	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-											
110.1	3' 0" x 7' 0"	1 3/4"	INS HM	PTD	A	INS HM	PTD	F4	J6 SIM	H6 SIM	-	x	x	-	S	-	-	-	x	x	-	x	x	x	T1	-	IN EXISTING MO; COORDINATE WITH ELEC. FOR ELEC. STRIKE WIRING											
111.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	A	HM	PTD	F1	J5	H5	-	x	-	x	PP	-	-	-	-	x	-	-	-	-	T3	-	3/4" UNDERCUT											
112.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	A	HM	PTD	F1	J5	H5	-	x	-	x	PP	-	-	-	-	x	-	-	-	-	T3	-	3/4" UNDERCUT											
113.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	D	HM	PTD	F1	J5	H5	-	x	-	x	P	-	-	-	-	x	-	-	-	-	-	-	-											
114.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	A	HM	PTD	F1	J5	H5	-	x	-	x	PP	-	-	-	-	x	-	-	-	-	-	-	-											
115.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	A	HM	PTD	F1	J5	H5	-	x	-	x	PP	-	-	-	-	x	-	-	-	-	-	-	-											
116.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	A	HM	PTD	F1	J5	H5	-	x	-	x	PP	-	-	-	-	x	-	-	-	-	-	-	-											
117.1	3' 0" x 7' 0"	1 3/4"	SCWD	CLR	A	HM	PTD	F1	J5	H5	-	x	-	x	PP	-	-	-	-	x	-	-	-	-	-	-	-											
118.1	EX. 3' 0" x 7' 10"	EX	EX HM	PTD	C	EX HM	PTD	EX	EX	EX	EX	-	-	-	-	-	-	-	-	-	F	F	F	F	EX	EX	PAINT EXISTING DR / FRAME; COORDINATE WITH ELEC. FOR ELEC. STRIKE WIRING											
118.2	EX. 3' 6" x 7' 10"	EX	EX HM	PTD	C	EX HM	PTD	EX	EX	EX	EX	-	-	-	-	-	-	-	-	-	F	F	F	F	EX	EX	PAINT EXISTING DR / FRAME; COORDINATE WITH ELEC. FOR ELEC. STRIKE WIRING											
118.3	3' 0" x 7' 0"	1 3/4"	INS HM	PTD	D	INS HM	PTD	F5	J8	H8	-	x	x	x	S	-	-	x	x	x	-	x	x	x	T1	-	4" HEADER FRAME / IN EXISTING MO; COORDINATE WITH ELEC. FOR ELEC. STRIKE WIRING											
118.4	EX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EX	-	EX. OVERHEAD DOOR+HW TO REMAIN											
118.5	EX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EX	-	EX. OVERHEAD DOOR+HW TO REMAIN											
119.1	3' 0" x 7' 0"	1 3/4"	HM	PTD	D	HM	PTD	F5	J9	H9	-	x	-	x	P	-	-	-	x	x	x	x	-	-	-	-	4" HEADER FRAME; DR & HW PAINTED FOR WET APPLICATION WITH HIGH PERFORMANCE PAINT SYSTEM PER SPECIFICATIONS											
119.2	3' 0" x 7' 0"	1 3/4"	HM	PTD	D	HM	PTD	F5	J9	H9	-	x	-	x	P	-	-	-	x	x	x	x	-	-	-	-	4" HEADER FRAME; DR & HW PAINTED FOR WET APPLICATION WITH HIGH PERFORMANCE PAINT SYSTEM PER SPECIFICATIONS											
120.1	3' 0" x 7' 0"	1 3/4"	HM	PTD	A	HM	PTD	F4	J4	H4	-	x	-	x	PP	-	-	-	-	-	x	x	-	-	T2	-												
121.1	2' 4" x 7' 0"	1 3/4"	HM	PTD	A	HM	PTD	EX. F1	-	-	-	x	-	x	S	-	-	-	-	-	x	x	-	-	T2	-	NEW DOOR+TRANSOM IN EXISTING FRAME											
122.1	PR 2' 2" x 7' 0"	1 3/4"	SCWD	CLR	G	HM	PTD	F1	J5	H5	-	x	-	x	S	-	-	-	-	-	-	-	-	-	-	-	-	* 12"x12" LOUVER ON ONE LEAF ONLY										
123.1	3' 0" x 7' 0"	1 3/4"	HM	FF	A	HM	PTD	F1	J11	H11	-	x	-	x	P	-	-	-	-	-	-	x	-	-	T3	-	4" HEADER FRAME; DR & HW PAINTED FOR WET APPLICATION WITH HIGH PERFORMANCE PAINT SYSTEM PER SPECIFICATIONS											

LEGEND

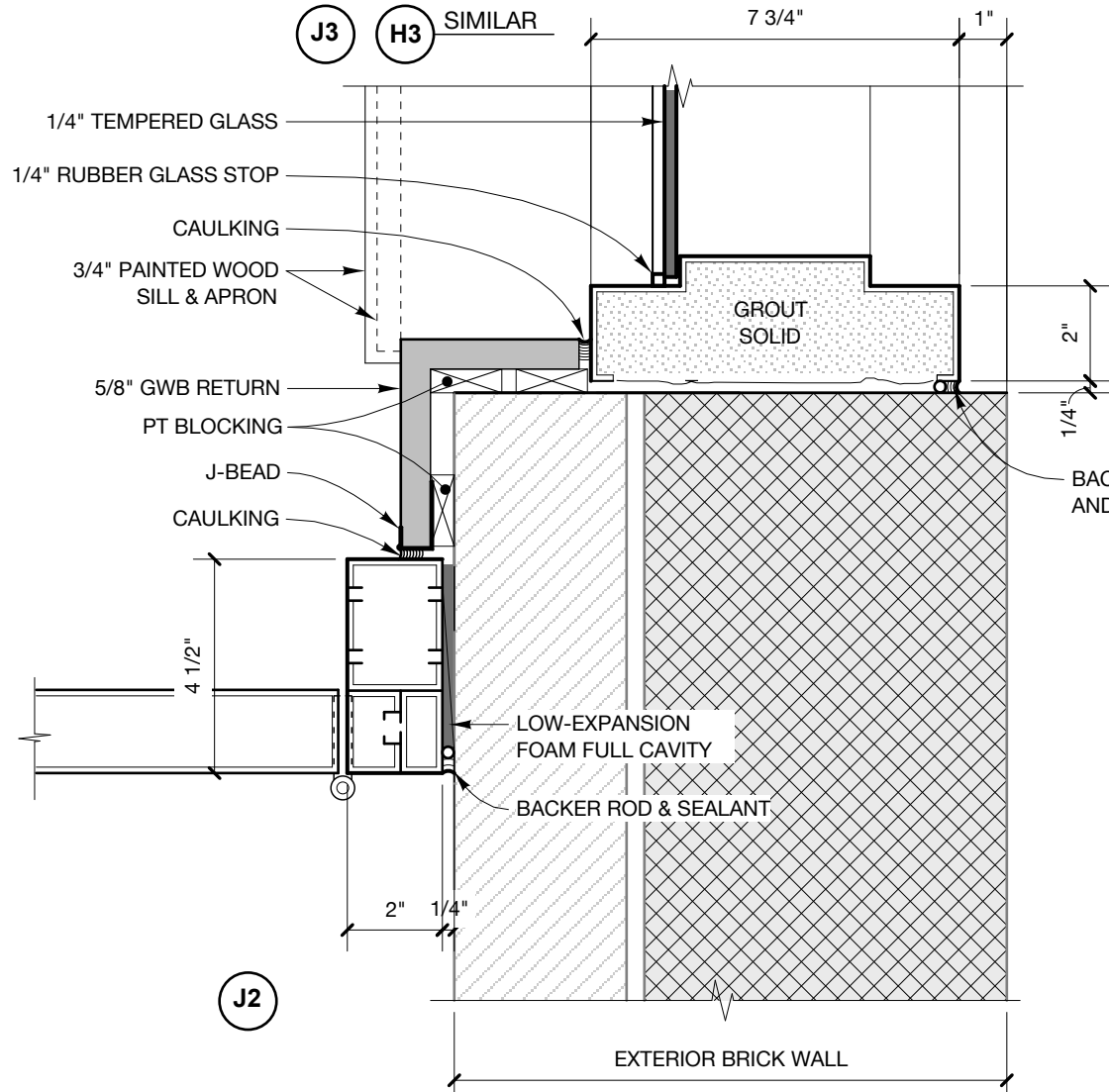
AL	ALUMINUM	INS	INSULATED
ANOD	ANODIZED	F	FURNISH AND INSTALL NEW HARDWARE ITEM; BALANCE OF HARDWARE EXISTING OR REUSED
CLR	CLEAR	PTD	PAINTED
EX	EXISTING ITEM	RFN	REFINISH - SAND SMOOTH AND (2) COATS PAINT
FF	FACTORY FINISH	SCWD	SOLID CORE WOOD DOOR
FBR. GL.	FIBER GLASS	X	NEW HARDWARE PER SPECIFICATIONS
HM	HOLLOW METAL		

LOCKSET FUNCTIONS		NOTE: FOR THRESHOLD DETAILS SEE A7.1
P	PASSAGE	
PP	PRIVACY	
S	STORAGE	
O	OFFICE	
E	ENTRANCE	

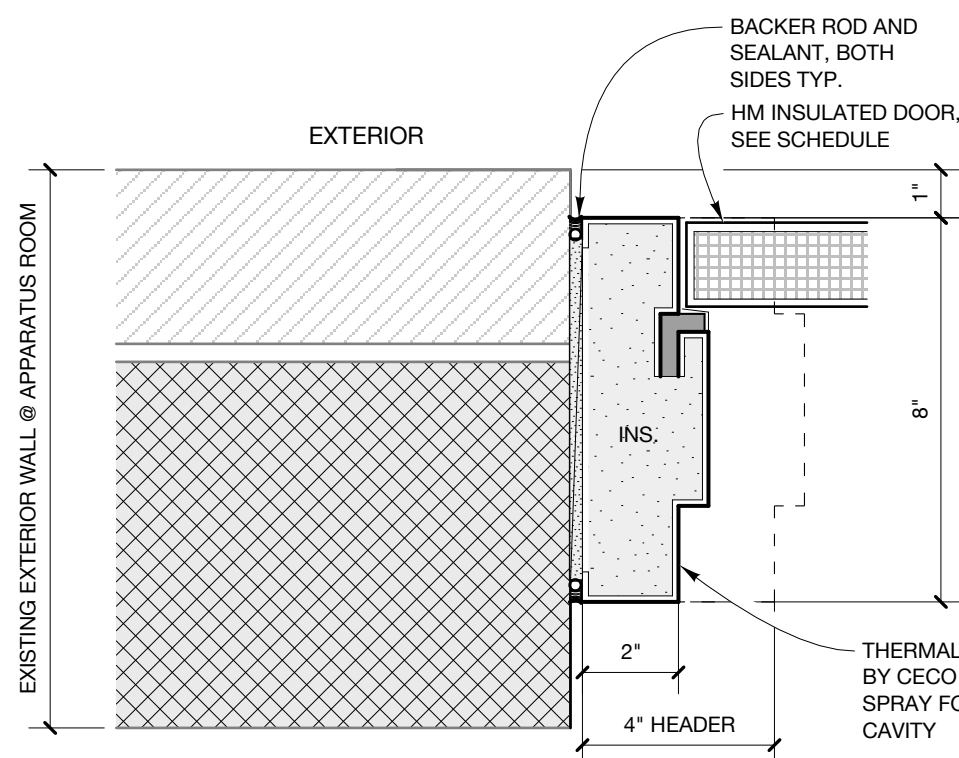
J3/J4 H3/H4 JAMB DETAIL @ HM DOOR 101.2
SCALE: 3" = 1'-0"



J1/J2 H1 JAMB DETAIL @ ALUMINUM STOREFRONT
SCALE: 3" = 1'-0"

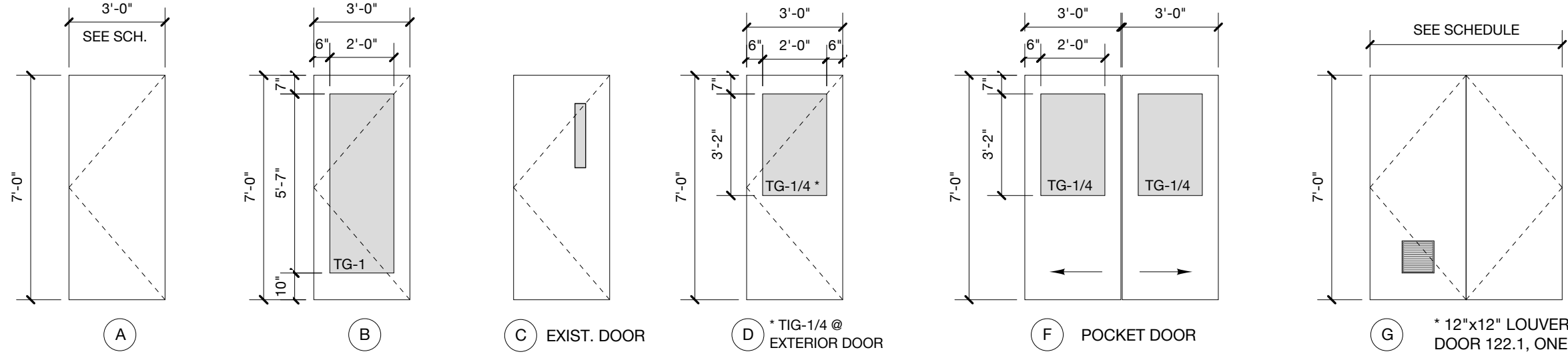


H8 J8 JAMB DETAIL @ EXT. DOOR / HEAD SIMILAR
SCALE: 3" = 1'-0"



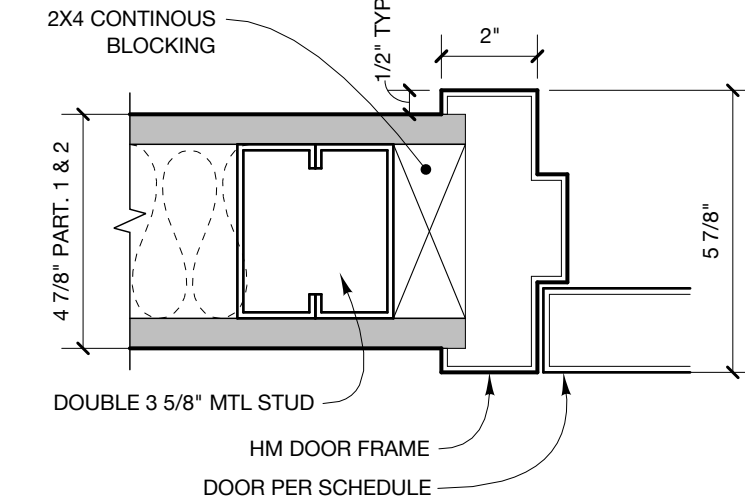
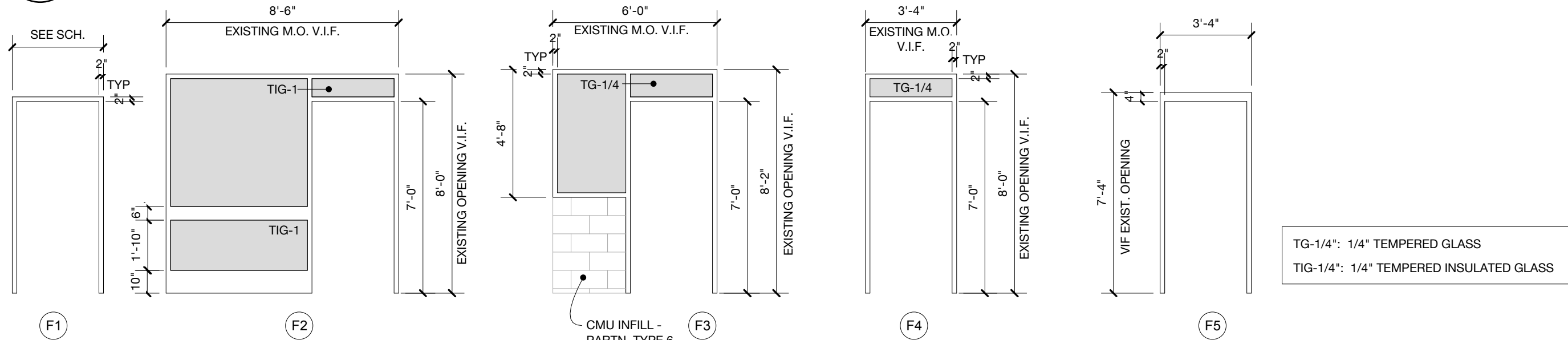
DOOR TYPES

SCALE: 1/4" = 1'-0"

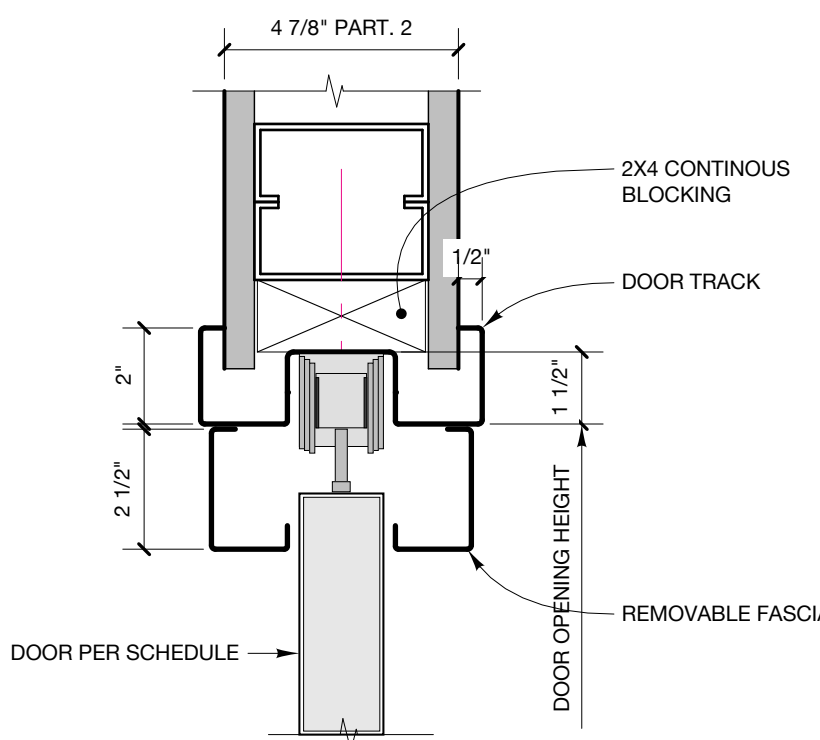


FRAME TYPES

SCALE: 1/4" = 1'-0"

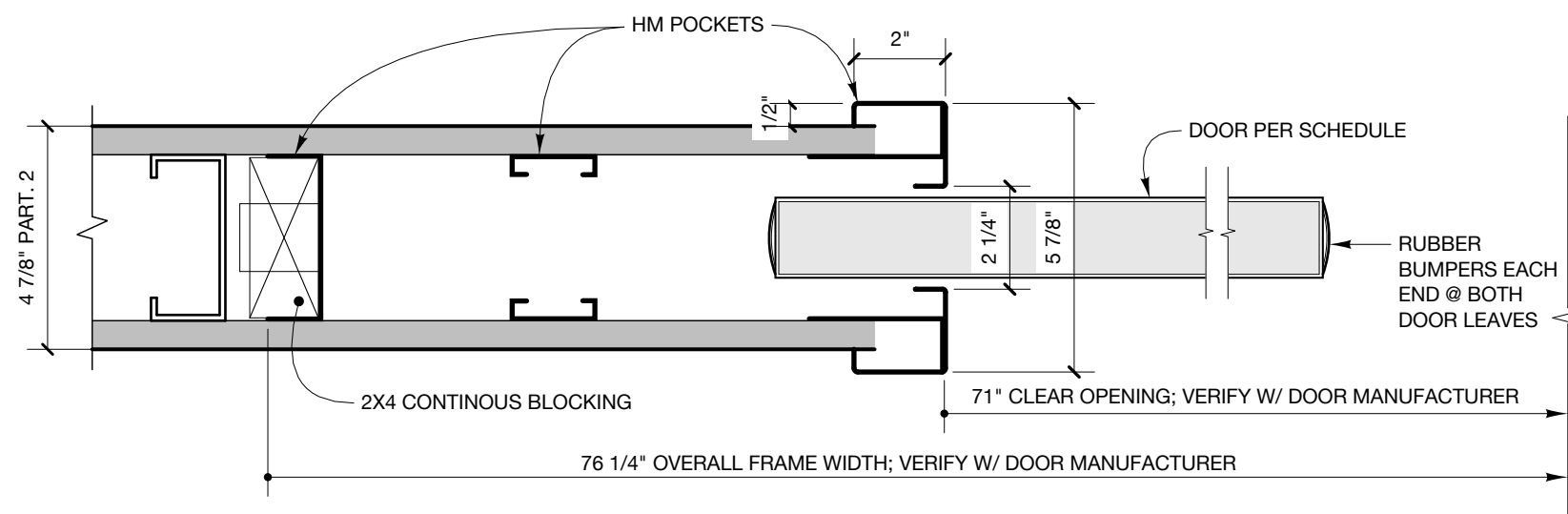


J5 H5 JAMB DETAIL / HEAD SIMILAR
SCALE: 3" = 1'-0"

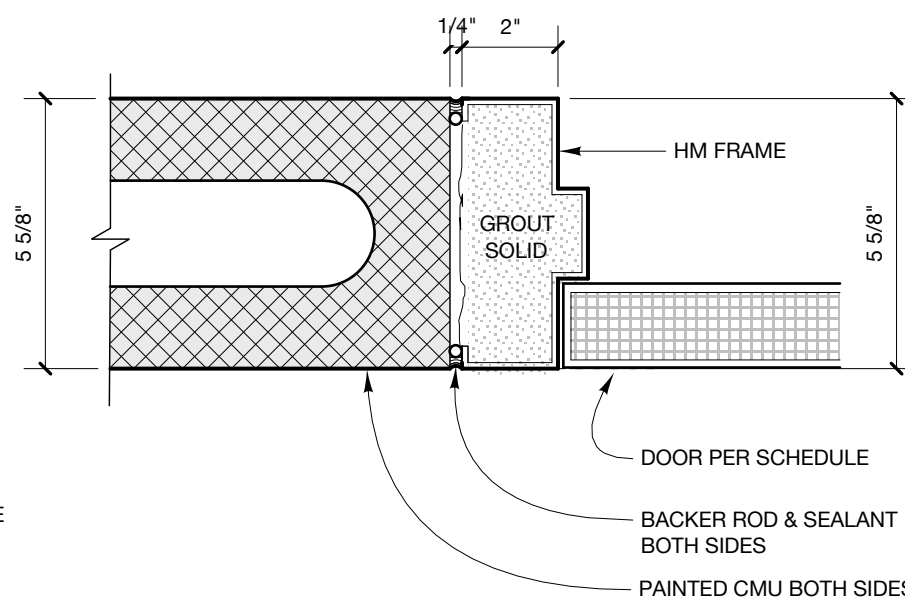


H7 HEAD DETAIL @ POCKET DOOR #108.1
SCALE: 3" = 1'-0"

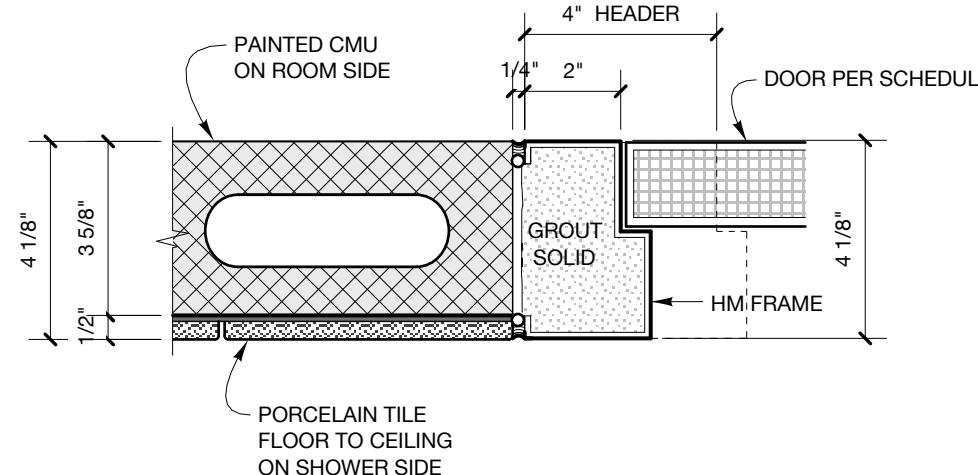
J6 H6 EXTERIOR DOOR JAMB DETAIL / HEAD SIMILAR
SCALE: 3" = 1'-0"



J7 JAMB DETAIL @ POCKET DOOR #108.1
SCALE: 3" = 1'-0"



H9 J9 JAMB DETAIL @ INT. CMU / HEAD SIMILAR
SCALE: 3" = 1'-0"



H11 J11 JAMB DETAIL @ INT. CMU / HEAD SIMILAR
SCALE: 3" = 1'-0"



5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
STRUCTURAL INTEGRITY CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

HVAC & Plumbing Engineering:
MECHANICAL SYSTEMS ENGINEERS

Royal River Center, Unit 10
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING SERVICES

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

CITY OF PORTLAND NORTH DEERING FIRE STATION

Renovation & Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION DRAWINGS

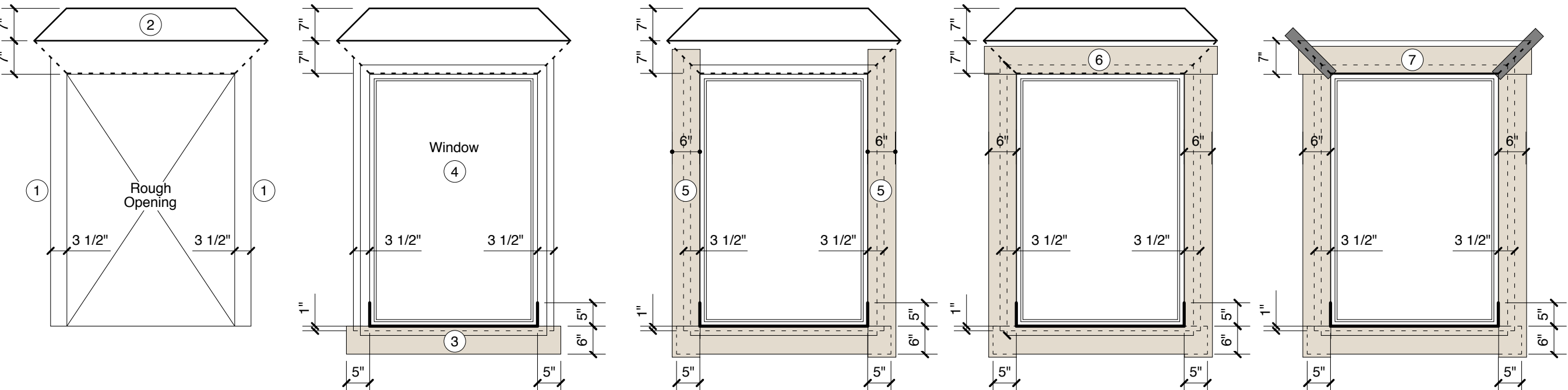
Scale: as indicated

DOOR SCHEDULES, TYPES AND DETAILS

A8.1

WINDOW SCHEDULE

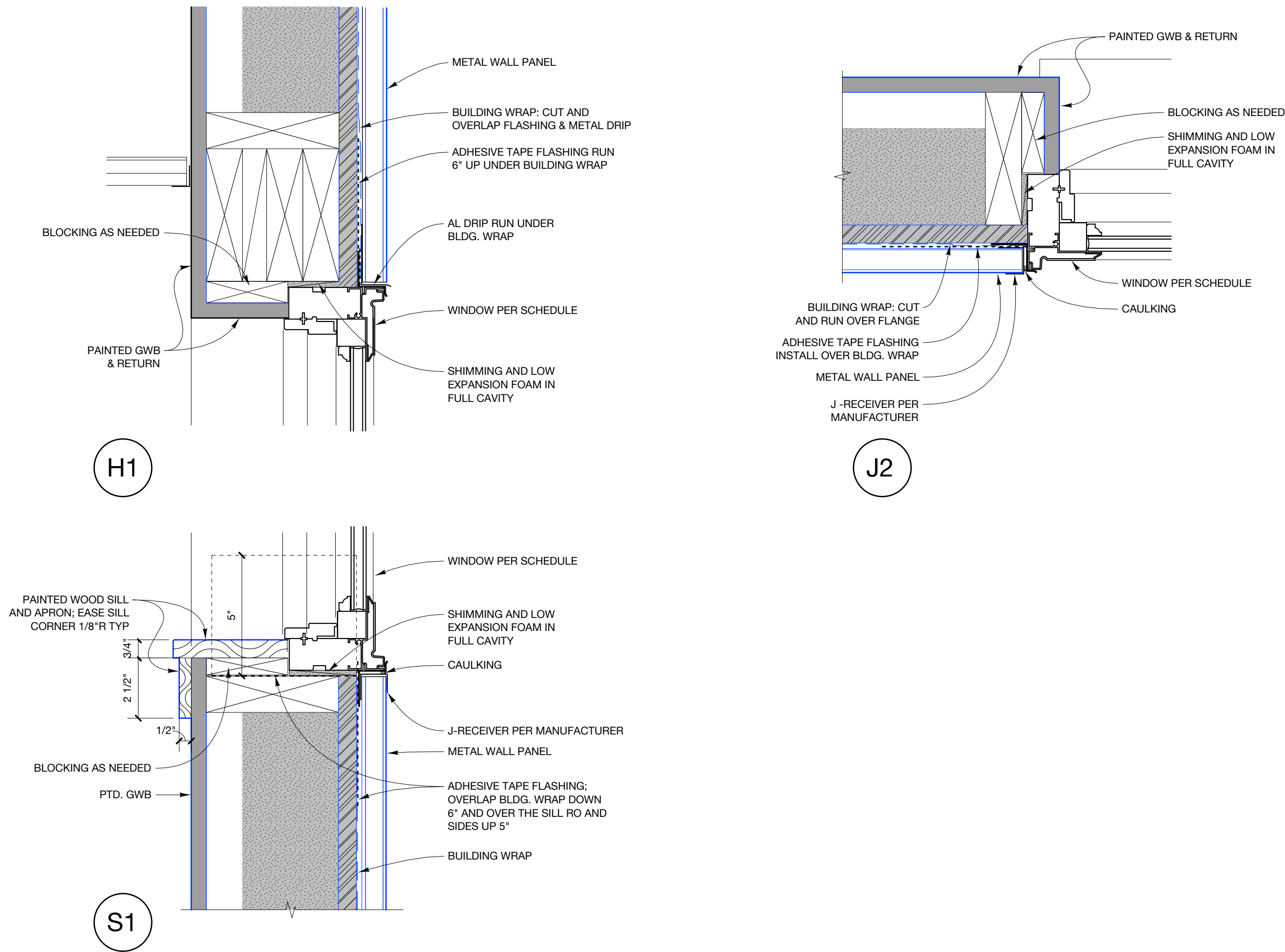
WINDOW UNIT #	WINDOW TYPE	OPERATION	SCREEN	DETAILS			NOTES
				HEAD	JAMB	SILL	
W1	A	FIXED	-	H1	J1	S1	IN NEW INFILL WALL
W2	B	FIXED	-	H2	J1	S2	IN NEW MASONRY OPENING
W3	B	FIXED	-	H2	J1	S2	IN EXISTING MASONRY OPENING
W4	C	FIXED	-	H2	J1 SIM	S2	IN EXISTING MASONRY OPENING
W5	B	FIXED	-	H2	J1	S2	IN EXISTING MASONRY OPENING
W6	C	FIXED	-	H3	J3 SIM	S3	IN EXISTING MASONRY OPENING
W7	D	FIXED	-	H3	J2	S3	IN NEW INFILL WALL / EX. MASONRY HEIGHT
W8	D	FIXED	-	H3	J2	S3	IN NEW INFILL WALL / EX. MASONRY HEIGHT
W9	D	FIXED	-	H3	J2	S3	IN NEW INFILL WALL / EX. MASONRY HEIGHT
W10	D	FIXED	-	H3	J2	S3	IN NEW INFILL WALL / EX. MASONRY HEIGHT
W11	D	FIXED	-	H3	J2	S3	IN NEW INFILL WALL / EX. MASONRY HEIGHT
W12	D	FIXED	-	H1	J1/J3	S1	IN NEW INFILL WALL
W13	D	FIXED	-	H1	J2	S1	IN NEW INFILL WALL
W14	D	FIXED	-	H1	J1/J3	S1	IN NEW INFILL WALL



- 1 Cut wrap back 3 1/2" at jambs
- 2 Cut bldg. wrap at header along window flange line; fold up and sides +/- 7"
- 3 Cut wrap 1" below edge of sill install 12" adhesive tape on sill overlap sheathing 6"; cut corners to wrap 5" up the jambs; when below 25° F use heat gun to warm substrate before installing Vycor
- 4 Install window. Provide cont. sealant between flanges and sheathing. Secure flange on sheathing per manufacturer instructions.
- 5 Install 6" self adhesive flashing tape both sides, overlap bottom flashing as shown; install tape as tight to window frame as possible follow window manufacturer instructions for surface preparation; when below 25° F use heat gun to warm substrate before installing Vycor
- 6 Install 6" self adhesive flashing tape at header; follow manufacturer's instructions for surface preparation; overlap the jamb flashing as shown when below 25° F use heat gun to warm substrate before installing Vycor
- 7 Fold down bldg. wrap at header. Secure with wrapping tape AND staple.

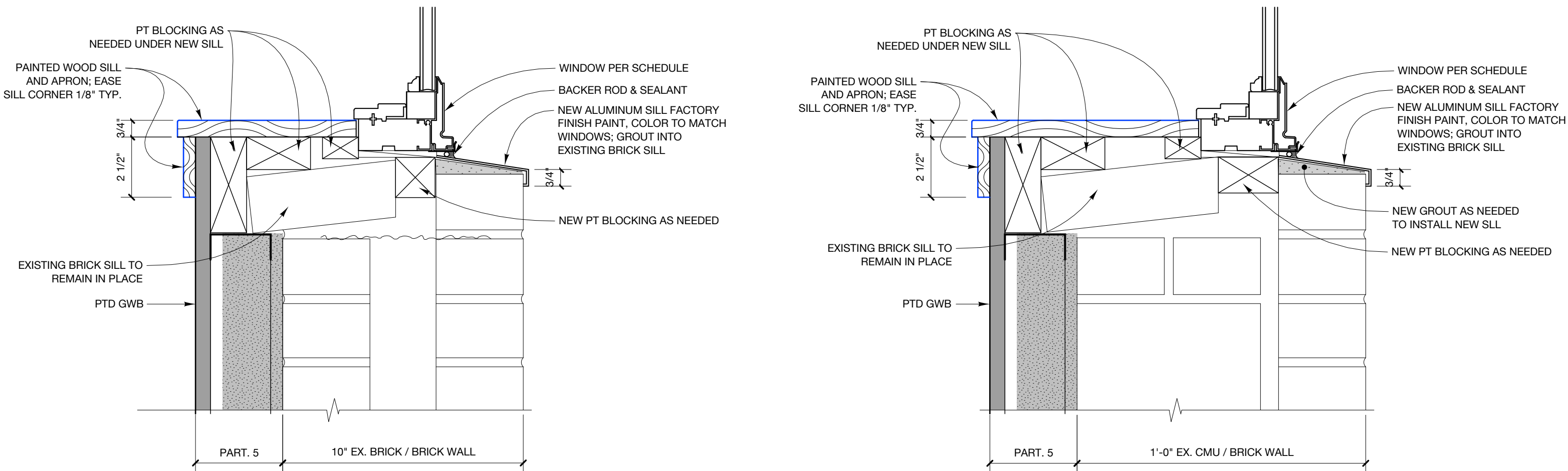
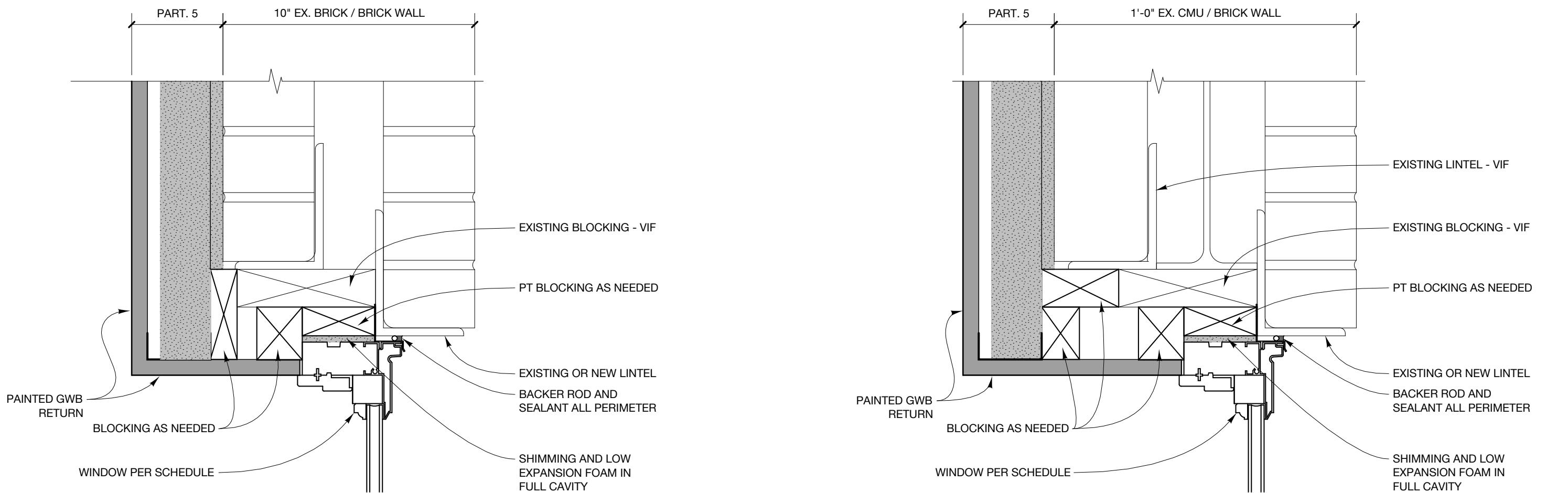
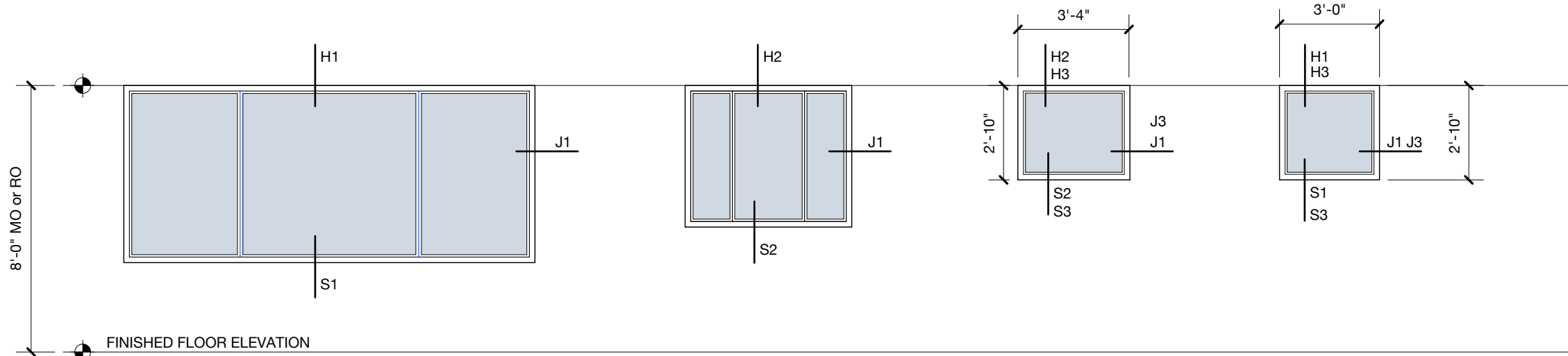
WINDOW FLASHING INSTRUCTIONS

1/2" = 1'-0"



WINDOW TYPES

SCALE: 1/4" = 1'-0"



5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
STRUCTURAL INTEGRITY CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

HVAC & Plumbing Engineering:
MECHANICAL SYSTEMS ENGINEERS

Royal River Center, Unit 10
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING SERVICES

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

CITY OF PORTLAND
NORTH DEERING FIRE STATION

Renovation & Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION DRAWINGS

Scale: as indicated

WINDOW SCHEDULES AND DETAILS

A9.1

STRUCTURAL GENERAL NOTES

City of Portland North Deering Fire Station
386 Allen Ave.
Portland, ME

DESIGN LIVE LOADS: 2015 IBC/MUEBC, U.O.N.
Occupancy Category, Table 1604.5 II Standard

Roofs:	Ground Snow, Pg	50 psf (used for drifting calculations)
	Snow Exposure Factor Ce	ASCE Table 7-2 1.0
	Snow importance Factor, Is	Table 1604.5 1.0
	Snow Thermal Factor, Ct	Table 1608.3.2 1.1

Lateral:	Wind IBC 1603.1.4, ASCE 7-10	Analytic Method
	3 Second Gust Velocity	118 mph
	Importance Factor	1.0
	Building Category and Internal Pressure Coefficient	
	IBC 1609.2, ASCE Figure 6-5	Enclosed GCpi=0.18
	Exposure	B
	Components and Cladding Pressures	DP 45 uno. Also see specs
Seismic	Use Group	1
	Importance Factor	1.0
	Spectral Response	Acceleration Coefficient
	Short Period Ss	0.281 g SDs 0.150 g
	One Second Si	0.072 g SD1 0.038 g
	Soils Site Class	Table 1615.1.1 C
	Design Category	Table 1616.3 A
	Basic Force Resisting System, Table 1617.6.2	
	Design Base Shear	30 kips
	Seismic Response Coefficient	Cs 0.026
	Response Modification Coefficient R	6.5
	Analysis Procedure	Equivalent Lateral Force

FOUNDATION:

- * Foundations are designed without an engineer's soil investigation. Foundation design criteria was assumed for purpose of foundation design and shall be confirmed by a soils engineer, at owner's expense, prior to construction. (This procedure may require revisions to foundation design, at additional expense to the owner, if soils engineer determines that such design criteria are inappropriate for this building site.)
- * Footings shall be placed on undisturbed natural soil or compacted fill tested and approved by soils engineer.
- * Allowable bearing pressure = 1,500 psf. Bear on soil approved by the Soils Engineer. -typ
- * Existing foundation walls are assumed acceptable for existing soil retainage and new building loads

FOUNDATION WALLS:

- * Design lateral soil pressure (equivalent fluid pressure):
Walls: 50 pcf.
- * Backfill all retaining walls with free draining granular material except the top two feet.
- * Provide perimeter drain system with invert minimum of 6" below bottom of basement slab. Extend perimeter drain to daylight or to sump.
- * Slope perimeter grade away from building.
- * Place concrete continuously without horizontal cold joints.

CONCRETE AND REINFORCEMENT:

- * Concrete shall conform to applicable provisions of ACI-301 and 318. Minimum 28 day compressive strength (F'c) as follows:
Walls/Grade Beams: 4,000 psi w/4-6% air entrainment
Slabs: 4,000 psi w/4-6% air entrainment
- * Cement Type: I/II

STEEL ROOF DECKING:

Deck shall be manufactured and erected according to "Specifications and Code of Standard Practice" of the Steel Deck Institute.

Welding patterns, screw patterns, and details shall be indicated on the supplier's shop drawings.

Deck shall be attached to supporting members to develop a diaphragm shear of 350 plf and net uplift due to wind of 20 psf.

PRE-ENGINEERED, PRE-FABRICATED STEEL JOISTS:

Steel joists and steel joist girders shall be designed by a registered engineer employed by the joist fabricator to satisfy the requirements shown on the drawings.

Calculations bearing the Manufacturer's Engineer's Stamp and Signature shall be submitted for Structural Engineer's review prior to fabrication.

Members shall be designed to support the full dead loads and the superimposed design loads noted and as follows:

PRECOMPOSITE DL = SELF-WEIGHT (4PSF) + CONC SLAB WEIGHT -TYP.
POSTCOMPOSITE DL = 10PSF TOP CHORD & 5PSF BOT CHORD.
PRE + POST COMPOSITE CONSTRUCTION LL = 20PSF (50PSF pre-composite if power screed is used during concrete placement on deck)
RESIDENTIAL LL = 40PSF -TYP.
ASSEMBLY/CORRIDORS LL = 100PSF
LOW ROOF DECK LL = 150PSF -TYP
OFFICE AREAS = 50PSF
L/600 LIVE LOAD DEFLECTION -TYP. UNO OR 1" MAX.
L/360 LIVE LOAD DEFLECTION @ ASSEMBLY LOADING OR 1" MAX
L/240 TOTAL LOAD DEFLECTION CRITERIA.

Chord members shall have the capacity to support a concentrated 500 pound load applied anywhere along the length non-concurrent with other live loads without requiring added strut reinforcing.

Members shall be designed, fabricated, and erected according to "Specifications and Code of Standard Practice" of the Steel Joist Institute.

Provide special end bearings, top chord extensions, and extended ends as indicated on the drawings.

Detail and provide bridging for all joists in accordance with OSHA and SJI requirements.

Provide bottom chord extensions where required to support ceilings or fireproofing.

STRUCTURAL MASONRY:

Design is based on Unit Strength Method
MSJC, Section SC-1.4 B.2.

Compressive strength of masonry assembly used for design is 1500 psi, based on net-bedded area.

Hollow load-bearing concrete masonry (CMU) shall be medium-weight units conforming to ASTM C90, Grade N1, minimum compressive strength 1,900 psi based on average net area.

Mortar shall be Type S conforming to ASTM C270.

Masonry cement shall not be used.

Provide full shoved mortar in all head and bed joints.

Admixtures shall not be added for any reason unless approved by the Architect.

Except for lintels, bond beam units shall be produced from standard vertically voided units with pre-cut knockout cross walls.

Grout used in masonry walls and block cells shall be:

- coarse grout, as defined by ASTM C476, with a minimum cube strength = 2,000 psi.
- 3000 psi concrete using 3/8" dia. aggregate placed by vibrating unless an approved self consolidating mix is used
- Lifts shall not exceed five feet in height

If grout pour height exceeds 5 feet, clean-out holes shall be provided.

Space continuous horizontal joint reinforcing at 16" maximum in all CMU walls.

Joint reinforcing shall be welded type with 9 gage side-wires and 9 gage trussed or ladder cross wires.

Reinforcing bars shall be as for reinforced concrete except as noted.

At splices, lap bars 48 diameters.

Provide reinforced grouted vertical cells

at corners, ends of walls, jambs of openings, each side of vertical control joints, and

at spacing shown on drawings.

Reinforcement shall be secured against displacement prior to grouting

by wire bar locators or other suitable devices at intervals not exceeding 200 bar diameters or 10 feet.

Where noted on the drawings,

provide clearance between masonry and structural elements, or

wrap steel with polyethylene film.

Provide vertical control joints in all masonry walls

as located on architectural drawings and

at 25'-0 maximum spacing.

at both jambs of openings wider than six feet.

Submit for review

Certificates for materials used in masonry construction indicating compliance with the contract documents

Special Inspection is required by design. See Special Inspection Notes.

MSJC Level 2 Quality Assurance, MSJC Table 1.14.2

Prism and grout tests will be required prior to the start of masonry work shall consist of five (5) masonry prisms.

Test specimens shall be made by the masons, at the direction of the owner's representative, with materials and techniques currently being used in the wall.

Specimens shall be protected and field cured for 48 hours before being transported to a testing agency.

The testing agent will be hired by the owner and shall be responsible for laboratory care and curing of specimens, testing, and reporting results to the owner, contractor, architect, and engineer in accordance with ASTM E447-92

LOOSE LINTELS:

Unless noted otherwise, provide loose lintels as follows: (One angle for each 4" of wall thickness to bear 6" minimum each end).

Openings to 4'-0:	Angle 3-1/2 x 3-1/2 x 1/4
Openings 4'-1 to 5'-4:	Angle 5 x 3-1/2 x 1/4
Openings 5'-5 to 6'-6:	Angle 6 x 3-1/2 x 5/16

SHOP DRAWINGS:

Construction Documents are copyrighted and shall not be copied for use as erection plans or shop details.

Use of SI Inc.'s electronic files as base for shop drawings requires prior approval by SI Inc,

signed release of liability by subcontractor,

payment of an administration fee of \$100 per drawing sheet to SI Inc, and

deletion of SI Inc's name and Logo from all sheets so used.

The General Contractor and his subcontractors shall submit in writing any requests to modify the plans or specifications.

All shop and erection drawings shall be checked and stamped by the General Contractor prior to submission for Engineer's review.

Unchecked submittals will be returned without review.

Furnish one (1) reproducible and two (2) prints of shop and erection drawings to the Structural Engineer for review prior to fabrication for reinforcing steel, structural steel, steel trusses and decking, precast concrete, reinforced concrete, and masonry construction

Submit in a timely manner to permit ten (10) working days for review.

Shop drawings submitted for review do not constitute "in writing" unless specific suggested changes are clearly marked.

In any event, such changes by means of the shop drawing submittal process become the responsibility of the one initiating such change.

FIELD VERIFICATION OF EXISTING CONDITIONS:

Contractor shall thoroughly inspect and survey existing structure to verify conditions that affect the work shown on the drawings.

Contractor shall report any variations or discrepancies to the Architect before proceeding.

STRUCTURAL ERECTION AND BRACING REQUIREMENTS:

The structural drawings illustrate the completed structure with elements in their final positions, properly supported and braced.

These construction documents contain typical and representative details to assist the contractor.

Details shown apply at all similar conditions unless otherwise indicated.

Although due diligence has been applied to make the drawings as complete as possible, not every detail is illustrated, nor is every exceptional condition addressed.

All proprietary connections shall be installed in accordance with the manufacturers' recommendations.

All work shall be accomplished in a workmanlike manner and in accordance with the applicable code and local ordinances.

The general contractor is responsible for coordination of all work, including layout and dimension verification, materials coordination, shop drawing review, and the work of subcontractors.

Any discrepancies or omissions discovered in the course of the work shall be immediately reported to the architect for resolution.

Continuation of work without notification of discrepancies relieves the architect and engineer from all consequences.

Unless otherwise specifically indicated, the drawings do not describe methods of construction.

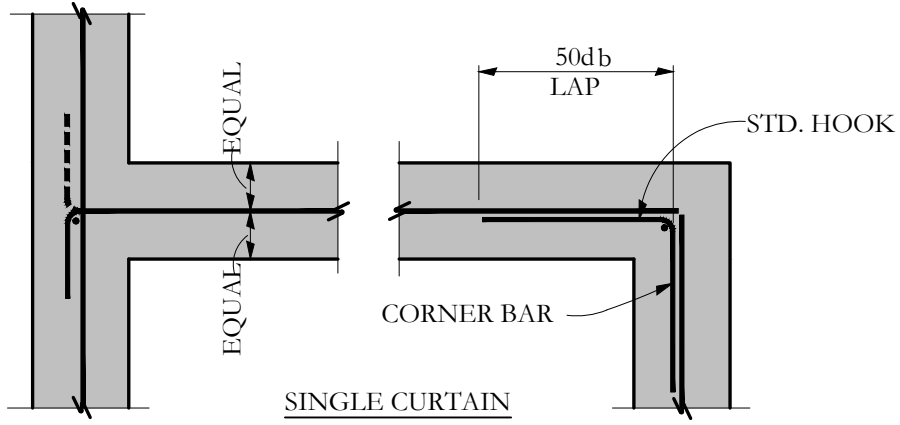
The contractor, in the proper sequence, shall perform or supervise all work necessary to achieve the final completed structure, and to protect the structure, workmen, and others during construction.

Such work shall include, but not be limited to, bracing, shoring for construction equipment, shoring for excavation, formwork, scaffolding, safety devices and programs of all kinds, support and bracing for cranes and other erection equipment.

Do not backfill against basement or retaining walls until supporting slabs and floor framing are in place and securely anchored, unless adequate bracing is provided.

Temporary bracing shall remain in place until all floors, walls, roofs and any other supporting elements are in place.

The architect and engineer bear no responsibility for the above items, and observation visits to the site do not in any way include inspection of them.



TYPICAL CONCRETE WALL INTERSECTIONS

NO SCALE

STRUCTURAL WOOD FRAMING:

In-Grade Base Values have been used for design.

2x framing shall be Spruce-Pine-Fir S4S No. 2 and better unless noted.

All lumber shall be 19% maximum moisture content, unless noted.

Solid timber beams and posts shall be Douglas Fir-Larch No. 1.

Studs shall be Spruce-Pine-Fir S4S No. 2 and better.

Top and bottom plates shall be Spruce-Pine-Fir S4S No. 2 and better.

Wood in contact with concrete shall be pressure-treated Spruce-Pine-Fir S4S No. 2 or Southern Yellow Pine.

Conventional light framing shall comply with IBC Section 2308.

Except as noted otherwise, minimum nailing shall be provided as specified in IBC Table 2304.10.1 "Fastening Schedule."

All plywood and oriented strand board (OSB) sheathing shall be engineered grades with APA grade stamp indicating appropriate maximum spacing of supports.

Floor sheathing: nominal 3/4", APA Sturd-I-Floor "24" tongue & groove glued and nailed.

Roof sheathing: minimum 5/8" CDX plywood, or 5/8" OSB, APA 32/16, nailed.

Wall sheathing: 1/2" CDX plywood or 7/16" OSB, APA 24/16, blocked and nailed.

Nail wall sheathing with 8d commons at 4" o.c. at panel edges, and 12" o.c. at intermediate framing except as noted.

Sheath all exterior walls. Sheath interior walls as shown on the drawings. Block and nail all sheathing panel edges between studs.

Sheathing shall be continuous from bottom plate to top plate. Cut in "L" and "T" shapes around openings. Lap sheathing over rim joists min. 4" at all floors to tie upper and lower stud walls together.

Minimum height of sheathing panels shall be 16" to assure that plates are tied to studs.

Minimum 3-8d per stud and nail plates with "edge nail" spacing.

Sole plate at all perimeter walls and at designated shear walls shall be nailed as for braced panels with 3-16d x 3 1/2" long box nails (coated or deformed shank) per 16". 12d nails are not acceptable.

Provide solid blocking between joists under jamb studs of openings.

Pre-engineered, prefabricated trusses shall be designed for the fabricator by a Professional Engineer Registered in the State of construction, and shall comply with Code Requirements.

Truss to truss connections specified shall be by truss supplier, unless specifically noted on the drawings.

Lower chord of gable end trusses shall be anchored to wall plate with framing anchors at 4'-0 spacing and laterally braced to roof framing at 8'-0 spacing.

Truss supplier shall specify all floor and roof truss bracing and bridging.

All roof rafters, joists, trusses, and beams shall be anchored to supports with metal framing anchors.

Light gage framing anchors shown or required, shall be Simpson "Strong Tie" or equal Code approved connectors and installed with the number and type of nails recommended by the manufacturer to develop the rated capacity.

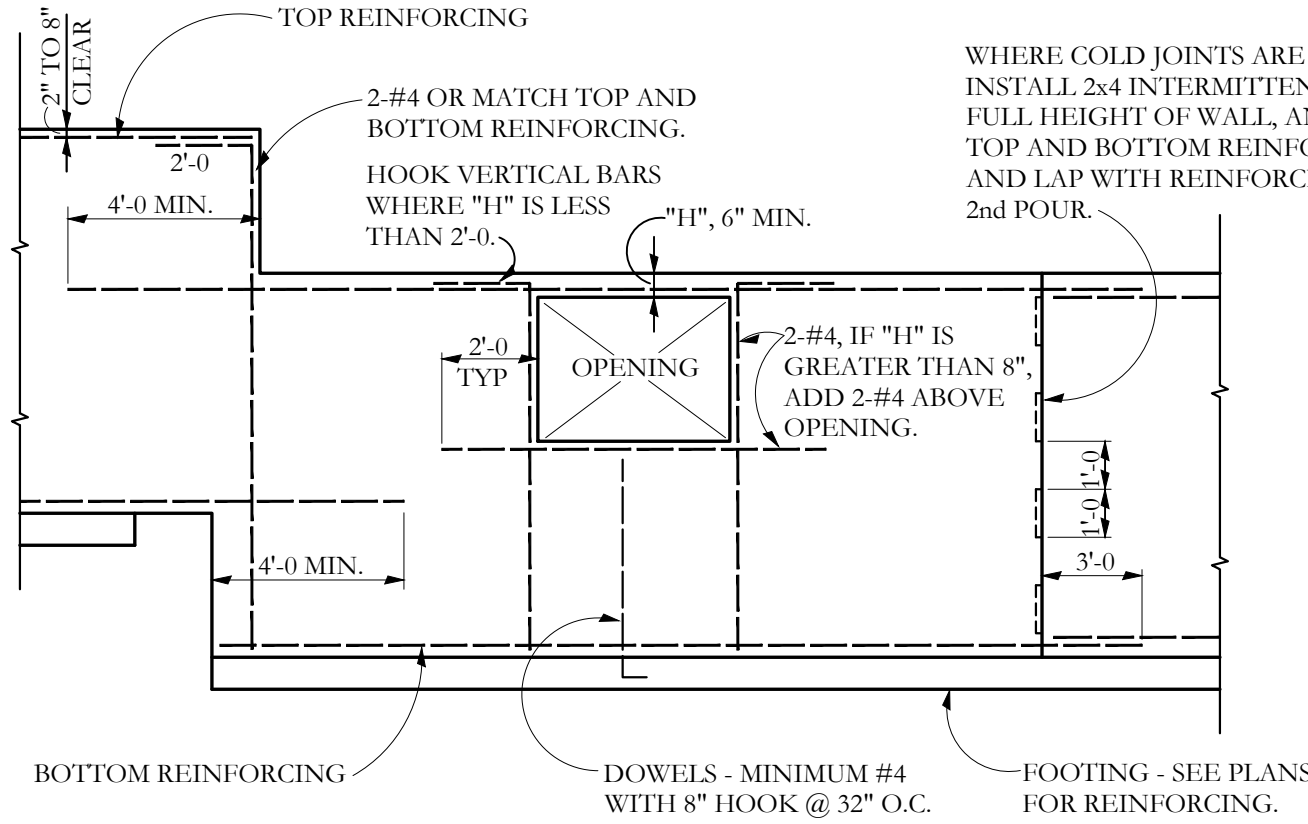
Note that heavy-duty hangers and skewed hangers may not be stocked locally and require special order from the factory.

All beams and trusses shall be braced against rotation at points of bearing.

Unless otherwise indicated, install two lengths of solid blocking x joist depth x 12 inches long in floor framing under column loads.

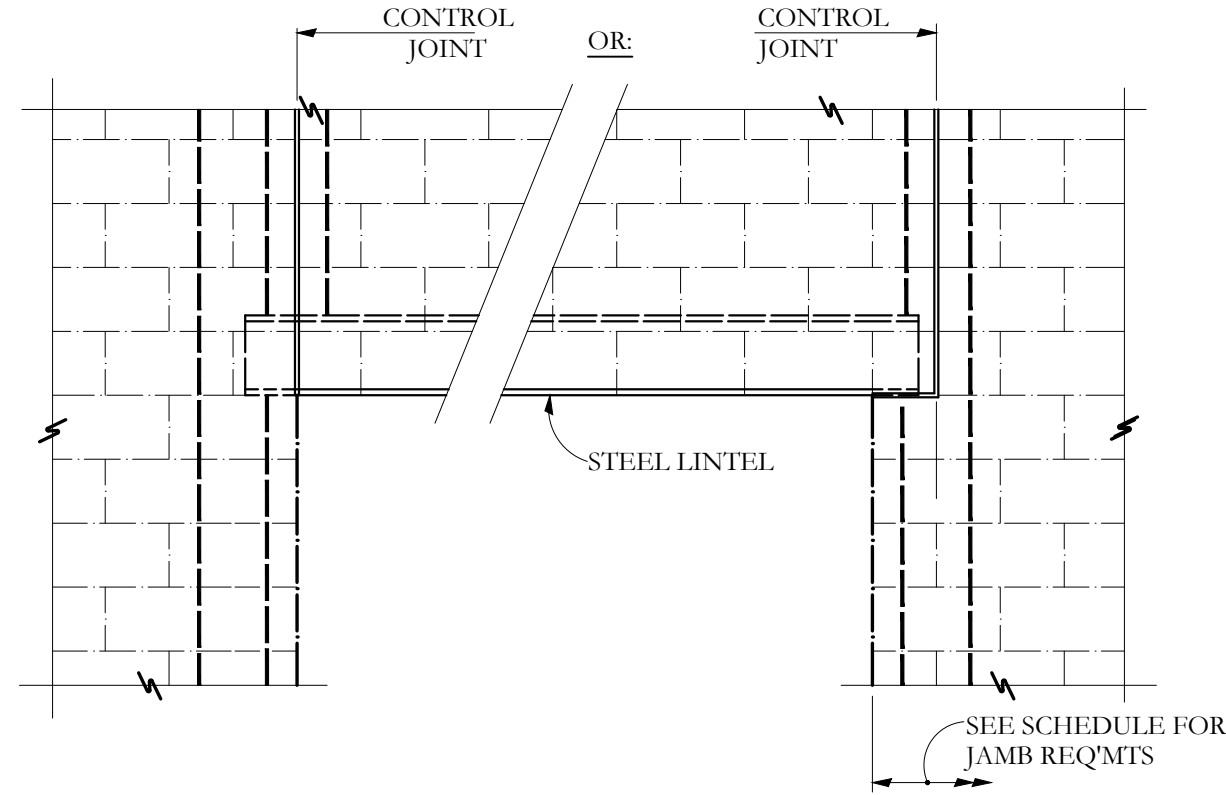
Columns must have a continuous load path to foundation.

Lead holes for lag screws shall be drilled in accordance with Table 6.23 of the AITC Timber Construction Manual, 3rd edition.



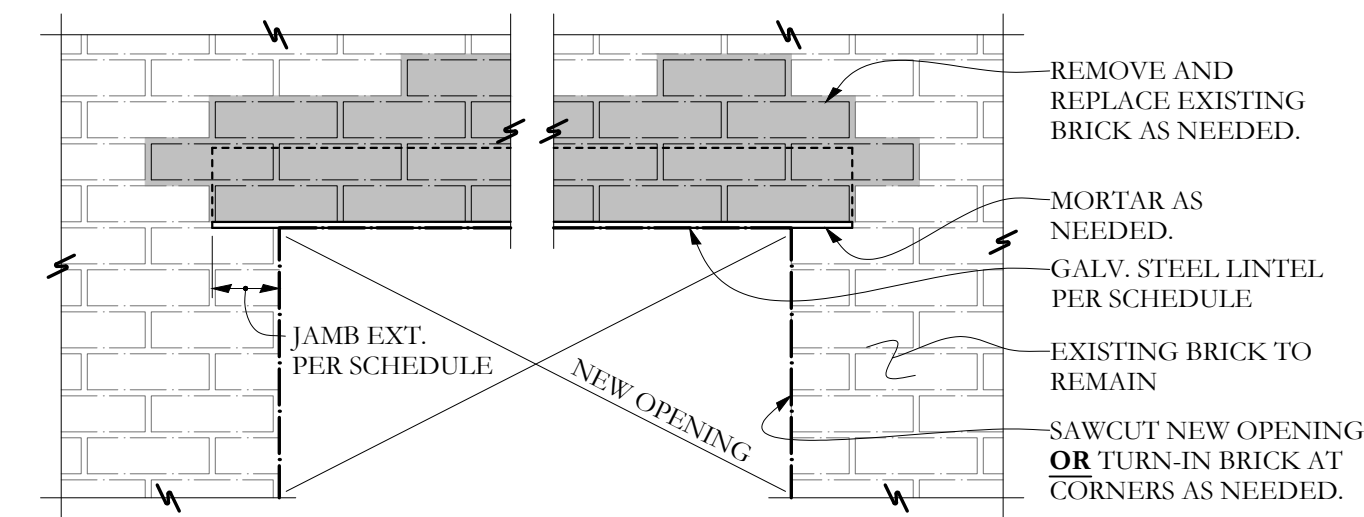
TYPICAL REINFORCING AT STEPS AND OPENINGS

NO SCALE



TYPICAL LOOSE LINTEL INSTALLATION

NO SCALE



NEW LINTEL INSTALLATION IN EXISTING BRICK

NO SCALE

ABBREVIATIONS KEY	
BRG	BEARING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
DWG	DRAWING
EA	EACH
ES	EACH SIDE
<E>	EXISTING
GALV	GALVANIZED
LOC	LOCATION
LVL	LAMINATED VENEER LUMBER
NTS	NOT TO SCALE
<N>	NEW
PT, P.T.	PRESSURE TREATED
<R>	REMOVE
SIM	SIMILAR
SQ	SQUARE
T&B	TOP AND BOTTOM
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
WA	WEDGE ANCHOR



5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
STRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

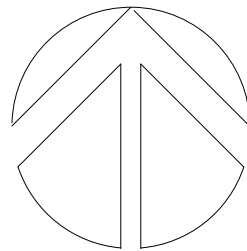
HVAC & Plumbing
Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

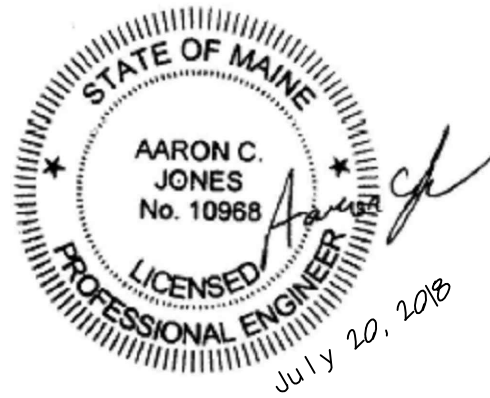
NORTH



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION
DRAWINGS

Scale: AS NOTED

GENERAL NOTES, ETC.

S-0.1

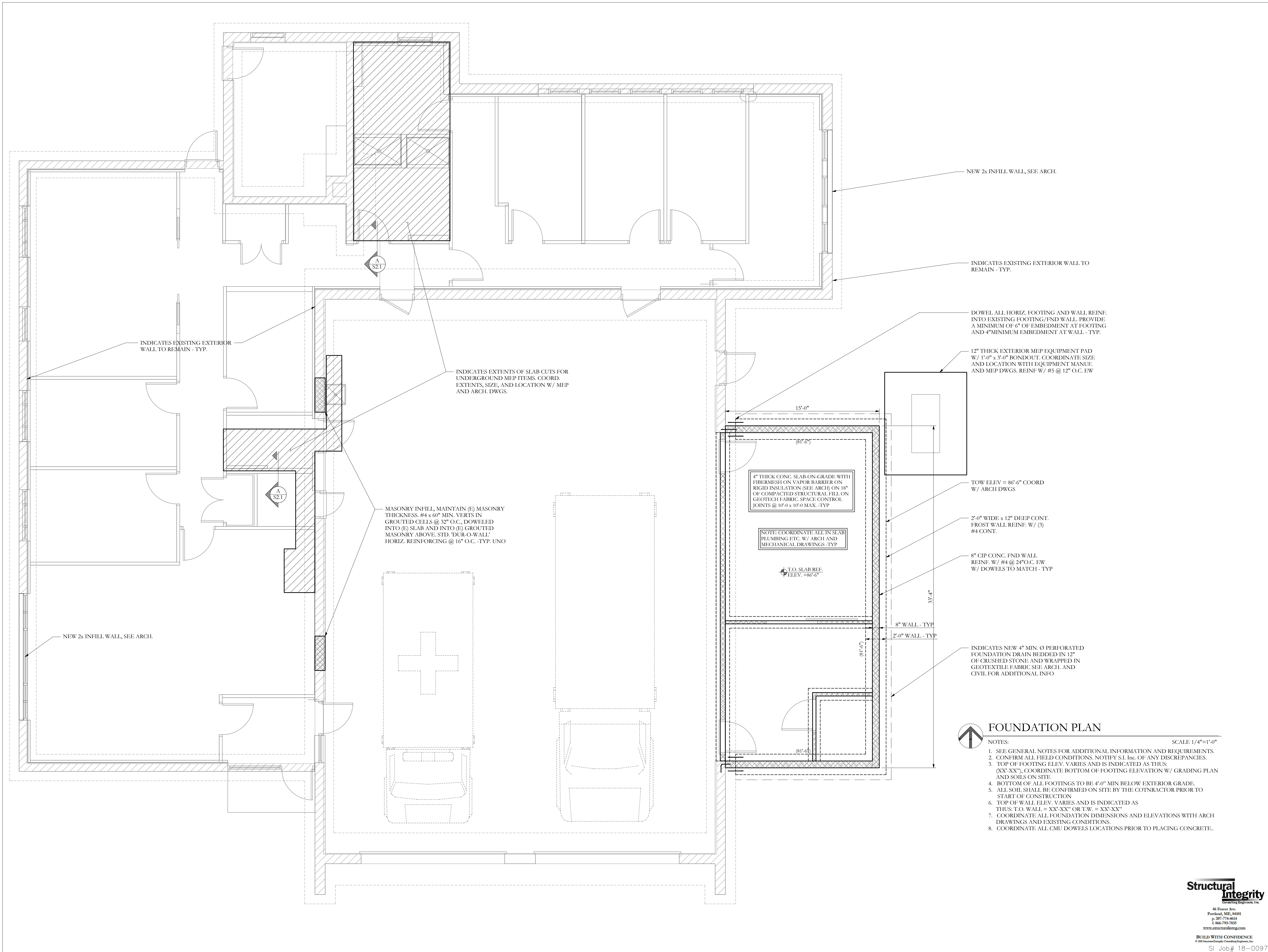


46 Forest Ave.
Portland, ME 04101
p. 207.774.4614
f. 866-793-7835
www.structuralinteg.com

BUILD WITH CONFIDENCE
© 2018 Winton Scott Architects Consulting Engineers, Inc.

SI Job# 18-0097

July 25, 2018



5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
STRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

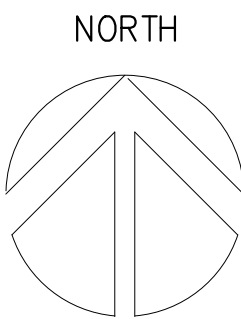
46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

HVAC & Plumbing
Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

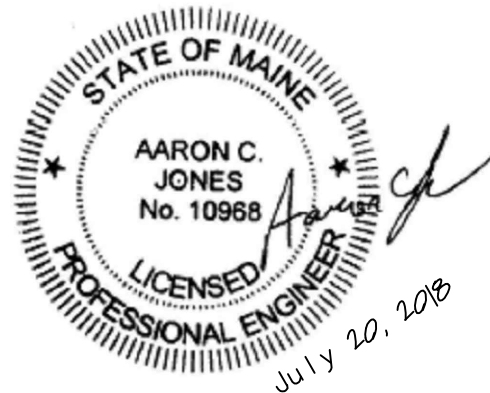
Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION
DRAWINGS

Scale: AS NOTED

FOUNDATION PLAN

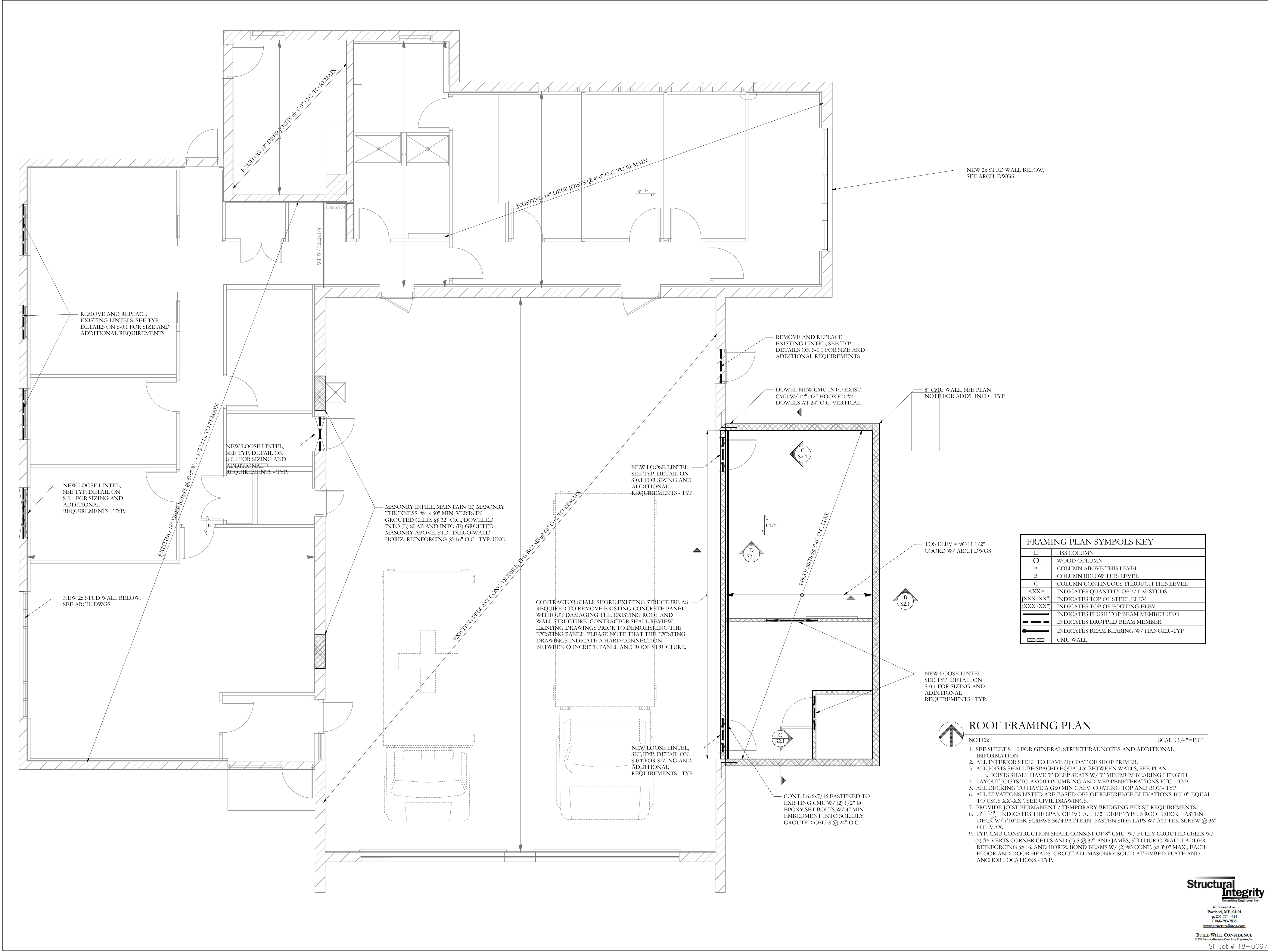
S-1.1

July 25, 2018



46 Forest Ave.
Portland, ME, 04101
p. 207.774.4614
f. 866-793-7835
www.structuralinteg.com

BUILD WITH CONFIDENCE
© 2018 Structural Integrity Consulting Engineers, Inc.
SI Job# 18-0097



5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
STRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

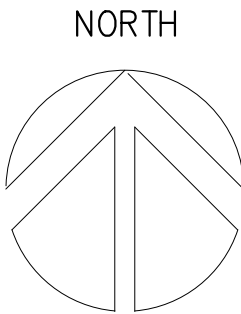
46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

HVAC & Plumbing
Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

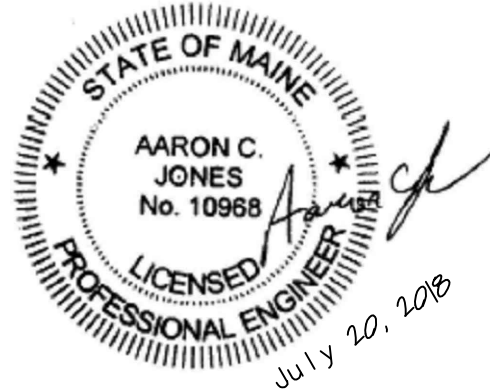
Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION
DRAWINGS

Scale: AS NOTED

ROOF FRAMING PLAN

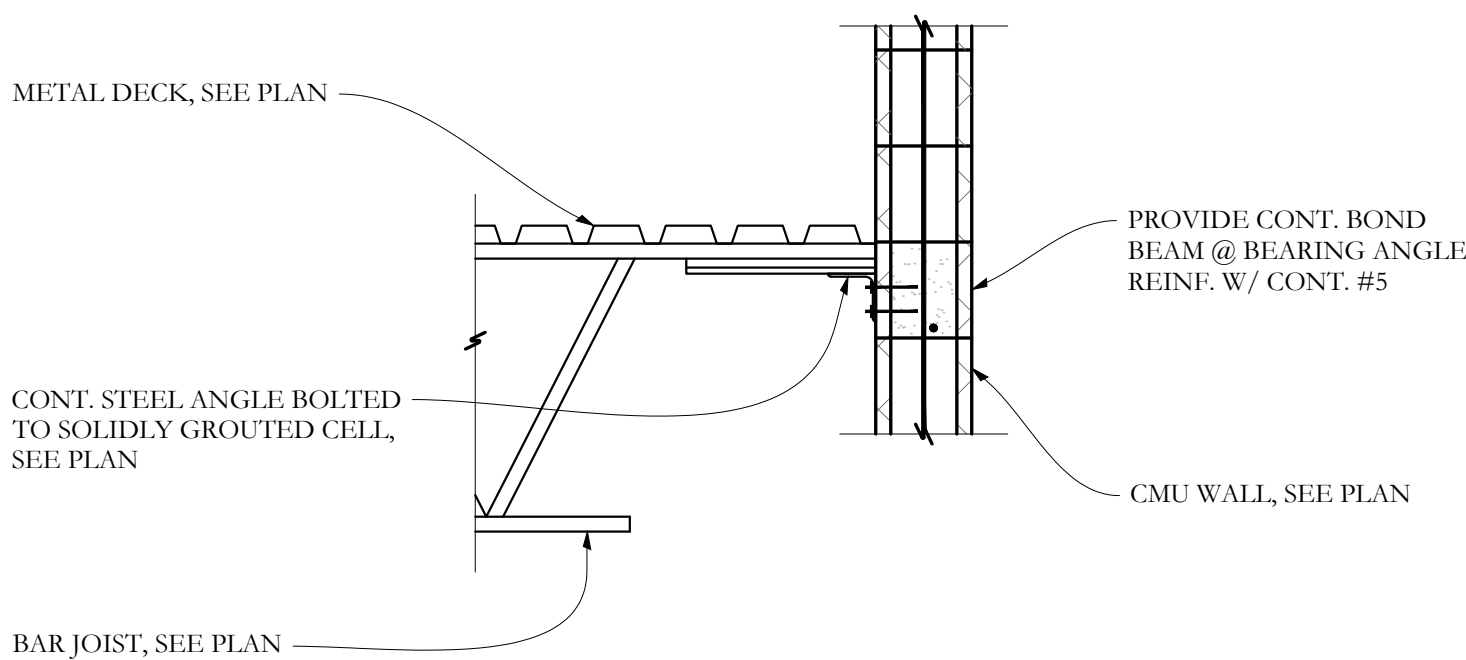
S-1.2

July 25, 2018

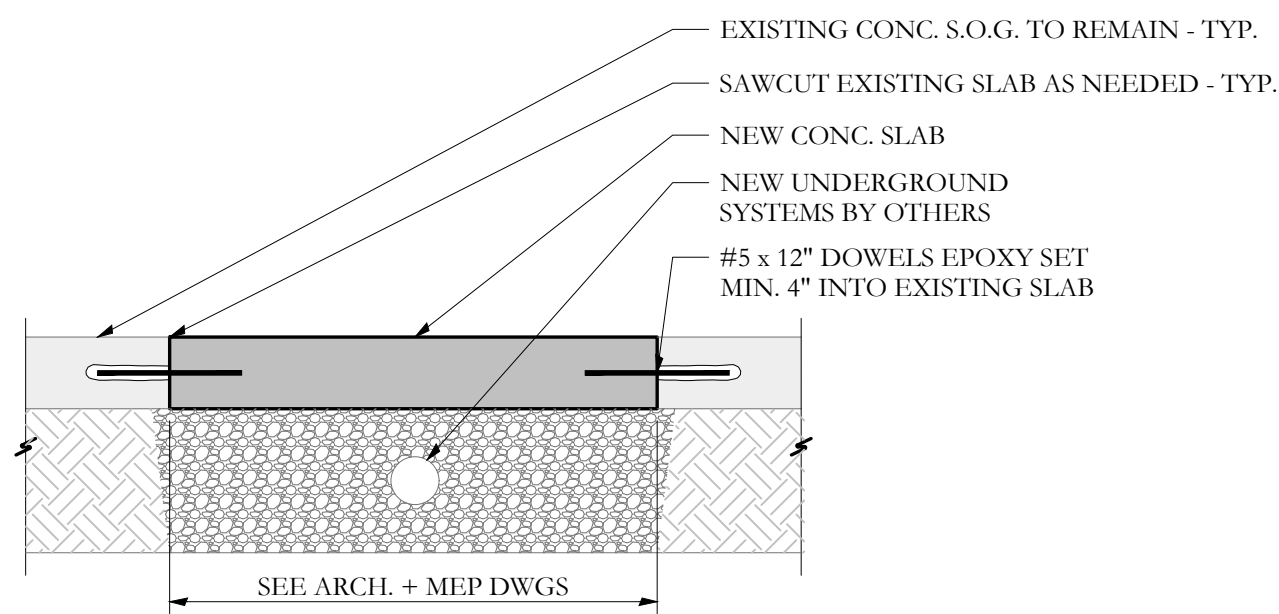
Structural Integrity
Consulting Engineers, Inc.

46 Forest Ave.
Portland, ME 04101
p. 207.774.4614
f. 866-793-7835
www.structuralinteg.com

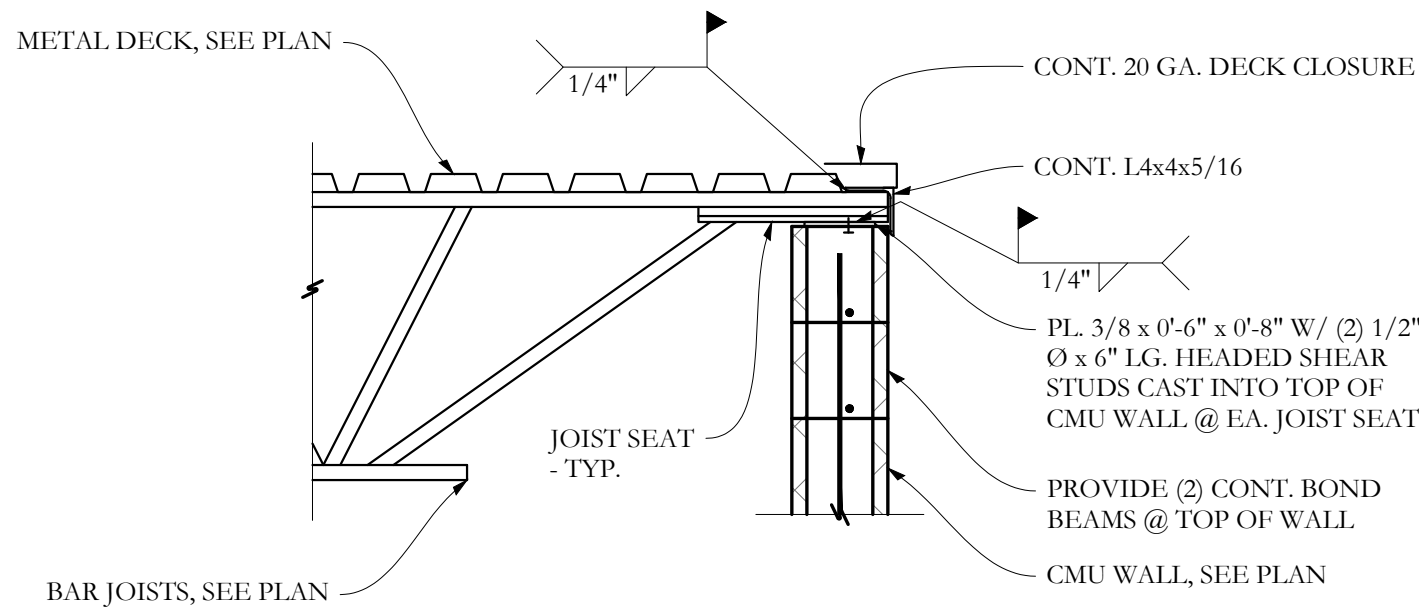
BUILD WITH CONFIDENCE
© 2018 Structural Integrity Consulting Engineers, Inc.
SI Job# 18-0097



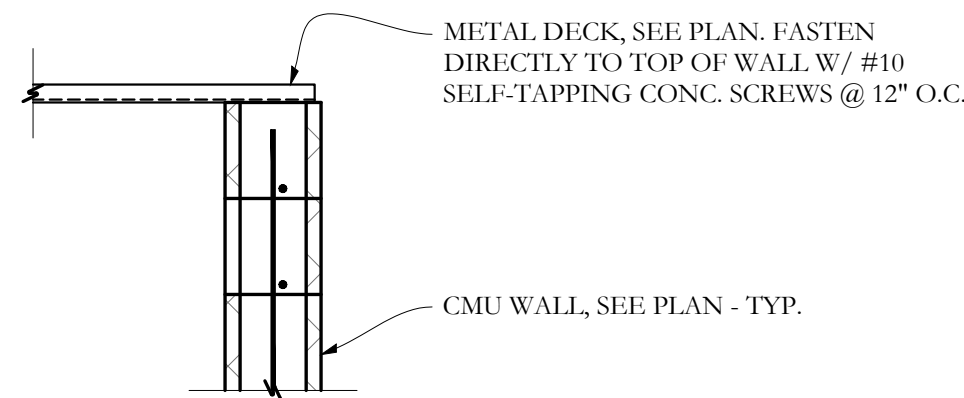
SECTION D S-2.1 3/4"=1'-0



SECTION A S-2.1 3/4"=1'-0



SECTION B S-2.1 3/4"=1'-0



SECTION C S-2.1 3/4"=1'-0

Structural Integrity
Consulting Engineers, Inc.
46 Forest Ave.
Portland, ME, 04101
p. 207.774.4614
f. 866.793.7833
www.structuralintegrity.com

BUILD WITH CONFIDENCE
© 2018 Structural Integrity Consulting Engineers, Inc.

SI Job# 18-0097



5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
STRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

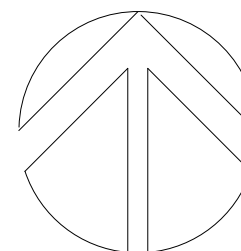
HVAC & Plumbing
Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

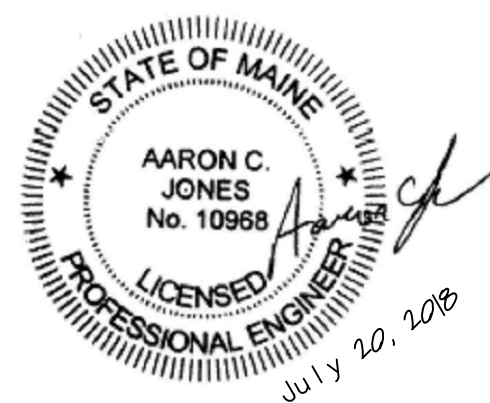
NORTH



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION
DRAWINGS

Scale: AS NOTED

DETAILS

S-2.1

July 25, 2018



WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | winstonscott.com

Structural Engineering:
STRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

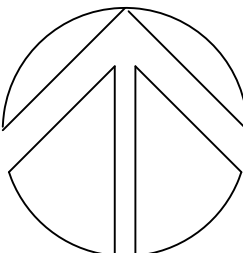
HVAC & Plumbing Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



CITY OF PORTLAND NORTH DEERING FIRE STATION

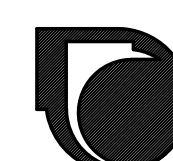
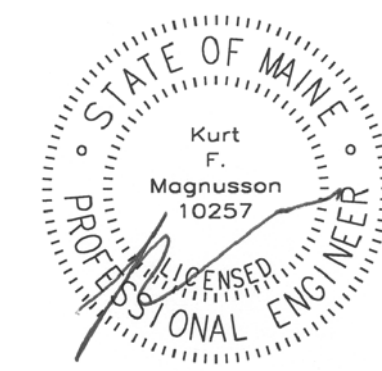
Renovation & Expansion

386 Allen Avenue
Portland, ME 04103

PLUMBING SANITARY & SEWER PLAN

BIDDING & CONSTRUCTION
DRAWINGS

Scale: 1/4" = 1'-0"

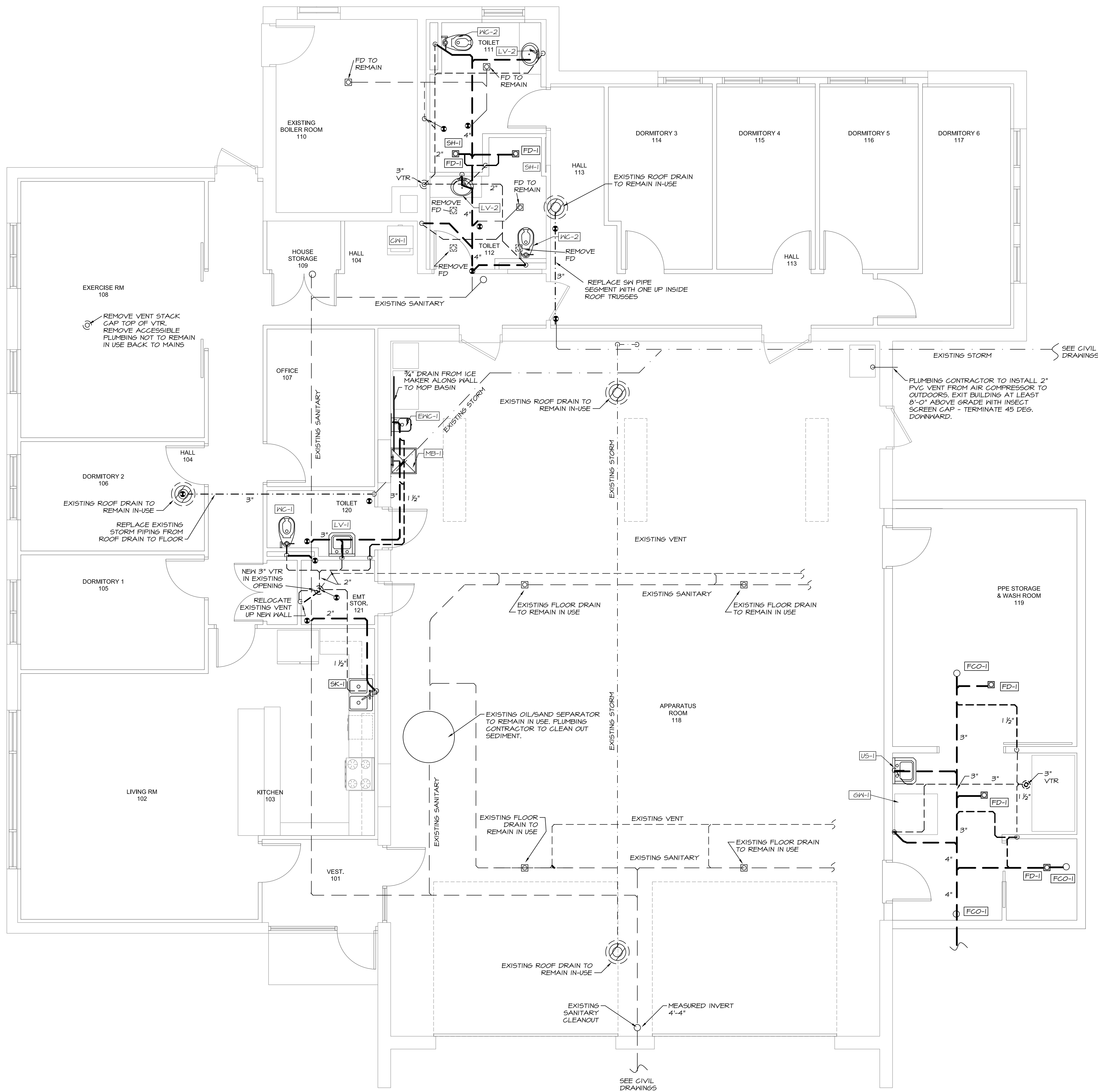


MECHANICAL SYSTEMS ENGINEERS
ROYAL RIVER CENTER, UNIT 10B
10 FOREST FALLS DRIVE, YARMOUTH, MAINE 04096
(207) 846-1441
FACEBOOK: MECHANICAL SYSTEMS ENGINEERS
CELEBRATING 50 YEARS IN BUSINESS
© COPYRIGHT 2018



P1

July 25, 2018



SEWER AND SANITARY REMOVAL & CLEANING NOTES

1. It is the design intention to reuse in-place all of the Roof Drains and Storm drain system except in two locations indicated on the plans to replace the Storm Drain Piping.
2. It is the design intention to reuse in-place all of the Sanitary Sewer System except that the Plumbing Contractor is to cap all unused piping below the floor and remove any of the existing drain and vent system that is not being reused.
3. The Plumbing Contractor is responsible to "Jet" clean all of the Sanitary and Storm water systems.
4. The Plumbing Contractor is responsible to clean the sediment and debris out of the existing oil/sand separator.

PLUMBING SANITARY & SEWER PLAN

SCALE: 1/4" = 1'-0"





WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | winstonscott.com

Structural Engineering:
STRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

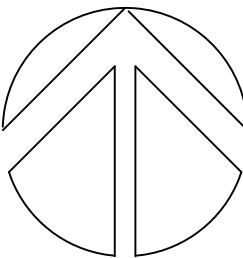
HVAC & Plumbing Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

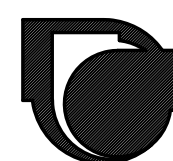
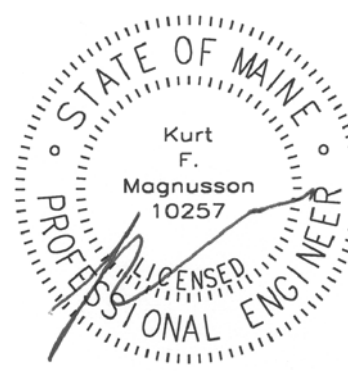
386 Allen Avenue
Portland, ME 04103

PLUMBING
WATER & GAS
PLAN

BIDDING & CONSTRUCTION
DRAWINGS

Scale: 1/4" = 1'-0"

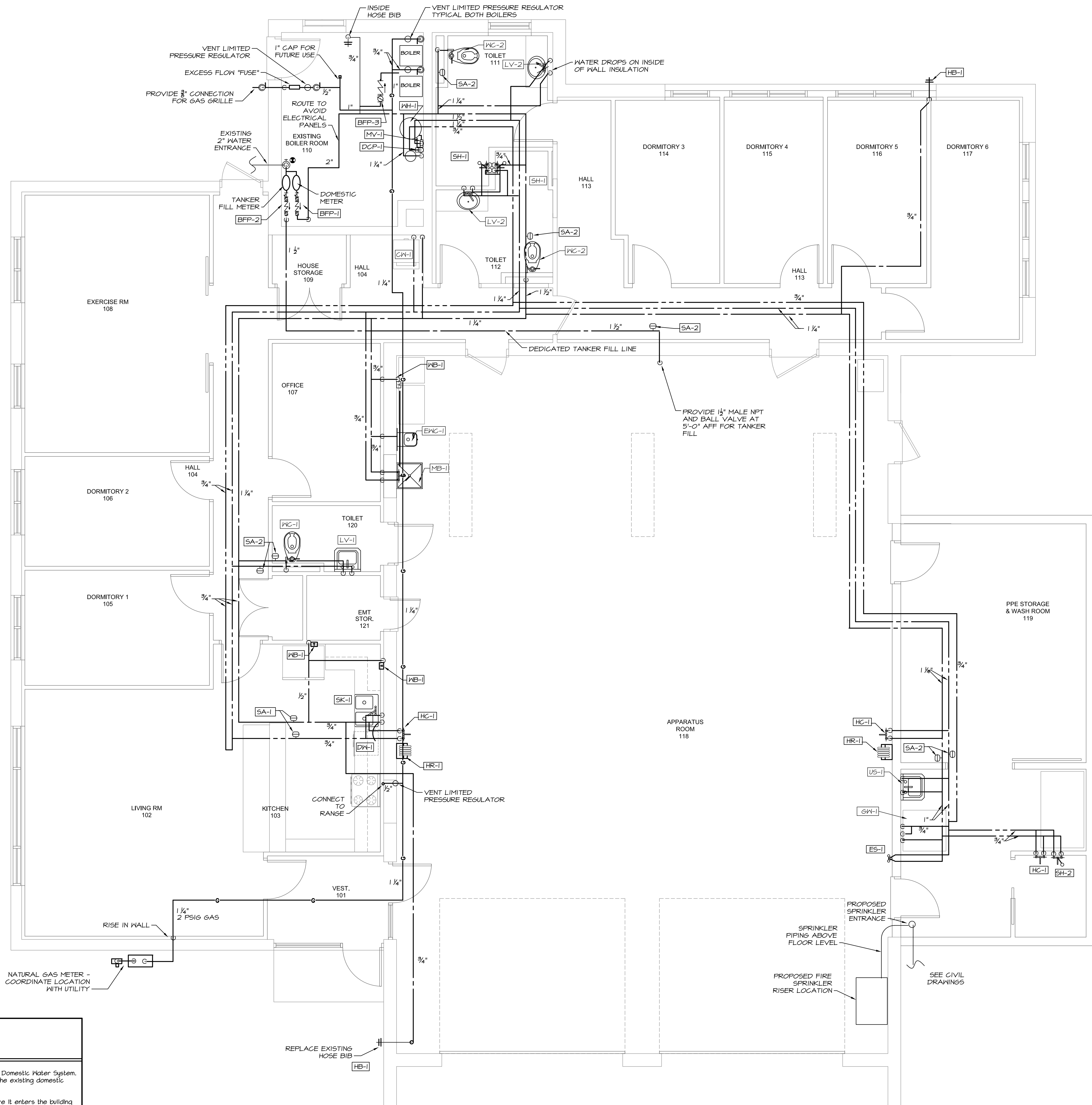
P2



MECHANICAL SYSTEMS ENGINEERS

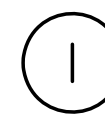
ROYAL RIVER CENTER, UNIT 10B
10 FOREST FALLS DRIVE, YARMOUTH, MAINE 04096
(207) 846-1441

FACEBOOK: MECHANICAL SYSTEMS ENGINEERS
CELEBRATING 50 YEARS IN BUSINESS
© COPYRIGHT 2018



DOMESTIC WATER
REMOVAL NOTES

1. It is the design intention to not reuse any of the existing Domestic Water System. It is the Plumbing Contractor's responsibility to remove all the existing domestic Water System.
2. Replace the Domestic Water piping from the flange where it enters the building (both sides of water meter).



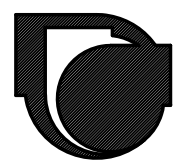
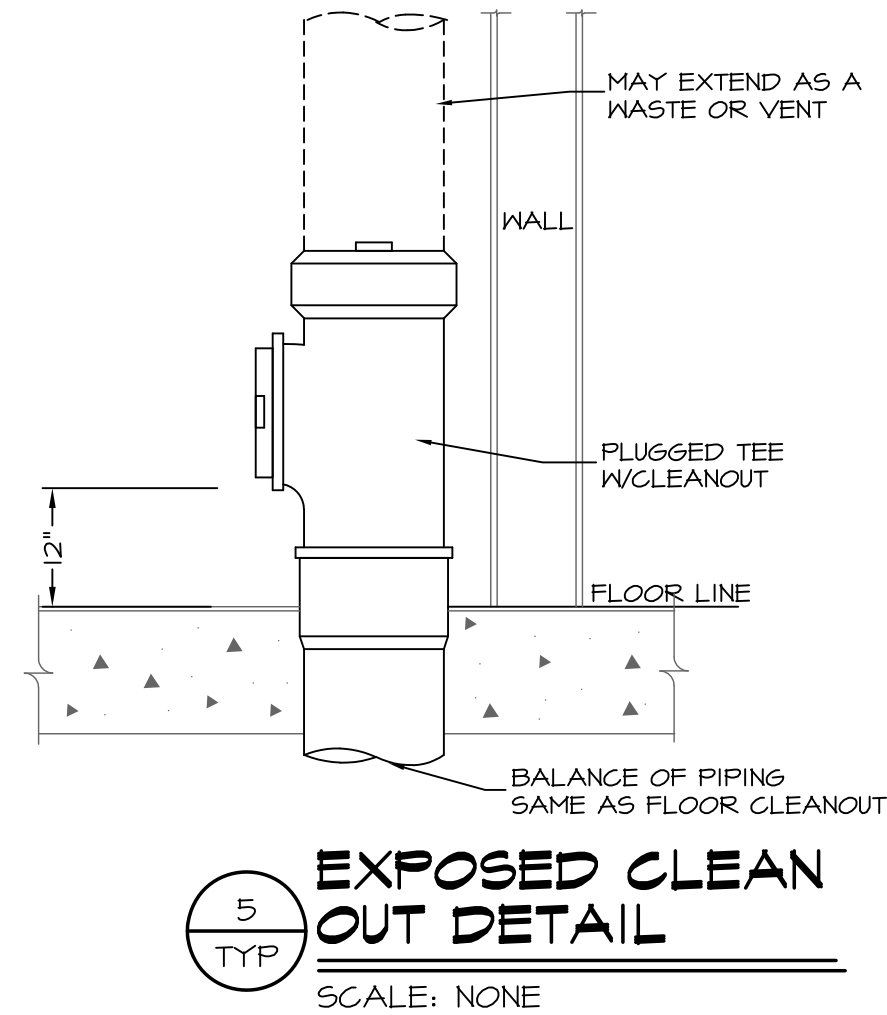
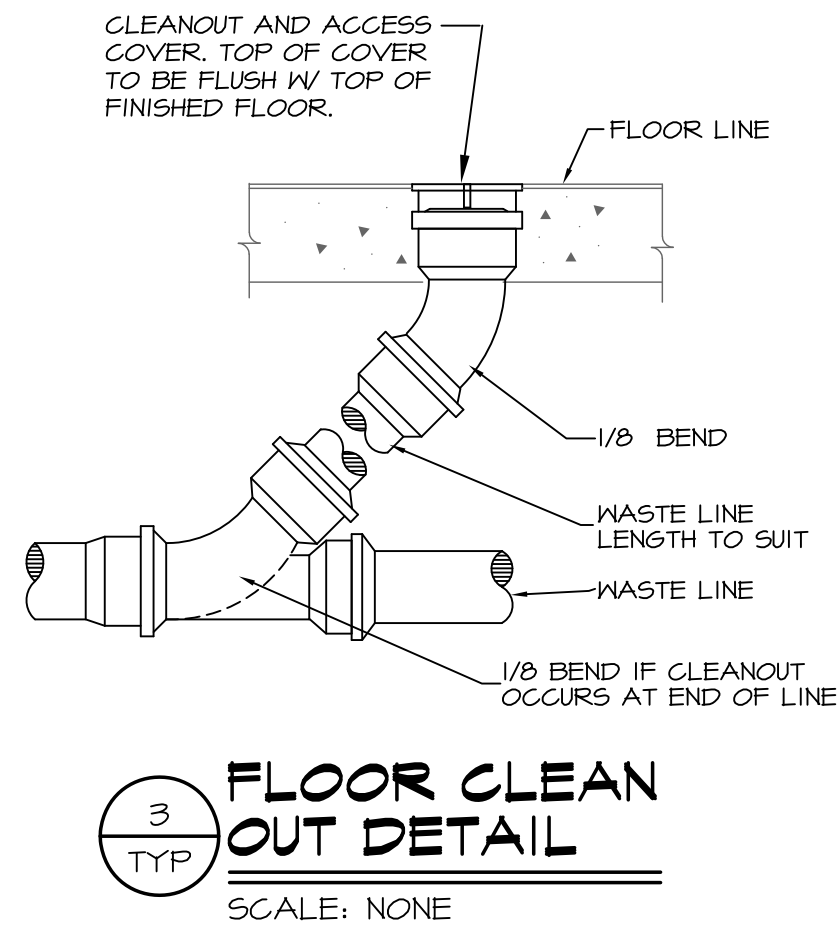
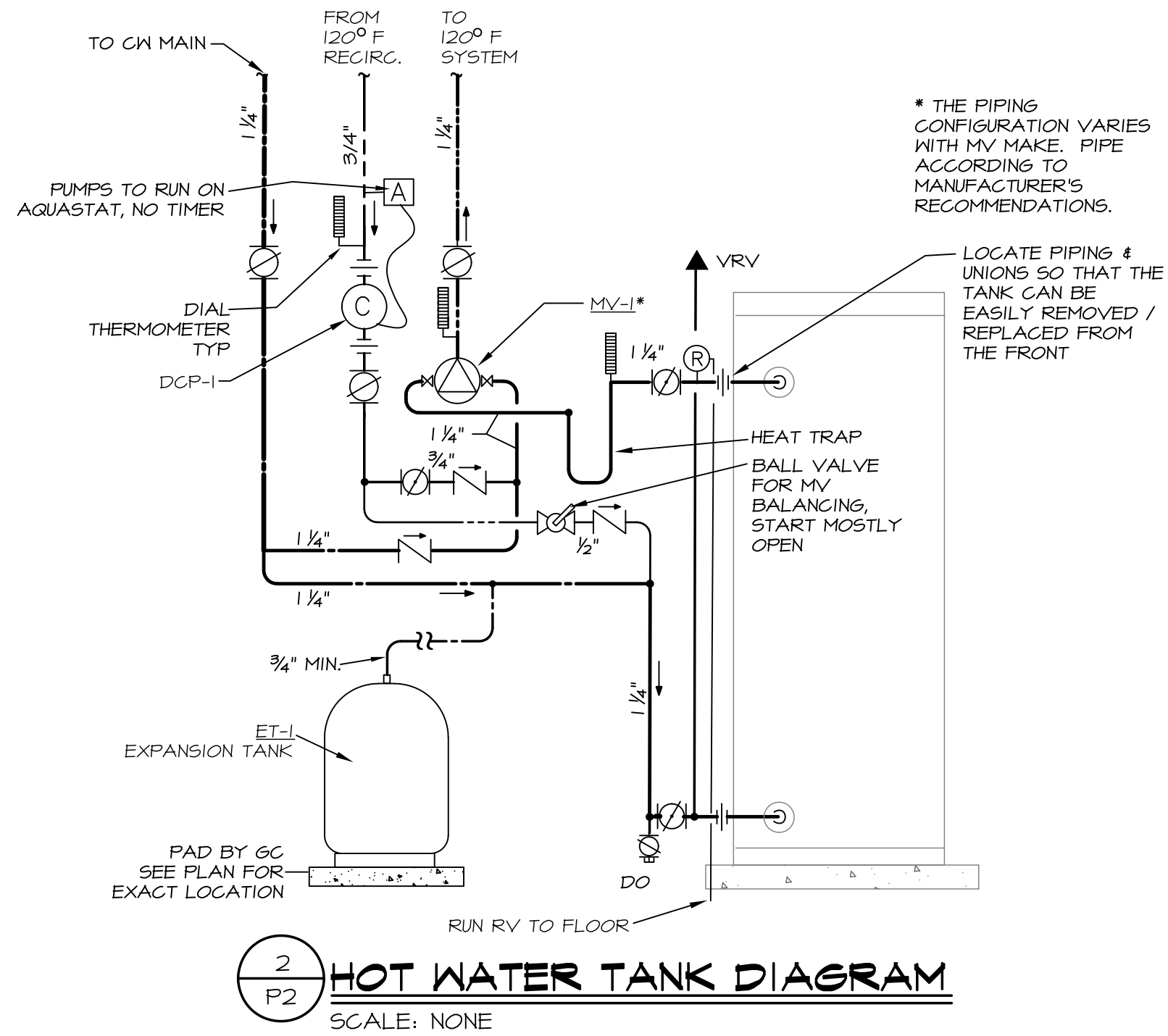
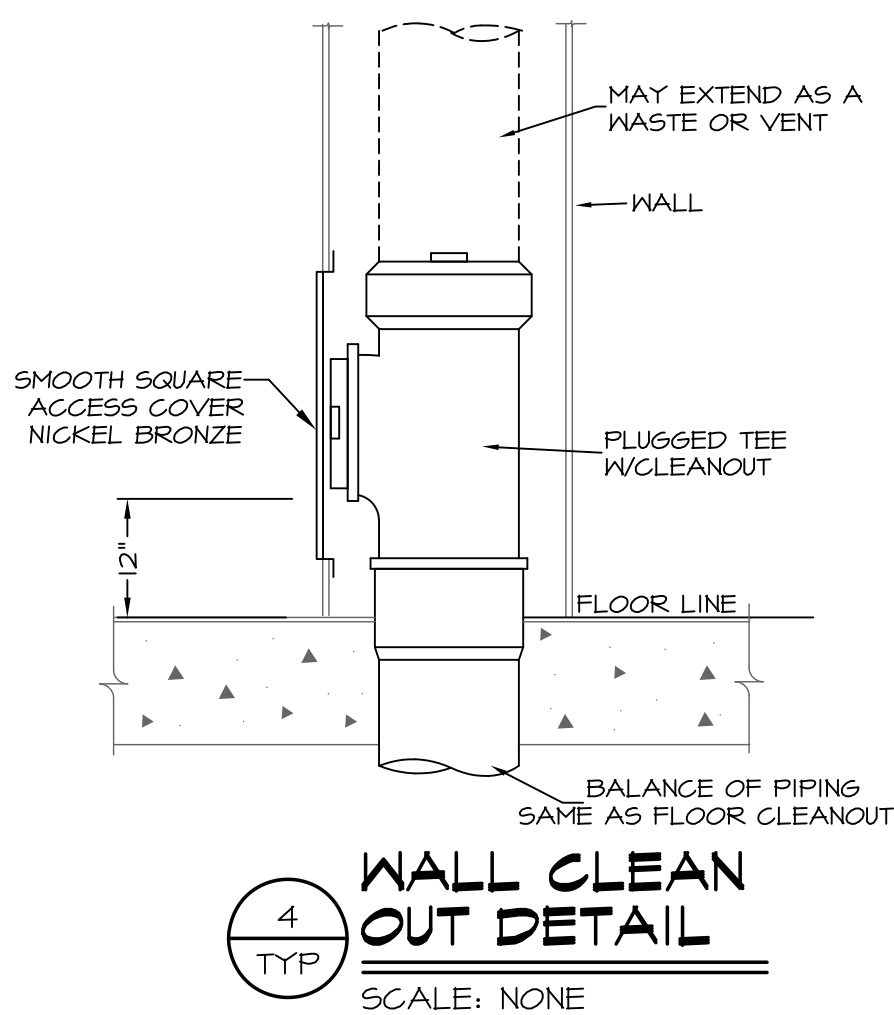
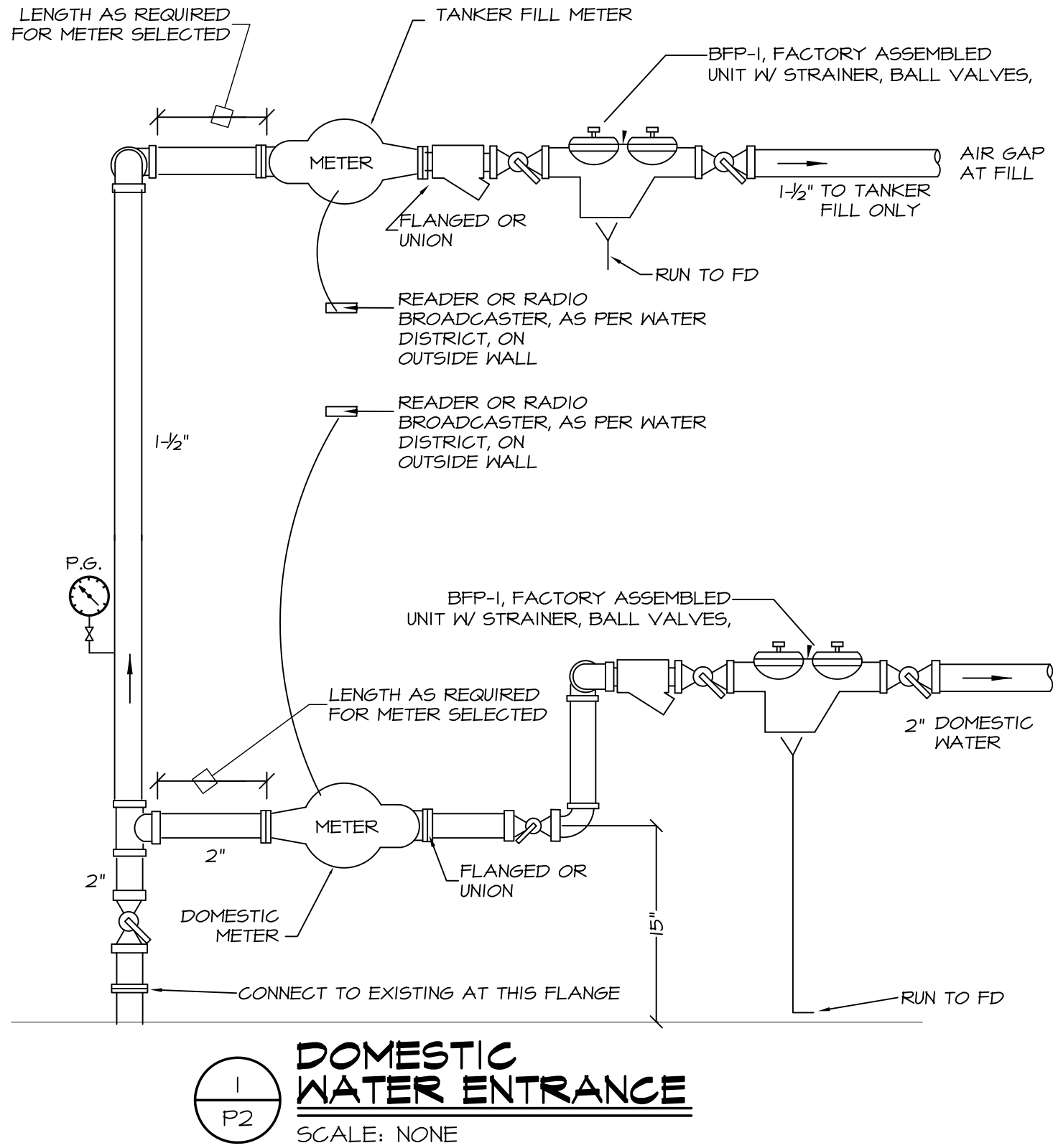
PLUMBING DOMESTIC WATER & GAS PLAN

SCALE: 1/4" = 1'-0"

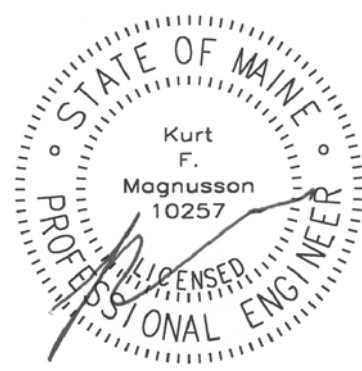
1/4" = 1'-0" 0' 1' 2' 3' 4' 8' 12' 16'

GENERAL NOTES

1. All work shall be in accordance with the State Plumbing Code, local codes and ordinances, National Fire Code (NFPA), or these plans or specifications, whichever is more strict.
2. All drawings are schematic only, and are intended to indicate the intent, extent, and general arrangement of work. They are not meant to show every fitting, change of direction or every situation. Verify locations in the field. Work indicated shall be furnished complete to perform the function intended.
3. Carefully coordinate the space requirements and location of piping with the other trade contractors. Reserve space for sprinkler mains. If coordination fails, conflicts will be decided in favor of the other contractors with this contractor relocating his piping and equipment at no expense to the Owner.
4. All plumbing fixtures shall be vented.
5. This contractor shall make all final plumbing connections to equipment/ fixtures provided by other contractors.
6. For pipe sizes not shown on floor plans, refer to: adjacent or enlarged plumbing plans, then appropriate schedules, details, specifications, equipment connection sizes and minimum Code requirements. For otherwise indeterminable pipe segments, the size shall be the same as the largest adjacent segment. Where pipe sizes are erroneously shown to decrease then increase, the smaller segment shall be increased to match the larger segment. When a conflict exists, the larger size shall govern. Pipe sizes are nominal (not O.D.) unless specifically noted otherwise.
7. All piping shall run concealed above ceilings, in walls, in soffits and in chases unless noted otherwise. Special care shall be taken when dropping 3" nominal pipe in 3-1/2" wall cavities to ensure correct fit and alignment.
8. No structural members shall be cut without approval of the Architect.
9. All plumbing shall be supported from the building structure. All piping containing liquid 2" and larger shall be supported from the top chord of bar joists unless permission to do otherwise is obtained from the Structural Consultant. All piping drops to fixtures shall be anchored solid to walls with a steel support bracket with adjustable clip.
10. All water piping shall be installed parallel to building lines and pitched to low points. Provide draw-offs at low points. Piping shall be run neatly grouped together when practical. Allow room between all piping and other obstructions to allow for the installation of the specified pipe insulation.
11. All piping through roofs, concrete walls and masonry partitions shall have steel pipe sleeves. Openings between pipes and sleeves shall be caulked and sealed smoke and water tight. All pipe penetrations through a fire rated wall or floor shall have a UL rated fire stop system rated to match the rating of the wall, as per the NFPA.
12. All wall fixtures shall be carrier mounted unless otherwise specified.
13. All domestic water piping shall be insulated unless otherwise specified.
14. Run all piping on warm side of building insulation. No water, or waste lines shall be run in exterior walls, unless directly indicated.
15. Provide shock absorbers where shown on drawings, and on tops of risers to all flush valves, dishwashers and clotheswashers. Sizes shall conform to P.D.I. standards.
16. All sanitary waste piping less than 4" shall pitch down at 1/4" per L.F. All 4" and larger piping shall pitch at 1/4" per L.F. whenever possible. No sanitary/ waste piping under slab shall be less than 2" in diameter.
17. All Domestic copper water piping shall be type "K" or "L" copper, type "M" is prohibited.



MECHANICAL SYSTEMS ENGINEERS
ROYAL RIVER CENTER, UNIT 10B
10 FOREST FALLS DRIVE, YARMOUTH, MAINE 04096
(207) 948-1441
FACEBOOK: MECHANICAL SYSTEMS ENGINEERS
CELEBRATING 50 YEARS IN BUSINESS
© COPYRIGHT 2018



WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | winstonscott.com

Structural Engineering:
SRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

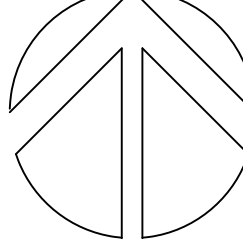
HVAC & Plumbing Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103

PLUMBING
DETAILS
& NOTES

BIDDING & CONSTRUCTION
DRAWINGS

Scale: NONE

P3

July 25, 2018

LEGEND					
140	140 DEG F HOT WATER	IDW	INDIRECT WASTE		SANITARY / WASTE PIPING ABOVE SLAB
@	AT	IM	ICE MAKER		SANITARY/ WASTE PIPING BELOW SLAB
A	AMPS, AQUASTAT	LT	LAUNDRY TUB		INDIRECT WASTE PIPING ABOVE SLAB
ADA	AMERICANS WITH DISABILITIES ACT	LV	LAVATORY		VENT PIPING ABOVE SLAB
AFF	ABOVE FINISHED FLOOR	M	METER		VENT PIPING BELOW SLAB
AP	ACCESS PANEL	MTD	MOUNTED		VENT PIPING BELOW SLAB
BFP	BACKFLOW PREVENTER	MV	MIXING VALVE		TRAP PRIMER PIPING
BLV	BALL VALVE	NB	NICKEL BRONZE		TRAP PRIMER PIPING BELOW SLAB
BV	BALANCE VALVE	PC	PLUMBING CONTRACTOR		COLD WATER PIPING
CNTR	COUNTER	PDI	PLUMBING & DRAINAGE INSTITUTE		COLD WATER PIPING BELOW SLAB
CO	CLEANOUT	PG	PRESSURE GAUGE		120 HOT WATER PIPING
CONT	CONTINUATION	PH	PHASE		HOT WATER RETURN PIPING
COORD	COORDINATION	PRV	PRESSURE REDUCING VALVE		140 HOT WATER PIPING
COTG	CLEANOUT TO GRADE	PSI	POUNDS PER SQUARE INCH		GAS PIPING ABOVE SLAB
CW	COLD WATER, CLOTHES WASHER	RAW	RISE AT WALL		GAS PIPING BELOW GROUND
C&HW	COLD & HOT WATER	RD	ROOF DRAIN		COMPRESSED AIR PIPING
DAW	DROP AT WALL	RH	RIGHT HAND		BALL VALVE
DCP	DOMESTIC CIRCULATING PUMP	RIC	RISE IN CHASE		VERTICAL BALL VALVE
DEG	DEGREES	RIW	RISE IN WALL		BALANCING VALVE
DIC	DROP IN CHASE	RUC	RUN UNDER COUNTER		CHECK VALVE
DIW	DROP IN WALL	RUF	RUN UNDER FLOOR		BACKFLOW PREVENTER
DN	DOWN	RV	RELIEF VALVE		VACUUM RELIEF VALVE
DN&U	DOWN AND UP	S	SANITARY WASTE		RELIEF VALVE
DNIN	DOWN IN WALL	SA	SHOCK ABSORBER		PRESSURE REDUCING VALVE
DO	DRAFFOFF	SH	SHOWER		THERMOMETER
DW	DISHWASHER	SK	SINK		PRESSURE GAUGE
EA	EACH	SS	STAINLESS STEEL		TRAP PRIMER
ET	EXPANSION TANK	T	THERMOMETER		DROP/RISE IN LINE
FCO	FLOOR CLEANOUT	TP	TRAP PRIMER		LINE UP TO FLOOR ABOVE
FD	FLOOR DRAIN	TYP	TYPICAL		TEE -DROP
FFE	FINISHED FLOOR ELEVATION	UIC	UP IN CHASE		SHOCK ABSORBER
FV	FLUSHVALVE	U&DNIC	UP & DOWN IN CHASE		UNION
G	GAS (FUEL)	U&DNIN	UP & DOWN IN WALL		MIXING VALVE
GAL	GALLONS	UIN	UP IN WALL		FLOOR CLEANOUT
GC	GENERAL CONTRACTOR	V	VENT		FLOOR DRAIN
GHT	GARDEN HOSE THREAD	VB	VACUUM BREAKER		WALL CLEANOUT
GPF	GALLONS PER FLUSH	VC	VITREOUS CHINA		VENT THROUGH ROOF
GV	GATE VALVE	VIF	VERIFY IN FIELD		HOSE BIB
GW	GEAR WASHER	VRV	VACUUM RELIEF VALVE		WATER METER
HB	HOSE BIB	VTR	VENT THRU ROOF		PLUMBING FIXTURE/ EQUIPMENT NUMBER TAG
HC	HEATING CONTRACTOR	W	WASTE		RELIEF VALVE
HW	HOT WATER	W	W/TH		
HWB	HOT WATER RETURN	WC	WATER CLOSET, WATER COLUMN		
IE	INVERT ELEVATION	WCO	WALL CLEANOUT		
		WSI	WARM SIDE OF INSULATION		

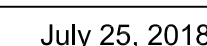
PLUMBING FIXTURE SCHEDULE						
TAG	FIXTURE	COLD WATER	HOT WATER	SAN/ WASTE	VENT	REMARKS
CW-1	CLOTHES WASHER	1/2"	1/2"	2"	1-1/2"	APPLIANCE BY OTHERS RECESSED WALL BOX
DW-1	DISHWASHER	-	1/2"	1-1/2"	1-1/2"	APPLIANCE BY OTHERS
ES-1	EYEWASH STATION	1/2"	-	-	-	WALL HUNG DRAIN TO FLOOR
EW-1	ELECTRIC WATER COOLER W/ BUBBLER & BOTTLE FILL	1/2"	-	1-3/4"	1"	
GW-1	GEAR WASHER	3/4"	TWO 3/4"	3"	1-1/2"	APPLIANCE BY OTHERS
HC-1	HOT & COLD MIXING SERVICE SINK FAUCET	3/4"	3/4"	-	-	WITH VACUUM BREAKER AND INTEGRAL STOPS
HR-1	HOSE REEL WALL-MOUNTED S	-	-	-	-	MANUALLY OPERATED CAPACITY FOR 15'-3/4" HOSE
LV-1	LAVATORY, WALL-HUNG	1/2"	1/2"	1-1/4"x 1-1/2"	1-1/2"	VC, SINGLE HANDLE FAUCET, 0.5 GPM, CARRIER
LV-2	LAVATORY, COUNTER-MOUNT ADA	1/2"	1/2"	1-1/4"x 1-1/2"	1-1/2"	VC, SINGLE HANDLE FAUCET, 0.5 GPM W/ ADA GUARD
MB-1	MOP BASIN	3/4"	3/4"	3"	1-1/2"	TWO HANDLE VB FAUCET, MOLDED STONE
SH-1	SHOWER, TRANSFER - ADA	1/2"	1/2"	2"	1-1/2"	TILED SHOWER BY GC COMMERCIAL - 3 FUNCTION
SH-2	DECON SHOWER	3/4"	3/4"	2"	1-1/2"	TILED SHOWER BY GC COMMERCIAL - 3 FUNCTION
SK-1	SINK, DOUBLE BOWL KITCHEN SINK -ADA	1/2"	1/2"	(2) 1-1/2"	1-1/2"	S.S. 22"x33"x6-1/2". 2.0 GPM KITCHEN FAUCET W/ SPRAY
US-1	UTILITY SINK ENAMELED CAST IRON	3/4"	3/4"	2"	1-1/2"	2" CAST IRON P TRAP EXPOSED YOKE FAUCET FOOT PEDAL OPERATED
WB-1	WATER SUPPLY BOX	1/2"	-	-	-	RECESSED MOUNTED WITH VALVE
WC-1	WATER CLOSET WALL-HUNG	1/2"	-	4"	2"	WITH MANUAL FLUSHOMETER
WC-2	WATER CLOSET WALL-HUNG ADA	1/2"	-	4"	2"	WITH MANUAL FLUSHOMETER

DRAIN SPEC. SCHEDULE				
TAG	ITEM	WASTE	VENT	REMARKS
FCO-1	ROUND, FINISHED AREA FLOOR CLEANOUT	SIZE OF PIPE	-	ADJUSTABLE
FD-1	GENERAL ROUND FLOOR DRAIN	3"	1-1/2"	ADJUSTABLE

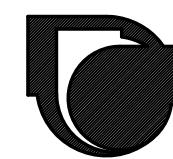
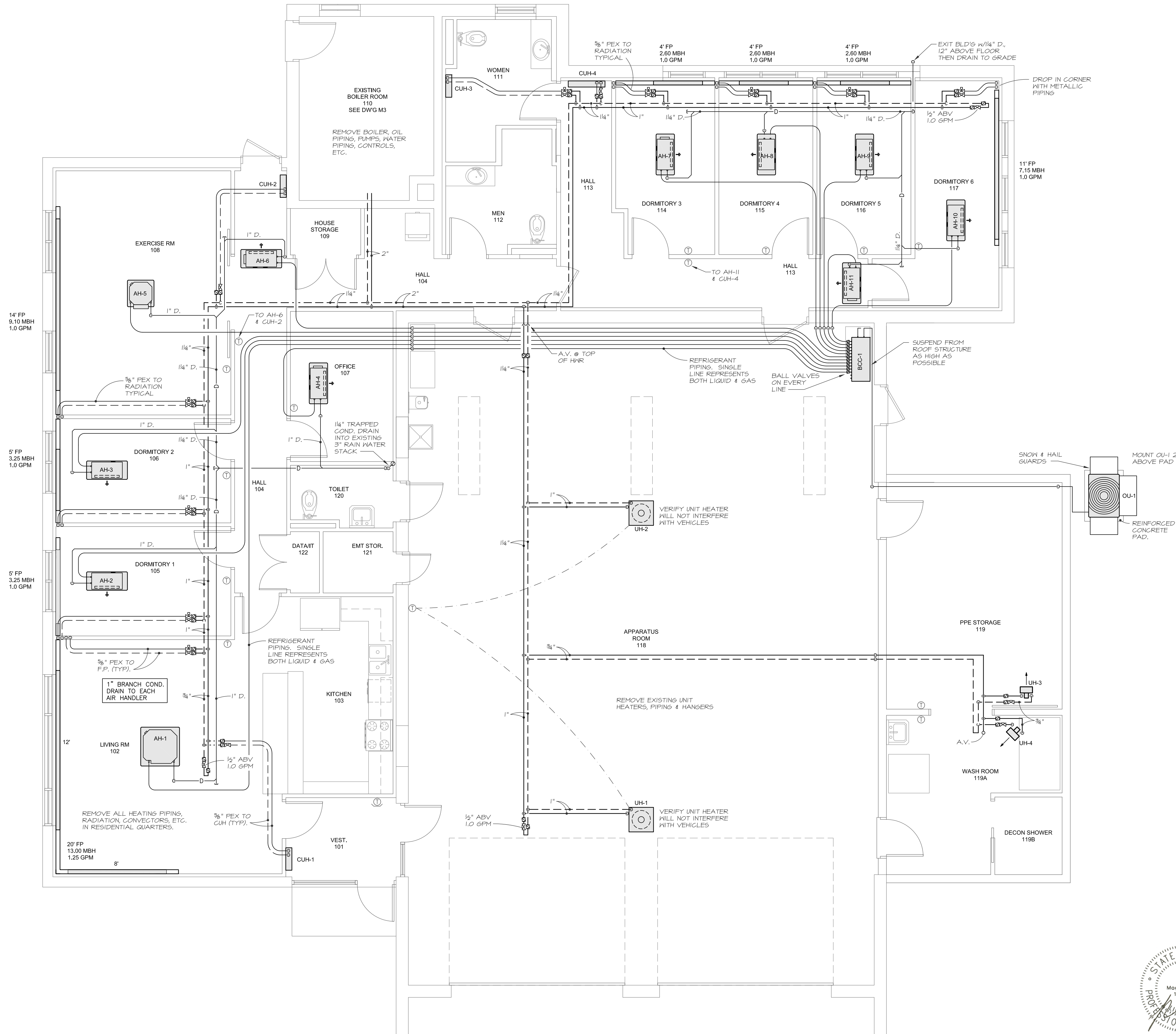
TAG	ITEM	CW	HW	OUTLET	REMARKS
BFP-1	WATER ENTRANCE -DOMESTIC RPZ BACKFLOW PREVENTER	2"	-	SAME	3/4" IDW
BFP-2	WATER ENTRANCE - TANK FILL RPZ BACKFLOW PREVENTER	1-1/2"	-	SAME	3/4" IDW
BFP-3	BOILER FILL DOUBLE CHECK	1/2"	-	SAME	3/4" IDW
ET-1	EXPANSION TANK POTABLE WATER	3/4"	-	-	
HB-1	NON-FREEZE HOSE BIB W/ VB	3/4"	-	3/4" GHT	
MV-1	MASTER MIXING VALVE	1 1/4"	1 1/4"	1 1/4"	120°
SA-1	SHOCK ABSORBER	1/2" OR 3/4"	-	-	P.D.I. A
SA-2	SHOCK ABSORBER	3/4"	-	-	P.D.I. B

PUMP SCHEDULE							
TAG	ITEM	SERVICE	GPM	HEAD	HP	VOLTS	REMARKS
DGP-1	DOMESTIC RECIRC PUMP	120 °HW RECIRC LOOP	3	8'	1/40	115	3/4" BRONZE ELEC. BY DIV. 26

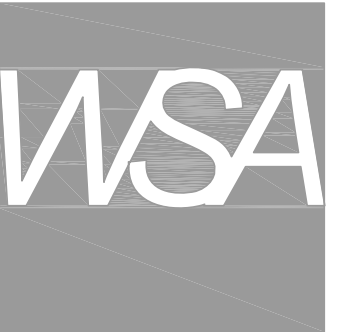
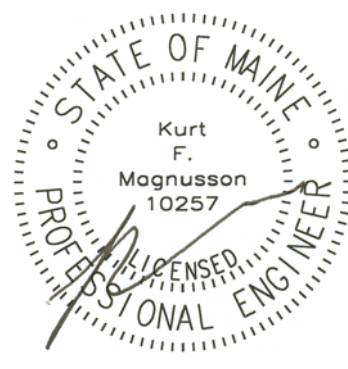
WATER HEATER SCHEDULE			
TAG	ITEM	GAL	REMARKS
WH-1	INDIRECT WATER HEATER	119	PROVIDED BY DIV. 23



July 24, 2018 - 12:07 pm
K:\Projects\1818 No Deering Fire Sta\Drawings\1818-M1.dwg



MECHANICAL SYSTEMS ENGINEERS
ROYAL RIVER CENTER, UNIT 10B
10 FOREST FALLS DRIVE, YARMOUTH, MAINE 04096
(207) 846-1441
FACEBOOK: MECHANICAL SYSTEMS ENGINEERS
CELEBRATING 50 YEARS IN BUSINESS
© COPYRIGHT 2018



**WINTON SCOTT
ARCHITECTS**

5 Milk Street, Portland, ME 04101
207.774.4811 | winstonscott.com

Structural Engineering:
**SRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.**

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

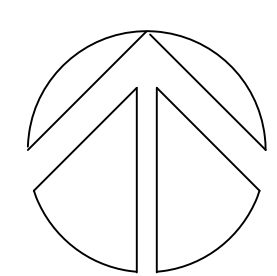
HVAC & Plumbing Engineering:
**MECHANICAL SYSTEMS
ENGINEERS**

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
**SWIFT CURRENT ENGINEERING
SERVICES**

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



**CITY OF
PORTLAND
NORTH DEERING
FIRE STATION**

**Renovation &
Expansion**

386 Allen Avenue
Portland, ME 04103

**MECHANICAL
PIPING
PLAN**

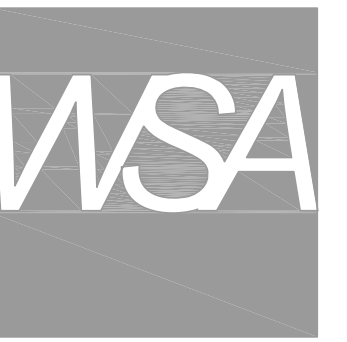
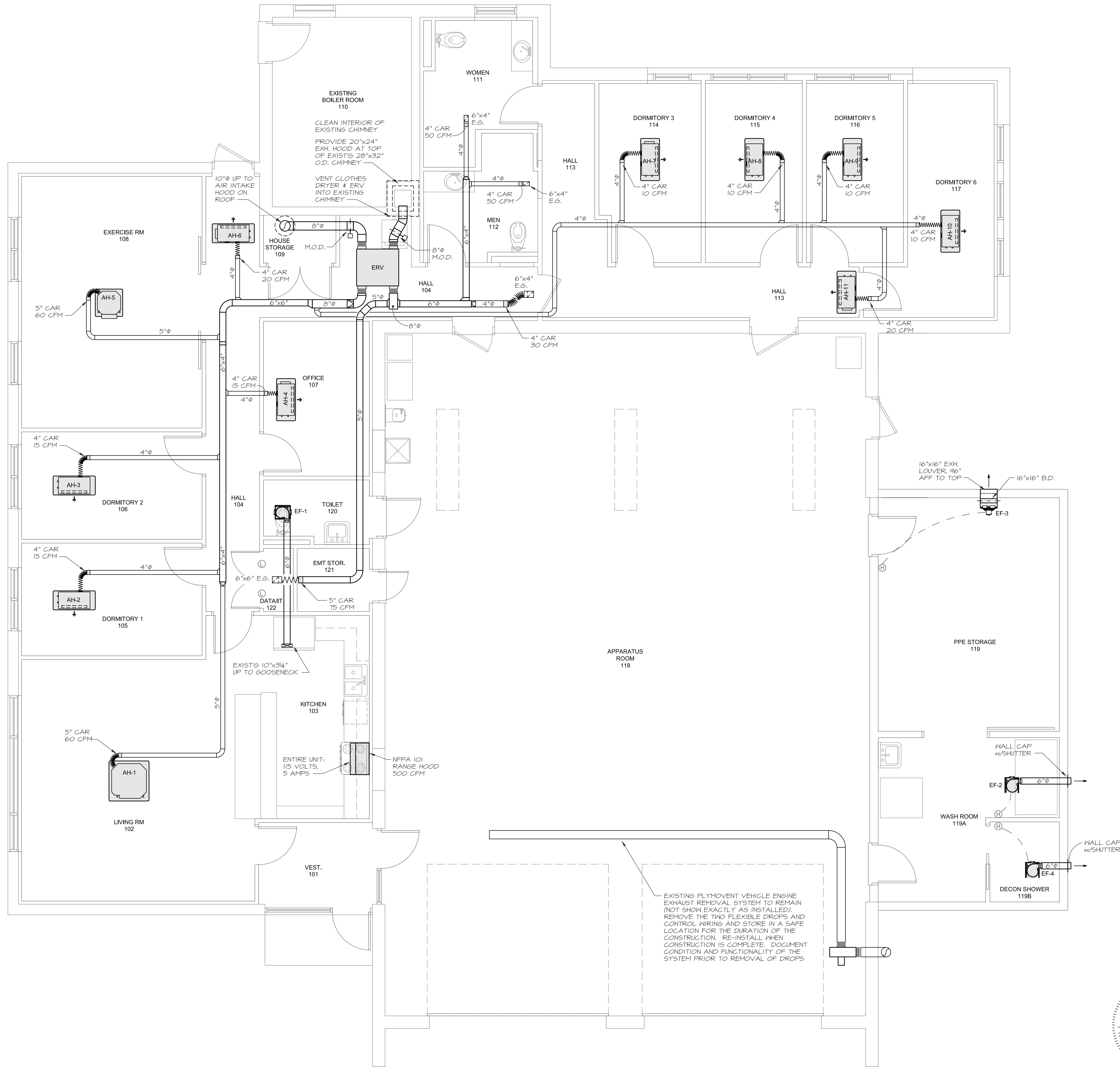
**BIDDING & CONSTRUCTION
DRAWINGS**

Scale: 1/4"=1'-0"

M1

July 25, 2018

July 24, 2018 12:06 pm
K:\Projects\1818 No Deering Fire Sta\Drawings\1818-M2.dwg



WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | winstonscott.com

Structural Engineering:
SRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

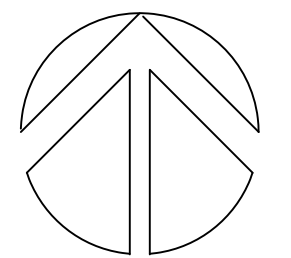
HVAC & Plumbing Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103

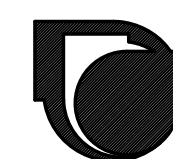
MECHANICAL
DUCTWORK
PLAN

BIDDING & CONSTRUCTION
DRAWINGS

Scale: 1/4"=1'-0"

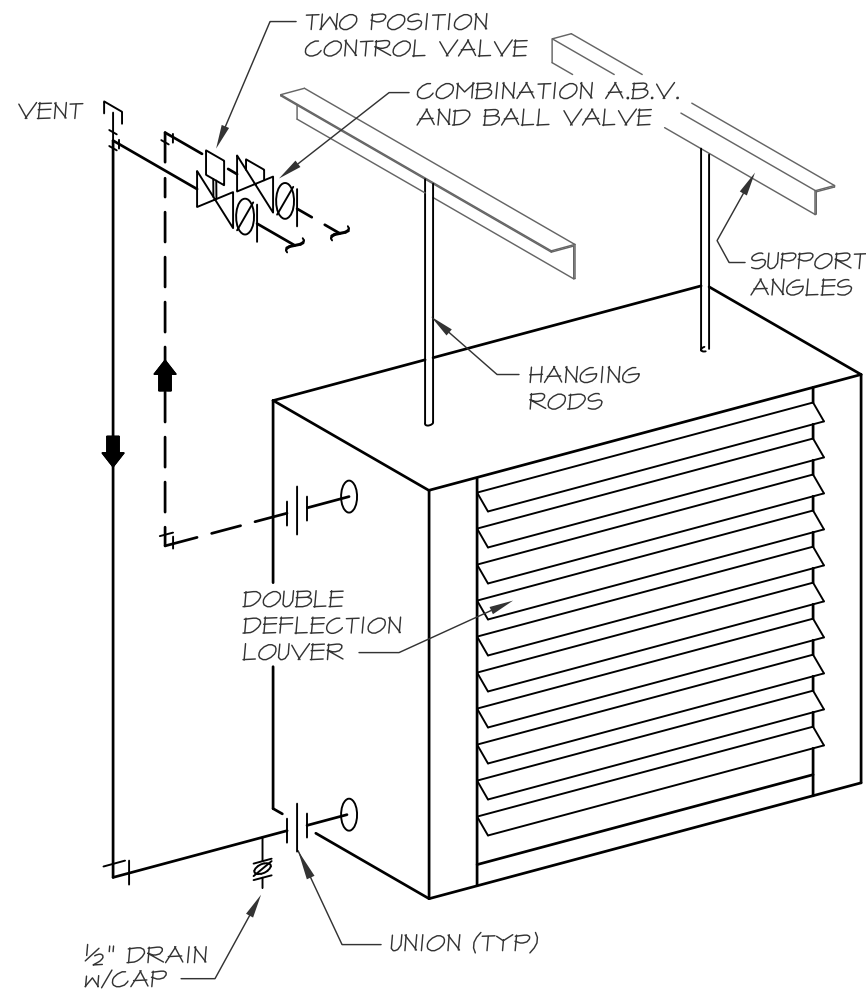
M2

July 25, 2018

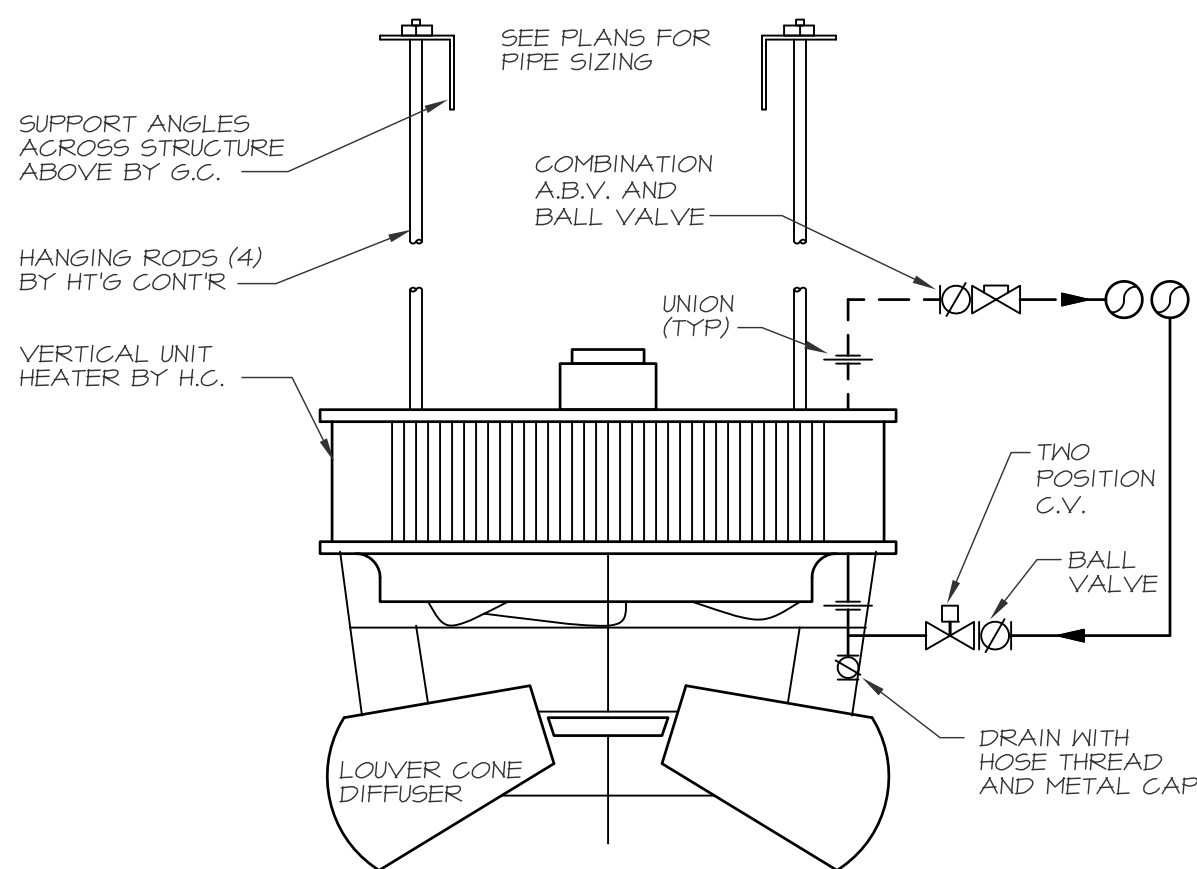


MECHANICAL SYSTEMS ENGINEERS
ROYAL RIVER CENTER, UNIT 10B
10 FOREST FALLS DRIVE, YARMOUTH, MAINE 04096
(207) 846-1441
FACEBOOK: MECHANICAL SYSTEMS ENGINEERS
CELEBRATING 50 YEARS IN BUSINESS
© COPYRIGHT 2018

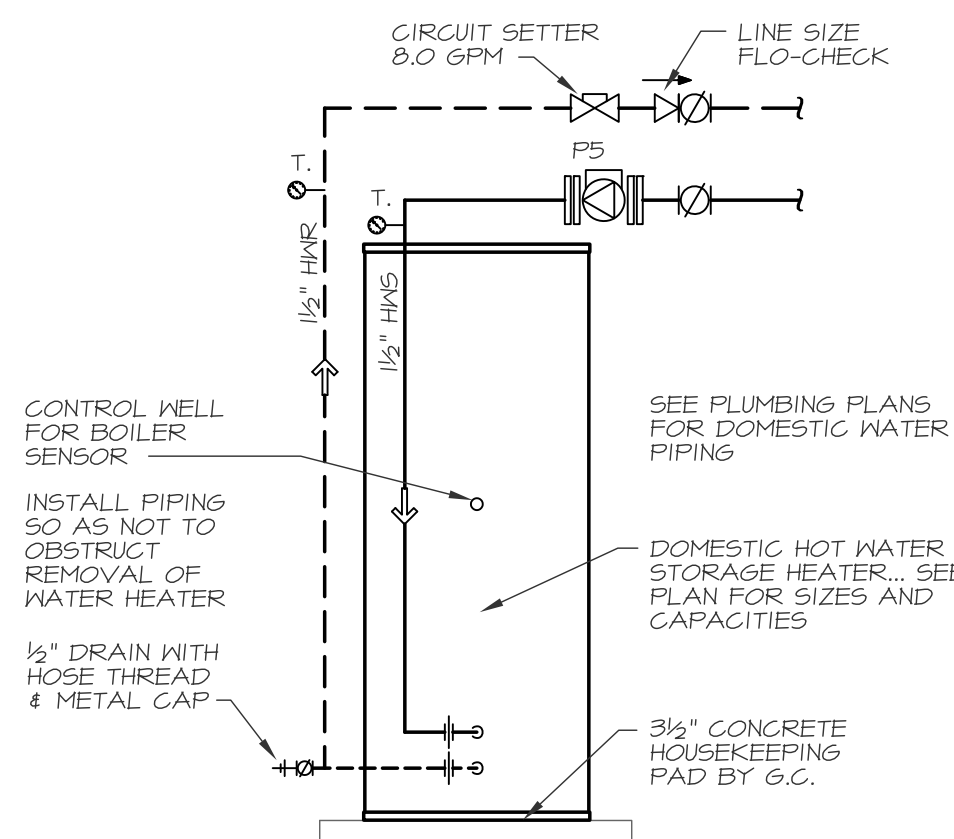




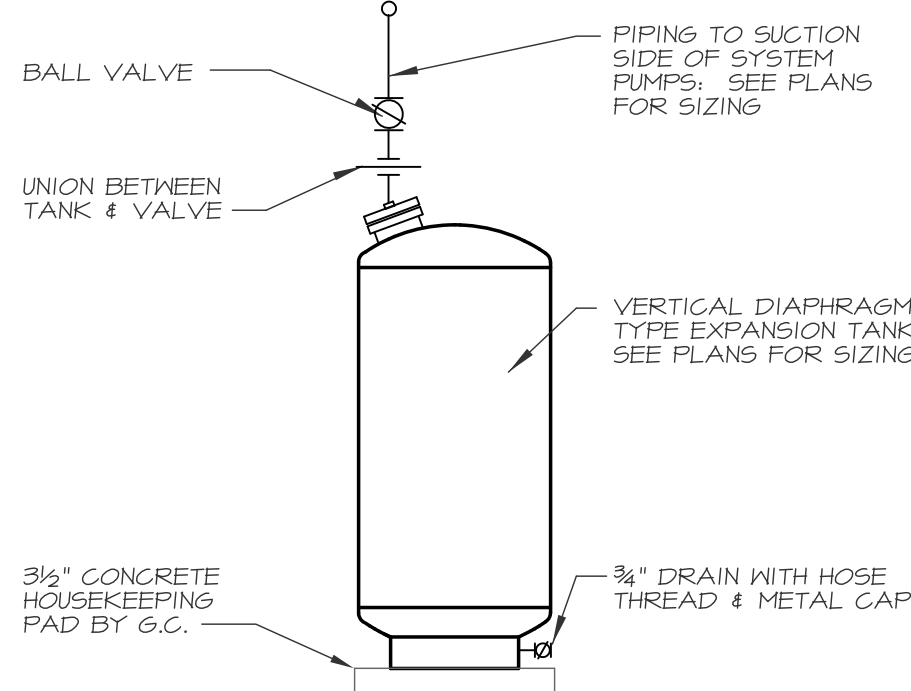
1 HORIZONTAL UNIT HEATER
NO SCALE



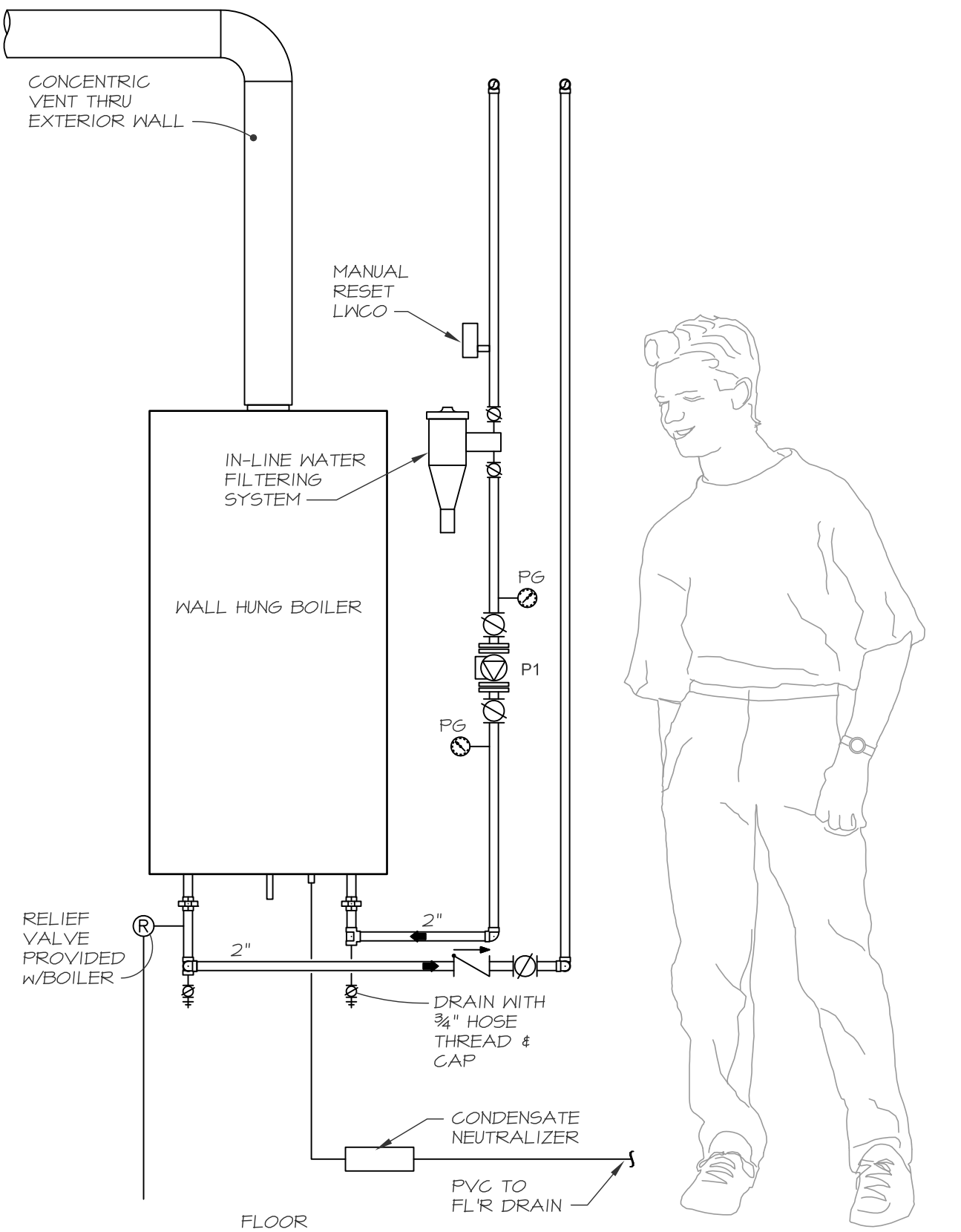
4 VERTICAL UNIT HEATER
NO SCALE



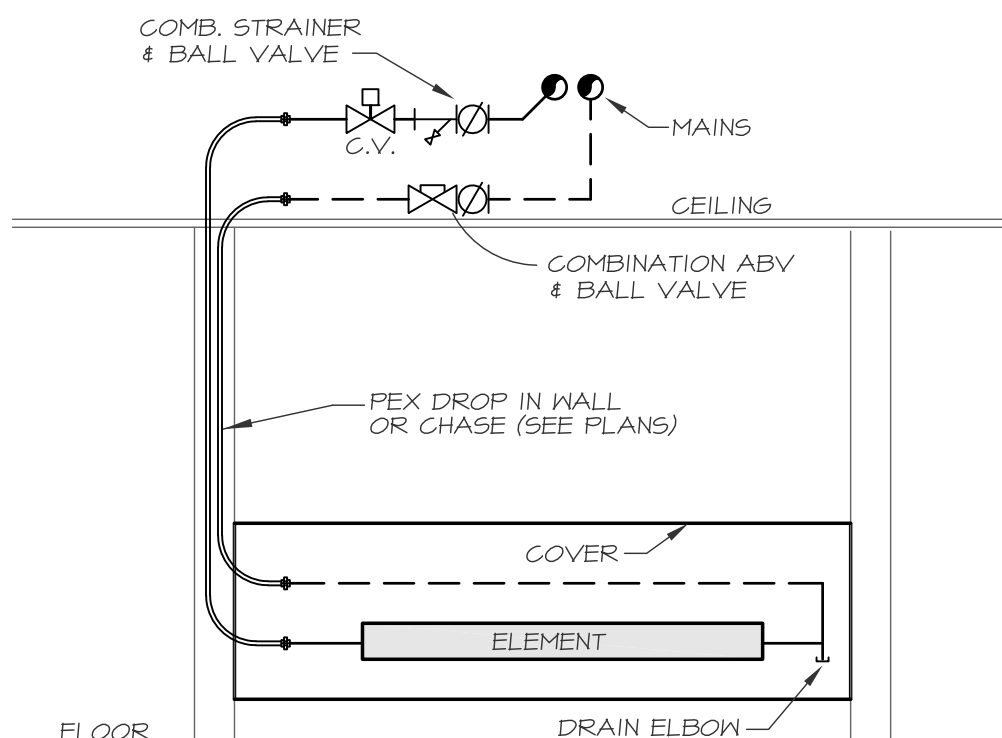
2 STORAGE WATER HEATER DETAIL
NO SCALE



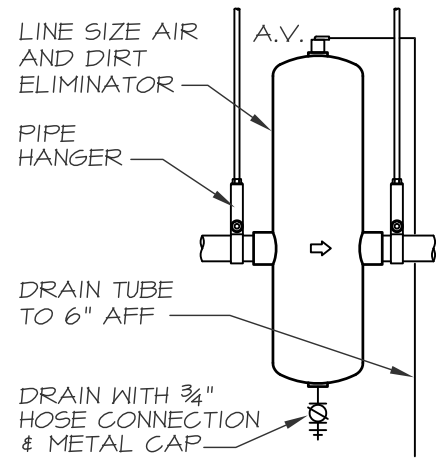
5 DIAPHRAGM TYPE EXPANSION TANK
NO SCALE



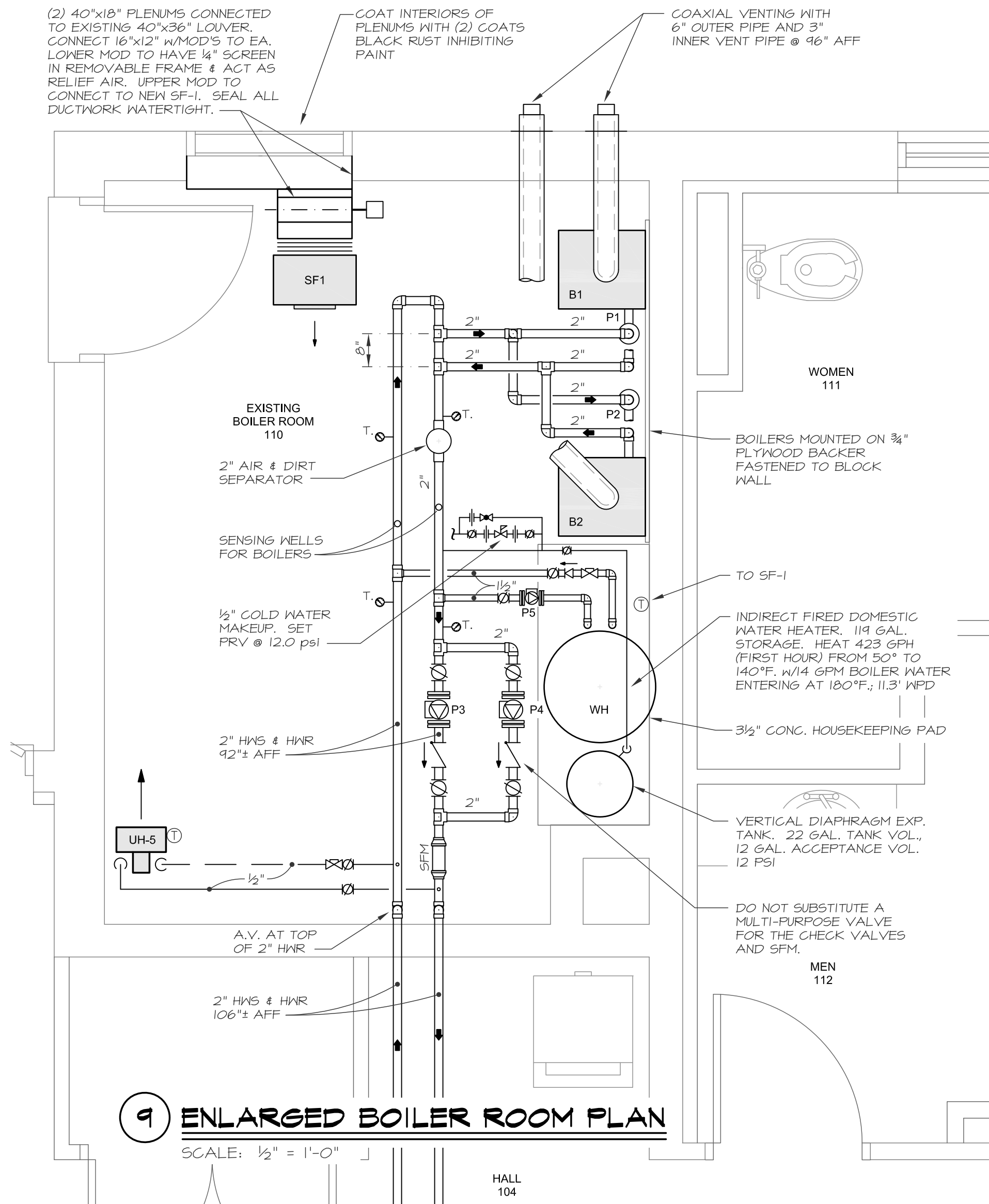
6 TYPICAL BOILER PIPING DIAGRAM
NO SCALE



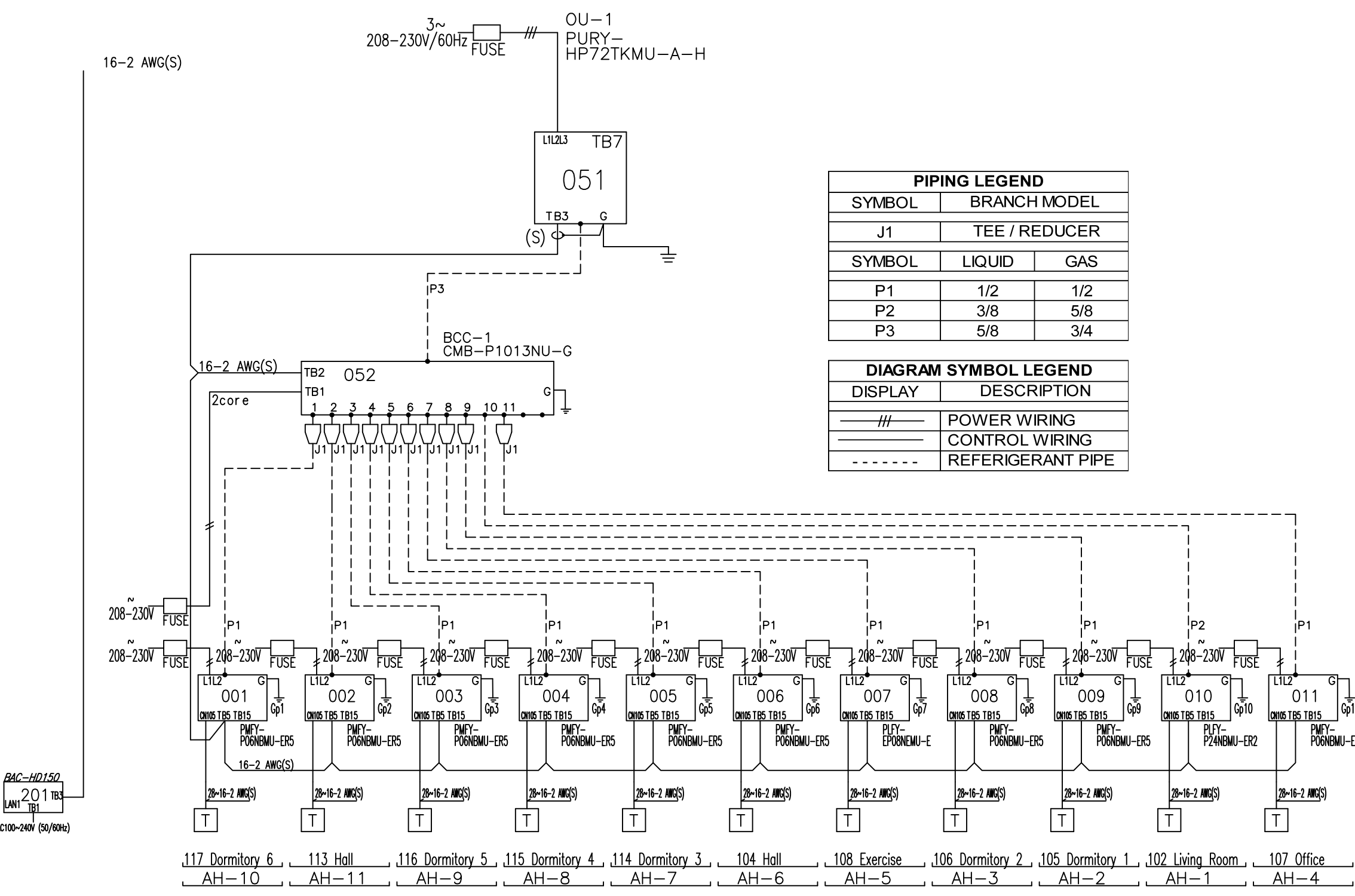
7 DOWNFEED FINNED PIPE RETURN IN COVER
NO SCALE



8 AIR & DIRT ELIMINATOR
NO SCALE



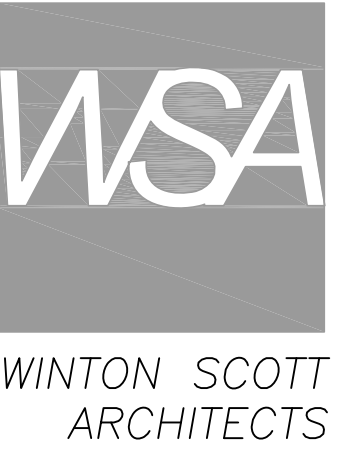
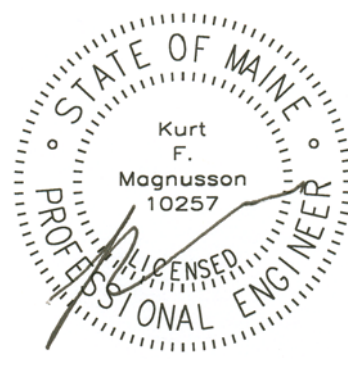
9 ENLARGED BOILER ROOM PLAN
SCALE: 1/2" = 1'-0"



3 YRF HEAT PUMP SYSTEM SCHEMATIC
NO SCALE



MECHANICAL SYSTEMS ENGINEERS
ROYAL RIVER CENTER, UNIT 10B
10 FOREST FALLS DRIVE, YARMOUTH, MAINE 04096
(207) 846-1441
FACEBOOK: MECHANICAL SYSTEMS ENGINEERS
CELEBRATING 50 YEARS IN BUSINESS
© COPYRIGHT 2018



5 Milk Street, Portland, ME 04101
207.774.4811 | winstonscott.com

Structural Engineering:
SRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

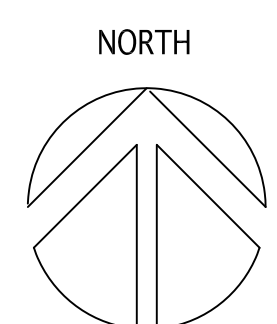
46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

HVAC & Plumbing Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280



**CITY OF
PORTLAND
NORTH DEERING
FIRE STATION**

**Renovation &
Expansion**

386 Allen Avenue
Portland, ME 04103

**ENLARGED
BOILER ROOM
AND MECHANICAL
DETAILS**

**BIDDING & CONSTRUCTION
DRAWINGS**

Scale: NOTED

M3

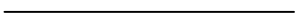
July 25, 2018

July 24, 2018 - 2:04 pm
K:\Projects\1818 No Deering Fire Sta\Drawings\1818 M3-M4.dwg

GENERAL NOTES

- Mechanical Contractor shall coordinate work with all other trades.
- All piping and ductwork shall be run concealed and on the warm side of the building insulation unless shown otherwise.
- Piping and ductwork is shown diagrammatically. Exact locations to be adjusted as required to conform to field conditions.
- All duct sizes indicated are outside (sheet metal) dimensions.
- All cutting and patching by the General Contractor.
- All square duct elbows over 12 inches in width to have turning vanes.
- Refer to Architectural Reflected Ceiling Plans for exact locations of all ceiling registers, diffusers and grilles.
- All dimensions associated with existing conditions are approximate and are to be field verified.
- Heating system design is based on 160°F. water entering terminal units.
- Provide air vents at all locations where water piping drops in the direction of flow, at all high points in the system and elsewhere as shown.
- Provide drains with a ball cock, hose threads and metal caps at all low points in the water piping system.

SYMBOLS AND ABBREVIATIONS

ABV	AUTOMATIC BALANCING VALVE	LDB	LEAVING DRY BULB		WATER SUPPLY PIPING
AC	AIR CONDITIONING	LWB	LEAVING WET BULB		WATER RETURN PIPING
AD	ACCESS DOOR	LWCO	LOW WATER CUT-OFF		COLD WATER PIPING
AFF	ABOVE FINISH FLOOR	MBH	THOUSAND BTU PER HOUR		REFRIGERANT LIQUID PIPING
AH	AIR HANDLER	MBV	MANUAL BALANCING VALVE		REFRIGERANT SUCTION PIPING
AP	ACCES PANEL	MD	MANUAL DAMPER		DRAIN PIPING
APD	AIR PRESSURE DROP	MOD	MOTOR OPERATED DAMPER		UNION
ATC	AUTOMATIC TEMP. CONTROL	MV	MANUAL VENT		HOSE CONNECTION
AV	AUTOMATIC VENT	NG	NATURAL GAS		FLANGE
B	BOILER	NTS	NOT TO SCALE		GLOBE VALVE
BD	BACKDRAFT DAMPER	OA	OUTDOOR AIR		CHECK VALVE
BJ	BAR JOIST	OD	OUTSIDE DIMENSION		BALANCING VALVE
BV	BALL VALVE	OU	OUTDOOR UNIT		CONTROL VALVE (TWO WAY)
CAR	CONSTANT AIRFLOW REGULATOR	P	PUMP		PRESSURE REDUCING VALVE
CD	CONDENSATE DRAIN	PC	PLUMBING CONTRACTOR		FLOW CONTROL VALVE
CFH	CUBIC FEET PER HOUR	PD	PUMP DISCHARGE		BALL VALVE
CFM	CUBIC FEET PER MINUTE	PG	PRESSURE GAUGE		LOUVER
CUH	CABINET UNIT HEATER	PP	POLYPROPYLENE PIPE		SENSOR
CV	CONTROL VALVE	PRV	PRESSURE REDUCING VALVE		THERMOSTAT
D	DRAIN	R	RETURN		THERMOSTAT WITH GUARD
DIC	DOWN IN CORNER/CHASE	RA	RETURN AIR		MANUAL DAMPER
DHC	DUCT HEATING COIL	RIC	RETURN IN COVER		FLEXIBLE DUCT
EAT	ENTERING AIR TEMPERATURE	RIS	RUBBER-IN-SHEAR		SUPPLY AIR DUCT
EC	ELECTRICAL CONTRACTOR	RL	REFRIGERANT LIQUID		EXHAUST / RETURN AIR DUCT
EDB	ENTERING DRY BULB	RS	REFRIGERANT SUCTION		
EF	EXHAUST FAN	RR	RETURN REGISTER		
EG	EXHAUST GRILLE	RV	RELIEF VALVE		
ER	EXHAUST REGISTER	S	SUPPLY		
ERV	ENERGY RECOVERY VENTILATOR	SA	SUPPLY AIR		
ESP	EXTERNAL STATIC PRESSURE	SC	SITE CONTRACTOR		
EWB	ENTERING WET BULB	SF	SUPPLY FAN		
EWT	ENTERING WATER TEMPERATURE	SFM	SIGHT FLOW MONITOR		
FC	FLEXIBLE CONNECTOR	SG	SUPPLY GRILLE		
FCV	FLOW CONTROL VALVE	SP	STATIC PRESSURE		
FP	FINNED PIPE	SR	SUPPLY REGISTER		
FV	FACE VELOCITY	T	THERMOMETER		
GC	GENERAL CONTRACTOR	TSP	TOTAL STATIC PRESSURE		
GPH	GALLONS PER HOUR	T'STAT	THERMOSTAT		
GPM	GALLONS PER MINUTE	TV	TURNING VANE		
HC	HEATING CONTRACTOR	UC	UNDERCUT		
HWR	HOT WATER RETURN	UH	UNIT HEATER		
HWS	HOT WATER SUPPLY	V	VENT		
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	VI	VIBRATION ISOLATOR		
IER	INVERTED ECCENTRIC REDUCER	VRF	VARIABLE REFRIGERANT FLOW		
L	LOUVER	WPD	WATER PRESSURE DROP		
LAT	LEAVING AIR TEMPERATURE	WTD	WATER TEMPERATURE DROP		
		WTR	WATER TEMPERATURE RISE		

OUTDOOR UNIT SCHEDULE

TAG	AREA SERVED	NOM. TONS	COOLING			HEATING			CONDENSER FAN		COMPRESSORS		ELECTRIC (TOTAL LOAD)			REFRIGERANT	WEIGHT LBS	REMARKS
			BTU	AMBIENT	KW	BTU	AMBIENT	KW	QUAN.	CFM	QUAN.	KW	POWER	MCA	BRKR			
OU-1	ENTIRE BUILDING	6.0	72,000	95°	6.48	80,000	-13°	6.33	1	7,050	1	4.70	208V-60-3P	26	40	R410A	490	MOUNT 24" ABOVE GRADE

AIR HANDLER SCHEDULE

TAG	AREA SERVED	OU NO.	NOM. TONS	CFM	ELECTRIC		COOLING *		HEATING **		REFRIGERANT			WEIGHT LBS	REMARKS
					POWER	MCA	BTU	KW	BTU	KW	TYPE	LIQUID	GAS		
AH-1	102 LIVING ROOM	OU-1	2.00	700	208V-60-1P	0.64	24,000	0.060	27,000	0.050	R410A	3/8	5/8	64	FOUR WAY DUCTLESS CASSETTE
AH-2	105 DORMITORY 1	OU-1	0.50	307	208V-60-1P	0.25	6,000	0.040	6,700	0.040	R410A	1/4	1/2	38	ONE WAY DUCTLESS CASSETTE
AH-3	106 DORMITORY 2	OU-1	0.50	307	208V-60-1P	0.25	6,000	0.040	6,700	0.040	R410A	1/4	1/2	38	ONE WAY DUCTLESS CASSETTE
AH-4	107 OFFICE	OU-1	0.50	307	208V-60-1P	0.25	6,000	0.040	6,700	0.040	R410A	1/4	1/2	38	ONE WAY DUCTLESS CASSETTE
AH-5	108 EXERCISE	OU-1	0.67	315	208V-60-1P	0.28	8,000	0.060	9,000	0.040	R410A	1/4	1/2	34	FOUR WAY DUCTLESS CASSETTE
AH-6	104 HALL	OU-1	0.50	307	208V-60-1P	0.25	6,000	0.040	6,700	0.040	R410A	1/4	1/2	38	ONE WAY DUCTLESS CASSETTE
AH-7	114 DORMITORY 3	OU-1	0.50	307	208V-60-1P	0.25	6,000	0.040	6,700	0.040	R410A	1/4	1/2	38	ONE WAY DUCTLESS CASSETTE
AH-8	115 DORMITORY 4	OU-1	0.50	307	208V-60-1P	0.25	6,000	0.040	6,700	0.040	R410A	1/4	1/2	38	ONE WAY DUCTLESS CASSETTE
AH-9	116 DORMITORY 5	OU-1	0.50	307	208V-60-1P	0.25	6,000	0.040	6,700	0.040	R410A	1/4	1/2	38	ONE WAY DUCTLESS CASSETTE
AH-10	117 DORMITORY 6	OU-1	0.50	307	208V-60-1P	0.25	6,000	0.040	6,700	0.040	R410A	1/4	1/2	38	ONE WAY DUCTLESS CASSETTE
AH-11	113 HALL	OU-1	0.50	307	208V-60-1P	0.25	6,000	0.040	6,700	0.040	R410A	1/4	1/2	38	ONE WAY DUCTLESS CASSETTE

* COOLING CAPACITIES BASED ON 80/67°F. ENTERING AIR & 95°F. AT THE CONDENSER (OUTDOOR UNIT)

** HEATING CAPACITIES BASED ON 70°F. INDOOR AND -13°F. DB AT THE CONDENSER (OUTDOOR UNIT)

UNIT HEATER SCHEDULE

TAG	TYPE	AREA SERVED	E.W.T.	E.A.T.	MBH	GPM	W.P.D.	CFM	MOTOR HP	FAN RPM	ELECTRIC	REMARKS
CUH-1	CABINET	101 VESTIBULE	160°	65°	4.28	1.00	0.22'	45	30 WATTS	-----	120V-60-1P	WALL MOUNTED 84" AFF
CUH-2	CABINET	104 HALL	160°	65°	5.29	1.00	0.27'	73	40 WATTS	-----	120V-60-1P	WALL MOUNTED 84" AFF
CUH-3	CABINET	111 TOILET	160°	65°	4.28	1.00	0.22'	45	30 WATTS	-----	120V-60-1P	WALL MOUNTED 84" AFF
CUH-4	CABINET	113 HALL	160°	65°	8.88	1.00	0.45'	141	40 WATTS	-----	120V-60-1P	WALL MOUNTED 84" AFF
UH-1	VERTICAL	118 APPARATUS	160°	40°	52.07	4.00	0.16'	1,528	1/8	1,070	120V-60-1P	VERTICAL CONE DIFFUSER
UH-2	VERTICAL	118 APPARATUS	160°	40°	52.07	4.00	0.16'	1,528	1/8	1,070	120V-60-1P	VERTICAL CONE DIFFUSER
UH-3	HORIZONTAL	119 PPE STORAGE	160°	40°	10.27	1.25	0.01'	350	1/40	1,350	120V-60-1P	DOUBLE DEFLECTION LOUVER
UH-4	HORIZONTAL	119A WASH ROOM	160°	40°	10.27	1.25	0.01'	350	1/40	1,350	120V-60-1P	DOUBLE DEFLECTION LOUVER
UH-5	HORIZONTAL	110 BOILER	160°	40°	5.97	0.75	0.80'	210	16 WATTS	1,350	120V-60-1P	DOUBLE DEFLECTION LOUVER

FAN SCHEDULE

TAG	AREA SERVED	TYPE	CFM	SP	SONES	RPM	WATTS	HP	ELECTRIC	WEIGHT	REMARKS
EF-1	120 TOILET	CEILING	90	1/4"	1.4	900	35	-----	120V-60-1P	14	OPERATE FROM TIME DELAY SWITCH
EF-2	119A WASHROOM	CEILING	90	1/4"	1.4	900	35	-----	120V-60-1P	14	OPERATE FROM HUMIDISTAT
EF-3	119 PPE STORAGE	AXIAL	500	1/4"	10.0	1,279	-----	1/4	120V-60-1P	22	OPERATE FROM HUMIDISTAT
EF-4	119B DECON SHOWER	CEILING	90	1/4"	1.4	900	35	-----	120V-60-1P	14	OPERATE FROM HUMIDISTAT
SF-1	110 BOILER ROOM	IN-LINE	460	1/4"	3.0	1,400	141	-----	120V-60-1P	27	OPERATE FROM COOLING THERMOSTAT

SONE RATINGS ARE MINIMUMS NOT TO BE EXCEEDED

HVI SONE RATINGS WILL NOT BE ACCEPTED

ENERGY RECOVERY VENTILATOR SCHEDULE

TAG	AREAS SERVED	WINTER EXHAUST AIR		WINTER OUTDOOR AIR			SUPPLY AIR TO SPACES			FAN MOTOR		ELECTRIC	WEIGHT	REMARKS
		CFM	DB	WB	CFM	DB	WB	CFM	DB	WB	ESP	HP		
ERV-1	LIVING AREAS	205	70.0	52.9	245	-10.0	-10.2	245	39.9	39.0	0.46"	0.52	208V-60-1P	73 SUSPENDED INDOOR UNIT

PUMP SCHEDULE

TAG	TYPE	AREA SERVED	GPM	HEAD	HP	RPM	WATTS	ELECTRIC	REMARKS
P1	IN-LINE	BOILER INJECTION PUMP	25	15'	1/4	3,100 → 3,430	215 → 245	120V-60-1P	INVERTER MOTOR
P2	IN-LINE	BOILER INJECTION PUMP	25	15'	1/4	3,100 → 3,430	215 → 245	120V-60-1P	INVERTER MOTOR
P3	IN-LINE	HEATING SYSTEM	28	15'	1/4	1,600 → 4,800	16 → 310	230V-60-1P	INVERTER MOTOR
P4	IN-LINE	HEATING SYSTEM	28	15'	1/4	1,600 → 4,800	16 → 310	230V-60-1P	INVERTER MOTOR
P5	IN-LINE	DOMESTIC HOT WATER	14	15'	1/4		2,700	173	120V-60-1P INVERTER MOTOR

FINNED PIPE SCHEDULE

TAG	TYPE	ELEMENT	LENGTH	EWT	BTU/LF	GPM	REMARKS
FP	14" COVER	3/4" COPPER TUBE 3.1/4" x 3.1/4" FINS	SEE PLANS	160°	650	0.65 PER MBH 1.0 MINIMUM	SLOPING TOP COVER 18" AFF TO TOP

DOMESTIC WATER HEATER

TAG	STORAGE (GALLONS)	DOMESTIC HOT WATER			BOILER WATER			REMARKS
		GPH*	EWT	LWT	GPM	EWT	LWT	
WH	119	423	50°	140°	14.00	180°	160°	11.3' VERTICAL INDIRECT FIRED UNIT

* FIRST HOUR

BOILER SCHEDULE

TAG	GROSS MBH	NET MBH MBH	HP	FUEL	RELIEF VALVE	WATER CONTENT	ELECTRIC		REMARKS
							AMPS	VOLTAGE	
B-1	71 - 311	67 - 294	9.3	NAT. GAS	30 psig	3.4 GAL	5	120V-60-1P	CONDENSING GAS BOILER
B-2	71 - 311	67 - 294	9.3	NAT. GAS	30 psig	3.4 GAL	5	120V-60-1P	CONDENSING GAS BOILER

B.C. CONTROLLER SCHEDULE

TAG	AIR HANDLERS SERVED	POWER	COOLING KW	HEATING KW	MCA	MAXIMUM CIRCUITS	REFRIGERANT TYPE	WEIGHT LBS
BCC-1	ALL	208V-60-1P	0.178	0.086	1.34	13	R410A	128



WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | winstonscott.com

Structural Engineering:
SRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

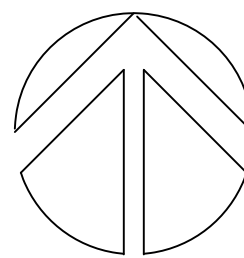
HVAC & Plumbing Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 8B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103

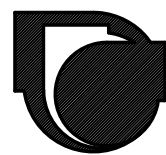
MECHANICAL
EQUIPMENT
SCHEDULES

BIDDING & CONSTRUCTION
DRAWINGS

Scale: NONE

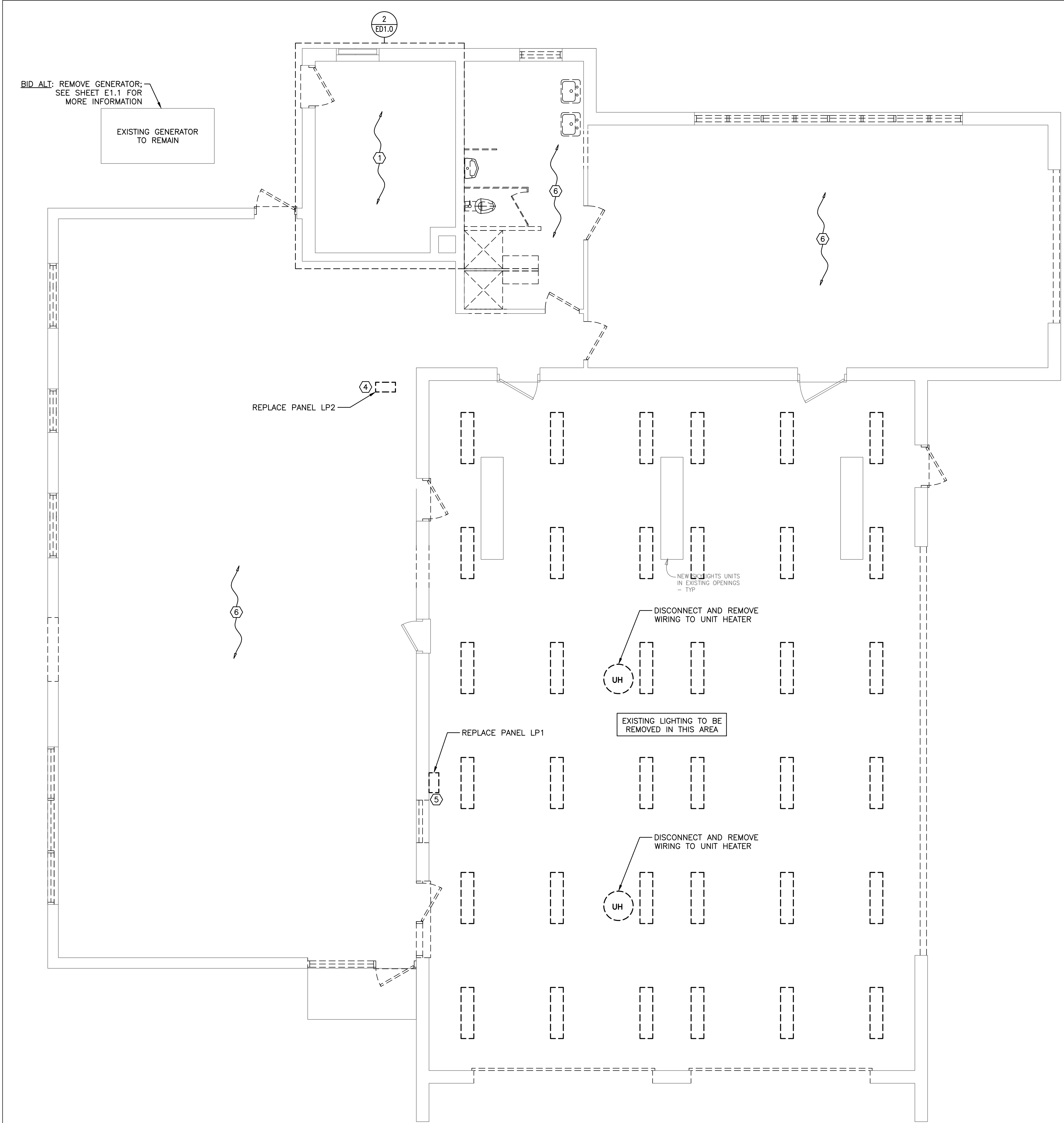
M4

July 25, 2018

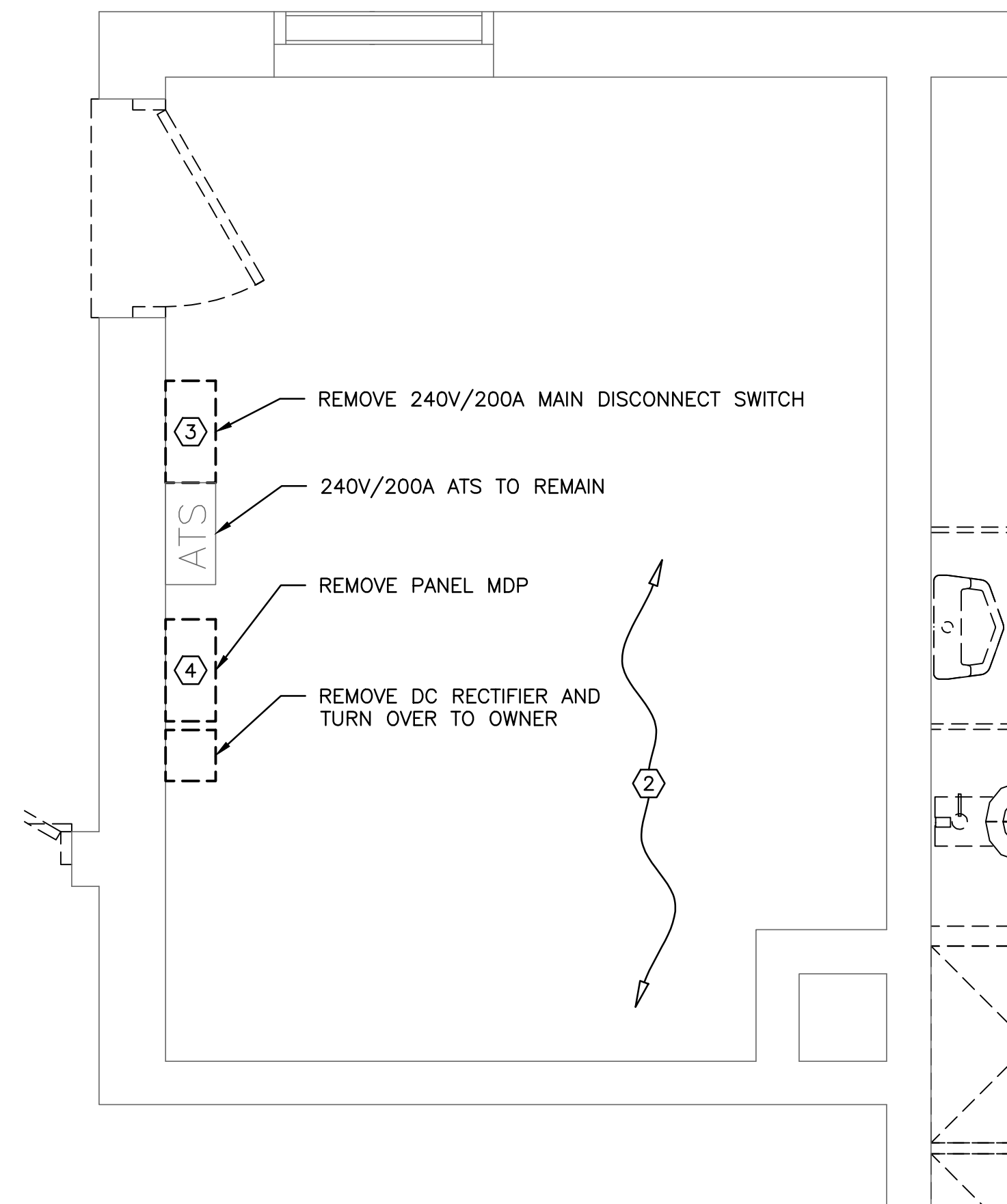


MECHANICAL SYSTEMS ENGINEERS
ROYAL RIVER CENTER, UNIT 10B
10 FOREST FALLS DRIVE, YARMOUTH, MAINE 04096
(207) 846-1441
FACEBOOK: MECHANICAL SYSTEMS ENGINEERS
CELEBRATING 50 YEARS IN BUSINESS
© COPYRIGHT 2018





1 ELECTRICAL DEMOLITION PLAN
SCALE: 1/4"=1'



2 BOILER ROOM DETAIL
SCALE: 1/2"=1'

NOTES:

1. SEE E0.0 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.

DEMOLITION KEYED NOTES:

- 1 REMOVE LIGHTS IN BOILER ROOM.
- 2 DISCONNECT AND REMOVE ALL MECHANICAL AND PLUMBING EQUIPMENT FEEDERS IN BOILER ROOM.
- 3 REMOVE SERVICE ENTRANCE CABLING BACK TO UTILITY POINT OF CONNECTION; SALVAGE 2" UNDERGROUND CONDUIT. SEE CIVIL SHEETS.
- 4 REMOVE PANEL FEEDERS AND CONDUIT IN ENTIRETY.
- 5 REMOVE PANEL LP1 FEEDER WIRING; SALVAGE FEEDER CONDUIT ROUTED BELOW SLAB. SALVAGE BRANCH CIRCUIT WIRING AND CONDUIT SUPPLYING EXISTING EQUIPMENT AND DEVICES TO REMAIN.
- 6 COORDINATE WITH ARCHITECTURAL DEMOLITION TO REMOVE ALL ABANDONED WIRING, RACEWAY, AND DEVICES.
- 7 COORDINATE REMOVAL AND RELOCATION OF EXISTING COMMUNICATION WITH CITY OF PORTLAND AND UTILITY.



WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
SRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

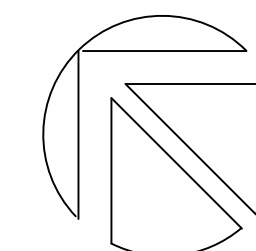
HVAC & Plumbing
Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 4B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

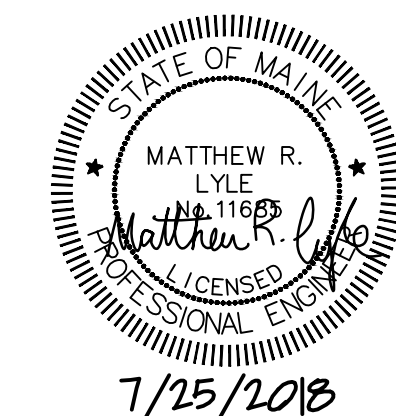
NORTH



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION
DRAWINGS

Scale: AS NOTED

ELECTRICAL
DEMOLITION PLAN

ED1.0

July 25, 2018

ABBREVIATIONS

A	AMPERE
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPTING CAPACITY
AL	ALUMINUM
ASYM	ASYMMETRICAL
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
CAB	CABINET
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DISC	DISCONNECT
EG	EQUIPMENT GROUND
EH	ELECTRICALLY HELD
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EO	ELECTRICALLY OPERATED
EPR	ETHYLENE PROPYLENE RUBBER
EQUIP	EQUIPMENT
EX	EXTERIOR
FA	FIRE ALARM
FC	FOOT-CANDLE
FDR	FEEDER
FLUOR	FLUORESCENT
FS	FLOW SWITCH (FA SYSTEM)
FVNR	FULL VOLTAGE NON REVERSING
FVR	FULL VOLTAGE REVERSING
GEN	GENERATOR
GF	GROUND FAULT
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
H	HAND HOLE
HOA	HAND-OFF-AUTOMATIC
HP	HORSE POWER
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HZ	HERTZ
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
INCAND	INCANDESCENT
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILO VOLT-AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
LPS	LOW PRESSURE SODIUM
LTG	LIGHTING
LSW	LIGHT SWITCH
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTION
MH	METAL HALIDE
EMH	ELECTRICAL MANHOLE
MLO	MAIN LUGS ONLY
MO	MECHANICALLY OPERATED
MOD	MOTOR OPERATED DAMPER
MTS	MANUAL TRANSFER SWITCH
MV	MERCURY VAPOR
MVA	MEGAVOLT-AMPERE
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
OH	OVERHEAD
OL	OVER LOAD
OOA	ON-OFF-AUTOMATIC
OSY	OUTSIDE STEM & YOKE VALVE (FA SYSTEM)
P	POLE
PB	PUSH BUTTON
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RGSC	RIGID GALVANIZED STEEL CONDUIT
RVSS	REDUCED VOLTAGE SOLID STATE
RSC	RIGID STEEL CONDUIT
RVAT	REDUCED VOLTAGE AUTO TRANSFORMER
S	SIGNAL
SEC	SECONDARY
SHLD	SHIELDED CABLE
SW	SWITCH
SWBD	SWITCHBOARD
SYM	SYMMETRICAL
T	TELEPHONE
TR	TRANSFORMER
TBD	TO BE DETERMINED
TD	TELEDIALER
TDR	TIME DELAY RELAY
TEL	TELEPHONE
TM	TELEMETRY
TYP	TYPICAL
UG	UNDERGROUND
UT	UTILITY
V	VOLT
VA	VOLT-AMPERE
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
WH	WATT HOUR
WP	WEATHERPROOF
XFMR	TRANSFORMER
XLP	CROSS LINKED POLYETHYLENE
XP	EXPLOSION PROOF

POWER SYMBOLS

	CIRCUIT BREAKER
	GROUND CONNECTION
	HOME RUN TO PANEL (CKT. NO. AS SHOWN)
	TRANSFORMER
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
	20 AMPERE, 120 VOLT DUPLEX RECEPTACLE, +18" AFF AF - ARC FAULT INTERRUPT
	20 AMPERE, 120 VOLT DOUBLE DUPLEX RECEPTACLE, +18" AFF
	20 AMPERE, 120 VOLT SINGLE RECEPTACLE
	20 AMPERE, 120 VOLT DUPLEX GFCI RECEPTACLE, +18" AFF WP - WEATHERPROOF
	PUMP
	MOTOR
	JUNCTION BOX
	POWER POLE CONNECTION TO MODULAR FURNITURE WHIP
	TRANSFORMER
	PUSHBUTTON
	ELECTRICAL PANEL
	BUS DUCT AMPERE RATING AS NOTED
	FLOOR RECEPTACLE CONDUIT INSTALLED IN SLAB
	UNFUSED SAFETY SWITCH, RATING AS NOTED POLES AMPERES
	FUSED SAFETY SWITCH, RATING AS NOTED FRAMESIZE FUSE/TRIP NEMA RATING
	MAGNETIC MOTOR STARTER, RATING AS NOTED
	MANUAL TOGGLE OPERATED MOTOR STARTER
	SMOKE DAMPER TOGGLE
	ELECTRIC ACTUATED VALVE
	MOTOR CONTACTOR
	CONTACT NORMALLY OPEN
	CONTACT NORMALLY CLOSED
	SELECTOR SWITCH
	TEMPERATURE SWITCH
	PILOT LIGHT

FIRE ALARM SYMBOLS

	PULL STATION
	FIRE ALARM AUDIBLE/VISIBLE NOTIFICATION APPLIANCE (GENERAL EVACUATION)
	STROBE UNIT XX= CANDELA
	NON-SYSTEM STROBE UNIT
	LOW FREQUENCY MINI HORN UNIT
	SMOKE DETECTOR
	FIXED TEMP HEAT DETECTOR (135F OR 200F)
	FIRE ALARM CONTROL PANEL
	ANNUNCIATOR
	MASTER BOX
	DIGITAL COMMUNICATOR
	DUCT SMOKE DETECTOR
	REMOTE TEST STATION
	SPRINKLER TAMPER SWITCH
	SPRINKLER FLOW SWITCH
	SPRINKLER PRESSURE SWITCH
	MONITOR MODULE
	CONTROL MODULE
	NON-SYSTEM SMOKE DETECTOR STR = DENOTES INTEGRAL STROBE FOR H/C UNITS
	RED MASTER BOX LIGHT
	KNOX BOX, FBO
	HOOD EXT SYSTEM
	DOOR HOLDER
	SIGNAL POWER EXTENDER

SYSTEMS SYMBOLS

	TELEPHONE SYSTEM WALL JACK
	COMBINATION VOICE/DATA SYSTEM OUTLET
	COMBINATION VOICE/DATA SYSTEM OUTLET IN FLOOR BOX. FURNISH 1" CONDUIT IN SLAB
	CEILING MOUNTED JACK FOR WIRELESS ACCESS POINT.
	CATV JACK
	SECURITY SYSTEM DOOR SWITCH
	ELECTRIC DOOR STRIKE SET
	SECURITY SYSTEM KEY PAD
	VOC ALARM SYSTEM SPEAKER
	INTERCOM MASTER STATION
	CABLE TRAY
	PUSH BUTTON
	DOOR BELL
	CARD READER
	CAMERA
	4D = 4 CAMERA DOME

LIGHTING SYMBOLS

	LIGHT FIXTURE
	LIGHT FIXTURE W/ EMERGENCY BATTERY BALLAST
	WALL MOUNTED LIGHT FIXTURE
	PENDANT MOUNTED LIGHT FIXTURE
	STRIP/WRAP LIGHT FIXTURE
	EXTERIOR WALL-PACK
	ROUND RECESSED CEILING MOUNTED FIXTURE
	SURFACE MOUNTED FIXTURE
	WALL MOUNTED LIGHTING FIXTURE
	WALL-RECESSED STEP LIGHT
	TRACK LIGHTING FIXTURE (TRACK MOUNTED FIXTURE TYPE MAY VARY)
	EMERGENCY LED EXIT SIGN
	COMBINATION EMERGENCY EXIT SIGN & LIGHTING FIXTURE WITH DUAL LAMPS HEADS BATTERY AND CHARGER
	EMERGENCY LIGHTING FIXTURE WITH DUAL LAMPS HEADS BATTERY AND CHARGER
	REMOTE EMERGENCY LIGHTING LAMP HEADS
	LIGHT SWITCH DENOTES FIXTURE SWITCHED P = PILOT LIGHT (WHERE NOTED) 3 = 3-WAY (WHERE NOTED) 4 = 4-WAY (WHERE NOTED)
	ULTRASONIC/INFRARED OCCUPANCY SENSOR C = CEILING MOUNTED W = WALL MOUNTED 48" AFF (TO TOP)
	TIME CLOCK
	LIGHTING CONTACTOR
	PHOTOCELL

GENERAL NOTES AND SPECIFICATIONS

- ALL WORK SHALL BE IN COMPLIANCE WITH NFPA-70, NATIONAL ELECTRICAL CODE 2017.
- DEMOLITION: REMOVE ALL ELECTRICAL EQUIPMENT COMPLETELY WHERE INDICATED. REMOVE ALL CIRCUIT CONDUCTORS, SWITCHES, LIGHTING FIXTURES, DEVICE BOXES, AND MOUNTING HARDWARE. MAKE ELECTRICALLY SAFE ANY ABANDONED ELECTRICAL WIRING NOT COMPLETELY REMOVED. INFILL AND SEAL PENETRATIONS IN PIT WALL SURFACES WHERE DEMOLITION LEAVES VOIDS IN FINISHED SURFACE.
- ALL DEVICES AND EQUIPMENT SHALL BE UL-LISTED, COMMERCIAL SPECIFICATION GRADE. SUBMIT PRODUCT DATA FOR OWNER/ENGINEER APPROVAL.
- ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH A UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN THE RATING OF THE SEPARATION. ALL PENETRATIONS THROUGH EXTERIOR SURFACES SHALL BE SEALED WITH UL APPROVED PRODUCT TO MAINTAIN WEATHER AND WATER INTEGRITY. PRODUCT SHALL BE COMPATIBLE WITH SURFACE AND RACEWAY MATERIALS.
- LIGHTING TOGGLE SWITCHES SHALL BE COMMERCIAL SPECIFICATION GRADE, 120 VOLT, SIDE WIRED AS MANUFACTURED BY LEVITON, PASS & SEYMOUR, OR APPROVED EQUAL.
- MOUNTING HEIGHTS FOR EQUIPMENT SHALL BE AS FOLLOWS:
 - CONVENIENCE RECEPTACLES: 18" AFF TO BOTTOM OF BOX
 - LIGHTING TOGGLE SWITCHES: 48" AFF TO TOP OF BOX
 - UNIT LOAD CENTERS: SUCH THAT HIGHEST BREAKER SWITCH DOES NOT EXCEED 48" AFF
 - UNIT INTERCOM: 48" TO TOP OF BOX.
 - FIRE ALARM AUDIO/VISUAL DEVICES: 80" AFF OR 6" BELOW CEILING TO TOP OF DEVICE.
 - FIRE ALARM PULL STATIONS: 48" TO TOP OF BOX.
- ALL CONDUCTOR MATERIAL, INCLUDING WIRING, DEVICE BUSES, AND GROUNDING SHALL BE COPPER.
- ALL POWER CONDUCTOR WIRING SHALL BE 600-VOLT COPPER
 - SERVICE ENTRANCE: XHHW INSULATION, RATED FOR SERVICE-ENTRANCE USE
 - EXTERIOR: XHHW INSULATION
 - INTERIOR: THHN/THWN INSULATION.
- CIRCUIT WIRING
 - 120V/1PH/15A & 120V/1PH/20A CIRCUITS SHALL CONSIST OF (2) #12 AWG & (1) #12 GND ROUTED IN CONDUIT.
 - FOR RUNS OVER 100' IN LENGTH, PROVIDE #10 AWG CONDUCTORS TO ACCOUNT FOR VOLTAGE DROP.
 - OTHER CIRCUITS SHALL BE AS DESIGNATED IN PANELBOARD SCHEDULES (SHEET E6.1).
- ALL CIRCUIT WIRING SHALL BE ROUTED IN CONDUIT, MINIMUM 3/4".
 - INTERIOR: ELECTRICAL METALLIC TUBING (EMT)
 - INTERIOR, LIGHTING WHIPS (3-FOOT) ABOVE FINISHED CEILINGS: METAL CLAD (TYPE MC) CABLE IS ACCEPTABLE.
 - BUNDLE AND SECURE MC CABLING SO IT IS NOT IN CONTACT WITH FINISHED CEILING.
 - DECONTAMINATION SHOWER ROOM 123: LIQUID TIGHT FLEXIBLE METAL CONDUIT (LFMC).
 - EXTERIOR: RIGID GALVANIZED STEEL (RGS).
 - EXTERIOR MOTORS: LIQUID TIGHT FLEXIBLE METAL CONDUIT (LFMC).
- CONVENIENCE RECEPTACLES
 - 125-VOLT, 20-AMP DUPLEX, NEMA 5-20R
 - COMMERCIAL SPECIFICATION GRADE; WHITE IN COLOR
 - WHERE INDICATED, PROVIDE WITH ARC FAULT CIRCUIT INTERRUPTION.
 - WHERE INDICATED, PROVIDE WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTION.
 - PROVIDE EXTERIOR GFCI DEVICES WITH WEATHERPROOF COVER.
- DEVICE PLATES
 - INTERIOR, FINISHED SPACES: NYLON SMOOTH; WHITE IN COLOR.
 - BOILER ROOM, APPARATUS BAY, PPE STORAGE/WASH: STAINLESS STEEL.
 - EXTERIOR & DECONTAMINATION SHOWER: LIQUID-TIGHT THERMOPLASTIC WITH GASKET SEAL.
- ALL MOTOR SAFETY SWITCHES, DISCONNECTS AND MOTOR STARTERS ARE FURNISHED BY ELECTRICAL (DIVISION 16/26) UNLESS NOTED AS FURNISHED WITH EQUIPMENT (FWE). MOTOR RATED DISCONNECT SWITCHES SHALL BE RATED FOR HEAVY DUTY MOTOR USE WITH INTEGRAL FUSE PROTECTION. MATCH VOLTAGE, PHASE, AND AMP/HORSEPOWER RATING WITH EQUIPMENT SERVED.
 - INTERIOR: ENCLOSURES SHALL BE NEMA 1.
 - EXTERIOR: ENCLOSURES SHALL BE NEMA 3R.
- EQUIPMENT CONNECTIONS
 - COORDINATE WITH MECHANICAL FOR EQUIPMENT FEEDERS.
 - FEEDERS ARE SHOWN FOR BASIS-OF-DESIGN PRODUCTS. CONTRACTOR SHALL COORDINATE ALL EQUIPMENT CONNECTIONS - INCLUDING DISCONNECTING MEANS, OVERCURRENT PROTECTION, AND WIRE SIZING - WITH SELECTED MANUFACTURER'S RECOMMENDED INSTRUCTIONS.
 - ALL EQUIPMENT DISCONNECTS AND MOTOR STARTERS PROVIDED BY ELECTRICAL UNLESS OTHERWISE NOTED. MOUNT DEVICES IN AN ACCESSIBLE LOCATION.
- CONTRACTOR SHALL PROVIDE ALL MOUNTING HARDWARE NECESSARY FOR A COMPLETE INSTALLATION. MOUNT EQUIPMENT AND ROUTE CONDUIT SO AS NOT TO INTERFERE WITH OPERATIONS SUCH AS OVERHEAD DOORS, DOOR SWINGS, ETC.
- ALL EQUIPMENT ENCLOSURES, SWITCHES, RECEPTACLES, AND DEVICES SHALL BE LABELED WITH THE SOURCE CIRCUIT AND LOAD UNIT IDENTIFIER WHERE APPLICABLE.
- ALL COMMUNICATION (PHONE/DATA) CABLING SHALL BE CAT 5E AND INSTALLED, TERMINATED, AND TESTED TO APPLICABLE TIA/EIA STANDARDS.



WINTON SCOTT
ARCHITECTS

5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
SRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

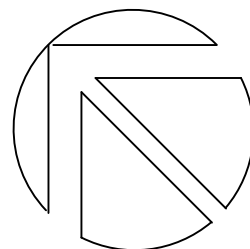
HVAC & Plumbing
Engineering
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 4B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



7/25/2018

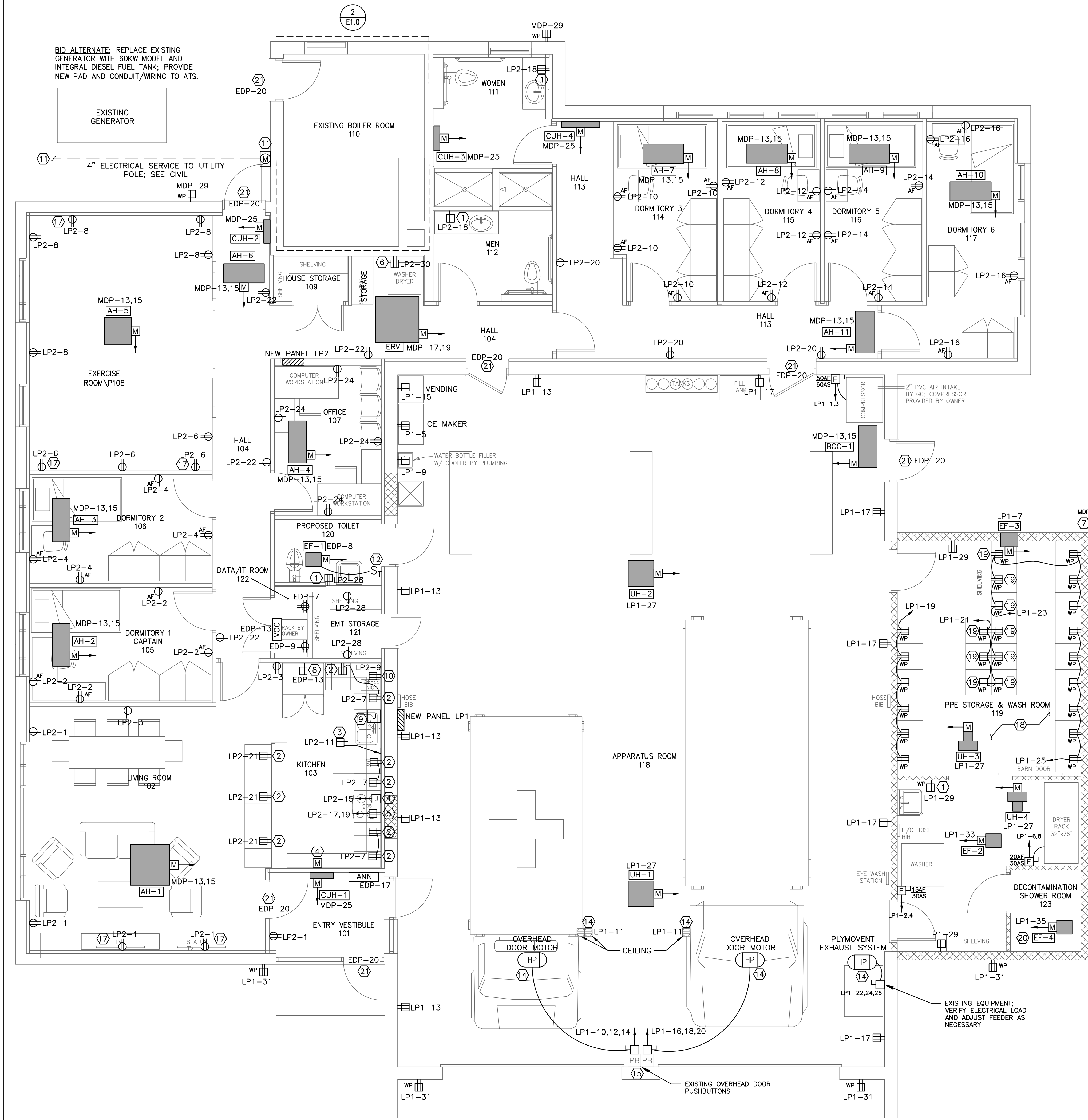
BIDDING & CONSTRUCTION
DRAWINGS

Scale: AS NOTED

ELECTRICAL GENERAL
NOTES & LEGEND

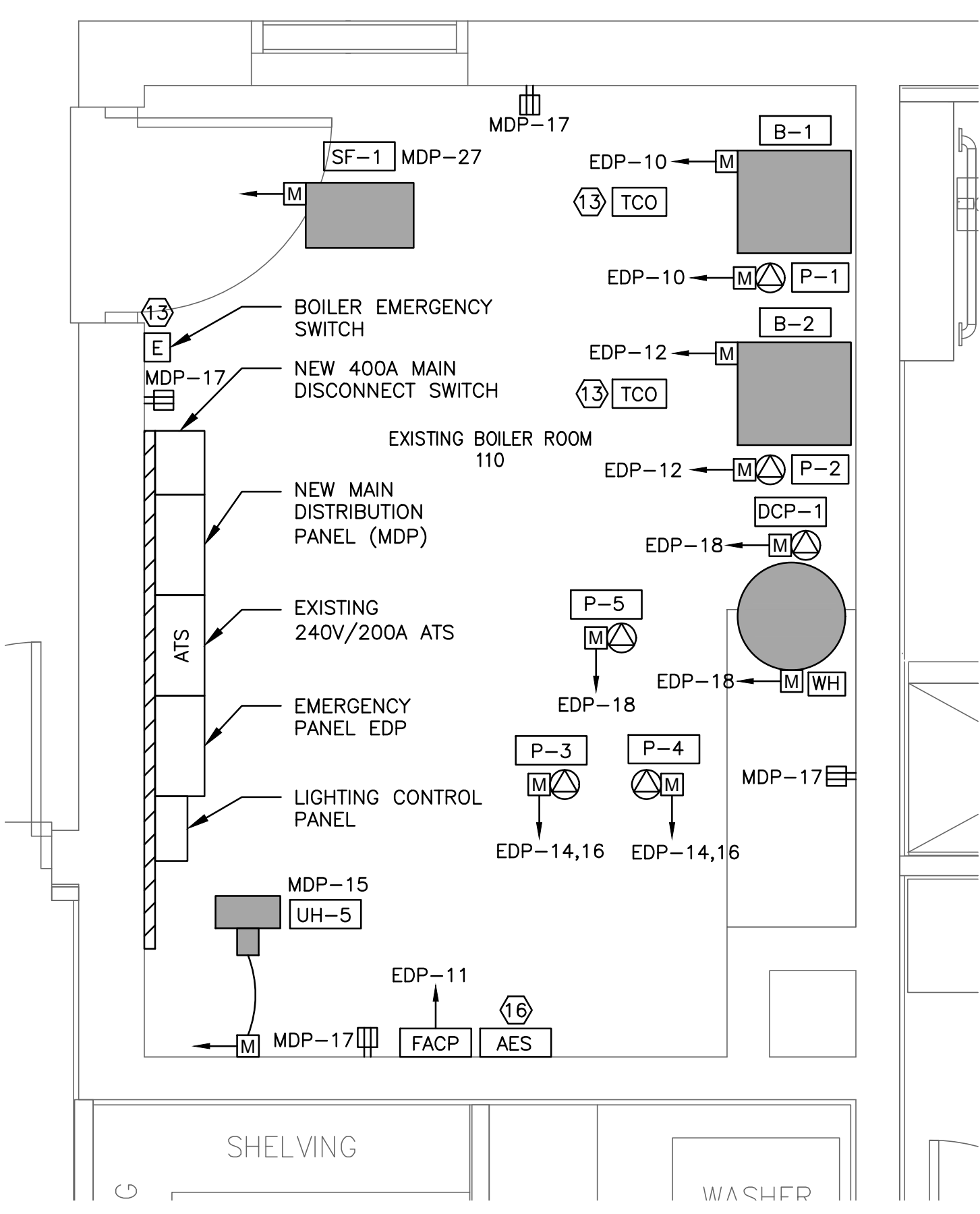
E0.0

July 25, 2018



1 ELECTRICAL POWER PLAN
SCALE: 1/4"=1'

- NOTES:
1. SEE E0.0 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
- KEYED NOTES:
- 1 MOUNT 42" AFF.
 - 2 MOUNT 6" ABOVE COUNTERTOP. COORDINATE WITH BACKSPASH.
 - 3 DISHWASHER. COORDINATE MOUNTING HEIGHT WITH MANUFACTURERS REQUIREMENTS.
 - 4 RANGE HOOD. INTERCONNECT WITH RANGE POWER SUPPLY TO SHUT DOWN RANGE UPON ACTIVATION OF SUPPRESSION SYSTEM. PROVIDE REMOTE OPERATION SWITCH FOR ADA ACCESSIBILITY.
 - 5 RANGE.
 - 6 COMBINATION WASHER/DRYER UNIT.
 - 7 NEMA 3R ENCLOSURE.
 - 8 REFRIGERATOR.
 - 9 FUTURE GARBAGE DISPOSAL. PROVIDE DEVICE BOX WITH BLANK FACE PLATE AND CONDUIT ROUTED TO PANEL LP2.
 - 10 COFFEE MACHINE.
 - 11 PROVIDE NEW 4" UNDERGROUND ELECTRICAL SERVICE CONDUIT FROM UTILITY POLE. PROVIDE 400A METER SOCKET WITH CTs. PROVIDE GROUNDING ROD AND INTERCONNECT SERVICE WITH #1/0 BARE COPPER GROUND CONDUCTOR.
 - 12 PROVIDE TIMER SWITCH TO CONTROL LIGHTING AND EXHAUST FAN (SEE SHEET E2.0). SMARTEXHAUST MODEL SE1-W, OR EQUAL. OPERATION SHALL BE THE FOLLOWING:
 - TOGGLE SWITCH ON - LIGHT AND EXHAUST FAN ENERGIZE
 - TOGGLE SWITCH OFF - LIGHT DE-ENERGIZED; EXHAUST FAN DELAYED OFF (ADJUSTABLE DELAY)
 - 13 PROVIDE EMERGENCY SWITCH AND THERMAL CUT-OFF SWITCHES FOR BOILER ARRANGEMENT IN ACCORDANCE WITH MAINE FUEL BOARD RULES 02-658 (2014).
 - 14 EXISTING EQUIPMENT. RE-FEED FROM DESIGNATED CIRCUIT.
 - 15 INTERCONNECT DOOR OPERATORS WITH INDICATOR LIGHTS. SEE SHEET E2.0 FOR ASSOCIATED INDICATOR LIGHTS.
 - 16 FIRE ALARM TRANSMISSION PANEL SHOWN FOR REFERENCE.
 - 17 MOUNT 72" AFF FOR TELEVISION SCREEN.
 - 18 COORDINATE RECEPTACLE MOUNTING HEIGHT WITH LOCKERS.
 - 19 PROVIDE CHANNEL STRUT SYSTEM SUSPENDED FROM CEILING STRUCTURE FOR MOUNTING RECEPTACLES ABOVE LOCKERS.
 - 20 PROVIDE WATERPROOF DISCONNECT SWITCH FOR FAN. SUPPLY CONDUIT SHALL BE LIQUID-TIGHT FLEXIBLE METAL CONDUIT.
 - 21 DOOR KEYPAD HARDWARE AND ELECTRIC STRIKE PROVIDED BY ARCHITECTURAL. PROVIDE AND CONNECT POWER SUPPLY.



2 BOILER ROOM DETAIL
SCALE: 1/2"=1'



5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
STRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

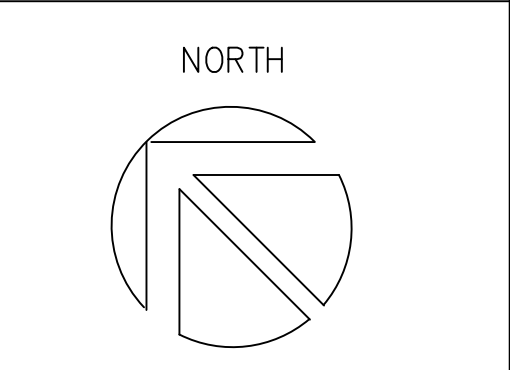
46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

HVAC & Plumbing
Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 108
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

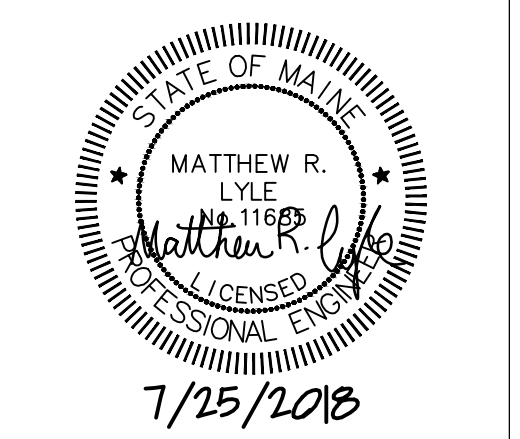
Royal River Center, Unit 4B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION
DRAWINGS

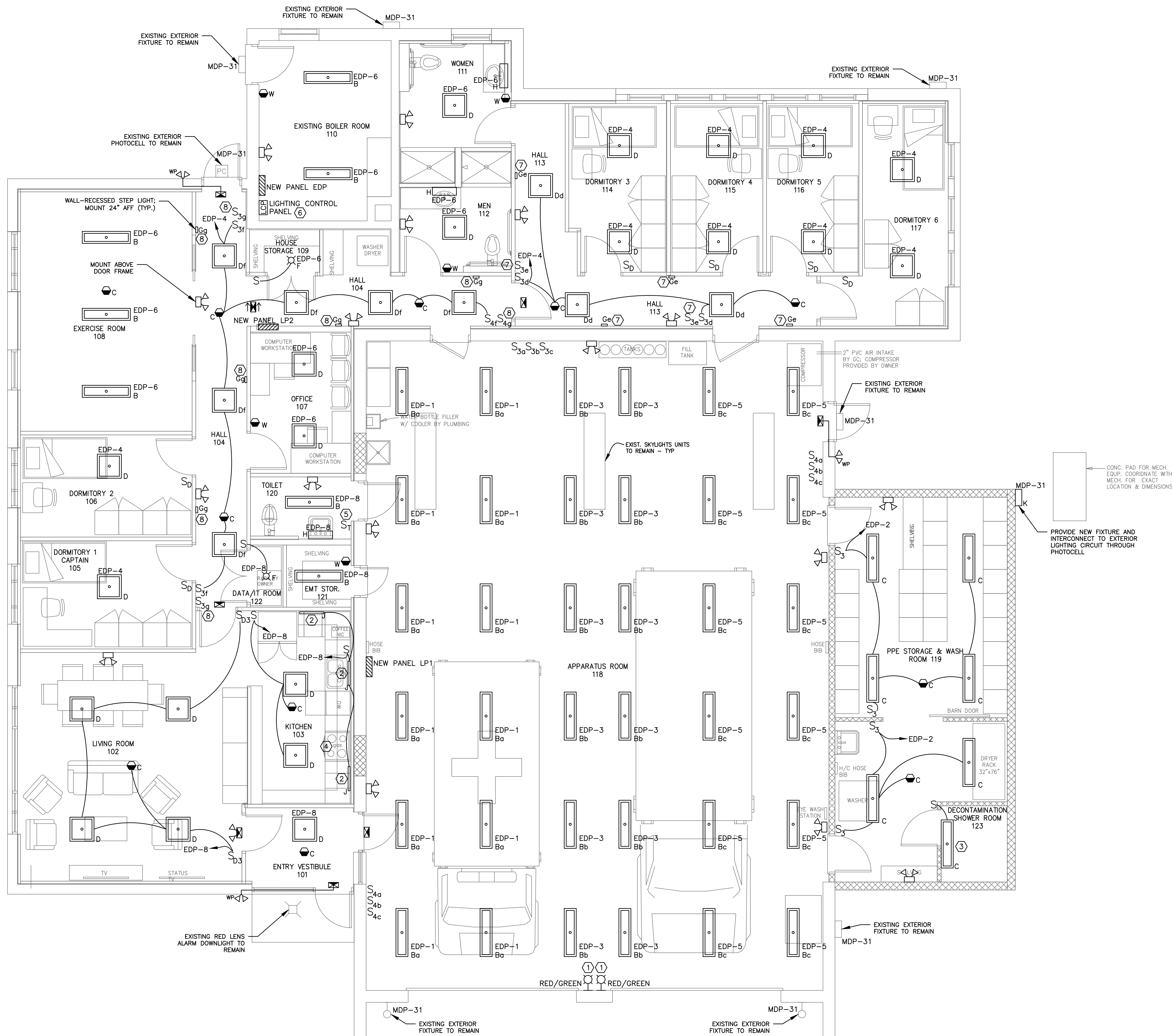
Scale: AS NOTED

ELECTRICAL POWER
PLAN

E1.0

July 25, 2018

DIRECTORY	KVA LOAD			CKT #	BKR AMPS	PHASE	BKR AMPS	CKT #	KVA LOAD			DIRECTORY
	A	B	C						A	B	C	
PANEL LP1	15.9			1	100	A	100	2	6.3		PANEL LP2	
		11.2		3		B		4		5.8		
			9.6	5		C		6				6.1
OUTDOOR UNIT	3.1			7	40	A	60	8	2.3		PANEL EDP	
		3.1		9		B		10		3.5		
			3.1	11		C		12				2.6
AIR HANDLERS AH-1 – AH-11 & BRANCH CONTROLLER BCC-1	0.5			13	15	A	20	14	*		SPARE	
		0.5		15		B		16		*		
ERV-1			0.5	17		15		C		18		
	0.5			19	A		*	20	*			SPACE
UH-5 – BOILER ROOM		0.1		21	15	B	*	22		*	SPACE	
RECEPTS – BOILER ROOM			0.7	23	20	C	*	24		*	SPACE	
CAB. UNIT HTRS CUH-1,2,3,4	0.2			25	20	A	*	26	*		SPACE	
FAN SF-1 – BOILER ROOM		0.1		27	20	B	*	28		*	SPACE	
EXTERIOR RECEPTS			0.4	29	20	C	*	30		*	SPACE	
EXTERIOR LIGHTING	1.0			31	20	A	*	32	*		SPACE	
SPARE		*		33	20	B	*	34		*	SPACE	
SPARE			*	35	20	C	*	36		*	SPACE	
SPARE	*			37	20	A	*	38	*		SPACE	
SPARE		*		39	20	B	*	40		*	SPACE	
SPARE			*	41	20	C	*	42		*	SPACE	
SUBTOTAL	21.2	15.0	14.3						8.5	9.3	8.7	SUBTOTAL
VOLTAGE: 208Y/120V		PHASE: 3		POLES: 4		TOTAL KVA A-PHASE			29.7		PANEL	MDP
MAIN BREAKER: 400A				BUS AMPS: 400A		TOTAL KVA B-PHASE			24.3			
MOUNTING: SURFACE						TOTAL KVA C-PHASE			23.0		LOCATION	BOILER ROOM
SHORT CIRCUIT RATING: 42 KAIC						TOTAL KVA			77.0			
NOTES:												



- NOTES:
- SEE E0.0 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
 - SEE SHEET E2.1 FOR LIGHTING FIXTURE SCHEDULE.
 - SEE SHEET E1.1 FOR PANEL EDP CIRCUIT SCHEDULE.
 - EXTERIOR LIGHTING EXISTING TO REMAIN, WITH NOTED EXCEPTION. CONNECT TO DESIGNATED CIRCUIT THROUGH EXISTING PHOTOCELL.
 - CONNECT EXIT AND EMERGENCY FIXTURES TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT.

- KEYED NOTES:
- PROVIDE RED & GREEN OPERATIONAL LED LIGHTS TO SIGNAL OVERHEAD DOOR POSITION. INTERCONNECT POWER SUPPLY WITH DOOR POSITION INDICATOR TO INDICATE THE FOLLOWING:
 - GREEN: DOOR IN FULLY UP POSITION
 - RED: DOOR IS IN ANY OTHER POSITION OTHER THAN FULLY UP
 - FIXTURE SHALL TIME OUT (DE-ENERGIZE) AFTER TEN MINUTES
 - COORDINATE EXACT LOCATION OF UNDER CABINET FIXTURES WITH CABINET LOCATIONS.
 - PROVIDE DECONTAMINATION SHOWER FIXTURE WITH 45" STAINLESS STEEL MOUNTING BRACKET. MOUNT ABOVE DOOR. PROVIDE LIQUIDTIGHT FLEXIBLE METAL CONDUIT.
 - PROVIDE 60W SHATTERPROOF RANGE HOOD BULB (TYPE 60A15/TF).
 - PROVIDE TIMER SWITCH TO CONTROL LIGHTING AND EXHAUST FAN (SEE SHEET E1.0), SMARTEXHAUST MODEL SE1-W, OR EQUAL. OPERATION SHALL BE THE FOLLOWING:
 - TOGGLE SWITCH ON - LIGHT AND EXHAUST FAN ENERGIZE
 - TOGGLE SWITCH OFF - LIGHT DE-ENERGIZED; EXHAUST FAN DELAYED OFF (ADJUSTABLE DELAY)
 - SEE SHEET E2.1 FOR CONTROL PANEL FUNCTIONALITY. INTERCONNECT WITH FIRE/VOC ALARM RELAY LOCATED IN BOILER ROOM. SEE SHEET E2.1.
 - SUPPLY HALL 113 STEP LIGHTS FROM CIRCUIT EDP-4 AND CONTROL THROUGH DESIGNATED 3-WAY TOGGLE SWITCHES.
 - SUPPLY HALL 104 STEP LIGHTS FROM CIRCUIT EDP-4 AND CONTROL THROUGH DESIGNATED 3-WAY & 4-WAY TOGGLE SWITCHES.



5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
STRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

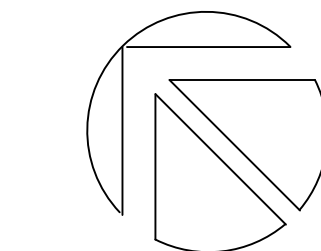
HVAC & Plumbing
Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 4B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

NORTH



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION
DRAWINGS

Scale: AS NOTED

ELECTRICAL LIGHTING
PLAN

E2.0

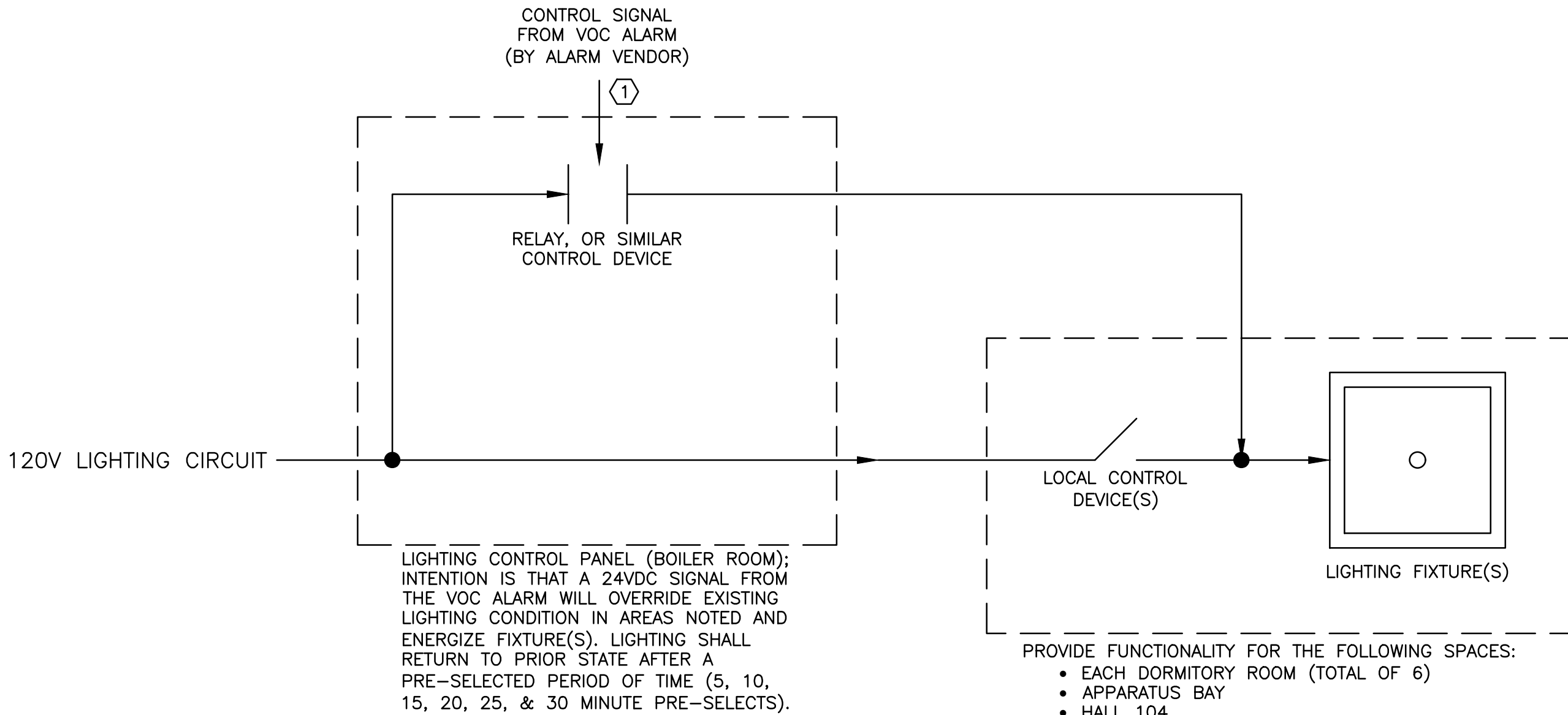
July 25, 2018

LIGHTING SCHEDULE					
TYPE	DESCRIPTION	MANFACTURER	LAMPS	MOUNTING	NOTES
B	4' LENSED STRIP LIGHT. 120V	COLUMBIA LIGHTING	42W LED 3500K 5327 LUMENS	CEILING SURFACE	MODEL #: LCL4-35ML-EU
C	4' ENCLOSED GASKETED FIBERGLASS STRIP LIGHT. 120V	COLUMBIA LIGHTING	42W LED 3500K 5087 LUMENS	CEILING SURFACE	MODEL #: LXEM4-35ML-RFA-EDU
D	2' X 2' LED TROFFER. 120V	COLUMBIA LIGHTING	31.8W LED 3500K 3705 LUMENS	CEILING GRID	MODEL #: LCAT22-35HLG-EU
F	7.25" ROUND RECESSED LED LIGHT. WHITE FINISH. 120V	PRESCOLITE	16.37W LED 3000K 1032 LUMENS	CEILING GRID	MODEL #: LBSLEDA10L30K9-WH
G	LOUVERED LED STEP LIGHT, 3" X 5" 120V	PRESCOLITE	4.5W LED 3000K	RECESSED WALL, 24" AFF	MODEL #: LITESTEP MSL
H	2' WALL MOUNT VANITY FIXTURE 120V	COLUMBIA LIGHTING	LED 3000K	SURFACE WALL	MODEL #: CWM4-30XWSM-DIS-EU
J	2' UNDER CABINET FIXTURE 120V	WAC LIGHTING	15W LED 3000K	UNDER CABINET SURFACE	MODEL #: BA-ACLED24
K	FULL CUT OFF ARCHITECTURAL LED WALL PACK FIXTURE. 120V	SPAULDING LIGHTING	35W LED 3000K 3500 LUMENS	EXTERIOR WALL SURFACE	MODEL #: LMC-30LU-3K-4
 C	CEILING MOUNTED DUAL TECHNOLOGY UTRASONIC AND PASSIVE INFRARED OCCUPANCY SENSOR 120V	HUBBELL	N/A	CEILING SURFACE	MODEL #: OMNDT500 FURNISH RELAYS/POWER PACKS AS REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION
 W	WALL MOUNT PASSIVE INFRARED OCCUPANCY SENSOR 120V	HUBBELL	N/A	WALL	MODEL #: LHIRS11
	EMERGENCY BATTERY UNIT 120V	DUAL-LITE	2W LED	WALL SURFACE	MODEL #: EV4D-02L
WP 	WEATHER PROOF REMOTE HEAD. WHITE FINISH. 120V	DUAL-LITE	(2) 1W LED	WALL SURFACE	MODEL #: EVO-D-W
	LED EXIT SIGN EMERGENCY BATTERY UNIT COMBINATION WITH REMOTE CAPACITY 120V	DUAL-LITE	(2) 1W LED	CEILING SURFACE	MODEL #: EVCU-R-W-D4
	LED EXIT SIGN EMERGENCY BATTERY UNIT 120V	DUAL-LITE	2W LED	CEILING SURFACE	MODEL #: EVEU-R-W

1

LIGHTING SCHEDULE

SCALE: NOT TO SCALE



2

LIGHTING CONTROL DIAGRAM

SCALE: NOT TO SCALE

NOTES:

1. SEE E0.0 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

① FOR EACH CONTROL DEVICE, ROUTE (1) TWO-WIRE PAIR TO VOC ALARM CONTROL PANEL IN 1" CONDUIT.



5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
SRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

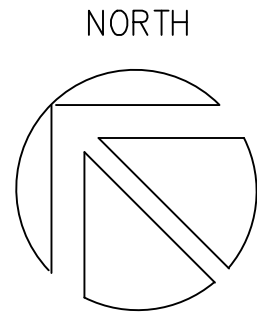
46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

HVAC & Plumbing
Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

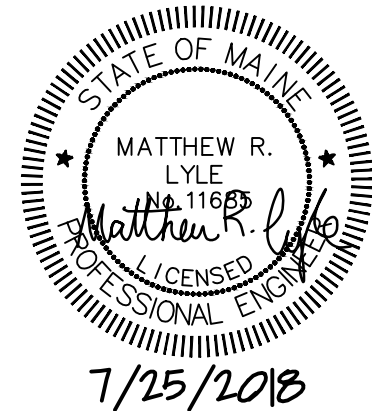
Royal River Center, Unit 4B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION
DRAWINGS

Scale: AS NOTED

ELECTRICAL LIGHTING
SCHEDULE &
CONTROL DIAGRAM

E2.1



1 ELECTRICAL FIRE ALARM & SYSTEMS PLAN
SCALE: 1/4"=1'

NOTES:

1. SEE E0.0 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. ALL VOICE/DATA CABLING SHALL BE CAT 5E ROUTED IN CONDUIT, MINIMUM 3/4" EMT. ROUTE FROM DEVICE TO DATA/IT ROOM. TERMINATE, TEST, AND CERTIFY EACH CABLE IN ACCORDANCE WITH TIA/EIA STANDARDS.
3. PROVIDE ALL EMPTY CONDUITS WITH NYLON PULLSTRING. LABEL CONDUITS WITH SYSTEM, SOURCE LOCATION, AND DESTINATION LOCATION.
4. FOR VOC ALARM AND FIRE ALARM SYSTEMS, CONTRACTOR SHALL ATTEND WALK-THROUGH WITH CITY OF PORTLAND DURING BID, PRIOR TO SYSTEM PURCHASE, AND PRIOR TO INSTALLATION.

KEYED NOTES:

- 1 FURNISH FIRE ALARM SYSTEM CONTROL MODULE AND SHUNT TRIP CIRCUIT WIRING TO MONITOR THE ANSUL SYSTEM IN THE KITCHEN HOOD AND SHUT DOWN POWER TO THE RANGE PRIOR TO RELEASE OF ANSUL.
- 2 COMMUNICATIONS CONDUITS FROM UTILITY POLE (SEE CIVIL):
 - (1) 2" - EXISTING TO REMAIN
 - (2) 2-1/2" - PROVIDE NEW
- 3 FOR EACH LOCATION SHOWN ON PLAN, PROVIDE 4" X 4" RECESSED DEVICE BOX WITH 1" CONDUIT ROUTED TO PANEL LOCATION IN BOILER ROOM. DEVICES AND WIRING BY OTHERS.
- 4 VOC ALARM CONTROL PANEL HOUSED IN COMM RACK. PROVIDE (1) 1-1/2" CONDUIT FROM IT ROOM TO ROOF FOR ANTENNA. EXTEND CONDUIT APPROXIMATELY 3- FEET ABOVE FINISHED ROOF AND TERMINATE WITH WEATHERHEAD.
- 5 PROVIDE 3' COILED CAT 5E CABLE WITH TERMINATION ABOVE FINISHED CEILING FOR WIRELESS ACCESS POINTS (BY OTHERS).
- 6 JUNCTION BOX (16" X 24") FOR FIRE ALARM SERVICE. ROUTE ONE (1) 2-1/2" SERVICE CONDUIT TO THIS BOX.
- 7 EXISTING TRAFFIC SIGNAL PUSHBUTTON TO REMAIN. ROUTE 3/4" CONDUIT WITH PULLSTRING TO FIRE ALARM JUNCTION BOX IN BOILER ROOM.
- 8 AES FIRE ALARM TRANSMISSION BOX. COORDINATE LOCATION WITH FIRE DEPARTMENT. PROVIDE (1) 1-1/2" CONDUIT TO ROOF FOR ANTENNA INTERCONNECTION. TERMINATE CONDUIT APPROXIMATE 3- FEET ABOVE FINISHED ROOF WITH A WEATHERHEAD.
- 9 INTERCONNECT VOC ALARM RELAY OUTPUT TO LIGHTING CONTROL PANEL. SEE SHEET E2.0 FOR CONTROL PANEL LOCATION AND SHEET E2.1 FOR CONTROL PANEL FUNCTIONALITY.
- 10 VOICE/DATA FOR BUILDING AUTOMATION SYSTEM. COORDINATE EXACT LOCATION WITH MECHANICAL/CONTROLS CONTRACTOR.
- 11 MOUNT 72" AFF FOR TELEVISION SCREEN. COORDINATE EXACT LOCATION WITH POWER RECEPTACLE.
- 12 COORDINATE REMOVAL/RELOCATION OF EXISTING ALARM DEVICES IN APPARATUS BAY WITH FIRE DEPARTMENT REPRESENTATIVE. DEVICES NOT SHOWN FOR CLARITY. ASSUME RELOCATION OF FIVE (5) DEVICES.
- 13 COMMUNICATION INTERCONNECTS BETWEEN BOILER ROOM AND I.T. ROOM. PROVIDE (2) 2-1/2" CONDUITS AND (4) 1" CONDUITS BETWEEN EACH ROOM.
- 14 ROUTE (1) 1" SECURITY CONDUIT FROM SECURITY CAMERA LOCATION TO I.T. ROOM.
- 15 VOC ALARM SPEAKERS; FOR EACH LOCATION SHOWN ON PLAN, PROVIDE 4" X 4" RECESSED DEVICE BOX WITH 1" CONDUIT ROUTED TO PANEL LOCATION IN I.T. ROOM. DEVICES AND WIRING BY OTHERS.
- 16 COORDINATE EXACT QUANTITIES AND INTERCONNECTIONS WITH SPRINKLER CONTRACTOR.
- 17 ROUTE COAXIAL IN 3/4" CONDUIT TO I.T. ROOM.



5 Milk Street, Portland, ME 04101
207.774.4811 | wintonscott.com

Structural Engineering:
SRUCTURAL INTEGRITY
CONSULTING ENGINEERS, INC.

46 Forest Avenue
Portland, ME 04101
T. 207.774.4614
structuralinteg.com

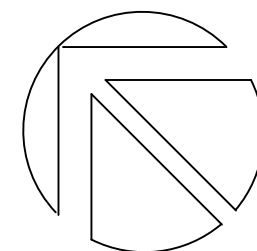
HVAC & Plumbing
Engineering:
MECHANICAL SYSTEMS
ENGINEERS

Royal River Center, Unit 10B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.846.1441

Electrical Engineering:
SWIFT CURRENT ENGINEERING
SERVICES

Royal River Center, Unit 4B
10 Forest Falls Drive
Yarmouth, ME 04096
T. 207.847.9280

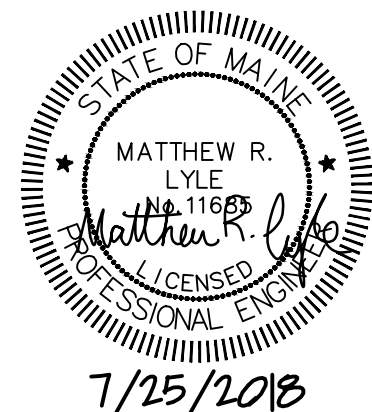
NORTH



CITY OF
PORTLAND
NORTH DEERING
FIRE STATION

Renovation &
Expansion

386 Allen Avenue
Portland, ME 04103



BIDDING & CONSTRUCTION
DRAWINGS

Scale: AS NOTED

ELECTRICAL FIRE
ALARM & SYSTEMS
PLAN

E3.0

July 25, 2018

HOUSING COMMITTEE 7/31 RECOMMENDATIONS:

With no appropriation of WEX sale proceeds

CURRENT BALANCE IN HOUSING TRUST FUND (\$1,223,320) & 6/27 STAFF HOME RECOMMENDATION				
	Applicant Request	6/27 Staff Committee HOME Recommendations	Staff HTF Recommendations*	Balance Remaining of Applicants Request
PHA Front Street	\$1,435,174	\$510,174	\$723,320	\$201,680
178 Kennebec Street	\$370,000	\$370,000	\$0	\$0
977 Brighton Avenue	\$300,000	\$0	\$0	\$300,000
Total	\$2,105,174	\$880,174	\$723,320	

***Maintains \$500,000 minimum balance**

With appropriation of \$1,000,000 WEX proceeds

HOUSING TRUST FUND \$2,223,320 (including portion of 0 Thames St. Proceeds & 6/27 STAFF HOME RECOMMENDATION				
	Applicant Request	6/27 Staff HOME Recommendations	Staff HTF Recommendations*	Balance Remaining of Applicants Request
PHA Front Street	\$1,435,174	\$510,174	\$925,000	\$0
178 Kennebec Street	\$370,000	\$370,000	\$0	\$0
977 Brighton Avenue	\$300,000	\$0	\$300,000	\$0
Total	\$2,105,174	\$880,174	\$1,225,000	

***Maintains \$500,000 minimum balance; \$498,320 of HTF unallocated**

**MEMORANDUM**

DISTRIBUTE TO: Members of the Finance Committee

FROM: Brendan T. O'Connell, Finance Director

DATE: August 2nd, 2018

SUBJECT: **Public Record of Proceedings: Meeting Minutes**

During the July 19th meeting of the City of Portland Finance Committee a question was raised about meeting minutes and what is required to be maintained. Under the Maine Revised Statutes (1 M.R.S. § 403) any public meeting is required to maintain a record. *“Unless otherwise provided by law, a record of each public proceeding for which notice is required...must be made within a reasonable period of time after the proceeding and must be open to public inspection.”*

1 M.R.S. § 403 further states that required details of the record include:

- A. The date, time and place of the public proceeding*
- B. The members of the body holding the public proceeding recorded as either present or absent; and*
- C. All motions and votes taken, by individual member, if there is a roll call*

§402-A

Title 1: GENERAL PROVISIONS
Chapter 13: PUBLIC RECORDS AND PROCEEDINGS
Subchapter 1: FREEDOM OF ACCESS

§404

§403. Meetings to be open to public; record of meetings

1. Proceedings open to public. Except as otherwise provided by statute or by section 405, all public proceedings must be open to the public and any person must be permitted to attend a public proceeding.

[2011, c. 320, Pt. C, §1 (NEW) .]

2. Record of public proceedings. Unless otherwise provided by law, a record of each public proceeding for which notice is required under section 406 must be made within a reasonable period of time after the proceeding and must be open to public inspection. At a minimum, the record must include:

- A. The date, time and place of the public proceeding; [2011, c. 320, Pt. C, §1 (NEW).]
- B. The members of the body holding the public proceeding recorded as either present or absent; and [2011, c. 320, Pt. C, §1 (NEW).]
- C. All motions and votes taken, by individual member, if there is a roll call. [2011, c. 320, Pt. C, §1 (NEW).]

[2011, c. 320, Pt. C, §1 (NEW) .]

3. Audio or video recording. An audio, video or other electronic recording of a public proceeding satisfies the requirements of subsection 2.

[2011, c. 320, Pt. C, §1 (NEW) .]

1 M.R.S. § 403 notes that *“an audio, video, or other electronic recording of a public proceeding satisfies the requirements”*. The City of Portland has undertaken the expense of recording all City Council meetings and Council Committee meetings which are live streamed and archived at the following location: http://townhallstreams.com/towns/portland_maine. This archive meets the requirement 1 M.R.S. § 403 and is an indisputable record of proceedings which may be viewed by any member of the public. Furthermore, City staff is always available to quickly respond to any specific questions or requests for additional information in regards to particular meeting proceedings.