DATE OF ISSUE

SUBMISSION - PRICING SET - 2013_11-12
SUBMISSION - BID SET - 2014_01-15

LOCATION MAP NOT TO SCALE

SIGNATURES

OWNER: _____ DATE: _____
ARCHITECT: _____ DATE: _____
CONTRACTOR: _____ DATE: _____
CONSTRUCTION LENDER: _____ DATE: _____

BUILDING AREA TABULATION

BUILDING FOOTPRINT: = 11,508 SF

TOTAL BUILDING AREA:

LOWER LEVEL:	11,508 SF
FIRST FLOOR :	11,102 SF
SECOND FLOOR:	11,455 SF
THIRD FLOOR:	11,455 SF +
TOTAL BUILDING AREA:	45,520 SF

NATHAN CLIFFORD

180 FALMOUTH STREET
PORTLAND, MAINE

DRAWING LIST

GENERAL
AS1.1 ACCESSIBILITY STANDARDS
GN1.1 GENERAL NOTES
LS1.1 LIFE SAFETY PLANS

CIVIL
C1.0 COVER SHEET
C1.1 GENERAL NOTES AND LEGEND
C2.0 EXISTING CONDITIONS PLAN
C2.1 DEMOLITION PLAN
C3.0 SITE LAYOUT AND UTILITY PLAN
C4.0 GRADING AND DRAINAGE PLAN
C5.0 LANDSCAPE PLAN
C7.0 DETAILS
C7.1 DETAILS
C7.2 DETAILS

STRUCTURAL
S1.0 STRUCTURAL PLANS, SECTIONS AND DETAILS

ARCHITECTURAL
A0.01 LOWER LEVEL - EXG & DEMO PLAN
A0.02 FIRST FLOOR - EXG & DEMO PLAN
A0.03 SECOND FLOOR - EXG & DEMO PLAN
A0.04 THIRD FLOOR - EXG & DEMO PLAN
A1.01 LOWER LEVEL PLAN
A1.02 FIRST FLOOR PLAN
A1.03 SECOND FLOOR PLAN
A1.04 THIRD FLOOR PLAN
A1.05 ROOF PLAN
A1.06 ROOF DETAILS
A1.10 TYP. UNITS - LOWER LEVEL
A1.11 TYP. NORTH CORNER UNITS
A1.12 TYP. SOUTH CORNER UNITS
A1.13 TYP. UNITS - X1
A1.14 TYP. UNITS - X2
A1.15 ADA UNIT 22
A1.16 TYP. UNITS - X5
A2.01 BUILDING ELEVATIONS
A2.02 BUILDING ELEVATIONS
A3.01 BUILDING SECTION
A3.03 ENTRY DETAILS
A3.04 ENTRY HANDRAILS
A3.11 ELEVATOR PLANS & SECTIONS
A3.12 STAIR DETAILS
A4.01 WALL TYPES
A4.02 FLOOR, WALL & CEILING TYPES
A4.03 INTERIOR PARTITION DETAILS
A4.04 INTERIOR DETAILS
A4.06 PLASTER CONDITIONS
A4.07 PLASTER CONDITIONS
A8.01 DOOR SCHEDULE
A8.02 WINDOW SCHEDULE & ELEVATIONS
A8.03 WINDOW DETAILS
A8.04 WINDOW DETAILS
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ELECTRICAL
E0.01 ELECTRICAL SITE PLAN
E0.02 ELECTRICAL DETAILS
E1.01 LOWER LEVEL LIGHTING & ELECTRICAL PLAN
E1.02 FIRST FLOOR LIGHTING & ELECTRICAL PLAN
E1.03 SECOND FLOOR LIGHTING & ELECTRICAL PLAN
E1.04 THIRD FLOOR LIGHTING & ELECTRICAL PLAN

CONTACTS

Owner:
Nathan Clifford LP
Developers Collaborative
17 Chestnut Street
Portland, ME
04101

Architect:
Archetype Architects
48 Union Wharf
Portland, ME 04101

(207) 772 6022

Structural Engineer:
Structural Design Consulting, Inc.
22 Oakmont Drive
Old Orchard Beach, ME 04064

(207) 934-8038

Electrical Engineer:
Bartlett Design, Inc.
942 Washington St.
Bath, ME 04530

(207) 443-5447

Fire Protection Engineer:
Fire Pro
1600 Osgood Street, Suite 2082
North Andover, MA 01845

(781) 270-5200

Civil Engineer:
Fay Spofford & Thorndike
778 Main Street, Ste 8
South Portland, Maine 04106

(207) 775-1121

Mechanical/Plumbing Engineer:
Ranor Mechanical

Contractor:
CCB
65 Bradley Dr.
Westbrook, ME 04092

1.207.464.2626

RELEVANT CODES

INTERNATIONAL BUILDING CODE - 2009	REFERENCE
OCCUPANCY R-2 (RESIDENTIAL)	310..1
CONSTRUCTION TYPE 3B	T601
SPRINKLED w/ NFPA 13R	903.0.1.1
ALLOWABLE AREA - 16,000 SQ.FT. (TABULAR AREA WITHOUT INCREASES)	T503
PROPOSED FLOOR AREA (11,508 SQ.FT.)	
ALLOWABLE HEIGHT (4) STORIES	T503
EXISTING HEIGHT (3) STORIES (PLUS BASEMENT)	504.2
FIRE RESISTANCE RATING:	T601
STRUCTURAL FRAME: 0 HOURS	
BEARING WALLS: EXTERIOR: 2 HOURS	
BEARING WALLS: INTERIOR: 0 HOURS	
NON-BEARING WALLS AND PARTITIONS: 0 HOURS	
FLOOR CONSTRUCTION AND SECONDARY MEMBERS: 0 HOURS	
ROOF CONSTRUCTION AND SECONDARY MEMBERS: 0 HOUR	
SHAFT ENCLOSURES: 2 HOURS (4 STORIES)	708.4
ELEVATOR ENCLOSED LOBBY NOT REQ'D WHEN SPRINKLED	708.14.1 ex. 4
FIRE PARTITIONS	
CORRIDOR FIRE PARTITIONS (NON-BEARNG): 1 HOUR	T1018.1 & 709.3.1
CORRIDOR DOORS: .33 HOUR IN 1-HOUR WALL	T715.4
CORRIDOR DOORS TO HAVE SMOKE CONTROL	715.4.3.1
DWELLING UNIT SEPARATION: 1 HOUR	709.3 EX 2
FLOOR ASSEMBLY BETWEEN DWELLING UNITS: 1 HOUR	712.3
FIRE PROTECTION	
AUTOMATIC SPRINKLER SUPERVISORY SERVICE	901.6.1
NFPA 13R SPRINKLER SYSTEM	903.3.1.2
CLASS I STANDPIPE IN STAIRWELLS	905.3.1
LOCATION OF CLASS I STANDPIPE:	905.6
LOCATED AT INTERMEDIATE FLOOR LEVEL LANDING BETWEEN FLOORS	
PORTABLE FIRE EXTINGUISHERS REQUIRED	906.1.1
MANUAL & AUTOMATIC FIRE ALARM SYSTEM - REQUIRED	-
SINGLE AND MULTI-STATION SMOKE ALARMS - REQUIRED	907.2.9.2
FIRE DEPARTMENT CONNECTIONS REQ'D (AS DIR. BY LOCAL FIRE)	912.1
MEANS OF EGRESS	
ELEVATOR BACK-UP GENERATOR NOT REQUIRED	1007.2.1
EXIT ENCLOSURES 2 HOURS WHERE CONNECTING 4 STORIES	1022.1
ELEVATOR MACHINE ROOM RATED 2-HOURS	3006.4

INTERNATIONAL BUILDING CODE - 2009	REFERENCE
Historic Buildings: The provisions of this code relating to the construction, repair, alteration, addition, restoration and movement of structures, and change of occupancy shall not be mandatory for historic buildings where such buildings are judged by the building official to not constitute a distinct life safety hazard.	3409.1
NFPA 101 - 2009	REFERENCE
OCCUPANCY - RESIDENTIAL	310.1.8
CONSTRUCTION TYPE - V (000)	NFPA TABLE A.8.2.1.2
SPRINKLED w/ NFPA 13R	
STAIR MATERIALS TO BE THE SAME AS BUILDING CONSTRUCTION	7.2.2.3.1.2
DEAD END CORRIDOR < 50 FT	30.2.5.4.2
SPRINKLERED BUILDING EXIT ENCLOSURE TO BE 1 HOUR	30.2.2.1.2
AREA OF REFUGE - NOT REQUIRED	30.2.2.12.1
HISTORIC BUILDING	43.10
EXISTING STAIRS AND HANDRAILS	43.10.5.7.2
EXISTING TRANSOMS ABOVE DOORS IN CORRIDORS CAN REMAIN	43.10.4.5

BID SET
2014_01-15

CITY OF PORTLAND, MAINE RESURGAM
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

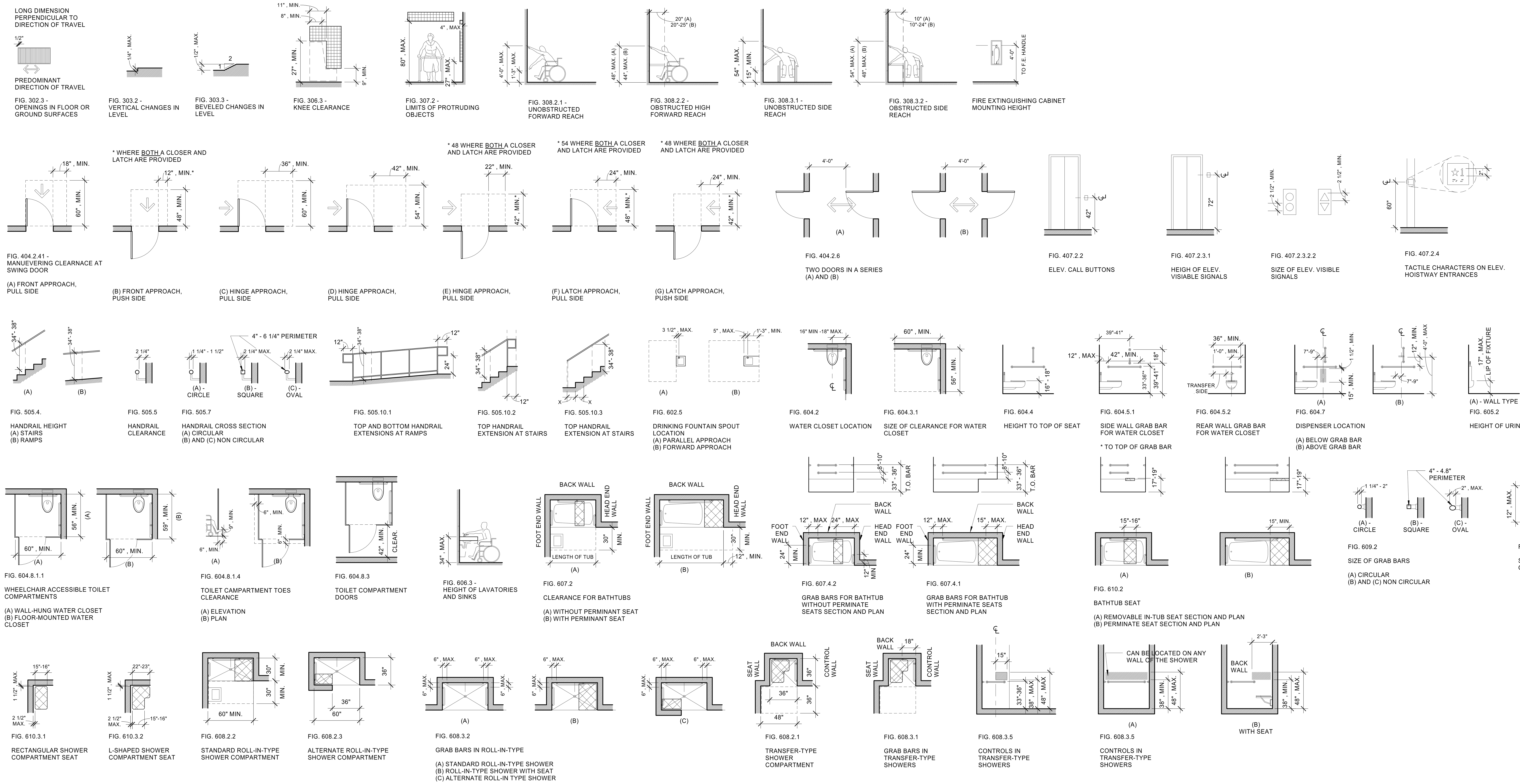


FIG. 302.3 - OPENINGS IN FLOOR OR GROUND SURFACES
FIG. 303.2 - VERTICAL CHANGES IN LEVEL
FIG. 303.3 - BEVELED CHANGES IN LEVEL
FIG. 306.3 - KNEE CLEARANCE
FIG. 307.2 - LIMITS OF PROTRUDING OBJECTS
FIG. 308.2.1 - UNOBSTRUCTED FORWARD REACH
FIG. 308.2.2 - OBSTRUCTED HIGH FORWARD REACH
FIG. 308.3.1 - UNOBSTRUCTED SIDE REACH
FIG. 308.3.2 - OBSTRUCTED SIDE REACH
FIRE EXTINGUISHING CABINET MOUNTING HEIGHT
FIG. 404.2.41 - MANUEVERING CLEARNACE AT SWING DOOR
(A) FRONT APPROACH, PULL SIDE
(B) FRONT APPROACH, PUSH SIDE
(C) HINGE APPROACH, PULL SIDE
(D) HINGE APPROACH, PULL SIDE
(E) HINGE APPROACH, PULL SIDE
(F) LATCH APPROACH, PULL SIDE
(G) LATCH APPROACH, PUSH SIDE
FIG. 404.2.6 TWO DOORS IN A SERIES (A) AND (B)
FIG. 407.2.2 ELEV. CALL BUTTONS
FIG. 407.2.3.1 HEIGH OF ELEV. VISIABLE SIGNALS
FIG. 407.2.3.2.2 SIZE OF ELEV. VISIBLE SIGNALS
FIG. 407.2.4 TACTILE CHARACTERS ON ELEV. HOISTWAY ENTRANCES
FIG. 505.4. HANDRAIL HEIGHT (A) STAIRS (B) RAMPS
FIG. 505.5 HANDRAIL CLEARANCE
FIG. 505.7 HANDRAIL CROSS SECTION (A) CIRCULAR (B) AND (C) NON CIRCULAR
FIG. 505.10.1 TOP AND BOTTOM HANDRAIL EXTENSIONS AT RAMPS
FIG. 505.10.2 TOP HANDRAIL EXTENSION AT STAIRS
FIG. 505.10.3 TOP HANDRAIL EXTENSION AT STAIRS
FIG. 602.5 DRINKING FOUNTAIN SPOUT LOCATION (A) PARALLEL APPROACH (B) FORWARD APPROACH
FIG. 604.2 WATER CLOSET LOCATION
FIG. 604.3.1 SIZE OF CLEARANCE FOR WATER CLOSET
FIG. 604.4 HEIGHT TO TOP OF SEAT
FIG. 604.5.1 SIDE WALL GRAB BAR FOR WATER CLOSET
* TO TOP OF GRAB BAR
FIG. 604.5.2 REAR WALL GRAB BAR FOR WATER CLOSET
FIG. 604.7 DISPENSER LOCATION (A) BELOW GRAB BAR (B) ABOVE GRAB BAR
FIG. 605.2 HEIGHT OF URINALS
FIG. 604.8.1.1 WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS (A) WALL-HUNG WATER CLOSET (B) FLOOR-MOUNTED WATER CLOSET
FIG. 604.8.1.4 TOILET CAMPARTMENT TOES CLEARANCE (A) ELEVATION (B) PLAN
FIG. 604.8.3 TOILET COMPARTMENT DOORS
FIG. 606.3 - HEIGHT OF LAVATORIES AND SINKS
FIG. 607.2 CLEARANCE FOR BATHTUBS (A) WITHOUT PERMINANT SEAT (B) WITH PERMINANT SEAT
FIG. 607.4.2 GRAB BARS FOR BATHTUB WITHOUT PERMINATE SEATS SECTION AND PLAN
FIG. 607.4.1 GRAB BARS FOR BATHTUB WITH PERMINATE SEATS SECTION AND PLAN
FIG. 610.2 BATHTUB SEAT (A) REMOVABLE IN-TUB SEAT SECTION AND PLAN (B) PERMINATE SEAT SECTION AND PLAN
FIG. 609.2 SIZE OF GRAB BARS (A) CIRCULAR (B) AND (C) NON CIRCULAR
FIG. 609.3 SPACING OF GRAB BARS
FIG. 610.3.1 RECTANGULAR SHOWER COMPARTMENT SEAT
FIG. 610.3.2 L-SHAPED SHOWER COMPARTMENT SEAT
FIG. 608.2.2 STANDARD ROLL-IN-TYPE SHOWER COMPARTMENT
FIG. 608.2.3 ALTERNATE ROLL-IN-TYPE SHOWER COMPARTMENT
FIG. 608.3.2 GRAB BARS IN ROLL-IN-TYPE (A) STANDARD ROLL-IN-TYPE SHOWER (B) ROLL-IN-TYPE SHOWER WITH SEAT (C) ALTERNATE ROLL-IN TYPE SHOWER
FIG. 608.2.1 TRANSFER-TYPE SHOWER COMPARTMENT
FIG. 608.3.1 GRAB BARS IN TRANSFER-TYPE SHOWERS
FIG. 608.3.5 CONTROLS IN TRANSFER-TYPE SHOWERS
FIG. 608.3.5 CONTROLS IN TRANSFER-TYPE SHOWERS

LICENSED ARCHITECT DAVID LLOYD NO. 936 STATE OF MAINE

Prepared For: Developers Collaborative
Developers Collaborative Portland, ME 04101

Consultant:

Architect: ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPEPA.COM

Project: NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Date: 15 JAN 2014

Scale: As indicated

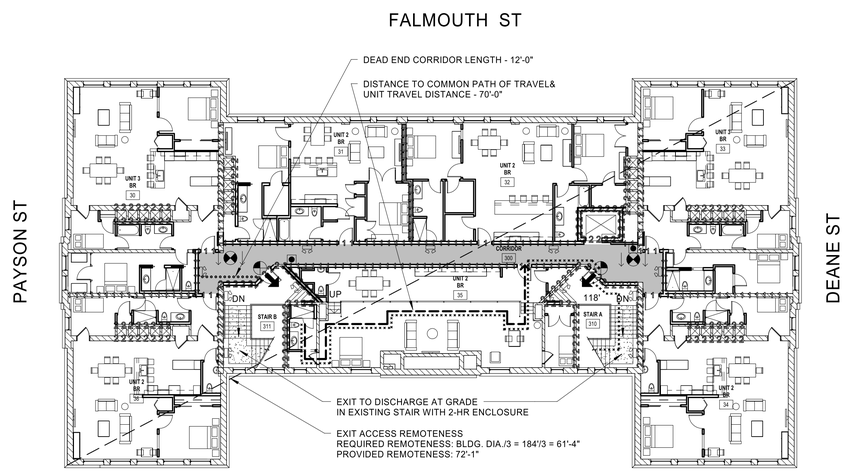
ACCESSIBILITY STANDARDS

AS1.1

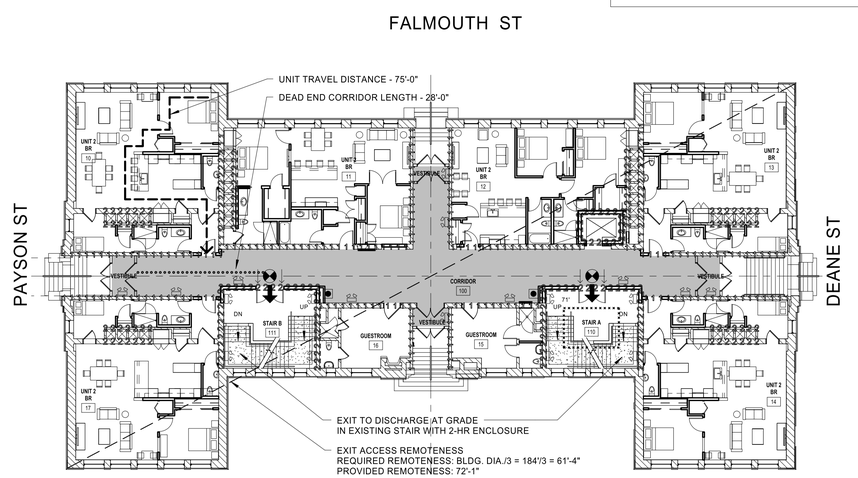
LIFE SAFETY LEGEND

- EXIT ACCESS REMOTENESS
- 1 HR PARTITION
- 2 HR PARTITION
- EXIT ENTRANCE OR DISCHARGE
- DISTANCE TO COMMON PATH OF TRAVEL
- UNIT TRAVEL DISTANCE
- DEAD END CORRIDOR DISTANCE
- TRAVEL DISTANCE FROM MOST REMOTE POINT TO EXIT DISCHARGE = 234'-6"
- EXIT LIGHT, SEE ELEC
- EXIT LIGHT DISPLAY SURFACE
- EXIT LIGHT INDICATOR DIRECTION
- EMERGENCY LIGHTING, SEE ELEC

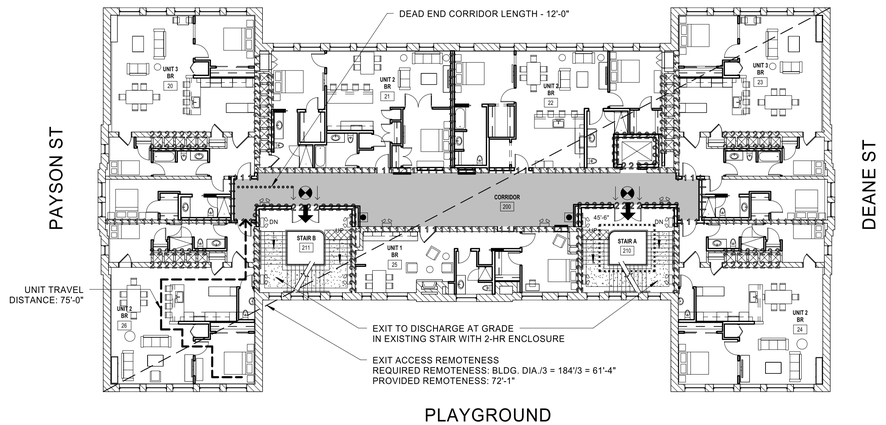
SEE ELECTRICAL DRAWINGS FOR
FIRE ALARM & SMOKE DETECTOR LOCATIONS



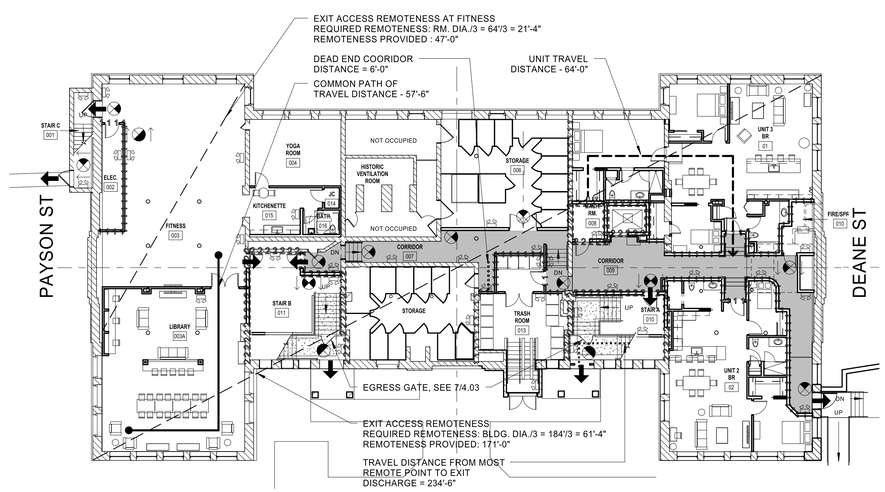
4 THIRD FLOOR - LIFE SAFETY PLAN
1/16" = 1'-0"



1 FIRST FLOOR - LIFE SAFETY PLAN
1/16" = 1'-0"



3 SECOND FLOOR - LIFE SAFETY PLAN
1/16" = 1'-0"



2 LOWER LEVEL - LIFE SAFETY PLAN
1/16" = 1'-0"

Reviewed for Code Compliance
Inspections Division
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Date: 03/12/14

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
Developers Collaborative
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD DEERING HIGH SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

Date: 15 JAN 2014

LIFE SAFETY PLANS

LS1.1

UNIT MATRIX

UNIT	1BR/1BA	2BR/1BA	2BR/2BA	3BR/2BA	GUEST ROOM	TOTAL	UNIT AREA	GROSS SF PER FLOOR	NOTES
LL									
01	-	-	-	1	-		1,473 SF		
02	1	-	-	-	-		1,009 SF		
TOTAL	**1**	**-**	**-**	**1**	**-**	**2**	**2,482 SF**	**11,508 SF**	
1st FL									
10	-	1	-	-	-		1,131 SF		
11	-	-	1	-	-		1,027 SF		
12	-	-	1	-	-		948 SF		
13	-	1	-	-	-		1,108 SF		
14	-	1	-	-	-		1,108 SF		
15	-	-	-	-	1		249 SF		NOT INCLUDED IN AREA OR COUNT TOTALS
16	-	-	-	-	1		253 SF		NOT INCLUDED IN AREA OR COUNT TOTALS
17	-	1	-	-	-		1,152 SF		
TOTAL	**-**	**4**	**2**	**-**	**-**	**6**	**6,976 SF**	**11,428 SF**	
2nd FL									
20	-	-	-	1	-		1,388 SF		
21	-	-	1	-	-		1,072 SF		
22	-	-	1	-	-		1,130 SF		
23	-	-	-	1	-		1,382 SF		
24	-	1	-	-	-		1,119 SF		
25	1	-	-	-	-		642 SF		
26	-	1	-	-	-		1,121 SF		
TOTAL	**1**	**2**	**2**	**2**	**-**	**7**	**7,854 SF**	**11,428 SF**	
3rd FL									
30	-	-	-	1	-		1,424 SF		
31	-	-	1	-	-		1,046 SF		
32	-	-	1	-	-		1,222 SF		
33	-	-	-	1	-		1,423 SF		
34	-	1	-	-	-		1,150 SF		
35	1	-	-	-	-		1,288 SF		
36	-	1	-	-	-		1,152 SF		
	1	2	2	2	-	**7**	**8,705 SF**	**11,428 SF**	
GRAND TOTALS	3	8	7	3	1	**22**	**26,017 SF**	**45,792 SF**	

NEW WORK NOTES

1. THE DRAWINGS WHICH COMPRISE THIS SET OF CONSTRUCTION DOCUMENTS ARE ADDRESSED TO THE GENERAL CONTRACTOR AND ARE CONSIDERED TO BE A SINGLE DOCUMENT. INFORMATION INCLUDED ON ONE SHEET SHALL BE AS BINDING AS IF INCLUDED ON ALL, REGARDLESS OF TRADE ASSIGNMENTS. WHERE A CONFLICT OCCURS WITHIN THESE CONSTRUCTION DOCUMENTS, THE MORE EXPENSIVE OR TIME CONSUMING REQUIREMENT SHALL GOVERN. ANY DOUBT AS TO WHETHER ANY WORK IS WITHIN THE SCOPE OF THE CONTRACT SHALL BE RESOLVED IN FAVOR OF AN INTERPRETATION THAT THE WORK IS WITHIN THE SCOPE OF THE CONTRACT. IMMEDIATELY UPON DISCOVERY, NOTIFY THE ARCHITECT OF DOCUMENT CONFLICTS IN WRITING.
2. UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN, MATERIALS, EQUIPMENT, PRODUCTS, AND SYSTEMS FOR THIS PROJECT IN STRICT ACCORDANCE WITH THE MANUFACTURERS' LATEST PUBLISHED SPECIFICATIONS / RECOMMENDATIONS.
3. WHERE A DIMENSIONS IS SPECIFICALLY NOTED WITH A +/- DESIGNATION, THE DIMENSION IS TO BE CONTROLLED BY FIELD VERIFIED CONDITIONS. NOTIFY THE ARCHITECT IMMEDIATELY UPON CONFIRMATION OF THE ACTUAL DIMENSION. NO REFERENCE OR DESIGNATION WITHIN THESE DOCUMENTS SHALL BE CONSIDERED TO ESTABLISH A CONSTRUCTION TOLERANCE. THE DIMENSIONS ARE PRECISE AS STATED.
4. FIELD MEASURE DISTANCES AND CLEARANCES PRIOR TO COMMENCEMENT OF NEW WORK OR ORDERING OF MATERIALS. DEVIATIONS TO THE CONTRACT DRAWINGS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH THAT PORTION OF WORK. WORK NOT IN COMPLIANCE WITH REQUIREMENTS OF THESE DRAWINGS WHICH IS CONSTRUCTED WITHOUT THE KNOWLEDGE AND APPROVAL OF THE ARCHITECT WILL BE REMOVE AT THE ARCHITECT'S DISCRETION AND THE CONTRACTOR'S EXPENSE. DO NOT SCALE OFF THE DRAWINGS.
5. THE OWNER SHALL SECURE AND PAY FOR THE BUILDING PERMIT. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL OTHER PERMITS, FEES, LICENSES AND INSPECTIONS NECESSARY FOR THE COMPLETION OF WORK ASSOCIATED WITH THE PROJECT.
6. NOT USED
7. USE THE EXISTING BUILDING IN A MANNER WHICH WILL NOT DEFACE OR DAMAGE THE EXISTING FACILITIES IN ANY FASHION. SEE DIVISION 1 FOR ADDITIONAL RULES AND REGULATIONS. DAMAGE BY THE CONTRACTOR SHALL BE REPAIRED / REPLACED BY THE CONTRACTOR AS A COMPONENT OF THE CONTRACT. PROVIDE PROTECTIVE MATERIAL AS WARRANTED.
8. NOT USED
9. USE ONLY THOSE ENTRANCES AND PARKING SPACES AS APPROVED BY LOCAL MUNICIPALITIES AND BY THE OWNER. MATERIAL DELIVERIES AND DEMOLITION/ TRASH SHALL BE TRANSPORTED DURING HOURS AND VIA ROUTES PRESENTED BY G.C., REVIEWED BY AND APPROVED BY THE OWNER/ARCHITECT. PROVIDE COMPREHENSIVE TRAFFIC MANAGEMENT PLAN FOR REVIEW AND THE LOCAL MUNICIPALITY/AHJ, PRIOR TO MOBILIZATION.
10. DO NOT ALTER, LOAD OR PENETRATE THE EXISTING STRUCTURE IN A MANNER WHICH MIGHT COMPROMISE ITS INTEGRITY. G.C. HAS FULL RESPONSIBILITY FOR STRUCTURAL ANALYSIS OF ALL CONSTRUCTION LOADS AND PROPOSED PENETRATIONS.
11. CONTRACTORS SHALL UTILIZE TEMPORARY RESTROOM FACILITIES PROVIDED BY THE G.C. OR GENERAL CONTRACTOR AND SHALL NOT UTILIZE EXISTING OR PROPOSED FACILITIES WITHIN OR ADJACENT TO THE PROJECT.
12. PATCH AND REPAIR PARTITIONS, FLOOR OR CEILINGS WHERE EXISTING FINISHES HAVE BEEN DISTURBED OR INTERRUPTED DUE TO REMOVAL OF EXISTING CONTIGUOUS PARTITIONS, DOORS, WINDOWS, CASEWORK OR MECHANICAL, ELECTRICAL, OR PLUMBING FIXTURE OR DEVICE, TO PROVIDE A SMOOTH MONOLITHIC FINISH TO MATCH ADJACENT SURFACES. COORDINATE WITH ELECTRICAL, PLUMBING AND MECHANICAL DRAWINGS.
13. WHERE REFERENCE IS MADE TO "BUILDING SYSTEMS", THIS SHALL INCLUDE MECHANICAL, ELECTRICAL, PLUMBING, HVAC, FIRE PROTECTION, TELEPHONE, SECURITY, TELECOM, AND FIRE ALARM / LIFE SAFETY COMPONENTS.
14. COORDINATE, DOCUMENT, SUBMIT AND OBTAIN REVIEW AND APPROVAL OF BUILDING SYSTEMS VIA COORDINATION DRAWINGS TO BE PROVIDED IN SCALABLE HARDLINE DRAWINGS BOTH PDF AND DIGITAL, PRIOR TO THE MANUFACTURE OF COMPONENTS.
15. COORDINATE MOUNTING / INSTALLATION OF LIGHTING FIXTURES, MECHANICAL DIFFUSERS, SPRINKLER HEADS, OTHER DEVICES AND CEILING HUNG OR MOUNTED FENESTRATION WITH TYPE OF CEILINGS TO BE PROVIDED. NOTIFY THE ARCHITECT OF OBSTRUCTIONS OF SPRINKLER HEADS OR LINE OF SIGHT TO EXIT SIGN PRIOR TO CONFLICT. PROVIDE HANGERS, SUPPORTS, SEISMIC STRUTS AND CLIPS, CUTOUTS, TRIM RINGS, AND EDGE TRIM AS REQUIRED FOR A COMPLETE INSTALLATION.
16. CONTRACTOR SHALL PROVIDE ALL MATERIAL AND LABOR REQUIRED TO PRODUCE A COMPLETE FINISHED PROJECT. FAILURE TO INCLUDE ITEMS INDICATED TO BE PROVIDED, THOUGH NOT DETAILED, SHALL NOT CONSTITUTE THE BASIS FOR A CHANGE ORDER.
17. CONSTRUCT ALL PENETRATIONS THROUGH THE EXISTING FLOOR/ROOF SLABS AND THROUGH NEW/EXISTING FIRE RATED PARTITIONS SHALL BE FIRESTOPPED PER U.L. LISTED DETAILS COMPLYING WITH APPLICABLE CODES AND LOCAL FIRE MARSHAL (AHJ) REQUIREMENTS. G.C. SHALL SELECT, PROVIDE AND INSTALL SUCH FIRE STOPPING SYSTEMS / DETAILS AND SHALL BE RESPONSIBLE FOR SOLICITING AND OBTAINING THE NECESSARY APPROVAL(S) FOR THE AHJ (AUTHORITY HAVING JURISDICTION).
18. WHERE DISSIMILAR METALS WOULD COME IN CONTACT WITH ONE ANOTHER, G.C. SHALL UTILIZE NEOPRENE GASKETS AND/OR WASHERS AS APPROPRIATE TO PREVENT GALVANIC CORROSION OF THE METALS OR FASTENERS . SUCH DISSIMILAR METALS INCLUDE BUT ARE NOT LIMITED TO COATED COPPER, STEEL, GALVANIZED STEEL, AND ALUMINUM. AT SUCH CONNECTIONS REQUIRING FASTENERS, STAINLESS STEEL FASTENERS WITH NEOPRENE WASHERS TO ISOLATE THE METALS SHALL BE USED, U.N.O.
19. DIMENSIONS INCLUDED ARE TO FACE OF STUD OR CENTER OF COLUMN, UNLESS NOTED OTHERWISE. IN BATHROOMS, AND DOORS AND STAIRS, CLEAR DIMENSIONS ARE PROVIDED FOR FACE OF FINISH FOR UNOBSTRUCTED CLEARANCE.
20. DOOR JAMBS ARE TO BE TYPICALLY LOCATED 6" FROM ADJACENT WALL, OR CENTERED IN SPACE PROVIDED UNLESS NOTED OTHERWISE. SEE ACCESSIBILITY SHEET OR ADA CODE FOR ADDITIONAL DOOR CLEARANCES AND APPROACHES.
21. TOILETS ARE TO BE 18" FROM THE CENTER OF THE FIXTURE TO THE WALL FINISH FACE.
22. ALL EXISTING WINDOWS ARE TO BE PROTECTED DURING CONSTRUCTION AND SHALL BE CLEANED AS PART OF FINAL CLEANING BY THE G.C.
23. ALL HOLES IN EXISTING SLAB CREATED IN DEMOLITION WORK SHALL BE FILLED WITH CONCRETE TO PROVIDE A SMOOTH MONOLITHIC SURFACE READY TO RECEIVE NEW FINISHES.
24. NEW COREDRILL PENETRATIONS WILL BE REQUIRED BY THE SCOPE OF THE PROJECT. G.C. IS TO PROVIDE THE QUANTITY, SIZE AND LOCATION OF SUCH CORE DRILL HOLES AS WILL BE REQUIRED TO COMPLETE THE FULL SCOPE OF THIS PROJECT.
25. G.C. SHALL NEATLY BOX AND STORE ALL ATTIC STOCK MATERIALS IN A LOCATION TO BE PROVIDED BY THE OWNER. PRIOR TO CLOSEOUT, G.C. IS TO PROVIDE CLIMATE CONTROLLED STORAGE FOR MATERIALS UNTIL THE TIME OF DELIVERY.
26. EXISTING STAIRS - REPAIR ALL RAILINGS AND BALUSTERS. RE-ATTACH WITH NEW HARDWARE IN KIND WHERE EXISTING IS LOOSE OR FAILING. REPLACE ALL PARTS WHERE MISSING.
27. REPLACE EXISTING GLASS IN KIND IN ALL WINDOWS TO BE RECONDITIONED
28. VERIFY DIMENSIONS OF ALL WINDOWS TO BE REPLACED PRIOR TO MANUFACTURE.
29. PROVIDE CURTAIN & ROD AT ALL TUB/SHOWERS.

PARTITION NOTES

1. FIRE AND SOUND RATED ASSEMBLIES SHALL RUN CONTINUOUS AROUND ROOMS INDICATED AND SHALL TAKE PRECEDENCE OVER ADJACENT AND/OR PERPENDICULAR WALLS. RATED WALL ASSEMBLIES SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF THE U.L., GYPSUM ASSOCIATION, OR OTHER LISTED ASSEMBLY.
2. THE CONTRACTOR SHALL BEAR THE RESPONSIBILITY OF ALIGNING THE FACE OF GYPSUM BOARD AND/OR GYPSUM SHEATHING WHERE THE WALL THICKNESS VARIES DUE TO DIFFERENT PARTITION TYPES OR EXISTING CONDITIONS. TRANSITIONS OF THE OPPOSITE SIDE OF THESE WALLS SHALL BE HIDDEN AT INTERSECTION OF OTHER PARTITIONS OR AT CORNERS SUCH THAT NO IRREGULARITY EXISTS IN THE SURFACE OF THE WALL.
3. NOT USED
4. ALL FIRE AND/OR SMOKE BARRIER WALLS SHALL BE SEALED SMOKE-TIGHT (VIA PLASTER/FIRE-STOP SEALANT OVER CONT. BACKING ROD) AT THE ENTIRE PERIMETER (FLOOR, ROOF/DECK, WALLS). PROVIDE MINERAL WOOL INSULATION IN INTERSTITIAL SPACES BEHIND SEALANT AND BACKING ROD, INCLUDING FLOOR AND ROOF DECK FLUTES ABOVE METAL WALL CHANNELS AT TOP OF WALL.
5. ALL FIRE AND OR SMOKE BARRIER WALLS SHALL BE CONSTRUCTED CONT. THROUGH BUILDING SOFFITS, OVERHANGS AND ANY MISCELLANEOUS INTERSTITIAL SPACES (INCLUDING OTHER PARTITIONS). PROVIDE SEALING OF UTILITY PENETRATIONS OF SMOKE BARRIER WALLS.
6. NOT USED
7. NO GYPSUM BOARD SHALL EXCEED 16" WITHOUT FRAMING SUPPORT. ADDITIONAL SUPPORT WILL BE NECESSARY AT ALL OPENINGS AND FLOOR AND CEILING JOINTS.
8. ALL GYPSUM WALL BOARD SHALL BE INSTALLED VERTICALLY IN SINGULAR CONTINUOUS PIECES WITH NO BUTTED END JOINTS.
9. PARTITION DESIGNATION TAG SHALL ALWAYS TAKE PRECEDENCE OVER GRAPHIC REPRESENTATIONS.
10. UNLESS NOTED OTHERWISE, PARTITION DESIGNATION TAGS REPRESENT THE ENTIRE LENGTH OF PARTITION, REGARDLESS OF DIRECTION CHANGE, ON WHICH IT IS LOCATED.
11. ALL PARTITIONS SHALL BE CONSTRUCTED PER THE GUIDELINES IN THE ACOUSTICAL CONSTRUCTION NOTES.
12. METAL STUD CONTRACTOR SHALL BE, OR SHALL CONSULT WITH, A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF MAINE. METAL STUD CONTRACTOR SHALL BEAR THE RESPONSIBILITY TO ENGINEER STUD GAUGES AND ATTACHMENT METHODS NECESSARY TO PROVIDE THE FRAMING IN THE CONFIGURATIONS INDICATED. MINIMUM STUD GAUGE IS 22GA. HOWEVER, ALL STUD GAUGES SHALL BE DETERMINED BY THE METAL STUD CONTRACTOR AND SHALL BE APPROPRIATE FOR THE APPLICATION. SUBMIT SIGNED AND SEALED (BY A PE IN THE STATE OF MAINE) FRAMING SHOP DRAWINGS FOR REVIEW FOR ALL LOAD BEARING METAL STUD CONSTRUCTIONS PRIOR TO PURCHASE AND MANUFACTURE.
13. SALVAGE, CLEAN AND RESTORE ALL EXISTING WALL REGISTERS. PROVIDE RECESSED INFILL AT ABANDONED MECHANICAL OPENING SUCH THAT WALL RATINGS ARE ACHIEVED AND THE REGISTER MAY BE RE-INSTALLED IN PLACE FLUSH WITH ORIGINAL LOCATION.

CEILING NOTES

1. CONTRACTOR TO COORDINATE MOUNTING FLANGES OF ALL FIXTURES WITH CEILING TYPE TO RECEIVE FIXTURES.
2. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL MPE WORK WITH HEIGHT AND TYPE OF CEILING FINISHES.
3. PROPOSED CEILING HEIGHTS INDICATED SHALL BE ACHIEVED. CONTRACTOR TO BEAR RESPONSIBILITY TO ADJUST AS NECESSARY TO ACCOMMODATE PROPOSED CEILING HEIGHTS AND PLAN LOCATIONS WHICH DIFFER FROM EXISTING CONDITIONS. SUBMIT CONTRACTOR PREPARED SHOP DRAWINGS TO AHJ FOR APPROVAL PRIOR TO PERFORMING WORK.
4. REFER TO FINISH PLANS FOR CEILING FINISH DESIGNATIONS.
5. COORDINATE WITH MECH., ELEC., PLUMB., INTERIOR DESIGN, FOR SPECIFIC ACCESS PANEL LOCATIONS. NOT ALL ACCESS PANEL LOCATIONS ARE SHOWN ON PLANS.

EXISTING STAIR & ENTRY NOTES

1. WALLS: SAND AND REMOVE DAMAGED PLASTER. PARGE AND REPAIR SURFACE AS NECESSARY TO RECEIVE NEW FINISHES. PRIME AND PAINT AS NOTED IN FINISH SCHEDULE.
2. HISTORIC TRIM - SALVAGE EXISTING WOOD TRIM FOR REINSTALLATION. REFINISH SALVAGED TRIM FOR REINSTALLATION. PROVIDE NEW TRIM MOUNTED AT THE SAME ELEVATION AND IN THE SAME MANNER (IN KIND AND PROFILE) AS NECESSARY TO INCORPORATE NEW WORK.
3. NON-HISTORIC CEILINGS AND UNDERSIDE OF STAIRS: SAND, PRIME, AND PAINT AS NOTED IN FINISH SCHEDULE.
4. WALL MOUNTED HARDWARE AND HANDRAILS: REMOVE AND SALVAGE WALL MOUNTED HANDRAILS AND HARDWARE FOR REFINISH AND REINSTALLATION. PRIME AND REPAINT OR REFINISH AS NOTED IN FINISH SCHEDULE. REINSTALL AT ORIGINAL LOCATION (PRIOR TO WORK).
5. CENTER BALUSTRADE, STRINGERS AND MISCELLANEOUS WOOD PROFILES/METALS TO REMAIN; SAND AND PREPARE FOR REFINISH. PRIME AND REPAINT OR REFINISH AS NOTED IN FINISH SCHEDULE.

WINDOW NOTES

1. SEE SHEET 8.02 FOR GENERAL WINDOW NOTES

DEMOLITION NOTES

1. EXISTING & DEMOLITION PLANS ARE PROVIDED AS ASSISTANCE TO G.C. BIDDING EFFORTS AND AS A GENERAL GUIDE TO DEMOLITION WORK. DEMOLITION PLANS ARE NOT MEANT TO CONTAIN A COMPLETE DESCRIPTION OF ALL MATERIAL TO BE REMOVED. PRIOR TO BIDDING THE G.C. MUST PERFORM AN INDEPENDENT SITE VISIT (TO BE COMPLETED BY G.C.) IN ORDER TO FIELD SURVEY AND THOROUGHLY FAMILIARIZE THEMSELVES WITH THE PROJECT AND DEMOLITION EFFORTS REQUIRED BY THE SCOPE AND EXTENTS OF THE NEW WORK INDICATED. CHANGE ORDERS FOR DEMOLITION WORK (WHETHER SHOWN OR NOT) SHALL NOT BE APPROVED WHERE DEMOLITION IS REQUIRED AS A FUNCTION OF WORK.
2. PATCH AND REPAIR PARTITIONS, FLOORS AND CEILINGS WHERE EXISTING FINISHES HAVE BEEN DISTURBED OR INTERRUPTED DUE TO THE REMOVAL OF EXISTING CONTIGUOUS PARTITIONS, DOORS, WINDOWS, CASEWORK, OR STRUCTURAL, MECHANICAL, ELECTRICAL, OR PLUMBING FIXTURE, ELEMENT, OR DEVICE, TO PROVIDE A SMOOTH MONOLITHIC FINISH TO MATCH ADJACENT SURFACE. COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
3. G.C. SHALL PREPARE AND SUBMIT A CONSTRUCTION PROTECTION PLAN OUTLINING VARIOUS METHODS OF PROTECTING BOTH EXISTING AND NEW CONSTRUCTION FROM THE ACTIVITIES OF CONSTRUCTION. CONSTRUCTION PROTECTION PLANS ARE TO ACCOMPANY PROJECT SCHEDULES AND ARE TO BE UPDATED AS THE PROJECT DEVELOPS. CONSTRUCTION PROTECTION PLANS ARE TO INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: DIVISION 1 REQUIREMENTS, DUST CONTROL, NOISE CONTROL, STAGING, PROTECTION OF HISTORIC CONSTRUCTION (PLASTER & WINDOWS), TEMPORARY MOISTURE ENCLOSURES/PROTECTION, AND PROTECTION OF NEW WORK (MILLWORK, FLOORING, CEILINGS, AND DOORWAYS). PLANS ARE TO BE DISTRIBUTED AS REVISIONS OCCUR TO ALL TRADES FOR COORDINATION.
4. EXISTING CONSTRUCTION TO REMAIN SHALL BE PROTECTED FROM DAMAGE FOR THE DURATION OF CONSTRUCTION. G.C. SHALL REPAIR/REPLACE EXISTING CONSTRUCTION WHICH IS DAMAGED DURING THE COURSE OF CONSTRUCTION, AS A COMPONENT OF THE BASE CONTRACT.
5. THE OWNER HAS THE RIGHT OF FIRST REFUSAL ON ALL SALVAGED ITEMS.
6. "READY TO RECEIVE NEW FINISHES" SHALL REFER TO SURFACES WHICH ARE FREE OF DEFECTS, SMOOTH, AND FLAT ALSO AS STATED IN MANUFACTURER SUBSTRATE REQUIREMENTS AS LISTED IN MANUFACTURER'S LATEST PUBLISHED PRODUCT LITERATURE. AS A COMPONENT OF THE BASE BID, THE CONTRACTOR IS TO SCRAPE AND/OR LEVEL/INFILL SLABS AND SURFACES WITH SELF-LEVELING UNDERLAYMENT, GROUT AND SAND / SKIM-COAT GYPSUM BD WALLS AS REQ'D TO PRODUCE THIS RESULT.
7. DO NOT PERFORM DEMOLITION WORK BEYOND THE SCOPE REQUIRED BY NEW WORK. G.C. SHALL COORDINATE SUCH EFFORTS PRIOR TO THE START OF CONSTRUCTION AND MAINTAIN ACTIVE COORDINATION OF DEMOLITION AND NEW WORK DURING CONSTRUCTION.
8. DEMOLISH AND REMOVE INTERIOR PARTITIONS AS INDICATED (TYPICALLY WITH DASHED LINES) IN PLANS AS NOTED IN DEMOLITION LEGENDS AND/OR IN THE PREPARATION OF NEW WORK.
9. REFERENCE STRUCTURAL, INTERIOR DESIGN, LIGHTING DESIGN, ELECTRICAL, PLUMBING, AND MECHANICAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
10. SEE DEMOLITION LEGEND FOR STANDARD INDICATIONS.
11. ALL EXISTING, NON-HISTORIC, WALL/CEILING MOUNTED EQUIPMENT THAT IS ABANDONED AND/OR NOT PART OF NEW WORK SHALL BE REMOVED.
12. G.C. TO SURVEY THE WORK PRIOR TO DEMOLITION ACTIVITY AND PERFORM CORRECTIVE MEASURES AS NECESSARY TO ENSURE INTEGRITY OF FIRE PROTECTION ENCLOSURES AND SYSTEMS TO REMAIN. ALL CORRECTIVE MEASURES TAKEN TO THIS EFFECT ARE TO BE CONSIDERED PART OF THE BASE CONTRACT.
13. CORE DRILL AND REMOVE DEBRIS TO FACILITATE INSTALLATION OF NEW WORK. ADJUST LOCATIONS AS REQUIRED TO AVOID HITTING AND/OR CUTTING SLAB REINFORCING. COORDINATE EXTENTS WITH ARCH., MECH., ELEC., PLUMB. DRAWINGS.
14. REMOVE ALL MASTICS, ADHESIVES AND GROUTS FROM ALL SUBSTRATES FOLLOWING REMOVAL OF EXISTING FINISHES. CLEAN SUBSTRATE FIRST BY MANUFACTURER RECOMMENDED MEANS OR AS NECESSARY TO PROVIDE SMOOTH, FLAT SURFACE READY TO RECEIVE NEW FINISHES. COORDINATE LOCATIONS WITH FINISH PLAN.
15. SALVAGE ALL WOOD TRIM FOR RE-USE. ALL MATERIAL MUST BE CATALOGUED AND STORED IN PROTECTED AREAS.
16. REMOVE ALL NON-TRIM MATERIALS FROM EXISTING WALLS TO REMAIN. REMOVE ALL MASTICS AND ADHESIVES FROM SURFACES TO REMAIN TO PROVIDE SMOOTH, FLAT SURFACE READY TO RECEIVE NEW FINISH.
17. G.C. TO REMOVE ALL EXISTING AND ABANDONED MECHANICAL, PLUMBING, AND ELECTRICAL, U.N.O. SEE PLANS FOR ELEMENTS TO REMAIN.
18. REMOVE EXISTING DOORS AND FRAMES AS INDICATED IN PLANS. ALL DOORS AND FRAMES ARE SUBJECT TO SALVAGE AND THUS, PROPER CARE MUST BE TAKEN IN THEIR REMOVAL.
19. SEE WINDOW SHEET FOR WINDOW REPLACEMENT AND/OR REHABILITATION.
20. ANY NECESSARY SHORING IS THE RESPONSIBILITY OF THE G.C. OR DESIGNATED SUBCONTRACTOR. ASSUMED BEARING LOCATIONS THROUGHOUT THE BUILDING ARE TO BE VERIFIED PRIOR TO ANY DEMOLITION OF MAJOR BUILDING COMPONENTS AND FINDINGS COMMUNICATED TO THE ARCHITECT AND ENGINEER.
21. AT ALL NEW MASONRY OPENINGS & AT NEW DOORS ETC.; MASONRY SHALL RETURN INTO OPENINGS, BE TOOTHED-IN WITH LIKE MATERIAL AND FINISHED TO PROVIDE CLEAN MASONRY OPENING FOR NEW WORK.
22. G.C. TO COORDINATE ALL REQUIRED CUTTING OF EXISTING STRUCTURE FOR MECHANICAL EQUIPMENT WITH MEP CONTRACTOR.
23. REMOVE ALL MASONITE CHALKBOARD SURFACES THROUGHOUT. ORIGINAL SLATE CHALKBOARDS TO REMAIN IN AREAS AS INDICATED ON DEMO & NEW WORK PLANS.

ACOUSTICAL NOTES

1. ELECTRICAL AND SERVICE OUTLETS FOR ADJACENT DWELLING UNITS ARE TO BE POSITIONED A MINIMUM OF 2 FEET APART AND IN SEPARATE STUD CAVITIES.
2. PARTITIONS ARE TO BE BUILT FULL HEIGHT FROM BUILDING FLOOR TO BUILDING STRUCTURE ABOVE; UNLESS OTHERWISE DETAILED IN SPECIFIC PARTITION TYPE.
3. PROVIDE CONTINUOUS ACOUSTICAL (NON-HARDENING) CAULKING BEADS ON EACH SIDE OF THE BOTTOM STUD RUNNER AT THE THREE WAY INTERSECTION BETWEEN THE RUNNER, FLOOR AND DRYWALL.
4. PROVIDE ACOUSTICAL CAULKING TO CLOSE GAPS BETWEEN SERVICE OUTLETS (ELECTRICAL, TELEPHONE, DATA, ETC.) AND DRYWALL. PROVIDE ACOUSTICAL SEALANT AT THE CONNECTION TO STRUCTURE ABOVE.
5. MULTIPLE LAYERS OF DRYWALL ARE TO BE APPLIED WITH STAGGERED JOINTS, U.N.O.
6. PARTITIONS SHALL BE CUT AND SEALED AROUND ALL STRUCTURAL ELEMENTS WITH ACOUSTICAL SEALANT.
7. ALL PENETRATIONS LESS THAN 1'-6" WIDE ARE TO BE BETWEEN FULL HEIGHT STUDS, OTHERWISE STUDS ARE TO BE FULLY FRAMED AROUND PENETRATION MAINTAINING A NOMINAL 1" GAP AROUND THE PENETRATING ELEMENT.
8. ALL GAPS AROUND PENETRATIONS (PIPES, DUCTS, CONDUITS, ETC.) SHALL BE SEALED AS FOLLOWS. NOTE THAT ANY FIRE RATED ASSEMBLY CONSTRUCTION REQUIREMENTS SHALL TAKE PRECEDENCE OVER ACOUSTIC CONSIDERATIONS. -1" OR LESS GAP FILLED TIGHTLY WITH MINERAL WOOL INSULATION AND/OR FIRE SAFING. –GAPS LARGER THAN 1" FILLED WITH HEAVY-DENSITY PUTTY SUCH AS NELSON FSP, CLK SEALANT, J.M. CLIPPER "DUXSEAL", 3M "MOLDABLE PUTTY".
9. JUNCTION BOXES IN FIRE RATED PARTITIONS ARE TO BE WRAPPED WITH "PUTTY PACKS".
10. PROVIDE AND INSTALL ALL DETAILS AND MATERIALS AS REQUIRED BY DRYWALL MANUFACTURER TO ACHIEVE LABORATORY SOUND TRANSMISSION CLASS (STC) RATINGS INDICATED.

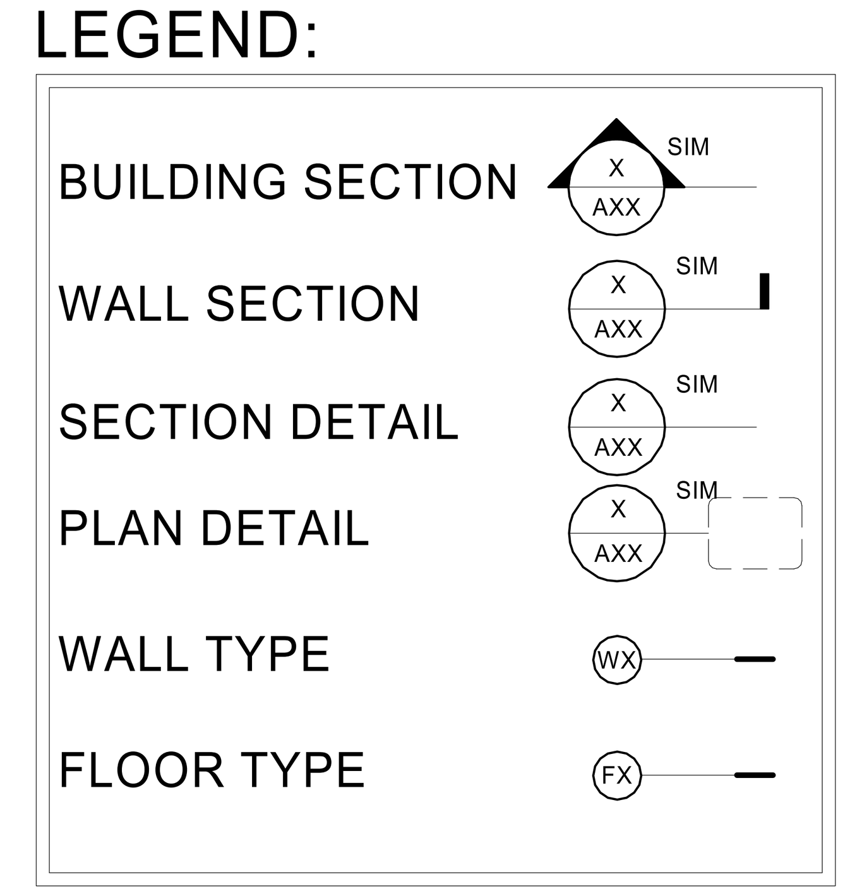
ABBREVIATIONS

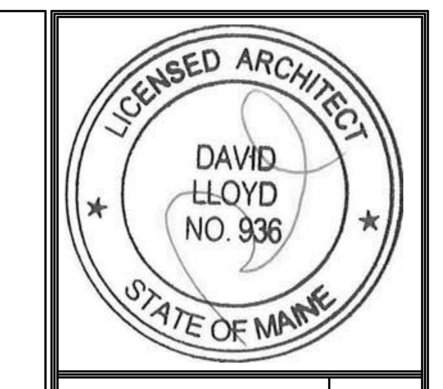
A, AMP	AMPERE
ADJ.	ADJUSTABLE
A.F.F.	ABOVE FINISHED FLOOR
AIC	SYMMETRICAL AMPERE INTERRUPTING RATING
ALUM.	ALUMINUM
ANOD.	ANODIZED
B.C.	BRICK COURSE
B/O	BOTTOM OF
BRKR	CIRCUIT BREAKER
C	CONDUIT
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CTR	CONTROL
CJ	CONTROL JOINT
CLG.	CEILING
CH.	COAT HOOK
CO	CASED OPENING
COMM.	COMMUNICATION
CONC.	CONCRETE
CORR.	CORRIDOR
CONT.	CONTINUOUS
CP.	CENTER POINT
DBL.	DOUBLE
DJ.	DESIGN JOINT
DWGS	DRAWINGS
EJ.	EXPANSION JOINT
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EQ.	EQUAL
E.T.R	EXISTING TO REMAIN
EXIST.	EXISTING
(E)	EXISTING
EC.	EMPTY CONDUIT
ENCL.	ENCLOSURE
FC	FOOTCANDLE
FIN.	FINISH
FLR.	FLOOR
F R	FIRE RETARDANT
F. R.T.	FIRE RETARDANT TREATED
GL	GLASS
G.B.	GRAB BAR
GR.	GROMMET
GYP.BD.	GYPSUM BOARD
GFCI	GROUND FAULT CIRCUIT INTERRUPTER (5 MILLIAMP SENSITIVITY)
GND	GROUND

HT.	HEIGHT
H.C.	HANDICAP
HM	HOLLOW METAL
HP	HORSE POWER
HT	HEATER
INSUL	INSULATION
KS	KNEE SPACE
KAIC	1000 AIC
KVA	KILOVOLT-AMPERES
KW	KILOWATTS
LTS	LIGHTS
MACH	MACHINE
MAX.	MAXIMUM
MCB	MAIN CIRCUIT BARKER
MECH.	MECHANICAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENINGS
MR	MIRROR
MTD	MOUNTED
MTL	METAL
NO.	NUMBER
NEC.	NATIONAL ELECTRICAL CODE
NOM.	NOMINAL
O.H.	OPPOSITE HAND
OHE.	OVERHEAD ELECTRICAL
O.C.	ON CENTER
OF./CI.	OWNER FURNISHED/ CONTRACTOR INSTALLED
OF./OI.	OWNER FURNISHED /OWNER INSTALLED
PART.	PARTITION
PART. BD.	PARTICLE BOARD
PD.	PENCIL DRAWER
PLAM.	PLASTIC LAMINATE
PL. LAM.	PLASTIC LAMINATE
PLASLAM	PLASTIC LAMINATE
PLYWD.	PLYWOOD
P.T.D.	PAPER TOWEL DISPENSER
PTD.	PAINTED
P.	POLE OR PHASE
PL	PLATE
PNL, PANEL	CIRCUIT BREAKER PANELBOARD
PRI	PRIMARY VOLUME
PWR	POWER

RD.	ROOF DRAIN
REQD.	REQUIRED
REV.	REVERSED
RM.	ROOM
RCP	REACTOR CONTROL PANEL
RECEPT	RECEPTACLE
SCWD	SOLID CORE WOOD
SD.	SOAP DISPENSER
SIM.	SIMILAR
S.S.	SOLID SURFACE
SST	STAINLESS STEEL
STDS.	STANDARDS
STL.	STEEL
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED
SEC.	SECONDARY VOLTAGE (600 VOLTS OR LESS)
SVC	SERVICE
SURF	SURFACE
SW	SWITCH
TELE.	TELEPHONE
TEMP. GL.	TEMPERED GLASS
T / O	TOP OF
TS	TYPING STATION
T.W.	TREATED WOOD
TYP.	TYPICAL
T	TRANSFORMER
TEL	TELEPHONE
TRANS.	TRANSFORMER OR TRANSFER
TSTAT	THERMOSTAT
UG, UGE	UNDERGROUND ELECTRICAL
UT, UGT	UNDERGROUND TELEPHONE
U.L.	UNDERWRITERS LABORATORIES
U.N.O.	UNLESS NOTED OTHERWISE
V	VOLTS
VAC.	VOLTS A.C.
VEST.	VESTIBULE
V.I.F.	VERIFY IN FIELD
W	WIDE OR WIRE
W.P.	WORKING POINT
WW	WIREWAY
XP	EXPLOSION PROOF(CLASS 1 DIVISION 1 GROUP D UNLESS NOTED)

LEGEND:





Prepared For:
Developers Collaborative
Developers Collaborative
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE
architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Date: 15 JAN 2014

Scale: As indicated

GENERAL NOTES

GN1.1

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 03/12/14

SITE DEVELOPMENT PLANS

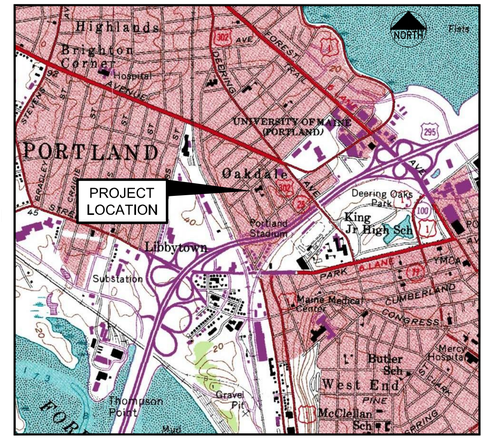
FOR

NATHAN CLIFFORD SCHOOL

PORTLAND, MAINE

DECEMBER 2013

CONSTRUCTION DOCUMENTS



LOCATION MAP
N.T.S.

OWNER **TAX MAP-BLOCK-LOT (ADDRESS)**

(AS OF 12.13.13)
CITY OF PORTLAND
389 CONGRESS STREET
PORTLAND, MAINE 04101

TAX MAP 066A, LOTS A001, A005, A006, A007, A008, A011 AND A012

CURRENT APPLICANT

DEVELOPER'S COLLABORATIVE PREDEVELOPMENT, LLC
17 CHESTNUT STREET
PORTLAND, MAINE 04101

INDEX

UTILITIES

WATER:
PORTLAND WATER DISTRICT
22 DOUGLAS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104
207.761.8310
CONTACT: RICO SPUGNARDI

SEWER / STREETS:
CITY OF PORTLAND
PUBLIC SERVICES DIVISION
55 PORTLAND STREET
PORTLAND, MAINE 04102
207.874.8850
CONTACT: DAVID MARGOLIS-PINEO, DEPUTY CITY ENGINEER

ELECTRIC:
CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103
207.842.2367
CONTACT: JAMIE COUGH/PAUL DUPERRE

TELEPHONE:
FAIRPOINT COMMUNICATIONS
5 DAVIS HILL FARM ROAD
PORTLAND, MAINE 04103
207.797.1119
CONTACT: SUE SERRETTE

NATURAL GAS:
NORTHERN UTILITIES
1075 FOREST AVENUE
PORTLAND, MAINE 04103
207.797.8002, EXT. 6220
CONTACT: MIKE SMITH
OR
BRAD BUZZELL
252.0907 (CELL)

DIG SAFE:
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PERMITS / APPROVALS

TYPE:	GOVERNING BODY:	STATUS/DATE ISSUED:
LOCAL		
SITE PLAN/SUBDIVISION APPROVAL:	CITY OF PORTLAND PLANNING AUTHORITY CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8722 CONTACT: WILLIAM NEEDELMAN	PRELIMINARY SUBMISSION 10.01.13 FINAL SUBMISSION 11.05.13 FINAL APPROVAL 11.26.13
BUILDING PERMIT:	CITY OF PORTLAND CODE ENFORCEMENT OFFICE CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8900	TO BE FILED BY BUILDING CONTRACTOR
CONDITIONAL USE APPROVAL:	CITY OF PORTLAND ZONING BOARD OF APPEALS CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8705 CONTACT: MARGE SCHMUCKAL, ZONING ADMINISTRATOR	APPROVED 11.04.13
HOUSING AND COMMUNITY DEVELOPMENT/CITY COUNCIL LAND SALE AGREEMENT:	CITY OF PORTLAND CITY COUNCIL CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8683 ATTN: GREG MITCHELL	PENDING - TENTATIVE CLOSING AND TRANSFER TO NATHAN CLIFFORD LLC ON 12.19.13
HISTORIC CONSERVATION APPROVAL:	CITY OF PORTLAND; HISTORIC PRESERVATION PROGRAM CITY HALL, CONGRESS STREET - 4TH FLOOR PORTLAND, MAINE 04103 207.874.8726 ATTN: DEB ANDREWS, PROGRAM MANAGER	APPROVAL 11.20.13
UTILITY / STREET OPENING PERMITS:	CITY OF PORTLAND PUBLIC SERVICES DIVISION 55 PORTLAND STREET PORTLAND, ME 04102 ATTN: CAROL MERRITT 207.874.8801	TO BE FILED PRIOR TO CONSTRUCTION

CONSULTANT LIST

CIVIL ENGINEER:
Fay Spofford Thorndike, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, MAINE 04106
207.775.1121
CONTACT: STEPHEN BUSHEY
sbushey@fstinc.com

ARCHITECT:
Archetype Architects
48 UNION WHARF
PORTLAND, MAINE 04101
207.772.6022
ATTN: DAVID LLOYD
www.archetype-architects.com

SURVEYOR:
Owen Haskell, Inc.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE 04105
207.774.0424

ELECTRICAL ENGINEER:
Bartlett Design
942 WASHINGTON STREET
BATH, MAINE 04530
207.443.5447
ATTN: LARRY BARTLETT

LANDSCAPE ARCHITECT:
Anthony Muench, Landscape Architect
94 COMMERCIAL STREET
PORTLAND, MAINE 04101
207.761.6621

ENVIRONMENTAL CONSULTANT:
Ransom Consulting, Inc.
400 COMMERCIAL STREET, SUITE 404
PORTLAND, MAINE 04101
207.772.2891

I HEREBY ACKNOWLEDGE THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MAINE AND THAT I AM COMPETENT TO PREPARE THIS DOCUMENT.

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

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Prepared For:	Project:	Revisions:
DEVELOPERS COLLABORATIVE PREDEVELOPMENT L.L.C.	NATHAN CLIFFORD SCHOOL REDEVELOPMENT	12.20.13 - RELEASED FOR BIDS 11.19.13 - FINAL PLAN SUBMISSION 11.12.13 - FINAL PLAN SUBMISSION 11.05.13 - FINAL PLAN SUBMISSION 10.16.13 - REV. PLAN SUBMISSION 10.01.13 - PRELIMINARY PLAN SUBMISSION TO CITY
17 CHESTNUT STREET PORTLAND, ME 04101	FALMOUTH STREET PORTLAND, MAINE	

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

STATE OF MAINE STEPHEN R. BUSHEY No. 7429 LICENSED PROFESSIONAL ENGINEER

Date: OCT. 2012
Scale: N.T.S.

COVER SHEET

C-1.0

GENERAL NOTES

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF ALL REGULATIONS ADMINISTERED BY THE LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.
2. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCES, EXITS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE POINTS.
3. ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL SERVICE CONNECTIONS.
4. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (1-888-DIGSAFE). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS, AT NO EXTRA EXPENSE TO THE OWNER.
5. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE OWNER AND THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE OWNER.
6. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
7. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO PROJECT CONTRACT SPECIFICATIONS, AND THE CITY OF PORTLAND TECHNICAL STANDARDS, WHICHEVER IS MORE STRINGENT.
8. TOPOGRAPHIC AND BOUNDARY SURVEY INFORMATION WAS PROVIDED BY OWEN HASKELL, INC. BENCHMARK = 3' 0FFSET MONUMENT AT CORNER OF FALMOUTH STREET AND BRIGHTON AVENUE, ELEVATION 54.69 CITY DATUM.
9. FEMA MAP COMMUNITY PANEL NUMBER 2300510013B. THE SITE IS LOCATED IN A C ZONE.
10. THE PROPERTY SHOWN ON THIS PLAN MAY BE DEVELOPED AND USED ONLY AS DEPICTED IN THIS APPROVED PLAN. ALL ELEMENTS AND FEATURES OF THE PLAN AND ALL THE PROPERTY WHICH APPEARS IN THE RECORD OF THE PLANNING BOARD PROCEEDINGS ARE CONDITIONS OF THE APPROVAL. NO CHANGE FROM THE CONDITIONS OF APPROVALS IS PERMITTED UNLESS AN AMENDED PLAN IS FIRST SUBMITTED TO AND APPROVED BY THE PLANNING AUTHORITY.
11. ALL SIGNAGE SHALL CONFORM TO THE STANDARDS FOR SIZE, HEIGHT, LOCATION AND REFLECTIVITY SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
12. ALL CURB SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS AS NOTED ON THE PLANS:
    GRANITE AND BITUMINOUS CONCRETE CURB SHALL MEET THE REQUIREMENTS OF MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS 609.03 AND 609.04 AND CITY OF PORTLAND TECHNICAL STANDARDS.
13. ALL DIMENSIONING UNLESS OTHERWISE NOTED IS TO THE FACE OF CURB OR FACE OF BUILDING.
14. THE FACILITY IS SERVICED BY PUBLIC WATER, SEWER, NATURAL GAS AND OVERHEAD POWER. THE PROJECT INCLUDES UPDATES TO THE POWER SERVICE INCLUDING THE INSTALLATION OF NEW UNDERGROUND SYSTEM. SEE SITE ELECTRICAL PLANS FOR DETAILS.
15. THE CONTRACTOR IS REQUIRED TO NOTIFY THE CITY OF PORTLAND PUBLIC WORKS INSPECTION SERVICES DIVISION (874-8300 EXT. 8838), CODE ENFORCEMENT OFFICE AND DEVELOPMENT REVIEW COORDINATOR IN WRITING THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING MAY BE REQUIRED TO INCLUDE THE PUBLIC WORKS AUTHORITY OR DEVELOPMENT REVIEW COORDINATOR.
16. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.
17. WARNING SIGNS, MARKERS, BARRICADES OR FLAGMEN MUST BE EMPLOYED ON ADJACENT STREETS AS NECESSARY THE CONTRACTOR SHALL COORDINATE AND SEEK APPROVAL FROM THE PUBLIC SERVICE DIVISION FOR THE PLACEMENT/PARKING OF EQUIPMENT WITHIN THE PUBLIC RIGHT OF WAY.
18. CONSTRUCTION DEBRIS SHALL BE CONTAINERIZED AND DISPOSED OF IN ACCORDANCE WITH THE CITY OF PORTLAND'S SOLID WASTE ORDINANCE CHAPTER 12. ALL DEMOLITION MATERIAL FROM THE PROJECT SITES SHALL BE TAKEN TO THE RIVERSIDE RECYCLING FACILITY OR AS OTHERWISE DIRECTED PENDING THE RESULTS OF A HAZARDOUS BUILDING MATERIALS SURVEY AS AUTHORIZED AND COORDINATED BY THE OWNER. ALL SALVAGED MATERIAL WITHIN THE PUBLIC R.O.W.(SIDEWALKS, BRICKS, GRANITE CURB) NOT REUSED SHALL BE DISPOSED OF AS DIRECTED BY THE PORTLAND PUBLIC SERVICES DEPARTMENT AT NO EXTRA COST TO THE OWNER.
19. ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
20. PROPERTY MARKERS AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED AT ALL TIMES DURING CONSTRUCTION TO INSURE INTEGRITY. IF DISTURBED THEY SHALL BE REPLACED BY A SURVEYOR REGISTERED IN THE STATE OF MAINE AT THE CONTRACTOR EXPENSE.
21. THE OWNER SHALL BE RESPONSIBLE TO COORDINATE THE PERFORMANCE OF A HAZARDOUS MATERIALS INSPECTION OF THE PROPERTY.
22. A STREET OPENING PERMIT MUST BE OBTAINED FROM THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT PRIOR TO BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY. ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL BE COMPLETED IN CONFORMANCE TO THE CITY'S RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN PUBLIC RIGHT OF WAYS.
23. CONTRACTOR MUST MAINTAIN THROUGH TRAFFIC ON ADJACENT STREETS AT ALL TIMES.
24. ALL METHODS AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS IDENTIFIED HEREIN SHALL CONFORM TO THE CITY OF PORTLAND CONSTRUCTION AND TECHNICAL STANDARDS AND SPECIFICATIONS AND/OR CURRENT MDOT STANDARDS AND SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.
25. SITE WORK FOR BUILDING SHALL INCLUDE GRADING THE BUILDING PAD AREA (DEFINED AS THE BUILDING FOOTPRINT PLUS 5'-0" BEYOND THE EXTERIOR WALL) TO A GRADE 18" BELOW THE GROUND FLOOR FINISH ELEVATION. ALL WORK SHALL INCLUDE EXCAVATION (INCLUDING ROCK REMOVAL AND EXISTING FOUNDATION DEMOLITION) AND BACKFILL OF ALL FOOTINGS AND FOUNDATIONS, INSTALLATION OF PERIMETER FOUNDATION DRAINS, EXCAVATION AND BACKFILL OF ALL UNDERSLAB UTILITIES AND PLACEMENT OF ALL AGGREGATES BELOW THE FLOOR SLAB AND ADJACENT THE FOUNDATION WALLS IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS. (SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR ADDITIONAL DETAILS PERTAINING TO ANY BUILDING RELATED FOUNDATION WORK).
26. RECORD DRAWINGS REQUIRE ALL BURIED UTILITIES INCLUDING, BUT NOT LIMITED TO, BENDS, APPURTENANCES, AND OTHER FEATURES TO BE LOCATED BY COORDINATE INFORMATION TO BE RECORDED BY THE CONTRACTOR AND SUPPLIED TO THE OWNER AT THE END OF THE PROJECT.
27. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS PREPARED BY ARCHETYPE ARCHITECTS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCES, PAVING, EXIT PORCHES, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE POINTS.
28. ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL SERVICE CONNECTIONS.

PERMITTING NOTES

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF THE SITE PLAN REVIEW PERMIT FROM THE CITY OF PORTLAND WHICH WILL BE MADE A PART OF THE CONTRACT BID DOCUMENTS. THE CONSTRUCTION WILL BE GOVERNED BY THE ZONING ORDINANCES WHICH ARE AVAILABLE FOR VIEWING AT THE OFFICE OF THE ENGINEER OR THE MUNICIPAL OFFICE.

SITE PLANE CONDITIONS OF APPROVAL

i. THAT THE APPLICANT SHALL SUBMIT REVISED PLANS AND SPECIFICATIONS SHOWING THE FOLLOWING FOR REVIEW AND APPROVAL BY THE DEPARTMENT OF PUBLIC SERVICES:
   1. CROSS WALK MARKINGS SHALL BE BLOCK STYLE PER CITY STANDARDS; STATUS: SEE FINAL PLANS.
   2. NEW CONCRETE SIDEWALKS AND ADA RAMPS ALONG THE ENTIRE FALMOUTH ST RIGHT OF WAY, INCLUDING IS A NEW PRIVATE CONCRETE WALK TO THE DOOR ON FALMOUTH ST.; STATUS: SEE FINAL PLANS.
   3. GRANITE CURBING FILLING THE FOUR VOIDS IN THE CURBING ON FALMOUTH ST.; AND, STATUS: SEE FINAL PLANS
   4. A CLOSED CURB CUT ON DEANE STREET, REMOVING THE CONCRETE APRON AND WITH A NEW CONCRETE WALKWAY FROM THE SIDEWALK TO THE DOORWAY STEPS; AND, STATUS: SEE FINAL PLANS.

ii. THAT, PENDING REVIEW OF THE LATEST SUBMITTED STORMWATER MATERIAL, THAT THE APPLICANT SUBMIT FOR REVIEW AND APPROVAL MATERIAL SATISFYING THE REVIEW COMMENTS BY STORMWATER REVIEW ENGINEER, DAVE SENUS, AS PROVIDED IN SECTION VII, PAGE 6 OF PLANNING BOARD REPORT #56-13, WHICH IS ATTACHED. STATUS: COMPLETED PER RESPONSE LETTER OF DECEMBER 16, 2013.

SUBDIVISION CONDITIONS OF APPROVAL

THE PLANNING BOARD VOTED 6-0 (O'BRIEN ABSENT) THAT THE PLAN IS IN CONFORMANCE WITH THE SUBDIVISION STANDARDS OF THE LAND USE CODE, SUBJECT TO THE FOLLOWING CONDITION(S) OF APPROVAL:

i. THAT THE SUBDIVISION PLAT SHALL BE FINALIZED TO THE SATISFACTION OF THE PLANNING AUTHORITY, CORPORATION COUNSEL, AND DEPARTMENT OF PUBLIC SERVICES AND INCLUDE DETAILED REFERENCES TO EASEMENTS, AND RELEVANT CONDITIONS; STATUS: SUBMITTED TO CITY ON 12.16.13.

ii. THAT THE APPLICANT AND ALL ASSIGNS SHALL COMPLY WITH THE CONDITIONS OF CHAPTER 32 STORMWATER INCLUDING ARTICLE III, POST-CONSTRUCTION STORM WATER MANAGEMENT, WHICH SPECIFIES THE ANNUAL INSPECTIONS AND REPORTING REQUIREMENTS. THE DEVELOPER /CONTRACTOR /SUBCONTRACTOR MUST COMPLY WITH CONDITIONS OF THE CONSTRUCTION STORMWATER MANAGEMENT PLAN AND SEDIMENT & EROSION CONTROL PLAN BASED ON CITY STANDARDS AND STATE GUIDELINES. A MAINTENANCE AGREEMENT FOR THE STORMWATER DRAINAGE SYSTEM SHALL BE APPROVED BY CORPORATION COUNSEL AND DEPARTMENT OF PUBLIC SERVICES, AND SUBMITTED AND SIGNED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY WITH A COPY TO THE DEPARTMENT OF PUBLIC SERVICES; STATUS: PENDING.

iii. THAT THE APPLICANT SHALL CONTRIBUTE TOWARD AND/OR INSTALL, IN COORDINATION WITH THE CITY ARBORIST, TWO STREET TREES IN THE VICINITY OF THE SUBJECT PROPERTY; AND, STATUS: TO BE COMPLETED PRIOR TO ISSUANCE OF A BUILDING PERMIT.

iv. THAT THE APPLICANT SHALL PROVIDE EVIDENCE OF SEWER CAPACITY AND DETAILS FOR SEWER SYSTEM DESIGN FOR THE REVIEW OF THE DEPARTMENT OF PUBLIC SERVICES. STATUS: SEE LETTER TO CITY DATED 12.16.13.

2. THE CONTRACTOR SHALL REVIEW THE ABOVE-REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.

LAYOUT NOTES

1. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR BUILDING.
2. ALL SIGNS INDICATED ON THE LAYOUT PLANS ARE TO MEET ALL REQUIREMENTS AND STANDARDS OF THE MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. COORDINATES AND/OR DIMENSIONS FOR CATCH BASIN AND MANHOLES ARE TO THE CENTER OF THE FRAME.
4. PIPE LENGTH EQUALS THE CENTER TO CENTER DISTANCES BETWEEN CATCH BASINS AND/OR MANHOLES MINUS ONE-HALF OF THE DIAMETER OF EACH CATCH BASIN OR MANHOLE.
5. PROPERTY LINE AND R.O.W. MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS, AT THE CONTRACTOR'S EXPENSE, BY A MAINE PROFESSIONAL LAND SURVEYOR.

OSED RIGHT-OF-WAY MONUMENTS AND PROPERTY LINE PINS SHALL BE INSTALLED UNDER THE DIRECTION OF A MAINE PROFESSIONAL LAND SURVEYOR.

ANDICAP PARKING SPACES ARE TO RECEIVE HANDICAP SIGNS AND PAVEMENT MARKINGS AS ILLUSTRATED ON THE DETAIL SHEETS. UNLESS OTHERWISE D, ALL ON-SITE CURB SHALL BE GRANITE AND CONFORM TO MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

GRADING AND DRAINAGE NOTES:

1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $n = 0.013$ OR LESS. UNLESS A SPECIFIC PIPE MATERIAL IS CALLED FOR ON THE CONTRACT DRAWINGS. PVC PIPING SHALL NOT BE USED IN AREAS OF EXPOSED SUNLIGHT.
2. SLOPE PROTECTION IS TO BE PROVIDED PER THE DESIGN PLANS AND MAY INCLUDE RIPRAP, SOD OR MULCH.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING EARTHWORK OPERATIONS TO INSURE THAT DISTURBANCE TO ANY STEEP SLOPE AREAS ARE MINIMIZED TO THE EXTENT PRACTICABLE.
4. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY OTHERS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.
5. ALL PAVING WITHIN THE PUBLIC R.O.W. SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF PORTLAND RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC R.O.W.
6. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
7. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
8. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES AND PHYSICAL FEATURES THAT ARE OUTSIDE THE SCOPE OF WORK. THE CONTRACTOR SHALL MAINTAIN SITE STABILITY DURING CONSTRUCTION TO AVOID EROSION AND SEDIMENT TRANSPORT. CONTRACTOR SHALL RESTORE ALL AREAS TO A FINAL STABILIZED CONDITION AS DIRECTED BY DESIGN DRAWINGS.
9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
10. EXTERIOR GRADES AROUND PROPOSED STRUCTURE SHALL BE COORDINATED WITH FINAL BUILDING PLANS AND PROVIDE FOR ALL ACCESS OPENINGS.
11. SUBGRADE FILL PLACED BENEATH ALL PERMANENT PAVEMENT, SIDEWALK OR CONCRETE SURFACES EXCLUDING ANY BUILDING AREAS, SHALL BE GRANULAR BORROW. SUBGRADE FILL PLACED BENEATH ALL LANDSCAPE AREAS EXCEPT THOSE ADJACENT THE FOUNDATION SYSTEMS MAY BE A COMMON BORROW MATERIAL SUITABLE FOR EMBANKMENT CONSTRUCTION, FREE FROM FROZEN MATERIAL, PERISHABLE RUBBLE, PEAT, ORGANICS, ROCKS LARGER THAN 12" IN DIAMETER, VEGETATION AND OTHER MATERIAL UNSUITABLE FOR ROADWAY AND SUBGRADE CONSTRUCTION. EXCAVATED ON-SITE MATERIALS MAY BE USED FOR FILL PROVIDED THE MATERIAL IS FREE FROM UNSUITABLE MATERIAL DESCRIBED IN THIS NOTE AND UPON APPROVAL OF THE ENGINEER. EXCAVATED ONSITE MATERIALS MAY NOT BE USED AS COMPACTED STRUCTURAL FILL BENEATH THE BUILDING AREAS OR AS FOUNDATION BACKFILL. GRANULAR BORROW AND COMMON BORROW SHALL COMPLY WITH THE MDOT SPECIFICATIONS.
12. ALL FILLS SHALL BE PLACED IN LAYERS NOT MORE THAN 12" LOOSE DEPTH AND COMPACTED BY HEAVY COMPACTION EQUIPMENT. MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ASTM 1557, MODIFIED AND FIELD DENSITY ASTM D2922 (NUCLEAR METHODS).
13. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.

UTILITY NOTES:

1. ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED BETWEEN THE SITE WORK CONTRACTOR AND DIVISION 22/26 CONTRACTOR(S). THE SITE WORK CONTRACTOR SHALL BE RESPONSIBLE TO EXTEND ALL PROPOSED UTILITIES TO WITHIN FIVE (5) FEET OF THE BUILDING TO A LOCATION COORDINATED WITH THE MECHANICAL AND ELECTRICAL SUBCONTRACTORS. THE BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES WITHIN FIVE (5) FEET AND INSIDE THE BUILDING OR UNDER SLAB.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH FAIRPOINT COMMUNICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS, PULL WIRES, TRENCHING AND BACKFILLING NECESSARY TO COMPLETE THE WORK.
3. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRIC SERVICE WITH CENTRAL MAINE POWER; THE TELECOMMUNICATIONS SERVICE WITH FAIRPOINT COMMUNICATIONS AND CABLE SERVICE WITH TIME WARNER CABLE. ALL WORK SHALL CONFORM TO THE PROJECT SPECIFICATIONS OR UTILITY COMPANY STANDARDS, WHICHEVER IS MORE STRINGENT.
4. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE AT NO ADDITIONAL EXPENSE TO THE OWNER.
5. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
6. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.
7. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL, AT NO EXTRA EXPENSE TO THE OWNER.
8. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18 INCH OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.
9. THE CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO THE JOBSITE. TEMPORARY SERVICES SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. COORDINATE ALL TEMPORARY SERVICES WITH UTILITY COMPANY, OWNER AND AFFECTED BUSINESSES.
10. CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY ELECTRICAL SERVICES IN CONDUIT TO SITE LIGHTING, COMPLYING WITH APPLICABLE CODES. COORDINATE WITH OWNER, SITE ELECTRICAL, ARCHITECTURAL AND CMP PLANS.
11. ALL SANITARY SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT. ALL SANITARY SERVICES AND APPURTENANCES TO BE ABANDONED SHALL BE PROPERLY RECORDED WITH PORTLAND PUBLIC WORKS ENGINEERING DEPARTMENT. A DIGITAL VIDEOTAPE SHALL BE MADE OF SANITARY SEWER SYSTEMS TO BE UTILIZED PRIOR TO CONSTRUCTION; UPSTREAM PIPES INTENDED FOR ABANDONMENT SHALL BE INSPECTED TO VERIFY THAT THEY NO LONGER SERVE OTHER FACILITIES.

LEGEND

PROPOSED
- BUILDING
- LANDSCAPING
- WHEEL STOP
- PARKING STRIPING
- BARRIER FREE SYMBOL
- TRAFFIC ARROW
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- BRICK SIDEWALK

EXISTING
- IRON PIN FOUND (IPF) OR CAPPED IRON ROD FOUND (CIR)
- ELECTRIC MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- DRAIN MANHOLE
- DOWN SPOUT
- WATER VALVE
- WATER SHUTOFF
- UTILITY POLE
- SIGN
- LIGHT POLE
- ELECTRIC METER
- GAS METER
- EDGE OF PAVEMENT
- CURB (GRANITE, UNLESS NOTED)
- EDGE OF GRAVEL

EXISTING
- TREE
- STUMP
- EXISTING CONTOUR
- SPOT GRADE
- PROPERTY LINE
- RIGHT OF WAY
- STORM DRAIN
- SEWER
- UNDERGROUND WATER
- OVERHEAD UTILITY WIRES
- WOOD STOCKADE FENCE
- CHAIN LINK FENCE
- GUARD RAIL
- EXISTING BUILDING

EROSION CONTROL NOTES:

1. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE SITE.
2. PRIOR TO BEGINNING ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCES AND THE STABILIZED CONSTRUCTION ENTRANCES.
3. SILT BARRIERS SHALL BE INSPECTED, REPAIRED AND CLEANED AS NOTED IN THE EROSION CONTROL NOTES SHOWN ON THE EROSION CONTROL DETAIL SHEET.
4. THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCES AS THEY BECOME SATURATED WITH MUD TO ENSURE THAT THEY WORK AS PLANNED DURING CONSTRUCTION AND SHALL KEEP ADJACENT STREETS CLEAR OF DIRT AND MUD.
5. SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO IT FOR LATER USE IN LANDSCAPING OPERATIONS.
6. CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITIES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST THREE (3) BUT NOT MORE THAN (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A.
7. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AS SPECIFIED ON PLANS.
8. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
9. CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REQUIREMENTS, INSPECTION AND MAINTENANCE REQUIREMENTS AND GOOD HOUSEKEEPING PRACTICES IN ACCORDANCE WITH APPENDIX A, B& C OF MAINE DEP CHAPTER 500.

R-5 Residential Zone Summary
Dimensional and Parking Requirements
Applied to Nathan Clifford School

Zoning Requirements	Current R-5 Zoning Standard	Nathan Clifford Current Condition
Lot Size	30,000 SF (for school)	67,200 SF
	Other sizes depending on use, 6,000 SF Minimum	
Lot Coverage (Building Footprint)	40% of Lot Maximum	11,500 SF (+/- 17%)
Lot Area Per Dwelling Unit	3,000 SF per unit for alteration of an existing structure to residential use	67,570 SF/3,000 SF = 22 units maximum
	Other residential development types have different requirements	
Building Height	35 ft.	Unknown: Approximated at 50+ feet
Minimum Street Frontage	50 ft.	207 ft.
Minimum Yard Dimensions	Front: 20 ft.	19-62 Feet +/-
	Rear: 20 ft.	117 Feet + (more at track)
	Side: 8-15 ft.	18 Feet +/- (Deane); 19 ft. +/- (Payson)
Minimum Lot Width	60-90 ft.	100-200 ft. (Falmouth as front)
Parking	1 space per unit for residential in existing building. Use specific for other uses.	+/- 14,000 SF of paved play area suitable for parking (+/- 43 cars at 320 SF per space)

ENVIRONMENTAL NOTES:

1. IF NOT TO BE REUSED DURING FUTURE REDEVELOPMENT, THE 5,000-GALLON NO. 4 FUEL OIL AST AT THE SITE SHOULD NOT BE REMOVED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS. MEDEP NOTIFICATION, ADDITIONAL INVESTIGATION, AND/OR REMEDIAL MEASURES WILL BE REQUIRED IF PETROLEUM CONTAMINATION IS IDENTIFIED IN SOIL AND/OR GROUNDWATER ASSOCIATED WITH THIS AST DURING ITS REMOVAL.
2. IF NOT TO BE REUSED DURING FUTURE REDEVELOPMENT, THE CONTAINERS OF OHM REMAINING AT THE SITE SHOULD BE PROPERLY DISPOSED OFF-SITE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
3. IF URBAN FILL SOILS CONTAINING COAL ASH ARE ENCOUNTERED DURING FUTURE EARTHWORK OR UTILITY EXCAVATION ACTIVITIES DURING SITE REDEVELOPMENT, THESE SOILS SHOULD BE PROPERLY MANAGED IN ACCORDANCE WITH MEDEP REGULATIONS. APPROPRIATE GROUND COVER SYSTEMS (I.E., ASPHALT PARKING, CONCRETE SIDEWALKS, LANDSCAPING, ETC.) MAY ALSO BE REQUIRED TO PREVENT EXPOSURE TO URBAN FILL SOILS CONTAINING COAL ASH, IF ENCOUNTERED AT THE SITE.
4. IN ADDITION TO THOSE ITEMS AND FINDINGS DISCUSSED ABOVE, CERTAIN ASTM NON-SCOPE CONSIDERATIONS WERE REVIEWED AND IDENTIFIED IN CONNECTION WITH THE SITE THAT REPRESENT POTENTIAL BUSINESS ENVIRONMENTAL RISK, INCLUDING ASBESTOS-CONTAINING BUILDING MATERIALS (ACBM) IDENTIFIED IN THE NATHAN CLIFFORD SCHOOL, WHICH WILL REQUIRE ABATEMENT AND/OR SPECIAL HANDLING, AND SPECIAL DISPOSAL, CONCURRENT WITH PROPOSED RENOVATION ACTIVITIES. BASED ON THE AGE OF THE BUILDING (CONSTRUCTED IN 1907), IT IS POSSIBLE THAT LEAD-BASED PAINT, POLYCHLORINATED BIPHENYL (PCB)-CONTAINING FLUORESCENT LIGHT BALLASTS AND WINDOW CAULKING, MERCURY-CONTAINING FLUORESCENT LAMPS, AND OTHER POTENTIAL UNIVERSAL WASTES EXIST AT THE SITE. SINCE THE NATHAN CLIFFORD SCHOOL IS PROPOSED TO BE RENOVATED FOR RESIDENTIAL USE, RANSOM RECOMMENDS A HAZARDOUS MATERIALS INVENTORY (HMI) BE PERFORMED TO IDENTIFY THESE HAZARDOUS MATERIALS AND TO IDENTIFY MITIGATION MEASURES, IF NECESSARY.

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Prepared For:	Project:	Revisions:
DEVELOPERS COLLABORATIVE PREDEVELOPMENT L.L.C.	NATHAN CLIFFORD SCHOOL REDEVELOPMENT	12.20.13 - RELEASED FOR BIDS 11.19.13 - FINAL PLAN SUBMISSION 11.12.13 - FINAL PLAN SUBMISSION 11.05.13 - FINAL PLAN SUBMISSION 10.16.13 - REV. PLAN SUBMISSION 10.01.13 - PRELIMINARY PLAN SUBMISSION TO CITY
17 CHESTNUT STREET PORTLAND, ME 04101	FALMOUTH STREET PORTLAND, MAINE	

Architect: ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

STATE OF MAINE · STEPHEN R. BUSHEY No. 7429 · LICENSED · PROFESSIONAL ENGINEER

Date: OCT. 2012
Scale: N.T.S.

GENERAL NOTES AND LEGEND

C-1.1

RESURGAM · CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

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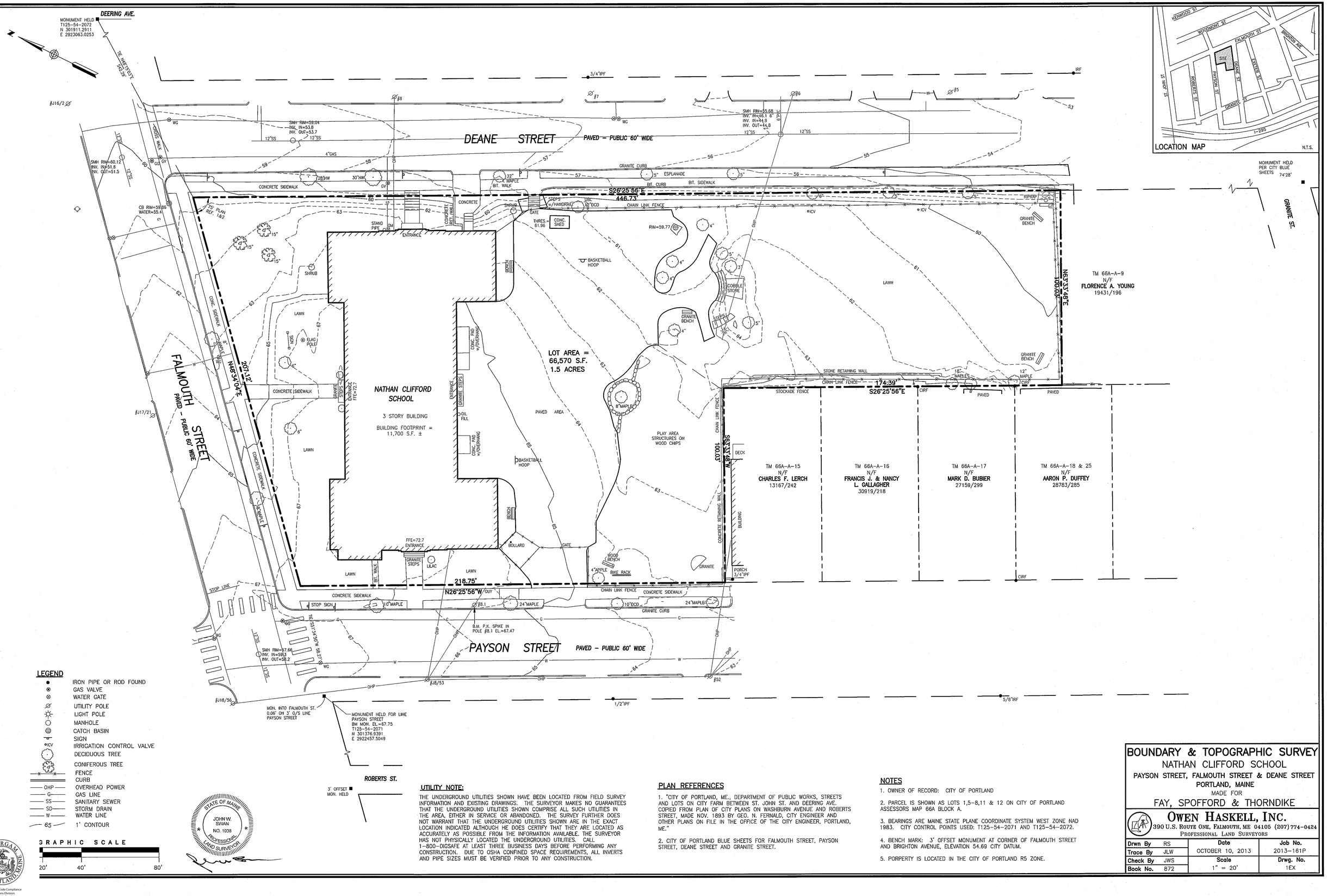

LEGEND

- IRON PIPE OR ROD FOUND
- GAS VALVE
- WATER GATE
- UTILITY POLE
- LIGHT POLE
- MANHOLE
- CATCH BASIN
- SIGN
- ICV — IRRIGATION CONTROL VALVE
- DECIDUOUS TREE
- CONIFEROUS TREE
- FENCE
- CURB
- OHP — OVERHEAD POWER
- G — GAS LINE
- SS — SANITARY SEWER
- SD — STORM DRAIN
- W — WATER LINE
- 65 — 1' CONTOUR

GRAPHIC SCALE

20' 40' 80'

STATE OF MAINE
JOHN W. SWAN
NO. 1038
PROFESSIONAL LAND SURVEYOR

CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
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UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-800-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

PLAN REFERENCES

1. "CITY OF PORTLAND, ME., DEPARTMENT OF PUBLIC WORKS, STREETS AND LOTS ON CITY FARM BETWEEN ST. JOHN ST. AND DEERING AVE. COPIED FROM PLAN OF CITY PLANS ON WASHBURN AVENUE AND ROBERTS STREET, MADE NOV. 1893 BY GEO. N. FERNALD, CITY ENGINEER AND OTHER PLANS ON FILE IN THE OFFICE OF THE CITY ENGINEER, PORTLAND, ME."

2. CITY OF PORTLAND BLUE SHEETS FOR FALMOUTH STREET, PAYSON STREET, DEANE STREET AND GRANITE STREET.

NOTES

1. OWNER OF RECORD: CITY OF PORTLAND

2. PARCEL IS SHOWN AS LOTS 1,5-8,11 & 12 ON CITY OF PORTLAND ASSESSORS MAP 66A BLOCK A.

3. BEARINGS ARE MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 1983. CITY CONTROL POINTS USED: T125-54-2071 AND T125-54-2072.

4. BENCH MARK: 3' OFFSET MONUMENT AT CORNER OF FALMOUTH STREET AND BRIGHTON AVENUE, ELEVATION 54.69 CITY DATUM.

5. PORPERTY IS LOCATED IN THE CITY OF PORTLAND R5 ZONE.

BOUNDARY & TOPOGRAPHIC SURVEY

NATHAN CLIFFORD SCHOOL

PAYSON STREET, FALMOUTH STREET & DEANE STREET
PORTLAND, MAINE
MADE FOR
FAY, SPOFFORD & THORNDIKE

OWEN HASKELL, INC.
390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424
PROFESSIONAL LAND SURVEYORS

Drwn By	RS	Date	Job No.
Trace By	JLW	OCTOBER 10, 2013	2013-161P
Check By	JWS	Scale	Drwg. No.
Book No.	872	1" = 20'	1EX

NORTH

DEANE STREET

FALMOUTH STREET

PAYSON STREET

NATHAN CLIFFORD SCHOOL

COORDINATE PRESERVATION OF EXISTING STREET TREES WITH CITY ARBORIST. TWO TREES ARE TO BE REPLACED (BY CITY AT DEVELOPER'S EXPENSE)

STAIRS TO BE REPAIRED (SEE STRUCTURAL PLANS)(TYP)

REMOVE CONCRETE AS PART OF CURB OPENING CLOSURE AND SIDEWALK REPLACEMENT

REMOVE CONCRETE WALL TO ALLOW RAMP CONSTRUCTION

RELOCATE GRANITE STAIRS & RAILING - LOCATION TO BE DETERMINED

RECONSTRUCT SIDEWALK RAMP PER CITY STANDARDS (TYP.)

RECONSTRUCT CONCRETE SIDEWALK TO CITY STANDARDS WHERE HATCHED (TYP.)

CONCRETE SIDEWALK TO BE REPAIRED

STEPS TO BE REPAIRED

REMOVE SHED

REMOVE FENCE TO BUILDING

RELOCATE TREES (TYP)

FENCE LOCATION TO BE REVIEWED BY OWNER. PROVIDE COSTS TO REMOVE / RELOCATE DEANE STREET FENCE AS PART OF BID PROPOSAL

REMOVE PLANTERS AND BENCH

REMOVE BASKETBALL HOOP

REMOVE STAIRS AND COBBLE STONES

COMMON YARD AREA TO REMAIN

RELOCATE BENCH

EXISTING ASPHALT TO BE REMOVED

STEPS

PROTECT TREE

LOT AREA = 66,570 S.F. 1.5 ACRES

REMOVE BENCHES

PROTECT EXISTING WALL TO REMAIN

REMOVE ALL PAVEMENT (TYPICAL)

REMOVE STONES

REMOVE BASKETBALL HOOP

REMOVE PLAYGROUND EQUIPMENT (TYP.) SELECT EQUIPMENT TO BE PLACED WITHIN RELOCATED PLAY EQUIPMENT AREA SHOWN ON SITE PLAN. DEVELOPER TO COORDINATE WITH CITY REPRESENTATIVES FOR SALVAGE AND REUSE OF EQUIPMENT.

REMOVE PLANTERS AND BENCH

STRIP WOOD CHIP SURFACE DOWN TO MINERAL SUBGRADE (TYP)

REMOVE BENCH

REMOVE BIKE RACK

PROTECT EXISTING CONCRETE WALL AND CHAIN LINK FENCE

GRANITE BLOCK MAY BE RELOCATED ONSITE FOR REUSE OR OTHERWISE REMOVED FROM SITE BY CITY FORCES IF APPROVED BY OWNER

REMOVE

BOLLARD

REMOVE

TRASH ENCLOSURE

RECONSTRUCT SIDEWALK RAMP PER CITY STANDARDS (TYP.)

REMOVE CHAIN LINK FENCE

REMOVE & RESET GRANITE CURB AS NECESSARY

S26°25'56"E 446.73'

N63°33'48"E 100.03'

S63°33'48"W 100.03'

174.39' S26°25'56"E

218.75' N26°25'56"W

TM 66A-A-9 N/F FLORENCE A. YOUNG 19431/196

TM 66A-A-18 & 25 N/F AARON P. DUFFEY 28783/285

TM 66A-A-15 N/F CHARLES F. LERCH 13167/242

TM 66A-A-16 N/F FRANCIS J. & NANCY L. GALLAGHER 30919/218

TM 66A-A-17 N/F MARK D. BUBIER 27159/299

SMH RIM=59.04 INV. IN=53.8 INV. OUT=53.7

SMH RIM=60.12 INV. IN=51.6 INV. OUT=51.5

SMH RIM=55.68 INV. IN=46.1 6" INV. IN=44.9 INV. OUT=44.8

CB RIM=59.86 WATER=55.4

SMH RIM=67.66 INV. IN=59.3 INV. OUT=58.2

BM MON. EL.=67.75

MON. INTO FALMOUTH ST. 0.06' ON 3' O/S LINE PAYSON STREET

MONUMENT HELD FOR LINE PAYSON STREET BM MON. EL=67.75 T125-54-2071 N 301,376.9391 E 2922457.5049

B.M. P.K. SPIKE IN POLE #8.1 EL.=67.47

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

PLAN REFERENCE: BOUNDARY & TOPOGRAPHIC SURVEY - NATHAN CLIFFORD SCHOOL BY OWEN HASKELL, INC., OCTOBER 10, 2013.

Prepared For: DEVELOPERS COLLABORATIVE PREDEVELOPMENT L.L.C.	Project: NATHAN CLIFFORD SCHOOL REDEVELOPMENT	Revisions:
17 CHESTNUT STREET PORTLAND, ME 04101	FALMOUTH STREET PORTLAND, MAINE	12.20.13 - RELEASED FOR BIDS 11.19.13 - FINAL PLAN SUBMISSION 11.12.13 - FINAL PLAN SUBMISSION 11.05.13 - FINAL PLAN SUBMISSION 10.16.13 - REV. PLAN SUBMISSION 10.01.13 - PRELIMINARY PLAN SUBMISSION TO CITY
Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	STATE OF MAINE STEPHEN R. BUSHEY No. 7429 LICENSED PROFESSIONAL ENGINEER	Date: OCT. 2012 Scale: 1" = 20'
ENGINEERS FST Since 1914 FAY, SPOFFORD & THORNDIKE, INC. ENGINEERS · PLANNERS · SCIENTISTS 5 BURLINGTON WOODS, BURLINGTON, MA 01803		DEMOLITION PLAN C-2.1

CITY OF PORTLAND, MAINE

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 03/12/14

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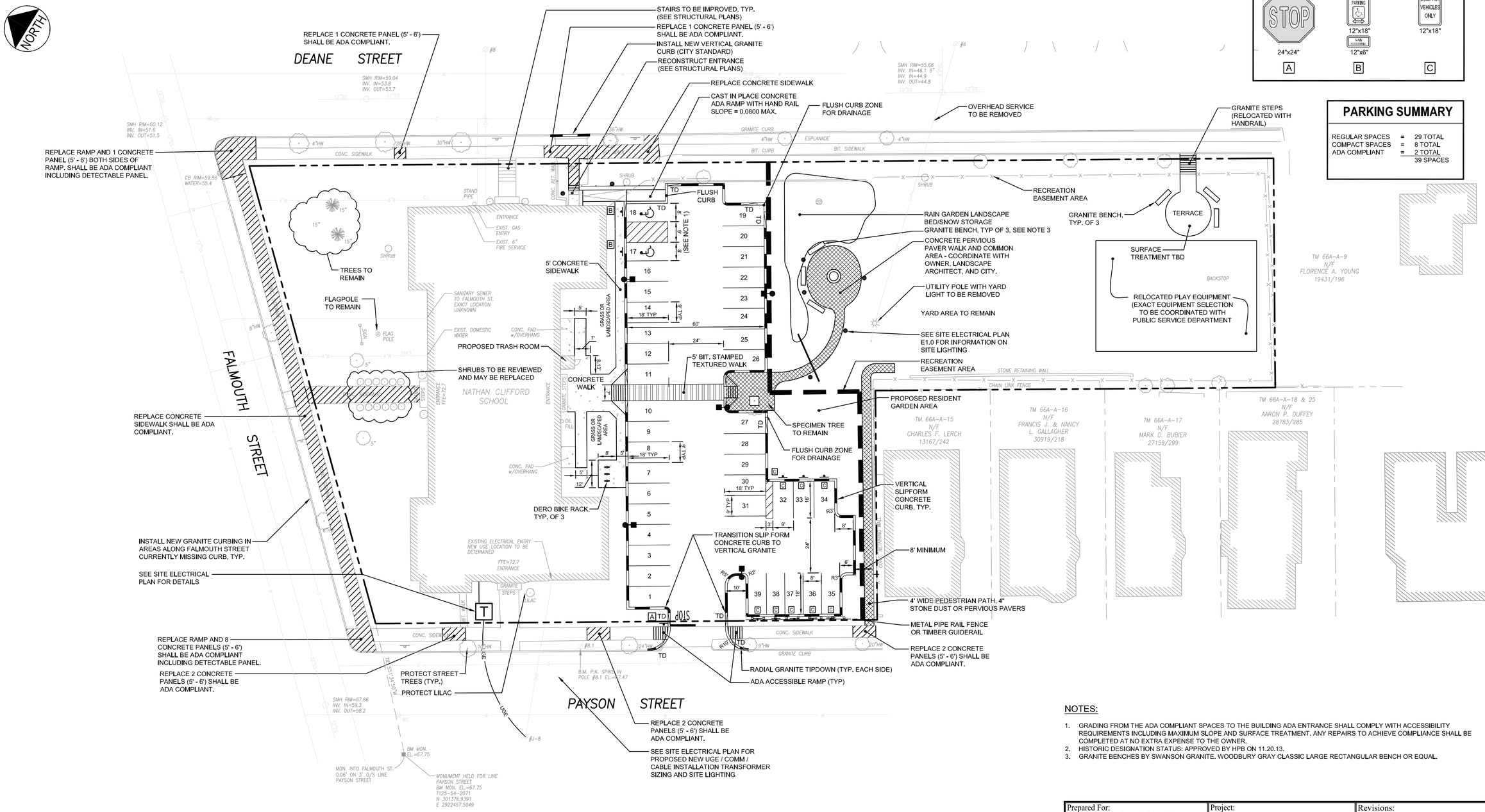

NOTES:

1. GRADING FROM THE ADA COMPLIANT SPACES TO THE BUILDING ADA ENTRANCE SHALL COMPLY WITH ACCESSIBILITY REQUIREMENTS INCLUDING MAXIMUM SLOPE AND SURFACE TREATMENT. ANY REPAIRS TO ACHIEVE COMPLIANCE SHALL BE COMPLETED AT NO EXTRA EXPENSE TO THE OWNER.
2. HISTORIC DESIGNATION STATUS: APPROVED BY HPB ON 11.20.13.
3. GRANITE BENCHES BY SWANSON GRANITE, WOODBURY GRAY CLASSIC LARGE RECTANGULAR BENCH OR EQUAL.

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
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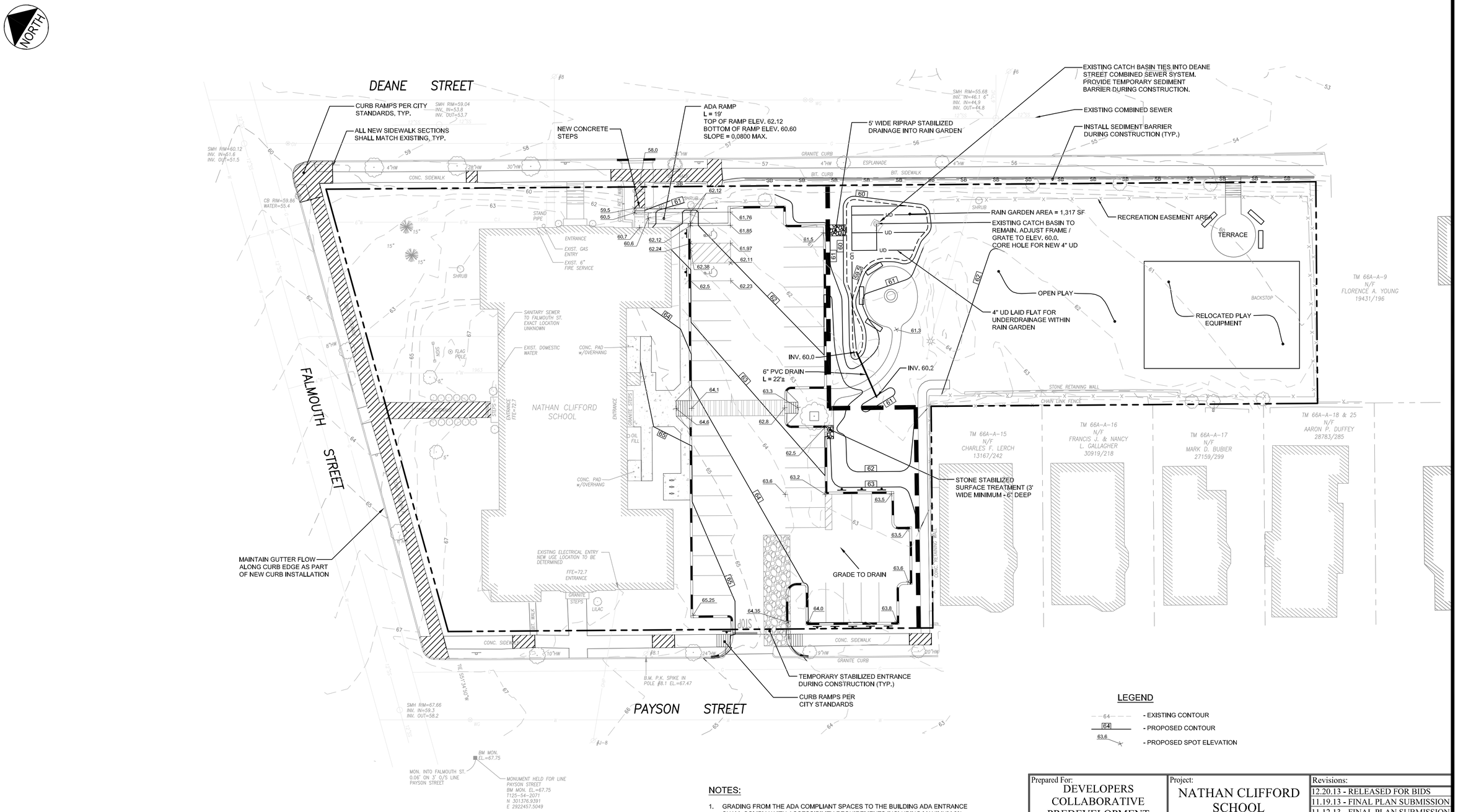
ENGINEERS FST Since 1914
FAY, SPOFFORD & THORNDIKE, INC.
ENGINEERS · PLANNERS · SCIENTISTS
5 BURLINGTON WOODS, BURLINGTON, MA 01803

Prepared For: DEVELOPERS COLLABORATIVE PREDEVELOPMENT L.L.C. 17 CHESTNUT STREET PORTLAND, ME 04101	Project: NATHAN CLIFFORD SCHOOL REDEVELOPMENT FALMOUTH STREET PORTLAND, MAINE	Revisions: 12.20.13 - RELEASED FOR BIDS 11.19.13 - FINAL PLAN SUBMISSION 11.12.13 - FINAL PLAN SUBMISSION 11.05.13 - FINAL PLAN SUBMISSION 10.16.13 - REV. PLAN SUBMISSION 10.01.13 - PRELIMINARY PLAN SUBMISSION TO CITY
Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	STATE OF MAINE STEPHEN R. BUSHEY No. 7429 LICENSED PROFESSIONAL ENGINEER	Date: OCT. 2012 Scale: 1" = 20' SITE LAYOUT, AND UTILITY PLAN C-3.0



PREDEVELOPMENT IMPERVIOUS AREA = 27,121 SF
POST-DEVELOPMENT IMPERVIOUS AREA = 26,030 SF

NOTES:

1. GRADING FROM THE ADA COMPLIANT SPACES TO THE BUILDING ADA ENTRANCE SHALL COMPLY WITH ACCESSIBILITY REQUIREMENTS INCLUDING MAXIMUM 2% SLOPE IN ANY DIRECTION AND SURFACE TREATMENT. ANY REPAIRS TO ACHIEVE COMPLIANCE SHALL BE COMPLETED AT NO EXTRA EXPENSE TO THE OWNER.

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

Prepared For: DEVELOPERS COLLABORATIVE PREDEVELOPMENT L.L.C. 17 CHESTNUT STREET PORTLAND, ME 04101	Project: NATHAN CLIFFORD SCHOOL REDEVELOPMENT FALMOUTH STREET PORTLAND, MAINE	Revisions: 12.20.13 - RELEASED FOR BIDS 11.19.13 - FINAL PLAN SUBMISSION 11.12.13 - FINAL PLAN SUBMISSION 11.05.13 - FINAL PLAN SUBMISSION 10.16.13 - REV. PLAN SUBMISSION 10.01.13 - PRELIMINARY PLAN SUBMISSION TO CITY
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ENGINEERS FST Since 1914 FAY, SPOFFORD & THORNDIKE, INC. ENGINEERS · PLANNERS · SCIENTISTS 5 BURLINGTON WOODS, BURLINGTON, MA 01803		GRADING AND DRAINAGE PLAN C-4.0

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Inspections Division
Approved with Conditions
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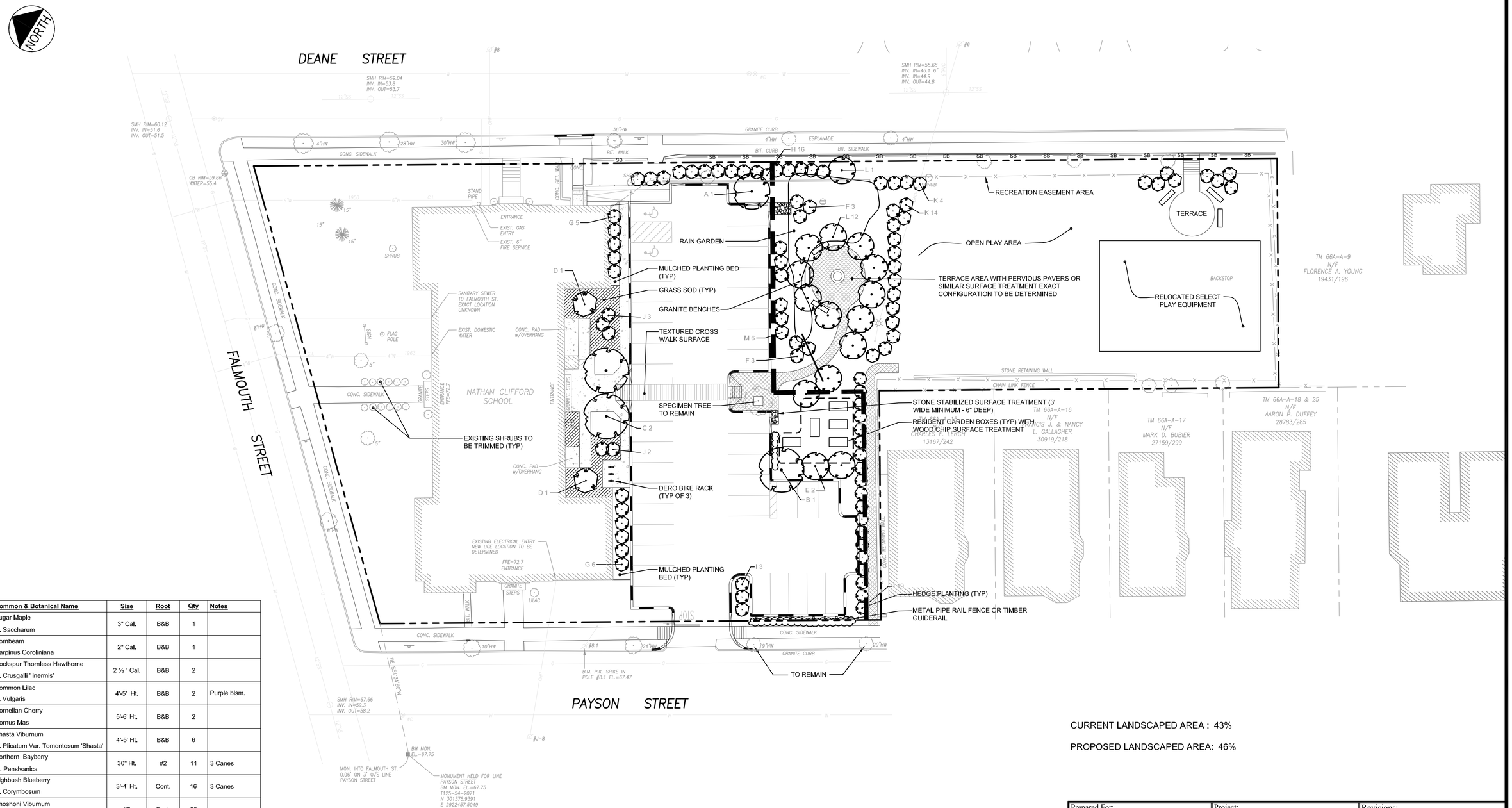

Key	Common & Botanical Name	Size	Root	Qty	Notes
A.	Sugar Maple A. Saccharum	3" Cal.	B&B	1	
B.	Hornbeam Carpinus Coroliniana	2" Cal.	B&B	1	
C.	Cockspur Thornless Hawthorne C. Crusgalli ' inermis'	2 ½ " Cal.	B&B	2	
D.	Common Lilac S. Vulgaris	4'-5' Ht.	B&B	2	Purple blsm.
E.	Cornelian Cherry Cornus Mas	5'-6' Ht.	B&B	2	
F.	Shasta Viburnum V. Plicatum Var. Tomentosum 'Shasta'	4'-5' Ht.	B&B	6	
G.	Northern Bayberry M. Pensilvanica	30" Ht.	#2	11	3 Canes
H.	Highbush Blueberry V. Corymbosum	3'-4' Ht.	Cont.	16	3 Canes
I.	Shoshoni Viburnum V. Plicatum 'Shoshoni'	#5	Cont.	22	
J.	Annabelle Hydrangea H. Aborescens "Annabelle"	#3	Cont.	5	2-3 Trunk
K.	Miss Kim Lilac S. Patula ' Miss Kim'	4'-5' Ht.	B&B	18	
L.	Flowering Crab Malus ' Donald Wyman'	2 ½ " Cal.	B&B	13	
M.	Compact Red Twig Dogwood C. Sericea 'Isanti'	#2	Cont.	6	
PB.	Planting Beds for Assorted Perennials @ 15" deep – prepared planing soil				
aa	Daylily Var. Hemerocallis ' mixture				

CURRENT LANDSCAPED AREA : 43%

PROPOSED LANDSCAPED AREA: 46%

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

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Inspections Division
Approved with Conditions

Date: 03/12/14

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ENGINEERS FST Since 1914

FAY, SPOFFORD & THORNDIKE, INC.
ENGINEERS · PLANNERS · SCIENTISTS
5 BURLINGTON WOODS, BURLINGTON, MA 01803

Prepared For:
DEVELOPERS COLLABORATIVE PREDEVELOPMENT L.L.C.
17 CHESTNUT STREET
PORTLAND, ME 04101

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
FALMOUTH STREET
PORTLAND, MAINE

Revisions:
12.20.13 - RELEASED FOR BIDS
11.19.13 - FINAL PLAN SUBMISSION
11.12.13 - FINAL PLAN SUBMISSION
11.05.13 - FINAL PLAN SUBMISSION
10.16.13 - REV. PLAN SUBMISSION
10.01.13 - PRELIMINARY PLAN SUBMISSION TO CITY

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

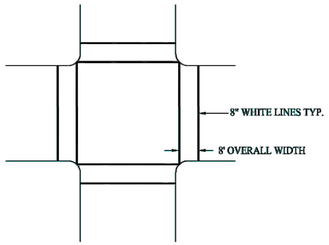
STATE OF MAINE
STEPHEN R. BUSHEY
No. 7429
LICENSED
PROFESSIONAL ENGINEER

Date: OCT. 2012

Scale: 1" = 20'

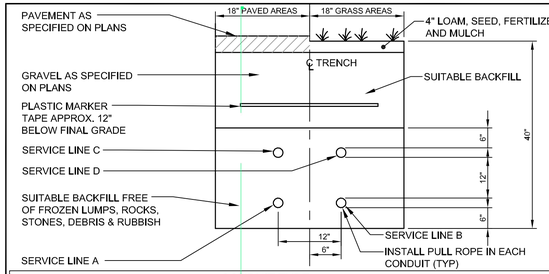
LANDSCAPE PLAN

C-5.0



STANDARD CROSSWALK MARKINGS
POSTED SPEED ≤ 35 mph

A TYPICAL CROSSWALK MARKINGS
N.T.S.

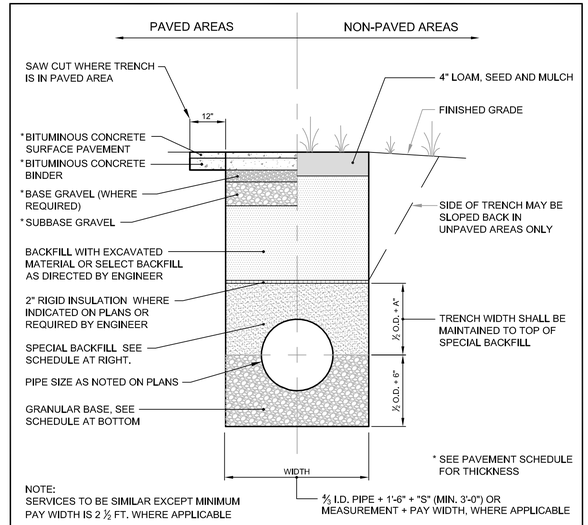


CONDUIT TYPE

SERVICE	CONDUIT SIZE	GRASS AREAS	PAVED AREAS	UTILITY	REMARKS
A	2-5"	SCHEDULE 40 PVC ELECTRICAL GRADE	RIGID GALVANIZED STEEL, ASTM A120	POWER	SEE NOTE
B	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	TELEPHONE	SEE NOTE
C	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	COMMUNICATION	SEE NOTE
D	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	SPARES	SEE NOTE

NOTE: ONE CONDUIT CAPPED FOR SPARE. PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10' ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS. COORDINATE WITH ELECTRICAL SITE PLANS BY BARTLETT DESIGN.

D UTILITY TRENCH - PRIMARY ELECTRIC, TELEPHONE & COMMUNICATIONS
N.T.S.



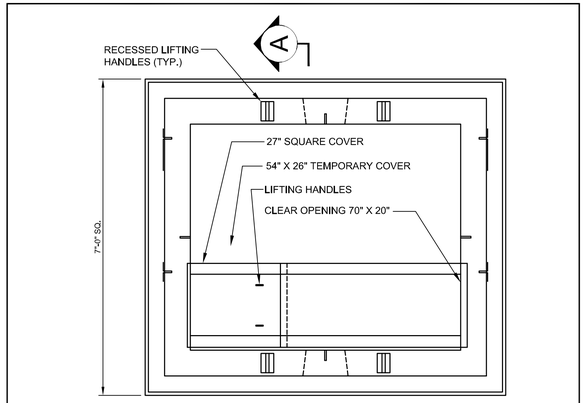
NOTE:
SERVICES TO BE SIMILAR EXCEPT MINIMUM PAY WIDTH IS 2 ½ FT. WHERE APPLICABLE

SCHEDULE OF BASE BACKFILL

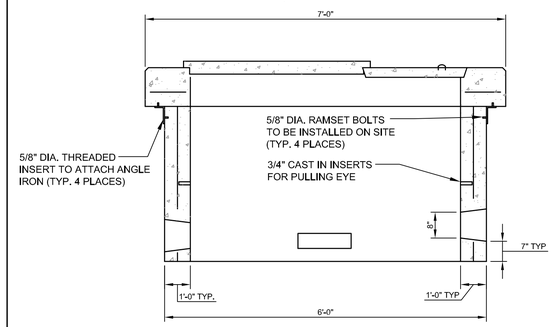
TYPE OF PIPE	BEDDING MATERIAL	SPECIAL BACKFILL	SPECIAL BACKFILL COVER "A" (IN)	SELECT BACKFILL
CONCRETE	GRANULAR AASHTO M145 49-A-3 OR BETTER	GRANULAR AASHTO M145 49-A-3 OR BETTER	12	GRANULAR AASHTO M145 49-A-3 OR BETTER
PVC	¾" CRUSHED STONE	GRANULAR AASHTO M145 49-A-3 OR BETTER	6	GRANULAR AASHTO M145 49-A-3 OR BETTER
CMP	¾" CRUSHED STONE	GRANULAR AASHTO M145 49-A-3 OR BETTER	6	GRANULAR AASHTO M145 49-A-3 OR BETTER
D.I.	GRANULAR AASHTO M145-49 A-3 OR BETTER	GRANULAR AASHTO M145 49-A-3 OR BETTER	6	GRANULAR AASHTO M145 49-A-3 OR BETTER

NOTE:
BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

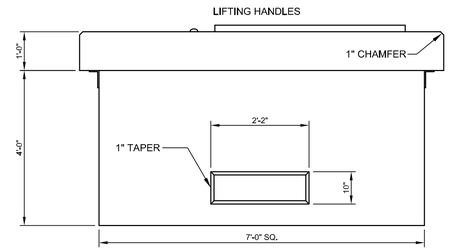
G TYPICAL TRENCH DETAIL
N.T.S.



TOP VIEW



SECTION A-A

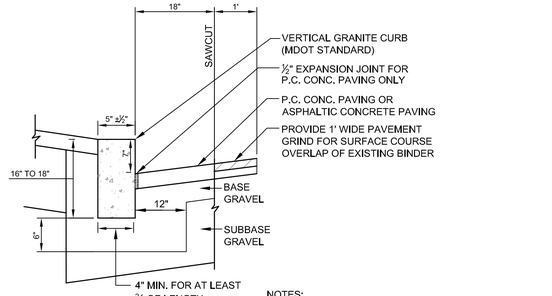


FRONT VIEW

DESIGN NOTES:
1. CONCRETE 4,000 PSI AT 28 DAYS
2. REINFORCING #4 BARS AT 6" O.C. EACH WAY
3. DUCT OPENINGS SHOWN ARE TYPICAL AND CAN BE MODIFIED PER REQUEST
4. CENTRAL MAINE POWER COMPANY SPECIFICATION
5. TEMPORARY COVER HAS (2) ⅝" THREADED LIFTING INSERTS CAST IN

NOTE:
CONFIRM TRANSFORMER PAD SIZES WITH OWNER AND/OR ELECTRICAL SITE PLANS. DIVISION 2 CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING THE TRANSFORMER PAD.

I 7'-0" TRANSFORMER PAD
N.T.S.



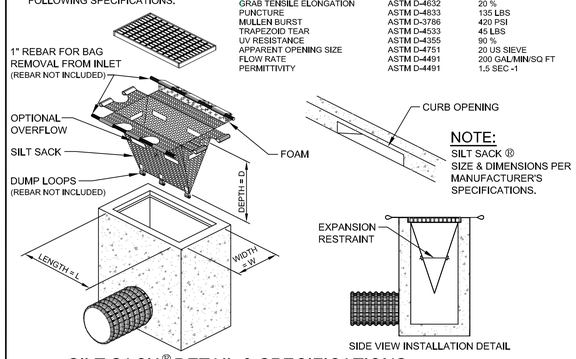
NOTES:
1. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
2. MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
3. CIRCULAR CURB REQUIRED FOR RADIUS LESS THAN 50'
4. GROUT OR CAULK ALL CURB JOINTS OVER ¼" IN WIDTH. INSTALL STRIP OF FILTER FABRIC BEHIND EACH CURB JOINT.

B VERTICAL GRANITE CURB
N.T.S.

NOTE: THE SILT SACK ® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

HIGH-FLOW SILT SACK ® (FOR USE IN LOW POINTS/SAGS)
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

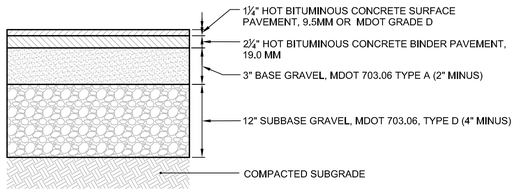
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1



NOTE:
SILT SACK ® SIZE & DIMENSIONS PER MANUFACTURER'S SPECIFICATIONS.

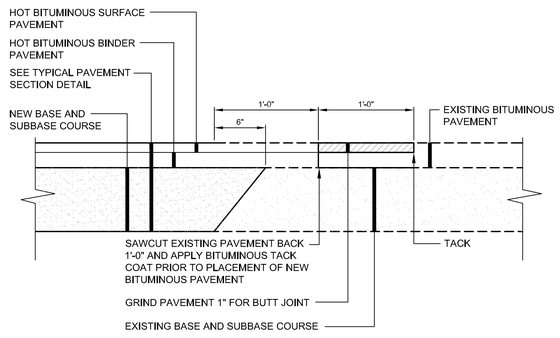
SIDE VIEW INSTALLATION DETAIL

E SILT SACK® DETAIL & SPECIFICATIONS
N.T.S.



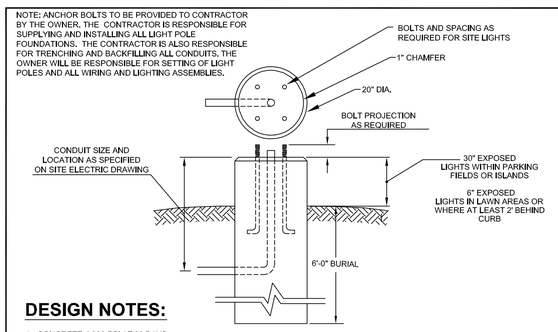
NOTES:
1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE GEOTECHNICAL REPORT.

C BITUMINOUS CONCRETE PAVEMENT SECTION
N.T.S.



F PAVEMENT SAWCUT DETAIL
N.T.S.

NOTE: ANCHOR BOLTS TO BE PROVIDED TO CONTRACTOR BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING AND INSTALLING ALL LIGHT POLE FOUNDATIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR TRENCHING AND BACKFILLING ALL CONDUITS. THE OWNER WILL BE RESPONSIBLE FOR SETTING OF LIGHT POLES AND ALL WIRING AND LIGHTING ASSEMBLIES.



DESIGN NOTES:
1. CONCRETE 4,000 PSI AT 28 DAYS
2. REINFORCING IS AS SPECIFIED. (TYP. 4 - #4 VERTICALLY AND #3 STIRRUPS 12" O.C. HORIZONTALLY)
3. ANCHOR BOLTS AND GROUNDING AS SPECIFIED AND REQUIRED BY SUPPLIER.
4. EXPOSED PORTION OF CONCRETE FOUNDATION TO BE PAINTED WITH 2 COATS OF ACRYLIC PAINT. COLOR TO MATCH POLE COLOR.
5. FOR POLE HEIGHTS EQUAL TO OR LESS THAN 25' TALL.

H 20" ROUND PRECAST CONCRETE LIGHT POLE FOUNDATION
N.T.S.

Prepared For:
DEVELOPERS COLLABORATIVE PREDEVELOPMENT L.L.C.
17 CHESTNUT STREET
PORTLAND, ME 04101

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
FALMOUTH STREET
PORTLAND, MAINE

Revisions:
12.20.13 - RELEASED FOR BIDS
11.19.13 - FINAL PLAN SUBMISSION
11.12.13 - FINAL PLAN SUBMISSION
11.05.13 - FINAL PLAN SUBMISSION
10.16.13 - REV. PLAN SUBMISSION
10.01.13 - PRELIMINARY PLAN SUBMISSION TO CITY

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

STATE OF MAINE STEPHEN R BUSHEY No. 7429 LICENSED PROFESSIONAL ENGINEER

Date: OCT. 2012
Scale: N.T.S.

DETAILS

C-7.0

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CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

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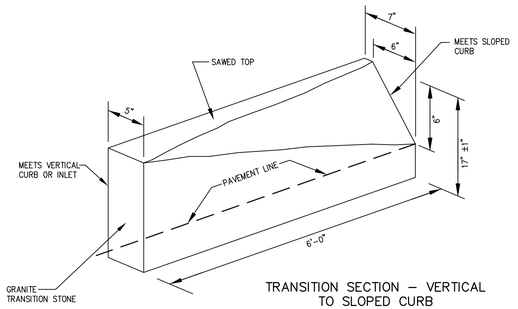
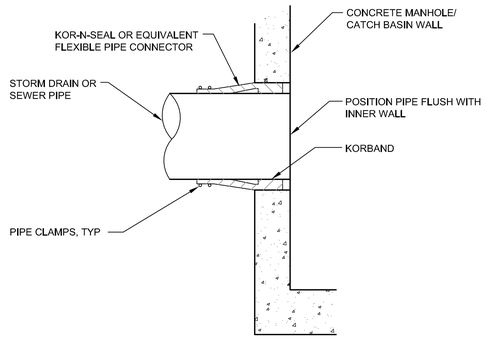
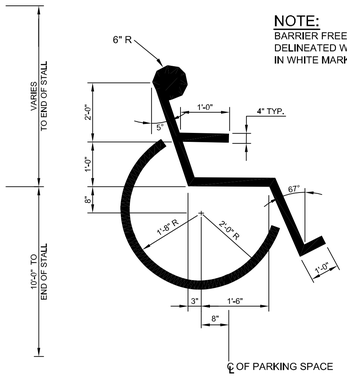


A VERTICAL TO SLOPED CURB TRANSITION STONES
N.T.S.

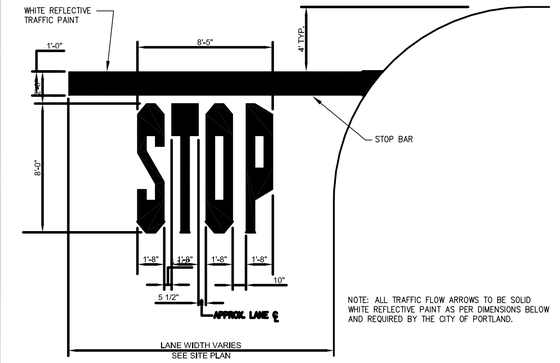


D PIPE CONNECTION TO EXISTING STRUCTURE DETAIL
N.T.S.



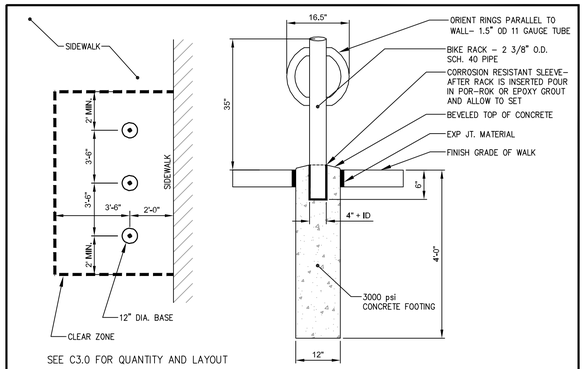
NOTE:
BARRIER FREE STALLS SHALL BE DELINEATED WITH THIS SYMBOL IN WHITE MARKING.

G INTERNATIONAL BARRIER FREE SYMBOL
N.T.S.



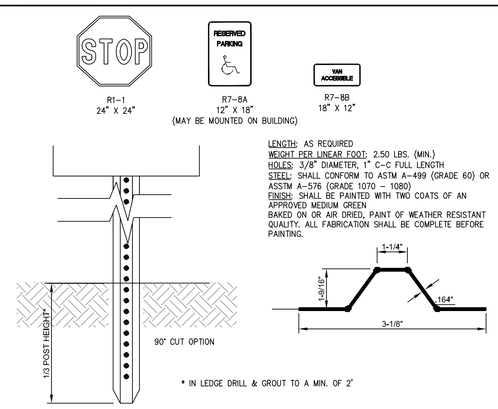
NOTE: ALL TRAFFIC FLOW ARROWS TO BE SOLID WHITE REFLECTIVE PAINT AS PER DIMENSIONS BELOW AND REQUIRED BY THE CITY OF PORTLAND.

J TYPICAL PAVEMENT MARKINGS
N.T.S.

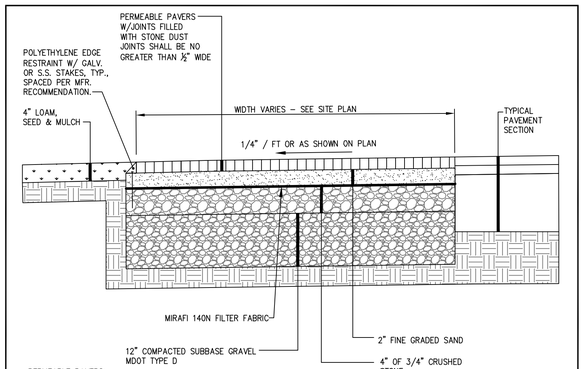


MFR: DERO BIKE RACKS
IN–GROUND MOUNT,
POWDER COAT FINISH
COLOR: BLACK
www.dero.com
1–800–298–4915

B BIKE HITCH MOUNTING DETAIL
N.T.S.

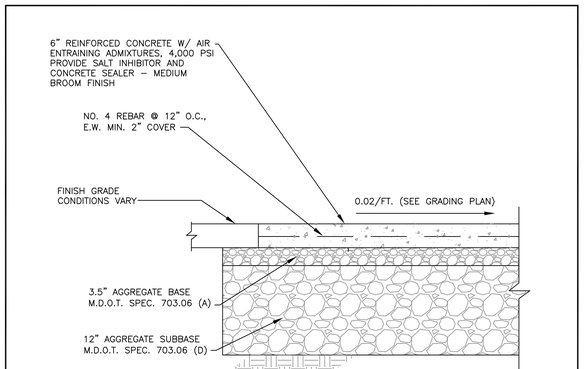


E SIGN LEGEND & SIGN POST
N.T.S.

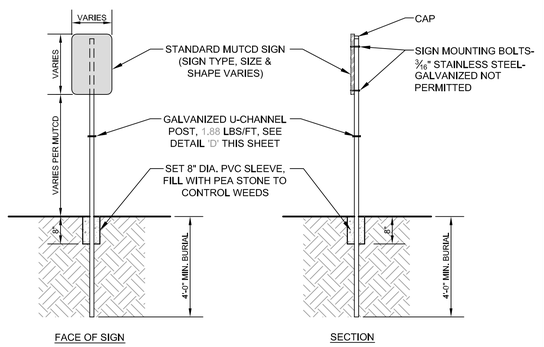


PERMEABLE PAVERS:
STORM PAVE, ENGLISH EDGE CLAY PAVER, 4 x 8 NOMINAL, MFRD. BY PINE HALL BRICK.
PATTERN: HEADER BORDER, 90° HERRINGBONE INFILL
COLORS: SEE PAVER LAYOUT DETAIL FOR SPECIFIC PATTERN & AREAS OF COLOR.
SUBMIT COLOR SAMPLES FOR FINAL COLOR SELECTION.

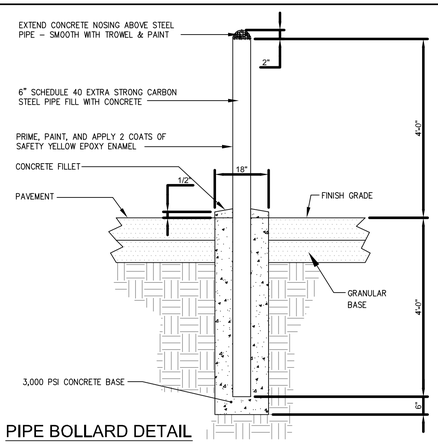
H PERMEABLE PAVER SECTION DETAIL
N.T.S.



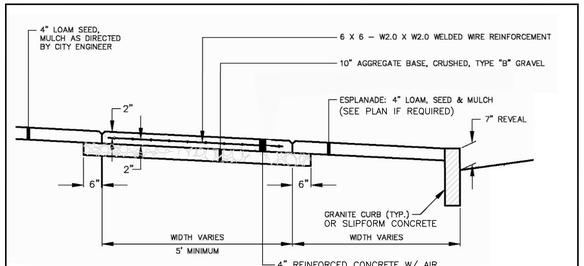
K REINFORCED CONCRETE PAD DETAIL
N.T.S.



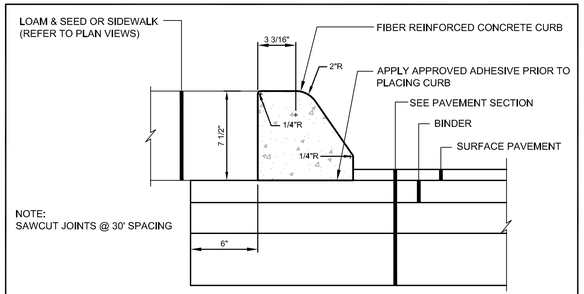
C TRAFFIC SIGN
N.T.S.



F PIPE BOLLARD DETAIL
N.T.S.



I REINFORCED CONCRETE SIDEWALK DETAIL
N.T.S.



L STANDARD DUTY SLIP FORM CONCRETE CURB
N.T.S.

Prepared For: DEVELOPERS COLLABORATIVE PREDEVELOPMENT L.L.C. 17 CHESTNUT STREET PORTLAND, ME 04101	Project: NATHAN CLIFFORD SCHOOL REDEVELOPMENT FALMOUTH STREET PORTLAND, MAINE	Revisions: 12.20.13 - RELEASED FOR BIDS 11.19.13 - FINAL PLAN SUBMISSION 11.12.13 - FINAL PLAN SUBMISSION 11.05.13 - FINAL PLAN SUBMISSION 10.16.13 - REV. PLAN SUBMISSION 10.01.13 - PRELIMINARY PLAN SUBMISSION TO CITY	
Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	STATE OF MAINE STEPHEN R. ASHLEY No. 7429 LICENSED PROFESSIONAL ENGINEER	Date: OCT. 2012	Scale: N.T.S.
		DETAILS	C-7.1

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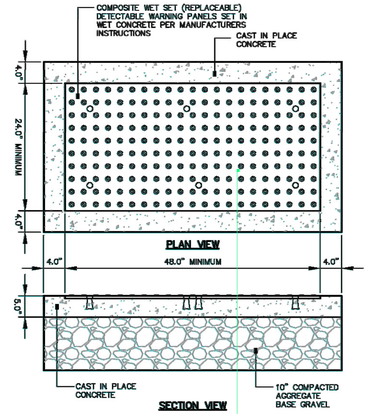
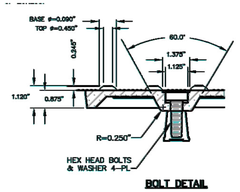


SIDEWALK RAMP DETECTABLE WARNING PANEL

NOT TO SCALE

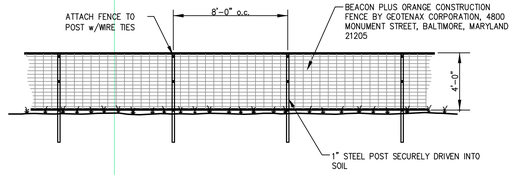


BOLT DETAIL

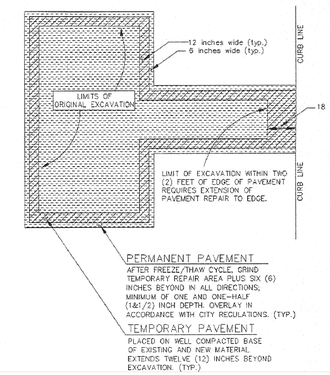
NOTES:

1. COMPOSITE WET SET (REPLACEABLE) DETECTABLE WARNING PANELS SHALL BE AS MANUFACTURED BY ADA SOLUTIONS, INC. (WWW.ADATILE.COM), OR APPROVED EQUAL.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MAINE D.O.T. CLASS A STRUCTURAL CONCRETE, MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE CONCRETE SHALL BE SEALED PRIOR TO SETTING PANELS. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A GROOVED EDGE BETWEEN THE PANEL AND CONCRETE, ALONG WITH A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
3. TRUNCATED DOMES SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.
4. FOR ALL DETECTABLE WARNING PANELS (EXCEPT AS SPECIFIED IN FIGURE I-7A AND TECHNICAL MANUAL SECTION 1.8.4.), FEDERAL YELLOW COLORED (#33538) PANELS SHALL BE USED. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
5. SIZE: THE DETECTABLE WARNING PANEL(S) SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
6. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.

A SIDEWALK RAMP DETECTABLE WARNING PANEL
N.T.S.

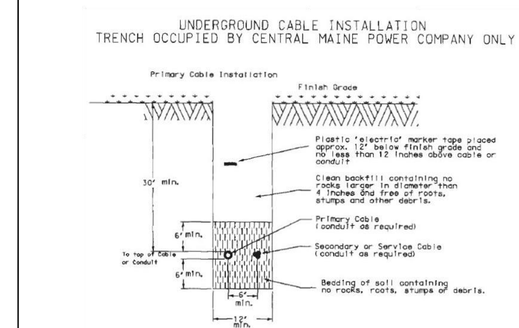


C ORANGE CONSTRUCTION FENCE DETAIL
N.T.S.

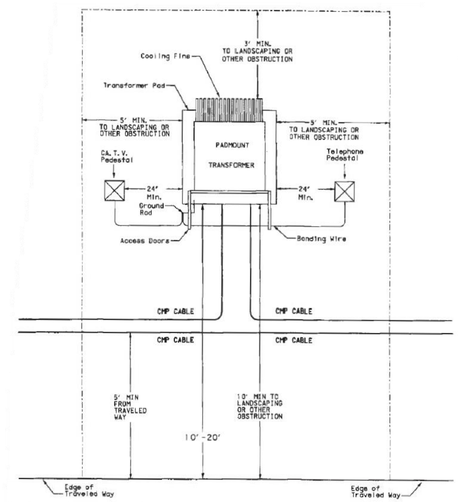


NOTE: AS TAKEN FROM THE CITY OF PORTLAND "RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC RIGHT OF WAY"

D PLAN VIEW OF MINOR EXCAVATION PAVEMENT REPAIR
N.T.S.



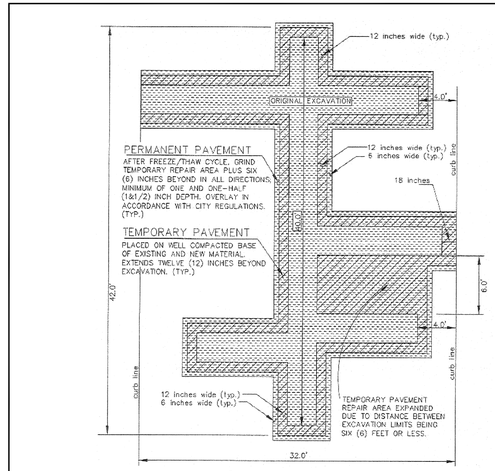
F UNDERGROUND CABLE TRENCH FOR POWER ONLY
N.T.S.



Preferred layout of a padmount transformer and direct buried underground distribution system. Prior CMP approval is required for any deviation from this layout.

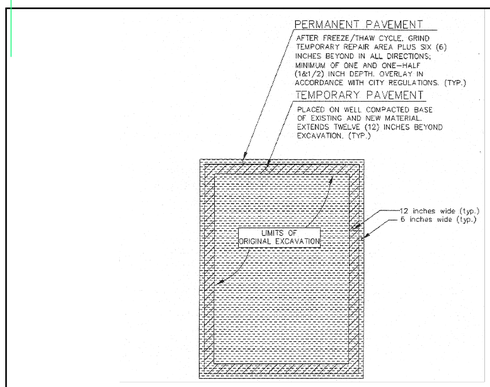
At each transformer location a level 10 foot by 10 foot (minimum) area will be provided. The elevation of this area shall be sufficiently high to always be above the highest expected water level and at or above the top of any nearby ditch slope. The transformer foundation shall be installed so the top of the foundation is 6 inches above this elevation. The transformer foundation shall be installed no more than 20 feet from a road surface.

H CMP PADMOUNT TRANSFORMER LAYOUT (IF REQUIRED)
N.T.S.



NOTE: AS TAKEN FROM THE CITY OF PORTLAND "RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC RIGHT OF WAY"

B PLAN VIEW OF MAJOR EXCAVATION PAVEMENT REPAIR
N.T.S.



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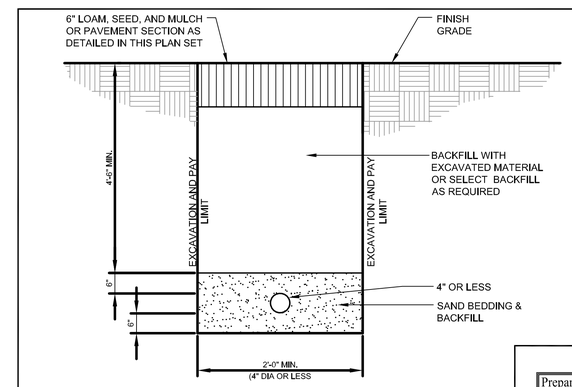
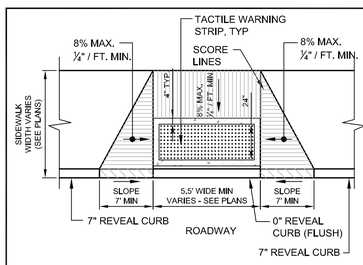
E PLAN VIEW OF MINOR EXCAVATION PAVEMENT REPAIR
N.T.S.



G WATER SERVICE TRENCH DETAIL
N.T.S.



NOTE:
1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA).
2. ALL RAMPS WITHIN THE TOWN OF SCARBOURG RIGHT-OF-WAY (U.S. ROUTE ONE AND LINCOLN AVENUE) SHALL HAVE DETECTABLE WARNINGS THE FULL DEPTH AND WIDTH OF THE RAMP PER SECTION 4.29 OF THE ADA. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES A DIAMETER OF 0.90 INCHES, A HEIGHT OF NOMINAL 0.20 INCHES AND A SPACING OF 2.35 INCHES CENTER TO CENTER. THESE SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
3. A TACTILE WARNING STRIP IS REQUIRED WHERE RAMP ABUTS AREA USED BY MOTORIZED VEHICLES.

I BARRIER FREE RAMP DETAILS
N.T.S.

Prepared For:
DEVELOPERS COLLABORATIVE PREDEVELOPMENT L.L.C.
17 CHESTNUT STREET
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Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

STATE OF MAINE STEPHEN P. DUSHEY No. 7429 LICENSED PROFESSIONAL ENGINEER

Date: OCT. 2012
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DETAILS

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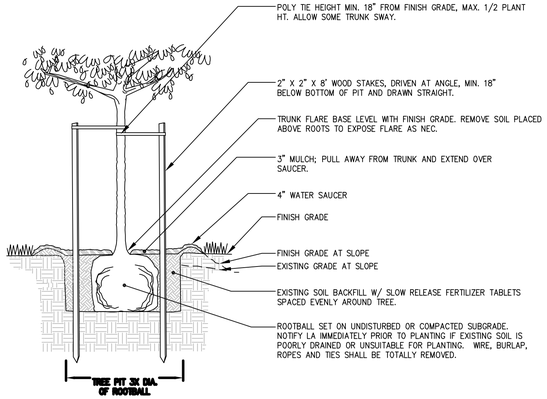
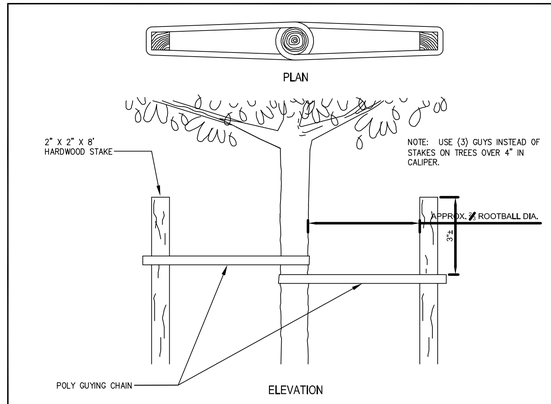
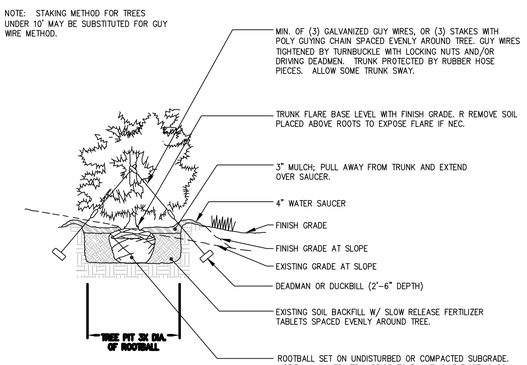


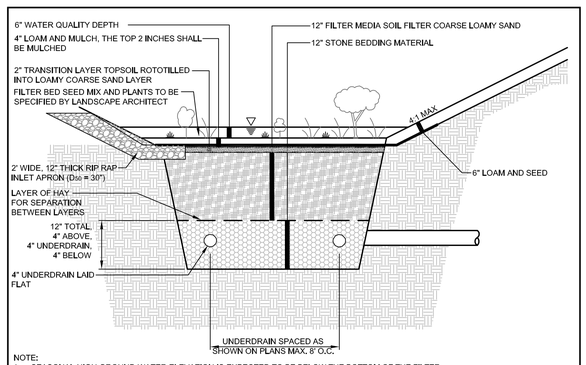
A TREE INSTALLATION DETAIL: <10' HT.
N.T.S.



D POLY GUYING DETAIL
N.T.S.

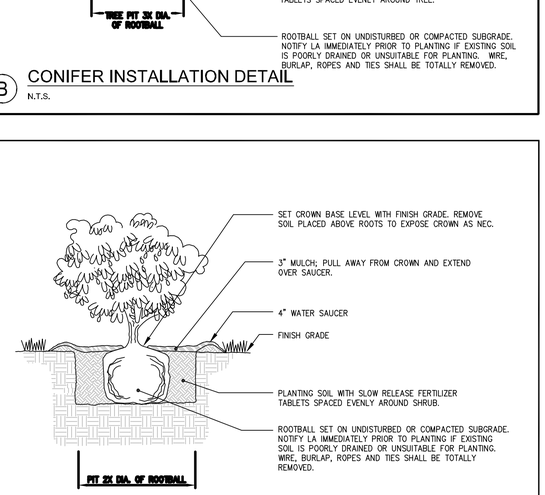


B CONIFER INSTALLATION DETAIL
N.T.S.



NOTE:
1. SEASONAL HIGH GROUND WATER ELEVATION IS EXPECTED TO BE BELOW THE BOTTOM OF THE FILTER.
2. MULCH SHALL BE THE COLOR AS SPECIFIED BY THE LANDSCAPE ARCHITECT.
3. SEE DETAIL FOR FILTER REQUIREMENTS.

E TYPICAL SECTION FOR RAIN GARDEN
N.T.S.



C SHRUB INSTALLATION DETAIL
N.T.S.

1. SPECIFIC DESIGN CRITERIA

A. UNDERDRAIN PIPE*: PROPER LAYOUT OF THE PIPE UNDERDRAIN SYSTEM IS NECESSARY TO EFFECTIVELY DRAIN THE ENTIRE FILTER AREA. THERE MUST BE AT LEAST ONE LINE OF UNDERDRAIN PIPE FOR EVERY EIGHT FEET OF FILTER AREA'S WIDTH. THE SLOPE OF THE INSTALLED UNDERDRAIN PIPE MUST BE POSITIVE. THE UNDERDRAIN PIPING SHOULD BE 4" TO 6" SLOTTED, RIGID SCHEDULE 40 PVC OR SDR35. STRUCTURE JOINTS SHALL BE SEALED SO THAT THEY ARE WATERTIGHT..

B. PIPE BEDDING AND TRANSITION ZONE: THE 1 TO 18 INCH DIAMETER PERFORATED UNDERDRAIN PIPE(S) MUST BE BEDDED IN 9 INCHES OF UNDERDRAIN MATERIAL WITH AT LEAST 4 INCHES OF MATERIAL BENEATH THE PIPE AND 4 INCHES ABOVE. TWO OPTIONS FOR PIPE BEDDING ARE PROVIDED BELOW; HOWEVER OPTION 1 IS PREFERRED:
THE UNDERDRAIN MATERIAL CONSISTS OF WELL GRADED, CLEAN, COARSE GRAVEL MEETING THE MEDOT SPECIFICATION 703.22 UNDERDRAIN TYPE B FOR UNDERDRAIN BACKFILL. THE MATERIAL MUST CONTAIN LESS THAN 5% FINES PASSING THE #200 SIEVE. NO TRANSITION ZONE IS NECESSARY SINCE THE DRAINAGE PIPE IS BEDDED IN LESS PERVIOUS GRAVEL AND THIS DESIGN IS ACCEPTABLE FOR AREAS WHERE THE HEAD OR DEPTH TO SEASONAL HIGH GROUNDWATER IS CLOSE TO THE BOTTOM OF THE DRAINAGE LAYER. UNDERDRAIN PIPES MUST BE PLACED NO FURTHER THAN 8 FEET APART.

C. SOIL FILTER BED: THE SOIL FILTER MUST BE AT LEAST 18 INCHES DEEP ON TOP OF THE GRAVEL UNDERDRAIN PIPE BEDDING AND MUST EXTEND ACROSS THE BOTTOM OF THE ENTIRE FILTER AREA. THIS SOIL MIXTURE SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS CAN BE MIXED WITHIN THE FILTER.

D. SOIL FILTER MEDIA: SOIL MEDIA MUST CONSIST OF A LOAMY COARSE SAND SOIL ORGANIC SOURCES MUST BE APPROVED BY THE DEPARTMENT; HOWEVER AN AGRICULTURAL SOURCE IS NOT ACCEPTABLE FOR THE ORGANIC COMPONENT OF THE MEDIA.
THE RESULTING MIXTURE MUST HAVE NO LESS THAN 8% PASSING THE 200 SIEVE AND SHALL HAVE A CLAY CONTENT OF LESS THAN 2%. THE SYSTEM MUST BE DESIGNED TO DRAIN THE SURFACE STORAGE VOLUME IN NO LESS THAN 24 HOURS AND NO MORE THAN 48 HOURS.

AS AN EXAMPLE, THE MIXTURE MAY CONTAIN BY VOLUME THE FOLLOWING:
65% OF SANDY (MEDOT #703.01 CONTAINS INSUFFICIENT FINE FOR THE MEDIA)
35% OF LOAMY TOPSOIL

E. CLAY CONTENT: USE OF SOILS WITH MORE THAN 2 % CLAY CONTENT COULD CAUSE FAILURE OF THE SYSTEM AND CARE SHOULD BE TAKEN, ESPECIALLY IN AREAS WHERE THE PREDOMINANT SOIL CONTAINS MARINE CLAY, THAT THE SAND AND TOPSOIL USED IN THE MIXTURE HAVE VERY LITTLE OR NO CLAY CONTENT.

F. FILTER PERMEABILITY: THE FILTER MUST BE PERMEABLE ENOUGH TO INSURE DRAINAGE WITHIN 48 HOURS MAXIMUM, YET HAVE SUFFICIENT FINES TO INSURE FILTRATION OF FINE PARTICLES AND REMOVAL OF DISSOLVED POLLUTANTS. THE DESIGN MAY EITHER RELY ON THE SOIL PERMEABILITY, IF KNOWN, TO PROVIDE THE SLOW RELEASE OF THE WATER TREATMENT VOLUME OVER A MINIMUM OF 24 HOURS, OR MAY INSURE THIS RATE BY INSTALLING A CONSTRICTIVE ORIFICE OR VALVE ON THE UNDERDRAIN OUTLET. IN DETERMINING THE PERMEABILITY OF THE MEDIA, THE PERCENT FINES OF THE MIXTURE AND THE LEVEL OF COMPACTION SHOULD BE CONSIDERED. GENERALLY, THE SOIL MEDIA SHOULD BE ONLY LIGHTLY COMPACTED BETWEEN 90 AND 92% STANDARD PROCTOR (ASTM D698) AND SHALL HAVE A PERMEABILITY OF 2.4 IN/HR TO 4 IN/HR.

G. GRADATION TESTING: GRADATION TESTS, INCLUDING HYDROMETER TESTING FOR CLAY CONTENT, AND PERMEABILITY TESTING OF THE SOIL FILTER MATERIAL SHALL BE PERFORMED BY A QUALIFIED SOIL TESTING LABORATORY AND SUBMITTED TO THE PROJECT ENGINEER FOR REVIEW BEFORE PLACEMENT AND COMPACTION.

H. GEOTEXTILE FABRIC: A GEOTEXTILE FABRIC WITH SUITABLE CHARACTERISTICS MAY BE PLACED BETWEEN THE SIDES OF THE FILTER LAYER AND ADJACENT SOIL. THE FABRIC WILL PREVENT THE SURROUNDING SOIL FROM MIGRATING INTO AND CLOGGING THE FILTER AND CLOGGING THE OUTLET. OVERLAP SEAMS MUST BE A MINIMUM OF 12 INCHES. DO NOT WRAP FABRIC OVER THE TOP OF THE PIPE BEDDING AS IT WILL CAUSE CLOGGING AND WILL PREVENT FLOWS OUT OF THE FILTER. THE GEOTEXTILE FABRIC SHALL BE MIRAFI 170N OR EQUIVALENT.

I. VEGETATION: THE SOIL FILTER SURFACE MUST BE PLANTED WITH NATIVE LANDSCAPE PLANTS TOLERANT OF FREQUENT INUNDATION AND WELL DRAINED SOILS. UPON PLANTING, THE SOIL FILTER SHALL BE MULCHED WITH A WELL AGED, UNIFORM IN COLOR AND FREE OF FOREIGN MATERIAL INCLUDING PLANT ROOT MATERIAL BARK MULCH.

2. CONSTRUCTION CRITERIA

A. BASIN EXCAVATION: THE AREA OF THE BASIN MAY BE EXCAVATED IN PREPARATION OF THE INSTALLATION OF THE UNDERDRAIN AND CAN BE USED FOR A SEDIMENT TRAP FROM THE SITE DURING CONSTRUCTION. AFTER EXCAVATION OF THE BASIN, THE OUTLET STRUCTURE AND PIPING SYSTEM MUST BE INSTALLED AT THE APPROPRIATE ELEVATION AND PROTECTED WITH A SEDIMENT BARRIER. IF THE BASIN IS TO BE USED AS A SEDIMENT TRAP, THE SIDES OF THE EMBANKMENTS MUST BE MULCHED AND MAINTAINED TO PREVENT EROSION.

B. COMPACTION OF SOIL FILTER: FILTER SOIL MEDIA AND UNDERDRAIN BEDDING MATERIAL MUST BE COMPACTED TO BETWEEN 90 AND 92% STANDARD PROCTOR. THE BED SHOULD BE INSTALLED IN AT LEAST 2 LIFTS OF 9 INCHES TO PREVENT POCKETS OF LOOSE MEDIA.

C. OUTLET DISCHARGE: OUTFLOW OF THE FILTER BASIN UNDERDRAIN WILL BE CONTROLLED BY A CONSTRICTIVE ORIFICE. THIS MAY BE A 6" UD CAP WITH 2" ORIFICE HOLE WITHIN THE EXISTING CATCH BASIN.

D. CONSTRUCTION SEQUENCE: EROSION AND SEDIMENTATION FROM UNSTABLE SUBCATCHMENTS IS THE MOST COMMON REASON FOR FILTER FAILURE. NOT HEEDING THE CONSTRUCTION SEQUENCING CRITERIA IS LIKELY TO RESULT IN THE NEED TO REPLACE THE SOIL FILTER. THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION. OTHERWISE, THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA MUST BE DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED UNLESS THE DEPARTMENT HAS DETERMINED, ON A CASE-BY-CASE BASIS, THAT SUFFICIENT MEASURES ARE BEING TAKEN TO PREVENT EROSION OF MATERIAL FROM THE UNSTABLE CATCHMENT AREA AND DEPOSITION ON THE FILTER.

LOAM COVER:

A. TOPSOIL SHALL BE OBTAINED FROM A PREVIOUSLY ESTABLISHED STOCKPILE ON THE SITE, TO THE EXTENT AVAILABLE. ADDITIONAL TOPSOIL REQUIRED SHALL BE OBTAINED FROM OFF-SITE SOURCES.

B. TOPSOIL, WHETHER STRIPPED FROM SITE OR SUPPLIED FROM OFF-SITE, SHALL BE A SANDY LOAM OR LOAM SOIL AS DEFINED BY THE USDA SOIL CONSERVATION SERVICE, SOIL CLASSIFICATION SYSTEM, AND SHALL HAVE THE FOLLOWING MECHANICAL ANALYSIS:

Textural Class	% of Total Weight	Average %
Sand (0.05-2.0 mm dia. range)	45 to 70	60
Silt (0.002-0.05 mm dia. range)	2 to 35	25
Clay (less than 0.002 m dia. range)	1 to 2	<2

1. 95% OF TOPSOIL SHALL PASS A 2.0 MM SIEVE.
2. TOPSOIL SHALL BE FREE OF STONES 1 IN. IN LONGEST DIMENSION, EARTH CLODS, PLANT PARTS, AND DEBRIS. ALL TOPSOIL SHALL BE SCREENED USING A 3/8" SCREEN.
3. ORGANIC MATTER CONTENT SHALL BE AN AVERAGE OF 8% OF TOTAL DRY WEIGHT WITH A MINIMUM OF ANY SAMPLE BEING 6%.

C. TOPSOIL SHALL HAVE A PH VALUE RANGE OF 6.0 TO 6.5.

1. IF PLANTING SOIL MIXTURE DOES NOT FALL WITHIN THE REQUIRED PH RANGE, LIMESTONE OR ALUMINUM SULFATE SHALL BE ADDED TO BRING THE PH WITHIN THE SPECIFIED LIMIT.
2. IF PH IS BELOW DESIRED LEVEL ADD GROUND LIMESTONE. IF PH IS ABOVE DESIRED LEVEL ADD ALUMINUM SULFATE.

D. CONSTRUCTION OVERSIGHT: INSPECTION OF THE FILTER BASIN SHALL BE PROVIDED FOR EACH PHASE OF CONSTRUCTION BY THE DESIGN ENGINEER WITH REQUIRED REPORTING TO THE CITY OF PORTLAND, AT A MINIMUM, INSPECTIONS WILL OCCUR:
-AFTER PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED;
-AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA;
-AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SEEDED;
-PRIOR TO SUBSTANTIAL COMPLETION, LABOR DAY AND COLUMBUS DAY THE HEALTH OF THE VEGETATION SHALL BE INSPECTED AND THE CONTRACTOR SHALL DEVELOP A PLAN TO ESTABLISH TURF IN THE FILTER; AND
-ALL MATERIAL USED FOR THE CONSTRUCTION OF THE FILTER BASIN WILL BE APPROVED BY THE DESIGN ENGINEER AFTER TESTS BY A CERTIFIED LABORATORY SHOW THAT THEY ARE PASSING DEP SPECIFICATIONS.

G. TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL:
SUBMIT SAMPLES OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY. PERFORM A SIEVE ANALYSIS CONFORMING TO ASTM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES; 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED HYDROMETER GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER.
PERFORM A PERMEABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698.

3. MAINTENANCE CRITERIA
DURING THE FIRST YEAR, THE BASIN WILL BE INSPECTED SEMI-ANNUALLY AND FOLLOWING MAJOR STORM EVENTS.

DEBRIS AND SEDIMENT BUILDUP SHALL BE REMOVED FROM THE FOREBAY AND BASIN AS NEEDED.

ANY BARE AREA OR EROSION RILLS SHALL BE REPAIRED WITH NEW FILTER MEDIA OR SANDY LOAM THEN SEEDED AND MULCHED.

MAINTAINING GOOD PLANTING GROWTH WILL MINIMIZE CLOGGING WITH FINE SEDIMENTS AND IF PONDING EXCEEDS 48 HOURS, THE TOP OF THE FILTER BED MUST BE ROTOTILLED TO REESTABLISH THE SOIL'S FILTRATION CAPACITY IF EXTENDED PONDING IS OBSERVED.

A. MAINTENANCE AGREEMENT: AN OWNER'S AGENT IS RESPONSIBLE FOR INSPECTING AND MAINTAINING ANY UNDERDRAINED FILTER. OTHER STORMWATER O&M REQUIREMENTS ARE INCLUDED WITH PERMIT APPLICATION.

B. SOIL FILTER INSPECTION: THE SOIL FILTER SHOULD BE INSPECTED AFTER EVERY MAJOR STORM IN THE FIRST YEAR TO BE SURE IT IS FUNCTIONING PROPERLY. THEREAFTER, THE FILTER SHOULD BE INSPECTED AT LEAST ONCE EVERY SIX MONTHS TO ENSURE THAT IT IS DRAINING WITHIN 48 HOURS FOLLOWING A ONE INCH STORM OR GREATER, AND THAT FOLLOWING A STORMS THAT FILL THE SYSTEM TO OVERFLOW, IT DRAINS IN NO LESS THAN 36 TO 60 HOURS. IF THE SYSTEM DRAINS TOO FAST, AN ORIFICE MAY NEED TO BE ADDED ON THE UNDERDRAIN OUTLET OR, IF ALREADY PRESENT, MAY NEED TO BE MODIFIED.

C. SOIL FILTER REPLACEMENT: THE TOP SEVERAL INCHES OF THE FILTER SHALL BE REPLACED WITH FRESH MATERIAL WHEN WATER PONDS ON THE SURFACE OF THE BED FOR MORE THAN 72 HOURS. THE REMOVED SEDIMENTS SHOULD BE DISPOSED OF IN AN ACCEPTABLE MANNER.

D. SEDIMENT REMOVAL: SEDIMENT AND PLANT DEBRIS SHOULD BE REMOVED FROM THE PRETREATMENT STRUCTURE AT LEAST ANNUALLY.

E. FERTILIZATION: FERTILIZATION OF THE UNDERDRAINED FILTER AREA SHOULD BE AVOIDED UNLESS ABSOLUTELY NECESSARY TO ESTABLISH VEGETATION.

F. HARVESTING AND WEEDING: HARVESTING AND PRUNING OF EXCESSIVE GROWTH WILL NEED TO BE DONE OCCASIONALLY. WEEDING TO CONTROL UNWANTED OR INVASIVE PLANTS MAY ALSO BE NECESSARY. ADD NEW MULCH ONLY AS NECESSARY FOR BIORETENTION CELL.
A DETAILED O & M SCHEDULE ACCOMPANIES THIS APPLICATION.

F RAIN GARDEN NOTES
N.T.S.

Prepared For:
DEVELOPERS COLLABORATIVE PREDEVELOPMENT L.L.C.
17 CHESTNUT STREET
PORTLAND, ME 04101

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
FALMOUTH STREET
PORTLAND, MAINE

Revisions:
12.20.13 - RELEASED FOR BIDS
11.19.13 - FINAL PLAN SUBMISSION
11.12.13 - FINAL PLAN SUBMISSION
11.05.13 - FINAL PLAN SUBMISSION
10.16.13 - REV. PLAN SUBMISSION
10.01.13 - PRELIMINARY PLAN SUBMISSION TO CITY

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Date: OCT. 2012
Scale: N.T.S.

STATE OF MAINE — STEPHEN A. BUSHEY — No. 7429 — LICENSED PROFESSIONAL ENGINEER

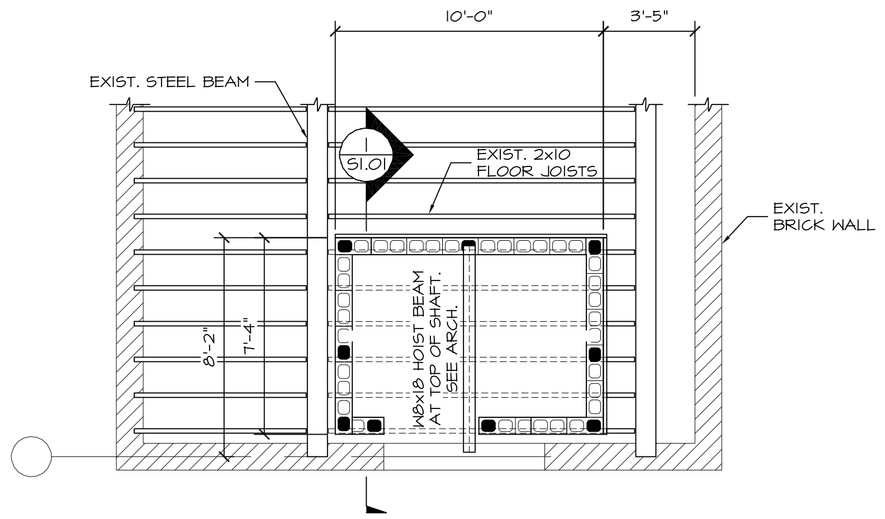
DETAILS

C-7.3

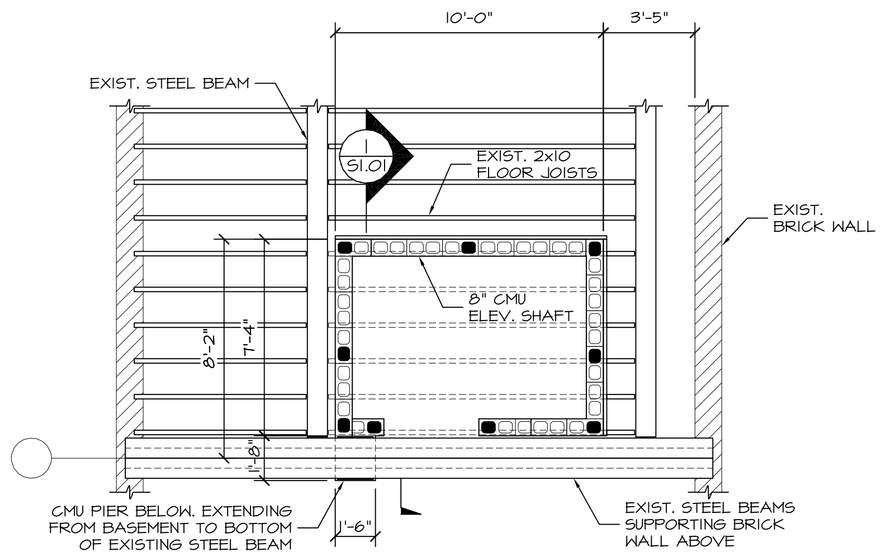
ENGINEERS FST Since 1914
FAY, SPOFFORD & THORNDIKE, INC.
ENGINEERS · PLANNERS · SCIENTISTS
5 BURLINGTON WOODS, BURLINGTON, MA 01803

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

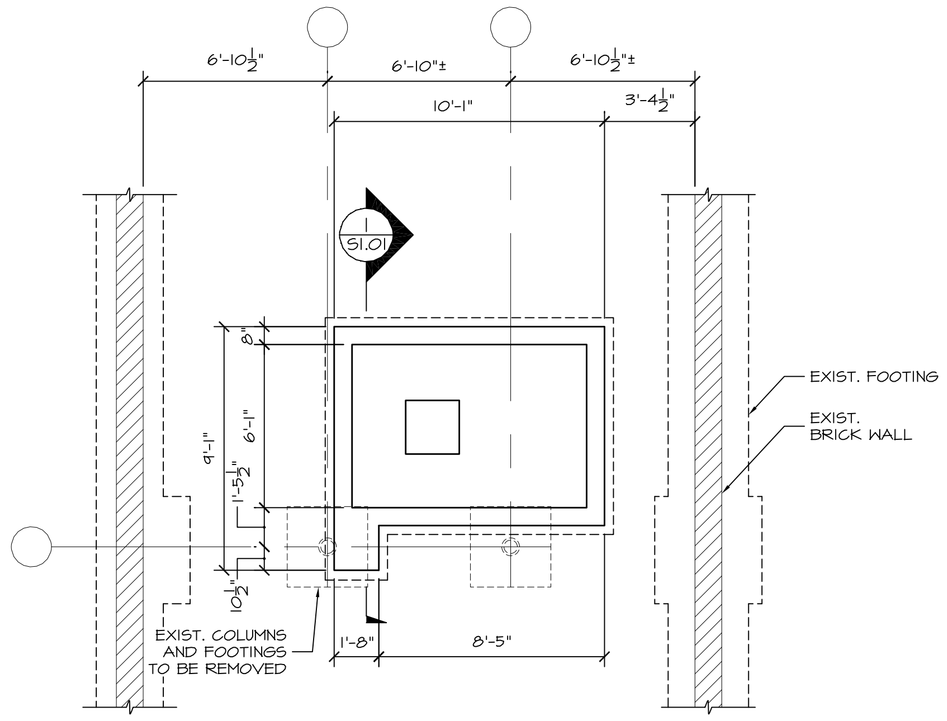
han Clifford School\Cadd\Construction Set\dwg\SP-M101-DET.dwg winter_c 12/19/2013 10:52 AM



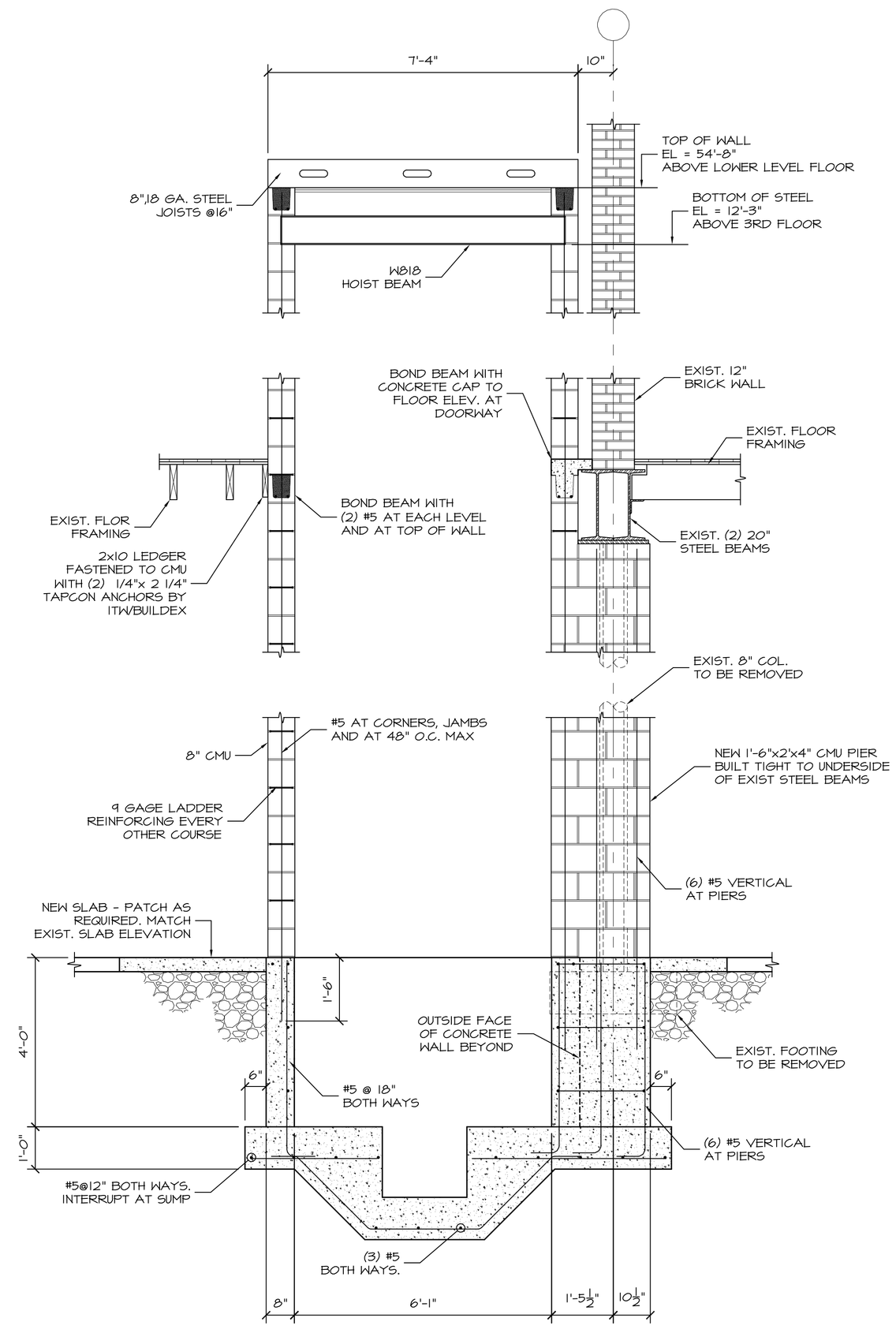
2ND & 3RD FLOOR ELEVATOR PLAN
1/4"=1'-0"



1ST FLOOR ELEVATOR PLAN
1/4"=1'-0"

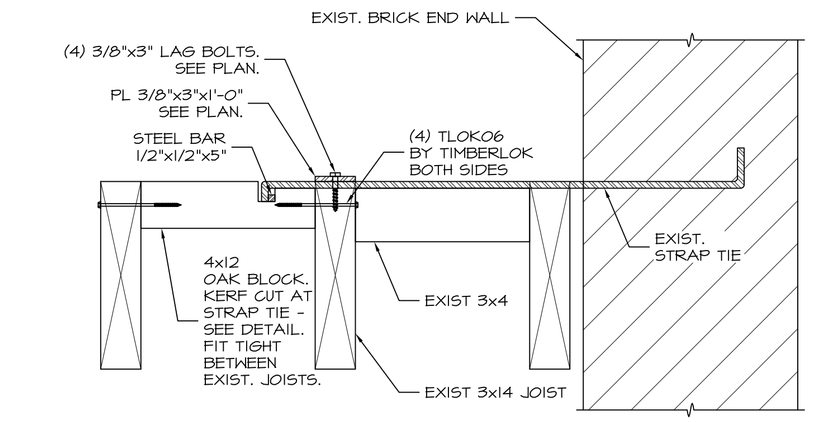


BASEMENT ELEVATOR PLAN
1/4"=1'-0"



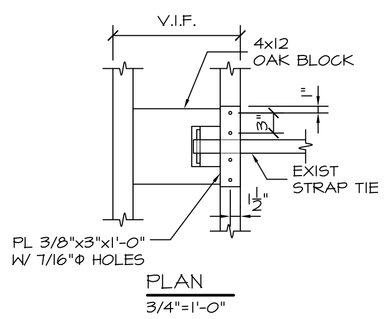
SECTION 1
1/2"=1'-0" S1.01

COORDINATE ALL ELEVATOR PIT DIMENSIONS INCLUDING SUMP SIZE AND LOCATION WITH ELEVATOR SUPPLIER.

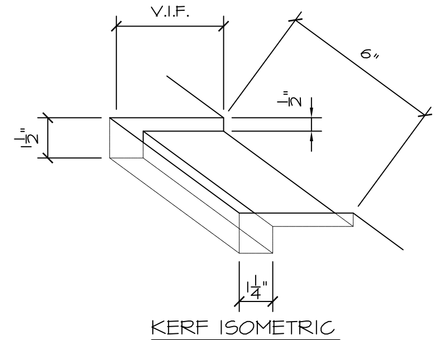


WALL TIE REINFORCEMENT DETAIL
1 1/2"=1'-0"

LOCATE AT EXIST. END WALL TIES ON 2ND AND 3RD FLOORS. 8 REQUIRED AT EACH FLOOR.



PLAN
3/4"=1'-0"



KERF ISOMETRIC

LOOSE LINTEL SCHEDULE	
ROUGH OPENING	LINTEL SIZE
UP TO 3'-0"	L 3 1/2x3 1/2x5/16
>3'-0" TO 4'-6"	L 4x3 1/2x5/16 LLV
>4'-6" TO 6'-0"	L 5x3 1/2x5/16 LLV
>6'-0" TO 9'-0"	L 6x3 1/2x5/16 LLV

INSTALL ONE STEEL ANGLE LINTEL FOR EACH 4" OF WALL THICKNESS.

ALL EXTERIOR LINTELS ARE GALVANIZED.

PROVIDE 6" BEARING AT EACH END.

STATE OF MAINE — DAVID J. TETREAULT No. 4840 — REGISTERED PROFESSIONAL ENGINEER

Prepared For: Developers Collaborative

Consulting Engineer: STRUCTURAL DESIGN CONSULTING — 22 Dalpeard Drive, Old Orchard Beach, ME 04064-4121, Tel 207.934.8038, Fax 207.934.8039

Architect: ARCHETYPE Architects — 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056

Project: NATHAN CLIFFORD SCHOOL REDEVELOPMENT — 180 Falmouth Street Portland, Maine

Revisions:	Date:
Issued for Permit	12/20/13

Scale: As Noted

Date: 20 Nov 2013

STRUCTURAL PLANS, SECTIONS AND DETAILS

CITY OF PORTLAND MAINE — Reviewed and Approved for Code Compliance — Inspection Division — Approved with Conditions

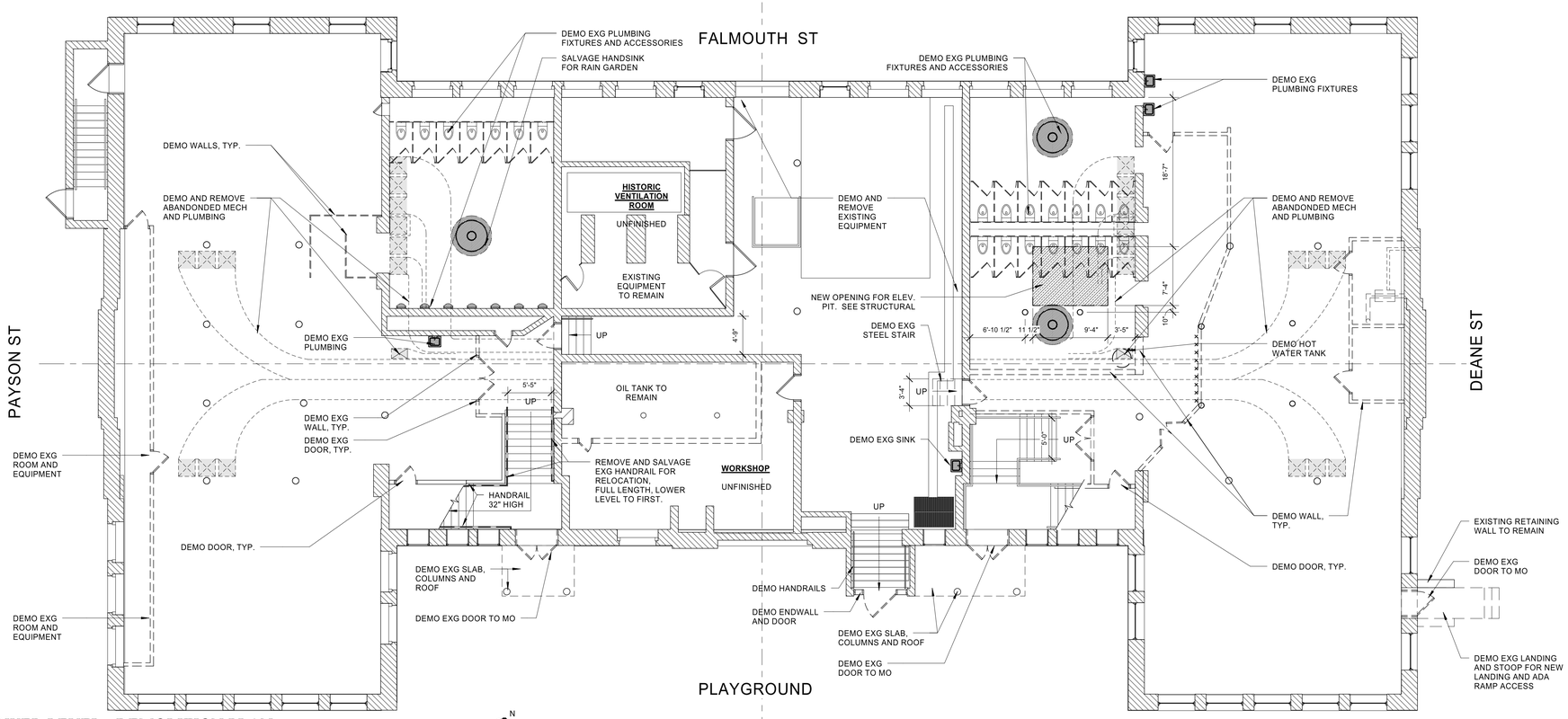
Date: 03/12/14

DEMO PLAN LEGEND

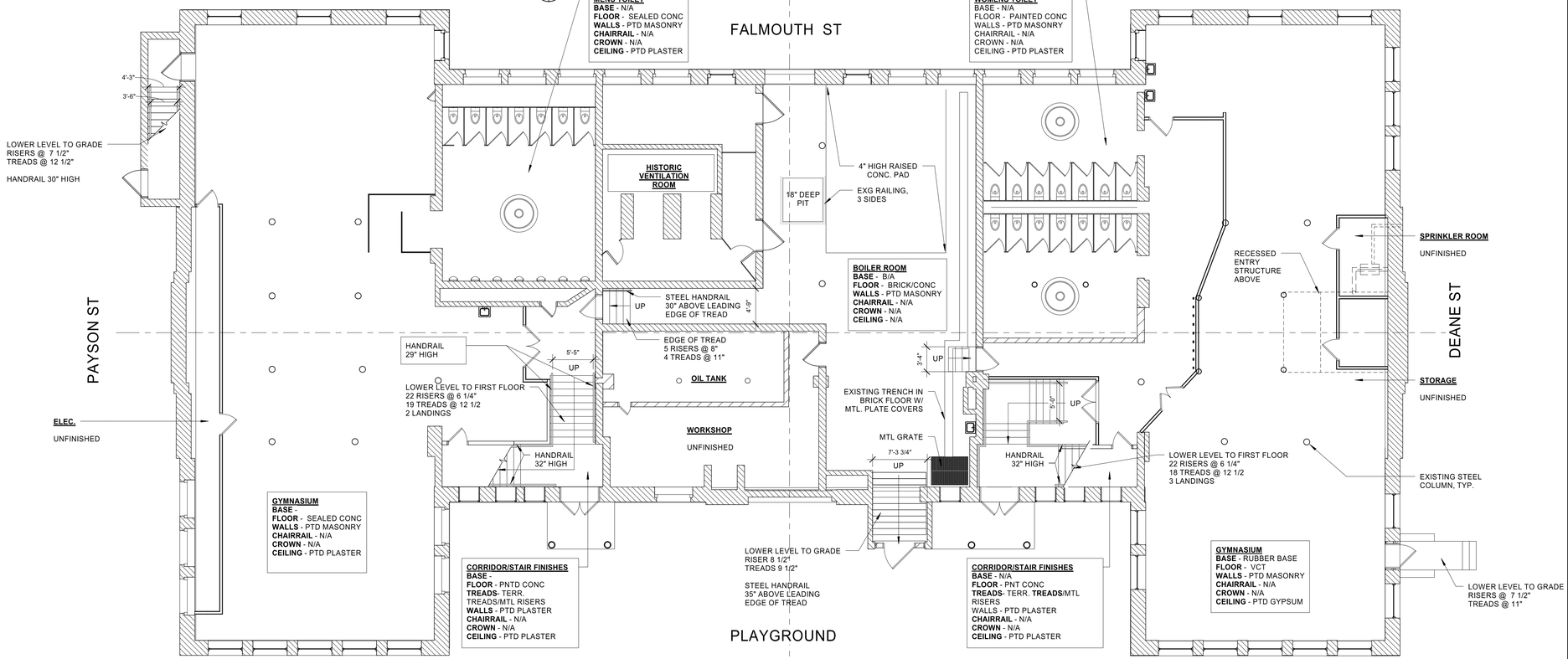
EXISTING CMU WALL	
EXISTING STUD WALL	
EXISTING MASONRY WALL	
DEMO AND REMOVE	
EXISTING DOOR	
DEMO EXISTING DOOR	
DEMO EXISTING FLOOR	
DEMO EXISTING PLUMBING FIXTURE	
DEMO EXISTING RADIATOR	

HISTORIC ELEMENTS

CHALKBOARD - EXG TO REMAIN	
CHALKBOARD - SALVAGE	
COATHOOK RAIL - EXG TO REMAIN	
COATHOOK RAIL - SALVAGE	
EXISTING CASEWORK	
EXISTING RADIATOR	



2 LOWER LEVEL - DEMOLITION PLAN
1/8" = 1'-0"



1 LOWER LEVEL - EXISTING
1/8" = 1'-0"

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-4022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

Date: 15 JAN 2014

LOWER LEVEL - EXG & DEMO PLAN

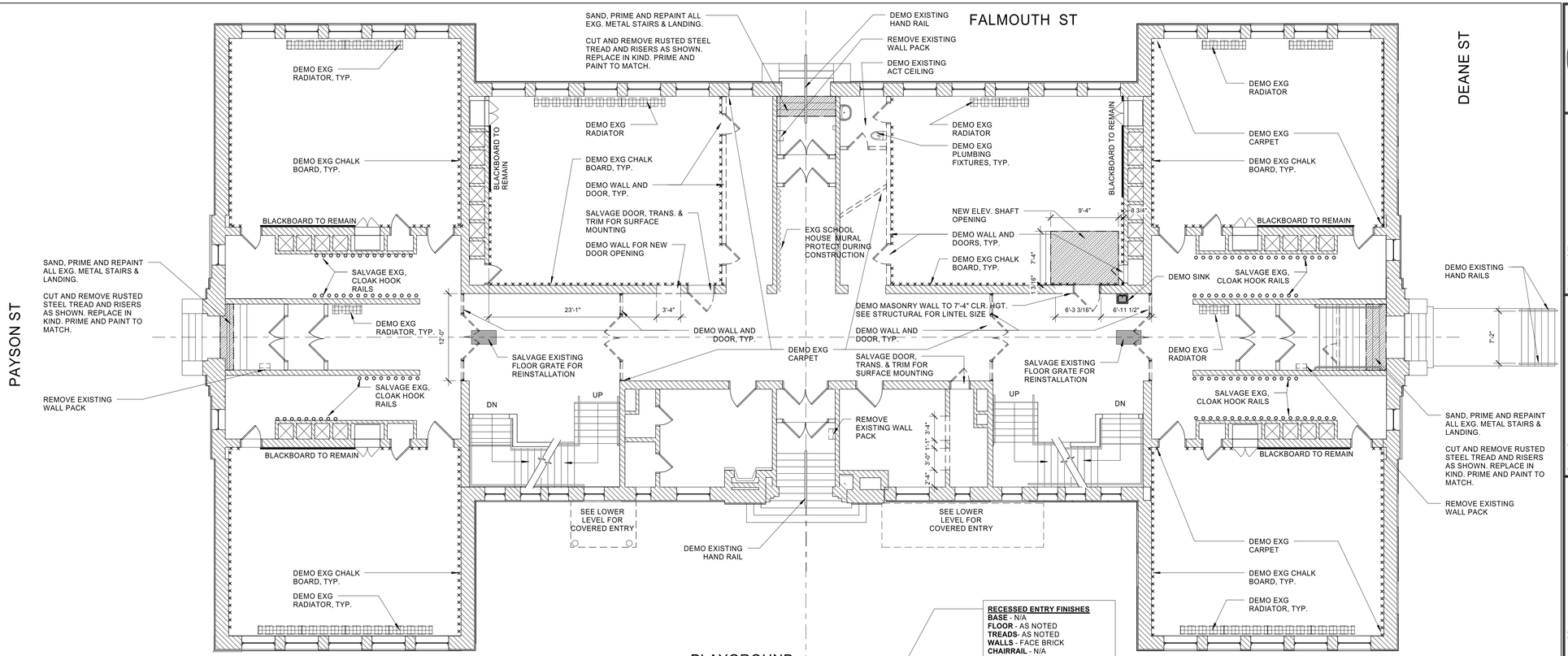
A0.01

DEMO PLAN LEGEND

EXISTING CMU WALL	
EXISTING STUD WALL	
EXISTING MASONRY WALL	
DEMO AND REMOVE	
EXISTING DOOR	
DEMO EXISTING DOOR	
DEMO EXISTING FLOOR	
DEMO EXISTING PLUMBING FIXTURE	
DEMO EXISTING RADIATOR	

HISTORIC ELEMENTS

CHALKBOARD - EXG TO REMAIN	
CHALKBOARD - SALVAGE	
COATHOOK RAIL - EXG TO REMAIN	
COATHOOK RAIL - SALVAGE	
EXISTING CASEWORK	
EXISTING RADIATOR	



2 | FIRST FLOOR - DEMOLITION PLAN
1/8" = 1'-0"

1 | FIRST FLOOR - EXISTING PLAN
1/8" = 1'-0"

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
CITY OF PORTLAND, MAINE
Date: 03/12/14

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-2022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

Date: 15 JAN 2014

FIRST FLOOR - EXG & DEMO PLAN

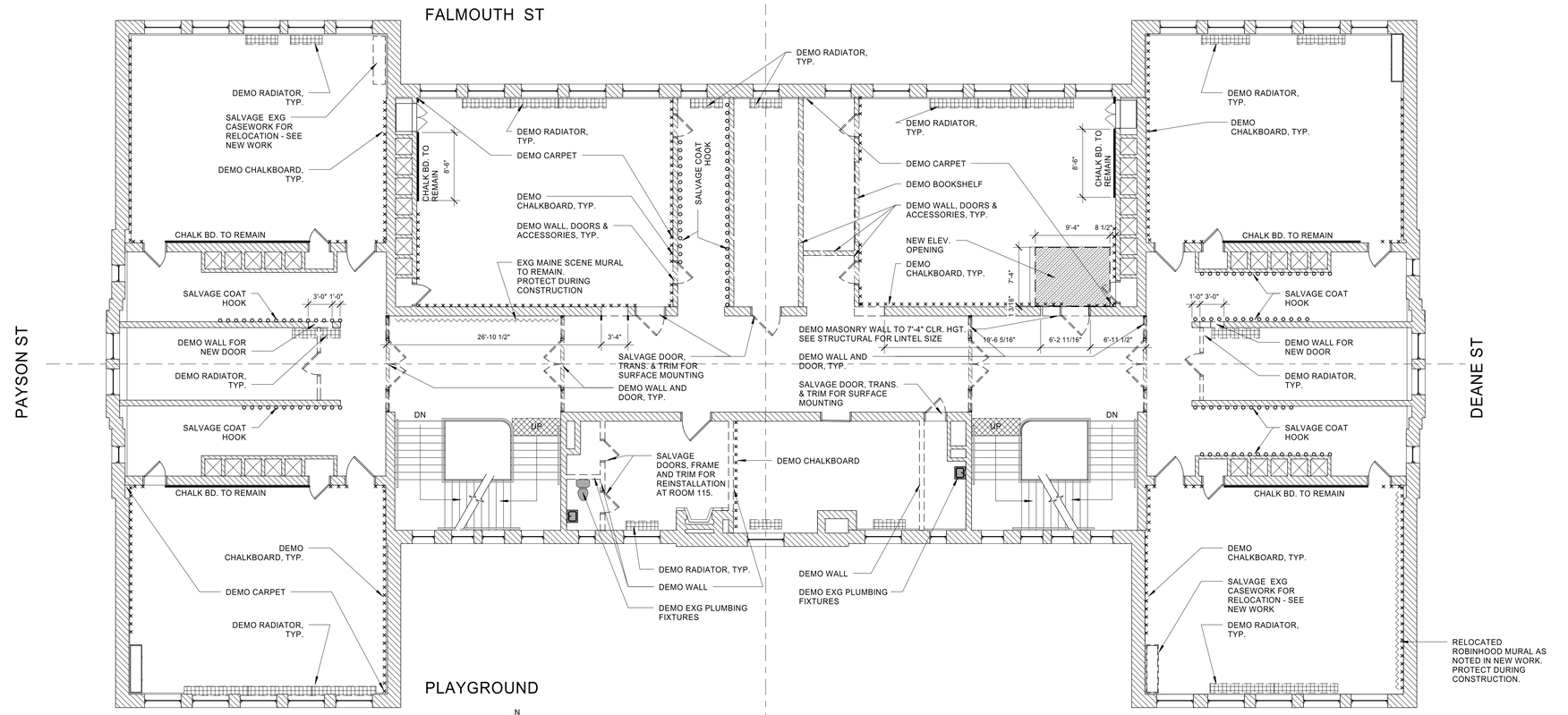
A0.02

DEMO PLAN LEGEND

EXISTING CMU WALL	
EXISTING STUD WALL	
EXISTING MASONRY WALL	
DEMO AND REMOVE	
EXISTING DOOR	
DEMO EXISTING DOOR	
DEMO EXISTING FLOOR	
DEMO EXISTING PLUMBING FIXTURE	
DEMO EXISTING RADIATOR	

HISTORIC ELEMENTS

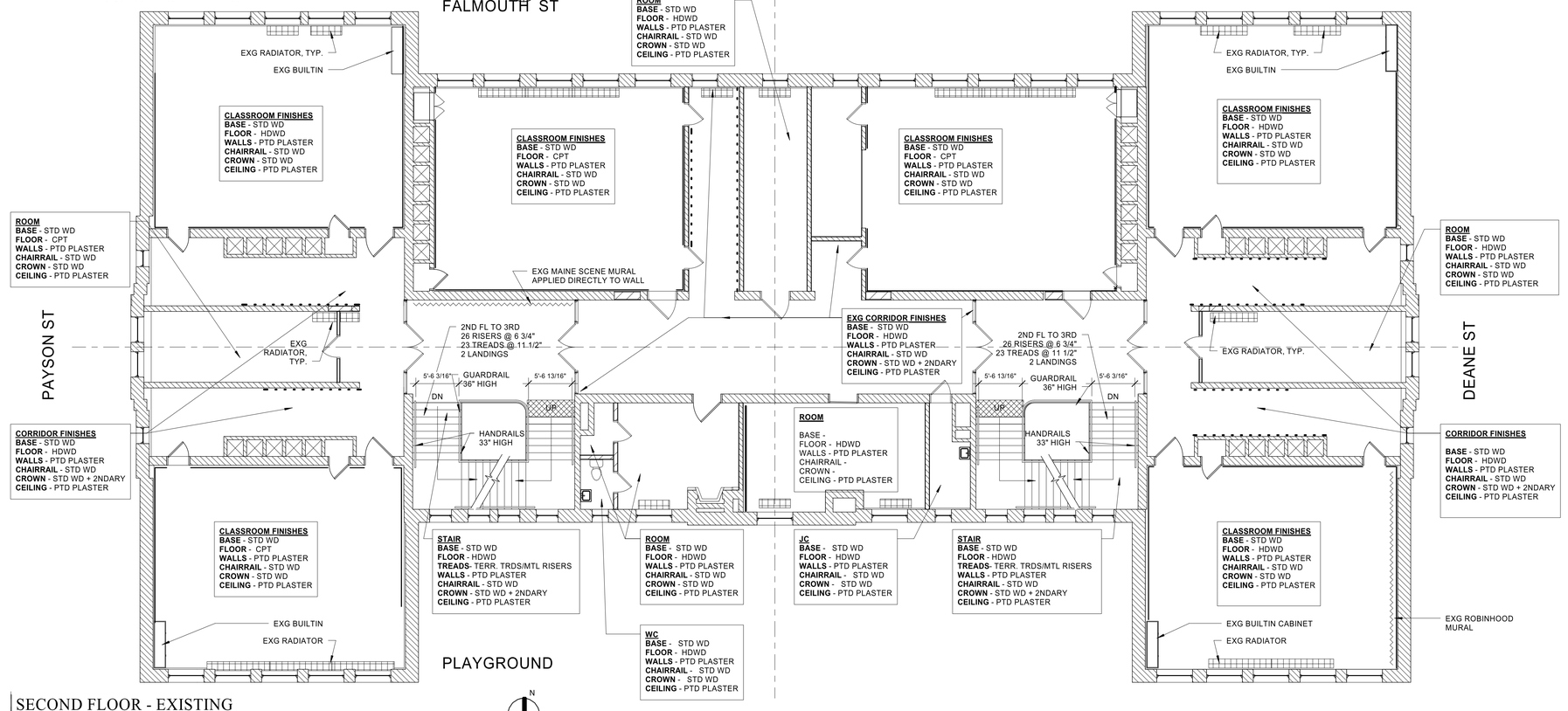
CHALKBOARD - EXG TO REMAIN	
CHALKBOARD - SALVAGE	
COATHOOK RAIL - EXG TO REMAIN	
COATHOOK RAIL - SALVAGE	
EXISTING CASEWORK	
EXISTING RADIATOR	



2 SECOND FLOOR - DEMOLITION

1/8" = 1'-0"

0 2'-0" 4'-0" 8'-0" 16'-0"



1 SECOND FLOOR - EXISTING

1/8" = 1'-0"

0 2'-0" 4'-0" 8'-0" 16'-0"

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

Date: 15 JAN 2014

SECOND FLOOR - EXG & DEMO PLAN

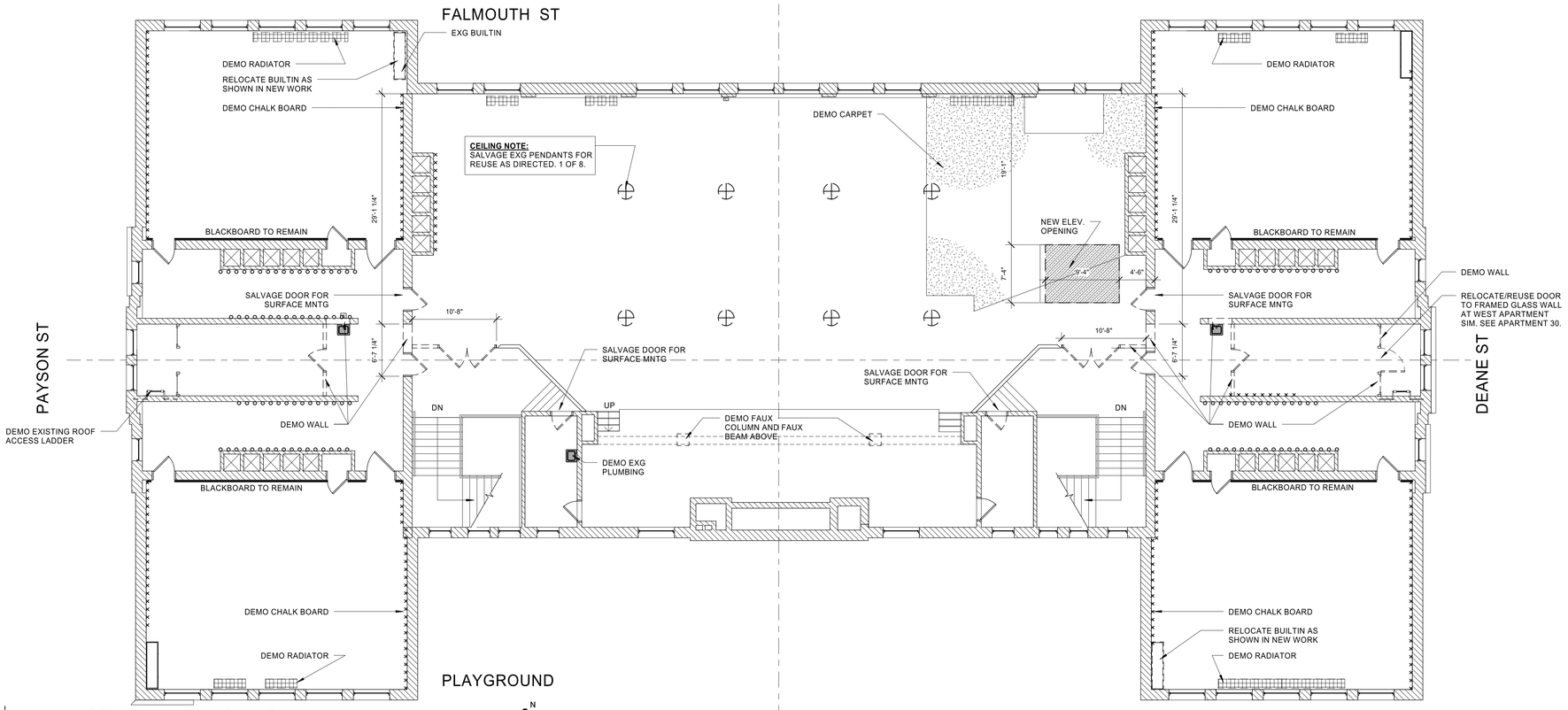
A0.03

DEMO PLAN LEGEND

EXISTING CMU WALL	
EXISTING STUD WALL	
EXISTING MASONRY WALL	
DEMO AND REMOVE	
EXISTING DOOR	
DEMO EXISTING DOOR	
DEMO EXISTING FLOOR	
DEMO EXISTING PLUMBING FIXTURE	
DEMO EXISTING RADIATOR	

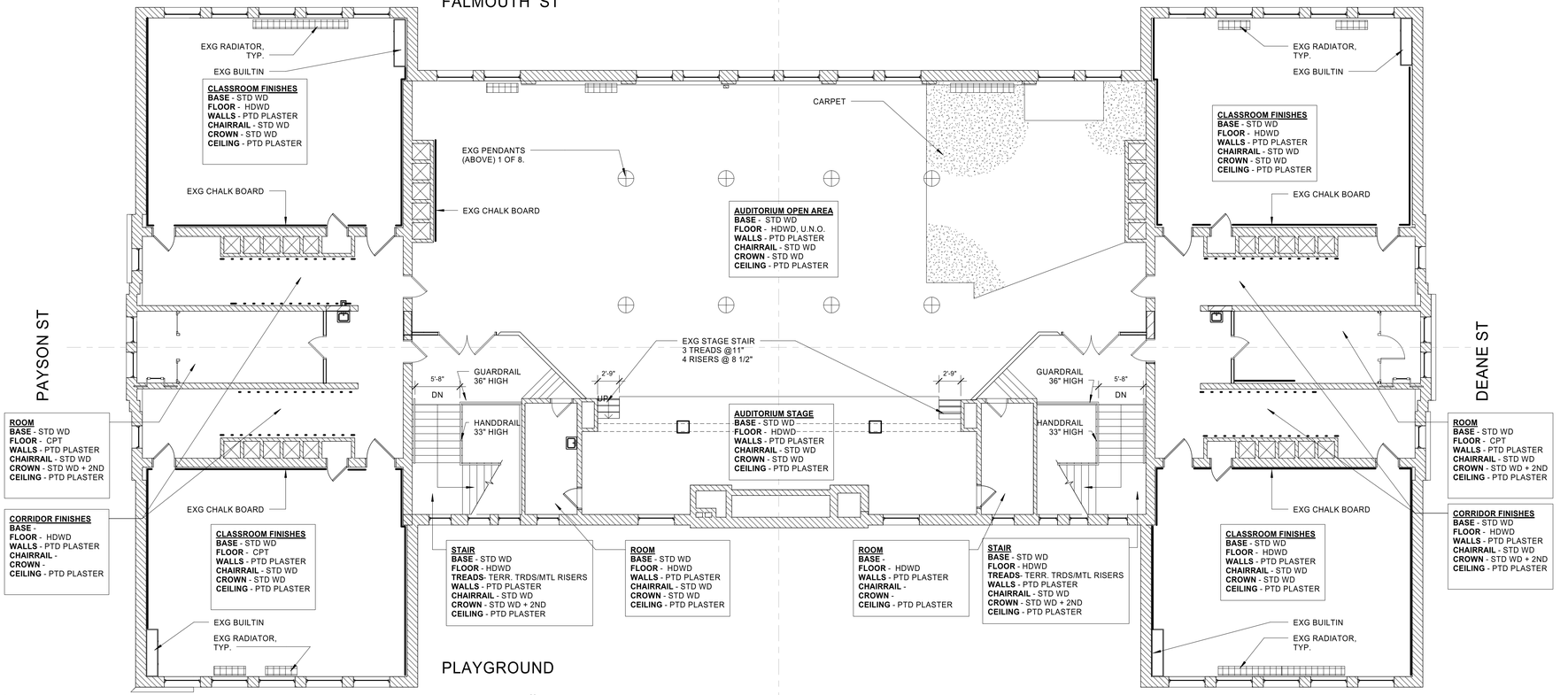
HISTORIC ELEMENTS

CHALKBOARD - EXG TO REMAIN	
CHALKBOARD - SALVAGE	
COATHOOK RAIL - EXG TO REMAIN	
COATHOOK RAIL - SALVAGE	
EXISTING CASEWORK	
EXISTING RADIATOR	



1 THIRD FLOOR PLAN - DEMOLITION

1/8" = 1'-0"



2 THIRD FLOOR PLAN - EXISTING

1/8" = 1'-0"

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 03/12/14

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

Date: 15 JAN 2014

THIRD FLOOR - EXG & DEMO PLAN

A0.04

NEW WALL - STUD & GYP. BD.	
NEW CMU WALL	
NEW MASONRY INFILL	
EXISTING CMU WALL	
EXISTING STUD WALL	
EXISTING MASONRY WALL	
DEMO AND REMOVE	

GYP OR ACT. CLG. 6 1/2" BELOW EXG PLASTER CLG. OR AS NOTED	
LOWERED GYP OR ACT CEILING, HEIGHT AS NOTED	
MECHANICAL SOFFIT	
(2) LAYERS GYP ON HAT CHANNELS APPLIED TO EXG. PLASTER CLG.	

RCP GENERAL NOTES:

KEY NOTE:

1. - NOTE #1: ENCLOSE UNDERSIDE OF METAL STAIR IN SLOPED GYPSUM CEILING ON LIGHT GAUGE METAL FRAMING. SLOPE CEILING NOT TO STAND OFF THE UNDERSIDE OF STAIR MORE THAN 2 1/2". DO NOT ATTACH CEILING STRUCTURE TO STAIRS. RETURN CEILING VERTICALLY TO DECK AT STAIR SIDES (CHEEKS). FILL CEILING CAVITY WITH CLOSED CELL SPRAY FOAM INSULATION.

2. - 12"x12" GYPSUM SOFFIT ON 1 5/8" MTL STUDS FOR SUPPLY TO BEDROOM

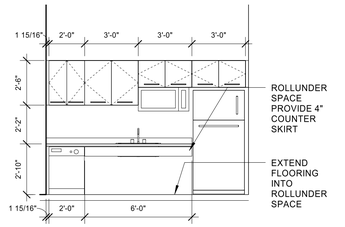
3. - LOWERED ACT CEILING FOR ERV & FCU

4. - LOWERED ACT CEILING FOR HOTWATER BOILER

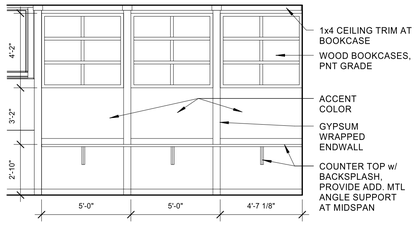
5. - PLASTER CEILINGS; SCRAPE, SAND SKIM, PRIME AND PREPARE PLASTER SURFACE FOR REFINISHING, SEE PAINT SCHD FOR FINISH.

6.- ALL TUB/SHOWER ENCLOSURE CEILINGS ARE TO RECIEVE 5/8" MOISTURE RESISTANT GYPSUM CEILING ON LIGHT GAUGE METAL FRAMING.

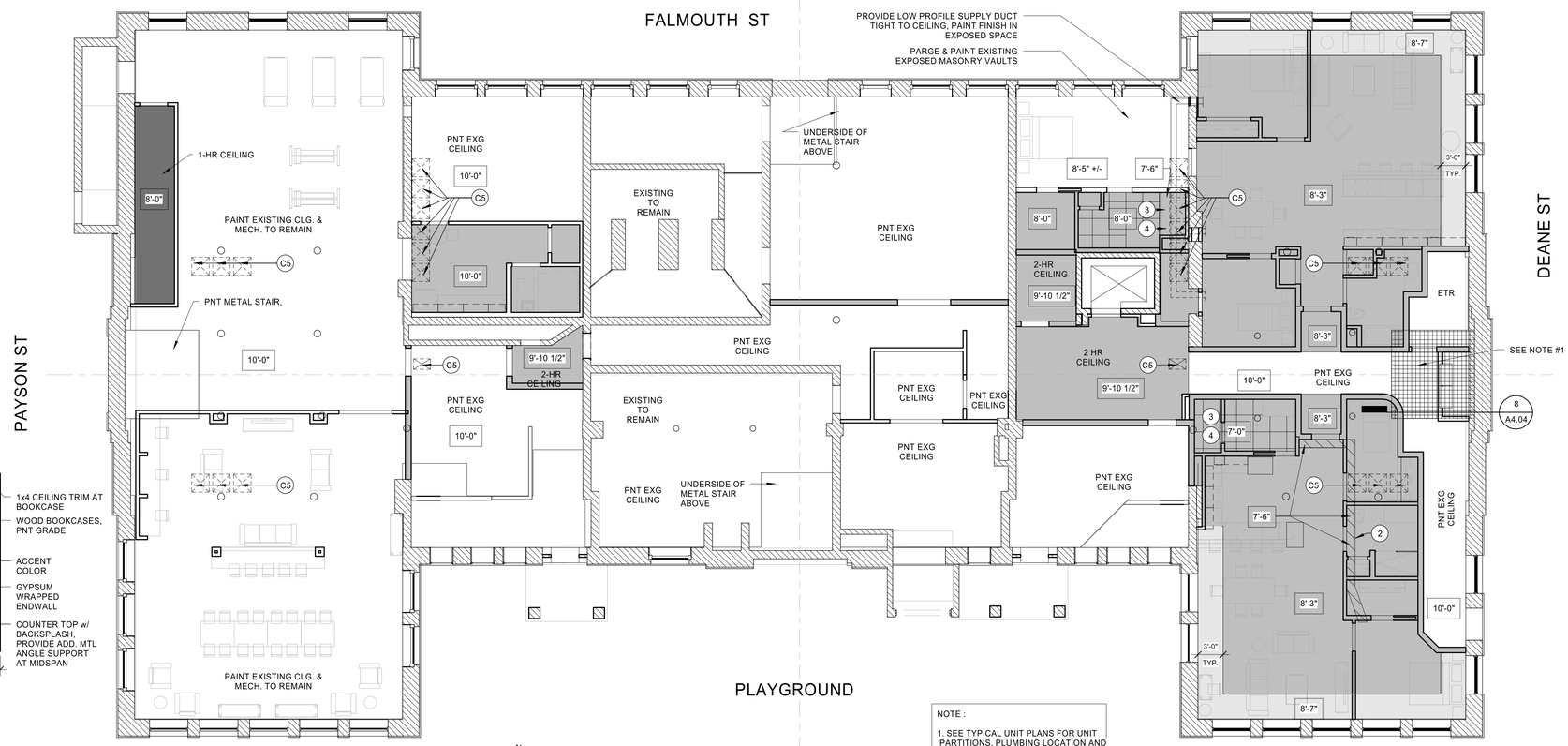
7. - ALL GLASS SHOWER ENCLOSURES ARE TO BE PROVIDEDED WITH A CEILING MOUNTED SHOWER FIXTURE, SEE PLUMBING FOR DETAILS.



4 KITCHENETTE
1/4" = 1'-0"



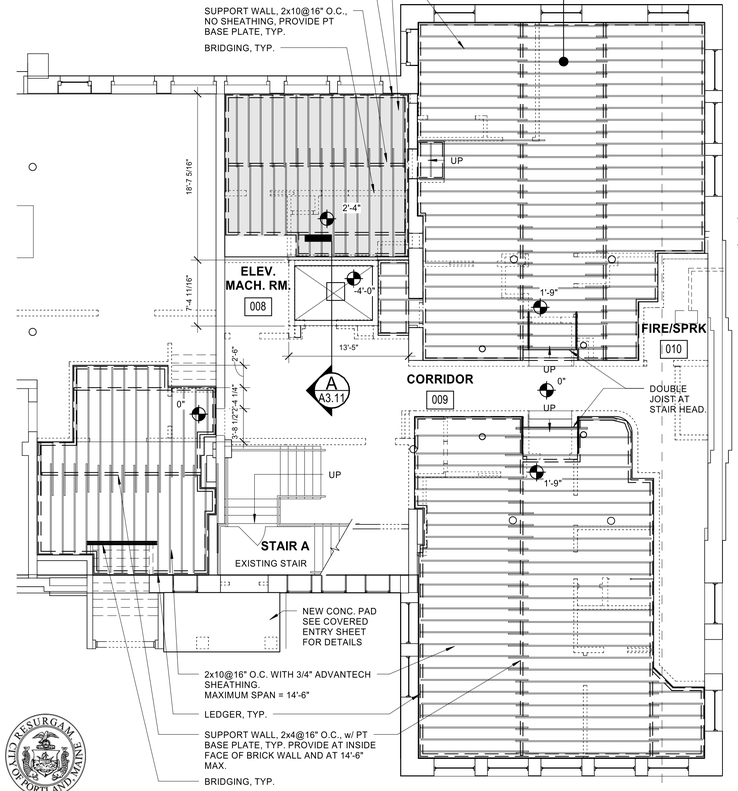
5 BOOKCASE ELEV.
1/4" = 1'-0"



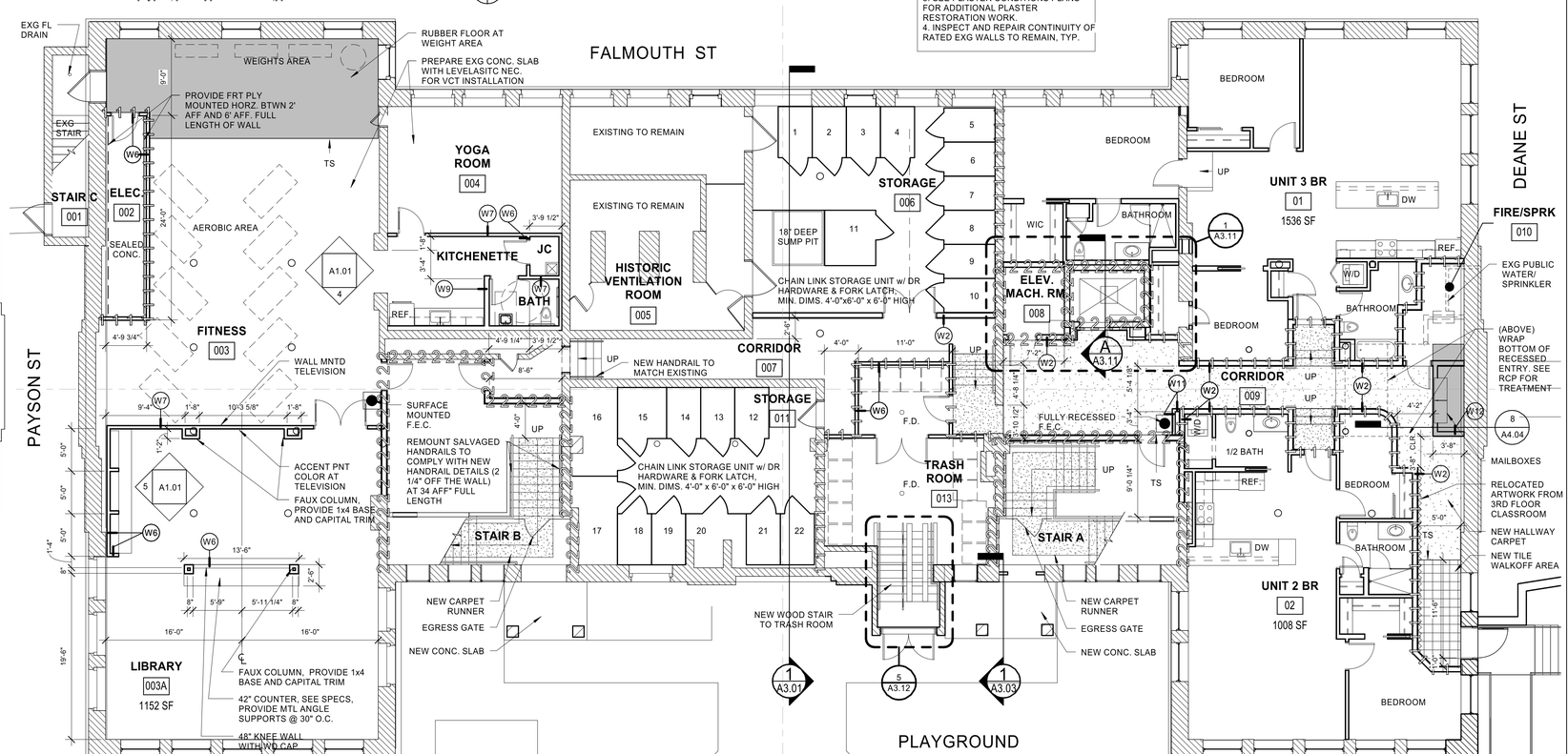
2 LOWER LEVEL - REFLECTED CEILING PLAN
1/8" = 1'-0"

NOTE :

1. SEE TYPICAL UNIT PLANS FOR UNIT PARTITIONS, PLUMBING LOCATION AND TYPE.
2. SEE DOOR SCHEDULE SHEET FOR DOOR TAGS.
3. SEE PLASTER CONDITIONS PLANS FOR ADDITIONAL PLASTER RESTORATION WORK.
4. INSPECT AND REPAIR CONTINUITY OF RATED EXG WALLS TO REMAIN, TYP.



ER LEVEL - EDGE OF SLAB PLAN
1'-0"



1 LOWER LEVEL - NEW WORK PLAN
1/8" = 1'-0"

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

LICENSED ARCHITECT
DAVID LLOYD NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

Date: 15 JAN 2014

LOWER LEVEL PLAN

A1.01

NEW WALL - STUD & GYP. BD.	
NEW CMU WALL	
NEW MASONRY INFILL	
EXISTING CMU WALL	
EXISTING STUD WALL	
EXISTING MASONRY WALL	
DEMO AND REMOVE	

GYP OR ACT. CLG. 6 1/2" BELOW EXG PLASTER CLG. OR AS NOTED	
LOWERED GYP OR ACT CEILING, HEIGHT AS NOTED	
MECHANICAL SOFFIT	
(2) LAYERS GYP ON HAT CHANNELS APPLIED TO EXG. PLASTER CLG.	

RCP GENERAL NOTES:

KEY NOTE:

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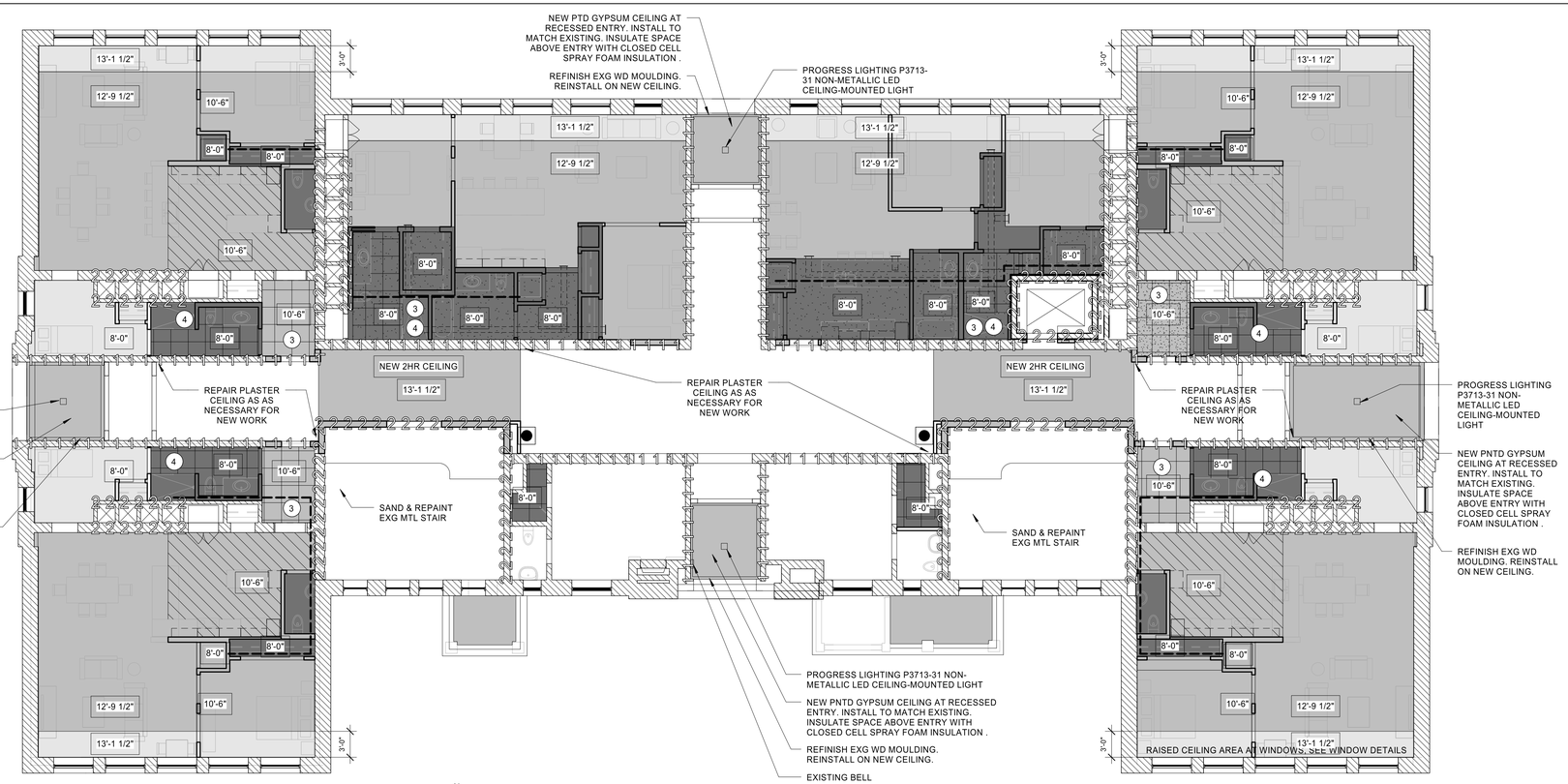
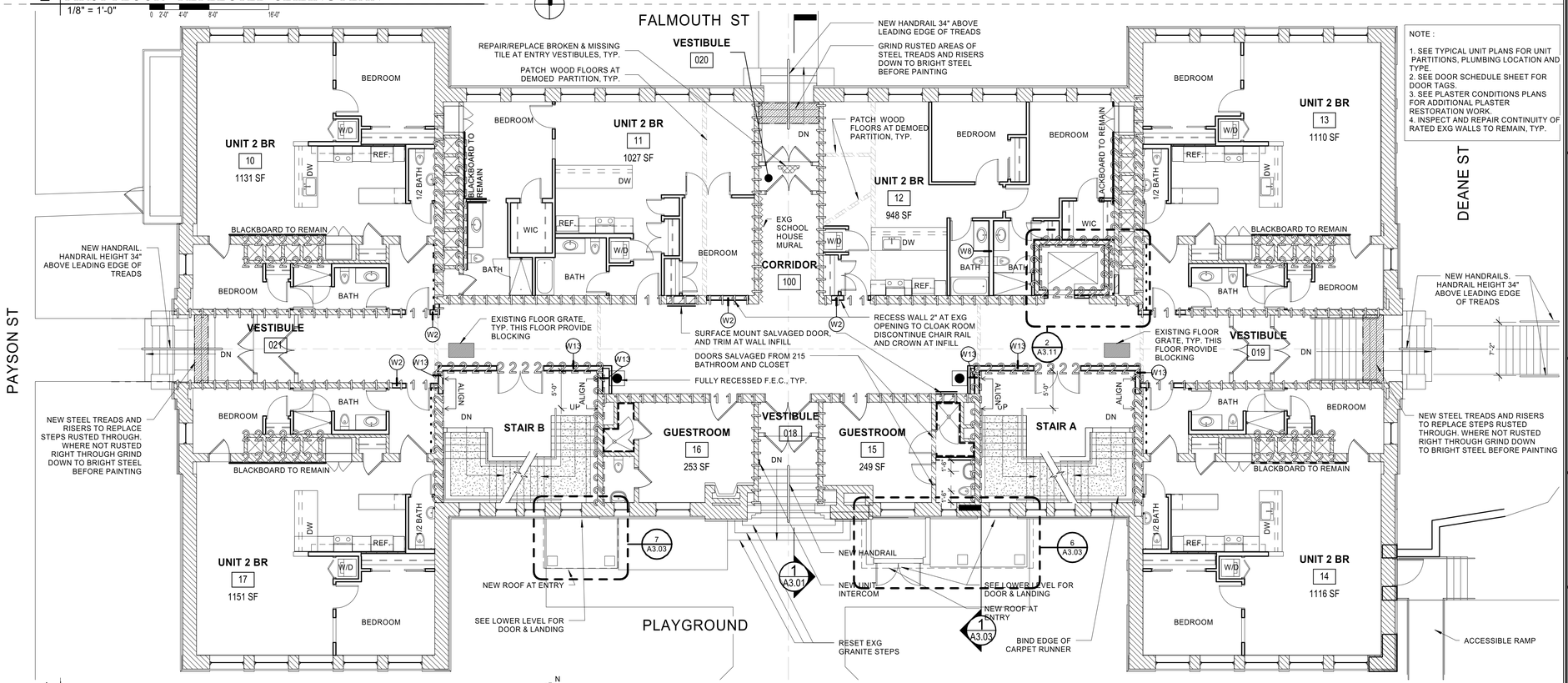


2 | FIRST FLOOR - REFLECTED CEILING PLAN

1/8" = 1'-0"



NOTE :

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1 | FIRST FLOOR - NEW WORK PLAN

1/8" = 1'-0"

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48 Union Wharf Portland, Maine 04101
(207)772-2022 ARCHETYPE@ARCHETYPEPA.COM

Project:
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FIRST FLOOR PLAN

A1.02

NEW WALL - STUD & GYP. BD.
NEW CMU WALL
NEW MASONRY INFILL
EXISTING CMU WALL
EXISTING STUD WALL
EXISTING MASONRY WALL
DEMO AND REMOVE

GYP OR ACT. CLG. 6 1/2" BELOW EXG PLASTER CLG. OR AS NOTED
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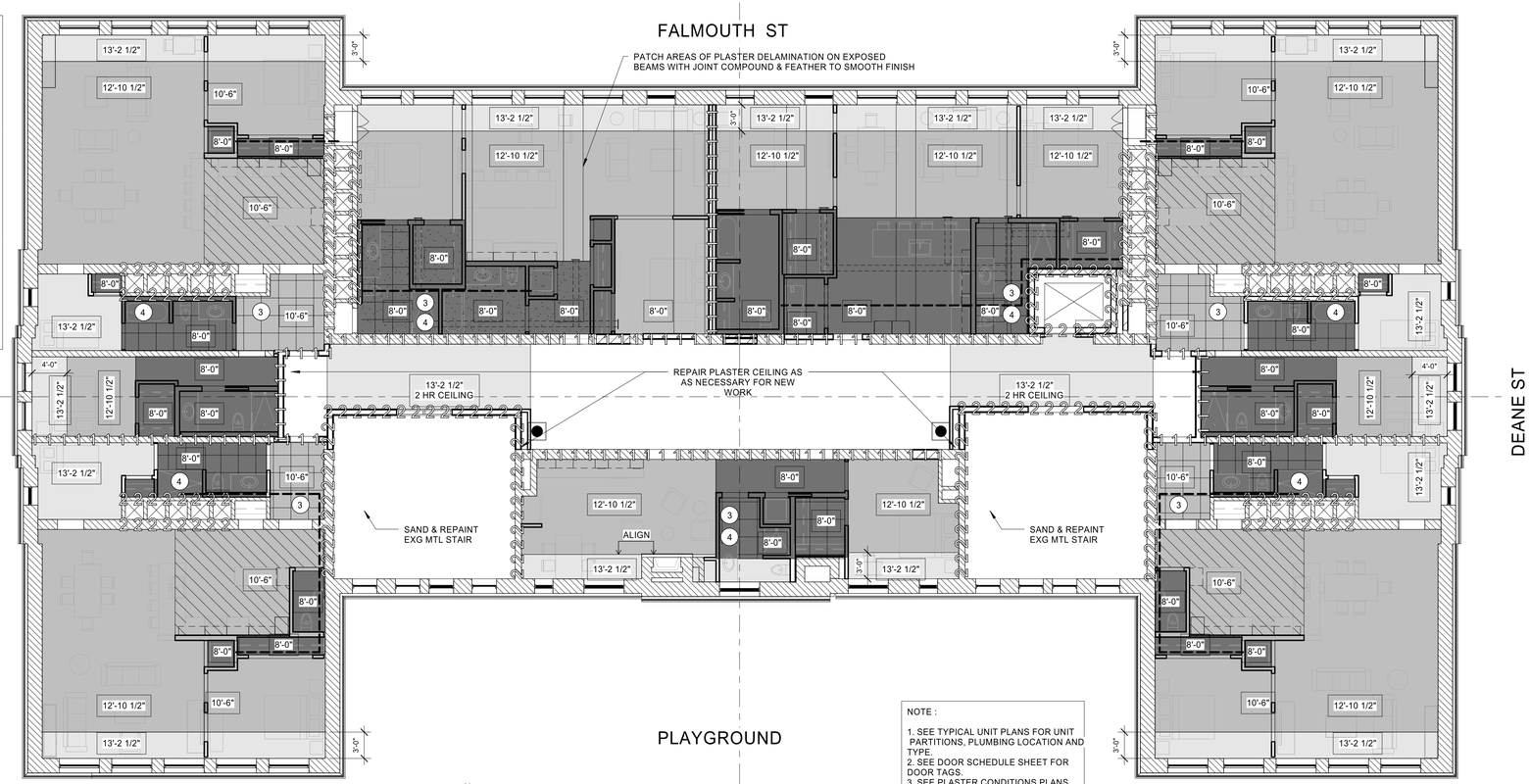
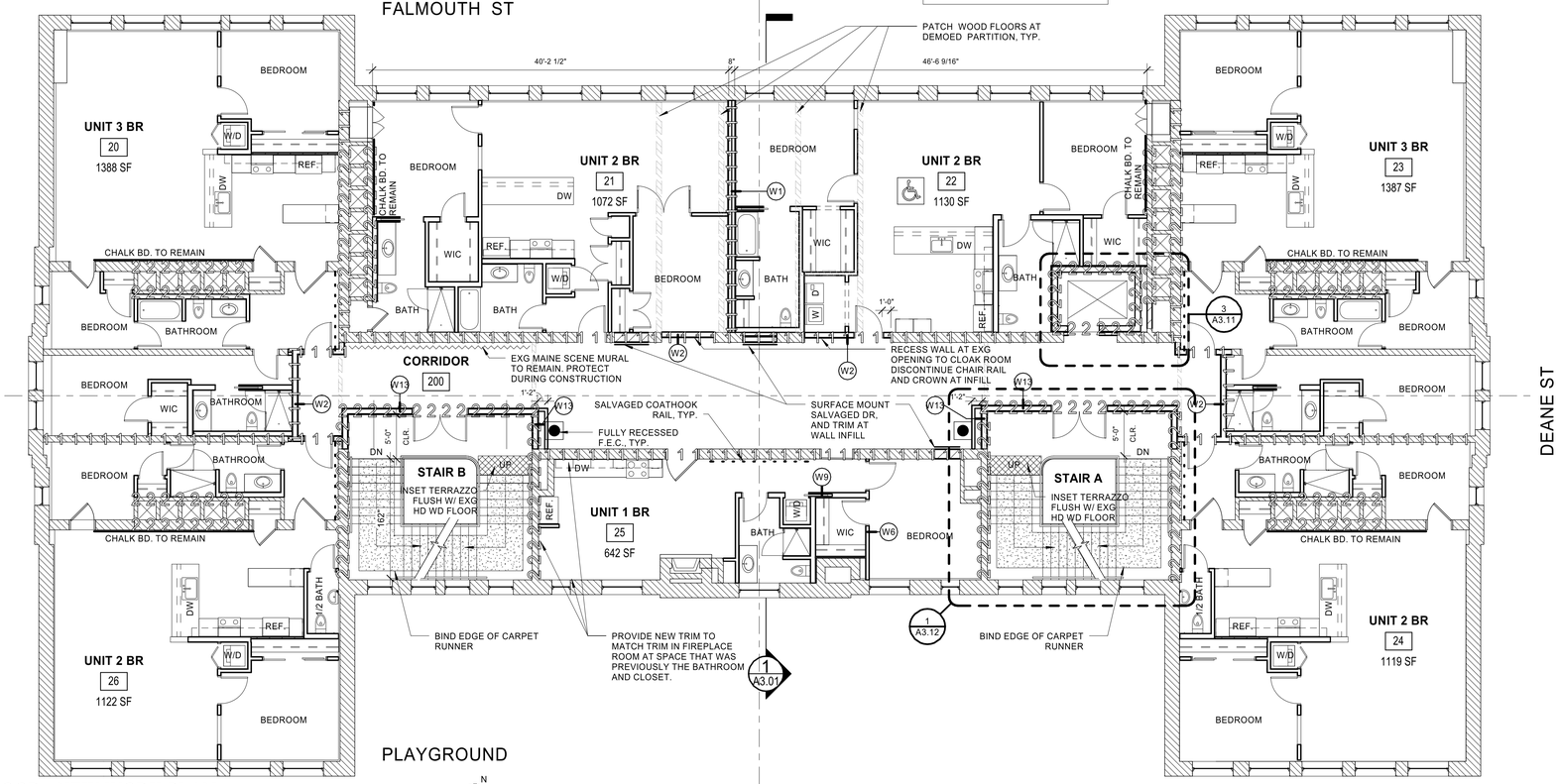


2 SECOND FLOOR - REFLECTED CEILING PLAN
1/8" = 1'-0"



1 SECOND FLOOR - NEW WORK PLAN
1/8" = 1'-0"

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LICENSED ARCHITECT
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SECOND FLOOR PLAN

A1.03

NEW WALL - STUD & GYP. BD.	
NEW CMU WALL	
NEW MASONRY INFILL	
EXISTING CMU WALL	
EXISTING STUD WALL	
EXISTING MASONRY WALL	
DEMO AND REMOVE	

GYP OR ACT. CLG. 6 1/2" BELOW EXG PLASTER CLG. OR AS NOTED	
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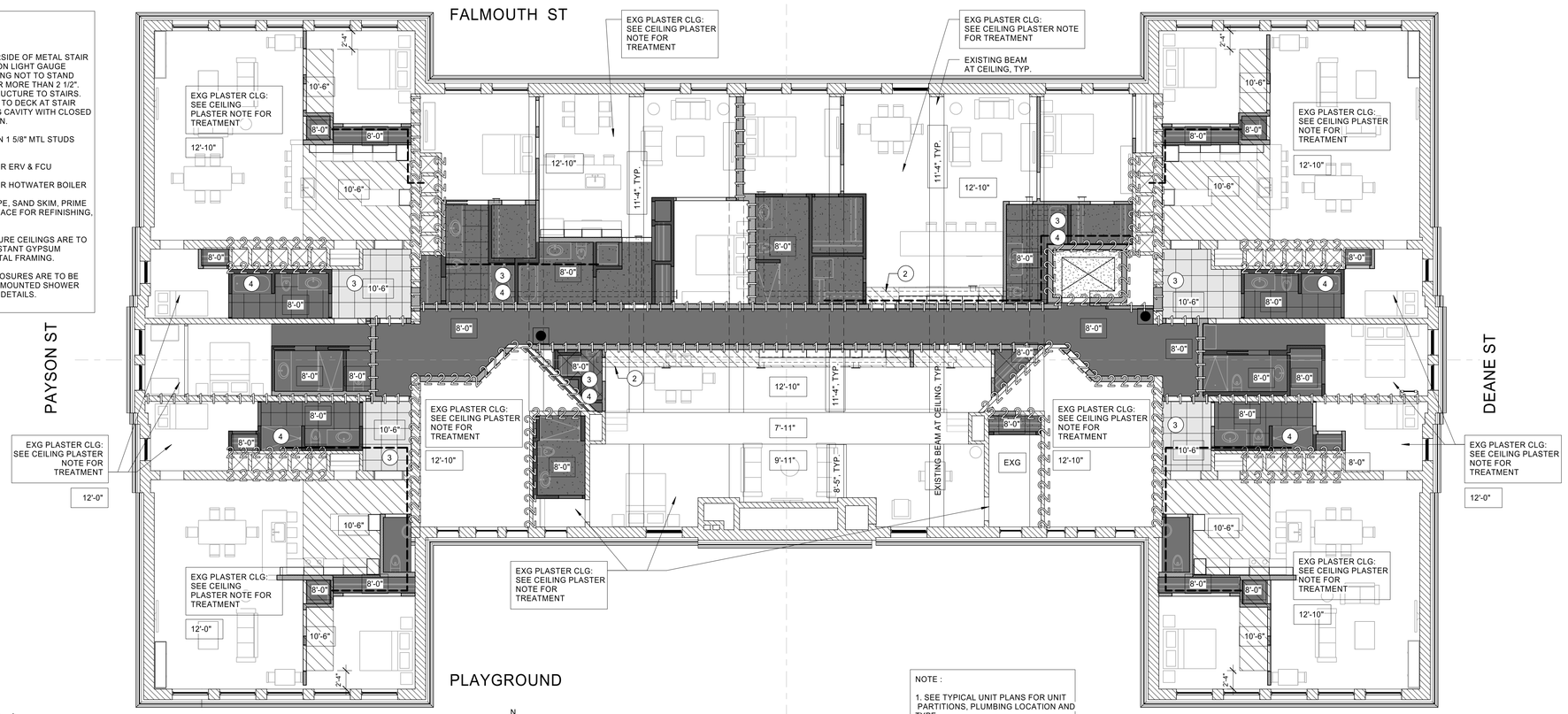

2 | THIRD FLOOR - REFLECTED CEILING PLAN
1/8" = 1'-0"

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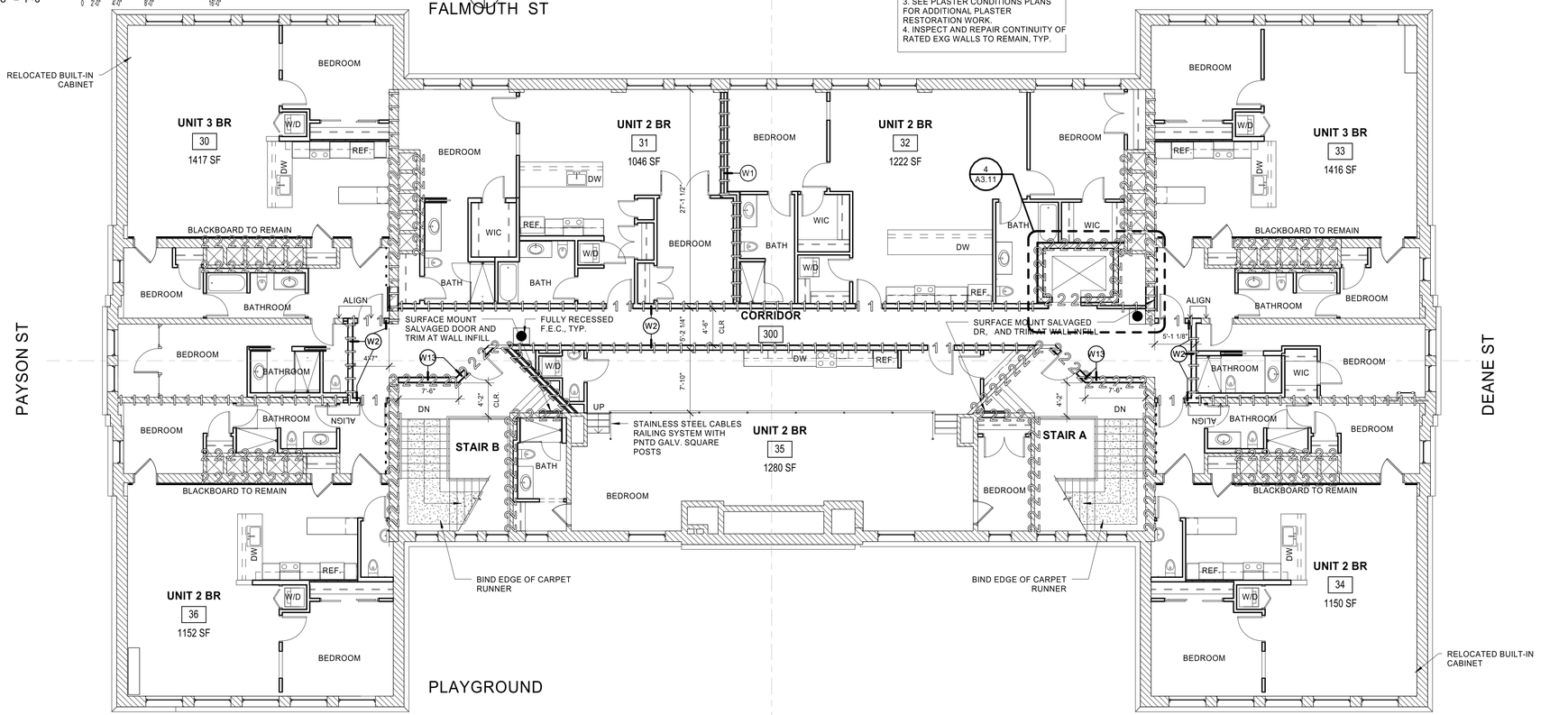

1 | THIRD FLOOR - NEW WORK PLAN
1/8" = 1'-0"

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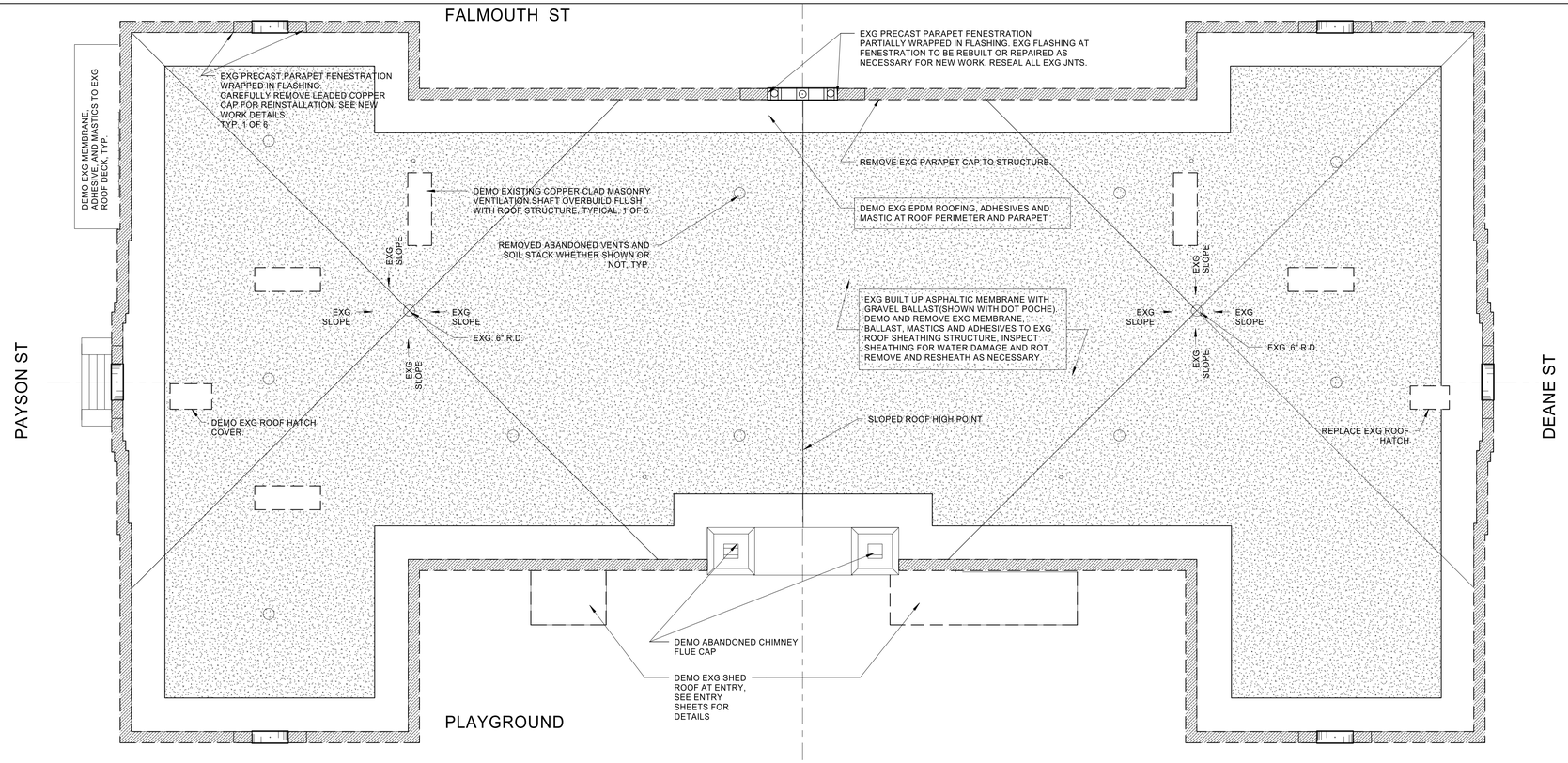
THIRD FLOOR PLAN

A1.04



2 | ROOF - EXISTING AND DEMOLITION PLAN

1/8" = 1'-0"

0 2'-0" 4'-0" 8'-0" 16'-0"

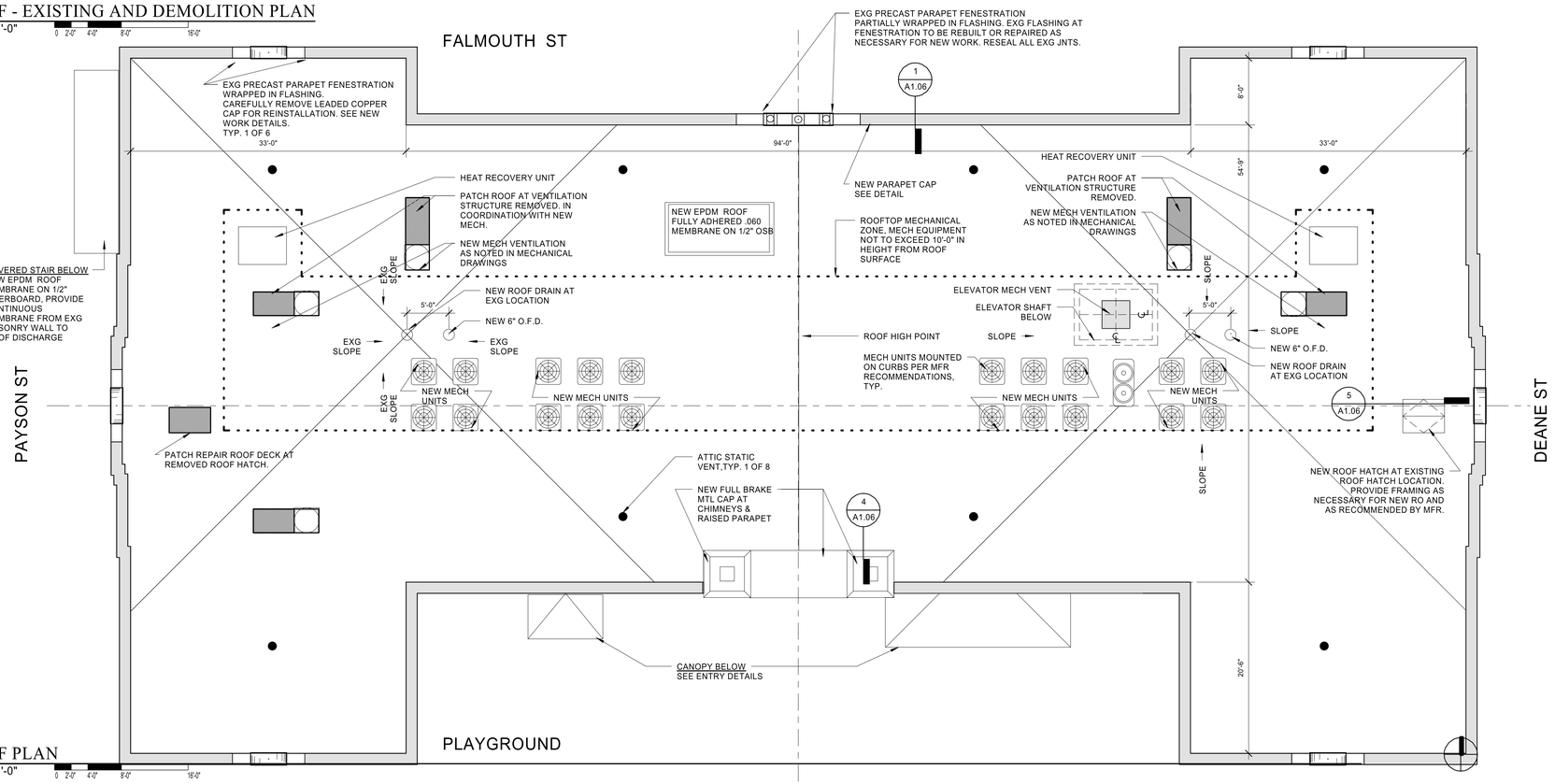
NOTES:

1. SALVAGE 1 EXISTING METAL VENT COVER AND METAL FRAME. SAND AND REMOVE RUST TO SOUND METAL. PRIME AND PAINT. RE SHEATH AND ROOF WITH STANDING SEAM MTL ROOF [APPROX .25 SQUARE]. PROVIDE WOOD SKID / PROTECTIVE FEET AND LOCATE AS DIRECTED, REFER TO EPDM ROOF MEMBRANE REQUIREMENTS. REMOVE/DEMO ALL OTHER VENT COVERS.

2. PLUMBING AND MISC. VENTS NOT SHOWN. LOCATED AS NECESSARY TO PREVENT EXHAUST / FRESH AIR INTAKE CONFLICTS. SEE ASHRAE STANDARDS.

3. GC TO REVIEW AND DETERMINE MECHANICAL UNIT LOCATIONS IN COORDINATION WITH EXG STRUCTURE AND AS APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE AS A COMPONENT OF THE BASE BID. ACCESS TO THE ROOF ATTIC SPACE AND HISTORIC FRAMING DRAWINGS WILL BE AVAILABLE DURING THE BID PROCESS. CHANGE ORDERS OR DELAY CLAIMS ASSOCIATED WITH MECHANICAL COORDINATION WILL BE ACCEPTED.

4. ROOF DIMENSIONS TO EXISTING CONDITIONS ARE PROVIDED TO THE CONTRACTOR TO AID BIDDING. CONTRACTOR IS TO VERIFY AND COORDINATE IN THE FIELD AS NECESSARY.



1 | ROOF PLAN

1/8" = 1'-0"

0 2'-0" 4'-0" 8'-0" 16'-0"

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Revisions:

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

Date: 15 JAN 2014

ROOF PLAN

A1.05

CITY OF PORTLAND, MAINE RESURGAM
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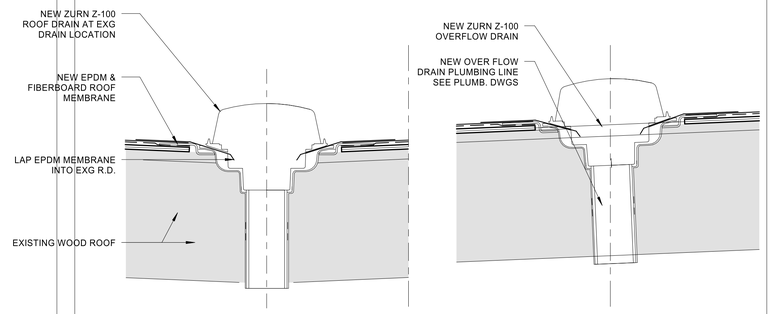
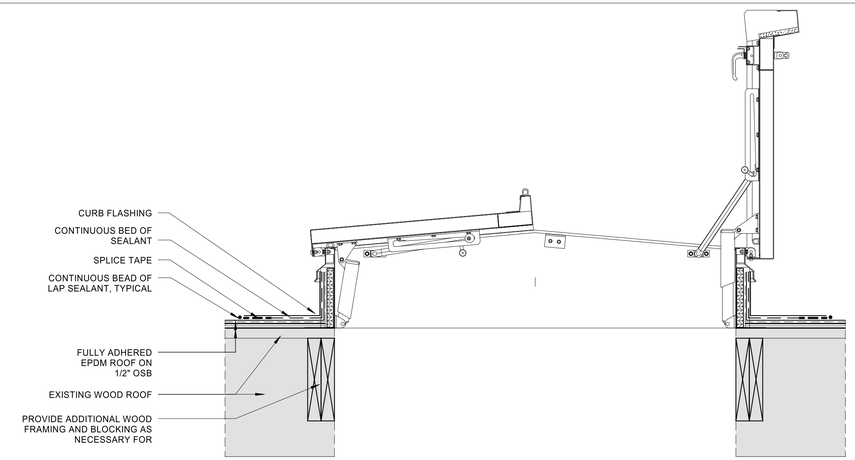
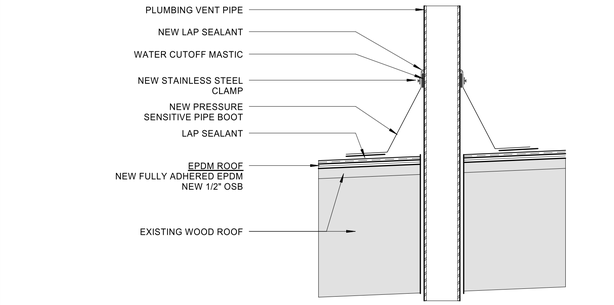


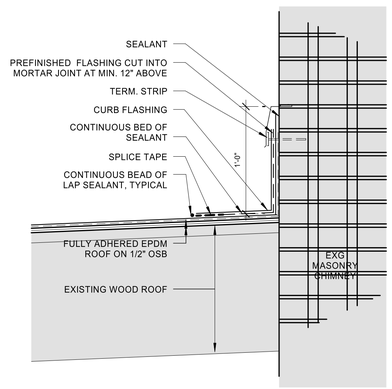
3 ROOF DETAIL - ROOF DRAIN
1 1/2" = 1'-0"



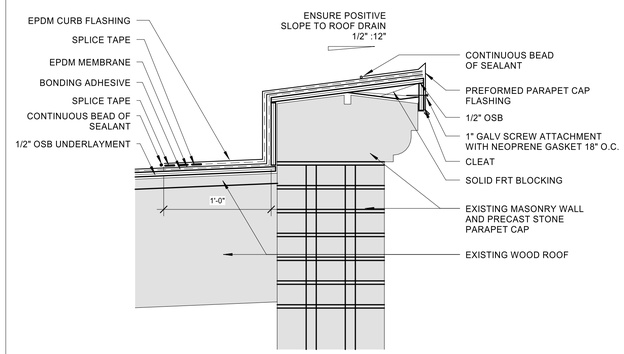
5 ROOF DETAIL - ROOF HATCH
1 1/2" = 1'-0"



2 ROOF DETAIL - PLUMBING VENT
1 1/2" = 1'-0"



4 ROOF DETAIL - ROOF TO BRICK WALL DETAIL
1 1/2" = 1'-0"



1 ROOF DETAIL - PARAPET CAP DETAIL
1 1/2" = 1'-0"

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Project:
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Revisions:

Scale: 1 1/2" = 1'-0"

Date: 15 JAN 2014

ROOF DETAILS

A1.06

CITY OF PORTLAND, MAINE RESURGAM
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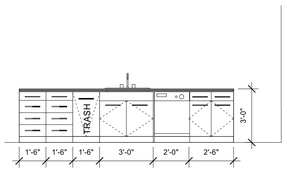
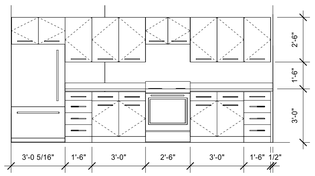
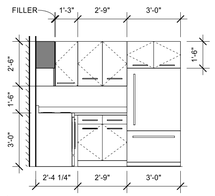


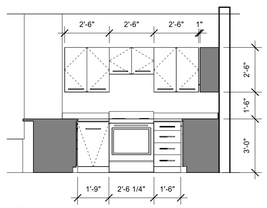
4 KITCHEN ELEVATION - UNIT 01
1/4" = 1'-0"



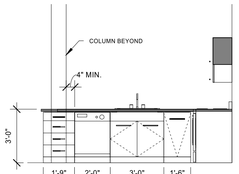
5 KITCHEN ELEVATION - UNIT 01
1/4" = 1'-0"



6 KITCHEN ELEVATION - UNIT 02
1/4" = 1'-0"



7 KITCHEN ELEVATION - UNIT 02
1/4" = 1'-0"



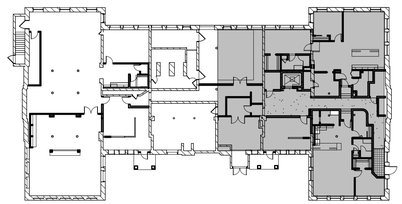
8 KITCHEN ELEVATION - UNIT 02
1/4" = 1'-0"

CASEWORK GENERAL NOTES

1. ALL UPPERS ARE TO BE 14" DEEP, U.N.O.

2. ALL FULL HEIGHT UTILITY CABINETS ARE TO MATCH BASE CABINET DEPTH, U.N.O.

3. OPEN SHELVES, TYP- SHELVES SUPPORTED BY CABLE AND ROD SYSTEM TO CEILING ABOVE AND COUNTER BELOW. BASIS OF DESIGN: B&N INDUSTRIES - CABLE AND ROD SYSTEM. PROVIDE BLOCKING AS NECESSARY TO EXG STRUCTURE AT CEILING AND AT WALL AND AS RECOMMENDED BY MANF.



3 KEY PLAN
1/32" = 1'-0"

1 LOWER LEVEL - UNIT 01 & 02
1/4" = 1'-0"

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TYP. UNITS - LOWER LEVEL

A1.10

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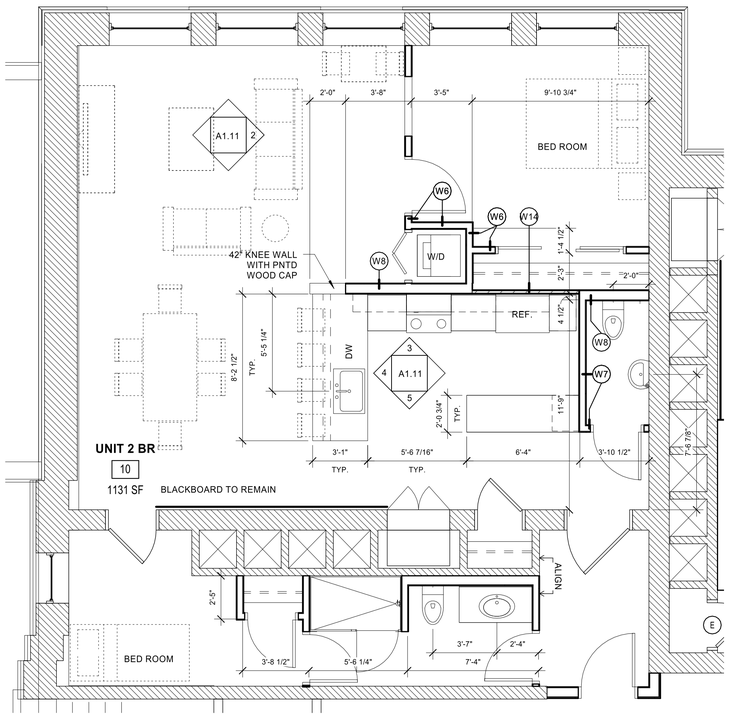
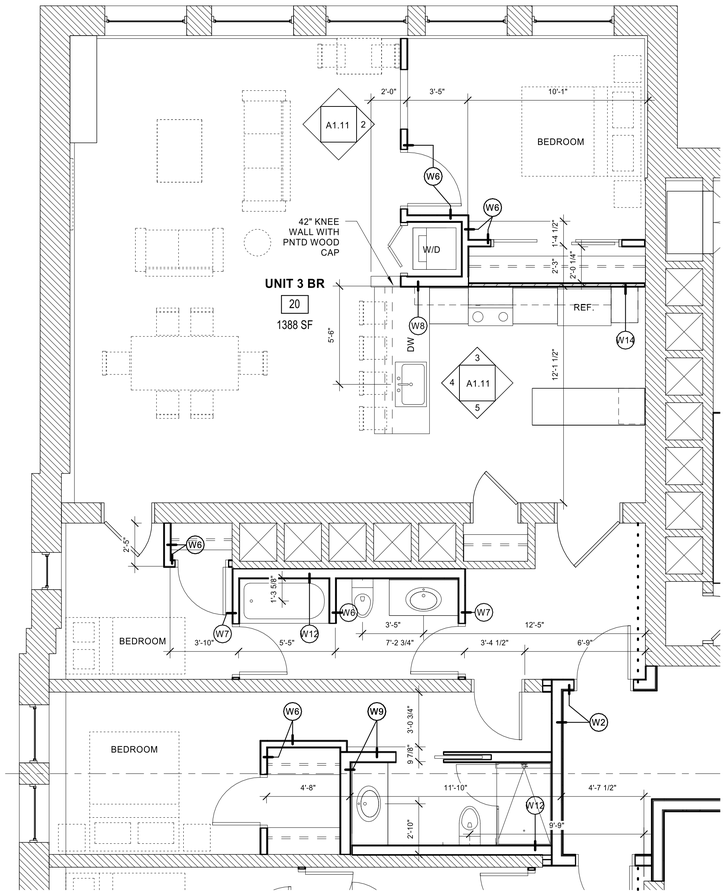
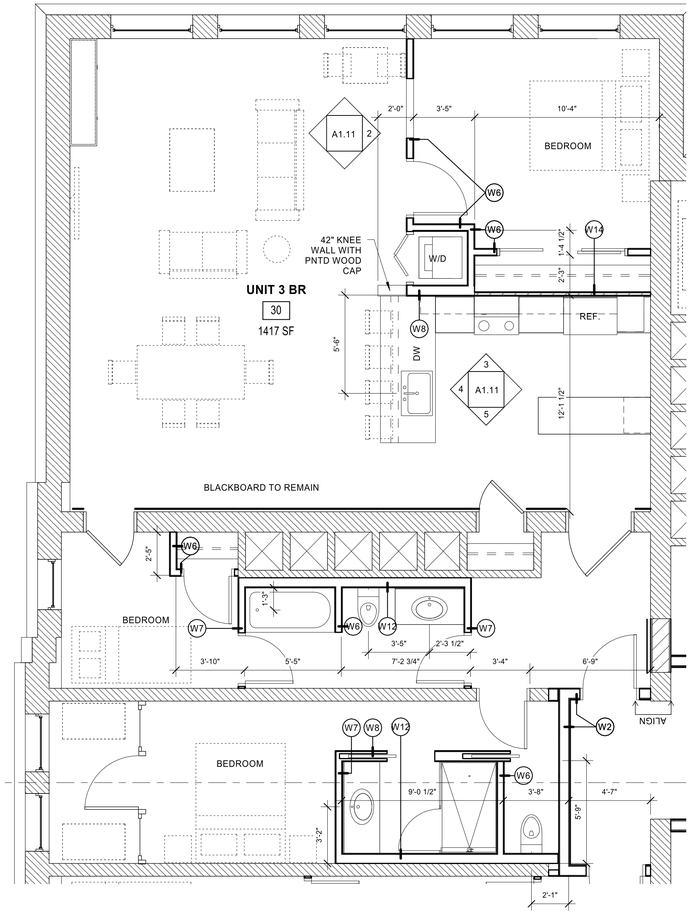


8 | FIRST FLOOR - NORTH CORNER UNIT
1/4" = 1'-0"



7 | SECOND FLOOR - NORTH CORNER UNITS
1/4" = 1'-0"



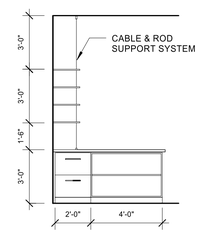
6 | THIRD FLOOR - NORTH CORNER UNITS
1/4" = 1'-0"

CASEWORK GENERAL NOTES

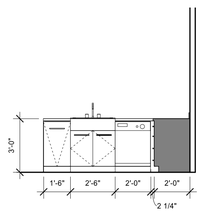
1. ALL UPPERS ARE TO BE 14" DEEP, U.N.O.

2. ALL FULL HEIGHT UTILITY CABINETS ARE TO MATCH BASE CABINET DEPTH, U.N.O.

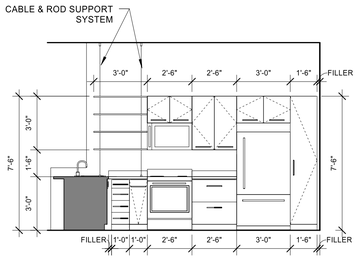
3. OPEN SHELVES, TYP- SHELVES SUPPORTED BY CABLE AND ROD SYSTEM TO CEILING ABOVE AND COUNTER BELOW. BASIS OF DESIGN; B&N INDUSTRIES - CABLE AND ROD SYSTEM. PROVIDE BLOCKING AS NECESSARY TO EXG STRUCTURE AT CEILING AND AT WALL AND AS RECOMMENDED BY MANF.



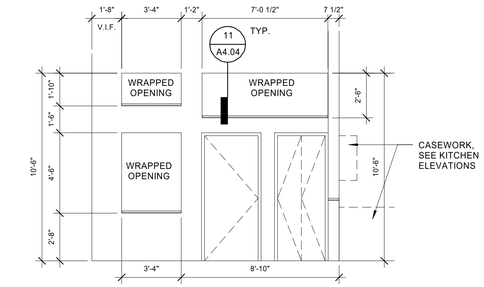
5 | N CORNER UNIT - KITCHEN ELEV. C
1/4" = 1'-0"



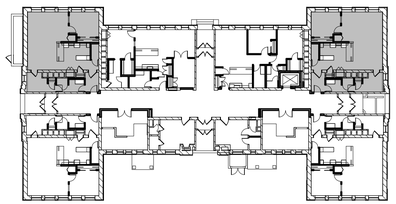
4 | N CORNER UNIT - KITCHEN ELEV. B
1/4" = 1'-0"



3 | N CORNER UNIT - KITCHEN ELEV. A
1/4" = 1'-0"



2 | CORNER UNIT TYPICAL ELEVATION
1/4" = 1'-0"



1 | TYP. NORTH CORNER UNITS
1/32" = 1'-0"

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

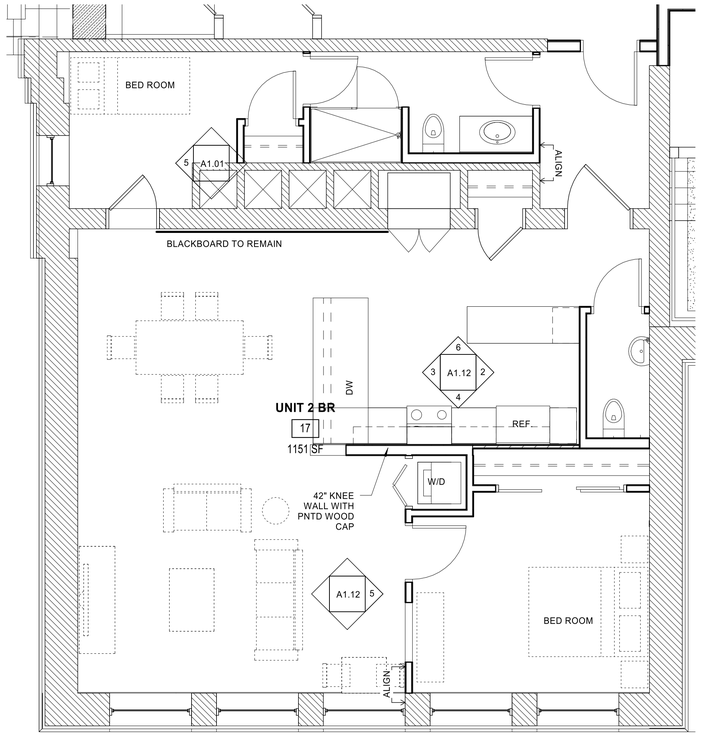
Revisions:

Scale: As indicated

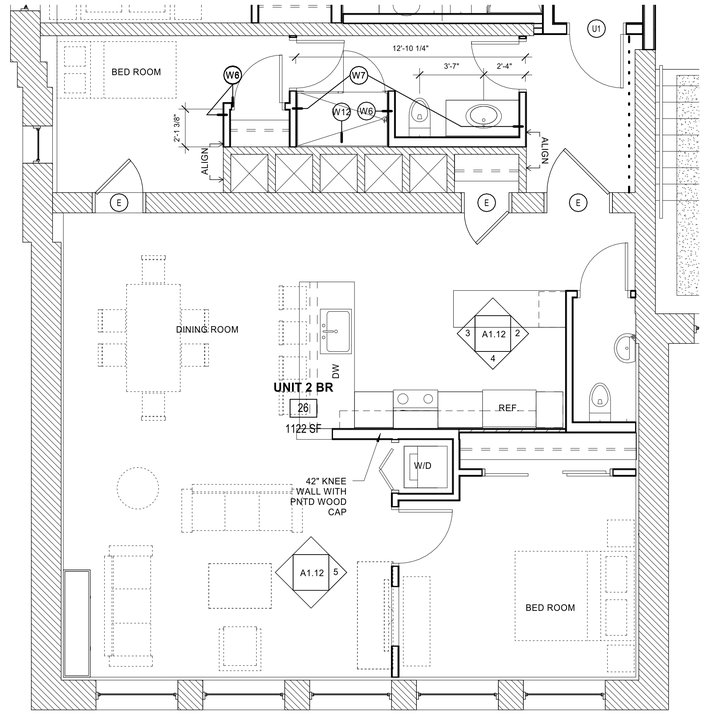
Date: 15 JAN 2014

TYP. NORTH CORNER UNITS

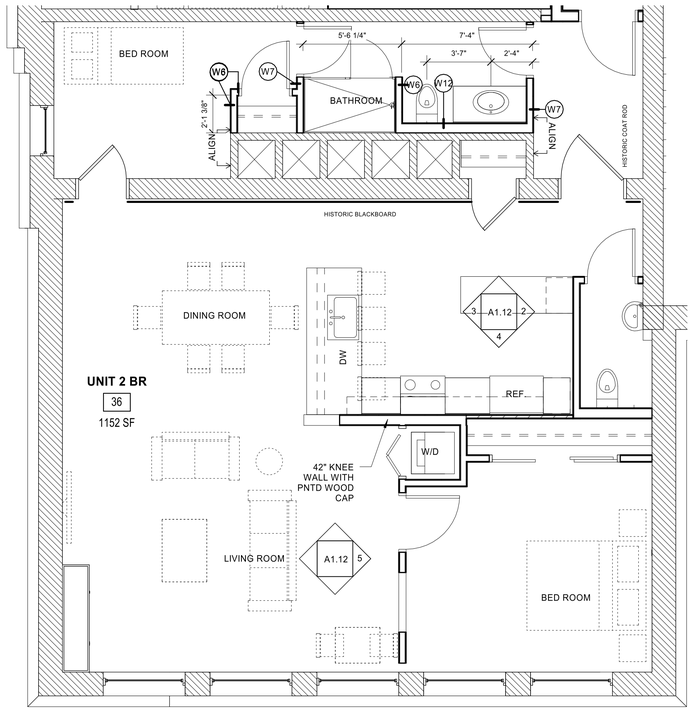
A1.11



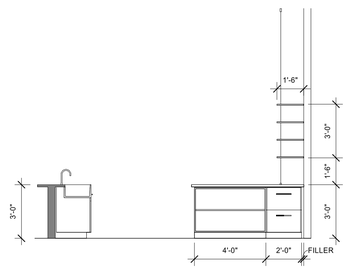
9 | FIRST FLOOR - UNIT 17
1/4" = 1'-0"



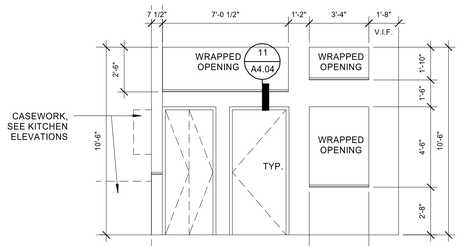
8 | SECOND FLOOR - UNIT 26
1/4" = 1'-0"



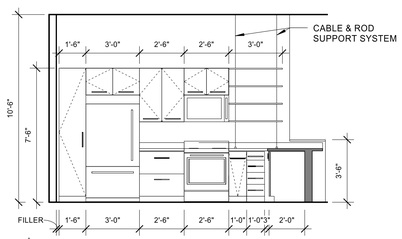
7 | THIRD FLOOR - UNIT 36
1/4" = 1'-0"



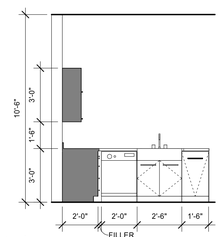
6 | S. CORNER UNIT - ELEVATION D
1/4" = 1'-0"



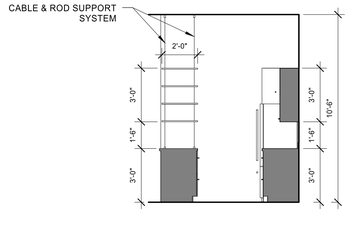
5 | CORNER UNIT TYPICAL ELEVATION
1/4" = 1'-0"



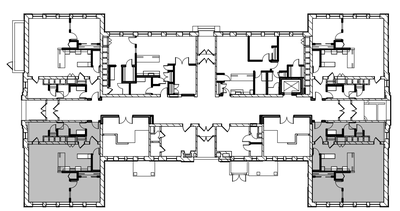
4 | S. CORNER UNIT - KITCHEN ELEV. A
1/4" = 1'-0"



3 | S. CORNER UNIT - KITCHEN ELEV. B
1/4" = 1'-0"



2 | S. CORNER UNIT - KITCHEN ELEV. C
1/4" = 1'-0"



1 | KEY PLAN
1/32" = 1'-0"

CASEWORK GENERAL NOTES

1. ALL UPPERS ARE TO BE 14" DEEP, U.N.O.

2. ALL FULL HEIGHT UTILITY CABINETS ARE TO MATCH BASE CABINET DEPTH, U.N.O.

3. OPEN SHELVES, TYP- SHELVES SUPPORTED BY CABLE AND ROD SYSTEM TO CEILING ABOVE AND COUNTER BELOW. BASIS OF DESIGN; B&N INDUSTRIES - CABLE AND ROD SYSTEM. PROVIDE BLOCKING AS NECESSARY TO EXG STRUCTURE AT CEILING AND AT WALL AND AS RECOMMENDED BY MANF.

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

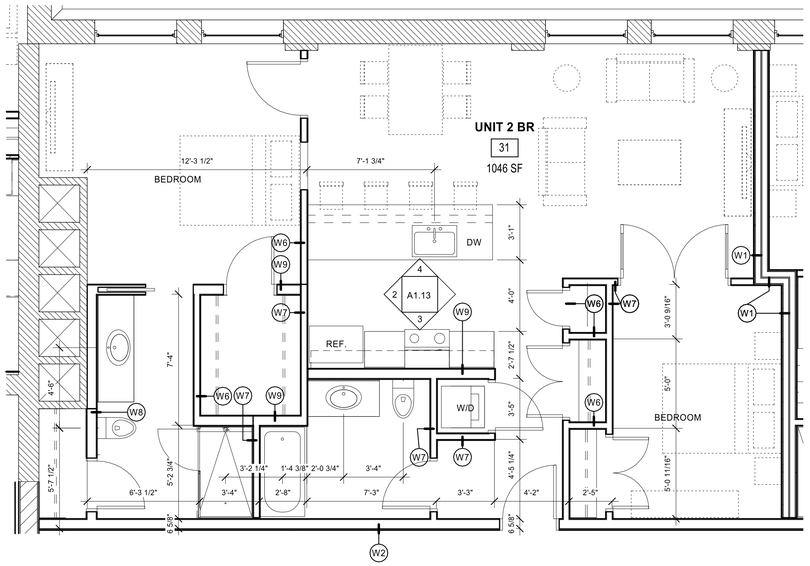
Revisions:

Scale: As indicated

Date: 15 JAN 2014

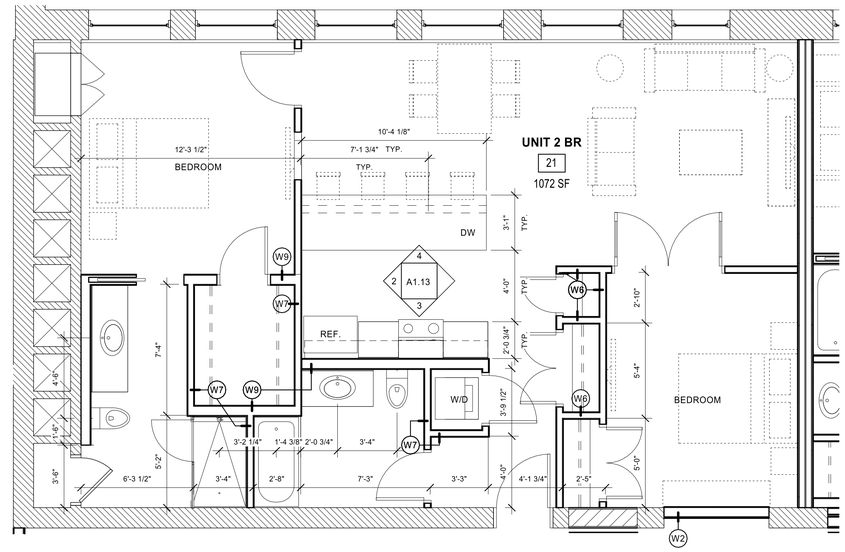
TYP. SOUTH CORNER UNITS

A1.12



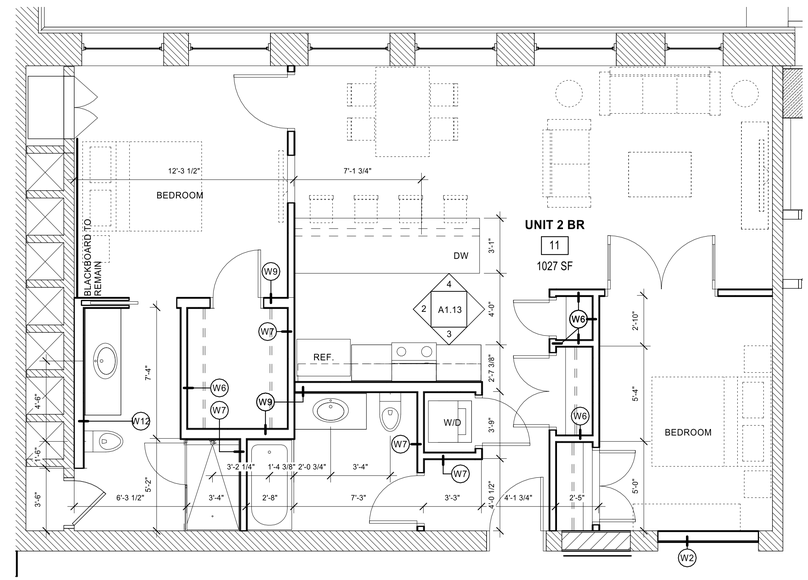
7 | THIRD FLOOR - UNIT 31

1/4" = 1'-0"



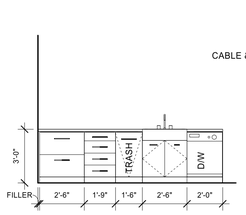
6 | SECOND FLOOR - UNIT 21

1/4" = 1'-0"



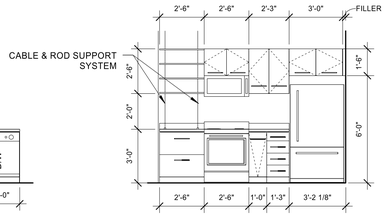
5 | FIRST FLOOR - UNIT 11

1/4" = 1'-0"



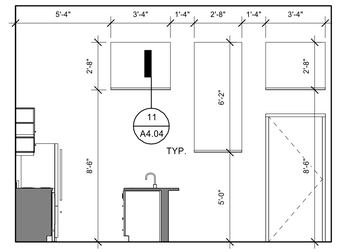
4 | UNIT X1 - KITCHEN ELEV. B

1/4" = 1'-0"



3 | UNIT X1 - KITCHEN ELEV. A

1/4" = 1'-0"



2 | UNIT X1 - KITCHEN ELEV. C

1/4" = 1'-0"

CASEWORK GENERAL NOTES

1. ALL UPPERS ARE TO BE 14" DEEP, U.N.O.

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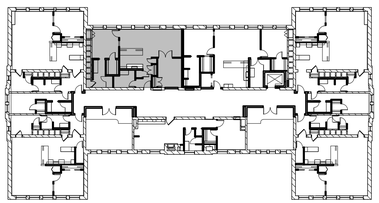


1 | KEY PLAN

1/32" = 1'-0"

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

Date: 15 JAN 2014

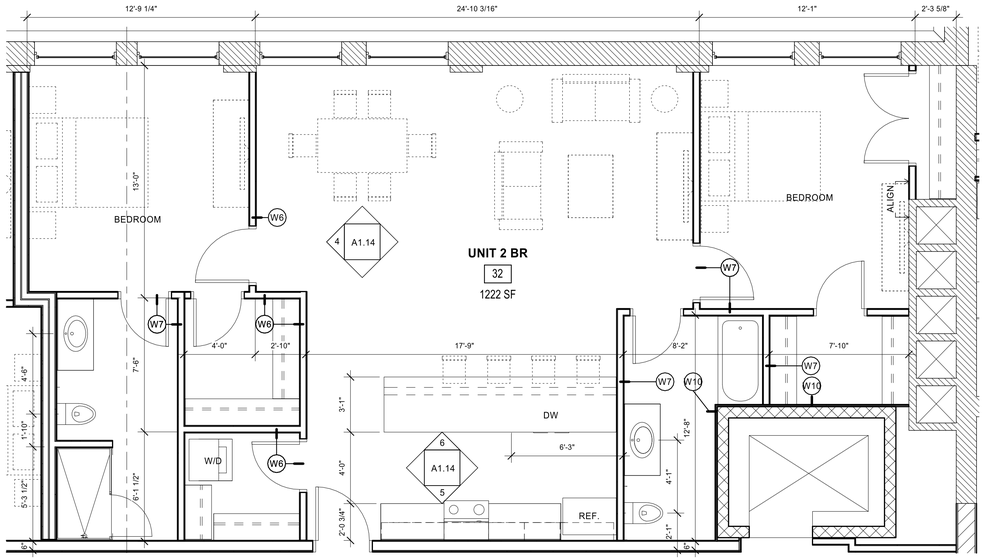
TYP. UNITS - X1

A1.13

CITY OF PORTLAND, MAINE · RESURGAM

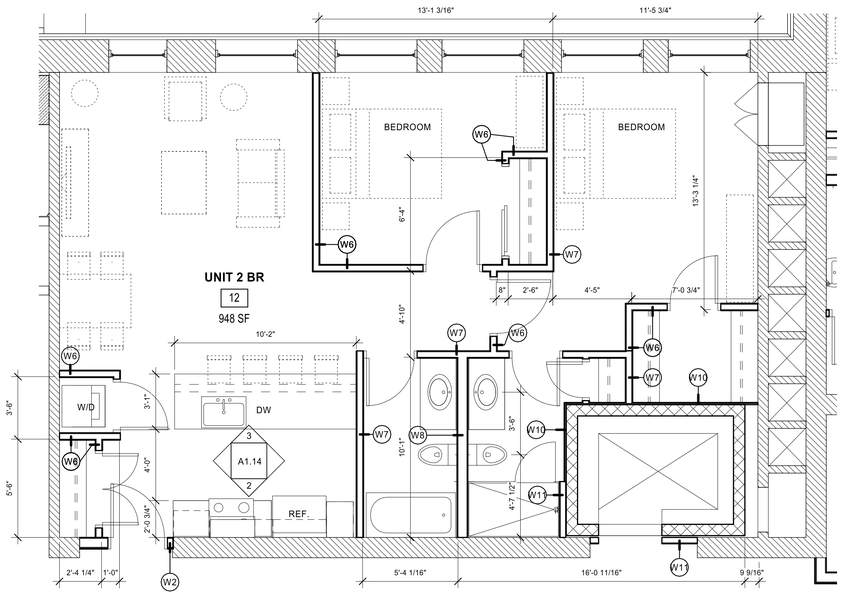
Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 03/12/14



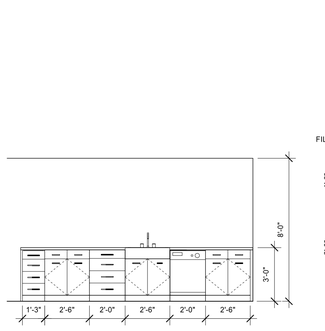
8 THIRD FLOOR - UNIT 32

1/4" = 1'-0"



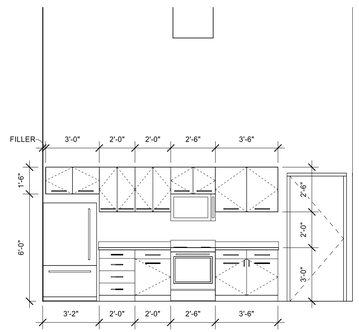
7 FIRST FLOOR - UNIT 12

1/4" = 1'-0"



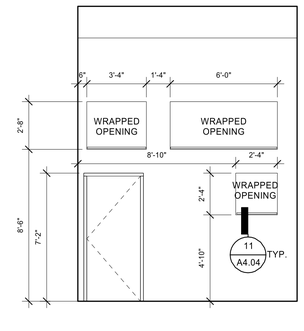
6 UNIT X2 - KITCHEN ELEV. C

1/4" = 1'-0"



5 UNIT X2 - KITCHEN ELEV. D

1/4" = 1'-0"



4 TYP. BEDROOM WALL ELEV.

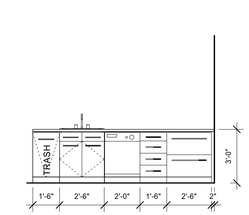
1/4" = 1'-0"

CASEWORK GENERAL NOTES

1. ALL UPPERS ARE TO BE 14" DEEP, U.N.O.

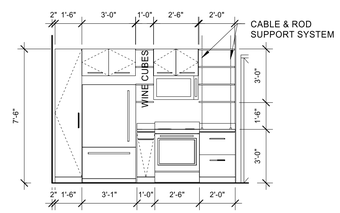
2. ALL FULL HEIGHT UTILITY CABINETS ARE TO MATCH BASE CABINET DEPTH, U.N.O.

3. OPEN SHELVES, TYP- SHELVES SUPPORTED BY CABLE AND ROD SYSTEM TO CEILING ABOVE AND COUNTER BELOW. BASIS OF DESIGN; B&N INDUSTRIES - CABLE AND ROD SYSTEM. PROVIDE BLOCKING AS NECESSARY TO EXG STRUCTURE AT CEILING AND AT WALL AND AS RECOMMENDED BY MANF.



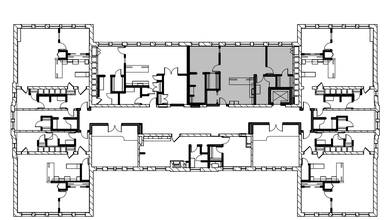
3 UNIT X2 - KITCHEN ELEV. B

1/4" = 1'-0"



2 UNIT X2 - KITCHEN ELEV. A

1/4" = 1'-0"



1 KEY PLAN

1/32" = 1'-0"

LICENSED ARCHITECT
DAVID LLOYD NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6202 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

Date: 15 JAN 2014

TYP. UNITS - X2

A1.14

CASEWORK GENERAL NOTES

1. ALL UPPERS ARE TO BE 14" DEEP, U.N.O.

2. ALL FULL HEIGHT UTILITY CABINETS ARE TO MATCH BASE CABINET DEPTH, U.N.O.

3. OPEN SHELVES, TYP- SHELVES SUPPORTED BY CABLE AND ROD SYSTEM TO CEILING ABOVE AND COUNTER BELOW. BASIS OF DESIGN; B&N INDUSTRIES - CABLE AND ROD SYSTEM. PROVIDE BLOCKING AS NECESSARY TO EXG STRUCTURE AT CEILING AND AT WALL AND AS RECOMMENDED BY MANF.

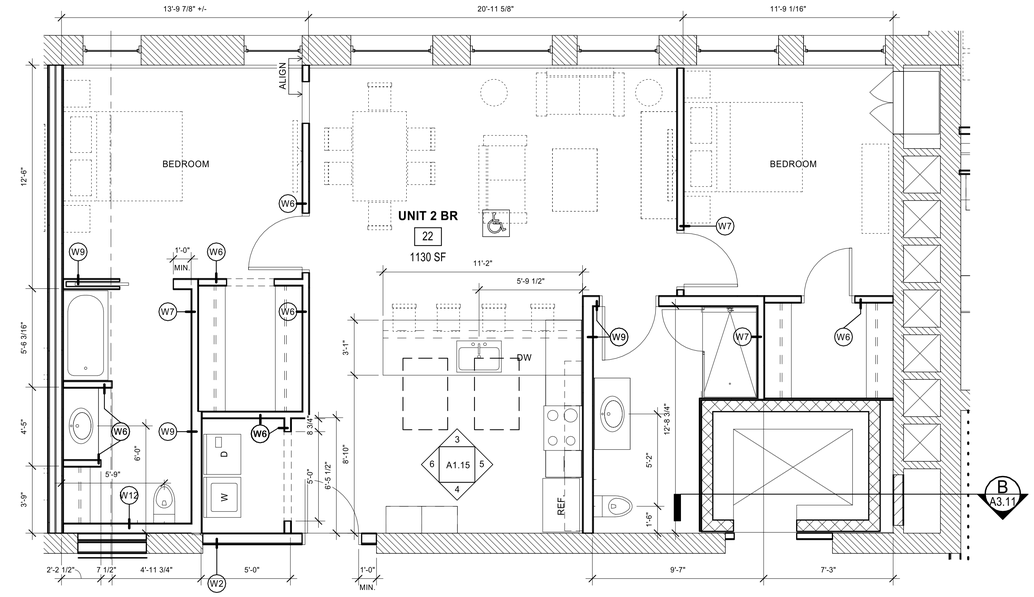
ADA UNIT NOTES

PROVIDE ADA VERSIONS OF RESIDENTIAL EQUIPMENT & COMPATIBLE WITH 34" COUNTER, INCLUDING SIDE BY SIDE WASHER DRYER, REFRIGERATOR, RANGE, AND DISHWASHER.

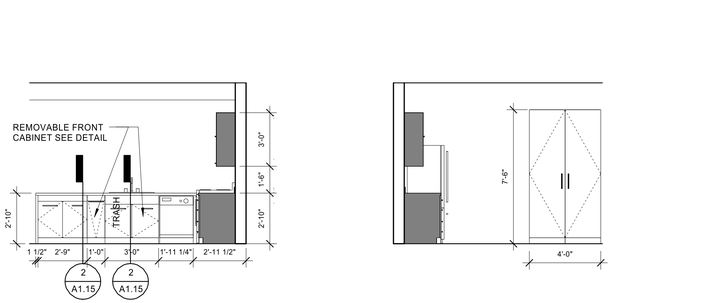
MOUNT HARDWARE AT HEIGHTS NOT TO EXCEED 48" AFF

ALL MILLWORK IN THIS UNIT IS TO BE CONSTRUCTED THAT THE RIM OF COUNTER MOUNTED SINKS DOES NOT EXCEED 34" A.F.F. OR THE IN COUNTERS WITHOUT SINKS THE COUNTER HEIGHT IS NOT TO EXCEED 34" A.F.F.

CLOSET RODS ARE TO BE MOUNTED AT 48" A.F.F.

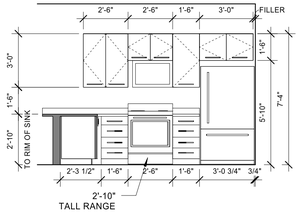


1 SECOND FLOOR - UNIT 22
1/4" = 1'-0"

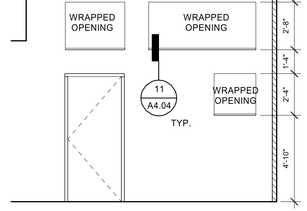


3 SECOND FLOOR - UNIT 22 - ELEV A
1/4" = 1'-0"

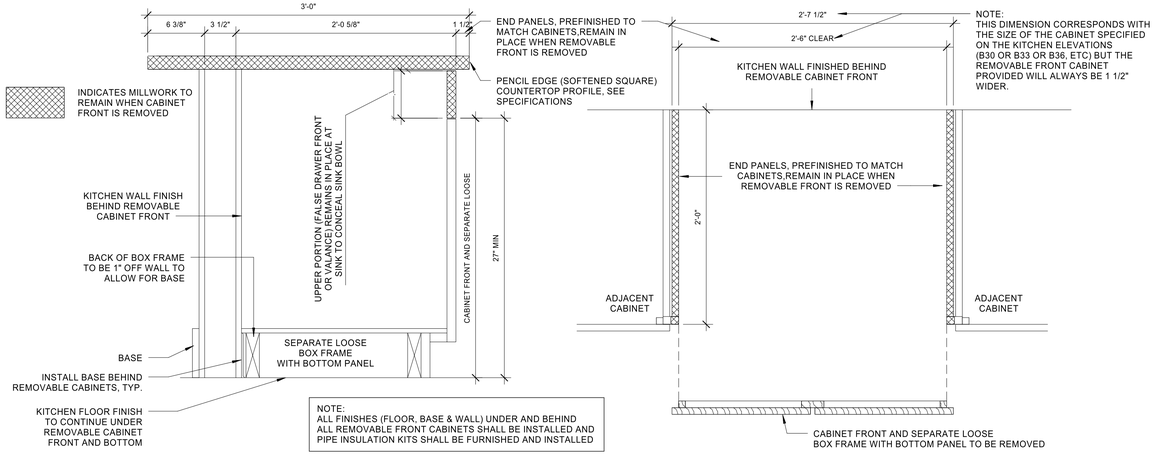
4 SECOND FLOOR - UNIT 22 - ELEV B
1/4" = 1'-0"



5 SECOND FLOOR - UNIT 22 - ELEV C
1/4" = 1'-0"



6 SECOND FLOOR - UNIT 22 - ELEV D
1/4" = 1'-0"



2 ADA KITCHEN DETAILS
1 1/2" = 1'-0"

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

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Consultant:

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48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

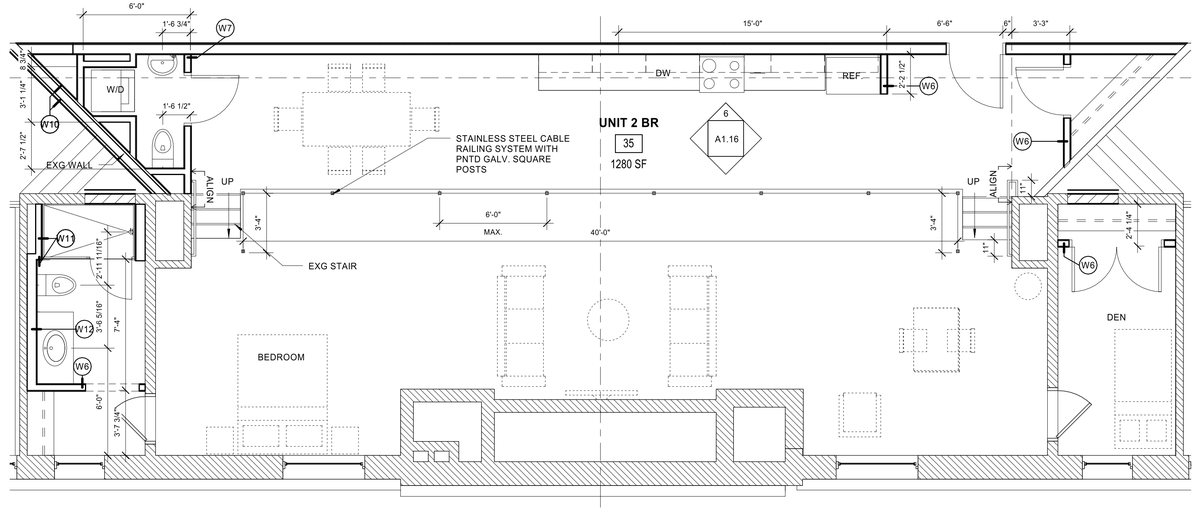
Scale: As indicated

Date: 15 JAN 2014

ADA UNIT 22

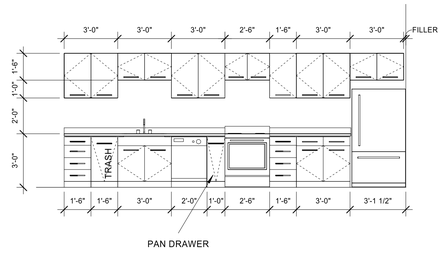
A1.15

CITY OF PORTLAND, MAINE RESURGAM
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14



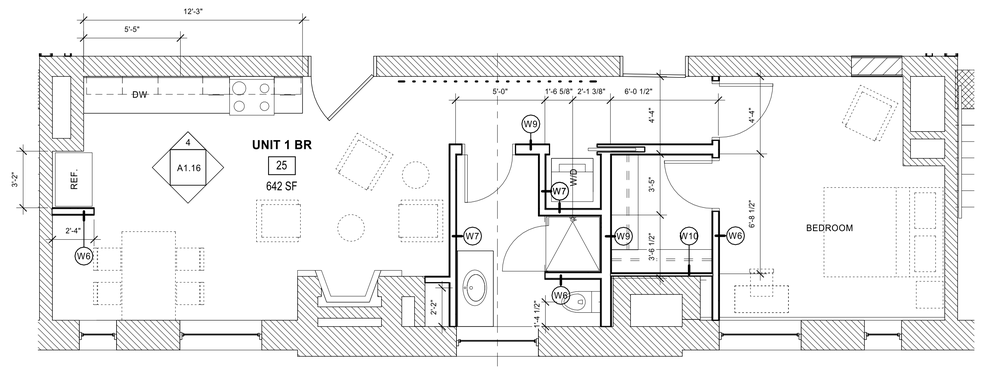
7 | THIRD FLOOR - UNIT 35

1/4" = 1'-0"



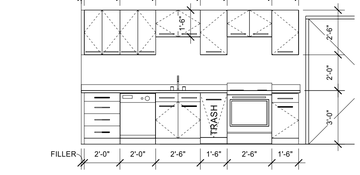
6 | KITCHEN ELEVATION - UNIT 35

1/4" = 1'-0"



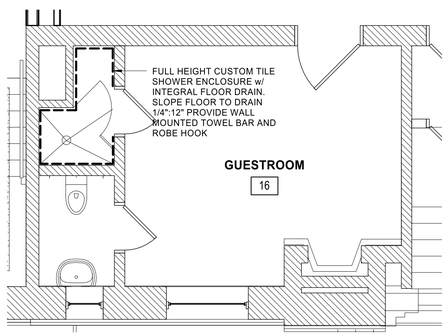
5 | SECOND FLOOR - UNIT 25

1/4" = 1'-0"



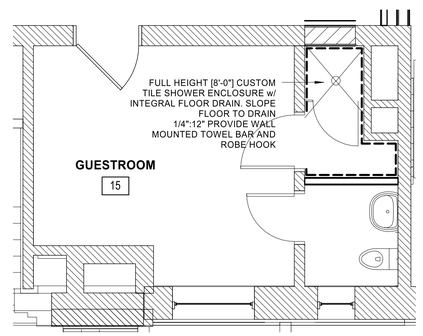
4 | KITCHEN ELEVATION - UNIT 25

1/4" = 1'-0"



3 | FIRST FLOOR - UNIT 16 - GUESTROOM

1/4" = 1'-0"



2 | FIRST FLOOR - UNIT 17 - GUESTROOM

1/4" = 1'-0"

CASEWORK GENERAL NOTES

1. ALL UPPERS ARE TO BE 14" DEEP, U.N.O.

2. ALL FULL HEIGHT UTILITY CABINETS ARE TO MATCH BASE CABINET DEPTH, U.N.O.

3. OPEN SHELVES, TYP- SHELVES SUPPORTED BY CABLE AND ROD SYSTEM TO CEILING ABOVE AND COUNTER BELOW. BASIS OF DESIGN; B&N INDUSTRIES - CABLE AND ROD SYSTEM. PROVIDE BLOCKING AS NECESSARY TO EXG STRUCTURE AT CEILING AND AT WALL AND AS RECOMMENDED BY MANF.

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-2002 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

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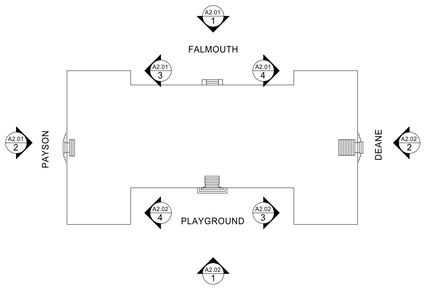
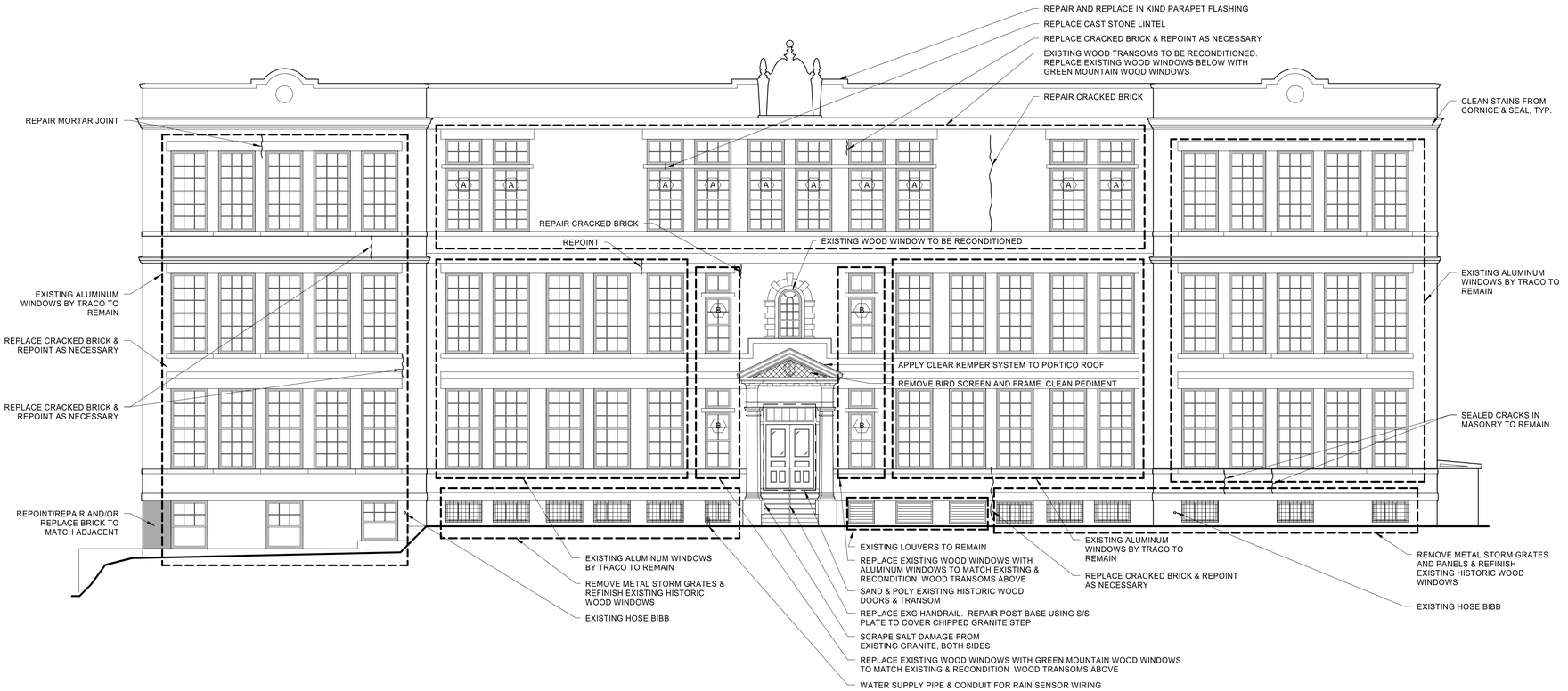
TYP. UNITS - X5

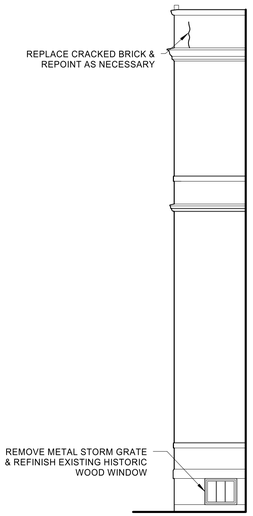
A1.16



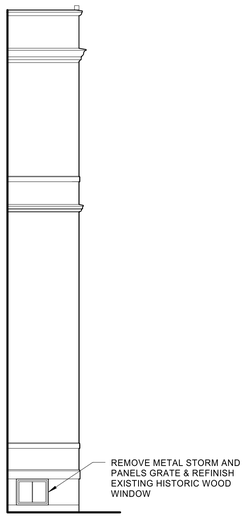
KEY PLAN - ELEVATIONS
1" = 40'-0"



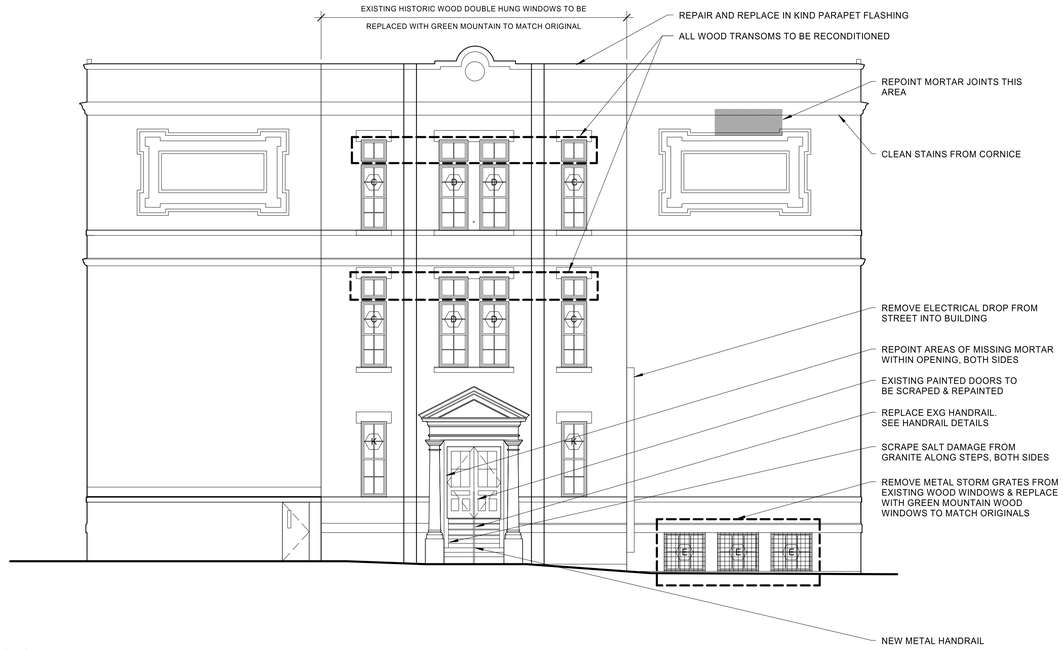
1 NORTH ELEVATION
1/8" = 1'-0"



4 NORTH ELEVATION - INSIDE EAST
1/8" = 1'-0"



3 NORTH ELEVATION - INSIDE WEST
1/8" = 1'-0"



2 WEST ELEVATION
1/8" = 1'-0"

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-2002 ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

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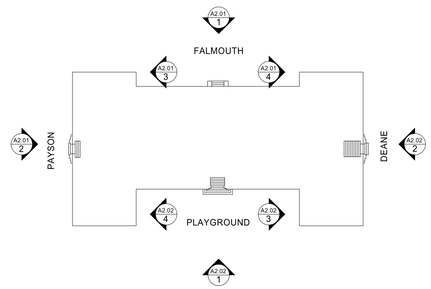
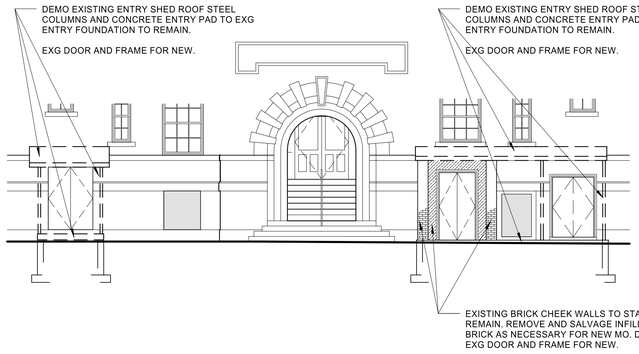
BUILDING ELEVATIONS

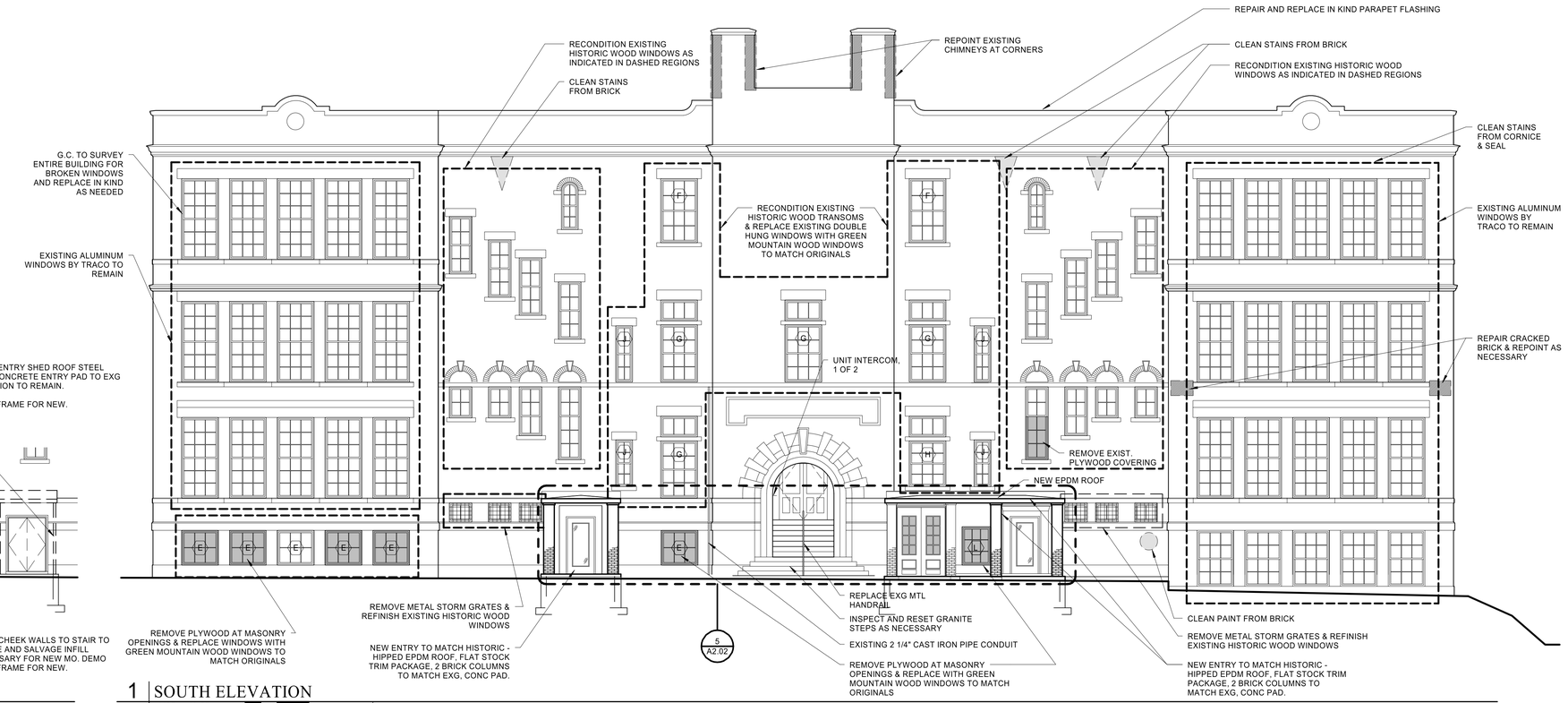
A2.01



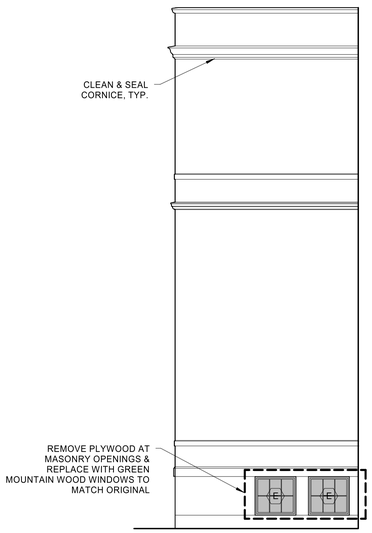
KEY PLAN - ELEVATIONS
1" = 40'-0"



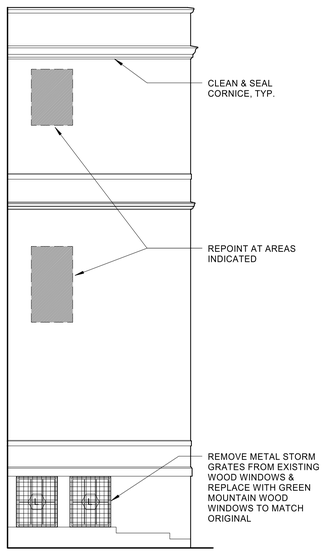
5 SOUTH ELEVATION - DEMO WORK AT STAIR ENTRY
1/8" = 1'-0"



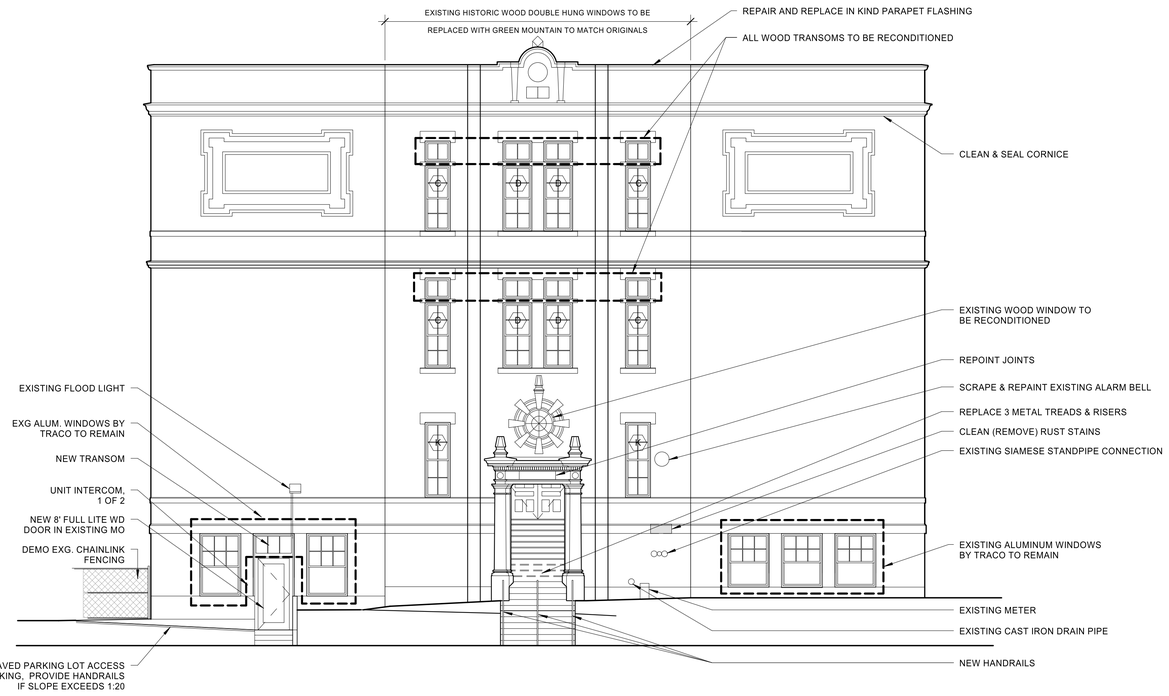
1 SOUTH ELEVATION
1/8" = 1'-0"



4 SOUTH ELEVATION - INSIDE WEST
1/8" = 1'-0"



3 SOUTH ELEVATION - INSIDE EAST
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"

LICENSED ARCHITECT
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NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6202 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

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Date: 15 JAN 2014

BUILDING ELEVATIONS

A2.02

CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

LEGEND:

BUILDING SECTION — X / AXX — SIM

WALL SECTION — X / AXX — SIM

SECTION DETAIL — X / AXX — SIM

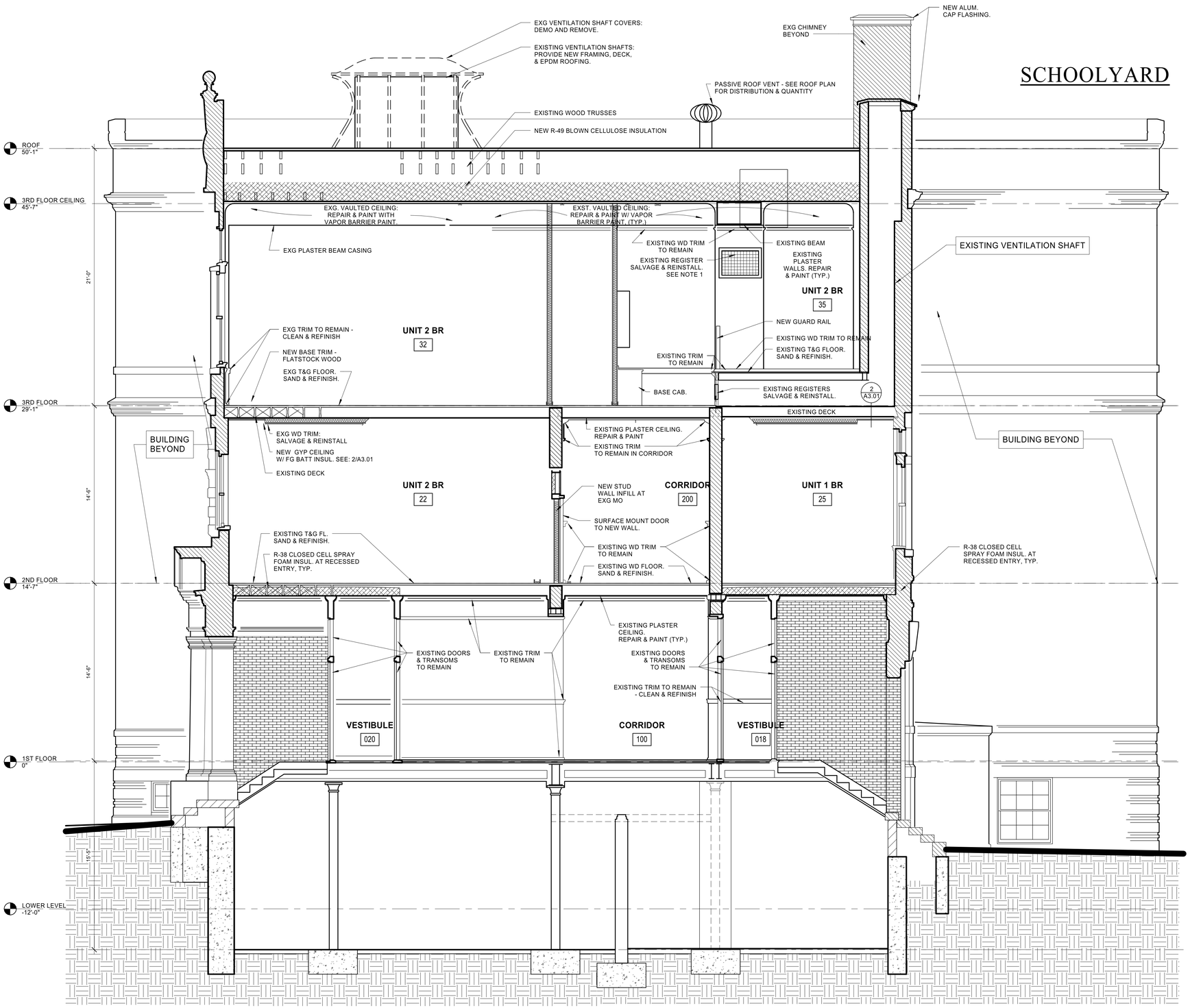
PLAN DETAIL — X / AXX — SIM

WALL TYPE — WX

FLOOR TYPE — FX

NEW WALL - STUD & GYP. BD.	
NEW CMU WALL	
NEW MASONRY INFILL	
EXISTING CMU WALL	
EXISTING STUD WALL	
EXISTING MASONRY WALL	
DEMO AND REMOVE	

GYP OR ACT. CLG. 6 1/2" BELOW EXG PLASTER CLG. OR AS NOTED	
LOWERED GYP OR ACT CEILING, HEIGHT AS NOTED	
MECHANICAL SOFFIT	
(2) LAYERS GYP ON HAT CHANNELS APPLIED TO EXG. PLASTER CLG.	



NOTE #1 : SALVAGE, CLEAN AND RESTORE ALL EXISTING WALL REGISTERS. PROVIDE RECESSED INFILL AT ABANDONED MECHANICAL OPENING SUCH THAT WALL RATINGS ARE ACHIEVED AND THE REGISTER MAY BE RE-INSTALLED IN PLACE FLUSH WITH ORIGINAL LOCATION.

1 BUILDING SECTION - TRANSVERSE SECTION
1/4" = 1'-0"

0 1'-0" 2'-0" 4'-0" 8'-0"

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LICENSED ARCHITECT
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STATE OF MAINE

Prepared For: Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect: ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project: NATHAN CLIFFORD SCHOOL REDEVELOPMENT
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Scale: 1/4" = 1'-0"

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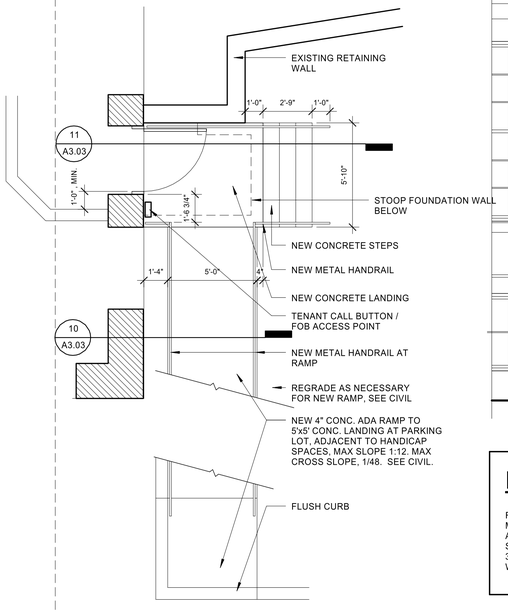
BUILDING SECTION

A3.01



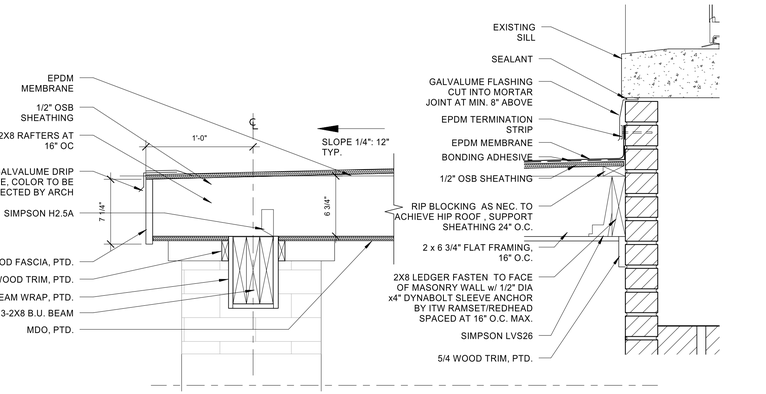
9 | ADA RAMP
1/4" = 1'-0"

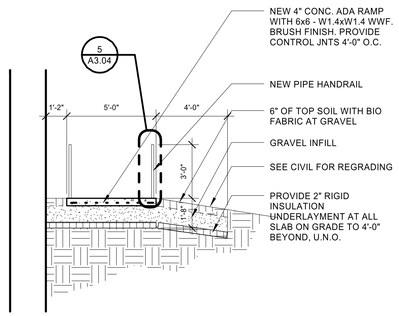
NOTE: SEE BUILDING ELEVATION FOR MAIN BUILDING WORK.

EXTERIOR CONC:

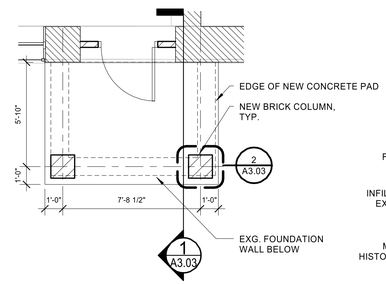
F'c = 400 PSI
Max W/C = 0.48
AIR ENTRAINED 7 +/-%
SLUMP 3" +/- 1"
3 1/2 GAL/CY DCI-S or RHEOCRETE CNI
WATER TO BE POTABLE & CHLOR. FREE

8 | SOUTH ELEVATION - DETAIL
1/4" = 1'-0"

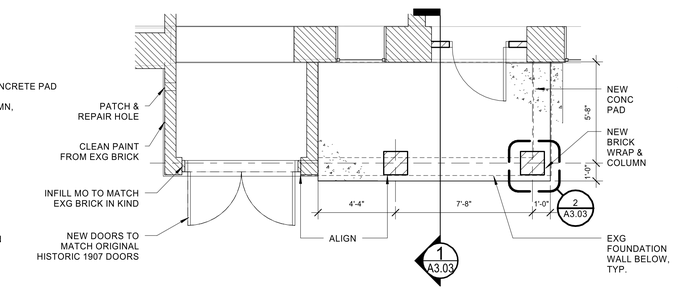




10 | ADA RAMP SECTION A
1/4" = 1'-0"



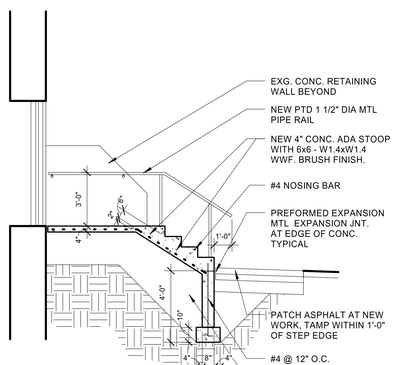
7 | COVERED ENTRY AT STAIR B
1/4" = 1'-0"



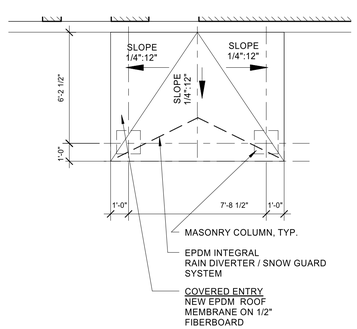
6 | COVERED ENTRY AT STAIR A
1/4" = 1'-0"

4 | COVERED ENTRY - ROOF DETAIL
1 1/2" = 1'-0"

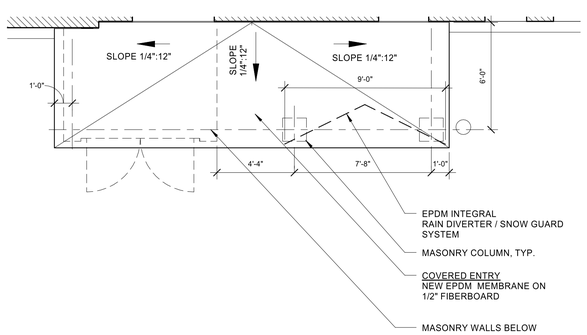
3 | COVERED ENTRY - ROOF DETAIL
1 1/2" = 1'-0"

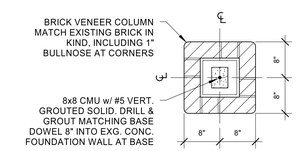


1 | ADA RAMP SECTION B
1/4" = 1'-0"

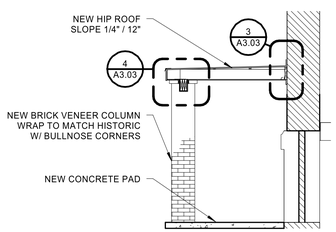


5 | ROOF PLAN AT COVERED ENTRIES
1/4" = 1'-0"





2 | COVERED ENTRY - COLUMN DETAIL
3/4" = 1'-0"



1 | COVERED ENTRY - SECTION
1/4" = 1'-0"

LICENSED ARCHITECT
DAVID LLOYD NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

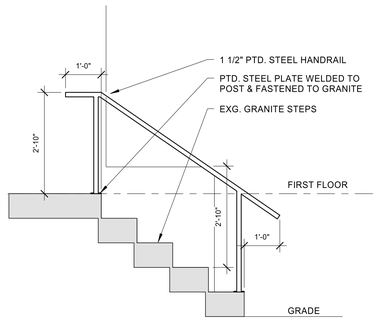
Date: 15 JAN 2014

ENTRY DETAILS

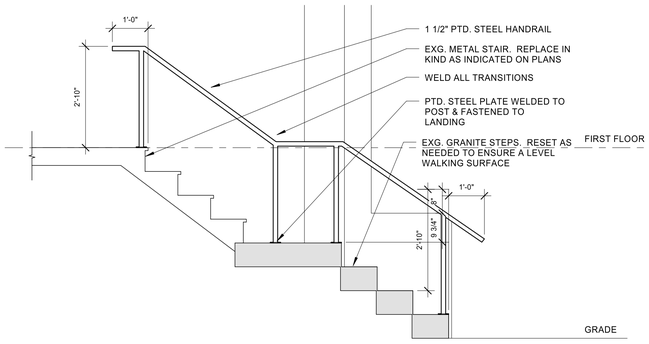
A3.03

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

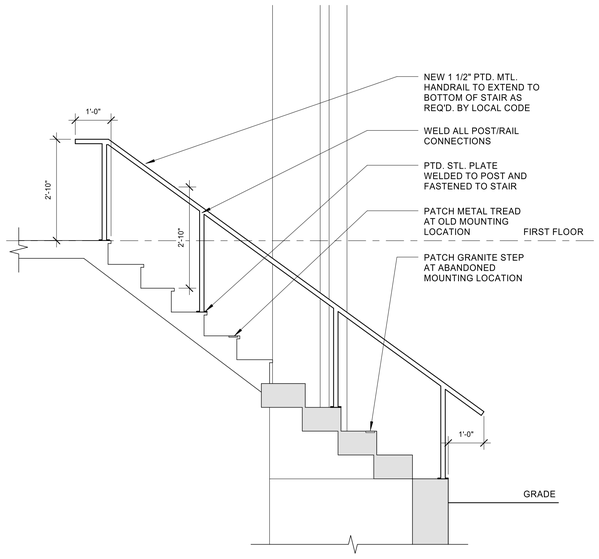
Date: 03/12/14



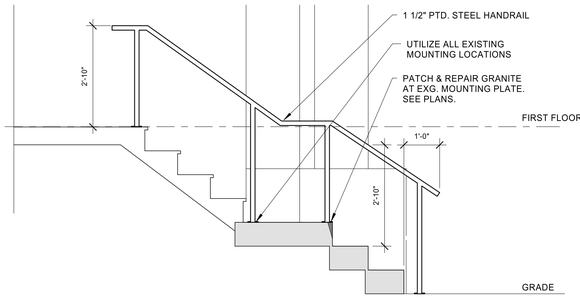
7 | NEW HANDRAIL ELEVATION - EAST
1/2" = 1'-0"



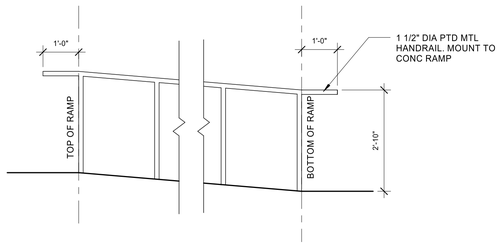
6 | NEW HANDRAIL ELEVATION - WEST
1/2" = 1'-0"



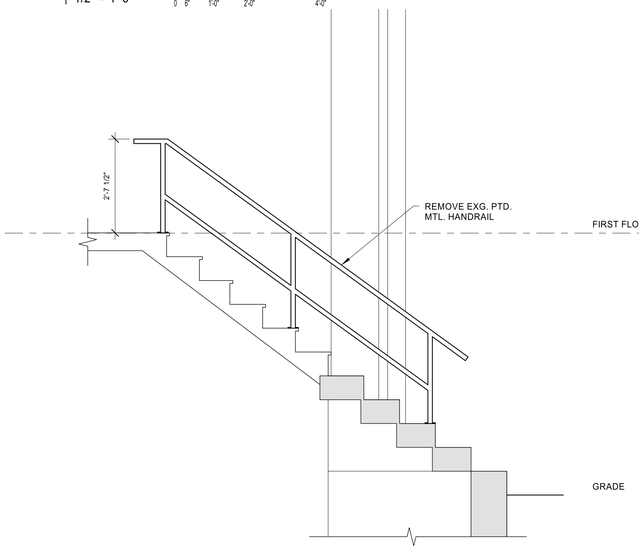
4 | NEW HANDRAIL ELEVATION - SOUTH
1/2" = 1'-0"



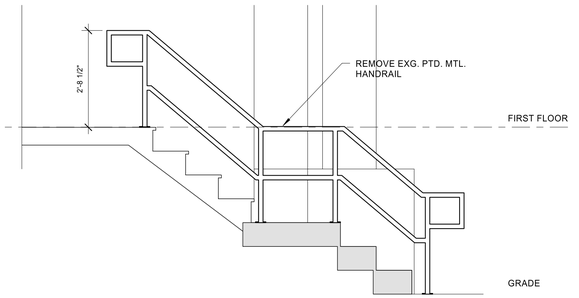
2 | NEW HANDRAIL ELEVATION - NORTH
1/2" = 1'-0"



5 | RAMP - HANDRAIL
1/2" = 1'-0"



3 | EXISTING HANDRAIL ELEVATION - SOUTH
1/2" = 1'-0"



1 | EXISTING HANDRAIL ELEVATION - NORTH
1/2" = 1'-0"

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Portland, ME 04101

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Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
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NATHAN CLIFFORD SCHOOL
REDEVELOPMENT
180 Falmouth Street Portland, Maine

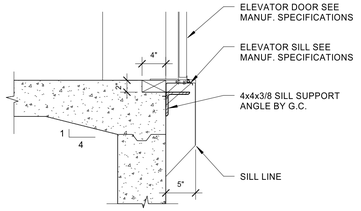
Revisions:

Scale: 1/2" = 1'-0"

Date: 15 JAN 2014

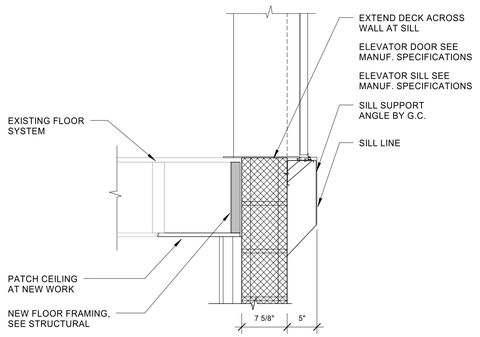
ENTRY HANDRAILS

A3.04



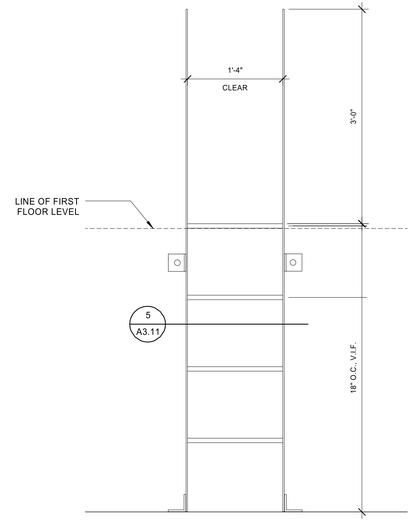
8 | ELEVATOR DOOR AT CONCRETE

1" = 1'-0"



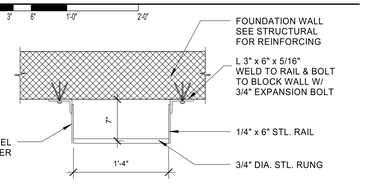
7 | ELEVATOR DOOR THRESHOLD

1" = 1'-0"



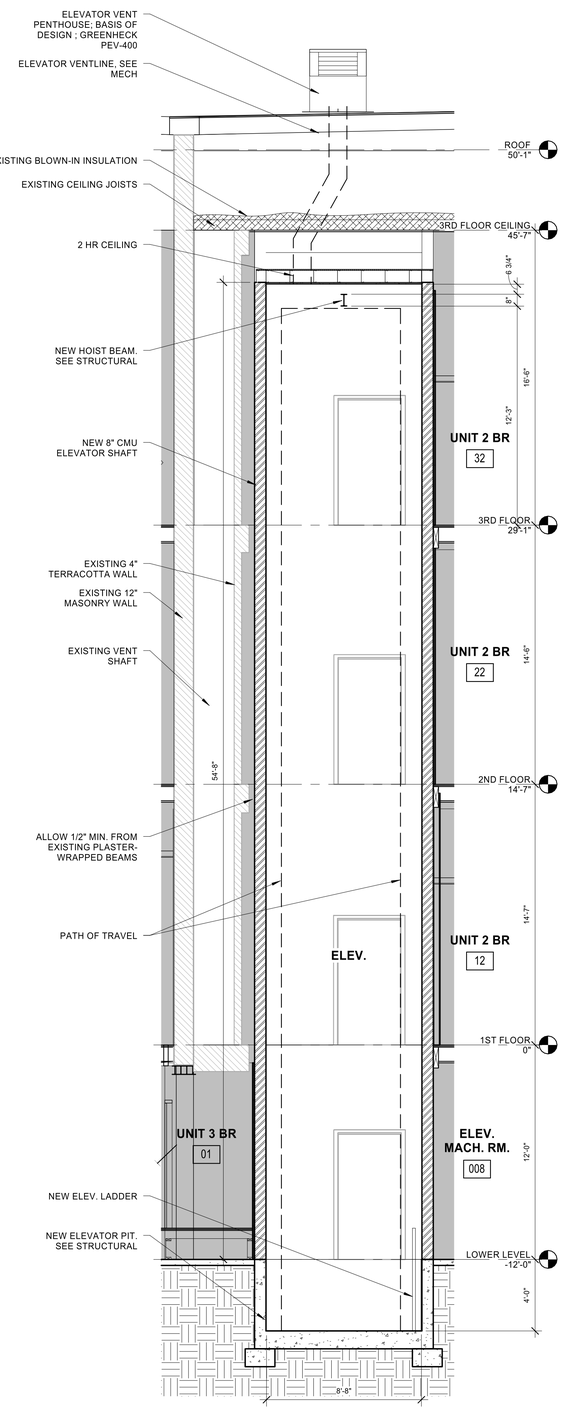
6 | ELEVATOR PIT LADDER ELEVATION

1" = 1'-0"



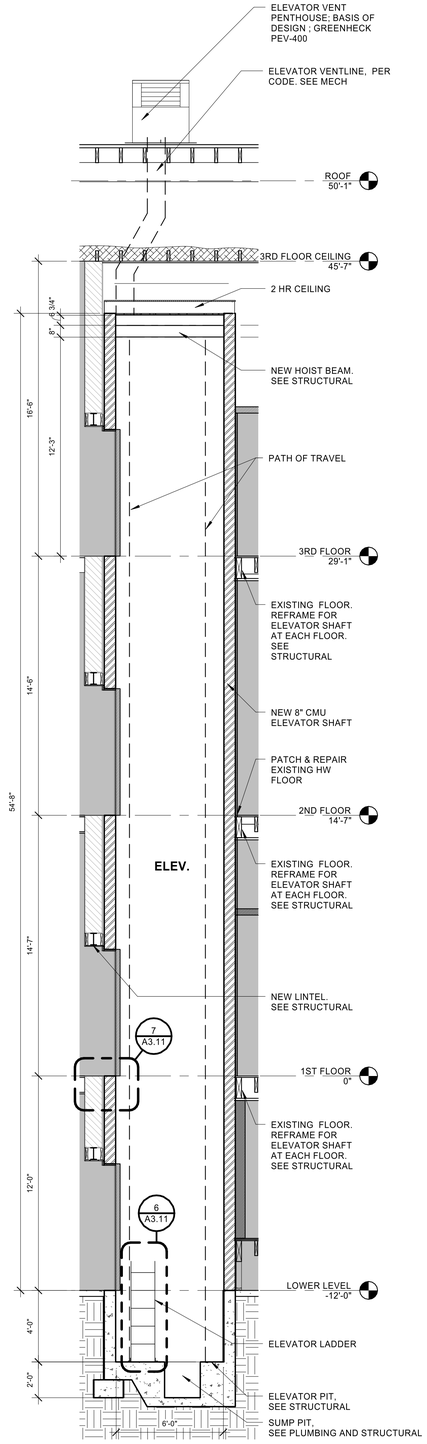
ELEVATOR PIT LADDER PLAN

" = 1'-0"



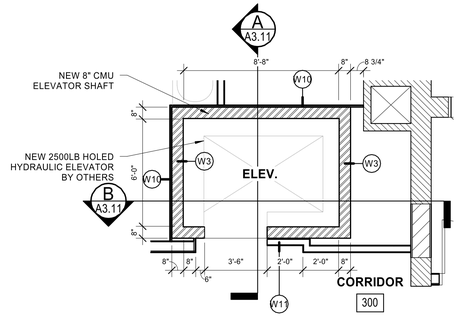
B | ELEVATOR SECTION 2

1/4" = 1'-0"



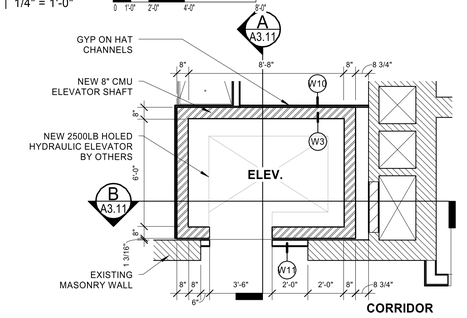
A | ELEVATOR SECTION 1

1/4" = 1'-0"



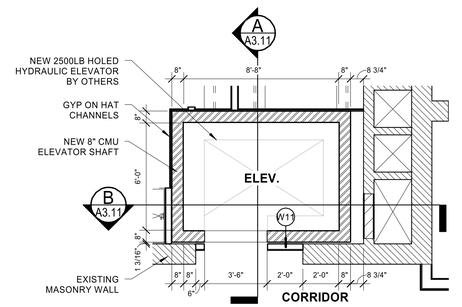
4 | ELEVATOR PLAN AT THIRD FLOOR

1/4" = 1'-0"



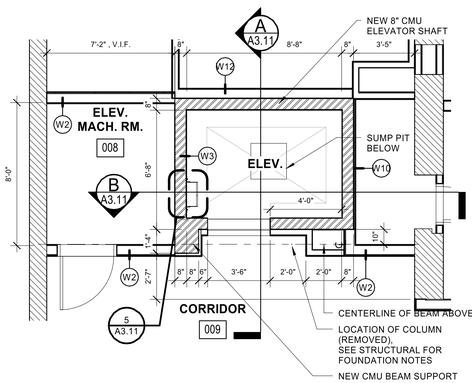
3 | ELEVATOR PLAN AT SECOND FLOOR

1/4" = 1'-0"



2 | ELEVATOR PLAN AT FIRST FLOOR

1/4" = 1'-0"



1 | ELEV. PLAN AT LOWER LEVEL

1/4" = 1'-0"

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Architect:
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48 Union Wharf Portland, Maine 04101
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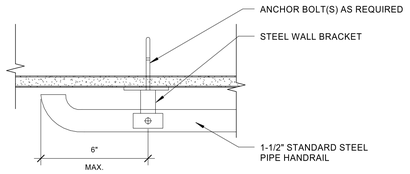
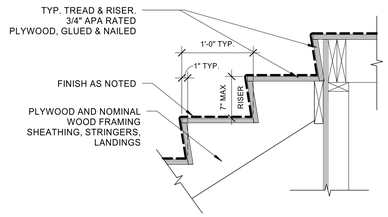
ELEVATOR PLANS & SECTIONS

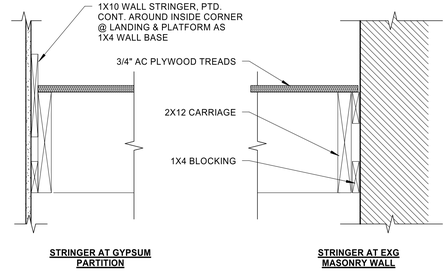
A3.11



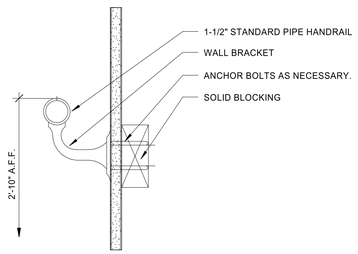
14 METAL HANDRAIL DETAIL - PLAN
3" = 1'-0"



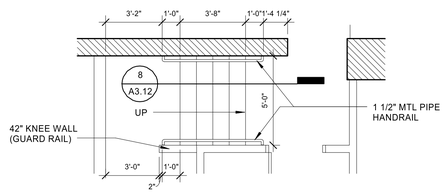
10 STAIR LANDING DETAIL
1" = 1'-0"



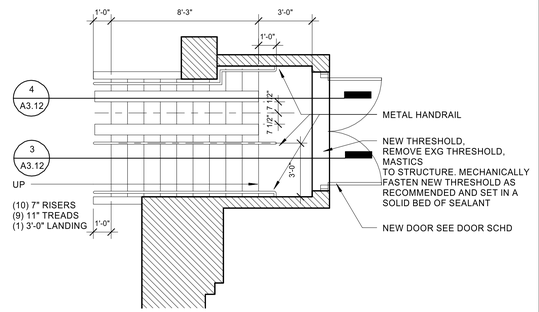
6 STRINGER DETAIL
1 1/2" = 1'-0"



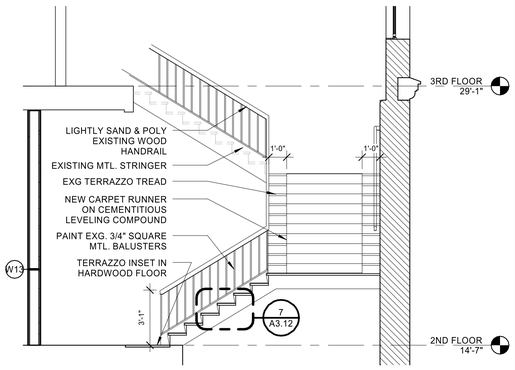
13 METAL HANDRAIL DETAIL - SECTION
3" = 1'-0"



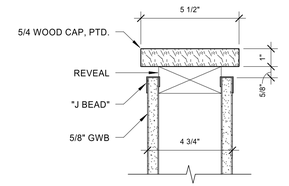
9 ENLARGED STAIR PLAN - LOWER LEVEL
1/4" = 1'-0"



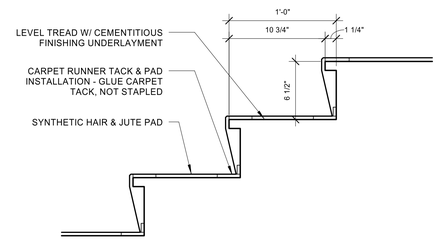
5 ENLARGED STAIR PLAN - TRASH ROOM
1/4" = 1'-0"



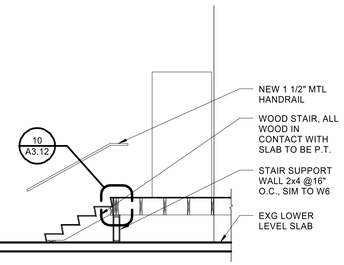
2 TYPICAL STAIR SECTION
1/4" = 1'-0"



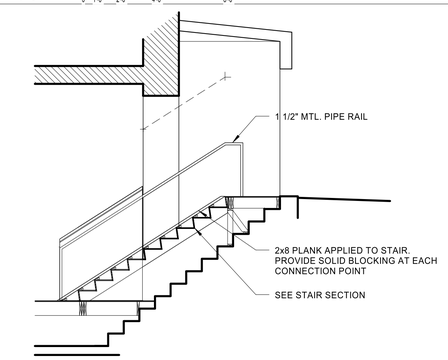
STAIR WALL DETAIL
3" = 1'-0"



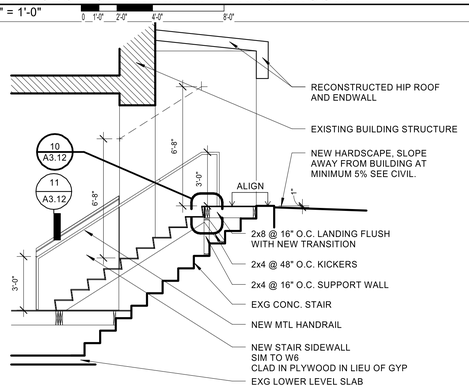
7 TYP. EXG. STAIR SECTION
1 1/2" = 1'-0"



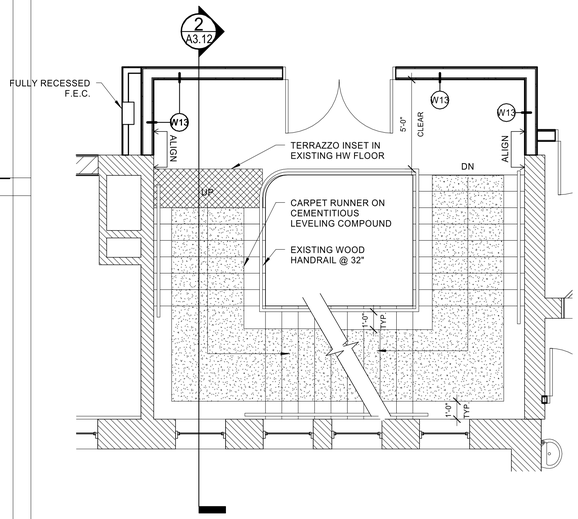
8 STAIR SECTION - LOWER LEVEL
1/4" = 1'-0"



4 STAIR SECTION AT RAMP - TRASH ROOM
1/4" = 1'-0"



3 STAIR SECTION - TRASH ROOM
1/4" = 1'-0"



1 TYPICAL EXISTING STAIR PLAN
1/4" = 1'-0"

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPEARCHETYPE.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

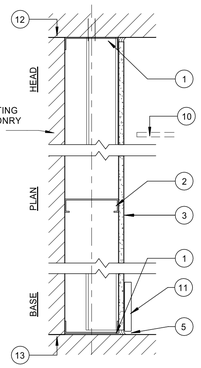
Scale: As indicated

Date: 15 JAN 2014

STAIR DETAILS

A3.12

CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

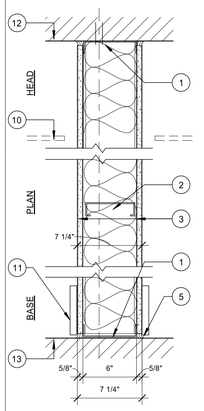


W11 **NON-RATED NON-BEARING**
STC SOUND - N/A

1. **CONT. METAL FLOOR AND CEILING RUNNER -** CHANNEL SHAPED, ATTACHED TO FLOOR AND CEILING WITH STEEL FASTENERS SPACED 24 IN. O.C. RUNNERS FABRICATED FROM MIN NO. 25MSG GALV. STEEL, 1 1/4 IN. DEEP AND 6 IN WIDE.
2. **STEEL STUDS -** CHANNEL SHAPED, SUPPLIED WITH CUTOUTS, FRICTION FITTED INTO FLOOR AND CEILING RUNNER AND SPACED A MAX 24 IN. O.C. STUDS CUT 1/2" LESS THAN ASSEMBLY HEIGHT. STUDS FABRICATED FROM MIN. 25 MSG GALV. STEEL. MIN 6 IN. WIDE BY 1 5/8 IN DEEP WITH 3/8 IN FOLDED BACK RETURN FLANGE LEGS.
3. **GYPSUM BOARD -** 5/8 IN. THICK, 4 FT WIDE ATTACHED TO METAL STUDS WITH TYPE S STEEL SCREWS SPACED 8 IN. O.C. ALONG EDGES OF BOARD AND 12 IN. O.C. IN THE FIELD OF THE BOARD. JNTS.
4. .
5. **SEALANT** - SEALANT, FULL PERIMETER .
6. **BLOCKING - (NOT SHOWN)** WOOD BLOCKING AS NEEDED
7. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.
8. .
9. .
10. **CEILING -** AS NOTED
11. **SCHEDULED BASE -** AS NOTED
12. UNDERSIDE OF STRUCTURE
13. TOP OF STRUCTURE

NOTE: USE MOISTURE RESISTANT GYPSUM IN WET AREAS

12 WALL TYPE 12 - FURRED OUT WET WALL
1 1/2" = 1'-0"

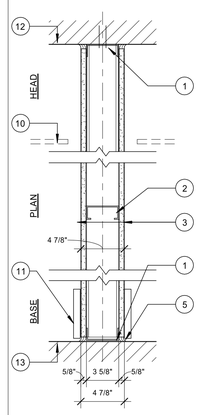


W9 **NON-RATED NON-BEARING**
44 STC SOUND - RAL-TL-11-078

1. **CONT. METAL FLOOR AND CEILING RUNNER -** CHANNEL SHAPED, ATTACHED TO FLOOR AND CEILING WITH STEEL FASTENERS SPACED 24 IN. O.C. RUNNERS FABRICATED FROM MIN NO. 25MSG GALV. STEEL, 1 1/4 IN. DEEP AND 6 IN WIDE.
2. **STEEL STUDS -** CHANNEL SHAPED, SUPPLIED WITH CUTOUTS, FRICTION FITTED INTO FLOOR AND CEILING RUNNER AND SPACED A MAX 24 IN. O.C. STUDS CUT 1/2" LESS THAN ASSEMBLY HEIGHT. STUDS FABRICATED FROM MIN. 25 MSG GALV. STEEL. MIN 3 5/8 IN. WIDE BY 1 5/8 IN DEEP WITH 3/8 IN FOLDED BACK RETURN FLANGE LEGS.
3. **GYPSUM BOARD -** 5/8 IN. THICK, 4 FT WIDE ATTACHED TO METAL STUDS WITH TYPE S STEEL SCREWS SPACED 8 IN. O.C. ALONG EDGES OF BOARD AND 12 IN. O.C. IN THE FIELD OF THE BOARD. JNTS. ORIENTED VERTICALLY AND STAGGERED ON OPPOSITE SIDES OF ASSEMBLY 48 IN. O.C.
4. **SOUND BATT -** GLASS FIBER INSULATION 3 1/2" THICK, COMPRESSED AND FRICTION FIT IN STUD SPACE.
5. **SEALANT** - SEALANT, FULL PERIMETER BOTH SIDES.
6. **BLOCKING - (NOT SHOWN)** WOOD BLOCKING AS NEEDED
7. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.
8. .
9. .
10. **CEILING -** AS NOTED
11. **SCHEDULED BASE -** AS NOTED
12. UNDERSIDE OF STRUCTURE
13. TOP OF STRUCTURE

NOTE: USE MOISTURE RESISTANT GYPSUM IN WET AREAS

9 WALL TYPE 9 - 7 1/4" NON RATED - ACOUSTIC PARTITION
1 1/2" = 1'-0"



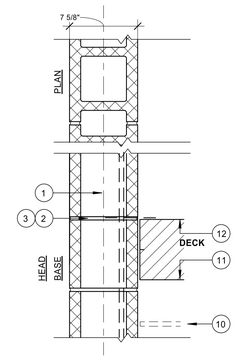
W6 **NON-RATED NON-BEARING**
STC SOUND - N/A

1. **CONT. METAL FLOOR AND CEILING RUNNER -** CHANNEL SHAPED, ATTACHED TO FLOOR AND CEILING WITH STEEL FASTENERS SPACED 24 IN. O.C. RUNNERS FABRICATED FROM MIN NO. 25MSG GALV. STEEL, 1 1/4 IN. DEEP AND 3 5/8 IN WIDE.
2. **STEEL STUDS -** CHANNEL SHAPED, SUPPLIED WITH CUTOUTS, FRICTION FITTED INTO FLOOR AND CEILING RUNNER AND SPACED A MAX 24 IN. O.C. STUDS CUT 1/2" LESS THAN ASSEMBLY HEIGHT. STUDS FABRICATED FROM MIN. 25 MSG GALV. STEEL. MIN 3 5/8 IN. WIDE BY 1 5/8 IN DEEP WITH 3/8 IN FOLDED BACK RETURN FLANGE LEGS.
3. **GYPSUM BOARD -** 5/8 IN. THICK, 4 FT WIDE ATTACHED TO METAL STUDS WITH TYPE S STEEL SCREWS SPACED 8 IN. O.C. ALONG EDGES OF BOARD AND 12 IN. O.C. IN THE FIELD OF THE BOARD. JNTS. ORIENTED VERTICALLY AND STAGGERED ON OPPOSITE SIDES OF ASSEMBLY 48 IN. O.C.
4. **NOT USED**
5. **SEALANT** - SEALANT, FULL PERIMETER BOTH SIDES.
6. **BLOCKING - (NOT SHOWN)** WOOD BLOCKING AS NEEDED
7. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.
8. .
9. .
10. **CEILING -** AS NOTED
11. **SCHEDULED BASE -** AS NOTED
12. UNDERSIDE OF STRUCTURE
13. TOP OF STRUCTURE

NOTE: USE MOISTURE RESISTANT GYPSUM IN WET AREAS

6 WALL TYPE 6 - 4 7/8" NON RATED PARTITION
1 1/2" = 1'-0"

LABEL 2 HR



W3 **2 HR NON-BEARING FIRE BARRIER**
DESIGN NUMBER - IBC 2009, 720.1(2), 3-1.1
48 STC SOUND - KODARAS ACOUSTICAL LABS
933-2-70 1970 16f
STC RATING WILL EXCEED 50 STC BECAUSE THERE ARE 2 LAYERS OF THIS WALL TYPE BETWEEN THE UNIT AND THE CORRIDOR

1. **CONCRETE BLOCKS -** CLASSIFICATION D-2 (2HR)
2. **MORTAR -** BLOCKS LAID IN A FULL BED OF MORTAR, NOM. 3/8 IN THICK, OF NOT LESS THAN 2 1/4 AND NOT MORE THAN 3 1/2 PARTS CLEAN SHARP SAND TO 1 PART PORTLAND CEMENT (PROPORTIONED BY VOLUME) AND NOT MORE THAN 50 PERCENT HYDRATED LIME (BY CEMENT VOLUME). VERTICAL JOINTS STAGGERED.
3. **REINFORCING -** SEE STRUCTURAL
4. .
5. .
6. .
7. .
8. .
9. .
10. **CEILING -** SEE RCP
11. UNDERSIDE OF STRUCTURE
12. TOP OF STRUCTURE

3 WALL TYPE 3 - CMU ELEVATOR WALL
1 1/2" = 1'-0"

W11 **NON-RATED NON-BEARING**
STC SOUND - N/A

1. **CONT. METAL FLOOR AND CEILING RUNNER -** CHANNEL SHAPED, ATTACHED TO FLOOR AND CEILING WITH STEEL FASTENERS SPACED 24 IN. O.C. RUNNERS FABRICATED FROM MIN NO. 25MSG GALV. STEEL, 1 1/4 IN. DEEP AND 3 5/8 IN WIDE.
2. **STEEL STUDS -** CHANNEL SHAPED, SUPPLIED WITH CUTOUTS, FRICTION FITTED INTO FLOOR AND CEILING RUNNER AND SPACED A MAX 24 IN. O.C. STUDS CUT 1/2" LESS THAN ASSEMBLY HEIGHT. STUDS FABRICATED FROM MIN. 25 MSG GALV. STEEL. MIN 3 5/8 IN. WIDE BY 1 5/8 IN DEEP WITH 3/8 IN FOLDED BACK RETURN FLANGE LEGS.
3. **GYPSUM BOARD -** 5/8 IN. THICK, 4 FT WIDE ATTACHED TO METAL STUDS WITH TYPE S STEEL SCREWS SPACED 8 IN. O.C. ALONG EDGES OF BOARD AND 12 IN. O.C. IN THE FIELD OF THE BOARD. JNTS.
4. .
5. **SEALANT** - SEALANT, FULL PERIMETER .
6. **BLOCKING - (NOT SHOWN)** WOOD BLOCKING AS NEEDED
7. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.
8. .
9. .
10. **CEILING -** AS NOTED
11. **SCHEDULED BASE -** AS NOTED
12. UNDERSIDE OF STRUCTURE
13. TOP OF STRUCTURE

NOTE: USE MOISTURE RESISTANT GYPSUM IN WET AREAS

11 WALL TYPE 11 - SINGLE SIDED PARTITION
1 1/2" = 1'-0"

W8 **NON-RATED NON-BEARING**
STC SOUND - N/A

1. **CONT. METAL FLOOR AND CEILING RUNNER -** CHANNEL SHAPED, ATTACHED TO FLOOR AND CEILING WITH STEEL FASTENERS SPACED 24 IN. O.C. RUNNERS FABRICATED FROM MIN NO. 25MSG GALV. STEEL, 1 1/4 IN. DEEP AND 6 IN WIDE.
2. **STEEL STUDS -** CHANNEL SHAPED, SUPPLIED WITH CUTOUTS, FRICTION FITTED INTO FLOOR AND CEILING RUNNER AND SPACED A MAX 24 IN. O.C. STUDS CUT 1/2" LESS THAN ASSEMBLY HEIGHT . STUDS FABRICATED FROM MIN. 25 MSG GALV. STEEL. MIN 3 5/8 IN. WIDE BY 1 5/8 IN DEEP WITH 3/8 IN FOLDED BACK RETURN FLANGE LEGS.
3. **GYPSUM BOARD -** 5/8 IN. THICK, 4 FT WIDE ATTACHED TO METAL STUDS WITH TYPE S STEEL SCREWS SPACED 8 IN. O.C. ALONG EDGES OF BOARD AND 12 IN. O.C. IN THE FIELD OF THE BOARD. JNTS. ORIENTED VERTICALLY AND STAGGERED ON OPPOSITE SIDES OF ASSEMBLY 48 IN. O.C.
4. **NOT USED**
5. **SEALANT** - SEALANT, FULL PERIMETER BOTH SIDES.
6. **BLOCKING - (NOT SHOWN)** WOOD BLOCKING AS NEEDED
7. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.
8. .
9. .
10. **CEILING -** AS NOTED
11. **SCHEDULED BASE -** AS NOTED
12. UNDERSIDE OF STRUCTURE
13. TOP OF STRUCTURE

NOTE: USE MOISTURE RESISTANT GYPSUM IN WET AREAS

8 WALL TYPE 8 - 7 1/4" NON RATED PARTITION
1 1/2" = 1'-0"

LABEL 2 HR

W5 **2 HR NON BEARING FIRE BARRIER**
DESIGN NUMBER - IBC TABLE 720.1(2) 5-1.3
STC SOUND - NA

1. **TERRACOTTA BLOCK -** 6" TERRACOTTA BLOCK WALL
2. **PLASTER -** 1" PLASTER

LABEL 1 HR

W5a **1 HR NON BEARING FIRE PARTITION**
DESIGN NUMBER - IBC TABLE 720.1(2) 5-1.3
STC SOUND - NA

1. **TERRACOTTA BLOCK -** 6" TERRACOTTA BLOCK WALL
2. **PLASTER -** 1" PLASTER

5 WALL TYPE 5 - EXISTING TERRICOTTA PARTITION
1 1/2" = 1'-0"

LABEL 1 HR

W2 **1 HR NON-BEARING FIRE BARRIER**
DESIGN NUMBER - UL U451
55-59 STC SOUND - RAL-TL83-215, 9-2-83

1. **CONT. METAL FLOOR AND CEILING RUNNER -** FASTENERS @ 2'-0" O.C. MAX. WITHIN 1" OF ENDS
2. **STEEL STUDS -** 6 IN. STEEL STUDS 24" O.C.
3. **SOUND ISOLATION FURRING -** RESILIENT SOUND ISOLATION CLIP (ONE SIDE), ORIENTED PERPENDICULAR TO STUDS, 24" O.C. ATTACH WITH #8 WAFER HEAD SCREWS.
4. **TYPE X GYPSUM BOARD - (**1) LAYER PROPRIETARY 5/8" TYPE X GYP. BD. EACH SIDE. APPLIED PERPENDICULAR TO STUDS WITH 1" TYPE S DRYWALL SCREWS 8" O.C. AT VERT. JNTS AND INTERMEDIATE STUDS AND 12" O.C. AT TOP AND BOTTOM RUNNER. SEE NOTES FOR GYP. BD. TYPE (STAGGER GYP. BD. JNTS 24" ON NON-FURRED SIDE.)
5. **SOUND BATT -** GLASS FIBER INSULATION 6 1/4" THICK, COMPRESSED AND FRICTION FIT IN STUD SPACE.
6. **SEALANT** - UL AND STC LISTED SEALANT, FULL PERIMETER BOTH SIDES.
7. **BLOCKING - (NOT SHOWN)** WOOD BLOCKING AS NEEDED
8. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.
9. .
10. **CEILING -** AS NOTED
11. **SCHEDULED BASE -** AS NOTED
12. UNDERSIDE OF STRUCTURE
13. TOP OF STRUCTURE

2 WALL TYPE 2 - 7 3/4" CORRIDOR WALL
1 1/2" = 1'-0"

TYPE 10 - FURRING
-0"

W7 **NON-RATED NON-BEARING**
45-49 STC SOUND - RAL-TL69-42, 10-17-68

1. **CONT. METAL FLOOR AND CEILING RUNNER -** CHANNEL SHAPED, ATTACHED TO FLOOR AND CEILING WITH STEEL FASTENERS SPACED 24 IN. O.C. RUNNERS FABRICATED FROM MIN NO. 25MSG GALV. STEEL, 1 1/4 IN. DEEP AND 3 5/8 IN WIDE.
2. **STEEL STUDS -** CHANNEL SHAPED, SUPPLIED WITH CUTOUTS, FRICTION FITTED INTO FLOOR AND CEILING RUNNER AND SPACED A MAX 24 IN. O.C. STUDS CUT 1/2" LESS THAN ASSEMBLY HEIGHT. STUDS FABRICATED FROM MIN. 25 MSG GALV. STEEL. MIN 3 5/8 IN. WIDE BY 1 5/8 IN DEEP WITH 3/8 IN FOLDED BACK RETURN FLANGE LEGS.
3. **GYPSUM BOARD -** 5/8 IN. THICK, 4 FT WIDE ATTACHED TO METAL STUDS WITH TYPE S STEEL SCREWS SPACED 8 IN. O.C. ALONG EDGES OF BOARD AND 12 IN. O.C. IN THE FIELD OF THE BOARD. JNTS. ORIENTED VERTICALLY AND STAGGERED ON OPPOSITE SIDES OF ASSEMBLY 48 IN. O.C.
4. **SOUND BATT -** GLASS FIBER INSULATION 3 1/2" THICK, COMPRESSED AND FRICTION FIT IN STUD SPACE.
5. **SEALANT** - SEALANT, FULL PERIMETER BOTH SIDES.
6. **BLOCKING - (NOT SHOWN)** WOOD BLOCKING AS NEEDED
7. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.
8. .
9. .
10. **CEILING -** AS NOTED
11. **SCHEDULED BASE -** AS NOTED
12. UNDERSIDE OF STRUCTURE
13. TOP OF STRUCTURE

NOTE: USE MOISTURE RESISTANT GYPSUM IN WET AREAS

7 WALL TYPE 7 - 4 7/8" NON RATED - ACOUSTIC PARTITION
1 1/2" = 1'-0"

LABEL 2 HR

W4 **2 HR BEARING FIRE BARRIER**
DESIGN NUMBER - IBC TABLE 720.1(2) 1-1.1
59 STC SOUND - RIVERBANK ACOUSTICAL LABS.
TL67-32 1966 16f

1. **BRICK MASONRY -** 8 OR 12" THICK MASONRY WALL
2. **PLASTER -** 1" PLASTER

4 WALL TYPE 4 - EXISTING MASONRY WALL
1 1/2" = 1'-0"

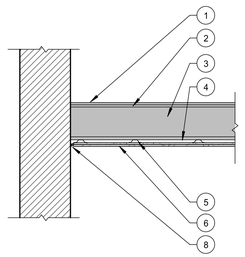
LABEL 2 HR - AT STAIRS AND SHAFTS ENCLOSURE

LABEL 1 HR - AT UNITS

W1 **1 HR NON-BEARING FIRE BARRIER**
DESIGN NUMBER - UL U493 (GA FILE WP5006 PROPRIETARY 1 HOUR FIRE)
60-64 STC SOUND - USG STC-050817, 8-11-05
FIRE TEST: UL R1319, 96NK31548, 10-21-96 UL DESIGN U493

1. **CONT. METAL FLOOR AND CEILING RUNNER -** CHANNEL-SHAPED, ATTACHED TO FLOOR AND CEILING IN TWO ROWS MIN. 3/4 IN. APART WITH FASTENERS 24 IN. O.C. MAX. RUNNERS FABRICATED FROM MIN. NO. 25 MSG GALV. STEEL, 1-1/4 IN. DEEP AND 3-5/8 IN. WIDE.
2. **STEEL STUDS -** (2) CHANNEL-SHAPED, SUPPLIED WITH CUT-OUTS, FRICTION-FITTED INTO FLOOR AND CEILING RUNNERS AND SPACED 24 IN. OC. STUDS TO BE CUT 1/2 IN. LESS THAN ASSEMBLY HEIGHT AND EVENLY STAGGERED BETWEEN THE TWO ROWS OF FLOOR AND CEILING RUNNERS. STUDS FABRICATED FROM MIN. NO. 25 MSG GALV. STEEL, MIN. 3-5/8" WIDE BY 1-5/8" DEEP.
3. **TYPE X GYPSUM BOARD -** NOM. 5/8 IN. THICK, 4 FT. WIDE, GYPSUM BOARD PANELS WITH BEVELED, SQUARE OR TAPERED EDGES, APPLIED VERTICALLY OR HORIZONTALLY. SINGLE LAYER INSTALLED ON EA. SIDE OF STEEL STUDS. VERTICAL JOINTS CENTERED OVER STUDS AND STAGGERED ONE STUD CAVITY ON OPPOSITE SIDES OF STUDS. HORIZONTAL EDGE JOINTS AND HORIZONTAL BUTT JOINTS NEED NOT BE BACKED BY FRAMING. HORIZONTAL EDGE JOINTS AND HORIZONTAL BUTT JOINTS ON OPPOSITE SIDES OF STEEL STUDS NEED NOT BE STAGGERED. PANELS ATTACHED TO STEEL STUDS AND FLOOR RUNNER WITH 1-14 IN. LONG TYPE S STEEL SCREWS SPACED 8 IN. O.C. WHEN APPLIED HORIZONTALLY, OR 8 IN. O.C. ALONG VERTICAL AND BOTTOM EDGES AND 12 IN. O.C. IN THE FIELD WHEN APPLIED VERTICALLY. WHEN USED IN WIDTHS OTHER THAN 48 IN., GYPSUM PANELS TO BE INSTALLED HORIZONTALLY. UNITED STATES GYPSUM COMPANY - 5/8" SHEETROCK BRAND FIRECODE CORE GYPSUM PANELS
4. **FIBER, SPRAYED -** SPRAY APPLIED CELLULOSE MATERIAL. THE FIBER IS APPLIED WITH WATER TO COMPLETELY FILL THE ENCLOSED CAVITY IN ACCORDANCE WITH THE APPLICATION INSTRUCTIONS SUPPLIED WITH TH EPRODUCT. NOMINAL DRY DENSITY OF 3LBS./FT3. ALTERNATE APPLICATION METHOD: THE FIBER IS APPLIED WITH U.S. GREENFIBER LLC TYPE AD100 HOT MELT ADHESIVE AT A NOMINAL RATION OF ONE PART ADHESIVE TO 6.6 PARTS FIBER TO COMPLETELY FILL THE ENCLOSED CAVITY IN ACCORDANCE WITH THE APPLICATION INSTRUCTIONS SUPPLIED WITH THE PRODUCT. NOMINAL DRY DENSITY OF 2.5LBS/FT3.
5. **JOINT TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.
6. **LATERAL BRACING - (NOT SHOWN) -** RIGHT ANGLE-SHAPED, SUPPLIED WITH NOTCHES SPACED 12, 16, OR 24 IN. O.C., FRICTION-FITTED TO THE CUT-OUTS IN THE STEEL STUDS, SUPPLIED IN 7/8 IN. BY 7/8 IN. BY 50 IN. LENGTHS. LATERAL BRACING BARS FABRICATED FROM MIN. 20 MSG GALV. STEEL. THE BRACING SHALL MEET THE 1996 EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".
7. **MESH NETTING - (NOT SHOWN) -** ANY THIN WOVEN OR NON-WOVEN FIBROUS NETTING MATERIAL ATTACHED WITH STAPLES TO THE OUTER FACE OF ONE ROW OF STUDS TO FACILITATE THE INSTALLATION OF THE SPRAYED FIBER FROM THE OPPOSITE ROW.

1 WALL TYPE 1- 9 1/4" UNIT DEMISING WALL
1 1/2" = 1'-0"



LABEL 1 HR

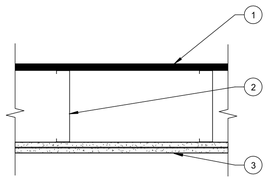
C3 **CEILING SYSTEM**
1 HR RATING
NEW GYPSUMBOARD CEILING ADDED = 1 HR
(BASED ON GA FILE NOS. FC 5406 AND RC 2601)
STC SOUND - NA

1. **WOOD FLOOR -** EXISTING HARDWOOD FLOOR
2. **SUBFLOOR -** 1 IN. WOOD PLANK SUBFLOOR
3. **FLOOR JOISTS** - EXISTING 2" X 10" WOOD JOISTS OR 3" X 14" WOOD TRUSSES WITH WOOD BRIDGING
4. **EXISTING CEILING -** PLASTER ON METAL LATH
5. **FURRING -** 3/4" HAT CHANNELS
6. **CEILING -**(2) LAYERS 5/8" TYPE X GYPSUM WALL BOARD FASTENED TO FURRING CHANNELS. THE BASE LAYER IS ATTACHED AT RIGHT TO FURRING WITH 1IN. TYPE S OR S-12 DRYWALL SCREWS AT 24 IN. OC. THE FACE LAYER IS ATTACHED AT RIGHT ANGLES TO THE FURRING WITH 1 5/8 IN. TYPE S OR S-12 DRYWALL SCREWS 12 IN. OC AT END JOINTS AND INTERMEDIATE FURRING AND 1 1/2 IN. TYPE G DRYWALL SCREWS AT 12 IN. OC PLACES 2 IN. BACK ON EITHER SIDE OF END JOINTS. JOINTS ON THE FACE LAYER ARE OFFSET 24 IN. FROM JOINTS ON THE BASE LAYER. FACE LAYER JOINTS ARE FINISHED TO LEVEL 1 AS SPECIFIED IN GA-214.
7. .
8. **SEALANT -** UL AND STC LISTED SEALANT, FULL PERIMETER.
9. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.

C3 CEILING ASSEMBLY DETAIL

1/2" = 1'-0"

LABEL 1 HR



C1 1 HOUR CEILING ASSEMBLY

GA FILE NO. FC4503

1. **SHEATHING -** 19/32" APA RATED SHEATHING APPLIED AT RIGHT ANGLES TO JOISTS WITH 8d NAILS
2. **JOISTS -** 16 GA. 8 IN.'C'-JOISTS SPACED 16" O.C. ATTACHED TO 8 IN. 18 GA. LEDGER. LEDGER FIXED TO CMU WALL WITH POWER ACTUATED FASTENERS
3. **GYPSUM BOARD -** BASE LAYER - 5/8" TYPE 'X' GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO FRAMING WITH 1-1/4 IN. TYPE S-12 SCREWS 24 IN. O.C. FACE LAYER - 5/8 IN. TYPE 'X' GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO FRAMING WITH 1-5/8 IN. TYPE S-12 DRYWALL SCREWS 12 IN. O.C. AT JOINTS AND INTERMEDIATE JOISTS AND 1-1/2 IN. TYPE G DRYWALL SCREWS 12 IN. O.C. PLACED 3 IN. BACK ON EITHER SIDE OF END JOINTS AND STAGGERED 6 IN. FROM TYPE S-12 SCREWS AT JOINT. JOINTS OFFSET 24 IN. FROM BASE LAYER JOINTS.

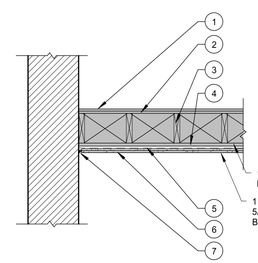
CEILING PROVIDES ONE HOUR FIRE RESISTANCE PROTECTION FOR FRAMING.

C1 ONE HOUR RATED CEILING AT ELEVATOR SHAFT

C1 1-HR CEILING ASSEMBLY

1 1/2" = 1'-0"

LABEL 2 HR

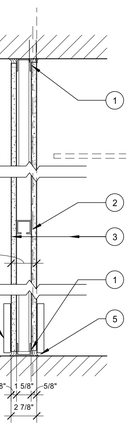


C4 **CEILING SYSTEM**
2 HR RATING
EXISTING PLASTER ON METAL LATH = 1 HR
(IBC TABLE 720.1(3) 13-1.2 5/8" PLASTER = 1 HR)
NEW GYPSUMBOARD CEILING ADDED = 1 HR
(BASED ON GA FILE NOS. FC 5406 AND RC 2601)
THIS ASSEMBLY WORKS WITH CUMULATIVE RATINGS AS FIRE HAS TO PENETRATE A 1 HOUR LAYER BEFORE REACHING THE SECOND 1 HOUR LAYER
STC SOUND - NA

1. **WOOD FLOOR -** EXISTING HARDWOOD FLOOR
2. **SUBFLOOR -** 1 IN. WOOD PLANK SUBFLOOR
3. **FLOOR JOISTS** - EXISTING 2" X 10" WOOD JOISTS OR 3" X 14" WOOD TRUSSES WITH WOOD BRIDGING
4. **EXISTING CEILING -** PLASTER ON METAL LATH
5. **FURRING -** 3/4" HAT CHANNELS AT RIGHT ANGLES TO FLOOR FRAMING AND ATTACHED TO FRAMING AND NOT TO EXISTING PLASTER
6. **CEILING -** (2) LAYERS 5/8" TYPE X GYPSUM WALL BOARD FASTENED TO FURRING CHANNELS. THE BASE LAYER IS ATTACHED AT RIGHT TO FURRING WITH 1IN. TYPE S OR S-12 DRYWALL SCREWS AT 24 IN. OC. THE FACE LAYER IS ATTACHED AT RIGHT ANGLES TO THE FURRING WITH 1 5/8 IN. TYPE S OR S-12 DRYWALL SCREWS 12 IN. OC AT END JOINTS AND INTERMEDIATE FURRING AND 1 1/2 IN. TYPE G DRYWALL SCREWS AT 12 IN. OC PLACES 2 IN. BACK ON EITHER SIDE OF END JOINTS. JOINTS ON THE FACE LAYER ARE OFFSET 24 IN. FROM JOINTS ON THE BASE LAYER. FACE LAYER JOINTS ARE FINISHED TO LEVEL 1 AS SPECIFIED IN GA-214.
7. **SEALANT -** UL AND STC LISTED SEALANT, FULL PERIMETER.
8. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND. APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.

C4 CEILING ASSEMBLY DETAIL

1/2" = 1'-0"



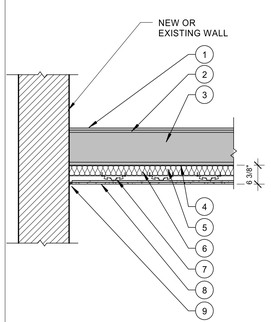
W14 **NON-RATED NON-BEARING**
STC SOUND - N/A

1. **CONT. METAL FLOOR AND CEILING RUNNER -** CHANNEL SHAPED, ATTACHED TO FLOOR AND CEILING WITH STEEL FASTENERS SPACED 24 IN. O.C. RUNNERS FABRICATED FROM MIN NO. 25MSG GALV. STEEL, 1 1/4 IN. DEEP AND 1 5/8 IN WIDE.
2. **STEEL STUDS -** CHANNEL SHAPED, SUPPLIED WITH CUTOUTS, FRICTION FITTED INTO FLOOR AND CEILING RUNNER AND SPACED A MAX 16 IN. O.C. STUDS CUT 1/2" LESS THAN ASSEMBLY HEIGHT . STUDS FABRICATED FROM MIN. 25 MSG GALV. STEEL. MIN 1 5/8 IN. WIDE BY 1 5/8 IN DEEP WITH 3/8 IN FOLDED BACK RETURN FLANGE LEGS.
3. **GYPSUM BOARD -** 5/8 IN. THICK, 4 FT WIDE ATTACHED TO METAL STUDS WITH TYPE S STEEL SCREWS SPACED 8 IN. O.C. ALONG EDGES OF BOARD AND 12 IN. O.C. IN THE FIELD OF THE BOARD. JNTS. ORIENTED VERTICALLY AND STAGGERED ON OPPOSITE SIDES OF ASSEMBLY 48 IN. O.C.
4. **NOT USED**
5. **SEALANT** - SEALANT, FULL PERIMETER BOTH SIDES.
6. **BLOCKING - (NOT SHOWN)** WOOD BLOCKING AS NEEDED
7. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.
8. .
9. .
10. **CEILING -** AS NOTED
11. **SCHEDULED BASE -** AS NOTED
12. UNDERSIDE OF STRUCTURE
13. TOP OF STRUCTURE

NOTE: USE MOISTURE RESISTANT GYPSUM IN WET AREAS

2 WALL TYPE 14 - 2 7/8" NON RATED PARTITION

1 1/2" = 1'-0"



LABEL 1 HR

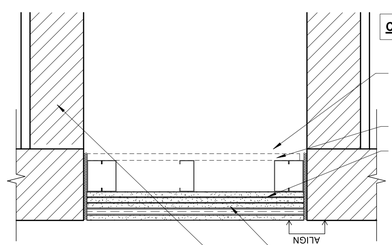
C2 **CEILING SYSTEM**
1 HR RATING
NEW GYPSUMBOARD CEILING ADDED = 1 HR
(BASED ON GA FILE NOS. FC 5406 AND RC 2601)
STC SOUND - THE EXISTING FLOOR HAS A STC OF 42 (OCF F-21-68). BY COMPARING THE STC INCREASE OF OTHER FLOOR ASSEMBLIES WHEN 2 LAYERS OF GYPSUM BOARD ARE HUNG BELOW THEM ON KINETICS WAVE HANGERS WE NOTE THAT THEIR STC RATINGS ARE ALL IMPROVED BY STC10 - 14 . WE BELIEVE THAT THIS EXISTING FLOOR OF STC 42 WILL BE IMPROVED BY MINIMUM STC 10 WITH THE ADDITION OF THE 2 GYPSUM BOARD LAYERS ON THE KINETIC WAVE HANGERS

1. **WOOD FLOOR -** EXISTING HARDWOOD FLOOR
2. **SUBFLOOR -** 1 IN. WOOD PLANK SUBFLOOR
3. **FLOOR JOISTS** - EXISTING 2" X 10" WOOD JOISTS OR 3" X 14" WOOD TRUSSES WITH WOOD BRIDGING
4. **EXISTING CEILING -** PLASTER ON METAL LATH
5. **METAL JOISTS -** 3 5/8" METAL JOISTS AT CEILING PERPENDICULAR TO EXISTING CEILING JOISTS.
6. **SOUND BATT -** SOUND ATTENUATING GLASS FIBER INSULATION 3 1/2" THICK, FRICTION FIT IN STUD SPACE.
7. **FURRING -** KINETICS NOISE CONTROL WAVE HANGERS WITH FURRING CHANNELS PERPENDICULAR TO METAL JOIST FRAMING.
8. **CEILING -** (2) LAYERS 5/8" TYPE X GYPSUM WALL BOARD FASTENED TO FURRING CHANNELS. THE BASE LAYER IS ATTACHED AT RIGHT TO FURRING WITH 1IN. TYPE S OR S-12 DRYWALL SCREWS AT 24 IN. OC. THE FACE LAYER IS ATTACHED AT RIGHT ANGLES TO THE FURRING WITH 1 5/8 IN. TYPE S OR S-12 DRYWALL SCREWS 12 IN. OC AT END JOINTS AND INTERMEDIATE FURRING AND 1 1/2 IN. TYPE G DRYWALL SCREWS AT 12 IN. OC PLACES 2 IN. BACK ON EITHER SIDE OF END JOINTS. JOINTS ON THE FACE LAYER ARE OFFSET 24 IN. FROM JOINTS ON THE BASE LAYER. FACE LAYER JOINTS ARE FINISHED TO LEVEL 1 AS SPECIFIED IN GA-214.
9. .
10. **SEALANT** - UL AND STC LISTED SEALANT, FULL PERIMETER BOTH SIDES.
11. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.

C2 CEILING ASSEMBLY DETAIL

1/2" = 1'-0"

LABEL 2 HR



C5 **EXISTING VENTILATION SHAFT PATCH**
DESIGN NUMBER GA - 610-02 BASED ON UL L556
STC SOUND - N/A

PROVIDE 1/2" PLYWOOD SHEATHING FLUSH WITH SUBFLOORING AT LOCATIONS IN FINISHED SPACES. PATCH FINISHED FLOOR TO MATCH EXG.

FRAMING MEMBERS

GYPSUM BOARD - 4 LAYERS OF 5/8" TYPE X GYPSUM BOARD APPLIED TO FRAMING SPACED 24" O.C. WITH 7/8" HAT-SHAPED STEEL FURRING CHANNEL LOCATED BETWEEN THE THIRD AND FOURTH LAYER. THE BASE LAYER IS APPLIED PERPENDICULAR TO FRAMING AND FIXED WITH 1 1/4" TYPE S OR W SCREWS AT 12" O.C., THE SECOND LAYER IS APPLIED PERPENDICULAR TO FRAMING AND FIXED WITH 2" TYPE S OR W SCREWS AT 12" O.C., THE THIRD LAYER APPLIED PERPENDICULAR TO FRAMING AND FIXED WITH 2 1/2" TYPE S OR W SCREWS AT 12" O.C. JOINTS OF EACH LAYER IS OFFSET FROM PREVIOUS LAYER BY 10 IN.

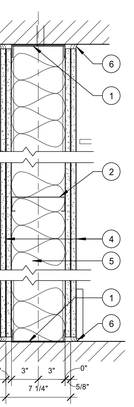
APPLY FINAL LAYER OF GYPSUM PERPENDICULAR TO FURRING AND FIXED WITH 1 1/4" TYPE S OR W SCREWS AT 12" O.C.

APPLY HAT SHAPED RIGID FURRING CHANNELS 24" O.C. PERPENDICULAR TO FRAMING ATTACHED AT EACH INTERSECTION WITH FRAMING WITH 2 1/2" TYPE S SCREWS.

VENTILATION SHAFT, TYP.

C5 CEILING ASSEMBLY DETAIL

1 1/2" = 1'-0"



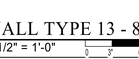
LABEL 2 HR

W13 **2 HR NON-BEARING FIRE BARRIER**
DESIGN NUMBER - UL U411
SOUND RATING - NA

1. **CONT. METAL FLOOR AND CEILING RUNNER -** FASTENERS @ 2'-0" O.C. MAX. WITHIN 1" OF ENDS
2. **STEEL STUDS -** 6 IN. STEEL STUDS 24" O.C.
3. .
4. **TYPE X GYPSUM BOARD -** (2) LAYERS PROPRIETARY 5/8" TYPE X GYP. BD. EACH SIDE. APPLIED VERTICALLY TO STUDS. INNER LAYER ATTACHED WITH 1" TYPE S DRYWALL SCREWS 8" O.C. AT VERT. JNTS AND INTERMEDIATE STUDS AND 12" O.C. AT TOP AND BOTTOM RUNNER. OUTER LAYER LAMINATED TO INNER LAYER WITH JOINT COMPOUND APPLIED WITH A NOTCHED SPREADER. JOINTS OF OUTER LAYER OFFSET 12" FROM INNER LAYER JOINTS. OUTER LAYER ATTACHED TO FLOOR AND CEILING RUNNER TRACKS WITH 1 5/8 INCH TYPE S SCREWS SPACED 12 IN OC.
5. **SOUND BATT -** GLASS FIBER INSULATION 6 1/4" THICK, COMPRESSED AND FRICTION FIT IN STUD SPACE.
6. **SEALANT** - UL AND STC LISTED SEALANT, FULL PERIMETER BOTH SIDES.
7. **BLOCKING - (NOT SHOWN)** WOOD BLOCKING AS NEEDED
8. **TAPE AND COMPOUND - (NOT SHOWN)** VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOISTS AND SCREW HEADS, PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.
9. .
10. **CEILING -** AS NOTED
11. **SCHEDULED BASE -** AS NOTED
12. UNDERSIDE OF STRUCTURE
13. TOP OF STRUCTURE

1 WALL TYPE 13 - 8 1/2" STAIR WALL

1 1/2" = 1'-0"



LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6202 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

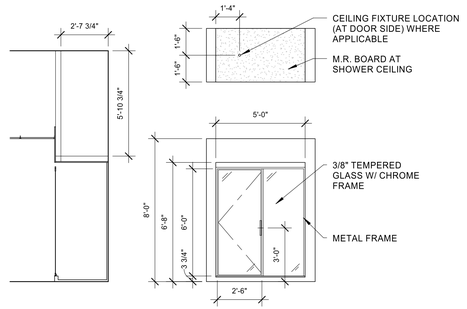
Scale: As indicated

Date: 15 JAN 2014

FLOOR, WALL & CEILING TYPES

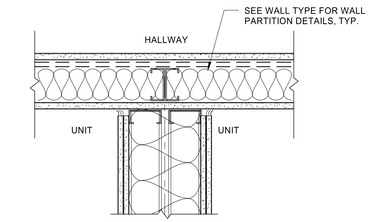
A4.02

CITY OF PORTLAND, MAINE RESURGAM
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14



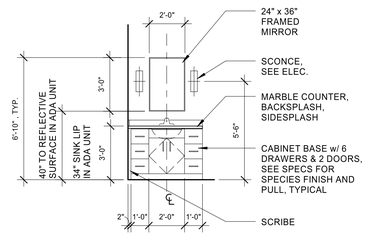
9 TYP. SHOWER DOOR SECTION, ELEVATION & RCP

1/4" = 1'-0"



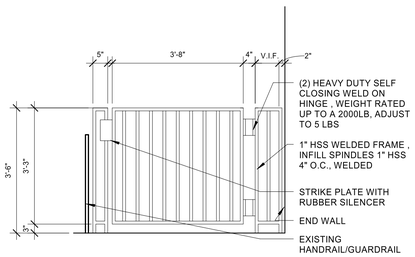
4 PLAN DETAIL AT DEMISING WALL INTERSECTION

1 1/2" = 1'-0"



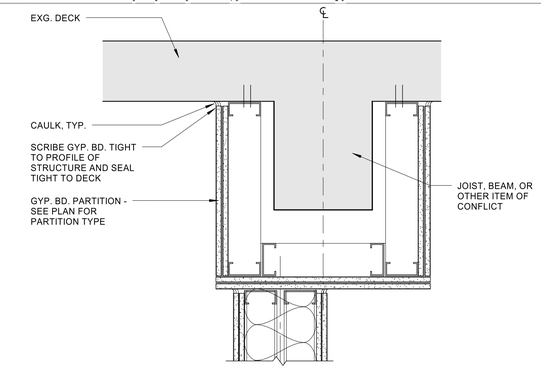
10 TYPICAL BATHROOM VANITY

1/4" = 1'-0"



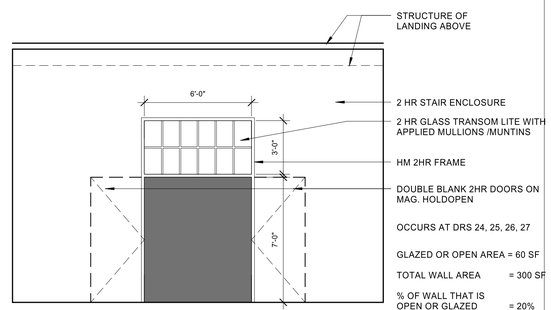
7 EGRESS GATE

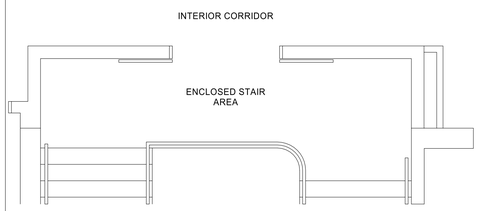
1/2" = 1'-0"



3 PARTITION UNDER OBSTRUCTION - TYPICAL

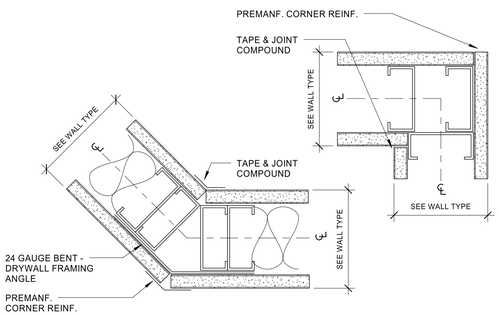
1 1/2" = 1'-0"





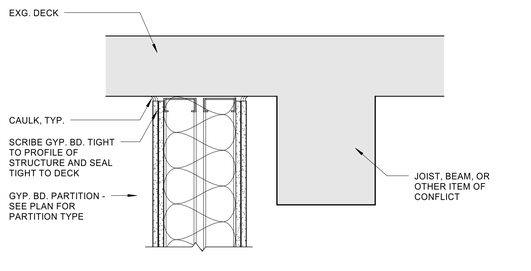
8 STAIR GLAZING

1/4" = 1'-0"



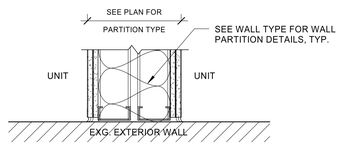
6 TYPICAL CORNER DETAIL

3" = 1'-0"



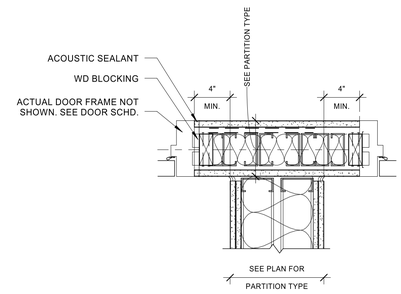
2 PARTITION ADJACENT TO OBSTRUCTION - TYPICAL

1 1/2" = 1'-0"



5 PLAN DETAIL AT DEMISING WALL INTERSECTION

1 1/2" = 1'-0"



1 TYPICAL GYPSUM DETAIL AT DOOR FRAME

1 1/2" = 1'-0"

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Revisions:

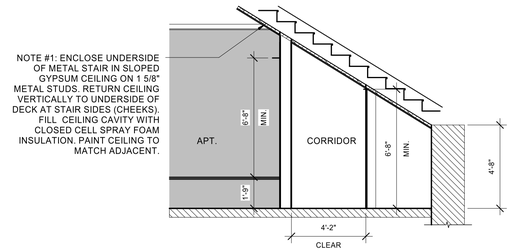
Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Scale: As indicated

Date: 15 JAN 2014

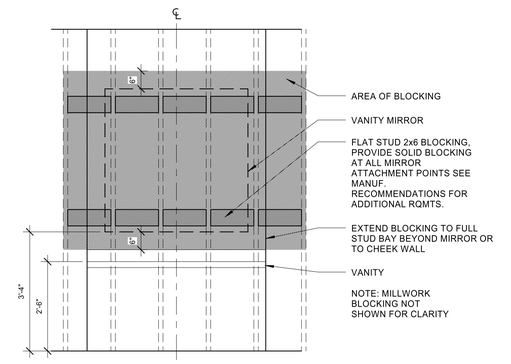
INTERIOR PARTITION DETAILS

A4.03



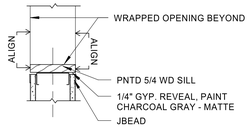
8 CORRIDOR SECTION AT EAST ENTRY STAIR

1/4" = 1'-0"



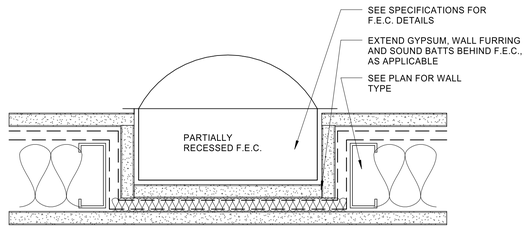
4 BLOCKING DETAIL - VANITY MIRROR

1/2" = 1'-0"



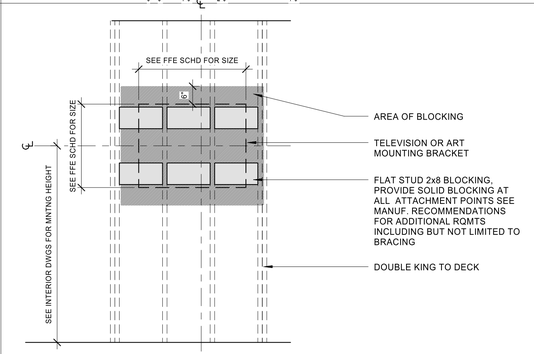
11 PUNCHED OPENING SILL DETAIL

1 1/2" = 1'-0"



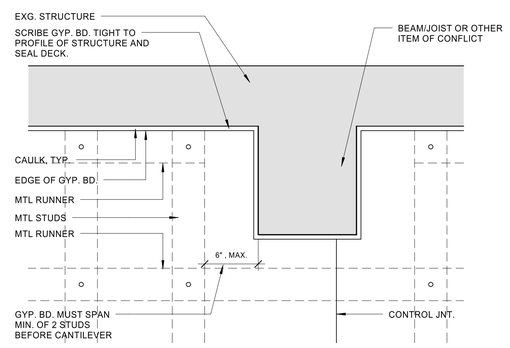
7 RECESSED F.E.C. CABINET DETAIL

3" = 1'-0"



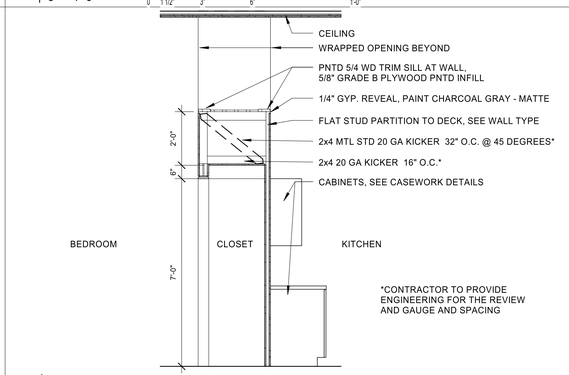
3 BLOCKING DETAIL - WALL MOUNTED TV

1/2" = 1'-0"



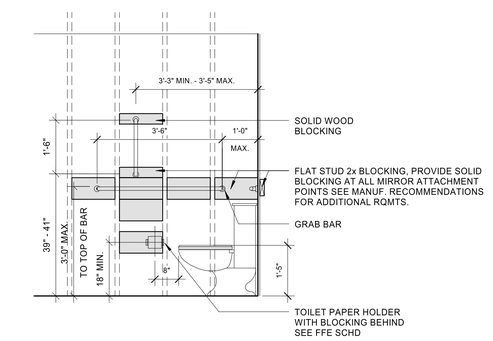
10 PARTITION PERPENDICULAR TO OBSTRUCTION

1 1/2" = 1'-0"



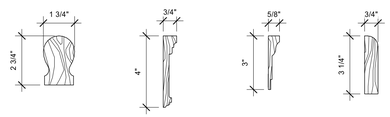
6 FLAT STUD DETAIL

3/8" = 1'-0"



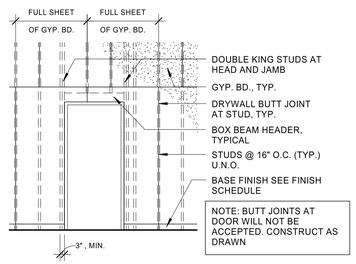
2 BLOCKING DETAIL - TOILET

1/2" = 1'-0"



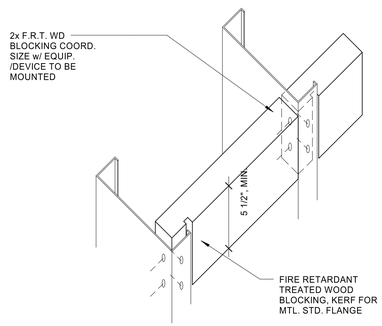
9 EXISTING HANDRAIL & MOULDING PROFILES

3" = 1'-0"



5 PLAN DETAIL AT SOUND CRITICAL PARTITION

1/4" = 1'-0"



1 BLOCKING DETAIL (TYP.)

3" = 1'-0"

LICENSED ARCHITECT
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Revisions:

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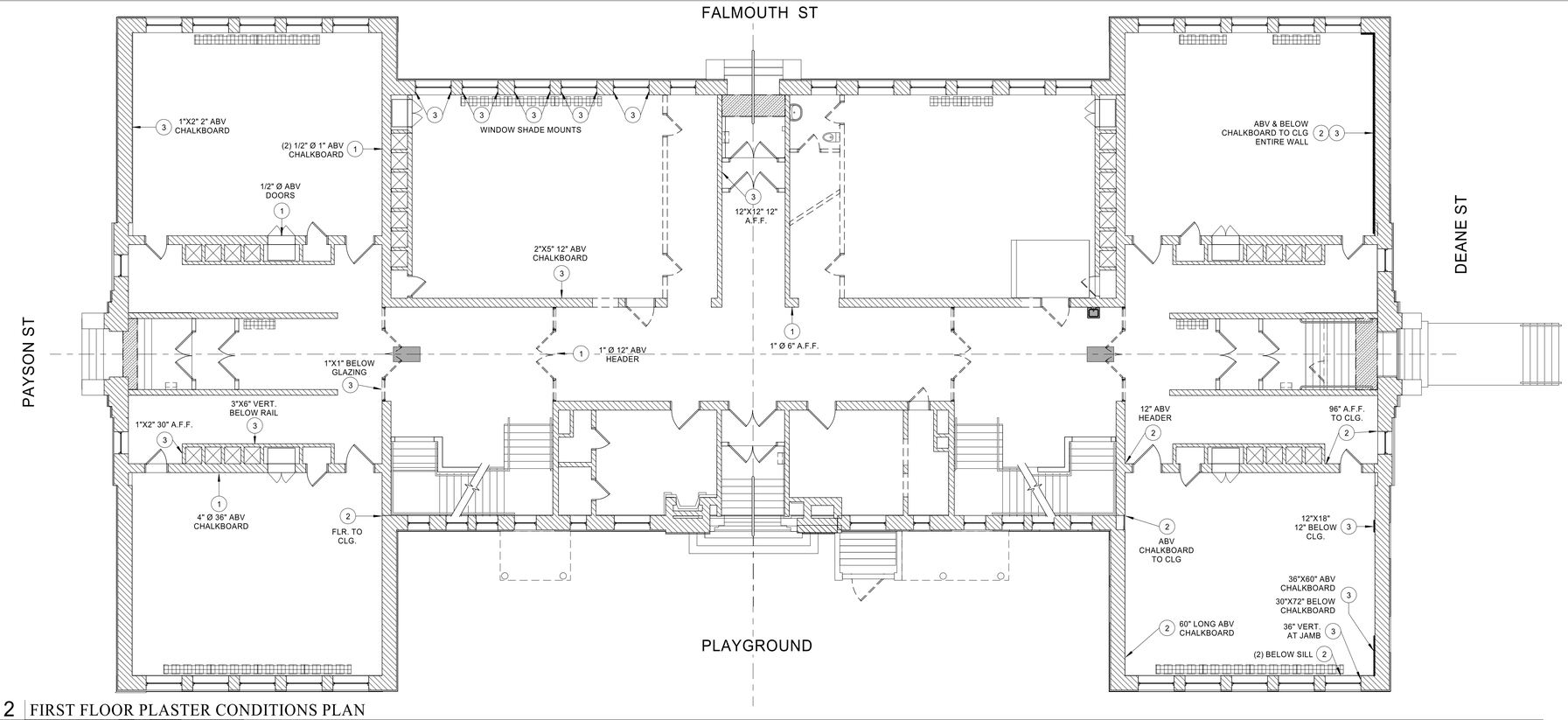
Date: 15 JAN 2014

INTERIOR DETAILS

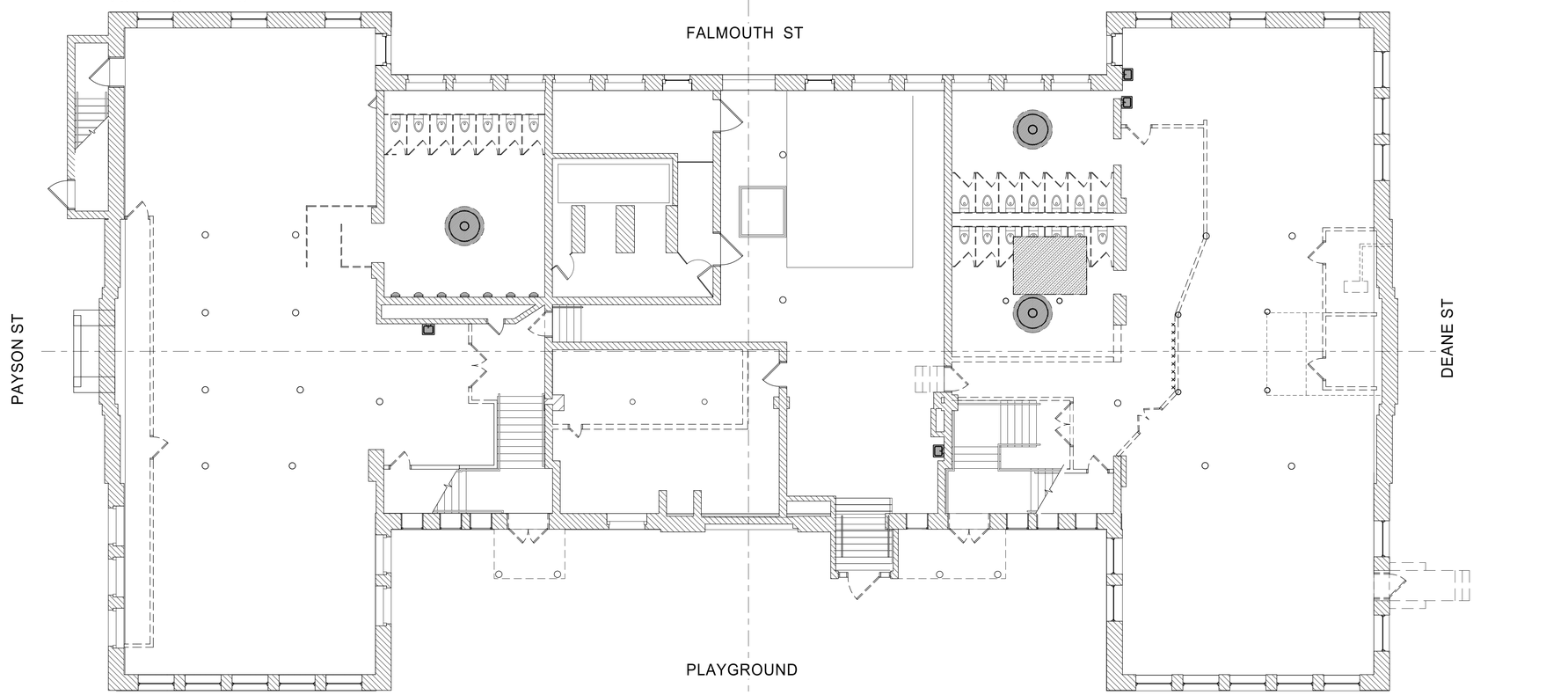
A4.04

CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14



2 FIRST FLOOR PLASTER CONDITIONS PLAN

1/8" = 1'-0"



1 LOWER LEVEL PLASTER CONDITIONS PLAN

1/8" = 1'-0"

PLASTER REPAIR NOTES:

PLASTER PLANS ARE PROVIDED TO ESTABLISH THE AREAS OF REPAIR.

ALL PLASTER (HORIZ. OR VERTICAL) LEFT EXPOSED TO FINISHED SPACES AT THE COMPLETION OF WORK IS TO BE TREATED AS NECESSARY TO RECEIVE NEW FINISHES. SEE FINISH SCHEDULE FOR PROJECT FINISHES.

REMOVE ALL CLASSROOM FF&E AND REPAIR PLASTER TO RECEIVE NEW FINISHES.

SEE DEMO PLANS FOR EXTENT OF COATHOOKS AND CHALKBOARDS TO BE REMOVED.

REPAIR PLASTER AT ALL BLEMISHES DOCUMENTED IN PLASTER PLANS.

EXISTING PLASTER BLEMISH LEGEND

1. HOLE IN PLASTER - SEE PLAN FOR DIAMETER
2. CRACK IN PLASTER - SEE PLAN FOR LENGTH
3. DAMAGED PLASTER - SEE PLAN FOR SIZE

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LICENSED ARCHITECT
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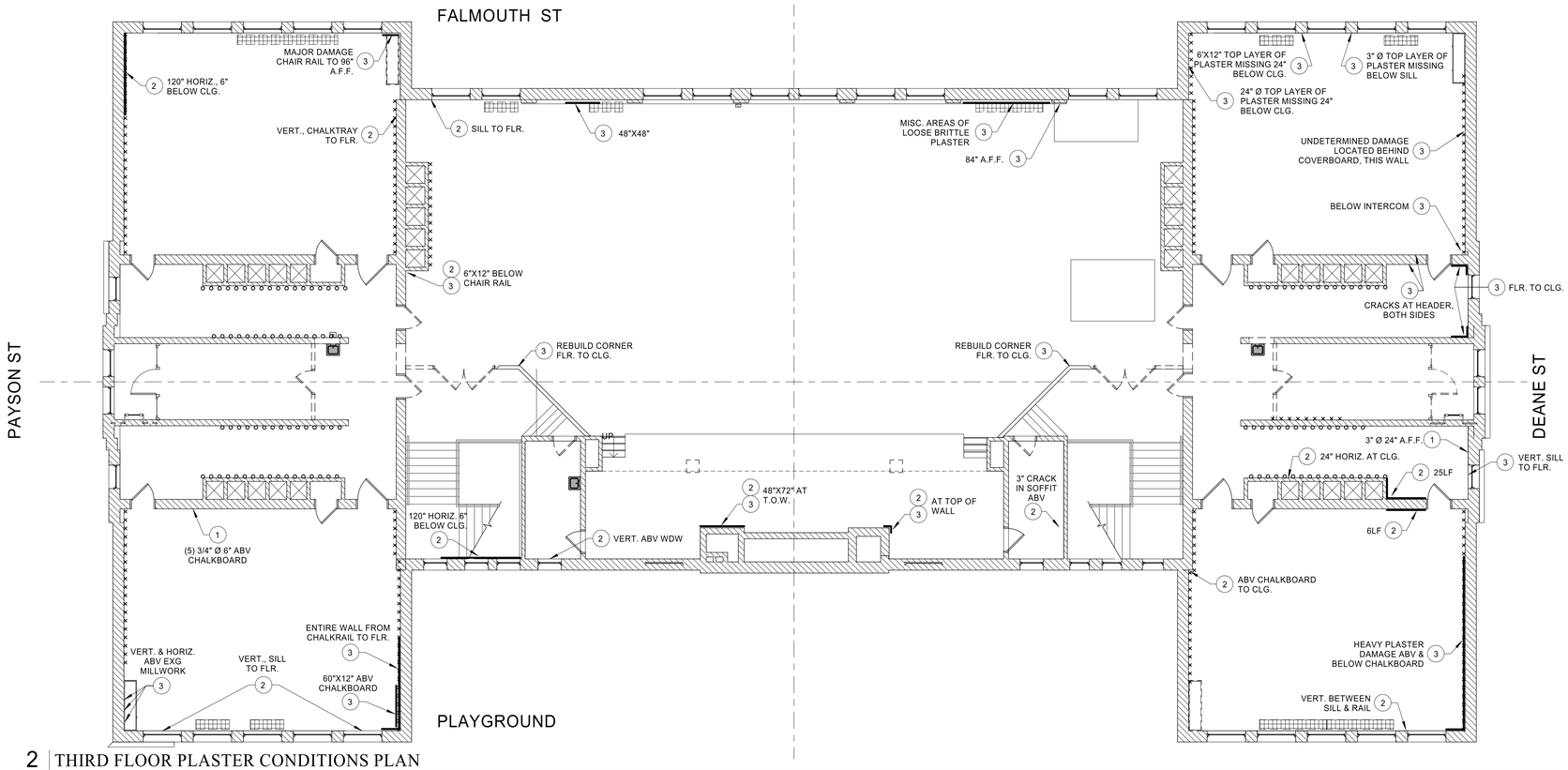
Revisions:

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

Date: 15 JAN 2014

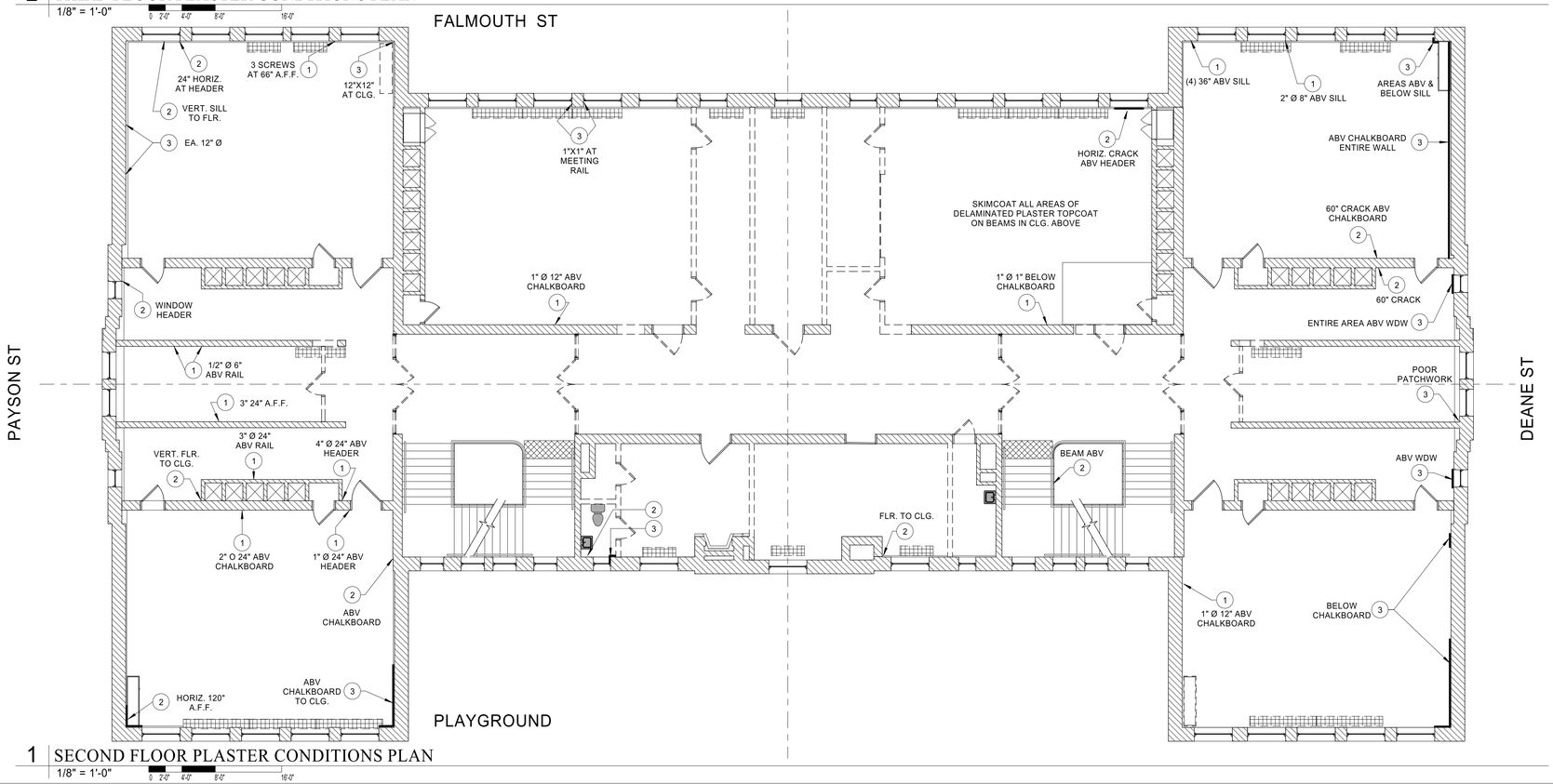
PLASTER CONDITIONS

A4.06



2 THIRD FLOOR PLASTER CONDITIONS PLAN

1/8" = 1'-0"



1 SECOND FLOOR PLASTER CONDITIONS PLAN

1/8" = 1'-0"

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EXISTING PLASTER BLEMISH LEGEND

1. HOLE IN PLASTER - SEE PLAN FOR DIAMETER
2. CRACK IN PLASTER - SEE PLAN FOR LENGTH
3. DAMAGED PLASTER - SEE PLAN FOR SIZE

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Revisions:

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Date: 15 JAN 2014

PLASTER CONDITIONS

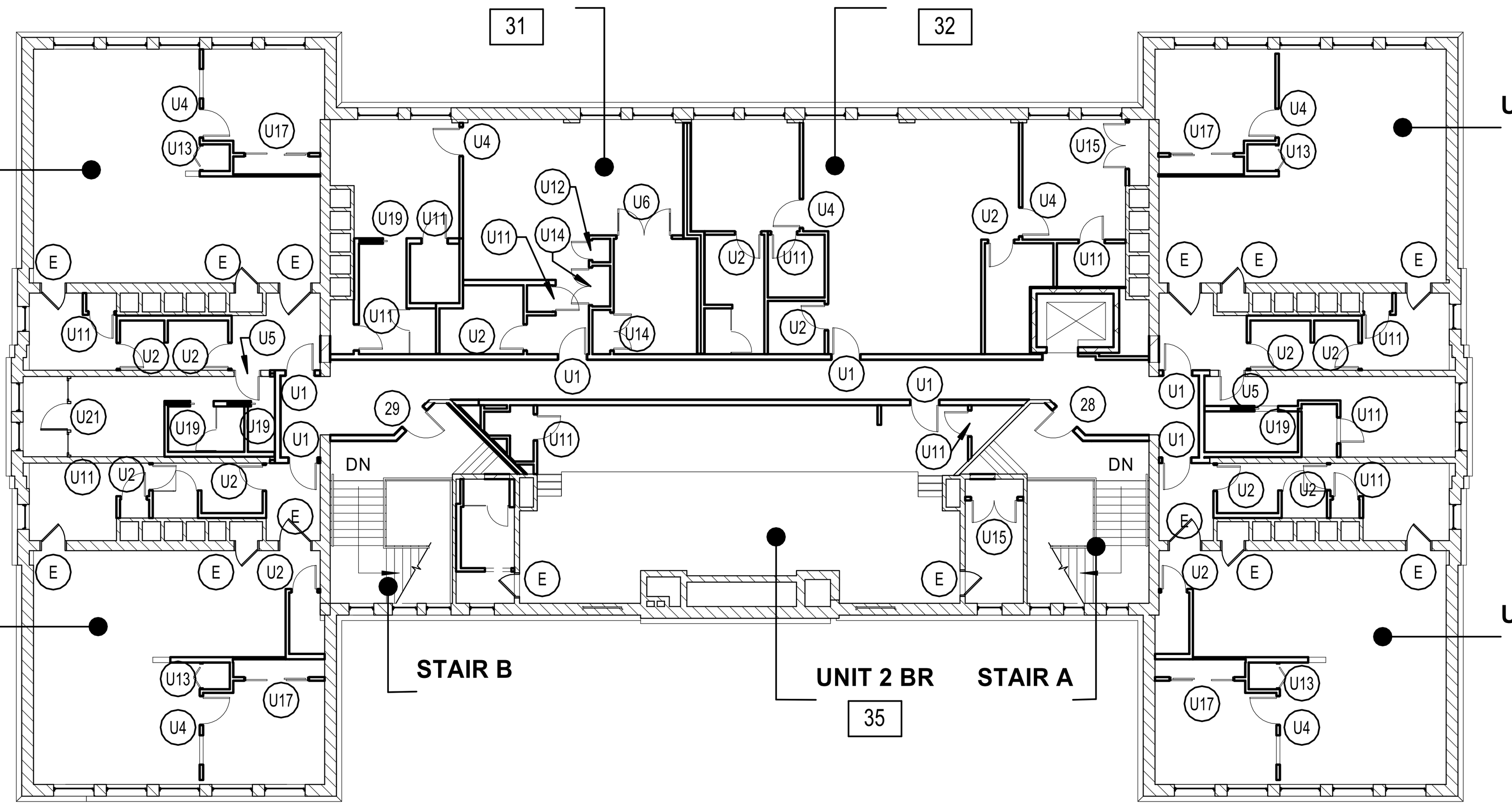
A4.07

DOOR SCHEDULE - UNIT DOORS

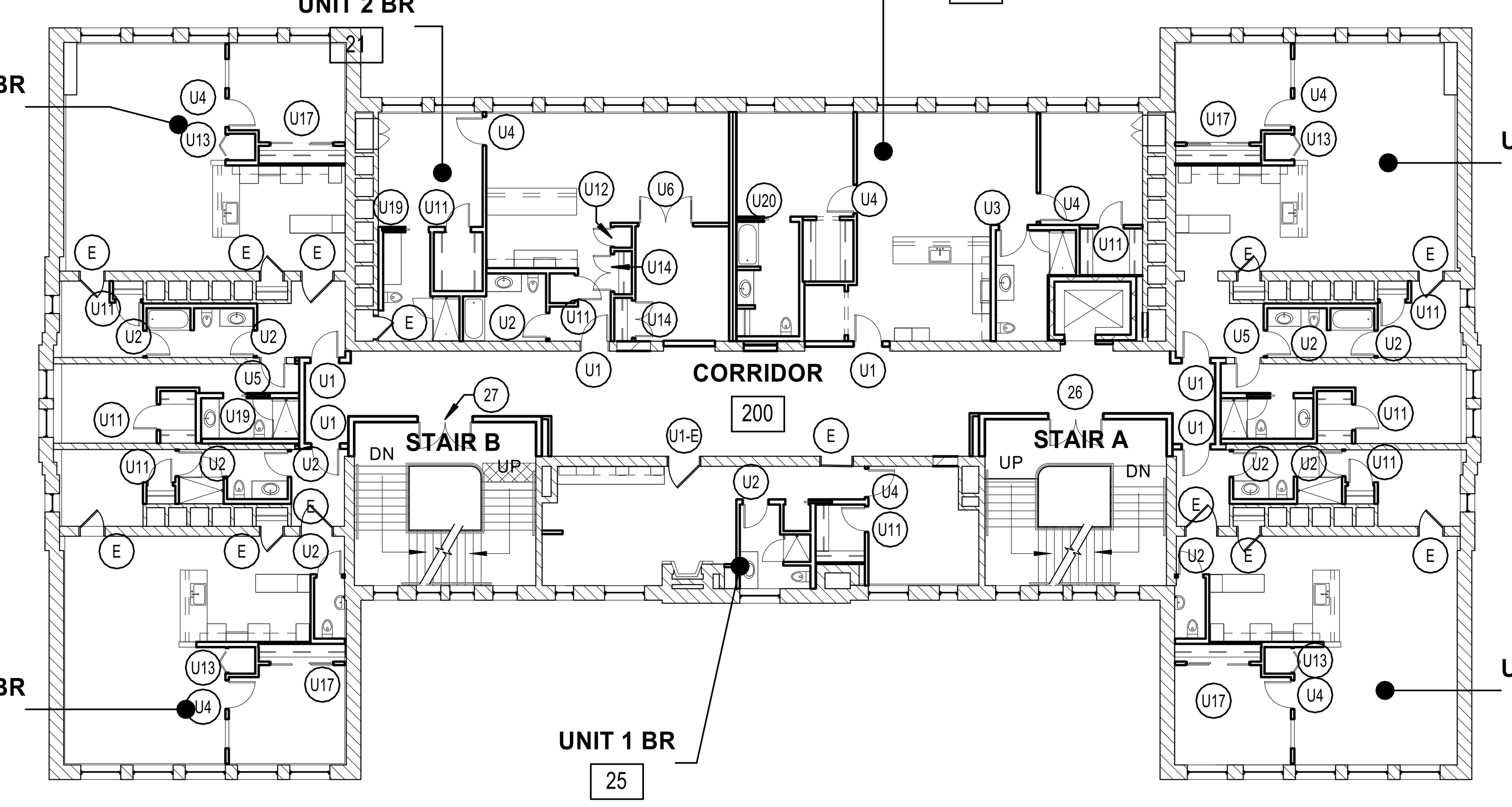
WT	DOOR W	DOOR H	DOOR THCK	DOOR MAT'L	DOOR ELEV.	FRAME JAMB	FRAME THRES	FRAME MAT'L	LABEL	OPER.	CL.	REMARKS
U1	3'-0"	7'-0"	1 3/4"	WD	A	-	-	WD	20 MINS	UNIT DOOR	Yes	UNIT DOOR - FOB ENTRY, SMOKE GASKET
U1-E	3'-6"	7'-0"	1 3/4"	WD	B	-	-	WD	-	UNIT DOOR	No	UNIT DOOR - EXISTING DOOR TO REMAIN, NEW HARDWARE
U2	2'-8"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PRIVACY		BATHROOM DOOR
U2.1-E	3'-0"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PRIVACY	No	BATHROOM DOOR
U2.2-E	2'-8"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PRIVACY SET	No	BATHROOM DOOR
U3	3'-0"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PRIVACY	No	BATHROOM DOOR - ADA
U4	3'-0"	7'-0"	1 3/4"	WD	B	-	-	WD	-	BEDROOM		BEDROOM DOOR
U5	2'-8"	7'-0"	1 3/4"	WD	B	-	-	WD	-	BEDROOM	No	BEDROOM DOOR
U6	6'-0"	7'-0"	1 3/4"	WD	B	-	-	WD	-	BEDROOM	No	BEDROOM FRENCH DOOR
U11	2'-8"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PASSAGE		CLOSET
U12	2'-0"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PASSAGE	No	CLOSET
U13	2'-8"	7'-0"	1 3/4"	WD	D	-	-	WD	-	PASSAGE	No	CLOSET - 2 BIFOLD LEAFS
U14	4'-0"	7'-0"	1 3/4"	WD	C	-	-	WD	-	PASSAGE	No	CLOSET - PAIR
U15	5'-0"	7'-0"	1 3/4"	WD	C	-	-	WD	-	PASSAGE	No	CLOSET - PAIR
U16	5'-0"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PASSAGE	No	CLOSET - SLIDING DOOR 2 LEAFS
U17	7'-0"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PASSAGE	No	CLOSET - SLIDING DOOR 3 LEAFS
U18	2'-6"	7'-0"	1 1/2"	WD	B	-	-	WD	-	PASSAGE	No	POCKET DOOR
U19	2'-8"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PASSAGE	No	POCKET DOOR
U20	3'-0"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PASSAGE	No	POCKET DOOR - ADA
U21	3'-0"	7'-0"	1 3/4"	WD	B	-	-	WD	-	PASSAGE	No	DOOR AT HISTORIC GLAZED WALL

DOOR SCHEDULE - PUBLIC DOORS

DOOR No.	LOCATION	DOOR W	DOOR H	DOOR THCK	DOOR MAT'L	DOOR ELEV.	FRAME HEAD/JAMB	FRAME THRES	FRAME MAT'L	FRAME LABEL	OPER.	CL.	REMARKS
LOWER LEVEL													
001-E	STAIR C	3'-6"	7'-0"	1 3/4"	EXG	EXG	-	EXG	EXG	-	PANIC - STORAGE	Yes	EXG DR HDWR - NEW WEATHER SEALS
002-E	STAIR C	3'-6"	7'-0"	1 3/4"	EXG	EXG	-	EXG	EXG	-	PANIC -STORAGE	Yes	EXG DR HDWR - NEW WEATHER SEALS
003	ELEC.	3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	45 MINS	STORAGE	Yes	SMOKE GASKET
004	JC	2'-8"	7'-0"	1 3/4"	HM	F	-	-	HM	-	STORAGE	Yes	SMOKE GASKET
005	LIBRARY	6'-0"	7'-0"	1 3/4"	WD	J	-	-	WD	-	ENTRY	No	
006	BATH	3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	-	PRIVACY	Yes	
007	YOGA ROOM	3'-0"	7'-0"	1 3/4"	HM	K	-	-	HM	-	STORAGE	No	
009	STAIR B	3'-0"	7'-0"	1 3/4"	HM	H	-	-	HM	90 MINS	PASSAGE	Yes	SMOKE GASKET
009A	STAIR B	3'-0"	7'-0"	1 3/4"	HM	H	-	-	HM	90 MINS	PASSAGE	Yes	SMOKE GASKET
010	STAIR B	3'-0"	7'-0"	1 3/4"	WD	I	-	ALUM	WD	-	ENTRY	Yes	WEATHER SEAL - FOB ENTRY
011	TRASH ROOM	6'-0"	8'-0"	1 3/4"	WD	SEE ELEV	-	ALUM	WD	-	STORAGE	Yes	WEATHER SEAL
012	TRASH ROOM	6'-0"	7'-0"	1 3/4"	HM	G	-	-	HM	-	PASSAGE	No	WEATHER SEAL
013	TRASH ROOM	3'-0"	7'-0"	1 3/4"	HM	H	-	MTL	HM	45 MINS	STORAGE	Yes	SMOKE GASKET
014	STORAGE	6'-0"	7'-0"	1 3/4"	HM	G	-	-	HM	45 MINS	STORAGE	Yes	SMOKE GASKET
015	STAIR A	3'-0"	7'-0"	1 3/4"	WD	I	-	ALUM	WD	-	ENTRY	Yes	WEATHER SEAL - FOB ENTRY
016	CORRIDOR	3'-0"	7'-0"	1 3/4"									
017	ELEV. MACH. RM.	3'-0"	7'-0"	1 3/4"	HM	A	-	-	HM	90 MINS	ENTRY	Yes	SMOKE CONTROL; DOOR CLOSER, STAIN GRADE
018	FIRE/SPRK	2'-8"	7'-0"	1 3/4"	HM	F	-	ALUM	HM	45 MINS	STORAGE	Yes	SMOKE GASKET
019	CORRIDOR	3'-6"	8'-0"	1 3/4"	WD	K	-	ALUM	WD	-	STORAGE	Yes	WEATHER SEAL - ELEC STRIKE - FOB ENTRY, NEW TRANSOM, SEE ELEVATIONS
020-E	CORRIDOR	3'-0"	7'-0"	1 3/4"	EXG	EXG	-	-	EXG	-	STORAGE	Yes	EXG LEAF - NEW HARDWARE
1ST FLOOR													
20-E	VESTIBULE	6'-0"	7'-0"	1 3/4"	EXG	EXG	-	EXG	EXG	-	SEE NOTES	Yes	REPLACE WEATHER SEALS, CLOSERS, AND DAMAGED GLAZING
21-E	VESTIBULE	6'-0"	7'-0"	1 3/4"	EXG	EXG	-	EXG	EXG	-	SEE NOTES	Yes	REPLACE WEATHER SEALS, AND CLOSERS
22-E	VESTIBULE	6'-0"	7'-0"	1 3/4"	EXG	EXG	-	EXG	EXG	-	SEE NOTES	Yes	REPLACE WEATHER SEALS, CLOSERS, AND REPLACE DAMAGED GLAZING
23-E	VESTIBULE	6'-0"	7'-0"	1 3/4"	EXG	EXG	-	EXG	EXG	-	SEE NOTES	Yes	REPLACE WEATHER SEALS, AND CLOSERS
24	STAIR A	6'-0"	7'-0"	1 3/4"	HM	H	-	-	HM	90 MINS	PASSAGE	Yes	SMOKE GASKET
25	STAIR B	6'-0"	7'-0"	1 3/4"	HM	H	-	-	HM	90 MINS	PASSAGE	Yes	SMOKE GASKET
2ND FLOOR													
26	STAIR A	6'-0"	7'-0"	1 3/4"	HM	H	-	-	HM	90 MINS	PASSAGE	Yes	SMOKE GASKET
27	STAIR B	6'-0"	7'-0"	1 3/4"	HM	H	-	-	HM	90 MINS	PASSAGE	Yes	SMOKE GASKET
3RD FLOOR													
28	STAIR A	3'-0"	7'-0"	1 3/4"	HM	H	-	-	HM	90 MINS	PASSAGE	Yes	SMOKE GASKET
29	STAIR B	3'-0"	7'-0"	1 3/4"	HM	H	-	-	HM	90 MINS	PASSAGE	Yes	SMOKE GASKET



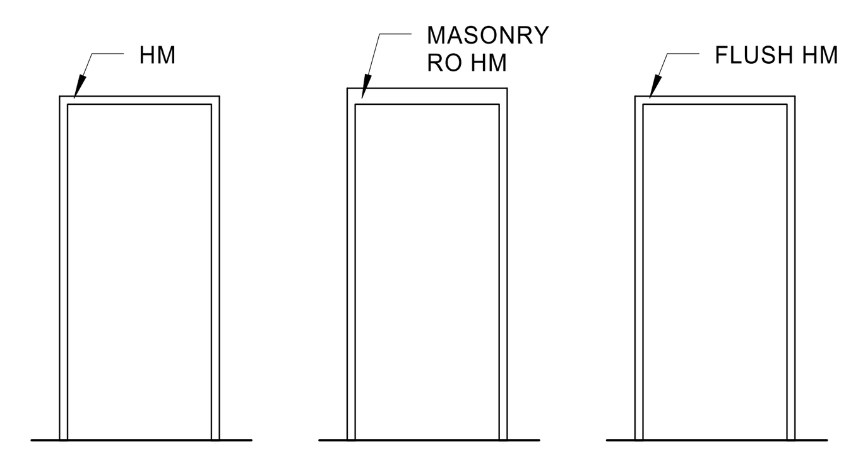
6 THIRD FLOOR - PUBLIC DOOR KEY PLAN
1/16" = 1'-0"



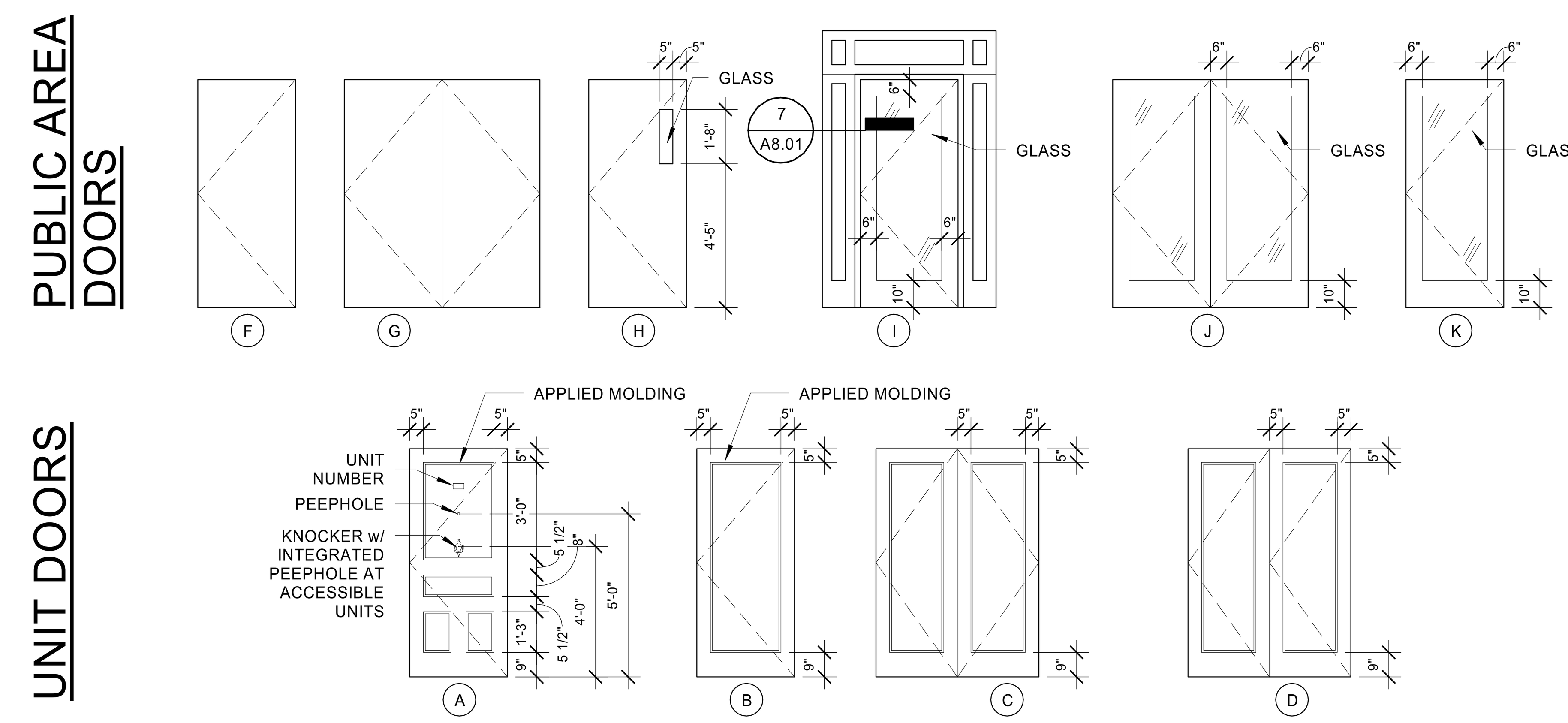
5 SECOND FLOOR - PUBLIC DOOR KEY PLAN
1/16" = 1'-0"

NOTES

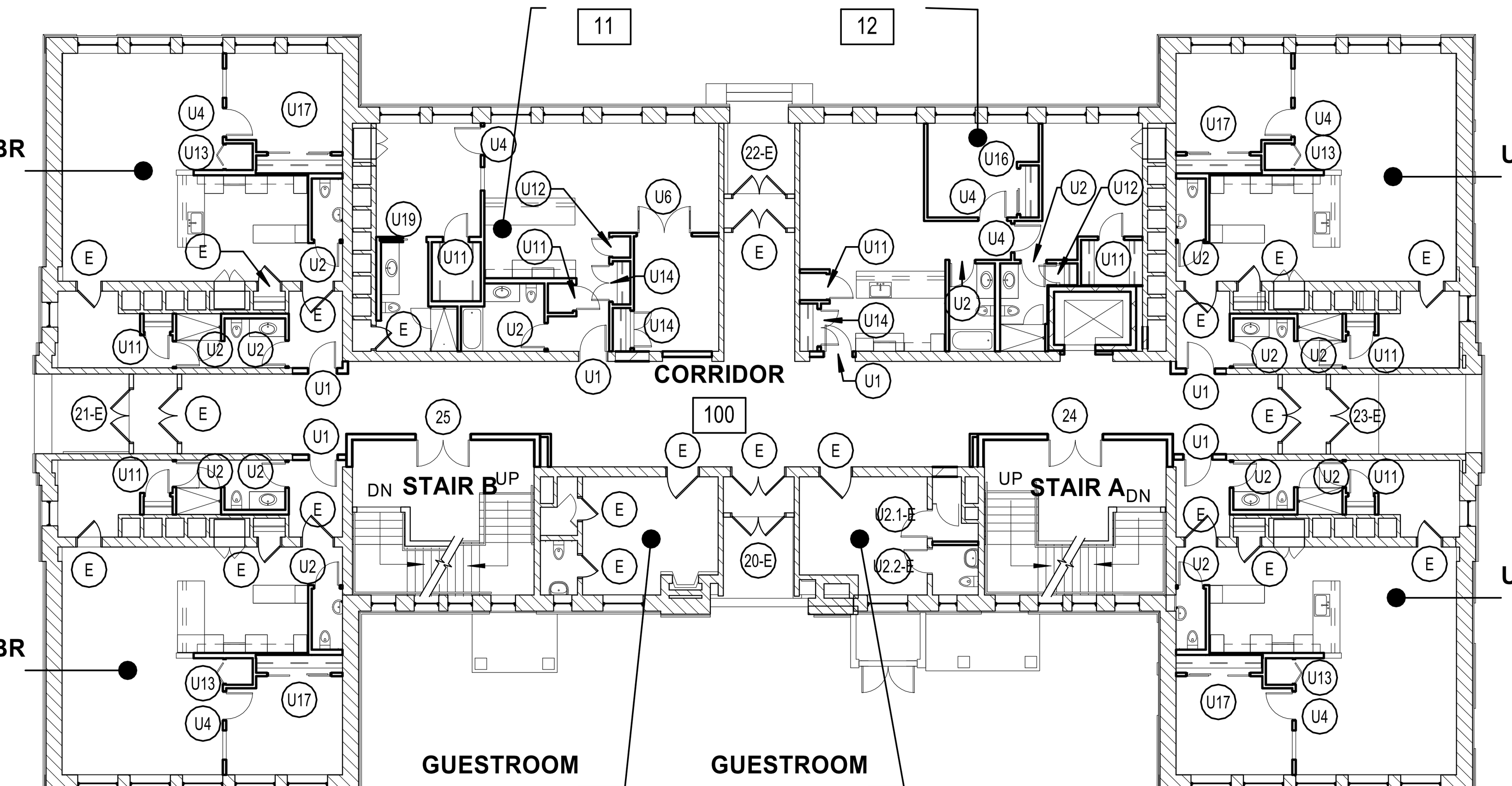
1. ALL UNIT DOORS ARE TO BE SOLID CORE MASONITE.
2. ALL NON ENTRY UNIT DOORS ARE PAINT GRADE.



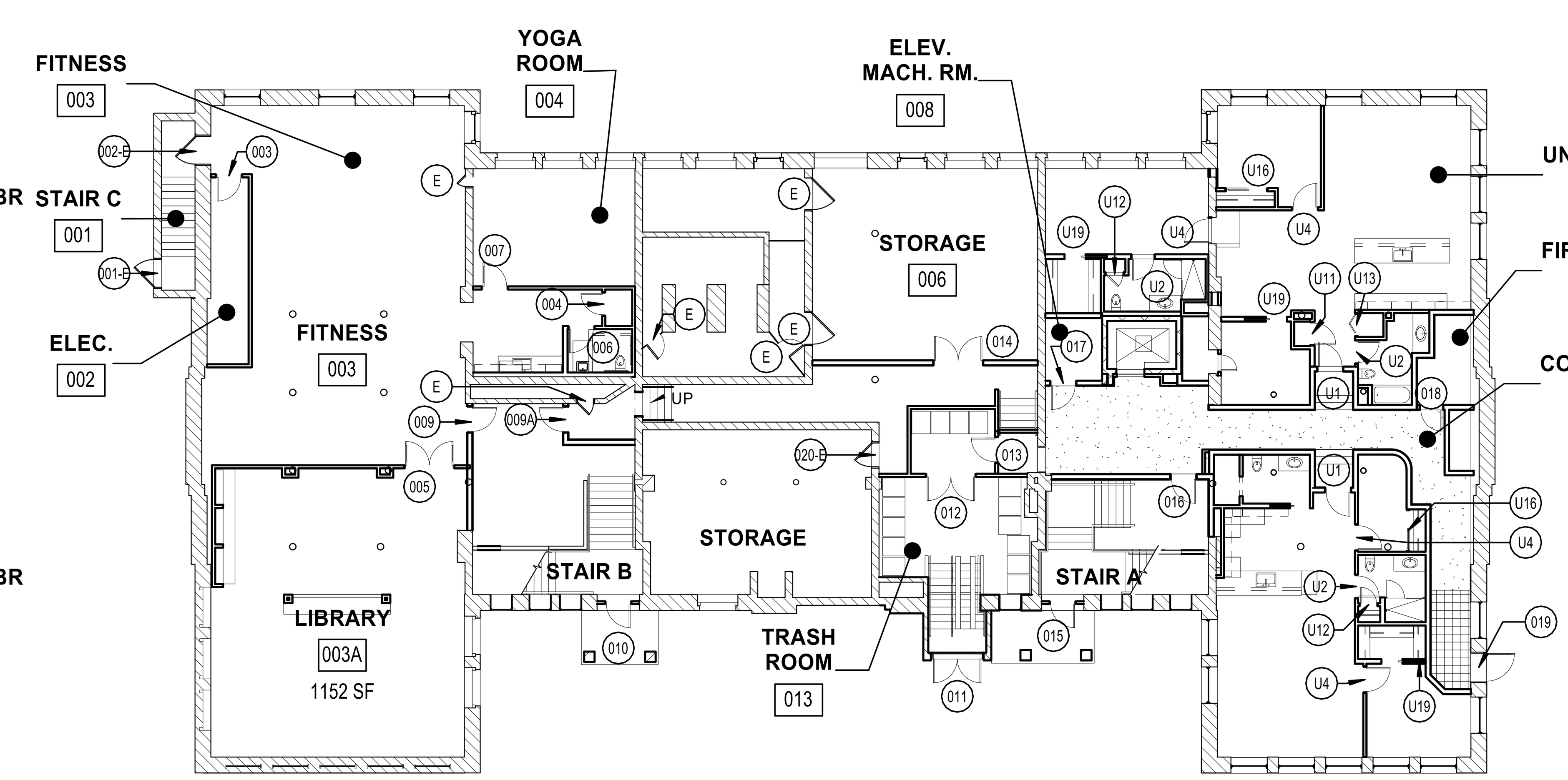
2 FRAME TYPES
1/4" = 1'-0"



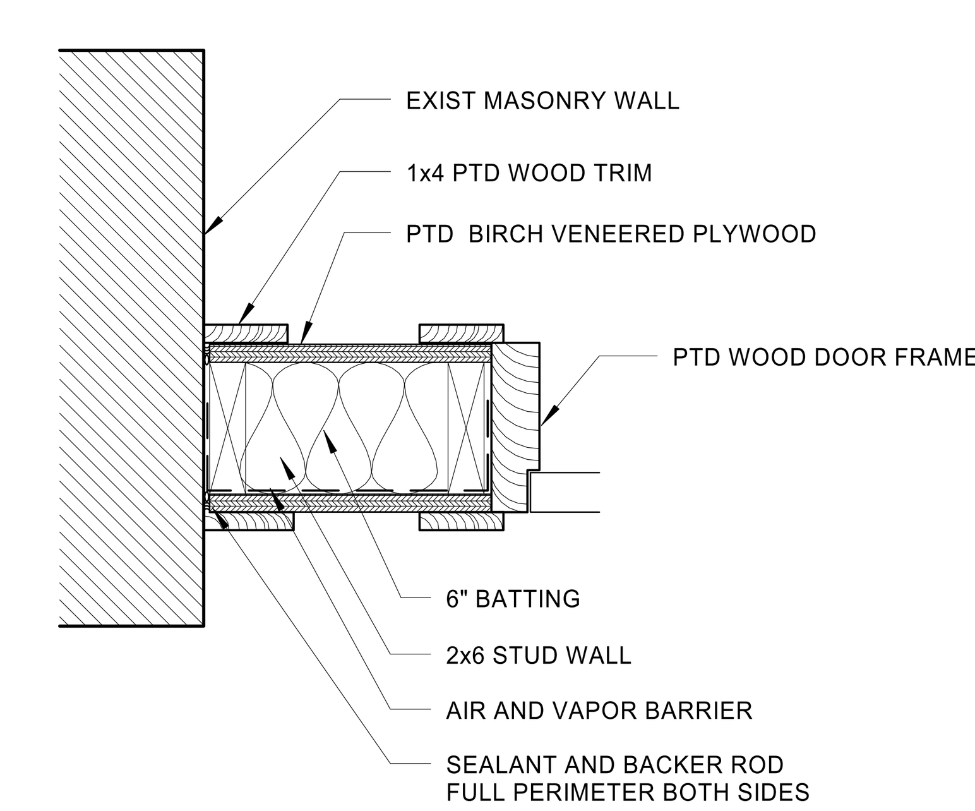
1 LEAF TYPES
1/4" = 1'-0"



4 FIRST FLOOR - PUBLIC DOOR KEY PLAN
1/16" = 1'-0"



3 LOWER LEVEL - PUBLIC DOOR KEY PLAN
1/16" = 1'-0"



7 EXTERIOR DOOR PANEL DETAIL
1 1/2" = 1'-0"

LICENSED ARCHITECT DAVID LLOYD NO. 936 STATE OF MAINE

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Consultant:

Architect: ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 [illegible]

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Revisions:

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DOOR SCHEDULE

A8.01

RESURGAM CITY OF PORTLAND MAINE
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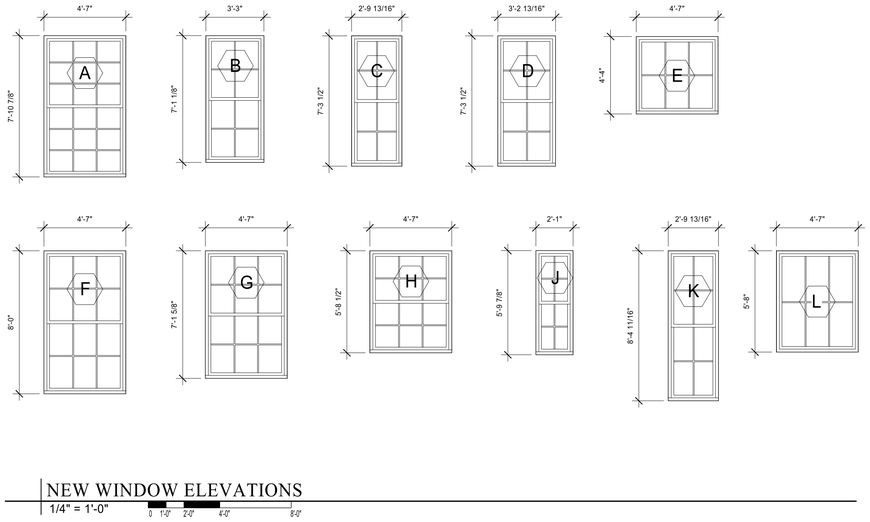
WINDOW SCHEDULE												
Type Mark	R.O. Width	R.O. Height	TYPE	MANUFACTURER	Material	Finish	Head	Jamb	Sill	Glazing Thickness	Glazing Type	Comments
A	4'-7"	7'-10 7/8"	SINGLE HUNG	GREEN MOUNTAIN	WOOD							
B	3'-3"	7'-1 1/8"	SINGLE HUNG	GREEN MOUNTAIN	WOOD							
C	2'-9 13/16"	7'-3 1/2"	SINGLE HUNG	GREEN MOUNTAIN	WOOD							
D	3'-2 13/16"	7'-3 1/2"	SINGLE HUNG	GREEN MOUNTAIN	WOOD							
E	4'-7"	4'-4"	HOPPER	GREEN MOUNTAIN	WOOD							
F	4'-7"	8'-0"	SINGLE HUNG	GREEN MOUNTAIN	WOOD							
G	4'-7"	7'-1 5/8"	SINGLE HUNG	GREEN MOUNTAIN	WOOD							
H	4'-7"	5'-8 1/2"	SINGLE HUNG	GREEN MOUNTAIN	WOOD							
J	2'-1"	5'-9 7/8"	SINGLE HUNG	GREEN MOUNTAIN	WOOD							
K	2'-9 13/16"	8'-4 11/16"	SINGLE HUNG	GREEN MOUNTAIN	WOOD							



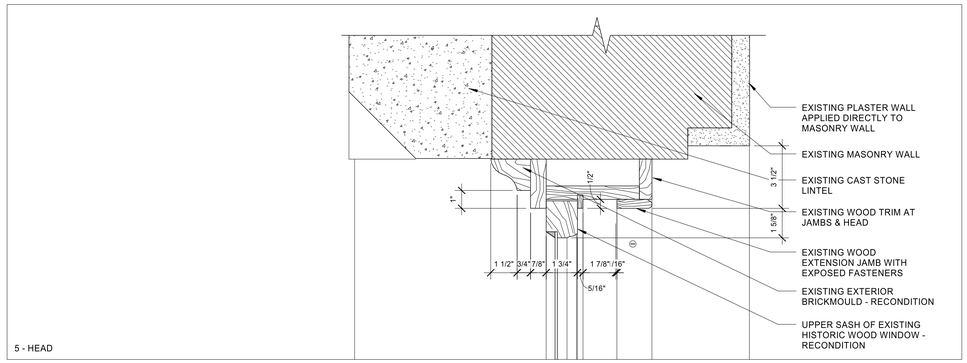
NEW WINDOW ELEVATIONS

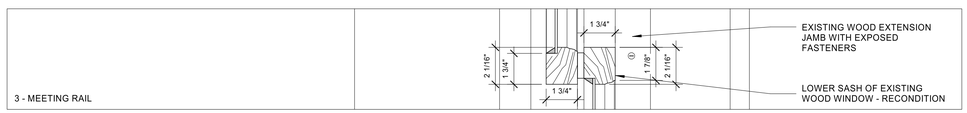
1/4" = 1'-0"

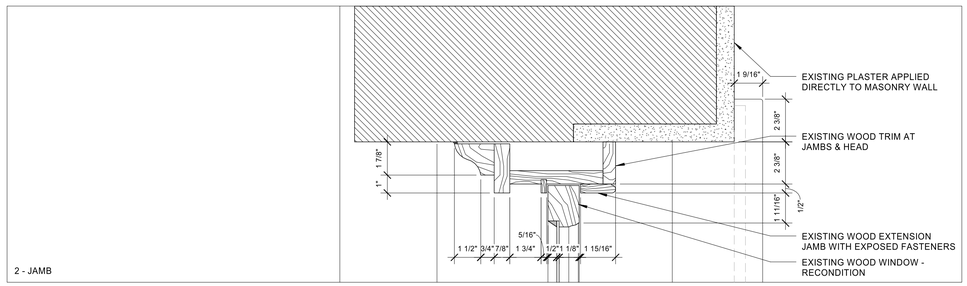
0 1'-0" 2'-0" 4'-0" 8'-0"

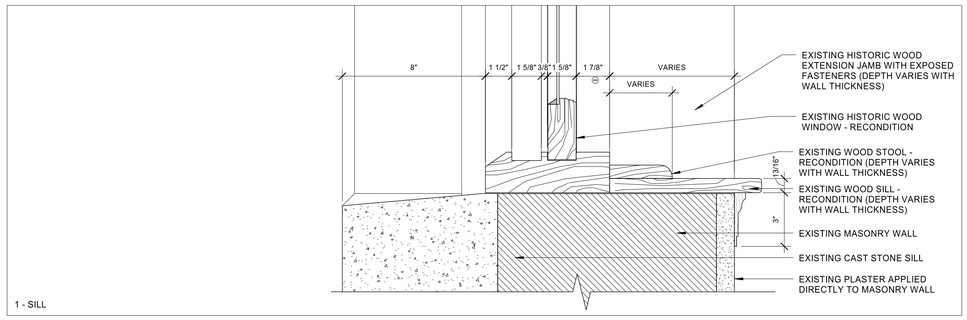
WINDOW NOTES

1. DEMO EXISTING WINDOW FENESTRATION INCLUDING BUT NOT LIMITED TO GRATES, INFILL PANELS, AND INSULATING PANELS, EXCLUDING EXISTING WOOD WINDOW TRIM.
2. PROVIDE FULL LENGTH BLINDS AT ALL UNIT WINDOWS. SEE SPECIFICATIONS FOR BLIND DETAILS.









1 EXISTING WOOD WINDOW SECTION

3" = 1'-0"

0 1 1/2" 3" 6" 1'-0"

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Scale: As indicated

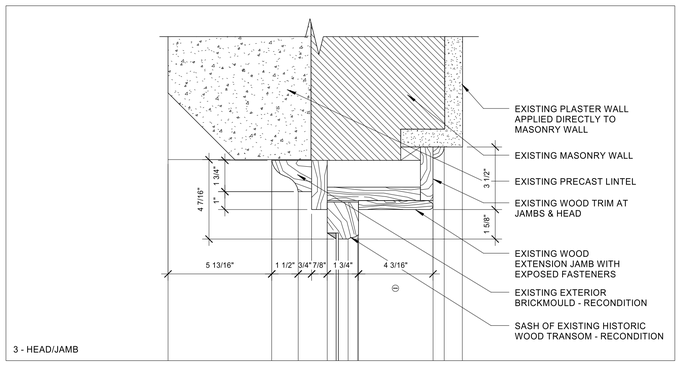
Date: 15 JAN 2014

WINDOW SCHEDULE & ELEVATIONS

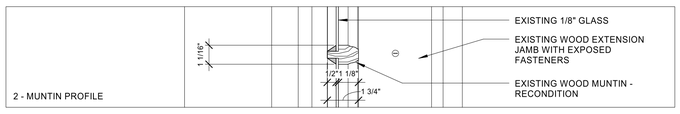
A8.02

GENERAL NOTES

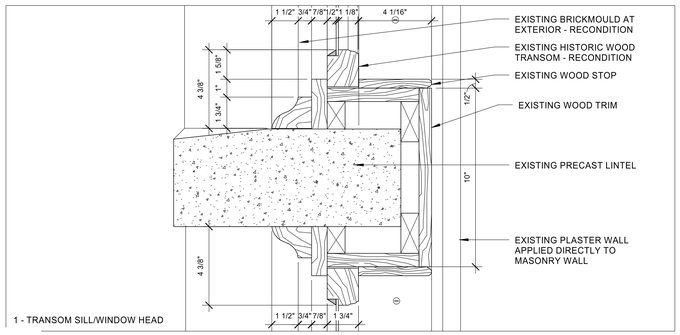
1. PROVIDE NEW INSECT SCREENS AT WINDOW OPENINGS AT ALL NEW AND EXG ALUM. WINDOWS TO MATCH EXISTING.



3 - HEAD/JAMB



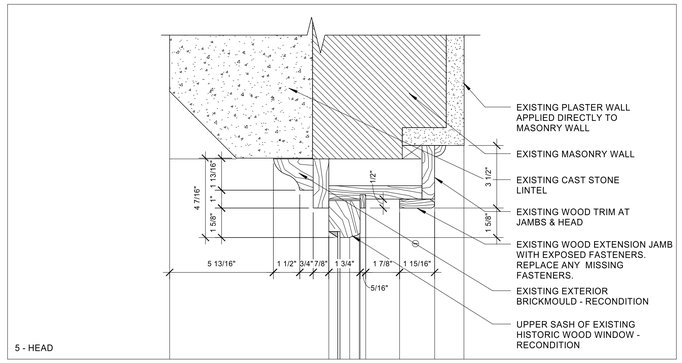
2 - MUNTIN PROFILE



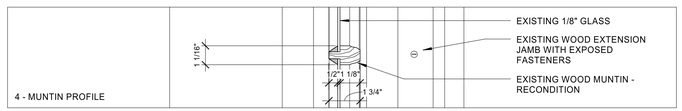
1 - TRANSOM SILL/WINDOW HEAD

1 EXISTING TRANSOM WINDOW SECTION - RECONDITIONED

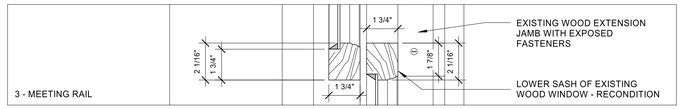
3" = 1'-0"



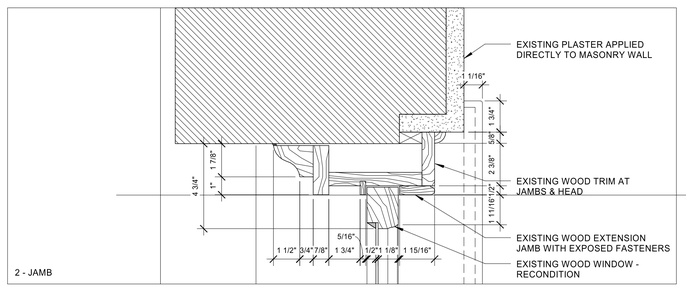
5 - HEAD



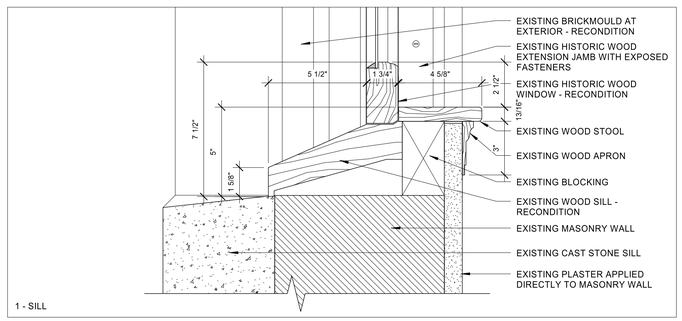
4 - MUNTIN PROFILE



3 - MEETING RAIL



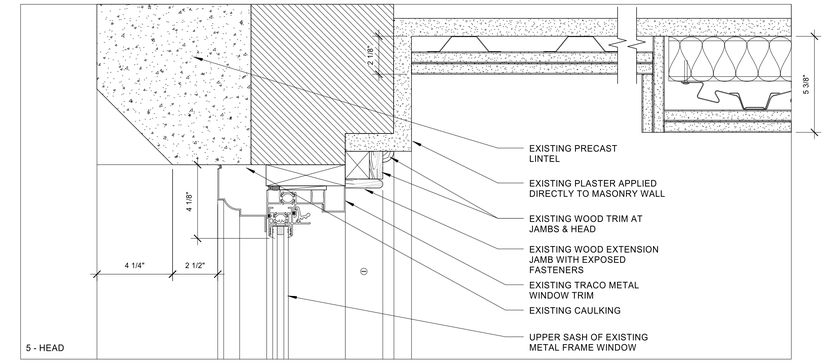
2 - JAMB



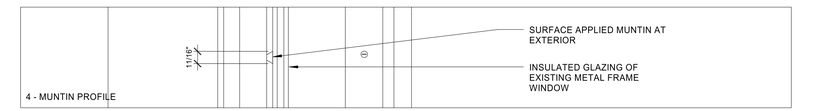
1 - SILL

2 EXISTING WOOD WINDOW SECTION - RECONDITIONED

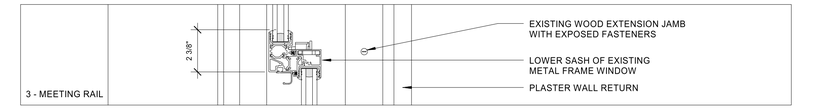
3" = 1'-0"



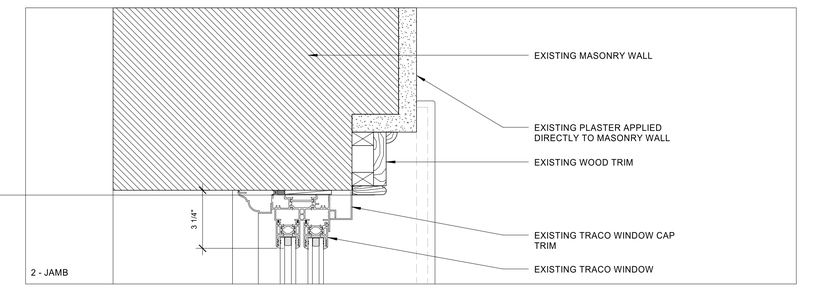
5 - HEAD



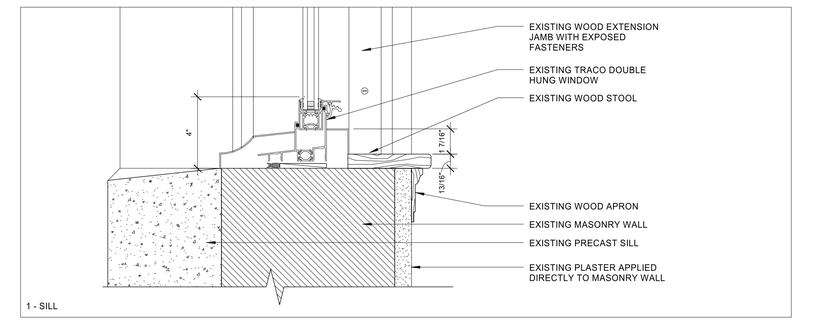
4 - MUNTIN PROFILE



3 - MEETING RAIL



2 - JAMB



1 - SILL

1 EXISTING THIRD FLOOR ALUMINUM WINDOW SECTION

3" = 1'-0"

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207)772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

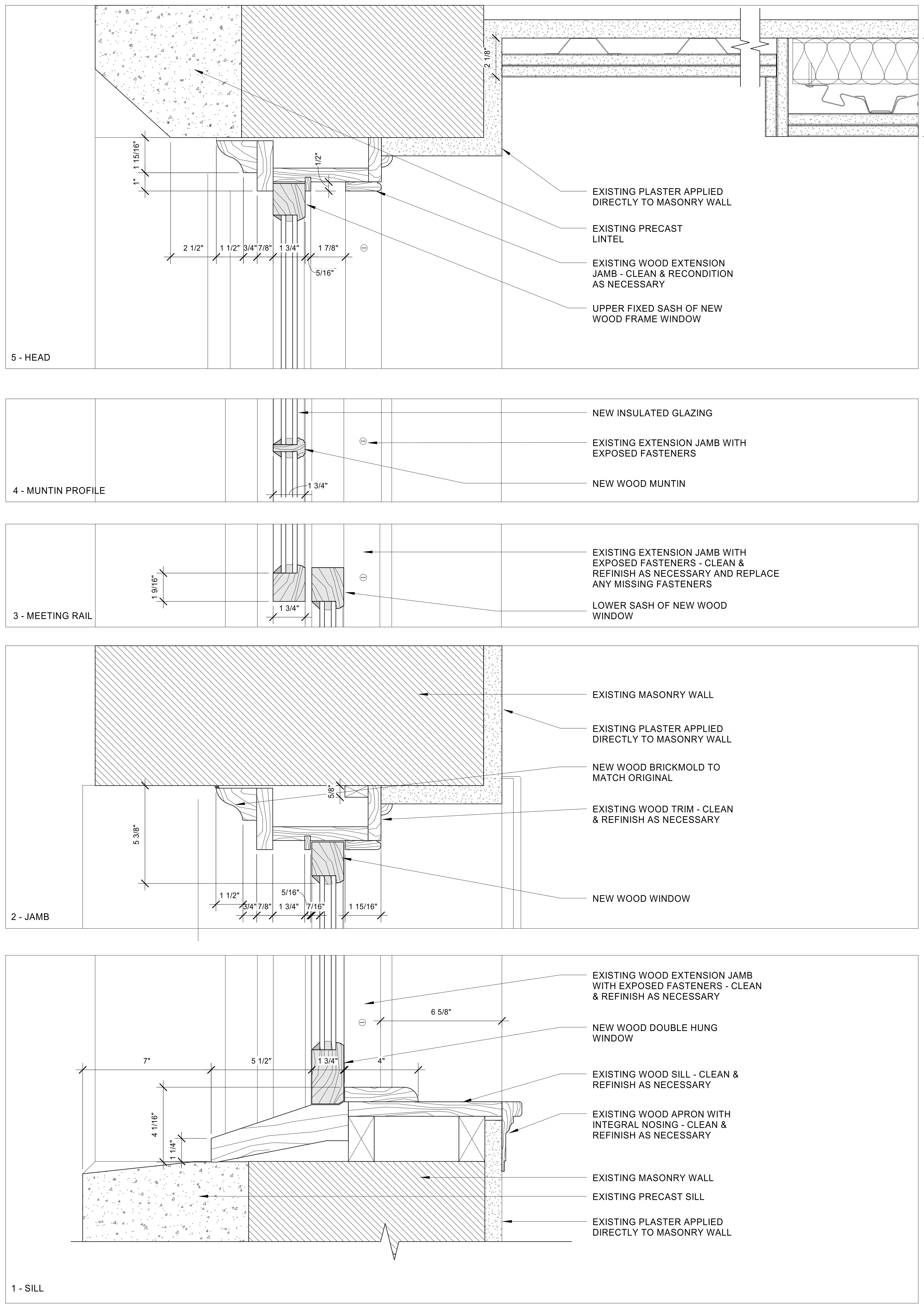
Revisions:

Scale: 3" = 1'-0"

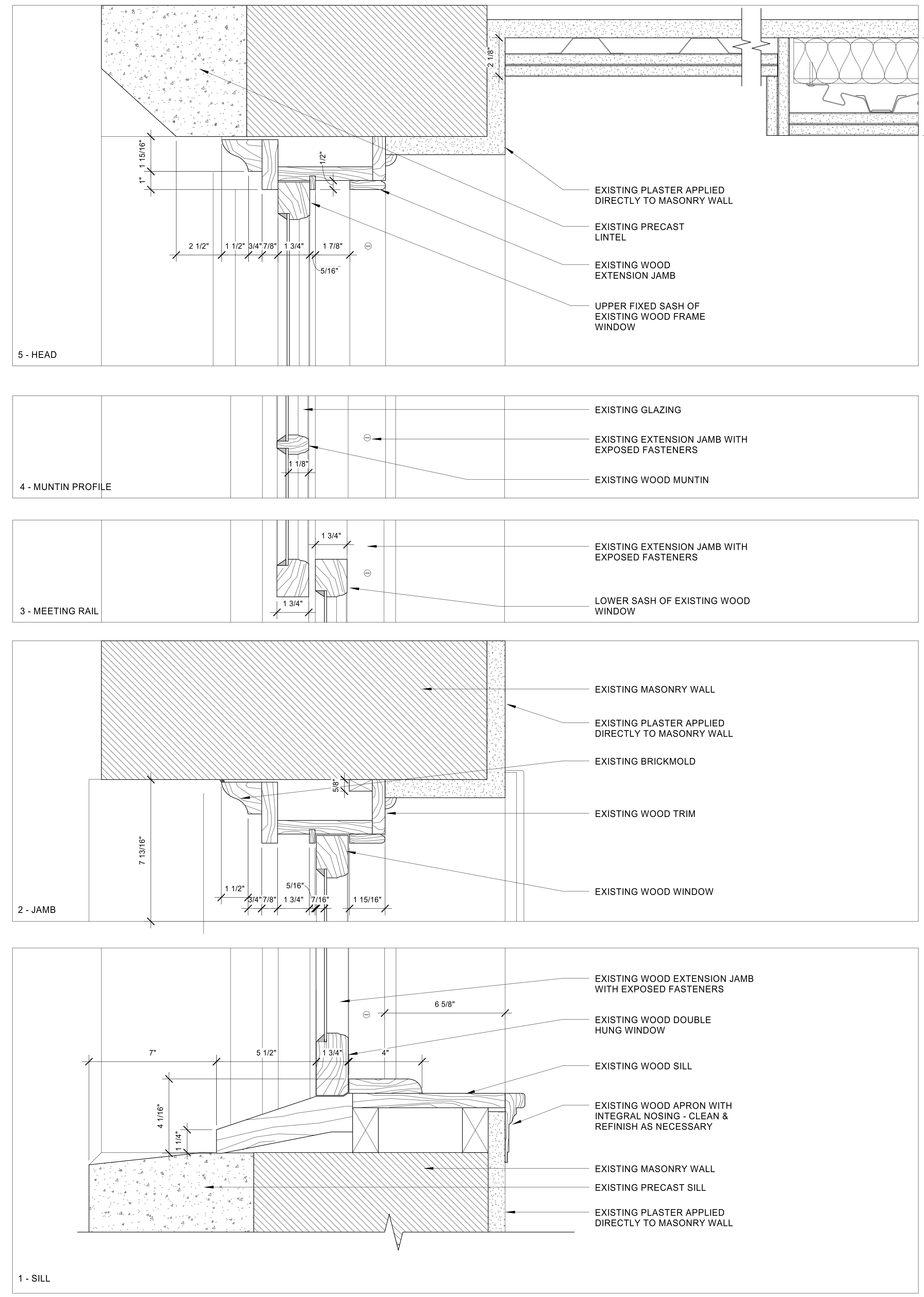
Date: 15 JAN 2014

WINDOW DETAILS

A8.03



1 CUSTOM WOOD REPLACEMENT SECTION
3" = 1'-0"



2 EXISTING WOOD WINDOW SECTION - TO BE REMOVED
3" = 1'-0"

LICENSED ARCHITECT DAVID LLOYD NO. 936 STATE OF MAINE

Prepared For:
Developers Collaborative
17 Chestnut Street
Portland, ME 04101

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
180 Falmouth Street Portland, Maine

Revisions:

Date: 15 JAN 2014
Scale: 3" = 1'-0"

WINDOW DETAILS

A8.04

FINISH SCHEDULE

#	ROOM NAME	FLOOR	BATHROOM FLOOR	BASE	WALL NORTH	WALL EAST	WALL SOUTH	WALL WEST	CEILING	REMARKS
LOWER LEVEL										
01	UNIT 3 BR	NEW ENGINEERED HDWD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
001	STAIR C	EXISTING TO REMAIN	-	ETR	PTD.	PTD.	PTD.	PTD.	PTD.	
02	UNIT 2 BR	NEW ENGINEERED HDWD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
002	ELEC.	CLEAN EXIST CONC. FLOOR	-	-	PTD.	PTD.	PTD.	PTD.	PTD.	SCRAPE EXIST PAINT ON EXIST MASONRY WALLS
003	FITNESS	VCT	-	1x4 PNT WD	PTD.	PTD.	PTD.	PTD.	PTD.	SCRAPE EXIST PAINT ON EXIST MASONRY WALLS
003A	LIBRARY	VCT	-	1x4 PNT WD	PTD.	PTD.	PTD.	PTD.	PTD.	
004	YOGA ROOM	VCT	-	-	PTD.	PTD.	PTD.	PTD.	PTD.	SCRAPE EXIST PAINT ON EXIST MASONRY WALLS
005	HISTORIC VENTILATION ROOM	CLEAN EXIST CONC. FLOOR	-	-	PTD.	PTD.	PTD.	PTD.	PTD.	SCRAPE EXIST PAINT ON EXIST MASONRY WALLS
006	STORAGE	CLEAN EXIST BRICK FLOOR	-	-	PTD.	PTD.	PTD.	PTD.	SCRAPE AND PAINT	SCRAPE EXIST PAINT ON EXIST MASONRY WALLS
007	CORRIDOR	CLEAN & PATCH EXIST BRICK FLOOR FOR CONTINUOUS WALK SURFACE	-	AS NOTED	PTD.	PTD.	PTD.	PTD.	SCRAPE AND PAINT	SCRAPE EXIST PAINT ON EXIST MASONRY WALLS
008	ELEV. MACH. RM.	CLEAN EXIST CONC. FLOOR	-	-	PTD.	PTD.	PTD.	PTD.	PTD.	
009	CORRIDOR	CERAMIC TILE AND CARPET TILE	-	1X4 WOOD	PTD.	PTD.	PTD.	PTD.	PTD.	SEE PLAN FOR EXTENT OF TILE/CARPET
010	FIRE/SPRK	CLEAN EXIST. CONC. FLOOR	-	-	PTD.	PTD.	PTD.	PTD.	PTD.	SCRAPE EXIST PAINT ON EXIST MASONRY WALLS
010	STAIR A	CLEAN SLAB, CLEAN TREADS, PAINT MTL STAIR COMPONENTS	-	PNT EXG MTL STRINGER	PTD.	PTD.	PTD.	PTD.	PTD.	
011	STORAGE	CLEAN EXIST. CONC. FLOOR	-	-	PTD.	PTD.	PTD.	PTD.	PTD.	SCRAPE EXIST PAINT ON EXIST MASONRY WALLS
011	STAIR B	VCT AT SLAB, CLEAN TREADS, PAINT MTL STAIR COMPONENTS	-	PNT EXG MTL STRINGER	PTD.	PTD.	PTD.	PTD.	PTD.	
013	TRASH ROOM	SHEET MEMBRANE RESILIENT FLOOR	-	TURNED UP MEMBR.	PTD.	PTD.	PTD.	PTD.	PTD.	
014	JC	SEALED CONC.	-	-	PTD.	PTD.	PTD.	PTD.	PTD.	
015	KITCHENETTE	VCT	-	1x4 PNT WD	PTD.	PTD.	PTD.	PTD.	PTD.	
016	BATH	VCT	-	1x4 PNT WD	PTD.	PTD.	PTD.	PTD.	PTD.	
017	TRASH ROOM	SHEET MEMBRANE RESILIENT FLOOR	-	TURNED UP MEMBR.	PTD.	PTD.	PTD.	PTD.	PTD.	
1ST FLOOR										
10	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
11	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
12	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
13	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
14	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
15	GUESTROOM	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
16	GUESTROOM	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
17	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
018	VESTIBULE	CLEAN EXIST HEXAGONAL TILE, REPAIR OR REPLACE TILES AS NECESSARY	-							
019	VESTIBULE	CLEAN EXIST HEXAGONAL TILE, REPAIR OR REPLACE TILES AS NECESSARY	-							
020	VESTIBULE	CLEAN EXIST HEXAGONAL TILE, REPAIR OR REPLACE TILES AS NECESSARY	-							
021	VESTIBULE	CLEAN EXIST HEXAGONAL TILE, REPAIR OR REPLACE TILES AS NECESSARY	-							
100	CORRIDOR	RESET & REFINISH EXIST. WOOD	-	EXIST WOOD BASE. SAND AND POLY	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
110	STAIR A	CARPET RUNNER, PAINT MTL STAIR COMPONENTS	-	EXIST WOOD BASE. SAND AND POLY	PTD.	PTD.	PTD.	PTD.	PTD.	LEVELASTIC AND NEW CARPET RUNNER EXTENDING TO 9 INCHES FROM STAIR EDGES
111	STAIR B	CARPET RUNNER, PAINT MTL STAIR COMPONENTS	-	EXIST WOOD BASE. SAND AND POLY	PTD.	PTD.	PTD.	PTD.	PTD.	LEVELASTIC AND NEW CARPET RUNNER EXTENDING TO 9 INCHES FROM STAIR EDGES

FINISH SCHEDULE

#	ROOM NAME	FLOOR	BATHROOM FLOOR	BASE	WALL NORTH	WALL EAST	WALL SOUTH	WALL WEST	CEILING	REMARKS
2ND FLOOR										
20	UNIT 3 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
21	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
22	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
23	UNIT 3 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
24	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
25	UNIT 1 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
26	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
200	CORRIDOR	RESET & REFINISH EXIST. WOOD		EXIST WOOD BASE. SAND AND POLY	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
210	STAIR A	CARPET RUNNER, PAINT MTL STAIR COMPONENTS		EXIST WOOD BASE. SAND AND POLY	PTD.	PTD.	PTD.	PTD.	PTD.	LEVELASTIC AND NEW CARPET RUNNER EXTENDING TO 9 INCHES FROM STAIR EDGES
211	STAIR B	CARPET RUNNER, PAINT MTL STAIR COMPONENTS		EXIST WOOD BASE. SAND AND POLY	PTD.	PTD.	PTD.	PTD.	PTD.	LEVELASTIC AND NEW CARPET RUNNER EXTENDING TO 9 INCHES FROM STAIR EDGES
3RD FLOOR										
30	UNIT 3 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
31	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
32	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
33	UNIT 3 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
34	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
35	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
36	UNIT 2 BR	RESET & REFINISH EXIST. WOOD	CERAMIC TILE	1X4 PNT WD, CERAMIC TILE IN BATH	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS.PORTION OF EXIST. BLACKBOARD TO REMAIN IN PLACE - SEE PLANS
300	CORRIDOR	RESET & REFINISH EXIST. WOOD		EXIST WOOD BASE. SAND AND POLY	PTD.	PTD.	PTD.	PTD.	PTD.	EXIST. BASE ON EXIST WALLS. 1X4 FLAT BASE ON NEW WALLS
310	STAIR A	CARPET RUNNER, PAINT MTL STAIR COMPONENTS		EXIST WOOD BASE. SAND AND POLY	PTD.	PTD.	PTD.	PTD.	PTD.	LEVELASTIC AND NEW CARPET RUNNER EXTENDING TO 9 INCHES FROM STAIR EDGES
311	STAIR B	CARPET RUNNER, PAINT MTL STAIR COMPONENTS		EXIST WOOD BASE. SAND AND POLY	PTD.	PTD.	PTD.	PTD.	PTD.	LEVELASTIC AND NEW CARPET RUNNER EXTENDING TO 9 INCHES FROM STAIR EDGES

FINISH NOTE:

1. BIND CARPET EDGES AT STAIR RUNNERS AND WHERE CARPET MEETS AN EXIST WALL WITHOUT BASE TRIM; IE EXIST CONC. OR BRICK WALLS IN THE LOWER LEVEL.

2. SEE REFLECTED CEILING PLANS FOR LOCATION OF ACT CEILINGS

3. WALL PAINTING WILL BE ON EITHER NEW GYPSUM BOARD WALLS OR EXISTING PLASTER WALLS. SEE PLASTER CONDITION DRAWINGS A4.06 AND A4.07 FOR LOCATIONS OF REMEDIAL WORK REQUIRED TO EXISTING PLASTER BEFORE WALLS ARE PAINTED

4. ALL NEW CERAMIC TILE FLOORS ARE TO BE INSTALLED OVER NEW 1/4" PLYWOOD.

CITY OF PORTLAND, MAINE — RESURGAM

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 03/12/14

LICENSED ARCHITECT — DAVID LLOYD NO. 936 — STATE OF MAINE

Prepared For: Developers Collaborative, 17 Chestnut Street, Portland, ME 04101

Consultant:

Architect: ARCHETYPE architects, 48 Union Wharf Portland, Maine 04101, 207.772.2022, ARCHETYPE@ARCHETYPEPA.COM

Project: NATHAN CLIFFORD SCHOOL REDEVELOPMENT, 180 Falmouth Street Portland, Maine

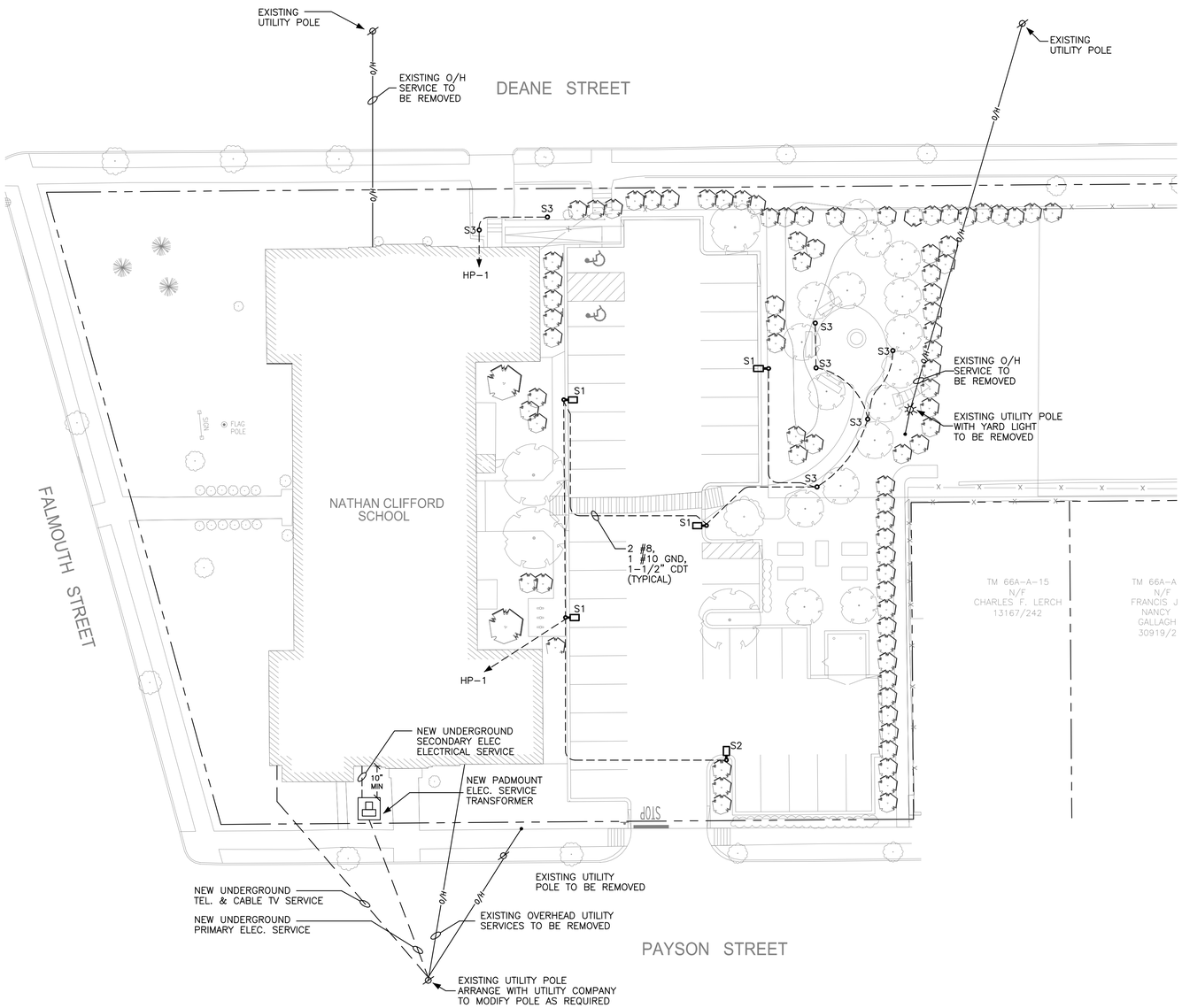
Revisions:

Scale:

Date: 15 JAN 2014

FINISH SCHEDULE

A8.05



1 ELECTRICAL SITE PLAN
1" = 20'-0"
0 5'-0" 10'-0" 20'-0" 40'-0"

PLAN SYMBOLS

SYMBOL	DESCRIPTION
	125V, 20A, DUPLEX GROUNDED RECEPTACLE GFI = Ground Fault Type WP = Weatherproof AC = Mount 6" Above Sink or Counter
	125V, 20A, QUAD GROUNDED RECEPTACLE
	TELEPHONE OUTLET
TV	CABLE TELEVISION OUTLET
TV	WIRELESS DATA NETWORK OUTLET Mount 12" Below Ceiling
DIS	DOOR INTERCOM STATION
J	JUNCTION BOX
	ELECTRIC PANELBOARD (See Plans for Details)
	CONTROL PANEL (See Plans for Details)
LC	UNIT LOAD CENTER
S L	FIRE ALARM SMOKE DETECTOR Indicates Localized Detector
C L	FIRE ALARM CARBON MONOXIDE SENSOR Indicates Localized Detector
H	FIRE ALARM HEAT DETECTOR
F *	FIRE ALARM AUDIO VISUAL Indicates Visual Only
F	FIRE ALARM PULL STATION
#2 J1	CEILING MTD. FLUORESCENT LIGHT Circuit Number Fixture Designation
W6	WALL MOUNTED LIGHT FIXTURE Fixture Designation
R1	RECESSED/CEILING MOUNTED LIGHT FIXTURE Fixture Designation
S3	LIGHT/DEVICE SWITCH 3 = Three-Way Type
M	CEILING MTD LTG CONTROL MOTION SENSOR
MOD	MOTOR OPERATED DAMPER (Provided Under Div 15)
SM	MANUAL MOTOR SWITCH

SINGLE LINE DIAGRAM SYMBOLS

SYMBOL	DESCRIPTION
	Ampere Frame Rating (3 poles Except as Noted Otherwise)
225 AF 200 AT	CIRCUIT BREAKER Ampere Trip Rating
	ELECTRICAL CONNECTION
	GROUND CONNECTION
	EQUIPMENT ENCLOSURE
	TRANSFORMER
200/3 FU:175	FUSED SWITCH Ampere Rating/No. of Poles Fuse Size
M	UTILITY CO. SERVICE METER

2 ELECTRICAL SYMBOLS
No Scale

PROJECT NOTES:

1. ALL 120V RECEPTACLES IN KITCHENS AND BATHROOMS SHALL BE GFIC RATED EXCEPT FOR THE REFRIGERATOR.
2. MINIMUM CIRCUIT BREAKER SIZE SHALL BE 20 AMP. MINIMUM WIRE SIZE SHALL BE #12 AWG.
3. CONNECT ALL 120 VOLT RECEPTACLE CIRCUITS IN LIVING UNITS TO ARC-FAULT TYPE CIRCUIT BREAKERS IN LOAD CENTERS.
4. ALL RECEPTACLES IN LIVING UNITS SHALL BE TAMPER-RESISTANT.
5. COMBINATION HORN/STROBE/SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE.
6. SMOKE DETECTORS AND CARBON MONOXIDE DETECTORS IN LIVING UNITS SHALL BE CIRCUITED TO THE LOCAL LIGHTING CIRCUIT.
7. WHERE STROBE CANDELA RATING IS NOT SHOWN FOR HOUSE FIRE ALARM NOTIFICATION APPLIANCES, STROBE RATING SHALL BE 15cd.
8. INSTALL LOAD CENTERS WITHIN LIVING UNITS WITH THE TOP CIRCUIT BREAKER HANDLE AT 48" AFF. INSTALL NEW BRANCH CIRCUIT PANELS SO THAT THE TOP CIRCUIT BREAKER IS NO HIGHER THAN 6'-0"AFF.
9. COORDINATE THE EXACT LOCATION OF RECEPTACLES IN KITCHENS SO THAT NO POINT ON THE COUNTER IS GREATER THAN 24" TO A RECEPTACLE. PROVIDE AN ABOVE COUNTER RECEPTACLE AT ALL KITCHEN COUNTERS THAT ARE GREATER THAN 12".
10. FOR RECEPTACLES INDICATED AND ALL RECEPTACLES IN BEDROOMS, CONNECT THE TOP HALF OF THE RECEPTACLE TO LIGHT SWITCH AS INDICATED. DO NOT CONNECT RECEPTACLES ADJACENT TO EXISTING TELEVISION OUTLET TO SWITCH.
11. PROVIDE A 120V, DUPLEX RECEPTACLE FOR GAS RANGE CONTROLS. MOUNT 18" ABOVE FINISHED FLOOR. PROVIDE A 120V CIRCUIT CONNECTION TO COMBINATION MICROWAVE/HOOD UNIT MOUNTED ABOVE RANGE. COORDINATE EXACT HEIGHT WITH ARCHITECTURAL ELEVATIONS.
12. DO NOT INSTALL FLUSH MOUNTED BOXES BACK-TO-BACK IN WALLS; PROVIDE A MINIMUM 24 INCH SEPARATION. WHERE 24 INCH SEPARATION IS NOT PHYSICALLY POSSIBLE, APPROVAL FOR CLOSER SPACING SHALL BE OBTAINED FROM THE ARCHITECT PRIOR TO ROUGH-IN. IN SUCH CASES, PROVIDE UL LISTED FIRESTOP PADS FOR BOXES.
13. ENSURE THAT OUTLET BOXES IN COMMON WALLS OF DWELLING UNITS ARE SEALED AGAINST AIR FILTRATION THROUGH THE USE OF CAULKING DRYWALL TO THE BOX AND PROVIDING COVER PLATE GASKETS.
14. UNLESS SPECIFICALLY OTHERWISE NOTED 3-PHASE LOADS SHALL BE CIRCUITED WITH 3 #12, 1 #12GND, IN A 3/4" CONDUIT.
15. PROVIDE TEN (10) 120V, 30A CIRCUITS IN PANEL HP-M FOR EXHAUST FANS TO BE MOUNTED ON ROOF. PROVIDE A 208V, 60A/3P CIRCUIT IN PANEL HP-M FOR AN 8.5TON PACKAGED ROOFTOP UNIT. PROVIDE TWO (2) 208V, 30A/2P CIRCUITS IN PANEL HP-M FOR GUEST ROOM MULTI-SPLIT UNITS. PROVIDE SIX (6) 208V, 20A/2P CIRCUITS IN PANEL HP-M FOR ELECTRIC UNIT HEATERS, LOCATION TO BE DETERMINED. PROVIDE A 120V, 20A CIRCUIT IN PANEL HP-M FOR THE ELEVATOR EXHAUST FAN. PROVIDE A 120V, 20A CIRCUIT IN PANEL HP-M FOR THE ELEVATOR SUMP PUMP. VERIFY THE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH-IN.
16. PROVIDE WEATHERPROOF GFI RATED RECEPTACLES SO THAT THERE IS A RECEPTACLE WITHIN 25FT OF EACH MECHANICAL UNIT LOCATED ON THE ROOFTOP. WHERE RECEPTACLE IS MOUNTED TO MECHANICAL UNIT, ELECTRICAL CONTRACTOR SHALL SEAL ALL PENETRATIONS INTO UNIT.
17. WITHIN EACH LIVING UNIT PROVIDE THE FOLLOWING LOAD CENTER CIRCUITS:
    - 20A/1P – DINING AREA/HALL RECEPTACLES 5 RECEPTACLES MAX. PER CIRCUIT
    - 20A/1P – LIVING AREA RECEPTACLES 5 RECEPTACLES MAX. PER CIRCUIT
    - 20A/1P – BEDROOM RECEPTACLES
    - 20A/1P – BEDROOM RECEPTACLES
    - 20A/1P – BEDROOM RECEPTACLES
    - 20A/1P – BATHROOM RECEPTACLE
    - 20A/1P – BATHROOM RECEPTACLE
    - 20A/1P – LIGHTING/SMOKE DETECTORS
    - 20A/1P – DOOR INTERCOM STATION
    - 20A/1P – GAS RANGE
    - 20A/1P – RANGE HOOD/MICROWAVE COMBO UNIT
    - 20A/1P – KITCHEN RECEPTACLES
    - 20A/1P – KITCHEN RECEPTACLES
    - 20A/1P – REFRIGERATOR
    - 20A/1P – DISHWASHER
    - 20A/1P – GAS WASHER/DRYER/RECEPT
    - 15A/1P – ERV UNIT
    - 15A/1P – BOILER/PUMPS UNIT
    - 15A/1P – FAN COIL UNIT
    - 50A/2P – ROOF MTD CONDENSING UNIT (LC-1 ONLY)
    - 35A/2P – ROOF MTD CONDENSING UNIT (LC-2 ONLY)
18. PROVIDE A 15A, 120V CONNECTION, CIRCUITED TO THE UNIT LOAD CENTER, FOR BOILER & CIRCULATING PUMPS TO BE LOCATED IN UNIT MECHANICAL CLOSET. PROVIDE A 15A, 120V CONNECTION, CIRCUITED TO THE UNIT LOAD CENTER, FOR FAN COIL UNIT TO BE LOCATED ABOVE BATHROOM CEILING. PROVIDE A 15A, 120V CONNECTION, CIRCUITED TO THE UNIT LOAD CENTER, ERV UNIT TO BE LOCATED ABOVE BATHROOM CEILING.
19. FOR UNITS WITH LOAD CENTERS LC-1, PROVIDE A 50A, 240V CONNECTION FOR UNIT'S ROOF MOUNTED CONDENSING UNIT. FOR UNITS WITH LOAD CENTERS LC-2, PROVIDE A 35A, 240V CONNECTION FOR UNIT'S ROOF MOUNTED CONDENSING UNIT.
20. PROVIDE A 20A, 120V CONNECTION, CIRCUITED TO PANEL HP
21. PROVIDE A 120V, 20-AMPERE CIRCUIT (PANEL HP #42) TO ELEVATOR SHAFT VENT DAMPER OPERATOR. PROVIDE CONNECTION TO SMOKE DETECTOR WITH CONTROL MODULE AND CONTROL RELAY TO OPEN VENT UPON DETECTION OF SMOKE WITHIN ELEVATOR SHAFT.

3 PROJECT NOTES
No Scale

STATE OF MAINE
LAWRENCE E. BARTLETT
No. 7928
LICENSED PROFESSIONAL ENGINEER

Prepared For:
Developers Collaborative

Consultant:
Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
942 WASHINGTON STREET, BATH, ME 04530
TEL (207) 443-5447 FAX (207) 443-5606

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL
REDEVELOPMENT
80 Falmouth Street Portland, Maine

Revisions:

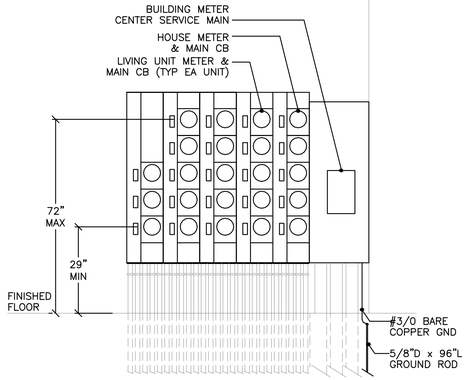
Scale: 1" = 20'-0"

Date: 15 JAN 2013

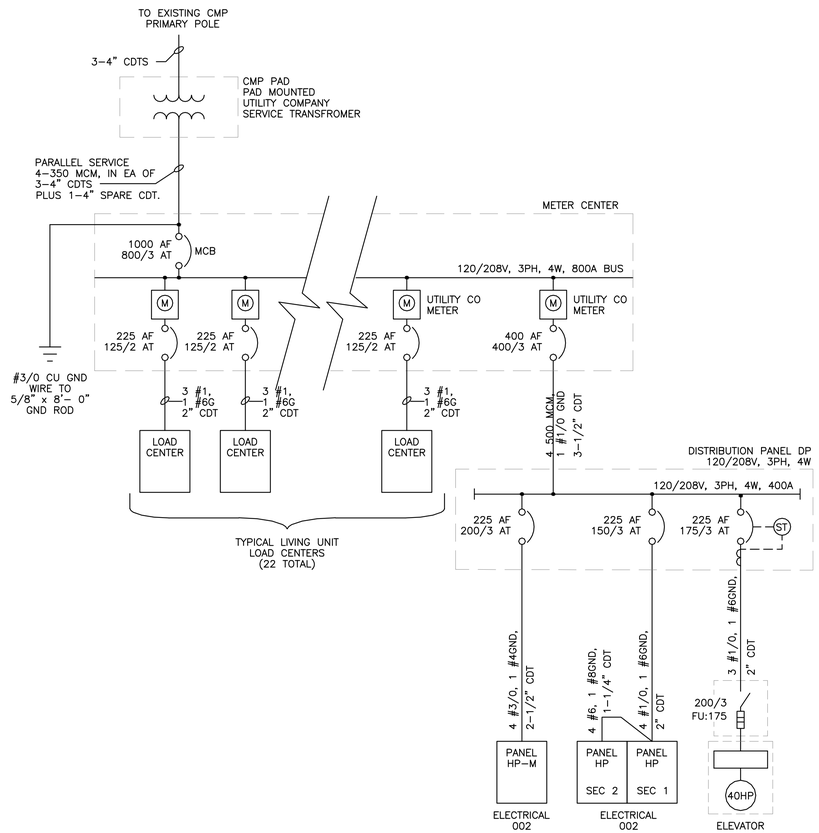
ELECTRICAL SITE PLAN

E0.01

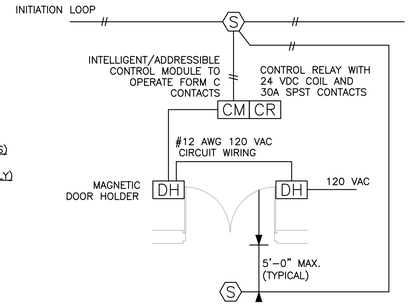
CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14



2 MODULAR METER CENTER DETAIL
No Scale



1 SINGLE LINE DIAGRAM
No Scale

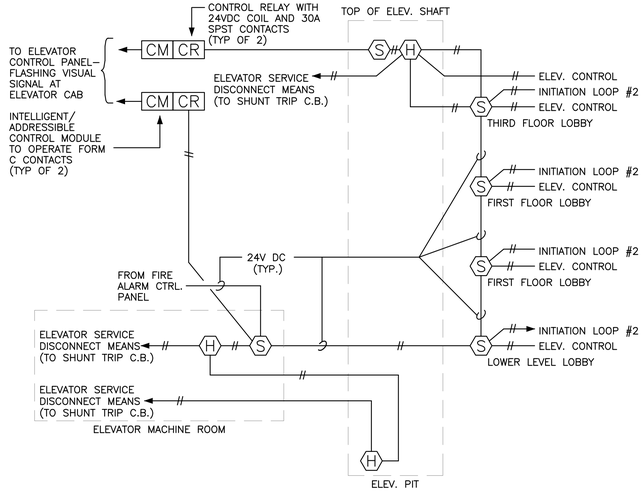


DOOR HEAD HT. EQUALS 24" (OR LESS BOTH SIDES)
PROVIDE DETECTOR ON CEILING ONE SIDE ONLY

DOOR HEAD HT. GREATER THAN 24" (ONE SIDE ONLY)
PROVIDE DETECTOR ON CEILING ON SIDE WITH HEAD HEIGHT GREATER THAN 24" ONLY

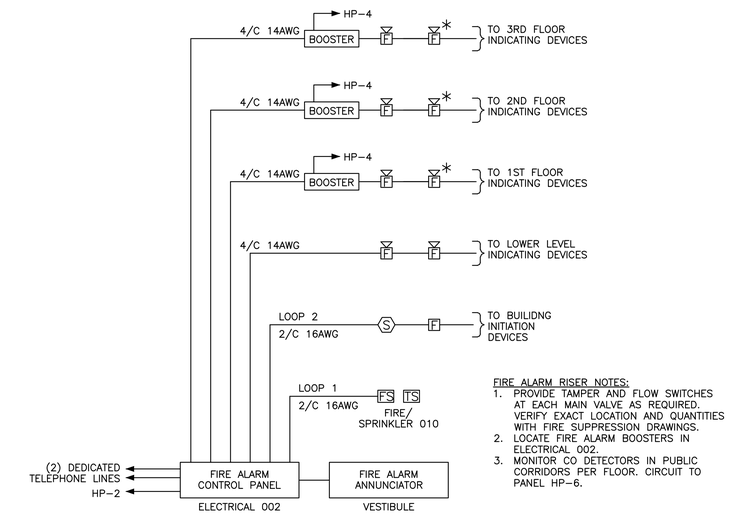
DOOR HEAD HT. GREATER THAN 24" (BOTH SIDES)
PROVIDE DETECTORS ON CEILING BOTH SIDES

2 DOOR HOLDER FIRE ALARM INTERFACE WIRING DIAGRAM
No Scale



ELEVATOR FIRE ALARM INTERFACE WIRING DIAGRAM NOTES:
1. AUTOMATIC HEAT DETECTORS SHOWN FOR AUTOMATIC DISCONNECT OF ELEVATOR ELECTRIC SERVICE BY MEANS OF SHUNT TRIP C.B. ARE REQUIRED ONLY WHEN FACILITY IS SPRINKLERED.
2. FOR SPRINKLERED FACILITIES, WHEN A SPRINKLER HEAD IS LOCATED IN THE ELEVATOR SHAFT WITHIN 24" OF THE PIT FLOOR, THE AUTOMATIC HEAT DETECTOR AT THE ELEVATOR PIT FOR ELEVATOR SERVICE DISCONNECT IS NOT REQUIRED.
3. FOR SPRINKLERED FACILITIES WHERE NO SPRINKLER HEADS ARE INSTALLED IN THE ELEVATOR SHAFT, NEITHER THE AUTOMATIC HEAT DETECTOR AT THE TOP OF THE ELEVATOR SHAFT FOR ELEVATOR DISCONNECT, NOR THE AUTOMATIC SMOKE DETECTOR AT THE TOP OF THE ELEVATOR ARE REQUIRED.
4. ADJUST QUANTITY OF SMOKE DETECTORS AND INITIATION LOOPS AS NECESSARY TO ACCOMMODATE ALL ELEVATOR STOPS.
5. PROVE A SMOKE DETECTOR AT THE TOP OF THE ELEVATOR SHAFT TO OPERATE THE SMOKE DAMPER.
6. INSTALL DETECTORS AND WIRING IN CONFORMANCE WITH STATE ELEVATOR CODE.

2 ELEVATOR RECALL FIRE ALARM WIRING INTERFACE DIAGRAM
No Scale



FIRE ALARM RISER NOTES:
1. PROVIDE TAMPER AND FLOW SWITCHES AT EACH MAIN VALVE AS REQUIRED. VERIFY EXACT LOCATION AND QUANTITIES WITH FIRE SUPPRESSION DRAWINGS.
2. LOCATE FIRE ALARM BOOSTERS IN ELECTRICAL 002.
3. MONITOR CO DETECTORS IN PUBLIC CORRIDORS PER FLOOR. CIRCUIT TO PANEL HP-6.

2 FIRE ALARM RISER DIAGRAM
No Scale

STATE OF MAINE
LAWRENCE E. BARTLETT
No. 7928
REGISTERED PROFESSIONAL ENGINEER

Prepared For:
Developers Collaborative

Consultant:
Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
942 WASHINGTON STREET, BATH, ME 04530
TEL (207) 443-5447 FAX (207) 443-5005

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL
REDEVELOPMENT
80 Falmouth Street Portland, Maine

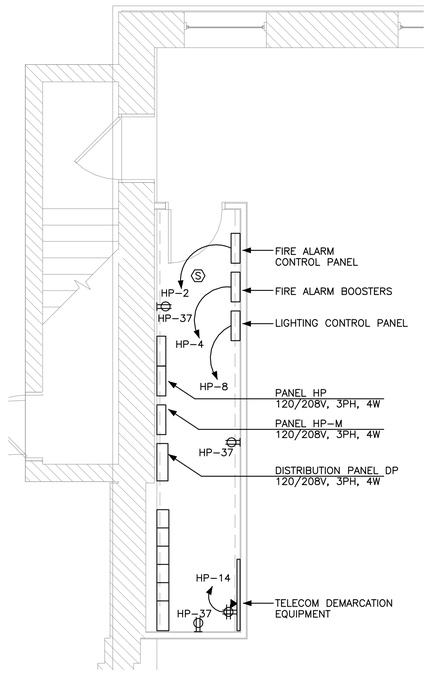
Revisions:

Scale: AS NOTED

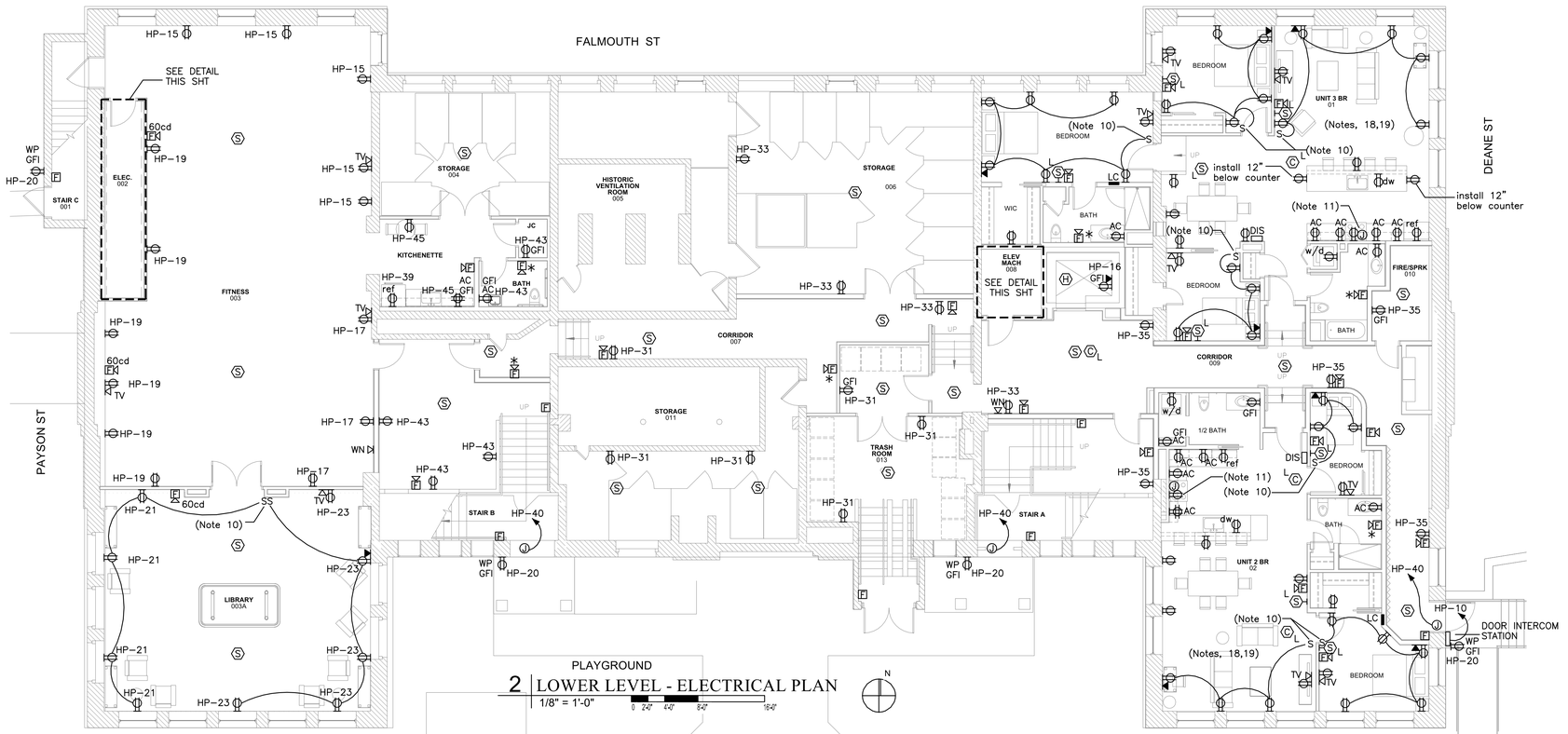
Date: 15 JAN 2013

ELECTRICAL DETAILS

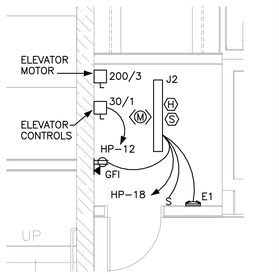
E0.02



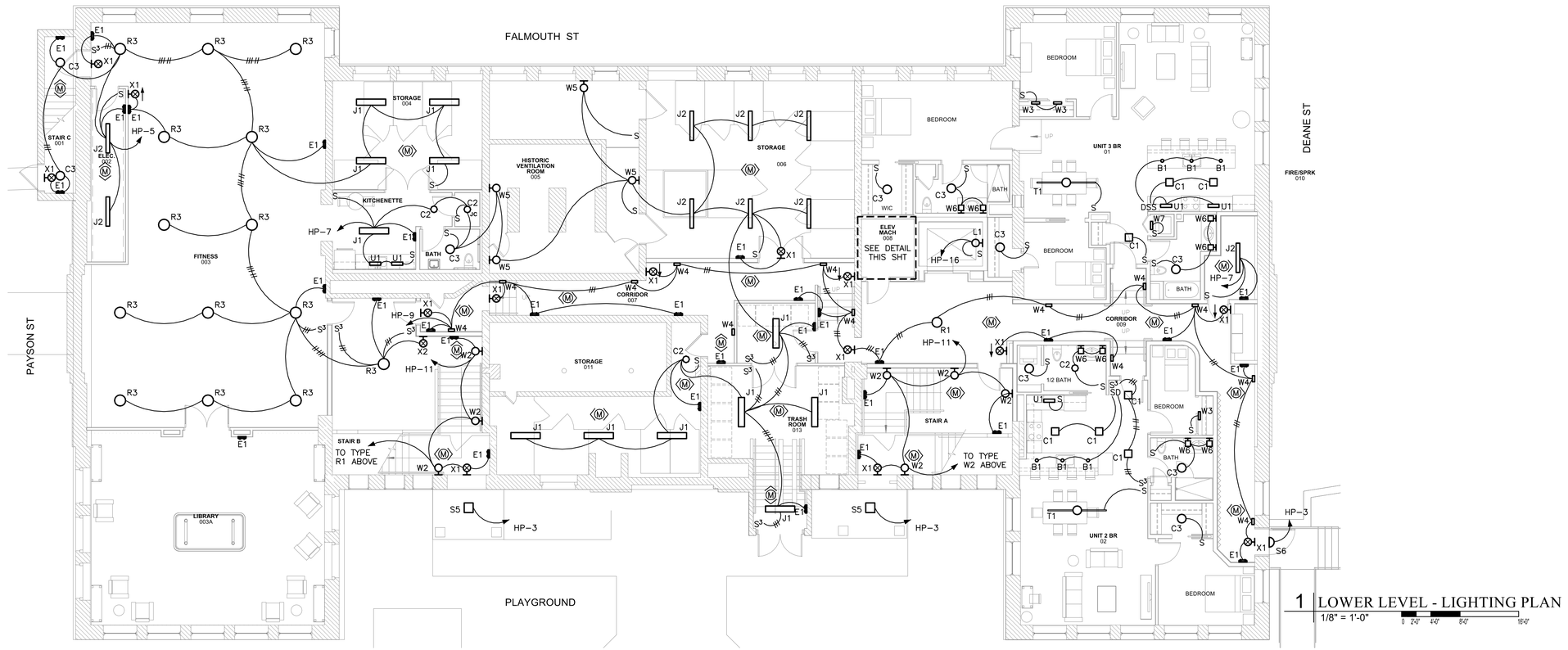
3 ELECTRICAL 002
1/4" = 1'-0"



2 LOWER LEVEL - ELECTRICAL PLAN
1/8" = 1'-0"



4 ELEV MACH RM 008
1/4" = 1'-0"



1 LOWER LEVEL - LIGHTING PLAN
1/8" = 1'-0"

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

STATE OF MAINE
LAWRENCE E. BARTLETT
No. 7928
REGISTERED PROFESSIONAL ENGINEER
Lawrence E. Bartlett

Prepared For:
Developers Collaborative

Consultant:
Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
942 WASHINGTON STREET, BATH, ME 04530
TEL (207) 443-5447 FAX (207) 443-5606

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-4622 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
80 Falmouth Street Portland, Maine

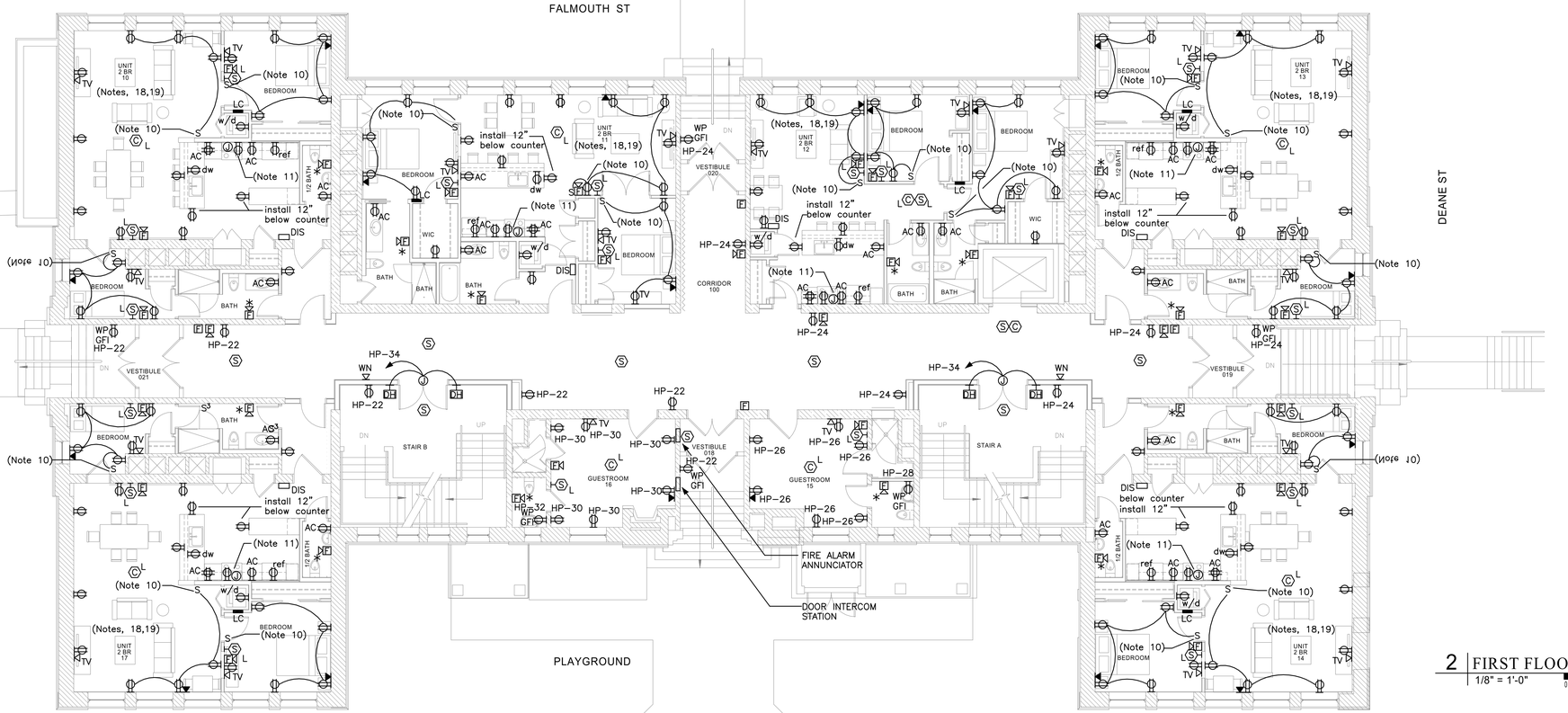
Revisions:

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

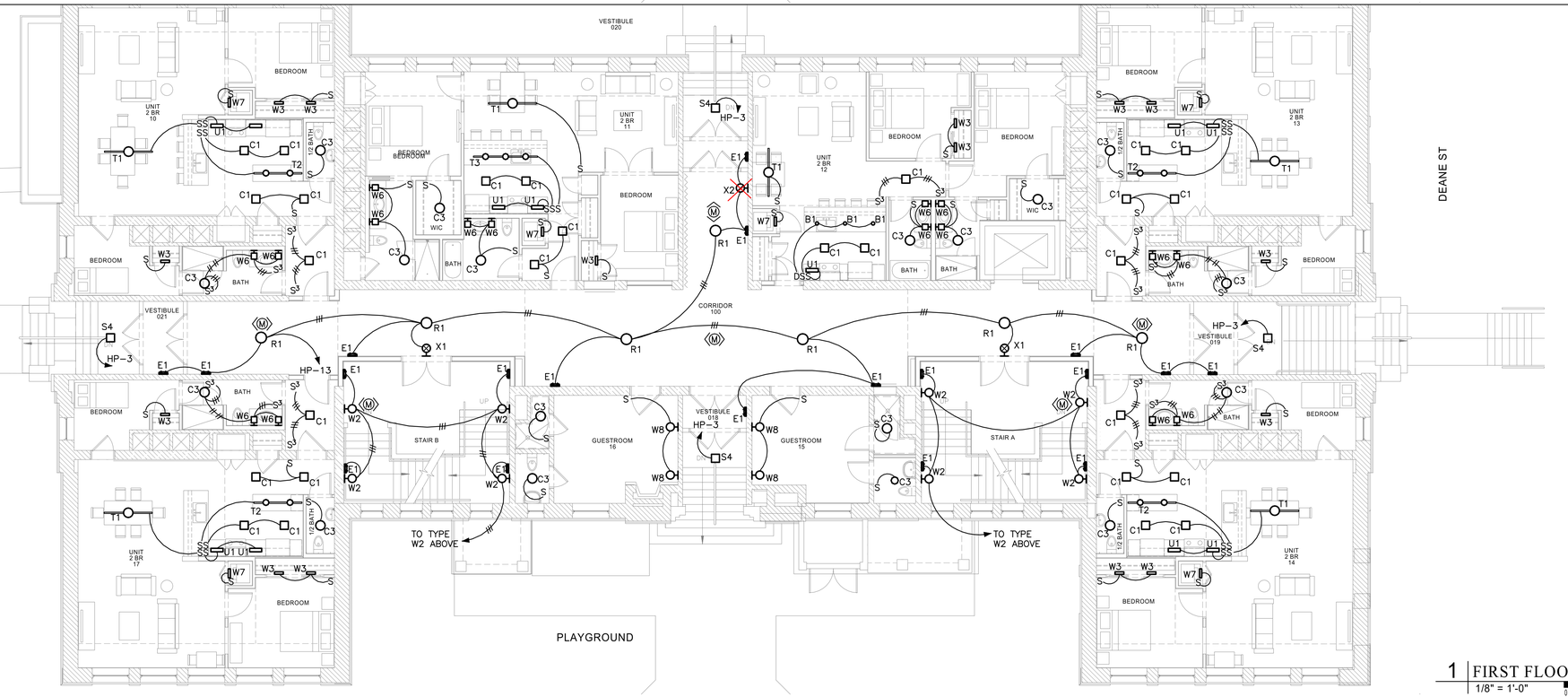
Date: 15 JAN 2013

LOWER LEVEL LIGHTING & ELECTRICAL PLANS

E1.01



2 FIRST FLOOR - ELECTRICAL PLAN
1/8" = 1'-0"



1 FIRST FLOOR - LIGHTING PLAN
1/8" = 1'-0"

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Inspections Division
Approved with Conditions
Date: 03/12/14

STATE OF MAINE
LAWRENCE E. BARTLETT
No. 7928
LICENSED PROFESSIONAL ENGINEER

Prepared For:
Developers Collaborative

Consultant:
Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
942 WASHINGTON STREET, BATH, ME 04530
TEL (207) 443-4447 FAX (207) 443-4666

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-4622 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
80 Falmouth Street Portland, Maine

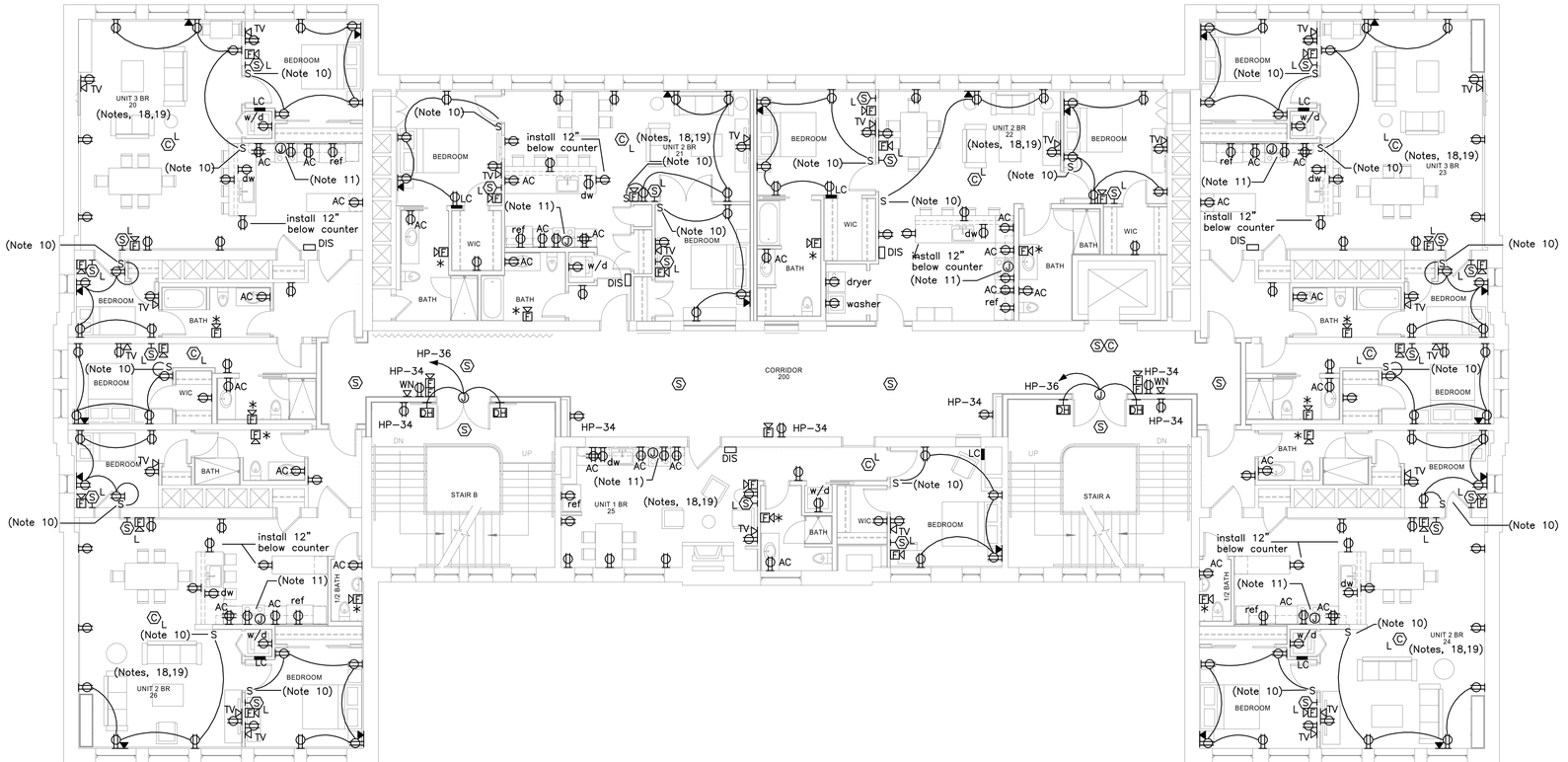
Revisions:

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

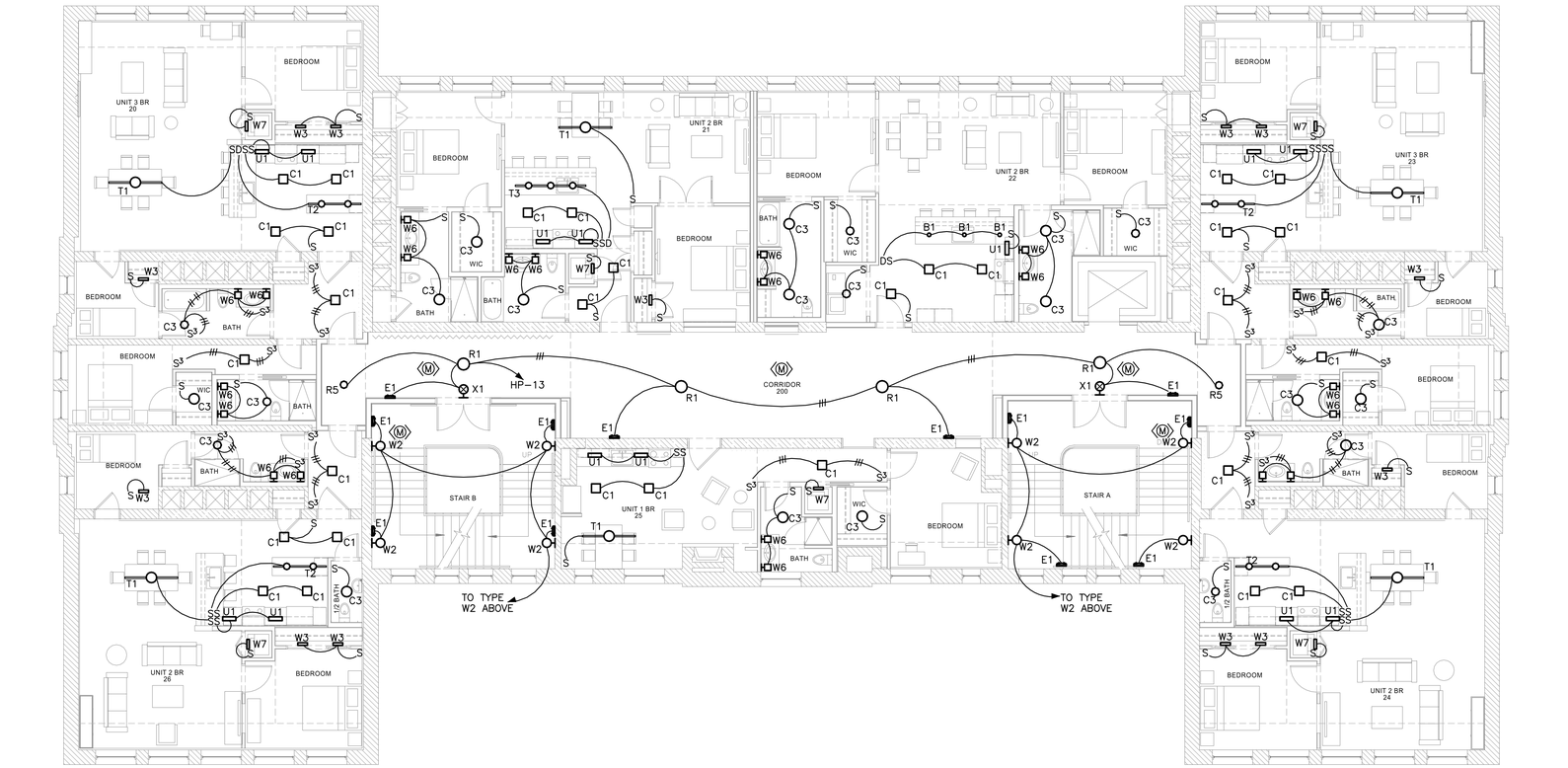
Date: 15 JAN 2013

FIRST FLOOR LIGHTING & ELECTRICAL PLANS

E1.02



2 SECOND FLOOR - ELECTRICAL PLAN
1/8" = 1'-0"



1 SECOND FLOOR - LIGHTING PLAN
1/8" = 1'-0"

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

STATE OF MAINE
LAWRENCE E. BARTLETT
No. 7928
REGISTERED PROFESSIONAL ENGINEER

Prepared For:
Developers Collaborative

Consultant:
Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
942 WASHINGTON STREET, BATH, ME 04530
TEL (207) 443-5447 FAX (207) 443-5600

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
80 Falmouth Street Portland, Maine

Revisions:

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

Date: 15 JAN 2013

SECOND FLOOR LIGHTING & ELECTRICAL PLANS

E1.03

2 | THIRD FLOOR - ELECTRICAL PLAN
1/8" = 1'-0"

1 | THIRD FLOOR - LIGHTING PLAN
1/8" = 1'-0"

STATE OF MAINE
LAWRENCE E. BARTLETT
No. 7928
REGISTERED PROFESSIONAL ENGINEER
LICENSED

Prepared For:
Developers Collaborative

Consultant:
Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
942 WASHINGTON STREET, BATH, ME 04530
TEL (207) 443-5447 FAX (207) 443-5060

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6602 ARCHETYPE@ARCHETYPEPA.COM

Project:
NATHAN CLIFFORD SCHOOL REDEVELOPMENT
80 Falmouth Street Portland, Maine

Revisions:

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

Date: 15 JAN 2013

THIRD FLOOR LIGHTING & ELECTRICAL PLANS

E1.04

CITY OF PORTLAND, MAINE — RESURGAM
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/12/14

Nathan Clifford

Code Review

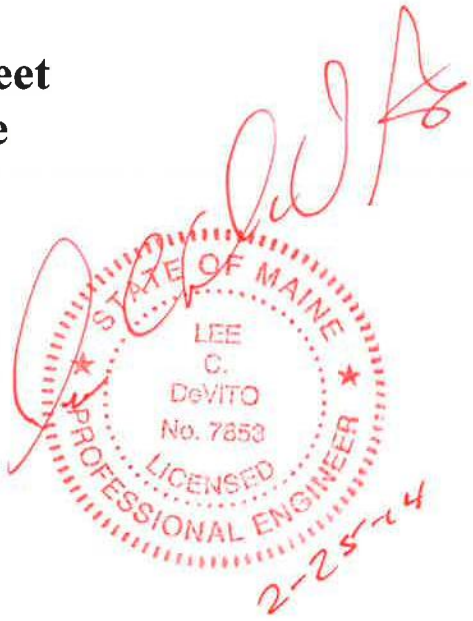
180 Falmouth Street
Portland, Maine

Prepared by:

FIREPRO® Incorporated

February 25, 2014

Revision 2



FIREPRO® Incorporated
1600 Osgood Street, 2082, North Andover, MA 01845
T: 781.270.5200 F: 781.229.2922
www.fireproincorporated.com

Introduction

The scope of this report is intended to document the code review results for the Nathan Clifford Building. This facility is located at 180 Falmouth Street, in Portland, Maine. The building is existing and it was formerly used as a school. It will be undergoing a change in occupancy from Educational E to Residential Group R-2. Both these occupancies have the same Hazard level. The building is currently vacant.

FIREPRO® makes all reasonable efforts to incorporate practical and advanced fire protection concepts into its advice. The extent to which this advice is carried out affects the probability of fire safety. It should be recognized, however, that fire protection is not an exact science. No amount of advice can, therefore, guarantee freedom from either ignition or fire damage.

Reference Documents

- Maine Uniform Building Code (MUBC)
- 2009 International Building Code (IBC)
- 2009 International Existing Building Code (IEBC)
- NFPA 101 Life Safety Code – 2009 Edition, with City of Portland Amendments
- City of Portland Fire Safety Regulations

Building Description

The Nathan Clifford Building has a lower level which is partially below grade, and three stories above grade. The lower level will contain accessory storage, a Fitness area, Trash Room, Elevator Machine Room, Sprinkler Room, and two living units. The first floor through the third floor will be living units. The roof will have Mechanical units on it. The current design indicates a total of 22 living units.

The International Existing Building Code requires that a building undergoing a change of occupancy classification be constructed in accordance with the requirements of the International Building Code (MUBC) for new construction. In some specific areas, exceptions are allowed. Those exceptions are noted

Occupancy Classification

Building Codes

The renovated building will be an R-2 Occupancy as defined by Section 310 of the MUBC.

The building is reviewed in accordance with NFPA 101, *Life Safety Code*, 2009 edition, Chapters 30, New Apartment Buildings, and 43, Building Rehabilitation; the International Building Code, 2009 edition, and the International Existing Building Code, 2009 edition.

Type of Construction

According to the architect, the Construction Type is IIIB.

The Life Safety Code, Section 30.1.6, states that there are no special construction requirements for the building

Height and Area Requirements

MU Building Code

Table 503 of the MUBC outlines the height and area limitations for a building or structure based on its type of construction. Table 601 of the MUBC outlines the fire-resistance ratings of certain building elements required to meet Type IIIB.

Table 503 – Allowable building height and areas

For an R-2 Occupancy, a Type IIIB construction building has limits of four (4) stories and 16,000 square feet per story. The Nathan Clifford building has four (4) stories. The largest proposed floor area is 11,508 square feet. This falls within the limits for Type IIIB construction.

Fire Resistance Rating

MU Building Code

The MUBC, in Table 601 lists the fire resistance rating requirement for Type IIIB construction as:

Structural Frame:	0 Hours
Exterior Bearing Walls:	2 Hours
Interior Bearing Walls:	0 Hours
Non-Bearing Walls and Partitions:	0 Hours
Floor Construction and Secondary Members:	0 Hours
Roof Construction and Secondary Members:	0 Hours

In accordance with the MUBC, Section 708.4, because there are four floors in the building, shaft enclosures must have a fire rating of two hours. A review of the drawings shows that all shaft enclosures will have a rating of two hours.

The elevator lobby is not enclosed. In accordance with the MUBC, Section 708.14.1, Exception 4, "Enclosed elevator lobbies are not required where the building in protected by an automatic sprinkler system designed in accordance with 903.3.1.2 (NFPA 13R system)".

The building will have an NFPA 13R sprinkler system. Therefore, the elevator lobbies are not required to be enclosed.

Life Safety Code

Chapter 30, New Apartment Buildings, Section 30.1.6, Minimum Construction Requirements, states that there are no special construction requirements.

Fire Partitions

MU Building Code

Corridor Fire Partitions (Non Brg): ½ hour	*Table 1018.1 & Sect 709.3 Ex.1*
Corridor Doors: 0.33 hour in 1-hour wall	*Table 715.4*
Corridor Doors to have smoke control	*Sect. 715.4.3.1*
Dwelling Unit Wall Separation: 1 hour	*Sect. 709.3*
Floor Assembly between Dwelling Units: 1 hr	*Sect 712.3*

MUBC Section 420.2 states that walls separating dwelling units in the same building and walls separating dwelling units from other occupancies contiguous to them in the same building shall be constructed as fire partitions in accordance with MUBC Section 709. MUBC Section 420.3 states that floor assemblies separating dwelling units in the same building and floor assemblies separating dwelling units from other occupancies contiguous to them in the same building shall be constructed as horizontal assemblies in accordance with MUBC Section 712.

MUBC Section 709.3 states that fire partitions shall have a fire resistance rating of not less than one hour. Exception 1 allows corridor walls to have a rating of ½ hour. Exception 2 allows dwelling unit separation in buildings of Type IIIB construction to have a fire resistance rating of not less than ½ hour in buildings equipped with an automatic sprinkler system in accordance with Section 903.3.1.1. Because the sprinkler system in the Nathan Clifford building is a 13R system, the exceptions in Section 709.3 do not apply, and the fire partitions must have a fire resistance rating of one hour.

MUBC Section 712.3, last sentence, states that horizontal assemblies separating dwelling units in the same building shall be a minimum of one hour fire-resistance-rated construction. The Exception to this section states that dwelling unit separations in buildings of Type IIIB construction shall have fire resistance ratings of not less than ½ hour in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, if an NFPA 13 sprinkler system is used. Because the sprinkler system in the Nathan Clifford building is a 13R system, the exception in Section 712.3 does not apply, and the horizontal (floor) assemblies must have a fire resistance rating of one hour.

MUBC Section 715.4.3.1 states that fire door assemblies shall meet the requirements for a smoke and draft control door assembly.

A review of the drawings indicates that the fire resistance of the Corridor Fire Partitions, the Corridor Doors, the Dwelling Unit Wall separation and the Floor Assemblies will have the required rating; and that the Corridor Doors will meet the requirements for a smoke and draft control assembly.

Fire Protection Systems

MU Building Code

MUBC Section 903.2.8 states that an automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area

Life Safety Code

Section 30.3.5.1, states that all buildings shall be protected throughout by an approved automatic sprinkler system.

The building will have a sprinkler system designed in accordance with NFPA 13R, which will meet the above requirements.

Fire Alarm and Detection Systems

MU Building Code

MUBC Section 907.2.9 Group R-2, states that fire alarm systems and smoke alarms shall be installed in Group R-2 occupancies as required in Sections 907.2.9.1 and 907.9.2. Section 907.2.9.1, Exception 2, states that manual fire alarm boxes are not required "where an automatic sprinkler system is installed in accordance with 903.3.1.2 (NFPA 13R)" and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler water flow.

MU Section 907.2.9.2 Smoke alarms, states that single- and multiple-station smoke alarms shall be installed inside the dwelling units, in accordance with 907.2.11.2 for Group R-2.

Life Safety Code
Section 30.3.4.1.1 states that apartment buildings four or more stories in height, or with more than 11 dwelling units, shall be provided with a fire alarm system in accordance with Section 9.6, except as modified by 30.3.4.2 through 30.3.4.6.

Section 30.3.4.2.1 requires manual initiation of the fire alarm system unless there are no more than 16 units; and the building is protected by an approved, supervised automatic sprinkler system.

In buildings protected by such a system, the fire alarm system shall be initiated upon operation of the automatic sprinkler system.

An automatic fire alarm system, including manual fire alarm boxes, will be installed; and single and multi-station smoke detectors will be installed. This meets the fire alarm system requirements of both codes.

Standpipe System

In accordance with the IEBC, Section 704.3 Standpipes, where the work area includes exits or corridors shared by more than one tenant, and is located more than 50 feet above or below the lowest level of fire department access, a standpipe system shall be provided. There are no exits or corridors located more than 50 feet above or below the lowest level of fire department access for this building. Therefore, standpipes are not required by code.

Although not required, the architect has decided to install one standpipe in the building. It will be a Class I standpipe, and fire department connections will be installed as approved by the fire chief.

Egress Requirements

MU Building Code

Egress Components	*Code Section*	*Requirement (with sprinklers)*	*Provided/Not Provided*
Capacity of Exit Stairs	MUBC 1005.1	0.3 inches per occupant or 44 inches minimum	Stair A and Stair B are 65 inches wide
Maximum Dead-end distance (Group R-2)	MUBC 1018.4	50 ft	Appears to be less than 15 feet
Maximum Common Path of Travel (R-2)	MUBC 1014.3	50 ft	Appears to be less than 20 feet
Minimum Exit Access Door Width	MUBC 1008.1.	0.2 inches per occupant or 32 inches minimum	Appears to be 8 feet
Maximum Exit Access Travel Distance (Group R)	MUBC 1016.1	250 ft	Appears to be approximately 80 feet

Life Safety Code
Means of Egress requirements are provided in Chapter 7, and are consistent with the Building Code requirements.

Number of Exits

MU Building Code

Means of Egress (Based on MSBC Table 1021.1 – Minimum number of exits for occupant load)

	Number of Exits	
Floor level	Required	Provided
Basement	2	2
First Floor	2	2
Second Floor	2	2
Fifth Floor	2	2

Life Safety Code

Every dwelling unit shall have access to at least two separate exits remotely located from each other, which is provided.

A review of the drawings indicates that the minimum number of exits has been provided.

Illumination of Means of Egress and Exit Signs

MU Building Code

All means of egress require illumination at all times when the space served by that means of egress is occupied. This does not apply to dwelling units and sleeping units within Group R-2 Occupancies.

Life Safety Code

Continuous illumination shall be provided in all stairs, aisles, corridors, ramps, escalators and passageways leading to an exit. Exit signs shall be provided no more than 100 feet from any viewing point in an exit corridor.

Emergency lighting shown in the drawing package, appears to meet the above requirements.

Additional Design Questions

FIREPRO was requested to investigate and respond to three additional questions.

1. With respect to the handrails, is it necessary to add a handrail in the middle of the stair well?

   This was reviewed. According to the drawings, the width of the stair between the handrails on either side is 5'-5" (65") in Stair A and Stair B. In the International Existing Building Code (IEBC), Chapter 9, Change of Occupancy, Section 912.4.4

states that Handrails shall comply with the requirements of 705.9, Handrails. Section 7.5.9.1, Minimum requirement, states that every required stairway that is a part of a means of egress…shall be provided with handrails for the full length of the run of the steps on at least one side. All exit stairways with a required egress width of more than 66 inches shall have a handrail on both sides.

The Life Safety Code, Section 7.2.2.4.1.2 (2), states that for existing stairs, Handrails are required within 44 inches of all portions of the required egress width.

While there is no direct statement that addresses the specific situation in the Nathan Clifford building, it is *FIREPRO*'s professional opinion that the above information can be interpreted to mean that a center handrail is not required.

2. Are the existing handrails required to comply with the requirements regarding full extensions of the handrails?

   The IEBC, Historic Buildings, Section1103.9, states that existing handrails and guards at all stairs shall be permitted to remain, provided they are not structurally dangerous.

   The MUBC, Section 3404.1 General, Exception 2, states that Handrails otherwise required to comply with the requirements of Section 1012.6 regarding full extension of handrails are exempted where such extensions would be hazardous due to plan configuration.

   ***FIREPRO* is not qualified to make the determination as to whether the extensions would be hazardous, however, the exemptions exist.**

3. Can the existing doors to the rooms be used as doors to the individual units? There are various sections in the International Existing Building Code that address this. Section 912.4.1, Means of egress for change to a higher hazard category, does not apply to this building, as our occupancy change is to an equal hazard category. However, it does provide information on the use of existing doorways in Exception 5. That exception states that existing corridor doorways, transoms, and other corridor openings shall comply with the requirements of Section 705.5.1, 705.5.2, and 705.5.3.

   Chapter 7 is titled Alterations – Level 2. Section 705.5.1 discusses corridor doors. It says that all dwelling unit or sleeping unit doors in R-2 occupancies shall be at least 1 3/8 inch solid core wood or approved equivalent, and shall not have any glass panels other than approved wired glass or other approved glazing material in metal frames. All dwelling units or sleeping units in Group R-2 shall be equipped with approved door closers. There are two exceptions that apply – one of existing doors that meet the requirements of HUD Guidelines of Fire Rating of Archaic Materials and Assemblies for a rating of 15 minutes or more- and - one that existing doors in buildings protected throughout with an approved automatic sprinkler system shall be

required only to resist smoke, be reasonably tight fitting, and shall not contain louvers.

Section 705.5.2, Transoms, says that for an R-2 occupancy, all transoms in corridor walls shall be either glazed with ¼ inch wired glass set in metal frames, or other glazing assemblies having a fire-protection rating as required for the door and permanently secured in the closed position or sealed with material consistent with the corridor construction.

While this situation does not apply directly to our "equal hazard" category, it would seem reasonable that, if it is desirable to use the existing corridor doors and any existing transoms, it would be reasonable to discuss this with the fire department, to find out if they would accept it.

Conclusions

FIREPRO®'s conclusions are based on a review of the Bid Set 2014_01-15 drawing package submitted by the designer.

END

Inspections Division
Date: 03/12/14

PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • www.portlandmaine.gov

Jeff Levine, AICP, Director
Director of Planning and Urban Development

Tammy Munson
Director, Inspections Division

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a ***legal signature*** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no permit application can be reviewed until payment of appropriate permit fees are ***paid in full*** to the Inspections Office, City of Portland Maine by method noted below:

☐ Within 24-48 hours, once my complete permit application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☐ Within 24-48 hours, once my permit application and corresponding paperwork has been electronically delivered, I intend to **hand deliver** a payment method to the Inspections Office, Room 315, Portland City Hall.

☐ I intend to deliver a payment method through the U.S. Postal Service mail once my permit paperwork has been electronically delivered.

Applicant Signature: David Lloyd Date: 1/16/14

I have provided digital copies and sent them on: Date: 1/16/14

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means ie; a thumb drive or CD to the office.

New Commercial
Permit Application Checklist

Inspections Division
Date: 03/12/14

All of the following information is required and must be submitted. Checking off each item as you prepare your application package will ensure your package is complete and will help to expedite the permitting process.

One (1) complete Set of construction drawings must include:

Note: Construction documents for costs in excess of $50,000.00 must be prepared by a Design Professional and bear their seal.

- ☐ Cross sections w/framing details
- ☐ Detail of any new walls or permanent partitions
- ☐ Floor plans and elevations
- ☐ Window and door schedules
- N/A ☐ Foundation plans with rebar specifications and required drainage and damp proofing (if applicable)
- ☐ Detail egress requirements and fire separations
- ☐ Insulation R-factors of walls, ceilings, floors and U-factors of windows as per the IEEC 2009
- ☐ Complete the Accessibility Certificate and The Certificate of Design
- N/A ☐ A statement of special inspections as required per the IBC 2009
- This project is design build ☐ Complete electrical and plumbing layout.
- ☐ Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment, HVAC equipment (air handling) or other types of work that may require special review.
- ☐ Reduced plans or electronic files in PDF format are required if originals are larger than 11" x 17".
- ☐ Per State Fire Marshall, all new bathrooms must be ADA compliant.

Separate permits are required for internal & external plumbing, HVAC and electrical installations.

Nine (9) copies of the minor (< 10,000 sf) or major (> 10,000 sf) site plan application is required that includes:

- ☐ A stamped boundary survey to scale showing north arrow, zoning district and setbacks to a scale of ≥ 1" = 20' on paper ≥ 11" x 17"
- ☐ The shape and dimension of the lot, footprint of the proposed structure and the distance from the actual property lines. Photocopies of the plat or hand draw footprints not to scale will not be accepted.
- ☐ Location and dimensions of parking areas and driveways, street spaces and building frontage
- ☐ Finish floor or sill elevation (based on mean sea level datum)
- ☐ Location and size of both existing utilities in the street and the proposed utilities serving the building
- ☐ Existing and proposed grade contours
- ☐ Silt fence (erosion control) locations

Building Inspections Division · 389 Congress Street · Portland, Maine 04101 · (207) 874-8703 · FACSIMILE (207) 874-8716 · TTY (207) 874-8936

Inspections Division
Date: 03/12/14

Fire Department requirements.

The following shall be submitted on a separate sheet:

- ☐ Name, address and phone number of applicant **and** the project architect.
- ☐ Proposed use of structure (NFPA and IBC classification)
- ☐ Square footage of proposed structure (total and per story)
- ☐ Existing and proposed fire protection of structure.
- ☐ Separate plans shall be submitted for
    a) Suppression system
    b) Detection System (separate permit is required)
- ☐ A separate Life Safety Plan must include:
    a) Fire resistance ratings of all means of egress
    b) Travel distance from most remote point to exit discharge
    c) Location of any required fire extinguishers
    d) Location of emergency lighting
    e) Location of exit signs
    f) NFPA 101 code summary
- ☐ Elevators shall be sized to fit an 80" x 24" stretcher.

For questions on Fire Department requirements call the Fire Prevention Officer at (207) 874-8405.

Please submit all of the information outlined in this application checklist. If the application is incomplete, the application may be refused.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

Permit Fee: $30.00 for the first $1000.00 construction cost, $10.00 per additional $1000.00 cost

This is not a Permit; you may not commence any work until the Permit is issued.

Inspections Division
Date: 03/12/14

General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Address/Location of Construction: 172-186 Falmouth Street		
Total Square Footage of Proposed Structure:	11,508	
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# 066A A001	**Applicant Name:** Kevin Bunker Developers Collaborative Predevelopment, LLC Address 17 Chestnut Street City, State & Zip Portland, ME 04101	Telephone: 207-766-1632 Email: bunker.kevin@gmail.
Lessee/Owner Name : (if different than applicant) Address: City, State & Zip: Telephone & E-mail:	**Contractor Name:** CCB (if different from Applicant) Address: 65 Bradley Drive City, State & Zip: Westbrook, ME 04092 Telephone & E-mail: (207) 464-2626 hlumb@ccb-inc.	Cost Of Work: $ 4,100,000 C of O Fee: $ 1,650 Historic Rev $ Paid **Total Fees : $** 42,670

Current use (i.e. single family) Vacant
If vacant, what was the previous use? School
Proposed Specific use: Apartments
Is property part of a subdivision? No If yes, please name _____
Project description:
Renovation of existing building, previously an elementary school to apartments/condos.

Who should we contact when the permit is ready:	Heather Lumb, CCB
Address:	65 Bradley Drive
City, State & Zip:	Westbrook, ME 04092
E-mail Address:	hlumb@ccb-inc.com
Telephone:	(207) 887-3228

Please submit all of the information outlined on the applicable checklist. Failure to do so causes an automatic permit denial.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

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

Signature: David Lloyd **Date:** 1/16/14

This is not a permit; you may not commence ANY work until the permit is issued.

Certificate of Design Application

Inspections Division
Date: 03/12/14

From Designer: David Lloyd - Archetype

Date: 1/16/14

Job Name: Nathan Clifford Residences

Address of Construction: 172-186 Falmouth Street

2009 International Building Code

Construction project was designed to the building code criteria listed below:

Building Code & Year IBC 2009 Use Group Classification (s) R-2 Residential

Type of Construction 3B

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC Yes

Is the Structure mixed use? No If yes, separated or non separated or non separated (section 302.3) Yes

Supervisory alarm System? No Geotechnical/Soils report required? (See Section 1802.2) No

Structural Design Calculations

_____ Submitted for all structural members (106.1 – 106.11)

Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown
Private Rooms	40 psf
Public Rooms and (	100 psf
Stairs	100 psf

Wind loads (1603.1.4, 1609)

N/A Design option utilized (1609.1.1, 1609.6)

N/A Basic wind speed (1809.3)

N/A Building category and wind importance Factor, I_w table 1604.5, 1609.5)

N/A Wind exposure category (1609.4)

N/A Internal pressure coefficient (ASCE 7)

N/A Component and cladding pressures (1609.1.1, 1609.6.2.2)

N/A Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

N/A Design option utilized (1614.1)

N/A Seismic use group ("Category")

N/A Spectral response coefficients, S_{Ds} & S_{D1} (1615.1)

N/A Site class (1615.1.5)

ASCE7-05 Live load reduction

N/A Roof *live* loads (1603.1.2, 1607.11)

46 psf Roof snow loads (1603.7.3, 1608)

60 psf Ground snow load, P_g (1608.2)

46 psf If P_g > 10 psf, flat-roof snow load P_f

1.0 If P_g > 10 psf, snow exposure factor, C_e

1.0 If P_g > 10 psf, snow load importance factor, I_s

1.1 Roof thermal factor, C_t (1608.4)

N/A Sloped roof snowload, P_s (1608.4)

N/A Seismic design category (1616.3)

N/A Basic seismic force resisting system (1617.6.2)

N/A Response modification coefficient, R_I and deflection amplification factor C_d (1617.6.2)

N/A Analysis procedure (1616.6, 1617.5)

N/A Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

N/A Flood Hazard area (1612.3)

N/A Elevation of structure

Other loads

N/A Concentrated loads (1607.4)

N/A Partition loads (1607.5)

N/A Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404

Inspections Division
Date: 03/12/14

Accessibility Building Code Certificate

Designer: David Lloyd - Archetype

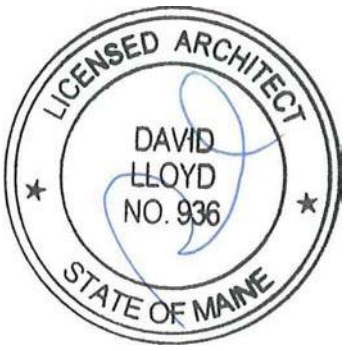
Address of Project: 172-186 Falmouth Street

Nature of Project: New apartments/condos occupancy in existing 3B renovated

Building will be renovated to provide accessible access to all

Renovation includes new ADA ramp an dengry from (2) hc p

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable.



Signature:

Title: Architect

Firm: Archetype Architects

Address: 48 Union Wharf

Portland, ME 04101

Phone: (207) 772-6022

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

Inspections Division
Date: 03/12/14

Certificate of Design

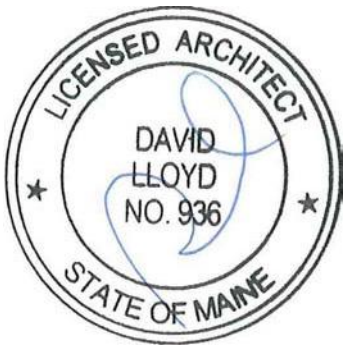
Date: 1/16/14

From: David Lloyd - Archetype

These plans and / or specifications covering construction work on:

Nathan Clifford Residences - 172-186 Falmouth Street

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the **2009 International Building Code** and local amendments.



Signature:

Title: Architect

Firm: Archetype - Architects

Address: 48 Union Wharf

Portland, ME 04101

Phone: (207) 772-6022

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

QUITCLAIM DEED

KNOW ALL PERSONS BY THESE PRESENTS, that the **CITY OF PORTLAND**, a body politic and corporate in the County of Cumberland, State of Maine, in consideration of one dollar ($1.00) and other valuable consideration paid by **NATHAN CLIFFORD LLC**, a Maine limited liability company with a mailing address of c/o Developers Collaborative, 17 Chestnut Street, Portland, Maine, 04101, the receipt whereof is hereby acknowledged, does hereby remise, release, bargain, sell and convey and forever quitclaim, without covenant, to the said NATHAN CLIFFORD LLC, its successors and assigns, a certain lot or parcel of land with the buildings and improvements thereon described in Schedule A, attached hereto and incorporated herein by reference.

IN WITNESS WHEREOF, the said City of Portland has hereunto caused this instrument to be signed by Ellen Sanborn, its duly authorized Director of Finance, this 2nd day of December, 2013.

MAINE REAL ESTATE TAX PAID

CITY OF PORTLAND

Witness

By: Ellen Sanborn
Director of Finance

APPROVED AS TO FORM:
CORPORATION COUNSEL'S OFFICE

STATE OF MAINE
CUMBERLAND, ss. December 2, 2013

Personally appeared the above-named Ellen Sanborn, the Director of Finance of the City of Portland, and acknowledged the foregoing instrument to be her free act and deed in said capacity and the free act and deed of the City of Portland.

Before me,

B.A. Notary Public/Attorney at Law

Lawrence C. Walden
Printed Name

LAWRENCE C. WALDEN
NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES APRIL 1, 2014

SEAL

O:\OFFICE\LARRY\Eco Dev\nathan clifford project\deed.doc

Doc#: 76417 Bk:31256 Pg: 196

SCHEDULE A

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

Beginning at the intersection of the southerly sideline of said, Falmouth Street and the westerly sideline of Deane Street;

Thence S 26° 25' 56" E along said Deane Street 446.73 feet to land now or formerly of Florence A. Young;

Thence S 63° 33' 48" W along said land of Young 100.03 feet;

Thence N 26° 25' 56" W along land now or formerly of Aaron P. Duffy, Mark D. Bubier, Francis J and Nancy L. Gallagher, and Charles F. Lerch 174.39 feet;

Thence S 63° 33' 48" W along said land of Lerch 100.03 feet to the easterly sideline of Payson Street;

Thence N 26° 25' 56" W along said Payson Street; 218.75 feet to said Falmouth Street;

Thence N 48°34' 04" E along said Falmouth Street 207.12 feet to the point of beginning, containing 66,570 square feet;

Bearings are based on Maine State Coordinate System, West Zone.

Being all the property described in deeds to the City of Portland recorded in the Cumberland County Registry of Deeds in Book 793, Pages 171 and 172, and a portion of the property described in a deed to the City of Portland recorded in said Registry of Deeds in Book 90, Page 81.

Received
Recorded Register of Deeds
Dec 27,2013 02:33:46P
Cumberland County
Pamela E. Lovley

Inspections Division
Date: 03/12/14

Jeanie Bourke - Re: Nathan Clifford / special inspections

From: Jeanie Bourke
To: David Lloyd
Date: 1/28/2014 8:48 AM
Subject: Re: Nathan Clifford / special inspections
CC: Kevin Bunker

Good Morning David,

The code does provide exceptions from Special Inspections if the work is considered of a minor nature. Based on your assessment of the amount and type of structural work at this project, these inspections will not be required.

Thank you for your understanding of the work load, staff ratio for plan review. This application was submitted on Jan. 16, while the volume of permits is large, we will keep this on our radar and notify you expeditiously if additional information is needed.

Thanks,
Jeanie

Jeanie Bourke
CEO/LPI/Plan Reviewer

City of Portland
Planning & Urban Development Dept./ Inspections Division
389 Congress St. Rm 315
Portland, ME 04101
jmb@portlandmaine.gov
Direct: (207) 874-8715
Office: (207) 874-8703

>>> David Lloyd <lloyd@archetypepa.com> 1/27/2014 10:49 AM >>>
Jeannie
As you know we are waiting for our building permit on the Nathan Clifford school conversion to housing. My question to you today is in regards to requirement of Special inspections . My interpretation of these requirements is that they would not be required with this renovation. The only structural work is the building of the shaft for the new elevator which I would classify as minor in nature, therefore relieving us of the requirements of special inspections . Please let me know if you are in agreement.
I would also like to drop a note to say that the timing of this project is critical in its financing and any speed in receiving the permit is greatly appreciated . That being said I do understand the workload you are under .

Thanks for your help

David

David Lloyd
Architect
Archetype, P.A.

Inspections Division
Date: 03/12/14

48 Union Wharf
Portland, ME 04101
Tele: (207) 772-6022
Fax: (207) 772-4056
Cell: (207) 831-8627
lloyd@archetypepa.com
http://www.archetype-architects.com

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

OMB A
No. 10
Form
R

Inspections Division
Date: 03/12/14

RECEIVED
DEC 2 3 2013
NATIONAL PARK SERVICE
TAX INCENTIVE PROGRAM

HISTORIC PRESERVATION CERTIFICATION APPLICATION
PART 2 – DESCRIPTION OF REHABILITATION

NPS Project Number 29808

Instructions: This page of the form must appear exactly as below and must bear the owner's original signature. Other sections may be expanded as needed or continued on blank pages. The National Park Service certification decision is based on the descriptions in this application form. In the event of any discrepancy between the application form and other, supplementary material submitted with it (such as architectural plans, drawings and specifications), the application form takes precedence. A copy of this form will be provided to the Internal Revenue Service.

1. Property Name Nathan Clifford School

Street 180 Falmouth Street

City Portland County Cumberland State ME Zip 04102

Name of Historic District

☒ Listed individually in the National Register of Historic Places; date of listing Nomination review in progress

☐ Located in a Registered Historic District; name of district

☒ Part 1 – Evaluation of Significance submitted? Date submitted Herein Date of certification

2. Data on building and rehabilitation project

Date of construction 1907 Cost of rehabilitation (estimated) $6.9 million

Type of construction steel interior framing/masonry bearing walls Floor area before / after rehabilitation 45,712 / 45,712

Start date (estimated) March 1, 2014 Use(s) before / after rehabilitation vacant school / rental apartments

Completion date (estimated) December 31, 2013 Number of housing units before / after rehabilitation 0 / 21 22 KRB

This application covers phase number 1 of 1 phases Number of low-moderate income housing units before / after rehabilitation 0 / 0

3. Project Contact (if different from Owner)

Name Christine Beard/*Tremont Preservation Services*

Street 21 Market Street Suite 250 City Ipswich

State MA Zip 01938 Telephone 978-356-0322

4. Owner

I hereby attest that the information I have provided is, to the best of my knowledge, correct and that I own the property described above. I understand that falsification of factual representations in this application is subject to criminal sanctions of up to $10,000 in fines or imprisonment for up to five years pursuant to 18 USC 1001.

Name Kevin Bunker Signature Date 11/15/13

Organization Nathan Clifford LLC Social Security OR Taxpayer ID Number 46-3960576

Street 17 Chestnut Street City Portland

State ME Zip 04101 Telephone 207-772-7673

NPS Official Use Only

The National Park Service has reviewed the Historic Certification Application – Part 2 for the above-named property and has determined that:

☐ the rehabilitation described herein is consistent with the historic character of the property and, where applicable, with the district in which it is located and that the project meets the Secretary of the Interior's Standards for Rehabilitation. This letter is a preliminary determination only, since a formal certification of rehabilitation can be issued only to the owner of a "certified historic structure" after rehabilitation work is complete.

☒ the rehabilitation or proposed rehabilitation will meet the Secretary of the Interior's Standards for Rehabilitation if the attached conditions are met.

☐ the rehabilitation described herein is not consistent with the historic character of the property or the district in which it is located and that the project does not meet the Secretary of the Interior's Standards for Rehabilitation.

1/24/2014 Jo Ellen Hensley

Date National Park Service Authorized Signature

☒ See Attachments

Condition Sheet

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

CONDITIONS SHEET
Historic Preservation Certification Application

Project Number: 29808

Property name: Nathan Clifford School

Property address: 180 Falmouth Street
Portland, ME

The rehabilitation of this property as described in the Historic Certification Application will meet the Secretary of the Interior's Standards for Rehabilitation provided that the following condition(s) is/are met:

Item No. 1
Repointing mortar must match the color, texture, strength, joint width and joint profile of the existing historic mortar. Specifications, repointing samples and any proposed replacement brick should be reviewed and approved by the SHPO prior to proceeding with this work. Good quality overall and close-up photos of the masonry before and after repointing must be submitted with the Request for Certification of Completed Work. Cleaning of all masonry must be undertaken utilizing the gentlest means possible.

Item No. 2
The few remaining original double hung wood windows must be retained unless they are in poor condition. If the windows cannot be restored due to their condition, further information documenting this must be submitted for review and approval.

Item No. 6
Elevations and/or cross-sections showing the amount of glazing in the proposed fire-rated stair enclosures must be provided for review and approval. to maintain a visual connection between the corridor & stairs.

Item No. 12
A soffit retaining the top of the original partition wall between the Library/Teachers' Room must be retained to show the historic configuration of the rooms.

Item No. 14
The two Hawthorn trees proposed near the south entrance would obscure the south elevation of the main block and must not be planted in that location. Smaller plantings may be substituted.

Item No. 9 – The historic doors on the corridor that are not used as unit entries must be fixed-in-place within a door surround, not just surface mounted on the wall.

12/17/2013 — Kirk F. Mohney, Deputy SHPO — State Contact Telephone Number
Date — State Official Signature

The National Park Service has determined that this project will meet the Secretary of the Interior Standards for Rehabilitation if the condition(s) listed in the box above are met.

1/24/2014 — J. Allen Hensley — Telephone Number
Date — National Park Service Signature

4. National Park Service Certification

I hereby certify that this property is:

✓ entered in the National Register
___ determined eligible for the National Register
___ determined not eligible for the National Register
___ removed from the National Register
___ other (explain:)

Jon Edson A. Beall — 12.18.13

Signature of the Keeper — **Date of Action**

5. Classification

Ownership of Property

(Check as many boxes as apply.)

Private ☐
Public – Local ☒
Public – State ☐
Public – Federal ☐

Category of Property

(Check only **one** box.)

Building(s) ☒
District ☐
Site ☐
Structure ☐
Object ☐

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

OMB Appr
No. 1024-
Form 10-
Rev. 2011

HISTORIC PRESERVATION CERTIFICATION APPLICATION
PART 1 – EVALUATION OF SIGNIFICANCE

NPS Project Number 29808

Instructions: This page of the form must appear exactly as below and must bear the owner's original signature. Other sections may be expanded as needed or continued on blank pages. The National Park Service certification decision is based on the descriptions in this application form. In the event of any discrepancy between the application form and other, supplementary material submitted with it (such as architectural plans, drawings and specifications), the application form takes precedence. A copy of this form will be provided to the Internal Revenue Service.

1. **Property Name** Nathan Clifford School
   Street 180 Falmouth Street
   City Portland County Cumberland State ME Zip 04102
   Name of Historic District
   ☐ National Register district ☐ certified state or local district ☐ potential district

2. **Nature of request** (check only one box)
   ☐ certification that the building contributes to the significance of the above-named historic district or National Register property for rehabilitation purposes.
   ☐ certification that the building contributes to the significance of the above-named historic district for a charitable contribution for conservation purposes.
   ☐ certification that the building does not contribute to the significance of the above-named district.
   ☑ preliminary determination for individual listing in the National Register.
   ☐ preliminary determination that a building located within a potential historic district contributes to the significance of the district.
   ☐ preliminary determination that a building outside the period or area of significance contributes to the significance of the district.

3. **Project contact** (if different from Owner)
   Name Christine Beard / Tremont Preservation Services
   Street 21 Market Street City Ipswich
   State MA Zip 01938 Telephone 978-356-0322

4. **Owner**

I hereby attest that the information I have provided is, to the best of my knowledge, correct and that I own the property described above. I understand that falsification of factual representations in this application is subject to criminal sanctions of up to $10,000 in fines or imprisonment for up to five years pursuant to 18 USC 1001.

Name Kevin Bunker Signature [signature] Date 11/15/13
Organization Nathan Clifford LLC Social Security OR Taxpayer ID Number 46-3960576
Street 17 Chestnut Street City Portland
State ME Zip 04101 Telephone 207-772-7673

NPS Official Use Only

The National Park Service has reviewed the Historic Certification Application – Part 1 for the above-named property and has determined that the property:

☐ contributes to the significance of the above-named district (or National Register property) and is a "certified historic structure" for rehabilitation purposes.
☐ contributes to the significance of the above-named district and is a "certified historic structure" for a charitable contribution for conservation purposes.
☐ does not contribute to the significance of the above-named district.

Preliminary Determinations:

☑ appears to meet the National Register Criteria for Evaluation and will likely be listed in the National Register of Historic Places if nominated by the State Historic Preservation Officer according to the procedures set forth in 36 CFR Part 60.
☐ does not appear to meet the National Register Criteria for Evaluation and will likely not be listed in the National Register.
☐ appears to contribute to the significance of a potential historic district, which will likely be listed in the National Register of Historic Places if nominated by the State Historic Preservation Officer.
☐ appears to contribute to the significance of a registered historic district but is outside the period or area of significance as documented in the National Register nomination or district documentation on file with the NPS.
☐ does not appear to qualify as a certified historic structure.

12/23/13 [signature]
Date National Park Service Authorized Signature

☒ See Attachments

21 February 2014

Jeanie Bourke

City of Portland
Planning & Urban Development Dept./ Inspections Division

RE: Nathan Clifford Redevelopment – Portland, Maine

Ms. Bourke,

Following are responses to your comments on our team's application for permit:

1. **Comment digitally attached to "Relevant Codes" on Cover Page CS1.1 by Ms. Bourke:**

   "Additional Occupancy Classifications

   Please provide a code review to identify each of the accessory or occupied spaces in the building, ie. fitness room, library, yoga room, kitchenette and storage areas and specify the mixed use classifications as separated or nonseparated."

   Response: The Nathan Clifford Redevelopment project is a renovation and repurposing of an existing school building into condominiums. In the lower level where units are not being located (previously used as a gym), excess space has been repurposed for the tenants as amenities; library, workout space, or storage. As such these amenities will be for the private use of the tenants and are considered as accessory use to R-2. Access to these spaces are intended for the use of building tenants only and controlled through keycard entry.

   Table 503 allowable area and floors per occupancy;

   A-3 – The allowable 9,500sqft for 2 floors is greater than the aggregate 2,492 sqft of the library, exercise, yoga, & kitchenette at the lower level, prior increases provided by 504.2

   R-2 – The allowable 16,000sqft for 4 floors is greater than the average 11,500 sqft floor plate area of the building for 4 floors, prior increases provided by 504.2

   S-1 – The allowable 17,500 sqft for 3 floors is greater than the aggregate 1,634 sqft of the storage rooms and trash room at the lower level, prior increases provided by 504.2

   The following IBC exceptions provide for the fitness room, library yoga room, & kitchenette to be considered as accessory use to R-2.

   IBC 303.1 exception 2 – 'demonstrate an occupant load of less than 50'

   Fitness room – Table 1004.1 – 'Exercise Room – 50 gross' – At 1335 sqft the occupant load is 27 people

   Kitchenette – Table 1004.1 – 'Assembly – standing – 7 net' – At 118 sqft the occupant load is 17 people

   Yoga Room – Table 1004.1 – 'Exercise Room – 50 gross' – At 304 sqft the occupant load is 7 people

   Library – Table 1004.1 – 'Assembly – tables & chairs – 15 net' – with a net area of 735 sqft the occupant load is 49 people.

   The following IBC exceptions/provision provide exception for the storage to be considered as accessory use to R-2

   IBC 508.3.1- "Non-separated occupancies shall be individually classified in accordance with section 302.1. the requirements of this code shall apply to each portion of the building based on the occupancy classification of that space except that the most restrictive applicable provisions of section 403 and chapter 9 shall apply to the building or portion thereof in which the non-separated occupancies are located."

   Section 403- Nathan Clifford building at 50'-1"is less than 75 ft tall and therefor is not considered a high-rise. Therefor section 403 which regulates high-rise construction is not applicable.

   Chapter 9- Nathan Clifford will be fully protected by an automatic sprinkler NFPA 13R, provided with a fire alarm and portable fire extinguishers as outlined in Chapter 9.

2. **Comment digitally attached to "General Notes" on Page GN1.1 by Ms. Bourke:**

"Specification Manuals

Provide specifications manuals or at the very least cut sheets on firestopping and structural components."

Response: See the attached for firestopping and structural specifications requested.

3. **Comment digitally attached to "Roof Plan" on Page 1/A1.05 by Ms. Bourke:**

"Structural Assessment

Provide a structural assessment report of the roof structure for capability for additional loads imposed by equipment or insulation."

Response: The addition of rooftop units has been reviewed by the project's structural engineer and found that the existing roof structure is capable of handling the additional load included in the work. With this being said our structural engineer is currently on vacation and is unavailable. We request that the city proceed with the issuance of the construction permit with the condition that upon return the project's structural engineer, he issue a letter confirming the existing structure's capacity to accept the anticipated loading.

4. **Comment digitally attached to "General Notes" on Page GN1.1 by Ms. Bourke:**

"Historic significance

Please note the specific listing or significance of this "historic" building per Sec. 202 Definitions."

Response: See the attached certification of National Park Service National Registration attached designating the building as historic.

5. **Comment digitally attached to "General Notes" on Page GN1.1 by Ms. Bourke:**

"Window Glazing/Transoms

See Table 1018.1 for corridor partitions allowed to be .5 hour and Table 715.5 for window ratings in fire partions to be 1/3 hour, 20 min."

Response: Transoms in historic buildings are not required to comply with assembly requirements of this code.

"Section 3409.1 Historic buildings. The provisions of this code relating to the construction, repair, alteration, addition, restoration, and movement of structures and change in occupancy shall not be mandatory for historic building where such buildings are judged by the building official to not constitute a distinct life safety hazard."

It is our view that the NFPA 43.10.4.5 specifically exempts existing transoms in historic buildings. In addition transoms will be sealed to prevent smoke movement; therefore we feel this does not create a distinct life safety hazard.

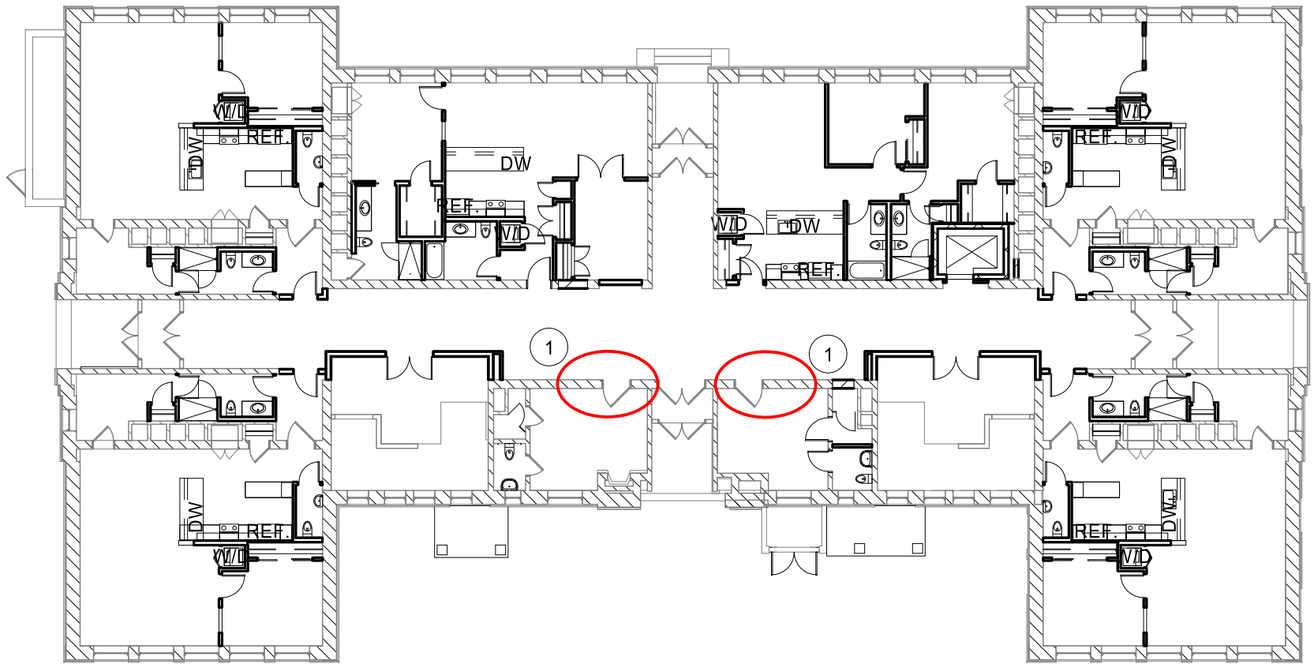
Amended Response: Though allowed by code, it has been requested by Captain Pirone that we take a second look at the proposed transom conditions to remain. Upon further review, we have documented in four locations, the transoms to remain in the proposed corridor have previously infilled with wood panels and are no longer glazed. The attached sketch shows additional layers of gypsum applied to the transom panel to provide the required rating. Also shown in the attached sketch, the half lite wood door at these same locations, previously proposed as to remain, are called for to be removed and replaced with a rated unit door or fixed in place and fortified with an infill rated wall at the unit side. All other existing doors and transoms to remain are not located in proposed corridor walls.

I trust these responses adequately address the comments from your review.
If you have any questions with regards to this letter, please contact our office.

Respectfully,

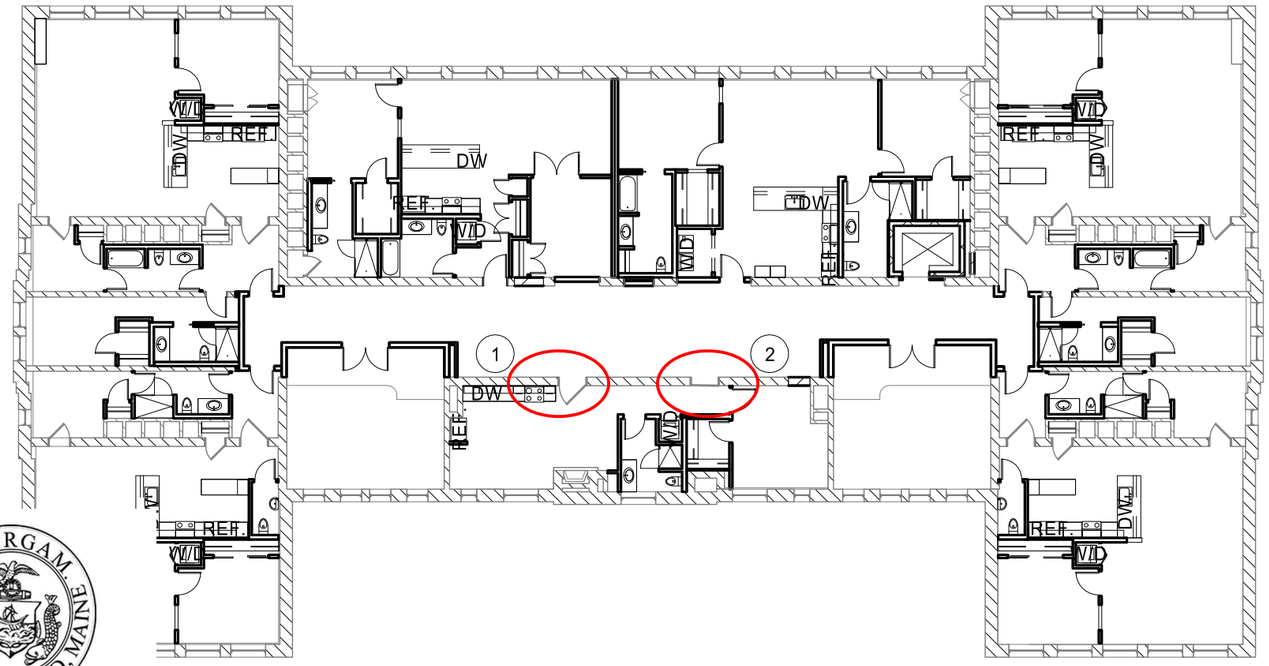
Josh Crandall
Archetype Architects

End of Memo



1 FIRST FLOOR - DOOR CHANGE

1" = 20'-0"

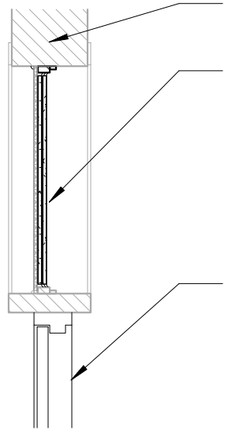


2 SECOND FLOOR - DOOR CHANGE

1" = 20'-0"

TYPICAL EXISTING DOOR TO REMAIN UPGRADE
SEE NOTE 1 FOR LOCATIONS

SECTION



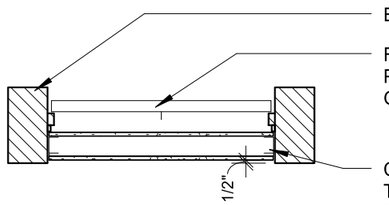
EXISTING WALL

MECHANCIALLY FASTEN 2 LAYERS OF TYPE X GYPSUM TO INSIDE FACE OF EXISTING MDF TRANSOM INFILL PANEL. CONTRACTOR TO TAKE CARE THAT FASTENERS DO NOT FULLY PENETRATE INFILL PANEL. FIRE SEAL AT FULL PERIMETER

REMOVE EXISTING HALF LITE DOOR & REPLACE WITH DOOR TYPE U1 CAREFULLY REMOVE AND REINSTALL TRIM AT JAMBS TO ALLOW FOR NEW DOOR FRAME TO CONNECT TO ROUGH OPENING. PROVIDE SMOKE GASKETING AND NEW METAL TRESHOLD.

INFILL & FIX EXISTING DOOR IN PLACE
SEE NOTE 2 FOR LOCATIONS

PLAN



EXISTING WALL

FIX EXISTING DOOR IN PLACE. PAINT CONCEALED HALF LITE GLAZING MATTE DARK GREY.

CONSTRUCT WALL W2 ON THE UNIT SIDE OF THE DOOR WITH THE RESILIENT CHANNEL FACING THE UNIT. REPLACE 3 1/2" STUD WITH 2 1/2" DEEP STUD CONSTRUCTION. HOLD FACE OF INFILL WALL SHY OF FINISHED WALL BY 1/2" WITHIN EXISTING DOOR TRIM.

CITY OF PORTLAND, MAINE — RESURGAM

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 03/12/14

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Scale: As indicated

Date: 04 FEB 2014

EXISTING DOOR MODIFICATIONS

Project:
NATHAN CLIFFORD RESIDENCES: A CONDOMINIUM
172 Falmouth Street Portland, Maine

SK-1

SECTION 03300
CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

A. RELATED DOCUMENTS: Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

B. Examine all other sections of the Specifications for requirements that affect work of this Section whether or not such work is specifically mentioned in this Section.

C. Coordinate work with that of all trades affecting or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.02 DESCRIPTION OF WORK:

A. Work included: Provide labor, materials, and equipment necessary to complete the work of this Section and, without limiting the generality thereof, furnish and include the following:

1. The extent of cast-in-place concrete work is shown on drawings and includes (but not by way of limitation) formwork, reinforcing, cast-in-place concrete, accessories, and casting in of items specified under other Sections of the Specifications or furnished by Owner that are required to be built-in with the concrete.

2. Equipment support pads and miscellaneous site concrete indicated on civil, electrical and mechanical drawings to be installed by the Building Contractor.

1.03 RELATED WORK:

A. Miscellaneous Metal: Section 05500

B. Anchor Rods: Section 05120

C. Section 07140 Vapor Barrier

1.04 QUALITY ASSURANCE:

A. Codes and Standards: Comply with provisions of the following except where more stringent requirements are shown or specified:

1. ACI 212.3R-91 "Chemical Admixtures for Concrete."

2. ACI 301-89 "Specifications for Structural Concrete for Buildings."

3. ACI 302.1R-89 "Guide for Concrete Floor and Slab Construction."

4. ACI 304R-89 "Guide for Measuring, Mixing, Transporting and Placing Concrete."

5. ACI 304.2R-91 "Placing Concrete by Pumping Methods."

6. ACI 306 R-88 "Cold Weather Concreting."

7. ACI 308-92 "Standard Practice for Curing Concrete."

8. ACI 309R-87 "Guide for Consolidation of Concrete."

9. ACI 315-80 (86) "ACI Detailing Manual."

10. ACI 318-89 "Building Code Requirements for Reinforced Concrete."

11. ACI 347R-88 "Guide to Formwork for Concrete."

12. ACI 503.2-92 “Specifications for Bonding Plastic Concrete to Hardened Concrete with a Multi-Component Epoxy Adhesive.”

13. Concrete Reinforcing Steel Institute, "Placing Reinforcing Bars," 1992.

B. Materials and installed work may require testing and retesting, as directed by the Architect, at any time during progress of work. Allow free access to material stockpiles and facilities. Tests not specifically indicated to be done at Owner's expense, including retesting of rejected materials and installed work, shall be done at Contractor's expense.

1.05 SUBMITTALS:

A. Product Data: Submit manufacturer's product data with application and installation instructions for proprietary materials and items, including reinforcement, polypropylene fiber admixtures, patching compounds, non-shrink grout, joint systems, curing compounds, bonding agents, sealers and others as requested by Architect.

B. Shop Drawings:

1. Reinforcement: Submit shop drawings for fabrication, bending and placement of concrete reinforcement. Comply with ACI 315, showing bar schedules, stirrup

spacing, diagrams of bent bars and arrangement of concrete reinforcement. Include special reinforcement required at openings through concrete structures.

C. Samples: Submit samples of materials as specified and as otherwise requested by Architect, including names, sources and descriptions.

D. Laboratory Test Reports: Submit laboratory test reports for concrete materials and mix design test if trial batch method is used for proportioning concrete mixes.

E. Strength Tests: Provide required records of strength tests if field experience method is used for proportioning concrete mixes.

PART 2 - PRODUCTS

2.01 FORM MATERIALS:

A. Forms for Exposed Finish Concrete: Unless otherwise indicated, construct formwork for exposed concrete surfaces with plywood, metal, metal-framed plywood faced or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings. Provide form material with sufficient thickness to withstand pressure of newly-placed concrete without bow or deflection.

1. Use plywood complying with U.S. Product Standard PS-1 "B-B (Concrete Form) Plywood", Class I, Exterior Grade or better, mill-oiled and edge-sealed, with piece bearing legible inspection trademark.

B. Forms for Unexposed Finish Concrete: Form concrete surfaces which will be unexposed in finished structure with plywood, lumber, metal or other acceptable material. Provide lumber dressed on at least 2 edges and one side for tight fit.

C. Form Coatings: Provide commercial formulation form-coating compounds that will not bond with, stain nor adversely affect concrete surfaces, and will not impair subsequent treatments of concrete surfaces.

2.02 REINFORCING MATERIALS:

A. Reinforcing Bars: ASTM A 615, Grade 60, deformed.

B. Fiber Reinforcing: ASTM C1116, Type III virgin polypropylene fibers as manufactured by FIBERMESH or approved alternate.

1. The Fiber size (length) required shall be based on the largest size of the coarse aggregate in the concrete mix and determined by the manufacturer.

Manufacturer shall submit written confirmation as to size of fibers that will be used based on concrete mix specified.

C. Welded Wire Fabric: ASTM A 185, welded steel wire fabric. Provide welded wire fabric in flat sheets.

D. Supports for Reinforcement: Provide supports for reinforcement including bolsters, chairs, spacers, and other devices for spacing, supporting and fastening reinforcing bars and welded wire fabric in place. Use wire bar type supports complying with CRSI recommendation, unless otherwise specified. Wood, brick and other devices are not acceptable.

1. For slabs-on-grade, use supports with sand plates or horizontal runners where base material will not support chair legs.

2. For exposed-to-view concrete surfaces, where legs of supports are in contact with forms, provide supports with legs which are plastic protected (CRSI, Class I) or stainless steel protected (CRSI, Class 2).

2.03 CONCRETE MATERIALS:

A. Portland Cement: ASTM C 150, Type I or Type II, unless otherwise acceptable to Architect. Use one brand of cement throughout project, unless otherwise acceptable to Architect.

B. Normal Weight Aggregates: ASTM C 33. Provide from a single source for exposed concrete. Do not use aggregates containing soluble salts or other substances such as iron sulfides, pyrite, marcasite, or ochre which can cause stains on exposed concrete surfaces.

C. Water: Potable.

D. Air-Entraining Admixture: ASTM C 260.

E. High-Range Water-Reducing Admixture (Super Plasticizer): ASTM C 494, Type F or Type G containing not more than 1% chloride ions.

1. Fiber reinforcing shall be added and distributed prior to incorporation of Super Plasticizer.

F. Normal range water reducing admixture: ASTM C 494 Type A containing no calcium chloride.

G. Accelerating Admixture: ASTM C 494, Type C or E.

H. Calcium Chloride not permitted.

2.04 RELATED MATERIALS:

A. Non-Shrink Cement-based Grout: Provide grout consisting of premeasured, prepackaged materials supplied by the manufacturer requiring only the addition of water. Manufacturer's instructions must be printed on the outside of each bag.

1. Non-shrink: No shrinkage (0.0%) and a maximum 4.0% expansion when tested in accordance with ASTM C-827. No shrinkage (0.0%) and a maximum of 0.2% expansion in the hardened state when tested in accordance with CRD-C-621.

2. Compressive strength: A minimum 28 day compressive strength of 5000 psi when tested in accordance with ASTM C-109.

3. Setting time: A minimum initial set time of 60 minutes when tested in accordance with ASTM C-191.

4. Composition: Shall not contain metallic particles or expansive cement.

B. Absorptive Cover: Burlap cloth made from jute or kenaf, weighing approximately 9 oz. per sq. yd., complying with AASHTO M182, Class 2.

C. Moisture-Retaining Cover: One of the following, complying with ANSI/ASTM C 171.

1. Waterproof paper.

2. Polyethylene film.

3. Polyethylene-coated burlap.

D. Liquid Membrane-Forming Curing Compound:

1. Liquid type membrane forming curing compound complying with ASTM C 309, Type I, Class A unless other type acceptable to Architect. Curing compound shall not impair bonding of any material to be applied directly to the concrete. Demonstrate the non-impairment prior to use.

F. Bonding Agent: Provide epoxy adhesive conforming to ASTM C 881 to bond plastic concrete to hardened concrete. Prepare hardened concrete surface and apply bonding agent in compliance with manufacturer’s instructions.

G. Sealer: Sikagard 70, water and chloride-ion repellent penetrating sealer manufactured by Sika orapproved alternate. Apply to all exterior concrete flatwork including stairs, ramps and sidewalks in accordance with manufacturer’s instructions.

2.05 PROPORTIONING AND DESIGN OF MIXES:

A. Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301. Use material, including all admixtures, proposed for use on the project. If trial batch method used, use an independent testing facility acceptable to Architect for preparing and reporting proposed mix designs. The testing facility shall not be the same as used for field quality control testing unless otherwise acceptable to Architect.

B. Submit written reports to Architect of each proposed mix for each class of concrete at least 14 days prior to start of work. Do not begin concrete production until mixes have been reviewed by Architect.

C. Proportion design mixes to provide concrete with the following properties:

1. Interior Slab-On-Grade:
   a. Strength: 4000 psi @28 days, 3/4" aggr.
   b. W/C Ratio: 0.48
   c. Entrained Air: non-air-entrained
   d. Slump: 3"±1”

2. Footings and Walls:
   a. Strength: 3000 psi @28 days, 3/4" aggr.
   b. W/C Ratio: 0.53
   c. Entrained Air: 6% ± 1%
   d. Slump: 3”±1”

3. Exterior flatwork including slabs, ramps, stairs and sidewalks:
   a. Strength: 4000 psi @28 days, 3/4" aggr.
   b. W/C Ratio: 0.48
   c. Entrained Air: 7% ± 1%
   d. Slump: 3"±1”
   e. DCI -S Corrosion Inhibitor by Grace Construction Products or Rheocrete CNI Corrosion Inhibitor by Master Builders. 3 1/2 gal/cy. added at Batch Plant.

4. Add air entraining admixture at manufacturers prescribed rate to result in concrete at point of placement having the above noted air contents.

D. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor, when characteristics of materials, job conditions, weather, test results, or other circumstances warrant, at no additional cost to Owner and as accepted by Architect. Laboratory test data for revised mix design and strength results must be submitted to and accepted by Architect before using in work.

1. Water may be added at the project only if the specified slump and design mix maximum water/cement ratio is not exceeded.

2.06 CONCRETE MIXING:

A. Job-Site Mixing: Not permitted.

B. Ready-Mix Concrete: Must comply with the requirements of ASTM C 94, and as herein specified. Provide batch ticket for each batch discharged and used in work, indicating project name, mix type, mix time and quantity.

1. During hot weather, or under conditions contributing to rapid setting of concrete, a shorter mixing time than specified in ASTM C 94 may be required by Engineer.

2. When the air temperature is between 85 degrees F. and 90 degrees F., reduce the mixing and delivery time from 1 1/2 hours to 75 minutes, and when the air temperature is above 90 degrees F., reduce the mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.01 FORMS:

A. Design, erect, support, brace and maintain formwork to support vertical and lateral loads that might be applied until such loads can be supported by concrete structure. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation and position.

B. Design, construct, erect, maintain, and remove forms for cast-in-place concrete work in compliance with ACI 347.

C. Design formwork to be readily removable without impact, shock or damage to cast-in-place concrete surfaces and adjacent materials.

D. Construct forms to sizes, shapes, lines and dimensions shown, and to obtain accurate alignment, location, grades, level and plumb work in finished structures. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required in work. Use selected materials to obtain required finishes. Solidly butt joints and provide backup at joints to prevent leakage of cement paste.

E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush plates or wrecking plates where stripping may damage cast

concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only. Kerf wood inserts for forming keyways, reglets, recesses, and the like to prevent swelling and for easy removal.

F. Provide temporary openings where interior area of formwork is inaccessible for clean out, for inspection before concrete placement and for placement of concrete. Securely brace temporary openings and set tightly to forms to prevent loss of concrete mortar. Locate temporary openings on forms at inconspicuous locations.

G. Chamfer exposed corners and edges as indicated, using wood, metal, PVC or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.

H. Form Ties: Factory-fabricated, adjustable-length, removable or snapoff metal form ties, designed to prevent form deflection, and to prevent spalling concrete surfaces upon removal.

1. Unless otherwise indicated, provide ties so portion remaining within concrete after removal is 1" inside concrete and will not leave holes larger than 1" diameter in concrete surface.

I. Provision for Other Trades: Provide openings in concrete formwork to accommodate work of other trades. Determine size and location of openings, recesses, and chases from trades providing such items. Accurately place and securely support items built into forms.

J. Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt or other debris just before concrete is placed. Retighten forms and bracing after concrete placement as required to eliminate mortar leaks and maintain proper alignment.

3.02 PLACING REINFORCEMENT:

A. Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars", for details and methods of reinforcement placement and supports, and as herein specified.

1. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials which reduce or destroy bond with concrete.

2. Accurately position, support and secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers and hangers, as required.

3. Place reinforcement to obtain specified coverages for concrete protection within tolerances of ACI-318. Arrange, space and securely tie bars and bar

supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

4. Fiber Reinforcing shall be introduced directly into the concrete either at the batch plant or job site at the rate of 1.6 pounds (minimum) per cubic yard. If introduced at the batch plant with the aggregate, no extra mixing time is required. If added at the job site, approximately 3 to 5 minutes mixing at agitating speed is required.

at least one full mesh and lace splices with wire. Offset end laps in adjacent widths to prevent continuous laps in either direction.

3.03 JOINTS:

A. Construction Joints: Locate and install construction joints, which are not shown on drawings, so as not to impair strength and appearance of the structure, as acceptable to Architect.

1. Provide keyways at least 1-1/2" deep in construction joints in walls, and slabs; accepted bulkheads designed for this purpose may be used for slabs.

2. Roughened surfaces shall be used between walls and footings unless shown otherwise on the drawings. The footing surface shall be roughened to at least an amplitude of 1/4" for the width of the wall before placing the wall concrete.

3. Place construction joints perpendicular to the main reinforcement. Continue reinforcement across construction joints.

4. Joints in slabs on grade shall be located and detailed as indicated on the drawings. If saw-cut joints are required or permitted, cutting shall be timed properly with the set of the concrete: Cutting shall be started as soon as the concrete has been hardened sufficiently to prevent aggregate being dislodged by the saw, and shall be completed before shrinkage stresses become sufficient to produce cracking.

3.04 INSTALLATION OF EMBEDDED ITEMS:

A. General: Set and build into work anchorage devices and other embedded items required for other work that is attached to, or supported by, cast-in-place concrete. Use setting drawings, diagrams, instructions and directions provided by suppliers of items to be attached thereto. Notify other trades to permit installation of their work.

B. Edge Forms and Screed Strips for Slabs: Set edge forms or bulkheads and intermediate screed strips for slabs to obtain required elevations and contours in finished slab surface.

3.05 INSTALLATION OF GROUT

A. Place grout for base plates in accordance with manufacturer's recommendations.

B. Grout below setting plates as soon as practicable to facilitate erection of steel and prior to removal of temporary bracing and guys. If leveling bolts or shims are used for erection grout shall be installed prior to addition of any column load.

C. Pack grout solidly between bearing surfaces and bases or plates to ensure that no voids remain. Finish exposed surfaces, protect installed materials and allow to cure. For proprietary grout materials, comply with manufacturer's instructions.

3.06 PREPARATION OF FORM SURFACES:

A. Coat contact surfaces of forms with a form-coating compound before reinforcement is placed.

B. Thin form-coating compounds only with thinning agent of type, and in amount, and under conditions of form-coating material manufacturer's directions. Do not allow excess form coating to accumulate in forms or to come into contact with concrete surfaces against which fresh concrete will be placed. Apply in compliance with manufacturer's instructions.

3.07 CONCRETE PLACEMENT:

A. Preplacement Review: Footing bottoms, reinforcement and all work shall be subject to review by the Architect. Verify that reinforcing, ducts, anchors, seats, plates and other items to be cast into concrete are placed and securely held. Notify Architect 48 hours prior to scheduled placement and obtain approval or waiver of review prior to placement. Moisten wood forms immediately before placing concrete where form coatings are not used. Be sure that all debris and other foreign matter is removed from forms.

B. General: Comply with ACI 304, and as herein specified.

1. Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete as nearly as practicable to its final location to avoid segregation due to rehandling or flowing.

2. Concrete shall be handled from the mixer to the place of final deposit as rapidly as practicable by methods which will prevent segregation or loss of ingredients and in a manner which will assure that the required quality of the concrete is maintained.

3. Conveying equipment shall be approved and shall be of a size and design such that detectable setting of concrete shall not occur before adjacent concrete is placed. Conveying equipment shall be cleaned at the end of each operation or work day. Conveying equipment and operations shall conform to the following additional requirements:

   a. Belt conveyors shall be horizontal or at a slope which will not cause excessive segregation or loss of ingredients. Concrete shall be protected against undue drying or rise in temperature. An arrangement shall be used at the discharge end to prevent apparent segregation. Mortar shall not be allowed to adhere to the return length of the belt. Long runs shall be discharged into a hopper or through a baffle.

   b. Chutes shall be metal or metal-lined and shall have a slope not exceeding 1 vertical to 2 horizontal and not less than 1 vertical to 3 horizontal. Chutes more than 20 feet long, and chutes not meeting the slope requirements may be used provided they discharge into a hopper before distribution.

   c. Pneumatic placement shall be controlled so that segregation is not apparent in the discharged concrete.

   d. The loss of slump in pumping or pneumatic conveying equipment shall not exceed 2 inches. Concrete shall not be conveyed through pipe made of aluminum alloy. Standby equipment shall be provided on the site.

   e. Tined rakes are prohibited as a means of conveying fiber reinforced concrete.

4. Do not use reinforcement as bases for runways for concrete conveying equipment or other construction loads.

C. Placing Concrete in Forms: Deposit concrete in forms in horizontal layers not deeper than 18 inches and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.

1. Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI recommended practices.

2. Use vibrators designed to operate with vibratory equipment submerged in concrete, maintaining a speed of not less than 8000 impulses per minute and of sufficient amplitude to consolidate the concrete effectively. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine, generally at points 18 inches maximum apart. Place vibrators to rapidly penetrate placed layer and at least 6 inches into the preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion maintain the duration of vibration for the time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix, generally from 5 to 15 seconds. A spare vibrator shall be kept on the job site during all concrete placing operation.

D. Placing Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed.

1. Consolidate concrete using internal vibrators during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners.

2. Bring slab surfaces to correct level with straightedge and strikeoff. Use bull floats or darbies to smooth surface, free of humps or hollows. Do not disturb slab surfaces prior to beginning finishing operations. Do not sprinkle water on plastic surface.

E. Cold Weather Placing: Protect concrete work from physical damage or reduced strength which could be caused by frost, freezing actions, or low temperatures, in compliance with ACI 306 and as herein specified.

1. When air temperature has fallen to or is expected to fall below 40 deg.F (4 deg.C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg.F (10 deg.C), and not more than 80 deg.F (27 deg.C) at point of placement.

2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.

3. Do not use calcium chloride, salt and other materials containing antifreeze agents or chemical accelerators.

4. All temporary heat, form insulation, insulated blankets, coverings, hay or other equipment and materials necessary to protect the concrete work from physical damage caused by frost, freezing action, or low temperature shall be provided prior to start of placing operations.

5. When the air temperature has fallen to or is expected to fall below 40 deg.F, provide adequate means to maintain the temperature in the area where concrete is being placed between 50 and 70 deg.F.

F. Hot Weather Placing: When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305 and as herein specified.

1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 deg.F. Mixing water may be chilled, or chopped ice may be used to control the concrete temperature provided the water equivalent of the ice is calculated to the total amount of mixing water.

2. Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that the steel temperature will not exceed the ambient air temperature immediately before embedment in concrete.

3. Wet forms thoroughly before placing concrete.

4. Do not use retarding admixtures without the written acceptance of the Architect.

3.08 FINISH OF FORMED SURFACES:

A. Rough Form Finish: For formed concrete surfaces not exposed-to-view in the finish work or by other construction, unless otherwise indicated. This concrete surface shall have texture imparted by form facing material, with tie holes and defective areas repaired and patched and fins and other projections exceeding 1/4 in. in height rubbed down or chipped off.

B. Smooth Form Finish: For formed concrete surfaces exposed-to-view, or that are to be covered with a coating material applied directly to concrete, or a covering material applied directly to concrete, such as waterproofing, damp-proofing, painting or other similar system. This as-cast concrete surface shall be obtained with selected form facing material, arranged orderly and symmetrically with a minimum of seams. Repair and patch defective areas with fins or other projections completely removed and smoothed.

C. Grout Cleaned Finish: Provide grout cleaned finish to scheduled concrete surfaces which have received smooth form finish treatment. Combine one part Portland cement to 1-

1/2 parts fine sand by volume and mix with water to consistency of thick paint. Proprietary additives may be used at Contractor's option. Blend standard Portland cement and white Portland cement, amounts determined by trial patches, so that final color of dry grout will closely match adjacent surfaces. Thoroughly wet concrete surfaces and apply grout to coat surfaces and fill small holes. Remove excess grout by scraping and rubbing with clean burlap. Keep damp by fog spray for at least 36 hours after rubbing.

D. Related Unformed Surfaces: At tops of walls and grade beams, horizontal offset surfaces occurring adjacent to formed surfaces, strike-off, smooth and finish with a texture matching adjacent unformed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.09 MONOLITHIC SLAB FINISHES:

A. Scratch Finish: Apply scratch finish to monolithic slab surfaces that are to receive concrete floor topping or mortar setting beds, and as otherwise indicated.

1. After placing slabs, plane surface to a tolerance not exceeding 1/2 in. in 10 ft. when tested with a 10-ft. straightedge. Slope surfaces uniformly to drains where required. After leveling, roughen surface before final set with stiff brushes, brooms or rakes.

B. Float Finish: Apply float finish to monolithic slab surfaces to receive trowel finish and other finishes as hereinafter specified, and slab surfaces which are to be covered with membrane or elastic waterproofing, and as otherwise indicated.

1. After screeding, consolidating, and leveling concrete slabs, do not work surface until ready for floating. Begin floating when surface water has disappeared or when concrete has stiffened sufficiently to permit operation of power-driven floats, or by hand-floating if area is small or inaccessible to power units. Check and level surface plane to a tolerance not exceeding 1/4 in. in 10 ft. when tested with a 10 ft. straightedge. Cut down high spots and fill low spots. Uniformly slope surfaces to drains. Immediately after leveling, refloat surface to a uniform, smooth, granular texture.

C. Trowel Finish: Apply trowel finish to monolithic slab surfaces indicated, including slab surfaces to be covered with carpet, resilient flooring, paint or other thin-film finish coating system.

1. After floating, begin first trowel finish operation using a power-driven trowel. Begin final troweling when surface produces a ringing sound as trowel is moved over surface. Consolidate concrete surface by final hand-troweling operation, free of trowel marks, uniform in texture and appearance, and with a surface

plane tolerance not exceeding 1/4 in. in 10 ft. when tested with a 10-ft. straightedge. Grind smooth any surface defects which would telegraph through applied floor covering system.

D. Non-Slip Broom Finish: Apply non-slip broom finish to exterior concrete platforms, steps and ramps, and elsewhere as indicated.

1. Immediately after trowel finishing, slightly roughen concrete surface by brooming with fiber bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

3.10 CONCRETE CURING AND PROTECTION:

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Protect concrete work from physical damage or reduced strength which could be caused by frost, freezing actions, or low temperatures, in compliance with the requirements of ACI 306 as herein specified.

1. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting, keep continuously moist for not less than 7 days.

2. Begin final curing procedures immediately following initial curing and before concrete has dried. Continue final curing for at least 7 days in accordance with ACI 301 procedures. Avoid rapid drying at end of final curing period.

a. Curing shall be continued for at least 7 days in the case of all concrete except high-early-strength concrete for which the period shall be at least 3 days. Alternatively, if tests are made of cylinders kept adjacent to the structure and cured by the same methods, moisture retention measures may be terminated when the average compressive strength has reached 70 percent of the specified strength, f'_c. If one of the curing procedures below is used initially, it may be replaced by one of the other procedures any time after the concrete is 1 day old provided the concrete is not permitted to become surface dry during the transition.

3. When the mean daily temperature is less than 40 deg.F, the temperature of the concrete shall be maintained between 50 and 70 deg.F for the required curing period.

a. When necessary, arrangements for heating, covering, insulation, or housing the concrete work shall be adequate to maintain the required temperature without injury due to concentration of heat. Combustion heaters shall not be used during the first 24 hours unless precautions

are taken to prevent exposure of the concrete to exhaust gases which contain carbon dioxide.

b. Keep protections in place and intact at least 24 hours after artificial heat is discontinued. Avoid rapid dry-out of concrete due to overheating and avoid thermal shock due to sudden cooling or heating.

c. Changes in temperature of the air immediately adjacent to the concrete during and immediately following the curing period shall be kept as uniform as possible and shall not exceed 5 deg.F in any 1 hour or 50 deg.F in any 24 hour period.

B. Curing Methods: Perform curing of concrete by moist curing, by moisture-retaining cover curing, by curing compound, and by combinations thereof, as herein specified.

1. Provide moist curing by following methods:

a. Keep concrete surface continuously wet by covering with water.

b. Continuous water-fog spray.

c. Covering concrete surface with specified absorptive cover, thoroughly saturating cover with water and keeping continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4-in. lap over adjacent absorptive covers.

2. Provide moisture-cover curing as follows:

a. Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3 in. and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.

3. Provide curing compound to slabs as follows:

a. Apply specified curing and sealing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours). Apply uniformly in continuous operation by power-spray or roller in accordance with manufacturer's directions. Recoat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period.

b. Do not use membrane curing compounds on surfaces which are to be covered with coating material applied directly to concrete, liquid floor

hardener or with a covering material bonded to concrete such as concrete, waterproofing, damp-proofing, membrane roofing, flooring, painting, and other coatings and finish materials, unless otherwise acceptable to Architect.

c. Separating compound may be used as a curing medium if applied in accordance with manufacturer's specifications.

C. Curing Formed Surfaces: Cure formed concrete surfaces, including undersides of beams, supported slabs and other similar surfaces by moist curing with forms in place for full curing period or until forms are removed. If forms are removed, continue curing by methods specified above, as applicable.

D. Protection From Mechanical Injury: During the curing period, the concrete shall be protected from damaging mechanical disturbances, such as load stresses, heavy shock, and excessive vibration. All finished concrete surfaces shall be protected from damage by construction equipment, materials, or methods, by application of curing procedures, and by rain or running water. Self-supporting structures shall not be loaded in such a way as to overstress the concrete.

3.11 REMOVAL OF FORMS:

A. Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at not less than 50 deg.F (10 deg.C) for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations, and provided curing and protection operations are maintained.

B. Formwork supporting weight of concrete, such as beam soffits, joints, slabs and other structural elements, may not be removed in less than 14 days and until concrete has attained design minimum compressive strength at 28 days. Determine potential compressive strength of in-place concrete by testing field-cured specimens representative of concrete location or members.

C. Form facing material may be removed 4 days after placement only if shores and other vertical supports have been arranged to permit removal of form facing material without loosening or disturbing shores and support.

3.12 REUSE OF FORMS:

A. Clean and repair surfaces of forms to be reused in work. Split, frayed, delaminated or otherwise damaged form facing material will not be acceptable for exposed surfaces. Apply new form coating compound as specified for new formwork.

B. When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces, except as acceptable to Architect.

3.13 MISCELLANEOUS CONCRETE ITEMS:

A. Filling In: Fill in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place, and cure concrete as herein specified, to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete work.

3.14 CONCRETE SURFACE REPAIRS:

A. Patching Defective Areas: Repair and patch defective areas with cement mortar immediately after removal of forms, when acceptable to the Architect.

1. Cut out honeycomb, rock pockets, voids over 1/4 inch in any dimension, and holes left by tie rods and bolts, down to solid concrete but in no case to a depth of less than 1 inch. Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water, and brush coat the area to be patched with specified bonding agent. Place patching mortar after bonding compound has dried.

2. For exposed-to-view surfaces, blend white Portland cement and standard Portland cement so that, when dry, patching mortar will match color surrounding. Provide test areas at inconspicuous location to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than surrounding surface.

B. Repair of Formed Surfaces: Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of Architect. Surface defects, as such, include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets, fins, and other projections on surface and stains and other discolorations that cannot be removed by cleaning. Flush out form tie holes, fill with dry pack mortar or precast cement cone plugs secured in place with bonding agent.

1. Repair concealed formed surfaces, where possible, that contain defects that affect the durability of concrete. If defects cannot be repaired, remove and replace concrete.

2. Correct high areas in unformed surfaces by grinding after concrete has cured at least 14 days.

3. Correct low areas in unformed surfaces during, or immediately after completion of surface finishing operations by cutting out low areas and replacing with fresh concrete. Proprietary patching compounds may be used when acceptable to Architect.

4. Repair defective areas, except random cracks and single holes not exceeding 1 inch in diameter, by cutting out and replacing with fresh concrete. Remove defective areas to sound concrete with clean, square cuts and expose reinforcing steel with at least 3/4 inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding compound. Mix patching concrete of same materials to provide concrete of same type or class as original concrete. Place, compact, and finish to blend with adjacent finished concrete. Cure in the same manner as adjacent concrete.

5. Repair isolated random cracks and single holes not over 1 inch in diameter by dry-pack method. Groove top of cracks and cut out holes to sound concrete and clean of dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding compound. Mix dry-pack, consisting of one part Portland cement to 2-1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing. Place dry-pack after bonding compound has dried. Compact dry-pack mixture in place and finish to match adjacent concrete. Keep patched area continuously moist for not less than 72 hours.

6. Use epoxy-based mortar for structural repairs, where directed by the Architect.

7. Repair methods not specified above may be used, subject to acceptance of the Architect.

3.15 QUALITY CONTROL TESTING DURING CONSTRUCTION:

A. The Owner shall employ a testing laboratory to inspect, sample and test the materials and the production of concrete and to submit test reports. Concrete testing shall be performed by technicians certified by the Maine Concrete Technician Certification Board.

B. Concrete shall be sampled and tested for quality control during placement of concrete shall include the following, unless otherwise directed by Architect.

C. Sampling Fresh Concrete: ASTM C 172.

1. Slump: ASTM C 143; one test for each concrete load at point of discharge and one test for each set of compressive strength test specimens. A slump test must be run prior to the incorporation of the CFP fibers per recommendations of ACI 544.

2. Air Content: ASTM C 231 "Pressure method for normal weight concrete." One for each set of compressive strength test specimens.

3. Concrete Temperature: Test hourly when air temperature is 40 deg.F (4 deg.C) and below, and when 80 deg.F (27 deg.C) and above; and each time a set of compression test specimens are made.

4. Compression Test Specimen: ASTM C 31; one set of 4 standard cylinders for each compressive strength test, unless otherwise directed. Mold and store cylinders for laboratory cured test specimens except when field-cure test specimens are required.

    a. Fiber reinforced concrete test specimens shall be vibrated externally per recommendations ACI 544.

5. Compressive Strength Tests: ASTM C 39; one set for each 100 cu. yds. or fraction thereof, of each concrete class placed in any one day or for each 5,000 sq. ft. of surface area placed; 1 specimen tested at 7 days, 2 specimens tested at 28 days, and 1 specimen retained in reserve for later testing if required.

    a. When frequency of testing will provide less than 5 strength tests for a given class of concrete, conduct testing from at least 5 randomly selected batches or from each batch if fewer than 5 used.

    b. When total quantity of a given class of concrete is less than 50 cu. yds., strength test may be waived, if in the Architect's judgement, adequate evidence of satisfactory strength is provided.

    c. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing the in-place concrete.

    d. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive strength test results equal or exceed specified compressive strength and no individual strength test result falls below specified compressive strength by more than 500 psi.

    e. Test results will be reported in writing to Architect and Contractor on the day after tests are made. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, name of concrete testing service, concrete type and class, location of concrete batch in structure, design compressive strength at 28 days, concrete mix proportions and materials

compressive breaking strength, and type of break for both 7-day tests and 28-day tests.

D. Additional Tests: The testing service will make additional tests of in-place concrete when test results indicate specified concrete strengths and other characteristics have not been attained in the structure, as directed by the Architect. Testing service may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods, as directed. Contractor shall pay for such tests conducted, and any other additional testing as may be required, when unacceptable concrete is verified.

END OF SECTION

SECTION 04200

UNIT MASONRY

1. GENERAL

1.1 DESCRIPTION OF WORK

A. Drawings and general provisions of Contract, including General Conditions and Division 1 specifications, apply to work in this section.

B. Extent of Unit Masonry is shown on the drawings.

C. In addition to work shown on the drawings and specified elsewhere in this Section, build in steel lintels, anchors, inserts and sleeves as shown on drawings.

D. Refer to Section 04520 Brick Repointing & Replacement for restoration of masonry wall.

1.2 QUALITY ASSURANCE

A. Standards: Comply with recommendations of Brick Institute of America (BIA), and National Concrete Masonry Assoc. (NCMA).

1.3 SUBMITTALS

A. Issue submittals in accordance with Section 01300, Submittals.

B. Submit product data and installation recommendations for masonry units, cementitious products for mortar and grout, coloring pigments, throughwall flashing, and masonry accessories.

2. PRODUCTS

2.1 CONCRETE MASONRY UNITS

A. Except as shown on Drawings or specified otherwise, all concrete masonry units shall be as follows:

1. Hollow-type complying with ASTM C 90, Type 1 (moisture-controlled), Grade N.

2. Compressive strength: 2500 psi net, 1250 psi gross (average of three units). Prism strength fm=2500 psi in Pier A, fm=2000 elsewhere.

3. Normal-weight, with sand and gravel aggregate complying with ASTM C 33, approximate oven-dry unit weight of 135 lbs. per cu. ft.

2.2 MORTAR AND GROUT

A. Mortar shall comply with ASTM C 270, BIA Technical Notes 8 and 8A, and local Building Code.

B. Materials shall conform to applicable ASTM specifications including the following:

1. Portland Cement: ASTM 150, Types I, II, or III (do not use Types IA, IIA, or IIIA).

2. Masonry Cement: ASTM C 91.

3. Hydrated Lime: ASTM C 207, Type S only (do not use Type N).

4. Natural or manufactured sand aggregate: ASTM C 144, gradation conforming to Table 1 in BIA Technical Note 8.

5. Masonry cement shall not contain ground limestone.

6. Water: clean, potable, and free of deleterious amounts of acids, alkalies or organic materials.

C. Mortar Type

1. General:

a. Use 1800 psi minimum Type S mortar for reinforced masonry and where indicated.

b. Use 750 psi minimum Type N mortar for exterior, above-grade loadbearing and non-loadbearing walls, and for other applications where another type is not indicated.

D. Grout

1. Grout shall conform to ASTM C 476 and to match existing.

2. Fine and coarse aggregate for grout mixes shall be defined in ASTM C 404.

a. Fine grout shall consist of one part portland cement, 0 to 1/10 part lime, 2-1/4 to 3 parts fine sand.

b. Coarse grout shall consist of the fine grout mix described in "a" above plus 1 to 2 parts coarse aggregate.

c. Use coarse grout (pea gravel aggregate) except where minimum horizontal core dimension is under 4 in., in which case use fine grout (sand aggregate). Ordinary concrete (maximum 1 in. aggregate) may be used where minimum core dimension exceeds 6 inches.

E. During cold-weather construction at exterior walls, use Type III (high-early strength) cement and Type S hydrated lime. A non-calcium-chloride-based accelerator such as Dur-o-Wal, Dur-o-Guard, or Euco Accelguard 80 may be used, in quantities recommended by manufacturer for expected ambient temperature. Calcium chloride may not be used. Refer to EXECUTION portion of this Section for general provisions governing cold weather construction.

3. EXECUTION

3.1 MASONRY WORK IN GENERAL

A. Erect all masonry work in compliance with the line and level tolerances specified herein. Correct, or replace, as directed by the Architect, non-conforming masonry work at no additional cost to the Contract.

B. Lay no concrete masonry unit having chipped edges or face defects where such unit or piece would be exposed to view. Remove any such unit or piece, if installed, replace with new matching material, and bear all costs therefore.

C. Examine all Drawings as to requirements for the accommodation of work of other trades. Provide all required recesses, chases, slots, cutouts, and set loose lintels. Place anchors, bolts, sleeves and other items occurring in the masonry work. Take every precaution to minimize future cutting and patching. Closely coordinate the location and placement of such items.

D. Protect all masonry from rain prior to, and during the installation thereof. If the temperature is in excess of 80 degrees F. at time of installation, lightly moisten contact surfaces or masonry units by brushing with water.

E. Lay all masonry in full mortar beds, and completely butter all concealed from view vertical edges with mortar. Completely fill cells of masonry units with mortar where vertical reinforcement is to be installed therein and in other locations specified or indicated on the Drawings.

F. Provide complete protection against breakage and weather damage to all masonry work, including substantial wood boxing around door jambs, over the tops of walls and wherever necessary to protect work at all stages of completion. Protect masonry when not roofed over, at all times when masons are not working on the walls. Apply non-staining tarpaulins or waterproof paper, properly weighted, or nailed, to assure their remaining in place to protect masonry from all possible hazards.

G. Fit masonry into bucks and frames so as not to distort alignment of such items, and fill backs of such items with mortar, except where joints are indicated to receive caulking and sealant and have no compressible filler therein, in which case rake joints to a uniform depth of ¾ inch for proper installation of caulking and sealant material.

H. Use only power saw, equipped with carborundum blade, for cutting exposed masonry, as needed to assure straight, evenly-cut edges.

I. Lay out coursing before setting to minimize cutting closures or jumping bond. Do not spread any more mortar than can be covered before surface of mortar has begun to dry. Do not endanger bond or mortar by moving masonry when once laid. If necessary to re-adjust any items, remove entirely, clean-off mortar, and reset with fresh mortar.

J. Except for cleaning down and pointing, finish all new masonry as the walls and partitions are carried up.

K. Point and fill all holes and cracks in mortar joints with additional fresh mortar; do not merely spread adjacent mortar over defect or use dead mortar droppings. Do all pointing while mortar is still soft and plastic. If hardened, chisel defect out and refill solidly with fresh additional mortar, and tool as specified.

3.2 JOB CONDITIONS

A. Store cement, lime and other cementitious materials under cover in a dry place.

B. Keep steel reinforcing, ties and anchors free from oil, dirt, rust, and other materials which would destroy bond.

C. Store masonry above ground on level platforms which allow air circulation under stacked units. Masonry units shall be dry and free from soil and ice before being laid in wall.

D. Keep installed walls dry and clean at all times. Immediately remove grout or mortar from face of masonry to be left exposed or painted. Protect previously installed elements such as louvers, doors, frames, and windows from mortar droppings and construction damage, using masking elements, dropcloths, etc.

E. Cover exposed walls at end of working day with well-secured canvas tarpaulins. Protect base of exterior walls from splashing mud and mortar by spreading sand, straw, and sawdust or plastic sheeting 3 to 4 ft. horizontally and up face of wall. Turn scaffold boards near wall on edge at end of day to prevent splashing mortar or dirt.

F. Securely brace partially completed walls against wind damage. Walls shall have been completed 24 hours minimum before application of distributed loads, 72 hours before concentrated loads.

G. Comply with cold-weather construction specifications in NCMA-TEK 16 and BIA Technical Note 1A:

1. Maintain masonry above 32 degrees F. for 24 hours minimum using insulated blankets or heated enclosures. Construct windbreaks at wind velocities over 15 mph. Maintain mortar on board at 40 degrees F. minimum, heating mixing water and sand as required.

2. Sprinkle units with high rates of absorption with heated water. Refer to mortar paragraph under PRODUCTS in this Section for provisions governing cold-weather

additives to mortar. If standard instead of Type III high-early strength cement must be used, maintain installed masonry above freezing for 48 instead of 24 hours.

3. Do no masonry work at temperatures below 38 degrees F and falling or 35 degrees F and rising, until General Contractor has contacted Architect.

3.3 INSTALLATION

A. Verify that substrate is dry and free from frost, dirt, laitance, loose sand and other material which would prevent satisfactory bond. Lay first course in full mortar bed including face shells and webs of concrete masonry units. Keep cells to be grouted free from mortar.

B. Dampen masonry units as required to prevent excess suction of mortar. Lay concrete masonry units to form continuous unobstructed vertical spaces within wall. Provide full mortar coverage on horizontal and vertical face shells. Also bed webs adjacent to reinforced cores to prevent grout leakage, except omit web bedding at fully grouted walls to permit grout to flow laterally. Lay face brick with full vertical and bed joints, except as specified below to provide weepholes. Cut exposed masonry units, where necessary, with a power saw. Avoid the use (by proper layout) of less-than-half-size units.

C. Install masonry units in the bond pattern indicated, or if none is indicated, in running bond.

D. Step back unfinished work -- toothing is not permitted. Do not adjust installed units -- where necessary, completely remove and reinstall using fresh mortar.

E. Maximum variation of installed walls from plumb, level, or plan grid shall not exceed 1/4 in. in 10 ft. Wall thickness shall not vary more than 1/4 in. plus or minus from dimension shown on drawings.

F. Mortar:

1. Measure materials in calibrated containers, or by similar easily-controlled and maintained method. Do not use shovel measurement.

2. Mix materials in a mechanical mixer at least three minutes with minimum amount of water necessary to produce a workable consistency. Retemper stiffened mortar as required to restore evaporated water, but do not place mortar any later than 2-1/2 hours after mixing.

3. Exposed-to-view joints shall be approximately 3/8 in. wide, to meet coursing shown, tooled when thumbprint hard with a round bar to produce a dense, slightly concave surface well-bonded to masonry edges.

4. After tooling, cut off mortar tailings with a trowel and brush off excess. Concealed joints, including those on cavity side of masonry veneer, and joints in masonry to be plastered or stuccoed shall be struck off flush, with no protrusions.

5. Mortar not tight at time of tooling shall be raked out, pointed with fresh mortar, and retooled. Where sealant is shown, rake out joint 3/4 in., ready for backer rod and sealant specified in Division 7 sealants Section.

G. Provide openings and chases as required for structural members, ductwork, large pipes, etc. Cut exposed masonry with carborundum saw to ensure straight even edges. Neatly block around and patch penetrations. Provide compressible filler around edges of openings to accommodate vibration and structural deflection. Ensure that joint reinforcement remains uncut or is well-lapped.

H. Provide control and expansion joints at locations shown, and keep clean of mortar droppings. Install Joint Sealers in accordance with Section 07900.

I. Build other work into the masonry work as shown, fitting masonry units around other work, and grouting to secure anchorage.

3.4 ALLOWABLE TOLERANCES FOR MASONRY WORK

A. Maximum variation from true surface level for exposed to view walls and partitions:

1. Unit-to-unit tolerance: 1/8 inch.

2. Surface, overall tolerance: ¼ inch in 10 feet in any direction when tested with ten foot long straightedge. Where both faces or wall or partition will be exposed to view, request and obtain decision from the Architect as to which face will be required to conform to the specified surface level tolerance.

B. Maximum variation from true vertical plumb lines:

1. In lines of walls and arises:

a. ¼ inch in 10 feet.
b. 3/8 inch in any story, or up to 20 feet maximum.
c. ½ inch in 40 feet maximum.

2. For external corner lines, control joints, and other conspicuous lines:

a. ¼ inch in any story, or up to 20 feet maximum.

C. Maximum variation from horizontal level or grades for exposed sills, lintel blocks, and other conspicuous lines:

1. ¼ inch in any bay, or up to 20 feet maximum.

2. ½ inch in 40 feet maximum.

D. Maximum variation of linear building line from an established position in plan and related portions of walls and partitions:

1. ½ inch in any bay or up to 20 feet.

2. ¾ inch in 40 feet maximum.

3.5 WALL AND PARTITION CONSTRUCTION

A. General:

1. Build the masonry walls and partitions in the various combinations and thickness as indicated on the Drawings and as herein specified.

2. Build in anchorage items and loose lintels as the work progresses.

3. Lay first course of masonry on a smooth bed or mortar, after supporting concrete has been cleaned. Fill cells of first course concrete masonry units with mortar in all cases. Completely fill cells of concrete masonry units wherever vertical reinforcing rods are installed therein.

4. For exterior masonry cavity walls, install cavity insulation, through wall membrane flashings, weep wicks, and peastone, as specified herein.

5. Fill pressed metal frames occurring in masonry with mortar, as the masonry is erected.

3.6 GROUT

A. Lay masonry units with core cells vertically aligned and cavities clear of mortar and unobstructed.

B. Permit mortar to cure three (3) days before placing grout.

C. ACI Bulding Code requirements for Masonry Structures and ACI Specifications for Masonry Structures are made part of this specification as are all pertinent sections of the ACI Building Code.

3.6 CLEANING MASONRY

A. Masonry cleaning procedures shall follow recommendations of NCMA-TEK 45 and BIA Technical Note 20 (revised).

B. Dry brush masonry work at end of each day's work.

C. After new mortar has cured 14 days minimum, remove large mortar particles with non-metallic scrapers, chisels, or wooden paddles. Wash off dirt and other foreign materials with clean water and light concentration of soap or detergent.

D. For mortar smears, construction dirt, stains, efflorescence, etc., not removable by above methods, use proprietary cleaners specified under PRODUCTS. Muriatic acid may not be used. Adhere strictly to manufacturer's recommendations.

E. Apply and scrub cleaning solutions with non-metallic fibrous brushes. Thoroughly rinse cleaned area before cleaning solution can dry, using water hosed under moderate pressure.

END OF SECTION

SECTION 07840
FIRESTOPPING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Section, apply to work specified in this section.

1.02 DEFINITIONS

A. Firestopping: Material or combination of materials used to retain integrity of fire-rated construction by maintaining an effective barrier against the spread of flame, smoke, and hot gases through penetrations in, or construction joints between, fire rated wall and floor assemblies.

1.03 GENERAL DESCRIPTION OF THE WORK OF THIS SECTION

Only tested firestop systems shall be used in specific locations as follows:

A. Penetrations for the passage of duct, cable, cable tray, conduit, piping, electrical busways and raceways through fire-rated vertical barriers (walls and partitions), horizontal barriers (floor/ceiling assemblies), and vertical service shaft walls and partitions.

B. Safing slot gaps between edge of floor slabs and curtain walls.

C. Openings between structurally separate sections of wall or floors.

D. Gaps between the top of walls and ceilings or roof assemblies.

E. Expansion joints in walls and floors.

F. Openings and penetrations in fire-rated partitions or walls containing fire doors.

G. Openings around structural members which penetrate floors or walls.

1.04 RELATED WORK OF OTHER SECTIONS

A. Coordinate work of this section with work of other sections as required to properly execute the work and as necessary to maintain satisfactory progress of the work of other sections, including:

1. Section 03 30 00 - Cast-In-Place Concrete
2. Section 04 20 00 - Unit Masonry
3. Section 07 90 00 - Joint Sealants
4. Section 09 20 00 - Plaster and Gypsum Board
5. Section 13 48 00 - Sound, Vibration and Seismic Control
6. Section 21 00 00 - Fire Suppression
7. Section 22 00 00 - Plumbing
8. Section 23 00 00 - Heating, Ventilating, and Air Conditioning (HVAC)
9. Section 26 00 00 - Electrical
10. Section 26 00 00 – Communications

1.05 REFERENCES

A. Test Requirements: ASTM E 814, "Standard Method of Fire Tests of Through Penetration Fire Stops"

B. Test Requirements: UL 1479, “Fire Tests of Through-Penetration Firestops”

C. Test Requirements: UL 2079, “Tests for Fire Resistance of Building Joint Systems”

D. Underwriters Laboratories (UL) of Northbrook, IL publishes tested systems in their "FIRE RESISTANCE DIRECTORY" that is updated annually.

1. UL Fire Resistance Directory:
   a. Firestop Devices (XHJI)
   b. Fire Resistance Ratings (BXRH)
   c. Through-Penetration Firestop Systems (XHEZ)
   d. Fill, Voids, or Cavity Material (XHHW)
   e. Forming Materials (XHKU)
   f. Joint Systems (XHBN)
   g. Perimeter Fire Containment Systems (XHDG)

2. Alternate Systems: “Omega Point Laboratories Directory” (updated annually).

E. Test Requirements: ASTM E 1966, “Standard Test Method for Fire Resistive Joint Systems”

F. Test Requirements: ASTM E 2307, “Standard Test Method for Determining Fire Resistance of Perimeter Fire Barrier Systems Using Intermediate-Scale, Multi-story Test Apparatus”

G. Inspection Requirements: ASTM E 2174, “Standard Practice for On-site Inspection of Installed Fire Stops”

H. ASTM E 84, “Standard Test Method for Surface Burning Characteristics of Building Materials”

I. International Firestop Council Guidelines for Evaluating Firestop Systems Engineering Judgments

J. International Building Code (IBC 2009)

K. NFPA 101 - Life Safety Code

L. NFPA 70 - National Electric Code

1.06 QUALITY ASSURANCE

A. Fire-Test-Response Characteristics: Provide through-penetration fire stop systems and fire-resistive joint systems that comply with specified requirements of tested systems.

B. Fire stop System installation must meet requirements of ASTM E 814, UL 1479 or UL 2079 tested assemblies that provide a fire rating equal to that of construction being penetrated.

C. Proposed fire stop materials and methods shall conform to applicable governing codes having local jurisdiction.

D. Fire stop Systems do not reestablish the structural integrity of load bearing partitions/assemblies, or support live loads and traffic. Installer shall consult the structural engineer prior to penetrating any load bearing assembly.

E. For those firestop applications that exist for which no qualified tested system is available through a manufacturer, an engineering judgment derived from similar qualified tested system designs or other tests will be submitted to local authorities having jurisdiction for their review and approval prior to installation. Engineering judgment documents must follow requirements set forth by the International Firestop Council.

1.07 SUBMITTALS

A. Submit Product Data: Manufacturer's specifications and technical data for each material including the composition and limitations, documentation of qualified tested firestop systems to be used and manufacturer's installation instructions to comply with Section 01 30 00.

B. Manufacturer's engineering judgment identification number and document details when no qualified tested system is available for an application. Engineering judgment must include both project name and contractor’s name who will install firestop system as described in document.

C. Submit material safety data sheets provided with product delivered to job-site.

D. LEED Submittals: Complete the LEED Materials Documentation Sheet and provide manufacturers' product data for construction adhesives and sealants, including printed statement of VOC content and MSDS Sheets

1.08 INSTALLER QUALIFICATIONS

A. Engage an experienced Installer who is certified, licensed, or otherwise qualified by the firestopping manufacturer as having been provided the necessary training to install manufacturer’s products per specified requirements. A supplier’s willingness to sell its firestopping products to the Contractor or to an Installer engaged by the Contractor does not in itself confer qualification on the buyer.

B. Installation Responsibility: assign installation of through-penetration firestop systems and fire-resistive joint systems in Project to a single sole source firestop specialty contractor.

- NOTE: THE REQUIREMENT FOR A SINGLE SOLE SOURCE FIRESTOP SPECIALTY CONTRACTOR IS A CONDITION OF THE BUILDING PERMIT FROM THE CITY OF PORTLAND AND IS NOT NEGOTIABLE. FIRESTOPPING CANNOT BE INSTALLED ON A TRADE-BY-TRADE BASIS.

C. The work is to be installed by a contractor with at least one of the following qualifications:

FM 4991 Approved Contractor
UL Approved Contractor
Hilti Accredited Fire Stop Specialty Contractor

1.09 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials undamaged in manufacturer's clearly labeled, unopened containers, identified with brand, type, and UL label where applicable.

B. Coordinate delivery of materials with scheduled installation date to allow minimum storage time at job-site.

C. Store materials under cover and protect from weather and damage in compliance with manufacturer's requirements, including temperature restrictions.

D. Comply with recommended procedures, precautions or remedies described in material safety data sheets as applicable.

E. Do not use damaged or expired materials.

1.10 PROJECT CONDITIONS

A. Do not use materials that contain flammable solvents.

B. Schedule installation of firestopping after completion of penetrating item installation but prior to covering or concealing of openings.

C. Verify existing conditions and substrates before starting work. Correct unsatisfactory conditions before proceeding.

D. Weather conditions: Do not proceed with installation of firestop materials when temperatures exceed the manufacturer's recommended limitations for installation printed on product label and product data sheet.

E. During installation, provide masking and drop cloths to prevent firestopping materials from contaminating any adjacent surfaces.

PART 2 - PRODUCTS

2.01 FIRESTOPPING - GENERAL

A. Provide firestopping composed of components that are compatible with each other, the substrates forming openings, and the items, if any, penetrating the firestopping under conditions of service and application, as demonstrated by the firestopping manufacturer based on testing and field experience.

B. Provide components for each firestopping system that are needed to install fill material. Use only components specified by the firestopping manufacturer and approved by the qualified testing agency for the designated fire-resistance-rated systems.

C. Penetrations in Fire Resistance Rated Walls: Provide firestopping with ratings determined in accordance with UL 1479 or ASTM E 814.

1. F-Rating: Not less than the fire-resistance rating of the wall construction being penetrated.

D. Penetrations in Horizontal Assemblies: Provide firestopping with ratings determined in accordance with UL 1479 or ASTM E 814.

1. F-Rating: Minimum of 1-hour rating, but not less than the fire-resistance rating of the floor construction being penetrated.
2. T-Rating: when penetrant is located outside of a wall cavity, minimum of 1-hour rating, but not less than the fire-resistance rating of the floor construction being penetrated.

3. W-Rating: Class 1 rating in accordance with water leakage test per UL 1479.

E. Penetrations in Smoke Barriers: Provide firestopping with ratings determined in accordance with UL 1479 or ASTM E 814.

1. L-Rating: Not exceeding 5.0 cfm/sq. ft. of penetration opening at both ambient and elevated temperatures.

F. Mold Resistance: Provide penetration firestoppping with mold and mildew resistance rating of 0 as determined by ASTM G21.

G. Firestopping Materials are either “cast-in-place” (integral with concrete placement) or “post installed.” Provide cast-in-place firestop devices prior to concrete placement.

H. LEED Requirements: For field applications that are inside the weatherproofing system, use adhesives and sealants that comply with the South Coast Air Quality Management District (SCAQMD) Rule #1168 VOC limits, corresponding to an effective date of July 1, 2005 and rule amendment date of January 7, 2005. For aerosol adhesives, comply with Greenseal Standard 36 (GS-36) VOC Limits. Aerosol adhesives should meet Green Seal Standard GS36 Green Seal Standard for Commercial adhesives in effect on October 19, 2000.

2.02 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with through penetration firestop systems (XHEZ), joint systems (XHBN), and perimeter firestop systems (XHDG) listed in Volume 2 of the UL Fire Resistance Directory; provide products of the following manufacturers as identified below:

1. Hilti, Inc., Tulsa, Oklahoma
800-879-8000
www.us.hilti.com
Chris Allington 508-509-8316
Chris.allington@hilti.com

2. Substitution requests shall be considered in accordance with contract provisions.

2.03 MATERIALS

A. Use only firestop products that have been UL 1479, ASTM E 814 or UL 2079 tested for specific fire-rated construction conditions conforming to construction assembly type, penetrating item type, annular space requirements, and fire-rating involved for each separate instance.

B. Pre-installed firestop devices for use with noncombustible and combustible pipes (closed and open systems), conduit, and/or cable bundles penetrating concrete floors and/or gypsum walls, the following products are acceptable:

1. Hilti Cast-In Place Firestop Device (CP 680-P)
   a. Add Aerator Adaptor when used in conjunction with aerator system.
2. Hilti Tub Box Kit (CP 681) for use with tub installations.
3. Hilti Cast-In Place Firestop Device (CP 680-M) for use with noncombustible penetrants.
4. Hilti Speed Sleeve (CP 653) for use with cable penetrations.
5. Hilti Firestop Drop-In Device (CFS-DID) for use with noncombustible and combustible penetrants.
6. Hilti Firestop Block (CFS-BL)

C. Sealants, caulking materials, or foams for use with non-combustible items including steel pipe, copper pipe, rigid steel conduit and electrical metallic tubing (EMT), the following products are acceptable:

1. Hilti Intumescent Firestop Sealant (FS-ONE)
2. Hilti Self-leveling Firestop Sealant (CP 604)
3. Hilti Fire Foam (CP 620)
4. Hilti Flexible Firestop Sealant (CP 606)
5. Hilti Elastomeric Firestop Sealant (CP 601S)

D. Sealants or caulking materials for use with sheet metal ducts, the following products are acceptable:

1. Hilti Elastomeric Firestop Sealant (CP 601S)
2. Hilti Flexible Firestop Sealant (CP 606)
3. Hilti Intumescent Firestop Sealant (FS-ONE)

E. Sealants, caulking or spray materials for use with fire-rated construction joints and other gaps, the following products are acceptable:

1. Hilti Firestop Joint Spray (CFS-SP WB)
2. Hilti Elastomeric Firestop Sealant (CP 601S)
3. Hilti Flexible Firestop Sealant (CP 606)
4. Hilti Self-leveling Firestop Sealant (CP 604)

F. Pre-formed mineral wool designed to fit flutes of metal profile deck and gap between top of wall and metal profile deck; as a backer for spray material.

1. Hilti Speed Plugs (CP 777)
2. Hilti Speed Strips (CP 767)

G. Intumescent sealants, caulking materials for use with combustible items (penetrants consumed by high heat and flame) including insulated metal pipe, PVC jacketed, flexible cable or cable bundles and plastic pipe, the following products are acceptable:

1. Hilti Intumescent Firestop Sealant (FS-ONE)

H. Foams, intumescent sealants, or caulking materials for use with flexible cable or cable bundles, the following products are acceptable:

1. Hilti Intumescent Firestop Sealant (FS-ONE)
2. Hilti Fire Foam (CP 620)
3. Hilti Elastomeric Firestop Sealant (CP 601S)
4. Hilti Flexible Firestop Sealant (CP 606)

I. Non-curing, re-penetrable intumescent putty or foam materials for use with flexible cable or cable bundles, the following products are acceptable:

1. Hilti Firestop Putty Stick (CP 618)
2. Hilti Firestop Plug (CFS-PL)

J. Wall opening protective materials for use with U.L. listed metallic and specified nonmetallic outlet boxes, the following products are acceptable:

1. Hilti Firestop Putty Pad (CP 617)

2. Hilti Firestop Box Insert

K. Firestop collar or wrap devices attached to assembly around combustible plastic pipe (closed and open piping systems), the following products are acceptable:

1. Hilti Firestop Collar (CP 643N)
2. Hilti Firestop Collar (CP 644)
3. Hilti Wrap Strips (CP 648E/648S)

L. Materials used for large openings and complex penetrations made to accommodate cable trays and bundles, multiple steel and copper pipes, electrical busways in raceways, the following products are acceptable:

1. Hilti Firestop Mortar (CP 637)
2. Hilti Firestop Block (CFS-BL)
3. Hilti Fire Foam (CP 620)
4. Hilti Firestop Board (CP 675T)

M. Non curing, re-penetrable materials used for large size/complex penetrations made to accommodate cable trays and bundles, multiple steel and copper pipes, electrical busways in raceways, the following products are acceptable:

1. Hilti Firestop Block (CFS-BL)
2. Hilti Firestop Board (CP 675T)

N. Sealants or caulking materials used for openings between structurally separate sections of wall and floors, the following products are acceptable:

1. Hilti Firestop Joint Spray (CFS-SP WB)
2. Hilti Elastomeric Firestop Sealant (CP 601S)
3. Hilti Flexible Firestop Sealant (CP 606)
4. Hilti Self-leveling Firestop Sealant (CP 604)

O. For blank openings made in fire-rated wall or floor assemblies, where future penetration of pipes, conduits, or cables is expected, the following products are acceptable:

1. Hilti CFS-BL Firestop Block
2. Hilti CFS-PL Firestop Plug

P. Provide a firestop system with a "F" Rating as determined by UL 1479 or ASTM E814 which is equal to the time rating of construction being penetrated.

Q. Provide a firestop system with an Assembly Rating as determined by UL 2079 which is equal to the time rating of construction joint assembly.

PART 3 - EXECUTION

3.01 PREPARATION

A. Verification of Conditions: Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion.

1. Verify penetrations are properly sized and in suitable condition for application of materials.

2. Surfaces to which firestop materials will be applied shall be free of dirt, grease, oil, rust, laitance, release agents, water repellents, and any other substances that may affect proper adhesion.
3. Provide masking and temporary covering to prevent soiling of adjacent surfaces by firestopping materials.
4. Comply with manufacturer's recommendations for temperature and humidity conditions before, during and after installation of firestopping.
5. Do not proceed until unsatisfactory conditions have been corrected.

3.02 COORDINATION

A. Coordinate construction of openings, penetrations and construction joints to ensure that the fire stop systems are installed according to specified requirements.

B. Coordinate sizing of sleeves, openings, core-drilled holes, or cut openings to accommodate through-penetration fire stop systems. Coordinate construction and sizing of joints to ensure that fire-resistive joint systems are installed according to specified requirements.

C. Coordinate fire stopping with other trades so that obstructions are not placed in the way prior to the installation of the fire stop systems.

D. Do not cover up through-penetration fire stop and joint system installations that will become Concealed behind other construction until each installation has been examined by the building inspector.

3.03 INSTALLATION

A. Regulatory Requirements: Install firestop materials in accordance with UL Fire Resistance Directory or Omega Point Laboratories Directory.

B. Manufacturer's Instructions: Comply with manufacturer's instructions for installation of through-penetration and construction joint materials.

1. Seal all holes or voids made by penetrations to ensure an air and water resistant seal.
2. Consult with mechanical engineer, project manager, and damper manufacturer prior to installation of UL firestop systems that might hamper the performance of fire dampers as it pertains to duct work.
3. Protect materials from damage on surfaces subjected to traffic.

3.04 FIELD QUALITY CONTROL

A. Examine sealed penetration areas to ensure proper installation before concealing or enclosing areas.

B. Keep areas of work accessible until inspection by applicable code authorities.

C. Inspection of through-penetration firestopping shall be performed in accordance with ASTM E 2174, “Standard Practice for On-Site Inspection of Installed Fire Stops” or other recognized standard.

D. Perform under this section patching and repairing of firestopping caused by cutting or penetrating of existing firestop systems already installed by other trades.

E. Manufacturer's Field Services: During Installation, provide periodic destructive testing inspections to assure proper installation/application. After installation is complete, submit findings in writing indicating whether or not the installation of the tested system identified was installed correctly.

3.05 IDENTIFICATION & DOCUMENTATION

A. The firestop contractor is to supply documentation for each single application addressed. This documentation is to identify each penetration and joint location on the entire project.

A.1 The Documentation Form for through penetrations is to include:

1. A Sequential Location Number
2. The Project Name
3. Date of Installation
4. Detailed description of the penetrations location
5. Tested System or Engineered Judgment Number
6. Type of assembly penetrated
7. A detailed description of the size and type of penetrating item
8. Size of opening
9. Number of sides of assemblies addressed
10. Hourly rating to be achieved
11. Installers Name

A.2 The Documentation Form for Construction Joints is to include:

1. A Sequential Location Number
2. The Project Name
3. Date of Installation
4. Detailed description of the Construction Joints location
5. Tested System or Engineered Judgment Number
6. Type of Construction Joint
7. The Width of the Joint
8. The Lineal Footage of the Joint
9. Number of sides addressed
10. Hourly rating to be achieved
11. Installers Name

B. Copies of these documents are to be provided to the general contractor at the completion of the project.

C. Identify through-penetration firestop systems with pressure-sensitive, self-adhesive, preprinted vinyl labels. Attach labels permanently to surfaces of penetrated construction on both sides of each firestop system installation where labels will be visible to anyone seeking to remove penetrating items or firestop systems. Include the following information on labels:

1. The words: "Warning -Through Penetration Firestop System-Do Not Disturb. Notify Building Management of Any Damage."
2. Contractor's Name, address, and phone number.
3. Through-Penetration firestop system designation of applicable testing and inspecting agency.
4. Date of Installation.
5. Through-Penetration firestop system manufacturer's name.

6. Installer's Name.

3.06 ADJUSTING AND CLEANING

A. Remove equipment, materials and debris, leaving area in undamaged, clean condition.

B. Clean all surfaces adjacent to sealed holes and joints to be free of excess firestop materials and soiling as work progresses.

3.07 LABOR USE TO INSTALL FIRESTOP SYSTEMS

A. To ensure complete harmony on the project site, the installation of each scope of work is to be performed jurisdictionally correct per existing trade agreements.

END OF SECTION