City of Biddeford
Staff Review Committee

February 17, 2026 at 10:30 AM

THIS MEETING HAS BEEN POSTPONED

City Hall Council Chambers & Teams

Click to Join Meeting Online

1. Declaration of Quorum/Voting Members

2. Open Public Hearing

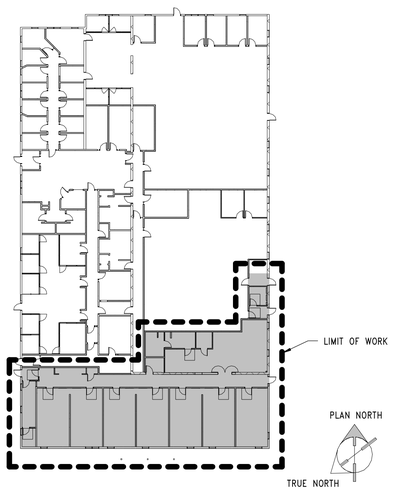
   2.a 2025.22 Staff Review Committee to review request for Maine Health to create a Maine Health Transition Home in a portion of a multi-tenant building located at 208 Graham Street, Biddeford, ME. (Tax Map 28, Lot 58) in the R2 Zone.

3. Close Public Hearing

208 GRAHAM STREET GROUP HOME RENOVATION

208 GRAHAM STREET BIDDEFORD, ME 04005

KEY PLAN



VICINITY MAP

DRAWING STATUS LIST

DWG NO.	DRAWING NAME	CONCEPT DESIGN (NOVEMBER 12, 2024)	DESIGN DEVELOPMENT (JUNE 25, 2025)	FOR PERMIT (SEPTEMBER 12, 2025)	ISSUED FOR CONSTRUCTION (OCTOBER 23, 2025)
	GENERAL DRAWINGS				
CP	COVER PAGE		●	●	●
LS1.00	CODE REVIEW		●	●	●
LS1.01	FIRST FLOOR LIFE SAFETY PLAN	●	●	●	●
N.I.C.1.12	OVERALL FIRST FLOOR PLAN – EXISTING EXTERIOR CONDITIONS – N.I.C.			●	●
N.I.C.3.10	EXISTING EXTERIOR CONDITIONS – N.I.C.			●	●
	ARCHITECTURAL DRAWINGS				
A0.01	NOTES & LEGENDS		●	●	●
AD1.10	FIRST FLOOR REMOVALS FLOORPLAN		●	●	●
A1.10	FIRST FLOOR NEW WORK PLAN	●	●	●	●
A1.20	ROOF PLAN		●	●	●
AD2.10	FIRST FLOOR REMOVALS REFLECTED CEILING PLAN		●	●	●
A2.10	FIRST FLOOR REFLECTED CEILING PLAN		●	●	●
A1.U1	UNIT PLAN – 1 BR TYPE U1 (ADAAG ACCESSIBLE)		●	●	●
A1.U2	UNIT PLAN – 1 BR TYPE U2 (TYPE 'B')		●	●	●
A4.00	INTERIOR ELEVATIONS		●	●	●
A4.01	INTERIOR ELEVATIONS		●	●	●
A4.10	INTERIOR DETAILS		●	●	●
A4.11	INTERIOR DETAILS		●	●	●
A4.12	SHOWER DETAILS AND FLOORING TRANSITIONS		●	●	●
A8.01	DOOR AND DOOR FRAME SCHEDULE, ELEVATIONS AND DETAILS		●	●	●
A8.02	DOOR, FRAME & HARDWARE SPECIFICATIONS			●	●
A8.03	HARDWARE SCHEDULE			●	●
A8.20	WINDOW SCHEDULE, ELEVATIONS AND DETAILS		●	●	●
A9.00	INTERIOR FINISHES LEGEND AND SCHEDULES		●	●	●
A9.10	FIRST FLOOR FINISHES PLAN		●	●	●

DWG NO.	MECHANICAL DRAWINGS	ISSUED 1	ISSUE D 2	ISSUE D 3	ISSUED 4
M-001	MECHANICAL NOTES, LEGENDS AND ABBREVIATIONS		●	●	●
M-002	SPECIFICATIONS		●	●	●
M-003	SPECIFICATIONS		●	●	●
M-004	SPECIFICATIONS		●	●	●
M-005	SPECIFICATIONS			●	●
M-006	SPECIFICATIONS		●	●	●
MD-101	MECHANICAL FIRST FLOOR HVAC PLAN – REMOVALS		●	●	●
M-101	MECHANICAL FIRST FLOOR HVAC PLAN – NEW WORK		●	●	●
M-102	MECHANICAL ROOF PLANS				●
M-501	MECHANICAL DETAILS		●	●	●
M-502	MECHANICAL DETAILS		●	●	●
M-503	MECHANICAL DETAILS		●	●	●
M-601	MECHANICAL SCHEDULES		●	●	●
M-602	MECHANICAL SCHEDULES		●	●	●
	ELECTRICAL DRAWINGS				
E-001	ELECTRICAL LEGEND ABBREVIATIONS AND GENERAL NOTES		●	●	●
E-002	SPECIFICATIONS		●	●	●
E-003	SPECIFICATIONS		●	●	●
E-004	SPECIFICATIONS		●	●	●
E-101	FIRST FLOOR ELECTRICAL PLAN – NEW WORK		●	●	●
E-102	ELECTRICAL ROOF PLAN PARTS				●
E-103	Unnamed				
E-401	ELECTRICAL ENLARGED PLAN			●	●
E-501	ONE LINE DIAGRAM		●	●	●
E-502	ELECTRICAL DETAILS			●	●
E-601	LIGHTING SCHEDULES		●	●	●
E-602	PANEL SCHEDULES – L8 & L1-7			●	●
E-603	PANEL SCHEDULE – A			●	●
ED101	FIRST FLOOR ELECTRICAL PLAN – REMOVALS		●	●	●
	PLUMBING DRAWINGS				
P-001	PLUMBING NOTES, LEGENDS, AND ABBREVIATIONS		●	●	●
P-002	SPECIFICATIONS		●	●	●
PD-101	PLUMBING FIRST FLOOR BELOW-SLAB DRAINAGE – REMOVALS		●	●	●
PD-102	PLUMBING FIRST FLOOR ABOVE-SLAB DRAINAGE – REMOVALS		●	●	●
PD-103	PLUMBING SUPPLY PIPING PLAN – REMOVALS		●	●	●
P-101	PLUMBING FIRST FLOOR BELOW-SLAB PLAN – NEW WORK		●	●	●
P-102	PLUMBING ABOVE-SLAB DRAINAGE PLAN – NEW WORK		●	●	●
P-103	PLUMBING SUPPLY PIPING PLAN – NEW WORK		●	●	●
P-401	PART PLANS		●	●	●
P-501	PLUMBING DETAILS		●	●	●
P-601	PLUMBING SCHEDULES		●	●	●
	FIRE PROTECTION DRAWINGS				
FP001	FIRE PROTECTION NOTES, LEGENDS AND DETAILS		●	●	●
FP101	FIRST FLOOR FIRE PROTECTION PART PLAN – NEW WORK		●	●	●
FP102	FIRST FLOOR FIRE PROTECTION PART PLAN – NEW WORK		●	●	●
FP103	FIRST FLOOR FIRE PROTECTION PART PLAN – NEW WORK		●	●	●
FA001	FIRE ALARM NOTES, LEGENDS, AND ABBREVIATIONS		●	●	●
FA101	FIRST FLOOR FIRE ALARM PLAN – REMOVALS		●	●	●
FA102	FIRST FLOOR FIRE ALARM PART PLAN – REMOVALS		●	●	●
FA103	FIRST FLOOR FIRE ALARM PART PLAN – REMOVALS		●	●	●
FA104	FIRST FLOOR FIRE ALARM PART PLAN – NEW WORK		●	●	●
FA105	FIRST FLOOR FIRE ALARM PART PLAN – NEW WORK		●	●	●
FA106	FIRST FLOOR FIRE ALARM PART PLAN – NEW WORK		●	●	●

BUILDING OWNER:

MaineHealth

MAINE HEALTH
22 BRAMHALL STREET
PORTLAND, ME 04102

ARCHITECT:

CWS ARCHITECTS
ARCHITECTURE | INTERIOR DESIGN

CWS ARCHITECTS
264 US ROUTE 1, BOX 6, SUITE 100-2A
SCARBOROUGH, MAINE 04074

CONSTRUCTION MANAGER:

Doten's CONSTRUCTION

DOTEN'S CONSTRUCTION
392 US ROUTE 1
FREEPORT, ME 04032

MECHANICAL, ELECTRICAL, PLUMBING, CIVIL, STRUCTURAL & FIRE PROTECTION ENGINEERING:

COLBY COMPANY, LLC CCE engineering & design

COLBY COMPANY
47 YORK ST
PORTLAND, ME 04101

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PLANNING + DESIGN CONSTRUCTION SERVICES

DESIGNER

LICENSED ARCHITECT BENJAMIN FREED № 5397 STATE OF MAINE

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OWNER

MaineHealth
22 BRAMHALL STREET
PORTLAND, MAINE 04102

PROJECT

208 GRAHAM STREET LIVING RENOVATION
208 GRAHAM STREET,
BIDDEFORD, MAINE 04005

DRAWING

COVER PAGE
CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER
CP

SCALE: 1/32" = 1'-0"
DATE: 2025 | 10 | 23

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ISSUED FOR CONSTRUCTION

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CWS
ARCHITECTURE + INTERIOR DESIGN

June 16, 2025

CODE COMPLIANCE REPORT

MaineHealth – MBHU Group Home at 208 Graham Street
208 Graham Street
Biddeford, Maine 04005

1.0 CODES REVIEW:

Description of Building's Function and Program:

208 Graham Street is a is an existing, single-story 21,505 sq ft building of Mixed Use Business (B) and Unconcentrated Assembly (A-3) occupancy types. The existing building consists of 18,803 sq ft Business (B) and 2,702 sq ft Assembly (A-3) and is not sprinklered.
The renovated portion includes a change of occupancy type of 5,141 sq ft from mixed B & A-3 occupancy to Residential (R-4). Existing Business and Assembly areas are not within the project scope with the exception of an NFPA 13 Sprinkler Installation to the entire building. The following Code Summary considers this building to be a Separated Use R-4 facility. The proposed scope of work contains no incidental use areas.

Applicable Codes:
1. FEDERAL, STATE AND LOCAL MUBEC CODES AND REGULATIONS:
   A. INTERNATIONAL RESIDENTIAL CODE 2021 (IRC)
   B. INTERNATIONAL BUILDING CODE 2021 (IBC)
   C. INTERNATIONAL EXISTING BUILDING CODE 2021 (IEBC)
   D. INTERNATIONAL ENERGY CONSERVATION CODE 2021 (IECC)
   E. INTERNATIONAL MECHANICAL CODE 2021 (IMC)
2. ASHRAE STANDARDS
   A. 62.1 - 2019 VENTILATION FOR ACCEPTABLE INDOOR QUALITY
   B. 62.2 - 2019 VENTILATION FOR ACCEPTABLE INDOOR QUALITY IN LOW-RISE RESIDENTIAL BUILDINGS
   C. 90.1 - 2019 ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS EDITIONS WITHOUT ADDENDA
   E. E-1465-2008, STANDARD PRACTICE FOR RADON CONTROL OPTIONS FOR THE DESIGN AND CONSTRUCTION OF NEW LOW-RISE RESIDENTIAL BUILDINGS
3. MAINE PLUMBING CODE, UNIFORM PLUMBING CODE - 2021
4. NFPA 70 - NATIONAL ELECTRICAL CODE - 2020
5. NFPA 72 - NATIONAL FIRE ALARM & SIGNALING CODE - 2019
6. MAINE FIRE CODE - NFPA 1, 2018
7. NFPA 101 LIFE SAFETY CODE - 2018
8. 2006 GUIDELINES FOR DESIGN AND CONSTRUCTION OF HEALTHCARE FACILITIES

1.0.A Occupancy Classification(s):

IBC 2021:
Use and Occupancy Classification:
Section 308.3.3 - Institutional group I-1 serving 6 to 16 persons receiving custodial care shall be classified as group R-4. This facility classifies as R-4 condition 1, in which all persons receiving custodial care, without any assistance, are capable of responding to an emergency situation to complete building evacuation.

NFPA 101 - 2018:
Use and Occupancy Classification:
Chapter 32 – "New Residential Board and Care Occupancy"
(Small) – Serving fewer than 16 residents

1.0.B Separation of Use Strategy:

This building is considered a separated use facility

IBC 2021 – Chapter 5, Table 508.4
Assembly (A) & Residential (R) = 1 Hr (Sprinklered)
Business (B) & Residential (R) = 1 Hr (Sprinklered)

NFPA 101 – Table 6.1.14.4.1
Assembly ≤ 300 Occ. & Board & Care, Small = 1 Hr (Sprinklered)
Business & Board & Care, Small = 1 Hr (Sprinklered)

1.0.C Specific Occupancy Areas / Special Detailed Requirements Based On Occupancy/ Incidental Use Areas relative to the Scope of this Project:

NFPA 32.3.3.2.2 Hazardous Area Protection
Proposed Storage Room = 91 sq ft
(Storage Rooms > 50 sq ft, but not exceeding 100 sq ft storing combustible material shall be separated w/ a Smoke Partition)

NFPA 32.3.3.6 Construction of Corridor Walls – to be Smoke Partitions with ½ Hour fire resistance rating
32.3.3.6.2 - Walls separating Sleeping rooms shall have a minimum ½ Hour fire resistance rating

IBC 2021 - Table 509.1:

1. Laundry rooms over 100 sq ft – 1 Hour. Note proposed laundry room is 99 sq ft.

Section 420 Group R-4 Requirements

420.2 Separation Walls – Ref. 708.3 Exception 2, Dwelling Unit Demising Walls = ½ Hour
Corridor Walls per Table 1020.2 Exception C = ½ Hour

Single or multiple-station Smoke Alarms to be installed and maintained per IBC 907.2.11.2 at all of the following locations:
1. On the ceiling or wall outside of each sleeping area in the immediate vicinity of bedrooms
2. In each room used for sleeping purposes
3. In each story within a dwelling unit

IBC 420.10 Group R cooking facilities – Ref. International Mechanical Code 917.2 *Domestic Appliances*
Cooking appliances installed within *dwelling units* and within areas where domestic cooking operations occur shall be *listed* and *labeled* as household type appliances for domestic use

1.0.E Type of Construction/ Required Fire Resistance Ratings of applicable Building Elements

IBC Table 601 for Construction Type VB:

Existing Primary Structural Frame System = 0 Hr
Existing Exterior Bearing Walls = 0 Hr
Existing Interior Bearing Walls = 0 Hr
Nonbearing Walls/ Partitions = 0 Hr
Floor Construction = 0 Hr
Roof Construction = 0 Hr

NFPA 32.2.2.4.4 for Type V (000)

No Requirement

Existing Type of Construction:

IBC 2021: Type VB (Scope of Renovation to Include Fully Sprinklering Entirety of Building w/ NFPA 13 System). Note original building construction is protected noncombustible (approximately 17,674 sq ft) with a protected, combustible addition (approximately 3,831 sq ft). The proposed scope of work includes the entirety of the combustible addition.

NFPA Table 32.3.1.3: Type V (000) sprinklered

1.0.F Building Height and Area Limitations:

Building Height:

IBC 2021 – Chapter 5, Section 504.4

Allowable height and number of stories for Type VB with NFPA 13 sprinkler system

Allowable Height: Table 504.3 for R-4 use:	60′
Allowable Stories: Table 504.4 for R-4 use:	3 Stories
Actual Height:	+/- 20′
Actual Stories:	1 Story

Building Area:

IBC 2021 – Chapter 5, Table 506.2:
Allowable area factor for R-4, Type VB Construction S1 = 28,000 sq ft

Total combined area = 21,505 sq ft (This Conforms)

1.0.G Common Compliancy Elements:

2021 IBC

Compliancy Item	Residential R-4 Occupancy
Minimum Corridor Width (Table 1020.3)	44″ (36″ for occupant load < 50)
Dead-end corridor (Section 1020.5)	20′-0″
Exit Access Travel Distance (Table 1017.2)	250′-0″
Common path of Egress travel (Table 1006.2.2.6)	75′-0″
Egress Stairway width factor (Section 1005.3.1)	N/A
Other Egress Components width factor (Section 1005.3.2 Exception 1)	0.15

2018 - NFPA 101

Compliancy Item	New Residential Board & Care Occupancy
Dead-end corridor 32.3.2.5.4	30′
Travel distance to Exits 32.3.2.6	250′
(Common path of travel) 32.3.2.5.2	75′
Minimum Corridor Width 7.3.4.1 (2)	36″
Egress Components width factor 7.3.3.1	0.2″/person for level components and ramps

1.0.H Means of Egress:

IBC 2015 – Chapter 10, Table 1004.5

Occupant Load Factors Sq Ft per Occupant:

Residential =	200 gross
Accessory storage areas =	300 gross
Unconcentrated Assembly =	15 net
Business areas =	100 gross

NFPA 101 – Chapter 7, Table 7.3.1.2

Occupant Load Factors Sq Ft per Occupant:

Residential Board & Care =	200 gross
Storage =	500 gross
Unconcentrated Assembly =	15 net
Kitchens =	100 gross
Business areas =	150 gross

1.0.J Vestibule Requirements:

IECC Section 402.5.9
Exception 4, Vestibules are not required for the following:
Doors that open directly from a space less than 3,000 square feet (298 m²) in area.

Proposed door 200A opens directly from a 1,361 sq ft space and does not require a vestibule be provided.

This sq ft calculation includes vestibule 208 as well as the open common spaces Community Kitchen 211, Community Living Room 209 & Community Dining Room 210, as door 210 is to include magnetic hold-opens that will hold the door in an open position when fire alarm is not activated.

Plan Calculations:

Refer to Life Safety Sheet LS1.01 for all occupant load information.

End of Code Compliance Summary

Compliancy Report Completed by:

Bhen Reed, AIA, NCARB
Project Manager – CWS Architects + Interior Design
Maine License #5397

LICENSED ARCHITECT BHEN JAMIN REED № 5397 STATE OF MAINE

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Scarbough, Maine 04074
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OWNER

27 BRAINHALL STREET,
PORTLAND, MAINE 04102

PROJECT

208 GRAHAM STREET LIVING RENOVATION

208 GRAHAM STREET,
BIDDEFORD, MAINE 04005

DRAWING

CODE REVIEW

CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER
LS1.00

SCALE:

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LIFE SAFETY PLAN LEGEND:

FIRE BARRIERS:

1/2-HOUR FIRE-RATED

1-HOUR FIRE-RATED

SMOKE PARTITION:

SMOKE PARTITION — SP — SP — SP — SP

TRAVEL DISTANCES:

TRAVEL DISTANCE TO AN EXIT: TD = 0'-0"

ALLOWABLE = 250'-0"
PROVIDED = 87'-0" (PASS)

COMMON PATH OF TRAVEL: CPT = 0'-0"

ALLOWABLE = 75'-0"
PROVIDED = 27'-0" (PASS)

DEAD END CORRIDOR: DEC = 0'-0"

N/A

SYMBOL LEGEND:

XXX — OCCUPANT COUNT

EXIT LIGHT - TO BE ILLUMINATED GREEN w/ WHITE HOUSING. COORDINATE w/ COLBY ELECTRICAL DRAWINGS

FE — FIRE EXTINGUISHER (A,B,C)

EMERGENCY LIGHTING - COORDINATE w/ COLBY ELECTRICAL DRAWINGS

REFERENCE COLBY COMPANY FIRE PROTECTION DRAWINGS FOR FIRE ALARM AND SPRINKLER INFORMATION.

LIFE SAFETY HATCH AREA LEGEND

OCCUPANCY TYPE HATCH LEGEND

BUSINESS (B)
100 SQ FT GROSS/ OCCUPANT

ASSEMBLY UNCONCENTRATED
15 SQ FT NET/ OCCUPANT

ASSESSORY STORAGE/ UTILITY
300 SQ FT GROSS/ OCCUPANT

RESIDENTIAL (R-4)
200 SQ FT GROSS/ OCCUPANT

TOTAL OCCUPANT COUNT FOR FACILITY = 275

REQUIRED NUMBER OF EXTS = 3

NUMBER OF EXITS PROVIDED = 8 (PASS)

CWS ARCHITECTURE + INTERIOR DESIGN

PLANNING + DESIGN CONSTRUCTION SERVICES

DESIGNER

LICENSED ARCHITECT BHEN JAMIN REED No 5397 STATE OF MAINE

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MaineHealth
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DRAWING

FIRST FLOOR LIFE SAFETY PLAN

CWS PROJECT NUMBER: 24046

REVISIONS

PROJECT NORTH

PLAN NORTH / TRUE NORTH

DRAWING NUMBER

LS1.01

SCALE: As indicated

DATE: 2025 | 10 | 23

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A5 **OVERALL FIRST FLOOR LIFE SAFETY PLAN**

REFERENCED FROM: SCALE: 3/32" = 1'-0"

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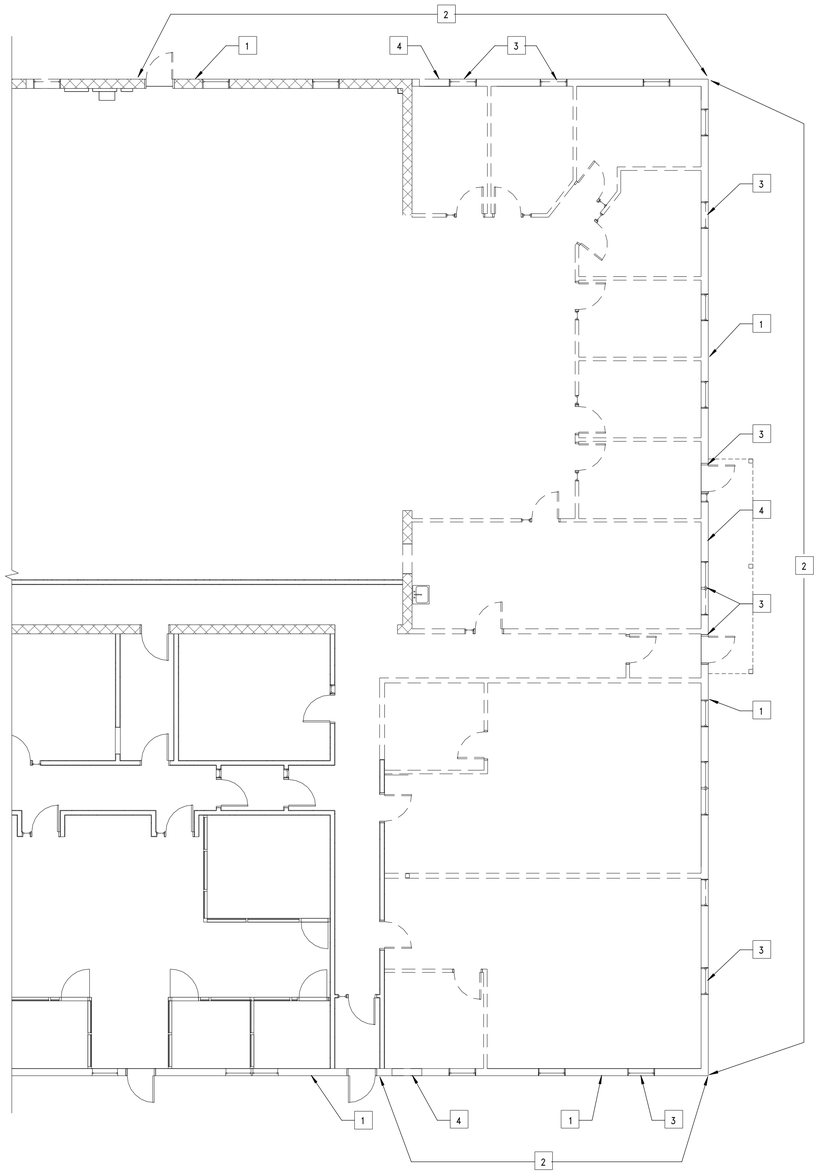
ISSUED FOR CONSTRUCTION

1 REPAIRS TO EXTERIOR SIDING TO BE PERFORMED BY OWNER – N.I.C. REFERENCE EXTERIOR EXISTING CONDITIONS PHOTOS

2 REPAIRS TO ASPHALT SHINGLE ROOF EDGE TO BE PERFORMED BY OWNER – N.I.C. REFERENCE EXTERIOR EXISTING CONDITIONS PHOTOS

3 EXISTING DOOR/WINDOW ASSEMBLY TO BE REMOVED AND INFILLED – BY MAINE BEHAVIORAL HEALTH'S GC

4 EXTENTS OF EXTERIOR WALL ASSEMBLY TO BE REMOVED FOR INSTALLATION OF NEW DOOR/WINDOW – BY MAINE BEHAVIORAL HEALTH'S GC



A5 FIRST FLOOR PLAN - EXISTING EXTERIOR CONDITIONS

REFERENCED FROM: SCALE: 1/8" = 1'-0"

1 REPAIRS TO EXTERIOR SIDING TO BE PERFORMED BY OWNER – N.I.C. REFERENCE EXTERIOR EXISTING CONDITIONS PHOTOS

2 REPAIRS TO ASPHALT SHINGLE ROOF EDGE TO BE PERFORMED BY OWNER – N.I.C. REFERENCE EXTERIOR EXISTING CONDITIONS PHOTOS

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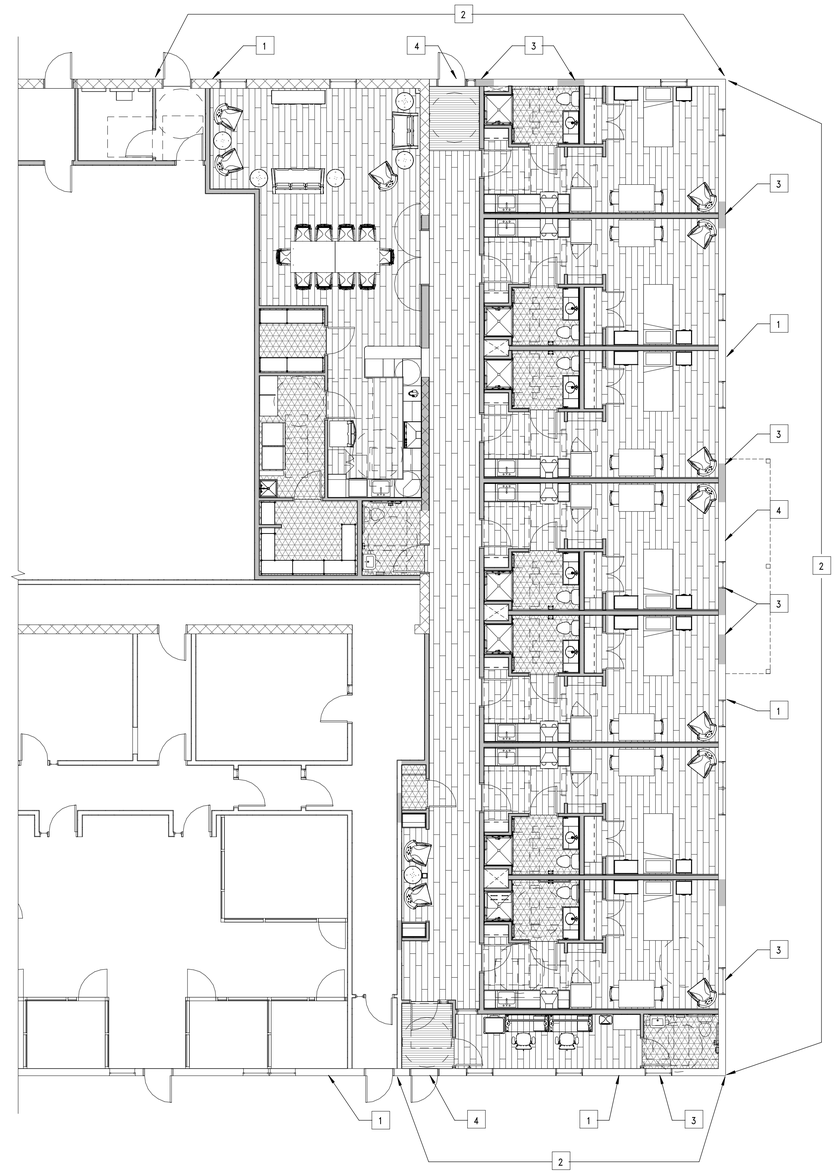

E5 FIRST FLOOR PLAN - NEW EXTERIOR CONDITIONS

REFERENCED FROM: SCALE: 1/8" = 1'-0"

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CWS ARCHITECTURE + INTERIOR DESIGN

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DESIGNER

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DRAWING

OVERALL FIRST FLOOR PLAN - EXISTING EXTERIOR CONDITIONS - N.I.C.

CWS PROJECT NUMBER: 24046

REVISIONS

PROJECT NORTH

PLAN NORTH

TRUE NORTH

DRAWING NUMBER

N.I.C.1.12

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

DATE: 2025 | 10 | 23

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ISSUED FOR CONSTRUCTION

1 REPAIRS TO EXTERIOR SIDING TO BE PERFORMED BY OWNER – N.I.C.

2 REPAIRS TO ASPHALT SHINGLE ROOF EDGE TO BE PERFORMED BY OWNER – N.I.C.

CWS ARCHITECTURE + INTERIOR DESIGN

PLANNING + DESIGN
CONSTRUCTION SERVICES

DESIGNER

LICENSED ARCHITECT
BRIEN JAMIN REED
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BIDDEFORD, MAINE 04005

DRAWING

EXISTING EXTERIOR CONDITIONS - N.I.C.

CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER
N.I.C.3.10

SCALE:

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ABBREVIATIONS

A/C	AIR CONDITIONING
ACPLAS	ACOUSTICAL PLASTER
ACT	ACOUSTIC CEILING TILE
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
BCE	BOTTOM CHORD EXTENSION
BD	BOARD
BLP	BORROWED LIGHT PANEL
BO	BOTTOM OF
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STEEL
BS	BOTH SIDES
BSE	BRICK SHELF ELEVATION
C	CHANNEL
CPT	CARPET
CB	CATCH BASIN; CHALKBOARD
CFM	CUBIC FEET PER MINUTE
CJ	CONTROL JOINT; CONSTRUCTION JOINT
CMU	CONCRETE MASONRY UNIT
CT	CERAMIC TILE
CUH	CABINET UNIT HEATER
DF	DRINKING FOUNTAIN
DR	DISPLAY RAIL
DW	DISHWASHER
EF	EXHAUST FAN; EACH FACE
EJ	EXPANSION JOINT
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
FB	FLAT BAR
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEAN-OUT
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR; FAR FACE
FO	FRAMED OPENING
FS	FAR SIDE
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GDT	GYPSUM DROP-IN TILE
GWB	GYPSUM WALL BOARD
H	HORIZONTAL
HC	HANDICAPPED; HOLLOW CORE
HM	HOLLOW METAL
HRU	HEAT RECOVERY UNIT
H&V	HEATING AND VENTILATING
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
IF	INSIDE FACE
IJ	ISOLATION JOINT
INV	INVERT
JS	JOIST SUBSTITUTE
L	ANGLE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LIGHTING PANEL
MB	MARKER BOARD
MDO	MEDIUM DENSITY OVERLAY
MO	MASONRY OPENING
MR	MOISTURE-RESISTANT
MUA	MAKE-UP AIR
N	NOSING
NIC	NOT IN CONTRACT
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OF	OUTSIDE FACE; OWNER FURNISHED
OFIC	OWNER FURNISHED AND INSTALLED BY CONTRACTOR
OH	OVERHEAD
PA	PUBLIC ADDRESS
PAF	POWDER-ACTUATED FASTENER
PLAM	PLASTIC LAMINATE
PLF	POUNDS PER LINEAR FOOT
PP	POWER PANEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE
PVC	POLYVINYL CHLORIDE
R	RISER; RADIUS
RB	RESILIENT BASE
RD	ROOF DRAIN
RO	ROUGH OPENING
RR	RUB-RAIL
SACT	SUSPENDED ACOUSTIC TILE CEILING
SC	SOLID CORE
SF	SQUARE FOOT; SUPPLY FAN
SK	SHEAR KEY
SN	SANITARY NAPKIN (DISPENSER)
SP	SPACES
SS	STAINLESS STEEL
T	TREAD
TB	TACK BOARD
T&B	TOP AND BOTTOM
TBM	TEMPORARY BENCHMARK
TCE	TOP CHORD EXTENSION
TJ	TIE JOIST
TO	TOP OF
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOP	TOP OF PIER
TOS	TOP OF STEEL; TOP OF SLAB
TOW	TOP OF WALL
TP	TOILET PAPER (DISPENSER)
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
V	VENT PIPE; VERTICAL
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VIF	VERIFY IN FIELD
VP	VISION PANEL
VTR	VENT THROUGH THE ROOF
W/	WITH
WC	WATER CLOSET
WF	WIDE FLANGE
WH	WATER HEATER
W/O	WITHOUT
WP	WORKING POINT
WS	WEB STIFFENER
WWF	WELDED WIRE FABRIC

SYMBOLS LEGEND

XX / XXX — SECTION

XX / XXX — DETAIL

ELEVATION LEVEL

2 — REVISION

A — WINDOW TYPE

100A — DOOR NUMBER

CONFERENCE ROOM / 100 — ROOM NAME / ROOM NUMBER

A / D A A6.1 B / C — INTERIOR ELEVATION

S — CONTINUOUS BACKER ROD AND SEALANT

XX / XXX — EXTERIOR ELEVATION

INDICATES NEW WALL / PARTITION

1A — WALL TYPE

PROVIDE BLOCKING FOR ALL CABINET ASSEMBLIES AND TOILET ROOM ACCESSORIES AS REQUIRED. TYPICAL ALL WALLS ALL SPACES.

GENERAL WALL ASSEMBLY NOTES

1. PROVIDE MOISTURE RESISTANCE TYPE "MRX" GWB AT ALL WALL SURFACES WITHIN ALL TOILET ROOMS AND LAUNDRY ROOM. PROVIDE TYPE "MRX" GWB TO 4'-0" A.F.F. BEHIND ALL SINK LOCATIONS WHETHER INDICATED OR NOT.
2. PROVIDE MIN. 1/2" CLEARANCE BETWEEN CONC. SLAB AND GWB AND SEAL WITH ACOUSTIC SEALANT. PROVIDE SILL SEALER INSULATION FOR BOTTOM OF PLATES OF PARTITIONS FOR WALLS. UTILIZE APPROPRIATE FIRE STOPPING / SEALANT MATERIALS ONLY AT FIRE RATED ASSEMBLIES.
3. BRACE WALL ASSEMBLIES TO STRUCTURE ABOVE AT ALL DOORS AND ELSEWHERE AS REQUIRED.
4. PROVIDE SOLID FIRE RATED BLOCKING AS INDICATED ON DRAWINGS AND AS REQUIRED BY MANUFACTURER'S EQUIPMENT (CASE WORK, TOILET ACCESSORIES, CLOSET RODS & SHELVING, H.C. GRAB BARS, ETC.)
5. PROVIDE CONTINUOUS ACOUSTICAL SEALANT AT ALL PENETRATIONS (I.E. ELECTRICAL BOXES, DUCTS, SPRINKLER HEADS, ETC.) IN WALLS, FLOORS, AND CEILINGS. UTILIZE APPROPRIATE FIRE STOPPING/SEALANT MATERIALS ONLY AT FIRE RATED ASSEMBLIES.
6. SEAL ALL PENETRATIONS IN VAPOR BARRIER, (EXTERIOR WALLS & CONCRETE SLAB-ON-GRADE) AS REQUIRED WITH APPROVED SEALERS, INSULATION, AND TAPES.
7. AT WALL INFILL LOCATIONS, PROVIDE FURRING AS REQUIRED, TO ALIGN NEW FINISHED FACES WITH ADJACENT EXISTING FINISHED FACES ON BOTH SIDES.

FIRE-SAFING AND FIRE STOPPING NOTES

FIRE SAFING & FIRE STOPPING PENETRATIONS:

PROVIDE FIRE SAFING SYSTEM / MATERIAL AT ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. UTILIZE ONLY AND CONFORM TO UL TESTED AND APPROVED DETAILING AND METHODS APPROPRIATE FOR THE CONDITION AT HAND. COORDINATE PROPOSED FIRE SAFING SYSTEMS & MATERIALS FOR APPROPRIATENESS AND COMPATIBILITY WITH THE FIRE RATING SYSTEM PENETRATED. REFERENCE SPECIFICATIONS FOR SUBMITTAL REVIEW AND APPROPRIATE REQUIREMENTS.

FIRE SAFING & FIRE STOPPING TOP OF FIRE RATED WALL ASSEMBLIES AND JOINTS:

PROVIDE FIRE SAFING SYSTEM / MATERIAL AS REQUIRED TO PROPERLY SEAL ALL TOP OF FIRE RATED WALL ASSEMBLIES AND FLOOR/WALL JOINT CONDITIONS. UTILIZE ONLY AND CONFORM TO UL TESTED AND APPROVED DETAILING AND METHODS APPROPRIATE FOR THE CONDITION AT HAND. REFERENCE SPECIFICATIONS FOR SUBMITTAL REVIEW AND APPROVAL REQUIREMENTS.

INAPPROPRIATE FIRE SEALANT / STOPPING MATERIAL USE:

THE CONTRACTOR SHALL NOT UTILIZE FIRE STOPPING / SEALANT AT ANY NON-FIRE RATED CONDITIONS. UTILIZE FIRE STOPPING / SEALANT ONLY WHERE REQUIRED. FIRE STOPPING MATERIALS SHALL BE RED IN COLOR.

GENERAL NOTES PERTAINING TO THE CONSTRUCTION & CONSTRUCTION DOCUMENTATION

1. THE DESIGN-BUILD CONTRACTOR SHALL REVIEW AND DIRECT ALL SUB-CONTRACTORS TO REVIEW ALL DRAWINGS & COORDINATE w/ OWNER TO ASCERTAIN THE SCOPE OF WORK FOR EACH TRADE PRIOR TO BID. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR ALL DRAWINGS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH FEDERAL, STATE, CITY, AND LOCAL BUILDING CODES AND THEIR REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PERMITS AND APPROVALS AS REQUIRED BY THE LOCAL JURISDICTION AUTHORITIES FOR THIS JOB.
3. BEFORE COMMENCING WORK, THE CONTRACTOR SHALL VERIFY THAT NO CONFLICTS EXIST IN LOCATIONS OF ANY AND ALL MECHANICAL, ELECTRICAL AND TELEPHONE ITEMS (INCLUDING PIPING, DUCTWORK, LIGHTING AND/OR CONDUIT) AND THAT ALL REQUIRED CLEARANCES OR INSTALLATIONS FOR ABOVE EQUIPMENT ARE PROVIDED. COORDINATION SHALL BE PERFORMED PRIOR TO CONSTRUCTION.
4. THE CONTRACTORS FAILURE TO REPORT ANY DISCREPANCIES WITHIN THESE CONSTRUCTION DOCUMENTS TO THE OWNER WILL NOT BE GROUNDS FOR ADDITIONAL COST OR CHANGE ORDERS.
5. IF FIELD CONDITIONS NECESSITATE ANY CHANGES OR MODIFICATIONS, ALL SUCH CHANGES OR MODIFICATIONS SHALL BE APPROVED BY THE OWNER PRIOR TO PERFORMING SUCH CHANGES OR MODIFICATIONS.
6. THE CONTRACTOR SHALL PROVIDE FOR THE LEGAL REMOVAL AND DISPOSAL OF ALL RUBBISH AND DEBRIS FROM THE BUILDING AND THE SITE ASSOCIATED WITH THE CONSTRUCTION OF THE PROJECT. COORDINATE w/ OWNER FOR ADDITIONAL INFORMATION.
7. THE CONTRACTOR SHASLL BE RESPONSIBLE FOR PROVIDING WEATHER TIGHT ENCLOSURE THROUGHOUT THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BUIDING DAMAGE CAUSED BY THE FAILURE OF THIS ENCLOSURE. CARE SHOULD BE TAKEN TO AVOID DISRUPTION OF ADJACENT SPACES OCCCUPIED DURING THE CONSTRUCTION PROCESS.

WALL PARTITION SCHEDULE

	PARTITION TYPE	FIRE RATINGS AND ACOUSTICAL RATINGS	GENERAL WALL DESCRIPTION	GENERAL PICTORIAL
4	FIRE PARTITIONS	SIMILAR UL DESIGN NO. U340 1 HOUR FIRE RATED STC = 33	TYPICAL INTERIOR INFILL PARTITION WOOD STUDS TO MATCH DIMENSIONS OF EXISTING WALL @ 16" O.C. MIN. FROM EXISTING FLOOR TO UNDERSIDE OF EXISTING ROOF DECK ABOVE. BRACE AS REQ'D. CONTINUOUS SOUND ATTENUATION BATTS. (1) LAYER OF 5/8" TYPE "X" GWB EACH SIDE TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, EACH SIDE. NOTE: WALL FINISH TO ALIGN w/ EXISTING, V.I.F. - SEE FLOORPLAN FOR LOCATIONS.	MATCH EXIST. WALL; V.I.F.; TAGGED SIDE; OPPOSITE SIDE; 4; PLAN VIEW
5	FIRE PARTITIONS	SIMILAR UL DESIGN NO. U906 1 HOUR FIRE RATED STC = 33	TYPICAL INTERIOR CMU INFILL PARTITION CMU WALL TO MATCH DIMENSIONS OF EXISTING WALL (V.I.F) FROM EXISTING FLOOR TO UNDERSIDE OF EXISTING ROOF DECK ABOVE. (1) LAYER OF 5/8" TYPE "X" GWB EACH SIDE TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, EACH SIDE. NOTE: WALL FINISH TO ALIGN w/ EXISTING, V.I.F. - SEE FLOORPLAN FOR LOCATIONS.	MATCH EXIST. WALL; V.I.F.; TAGGED SIDE; OPPOSITE SIDE; 5; PLAN VIEW
6	FIRE PARTITIONS	NOT FIRE RATED	TYPICAL INTERIOR 3 1/2" WOOD STUD PARTITION 2x4 STUDS @ 16" O.C. MIN. FROM EXISTING FLOOR TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, BRACE AS REQ'D. (1) LAYER OF 5/8" GWB EACH SIDE TO EXTEND 12" ABOVE CEILING PLANE	4 3/4"; UNIT SIDE; 6; UNIT SIDE
6A	FIRE PARTITIONS	NOT FIRE RATED	TYPICAL INTERIOR 3 1/2" WOOD STUD PARTITION - BATHROOM ONE SIDE 2x4 STUDS @ 16" O.C. MIN. FROM EXISTING FLOOR TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, BRACE AS REQ'D. (1) LAYER OF 5/8" GWB EACH SIDE TO EXTEND 12" ABOVE CEILING PLANE (1) ADDITIONAL LAYER 5/8" TYPE "MRX" GWB ON THE BATHROOM SIDE. GWB TO EXTEND TO EXTEND 12" ABOVE CEILING PLANE.	5 3/8"; BATHROOM SIDE; 6A; UNIT SIDE; PLAN VIEW
7	FIRE PARTITIONS	NOT FIRE RATED	TYPICAL INTERIOR 5 1/2" WOOD STUD PARTITION 2x6 STUDS @ 16" O.C. MIN. FROM EXISTING FLOOR TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, BRACE AS REQ'D. (1) LAYER OF 5/8" GWB EACH SIDE TO EXTEND 12" ABOVE CEILING PLANE	5/8"; 6 3/4"; 5/8"; UNIT SIDE; 7; UNIT SIDE
7A	FIRE PARTITIONS	NOT FIRE RATED	SIMILAR TO WALL TYPE 7 WITH (1) ADDITIONAL LAYER 5/8" TYPE "MRX" GWB ON THE BATHROOM SIDE. GWB TO EXTEND TO EXTEND 12" ABOVE CEILING PLANE.	7 3/8"; 5/8"; 5/8"; BATHROOM SIDE; 7A; UNIT SIDE
8	FIRE PARTITIONS	SIMILAR UL DESIGN No. U340 1 HOUR FIRE RATED STC = 54	UNIT DEMISING WALL 2x4 STAGGERED WOOD STUDS @ 12" O.C. (@ 24" O.C. ON EACH SIDE) ON 2x6 WOOD TOP AND BOTTOM PLATES, TOP OF SLAB TO UNDERSIDE OF EXISTING DECK ABOVE, BRACE AS REQ'D. CONTINUOUS 5 1/2" ACOUSTICAL BATT INSULATION. BOTH SIDES: 1/2" RESILIENT CHANNELS HORIZONTALLY @ 16" O.C. 5/8" TYPE X GWB TO UNDERSIDE OF EXISTING DECK. FINISHED FACE OF GWB TO ALIGN w/ EXISTING - GC TO VIF	6 3/4"; 5/8"; 5 1/2"; 5/8"; UNIT SIDE; 8; UNIT SIDE
8A			SIMILAR TO WALL PARTITION 8 WITH (1) ADDITIONAL LAYER OF MRX ON BATHROOM SIDE	7 3/8"; 5/8"; 5/8"; UNIT SIDE; 8A; BATHROOM SIDE
8B			SIMILAR TO WALL PARTITION 8 WITH (1) ADDITIONAL LAYER OF MRX EA. SIDE	8"; 5/8"; 5/8"; BATHROOM SIDE; 8B; BATHROOM SIDE
10	FIRE PARTITIONS	NOT FIRE RATED	5 1/2" WOOD STUD HALF WALL 2x6 STUDS @ 16" O.C. MIN. FROM EXISTING FLOOR TO 48" AFF (1) LAYER OF 5/8" MRX EACH SIDE. REF. A4.10 FOR DETAILS	5/8"; 5/8"; UNIT SIDE; 7; UNIT SIDE
1	FIRE PARTITIONS		TYPICAL INFILL EXTERIOR WALL ASSEMBLY PATCH AND REPAIR EXTERIOR WALL TO MATCH EXISTING.	EXTERIOR SIDE; MATCH EXISTING; 1; INTERIOR SIDE
2	FIRE PARTITIONS	SIMILAR UL DESIGN NO. U340 1 HOUR FIRE RATED STC = 38	TYPICAL INTERIOR 5 1/2" WOOD STUD PARTITION 2x6 STUDS @ 16" O.C. MIN. FROM EXISTING FLOOR TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, BRACE AS REQ'D. CONTINUOUS 5 1/2" SOUND ATTENUATION BATTS. PROVIDE FIRESTOPPING SEALANT AS REQ'D @ ALL PENETRATIONS EACH SIDE OF WALL (EXISTING AND NEW) & AROUND WALL PERIMETER AS REQ'D TO MAINTAIN RATING. (1) LAYER OF 5/8" TYPE "X" GWB EACH SIDE TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, EACH SIDE PROVIDE 2x SOLID BLOCKING AT CEILING LEVEL OR ALTERNATIVE METHOD APPROVED BY IBC 2021. NOTE: PROVIDE APPROPRIATE SEALANT AT ALL PENETRATIONS AND EDGE CONDITIONS TO ENSURE AIR SEALING AND ACOUSTIC ISOLATION BETWEEN UNITS. NOTE: WALL FINISH TO ALIGN w/ EXISTING, V.I.F. - SEE FLOORPLAN FOR LOCATIONS.	6 3/4"; 5/8"; 5 1/2"; 5/8"; UNIT SIDE; UNIT SIDE/ CORRIDOR SIDE; 2
2A	SIMILAR	SIMILAR UL DESIGN NO. U340 1 HOUR FIRE RATED STC = 38	TYPICAL INTERIOR 5 1/2" WOOD STUD PARTITION - BATHROOM ONE SIDE 2x6 STUDS @ 16" O.C. MIN. FROM EXISTING FLOOR TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, BRACE AS REQ'D. CONTINUOUS 5 1/2" SOUND ATTENUATION BATTS. PROVIDE FIRESTOPPING SEALANT AS REQ'D @ ALL PENETRATIONS EACH SIDE OF WALL (EXISTING AND NEW) & AROUND WALL PERIMETER AS REQ'D TO MAINTAIN RATING. (1) LAYER OF 5/8" TYPE "X" GWB EACH SIDE TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, EACH SIDE PROVIDE 2x SOLID BLOCKING AT CEILING LEVEL OR ALTERNATIVE METHOD APPROVED BY IBC 2021. (1) ADDITIONAL LAYER 5/8" TYPE "MRX" GWB TO COVER TUB AND SHOWER FLANGE ON BATHROOM SIDE. GWB TO EXTEND TO UNDERSIDE OF EXISTING ROOF DECK ABOVE. EACH SIDE FIRE SEAL GWB PER SEALING DETAILS. NOTE: PROVIDE APPROPRIATE SEALANT AT ALL PENETRATIONS AND EDGE CONDITIONS TO ENSURE AIR SEALING AND ACOUSTIC ISOLATION BETWEEN UNITS. NOTE: WALL FINISH TO ALIGN w/ EXISTING, V.I.F. - SEE FLOORPLAN FOR LOCATIONS.	7 3/8"; 5/8"; 5 1/2"; 5/8"; 5/8"; 2A; BATHROOM SIDE; CORRIDOR SIDE; PLAN VIEW
3	FIRE PARTITIONS	SIMILAR UL DESIGN NO. U340 1 HOUR FIRE RATED STC = 33	TYPICAL INTERIOR 3 1/2" WOOD STUD PARTITION 2x4 STUDS @ 16" O.C. MIN. FROM EXISTING FLOOR TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, BRACE AS REQ'D. CONTINUOUS 3 1/2" SOUND ATTENUATION BATTS. PROVIDE FIRESTOPPING SEALANT AS REQ'D @ ALL PENETRATIONS EACH SIDE OF WALL (EXISTING AND NEW) & AROUND WALL PERIMETER AS REQ'D TO MAINTAIN RATING. (1) LAYER OF 5/8" TYPE "X" GWB EACH SIDE TO UNDERSIDE OF ROOF TRUSS SYSTEM ABOVE, EACH SIDE PROVIDE 2x SOLID BLOCKING AT CEILING LEVEL OR ALTERNATIVE METHOD APPROVED BY IBC 2021. NOTE: PROVIDE APPROPRIATE SEALANT AT ALL PENETRATIONS AND EDGE CONDITIONS TO ENSURE AIR SEALING AND ACOUSTIC ISOLATION BETWEEN UNITS.	4 3/4"; 5/8"; 3 1/2"; 5/8"; UNIT SIDE; UNIT SIDE; 3; 3A; BATHROOM SIDE; SHAFT SIDE; PLAN VIEW
3A	SIMILAR	SIMILAR UL DESIGN NO. U340 1 HOUR FIRE RATED STC = 33	TYPICAL INTERIOR 3 1/2" WOOD STUD - BATHROOM ONE SIDE 2x4 STUDS @ 16" O.C. MIN. FROM EXISTING FLOOR TO UNDERSIDE OF EXISTING ROOF DECK ABOVE, BRACE AS REQ'D. CONTINUOUS 3 1/2" SOUND ATTENUATION BATTS. PROVIDE FIRESTOPPING SEALANT AS REQ'D @ ALL PENETRATIONS EACH SIDE OF WALL (EXISTING AND NEW) & AROUND WALL PERIMETER AS REQ'D TO MAINTAIN RATING. (1) LAYER OF 5/8" TYPE "X" GWB EACH SIDE TO UNDERSIDE OF ROOF TRUSS SYSTEM ABOVE, EACH SIDE (1) ADDITIONAL LAYER 5/8" TYPE "MRX" GWB TO COVER TUB AND SHOWER FLANGE ON BATHROOM SIDE. GWB TO EXTEND TO UNDERSIDE OF EXISTING ROOF DECK ABOVE. EACH SIDE FIRE SEAL GWB PER SEALING DETAILS. PROVIDE 2x SOLID BLOCKING AT CEILING LEVEL OR ALTERNATIVE METHOD APPROVED BY IBC 2021. NOTE: PROVIDE APPROPRIATE SEALANT AT ALL PENETRATIONS AND EDGE CONDITIONS TO ENSURE AIR SEALING AND ACOUSTIC ISOLATION BETWEEN UNITS.	
9	FIRE PARTITIONS	SIMILAR UL DESIGN No. U340 1 HOUR FIRE RATED STC = 54	2x6 STAGGERED WOOD STUDS @ 12" O.C. (@ 24" O.C. ON EACH SIDE) ON 2x TOP AND BOTTOM PLATES (RIPPED DOWN AS REQ'D TO MATCH THICKNESS OF EXISTING ASSEMBLY), TOP OF SLAB TO UNDERSIDE OF EXISTING DECK ABOVE, BRACE AS REQ'D. CONTINUOUS 5 1/2" ACOUSTICAL BATT INSULATION. BOTH SIDES: 1/2" RESILIENT CHANNELS HORIZONTALLY @ 16" O.C. 5/8" TYPE X GWB TO UNDERSIDE OF EXISTING DECK. FINISHED FACE OF GWB TO ALIGN w/ EXISTING - GC TO VIF	11" +/- WIDTH TO MATCH EXISTING; 8 3/4" +/- VIF; 1/2"; 5/8"; 1/2"; 5/8"; CORRIDOR SIDE; 9; KITCHEN SIDE

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LICENSED ARCHITECT — BHEN JAMIN FREED — No 5397 — STATE OF MAINE

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PORTLAND, MAINE 04102

PROJECT
208 GRAHAM STREET
LIVING RENOVATION
208 GRAHAM STREET
BIDDEFORD, MAINE 04005

DRAWING
NOTES & LEGENDS
CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER
A0.01
SCALE: As indicated
DATE: 2025 | 10 | 23
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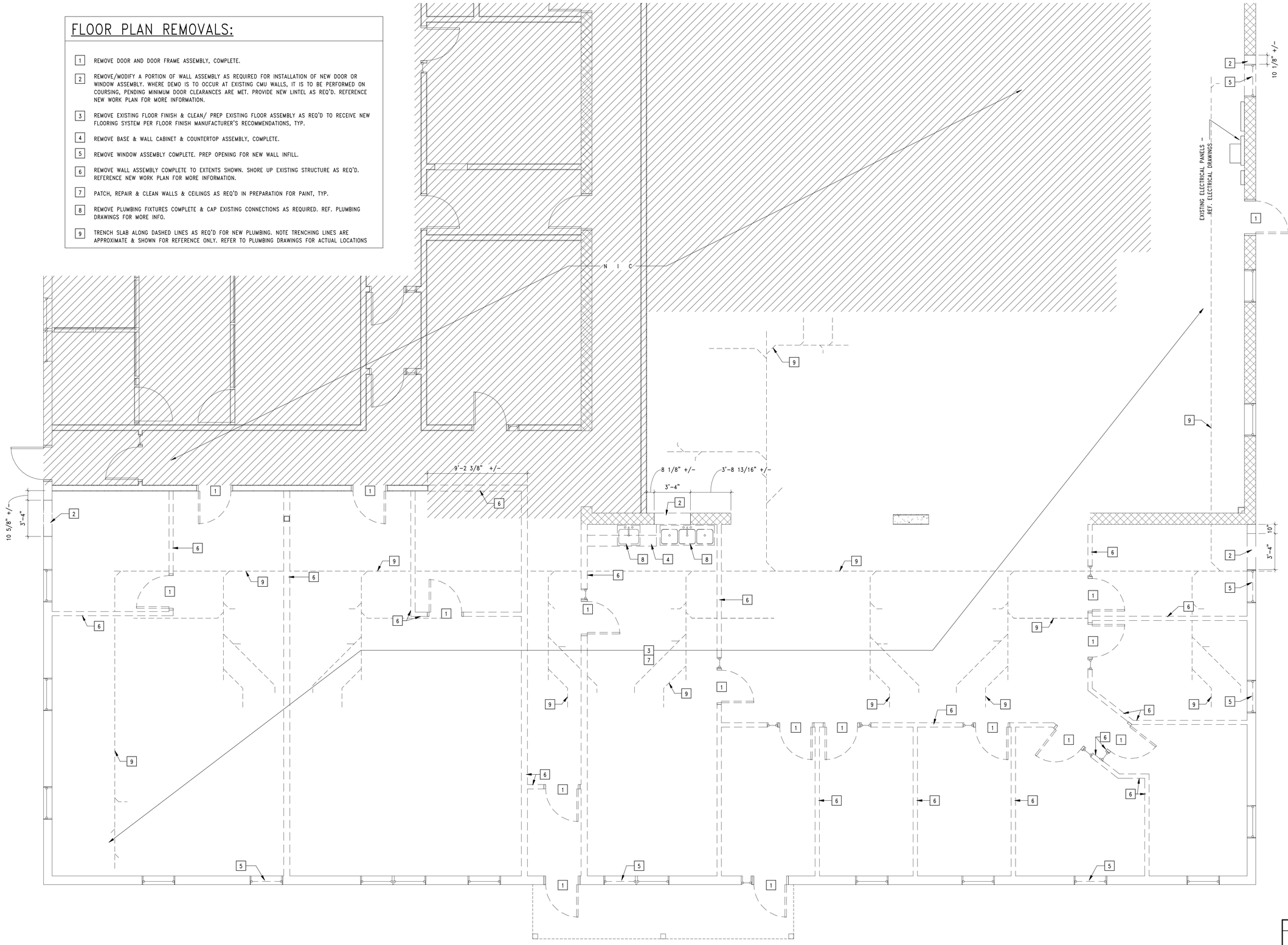
FLOOR PLAN REMOVALS:

1. REMOVE DOOR AND DOOR FRAME ASSEMBLY, COMPLETE.
2. REMOVE/MODIFY A PORTION OF WALL ASSEMBLY AS REQUIRED FOR INSTALLATION OF NEW DOOR OR WINDOW ASSEMBLY. WHERE DEMO IS TO OCCUR AT EXISTING CMU WALLS, IT IS TO BE PERFORMED ON COURSING, PENDING MINIMUM DOOR CLEARANCES ARE MET. PROVIDE NEW LINTEL AS REQ'D. REFERENCE NEW WORK PLAN FOR MORE INFORMATION.
3. REMOVE EXISTING FLOOR FINISH & CLEAN/ PREP EXISTING FLOOR ASSEMBLY AS REQ'D TO RECEIVE NEW FLOORING SYSTEM PER FLOOR FINISH MANUFACTURER'S RECOMMENDATIONS, TYP.
4. REMOVE BASE & WALL CABINET & COUNTERTOP ASSEMBLY, COMPLETE.
5. REMOVE WINDOW ASSEMBLY COMPLETE. PREP OPENING FOR NEW WALL INFILL.
6. REMOVE WALL ASSEMBLY COMPLETE TO EXTENTS SHOWN. SHORE UP EXISTING STRUCTURE AS REQ'D. REFERENCE NEW WORK PLAN FOR MORE INFORMATION.
7. PATCH, REPAIR & CLEAN WALLS & CEILINGS AS REQ'D IN PREPARATION FOR PAINT, TYP.
8. REMOVE PLUMBING FIXTURES COMPLETE & CAP EXISTING CONNECTIONS AS REQUIRED. REF. PLUMBING DRAWINGS FOR MORE INFO.
9. TRENCH SLAB ALONG DASHED LINES AS REQ'D FOR NEW PLUMBING. NOTE TRENCHING LINES ARE APPROXIMATE & SHOWN FOR REFERENCE ONLY. REFER TO PLUMBING DRAWINGS FOR ACTUAL LOCATIONS



A5 **FIRST FLOOR REMOVALS FLOORPLAN**
REFERENCED FROM: SCALE: 1/4" = 1'-0"

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DRAWING
FIRST FLOOR REMOVALS FLOORPLAN
CWS PROJECT NUMBER: 24046

REVISIONS

PROJECT NORTH
PLAN NORTH
TRUE NORTH

DRAWING NUMBER
AD1.10
SCALE: As indicated
DATE: 2025 | 10 | 23
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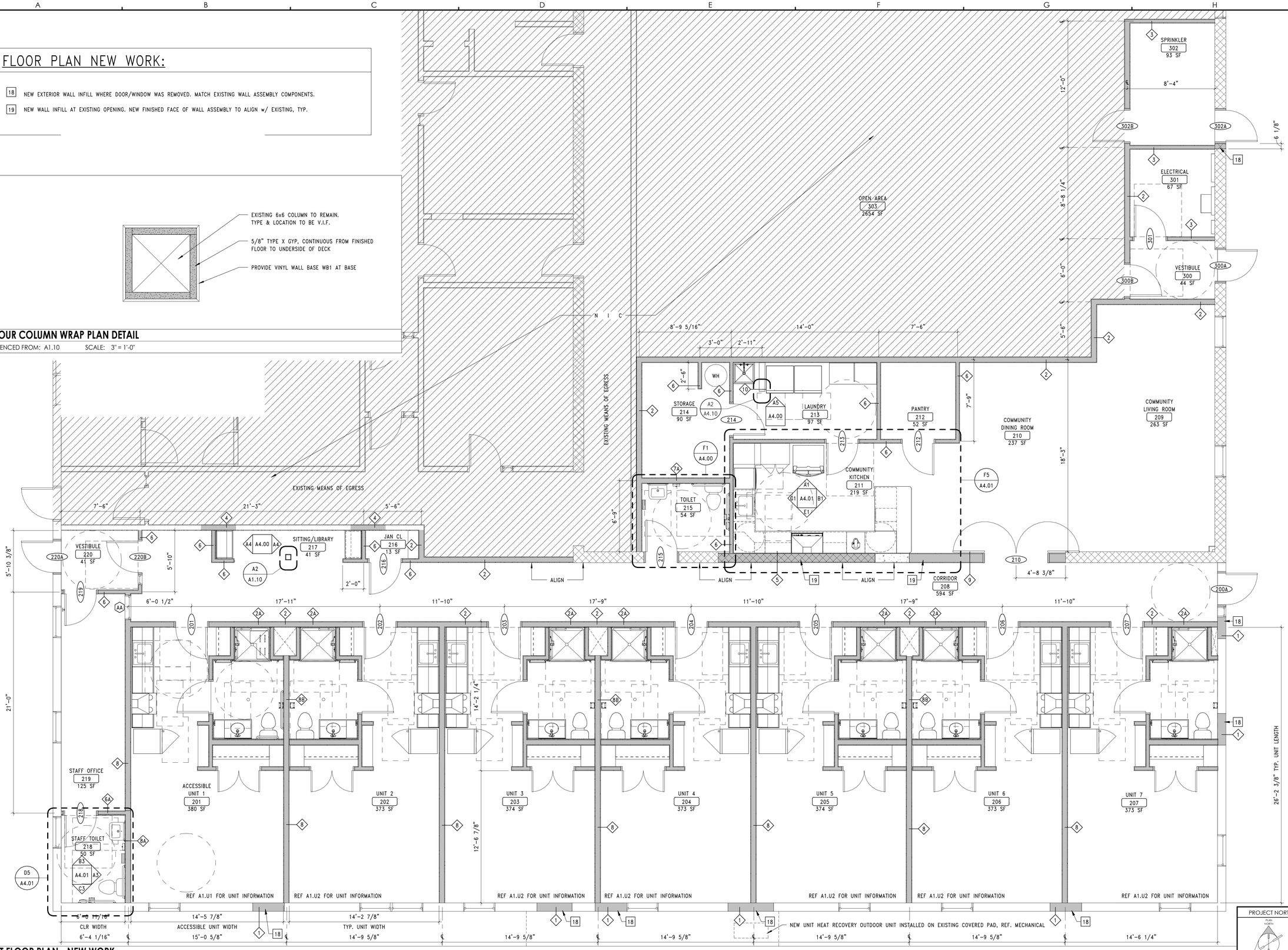
FLOOR PLAN NEW WORK:

18 NEW EXTERIOR WALL INFILL WHERE DOOR/WINDOW WAS REMOVED. MATCH EXISTING WALL ASSEMBLY COMPONENTS.

19 NEW WALL INFILL AT EXISTING OPENING. NEW FINISHED FACE OF WALL ASSEMBLY TO ALIGN w/ EXISTING, TYP.

A2 1-HOUR COLUMN WRAP PLAN DETAIL
REFERENCED FROM: A1.10 SCALE: 3" = 1'-0"



A5 FIRST FLOOR PLAN - NEW WORK
REFERENCED FROM: LS1.01 SCALE: 1/4" = 1'-0"

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PROJECT NORTH

DRAWING NUMBER **A1.10**

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DATE: 2025 | 10 | 23

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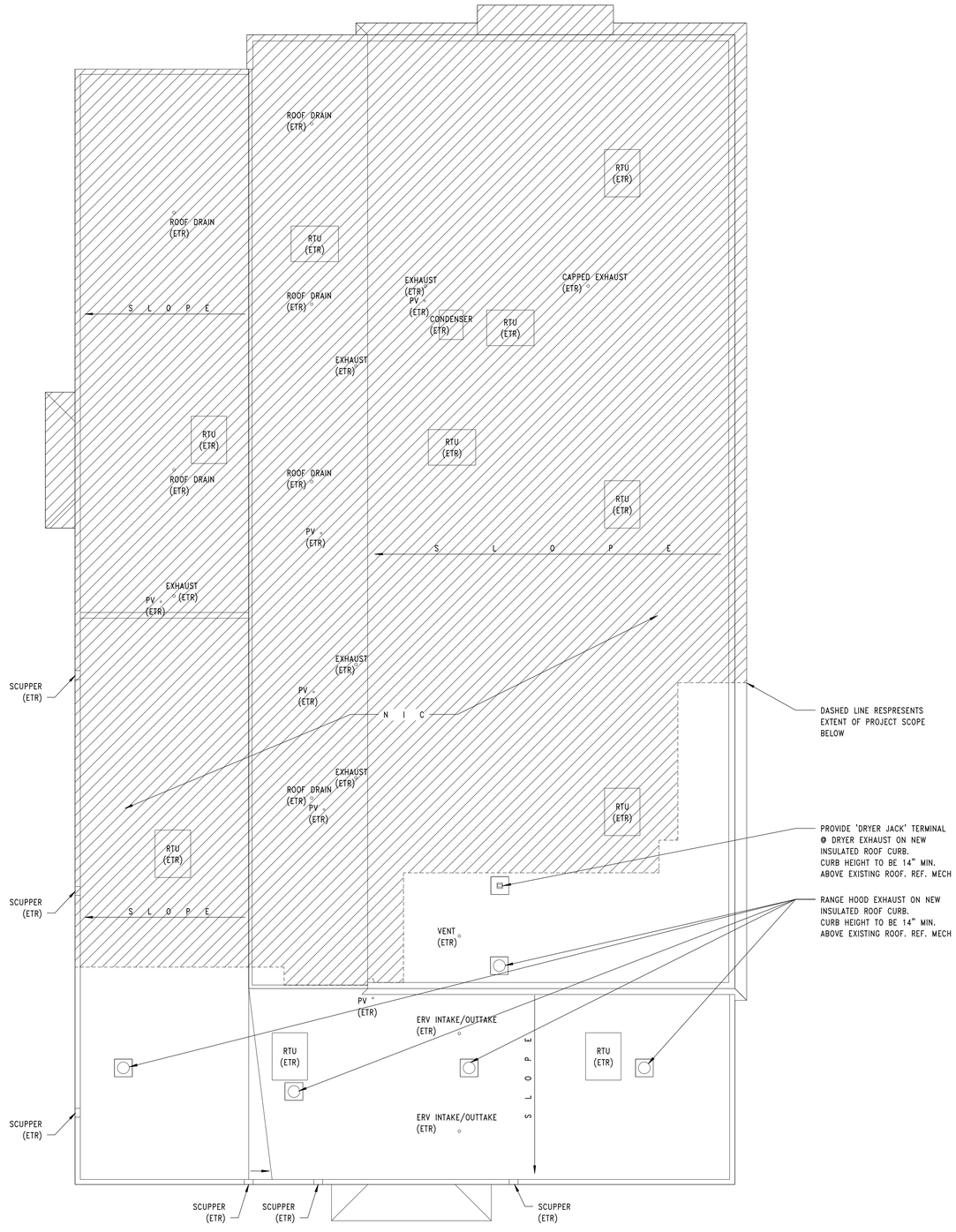
208 GRAHAM STREET, BIDDEFORD, MAINE 04005

DRAWING
FIRST FLOOR NEW WORK PLAN
CWS PROJECT NUMBER: 24046

REVISIONS



A5 **EXISTING ROOF PLAN**

REFERENCED FROM: SCALE: 3/32" = 1'-0"

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CWS ARCHITECTURE + INTERIOR DESIGN

PLANNING + DESIGN CONSTRUCTION SERVICES

DESIGNER

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PROJECT

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208 GRAHAM STREET
BIDDEFORD, MAINE 04005

DRAWING

ROOF PLAN

CWS PROJECT NUMBER: 24046

REVISIONS

PROJECT NORTH

PLAN NORTH

TRUE NORTH

DRAWING NUMBER

A1.20

SCALE: 3/32" = 1'-0"

DATE: 2025 | 10 | 23

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ISSUED FOR CONSTRUCTION

REFLECTED CEILING PLAN REMOVALS LEGEND:

ACT-1: 2'X4' SUSPENDED CEILING SYSTEM TO BE REMOVED

2x4 LAY-IN FIXTURE TO BE REMOVED – REF. ELECTRICAL

ACT1
8'-0"

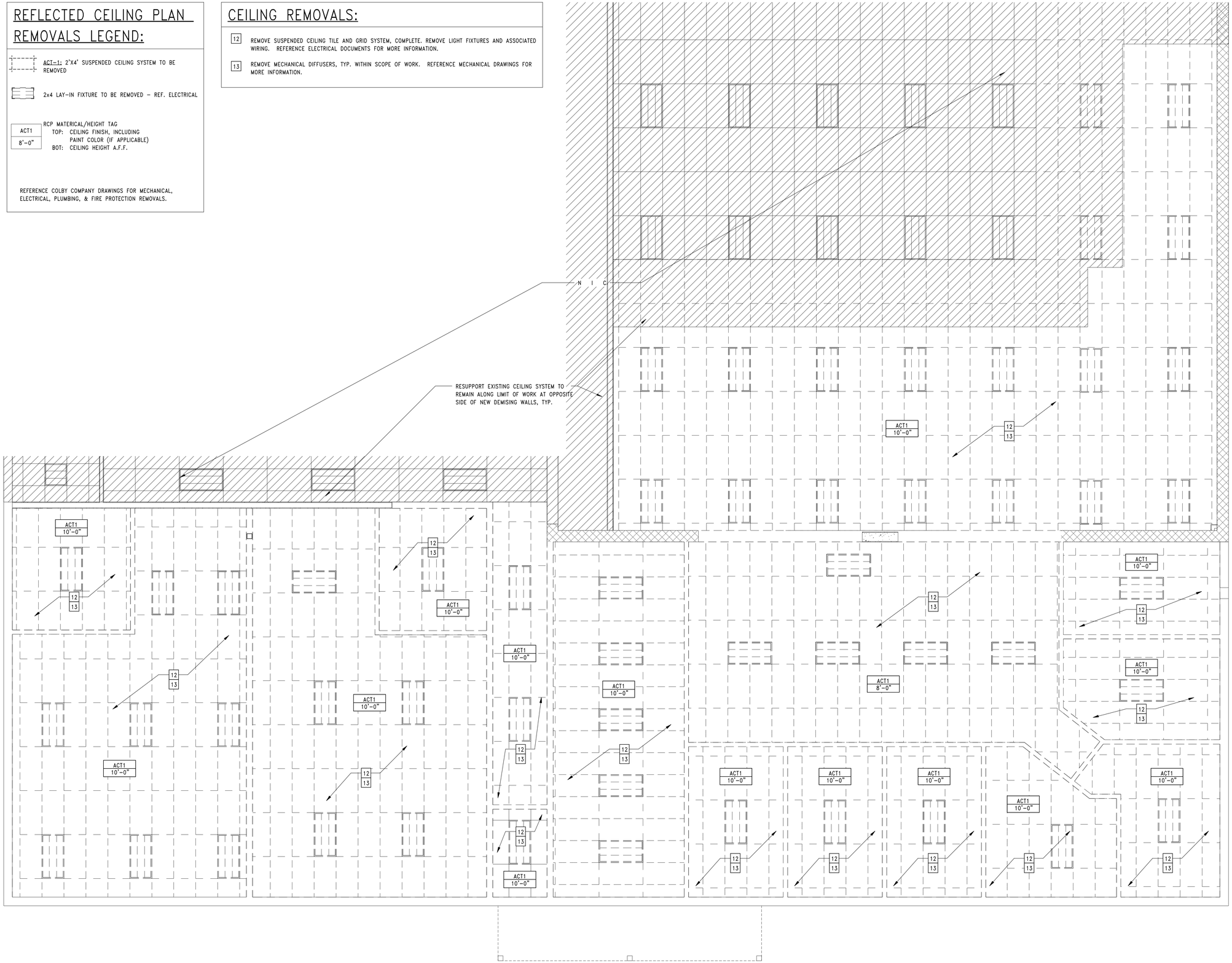
RCP MATERICAL/HEIGHT TAG
TOP: CEILING FINISH, INCLUDING PAINT COLOR (IF APPLICABLE)
BOT: CEILING HEIGHT A.F.F.

REFERENCE COLBY COMPANY DRAWINGS FOR MECHANICAL, ELECTRICAL, PLUMBING, & FIRE PROTECTION REMOVALS.

CEILING REMOVALS:

12 REMOVE SUSPENDED CEILING TILE AND GRID SYSTEM, COMPLETE. REMOVE LIGHT FIXTURES AND ASSOCIATED WIRING. REFERENCE ELECTRICAL DOCUMENTS FOR MORE INFORMATION.

13 REMOVE MECHANICAL DIFFUSERS, TYP. WITHIN SCOPE OF WORK. REFERENCE MECHANICAL DRAWINGS FOR MORE INFORMATION.



A5 **FIRST FLOOR PLAN - REMOVALS**
REFERENCED FROM: SCALE: 1/4" = 1'-0"

C:\Users\Rhen Reed\Documents\24033_208 Graham_R23_CENTRAL_EXISTING CONDITIONS_breedRCBPW.rvt

CWS ARCHITECTURE + INTERIOR DESIGN
PLANNING + DESIGN CONSTRUCTION SERVICES

DESIGNER
LICENSED ARCHITECT BHEN JAMIN REED № 5397 STATE OF MAINE
CWS ARCHITECTURE + INTERIOR DESIGN
264 US ROUTE ONE, SUITE 100-2A
SCARBOROUGH, ME 04074
207.774.4441
CWSARCH.COM

OWNER
MaineHealth
22 BRAMHALL STREET
PORTLAND, MAINE 04102

PROJECT
208 GRAHAM STREET LIVING RENOVATION
208 GRAHAM STREET
BIDDEFORD, MAINE 04005

DRAWING
FIRST FLOOR REMOVALS REFLECTED CEILING PLAN
CWS PROJECT NUMBER: 24046

REVISIONS

PROJECT NORTH
PLAN NORTH
TRUE NORTH

DRAWING NUMBER
AD2.10
SCALE: As indicated
DATE: 2025 | 10 | 23
10/27/2025 9:57:37 PM

ISSUED FOR CONSTRUCTION

REFLECTED CEILING PLAN LEGEND:

ACT1: 2'X2' SUSPENDED CEILING SYSTEM. REFERENCE INTERIOR FINISH LEGEND FOR SCHEDULE OF MATERIALS

GWB.PO: GYPSUM WALL BOARD, PAINTED PO. GYPSUM WALL BOARD SHALL BE 5/8" TYPE "X". REFERENCE INTERIOR FINISH LEGEND FOR SCHEDULE OF MATERIALS

2x2 LAY-IN FIXTURE – REF. ELECTRICAL

1x4 LINEAR FIXTURE – REF. ELECTRICAL

SURFACE MOUNT CEILING FIXTURE – REF. ELECTRICAL

DROP-IN FULL DOME SAFETY MIRROR, 22" DIA.

ACT1 / 8'-0"

RCP MATERICAL/HEIGHT TAG
TOP: CEILING FINISH, INCLUDING PAINT COLOR (IF APPLICABLE)
BOT: CEILING HEIGHT A.F.F.

SUPPLY DIFFUSER

RETURN GRILLE

PLUMBING EXHAUST

RANGE HOOD

NOTES:
1. INTERIOR FIXTURES FOR DESIGN INTENT ONLY. COORDINATE WITH ELECTRICAL DRAWINGS FOR LIGHT FIXTURE TYPE AND CIRCUITING. ANY LIGHT FIXTURE DISCREPANCE SHALL BE BROUGHT TO THE ATTENTION OF AND COORDINATED WITH ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO LIGHT FIXTURE INSTALLATION.

2. REFERENCE MECHANICAL DRAWINGS FOR ALL MECHANICAL INFORMATION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF AND COORDINATED WITH ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO INSTALLATION.

3. LIGHT FIXTURES ARE CENTERED WITHIN CEILING TILE OR ROOM UNLESS NOTED OTHERWISE.

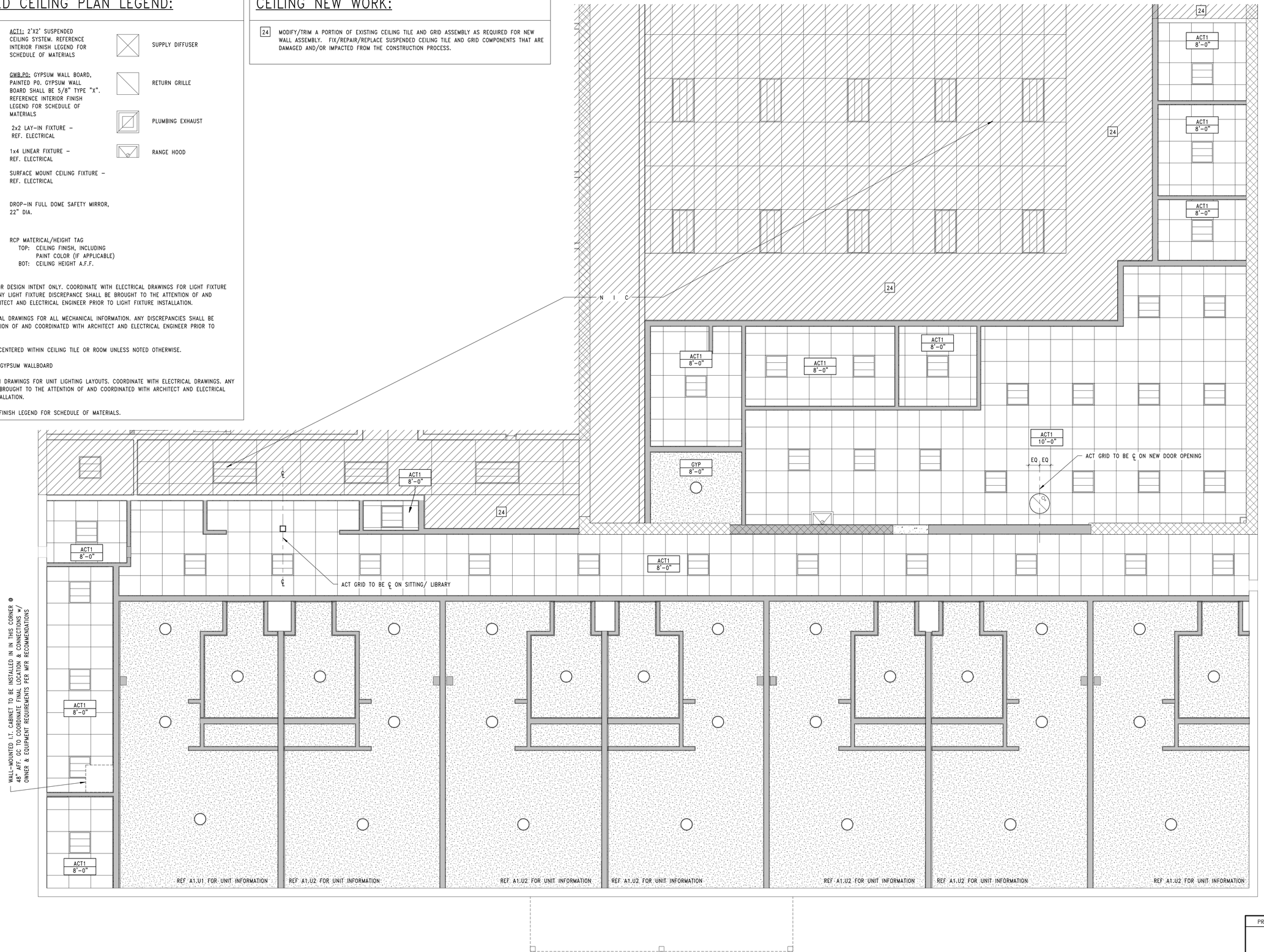
4. S-GWB= SUSPENDED GYPSUM WALLBOARD

5. REFERENCE UNIT PLAN DRAWINGS FOR UNIT LIGHTING LAYOUTS. COORDINATE WITH ELECTRICAL DRAWINGS. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF AND COORDINATED WITH ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO INSTALLATION.

6. REFERENCE INTERIOR FINISH LEGEND FOR SCHEDULE OF MATERIALS.

CEILING NEW WORK:

24 MODIFY/TRIM A PORTION OF EXISTING CEILING TILE AND GRID ASSEMBLY AS REQUIRED FOR NEW WALL ASSEMBLY. FIX/REPAIR/REPLACE SUSPENDED CEILING TILE AND GRID COMPONENTS THAT ARE DAMAGED AND/OR IMPACTED FROM THE CONSTRUCTION PROCESS.



A5 **FIRST FLOOR PLAN - NEW WORK**
REFERENCED FROM: SCALE: 1/4" = 1'-0"

C:\Users\Rhen Reed\Documents\24035_208 Graham_R23_CENTRAL_EXISTING CONDITIONS_breedRCBPW.rvt

CWS ARCHITECTURE + INTERIOR DESIGN
PLANNING + DESIGN CONSTRUCTION SERVICES

DESIGNER
LICENSED ARCHITECT RHEN BENJAMIN REED № 5397 STATE OF MAINE
CWS ARCHITECTURE + INTERIOR DESIGN
264 US ROUTE ONE, SUITE 100-2A
SCARBOROUGH, ME 04074
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CWSARCH.COM

OWNER
MaineHealth
22 BRAMHALL STREET
PORTLAND, MAINE 04102

PROJECT
208 GRAHAM STREET
LIVING RENOVATION
208 GRAHAM STREET
BIDDEFORD, MAINE 04005

DRAWING
FIRST FLOOR REFLECTED CEILING PLAN
CWS PROJECT NUMBER: 24046

REVISIONS

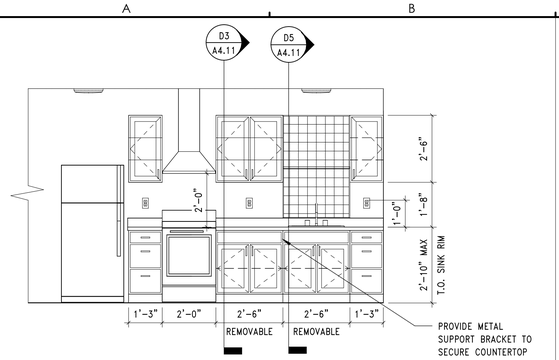
PROJECT NORTH
PLAN NORTH
TRUE NORTH

DRAWING NUMBER
A2.10

SCALE: As indicated
DATE: 2025 | 10 | 23

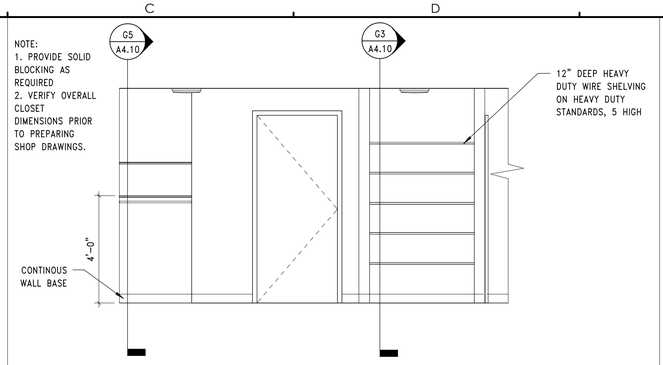
10/27/2025 5:37:39 PM

ISSUED FOR CONSTRUCTION



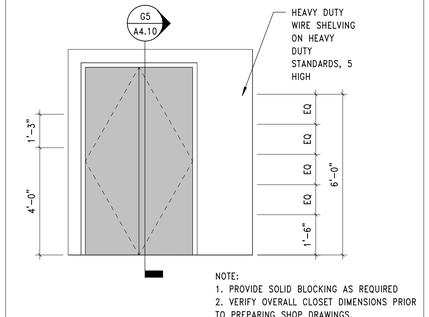
A1 U1 - KITCHEN ELEVATION

REFERENCED FROM: A1.U1 SCALE: 3/8" = 1'-0"



C1 U1 - KITCHEN ELEVATION

REFERENCED FROM: A1.U1 SCALE: 3/8" = 1'-0"



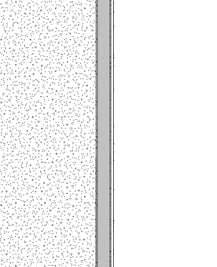
E1 U1 - CLOSET ELEVATION

REFERENCED FROM: A1.U1 SCALE: 3/8" = 1'-0"

DRAWING APPLIES TO UNIT 201.

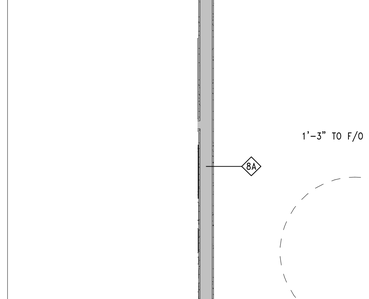
A3 U1 - BATHROOM ELEVATION

REFERENCED FROM: A1.U1 SCALE: 3/8" = 1'-0"



B3 U1- BATHROOM ELEVATION

REFERENCED FROM: A1.U1 SCALE: 3/8" = 1'-0"



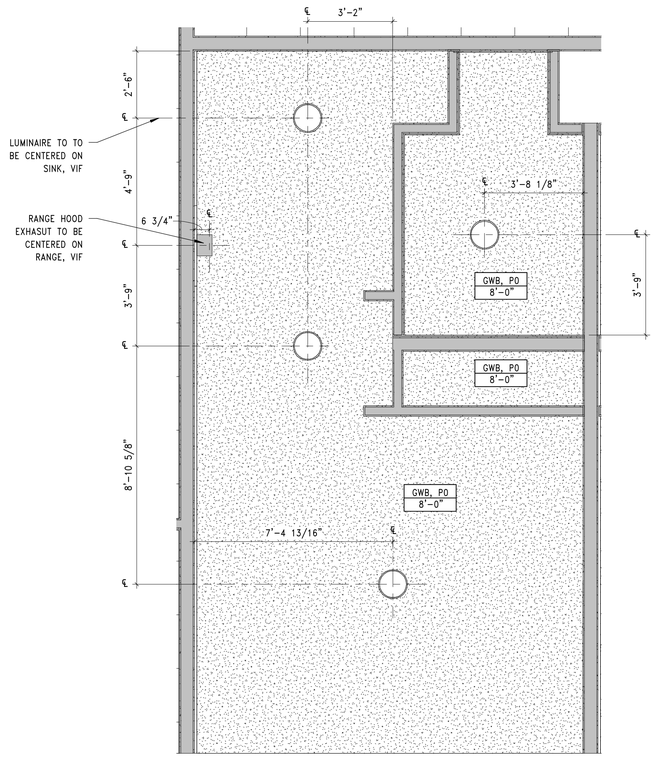
D3 U1 - BATHROOM ELEVATION

REFERENCED FROM: A1.U1 SCALE: 3/8" = 1'-0"

E3 U1 - BATHROOM ELEVATION

REFERENCED FROM: A1.U1 SCALE: 3/8" = 1'-0"

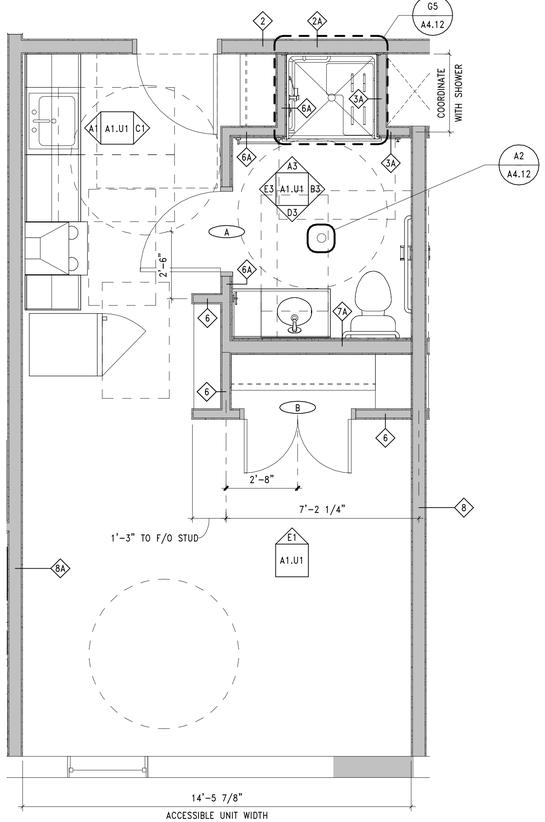
REF. A2.10 FOR REFLECTED CEILING PLAN LEGEND



NOTE RCP DIMENSIONS ARE TAKEN FROM FACE OF WALL

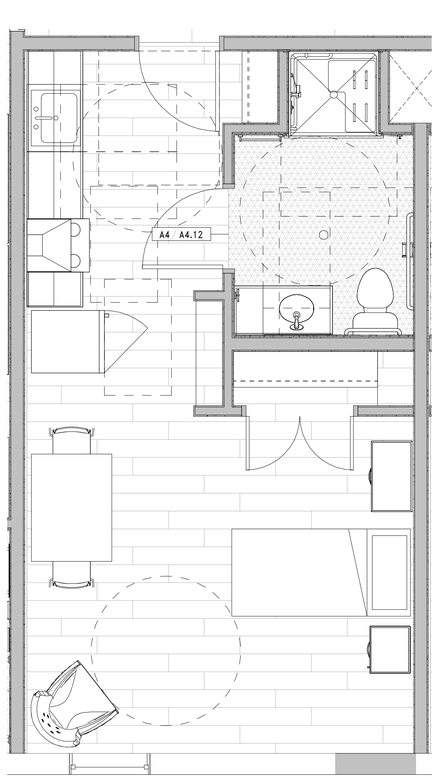
A5 U1 UNIT TYPE - REFLECTED CEILING PLAN

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



D5 U1 UNIT TYPE - DIMENSIONAL PLAN

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



F5 U1 UNIT TYPE - LAYOUT PLAN

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

CWS ARCHITECTURE + INTERIOR DESIGN
PLANNING + DESIGN CONSTRUCTION SERVICES

DESIGNER
LICENSED ARCHITECT BRENJAMIN FREED No 5397 STATE OF MAINE
CWS ARCHITECTURE + INTERIOR DESIGN
264 US ROUTE ONE, SUITE 100-2A
SCARBOROUGH, ME 04074
207.774.4441
CWSARCH.COM

OWNER
MaineHealth
22 BRAMHALL STREET
PORTLAND, MAINE 04102

PROJECT
208 GRAHAM STREET
LIVING RENOVATION
208 GRAHAMA STREET,
BIDDEFORD, MAINE 04005

DRAWING
UNIT PLAN - 1 BR TYPE U1 (ADAAG ACCESSIBLE)
CWS PROJECT NUMBER: 24046

REVISIONS

PROJECT NORTH
PLAN NORTH
TRUE NORTH

DRAWING NUMBER
A1.U1

SCALE: 3/8" = 1'-0"
DATE: 2025 | 10 | 23

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ISSUED FOR CONSTRUCTION

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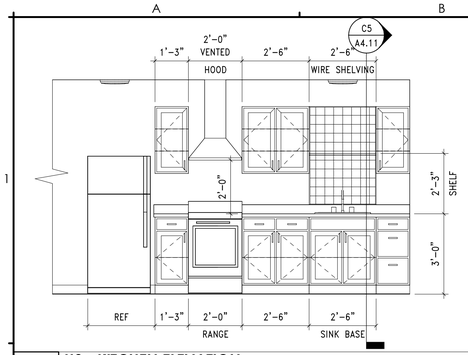
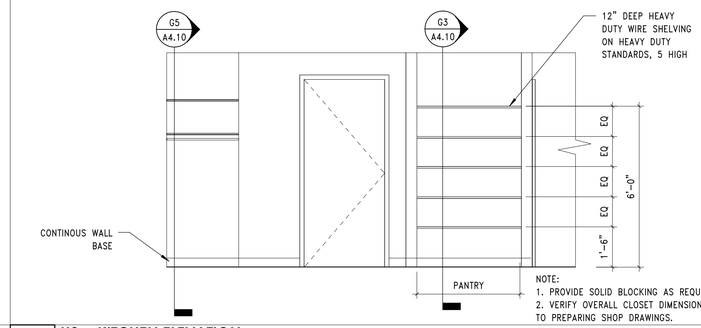


A1 U2 - KITCHEN ELEVATION

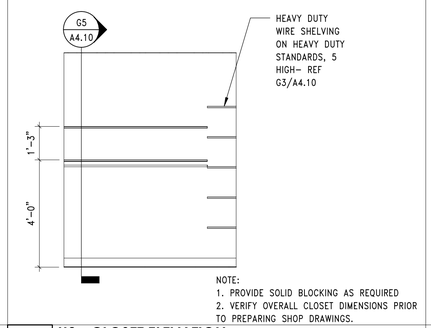
REFERENCED FROM: A1.U2 SCALE: 3/8" = 1'-0"



NOTE:
1. PROVIDE SOLID BLOCKING AS REQUIRED
2. VERIFY OVERALL CLOSET DIMENSIONS PRIOR TO PREPARING SHOP DRAWINGS.

B1 U2 - KITCHEN ELEVATION

REFERENCED FROM: A1.U2 SCALE: 3/8" = 1'-0"



NOTE:
1. PROVIDE SOLID BLOCKING AS REQUIRED
2. VERIFY OVERALL CLOSET DIMENSIONS PRIOR TO PREPARING SHOP DRAWINGS.

E1 U2 - CLOSET ELEVATION

REFERENCED FROM: A1.U1 SCALE: 3/8" = 1'-0"

A3 U2 - BATHROOM ELEVATION

REFERENCED FROM: A1.U2 SCALE: 3/8" = 1'-0"

B3 U2- BATHROOM ELEVATION

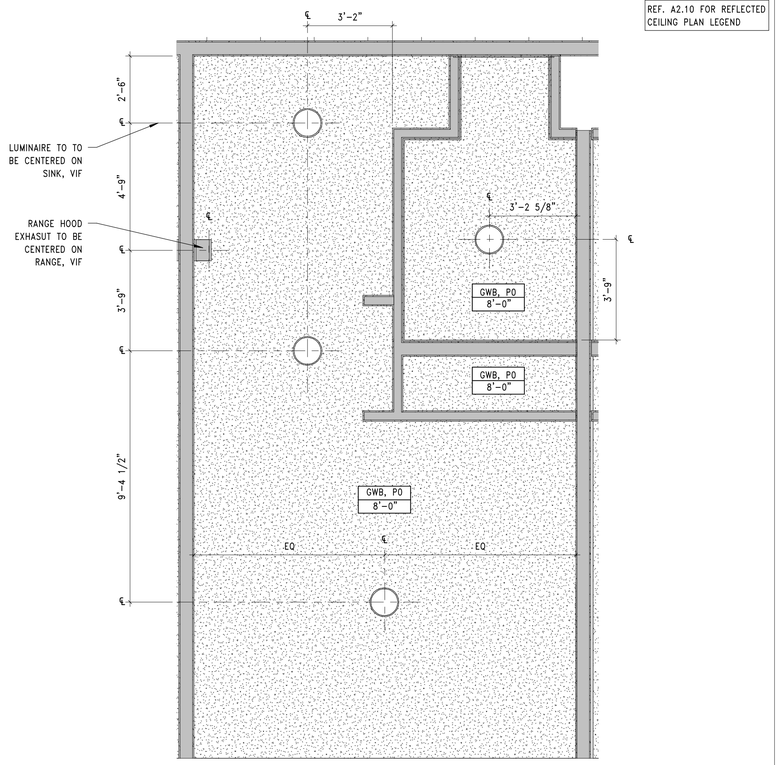
REFERENCED FROM: A1.U2 SCALE: 3/8" = 1'-0"

D3 U2- BATHROOM ELEVATION

REFERENCED FROM: A1.U2 SCALE: 3/8" = 1'-0"

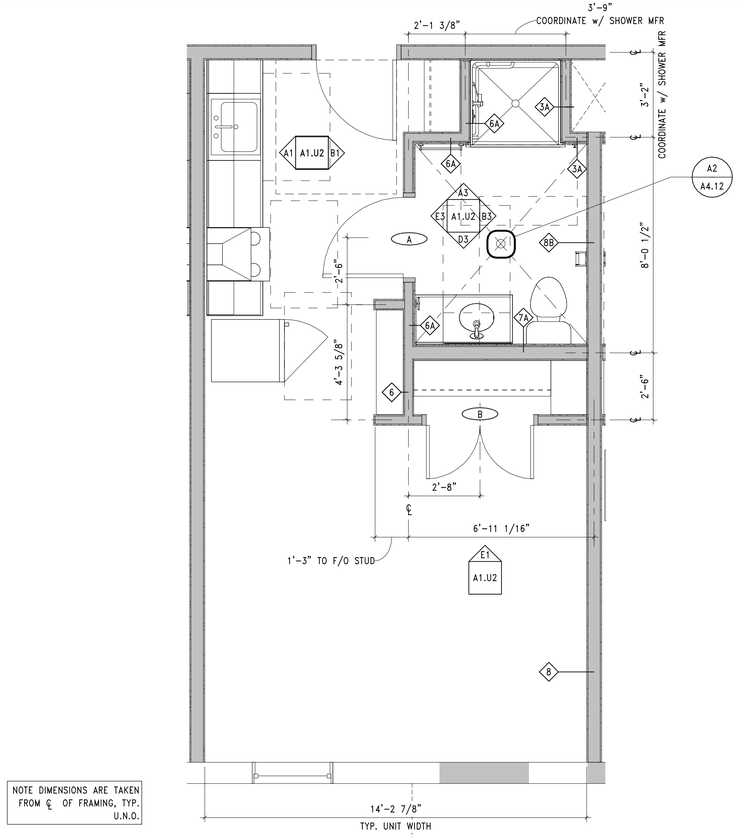
E3 U2- BATHROOM ELEVATION

REFERENCED FROM: A1.U2 SCALE: 3/8" = 1'-0"



A5 U2 UNIT TYPE - REFLECTED CEILING PLAN

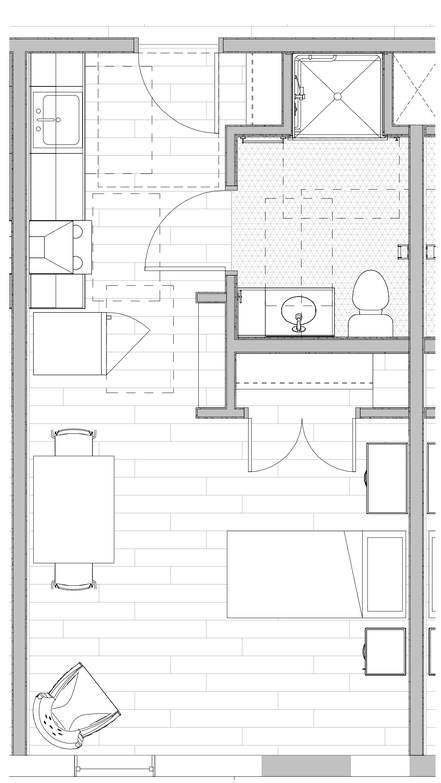
REFERENCED FROM: SCALE: 3/8" = 1'-0"



NOTE DIMENSIONS ARE TAKEN FROM ℄ OF FRAMING, TYP. U.N.O.

D5 U2 UNIT TYPE - DIMENSIONAL PLAN

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



F5 U2 UNIT TYPE - LAYOUT PLAN

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

DRAWING APPLIES TO UNITS 202, 203, 204, 205, 206 & 207.

UNITS 202, 204 & 206 ARE OPPOSITE HAND.

PROJECT NORTH

PLAN NORTH

TRUE NORTH

DRAWING NUMBER

A1.U2

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

DATE: 2025 | 10 | 23

ISSUED FOR CONSTRUCTION

10/27/2025 9:03:38 PM

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CWS ARCHITECTURE + INTERIOR DESIGN

PLANNING + DESIGN CONSTRUCTION SERVICES

DESIGNER

LICENSED ARCHITECT BENJAMIN FREED № 5397 STATE OF MAINE

CWS ARCHITECTURE + INTERIOR DESIGN
264 US ROUTE ONE, SUITE 100-2A
SCARBOROUGH, ME 04074
207.774.4441
CWSARCH.COM

OWNER

MaineHealth
22 BRAMHALL STREET
PORTLAND, MAINE 04102

PROJECT

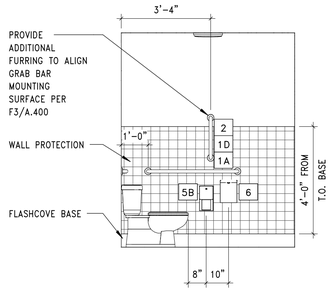
208 GRAHAM STREET LIVING RENOVATION
208 GRAHAM STREET,
BIDDEFORD, MAINE 04005

DRAWING

UNIT PLAN - 1 BR TYPE U2 (TYPE 'B')

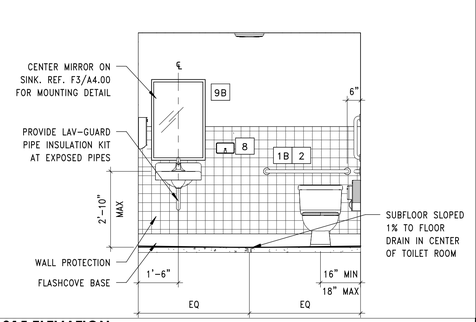
CWS PROJECT NUMBER: 24046

REVISIONS



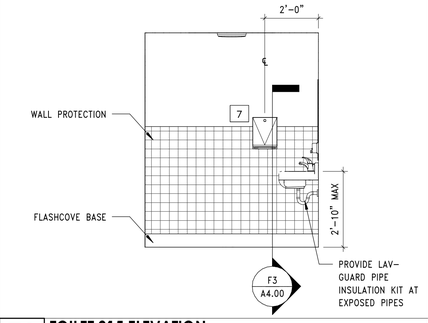
A1 TOILET 215 ELEVATION

REFERENCED FROM: A4.00 SCALE: 3/8" = 1'-0"



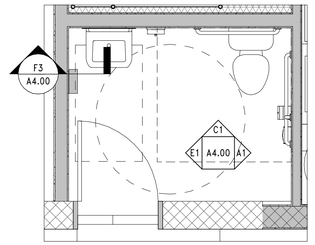
C1 TOILET 215 ELEVATION

REFERENCED FROM: A4.00 SCALE: 3/8" = 1'-0"



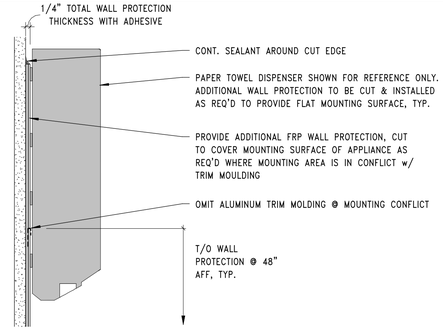
E1 TOILET 215 ELEVATION

REFERENCED FROM: A4.00 SCALE: 3/8" = 1'-0"



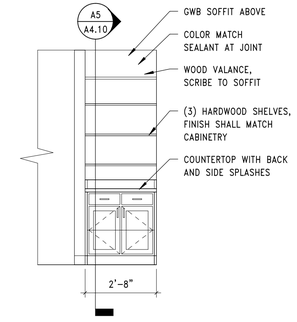
F1 TOILET 215 ENLARGED PLAN

REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"



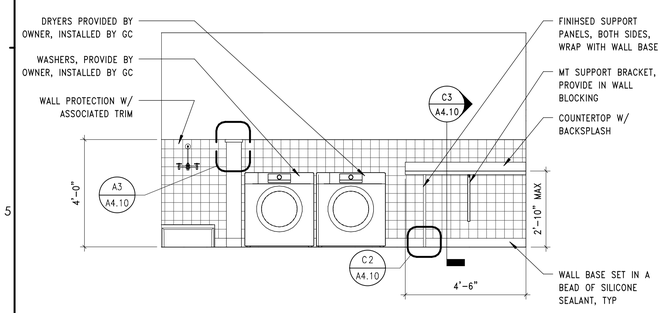
F3 WALL PROTECTION DETAIL @ MOUNTING CONFLICT

REFERENCED FROM: A4.00 SCALE: 3" = 1'-0"



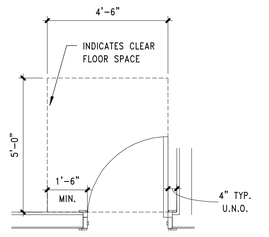
A4 TYPICAL LIBRARY CABINETRY ELEVATION

REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"



A5 LAUNDRY ELEVATION

REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"



DOOR LOCATION

ALL DOORS INDICATED AS BEING 18" FROM AN ADJACENT WALL MUST BE 18" MINIMUM FROM THE FINISHED FACE OF THE GWB, CABINETRY, OR ANY OBSTRUCTIONS TO THE DOOR FRAME AS INDICATED ABOVE. THIS APPLIES TO DOORS IN ALL UNITS CALLED OUT AS ANSI 117.1 AND ADAAG COMPLIANT

WATER CLOSET LOCATION IN ADAAG UNITS

WATER CLOSETS SHALL BE LOCATED 16"–18" FROM THE FINISHED FACE OF GWB OF THE SIDE WALL.
FLUSH CONTROLS SHALL BE LOCATED ON OPEN SIDE OF WATER CLOSET.

LAVATORIES LOCATION IN ADAAG UNITS

LAVATORIES SHALL BE MOUNTED SO THAT IT IS 2'–10" MAXIMUM MEASURED TO THE TOP OF THE RIM OR THE TOP OF THE COUNTER SURFACE, WHICHEVER IS THE HIGHER SURFACE MEASURED FROM TOP OF THE FINISHED FLOOR SURFACE. WHERE FLOORS SLOPE IN EXISTING BUILDINGS THE 2'–10" MAXIMUM SHALL BE MEASURED AT THE FRONT FACE OF THE LAVATORY OR VANITY AND NOT AT THE WALL BEHIND.

MIRRORS IN ADAAG UNITS

MIRRORS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE AT 3'–4" MAXIMUM ABOVE THE FINISHED FLOOR ELEVATION. NOTE: A BEVELED EDGE IS NOT CONSIDERED THE REFLECTIVE SURFACE.

KITCHEN COUNTERS IN ADAAG UNITS

KITCHEN COUNTERS SHALL BE SET SO THAT THEY ARE 2'–10" MAXIMUM MEASURED TO THE TOP OF THE SINK RIM OR THE TOP OF THE COUNTER SURFACE, WHICH EVER IS THE HIGHER SURFACE MEASURED FROM TOP OF THE FINISHED FLOOR SURFACE. WHERE FLOOR SLOPE IN EXISTING BUILDINGS THE 2'–10" MAXIMUM SHALL BE MEASURED AT THE FRONT FACE OF THE CABINET AND NOT AT THE WALL BEHIND.

OPERABLE PARTS IN ADAAG UNITS

OPERABLE PARTS SHALL COMPLY WITH ONE OF THE FOLLOWING REACH RANGES:

1. AN UNOBSTRUCTED FORWARD AND SIDE REACH RANGE SHALL BE A LOW OF 15" AFF MIN. AND A HIGH OF 48" AFF MAX.

2. AN OBSTRUCTED FORWARD REACH RANGE SHALL BE 48" MAX WITH AN OBSTRUCTION REACH DEPTH OF 20" MAX OR 44" MAX WITH THE REACH DEPTH EXCEEDING 20" AND IS 25" MAX.

3. THE SIDE REACH RANGE SHALL BE 48" MAX WITH AN OBSTRUCTION OF REACH DEPTH OF 10" MAX WITH A HEIGHT OF 34" MAX OR 46" MAX WITH THE OBSTRUCTION REACH DEPTH EXCEEDING 10" AND IS 24" MAX WITH A HEIGHT OF 34" MAX.

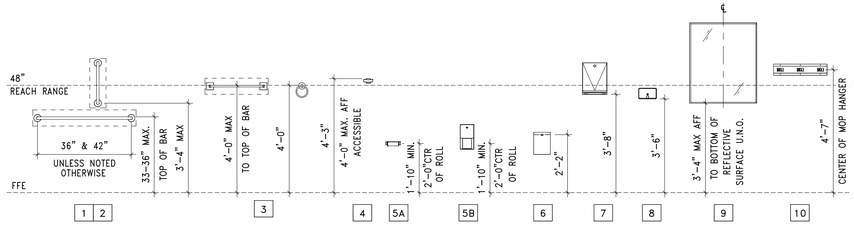
OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS MAX.

THIS INCLUDES BUT IS NOT LIMITED TO ELECTRICAL PANEL BREAKERS, SWITCHES, OUTLETS, INTERCOM CONTROLS, THERMOSTATS, WINDOW LATCHES/OPERATORS.

COMPLYING WITH 2010 ADA SECTION 308

C5 TYPICAL ACCESSIBLE CRITICAL DIMENSIONS

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



1A	42" GRAB BAR, STAINLESS STEEL W/ CONCEALED MOUNTING NOTE 8
1B	36" GRAB BAR, STAINLESS STEEL W/ CONCEALED MOUNTING NOTE 8
1C	24" GRAB BAR, STAINLESS STEEL W/ CONCEALED MOUNTING NOTE 8
1D	18" GRAB BAR, STAINLESS STEEL W/ CONCEALED MOUNTING NOTE 8
2	GRAB BAR ANCHOR
3A	18" TOWEL BAR, EXTRA-HEAVY DUTY
3B	TOWEL RING
4	ROBE HOOK, SINGLE
5A	TOILET TISSUE DISPENSER, SINGLE-ROLL, SURFACE MOUNTED
5B	TOILET TISSUE DISPENSER, MULTI-ROLL, SURFACE MOUNTED
6	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL
7	PAPER TOWEL DISPENSER
8	SOAP DISPENSER, SURFACE MOUNTED
9A	30"x36" PLATE GLASS MIRROR W/ STAINLESS STEEL CHANNEL FRAME
9B	24"x36" PLATE GLASS MIRROR W/ STAINLESS STEEL CHANNEL FRAME
10	MOP HANGER

GENERAL NOTES:

1. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL PROVIDE SOLID BLOCKING AS REQUIRED FOR ALL TOILET ACCESSORIES, SHOWER GRAB BARS, AND DOOR STOPS. CONTRACTOR SHALL PROVIDE SOLID BLOCKING FOR ALL OWNER SUPPLIED EQUIPMENT, COORDINATE WITH OWNER
3. SINK FIXTURES DIFFER, REFERENCE PLUMBING DRAWINGS.
4. PROVIDE FINISH FLOORING UNDER ALL BASE CABINETS, REMOVABLE SINK CABINET FRONTS, AND REMOVABLE PANEL AT SINK AND OPEN WORK SURFACE.
5. PROVIDE FINISH WALL WITH WALL BASE BEHIND ALL REMOVABLE CABINETS AND SINK ENCLOSURES.
6. INSTALL REMOVABLE BASE CABINETS AND SINK ENCLOSURES WITH BRASS SCREWS FOR EASY REMOVAL.
7. PROVIDE INSULATED PIPE KITS AT ALL EXPOSED SINK AND LAVATORY PIPE LOCATIONS INCLUDING BENEATH ALL SINK CABINETS WITH REMOVABLE BASES.
8. BLOCKING SHALL BE PROVIDED IN ALL UNITS AT GRAB BAR LOCATIONS. WITHIN ANSI 117.1 TYPE "B" UNITS BLOCKING SHALL BE PROVIDED FOR FUTURE INSTALLATION OF GRAB BARS AT TOILET LOCATIONS.
9. VERIFY DOOR STOP/BUMPER LOCATIONS IN FIELD PRIOR TO STOP/BUMPER INSTALLATION, TYPICAL.

F5 TOILET ACCESSORIES LEGEND AND MOUNTING HEIGHTS

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

DESIGNER

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PROJECT

208 GRAHAM STREET LIVING RENOVATION

208 GRAHAM STREET
BIDDEFORD, MAINE 04005

DRAWING

INTERIOR ELEVATIONS

24046

CWS PROJECT NUMBER:

REVISIONS

DRAWING NUMBER

A4.00

SCALE: As indicated

DATE: 2025 | 10 | 23

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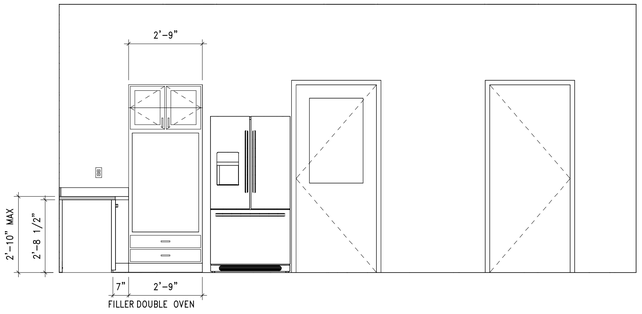
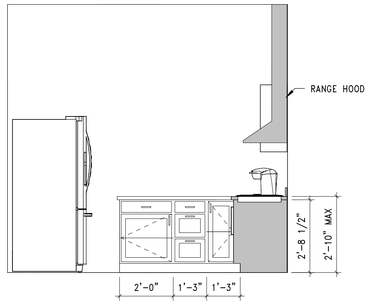


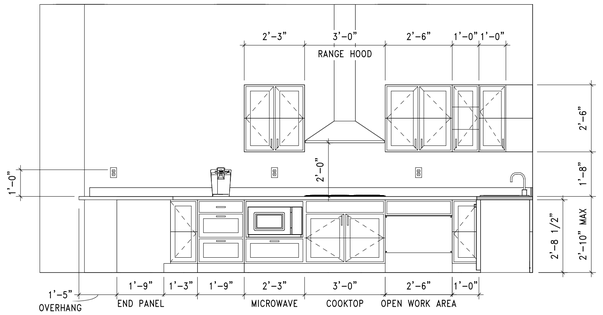
A1 COMMUNITY KITCHEN ELEVATION 1

REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"



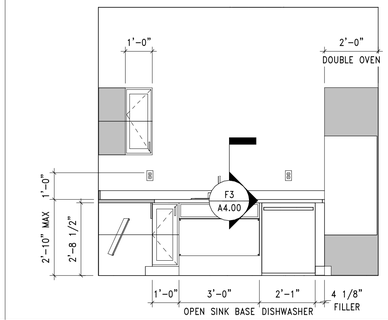
B1 COMMUNITY KITCHEN ELEVATION 2

REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"



E1 COMMUNITY KITCHEN ELEVATION 3

REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"



G1 COMMUNITY KITCHEN ELEVATION 4

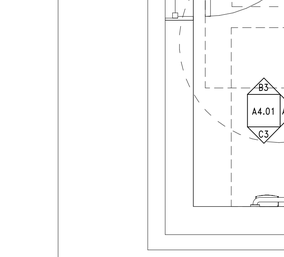
REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"

A3 STAFF TOILET ELEVATION 1

REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"

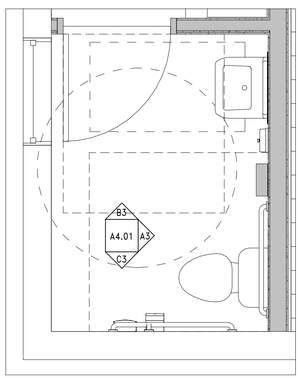
B3 STAFF TOILET ELEVATION 2

REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"



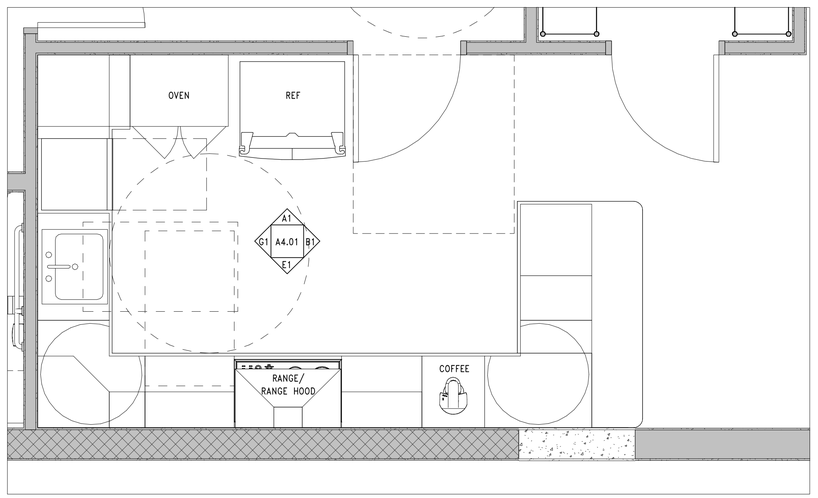
C3 STAFF TOILET ELEVATION 3

REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"



D5 STAFF TOILET ENLARGED PLAN

REFERENCED FROM: A1.10 SCALE: 1/2" = 1'-0"



F5 COMMUNITY KITCHEN ENLARGED PLAN

REFERENCED FROM: A1.10 SCALE: 1/2" = 1'-0"

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PLANNING + DESIGN CONSTRUCTION SERVICES

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DRAWING

INTERIOR ELEVATIONS

CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER

A4.01

SCALE: As indicated

DATE: 2025 | 10 | 23

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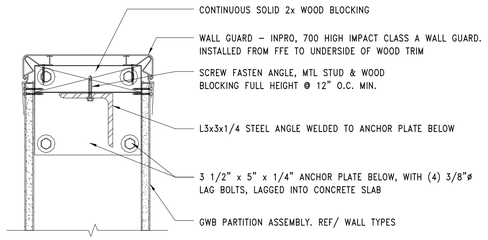
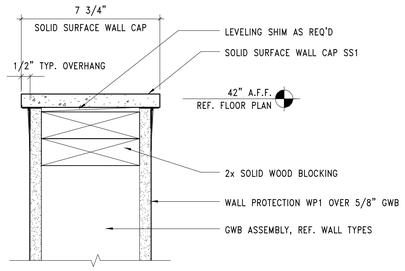


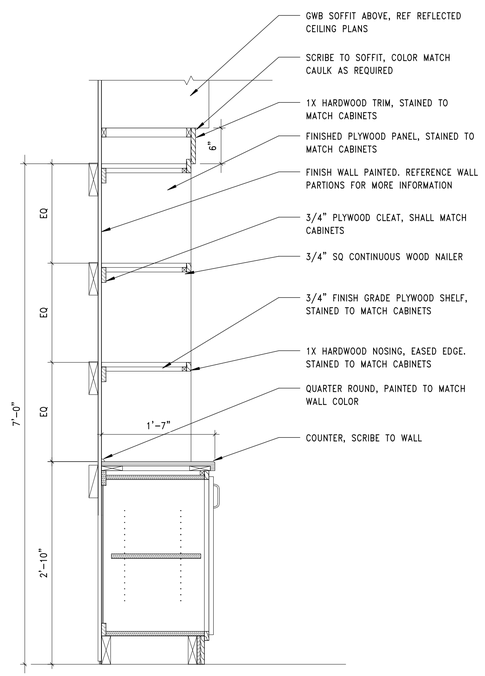
A2 PLAN DETAIL - HALF WALL BRACING

REFERENCED FROM: A1.10 SCALE: 3" = 1'-0"



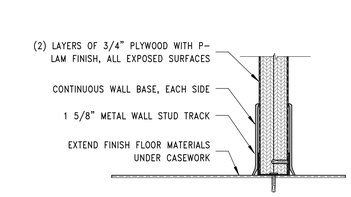
A3 SECTION DETAIL - T/O HALF WALL

REFERENCED FROM: A4.00 SCALE: 3" = 1'-0"



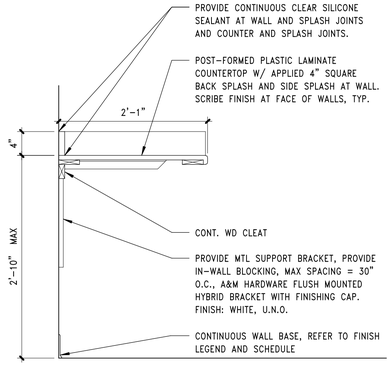
A5 CABINET WITH BOOKCASE DETAIL

REFERENCED FROM: A4.00 SCALE: 1" = 1'-0"



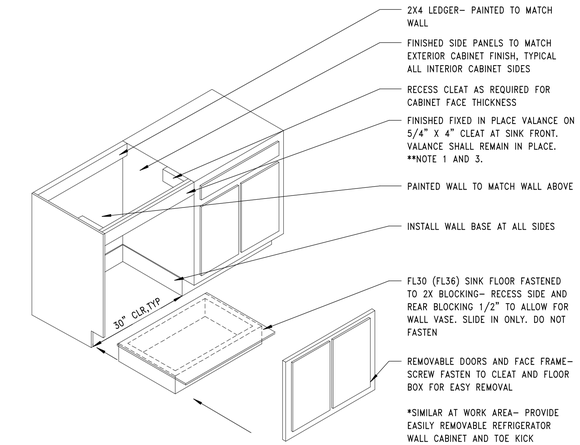
C2 FINISHED END PANEL BASE DETAIL

REFERENCED FROM: A4.00 SCALE: 3" = 1'-0"



C3 TYPICAL COUNTER DETAIL

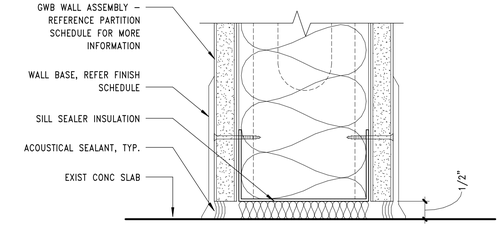
REFERENCED FROM: A4.00 SCALE: 1" = 1'-0"



NOTE:
1. *IF SINK FRONT IS REMOVED FOR WHEELCHAIR ACCESS VALANCE SHALL REMAIN IN PLACE
2. INSULATE PIPES AT ALL REMOVABLE FRONT CABINETS
3. SIMILAR AT REMOVABLE WORK AREA- REPLACE FIXED IN PLACE VALANCE WITH SINGLE DESK CABINET DRAWER.
4. ALL EDGEBANDING TO MATCH CABINET FACE FINISH. NO EXPOSED PLYWOOD END GRAIN, TYP

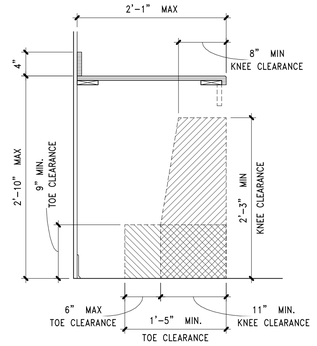
C5 AXONOMETRIC REMOVABLE FRONT SINK CABINET

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



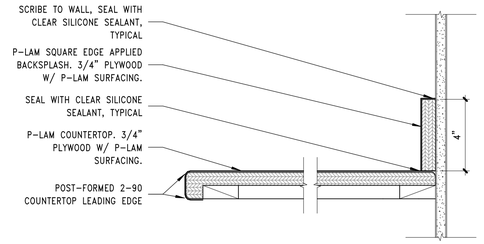
E2 INTERIOR DETAIL - BASE OF WALL DETAIL

REFERENCED FROM: SCALE: 6" = 1'-0"



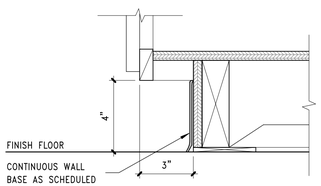
E3 TYPICAL ADA TOE AND KNEE CLEARANCES

REFERENCED FROM: SCALE: 1" = 1'-0"



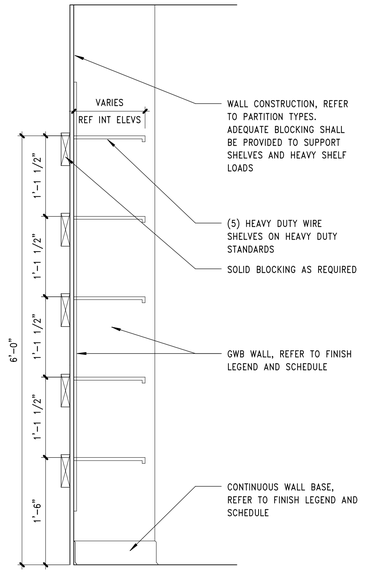
E4 TYPICAL COUNTERTOP EDGE / BACKSPLASH DETAIL

REFERENCED FROM: A4.11 SCALE: 3" = 1'-0"



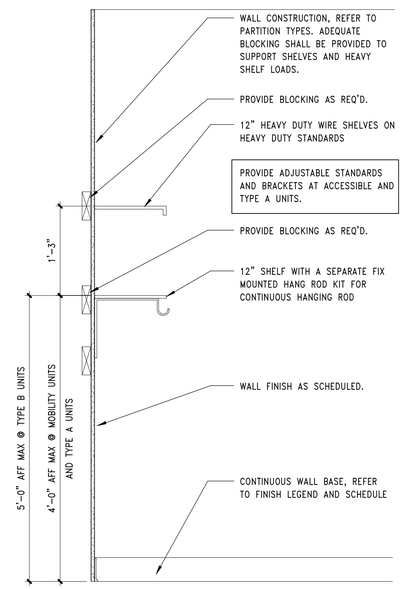
E5 TYPICAL CABINET BASE TOE KICK DETAIL

REFERENCED FROM: A4.11 SCALE: 3" = 1'-0"



G3 TYPICAL SHELVING

REFERENCED FROM: A1.U1 SCALE: 1" = 1'-0"



G5 TYPICAL CLOSET SHELF AND ROD

REFERENCED FROM: A1.U1 SCALE: 1" = 1'-0"

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DRAWING
INTERIOR DETAILS
24046
CWS PROJECT NUMBER:

REVISIONS

DRAWING NUMBER
A4.10

SCALE: As indicated
DATE: 2025 | 10 | 23

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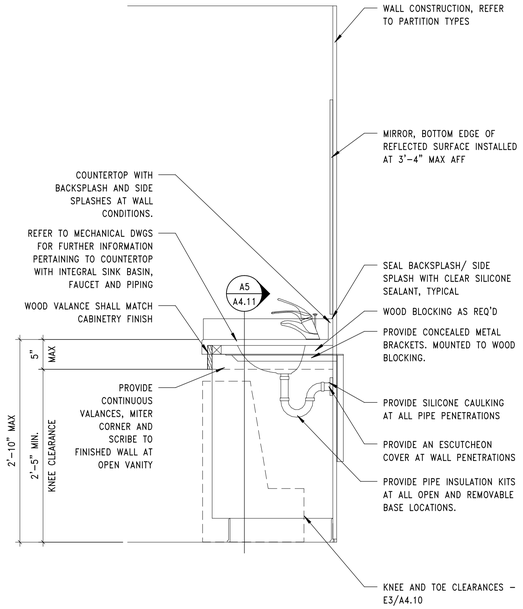
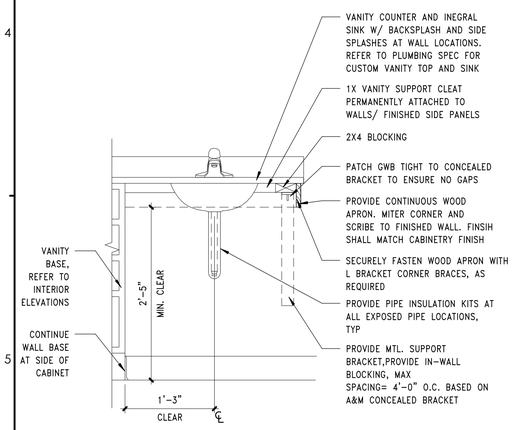


A3 TYPICAL OPEN VANITY SINK DETAIL

REFERENCED FROM: A1.U1 SCALE: 1" = 1'-0"



A5 TYPICAL OPEN VANITY SECTION

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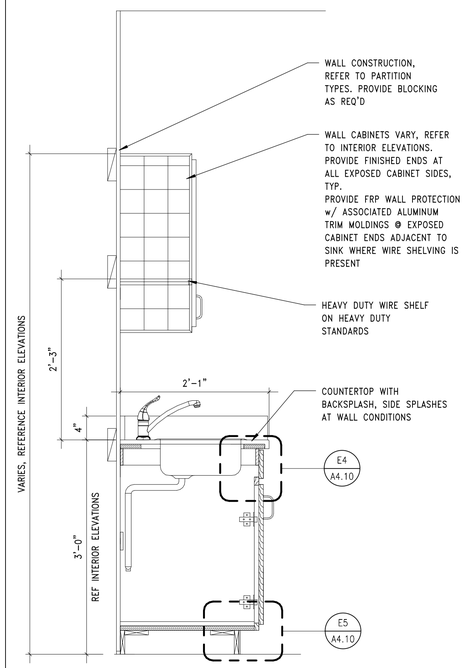
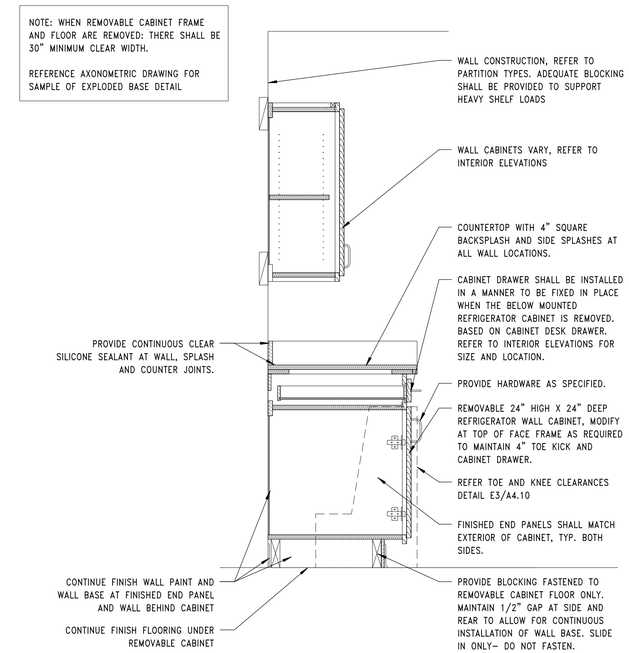


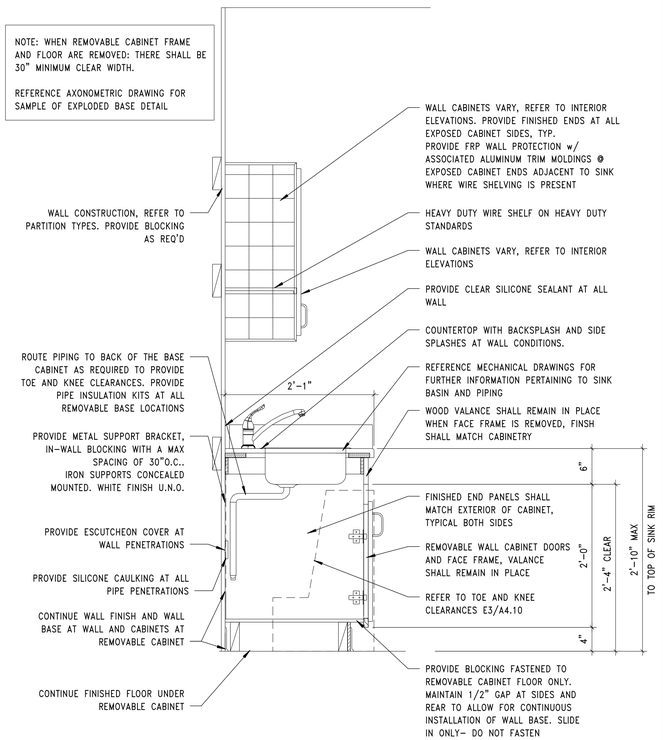
C5 TYPICAL SINK BASE AND WALL CABINET DETAIL

REFERENCED FROM: A1.U2 SCALE: 1" = 1'-0"



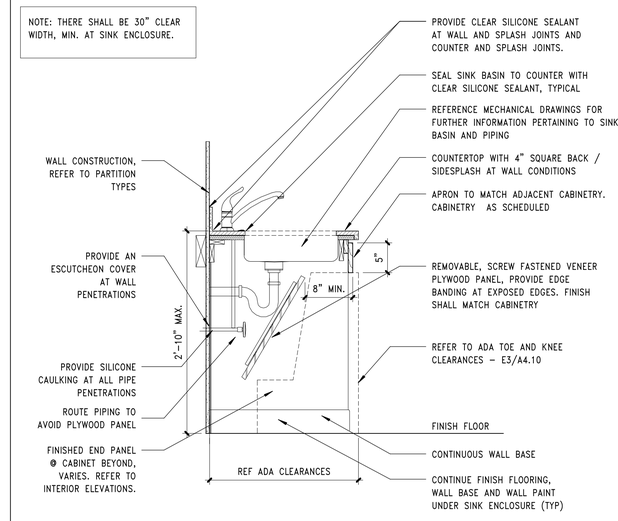
D3 TYPICAL REMOVABLE BASE AT WORKAREA

REFERENCED FROM: A1.U1 SCALE: 1" = 1'-0"



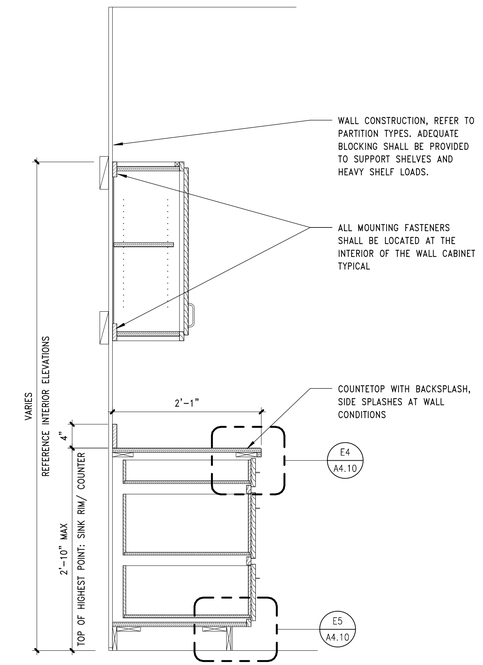
D5 TYPICAL DETAIL AT REMOVABLE SINK BASE

REFERENCED FROM: A1.U1 SCALE: 1" = 1'-0"



F3 TYPICAL SINK ENCLOSURE DETAIL

REFERENCED FROM: SCALE: 1" = 1'-0"



F5 TYPICAL CABINET DRAWER BASE AND WALL CABINET

REFERENCED FROM: SCALE: 1" = 1'-0"

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DRAWING
INTERIOR DETAILS
CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER
A4.11

SCALE: 1" = 1'-0"
DATE: 2025 | 10 | 23

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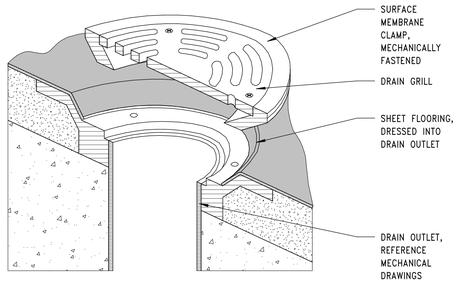
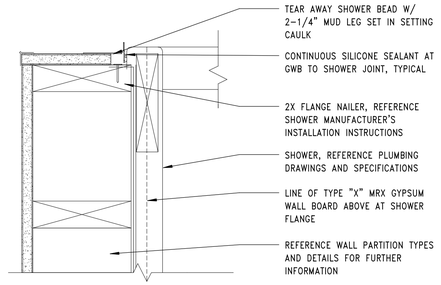


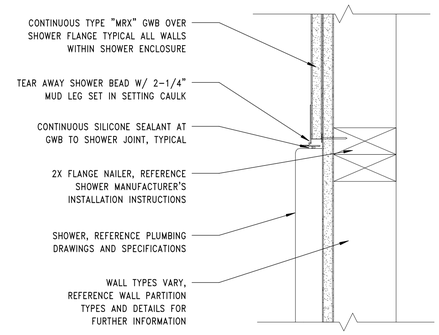
A2 TYPICAL FLOOR DRAIN DETAIL

REFERENCED FROM: A1.U1 SCALE: 6" = 1'-0"



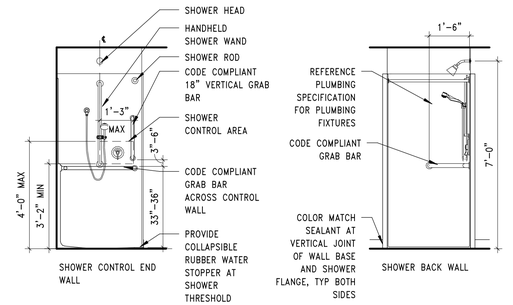
C2 SHOWER FLANGE- RETURN DETAIL

REFERENCED FROM: A4.12 SCALE: 3" = 1'-0"



E2 SHOWER FLANGE- TYPICAL TOP OF SHOWER WALL

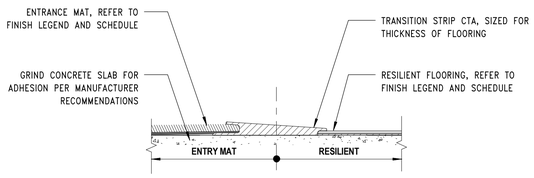
REFERENCED FROM: A4.12 SCALE: 3" = 1'-0"



G2 SHOWER ELEVATIONS

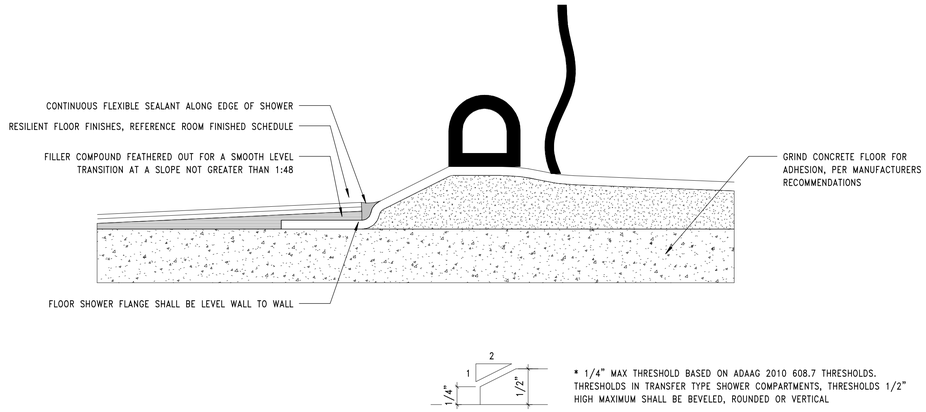
REFERENCED FROM: SCALE: 3/8" = 1'-0"

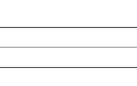
1. CENTER TRANSITION/ REDUCER STRIP UNDER CENTERLINE OF DOOR UNLESS OTHERWISE INDICATED.
2. REFER TO ARCHITECTURAL FLOOR ASSEMBLIES FOR SUBFLOOR/ UNDERLAYMENT NOTES
3. REFER TO INTERIOR FINISH LEGEND FOR TRANSITION/ REDUCER STRIP COLOR.
4. TRANSITION/ REDUCER STRIPS ARE BASED ON TARKETT.
5. FLOOR ASSEMBLY. REFERENCE FLOOR/CEILING SCHEDULE FOR FURTHER INFORMATION.



A3 FLOORING TRANSITIONS - ENTRY MAT TO RESILIENT

REFERENCED FROM: SCALE: 6" = 1'-0"

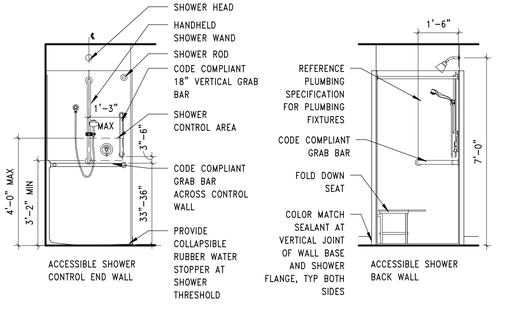




* 1/4" MAX THRESHOLD BASED ON ADAAG 2010 608.7 THRESHOLDS. THRESHOLDS IN TRANSFER TYPE SHOWER COMPARTMENTS, THRESHOLDS 1/2" HIGH MAXIMUM SHALL BE BEVELED, ROUNDED OR VERTICAL

C3 RESILIENT TERMINATION AT SHOWER UNIT DETAIL

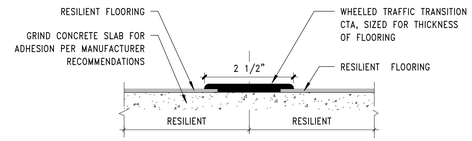
REFERENCED FROM: A4.12 SCALE: 12" = 1'-0"



G3 ACCESSIBLE SHOWER ELEVATIONS

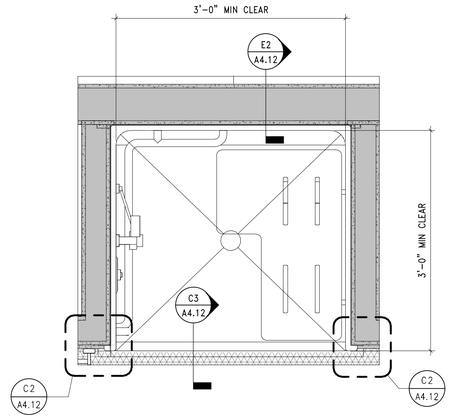
REFERENCED FROM: SCALE: 3/8" = 1'-0"

1. CENTER TRANSITION/ REDUCER STRIP UNDER CENTERLINE OF DOOR UNLESS OTHERWISE INDICATED.
2. REFER TO ARCHITECTURAL FLOOR ASSEMBLIES FOR SUBFLOOR/ UNDERLAYMENT NOTES
3. REFER TO INTERIOR FINISH LEGEND FOR TRANSITION/ REDUCER STRIP COLOR.
4. TRANSITION/ REDUCER STRIPS ARE BASED ON TARKETT.



A4 FLOORING TRANSITION - RESILIENT TO RESILIENT

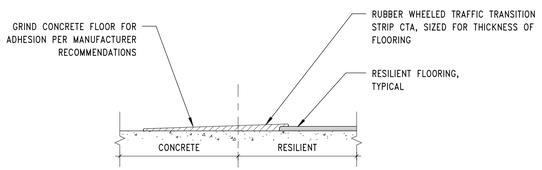
REFERENCED FROM: SCALE: 6" = 1'-0"



G5 ENLARGED SHOWER PLAN

REFERENCED FROM: A1.U1 SCALE: 1" = 1'-0"

1. CENTER TRANSITION/ REDUCER STRIP UNDER CENTERLINE OF DOOR UNLESS OTHERWISE INDICATED.
2. REFER TO ARCHITECTURAL FLOOR ASSEMBLIES FOR SUBFLOOR/ UNDERLAYMENT NOTES
3. REFER TO INTERIOR FINISH LEGEND FOR TRANSITION/ REDUCER STRIP COLOR.
4. TRANSITION/ REDUCER STRIPS ARE BASED ON TARKETT.



A5 FLOORING TRANSITION - CONCRETE TO RESILIENT

REFERENCED FROM: SCALE: 6" = 1'-0"

CWS ARCHITECTURE + INTERIOR DESIGN
PLANNING + DESIGN CONSTRUCTION SERVICES

DESIGNER

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PROJECT

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208 GRAHAM STREET
BIDDEFORD, MAINE 04005

DRAWING

SHOWER DETAILS AND FLOORING TRANSITIONS

CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER

A4.12

SCALE: As indicated

DATE: 2025 | 10 | 23

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ISSUED FOR CONSTRUCTION

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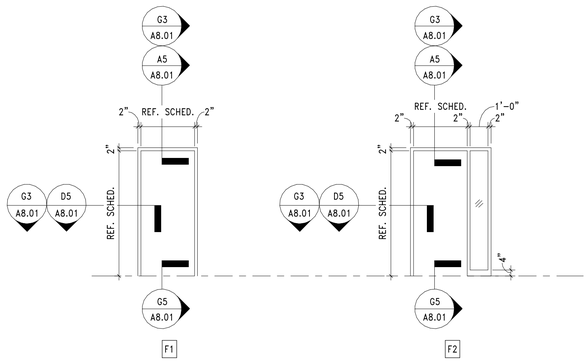
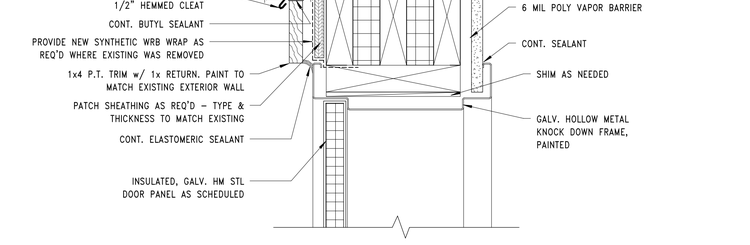


A1 FRAME TYPES

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



A3 DOOR TYPES

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

A5 TYP. EXTERIOR DOOR HEAD DETAIL

REFERENCED FROM: SCALE: 3" = 1'-0"

DOOR & DOOR FRAME SCHEDULE

			DOOR						FRAME						
DOOR NO.	ROOM NO.	HDWR SET NO.	WIDTH	HEIGHT	THICKENESS	TYPE	PANEL COUNT	MATL	TYPE	MATL	JAMB	HEAD	SILL	FIRE RATING	REMARKS
200A	208	1	3'-0"	7'-0"	1 3/4"	FG	1	GALV. HM STL, INSULATED	F1	GALV. HM STL	D5/A8.01	A5/A8.01	G5		SEE HEADER SCHEDULE
201	201	9	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	
202	202	9	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	
203	203	9	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	
204	204	9	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	
205	205	9	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	
206	206	9	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	
207	207	9	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	
210	210	8	6'-0"	7'-0"	1 3/4"	2F	2	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	PROVIDE MAG HOLDS
212	212	2	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01			
213	213	6	3'-0"	7'-0"	1 3/4"	HG	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01			
214	214	2	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01			
215	215	7	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	SEE HEADER SCHEDULE
216	216	2	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	
218	218	7	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01			
219	219	3	3'-0"	7'-0"	1 3/4"	HG	1	SOLID CORE WD	F2	HM STL	G3/A8.01	G3/A8.01		20 MIN	
220A	220	1	3'-0"	7'-0"	1 3/4"	FG	1	GALV. HM STL, INSULATED	F2	GALV. HM STL	D5/A8.01	A5/A8.01	G5		SEE HEADER SCHEDULE
220B	220	4	3'-0"	7'-0"	1 3/4"	FG	1	SOLID CORE WD	F2	HM STL	G3/A8.01	G3/A8.01			
300A	300	5	3'-0"	7'-0"	1 3/4"	FG	1	GALV. HM STL, INSULATED	F1	GALV. HM STL	D5/A8.01	A5/A8.01	G5		
300B	300	4	3'-0"	7'-0"	1 3/4"	FG	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01			
301	301	2	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	
302A	302	5	3'-0"	7'-0"	1 3/4"	F	1	GALV. HM STL, INSULATED	F1	GALV. HM STL	D5/A8.01	A5/A8.01	G5		SEE HEADER SCHEDULE
302B	303	2	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01		20 MIN	
A	UNIT BATH	10	3'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01			
B	UNIT CLOSET	11	4'-0"	7'-0"	1 3/4"	F	1	SOLID CORE WD	F1	HM STL	G3/A8.01	G3/A8.01			

AT DOOR 200A & 302A PROVIDE:

(2) KING & (1) JACK STUD TO MATCH EXISTING EA. SIDE OF HEADER QUADRUPLE 2X8 LINTEL WITH SINGLE JACK AND TWO KING STUDS EACH SIDE OF OPENING.

- CONVENTIONAL 2X8 WALL FRAMING
- MAXIMUM OPENING SPAN = 4'-6".
- NO ROOF JOISTS FRAMING ABOVE OPENING.
- NO CONCENTRATED LOAD SUPPORTS ABOVE OPENING.

AT DOOR 220A PROVIDE:

(2) KING & (2) JACK STUDS TO MATCH EXISTING EA. SIDE OF HEADER QUADRUPLE 2X8 WITH TWO JACK AND TWO KING STUDS EACH SIDE OF OPENING.

- CONVENTIONAL 2X8 WALL FRAMING
- MAXIMUM OPENING SPAN = 4'-6".
- NO CONCENTRATED LOAD SUPPORTS ABOVE OPENING

AT DOOR 215 PROVIDE:

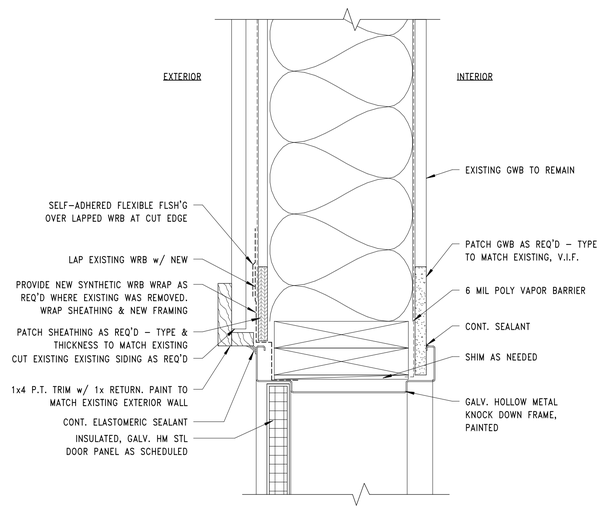
SOLID 8"X8" MASONRY OR PRECAST CONCRETE LINTEL WITH MIN. (2) #3 BARS AT BOTTOM.

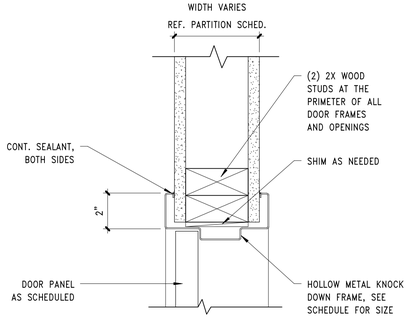
- MAXIMUM OPENING SPAN = 4'-0".
- 8" OF BEARING EACH END.
- FULLY GROUT BEARING CELLS 2'-0" MIN BELOW LINTEL.
- ASSUMES ARCHING ACTION - MINIMUM 2'-8" OF BLOCK ABOVE THE TOP OF LINTEL, NO VERTICAL MASONRY JOINTS ABOVE OR WITHIN 4'-0" OF OPENING, AND NO CONCENTRATED LOADS WITHIN THE ARCH AREA.

STRUCTURAL HEADER SCHEDULE & SUPPORT REQUIREMENTS

D5 TYP. EXTERIOR DOOR JAMB DETAIL

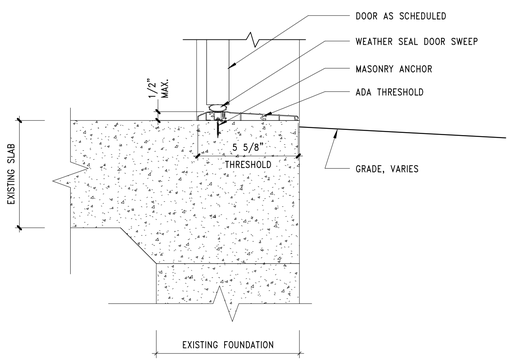
REFERENCED FROM: SCALE: 3" = 1'-0"





G3 TYP. INTERIOR DOOR HEAD/JAMB DETAIL

REFERENCED FROM: SCALE: 3" = 1'-0"



G5 TYP. EXTERIOR DOOR SILL DETAIL

REFERENCED FROM: SCALE: 3" = 1'-0"

CWS ARCHITECTURE + INTERIOR DESIGN

PLANNING + DESIGN CONSTRUCTION SERVICES

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PROJECT

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208 GRAHAM STREET,
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DRAWING

DOOR AND DOOR FRAME SCHEDULE, ELEVATIONS AND DETAILS

CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER

A8.01

SCALE: As indicated

DATE: 2025 | 10 | 23

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ISSUED FOR CONSTRUCTION

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SECTION 08 71 00

FINISH HARDWARE

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK:

A. Types of finish hardware required include the following:

1. Hinges.
2. Lock cylinders and keys.
3. Lock and latch sets.
4. Bolts.
5. Exit devices.
6. Closers.
7. Miscellaneous door control devices.
8. Door trim units.
9. Protection plates.
10. Weatherstripping for exterior doors.
11. Sound stripping for interior doors.
12. Astragals or meeting seals on pairs of doors.

1.2 QUALITY ASSURANCE:

A. Manufacturer: Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.

B. Fire-Rated Openings: Provide hardware for fire-rated openings in compliance with NFiPA Standard No. 80 and local building code requirements. Provide only hardware which has been tested and listed by UL or FM for types and sizes of doors required and complies with requirements of door and door frame labels.

1. Where emergency exit devices are required on fire-rated doors (with supplementary marking on doors' UL or FM labels indicating "Fire Door to be Equipped with Fire Exit Hardware") provide UL or FM label on exit devices indicating "Fire Exit Hardware".

C. ANSI Standards: Provide hardware that meets or exceeds the performance requirements of ANSI A 156.2 for the following applications:

1. Doors in public areas: Series 4000, Grade 1.

1.3 SUBMITTALS:

A. Product Data: Submit manufacturer's technical product data for each item of hardware to Architect for review and approval. Include whatever information may be necessary to show compliance with requirements, and include instructions for installation and for maintenance of operating parts and finish.

B. Hardware Schedule: Submit hardware schedule in manner indicated below. Coordinate hardware with doors, frames and related work to ensure proper size, thickness, hand, function and finish of hardware.

C. Hardware Schedule Content: Based on finish hardware indicated, organize hardware schedule into "hardware sets" indicating complete designations of every item required for each door or opening. Cross reference to designations in door and hardware schedules in Contract Documents.

D. Keying Schedule: Submit separate detailed schedule indicating clearly how the Owner's final instructions on keying of locks has been fulfilled.

E. Templates: Furnish hardware templates to each fabricator of doors, frames and other work to be factory-prepared for the installation of hardware. Review shop drawings of such other work, to confirm that adequate provisions are made for proper location and installation of hardware.

F. Action Submittals: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.

1.4 PRODUCT HANDLING:

A. Deliver individually packaged hardware items at the proper times to the proper locations (shop or project site) for installation.

B. Provide secure lock-up for hardware delivered to the project, but not yet installed. Control handling and installation of hardware items which are not immediately replaceable, so that completion of the work will not be delayed by hardware losses, both before and after installation.

PART 2 - PRODUCTS

2.1 SCHEDULED HARDWARE:

A. Requirements for design, grade, function, finish, size and other distinctive qualities of each type of finish hardware is indicated in the Finish Hardware Schedule. Products are identified by using hardware designation numbers of the following.

B. Manufacturer's Product Designations: One or more manufacturers are listed for each hardware type required, whose product designation is used in the Hardware Schedule for purposes of establishing minimum requirements. Provide either the product designated, or, where more than one manufacturer is listed, the comparable product of one of the other manufacturers which comply with requirements including those specified elsewhere in this section.

1. Manufacturer: Products listed in the Hardware Schedule are intended to establish Basis of Design. Products of other manufacturers may be accepted subject to review by Architect:

a. Locksets: Schlage
b. Closers: Dorma
c. Hinges: McKinney.

d. Panic Devices: Von Duprin
e. Door Trim and Accessories: Ives

C. ANSI/BHMA designations used elsewhere in this section or in schedules to describe hardware items or to define quality or function are derived from the ANSI A 156.1 standards. Provide products complying with these standards and requirements specified elsewhere in this section.

2.2 MATERIALS AND FABRICATION:

A. Hand of door: Drawings show direction of swing or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door as shown.

B. Manufacturer's Name Plate: Do not use manufacturer's products which have manufacturer's name or trade name displayed in a visible location (omit removable nameplates), except in conjunction with required UL labels and as otherwise acceptable to Architect.

1. Manufacturer's identification will be permitted on rim of lock cylinders only.

C. Base Metals: Produce hardware units of basic metal and forming method indicated, using manufacturer's standard metal alloy, composition, temper and hardness, but in no case of lesser (commercially recognized) quality than specified for the applicable hardware units by applicable ANSI A156 series standard for each type hardware item and with ANSI A156.18 for finish designations indicated. Do not furnish "optional" materials or forming methods for those indicated, except as otherwise specified.

D. Fasteners: Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation. Do not provide hardware which has been prepared for self-tapping sheet metal screws, except as specifically indicated.

E. Furnish screws for installation, with each hardware item. Provide Phillips flat-head screws except as otherwise indicated. Finish exposed screws to match hardware finish or, if exposed in surfaces of other work, to match finish of such other work as closely as possible, including "prepared for paint" in surfaces to receive painted finish.

F. Provide concealed fasteners for hardware units which are exposed when door is closed, except to the extent no standard units of the type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work, except where it is not feasible to adequately reinforce the work. In such cases, provide sleeves for each thru-bolt or use hex screw fasteners.

2.3 HINGES, BUTTS AND PIVOTS:

A. Templates: Except for hinges and pivots to be installed entirely (both leaves) into wood doors and frames, provide only template-produced units.

B. Screws: Furnish Phillips flat-head or machine screws for installation of units, except furnish Phillips flat-head or wood screws for installation of units into wood. Finish screw heads to match surface of hinges or pivots.

C. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:

1. Steel Hinges: Steel pins.
2. Non-ferrous Hinges: Stainless steel pins.
3. Exterior Doors: Non-removable pins.
4. Out-swing Corridor Doors: Non-removable pins.
5. Interior Doors: Non-rising pins.
6. Tips: Flat button and matching plug, finished to match leaves.
7. Pivot Hinges / Side Pivot

D. Provide only ball bearing hinges at doors with closers.

E. Number of hinges: Provide number of hinges indicated but not less than 3 hinges per door leaf for doors 90" or less in height.

2.4 LOCK CYLINDERS AND KEYING:

A. General: Supplier will meet with Owner to finalize keying requirements and obtain final instructions in writing.

D. Metals: Construct lock cylinder parts from brass/bronze, stainless steel or nickel silver.

E. Comply with Owner's instructions for master keying and, except as otherwise indicated, provide individual change key for each lock which is not designated to be keyed alike with a group of related locks.

F. Key Material: Provide keys of nickel silver only.

G. Key Quantity: Furnish 5 change keys for each lock and 5 submaster keys.

1. Furnish one extra blank for each lock.
2. Deliver keys to Owner's representative and obtain receipt.

H. Provide a key control system including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150% of the number of locks required for the project.

2.5 LOCKS, LATCHES AND BOLTS:

A. Strikes: Provide manufacturer's standard wrought box strike for each latch or lock bolt, with curved lip extended to protect frame, finished to match hardware set.

B. Provide dust-proof strikes for foot bolts, except where special threshold construction provides non-recessed strike for bolt.

C. Lock Throw: Comply with UL requirements for throw of bolts and latch bolts on rated fire openings. Provide 1/2" minimum throw on other latch and deadlock bolts.

D. Flush Bolt Heads: Minimum of 1/2" diameter rods of brass, bronze or stainless steel, with minimum 12" long rod for doors up to 7'-0" in height.

2.6 CLOSERS AND DOOR CONTROL DEVICES:

A. Type of Units: Overhead surface mounted, parallel arm door closers.

B. Size of Units: Except as otherwise specifically indicated, comply with the manufacturer's recommendations for size of door control unit, depending upon size of door, exposure to weather and anticipated frequency of use.

C. Access-Free Manual Closers: Where manual closers are indicated for doors required to be accessible to the physically handicapped, provide adjustable units complying with ADA provisions for door opening force and delayed action closing.

D. Fire-Guard, Alarm actuated Manual Closers: Where indicated provide closers capable of being tied to the fire alarm system such that while in the hold open position the door closes upon alarm actuation.

2.7 DOOR TRIM UNITS:

A. Fasteners: Provide manufacturer's standard exposed fasteners for door trim units (kick plates, edge trim, viewers, knockers, mail drops and similar units); either machine screws of self-tapping screw.

B. Fabricate protection plates (armor, kick or mop) not more than 1-1/2" less than door width on stop side and not more than 1/2" less than door width on pull side, x the height indicated.

1. Metal Plates: Stainless steel, 1/8" (0.125") thick.

2.8 WEATHERSTRIPPING:

A. General: Except as otherwise indicated, provide continuous weatherstripping at each edge of every exterior door leaf. Provide type, sizes and profiles shown or scheduled. Provide non-corrosive fasteners as recommended by manufacturer for application indicated.

2.9 HARDWARE FINISHES:

A. Provide matching finishes for hardware units at each door or opening, to the greatest extent possible, and except as otherwise indicated. Reduce differences in color and textures as much as commercially possible where the base metal or metal forming process is different for individual units of hardware exposed at the same door or opening. In general, match items to the manufacturer's standard finish for the latch and lock set (or push-pull units if no latch-lock sets) for color and texture.

B. Provide finishes which match those established by Maine Health.

C. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness and other qualities complying with manufacturer's standards, but in no case less than specified for the applicable units of hardware by referenced standards.

PART 3 - EXECUTION

3.1 INSTALLATION:

A. Mount hardware units at heights indicated in "Recommended Locations for Builders Hardware" for Standard Steel Doors and Frames" by the Door and Hardware Institute, except as specifically indicated or required to comply with governing regulations, and except as may be otherwise directed by Architect. Comply with ADA and ICC/ANSI A117.1-2003.

B. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protections with finishing work as required. Do not install surface-mounted items until finishes have been completed on the substrate.

C. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.

D. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

E. Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant.

3.2 ADJUST AND CLEAN:

A. Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace items which cannot be adjusted to operate freely and smoothly as intended for the application made.

B. Clean adjacent surfaces soiled by hardware installation.

C. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of a space or area, return to the work during the week prior to acceptance or occupancy, and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

D. Initial maintenance: Return to the work one month after occupancy and inspect all doors, adjust hardware as necessary for proper operation and instruct Owner's Personnel in proper adjustment and maintenance of hardware and hardware finishes.

CWS ARCHITECTURE + INTERIOR DESIGN
PLANNING + DESIGN CONSTRUCTION SERVICES

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PROJECT
208 GRAHAM STREET LIVING RENOVATION
208 GRAHAM STREET,
BIDDEFORD, MAINE 04005

DRAWING
DOOR, FRAME & HARDWARE SPECIFICATIONS
CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER
A8.02

SCALE:

DATE: 2025 | 10 | 23

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3.3 HARDWARE SCHEDULE

Hardware Heading #1: Doors 220A & 200A
Panic Exit Function

See new work floorplan for swing direction

1	Each	Concealed Vertical Cable Exit Device	98/99 Series	Von Duprin
1	Set	Hinges	2714 Ball Bearing	McKinney
1	Each	Cylinder Core	Premus XP	Schlage
1	Each	Door Closer	8600	Dorma
1	Set	Door Edge Seal	5050	National Guard

Note:
Provide will full dogging down option.
Door to receive card access system controls and swipe pad.

Hardware Heading #2: Doors 212, 214, 216, 301 & 302B
Storage Function

See new work floorplan for swing direction

1	Each	Storage Function Lockset	ND96PD Athens	Schlage
1	Set	Hinges	2714 Ball Bearing	McKinney
1	Each	Cylinder Core	Premus XP	Schlage
1	Set	Silencers	SR64/SR65	Ives
1	Each	Door Closer	8600	Dorma
*1	Each	Wall Stop	WS407CCV	Ives
**1	Each	Door Sweep	18137CNB	Pemko

Note:
Doors 212, 214 & 216 to receive card access system controls and swipe pad.
***Only doors 214 & 301 to receive wall stop**
****Only doors 216, 301 & 302B to receive door sweep**

Hardware Heading #3: Door 219
Office Function

See new work floorplan for swing direction

1	Each	Office Function Lockset	ALX50P Athens	Schlage
1	Set	Hinges	2714 Ball Bearing	McKinney
1	Each	Cylinder Core	Premus XP	Schlage
1	Set	Silencers	SR64/SR65	Ives
1	Each	Door Closer	8600	Dorma
1	Each	Wall Stop	WS407CCV	Ives
1	Each	Door Sweep	18137CNB	Pemko

Note:
Door to receive card access system controls and swipe pad.

Hardware Heading #4: Doors 220B & 300B
Passage Function

See new work floorplan for swing direction

1	Set	Push / Pull	CO-12//CP-II	Kawneer
1	Set	Hinges	2714 Ball Bearing	McKinney
1	Each	Dead bolt	B60 Series	Schlage
1	Each	Cylinder Core	Premus XP	Schlage
1	Set	Silencers	SR64	Ives
1	Each	Floor Stop	FS13	Ives
1	Each	Door Closer	8600	Dorma

Hardware Heading #5: Door 302A, 300A
Storage Function

See new work floorplan for swing direction

1	Each	Storage Function Lockset	ND50PD Athens	Schlage 1
	Set	Hinges	2714 Ball Bearing	McKinney
1	Each	Cylinder Core	Premus XP	Schlage
1	Each	Door Closer	8600	Dorma
1	Set	Door Edge Seal	5050	National Guard

Hardware Heading #6: Door 213
Passage Function

See new work floorplan for swing direction

1	Each	Passage Function Lockset	ND10S Athens	Schlage
1	Set	Hinges	2714 Ball Bearing	McKinney
1	Set	Silencers	SR64/SR65	Ives
1	Each	Door Closer	8600	Dorma
1	Each	Floor Stop	FS13	Ives

Hardware Heading #7: Doors 215 & 218
Privacy Function

See new work floorplan for swing direction

1	Each	Privacy Function Lockset	ND40S	Schlage
1	Set	Hinges	2714 Ball Bearing	McKinney
1	Set	Silencers	SR64/SR65	Ives
1	Each	Floor Stop	FS13	Ives
*1	Each	Door Sweep	18137CNB	Pemko

***Only doors 215 to receive door sweep**

Hardware Heading #8: Door 210
Passage Function

See new work floorplan for swing direction

Right side leaf

1	Each	Passage Function Lockset	ND10S Athens	Schlage
1	Set	Hinges	2714 Ball Bearing	McKinney
1	Set	Silencers	SR64/SR65	Ives
1	Each	Door Closer	8600	Dorma
1	Each	Floor Stop	FS13	Ives
1	Each	Door Sweep	18137CNB	Pemko

Left side leaf

1	Each	Passage Function Lockset	ND10S Athens	Schlage
1	Set	Hinges	2714 Ball Bearing	McKinney
1	Set	Silencers	SR64/SR65	Ives
1	Each	Door Closer	8600	Dorma
1	Each	Floor Stop	FS13	Ives
1	Each	Door Sweep	18137CNB	Pemko

Note:
Doors to remain open during normal operation using mag-hold. Mag hold function to be trigger via fire alarm system to close in the event of an alarm

HARDWARE SETS FOR THE APPARTMENT UNITS

Hardware Heading #9: Unit Main Entry Doors 201, 202, 203, 204, 205, 206 & 207

See new work floorplan for swing direction

1	Each	Access Controlled Lockset	CO Series	Schlage
1	Each	Cylinder Core	Premus XP	Schlage
1	Each	Wall Stop	WS407CCV	Ives
1	Each	Hinges	2714 Ball Bearing	McKinney
2	Each	Spring Hinges	3SP1 Series	Ives
1	Set	Silencers	SR64/SR65	Ives
1	Each	Viewer Cover	698-8903116626	Ives
1	Each	Viewer	U698	Ives
1	Each	Kick Plate 8"Hx 34"W	8400	Ives
1	Each	Door Sweep	18137CNB	Pemko

NOTE:
Provide a unique, mechanical key entry to each unit. (No card readers)
Provide a sub-master key for Owner-access to all units.

Hardware Heading #10: Unit Bathroom Door A

See new work floorplan for swing direction

1	Each	Privacy Function Lockset	F40 JAZ	Schlage
1	Each	Wall Stop	WS407CCV	Ives
1	Set	Hinges	2714 Ball Bearing	McKinney
1	Set	Silencers	SR64/SR65	Ives

Hardware Heading #11: Unit Closet Door B

See new work floorplan for swing direction

2	Sets	Hinges	2714 Ball Bearing	McKinney
2	Set	Silencers	SR64/SR65	Ives
2	Each	Roller Latch	RL30 (Top Mnt)	Ive
2	Each	Single Dunny Trim	F170 JAZ	Schlage

END OF SECTION

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PROJECT
208 GRAHAM STREET LIVING RENOVATION
208 GRAHAM STREET, BIDDEFORD, MAINE 04005

DRAWING
HARDWARE SCHEDULE
CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER
A8.03

SCALE:
DATE: 2025 | 10 | 23

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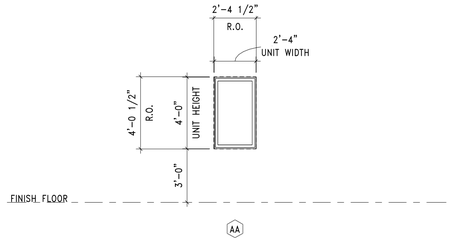
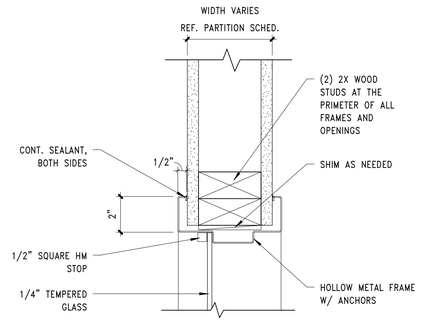
WINDOW SCHEDULE

Type Mark	Count	R.O. Width	R.O. Height	TYPE	MATERIAL	FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	GLAZING TYPE	HEAD HEIGHT	COMMENTS
AA	1	2' – 4"	4' – 0"	BORROWED LITE	WELDED HM STL	P1	G2/A8.20	G2/A8.20	G4/A8.20	D–20	7' – 0"	



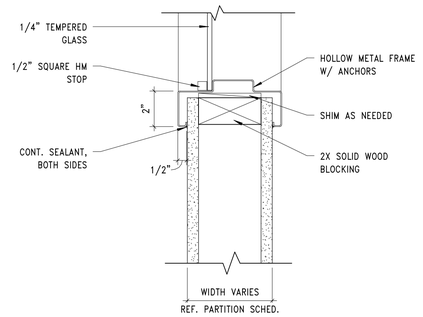
WINDOW ELEVATIONS

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



G2 TYP. INTERIOR WINDOW HEAD/JAMB DETAIL

REFERENCED FROM: SCALE: 3" = 1'-0"



G4 TYP. INTERIOR WINDOW SILL DETAIL

REFERENCED FROM: SCALE: 3" = 1'-0"

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PROJECT

208 GRAHAM STREET LIVING RENOVATION

208 GRAHAM STREET,
BIDDEFORD, MAINE 04005

DRAWING

WINDOW SCHEDULE, ELEVATIONS AND DETAILS

CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER

A8.20

SCALE: As indicated

DATE: 2025 | 10 | 23

10/27/2025 5:57:49 PM

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INTERIOR FINISH LEGEND

208 GRAHAM STREET LIVING RENOVATION

24035

CODE	MATERIAL	MANUFACTURER	STYLE	SIZE	COLOR	FLAME / SMOKE RATING REQUIREMENT	CONTACT	REMARKS / NOTES
FLOORING								
EM1	ENTRY MAT TILE	TANDUS, TARKETT	ABRASIVE ACTION II, POWERBOND	6' ROLL	WINTER GRAY	CLASS I	JANE SUCHECKI jane.suchecki@tarkett.com	WELDED SEAMS
RES1	RESILIENT PLANK, LVP	TARKETT	EVENT+ WOOD	6"x48", 30MIL	11210 GILDED	CLASS I	JANE SUCHECKI jane.suchecki@tarkett.com	UNIDIRECTIONAL INSTALL
RES2	RESILIENT SHEET	TARKETT	IQ GRANIT	2Mx25M ROLL, 2mm	TBD	CLASS I	JANE SUCHECKI jane.suchecki@tarkett.com	WELDED SEAMS, FLASHCOVE BASE AT TOILET ROOMS AND UNIT BATHROOMS
SC1	SEALED CONCRETE	–	–	–	–	–	–	–
WALL BASE								
WB1	WALL BASE	TARKETT/ JOHNSONITE	TRADITIONAL VINYL COVED	1/8" GUAGE, 4"X 120' ROLL	TBD	CLASS I	JANE SUCHECKI jane.suchecki@tarkett.com	–
WB2	WALL BASE, FLASHCOVE	TARKETT	IQ GRANIT	6", 2mm	TBD	CLASS I	JANE SUCHECKI jane.suchecki@tarkett.com	–
TRANSITIONS								
TR1	TRANSITION STRIPS	TARKETT/ JOHNSONITE	AS REQUIRED	AS REQUIRED	TBD	CLASS I	JANE SUCHECKI jane.suchecki@tarkett.com	–
PAINT								
P0	PAINT	SHERWIN WILLIAMS	FLAT	–	SW7007 CEILING BRIGHT WHITE	–	–	PAINTED GWB CEILINGS AND SOFFITS, U.N.O.
P1	PAINT	SHERWIN WILLIAMS	SEMI-GLOSS	–	SW7008 ALABASTER	–	–	PAINTED TRIM, DOORS, FRAMES
P2	PAINT	SHERWIN WILLIAMS	EGSHELL	–	SW6254 LAZY GRAY	–	–	NEUTRAL COLOR THROUGHOUT
WALLS								
WP1	WALL PROTECTION, FRP	MARLITE, SMARTSEAM	SYMMETRIX, SQUARE 4"X4" TILE LOOK	48" X 44" PANEL	WHITE PNL W/ GREY GROUT, SATIN FINISH	CLASS A	–	PROVIDE ASSOCIATED FRP ANODIZED TRIM SURROUND.
								TOP OF WALL BASE @ 4'-0" AFF U.N.O, TYP
CEILING SYSTEMS								
ACT1	ACOUSTIC CEILING SYSTEM	ARMSTRONG CEILINGS	DUNE ANGLED TEGULAR, 1774, 15/16" PRELUDE GRID	24"X 24"X 5/8"	WHITE	CLASS A	–	–
SURFACES AND MILLWORK								
SS1	SOLID SURFACE	DUPONT, CORIAN	–	–	GLACIER WHITE	NA	–	–
PL1	HIGH PRESSURE PLASTIC LAMINATE	–	–	–	–	NA	–	–
CASEWORK CABINETS AND HARDWARE								
CAB1	WOOD CABINET	WOLF CLASSIC	ALL WOOD CONSTRUCTION, DARTMOUTH DOOR STYLE, MAPLE	–	HAZELNUT, STAIN FINISH	NA	–	PULL HARDWARE: ALLISON VALUE HARDWARE BY AMEROCK, 3" CENTERS, MODEL #BP6915G10, STAIN NICKEL FINISH
CAB2	WOOD CABINET	–	–	–	–	NA	–	–

NOTES:
1. FLAME/SMOKE RATING REQUIREMENT CLASSIFICATIONS ARE BASED ON INTERIOR FLOOR, WALL, AND CEILING FINISH MATERIALS
2. REFERENCE CODE OVERVIEW ON COVER PAGE FOR CODE COMPLIANCE REPORT AND PROJECT SPECIFICATION MANUAL FOR MORE INFORMATION ON PRODUCTS FLAME/SMOKE SPREAD CLASSIFICATIONS
3. NORTH, SOUTH, EAST, AND WEST ON FINISH SCHEDULE REFER TO PLAN NORTH

INTERIOR FINISH SCHEDULE

208 GRAHAM STREET LIVING RENOVATION

24035

ROOM NO.	ROOM NAME	FLOORS		WALL FINISHES (ABOVE/BELOW)				MILLWORK			DOORS, FRAMES	NOTES
		FLOOR FINISH	FLOOR BASE	NORTH	EAST	SOUTH	WEST	HORIZONTAL	VERTICAL	TRIM		
FIRST FLOOR PLAN – NEW WORK												
201	ACCESSIBLE UNIT 1	–	–	–	–	–	–	–	–	–	–	REF UNIT FINISH SCHEDULE
202	UNIT 2	–	–	–	–	–	–	–	–	–	–	REF UNIT FINISH SCHEDULE
203	UNIT 3	–	–	–	–	–	–	–	–	–	–	REF UNIT FINISH SCHEDULE
204	UNIT 4	–	–	–	–	–	–	–	–	–	–	REF UNIT FINISH SCHEDULE
205	UNIT 5	–	–	–	–	–	–	–	–	–	–	REF UNIT FINISH SCHEDULE
206	UNIT 6	–	–	–	–	–	–	–	–	–	–	REF UNIT FINISH SCHEDULE
207	UNIT 7	–	–	–	–	–	–	–	–	–	–	REF UNIT FINISH SCHEDULE
208	CORRIDOR	RES1	WB1	P2	P2	P2	P2	–	–	–	P1	
209	COMMUNITY LIVING ROOM	RES1	WB1	P2	P2	P2	P2	–	–	–	P1	
210	COMMUNITY DINING ROOM	RES1	WB1	P2	P2	P2	P2	–	–	–	P1	
211	COMMUNITY KITCHEN	RES1	WB1	P2	P2	P2	P2	SS1	CAB1	–	P1	
212	PANTRY	RES2	WB1	P2	P2	P2	P2	–	–	–	P1	
213	LAUNDRY	RES2	WB2	P2/WP1	P2/WP1	P2/WP1	P2/WP1	PL1	–	–	P1	
214	STORAGE	RES2	WB1	P2	P2/WP1	P2/WP1						PROVIDE WP1 AT 2 WALLS AROUND MOP SINK. REF TO INT ELEVS
215	TOILET	RES2	WB2	P2/WP1	P2/WP1	P2/WP1	P2/WP1	–	–	–	P1	
216	JAN CL											
217	SITTING/LIBRARY	RES1	WB1	P2	P2	P2	P2	SS1	CAB1	–	–	BOOKCASE TO MATCH CABINETRY
218	STAFF TOILET	RES2	WB2	P2/WP1	P2/WP1	P2/WP1	P2/WP1	–	–	–	P1	
219	STAFF OFFICE	RES1	WB1	P2	P2	P2	P2	–	–	–	P1	
220	VESTIBULE	EM1	WB1	P2	P2	P2	P2	–	–	–	P1	
300	VESTIBULE	EM1	WB1	P2	P2	P2	P2	–	–	–	P1	
301	ELECTRICAL	SC1	WB1	P2	P2	P2	P2	–	–	–		
302	SPRINKLER	SC1	WB1	P2	P2	P2	P2	–	–	–		
303	OPEN AREA	EM1	WB1	P2	P2	P2	P2	–	–	–		

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208 GRAHAM STREET LIVING RENOVATION

208 GRAHAM STREET,
BIDDEFORD, MAINE 04005

DRAWING

INTERIOR FINISHES LEGEND AND SCHEDULES

CWS PROJECT NUMBER: 24046

REVISIONS

DRAWING NUMBER

A9.00

SCALE: 12" = 1'-0"

DATE: 2025 | 10 | 23

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FINISH FLOOR PLAN LEGEND:

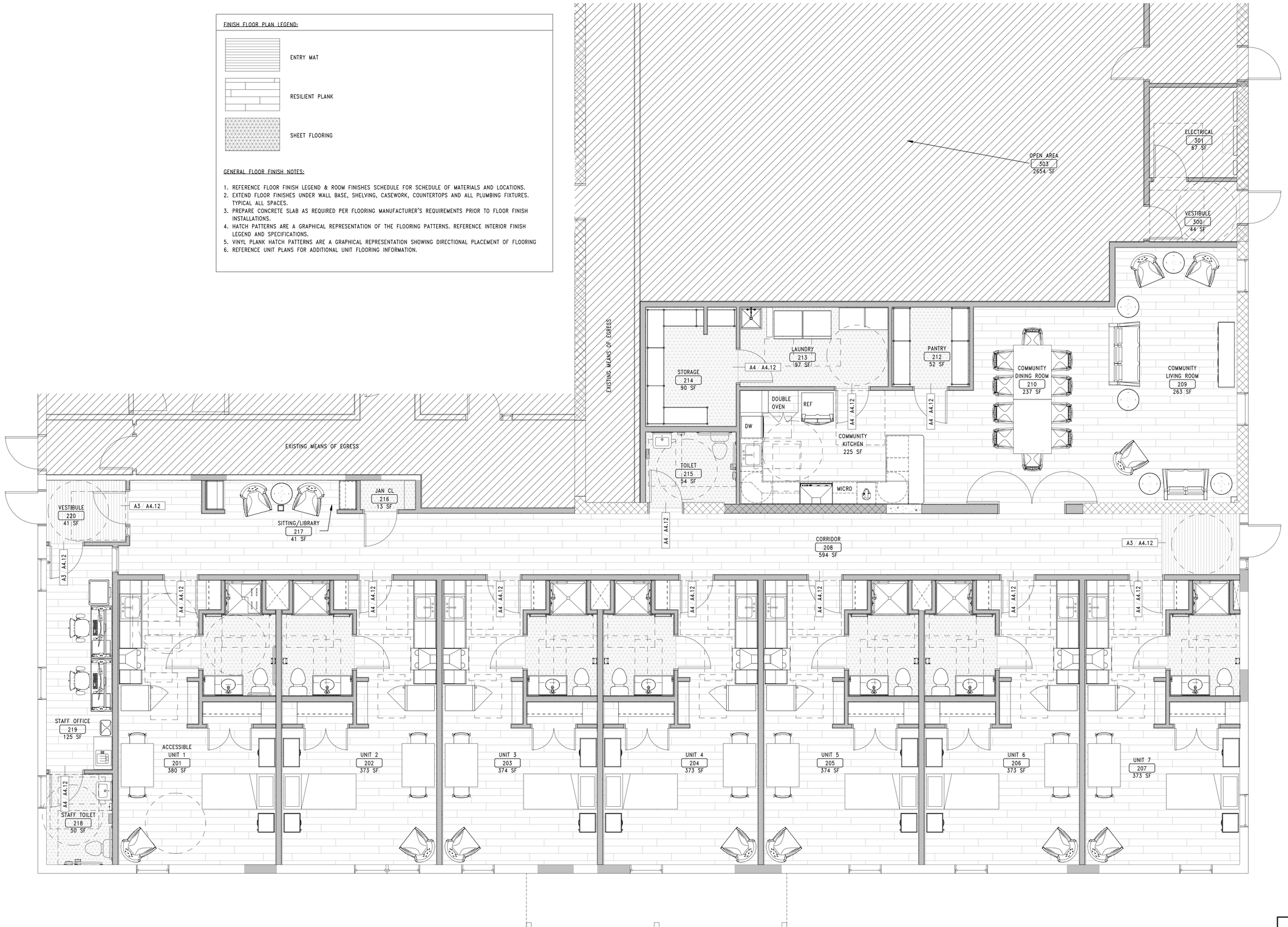
ENTRY MAT

RESILIENT PLANK

SHEET FLOORING

GENERAL FLOOR FINISH NOTES:

1. REFERENCE FLOOR FINISH LEGEND & ROOM FINISHES SCHEDULE FOR SCHEDULE OF MATERIALS AND LOCATIONS.
2. EXTEND FLOOR FINISHES UNDER WALL BASE, SHELVING, CASEWORK, COUNTERTOPS AND ALL PLUMBING FIXTURES. TYPICAL ALL SPACES.
3. PREPARE CONCRETE SLAB AS REQUIRED PER FLOORING MANUFACTURER'S REQUIREMENTS PRIOR TO FLOOR FINISH INSTALLATIONS.
4. HATCH PATTERNS ARE A GRAPHICAL REPRESENTATION OF THE FLOORING PATTERNS. REFERENCE INTERIOR FINISH LEGEND AND SPECIFICATIONS.
5. VINYL PLANK HATCH PATTERNS ARE A GRAPHICAL REPRESENTATION SHOWING DIRECTIONAL PLACEMENT OF FLOORING
6. REFERENCE UNIT PLANS FOR ADDITIONAL UNIT FLOORING INFORMATION.



A5 **FIRST FLOOR FINISHES PLAN**

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

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PROJECT NORTH

PLAN NORTH

TRUE NORTH

DRAWING NUMBER

A9.10

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

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DESIGNER

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208 GRAHAM STREET,
BIDDEFORD, MAINE 04005

DRAWING

FIRST FLOOR FINISHES PLAN

CWS PROJECT NUMBER: 24046

REVISIONS

ABBREVIATIONS

A	AMP
AC	AIR CONDITIONER
ACS	ACCESS
AFF	ABOVE FINISHED FLOOR
AHU	AIR–HANDLING UNIT
AMU	AIR MAKEUP UNIT
APD	AIR PRESSURE DROP
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BTUH	BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE
CLG	COOLING
CO	CLEANOUT
COND	CONDENSATE
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CP	CONDENSATE PUMP
CW	COLD WATER
CUH	CABINET UNIT HEATER
DB	DRY BULB
DBA	DECIBELS
DC	DUST COLLECTOR
DEG, °	DEGREE
DIA, ø	DIAMETER
DN	DOWN
DP,DPS	DIFFERENTIAL–PRESSURE SENSOR
(E)	EXISTING TO REMAIN
EA	EACH, EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
ERV	ENERGY RECOVERY VENTILATOR
ESP	EXTERNAL STATIC PRESSURE
EUH	ELECTRIC UNIT HEATER
EWT	ENTERING WATER TEMPERATURE
F	FAN, FAHRENHEIT
FA	FREE AREA
FCU	FAN COIL UNIT
FH	FILTER HOUSING
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT	FEET
FTR	FINNED TUBE RADIATOR
GA	GAUGE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HG	HOT GAS
HGB	HOT GAS BYPASS
HP	HEAT PUMP, HORSEPOWER
HPS	HIGH PRESSURE STEAM
HR	HOUR
HRV	HEAT RECOVERY VENTILATOR
HTG	HEATING
HV	HEATING & VENTILATING
HX	HEAT EXCHANGER
HZ	HERTZ
IN	INCHES
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LCP	LOCAL CONTROL PANEL
LWT	LEAVING WATER TEMPERATURE
MAU	MAKEUP AIR UNIT
MAX	MAXIMUM
MBH	1000 BTU PER HOUR
MCP	MAIN CONTROL PANEL
MEZZ	MEZZANINE
MIN	MINIMUM
MOP	MAXIMUM OVERCURRENT PROTECTION
MOPD	MAXIMUM OVERCURRENT PROTECTIVE DEVICE
NC	NOISE CRITERIA
NEC	NATIONAL ELECTRICAL CODE
NO	NUMBER
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OED	OPEN–ENDED DUCT
PC	PUMPED CONDENSATE
PD	PRESSURE DROP
PDS	PRESSURE DIFFERENTIAL SWITCH
PH	PHASE
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
PT	PRESSURE TRANSMITTER

DUCTWORK SYMBOLS

- RETURN/EXHAUST DUCT UP
- RETURN/EXHAUST DUCT DOWN
- SUPPLY DUCT UP
- SUPPLY DUCT DOWN
- RISE(R) OR DROP(D)
- RADIUS ELBOW
- SQUARE ELBOW W/ TURNING VANES
- OFFSET
- DUCT TRANSITION FROM RECTANGULAR TO ROUND
- BULLHEAD TEE (VD)
- SPLIT TAKE–OFF W/ BRANCH DAMPERS SUPPLY (VD)
- TAKE–OFF (VD) SUPPLY
- EXHAUST/RETURN (VD)
- CEILING SUPPLY DIFFUSER W/ DIRECTION SHOWN BY ARROWS
- BULLHEAD SPLIT (VD)
- CEILING DIFFUSER OR GRILLE W/ FLEXIBLE DUCT (VD)
- FLEXIBLE DUCT

ABBREVIATIONS CONT.

QTY	QUANTITY
RA	RETURN AIR
RAD	RADIATOR
RCP	RADIANT CEILING PANEL
RG	REFRIGERANT GAS
RL	REFRIGERANT LIQUID
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SC	STEAM COIL
SP	STATIC PRESSURE
SS	STAINLESS STEEL
T	TEMPERATURE SENSOR, THERMOSTAT
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
VFD	VARIABLE FREQUENCY DRIVE
W/	WITH
WB	WET–BULB
WC	WATER COLUMN
WG	WATER GAUGE
WPD	WATER PRESSURE DROP

MECHANICAL SYMBOLS

- SECTION NUMBER / DRAWING WHERE SECTION IS DRAWN
- SYMBOL PER ABBREVIATION LIST / EQUIPMENT SEQUENCE NUMBER
- DIFFUSER, REGISTER OR GRILLE SEQUENCE NUMBER (S–1) / CFM (100)
- SYMBOL PER ABBREVIATION LIST (FR–X) / PER FOOT MBH / LINEAL FEET OF ACTIVE ELEMENT (XX) / BALANCING FLOW RATE (X.X GPM)
- UNIT HEATER
- FAN
- CONNECT TO EXISTING
- LIMIT OF DEMOLITION
- DIRECTION OF AIR FLOW (OUT)
- DIRECTION OF AIR FLOW (IN)
- VOLUME DAMPER
- DUCT SMOKE DETECTOR
- TEMPERATURE SENSOR (T)
- THERMOSTAT (T)
- VARIABLE–AREA FLOW METER
- WALL SWITCH (S)

PIPING SYMBOLS

- AUTOMATIC AIR VENT
- BACKFLOW PREVENTER
- BALL VALVE
- BALL DRAIN VALVE W/ HOSE THREAD OUTLET AND CAP
- CHECK VALVE
- CHECK VALVE, SILENT (S)
- COMBINATION FLOW MEASURING/ BALANCING VALVE (CIRCUIT SETTER)
- GATE VALVE
- GLOBE VALVE
- PLUG VALVE
- MANUAL AIR VENT
- PRESSURE GAUGE W/ BALL VALVE
- PRESSURE REDUCING VALVE
- PRESSURE/TEMPERATURE PORT (P/T)
- PUMP
- SAFETY RELIEF VALVE
- STRAINER WITH SCREEN CAP
- STRAINER W/BALL DRAIN VALVE, HOSE THREAD OUTLET AND CAP
- THERMOMETER IN WELL
- THREE–WAY AUTOMATIC CONTROL VALVE
- TWO–WAY AUTOMATIC CONTROL VALVE
- DIRECTION OF FLOW OF PIPE
- PITCH UP IN DIRECTION OF FLOW (UP)
- PITCH DOWN IN DIRECTION OF FLOW (DN)
- DRAIN
- END CAP
- FLANGE CONNECTION
- FLEXIBLE CONNECTION
- PIPE ANCHOR
- PIPE GUIDE
- PIPE TEE FROM TOP
- PIPE TEE FROM BOTTOM
- PIPE RISE
- PIPE DROP
- REDUCER (CONCENTRIC)
- REDUCER (ECCENTRIC–FOB OR FOT)
- UNION OR FLANGE, DICTATED BY PIPE SIZE
- VIBRATION ISOLATOR

PIPING SYMBOLS

- BACKFLOW PREVENTER
- BALL VALVE
- BALANCING VALVE (CIRCUIT SETTER)
- BUTTERFLY VALVE
- BUCKET TRAP
- CHECK VALVE
- DIRECTION OF FLOW OF PIPE
- DRAIN
- DRAIN VALVE, W/HOSE BIB AND CAP
- END CAP
- FLANGE CONNECTION
- FLEXIBLE CONNECTION
- GATE VALVE
- GLOBE VALVE
- MANUAL AIR VENT
- PIPE TEE FROM TOP
- PIPE TEE FROM BOTTOM
- PIPE BEND UP
- PIPE BEND DOWN
- PRESSURE GAUGE W/ BALL VALVE
- PRESSURE REDUCING VALVE
- (PRESSURE/TEMPERATURE)PORT (P/T)
- PUMP
- REDUCER ECENTRIC (ECCENTRIC–FOB OR FOT)
- REDUCER CONCENTRIC
- SAFETY RELIEF VALVE
- STRAINER W/BALL DRAIN VALVE, THREADED OUTLET AND CAP
- THREE–WAY AUTOMATIC CONTROL VALVE
- THERMOMETER IN WELL
- TWO–WAY AUTOMATIC CONTROL VALVE
- UNION OR FLANGE AS DICTATED BY PIPE SIZE
- VENT TO ATMOSPHERE
- VIBRATION ISOLATOR

APPLICABLE CODES AND STANDARDS

- INTERNATIONAL MECHANICAL CODE (2021)
- SMACNA HVAC DUCT CONSTRUCTION STANDARDS – METAL AND FLEXIBLE (2020)

LICENSED ARCHITECT — BHENJAMIN FREED — № 5397 — STATE OF MAINE

GENERAL NOTES

1. GENERAL NOTES, SYMBOLS LIST ARE APPLICABLE TO DRAWINGS AND MD–#.
2. DRAWINGS ARE DIAGRAMMATIC; DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD.
3. COORDINATE WORK WITH THE OTHER TRADES INVOLVED. PROVIDE OFFSETS IN PIPING AND DUCTS (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS AT NO ADDITIONAL COST TO THE GOVERNMENT.
4. VERIFY EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. VERIFY AND PROVIDE DUCT TRANSITIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE DIMENSIONS BEFORE FABRICATION.
5. PROVIDE ACCESS PANELS, WHERE REQUIRED, TO SERVICE FIRE DAMPERS, VOLUME DAMPERS, VALVES AND CONCEALED MECHANICAL EQUIPMENT.
6. INSTALL EQUIPMENT, PIPING, AND DUCTWORK AS REQUIRED TO MINIMIZE VIBRATION AND TO FACILITATE EQUIPMENT ACCESS AS REQUIRED BY EQUIPMENT MANUFACTURER.
7. DUCT SIZES INDICATED ARE INTERNAL CLEAR AIR FLOW DIMENSIONS.
8. DIFFUSER SIZES SHOWN ARE NECK SIZES; REGISTER AND GRILLE SIZES ARE NOMINAL.
9. PROVIDE FLEXIBLE DUCT CONNECTIONS ON DUCTS CONNECTING TO MOTORIZED AIR MOVING EQUIPMENT. WHERE GROUNDING IS REQUIRED ACROSS FLEXIBLE CONNECTIONS, PROVIDE FLEXIBLE COPPER GROUNDING STRAPS.
10. PERFORM TESTS BEFORE INSULATING PIPING AND DUCTWORK.
11. PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.
12. PITCH CONDENSATE PIPING 1/8" PER FOOT IN DIRECTION OF FLOW.
13. PROVIDE VENTS AT HIGH POINTS IN PIPING SYSTEMS AND DRAIN VALVES AT LOW POINTS.
14. INSTALL THERMOSTATS AND OTHER OCCUPANT CONTROLS WITH TOPS OF OPERABLE ELEMENTS 48 INCHES AFF FOR ADA ACCESSIBILITY.
15. CONTROL WIRE AND CONDUIT MUST COMPLY WITH NEC AND DIVISION 26 SPECIFICATIONS.

MECHANICAL LINE TYPE LEGEND

- EXISTING ITEMS TO REMAIN
- ITEMS TO BE REMOVED
- ITEMS TO BE PROVIDED
- HIDDEN ITEMS
- CONTROL WIRING

STATE OF MAINE — DAVID H. BROWN No. 7551 — LICENSED PROFESSIONAL ENGINEER — 10-23-25

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0	ISSUED FOR CONSTRUCTION	MJP	MJK	10/23/25

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MECHANICAL NOTES, LEGENDS, AND ABBREVIATIONS

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SPECIFICATIONS:

230000 – GENERAL REQUIREMENTS:

A. FIELD QUALITY CONTROL
1. DUCTWORK, PIPING, EQUIPMENT, CONTROLS, AND OTHER APPURTENANCES ASSOCIATED WITH HVAC SYSTEMS WILL BE CONSIDERED DEFECTIVE IF IT DOES NOT PASS TESTS AND INSPECTIONS.
2. PREPARE TEST AND INSPECTION REPORTS FOR EACH PIECE OF EQUIPMENT OR SYSTEM INSTALLED.

230529 – HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT:

A. PERFORMANCE REQUIREMENTS
1. DELEGATED DESIGN: ENGAGE A QUALIFIED PROFESSIONAL ENGINEER TO DESIGN TRAPEZE PIPE HANGERS AND EQUIPMENT SUPPORTS.
2. STRUCTURAL PERFORMANCE: HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT ARE TO WITHSTAND THE EFFECTS OF GRAVITY LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED IN ACCORDANCE WITH ASCE/SEI 7.
   a. DESIGN SUPPORTS FOR MULTIPLE PIPES, INCLUDING PIPE STANDS, CAPABLE OF SUPPORTING COMBINED WEIGHT OF SUPPORTED SYSTEMS, SYSTEM CONTENTS, AND TEST WATER.
   b. DESIGN EQUIPMENT SUPPORTS CAPABLE OF SUPPORTING COMBINED OPERATING WEIGHT OF SUPPORTED EQUIPMENT AND CONNECTED SYSTEMS AND COMPONENTS.

B. PIPE HANGERS AND SUPPORTS – METAL
1. PIPE HANGERS AND SUPPORTS – CARBON STEEL:
   a. DESCRIPTION: MSS SP–58, TYPES 1 THROUGH 58, FACTORY–FABRICATED COMPONENTS.
   b. GALVANIZED METALLIC COATINGS: PREGALVANIZED, HOT–DIP GALVANIZED, OR ELECTRO–GALVANIZED.
   c. NONMETALLIC COATINGS: PLASTIC COATED, OR EPOXY POWDER COATED.
   d. PADDED HANGERS: HANGER WITH FIBERGLASS OR OTHER PIPE INSULATION PAD OR CUSHION TO SUPPORT BEARING SURFACE OF PIPING.
   e. HANGER RODS: CONTINUOUS–THREAD ROD, NUTS, AND WASHERS MADE OF CARBON STEEL OR STAINLESS STEEL.
2. PIPE HANGERS AND SUPPORTS – STAINLESS STEEL:
   a. DESCRIPTION: MSS SP–58, TYPES 1 THROUGH 58, FACTORY–FABRICATED COMPONENTS.
   b. PADDED HANGERS: HANGER WITH FIBERGLASS OR OTHER PIPE INSULATION PAD OR CUSHION TO SUPPORT BEARING SURFACE OF PIPING.
   c. HANGER RODS: CONTINUOUS–THREAD ROD, NUTS, AND WASHER MADE OF STAINLESS STEEL
3. PIPE/TUBE HANGERS AND SUPPORTS – COPPER:
   a. DESCRIPTION: MSS SP–58, TYPES 1 THROUGH 58, COPPER–PLATED STEEL, FACTORY–FABRICATED COMPONENTS.
   b. HANGER RODS: CONTINUOUS–THREAD ROD, NUTS, AND WASHER MADE OF COPPER–PLATED STEEL OR STAINLESS STEEL

C. PIPE HANGERS – METAL, TRAPEZE TYPE
1. DESCRIPTION: MSS SP–58, TYPE 59, SHOP– OR FIELD–FABRICATED PIPE–SUPPORT ASSEMBLY MADE FROM STRUCTURAL CARBON–STEEL SHAPES WITH MSS SP–58 CARBON–STEEL HANGER RODS, NUTS, SADDLES, AND U–BOLTS.

D. STRUT SUPPORT SYSTEMS – METAL, ROD TYPE
1. DESCRIPTION: FACTORY–FABRICATED PIPE–SUPPORT ASSEMBLY MADE OF STEEL CHANNELS, VERTICAL METAL SUPPORT RODS, ACCESSORIES, FITTINGS, AND OTHER COMPONENTS FOR SUPPORTING MULTIPLE PARALLEL PIPES.
2. STANDARD: COMPLY WITH MFMA–4 FACTORY–FABRICATED COMPONENTS FOR FIELD ASSEMBLY.
3. STRUTS: CONTINUOUS SLOTTED STAINLESS STEEL, TYPE 304 or 316 CHANNEL WITH INTURNED LIPS.
4. STRUT WIDTH: SELECTED FOR APPLICABLE LOAD CRITERIA.
5. STRUT NUTS: FORMED OR STAMPED NUTS OR OTHER DEVICES DESIGNED TO FIT INTO CHANNEL SLOT AND, WHEN TIGHTENED, PREVENT SLIPPING ALONG CHANNEL.
6. HANGER RODS: CONTINUOUS–THREAD ROD, NUTS, AND WASHER MADE OF STAINLESS STEEL
7. METALLIC COATING: HOT–DIP GALVANIZED.

E. THERMAL–HANGER SHIELD INSERTS
1. INSULATION–INSERT MATERIAL FOR COLD PIPING: ASTM C552, TYPE II CELLULAR GLASS WITH 100 PSI MINIMUM COMPRESSIVE STRENGTH AND VAPOR BARRIER.
2. INSULATION–INSERT MATERIAL FOR HOT PIPING: WATER–REPELLENT–TREATED, ASTM C533, TYPE I CALCIUM SILICATE WITH 100 PSI MINIMUM COMPRESSIVE STRENGTH OR ASTM C552, TYPE II CELLULAR GLASS WITH 100 PSI MINIMUM COMPRESSIVE STRENGTH.
3. FOR TRAPEZE OR CLAMPED SYSTEMS: INSERT AND SHIELD ARE TO COVER ENTIRE CIRCUMFERENCE OF PIPE.
4. FOR CLEVIS OR BAND HANGERS: INSERT AND SHIELD ARE TO COVER BOTTOM 180 DEGREES OF PIPE.
5. INSERT LENGTH: EXTEND 2 INCHES BEYOND SHEET METAL SHIELD FOR PIPING OPERATING BELOW AMBIENT AIR TEMPERATURE.

F. INSTALLATION OF HANGERS AND SUPPORTS
1. STRENGTH OF SUPPORT ASSEMBLIES: WHERE NOT INDICATED, SELECT SIZES OF COMPONENTS SO STRENGTH WILL BE ADEQUATE TO CARRY STATIC LOADS WITHIN SPECIFIED LOADING LIMITS. MINIMUM STATIC DESIGN LOAD USED FOR STRENGTH DETERMINATION IS TO INCLUDE WEIGHT OF SUPPORTED COMPONENTS PLUS 200 LBS.
2. INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED THERMAL AND SEISMIC MOVEMENT OF PIPING SYSTEMS, TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS, AND SIMILAR UNITS.
3. INSTALL LATERAL BRACING WITH PIPE HANGERS AND SUPPORTS TO PREVENT SWAYING.
4. INSTALL BUILDING ATTACHMENTS WITHIN CONCRETE SLABS OR ATTACH TO STRUCTURAL STEEL. INSTALL ADDITIONAL ATTACHMENTS AT CONCENTRATED LOADS, INCLUDING VALVES, FLANGES, AND STRAINERS, NPS 2–1/2 AND LARGER.
5. LOAD DISTRIBUTION: INSTALL HANGERS AND SUPPORTS SO THAT PIPING LIVE AND DEAD LOADS AND STRESSES FROM MOVEMENT WILL NOT BE TRANSMITTED TO CONNECTED EQUIPMENT.
6. PIPE SLOPES: INSTALL HANGERS AND SUPPORTS TO PROVIDE INDICATED PIPE SLOPES AND TO NOT EXCEED MAXIMUM PIPE DEFLECTIONS ALLOWED BY ASME B31.9 FOR BUILDING SERVICES PIPING.
7. INSULATED PIPING:
   a. ATTACH CLAMPS AND SPACERS TO PIPING.
      1) PIPING OPERATING ABOVE AMBIENT AIR TEMPERATURE: CLAMP MAY PROJECT THROUGH INSULATION.
      2) PIPING OPERATING BELOW AMBIENT AIR TEMPERATURE: USE THERMAL–HANGER SHIELD INSERT WITH CLAMP SIZED TO MATCH OD OF INSERT.
      3) DO NOT EXCEED PIPE STRESS LIMITS ALLOWED BY ASME B31.9 FOR BUILDING SERVICES PIPING.
   b. INSTALL MSS SP–58, TYPE 39, PROTECTION SADDLES IF INSULATION WITHOUT VAPOR BARRIER IS INDICATED. FILL INTERIOR VOIDS WITH INSULATION THAT MATCHES ADJOINING INSULATION.
      1) THERMAL–HANGER SHIELD INSERTS MAY BE USED AS AN OPTION. INCLUDE STEEL WEIGHT–DISTRIBUTION PLATE FOR PIPE NPS 4 AND LARGER IF PIPE IS INSTALLED ON ROLLERS.
   c. SHIELD DIMENSIONS FOR PIPE: NOT LESS THAN THE FOLLOWING:
      1) NPS 1/4 TO NPS 3–1/2: 12 INCHES LONG AND 0.048 INCH THICK.
8. METAL PIPE–HANGER INSTALLATION: COMPLY WITH MSS SP–58. INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPERLY SUPPORT PIPING FROM THE BUILDING STRUCTURE.
9. METAL TRAPEZE PIPE–HANGER INSTALLATION: COMPLY WITH MSS SP–58. ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING, AND SUPPORT TOGETHER ON FIELD–FABRICATED TRAPEZE PIPE HANGERS.
   a. PIPES OF VARIOUS SIZES: SUPPORT TOGETHER AND SPACE TRAPEZES FOR SMALLEST PIPE SIZE, OR INSTALL INTERMEDIATE SUPPORTS FOR SMALLER DIAMETER PIPES AS SPECIFIED FOR INDIVIDUAL PIPE HANGERS.
   b. FIELD FABRICATE IN ACCORDANCE WITH ASTM A36/A36M, CARBON–STEEL SHAPES SELECTED FOR LOADS BEING SUPPORTED. WELD STEEL IN ACCORDANCE WITH AWS D1.1.

G. ADJUSTING
1. HANGER ADJUSTMENTS: ADJUST HANGERS TO DISTRIBUTE LOADS EQUALLY ON ATTACHMENTS AND TO ACHIEVE INDICATED SLOPE OF PIPE.
2. TRIM EXCESS LENGTH OF CONTINUOUS–THREAD HANGER AND SUPPORT RODS TO 1–1/2 INCHES.

H. HANGER AND SUPPORT SCHEDULE
1. COMPLY WITH MSS SP–58 FOR PIPE–HANGER SELECTIONS AND APPLICATIONS THAT ARE NOT SPECIFIED IN PIPING SYSTEM SECTIONS.
2. USE HANGERS AND SUPPORTS WITH GALVANIZED METALLIC COATINGS FOR PIPING AND EQUIPMENT THAT WILL NOT HAVE FIELD–APPLIED FINISH.
3. USE NONMETALLIC COATINGS ON ATTACHMENTS FOR ELECTROLYTIC PROTECTION WHERE ATTACHMENTS ARE IN DIRECT CONTACT WITH COPPER TUBING.
4. USE CARBON–STEEL PIPE HANGERS AND SUPPORTS AND ATTACHMENTS FOR GENERAL SERVICE APPLICATIONS.
5. USE STAINLESS STEEL PIPE HANGERS AND STAINLESS STEEL ATTACHMENTS FOR HOSTILE ENVIRONMENT APPLICATIONS.
6. USE COPPER–PLATED PIPE HANGERS AND COPPER OR STAINLESS STEEL ATTACHMENTS FOR COPPER PIPING AND TUBING.
7. USE PADDED HANGERS FOR PIPING THAT IS SUBJECT TO SCRATCHING.
8. USE THERMAL–HANGER SHIELD INSERTS FOR INSULATED PIPING AND TUBING.

230553 – IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT:

A. EQUIPMENT LABELS
1. METAL LABELS FOR EQUIPMENT:
   a. MATERIAL AND THICKNESS: STAINLESS STEEL, 0.025–INCH MINIMUM THICKNESS, WITH PREDRILLED OR STAMPED HOLES FOR ATTACHMENT HARDWARE.
   b. LETTER AND BACKGROUND COLOR: AS INDICATED FOR SPECIFIC APPLICATION UNDER PART 3.
   c. MINIMUM LABEL SIZE: LENGTH AND WIDTH VARY FOR REQUIRED LABEL CONTENT, BUT NOT LESS THAN 2–1/2 BY 3/4 INCH.
   d. MINIMUM LETTER SIZE: 1/4 INCH FOR NAME OF UNITS IF VIEWING DISTANCE IS LESS THAN 24 INCHES, 1/2 INCH FOR VIEWING DISTANCES OF UP TO 72 INCHES, AND PROPORTIONATELY LARGER LETTERING FOR GREATER VIEWING DISTANCES. INCLUDE SECONDARY LETTERING TWO–THIRDS TO THREE–FOURTHS THE SIZE OF PRINCIPAL LETTERING.
   e. FASTENERS: STAINLESS STEEL RIVETS OR SELF–TAPPING SCREWS.
   f. ADHESIVE: CONTACT–TYPE PERMANENT ADHESIVE, COMPATIBLE WITH LABEL AND WITH SUBSTRATE.
2. LABEL CONTENT: INCLUDE EQUIPMENT'S DRAWING DESIGNATION OR UNIQUE EQUIPMENT NUMBER, DRAWING NUMBERS WHERE EQUIPMENT IS INDICATED (PLANS, DETAILS, AND SCHEDULES), AND THE SPECIFICATION SECTION NUMBER AND TITLE WHERE EQUIPMENT IS SPECIFIED.

B. PIPE LABELS
1. GENERAL REQUIREMENTS FOR MANUFACTURED PIPE LABELS: PREPRINTED, COLOR CODED, WITH LETTERING INDICATING SERVICE AND SHOWING FLOW DIRECTION IN ACCORDANCE WITH ASME A13.1.
2. LETTER AND BACKGROUND COLOR: AS INDICATED FOR SPECIFIC APPLICATION UNDER PART 3.
3. PRETENSIONED PIPE LABELS: PRECOILED, SEMIRIGID PLASTIC FORMED TO PARTIALLY COVER CIRCUMFERENCE OF PIPE AND TO ATTACH TO PIPE WITHOUT FASTENERS OR ADHESIVE.
4. SELF–ADHESIVE PIPE LABELS: PRINTED PLASTIC WITH CONTACT–TYPE, PERMANENT–ADHESIVE BACKING.
5. PIPE LABEL CONTENTS: INCLUDE IDENTIFICATION OF PIPING SERVICE USING SAME DESIGNATIONS OR ABBREVIATIONS AS USED ON DRAWINGS. ALSO INCLUDE:
   a. PIPE SIZE.
   b. FLOW–DIRECTION ARROWS: INCLUDE FLOW–DIRECTION ARROWS ON MAIN DISTRIBUTION PIP MAY BE EITHER INTEGRAL WITH LABEL OR APPLIED SEPARATELY.
6. LETTERING SIZE: SIZE LETTERS IN ACCORDANCE WITH ASME A13.1 FOR PIPING.

C. DUCT LABELS
1. MATERIAL AND THICKNESS: MULTILAYER, MULTICOLOR, PLASTIC LABELS FOR MECHANICAL EN INCH THICK, AND HAVING PREDRILLED HOLES FOR ATTACHMENT HARDWARE.
2. LETTER AND BACKGROUND COLOR: AS INDICATED FOR SPECIFIC APPLICATION UNDER PART 3.
3. MAXIMUM TEMPERATURE: ABLE TO WITHSTAND TEMPERATURES UP TO 160 DEG F.
4. MINIMUM LABEL SIZE: LENGTH AND WIDTH VARY FOR REQUIRED LABEL CONTENT, BUT NOT LESS THAN 2–1/2 BY 3/4 INCH.
5. MINIMUM LETTER SIZE: 1/4 INCH FOR NAME OF UNITS IF VIEWING DISTANCE IS LESS THAN 24 INCHES, 1/2 INCH FOR VIEWING DISTANCES OF UP TO 72 INCHES, AND PROPORTIONATELY LARGER LETTERING FOR GREATER VIEWING DISTANCES. INCLUDE SECONDARY LETTERING TWO–THIRDS TO THREE–FOURTHS THE SIZE OF PRINCIPAL LETTERING.
6. FASTENERS: STAINLESS STEEL RIVETS OR SELF–TAPPING SCREWS.
7. ADHESIVE: CONTACT–TYPE PERMANENT ADHESIVE, COMPATIBLE WITH LABEL AND WITH SUBSTRATE.
8. DUCT LABEL CONTENTS: INCLUDE IDENTIFICATION OF DUCT SERVICE USING SAME DESIGNATIONS OR ABBREVIATIONS AS USED ON DRAWINGS. ALSO INCLUDE THE FOLLOWING:
   a. DUCT SIZE.
   b. FLOW–DIRECTION ARROWS: INCLUDE FLOW–DIRECTION ARROWS ON[MAIN] DISTRIBUTION DUCTS. ARROWS MAY BE EITHER INTEGRAL WITH LABEL OR MAY BE APPLIED SEPARATELY.
9. LETTERING SIZE: SIZE LETTERS IN ACCORDANCE WITH ASME A13.1 FOR DUCTWORK

D. PREPARATION
1. CLEAN PIPING AND EQUIPMENT SURFACES OF INCOMPATIBLE PRIMERS, PAINTS, AND ENCAPSULANTS, AS WELL AS DIRT, OIL, GREASE, RELEASE AGENTS, AND OTHER SUBSTANCES THAT COULD IMPAIR BOND OF IDENTIFICATION DEVICES.

E. INSTALLATION, GENERAL REQUIREMENTS
1. COORDINATE INSTALLATION OF IDENTIFYING DEVICES WITH COMPLETION OF COVERING AND PAINTING OF SURFACES WHERE DEVICES ARE TO BE APPLIED.
2. COORDINATE INSTALLATION OF IDENTIFYING DEVICES WITH LOCATIONS OF ACCESS PANELS AND DOORS.
3. INSTALL IDENTIFYING DEVICES BEFORE INSTALLING ACOUSTICAL CEILINGS AND SIMILAR CONCEALMENT.
4. LOCATE IDENTIFYING DEVICES SO THAT THEY ARE READILY VISIBLE FROM THE POINT OF NORMAL APPROACH.

F. INSTALLATION OF EQUIPMENT LABELS, WARNING SIGNS, AND LABELS
1. PERMANENTLY FASTEN LABELS ON EACH ITEM OF MECHANICAL EQUIPMENT.
2. SIGN AND LABEL COLORS:
   a. WHITE LETTERS ON AN ANSI Z535.1 SAFETY–BLUE BACKGROUND.
3. LOCATE EQUIPMENT LABELS WHERE ACCESSIBLE AND VISIBLE.
4. ARC–FLASH WARNING SIGNS: PROVIDE ARC–FLASH WARNING SIGNS ON ELECTRICAL DISCONNECTS AND OTHER EQUIPMENT WHERE ARC–FLASH HAZARD EXISTS, WHERE INDICATED ON DRAWINGS, AND IN ACCORDANCE WITH REQUIREMENTS OF OSHA AND NFPA 70E.

G. INSTALLATION OF PIPE LABELS
1. INSTALL PIPE LABELS SHOWING SERVICE AND FLOW DIRECTION WITH PERMANENT ADHESIVE ON PIPES.
2. PIPE–LABEL LOCATIONS: LOCATE PIPE LABELS WHERE PIPING IS EXPOSED OR ABOVE ACCESSIBLE CEILINGS IN FINISHED SPACES; MACHINE ROOMS; ACCESSIBLE MAINTENANCE SPACES SUCH AS SHAFTS, TUNNELS, AND PLENUMS; AND EXTERIOR EXPOSED LOCATIONS AS FOLLOWS:
   a. WITHIN 3 FT. OF EACH VALVE AND CONTROL DEVICE.
   b. AT ACCESS DOORS, MANHOLES, AND SIMILAR ACCESS POINTS THAT PERMIT VIEW OF CONCEALED PIPING.
   c. WITHIN 3 FT. OF EQUIPMENT ITEMS AND OTHER POINTS OF ORIGINATION AND TERMINATION.
   d. SPACED AT MAXIMUM INTERVALS OF 25 FT. ALONG EACH RUN. REDUCE INTERVALS TO 10 FT. IN AREAS OF CONGESTED PIPING, DUCTWORK, AND EQUIPMENT.
3. FLOW–DIRECTION ARROWS: USE ARROWS TO INDICATE DIRECTION OF FLOW IN PIPES, INCLUDING PIPES WHERE FLOW IS ALLOWED IN BOTH DIRECTIONS.
4. PIPE–LABEL COLOR SCHEDULE:
   a. REFRIGERANT PIPING: WHITE LETTERS ON AN ANSI Z535.1 SAFETY–BLUE BACKGROUND.

H. INSTALLATION OF DUCT LABELS
1. INSTALL PLASTIC–LAMINATED DUCT LABELS SHOWING SERVICE AND FLOW DIRECTION WITH PERMANENT ADHESIVE ON AIR DUCTS.
2. PROVIDE LABELS IN THE FOLLOWING COLOR CODES:
   a. FOR AIR SUPPLY DUCTS: WHITE LETTERS ON BLUE BACKGROUND.
   b. FOR AIR RETURN DUCTS: WHITE LETTERS ON BLUE BACKGROUND.
   c. FOR EXHAUST–, OUTSIDE–, RELIEF–, RETURN–, AND MIXED–AIR DUCTS: WHITE LETTERS ON BLUE BACKGROUND.

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SPECIFICATIONS

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230593 – TESTING, ADJUSTING, AND BALANCING FOR HVAC:

A. EXAMINATION

1. EXAMINE THE CONTRACT DOCUMENTS TO BECOME FAMILIAR WITH PROJECT REQUIREMENTS AND TO DISCOVER CONDITIONS IN SYSTEMS DESIGNS THAT MAY PRECLUDE PROPER TAB OF SYSTEMS AND EQUIPMENT.
2. EXAMINE INSTALLED SYSTEMS FOR BALANCING DEVICES, SUCH AS TEST PORTS, GAUGE COCKS, THERMOMETER WELLS, FLOW–CONTROL DEVICES, BALANCING VALVES AND FITTINGS, AND MANUAL VOLUME DAMPERS. VERIFY THAT LOCATIONS OF THESE BALANCING DEVICES ARE APPLICABLE FOR INTENDED PURPOSE AND ARE ACCESSIBLE.
3. EXAMINE THE APPROVED SUBMITTALS FOR HVAC SYSTEMS AND EQUIPMENT.
4. EXAMINE CEILING PLENUMS AND UNDERFLOOR AIR PLENUMS USED FOR HVAC TO VERIFY THAT THEY ARE PROPERLY SEPARATED FROM ADJACENT AREAS AND SEALED.
5. EXAMINE EQUIPMENT PERFORMANCE DATA, INCLUDING FAN AND PUMP CURVES.
   a. RELATE PERFORMANCE DATA TO PROJECT CONDITIONS AND REQUIREMENTS, INCLUDING SYSTEM EFFECTS THAT CAN CREATE UNDESIRED OR UNPREDICTED CONDITIONS THAT CAUSE REDUCED CAPACITIES IN ALL OR PART OF A SYSTEM.
   b. CALCULATE SYSTEM–EFFECT FACTORS TO REDUCE PERFORMANCE RATINGS OF HVAC EQUIPMENT WHEN INSTALLED UNDER CONDITIONS DIFFERENT FROM THE CONDITIONS USED TO RATE EQUIPMENT PERFORMANCE. TO CALCULATE SYSTEM EFFECTS FOR AIR SYSTEMS, USE TABLES AND CHARTS FOUND IN AMCA 201, "FANS AND SYSTEMS," OR IN SMACNA'S "HVAC SYSTEMS – DUCT DESIGN." COMPARE RESULTS WITH THE DESIGN DATA AND INSTALLED CONDITIONS.
6. EXAMINE SYSTEM AND EQUIPMENT INSTALLATIONS AND VERIFY THAT FIELD QUALITY–CONTROL TESTING, CLEANING, AND ADJUSTING SPECIFIED IN INDIVIDUAL SECTIONS HAVE BEEN PERFORMED.
7. EXAMINE TEST REPORTS SPECIFIED IN INDIVIDUAL SYSTEM AND EQUIPMENT SECTIONS.
8. EXAMINE HVAC EQUIPMENT AND VERIFY THAT BEARINGS ARE GREASED, BELTS ARE ALIGNED AND TIGHT, FILTERS ARE CLEAN, AND EQUIPMENT WITH FUNCTIONING CONTROLS IS READY FOR OPERATION.
9. EXAMINE TERMINAL UNITS, SUCH AS VARIABLE–AIR–VOLUME BOXES, AND VERIFY THAT THEY ARE ACCESSIBLE AND THEIR CONTROLS ARE CONNECTED AND FUNCTIONING.
10. EXAMINE CONTROL VALVES FOR PROPER INSTALLATION FOR THEIR INTENDED FUNCTION OF ISOLATING, THROTTLING, DIVERTING, OR MIXING FLUID FLOWS.
11. EXAMINE HEAT–TRANSFER COILS FOR CORRECT PIPING CONNECTIONS AND FOR CLEAN AND STRAIGHT FINS.
12. EXAMINE OPERATING SAFETY INTERLOCKS AND CONTROLS ON HVAC EQUIPMENT.
13. EXAMINE CONTROL DAMPERS FOR PROPER INSTALLATION FOR THEIR INTENDED FUNCTION OF ISOLATING, THROTTLING, DIVERTING, OR MIXING AIR FLOWS.
14. REPORT DEFICIENCIES DISCOVERED BEFORE AND DURING PERFORMANCE OF TAB PROCEDURES. OBSERVE AND RECORD SYSTEM REACTIONS TO CHANGES IN CONDITIONS. RECORD DEFAULT SET POINTS IF DIFFERENT FROM INDICATED VALUES.

B. PREPARATION

1. PREPARE A TAB PLAN THAT INCLUDES THE FOLLOWING:
   a. EQUIPMENT AND SYSTEMS TO BE TESTED.
   b. STRATEGIES AND STEP–BY–STEP PROCEDURES FOR BALANCING THE SYSTEMS.
   c. INSTRUMENTATION TO BE USED.
   d. SAMPLE FORMS WITH SPECIFIC IDENTIFICATION FOR ALL EQUIPMENT.
2. PERFORM SYSTEM–READINESS CHECKS OF HVAC SYSTEMS AND EQUIPMENT TO VERIFY SYSTEM READINESS FOR TAB WORK.

C. GENERAL PROCEDURES FOR TESTING AND BALANCING

1. PERFORM TESTING AND BALANCING PROCEDURES ON EACH SYSTEM IN ACCORDANCE WITH THE PROCEDURES CONTAINED IN AABC'S "NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE" AND IN THIS SECTION.
2. CUT INSULATION, DUCTS, PIPES, AND EQUIPMENT CASINGS FOR INSTALLATION OF TEST PROBES TO THE MINIMUM EXTENT NECESSARY FOR TAB PROCEDURES.
   a. AFTER TESTING AND BALANCING, PATCH PROBE HOLES IN DUCTS WITH SAME MATERIAL AND THICKNESS AS USED TO CONSTRUCT DUCTS.
   b. WHERE HOLES FOR PROBES ARE REQUIRED IN PIPING OR HYDRONIC EQUIPMENT, INSTALL PRESSURE AND TEMPERATURE TEST PLUGS TO SEAL SYSTEMS.
   c. INSTALL AND JOIN NEW INSULATION THAT MATCHES REMOVED MATERIALS. RESTORE INSULATION, COVERINGS, VAPOR BARRIER, AND FINISH IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
3. MARK EQUIPMENT AND BALANCING DEVICES, INCLUDING DAMPER–CONTROL POSITIONS, VALVE POSITION INDICATORS, FAN–SPEED–CONTROL LEVERS, AND SIMILAR CONTROLS AND DEVICES, WITH PAINT OR OTHER SUITABLE, PERMANENT IDENTIFICATION MATERIAL TO SHOW FINAL SETTINGS.
4. TAKE AND REPORT TESTING AND BALANCING MEASUREMENTS IN INCH–POUND (IP) UNITS.

D. TESTING, ADJUSTING, AND BALANCING OF HVAC EQUIPMENT

1. TEST, ADJUST, AND BALANCE HVAC EQUIPMENT INDICATED ON DRAWINGS, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
   a. FANS AND VENTILATORS.
   b. TERMINAL UNITS.
   c. UNIT HEATERS.
   d. CONDENSING UNITS.
   e. ENERGY–RECOVERY UNITS.
   f. ROOFTOP AIR–CONDITIONING UNITS.
   g. VARIABLE–REFRIGERANT–FLOW SYSTEMS.

E. FINAL REPORT

1. PREPARE A CERTIFIED WRITTEN REPORT; TABULATE AND DIVIDE THE REPORT INTO SEPARATE SECTIONS FOR TESTED SYSTEMS AND BALANCED SYSTEMS. INCLUDE A CERTIFICATION SHEET AT THE FRONT OF THE REPORT'S BINDER, SIGNED AND SEALED BY THE CERTIFIED TESTING AND BALANCING ENGINEER. INCLUDE A LIST OF INSTRUMENTS USED FOR PROCEDURES, ALONG WITH PROOF OF CALIBRATION. CERTIFY VALIDITY AND ACCURACY OF FIELD DATA.

230713 – DUCT INSULATION

A. PERFORMANCE REQUIREMENTS

1. SURFACE–BURNING CHARACTERISTICS: FOR INSULATION AND RELATED MATERIALS, AS DETERMINED BY TESTING IDENTICAL PRODUCTS IN ACCORDANCE WITH ASTM E84, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. FACTORY LABEL INSULATION, JACKET MATERIALS, ADHESIVE, MASTIC, TAPES, AND CEMENT MATERIAL CONTAINERS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AGENCY.
2. ALL INSULATION INSTALLED INDOORS AND OUTDOORS: FLAME–SPREAD INDEX OF 25 OR LESS, AND SMOKE–DEVELOPED INDEX OF 50 OR LESS.

B. GENERAL INSTALLATION REQUIREMENTS FOR DUCT INSULATION

1. INSTALL INSULATION MATERIALS, ACCESSORIES, AND FINISHES WITH SMOOTH, STRAIGHT, AND EVEN SURFACES; FREE OF VOIDS THROUGHOUT THE LENGTH OF DUCTS AND FITTINGS. INSTALL INSULATION MATERIALS, VAPOR BARRIERS OR RETARDERS, JACKETS, AND THICKNESSES REQUIRED FOR EACH ITEM OF DUCT SYSTEM AS REQUIRED BY ASHRAE 90.1. INSTALL MULTIPLE LAYERS OF INSULATION WITH LONGITUDINAL AND END SEAMS STAGGERED. KEEP INSULATION MATERIALS DRY DURING APPLICATION AND FINISHING. REPLACE INSULATION MATERIALS THAT GET WET DURING STORAGE OR IN THE INSTALLATION PROCESS BEFORE BEING PROPERLY COVERED AND SEALED. INSTALL INSULATION WITH TIGHT LONGITUDINAL SEAMS AND END JOINTS.

C. INDOOR DUCT AND PLENUM INSULATION SCHEDULE

1. CONCEALED, SUPPLY–AIR DUCT AND PLENUM INSULATION: GLASS–FIBER OR MINERAL WOOL BLANKET, 1–1/2 INCHES THICK AND 1.5 LB/CU. FT. NOMINAL DENSITY.

233113 – METAL DUCTS

A. GENERAL REQUIREMENTS:

1. AIRSTREAM SURFACES: SURFACES IN CONTACT WITH AIRSTREAM MUST COMPLY WITH REQUIREMENTS IN ASHRAE 62.1, ASHRAE 90.1, AND SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE, FOURTH EDITION, 2020" (SMACNA HVACDCS).
2. GENERAL FABRICATION REQUIREMENTS FOR SINGLE–WALL RECTANGULAR AND ROUND DUCTS AND FITTINGS: COMPLY WITH SMACNA HVACDCS.
3. HANGER RODS FOR NONCORROSIVE ENVIRONMENTS: GALVANIZED–STEEL RODS AND NUTS. STRAP AND ROD SIZES: COMPLY WITH SMACNA HVACDCS TABLE 5–1 (TABLE 5–1M), "RECTANGULAR DUCT HANGERS MINIMUM SIZE," AND TABLE 5–2, "MINIMUM HANGER SIZES FOR ROUND DUCT."

B. DUCT INSTALLATION

1. DRAWING PLANS INDICATE GENERAL LOCATION AND ARRANGEMENT OF DUCT SYSTEMS. INSTALL DUCT SYSTEMS AS INDICATED UNLESS DEVIATIONS TO LAYOUT ARE SUBMITTED AND APPROVED IN WRITING. INSTALL DUCTS IN ACCORDANCE WITH SMACNA HVACDCS UNLESS OTHERWISE INDICATED. INSTALL DUCTS WITH A CLEARANCE OF 1 INCH, PLUS ALLOWANCE FOR INSULATION THICKNESS. WHERE DUCTS PASS THROUGH NON–FIRE–RATED INTERIOR PARTITIONS AND EXTERIOR WALLS AND ARE EXPOSED TO VIEW, COVER THE OPENING BETWEEN THE PARTITION AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME METAL THICKNESS AS THE DUCT. OVERLAP OPENINGS ON FOUR SIDES BY AT LEAST 1–1/2 INCHES. PROTECT DUCT INTERIORS FROM MOISTURE, CONSTRUCTION DEBRIS AND DUST, AND OTHER FOREIGN MATERIALS BOTH BEFORE AND AFTER INSTALLATION. COMPLY WITH SMACNA'S "IAQ GUIDELINES FOR OCCUPIED BUILDINGS UNDER CONSTRUCTION," APPENDIX G "DUCT CLEANLINESS FOR NEW CONSTRUCTION GUIDELINES."
2. ELBOWS: USE LONG–RADIUS ELBOWS WHEREVER THEY FIT.
3. FABRICATE 90–DEGREE RECTANGULAR MITERED ELBOWS TO INCLUDE TURNING VANES.
4. FABRICATE 90–DEGREE ROUND–DUCT ELBOWS BY DIE–STAMPING, OR SEGMENTED WITH A MINIMUM OF THREE SEGMENTS FOR 12 INCHES AND SMALLER AND A MINIMUM OF FIVE SEGMENTS FOR 14 INCHES AND LARGER.
5. BRANCH CONNECTIONS: USE LATERAL OR CONICAL BRANCH CONNECTIONS.

C. DUCT SEALING

1. SEAL DUCTS FOR DUCT STATIC–PRESSURE, SEAL CLASSES, AND LEAKAGE CLASSES IN ACCORDANCE WITH SMACNA HVACDCS.

D. HANGER AND SUPPORT INSTALLATION

1. COMPLY WITH SMACNA HVACDCS CHAPTER 5, "HANGERS AND SUPPORTS."

E. CONNECTIONS

1. COMPLY WITH SMACNA HVACDCS FOR BRANCH, OUTLET AND INLET, AND TERMINAL UNIT CONNECTIONS.

F. PAINTING

1. PAINT INTERIOR OF METAL DUCTS THAT ARE VISIBLE THROUGH DIFFUSERS, REGISTERS AND GRILLES AND THAT DO NOT HAVE DUCT LINER. APPLY ONE COAT OF FLAT, BLACK, LATEX PAINT OVER A COMPATIBLE GALVANIZED–STEEL PRIMER.

G. DUCT SCHEDULE

1. FABRICATE DUCTS WITH GALVANIZED SHEET STEEL EXCEPT AS OTHERWISE INDICATED, IN COMPLIANCE WITH SMACNA HVACDCS, AND AS FOLLOWS:
   a. RECTANGULAR DUCT: COMPLY WITH SMACNA HVACDCS FIGURE 4–2, "RECTANGULAR ELBOWS."
   b. ROUND DUCT: COMPLY WITH SMACNA HVACDCS FIGURE 3–4, "ROUND DUCT ELBOWS."
   c. REFER TO DUCT ELBOWS DETAIL ON M–501.

233300 – AIR DUCT ACCESSORIES

A. COMPLY WITH NFPA 90A AND NFPA 90B. COMPLY WITH SMACNA HVACDCS FOR ACCEPTABLE MATERIALS, MATERIAL THICKNESSES, AND DUCT CONSTRUCTION METHODS UNLESS OTHERWISE INDICATED. SHEET METAL MATERIALS MUST BE FREE OF PITTING, SEAM MARKS, ROLLER MARKS, STAINS, DISCOLORATIONS, AND OTHER IMPERFECTIONS.

B. MANUAL VOLUME DAMPERS

1. STANDARD, STEEL OR ALUMINUM, MANUAL VOLUME DAMPERS: LEAKAGE RATING CLASS III EXCEEDING 40 CFM/SQ. FT. AGAINST 1–INCH WG DIFFERENTIAL STATIC PRESSURE. LINK: AIRSTREAM. LOCKING QUADRANT; PROVIDE STAND–OFF BRACKET ON INSULATED DUCTS S HORIZONTAL OR VERTICAL AIRFLOW APPLICATIONS.

C. TURNING VANES

1. TURNING VANES FOR METAL DUCTS: COMPLY WITH SMACNA HVACDCS; FIGURE 4–3, "VANES AND VANE RUNNERS," AND FIGURE 4–4, "VANE SUPPORT IN ELBOWS." REFER TO DETAIL ON M–501.

D. DUCT ACCESSORY HARDWARE

1. INSTRUMENT TEST HOLES: CAST IRON OR CAST ALUMINUM TO SUIT DUCT MATERIAL, INCLUDING SCREW CAP AND GASKET. SIZE TO ALLOW INSERTION OF PITOT TUBE AND OTHER TESTING INSTRUMENTS AND OF LENGTH TO SUIT DUCT–INSULATION THICKNESS. SEALANTS: LOW VOC CONTENT.

E. MATERIALS

1. GALVANIZED SHEET STEEL: COMPLY WITH ASTM A653/A653M. REINFORCEMENT SHAPES AND PLATES: GALVANIZED–STEEL REINFORCEMENT WHERE INSTALLED ON GALVANIZED SHEET METAL DUCTS.

F. DUCT ACCESSORY INSTALLATION

1. INSTALL DUCT ACCESSORIES IN ACCORDANCE WITH APPLICABLE DETAILS IN SMACNA HVACDCS. INSTALL DUCT ACCESSORIES OF MATERIALS SUITED TO DUCT MATERIALS. INSTALL VOLUME DAMPERS AT POINTS ON SUPPLY, RETURN, AND EXHAUST SYSTEMS WHERE BRANCHES EXTEND FROM LARGER DUCTS. SET DAMPERS TO FULLY OPEN POSITION BEFORE TESTING, ADJUSTING, AND BALANCING. INSTALL TEST HOLES AT FAN INLETS AND OUTLETS AND ELSEWHERE AS INDICATED AND AS NEEDED FOR TESTING AND BALANCING. INSTALL DUCT ACCESS DOORS ON SIDES OF DUCTS TO ALLOW FOR INSPECTING, ADJUSTING, AND MAINTAINING ACCESSORIES AND EQUIPMENT AT THE FOLLOWING LOCATIONS: UPSTREAM OF TURNING VANES, AND ELSEWHERE AS INDICATED. INSTALL ACCESS DOORS WITH SWING AGAINST DUCT STATIC PRESSURE. PROVIDE FLEXIBLE CONNECTORS TO CONNECT DUCTS TO EQUIPMENT. PROVIDE DUCT TEST HOLES WHERE REQUIRED FOR TESTING AND BALANCING PURPOSES.

233346 – FLEXIBLE DUCTS

A. COMPLY WITH NFPA 90A, "INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS." COMPLY WITH SMACNA HVACDCS FOR ACCEPTABLE MATERIALS, MATERIAL THICKNESSES, AND DUCT CONSTRUCTION METHODS UNLESS OTHERWISE INDICATED. COMPLY WITH THE AIR DIFFUSION COUNCIL'S "ADC FLEXIBLE AIR DUCT TEST CODE FD 72–R1." COMPLY WITH ASTM E96/E96M, "TEST METHODS FOR WATER VAPOR TRANSMISSION OF MATERIALS."

B. INSULATED FLEXIBLE DUCTS

1. INSULATED, FLEXIBLE DUCT: UL 181, CLASS 1, TWO–PLY VINYL FILM OR MULTIPLE LAYERS OF ALUMINUM LAMINATE SUPPORTED BY HELICALLY WOUND, SPRING–STEEL WIRE; FIBROUS–GLASS INSULATION; POLYETHYLENE VAPOR–BARRIER FILM. BASIS OF DESIGN: ATCO RUBBER PRODUCTS OR EQUIVALENT EQUAL.

C. FLEXIBLE DUCT INSTALLATION

1. INSTALL FLEXIBLE DUCTS ACCORDING TO APPLICABLE DETAILS IN SMACNA HVACDCS FOR METAL DUCTS.
2. INSTALL DUCTS FULLY EXTENDED. DO NOT BEND DUCTS ACROSS SHARP CORNERS. THROAT RADIUS OF BENDS OF FLEXIBLE DUCTING MUST NOT EXCEED A MINIMUM OF ONE DUCT DIAMETER. AVOID CONTACT WITH METAL FIXTURES, WATER LINES, PIPES, OR CONDUITS. INSTALL FLEXIBLE DUCTS IN A DIRECT LINE, WITHOUT SAGS, TWISTS, OR TURNS.

LICENSED ARCHITECT BENJAMIN FIELD № 5397 STATE OF MAINE

STATE OF MAINE DAVID H. BROWN No. 7551 REGISTERED PROFESSIONAL ENGINEER 10-23-25

COLBY COMPANY, LLC CCE engineering & design

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REV	DESCRIPTION	DWN	APP	DATE
0	ISSUED FOR CONSTRUCTION	MJP	MJK	10/23/25

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

SPECIFICATIONS

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	ATW
DWN BY:	MJP
CKD BY:	DHB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. M-003

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238129 – VARIABLE–REFRIGERANT–FLOW HVAC SYSTEMS

A. VRF HVAC SYSTEMS

1. MANUFACTURERS: BASIS OF DESIGN IS CITY MULTI. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING MANUFACTURERS:
   a. MITSUBISHI ELECTRIC & ELECTRONICS USA, INC. (BASIS OF DESIGN)
   b. TRANE, INC.
   c. TOSHIBA CARRIER CO., LTD.
   d. DAIKIN APPLIED
   e. JOHNSON CONTROLS, INC.
   f. NO SUBSTITUTIONS

B. SYSTEM DESCRIPTION

1. VRF HVAC SYSTEM(S) WITH VARIABLE CAPACITY IN RESPONSE TO VARYING COOLING AND HEATING LOADS. SYSTEM SHALL CONSIST OF MULTIPLE INDOOR UNITS, HRCU'S, OUTDOOR UNIT(S), PIPING, CONTROLS, AND ELECTRICAL POWER TO MAKE COMPLETE OPERATING SYSTEM(S) COMPLYING WITH REQUIREMENTS INDICATED.
   a. SYSTEM(S) OPERATION BEING HEAT RECOVERY AS INDICATED ON DRAWINGS.
   b. EACH SYSTEM WITH ONE REFRIGERANT CIRCUIT SERVING ALL INDOOR UNITS CONNECTED TO SYSTEM.
2. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, BY A QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND APPLICATION.
3. AHRI COMPLIANCE: SYSTEM AND EQUIPMENT PERFORMANCE CERTIFIED ACCORDING TO AHRI 1230–2023.
4. UL COMPLIANCE: COMPLY WITH UL 60335–2–40.

C. INDOOR, EXPOSED, WALL–MOUNTED UNITS

1. DESCRIPTION: FACTORY–ASSEMBLED AND TESTED COMPLETE UNIT WITH COMPONENTS, PIPING, WIRING, AND CONTROLS REQUIRED FOR MATING TO PIPING, POWER, AND CONTROLS FIELD CONNECTIONS.
2. CABINET:
   a. MATERIAL: PAINTED STEEL, OR COATED STEEL FRAME COVERED BY A PLASTIC CABINET, WITH AN ARCHITECTURAL ACCEPTABLE FINISH SUITABLE FOR TENANT OCCUPANCY ON EXPOSED SURFACES.
   b. INSULATION: MANUFACTURER'S STANDARD INTERNAL INSULATION TO PROVIDE THERMAL RESISTANCE AND PREVENT CONDENSATION.
   c. INTERNAL ACCESS: REMOVABLE PANELS OF ADEQUATE SIZE FOR FIELD ACCESS TO INTERNAL COMPONENTS FOR INSPECTION, CLEANING, SERVICE, AND REPLACEMENT.
3. COIL ASSEMBLY:
   a. COIL CASING: ALUMINUM, GALVANIZED, OR STAINLESS STEEL.
   b. COIL FINS: ALUMINUM, MECHANICALLY BONDED TO TUBES, WITH ARRANGEMENT REQUIRED BY PERFORMANCE.
   c. COIL TUBES: COPPER, OF DIAMETER AND THICKNESS REQUIRED BY PERFORMANCE.
   d. CAPACITY CONTROL: DX COIL BY ELECTRONIC MODULATING TYPE VALVE WITH LINEAR OR PROPORTIONAL CHARACTERISTICS. HYDRONIC COIL BY MODULATING CONTROL VALVE.
   e. UNIT INTERNAL TUBING: COPPER TUBING WITH BRAZED JOINTS.
   f. UNIT INTERNAL TUBING INSULATION: MANUFACTURER'S STANDARD INSULATION, OF THICKNESS TO PREVENT CONDENSATION.
   g. FACTORY CHARGE: DEHYDRATED AIR OR NITROGEN.
   h. TESTING: FACTORY PRESSURE TESTED AND VERIFIED TO BE WITHOUT LEAKS.
4. DRAIN ASSEMBLY:
   a. PAN: NON–FERROUS MATERIAL, WITH BOTTOM SLOPED TO LOW POINT DRAIN CONNECTION.
   b. CONDENSATE REMOVAL: PROVIDE UNIT WITH FIELD–INSTALLED CONDENSATE PUMP ACCESSORY.
   c. FIELD PIPING CONNECTION: NON–FERROUS MATERIAL.
5. FAN AND MOTOR ASSEMBLY:
   a. FAN(S):
      1) DIRECT–DRIVE ARRANGEMENT.
      2) SINGLE OR MULTIPLE FANS CONNECTED TO A COMMON MOTOR SHAFT AND DRIVEN BY A SINGLE MOTOR.
      3) FABRICATED FROM NON–FERROUS COMPONENTS OR FERROUS COMPONENTS WITH CORROSION PROTECTION FINISH.
      4) WHEELS STATICALLY AND DYNAMICALLY BALANCED.
   b. MOTOR: BRUSHLESS DC OR ELECTRONICALLY COMMUTATED WITH PERMANENTLY LUBRICATED BEARINGS.
   c. MOTOR PROTECTION: INTEGRAL PROTECTION AGAINST THERMAL, OVERLOAD, AND VOLTAGE FLUCTUATIONS.
   d. SPEED SETTINGS AND CONTROL: MULTIPLE OR VARIABLE SPEED WITH SPEED SETTING ADJUSTABLE VIA CENTRAL OR WALL CONTROLLERS WHEN PRESENT.
   e. VIBRATION CONTROL: INTEGRAL ISOLATION TO DAMPEN VIBRATION TRANSMISSION.
6. FILTER ASSEMBLY:
   a. ACCESS: FRONT, TO ACCOMMODATE FILTER REPLACEMENT WITHOUT THE NEED FOR TOOLS.
   b. MEDIA: MANUFACTURER'S STANDARD WASHABLE FILTER WITH ANTIMICROBIAL TREATMENT.
7. GRILLE ASSEMBLY: MANUFACTURER'S STANDARD DISCHARGE GRILLE WITHIN FRONT FACE OF UNIT CABINET.
   a. MOTORIZED VANE: ADJUSTABLE OR OSCILLATING FLOW PATTERN.
8. FIELD–INSTALLED UNIT ACCESSORIES:
   a. CONDENSATE PUMP FOR MOUNTING INSIDE WALL CAVITY AND CAPABLE OF AT LEAST 10 FEET OF LIFT WITH DRAIN PAN LEVEL SENSOR AND OVERFLOW SWITCH.
9. UNIT CONTROLS:
   a. FACTORY–INSTALLED SENSORS:
      1) UNIT INLET AIR TEMPERATURE.
      2) COIL ENTERING REFRIGERANT TEMPERATURE.
      3) COIL LEAVING REFRIGERANT TEMPERATURE.
   b. INTERLOCK CONTROL SEQUENCE: FOUR DIGITAL INPUTS AND THREE DIGITAL OUTPUTS FOR USE IN DEFINED OR CUSTOMIZABLE INTERLOCK SEQUENCES; RELAY ADAPTER KITS MAY BE REQUIRED. REQUIRED INTERLOCK SEQUENCE(S) INCLUDE–
   c. FEATURES AND FUNCTIONS:
      1) SELF–DIAGNOSTICS.
      2) TIME DELAY.
      3) AUTO–RESTART.
      4) AUTO OPERATION MODE.
      5) MANUAL OPERATION MODE.
      6) FILTER SERVICE NOTIFICATION.
      7) RUN TEST SWITCH.
10. UNIT ELECTRICAL:
   a. FIELD CONNECTION: SINGLE POINT CONNECTION TO POWER ENTIRE UNIT AND INTEGRAL CONTROLS.
   b. DISCONNECTING MEANS: FIELD–INSTALLED CIRCUIT BREAKER OR SWITCH, COMPLYING WITH NFPA 70.

D. INDOOR, HEAT RECOVERY CONTROL UNITS (HRCUS)

1. DESCRIPTION: FACTORY–ASSEMBLED AND TESTED COMPLETE UNIT WITH COMPONENTS, PIPING, WIRING, AND CONTROLS REQUIRED FOR MATING TO PIPING, POWER, AND CONTROLS FIELD CONNECTIONS.
   a. SPECIALLY DESIGNED FOR USE IN SYSTEMS WITH SIMULTANEOUS HEATING AND COOLING.
   b. SYSTEMS SHALL INCLUDE ONE OR MULTIPLE UNITS DESIGNED BY VARIABLE REFRIGERANT SYSTEM MANUFACTURER FOR FIELD INTERCONNECTION TO MAKE A SINGLE REFRIGERATION CIRCUIT AND MULTIPLE INDOOR UNITS.
   c. UNITS SHALL RESPOND TO CALLS FOR HEAT OR COOL OPERATION FROM INDOOR UNITS BY ENABLING REFRIGERANT OR WATER FLOW AS EQUIPMENT SHOWN ON DRAWINGS REQUIRE.
      1) IF FLOW DIRECTION FROM HRCU ALTERNATES, FLOW IN COOL DIRECTION TO UNITS IN HEAT MODE DURING OUTDOOR UNIT DEFROST SEQUENCE IS NOT ALLOWED.
2. CABINET:
   a. GALVANIZED–STEEL CONSTRUCTION.
   b. INSULATION: MANUFACTURER'S STANDARD INTERNAL INSULATION TO PROVIDE THERMAL RESISTANCE AND PREVENT CONDENSATION.
   c. INTERNAL ACCESS:
      1) REMOVABLE PANELS OR HINGED DOORS OF ADEQUATE SIZE.
      2) ACCESS TO ALL INTERNAL COMPONENTS FOR INSPECTION, CLEANING, SERVICE, OR REPLACEMENT.
3. DRAIN PAN: IF REQUIRED BY MANUFACTURER'S DESIGN, PROVIDE UNIT WITH NON–FERROUS DRAIN PAN WITH BOTTOM SLOPED TO A LOW POINT DRAIN CONNECTION.
4. ASSEMBLIES AND SPECIALTIES:
   a. SPECIALLY DESIGNED BY MANUFACTURER FOR TYPE OF VRF HVAC SYSTEM BEING INSTALLED, EITHER TWO OR THREE PIPE.
   b. EACH BRANCH CIRCUIT SHALL HAVE REFRIGERANT AND/OR WATER CONTROL VALVE(S) TO CONTROL FLOW.
   c. EACH BRANCH PORT CONNECTION SHALL BE FITTED WITH AN ISOLATION VALVE TO SIMPLIFY SERVICE TO ANY INDIVIDUAL BRANCH.
5. UNIT CONTROLS:
   a. FACTORY–INSTALLED SENSORS:
      1) LIQUID INLET TEMPERATURE.
      2) BYPASS EXIT AREA TEMPERATURE.
      3) BYPASS OUTLET TEMPERATURE.
      4) BYPASS INLET TEMPERATURE.
      5) HIGH PRESSURE SENSOR.
      6) MEDIUM PRESSURE SENSOR.
   b. FEATURES AND FUNCTIONS: SELF–DIAGNOSTICS, FUSE PROTECTION.
6. UNIT ELECTRICAL:
   a. FIELD CONNECTION: SINGLE POINT CONNECTION TO POWER ENTIRE UNIT AND INTEGRAL CONTROLS.
   b. DISCONNECTING MEANS: FIELD–INSTALLED CIRCUIT BREAKER OR SWITCH, COMPLYING WITH NFPA 70.

E. OUTDOOR, AIR–SOURCE HEAT RECOVERY UNITS

1. DESCRIPTION: FACTORY–ASSEMBLED AND TESTED COMPLETE UNIT DESIGNED FOR USE IN SYSTEMS WITH SIMULTANEOUS HEATING AND COOLING.
   a. SYSTEMS SHALL CONSIST OF ONE UNIT, OR MULTIPLE UNIT MODULES THAT ARE DESIGNED BY VARIABLE REFRIGERANT SYSTEM MANUFACTURER FOR FIELD INTERCONNECTION TO MAKE A SINGLE REFRIGERATION CIRCUIT, HEAT RECOVERY CONTROL UNIT(S), AND MULTIPLE INDOOR UNITS.
2. CABINET:
   a. GALVANIZED STEEL AND COATED WITH A CORROSION–RESISTANT FINISH.
      1) COATING WITH DOCUMENTED SALT SPRAY TEST PERFORMANCE OF 1000 HOURS ACCORDING TO ASTM B117 SURFACE SCRATCH TEST (SST) PROCEDURE.
   b. INTERNAL ACCESS: REMOVABLE PANELS OR HINGED DOORS OF ADEQUATE SIZE FOR FIELD ACCESS TO INTERNAL COMPONENTS FOR INSPECTION, CLEANING, SERVICE, AND REPLACEMENT.
3. COMPRESSOR AND MOTOR ASSEMBLY:
   a. ONE OR MORE POSITIVE–DISPLACEMENT, DIRECT–DRIVE AND HERMETICALLY SEALED SCROLL COMPRESSOR(S) WITH INVERTER DRIVE. NON–INVERTER COMPRESSORS ARE NOT ALLOWED.
   b. COLD–CLIMATE COMPRESSOR: HOT GAS INJECTION TO ALLOW INCREASED COMPRESSION RATIO FOR EXTENDED PERIODS WITHOUT DAMAGE OR EXCESSIVE WEAR.
   c. PROTECTION: INTEGRAL PROTECTION AGAINST THE FOLLOWING:
      1) REFRIGERANT OVERCHARGE AND UNDERCHARGE.
      2) HIGH AND LOW REFRIGERANT PRESSURE.
      3) HIGH REFRIGERANT AND OIL TEMPERATURE.
      4) LIQUID FLOOD BACK.
      5) THERMAL AND OVERLOAD.
      6) VOLTAGE FLUCTUATIONS.
      7) PHASE FAILURE AND PHASE REVERSAL.
      8) SHORT CYCLING.
   d. SPEED CONTROL: CONFIGURABLE TO MAINTAIN REFRIGERANT EVAPORATING AND CONDENSING TEMPERATURES WHILE VARYING REFRIGERANT FLOW TO SATISFY COOLING AND HEATING LOADS.
      1) COOLING MODE FIXED 32°F EVAPORATOR TEMPERATURE.
      2) COOLING MODE FIXED 43°F EVAPORATOR TEMPERATURE.
      3) COOLING MODE VARIABLE 32–48°F EVAPORATOR TEMPERATURE.
      4) HEATING MODE HIGH COP OPERATION.
      5) HEATING MODE HIGH HEATING OUTPUT OPERATION.
   e. VIBRATION CONTROL: INTEGRAL ISOLATION TO DAMPEN VIBRATION TRANSMISSION.
   f. OIL MANAGEMENT: TIMED SEQUENCE ENABLED DURING EXTENDED PERIODS OF REDUCED REFRIGERANT FLOW TO ENSURE PROPER LUBRICATION OVER ENTIRE OPERATING RANGE. SEQUENCES WHICH RELY ON [illegible] OIL LEVEL, RISK SENSOR FAILURE, AND/OR SENSOR PLACEMENT THAT DO NOT ACCOUNTING LENGTH AND ARE NOT ALLOWED.
   g. CRANKCASE HEATERS WITH INTEGRAL CONTROL TO MAINTAIN SAFE OPERATING TEMPERATURE.
   h. FUSIBLE PLUG.
4. HEAT–EXCHANGER ASSEMBLY: DOCUMENTED SALT SPRAY TEST PERFORMANCE OF 1000 HOURS ASTM B117 SURFACE TEST (SST) PROCEDURE.
   a. PLATE FIN COILS:
      1) CASING: ALUMINUM, GALVANIZED, OR STAINLESS STEEL.
      2) FINS: ALUMINUM OR COPPER, MECHANICALLY BONDED TO TUBES, WITH ARRANGEMENT REQUIRED BY PERFORMANCE.
      3) TUBES: COPPER, OF DIAMETER AND THICKNESS REQUIRED BY PERFORMANCE.
   b. ZINC–COATED ALUMINUM MICROCHANNEL COILS:
      1) SERIES OF FLAT TUBES CONTAINING A SERIES OF MULTIPLE, PARALLEL FLOW MICROCHANNELS LAYERED BETWEEN REFRIGERANT HEADER MANIFOLDS.
      2) CONSTRUCT FINS, TUBES, AND HEADER MANIFOLDS OF ALUMINUM ALLOY.
      PROVIDE COIL PANEL HEATERS FOR HEATING OPERATION BELOW 0°F PER DRAWINGS.
5. HEAT–EXCHANGER DEFROST STRATEGY:
   a. ALTERNATE METHODS BASED ON AMBIENT TEMPERATURES.
      1) HOT–GAS METHOD TO MAXIMIZE EFFICIENCY DURING MILD AMBIENT TEMPERATURES. METHOD PROLONGS DEFROST SEQUENCE.
         a) SEGMENTED COIL (SINGLE–MODULE SYSTEMS) OR ALTERNATING MODULES (TWINNED SYSTEMS) TO DELIVER SIMULTANEOUS DEFROST AND HEAT DELIVERY INDOORS.
      2) REVERSE–CYCLE METHOD TO MAXIMIZE COMFORT DURING EXTREME AMBIENT TEMPERATURES. METHOD SHORTENS DEFROST SEQUENCE.
         a) LEVERAGE BELOW 33.8°F FOR SINGLE–MODULE SYSTEMS AND BELOW 23°F FOR TWINNED SYSTEMS TO DELIVER SHORTER DEFROST CYCLES.
   b. PREHEAT DEFROST OPERATION: SIGNAL TO INDOOR UNITS OPERATING IN HEAT TO INCREASE SPACE TEMPERATURE BEFORE THE START OF DEFROST SEQUENCE.
6. HEAT–EXCHANGER FAN AND MOTOR ASSEMBLY:
   a. FAN(S): PROPELLER TYPE.
      1) DIRECT–DRIVE ARRANGEMENT.
      2) FABRICATED FROM NON–FERROUS COMPONENTS.
      3) STATICALLY AND DYNAMICALLY BALANCED.
   b. FAN GUARDS: REMOVABLE SAFETY GUARDS COMPLYING WITH OSHA REGULATIONS. IF USING METAL MATERIALS, COAT WITH CORROSION–RESISTANT COATING TO MATCH PERFORMANCE INDICATED FOR HEAT EXCHANGER COIL.
   c. MOTOR(S): BRUSHLESS DC OR ELECTRONICALLY COMMUTATED WITH PERMANENTLY LUBRICATED BEARINGS AND RATED FOR OUTDOOR DUTY.
   d. MOTOR PROTECTION: INTEGRAL PROTECTION AGAINST THERMAL, OVERLOAD, AND VOLTAGE FLUCTUATIONS.
7. FIELD–INSTALLED UNIT ACCESSORIES:
   a. LOW AMBIENT COOLING KIT: PROVIDE HEAT–EXCHANGER COIL WIND DEFLECTORS AND FAN HOOD ASSEMBLY FOR LOW AMBIENT COOLING OPERATION TO –10°F AS INDICATED IN DRAWINGS.
   b. SNOW/HAIL PROTECTION KIT: PROVIDE HEAT EXCHANGER COIL GUARDS AND FAN HOODS TO PROTECT AGAINST HAIL DAMAGE.
   c. ADJUSTABLE 13–26" HEIGHT, OPEN–DESIGN EQUIPMENT SUPPORT STAND.
8. UNIT CONTROLS:
   a. ENCLOSURE: MANUFACTURER'S STANDARD, AND SUITABLE FOR UNPROTECTED OUTDOOR LOCATIONS.
   b. FACTORY–INSTALLED CONTROLLER: CONFIGURABLE DIGITAL CONTROL.
   c. FACTORY–INSTALLED SENSORS:
      1) REFRIGERANT SUCTION TEMPERATURE.
      2) REFRIGERANT DISCHARGE TEMPERATURE.
      3) OUTDOOR AIR TEMPERATURE.
      4) REFRIGERANT HIGH PRESSURE.
      5) REFRIGERANT LOW PRESSURE.
   d. FEATURES AND FUNCTIONS: SELF–DIAGNOSTICS, TIME DELAY, AUTO–RESTART.
   e. INTERLOCK CONTROL SEQUENCE: CUSTOMIZABLE OPERATION BASED ON EXTERNAL INPUT OR CONTACT CLOSURE.
9. UNIT ELECTRICAL:
   a. FIELD CONNECTION: SINGLE POINT CONNECTION TO POWER EACH UNIT MODULE AND INTEGRAL CONTROLS.
   b. DISCONNECTING MEANS: FIELD–INSTALLED CIRCUIT BREAKER OR SWITCH, COMPLYING WITH NFPA 70.

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F. VRF SYSTEM CONTROLS

1. GENERAL REQUIREMENTS:

a. NETWORK: INDOOR UNITS, HRCUS, AND OUTDOOR UNITS SHALL INCLUDE INTEGRAL CONTROLS AND CONNECT THROUGH A MANUFACTURER–SELECTED CONTROL NETWORK.

b. NETWORK COMMUNICATION PROTOCOL: MANUFACTURER PROPRIETARY CONTROL COMMUNICATION BETWEEN INTERCONNECTED UNITS.

c. INTEGRATION WITH BUILDING AUTOMATION SYSTEM: ASHRAE 135, BACNET IP AND CERTIFIED BY BACNET TESTING LAB (BTL), INCLUDING THE FOLLOWING:

1) ETHERNET CONNECTION VIA RJ–45 CONNECTORS AND PORT WITH TRANSMISSION AT 100 MBPS OR HIGHER.

2) INTEGRATION SHALL INCLUDE MONITORING AND SCHEDULING.

d. OPERATOR INTERFACE:

1) OPERATORS SHALL INTERFACE WITH SYSTEM AND UNIT CONTROLS THROUGH THE FOLLOWING:

OPERATOR INTERFACES INTEGRAL TO CONTROLLERS

a) MANUFACTURER–PROVIDED CENTRAL CONTROLLER.

b) INTEGRATION WITH BUILDING AUTOMATION SYSTEM.

c) SECURE–CLOUD ACCESS THROUGH WEB BROWSER SOFTWARE WITH 1–YEAR PREPAID SERVICE SUBSCRIPTION.

2) USERS SHALL BE CAPABLE OF INTERFACE WITH CONTROLLERS FOR INDOOR UNITS' CONTROL TO EXTENT PRIVILEGES ARE ENABLED. CONTROL FEATURES AVAILABLE TO USERS SHALL INCLUDE THE FOLLOWING:

a) ON/OFF CONTROL.

b) TEMPERATURE SET–POINT ADJUSTMENT.

c) FAN SPEED CONTROL.

2. VRF HVAC SYSTEM OPERATOR INTERFACE VIA PC:

a. CENTRAL CONTROLLER(S) CONNECTED LOCAL–AREA–NETWORK SHALL BE ACCESSIBLE THROUGH STANDARD WEB BROWSER SOFTWARE REQUIRING NO MANUFACTURER–SPECIFIC SOFTWARE BE INSTALLED ON OWNER–FURNISHED PC.

b. BROWSER INTERFACE SHALL PROVIDE OPERATOR WITH A GRAPHIC USER INTERFACE TO ALLOW MONITORING AND CONTROL OF MULTIPLE CENTRAL CONTROLLERS FROM A SINGLE DEVICE LOCATION THROUGH POINT–AND–CLICK MOUSE EXCHANGE.

c. PLAN VIEWS SHALL SHOW BUILDING PLANS WITH LOCATION OF INDOOR UNITS AND IDENTIFICATION SUPERIMPOSED ON PLANS.

d. CONTROLS OPERATION MODE OF INDOOR UNITS AS INDIVIDUAL UNITS, BY SELECTED GROUPS OF INDOOR UNITS, OR AS COLLECTION OF ALL INDOOR UNITS. OPERATION MODES AVAILABLE THROUGH CENTRAL CONTROLLER SHALL MATCH THOSE OPERATION MODES OF CONTROLLERS FOR INDOOR UNITS.

e. SCHEDULES OPERATION OF INDOOR UNITS AS INDIVIDUAL UNITS, BY SELECTED GROUPS OF INDOOR UNITS, OR AS COLLECTION OF ALL INDOOR UNITS. SCHEDULES DAILY, WEEKLY, AND ANNUAL EVENTS.

f. CHANGES OPERATING SET POINTS OF INDOOR UNITS AS INDIVIDUAL UNITS, BY SELECTED GROUPS OF INDOOR UNITS, OR AS COLLECTION OF ALL INDOOR UNITS.

g. NIGHT SETBACK FEATURE TO OPERATE INDOOR UNITS AT ENERGY–CONSERVING HEATING AND COOLING TEMPERATURE SET–POINTS DURING UNOCCUPIED PERIODS.

h. SUPPORTS MULTIPLE LANGUAGES: ENGLISH, FRENCH, OR SPANISH.

i. SUPPORTS IMPERIAL AND METRIC TEMPERATURE UNITS

j. DISPLAYS SERVICE NOTIFICATIONS AND ERROR CODES.

k. MONITORS AND DISPLAYS CUMULATIVE OPERATING TIME OF INDOOR UNITS.

l. ABLE TO DISABLE AND ENABLE OPERATION OF INDIVIDUAL CONTROLLERS FOR INDOOR UNITS.

m. INFORMATION DISPLAYED ON INDIVIDUAL CONTROLLERS SHALL ALSO BE AVAILABLE FOR DISPLAY.

3. CENTRAL CONTROLLERS:

a. CENTRALIZED CONTROL FOR ALL INDOOR AND OUTDOOR UNITS FROM A SINGLE CENTRAL CONTROLLER LOCATION.

1) INCLUDE MULTIPLE INTERCONNECTED CONTROLLERS AS REQUIRED.

2) INCLUDE BACKLIT, HIGH–RESOLUTION COLOR DISPLAY TOUCH PANEL.

b. CONTROLS OPERATION MODE OF INDOOR UNITS AS INDIVIDUAL UNITS, BY SELECTED GROUPS OF INDOOR UNITS, OR AS COLLECTION OF ALL INDOOR UNITS. OPERATION MODES AVAILABLE THROUGH CENTRAL CONTROLLER SHALL MATCH THOSE OPERATION MODES OF CONTROLLERS FOR INDOOR UNITS.

c. SCHEDULE OPERATION OF INDOOR UNITS AS INDIVIDUAL UNITS, BY SELECTED GROUPS OF INDOOR UNITS, OR AS COLLECTION OF ALL INDOOR UNITS.

1) SETS SCHEDULE FOR DAILY, WEEKLY, AND ANNUAL EVENTS.

2) SCHEDULE OPTIONS AVAILABLE THROUGH CENTRAL CONTROLLER SHALL AT LEAST INCLUDE THE SCHEDULE OPTIONS OF CONTROLLERS FOR INDOOR UNITS.

d. CHANGES OPERATING SET POINTS OF INDOOR UNITS AS INDIVIDUAL UNITS, BY SELECTED GROUPS OF INDOOR UNITS, OR AS COLLECTION OF ALL INDOOR UNITS.

e. OPTIMIZED START FEATURE TO START INDOOR UNITS BEFORE SCHEDULED TIME TO REACH TEMPERATURE SET–POINT AT SCHEDULED TIME BASED ON OPERATING HISTORY.

f. NIGHT SETBACK FEATURE TO OPERATE INDOOR UNITS AT ENERGY–CONSERVING HEATING AND COOLING TEMPERATURE SET–POINTS DURING UNOCCUPIED PERIODS.

g. ABLE TO DISABLE AND ENABLE OPERATION OF INDIVIDUAL CONTROLLERS FOR INDOOR UNITS.

h. INFORMATION DISPLAYED ON INDIVIDUAL CONTROLLERS SHALL ALSO BE AVAILABLE FOR DISPLAY THROUGH CENTRAL CONTROLLER.

i. MULTIPLE RJ–45 PORTS FOR DIRECT CONNECTION TO A LOCAL PC AND AN ETHERNET NETWORK SWITCH.

j. START/STOP CONTROL CAPABILITY FOR THIRD–PARTY EQUIPMENT AS REQUIRED.

k. ACCESSORY SURFACE–MOUNT CASE.

l. LICENSE FOR INTEGRATION WITH BUILDING AUTOMATION SYSTEM: BACNET OVER IP COMMUNICATION OF INDOOR UNIT MONITOR AND CONTROL POINTS.

4. WIRED CONTROLLERS AND SENSORS FOR INDOOR UNITS

a. RESIDENTIAL / MULTI–FAMILY STYLE CONTROLLERS FOR INDOOR UNITS:

1) WALL–MOUNTED CONTROLLER WITH INTEGRAL ROOM TEMPERATURE AND HUMIDITY SENSORS AND ADAPTER PROVIDING CONNECTION TO INDOOR UNIT.

2) COLOR LCD WITH CLICK–WHEEL OPERATION AND PROXIMITY SENSOR TO WAKE CONTROLLER SCREEN WHEN APPROACHED.

3) AUTOMATIC SWITCHING BETWEEN COOL AND DRY MODES TO MEET TARGET HUMIDITY LEVEL (USER–SELECTABLE BETWEEN 35–75%).

4) TEMPERATURE UNITS: FAHRENHEIT AND CELSIUS.

5) ON/OFF: TURNS INDOOR UNIT ON OR OFF.

6) HOLD: HOLD OPERATION SETTINGS UNTIL HOLD IS RELEASED.

7) OPERATION MODE: COOL, HEAT, AUTO, DEHUMIDIFICATION, FAN ONLY, AND SETBACK.

8) TEMPERATURE DISPLAY AND SET–POINT: SEPARATE SET POINTS FOR COOLING, HEATING. ADJUSTABLE IN 1–DEGREE FAHRENHEIT INCREMENTS BETWEEN.

9) FAN SPEED SETTING: SELECT BETWEEN AVAILABLE OPTIONS FURNISHED WITH UNIT.

10) AIRFLOW DIRECTION SETTING: IF APPLICABLE TO INDOOR UNIT STYLE, SELECT BETWEEN AVAILABLE OPTIONS FURNISHED WITH THE UNIT.

11) SEVEN–DAY PROGRAMMABLE OPERATING SCHEDULE WITH UP TO FIVE EVENTS PER DAY. OPERATIONS SHALL INCLUDE ON/OFF, OPERATION MODE, AND TEMPERATURE SET–POINT.

12) ERROR CODE NOTIFICATION DISPLAY: USED BY SERVICE PERSONNEL TO TROUBLESHOOT ABNORMAL OPERATION AND EQUIPMENT FAILURE.

13) USER AND SERVICE PASSWORDS: CAPABLE OF PREVENTING ADJUSTMENTS BY UNAUTHORIZED USERS.

14) SETTING STORED IN NONVOLATILE MEMORY TO ENSURE THAT SETTINGS ARE NOT LOST IF POWER IS LOST.

15) LOW–VOLTAGE POWER REQUIRED FOR CONTROLLER SHALL BE POWERED THROUGH POLARITY–SPECIFIC CONNECTIONS TO INDOOR UNIT.

16) LIMITS CENTRAL CONTROL (WHEN PRESENT) TO MONITOR–ONLY FUNCTIONALITY.

G. VRF SYSTEM REFRIGERANT AND OIL

1. REFRIGERANT:

a. AS REQUIRED BY VRF HVAC SYSTEM MANUFACTURER FOR SYSTEM TO COMPLY WITH PERFORMANCE REQUIREMENTS INDICATED.

b. ASHRAE 34, CLASS A1 OR A2L REFRIGERANT CLASSIFICATION.

c. R–32 OR R–454B.

2. OIL:

a. AS REQUIRED BY VRF HVAC SYSTEM MANUFACTURER AND TO COMPLY WITH PERFORMANCE REQUIREMENTS INDICATED.

H. VRF SYSTEM CONDENSATE DRAIN PIPING

1. IF MORE THAN ONE MATERIAL IS LISTED, MATERIAL SELECTION IS CONTRACTOR'S OPTION.

2. COPPER TUBING:

a. DRAWN–TEMPER TUBING: ACCORDING TO ASTM B88, TYPE L, [ASTM B88, TYPE M, OR TYPE DWV ACCORDING TO ASTM B306.

b. WROUGHT–COPPER FITTINGS: ASME B16.22.

c. WROUGHT–COPPER UNIONS: ASME B16.22.

d. SOLDER FILLER METALS: ASTM B32, LEAD–FREE ALLOYS, AND WATER–FLUSHABLE FLUX ACCORDING TO ASTM B813.

3. CPVC PLASTIC PIPE ACCORDING TO ASTM F441/F441M, SCHEDULE 40, WITH SOCKET–TYPE PIPE FITTINGS ACCORDING TO ASTM F438 AND SOLVENT CEMENT ACCORDING TO ASTM F493.

4. REDUCERS: WHERE APPLIED TO PIPING CONNECTED TO UNIT–MOUNTED INTEGRAL LIFTING MECHANISM, ONLY ECCENTRIC REDUCERS ORIENTED HORIZONTALLY ARE ALLOWED.

I. VRF SYSTEM REFRIGERANT PIPING

1. REFRIGERANT PIPING:

a. COPPER TUBE: ASTM B280, TYPE ACR.

b. WROUGHT–COPPER FITTINGS: ASME B16.22.

c. BRAZING FILLER METALS: AWS A5.8/A5.8M.

2. REFRIGERANT TUBING KITS:

a. FACTORY–ROLLED AND –BUNDLED, SOFT–COPPER TUBING WITH TUBING TERMINATION FITTINGS AT EACH END.

b. STANDARD ONE–PIECE LENGTH FOR CONNECTING TO INDOOR UNITS.

c. PRE–INSULATED WITH FLEXIBLE ELASTOMERIC INSULATION OF THICKNESS TO COMPLY WITH GOVERNING ENERGY CODE AND SUFFICIENT TO ELIMINATE CONDENSATION.

d. FACTORY CHARGE: DEHYDRATED AIR OR NITROGEN.

3. ASSEMBLIES AND SPECIALTIES:

a. DIVIDED–FLOW SPECIALTY FITTINGS: WHERE REQUIRED BY VRF HVAC SYSTEM MANUFACTURER FOR PROPER SYSTEM OPERATION, VRF HVAC SYSTEM MANUFACTURER SHALL FURNISH SPECIALTY FITTINGS WITH IDENTIFICATION AND INSTRUCTIONS FOR PROPER INSTALLATION BY INSTALLER.

b. REFRIGERANT ISOLATION BALL VALVES: UNI–BODY FULL PORT DESIGN WITH SCHRADER VALVE FOR REFRIGERANT SERVICE, RATED FOR MAXIMUM SYSTEM TEMPERATURE AND NOT LESS THAN 800 PSIG PRESSURE, AND FACTORY TESTED UNDER PRESSURE TO ENSURE TIGHT SHUTOFF.

J. VRF SYSTEM CONTROL CABLE

1. GENERAL REQUIREMENTS: REFER TO AND VERIFY ALL WIRE AND CABLING REQUIREMENTS WITH THE MANUFACTURER'S CURRENT INSTALLATION AND OPERATION MANUALS TO ENSURE COMPLIANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS. CABLES MAY NOT BE SPLICED AND SHALL BE CONTINUOUS FROM TERMINAL TO TERMINAL. DO NOT SPLICE CABLE.

2. LOW–VOLTAGE CONTROL NETWORK CABLING:

a. PLENUM–RATED, PAIRED CABLE: NFPA 70, TYPE CMP.

b. SHIELDED WIRE (2–CORE) 16 AWG––CVVS, CPEVS OR MVVS.

c. PVC INSULATION AND JACKET.

d. FOIL SHIELDED.

e. FLAME RESISTANCE: COMPLY WITH NFPA 262.

3. LOW–VOLTAGE WALL–MOUNTED CONTROLLER CABLING TO INDOOR UNITS:

a. PLENUM–RATED, PAIRED CABLE: NFPA 70, TYPE CMP.

b. 22 AWG, 2–CONDUCTOR UNSHIELDED 7–STRANDED BARE COPPER WIRE.

c. RESIDENTIAL / MULTI–FAMILY STYLE CONTROLLERS REQUIRE 4–CONDUCTOR.

d. TOUCH CONTROLLERS WITH INTEGRAL OCCUPANCY AND LIGHT SENSING CONTROLLERS REQUI LOW–VOLTAGE CONTROL NETWORK CABLING TO THE NETWORK.

e. PVC INSULATION AND JACKET.

f. FLAME RESISTANCE: COMPLY WITH NFPA 262.

g. MAXIMUM CABLE DISTANCE (DISTANCE FROM CONTROLLER TO INDOOR UNIT) VARIES BY CONTROLLER STYLE. REFER TO MANUFACTURER SUBMITTAL OR INSTALLATION GUIDES.

4. TRANSMISSION POWER BOOSTER PROVIDED IF ADDITIONAL SIGNAL POWER IS REQUIRED BASED ON CONNECTED DEVICES. COORDINATE WITH VRF MANUFACTURER AND INSTALL NEAR MIDDLE OF COMMUNICATION BUS WHEN REQUIRED.

K. GENERAL REQUIREMENTS FOR PIPING INSTALLATION

1. DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING AND TUBING SYSTEMS. INSTALL PIPING AND TUBING AS INDICATED UNLESS DEVIATIONS TO LAYOUT ARE APPROVED ON COORDINATION DRAWINGS.

2. INSTALL PIPING AND TUBING IN CONCEALED LOCATIONS UNLESS OTHERWISE INDICATED AND EXCEPT IN EQUIPMENT ROOMS AND SERVICE AREAS.

3. INSTALL PIPING AND TUBING AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE PROHIBITED UNLESS SPECIFICALLY INDICATED OTHERWISE.

4. INSTALL PIPING AND TUBING ABOVE ACCESSIBLE CEILINGS TO ALLOW SUFFICIENT SPACE FOR CEILING PANEL REMOVAL.

5. INSTALL PIPING AND TUBING TO PERMIT VALVE SERVICING.

6. INSTALL PIPING AND TUBING AT INDICATED SLOPES.

7. INSTALL PIPING AND TUBING FREE OF SAGS.

8. INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS.

9. INSTALL PIPING AND TUBING TO ALLOW APPLICATION OF INSULATION.

10. INSTALL GROUPS OF PIPES AND TUBING PARALLEL TO EACH OTHER, SPACED TO PERMIT APPLYING INSULATION WITH SERVICE ACCESS BETWEEN INSULATED PIPING AND TUBING.

L. INSTALLATION OF REFRIGERANT PIPING

1. REFRIGERANT TUBING KITS:

a. UNROLL AND STRAIGHTEN TUBING TO SUIT INSTALLATION. DEVIATIONS IN STRAIGHTNESS OF EXPOSED TUBING SHALL BE UNNOTICEABLE TO OBSERVER.

b. SUPPORT TUBING AS SPECIFIED IN SECTION 230516 "HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT."

c. PREPARE TUBING ENDS AND MAKE MATING CONNECTIONS TO PROVIDE A PRESSURE TIGHT AND LEAK–FREE INSTALLATION.

2. SELECT SYSTEM COMPONENTS WITH MINIMUM 650 PSIG PRESSURE RATING.

3. INSTALL PIPING AS SHORT AND DIRECT AS POSSIBLE, WITH A MINIMUM NUMBER OF JOINTS AND FITTINGS.

4. ARRANGE PIPING TO ALLOW INSPECTION AND SERVICE OF EQUIPMENT. INSTALL VALVES AND SPECIALTIES IN ACCESSIBLE LOCATIONS TO ALLOW FOR SERVICE AND INSPECTION. INSTALL ACCESS DOORS OR PANELS AS SPECIFIED IN SECTION 083113 "ACCESS DOORS AND FRAMES" IF VALVES OR EQUIPMENT REQUIRING MAINTENANCE IS CONCEALED BEHIND FINISHED SURFACES.

5. INSTALL REFRIGERANT PIPING AND TUBING IN PROTECTIVE CONDUIT WHERE INSTALLED BELOW GROUND.

6. INSTALL REFRIGERANT PIPING AND TUBING IN RIGID OR FLEXIBLE CONDUIT IN LOCATIONS WHERE EXPOSED TO MECHANICAL DAMAGE.

7. UNLESS OTHERWISE REQUIRED BY VRF HVAC SYSTEM MANUFACTURER, SLOPE REFRIGERANT PIPING AND TUBING AS FOLLOWS:

a. INSTALL HORIZONTAL HOT–GAS DISCHARGE PIPING AND TUBING WITH A UNIFORM SLOPE DOWNWARD AWAY FROM COMPRESSOR.

b. INSTALL HORIZONTAL SUCTION LINES WITH A UNIFORM SLOPE DOWNWARD TO COMPRESSOR.

c. TRAPS TO ENTRAIN OIL IN VERTICAL RUNS ARE NOT ALLOWED.

d. INVERTED TRAPS FOR TWINNED SYSTEMS MAY BE REQUIRED BY MANUFACTURER.

e. LIQUID LINES MAY BE INSTALLED LEVEL.

8. WHEN BRAZING, REMOVE OR PROTECT COMPONENTS THAT COULD BE DAMAGED BY HEAT. BRAZE PIPES WITH A DRY NITROGEN PURGE TO AVOID OXIDATION.

9. BEFORE INSTALLATION, CLEAN PIPING, TUBING, AND FITTINGS TO CLEANLINESS LEVEL REQUIRED BY VRF HVAC SYSTEM MANUFACTURER.

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10. JOINT CONSTRUCTION:
    a. BRAZED JOINTS
    b. REAM ENDS OF TUBES AND REMOVE BURRS.
    c. REMOVE SCALE, SLAG, DIRT, AND DEBRIS FROM INSIDE AND OUTSIDE OF TUBE AND FITTINGS BEFORE ASSEMBLY.
    d. CONSTRUCT JOINTS IN ACCORDANCE WITH AWS'S "BRAZING HANDBOOK," "PIPE AND TUBE" CHAPTER.
    e. USE TYPE BAG (CADMIUM–FREE SILVER) ALLOY FOR JOINING COPPER WITH BRONZE.
    f. THE PIPING BEING BRAZED SHALL BE PURGED OF AIR TO REMOVE THE OXYGEN AND FILLED WITH ONE OF THE FOLLOWING INERT GASES: OXYGEN–FREE NITROGEN, HELIUM OR ARGON. THE PIPING SYSTEM SHALL BE PURGED WITH AN INERT GAS FOR A MINIMUM TIME CORRESPONDING TO FIVE VOLUME CHANGES THROUGH THE PIPING SYSTEM PRIOR TO BRAZING. THE PRE–PURGE RATE SHALL BE AT A MINIMUM VELOCITY OF 100 FEET PER MINUTE. THE INERT GAS SHALL BE DIRECTLY CONNECTED TO THE TUBE SYSTEM BEING BRAZED TO PREVENT THE ENTRAINMENT OF AMBIENT AIR. AFTER THE PRE–PURGE, THE INERT GAS SUPPLY SHALL BE MAINTAINED THROUGH THE PIPING DURING THE BRAZING OPERATION AT A MINIMUM PRESSURE OF 1.0 PSI AND A MAXIMUM PRESSURE OF 3.0 PSI. THE JOINT SHALL BE BRAZED WITH A FILLER METAL CONFORMING TO AWS A5.8
11. MECHANICALLY PRESSED JOINTS
    a. THE INSTALLING CONTRACTOR SHALL BE FULLY TRAINED AND QUALIFIED BY THE MANUFACTURER OF THE MECHANICALLY PRESSED JOINTS TO INSTALL THE SELECTED PIPING CONNECTIONS.
    b. MECHANICAL JOINTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
    c. FLARED JOINTS
    d. FLARED FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE FLARED FITTING SHALL BE USED WITH THE TUBE MATERIAL SPECIFIED BY THE FITTING MANUFACTURER. THE FLARED TUBE END SHALL BE MADE BY A TOOL DESIGNED FOR THAT OPERATION.
12. SOLDERED JOINTS
    a. USE OF SOLDERED JOINTS IS PROHIBITED WITHIN VRF SYSTEMS.

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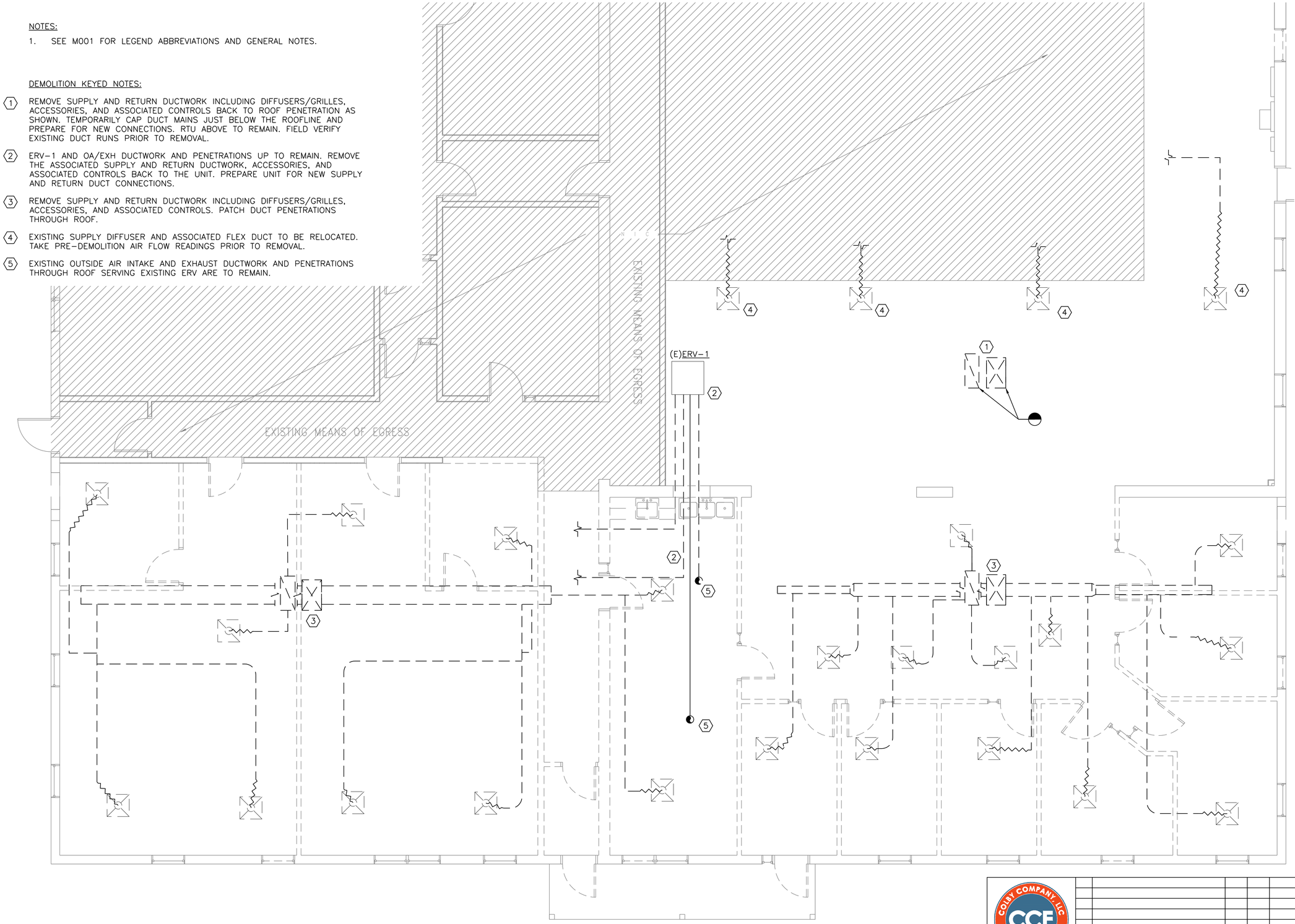
NOTES:

1. SEE M001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

DEMOLITION KEYED NOTES:

1. REMOVE SUPPLY AND RETURN DUCTWORK INCLUDING DIFFUSERS/GRILLES, ACCESSORIES, AND ASSOCIATED CONTROLS BACK TO ROOF PENETRATION AS SHOWN. TEMPORARILY CAP DUCT MAINS JUST BELOW THE ROOFLINE AND PREPARE FOR NEW CONNECTIONS. RTU ABOVE TO REMAIN. FIELD VERIFY EXISTING DUCT RUNS PRIOR TO REMOVAL.
2. ERV-1 AND OA/EXH DUCTWORK AND PENETRATIONS UP TO REMAIN. REMOVE THE ASSOCIATED SUPPLY AND RETURN DUCTWORK, ACCESSORIES, AND ASSOCIATED CONTROLS BACK TO THE UNIT. PREPARE UNIT FOR NEW SUPPLY AND RETURN DUCT CONNECTIONS.
3. REMOVE SUPPLY AND RETURN DUCTWORK INCLUDING DIFFUSERS/GRILLES, ACCESSORIES, AND ASSOCIATED CONTROLS. PATCH DUCT PENETRATIONS THROUGH ROOF.
4. EXISTING SUPPLY DIFFUSER AND ASSOCIATED FLEX DUCT TO BE RELOCATED. TAKE PRE-DEMOLITION AIR FLOW READINGS PRIOR TO REMOVAL.
5. EXISTING OUTSIDE AIR INTAKE AND EXHAUST DUCTWORK AND PENETRATIONS THROUGH ROOF SERVING EXISTING ERV ARE TO REMAIN.



MECHANICAL FIRST FLOOR PLAN - REMOVALS

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

LICENSED ARCHITECT
BENJAMIN FRIED
№ 5397
STATE OF MAINE

PLAN NORTH

0 2' 4' 8'
Scale: 1/4" = 1'-0"

STATE OF MAINE
DAVID H. BROWN
No. 7551
LICENSED PROFESSIONAL ENGINEER
10-23-25

CCE COLBY COMPANY, LLC engineering & design
47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
0	ISSUED FOR CONSTRUCTION	MJP	MJK	10/23/25

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

MECHANICAL FIRST FLOOR PLAN - REMOVALS

SIZE: ARCH D
DATE: 10/23/2025
DES BY: ATW
DWN BY: MJP
CKD BY: DHB

PROJECT NO. 480.003.001
SHEET X OF X

DRAWING NO. MD-101

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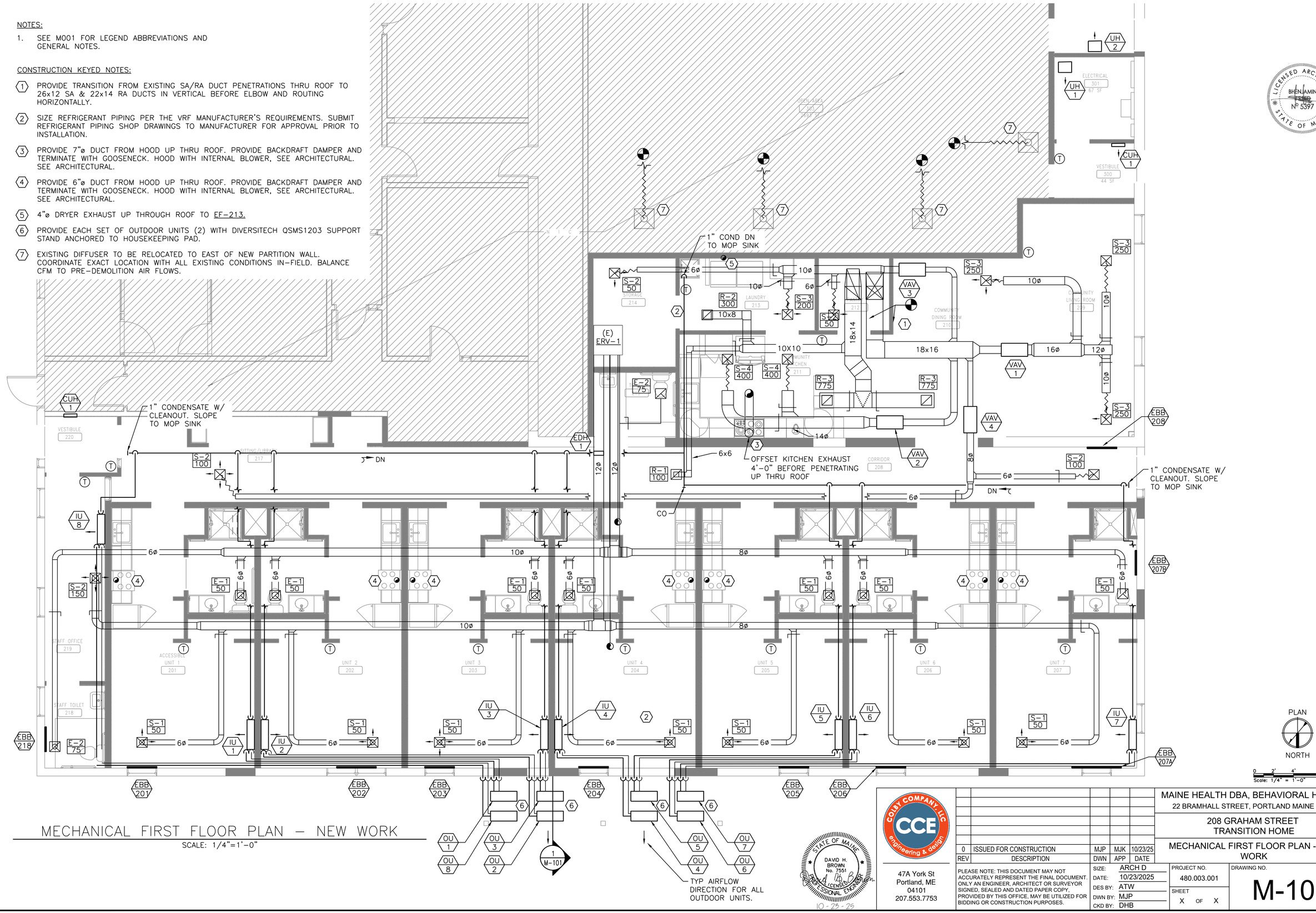
NOTES:

1. SEE M001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

CONSTRUCTION KEYED NOTES:

1. PROVIDE TRANSITION FROM EXISTING SA/RA DUCT PENETRATIONS THRU ROOF TO 26x12 SA & 22x14 RA DUCTS IN VERTICAL BEFORE ELBOW AND ROUTING HORIZONTALLY.
2. SIZE REFRIGERANT PIPING PER THE VRF MANUFACTURER'S REQUIREMENTS. SUBMIT REFRIGERANT PIPING SHOP DRAWINGS TO MANUFACTURER FOR APPROVAL PRIOR TO INSTALLATION.
3. PROVIDE 7"ø DUCT FROM HOOD UP THRU ROOF. PROVIDE BACKDRAFT DAMPER AND TERMINATE WITH GOOSENECK. HOOD WITH INTERNAL BLOWER, SEE ARCHITECTURAL. SEE ARCHITECTURAL.
4. PROVIDE 6"ø DUCT FROM HOOD UP THRU ROOF. PROVIDE BACKDRAFT DAMPER AND TERMINATE WITH GOOSENECK. HOOD WITH INTERNAL BLOWER, SEE ARCHITECTURAL. SEE ARCHITECTURAL.
5. 4"ø DRYER EXHAUST UP THROUGH ROOF TO EF-213.
6. PROVIDE EACH SET OF OUTDOOR UNITS (2) WITH DIVERSITECH QSMS1203 SUPPORT STAND ANCHORED TO HOUSEKEEPING PAD.
7. EXISTING DIFFUSER TO BE RELOCATED TO EAST OF NEW PARTITION WALL. COORDINATE EXACT LOCATION WITH ALL EXISTING CONDITIONS IN-FIELD. BALANCE CFM TO PRE-DEMOLITION AIR FLOWS.



MECHANICAL FIRST FLOOR PLAN – NEW WORK

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

STATE OF MAINE
DAVID H. BROWN
No. 7551
REGISTERED PROFESSIONAL ENGINEER
10-25-25

COLBY COMPANY, LLC
CCE
engineering & design
47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

MECHANICAL FIRST FLOOR PLAN - NEW WORK

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	ATW
DWN BY:	MJP
CKD BY:	DHB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. M-101

LICENSED ARCHITECT
BENJAMIN FREED
No. 5397
STATE OF MAINE

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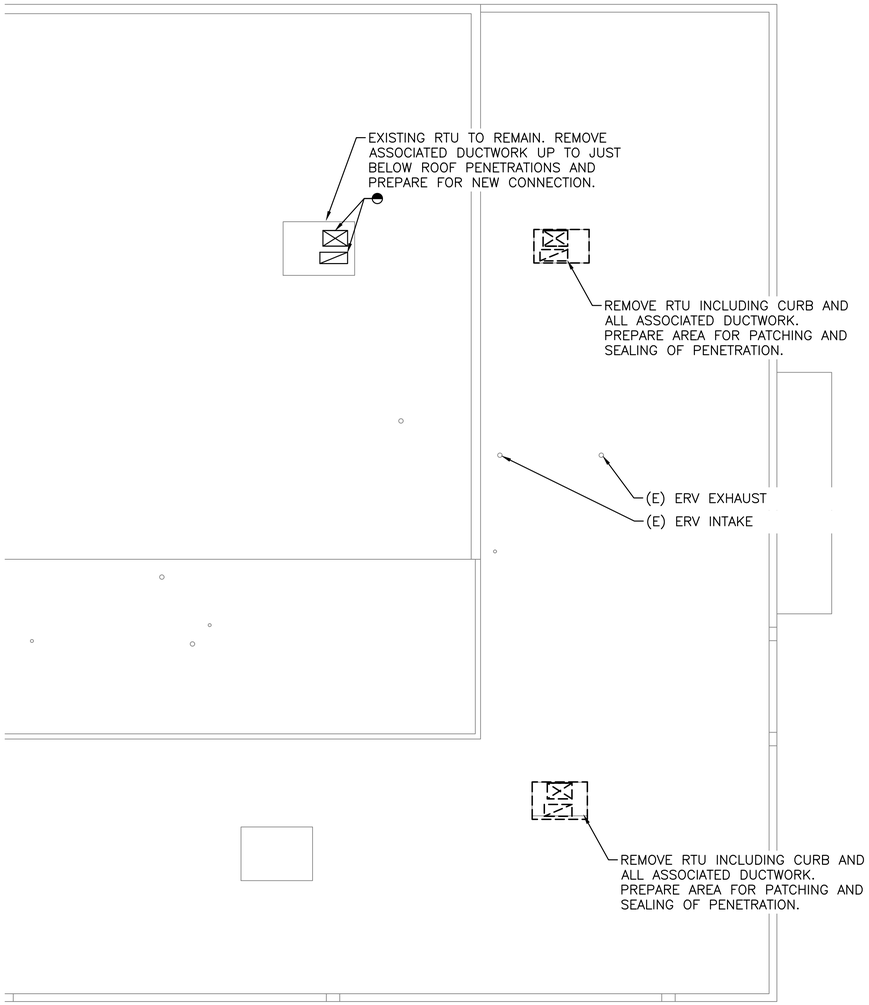
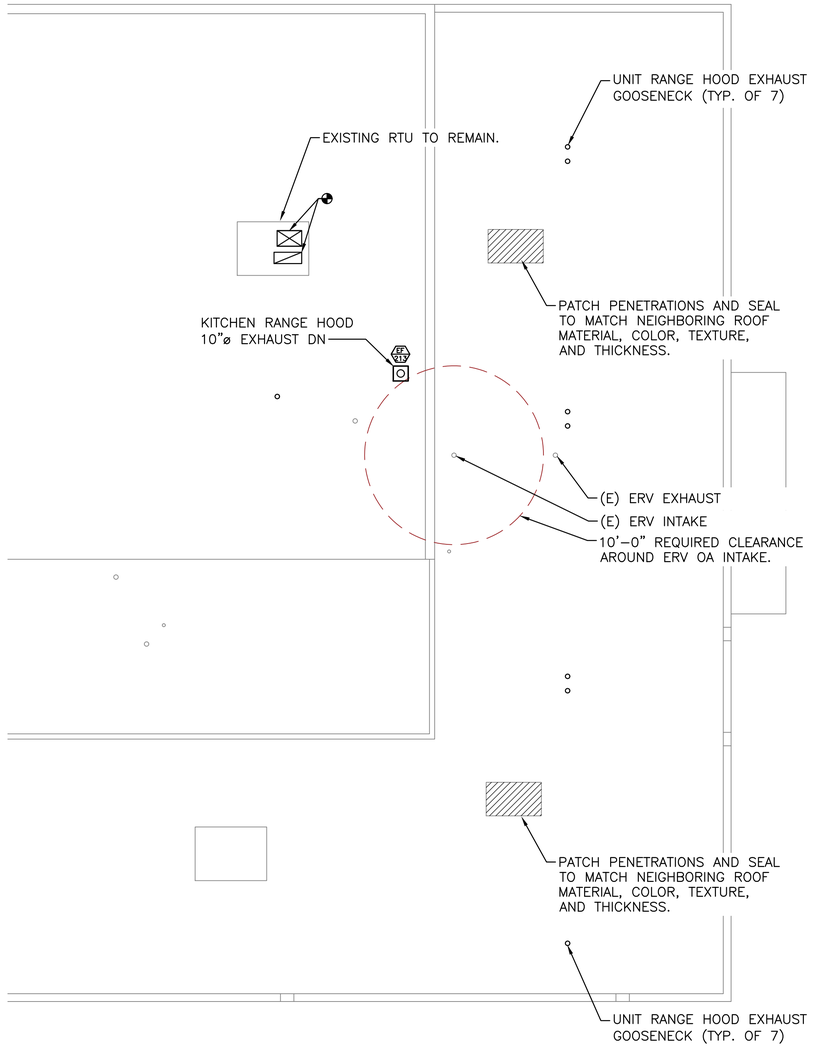
NOTES:

1. SEE M001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.



MECHANICAL ROOF PLAN – REMOVALS

SCALE: 1/8"=1'–0"



MECHANICAL ROOF PLAN – NEW WORK

SCALE: 1/8"=1'–0"

PLAN

NORTH

Scale: 1/8" = 1'–0"

LICENSED ARCHITECT
BENJAMIN FREED
№ 5397
STATE OF MAINE

STATE OF MAINE
DAVID H. BROWN
No. 7551
REGISTERED PROFESSIONAL ENGINEER
10-23-25

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22 BRAMHALL STREET, PORTLAND MAINE 04102

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TRANSITION HOME

MECHANICAL ROOF PLANS

SIZE: ARCH D
DATE: 10/23/2025
DES BY: ATW
DWN BY: MJP
CKD BY: DHB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. M-102

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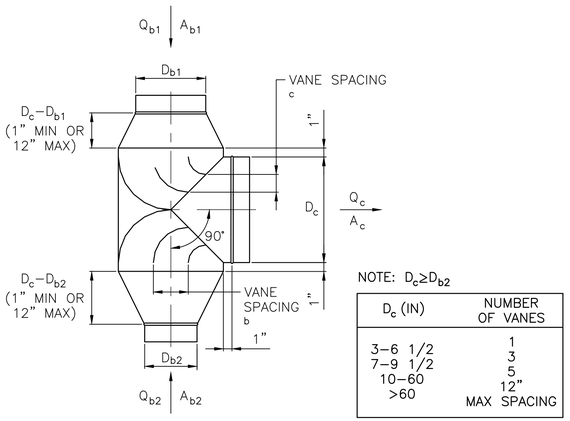


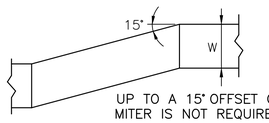
NOTE: $D_c \geq D_{b2}$

D_c (IN)	NUMBER OF VANES
3–6 1/2	1
7–9 1/2	3
10–60	5
>60	12" MAX SPACING

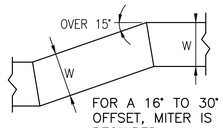
BULLHEAD TEE DETAIL

SCALE: NTS

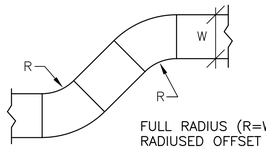
OFFSET



UP TO A 15° OFFSET ONLY, MITER IS NOT REQUIRED

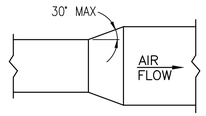


FOR A 16° TO 30° OFFSET, MITER IS REQUIRED

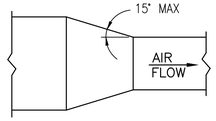


FULL RADIUS (R=W) RADIUSED OFFSET FOR OFFSET OVER 30°

TRANSITIONS



DIVERGING FLOW



CONTRACTION FLOW

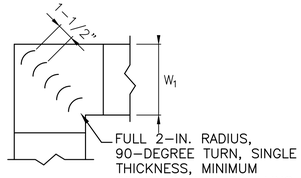
ECCENTRIC TRANSITION (ANGLED ON ONLY ONE SIDE) MAY HAVE ANGLE UP TO 30°

DUCTWORK SHALL CONFORM TO SMACNA STANDARDS AND AS SHOWN IN THIS DETAIL

DUCTWORK TRANSITIONS DETAIL

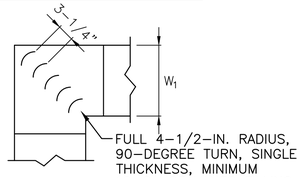
SCALE: NTS

USE MITERED ONLY WHERE SPACE IS TOO TIGHT FOR RADIUSED. HALF–RADIUSED (R_{CL} = 1W) ELBOWS ARE AN ACCEPTABLE ALTERNATIVE TO MITERED ELBOWS. ADJUSTABLE "STOVEPIPE" TYPE ELBOWS ARE NOT ALLOWED UNLESS OTHERWISE INDICATED.



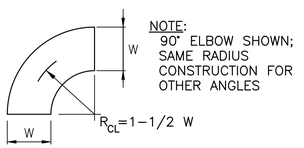
FULL 2–IN. RADIUS, 90–DEGREE TURN, SINGLE THICKNESS, MINIMUM 22–GAUGE VANES FILLING ENTIRE CROSS SECTION

MITERED, $W_1 \leq 24$ IN.



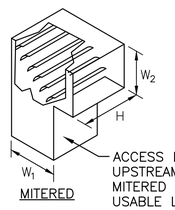
FULL 4–1/2–IN. RADIUS, 90–DEGREE TURN, SINGLE THICKNESS, MINIMUM 18–GAUGE VANES FILLING ENTIRE CROSS SECTION

MITERED, W_1 >24 IN.



RADIUSED

NOTE: 90° ELBOW SHOWN; SAME RADIUS CONSTRUCTION FOR OTHER ANGLES



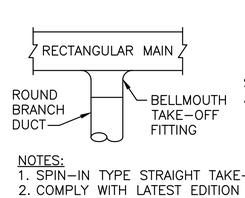
MITERED

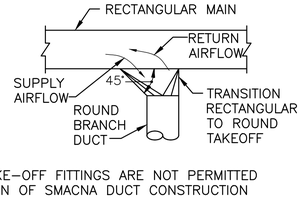
ACCESS DOOR AT UPSTREAM SIDE OF EACH MITERED ELBOW, IN MOST USABLE LOCATION

DUCTWORK SHALL CONFORM TO SMACNA STANDARDS AND AS INDICATED IN THIS DETAIL

DUCT ELBOWS DETAIL

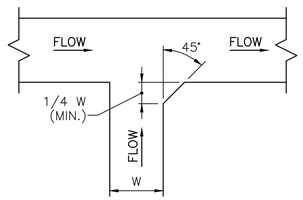
SCALE: NTS



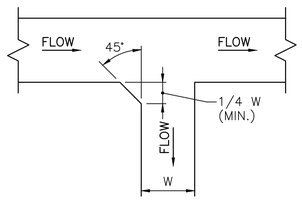


NOTES:
1. SPIN–IN TYPE STRAIGHT TAKE–OFF FITTINGS ARE NOT PERMITTED
2. COMPLY WITH LATEST EDITION OF SMACNA DUCT CONSTRUCTION STANDARDS FIG. 2–6.

ROUND BRANCHES



CONVERGING TEE

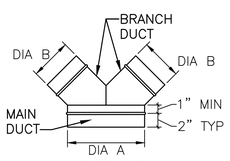


DIVERGING TEE

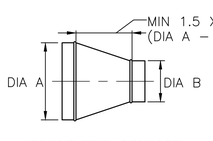
RECTANGULAR BRANCHES

DUCT TEES TO RECTANGULAR MAINS

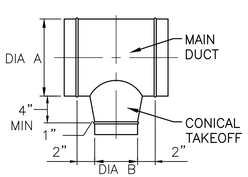
SCALE: NTS



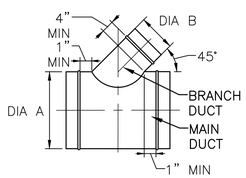
WYE BRANCH



CONCENTRIC REDUCER



OPTION 1
ROUND–ROUND
BRANCH TAKEOFF

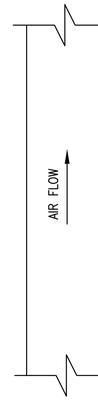


OPTION 2
ROUND–ROUND
45° LATERAL TAKEOFF

NOTE:
1. DIAMETERS A AND B MAY VARY BASED ON DRAWINGS.

TYPICAL ROUND DUCT FITTINGS DETAIL

SCALE: NTS



PROVIDE BALANCING DAMPER WITH LOCKING QUADRANT IN ACCESSIBLE LOCATION. HANG SURVEYOR'S TAPE 3 FT LONG FOR EASE OF LOCATION OF DAMPERS FOR BALANCING. EACH DEVICE SHALL HAVE A VOLUME DAMPER WHETHER OR NOT SHOWN ON PLANS.

INSULATED FLEXIBLE DUCTWORK – MAXIMUM 4 FEET LONG, STRETCH TO FIT

ACOUSTICALLY LINED SUPPLY PLENUM BOX, HEIGHT AS TALL AS SPACE ALLOWS, UP TO 3 TIMES INLET DUCT DIAMETER

CLAMP BOTH ENDS OF FLEX DUCT. TWO TURNS OF TAPE ON VAPOR BARRIER

45° TAKE–OFF OR BELLMOUTH, TYP

DIFFUSER

T–BAR CEILING

NOTES:
1. SIMILAR FOR RETURN AND EXHAUST DUCT BRANCHES.
2. FOR SURFACE–MOUNT DEVICES IN LAY–IN TILE CEILINGS, SUPPORT PLENUM BOX WITH BRACKETS ON TOP OF T–BAR GRID.

AIR INLET & OUTLET DUCT CONNECTIONS – FLEXIBLE DETAIL

SCALE: NTS

LICENSED ARCHITECT BENJAMIN FREED № 5397 STATE OF MAINE

STATE OF MAINE DAVID H. BROWN No. 7551 REGISTERED PROFESSIONAL ENGINEER 10-25-25

COLBY COMPANY, LLC CCE engineering & design
47A York St
Portland, ME
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207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

MECHANICAL DETAILS

SIZE: ARCH D
DATE: 10/23/2025
DES BY: ATW
DWN BY: MJP
CKD BY: DHB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. M-501

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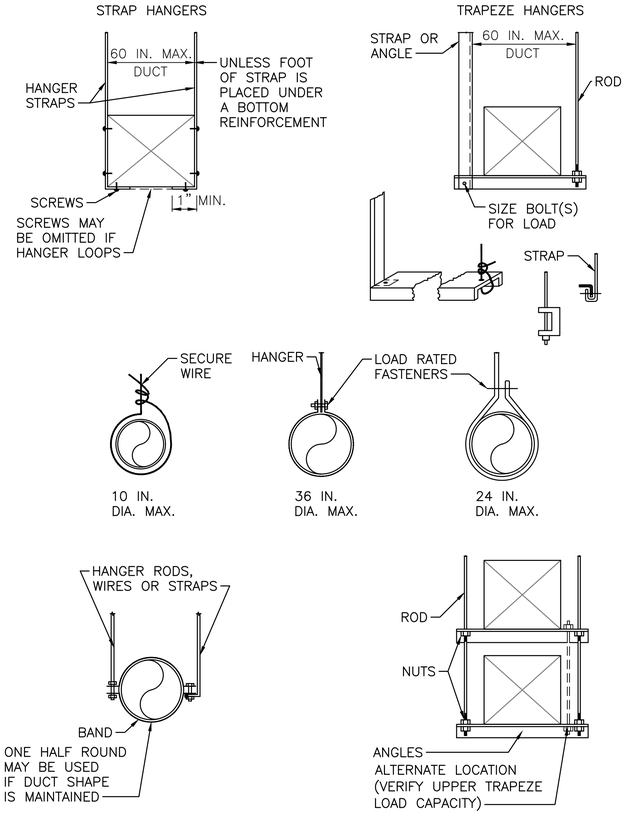


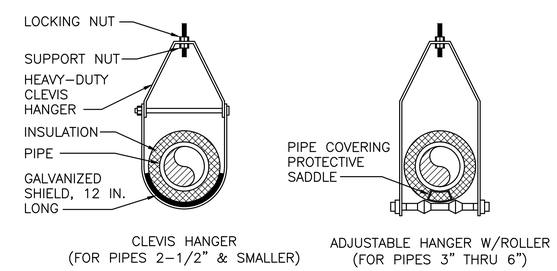
NOTE:
FOR SUPPORT SIZING AND SPACING SEE SMACNA, HVAC DUCT CONSTRUCTION STANDARDS, 4TH EDITION, CHAPTER 5, TABLES: 5–1, 5–2, AND 5–3.

NOTE:
DO NOT EXCEED ALLOWABLE LOAD LIMITS. HANGERS MUST NOT DEFORM DUCT SHAPE

REINFORCEMENT MAY BE USED FOR ATTACHMENT IF IT QUALIFIES FOR BOTH DUTIES

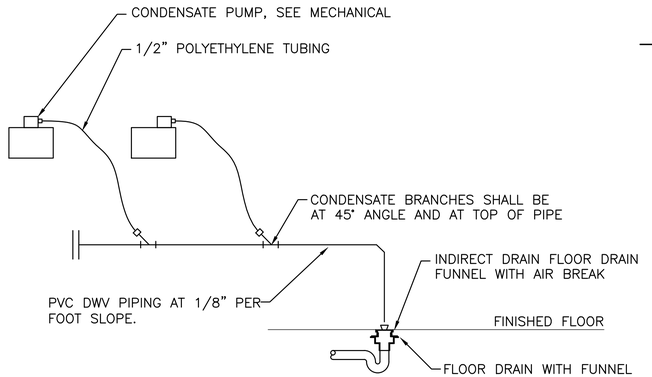
LOWER HANGER ATTACHMENTS

SCALE: NTS



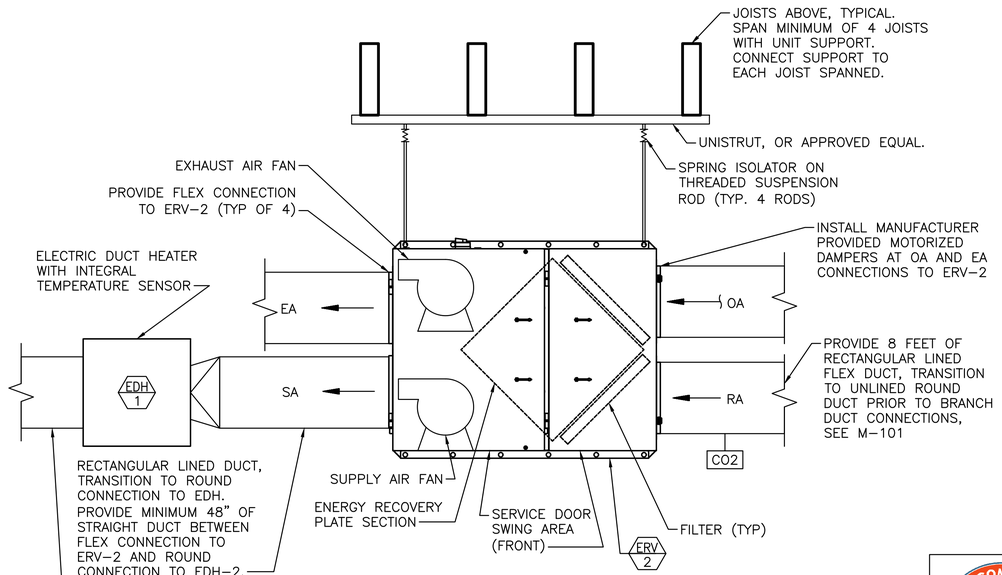
PIPE HANGER ATTACHMENTS DETAIL

SCALE: NTS



TYPICAL HVAC CONDENSATE PIPING

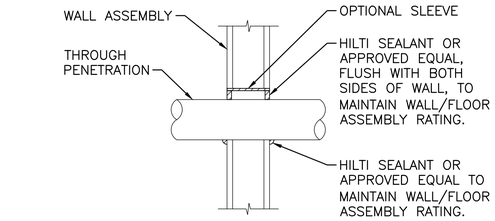
SCALE: NTS



NOTE: ERV IS AN EXISTING UNIT TO REMAIN.

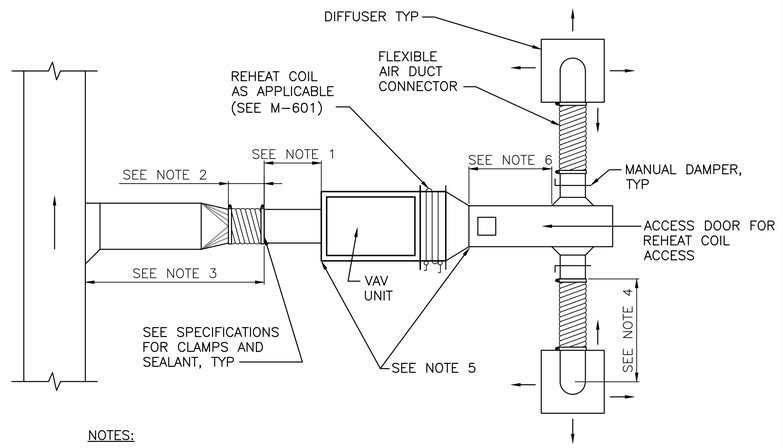
ERV–1 DETAIL

SCALE: NTS



DUCT/PIPE WALL PENETRATION DETAIL

SCALE: NTS



NOTES:

1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH MUST BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET OR PER MANUFACTURER'S RECOMMENDATIONS.
2. A FLEXIBLE AIR DUCT CONNECTOR IS NOT MANDATORY FOR INLET TO THIS BOX, BUT ALLOWED TO ACCOMMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'–0".
3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET, PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET. FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.1"/100'.
4. FLEXIBLE AIR DUCT CONNECTORS, WHEN USED FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER, MUST NOT EXCEED 5'–0". USE RIGID ELBOWS FOR CHANGE OF DIRECTION GREATER THAN 45°.
5. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION W/VAPOR BARRIER FOR CONNECTING DUCT SECTIONS.
6. PROVIDE 48 INCHES OF STRAIGHT DUCT FROM THE DISCHARGE OF THE UNIT PRIOR TO ANY TAKE–OFFS OR TRANSITIONS.

VAV DUCTWORK CONNECTIONS

SCALE: NTS

LICENSED ARCHITECT BENJAMIN FREED № 5397 STATE OF MAINE

STATE OF MAINE DAVID H. BROWN No. 7551 REGISTERED PROFESSIONAL ENGINEER 10-23-25

COLBY COMPANY, LLC CCE engineering & design
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Portland, ME
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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

MECHANICAL DETAILS

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	ATW
DWN BY:	MJP
CKD BY:	DHB

PROJECT NO. 480.003.001
SHEET X OF X
DRAWING NO. M-502

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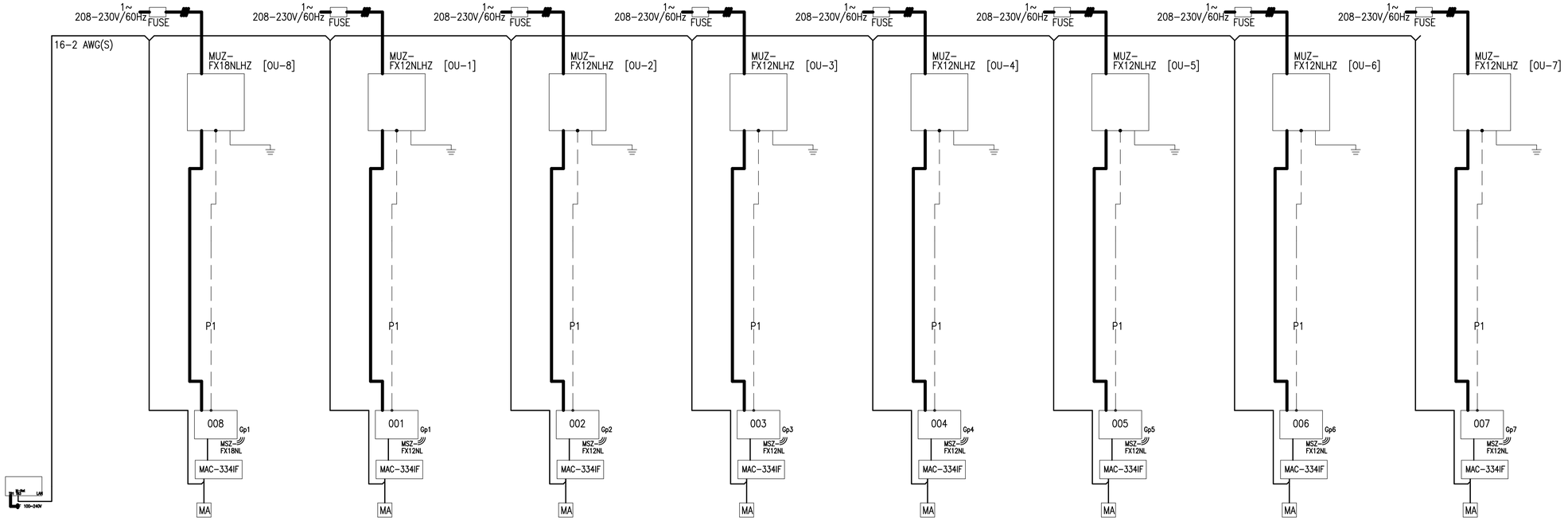
THIS DRAWING IS SCHEMATIC IN NATURE. FINAL ROUTING OF PIPING & WIRING MUST BE DETERMINED BY THE INSTALLING CONTRACTOR AND/OR DESIGNER OF RECORD. ADDITIONAL REFRIGERANT CHARGE IS NEEDED DEPENDING ON THE SIZE AND LENGTH OF EXTENDED PIPING. REFER THE AMOUNT OF PRE-CHARGE AND THE FORMULA OF CALCULATION WHICH IS MENTIONED IN THE DATA BOOK.

1.25MM^2(16 AWG) : 1.25MM^2(16 AWG) OR MORE.

0.75MM^2(20 AWG) : BETWEEN 0.5MM^2(24 AWG) AND 0.75MM^2(20 AWG).

POWER WIRE
CONTROL WIRE
REF. PIPE

PIPING AND CONTROLS		
SYMBOL	LIQUID PIPE/GAS PIPE SIZE	
P1	1/4	/ 1/2
P2	1/8	/ 3/8



STAFF OFFICE
IU–8

UNIT 1
IU–1

UNIT 2
IU–2

UNIT 3
IU–3

UNIT 4
IU–4

UNIT 5
IU–5

UNIT 6
IU–6

UNIT 7
IU–7

VRF SIGNLE LINE DIAGRAM

SCALE: NTS

LICENSED ARCHITECT
BENJAMIN
FREED
№ 5397
STATE OF MAINE

STATE OF MAINE
DAVID H.
BROWN
No. 7551
REGISTERED
PROFESSIONAL ENGINEER
10-23-25

COLBY COMPANY, LLC
CCE
engineering & design

47A York St
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208 GRAHAM STREET
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SHEET X OF X

DRAWING NO. M-503

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VARIABLE AIR VOLUME BOX SCHEDULE

TAG	SERVES	AIRFLOW (CFM)			BOX/COIL COMBINED MAX APD (IN. WG)	MAX DISCHARGE SOUND (NC)	HEATING COIL – AT HEATING AIRFLOW				ELECTRIC				INLET DUCT CONNECTION SIZE (IN)	MANUFACTURER	MODEL	NOTES
		COOLING MAX	HEATING MAX	MIN			CAPACITY (KW)	EAT (DEG F)	LAT (DEG F)	STAGES	VOLTAGE (V/PH/HZ)	FLA (AMP)	MCA (AMP)	MOCP (AMP)				
VAV–1	COMMUNITY LIVING/DINING	850	425	255	0.15	22	4.0	55	85	SCR	208/3/60	11.1	15.1	20	9	PRICE	SDV	1–7
VAV–2	KITCHEN/PANTRY	800	400	240	0.15	28	3.8	55	85	SCR	208/3/60	10.5	14	15	8	PRICE	SDV	1–7
VAV–3	LAUNDRY	300	150	90	0.15	26	1.5	55	87	SCR	208/3/60	1.2	5.7	15	6	PRICE	SDV	1–7
VAV–4	SITTING/LIBRARY	200	110	75	0.15	35	1.5	55	98.1	SCR	208/3/60	1.2	5.7	15	4	PRICE	SDV	1–7

NOTES:
1. SINGLE–DUCT TYPE WITH ELECTRIC HEATING COIL AT DISCHARGE.
2. FACTORY–FURNISHED ACCESS DOOR IMMEDIATELY UPSTREAM OF HEATING COIL FOR INSPECTION AND CLEANING.
3. PROVIDE ACOUSTIC ATTENUATOR SECTION AT LEAST 3 FT LONG, WHERE SCHEDULED AND WHERE NECESSARY TO ACHIEVE SCHEDULED DISCHARGE SOUND LEVEL.
4. SOUND LEVELS: NC DERIVED FROM SOUND POWER LEVELS, WITH DUCT END CONNECTIONS PER AHRI STANDARD 880–2017 AND ASHRAE TESTING STANDARD 130–2016. NC CALCULATED AT 1.5 IN. WG INLET STATIC PRESSURE, BASED ON STANDARD VALUES OF ROOM AND DUCT ATTENUATION PER AHRI 885–2008 APPENDIX E.
5. DUCT INLET SIZES ARE INITIAL SELECTIONS. VERIFY SELECTIONS FOR PERFORMANCE AND CONTROLLABLE AIRFLOW RANGE PER MANUFACTURER RECOMMENDATIONS.
6. COIL INLET AIR TEMPERATURES SCHEDULED ARE STANDARD CONDITIONS IN PRICE CATALOG FOR EASE OF SELECTION; FIELD CONDITIONS MAY VARY.
7. DAMPER CONTROLLER: FURNISHED UNDER BUILDING CONTROL SYSTEM SPECIFICATION, MAY BE FACTORY OR FIELD INSTALLED.

ELECTRIC BASEBOARD HEATER SCHEDULE

TAG	SERVES	TYPE	CAPACITY (WATTS)	CAPACITY (MBH)	LENGTH (IN)	WEIGHT (LBS)	ELECTRIC			MANUFACTURER	MODEL	NOTES
							VOLTAGE (V/PH/HZ)	FLA (AMP)	MOPD (AMP)			
EBB–201	201 ACCESSIBLE UNIT 1	COMPACT BASEBOARD HEATER	750	2.6	36	9.0	208/1/60	3.6	20	INDEECO	903HB–C2503–N	1–3
EBB–202	202 UNIT 2	COMPACT BASEBOARD HEATER	1000	3.4	48	11.5	208/1/60	4.8	20	INDEECO	903HB–C2504–N	1–3
EBB–203	203 UNIT 3	COMPACT BASEBOARD HEATER	750	2.6	36	9.0	208/1/60	3.6	20	INDEECO	903HB–C2503–N	1–3
EBB–204	204 UNIT 4	COMPACT BASEBOARD HEATER	750	2.6	36	9.0	208/1/60	3.6	20	INDEECO	903HB–C2503–N	1–3
EBB–205	205 UNIT 5	COMPACT BASEBOARD HEATER	750	2.6	36	9.0	208/1/60	3.6	20	INDEECO	903HB–C2503–N	1–3
EBB–206	206 UNIT 6	COMPACT BASEBOARD HEATER	750	2.6	36	9.0	208/1/60	3.6	20	INDEECO	903HB–C2503–N	1–3
EBB–207A	207 UNIT 7	COMPACT BASEBOARD HEATER	1250	4.3	60	13.0	208/1/60	6.0	20	INDEECO	903HB–C2505–N	1–4
EBB–207B	207 UNIT 7 BATHROOM	COMPACT BASEBOARD HEATER	500	1.7	30	7.8	208/1/60	2.4	20	INDEECO	903HB–C25026–N	1–4
EBB–208	208 CORRIDOR	COMPACT BASEBOARD HEATER	750	2.6	36	9.0	208/1/60	3.6	20	INDEECO	903HB–C2503–N	1–3
EBB–218	218 STAFF TOILET	COMPACT BASEBOARD HEATER	500	1.7	30	7.8	208/1/60	2.4	20	INDEECO	903HB–C25026–N	1–3

NOTES:
1. FLOOR–MOUNTED STEEL ENCLOSURE W/ FRONT INTAKE AND FRONT DISCHARGE IN BEIGE FINISH. DIMENSIONS 6–3/4 IN. X 2–7/8 IN. X LENGTH.
2. PROVIDE MANUFACTURER'S DOUBLE–BREAK LINE VOLTAGE THERMOSTAT, WALL MOUNTED.
3. PROVIDE FACTORY DISCONNECT SWITCH.
4. HEATERS TO SHARE A SINGLE THERMOSTAT.

CABINET UNIT HEATER SCHEDULE

TAG	LOCATION	FAN SPEED SETTING	HEATING			ELECTRIC			SIZE L x W x H APPROX (IN)	WEIGHT APPROX (LBS)	MOUNTING HEIGHT AFF (IN)	MOUNTING	MANUFACTURER AND MODEL	NOTES
			OUTPUT (W)	OUTPUT (MBH)	EAT (DEG F)	VOLTAGE (V/PH/HZ)	MOTOR (W)	FLA (AMP)						
CUH–1	220 VESTIBULE	HIGH	1500	6.8	60	208/1/60	5	9.8	16 X 20 X 4	23	CEILING	CEILING RECESSED	INDEECO 931IF–F4008–N	1,2
CUH–2	300 VESTIBULE	HIGH	1500	6.8	60	208/1/60	5	9.8	16 X 20 X 4	23	CEILING	CEILING RECESSED	INDEECO 931IF–F4008–N	1,2

NOTES:
1. ELECTRONICALLY COMMUTATED FAN MOTOR. SPEED CONTROL & DISCONNECT SWITCH, MOUNT & WIRE IN ENCLOSURE.
2. ENAMEL FINISH, COLOR SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLOR CHART HARD COPY.

DIFFUSER/GRILLE/REGISTER SCHEDULE

TAG	TYPE	NOMINAL DUCT NECK SIZE (IN)	FACE SIZE (IN)	INSTALLATION STYLE	RATED PATTERN	RATED AIRFLOW (CFM)	THROW (FT)	SP (IN. WG)	SOUND (NC)	MANUFACTURER	MODEL	NOTES
S–1	SQUARE PLAQUE	4Ø	12 x 12	SURFACE	4–WAY	78	3–7	0.09	15	PRICE	SPD	1,3,4,5,7
S–2	SQUARE PLAQUE	6Ø	24 x 24	LAY–IN	4–WAY	176	3–7	0.05	19	PRICE	SPD	1,3,4,5,7
S–3	SQUARE PLAQUE	8Ø	24 x 24	LAY–IN	4–WAY	279	3–9	0.07	19	PRICE	SPD	1,3,4,5,7
S–4	SQUARE PLAQUE	10Ø	24 x 24	LAY–IN	4–WAY	436	4–11	0.12	22	PRICE	SPD	1,3,4,5,7
R–1	LOUVERED GRILLE	10 x 10	24 x 24	LAY–IN	–	240	–	0.04	16	PRICE	530	1,3,4,6,7
R–2	LOUVERED GRILLE	12 x 12	24 x 24	LAY–IN	–	364	–	0.04	18	PRICE	530	2,3,4,6,7
R–3	LOUVERED GRILLE	18 x 18	24 x 24	LAY–IN	–	832	–	0.04	20	PRICE	530	2,3,4,6,7
E–1	LOUVERED GRILLE	6 x 6	6 x 6	SURFACE	–	90	–	0.07	19	PRICE	530	2,3,4,6,7
E–2	LOUVERED GRILLE	6 x 6	24 x 24	LAY–IN	–	90	–	0.07	19	PRICE	530	2,3,4,6,7

NOTES:
1. CONSTRUCTION: STEEL SCHEDULED, MAY BE ALUMINUM AT CONTRACTOR'S OPTION. FACTORY FINISH: WHITE PAINT.
2. CONSTRUCTION: ALUMINUM. FACTORY FINISH: WHITE PAINT.
3. OBD NOT REQUIRED UNLESS NOTED OTHERWISE ON FLOOR PLANS – GENERALLY FURNISHED IN DUCT.
4. AIRFLOW SCHEDULED IS FOR PERFORMANCE RATINGS, ACTUAL CFM IS INDICATED ON PLANS.
5. THROW BASED ON 150–50 FPM TERMINAL VELOCITY. SET PATTERNS AS INDICATED, AND LOCK IN PLACE WHERE POSSIBLE.
6. MOUNT WITH BLADES ORIENTED FOR LEAST VISIBILITY INTO DUCTWORK.
7. PAINT BLACK THE INTERIOR OF ANY DUCTWORK VISIBLE THROUGH THE GRD.

EXISTING ROOFTOP UNIT SCHEDULE

TAG	SERVES	NOMINAL COOLING SIZE (TONS)	SUPPLY AIRFLOW (CFM)		MIN. OUTSIDE AIRFLOW (CFM)	NOTES
			MAX	MIN		
(E)RTU–1	VAV SYSTEM		2,000	600	600	1

NOTES:
1. RE–BALANCE EXISTING RTU TO THE SUPPLY AND OUTSIDE AIR VALUES AS SCHEDULED.

EXISTING ENERGY RECOVERY VENTILATOR SCHEDULE

TAG	LOCATION	SERVES	SYSTEM	AIRFLOW (CFM)	NOTES
(E)ERV–1	214 STORAGE	RESIDENT UNITS	SUPPLY	400	1
			EXHAUST	450	

NOTES:
1. RE–BALANCE EXISTING ERV TO THE SUPPLY AND OUTSIDE AIR VALUES AS SCHEDULED.

UNIT HEATER SCHEDULE

TAG	LOCATION	AIRFLOW (CFM)	MAX HEIGHT AFF (FT)	HEATING			ELECTRIC		MANUFACTURER AND MODEL	NOTES
				OUTPUT (W)	OUTPUT (MBH)	RISE (DEG F)	VOLTAGE (V/PH/HZ)	FLA (AMP)		
UH–1	301 ELECTRICAL	270	9	1,874	6.4	60	208/1/60	9	INDEECO 925IU–UH5004–N	1–4
UH–2	302 SPRINKLER	270	9	1,874	6.4	60	208/1/60	9	INDEECO 925IU–UH5004–N	1–4

NOTES:
1. SPEED CONTROLLER, MOUNTED ON HEATER AND WIRED TO MOTOR, FOR REDUCING AIRFLOW AND NOISE, INITIAL SETTING AT FULL SPEED.
2. MASON INDUSTRIES DOUBLE–DEFLECTION NEOPRENE HANGERS AT TOPS OF RODS.
3. MAXIMUM HEIGHT IS MANUFACTURER'S RECOMMENDATION. FIELD–VERIFY MOUNTING HEIGHT AS DIRECTED BY CONSTRUCTION MANAGER.
4. PROVIDE FACTORY DISCONNECT SWITCH.

LICENSED ARCHITECT BENJAMIN FREED No 5397 STATE OF MAINE

STATE OF MAINE DAVID H. BROWN No. 7551 REGISTERED PROFESSIONAL ENGINEER 10 - 23 - 25

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LICENSED ARCHITECT
BENJAMIN F. FREED
№ 5397
STATE OF MAINE

VARIABLE REFRIGERANT FLOW SYSTEM INDOOR UNIT SCHEDULE

TAG	SERVES	UNIT TYPE	SUPPLY AIRFLOW (CFM)	COOLING		HEATING (BTUH)	SOUND dB(A)	PIPE CONNECTIONS (IN)		UNIT ELECTRICAL			DIMENSIONS (W x D x H) APPROX (IN)	WEIGHT APPROX (LB)	MANUFACTURER	MODEL	NOTES
				TOTAL (BTUH)	SENSIBLE (BTUH)			LIQUID	SUCTION	VOLTAGE (V/PH/HZ)	MCA (AMP)	MOPD (AMP)					
AC–1	201 ACCESSIBLE UNIT 1	HIGH WALL	297	12,000	8,093	13,500	24–41	1/4	1/2	208/1/60	0.3	15	31 X 10 X 12	25	MITSUBISHI	PKFY–P12NLMU–ER1.TH	1–6
AC–2	202 UNIT 2	HIGH WALL	297	12,000	8,093	13,500	24–41	1/4	1/2	208/1/60	0.3	15	31 X 10 X 12	25	MITSUBISHI	PKFY–P12NLMU–ER1.TH	1–6
AC–3	203 UNIT 3	HIGH WALL	297	12,000	8,093	13,500	24–41	1/4	1/2	208/1/60	0.3	15	31 X 10 X 12	25	MITSUBISHI	PKFY–P12NLMU–ER1.TH	1–6
AC–4	204 UNIT 4	HIGH WALL	297	12,000	8,093	13,500	24–41	1/4	1/2	208/1/60	0.3	15	31 X 10 X 12	25	MITSUBISHI	PKFY–P12NLMU–ER1.TH	1–6
AC–5	205 UNIT 5	HIGH WALL	297	12,000	8,093	13,500	24–41	1/4	1/2	208/1/60	0.3	15	31 X 10 X 12	25	MITSUBISHI	PKFY–P12NLMU–ER1.TH	1–6
AC–6	206 UNIT 6	HIGH WALL	297	12,000	8,093	13,500	24–41	1/4	1/2	208/1/60	0.3	15	31 X 10 X 12	25	MITSUBISHI	PKFY–P12NLMU–ER1.TH	1–6
AC–7	207 UNIT 7	HIGH WALL	438	18,000	12,116	20,000	31–46	1/4	1/2	208/1/60	0.3	15	36 X 10 X 12	29	MITSUBISHI	PKFY–P18NLMU–ER1.TH	1–6
AC–8	219 STAFF OFFICE	HIGH WALL	438	18,000	12,116	20,000	31–46	1/4	1/2	208/1/60	0.3	15	36 X 10 X 12	29	MITSUBISHI	PKFY–P18NLMU–ER1.TH	1–6

NOTES:
1. RATED TEMPERATURES: COOLING, 75 DB / 62.7 WB INDOORS, 100 DB OUTDOORS. HEATING, 70 DB INDOORS, 39 DB OUTDOORS.
2. CONDENSATE DRAIN: PROVIDE CONDENSATE PUMP AS SPECIFIED, POWERED FROM UNIT POWER. DRAIN HOSE AND CLAMPS TO RIGID PIPE.
3. PROVIDE MANUFACTURER'S SIMPLIFIED WALL CONTROLLER. SINGLE CONTROLLER PER ROOM. INTERFACE TO CONTROL AUXILIARY HEAT (BASEBOARD) WHERE AVAILABLE.
4. PROVIDE FACTORY DISCONNECT SWITCH.
5. INDOOR UNITS SHALL BE PROVIDED WITH REGRIGERANT LEAK DETECTORS.
6. SEE OUTDOOR UNIT AND BRANCH SELECTOR BOX SCHEDULES FOR ADDITIONAL NOTES.

EXHAUST FAN SCHEDULE

TAG	LOCATION	SERVES	TYPE	DRIVE	AIRFLOW (CFM)	BALANCE AIRFLOW (CFM)	ESP (IN. WG)	FAN SPEED (RPM)	INLET SOUND (SONES)	MOTOR (HP)	RATED DRIVE LOSS (PERCENT)	UNIT ELECTRICAL			WEIGHT APPROX (LB)	MOUNTING	MANUFACTURER AND MODEL	NOTES
												VOLTAGE (V/PH/HZ)	POWER (BHP)	FLA (AMP)				
EF–213	ROOF	DRYER EXHAUST	ROOF	DIRECT	250	220	0.50	1600	11.3	1	–	208/3/60	0.27	3.3	70	CHIMNEY	ENERVEX EFV–250	1–4

NOTES:
1. FAN SHALL BE UL 705 LISTED.
2. FACTORY DISCONNECT SWITCH.
3. PROVIDE WITH MANUFACTURER'S STEEL CHIMNEY ADAPTER.
4. ECM (ELECTRONICALLY–COMMUTATED MOTOR) CAPABLE OF RECEIVING 0–10VDC REMOTE SPEED REFERENCE SIGNAL FROM BUILDING MANAGEMENT SYSTEM.

DUCT COIL SCHEDULE

TAG	LOCATION	AIRFLOW (CFM)	VELOCITY (FPM)	APD (IN. WG)	HEATING				ELECTRIC			MIN. STRAIGHT LENGTH AT INLET (FT)	DUCT SIZE W x H (IN)	MOUNTING	MANUFACTURER AND MODEL	NOTES
					OUTPUT (KW)	EAT (DEG F)	LAT (DEG F)	STAGES	VOLTAGE (V/PH/HZ)	FLA (AMP)	MOPD (AMP)					
EDH–1	(E)ERV–1	400	600	0.14	8.5	14.0	75.0	SCR	208/3/60	24.0		4.0	12 x 8	FLANGED	INDEECO QUZ	1, 2

NOTES:
1. PROVIDE PRESSURE PLATE IF MANUFACTURER'S RECOMMENDED 4 FEET OF STRAIGHT DUCT CANNOT BE ACHIEVED
2. PROVIDE FACTORY DISCONNECT SWITCH.

STATE OF MAINE
DAVID H. BROWN
No. 7551
REGISTERED PROFESSIONAL ENGINEER
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LIGHTING:

- 1x2 LIGHT FIXTURE
- 2x4 LIGHT FIXTURE
  - Ab — ASSOCIATED CONTROL DEVICE
  - FIXTURE TYPE (SEE LIGHT FIXTURE SCHED.)
- 2x2 LIGHT FIXTURE
- EXIT SIGN, WALL MOUNTED
- REMOTE EMERGENCY LIGHTING HEAD
- Ab — WALLPACK
- X — OCCUPANCY SENSOR, INDICATES CONTROLLED FIXTURE
- DOWN LIGHT SHOWER FIXTURE
- DOWN LIGHT FIXTURE
- S_a — SINGLE POLE TOGGLE SWITCH, INDICATES CONTROLLED FIXTURE
- S_{LV} — LOW VOLTAGE WALL STATION

POWER:

- J — JUNCTION BOX
- Φ_E — DUPLEX RECEPTACLE, TAMPER–RESISTANT, NEMA 5–20R
  - E – INSTALLED ON EMERGENCY CIRCUIT
  - IG – ISOLATED GROUND
  - S – SWITCHED RECEPTACLE
  - G – GFCI BREAKER
- PANELBOARD, NORMAL POWER
- WP — GFCI DUPLEX RECEPTACLE, NEMA 5–20R, WEATHER PROOF
- POWER RECEPTACLE, 240 VOLT NEMA CONFIGURATION AS NOTED
- COUNTER POP–UP RECEPTACLE
- 60 H (4) — NON–FUSED SAFETY SWITCH
  - (4) — NEMA ENCLOSURE (NEMA 1 UNLESS OTHERWISE NOTED)
  - 60 — AMPERE RATING
- M OL — MANUAL MOTOR STARTER, TOGGLE OPERATED, SINGLE PHASE. 1,2 OR 3 POLE AS REQUIRED
  - OL — OVERLOAD PROTECTION
- EGB — ELECTRICAL GROUNDING BAR
- GROUND

COMMUNICATIONS:

NOTES:

1. PROVIDE J–HOCKS PATHWAY ABOVE CEILING USING 4" STEEL J–HOCKS SPACED 5'–0" APART MAXIMUM FROM COMMUNICATION DEMARCATION POINT TO THE LAST COMMUNICATION DROP.
2. FOR EACH DROP PROVIDE A 1–GANG OUTLET BOX AND A 1" CONDUIT WITHIN WALL FROM THE OUTLET BOX TO CEILING ABOVE. PROVIDE BUSHING AT EACH END OF CONDUIT UNLESS OTHERWISE NOTED. WALL OUTLET/JACK AND WIRING WILL BE FURNISHED AND INSTALLED BY OTHERS. BOND 1" CONDUIT TO NEAREST GROUNDING POINT.
3. PROVIDE WIRING PATHWAY FOR SECURITY SYSTEMS USING CONDUITS AND DEVICE BOXES. SEE SHEET E–502 FOR MORE INFORMATION. SYSTEM HARDWARE AND SOFTWARE WILL BE FURNISHED AND INSTALLED BY BCM CONTROLS. PRIOR TO COMMENCING WORK COORDINATE WITH GENERAL CONTRACTOR AND SECURITY SYSTEM INSTALLER FOR MORE INFORMATION AND REQUIREMENT.

- ▽ — DATA SYSTEM OUTLET
- ▽▼ — COMBINATION VOICE/DATA SYSTEM OUTLET
- ▼ — TELEPHONE SYSTEM WALL JACK
- WAP — WIRELESS ACCESS POINT
- SECURITY ACCESS, VIDEO CAMERA WITH LENS
- SECURITY ACCESS, VIDEO CAMERA WITH LENS, ANGLE OF VIEW
- REX — REQUEST TO EXIT
- DPS — DOOR POSITION SWITCH
- DOOR — DOOR CONTROL EQUIPMENT
- CR — CARD READER
- ML — MAG LOCK

ONE–LINE DIAGRAM:

- X — MOLDED CASE CIRCUIT BREAKER, AMPS
- UTILITY GRID
- POWER TRANSFORMER
  - CONNECTION (WYE/DELTA)
- KWH — KILOWATT HOUR METER
- SPD — SURGE SUPPRESSION DEVICE
- GROUND

LINE TYPES:

- EXISTING
- NEW
- DEMOLITION

EQUIPMENT TAGS:

- EF / X — MECHANICAL/PLUMBING SYSTEM EQUIPMENT TAG (SEE MECHANICAL/PLUMBING SHEETS)
  - TOP INDICATES EQUIPMENT DESIGNATION
  - BOTTOM INDICATES UNIQUE IDENTIFIER

ABBREVIATIONS:

AC	ALTERNATING CURRENT
AMP	AMPERE
AFF	ABOVE FINISHED FLOOR
AFCI	ARCH FAULT CIRCUIT INTERRUPTER
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
AWG	AMERICAN WIRE GAUGE
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
BOS	BOTTOM OF STEEL
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CMP	CENTRAL MAINE POWER
CLG	CEILING
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DISC	DISCONNECT
DN	DOWN
E	EXISTING
EC	ELECTRICAL CONTRACTOR
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EQP	EQUIPMENT
EXIST	EXISTING
FAA	FIRE ALARM ANNUNCIATOR
FACU	FIRE ALARM CONTROL UNIT
FBO	FURNISHED BY OTHERS
FLR	FLOOR
FWE	FURNISHED WITH EQUIPMENT
FU	FUSE
G	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HP	HORSEPOWER
HTR	HEATER
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
K	KILO
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT–AMPERE
KVAR	KILOVOLT–AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT–HOUR
LTG	LIGHTING
MC	METAL CLAD
MCB	MAIN CIRCUIT BREAKER
MFR	MANUFACTURER
MI	MINERAL INSULATED
MLO	MAIN LUG ONLY
MTD	MOUNTED
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEG	NEGATIVE
NEUT	NEUTRAL
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
P	POLE
PF	POWER FACTOR
PH	PHASE
PVC	POLYVINYL CHLORIDE
RGS	RIGID GALVANIZED STEEL CONDUIT
RECEPT	RECEPTACLE
RM	ROOM
RSC	RIGID STEEL CONDUIT
SPD	SURGE PROTECTIVE DEVICE
STP	SHIELDED TWISTED PAIR
STT	SHIELDED TWISTED TRIPLET
TOS	TOP OF STEEL
TYP	TYPICAL
V	VOLT
VA	VOLT–AMPERE
VAR	VOLT–AMPERE REACTIVE
WM	WATT METER
WP	WEATHER PROOF
XFMR	TRANSFORMER

GENERAL NOTES:

1. GENERAL NOTES, SYMBOL LISTS AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ELECTRICAL DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION IN THE DESIGN.
2. DRAWINGS ARE SCHEMATIC AND DIAGRAMMATIC. USE JUDGMENT AND CARE TO INSTALL ELECTRICAL WORK TO FUNCTION PROPERLY AND FIT WITHIN BUILDING CONSTRUCTION AND FINISHES. PROVIDE ELECTRICAL CONDUCTORS, CONDUIT, NOT SHOWN OR SPECIFIED, WHICH ARE REQUIRED FOR ANY DEVICE OR SYSTEM TO PRODUCE A COMPLETE AND SYSTEM.
3. PERFORM WORK IN ACCORDANCE WITH NFPA–70, NATIONAL ELECTRICAL CODE (NEC) 2023.
4. VERIFY THAT FIELD MEASUREMENTS, SURFACES, SUBSTRATES AND CONDITIONS ARE AS REQUIRED, AND READY TO WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. BY BEGINNING CONTRACTOR ACCEPTS CONDITIONS AND ASSUMES RESPONSIBILITY FOR CORRECTING UNSUITABLE CONDITIONS ENCOUNTERED AT NO ADDITIONAL COST.
5. PANEL SCHEDULE INFORMATION FOR EXISTING PANELS IS BASED ON AVAILABLE INFORMATION DURING DESIGN. VERIFY THAT PANEL SCHEDULES ARE ACCURATE AND NOTIFY CONTRACTING OFFICER OF ANY DISCREPANCY PRIOR TO COMMENCING WORK.
6. REMOVE ELECTRICAL EQUIPMENT WHERE INDICATED. REMOVE CONDUIT, CIRCUIT CONDUCTORS, SWITCHES, LIGHTING FIXTURES AND MISCELLANEOUS APPLIANCES BACK TO ENERGIZING SOURCE OR JUNCTION BOX WHERE MULTIPLE EQUIPMENT IS POWERED.
7. CONDUCTOR MATERIAL, INCLUDING WIRING, PANELBOARD BUSES, TRANSFORMER WINDINGS, AND GROUNDING MUST BE COPPER. ALUMINUM CONDUCTORS ARE NOT ALLOWED.
8. UNLESS OTHERWISE NOTED, FOR 20A–1P BRANCH CIRCUIT WIRING USE 2#12 AWG CONDUCTORS AND #12 GND. HOME RUNS FED FROM 20A–1P CIRCUITS IN EXCESS OF 100 FEET USE #10 AWG.
9. PROVIDE COMMERCIAL SPECIFICATION GRADE 277/120 VOLT LIGHTING TOGGLE SWITCHES, SIDE WIRED AND WITH GROUNDING SCREW. LEVITON, PASS AND SEYMOUR, OR APPROVED EQUAL. COORDINATE COLOR WITH OWNER.
10. PROVIDE COMMERCIAL SPECIFICATION GRADE TAMPER–RESISTANT RECEPTACLES, GROUNDING TYPE NEMA 5–20R, SIDE WIRED. LEVITON, PASS AND SEYMOUR, OR APPROVED EQUAL.
11. PROVIDE GALVANIZED STEEL WALL PLATES FOR MECHANICAL SPACES WIRING DEVICES, NYLON SMOOTH WALL PLATES FOR FINISHED PARTITIONED SPACES WIRING DEVICES, AND THERMOPLASTIC WALL PLATES FOR EXTERIOR WIRING DEVICES.
12. UNLESS OTHERWISE NOTED, PROVIDE TYPE EMT CONDUIT FOR INTERIOR RACEWAY, TYPE RGS CONDUIT FOR EXTERIOR RACEWAY, LIQUID TIGHT FLEXIBLE METAL CONDUIT FOR FINAL CONNECTIONS TO MOTORS, AND FLEXIBLE METAL CONDUIT FOR CONNECTIONS TO LIGHT FIXTURES (MAXIMUM 6FT LENGTH).
13. PROVIDE EQUIPMENT DISCONNECTS AND MANUAL MOTOR STARTERS UNLESS NOTED AS FURNISHED WITH EQUIPMENT (FWE). INCLUDE FUSES RATED FOR PROTECTION OF LOAD SUPPLIED. MOUNT DISCONNECTS AND MOTOR STARTERS IN AN ACCESSIBLE LOCATION WITHIN SIGHT OF THE LOAD SERVED. DISCONNECTS AND MOTOR STARTERS MUST BE LOCKABLE IN THE OPEN POSITION.
14. UNLESS OTHERWISE NOTED MOUNT CONVENIENCE RECEPTACLES 18" AFF, LAVATORY GFCI RECEPTACLES 48" AFF, RECEPTACLES AT COUNTERS 6" ABOVE BACKSPASH, LIGHTING TOGGLE SWITCHES 48" AFF, AND TEL/DATA SYSTEM OUTLETS 18" AFF. MEASUREMENTS ARE MADE TO TOP OF DEVICE.
15. SEAL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN THE RATING OF SEPARATION.
16. EQUIPMENT CONNECTIONS ARE SHOWN FOR BASIS–OF–DESIGN PRODUCTS. COORDINATE EQUIPMENT CONNECTIONS – INCLUDING DISCONNECTING MEANS, OVERCURRENT PROTECTION, AND WIRE SIZING – WITH SELECTED MANUFACTURER'S RECOMMENDED INSTRUCTIONS.
17. COORDINATE FINAL DEVICE LOCATIONS IN PARTITIONED SPACES WITH OWNER'S PROPOSED FURNITURE LAYOUT.
18. PROVIDE MOUNTING HARDWARE NECESSARY FOR A COMPLETE INSTALLATION. MOUNT EQUIPMENT AND ROUTE CONDUIT SO AS NOT TO INTERFERE WITH OPERATIONS SUCH AS OVERHEAD DOORS, DOOR SWINGS, ACCESS POINTS, AND OTHER INSTALLATIONS.
19. MANUFACTURERS' NAMES AND MODEL NUMBERS ARE USED THROUGHOUT THE PROJECT FOR DESCRIPTIVE PURPOSES ONLY AND ARE INTENDED TO INDICATE THE STANDARD OF MATERIAL OR ARTICLES REQUIRED. DESIGN IS PREDICATED AROUND LISTED MANUFACTURERS AS NOTED ON SCHEDULES AND NOTES AND IS NOT INTENDED TO LIMIT THE CONTRACTOR TO ONE MANUFACTURER.
20. SUPPLY DISTRIBUTION EQUIPMENT FROM THE SAME MANUFACTURER. APPROVED MANUFACTURERS INCLUDE SQUARE D, EATON/CUTLER–HAMMER, SIEMENS, OR APPROVED EQUAL.
21. UNLESS OTHERWISE NOTED WIRING MUST BE AS FOLLOWS:
    A. LOW VOLTAGE INTERIOR DISTRIBUTION AND BRANCH WIRING MUST BE 600V, COPPER WITH THHN/THWN INSULATION
    B. LOW VOLTAGE EXTERIOR DISTRIBUTION AND BRANCH WIRING MUST BE 600V, COPPER WITH XHHW INSULATION
22. EQUIPMENT ENCLOSURES, SWITCHES, RECEPTACLES, AND DEVICES MUST BE LABELED WITH THE SOURCE CIRCUIT AND EQUIPMENT CONTROLLED WHERE APPLICABLE. PROVIDE SELF–ADHESIVE LABELS WITH TYPED LETTERS.
23. PROVIDE SHORT CIRCUIT STUDY AND ARC FLASH HAZARD STUDY PER NFPA 70E. OBTAIN ALL DATA NECESSARY TO CONDUCT THE ANALYSIS. SUBMIT RESULTS FOR APPROVAL. THE SHORT CIRCUIT MUST BE APPROVED BEFORE ORDERING EQUIPMENT. APPLY ONE ARC FLASH LABEL TO EQUIPMENT INCLUDING: PANELBOARDS, CONTROL PANELS, SAFETY SWITCHES.
24. CONNECT EXIT SIGNS AND EMERGENCY LIGHTS TO THE UNSWITCHED LEG OF THE LIGHTING CIRCUIT IN THE ROOM THE DEVICE IS LOCATED.
25. PROVIDE AN ACTION SUBMITTAL FOR EACH PRODUCT USED.
26. UNLESS OTHERWISE NOTED, PERFORM COMMUNICATIONS WORK IN ACCORDANCE WITH APPLICABLE TELECOMMUNICATIONS INDUSTRY ASSOCIATION AND ELECTRONICS INDUSTRIES ALLIANCE (TIA/EIA) STANDARDS. FOLLOW SELECTED MANUFACTURER'S RECOMMENDED INSTALLATION AND CONNECTION PROCEDURES. COORDINATE TELEPHONE AND DATA INSTALLATIONS WITH OWNER'S REPRESENTATIVE AND SPECTRUM.

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STATE OF MAINE — JASON M. BEAULIEU No. 13441 — REGISTERED PROFESSIONAL ENGINEER — 10/23/25

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0	ISSUED FOR CONSTRUCTION	CAW	MJK	10/23/25

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ELECTRICAL LEGEND ABBREVIATIONS AND GENERAL NOTES

SIZE: ARCH D
DATE: 10/23/2025
DES BY: PBB
DWN BY: CAW
CKD BY: JMB

PROJECT NO. 480.003.001
SHEET X OF X

DRAWING NO. E-001

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SECTION 26 00 00

GENERAL REQUIREMENTS FOR ELECTRICAL WORK

PART 1 GENERAL

1.1 REFERENCES

A. AS USED IN THIS SECTION. "PROVIDE" MEANS "FURNISH" MEANS "TO PURCHASE AND DELIVER TO THE PROJECT SITE COMPLETE WITH EVERY NECESSARY APPURTENANCE AND SUPPORT AND TO STORE IN A SECURE AREA IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS". AND "INSTALL" MEANS "TO UNLOAD AT THE DELIVER POINT AT THE SITE OR RETRIEVE FROM STORAGE, MOVE TO POINT OF INSTALLATION AND PERFORM EVERY OPERATION NECESSARY TO ESTABLISH SECURE MOUNTING AND CORRECT OPERATION AT THE PROPER LOCATION IN THE PROJECT.

1.2 EXAMINATION OF SITE

A. BEFORE SUBMITTING A BID, VISIT AND CAREFULLY EXAMINE SITE TO IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT MAY AFFECT THE WORK. NO EXTRA PAYMENT WILL BE ALLOWED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS.

B. BEFORE STARTING WORK IN A PARTICULAR AREA OF THE PROJECT, EXAMINE THE CONDITIONS UNDER WHICH WORK MUST BE PERFORMED INCLUDING PREPARATORY WORK PERFORMED UNDER OTHER TRADES. AND REPORT CONDITIONS THAT MIGHT ADVERSELY AFFECT THE WORK IN WRITING TO CONSTRUCTION MANAGER. COMMENCEMENT OF WORK MUST BE CONSTRUED AS A COMPLETE ACCEPTANCE OF EXISTING CONDITIONS AND PREPARATORY WORK.

1.3 SCOPE

A. THE WORK TO BE ACCOMPLISHED UNDER THESE SPECIFICATIONS INCLUDES PROVIDING THE LABOR, MATERIALS, EQUIPMENT, CONSUMABLE ITEMS, SUPERVISION, ADMINISTRATIVE TASKS, TESTS AND DOCUMENTATION REQUIRED TO INSTALL COMPLETE AND FULLY OPERATIONAL ELECTRICAL SYSTEMS AS DESCRIBED HEREIN AND SHOWN IN THE DRAWINGS. COORDINATE THE WORK OF THIS SECTION WITH THE WORK OF OTHER TRADES.

B. FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY FEES AND OBTAIN NECESSARY INSPECTIONS AND APPROVALS FROM AUTHORITIES THAT HAVE JURISDICTION, AS REQUIRED TO PERFORM WORK IN ACCORDANCE WITH LEGAL REQUIREMENTS. COMPLETELY COORDINATE THE WORK OF THIS SECTION WITH THE WORK OF THE OTHER TRADES.

C. THE WORK MUST BE COMPLETE FROM POINT OF SERVICE TO EACH OUTLET OR DEVICE WITH THE ACCESSORY CONSTRUCTION AND MATERIALS REQUIRED TO MAKE EACH ITEM OF EQUIPMENT OR SYSTEM COMPLETE AND READY FOR OPERATION. THE WORK MUST INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING.

1. COMPLETE POWER AND LIGHTING DISTRIBUTION SYSTEMS INCLUDING OVERCURRENT DEVICES, RACEWAY, CABLE AND WIRE.
2. BRANCH CIRCUITS AND DEVICES FOR POWER AND CONVENIENCE RECEPTACLES.
3. COMPLETE INTERIOR LIGHTING SYSTEM INCLUDING NORMAL AND EMERGENCY FIXTURES, EXIT SIGNS, LAMPS, CONTROLS, TRIM AND ACCESSORIES.
4. BOXES IN WALL AND CONDUIT WITH PULL STRINGS FROM BOX TO ABOVE ACCESSIBLE CEILING FOR VOICE/DATA LOCATIONS. UNLESS OTHERWISE NOTED, WIRING, JACKS AND TERMINATIONS ARE BY THE OWNER.
5. CONTROL WIRING NOT PROVIDED BY DIVISION 23.
6. GROUNDING
7. SUPPORT MATERIAL AND HARDWARE FOR RACEWAY AND ELECTRICAL EQUIPMENT.
8. BRANCH CIRCUITS TO CONTROL PANELS AND DEVICES FURNISHED UNDER OTHER SECTIONS.
9. TERMINATIONS OF ALL CABLE AND WIRE UNLESS OTHERWISE NOTED.
10. INSTALLATION OF ACCESS PANELS IN CEILINGS AND WALL CONSTRUCTION.
11. SEALING OF CEILING, WALL AND FLOOR PENETRATIONS.
12. DEMOLITION.

SECTION 26 00 00

GENERAL REQUIREMENTS FOR ELECTRICAL WORK

PART 1 GENERAL (CONTINUED)

1.4 RELATED WORK IN OTHER SECTIONS

A. THE FOLLOWING WORK IS NOT INCLUDED IN THIS DIVISION AND MUST BE PERFORMED UNDER OTHER DIVISIONS:

1. CUTTING AND PATCHING OF MASONRY, CONCRETE, TILE, AND OTHER PARTS OF STRUCTURAL SUPPORTS.
2. PAINTING.
3. CONTROL WIRING SPECIFICALLY INDICATED AS PART OF DIVISION 23.

1.5 CODES, STANDARDS, AND AUTHORITIES

A. PERFORM WORK STRICTLY AS REQUIRED BY RULES, REGULATIONS, STANDARDS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES THAT HAVE LAWFUL JURISDICTION. ADDITIONALLY, MATERIALS AND EQUIPMENT MUST BE MANUFACTURED, INSTALLED AND TESTED AS SPECIFIED IN LATEST EDITIONS, (EXCEPT WHERE NOTED OTHERWISE), OF PUBLICATIONS, STANDARDS, RULINGS, AND DETERMINATIONS OF:

1. LOCAL AND STATE BUILDING, PLUMBING, MECHANICAL, ELECTRICAL, FIRE AND HEALTH DEPARTMENT AND PUBLIC SAFETY CODES AGENCIES.
2. INTERNATIONAL BUILDING CODE (IBC). 2015 EDITION.
3. INTERNATIONAL ENERGY CONSERVATION CODE (IECC). 2021 EDITION.
4. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
5. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
6. FACTORY MUTUAL ASSOCIATION (FM)
7. NATIONAL ELECTRICAL CODE (NEC). 2023 EDITION
8. NATIONAL ELECTRICAL SAFETY CODE (NESC).

B. MATERIALS AND EQUIPMENT MUST BE LISTED BY UNDERWRITERS LABORATORIES (UL), AND APPROVED FOR INTENDED SERVICE.

C. WHEN REQUIREMENTS CITED IN THIS PARAGRAPH CONFLICT WITH EACH OTHER OR WITH CONTRACT DOCUMENTS, THE MOST STRINGENT REQUIREMENTS MUST GOVERN CONDUCT OF WORK.

1.6 CONTRACT DRAWINGS

A. WORK TO BE PERFORMED UNDER THIS SECTION IS SHOWN ON THE CONTRACT DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.

B. COORDINATE ELECTRICAL WORK WITH GENERAL CONTRACTOR AND OTHER TRADES TO AVOID INTERFERENCES. REWORK DUE TO LACK OF COORDINATION MUST BE PERFORMED AT NO COST TO THE OWNER.

END OF SECTION 26 00 00

SECTION 26 05 60

INSTALLATION OF WIRE AND CABLE

PART 1 GENERAL

1.1 GENERAL

A. THE PROVISIONS OF SECTION 260500, GENERAL REQUIREMENTS FOR ELECTRICAL WORK, APPLY TO THE WORK OF THIS SECTION.

1.2 CODES AND STANDARDS:

A. PRODUCTS MUST COMPLY WITH THE FOLLOWING CODES AND STANDARDS AND MUST BE UL–LISTED AND LABELED WHERE APPLICABLE.

1. UL 486A WIRE CONNECTORS AND SOLDERING LUGS FOR USE WITH COPPER CONDUCTORS.
2. UL 510 ELECTRICAL INSULATING TAPE

PART 2 PRODUCTS

2.1 WIRE AND CABLE

A. WIRE AND CABLE ARE SPECIFIED IN OTHER SECTIONS OF DIVISION 26.

2.2 TERMINATIONS AND SPLICES

A. POWER WIRING:

1. TERMINAL LUGS, CONNECTORS AND SPLICES MUST BE TIN PLATED, HIGH CONDUCTIVITY COPPER COMPRESSION TYPE. THEY MUST HAVE CHAMFERED BARRELS AND BE PERMANENTLY IDENTIFIED WITH CONDUCTOR SIZES.
2. TERMINAL LUGS FOR CONDUCTORS NO. 3/0 AWG AND LARGER MUST BE LONG BARREL NEMA TWO HOLE TYPE.
3. SPLICES MUST BE LONG BARREL BUTT TYPE WITH A CENTER STOP IN THE SPLICE BARREL.
4. HYDRAULIC CRIMPING TOOLS WITH PROPER DIE SIZES WHICH REQUIRE FULL CLOSURE BEFORE REOPENING MUST BE USED.

B. LIGHTING AND BRANCH CIRCUITS

1. SPLICES AND TAPS IN LIGHTING AND BRANCH CIRCUIT WIRING MUST BE 3M SCOTCHLOK SPRING CONNECTORS OR EQUAL.

C. METAL CLAD CABLE CONNECTORS.

1. FOR NON–JACKETED METAL CLAD CABLE IN DRY LOCATIONS, CABLE TERMINATIONS MUST BE O.Z. GEDNEY TYPE PK FOR USE WITH GALVANIZED STEEL ARMOR OR TYPE PK–A FOR USE WITH ALUMINUM ARMOR. CABLE TERMINATIONS MUST BE PROVIDED WITH LOCKNUTS AND BUSHINGS.

PART 3 EXECUTION

3.1 RACEWAY APPLICATION

A. INDOORS: APPLY RACEWAY PRODUCTS AS SPECIFIED BELOW UNLESS OTHERWISE INDICATED:

1. EXPOSED, NOT SUBJECT TO PHYSICAL DAMAGE: EMT.
2. EXPOSED AND SUBJECT TO SEVERE PHYSICAL DAMAGE: GRC. RACEWAY LOCATIONS INCLUDE THE FOLLOWING:

A. MECHANICAL ROOMS.
B. ELECTRICAL ROOMS.

3. CONCEALED IN CEILINGS AND INTERIOR WALLS AND PARTITIONS:

TYPE MC CABLE.

4. CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, ELECTRIC SOLENOID, OR MOTOR–DRIVEN EQUIPMENT): FMC, EXCEPT USE LFMC IN DAMP OR WET LOCATIONS.
5. DAMP OR WET LOCATIONS: GRC.
6. BOXES AND ENCLOSURES: NEMA 250, TYPE 1, EXCEPT USE NEMA 250, TYPE 4 STAINLESS STEEL IN DAMP OR WET LOCATIONS.
7. EMERGENCY BRANCH CIRCUITS AND FEEDERS TO BE INSTALLED IN EMT.

SECTION 26 05 60

INSTALLATION OF WIRE AND CABLE

PART 3 EXECUTION (CONTINUED)

C. MINIMUM RACEWAY SIZE: 3/4"–TRADE SIZE

D. RACEWAY FITTINGS: COMPATIBLE WITH RACEWAYS AND FOR USE AND LOCATION.

1. RIGID AND INTERMEDIATE STEEL CONDUIT: USE THR STEEL CONDUIT FITTINGS UNLESS OTHERWISE INDIC COMPLY WITH NEMA FB 2.10.
2. EMT: USE SETSCREW OR COMPRESSION, STEEL FIT COMPLY WITH NEMA FB 2.10.
3. FLEXIBLE CONDUIT: USE ONLY FITTINGS LISTED FOR USE WITH FLEXIBLE CONDUIT. COMPLY WITH NEMA FB 2.20.

3.2 PREPARATION OF RACEWAYS

A. RACEWAYS MUST BE SUBSTANTIALLY COMPLETED BEFORE ANY WIRING IS INSTALLED IN THEM. BEFORE ANY WIRING IS PULLED INTO A CONDUIT, THE CONDUIT MUST BE CLEANED AND TESTED FOR OBSTRUCTIONS AND CLEARED OF FOREIGN MATERIAL THAT MAY BE FOUND.

3.3 PULLING INTO RACEWAYS

A. CARE MUST BE TAKEN IN PULLING OF WIRING INTO CONDUITS OR OTHER RACEWAYS. THE CABLE REELS OR COILS MUST BE SET UP IN SUCH A WAY THAT THE CONDUCTOR MAY BE TRAINED INTO THE RACEWAY AS DIRECTLY AS POSSIBLE WITH A MINIMUM NUMBER OF CHANGES OF DIRECTION OR AMOUNT OF BENDING. WHERE SEVERAL CABLES ARE CONTAINED IN ONE CONDUIT, ALL SUCH CABLES MUST BE PULLED IN TOGETHER.

B. THE USE OF PULLING LUBRICANTS MUST BE RESTRICTED TO NON–HARDENING TYPE, APPROVED BY UL AND THE CABLE MANUFACTURER.

3.4 SPLICES AND TERMINATIONS

A. POWER AND CONTROL WIRING MUST BE CONTINUOUS AND MUST NOT BE SPLICED UNLESS OTHERWISE INDICATED ON THE DRAWING.

B. BOLTS, NUTS AND HARDWARE USED FOR TERMINATIONS MUST BE SILICONE BRONZE.

C. WHERE TERMINATIONS ARE MADE ON INSULATED BUSES, THE TERMINATIONS MUST BE INSULATED USING THE PROPER TAPE(S) AND FILLERS FOR THE VOLTAGE LEVEL OF THE CABLE.

D. CONNECTIONS IN MOTOR TERMINAL BOXES MUST BE MADE BY INSTALLING COMPRESSION TYPE LUGS ON THE MOTOR BRANCH CIRCUIT CONDUCTORS AND THE MOTOR LEADS AND BOLTING THE LUGS TOGETHER THEN INSULATING WITH MOTOR LEAD CONNECTION KITS, RAYCHEM, 3M OR EQUAL.

3.5 IDENTIFICATION

A. POWER WIRING CONDUCTORS MUST BE COLOR CODED AS FOLLOWS:

PHASE	208Y/120V	480Y/277V
PHASE A	BLACK	BROWN
PHASE B	RED	ORANGE
PHASE C	BLUE	YELLOW
NEUTRAL	WHITE	GRAY
GROUND	GREEN	GREEN

END OF SECTION 26 05 60

LICENSED ARCHITECT BENJAMIN FREED No 5397 STATE OF MAINE

STATE OF MAINE JASON M. BEAULIEU No. 13441 LICENSED PROFESSIONAL ENGINEER 10/23/25

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SPECIFICATIONS

SIZE: ARCH D
DATE: 10/23/2025
DES BY: PBB
DWN BY: CAW
CKD BY: JMB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. E-002

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SECTION 26 51 00

LIGHTING FIXTURES

PART 1 GENERAL

1.1 GENERAL

A. PROVISIONS OF SECTION 260000, GENERAL REQUIREMENTS FOR ELECTRICAL WORK AND SECTION 260560, INSTALLATION OF WIRE AND CABLE APPLY TO THE WORK OF THIS SECTION.

1.2 CODES AND STANDARDS

A. PRODUCTS MUST COMPLY WITH THE FOLLOWING CODES AND STANDARDS AND MUST BE UL–LISTED AND LABELED:

1. NEC ART. 410	NATIONAL ELECTRICAL CODE
2. FCC, PART 18	RFI AND EMI
3. ANSI C62.41	LINE TRANSIENT PROTECTION
4. UL 924	EMERGENCY LIGHTING AND POWER EQUIPMENT
5. UL 1088	TEMPORARY LIGHTING
6. UL 1598	LUMINARIES
7. IESNA LM79 & 80	LUMINAIRE TEST REQUIREMENT
8. UL 8750	SAFETY STANDARDS FOR L.E.D. EQUIPMENT FOR USE IN LIGHTING PRODUCTS

1.3 SUBMITTALS

A. SUBMIT MANUFACTURER'S PRODUCT DATA, PHOTOMETRICS, AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF LIGHT FIXTURE SPECIFIED. SUBMIT IN BOOKLET FORM WITH SEPARATE SHEET FOR EACH FIXTURE ASSEMBLED IN "LUMINAIRE TYPE" ALPHABETICAL ORDER, WITH PROPOSED FIXTURE AND ACCESSORIES CLEARLY INDICATED ON EACH SHEET.

B. SUBMIT ON A SEPARATE SHEET FOR EACH FIXTURE TYPE SPECIFIED, THE PROPOSED LAMP AND MANUFACTURERS DATA FOR THAT LAMP.

1.4 MANUFACTURERS

A. PROVIDE PRODUCTS OF THE MANUFACTURERS SPECIFIED ON THE CONTRACT DRAWINGS AND AS LISTED UNDER PART 2 OF THIS SECTION.

PART 2 PRODUCTS

2.1 GENERAL

A. LIGHT FIXTURES MUST BE PROVIDED WITH HOUSINGS, TRIMS, DRIVERS, LAMP HOLDERS, SOCKETS, REFLECTORS, WIRING AND OTHER COMPONENTS REQUIRED, AS A FACTORY–ASSEMBLED UNIT FOR A COMPLETE INSTALLATION.

B. PROVIDE ELECTRICAL WIRING WITHIN LIGHT FIXTURES SUITABLE FOR CONNECTING TO BRANCH CIRCUIT WIRING IN ACCORDANCE WITH N.E.C. ARTICLE 410, PARAGRAPH 52.

C. DELIVER INTERIOR LIGHTING FIXTURES IN FACTORY FABRICATED CONTAINERS AND WRAPPING, WHICH PROPERLY PROTECT FIXTURES FROM DAMAGE.

D. STORE INTERIOR LIGHTING FIXTURES IN ORIGINAL PACKAGING. STORE INSIDE WELL–VENTILATED AREA PROTECTED FROM WEATHER, MOISTURE, SOILING, HUMIDITY, EXTREME TEMPERATURES, LAID FLAT AND ON SKIDS TO KEEP OFF FLOORS AND GROUND.

E. FIXTURES INSTALLED IN CEILINGS, SUSPENDED FROM CEILINGS OR ON WALLS MUST HAVE A PLASTIC FILM COVERING PROTECTING LENS, LOUVER AND LAMPS FROM DUST, DIRT AND DEBRIS. PLASTIC FILM MUST NOT BE REMOVED UNTIL CONSTRUCTION IS COMPLETED.

F. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, MANUFACTURERS LISTED IN LIGHTING FIXTURE SCHEDULE ARE BASIS OF DESIGN. FIXTURES FROM ALTERNATIVE MANUFACTURERS MAY BE SUBSTITUTED PROVIDING THEY ARE CONSTRUCTED WITH EQUAL OR SUPERIOR MATERIALS, PROVIDE EQUAL OR SUPERIOR PHOTOMETRIC PERFORMANCE, PROVIDE EQUAL OR SUPERIOR EFFICIENCY. DETERMINATION OF EQUAL STATUS IS AT THE DISCRETION OF THE PROJECT ENGINEER.

2.2 LED FIXTURES

A. GENERAL: PROVIDE LED FIXTURES OF SIZES, TYPES AND RATINGS INDICATED AND SPECIFIED IN THE LIGHTING FIXTURE SCHEDULE ON THE CONTRACT DRAWINGS.

B. LED'S
1. LUMEN MAINTENANCE MUST BE LM70 OR BETTER FOR 80,000 HOUR LIFE.
2. COLOR MATCH MUST BE BETTER THAN 2% DEVIATION BETWEEN LED'S WITHIN THE FIXTURE.
3. PROVIDE KELVIN COLOR AS SPECIFIED IN THE FIXTURE SCHEDULE. IF NOT SPECIFIED PROVIDE 3500K.

PART 2 PRODUCTS (CONTINUED)

A. LED LAMP DRIVERS: PROVIDE LOW ENERGY SOLID–STATE DRIVERS WITH THE FOLLOWING FEATURES;

1. UL CLASS 2 RATED
2. SURGE PROTECTION FROM THE AC LINE SIDE SURGES.
3. AC LINE ISOLATION
4. CONSTANT CURRENT DRIVERS BASED ON THE FIXTURE LISTED IN THE SCHEDULE.
5. ANALOG DIMMING (0–10V) – SIMPLE CONTROL INPUT OF THE LED DRIVER TO ADJUST THE OUTPUT PARAMETERS BY APPLYING RESISTANCE TO THE DIMMING INPUT.
6. MODULE TEMPERATURE PROTECTION (MTP).

PART 3 EXECUTION

3.1 GENERAL

A. EXAMINE AREAS AND CONDITIONS UNDER WHICH LIGHTING FIXTURES ARE TO BE INSTALLED AND STRUCTURE WHICH WILL SUPPORT LIGHTING FIXTURES. NOTIFY THE GENERAL CONTRACTOR IN WRITING OF ANY CONDITIONS WHICH ARE DETRIMENTAL TO PROPER INSTALLATION AND COMPLETION OF THE WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN A MANNER ACCEPTABLE TO THE INSTALLER.

B. COORDINATE LIGHT FIXTURE INSTALLATIONS WITH OTHER TRADES. INSTALL LIGHT FIXTURES AT LEAST TWO FEET AWAY FROM SMOKE DETECTORS. COORDINATE ALL LIGHTING FIXTURES WITH MECHANICAL PIPING AND DUCTWORK TO ALLOW FOR PROPER CLEARANCE.

3.2 INSTALLATION

A. INSTALL LIGHTING FIXTURES AT HEIGHTS INDICATED, IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. SET LEVEL, PLUMB, AND SQUARE WITH CEILINGS AND WALLS UNLESS OTHERWISE INDICATED.

B. PROVIDE FIXTURES AND/OR FIXTURE OUTLET BOXES WITH HANGERS, CHANNEL OR OTHER METHOD OF FASTENING AND SUPPORTING FIXTURES REQUIRED FOR PROPER INSTALLATION.

C. FIXTURES INSTALLED IN SUSPENDED CEILINGS MUST BE INDEPENDENTLY SUPPORTED, DIRECTLY FROM THE BUILDING STRUCTURE. EACH FIXTURE MUST BE SUPPORTED AT EACH END.

D. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR EQUIPMENT CONNECTORS. SCREWS AND BOLTS MUST HAVE WASHERS.

E. SUSPEND LIGHTING FIXTURE SUPPORT: WHERE LONGER THAN 48 INCHES, BRACE TO LIMIT SWINGING.

3.3 SPLICES AND TERMINATIONS

A. INSTALL TWIST ON WIRE CONNECTORS WHICH UTILIZE SQUARE WIRE SPRING GRIPS AND THERMO PLASTIC SHELLS. INSTALL CONNECTORS TO MEET THE MANUFACTURER'S TORQUING REQUIREMENTS. INSTALL WIRE CONNECTORS OF SIZE REQUIRED AS NOT TO EXCEED THE MANUFACTURER'S UL–LISTED CSA RECOGNIZED WIRE COMBINATIONS.

3.4 FIELD QUALITY CONTROL

A. AT DATE OF SUBSTANTIAL COMPLETION, FIXTURES THAT ARE NOT FUNCTIONING, HAVE COLOR DEFICIENCIES, OR ARE NOTICEABLY DIMMED MUST BE REPLACED WITH NEW AS DETERMINED BY THE ENGINEER.

B. LIGHT FIXTURES MUST BE CLEANED OF DIRT AND DEBRIS UPON COMPLETION OF CONSTRUCTION. FINGER PRINTS AND SMUDGES MUST BE CLEANED.

C. INSTALLED FIXTURES DURING REMAINDER OF CONSTRUCTION MUST BE PROTECTED IN ACCORDANCE WITH SECTION 2.1 PARAGRAPH E OF THIS SPECIFICATION SECTION.

D. LIGHT FIXTURES MUST BE GROUNDED IN ACCORDANCE WITH ARTICLE 250 AND 410 OF THE NEC. TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUES SPECIFIED IN UL 486A TO ASSURE PERMANENT AND EFFECTIVE GROUNDS.

E. LIGHT FIXTURES DAMAGED IN SHIPPING OR DURING CONSTRUCTION MUST BE REPLACED WITH NEW FIXTURES AT NO COST TO THE OWNER.

END OF SECTION 26 51 00

SECTION 262416

PANELBOARDS

PART 1 – GENERAL

1.1 GENERAL

A. PROVISION OF SECTION 260000, GENERAL REQUIREMENT FOR ELECTRICAL WORK AND SECTION 260560, INSTALLATION OF WIRE AND CABLE APPLY TO THE WORK OF THIS SECTION.

B. SECTION INCLUDES:

1. PANELBOARDS.
2. DISCONNECTING AND OVERCURRENT PROTECTIVE DEVICES.

1.2 CODES AND STANDARDS

A. PRODUCTS MUST COMPLY WITH THE FOLLOWING CODES AND STANDARDS AND MUST BE UL–LISTED AND LABELED:

1. NEC ART. 408	NATIONAL ELECTRICAL CODE
2. UL 67	PANELBOARDS
3. NEMA PB1	PANELBOARDS AND DISTRIBUTION BOARDS
4. NECA 407	STANDARD FOR INSTALLING AND MAINTAINING PANELBOARDS
5. UL 489	CIRCUIT BREAKERS
6. NEC 240	NATIONAL ELECTRICAL CODE

1.3 DEFINITIONS

B. MCCB: MOLDED–CASE CIRCUIT BREAKER.

1.4 SUBMITTALS

FOR EACH PANELBOARD AND RELATED EQUIPMENT SUBMIT: DIMENSIONED PLANS, ELEVATIONS, SECTIONS, AND DETAILS. SHOW TABULATIONS OF INSTALLED DEVICES WITH NAMEPLATES, CONDUCTOR TERMINATION SIZES, EQUIPMENT FEATURES, AND RATINGS. DETAIL ENCLOSURE TYPES INCLUDING MOUNTING AND ANCHORAGE, ENVIRONMENTAL PROTECTION, KNOCKOUTS, CORNER TREATMENTS, COVERS AND DOORS, GASKETS, HINGES, AND LOCKS. DETAIL BUS CONFIGURATION, CURRENT, AND VOLTAGE RATINGS. SHORT–CIRCUIT CURRENT RATING OF PANELBOARDS AND OVERCURRENT PROTECTIVE DEVICES. DETAILS FEATURES, CHARACTERISTICS, RATINGS, AND FACTORY SETTINGS OF INDIVIDUAL OVERCURRENT PROTECTIVE DEVICES AND AUXILIARY COMPONENTS

PART 2 – PRODUCTS

2.1 PANELBOARDS

1. STANDARD FEATURES: MAIN CIRCUIT BREAKER, TOP FEED. RATINGS AS INDICATED ON DRAWINGS.
2. BRANCH OVERCURRENT PROTECTIVE DEVICES: BOLT–ON CIRCUIT BREAKERS, REPLACEABLE WITHOUT DISTURBING ADJACENT UNITS.
3. OTHER AVAILABLE FEATURES REQUIRED BY PROJECT:

A. DOORS: DOOR–IN–DOOR CONSTRUCTION WITH CONCEALED HINGES; SECURED WITH FLUSH OR MULTIPOINT LATCH WITH TUMBLER LOCK; KEYED ALIKE.

2.2 DISCONNECTING AND OVERCURRENT PROTECTIVE DEVICES

B. MCCB: COMPLY WITH UL 489, WITH INTERRUPTING CAPACITY TO MEET AVAILABLE FAULT CURRENTS.

1. THERMAL–MAGNETIC CIRCUIT BREAKERS:

A. INVERSE TIME–CURRENT ELEMENT FOR LOW–LEVEL OVERLOADS.

B. INSTANTANEOUS MAGNETIC TRIP ELEMENT FOR SHORT CIRCUITS.

C. ADJUSTABLE MAGNETIC TRIP SETTING FOR CIRCUIT–BREAKER FRAME SIZES 250 A AND LARGER.

2. ADJUSTABLE INSTANTANEOUS–TRIP CIRCUIT BREAKERS: MAGNETIC TRIP ELEMENT WITH FRONT–MOUNTED, FIELD–ADJUSTABLE TRIP SETTING.

3. MCCB FEATURES AND ACCESSORIES:

A. STANDARD FRAME SIZES, TRIP RATINGS, AND NUMBER OF POLES.

B. BREAKER HANDLE INDICATES TRIPPED STATUS.

C. UL LISTED FOR REVERSE CONNECTION WITHOUT RESTRICTIVE LINE OR LOAD RATINGS.

D. LUGS: SUITABLE FOR NUMBER, SIZE, TRIP RATINGS, AND CONDUCTOR MATERIALS

PART 3 – EXECUTION

3.1 EXAMINATION

A. VERIFY ACTUAL CONDITIONS WITH FIELD MEASUREMENTS PRIOR TO ORDERING PANELBOARDS TO VERIFY THAT EQUIPMENT FITS IN ALLOCATED SPACE IN, AND COMPLY WITH, MINIMUM REQUIRED CLEARANCES SPECIFIED IN NFPA 70.

B. RECEIVE, INSPECT, HANDLE, AND STORE PANELBOARDS IN ACCORDANCE WITH NECA 407 AND NEMA PB 1.1.

C. EXAMINE PANELBOARDS BEFORE INSTALLATION. REJECT PANELI[illegible]RE DAMAGED, RUSTED, OR HAVE BEEN SUBJECTED TO WATER SATURATI[illegible]

D. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONI[illegible]N CORRECTED.

LICENSED ARCHITECT BHEN LAMIN FAIA No 5397 STATE OF MAINE

3.2 INSTALLATION

A. COMPLY WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.

B. REFERENCE STANDARDS:

1. PANELBOARDS: UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED IN CONTRACT DOCUMENTS OR MANUFACTURERS' PUBLISHED INSTRUCTIONS, COMPLY WITH NEMA PB 1.1.
2. CONSULT ARCHITECT FOR RESOLUTION OF CONFLICTING REQUIREMENTS.

C. SPECIAL TECHNIQUES:

1. MOUNT RECESSED PANELBOARDS WITH FRONTS UNIFORMLY FLUSH WITH WALL FINISH AND MATING WITH BACK BOX.

D. INTERFACES WITH OTHER WORK:

1. COORDINATE LAYOUT AND INSTALLATION OF PANELBOARDS AND COMPONENTS WITH OTHER CONSTRUCTION THAT PENETRATES WALLS OR IS SUPPORTED BY THEM, INCLUDING ELECTRICAL AND OTHER TYPES OF EQUIPMENT, RACEWAYS, PIPING, ENCUMBRANCES TO WORKSPACE CLEARANCE REQUIREMENTS, AND ADJACENT SURFACES. MAINTAIN REQUIRED WORKSPACE CLEARANCES AND REQUIRED CLEARANCES FOR EQUIPMENT ACCESS DOORS AND PANELS.

3.3 IDENTIFICATION

A. PANELBOARD NAMEPLATES: LABEL EACH PANELBOARD WITH NAMEPLATE.

B. DEVICE NAMEPLATES: LABEL EACH BRANCH CIRCUIT DEVICE IN POWER PANELBOARDS WITH NAMEPLATE.

C. PANELBOARD LABEL: MANUFACTURER'S NAME AND TRADEMARK, VOLTAGE, AMPERAGE, NUMBER OF PHASES, AND NUMBER OF POLES MUST BE LOCATED ON INTERIOR OF PANELBOARD DOOR.

D. BREAKER LABELS: FACEPLATE MUST LIST CURRENT RATING, UL AND IEC CERTIFICATION STANDARDS, AND AIC RATING.

E. CIRCUIT DIRECTORY:

1. PROVIDE DIRECTORY CARD INSIDE PANELBOARD DOOR, MOUNTED IN TRANSPARENT CARD HOLDER.

A. CIRCUIT DIRECTORY MUST IDENTIFY SPECIFIC PURPOSE WITH DETAIL SUFFICIENT TO DISTINGUISH IT FROM OTHER CIRCUITS.

3.4 FIELD QUALITY CONTROL

A. ACCEPTANCE TESTING PREPARATION:

1. TEST INSULATION RESISTANCE FOR EACH PANELBOARD BUS, COMPONENT, CONNECTING SUPPLY, FEEDER, AND CONTROL CIRCUIT.
2. TEST CONTINUITY OF EACH CIRCUIT.

B. NONCONFORMING WORK:

1. PANELBOARDS WILL BE CONSIDERED DEFECTIVE IF THEY DO NOT PASS TESTS AND INSPECTIONS.
2. REMOVE AND REPLACE DEFECTIVE UNITS AND RETEST.

3.5 ADJUSTING

A. ADJUST MOVING PARTS AND OPERABLE COMPONENTS TO FUNCTION SMOOTHLY, AND LUBRICATE AS RECOMMENDED BY MANUFACTURER.

3.6 PROTECTION

A. TEMPORARY HEATING: PRIOR TO ENERGIZING PANELBOARDS, APPLY TEMPORARY HEAT TO MAINTAIN TEMPERATURE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.

END OF SECTION 262416

STATE OF MAINE JASON M. BEAULIEU No. 13441 LICENSED PROFESSIONAL ENGINEER 10/23/25

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208 GRAHAM STREET
TRANSITION HOME

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SECTION 26 05 19

LOW VOLTAGE ELECTRICAL CONDUCTORS

PART 1 GENERAL

1.1 GENERAL

A. THE PROVISIONS OF SECTION 260000, GENERAL REQUIREMENTS FOR ELECTRICAL WORK APPLY TO THE WORK OF THIS SECTION.

1.2 CODES AND STANDARDS

A. PRODUCTS MUST COMPLY WITH THE FOLLOWING CODES AND STANDARDS AND MUST BE UL–LISTED AND LABELED:

1. ASTM B–3 SOFT OR ANNEALED COPPER WIRE

2. ASTM B–8 CONCENTRIC LAY STRANDED COPPER CONDUCTORS

3. NEMA WC–5 THERMOPLASTIC INSULATED WIRE AND CABLE FOR THE TRANSMISSION AND DISTRIBUTION OF ELECTRICAL ENERGY.

4. UL 44 RUBBER INSULATED WIRES AND CABLES

5. UL 83 THERMOPLASTIC INSULATED WIRES AND CABLES

1.3 SUBMITTALS

A. MANUFACTURER'S PRODUCT DATA SHEETS. REFER TO DIVISION 1 SPECIFICATION FOR MORE INFORMATION.

PART 2 PRODUCTS

2.1 GENERAL

A. CONDUCTORS MUST BE ANNEALED COPPER IN ACCORDANCE WITH ASTM B–3.

B. THE JACKET OF ALL WIRE MUST BE PRINTED WITH THE FOLLOWING INFORMATION:

1. MANUFACTURER

2. SIZE

3. INSULATION TYPE

4. MAXIMUM VOLTAGE UL LABEL

C. INSULATION MUST BE RATED 600 VOLT.

2.2 POWER WIRING

A. FEEDERS AND MOTOR BRANCH CIRCUITS MUST BE TYPE THHN.

B. POWER WIRING MUST BE STRANDED, CLASS B STRAND IN ACCORDANCE WITH ASTM B–8, MINIMUM SIZE #12 AWG.

2.3 BRANCH CIRCUITS

A. LIGHTING AND CONVENIENCE RECEPTACLE BRANCH CIRCUIT WIRING MUST BE TYPE THHN/THWN.

B. BRANCH CIRCUIT WIRING MUST BE SOLID OR STRANDED CONDUCTOR, MINIMUM SIZE #12 AWG.

2.4 CONTROL WIRING

A. WIRING FOR CONTROL CIRCUITS MUST BE THHN/THWN.

B. CONTROL WIRING MUST BE STRANDED, CLASS B STRAND IN ACCORDANCE WITH ASTM B–8, MINIMUM SIZE #14 AWG.

2.5 FIXTURE WIRE

A. WHERE HIGH TEMPERATURE FIXTURE WIRE IS REQUIRED IT MUST BE SILICONE RUBBER TYPE SF–2.

PART 3 EXECUTION

3.1 GENERAL

A. WIRE MUST BE INSTALLED IN ACCORDANCE WITH SECTION 260560, INSTALLATION OF WIRE AND CABLE

END OF SECTION 26 05 19

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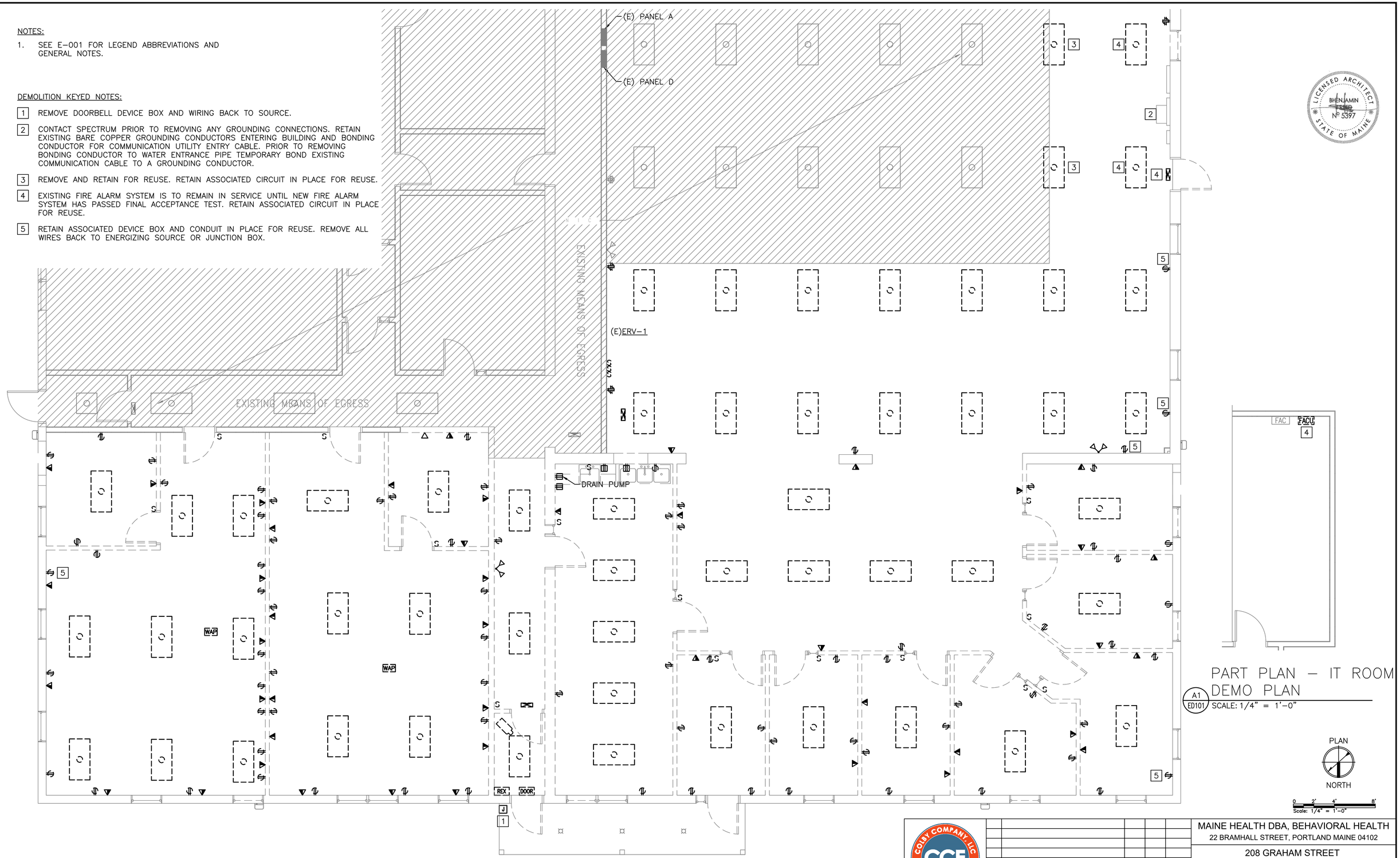
NOTES:

1. SEE E–001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

DEMOLITION KEYED NOTES:

1. REMOVE DOORBELL DEVICE BOX AND WIRING BACK TO SOURCE.
2. CONTACT SPECTRUM PRIOR TO REMOVING ANY GROUNDING CONNECTIONS. RETAIN EXISTING BARE COPPER GROUNDING CONDUCTORS ENTERING BUILDING AND BONDING CONDUCTOR FOR COMMUNICATION UTILITY ENTRY CABLE. PRIOR TO REMOVING BONDING CONDUCTOR TO WATER ENTRANCE PIPE TEMPORARY BOND EXISTING COMMUNICATION CABLE TO A GROUNDING CONDUCTOR.
3. REMOVE AND RETAIN FOR REUSE. RETAIN ASSOCIATED CIRCUIT IN PLACE FOR REUSE.
4. EXISTING FIRE ALARM SYSTEM IS TO REMAIN IN SERVICE UNTIL NEW FIRE ALARM SYSTEM HAS PASSED FINAL ACCEPTANCE TEST. RETAIN ASSOCIATED CIRCUIT IN PLACE FOR REUSE.
5. RETAIN ASSOCIATED DEVICE BOX AND CONDUIT IN PLACE FOR REUSE. REMOVE ALL WIRES BACK TO ENERGIZING SOURCE OR JUNCTION BOX.



FIRST FLOOR ELECTRICAL PLAN – REMOVALS
SCALE: 1/4" = 1'–0"

PART PLAN – IT ROOM DEMO PLAN
A1 / ED101 SCALE: 1/4" = 1'–0"

PLAN NORTH

0 2' 4' 8'
Scale: 1/4" = 1'–0"

LICENSED ARCHITECT BENJAMIN FREED No 5397 STATE OF MAINE

STATE OF MAINE JASON M. BEAULIEU No. 13441 LICENSED PROFESSIONAL ENGINEER 10/23/25

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FIRST FLOOR ELECTRICAL PLAN
- REMOVALS

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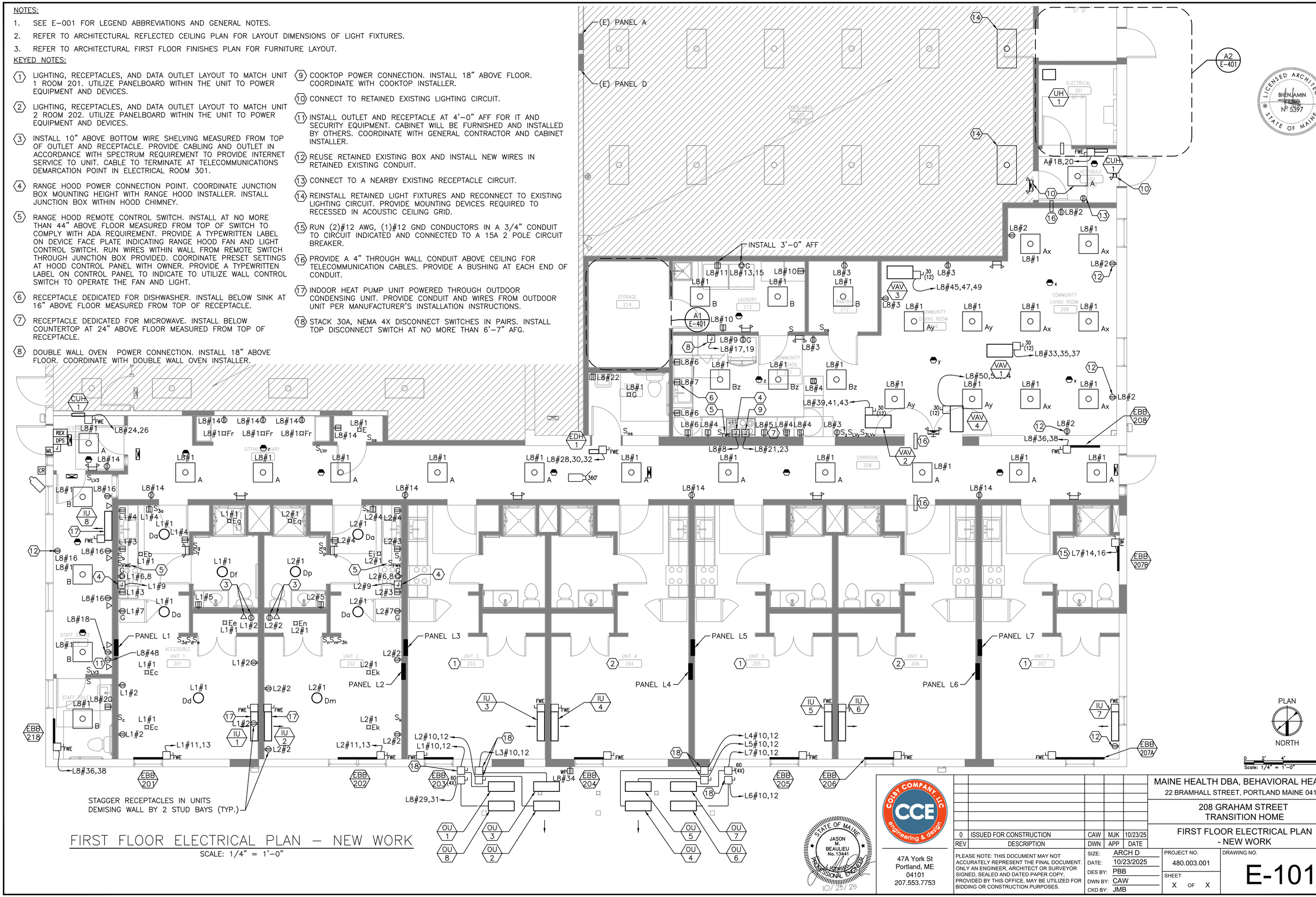
NOTES:

1. SEE E-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LAYOUT DIMENSIONS OF LIGHT FIXTURES.
3. REFER TO ARCHITECTURAL FIRST FLOOR FINISHES PLAN FOR FURNITURE LAYOUT.

KEYED NOTES:

1. LIGHTING, RECEPTACLES, AND DATA OUTLET LAYOUT TO MATCH UNIT 1 ROOM 201. UTILIZE PANELBOARD WITHIN THE UNIT TO POWER EQUIPMENT AND DEVICES.
2. LIGHTING, RECEPTACLES, AND DATA OUTLET LAYOUT TO MATCH UNIT 2 ROOM 202. UTILIZE PANELBOARD WITHIN THE UNIT TO POWER EQUIPMENT AND DEVICES.
3. INSTALL 10" ABOVE BOTTOM WIRE SHELVING MEASURED FROM TOP OF OUTLET AND RECEPTACLE. PROVIDE CABLING AND OUTLET IN ACCORDANCE WITH SPECTRUM REQUIREMENT TO PROVIDE INTERNET SERVICE TO UNIT. CABLE TO TERMINATE AT TELECOMMUNICATIONS DEMARCATION POINT IN ELECTRICAL ROOM 301.
4. RANGE HOOD POWER CONNECTION POINT. COORDINATE JUNCTION BOX MOUNTING HEIGHT WITH RANGE HOOD INSTALLER. INSTALL JUNCTION BOX WITHIN HOOD CHIMNEY.
5. RANGE HOOD REMOTE CONTROL SWITCH. INSTALL AT NO MORE THAN 44" ABOVE FLOOR MEASURED FROM TOP OF SWITCH TO COMPLY WITH ADA REQUIREMENT. PROVIDE A TYPEWRITTEN LABEL ON DEVICE FACE PLATE INDICATING RANGE HOOD FAN AND LIGHT CONTROL SWITCH. RUN WIRES WITHIN WALL FROM REMOTE SWITCH THROUGH JUNCTION BOX PROVIDED. COORDINATE PRESET SETTINGS AT HOOD CONTROL PANEL WITH OWNER. PROVIDE A TYPEWRITTEN LABEL ON CONTROL PANEL TO INDICATE TO UTILIZE WALL CONTROL SWITCH TO OPERATE THE FAN AND LIGHT.
6. RECEPTACLE DEDICATED FOR DISHWASHER. INSTALL BELOW SINK AT 16" ABOVE FLOOR MEASURED FROM TOP OF RECEPTACLE.
7. RECEPTACLE DEDICATED FOR MICROWAVE. INSTALL BELOW COUNTERTOP AT 24" ABOVE FLOOR MEASURED FROM TOP OF RECEPTACLE.
8. DOUBLE WALL OVEN POWER CONNECTION. INSTALL 18" ABOVE FLOOR. COORDINATE WITH DOUBLE WALL OVEN INSTALLER.
9. COOKTOP POWER CONNECTION. INSTALL 18" ABOVE FLOOR. COORDINATE WITH COOKTOP INSTALLER.
10. CONNECT TO RETAINED EXISTING LIGHTING CIRCUIT.
11. INSTALL OUTLET AND RECEPTACLE AT 4'-0" AFF FOR IT AND SECURITY EQUIPMENT. CABINET WILL BE FURNISHED AND INSTALLED BY OTHERS. COORDINATE WITH GENERAL CONTRACTOR AND CABINET INSTALLER.
12. REUSE RETAINED EXISTING BOX AND INSTALL NEW WIRES IN RETAINED EXISTING CONDUIT.
13. CONNECT TO A NEARBY EXISTING RECEPTACLE CIRCUIT.
14. REINSTALL RETAINED LIGHT FIXTURES AND RECONNECT TO EXISTING LIGHTING CIRCUIT. PROVIDE MOUNTING DEVICES REQUIRED TO RECESSED IN ACOUSTIC CEILING GRID.
15. RUN (2)#12 AWG, (1)#12 GND CONDUCTORS IN A 3/4" CONDUIT TO CIRCUIT INDICATED AND CONNECTED TO A 15A 2 POLE CIRCUIT BREAKER.
16. PROVIDE A 4" THROUGH WALL CONDUIT ABOVE CEILING FOR TELECOMMUNICATION CABLES. PROVIDE A BUSHING AT EACH END OF CONDUIT.
17. INDOOR HEAT PUMP UNIT POWERED THROUGH OUTDOOR CONDENSING UNIT. PROVIDE CONDUIT AND WIRES FROM OUTDOOR UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
18. STACK 30A, NEMA 4X DISCONNECT SWITCHES IN PAIRS. INSTALL TOP DISCONNECT SWITCH AT NO MORE THAN 6'-7" AFG.



FIRST FLOOR ELECTRICAL PLAN – NEW WORK

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

LICENSED ARCHITECT BENJAMIN FRISBEE № 5397 STATE OF MAINE

STATE OF MAINE JASON M. BEAULIEU No. 13441 LICENSED PROFESSIONAL ENGINEER 10/23/25

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FIRST FLOOR ELECTRICAL PLAN
- NEW WORK

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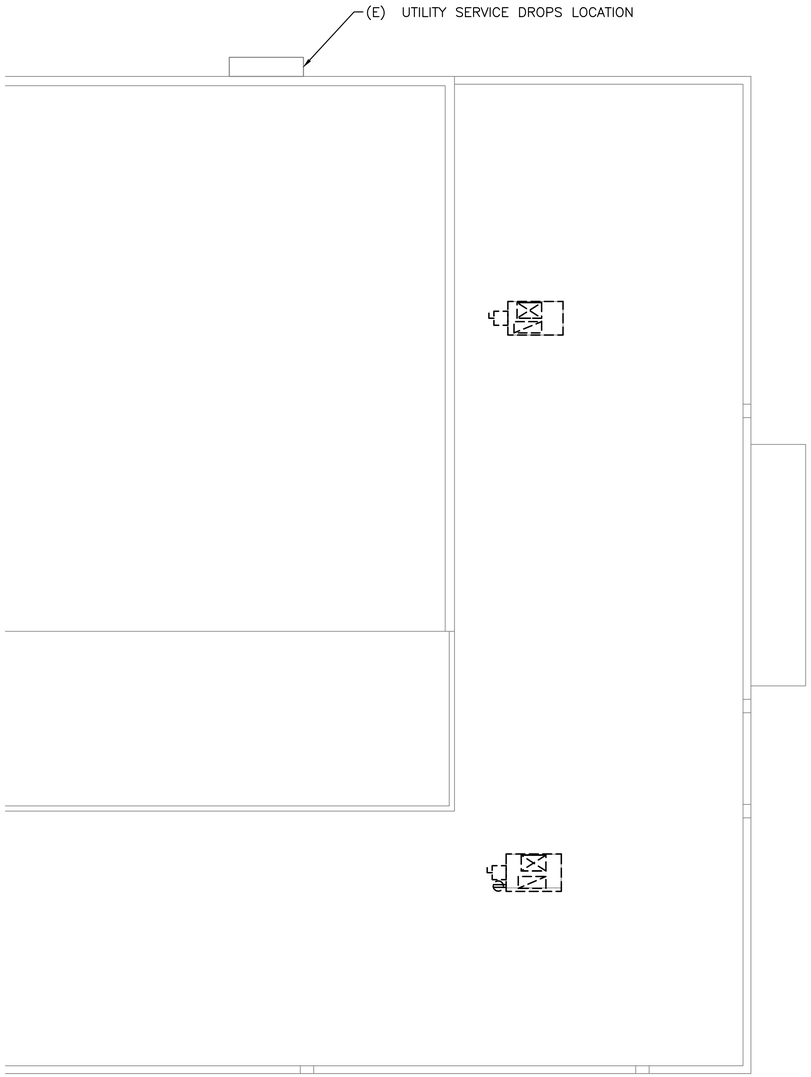
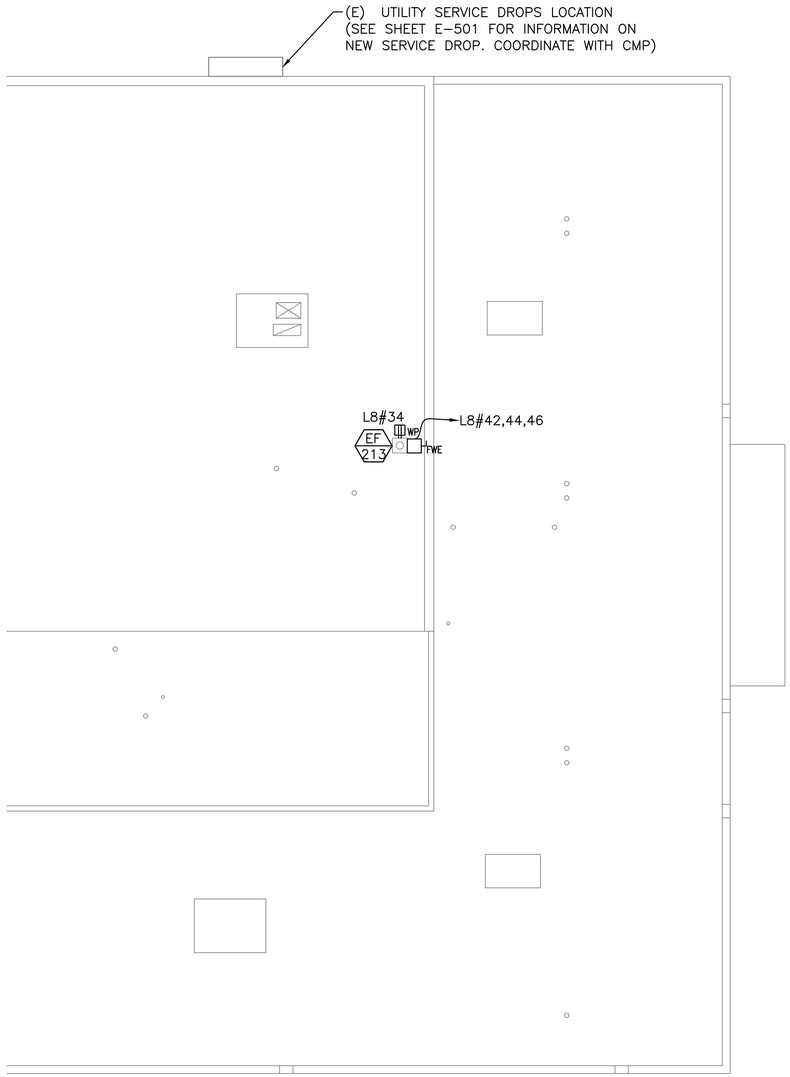
NOTES:

1. SEE E–001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.



ELECTRICAL ROOF PART PLAN – REMOVALS

SCALE: 1/8"=1'–0"



ELECTRICAL ROOF PART PLAN – NEW WORK

SCALE: 1/8"=1'–0"

PLAN

NORTH

Scale: 1/8" = 1'–0"

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MAINE HEALTH DBA, BEHAVIORAL HEALTH

22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

ELECTRICAL ROOF PART PLANS

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	PBB
DWN BY:	ACY
CKD BY:	JMB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. E-102

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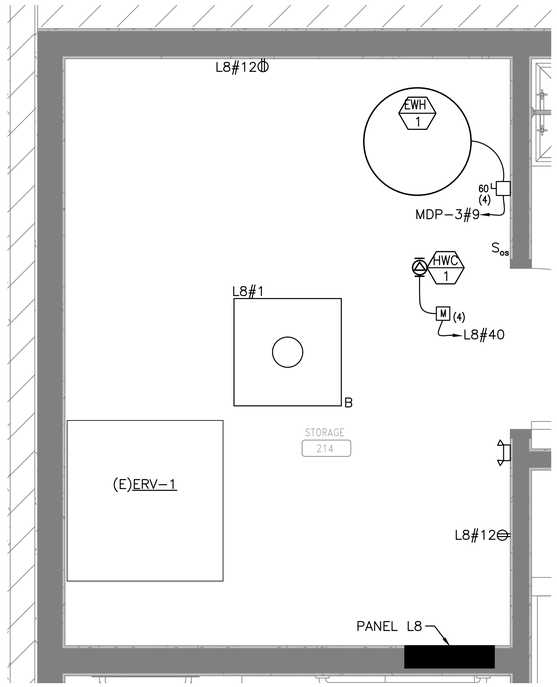
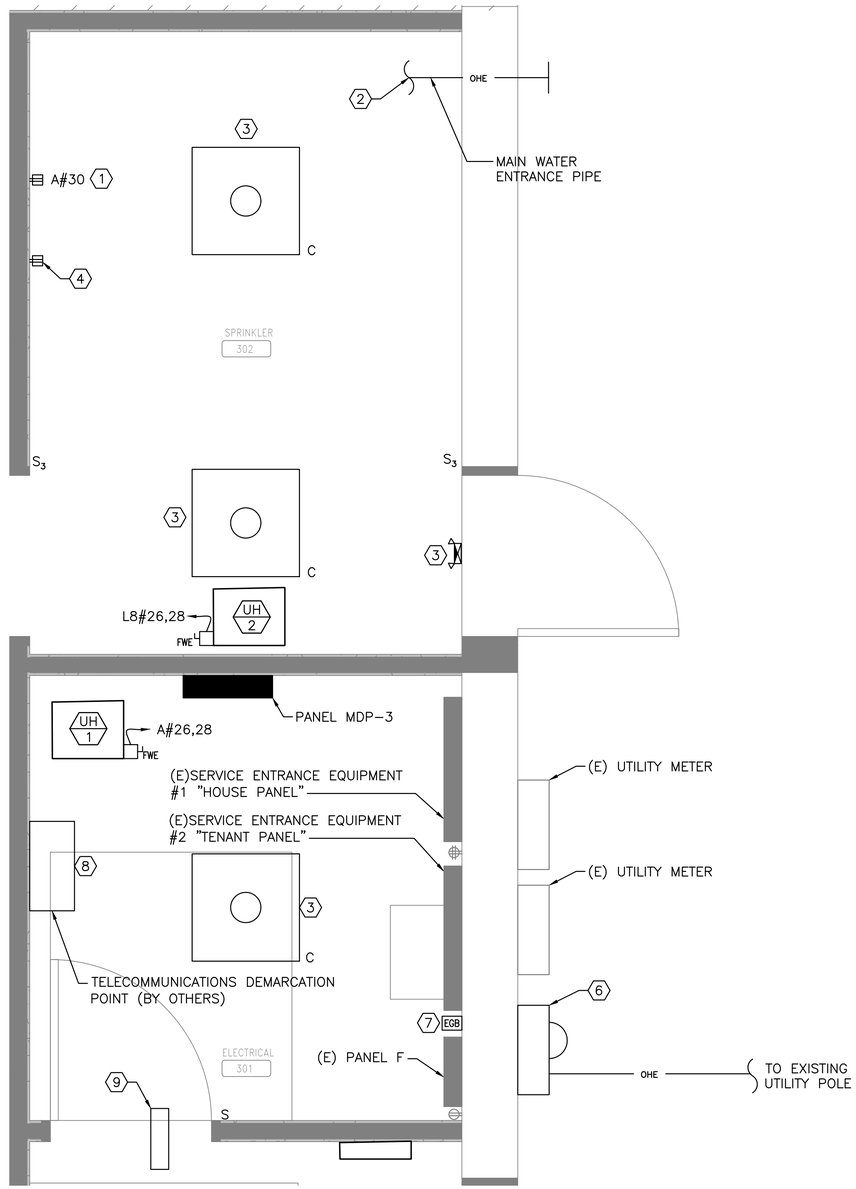


A1 E-401 PART PLAN – STORAGE RM 214
SCALE: 3/4" = 1'-0"



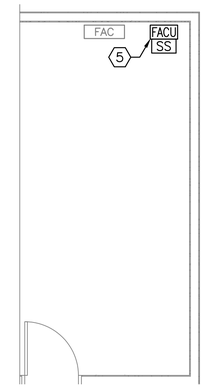
A2 E-401 PART PLAN – SPRINKLER RM 302 & ELECTRICAL 301
SCALE: 3/4" = 1'-0"

NOTES:

1. SEE E-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.
2. USE ARCHITECTURAL REFLECTED CEILING PLAN FOR LAYOUT DIMENSIONS OF LIGHT FIXTURES.
3. REFER TO ARCHITECTURAL FIRST FLOOR FINISHES PLAN F DIMENSIONS OF FURNITURE.

KEYED NOTES:

1. RECEPTACLE DEDICATED TO PLUMBING ELECTRONIC TRAP COORDINATE RECEPTACLE FINAL MOUNTING LOCATION WITH PRIMER INSTALLER.
2. BOND MAIN WATER ENTRANCE PIPE TO ELECTRICAL GROUNDING BAR. SEE GROUNDING DETAIL FOR MORE INFORMATION.
3. CONNECT TO RETAINED EXISTING LIGHTING CIRCUIT.
4. CONNECT TO A NEARBY EXISTING RECEPTACLE CIRCUIT.
5. CONNECT TO EXISTING FIRE ALARM PANEL POWER CIRCUIT FROM PANEL D. PROVIDE A RED LOCKABLE DEVICE WITH A RED LOCKOUT HASP FOR CIRCUIT BREAKER IN CIRCUIT D#28 DEDICATED TO FIRE ALARM PANEL. PANEL D IS A SQUARE D PANELBOARD.
6. SEE ONE-LINE DIAGRAM ON SHEET E-501 FOR MORE INFORMATION.
7. WALL MOUNT BELOW EXISTING PANEL. SEE GROUNDING DETAIL FOR MORE INFORMATION.
8. INTERNET CABLES FROM LIVING UNITS TO TERMINATE AT THIS LOCATION. PROVIDE AT LEAST 5'-0" OF SLACK FOR EACH CABLE FOR CONNECTIONS TO BE DONE BY SPECTRUM. LABEL EACH CABLE WITH THE UNIT NUMBER IT ORIGINATED FROM AND BUNDLE CABLES TOGETHER USING APPROPRIATE CABLE TIES. PROVIDE A 4" CONDUIT AT CEILING ABOVE FOR CABLES GOING TO ENCLOSURE. PROVIDE BUSHING AT EACH END OF CONDUIT. COORDINATE WITH GENERAL CONTRACTOR.
9. PROVIDE A 4" THROUGH WALL CONDUIT ABOVE CEILING FOR TELECOMMUNICATION CABLES. PROVIDE A BUSHING AT EACH END OF CONDUIT.



A3 E-401 PART PLAN – IT ROOM NEW WORK
SCALE: 1/4" = 1'-0"

PLAN
NORTH

Scale: 1/8" = 1'-0" (0, 4', 8', 16')
Scale: 1/4" = 1'-0" (0, 2', 4', 8')
Scale: 3/4" = 1'-0" (0, 1', 2', 3')

LICENSED ARCHITECT BENJAMIN FREED No 5397 STATE OF MAINE

STATE OF MAINE JASON M. BEAULIEU No. 13441 PROFESSIONAL ENGINEER 10/23/25

COLBY COMPANY, LLC CCE engineering & design
47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
0	ISSUED FOR CONSTRUCTION	CAW	MJK	10/23/25

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

ELECTRICAL ENLARGED PLANS

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	PBB
DWN BY:	CAW
CKD BY:	JMB

PROJECT NO. 480.003.001
SHEET X OF X
DRAWING NO. E-401

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NOTE:

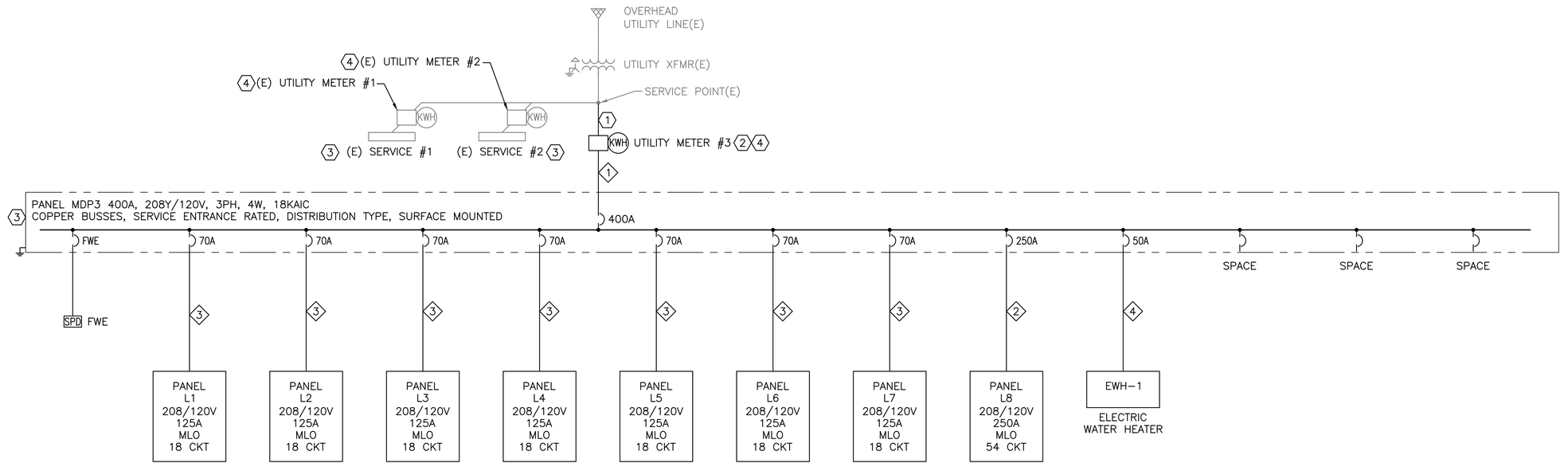
1. SEE E–001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

1. PERFORM ELECTRICAL WORK FOR NE SERVICE IN ACCORDANCE WITH CMP' REQUIREMENTS FOR ELECTRICAL SER INSTALLATIONS. ELECTRICAL SERVICE TO THE HANDBOOK'S ILLUSTRATION RIGID STEEL MAST TYPE SERVICE TO LOW BUILDING. PROVIDE AT LEAST 3'–0" OF CONDUCTORS SLACK FOR CONNECTIONS TO BE DONE BY CMP. COORDINATE CONDUIT PENETRATIONS WITH ARCHITECTURAL CONTRACTOR FOR FLASHING/SEALING. PROVIDE CONDUIT OF 2 1/2" MINIMUM SIZE.
2. PROVIDE MILBANK TYPE U2594–X METER SOCKET CABINET. METER WILL BE FURNISHED AND INSTALLED IN METER SOCKET BY CMP.
3. PROVIDE PERMANENT PLAQUE OR DIRECTORY ON EACH SERVICE ENTRANCE EQUIPMENT TO COMPLY WITH NEC 230.2(E). PLAQUE OR DIRECTORY MUST INCLUDE INFORMATION DESCRIBING ALL OTHER ELECTRICAL SERVICES WITHIN THE BUILDING.
4. LABEL EACH METER BOX AS SHOWN USING A UV RESISTANT TYPEWRITTEN SELF–ADHESIVE LABEL.

CABLE SCHEDULE:

1. 400A: 2 SETS OF [4#3/0 AWG, 2–1/2" C]
2. 250A: 4#250 KCMIL, (1)#4 GND, 2 1/2"C
3. 70A: 4#4 AWG, (1)#8 GND, 1 1/4"C
4. 50A: 4#6 AWG, (1)#10 GND, 1"C



ONE LINE DIAGRAM

STATE OF MAINE — JASON M. BEAULIEU No. 13441 — REGISTERED PROFESSIONAL ENGINEER — 10/23/25

COLBY COMPANY, LLC — CCE — engineering & design

47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

ONE LINE DIAGRAM

SIZE: ARCH D
DATE: 10/23/2025
DES BY: PBB
DWN BY: CAW
CKD BY: JMB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. E-501

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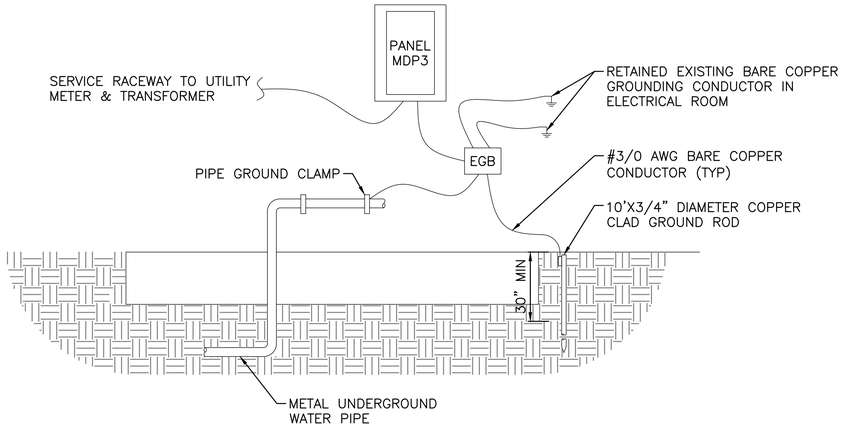
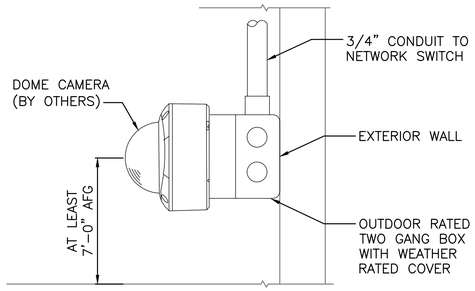


ELECTRICAL GROUNDING DETAIL



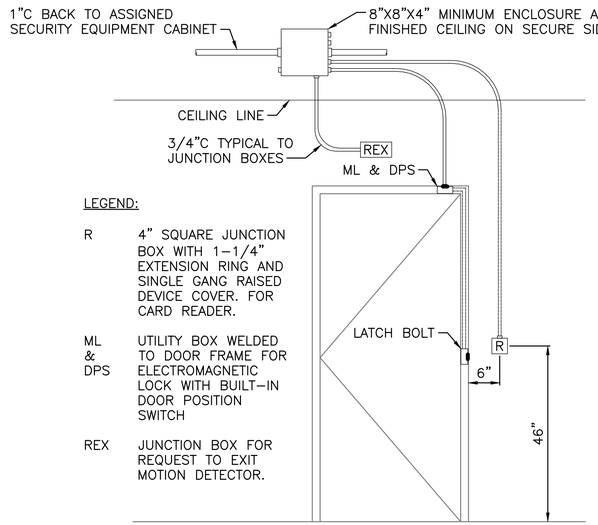
NOTES:

1. PROVIDE WIRING PATHWAY ONLY. SYSTEM HARDWARE AND SOFTWARE WILL BE FURNISHED AND INSTALLED BY BCM CONTROLS.
2. PRIOR TO COMMENCING WORK COORDINATE WITH GENERAL CONTRACTOR AND SECURITY SYSTEM INSTALLER FOR MORE INFORMATION AND REQUIREMENT.

WALL MOUNTED DOME CAMERA DETAIL

NOTES:

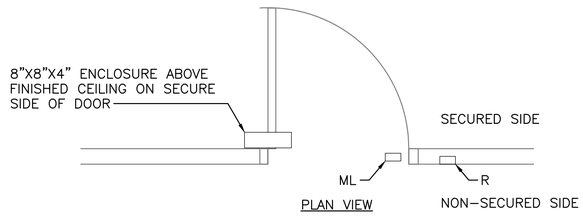
1. SEE E-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.



LEGEND:

R	4" SQUARE JUNCTION BOX WITH 1-1/4" EXTENSION RING AND SINGLE GANG RAISED DEVICE COVER. FOR CARD READER.
ML & DPS	UTILITY BOX WELDED TO DOOR FRAME FOR ELECTROMAGNETIC LOCK WITH BUILT-IN DOOR POSITION SWITCH
REX	JUNCTION BOX FOR REQUEST TO EXIT MOTION DETECTOR.

ELEVATION

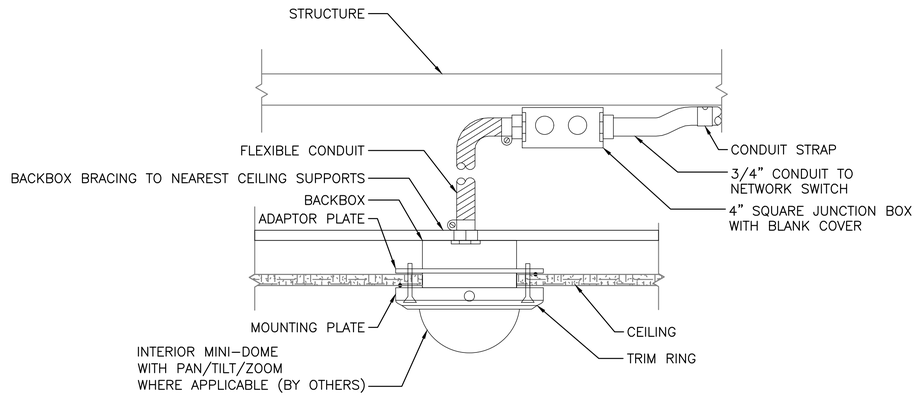


PLAN VIEW

NOTES:

1. PROVIDE WIRING PATHWAY ONLY. SYSTEM HARDWARE AND SOFTWARE WILL BE FURNISHED AND INSTALLED BY BCM CONTROLS.
2. PRIOR TO COMMENCING WORK COORDINATE WITH GENERAL CONTRACTOR AND DOOR ACCESS CONTROL SYSTEM INSTALLER FOR MORE INFORMATION AND REQUIREMENT.

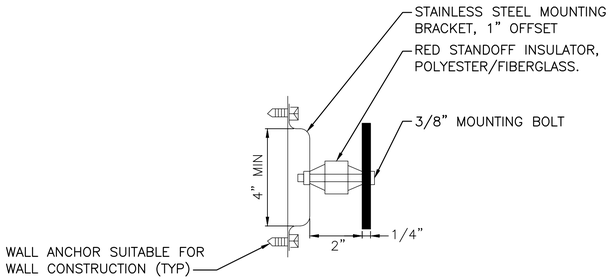
SINGLE DOOR WITH CARD READER, REX AND HSS DETAIL



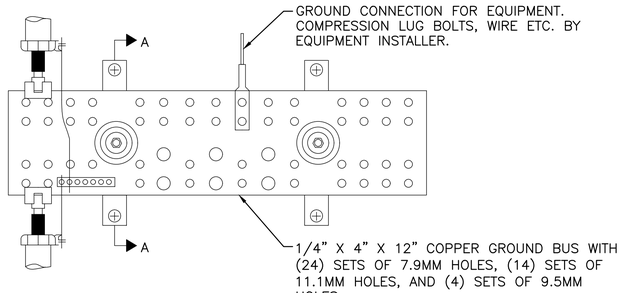
NOTES:

1. PROVIDE WIRING PATHWAY ONLY. SYSTEM HARDWARE AND SOFTWARE WILL BE FURNISHED AND INSTALLED BY BCM CONTROLS.
2. PRIOR TO COMMENCING WORK COORDINATE WITH GENERAL CONTRACTOR AND SECURITY SYSTEM INSTALLER FOR MORE INFORMATION AND REQUIREMENT.

CEILING MOUNTED DOME 360 CAMERA DETAIL



SECTION A-A



FRONT ELEVATION

NOTE:
ADDITIONAL GROUND CONNECTIONS SHALL BE BY TELECOMMUNICATIONS EQUIPMENT INSTALLER

ELECTRICAL GROUNDING DETAIL

LICENSED ARCHITECT
BENJAMIN FREED
No 5397
STATE OF MAINE

STATE OF MAINE
JASON M. BEAULIEU
No. 13441
LICENSED PROFESSIONAL ENGINEER
10/23/25

COLBY COMPANY, LLC
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engineering & design

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

ELECTRICAL DETAILS

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	PBB
DWN BY:	CAW
CKD BY:	JMB

PROJECT NO. 480.003.001

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DRAWING NO. E-502

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NOTE:

1. SEE E-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	VOLT	MANUFACTURER (OR EQUAL)	WATTS	LUMENS	COLOR TEMP	MOUNTING	NOTES
A	2'X2' RECESSED LED FIXTURE WITH CENTER BASKET LAY-IN, ACRYLIC DIFFUSER, CURVED OPAL LENS, 80 CRI, DIMMING, WHITE FINISH, 5 YEAR WARRANTY IC RATED, LISTED FOR DAMP LOCATION.	120VAC	LITHONIA LIGHTING STAK-2X2-2000LM-80CRI-35K-COL-MIN1-ZT-120	17	2,000	3500K	RECESSED	
B	2'X2' RECESSED LED FIXTURE WITH CENTER BASKET LAY-IN, ACRYLIC DIFFUSER, CURVED OPAL LENS, 80 CRI, DIMMING, WHITE FINISH, 5 YEAR WARRANTY IC RATED, LISTED FOR DAMP LOCATION.	120VAC	LITHONIA LIGHTING STAK-2X2-3000LM-80CRI-35K-COL-MIN1-ZT-120	24	3,000	3500K	RECESSED	
C	2'X2' RECESSED FLAT PANEL LED FIXTURE WITH PRISMATIC A12 PATTERN DIFFUSER, 80 CRI, DIMMING, WHITE FINISH, 5 YEAR WARRANTY, IC RATED, LISTED FOR DAMP LOCATION.	120VAC	LITHONIA LIGHTING CPX-2X2-5000LM-80CRI-35K-A12-MIN1-ZT-120	43	5,000	3500K	RECESSED	
D	14" DECORATIVE ROUND RESIDENTIAL LED FIXTURE WITH A WHITE ACRYLIC DIFFUSER AND DEFINED OUTER EDGE, 80 CRI, WHITE FINISH, 5 YEAR WARRANTY, LISTED FOR DAMP LOCATION.	120VAC	LITHONIA LIGHTING FMHLDL-208-3000K	37	2,000	3000K	FLUSHED/SEMI-RECESSED	
E	6" CANLESS ROUND RECESSED LED DOWNLIGHT FIXTURE WITH POLYCARBONATE FLUSH LENS, 80 CRI, DIMMING, SMOOTH TRIM, WHITE FINISH, 5 YEAR WARRANTY, IC RATED, AIRTIGHT, SUITABLE FOR WET LOCATION.	120VAC	JUNO WF6-1000LM-3500K-90CRI-MW	12	1,000	3500K	RECESSED	
F	6" CANLESS ROUND RECESSED LED DOWNLIGHT FIXTURE WITH POLYCARBONATE FLUSH LENS, 80 CRI, DIMMING, SMOOTH TRIM, WHITE FINISH, 5 YEAR WARRANTY, IC RATED, AIRTIGHT, SUITABLE FOR WET LOCATION.	120VAC	JUNO WF6-700LM-3500K-90CRI-MW	9	700	3500K	RECESSED	
G	6" CANLESS ROUND RECESSED LED DOWNLIGHT FIXTURE WITH POLYCARBONATE FLUSH LENS, 80 CRI, DIMMING, SMOOTH TRIM, WHITE FINISH, 5 YEAR WARRANTY, IC RATED, AIRTIGHT, SUITABLE FOR WET LOCATION.	120VAC	JUNO WF6-1300LM-3500K-90CRI-MW	15	1,300	3500K	RECESSED	
	DUAL HEAD LED EMERGENCY LIGHT UNIT WITH INTEGRAL EMERGENCY BATTERY, SELF TEST DIAGNOSTICS, WHITE FINISH.	120VAC	LITHONIA LIGHTING EML6L-120-SDRT	1	750	–	WALL MOUNT @ 7'-6" AFF	
	LED EXIT SIGN WITH INTEGRAL EMERGENCY BATTERY, SELF TEST DIAGNOSTICS, WHITE FINISH.	120VAC	LITHONIA LIGHTING LHQM-LED-B-R-M6	1	–	–	SURFACE/WALL	RED LETTER COLOR
x	DUAL TECHNOLOGY 360 DEGREE OCCUPANCY SENSOR WITH 14' SMALL DIAMETER AND 28' DIAMETER LARGE MOTION COVERAGE.	120VAC	LITHONIA LIGHTING CMR-PDT-10-CM-WH	–	–	–	SURFACE	

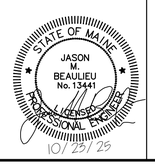
NOTES:

1. THE PRODUCTS LISTED ABOVE ARE REPRESENTATIVE OF THE DESIRED TYPE AND FEATURES. ALTERNATES MAY BE ACCEPTABLE IF SUBMITTED WITH CUTSHEETS AND PHOTOMETERIC DATA DEMONSTRATING THEIR EQUIVALENCE.
2. PROVIDE THE NECESSARY LAMPS, SUPPORTS, FITTINGS, TRIMS, BRACKETS, AND ACCESSORIES TO MAKE A COMPLETE LIGHTING ASSEMBLY.

LIGHTING CONTROL SEQUENCE OF OPERATION

SPACE TYPE	MANUAL CONTROL			AUTOMATIC CONTROLS				CONTROL SYSTEM TYPE	SEQUENCE:
	MANUAL ON	MANUAL OFF	DIMMING CONTROL	AUTO ON	AUTO OFF	DIMMING CONTROL	FIRE ALARM OVERRIDE		
CORRIDORS VESTIBULE	–	–	–	YES	YES	YES	YES	NETWORKED	AUTO ON: LIGHTS WILL AUTOMATICALLY TURN ON TO 100% VIA LOCAL OCCUPANCY/VACANCY SNESOR(S). AUTO OFF: LIGHTS WILL AUTOMATICALLY DIM TO 50% OUTPUT VIA LOCAL OCCUPANCY/VACANCY SENSOR(S) AFTER THE SPACE HAS BEEN VACANT FOR 15 MINUTES. AUTO MULTI-LEVEL CONTROL : LIGHTS WILL BE DIMMED ACCORDINGLY VIA LOCAL PHOTO SENSOR(S). NON-BUSINESS HOURS: LIGHTS WILL AUTOMATICALLY TURN FULL OFF AFTER THE SPACE HAS BEEN VACANT FOR 30 MINUTES.
OFFICES PRINT/COPY ROOMS RECEPTION	YES	YES	YES	–	YES	YES	–	NON NETWORKED	MANUAL ON: LIGHTS CAN BE TURNED ON TO 70% MANUALLY VIA WALL STATION. MANUAL OFF: LIGHTS CAN BE TURNED OFF MANUALLY VIA WALL STATION. MANUAL MULTI-LEVEL CONTROL : DIMMING CONTROL IS ACHIEVED MANUALLY VIA WALL STATION. AUTO MULTI-LEVEL CONTROL : LIGHTS WILL BE DIMMED ACCORDINGLY VIA LOCAL PHOTO SENSOR(S). AUTO OFF: LIGHTS WILL AUTOMATICALLY TURN OFF VIA LOCAL OCCUPANCY/VACANCY SENSOR(S) AFTER THE SPACE HAS BEEN VACANT FOR 15 MINUTES.
RESTROOMS SHOWERS	–	–	–	YES	YES	–	–	NON NETWORKED	AUTO ON: LIGHTS WILL AUTOMATICALLY TURN ON VIA LOCAL OCCUPANCY/VACANCY SENSOR(S). AUTO OFF: LIGHTS WILL AUTOMATICALLY TURN OFF VIA LOCAL OCCUPANCY/VACANCY SENSOR(S) AFTER THE SPACE HAS BEEN VACANT FOR 15 MINUTES.
BREAKROOM LOUNGE	YES	YES	YES	–	YES	YES	YES	NON NETWORKED	MANUAL ON: LIGHTS CAN BE TURNED ON TO 70% MANUALLY VIA WALL STATION. MANUAL OFF: LIGHTS CAN BE TURNED OFF MANUALLY VIA WALL STATION. MANUAL MULTI-LEVEL CONTROL : DIMMING CONTROL IS ACHIEVED MANUALLY VIA WALL STATION. AUTO OFF: LIGHTS WILL AUTOMATICALLY TURN OFF VIA LOCAL OCCUPANCY/VACANCY SENSOR(S) AFTER THE SPACE HAS BEEN VACANT FOR 15 MINUTES. AUTO MULTI-LEVEL CONTROL : LIGHTS WILL BE DIMMED ACCORDINGLY VIA LOCAL PHOTO SENSOR(S).
JANITOR STORAGE LAUNDRY PANTRY	YES	YES	–	–	YES	–	–	STANDALONE	MANUAL ON: LIGHTS CAN BE TURNED ON MANUALLY VIA LOCAL TOGGLE SWITCH. MANUAL OFF: LIGHTS CAN BE TURNED OFF MANUALLY VIA LOCAL TOGGLE SWITCH. AUTO OFF: LIGHTS WILL AUTOMATICALLY TURN OFF VIA LOCAL OCCUPANCY/VACANCY SENSOR(S) AFTER THE SPACE HAS BEEN VACANT FOR 15 MINUTES.
LIVING UNIT CLOSET ELECTRICAL MECHANICAL TELECOMMUNICATIONS	YES	YES	–	–	–	–	–	STANDALONE	MANUAL ON: LIGHTS CAN BE TURNED ON MANUALLY VIA LOCAL TOGGLE SWITCH. MANUAL OFF: LIGHTS CAN BE TURNED OFF MANUALLY VIA LOCAL TOGGLE SWITCH.

NOTES:
1. PROVIDE UL-924 BYPASS RELAYS FOR LIGHTING ZONES POWERED FROM EMERGENCY, LIFE SAFETY POWER SOURCES.
2. PROVIDE POWER PACKS, RELAYS AND SENSORS NECESSARY TO MEET SEQUENCE.
3. VERIFY FINAL SENSOR LAYOUT PER MANUFACTURERS SPECIFICATIONS.



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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

LIGHTING SCHEDULES

SIZE: ARCH D
DATE: 10/23/2025
DES BY: PBB
DWN BY: CAW
CKD BY: JMB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. E-601

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PANELBOARD NO:	PANEL L8	SC RATING:	10 KAIC			
PANELBOARD TYPE:	LIGHTING AND APLLIANCES	MOUNTING:	RECESSED	250	AMP MAIN LUGS	
PANEL LOCATION:	STORAGE RM 214	VOLTAGE:	208/120V, 3PH, 4W	250	AMP BUS (COPPER)	
SUPPLIED FROM:	PANEL MDP3					

CKT NO.	TRIP AMPS	NO. POLES	WIRE SIZE	CONDUIT SIZE	LOAD SERVED	LOAD VA	ϕ	LOAD VA	LOAD SERVED	WIRE SIZE	CONDUIT SIZE	NO. POLES	TRIP AMPS	CKT NO.
1	20	1	(2) #12AWG, (1) #12 GND	3/4"	LTG – RM 208 – 220 (**)	480	A	900	RECEPT – RM 209 (**)	(2) #12AWG, (1) #12 GND	3/4"	1	20	2
3	20	1	(2) #12AWG, (1) #12 GND	3/4"	RECEPT – RM 210, 211 SOUTH, 212 (**)	900	B	540	RECEPT – RM 211 WEST (**)	(2) #12AWG, (1) #12 GND	3/4"	1	20	4
5	20	1	(2) #12AWG, (1) #12 GND	3/4"	RECEPT – MICROWAVE RM 211 (**)	1200	C	540	RECEPT – RM 211 NORTH (**)	(2) #12AWG, (1) #12 GND	3/4"	1	20	6
7	20	1	(2) #12AWG, (1) #12 GND	3/4"	RECEPT – DISHWASHER RM 211 (**)	1800	A	500	RANGE HOOD RM 211 (***)	(2) #12AWG, (1) #12 GND	3/4"	1	20	8
9	20	1	(2) #12AWG, (1) #12 GND	3/4"	RECEPT – REFRIGERATOR RM 211 (***)	1800	B	360	RECEPT – RM 213 (*)	(2) #12AWG, (1) #12 GND	3/4"	1	20	10
11	20	1	(2) #12AWG, (1) #12 GND	3/4"	RECEPT – LAUNDRY WASHER RM 213 (**)	1200	C	360	RECEPT – RM 214 (*)	(2) #12AWG, (1) #12 GND	3/4"	1	20	12
13	30	2	(3) #10 AWG, (1) #10 GND	3/4"	RECEPT – LAUNDRY DRYER RM 213 (*)	2500	A	1620	RECEPT – RM 208, 216, 217, 220 (**)	(2) #12AWG, (1) #12 GND	3/4"	1	20	14
15						2500	B	1000	RECEPT – RM 219	(2) #12AWG, (1) #12 GND	3/4"	1	20	16
17	40	2	(3) #8 AWG, (1) #10 GND	3/4"	DOUBLE WALL OVEN RM 211 (*)	3500	C	500	RECEPT – PRINTER RM 219	(2) #12AWG, (1) #12 GND	3/4"	1	20	18
19						3500	A	180	RECEPT – RM 218	(2) #12AWG, (1) #12 GND	3/4"	1	20	20
21	70	2	(3) #4 AWG, (1) #8 GND	1"	RECEPT – RANGE RM 211 (*)	5333	B	180	RECEPT – RM 215	(2) #12AWG, (1) #12 GND	3/4"	1	20	22
23						5333	C	1019	CUH–1 RM 220	(2) #12AWG, (1) #12 GND	3/4"	2	15	24
25	20	1			SPARE		A	1019						26
27	20	1			SPARE		B	2882	EDH–1 ERV–1	(3) #10 AWG, (1) #10 GND	3/4"	3	30	28
29	15	2	(2) #12AWG, (1) #12 GND	3/4"	CU–8 OUTDOOR UNIT	1913	C	2882						30
31						1913	A	2882						32
33	20	3	(3) #12AWG, (1) #12 GND	3/4"	VAV–1	1501	B	300	RECEPT – WEST EXTERIOR	(2) #12AWG, (1) #12 GND	3/4"	1	20	34
35						1501	C	624	EBB–208 RM 208 & EBB–218RM 218	(2) #12AWG, (1) #12 GND	3/4"	2	15	36
37						1501	A	624						38
39	20	3	(3) #12AWG, (1) #12 GND	3/4"	VAV–2	1260	B	211	HWCP–1 RM 214	(2) #12AWG, (1) #12 GND	3/4"	1	15	40
41						1260	C	396	EF–213	(3) #12AWG, (1) #12 GND	3/4"	3	15	42
43						1260	A	396						44
45	15	3	(3) #12AWG, (1) #12 GND	3/4"	VAV–3	144	B	396						46
47						144	C	200	RECEPT – IT CABINET– RM 219	(2) #12AWG, (1) #12 GND	3/4"	1	20	48
49						144	A	144	VAV–4	(3) #12AWG, (1) #12 GND	3/4"	3	15	50
51							B	144						52
53							C	144						54

TOTAL PHASE A LOAD =	21.4	kVA
TOTAL PHASE B LOAD =	19.5	kVA
TOTAL PHASE C LOAD =	22.7	kVA
TOTAL CONNECTED LOAD =	63.5	kVA

NOTES:
(*) PROVIDE CIRCUIT BREAKER WITH GFCI PROTECTION.
(**) PROVIDE CIRCUIT BREAKER WITH AFCI PROTECTION.
(***) PROVIDE CIRCUIT BREAKER WITH BOTH GFCI AND AFCI PROTECTION.

NOTE:
1. SEE E–001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

LICENSED ARCHITECT
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№ 5397
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PANELBOARD NO:	PANEL L1–7	SC RATING: 10 KAIC				
PANELBOARD TYPE:	LOAD CENTER	MOUNTING: RECESSED			125 AMP MAIN LUGS	
PANEL LOCATION:	UNIT LIVING SPACE	VOLTAGE: 208/120V, 3PH, 4W			125 AMP BUS (COPPER)	
SUPPLIED FROM:	PANEL MDP3					

CKT NO.	TRIP AMPS	NO. POLES	WIRE SIZE	CONDUIT SIZE	LOAD SERVED	LOAD VA	ϕ	LOAD VA	LOAD SERVED	WIRE SIZE	CONDUIT SIZE	NO. POLES	TRIP AMPS	CKT NO.
1	20	1	(2) #12AWG, (1) #12 GND	3/4"	LTG (**)	200	A	900	RECEPT – LIVING SPACE, CLOSET (**)	(2) #12AWG, (1) #12 GND	3/4"	1	20	2
3	20	1	(2) #12AWG, (1) #12 GND	3/4"	RECEPT – KITCHEN NORTH WEST (**)	360	B	540	RECEPT – KITCHEN NORTH EAST (**)	(2) #12AWG, (1) #12 GND	3/4"	1	20	4
5	20	1	(2) #12AWG, (1) #12 GND	3/4"	RECEPT – BATHROOM (**)	180	C	4160	RECEPT – RANGE(*)	(3) #6 AWG, (1) #10 GND	3/4"	2	50	6
7	20	1	(2) #12AWG, (1) #12 GND	3/4"	RECEPT – REFRIGERATOR (***)	1500	A	4160						8
9	20	1	(2) #12AWG, (1) #12 GND	3/4"	RANGE HOOD (***)	500	B	1248	CU – OUTDOOR UNIT (****)	(2)#10 AWG, (1) #10 GND	3/4"	2	25	10
11	15	2	(2) #12AWG, (1) #12 GND	3/4"	ELECTRIC BASEBOARD HEATER	500	C	1248						12
13						500	A							14
15							B							16
17							C							18

TOTAL PHASE A LOAD =	7.3	kVA
TOTAL PHASE B LOAD =	2.6	kVA
TOTAL PHASE C LOAD =	6.1	kVA
TOTAL CONNECTED LOAD =	16.0	kVA

NOTES:
(*) PROVIDE CIRCUIT BREAKER WITH GFCI PROTECTION.
(**) PROVIDE CIRCUIT BREAKER WITH AFCI PROTECTION.
(***) PROVIDE CIRCUIT BREAKER WITH BOTH GFCI AND AFCI PROTECTION.
(****) PROVIDE A 40A, 2 POLE CIRCUIT BREAKER FOR CU–7 IN PANEL L7. RUN (2)#8 AWG, (1)#10 GND WIRES IN 3/4" CONDUIT TO OUTDOOR UNIT.

STATE OF MAINE
JASON M. BEAULIEU
No. 13441
PROFESSIONAL ENGINEER
10/23/25

COLBY COMPANY, LLC
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REV	DESCRIPTION	DWN	APP	DATE
0	ISSUED FOR CONSTRUCTION	CAW	MJK	10/23/25

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

PANEL SCHEDULES - L8 & L1-7

SIZE: ARCH D
DATE: 10/23/2025
DES BY: PBB
DWN BY: CAW
CKD BY: JMB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. E-602

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PANELBOARD NO:	(E) PANEL A	SC RATING:	
PANELBOARD TYPE:	SQUARE D TYPE NQO	MOUNTING: SURFACE	250 AMP MAIN LUGS
PANEL LOCATION:	EXISTING CORRIDOR	VOLTAGE: 208/120V, 3PH, 4W	250 AMP BUS (COPPER)
SUPPLIED FROM:	PANEL MDP1 VIA 200A CB		

CKT NO.	TRIP AMPS	NO. POLES		CONDUIT SIZE	LOAD SERVED	LOAD VA	ϕ	LOAD VA	LOAD SERVED	WIRE SIZE	CONDUIT SIZE	NO. POLES	TRIP AMPS	CKT NO.
1							A		SPARE			1	20	2
3	50	3			RTU#1		B		RECESSED CANOPY LIGHT			1	20	4
5							C		COMPUTER ROOM RECEPTACLE			1	20	6
7							A		SPARE			1	20	8
9	60	3			RTU#5		B		OUTSIDE WALL PACKS			2	20	10
11							C							12
13							A		RTU#1 CONTROLS			2	15	14
15	60	3			RTU#6		B							16
17							C	1019	CUH-2	(2) #12AWG, (1) #12 GND	3/4"	1	20	18
19	30	2			HOT WATER TANK		A	1019						20
21							B	936	UH-1	(2) #12AWG, (1) #12 GND	3/4"	1	20	22
23	15	2			RTU#6 CONTROLS		C	936						24
25							A	936	UH-2	(2) #12AWG, (1) #12 GND	3/4"	1	20	26
27	15	2			RTU#2 CONTROLS		B	936						28
29							C	100	RECEPT - TP-1 RM 302	(2) #12AWG, (1) #12 GND	3/4"	1	15	30
31					SPACE		A		SPACE					32
33					SPACE		B		SPACE					34
35					SPACE		C		SPACE					36
37					SPACE		A		SPACE					38
39					SPACE		B		SPACE					40
41					SPACE		C		SPACE					42

TOTAL PHASE A LOAD =	2.0	kVA	NOTES: 1. PROVIDE A NEW CIRCUIT BREAKER FOR EACH NEW CIRCUIT ABOVE.
TOTAL PHASE B LOAD =	1.9	kVA	
TOTAL PHASE C LOAD =	2.1	kVA	
TOTAL CONNECTED LOAD =	5.9	kVA	

NOTES:

1. SEE E-001 FOR LEGEND, GENERAL NOTES AND ABBREVIATIONS.
2. HIGHLIGHTED CIRCUITS INDICATE EXISTING CIRCUITS WITH UNVERIFIED LC
3. UNLESS OTHERWISE NOTED P. INDICATE NEW CIRCUIT BREAK PROVIDED.
4. PANEL SCHEDULE INFORMATIO PANELS IS BASED ON AVAILAE DURING DESIGN. VERIFY THAT SCHEDULES ARE ACCURATE AND NOTIFY CONTRACTING OFFICE OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
5. FIELD VERIFY PANELBOARD SHORT CIRCUIT CURRENT RATING PRIOR TO PURCHASING NEW CIRCUIT BREAKER(S).

LICENSED ARCHITECT
BENJAMIN P. BEEP
№ 5397
STATE OF MAINE

STATE OF MAINE
JASON M. BEAULIEU
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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

PANEL SCHEDULE - A

SIZE: ARCH D
DATE: 10/23/2025
DES BY: PBB
DWN BY: CAW
CKD BY: JMB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. E-603

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ABBREVIATIONS

@	AT
AAV	AIR ADMITTANCE VALVE
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
ARCH	ARCHITECTURAL
AS	AIR SEPARATOR
BFP	BACKFLOW PREVENTER
BTUH	BRITISH THERMAL UNITS PER HOUR
CFH	CUBIC FEET PER HOUR
CO	CLEANOUT
COND	CONDENSATE
CP	CIRCULATOR PUMP
CS	CARBON STEEL
CW	COLD WATER
D	DRAIN
DCW	DOMESTIC COLD WATER
DEG	DEGREE
DHWR	DOMESTIC HOT WATER RETURN
DHWS	DOMESTIC HOT WATER SUPPLY
DIA	DIAMETER
DWH	DOMESTIC WATER HEATER
DWG	DRAWING
(E)	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
F	FAHRENHEIT
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FP	FIRE PROTECTION
FT	FOOT/FEET
G	GAS
GAL	GALLON
GM	GAS METER
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HP	HORSEPOWER
HW	HOT WATER
HWCP	HOT WATER CIRCULATING PUMP
HZ	HERTZ
IN	INCHES
INS	INSULATION
IWR	INDIRECT WASTE RECEPTOR
LBS	POUNDS
MBH	1000 BTUH
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MP	MEDIUM PRESSURE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NFWH	NON FREEZE WALL HYDRANT
NO	NUMBER
P	PLUMBING FIXTURE
PH	PHASE
PSIG	POUNDS PER SQUARE INCH GAUGE
PRV	PRESSURE REDUCING VALVE
PVC	POLYVINYL CHLORIDE
(R)	EXISTING TO BE REMOVED
RECIRC	RECIRCULATED
RHW	RECIRCULATED HOT WATER
RPZ	REDUCED PRESSURE ZONE
SAN	SANITARY
SCHD	SCHEDULE
SIM	SIMILAR
SF	SQUARE FEET
SOV	SHUT OFF VALVE
SS	STAINLESS STEEL
TP	TRAP PRIMER
TW	TEMPERED WATER
TYP	TYPICAL
V	VENT, VOLT
VTR	VENT THROUGH ROOF
W	WASTE, WATT
W/	WITH
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTOR

PLUMBING SYMBOLS

- AUTOMATIC AIR VENT
- BALL VALVE
- COMBINATION FLOW MEASURING/ BALANCING VALVE (CIRCUIT SETTER)
- BALL VALVE W/ HOSE END CONNECTION
- BACKFLOW PREVENTER
- CAP
- CHECK VALVE
- CLEANOUT (CO)
- CONNECT TO EXISTING
- ELBOW DOWN
- ELBOW UP OR UP AND DOWN
- FLOOR CLEANOUT (FCO)
- FLOOR DRAIN
- GAS METER
- GATE VALVE
- STRAINER WITH SCREEN CAP
- STRAINER W/BALL DRAIN VALVE, HOSE THREAD OUTLET AND CAP
- HOSE BIBB
- IN-LINE PUMP
- SLOPE DOWNWARD (DN)
- T & P RELIEF VALVE
- THERMOMETER IN WELL
- TEE DOWN
- PRESSURE GAUGE W/ BALL VALVE
- PRESSURE REGULATOR
- REDUCER
- UNION
- VACUUM RELIEF VALVE
- WALL CLEANOUT (WCO)
- WATER HAMMER ARRESTOR
- WATER METER

LINE TYPES LEGEND

- ITEMS TO BE REMOVED
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER SUPPLY
- DOMESTIC HOT WATER RETURN
- SANITARY SEWER
- SANITARY SEWER (BELOW SLAB)
- VENT

APPLICABLE CODES AND STANDARDS

- ADA STANDARDS FOR ACCESSIBLE DESIGN, 2010
- ASHRAE 90.1, ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS, 2019
- MUBEC: MAINE UNIFORM BUILDING AND ENERGY CODE, 2018
- UNIFORM PLUMBING CODE 2021, WITH MAINE AMENDMENTS

LICENSED ARCHITECT — BHENJAMIN FREED — № 5397 — STATE OF MAINE

GENERAL NOTES:

1. GENERAL NOTES, SYMBOLS LIST AND DETAILS ARE APPLICABLE TO DRAWINGS MARKED P-#.
2. DRAWINGS ARE DIAGRAMMATIC; DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD.
3. AREA FLOOR DRAINS AND SANITARY DRAIN CLEAN-OUTS MUST BE BY THE SAME MANUFACTURER FOR CONSISTENCY.
4. COORDINATE WORK WITH TRADES INVOLVED. PROVIDE OFFSETS IN PIPING AND TRANSITIONS AROUND OBSTRUCTIONS AT NO ADDITIONAL COST TO THE OWNER.
5. VERIFY EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. VERIFY AND PROVIDE PIPE TRANSITIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE DIMENSIONS BEFORE FABRICATION.
6. PROVIDE ACCESS PANELS, WHERE REQUIRED, TO SERVICE VALVES AND CONCEALED PLUMBING EQUIPMENT. COORDINATE FINAL LOCATIONS WITH ARCHITECT OF RECORD.
7. INSTALL EQUIPMENT AND PIPING AS REQUIRED TO MINIMIZE VIBRATION AND TO FACILITATE EQUIPMENT ACCESS AS REQUIRED BY EQUIPMENT MANUFACTURER.
8. CONTROL WIRE AND CONDUIT MUST COMPLY WITH NEC AND DIVISION 26 SPECIFICATIONS.
9. INSULATE PIPING AS SPECIFIED. PERFORM ANY SPECIFIED TESTING AND INSPECTIONS BEFORE INSULATING.
10. PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.
11. PROVIDE DRAIN VALVES AT LOW POINTS.
12. PITCH DRAINAGE PIPING A MINIMUM OF 1/4" PER FOOT IN DIRECTION OF FLOW FOR PIPING NPS 2-1/2 AND SMALLER; 1/8" PER FOOT IN DIRECTION OF FLOW FOR PIPING NPS 3 AND LARGER.
13. PLUMBING EXHAUST VENT ATMOSPHERIC TERMINATIONS MUST BE INSTALLED A MINIMUM OF 10' FROM ANY EXISTING OR NEW MECHANICAL AIR SYSTEM INTAKES.

STATE OF MAINE — DAVID H. BROWN No. 7551 — PROFESSIONAL ENGINEER — 10 - 23 - 25

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
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208 GRAHAM STREET
TRANSITION HOME

PLUMBING NOTES, LEGENDS, AND ABBREVIATIONS

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	ATW
DWN BY:	MJP
CKD BY:	DHB

PROJECT NO. 480.003.001
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SPECIFICATIONS:

230000 PLUMBING

1. GENERAL

1.1 DOMESTIC WATER PIPING, TUBING, FITTINGS, JOINTS, AND APPURTENANCES INTENDED TO CONVEY OR DISPENSE WATER FOR HUMAN CONSUMPTION MUST COMPLY WITH THE U.S. SAFE DRINKING WATER ACT, WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION, AND WITH NSF 61 AND NSF 372, OR BE CERTIFIED IN COMPLIANCE WITH NSF 61 AND NSF 372 BY AN ANSI–ACCREDITED THIRD–PARTY CERTIFICATION BODY, IN THAT THE WEIGHTED AVERAGE LEAD CONTENT AT WETTED SURFACES IS LESS THAN OR EQUAL TO 0.25 PERCENT.

1.2 PIPING INSULATION MUST BE EITHER FLEXIBLE ELASTOMERIC INSULATION OF CLOSED–CELL, SPONGE– OR EXPANDED–RUBBER MATERIALS OR MINERAL–FIBER PREFORMED PIPE INSULATION. INSULATION FOR DOMESTIC COLD WATER NPS 1" AND SMALLER MUST BE 1/2 INCH THICK. INSULATION FOR DOMESTIC HOT WATER 1–1/4 AND SMALLER MUST BE MINERAL–FIBER, PREFORMED PIPE INSULATION ONLY AND 1 INCH THICK.

2. PRODUCTS

2.1 HANGERS AND SUPPORTS

A. SUPPORT EQUIPMENT AND PIPING FROM THE TOP CHORD OF BAR JOISTS AT THE "PANEL POINTS" OR FROM THE TOP FLANGE OF BEAMS. PIPING 2–INCH NOMINAL AND SMALLER MAY BE SUPPORTED FROM THE BOTTOM CHORD OF THE BAR JOISTS AT THE "PANEL POINTS" OR FROM THE BOTTOM FLANGE OF THE BEAMS.

B. HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT ARE TO WITHSTAND THE EFFECTS OF GRAVITY LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED IN ACCORDANCE WITH ASCE. DESIGN SUPPORTS FOR MULTIPLE PIPES, INCLUDING PIPE STANDS, CAPABLE OF SUPPORTING COMBINED WEIGHT OF SUPPORTED SYSTEMS, SYSTEM CONTENTS, AND TEST WATER.

C. WHERE CEILING MOUNTING IS INDICATED OR SPECIFIED, USE SUSPENDED PLATFORM OR STRAP HANGERS, BRACKET OR SHELF, WHICHEVER IS MOST SUITABLE FOR EQUIPMENT AND ITS LOCATION. CONSTRUCT OF STRUCTURAL STEEL MEMBERS, STEEL PLATES, OR RODS, AS REQUIRED; BRACE AND FASTEN TO BUILDING STRUCTURE OR TO INSERTS AS APPROVED, OR AS DETAILED.

D. WHERE FLOOR MOUNTING IS INDICATED, LOCATE EQUIPMENT ON 4 INCH HIGH REINFORCED CONCRETE PAD OF ADEQUATE SIZE WITH ANCHORS AND BASE PLATES AS REQUIRED, OR ON STRUCTURAL STEEL FRAME AS DETAILED. THE CORNERS OF PADS MUST BE CHAMFERED 1 INCH. PAD AND STEEL SIZES AND LOCATION MUST BE COORDINATED WITH THE APPROVED EQUIPMENT.

E. INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED THERMAL AND SEISMIC MOVEMENT OF PIPING SYSTEMS, TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS, AND SIMILAR UNITS. INSTALL LATERAL BRACING WITH PIPE HANGERS AND SUPPORTS TO PREVENT SWAYING. INSTALL BUILDING ATTACHMENTS WITHIN CONCRETE SLABS OR ATTACH TO STRUCTURAL STEEL. INSTALL ADDITIONAL ATTACHMENTS AT CONCENTRATED LOADS. INSTALL HANGERS AND SUPPORTS SO THAT PIPING LIVE AND DEAD LOADS AND STRESSES FROM MOVEMENT WILL NOT BE TRANSMITTED TO CONNECTED EQUIPMENT. INSTALL HANGERS AND SUPPORTS TO PROVIDE INDICATED PIPE SLOPES AND TO NOT EXCEED MAXIMUM PIPE DEFLECTIONS ALLOWED BY ASME B31.9 FOR BUILDING SERVICES PIPING.

2.2 VALVES

A. OBTAIN EACH TYPE OF VALVE FROM SINGLE SOURCE FROM SINGLE MANUFACTURER. COMPLY WITH ASME B1.20.1 FOR THREADS FOR THREADED END VALVES, ASME B16.10 AND ASME B16.34 FOR FERROUS VALVE DIMENSIONS AND DESIGN CRITERIA, ASME B16.18 FOR SOLDER–JOINT CONNECTIONS, AND ASME B31.9 FOR BUILDING SERVICES PIPING VALVES. NSF 61 AND NSF 372 FOR VALVE MATERIALS FOR POTABLE–WATER SERVICE. BRONZE VALVES MUST BE MADE WITH DEZINCIFICATION–RESISTANT MATERIALS. BRONZE VALVES MADE WITH COPPER ALLOY (BRASS) CONTAINING MORE THAN 15 PERCENT ZINC ARE NOT PERMITTED.

B. BASIS OF DESIGN:

B.A. SHUTOFFS AT SINK: BRASSCRAFT G2 1/4 TURN STOPS.

B.B. TEMPORARY SHUTOFFS ABOVE CEILING: APOLLO OR EQUIVALENT EQUAL.

2.3 IDENTIFICATION

A. PLASTIC NAMEPLATES: LAMINATED 3–LAYER PLASTIC WITH BEVELED EDGES AND ENGRAVED LETTERS ON CONTRASTING BACKGROUND COLOR, 1/16 INCH THICK. LETTERS MUST BE BLACK ON LIGHT BACKGROUNDS, OR WHITE ON DARK BACKGROUNDS, AS APPLICABLE. SERVICE TEMPERATURE RANGE –40 TO 175 DEGREES; MINIMUM APPLICATION TEMPERATURE FOR ADHESIVE 50 DEGREES. SUITABLE FOR AVERAGE OUTDOOR LIFESPAN OF AT LEAST 2–3 YEARS. BASIS OF DESIGN: SETON OR EQUIVALENT EQUAL.

B. VALVE TAGS: STAMPED OR ENGRAVED BRASS WITH 1/4–INCH LETTERS FOR PIPING SYSTEM ABBREVIATION AND 1/2–INCH NUMBERS.

2.4 ELECTRIC WATER HEATER

A. THE HEATER MUST BE GOLD XI COMMERCIAL ELECTRIC MODEL NUMBER DVE–80–13.5 AS MANUFACTURED BY A. O. SMITH WATER PRODUCTS COMPANY OR EQUIVALENT. HEATER MUST BE RATED AT 13.5 KW 208 V 3 PHASE, 60 CYCLE AC AS LISTED BY UNDERWRITERS' LABORATORIES. ALL MODELS TO MEET NATIONAL SANITATION FOUNDATION NSF–5 REQUIREMENTS. WATER HEATER MUST HAVE LCD DISPLAY WITH BUILT–IN DIAGNOSTIC AND TROUBLESHOOTING INFORMATION. TANK(S) MUST BE 80 GALLON CAPACITY WITH 160 [ASME] PSI WORKING PRESSURE AND EQUIPPED WITH DUAL EXTRUDED HIGH DENSITY ANODES. INTERNAL SURFACES OF THE HEATER EXPOSED TO WATER MUST BE GLASS–LINED WITH AN ALKALINE BOROSILICATE COMPOSITION THAT HAS BEEN FUSED TO STEEL BY FIRING AT A TEMPERATURE RANGE OF 1400°F TO 1600°F. INTERNAL POWER CIRCUIT FUSING MUST BE PROVIDED. ELEMENT OPERATION MUST BE LINEAR SEQUENCING THROUGH INDIVIDUAL MAGNETIC CONTACTORS. CONTROL CIRCUIT MUST BE FACTORY FUSED AND INCLUDE AN IMMERSION THERMISTOR TEMPERATURE PROBE WITH BUILT IN ECO CONTROL. CONTROL CABINET AND JACKET MUST BE OF BAKED ENAMEL FINISH AND PROVIDE FULL SIZE CONTROL AND ELEMENT COMPARTMENT FOR COMPLETE SERVICE AND MAINTENANCE PERFORMANCE THROUGH FRONT HINGED COMPARTMENT DOOR, AND ENCLOSE TANK WITH FOAM INSULATION. 1 1/4" INLET AND OUTLET CONNECTION MUST BE PROVIDED. THE HEATER TANK MUST HAVE A THREE YEAR LIMITED WARRANTY. CONTROLS AND ACCESSORIES MUST HAVE A ONE YEAR LIMITED WARRANTY AS OUTLINED IN THE WRITTEN WARRANTY. PROVIDE FULLY ILLUSTRATED INSTRUCTION MANUAL. UNIT MUST MEETS OR EXCEEDS THE THERMAL EFFICIENCY AND STANDBY LOSS REQUIREMENTS OF THE U.S. DEPARTMENT OF ENERGY AND CURRENT EDITION OF ASHRAE/IES 90.1.

3. CONSTRUCTION

3.1 INSTALL OR PERMANENTLY FASTEN NAMEPLATES ON EACH MAJOR ITEM OF MECHANICAL EQUIPMENT.

3.2 INSTALL VALVES WITH UNIONS OR FLANGES AT EACH PIECE OF EQUIPMENT ARRANGED TO ALLOW SERVICE, MAINTENANCE, AND EQUIPMENT REMOVAL WITHOUT SYSTEM SHUTDOWN. LOCATE VALVES FOR EASY ACCESS AND PROVIDE SEPARATE SUPPORT WHERE NECESSARY. INSTALL VALVES IN HORIZONTAL PIPING WITH STEM AT OR ABOVE CENTER OF PIPE. INSTALL VALVES IN POSITION TO ALLOW FULL STEM MOVEMENT. INSTALL SWING CHECK VALVES FOR PROPER DIRECTION OF FLOW IN HORIZONTAL POSITION WITH HINGE PIN LEVEL.

LICENSED ARCHITECT
BENJAMIN FREED
№ 5397
STATE OF MAINE

STATE OF MAINE
DAVID H. BROWN
No. 7551
PROFESSIONAL ENGINEER
10 - 23 - 25

COLBY COMPANY, LLC
CCE
engineering & design

47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
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MAINE HEALTH DBA, BEHAVIORAL HEALTH
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208 GRAHAM STREET
TRANSITION HOME

SPECIFICATIONS

SIZE: ARCH D
DATE: 10/23/2025
DES BY: ATW
DWN BY: MJP
CKD BY: DHB

PROJECT NO. 480.003.001
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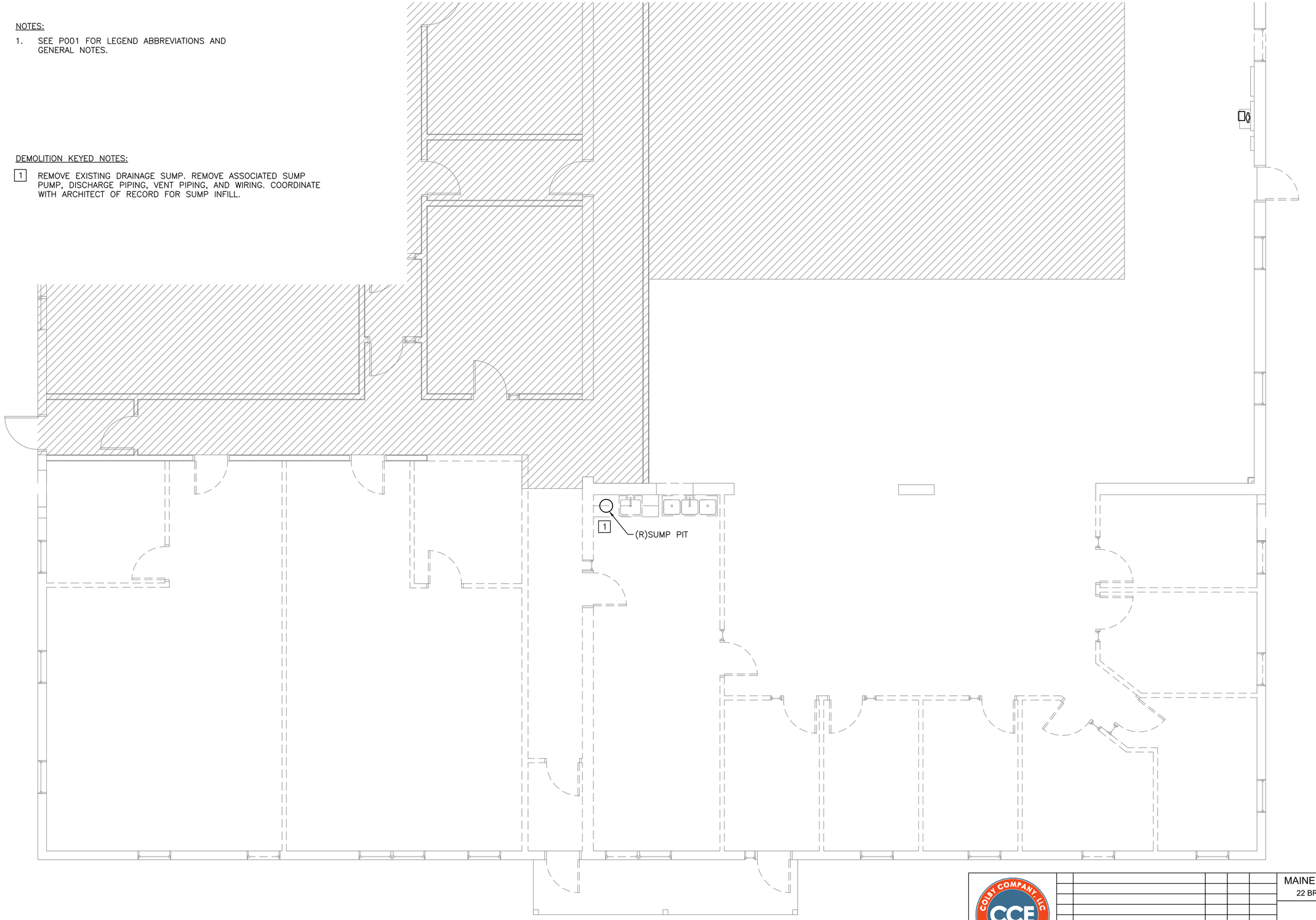
NOTES:

1. SEE P001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

DEMOLITION KEYED NOTES:

1 REMOVE EXISTING DRAINAGE SUMP. REMOVE ASSOCIATED SUMP PUMP, DISCHARGE PIPING, VENT PIPING, AND WIRING. COORDINATE WITH ARCHITECT OF RECORD FOR SUMP INFILL.



FIRST FLOOR BELOW-SLAB DRAINAGE PLAN – REMOVALS

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

LICENSED ARCHITECT
BENJAMIN FREED
№ 5397
STATE OF MAINE

PLAN NORTH

0 2' 4' 8'
Scale: 1/4" = 1'-0"

STATE OF MAINE
DAVID H. BROWN
No. 7551
LICENSED PROFESSIONAL ENGINEER
10-23-25

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PLUMBING FIRST FLOOR BELOW-SLAB DRAINAGE - REMOVALS

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	ATW
DWN BY:	MJP
CKD BY:	DHB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. PD-101

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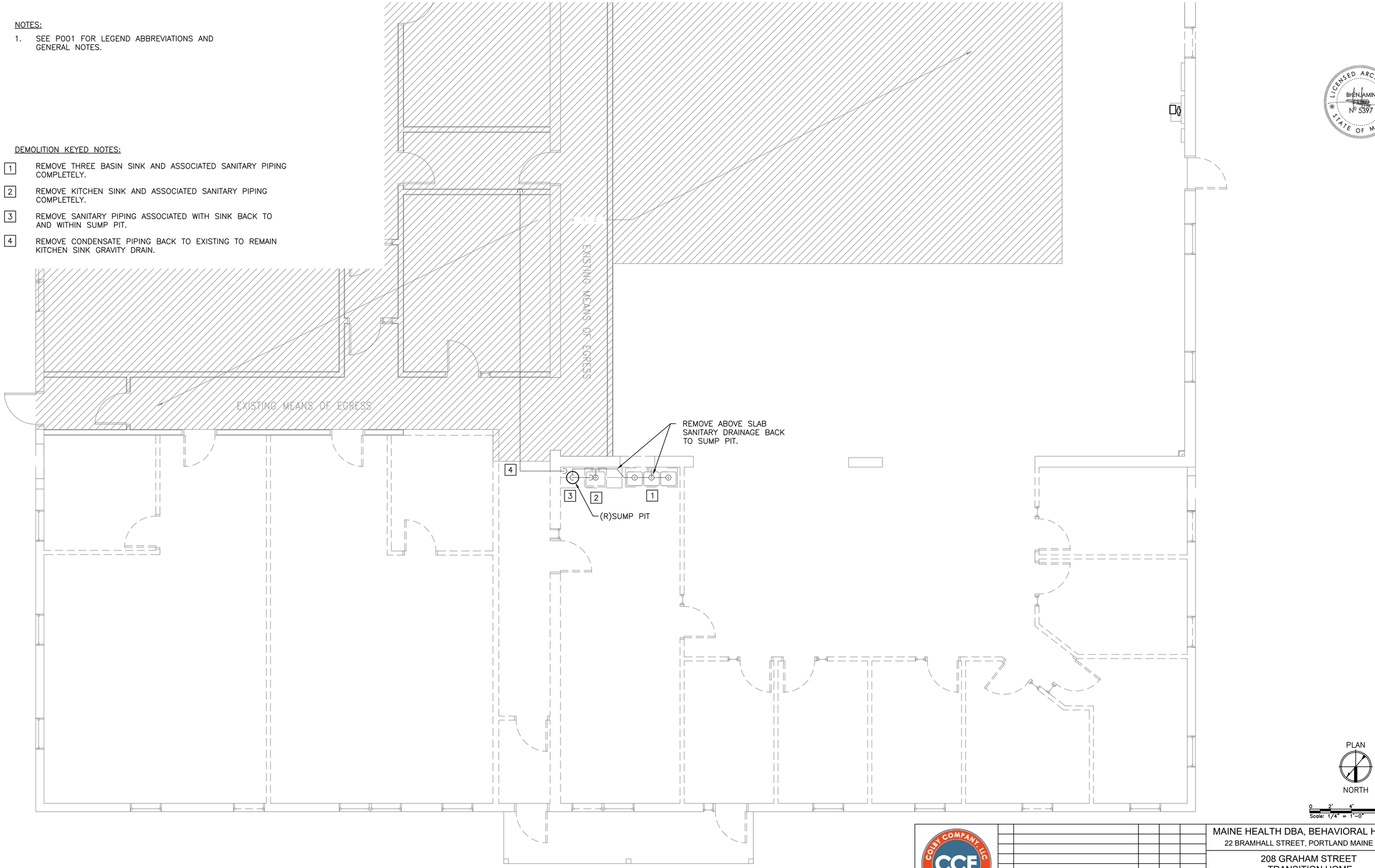
NOTES:

1. SEE P001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

DEMOLITION KEYED NOTES:

1. REMOVE THREE BASIN SINK AND ASSOCIATED SANITARY PIPING COMPLETELY.
2. REMOVE KITCHEN SINK AND ASSOCIATED SANITARY PIPING COMPLETELY.
3. REMOVE SANITARY PIPING ASSOCIATED WITH SINK BACK TO AND WITHIN SUMP PIT.
4. REMOVE CONDENSATE PIPING BACK TO EXISTING TO REMAIN KITCHEN SINK GRAVITY DRAIN.



FIRST FLOOR ABOVE-SLAB DRAINAGE – REMOVALS

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

PLAN NORTH

Scale: 1/4" = 1'-0" (0, 2', 4', 8')

LICENSED ARCHITECT BENJAMIN FREED No. 5397 STATE OF MAINE

STATE OF MAINE DAVID H. BROWN No. 7551 LICENSED PROFESSIONAL ENGINEER 10-23-25

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PLUMBING FIRST FLOOR ABOVE-SLAB DRAINAGE PLAN - REMOVALS

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NOTES:

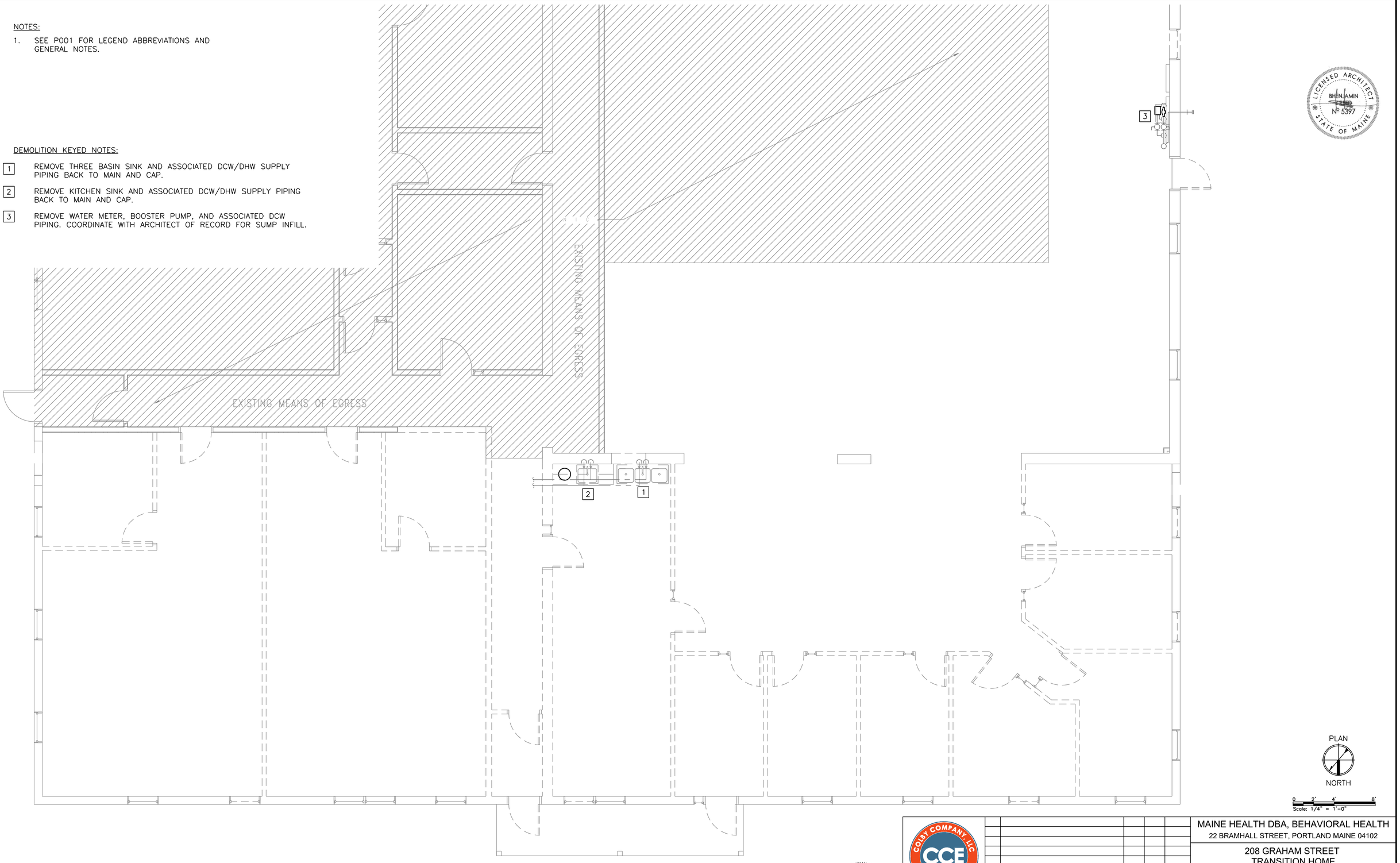
1. SEE P001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

DEMOLITION KEYED NOTES:

1 REMOVE THREE BASIN SINK AND ASSOCIATED DCW/DHW SUPPLY PIPING BACK TO MAIN AND CAP.

2 REMOVE KITCHEN SINK AND ASSOCIATED DCW/DHW SUPPLY PIPING BACK TO MAIN AND CAP.

3 REMOVE WATER METER, BOOSTER PUMP, AND ASSOCIATED DCW PIPING. COORDINATE WITH ARCHITECT OF RECORD FOR SUMP INFILL.



FIRST FLOOR SUPPLY PIPING PLAN – REMOVALS

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

LICENSED ARCHITECT
BENJAMIN FREED
№ 5397
STATE OF MAINE

PLAN NORTH

0 2' 4' 8'
Scale: 1/4" = 1'-0"

STATE OF MAINE
DAVID H. BROWN
No. 7551
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10-23-25

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PLUMBING SUPPLY PIPING PLAN - REMOVALS

PROJECT NO. 480.003.001

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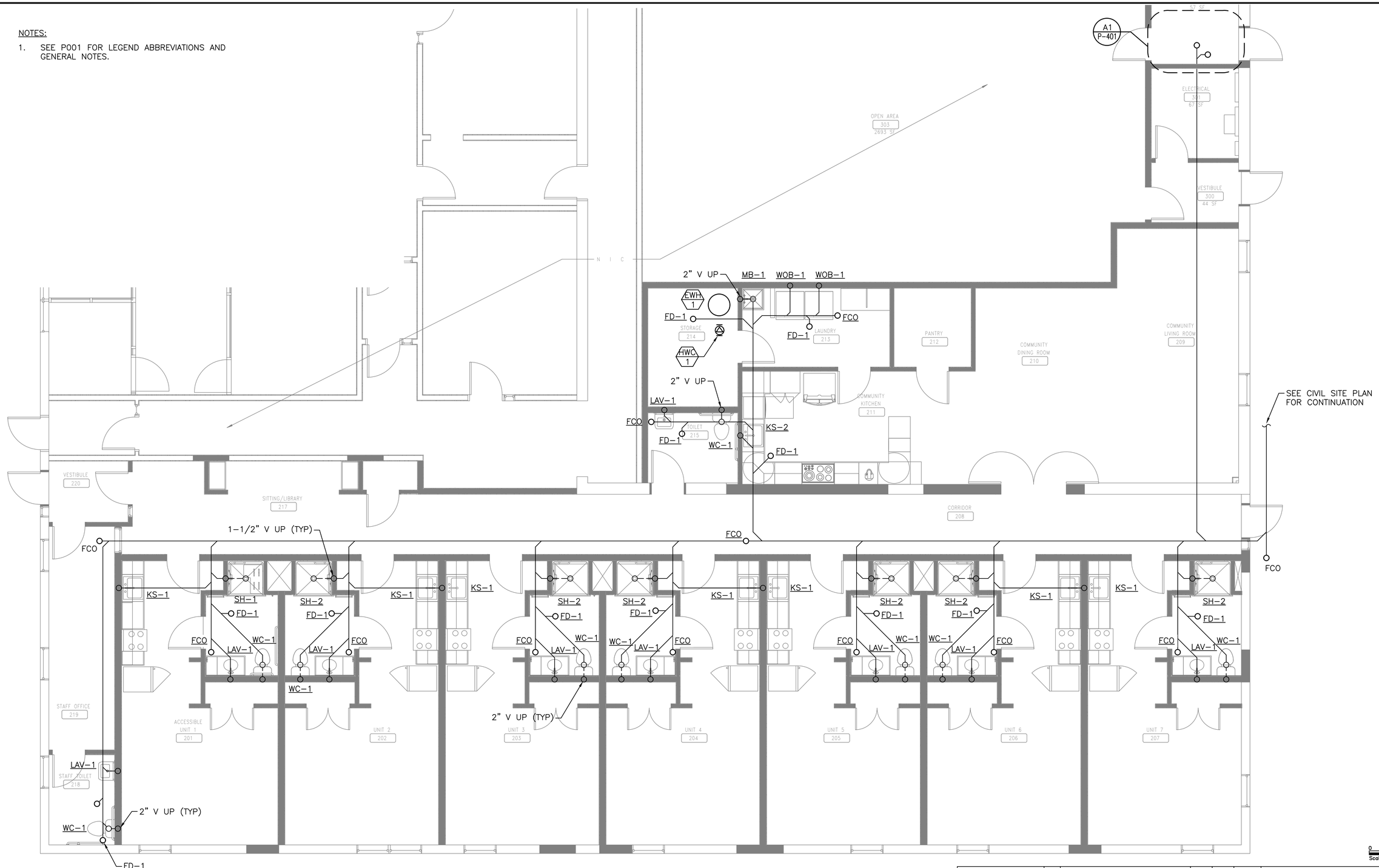
NOTES:

1. SEE P001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.



FIRST FLOOR BELOW-SLAB DRAINAGE - NEW WORK

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

PLAN NORTH

0 2' 4' 8'
Scale: 1/4" = 1'-0"

LICENSED ARCHITECT
BENJAMIN FREED
№ 5397
STATE OF MAINE

STATE OF MAINE
DAVID H. BROWN
No. 7551
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PLUMBING FIRST FLOOR BELOW-SLAB PLAN
- NEW WORK

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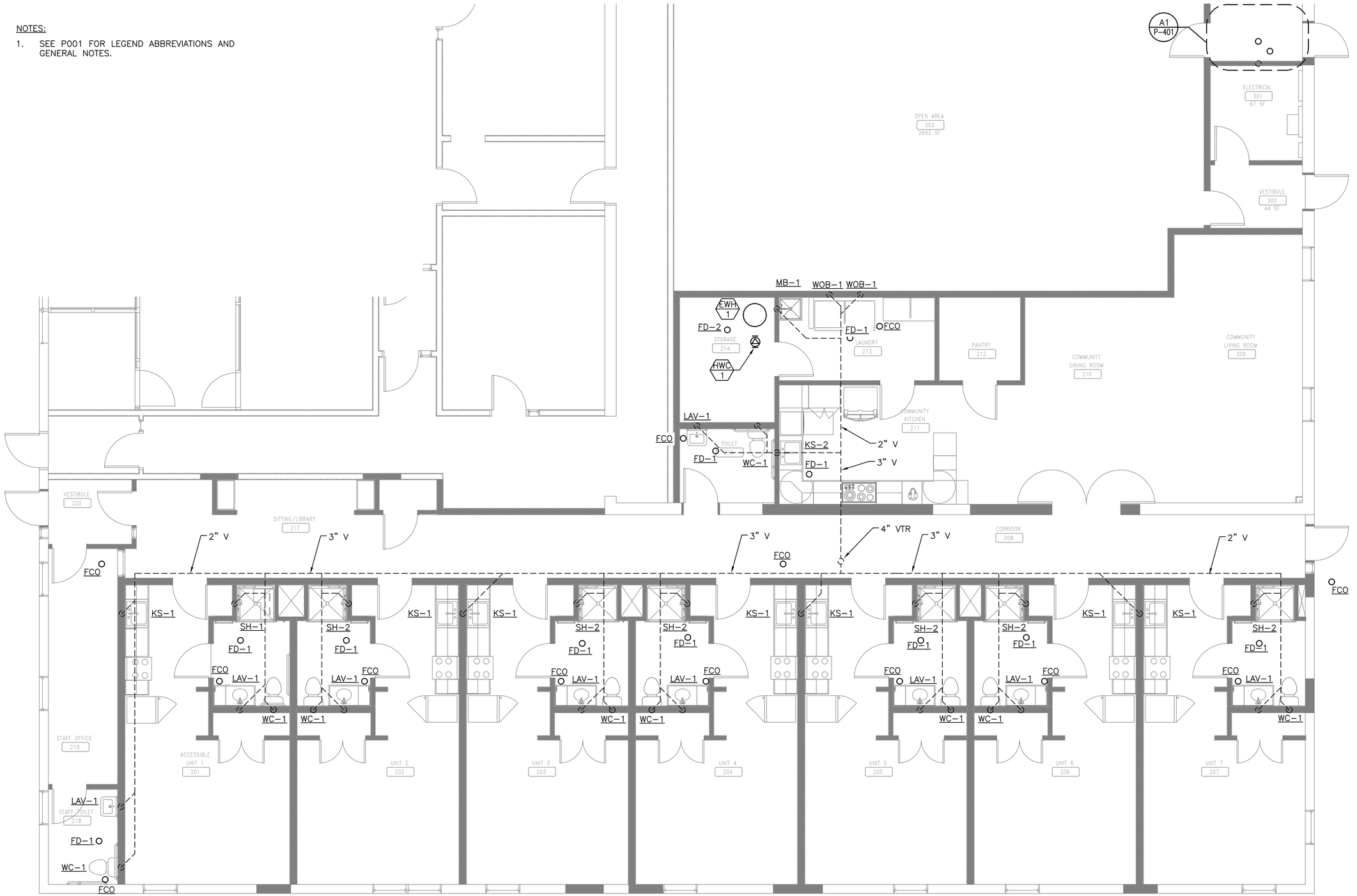
NOTES:

1. SEE P001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.



PLAN
NORTH

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

FIRST FLOOR ABOVE-SLAB DRAINAGE - NEW WORK

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

STATE OF MAINE
DAVID H. BROWN
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REGISTERED PROFESSIONAL ENGINEER
10-23-25

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PLUMBING ABOVE-SLAB DRAINAGE PLAN - NEW WORK

SIZE:	ARCH D
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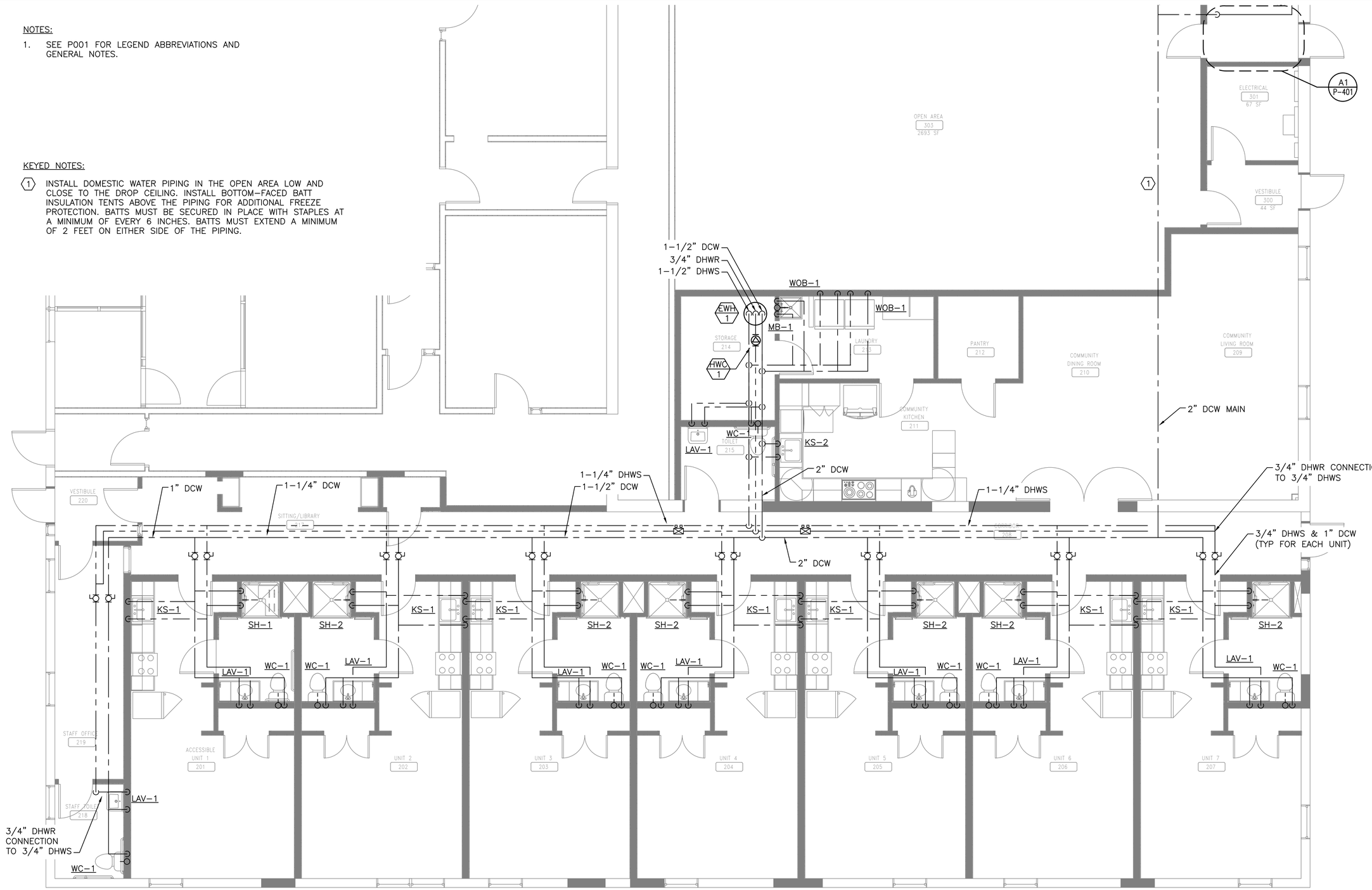
NOTES:

1. SEE P001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

(1) INSTALL DOMESTIC WATER PIPING IN THE OPEN AREA LOW AND CLOSE TO THE DROP CEILING. INSTALL BOTTOM-FACED BATT INSULATION TENTS ABOVE THE PIPING FOR ADDITIONAL FREEZE PROTECTION. BATTS MUST BE SECURED IN PLACE WITH STAPLES AT A MINIMUM OF EVERY 6 INCHES. BATTS MUST EXTEND A MINIMUM OF 2 FEET ON EITHER SIDE OF THE PIPING.



FIRST FLOOR SUPPLY PLAN – NEW WORK

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

LICENSED ARCHITECT BENJAMIN FREED No. 5397 STATE OF MAINE

STATE OF MAINE DAVID H. BROWN No. 7551 REGISTERED PROFESSIONAL ENGINEER 10-23-25

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PLUMBING SUPPLY PIPING PLAN - NEW WORK

SIZE:	ARCH D
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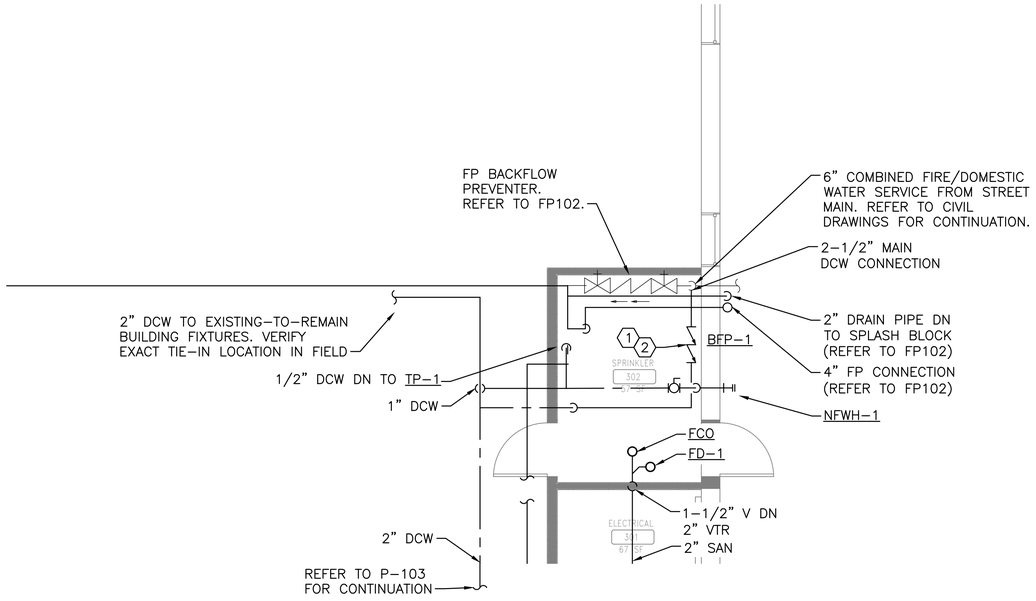
NOTES:

1. SEE P001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

1. PROVIDE A MINIMUM OF 3'–0 FRONT OF BACKFLOW PREVEN COORDINATE LOCATION WITHIN ROOM WITH FIRE PROTECTION PIPING.
2. PROVIDE THE METER MANUFACTURER'S REQUIRED LENGTH OF STRAIGHT PIPE UPSTREAM AND DOWNSTREAM OF WATER METER.

LICENSED ARCHITECT
BENJAMIN FREED
№ 5397
STATE OF MAINE



A1 / P–401 SPRINKLER ROOM PART PLAN
SCALE: 1/4"=1'–0"

PLAN
NORTH
0 2' 4' 8'
Scale: 1/4" = 1'–0"

STATE OF MAINE
DAVID H. BROWN
No. 7551
LICENSED PROFESSIONAL ENGINEER
10-23-25

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PART PLANS

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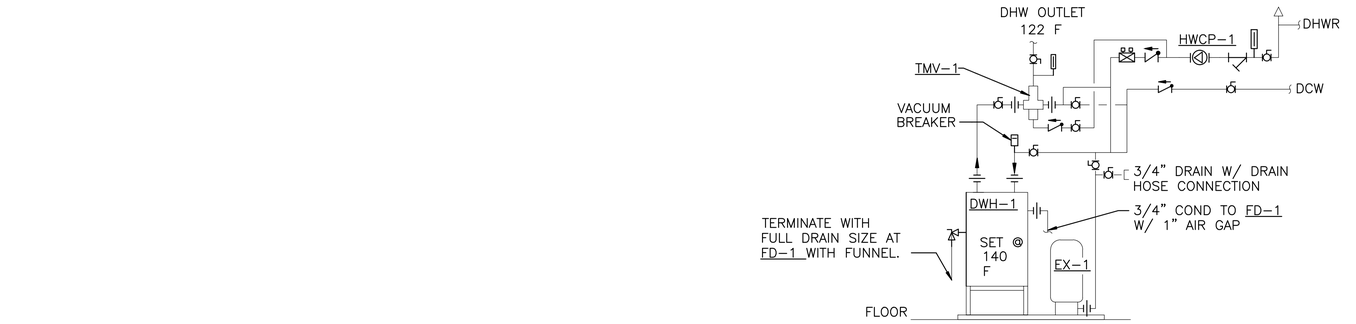
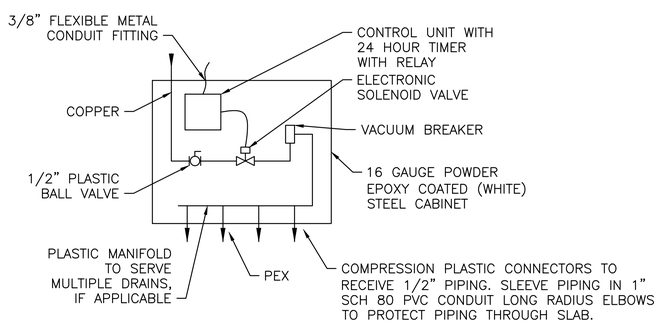


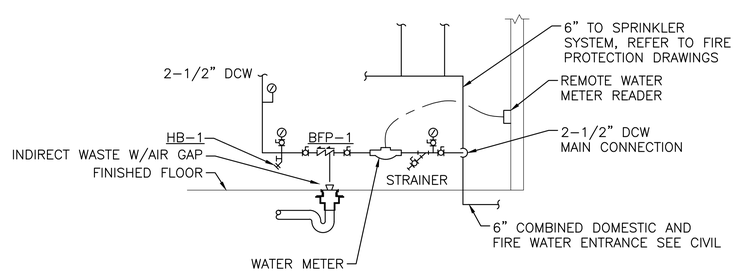
DOMESTIC WATER HEATER DETAIL

SCALE: NTS



ELECTRONIC TRAP PRIMER DETAIL

SCALE: NTS



DOMESTIC WATER SUPPLY ENTRANCE

SCALE: NTS

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22 BRAMHALL STREET, PORTLAND MAINE 04102

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TRANSITION HOME

PLUMBING DETAILS

SIZE:	ARCH D
DATE:	10/23/2025
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PROJECT NO. 480.003.001

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PLUMBING FIXTURE SCHEDULE

TAG	TYPE	BRANCH SIZES (IN)					MANUFACTURER	MODEL	COLOR	MOUNTING HEIGHT	DESCRIPTION	ACCESSORIES	NOTES
		CW	HW	TW	WASTE	VENT							
FCO	FLOOR CLEANOUT	–	–	–	–	–	ZURN	–	–	–	CAST IRON BODY, ROUND ADJUSTABLE MEDIUM–DUTY POLISHED BRONZE TOP, THREADED BRONZE OR BRASS PLUG. IN LOCATIONS ABOVE GROUND FLOOR SLAB, PROVIDE ANCHOR FLANGE (SUFFIX K).	–	
FD–1	FLOOR DRAIN	–	–	–	2	1–1/2	ZURN	Z415B–P	–	–	CAST IRON BODY WITH ADJUSTABLE COLLAR & MEMBRANE CLAMP, 7–IN. DIA LIGHT–DUTY ADJUSTABLE ROUND NICKEL BRONZE STRAINER, TRAP PRIMER CONNECTION.	–	–
HB–1	HOSE BIBB	3/4	–	–	–	–	WOODFORD	26	–	–	WALL FAUCET, METAL WHEEL HANDLE, DUAL–CHECK BACKFLOW PREVENTER, 3/4" THREADED INLET. FINISH: CHROME PLATED IN FINISHED AREAS, BRASS IN WORK AREAS.	–	–
KS–1	KITCHEN SINK	1/2	1/2	–	1–1/2	1–1/2	SEE ARCHITECTURAL	SEE ARCHITECTURAL	–	–	–	–	–
KS–2	KITCHEN SINK	1/2	1/2	–	1–1/2	1–1/2	SEE ARCHITECTURAL	SEE ARCHITECTURAL	–	–	–	–	–
LAV–1	LAVATORY	1/2	1/2	–	1–1/2	1–1/2	SEE ARCHITECTURAL	SEE ARCHITECTURAL	–	SEE ARCHITECTURAL	–	PROVIDE ASSE 1070 THERMOSATIC MIXING VALVE	–
LS–1	LAUNDRY SINK	3/4	3/4	–	3	2	SEE ARCHITECTURAL	SEE ARCHITECTURAL	–	–	–	VACUUM BREAKER	–
MB–1	MOP BASIN	3/4	3/4	–	3	2	STERN–WILLIAMS	MTB–3624	WHITE	–	TERRAZZO MOP BASIN, 36"x24"x10" HIGH, SS STRAINER, 3" OUTLET, FAUCET & ACCESSORIES AS NOTED.	V–70 VINYL BUMPER GUARDS ON EXPOSED SIDES; BP STAINLESS STEEL WALL GUARDS; T40 SS MOP HANGER; T35 HOSE & WALL HOOK. ZURN FAUCET: Z1996–SF W/VACUUM BREAKER, INTEGRAL STOPS, & WALL BRACE.	–
SH–1	ADA SHOWER	1/2	1/2	–	2	1–1/2	–				–	–	–
SH–2	SHOWER	1/2	1/2	–	2	1–1/2	–				–	–	–
TP–1	TRAP PRIMER, ELECTRONIC	1/2	–	–	–	–	MIFAB	MI–100 SERIES	–	–	SEE ELECTRONIC TRAP PRIMER SCHEDULE FOR MORE INFORMATION.	–	–
TP–2	TRAP PRIMER	1/2	–	–	–	–	PPP		–	–	PRESSURE–OPERATED TRAP PRIMER, THREADED.	–	–
WCO	WALL CLEANOUT	–	–	–	–	–	ZURN	Z1469 WITH ZARB1470	–	–	STAINLESS STEEL ACCESS COVER AND SCREW, COUNTERSUNK THREADED BRONZE OR BRASS PLUG.	–	–
WC–1	WATER CLOSET	1/2	–	–	4	2	AMERICAN STANDARD	252AA899	WHITE	SEE ARCHITECTURAL	ASPIRATIONS SKIRTED TWO–PIECE CHAIR HEIGHT TOILET WITH SEAT 1.28 GPF, 1/2" INLET. 4448A809 TANK. ASPIRATIONS SLOW CLOSE SEAT WITH COVER.	–	–
WH–1	WALL HYDRANT	3/4	–	–	–	–	WOODFORD	B67–P	–	–	CHROMED BRASS WALL BOX W/DOOR, LOOSE TEE KEY HANDLE, DUAL–CHECK BFP, 3/4" THREADED INLET.	–	–
WS–1	REFRIGERATOR WATER SUPPLY	1/2	–	–	–	–	SIOUX CHIEF	OXBOX 696–G1010XF	–	–	ABS PLASTIC MODULAR MOUNTING BOX WITH WALL TRIM RING; 1/4–TURN VALVE WITH 1/2" THREAD INLET AND 3/8" OUTLET; ASSE 1010 WATER HAMMER ARRESTOR.	–	–
WS–2	COFFEE WATER SUPPLY	1/2	–	–	–	–	BRASSCRAFT	KTR12X C	–	–	1/4–TURN STRAIGHT STOP, LEAD–FREE, CHROME–PLATED, 1/2–INCH FPT INLET, 3/8–INCH COMPRESSION OUTLET.	–	–

ELECTRIC WATER HEATER SCHEDULE

TAG	LOCATION	SERVES	TANK (GAL)	FIRST HOUR RATING (GAL)	RECOVERY AT 90 DEG F RISE (GPH)	INPUT (W)	RATED WORKING PRESSURE (PSIG)	WATER CONNECTIONS (IN)	DIMENSIONS (IN)		UNIT ELECTRICAL		MANUFACTURER	MODEL	NOTES
									DIAMETER	HEIGHT	VOLTAGE (V/PH/HZ)	FLA (AMPS)			
EWH–1	STORAGE 214	DOMESTIC	80	135	62	13,500	160	1–1/4	26	60	208/3/60	37.5	A.O. SMITH	DVE–80–13.5	1–4

NOTES:
1. GLASS–LINED STEEL TANK, FOAM INSULATION, PLASTIC JACKET. THREE ELEMENTS, WIRED FOR NON–SIMULTANEOUS OPERATION.
2. COMMERCIAL WARRANTY: THREE YEAR LIMITED TANK.
3. PROVIDE DRAIN PAN, WITH OUTLET FIELD–PIPED TO FLOOR DRAIN. PIPE HEATER RELIEF TO FLOOR DRAIN, NOT TO DRAIN PAN.
4. PROVIDE HOLDRITE 16–INCH HIGH FLOOR SUPPORT STAND MODEL #40–S–24. FASTEN TO FLOOR OR HOUSEKEEPING PAD AS INDICATED.

HOT WATER CIRCULATOR PUMP SCHEDULE

TAG	LOCATION	SERVES	TYPE	CAPACITY (GPM)	HEAD (FT WG)	FLANGE (IN)	MOTOR (HP)	UNIT ELECTRICAL			MANUFACTURER	MODEL	NOTES
								VOLTAGE (V/PH/HZ)	FLA (AMPS)	MOPD (AMPS)			
HWC–1	STORAGE 214	120 DEG F DISTRIBUTION	INLINE	10	23	1	1/8	120/1/60	1.76	15	TACO	0011–SF4	1

NOTES:
1. STAINLESS STEEL CONSTRUCTION, INCLUDING BODY AND COMPANION FLANGES.

WATER METER SCHEDULE

TAG	LOCATION	SERVES	PIPE SIZE (IN)	FLOW RANGE AT 95% OR HIGHER ACCURACY (GPM)	FLOW AT 4 PSI WPD (GPM)	DIAL SWEEP (GAL)	REGISTER CAPACITY (GAL)	MANUFACTURER	MODEL	NOTES
WM–1	SPRINKLER 302	DOMESTIC WATER	1	0.45 TO 50	0.5	45	5	MUELLER	MVR 50	1,2

NOTES:
1. PROVIDE WALL–MOUNTED REMOTE READER, AND ASSOCIATED METER ACCESSORIES.
2. COORDINATE WATER METER INSALLATION WITH ALL LOCAL WATER BOARD REQUIREMENTS.

TRAP PRIMER SCHEDULE

TAG	SERVES	LOCATION	DESCRIPTION	OUTLETS MIN	VOLTAGE (V/PH/HZ)	MANUFACTURER	MODEL	NOTES
TP–1	IWR	SPRINKLER 214	ELECTRONIC TRAP PRIMER ASSEMBLY	5	120/1/60	MIFAB	MI–100	1–5
TP–2	FD	UNIT 1 THROUGH 7	PRESSURE DROP TRAP SEAL PRIMER	1	N/A	MIFAB	M3–500–NPB	6–7

NOTES:
1. CABINET: COATED STEEL. SURFACE MOUNTED WITH BOLTED COVER AND WALL MOUNTING FLANGES.
2. OPERATING PRESSURE 20–100 PSIG. POWER CORD WITH 3–PRONG PLUG.
3. LOW–LEAD CONSTRUCTION, CERTIFIED TO UPC AND ASSE 1044 REQUIREMENTS. DISTRIBUTION MANIFOLD FOR 1/2" O.D. TUBES.
4. INCLUDE TIMER WITH TEST BUTTON, MIN 5–AMP CIRCUIT BREAKER, SOLENOID VALVE, VACUUM BREAKER, AND INLET BALL VALVE.
5. INSTALL IN AN ACCESSIBLE LOCATION. MOUNT BETWEEN 3 AND 4 FT AFF.
6. OPERATING PRESSURE 20–80 PSIG. ACTIVATES ON A PRESSURE DROP OF 3 PSI.
7. LOW–LEAD CONSTRUCTION, CERTIFIED TO UPC AND ASSE 1018 REQUIREMENTS. DISTRIBUTION MANIFOLD FOR 1/2" O.D. TUBES.

TAG	SERVES	LOCATION	INLET CONNECTION (IN.)	OUTLET CONNECTION (IN.)	MIN. FLOW WITH RECIRCULATION (GPM)	RATED FLOW (GPM)	PRESSURE DROP (PSI)	NOTES
TMV–1	HOT WATER	MECHANICAL 107	1–1/4	1–1/2	0.5	43	10	1–2

NOTES:
1. INSTALL WITH PIPING & VALVES, RECIRCULATION LINE, HOT WATER BYPASS WITH NORMALLY CLOSED VALVE, & INLET HEAT TRAP.
2. PROVIDE SPARE CARTRIDGE, FURNISH TO OWNER.

TAG	LOCATION	SERVES	SYSTEM CONNECTION (IN)	FLOW (GPM)	PRESSURE DROP (PSI)	VELOCITY (FEET PER SECOND)	TYPE	MANUFACTURER	MODEL	NOTES
BFP–1	MECH RM	DOMESTIC	2–1/2	100	5	7.5	DOUBLE CHECK	WATTS	LF007OSY	1,2

NOTES:
1. WITH OUTSIDE STEM–AND–YOKE GATE VALVES.
2. PROVIDE WITH FLOOD DETECTION SENSOR.

LICENSED ARCHITECT BHENJAMIN FREED No 5397 STATE OF MAINE

STATE OF MAINE DAVID H. BROWN No. 7551 REGISTERED PROFESSIONAL ENGINEER 10-23-25

COLBY COMPANY, LLC CCE engineering & design
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REV	DESCRIPTION	DWN	APP	DATE
0	ISSUED FOR CONSTRUCTION	MJP	MJK	10/23/25

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

PLUMBING SCHEDULES

SIZE: ARCH D
DATE: 10/23/2025
DES BY: ATW
DWN BY: MJP
CKD BY: DHB

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. P-601

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GENERAL NOTES

1. PROVIDE A WET AND DRY PIPE AUTOMATIC SPRINKLER SYSTEM THROUGHOUT THE EXISTING 208 GRAHAM STREET BUILDING. THE WET PIPE SYSTEM WILL PROTECT THE RESIDENTIAL PORTION OF THE BUILDING, AND THE DRY PIPE SYSTEM WILL PROTECT THE REMAINDER OF THE BUILDING. DESIGN AND INSTALL IN ACCORDANCE WITH NFPA 13. AUTOMATIC SPRINKLER PROTECTION IS REQUIRED IN THE ABOVE CEILING AREAS WITH COMBUSTIBLE CONSTRUCTION. A DASHED OUTLINE IS PROVIDED ON THE DRAWINGS AROUND THE AREA REQUIRING SPRINKLER PROTECTION ABOVE THE SUSPENDED CEILING. PROVIDE NITROGEN GENERATOR AND NITROGEN SUPERVISION OF DRY PIPE SPRINKLER SYSTEM.
2. CONTRACTOR MUST PERFORM A SITE VISIT WALK THROUGH OF THE BUILDING AND EXAMINATION OF THE EXISTING CONDITIONS PRIOR TO SUBMITTING A PROPOSAL. CONTRACTOR IS RESPONSIBLE FOR DETERMINATION OF THE FINAL LAYOUT OF SPRINKLERS AND PIPE REQUIRED TO PROVIDE THE LEVEL OF PROTECTION INDICATED ON THE PLANS AND COMPLY WITH NFPA 13 REQUIREMENTS FOR OBSTRUCTIONS AND COMBUSTIBLE CONCEALED SPACES.
3. PERFORM WORK IN STRICT CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE CODES AND STANDARDS.
4. INSTALL MAIN DRAIN AT THE SPRINKLER RISER. INSTALL AUXILIARY DRAINS AT SYSTEM LOW POINTS AND IDENTIFY THESE DRAINS APPROPRIATELY.
5 SYSTEMS ARE SHOWN SCHEMATICALLY. COORDINATE WITH EXISTING CONDITIONS AND CONFORM DESIGN AS BEING SUFFICIENT BOTH FUNCTIONALLY AND IN TERMS OF THE REQUIREMENTS OF THE APPLICABLE CODES AND STANDARDS.
6. DO NOT ROUTE SPRINKLER PIPING DIRECTLY OVER ELECTRICAL PANELS.
7. FEED AUTOMATIC SPRINKLER SYSTEM FROM THE NEW 6–INCH FIRE WATER SERVICE LATERAL IN THE SPRINKLER ROOM AND SHOWN ON THE CIVIL PLANS, SHEET C–101. FLUSH UNDERGROUND PIPING IN ACCORDANCE WITH THE PROCEDURES AND FLOW RATES SPECIFIED IN NFPA 24.
8. SYSTEM COMPONENTS MUST BE LISTED FOR FIRE PROTECTION SERVICE AND INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
9. WHERE PIPING PASSES THROUGH FIRE RATED ASSEMBLIES THE SLEEVES SHALL BE COMPLETELY SEALED WITH A LISTED AND APPROVED FIRE STOP MATERIAL. INSTALL THIS MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER TO RETAIN THE FIRE RATING OF THE PENETRATED ASSEMBLY.
10. UPON COMPLETION PERFORM NECESSARY ACCEPTANCE TESTING WITNESSED BY THE AUTHORITY HAVING JURISDICTION. HYDROSTATIC TESTING MUST BE PERFORMED PROVIDE A SPRINKLER SYSTEM GENERAL INFORMATION PLACARD IN ACCORDANCE WITH NFPA 13.
11. 1" TO 2" PIPE MUST BE THREADED SCHEDULE 40 BLACK STEEL PIPE. LARGER THAN 2" IS TO BE ROLLED GROOVED MINIMUM SCHEDULE 10 BLACK STEEL.
12. PROVIDE A MEANS TO CONDUCT FULL FORWARD FLOW TEST OF THE BACKFLOW PREVENTER IN ACCORDANCE WITH NFPA 13.
13. THE NITROGEN GENERATOR SYSTEM MUST BE SIZED SUCH THAT IT IS CAPABLE OF RESTORING NORMAL GAS PRESSURE IN THE SYSTEM WITHIN 30–MINUTES PER NFPA 13.
14. THE FACILITY IS SEISMIC DESIGN CATEGORY B, NO SEISMIC PROTECTION REQUIRED IAW NFPA 13.

HYDRANT FLOW TEST

FLOW TEST RESULTS ARE PROVIDED FOR REFERENCE ONLY. PERFORM UPDATED FLOW TEST NO MORE THAN 12–MONTHS PRIOR TO SUBMITTING HYDRAULIC CALCULATIONS.

DATE OF TEST: JULY 14, 2025 AT 8:00AM
PERFORMED BY: COLBY CO. ENGINEERING
WITNESSED BY: MAINE WATER COMPANY

PRESSURE HYDRANT: HYD100
FLOW HYDRANTS: HYD101 & HYD157

MEASURED STATIC: 45 PSI
MEASURED RESIDUAL PRESSURE: 37 PSI
MEASURED FLOW: 2,442 GALLONS
CALCULATED FLOW AT 20 PSI: 4,420 GALLONS

APPLICABLE CODES AND STANDARDS

MUBEC: MAINE UNIFORM BUILDING AND ENERGY CODE, 2024 EDITION
CODE OF ORDINANCES: CITY OF BIDDEFORD, MAINE
CHAPTER 30, PUBLIC SAFETY

ICC REQUIREMENTS:
MUBEC: INTERNATIONAL BUILDING CODE (AS AMENDED), 2021 EDITION
IEBC: INTERNATIONAL EXISTING BUILDING CODE (AS AMENDED), 2021 EDITION

NFPA REQUIREMENTS:
NFPA 1: FIRE CODE, 2018 EDITION
NFPA 13: STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEM, 2018
NFPA 24: STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES, 2013 EDITION
NFPA 25: STANDARDS FOR INSPECTION, TESTING AND MAINTENANCE OF WATER–BASED FIRE PROTECTION SYSTEMS, 2014 EDITION
NFPA 101: LIFE SAFETY CODE, 2018 EDITION
NFPA 170: STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS, 2024 EDITION
NFPA 241: STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, 2019 EDITION
NFPA 291: RECOMMENDED PRACTICE FOR FIRE FLOW TESTING AND MARKING OF HYDRANTS, 2025 EDITION

SUBMITTALS:

1. SUBMIT MANUFACTURER'S PRODUCT DATA TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION.
2. SUBMIT DESIGNER AND INSTALLER QUALIFICATIONS. MAINE LICENSED SPRINKLER CONTRACTOR, SPRINKLER DESIGNER, OR A LICENSED FIRE PROTECTION ENGINEER MUST EITHER BE ON STAFF OR ENGAGED BY THE CONTRACTOR. SPRINKLER DESIGNER MUST BE A MINIMUM NICET LEVEL III. SPRINKLER INSTALLER MUST BE A MINIMUM NICET LEVEL II.
3. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH NFPA 13 SECTION 23.1.3.
4. SUBMIT AS–BUILT DRAWINGS AFTER ACCEPTANCE TESTING HAS BEEN COMPLETED.
5. SUBMIT INSPECTION, TESTING, OPERATION, AND MAINTENANCE DOCUMENTATION AS REQUIRED BY NFPA 13 AND NFPA 25. MUST INCLUDE APPLICABLE PRODUCT DATA SHEETS AND MANUFACTURER'S INSTRUCTIONS, NFPA 13 CONTRACTOR'S MATERIAL AND TEST CERTIFICATE.
6. PERFORM COMPLETE SYSTEM TEST AND CERTIFY TEST CONTAINING THE INFORMATION REQUIRED BY NFPA 13, CHAPTERS 27 AND 28, AND NFPA 25 ANNEX B FOR COMPLETE DOCUMENTATION, INCLUDING RECORD OF COMPLETION, RECORD OF INSPECTION, AND TESTING FORMS. NEW PIPING MUST BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH NFPA 13.
7. SPARE SPRINKLERS AND A LIST OF NEW SPRINKLER INSTALLED MUST BE POSTED IN THE SPRINKLER CABINET, INCLUDING THE FOLLOWING:
   7.1. THE SPRINKLER IDENTIFICATION NUMBER (SIN) IF EQUIPPED OR THE MANUFACTURER, MODEL, OFFICE SIZE, DEFLECTOR TYPE, THERMAL SENSITIVITY, AND PRESSURE RATING.
   7.2. GENERAL DESCRIPTION
   7.3. QUANTITY OF EACH TYPE TO BE CONTAINED IN THE CABINET.
   7.4. ISSUE DATE OR REVISION OF THE LIST.
8. SECURE AND PAY ANY FEES AND STATE AND LOCAL PERMITS PERTAINING TO THE CONTRACT. SUBMIT SHOP DRAWINGS TO AHJ FOR REVIEW AND APPROVAL.
9. OBTAIN COMPLETED OWNER'S INFORMATION CERTIFICATE.
10. PERFORM HYDRANT FLOW TEST, IAW NFPA 291, NO MORE THAN 12 MONTH PRIOR TO SUBMITTING HYDRAULIC CALCULATIONS.

BASIS OF DESIGN – NITROGEN GENERATOR

ECS AG–2000 WALL MOUNTED NITROGEN GENERATOR
ESTIMATED SYSTEM CAPACITY: 700 GALLONS

TYPICAL ABBREVIATIONS

ACT	ACOUSTIC CEILING TILE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER
E	EXISTING
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FE	FIRE EXTINGUISHER
GPM	GALLONS PER MINUTE
IAW	IN ACCORDANCE WITH
MAX	MAXIMUM
NEC	NATIONAL ELECTRICAL CODE
MFR	MANUFACTURER
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OH1	NFPA 13 ORDINARY HAZARD GROUP 1
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
SF	SQUARE FEET
WP	WEATHER PROOF

LINE TYPES:

- NEW
- PART PLAN OUTLINE
- COMBUSTIBLE CONCEALED SPACE ABOVE CEILING OUTLINE

FIRE PROTECTION LEGEND

- NEW UPRIGHT SPRINKLER
- NEW PENDENT SPRINKLER
- GATE VALVE
- BACKFLOW PREVENTER (DOUBLE CHECK ASSEMBLY)
- GATE VALVE
- ELBOW DOWN
- ELBOW UP
- FIRE DEPARTMENT CONNECTION
- CAP OR PLUG
- N — NITROGEN FILLED DRY PIPE SPRINKLER RISER
- E — SPRINKLER ALARM BELL
- N — NITROGEN GENERATOR
- WET PIPE SPRINKLER SYSTEM

DRY PIPE NFPA 13 DESIGN CRITERIA

DRY PIPE NFPA 13 DESIGN CRITERIA

1. LIGHT HAZARD CLASSIFICATION: 0.10 GPM/SF OVER 1,950 SF WITH QUICK RESPONSE AREA REDUCTION. HOSE STREAM ALLOWANCE: 100 GPM FOR 30 MINUTES. IN AREAS BELOW THE CEILI… MINIMUM K5.6, WHITE CONCEALED PE… RESPONSE, STANDARD OR INTERMEDI… TEMPERATURE SPRINKLERS. IN ABOVE… AREAS PROVIDE MINIMUM K5.6 UPRIG… RESPONSE, INTERMEDIATE TEMPERATU… SPRINKLERS.

2. ORDINARY HAZARD GROUP 1: 0.15 GPM/SF OVER 1,950 SF WITH QUICK RESPONSE REDUCTION HOSE STREAM ALLOWANCE: 250 GPM FOR 60 MINUTES.

WET PIPE NFPA 13 DESIGN CRITERIA

1. LIGHT HAZARD CLASSIFICATION: 0.10 GPM /SF OVER 900 SF WITH QUICK RESPONSE REDUCTION. HOSE STREAM ALLOWANCE: 100 GPM FOR 30 MINUTES. IN AREAS BELOW THE CEILING PROVIDE MINIMUM K5.6, WHITE CONCEALED PENDENT, QUICK RESPONSE, STANDARD OR INTERMEDIATE TEMPERATURE SPRINKLERS. IN ABOVE CEILING AREAS PROVIDE MINIMUM K5.6 UPRIGHT, QUICK RESPONSE, INTERMEDIATE TEMPERATURE SPRINKLERS.

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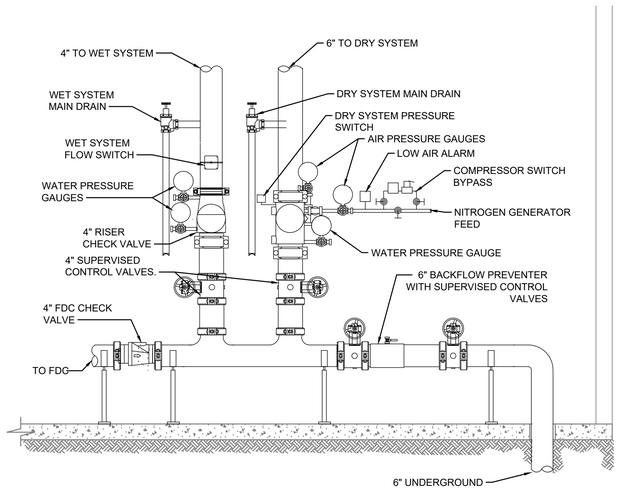

GENERAL NOTES:
A. ABOVE DETAIL IS APPLICABLE TO THE NEW WET AND DRY PIPE FIRE SERVICE.
B. ABOVE DETAIL IS FOR GENERAL ARRANGEMENT OF VALVES AND ASSOCIATED EQUIPMENT. REFER TO FLOOR PLANS FOR LOCATIONS OF INCOMING SERVICES.
C. POWER SUPPLIES, WIRING, AND CONNECTIONS FOR TAMPER SWITCHES, FLOW SWITCHES, LOW AIR ALARM, WATER PRESSURE SWITCH AND ELECTRIC ALARM BELLS MUST BE COORDINATED WITH THE OWNER'S FIRE ALARM CONTRACTOR FOR CONNECTION TO EXISTING BUILDING FIRE ALARM CONTROL PANEL.

STATE OF MAINE — AARON BRUCE BUNDY — No. 16161 — LICENSED PROFESSIONAL ENGINEER
10/23/25

COLBY COMPANY, LLC — CCE — engineering & design

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FIRE PROTECTION NOTES, LEGENDS AND DETAILS

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	CLC
DWN BY:	SBC
CKD BY:	SMR

PROJECT NO. 480.003.001
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DRAWING NO. FP001

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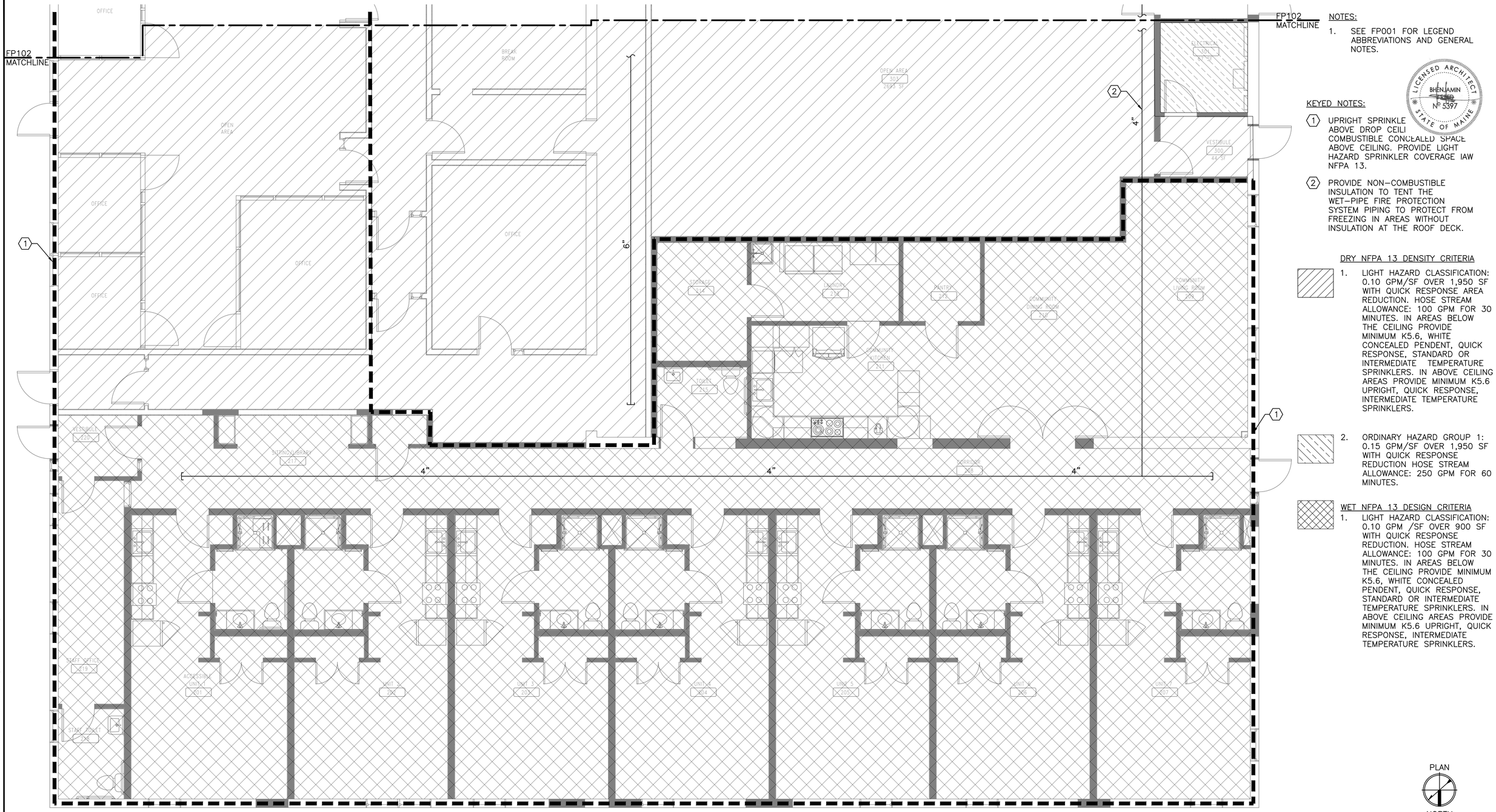

NOTES:

1. SEE FP001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

1. UPRIGHT SPRINKLE ABOVE DROP CEILI COMBUSTIBLE CONCEALED SPACE ABOVE CEILING. PROVIDE LIGHT HAZARD SPRINKLER COVERAGE IAW NFPA 13.
2. PROVIDE NON–COMBUSTIBLE INSULATION TO TENT THE WET–PIPE FIRE PROTECTION SYSTEM PIPING TO PROTECT FROM FREEZING IN AREAS WITHOUT INSULATION AT THE ROOF DECK.

DRY NFPA 13 DENSITY CRITERIA

1. LIGHT HAZARD CLASSIFICATION: 0.10 GPM/SF OVER 1,950 SF WITH QUICK RESPONSE AREA REDUCTION. HOSE STREAM ALLOWANCE: 100 GPM FOR 30 MINUTES. IN AREAS BELOW THE CEILING PROVIDE MINIMUM K5.6, WHITE CONCEALED PENDENT, QUICK RESPONSE, STANDARD OR INTERMEDIATE TEMPERATURE SPRINKLERS. IN ABOVE CEILING AREAS PROVIDE MINIMUM K5.6 UPRIGHT, QUICK RESPONSE, INTERMEDIATE TEMPERATURE SPRINKLERS.
2. ORDINARY HAZARD GROUP 1: 0.15 GPM/SF OVER 1,950 SF WITH QUICK RESPONSE REDUCTION HOSE STREAM ALLOWANCE: 250 GPM FOR 60 MINUTES.

WET NFPA 13 DESIGN CRITERIA

1. LIGHT HAZARD CLASSIFICATION: 0.10 GPM /SF OVER 900 SF WITH QUICK RESPONSE REDUCTION. HOSE STREAM ALLOWANCE: 100 GPM FOR 30 MINUTES. IN AREAS BELOW THE CEILING PROVIDE MINIMUM K5.6, WHITE CONCEALED PENDENT, QUICK RESPONSE, STANDARD OR INTERMEDIATE TEMPERATURE SPRINKLERS. IN ABOVE CEILING AREAS PROVIDE MINIMUM K5.6 UPRIGHT, QUICK RESPONSE, INTERMEDIATE TEMPERATURE SPRINKLERS.

PLAN NORTH

0 2' 4' 8'
Scale: 1/4" = 1'–0"

FIRST FLOOR FIRE PROTECTION PART PLAN – NEW WORK

SCALE: 1/4" = 1'–0"

LICENSED ARCHITECT
BENJAMIN FREED
№ 5397
STATE OF MAINE

STATE OF MAINE
AARON BRUCE BUNDY
No. 18161
LICENSED PROFESSIONAL ENGINEER
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TRANSITION HOME

FIRST FLOOR FIRE PROTECTION PART PLAN - NEW WORK

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	CLC
DWN BY:	SBC
CKD BY:	SMR

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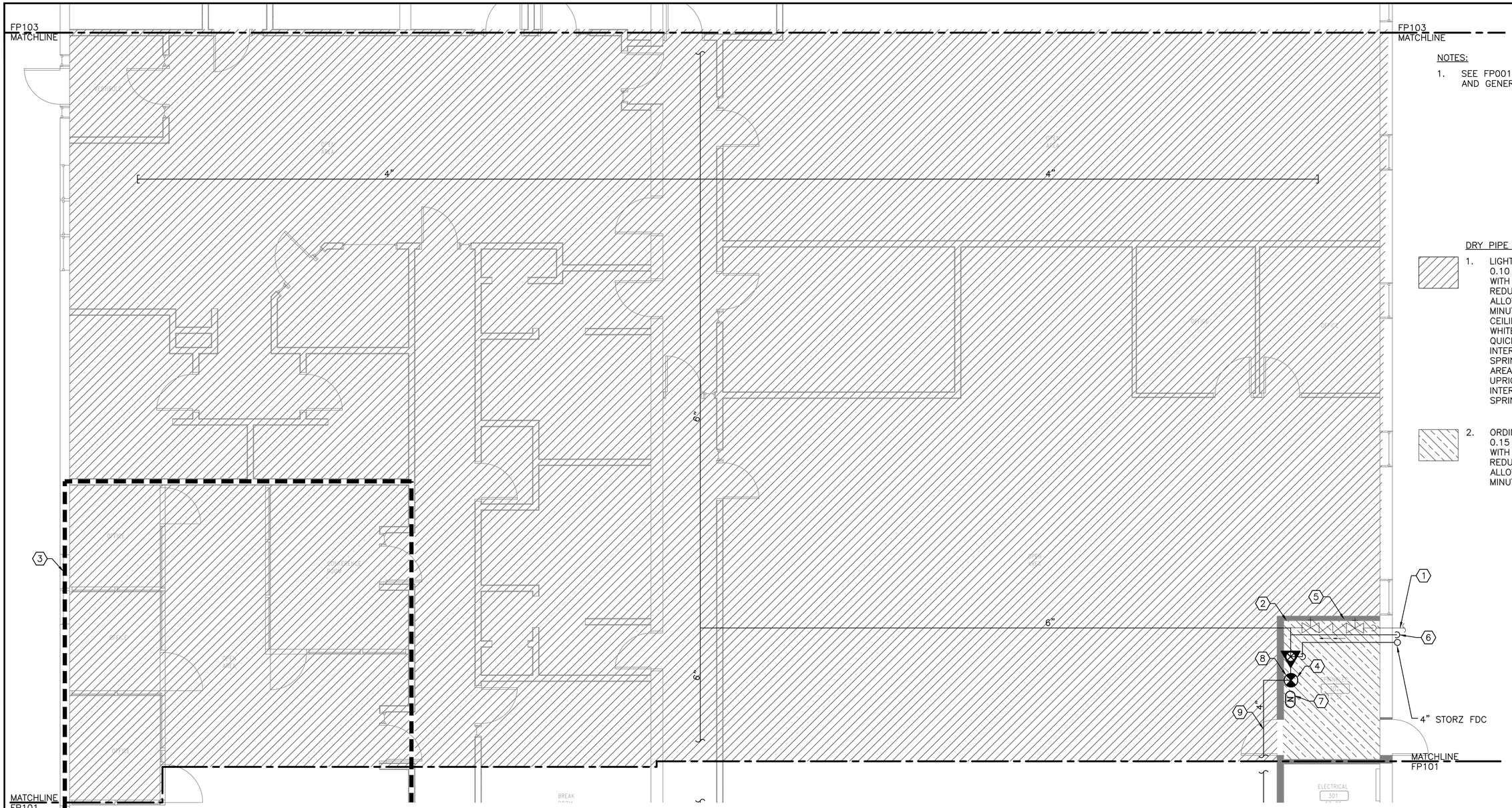
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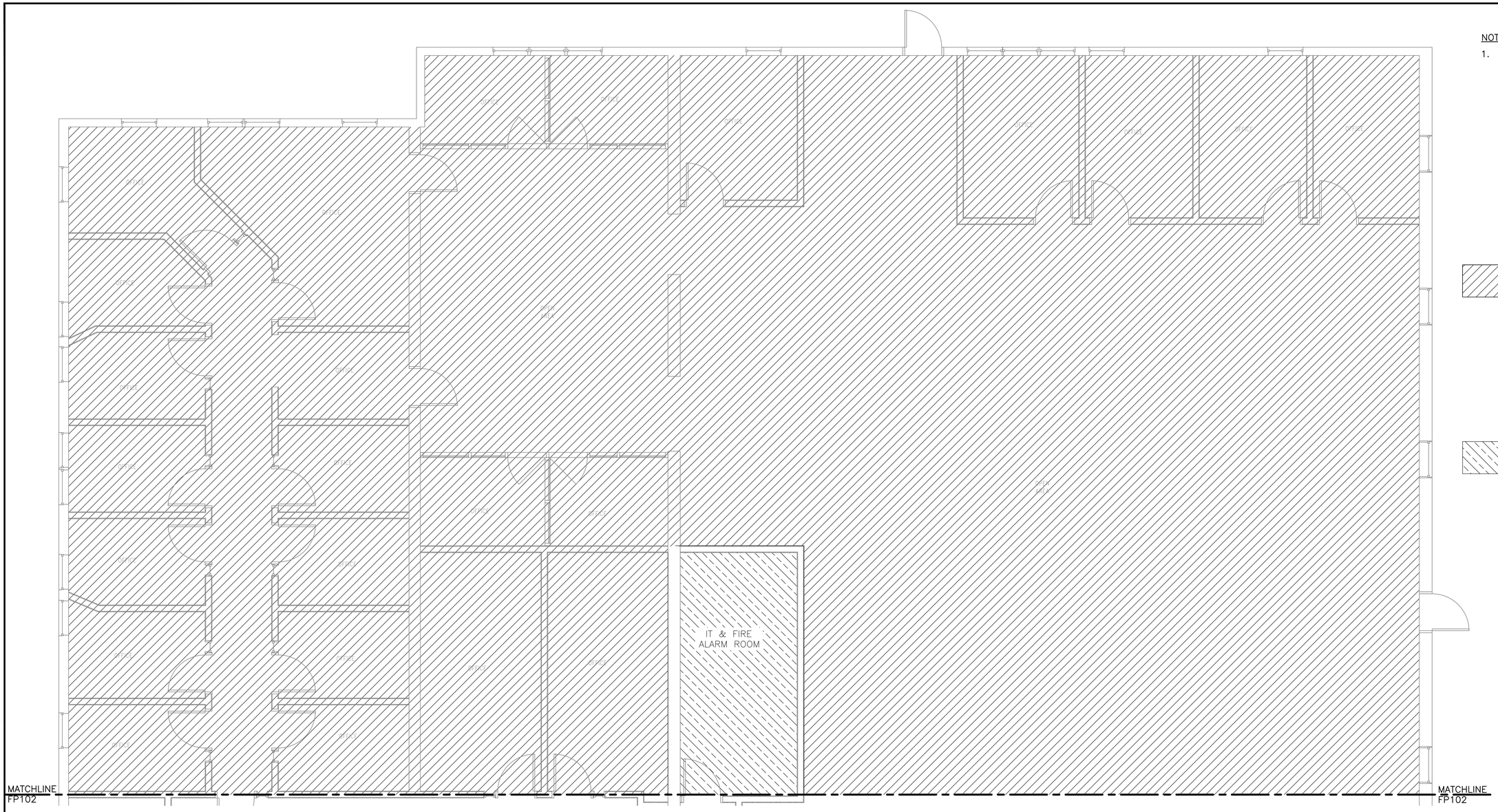

NOTES:

1. SEE FP001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

LICENSED ARCHITECT BENJAMIN FRISBEE № 5397 STATE OF MAINE

DRY PIPE NFPA 13 DENSITY CRITERIA

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2. ORDINARY HAZARD GROUP 1: 0.15 GPM/SF OVER 1,950 SF WITH QUICK RESPONSE REDUCTION HOSE STREAM ALLOWANCE: 250 GPM FOR 60 MINUTES.

FIRST FLOOR FIRE PROTECTION PART PLAN – NEW WORK

SCALE: 1/4" = 1'–0"

PLAN NORTH

0 2' 4' 8'
Scale: 1/4" = 1'–0"

STATE OF MAINE AARON BRUCE BUNDY No. 16161 REGISTERED PROFESSIONAL ENGINEER
10/23/25

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

FIRST FLOOR FIRE PROTECTION PART PLAN - NEW WORK

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GENERAL NOTES

1. THE 208 GRAHAM STREET BUILDING IS AN EXISTING MIXED USE BUILDING CONTAINING BUSINESS (B), ASSEMBLY (A–3) AND RESIDENTIAL (R–4) OCCUPANCIES. THE PROJECT SCOPE INCLUDES DEMOLITION OF THE EXISTING CONVENTIONAL FIRE ALARM SYSTEM AND INSTALLATION OF A NEW ADDRESSABLE FIRE ALARM SYSTEM IN ACCORDANCE WITH NFPA 72, THROUGHOUT THE BUILDING. THE EXISTING FIRE ALARM SYSTEM IS TO REMAIN IN SERVICE UNTIL THE NEW FIRE ALARM SYSTEM HAS PASSED FINAL ACCEPTANCE TESTING. PROVIDE MANUAL PULL STATIONS, SMOKE DETECTORS, LOW TEMPERATURE SWITCH IN THE SPRINKLER SYSTEM RISER ROOM, MONITORING OF FIRE SPRINKLER WATERFLOW SWITCHES, PRESSURE SWITCHES, TAMPER SWITCHES, ADDRESSABLE OUTPUT MODULES, AND AUDIO/VISUAL APPLIANCES COMPLYING WITH NFPA 72, NFPA 101, MUBEC, AND LOCAL REGULATIONS. THE EXISTING STALINK FIRE ALARM COMMUNICATOR IS EXISTING TO REMAIN AND MUST BE CONNECTED TO THE NEW FIRE ALARM SYSTEM IMMEDIATELY PRIOR TO SYSTEM ACCEPTANCE.
2. STROBES WITHIN A GIVEN AREA MUST BE SYNCHRONIZED. IAW NFPA 72, SECTION 18.5.5.5.2.
3. FIRE ALARM CONTRACTOR MUST COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL PANELS AND DEVICES REQUIRING POWER.
4. SYSTEMS ARE SHOWN SCHEMATICALLY. DEVICE AND EQUIPMENT LOCATIONS MUST BE CONFIRMED BY THE CONTRACTOR AS BEING SUFFICIENT BOTH IN TERMS OF FUNCTIONALITY AND IN TERMS OF THE REQUIREMENTS OF THE AFOREMENTIONED DOCUMENTS. CONTRACTOR MUST PROVIDE RELAYS AND CONTRACTORS AS REQUIRED FOR A COMPLETE SYSTEM.
5. FIRE ALARM WIRING MUST BE SOLID COPPER OR STRANDED AND INSTALLED IN CONDUIT. CONDUIT MUST BE RIGID METAL OR ELECTRICAL METALLIC TUBING, WITH A MINIMUM INSIDE DIAMETER OF 3/4–INCH THAT UTILIZES COMPRESSION TYPE FITTINGS AND COUPLINGS. CONDUIT SHALL BE CONCEALED WHERE POSSIBLE.
6. PROVIDE THE SERVICES OF A LICENSED AUTHORIZED TECHNICAL REPRESENTATIVE OF THE MANUFACTURER TO SELECT PROPER MATCHING COMPONENTS, TO SUPERVISE THE INSTALLATION, PLUS ADJUSTING, PROGRAMMING, AND TESTING OF THE SYSTEM REQUIRED TO ASSURE A COMPLETE AND FULLY OPERATIONAL SYSTEM.
7. UPON COMPLETION, PERFORM NECESSARY ACCEPTANCE TESTING AND SHALL PROVIDE THE OWNER WITH WRITTEN INFORMATION ON THE PROPER INSPECTION, TESTING AND MAINTENANCE OF THE SYSTEM.
8. EXISTING FIRE ALARM SYSTEM IS TO REMAIN IN SERVICE UNTIL NEW FIRE ALARM SYSTEM HAS PASSED FINAL ACCEPTANCE TESTING. OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE PRIOR TO TAKING EXISTING FACU OUT OF SERVICE.
9. PROVIDE COVERS AND SIGNAGE AT INITIATING DEVICES AND NOTIFICATIONS APPLIANCES INDICATING THE DEVICES ARE "NOT IN SERVICE". COVERS AND SIGNAGE MUST BE PROVIDED FOR THE NEW SYSTEM PRIOR TO OWNER'S REPRESENTATIVE APPROVAL AND PROVIDED FOR THE EXISTING SYSTEM PRIOR TO THE START OF DEMOLITION.
10. REMOVE EXISTING FIRE ALARM EQUIPMENT AND ASSOCIATED WIRING.
11. PATCH, PAINT, AND FILL AS NECESSARY FOLLOWING REMOVAL OF EQUIPMENT ASSOCIATED WITH THE EXISTING FIRE ALARM SYSTEM. FIRESTOP AS NECESSARY WITH LISTED AND APPROVED FIRESTOPPING SYSTEMS AT LOCATIONS OF FIRE–RESISTANCE RATED WALLS.
12. BUILDING CONTAINS ELECTRIC COOK TOPS AND RANGES THAT ARE NOT USED IN COMMERCIAL COOKING OPERATIONS. PROTECTION IN ACCORDANCE WITH NFPA 96 IS NOT REQUIRED FOR THESE RANGES PER NFPA 101 SECTION 9.2.3 AND NFPA 101 SECTION 32.2.
13. BUILDING CONTAINS NO FUEL BURNING APPLIANCES AND DOES NOT REQUIRE CARBON MONOXIDE DETECTION PER NFPA 101 SECTION 32.2.3.4.4.1.

SUBMITTALS:

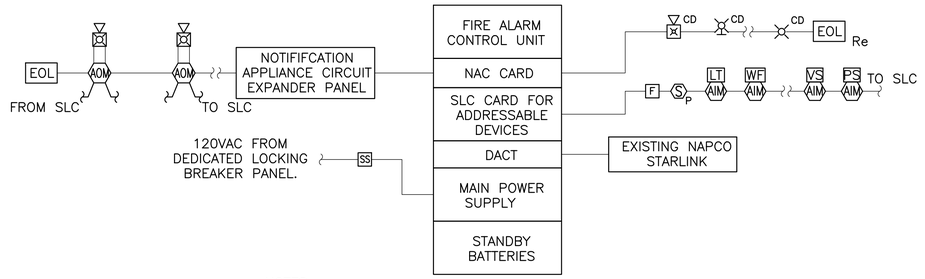
1. SUBMIT MANUFACTURER'S PRODUCT DATA TO OWNER'S REPRESENTATIVE FOR APPROVAL.
2. SUBMIT DESIGNER AND INSTALLER QUALIFICATIONS.

2.1. A MINIMUM NICET LEVEL III FIRE ALARM TECHNICIAN OR A LICENSED FIRE PROTECTION ENGINEER, (EITHER ON STAFF OR WHO THEY WORK IN COMMUNICATION WITH) IS REQUIRED TO DEVELOP CALCULATIONS, SHOP DRAWINGS, AND PROVIDE CUT SHEETS FOR PRODUCTS TO BE INSTALLED, FOR APPROVAL BY THE OWNER'S REPRESENTATIVE. MINIMUM NICET II CERTIFICATION REQUIRED FOR TECHNICIAN INSTALLING THE SYSTEM.

3. SUBMIT SHOP DRAWINGS AS WELL AS VOLTAGE AND BATTERY CALCULATIONS IN ACCORDANCE WITH NFPA 72 CHAPTER 23 SECTION 7.2, 7.3 AND 7.4.
4. SUBMIT COMPLETION DOCUMENTATION REQUIRED BY NFPA 72 SECTION 7.5 INCLUDING: RECORD DRAWINGS (AS–BUILTS) AS REQUIRED BY NFPA 72 SECTION 7.5.5, AND RECORD OF COMPLETION DOCUMENTATION AS REQUIRED BY NFPA 72 SECTION 7.5.6.
5. SUBMIT INSPECTION TESTING, OPERATION, AND MAINTENANCE DOCUMENTATION AS REQUIRED BY NFPA 72 SECTION 7.6. MUST INCLUDE APPLICABLE PRODUCT DATA SHEETS AND MANUFACTURER'S INSTRUCTIONS.
6. SUBMIT TO STATE FIRE MARSHAL'S OFFICE AND THE CITY OF BIDDEFORD FOR REVIEW AND APPROVAL OBTAIN REQUIRED STATE AND LOCAL PERMITS AND PAY REQUIRED FEES.

FIRE ALARM:

- FACU — FIRE ALARM CONTROL UNIT
- F — FIRE ALARM MANUAL PULL STATION
- 75CD, C — FIRE ALARM HORN/STROBE NOTIFICATION APPLIANCE (GENERAL EVACUATION)
  - INDICATES CANDELA INTENSITY
  - INDICATES CEILING MOUNTED
- 75CD, WP — FIRE ALARM VISIBLE ONLY (STROBE) NOTIFICATION APPLIANCE, CEILING MOUNTED
  - INDICATES CANDELA INTENSITY
  - INDICATES WEATHER PROOFING
- 75CD, WP — FIRE ALARM VISIBLE ONLY (STROBE) NOTIFICATION APPLIANCE, WALL MOUNTED
  - INDICATES CANDELA INTENSITY
  - INDICATES WEATHER PROOFING
- FAC — FIRE ALARM COMMUNICATOR
- S, P — SMOKE DETECTOR. CEILING MOUNTED
  - INDICATES PHOTOELECTRIC SMOKE
- FAA — FIRE ALARM ANNUNICATOR
- VS — SPRINKLER SYSTEM VALVE SUPERVISORY SWITCH
- LT — LOW TEMPERATURE SWITCH
- WF — SPRINKLER SYSTEM WATERFLOW SWITCH
- PS — SPRINKLER SYSTEM PRESSURE SWITCH
- SS — SURGE SUPPRESSION
- NAC — NOTIFICATION APPLIANCE CIRCUIT EXPANDER PANEL
- AIM — ADDRESSABLE INPUT MODULE
- AOM — ADDRESSABLE OUTPUT MODULE
- EOL Re — END OF LINE RESISTOR
- SS — SINGLE STATION SMOKE ALARM

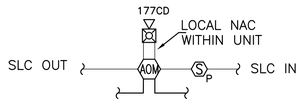


NOTES:
1. THIS SCHEMATIC IS FOR REQUIRED SYSTEM COMPONENT ILLUSTRATION ONLY.
2. PROVIDE WIRING TYPES, SIZES, AND INTERCONNECTIONS RECOMMENDED BY THE MANUFACTURER AND APPLICABLE CODE REQUIREMENTS.
3. NOT ALL INPUT AND OUTPUT DEVICES ARE SHOWN. PROVIDE THESE DEVICES AS REQUIRED FOR PROPER SYSTEM OPERATION BASED ON APPLICABLE CODE REQUIREMENTS.
4. PROVIDE A MINIMUM OF TWO (2) SIGNALING LINE CIRCUITS IN BUILDING.

FIRE ALARM RISER DIAGRAM

ABBREVIATIONS

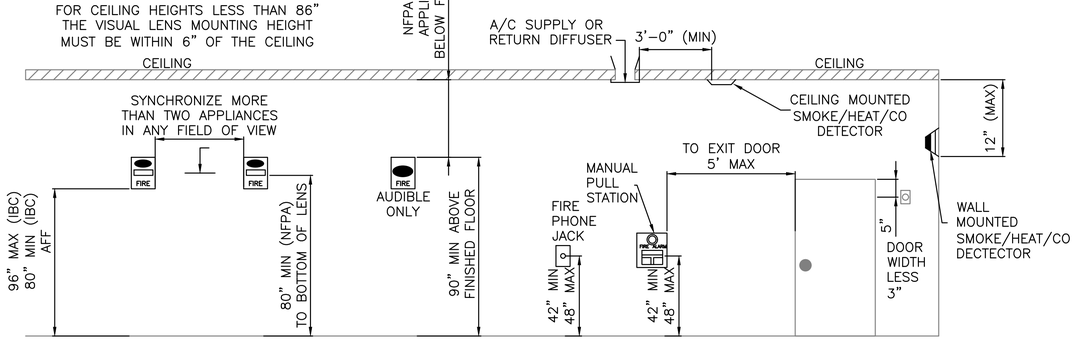
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLER UNIT
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER
EXIST	EXISTING
ETR	EXISTING TO REMAIN
FAA	FIRE ALARM ANNUNCIATOR
FACU	FIRE ALARM CONTROL UNIT
IAW	IN ACCORDANCE WITH
MFR	MANUFACTURER
NAC	NOTIFICATION APPLIANCE CIRCUIT
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
SLC	SIGNALING LINE CIRCUIT
WP	WEATHER PROOF



DEDICATED UNIT NAC OUT (TO ANOTHER UNIT OR BACK TO NOTIFICATION APPLIANCE CIRCUIT EXPANDER PANEL.

DEDICATED UNIT NAC IN (FROM ANOTHER UNIT OR FROM NOTIFICATION APPLIANCE CIRCUIT EXPANDER PANEL).

TYPICAL UNIT NOTIFICATION WIRING DETAIL



FIRE ALARM DEVICE MOUNTING HEIGHT

SYSTEM INPUTS

		AUDIBLE AND VISUAL ALARM SIGNAL INDICATION AT FACU	AUDIBLE AND VISUAL ALARM SIGNAL INDICATION BY DEVICE AT FACU	AUDIBLE AND VISUAL SUPERVISORY SIGNAL INDICATION AT FACU	AUDIBLE AND VISUAL SUPERVISORY SIGNAL INDICATION BY POINT AT FACU	AUDIBLE AND VISUAL TROUBLE SIGNAL INDICATION BY CIRCUIT AT FACU	AUDIBLE AND VISUAL TROUBLE SIGNAL BY POINT AT FACU	TRANSMIT ALARM SIGNAL TO MONITORING STATION VIA NAPCO STARLINK FIRE ALARM COMMUNICATI	TRANSMIT SUPERVISORY SIGNAL TO MONITORING STATION VIA NAPCO STARLINK FIRE ALARM COMM	TRANSMIT TROUBLE SIGNAL TO MONITORING STATION VIA NAPCO STARLINK FIRE ALARM COMMUNIC	ACTUATE HORNS AND STROBES THROUGHOUT BUILDING	ACTUATE DEDICATED NOTIFICATION APPLIANCE CIRCUIT IN UNIT
		A	B	C	D	E	F	G	H	I	J	K
1	MANUAL FIRE ALARM BOXES	●	●					●			●	
2	SMOKE DETECTOR OUTSIDE DWELLING UNIT	●	●					●			●	
3	SMOKE DETECTOR IN DWELLING UNIT			●	●				●			●
4	SPRINKLER SYSTEM PRESSURE SWITCH	●	●								●	
5	SPRINKLER SYSTEM VALVE SUPERVISORY SWITCH			●	●				●			
6	FIRE ALARM AC POWER FAILURE					●	●			●		
7	FIRE ALARM SYSTEM LOW BATTERY					●	●			●		
8	OPEN CIRCUIT					●	●			●		
9	GROUND FAULT					●	●			●		
10	NOTIFICATION APPLIANCE CIRCUIT SHORT					●	●			●		
11	LOW TEMPERATURE SWITCH			●	●				●			
12	SPRINKLER SYSTEM WATERFLOW SWITCH	●	●					●			●	
		A	B	C	D	E	F	G	H	I	J	K

FIRE ALARM INPUT/OUTPUT MATRIX

APPLICABLE CODES AND STANDARDS

MUBEC: MAINE UNIFORM BUILDING AND ENERGY CODE, 2018 EDITION
CODE OF ORDINANCES: CITY OF BIDDEFORD, MAINE
CHAPTER 30, PUBLIC SAFETY

ICC REQUIREMENTS
IBC: INTERNATIONAL BUILDING CODE (AS AMENDED), 2021 EDITION
IEBC: INTERNATIONAL EXISTING BUILDING CODE (AS AMENDED), 2021 EDITION

NFPA REQUIREMENTS
NFPA 1: FIRE CODE, 2018 EDITION
NFPA 70: NATIONAL ELECTRICAL CODE, 2023 EDITION
NFPA 72: NATIONAL FIRE ALARM CODE, 2019 EDITION
NFPA 101: LIFE SAFETY CODE, 2018 EDITION
NFPA 170: STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS, 2024 EDITION
NFPA 241: STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, 2019 EDITION

STATE OF MAINE — BENJAMIN FRED No. 5397 — LICENSED ARCHITECT — STATE OF MAINE

STATE OF MAINE — AARON BRUCE BUNDY No. 16161 — LICENSED PROFESSIONAL ENGINEER
10/23/25

COLBY COMPANY, LLC — CCE — engineering & design
47A York St
Portland, ME
04101
207.553.7753

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208 GRAHAM STREET
TRANSITION HOME

FIRE ALARM NOTES, LEGENDS, AND ABBREVIATIONS

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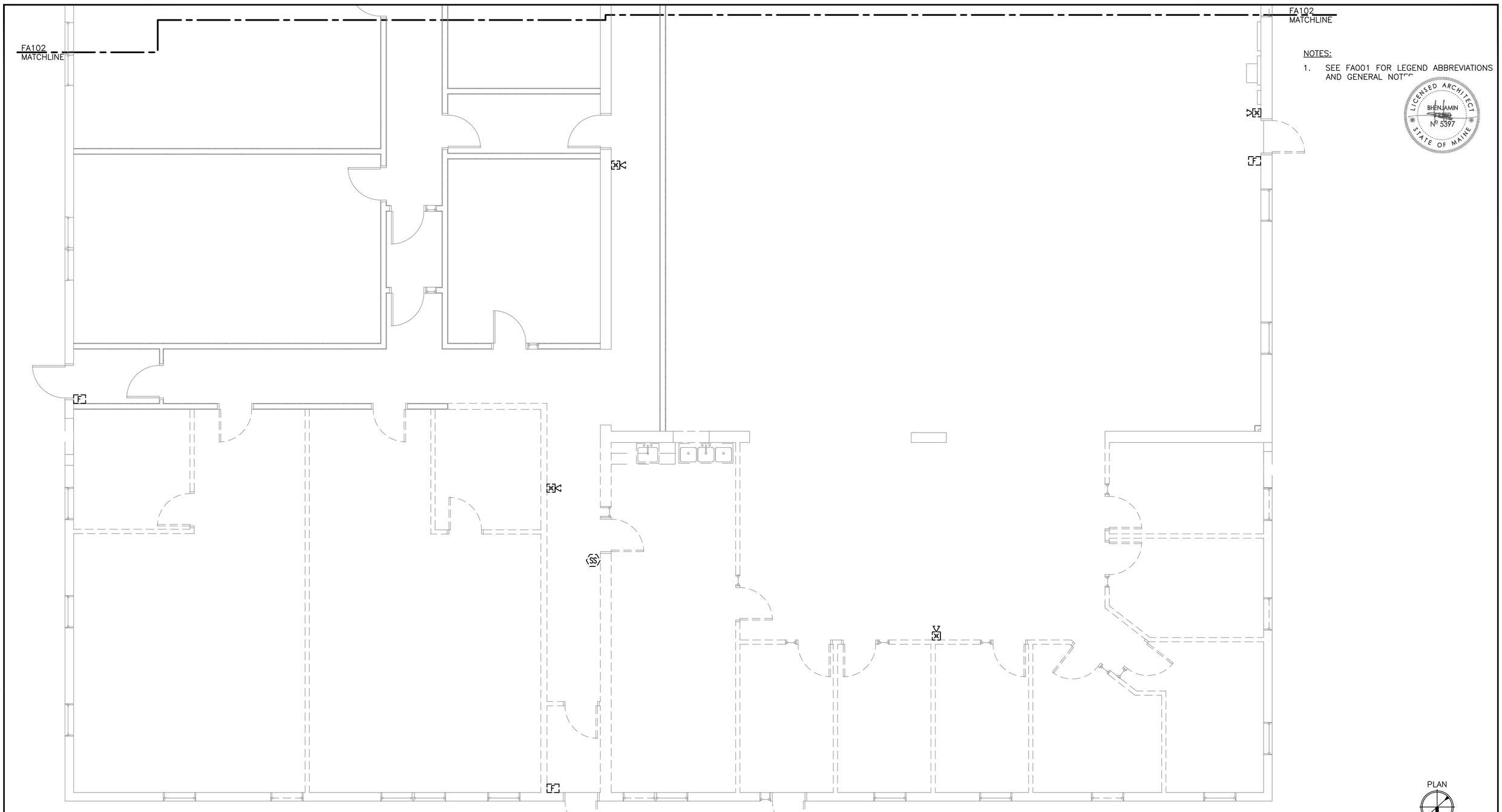

NOTES:

1. SEE FA001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES

LICENSED ARCHITECT
BENJAMIN FREED
№ 5397
STATE OF MAINE

FIRST FLOOR FIRE ALARM PART PLAN – REMOVALS

SCALE: 1/4" = 1'–0"

PLAN NORTH

0 2' 4' 8'
Scale: 1/4" = 1'–0"

AARON BRUCE BUNDY No. 16161 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE
10/23/25

COLBY COMPANY, LLC CCE engineering & design
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FIRST FLOOR FIRE ALARM PLAN - REMOVALS

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NOTES:

1. SEE FA001 FOR LI NS AND GENERAL NOT

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BENJAMIN FREED
№ 5397
STATE OF MAINE

MATCHLINE
FA101

MATCHLINE
FA101

FIRST FLOOR FIRE ALARM PART PLAN – REMOVALS

SCALE: 1/4" = 1'–0"

PLAN
NORTH

0 2' 4' 8'
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FIRST FLOOR FIRE ALARM PART PLAN - REMOVALS

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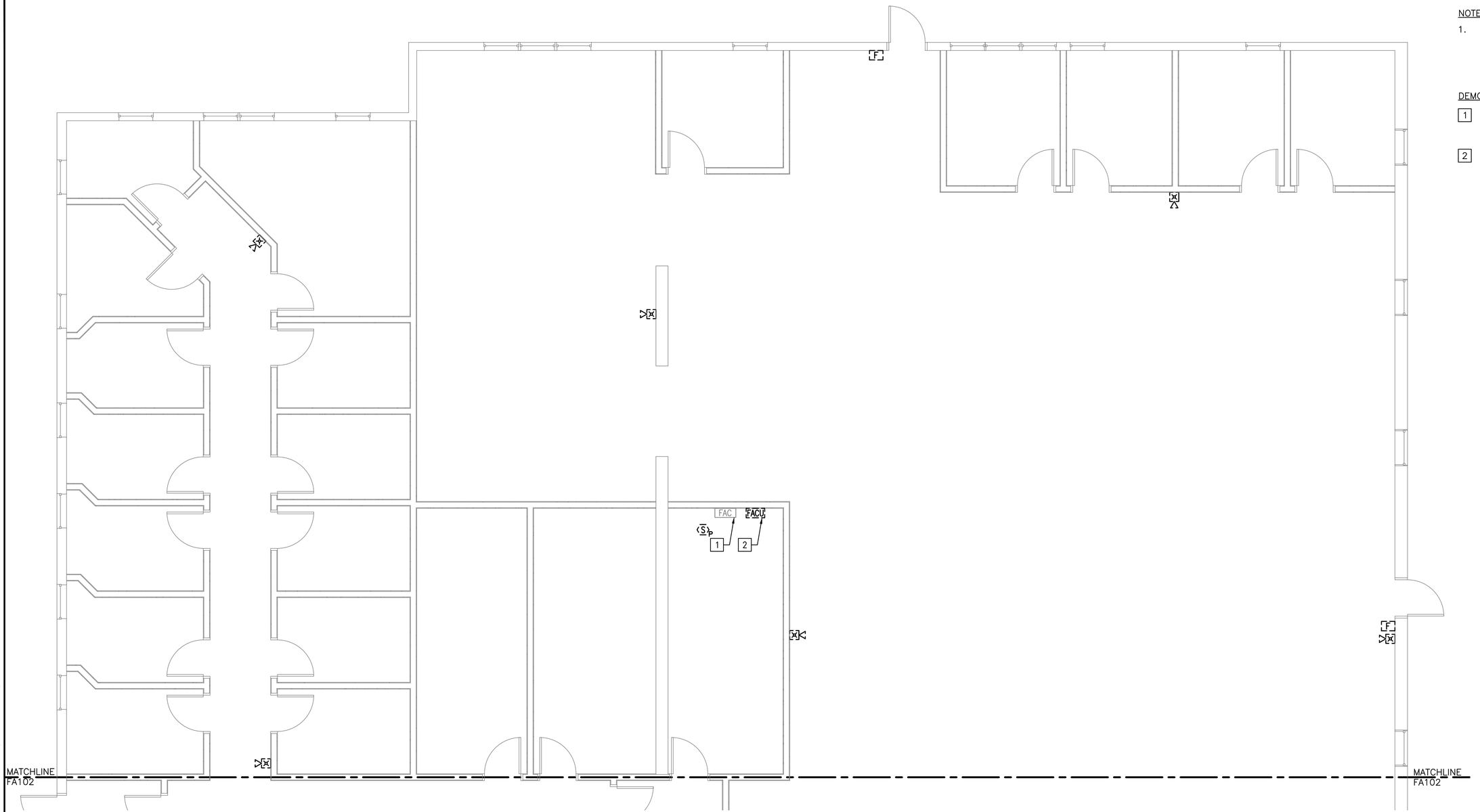

FIRST FLOOR FIRE ALARM PART PLAN – REMOVALS

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

NOTES:

1. SEE FA001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

DEMOLITION KEYED NOTES:

1. EXISTING NAPCO STARLINK FIRE ALARM TO REMAIN.
2. DEMOLISH EXISTING FIRE-LITE MINISCAN 424A FIRE ALARM CONTROL PANEL.

BENJAMIN FREED LICENSED ARCHITECT No. 5397 STATE OF MAINE

PLAN NORTH

0 2' 4' 8'
Scale: 1/4" = 1'-0"

AARON BRUCE BUNDY No. 16161 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE
10/23/25

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FIRST FLOOR FIRE ALARM PART PLAN - REMOVALS

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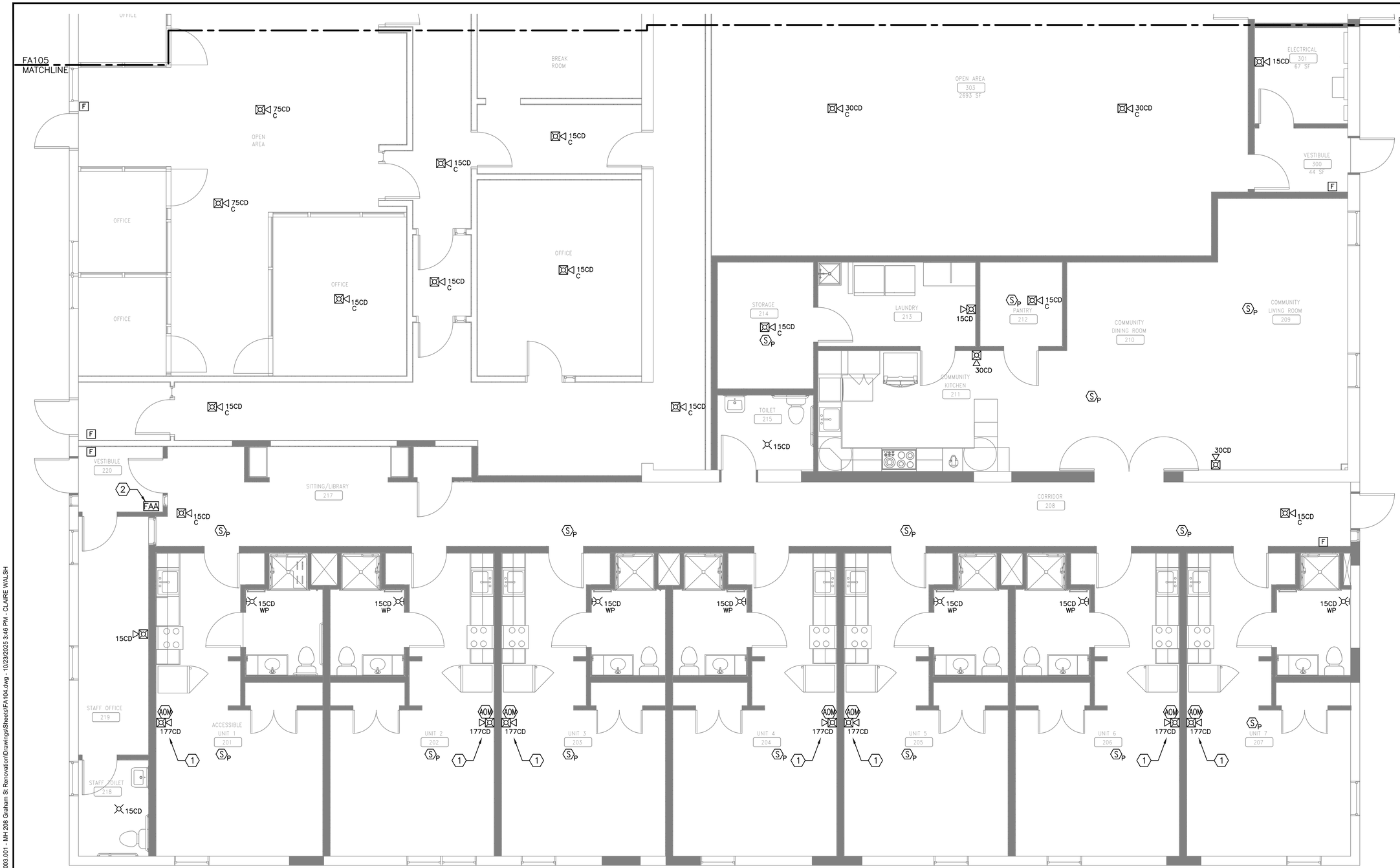

FIRST FLOOR FIRE ALARM PART PLAN – NEW WORK

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

NOTES:

1. SEE FA001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES
2. SMOKE DETECTORS BE LOCATED MORE MEASURED RADIALL COOKING APPLIANC SECTION 9.6.2.10.4
3. SMOKE DETECTORS BE LOCATED MORE AWAY FROM DOORS TO ROOMS CONTAINING A SHOWER OR TUB PER NFPA 101 SECTION 9.6.2.10.6.

KEYED NOTES:

1. WITHIN SLEEPING AREAS, PROVIDE AUDIBLE NOTIFICATION APPLIANCE CAPABLE OF 520 HZ SQUARE WAVE HORN ALARM SIGNAL IN ACCORDANCE WITH NFPA 72 SECTION 18.4.6. PROVIDE VISUAL NOTIFICATION APPLIANCE WITHIN AREAS WHERE OCCUPANTS THAT MAY BE DEAF OR HARD OF HEARING ARE LOCATED.
2. PROVIDE FIRE ALARM ANNUNCIATOR FOR FIRE DEPARTMENT USE.

PLAN NORTH

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

BENJAMIN FRED No. 5397 LICENSED ARCHITECT STATE OF MAINE

AARON BRUCE BUNDY No. 16161 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE
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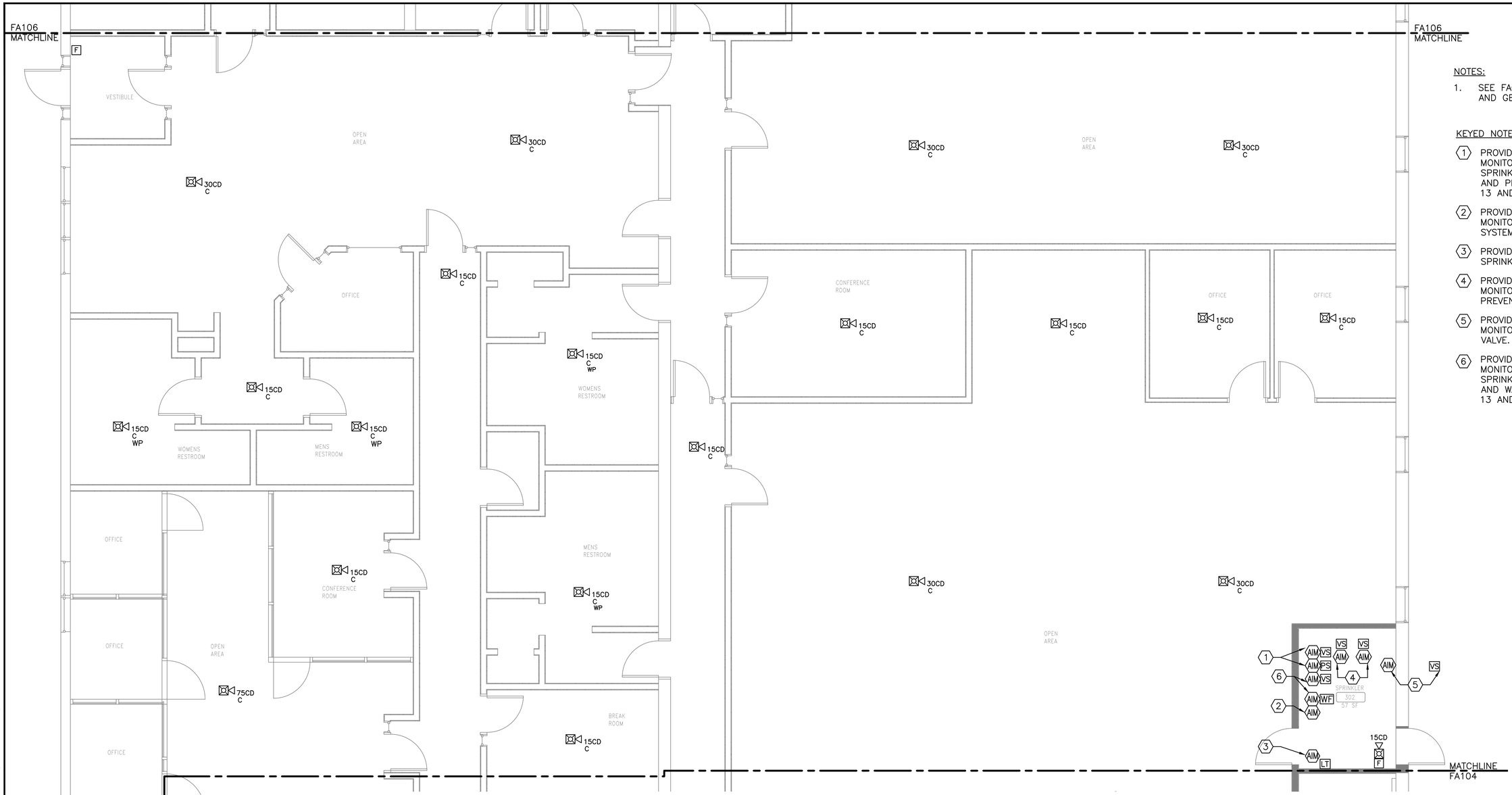

FIRST FLOOR FIRE ALARM PART PLAN – NEW WORK

SCALE: 1/4" = 1'–0"

NOTES:

1. SEE FA001 FOR LE NS AND GENERAL NOTI

KEYED NOTES:

1. PROVIDE ADDRESSA MONITORING DRY F SPRINKLER SYSTEM CONTROL VALVES AND PRESSURE SWITCHES IAW NFPA 13 AND NFPA 72.
2. PROVIDE ADDRESSABLE MODULES FOR MONITORING NITROGEN GENERATOR SYSTEM IAW NFPA 13 AND NFPA 72.
3. PROVIDE LOW TEMPERATURE SWITCH IN SPRINKLER RISER ROOM.
4. PROVIDE ADDRESSABLE MODULES FOR MONITORING THE BACKFLOW PREVENTER CONTROL VALVES.
5. PROVIDE ADDRESSABLE MODULE FOR MONITORING OF POST INDICATOR VALVE.
6. PROVIDE ADDRESSABLE MODULES FOR MONITORING WET PIPE AUTOMATIC SPRINKLER SYSTEM CONTROL VALVES AND WATERFLOW SWITCHES IAW NFPA 13 AND NFPA 72.

LICENSED ARCHITECT
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DRAWING NO. FA105

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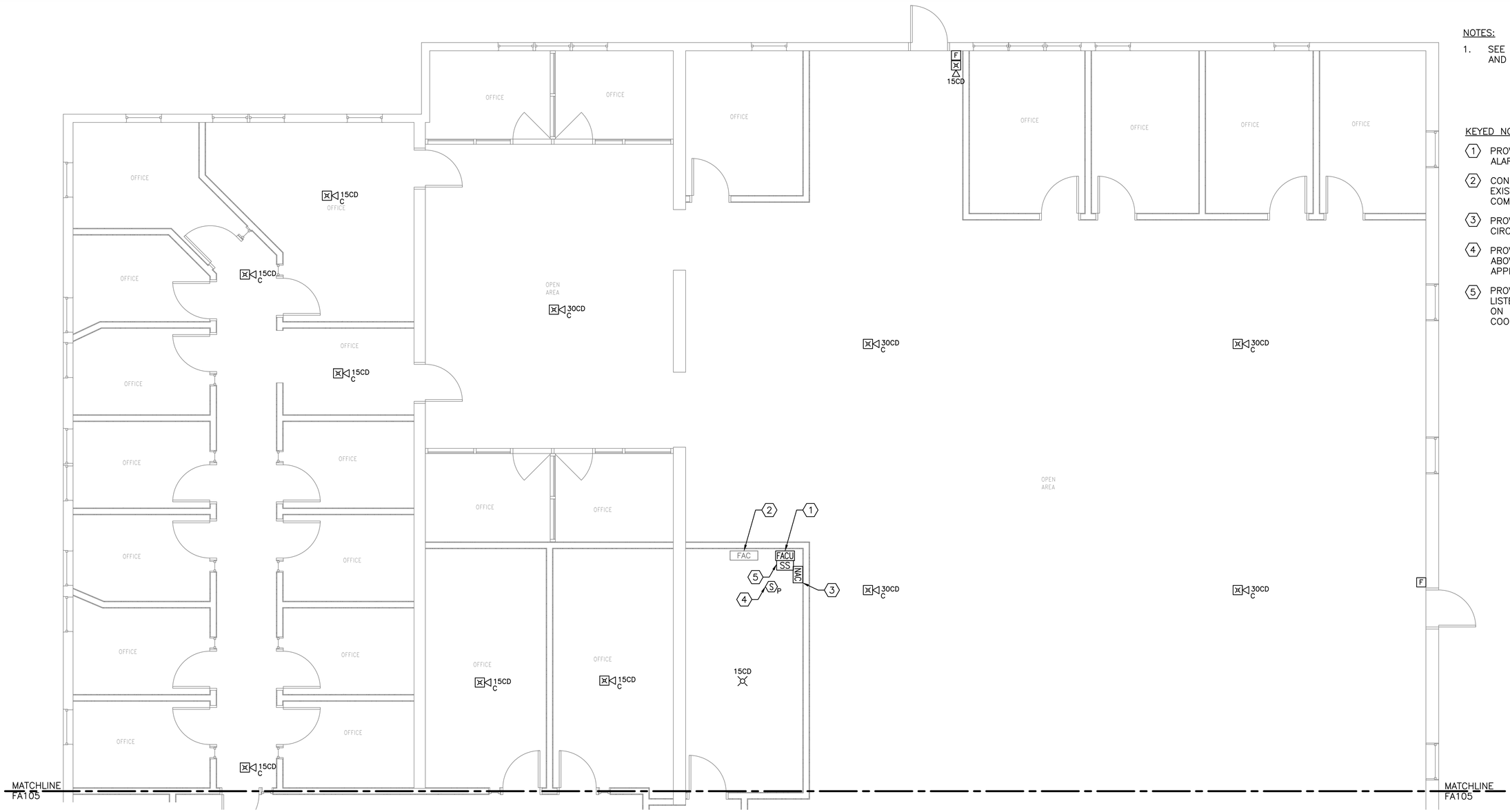

FIRST FLOOR FIRE ALARM PART PLAN – NEW WORK

SCALE: 1/4" = 1'–0"

NOTES:

1. SEE FA001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES:

1. PROVIDE NEW ADD ALARM CONTROL F
2. CONNECT NEW FIRE ALARM SYSTEM TO EXISTING NAPCO STARLINK FIRE ALARM COMMUNICATOR.
3. PROVIDE NOTIFICATION APPLIANCE CIRCUIT EXPANDER PANEL.
4. PROVIDE SMOKE DETECTOR LOCATED ABOVE FACU AND NOTIFICATION APPLIANCE CIRCUIT EXPANDER PANEL.
5. PROVIDE UL–1449 AND UL–1283 LISTED SURGE SUPPRESSION DEVICE ON 120VAC POWER CIRCUIT TO FACU. COORDINATE WITH ELECTRICAL.

LICENSED ARCHITECT BENJAMIN FREED No 5397 STATE OF MAINE

PLAN NORTH

0 2' 4' 8'
Scale: 1/4" = 1'–0"

STATE OF MAINE AARON BRUCE BUNDY No. 16161 LICENSED PROFESSIONAL ENGINEER
10/23/25

COLBY COMPANY LLC CCE engineering & design

47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
0	ISSUED FOR CONSTRUCTION	SBC	MJK	10/23/25

PLEASE NOTE: THIS DOCUMENT MAY NOT ACCURATELY REPRESENT THE FINAL DOCUMENT. ONLY AN ENGINEER, ARCHITECT OR SURVEYOR SIGNED, SEALED AND DATED PAPER COPY, PROVIDED BY THIS OFFICE, MAY BE UTILIZED FOR BIDDING OR CONSTRUCTION PURPOSES.

MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

FIRST FLOOR FIRE ALARM PART PLAN - NEW WORK

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	CLC
DWN BY:	SBC
CKD BY:	SMR

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. FA106

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City of Biddeford – Planning Department
Planning Board Application
P.O. Box 586, 205 Main Street, Biddeford, Maine 04005
207-284-9115

I understand that by submitting an application, the project is not guaranteed a place on any particular agenda. I further understand that the Staff Review Committee (SRC) will place the project on an agenda for review when the application is deemed satisfactory.

Type of Application:

__ Shoreland Zoning Permit _X_ Site Plan Review (Please include checklist) __ Extraction
__ Conditional Use Permit __ Subdivision (Please include Checklist) __ Private Way
__ Other: _____

Applicant Information:

Name: Maine Health dBA Behavioral Health _____
Mailing Address: 22 Bramhall Street, Portland Maine, 04102_____
Telephone: 207-303-3081_____
Email: Mark.Colonna@mainehealth.org_____

What is your legal interest in the property?
_X_ Owner __ Potential Buyer with Contract __ Lease/Rental Agreement

Owner's Information:

Name: Maine Health dBA Behavioral Health _____
Mailing Address: 22 Bramhall Street, Portland Maine, 04102_____
Telephone: 207-303-3081_____
Email: Mark.Colonna@mainehealth.org_____

Agent's Information:

Name: Colby Company Engineering LLC_____
Mailing Address: 47A Youk Street, Portland Maine, 04101_____
Telephone: 207-553-7753_____
Email: Davidm@colbycoengineering.com_____

Engineer/Surveyor's Information:

Name: Colby Company Engineering LLC_____
Mailing Address: 47A Youk Street, Portland Maine, 04101_____
Telephone: 207-553-7753_____
Email: Davidm@colbycoengineering.com_____

Project Location and Lot Information:

Street Address: 208 Graham Street_____ Drainage Watershed: Thatcher Brook Watershed___
Tax Map: Map 28_____ Lot: Lot 58 & 59_____
Current Zoning: R2_____ Shoreland Zoning: _N/A_____
Size of Lot: 1.6 Acres_____ (X)acres ( )s.f. Lot Frontage: 45 Ft_____
Existing Use of Property: Multi-tenant Building_____
_____

Property currently serviced by:
_X_ City Road _X_ Public Sewer _X_ Public Water _X_ Public Trash
__ Private Road __ Septic System__ Private Well __ Private Hauler

Slope Conditions in Area of Construction (if applicable):
_X_Flat (0-3% slope) __Rolling (3-8% slope) __Hilly (8-15% slope) __Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? __ (Yes)_X_(No) if yes attach information
Is the project within the 100-year floodplain? _X_ (Yes)__(No) if yes attach information
Do you plan to bring fill onto the lot? __(Yes) _X_(No) If yes attach information

Description of proposed use of property (separate from item A under Required Submittal Attachments):
Project/Proposed Use: The proposed project includes the renovation and repurposing of approximately 5,000 square feet of the existing building for a new transitional home. The project will introduce seven studio living quarters and community spaces such as a kitchen, bathrooms, dining room, pantry, laundry rooms, and storage rooms. The future tenants will not have access to personal vehicles. The site includes 72 parking spaces, which exceeds the required amount of 66 spaces. A fire water service has been proposed to provide a sprinkler system for the entire building. The site work also includes two ADA accessible entrances. These entrances are proposed at the northern and southern sides of the renovated space. The northern entrance incorporates a new ADA-accessible ramp due to the elevation of the existing grade at the entry point. A new concrete walkway is proposed at the southern entrance, extending from the existing concrete walkway to the two personnel doors on the south side of the building.

An outdoor community area is proposed for the southwest portion of the property, to be constructed atop the existing pavement. This area will be enclosed by fencing and will feature outdoor picnic tables.

Property to be Serviced by:
_X_ City Road _X_ Public Sewer _X_ Public Water _X_ Public Trash
__ Private Road __ Septic System __ Private Well __ Private Hauler

Limits of Disturbance: 8,646 SF_____ ( )acres (X)s.f.
Net change in impervious cover: 581_____ ( )acres (X)s.f.
Is this project part of a larger project? __(Yes) _X_(No)
Is the project proposing a new Private or Public Road? __(Yes, Private) __(Yes, Public) _X_(No)
Is this project within the Urbanized Area/MS4 (*see City Drainage Map*) _X_(Yes) __(No)
Is the project proposing any Stormwater facilities/BMPs? __(Yes) _X_(No)
Will a Traffic Movement Permit (TMP) be required?: __(Yes) _X_(No)

__ **If in a Shoreland Zone:**
Percent of residential lot coverage (Max 20%): __N/A_____
Percent of structure expansion (Max 30%): ____N/A_____
__ **If Subdivision Review, number of lots proposed:** _N/A_____
__ **If a Private Way is proposed, number of lots served:** _N/A_____

If Site Plan Review, you must provide the following information:
Total new square feet footprint of structure: No new footprint, 5,000 sf renovation _____
Total new square feet paving/parking: 581 SF_____

Waiver Requests (List chapter and section from the ordinance):

1. _____
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments:

A. Letter to Planning Board describing project, waiver requests, proposed improvements, addressing permit requirements, operational details, etc.
B. Photographs of the site.
C. Architectural renderings/drawings of proposed buildings, as required.
D. Engineering Plans, as required.
E. Stormwater Management Report, as required.
F. Letters of Approval
   __ Fire Department – Contact Chief or Deputy Chief – 282-9986
   __ Ability to Serve for Water Service – Maine Water – 282-1543
   __ Ability to Serve for Sewer Service – Engineering Department – Craig Chekan, 571-0636
   __ Police Department – e-911 Road Name Designation – Contact JoAnne Fisk 282-5127
   __ Ability to Serve for Electrical Service-CMP-1-866-225-4200

Fees (Due at time of Submission):

- $75 Nonrefundable Administration Fee is required for every application.
- Refer to "Attachment A Fees and Charges" of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering reviews.

Will the proposed project cause 1 acre or more of site disturbance? __(Yes) __(No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: Mimo **Date** 01/15/2025

Signature of Property Owner: [signature] **Date** 1.15.26
owners rep.

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) Ten (10) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

** Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVDUAL DRAWING NAME.pdf'*

B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.

C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

**All drawings & CAD reference files must be to-scale and within the following coordinate systems:*

→ MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) ONE (1) FULL-SIZE PAPER COPIES OF INDIVIDUAL DRAWINGS REQUIRING BOARD SIGNATURE

B) ONE (1) FULL-SIZE PAPER COPY OF THE ENTIRE DRAWING SET FOR ENGINEERING RECORDS

PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION

Transitional Home
208 Graham Street
Biddeford, ME

Staff Review – Site Plan

January 14, 2026

Colby Co. Project Number: 480.003.001

Prepared For:

MaineHealth DBA MaineHealth Behavioral Health
1 Riverfront Plaza
Westbrook, ME 04092

Prepared By:

Sustainable
Structural
Mechanical
Fire Protection
Electrical
Civil
Controls
Architecture

COLBY COMPANY, LLC
CCE
engineering & design

47A York St
Portland, Maine
04101 USA
colbycoengineering.com

Index of Sheets

Section 1: Cover Letter/Project Narrative
Attachment A: The City of Biddeford Site Plan & Subdivision Drawing Checklist
Attachment B: Sewer Ability-to-Serve Letter Email Correspondence
Attachment C: Drawings

SECTION 1

COVER LETTER/PROJECT NARRATIVE

Sustainable
Structural
Mechanical
Fire Protection
Electrical
Civil
Controls
Architecture

47A York St
Portland, Maine
04101 USA
colbycoengineering.com

January 14, 2026

Mr. David Galbraith, City Planning Director,
City of Biddeford Planning Board
205 Main Street
Biddeford, ME 04005

Planning Department Staff Review
Maine Health dba, Behavioral Health – Transition Home – Graham Street

Dear Mr. Galbraith,

On behalf of Maine Health, Colby Company Engineering (CCE) is pleased to submit a Site Plan and associated documents required for The City of Biddeford Planning Department review. The proposed Maine Health Transition Home is proposed in a portion of a multi-tenant building located at 208 Graham Street. A Site Plan & Subdivision Drawing Checklist and Planning Board Review Application has been completed and has been attached to this package, please see attachment A.

The existing lot is 1.6 acres in size and consists of a paved parking area and a multi-tenant building comprising 21,505 square feet. A portion of the building, which previously served as a teen center, is currently vacant. The remaining areas are occupied by the York County District Attorney's Office and the Coastal Healthy Communities Coalition. Note that the existing building is not equipped with a sprinkler-based fire suppression system. The site currently offers 79 total parking spaces, 7 of which comply with ADA accessibility standards. In accordance with the Table of Off-Street Parking, the site is mandated to provide a total of 66 parking spaces, inclusive of 4 ADA-compliant spaces. Emergency vehicle access to the western end of the site is presently facilitated by a driveway access across and through Burger King property.

The scope of the proposed project involves the renovation and repurposing of approximately 5,000 square feet of the existing building to accommodate the new transition home. This development will introduce seven studio living units and communal facilities, including a kitchen, bathrooms, dining room, pantry, laundry rooms, and storage rooms.

A fire water service will be added to provide a sprinkler system for the entire building. A sanitary sewer service line is proposed on the south side of the building to accommodate the expanded use. The existing sanitary sewer service located on the east end of the building will be intercepted and connected to the proposed service. The existing service that ties into the main

on Graham Street will be abandoned, ensuring that only one sanitary sewer lateral serves the property at 208 Graham Street.

Two ADA-accessible entrances have been proposed as a part of this project. These entrances are proposed at the northern and southern sides of the renovated space. The northern entrance incorporates a new ADA-accessible ramp due to the elevation of the existing grade at the entry point. A new concrete walkway is proposed at the southern entrance, extending from the existing concrete walkway to the two personnel doors on the south side of the building.

An outdoor community area is proposed for the southwest portion of the property, to be constructed atop the existing pavement. This area will be enclosed by fencing and will feature outdoor picnic tables.

This project also includes the partial demolition of the existing landscaped island situated north of the building and the installation of jersey barriers at the western paved entrance to the site to block off existing access through the Burger King property. This measure is intended to eliminate access to the site via the off-site driveway entrance off West Street and concurrently establish a 24-foot-wide travel lane along the north side of the building to Graham Street. Vehicular access for personal and emergency vehicles will be maintained through this existing driveway entrance to Graham Street.

The existing site is comprised of 32,815 square feet of asphalt pavement and concrete sidewalks. The paved parking area north of the building is sloped toward the northern boundary of the site. The northwestern section of the pavement is graded such that stormwater runoff is directed onto a grassed area to the north. The northwest portion of the pavement also slopes toward a catch basin located approximately 100 feet north of the existing building. This project proposes the addition of 581 square feet of impervious area by replacing a section of the existing landscaped island with asphalt pavement. This results in an approximate increase in impervious area of 1%. This modification is not anticipated to significantly impact or alter the existing drainage patterns. Furthermore, the project is not projected to substantially increase peak stormwater run-off rates or generate significant downstream concerns. The complete drawing package is provided in Attachment B.

An approved ‘Sewer Ability-to-Serve Letter’ is forthcoming and will be included in this package when it becomes available. A request has been sent to Craig Chekan, Director of City Engineering. See Attachment C for email correspondence.

Thank you for taking the time to review this submission. Please do not hesitate to contact me with any questions or concerns with the application.

Sincerely,
David Manzo, P.E.

Colby Co. Engineering
47A York Street
Portland, Maine 04101
207.553.7753 (Main)

Attachment A

The City of Biddeford Site Plan & Subdivision Drawing Checklist

CITY OF BIDDEFORD - SITE PLAN & SUBDIVISION APPLICATION DRAWING CHECKLIST *LAST REVISED: 11/26/2024*

CHECKLIST DIRECTIONS:

1. The following checklist must be completely filled out by the applicant and included on all preliminary and final Site Plan & Subdivision submittals. No checklist is required for sketch submittals.
2. Applicant to confirm all of the items listed are included within the submittal. Any missing items must have adequate reasoning to justify their absence.
3. City to review applicant's submittal and checklist responses. Projects missing substantial submittal information with non-acceptable reasoning will be rejected and required to resubmit.
4. Items in **BLACK** are required for 'Preliminary' approval & 'Final' approval.
5. Items in **BLUE** are only required for 'Final' approval.

SUBMITTAL INFORMATION - TO BE FILLED OUT BY APPLICANT	
Project Name:	208 Graham Street
Planning Board # (if available):	
Applicant Name/Info:	David Manzo, Civil Engineer, Colby Company Engineering
Submittal #/Type (Prelim/Final):	Preliminary
Submittal Date:	1/14/2025

SUBMITTAL REQUIREMENT			APPLICANT RESPONSE			CITY REVIEW RESPONSE	
ITEM NUMBER		DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	COMMENT
1		**GENERAL PLAN REQUIREMENTS**					
	A	Drawing specific legends (linetypes, hatches, etc.)	Y	C/J101			
	B	Individual drawing layer control should be utilized: freeze/thawing, changing lineweights, and screening (i.e. screen existing layers on a proposed plan, freeze topography and underground utilities on a proposed site plan)	Y				
	C	North arrows, standard engineering scale viewports, scale bars, dated revision blocks	Y				
	D	All drawings and surveys must be in the following coordinate systems: NAD83 Maine State Plane West (Horizontal) and NAVD88 (Vertical)	N		Drawings have been referenced on NGVD29.		
	E	Drawings need to be designed, signed & sealed by a Maine licensed professional engineer (PE); all boundary survey data needs to be performed by a licensed professional land surveyor (PLS)	Y				
2		**COVER SHEET**					
	A	Project Name & Property Address	Y	G-001			
	B	Project Team Contact Information (Owner, Engineer, Contractor, etc.)	Y	G-001			
	C	Site Location Map	Y	G-001			
	D	Sheet Set List of Drawings	Y	G-001			
	E	Tax Map and Lot ID	Y	G-001			
	F	Zoning & Shoreland Zone Information	Y	G-001			
	G	Existing Use Description	Y		See Project Narrative		
	H	Proposed Use Description	Y		See Project Narrative		
	I	Required Waiver/Variances (Yes/No); if yes, plan must clearly list waivers/variances requesting	N/A				
	J	Name of Drainage Watershed	Y	G-001			
	K	Within the MS4 Urbanized Area (Yes/No)	Y	G-001			
	L	Natural resources (streams, wetlands, etc.) located on-site or adjacent to the property (Yes/No)	N/A				
	M	Within the 100-year Flood Zone (Yes/No)	N/A				
	N	Public Road Proposed (Yes/No)	N/A				
	O	Private Road Proposed (Yes/No)	N/A				
	P	Public Sewer Connection (Yes/No)	N/A				
	Q	Public Storm Drain Connection (Yes/No)	N/A				
	R	Limits of Disturbance in square feet and acres	Y	G-001			
	S	Pervious Land Cover square footage, existing and proposed	Y	G-001			
	T	Impervious Land Cover square footage (Pavement/Gravel), existing and proposed	Y	G-001			
	U	Building Roof square footage, existing and proposed	Y	G-001			
	V	Assigned Planning Board Number	N/A				
	W	Estimated cut/fill earthwork volumes. If disturbing within the Flood Zone, a separate set of earthwork volumes required (overall site vs. within flood zone)					
3		**EXISTING CONDITIONS PLAN**					
	A	Horizontal & Vertical Datums annotated (NAD83 & NAVD88)	N		Drawings have been referenced on NGVD29.		
	B	Property & Right-of-Way Lines	Y	C/J101			
	C	Boundary line information (bearings, distances, etc.)	Y	C/J101			
	D	Property pin and monumentation locations	Y	C/J101			
	E	Existing easements with proper ownership identified	N/A	C/J101			
	F	Road Names & Individual Lot Labels (Map, Lot, Owner, Acreage)	Y	C/J101			
	G	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	N/A				
	H	100-year Flood Zone Limits & Elevation	N/A				
	I	Existing contours with adequate contour labelling; minimum 1' contour interval	Y	C/J101			
	J	Existing building FFEs annotated	Y	C/J101			
	K	Spot elevations for all tie-in locations (curb cuts, property line)	Y	C/J101			
	L	Existing buildings & structures	Y	C/J101			
	M	Existing pavement areas & number of parking spaces	Y	C/J101			
	N	Existing ADA ramp geometry, detectable warning plates, and ADA parking spaces	Y	C/J101			
	O	Existing site features (sidewalks, retaining walls, curbing, lightpoles, guide rails, dumpsters, fencing)	Y	C/J101			
	P	Existing signage and striping	Y	C/J101			
	Q	Existing underground utility locations (storm, sewer, force main, water, gas, elec, tele)	Y	C/J101			
	R	Existing above-ground utility locations (manholes, catch basins, utility poles, hydrants, transformers, riprap)	Y	C/J101			
	S	Rim, invert in, invert out, pipe size, cardinal direction (N, E, S, W) information for any existing utility infrastructure being tied into (upstream/downstream/outfalls)	Y	C/J101			
	T	Existing tree lines, street trees, free-standing trees (12" or larger diameter at breast height), and vegetation	Y	C/J101			
	U	Location of any borings, drinking wells, and monitoring wells	N/A				
4		**SITE DEMOLITION & EROSION CONTROL (E&SC) PLAN**					
	A	Limits-of-disturbance outlined and acreage annotated	Y	C-102			
	B	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	N/A				
	C	100-year Flood Zone Limits	N/A				
	D	Callout existing site features to be demolished/removed/replaced	Y	C-102			
	E	Callout existing utilities to be demolished/removed/abandoned-in-place	Y	C-102			
	F	Hatch existing buildings and pavement to be removed	Y	C-102			
	G	Construction Entrance location(s)	Y	C-102			
	H	Perimeter E&SC control location(s) (i.e. silt fence, erosion berm mix)	Y	C-102			
	I	Stockpile and staging area(s) identified (with proper perimeter control)	N/A				
	J	Inlet protection location(s)	Y	C-102			
	K	Note requiring contractor to implement dust control measures throughout construction	Y	C-101			
	L	Note requiring contractor to pave utility trenches within right-of-way within 3 days of excavation or prior to any rain event	Y	C-101			
	M	If groundwater expected, show dewatering/silt bag location(s); show temporary pumping routine	N/A				
	N	If large development is proposed with an extensive underground stormwater conveyance network, identify how SWM infrastructure and BMPs will be protected during construction and if sediment traps/basins are needed	N/A				
5		**SITE PLAN/SUBDIVISION PLAN**					
	A	Partial Site Plans needed for any viewport scale greater than 1"=20'	N/A				
	B	Existing property and right-of-way lines	Y	C-101			
	C	Proposed subdivision lot lines and labels	N/A				
	D	Required Zoning Setbacks shown with dimensions and annotation	N/A				
	E	Bulk requirement summary table (zoning/parking calculations)	Y	C-101			
	F	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	N/A				
	G	100-year Flood Zone Limits	N/A				
	H	Proposed building outlines, door entrances and loading docks	Y	C-101			
	I	Proposed building labels	N/A				
	J	Proposed road & sidewalk extents; provide clear annotation if roads will be public or private	N/A				
	K	Proposed parking and accessible parking locations; annotate parking space counts	Y	C-101			
	L	Proposed signage, parking striping, and traffic striping	Y	C-101			
	M	Detailed ADA ramp geometry, detectable warning surfaces, and ADA parking striping/signage; existing & proposed	Y	C-101			
	N	Proposed site features (i.e. curbing, walls, fencing, guiderail, fire hydrant, transformers, light pole locations)	Y	C-101			
	O	Proposed landscaping; detailed landscaping design should be shown on separate plans	N/A				
	P	Designated snow storage areas	N/A				
	Q	Proposed dumpster locations and trash removal access	N/A				
	R	Linear dimensions of all drive aisles, sidewalk widths, parking spaces, loading docks	Y	C-101			
	S	Radial dimensions for all curbs, landscaped islands, sidewalks	Y	C-101			
	T	Public/private road centerline stationing shown, labelled every 0+50' with curve data	N/A				
	U	If Private Road is proposed, final recorded plans must clearly note that proposed private roads will not be submitted in the future for public acceptance	N/A				
	V	If Private Road is proposed, final recorded plans must clearly note that the City is not responsible for any maintenance, repair, plowing, or trash removal of proposed private roads	N/A				
	W	Planning Board signature block for final recording	Y	C-101			
6		**GRADING PLAN**					
	A	Partial Grading Plans needed for any viewport greater than 1"=20'	Y	C-101			
	B	Limits-of-disturbance outlined and acreage annotated	Y	C-102			
	C	Proposed Building Labels with Individual Finished Floor Elevations (FFEs)	N/A				
	D	Existing contours with adequate contour labelling, screened; minimum 1' contour interval	Y	C-101			
	E	Proposed contours with adequate contour labelling; minimum 1' contour interval	Y	C-101			
	F	Detailed grading for all ditches, swales, outfalls, and riprap	Y	C-101			
	G	All proposed contours tie-into existing contours at limits-of-disturbance outline	Y	C-101			
	H	Existing spot elevations for all asphalt, curb, and SWM BMP tie-in locations	Y	C-101			
	I	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	N/A				
	J	100-year Flood Zone Limits	N/A				
	K	Proposed spot elevations for all important roadway geometric points (including but not limited to: parking/drive aisles, building corners/entrances, retaining walls, loading docks, ROW/curblines)	Y	C-101			
	L	Proposed spot elevations for all ADA ramp/landing/parking stall geometry points	Y	C-101			
	M	Proposed % slope arrows for all ADA parking spaces and sidewalks	Y	C-101			
	N	Proposed longitudinal % slope arrows for drainage ditch centerlines	Y	C-101			
	O	Proposed % slope arrows for roads, parking areas, and landscape tie-in areas	Y	C-101			
	P	Estimated cut/fill earthwork volumes. If disturbing within the Flood Zone, a separate set of earthwork volumes required (overall site vs. within flood zone)					
7		**ROAD PROFILES (if public/private road proposed)**					
	A	Existing surface; dashed and screened	N/A				
	B	Proposed surface; continuous and bold	N/A				
	C	Road design speed must be clearly identified	N/A				
	D	Corresponding centerline stationing and curve data annotation	N/A				
	E	All vertical curves must identify the proposed 'K' values and confirm they meet the minimum design speed thresholds listed in AASHTO's Green Book Tables 3-35 & 3-37	N/A				
	F	Clear annotation if proposed road will be public or private	N/A				
	G	If Private Road is proposed, plans must clearly note that proposed private roads will not be submitted in the future for public acceptance	N/A				
	H	If Private Road is proposed, plans must clearly note that the City is not responsible for any maintenance, repair, plowing, or trash removal of proposed private roads	N/A				
8		**UTILITY PLAN**					
	A	Existing underground utility locations; screened (storm, sewer, force main, water, gas, electric, telecom)	Y	C-101			
	B	Existing above-ground utility locations; screened (manholes, catch basins, utility poles, hydrants, riprap)	Y	C-101			
	C	Rim, invert in, invert out, pipe size, cardinal direction (N, E, S, W) information for any existing utility infrastructure being tied into (upstream/downstream/outfalls)	Y	C-101			
	D	Proposed underground utility locations; bold (storm, sewer, force main, water, gas, electric, telecom, lighting)	Y	C-101			
	E	Proposed above-ground utility locations; bold (manholes, catch basins, utility poles, hydrants, transformers, riprap)	Y	C-101			
	F	Proposed storm culverts, outfalls, and riprap locations and sizes	Y	C-101			
	G	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	Y	C-101			
	H	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	Y	C-101			
	I	Flow directional arrows for storm & sewer pipes	Y	C-101			
	J	Proposed & existing site features shown that could conflict with proposed utilities (trees, signs, lightpoles, bollards, foundations, guiderails)	Y	C-101			
	K	All storm drains must be sized to convey the 25-year storm	Y	C-101			
	L	Sewer force main sizes and invert elevations	N/A				
	M	Sewer pump station locations, model, rim, inverts, pipe sizes, cardinal directions (N,E,S,W); additional details and hydraulic calculations required for any Public pump station proposed.	N/A				

	N	Locations, sizes, and elevations of any: grease traps, oil-water separators, septic systems, drinking wells	N/A				
	O	Proposed water sizes labelled	Y	C-101			
9		UTILITY PROFILES					
	A	Utility profiles required for all gravity storm drain and sewer pipes proposed: within the right-of-way, within private or public roads, for non-driveway culverts, and for any public infrastructure design	N/A				
	B	Existing surface; dashed and screened	N/A				
	C	Proposed surface; continuous and bold	N/A				
	D	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	N/A				
	E	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	N/A				
	F	Existing and proposed gravity pipe crossings shown; sizes labelled and depths/clearance annotated	N/A				
	G	Existing and proposed electric/water/telecom/gas crossings shown at approximate depths; sizes labelled and depths/clearance annotated	N/A				
10		DETAILS					
	A	Road section detail, including pavement/gravel depths & cross slopes	Y	C-502			
	B	Sidewalk, paver, crosswalk, and any other pavement section details	Y	C-502			
	C	Pavement sawcut & shiplap details	Y	C-502			
	D	Utility trench/backfill detail	Y	C-502			
	E	All site feature details; curbing, retaining walls, fencing, guiderails, dumpsters, etc.	Y	C-502			
	F	Signage, striping, and ADA details	Y	C-502			
	G	E&S notes and details	Y	C-501			
	H	Utility structure details (manholes, cleanouts, fittings, handholes, transformer pads, hydrants)	Y	C-502			
	I	Storm outfall & riprap details	N/A	C-502			
	J	Drainage ditch cross section identifying minimum depth, minimum bed width, and maximum side slopes	Y	C-502			
	K	Pump station, grease trap, oil-water separator, septic, drinking well details	N/A				
	L	Conduit section details	N/A				
11		LANDSCAPING, LIGHTING & PHOTOMETRIC PLANS					
	A	As required by ordinance; at a minimum: locations, counts, lighting models, and landscaping species must be identified	N/A				
	B	Landscaping & lighting details	N/A				
12		DOCUMENTS/REPORTS/CALCULATIONS					
	A	On initial preliminary submittal applications, applicant must submit a development review and inspection fee. Applicant to coordinate fee amount with City Planner prior to submittal. This fee will be drawn against to cover the following type of services throughout the project life cycle (and may require replenishing): i. 3rd Party City Peer-Review ii. Site Inspections during the permitting process iii. Erosion & Sediment Control Inspections during construction iv. Right-of-Way Inspections during construction	Y				
	B	Stormwater Management Report, including: 1. Predevelopment & Post-development Drainage Area Maps, including: a. Subdrainage areas delineated and labeled b. Points of Interest/Analysis shown and labeled c. Hatching for different land cover areas (impervious, pervious, gravel) within each applicable USDA soil boundary d. Time of concentration (Tc) paths & durations e. Four City-standardized stormwater summary tables 2. If any SWM water quality BMP or detention facility is proposed, hydrologic model exports/hydrographs must be submitted for the for the 2, 10, 25, & 100-year storm frequencies 3. Sizing calculations for any SWM water quality BMP or detention facility 4. A stormwater maintenance manual for any proposed SWM water quality BMP or detention facility, including: a. Annual maintenance requirements b. Annual inspection requirements by a licensed PE; noting that all inspection reports/logs need to be submitted to the Engineering Department by March 1st each following year, identifying what on-going maintenance has occurred and what remedial repairs are needed c. Signed Property Owner Agreement: including the current property owner's contact information and signature; it must be noted that all stormwater BMP maintenance	N		See Section 1: Project Narrative		
	C	An approved 'Sewer Ability-to-Serve Letter' from the Engineering Department: i. Applicant to submit proposed sewer flow calculations per Maine's Subsurface Wastewater Disposal Rules, Chapter 241, Section 4 (Tables 4A & 4C)	N		See Section 1: Project Narrative		
	D	A Performance Guarantee Cost Estimate utilizing Planning's template	N/A				
	E	For any Site Location of Development (SLODA) project, the applicant's submittal must mimic a formal submittal to DEP. Submit must abide to DEP's SLODA application and include DEP's SLODA Submittal Checklist (Form D)	N/A				
	F	25-year hydraulic calculations for all storm conveyance infrastructure (pipes, culverts, drainage ditches); starting tailwater conditions/documentation must be clearly identified	NA				
	K	Public sewer pump station sizing calculations and maintenance plan	N/A				
	M	Grease trap sizing calculations	N/A				
	N	Homeowner Association (HOA) agreement for any private road serving two (2) lots or more	N/A				
	O	Summary list & copy of any required DOT/DEP/USACE permits & approvals	N/A				

Attachment B

Sewer Ability-to-Serve Letter Email Correspondence

Colby Company LLC

David Manzo <davidm@colbycoengineering.com>

Proposed Transitional House at 208 Graham Street, Biddeford ME

3 messages

David Manzo <davidm@colbycoengineering.com> Thu, Jan 8, 2026 at 9:53 AM
To: Craig.Chekan@biddefordmaine.org

Dear Craig,

My name is Dave Manzo, and I am a civil engineer with Colby Company Engineering in Portland, Maine. On behalf of our client, MaineHealth, we are preparing to renovate a portion of the existing building at 208 Graham Street in Biddeford. Adi Iriqat, the City of Biddeford Assistant City Planner, provided your contact information as I seek to obtain a "Sewer Ability-to-Serve Letter" for this project.

Due to the scope of the work, this project is undergoing an Internal Staff Review rather than a full planning board review. The 1.6-acre property currently features a 21,505-square-foot multi-tenant building. While the York County District Attorney's Office and the Coastal Healthy Communities Coalition remain in place, we are renovating the vacant space previously used as a teen center.

Pursuant to Maine's Subsurface Wastewater Disposal Rules, Table 4A - The design flow for multi family dwelling units can be calculated at 120 gallons per day per unit. This project proposes to add seven units within the renovated space, which equates to an increase of 840 gallons per day of sanitary sewer flow.

Due to elevation constraints, the proposed renovation cannot utilize the existing sanitary sewer service located on the east end of the building. Consequently, we propose installing a new sanitary sewer service line on the south side of the property. The existing service will be intercepted and connected to this new line to ensure that only one sanitary sewer lateral serves the property. The remainder of the existing sanitary sewer lateral will be abandoned in place to reduce distribution. Please find the attached Site Plan for your reference.

Please let me know if you require any additional information to issue the letter or if you have any questions regarding this request.

Thank you for your time and assistance.

Best regards,

Dave Manzo
--
David Manzo, P.E.
Civil Engineer
Colby Co. Engineering
47A York Street
Portland, Maine 04101
207.553.7753 (Main)
207.808.5347 (Direct)
207.991.0527 (Cell)
davidm@colbycoengineering.com
www.colbycoengineering.com

C-101.pdf
621K

Chekan, Craig <Craig.Chekan@biddefordmaine.org> Thu, Jan 8, 2026 at 10:42 AM
To: "Milligan, Tom" <Tom.Milligan@biddefordmaine.org>, "davidm@colbycoengineering.com" <davidm@colbycoengineering.com>

Hi Tom

Attachment C

Drawings

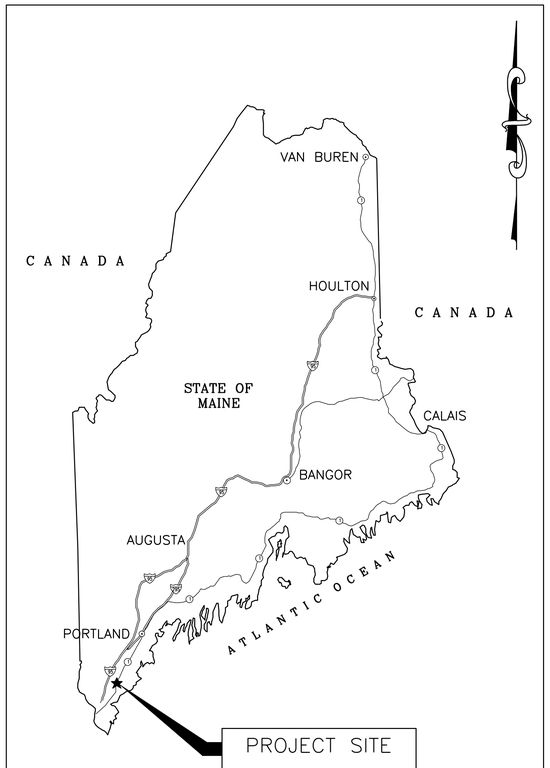
MAINE HEALTH DBA, BEHAVIORAL HEALTH

208 GRAHAM ST, BIDDEFORD, ME 04005

208 GRAHAM STREET TRANSITION HOME

BIDDEFORD PLANNING DEPARTMENT REVIEW

JANUARY 14, 2026



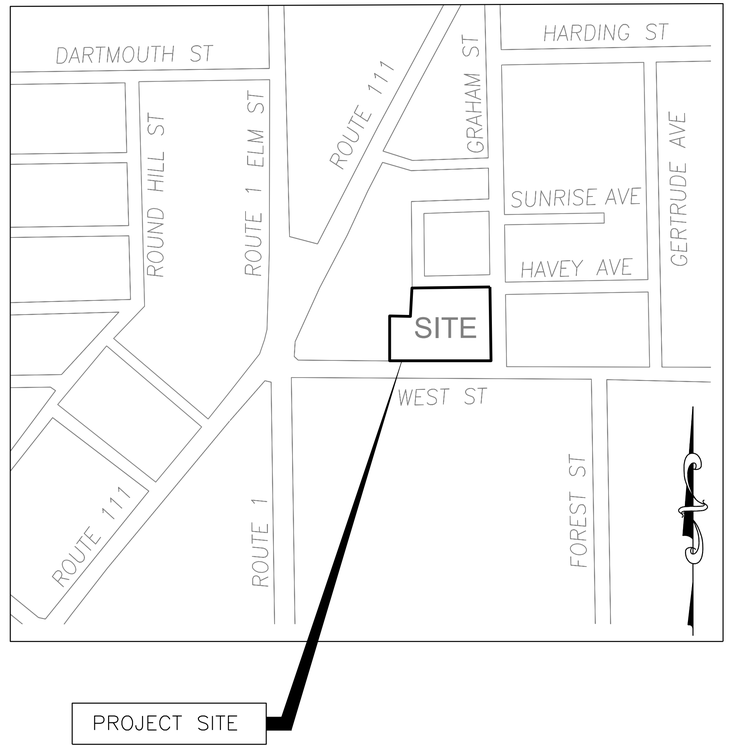
VICINITY MAP

SCALE: N.T.S.

LIST OF DRAWINGS		
SHEET	DRAWING TITLE	SHEET NO.
G-001	COVER SHEET	1
CJ101	EXISTING CONDITIONS	2
CD101	DEMOLITION PLAN	3
C-101	SITE, UTILITY, AND GRADING PLAN	4
C-102	EROSION AND SEDIMENTATION CONTROL PLAN	5
C-501	EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS	6
C-502	CIVIL CONSTRUCTION DETAILS	7
C-503	CIVIL UTILITY DETAILS	8
C-504	CIVIL FENCE DETAILS	9
C-505	ADA RAMP SECTIONS AND DETAILS	10

NOTES:

1. TAX MAP 28 LOTS 58 &59
2. ZONE RESIDENTIAL 2
3. THIS SITE IS WITHIN THE RICHARDSON BROOK SUBWATERSHED OF THE THATCHER BROOK MAJOR WATERSHED
4. THIS SITE IS WITHIN THE MS4 URBANIZED AREA
5. LOT AREA: 69,577 SF
   EXISTING ASPHALT AND CONCRETE PAVEMENT: 33,651 SF
   EXISTING PERVIOUS: 14,421 SF
   EXISTING ROOF: 21,505 SF
   PROPOSED IMPERVIOUS: 55,737 SF
   PROPOSED PERVIOUS: 13,840 SF
6. PROJECT TEAM:
   OWNER: MARK COLONNA, MAINE HEALTH, MARK.COLONNA@MAINEHEALTH.ORG
   ENGINEER: DAVID MANZO, PE. COLBY COMPANY ENGINEERING, DAVIDM@COLBYCOENGINEERING.COM
   CONTRACTOR: TBD



TOWN OF BIDDEFORD PLANNING DEPARTMENT DATE

COLBY COMPANY, LLC CCE engineering & design

47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
1	BIDDEFORD PLANNING DEPARTMENT REVIEW	MAF	MJK	01/14/26
0	ISSUE FOR REVIEW	MAF	MJK	10/23/25

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

COVER SHEET

SIZE: ARCH D
DATE: 10/23/2025
DES BY: DAM
DWN BY: MAF
CKD BY: LDA

PROJECT NO. 480.003.001

SHEET 1 OF 10

DRAWING NO. G-001

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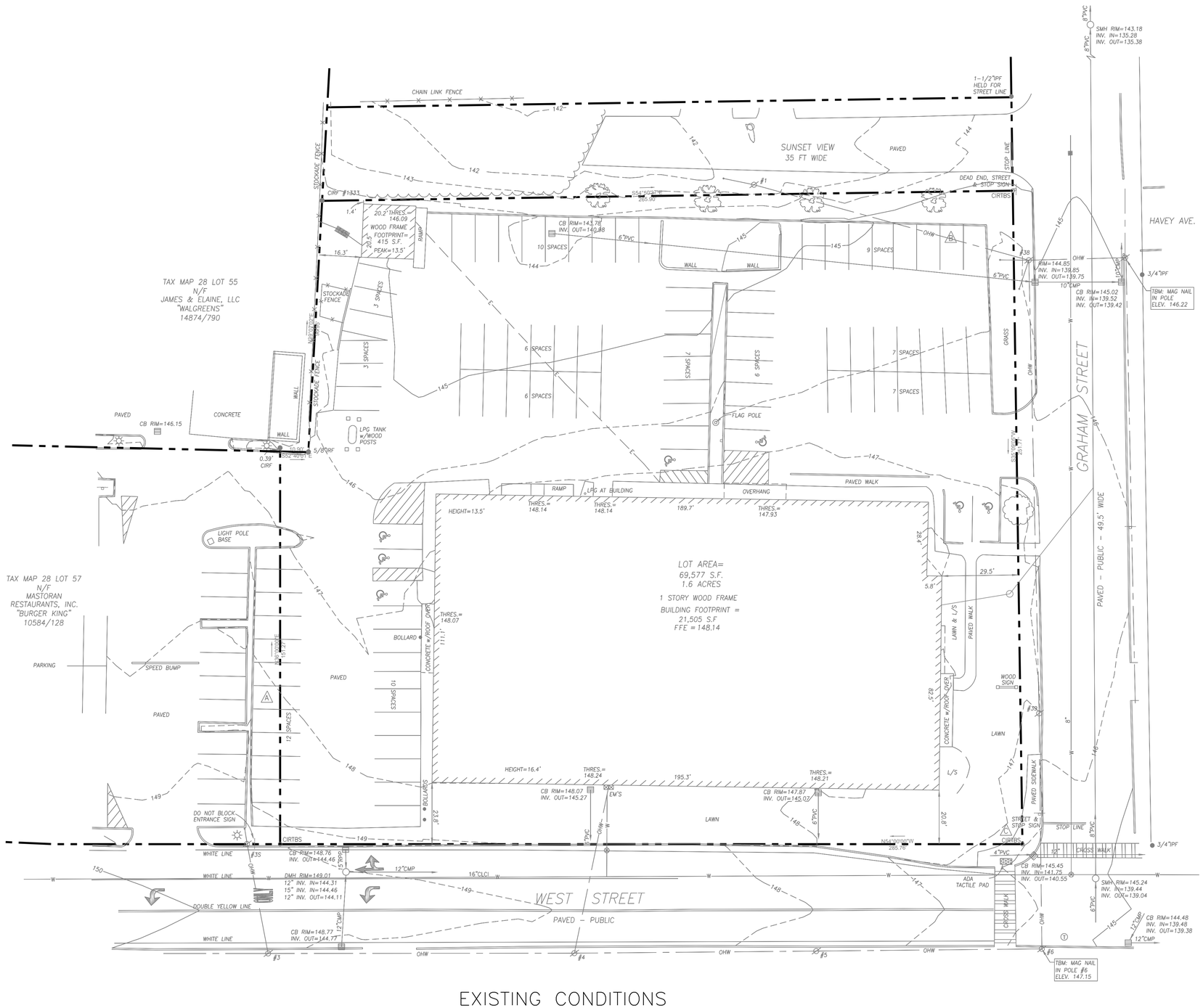

EXISTING CONDITIONS

SCALE: 1" = 20'-0"

NOTES:

NOTES FROM PLAN TITLED ALSTA/NSPS LAND TITLE SURVEY FOR #200 & #208 GRAHAM STREET AND DATED NOVEMBER 8, 202

1. TRAFFIC CONTROL NOTES:

   CONTRACTOR MUST PREPARE A TRAFFIC CONTROL PLAN. UPDATE PLAN MONTHLY DURING CONSTUCTION

   MAINTAIN AT LEAST ONE 12-FOOT WIDE TRAFFIC LANE AT ALL TIMES THROUGHOUT CONSTRUCTION.

   PROVIDE TRAFFIC CONTROL DEVICES AND INFORMATIONAL SIGNS IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

LEGEND

⊙ CIRTBS	CAPPED IRON ROD TO BE SET
●	IRON PIPE OR ROD FOUND
⌀	UTILITY POLE
○	MANHOLE
⊠EM	ELECTRIC METER
▭	SIGN
▤	CATCH BASIN
◇	HYDRANT
⊗	WATER VALVE OR SHUTOFF
☼	LIGHT POLE
	DECIDUOUS TREE
	CONIFEROUS TREE
	CURB
-x-x-	FENCE
OHW	OVERHEAD WIRES
E	UNDERGROUND ELECTRIC
W	WATER LINE
SD	STORM DRAIN
S	SANITARY SEWER
145	1' CONTOUR
N/F	NOW OR FORMERLY
000/000	DEED BOOK / PAGE
L/S	LANDSCAPE
CONC.	CONCRETE
THRES.	THRESHOLD

PLAN REFERENCES

1. *"PLAN SHOWING LAND OF HARRY B. CENTER & JOSEPH HAVEY, BIDDEFORD – MAINE, MARCH 1946 LIBBY & DOW ENG'RS – SACO REVISED & COMPLETED NOV. 17, 1947" RECORDED IN YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 14 PAGE 25.*

2. *"PLAN OF PROPERTY IN BIDDEFORD, MAINE MADE FOR MCDONALD'S CORPORATION NOV. 1, 1976 H.I. & E.C. JORDAN SURVEYORS."*

3. *"SITE PLAN, DHS BUILDING, WEST STREET, BIDDEFORD, MAINE, RECORD OWNER: S&S REALTY GROUP 06-02-98 PAUL P. GADBOIS, PLS."*

4. *"ALTA/ACSM LAND TITLE SURVEY, PROPOSED RITE AID PHARMACY, BIDDEFORD STORE, ALFRED STREET, TOWN OF BIDDEFORD, YORK COUNTY, MAINE NOV. 03, 2004 REVISED 10-25-2005" OWEN HASKELL, INC. AND BL COMPANIES.*

5. *"STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, STATE HIGHWAY 1 & 8 (FIVE POINTS) BIDDEFORD, YORK COUNTY FEDERAL AID PROJECT NO. STP-7492(30)X (PART 1 & 3)" D.O.T. FILE NO. 16-406 DATED SEPTEMBER 2002.*

GENERAL NOTES

1. *OWNER OF RECORD:*
   H.H.H. LLC, C/O BERNSTEIN SHUR, 100 MIDDLE STREET, PORTLAND, ME 04101
   YORK COUNTY REGISTRY OF DEEDS BOOK 18507 PAGE 525
2. *LOCUS IS SHOWN AS LOTS 58 & 59 ON CITY OF BIDDEFORD'S ASSESSORS MAP 28.*
3. *BEARINGS ARE GRID NORTH PER PLAN REFERENCE 4.*
4. *ELEVATIONS ARE BASED ON NGVD29.*
5. *THERE ARE 86 REGULAR SPACES AND 7 HANDICAP SPACES, FOR A TOTAL OF 93 PARKING SPACES. INCLUDES THE 12 SPACES ENCROACHING ONTO ABUTTER.*
6. *NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, BUILDING ADDITIONS, OR RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WAS OBSERVED.*
7. *NO PROPOSED CHANGES IN STREET LINES IS KNOWN BY THIS SURVEYOR.*
8. *UNDERGROUND PROPANE LINE FROM TANK TO BUILDING COULD NOT BE LOCATED.*
9. *WEST STREET ESTABLISHED USING DIMENSIONS SHOWN ON PLAN REFERENCE 2 AND 4.*
10. *THIS SURVEY WAS PERFORMED WITH OUT THE BENEFIT OF A CURRENT TITLE COMMITMENT.*

FLOOD ZONE NOTE

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 2301450 0003B, WHICH BEARS AN EFFECTIVE DATE OF MAY 15, 1984 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

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 SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-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.

POSSIBLE ENCROACHMENTS

- Ⓐ *PARKING ENCROACHES ONTO ABUTTER 10'±*
- Ⓑ *OVERHEAD WIRES CROSS PREMISES*
- Ⓒ *SIDEWALK ENCROACHES 4'±*

ZONING INFORMATION

R2 ZONE

MINIMUM LOT SIZE	*4,500 S.F*
MINIMUM FRONTAGE	*45 FT*
SETBACKS:	
FRONT MAJOR ROW	*25 FT*
FRONT OTHER ROW	*10 FT*
SIDE	*5 FT*
REAR	*5 FT*
MAX. HEIGHT	*35 FT, 3 STORIES*

FOR ADDITIONAL ZONING REQUIREMENTS REFER TO CITY OF BIDDEFORD ZONING ORDINANCE.

N

0 20' 40'

Scale: 1" = 20'-0"

COLBY COMPANY, LLC
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47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
1	BIDDEFORD PLANNING DEPARTMENT REVIEW	MAF	MJK	01/14/26
0	ISSUE FOR REVIEW	MAF	MJK	10/23/25

MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

EXISTING CONDITIONS

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SIZE: ARCH D
DATE: 10/23/2025
DES BY: DAM
DWN BY: MAF
CKD BY: LDA

PROJECT NO. 480.003.001

SHEET 2 OF 10

DRAWING NO. CJ101

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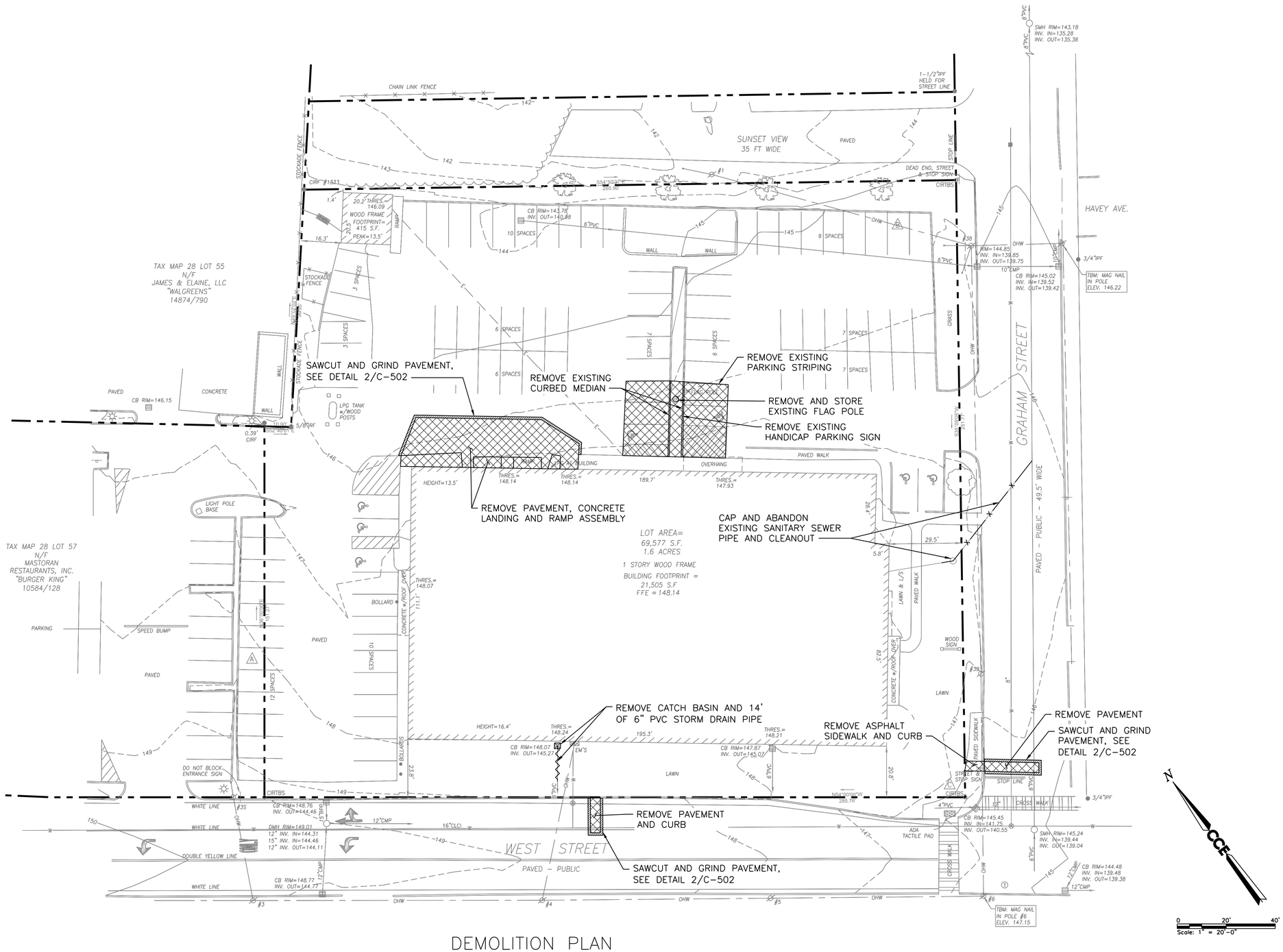

DEMOLITION PLAN

SCALE: 1" = 20'-0"

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DEMOLITION PLAN

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DWN BY: MAF
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PROJECT NO. 480.003.001

SHEET 3 OF 10

DRAWING NO. CD101

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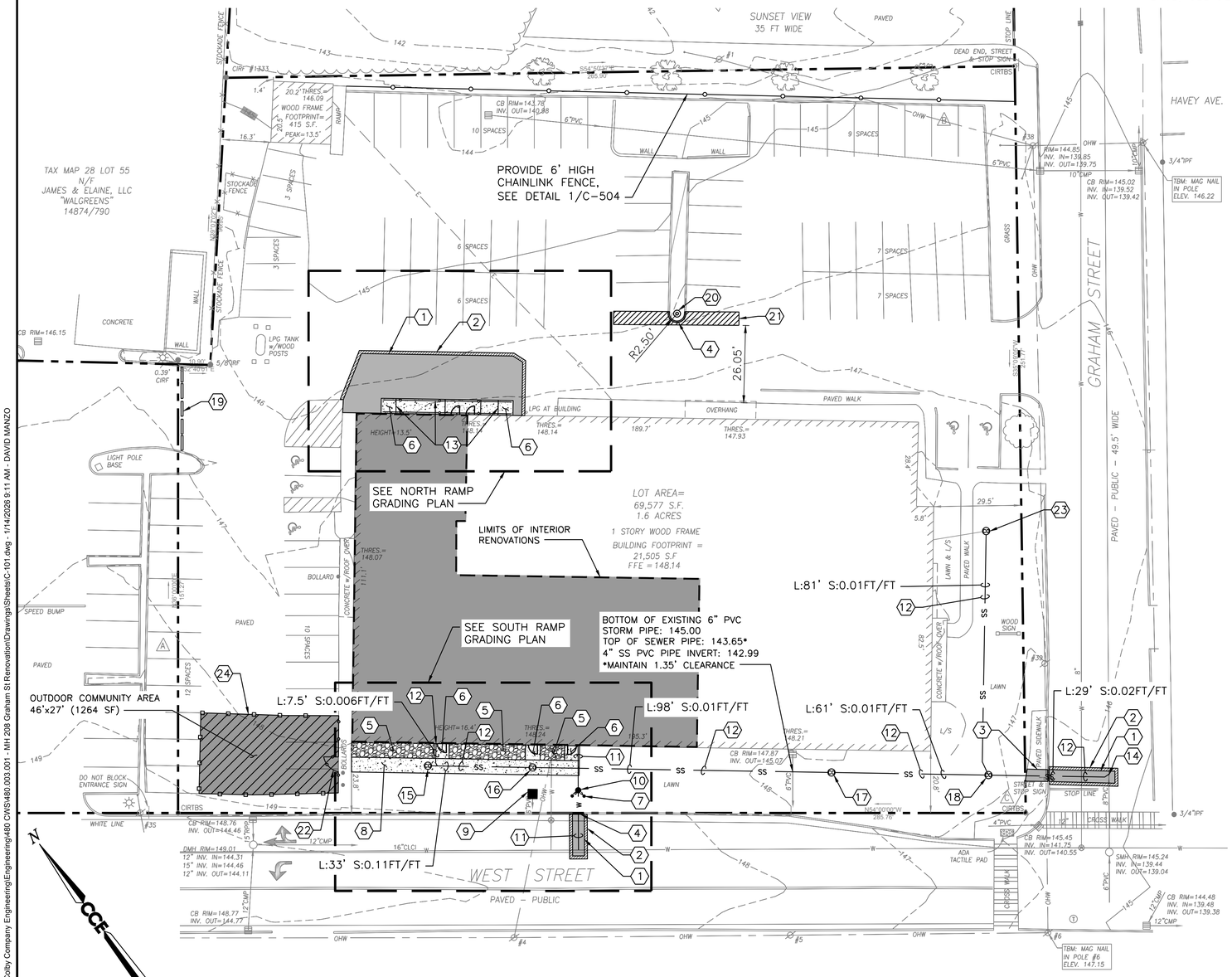
NOTES:

1. PARKING CALCULATIONS: (PURSUANT TO CITY OF BIDDERFORD TABLE OF OFF-STREET PARKING REGULATIONS)

   MIXED BUILDING USE
   11,780 SF OFFICE SPACE - 1 SPACE/200 SF = 59 SPACES REQUIRED
   MULTI-FAMILY DEWELING - 1 SPACE/DEWELING = 7 SPACES REQUIRED
   MINIMUM ADA ACCESSIBLE SPACES REQUIRED = 4
   TOTAL SPACES REQUIRED = 66 SPACES
   TOTAL ADA ACCESSIBLE SPACES PROVIDED = 5
   TOTAL PARKING SPACES PROVIDED = 72 SPACES

KEYED NOTES:

1. PROVIDE ASPHALT PAVEMENT, SEE DETAIL 1/C-502
2. PROVIDE 2" PAVEMENT GRIND, SEE DETAIL 2/C-502
3. PROVIDE PAVED SIDEWALK WITH ASPHALT CURB, SEE DETAIL 3/C-502
4. PROVIDE ASPHALT CURB, SEE DETAIL 3/C-502
5. PROVIDE 5' CRUSHED STONE, SEE DETAIL 4/C-502
6. PROVIDE 5'x5' CONCRETE LANDING, SEE DETAIL 5/C-502
7. PROVIDE BOLLARD (TYPx2), SEE DETAIL 6/C-502
8. PROVIDE 77'x5' CONCRETE WALKWAY, SEE DETAIL 7/C-502
9. PROVIDE LANDSCAPE DRAIN, SEE DETAIL 8/C-502
10. PROVIDE POST INDICATOR VALVE (PIV), SEE DETAIL 5/C-503
11. PROVIDE 6" DIA D.I. FIRE WATER LINE FOR PROPOSED SPRINKLER SYSTEM, SEE DETAIL 6/C-503
12. PROVIDE 4" PVC SDR 35 SANITARY SEWER SERVICE, SEE DETAIL 7/C-503
13. PROVIDE 5' WIDE ADA ACCESSIBLE RAMP W/ RAILINGS, SEE DETAILS AND SECTIONS ON C-505
14. WYE CONNECTION INTO EXISTING SANITARY SEWER MAIN INV:138.77
15. PROVIDE END-OF-LINE CLEANOUT S1:
    INV IN: 144.20
    SEE DETAIL 4/C-503
16. PROVIDE MODIFIED CLEANOUT S2:
    INV IN: 140.47
    INV OUT:141.47*
    *18" SEPARATION BETWEEN WATER SERVICES AND SANITARY SEWER SERVICES
    SEE DETAIL 3/C-503
17. PROVIDE IN-LINE CLEANOUT S3:
    INV:139.83
    SEE DETAIL 2/C-503
18. PROVIDE IN-LINE CLEANOUT S4:
    INV:139.22
    SEE DETAIL 2/C-503
19. PROVIDE JERSEY BARRIERS (TYPx5)
20. PLACE STORED FLAG POLE
21. PROVIDE PARKING STRIPING, SEE DETAIL 9/C-502
22. PROVIDE 6' HIGH CHAINLINK FENCE WITH GATE, SEE DETAILS 1&2/C-504
23. PROVIDE IN-LINE CLEANOUT S5, CONTRACTOR MUST FIELD VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE. SEE DETAIL 2/C-503
24. PROVIDE 6' HIGH PVC STOCKADE FENCE, SEE DETAIL 3/C-504

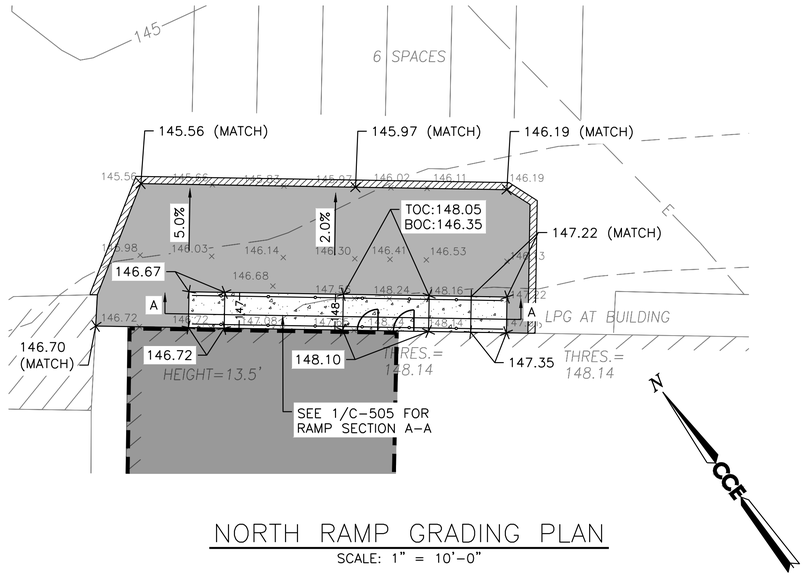


SITE AND UTILITY PLAN
SCALE: 1" = 20'-0"

0 20' 40'
Scale: 1" = 20'-0"

NOTES:

1. SUPPLEMENTAL EXISTING SPOT GRADE GRADE INFORMATION MEASURED WITH A LEVEL LOOP BY COLBY COMPANY ENGINEERING IN OCTOBER 2025.

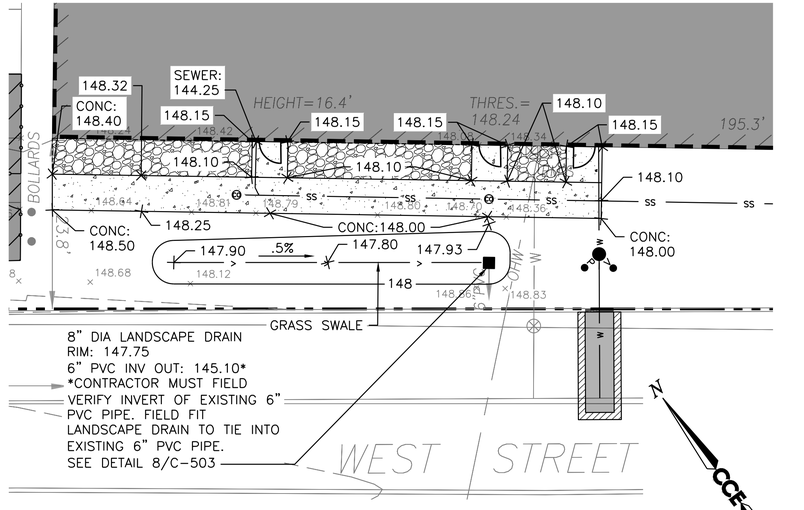


NORTH RAMP GRADING PLAN
SCALE: 1" = 10'-0"

0 10' 20'
Scale: 1" = 10'-0"

NOTES:

1. SUPPLEMENTAL EXISTING SPOT GRADE GRADE INFORMATION MEASURED WITH A LEVEL LOOP BY COLBY COMPANY ENGINEERING IN OCTOBER 2025.



SOUTH RAMP GRADING PLAN
SCALE: 1" = 10'-0"

0 10' 20'
Scale: 1" = 10'-0"

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208 GRAHAM STREET
TRANSITION HOME

SITE, UTILITY, AND GRADING PLAN

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SIZE: ARCH D
DATE: 10/23/2025
DES BY: DAM
DWN BY: MAF
CKD BY: LDA

PROJECT NO. 480.003.001
SHEET 4 OF 10
DRAWING NO. C-101

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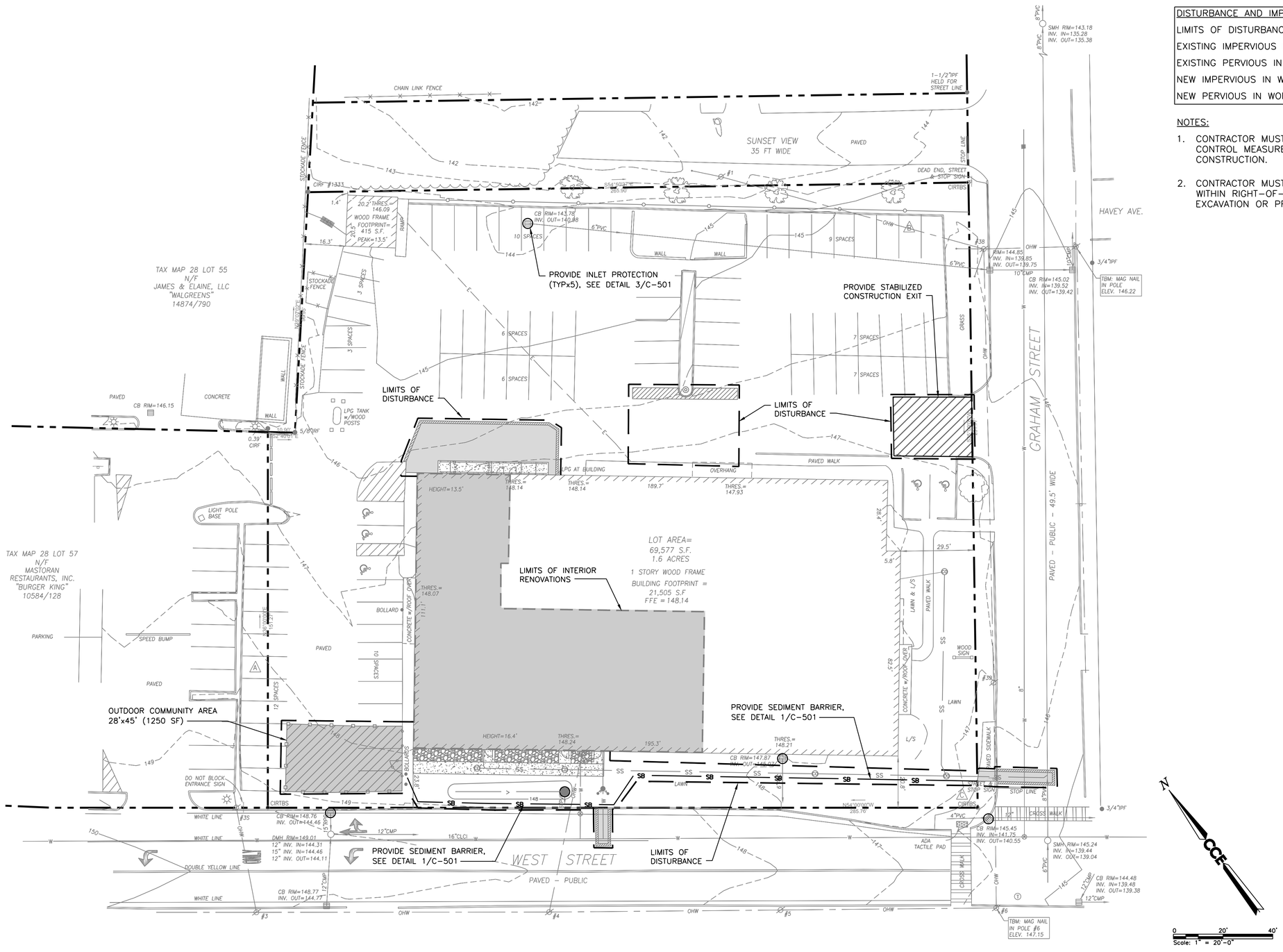

DISTURBANCE AND IMPERVIOUS SUMMARY:

LIMITS OF DISTURBANCE: 8,646 SF

EXISTING IMPERVIOUS IN WORK ZONE: 5,430 SF

EXISTING PERVIOUS IN WORK ZONE: 3,216 SF

NEW IMPERVIOUS IN WORK ZONE: 6011 SF

NEW PERVIOUS IN WORK ZONE: 2635 SF

NOTES:

1. CONTRACTOR MUST IMPLEMENT DUST CONTROL MEASURES THROUGHOUT CONSTRUCTION.
2. CONTRACTOR MUST PAVE UTILITY TRENCHES WITHIN RIGHT-OF-WAY WITHIN 3 DAYS OF EXCAVATION OR PRIOR TO ANY RAIN EVENT.

EROSION AND SEDIMENTATION CONTROL PLAN

SCALE: 1" = 20'-0"

CCE
COLBY COMPANY, LLC
engineering & design
47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
1	BIDDEFORD PLANNING DEPARTMENT REVIEW	MAF	MJK	01/14/26
0	ISSUE FOR REVIEW	MAF	MJK	10/23/25

MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

EROSION AND SEDIMENTATION CONTROL PLAN

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PROJECT NO. 480.003.001

SHEET 5 OF 10

DRAWING NO. C-102

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EROSION AND SEDIMENTATION CONTROL PLAN NOTES

EROSION AND SEDIMENTATION CONTROL FOR THIS PROJECT IS BASED UPON SOUND CONSERVATION PRACTICES, AND ADHERES TO THE STANDARDS DETAILED IN THE "MAINE EROSION AND SEDIMENTATION CONTROL BEST MANAGEMENT PRACTICES" (BMPS) MANUAL FOR DESIGNERS AND ENGINEERS BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, DATED OCTOBER 2016. THE CONTRACTOR MUST BE FAMILIAR WITH THE AFOREMENTIONED PUBLICATION AND COMPLY WITH THE PRACTICES PRESENTED THEREIN.

A PERSON WHO CONDUCTS, OR CAUSES TO BE CONDUCTED, AN ACTIVITY THAT INVOLVES FILLING, DISPLACING OR EXPOSING SOIL OR OTHER EARTHEN MATERIALS MUST TAKE MEASURES TO PREVENT UNREASONABLE EROSION OF SOIL OR SEDIMENT BEYOND THE PROJECT SITE OR INTO A PROTECTED NATURAL RESOURCE AS DEFINED IN 38 M.R.S. §480–B. EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE THE ACTIVITY BEGINS. MEASURES MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL THE SITE IS PERMANENTLY STABILIZED. ADEQUATE AND TIMELY TEMPORARY AND PERMANENT STABILIZATION MEASURES MUST BE TAKEN.

1 EROSION AND SEDIMENTATION CONTROL

1.1 POLLUTION PREVENTION: MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE. CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION. MINIMIZE THE DISTURBANCE OF STEEP SLOPES. CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND VOLUME, TO MINIMIZE EROSION AT OUTLETS. THE DISCHARGE MAY NOT RESULT IN EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, STREAM CHANNELS OR STREAM BANKS, UPLAND, OR COASTAL OR FRESHWATER WETLANDS OFF THE PROJECT SITE. WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS.

1.2 SEDIMENT BARRIERS: PRIOR TO CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE DOWNGRADIENT EDGE OF ANY AREA TO BE DISTURBED AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA. SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRADIENT OF SOIL OR SEDIMENT STOCKPILES AND STORMWATER PREVENTED FROM RUNNING ONTO THE STOCKPILE. MAINTAIN THE SEDIMENT BARRIERS BY REMOVING ACCUMULATED SEDIMENT, OR REMOVING AND REPLACING THE BARRIER, UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. WHERE A DISCHARGE TO A STORM DRAIN INLET OCCURS, IF THE STORM DRAIN CARRIES WATER DIRECTLY TO A SURFACE WATER AND YOU HAVE AUTHORITY TO ACCESS THE STORM DRAIN INLET, YOU MUST INSTALL AND MAINTAIN PROTECTION MEASURES THAT REMOVE SEDIMENT FROM THE DISCHARGE.

1.3 STABILIZED CONSTRUCTION ENTRANCE: PRIOR TO CONSTRUCTION, PROPERLY INSTALL A STABILIZED CONSTRUCTION ENTRANCE (SCE) AT ALL POINTS OF EGRESS FROM THE SITE. THE SCE IS A STABILIZED PAD OF AGGREGATE, UNDERLAIN BY A GEOTEXTILE FILTER FABRIC, USED TO PREVENT TRAFFIC FROM TRACKING MATERIAL AWAY FROM THE SITE ONTO PUBLIC RIGHT–OF–WAYS. MAINTAIN THE SCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

1.4 TEMPORARY STABILIZATION: WITHIN 7 DAYS OF THE CESSATION OF CONSTRUCTION ACTIVITIES IN AN AREA THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS, STABILIZE ANY EXPOSED SOIL WITH MULCH, OR OTHER NON–ERODIBLE COVER. STABILIZE AREAS WITHIN 75 FEET OF A WETLAND OR WATERBODY WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OF THE SOIL OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.

1.5 REMOVAL OF TEMPORARY MEASURES: REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

1.6 PERMANENT STABILIZATION: IF THE AREA WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, THEN PERMANENTLY STABILIZE THE AREA WITHIN 7 DAYS BY PLANTING VEGETATION, SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIPRAP, OR ROAD SUB–BASE. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS; AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDED AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING SO TO AVOID DIE–OFF FROM SUMMER DROUGHT AND FALL FROSTS. NEWLY SEEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL–ESTABLISHED WITH 90% COVER BY HEALTHY VEGETATION. IF NECESSARY, AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE.

1.6.1 PAVED AREAS: FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED, PROVIDED IT IS FREE OF FINE MATERIALS THAT MAY RUNOFF WITH A RAIN EVENT

1.7 WINTER CONSTRUCTION: "WINTER CONSTRUCTION" IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 15. IF DISTURBED AREAS ARE NOT STABILIZED WITH PERMANENT MEASURES BY NOVEMBER 1 OR NEW SOIL DISTURBANCE OCCURS AFTER NOVEMBER 1, BUT BEFORE APRIL 15, THEN THESE AREAS MUST BE PROTECTED AND RUNOFF FROM THEM MUST BE CONTROLLED BY ADDITIONAL MEASURES AND RESTRICTIONS

1.7.1 SITE STABILIZATION: FOR WINTER STABILIZATION, HAY MULCH IS APPLIED AT TWICE THE STANDARD TEMPORARY STABILIZATION RATE. AT THE END OF EACH CONSTRUCTION DAY, AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE STABILIZED. MULCH MAY NOT BE SPREAD ON TOP OF SNOW.

1.7.2 SEDIMENT BARRIERS: ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS.

1.8 ROADS: GRAVEL AND PAVED ROADS MUST BE DESIGNED AND CONSTRUCTED WITH CROWNS OR OTHER MEASURES, SUCH AS WATER BARS, TO ENSURE THAT STORMWATER IS DELIVERED IMMEDIATELY TO ADJACENT STABLE DITCHES, VEGETATED BUFFER AREAS, CATCH BASIN INLETS, OR STREET GUTTERS.

1.9 PARKING AREAS: PARKING AREAS MUST BE CONSTRUCTED TO ENSURE RUNOFF IS DELIVERED TO ADJACENT SWALES, CATCH BASINS, CURB GUTTERS, OR BUFFER AREAS WITHOUT ERODING AREAS DOWNSLOPE. THE PARKING AREA'S SUBBASE COMPACTION AND GRADING MUST BE DONE TO ENSURE RUNOFF IS EVENLY DISTRIBUTED TO ADJACENT BUFFERS OR SIDE SLOPES. CATCH BASINS MUST BE LOCATED AND SET TO PROVIDE ENOUGH STORAGE DEPTH AT THE INLET TO ALLOW INFLOW OF PEAK RUNOFF RATES WITHOUT BY–PASS OF RUNOFF TO OTHER AREAS.

2 INSPECTION AND MAINTENANCE

2.1 DURING CONSTRUCTION: THE FOLLOWING STANDARDS MUST BE MET DURING CONSTRUCTION

2.1.1 INSPECTION AND CORRECTIVE ACTION: INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL), AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, MUST CONDUCT THE INSPECTIONS.

2.1.2 MAINTENANCE: IF BEST MANAGEMENT PRACTICES (BMPS) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

2.1.3 DOCUMENTATION: KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLES ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPS THAT NEED MAINTENANCE, BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPS, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN. THE LOG MUST BE MADE ACCESSIBLE TO DEPARTMENT STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE MUST RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

3 HOUSEKEEPING

3.1 SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

3.2 GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE–TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

3.3 FUGITIVE SEDIMENT AND DUST: ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF–SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

3.4 DEBRIS AND OTHER MATERIALS: MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

3.5 EXCAVATION DE–WATERING: EXCAVATION DE–WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

3.6 AUTHORIZED NON–STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON–STORMWATER DISCHARGES. WHERE ALLOWED NON–STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON–STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON–STORMWATER DISCHARGES ARE:

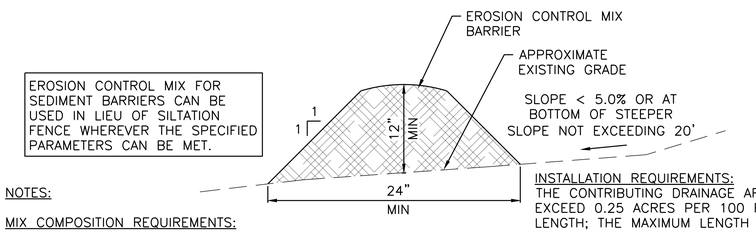
3.6.1 DISCHARGES FROM FIREFIGHTING ACTIVITY;
3.6.2 FIRE HYDRANT FLUSHINGS;
3.6.3 DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);
3.6.4 ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
3.6.5 PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
3.6.6 UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
3.6.7 UNCONTAMINATED GROUNDWATER OR SPRING WATER;
3.6.8 FOUNDATION OR FOOTER DRAIN–WATER WHERE FLOWS ARE NOT CONTAMINATED;
3.6.9 UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5));
3.6.10 POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
3.6.11 LANDSCAPE IRRIGATION.

3.7 UNAUTHORIZED NON–STORMWATER DISCHARGES: THE D.E.P.'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON–STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

3.7.1 WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;

3.7.2 FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;

3.7.3 TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.



NOTES:

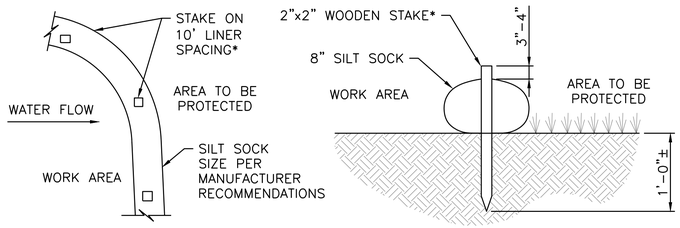
MIX COMPOSITION REQUIREMENTS:
THE ORGANIC MATTER CONTENT IS BETWEEN 80 AND 100%, DRY WEIGHT BASIS.
PARTICLE SIZE BY WEIGHT IS 100% PASSING A 6" SCREEN AND A MINIMUM OF 70% MAXIMUM OF 85%, PASSING A 0.75" SCREEN.
THE ORGANIC PORTION MUST BE FIBROUS AND ELONGATED.
LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
SOLUBLE SALTS CONTENT IS LESS THAN 4.0 MMHOS/CM.
THE PH MUST FALL BETWEEN 5.0 AND 8.0.

INSTALLATION REQUIREMENTS:
THE CONTRIBUTING DRAINAGE AREA MAY NOT EXCEED 0.25 ACRES PER 100 FT. OF BARRIER LENGTH; THE MAXIMUM LENGTH OF SLOPE ABOVE THE BARRIER IS 100 FEET; AND THE MAXIMUM GRADIENT BEHIND THE BARRIER IS 50 PERCENT (2:1). EROSION CONTROL MIX BARRIERS CANNOT BE USED IN AREAS OF CONCENTRATED FLOWS.

MAINTENANCE REQUIREMENTS:
SEDIMENT DEPOSITS MUST BE REMOVED WHEN THEY REACH APPROXIMATELY ONE–HALF THE HEIGHT OF THE BARRIER. OTHER MAINTENANCE AND INSPECTION REQUIREMENTS MUST BE IDENTICAL TO THOSE SPECIFIED FOR SILTATION FENCE.

SEDIMENT BARRIER MUST BE INSTALLED IN ACCORDANCE WITH MDOT SECTION 656 AND MAINE DEP EROSION AND SEDIMENT CONTROL BEST MANGEMENT PRACTICES

1 SEDIMENT BARRIER – EROSION CONTROL MIX
NOT TO SCALE C–102



* OMIT WOODEN STAKES WHEN PLACING SEDIMENT BARRIER ON ASPHALT OR CONCRETE PAVEMENT

SILT SOCK MUST BE INSTALLED IN ACCORDANCE WITH MDOT SECTION 656 AND MAINE DEP EROSION AND SEDIMENT CONTROL BEST MANGEMENT PRACTICES

2 SEDIMENT BARRIER – SILT SOCK DETAIL
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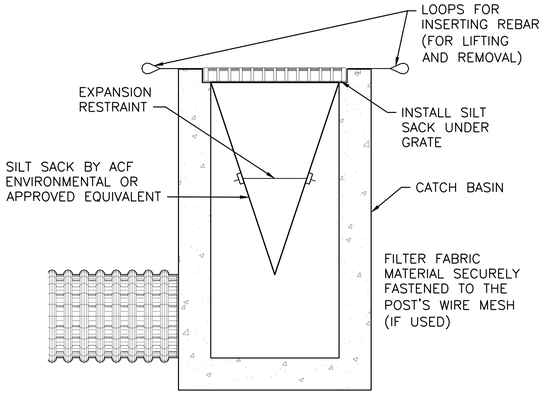

INLET PROTECTION MUST BE INSTALLED IN ACCORDANCE WITH MDOT SECTION 656 AND MAINE DEP EROSION AND SEDIMENT CONTROL BEST MANGEMENT PRACTICES

NOTES:
1. INSTALL SILTSACK PER MANUFACTURER'S RECOMMENDATIONS.
2. SILTSACKS MUST BE CHECKED FOR SEDIMENT LEVEL AND OVERALL CONDITION IMMEDIATELY AFTER EVERY RAIN EVENT AND AT LEAST EVERY DAY DURING PROLONGED RAINFALL.
3. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE SILTSACK. REMOVED SEDIMENT MUST BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT WILL NOT ERODE.
4. SEDIMENT MUST ONLY BE REMOVED BY REMOVING THE SILTSACKS FROM THE CATCH BASINS ACCORDING TO MANUFACTURER RECOMMENDATIONS.
6. CARE MUST BE TAKEN TO AVOID SPILLING SEDIMENT WHILE REMOVING THE SILTSACK.
7. ANY DAMAGED SILTSACK MUST BE REPLACED WITH A NEW SILTSACK.

3 INLET PROTECTION DETAIL
NOT TO SCALE C–102

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REV	DESCRIPTION	DWN	APP	DATE
1	BIDDEFORD PLANNING DEPARTMENT REVIEW	MAF	MJK	01/14/26
0	ISSUE FOR REVIEW	MAF	MJK	10/23/25

MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS

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SHEET 6 OF 10
DRAWING NO. C-501

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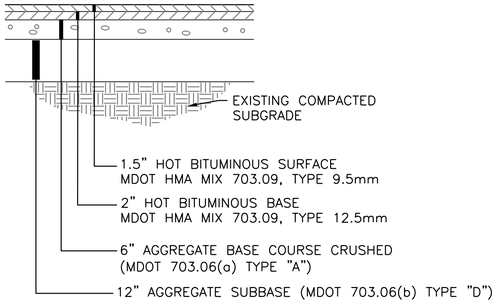

ALL ASPHALT PAVEMENT TO BE CONSTRUCTED IN ACCORDANCE WITH MDOT SECTION 401.

1 ASPHALT PAVEMENT SECTION

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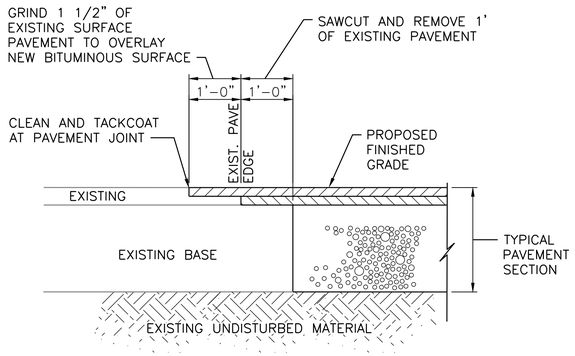

CONSTRUCT IN ACCORDANCE WITH MDOT SECTION 401

2 PAVEMENT PATCH DETAIL

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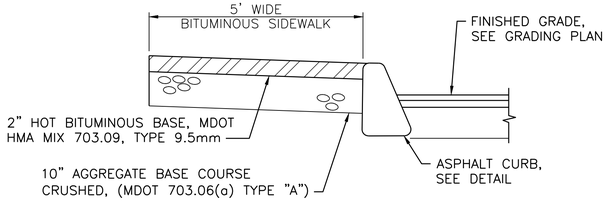
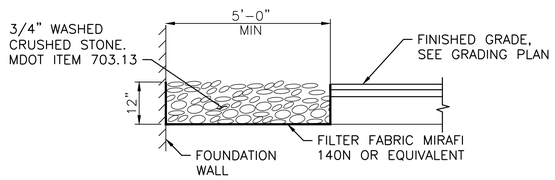


SIDEWALK TO BE CONSTRUCTED IN ACCORDANCE WITH MDOT SECTION 608.

3 PAVED SIDEWALK WITH ASPHALT CURB DETAIL

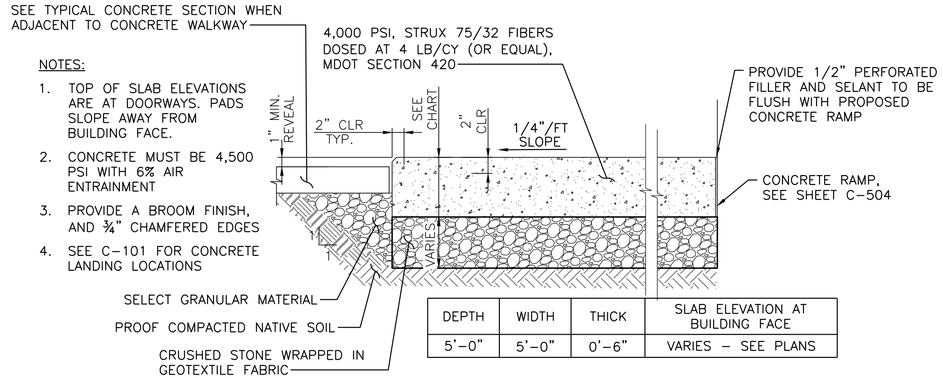
NOT TO SCALE C-101



NOTES:
1. WATER PROOF FOUNDATION WALL PRIOR TO PLACING BACKFILL AND CRUSHED STONE.
2. CONSTRUCT IN ACCORDANCE WITH MDOT SECTION 610

4 CRUSHED STONE DETAIL

NOT TO SCALE C-101

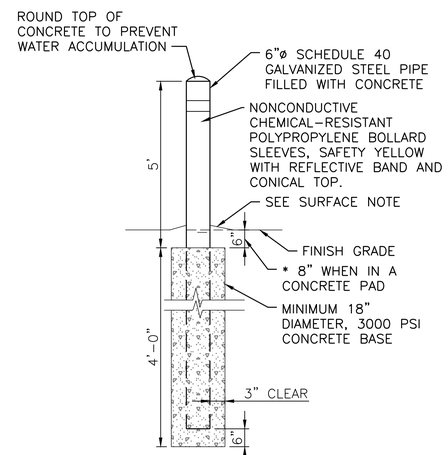


NOTES:
1. TOP OF SLAB ELEVATIONS ARE AT DOORWAYS. PADS SLOPE AWAY FROM BUILDING FACE.
2. CONCRETE MUST BE 4,500 PSI WITH 6% AIR ENTRAINMENT
3. PROVIDE A BROOM FINISH, AND ¾" CHAMFERED EDGES
4. SEE C-101 FOR CONCRETE LANDING LOCATIONS

DEPTH	WIDTH	THICK	SLAB ELEVATION AT BUILDING FACE
5'-0"	5'-0"	0'-6"	VARIES – SEE PLANS

5 TYPICAL CONCRETE LANDING DETAIL

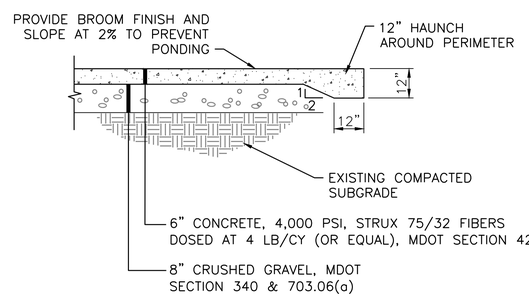
NOT TO SCALE C-101



SURFACE NOTE:
BITUMINOUS ASPHALT SURFACE: SLOPE ASPHALT AWAY FROM TUBE 1/4" PER FT ON ALL SIDES.
CONCRETE SURFACE: PLACE BOLLARDS THEN POUR CONCRETE PAVEMENT, SURFACE FLUSH WITH TUBE.

6 BOLLARD DETAIL

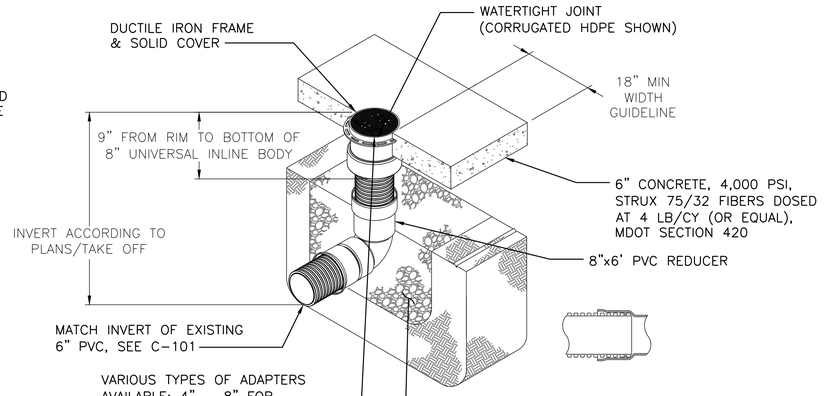
NOT TO SCALE C-101



SIDEWALK TO BE CONSTRUCTED IN ACCORDANCE WITH MDOT SECTION 608.

7 CONCRETE WALKWAY SECTION

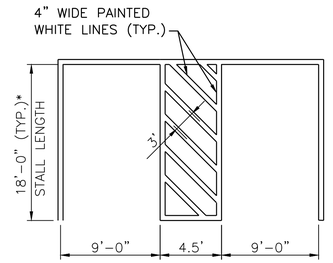
NOT TO SCALE C-101



NOTES:
1. FRAME & SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12 DUAL WALL).

8 LANDSCAPE DRAIN DETAIL

NOT TO SCALE C-101



NOTES:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF ASSHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
2. PAVEMENT MARKINGS MUST BE INSTALLED IN ACCORDANCE WITH MDOT SECTION 627.

9 PARKING STALL DETAIL

NOT TO SCALE C-101

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0	ISSUE FOR REVIEW	MAF	MJK	10/23/25

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208 GRAHAM STREET TRANSITION HOME

CIVIL CONSTRUCTION DETAILS

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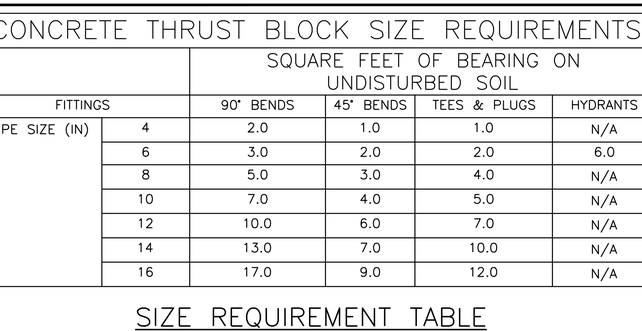
CONCRETE THRUST BLOCK SIZE REQUIREMENTS

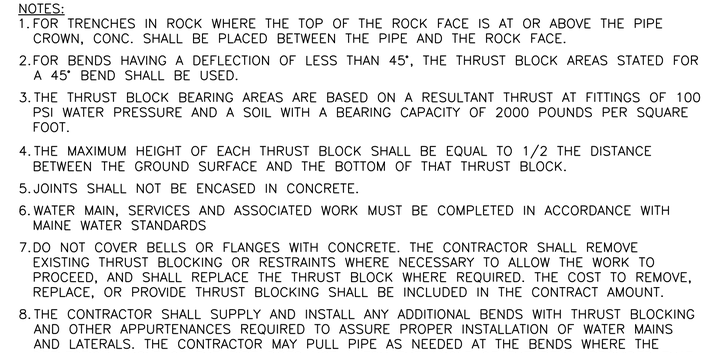
FITTINGS		SQUARE FEET OF BEARING ON UNDISTURBED SOIL			
		90° BENDS	45° BENDS	TEES & PLUGS	HYDRANTS
PIPE SIZE (IN)	4	2.0	1.0	1.0	N/A
	6	3.0	2.0	2.0	6.0
	8	5.0	3.0	4.0	N/A
	10	7.0	4.0	5.0	N/A
	12	10.0	6.0	7.0	N/A
	14	13.0	7.0	10.0	N/A
	16	17.0	9.0	12.0	N/A

SIZE REQUIREMENT TABLE

NOTES:
1. FOR TRENCHES IN ROCK WHERE THE TOP OF THE ROCK FACE IS AT OR ABOVE THE PIPE CROWN, CONC. SHALL BE PLACED BETWEEN THE PIPE AND THE ROCK FACE.
2. FOR BENDS HAVING A DEFLECTION OF LESS THAN 45°, THE THRUST BLOCK AREAS STATED FOR A 45° BEND SHALL BE USED.
3. THE THRUST BLOCK BEARING AREAS ARE BASED ON A RESULTANT THRUST AT FITTINGS OF 100 PSI WATER PRESSURE AND A SOIL WITH A BEARING CAPACITY OF 2000 POUNDS PER SQUARE FOOT.
4. THE MAXIMUM HEIGHT OF EACH THRUST BLOCK SHALL BE EQUAL TO 1/2 THE DISTANCE BETWEEN THE GROUND SURFACE AND THE BOTTOM OF THAT THRUST BLOCK.
5. JOINTS SHALL NOT BE ENCASED IN CONCRETE.
6. WATER MAIN, SERVICES AND ASSOCIATED WORK MUST BE COMPLETED IN ACCORDANCE WITH MAINE WATER STANDARDS
7. DO NOT COVER BELLS OR FLANGES WITH CONCRETE. THE CONTRACTOR SHALL REMOVE EXISTING THRUST BLOCKING OR RESTRAINTS WHERE NECESSARY TO ALLOW THE WORK TO PROCEED, AND SHALL REPLACE THE THRUST BLOCK WHERE REQUIRED. THE COST TO REMOVE, REPLACE, OR PROVIDE THRUST BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
8. THE CONTRACTOR SHALL SUPPLY AND INSTALL ANY ADDITIONAL BENDS WITH THRUST BLOCKING AND OTHER APPURTENANCES REQUIRED TO ASSURE PROPER INSTALLATION OF WATER MAINS AND LATERALS. THE CONTRACTOR MAY PULL PIPE AS NEEDED AT THE BENDS WHERE THE DEFLECTION ANGLE OF THE PIPE DOES NOT MATCH THE ANGLE OF THE BEND, PROVIDED THAT THE PIPE DEFLECTION IS WITHIN TOLERABLE MANUFACTURERS LIMITS. THE COST FOR ADDITIONAL BENDS AND BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.



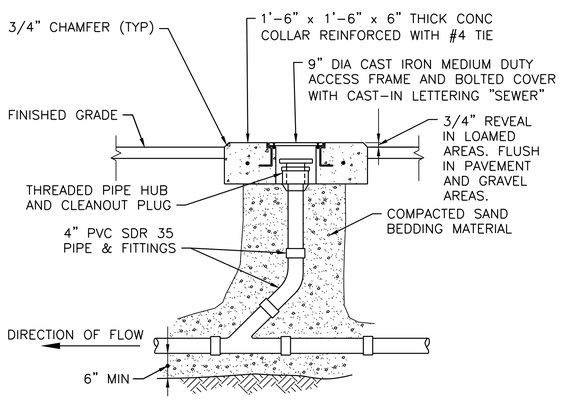
PLACEMENT ON BENDS



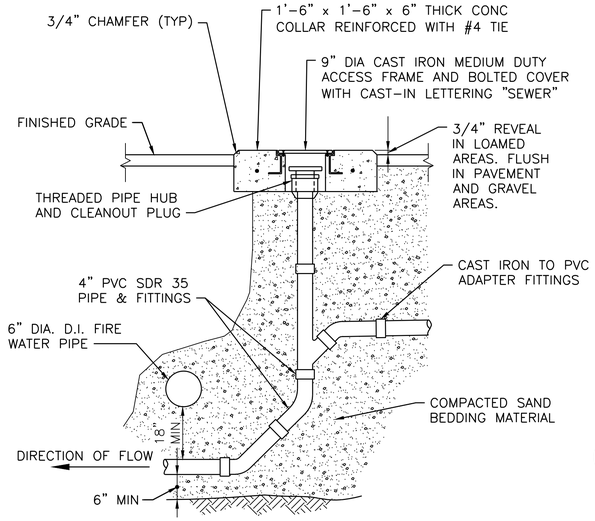
PLACEMENT ON TEES

NOTE:
1. THRUST BLOCKS MUST BE CONSTRUCTED IN ACCORDANCE WITH MDOT SECTION 625.

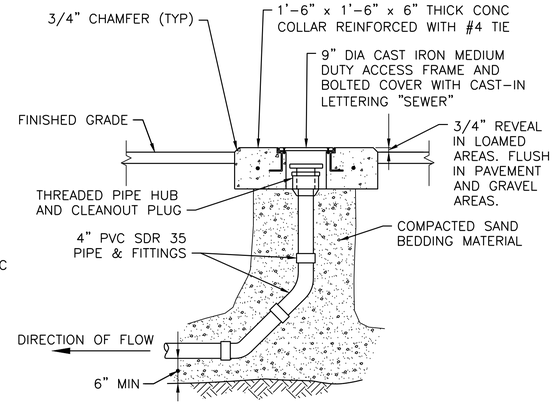
1 THRUST BLOCK FOR WATER MAIN AND SERVICES
NOT TO SCALE C-101



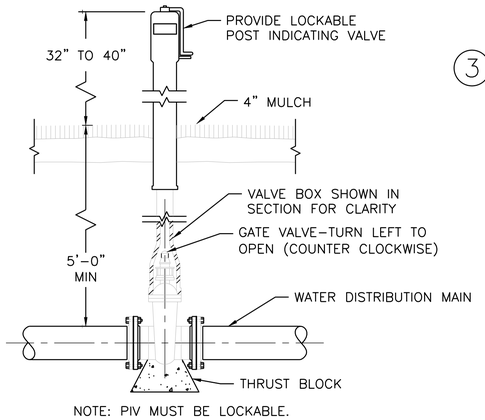
2 IN-LINE CLEANOUT DETAIL
NOT TO SCALE C-101



3 MODIFIED IN-LINE CLEANOUT DETAIL
NOT TO SCALE C-101

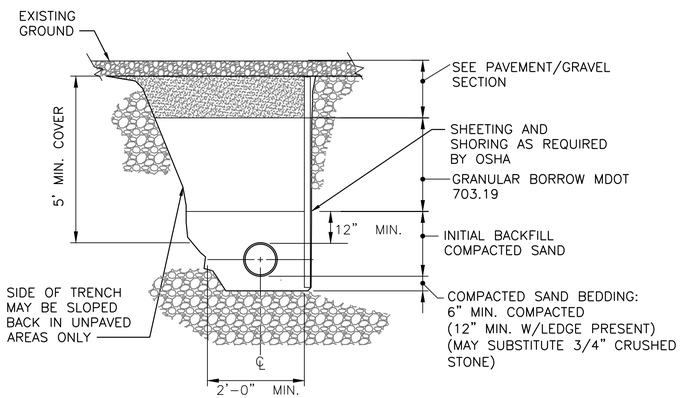


4 END OF LINE CLEANOUT DETAIL
NOT TO SCALE C-101



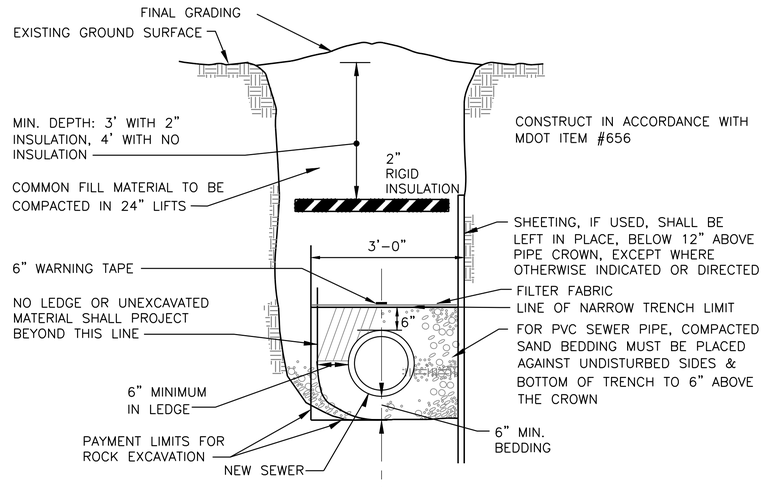
NOTE: PIV MUST BE LOCKABLE.

5 POST INDICATOR VALVE (PIV)
NOT TO SCALE C-101



NOTE:
1. ALL EXCAVATION MUST MEET OSHA STANDARDS.
2. DETAIL IS APPROPRIATE FOR BOTH DOMESTIC WATER AND FIRE WATER LINES.
3. WATER SERVICE AND MAINS MUST BE CONSTRUCTED IN ACCORDANCE WITH MDOT SECTION 625.
4. CONSTRUCT IN ACCORDANCE WITH STATE OF MAINE WATER STANDARDS

6 WATER PIPE TRENCH
SCALE: NOT TO SCALE C-101



NOTES:
1. COMMON FILL MATERIAL CAN BE USED FOR BACKFILL ABOVE THE LINE OF NARROW TRENCH LIMIT.
2. SANITARY SEWER PIPING INSTALLED IN ACCORDANCE WITH STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES.

7 SEWER TRENCH DETAIL
NOT TO SCALE C-101

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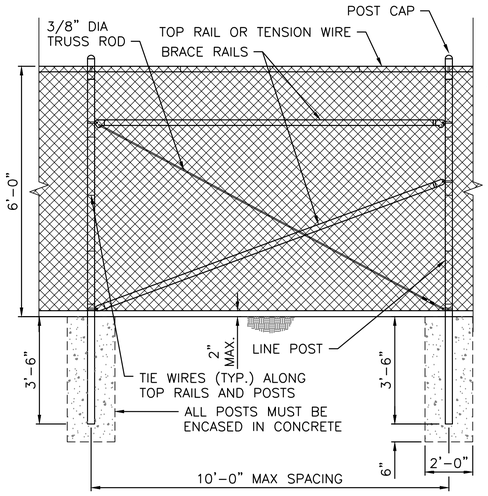
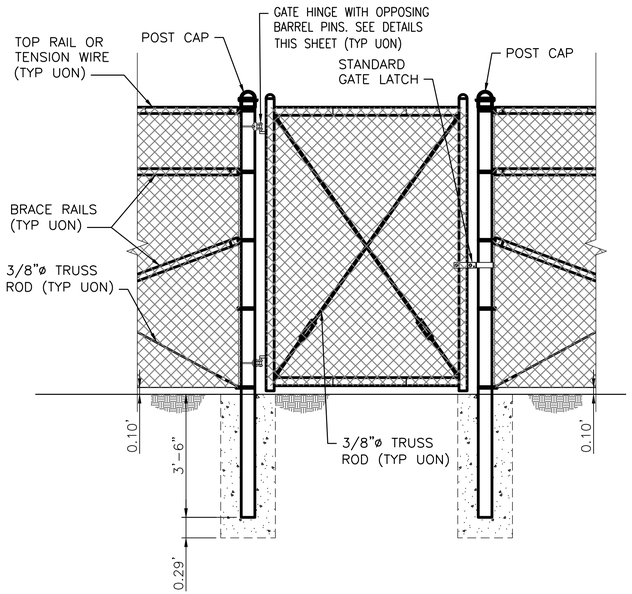


NOTES:
1. POSTS, FABRIC, AND ACCESSORIES MUST BE GALVANIZED STEEL.
2. POST SIZE AND ASSOCIATED FOOTING DIAMETER TO BE DETERMINED BY MANUFACTURER, BASED ON LEAF WEIGHT AND DIMENSION. MINIMUM FOOTING DIAMETER IS 4X THE POST WIDTH. FOOTING CONCRETE MUST BE A MINIMUM OF 4,000 PSI.
3. ALL FENCE POSTS CAST IN CONCRETE MUST BE SET WITHIN 3" OF CONCRETE PIER CENTER.
4. ALL FENCE HARDWARE TO BE PEENED OVER OR TACK WELDED.

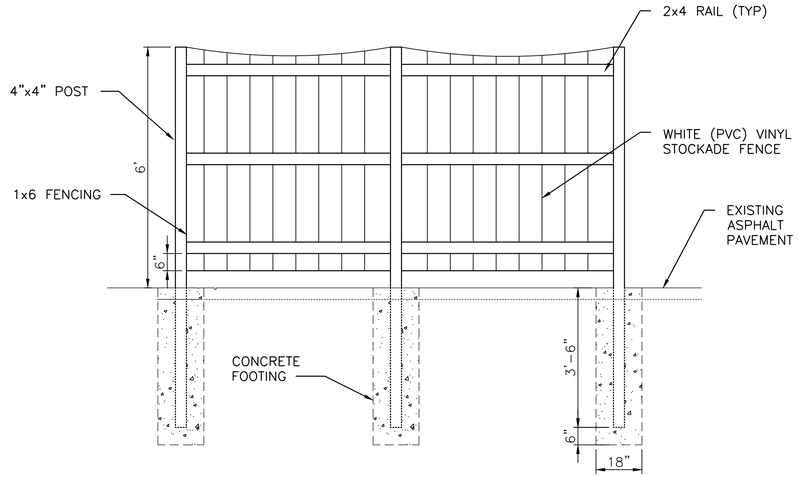
1 6' HIGH CHAINLINK FENCE DETAIL

NOT TO SCALE C-101



2 TYPICAL FENCE SINGLE SWING GATE DETAIL

NOT TO SCALE C-101



NOTES:
1. SPACING AND SIZE OF POSTS MUST BE DETERMINED BASED ON MANUFACTURERS SPECIFICATIONS.
2. CONCRETE FOOTING MUST BE A MINIMUM OF 4,000 PSI STRENGTH.

3 PVC STOCKADE FENCE DETAIL

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CIVIL FENCE DETAILS

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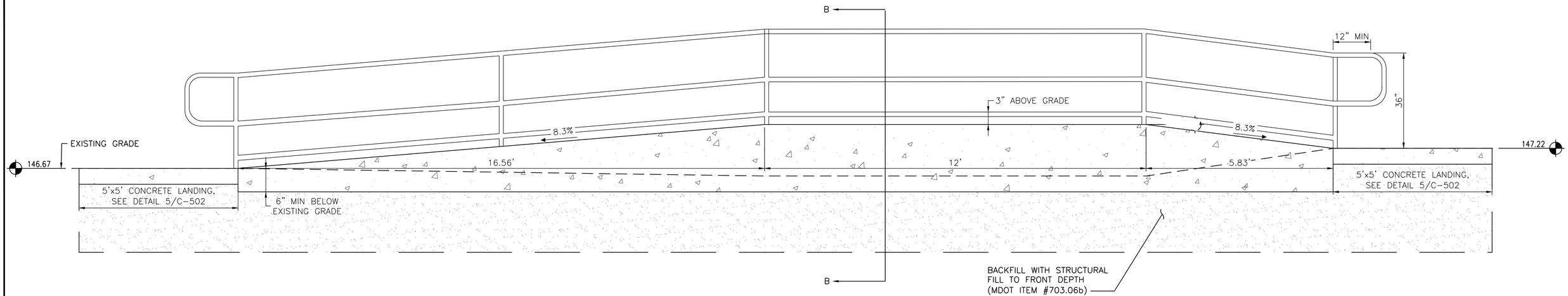
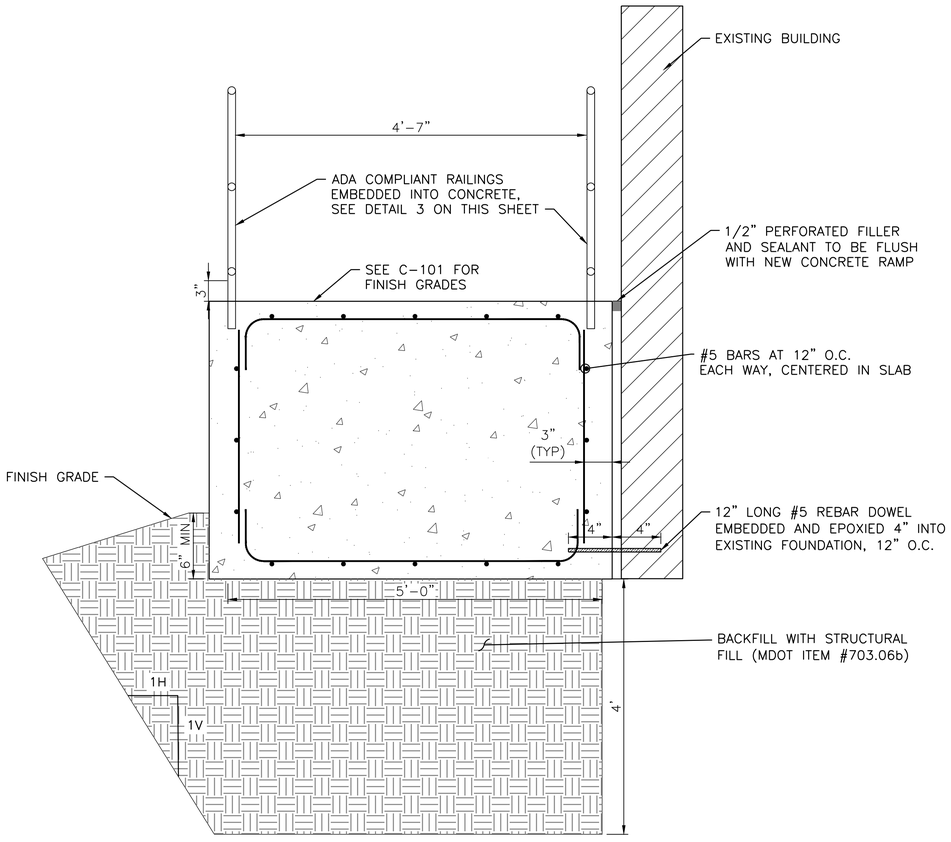


1 ADA RAMP SECTION A–A

SCALE: NOT TO SCALE



2 CONCRETE ADA RAMP SECTION B–B

SCALE: NOT TO SCALE

3 RAMP DETAIL – POST SECTION

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ADA RAMP SECTIONS AND DETAILS

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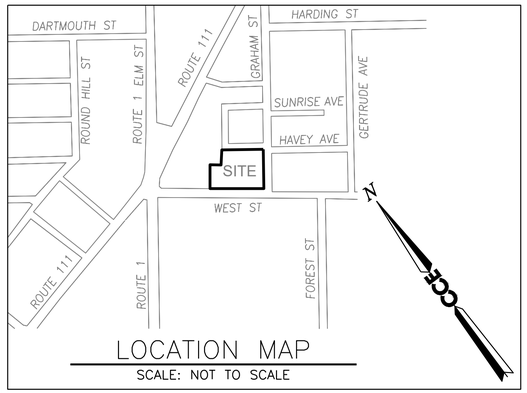


LOCATION MAP

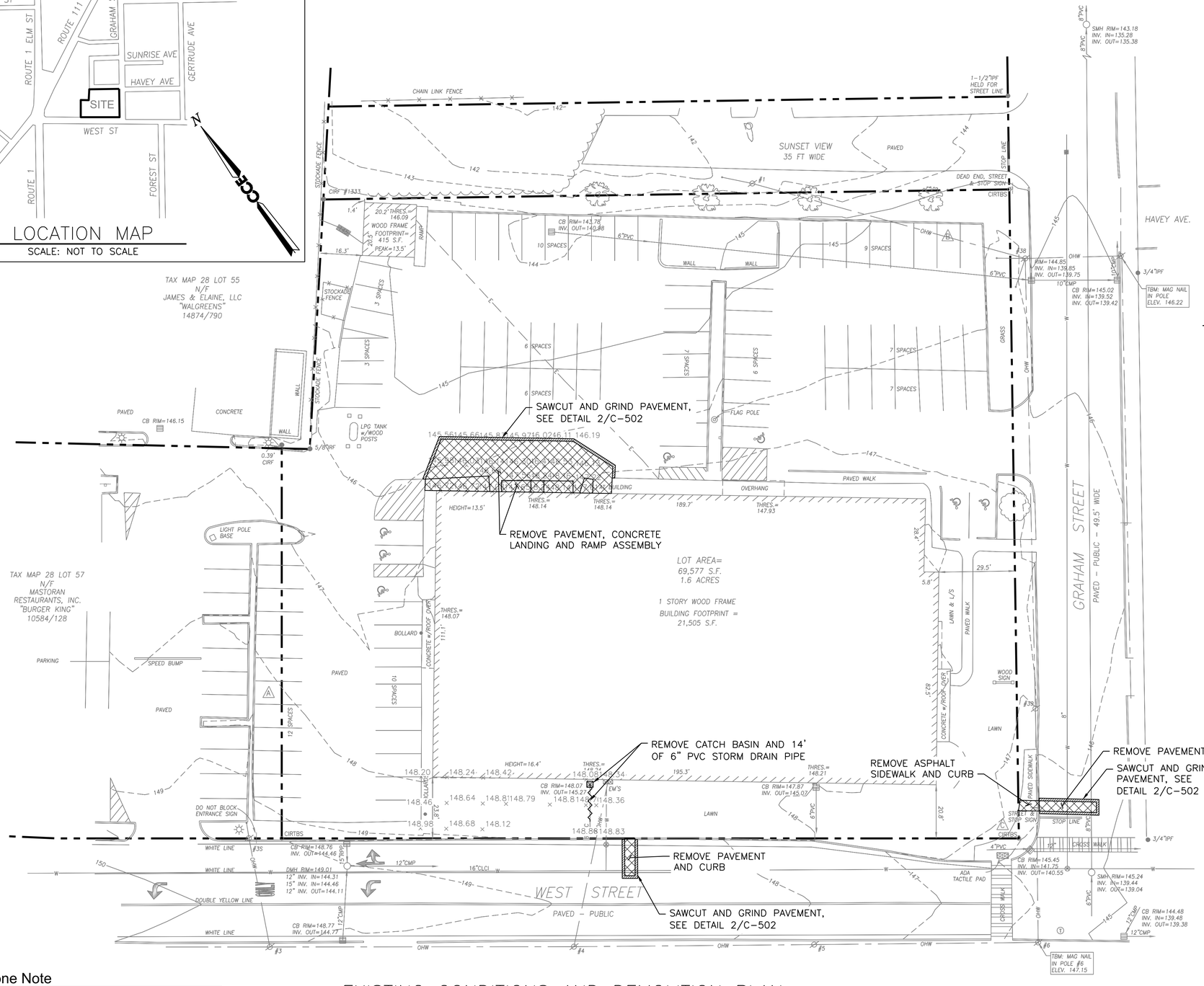
SCALE: NOT TO SCALE

NOTES:

1. NOTES FROM PLAN TITLED ALSTA/NSPS LAND TITLE SURVEY FOR #200 & #208 GRAHAM STREET AND DATED NOVEMBER 8, 2021
2. PARKING CALCULATIONS: (PURSUANT TO CITY OF BIDDERFORD TABLE OF OFF-STREET PARKING REGULATIONS)

   MIXED BUILDING USE
   11,780 SF OFFICE SPACE – 1 SPACE/200 SF = 59 SPACES REQUIRED
   MULTI-FAMILY DEWELING – 1 SPACE/DEWELING = 7 SPACES REQUIRED
   TOTAL SPACES REQUIRED = 66 SPACES
   TOTAL PARKING SPACES PROVIDED = 80 SPACES
   MINIMUM ADA ACCESSIBLE SPACES REQUIRED = 4
   TOTAL ADA ACCESSIBLE SPACES PROVIDED = 5
3. TRAFFIC CONTROL NOTES:

   CONTRACTOR MUST PREPARE A TRAFFIC CONTROL PLAN. UPDATE PLAN MONTHLY DURING CONSTUCTION
   MAINTAIN AT LEAST ONE 12-FOOT WIDE TRAFFIC LANE AT ALL TIMES THROUGHOUT CONSTRUCTION.
   PROVIDE TRAFFIC CONTROL DEVICES AND INFORMATIONAL SIGNS IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).



Legend

- CIRTBS — CAPPED IRON ROD TO BE SET
- IRON PIPE OR ROD FOUND
- UTILITY POLE
- MANHOLE
- EM — ELECTRIC METER
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- LIGHT POLE
- DECIDUOUS TREE
- CONIFEROUS TREE
- CURB
- FENCE
- OHW — OVERHEAD WIRES
- E — UNDERGROUND ELECTRIC
- W — WATER LINE
- SD — STORM DRAIN
- S — SANITARY SEWER
- 1' CONTOUR
- N/F — NOW OR FORMERLY
- 000/000 — DEED BOOK / PAGE
- L/S — LANDSCAPE
- CONC. — CONCRETE
- THRES. — THRESHOLD

Plan References

1. *"PLAN SHOWING LAND OF HARRY B. CENTER & JOSEPH HAVEY, BIDDEFORD – MAINE, MARCH 1946 LIBBY & DOW ENG'RS – SACO REVISED & COMPLETED NOV. 17, 1947" RECORDED IN YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 14 PAGE 25.*
2. *"PLAN OF PROPERTY IN BIDDEFORD, MAINE MADE FOR MCDONALD'S CORPORATION NOV. 1, 1976 H.I. & E.C. JORDAN SURVEYORS."*
3. *"SITE PLAN, DHS BUILDING, WEST STREET, BIDDEFORD, MAINE, RECORD OWNER: S&S REALTY GROUP 06-02-98 PAUL P. GADBOIS, PLS."*
4. *"ALTA/ACSM LAND TITLE SURVEY, PROPOSED RITE AID PHARMACY, BIDDEFORD STORE, ALFRED STREET, TOWN OF BIDDEFORD, YORK COUNTY, MAINE NOV. 03, 2004 REVISED 10-25-2005" OWEN HASKELL, INC. AND BL COMPANIES.*
5. *"STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, STATE HIGHWAY 1 & 8 (FIVE POINTS) BIDDEFORD, YORK COUNTY FEDERAL AID PROJECT NO. STP-7492(30)X (PART 1 & 3)" D.O.T. FILE NO. 16-406 DATED SEPTEMBER 2002.*

General Notes

1. *OWNER OF RECORD: H.H.H. LLC, C/O BERNSTEIN SHUR, 100 MIDDLE STREET, PORTLAND, ME 04101 YORK COUNTY REGISTRY OF DEEDS BOOK 18507 PAGE 525*
2. *LOCUS IS SHOWN AS LOTS 58 & 59 ON CITY OF BIDDEFORD'S ASSESSORS MAP 28.*
3. *BEARINGS ARE GRID NORTH PER PLAN REFERENCE 4.*
4. *ELEVATIONS ARE BASED ON NGVD29.*
5. *THERE ARE 86 REGULAR SPACES AND 7 HANDICAP SPACES, FOR A TOTAL OF 93 PARKING SPACES. INCLUDES THE 12 SPACES ENCROACHING ONTO ABUTTER.*
6. *NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, BUILDING ADDITIONS, OR RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WAS OBSERVED.*
7. *NO PROPOSED CHANGES IN STREET LINES IS KNOWN BY THIS SURVEYOR.*
8. *UNDERGROUND PROPANE LINE FROM TANK TO BUILDING COULD NOT BE LOCATED.*
9. *WEST STREET ESTABLISHED USING DIMENSIONS SHOWN ON PLAN REFERENCE 2 AND 4.*
10. *THIS SURVEY WAS PERFORMED WITH OUT THE BENEFIT OF A CURRENT TITLE COMMITMENT.*

Flood Zone Note

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 2301450 0003B, WHICH BEARS AN EFFECTIVE DATE OF MAY 15, 1984 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

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 SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-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.

Zoning Information

R2 ZONE

MINIMUM LOT SIZE	4,500 S.F
MINIMUM FRONTAGE	45 FT
SETBACKS:	
FRONT MAJOR ROW	25 FT
FRONT OTHER ROW	10 FT
SIDE	5 FT
REAR	5 FT
MAX. HEIGHT	35 FT, 3 STORIES

FOR ADDITIONAL ZONING REQUIREMENTS REFER TO CITY OF BIDDEFORD ZONING ORDINANCE.

Possible Encroachments

- A — *PARKING ENCROACHES ONTO ABUTTER 10'±*
- B — *OVERHEAD WIRES CROSS PREMISES*
- C — *SIDEWALK ENCROACHES 4'±*

EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: 1" = 20'-0"

COLBY COMPANY, LLC
CCE
engineering & design
47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
0	ISSUE FOR REVIEW	MAF	MJK	10/23/25

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

EXISTING CONDITIONS AND DEMOLITION PLAN

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	DAM
DWN BY:	MAF
CKD BY:	LDA

PROJECT NO. 480.003.001

SHEET 1 OF 7

DRAWING NO. CJ101

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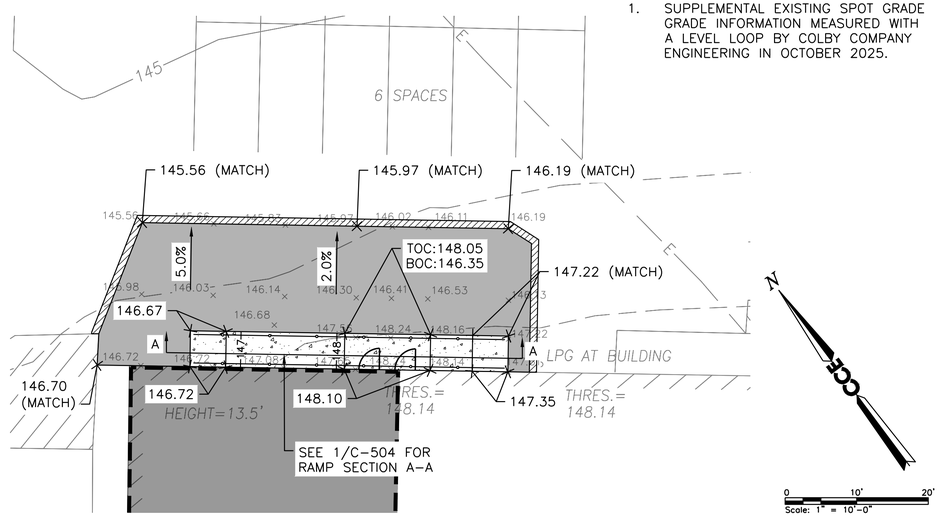
KEYED NOTES:

1. PROVIDE ASPHALT PAVEMENT, SEE DETAIL 1/C-502
2. PROVIDE 2" PAVEMENT GRIND, SEE DETAIL 2/C-502
3. PROVIDE PAVED SIDEWALK WITH ASPHALT CURB, SEE DETAIL 3/C-502
4. PROVIDE ASPHALT CURB, SEE DETAIL 3/C-502
5. PROVIDE 5' CRUSHED STONE, SEE DETAIL 4/C-502
6. PROVIDE 5'x5' CONCRETE LANDING, SEE DETAIL 5/C-502
7. PROVIDE BOLLARD (TYPx2), SEE DETAIL 6/C-502
8. PROVIDE 77'x5' CONCRETE WALKWAY, SEE DETAIL 7/C-502
9. PROVIDE LANDSCAPE DRAIN, SEE DETAIL 8/C-502
10. PROVIDE POST INDICATOR VALVE (PIV), SEE DETAIL 5/C-503
11. PROVIDE 6" DIA D.I. FIRE WATER LINE FOR PROPOSED SPRINKLER SYSTEM, SEE DETAIL 6/C-503
12. PROVIDE 4" PVC SDR 35 SANITARY SEWER SERVICE, SEE DETAIL 7/C-503
13. PROVIDE 5' WIDE ADA ACCESSIBLE RAMP W/ RAILINGS, SEE DETAILS AND SECTIONS ON C-504
14. WYE CONNECTION INTO EXISTING SANITARY SEWER MAIN INV:138.77
15. PROVIDE END-OF-LINE CLEANOUT S1:
    INV IN: 144.20
    SEE DETAIL 4/C-503
16. PROVIDE MODIFIED CLEANOUT S2:
    INV IN: 140.47
    INV OUT:141.47*
    *18" SEPARATION BETWEEN WATER SERVICES AND SANITARY SEWER SERVICES
    SEE DETAIL 3/C-503
17. PROVIDE IN-LINE CLEANOUT S3:
    INV:139.83
    SEE DETAIL 2/C-503
18. PROVIDE IN-LINE CLEANOUT S4:
    INV:139.83
    SEE DETAIL 2/C-503

SITE AND UTILITY PLAN
SCALE: 1" = 20'-0"

NOTES:

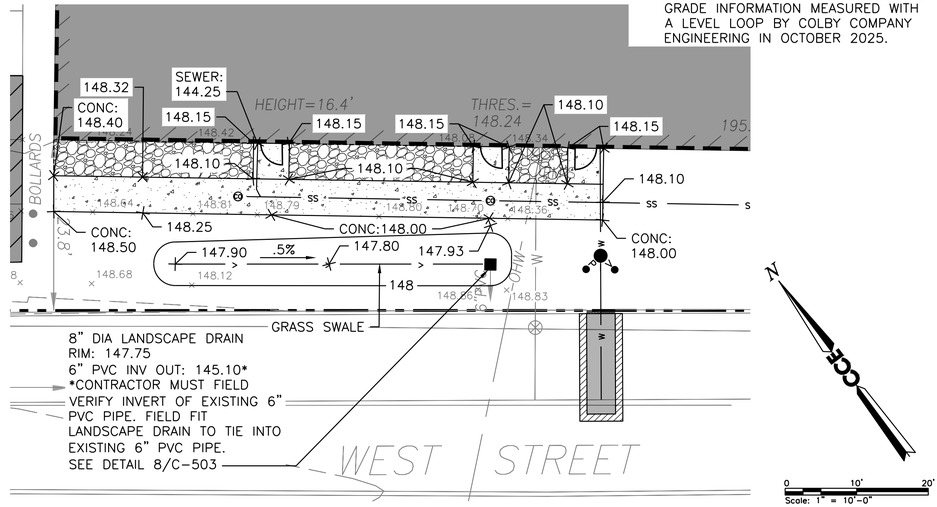
1. SUPPLEMENTAL EXISTING SPOT GRADE GRADE INFORMATION MEASURED WITH A LEVEL LOOP BY COLBY COMPANY ENGINEERING IN OCTOBER 2025.



NORTH RAMP GRADING PLAN
SCALE: 1" = 10'-0"

NOTES:

1. SUPPLEMENTAL EXISTING SPOT GRADE GRADE INFORMATION MEASURED WITH A LEVEL LOOP BY COLBY COMPANY ENGINEERING IN OCTOBER 2025.



SOUTH RAMP GRADING PLAN
SCALE: 1" = 10'-0"

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22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

SITE, UTILITY, AND GRADING PLAN

SIZE:	ARCH D
DATE:	10/23/2025
DES BY:	DAM
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PROJECT NO. 480.003.001
SHEET 2 OF 7
DRAWING NO. C-101

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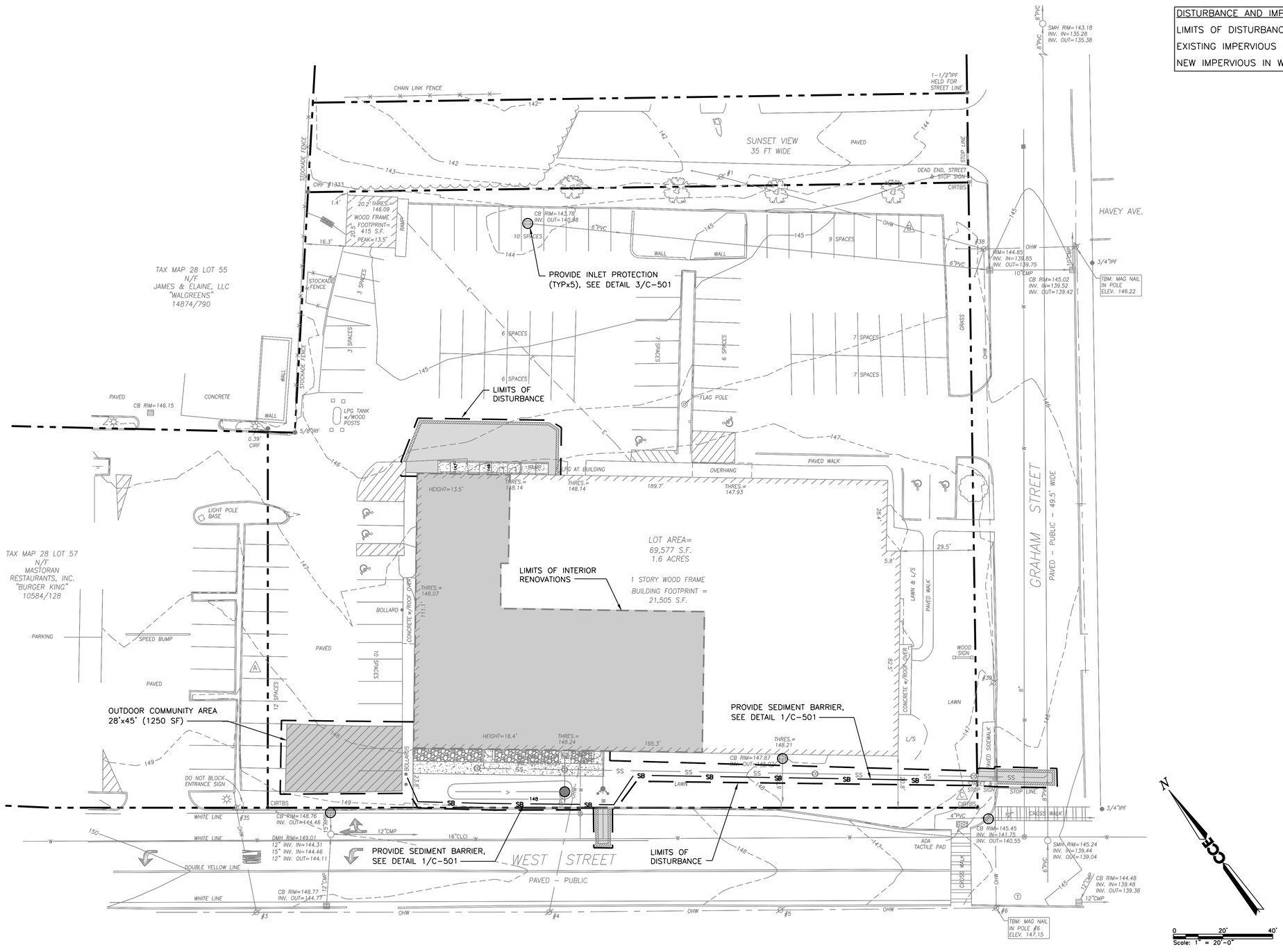
DISTURBANCE AND IMPERVIOUS SUMMARY:

LIMITS OF DISTURBANCE: 6,379 SF

EXISTING IMPERVIOUS IN WORK ZONE: 2670 SF

NEW IMPERVIOUS IN WORK ZONE: 460 SF



EROSION AND SEDIMENTATION CONTROL PLAN

SCALE: 1" = 20'-0"

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EROSION AND SEDIMENTATION CONTROL PLAN

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PROJECT NO. 480.003.001

SHEET 3 OF 7

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EROSION AND SEDIMENTATION CONTROL PLAN NOTES

EROSION AND SEDIMENTATION CONTROL FOR THIS PROJECT IS BASED UPON SOUND CONSERVATION PRACTICES, AND ADHERES TO THE STANDARDS DETAILED IN THE "MAINE EROSION AND SEDIMENTATION CONTROL BEST MANAGEMENT PRACTICES" (BMPS) MANUAL FOR DESIGNERS AND ENGINEERS BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, DATED OCTOBER 2016. THE CONTRACTOR MUST BE FAMILIAR WITH THE AFOREMENTIONED PUBLICATION AND COMPLY WITH THE PRACTICES PRESENTED THEREIN.

A PERSON WHO CONDUCTS, OR CAUSES TO BE CONDUCTED, AN ACTIVITY THAT INVOLVES FILLING, DISPLACING OR EXPOSING SOIL OR OTHER EARTHEN MATERIALS MUST TAKE MEASURES TO PREVENT UNREASONABLE EROSION OF SOIL OR SEDIMENT BEYOND THE PROJECT SITE OR INTO A PROTECTED NATURAL RESOURCE AS DEFINED IN 38 M.R.S. §480–B. EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE THE ACTIVITY BEGINS. MEASURES MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL THE SITE IS PERMANENTLY STABILIZED. ADEQUATE AND TIMELY TEMPORARY AND PERMANENT STABILIZATION MEASURES MUST BE TAKEN.

1 EROSION AND SEDIMENTATION CONTROL

1.1 POLLUTION PREVENTION: MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE. CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION. MINIMIZE THE DISTURBANCE OF STEEP SLOPES. CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND VOLUME, TO MINIMIZE EROSION AT OUTLETS. THE DISCHARGE MAY NOT RESULT IN EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, STREAM CHANNELS OR STREAM BANKS, UPLAND, OR COASTAL OR FRESHWATER WETLANDS OFF THE PROJECT SITE. WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS.

1.2 SEDIMENT BARRIERS: PRIOR TO CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE DOWNGRADIENT EDGE OF ANY AREA TO BE DISTURBED AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA. SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRADIENT OF SOIL OR SEDIMENT STOCKPILES AND STORMWATER PREVENTED FROM RUNNING ONTO THE STOCKPILE. MAINTAIN THE SEDIMENT BARRIERS BY REMOVING ACCUMULATED SEDIMENT, OR REMOVING AND REPLACING THE BARRIER, UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. WHERE A DISCHARGE TO A STORM DRAIN INLET OCCURS, IF THE STORM DRAIN CARRIES WATER DIRECTLY TO A SURFACE WATER AND YOU HAVE AUTHORITY TO ACCESS THE STORM DRAIN INLET, YOU MUST INSTALL AND MAINTAIN PROTECTION MEASURES THAT REMOVE SEDIMENT FROM THE DISCHARGE.

1.3 STABILIZED CONSTRUCTION ENTRANCE: PRIOR TO CONSTRUCTION, PROPERLY INSTALL A STABILIZED CONSTRUCTION ENTRANCE (SCE) AT ALL POINTS OF EGRESS FROM THE SITE. THE SCE IS A STABILIZED PAD OF AGGREGATE, UNDERLAIN BY A GEOTEXTILE FILTER FABRIC, USED TO PREVENT TRAFFIC FROM TRACKING MATERIAL AWAY FROM THE SITE ONTO PUBLIC RIGHT–OF–WAYS. MAINTAIN THE SCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

1.4 TEMPORARY STABILIZATION: WITHIN 7 DAYS OF THE CESSATION OF CONSTRUCTION ACTIVITIES IN AN AREA THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS, STABILIZE ANY EXPOSED SOIL WITH MULCH, OR OTHER NON–ERODIBLE COVER. STABILIZE AREAS WITHIN 75 FEET OF A WETLAND OR WATERBODY WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OF THE SOIL OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.

1.5 REMOVAL OF TEMPORARY MEASURES: REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

1.6 PERMANENT STABILIZATION: IF THE AREA WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, THEN PERMANENTLY STABILIZE THE AREA WITHIN 7 DAYS BY PLANTING VEGETATION, SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIPRAP, OR ROAD SUB–BASE. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS; AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDED AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING SO TO AVOID DIE–OFF FROM SUMMER DROUGHT AND FALL FROSTS. NEWLY SEEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL–ESTABLISHED WITH 90% COVER BY HEALTHY VEGETATION. IF NECESSARY, AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE.

1.6.1 PAVED AREAS: FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED, PROVIDED IT IS FREE OF FINE MATERIALS THAT MAY RUNOFF WITH A RAIN EVENT

1.7 WINTER CONSTRUCTION: "WINTER CONSTRUCTION" IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 15. IF DISTURBED AREAS ARE NOT STABILIZED WITH PERMANENT MEASURES BY NOVEMBER 1 OR NEW SOIL DISTURBANCE OCCURS AFTER NOVEMBER 1, BUT BEFORE APRIL 15, THEN THESE AREAS MUST BE PROTECTED AND RUNOFF FROM THEM MUST BE CONTROLLED BY ADDITIONAL MEASURES AND RESTRICTIONS

1.7.1 SITE STABILIZATION: FOR WINTER STABILIZATION, HAY MULCH IS APPLIED AT TWICE THE STANDARD TEMPORARY STABILIZATION RATE. AT THE END OF EACH CONSTRUCTION DAY, AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE STABILIZED. MULCH MAY NOT BE SPREAD ON TOP OF SNOW.

1.7.2 SEDIMENT BARRIERS: ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS.

1.8 ROADS: GRAVEL AND PAVED ROADS MUST BE DESIGNED AND CONSTRUCTED WITH CROWNS OR OTHER MEASURES, SUCH AS WATER BARS, TO ENSURE THAT STORMWATER IS DELIVERED IMMEDIATELY TO ADJACENT STABLE DITCHES, VEGETATED BUFFER AREAS, CATCH BASIN INLETS, OR STREET GUTTERS.

1.9 PARKING AREAS: PARKING AREAS MUST BE CONSTRUCTED TO ENSURE RUNOFF IS DELIVERED TO ADJACENT SWALES, CATCH BASINS, CURB GUTTERS, OR BUFFER AREAS WITHOUT ERODING AREAS DOWNSLOPE. THE PARKING AREA'S SUBBASE COMPACTION AND GRADING MUST BE DONE TO ENSURE RUNOFF IS EVENLY DISTRIBUTED TO ADJACENT BUFFERS OR SIDE SLOPES. CATCH BASINS MUST BE LOCATED AND SET TO PROVIDE ENOUGH STORAGE DEPTH AT THE INLET TO ALLOW INFLOW OF PEAK RUNOFF RATES WITHOUT BY–PASS OF RUNOFF TO OTHER AREAS.

2 INSPECTION AND MAINTENANCE

2.1 DURING CONSTRUCTION: THE FOLLOWING STANDARDS MUST BE MET DURING CONSTRUCTION

2.1.1 INSPECTION AND CORRECTIVE ACTION: INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL), AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, MUST CONDUCT THE INSPECTIONS.

2.1.2 MAINTENANCE: IF BEST MANAGEMENT PRACTICES (BMPS) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

2.1.3 DOCUMENTATION: KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLES ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPS THAT NEED MAINTENANCE, BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPS, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN. THE LOG MUST BE MADE ACCESSIBLE TO DEPARTMENT STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE MUST RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

3 HOUSEKEEPING

3.1 SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

3.2 GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE–TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

3.3 FUGITIVE SEDIMENT AND DUST: ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF–SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

3.4 DEBRIS AND OTHER MATERIALS: MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

3.5 EXCAVATION DE–WATERING: EXCAVATION DE–WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

3.6 AUTHORIZED NON–STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON–STORMWATER DISCHARGES. WHERE ALLOWED NON–STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON–STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON–STORMWATER DISCHARGES ARE:

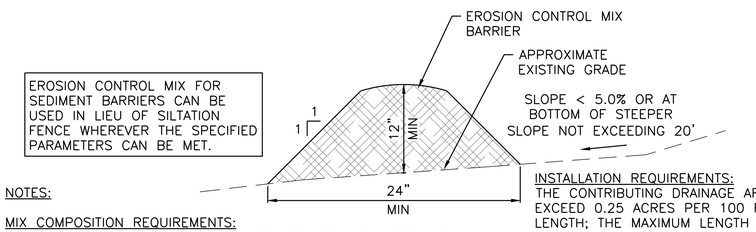
3.6.1 DISCHARGES FROM FIREFIGHTING ACTIVITY;
3.6.2 FIRE HYDRANT FLUSHINGS;
3.6.3 DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);
3.6.4 ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
3.6.5 PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
3.6.6 UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
3.6.7 UNCONTAMINATED GROUNDWATER OR SPRING WATER;
3.6.8 FOUNDATION OR FOOTER DRAIN–WATER WHERE FLOWS ARE NOT CONTAMINATED;
3.6.9 UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5));
3.6.10 POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
3.6.11 LANDSCAPE IRRIGATION.

3.7 UNAUTHORIZED NON–STORMWATER DISCHARGES: THE D.E.P.'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON–STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

3.7.1 WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;

3.7.2 FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;

3.7.3 TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.



EROSION CONTROL MIX FOR SEDIMENT BARRIERS CAN BE USED IN LIEU OF SILTATION FENCE WHEREVER THE SPECIFIED PARAMETERS CAN BE MET.

NOTES:

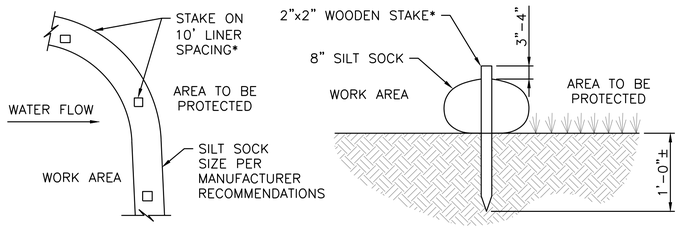
MIX COMPOSITION REQUIREMENTS:
THE ORGANIC MATTER CONTENT IS BETWEEN 80 AND 100%, DRY WEIGHT BASIS.
PARTICLE SIZE BY WEIGHT IS 100% PASSING A 6" SCREEN AND A MINIMUM OF 70% MAXIMUM OF 85%, PASSING A 0.75" SCREEN.
THE ORGANIC PORTION MUST BE FIBROUS AND ELONGATED.
LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
SOLUBLE SALTS CONTENT IS LESS THAN 4.0 MMHOS/CM.
THE PH MUST FALL BETWEEN 5.0 AND 8.0.

INSTALLATION REQUIREMENTS:
THE CONTRIBUTING DRAINAGE AREA MAY NOT EXCEED 0.25 ACRES PER 100 FT. OF BARRIER LENGTH; THE MAXIMUM LENGTH OF SLOPE ABOVE THE BARRIER IS 100 FEET; AND THE MAXIMUM GRADIENT BEHIND THE BARRIER IS 50 PERCENT (2:1). EROSION CONTROL MIX BARRIERS CANNOT BE USED IN AREAS OF CONCENTRATED FLOWS.

MAINTENANCE REQUIREMENTS:
SEDIMENT DEPOSITS MUST BE REMOVED WHEN THEY REACH APPROXIMATELY ONE–HALF THE HEIGHT OF THE BARRIER. OTHER MAINTENANCE AND INSPECTION REQUIREMENTS MUST BE IDENTICAL TO THOSE SPECIFIED FOR SILTATION FENCE.

SEDIMENT BARRIER MUST BE INSTALLED IN ACCORDANCE WITH MDOT SECTION 656 AND MAINE DEP EROSION AND SEDIMENT CONTROL BEST MANGEMENT PRACTICES

1 SEDIMENT BARRIER – EROSION CONTROL MIX
NOT TO SCALE C–102



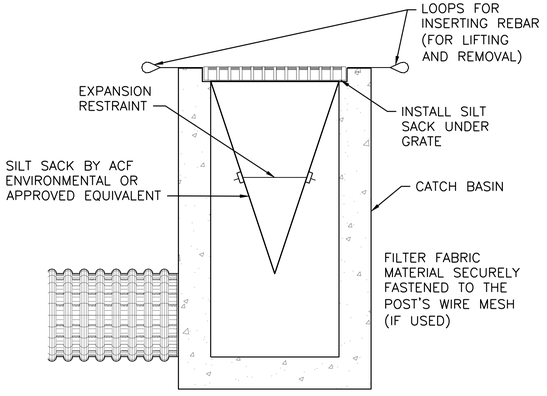
PLAN VIEW

* OMIT WOODEN STAKES WHEN PLACING SEDIMENT BARRIER ON ASPHALT OR CONCRETE PAVEMENT

SECTION

SILT SOCK MUST BE INSTALLED IN ACCORDANCE WITH MDOT SECTION 656 AND MAINE DEP EROSION AND SEDIMENT CONTROL BEST MANGEMENT PRACTICES

2 SEDIMENT BARRIER – SILT SOCK DETAIL
NOT TO SCALE C–102



INLET PROTECTION MUST BE INSTALLED IN ACCORDANCE WITH MDOT SECTION 656 AND MAINE DEP EROSION AND SEDIMENT CONTROL BEST MANGEMENT PRACTICES

NOTES:
1. INSTALL SILTSACK PER MANUFACTURER'S RECOMMENDATIONS.
2. SILTSACKS MUST BE CHECKED FOR SEDIMENT LEVEL AND OVERALL CONDITION IMMEDIATELY AFTER EVERY RAIN EVENT AND AT LEAST EVERY DAY DURING PROLONGED RAINFALL.
3. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE SILTSACK. REMOVED SEDIMENT MUST BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT WILL NOT ERODE.
4. SEDIMENT MUST ONLY BE REMOVED BY REMOVING THE SILTSACKS FROM THE CATCH BASINS ACCORDING TO MANUFACTURER RECOMMENDATIONS.
6. CARE MUST BE TAKEN TO AVOID SPILLING SEDIMENT WHILE REMOVING THE SILTSACK.
7. ANY DAMAGED SILTSACK MUST BE REPLACED WITH A NEW SILTSACK.

3 INLET PROTECTION DETAIL
NOT TO SCALE C–102

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47A York St
Portland, ME
04101
207.553.7753

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS

SIZE: ARCH D
DATE: 10/23/2025
DES BY: DAM
DWN BY: MAF
CKD BY: LDA

PROJECT NO. 480.003.001
SHEET 4 OF 7
DRAWING NO. C-501

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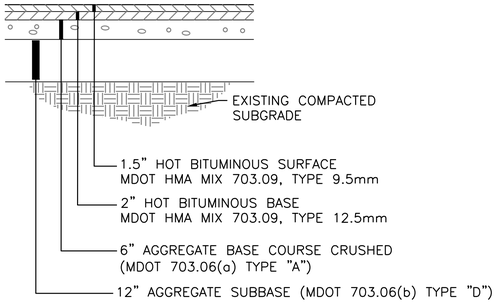
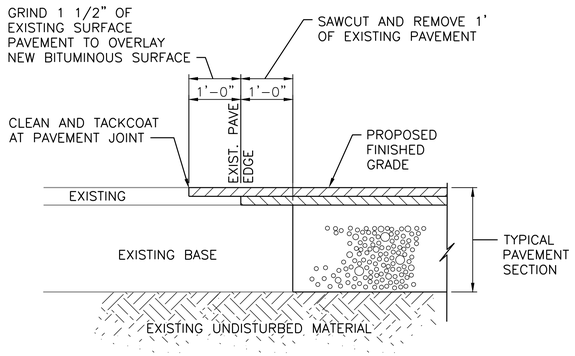


ALL ASPHALT PAVEMENT TO BE CONSTRUCTED IN ACCORDANCE WITH MDOT SECTION 401.

1 ASPHALT PAVEMENT SECTION

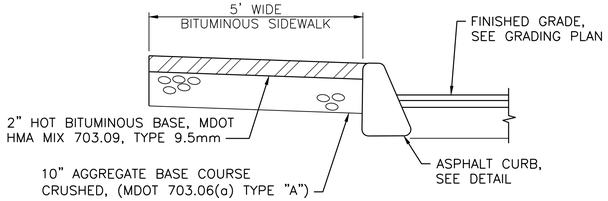
NOT TO SCALE C-101



CONSTRUCT IN ACCORDANCE WITH MDOT SECTION 401

2 PAVEMENT PATCH DETAIL

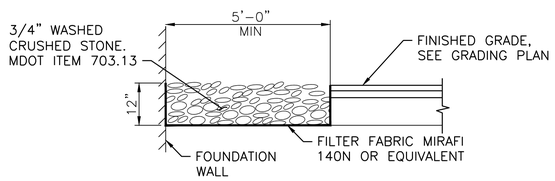
NOT TO SCALE C-101



SIDEWALK TO BE CONSTRUCTED IN ACCORDANCE WITH MDOT SECTION 608.

3 PAVED SIDEWALK WITH ASPHALT CURB DETAIL

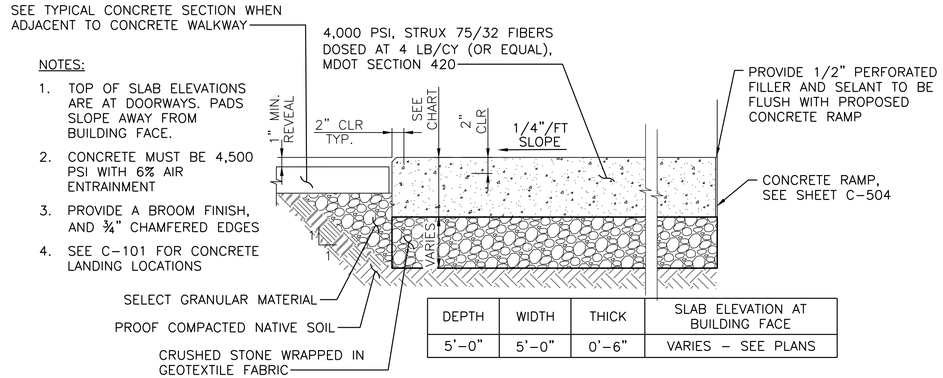
NOT TO SCALE C-101



NOTES:
1. WATER PROOF FOUNDATION WALL PRIOR TO PLACING BACKFILL AND CRUSHED STONE.
2. CONSTRUCT IN ACCORDANCE WITH MDOT SECTION 610

4 CRUSHED STONE DETAIL

NOT TO SCALE C-101

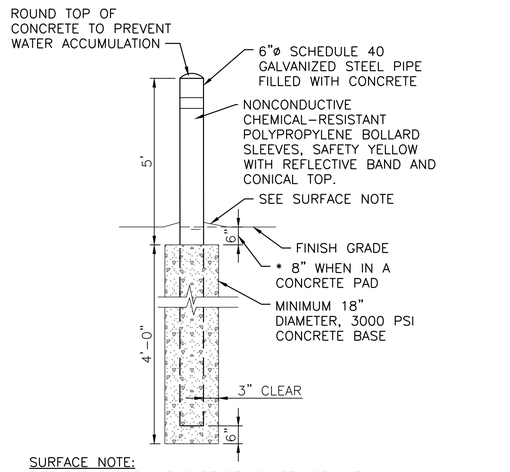


NOTES:
1. TOP OF SLAB ELEVATIONS ARE AT DOORWAYS. PADS SLOPE AWAY FROM BUILDING FACE.
2. CONCRETE MUST BE 4,500 PSI WITH 6% AIR ENTRAINMENT
3. PROVIDE A BROOM FINISH, AND ¾" CHAMFERED EDGES
4. SEE C-101 FOR CONCRETE LANDING LOCATIONS

DEPTH	WIDTH	THICK	SLAB ELEVATION AT BUILDING FACE
5'-0"	5'-0"	0'-6"	VARIES – SEE PLANS

5 TYPICAL CONCRETE LANDING DETAIL

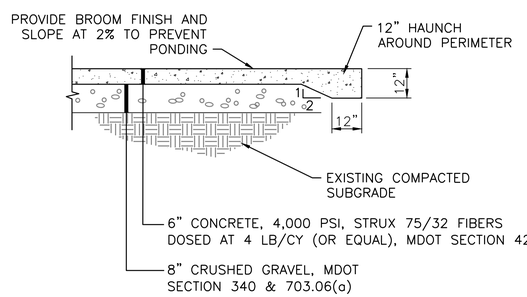
NOT TO SCALE C-101



SURFACE NOTE:
BITUMINOUS ASPHALT SURFACE: SLOPE ASPHALT AWAY FROM TUBE 1/4" PER FT ON ALL SIDES.
CONCRETE SURFACE: PLACE BOLLARDS THEN POUR CONCRETE PAVEMENT, SURFACE FLUSH WITH TUBE.

6 BOLLARD DETAIL

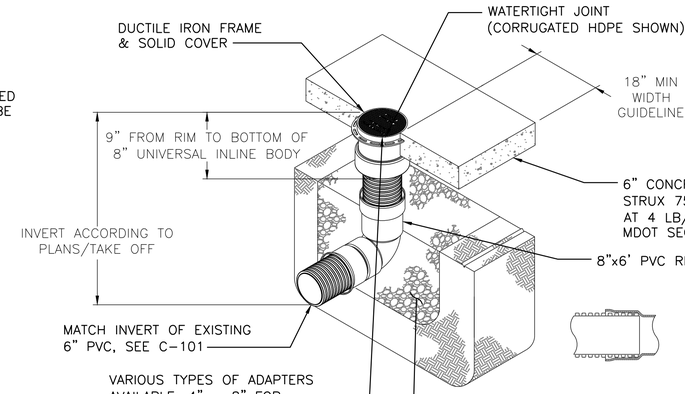
NOT TO SCALE C-101



SIDEWALK TO BE CONSTRUCTED IN ACCORDANCE WITH MDOT SECTION 608.

7 CONCRETE WALKWAY SECTION

NOT TO SCALE C-101



NOTES:
1. FRAME & SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12 DUAL WALL).

8 LANDSCAPE DRAIN DETAIL

NOT TO SCALE C-101

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET TRANSITION HOME

CIVIL CONSTRUCTION DETAILS

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PROJECT NO. 480.003.001
SHEET 5 OF 7
DRAWING NO. C-502

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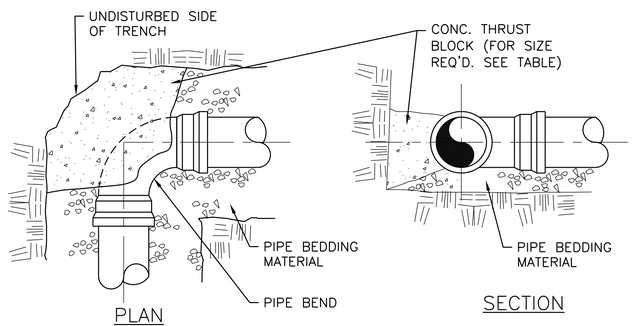
CONCRETE THRUST BLOCK SIZE REQUIREMENTS

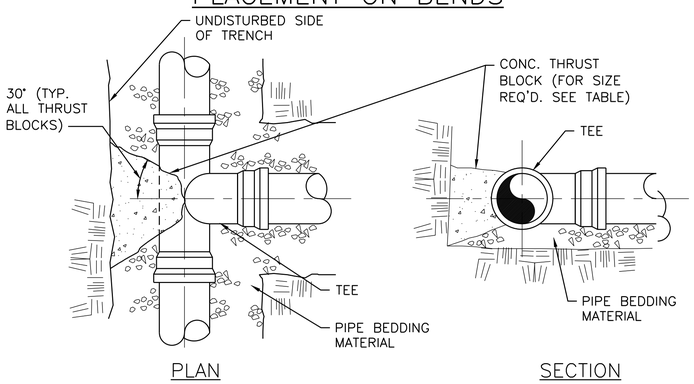
FITTINGS		SQUARE FEET OF BEARING ON UNDISTURBED SOIL			
		90° BENDS	45° BENDS	TEES & PLUGS	HYDRANTS
PIPE SIZE (IN)	4	2.0	1.0	1.0	N/A
	6	3.0	2.0	2.0	6.0
	8	5.0	3.0	4.0	N/A
	10	7.0	4.0	5.0	N/A
	12	10.0	6.0	7.0	N/A
	14	13.0	7.0	10.0	N/A
	16	17.0	9.0	12.0	N/A

SIZE REQUIREMENT TABLE

NOTES:
1. FOR TRENCHES IN ROCK WHERE THE TOP OF THE ROCK FACE IS AT OR ABOVE THE PIPE CROWN, CONC. SHALL BE PLACED BETWEEN THE PIPE AND THE ROCK FACE.
2. FOR BENDS HAVING A DEFLECTION OF LESS THAN 45°, THE THRUST BLOCK AREAS STATED FOR A 45° BEND SHALL BE USED.
3. THE THRUST BLOCK BEARING AREAS ARE BASED ON A RESULTANT THRUST AT FITTINGS OF 100 PSI WATER PRESSURE AND A SOIL WITH A BEARING CAPACITY OF 2000 POUNDS PER SQUARE FOOT.
4. THE MAXIMUM HEIGHT OF EACH THRUST BLOCK SHALL BE EQUAL TO 1/2 THE DISTANCE BETWEEN THE GROUND SURFACE AND THE BOTTOM OF THAT THRUST BLOCK.
5. JOINTS SHALL NOT BE ENCASED IN CONCRETE.
6. WATER MAIN, SERVICES AND ASSOCIATED WORK MUST BE COMPLETED IN ACCORDANCE WITH MAINE WATER STANDARDS
7. DO NOT COVER BELLS OR FLANGES WITH CONCRETE. THE CONTRACTOR SHALL REMOVE EXISTING THRUST BLOCKING OR RESTRAINTS WHERE NECESSARY TO ALLOW THE WORK TO PROCEED, AND SHALL REPLACE THE THRUST BLOCK WHERE REQUIRED. THE COST TO REMOVE, REPLACE, OR PROVIDE THRUST BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
8. THE CONTRACTOR SHALL SUPPLY AND INSTALL ANY ADDITIONAL BENDS WITH THRUST BLOCKING AND OTHER APPURTENANCES REQUIRED TO ASSURE PROPER INSTALLATION OF WATER MAINS AND LATERALS. THE CONTRACTOR MAY PULL PIPE AS NEEDED AT THE BENDS WHERE THE DEFLECTION ANGLE OF THE PIPE DOES NOT MATCH THE ANGLE OF THE BEND, PROVIDED THAT THE PIPE DEFLECTION IS WITHIN TOLERABLE MANUFACTURERS LIMITS. THE COST FOR ADDITIONAL BENDS AND BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.



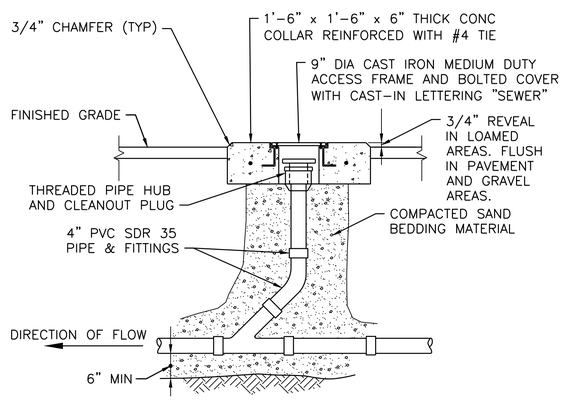
PLACEMENT ON BENDS



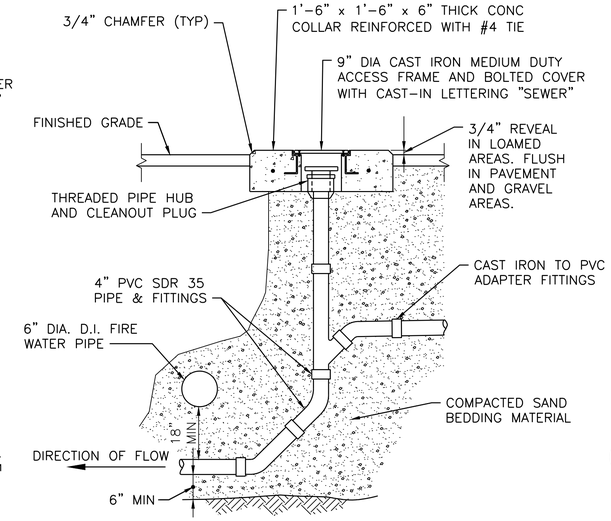
PLACEMENT ON TEES

NOTE:
1. THRUST BLOCKS MUST BE CONSTRUCTED IN ACCORDANCE WITH MDOT SECTION 625.

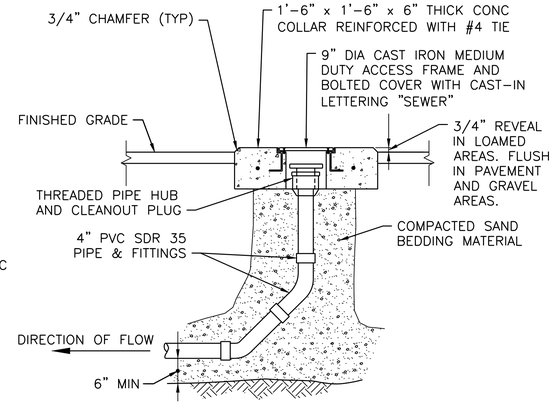
1 THRUST BLOCK FOR WATER MAIN AND SERVICES
NOT TO SCALE C-101



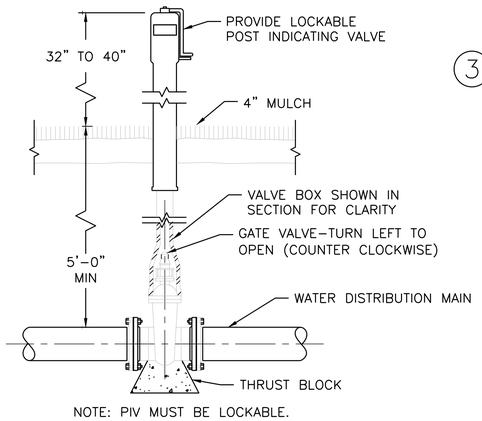
2 IN-LINE CLEANOUT DETAIL
NOT TO SCALE C-101



3 MODIFIED IN-LINE CLEANOUT DETAIL
NOT TO SCALE C-101

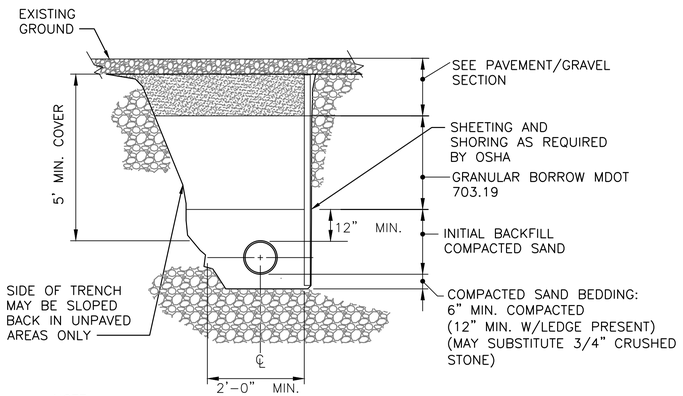


4 END OF LINE CLEANOUT DETAIL
NOT TO SCALE C-101



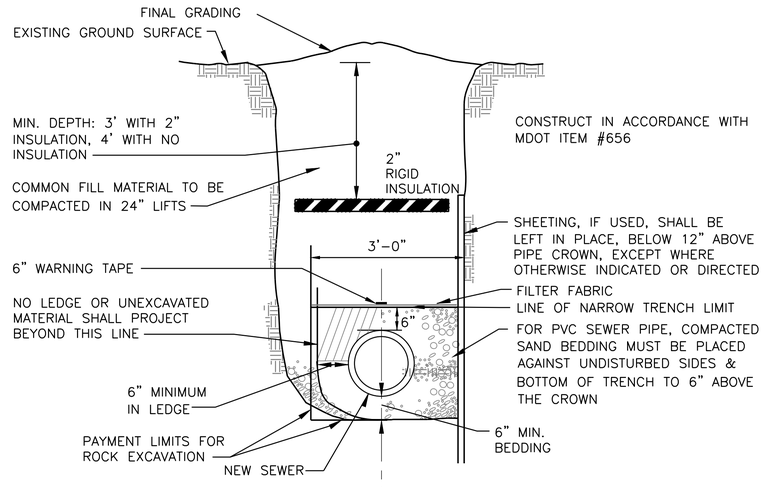
NOTE: PIV MUST BE LOCKABLE.

5 POST INDICATOR VALVE (PIV)
NOT TO SCALE C-101



NOTE:
1. ALL EXCAVATION MUST MEET OSHA STANDARDS.
2. DETAIL IS APPROPRIATE FOR BOTH DOMESTIC WATER AND FIRE WATER LINES.
3. WATER SERVICE AND MAINS MUST BE CONSTRUCTED IN ACCORDANCE WITH MDOT SECTION 625.
4. CONSTRUCT IN ACCORDANCE WITH STATE OF MAINE WATER STANDARDS

6 WATER PIPE TRENCH
SCALE: NOT TO SCALE C-101



NOTES:
1. COMMON FILL MATERIAL CAN BE USED FOR BACKFILL ABOVE THE LINE OF NARROW TRENCH LIMIT.
2. SANITARY SEWER PIPING INSTALLED IN ACCORDANCE WITH STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES.

7 SEWER TRENCH DETAIL
NOT TO SCALE C-101

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208 GRAHAM STREET
TRANSITION HOME

CIVIL UTILITY DETAILS

SIZE:	ARCH D
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PROJECT NO. 480.003.001
SHEET 6 OF 7
DRAWING NO. C-503

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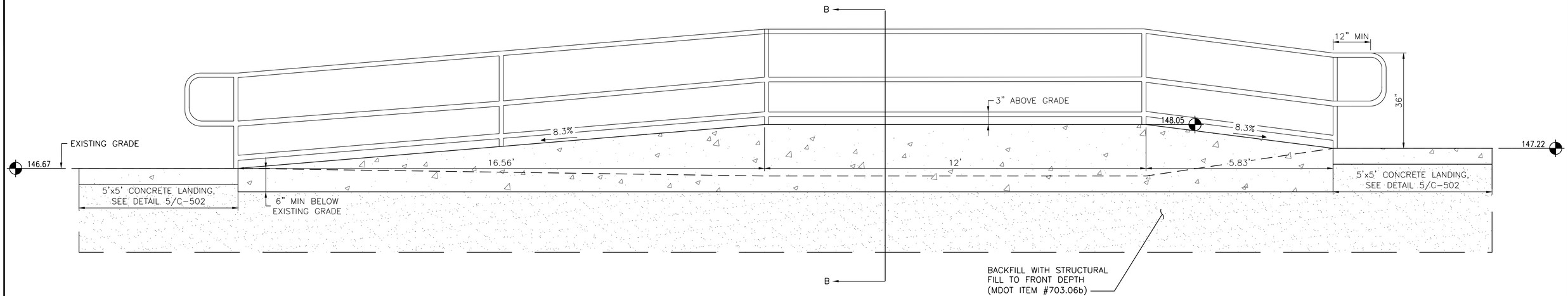

1 ADA RAMP SECTION A–A

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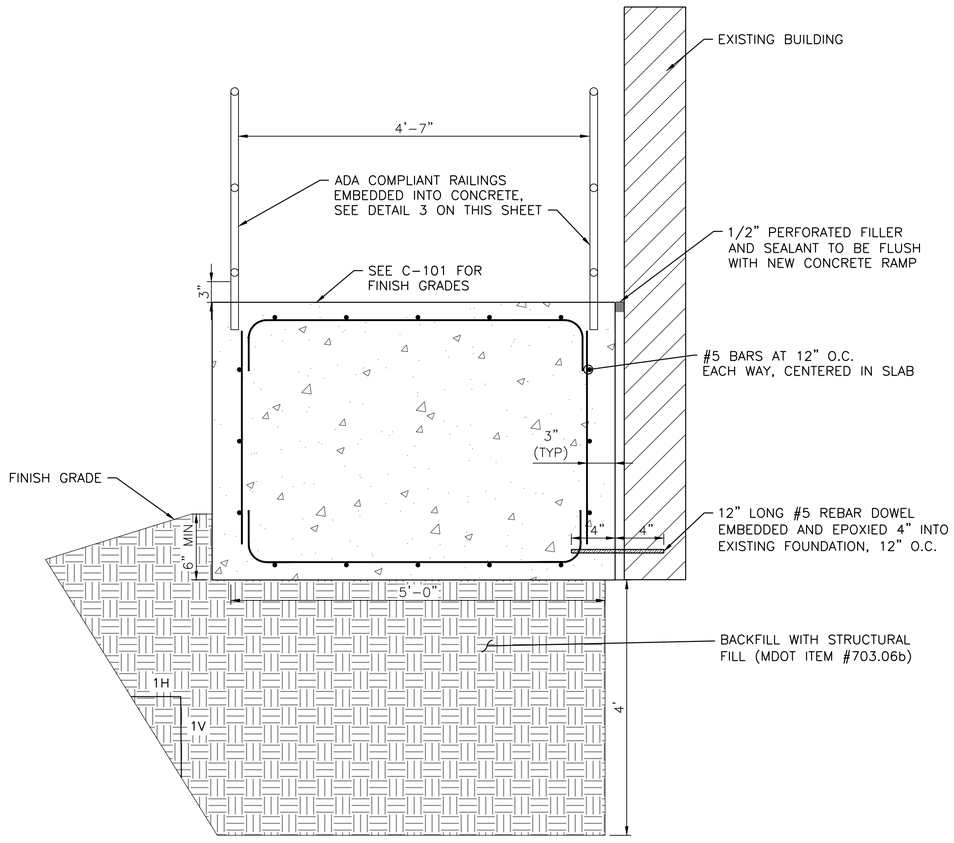

2 CONCRETE ADA RAMP SECTION B–B

SCALE: NOT TO SCALE

3 RAMP DETAIL – POST SECTION

NOT TO SCALE

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MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

ADA RAMP SECTIONS AND DETAILS

SIZE: ARCH D
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PROJECT NO. 480.003.001

SHEET 7 OF 7

DRAWING NO. C-504

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MaineHealth

September 3, 2025

City of Biddeford
205 Main Street
Biddeford, ME 04005

Dear City of Biddeford,

Thank you for reaching out with your questions regarding the MaineHealth Behavioral Health (MHBH) residential program project located at 208 Graham Street in Biddeford, Maine. We appreciate the opportunity to provide more information and clarify the details of the program.

Are residents required to maintain employment?
Residents are not required to maintain employment. However, the care team works closely with residents and the local community to explore volunteer or employment opportunities when appropriate. As this is a transitional program, with typical stays ranging from 18 to 24 months, residents are encouraged to integrate into the community during their time in the program.

Will there be a curfew?
MHBH does not enforce a formal curfew. That said, we promote healthy routines and discourage residents from being out past 10:00 PM to support their overall well-being.

What rules must residents follow to remain in the program?
Residents are expected to follow program guidelines and participate in shared responsibilities such as meal planning, cooking, laundry, and cleaning. While social interaction and visitors are encouraged, overnight guests are not permitted. All MHBH residential locations are drug-, alcohol-, and weapon-free environments.

Is the home staffed 24/7?
Yes, the residence will be staffed around the clock. The care team includes Mental Health and Rehabilitation Technicians (MHRTs), Certified Residential Medication Aides, Licensed Clinical Social Workers, and Registered Nurses, all overseen by a physician medical director.

We hope this information is helpful. If you have additional questions or would like to discuss further, Lee D'Attilio, Senior Director of Intensive Services at MHBH, is available to meet with you and other community members.

Sincerely,

Lee D'Attilio

Lee D'Attilio
Senior Director - Intensive Services
MaineHealth Behavioral Health
One Riverfront Plaza
Westbrook, ME 04092

Sustainable
Structural
Mechanical
Fire Protection
Electrical
Civil
Controls
Architecture

47A York St
Portland, Maine
04101 USA
colbycoengineering.com

BD/Project # 480.003.001

June 9, 2025

David Galbraith, City Planning Director,
City of Biddeford Planning Board
205 Main Street
Biddeford, ME 04005

Proposed Maine Health dba, Behavioral Health – Transition Home – Graham Street

Dear David,

Enclosed please find the required planning board materials for a Sketch Plan Review at the July 2nd, 2025, meeting. The proposed Maine Health Transition Home is proposed in a portion of a multi-tenant building located at 208 Graham Street, Biddeford, ME. A City of Biddeford Site Plan & Subdivision Drawing Checklist and Planning Board Review Application will be completed and submitted along with the preliminary and final site plan submissions.

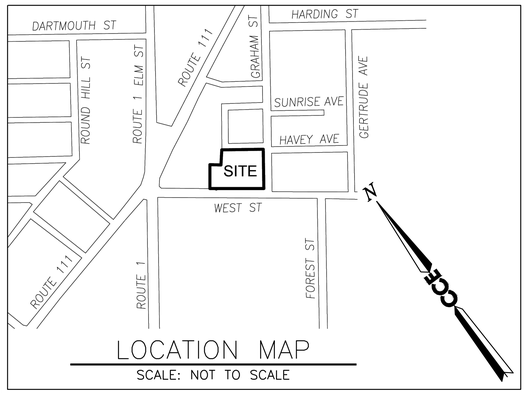
The existing lot is 1.6 acres and consists of a paved parking area and a 21,505 square foot multi-tenant building. A section of the building was previously a teen center but has since been vacated. The York County District Attorney's Office and the Coastal Healthy Communities Coalition occupy the rest of the building. The existing building is not equipped with a sprinkler fire suppression system.

The proposed project includes renovating and repurposing approximately 5,000 square feet of the existing building for the new transition home. The project will introduce seven studio living quarters and community spaces such as a kitchen, bathrooms, dining room, pantry, laundry rooms, and storage rooms. The future tenants will not have access to personal vehicles. Therefore, the required number of parking spaces will decrease, and the existing parking spaces available on site will exceed the required amount. Additionally, this project will not increase traffic generation. A fire water service has been proposed to provide a sprinkler system for the entire building. The site work also includes two ADA-accessible ramps and an exterior community area. See the attached sketch plan.

Please contact me with any questions or concerns regarding this application.

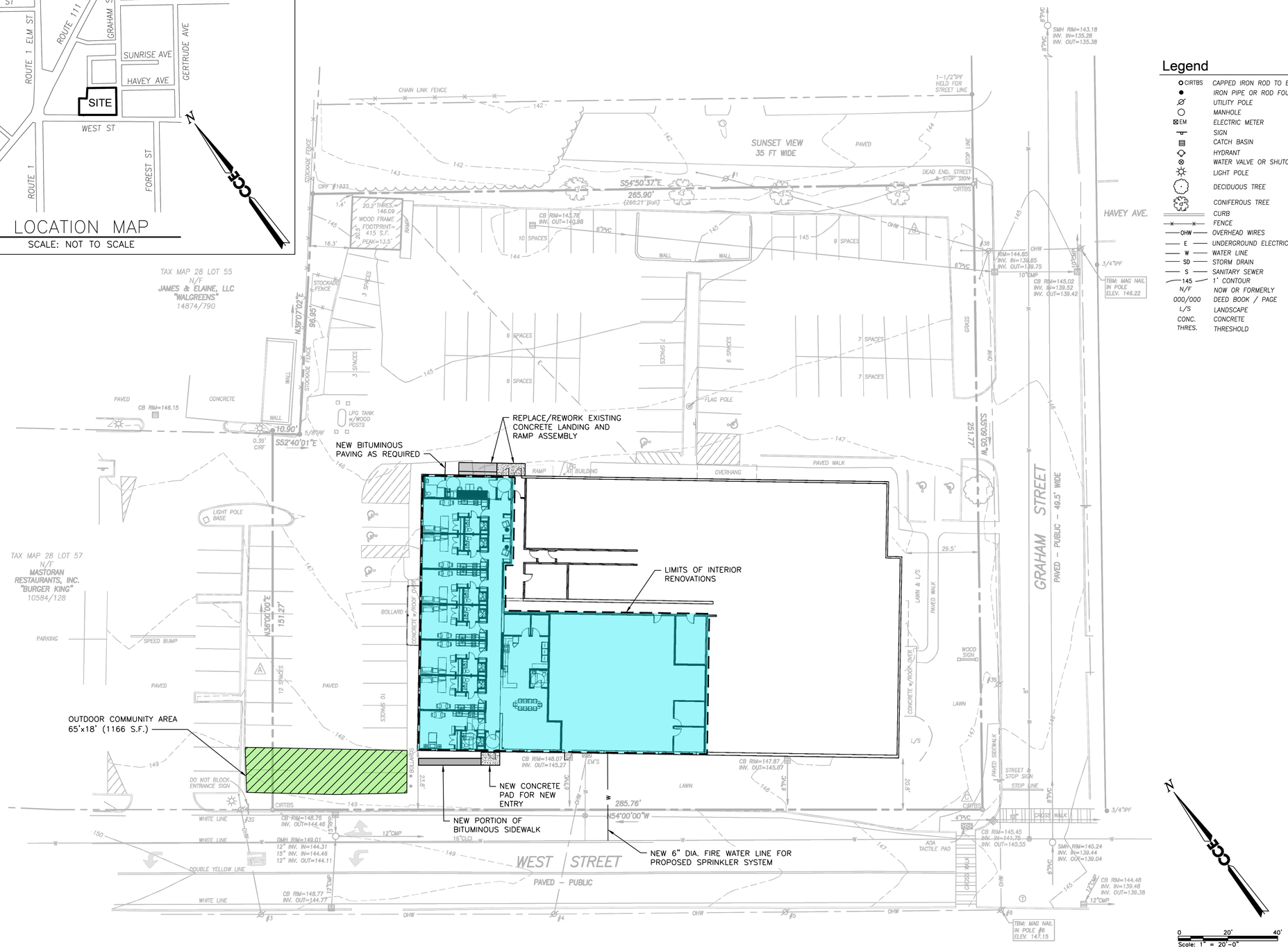
Sincerely,

David Manzo, P.E.



LOCATION MAP

SCALE: NOT TO SCALE



PRELIMINARY SITE PLAN

SCALE: 1" = 20'-0"

Legend

○ CIRTBS	CAPPED IRON ROD TO BE SET
●	IRON PIPE OR ROD FOUND
⌀	UTILITY POLE
○	MANHOLE
⊠ EM	ELECTRIC METER
⊓	SIGN
▤	CATCH BASIN
◇	HYDRANT
⊗	WATER VALVE OR SHUTOFF
☼	LIGHT POLE
	DECIDUOUS TREE
	CONIFEROUS TREE
	CURB
-x-x-	FENCE
OHW	OVERHEAD WIRES
E	UNDERGROUND ELECTRIC
W	WATER LINE
SD	STORM DRAIN
S	SANITARY SEWER
145	1' CONTOUR
N/F	NOW OR FORMERLY
000/000	DEED BOOK / PAGE
L/S	LANDSCAPE
CONC.	CONCRETE
THRES.	THRESHOLD

NOTES:

1. NOTES FROM PLAN TITLED ALSTA/NSPS LAND TITLE SURVEY FOR #200 & #208 GRAHAM STREET AND DATED NOVEMBER 8, 2021

Plan References

1. *"PLAN SHOWING LAND OF HARRY B. CENTER & JOSEPH HAVEY, BIDDEFORD – MAINE, MARCH 1946 LIBBY & DOW ENG'RS – SACO REVISED & COMPLETED NOV. 17, 1947" RECORDED IN YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 14 PAGE 25.*
2. *"PLAN OF PROPERTY IN BIDDEFORD, MAINE MADE FOR MCDONALD'S CORPORATION NOV. 1, 1976 H.I. & E.C. JORDAN SURVEYORS."*
3. *"SITE PLAN, DHS BUILDING, WEST STREET, BIDDEFORD, MAINE, RECORD OWNER: S&S REALTY GROUP 06-02-98 PAUL P. GADBOIS, PLS."*
4. *"ALTA/ACSM LAND TITLE SURVEY, PROPOSED RITE AID PHARMACY, BIDDEFORD STORE, ALFRED STREET, TOWN OF BIDDEFORD, YORK COUNTY, MAINE NOV. 03, 2004 REVISED 10-25-2005" OWEN HASKELL, INC. AND BL COMPANIES.*
5. *"STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, STATE HIGHWAY 1 & 8 (FIVE POINTS) BIDDEFORD, YORK COUNTY FEDERAL AID PROJECT NO. STP-7492(30)X (PART 1 & 3)" D.O.T. FILE NO. 16-406 DATED SEPTEMBER 2002.*

General Notes

1. *OWNER OF RECORD:*
   H.H.H. LLC, C/O BERNSTEIN SHUR, 100 MIDDLE STREET, PORTLAND, ME 04101
   YORK COUNTY REGISTRY OF DEEDS BOOK 18507 PAGE 525
2. *LOCUS IS SHOWN AS LOTS 58 & 59 ON CITY OF BIDDEFORD'S ASSESSORS MAP 28.*
3. *BEARINGS ARE GRID NORTH PER PLAN REFERENCE 4.*
4. *ELEVATIONS ARE BASED ON NGVD29.*
5. *THERE ARE 86 REGULAR SPACES AND 7 HANDICAP SPACES, FOR A TOTAL OF 93 PARKING SPACES. INCLUDES THE 12 SPACES ENCROACHING ONTO ABUTTER.*
6. *NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, BUILDING ADDITIONS, OR RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WAS OBSERVED.*
7. *NO PROPOSED CHANGES IN STREET LINES IS KNOWN BY THIS SURVEYOR.*
8. *UNDERGROUND PROPANE LINE FROM TANK TO BUILDING COULD NOT BE LOCATED.*
9. *WEST STREET ESTABLISHED USING DIMENSIONS SHOWN ON PLAN REFERENCE 2 AND 4.*
10. *THIS SURVEY WAS PERFORMED WITH OUT THE BENEFIT OF A CURRENT TITLE COMMITMENT.*

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 SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-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.

Flood Zone Note

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 2301450 0003B, WHICH BEARS AN EFFECTIVE DATE OF MAY 15, 1984 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

Zoning Information

R2 ZONE

MINIMUM LOT SIZE	4,500 S.F
MINIMUM FRONTAGE	45 FT
SETBACKS:	
FRONT MAJOR ROW	25 FT
FRONT OTHER ROW	10 FT
SIDE	5 FT
REAR	5 FT
MAX. HEIGHT	35 FT, 3 STORIES

FOR ADDITIONAL ZONING REQUIREMENTS REFER TO CITY OF BIDDEFORD ZONING ORDINANCE.

COLBY COMPANY, LLC
CCE engineering & design
47A York St
Portland, ME
04101
207.553.7753

REV	DESCRIPTION	DWN	APP	DATE
A	PB SKETCH PLAN REVIEW	MAF	MJK	06/11/25

PLEASE NOTE: THIS DOCUMENT MAY NOT ACCURATELY REPRESENT THE FINAL DOCUMENT. ONLY AN ENGINEER, ARCHITECT OR SURVEYOR SIGNED, SEALED AND DATED PAPER COPY, PROVIDED BY THIS OFFICE, MAY BE UTILIZED FOR BIDDING OR CONSTRUCTION PURPOSES.

MAINE HEALTH DBA, BEHAVIORAL HEALTH
22 BRAMHALL STREET, PORTLAND MAINE 04102

208 GRAHAM STREET
TRANSITION HOME

PRELIMINARY SITE PLAN

SIZE:	ARCH D
DATE:	06/11/2025
DES BY:	DAM
DWN BY:	MAF
CKD BY:	LDA

PROJECT NO. 480.003.001

SHEET X OF X

DRAWING NO. C-101

C:\CCE Dropbox\Colby Company Engineering\Engineering\480 CWS\480.003.001 - MH 208 Graham St Renovation\Drawings\Sheets\C-101.dwg - 6/10/2025 5:32 PM - MELISSA FLINT

City of Biddeford – Planning Department
Planning Board Application
P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

__ Shoreland Zoning Permit _X_ Site Plan Review (Please include checklist) __ Extraction
__ Conditional Use Permit __ Subdivision (Please include Checklist) __ Private Way
__ Other: _____

Applicant Information:

Name: _Maine Health dba Behavioral Health_____
Mailing Address: _22 Bramhall Street, Portland Maine 04102_____
Telephone: 207-303-3081_____
Email: Mark.Colonna@mainehealth.org_____
What is your legal interest in the property?
_X_ Owner __ Potential Buyer with Contract __ Lease/Rental Agreement

Owner's Information:

Name: _Maine Health dba Behavioral Health_____
Mailing Address: _22 Bramhall Street, Portland Maine 04102_____
Telephone: 207-303-3081_____
Email: Mark.Colonna@mainehealth.org_____

Agent's Information:

Name: Colby Company Engineering LLC_____
Mailing Address 47A York Street, Portland ME, 04101_____
Telephone: 207-553-7753_____
Email: Davidm@colbycoengineering.com_____

Engineer/Surveyor's Information:

Name: Colby Company Engineering LLC_____
Mailing Address 47A York Street, Portland ME, 04101_____
Telephone: 207-553-7753_____
Email: Davidm@colbycoengineering.com_____

Project Location and Lot Information:

Street Address: 208 Graham Street, Biddeford ME, Drainage Watershed: Saco River_____
Tax Map: Map 28_____ Lot: 58 & 59_____
Current Zoning: R2_____ Shoreland Zoning: __N/A_____
Size of Lot: 1.6 acres Lot Frontage: _45 ft_
Existing Use of Property: _Multi-tenant building __

Property currently serviced by:

_X_ City Road _X_ Public Sewer _X_ Public Water _X_ Public Trash
__ Private Road __ Septic System__ Private Well __ Private Hauler

Slope Conditions in Area of Construction (if applicable):
_X_Flat (0-3% slope) __Rolling (3-8% slope) __Hilly (8-15% slope) __Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? __ (Yes)_X_(No) if yes attach information
Is the project within the 100-year floodplain? _X_ (Yes)__(No) if yes attach information
Do you plan to bring fill onto the lot? __(Yes) _X_(No) If yes attach information

Description of proposed use of property:

The proposed project includes renovating and repurposing approximately 5,000 square feet of the existing building for the new transition home. The project will introduce seven studio living quarters and community spaces such as a kitchen, bathrooms, dining room, pantry, laundry rooms, and storage rooms. The future tenants will not have access to personal vehicles. Therefore, the required number of parking spaces will decrease, and the existing parking spaces available on site will exceed the required amount. Additionally, this project will not increase traffic generation. A fire water service has been proposed to provide a sprinkler system for the entire building. The site work also includes two ADA-accessible ramps and an exterior community area. See the attached sketch plan.

Property to be Serviced by:

_X_ City Road _X_ Public Sewer _X_ Public Water _X_ Public Trash
__ Private Road __ Septic System __ Private Well __ Private Hauler

Limits of Disturbance: 6,500 s.f.
Net change in impervious cover: None
Is this project part of a larger project? __(Yes) _X_(No)
Is the project proposing a new Private or Public Road? __(Yes, Private) __(Yes, Public) _X_(No)
Is this project within the Urbanized Area/MS4 (*see City Drainage Map*) _X_(Yes) __(No)
Is the project proposing any Stormwater facilities/BMPs? __(Yes) _X_(No)
Will a Traffic Movement Permit (TMP) be required?: __(Yes) _X_(No)

__ **If in a Shoreland Zone:**
Percent of residential lot coverage (Max 20%): N/A___
Percent of structure expansion (Max 30%): N/A___
__ **If Subdivision Review, number of lots proposed: N/A___**
__ **If a Private Way is proposed, number of lots served: N/A____**

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: No new footprint. 5,000 sf renovation
Total new square feet paving/parking: 170 sf_____

Waiver Requests (attach details):

1. _____
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments:

A. Letters of Approval
__ Fire Department – Contact Chief or Deputy Chief – 282-9986
__ Ability to Serve for Water Service – Maine Water – 282-1543
__ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118
__ Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127
__ Ability to Serve for Electrical Service-CMP-1-866-225-4200
__Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.

B. Photographs of Site.
C. Architectural renderings/drawings of proposed buildings, as required.
D. Engineering Plans, as required.
E. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- $75 Nonrefundable Administration Fee is required for every application.

- Refer to "Attachment A Fees and Charges" of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance? __(Yes) _X_(No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: _____ **Date** 6/11/2025

Signature of Property Owner: _____ **Date** 6·12·25

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

- Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVDUAL DRAWING NAME.pdf'

B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.

C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

- All drawings & CAD reference files must be to-scale and within the following coordinate systems:

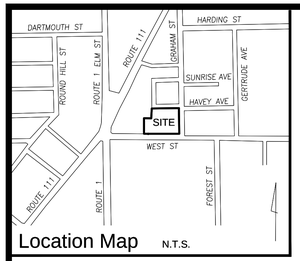
- MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIUDAL DRAWINGS REQUIRING BOARD SIGNATURE

B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

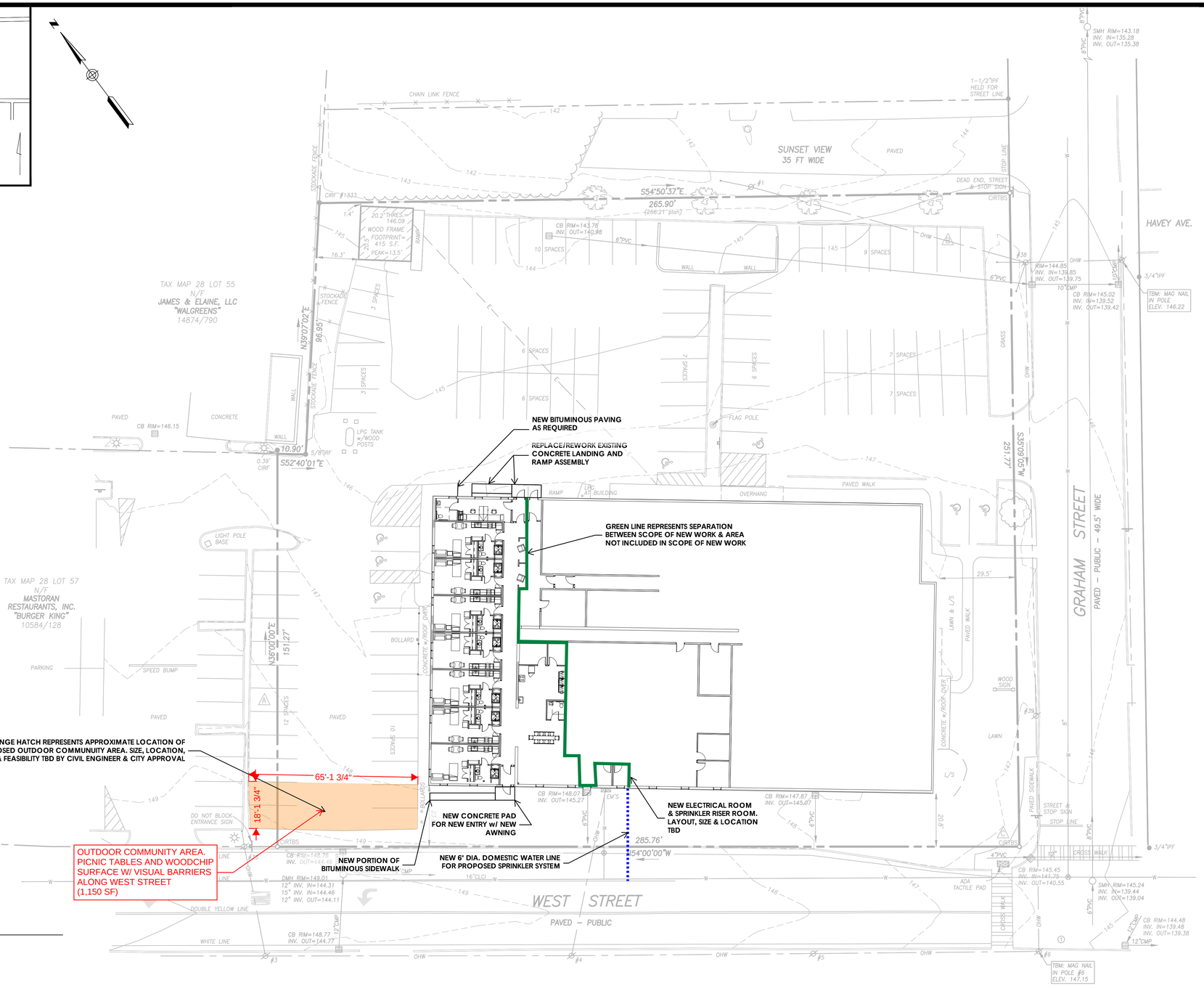
PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION



Location Map N.T.S.

Legend

○ CIRTBS	CAPPED IRON ROD TO BE SET
●	IRON PIPE OR ROD FOUND
⌀	UTILITY POLE
○	MANHOLE
⊠ EM	ELECTRIC METER
	SIGN
	CATCH BASIN
	HYDRANT
⊗	WATER VALVE OR SHUTOFF
	LIGHT POLE
	DECIDUOUS TREE
	CONIFEROUS TREE
	CURB
x x	FENCE
OHW	OVERHEAD WIRES
E	UNDERGROUND ELECTRIC
W	WATER LINE
SD	STORM DRAIN
S	SANITARY SEWER
145	1' CONTOUR
N/F	NOW OR FORMERLY
000/000	DEED BOOK / PAGE
L/S	LANDSCAPE
CONC.	CONCRETE
THRES.	THRESHOLD



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R2 ZONE

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Possible Encroachments

A. PARKING ENCROACHES ONTO ABUTTER 10'±

B. OVERHEAD WIRES CROSS PREMISES

C. SIDEWALK ENCROACHES 4'±

SCALE : 1" = 20'

0' 10' 20' 40'

Flood Zone Note

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 2301450 0003B, WHICH BEARS AN EFFECTIVE DATE OF MAY 15, 1984 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

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Plan References

1. "PLAN SHOWING LAND OF HARRY B. CENTER & JOSEPH HAVEY, BIDDEFORD – MAINE, MARCH 1946 LIBBY & DOW ENG'RS – SACO REVISED & COMPLETED NOV. 17, 1947" RECORDED IN YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 14 PAGE 25.

2. "PLAN OF PROPERTY IN BIDDEFORD, MAINE MADE FOR MCDONALD'S CORPORATION NOV. 1, 1976 H.I. & E.C. JORDAN SURVEYORS."

3. "SITE PLAN, DHS BUILDING, WEST STREET, BIDDEFORD, MAINE, RECORD OWNER: S&S REALTY GROUP 06-02-98 PAUL P. GADBOIS, PLS."

4. "ALTA/ACSM LAND TITLE SURVEY, PROPOSED RITE AID PHARMACY, BIDDEFORD STORE, ALFRED STREET, TOWN OF BIDDEFORD, YORK COUNTY, MAINE NOV. 03, 2004 REVISED 10-25-2005" OWEN HASKELL, INC. AND BL COMPANIES.

5. "STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, STATE HIGHWAY 1 & 8 (FIVE POINTS) BIDDEFORD, YORK COUNTY FEDERAL AID PROJECT NO. STP-7492(30)X (PART 1 & 3)" D.O.T. FILE NO. 16-406 DATED SEPTEMBER 2002.

General Notes

1. OWNER OF RECORD:
   H.H.H. LLC, C/O BERNSTEIN SHUR, 100 MIDDLE STREET, PORTLAND, ME 04101
   YORK COUNTY REGISTRY OF DEEDS BOOK 18507 PAGE 525

2. LOCUS IS SHOWN AS LOTS 58 & 59 ON CITY OF BIDDEFORD'S ASSESSORS MAP 28.

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7. NO PROPOSED CHANGES IN STREET LINES IS KNOWN BY THIS SURVEYOR.

8. UNDERGROUND PROPANE LINE FROM TANK TO BUILDING COULD NOT BE LOCATED.

9. WEST STREET ESTABLISHED USING DIMENSIONS SHOWN ON PLAN REFERENCE 2 AND 4.

10. THIS SURVEY WAS PERFORMED WITH OUT THE BENEFIT OF A CURRENT TITLE COMMITMENT.

ALTA / NSPS Land Title Survey

#200 & #208 Graham Street
Biddeford, York County, Maine
Made For
Cardianl Development, Inc.
P.O. Box 6799, Scarborough, Maine 04070

Surveyor's Certification

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 6(A), 7(A), 7(B)(1), 7(C), 8, 9, 11, 13, 16, AND 17 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON NOVEMBER 1, 2021.

ELLEN C. BREWER
PROFESSIONAL LAND SURVEYOR NO. 2367

DATE OF PLAT OR MAP: NOVEMBER 8, 2021
DATE OF LAST REVISION:

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424

DRAWN BY:	RS / JLW	FIELD BOOK:	FILE	JOB NO.	2021-266 B-Y
CHECKED BY:	ECB	SCALE:	1" = 20'	DRWG. NO.	1