Andover Elementary

Request For Proposal

Bathroom Renovation

35 School Rd.
Andover CT 06232

March 6,2025
RFP NO: **AES-2026-001**

Request for Proposal

RFP NO:	**AES 2026-001**
PROJECT:	Bathroom Renovations
OWNER:	Andover Elementary School
BID CLOSING DATE:	**April 6th @ 4:00 PM**
SUBMIT OFFERS TO:	All bids shall be submitted to the Andover Elementary School at 35 School Rd. Andover CT 06232. All bids shall be sealed in an envelope and labeled with the Project Name and RFP number and name of the Contractor submitting the bid. Drop off bids at the upper level, there is a intercom on the right side of the door. Please state that you are there to drop off a Bid.
DESCRIPTION OF SERVICES:	The Andover Elementary School Bathroom Renovation Project consists of the selective demolition and comprehensive renovation of existing student and staff restroom facilities within the school All work shall be performed within an occupied school facility and must be sequenced to achieve full restroom operational status prior to the start of the academic year. The project requires careful coordination of utility shutdowns, protection of adjacent areas, firestopping at penetrations, and restoration of existing finishes impacted by construction. PROJECT WILL BE PREVAILING WAGE RATES AND TAX EXEMPT LIQUIDATED DAMAGES OF $500.00 PER CALANDER DAY FOR EACH DAY BEYOND DATE OF COMPLETION.

EXHIBITS:

A. Instruction to Bidders

B. Milestone Schedule

C. Table of Contents

D. Proposed Form of Contract

E. Unit Prices

F. Qualifications and Exclusions

EXHIBIT A

INSTRUCTIONS TO BIDDERS

A-1 DEFINITIONS

As used herein, the term:

(a) “Owner’” refers to Andover Elementary School.

(b) "General Contractor" refers to Bidder.

(c) "Bidder" means one who submits a Bid for any or all of the work described in this RFP.

(d) "Bid" is a complete and properly signed proposal to do the work for the sums stipulated therein supported by data called for by the bidding documents.

(e) "Work" means the obligations undertaken by the selected Contractor pursuant to the Contract Documents. Work includes the Scope of Work as stated in Exhibit C which is attached herein.

(f) "Contractor" is any firm, entity, or corporation who has a direct contract with the Owner to perform the work.

(g) "Addenda" are written or graphic instruments issued prior to execution of the Contract, which modify or interpret the bidding documents by addition, deletion, clarification or correction.

(h) "Cost" is an amount stated in the Proposal as a price per unit of measurement for items and services as described in the Contract Documents.

A-2 SUBMISSION OF BIDS

(a) Bidders are expected to examine this RFP, the Milestone Schedule, the Form of Contract and all instructions. Failure to do so will be at the Bidder's risk. **All qualification and exclusions to this RFP must be attached to the RFP response in the format included in Exhibit H**

(b) Bids shall be made on the Bidder's stationery. All copies must bear the original signature of the Bidder’s representative authorized to submit the Bid.

(c) Bids are due by 4:00 PM on **April 6, 2026**

A-3 **INQUIRIES / ACKNOWLEDGMENT**

(a) All Requests for Information ("RFI's") regarding interpretation of this RFP shall be directed to Erik Sanderson, attention:. All RFI's shall be submitted via e-mail no later than **March 20th 2026**. RFI's must be emailed to the following addresses:

AESCAPITAL@Andoverelementaryct.org

(b) Questions will be answered by additional Addenda, which will be issued to all Bidders. No Addenda will be issued later than three (3) working day prior to the bid closing date except an Addendum, if necessary, postponing the bid closing date or withdrawing the request for Bids.

(c) The Owner assumes any responsibility for any verbal instruction or answers to inquiries unless and until they have been confirmed in writing by Addenda.

(d) Each Bidder shall ascertain prior to submitting their Bid that they have received all Addenda issued and shall acknowledge receipt of this RFP.

A-4 LATE PROPOSALS

Any Bid received after the exact time specified for receipt may not be considered for award at Owner's discretion.

A-5 AWARD OF CONTRACT

(a) The Contract will be awarded to the responsible Bidder whose Bid, conforming to the RFP, is selected as the most advantageous to the Owner. Price and other factors will be considered. The Owner may upon review of the submitted RFP's request that some or all of the Bidders make a formal presentation for consideration in the awarding process.

(b) The Owner reserves the right to reject any or all bids and to award one or more contracts for this requirement and/or negotiate with an individual Bidder or Bidders. In submitting a Bid, a Bidder accepts the obligation to provide to the Owner any item or combination of items at the price stated in the Bid. The issuance of your response to this RFP does not create any obligation on the part of the Owner to negotiate, to enter into any contract or to undertake any financial obligations.

(c) Owner may award a contract, based on initial Bids received, without discussion of such Bids. Accordingly, each initial Bid should be submitted on the most favorable terms from a price, experience and technical standpoint that Bidder can submit to the Owner.

A-6 Terms and Conditions

The contract resulting from this solicitation will be in the form proposed in Exhibit D. Modifications to the contract will be considered only to the extent that any exceptions are included with

the response to this RFP. The number and type of exceptions taken to the contract will be given strong consideration during the evaluation of the RFP responses. Responses stating confidence in negotiating a mutually acceptable contract will be rejected.

A-7 ORDER OF PRECEDENCE

In the event of inconsistency between provisions of this solicitation, the inconsistency shall be resolved by giving precedence to the requirement that is most beneficial to the Owner.

A-8 MINIMUM ACCEPTANCE PERIOD

Bidders allowing less than sixty (60) calendar days for acceptance of their offers by The Owner may be rejected. ALL PRICES AND UNIT OR HOURLY RATES STATED SHALL BE GOOD THROUGH AND FOR THE DURATION OF THE PROJECT.

A-9 PROPOSAL DOCUMENTS

General Contractor shall submit a proposal containing the following information: The following submission guidelines & requirements apply to this Request for Proposal. The Proposal shall include the following:

- A Cover Letter that identifies the principal contact for the proposal and affirms that the accompanying proposal is valid for a term of 90days.
- Proposed schedule
- Pricing
  - Firm Fixed Price
  - Additional Unit Pricing
- Acknowledgement and inclusion of Addenda, if any.
- Qualifications and Exclusions Form

A-10 SELECTION CRITERIA

The Owner selects individuals or firms to have more in-depth discussions regarding information contained in their proposal.

The Owner reserves the right to reject any or all bids for this requirement and/or negotiate with an individual bidder. In submitting a bid, a bidder accepts the obligation to provide the Owner any item or combination of items at the price stated in the Bid. The issuance of your response to this RFP does not create any obligation on the part of the Owner to negotiate, to enter into any contract or to undertake any financial obligations.

The Owner may award a contract, based on initial Proposal received, without discussion of such Proposal. Accordingly, each initial Proposal should be submitted on the most favorable terms from an experience and technical standpoint.

EXHIBIT B

MILESTONE SCHEDULE

1) March 6th	Issue RFP
2) March 17th @3:30 PM	Mandatory Site Visit
3) March 20th	Bid RFIs Due
4) March 25th	Issue Bid RFI Responses
5) April 6th	Proposals Due
6) April 15th	Award Contract
7) June 16th	Construction Start
8) August 25th	Certificate of Occupancy

EXHIBIT C

BID MANUAL
TABLE OF CONTENTS

DIVISION 01 – GENERAL REQUIREMENTS

DRAWINGS

MECHANICAL (M-Series)

- M-101 Mechanical Demolition Plan
- M-102 Mechanical New Work Plan
- M-201 Mechanical Details

ELECTRICAL (E-Series)

- E-101 Electrical Demolition Plan
- E-102 Electrical Power & Lighting Plan
- E-201 Lighting Fixture Schedule
- E-301 Electrical Details
- E-401 Panel Schedules & One-Line

ADDENDA

Addenda issued during the bidding period shall become part of the Contract Documents.

ADDITIONAL BID DOCUMENTS:

- Limited Hazardous Building Materials Inspection Dated August 19,2025

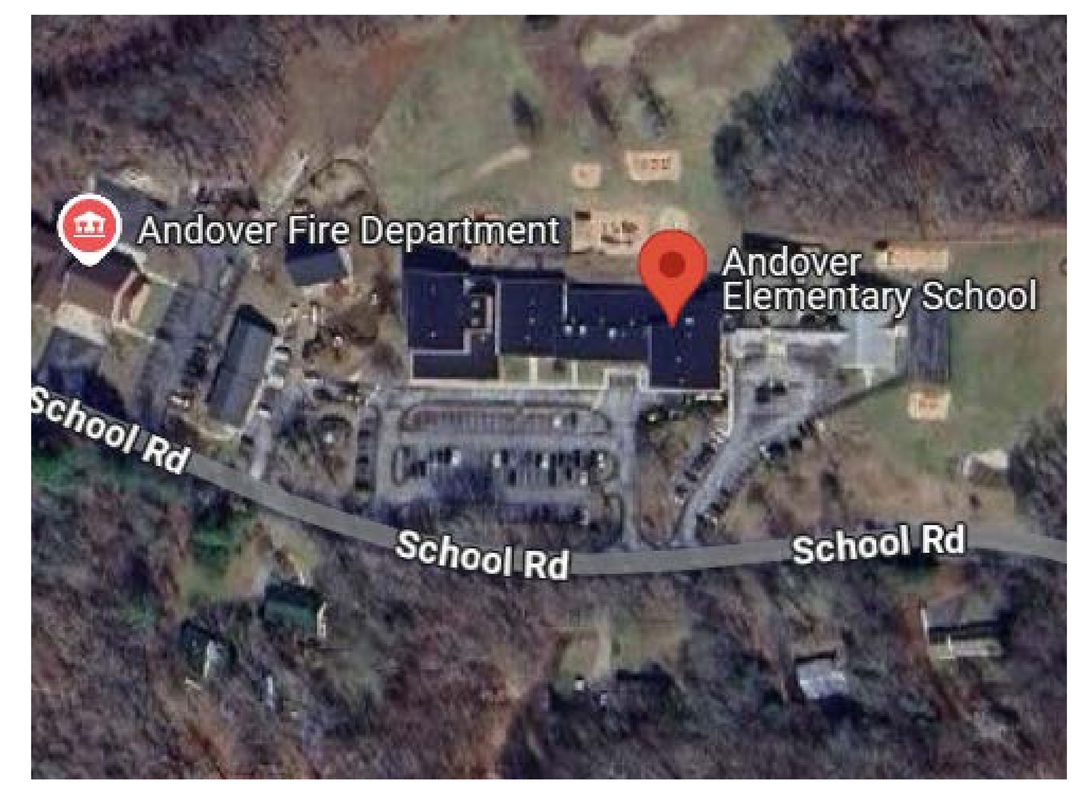
RESTROOM RENOVATION

35 SCHOOL ROAD, ANDOVER, CT 06232

ANDOVER ELEMENTARY SCHOOL

CONSTRUCTION DOCUMENTS

SHEET LIST	
SHEET NO.	SHEET NAME
G1.01	COVER PAGE
INFO-1	DRAWING LIST, ABBREV., LEGENDS, GENERAL NOTES
A-100	KEY PLAN
D-101	ARCHITECTURAL DEMOLITION PLAN
A-101	ARCHITECTRUAL FLOOR PLAN
A-201	ARCHITECTURAL CEILING PLAN
A-701	ARCHITECTURAL DETAILS
A-901	ARCHITECTURAL INTERIOR ELEVATIONS
P0.10	PLUMBING GENERAL NOTES
P0.20	PLUMBING SPECIFICATIONS
PD1.01	PLUMBING DEMOLITION WORK
P1.01	PLUMBING SANITARY AND VENT NEW WORK
P1.02	PLUMBING DOMESTIC PIPING NEW WORK
P5.01	PLUMBING SCHEDULES AND DETAILS
E0.01	ELECTRICAL GENERAL NOTES AND LEGENDS
E0.02	ELECTRICAL SPECIFICATIONS
E0.03	ELECTRICAL SPECIFICATIONS
ED1.01	ELECTRICAL FIRS FLOOR DEMOLITION
EL1.01	ELECRICAL FIRST FLOOR LIGHTING PLAN
FA1.01	FIRE ALARM FIRST FLOOR



LOCATION MAP

SCALE: 1" = 200'

PREPARED BY

FUSS & O'NEILL
One Financial Plaza, 15th floor
Hartford, Connecticut 06103
860.646.2469
www.fando.com

PREPARED FOR

ANDOVER ELEMENTARY SCHOOL

35 SCHOOL ROAD, ANDOVER, CT 06232

PROJ. No.:	20120209.A91
DATE:	7/31/2025

G1.01

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GRAPHICS LEGEND

- BUILDING SECTION
- WALL SECTION
- EXTERIOR ELEVATION
- INTERIOR ELEVATION
- DETAIL NUMBER
- COLUMN GRID LINES AND DESIGNATIONS
- ROOM NAME AND NUMBER
- DOOR NUMBER
- WINDOW NUMBER
- WALL TYPE DESIGNATION
- REVISION MARK
- DEMOLITION NOTE
- CONSTRUCTION NOTE
- FINISH DESIGNATION (SEE DWG. FI-901)
- REFERENCE POINT
- SIGNAGE DESIGNATION
- NEW METAL STUD CONSTRUCTION
- EXISTING STUD WALL CONSTRUCTION
- EXISTING WALL OR OBJECT TO BE REMOVED

ABBREVIATIONS

AB.	ANCHOR BOLT
ACT	ACOUSTICAL CEILING TILE
A.F.F.	ABOVE FINISHED FLOOR
AGGR.	AGGREGATE
ALUM.	ALUMINUM
ALT.	ALTERNATE
APPROX.	APPROXIMATE
A.P.	ACCES PANEL
ARCH.	ARCHITECTURAL
A.S.	ALUMINUM SADDLE
@	AT
AVB	AIR / VAPOR BARRIER
BD.	BOARD
BIT.	BITUMINOUS
BLDG.	BUILDING
BLKG.	BLOCKING
B.M.	BENCH MARK
BM.	BEAM
BOT.	BOTTOM
BRK.	BRICK
B.U.	BUILT UP
CPT	CARPET
C	CLEAN, CLOSER
CAB.	CABINET
C.B.	CHALKBOARD
CB	CATCH BASIN
CAP.	CAPACITY
C.H.	CABINET HEATER
C.I.	CAST IRON
℄	CENTER LINE
C.J.	CONTROL JOINT
CLG.	CEILING
CLKG.	CAULKING
CLR.	CLEAR
C.M.U.	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC.	CONCRETE
CONT.	CONTINUOUS
CRS.	COURSE
C.S.B.C.	CT STATE BUILDING CODE
C & W	CLEAN AND WAX
C.T.	CERAMIC TILE
C.W.	COLD WATER
DEG.	DEGREE
DET./DTL.	DETAIL
D.F.	DRINKING FOUNTAIN
DIAG.	DIAGONAL
DIA.	DIAMETER
DISP.	DISPENSER
DN.	DOWN
DS.	DOWNSPOUT
DUR.	DURANODIC
DWG.	DRAWING
E.	EPOXY
EA.	EACH
E.J.	EXPANSION JOINT
EL. ELEV.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EMER	EMERGENCY
E.P.	ELECTRICAL PANEL
EQ.	EQUAL
EQUIP.	EQUIPMENT
E.W.C.	ELECTRIC WATER COOLER
EXP. JT.	EXPANSION JOINT
EXIST.	EXISTING (BY OWNER)
EXT.	EXTERIOR
F.D.	FLOOR DRAIN
FDN.	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.F.	FINISH FLOOR
FIN.	FINISH
FLR.	FLOOR
FLUOR.	FLUORESCENT
F.O.B.	FACE OF BRICK
F.O.C.	FACE OF CONCRETE
F.R.	FIRE RATED
F.R.P.	FIBER REINFORCED PLASTIC
FT.	FOOT OR FEET
FTG.	FOOTING
FURR.	FURRING
GA.	GAUGE
GALV.	GALVINIZED
G.C.	GENERAL CONTRACTOR
GL.	GLASS
GYP. BD.	GYPSUM BOARD
HC	HANDICAPPED
HDFBD	HIGH DENSITY FIBER BOARD
H.M.	HOLLOW METAL
H.O.	HOLD OPEN (ELECTRO MAGNETIC)
H.P.	HIGH POINT
HR.	HOUR
HT.	HEIGHT
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
H.W.	HOT WATER
I.D.	INSIDE DIAMETER
I.G.	ISOLATED GROUND
INSUL.	INSULATION
INFO	INFORMATION
INT.	INTERIOR
INV.	INVERT
JAN.	JANITOR
J.O.H.	JAMB OPENING HEIGHT
J.O.W.	JAMB OPENING WIDTH
JT.	JOINT
JST.	JOIST
KIT.	KITCHEN
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
L.C.C.	LEAD COATED COPPER
L.H.	LEFT HAND
LVR.	LOUVER
L.P.	LOW POINT
LT.	LIGHT
MAX.	MAXIMUM
MECH.	MECHANICAL
MEMB.	MEMBRANE
MFR.	MANUFACTURER
M.H.	MANHOLE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
M.S.	MARBLE SADDLE
MSY	MASONRY
MTL.	METAL
MUL.	MULLION
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OCC.	OCCUPANT(S)
O.D.	OUTSIDE DIAMETER
O.H.	OVERHEAD
OPG.	OPENING
OPP.	OPPOSITE
ORD.	OVERFLOW ROOF DRAIN
P.,	
PTD.	PAINT
PART. BD.	PARTICLEBOARD
P.L.	PROPERTY LINE
P.LAM.	PLASTIC LAMINATE
PLAS.	PLASTER
PLYWD.	PLYWOOD
P.S.	PROJECTION SCREEN
R.	RISER
RAD.	RADIUS
R.C.P.	REINFORCED CONCRETE PIPE
R.D.	ROOF DRAIN
REFR.	REFRIGERATOR
REINF.	REINFORCED
REQ'D.	REQUIRED
R.H.	RIGHT HAND
RM	ROOM
R.O.	ROUGH OPENING
R.V.	ROOF VENT
R.W.L.	RAIN WATER LEADER
S.C.	SOLDIER COURSE
SCHED.	SCHEDULE
SECT.	SECTION
S.F.	SQUARE FOOT
S.F.S.C.	STATE FIRE SAFETY CODE
SHT.	SHEET
SIM.	SIMILAR
SP. CAB.	STANDPIPE CABINET
SPEC.	SPECIFICATION
SQ. OR ⌽	SQUARE
S.S.	STAINLESS STEEL
ST.	STAIN
STD.	STANDARD
STL.	STEEL
STRUC.	STRUCTURAL
SUSP.	SUSPENDED
SYS.	SYSTEM
T.B.	TACKBOARD
TEMP.	TEMPERED
T.O.S.	TOP OF STEEL
T.O.D.	TOP OF DECK
TR	TREAD
T & B	TOP AND BOTTOM
THK.	THICK
TYP.	TYPICAL
U.L.	UNDERWRITERS LABORATORY
U.O.N.	UNLESS OTHERWISE NOTED
VCT	VINYL COMPOSTION TILE
V.I.F.	VERIFY IN FIELD
VERT.	VERTICAL
W/	WITH
WASH. F.	WASH FOUNTAIN
W.B.	WHITEBOARD
W.C.	WATER CLOSET
WD.	WOOD
W/O	WITHOUT

GENERAL NOTES

NOTE: THE FOLLOWING NOTES APPLY TO ALL AREAS OF REQUIRED WORK.

A. ALL CONTRACTORS SHALL VISIT THE PROJECT SITE AND FAMILIARIZE THEMSELVES WITH ALL BUILDING AND WORKING CONDITIONS BEFORE SUBMITTING A BID.

B. ALL CONTRACTORS TO BE RESPONSIBLE FOR KEEPING AREAS ADJACENT TO WORK AREA CLEAN AND FREE FROM ALL MATERIALS CONNECTED WITH ALTERATION/RENOVATION WORK. AREAS TO BE CLEANED AT THE END OF EACH WORK DAY. ALL SURFACES DISTURBED BY DEMOLITION & NEW CONSTRUCTION OPERATIONS SHALL BE PATCHED & REPAIRED TO MATCH & BLEND W/ EXISTING ADJACENT SURFACES UNLESS NOTED OTHERWISE

C. ALL CONTRACTORS SHALL VERIFY ALL DIMENSIONS IN THE FIELD AS REQUIRED BEFORE SUBMITTING SHOP DRAWINGS AND/OR PRIOR TO PERFORMING ALL WORK REQUIRED AS SHOWN ON THESE DRAWINGS. ALL DISCREPANCIES THAT MAY IMPEDE THE FINISHED PRODUCT OF THIS CONTRACT SHALL BE DISCUSSED WITH THE ARCHITECT BEFORE PROCEEDING WITH WORK.

D. ANY CUTTING, PATCHING OR DEMOLITION FOR THIS PROJECT SHALL BE PERFORMED BY EACH CONTRACTOR AS REQUIRED.

E. ALL WORK SHALL CONFORM TO EXISTING CODES, REGULATIONS, AND SEISMIC REQUIREMENTS, AND BE DONE IN A FIRST CLASS CRAFTSMAN-LIKE MANNER, ACCORDING TO GOOD CONSTRUCTION PRACTICES.

F. ALL CONTRACTORS SHALL OBTAIN AND PAY FOR ANY PERMITS REQUIRED FOR HIS DISCIPLINE.

G. ALL CONTRACTORS TO HAVE ADEQUATE INSURANCE AND SHALL SUBMIT PROOF OF SAME BEFORE STARTING WORK.

H. ALL COLORS, MATERIALS, ETC. TO BE SELECTED BY ARCHITECT. SUBMIT SAMPLES FOR APPROVAL IF ANY SUBSTITUTIONS ARE PROPOSED.

I. G.C. TO CONFIRM STAGING AREAS WITH OWNER TO MINIMIZE THE DISTURBANCE OF DAILY BUILDING OPERATIONS AND TO PROTECT EXISTING SITE ELEMENTS (PAVEMENT, SIDEWALKS, LANDSCAPING, ETC.) FROM DAMAGE.

J. DO NOT SCALE DRAWINGS, WRITTEN DIMENSIONS GOVERN, IN CASE OF CONFLICT, CONSULT THE ARCHITECT.

K. ALL CONTRACTORS ARE TO BE CONSIDERED PRIMARY FOR THEIR PARTICULAR DISCIPLINE; THE NOTES ABOVE APPLY TO ALL.

L. ALL SURFACES DISTURBED BY DEMOLITION & NEW CONSTRUCTION OPERATIONS SHALL BE PATCHED & REPAIRED TO MATCH & BLEND W/ EXISTING ADJACENT SURFACES UNLESS NOTED OTHERWISE.

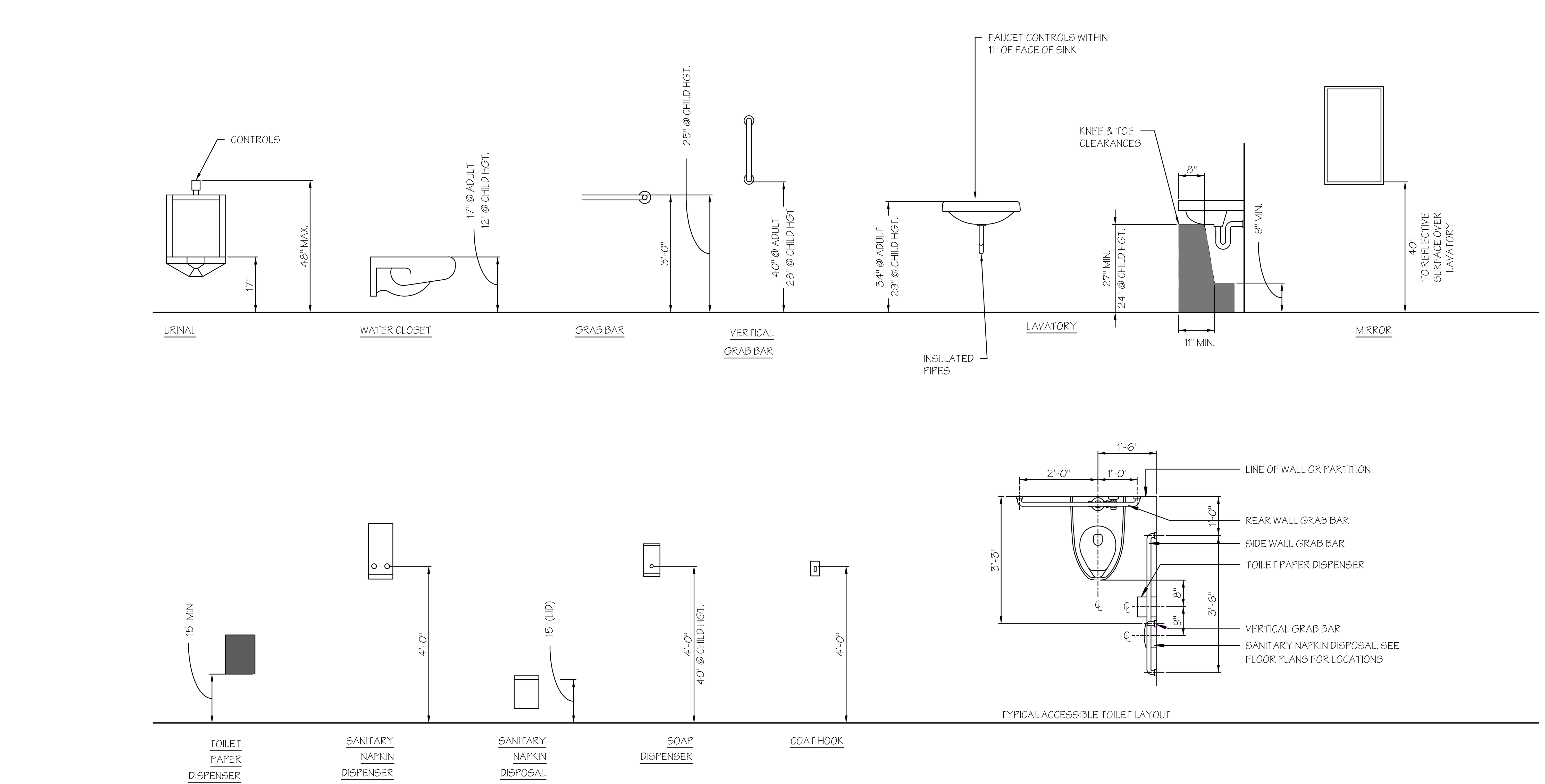
M. THE OWNER IS RESPONSIBLE FOR REMOVING AND REINSTALLING ALL PERSONAL CONTENTS WITHIN THE BATHROOMS.

DRAWING LIST

ARCHITECTURAL DRAWINGS

INFO-1	DRAWING LIST, ABBREV., GRAPHIC LEGENDS, SITE LOCATION, GENERAL NOTES
A-100	KEY PLAN
D-101	DEMOLITION PLANS
A-101	FLOOR PLANS
A-201	REFLECTED CEILING PLAN
A-701	DETAILS
A-801	INTERIOR ELEVATIONS

MOUNTING HEIGHTS FOR FIXTURES



CONSTRUCTION DOCUMENTS

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
###	###		###	###

SEAL

SCALE: HORZ.: ?" = ?' VERT.:

DATUM: HORZ.: VERT.:

GRAPHIC SCALE

FUSS & O'NEILL
ONE FINANCIAL PLAZA, 15th FLOOR
HARTFORD, CT 06103
860.646.2469
www.fando.com

ANDOVER ELEMENTARY SCHOOL

DRAWING LIST, ABBREVIATIONS, GRAPHIC LEGEND, GENERAL NOTES

35 SCHOOL RD, ANDOVER, CT 06232

PROJ. No.: 24079

DATE: 07/31/2025

INFO-1

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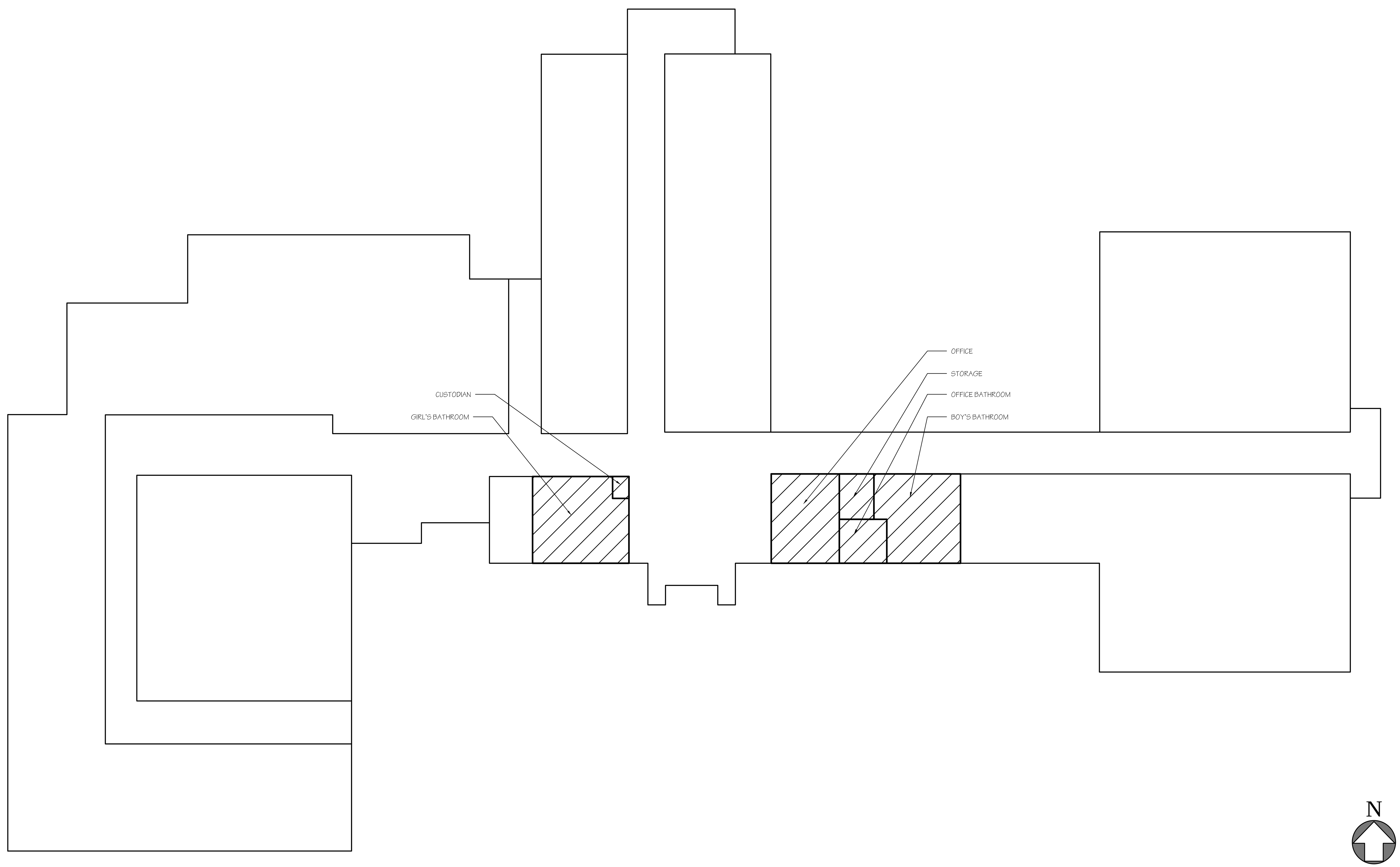

A1 KEY PLAN
ANDOVER ELEMENTARY SCHOOL
SCALE: N.T.S.

CONSTRUCTION DOCUMENTS

ANDOVER ELEMENTARY SCHOOL

KEY PLAN

35 SCHOOL RD, ANDOVER, CT 06232

FUSS & O'NEILL
ONE FINANCIAL PLAZA, 15th FLOOR
HARTFORD, CT 06103
860.646.2469
www.fando.com

SCALE: HORZ.: ?" = ??'
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GRAPHIC SCALE

SEAL:

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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PROJ. No.: 24079
DATE: 07/31/2025

A-100

File: S:\24079 (Fuss ONeill - Andover ES Bathroom Renovation)\40 CD\5DWG\A-100 KEY PLAN.dwg Layout: A-100 Plotted: 2025-07-30 2:24 PM Saved: 2025-07-30 2:18 PM User: shennebry
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GENERAL DEMOLITION NOTES

A. THESE NOTES ARE FOR INTENT PURPOSES ONLY. CONTRACTOR TO BE RESPONSIBLE FOR REMOVING ALL QUANTITIES OF ALL ITEMS AS REQUIRED TO COMPLETE THIS PROJECT AS SHOWN ON THE CONSTRUCTION DOCUMENTS.

B. BUILDING IS TO REMAIN ACTIVE. COORDINATE WITH C.M. TO RETAIN UTILITY SERVICE, EGRESS, SAFETY, ETC., OF PORTIONS OF BUILDING OUTSIDE OF DEMOLITION AREA.

C. DISCONNECT OR DISABLE ALL AFFECTED UTILITIES PRIOR TO COMMENCING WORK. ALL ABANDONED UTILITY LINES (PLUMBING, ELECTRICAL, DATA, ALARM) SHALL BE CUT & CAPPED BELOW FLOOR LINE OR BEHIND WALL LINE. FLOOR OR WALL SHALL BE FINISHED TO MATCH EXISTING ADJACENT SURFACES.

D. ANY UNUSED ELECTRICAL, SECURITY, OR OTHER SUCH JUNCTION BOXES OR CONTROL PANELS SHALL BE REMOVED.

E. CONSTRUCTION MANAGER TO CONFIRM STAGING AREAS WITH OWNER TO MINIMIZE THE DISTURBANCE OF DAILY BUILDING OPERATIONS AND TO PROTECT EXISTING SITE ELEMENTS (PAVEMENT, SIDEWALKS, LANDSCAPING, ETC.) FROM DAMAGE.

F. CONTRACTOR TO CONFIRM STAGING AREAS WITH OWNER TO MINIMIZE THE DISTURBANCE OF DAILY BUILDING OPERATIONS AND TO PROTECT EXISTING SITE ELEMENTS (PAVEMENT, SIDEWALKS, LANDSCAPING, ETC.) FROM DAMAGE.

G. ALL EQUIPMENT, WHETHER SCHEDULED FOR SALVAGE OR TO BE DISPOSED OF, SHALL BE DISCONNECTED BY THE APPROPRIATE MEP TRADE(S) PRIOR TO REMOVAL. ALL ASSOCIATED ACCESSORIES FOR SALVAGED ITEMS TO BE STORED WITH THE ITEM.

H. REMOVE ALL WALLS SHOWN AS DASHED AND AS REQUIRED FOR NEW CONSTRUCTION. COORDINATE WITH NEW ARCHITECTURAL DRAWINGS.

I. ALL CUTTING, PATCHING & DEMOLITION REQUIRED BY ALL TRADES FOR THIS PROJECT IN NEW AND EXISTING AREAS SHALL BE PERFORMED BY THE CONTRACTOR.

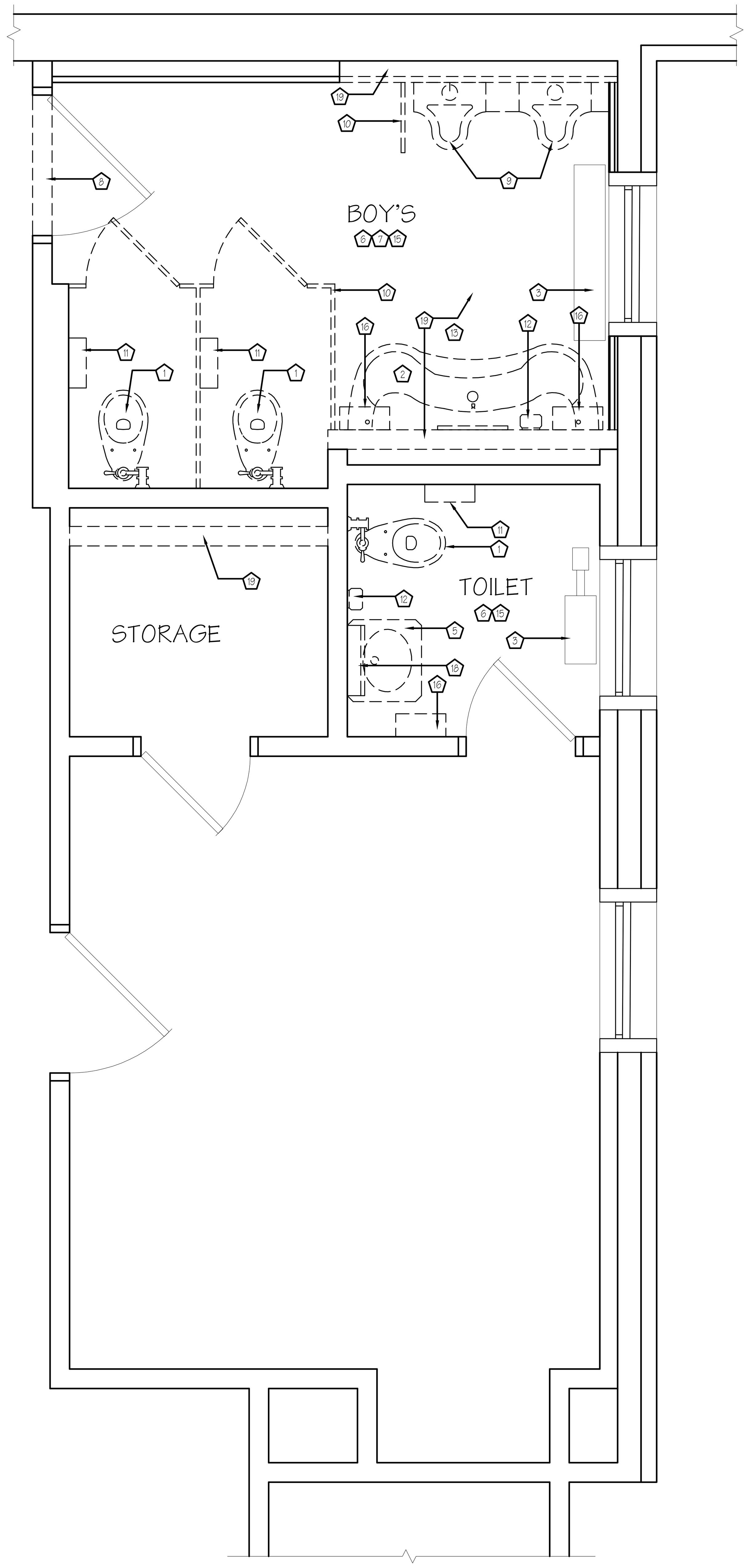
J. LEAVE DEMOLITION TERMINATIONS (INCLUDING BUT NOT LIMITED TO NEW OPENINGS, AREAS WHERE PERPENDICULAR WALLS HAVE BEEN REMOVED, ETC.) NEAT AND READY FOR PATCHING AND REPAIR TO MATCH ADJACENT SURFACES.

K. ALL SURFACES DISTURBED BY DEMOLITION & NEW CONSTRUCTION OPERATIONS SHALL BE PATCHED, REPAIRED AND BLENDED TO MATCH W/ ADJACENT SURFACES U.O.N.

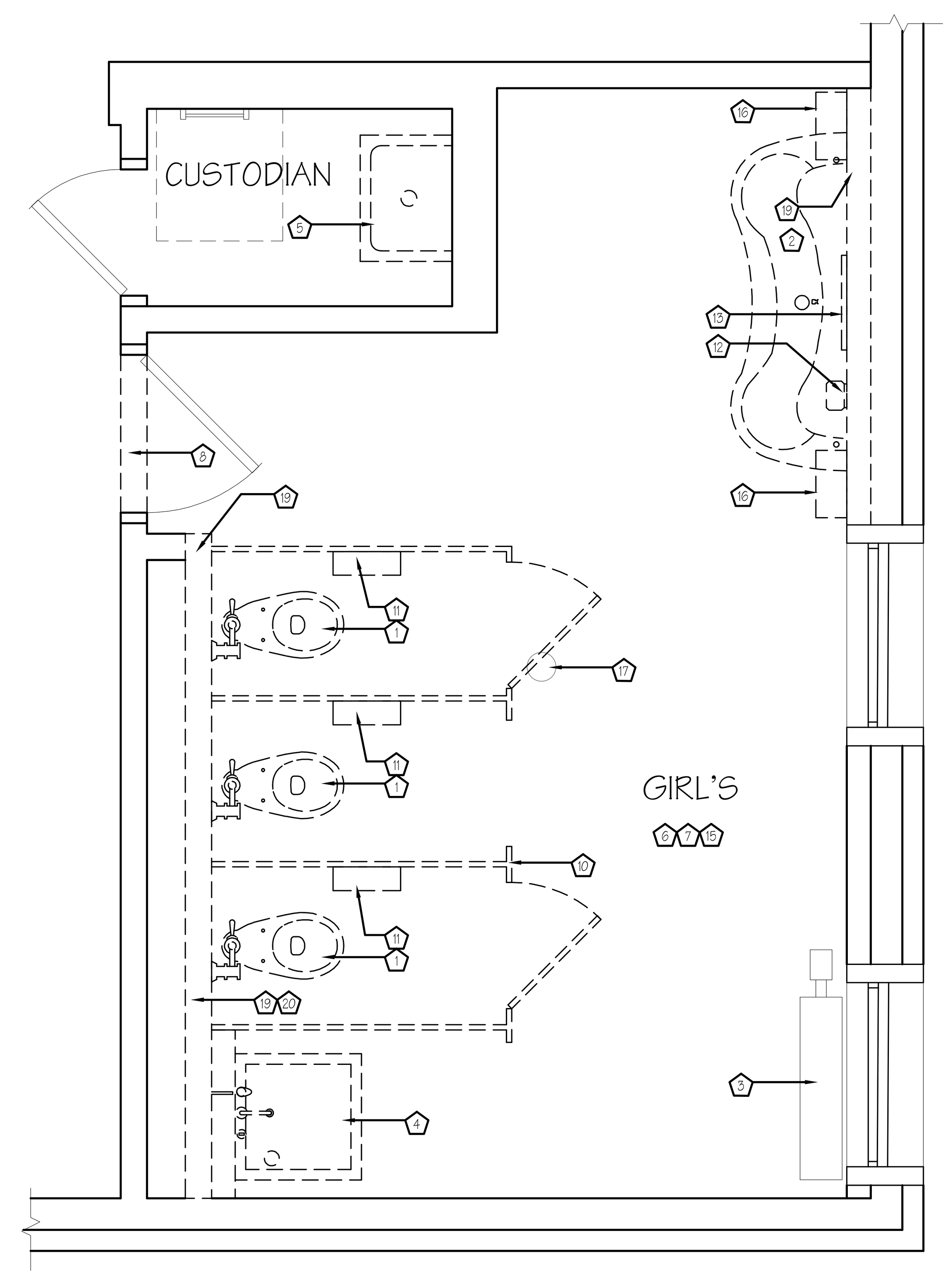
DEMOLITION NOTES

SHOWN AS:

1. REMOVE EXISTING WATER CLOSET COMPLETE INCLUDING EXISTING FLANGE & WAX RING. TYPICAL.
2. REMOVE EXISTING LAVATORY STATION COMPLETELY.
3. REMOVE AND SALVAGE EXISTING RADIANT HEAT COVER. CLEAN AND AND PREP TO RECEIVE NEW RADIANT HEAT COVER.
4. REMOVE EXISTING MOP SINK INCLUDING PLUMBING LINES AND LOW-WALL FURRING COMPLETELY. REMOVE CURB DOWN TO EXISTING FLOOR SLAB. PERMANENTLY CAPPED DRAIN WITH A SOLID PRODUCT FASTENED TO THE DRAIN BODY.
5. DISCONNECT AND REMOVE EXISTING WALL HUNG SINK COMPLETE.
6. PROTECT EXISTING CERAMIC TILE FLOORING TO REMAIN. PREP AND CLEAN TILE FLOORING TO RECEIVE EPOXY FINISH.
7. REMOVE EXISTING CERAMIC WALL TILE, AND SETTING BED INCLUDING EXISTING SUBSTRATE. PROTECT EXISTING FRAMING TO REMAIN. PROTECT EXISTING GYPSUM SHEATHING ABOVE EXISTING WAINSCOT.
8. REMOVE EXISTING SADDLE.
9. DISCONNECT AND REMOVE EXISTING URINALS INCLUDING LOW WALL FURRING.
10. REMOVE ALL EXISTING TOILET PARTITIONS, DOORS, AND ALL ASSOCIATED COMPONENTS WITHIN ENTIRE TOILET ROOM - TYPICAL
11. REMOVE EXISTING SURFACE MOUNTED TISSUE DISPENSER.
12. REMOVE EXISTING SOAP DISPENSER. RETURN TO OWNER.
13. REMOVE EXISTING MIRROR. RETURN TO OWNER.
14. REMOVE EXISTING BATHROOM SWITCH COVER PLATES.
15. ALTERNATE #1 - REMOVE EXISTING LIGHT FIXTURES. PREP TO RECEIVE NEW LED FIXTURES.
16. REMOVE EXISTING PAPER TOWEL DISPENSER. RETURN TO OWNER.
17. REMOVE EXISTING FLOOR DRAIN COVER. CLEAN AND PREP EXISTING DRAIN.
18. REMOVE EXISTING MEDICINE CABINET COMPLETE.
19. REMOVE EXISTING CHASE WALL COMPLETELY.
20. CAREFULLY REMOVE PORTION OF EXISTING ACOUSTICAL CEILING TILE AND GRID FOR INSTALL OF NEW WALL. FIELD VERIFY.



A1 BOY'S TOILET AND OFFICE TOILET
SCALE: 1/2" = 1'-0"



A2 CUSTODIAN AND WOMEN'S TOILET
SCALE: 1/2" = 1'-0"

CONSTRUCTION DOCUMENTS

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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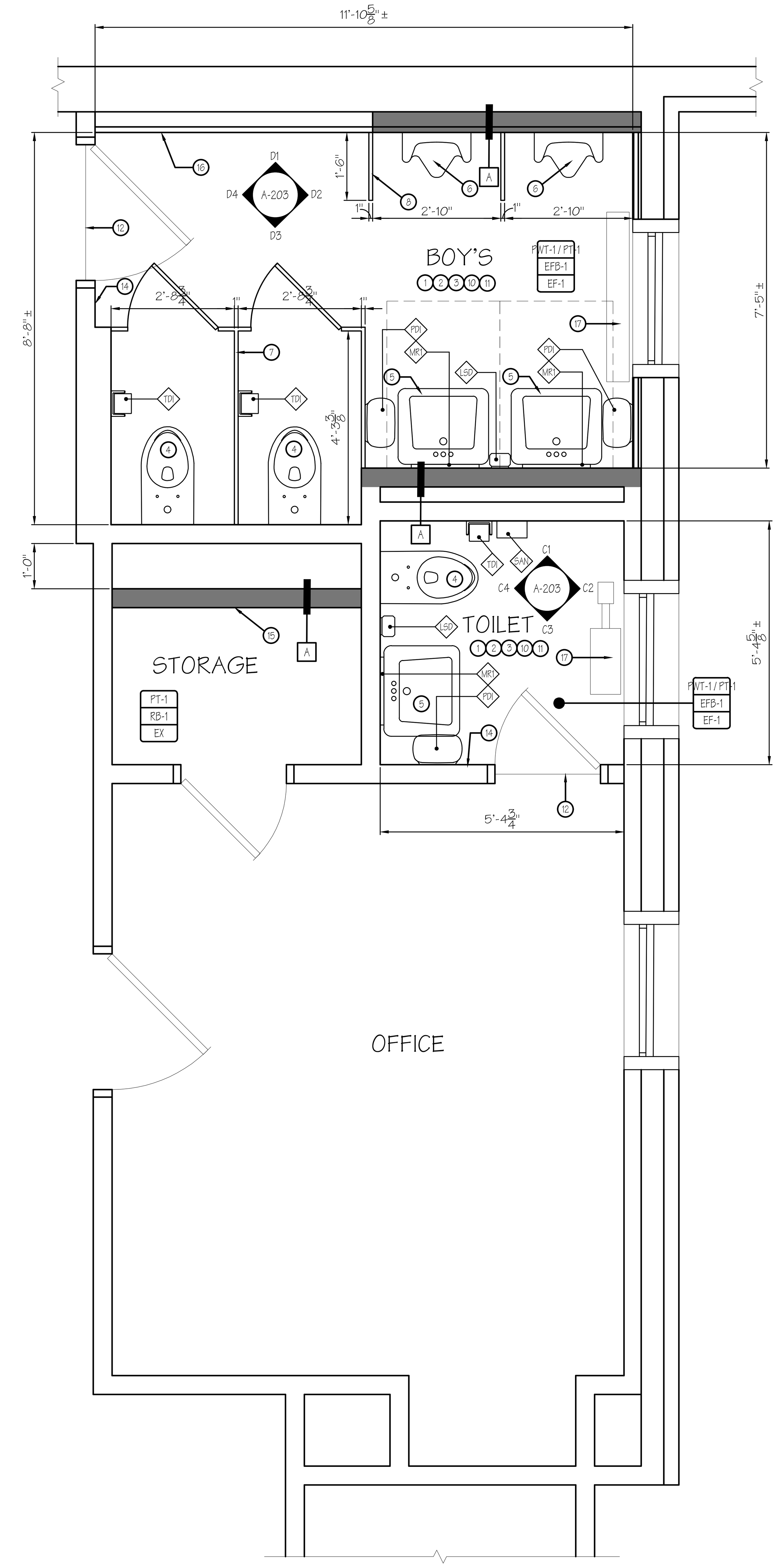
HARTFORD, CT 06103
860.646.2469
www.fando.com

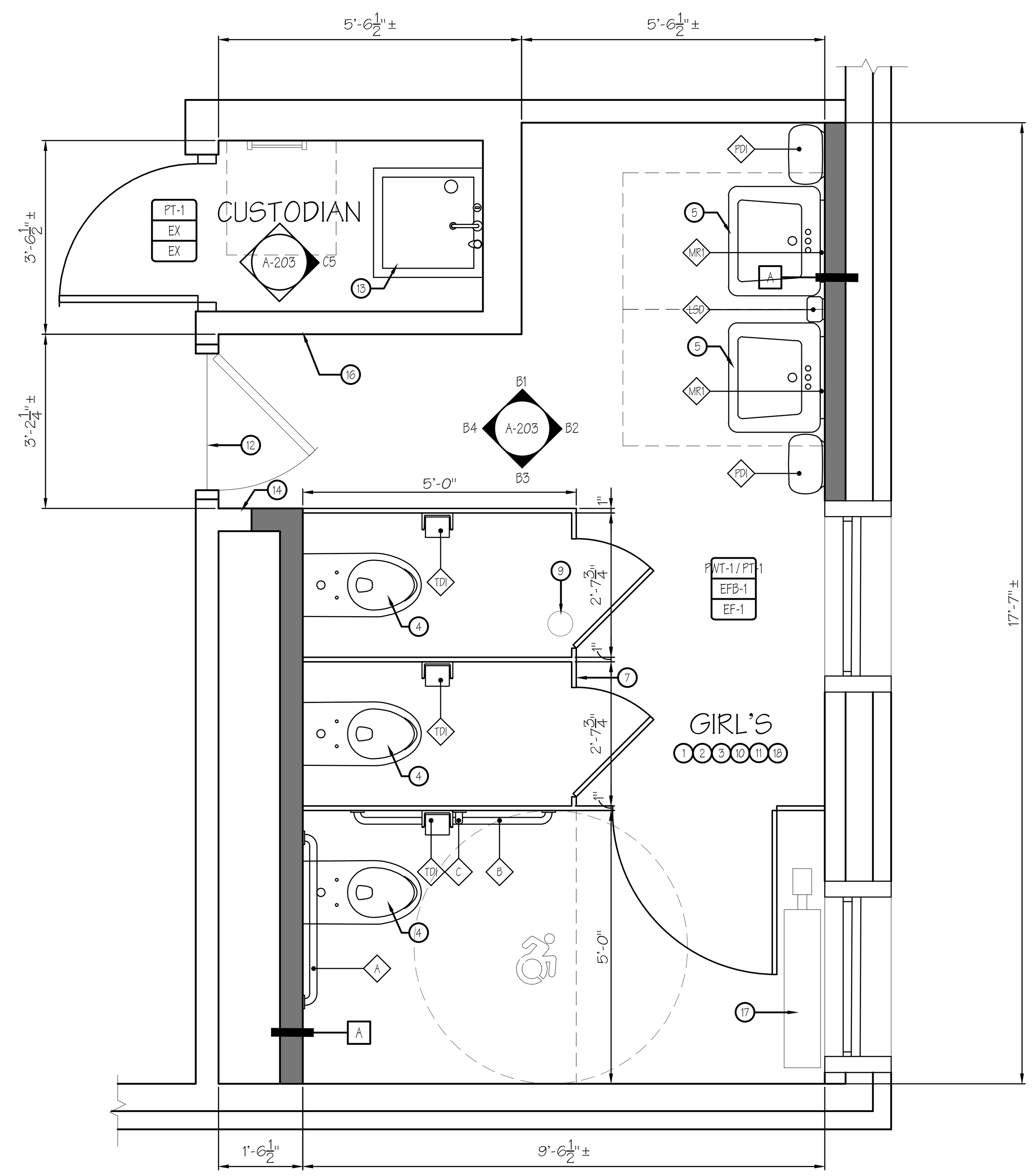
ANDOVER ELEMENTARY SCHOOL
DEMOLITION PLAN
35 SCHOOL RD, ANDOVER, CT 06232

PROJ. No.: 24079
DATE: 07/31/2025

D-101



A1 BOY'S TOILET AND OFFICE TOILET
SCALE: 1/2" = 1'-0"



A2 CUSTODIAN AND WOMEN'S TOILET
SCALE: 1/2" = 1'-0"

GENERAL CONSTRUCTION NOTES

A. EXISTING BATHROOM DRAIN LINES TO BE SNAKED OUT. TYPICAL.

B. PROVIDE WOOD BLOCKING FOR GRAB BARS, AND ALL OTHER WALL MOUNTED BATHROOM ACCESSORIES.

C. PAINTING SCHEDULE: ALL PAINTING SHALL BE AS INDICATED BY PLAN, AND FINISH LEGEND.

TOILET ACCESSORIES

- A — 1 1/2" DIA. STAINLESS STEEL GRAB BAR: 36" LONG
- B — 1 1/2" DIA STAINLESS STEEL GRAB BAR: 42" LONG
- C — 1 1/2" DIA STAINLESS STEEL GRAB BAR: 18" LONG
- TD1 — TOILET PAPER DISPENSER: AMERICAN SPECIALTIES, INC. 9030. SUPPLIED BY THE OWNER AND INSTALLED BY CONTRACTOR.
- LSD — LIQUID SOAP DISPENSER: AMERICAN SPECIALTIES, INC. 0347. SUPPLIED BY THE OWNER AND INSTALLED BY CONTRACTOR.
- MR1 — 18"W X 36"H MIRROR - AMERICAN SPECIALTIES, INC / STAINLESS STEEL FRAMED MIRROR 20650-B 1836 SERIES.
- PD1 — SURFACE MOUNTED PAPER TOWEL DISPENSER: AMERICAN SPECIALTIES, INC. 0210. SUPPLIED BY THE OWNER AND INSTALLED BY CONTRACTOR.

FINISH SCHEDULE	P-# WALL FINISH B-# BASE TYPE C-# FLOOR FINISH
EPOXY FLOOR	
EF-1	MANUF: DURAFLEX SERIES: DUR-A-CHIP COLOR: T.B.D.
BASE	
EFB-1	MANUF: DURAFLEX SERIES: DUR-A-CHIP COLOR: T.B.D. SIZE: 6"
BASE	
RB-1	MANUF: JOHNSONITE SERIES: RUBBER COLOR: T.B.D. SIZE: 6"
PAINT	AT GYPSUM BOARD WALLS AND CEILINGS. TYPICAL THROUGHOUT.
PT-1	BENJAMIN MOORE NO. 283-3 BONE WHITE, SEMI-GLOSS LATEX, (1) COAT PRIMER, (2) COATS FINISH.
PORCELAIN WALL TILE	
PWT-1	MANUFACTURER: TILE AMERICA STYLE: GLACIER LAKE COLOR: T.B.D. SIZE: 12"x24" GROUT: T.B.D.
PORCELAIN WALL TILE - ACCENT	
PWT-2	MANUFACTURER: TILE AMERICA STYLE: GLACIER LAKE COLOR: T.B.D. SIZE: 12"x24" GROUT: T.B.D.

CONSTRUCTION NOTES

SHOWN AS:

1. PROVIDE NEW WALL TILE OVER NEW CEMENT BOARD ON NEW MOISTURE-RESISTANT GYPSUM WALL SHEATHING (ALIGN WITH FACE OF EXISTING) AT ALL SIDES TO TOP OF NEW WAINSCOT. SEE DETAILS B1 & B2 ON SHEET A-701
2. PAINT EXISTING GYPSUM WALLS , TYPICAL. SEE FINISH SCHEDULE
3. PATCH ALL HOLES IN EXISTING GYPSUM WALLS, FROM REMOVED RECESSED TOILET ACCESSORIES. PATCH ALL CRACKS, HOLES AND DENTS (TO MATCH EXISTING) IN ALL EXISTING GYPSUM BOARD SURFACES. PRIME AND PAINT.
4. NEW WALL MOUNTED WATER CLOSETS AT NEW LOCATIONS. TYPICAL. SEE PLUMBING DRAWINGS.
5. NEW SINK. SEE PLUMBING DRAWINGS. INSULATE PIPE- WHITE.
6. NEW URINAL. SEE PLUMBING DRAWINGS.
7. PROVIDE NEW TOILET PARTITIONS, DOORS AND ALL ASSOCIATED COMPONENTS. BASIS OF DESIGN: SCRANTON PRODUCTS HDPE HINY HIDERS STANDARD 55"H FLOOR MOUNTED OVERHEAD BRACED IN BLACK. COLOR T.B.D.
8. PROVIDE NEW URINAL SCREEN PARTITIONS AND ALL ASSOCIATED COMPONENTS. BASIS OF DESIGN: SCRANTON PRODUCTS HDPE HINY HIDERS STANDARD 18" W x 42"H FLOOR MOUNTED. COLOR T.B.D.
9. INSTALL NEW FLOOR DRAIN COVER. PROVIDE DRAIN COVER EXTENDER AS REQUIRED.
10. NOT USED.
11. REMOVE AS REQUIRED AND RE-INSTALL BASEBOARD HEATER TO WORK ON TILE FLOORING AND WALL.
12. REFER TO DETAIL A2 ON SHEET A-701 FOR FLOORING TRANSITION.
13. NEW MOP SINK. SEE PLUMBING DRAWINGS.
14. NEW SWITCH COVER PLATE.
15. NEW RUBBER BASE AT STORAGE ROOM TO MATCH EXISTING.
16. PROVIDE NEW DOOR WALL STOP AT EXISTING DOORS AS INDICATED ON PLAN.
17. INSTALL NEW RADIANT HEATER COVER ASSEMBLY.
18. PROVIDE CONCRETE INFILL AT EXISTING FLOOR DRAIN PIPING WHERE EXISTING WATER CLOSETS, FLOOR RECESSED URINALS, AND MOP SINK ARE REMOVED. PERMANENTLY CAPPED DRAIN WITH A SOLID PRODUCT FASTENED TO THE DRAIN BODY. CONCRETE INFILL SHALL BE A MINIMUM OF 4" DEPTH. MATCH HEIGHT OF EXISTING FLOOR TILE.

CONSTRUCTION DOCUMENTS

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SEAL:

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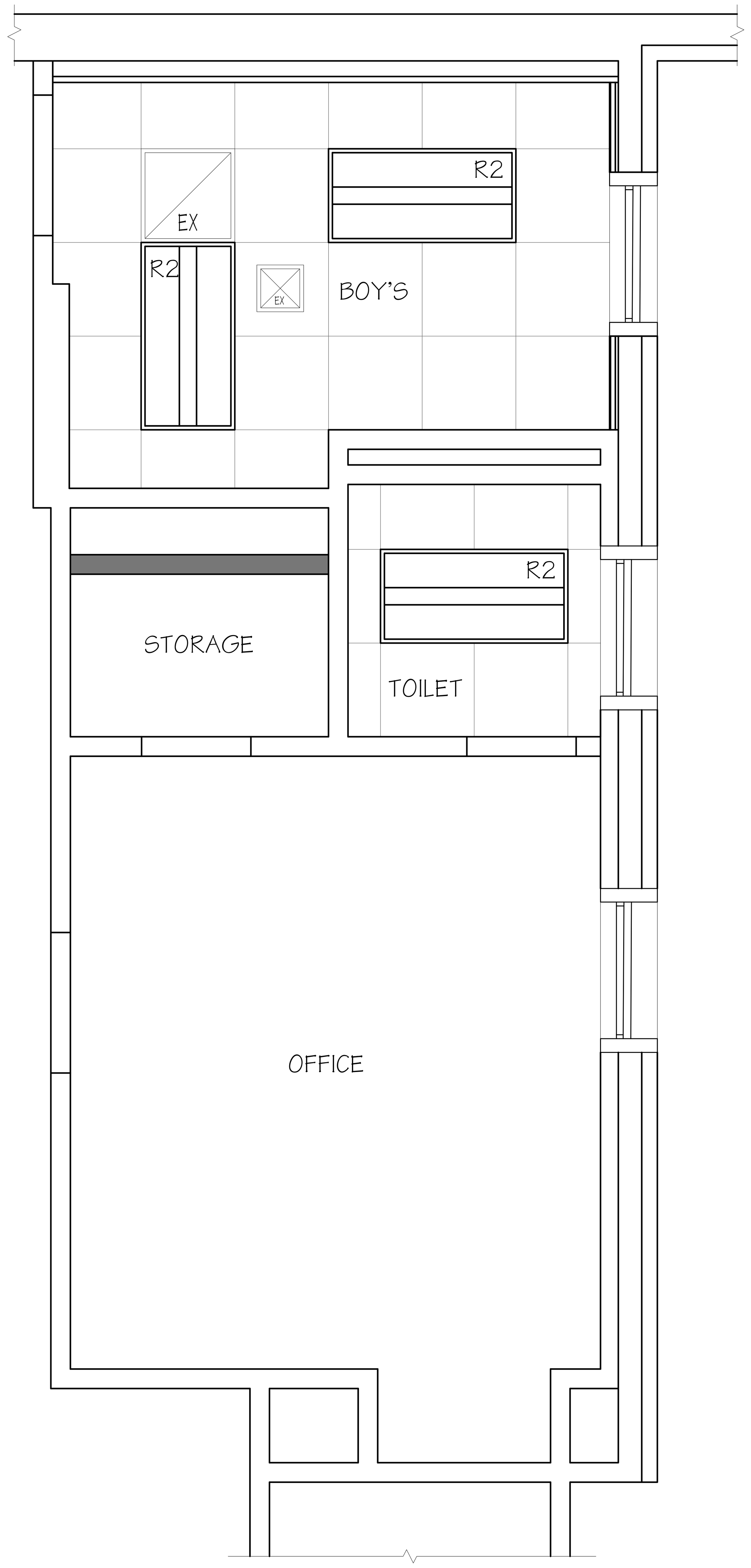
FUSS & O'NEILL
ONE FINANCIAL PLAZA, 15th FLOOR
HARTFORD, CT 06103
860.646.2469
www.fando.com

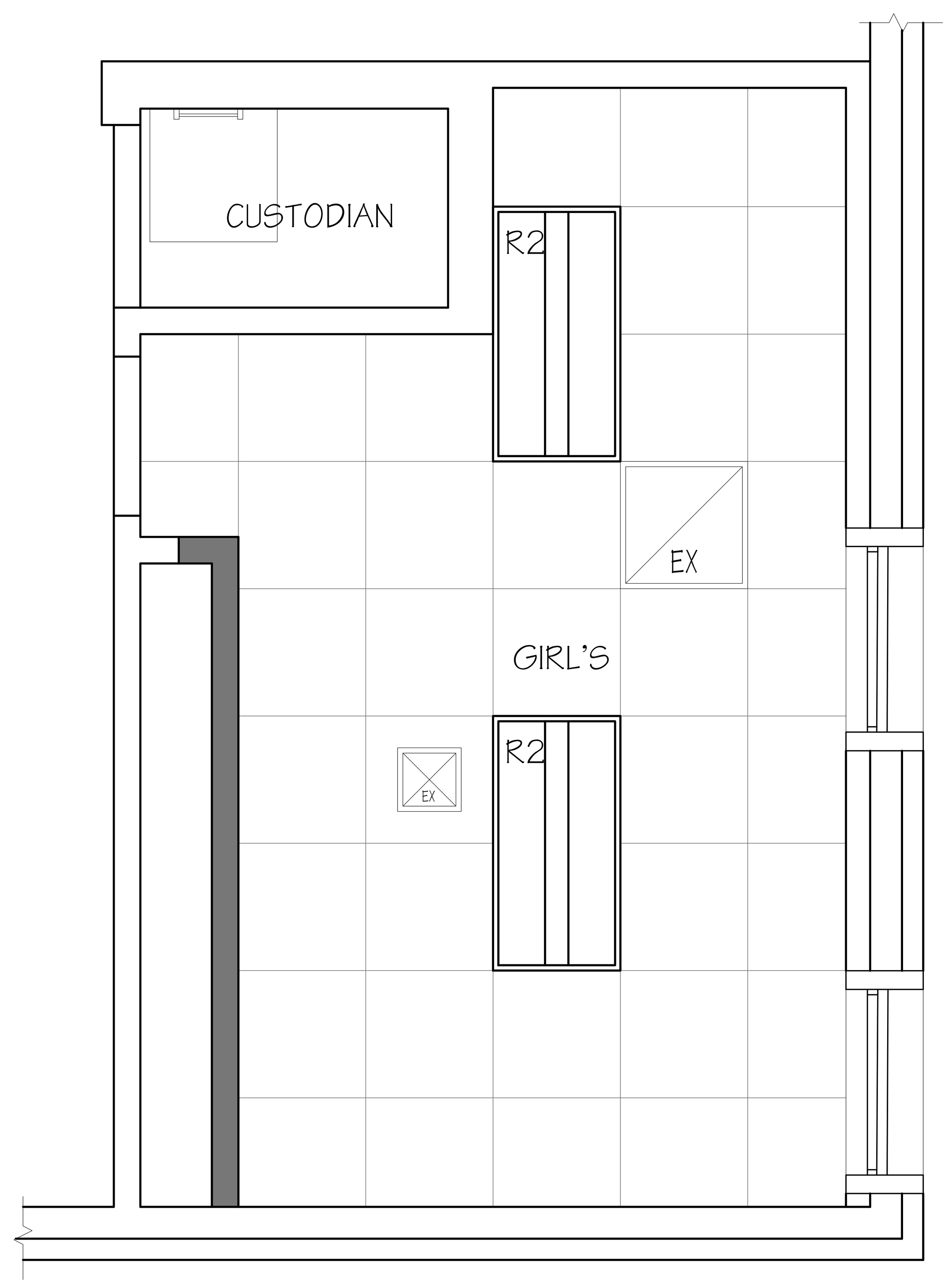
ANDOVER ELEMENTARY SCHOOL
FLOOR PLAN
35 SCHOOL RD, ANDOVER, CT 06232

PROJ. No.: 24079
DATE: 07/31/2025

A-101



A1 BOY'S TOILET AND OFFICE TOILET
SCALE: 1/2" = 1'-0"



A2 CUSTODIAN AND WOMEN'S TOILET
SCALE: 1/2" = 1'-0"

GENERAL CEILING NOTES

A. EXISTING CEILING TILES AND GRIDS TO REMAIN.

B. ALTERNATE#1 - INSTALL NEW LED 24"X48" DIRECT/INDIRECT LED LIGHT FIXTURE. CONNECT TO EXISTING POWER.

C. CEILING TILES AND SUSPENSION GRID TO BE REPAIRED OR REPLACED AS REQUIRED IN ALL AREAS IMPACTED BY NEW WALL CONSTRUCTION. ALL WORK SHALL MATCH EXISTING CEILING MATERIALS, GRID TYPE, AND FINISH UNLESS OTHERWISE NOTED.

CEILING SYM'BOLS LEGEND

EXISTING CEILING GRID

NEW 24" x 24" LED RECESSED FIXTURE

CONSTRUCTION DOCUMENTS

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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ANDOVER ELEMENTARY SCHOOL
REFLECTED CEILING PLANS
35 SCHOOL RD, ANDOVER, CT 06232

PROJ. No.: 24079
DATE: 07/31/2025

A-201

File: S:\24079 (Fuss ONeill - Andover ES Bathroom Renovation)\40 CD\5DWG\A-201 REFLECTED CEILING PLANS.dwg Layout: A-201 Plotted: 2025-07-30 2:24 PM Saved: 2025-07-30 2:16 PM User: shenneby
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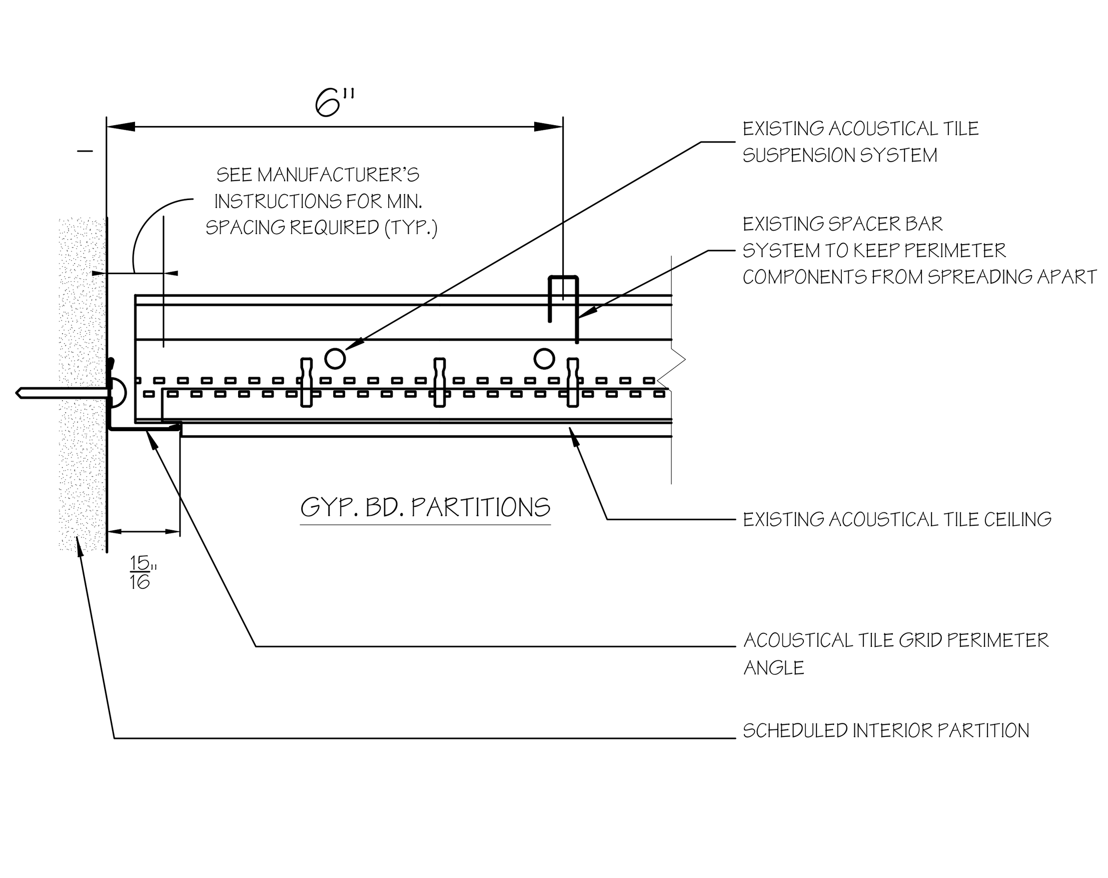
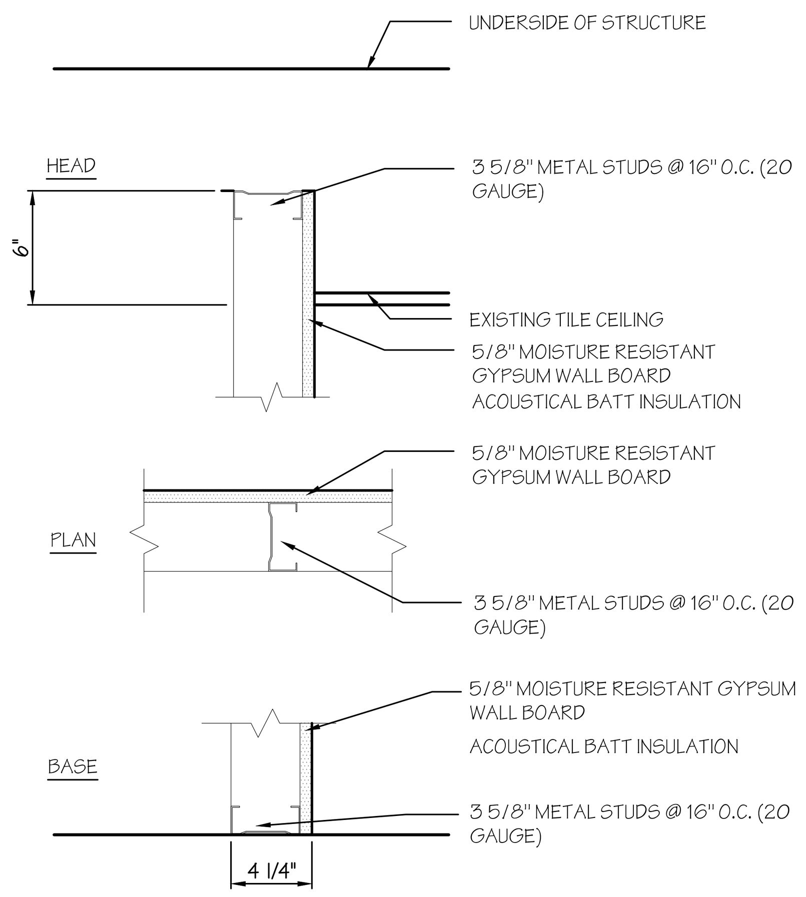
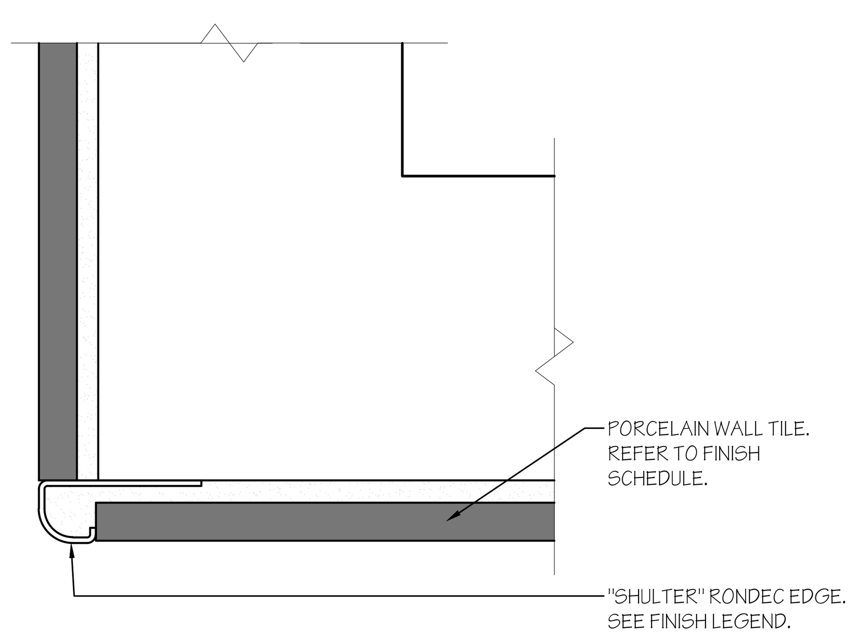


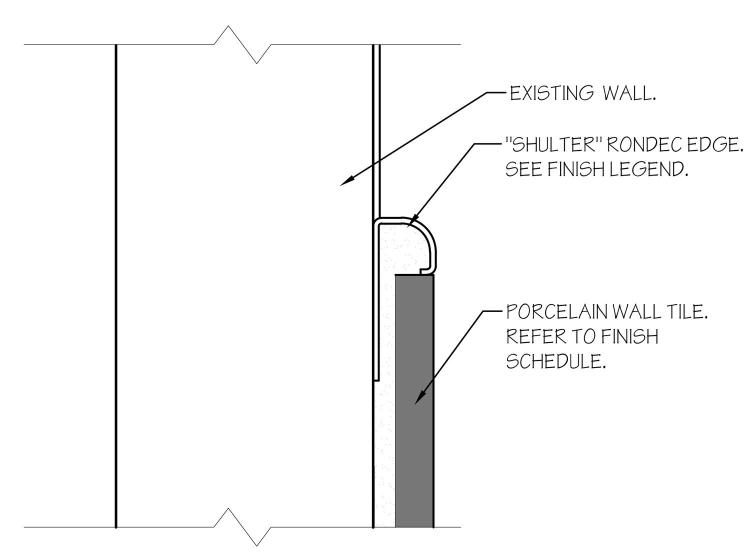
C1 CEILING PERIMETER DETAIL
SCALE: 6" = 1'-0"



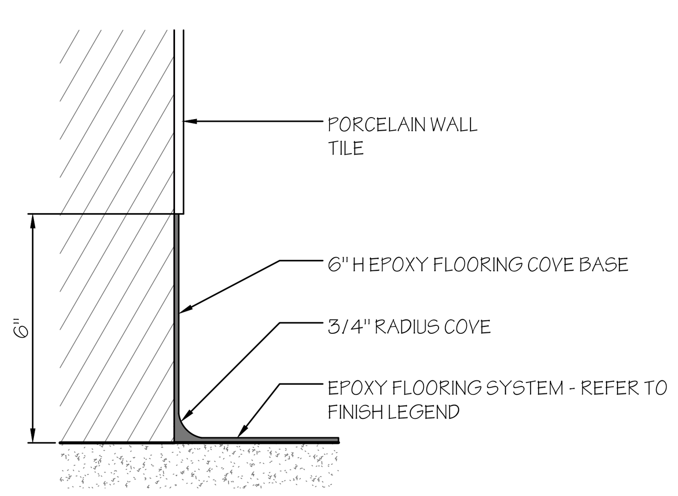
C2 TYPICAL WALL TYPE A
SCALE: 1 1/2" = 1'-0"



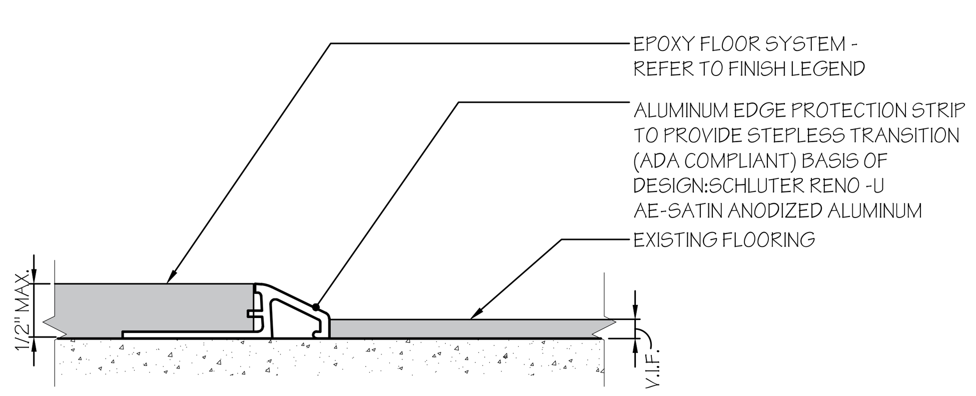
B1 WALL EDGE DETAIL
SCALE: 12" = 1'-0"



B2 TOP OF WALL EDGE DETAIL
SCALE: 12" = 1'-0"



A1 TYPICAL 6" EPOXY COVE BASE DETAIL
SCALE: 3" = 1'-0"



A2 EPOXY FLOORING TO EXISTING FLOORING
SCALE: 12" = 1'-0"

CONSTRUCTION DOCUMENTS

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FUSS & O'NEILL
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HARTFORD, CT 06103
860.646.2469
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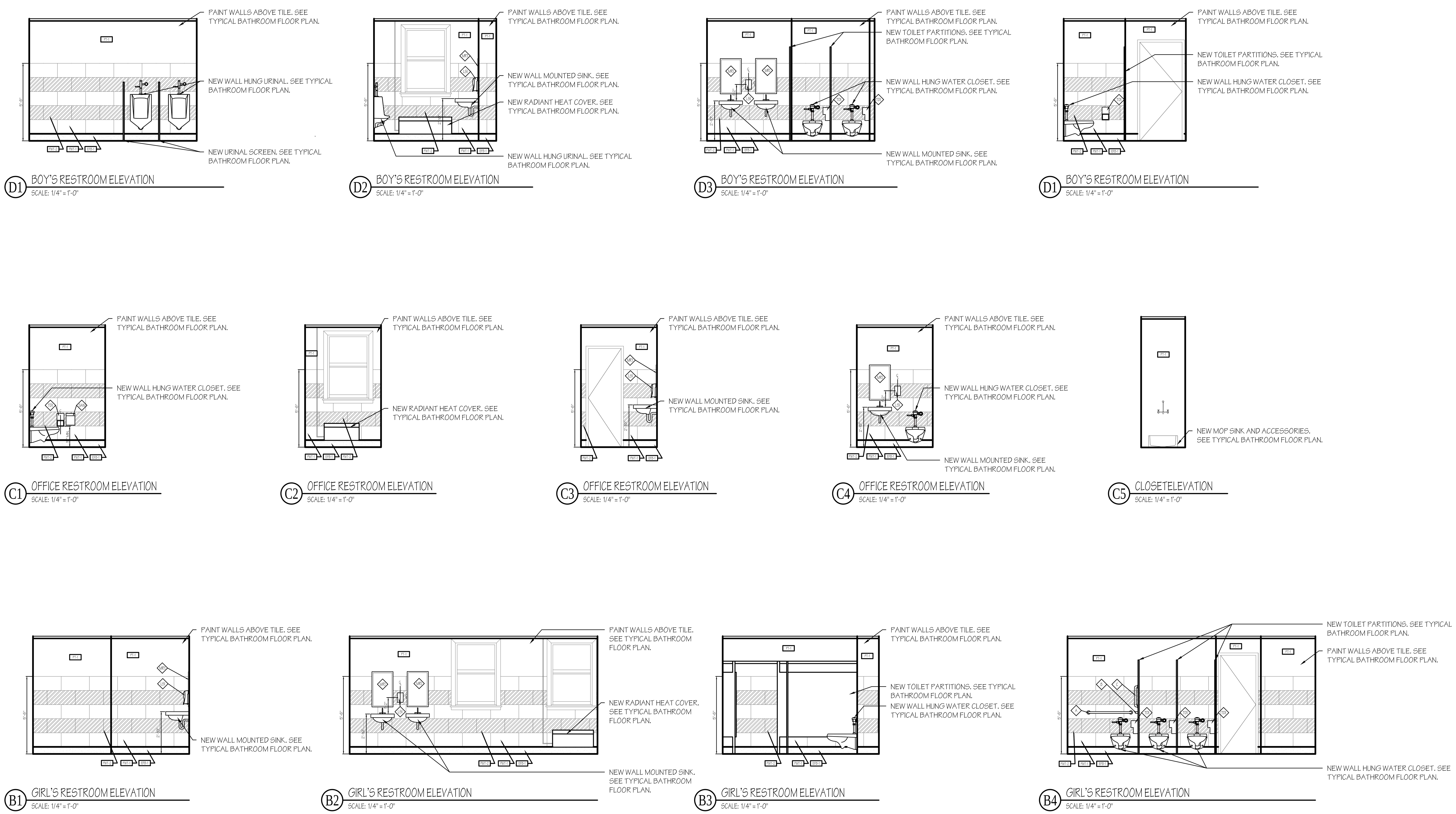
ANDOVER ELEMENTARY SCHOOL
DETAILS
35 SCHOOL RD, ANDOVER, CT 06232

PROJ. No.: 24079
DATE: 06/25/2025

A-701



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STATE OF CONNECTICUT
PAUL ANTHONY LISI
No. 10183
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ANDOVER ELEMENTARY SCHOOL

INTERIOR ELEVATIONS

35 SCHOOL RD, ANDOVER, CT 06232

PROJ. No.: 24079
DATE: 07/31/2025

A-801

File: S:\24079 (Fuss ONeill - Andover ES Bathroom Renovation)\40 CD\5DWG\A-801 INTERIOR ELEVATIONS.dwg Layout: A-801 Plotted: 2025-07-30 2:24 PM Saved: 2025-07-30 2:23 PM User: rfagan
MS VIEW: LAYER STATE: PC3: NONE STB/CTB: FO.STB

GENERAL NOTES

1. THE WORD "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
2. ALL WORK IN THESE DOCUMENTS DESCRIBED AS "LANDLORD'S WORK" SHALL BE THE RESPONSIBILITY OF THE BUILDING OWNER. ALL WORK DESCRIBED AS "TENANT'S WORK" SHALL BE THE RESPONSIBILITY OF FUSS & O'NEILL.
3. GENERAL CONTRACTOR SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS INCLUDING PLANS AND SPECIFICATIONS OF ALL TRADES BEFORE SUBMITTING BID. REFER TO SPECIFICATION AND PLANS, INCLUDING ALL EQUIPMENT SCHEDULES FOR MECHANICAL AND ELECTRICAL ENGINEERING.
4. THE INFORMATION SHOWN ON THE DRAWINGS IS DIAGRAMMATIC, INDICATING THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF EQUIPMENT, AND THEIR ASSOCIATED ACCESS AREAS, WITH ALL TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE EQUIPMENT LAYOUT REQUIRED BY INSTALLATION BY ANY CONTRACTOR SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE LANDLORD OR TENANT.
5. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL CONFLICTS BETWEEN DRAWINGS AND SPECIFICATIONS, OR BETWEEN CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS. FOR EACH CONFLICT, CONTRACTOR SHALL CARRY THE MORE EXPENSIVE OR LARGER QUANTITY OPTION.
6. SUBMISSION OF PROPOSAL DIRECTLY OR INDIRECTLY IN CONNECTION WITH THIS WORK SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE UNDER WHICH HE WILL BE OBLIGATED TO OPERATE SHOULD HE BE AWARDED THE WORK UNDER THIS CONTRACT. NO EXTRA CHARGE WILL BE ALLOWED FOR FAILURE OF ANY BIDDER TO EXAMINE THE SITE PRIOR TO BID.
7. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING EQUIPMENT LOCATIONS IN THE FIELD, AND SHALL ADVISE THE ENGINEER AND THE OWNER OF ANY DISCREPANCIES BEFORE PERFORMING THE WORK.
8. ALL WORK SHALL CONFORM TO ALL APPLICABLE CURRENT BUILDING CODES, RULES, REGULATIONS AND ORDINANCES, INCLUDING THE ONES WRITTEN BY REGULATORY AUTHORITIES HAVING JURISDICTION AND THE OWNER'S INSURANCE CARRIER.
9. CONTRACTOR SHALL SECURE ALL PERMITS AND APPLICATIONS AND PAY ALL FEES PERTAINING TO THE CONTRACT.
10. ALL EQUIPMENT SHALL BE LOCATED IN ACCESSIBLE LOCATIONS WITH CODE OR MANUFACTURER-REQUIRED ACCESS SPACES. IF EQUIPMENT IS INSTALLED IN AN INACCESSIBLE LOCATION THE CONTRACTOR SHALL PROVIDE REQUIRED FIRE-RATED ACCESS DOORS, COORDINATED WITH THE ARCHITECT OR ENGINEER.
11. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE CONTRACTOR SHALL PROVIDE ALL HANGERS AND SUPPORTS REQUIRED FOR A COMPLETE INSTALLATION.
12. EACH CONTRACTOR SHALL COORDINATE THE LOCATION OF THEIR WORK WITH ALL OTHER TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE SYSTEM LAYOUT REQUIRED FOR INSTALLATION SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE LANDLORD OR TENANT.
13. CONTRACTOR TO RESTORE ANY EXISTING SYSTEMS, DEVICES, FINISHES, ETC., THAT ARE DAMAGED OR ALTERED DUE TO THE NEW WORK, TO ACCEPTABLE CONDITION AS DETERMINED BY THE TENANT'S CONSTRUCTION MANAGER AND ENGINEER.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR WORKMEN'S IDENTIFICATION AND BADGING, SITE SAFETY AND FIRE PROTECTION, CONTRACTOR'S LIABILITY INSURANCE, BARRICADES, WARNING SIGNS, TRASH REMOVAL, CUTTING AND PATCHING.
15. CONTRACTOR SHALL SCHEDULE ALL SHUTDOWNS THAT AFFECT UTILITIES AND PORTIONS OF THE BUILDING THAT MUST REMAIN IN OPERATION WITH THE LANDLORD.
16. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE LANDLORD AND ALL OTHER CONTRACTORS.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RIGGING, HANDLING AND PROTECTION OF MATERIALS.
18. CONTRACTOR SHALL PROVIDE LABOR TO RECEIVE, UNLOAD, STORE, PROTECT AND TRANSFER TO POINT OF INSTALLATION, TENANT FURNISHED ITEMS.
19. CONTRACTORS SHALL PROVIDE SLEEVES AND SEALS FOR ALL PIPING OR CONDUIT THAT PENETRATES WALLS OR FLOOR SLABS.
20. WHERE PIPING PASSES THROUGH FIRE RATED FLOORS OR WALLS, THE SLEEVES SHALL BE COMPLETELY SEALED WITH A LISTED FIRE STOP MATERIAL THAT MEETS ALL OF THE EQUIREMENTS OF THE STATE AND LOCAL BUILDING CODES AND THE LOCAL AUTHORITIES HAVING JURISDICTION. THIS MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER TO MAINTAIN THE FIRE RATING OF THE PENETRATED WALL OR FLOOR. THE FIRE-STOP INSTALLING CONTRACTOR SHALL BE CERTIFIED BY THE FIRE-STOPPING SYSTEM MANUFACTURER.
21. CONTRACTOR SHALL SUBMIT SIZE AND LOCATION OF ALL WALL AND FLOOR CORINGS FOR REVIEW BEFORE INSTALLATION. CONTRACTOR SHALL REPAIR ANY DAMAGE DUE TO CORINGS INSTALLED, AT NO COST TO LANDLORD OR TENANT. THE DAMAGE REPAIRING SHALL ALSO BE REVIEWED AND APPROVED BY THE LANDLORD'S ENGINEER.
22. CONTRACTOR SHALL SUBMIT SIZE AND LOCATION OF ANY PROPOSED STRUCTURAL MEMBER PENETRATIONS TO THE OWNER'S ENGINEER FOR REVIEW AND DETAILING BEFORE INSTALLATION. CONTRACTOR SHALL REPAIR ANY DAMAGE DUE TO PENETRATIONS INSTALLED, AT NO COST TO OWNER. THE DAMAGE REPAIRING SHALL ALSO BE REVIEWED AND APPROVED BY THE LANDLORD'S ENGINEER.
23. CONTRACTOR AND SUBCONTRACTORS SHALL COLLECTIVELY PREPARE TRADE COORDINATION DRAWINGS IN SUFFICIENT DETAIL TO PREVENT TRADE CONFLICTS IN AREAS OF CONGESTED WORK. THE TRADE COORDINATION DRAWINGS SHALL BE BASED ON SHOP DRAWINGS PREPARED BY ALL MEP TRADES INCLUDING SPRINKLER CONTRACTOR.
24. CONTRACTOR SHALL SUBMIT A SET OF SHOP DRAWINGS, SUBMITTALS, AND EQUIPMENT CUT SHEET INFORMATION TO THE ENGINEER IN ELECTRONIC FORMAT FOR REVIEW PRIOR TO STARTING ANY WORK.
25. UPON COMPLETION OF CONSTRUCTION CONTRACTOR SHALL SUPPLY THE ENGINEER WITH (1) COMPLETE SET OF ELECTRONIC AS-BUILT DOCUMENTS AND (1) COMPLETE COPY OF OPERATIONS AND MAINTENANCE MANUALS, IN ELECTRONIC FORMAT ALL AT CONTRACTOR'S EXPENSE.
26. ALL PIPING LAYOUTS ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL INSTALL ALL REQUIRED OFFSETS AND TRANSITIONS TO PREVENT INTERFERENCE WITH FIELD CONDITIONS AND TO COORDINATE WITH OTHER TRADES AT NO COST TO THE LANDLORD OR TENANT.
27. ALL REQUIRED OPENINGS THROUGH WALLS, FLOORS, AND CEILINGS SHALL BE COORDINATED BY THE CONTRACTOR USING ENGINEER AND ARCHITECT REVIEWED & APPROVED EQUIPMENT SHOP DRAWINGS.
28. PROVIDE A BALANCING VALVE FOR EACH HYDRONIC PIECE OF EQUIPMENT.
29. NO PIPING SHALL BE INSTALLED OVER ELECTRICAL PANELS, TRANSFORMERS, OR ELEVATOR MACHINE ROOM EQUIPMENT. CONTRACTOR SHALL COORDINATE PIPING AND DUCTWORK WITH ELECTRICAL EQUIPMENT IN FIELD AS PART OF COORDINATION DRAWINGS.
30. PROVIDE SPRING ISOLATED & SEISMICALLY RATED HANGERS FOR PIPING ACCORDING TO THE VIBRATION ISOLATION SCHEDULE. INCLUDE DETAILS AND LOCATIONS ON COORDINATION DRAWINGS.
31. PROVIDE DRAINS AT ALL LOW POINTS.

PLUMBING ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BFP	BACKFLOW PREVENTER
BWV	BACKWATER VALVE
CD	CONDENSATE DRAIN
CI	CAST IRON
CMU	CONCRETE MASONRY UNIT
DCW	DOMESTIC COLD WATER
DDC	DIRECT DIGITAL CONTROL
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DLW	DEDICATED LAUNDRY WASTE
DU	DWELLING UNIT
EX.	EXISTING
EC	ELECTRICAL CONTRACTOR
ETBR	EXISTING TO BE REMOVED
ETR	EXISTING TO REMAIN
EXT	EXTERIOR
FD	FLOOR DRAIN
FP	FIREPLACE
FPC	FIRE PROTECTION CONTRACTOR
FSB	FILED SUB-BID
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
IDW	INDIRECT WASTE DRAIN CONNECTION
IN	INCH
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MIN.	MINIMUM
NIC	NOT IN CONTRACT
NPW	NON-POTABLE WATER
OD	OVERFLOW DRAIN
OSD	OVERFLOW STORM DRAIN
PROVIDE	SUPPLY AND INSTALL
PC	PLUMBING CONTRACTOR
POU	POINT OF USE
PRV	PRESSURE REDUCING VALVE
RD	ROOF DRAIN
RV	RADON VENT THRU ROOF
RPZ	REDUCED PRESSURE ZONE ::: BACKFLOW PREVENTER
SAN	SANITARY WASTE
SAN&V	CONBINED SANITARY AND VENT
ST	STORM DRAIN
TYP.	TYPICAL
V	VENT
VTR	VENT THROUGH ROOF
WHA	WATER HAMMER ARRESTOR
WM	WATER METER

PLUMBING SYMBOL LEGEND

	PUMP / CIRCULATOR	P	PRESSURE GAUGE
FD FD	FLOOR DRAIN	S T	TEMPERATURE SENSOR: WELL-TYPE, DDC INTEGRATED SENSOR
AD	AREA DRAIN		CONNECT TO EXISTING
RD	ROOF DRAIN		EXTENT OF DEMOLITION
FCO	FLOOR CLEANOUT: FLUSH WITH FINISHED FLOOR GRADE, BRASS COVER PLATE		SPRING CHECK VALVE
CO	INLINE CLEANOUT: END CLEANOUT WITH 18" MIN. CLEARANCE	RPZ	REDUCED PRESSURE ZONE (RPZ) / BACKFLOW PREVENTER
	VACUUM BREAKER	BWV	BACKWATER VALVE
	EXTERIOR HOSE BIBB, QUARTER-TURN, FREEZE PROOF, RECESSED ENCLOSURE		STRAINER WITH BALL VALVE AND THREADED DRAIN CONNECTION, PROVIDE WITH DRAIN CAP AND CHAIN. 3/4" DRAIN SIZE MIN.
	AIR VENT (AUTO-AIR VENT WITH REPLACEABLE VALVE BODY)		THERMOSTATIC 3-WAY VALVE
	BALL VALVE WITH HOSE THREAD W/ BRASS CAP & CHAIN		PIPING WITH ELECTRIC HEAT TRACE
	RELIEF VENT / VALVE		PLUMBING FIXTURE TRAP
	PIPE PITCH DIRECTION	ST	STORM DRAIN PIPING
		CD	CONDENSATE DRAIN PIPING
	EMERGENCY DRENCH SHOWER AND EYEWASH STATION	G	LOW PRESSURE GAS PIPING
		SPG	ELEVATED PRESSURE GAS PIPING
	PEX MANIFOLD W/ ISOLATION AT EACH BRANCH CONNECTION. PC TO VERIFY QUANTITY OF BRANCHES BASED ON SERVICE.	GV	GAS VENT PIPING
			DOMESTIC COLD WATER PIPING
	CONCENTRIC COMBUSTION AIR & BOILER FLUE VENT TERMINATION (SIDEWALL)		DOMESTIC HOT WATER PIPING
			DOMESTIC HOT WATER RETURN PIPING
	WELL TYPE TEMPERATURE SENSOR / THERMOMETER	CA	COMBUSTION AIT INTAKE PIPING
		CV	COMBUSTION FLUE VENTING
W M	WATER METER		VENT PIPING
			BURIED VENT PIPING
G	GAS METER	SAN	SANITARY WASTE PIPING (ABOVE FINISHED GRADE)
		SAN	BURIED WASTE PIPING (BELOW FINISHED GRADE)
	FLEXIBLE PIPE CONNECTOR		PIPE RISE
			PIPE DROP
	WATER HAMMER ARRESTOR		PIPE DROP DOWN FROM TWO SIDES
			BALL VALVE W/ DRAIN
A	AQUASTAT		BALL VALVE
			BALANCING / ISOLATION VALVE
	GAS SHUTOFF VALVE		PRESSURE REDUCING VALVE
			UNION
			FLANGE
			PIPE ANCHOR
			PIPE SLEEVE / GUIDE
			EXPANSION JOINT

CONSTRUCTION DOCUMENTS

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No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF CONNECTICUT JENNIFER L. TRUMBLE NO. PEN.0032758 LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.: DATUM: HORZ.: VERT.:

NTS

GRAPHIC SCALE

FUSS & O'NEILL
ONE FINANCIAL PLAZA, 15th FLOOR
HARTFORD, CT 06103
860.646.2469
www.fando.com

ANDOVER ELEMENTARY SCHOOL

PLUMBING GENERAL NOTES

35 SCHOOL ROAD, ANDOVER, CT 06232

PROJ. No.: 20120209.A91

DATE: 7/31/2025

P0.01

DIVISION 22 - PLUMBING

SECTION 22 07 19

PLUMBING PIPING INSULATION

PART 1 GENERAL

1.01 SUBMITTALS

A. PRODUCT DATA: PROVIDE PRODUCT DESCRIPTION, THERMAL CHARACTERISTICS, LIST OF MATERIALS AND THICKNESS FOR EACH SERVICE, AND LOCATIONS.

B. MANUFACTURER'S INSTRUCTIONS: INDICATE INSTALLATION PROCEDURES THAT ENSURE ACCEPTABLE WORKMANSHIP AND INSTALLATION STANDARDS WILL BE ACHIEVED.

PART 2 PRODUCTS

2.01 REGULATORY REQUIREMENTS

A. SURFACE BURNING CHARACTERISTICS: FLAME SPREAD INDEX/SMOKE DEVELOPED INDEX OF 25/50, MAXIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723.

2.02 GLASS FIBER INSULATION

A. INSULATION: ASTM C547 AND ASTM C795; RIGID MOLDED, NONCOMBUSTIBLE.
1. K VALUE: ASTM C177, 0.24 AT 75 DEGREES F.
2. MAXIMUM SERVICE TEMPERATURE: 850 DEGREES F.
3. MAXIMUM MOISTURE ABSORPTION: 0.2 PERCENT BY VOLUME.

2.03 EXPANDED POLYSTYRENE INSULATION

A. INSULATION: ASTM C578; RIGID CLOSED CELL.
1. K VALUE: 0.23 AT 75 DEGREES F.
2. MAXIMUM SERVICE TEMPERATURE: 165 DEGREES F.
3. MAXIMUM WATER VAPOR PERMEANCE: 5.0 PERM INCH.

2.04 FLEXIBLE ELASTOMERIC CELLULAR INSULATION

A. INSULATION: PREFORMED FLEXIBLE ELASTOMERIC CELLULAR RUBBER INSULATION COMPLYING WITH ASTM C534/C534M GRADE 1; USE MOLDED TUBULAR MATERIAL WHEREVER POSSIBLE.
1. MINIMUM SERVICE TEMPERATURE: MINUS 40 DEGREES F.
2. MAXIMUM SERVICE TEMPERATURE: 220 DEGREES F.
3. CONNECTION: WATERPROOF VAPOR BARRIER ADHESIVE.

PART 3 EXECUTION

3.01 EXAMINATION

A. VERIFY THAT PIPING HAS BEEN TESTED BEFORE APPLYING INSULATION MATERIALS.

B. VERIFY THAT SURFACES ARE CLEAN AND DRY, WITH FOREIGN MATERIAL REMOVED.

3.02 INSTALLATION

A. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

SECTION 22 10 05

PLUMBING PIPING

PART 1 GENERAL

1.01 SUBMITTALS

A. PRODUCT DATA: PROVIDE DATA ON PIPE MATERIALS, PIPE FITTINGS, VALVES, AND ACCESSORIES. PROVIDE MANUFACTURERS CATALOG INFORMATION. INDICATE VALVE DATA AND RATINGS.

B. PROJECT RECORD DOCUMENTS: RECORD ACTUAL LOCATIONS OF VALVES.

1.02 QUALITY ASSURANCE

A. PERFORM WORK IN ACCORDANCE WITH APPLICABLE CODES.

B. VALVES: MANUFACTURER'S NAME AND PRESSURE RATING MARKED ON VALVE BODY.

C. IDENTIFY PIPE WITH MARKING INCLUDING SIZE, ASTM MATERIAL CLASSIFICATION, ASTM SPECIFICATION, POTABLE WATER CERTIFICATION, WATER PRESSURE RATING.

1.03 DELIVERY, STORAGE, AND HANDLING

A. PROVIDE TEMPORARY END CAPS AND CLOSURES ON PIPING AND FITTINGS. MAINTAIN IN PLACE UNTIL INSTALLATION.

B. PROTECT PIPING SYSTEMS FROM ENTRY OF FOREIGN MATERIALS BY TEMPORARY COVERS, COMPLETING SECTIONS OF THE WORK, AND ISOLATING PARTS OF COMPLETED SYSTEM.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

A. POTABLE WATER SUPPLY SYSTEMS: PROVIDE PIPING, PIPE FITTINGS, AND SOLDER AND FLUX (IF USED), THAT COMPLY WITH NSF 61 AND NSF 372 FOR MAXIMUM LEAD CONTENT; LABEL PIPE AND FITTINGS.

2.02 SANITARY WASTE PIPING, ABOVE GRADE

A. CAST IRON PIPE: ASTM A74, SERVICE WEIGHT.
1. FITTINGS: CAST IRON.
2. JOINT SEALS: ASTM C564 NEOPRENE GASKETS, OR LEAD AND OAKUM.

B. CAST IRON PIPE: CISPI 301, HUBLESS, SERVICE WEIGHT.
1. FITTINGS: CAST IRON.
2. JOINTS: CISPI 310, NEOPRENE GASKETS AND STAINLESS STEEL CLAMP-AND-SHIELD ASSEMBLIES.

2.03 DOMESTIC WATER PIPING, ABOVE GRADE

A. <u>BASE BID</u>: COPPER PIPE: ASTM B88 (ASTM B88M), TYPE L (B), DRAWN (H).
1. FITTINGS: ASME B16.18, CAST COPPER ALLOY OR ASME B16.22, WROUGHT COPPER AND BRONZE.
2. JOINTS: ASTM B32, ALLOY SN95 SOLDER.
3. MECHANICAL PRESS SEALED FITTINGS: DOUBLE-PRESSED TYPE, NSF 61 AND NSF 372 APPROVED OR CERTIFIED, UTILIZING EPDM, NONTOXIC, SYNTHETIC RUBBER SEALING ELEMENTS.

B. <u>ALTERNATE BID</u>: CROSS-LINKED POLYETHYLENE (PEX) PIPE: ASTM F876 OR ASTM F877.
1. PPI TR-4 PRESSURE DESIGN BASIS:
   a. 100 PSIG AT MAXIMUM 180 DEGREES F.
2. FITTINGS: BRASS AND COPPER.
3. JOINTS: MECHANICAL COMPRESSION FITTINGS.
4. JOINTS: ASTM F1960 COLD-EXPANSION FITTINGS.

2.04 PIPE FLANGES, UNIONS, AND COUPLINGS

A. NO-HUB COUPLINGS:
1. TESTING: IN ACCORDANCE WITH ASTM C1277 AND CISPI 310.
2. GASKET MATERIAL: NEOPRENE COMPLYING WITH ASTM C564.
3. BAND MATERIAL: STAINLESS STEEL.
4. EYELET MATERIAL: STAINLESS STEEL.

B. SHIELDED, HEAVY DUTY NO-HUB COUPLINGS:
1. TESTING: IN ACCORDANCE WITH ASTM C1540 AND FM 1680.
2. GASKET MATERIAL: NEOPRENE COMPLYING WITH ASTM C564.
3. BAND MATERIAL: STAINLESS STEEL.
4. EYELET MATERIAL: STAINLESS STEEL.

2.05 PIPE HANGERS AND SUPPORTS

A. PROVIDE HANGERS AND SUPPORTS THAT COMPLY WITH MSS SP-58.
1. IF TYPE OF HANGER OR SUPPORT FOR A PARTICULAR SITUATION IS NOT INDICATED, SELECT APPROPRIATE TYPE USING MSS SP-58 RECOMMENDATIONS.
2. OVERHEAD SUPPORTS: INDIVIDUAL STEEL ROD HANGERS ATTACHED TO STRUCTURE OR TO TRAPEZE HANGERS.
3. TRAPEZE HANGERS: WELDED STEEL CHANNEL FRAMES ATTACHED TO STRUCTURE.
4. VERTICAL PIPE SUPPORT: STEEL RISER CLAMP.

B. PLUMBING PIPING - DRAIN, WASTE, AND VENT:
1. HANGERS FOR PIPE SIZES 1/2 TO 1-1/2 INCH: MALLEABLE IRON, ADJUSTABLE SWIVEL, SPLIT RING.
2. HANGERS FOR PIPE SIZES 2 INCH AND OVER: CARBON STEEL, ADJUSTABLE, CLEVIS.

C. PLUMBING PIPING - WATER:
1. HANGERS FOR PIPE SIZES 1/2 TO 1-1/2 INCH: MALLEABLE IRON, ADJUSTABLE SWIVEL, SPLIT RING.
2. HANGERS FOR COLD PIPE SIZES 2 INCH AND OVER: CARBON STEEL, ADJUSTABLE, CLEVIS.
3. HANGERS FOR HOT PIPE SIZES 2 TO 4 INCH: CARBON STEEL, ADJUSTABLE, CLEVIS.
4. FLOOR SUPPORT FOR COLD PIPE: CAST IRON ADJUSTABLE PIPE SADDLE, LOCK NUT, NIPPLE, FLOOR FLANGE, AND CONCRETE PIER OR STEEL SUPPORT.
5. FLOOR SUPPORT FOR HOT PIPE SIZES TO 4 INCH: CAST IRON ADJUSTABLE PIPE SADDLE, LOCKNUT, NIPPLE, FLOOR FLANGE, AND CONCRETE PIER OR STEEL SUPPORT.

2.06 PIPE SLEEVE-SEAL SYSTEMS

A. MODULAR MECHANICAL SEALS:
1. ELASTOMER-BASED INTERLOCKING LINKS CONTINUOUSLY FILL ANNULAR SPACE BETWEEN PIPE AND WALL-SLEEVE, WALL OR CASING OPENING.
2. WATERTIGHT SEAL BETWEEN PIPE AND WALL-SLEEVE, WALL OR CASING OPENING.
3. SIZE AND SELECT SEAL COMPONENT MATERIALS IN ACCORDANCE TO SERVICE REQUIREMENTS.
4. GLASS REINFORCED PLASTIC PRESSURE END PLATES.

B. WALL SLEEVE: PVC MATERIAL WITH WATER-STOP COLLAR, AND NAILER END-CAPS.

2.07 BALL VALVES

A. CONSTRUCTION, 4 INCH AND SMALLER: MSS SP-110, CLASS 150, 400 PSI CWP, BRONZE OR DUCTILE IRON BODY, 304 STAINLESS STEEL OR CHROME PLATED BRASS BALL, REGULAR PORT, TEFLON SEATS AND STUFFING BOX RING, BLOW-OUT PROOF STEM, LEVER HANDLE WITH BALANCING STOPS, THREADED OR GROOVED ENDS WITH UNION.

PART 3 EXECUTION

3.01 EXAMINATION

A. VERIFY THAT EXCAVATIONS ARE TO REQUIRED GRADE, DRY, AND NOT OVER-EXCAVATED.

3.02 PREPARATION

A. REAM PIPE AND TUBE ENDS. REMOVE BURRS. BEVEL PLAIN END FERROUS PIPE.

B. REMOVE SCALE AND DIRT, ON INSIDE AND OUTSIDE, BEFORE ASSEMBLY.

C. PREPARE PIPING CONNECTIONS TO EQUIPMENT WITH FLANGES OR UNIONS.

3.03 INSTALLATION

A. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS WHEREVER JOINTING DISSIMILAR METALS.

C. ROUTE PIPING IN ORDERLY MANNER AND MAINTAIN GRADIENT. ROUTE PARALLEL AND PERPENDICULAR TO WALLS.

D. INSTALL PIPING TO MAINTAIN HEADROOM, CONSERVE SPACE, AND NOT INTERFERE WITH USE OF SPACE.

E. GROUP PIPING WHENEVER PRACTICAL AT COMMON ELEVATIONS.

F. PROVIDE CLEARANCE IN HANGERS AND FROM STRUCTURE AND OTHER EQUIPMENT FOR INSTALLATION OF INSULATION AND ACCESS TO VALVES AND FITTINGS.

G. PROVIDE ACCESS WHERE VALVES AND FITTINGS ARE NOT EXPOSED.
1. COORDINATE SIZE AND LOCATION OF ACCESS DOORS WITH CONSTRUCTION MANAGER.

H. COPPER PIPE AND TUBE: MAKE SOLDERED JOINTS IN ACCORDANCE WITH ASTM B828, USING SPECIFIED SOLDER, AND FLUX MEETING ASTM B813; IN POTABLE WATER SYSTEMS USE FLUX ALSO COMPLYING WITH NSF 61 AND NSF 372.

I. SLEEVE PIPES PASSING THROUGH PARTITIONS, WALLS, AND FLOORS.

J. PIPE HANGERS AND SUPPORTS:
1. INSTALL IN ACCORDANCE WITH ASME B31.9.
2. PLACE HANGERS WITHIN 12 INCHES OF EACH HORIZONTAL ELBOW.
3. WHERE SEVERAL PIPES CAN BE INSTALLED IN PARALLEL AND AT SAME ELEVATION, PROVIDE MULTIPLE OR TRAPEZE HANGERS.
4. PROVIDE COPPER PLATED HANGERS AND SUPPORTS FOR COPPER PIPING.

K. PIPE SLEEVE-SEAL SYSTEMS:
1. INSTALL MANUFACTURED SLEEVE-SEAL SYSTEMS IN SLEEVES LOCATED IN GRADE SLABS AND EXTERIOR CONCRETE WALLS AT PIPING ENTRANCES INTO BUILDING.
2. PROVIDE SEALING ELEMENTS OF THE SIZE, QUANTITY, AND TYPE REQUIRED FOR THE PIPING AND SLEEVE INNER DIAMETER OR PENETRATION DIAMETER.
3. LOCATE PIPING IN CENTER OF SLEEVE OR PENETRATION.
4. INSTALL FIELD ASSEMBLED SLEEVE-SEAL SYSTEM COMPONENTS IN ANNULAR SPACE BETWEEN SLEEVE AND PIPING.
5. TIGHTEN BOLTING FOR A WATERTIGHT SEAL.
6. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

3.04 APPLICATION

A. USE GROOVED MECHANICAL COUPLINGS AND FASTENERS ONLY IN ACCESSIBLE LOCATIONS.

B. INSTALL UNIONS DOWNSTREAM OF VALVES AND AT EQUIPMENT OR APPARATUS CONNECTIONS.

C. INSTALL BRASS MALE ADAPTERS EACH SIDE OF VALVES IN COPPER PIPED SYSTEM. SOLDER ADAPTERS TO PIPE.

D. INSTALL GATE OR BALL VALVES FOR SHUT-OFF AND TO ISOLATE EQUIPMENT, PART OF SYSTEMS, OR VERTICAL RISERS.

3.05 TOLERANCES

A. DRAINAGE PIPING: ESTABLISH INVERT ELEVATIONS WITHIN 1/2 INCH VERTICALLY OF LOCATION INDICATED AND SLOPE TO DRAIN AT MINIMUM OF 1/4 INCH PER FOOT SLOPE.

3.06 FIELD TESTS AND INSPECTIONS

A. VERIFY AND INSPECT SYSTEMS ACCORDING TO REQUIREMENTS BY THE AUTHORITY HAVING JURISDICTION. IN THE ABSENCE OF SPECIFIC TEST AND INSPECTION PROCEDURES PROCEED AS INDICATED BELOW.

B. DOMESTIC WATER SYSTEMS:
1. PERFORM HYDROSTATIC TESTING FOR LEAKAGE PRIOR TO SYSTEM DISINFECTION.
2. TEST PREPARATION: CLOSE EACH FIXTURE VALVE OR DISCONNECT AND CAP EACH CONNECTED FIXTURE.
3. GENERAL:
   a. FILL THE SYSTEM WITH WATER AND RAISE STATIC HEAD TO 10 PSI ABOVE SERVICE PRESSURE. MINIMUM STATIC HEAD OF 50 TO 150 PSI. AS AN EXCEPTION, CERTAIN CODES ALLOW A MAXIMUM STATIC PRESSURE OF 80 PSI.

C. TEST RESULTS: DOCUMENT AND CERTIFY SUCCESSFUL RESULTS, OTHERWISE REPAIR, DOCUMENT, AND RETEST.

SECTION 22 40 00

PLUMBING FIXTURES

PART 1 GENERAL

1.01 SUBMITTALS

A. PRODUCT DATA: PROVIDE CATALOG ILLUSTRATIONS OF FIXTURES, SIZES, ROUGH-IN DIMENSIONS, UTILITY SIZES, TRIM, AND FINISHES.

B. MANUFACTURER'S INSTRUCTIONS: INDICATE INSTALLATION METHODS AND PROCEDURES.

1.02 DELIVERY, STORAGE, AND HANDLING

A. ACCEPT FIXTURES ON-SITE IN FACTORY PACKAGING. INSPECT FOR DAMAGE.

B. PROTECT INSTALLED FIXTURES FROM DAMAGE BY SECURING AREAS AND BY LEAVING FACTORY PACKAGING IN PLACE TO PROTECT FIXTURES AND PREVENT USE.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

A. POTABLE WATER SYSTEMS: PROVIDE PLUMBING FITTINGS AND FAUCETS THAT COMPLY WITH NSF 61 AND NSF 372 FOR MAXIMUM LEAD CONTENT; LABEL PIPE AND FITTINGS.

2.02 REGULATORY REQUIREMENTS

A. COMPLY WITH APPLICABLE CODES FOR INSTALLATION OF PLUMBING SYSTEMS.

2.03 UNDER-LAVATORY PIPE SUPPLY COVERS

A. GENERAL:
1. INSULATE EXPOSED DRAINAGE PIPING INCLUDING HOT, COLD AND TEMPERED WATER SUPPLIES UNDER LAVATORIES OR SINKS PER ADA STANDARDS.
2. CONSTRUCTION: 1/8 INCH PVC WITH ANTIMICROBIAL, ANTIFUNGAL AND UV RESISTANT PROPERTIES.
   a. COMPLY WITH ASME A112.18.9 FOR COVERS ON ACCESSIBLE LAVATORY PIPING.
   b. COMPLY WITH ICC A117.1.

PART 3 EXECUTION

3.01 EXAMINATION

A. VERIFY THAT WALLS AND FLOOR FINISHES ARE PREPARED AND READY FOR INSTALLATION OF FIXTURES.

B. VERIFY THAT ELECTRIC POWER IS AVAILABLE AND OF THE CORRECT CHARACTERISTICS.

C. CONFIRM THAT MILLWORK IS CONSTRUCTED WITH ADEQUATE PROVISION FOR THE INSTALLATION OF COUNTER TOP LAVATORIES AND SINKS.

3.02 PREPARATION

A. ROUGH-IN FIXTURE PIPING CONNECTIONS IN ACCORDANCE WITH MINIMUM SIZES INDICATED IN FIXTURE ROUGH-IN SCHEDULE FOR PARTICULAR FIXTURES.

3.03 INSTALLATION

A. INSTALL EACH FIXTURE WITH TRAP, EASILY REMOVABLE FOR SERVICING AND CLEANING.

B. PROVIDE CHROME-PLATED RIGID OR FLEXIBLE SUPPLIES TO FIXTURES WITH SCREWDRIVER STOPS, REDUCERS, AND ESCUTCHEONS.

C. INSTALL COMPONENTS LEVEL AND PLUMB.

D. INSTALL AND SECURE FIXTURES IN PLACE WITH WALL CARRIERS AND BOLTS.

E. SOLIDLY ATTACH WATER CLOSETS TO FLOOR WITH LAG SCREWS. LEAD FLASHING IS NOT INTENDED TO HOLD FIXTURE IN PLACE.

3.04 INTERFACE WITH WORK OF OTHER SECTIONS

A. REVIEW MILLWORK SHOP DRAWINGS. CONFIRM LOCATION AND SIZE OF FIXTURES AND OPENINGS BEFORE ROUGH-IN AND INSTALLATION.

3.05 ADJUSTING

A. ADJUST STOPS OR VALVES FOR INTENDED WATER FLOW RATE TO FIXTURES WITHOUT SPLASHING, NOISE, OR OVERFLOW.

3.06 CLEANING

A. CLEAN PLUMBING FIXTURES AND EQUIPMENT.

3.07 PROTECTION

A. PROTECT INSTALLED PRODUCTS FROM DAMAGE DUE TO SUBSEQUENT CONSTRUCTION OPERATIONS.

B. REPAIR OR REPLACE DAMAGED PRODUCTS BEFORE DATE OF SUBSTANTIAL COMPLETION.

CONSTRUCTION DOCUMENTS

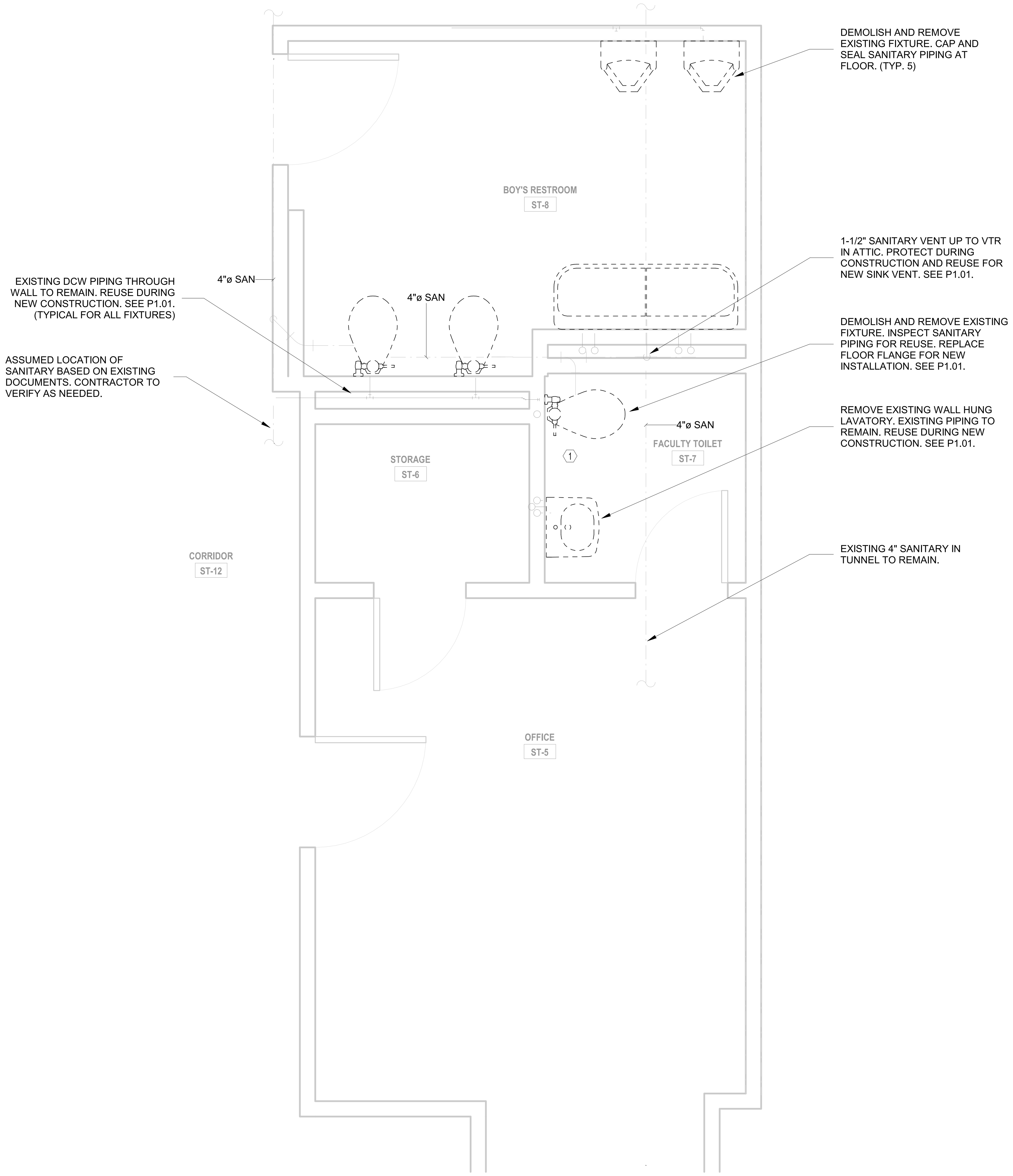
DEMOLITION NOTES:

1. CONTRACTOR TO PURGE, CAP, AND SEAL ALL PIPING SLAB PENETRATIONS BELOW FINISHED FLOOR.
2. PROPERLY DISPOSE OF ALL REMOVED PLUMBING ITEMS THAT ARE NOT TO BE REUSED DURING CONSTRUCTION.
3. BELOW GRADE PIPING SHOWN IN ASSUMED LOCATION. CONTRACTOR TO VERIFY LOCATION OF ANY PIPING TO BE REUSED AS A PART OF THE RESTROOM RENOVATION.
4. EXTENT OF DEMOLITION SHOWN IN THESE DOCUMENTS IS TO BE USED AS A GUIDE. COORDINATE DEMOLITION WITH NEW WORK REQUIREMENTS PRIOR TO START OF DEMOLITION.

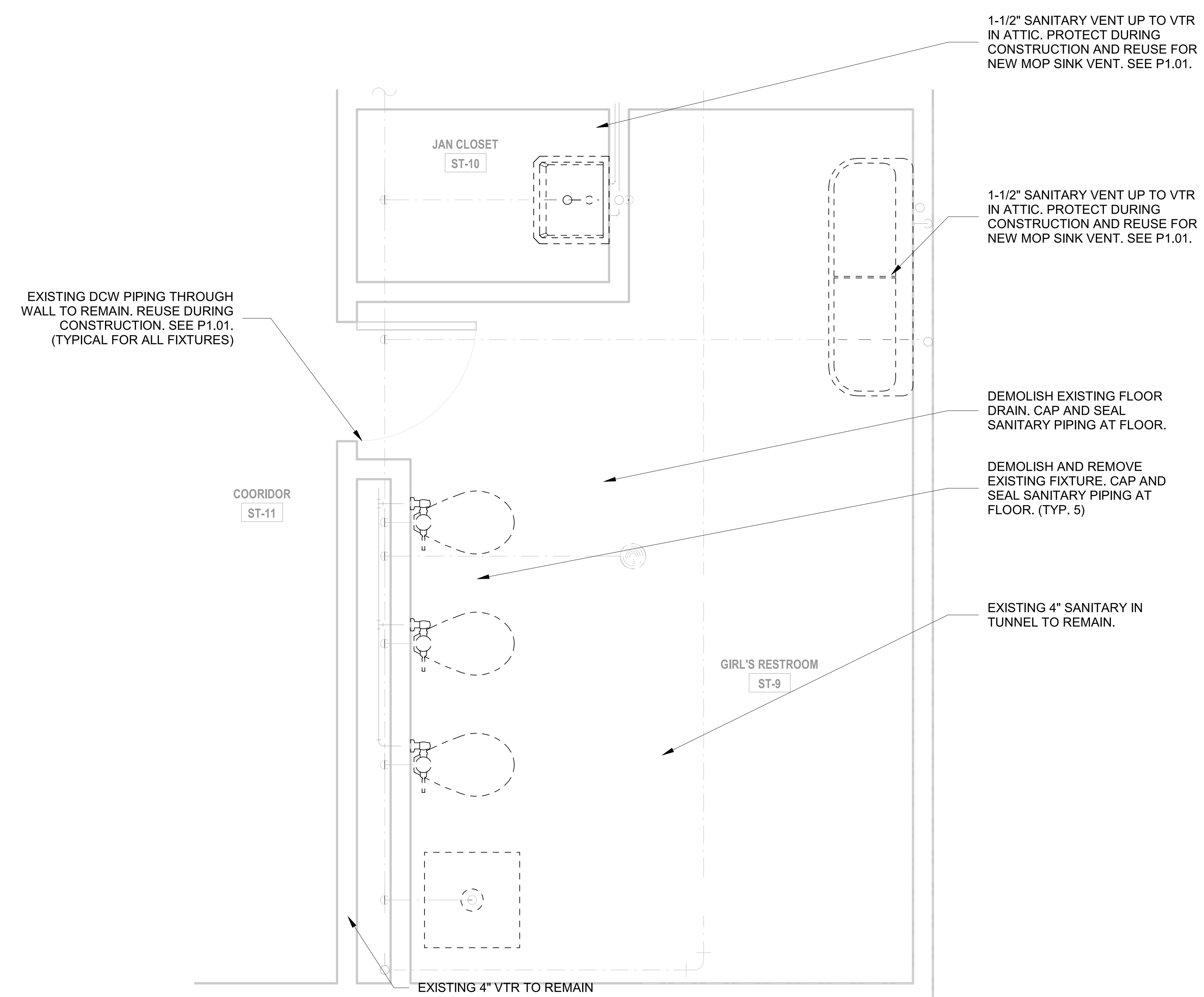
MAP REFERENCE:

EXISTING CONDITIONS BASED ON THE ANDOVER ELEMENTARY SCHOOL AS-BUILT DRAWINGS DATED 10/20/1952 IN ADDITION TO FIELD INVESTIGATION CONDUCTED BY FUSS & O'NEILL .

LINETYPE LEGEND	
EXISTING	
SANITARY BELOW GRADE	
DEMOLISHED	



1 BOY'S & TOILET ROOM PLUMBING DEMOLITION PLAN
1/2" = 1'-0"



2 GIRL'S AND JANITOR CLOSET PLUMBING DEMOLITION PLAN
1/2" = 1'-0"

CONSTRUCTION DOCUMENTS

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No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF CONNECTICUT
JENNIFER L. THURBER
NO. PEN.0032758
LICENSED
PROFESSIONAL ENGINEER

SCALE:
HORZ.:
VERT.:
DATUM:
HORZ.:
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AS NOTED
GRAPHIC SCALE

FUSS & O'NEILL
ONE FINANCIAL PLAZA, 15th FLOOR
HARTFORD, CT 06103
860.646.2469
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ANDOVER ELEMENTARY SCHOOL
PLUMBING DEMOLITION PLANS
35 SCHOOL ROAD, ANDOVER, CT 06232

PROJ. No.: 20120209.A91
DATE: 7/31/2025

PD1.01

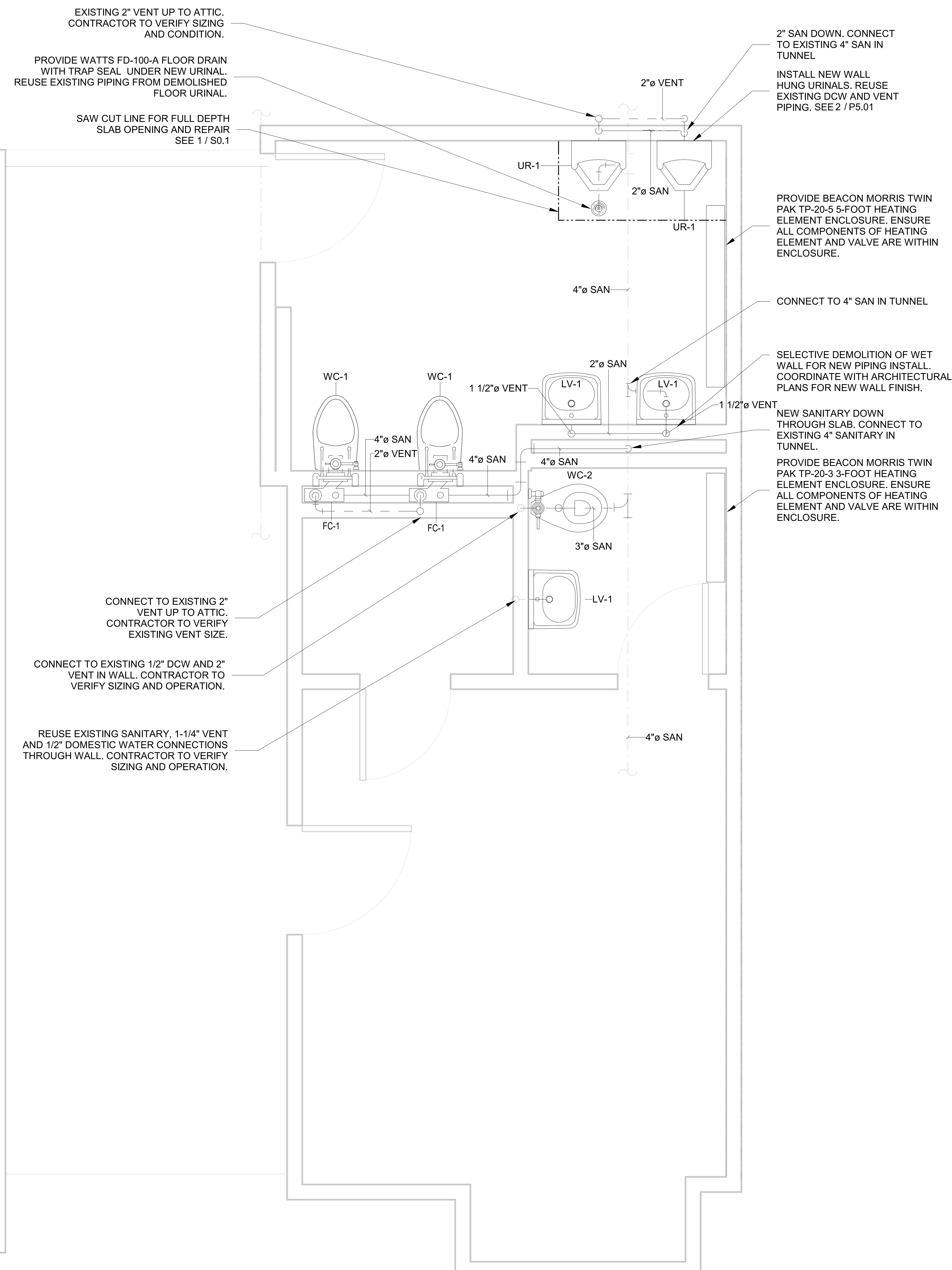
PLUMBING NOTES:

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL INSPECT AND CONFIRM EXISTING PIPING, AND FITTINGS ARE IN WORKING ORDER PRIOR TO INSTALLING NEW EQUIPMENT. NOTIFY GC OF ANY PIPING REPAIRS NEEDED.
3. COORDINATE ANY SERVICE SHUTDOWN WITH SCHOOL PERSONNEL PRIOR TO DISCONNECTING ANY PORTION OF THE BUILDING FROM SERVICE.
4. PROPERLY DISPOSE OF ALL REMOVED PLUMBING ITEMS THAT ARE NOT TO BE REUSED DURING CONSTRUCTION.
5. REPAIR ALL OPENINGS CAUSED BY REMOVAL OF EXISTING EQUIPMENT AND ENSURE PROPER PATCHING AND WEATHERPROOFING IS COMPLETE.
6. ALL DOMESTIC WATER PIPING ABOVE CEILING IS TO BE INSULATED TO ASTM THERMAL PIPE INSULATION STANDARDS.
7. SEE SPECIFICATIONS FOR BASE BID AND ALTERNATE BID DOMESTIC WATER PIPING MATERIALS.

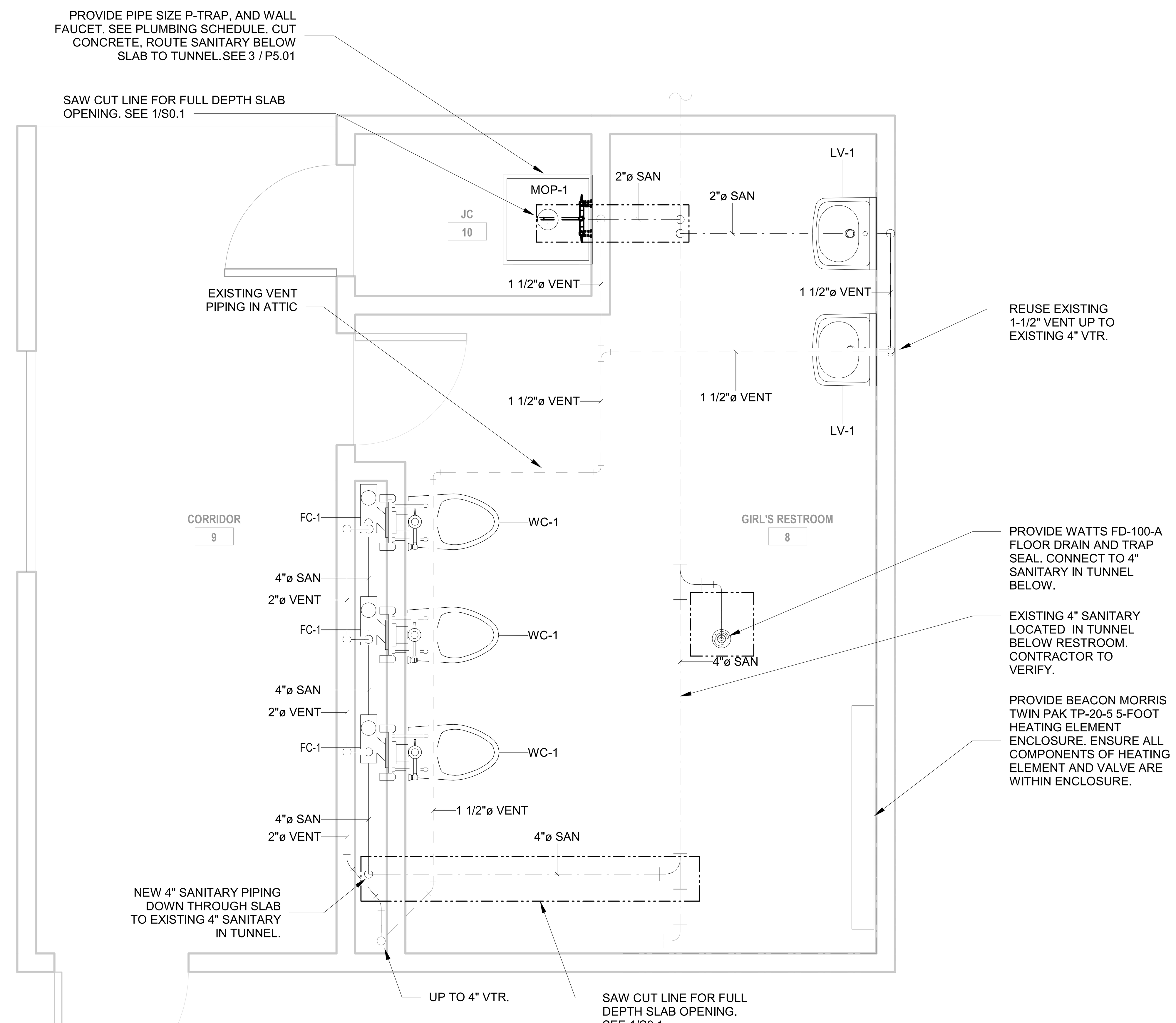
MAP REFERENCE:

EXISTING CONDITIONS BASED ON THE ANDOVER ELEMENTARY SCHOOL AS-BUILT DRAWINGS DATED 10/20/1952 IN ADDITION TO FIELD INVESTIGATION CONDUCTED BY FUSS & O'NEILL .

LINETYPE LEGEND	
EXISTING	
EXISTING SANITARY BELOW GRADE	
NEW SANITARY BELOW GRADE	
NEW WORK SANITARY	
NEW WORK VENT	
NEW SAW CUTS	



1 BOYS' & TOILET ROOM PLUMBING SANITARY AND VENT NEW WORK PLAN
1/2" = 1'-0"



2 GIRLS' AND JANITOR CLOSET PLUMBING SANITARY AND VENT NEW WORK PLAN
1/2" = 1'-0"

CONSTRUCTION DOCUMENTS

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FUSS & O'NEILL

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ANDOVER ELEMENTARY SCHOOL

PLUMBING SANITARY AND VENT NEW WORK

35 SCHOOL ROAD, ANDOVER, CT 06232

PROJ. No.: 20120209.A91
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P1.01

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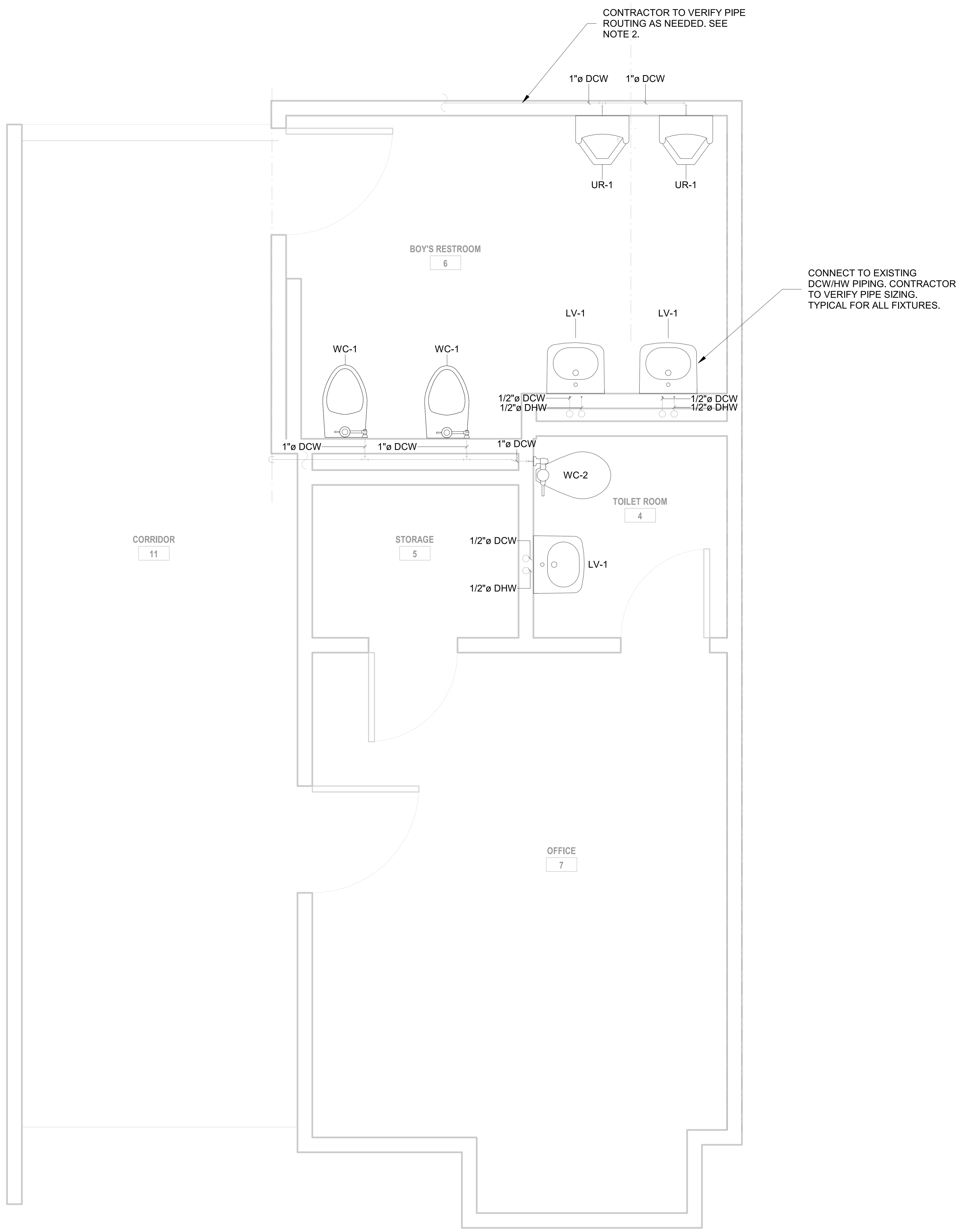
PLUMBING NOTES:

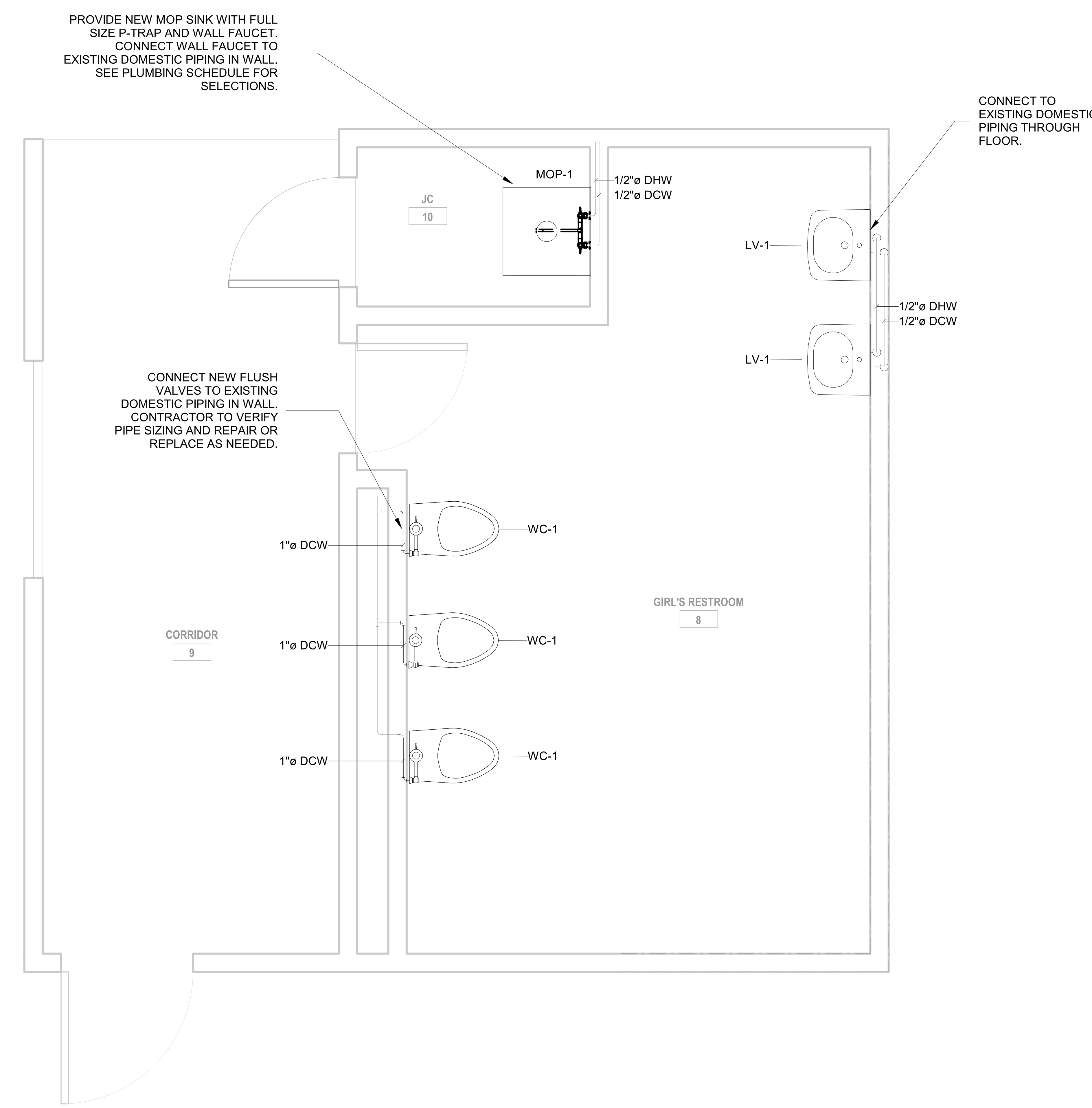
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL INSPECT AND CONFIRM EXISTING PIPING, AND FITTINGS ARE IN WORKING ORDER PRIOR TO INSTALLING NEW EQUIPMENT. NOTIFY GC OF ANY PIPING REPAIRS NEEDED.
3. COORDINATE ANY SERVICE SHUTDOWN WITH SCHOOL PERSONNEL PRIOR TO DISCONNECTING ANY PORTION OF THE BUILDING FROM SERVICE.
4. PROPERLY DISPOSE OF ALL REMOVED PLUMBING ITEMS THAT ARE NOT TO BE REUSED DURING CONSTRUCTION.
5. REPAIR ALL OPENINGS CAUSED BY REMOVAL OF EXISTING EQUIPMENT AND ENSURE PROPER PATCHING AND WEATHERPROOFING IS COMPLETE.
6. ALL DOMESTIC WATER PIPING ABOVE CEILING IS TO BE INSULATED TO ASTM THERMAL PIPE INSULATION STANDARDS.
7. SEE SPECIFICATIONS FOR BASE BID AND ALTERNATE BID DOMESTIC WATER PIPING MATERIALS.

MAP REFERENCE:
EXISTING CONDITIONS BASED ON THE ANDOVER ELEMENTARY SCHOOL AS-BUILT DRAWINGS DATED 10/20/1952 IN ADDITION TO FIELD INVESTIGATION CONDUCTED BY FUSS & O'NEILL .

LINETYPE LEGEND	
EXISTING	
EXISTING SANITARY BELOW GRADE	
NEW SANITARY BELOW GRADE	
NEW WORK SANITARY	
NEW WORK VENT	
NEW SAW CUTS	



1 BOY'S & TOILET ROOM DOMESTIC PIPING NEW WORK PLAN
1/2" = 1'-0"



2 GIRL'S AND JANITOR CLOSET DOMESTIC PIPING NEW WORK PLAN
1/2" = 1'-0"

CONSTRUCTION DOCUMENTS

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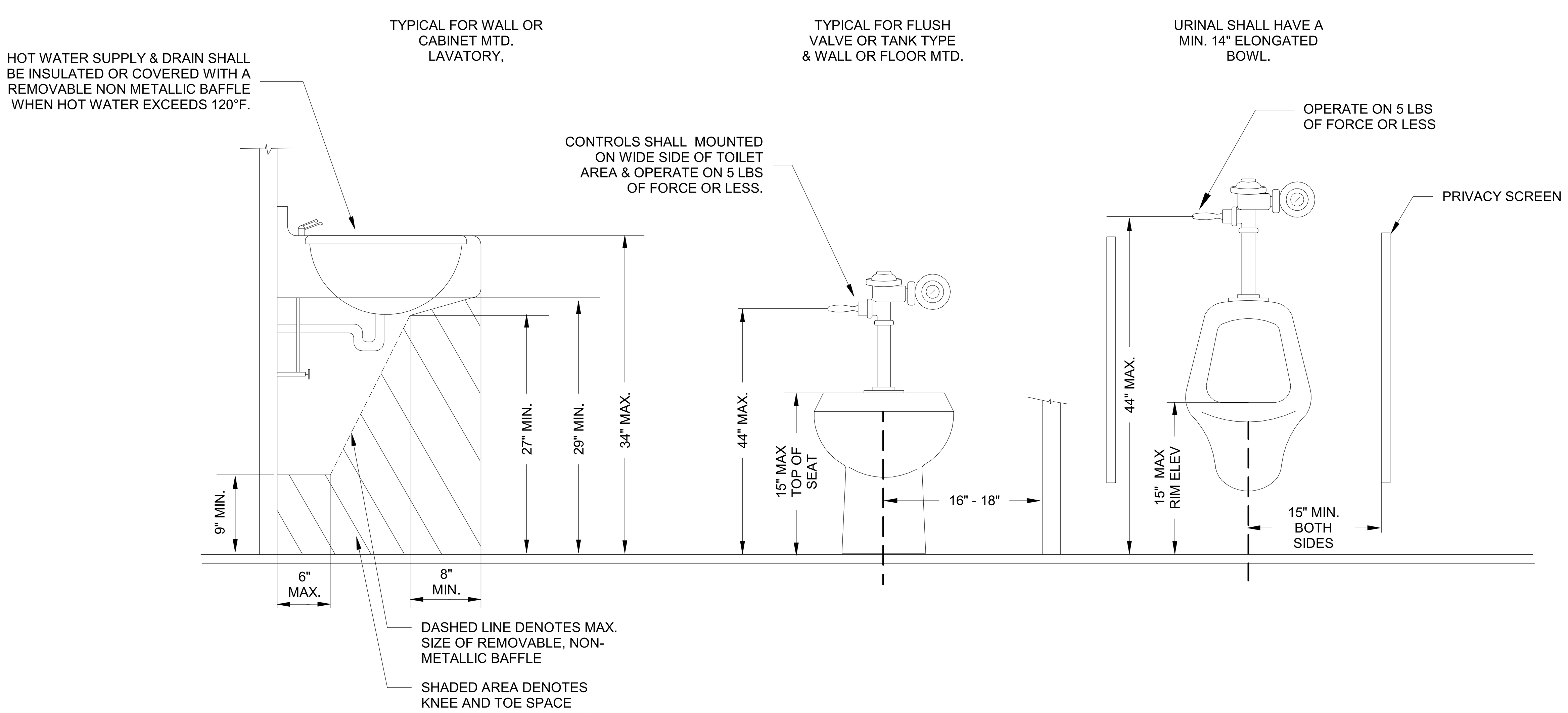
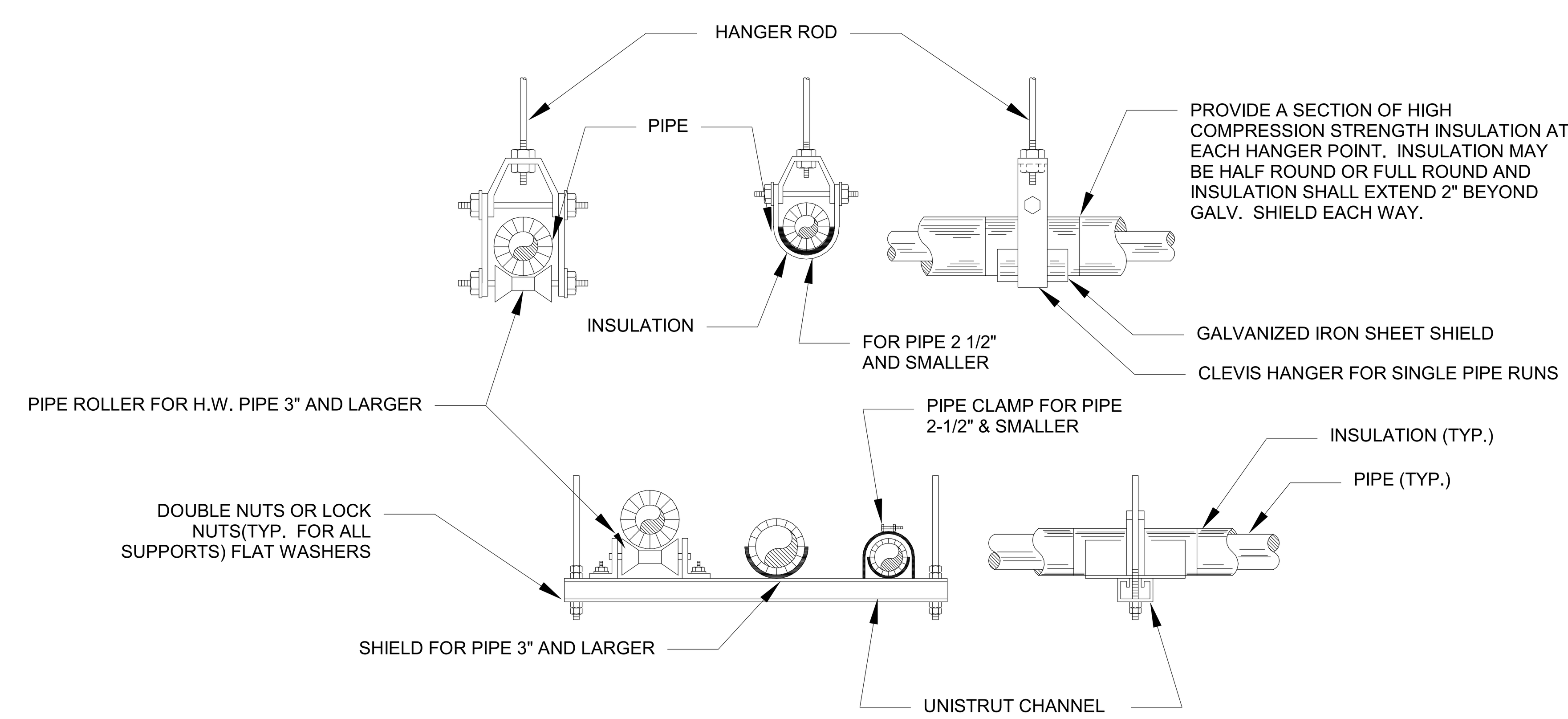
P1.02

PLUMBING FIXTURE SCHEDULE

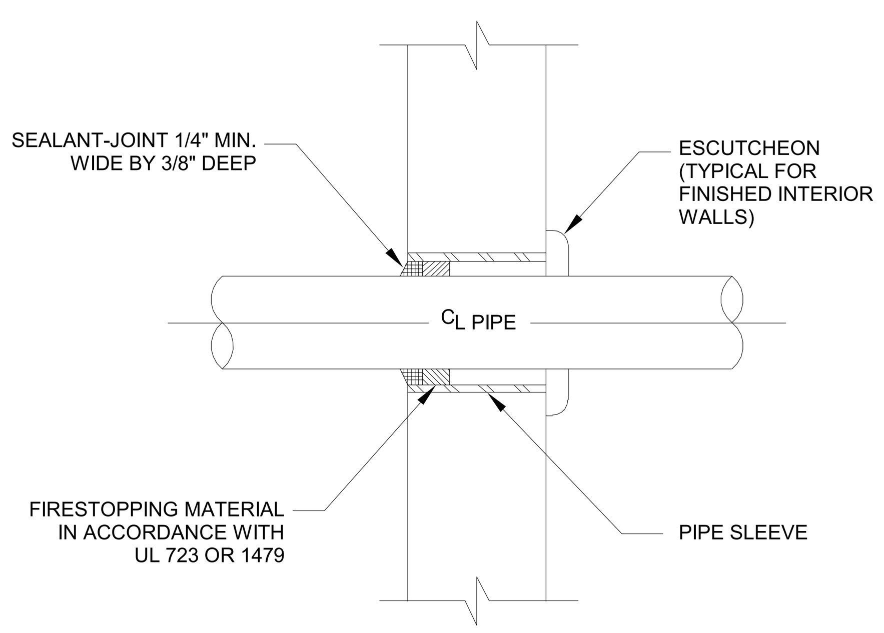
SYMBOL	FIXTURE TYPE	PIPE SIZE HW	CW	SAN	VENT	MOUNTING	MFGR	FIXTURE DESCRIPTION	TRIM DESCRIPTION
WC-1	TOILET	-	1"	3"	2"	WALL	AMERICAN STANDARD	AFWALL FLOWISE 2859.016 1.6 GPF TOILET WITH EVERCLEAN, WHITE, ADA COMPLIANT, VITEROUS CHINA.	PROVIDE MANUAL 1.6 GPF FLUSH VALVE, 5901.100 ELONGATED, OPEN FRONT, WHITE SEAT.
WC-2	TOILET	-	1"	3"	2"	FLOOR	AMERICAN STANDARD	MADERA FLOWISE 2857.128 1.28 GPF FLUSHOMETER TOILET, WHITE, ADA COMPLIANT VITEROUS CHINA.	PROVIDE MANUAL 1.28 GPF FLUSH VALVE, 5901.100 ELONGATED, OPEN FRONT, WHITE SEAT.
LV-1	LAVATORY	1/2"	1/2"	1-1/4"	1-1/4"	WALL	AMERICAN STANDARD	LUCERNE WALL HUNG LAVATORY 0355.012 WITH 4" CENTERS. WHITE, VITEROUS CHINA, ADA COMPLIANT, FRONT OVERFLOW, SELF-DRAINING DECK.	PROVIDE WITH DELTA MODEL: 21C154 4" CENTERSET LAVATORY FAUCET
UR-1	URINAL	-	3/4"	2"	2"	WALL	AMERICAN STANDARD	WASHBROOK FLOWISE, ADA COMPLIANT, 1.0 GPF, VITEROUS CHINA WITH EVERCLEAN. ADA COMPLIANT	PROVIDE WITH AMERICAN STANDARD #6045.013.002 0.125 GPF MAUNUAL FLUSH VALVE, WATTS CA-321 FIXTURE CARRIER.
MOP-1	MOP SINK	1/2"	1/2"	3"	1-1/4"	FLOOR	FIAT	FIAT MOLDED STONE WITH INTEGRAL DRAIN MSBID2424 MOP SINK	PROVIDE 830AA SERVICE FAUCET, CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND 3/4" THREAD ON SPOUT.
FC-1	FIXTURE CARRIER	-	-	4"	2"	FLOOR	WATTS	ISCA-101-L/R SINGLE HORIZONTAL CLOSET CARRIER WITH FLOOR MOUNTED BACK OUTLET BOWL. EPOXY COATED CAST IRON COMPRESSION SEAL FACEPLATE ASSEMBLY, EPOXY COATED CAST IRON FOOT SUPPORT, PLATED HARDWARE AND CHROME CAP NUTS.	



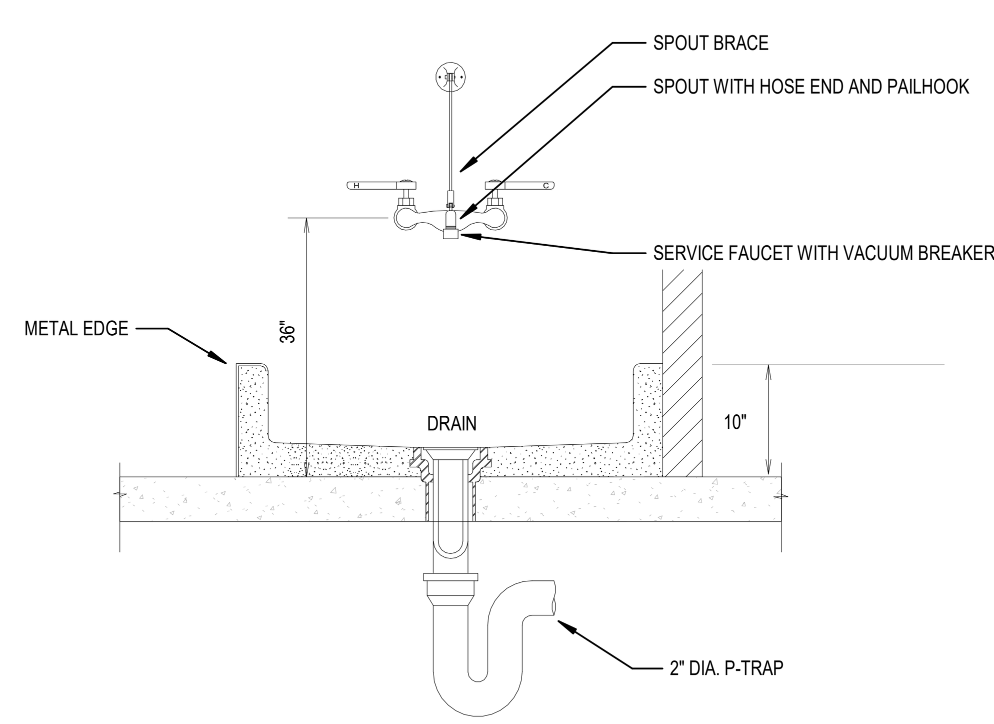
2 ADA FIXTURE INSTALLATION DETAIL
N.T.S.



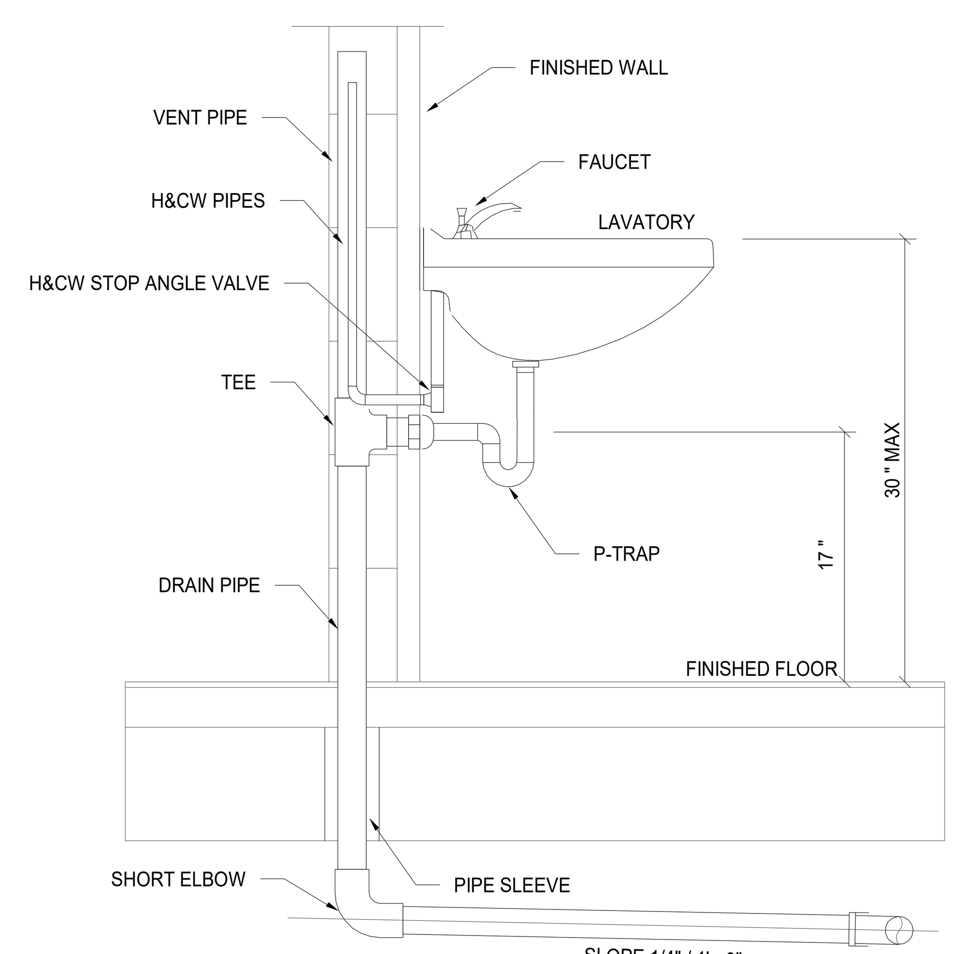
5 WATER PIPING HANGERS AND SUPPORT DETAIL
N.T.S.



1 TYPICAL PIPING THROUGH WALL
N.T.S.



3 MOP SINK DETAIL
N.T.S.



4 LAVATORY INSTALL DETAIL
N.T.S.

CONSTRUCTION DOCUMENTS

No. | DATE | DESCRIPTION | DESIGNER | REVIEWER

STATE OF CONNECTICUT JENNIFER L. THOMAS NO. PEN.0032758 LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.: DATUM: HORZ.: VERT.:
NTS
GRAPHIC SCALE

FUSS & O'NEILL
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ANDOVER ELEMENTARY SCHOOL
PLUMBING SCHEDULE AND DETAILS
35 SCHOOL ROAD, ANDOVER, CT 06232

PROJ. No.: 20120209.A91
DATE: 7/31/2025

P5.01

GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL STATE AND LOCAL CODES AND AMENDMENTS.
2. THE CONTRACTOR SHALL OBTAIN AND BEAR THE COST OF ALL PERMITS REQUIRED TO PERFORM THE WORK.
3. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC (EXCEPT WHERE DIMENSIONED) AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEM AND WORK. ALL LOCATIONS AND CONDUIT SIZING SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY FIELD CONDITIONS FOR OPTIMUM ROUTING AND SIZING OF CONDUITS.
4. EXACT LOCATION OF ALL EQUIPMENT, PANELS, PULL BOXES, FEEDERS, FIXTURES, ETC., SHALL BE APPROVED BY THE ENGINEER, ARCHITECT, AND OWNER PRIOR TO THE INSTALLATION OF THE SAME.
5. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO ELIMINATE ANY INTERFERENCE WITH PIPES, DUCTS, ETC.
6. FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT, REFER TO MECHANICAL DRAWINGS.
7. CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS, JUNCTION BOXES AND ACCESSORIES TO FULFILL APPLICABLE CODES, REGULATIONS, AND THE BEST PRACTICES OF THE TRADE FOR INSTALLATION OF ALL ELECTRICAL WORK TO COMPRISE A COMPLETE AND OPERATING SYSTEM WHETHER SHOWN ON THE PLANS OR NOT.
8. CONDUITS AND WIRING SHALL BE INSTALLED CONCEALED WHEREVER POSSIBLE AND SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO ALL BUILDING LINES.
9. ALL CONDUITS SHALL CONTAIN A GREEN GROUND WIRE. BOND ALL PANELS, CABINETS, ENCLOSURES, CONDUITS, ETC., AS REQUIRED. ALL GROUNDING CONDUCTORS SHALL BE CONTINUOUS TO MAIN GROUNDING SYSTEM.
10. ALL WIRE SHALL BE 600V INSULATED TYPES THWN OR XHHW, 75°C, COPPER, UNLESS OTHERWISE INDICATED.
11. BRANCH CIRCUIT WIRING SHALL BE MINIMUM ¾"C-2#12, 1#12 GND. BRANCH CIRCUIT WIRING AND HOMERUNS WITH LENGTHS EXCEEDING 90 FEET FOR 120V AND 200 FEET FOR 277V SHALL USE #10 AWG, THOSE EXCEEDING 140 FEET FOR 120V SHALL USE #8 AWG CONDUCTORS. NO MORE THAN THREE PHASES MAY BE COMBINED IN A SINGLE HOMERUN AND EACH PHASE SHALL BE PROVIDED WITH AN INDIVIDUAL NEUTRAL.
12. ALL CUTTING, PATCHING AND FIRESTOPPING RELATED TO ELECTRICAL WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
13. PROVIDE CONDUIT SLEEVES FILLED WITH AN APPROVED FIRE-RESISTANT MATERIAL TO MAINTAIN RATING, WHERE FIRE-RATED WALLS, FLOORS OR CEILINGS ARE PENETRATED. APPROVED WATERTIGHT CONDUIT SLEEVES SHALL BE INSTALLED WHERE WALLS ARE PENETRATED EITHER ENTERING OR LEAVING A BUILDING.
14. FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF DEVICES AND EQUIPMENT, REFER TO ARCHITECTURAL DRAWINGS. COLORS AND FINISHES OF DEVICES, COVER PLATES, LIGHTING FIXTURES, ETC., SHALL BE APPROVED BY THE ARCHITECT DURING THE SHOP DRAWING PHASE OF CONSTRUCTION.
15. COORDINATE CONDUITS ENTERING OR LEAVING THE BUILDING WITH THE SITE CONTRACTOR(S) BEFORE INSTALLATION. COORDINATE INVERTS WITH THE STRUCTURE AND SYSTEM REQUIREMENTS PRIOR TO INSTALLATION.
16. COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS OF LIGHT FIXTURES WITH THE ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND REFLECTED CEILING PLANS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR FINAL DISPOSITION.
17. INSTALL ALL EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE EQUIPMENT MUST BE INSTALLED ABOVE AN INACCESSIBLE CEILING OR BEHIND A WALL, AN APPROPRIATE ACCESS DOOR SHALL BE PROVIDED AND THE LOCATION SHALL BE COORDINATED WITH THE ARCHITECT.

LEGEND NOTE

THESE LEGENDS AND ABBREVIATIONS DEFINE ITEMS INDICATED ON DRAWINGS. NOT ALL SYMBOLS OR ABBREVIATIONS DEFINED ARE NECESSARILY USED ON THIS PROJECT.

150918

NORMAL LIGHTING

SYMBOL	DESCRIPTION (SUB-LETTER INDICATES FIXTURE TYPE)
	CEILING-MOUNTED 2'x4' DIRECT/INDIRECT LIGHT FIXTURE
	CEILING-MOUNTED 4' UTILITY PENDANT LIGHT FIXTURE
	CEILING-MOUNTED 2'x2' DIRECT/INDIRECT LIGHT FIXTURE

150918

EMERGENCY LIGHTING

SYMBOL	DESCRIPTION (SUB-LETTER INDICATES FIXTURE TYPE)
	CEILING-MOUNTED LIGHT FIXTURE ON EMERGENCY
	CEILING MOUNTED DUAL BALLAST / DRIVER FIXTURE - NORMAL / EMERGENCY
	CEILING MOUNTED 1'X4' DUAL BALLAST / DRIVER FIXTURE - NORMAL / EMERGENCY
	CEILING MOUNTED 1'X4' LIGHT ON EMERGENCY
	CEILING MOUNTED 6"X4' LIGHT ON EMERGENCY
	SINGLE-FACED CEILING OR WALL-MOUNTED, EXIT SIGN WITH CHEVRONS AS INDICATED ON PLANS
	DOUBLE-FACED CEILING OR WALL-MOUNTED, EXIT SIGN WITH CHEVRONS AS INDICATED ON PLANS
	EXIT SIGN DIRECTIONAL ARROWS
	CEILING OR WALL-MOUNTED, SELF CONTAINED EMERGENCY LIGHT UNIT; FIXTURE SHALL MONITOR LIGHTING CIRCUIT IN AREA
	EMERGENCY LIGHTING BATTERY UNIT; FIXTURE SHALL MONITOR LIGHTING CIRCUIT IN AREA

150918

SWITCHES

SYMBOL	DESCRIPTION
$\$$	SINGLE-POLE SWITCH
$\$_2$	DOUBLE-POLE SWITCH
$\$_3$	3-WAY SWITCH
$\$_4$	4-WAY SWITCH

150918

FIRE ALARM

SYMBOL	DESCRIPTION
	FIRE ALARM SMOKE DETECTOR
	FIRE ALARM WALL MOUNTED SMOKE DETECTOR
S	FIRE ALARM SMOKE DETECTOR WITH SOUNDER BASE
E	SMOKE DETECTOR FOR ELEVATOR RECALL CONTROL
D	DUCT MOUNTED SMOKE DETECTOR
	FIRE ALARM VISUAL INDICATING UNIT SUB-LETTER "#" INDICATES SPECIAL CANDELA RATING
F	FIRE ALARM AUDIO/VISUAL INDICATING UNIT SUB-LETTER "#" INDICATES SPECIAL CANDELA RATING
	FIRE ALARM AUDIO / VISUAL INDICATING UNIT - CEILING-MOUNTED SUB-LETTER "#" INDICATES SPECIAL CANDELA RATING

180817

REVIEWER | DESIGNER | DESCRIPTION | DATE | No.

SCALE: NOT TO SCALE
HORZ.:
VERT.:
DATUM:
HORZ.:
VERT.:

NTS
GRAPHIC SCALE

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ELECTRICAL LEGENDS
35 School Rd, Andover, CT 06232

PROJ. No.: 20120209.A91
DATE: 7/31/2025

E0.01

CONSTRUCTION DOCUMENTTS

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DIVISION 26 - ELECTRICAL

SECTION 26 05 05
SELECTIVE DEMOLITION FOR ELECTRICAL

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Electrical demolition.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. Materials and equipment for patching and extending work: As specified in individual sections.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify field measurements and circuiting arrangements are as indicated.
B. Verify that abandoned wiring and equipment serve only abandoned facilities.
C. Demolition drawings are based on casual field observation and existing record documents.
D. Report discrepancies to Engineer before disturbing existing installation.
E. Beginning of demolition means installer accepts existing conditions.

3.02 PREPARATION

A. Disconnect electrical systems in walls, floors, and ceilings to be removed.
B. Provide temporary wiring and connections to maintain existing systems in service during construction. When work must be performed on energized equipment or circuits, use personnel experienced in such operations.

3.03 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

A. Perform work for removal and disposal of equipment and materials containing toxic substances regulated under the Federal Toxic Substances Control Act (TSCA) in accordance with applicable federal, state, and local regulations. Applicable equipment and materials include, but are not limited to:
1. PCB-containing electrical equipment, including transformers, capacitors, and switches.
2. PCB- and DEHP-containing lighting ballasts.
3. Mercury-containing lamps and tubes, including fluorescent lamps, high intensity discharge (HID), arc lamps, ultra-violet, high pressure sodium, mercury vapor, ignitron tubes, neon, and incandescent.
B. Remove, relocate, and extend existing installations to accommodate new construction.
C. Remove abandoned wiring to source of supply.
D. Remove exposed abandoned conduit, including abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors, and patch surfaces.
E. Disconnect and remove electrical devices and equipment serving utilization equipment that has been removed.
F. Disconnect and remove abandoned luminaires. Remove brackets, stems, hangers, and other accessories.
G. Repair adjacent construction and finishes damaged during demolition and extension work.
H. Maintain access to existing electrical installations that remain active. Modify installation or provide access panel as appropriate.
I. Extend existing installations using materials and methods compatible with existing electrical installations, or as specified.

SECTION 26 05 19
LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Single conductor building wire.
B. Metal-clad cable.

1.02 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
1. Coordinate sizes of raceways, boxes, and equipment enclosures installed under other sections with the actual conductors to be installed, including adjustments for conductor sizes increased for voltage drop.
2. Coordinate with electrical equipment installed under other sections to provide terminations suitable for use with the conductors to be installed.
3. Notify Engineer of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.03 SUBMITTALS

A. Product Data: Provide manufacturer's standard catalog pages and data sheets for conductors and cables, including detailed information on materials, construction, ratings, listings, and available sizes, configurations, and stranding.
B. Field Quality Control Test Reports.
C. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

1.04 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.
B. Maintain at the project site a copy of each referenced document that prescribes execution requirements.
C. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
D. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Receive, inspect, handle, and store conductors and cables in accordance with manufacturer's instructions.

1.06 FIELD CONDITIONS

A. Do not install or otherwise handle thermoplastic-insulated conductors at temperatures lower than 14 degrees F, unless otherwise permitted by manufacturer's instructions. When installation below this temperature is unavoidable, notify Engineer and obtain direction before proceeding with work.

PART 2 PRODUCTS

2.01 CONDUCTOR AND CABLE APPLICATIONS

A. Do not use conductors and cables for applications other than as permitted by NFPA 70 and product listing.
B. Provide single conductor building wire installed in suitable raceway unless otherwise indicated, permitted, or required.
C. Metal-clad cable is permitted only as follows:
1. Where not otherwise restricted, may be used:
a. Where concealed above accessible ceilings for final connections from junction boxes to luminaires.
1) Maximum Length: 6 feet.
b. Where concealed above accessible ceilings for branch circuits up to 20 A.
1) Exception: Provide single conductor building wire in raceway for circuit homerun from first outlet to panelboard.
2. In addition to other applicable restrictions, may not be used:
a. Where exposed to damage.
b. For damp, wet, or corrosive locations, unless provided with a PVC jacket listed as suitable for those locations.

2.02 CONDUCTOR AND CABLE GENERAL REQUIREMENTS

A. Provide products that comply with requirements of NFPA 70.
B. Provide products listed, classified, and labeled as suitable for the purpose intended.
C. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, etc. as required for a complete operating system.
D. Comply with NEMA WC 70.
E. Thermoplastic-Insulated Conductors and Cables: Listed and labeled as complying with UL 83.
F. Thermoset-Insulated Conductors and Cables: Listed and labeled as complying with UL 44.
G. Conductor Material:
1. Provide copper conductors only. Aluminum conductors are not acceptable for this project. Conductor sizes indicated are based on copper.
2. Copper Conductors: Soft drawn annealed, 98 percent conductivity, uncoated copper conductors complying with ASTM B3, ASTM B8, or ASTM B787/B787M unless otherwise indicated.
3. Tinned Copper Conductors: Comply with ASTM B33.
H. Minimum Conductor Size:
1. Branch Circuits: 12 AWG.
2. Control Circuits: 14 AWG.
I. Where conductor size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.
J. Conductor Color Coding:
1. Color code conductors as indicated unless otherwise required by the authority having jurisdiction. Maintain consistent color coding throughout project.
2. Color Coding Method: Integrally colored insulation.
3. Color Code:
a. 208Y/120 V, 3 Phase, 4 Wire System:
1) Phase A: Black.
2) Phase B: Red.
3) Phase C: Blue.
4) Neutral/Grounded: White.
b. Equipment Ground, All Systems: Green.

2.03 SINGLE CONDUCTOR BUILDING WIRE

A. Description: Single conductor insulated wire.
B. Conductor Stranding:
1. Feeders and Branch Circuits:
a. Size 10 AWG and Smaller: Solid.
b. Size 8 AWG and Larger: Stranded.
2. Control Circuits: Stranded.
C. Insulation Voltage Rating: 600 V.
D. Insulation:
1. Copper Building Wire: Type THHN/THWN or THHN/THWN-2, except as indicated below.
a. Fixture Wiring Within Luminaires: Type TFFN/TFN for luminaires with labeled maximum temperature of 90 degrees C; Approved suitable type for luminaires with labeled maximum temperature greater than 90 degrees C.

2.04 METAL-CLAD CABLE

A. Description: NFPA 70, Type MC cable listed and labeled as complying with UL 1569, and listed for use in classified firestop systems to be used.
B. Conductor Stranding:
1. Size 10 AWG and Smaller: Solid.
2. Size 8 AWG and Larger: Stranded.
C. Insulation Voltage Rating: 600 V.
D. Insulation: Type THHN/THWN or THHN/THWN-2.
E. Provide dedicated neutral conductor for each phase conductor.
F. Grounding: Full-size integral equipment grounding conductor.
G. Armor: Steel, interlocked tape.
H. Provide PVC jacket applied over cable armor.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that work likely to damage wire and cable has been completed.
B. Verify that raceways, boxes, and equipment enclosures are installed and are properly sized to accommodate conductors and cables in accordance with NFPA 70.
C. Verify that field measurements are as indicated.
D. Verify that conditions are satisfactory for installation prior to starting work.

3.02 PREPARATION

A. Clean raceways thoroughly to remove foreign materials before installing conductors and cables.

3.03 INSTALLATION

A. Circuiting Requirements:
1. Unless dimensioned, circuit routing indicated is diagrammatic.
2. When circuit destination is indicated without specific routing, determine exact routing required.
3. Arrange circuiting to minimize splices.
4. Include circuit lengths required to install connected devices within 10 ft of location indicated.
5. Circuiting Adjustments: Unless otherwise indicated, when branch circuits are indicated as separate, combining them together in a single raceway is not permitted.
6. Common Neutrals: Unless otherwise indicated, sharing of neutral/grounded conductors among single phase branch circuits of different phases installed in the same raceway is not permitted. Provide dedicated neutral/grounded conductor for each individual branch circuit.
B. Install products in accordance with manufacturer's instructions.
C. Perform work in accordance with NECA 1 (general workmanship).
D. Install metal-clad cable (Type MC) in accordance with NECA 120.
E. Installation in Raceway:
1. Tape ends of conductors and cables to prevent infiltration of moisture and other contaminants.
2. Pull all conductors and cables together into raceway at same time.
3. Do not damage conductors and cables or exceed manufacturer's recommended maximum pulling tension and sidewall pressure.
F. Secure and support conductors and cables in accordance with NFPA 70 using suitable supports and methods approved by the authority having jurisdiction. Provide independent support from building structure. Do not provide support from raceways, piping, ductwork, or other systems.
1. Installation Above Suspended Ceilings: Do not provide support from ceiling support system. Do not provide support from ceiling grid or allow conductors and cables to lay on ceiling tiles.
G. Terminate cables using suitable fittings.
1. Metal-Clad Cable (Type MC):
a. Use listed fittings.
b. Cut cable armor only using specialized tools to prevent damaging conductors or insulation. Do not use hacksaw or wire cutters to cut armor.
H. Make wiring connections using specified wiring connectors.
1. Make splices and taps only in accessible boxes. Do not pull splices into raceways or make splices in conduit bodies or wiring gutters.
2. Remove appropriate amount of conductor insulation for making connections without cutting, nicking or damaging conductors.
3. Do not remove conductor strands to facilitate insertion into connector.
4. Clean contact surfaces on conductors and connectors to suitable remove corrosion, oxides, and other contaminates. Do not use wire brush on plated connector surfaces.
5. Mechanical Connectors: Secure connections according to manufacturer's recommended torque settings.
6. Compression Connectors: Secure connections using manufacturer's recommended tools and dies.
I. Insulate splices and taps that are made with uninsulated connectors using methods suitable for the application, with insulation and mechanical strength at least equivalent to unspliced conductors.
J. Unless specifically indicated to be excluded, provide final connections to all equipment and devices, including those furnished by others, as required for a complete operating system.

3.04 FIELD QUALITY CONTROL

A. Inspect and test in accordance with NETA ATS, except Section 4.
B. Correct deficiencies and replace damaged or defective conductors and cables.

SECTION 26 05 29
HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Support and attachment requirements and components for equipment, conduit, cable, boxes, and other electrical work.

1.02 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
1. Coordinate sizes and arrangement of supports and bases with actual equipment and components to be installed.
2. Coordinate work to provide additional framing and materials required for installation.
3. Coordinate compatibility of support and attachment components with mounting surfaces at installed locations.
4. Coordinate arrangement of supports with ductwork, piping, equipment and other potential conflicts.
5. Notify Engineer of conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.03 SUBMITTALS

A. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

1.04 QUALITY ASSURANCE

A. Maintain at project site one copy of each referenced document that prescribes execution requirements.
B. Product Listing Organization Qualifications: Organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Receive, inspect, handle, and store products in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 SUPPORT AND ATTACHMENT COMPONENTS

A. General Requirements:
1. Comply with the following. Where requirements differ, comply with most stringent.
a. NFPA 70.
b. Applicable building code.
c. Requirements of authorities having jurisdiction.
2. Provide required hangers, supports, anchors, fasteners, fittings, accessories, and hardware as necessary for complete installation of electrical work.
3. Provide products listed, classified, and labeled as suitable for purpose intended, where applicable.
4. Where support and attachment component types and sizes are not indicated, select in accordance with manufacturer's application criteria as required for load to be supported with minimum safety factor of 25%. Include consideration for vibration, equipment operation, and shock loads where applicable.
5. Do not use products for applications other than as permitted by NFPA 70 and product listing.
6. Steel Components: Use corrosion-resistant materials suitable for environment where installed.
a. Indoor Dry Locations: Use zinc-plated steel or approved equivalent unless otherwise indicated.
b. Zinc-Plated Steel: Electroplated in accordance with ASTM B633.
c. Galvanized Steel: Hot-dip galvanized after fabrication in accordance with ASTM A123/A123M or ASTM A153/A153M.
B. Conduit and Cable Supports: Straps and clamps suitable for conduit or cable to be supported.
1. Conduit Straps: One-hole or two-hole type; steel or malleable iron.
2. Conduit Clamps: Bolted type unless otherwise indicated.
C. Outlet Box Supports: Hangers and brackets suitable for boxes to be supported.
D. Anchors and Fasteners:
1. Unless otherwise indicated and where not otherwise restricted, use anchor and fastener types indicated for specified applications.
2. Concrete: Use preset concrete inserts, expansion anchors, or screw anchors.
3. Steel: Use beam clamps or beam clamps.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.
B. Verify that mounting surfaces are ready to receive support and attachment components.
C. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.
B. Install hangers and supports in accordance with NECA 1.
C. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.
D. Unless specifically indicated or approved by Engineer, do not provide support from suspended ceiling support system or ceiling grid.
E. Unless specifically indicated or approved by Engineer, do not provide support from roof deck.
F. Do not penetrate or otherwise notch or cut structural members without approval of Structural Engineer.
G. Equipment Support and Attachment:
1. Use metal, fabricated supports or supports assembled from metal channel/strut to support equipment as required.
H. Interior Luminaire Support and Attachment: See Section 26 51 00 for additional requirements.
I. Secure fasteners in accordance with manufacturer's recommended torque settings.
J. Remove temporary supports.

3.03 FIELD QUALITY CONTROL

A. Inspect support and attachment components for damage and defects.
B. Repair cuts and abrasions in galvanized finishes using zinc-rich paint recommended by manufacturer. Replace components that exhibit signs of corrosion.
C. Correct deficiencies and replace damaged or defective support and attachment components.

SECTION 26 05 33.13
CONDUIT FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Flexible metal conduit (FMC).
B. Aluminum electrical metallic tubing (EMT).

1.02 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
1. Coordinate minimum sizes of conduits with actual type and quantity of conductors to be installed, including adjustments for conductor sizes increased for voltage drop.
2. Coordinate arrangement of conduits with structural members, ductwork, piping, equipment, and other potential conflicts.
3. Verify exact conduit termination locations required for boxes, enclosures, and equipment.
4. Notify Engineer of conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.
B. Sequencing:
1. Do not begin installation of conductors and cables until installation of conduit between termination points is complete.

1.03 SUBMITTALS

A. Product Data: Provide manufacturer's standard catalog pages and data sheets for conduits and fittings.
B. Project Record Documents: Record actual routing for circuits.

1.04 QUALITY ASSURANCE

A. Documents at Project Site: Maintain at project site one copy of manufacturer's instructions and shop drawings.
B. Product Listing Organization Qualifications: Organization recognized by OSHA as Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Receive, inspect, handle, and store conduit and fittings in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 CONDUIT APPLICATIONS

A. Do not use conduit and associated fittings for applications other than as permitted by NFPA 70, manufacturer's instructions, and product listing.
B. Unless otherwise indicated and where not otherwise restricted, use conduit types indicated for specified applications. Where more than one listed application applies, comply with most restrictive requirements. Where conduit type for particular application is not specified, use EMT.
C. Concealed Above Accessible Ceilings: Use aluminum electrical metallic tubing (EMT).
D. Flexible Connections to Luminaires Above Accessible Ceilings: Use flexible metal conduit (FMC).
1. Maximum Length: 6 feet.

2.02 CONDUIT - GENERAL REQUIREMENTS

A. Comply with NFPA 70.
B. Existing Work: Where existing conduits are indicated to be reused, they may be reused only where they comply with specified requirements, are free from corrosion, and integrity is verified by pulling mandrel through them.
C. Provide conduit, fittings, supports, and accessories required for complete raceway system.
D. Provide products listed, classified, and labeled as suitable for purpose intended.
E. Minimum Conduit Size, Unless Otherwise Indicated:
1. Branch Circuits: 3/4-inch trade size.
2. Branch Circuit Homeruns: 3/4-inch trade size.
3. Flexible Connections to Luminaires: 3/4-inch trade size.
F. Where conduit size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.

2.03 FLEXIBLE METAL CONDUIT (FMC)

A. Description: NFPA 70, Type FMC standard-wall steel flexible metal conduit listed and labeled as complying with UL 1, and listed for use in classified firestop systems.
B. Fittings:
1. Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
2. Material: Use steel or malleable iron.

2.04 ALUMINUM ELECTRICAL METALLIC TUBING (EMT)

A. Description: NFPA 70, Type EMT aluminum electrical metallic tubing listed and labeled as complying with UL 797A.
B. Fittings:
1. Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B; listed for use with aluminum EMT.
2. Material: Use aluminum.
3. Connectors and Couplings: Use compression/gland or set-screw type.
a. Do not use indenter type connectors and couplings.

REVIEWER | DESIGNER | DESCRIPTION | DATE | No.

SCALE: HORZ.: VERT.: DATUM: HORZ.: VERT.:
NTS
GRAPHIC SCALE

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ELECTRICAL SPECIFICATIONS
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PROJ. No.: 20120209.A91
DATE: 7/31/2025

E0.02

CONSTRUCTION DOCUMENTTS

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that mounting surfaces are ready to receive conduits.

C. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.

B. Install conduit in accordance with NECA 1.

C. Conduit Routing:
1. Unless dimensioned, conduit routing indicated is diagrammatic.
2. When conduit destination is indicated without specific routing, determine exact routing required.
3. Maintain minimum clearance of 6 inches between conduits and piping for other systems.
4. Maintain minimum clearance of 12 inches between conduits and hot surfaces.

D. Conduit Support:
1. Secure and support conduits in accordance with NFPA 70 using suitable supports and methods approved by authorities having jurisdiction; see Section 26 05 29.
2. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.
3. Installation Above Suspended Ceilings: Do not provide support from ceiling support system. Do not provide support from ceiling grid or allow conduits to lay on ceiling tiles.
4. Where conduit support intervals specified in NFPA 70 and NECA standards differ, comply with most stringent requirements.

E. Connections and Terminations:
1. Use suitable adapters where required to transition from one type of conduit to another.
2. Provide insulating bushings, insulated throats, or listed metal fittings with smooth, rounded edges at conduit terminations to protect conductors.
3. Secure joints and connections to provide mechanical strength and electrical continuity.

F. Penetrations:
1. Do not penetrate or otherwise notch or cut structural members, including footings and grade beams, without approval of Structural Engineer.
2. Make penetrations perpendicular to surfaces unless otherwise indicated.

3.03 FIELD QUALITY CONTROL

A. Repair cuts and abrasions in galvanized finishes using zinc-rich paint recommended by manufacturer. Replace components that exhibit signs of corrosion.

B. Correct deficiencies and replace damaged or defective conduits.

3.04 CLEANING

A. Clean interior of conduits to remove moisture and foreign matter.

3.05 PROTECTION

A. Immediately after installation of conduit, use suitable manufactured plugs to provide protection from entry of moisture and foreign material and do not remove until ready for installation of conductors.

SECTION 26 05 33.16
BOXES FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Outlet and device boxes up to 100 cubic inches, including those used as junction and pull boxes.

1.02 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
1. Coordinate the work with other trades to avoid placement of ductwork, piping, equipment, or other potential obstructions within the dedicated equipment spaces and working clearances for electrical equipment required by NFPA 70.
2. Coordinate arrangement of electrical equipment with the dimensions and clearance requirements of the actual equipment to be installed.
3. Coordinate minimum sizes of boxes with the actual installed arrangement of conductors, clamps, support fittings, and devices, calculated according to NFPA 70.
4. Coordinate minimum sizes of pull boxes with the actual installed arrangement of connected conduits, calculated according to NFPA 70.
5. Coordinate the work with other trades to provide walls suitable for installation of flush-mounted boxes where indicated.
6. Notify Engineer of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.03 SUBMITTALS

A. Product Data: Provide manufacturer's standard catalog pages and data sheets for outlet and device boxes and junction and pull boxes.

B. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

C. Project Record Documents: Record actual locations for outlet and device boxes, junction boxes, and pull boxes.

1.04 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

B. Maintain at the project site a copy of each referenced document that prescribes execution requirements.

C. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Receive, inspect, handle, and store products in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 BOXES

A. General Requirements:
1. Do not use boxes and associated accessories for applications other than as permitted by NFPA 70 and product listing.
2. Provide all boxes, fittings, supports, and accessories required for a complete raceway system and to accommodate devices and equipment to be installed.
3. Provide products listed, classified, and labeled as suitable for the purpose intended.
4. Where box size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.
5. Provide grounding terminals within boxes where equipment grounding conductors terminate.

B. Outlet and Device Boxes Up to 100 cubic inches, Including Those Used as Junction and Pull Boxes:
1. Use sheet-steel boxes for dry locations unless otherwise indicated or required.
2. Use shallow boxes where required by the type of wall construction.
3. Sheet-Steel Boxes: Comply with NEMA OS 1, and list and label as complying with UL 514A.
4. Cast Metal Boxes: Comply with NEMA FB 1, and list and label as complying with UL 514A; furnish with threaded hubs.
5. Wall Plates: Comply with Section 26 27 26.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that mounting surfaces are ready to receive boxes.

C. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.

B. Install boxes in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards where mounting heights are not indicated.

C. Arrange equipment to provide minimum clearances in accordance with manufacturer's instructions and NFPA 70.

D. Flush-mount boxes in finished areas unless specifically indicated to be surface-mounted.

E. Unless otherwise indicated, boxes may be surface-mounted where exposed conduits are indicated or permitted.

F. Box Locations:
1. Unless dimensioned, box locations indicated are approximate.
2. Locate boxes as required for devices installed under other sections or by others.
a. Switches, Receptacles, and Other Wiring Devices: Comply with Section 26 27 26.
3. Locate junction and pull boxes as indicated, as required to facilitate installation of conductors, and to limit conduit length and/or number of bends between pulling points in accordance with Section 26 05 33.13.
4. Locate junction and pull boxes in the following areas, unless otherwise indicated or approved by the Architect:
a. Concealed above accessible suspended ceilings.

G. Box Supports:
1. Secure and support boxes in accordance with NFPA 70 and Section 26 05 29 using suitable supports and methods approved by the authority having jurisdiction.
2. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.
3. Installation Above Suspended Ceilings: Do not provide support from ceiling grid or ceiling support system.

H. Install boxes plumb and level.

I. Flush-Mounted Boxes:
1. Install boxes in noncombustible materials such as concrete, tile, gypsum, plaster, etc. so that front edge of box or associated raised cover is not set back from finished surface more than 1/4 inch or does not project beyond finished surface.
2. Install boxes in combustible materials such as wood so that front edge of box or associated raised cover is flush with finished surface.
3. Repair rough openings around boxes in noncombustible materials such as concrete, tile, gypsum, plaster, etc. so that there are no gaps or open spaces greater than 1/8 inch at the edge of the box.

J. Install boxes as required to preserve insulation integrity.

K. Close unused box openings.

L. Install blank wall plates on junction boxes and on outlet boxes with no devices or equipment installed or designated for future use.

3.03 CLEANING

A. Clean interior of boxes to remove dirt, debris, plaster and other foreign material.

3.04 PROTECTION

A. Immediately after installation, protect boxes from entry of moisture and foreign material until ready for installation of conductors.

SECTION 26 27 26
WIRING DEVICES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Wall switches.

B. Wall plates and covers.

1.02 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
1. Coordinate wiring device ratings and configurations with the electrical requirements of actual equipment to be installed.
2. Coordinate the placement of outlet boxes for wall switches with actual installed door swings.
3. Notify Engineer of any conflicts or deviations from Contract Documents to obtain direction prior to proceeding with work.

B. Sequencing:
1. Do not install wiring devices until final surface finishes and painting are complete.

1.03 SUBMITTALS

A. Product Data: Provide manufacturer's catalog information showing dimensions, colors, and configurations.

B. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

C. Project Record Documents: Record actual installed locations of wiring devices.

1.04 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

B. Maintain at the project site a copy of each referenced document that prescribes execution requirements.

C. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

D. Products: Listed, classified, and labeled as suitable for the purpose intended.

E. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

1.05 DELIVERY, STORAGE, AND PROTECTION

A. Store in a clean, dry space in original manufacturer's packaging until ready for installation.

PART 2 PRODUCTS

2.01 WIRING DEVICES - GENERAL REQUIREMENTS

A. Provide wiring devices suitable for intended use with ratings adequate for load served.

2.02 WALL SWITCHES

A. Wall Switches - General Requirements: AC only, quiet operating, general-use snap switches with silver alloy contacts, complying with NEMA WD 1 and NEMA WD 6, and listed as complying with UL 20 and where applicable, FS W-S-896; types as indicated on the drawings.
1. Wiring Provisions: Terminal screws for side wiring with separate ground terminal screw.

B. Standard Wall Switches: Industrial specification grade, 20 A, 120/277 V with standard toggle type switch actuator and maintained contacts; single pole single throw as indicated.

2.03 WALL PLATES AND COVERS

A. Wall Plates: Comply with UL 514D.
1. Configuration: One piece cover as required for quantity and types of corresponding wiring devices.
2. Size: Standard.
3. Screws: Metal with slotted heads finished to match wall plate finish.

B. Stainless Steel Wall Plates: Brushed satin finish, Type 302 stainless steel.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate devices and conductors in accordance with NFPA 70.

C. Verify that wall openings are neatly cut and will be completely covered by wall plates.

D. Verify that final surface finishes are complete, including painting.

E. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.

F. Verify that conditions are satisfactory for installation prior to starting work.

3.02 PREPARATION

A. Provide extension rings to bring outlet boxes flush with finished surface.

B. Clean dirt, debris, plaster, and other foreign materials from outlet boxes.

3.03 INSTALLATION

A. Perform work in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards unless otherwise indicated.

B. Coordinate locations of outlet boxes provided under Section 26 05 33.16 as required for installation of wiring devices provided under this section.
1. Mounting Heights: Unless otherwise indicated, as follows:
a. Wall Switches: 48 inches above finished floor.

C. Install wiring devices in accordance with manufacturer's instructions.

D. Where required, connect wiring devices using pigtails not less than 6 inches long. Do not connect more than one conductor to wiring device terminals.

E. Connect wiring devices by wrapping conductor clockwise 3/4 turn around screw terminal and tightening to proper torque specified by the manufacturer. Where present, do not use push-in pressure terminals that do not rely on screw-actuated binding.

F. Unless otherwise indicated, connect wiring device grounding terminal to branch circuit equipment grounding conductor and to outlet box with bonding jumper.

G. Install wiring devices plumb and level with mounting yoke held rigidly in place.

H. Install wall switches with OFF position down.

I. Install wall plates to fit completely flush to wall with no gaps and rough opening completely covered without strain on wall plate. Repair or reinstall improperly installed outlet boxes or improperly sized rough openings. Do not use oversized wall plates in lieu of meeting this requirement.

J. Install blank wall plates on junction boxes and on outlet boxes with no wiring devices installed or designated for future use.

3.04 FIELD QUALITY CONTROL

A. Inspect each wiring device for damage and defects.

B. Operate each wall switch with circuit energized to verify proper operation.

C. Correct wiring deficiencies and replace damaged or defective wiring devices.

3.05 ADJUSTING

A. Adjust devices and wall plates to be flush and level.

3.06 CLEANING

A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish.

SECTION 26 51 00
INTERIOR LIGHTING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Interior luminaires.

B. Emergency lighting units.

C. Ballasts and drivers.

1.02 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
1. Coordinate the installation of luminaires with mounting surfaces installed under other sections or by others. Coordinate the work with placement of supports, anchors, etc. required for mounting. Coordinate compatibility of luminaires and associated trims with mounting surfaces at installed locations.
2. Coordinate the placement of luminaires with structural members, ductwork, piping, equipment, diffusers, fire suppression system components, and other potential conflicts installed under other sections or by others.
3. Notify Engineer of any conflicts or deviations from Contract Documents to obtain direction prior to proceeding with work.

1.03 SUBMITTALS

A. Shop Drawings:
1. Indicate dimensions and components for each luminaire that is not a standard product of the manufacturer.

B. Product Data: Provide manufacturer's standard catalog pages and data sheets including detailed information on luminaire construction, dimensions, ratings, finishes, mounting requirements, listings, service conditions, photometric performance, installed accessories, and ceiling compatibility; include model number nomenclature clearly marked with all proposed features.
1. LED Luminaires:
a. Include estimated useful life, calculated based on IES LM-80 test data.

C. Field quality control reports.

D. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

E. Operation and Maintenance Data: Instructions for each product including information on replacement parts.

F. Project Record Documents: Record actual connections and locations of luminaires and any associated remote components.

1.04 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

B. Maintain at the project site a copy of each referenced document that prescribes execution requirements.

C. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

D. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

1.05 DELIVERY, STORAGE, AND PROTECTION

A. Receive, handle, and store products according to NECA/IESNA 500 (commercial lighting) and manufacturer's written instructions.

B. Keep products in original manufacturer's packaging and protect from damage until ready for installation.

1.06 FIELD CONDITIONS

A. Maintain field conditions within manufacturer's required service conditions during and after installation.

1.07 WARRANTY

A. Provide 3-year manufacturer warranty for LED luminaires, including drivers.

PART 2 PRODUCTS

2.01 LUMINAIRE TYPES

A. Furnish products as indicated in luminaire schedule included on the drawings.

B. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 LUMINAIRES

A. Provide products that comply with requirements of NFPA 70.

B. Provide products that are listed and labeled as complying with UL 1598, where applicable.

C. Provide products listed, classified, and labeled as suitable for the purpose intended.

D. Unless otherwise indicated, provide complete luminaires including lamp(s) and all sockets, ballasts, reflectors, lenses, housings and other components required to position, energize and protect the lamp and distribute the light.

E. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, hardware, supports, trims, accessories, etc. as necessary for a complete operating system.

F. Provide products suitable to withstand normal handling, installation, and service without any damage, distortion, corrosion, fading, discoloring, etc.

G. Recessed Luminaires:
1. Ceiling Compatibility: Comply with NEMA LE 4.

H. LED Luminaires:
1. Components: UL 8750 recognized or listed as applicable.
2. Tested in accordance with IES LM-79 and IES LM-80.
3. LED Estimated Useful Life: Minimum of 50,000 hours at 70 percent lumen maintenance, calculated based on IES LM-80 test data.

2.03 EMERGENCY LIGHTING UNITS

A. Description: Emergency lighting units complying with NFPA 101 and all applicable state and local codes, and listed and labeled as complying with UL 924.

B. Operation: Upon interruption of normal power source or brownout condition exceeding 20 percent voltage drop from nominal, solid-state control automatically switches connected lamps to integral battery power for minimum of 90 minutes of rated emergency illumination, and automatically recharges battery upon restoration of normal power source.

C. Battery:
1. Size battery to supply all connected lamps, including emergency remote heads where indicated.

D. Diagnostics: Provide power status indicator light and accessible integral test switch to manually activate emergency operation.

E. Provide low-voltage disconnect to prevent battery damage from deep discharge.

F. Self-Diagnostics: Provide units that self-monitor functionality and automatically perform testing required by NFPA 101; provide indicator light(s) to report test and diagnostic status.

2.04 BALLASTS AND DRIVERS

A. Ballasts/Drivers - General Requirements:
1. Provide ballasts containing no polychlorinated biphenyls (PCBs).
2. Minimum Efficiency/Efficacy: Provide ballasts complying with all current applicable federal and state ballast efficiency/efficacy standards.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate conductors in accordance with NFPA 70.

C. Verify that suitable support frames are installed where required.

D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to luminaires.

E. Verify that conditions are satisfactory for installation prior to starting work.

3.02 PREPARATION

A. Provide extension rings to bring outlet boxes flush with finished surface.

B. Clean dirt, debris, plaster, and other foreign materials from outlet boxes.

3.03 INSTALLATION

A. Coordinate locations of outlet boxes provided under Section 26 05 33.16 as required for installation of luminaires provided under this section.

B. Perform work in accordance with NECA 1 (general workmanship).

C. Install products in accordance with manufacturer's instructions.

D. Install luminaires securely, in a neat and workmanlike manner, as specified in NECA 500 (commercial lighting).

E. Provide required support and attachment in accordance with Section 26 05 29.

F. Install luminaires plumb and square and aligned with building lines and with adjacent luminaires.

G. Suspended Ceiling Mounted Luminaires:
1. Do not use ceiling tiles to bear weight of luminaires.
2. Do not use ceiling support system to bear weight of luminaires unless ceiling support system is certified as suitable to do so.
3. Secure lay-in luminaires to ceiling support channels using listed safety clips at four corners.
4. See appropriate Division 9 section where suspended grid ceiling is specified for additional requirements.

H. Install accessories furnished with each luminaire.

I. Bond products and metal accessories to branch circuit equipment grounding conductor.

J. Emergency Lighting Units:
1. Unless otherwise indicated, connect unit to unswitched power from same circuit feeding normal lighting in same room or area. Bypass local switches, contactors, or other lighting controls.

3.04 FIELD QUALITY CONTROL

A. Inspect each product for damage and defects.

B. Operate each luminaire after installation and connection to verify proper operation.

C. Test emergency lighting units to verify proper operation upon loss of normal power supply.

D. Correct wiring deficiencies and repair or replace damaged or defective products. Repair or replace excessively noisy ballasts as determined by Engineer.

3.05 CLEANING

A. Clean surfaces according to manufacturer's instructions to remove dirt, fingerprints, paint, or other foreign material and restore finishes to match original factory finish.

3.06 CLOSEOUT ACTIVITIES

3.07 PROTECTION

A. Protect installed luminaires from subsequent construction operations.

CONSTRUCTION DOCUMENTTS

REVIEWER | DESIGNER | DESCRIPTION | DATE | No.

STATE OF CONNECTICUT · STEVEN M. SULLIVAN · No. 26660 · LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.: DATUM: HORZ.: VERT.:
NTS
GRAPHIC SCALE

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ELECTRICAL SPECIFICATIONS
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PROJ. No.: 20120209.A91
DATE: 7/31/2025

E0.03

GENERAL NOTES

1. SEE E0.01 FOR GENERAL NOTES AND LEGENDS

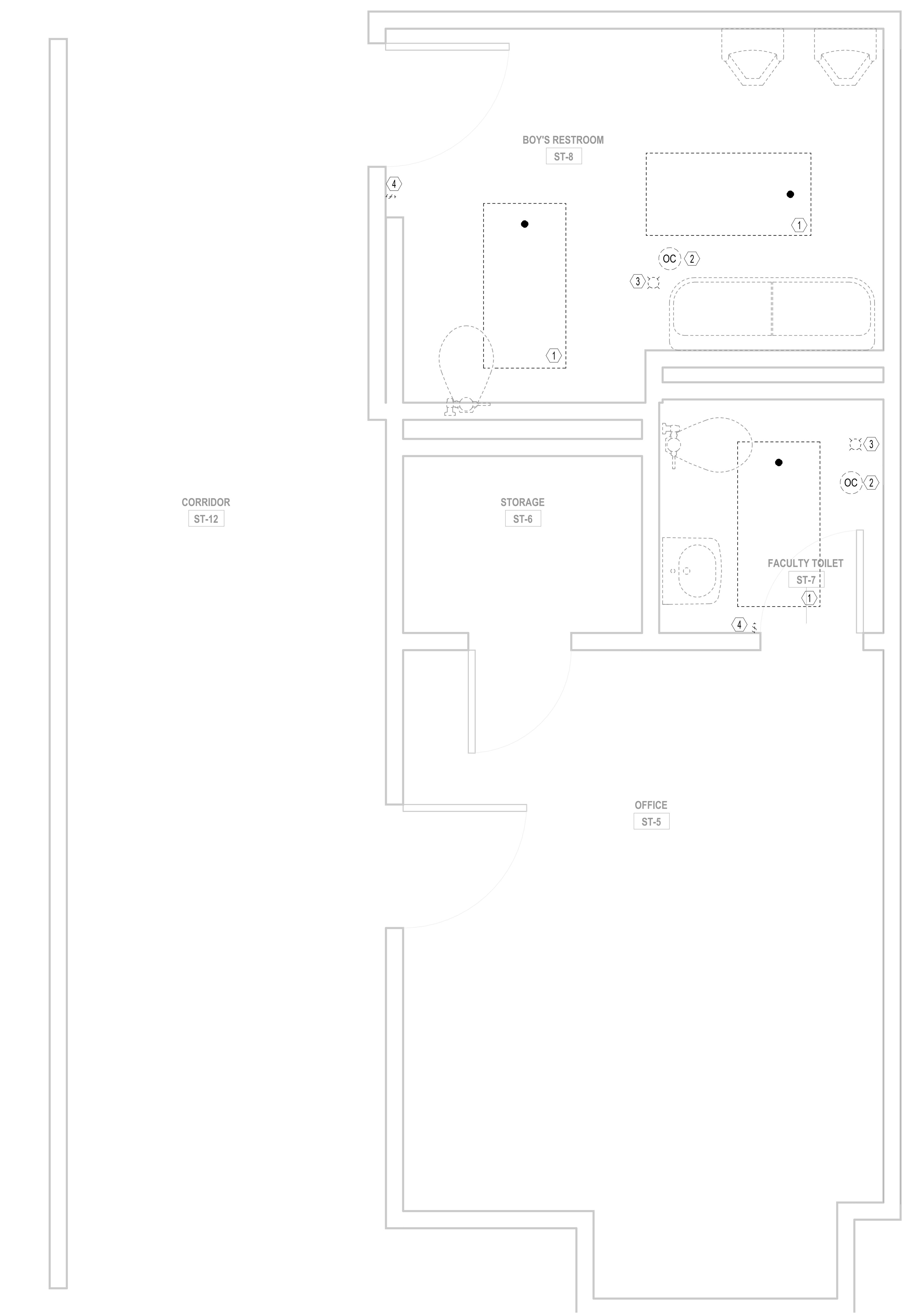
KEYNOTES:

1. DISCONNECT AND REMOVE ALL EXISTING LIGHTING AND TEMPORARILY SECURE EXISTING CIRCUITS TO BE CONNECTED TO NEW LIGHITING.
2. OCCUPANCY SENSOR TO BE REMOVED.
3. FIRE ALARM STROBE TO BE REMOVED. FIRE ALARM CIRCUIT SHALL BE REUSED FOR NEW STROBE. FIRE ALARM SYSTEM SHALL REMAIN ACTIVE DURING CONSTRUCTION.
4. REMOVE LIGHT SWITCH, AND COVER PLATE.

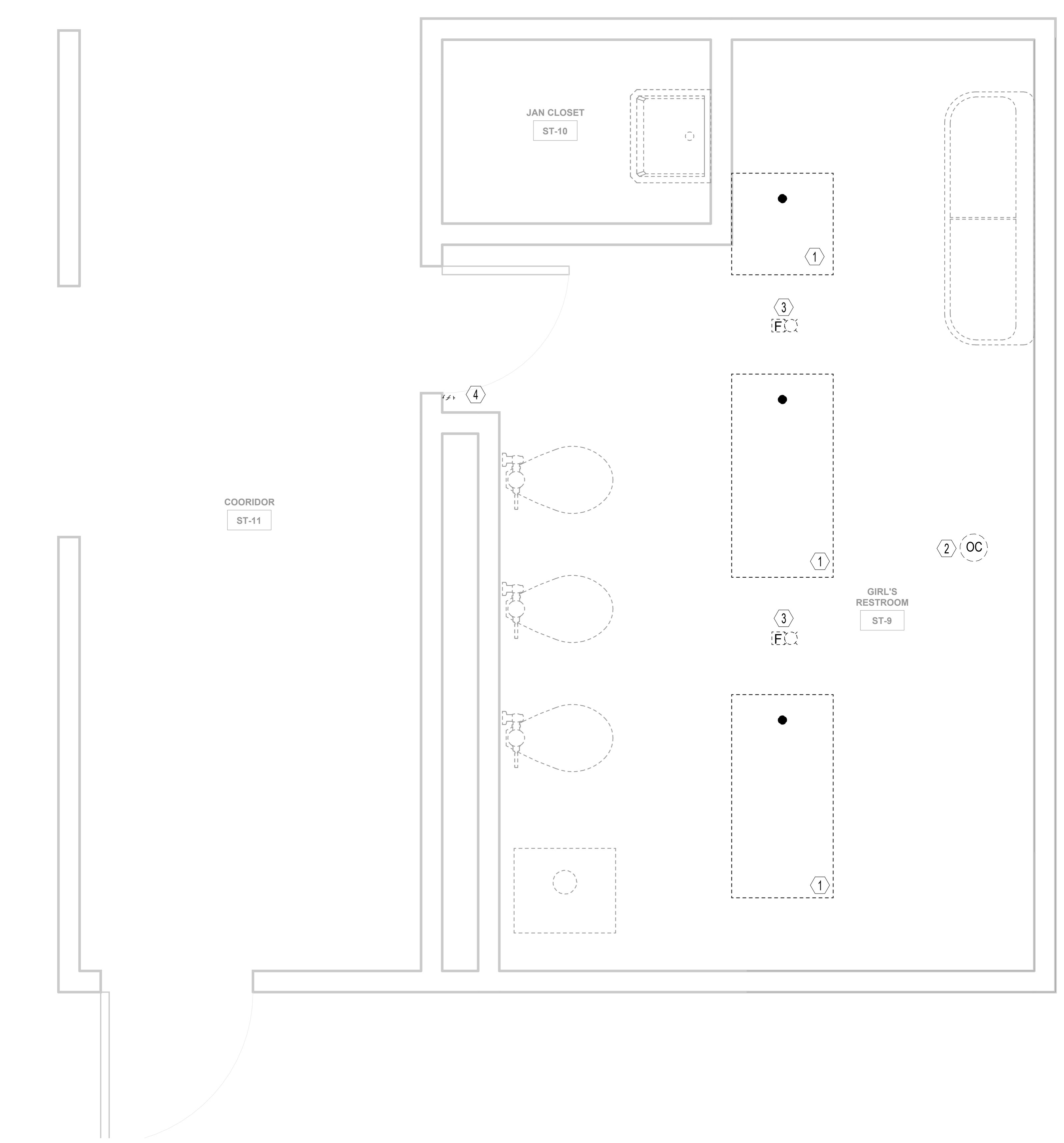
DEMOLITION NOTES:

1. EXISTING ELECTRICAL EQUIPMENT INDICATED ON PLANS HAS BEEN DERIVED FROM THE BEST AVAILABLE EXISTING DRAWINGS AND MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION AS REQUIRED. ANY EQUIPMENT THAT IS NOT IDENTIFIED AND CONFLICTS WITH NEW CONSTRUCTION SHALL NOT BE DISCONNECTED AND SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER / ENGINEER FOR DISPOSITION.
2. EXISTING ELECTRICAL EQUIPMENT AND WIRING TO REMAIN (SHOWN AS LIGHT SOLID LINETYPES ON PLANS) SHALL BE PROTECTED FROM DAMAGE AS REQUIRED DURING THE CONSTRUCTION PERIOD AND LEFT IN GOOD WORKING ORDER AT COMPLETION. ANY EQUIPMENT DAMAGED SHALL BE REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
3. OWNER AND CODE REQUIRED SYSTEMS THAT ARE REQUIRED TO REMAIN ACTIVE DURING CONSTRUCTION SHALL BE TEMPORARILY WIRED AS REQUIRED AND SHALL REMAIN ACTIVE THROUGHOUT THE CONSTRUCTION PERIOD UNTIL NEW SYSTEMS ARE INSTALLED, TESTED AND ACCEPTED.
4. IN CONDITIONS WHERE IN THE OPINION OF THE CONTRACTOR IT IS NOT CLEAR WHETHER EXISTING ELECTRICAL EQUIPMENT IS TO BE REMOVED OR REMAIN, IT SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR REVIEW AND FINAL DECISION.
5. ANY DISRUPTION OF ANY ELECTRICAL SERVICE NECESSITATED BY THE ELECTRICAL RENOVATION SHALL BE COORDINATED WITH THE OWNER. A MINIMUM OF 72 HOURS NOTICE SHALL BE GIVEN PRIOR TO THE DISCONNECTION OF ANY SERVICE. ANY DISRUPTION OF FIRE ALARM SERVICE SHALL BE COORDINATED WITH THE OWNER AND FIRE DEPARTMENT.
6. EXISTING ELECTRICAL EQUIPMENT REMOVED SHALL BE BROKEN DOWN INTO MANAGEABLE LENGTHS FOR STORAGE, HANDLING AND DISPOSAL. EQUIPMENT REMOVED OF MATERIAL VALUE SHALL BE TURNED OVER TO THE OWNER FOR HIS FINAL DISPOSITION.
7. ELECTRICAL RENOVATION WORK SHALL BE ACCOMPLISHED IN CONFORMANCE WITH THE REQUIREMENTS OF THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE.
8. DISCONNECT AND MAKE SAFE ALL ELECTRICAL EQUIPMENT IDENTIFIED FOR REMOVAL ON THE ARCHITECTURAL, HVAC, PLUMBING AND FIRE PROTECTION PLANS.

LINETYPE LEGEND	
————	EXISTING
- - - - - -	DEMOLITION



1 First Floor Boy's and Single Use Restroom Demolition
SCALE: 1/2" = 1'-0"



2 First Floor Girl's Restroom Demolition
SCALE: 1/2" = 1'-0"

CONSTRUCTION DOCUMENTTS

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SCALE: HORZ.: VERT.:
DATUM: HORZ.: VERT.:
AS NOTED
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ELECTRICAL FIRST FLOOR DEMOLITION
35 School Rd, Andover, CT 06232

PROJ. No.: 20120209.A91
DATE: 7/31/2025

ED1.01

GENERAL NOTES:

1. ALL EXISTING LIGHTING BRANCH CIRCUITS ARE TO BE REUSED.

KEYNOTES:

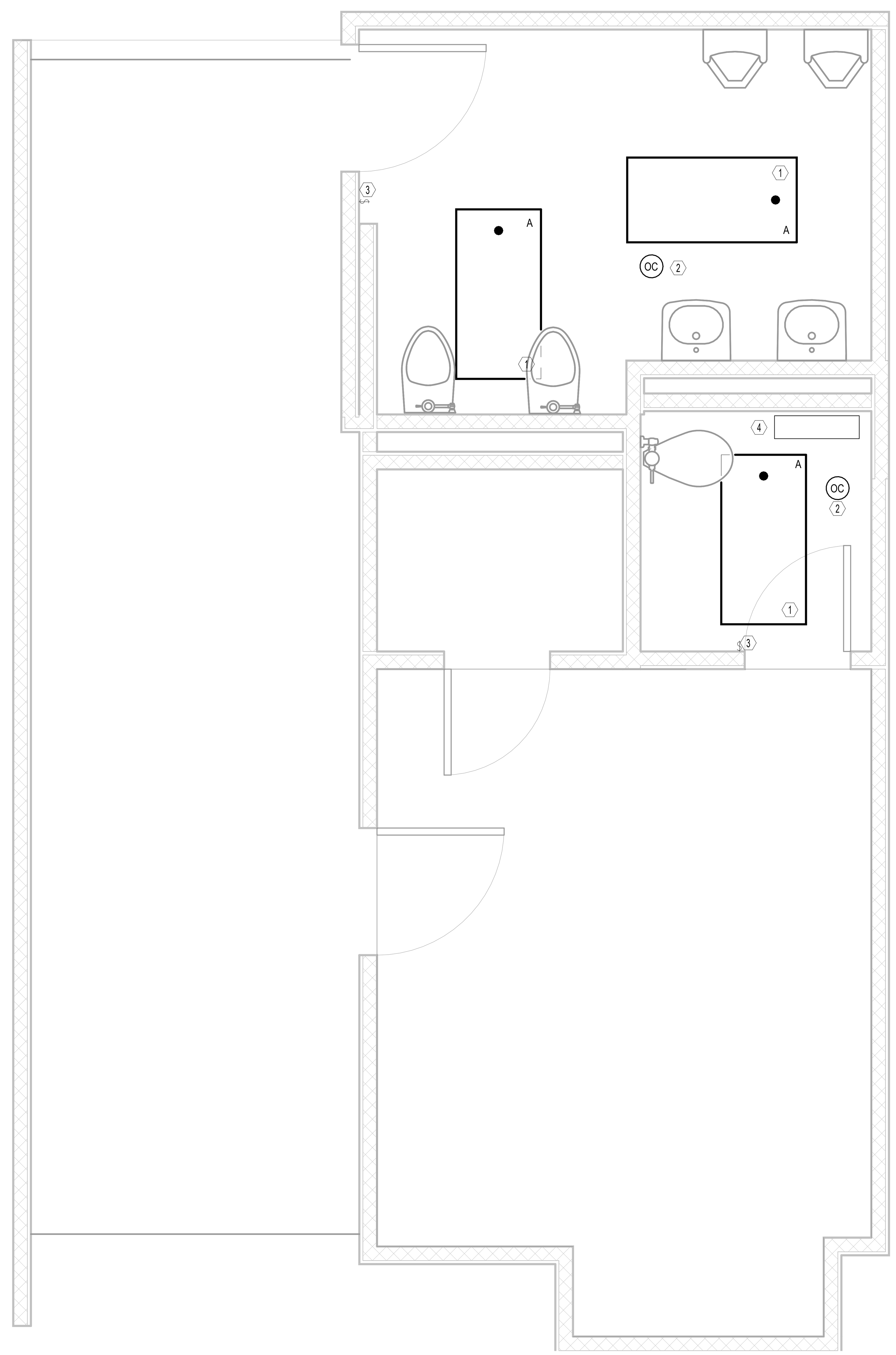
1. LIGHT FIXTURES TO BE CONNECTED TO EXISTING BRANCH CIRCUITS LEFT IN PLACE FROM ORIGINAL FIXTURES. SEE LIGHT FIXTURE SCHEDULE FOR FIXTURE TYPE.
2. CEILING MOUNTED OCUPANCY (OC) SENSOR. EQUAL TO SENSORWORX MODEL # SWX22-2-2-HE. CIRCUIT OC SENSOR WITH EXISTING LIGHTING CIRCUIT
3. PROVIDE LIGHT SWITCH AND COVER PLATE
4. EXISTING LIGHTING CIRCUIT LEFT IN PLACE SHALL BE WIRED THROUGH A 125W INVERTER EQUAL TO MODEL: IIS 125 CG EMERGENCY INVERTER, TO PROVIDE EM BATTERY BACK UP TO FIXTURE TYPES A & B. INSTALL USING T-BAR GRID MOUNTING KIT EQUAL TO MODEL: IOTA KIT TBMK.

LINETYPE LEGEND

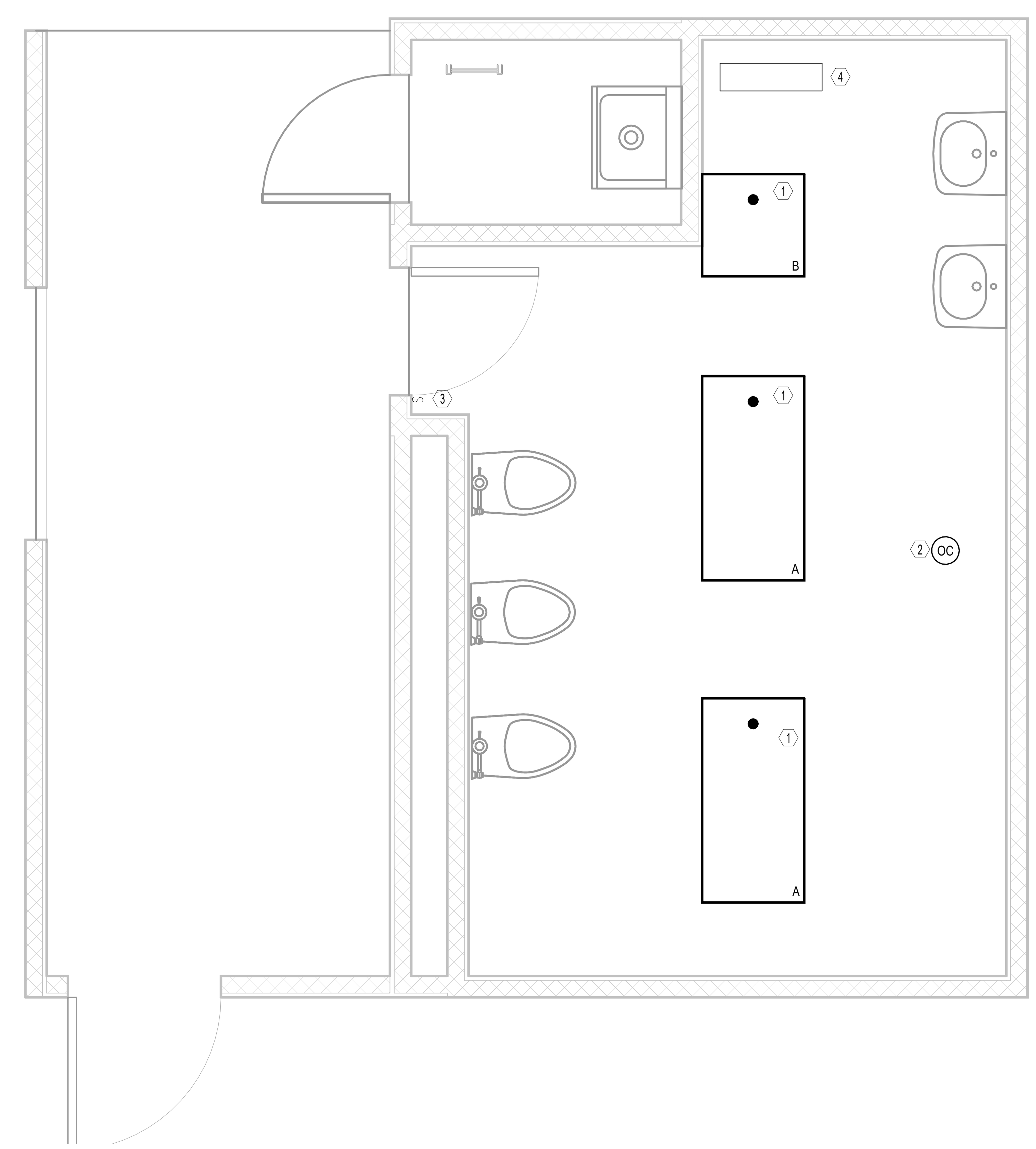
	EXISTING
	NEW WORK

LIGHT FIXTURE SCHEDULE

Symbol	Label	Manufacturer	Catolog Number	Description	Lumens	Wattage
	A	NUWATT	NW-BL-2X4-20.30.40W-5CCT	2X4 LED 3000K	3500	29
	B	NUWATT	NW-BL-2X2-20.30.40W-5CCT	2X2 LED 3000K	2500	20



1 First Floor Boy's and Single Use Restroom Lighting Plan
SCALE: 1/2" = 1'-0"



2 First Floor Girl's Restroom Lighting Plan
SCALE: 1/2" = 1'-0"

CONSTRUCTION DOCUMENTTS

REVIEWER | DESIGNER | DESCRIPTION | DATE | No.

SCALE: HORZ.: VERT.: DATUM: HORZ.: VERT.:
AS NOTED
GRAPHIC SCALE

FUSS & O'NEILL
ONE FINANCIAL PLAZA, 15th FLOOR
HARTFORD, CT 06103
860.646.2469
www.fando.com

ANDOVER ELEMENTARY SCHOOL
ELECTRICAL FIRST FLOOR LIGHTING PLAN
35 School Rd, Andover, CT 06232

PROJ. No.: 20120209.A91
DATE: 7/31/2025

EL1.01

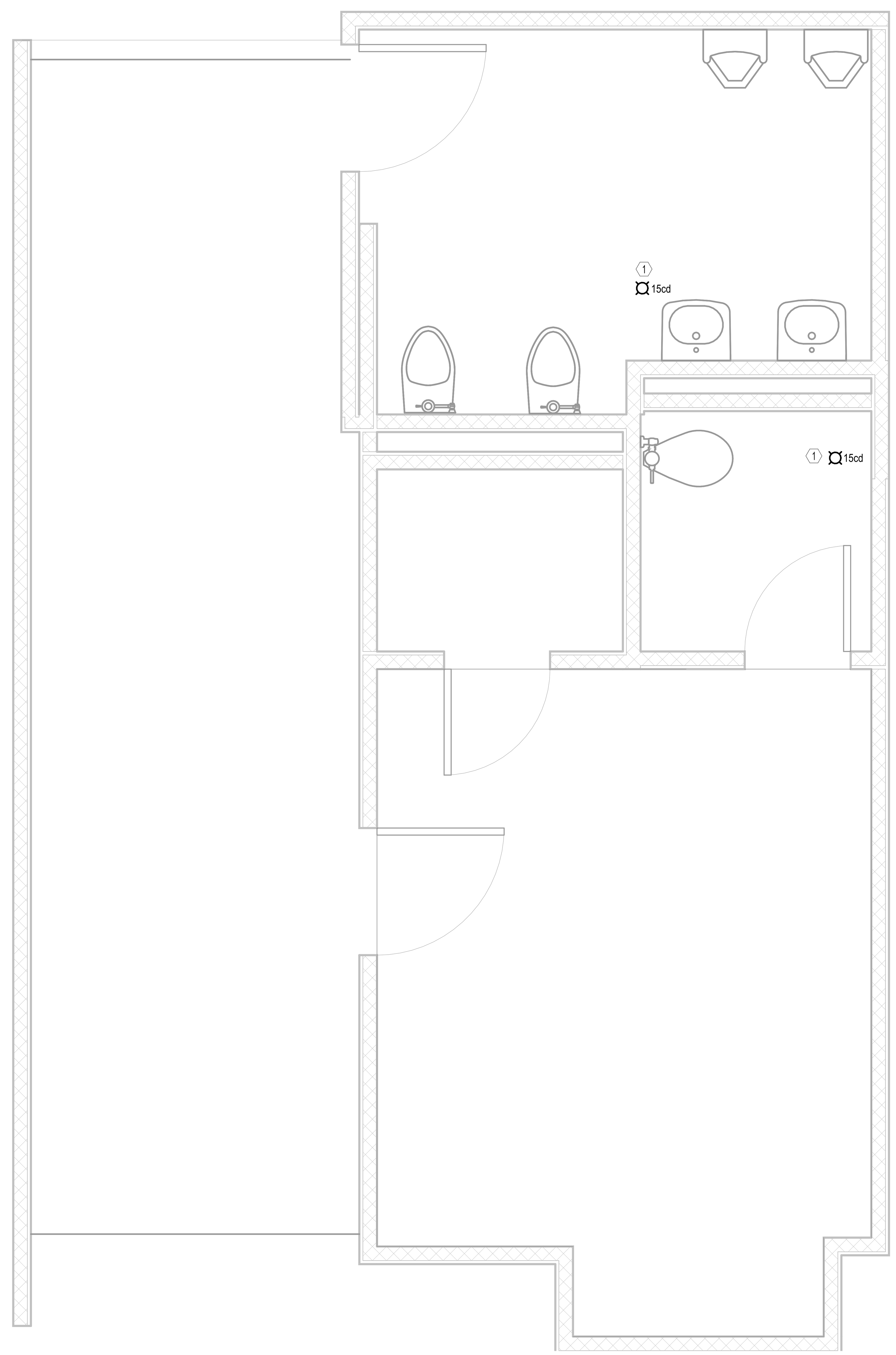
FIRE ALARM NOTES:

1. ALL NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH THE EXISTING EDWARDS FIRE ALARM SYSTEM.
2. ALL FIRE ALARM DEVICES SHALL BE WIRED TO EXISTING FIRE ALARM ANNUNCIATOR CIRCUITS.

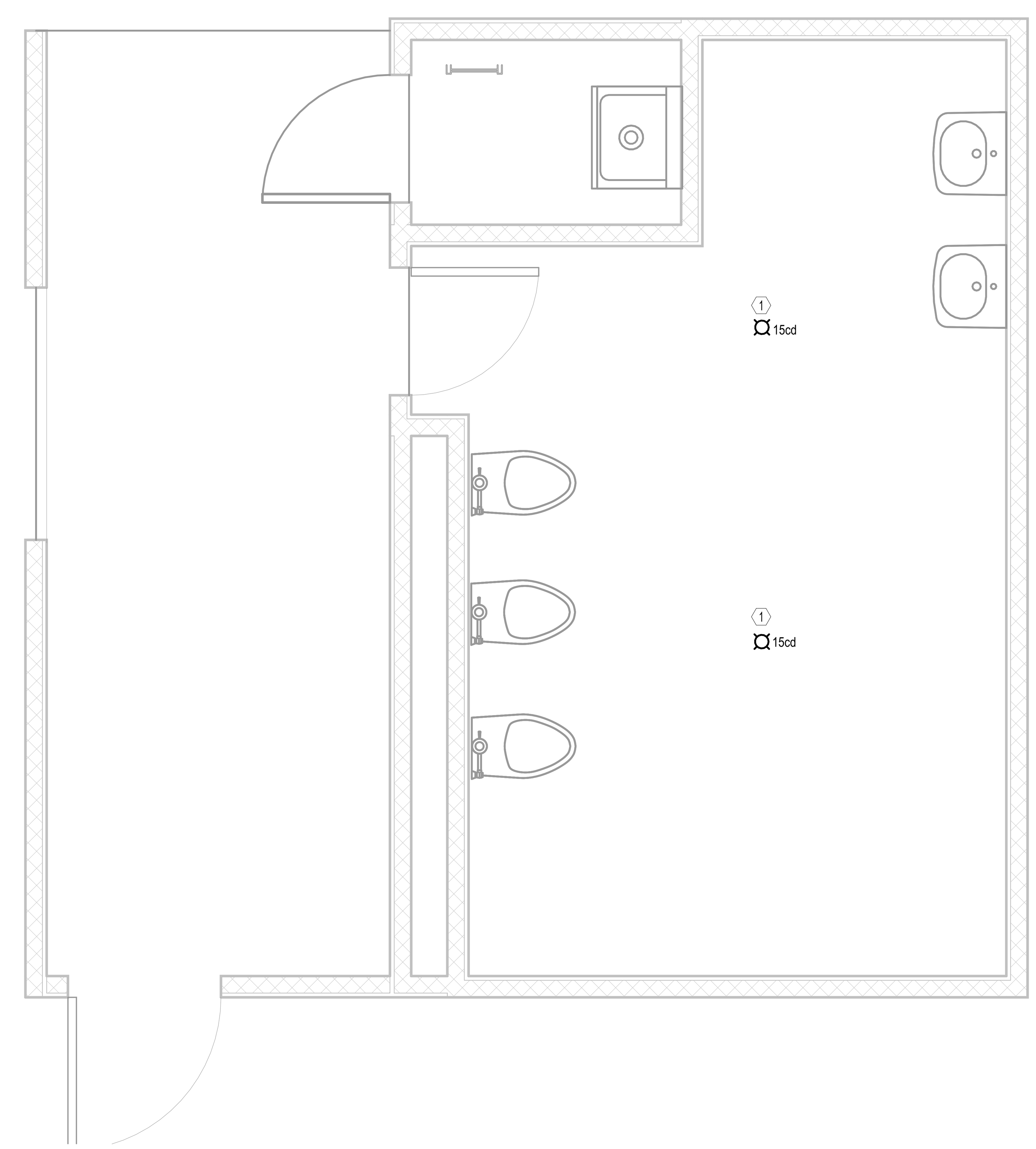
KEYNOTES:

(1) FIRE ALARM STROBE MOUNTED ON CEILING

LINETYPE LEGEND	
	EXISTING
	NEW WORK



1 First Floor Boy's and Single Use Restroom Fire Alarm
SCALE: 1/2" = 1'-0"



2 First Floor Girl's Restroom Fire Alarm
SCALE: 1/2" = 1'-0"

CONSTRUCTION DOCUMENTTS

REVIEWER | DESIGNER | DESCRIPTION | DATE | No.

SCALE: HORZ.: VERT.: DATUM: HORZ.: VERT.:
AS NOTED
GRAPHIC SCALE

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HARTFORD, CT 06103
860.646.2469
www.fando.com

ANDOVER ELEMENTARY SCHOOL
FIRE ALARM FIRST FLOOR
35 School Rd, Andover, CT 06232

PROJ. No.: 20120209.A91
DATE: 7/31/2025

FA1.01

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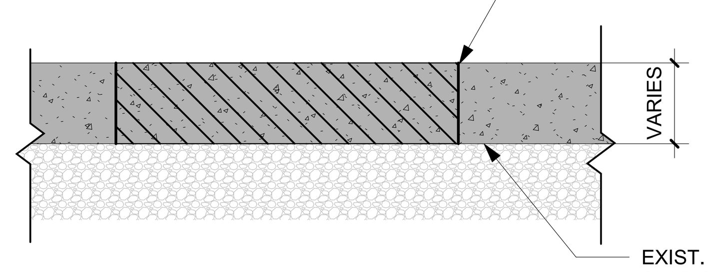
CONCRETE REPAIR NOTES:

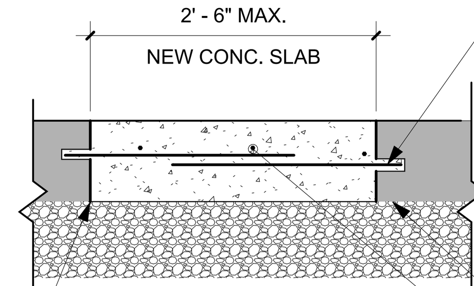
1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318 AND 301 REQUIREMENTS. THIS SHALL INCLUDE PROPORTIONING OF CONCRETE MIX, CONCRETE TESTING, PLACEMENT OF CONCRETE, AND CURING PROCEDURES.
2. ALL COLD/HOT WEATHER CONCRETING SHALL CONFORM TO THE REQUIREMENTS OF ACI 306/305. THE GC SHALL BE RESPONSIBLE FOR SUBMITTING A COLD/HOT WEATHER CONCRETING PROCEDURE FOR REVIEW PRIOR TO CONSTRUCTION.
3. ALL CONCRETE CURING SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN ACI 308. CONCRETE SHALL HAVE 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI, NON AIR ENTRAINED (3% MAX), 0.55 W/CM RATIO, AND 3/8" MAX AGGREGATE SIZE.
4. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60 UNLESS REQUIRED TO BE WELDED AS SHOWN ON PLANS. ALL REINFORCING BARS REQUIRED TO BE WELDED SHALL CONFORM TO ASTM A706, GRADE 50.
5. ALL REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS OR STIRRUPS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL BARS.
6. ALL REINFORCING BARS SHALL BE LAPPED AS SPECIFICALLY DETAILED ON THE DRAWINGS. SPLICING & EMBEDMENTS SHALL BE IN ACCORDANCE W/ ACI 318 WHERE NOT SPECIFICALLY INDICATED ON THE DRAWINGS, ALL REINFORCING BARS SHALL BE LAPPED USING THE TENSION SPLICE LENGTHS IN THE LAP SPLICE SCHEDULE. REFER TO TYPICAL DETAIL SHEET.
7. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND LOCATIONS OF ALL OPENINGS, PIPE SLEEVES, CURBS, ETC AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED.
8. COORDINATE ALL PENETRATIONS PRIOR TO CONSTRUCTION AND SUBMIT OPENING SIZES TO A/E FOR REVIEW.
9. SUBMIT REINFORCING STEEL SHOP DRAWINGS FOR REVIEW.
10. ALL ELEVATED STRUCTURAL SLABS SHALL BE SHORED PER ACI STANDARDS. SHORING MEANS AND METHODS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
11. NO CONCRETE TEST WILL BE ACCEPTED IF CONCRETE IS TAMPERED WITH IN ANY WAY AFTER SAID TEST IS PERFORMED. REPEAT TEST IF WATER IS ADDED AFTER INITIAL SAMPLING.
12. CONTRACTOR SHALL COORDINATE LOCATION OF FLOOR DRAINS, CURBS, CONCRETE PADS AND FLOOR DEPRESSIONS, ETC WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS.
13. ALL SLABS SHALL BE FLAT AND LEVEL PER THE CONCRETE SPECIFICATIONS. THE CONCRETE CONTRACTOR SHALL INCLUDE IN THEIR BID ANY EXCESS CONCRETE REQUIRED DUE TO SUPPORT MEMBER DEFLECTION TO POUR SLABS FLAT AND LEVEL. THE CONCRETE PLACING PROCEDURE SHALL BE CONTROLLED TO MINIMIZE SUPPORT MEMBER DEFLECTION.
14. ALL CONCRETE WORK, REINFORCING, PLACEMENT, AND FORMWORK SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY RETAINED BY THE OWNER. REFER TO PROJECT SPECS FOR THE TESTING REQUIRED ITEMS.
15. DUE TO THE AGE OF CONCRETE, UNKNOWN CONCRETE STRENGTH, AND ORIGINAL MIX DESIGN, THE LIMITS OF CONCRETE REMOVAL SHALL BE BASED ON SOUNDING THE CONCRETE INTERMITTENTLY DURING REMOVAL OPERATIONS TO DETERMINE LIMITS OF DETERIORATED CONCRETE AND SHALL NOT BE BASED ON EASE OF REMOVAL USING HAND, POWER, OR PNEUMATIC TOOLS.
16. ALL AREAS OF DETERIORATION SHALL BE REMOVED TO SOUND CONCRETE BY MECHANICAL MEANS. ALL AREAS SHALL BE CLEANED OF LOOSE AND DETERIORATED CONCRETE AND SHALL BE FREE OF DUST AND DEBRIS PRIOR TO REPAIR.
17. ANY STEEL REINFORCEMENT ENCOUNTERED DURING THE REMOVAL OF DETERIORATED CONCRETE SHALL BE THOROUGHLY PREPARED BY MECHANICAL CLEANING TO REMOVE ALL TRACES OF RUST. REINFORCING STEEL WITH MORE THAN 25% SECTION LOSS SHALL BE REPLACED BY DRILLING AND EPOXY GROUTING NEW REINFORCING STEEL MATCHING THE SIZE OF THE ORIGINAL. EPOXY GROUT SHALL BE HILIT HIT HY 150 WITH THE FOLLOWING MINIMUM EMBEDMENT:

BAR SIZE	MINIMUM EMBEDMENT
3	4.5"
4	6.0"
5	7.5"

18. ALL EXPOSED REBAR AND REBAR EXPOSED DURING CONCRETE REPAIR OPERATIONS SHALL BE COATED WITH EPOXY-MODIFIED, CEMENTITIOUS BONDING AND ANTICORROSION AGENT (SIKA ARMATEC 110 EPOCEM OR EQUAL).
19. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 AND BE DETAILED IN ACCORDANCE WITH ACI 316 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
20. ALL REINFORCING BARS SHALL BE CONTINUOUS UNLESS APPROVED BY THE ENGINEER.
21. ALL REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPOSED LOCATION PRIOR TO AND DURING PLACEMENT OF CONCRETE USING APPROVED ANCHORS, CHAIRS, SPACERS AND TIE WIRE AS REQUIRED. BARS SHALL BE CUT IN THE FIELD AS NEEDED TO MEET THE REQUIREMENTS OF THE REPAIR DETAILS.
22. SAW CUTS SHALL BE MADE WITH 5° UNDERCUT.
23. BONDING AGENT WHERE REBAR IS NOT ENCOUNTERED SHALL BE ASTM C1059, TYPE II NON-REDISPERSIBLE, ACRYLIC AMULSION OR STYRENE BUTADIENE.

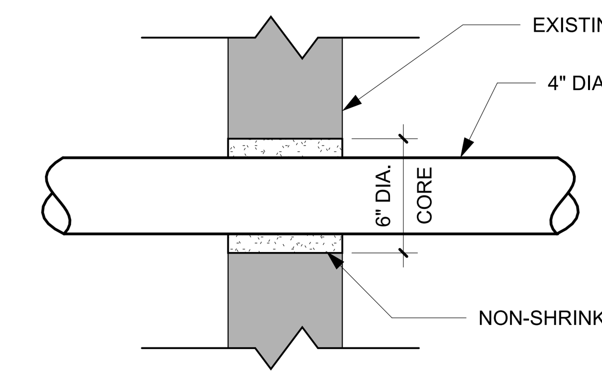


FULL DEPTH CONCRETE SLAB DEMOLITION DETAIL



FULL DEPTH CONCRETE SLAB REPAIR DETAIL

1 / S0.1 FULL DEPTH SLAB REPAIR
3/4" = 1'-0"



3 / S0.1 TYP. WALL PENETRATION
1 1/2" = 1'-0"

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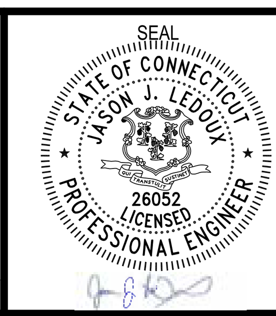
No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SEAL



SEAL

SCALE:
HORZ.:
VERT.:
DATUM.:
HORZ.:
VERT.:
GRAPHIC SCALE

FUSS & O'NEILL
ONE FINANCIAL PLAZA, 15th FLOOR
HARTFORD, CT 06103
860.646.2469
www.fando.com

ANDOVER ELEMENTARY SCHOOL

FULL DEPTH SLAB OPENING AND REPAIR DETAIL

ANDOVER CONNECTICUT

PROJ. No.: 20120209.A91
DATE: JUNE 2025

S0.1

FUSS & O'NEILL
One Financial Plaza, 15th Floor
Hartford, CT 06103
860.646.2469
www.fando.com

Limited Hazardous Building Materials Inspection

Inspection Date: August 19, 2025

Andover Elementary School
35 School Road
Andover, Connecticut

Andover Elementary School
Andover, Connecticut

August 25, 2025

FUSS & O'NEILL
One Financial Plaza, 15th Floor
Hartford, CT 06103
860.646.2469
www.fando.com

August 25, 2025

Ms. Valerie Bruneau, Superintendent
Andover Elementary School
35 School Road
Andover, CT 06232

Re: Limited Hazardous Building Materials Inspection
Andover Elementary School
35 School Road, Andover, Connecticut
Fuss & O'Neill Project No. 20120209.B21

Dear Ms. Bruneau:

Enclosed is the report for the limited hazardous building materials inspection conducted in response to the proposed renovations for the Andover Elementary School located at 35 School Road, Andover, Connecticut (the "Site"). The work was conducted for Andover Elementary School (the "Client").

The services were performed on August 19, 2025 by a Fuss & O'Neill, Inc. licensed inspector and included a limited asbestos-containing material (ACM) inspection, lead-based paint (LBP) determination, visual inspection for polychlorinated biphenyls (PCBs) in source building materials, and an inventory of PCB-containing ballasts and mercury-containing equipment. The information summarized in this report is for the above-mentioned materials only. The work was performed in accordance with our written proposal dated July 28, 2025.

If you should have any questions regarding the contents of this report, please do not hesitate to contact me at (860) 783-4662. Thank you for this opportunity to have served your environmental needs.

Sincerely,

Carlos Texidor
Associate

CT/kr

Enclosure

FUSS & O'NEILL

Table of Contents

Limited Hazardous Building Materials Inspection Report
Andover Elementary School

Tables

Appendices

1 Introduction

On August 19, 2025, Fuss & O'Neill, Inc. (Fuss & O'Neill) representative Felix Revoir performed a limited hazardous building materials inspection for the proposed renovations at the Andover Elementary School located at 35 School Road, Andover, Connecticut (the "Site"). The work was conducted for Andover Elementary School (the "Client") in accordance with our written scope of services dated July 28, 2025 and is subject to the limitations included in *Appendix A*.

The limited inspection included the following:

- Suspect asbestos-containing material (ACM).
- Lead-based paint (LBP)-coated building components determination.
- Polychlorinated biphenyls (PCBs)-containing light ballasts (visual only).
- Presumed PCB-containing source building materials (visual only).
- PCB-containing building material; and
- Mercury-containing light tubes, switches, and equipment (visual only).

This limited hazardous building materials inspection was performed in response to the proposed renovation activities and included Boy's Bathroom, Girl's Bathroom, and Staff Bathroom.

This inspection was not limited to non-invasive and discrete sampling techniques. Specific areas that were not inspected include the following:

- Areas and building materials that will not be impacted by the renovation
- Beneath/behind window and door frames
- Concealed pipe chases.

We have excluded collection and analysis of building materials for PCBs. Sampling for PCBs is presently not mandated by the Environmental Protection Agency (EPA); however, significant liability risk for disposing of PCB-containing wastes exists. Recent knowledge of PCBs within these matrices has become more prevalent, especially with remediation contractors, waste haulers, and disposal facilities. Many property Owners have become subject to large changes in schedule, scope, and costs as a result of failure to identify this possible contaminant prior to renovation or demolition.

1.1 Building and Mechanical System Description

The building structure includes 1 story with a full basement and was reportedly constructed in 1948. The building contains approximately 62,674 square feet (SF) of total floor area. According to Town of Andover Assessor, renovations to the building could not be found. The building is heated by an oil-fired hot water/steam/radiant heat and air conditioning (HVAC) units.

2 Asbestos Inspection

A property Owner must ensure that a thorough ACM inspection is performed prior to possible disturbance of suspect ACM during renovation or demolition activities. This is a requirement of the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation located at Title 40 CFR, Part 61, Subpart M.

On August 19, 2025, Mr. Felix Revoir of Fuss & O'Neill conducted the limited inspection. Mr. Revoir is a State of Connecticut Department of Public Health (CTDPH)-licensed Asbestos Inspector. Refer to *Appendix B* for the Asbestos Inspector license and accreditations.

2.1 Methodology

The limited inspection was conducted by visually inspecting for suspect ACM and touching each of the suspect materials. The suspect materials were categorized into three EPA NESHAP groups: friable and non-friable Category I and Category II type ACM.

- A Friable Material is defined as material that contains greater than 1 percent (> 1%) asbestos that when dry **can** be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category I Non-Friable Material refers to material that contains > 1% asbestos (i.e., packings, gaskets, resilient floor coverings, and asphalt roofing products) that when dry **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category II Non-Friable Material refers to any non-friable material excluding Category I materials that contain > 1% asbestos that when dry, **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.

The suspect ACM were also categorized into their applications including Thermal System Insulation (TSI), Surfacing ACM (S), and Miscellaneous ACM (M). TSI includes those materials used to prevent heat loss/gain or water condensation on mechanical systems. Examples of TSI are pipe insulation, boiler insulation, duct insulation, and mudded pipe fitting insulations. Surfacing ACM includes those ACM that are applied by spray, trowel, or otherwise applied to an existing surface. Surfacing ACM is commonly used for fireproofing, decorative, and acoustical applications. Miscellaneous materials include those ACM not listed as thermal or surfacing, such as linoleum, vinyl asbestos flooring, ceiling tiles, caulking compounds, glues, construction adhesives, etc.

The EPA recommends collecting suspect ACM samples in a manner sufficient to determine asbestos content and to segregate each suspect type of homogeneous (similar in color, texture, and date of application) materials. The EPA NESHAP regulation does not specifically identify a minimum number of samples to be collected for each homogeneous material, but the NESHAP regulation does recommend the use of sampling protocols included in Title 40 CFR, Part 763, Subpart E: Asbestos Hazard Emergency Response Act (AHERA).

The EPA AHERA regulation requires a specific number of samples be collected based on the type of material and quantity present. This regulation includes the following protocol:

1. Surfacing Materials (S) (i.e., plasters, spray-applied fireproofing, etc.) must be collected in a randomly distributed manner representing each homogeneous area based on the overall quantity represented by the sampling as follows:

    a. Three (3) samples collected from each homogeneous area that is less than or equal to 1,000 square feet.
    b. Five (5) samples collected from each homogeneous area that is greater than 1,000 square feet but less than or equal to 5,000 square feet.
    c. Seven (7) samples collected from each homogeneous area that is greater than 5,000 square feet.

2. Thermal System Insulation (TSI) (i.e., pipe insulations, tank insulations, etc.) must be collected in a randomly distributed manner representing each homogeneous area. Three (3) samples must be collected from each material. Also, a minimum of one (1) sample of any patching materials applied to TSI presuming the patched area is less than 6 linear or square feet should be collected.

3. Miscellaneous materials (M) (i.e., floor tile, gaskets, construction mastics, etc.) should have a minimum of two (2) samples collected for each type of homogeneous material. Sample collection was conducted in a manner sufficient to determine asbestos content of the homogeneous material as determined by the inspector.

The inspector collected samples of those suspect ACM anticipated to be disturbed by the proposed renovation activities and prepared a proper chain of custody form for transmission of the samples to Scientific Analytical Institute (SAI) for analysis. SAI is a State of Connecticut-licensed and American Industrial Hygiene Association (AIHA)-accredited asbestos laboratory. The sample locations, material type, sample identification, and asbestos content are identified by bulk sample analysis in **Table 1** attached hereto. Suspect ACM not listed in the table that may be identified later at the Site, should be assumed to be ACM until sample collection and analysis indicate otherwise. Initial asbestos sample analysis was conducted using the EPA Interim Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116) via Polarized Light Microscopy with Dispersion Staining (PLM/DS).

If samples of suspect materials could not be collected or were inaccessible but observed elsewhere, these materials were assumed to contain asbestos and the inspectors approximated quantities. The exterior and roof were not included in the scope of work for this limited inspection. Also, intrusive or destructive investigative techniques were performed at the Site to access and observe concealed areas that may have had suspect ACM that were hidden or obstructed from normal view. Hard enclosures or obstructed areas typically include, but are not limited to, the following:

- Wall cavities.
- Pipe chases.
- Spaces above fixed ceilings.
- Foundation walls.
- Spaces behind the brick façade.
- Areas behind equipment (including freezers and refrigeration units).
- Behind mirrors, blackboards and signage; and
- Vapor/moisture barrier under floors or on concrete foundations.

Subsurface investigations including, but not limited to, concrete foundations were not performed. Also, Fuss & O'Neill did not conduct subsurface investigations to identify suspect cementitious pipe throughout the Site.

2.2 Results

Utilizing the EPA protocol and criteria, the materials analyzed were determined to not contain asbestos.

The following materials were identified as containing asbestos at less than one percent (< 1%):

- Caulking on Black 6"x2" Ceramic Tile to Drywall - White

Refer to **Table 1** for a complete list of ACM and non-ACM sampled as part of this limited inspection. Refer to **Table 2** attached hereto for the identified ACM inventory. Refer to *Appendix C* for the asbestos laboratory reports and chain of custody forms. Refer to *Appendix D* for Site photographs.

2.3 Discussion

The EPA and the Occupational Safety and Health Administration (OSHA) define a material that contains greater than one percent (> 1%) asbestos, utilizing PLM/DS, as being an ACM. The CTDPH defines any material that contains equal to or greater than one percent (≥ 1%) asbestos, utilizing PLM/DS, as being an ACM. Materials that are identified as "none detected" are specified as not containing asbestos.

Suspect ACM not identified during this limited inspection should be presumed to contain asbestos until sample collection and laboratory analysis indicate otherwise.

Materials are present at the site where concentrations of asbestos are less than 1 percent (<1%). While the EPA and the CTDPH identify materials containing equal to or greater than 1 percent (>1) as asbestos containing material, OSHA Safety and Health Administration (OSHA) worker protection regulations apply to materials containing any amount of asbestos.

Additionally, the EPA has suggested that materials that are non-friable organically bound (NOB) materials (e.g., asphaltic-based materials, adhesives, etc.) are recommended for further confirmatory analysis utilizing Transmission Electron Microscopy (TEM). Eight of the collected samples were recommended to be analyzed by TEM. The results of TEM analysis are denoted in **Table 1**.

2.4 Conclusions and Recommendations

Based on visual observations, sample collection, and laboratory analysis, asbestos has not been identified in some of the materials sampled at the Site.

Prior to disturbance, ACM that would likely be impacted by the proposed renovation activities must first be abated by a state-licensed Asbestos Abatement Contractor. This is a requirement of CTDPH and EPA NESHAP regulations governing asbestos abatement.

Due to the inability to effectively separate some types of multi-layered ACM (e.g., floor tiles and mastics, etc.) from non-ACM, these materials are considered asbestos-contaminated and must be managed as ACM for the purposes of removal and disposal.

Fuss & O'Neill recommends that a comprehensive scope of work and technical specification be developed as part of renovation plans for the Site.

Suspect materials encountered during renovation/demolition that are not identified in this report as being non-ACM should be presumed to be ACM until sample collection and laboratory analysis indicate otherwise. Prior to renovation/demolition that may disturb hidden/inaccessible areas, we recommend conducting a supplemental asbestos inspection of these areas and spaces.

- Hidden Pipe Chases Concealed by Walls for suspect pipe insulation and mudded pipe fittings; we have assumed in this report these materials.

Materials are present at the Site where concentrations of asbestos are less than 1% (< 1%). While the EPA and CTDPH identify materials containing <1% as a non-asbestos containing material, OSHA worker protection regulations apply to materials containing any amount of asbestos.

Fuss & O'Neill recommends that if any ACM are to remain in the building following renovation activities, the materials should be managed in-place under a written Operations and Maintenance Program in accordance with OSHA regulations.

<u>This report is not intended to be utilized as a bidding document or as a project specification document</u>. The report is designed to aid the Client in locating identified ACM.

3 Lead-Based Paint Determination

On August 19, 2025, Mr. Felix Revoir of Fuss & O'Neill performed a lead-based paint (LBP) determination associated with coated building components at the Site that may be disturbed during renovation activities. An x-ray fluorescence (XRF) analyzer was used to perform the LBP determination. The determination was conducted in accordance with generally accepted industry standards for non-residential (i.e., not child-occupied) buildings.

3.1 Methodology

A Heuresis Pb200i handheld XRF lead paint analyzer, serial number 2171, was utilized for the LBP determination. The instrument was checked for proper calibration prior to use as detailed by the manufacturer and the Performance Characteristic Sheet (PCS) developed for the instruments.

For the purpose of this LBP determination, representative building components were tested as part of this pre-renovation study. Individual repainting efforts are not discoverable in such a limited program. LBP issues involving properties that are not residential are regulated to a limited degree for worker protection relating to paint-disturbing work activities and waste disposal.

Worker protection is regulated by OSHA regulations, as well as CTDPH regulations. These regulations involve air monitoring of workers to determine exposure levels when disturbing lead-containing paint. An LBP determination cannot determine a safe level of lead but is intended to provide guidance for implementing industry standards for lead in paint at identified locations. Contractors may then better determine exposure of workers to airborne lead by understanding the different concentrations of LBP activities that disturb paint on representative surfaces.

The EPA Resource Conservation and Recovery Act (RCRA), as well as the Connecticut Department of Energy and Environmental Protection (CTDEEP), regulate disposal of lead-containing waste. Lead-containing materials that will be impacted during renovation or demolition activities, and result in waste for disposal must either be analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) analysis if lead is determined to be present in non-residential buildings or be presumed as a hazardous waste. A TCLP sample is a representative sample of the intended waste stream. The results are compared to a threshold value of 5.0 milligrams per liter (mg/L); results equal to or exceeding this value is considered hazardous lead waste. If the result is below the established level, the material is not considered hazardous and may be disposed as general construction debris.

A level of LBP equal to or exceeding 1.0 milligrams of lead per square centimeter (mg/cm^2) by XRF is considered toxic or dangerous for compliance with residential standards. For purpose of this LBP determination the level of 1.0 mg/cm^2 has been utilized as a threshold for areas where possible worker exposures may occur.

3.2 XRF Determination Results

The LBP determination indicated consistent painting trends associated with representative building components that may be impacted by potential renovation work. The following building components were determined to contain levels of lead (equal to or greater than 1.0 mg/cm^2) by XRF:

- Black Ceramic Tiles
- Metal Radiator Covers

Refer to *Appendix E* for the XRF lead determination field data sheets.

3.3 Discussion

OSHA published a Lead in Construction Standard (OSHA Lead Standard) Title 29 CFR, Part 1926.62 in May 1993. The OSHA Lead Standard has no set limit for the content of lead in paint below which the standards do not apply. The OSHA Lead Standards are task based and derived from airborne exposure and blood lead levels.

The results of this LBP determination are intended to provide guidance to contractors for occupational lead exposure controls. Building components coated with lead levels above industry standards may cause exposures to lead above OSHA standards during proposed demolition and renovation activities. The results of this determination are also intended to provide insight into waste disposal requirements, in accordance with EPA RCRA regulations. Metal and ceramic glazed components were found to contain and can be recycled; therefore, TCLP sampling was not conducted.

3.4 Conclusion and Recommendations

Based on our LBP determination results, LBP is present on coated building components located in the building that were tested by XRF as part of this limited inspection.

Contractors must be made aware that OSHA has not established a level of lead in a material below which Title 29 CFR, Part 1926.62 does not apply. Contractors shall comply with exposure assessment criteria, interim worker protection, and other requirements of the regulation as necessary to protect workers during any renovation work that will impact lead paint.

If disturbed by renovation or demolition activities, LBP-coated building components should be segregated from the general waste stream for sample collection and analysis by TCLP to determine proper off-site waste disposal. If disturbed and managed off-site, non-porous LBP-coated building materials (i.e., metals) may be segregated and recycled as scrap metal. Metal LBP-coated building components cannot be subject to grinding, sawing, drilling, sanding, or torch cutting.

Note that future work involving surface preparation of identified painted surface(s) must be performed in accordance with OSHA worker protection requirements.

The building is considered a "child-occupied facility" and therefore, it is subject to lead safe renovation requirements. If a specific component or surface is not identified as having been tested it should be presumed to contain lead paint unless tested.

Those surfaces which contain LBP are subject to RRP work practice and training requirements if more than de-minimus amounts are disturbed in renovation or for projects involving window replacement. Those surfaces which do not contain LBP are not subject to the RRP requirements. If a specific component or surface is not identified as having been tested it should be presumed to contain lead paint unless tested. Contractors should be aware that the threshold limit of 1.0 mg/cm^2 for purposes of RRP requirements is not recognized by OSHA and workers exposures are still subject to lead in construction regulation 29 CFR 1926.62 regardless of paint testing results.

The building is presently characterized as commercial property, which is not subject to the State of Connecticut residential dwelling regulations. The property may be renovated using procedures required in accordance with OSHA regulation Title 29 CFR, Part 1926.62.

4 Presumed PCB-Containing Source Building Materials Inspection

Sampling of building materials for polychlorinated biphenyls (PCBs) is presently not mandated by the EPA. However, significant liability exists for building owners who improperly dispose of a PCB-containing waste material. Recent knowledge and awareness of PCBs within matrices has become more prevalent, especially amongst remediation contractors, waste haulers, and disposal facilities.

Presently, building materials containing PCBs at concentrations equal to or greater than (≥) 50 parts per million (ppm) or the equivalent units of milligrams per kilogram (mg/kg) are regulated by the EPA and characterized as PCB Bulk Product. Building materials containing less than (<) 50 ppm may also be regulated unless proven to be an Excluded PCB Product. The definition of an Excluded PCB Product includes those products or source of the products containing < 50 ppm concentration PCBs that were legally manufactured, processed, distributed in commerce, or used before October 1, 1984. Building materials determined to be Excluded PCB Product containing > 1 ppm PCBs but < 50 ppm PCBs are regulated by the CTDEEP. Building materials containing ≤ 1 ppm PCBs are considered non-regulated.

Additionally, the identification of building materials containing regulated PCBs requires additional testing of the adjacent porous surfaces and/or soils, asphalts, and concrete located below source materials. The building materials adjacent to the regulated PCB material must be tested to determine if the adjacent materials are PCB contaminated and may also be considered PCB Bulk Products, if disposed with source materials. Soils, asphalts, and concrete located below source materials must be tested to determine if the materials are PCB contaminated and considered PCB Remediation Waste.

4.1 Methodology

On August 19, 2025, Felix Revoir performed a visual inspection of caulking scheduled to be impacted by the proposed Project as materials which may contain PCBs.

Refer to **Table 3** for a list of presumed PCB-containing building materials.

4.2 Observations

The following materials are suspect PCB-containing materials that will be impacted by the renovation activities:

- Caulking around toilets
- Caulking Around Sinks

4.3 Conclusions and Recommendations

At a minimum, Fuss & O'Neill recommends the caulking scheduled to be removed during the Project be presumed to contain PCBs and handled and disposed of in accordance with EPA regulations as PCB Bulk Product Waste due to renovation activities impacting the materials.

Fuss & O'Neill recommends that a comprehensive scope of work and technical specification for presumed PCB remediation during renovation be developed as part of Site renovation plans.

This report is not intended to be utilized as a bidding document or as a project specification document. The report is designed to aid the building owner, architect, construction manager, general contractors, and contractors in locating presumed PCB-containing materials.

5 PCB-Containing Fluorescent Light Ballasts and Mercury-Containing Equipment

5.1 PCB-Containing Fluorescent Ballasts

Fluorescent light ballasts manufactured prior to 1979 may contain capacitors that contain PCBs. Light ballasts installed as late as 1985 may also contain PCB capacitors. Fluorescent light ballasts that are not labeled as "No-PCBs" must be assumed to contain PCBs, unless proven otherwise by quantitative analysis. Capacitors in fluorescent light ballasts labeled as non-PCB-containing may contain diethylhexyl phthalate (DEHP). DEHP was the primary substitute to replace PCBs for small capacitors in fluorescent light ballasts in use until 1991. DEHP is a toxic substance, a suspected carcinogen, and is listed under EPA RCRA and the Superfund law as a hazardous waste. Therefore, EPA Superfund liability exists for landfilling both PCB and DEHP-containing light ballasts. These listed materials are considered hazardous waste under EPA RCRA and require special handling and disposal considerations.

On August 19, 2025, Fuss & O'Neill representative, Mr. Felix Revoir performed a visual inspection of representative fluorescent light fixtures to identify possible PCB-containing light ballasts. The inspection involved visually inspecting labels on representative light ballasts to identify dates of manufacture and labels indicating "No PCBs". Ballasts manufactured after 1991 were not listed as PCB or DEHP-containing ballasts and were not quantified for disposal.

The light ballasts without a label indicating "No PCBs" are presumed to be PCB-containing waste and must be segregated for proper removal, packaging, transport, and disposal as PCB-containing waste. Those light ballasts labeled as "No PCBs" indicating manufacture dates prior to 1991 are presumed to contain DEHP. DEHP-containing light ballasts must be segregated for proper removal, packaging, transport, and disposal as non-PCB hazardous waste. Note that disposal requirements for DEHP-containing ballasts are slightly varied, and disposal costs are slightly less than PCB-containing light ballasts. Refer to **Table 4** for the PCB/DEHP-Containing Light Ballasts Inventory.

5.2 Mercury-Containing Equipment

Fluorescent lamps/tubes are presumed to contain mercury vapor, which is a hazardous substance to both human health and the environment. Thermostatic controls and electrical switch gear may contain a vial or bulb of mercury associated with the control. Mercury-containing equipment is regulated for proper disposal by the EPA RCRA hazardous waste regulations. According to the EPA, mercury lamps are characterized as a Universal Waste. Therefore, fluorescent lamps must be either recycled or disposed of as hazardous waste.

On August 19, 2025, Fuss & O'Neill representatives, Mr. Felix Revoir, performed an inventory of mercury equipment. These fixtures were inventoried in-place. Refer to **Table 5** for the Mercury-Containing Equipment Inventory.

Report prepared by Environmental Technician, Felix Revoir.

Reviewed by:

Carlos Texidor
Associate

Tables

Table 1
Summary of Suspect Asbestos-Containing Materials

Sample No.	Sample Location	Material Type	Asbestos Content	Analysis Method
01A-081925-FR	Boy's Bathroom	2"x2" Ceramic Floor Tile - Tan	ND	PLM
01B-081925-FR	Staff Room Bathroom	2"x2" Ceramic Floor Tile - Tan	ND	PLM
01C-081925-FR	Girls' Bathroom	2"x2" Ceramic Floor Tile - Tan	ND	PLM
02A-081925-FR	Boy's Bathroom	2"x1" Ceramic Floor Tile - Tan	ND	PLM
02B-081925-FR	Staff Room Bathroom	2"x1" Ceramic Floor Tile - Tan	ND	PLM
02C-081925-FR	Girls' Bathroom	2"x1" Ceramic Floor Tile - Tan	ND	PLM
03A-081925-FR	Boy's Bathroom	1"x1" Ceramic Floor Tile - Black	ND	PLM
03B-081925-FR	Staff Room Bathroom	1"x1" Ceramic Floor Tile - Black	ND	PLM
03C-081925-FR	Girls' Bathroom	1"x1" Ceramic Floor Tile - Black	ND	PLM
04A-081925-FR	Boy's Bathroom	Grout Associated with Ceramic Floor Tiles - Grey	ND	PLM
04B-081925-FR	Staff Room Bathroom	Grout Associated with Ceramic Floor Tiles - Grey	ND	PLM
04C-081925-FR	Girls' Bathroom	Grout Associated with Ceramic Floor Tiles - Grey	ND	PLM
05A-081925-FR	Boy's Bathroom	Thinset Associated with Ceramic Floor Tiles - Grey	ND	PLM
05B-081925-FR	Staff Room Bathroom	Thinset Associated with Ceramic Floor Tiles - Grey	ND	PLM
05C-081925-FR	Girls' Bathroom	Thinset Associated with Ceramic Floor Tiles - Grey	ND	PLM
06A-081925-FR	Boy's Bathroom	4"x4" Ceramic Wall Tile - White	ND	PLM
06B-081925-FR	Girls' Bathroom	4"x4" Ceramic Wall Tile - White	ND	PLM
07A-081925-FR	Girls' Bathroom	6"x2" Ceramic Wall Tile - Black	ND	PLM
07B-081925-FR	Boy's Bathroom	6"x2" Ceramic Wall Tile - Black	ND	PLM
08A-081925-FR	Girls' Bathroom	Grout & Thinset Associated with Ceramic Wall Tiles - Grey	ND	PLM
08B-081925-FR	Boy's Bathroom	Grout & Thinset Associated with Ceramic Wall Tiles - Grey	ND	PLM
09A-081925-FR	Boy's Bathroom	6"x6" Ceramic Wall Tile - Black	ND	PLM
09B-081925-FR	Staff Room Bathroom	6"x6" Ceramic Wall Tile - Black	ND	PLM
09C-081925-FR	Girls' Bathroom	6"x6" Ceramic Wall Tile - Black	ND	PLM
10A-081925-FR	Girls' Bathroom	2"x2" Ceramic Floor Tile - White	ND	PLM
10B-081925-FR	Girls' Bathroom	2"x2" Ceramic Floor Tile - White	ND	PLM
11A-081925-FR	Girls' Bathroom	2"x2" Ceramic Floor Tile - Off-White	ND	PLM
11B-081925-FR	Girls' Bathroom	2"x2" Ceramic Floor Tile - Off-White	ND	PLM
12A-081925-FR	Girls' Bathroom	Grout Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	ND	PLM

Sample No.	Sample Location	Material Type	Asbestos Content	Analysis Method
12B-081925-FR	Girls' Bathroom	Grout Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	ND	PLM
13A-081925-FR	Girls' Bathroom	Grout Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	ND	PLM
13B-081925-FR	Girls' Bathroom	Grout Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	ND	PLM
14A-081925-FR	Girls' Bathroom	Thinset Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	ND	PLM
14B-081925-FR	Girls' Bathroom	Thinset Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	ND	PLM
15A-081925-FR	Girls' Bathroom	Thinset Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	ND	PLM
15B-081925-FR	Girls' Bathroom	Thinset Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	ND	PLM
16A-081925-FR	Staff Room	12"x12" Vinyl Floor Tile - Blue/Grey Mottle	ND/ND	PLM/TEM
16B-081925-FR	Custodian Closest	12"x12" Vinyl Floor Tile - Blue/Grey Mottle	ND	PLM
17A-081925-FR	Staff Room	Adhesive Associated with Blue/Grey Mottle 12x"12" Vinyl Floor Tile - Tan	ND/ND	PLM/TEM
17B-081925-FR	Custodian Closest	Adhesive Associated with Blue/Grey Mottle 12x"12" Vinyl Floor Tile - Tan	ND	PLM
18A-081925-FR	Boy's Bathroom	4" Vinyl Cove Base - Grey	ND/ND	PLM/TEM
18B-081925-FR	Staff Room Closest	4" Vinyl Cove Base - Grey	ND	PLM
19A-081925-FR	Boy's Bathroom	Adhesive Associated with Grey 4" Vinyl Cove Base - Tan	ND/ND	PLM/TEM
19B-081925-FR	Staff Room Closest	Adhesive Associated with Grey 4" Vinyl Cove Base - Tan	ND	PLM
20A-081925-FR	Boy's Bathroom	Caulking Compound Around Toilets - White	ND/ND	PLM/TEM
20B-081925-FR	Girls' Bathroom	Caulking Compound Around Toilets - White	ND	PLM
21A-081925-FR	**Boy's Bathroom**	**Caulking Compound on Black 6"x2" Ceramic Tile to Drywall - White**	**ND/0.42% Anthophyllite**	**PLM/TEM**

Sample No.	Sample Location	Material Type	Asbestos Content	Analysis Method
21B-081925-FR	Boy's Bathroom	Caulking Compound on Black 6"x2" Ceramic Tile to Drywall - White	ND	PLM
22A-081925-FR	Staff Room Bathroom	Caulking Compound Around Sink - White	ND/ND	PLM/TEM
22B-081925-FR	Staff Room Bathroom	Caulking Compound Around Sink - White	ND	PLM
23A-081925-FR	Pipe Chase Under Bathrooms	Foil Backed Insulation Paper on Fiberglass Insulation- White	ND	PLM
23B-081925-FR	Pipe Chase Under Bathrooms	Foil Backed Insulation Paper on Fiberglass Insulation- White	ND	PLM
23C-081925-FR	Pipe Chase Under Bathrooms	Foil Backed Insulation Paper on Fiberglass Insulation- White	ND	PLM
24A-081925-FR	Boy's Bathroom	1/8" Wall Drywall - White	ND	PLM
24B-081925-FR	Boy's Bathroom	1/8" Wall Drywall - White	ND	PLM
24C-081925-FR	Boy's Bathroom	1/8" Wall Drywall - White	ND	PLM
25A-081925-FR	Boy's Bathroom	Tape & Joint Compound - White	ND	PLM
25B-081925-FR	Boy's Bathroom	Tape & Joint Compound - White	ND	PLM
25C-081925-FR	Boy's Bathroom	Tape & Joint Compound - White	ND	PLM
26A-081925-FR	Girls' Bathroom	Plaster Wall Rough Coat - Grey	ND	PLM
26B-081925-FR	Boy's Bathroom	Plaster Wall Rough Coat - Grey	ND	PLM
26C-081925-FR	Staff Room Bathroom	Plaster Wall Rough Coat - Grey	ND	PLM
26D-081925-FR	Girls' Bathroom	Plaster Wall Rough Coat - Grey	ND	PLM
26E-081925-FR	Boy's Bathroom	Plaster Wall Rough Coat - Grey	ND	PLM
27A-081925-FR	Girls' Bathroom	Plaster Wall Skim Coat - White	ND	PLM
27B-081925-FR	Boy's Bathroom	Plaster Wall Skim Coat - White	ND	PLM
27C-081925-FR	Staff Room Bathroom	Plaster Wall Skim Coat - White	ND	PLM
27D-081925-FR	Girls' Bathroom	Plaster Wall Skim Coat - White	ND	PLM
27E-081925-FR	Boy's Bathroom	Plaster Wall Skim Coat - White	ND	PLM
28A-081925-FR	Girls' Bathroom	Plaster Ceiling Rough Coat - Grey	ND	PLM
28B-081925-FR	Boy's Bathroom	Plaster Ceiling Rough Coat - Grey	ND	PLM
28C-081925-FR	Staff Room Bathroom	Plaster Ceiling Rough Coat - Grey	ND	PLM
29A-081925-FR	Girls' Bathroom	Plaster Ceiling Skim Coat White	ND	PLM
29B-081925-FR	Boy's Bathroom	Plaster Ceiling Skim Coat White	ND	PLM
29C-081925-FR	Staff Room Bathroom	Plaster Ceiling Skim Coat White	ND	PLM
30A-081925-FR	Staff Room	1/8" Ceiling Drywall -White	ND	PLM
30B-081925-FR	Staff Room	1/8" Ceiling Drywall -White	ND	PLM
30C-081925-FR	Staff Room	1/8" Ceiling Drywall -White	ND	PLM
31A-081925-FR	Girls' Bathroom	2'x2' Drop Ceiling Tile - Vinyl Coating - White	ND	PLM
31B-081925-FR	Staff Room Bathroom	2'x2' Drop Ceiling Tile - Vinyl Coating - White	ND	PLM

Sample No.	Sample Location	Material Type	Asbestos Content	Analysis Method
32A-081925-FR	Boy's Bathroom	2'x2' Drop Ceiling Tile - Worm & Pinhole - White	ND	PLM
32B-081925-FR	Staff Room	2'x2' Drop Ceiling Tile - Worm & Pinhole - White	ND	PLM
33A-081925-FR	Staff Room Closest	1'x1' Ceiling Tile - Pin Hole - Tan	ND	PLM
33B-081925-FR	Staff Room Closest	1'x1' Ceiling Tile - Pin Hole - Tan	ND	PLM
34A-081925-FR	Staff Room (Above Drop Ceiling Tile on Drywall)	Glue Dot Associated with Tan 1'x1' Ceiling Tile - Pinhole - Brown	ND/ND	PLM/TEM
34A-081925-FR	Staff Room Closest (On Drywall)	Glue Dot Associated with Tan 1'x1' Ceiling Tile - Pinhole - Brown	ND	PLM

ND = None Detected

Table 2
Summary of Identified and Assumed Asbestos-Containing Materials Inventory

Location	Material Type	Asbestos Content	Estimated Total Quantity
Boy's Bathroom	Caulking Compound on Black 6"x2" Ceramic Tile to Drywall - White	0.42% Anthophyllite	15 LF
Bathrooms	Assumed pipe insulation and mudded fitting in chases and wet walls	Assumed	Unknown

LF = Linear Feet

Table 3
Summary of PCB-Containing Materials Inventory

Location	Material Type	PCB Content	Estimated Total Quantity
Boy's & Girl's Bathroom - Toilet	Caulking compound - White	Assumed	15 LF
Staff Room Bathroom - Sink	Caulking compound - White	Assumed	5 LF
Boy's & Girl's Bathroom - Sink	Caulking compound - Clear	Assumed	26 LF

Table 4
PCB/DEHP-Containing Light Ballasts Inventory

Type	Estimated Quantity
PCB	0
DEHP	14
Total	**14**

Table 5
Mercury-Containing Equipment Inventory

Type	Estimated Quantity
1' Light Tube	0
2' Light Tube	0
4' Light Tube	26
8' Light Tube	0
High Intensity Discharge (HID) Light	0
Compact Fluorescent Lamp (CFL)	0

Appendix A

Limitations

LIMITATIONS

Site: Andover Elementary School, 35 School Road, Andover, Connecticut

1. This inspection report has been prepared for the exclusive use of the Andover Elementary School (the "Client") and is subject to and is issued in connection with the terms and conditions of the original Agreement and all of its provisions. Any use or reliance upon information provided in this report, without the specific written authorization of the Client and Fuss & O'Neill, Inc. (Fuss & O'Neill) shall be at the User's individual risk. This report should not be used as an abatement specification. All quantities of materials identified during this inspection are approximate.
2. Fuss & O'Neill has obtained and relied upon information from multiple sources to form certain conclusions regarding likely environmental issues at and in the vicinity of the subject property in conducting this inspection. Except as otherwise noted, no attempt has been made to verify the accuracy or completeness of such information or verify compliance by any party with federal, state or local laws or regulations.
3. Fuss & O'Neill has obtained and relied upon laboratory analytical results in conducting the inspection. This information was used to form conclusions regarding the types and quantities of ACM, LBP, and PCBs that must be managed prior to renovation or demolition activities that may disturb these materials at the Site. Fuss & O'Neill has not performed an independent review of the reliability of this laboratory data.
4. Unless otherwise noted, only suspect hazardous materials associated within or located on the building (aboveground) were included in this inspection. Suspect hazardous materials may exist below the ground surface that were not included in the scope of work of this inspection. Fuss & O'Neill cannot guarantee all asbestos or suspect hazardous materials were identified within the areas included in the scope of work. Only visible and accessible areas were included in the scope of work for this inspection.
5. The findings, observations and conclusions presented in this report are limited by the scope of services outlined in our original Agreement (July 28, 2025), which reflects schedule and budgetary constraints imposed by Client. Furthermore, the assessment has been conducted in accordance with generally accepted environmental practices. No other warranty, expressed or implied, is made.
6. The conclusions presented in this report are based solely upon information gathered by Fuss & O'Neill to date. Should further environmental or other relevant information be discovered at a later date, the Client should immediately bring the information to the Fuss & O'Neill's attention. Based upon an evaluation and assessment of relevant information, Fuss & O'Neill may modify the letter report and its conclusions.

Appendix B

Fuss & O'Neill Inspector License and Accreditations

1003971 SP 3464 -C01-P03976-I

FELIX REVOIR
FUSS & O'NEILL INC
146 HARTFORD RD
MANCHESTER CT 06040-5992

Dear FELIX REVOIR,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

MANISHA JUTHANI, MD, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1003971-0003982-0000001 of 0000001-C01-a1e80101-1464-03976

EMPLOYER'S COPY
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
NAME
FELIX REVOIR

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-144363	001147	10/31/25

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE COMMISSIONER

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
ASBESTOS CONSULTANT-INSPECTOR

FELIX REVOIR

CERTIFICATE NO.
001147
CURRENT THROUGH
10/31/25
VALIDATION NO.
03-144363

SIGNATURE COMMISSIONER

INSTRUCTIONS:

1. Detach and sign each of the cards on this form.
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
NAME
FELIX REVOIR

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-144363	001147	10/31/25

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE COMMISSIONER

ATLAS

CERTIFICATE OF ACHIEVEMENT

This certifies that

Felix Revoir

has successfully completed the

4 Hour Asbestos Site Inspector Refresher Training
Asbestos Accreditation Under TSCA Title II
40 CFR Part 763

Training held via Live Webinar

Exam Score: 76%

conducted by:
ATLAS Technical Consultants, LLC
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070

Principal Instructor: Gregory Morsch

Regional Training Director: Gregory Morsch

August 22, 2024
Date of Course

SIAR - 7804
Certificate Number

August 22, 2025
Expiration Date

August 22, 2024
Examination Date

1005933 SP 1464 -C01-P05940-I

FELIX REVOIR
FUSS & O'NEILL INC
146 HARTFORD RD
MANCHESTER CT 06040-5992

1005933-0005948-0000001 of 0000001-C01-a1d00101-1464-05940

Dear FELIX REVOIR,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

MANISHA JUTHANI, MD, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

EMPLOYER'S COPY
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
NAME
FELIX REVOIR

VALIDATION NO.	CERTIFICATE NO	CURRENT THROUGH
03-146328	002320	10/31/25

PROFESSION
LEAD INSPECTOR RISK ASSESSOR

SIGNATURE
COMMISSIONER

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
LEAD INSPECTOR RISK ASSESSOR

FELIX REVOIR

CERTIFICATE NO.
002320
CURRENT THROUGH
10/31/25
VALIDATION NO.
03-146328

SIGNATURE
COMMISSIONER

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WALLET CARD
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
NAME
FELIX REVOIR

VALIDATION NO.	CERTIFICATE NO	CURRENT THROUGH
03-146328	002320	10/31/25

PROFESSION
LEAD INSPECTOR RISK ASSESSOR

SIGNATURE
COMMISSIONER

CERT#: L-600-Virtual.1445

CHEMSCOPE TRAINING DIVISION

LEAD INSPECTOR/RISK ASSESSOR REFRESHER
8-HOUR TRAINING CERTIFICATE

Felix Revoir

146 Hartford Road, Manchester CT

Has attended an 8-hour course on the subject discipline on 09/30/2024 and has passed a written examination.

The above individual has successfully completed the above training course approved in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes. Course topics include all required topics of State of Connecticut DPH and EPA.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (U.S.C. 1001 and 15 U.S. C. 2615), I certify that this training complies with all applicable requirements of Title IV of TSCA, 40 CFR part 745 and any other applicable Federal, State or local requirements.

Examination Score: 86%
Exam Date: 09/30/2024
Expiration Date: 09/30/2025

Daniel Sullivan
Training Manager

Chem Scope, Inc.
15 Moulthrop Street
North Haven CT 06473
Phone: 203.865.5605
www.chem-scope.com

Appendix C

Asbestos Laboratory Report and Chain of Custody Form

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID:	**10090078**
Analysis:	PLM
Date Received:	08/20/2025
Date Reported:	08/21/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
01A-081925-FR	2"x2" Ceramic Floor Tile - Tan	**None Detected**		**100% Ceramic**	Tan Non-Fibrous Homogeneous
10090078_0001					Crushed
01B-081925-FR	2"x2" Ceramic Floor Tile - Tan	**None Detected**		**100% Ceramic**	Tan Non-Fibrous Homogeneous
10090078_0002					Crushed
01C-081925-FR	2"x2" Ceramic Floor Tile - Tan	**None Detected**		**100% Ceramic**	Tan Non-Fibrous Homogeneous
10090078_0003					Crushed
02A-081925-FR	2"x1" Ceramic Floor Tile - Tan	**None Detected**		**100% Ceramic**	Tan Non-Fibrous Homogeneous
10090078_0004					Crushed
02B-081925FR	2"x1" Ceramic Floor Tile - Tan	**None Detected**		**100% Ceramic**	Tan Non-Fibrous Homogeneous
10090078_0005					Crushed
02C-081925-FR	2"x1" Ceramic Floor Tile - Tan	**None Detected**		**100% Ceramic**	Tan Non-Fibrous Homogeneous
10090078_0006					Crushed
03A-081925-FR	1"x1" Ceramic Floor Tile - Black	**None Detected**		**100% Ceramic**	Black Non-Fibrous Homogeneous
10090078_0007					Crushed
03B-081925-FR	1"x1" Ceramic Floor Tile - Black	**None Detected**		**100% Ceramic**	Black Non-Fibrous Homogeneous
10090078_0008					Crushed

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

NVLAP

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID:	**10090078**
Analysis:	PLM
Date Received:	08/20/2025
Date Reported:	08/21/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
03C-081925-FR	1"x1" Ceramic Floor Tile - Black	None Detected		100% Ceramic	Black Non-Fibrous Homogeneous
10090078_0009					Crushed
04A-081925-FR	Grout Associated with Ceramic Floor Tiles - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0010					Crushed
04B-081925-FR	Grout Associated with Ceramic Floor Tiles - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0011					Crushed
04C-081925-FR	Grout Associated with Ceramic Floor Tiles - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0012					Crushed
05A-081925-FR	Thinset Associated with Ceramic Floor Tiles - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0013					Crushed
05B-081925-FR	Thinset Associated with Ceramic Floor Tiles - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0014					Crushed
05C-081925-FR	Thinset Associated with Ceramic Floor Tiles - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0015					Crushed
06A-081925-FR	4"x4" Ceramic Wall Tile - White	None Detected		100% Ceramic	White Non-Fibrous Homogeneous
10090078_0016					Crushed

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID: 10090078
Analysis: PLM
Date Received: 08/20/2025
Date Reported: 08/21/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
06B-081925-FR	4"x4" Ceramic Wall Tile - White	None Detected		100% Ceramic	White Non-Fibrous Homogeneous
10090078_0017					Crushed
07A-081925-FR	6"x2" Ceramic Wall Tile - Black	None Detected		100% Ceramic	White Non-Fibrous Homogeneous
10090078_0018					Crushed
07B-081925-FR	6"x2" Ceramic Wall Tile - Black	None Detected		100% Ceramic	Black Non-Fibrous Homogeneous
10090078_0019					Crushed
08A-081925-FR	Grout & Thinset Associated with Ceramic Wall Tiles - Grey	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0020					Crushed
08B-081925-FR	Grout & Thinset Associated with Ceramic Wall Tiles - Grey	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0021					Crushed
09A-081925-FR	6"x6" Ceramic Wall Tile - Black	None Detected		100% Ceramic	Black Non-Fibrous Homogeneous
10090078_0022					Crushed
09B-081925-FR	6"x6" Ceramic Wall Tile - Black	None Detected		100% Ceramic	Black Non-Fibrous Homogeneous
10090078_0023					Crushed
09C-081925-FR	6"x6" Ceramic Wall Tile - Black	None Detected		100% Ceramic	Black Non-Fibrous Homogeneous
10090078_0024					Crushed

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Lab Order ID: 10090078
Analysis: PLM
Date Received: 08/20/2025
Date Reported: 08/21/2025

Project: Andover Elementary School

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
10A-081925-FR	2"x2" Ceramic Floor Tile - White	**None Detected**		100% Ceramic	White Non-Fibrous Homogeneous
10090078_0025					Crushed
10B-081925-FR	2"x2" Ceramic Floor Tile - White	**None Detected**		100% Ceramic	White Non-Fibrous Homogeneous
10090078_0026					Crushed
11A-081925-FR	2"x2" Ceramic Floor Tile - Off-White	**None Detected**		100% Ceramic	Off-white Non-Fibrous Homogeneous
10090078_0027					Crushed
11B-081925-FR	2"x2" Ceramic Floor Tile - Off-White	**None Detected**		100% Ceramic	Off-white Non-Fibrous Homogeneous
10090078_0028					Crushed
12A-081925-FR	Grout Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	**None Detected**		100% Other	Gray Non-Fibrous Homogeneous
10090078_0029					Crushed
12B-081925-FR	Grout Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	**None Detected**		100% Other	Gray Non-Fibrous Homogeneous
10090078_0030					Crushed
13A-081925-FR	Grout Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	**None Detected**		100% Other	Gray Non-Fibrous Homogeneous
10090078_0031					Crushed
13B-081925-FR	Grout Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	**None Detected**		100% Other	Gray Non-Fibrous Homogeneous
10090078_0032					Crushed

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID: **10090078**
Analysis: PLM
Date Received: 08/20/2025
Date Reported: 08/21/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
14A-081925-FR	Thinset Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	**None Detected**		100% Other	Gray Non-Fibrous Homogeneous
10090078_0033					Crushed
14B-081925-FR	Thinset Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	**None Detected**		100% Other	Gray Non-Fibrous Homogeneous
10090078_0034					Crushed
15A-081925-FR	Thinset Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	**None Detected**		100% Other	Gray Non-Fibrous Homogeneous
10090078_0035					Crushed
15B-081925-FR	Thinset Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	**None Detected**		100% Other	Gray Non-Fibrous Homogeneous
10090078_0036					Crushed
16A-081925-FR	12"x12" Vinyl Floor Tile - Blue/Grey Mottle	**None Detected**		100% Other	Blue Non-Fibrous Homogeneous
10090078_0037					Dissolved
16B-081925-FR	12"x12" Vinyl Floor Tile - Blue/Grey Mottle	**None Detected**		100% Other	Blue Non-Fibrous Homogeneous
10090078_0038					Dissolved
17A-081925-FR	Adhesive Associated with Blue/Grey Mottle 12x"12" Vinyl Floor Tile - Tan	**None Detected**		100% Other	Yellow Non-Fibrous Homogeneous
10090078_0039					Dissolved
17B-081925-FR	Adhesive Associated with Blue/Grey Mottle 12x"12" Vinyl Floor Tile - Tan	**None Detected**		100% Other	Yellow Non-Fibrous Homogeneous
10090078_0040					Dissolved

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID: 10090078
Analysis: PLM
Date Received: 08/20/2025
Date Reported: 08/21/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
18A-081925-FR	4" Vinyl Cove Base - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0041					Dissolved
18B-081925-FR	4" Vinyl Cove Base - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0042					Dissolved
19A-081925-FR	Adhesive Associated with Grey 4" Vinyl Cove Base - Tan	None Detected		100% Other	Yellow Non-Fibrous Homogeneous
10090078_0043					Dissolved
19B-081925-FR	Adhesive Associated with Grey 4" Vinyl Cove Base - Tan	None Detected		100% Other	Yellow Non-Fibrous Homogeneous
10090078_0044					Dissolved
20A-081925-FR	Caulking Around Toilets - White	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0045					Ashed
20B-081925-FR	Caulking Around Toilets - White	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0046					Ashed
21A-081925-FR	Caulking on Black 6"x2" Ceramic Tile to Drywall - White	None Detected	2% Wollastonite	98% Other	White Non-Fibrous Homogeneous
10090078_0047					Ashed
21B-081925-FR	Caulking on Black 6"x2" Ceramic Tile to Drywall - White	None Detected	2% Wollastonite	98% Other	White Non-Fibrous Homogeneous
10090078_0048					Ashed

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

NVLAP

Lab ID # 123190

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID:	**10090078**
Analysis:	PLM
Date Received:	08/20/2025
Date Reported:	08/21/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
22A-081925-FR *10090078_0049*	Caulking Around Sink - White	**None Detected**		**100% Other**	White Non-Fibrous Homogeneous Ashed
22B-081925-FR *10090078_0050*	Caulking Around Sink - White	**None Detected**		**100% Other**	White Non-Fibrous Homogeneous Ashed
23A-081925-FR *10090078_0051*	Foil Backed Insulation Paper on Fiberglass Insulation-White	**None Detected**	**70% Cellulose**	**30% Other**	Silver, White Fibrous Homogeneous Teased
23B-081925-FR *10090078_0052*	Foil Backed Insulation Paper on Fiberglass Insulation-White	**None Detected**	**70% Cellulose**	**30% Other**	Silver, White Fibrous Homogeneous Teased
23C-081925-FR *10090078_0053*	Foil Backed Insulation Paper on Fiberglass Insulation-White	**None Detected**	**70% Cellulose**	**30% Other**	Silver, White Fibrous Homogeneous Teased
24A-081925-FR *10090078_0054*	1/8" Wall Drywall - White	**None Detected**	**5% Cellulose**	**95% Other**	Gray, Brown Fibrous Heterogeneous Crushed
24B-081925-FR *10090078_0055*	1/8" Wall Drywall - White	**None Detected**	**5% Cellulose**	**95% Other**	Gray, Brown Fibrous Heterogeneous Crushed
24C-081925-FR *10090078_0056*	1/8" Wall Drywall - White	**None Detected**	**5% Cellulose**	**95% Other**	Gray, Brown Fibrous Heterogeneous Crushed

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID:	**10090078**
Analysis:	PLM
Date Received:	08/20/2025
Date Reported:	08/21/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
25A-081925-FR / *10090078_0057*	Tape & Joint Compound - White	None Detected		100% Other	White Non-Fibrous Homogeneous / Crushed
25B-081925-FR / *10090078_0058*	Tape & Joint Compound - White	None Detected		100% Other	White Non-Fibrous Homogeneous / Crushed
25C-081925-FR / *10090078_0059*	Tape & Joint Compound - White	None Detected		100% Other	White Non-Fibrous Homogeneous / Crushed
26A-081925-FR / *10090078_0060*	Plaster Wall Rough Coat - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous / Crushed
26B-081925-FR / *10090078_0061*	Plaster Wall Rough Coat - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous / Crushed
26C-081925-FR / *10090078_0062*	Plaster Wall Rough Coat - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous / Crushed
26D-081925-FR / *10090078_0063*	Plaster Wall Rough Coat - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous / Crushed
26E-081925-FR / *10090078_0064*	Plaster Wall Rough Coat - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous / Crushed

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

NVLAP

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID: 10090078
Analysis: PLM
Date Received: 08/20/2025
Date Reported: 08/21/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
27A-081925-FR	Plaster Wall Skim Coat - White	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0065					Crushed
27B-081925-FR	Plaster Wall Skim Coat - White	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0066					Crushed
27C-081925-FR	Plaster Wall Skim Coat - White	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0067					Crushed
27D-081925-FR	Plaster Wall Skim Coat - White	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0068					Crushed
27E-081925-FR	Plaster Wall Skim Coat - White	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0069					Crushed
28A-081925-FR	Plaster Ceiling Rough Coat - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0070					Crushed
28B-081925-FR	Plaster Ceiling Rough Coat - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0071					Crushed
28C-081925-FR	Plaster Ceiling Rough Coat - Grey	None Detected		100% Other	Gray Non-Fibrous Homogeneous
10090078_0072					Crushed

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID: 10090078
Analysis: PLM
Date Received: 08/20/2025
Date Reported: 08/21/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
29A-081925-FR	Plaster Ceiling Skim Coat White	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0073					Crushed
29B-081925-FR	Plaster Ceiling Skim Coat White	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0074					Crushed
29C-081925-FR	Plaster Ceiling Skim Coat White	None Detected		100% Other	White Non-Fibrous Homogeneous
10090078_0075					Crushed
30A-081925-FR	1/8" Ceiling Drywall -White	None Detected	5% Cellulose	95% Other	Gray, Brown Fibrous Heterogeneous
10090078_0076					Crushed
30B-081925-FR	1/8" Ceiling Drywall -White	None Detected	5% Cellulose	95% Other	Gray, Brown Fibrous Heterogeneous
10090078_0077					Crushed
30C-081925-FR	1/8" Ceiling Drywall -White	None Detected	5% Cellulose	95% Other	Gray, Brown Fibrous Heterogeneous
10090078_0078					Crushed
31A-081925-FR	2'x2' Drop Ceiling Tile - Vinyl Coating - White	None Detected	40% Mineral Wool 40% Cellulose	10% Other 10% Perlite	Gray Fibrous Homogeneous
10090078_0079					Ashed
31B-081925-FR	2'x2' Drop Ceiling Tile - Vinyl Coating - White	None Detected	40% Cellulose 40% Mineral Wool	10% Perlite 10% Other	Gray Fibrous Homogeneous
10090078_0080					Ashed

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

NVLAP

Lab ID # 123190

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID: 10090078
Analysis: PLM
Date Received: 08/20/2025
Date Reported: 08/21/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
32A-081925-FR	2'x2' Drop Ceiling Tile - Worm & Pinhole - White	None Detected	40% Mineral Wool 40% Cellulose	10% Other 10% Perlite	Gray Fibrous Homogeneous
10090078_0081					Ashed
32B-081925-FR	2'x2' Drop Ceiling Tile - Worm & Pinhole - White	None Detected	40% Mineral Wool 40% Cellulose	10% Perlite 10% Other	Gray Fibrous Homogeneous
10090078_0082					Ashed
33A-081925-FR	1'x1' Ceiling Tile - Pin Hole - Tan	None Detected	99% Cellulose	1% Other	Brown Fibrous Homogeneous
10090078_0083					Teased
33B-081925-FR	1'x1' Ceiling Tile - Pin Hole - Tan	None Detected	99% Cellulose	1% Other	Brown Fibrous Homogeneous
10090078_0084					Teased
34A-081925-FR	Glue Dot Associated with Tan 1'x1' Ceiling Tile - Pinhole - Brown	None Detected		100% Other	Brown Non-Fibrous Homogeneous
10090078_0085					Dissolved
34A-081925-FR	Glue Dot Associated with Tan 1'x1' Ceiling Tile - Pinhole - Brown	None Detected		100% Other	Brown Non-Fibrous Homogeneous
10090078_0086					Dissolved

Patrick Yarnell (86)
Analyst

Approved Signatory

Bulk Asbestos Analysis
by Transmission Electron Microscopy

Semi-Quantitative
Chatfield SOP 1988-02 Rev. 1

Customer: Fuss & O'Neill
One Financial Plaza, 15th Floor
Hartford, CT 06103

Attn: Carlos Texidor

Project: Andover Elementary School

Lab Order ID: 10090078
Analysis: TBS
Date Received: 08/21/2025
Date Reported: 08/22/2025

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Organic (Wt %)	Acid Soluble (Wt. %)	Asbestos (Wt %)		LCL-UCL (Wt. %)
16A-081925-FR	12"x12" Vinyl Floor Tile - Blue/Grey Mottle	25%	62%	None Detected		
10090078_0037						
17A-081925-FR	Adhesive Associated with Blue/Grey Mottle 12x"12" Vinyl Floor Tile	44%	0%	None Detected		
10090078_0039						
18A-081925-FR	4" Vinyl Cove Base - Grey	44%	0%	None Detected		
10090078_0041						
19A-081925-FR	Adhesive Associated with Grey 4" Vinyl Cove Base - Tan	59%	0%	None Detected		
10090078_0043						
20A-081925-FR	Caulking Around Toilets - White	52%	0%	None Detected		
10090078_0045						
21A-081925-FR	Caulking on Black 6"x2" Ceramic Tile to Drywall - White	58%	0%	0.42%	Anthophyllite	0.38 - 0.47%
10090078_0047						
22A-081925-FR	Caulking Around Sink - White	28%	0%	None Detected		
10090078_0049						
34A-081925-FR	Glue Dot Associated with Tan 1'x1' Ceiling Tile - Pinhole - Brown	57%	0%	None Detected		
10090078_0085						

Daniel Schwartz (8)
Analyst

Approved Signatory

10080078

Client:	Fuss & O'Neill, Inc.	Instructions:	
Contact:	Carlos Texidor	Use Column "B" for your contact info	
Address:	1 Financial Plaza, 15th Floor, Hartford, CT 06103		
Phone:	(860) 646-2469	To See an Example Click the bottom Example Tab.	
Fax:	N/A		
Email:	LabResults@fando.com & CARLOS.TEXIDOR@fando.com		
Project:	Andover Elementary School	Enter samples between "<<" and ">>" Begin Samples with a "<< "above the first sample and end with a ">>" below the last sample.	Scientific Analytical Institute
Client Notes:	Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do Not Point Count. If NOB group sample results are 0% - < 1% by PLM, analyze only "A" group sample above by TEM NOB, per group, unless you are told otherwise.	Only Enter your data on the first sheet "Sheet1"	
P.O. #.	20120209.B21	Note: Data 1 and Data 2 are optional fields that do not show up on the official report, however they will be included in the electronic data returned to you to facilitate your reintegration of the report data.	4604 Dundas Drive Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313 Email: lab@saiiab.com
Date Submitted:	8/19/2025 0:00		
Analysis:	PLM and TEM NOB		
TurnAroundTime:	24 Hour		

Sample Number	Sample Location	Sample Description	Quantity
<<			
01A-081925-FR	Boy's Bathroom	2"x2" Ceramic Floor Tile - Tan	375 SF
01B-081925-FR	Staff Room Bathroom	2"x2" Ceramic Floor Tile - Tan	375 SF
01C-081925-FR	Girls' Bathroom	2"x2" Ceramic Floor Tile - Tan	375 SF
02A-081925-FR	Boy's Bathroom	2"x1" Ceramic Floor Tile - Tan	375 SF
02B-081925FR	Staff Room Bathroom	2"x1" Ceramic Floor Tile - Tan	375 SF
02C-081925-FR	Girls' Bathroom	2"x1" Ceramic Floor Tile - Tan	375 SF
03A-081925-FR	Boy's Bathroom	1"x1" Ceramic Floor Tile - Black	375 SF
03B-081925-FR	Staff Room Bathroom	1"x1" Ceramic Floor Tile - Black	375 SF
03C-081925-FR	Girls' Bathroom	1"x1" Ceramic Floor Tile - Black	375 SF
04A-081925-FR	Boy's Bathroom	Grout Associated with Ceramic Floor Tiles - Grey	375 SF
04B-081925-FR	Staff Room Bathroom	Grout Associated with Ceramic Floor Tiles - Grey	375 SF
04C-081925-FR	Girls' Bathroom	Grout Associated with Ceramic Floor Tiles - Grey	375 SF
05A-081925-FR	Boy's Bathroom	Thinset Associated with Ceramic Floor Tiles - Grey	375 SF
05B-081925-FR	Staff Room Bathroom	Thinset Associated with Ceramic Floor Tiles - Grey	375 SF
05C-081925-FR	Girls' Bathroom	Thinset Associated with Ceramic Floor Tiles - Grey	375 SF
06A-081925-FR	Boy's Bathroom	4"x4" Ceramic Wall Tile - White	425 SF
06B-081925-FR	Girls' Bathroom	4"x4" Ceramic Wall Tile - White	425 SF

Accepted ☑
Rejected ☐

Relinquished By

Received By
YGL 8/20 10:30am

07A-081925-FR	Girls' Bathroom	6"x2" Ceramic Wall Tile - Black	25 SF
07B-081925-FR	Boy's Bathroom	6"x2" Ceramic Wall Tile - Black	25 SF
08A-081925-FR	Girls' Bathroom	Grout & Thinset Associated with Ceramic Wall Tiles - Grey	525 SF
08B-081925-FR	Boy's Bathroom	Grout & Thinset Associated with Ceramic Wall Tiles - Grey	525 SF
09A-081925-FR	Boy's Bathroom	6"x6" Ceramic Wall Tile - Black	75 SF
09B-081925-FR	Staff Room Bathroom	6"x6" Ceramic Wall Tile - Black	75 SF
09C-081925-FR	Girls' Bathroom	6"x6" Ceramic Wall Tile - Black	75 SF
10A-081925-FR	Girls' Bathroom	2"x2" Ceramic Floor Tile - White	4 SF
10B-081925-FR	Girls' Bathroom	2"x2" Ceramic Floor Tile - White	4 SF
11A-081925-FR	Girls' Bathroom	2"x2" Ceramic Floor Tile - Off-White	4 SF
11B-081925-FR	Girls' Bathroom	2"x2" Ceramic Floor Tile - Off-White	4 SF
12A-081925-FR	Girls' Bathroom	Grout Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	4 SF
12B-081925-FR	Girls' Bathroom	Grout Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	4 SF
13A-081925-FR	Girls' Bathroom	Grout Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	4 SF
13B-081925-FR	Girls' Bathroom	Grout Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	4 SF
14A-081925-FR	Girls' Bathroom	Thinset Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	4 SF
14B-081925-FR	Girls' Bathroom	Thinset Associated with White 2"x2" Ceramic Floor Tile (New) - Grey	4 SF
15A-081925-FR	Girls' Bathroom	Thinset Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	4 SF
15B-081925-FR	Girls' Bathroom	Thinset Associated with Off-White 2"x2" Ceramic Floor Tile (New) - Grey	4 SF
16A-081925-FR	Staff Room	12"x12" Vinyl Floor Tile - Blue/Grey Mottle	212 SF
16B-081925-FR	Custodian Closest	12"x12" Vinyl Floor Tile - Blue/Grey Mottle	212 SF
17A-081925-FR	Staff Room	Adhesive Associated with Blue/Grey Mottle 12x"12" Vinyl Floor Tile - Tan	212 SF
17B-081925-FR	Custodian Closest	Adhesive Associated with Blue/Grey Mottle 12x"12" Vinyl Floor Tile - Tan	212 SF
18A-081925-FR	Boy's Bathroom	4" Vinyl Cove Base - Grey	100 LF
18B-081925-FR	Staff Room Closest	4" Vinyl Cove Base - Grey	100 LF
19A-081925-FR	Boy's Bathroom	Adhesive Associated with Grey 4" Vinyl Cove Base - Tan	100 LF
19B-081925-FR	Staff Room Closest	Adhesive Associated with Grey 4" Vinyl Cove Base - Tan	100 LF
20A-081925-FR	Boy's Bathroom	Caulking Around Toilets - White	15 LF
20B-081925-FR	Girls' Bathroom	Caulking Around Toilets - White	15 LF
21A-081925-FR	Boy's Bathroom	Caulking on Black 6"x2" Ceramic Tile to Drywall - White	15 LF

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21B-081925-FR	Boy's Bathroom	Caulking on Black 6"x2" Ceramic Tile to Drywall - White	15 LF
22A-081925-FR	Staff Room Bathroom	Caulking Around Sink - White	5 LF
22B-081925-FR	Staff Room Bathroom	Caulking Around Sink - White	5 LF
23A-081925-FR	Pipe Chase Under Bathrooms	Foil Backed Insulation Paper on Fiberglass Insulation- White	25 LF
23B-081925-FR	Pipe Chase Under Bathrooms	Foil Backed Insulation Paper on Fiberglass Insulation- White	25 LF
23C-081925-FR	Pipe Chase Under Bathrooms	Foil Backed Insulation Paper on Fiberglass Insulation- White	25 LF
24A-081925-FR	Boy's Bathroom	1/8" Wall Drywall - White	130 SF
24B-081925-FR	Boy's Bathroom	1/8" Wall Drywall - White	130 SF
24C-081925-FR	Boy's Bathroom	1/8" Wall Drywall - White	130 SF
25A-081925-FR	Boy's Bathroom	Tape & Joint Compound - White	130 SF
25B-081925-FR	Boy's Bathroom	Tape & Joint Compound - White	130 SF
25C-081925-FR	Boy's Bathroom	Tape & Joint Compound - White	130 SF
26A-081925-FR	Girls' Bathroom	Plaster Wall Rough Coat - Grey	1950 SF
26B-081925-FR	Boy's Bathroom	Plaster Wall Rough Coat - Grey	1950 SF
26C-081925-FR	Staff Room Bathroom	Plaster Wall Rough Coat - Grey	1950 SF
26D-081925-FR	Girls' Bathroom	Plaster Wall Rough Coat - Grey	
26E-081925-FR	Boy's Bathroom	Plaster Wall Rough Coat - Grey	
27A-081925-FR	Girls' Bathroom	Plaster Wall Skim Coat - White	1950 SF
27B-081925-FR	Boy's Bathroom	Plaster Wall Skim Coat - White	1950 SF
27C-081925-FR	Staff Room Bathroom	Plaster Wall Skim Coat - White	1950 SF
27D-081925-FR	Girls' Bathroom	Plaster Wall Skim Coat - White	
27E-081925-FR	Boy's Bathroom	Plaster Wall Skim Coat - White	
28A-081925-FR	Girls' Bathroom	Plaster Ceiling Rough Coat - Grey	575 SF
28B-081925-FR	Boy's Bathroom	Plaster Ceiling Rough Coat - Grey	575 SF
28C-081925-FR	Staff Room Bathroom	Plaster Ceiling Rough Coat - Grey	575 SF
29A-081925-FR	Girls' Bathroom	Plaster Ceiling Skim Coat White	575 SF
29B-081925-FR	Boy's Bathroom	Plaster Ceiling Skim Coat White	575 SF
29C-081925-FR	Staff Room Bathroom	Plaster Ceiling Skim Coat White	575 SF
30A-081925-FR	Staff Room	1/8" Ceiling Drywall -White	200 SF
30B-081925-FR	Staff Room	1/8" Ceiling Drywall -White	200 SF
30C-081925-FR	Staff Room	1/8" Ceiling Drywall -White	200 SF
31A-081925-FR	Girls' Bathroom	2'x2' Drop Ceiling Tile - Vinyl Coating - White	400 SF
31B-081925-FR	Staff Room Bathroom	2'x2' Drop Ceiling Tile - Vinyl Coating - White	400 SF
32A-081925-FR	Boy's Bathroom	2'x2' Drop Ceiling Tile - Worm & Pinhole - White	300 SF
32B-081925-FR	Staff Room	2'x2' Drop Ceiling Tile - Worm & Pinhole - White	300 SF
33A-081925-FR	Staff Room Closest	1'x1' Ceiling Tile - Pin Hole - Tan	20 SF
33B-081925-FR	Staff Room Closest	1'x1' Ceiling Tile - Pin Hole - Tan	20 SF
34A-081925-FR	Staff Room (Above Drop Ceiling Tile on Drywall)	Glue Dot Associated with Tan 1'x1' Ceiling Tile - Pinhole - Brown	200 SF
34A-081925-FR	Staff Room Closest (On Drywall)	Glue Dot Associated with Tan 1'x1' Ceiling Tile - Pinhole - Brown	200 SF

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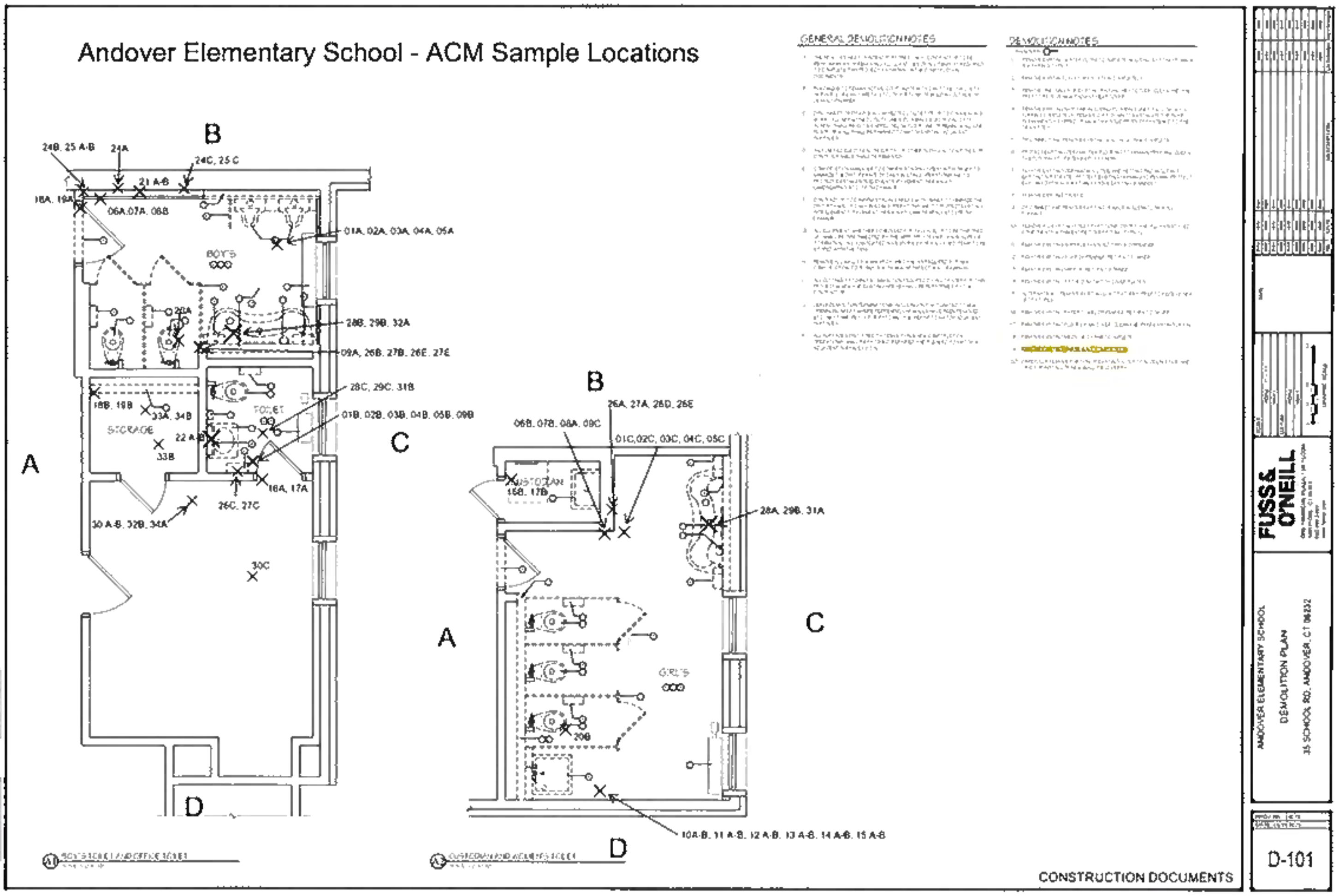
Appendix D

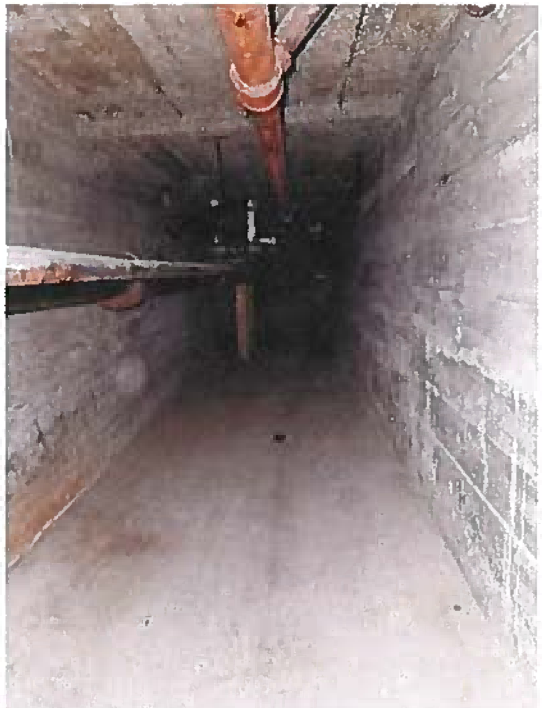
Asbestos Sample Location Drawing

Andover Elementary School - ACM Sample Locations

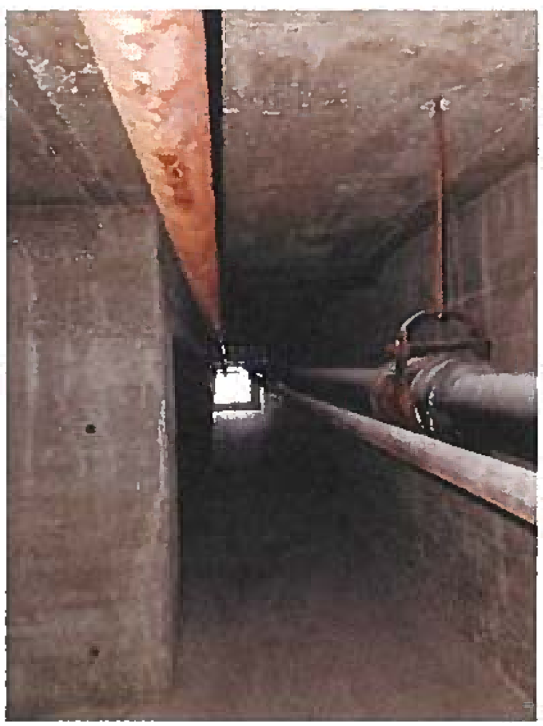


Appendix E

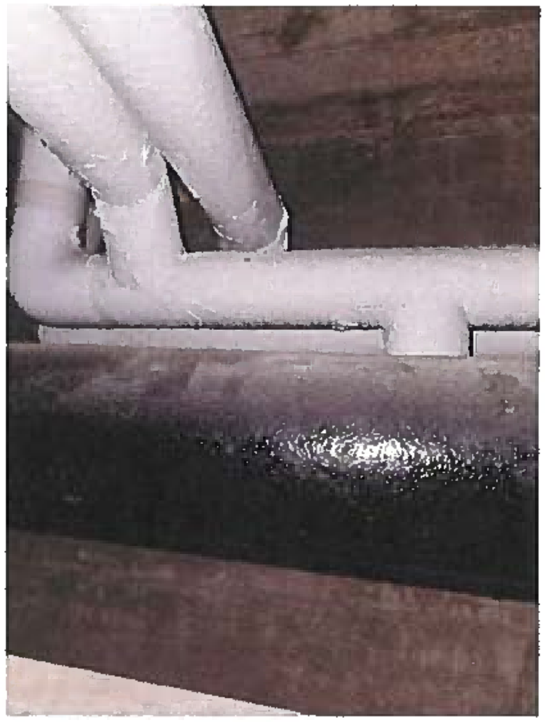
Site Photographs



Pipe Chase Below Bathrooms and Staff Room



Pipe Chase Below Bathrooms and Staff Room



Pipe Chase Below Bathrooms and Staff Room Newer Plumbing and Insulation

Staff Room Closest: Glue Dots Under 1'x1' Ceiling Tile – Pine Hole on Drywall

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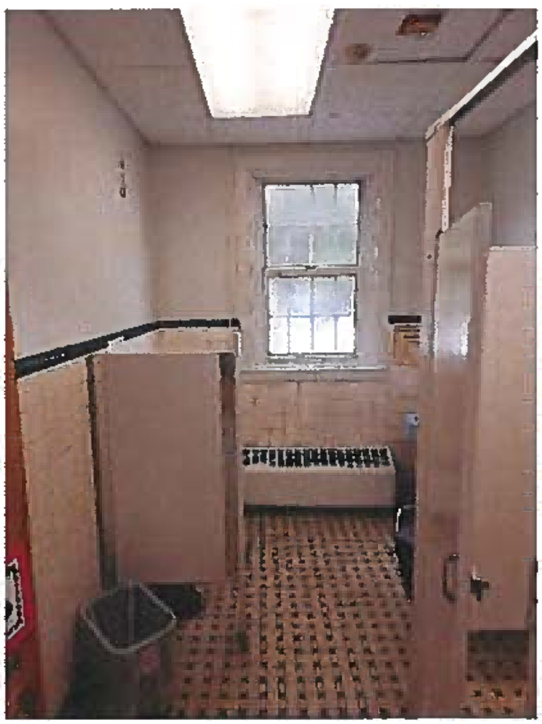
Staff Room Closest: 12"x12" Floor Tiles, 4" Cove Base & Adhesive Associated with 4" Cove Base

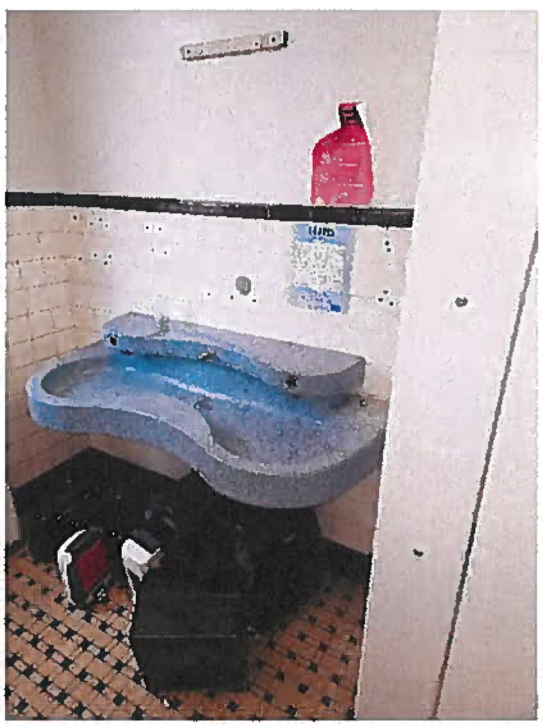
Staff Room Bathroom: Plaster Walls, Ceramic Floor Tiles, Ceramic Wall Tile Base, Sink Caulking Compound

Staff Room: Plaster Walls, Drop Ceiling Tiles, Glue Dots Above Ceiling Tiles, 12"x12" Floor Tiles



Boy's Bathroom: Plaster Walls, Ceramic Floor Tiles, Ceramic Wall Tiles, Sink Caulking Compound (Sink Caulking Compound Not Tested as it is Clear Silica), Toilet Caulking

Boy's Bathroom: Drywall and Tape & Joint Compound



Boy's Bathroom: Plaster Walls, Ceramic Floor Tiles, Ceramic Wall Tiles, Sink Caulking Compound (Sink Caulking Compound Not Tested as it is Clear Silica)

Appendix F

XRF Lead Determination Field Data Sheets

Andover Elementary School

Fuss & O'Neill 1 Financial Plaza,
15th Floor
Hartford, CT

INSPECTION SITE:	Andover Elementary School 35 School Road, Andover, CT
INSPECTION DATE:	8/19/2025 - 8/19/2025
INSTRUMENT TYPE:	Viken Detection Pb200i XRF Lead Paint Analyzer 2171
ACTION LEVEL:	1.0 (mg/cm²)
Job ID:	20120209.B21
STATEMENT:	20120209.B21

Andover Elementary School

Inspection Date:	8/19/2025 - 8/19/2025	Inspection Site:	Andover Elementary School 35 School Road, Andover, CT
Action Level:	1.0 (mg/cm²)		
Total Readings:	49		
Unit Started:	08/19/2025 09:06:43		
Unit Ended:	08/19/2025 13:22:00		

Read #	Result	RTA Present	-->RoomChoice	Structure	-->Member	Substrate	Wall	Location	Condition	-->Cause	Color	Lead (mg/cm²)
102	Positive	Off	Calibration Device	Calibration	Calibration Device	Calibration Device					Calibration Device	1.0 mg/cm²
103	Positive	Off	Calibration Device	Calibration	Calibration Device	Calibration Device					Calibration Device	1.1 mg/cm²
104	Positive	Off	Calibration Device	Calibration	Calibration Device	Calibration Device					Calibration Device	1.1 mg/cm²
105	Negativ	Off	Boy's Bathroom	Room	Wall	Drywall	B	1	Intact	N/A	Light Blue	0.0 mg/cm²
108	Negative	Off	Boy's Bathroom	Room	Wall	Plaster	D	2	Intact	N/A	Light Blue	0.2 mg/cm²
109	Negativ	Off	Boy's Bathroom	Room	Wall	Ceramic Tile	D	3	Intact	N/A	White	0.1 mg/cm²
110	Positive	Off	Boy's Bathroom	Room	Wall	Ceramic Tile	B	4	Intact	N/A	Black	16.4 mg/cm²
112	Negativ	Off	Boy's Bathroom	Window	Casing	Wood	C	5	Intact	N/A	White	0.1 mg/cm²
113	Negative	Off	Boy's Bathroom	Window	Sill	Wood	C	5	Intact	N/A	White	0.3 mg/cm²
114	Negativ	Off	Boy's Bathroom	Window	Apron	Wood	C	5	Intact	N/A	White	0.4 mg/cm²
115	Negative	Off	Boy's Bathroom	Door	Frame	Metal	A	6	Intact	N/A	Slate	0.0 mg/cm²
116	Negativ	Off	Staff Bathroom	Room	Wall	Plaster	B	7	Intact	N/A	Light Blue	0.0 mg/cm²
117	Negative	Off	Staff Bathroom	Room	Wall	Plaster	D	8	Intact	N/A	Green	0.1 mg/cm²
120	Negativ	Off	Staff Bathroom	Window	Casing	Wood	C	9	Intact	N/A	White	0.2 mg/cm²
121	Negative	Off	Staff Bathroom	Window	Sill	Wood	C	9	Intact	N/A	White	0.2 mg/cm²
122	Negativ	Off	Staff Bathroom	Window	Apron	Wood	C	9	Intact	N/A	White	0.1 mg/cm²
123	Negative	Off	Staff Bathroom	Door	---	Wood	B	11	Intact	N/A	White	0.2 mg/cm²
124	Negativ	Off	Staff Bathroom	Door	Casing	Wood	B	11	Intact	N/A	White	0.2 mg/cm²
125	Negative	Off	Staff Bathroom	Door	Jamb	Wood	A	11	Intact	N/A	White	0.0 mg/cm²
126	Negativ	Off	Staff Closest	Room		Plaster	C	12	Intact	N/A	White	0.1 mg/cm²
127	Negative	Off	Staff Closest	Room	Wall	Plaster	C	12	Intact	N/A	White	0.0 mg/cm²
128	Negativ	Off	Staff Closest	Cabinets	Shelf	Wood	B	13	Intact	N/A	White	0.0 mg/cm²
129	Negative	Off	Staff Closest	Door	---	Metal	B	14	Intact	N/A	White	0.0 mg/cm²
130	Negativ	Off	Staff Closest	Door	Frame	Metal	C	14	Intact	N/A	White	0.6 mg/cm²
131	Negative	Off	Staff Room	Room	Wall	Plaster	C	15	Intact	N/A	White	0.2 mg/cm²
132	Negativ	Off	Staff Room	Room	Wall	Plaster	C	16	Intact	N/A	Blue	0.0 mg/cm²

Andover Elementary School

Inspection Date:	8/19/2025 - 8/19/2025	Inspection Site:	Andover Elementary School 35 School Road, Andover, CT
Action Level:	1.0 (mg/cm^2)		
Total Readings:	49		
Unit Started:	08/19/2025 09:06:43		
Unit Ended:	08/19/2025 13:22:00		

Read #	Result	RTA Present	-->RoomChoice	Structure	-->Member	Substrate	Wall	Location	Condition	-->Cause	Color	Lead (mg/cm^2)
133	Negative	Off	Staff Room	Room	Wall	Plaster	A	17	Intact	N/A	White	0.3 mg/cm^2
134	Negativ	Off	Staff Room	Window	Casing	Wood	C	18	Intact	N/A	White	0.2 mg/cm^2
135	Negative	Off	Staff Room	Window	Sill	Wood	C	18	Intact	N/A	White	0.1 mg/cm^2
136	Negativ	Off	Staff Room	Window	Apron	Wood	C	18	Intact	N/A	White	0.2 mg/cm^2
137	Negative	Off	Staff Room	Cabinets	Door	Wood	C	20	Intact	N/A	White	0.1 mg/cm^2
138	Negativ	Off	Staff Room	Cabinets	Frame	Wood	D	20	Intact	N/A	White	0.2 mg/cm^2
139	Negative	Off	Staff Room	Cabinets	Shelf	Wood	C	20	Intact	N/A	White	0.1 mg/cm^2
140	Negativ	Off	Custodian Closest	Room	Wall	Plaster	A	21	Intact	N/A	White	0.1 mg/cm^2
141	Negative	Off	Custodian Closest	Room	Wall	Plaster	C	22	Intact	N/A	White	0.4 mg/cm^2
142	Negativ	Off	Girl's Bathroom	Room	Wall	Plaster	B	23	Intact	N/A	Light Blue	0.2 mg/cm^2
143	Negative	Off	Girl's Bathroom	Room	Wall	Plaster	D	24	Intact	N/A	Light Blue	0.2 mg/cm^2
144	Positive	Off	Girl's Bathroom	Room	Wall	Ceramic Tile	C	25	Intact	N/A	Black	16.7 mg/cm^2
145	Negative	Off	Girl's Bathroom	Window	Casing	Wood	C	26	Intact	N/A	White	0.0 mg/cm^2
146	Negativ	Off	Girl's Bathroom	Window	Sill	Wood	C	26	Intact	N/A	White	0.3 mg/cm^2
147	Negative	Off	Girl's Bathroom	Window	Apron	Wood	C	26	Intact	N/A	White	0.3 mg/cm^2
148	Positive	Off	Girl's Bathroom	Radiator	Cover	Metal	C	27	Intact	N/A	White	4.0 mg/cm^2
149	Negative	Off	Girl's Bathroom	Door	Casing	Wood	A	28	Intact	N/A	Slate	0.3 mg/cm^2
150	Negativ	Off	Girl's Bathroom	Door	Jamb	Wood	D	28	Intact	N/A	Slate	0.1 mg/cm^2
151	Positive	Off	Staff Room	Radiator	Cover	Metal	C	29	Intact	N/A	White	4.8 mg/cm^2
152	Positive	Off	Boy's Bathroom	Radiator	Cover	Metal	C	30	Intact	N/A	White	7.8 mg/cm^2
153	Positive	Off	Calibration Device	Calibration	Calibration Device	Calibration Device			Intact	N/A	Calibration Device	1.1 mg/cm^2
154	Positive	Off	Calibration Device	Calibration	Calibration Device	Calibration Device			Intact	N/A	Calibration Device	1.1 mg/cm^2
155	Positive	Off	Calibration Device	Calibration	Calibration Device	Calibration Device			Intact	N/A	Calibration Device	1.1 mg/cm^2

------- END OF READINGS ------

EXHIBIT D

PROPOSED FORM OF CONTRACT

Andover Elementary School Terms and Conditions and Proposed Contract

AIA Document A101® – 2017

Standard Form of Agreement Between Owner and Contractor *where the basis of payment is a Stipulated Sum*

AGREEMENT made as of the day of in the year
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

and the Contractor:
(Name, legal status, address and other information)

for the following Project:
(Name, location and detailed description)

The Architect:
(Name, legal status, address and other information)

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS:
The author of this document may have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101®–2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement. AIA Document A201®–2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

DRAFT

TABLE OF ARTICLES

ARTICLE 1 THE CONTRACT DOCUMENTS
The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT
The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
§ 3.1 The date of commencement of the Work shall be:
(Check one of the following boxes.)

[ ] The date of this Agreement.

[ ] A date set forth in a notice to proceed issued by the Owner.

[ ] Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

§ 3.3 Substantial Completion
§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:
(Check one of the following boxes and complete the necessary information.)

[ ] Not later than ( ) calendar days from the date of commencement of the Work.

[ ] By the following date:

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be ($), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement.
(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance

§ 4.3 Allowances, if any, included in the Contract Sum:
(Identify each allowance.)

Item	Price

§ 4.4 Unit prices, if any:
(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit ($0.00)

§ 4.5 Liquidated damages, if any:
(Insert terms and conditions for liquidated damages, if any.)

§ 4.6 Other:
(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than ( ) days after the Architect receives the Application for Payment.
(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.1 The amount of each progress payment shall first include:

- **.1** That portion of the Contract Sum properly allocable to completed Work;
- **.2** That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- **.3** That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.6.2 The amount of each progress payment shall then be reduced by:

- **.1** The aggregate of any amounts previously paid by the Owner;
- **.2** The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- **.3** Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- **.4** For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
- **.5** Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:
(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

§ 5.1.7.1.1 The following items are not subject to retainage:
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:
(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:
(Insert any other conditions for release of retainage upon Substantial Completion.)

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment
§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- **.1** the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- **.2** a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

§ 5.3 Interest
Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.
(Insert rate of interest agreed upon, if any.)

%

ARTICLE 6 DISPUTE RESOLUTION
§ 6.1 Initial Decision Maker
The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.
(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

§ 6.2 Binding Dispute Resolution
For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:
(Check the appropriate box.)

[ ] Arbitration pursuant to Section 15.4 of AIA Document A201–2017

[ ] Litigation in a court of competent jurisdiction

[ ] Other *(Specify)*

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner's convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:
(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner's convenience.)

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner's representative:
(Name, address, email address, and other information)

§ 8.3 The Contractor's representative:
(Name, address, email address, and other information)

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.5 Insurance and Bonds
§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101™–2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with a building information modeling exhibit, if completed, or as otherwise set forth below:
(If other than in accordance with a building information modeling exhibit, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 8.7 Other provisions:

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

.1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
.2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds
.3 AIA Document A201™–2017, General Conditions of the Contract for Construction
.4 Building information modeling exhibit, dated as indicated below:
(Insert the date of the building information modeling exhibit incorporated into this Agreement.)

.5 Drawings

Number	Title	Date

.6 Specifications

Section	Title	Date	Pages

.7 Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:
(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

[ ] AIA Document E204™–2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017 incorporated into this Agreement.)

[ ] The Sustainability Plan:

Title	Date	Pages

[ ] Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

.9 Other documents, if any, listed below:
(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™–2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

This Agreement entered into as of the day and year first written above.

OWNER *(Signature)*

(Printed name and title)

CONTRACTOR *(Signature)*

(Printed name and title)

EXHIBIT E

Pricing

Bidders shall provide a breakdown of their proposal in a format of their choosing.

1. Firm Fix Price
2. Additional Unit Rate Pricing

Bid Form – Unit Prices

The undersigned Bidder agrees that the following Unit Prices shall apply to additional Work authorized by Change Order. Unit Prices shall include all labor, materials, equipment, overhead, profit, insurance, bonds, supervision, and incidentals required to complete the Work.

Bid Item No.	Description	Unit	Unit Price ($)	Total (If Applicable)
UP-01	Additional Lead Paint Abatement	SF	___________	___________
UP-02	Additional Wall Tile Demolition	SF	___________	___________
UP-03	Gypsum Board Replacement	SF	___________	___________
UP-04	Concrete Slab Patch / Infill	SF	___________	___________
UP-05	Sanitary Waste Piping	LF	___________	___________
UP-06	Domestic Water Piping	LF	___________	___________
UP-07	Floor Drain Relocation	Each	___________	___________
UP-08	Lighting Fixture (New or Relocated)	Each	___________	___________
UP-09	Conduit & Wiring Above Ceiling	LF	___________	___________
UP-10	Toilet Partition (HDPE)	Each	___________	___________

The above Unit Prices shall remain valid for the duration of the Contract.

Submitted by: ____
Company Name: ____
Authorized Signature: ____________________________________
Date: ____

EXHIBIT G

Qualifications and Exclusions

I,____________________as officer of the undersigned Company, verify that we have received the Contract Form proposed for the__________________Project and provide the following exceptions for the Owner's consideration. I recognize that the number and nature of the exceptions will be considered in the Owner's evaluation of the RFP response.

1)

2)

3)

4)

5)

The above exceptions to the Contract Form are the only exceptions that will be considered if the Owner elects to accept the bid. Contractor can supply a marked up version of the terms and conditions and attach to the proposal for review.

Agreed and Accepted

______________________ ______________________
Signature Date

______________________ ______________________
Printed Name Title

____
Firm Name