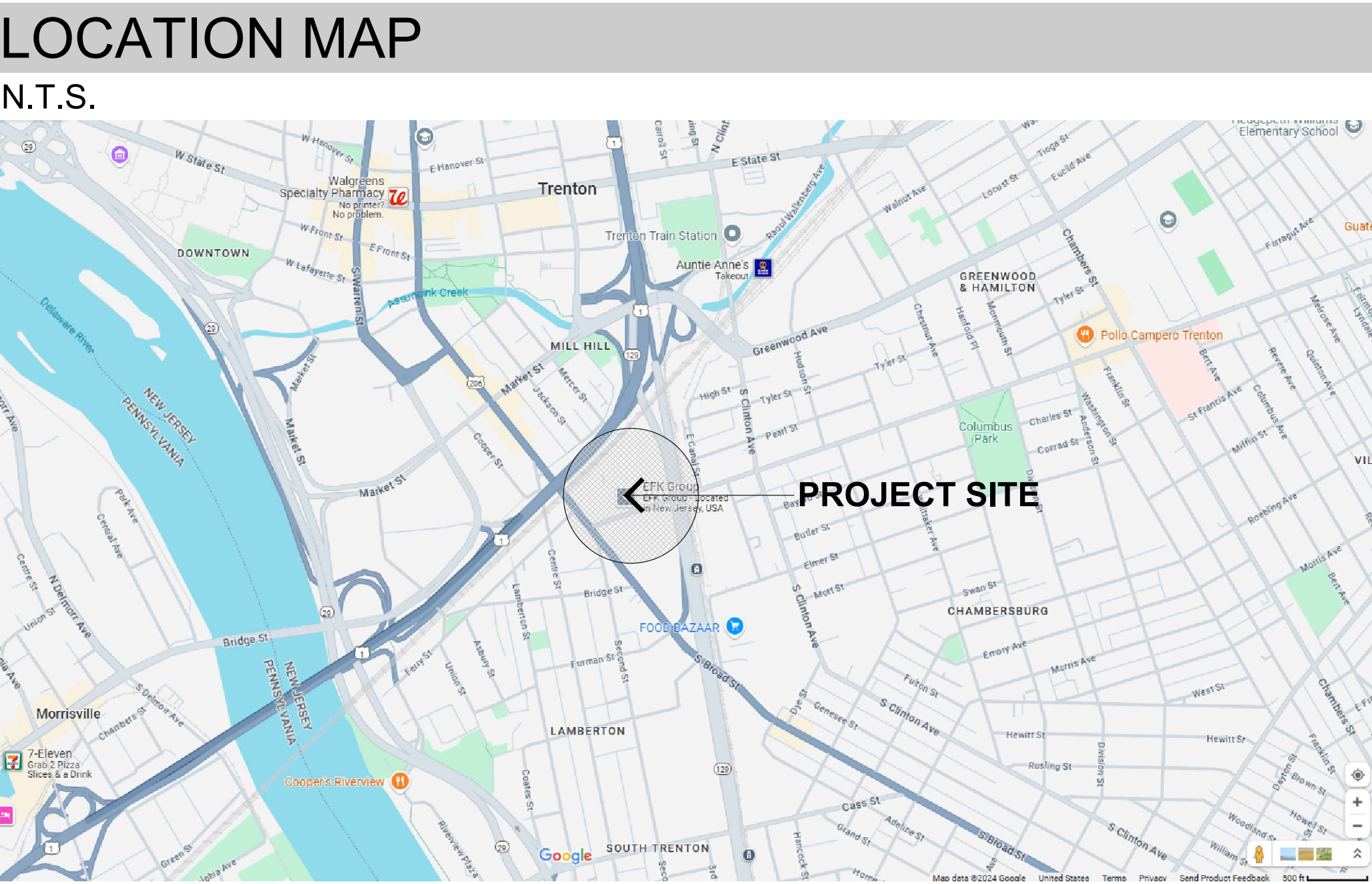


MERCER COUNTY IMPROVEMENT AUTHORITY

ROEBLING BUILDING 4

FIRST FLOOR IMPROVEMENTS

80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611



BUILDING CODE INFORMATION		
PROJECT NAME:	ROEBLING BUILDING 4 - FIRST FLOOR IMPROVEMENTS	
LOCATION:	80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611	
BLOCK & LOT NO.:		
ZONE:	INDUSTRIAL	
THE PRIMARY CODE REFERENCE WILL BE THE NEW JERSEY UNIFORM CONSTRUCTION CODE (N.J.A.C. 5:23 ET SEQ). THE UNIFORM CONSTRUCTION CODE ADOPTS SEVERAL MODEL CODES THAT ARE REFERENCED AS SUBCODES. THESE SUBCODES ARE AN INTEGRAL PART OF THE UNIFORM CONSTRUCTION CODE AND ARE AS FOLLOWS:		
SUBCODE		UCC REFERENCE
BUILDING	International Building Code 2021 - New Jersey Edition	N.J.A.C. 5:23-3.14
ACCESSIBILITY	ANSI-A117.1-2017	N.J.A.C. 5:23-7
PLUMBING	National Standard Plumbing Code 2021 - New Jersey Edition	N.J.A.C. 5:23-3.15
ELECTRICAL	National Electrical Code (NFPA) 2021	N.J.A.C 5:23-3.16
ENERGY	International Energy Conservation Code 2021	N.J.A.C. 5:23-3.18
MECHANICAL	International Mechanical Code 2021	N.J.A.C. 5:23-3.20
REHABILITATION	NJUCC Subchapter 6 Rehabilitation Subcode	N.J.A.C. 5:23-6.1
SCOPE OF WORK		
THE PROJECT CONSISTS OF THE RENOVATION OF APPROX. 3,800 SF OF INTERIOR SHELL SPACE AT THE FIRST FLOOR OF THE ROEBLING BUILDING. WORK INCLUDES PARTITION WALLS, INTERIOR STOREFRONT, OPENINGS, FINISHES, MILLWORK, LIGHTING, AND NEW MECHANICAL, ELECTRICAL, AND PLUMBING WORK. PROJECT ALSO INCLUDES FIRE PROTECTION MODIFICATIONS TO ACCOMMODATE THE RENOVATIONS.		
GENERAL BUILDING INFORMATION		
TABULAR DATA	OVERALL EXISTING BUILDING	FIRST FLOOR IMPROVEMENTS
LOT & BLOCK		
USE GROUP	B - BUSINESS (UNCHANGED)	UNCHANGED
CONSTRUCTION TYPE	5B (UNCHANGED)	UNCHANGED
BUILDING AREA	UNCHANGED	AREA OF WORK - 3,800 S.F.
BUILDING HEIGHT	UNCHANGED	UNCHANGED
BUILDING VOLUME	UNCHANGED	UNCHANGED
OCCUPANCY	UNCHANGED	UNCHANGED
FIRE SUPPRESSION	FULLY AUTOMATIC (UNCHANGED)	UNCHANGED
MEANS OF EGRESS	UNCHANGED	UNCHANGED

NETTAARCHITECTS

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237 West 35th Street
Suite 1004
New York, NY 10004
Phone: 212.777.2090

CERTIFICATE OF AUTHORIZATION AC-438

PROJECT DIRECTORY	
Architects:	Contact: Larry K. Uher, AIA, LEED, AP
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CONSULTING ENGINEERS:	
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T and M Associates	
400 Broadacres Drive, Suite 250	
Bloomfield, NJ 07003	

DRAWING INDEX	
DWG. NO.	SHEET CONTENTS
A-000	COVER SHEET & DRAWING INDEX
A-001	GENERAL INFORMATION
A-002	EGRESS PLAN AND SIGNAGE PLAN
	ARCHITECTURAL
AD-101	FIRST FLOOR DEMOLITION PLAN AND GENERAL DEMOLITION NOTES
A-101	FIRST FLOOR CONSTRUCTION PLAN AND PARTITION TYPES
A-102	FIRST FLOOR FURNITURE PLAN AND CEILING FRAMING PLAN
A-201	FIRST FLOOR REFLECTED CEILING PLAN, FINISH PLAN & FINISH SCHEDULE
A-301	DOOR SCHEDULE, DOOR TYPES & DETAILS, HARDWARE SCHEDULE AND STOREFRONT SCHEDULE
A-401	INTERIOR WALL ELEVATIONS
A-402	INTERIOR WALL ELEVATIONS
A-501	DETAILS
	PLUMBING
P-000	PLUMBING GENERAL INFORMATION
P-001	PLUMBING FLOOR PLANS
FP-000	SPRINKLER FLOOR PLAN
	MECHANICAL
M-000	MECHANICAL ABBREVIATIONS AND SYMBOLS
M-001	MECHANICAL NOTES SHEET NO. 1
M-002	MECHANICAL NOTES SHEET NO. 2
M-100	MECHANICAL DEMOLITION AND DUCTWORK PLANS
M-101	MECHANICAL PIPING PLAN
M-200	MECHANICAL DETAIL SHEET NO. 1
M-201	MECHANICAL DETAIL SHEET NO. 2
M-202	MECHANICAL DETAIL SHEET NO. 3
M-300	MECHANICAL SCHEDULES
M-400	MECHANICAL CONTROLS
	ELECTRICAL
E-000	ELECTRICAL NOTES AND DETAILS
E-010	ELECTRICAL DEMO PLAN
E-100	ELCTRICAL NEW WORK PLAN

GENERAL NOTES

1. ALL WORK PERFORMED BY THE CONTRACTOR SHALL BE IN STRICT CONFORMANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE NEW JERSEY STATE UNIFORM CONSTRUCTION CODE AND INTERNATIONAL BUILDING CODE OF NEW JERSEY AND ALL ITS SUB CODES, OSHA AND ADA REQUIREMENTS AND ANY OTHER LOCAL, REGIONAL OR FEDERAL REGULATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY EXISTING CONDITIONS AND REVIEW THESE CONDITIONS WITH THE PLANS BEFORE, DURING AND AFTER CONSTRUCTION, AND ANY DISCREPANCIES BETWEEN THE ACTUAL CONDITIONS AND THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING IMMEDIATELY.
3. ALL WALL THICKNESSES ARE NOMINAL DIMENSIONS ONLY ROUNDED TO THE NEAREST WHOLE INCH. REFER TO WALL SECTIONS AND DETAILS FOR THEIR ACTUAL THICKNESSES.
4. ALL DIMENSIONS ARE FROM THE FACE OF MASONRY, FACE OF GYPSUM BOARD BOARD OR FROM THE COLUMN CENTER LINES UNLESS OTHERWISE NOTED.
5. EXCEPT WHERE OTHERWISE INDICATED, ALL WALLS AND PARTITIONS ARE DIMENSIONED TO THEIR "NOMINAL" SIZES. WHERE DIMENSIONS ARE NOTED AS "MIN.", PROVIDE MIN. CLEARANCES TO FINISH SURFACES.
6. BEFORE COMMENCING WORK, THE CONTRACTOR SHALL PROPERLY IDENTIFY AND MARK-UP ALL EXISTING UTILITIES.
7. DO NOT SCALE DRAWINGS.
8. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED BUT NECESSARY FOR PROPER EXECUTION OF ANY PART OF THE WORK SHALL BE INCLUDED AS IF THEY WERE INDICATED IN THE DRAWINGS.
9. REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND LEGENDS. ALL NOTES ARE TO BE REVIEWED AND APPLIED TO RELATED BUILDING COMPONENTS.
10. WHERE PIPING IS TO BE CONCEALED, THE HUNG OR FURRED CEILING IN THIS AREAS ARE NOT TO BE INSTALLED UNTIL THOSE PIPES HAVE BEEN PROPERLY TESTED.
11. INTERIOR PARTITIONS SHALL NOT BE BUILT TO FULL HEIGHT UNLESS ALL DUCTS, PIPES, ETC. ARE IN PLACE.
12. ALL SPACES WITH FLOOR DRAIN (INCLUDING AREAWAYS) SHALL HAVE THEIR FLOORS PITCHED TO THOSE FLOOR DRAINS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
13. ALL ITEMS RECESSED INTO RATED PARTITIONS (SUCH AS OUTLET BOXES, PANEL BOXES, ETC) SHALL HAVE THOSE OPENINGS PROTECTED WITH BACK-UP MATERIALS SO AS TO RETAIN THE INTEGRITY OF THE PARTITION RATING THROUGHOUT.
14. ALL STRUCTURAL STEEL LESS THAN 8" FROM EXTERIOR SHALL BE PROPERLY WATERPROOFED.
15. EXCEPT AS OTHERWISE INDICATED, DOOR SADDLES OR DIVIDING STRIPS ARE REQUIRED AT INTERIOR DOOR OPENINGS WHERE DIFFERENT TYPES OF FLOOR FINISHES OCCUR IN IMMEDIATELY ADJOINING ROOMS. POSITION ON LINE OF CENTER DOOR WHEN DOOR IS CLOSED.
16. THE GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL LINTELS, STRUTS, BRACKETS, HANGERS, ETC. WHEREVER NECESSARY TO SUPPORT OR BRACE ALL FINISHES, EQUIPMENT RECESSES, HEADS OVER OPENINGS, FURNITURE, ETC.
17. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES AND ELECTRICAL CONDUITS PRIOR TO STARTING ANY EXCAVATION OPERATIONS. SHOULD ANY CONDUITS BE ENCOUNTERED WHICH WERE NOT KNOWN TO EXIST, THE CONTRACTOR SHALL STOP WORK IN THAT AREA AND IMMEDIATELY NOTIFY THE ARCHITECT.
18. SWEEPING, BRUSHING, AND OTHER GENERAL CLEANING OF COMPLETED WORK AND THE REMOVAL OF DEBRIS, SURPLUS MATERIALS, TOOLS NOT IN ACTIVE USE, SCAFFOLDING AND OTHER EQUIPMENT NO LONGER NEEDED SHALL BE CARRIED OUT ON AN ONGOING BASIS. IN ADDITION, REMOVE STAINS, SPOTS, MARKS, AND DIRT FROM FINISH WORK. THE JOB IS TO BE MAINTAINED FREE OF RUBBISH. DISPOSE OF ALL RUBBISH IN ACCORDANCE WITH LOCAL ORDINANCES.
19. ALL HEIGHTS INDICATED ON REFLECTED CEILING PLANS ARE FROM TOP OF FINISHED FLOOR TO BOTTOM OF CEILING / FIXTURE SPECIFIED, U.O.N..
20. THE CONTRACTOR SHALL FURNISH & INSTALL ALL CLIPS, ANGLES AND MISC. STEEL TO SECURE FRAMING TO STRUCTURE
21. HINGE SIDE OF DOOR TO BE 4" FROM ADJACENT WALL OR AS OTHERWISE MENTIONED.
22. MASONRY OPENING ARE NOMINAL DIMENSIONS. CONTRACTOR TO ALLOW CLEARANCE AT OPENING TO INSTALL WINDOW SYSTEM, DOOR SYTEM OR OTHER ITEMS INSTALLED IN MASONRY.
23. ALL METAL FLASHING SHALL BE STAINLESS STEEL, UNLESS NOTED OTHERWISE.
24. AT LOCATION WHERE SHELF ANGLES ARE INSTALLED, INSTALL STAINLESS STEEL FLASHING, WEEPHOLES AND MORTAR NET.
25. ALL EXPOSED INTERIOR/EXTERIOR METAL ITEMS TO BE PRIMED AND PAINTED (INCLUDING GALVANIZED METALS) UNLESS OTHERWISE NOTED.
26. ALL STEEL LINTELS TO BE GALVANIZED AND PAINTED INCLUDING ALL EXTRA STEELS SPECIFIED HEREIN.
27. ALL EXPOSED GWB TO BE SPACKLED PRIMED AND PAINTED UNLESS OTHERWISE NOTED
28. THE CONTRACTOR TO REPAIR UNEVEN EXISTING CONCRETE SLAB SURFACES TO ENSURE THE QUALITY OF THE SCHEDULED FLOOR FINISHES.
29. THE CONTRACTOR SHOULD INVESTIGATE THE CONDITION OF EXISTING CONCRETE SLAB. IN AREAS WHERE THE EXISTING CONCRETE SLAB IS UNEVEN OR SLOPED, CONTRACTO TO APPLY SELF-LEVELING CONCRETE TO CREATE A LEVEL SURFACE.

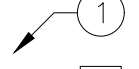
ABBREVIATIONS

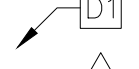
ALUM.	ALUMINUM	M.O.	MASONRY OPENING
A.F.F.	ABOVE FINISH FLOOR	MLDG.	MOLDING
ALT.	ALTERNATE	M.O.H.	MIRROR OPPOSITE HAND
APPROX.	APPROXIMATE	MTD.	MOUNTED
ARCH.	ARCHITECT	MTL	METAL
ARCH'L	ARCHITECTURAL	MFD.	METAL FLOOR DECK
		MDF.	MEDIUM DENSITY FIBERBOARD
BD.	BOARD	MRD.	METAL ROOF DECK
BLDG.	BUILDING	MULL.	MULLION
B.O.	BOTTOM OF		
C.J.	CONTROL JOINT	N	NORTH
CLG.	CEILING	NAT.	NATURAL
CU	CONDENSING UNIT	N.I.C.	NOT IN CONTRACT
CLO.	CLOSET	NO.	NUMBER
C.T.	CERAMIC TILE	N.T.S.	NOT TO SCALE
COL.	COLUMN		
C.M.U.	CONCRETE MASONRY UNIT	O.A.	OVERALL
		O.A.I.	OUTSIDE AIR INTAKE
CONC.	CONCRETE	O.C.	ON CENTER
CONST.	CONSTRUCTION	OPNG.	OPENING
CONT.	CONTINUOUS	OPP.	OPPOSITE
		ORIG.	ORIGINAL
DET.	DETAIL	O.H.	OVERHEAD
DIA.	DIAMETER	O.D.	OVERFLOW DRAIN
DIM.	DIMENSION		
DN.	DOWN	PART.	PARTITION
DR.	DOOR	PTN.	PARTITION
DWG.	DRAWING	PASS.	PASSENGER
		PLAS.	PLASTIC
EA.	EACH	PL LAM.	PLASTIC LAMINATE
ELEC.	ELECTRIC	PL.	PLATE
ELECT'L	ELECTRICAL	PLYWD.	PLYWOOD
ENCL.	ENCLOSURE	PANL.	PANEL
EL.	ELEVATION	PR.	PAIR
ELEV.	ELEVATOR	PTD.	PAINTED
E.M.R.	ELEVATOR MACHINE ROOM	P.V.C.	POLYVINYL CHLORIDE
		P.S.I.	POUNDS PER SQUARE INCH
E.C.R.	ELEVATOR CONTROL ROOM	P.S.F.	POUNDS PER SQUARE FOOT
EQUIP.	EQUIPMENT		
EQ.	EQUAL	R.	RISER
E.W.C.	ELECTRIC WATER COOLER	RAD.	RADIUS
EXIST.	EXISTING	RB	RUBBER BASE
E.T.R.	EXISTING TO REMAIN	RCP	REFLECTED CEILING
EXP.	EXPANSION	R.D.	ROOF DRAIN
EXT.	EXTERIOR	RE.	REFERENCE
E.J.	EXPANSION JOINT	REF.	REFRIGERATOR
E.O.S.	EDGE OF SLAB	REFL.	REFLECTED
		REQ'D.	REQUIRED
F.D.	FLOOR DRAIN	REINF.	REINFORCING
F.E.C.	FIRE EXTINGUISHER CABINET	REV.	REVISION
FDN.	FOUNDATION	R.H.	RIGHT HAND
FIN.	FINISH	RM.	ROOM
FL.	FLOOR	R.O.	ROUGH OPENING
FLR.	FLOOR	R.O.D.	ROOF OVERFLOW DRAIN
FLUOR.	FLUORESCENT	RTU	ROOFTOP UNIT
FT.	FOOT / FEET		
FTG.	FOOTING	SECT.	SECTION
		SHO.	SHOWER
GA.	GAUGE	SIM.	SIMILAR
GALV.	GALVANIZED	SK	SKETCH
GL.	GLASS	SPECS.	SPECIFICATIONS
GWB	GYPSUM WALL BOARD	SQ.	SQUARE
GYP. BD.	GYPSUM BOARD	S/STL.	STAINLESS STEEL
		STL.	STEEL
H/C	HANDICAP	STD.	STANDARD
HDWR.	HARDWARE	STRUCT.	STRUCTURE
HDWD.	HARDWOOD	STRUCT'L	STRUCTURAL
H.M.	HOLLOW METAL	SUSP.	SUSPENDED
H.P.	HIGH POINT		
HT.	HEIGHT	T/	TOP OF
H.V.A.C.	HEATING, VENTILATION, & AIR CONDITIONING	T.O.	TOP OF
		TEL.	TELEPHONE
HORIZ.	HORIZONTAL	TERR.	TERRAZZO
HR.	HOOR	TRANS.	TRANSFORMER
		TYP.	TYPICAL
I.D.	INSIDE DIAMETER	TBD.	TO BE DETERMINED
IN.	INCH / INCHES		
INCL.	INCLUDING	U.L.	UNDERWRITER'S LABORATORY
INFO.	INFORMATION	UNFIN.	UNFINISHED
INSUL.	INSULATION	U.O.N.	UNLESS OTHERWISE NOTED
INV.	INVERT	UTIL.	UTILITY
JT.	JOINT	V.B.	VINYL BASE
		V.C.T.	VINYL COMPOSITION TILE
LAM.	LAMINATE	VERT.	VERTICAL
LAV.	LAVATORY	VEST.	VESTIBULE
LG.	LONG	V.I.F.	VERIFY IN FIELD
L.P.	LOW POINT	VOL.	VOLUME
LT.	LIGHT	VTR	VENT THRU ROOF
LT. WT.	LIGHT WEIGHT		
		W/	WITH
MACH.	MACHINE	W.C.	WATER CLOSET
M.H.	MANHOLE	WDW.	WINDOW
MAT'L	MATERIAL	W.F.	WIDE FLANGE
MAX.	MAXIMUM	W.O.	WINDOW OPENING
MECH.	MECHANICAL	W.P.	WORKING POINT
MEMB.	MEMBRANE	W.W.F.	WELDED WIRE FABRIC
MIN.	MINIMUM		
MIR.	MIRROR		
MISC.	MISCELLANEOUS		

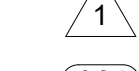
SYMBOLS

PARTITON TYPE

WINDOW TYPE

KEYNOTES

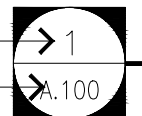
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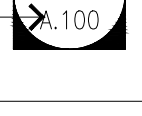
REVISION TAG

DOOR NUMBER

ELEVATION POINTER / WORK POINT

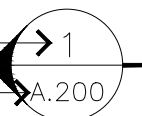
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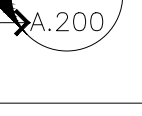
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Sheet No.  **SCALE**

Drawing Scale

Drawing Title

Drawing No.  **ELEVATION**

Sheet No.  **SCALE**

Drawing Scale

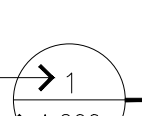
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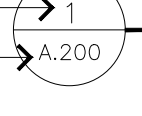
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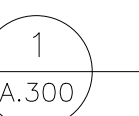
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 **A.200**

 **A.200**

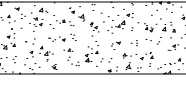
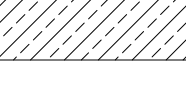
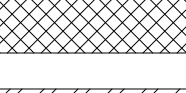
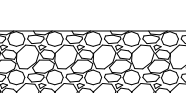
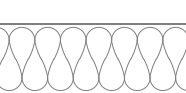
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BUILDING SECTION

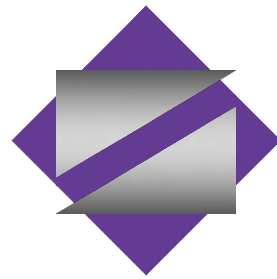
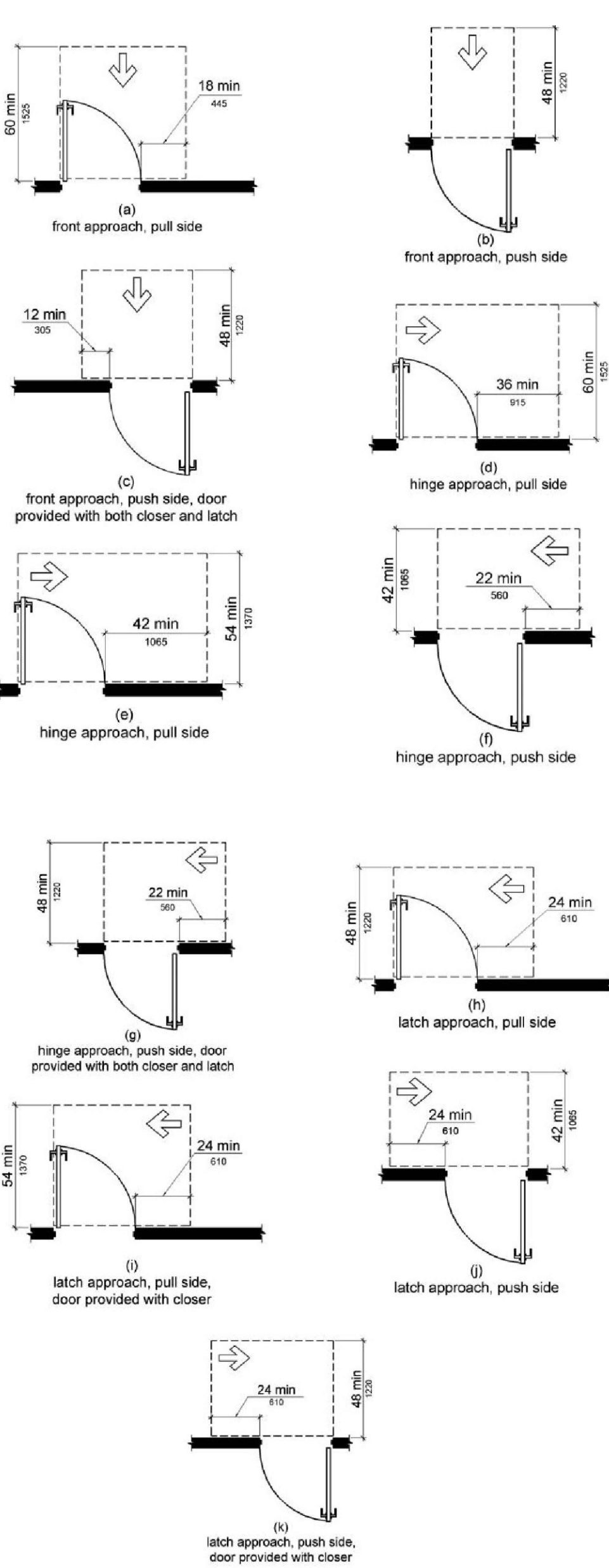
WALL SECTION

PLAN DETAIL OR SECTION DETAIL

MATERIALS LEGEND

	CONCRETE
	BRICK OR FACEBLOCK
	LIMESTONE/GRANITE
	CMU
	STEEL
	PLYWOOD
	WOOD STUD / WOOD BLOCKING
	RIGID INSULATION
	SHIM
	CARPET
	GYPSUM BOARD
	EARTH
	GRAVEL / POROUS FILL
	BATT INSULATION

CLEARANCES AT SWINGING DOORS



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SHEET CONTENTS:

GENERAL INFORMATION

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
**ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

10.09.2026 ISSUE FOR BID

DATE	REVISIONS	REV

Date 10.09.2026

Scale AS NOTED

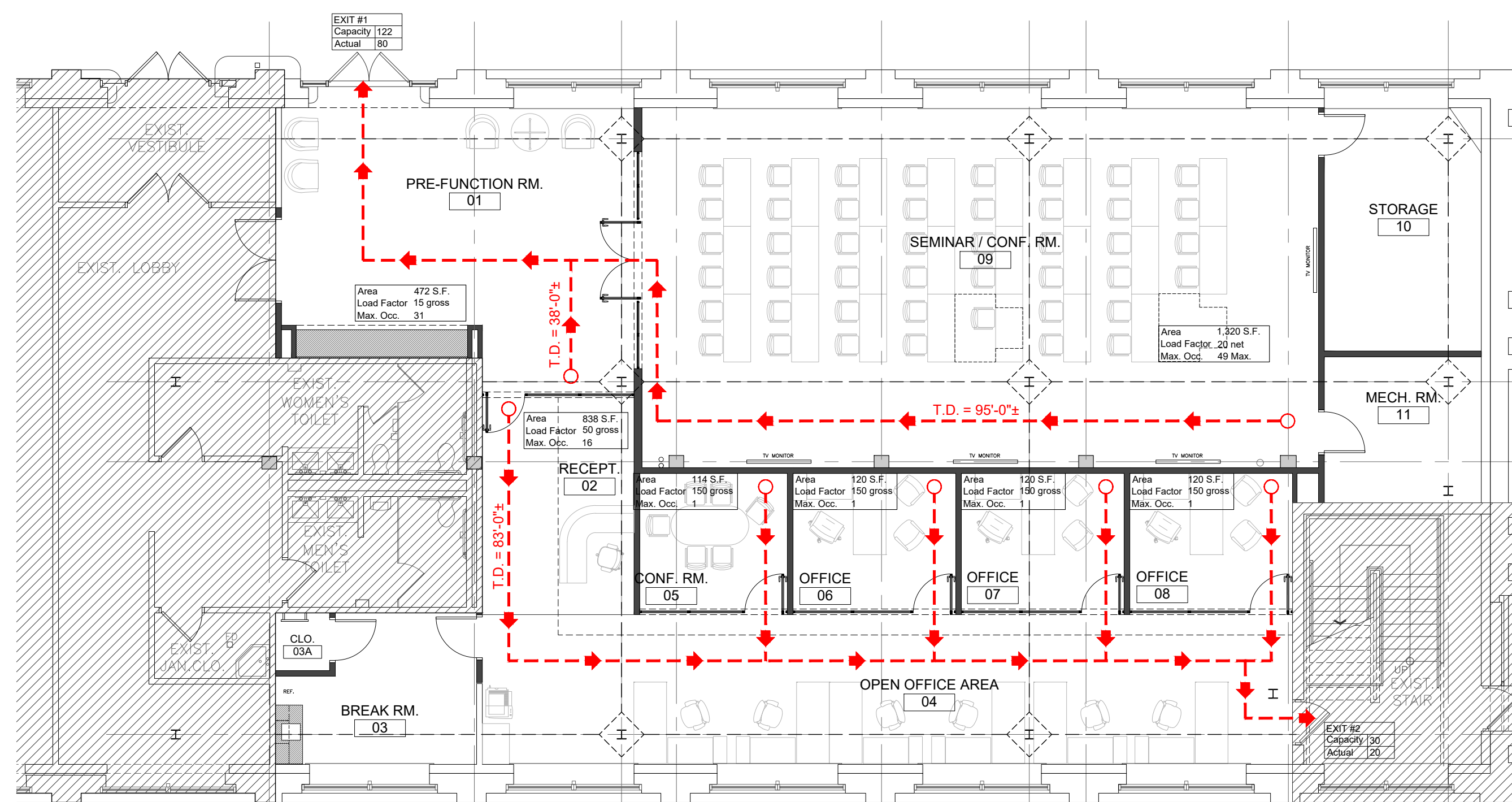
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Checked by KM

Job No. 2241901

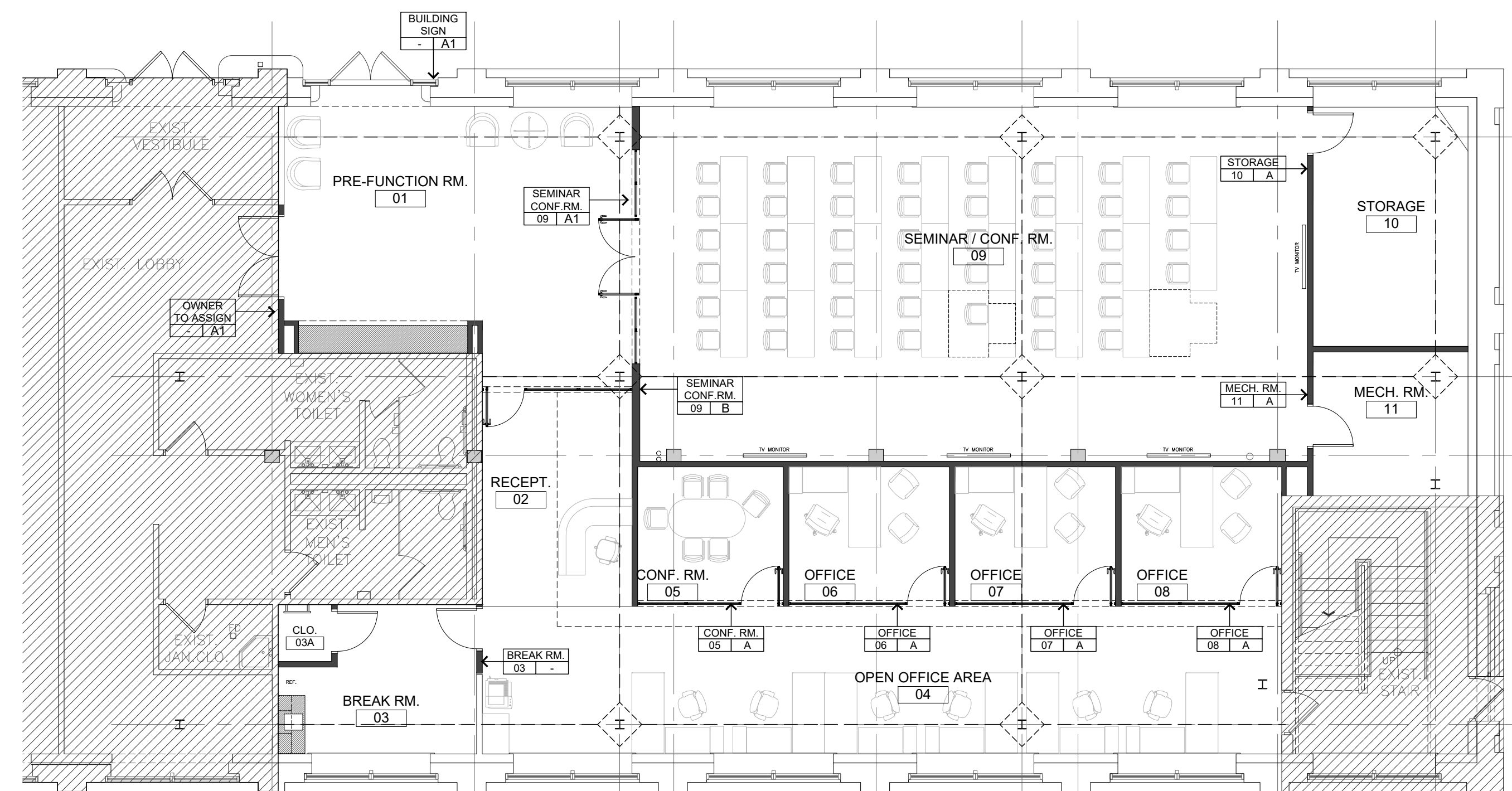
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A-001

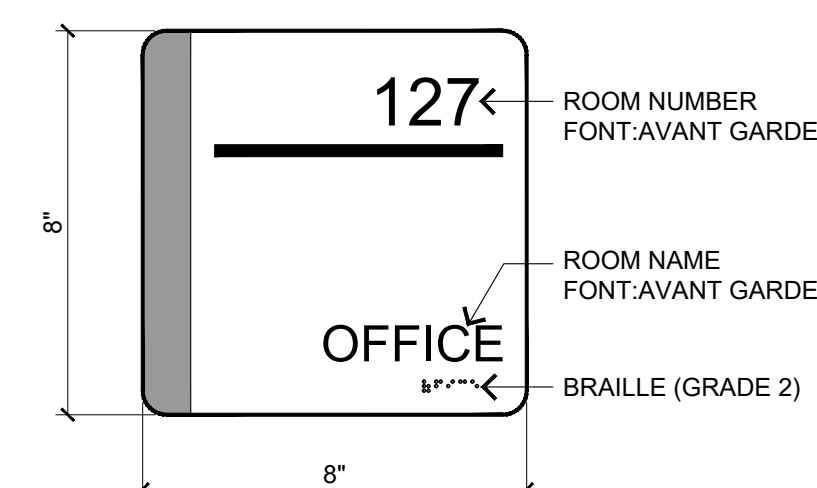


LEGEND							
TD = X' - X"	TRAVEL DISTANCE						
	EGRESS PATH						
<table border="1"> <tr> <td>EXIT #1</td> <td></td> </tr> <tr> <td>Capacity -</td> <td></td> </tr> <tr> <td>Actual -</td> <td></td> </tr> </table>	EXIT #1		Capacity -		Actual -		MAX. EGRESS CAPACITY & ACTUAL EGRESS CAPACITY
EXIT #1							
Capacity -							
Actual -							
 F.E.C.	RECESSED FIRE EXTINGUISHER CABINET						
	CARD READER						
	HATCHED AREA NOT IN CONTRACT						

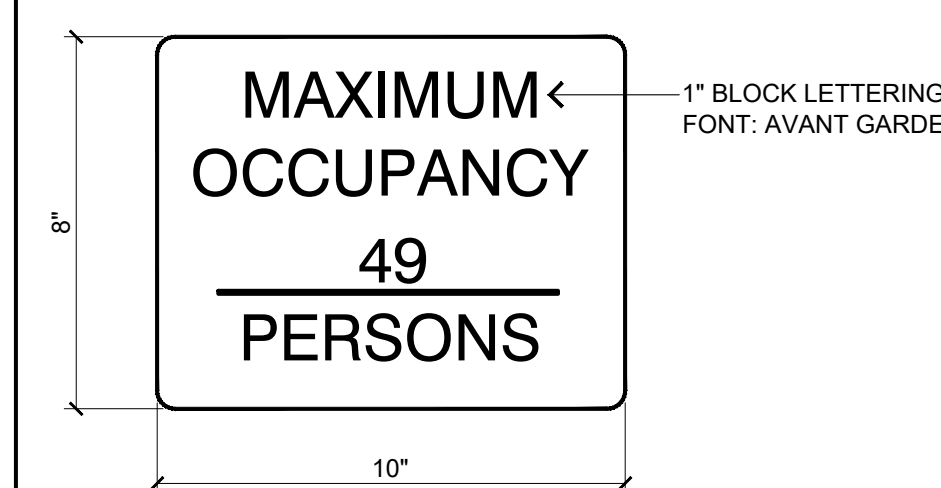
A FIRST FLOOR EGRESS PLAN
A-002 SCALE: 1/8" = 1' - 0"



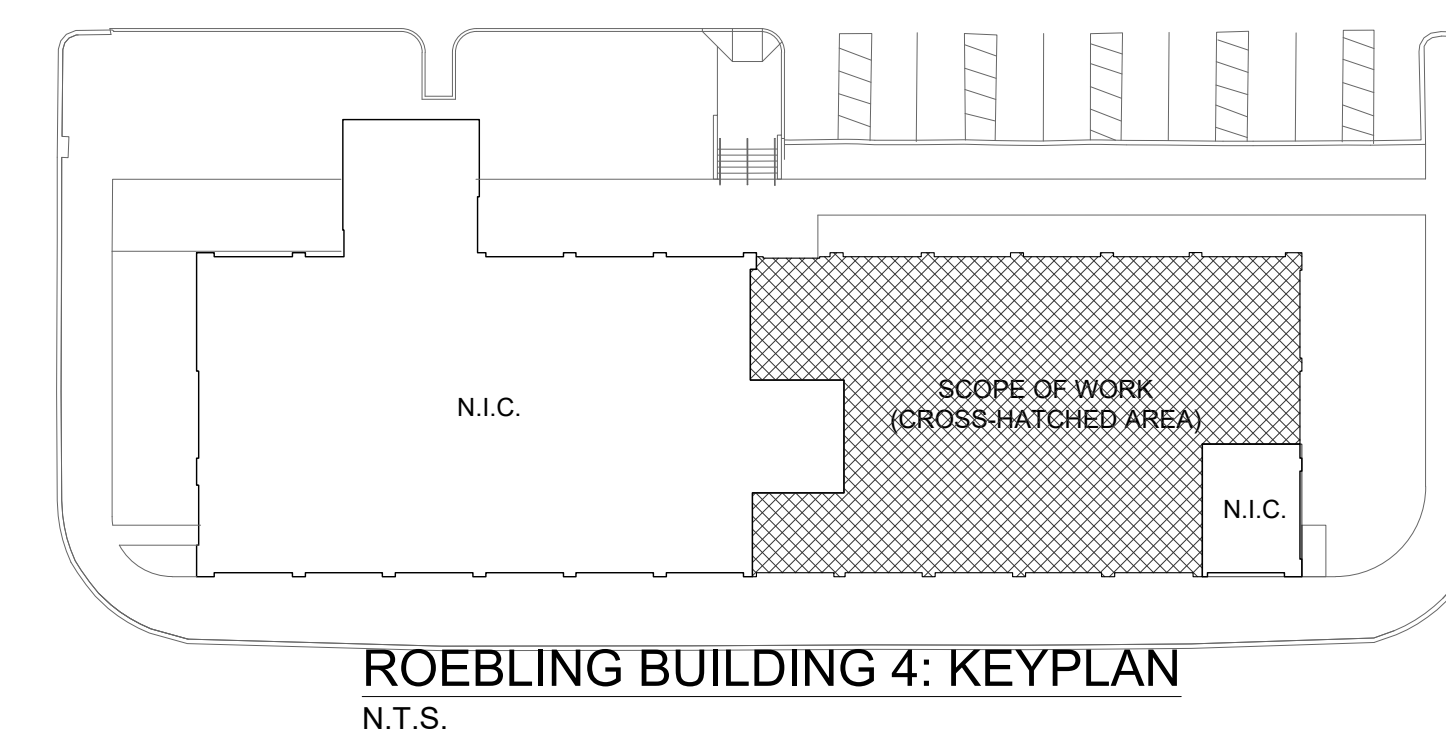
B FIRST FLOOR SIGNAGE PLAN
A-002 SCALE: 1/8" = 1' - 0"



A	ROOM ID SIGN SCALE: 3" = 1'-0"
---	--



B	MAX. OCCUPANCY SIGN SCALE: 3" = 1'-0"
---	--



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SHEET CONTENTS:

EGRESS PLAN
AND
SIGNAGE PLAN

PROJECT TITLE:

**MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

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10.09.2026	ISSUE FOR BID	
DATE	REVISIONS	REV

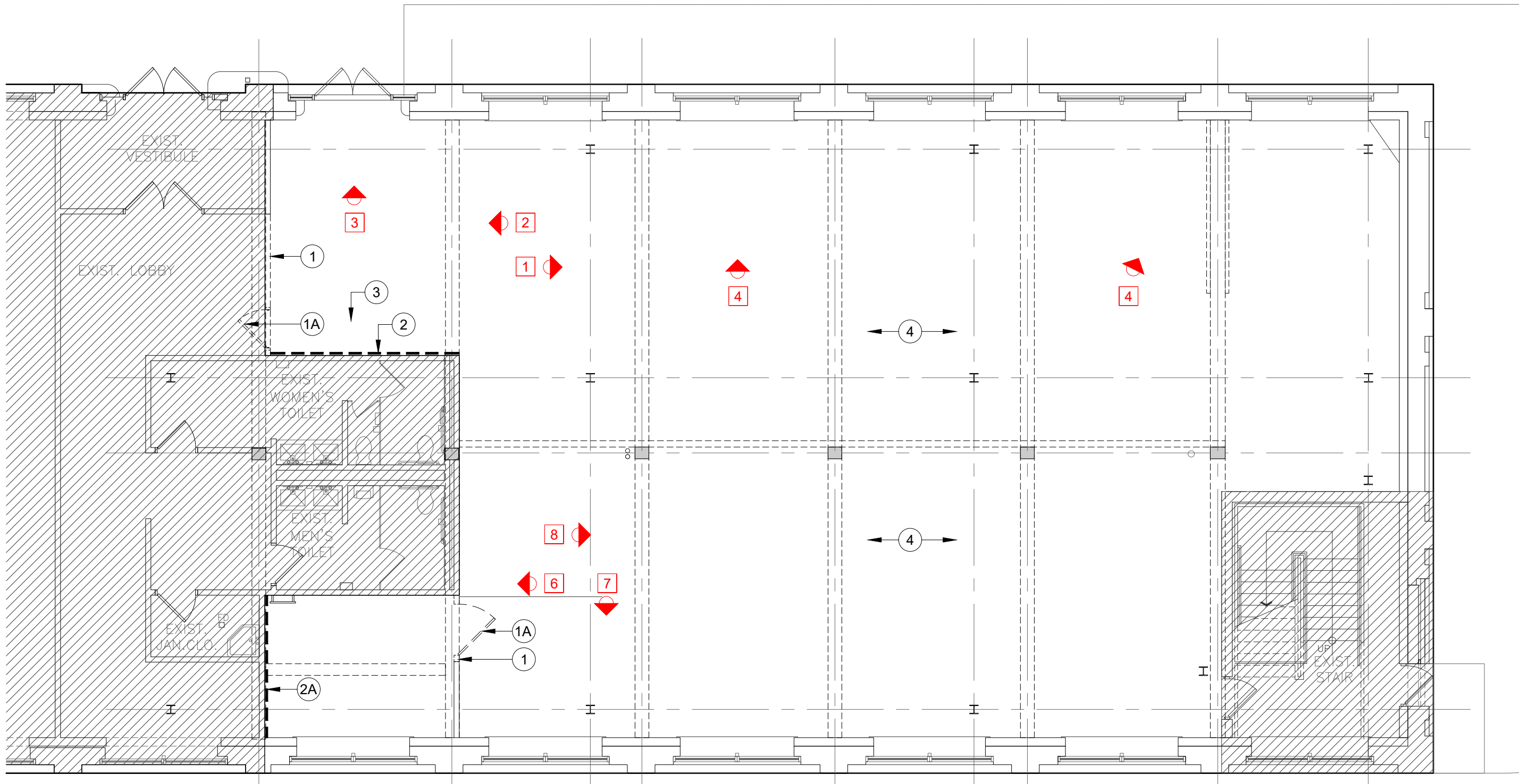
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Scale	AS NOTED
Drawn by	BPV
Checked by	KM
Job No.	2241901
Drawing No.	

Drawing No.

A-002

GENERAL DEMOLITION NOTES

1. ALL DAMAGES TO EXISTING FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR SUCH DAMAGES AT HIS OWN EXPENSE.
2. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL SET UP A SCHEDULE OF OPERATIONS WITH THE OWNER, COORDINATING PERFORMANCE OF ALL WORK WITHIN THE OPERATION SCHEDULE OF THE FACILITY.
3. THERE SHALL BE NO INTERRUPTION OF THE EXISTING PLUMBING, MECHANICAL, ELECTRICAL AND/OR FIRE PROTECTION SERVICES WITHOUT PRIOR CONSENT OF THE OWNER. SUCH INTERRUPTION SHALL BE KEPT TO A MINIMUM AND SHALL BE CLOSELY SCHEDULED WITH THE OWNER.
4. ALL DEMOLITION OPERATIONS SHALL BE COORDINATED WITH APPLICABLE UTILITY COMPANY WHERE REQUIRED.
5. DASHED LINES INDICATE ITEMS TO BE REMOVED. THE LOCATIONS KEYED ON THE DRAWINGS FOR THESE NOTES ARE SCHEMATIC AND REPRESENT AREAS OF SIGNIFICANT WORK. HOWEVER, THEY DO NOT RELIEVE THE CONTRACTOR OF ANY ADDITIONAL WORK OF SIMILAR SCOPE AND NATURE IDENTIFIED THROUGH FIELD INVESTIGATIONS.
6. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED DEMOLITION PERMITS PRIOR TO BEGINNING OF ANY WORK.
7. THE CONTRACTOR SHALL INCLUDE ALL DEMOLITION, REMOVAL OR RELOCATION OF EXISTING EQUIPMENT, MATERIALS, APPURTENANCES, ETC. AS INDICATED ON THE DRAWINGS OR AS HEREIN SPECIFIED OR REQUIRED. THESE CONDITIONS MAY OCCUR DURING THE PHASING OF THE EXISTING BUILDING RENOVATION.
8. THE CONTRACTOR SHALL KEEP THE SITE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THE WORK. UPON COMPLETION OF THE CONTRACT, THE CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE THE SITE TO THE SAME CONDITION AS BEFORE COMMENCEMENT OF THE WORK.
9. THE CONTRACTOR SHALL CAREFULLY MAKE ALL INVESTIGATIONS IN THE FIELD PRIOR TO SUBMITTING HIS BID. HIS BID SHALL REFLECT ALL WORK NECESSARY FOR THE COMPLETE RENOVATION AND ADDITION TO THE EXISTING FACILITY.
10. ANY ITEMS NOT SPECIFICALLY IDENTIFIED BUT REQUIRED TO BE REMOVED OR REPAIRED TO PREPARE THE BUILDING FOR NEW WORK OR TO OTHERWISE PRODUCE THE FINISHED PRODUCT SHOWN IN THE CONTRACT DOCUMENTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. DEMOLITION PLAN SHOWS APPROXIMATE LAYOUT OF EXISTING PARTITIONS AND ARE NOT INTENDED TO REPRESENT "AS BUILT" CONDITIONS. ALL INFORMATION MUST BE VERIFIED ON SITE.
12. PARTITIONS AND OTHER ITEMS TO BE REMOVED ARE SHOWN DASHED. SERVICES IN THE WALLS SHALL ALSO BE REMOVED OR RELOCATED AS REQUIRED. EDGES OF CONCRETE / MASONRY WALLS TO REMAIN SHALL BE SAW-CUT NEATLY (EXCEPT FOR BRICKWORK, REFER TO INSTRUCTIONS) TO ACCEPT NEW CONSTRUCTION. REPAIR AND PATCH EXISTING WALLS TO REMAIN.
13. SALVAGED MATERIALS AS SPECIFIED BY OWNER SHALL BE CLEANED AND STORED IN APPROPRIATE AREAS AWAY FROM THE DEMOLITION UNTIL NEEDED.
14. PROVIDE WEATHER PROTECTION TO EXISTING BUILDING DURING ALL PHASES OF CONSTRUCTION.
15. ALL EXTERIOR SIGNAGE AFFECTED BY THE DEMOLITION SHALL REMOVED AND RELOCATED AS REQUIRED BY OWNER.
16. ALL AREAS AFFECTED BY SITE EXCAVATION SHALL BE RESTORED TO ITS ORIGINAL CONDITION INCLUDING BUT NOT LIMITED TO PAVING AROUND THE NEW ADDITION.
17. ALL ITEMS STORED IN THE AREA OF CONTRACT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED AT OWNER'S DESIGNATED PLACE.



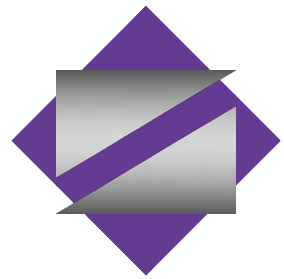
A
A-101 OVERALL FIRST FLOOR DEMOLITION PLAN
SCALE: 1/8" = 1' - 0"

KEYNOTES THIS DRAWING

- 1 PROVIDE OPENING IN EXIST. WALL TO ACCOMMODATE NEW SCHEDULED DOOR. INSTALL TEMPORARY SUPPORT ON STRUCTURE ABOVE BEFORE REMOVAL. INSTALL NEW STUD BOX HEADER AS SCHEDULED.
- 1A REMOVE EXIST. DOOR IN ITS ENTIRETY INCLUDING DOOR FRAME & HARDWARE.
- 2 REMOVE EXIST. GWB TO INSTALL THE REQUIRED BLOCKING SUPPORT FOR NEW MILLWORK / CASEWORK.
- 2A REMOVE EXIST. GWB TO INSTALL THE REQUIRED BLOCKING SUPPORT FOR NEW MILLWORK / CASEWORK AND ALL NEW REQUIRED PLUMBING WORK.
- 3 REPAIR AND PATCH EXIST. CONC. SLAB BEFORE GRINDING TO PREPARE FOR SCHED. FINISH.
- 4 ALL ITEMS STORED IN THE AREA OF CONTRACT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED AT OWNER'S DESIGNATED PLACE.

LEGEND

HATCHED AREA - NOT IN CONTRACT



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CERTIFICATE OF AUTHORIZATION AC-438

NICHOLAS J. NETTA, AIA, NCARB
NJ License No. A101254100
LAURENCE K. UHER, AIA, LEED, AP
NJ License No. A101439400
ROBERT E. McNAMARA, AIA
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SHEET CONTENTS:

FIRST FLOOR
DEMOLITION PLAN AND
GEN. DEMOLITION NOTES

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
**ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

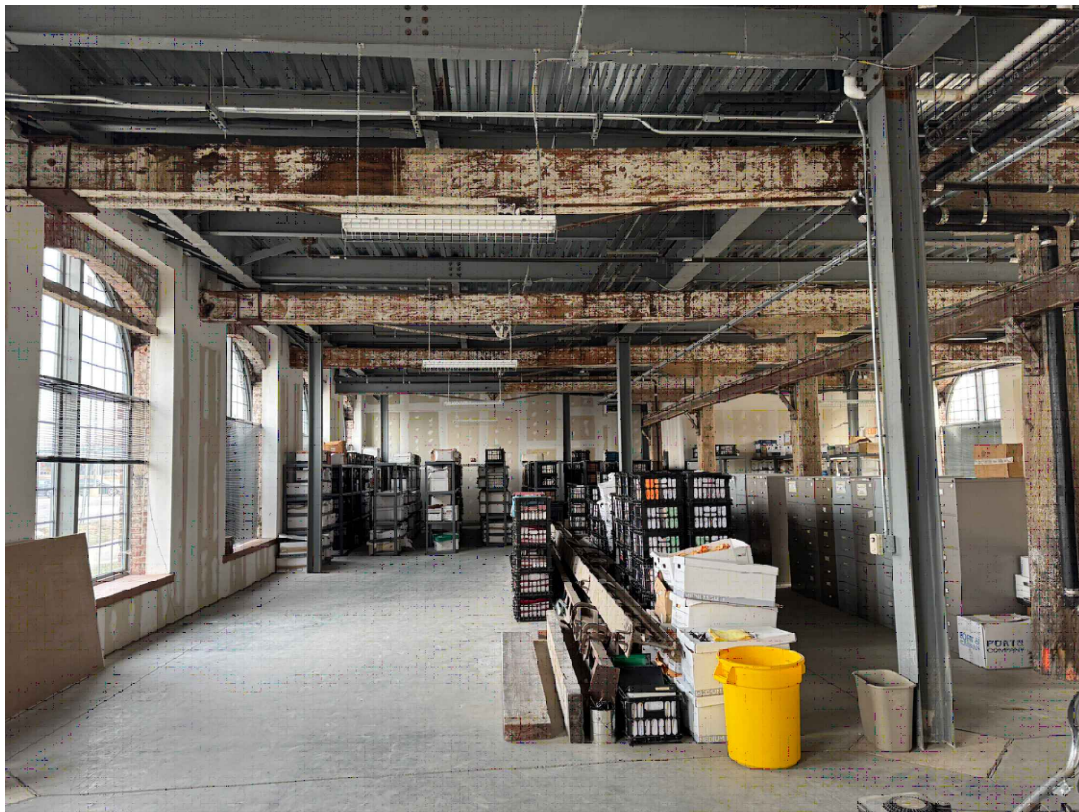
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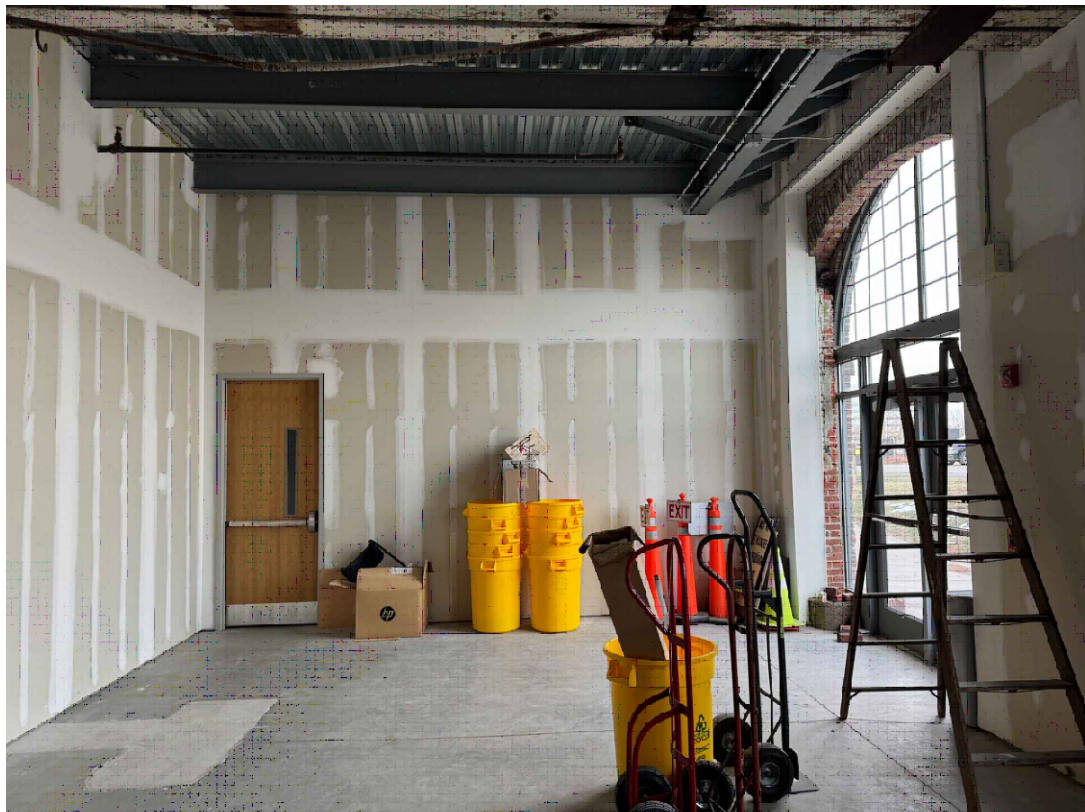
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Date 10.09.2026
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Drawn by BPV
Checked by KM
Job No. 2241901
Drawing No.

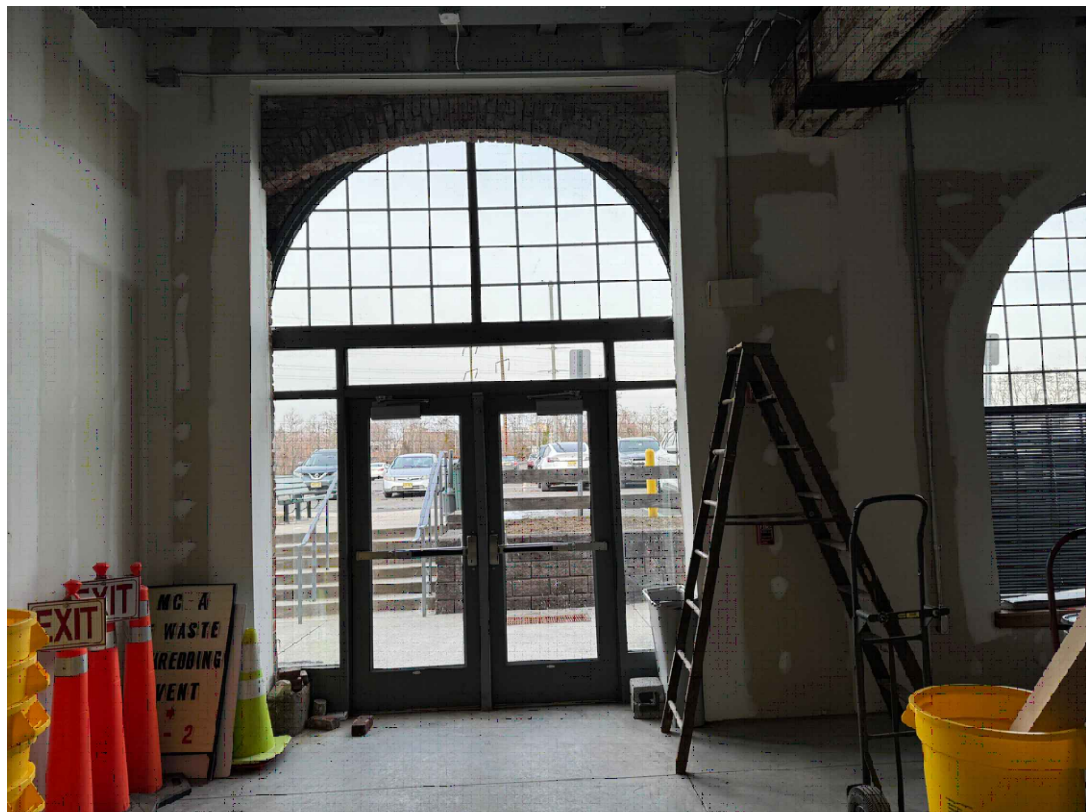
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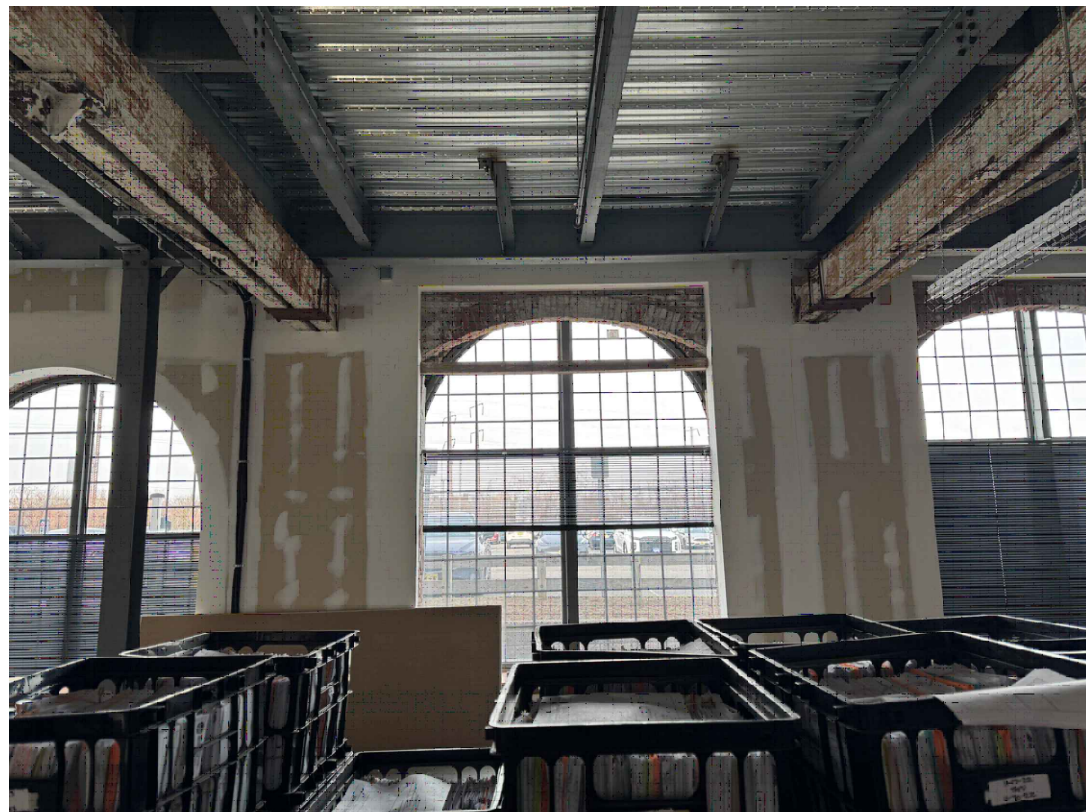
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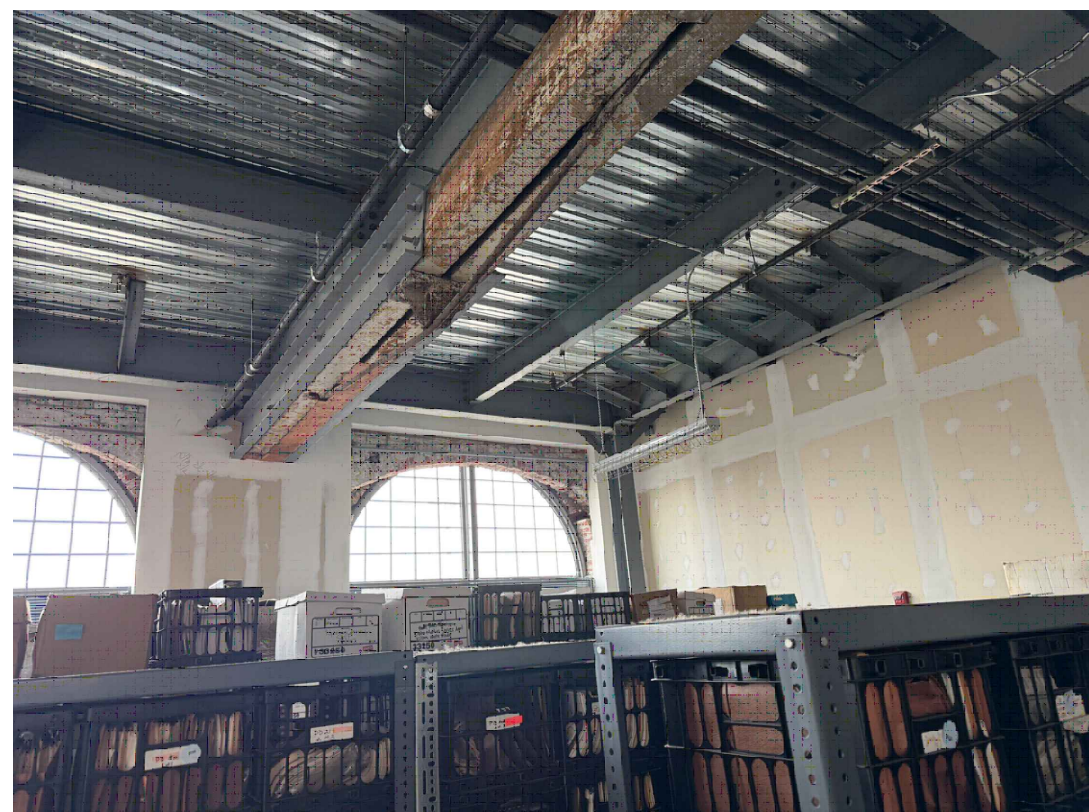
2 IMAGE OF EXISTING CONDITION - FOR REFERENCE ONLY



3 IMAGE OF EXISTING CONDITION - FOR REFERENCE ONLY



4 IMAGE OF EXISTING CONDITION - FOR REFERENCE ONLY



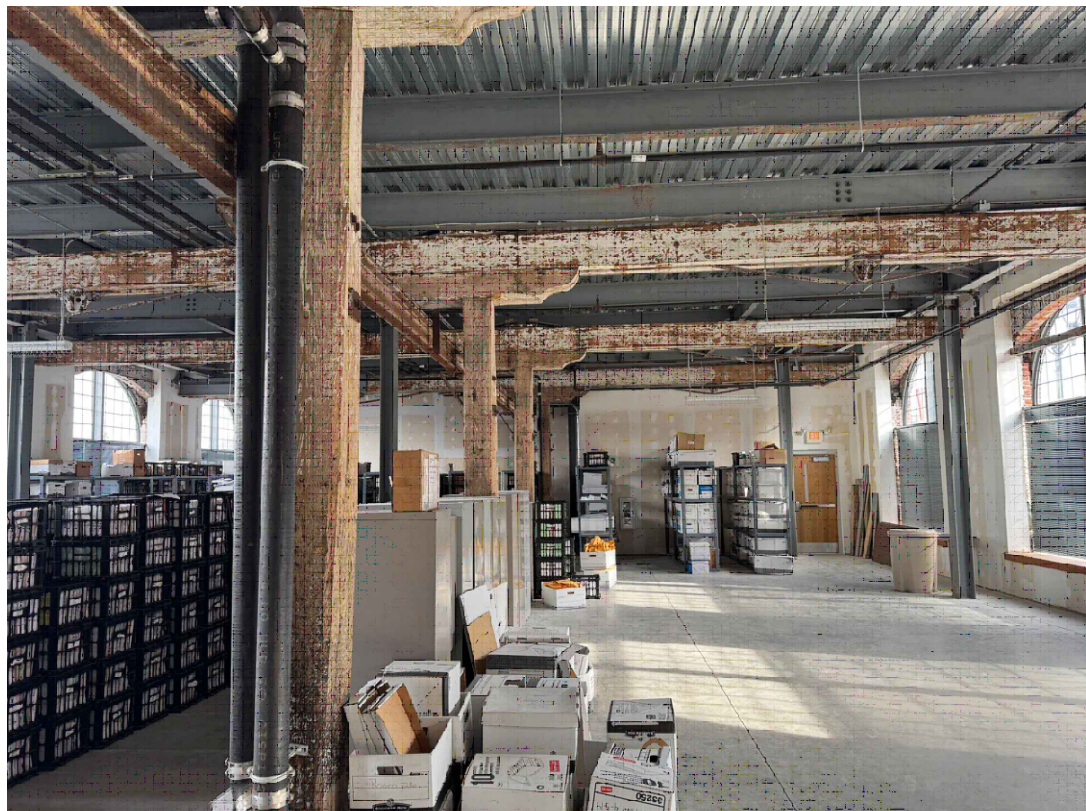
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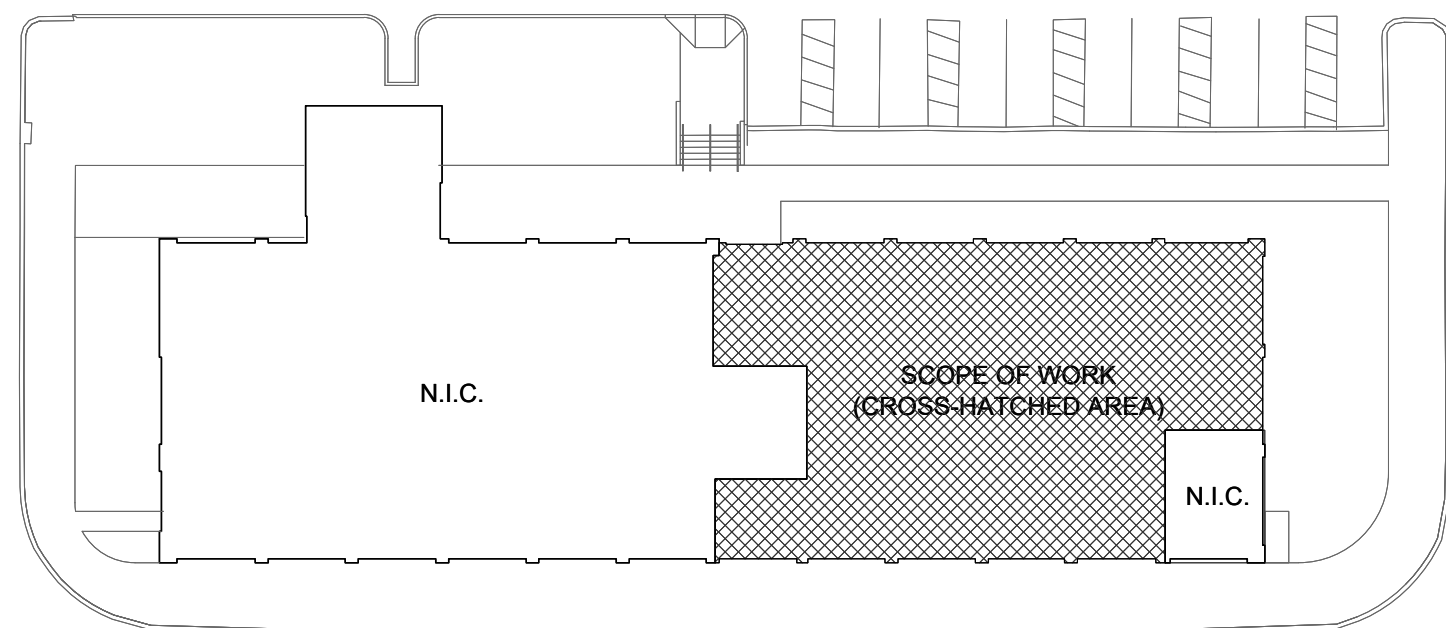
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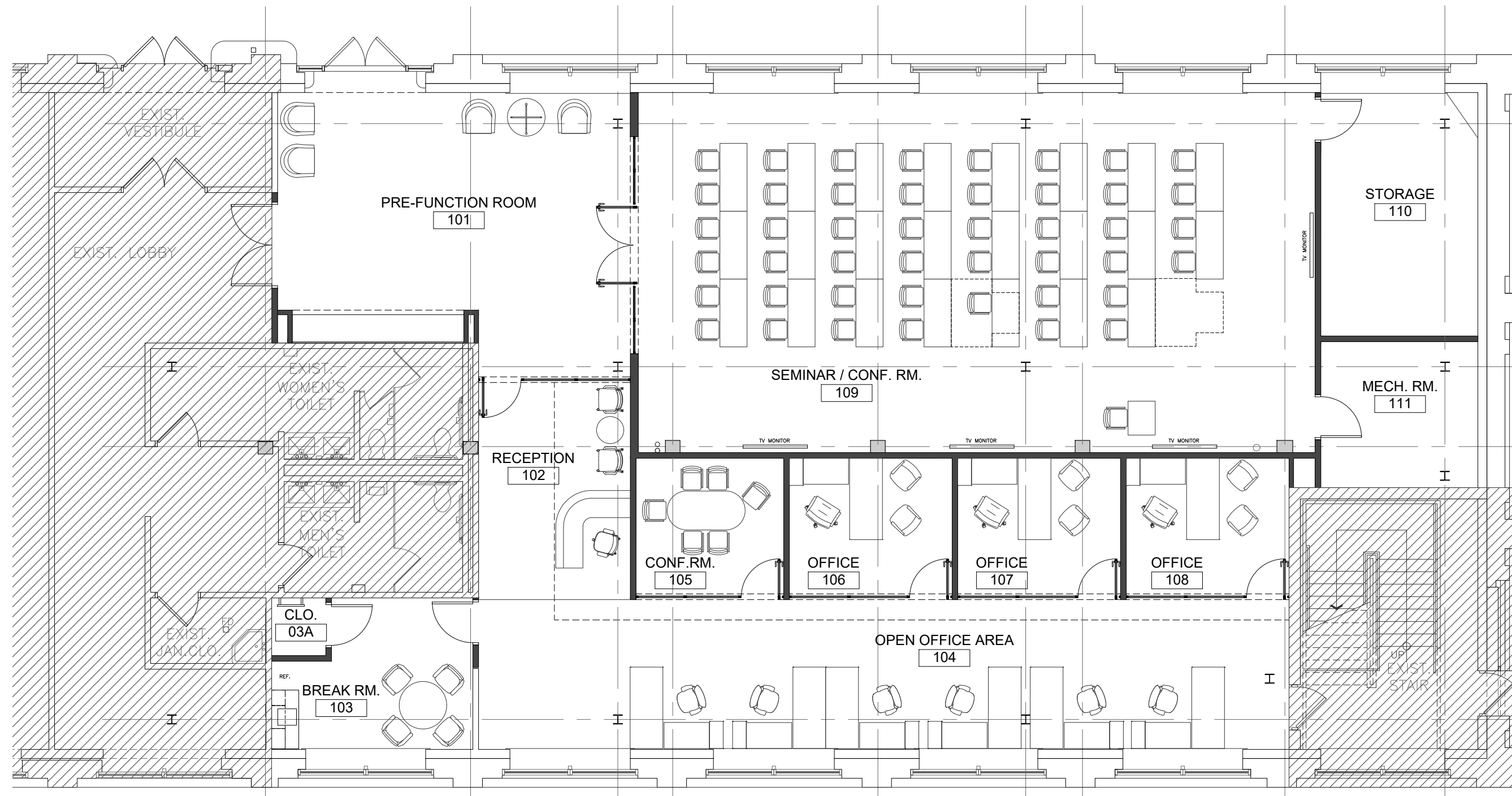
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8 IMAGE OF EXISTING CONDITION - FOR REFERENCE ONLY

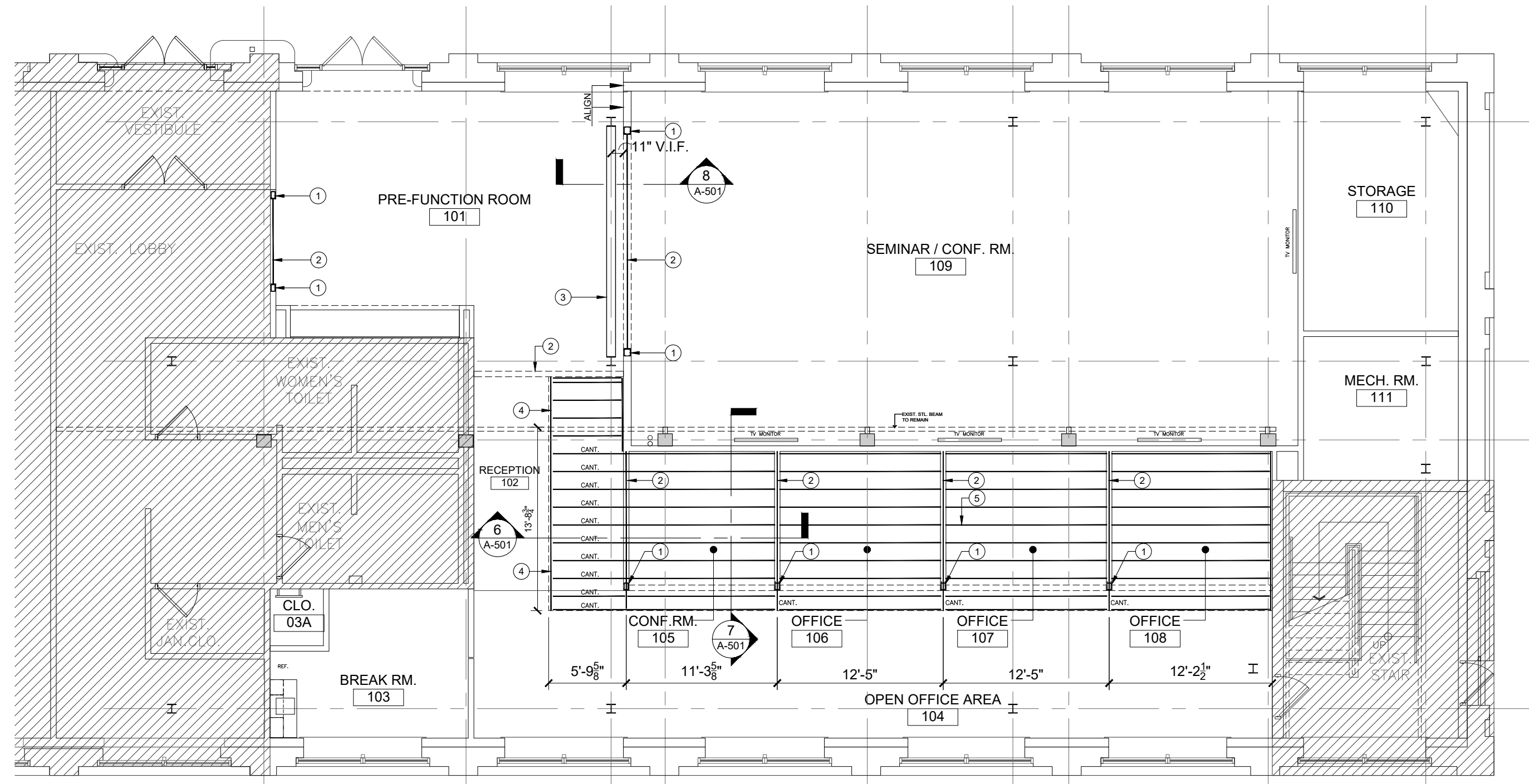


ROEBLING BUILDING 4: KEYPLAN
N.T.S.



A
A-102

FOR REFERENCE ONLY
FIRST FLOOR FURNITURE PLAN
SCALE: 1/8" = 1' - 0"



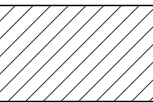
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A-102

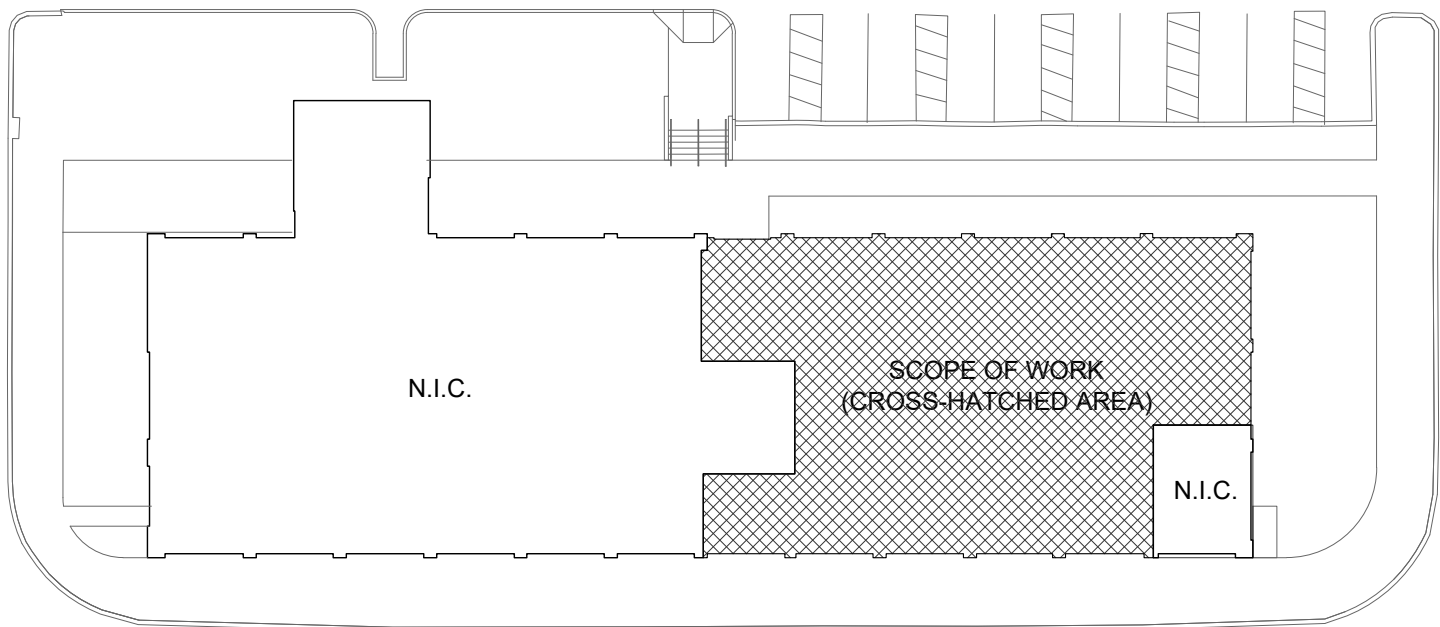
FIRST FLOOR CEILING FRAMING PLAN
SCALE: 1/8" = 1' - 0"

KEYNOTES THIS DRAWING

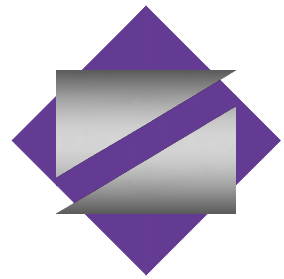
- 1 8" METAL STUD BOXED COLUMN
- 2 (2)12" x 16 GA. BOXED MTL. STUD BOX HEADER WITH MATCHING GAUGE TRACK TOP & BOTTOM
- 3 EXIST. STL. BEAM TO BE INSTALLED AND SUPPORTED BY EXIST. COLUMN. CONTRACTOR TO COORDINATE IN FIELD.
- 4 12" 14 GA. END TRACK TO SUPPORT THE RETURN CEILING.
- 5 12" GA. 16 METAL STUD CEILING JOIST @ 16" O.C. TYP.

LEGEND

 HATCHED AREA - NOT IN CONTRACT



ROEBLING BUILDING 4: KEYPLAN
N.T.S.



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SHEET CONTENTS:

**FIRST FLOOR
FURNITURE PLAN &
CEILING FRAMING PLAN**

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

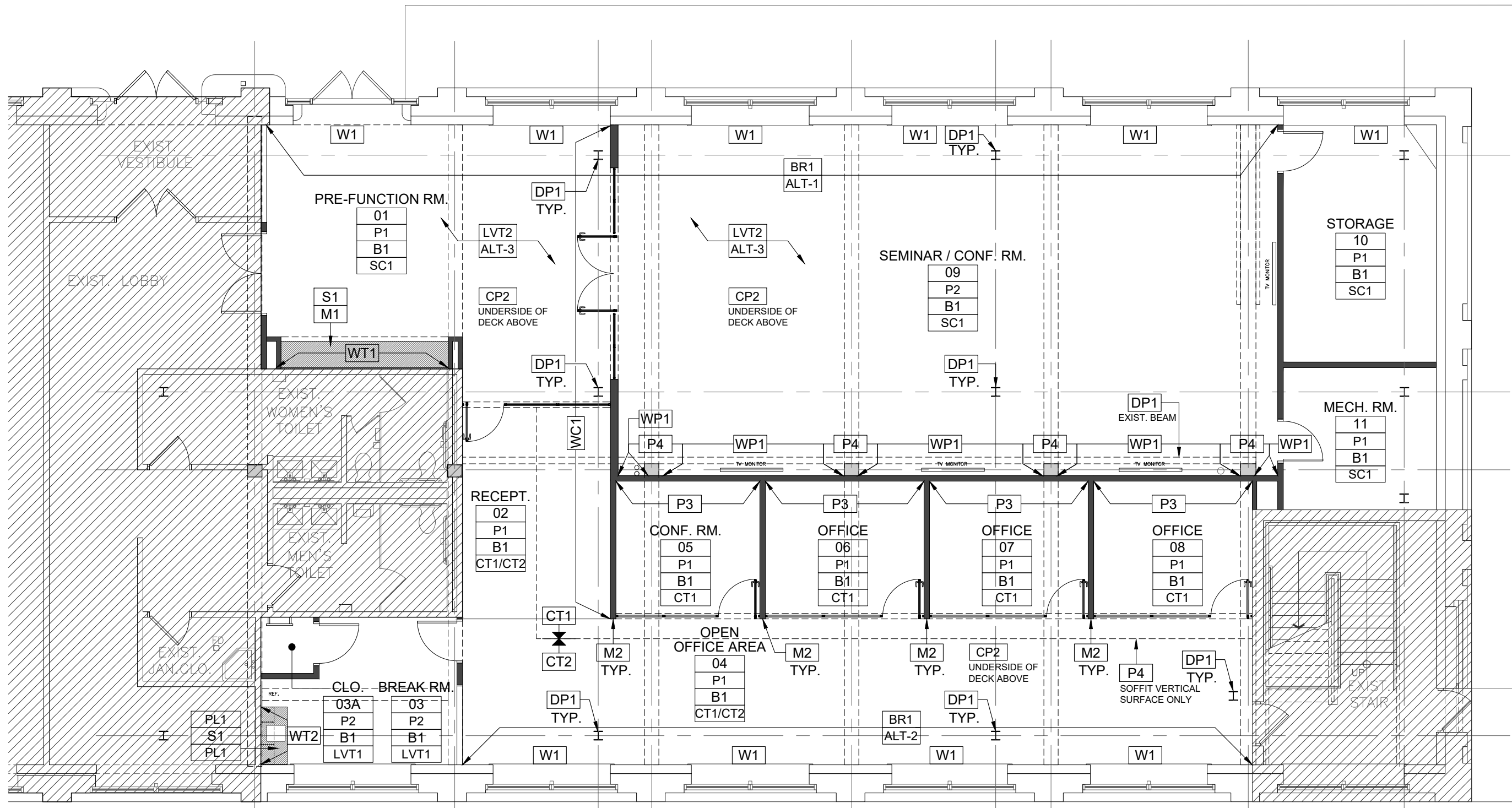
10.09.2026	ISSUE FOR BID

DATE	REVISIONS	REV

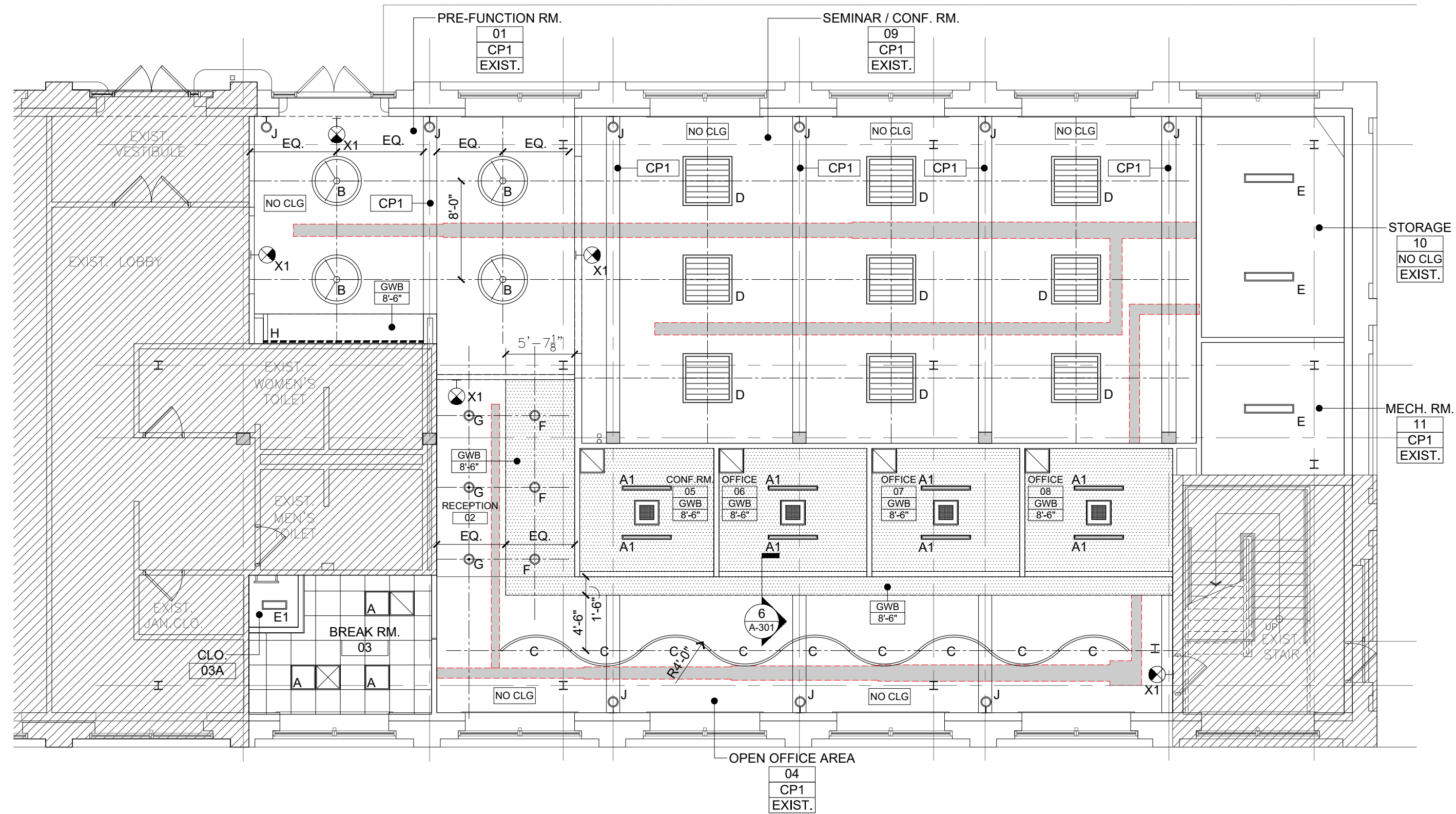
Date	10.09.2026
Scale	AS NOTED
Drawn by	BPV
Checked by	KM
Job No.	2241901

Drawing No.

A-102



A
A-201
FIRST FLOOR FINISH PLAN
SCALE: 1/8" = 1' - 0"



B
B-201
FIRST FLOOR REFLECTED CEILING PLAN
SCALE: 1/8" = 1' - 0"

FINISH SCHEDULE

	MATERIAL	TYPE	DESCRIPTION	MANUFACTURER	CONTACT	REMARKS
FLOOR	CARPET TILE	CT1	18"x36" CARPET TILE. COLLECTION: PACIFIC STANDARD TIME. STYLE: CHRONOLOGIES 6ACH2. COLOR: ABSTRACTION 401484. BACKING: NEXSTEP CUSHION TILE	BENTLEY	SUSAN LANE 201.650.1977	INSTALLATION METHOD: ASHLAR
		CT2	18"x36" CARPET TILE. COLLECTION: PACIFIC STANDARD TIME. STYLE: NOW/THEN 6ANT2. COLOR: ABSTRACTION 401484. BACKING: NEXSTEP CUSHION TILE	BENTLEY	SUSAN LANE 201.650.1977	INSTALLATION METHOD: ASHLAR
	LUXURY VINYL TILE	LVT1	5.0 MM OVERALL THICKNESS LUXURY VINYL FLOORING. 8"x48" COLLECTION: GROUND RULES BGRRL64BV. COLOR: FRESH START 802010	BENTLEY	SUSAN LANE 201.650.1977	INSTALLATION METHOD: RANDOM ASHLAR
		LVT2	5.0 MM OVERALL THICKNESS ACOUSTIC LUXURY VINYL FLOORING. 18"x36" COLLECTION: BALUSTRADE BBALUA136V. COLOR: ORNAMENTAL 802118.	BENTLEY	SUSAN LANE 201.650.1977	INSTALLATION METHOD: RANDOM ASHLAR BID ALTERATE
BASE	SEALED CONCRETE	SC1	ASHFORD FORMULA	CURE CRETE, INC.	800.998.5664	
	RUBBER BASE	B1	JOHNSONITE MILLWORK WALL BASE SYSTEM. PROFILE: EXHIBIT MW-40-FS. COLOR: # 40 BLACK.	TARKETT	KAREN LEVEY-LYNCH 917.797.5697	
WALL	PAINT	P1	INTERIOR ACRYLIC LATEX PAINT PROMAR 200 EG-SHEL FINISH. COLOR: SW7014 ELDER WHITE.	SHERWIN WILLIAMS	DOUGLAS J. DERKACS 908.309.8709	
		P2	INTERIOR ACRYLIC LATEX PAINT PROMAR 200 EG-SHEL FINISH. COLOR: SW7044 AMAZING GRAY.	SHERWIN WILLIAMS	DOUGLAS J. DERKACS 908.309.8709	
		P3	INTERIOR ACRYLIC LATEX PAINT PROMAR 200 EG-SHEL FINISH. COLOR: SW2841 WEATHERED SHINGLE.	SHERWIN WILLIAMS	DOUGLAS J. DERKACS 908.309.8709	
		P4	INTERIOR ACRYLIC LATEX PAINT PROMAR 200 EG-SHEL FINISH. COLOR: SW9150 ENDLESS SEA.	SHERWIN WILLIAMS	DOUGLAS J. DERKACS 908.309.8709	
	CERAMIC / PORCELAIN TILE	WT1	3"x9" NATURAL PRESS CERAMIC TILE. COLOR: SALT CREAK. FINISH: SATIN. GROUT: MAPEI 5010 BLACK.	FIRECLAY TILE	KEIVA RIVERA 831.271.6171	
	ACOUSTIC PANEL	WP1	45.3"x107.5"x0.94" PANEL. CUSTOM KIREI PANEL WITH OMBRE INK. CUSTOM CUT: MATCH GEM PANEL DESIGN. PANEL BASE COLOR: PACIFIC 045.	KIREI	MICHELE SILVA 201.463.4494	
	WALLCOVERING	WC1	TYPE II WALL COVERING. BOLTA CONTRACT. STYLE: TUSCAN PLASTER. COLOR: SOAPSTONE BB-TU-04	MDC	KEITH DRUCKS 862.298.7197	
	THIN BRICK	BR1	3/4"x2 5/8"x8" FLAT BACK THIN BRICK. ANTIQUE COLONIAL SERIES. COLOR: ST ANNE BLEND.	BEIDEN TRI-STATE BUILDING MATERIALS	LUKE HARTMANN 347.723.9420	BID ALTERNATE
	METAL	M2	BLACK ANODIZED FACE TRIM. SIZE: 4 7/8" X 1" TO MATCH STOREFRONT FRAME.	PK-30		REFER TO ARCHITECTURAL DETAIL.
CEILING	ACOUSTIC CEILING PANEL	ACT1	24"x24"x3/4" ULTIMA 15/16" SQUARE LAY-IN. PRODUCT: 1910. COLOR: WHITE.	ARMSTRONG	NICK SWEITZER 484.650.2604	
	SUSPENDED SYSTEM	SS1	PRELUDE XL 15/16" EXPOSED TEE SYSTEM. COLOR: WHITE.	ARMSTRONG	NICK SWEITZER 484.650.2604	
	PAINT	CP1	INTERIOR ACRYLIC LATEX PAINT PROMAR 200. FLAT FINISH. COLOR: SW7005 PURE WHITE.	SHERWIN WILLIAMS	DOUGLAS J. DERKACS 908.309.8709	GYPSUM BOARD CEILING AND SOFFITS, U.O.N.
		CP2	INTERIOR ACRYLIC LATEX PAINT PROMAR 200. FLAT FINISH. COLOR: SW2841 WEATHERED SHINGLE.	SHERWIN WILLIAMS	DOUGLAS J. DERKACS 908.309.8709	ROOF DECK
DOOR & DOOR FRAME	SOLID WOOD DOORS	D1	ASPIRO SERIES. SPECIES: PLAIN SLICED CHERRY. STAIN COLOR: STOUT.	MASONITE	877.332.4484	
	METAL DOOR FRAME PAINT	DP1	INTERIOR ACRYLIC LATEX PAINT PROMAR 200 SEMI GLOSS FINISH. COLOR: SW6991 BLACK MAGIC.	SHERWIN WILLIAMS	DOUGLAS J. DERKACS 908.309.8709	EXPOSED STEEL COLUMN & BEAM TO BE PAINTED IN COLOR DP1
MILLWORK	METAL	M1	EMBER ALUMINUM #613 WITH LAMINATE BACKER	CHEMETAL	800.807.7341	
	PLASTIC LAMINATE	PL1	PREMIUM AEON LAMINATE. COLOR: PARK ELM 7967K-12	WILSONART	MIGUEL F. MOSQUERA 551.329.8364	
COUNTER TOP	COMPOSITE SLAB	S1	1/2" THICK ONE PIECE COUNTERTOP. THINSCAPE COLLECTION. COLOR: STERLING CALUTTA TS308-LR.	WILSONART	MIGUEL F. MOSQUERA 551.329.8364	PRE-FUNCTION ROOM
		S2	1/2" THICK ONE PIECE COUNTERTOP. THINSCAPE COLLECTION. COLOR: PIETRA NOIR TS405-LR.	WILSONART	MIGUEL F. MOSQUERA 551.329.8364	BREAK ROOM
WINDOW TREATMENT	WINDOW TREATMENT	W1	ELECTROSHADE MOTORIZED IQ3 SHADE SYSTEM. FABRIC: MECO SOHO 1100 SERIES (1% OPEN) COLOR: 1119 SILVER BIRCH.	MECHO SHADE SYSTEMS	718.729.2020	

CEILING NOTES

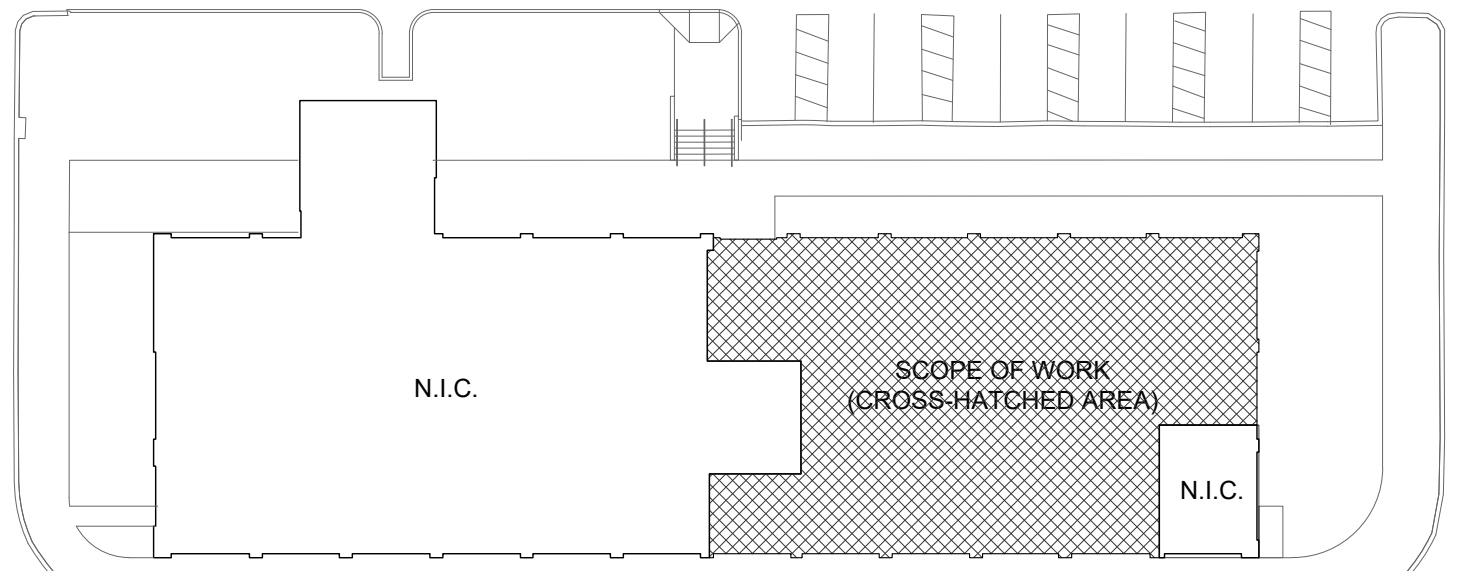
- DIMENSIONS ARE FROM FACE OF PARTITION WALL TO FACE OF PARTITION WALL, U.O.N.
- LIGHTING FIXTURES SHOWN ON THIS DRAWING ARE FOR REFERENCE ONLY. REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURES, EMERGENCY LIGHT FIXTURES. REFER FOR FIRE ALARM AND FIRE PROTECTION DRAWINGS FOR SMOKE DETECTORS AND FIRE ALARM DEVICES. REFER TO CIVIL DRAWINGS FOR SITE FIXTURE TYPES.
- REFER TO MECHANICAL DRAWINGS FOR SUPPLY AND RETURN AIR GRILLE LOCATIONS. LOCATE MECHANICAL ITEMS AROUND LIGHTING LAYOUT AND IN THE APPROXIMATE LOCATIONS SHOWN IN THE MECHANICAL DRAWINGS. CONTRACTOR TO SUBMIT COORDINATION DRAWINGS SHOWING ALL THE SPECIFIED ITEMS FOR REVIEW WITH THE ARCHITECT AND ENGINEER.
- REFER TO FIRE PROTECTION DRAWINGS FOR SPRINKLER HEAD LOCATIONS.
- REFER TO AV / IT DRAWINGS FOR SPEAKERS, EQUIPMENT AND CEILING PENETRATIONS. PROVIDE FINISH FLANGES AT ALL CEILING MOUNTED UNITS.
- ALL EXPOSED STRUCTURE AREAS TO RECEIVE COMPLETE PAINTING U.O.N.. PAINTING SHALL INCLUDE ALL ITEMS EXPOSE TO VIEW, INCLUDING PIPING, DUCTWORK, CONDUIT AND WIRING. SURROUNDING PARTITIONS SHALL HAVE FULL-HEIGHT GYP. BD. RUN TO UNDERSIDE OF STRUCTURE.
- ALL ELEMENTS EXPOSED TO VIEW, INCLUDING THROUGH LOUVERS, GRILLES, SLOT DIFFUSERS, AND OPENINGS SHALL BE PAINTED.
- ALL CEILING GRIDS TO BE CENTERED IN EACH ROOM IN BOTH DIRECTIONS, U.O.N. CEILING GRID AREAS SEPARATED BY SOFFITS TO BE ALIGNED. NO CEILING TILES SHALL BE CUT TO LESS THAN 4".
- ALL ELECTRICAL AND MECHANICAL ITEMS (I.E. DIFFUSERS, GRILLES, REGISTERS, RECESSED FIXTURES, SPRINKLER HEADS, ETC.) SHOULD BE CENTERED WITHIN CCEILING TILES/PANELS, IN BOTH DIRECTIONS U.O.N.
- ALL GYP. BD. CEILINGS, SOFFITS, AND FASCIAS TO BE 5/8" GYP. BD. PAINTED, WITH CONTROL JOINTS IN ALL AREAS GREATER THAN 30 FEET. REVIEW WITH ARCHITECT ACTUAL CONTROL JOINT LOCATIONS.
- PROVIDE ACCESS PANELS AT ALL LOCATIONS REQUIRING SERVICE OR ADJUSTMENT TO MECHANICAL, PLUMBING OR ELECTRICAL ITEMS. COORDINATE LOCATIONS AND SIZE WITH CEILING-MOUNTED EQUIPMENT AND FIXTURES. PROVIDE FIRE-RATED UNITS IN RATED ASSEMBLIES. ALL INACCESSIBLE CEILINGS TO HAVE A MINIMUM OF 1 ACCESS PANEL, FINISH TO MATCH ADJACENT MATERIAL.
- CONTRACTOR TO SUBMIT COORDINATION DRAWINGS SHOWING THE ACTUAL LOCATIONS OF DUCTWORK, LIGHT FIXTURES AND OTHER CEILING INSTALLED EQUIPMENT FOR REVIEW BEFORE INSTALLATION.

LIGHT FIXTURE LEGEND

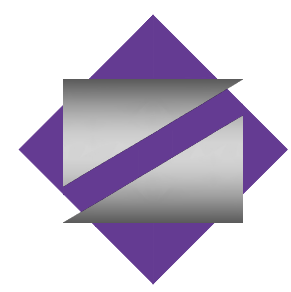
	2' x 2' LAY-IN RECESSED LIGHT FIXTURE (CLT-LSCS CENTER LENS TROFFER BY COLUMBIA LIGHTING OR EQUAL)
	2' x 4'-0" RECESSED LIGHT FIXTURE (LSR1 RECESSED BY CORONET LIGHTING OR EQUAL)
	48" DIAMETER DIRECT / INDIRECT @ 8'-6" A.F.F. (CIRCULAR PENDANT MOUNTED FIXTURE HOOP BY CORONET OR EQUAL)
	CUSTOM CURVE LIGHTING FIXTURE @ 8'-6" A.F.F. CORONET LS1 CURVE INDIRECT / DIRECT PENDANT LIGHT FIXTURE OR EQUAL
	4' x 4' PENDANT LIGHT FIXTURE WITH NOISE REDUCTION BAFFLE @ 9'-0" A.F.F. (CORONET GRIDIRON DIRECT OR EQUAL)
	SUSPENDED LIGHT FIXTURE @ 9'-0" A.F.F.
	RECESSED DOWNLIGHT
	PENDANT LIGHT FIXTURE
	COVE LIGHT FIXTURE
	WALL SCONCE (Cherokee LED Uplight Series by Barn Electric Co. with Wall-mounted G26 Gooseneck Arm)

CEILING LEGEND

	ACT-1 2' x 2' LAY-IN ACOUSTICAL CEILING TILES (SEE FIN. SCHED. FOR ADDITIONAL INFO.)
	GYPSUM BOARD CEILING WITH SCHEDULED FINISH
	VAV SYSTEM REFER TO MECH. DWGS.
	AIR SUPPLY DIFFUSER REFER TO MECH. DWGS.
	AIR RETURN GRILLE REFER TO MECH. DWGS.
	WALL-MOUNTED EXIT SIGN



ROEBLING BUILDING 4: KEYPLAN
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SHEET CONTENTS:

FIRST FLOOR REFLECTED CEILING PLAN FINISH PLAN & FINISH SCHEDULE

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY ROEBLING BUILDING 4 FIRST FLOOR IMPROVEMENTS 80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

10.09.2026 ISSUE FOR BID

DATE	REVISIONS	REV

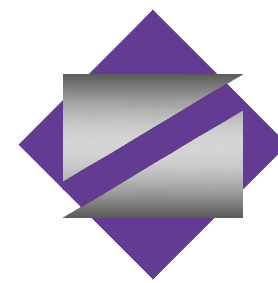
Date 10.09.2026
Scale AS NOTED
Drawn by BPV
Checked by KM
Job No. 2241901
Drawing No.

A-201

HARDWARE SETS

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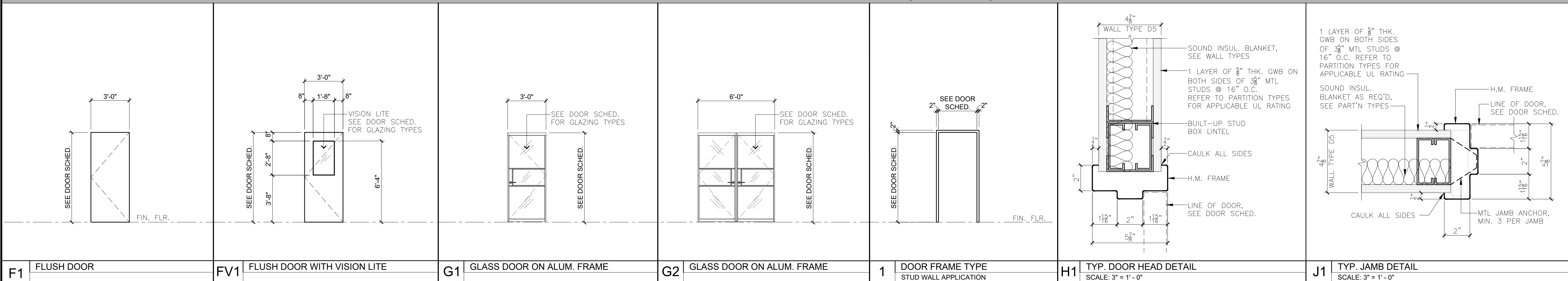
DOORS: 111 (MECHANICAL ROOM)						DOORS: 102 Single (PRE-FUNCTION RM 101)					
HARDWARE SET #1						HARDWARE SET #5					
						QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR	
3 Hinge, Full Mortise	TA2714	US26D	MK	087100							
1 Storeroom or Closet Lock	AUR 8805FL K625vCT_SL	626	YA	087100							
1 Core	- Match owner's existing BEST SFIC system	626	BE	087100	1 EA	Centering electrified walking-beam top pivot, 8-wire electrolytic quick-connect	EH340-QC8-QC8	626	Rivcon		
1 Surface Closer	7500 - pull side mount	689	NO	087100				3527A-QEL-LX-RX-E0-3 DEVICE-UHR-200U-248L-4	315	Von Duprin	
1 Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100				Electrified surface-mounted vertical not exit device, quiet electro latch retraction, request-to-exit, act-bolt mounting			
1 Wall Stop	400	US26D	RO	087100	1 EA	Keyed outside trim, cylinder operated, compatible with 3527A, providing Mechanical latch/hold Retraction		3527A-QEL-LX-RX-NL-OP 3 DEVICE-UHR-200U-248L-4	315	Von Duprin	
1 Gasketing	S888L		PE	087100							
3 Silencer	608 / 609		RO	087100							
HARDWARE SET #2						HARDWARE SET #6					
3 Hinge, Full Mortise	TA2714	US26D	MK	087100							
1 Storeroom or Closet Lock	AUR 8805FL K625vCT_SL	626	YA	087100	1 EA	Mortise cylinder, interchangeable core type	20-061 ICX	626	Schlage		
1 Core	- Match owner's existing BEST SFIC system	626	BE	087100	1 EA	FSIC Core	23-030 CXC EV29 T	626	Schlage		
1 Surface Closer	7500 - pull side mount	689	NO	087100	2 EA	Architectural Door Pul, 36 INCH	SH-Pro-304-LPH-B-12-1250	B-Matte Black	Stronger		
1 Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	2 EA	Surface-Mounted Door closer, Pull-Side, Track ARN	T593-1-THO	689	Dormakaba		
1 Wall Stop	400	US26D	RO	087100							
3 Silencer	608 / 609		RO	087100							
HARDWARE SET #3						HARDWARE SET #7					
3 Hinge, Full Mortise	TA2714	US26D	MK	087100							
1 Flush Bolt	2845 / 2945	US26D	RO	087100	1 EA	Centering electrified walking-beam top pivot, 8-wire electrolytic quick-connect	EH340-QC8-QC8	626	Rivcon		
1 Dust Proof Strike	570	US26D	RO	087100							
1 Storeroom or Closet Lock	AUR 8805FL K625vCT_SL	626	YA	087100	1 EA	Electrified surface-mounted vertical not exit device, quiet electro latch retraction, request-to-exit, act-bolt mounting	3527A-QEL-LX-RX-E0-3 DEVICE-UHR-200U-248L-4	315	Von Duprin		
1 Core	- Match owner's existing BEST SFIC system	626	BE	087100				3527A-QEL-LX-RX-NL-OP 3 DEVICE-UHR-200U-248L-4	315	Von Duprin	
1 Surface Closer	PR7500	689	NO	087100	1 EA	Keyed outside trim, cylinder operated, compatible with 3527A, providing Mechanical latch/hold Retraction					
2 Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100				20-061 ICX	626	Schlage	
2 Wall Stop	400	US26D	RO	087100	1 EA	Mortise cylinder, interchangeable core type					
2 Silencer	608 / 609		RO	087100	1 EA	FSIC Core	23-030 CXC EV29 T	626	Schlage		
					2 EA	Architectural Door Pul, 36 INCH	SH-Pro-304-LPH-B-12-1250	B-Matte Black	Stronger		
					1 EA	Surface-Mounted Door closer, Pull-Side, Track ARN	T593-1-THO	689	Dormakaba		
					1 EA	Door Position Switch, DPDT	By Owner				
					1 EA	Multitech Reader	By Owner				
					1 EA	Access Control Power Supply	By Owner				



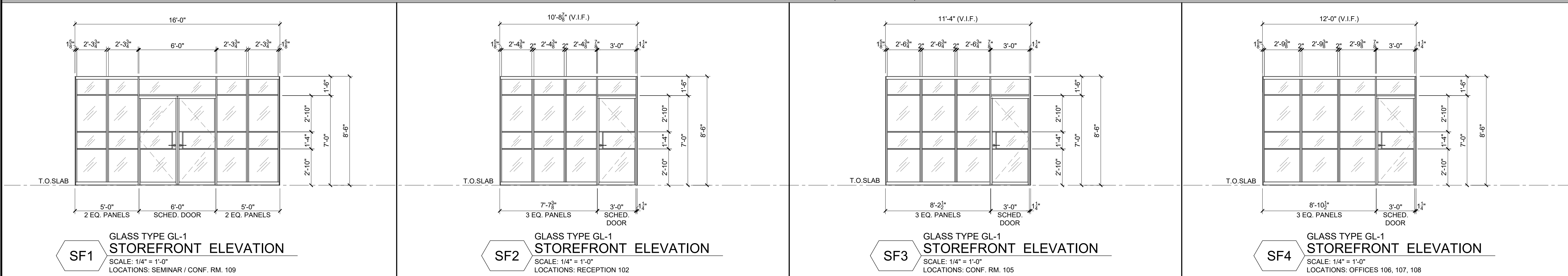
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DOOR TYPE AND DOOR FRAME TYPE SCHEDULE (SCALE: 1/4" = 1'-0")



STOREFRONT SCHEDULE (SCALE: 1/4" = 1'-0")



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SHEET CONTENTS:

DOOR SCHEDULE,
DOOR TYPES & DETAILS,
HARDWARE SCHEDULE &
STOREFRONT SCHEDULE

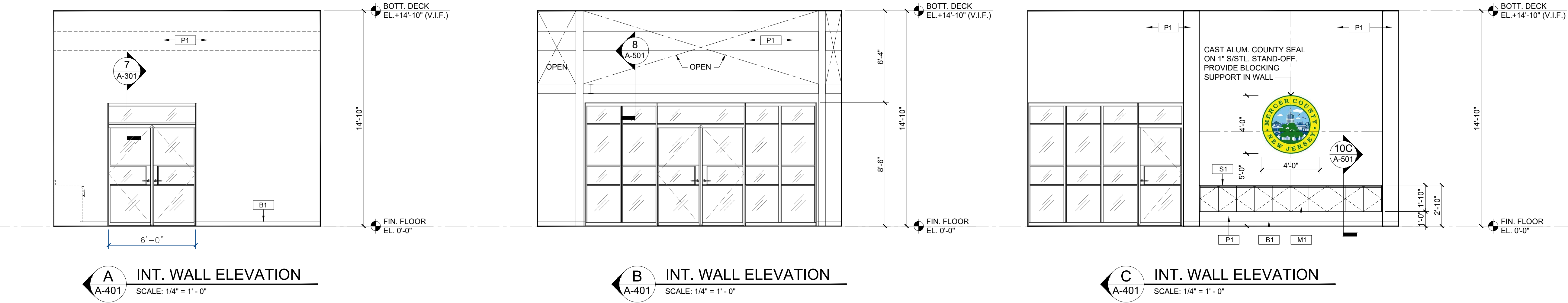
PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

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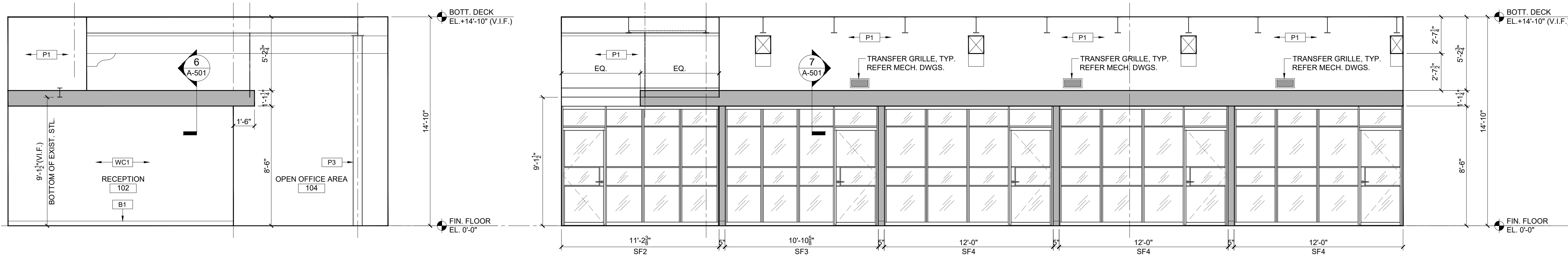
A-301



A INT. WALL ELEVATION
A-401 SCALE: 1/4" = 1' - 0"

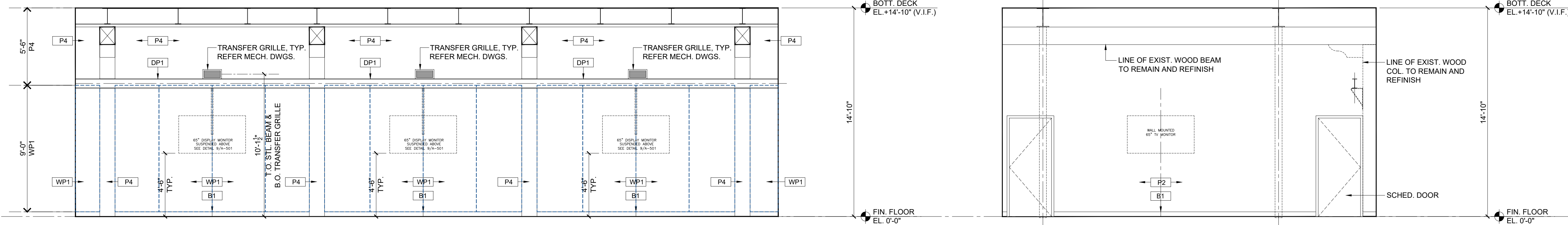
B INT. WALL ELEVATION
A-401 SCALE: 1/4" = 1' - 0"

C INT. WALL ELEVATION
A-401 SCALE: 1/4" = 1' - 0"



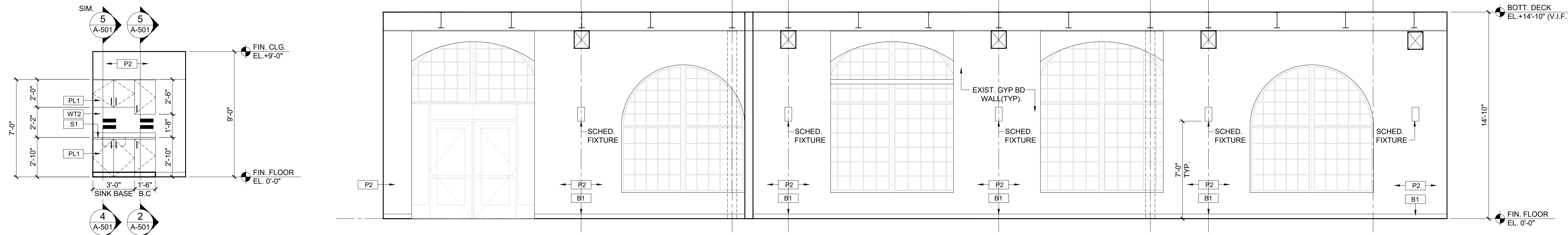
D INT. WALL ELEVATION
A-401 SCALE: 1/4" = 1' - 0"

E INT. WALL ELEVATION
A-401 SCALE: 1/4" = 1' - 0"



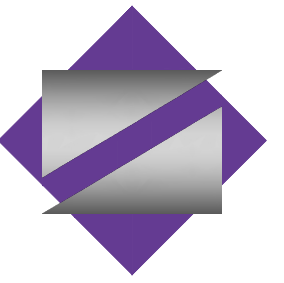
F INT. WALL ELEVATION
A-401 SCALE: 1/4" = 1' - 0"

G INT. WALL ELEVATION
A-401 SCALE: 1/4" = 1' - 0"



H INT. WALL ELEVATION
A-401 SCALE: 1/4" = 1' - 0"

J INT. WALL ELEVATION
A-401 SCALE: 1/4" = 1' - 0"



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SHEET CONTENTS:

INT. WALL ELEVATIONS

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ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

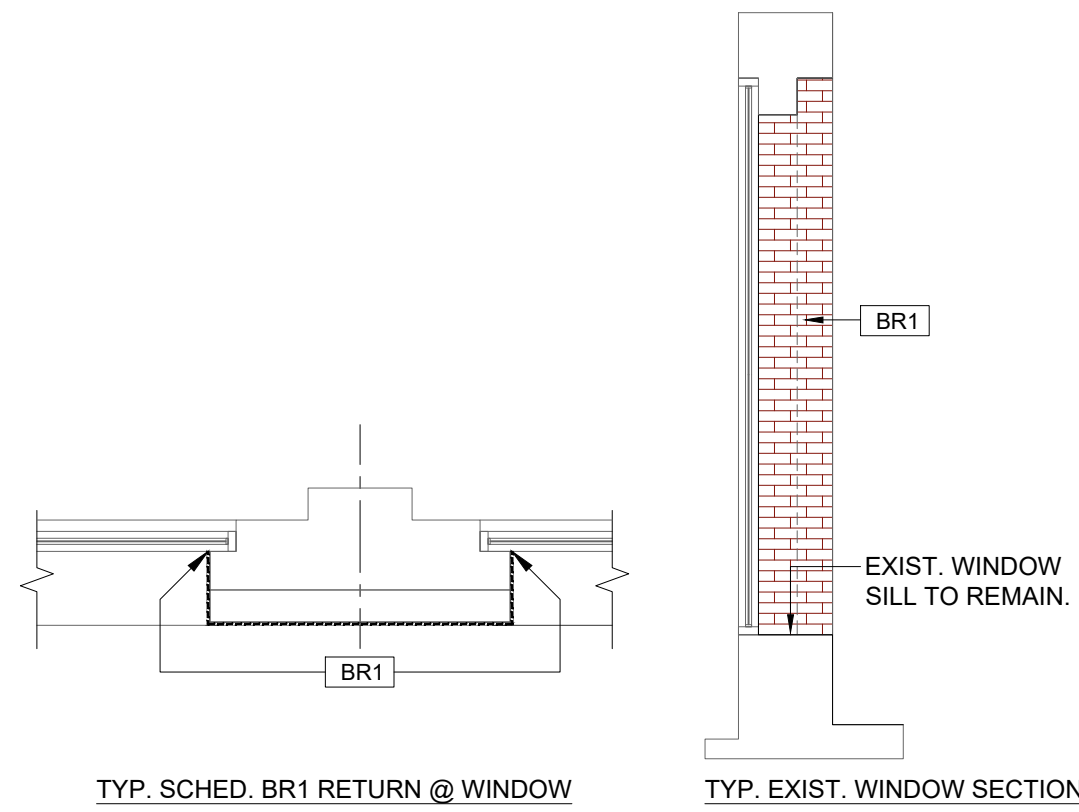
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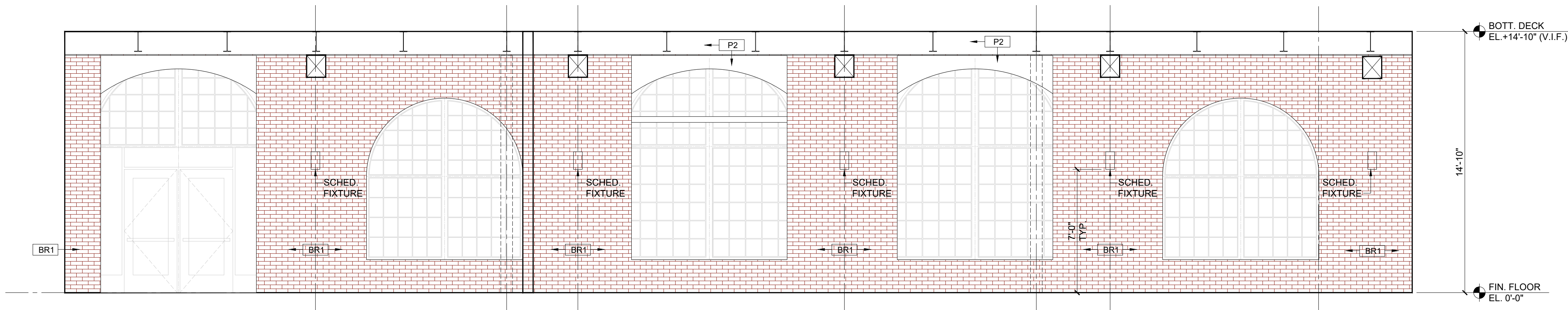
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Date	10.09.2026
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Checked by	KM
Job No.	2241901
Drawing No.	

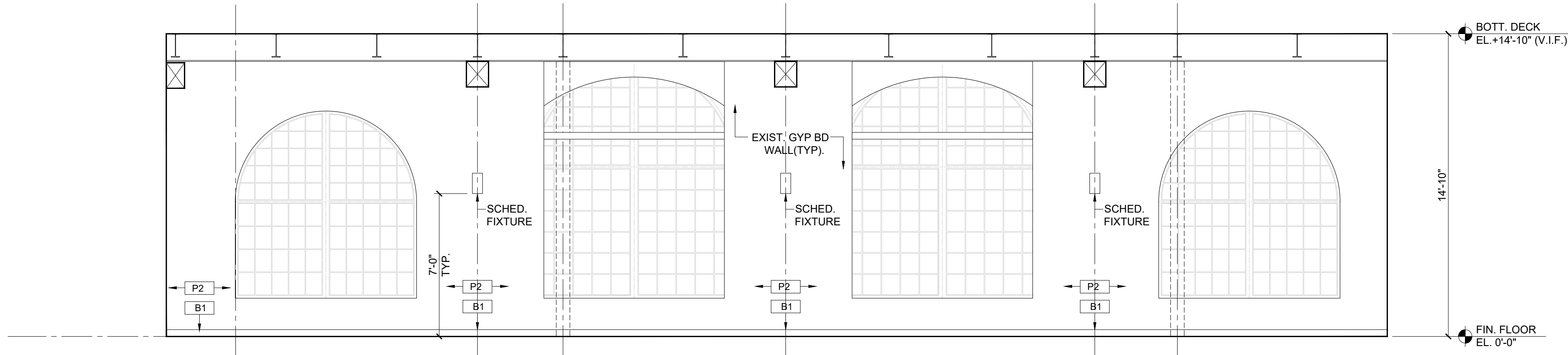
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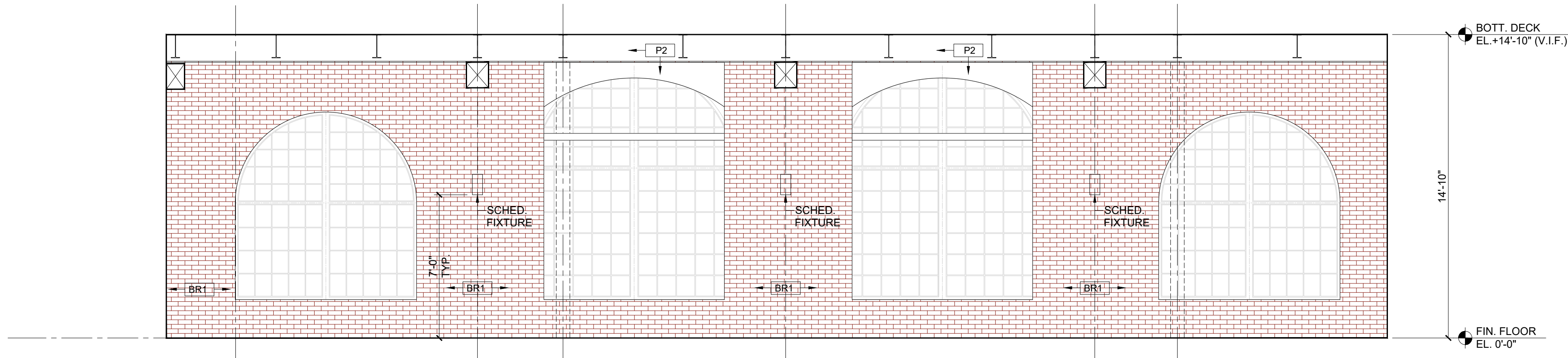
J1
A-401 **DETAIL - ALTERNATE 1 & 2**
SCALE: 1/4" = 1' - 0"
NOTE: TYP. RETURN OF BR1 AT WINDOW



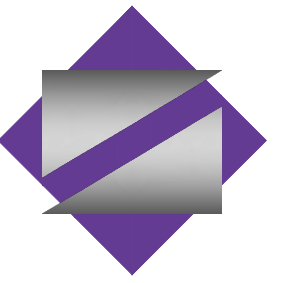
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A-401 **INT. WALL ELEVATION - ALTERNATE 1**
SCALE: 1/4" = 1' - 0"



K
A-401 **INT. WALL ELEVATION**
SCALE: 1/4" = 1' - 0"



K
A-401 **INT. WALL ELEVATION - ALTERNATE 2**
SCALE: 1/4" = 1' - 0"



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IMPROVEMENTS
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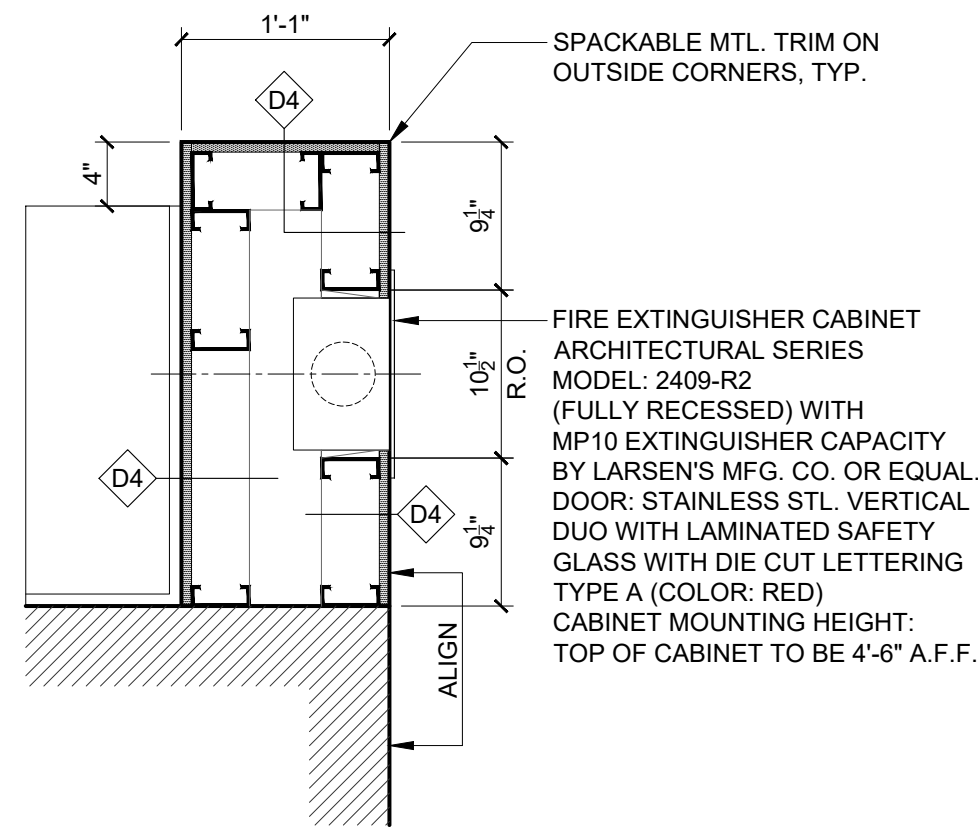
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DATE	REVISIONS	REV

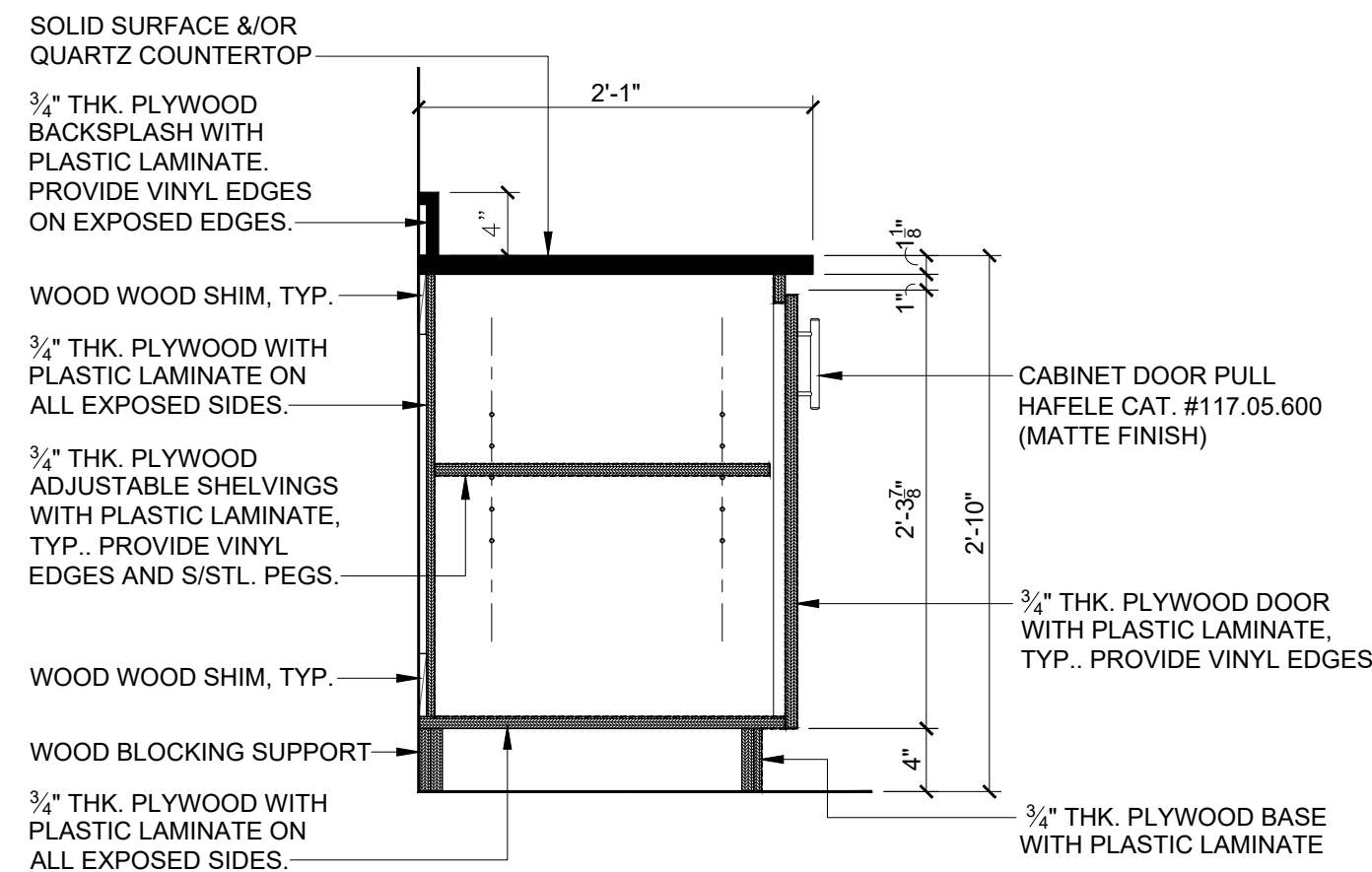
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Drawn by BPV
Checked by KM
Job No. 2241901

Drawing No.

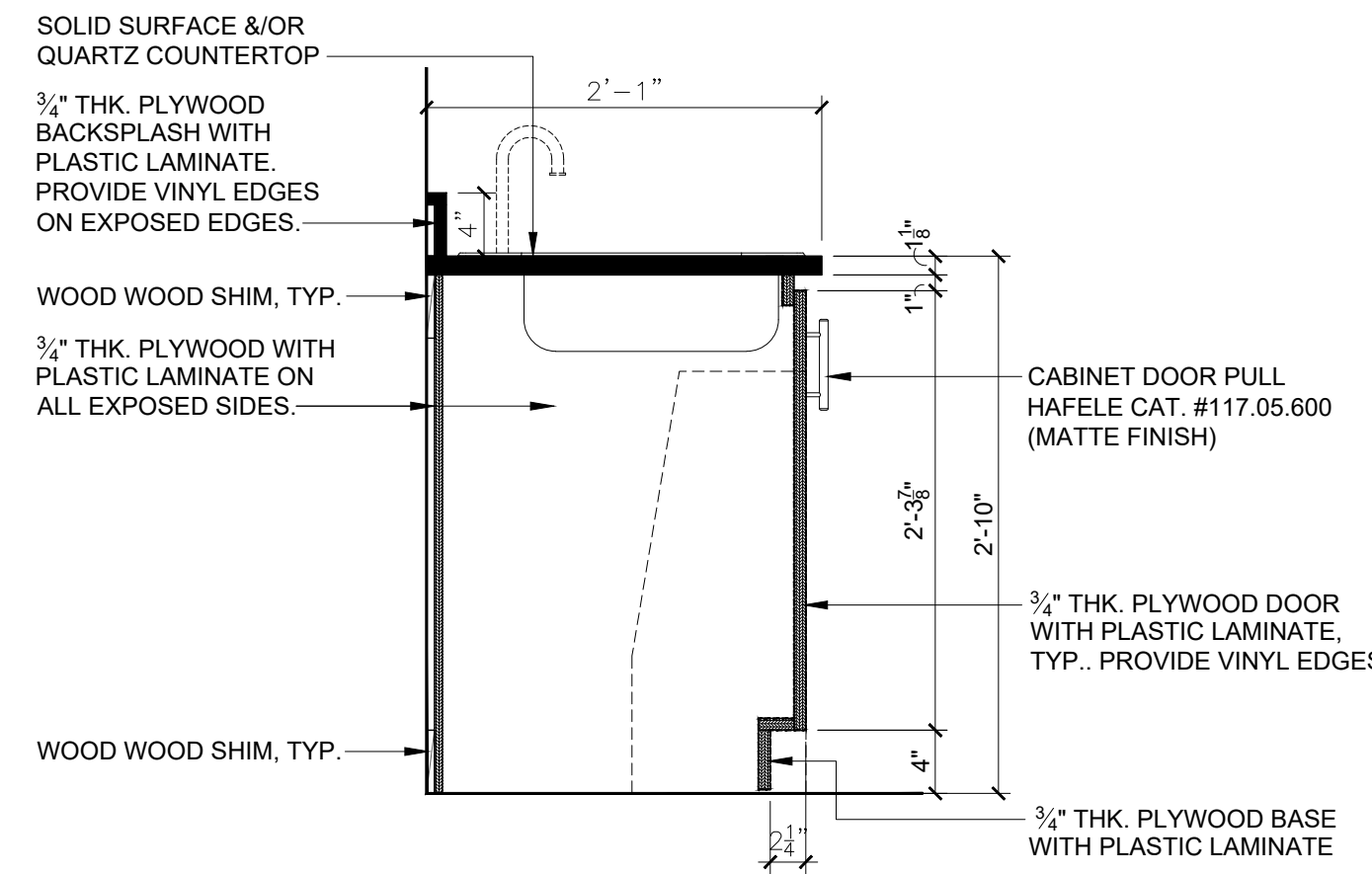
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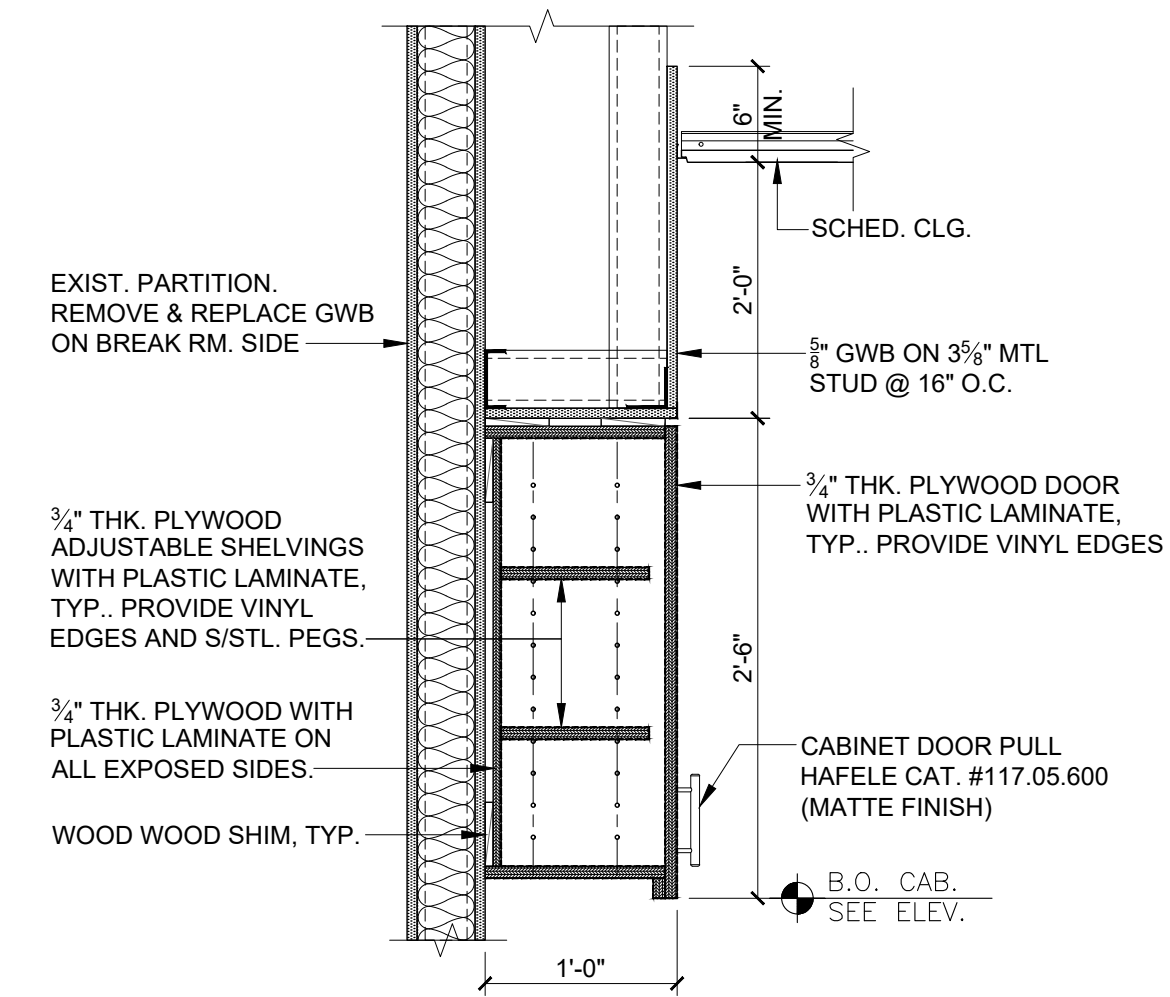
1 F.E.C. PLAN DETAIL
A-501 SCALE: 1" = 1'-0"



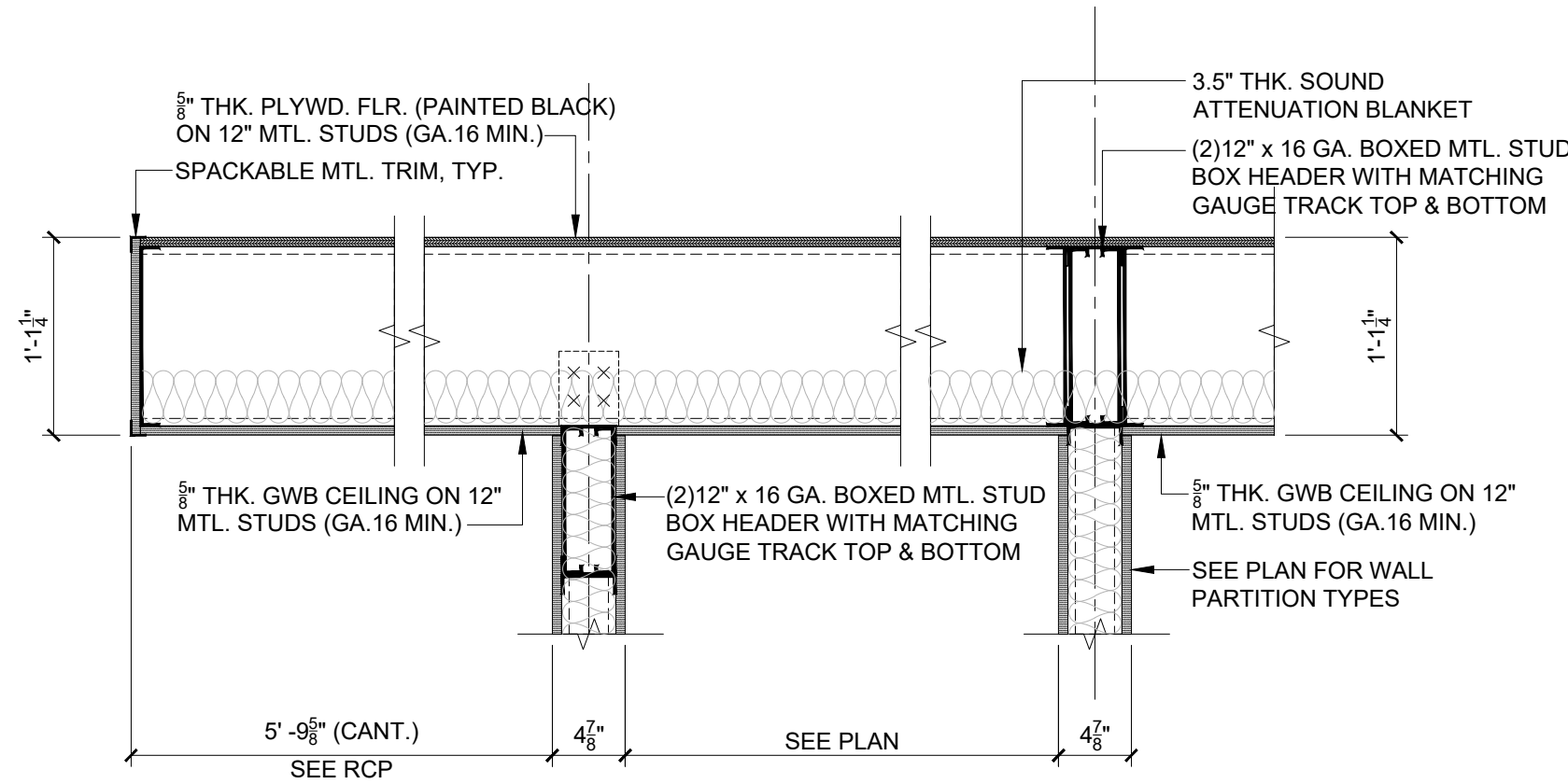
2 TYP. BASE CABINET DETAIL
A-501 SCALE: 1" = 1'-0"
WITH ADJUSTABLE SHELF



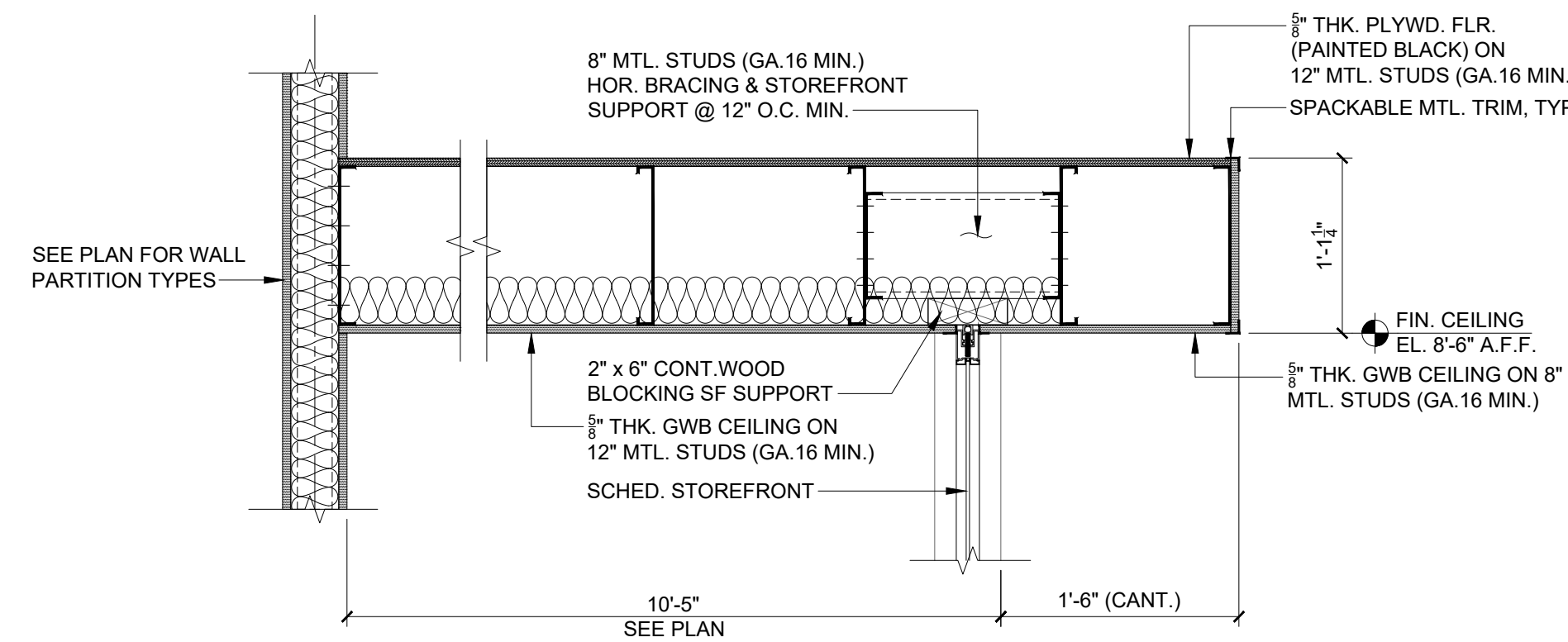
4 TYP. SINK BASE CABINET DETAIL
A-501 SCALE: 1" = 1'-0"
WITH DOOR FOR ADA ACCESS



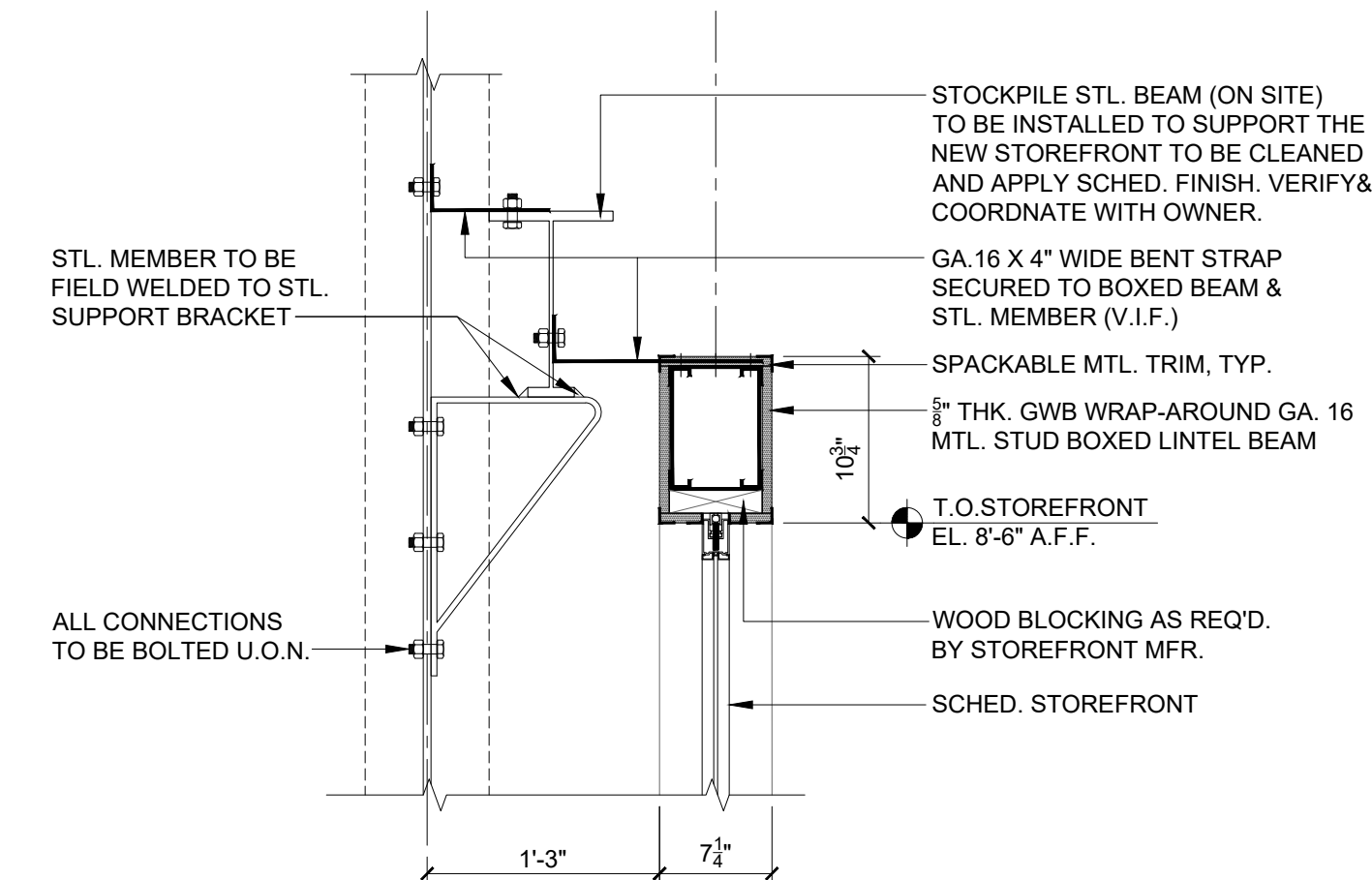
5 TYP. WALL CABINET DETAIL
A-501 SCALE: 1" = 1'-0"



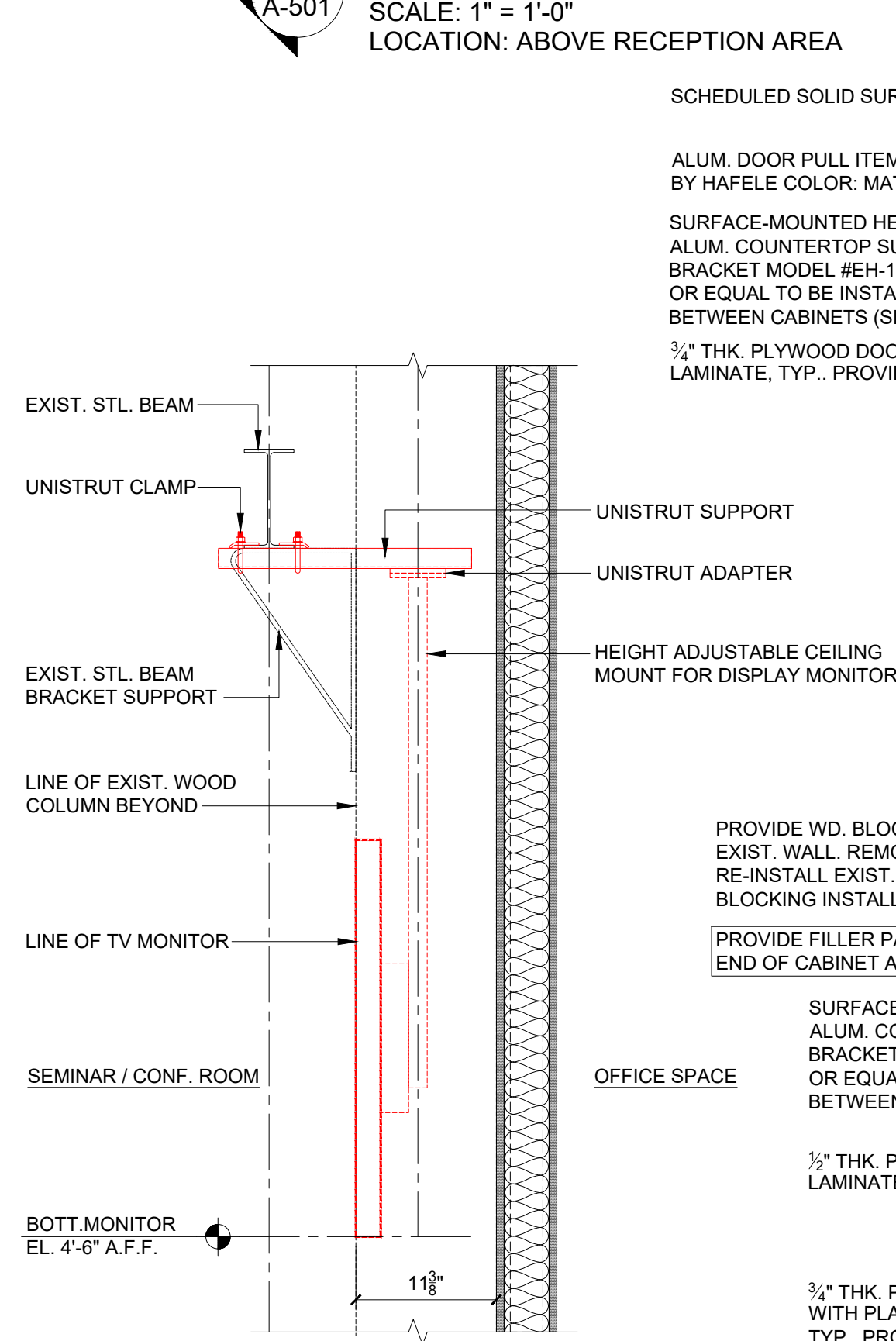
6 CEILING OVERHANG FRAMING DETAIL
A-501 SCALE: 1" = 1'-0"
LOCATION: ABOVE RECEPTION AREA



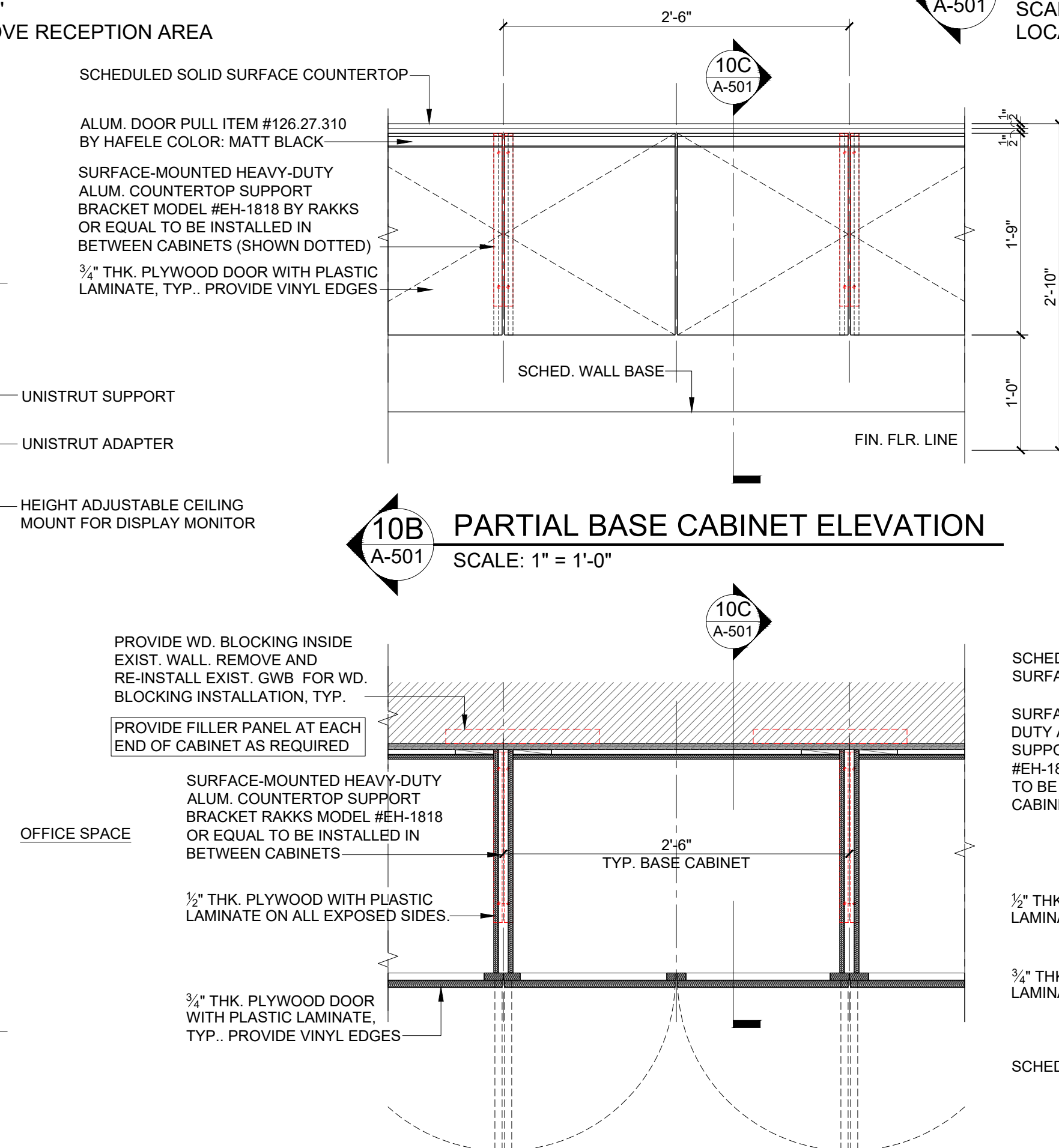
7 CEILING OVERHANG FRAMING DETAIL
A-501 SCALE: 1" = 1'-0"
LOCATION: ABOVE OFFICE ENTRANCES



8 STOREFRONT SUPPORT DETAIL
A-501 SCALE: 1" = 1'-0"
SEMINAR ROOM 109 ENTRANCE

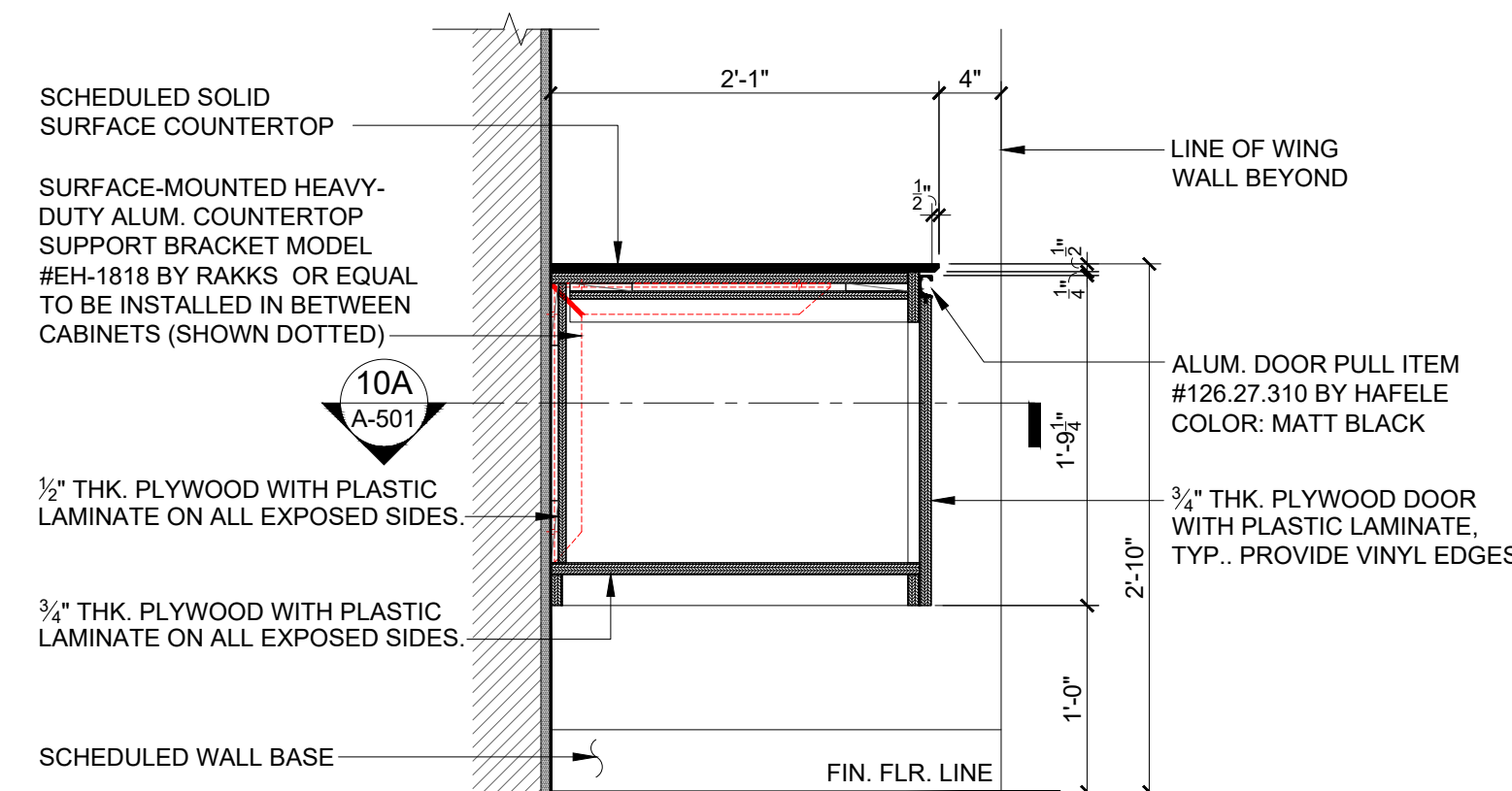


9 TYP. TV MONITOR MOUNTING DETAIL
A-501 SCALE: 1" = 1'-0"

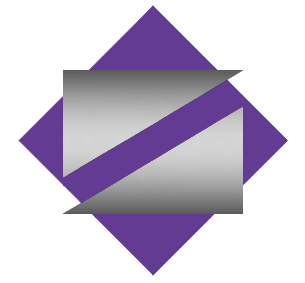


10B PARTIAL BASE CABINET ELEVATION
A-501 SCALE: 1" = 1'-0"

10A PARTIAL BASE CABINET PLAN DETAIL
A-501 SCALE: 1" = 1'-0"



10C TYP. BASE CABINET SECTION DETAIL
A-501 SCALE: 1" = 1'-0"



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SHEET CONTENTS:

DETAILS

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MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
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IMPROVEMENTS
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

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Job No. 2241901
Drawing No.

A-501

EQUIPMENT ABBREVIATIONS

AC	AIR CONDITIONING UNIT
ACCH	AIR-COOLED CHILLER
ACCU	AIR-COOLED CONDENSING UNIT
AFH	AIR FILTER HOUSING
AHU	AIR HANDLING UNIT
AS	AIR SEPARATOR
B	BOILER
BFU	BOILER FEED UNIT
C	CONVECTOR
CAC	CEILING CASSETTE AIR CONDITIONING
CUH	CABINET UNIT HEATER
CP	CONDENSATE PUMP
CRU	CONDENSATE RETURN UNIT
CT	COOLING TOWER
CU	CONDENSING UNIT
DC	DUST COLLECTOR
EBB	ELECTRIC BASEBOARD
ECH	ELECTRIC CABINET HEATER
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
ERU	ENERGY RECOVERY UNIT
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EWI	ELECTRIC WALL HEATER
FCU	FAN COIL UNIT
GF	GAS FURNACE
GUH	GAS UNIT HEATER
FTR	FIN TUBE RADIATION
H	HUMIDIFIER
HC	DUCT HEATING COIL
HX	HEAT EXCHANGER
HP	HEAT PUMP
HRU	HEAT RECOVERY UNIT
HT	HEAT TRACING
HV	HEATING & VENTILATING UNIT
L	LOUVER
LD	LINEAR DIFFUSER
MAU	MAKEUP AIR UNIT
OAI	OUTSIDE AIR INTAKE
P	PUMP
PTAC	PACKAGED TERMINAL AIR CONDITIONING
PTH-P	PACKAGED TERMINAL HEAT PUMP
RF	RETURN FAN
RH	REHEAT DUCT COIL
RTU	ROOFTOP UNIT
RV	RELIEF VENT
SF	SUPPLY FAN
ST	SOUND TRAP
TF	THERMAL-FUSER
UH	UNIT HEATER
UV	UNIT VENTILATOR
VAV	VARIABLE AIR VOLUME BOX

GENERAL ABBREVIATIONS

AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AMPS	AMPERES
APD	AIR PRESSURE DROP
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ATC	AUTOMATIC TEMPERATURE CONTROL
BVD	BLOW DOWN VALVE
BE	BOTTOM ELEVATION
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BSMT	BASEMENT
BTUH	BRITISH THERMAL UNIT PER HOUR
CENTRIF	CENTRIFUGAL
CF	CUBIC FEET
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CONC	CONCRETE
CO	CLEANOUT
CP	CONTROL PANEL
DB	DRY BULB
DBA	DECIBELS
DIA, Ø	DIAMETER
DN	DOWN
DR	DRAIN
DWG	DRAWING
DX	DIRECT EXPANSION
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EL	ELEVATION
ELECTRICAL	ELEC
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
EWI	ENTERING WATER TEMPERATURE
EXIST (E)	EXISTING
F	FAHRENHEIT
FAT	FINAL AIR TEMPERATURE
F&B	FACE AND BYPASS DAMPER
FC	FLEXIBLE CONNECTION
FD	FLOOR DRAIN OR FIRE DAMPER
FL	FLOOR
FLG	FLANGED
FPM	FEET PER MINUTE
FT	FEET
F&T	FLOAT AND THERMOSTATIC
FV	FACE VELOCITY
GAL	GALLON
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HEAD
HDR	HEADER
HP	HORSEPOWER
HR	HOUR
HTG	HEATING
Hz	HERTZ (FREQUENCY)

GENERAL ABBREVIATIONS

ID	INSIDE DIMENSION
IN	INCH
IWC	INCHES OF WATER COLUMN
IWG	INCHES IN WATER GAUGE
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LBS/HR	POUNDS PER HOUR
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE
MA	MIXED AIR
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MFG	MANUFACTURER
MIN	MINIMUM
NIC	NOT IN CONTRACT
NOM	NOMINAL
NO.	NUMBER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OBVD	OPPOSED BLADE VOLUME DAMPER
OD	OUTSIDE DIMENSION
OED	OPEN END DUCT
OPER	OPERATING
OPNG	OPENING
PD	PRESSURE DROP
PH	PHASE
PLGB	PLUMBING
PRVS	PRESSURE REDUCING VALVE STATION
PSIG	POUND PER SQUARE INCH (GAUGE)
QTY	QUANTITY
RA	RETURN AIR
RD	ROOF DRAIN
REQ	REQUIRED
RH	RELATIVE HUMIDITY
RM	ROOM
RO	ROOF OPENING
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SD	SMOKE DETECTOR
SDD	SMOKE DUCT DETECTOR
SP	STATIC PRESSURE
SPEC	SPECIFICATIONS
SQFT	SQUARE FOOT
SRV	SAFETY RELIEF VALVE
S/S	STAINLESS STEEL
TD	TEMPERATURE DIFFERENCE
TEMP	TEMPERATURE
TYP	TYPICAL
V/PH/Hz	VOLTS/PHASE/FREQUENCY (HERTZ)
VD	VOLUME DAMPER
W	WATT OR WIDTH
WB	WET BULB
WMS	WIRE MESH SCREEN
WPD	WATER PRESSURE DROP

MECHANICAL GENERAL SYMBOLS

	EQUIPMENT MARK, SEE SCHEDULES, THIS SHEET.
	EXISTING EQUIPMENT MARK FOR EQUIPMENT TO REMAIN.
	EXISTING EQUIPMENT MARK FOR EQUIPMENT TO BE REMOVED.
	DETAIL OR PART PLAN TITLE.
	REVISION TAG.
	EQUIPMENT, DUCTWORK OR PIPING TO BE REMOVED.
	POINT OF CONNECTION, NEW TO EXISTING.
	POINT OF DISCONNECT.
	DRAWING KEYNOTE.

MECHANICAL AIRSIDE SYMBOLS

	CEILING SUPPLY DIFFUSER.
	CEILING CEILING RETURN, EXHAUST OR TRANSFER REGISTER/GRILLE.
	EXISTING CEILING SUPPLY AIR DIFFUSER TO REMAIN.
	EXISTING CEILING RETURN, EXHAUST OR TRANSFER REGISTER/GRILLE.
	EXISTING CEILING SUPPLY AIR DIFFUSER TO BE REMOVED.
	EXISTING CEILING RETURN, EXHAUST OR TRANSFER REGISTER/GRILLE TO BE REMOVED.
	CEILING CIRCULAR SUPPLY DIFFUSER.
	EXISTING CEILING CIRCULAR SUPPLY DIFFUSER TO REMAIN.
	EXISTING CEILING CIRCULAR SUPPLY DIFFUSER TO BE REMOVED.
	SIDEWALL SUPPLY, RETURN, OR EXHAUST AIR GRILLE.
	EXISTING SIDEWALL SUPPLY, RETURN, OR EXHAUST AIR GRILLE TO REMAIN.
	EXISTING SIDEWALL SUPPLY, RETURN, OR EXHAUST AIR GRILLE TO BE REMOVED.
	CEILING MOUNTED LINEAR SUPPLY AIR DIFFUSER, SEE SCHEDULE THIS SHEET.
	EXISTING CEILING MOUNTED LINEAR SUPPLY AIR DIFFUSER TO REMAIN.
	EXISTING CEILING MOUNTED LINEAR SUPPLY AIR DIFFUSER TO BE REMOVED.
	GALVANIZED SHEET METAL DUCTWORK.
	EXISTING GALVANIZED SHEET METAL DUCTWORK TO REMAIN.
	EXISTING GALVANIZED SHEET METAL DUCTWORK TO BE REMOVED.
	45 DEGREE DUCT BRANCH TAKE-OFF.
	ACCESS DOOR/PANEL.
	DUCT TURNING DOWN.
	DUCT TURNING UP.
	MITERED ELBOW WITH TURNING VANES.
	INTERNAL ACOUSTIC LINING (SIZES ON DRAWINGS INDICATE CLEAR INSIDE DIMENSIONS).
	FLEXIBLE DUCT CONNECTION.
	FLEXIBLE CONNECTION FROM DUCTWORK TO EQUIPMENT.
	VOLUME DAMPER.
	AIRFLOW, NEGATIVE PRESSURE.
	AIRFLOW, POSITIVE PRESSURE.
	FLOW THROUGH DOOR UNDERCUT
	AIR TERMINAL DESIGNATION, (CFM=000).
	FIRE DAMPER.
	SMOKE DAMPER.
	COMBINATION FIRE/SMOKE DAMPER.
	MOTORIZED DAMPER.
	DUCT SMOKE DETECTOR.

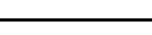
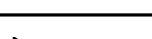
MECHANICAL CONTROLS SYMBOLS

	MOTORIZED DAMPER.
	DUCT SMOKE DETECTOR.
 x-x	THERMOSTAT OR TEMPERATURE SENSOR (X-X INDICATES EQUIPMENT SERVED).
 x-x	HUMIDISTAT (X-X INDICATES EQUIPMENT SERVED).
	CARBON DIOXIDE SENSOR.
	CARBON MONOXIDE SENSOR.
	ATC CONTROL PANEL.

PIPING SYMBOLS

	PIPE TURNING DOWN.
	PIPE TURNING UP.
	PIPING TOP TAKEOFF.
	PIPING TOP TAKEOFF.
	PIPING FLOW ARROW.
	PIPING GUIDE.
	PIPING ANCHOR.
	PIPE UNION. LOCATE TO ALLOW FOR EQUIPMENT REMOVAL.
	SHUT-OFF VALVE (BALL TYPE).
	GLOBE VALVE.
	CHECK VALVE.
	BALANCING VALVE
	STRAINER.
	PRESSURE GAUGE WITH COCK.
	MERCURY IN GLASS TUBE THERMOMETER AND WELL
	FLOW SWITCH
	PRESSURE SAFETY VALVE
	PIPE CAP.
	GAUGE COCK.
	MANUAL AIR VENT.
	THERMOSTATIC STEAM TRAP.
	MODULATING TWO-WAY VALVE WITH ELECTRIC ACTUATOR.
	EXISTING TWO WAY MODULATING VALVE WITH ELECTRIC ACTUATOR.
	THREE-WAY TWO POSITION VALVE WITH ELECTRIC ACTUATOR.

PIPING ABBREVIATIONS

 HWS →	HOT WATER SUPPLY
 HWR ←	HOT WATER RETURN
 HWS →	EXISTING HOT WATER SUPPLY TO REMAIN.
 HWR ←	EXISTING HOT WATER RETURN TO REMAIN.
 HWS →	EXISTING HOT WATER SUPPLY TO BE REMOVED.
 HWR ←	EXISTING HOT WATER RETURN TO BE REMOVED.
 REF	REFRIGERANT PIPING.
 REF →	EXISTING REFRIGERANT PIPING TO REMAIN.
 REF →	EXISTING REFRIGERANT PIPING TO BE REMOVED.
 C	CONDENSATE PIPING.
 C →	EXISTING CONDENSATE PIPING TO REMAIN.
 C →	EXISTING CONDENSATE PIPING TO BE REMOVED.



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SHEET CONTENTS

MECHANICAL ABBREVIATIONS AND SYMBOLS

PROJECT TITLE:

**MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

10.09.2026	ISSUED FOR BID

DATE	REVISIONS	R

Date	10.07.2026
Scale	AS NOTED
Drawn by	TMW
Checked by	JM
Job No.	2241895
Drawing No.	

M-000

MECHANICAL GENERAL NOTES

GENERAL

- EQUIPMENT MANUFACTURER NAMES AND MODEL NUMBERS SHOWN FORM THE BASIS OF DESIGN. THE EQUIPMENT HAS BEEN SELECTED BY THE ENGINEER FOR CONFORMANCE TO VARIOUS CRITERIA SUCH AS DIMENSIONAL DATA, CAPACITIES, ELECTRICAL CHARACTERISTICS, STANDARD FEATURES, AND OTHER FACTORS RELATED TO THE DESIGN. SUBSTITUTION OF ANY EQUIPMENT SHALL NOT BE ALLOWED UNLESS APPROVED BY THE ENGINEER AND/OR THE OWNER. FOR SUBSTITUTIONS, REFER TO SPECIFICATION SUBSTITUTION PROCEDURES AND REQUIREMENTS.
- IN ADDITION, ALL COSTS RESULTING FROM SELECTION OF OTHER THAN SPECIFIED EQUIPMENT SHALL BE BORNE BY THE CONTRACTOR, INCLUDING BUT NOT LIMITED TO WORK AFFECTING OTHER CONTRACTORS, THE OWNER, OR RE-DESIGN, INCLUDING REVISING SUPPORTS AND STRUCTURES, ELECTRICAL PROVISIONS, AND CONTROLS.
- AMERICAN MANUFACTURED PRODUCTS SHALL BE USED WHERE POSSIBLE FOR ALL WORK IN ACCORDANCE WITH NJAC 40A:11-18. CONTRACTOR SHALL VERIFY THAT ALL SUBMITTED EQUIPMENT FOR ALL CONTRACTS FOR COUNTY OR MUNICIPAL WORK OR FOR WORK FOR WHICH IT WILL PAY ANY PART OF THE COST, OR WORK WHICH BY CONTRACT OR ORDINANCE IT WILL ULTIMATELY OWN AND MAINTAIN, THAT ONLY MANUFACTURED PRODUCTS OF THE UNITED STATES, WHEREVER AVAILABLE, BE USED IN SUCH WORK. ANY SUBSTITUTIONS OF BASIS OF DESIGN EQUIPMENT SHALL BE VERIFIED BY CONTRACTOR TO CONFORM TO THE ABOVE NOTED REQUIREMENTS.
- ALL CONTRACT WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE WRITTEN SPECIFICATIONS FOR THIS PROJECT, WHICH IS CONSIDERED TO BE AN INTEGRAL PART OF THESE CONTRACT DOCUMENTS. ALL CONTRACTORS AND SUBCONTRACTORS SHALL MAINTAIN (AT THE JOB SITE) AND REFER TO COPIES OF THE WRITTEN SPECIFICATIONS AS A PART OF THESE DRAWINGS.
- THIS PROJECT NEITHER OVERLOADS ANY EXISTING SYSTEMS NOR CREATES/INCREASES ANY CODE NONCONFORMITY IN COMPLIANCE WITH NJAC 5:23-6.7c AND I.

CONTRACTOR QUALIFICATIONS

- PROSPECTIVE BIDDERS WILL BE CLASSIFIED ACCORDING TO THE TYPE AND AMOUNT OF WORK ON WHICH THEY ARE ENTITLED TO BID BUT NOT LIMITED TO THE FOLLOWING:
 - DPMC (DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION) CLASSIFICATION:
 - C039 HVAC
- A CONTRACTOR WHO IS PREQUALIFIED IN TRADE C039, HVAC, SHALL ALSO BE DEEMED PREQUALIFIED FOR THE FOLLOWING TRADES:
 - C032 REFRIGERATION
 - C041 INSULATION/MECHANICAL
- A CONTRACTOR WHO IS PREQUALIFIED IN TRADE C039, HVAC, SHALL ALSO BE ELIGIBLE TO BID UPON CONTRACTS INCLUDING THE FOLLOWING SPECIALTY TRADES, BUT SHALL BE REQUIRED TO ENGAGE A SUBCONTRACTOR WHO IS PREQUALIFIED IN THE SPECIALTY TRADES LISTED:
 - C043 CONTROL SYSTEMS

QUALITY ASSURANCE

- ALL APPLIANCES REGULATED BY THE INTERNATIONAL MECHANICAL CODE/2021 SHALL BE LISTED AND LABELED.
- LABELING SHALL BE IN ACCORDANCE WITH THE PROCEDURES SET FORTH IN SECTIONS 301.5.1 THROUGH 301.5.2.3.

CODES

- ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW JERSEY UNIFORM CONSTRUCTION CODE AND OTHER APPLICABLE NATIONAL AND STATE CODES INCLUDING:
 - INTERNATIONAL MECHANICAL CODE 2021
 - ASHRAE STANDARD 90.1-2019,
 - INTERNATIONAL BUILDING CODE 2021
 - INTERNATIONAL FUEL GAS CODE 2021
 - NATIONAL STANDARD PLUMBING CODE 2021
 - NATIONAL ELECTRIC CODE, NEC (NFPA-70 2020)
 - OSHA, NFPA, ASME, ANSI, SMACNA, AND ASHRAE/EPA/UL STANDARDS. CONSTRUCTION WORK SHALL ALSO COMPLY WITH APPLICABLE LOCAL CODES, LAWS, REGULATIONS, AND ORDINANCES. THE WORK SHALL COMPLY WITH CONTRACT DRAWINGS AND SPECIFICATIONS.
- THE RENOVATION AND ALTERATIONS OF MECHANICAL SYSTEMS SHALL BE IN COMPLIANCE WITH THE UNIFORM CONSTRUCTION CODE REHABILITATION SUBCODE UNDER NJAC 5.23-6.5 'RENOVATION' AND NJAC 5.23-6.6 'ALTERATIONS'.
- SHOULD CONFLICT BETWEEN CODES OR REFERENCES AND THE CONTRACT DRAWINGS OR SPECIFICATIONS BE OBSERVED BY THE CONTRACTOR, THE CODE OR REFERENCE SHALL BE REFERRED TO THE ENGINEER AND A WRITTEN OPINION BY THE ENGINEER SHALL BE OBTAINED.
- HOSPITAL AND HEALTH CARE FACILITIES SHALL COMPLY WITH THE AIA (AMERICAN INSTITUTE OF ARCHITECTS) GUIDELINES FOR DESIGN AND CONSTRUCTION OF HOSPITALS AND HEALTHCARE FACILITIES – 2018 EDITION.

PERMITS

- CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND SHALL ARRANGE ALL REQUIRED INSPECTIONS.

VERIFICATION OF SITE CONDITIONS

- CONTRACTOR SHALL VISIT SITE AND THOROUGHLY INVESTIGATE AND VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO SUBMISSION OF BID. SCHEDULE VISITS TO SITE WITH OWNER.

SHOP DRAWINGS

- SUBMIT SHOP DRAWINGS, WHICH SHALL BE COMPLETE IN ALL RESPECTS, INCORPORATING ALL INFORMATION REQUIRED FOR EVALUATION OF THE PROPOSED MECHANICAL SYSTEMS' COMPLIANCE WITH THE CONTRACT DOCUMENTS. PARTIAL, INCOMPLETE OR ILLEGIBLE SUBMISSIONS WILL BE RETURNED TO THE CONTRACTOR WITHOUT REVIEW FOR RESUBMITTAL.

COORDINATION DRAWINGS

- DUCTWORK AND PIPING LAYOUTS ARE SCHEMATIC DIAGRAMS AND ARE INTENDED TO SHOW GENERAL ARRANGEMENT, SIZE, AND CAPACITY, AND DO NOT INDICATE WHICH PIPE OR DUCT IS ABOVE, OR BELOW THE OTHER. ALL OFFSETS ARE NOT NECESSARILY SHOWN. CONTRACTOR SHALL ARRANGE AND COORDINATE THE WORK, FURNISH NECESSARY OFFSETS, VENTS AND FITTINGS TO AVOID CONFLICT WITH OTHER MECHANICAL AND ELECTRICAL SERVICES AND STRUCTURAL AND ARCHITECTURAL ELEMENTS WITHOUT ADDITIONAL COST TO THE OWNER. IF AREAS OF CONFLICT ARE ENCOUNTERED THE ENGINEER SHALL BE NOTIFIED AND THE CONTRACTOR'S RECOMMENDATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE WORK IS BEGUN.

CLEANLINESS OF WORK AREAS

- THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN ALL AREAS IN AND ABOUT THE WORK IN A NEAT AND SAFE CONDITION. THE CONTRACTOR SHALL REMOVE TRASH AND OTHER WASTE RESULTING FROM THE WORK FROM THE SITE. USE OF THE OWNER'S TRASH RECEPTACLES IS FORBIDDEN FOR DISPOSAL OF ANY REMOVALS, RUBBISH, OR WASTE RESULTING FROM WORK UNDER THIS CONTRACT.

CUTTING AND PATCHING

- CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED UNDER THIS CONTRACT, INCLUDING WORK FOR ROOF AND WALL PENETRATIONS OF PIPING AND DUCTWORK, CORE DRILLING

FLOOR SLABS FOR THE PENETRATION OF DUCT AND PIPE RISERS, AND DUE TO EQUIPMENT, PIPING, AND DUCTWORK REMOVALS. SEAL OPENINGS WITH APPROVED MATERIALS TO MAINTAIN EXISTING FIRE RESISTANCE RATINGS OF STRUCTURE. SEAL ROOF AND EXTERIOR WALL OPENINGS WEATHER AND AIR TIGHT.

- PATCH ALL WALL, ROOF AND FLOOR OPENINGS AS NECESSARY DUE TO PIPING, DUCTWORK OR EQUIPMENT REMOVALS TO MATCH EXISTING ADJACENT CONSTRUCTION. PAINT WALLS AND CEILINGS TO MATCH ADJACENT EXISTING FINISHES.

DEMOLITION

- SEE GENERAL DEMOLITION NOTES.

COORDINATION

- COORDINATE THE FOLLOWING ITEMS WITH THE BUILDING'S ARCHITECTURAL AND STRUCTURAL ELEMENTS: ALL OPENINGS (FLOOR, WALL, AND ROOF), SUPPORTS (EQUIPMENT, PIPING, AND DUCTWORK), ROOF CURBS, CONCRETE PADS, AND CONCEALED MECHANICAL SYSTEMS IN WALL AND COLUMN ENCLOSURES.
- REFER TO THE ARCHITECT'S REFLECTED CEILING PLAN FOR FINAL LOCATION OF CEILING DIFFUSERS, RETURN AIR GRILLES, LIGHT FIXTURES AND SPRINKLER HEADS.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY MISCELLANEOUS STEEL FOR THE SUPPORT OF ALL EQUIPMENT SUSPENDED FROM SLAB OR STEEL. CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING CEILING JOISTS, ETC. PRIOR TO SUSPENDING EQUIPMENT. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, SHOP DRAWINGS AND DETAILS, INDICATING THE PROPOSED EQUIPMENT, PIPING AND DUCT SUPPORTING METHODS PRIOR TO INSTALLATION.

PLENUMS

- PLENUMS SHALL COMPLY WITH THE INTERNATIONAL MECHANICAL CODE/2021, SECTION 602.
- EXCEPT AS REQUIRED BY SECTIONS 602.2.1.1 THROUGH 602.2.1.5, MATERIALS EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

FIRESTOPPING

- ALL PIPE, DUCT, CONDUIT, AND CABLE PENETRATIONS OF FIRE-RESISTANCE-RATED WALLS AND HORIZONTAL ASSEMBLIES SHALL BE PROTECTED WITH APPROVED FIRESTOP SYSTEMS THAT COMPLY WITH ASTM E 814 AND UL 1479 AS MANUFACTURED BY HILTI, 3M (FIRE PROTECTION PRODUCTS DIVISION), JOHNS MANVILLE, OR APPROVED EQUAL. COMPLY WITH THE INSTALLATION REQUIREMENTS ESTABLISHED BY THE QUALIFIED TESTING AND INSPECTING AGENCY.

SEALANT (RADON)

- ALL PENETRATIONS IN FOUNDATION WALLS AND FLOORS INCLUDING SLAB PENETRATIONS SHALL BE SUBSTANTIALLY SEALED BY UTILIZING A NON-CRACKING POLYURETHANE OR SIMILAR CAULK, OR EQUIVALENT IN ORDER TO CLOSE OFF THE SOIL GAS (RADON) ENTRY ROUTES AS REQUIRED BY THE UNIFORM CONSTRUCTION CODE, SECTION 5:23 10.4 (b) 6.

OUTSIDE AND EXHAUST AIR OPENINGS

- ALL EXHAUST FAN DISCHARGES ARE TO BE LOCATED A MINIMUM OF 10'-0" (25'-0" FOR HEALTHCARE) FROM ALL NEW AND EXISTING OUTSIDE AIR INTAKES, LOT LINES, AND OTHER BUILDINGS.
- ALL NEW OUTSIDE AIR INTAKES SHALL BE LOCATED A MINIMUM OF 10'-0" (25'-0" FOR HEALTHCARE) FROM LOT LINES, OTHER BUILDINGS, EXHAUST FAN DISCHARGES, CHIMNEYS, FLUES, VENTS, PARKING AREAS, LOADING DOCKS, PLUMBING VENTS, AND ALL OTHER CONTAMINANT SOURCES.

LOUVERS

- PROVIDE LOUVERS WITH MINIMUM FREE AREA REQUIRED BY THE DRAWINGS OR AS REQUIRED BY THE UNIT MANUFACTURER, WHICHEVER IS GREATER (TO AVOID EXCESSIVE PRESSURE DROPS AND RAIN WATER PENETRATION FOR INTAKE APPLICATIONS).

INSULATION (GENERAL)

- CONTRACTOR SHALL FURNISH AND INSTALL INSULATION ON ALL NEW PIPING AND DUCTWORK, AND REPLACE EXISTING PIPE AND DUCTWORK INSULATION DAMAGED DUE TO THE IMPLEMENTATION OF THIS CONTRACT.
- ALL EXISTING DUCTWORK WHICH IS BEING REUSED SHALL BE STRIPPED OF EXISTING INSULATION AND REINSULATED AS SPECIFIED FOR NEW DUCTWORK.
- CONTRACTOR SHALL PROVIDE AND INSTALL PIPE AND DUCT IDENTIFICATION MARKERS ON ALL AREAS OF HIS WORK.

DUCT INSULATION AND LININGS -- GENERAL

- DUCT COVERINGS AND LININGS, INCLUDING ADHESIVES WHEN USED, SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX NOT MORE THAN 50, WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
- DUCT COVERINGS AND LININGS SHALL NOT FLAME, GLOW, SMOLDER, OR SMOKE WHEN TESTED IN ACCORDANCE WITH ASTM C 411 AT THE TEMPERATURE TO WHICH THEY ARE EXPOSED IN SERVICE. THE TEST TEMPERATURE SHALL NOT FALL BELOW 250 DEGREES F.
- DUCT COVERINGS SHALL NOT PENETRATE A WALL OR FLOOR REQUIRED O HAVE A FIRE-RESISTANCE RATING OR REQUIRED TO BE FIREBLOCKED.
- LININGS SHALL BE INTERRUPTED AT THE AREA OF OPERATION OF A FIRE DAMPER AND A MINIMUM OF 6 INCHES UPSTREAM OF AND 6 INCHES DOWNSTREAM OF ELECTRIC-RESISTANCE AND FUEL-BURNING HEATERS IN A DUCT SYSTEM. METAL NOSINGS OR SLEEVES SHALL BE INSTALLED OVER EXPOSED DUCT LINER EDGES THAT FACE OPPOSITE THE DIRECTION OF AIRFLOW.
- SERVICE OPENINGS SHALL NOT BE CONCEALED BY DUCT COVERINGS UNLESS THE EXACT LOCATION OF THE OPENING IS PROPERLY IDENTIFIED.
- INSULATE ALL SUPPLY, RETURN AND OUTSIDE AIR INTAKE DUCTWORK AND PLENUMS. PROVIDE SUITABLE VAPOR BARRIER FOR ALL OUTSIDE INTAKE AND AIR CONDITIONING SUPPLY DUCTWORK AND PLENUMS.

DUCT LINING

- DUCT SIZES ARE MINIMUM CLEAR INSIDE AREAS REQUIRED AND DO NOT TAKE INTO ACCOUNT LINERS OF ANY TYPE. WHERE DUCTS ARE INDICATED TO BE LINED, ADJUST SIZES ACCORDINGLY.
- LINE THE FIRST 15 FEET OF ALL DUCTWORK UP AND DOWNSTREAM OF EQUIPMENT WITH A FAN (INCLUDING SUPPLY, RETURN, AND EXHAUST FANS) FOR SOUND ATTENUATION. LINE THE DISCHARGE DUCTWORK OF ALL VARIABLE AIR VOLUME BOXES FOR SOUND ATTENUATION (INCLUDING AFTER THE MANUFACTURER'S LINED DISCHARGE PLENUM BOX ACCESSORY IF PROVIDED).
- ACOUSTICAL DUCT LINER SHALL BE 1" THICK (UNLESS INDICATED OTHERWISE) FIBERGLASS BONDED WITH A DARK THERMOSETTING RESIN. THE AIRSTREAM SURFACE SHALL BE PROTECTED WITH A DURABLE ACRYLIC POLYMER COATING (RESISTANT TO DUST AND DIRT) WITH AN IMMOBILIZED, EPA-REGISTERED, ANTI-MICROBIAL AGENT THAT WILL NOT SUPPORT THE GROWTH OF FUNGUS AND BACTERIA (TESTED IN ACCORDANCE WITH ASTM G21 AND ASTM G22).
- PRIOR TO INSTALLATION OR HANGING OF LINED DUCTWORK, CONTRACTOR SHALL NOTIFY ENGINEER WHEN LINED DUCTWORK IS ON SITE FOR INSPECTION OF APPLICATION OF DUCT LINER. ALL LINED DUCTWORK MUST BE CONSTRUCTED IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, AND THE LINER MANUFACTURER'S WRITTEN STANDARDS. SUB-STANDARD WORK WILL BE REJECTED.

PIPE INSULATION -- GENERAL

- PIPE INSULATION SHALL BE TESTED IN THE COMPOSITE FORM IN ACCORDANCE WITH ASTM E 84 AND SHALL HAVE A MAXIMUM FLAME SPREAD INDEX OF 25 AND A SMOKE-DEVELOPED INDEX NOT EXCEEDING 50. INSULATION INSTALLED IN AN AIR PLENUM SHALL COMPLY WITH SECTION THE INTERNATIONAL MECHANICAL CODE/2021, SECTION 602.2.1.

- INSULATE ALL STEAM, STEAM CONDENSATE, HEATING HOT WATER, CHILLED WATER, COLD WATER MAKEUP, REFRIGERANT, AND AIR CONDITIONING COOLING COIL CONDENSATE DRAIN PIPING SYSTEMS. INSULATION SHALL BE INSTALLED AS A COMPLETE SYSTEM INCLUDING VALVES, FITTINGS, STRAINERS, ETC.

- PROVIDE SUITABLE VAPOR BARRIER FOR ALL CHILLED WATER PIPING, COLD WATER MAKEUP, AIR CONDITIONING COIL CONDENSATE DRAIN PIPING, REFRIGERANT, AND ANY INSULATED OUTDOOR PIPING WATER SYSTEM.

PIPING (GENERAL)

- ALL PIPING, EXCEPT LOCATED IN MECHANICAL ROOMS SHALL BE ORGANIZED NEATLY AND KEPT TIGHT TO WALLS AND CEILING WITH STANDARD CLEARANCE FOR FUTURE FURRING BY GENERAL CONTRACTOR. PERFORM ALL CUTTING AND PATCHING NECESSARY TO MAINTAIN FIRE RESISTANT RATINGS OF EXISTING CONDITIONS.
- PROVIDE FURRING FOR ALL PIPE RISERS RUNNING UP WALL AND ALL HORIZONTAL RUNS AT CEILING AND AS LOCATED ON DRAWINGS USING 5/8" GYPSUM BOARD, TAPED AND SPACKLED COMPLETE, ATTACHED TO 3-5/8" METAL STUDS 16" ON CENTER AND ON CONTINUOUS STEEL BOTTOM TRACK RUNNER ANCHORED RIGIDLY. PROVIDE CONTINUOUS METAL DRYWALL CORNER BEAD. PAINT TO MATCH ADJACENT WALL FINISH.
- PERFORM ALL CUTTING AND PATCHING NECESSARY TO MAINTAIN FIRE RESISTANT RATINGS OF EXISTING CONDITIONS.
- FURNISH AND INSTALL PIPE SLEEVES PASSING THROUGH INTERIOR WALLS. SLEEVES SHALL BE STEEL PIPE: ASTM A 53, TYPE E, GRADE A, SCHEDULE 40, GALVANIZED, PLAIN ENDS, LENGTH EQUAL TO WIDTH OF WALL.
- PIPING SHALL NOT CROSS OVER DEDICATED SPACE REQUIRED FOR ELECTRICAL PANELS AND CONDUIT RUNS.

HYDRONIC PIPING

- PROVIDE A SHUT-OFF VALVE ON SUPPLY PIPE AND A COMBINATION BALANCING SHUT-OFF VALVE ON RETURN PIPE AT ALL BRANCH PIPING CONNECTIONS SERVING MORE THAN ONE PIECE OF EQUIPMENT OR BRANCH PIPING GREATER THAN 100 FEET SERVING ONE PIECE OF EQUIPMENT.
- ALL BRANCH TAKE-OFFS FROM PIPING MAINS SHALL BE MADE OF A MINIMUM OF THREE 90-DEGREE ELBOWS TO ACCOMMODATE EXPANSION AND CONTRACTION OF BOTH THE MAIN LINES AND THE BRANCH TAKE-OFFS.
- FOR ANY RENOVATION OR DEMOLITION WORK TO AN EXISTING HYDRONIC SYSTEM, ALL OR PART OF THE SYSTEM MUST BE DRAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIAL, LABOR, AND COSTS ASSOCIATED WITH REFILLING, AIR REMOVAL, AND REBALANCING THE SYSTEM.

REFRIGERANT PIPING

- REFRIGERANT PIPING SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL MECHANICAL CODE/2021, CHAPTER 11, SECTION 1107.
- REFRIGERANT PIPING SHALL BE OF SIZES AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER FOR COMPLETE AUTOMATIC OPERATION OF THE REFRIGERANT CYCLE, AND INSTALLED IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICE AS RECOGNIZED BY THE AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE 15).
- REFRIGERANT PIPING INDICATED IS SCHEMATIC ONLY. CONTRACTOR SHALL SIZE AND DESIGN THE LAYOUT AND INSTALLATION OF THE PIPING, INCLUDING OIL TRAPS, DOUBLE RISERS, SPECIALTIES, AND PIPE AND TUBE SIZES, TO ENSURE PROPER OPERATION AND CONFORMANCE WITH THE WARRANTIES OF CONNECTED EQUIPMENT.

METAL DUCTWORK

- ALL DUCTWORK SHALL BE IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS – METAL AND FLEXIBLE" AND SMACNA "ROUND INDUSTRIAL DUCT CONSTRUCTION STANDARDS", AS APPROPRIATE.
- DUCTWORK SHALL NOT CROSS OVER DEDICATED SPACE REQUIRED FOR ELECTRICAL PANELS AND CONDUIT RUNS.
- NEW DUCTWORK CLEANING
- ALL DUCTWORK ON PROJECT SHALL BE SHIPPED, STORED AND INSTALLED TO AN 'INTERMEDIATE LEVEL' AS DESCRIBED IN THE SMACNA 2000 STANDARD 'DUCT CLEANLINESS FOR NEW CONSTRUCTION GUIDELINES'. THIS INCLUDES, BUT NO LIMITED, TO THE FOLLOWING:
 - DUCTS SHALL NOT BE REQUIRED TO BE WIPED DOWN BY MFG
 - DUCTS SHALL NOT REQUIRED TO BE SHIPPED WITH PROTECTION
 - ALL RISERS SHALL BE COVERED IMMEDIATELY AFTER ANY WORK
 - THE AREA PROVIDED FOR STORAGE SHALL BE CLEAN, DRY AND EXPOSED TO MINIMAL DUST
 - WORK AREA SHALL BE CLEAN AND DRY AND PROTECTED FROM THE ELEMENTS
 - INTERNAL SURFACES SHALL BE WIPED TO REMOVE EXCESS DUST IMMEDIATELY PRIOR TO INSTALLATION
- OPEN ENDS ON COMPLETED DUCTWORK AND OVERNIGHT WORK IN PROGRESS SHALL BE SEALED

FLEXIBLE DUCT

- FLEXIBLE DUCT SHALL NOT BE USED ON RETURN OR EXHAUST DUCTWORK.
- FLEXIBLE DUCT SHALL BE SUPPORTED AT INTERVALS NO GREATER THAN TWO FEET. ANY HANGER OR SADDLE MATERIAL IN CONTACT WITH THE FLEXIBLE DUCT SHALL BE A MINIMUM OF ONE INCH WIDE. FLEXIBLE DUCT SHALL ONLY BE USED AS A BRANCH TAKE-OFF TO A SINGLE DIFFUSER ON SUPPLY DUCTWORK. MAXIMUM LENGTH OF RUN SHALL BE FIVE LINEAR FEET. VOLUME DAMPERS SHALL BE INSTALLED AT ALL BRANCH TAKE-OFFS FROM TRUNK DUCT.
- FLEXIBLE DUCTWORK SHALL NOT BE INSTALLED ABOVE SHEETROCK OR OTHER PERMANENT CEILINGS.
- FLEXIBLE DUCTWORK SHALL NOT BE INSTALLED ON EXPOSED DUCTWORK.
- FLEXIBLE DUCT 'FLEXFLOW ELBOW SUPPORTS', AS MANUFACTURED BY FLEXIBLE TECHNOLOGIES, INC. OR APPROVED EQUAL, SHALL BE INSTALLED AT EACH FLEXIBLE DUCT CONNECTION TO EACH DIFFUSER. IN LIEU OF THIS FLEXIBLE ELBOW SUPPORT, RIGID DUCTWORK ELBOWS MAY BE PROVIDED.

MECHANICAL DEMOLITION NOTES

SCOPE OF DEMOLITION WORK

- CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY TO COMPLETE ALL REMOVALS AND RENOVATION WORK AS SHOWN ON THE CONTRACT DRAWINGS AND AS CALLED FOR IN THE SPECIFICATIONS. THE WORK SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING:
 - DISCONNECT, DEMOLISH, AND REMOVE ALL EXISTING DUCTWORK, PIPING, INSULATION, EQUIPMENT, AND OTHER ASSOCIATED ITEMS AS SHOWN ON THE PLANS.
 - CAPPING ALL EXISTING PIPING NOT BEING REUSED (AT THE MAINS OR). WHERE REMOVAL OF PIPING LEAVES OPEN CONNECTIONS, PROVIDE SCREWED CAPS OR PLUGS OR WELDED CAPS OF THE SAME MATERIAL AS THE PIPING BEING CAPPED TO CLOSE SUCH CONNECTIONS.
 - CAPPING ALL EXISTING DUCTWORK NOT BEING REUSED (AT THE MAINS). DUCT OPENINGS SHALL BE CAPPED WITH LIKE MATERIAL AND SEALED AIRTIGHT WITH MASTIC. THE USE OF DISSIMILAR MATERIALS IS UNACCEPTABLE
 - CONTRACTOR SHALL INSULATE DUCT CAPS AND PIPE CAPS TO MATCH THE EXISTING INSULATION.
 - PROVIDE INSULATED CURB CAPS FOR ALL REMOVED ROOF FANS, ROOFTOP UNITS, ETC. INSULATED CURB CAPS SHALL BE BRACED FROM BELOW AND SHALL BE CAPABLE OF WITH STANDING LIVE LOAD. CONTRACTOR SHALL CAP AND SEAL ALL OTHER OPENINGS CREATED BY THE REMOVAL OF ROOFTOP HVAC EQUIPMENT. PROVIDE NECESSARY FLASHING AND COORDINATE WITH ROOFING CONTRACTOR AND/OR EXISTING ROOF GUARANTEE.
 - CONTRACTOR SHALL PROVIDE ADDITIONAL HANGERS AND OTHER SUPPORTS AS REQUIRED BY THE REMOVAL OF EXISTING PIPING AND/OR DUCTWORK. ALL REMAINING PIPING AND/OR DUCTWORK SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATIONS.
 - CONTRACTOR SHALL REMOVE HVAC EQUIPMENT'S ASSOCIATED CONCRETE PADS AND SUPPORTS.

VERIFICATION OF FIELD CONDITIONS

- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION, SIZE, AND DIMENSIONS OF EXISTING EQUIPMENT, PIPING, DUCTWORK, AND ACCESSORIES, LOCATIONS SHOWN ARE APPROXIMATE, NOT ALL EXISTING PIPING, DUCTWORK AND EQUIPMENT ARE SHOWN ON DRAWINGS.
- CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND DIMENSIONS OF EXISTING EQUIPMENT, PIPING, DUCTWORK AND ACCESSORIES IN FIELD PRIOR TO PREPARATION OF DETAILED SHOP DRAWINGS AND ANY REMOVALS AND RELOCATIONS.

SEQUENCING & SCHEDULING OF DEMOLITION

- ALL EXISTING MECHANICAL SYSTEMS NOT RELATED TO NEW CONSTRUCTION SHALL REMAIN IN SERVICE UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL COORDINATE ALL REQUIRED REMOVALS AND RELOCATIONS OF MECHANICAL SYSTEMS IN THE EXISTING BUILDING, RELATED TO NEW CONSTRUCTION, AS SHOWN ON CONTRACT DRAWINGS. INCLUDING RELOCATIONS, REMOVALS AND RE-ROUTING OF ANY EXISTING EQUIPMENT THAT INTERFERES WITH INSTALLATION OF THE NEW EQUIPMENT. COORDINATE IN ADVANCE AND OBTAIN OWNERS APPROVAL FOR THESE RELOCATIONS, EITHER TEMPORARY OR PERMANENT.
- CONTRACTOR SHALL REMOVE EXISTING PARTITIONS, CEILING TILES AND SUPPORTS AS NECESSARY TO PERFORM REMOVALS AND NEW INSTALLATION IN EXISTING AREAS. REINSTALL EXISTING AND REPLACE THOSE DAMAGED DUE TO THE NEW WORK.

COORDINATION WITH OWNER

- THE CONTRACTOR SHALL CAREFULLY INSPECT ALL AREAS INVOLVED WITH REMOVALS AND PROVIDE THE PROPER COORDINATION AND MANPOWER REQUIRED FOR AN EFFICIENT OPERATION WITHOUT INTERFERING WITH THE BUILDING FUNCTION.
- CONTRACTOR SHALL COORDINATE THE REMOVAL AND DELIVERY OF EQUIPMENT AND MATERIALS DESIRED BY THE OWNER TO AN ON-SITE LOCATION DESIGNATED BY THE OWNER. ALL OTHER REMOVED EQUIPMENT AND MATERIALS NOT DESIRED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM THE SITE.

DISPOSAL OF MATERIALS REMOVED

- THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL DEBRIS RESULTING FROM DEMOLITION WORK AND CONSTRUCTION FOR THIS PROJECT. THIS WILL INCLUDE, BUT NOT BE LIMITED TO PROVISIONS FOR PORTABLE CONTAINERS (DUMPSTERS) AND ALL CARTAGE AND DUMPING FEES.
- THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN ALL AREAS IN AND ABOUT THE WORK AREA IN A NEAT AND SAFE CONDITION. TRASH AND OTHER WASTE RESULTING FROM THE WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. USE OF THE OWNER'S TRASH RECEPTACLES IS FORBIDDEN FOR DISPOSAL OF ANY REMOVALS, RUBBISH, OR WASTE RESULTING FROM WORK UNDER THIS CONTRACT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFE DISPOSAL AT HIS COST IN ACCORDANCE WITH ANY APPLICABLE STATE OR FEDERAL REGULATION.
- REMOVAL, RECLAMATION AND DISPOSAL OF REFRIGERANT SHALL BE IN ACCORDANCE WITH NJDEP REGULATIONS. THE CONTRACTOR SHALL COMPLY WITH SECTION 608 OF THE CLEAN AIR ACT, WHICH IS AN EPA REGULATION TO LIMIT THE RELEASES OF ENVIRONMENTALLY HARMFUL REFRIGERANTS INTO THE ENVIRONMENT DURING THE MAINTENANCE, SERVICE, REPAIR OR DISPOSAL OF AIR CONDITIONING AND REFRIGERATION EQUIPMENT TO THE "LOWEST ACHIEVABLE LEVEL".

DAMAGES

- THE CONTRACTOR SHALL EXERCISE SPECIAL CARE NOT TO DAMAGE ANY OF THE OWNERS' FACILITIES OR EQUIPMENT WHILE PERFORMING CONSTRUCTION WORK. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE THAT OCCURS.
- ANY EXISTING OR NEW CONSTRUCTION THAT IS DAMAGED DURING THE COURSE OF THE MECHANICAL WORK SHALL BE RESTORED TO ITS ORIGINAL CONDITION BY THE MECHANICAL CONTRACTOR.
- CONTRACTOR SHALL PROVIDE AND INSTALL NEW INSULATION FOR ALL EXISTING DUCT AND PIPE INSULATION THAT IS DAMAGED DUE TO THE IMPLEMENTATION OF THIS CONTRACT.

CUTTING & PATCHING

- CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED UNDER THIS CONTRACT, INCLUDING WORK DUE TO EQUIPMENT, PIPING, AND DUCTWORK REMOVALS TO MATCH ADJACENT CONSTRUCTION.
- PATCH AND SEAL OPENINGS WITH APPROVED MATERIALS TO MAINTAIN EXISTING FIRE AND/OR SMOKE RESISTANCE RATINGS OF THE EXISTING STRUCTURE.
- SEAL ROOF AND EXTERIOR WALL OPENINGS WEATHER AND AIR TIGHT.
- PATCH ALL WALL, ROOF AND FLOOR OPENINGS AS NECESSARY DUE TO PIPING, DUCTWORK, OR EQUIPMENT REMOVALS TO MATCH EXISTING ADJACENT CONSTRUCTION.

RESTORING SURFACE FINISHES

- WHERE CONCRETE PADS ARE REMOVED OR ATTACHMENTS TO FLOORS, WALLS, AND CEILINGS ARE REMOVED, THE FLOORS, WALLS, AND CEILINGS SHALL BE PATCHED AND FINISHED AS NECESSARY TO PROVIDE A SMOOTH FINISHED SURFACE, INCLUDING PAINT, TO MATCH THE ADJACENT FINISHES OF THE SURROUNDING AREA.

CONTROLS

- REMOVE CONTROLS, WHICH DO NOT REMAIN AS PART OF THE BUILDING AUTOMATION SYSTEM, ALL ASSOCIATED ABANDONED WIRING AND CONDUIT, AND ALL ASSOCIATED PNEUMATIC TUBING. THE OWNER WILL INFORM THE CONTRACTOR OF ANY EQUIPMENT, WHICH IS TO BE REMOVED, THAT WILL REMAIN THE PROPERTY OF THE OWNER. ALL OTHER EQUIPMENT, WHICH IS REMOVED, WILL BE DISPOSED OF BY THE CONTRACTOR.



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SHEET CONTENTS:

MECHANICAL NOTES
SHEET NO. 1

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS

80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

10.09.2026 ISSUED FOR BID

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M-001

<u>DUCT ACCESSORIES</u>	5. IN A BUILDING CLASSIFIED AS SEISMIC CATEGORY C ALL COMPONENTS WITH AN IMPORTANCE FACTOR OF 1.0, SEISMIC ISOLATION IS NOT REQUIRED. INSTALL ONLY VIBRATION ISOLATION AS SPECIFIED.
1. PROVIDE FIRE DAMPERS IN ALL FIRE RATED PARTITIONS AS REQUIRED BY THE INTERNATIONAL BUILDING CODE/2021 AND THE INTERNATIONAL MECHANICAL CODE/2021, SECTION 607. 2. FIRE DAMPERS SHALL BEAR LABEL PER UL STANDARD 555, AND MEET ALL UL AND NFPA REQUIREMENTS FOR PRIMARY FIRE DAMPERS. FIRE DAMPER FRAMES SHALL BE SMACNA TYPE B, WITH RETRACTED BLADES OUT OF AIRSTREAM. 3. PROVIDE AN ACCESS DOOR AT ALL FIRE DAMPER LOCATIONS. ACCESS DOORS SHALL BE A MINIMUM OF 12" x 12" UNLESS DUCT IS SMALLER. ACCESS DOOR LOCATIONS SHALL BE PERMANENTLY IDENTIFIED ON THE EXTERIOR BY A LABEL HAVING MINIMUM ½ INCH LETTERING READING "FIRE DAMPER" IN ACCORDANCE WITH IBC-2021, SECTION 716.4. 4. PROVIDE COMBINATION FIRE/SMOKE DAMPERS IN ALL SMOKE BARRIERS AS REQUIRED BY THE INTERNATIONAL BUILDING CODE/2021, SECTIONS 709, 710, AND 716. 5. COMBINATION FIRE/SMOKE DAMPERS SHALL BEAR UL LABEL AND BE CLASSIFIED UNDER UL555S LEAKAGE CLASS 1. SMOKE DAMPERS SHALL ALSO COMPLY WITH THE INTERNATIONAL MECHANICAL CODE/2021, SECTION 607. 6. PROVIDE AN ACCESS DOOR AT ALL COMBINATION FIRE/SMOKE DAMPER LOCATIONS. ACCESS DOORS SHALL BE A MINIMUM OF 12" x 12" UNLESS DUCT IS SMALLER. ACCESS DOOR LOCATIONS SHALL BE PERMANENTLY IDENTIFIED ON THE EXTERIOR BY A LABEL HAVING MINIMUM ½ INCH LETTERING READING "SMOKE DAMPER" IN ACCORDANCE WITH IBC-2009, SECTION 716.4. 7. PROVIDE NEW VOLUME DAMPERS IN EXISTING DUCTWORK WHERE INDICATED ON THE DRAWINGS AND WHERE NEW DUCTWORK CONNECTS TO EXISTING. UNLESS SPECIFICALLY NOTED TO BE OMITTED, PROVIDE VOLUME DAMPERS IN ALL NEW DUCT BRANCHES. BALANCE VOLUME DAMPERS AND EXISTING DIFFUSERS FOR AIR QUANTITIES SHOWN ON DRAWING. PROVIDE ACCESS DOORS IN CEILINGS OF OTHER THAN SUSPENDED CEILING CONSTRUCTION. 8. PROVIDE VOLUME DAMPER AT ALL OUTLET BRANCHES TO DIFFUSERS AND REGISTERS AS WELL AS PROVIDING AN OPPOSED-BLADE VOLUME DAMPER IN ALL AIR REGISTERS AND DIFFUSERS. PROVIDE ACCESS DOORS OR CABLE OPERATED DAMPERS IN CEILINGS OF OTHER THAN SUSPENDED CEILING CONSTRUCTION. 9. ALL MECHANICAL COMPONENTS LOCATED BEHIND WALLS/CHASES/HARD CEILINGS REQUIRING ACCESS SHALL BE PROVIDED WITH METAL ACCESS PANELS AT WALL/CEILING SURFACES. THESE COMPONENTS SHALL INCLUDE BUT NOT BE LIMITED TO VALVES, ACTUATORS, VOLUME DAMPERS, AND CONTROL DAMPERS. ACCESS DOOR SHALL MATCH FIRE RATING OF WALL/CHASE. COORDINATE FULL REQUIREMENTS WITH ARCHITECT. MINIMUM DOOR SIZE SHALL BE 8x8 FOR HAND/ARM ACCESS AND 16x16 FOR HEAD/ARM ACCESS. 10. PROVIDE FLEXIBLE CONNECTORS AT ALL DUCT CONNECTIONS BETWEEN EQUIPMENT AND DUCTWORK TO PREVENT TRANSFER OF VIBRATION AND NOISE TO THE STRUCTURE. FLEXIBLE CONNECTORS SHALL BE GLASS FABRIC DOUBLE COATED WITH POLYCHLOROPRENE, FLAME RETARDANT, COMPLYING WITH UL STANDARD 181, CLASS 1.	6. IN A BUILDING CLASSIFIED AS SEISMIC CATEGORY "C", ALL COMPONENTS WITH AN IMPORTANCE FACTOR OF 1.5 OR GREATER SHALL BE SEISMICALLY BRACED. THIS INCLUDES LIFE SAFETY SYSTEMS, EQUIPMENT OR SYSTEM WITH HAZARDOUS/FLAMMABLE MATERIALS, REQUIRED OPERATION IN A GROUP III BUILDING, (IE MEDICAL/LIFE SUPPORT, EQUIPMENT ON EMERGENCY POWER, GAS-FIRED EQUIPMENT, HEATING SYSTEM IN AN EMERGENCY SHELTER INCLUDING BOILER, PIPING, PUMPS, AND FANS. REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS. 7. IN A BUILDING CLASSIFIED AS SEISMIC CATEGORY "D", "E" OR "F" ALL SYSTEMS SHALL BE SEISMICALLY BRACED AS PER THE SPECIFICATION. <u>DUCT SMOKE DETECTORS</u> 1. DUCT MOUNTED SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR, AND INSTALLED BY THE MECHANICAL CONTRACTOR. 2. SMOKE DETECTORS SHALL BE INSTALLED IN RETURN AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2,000 CFM, IN THE RETURN AIR DUCT OR PLENUM, UPSTREAM OF ANY FILTERS, EXHAUST AIR CONNECTIONS, OUTDOOR AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT AND APPLIANCES. 3. ACCESS (INCLUDING ACCESS DOORS) SHALL BE PROVIDED TO SMOKE DETECTORS FOR INSPECTION AND MAINTENANCE. 4. UPON ACTIVATION, THE SMOKE DETECTOR SHALL SHUT DOWN THE AIR DISTRIBUTION SYSTEM. AIR DISTRIBUTION SYSTEMS THAT ARE PART OF A SMOKE CONTROL SYSTEM SHALL SWITCH TO THE SMOKE CONTROL MODE UPON ACTIVATION OF A DETECTOR 5. THE DUCT SMOKE DETECTORS SHALL BE INTERCONNECTED TO A FIRE ALARM SYSTEM. <u>MISCELLANEOUS</u> 1. PRIOR TO COMMENCING NEW WORK INSTALLATIONS AS SHOWN ON CONTRACT DRAWINGS, CAREFULLY REMOVE EXISTING CEILING TILES AND TRACE OUT EXISTING DUCTWORK FOR VERIFICATION OF LOCATION, SIZES, OUTLET CONNECTIONS, AND CAPPED OR ALTERED BRANCHES. VISUALLY INSPECT DUCTWORK JOINTS FOR LEAKAGE. REMAKE JOINTS WHERE LEAKAGE IS EVIDENT USING WOVEN FIBER TAPE AND THERMOSETTING COMPOUND FOR A TIGHT AND PROPER SEAL. CHECK EXISTING DUCTWORK SYSTEMS FOR OBSTRUCTIONS, INCLUDING SPRUNG FIRE DAMPERS AND CLOSED VOLUME DAMPERS. INSPECT ALL AIR INLETS AND OUTLETS. FULLY OPEN ALL DAMPERS BEHIND ALL EXISTING DIFFUSERS AND REGISTERS. CONTRACTOR SHALL THOROUGHLY CLEAN AND VACUUM INTERIOR OF ALL EXISTING DUCT SYSTEMS BEING REUSED TO REMOVE DIRT AND DEBRIS. CLEAN FACES OF ALL EXISTING DIFFUSERS AND REGISTERS DUST-FREE. 2. CONTRACTOR SHALL VERIFY THAT EXISTING ROOF AND WALL OPENINGS AND LOUVERS ARE PROPERLY SEALED AND WEATHERPROOFED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NECESSARY WORK TO SEAL AND WEATHERPROOF EXISTING OPENINGS AND LOUVERS WITHIN THE PROJECT BOUNDARY. 3. WHENEVER OPENINGS ARE REQUIRED IN WALLS FOR DUCTS, APPARATUS, GRILLES, OR LOUVERS, THE CONTRACTOR SHALL PROVIDE A SUITABLE STRUCTURAL STEEL LINTEL TO SPAN THE OPENING. FOR NEW WORK, THE CONTRACTOR SHALL PROVIDE THE LINTEL AT THE TIME THE WALL IS UNDER CONSTRUCTION. LINTEL SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT THE LOAD AND MEET THE APPROVAL OF THE ARCHITECT, STRUCTURAL ENGINEER, OR OTHER APPROPRIATE CONSULTANT. INSTALLATION OF THE LINTEL SHALL BE COMPLETED BY A MASONRY CONTRACTOR EXPERIENCED WITH THIS TYPE OF WORK.
<u>DIFFUSERS, REGISTERS, AND GRILLES</u>	
1. CONTRACTOR SHALL COORDINATE LOCATION OF CEILING DIFFUSERS, REGISTERS, AND GRILLES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. 2. BALANCING DAMPERS SHALL BE INSTALLED IN THE BRANCH DUCTS OR AT EACH INDIVIDUAL DIFFUSER, REGISTER, OR GRILLE PER INTERNATIONAL MECHANICAL CODE/2021, SECTION 603.18.	
<u>TESTING & BALANCING</u>	
1. GENERAL: TESTING AND BALANCING OF AIR AND WATER SYSTEMS SHALL BE BY AN APPROVED FIRM QUALIFIED IN THOSE TESTING AND BALANCING DISCIPLINES SIMILAR TO THOSE REQUIRED FOR THIS PROJECT, WHO IS NOT THE INSTALLER OF THE SYSTEMS TO BE TESTED AND IS OTHERWISE INDEPENDENT OF THE PROJECT. THE BALANCING FIRM SHALL COMPLY WITH AABC "ASSOCIATED AIR BALANCE COUNCIL" OR NEBB "NATIONAL ENVIRONMENTAL BALANCING BUREAU" AS APPLICABLE TO MECHANICAL AIR AND WATER DISTRIBUTION SYSTEMS AND ASSOCIATED EQUIPMENT AND APPARATUS. 2. UNIFORM CONSTRUCTION CODE, CERTIFICATE OF OCCUPANCY REQUIREMENTS, N.J.A.C. 5:23-2.23 (h) 7; 3. APPLICATION: THE OWNER OR HIS AGENT SHALL FILE A WRITTEN APPLICATION FOR A CERTIFICATE OF OCCUPANCY WITH THE ENFORCING AGENCY. THE APPLICATION SHALL INCLUDE THE FOLLOWING: 4. A TEST AND BALANCE REPORT FOR MECHANICALLY VENTILATED CLASS I AND II BUILDINGS OF USE GROUP B AND E SUBMITTED BY A LICENSED PROFESSIONAL ENGINEER OR BY A TEST AND BALANCE PROFESSIONAL CERTIFIED BY THE ASSOCIATED AIR BALANCE COUNCIL OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU. THE SIGNED REPORT SHALL INCLUDE: 4.1. MINIMUM QUANTITY OF OUTDOOR AIR REQUIRED BY CODE; 4.2. MINIMUM QUANTITY OF OUTDOOR AIR SPECIFIED IN THE DESIGN; 4.3. ACTUAL MEASURED OUTDOOR AIR CUBIC FEET/MINUTE (CFM) OR A DERIVED QUANTITY IF ACTUAL MEASUREMENT IS NOT POSSIBLE; 4.4. ACTUAL MEASURED TOTAL CFM.	5. ELECTRICAL PANEL CLEARANCES 1. CONTRACTOR SHALL INSTALL DUCTWORK AND PIPING SO AS NOT TO ENCROACH ON REQUIRED CLEARANCES ABOVE ELECTRICAL PANELS. NO DUCTWORK OR PIPING SHALL BE INSTALLED DIRECTLY OVER ELECTRICAL PANEL AND NO DUCTWORK OR PIPING SHALL BE INSTALLED WITH THE BOTTOM AT LESS THAN 6'-6" ABOVE THE 4'-0" SPACE DIRECTLY IN FRONT OF ANY ELECTRICAL PANELS. <u>BUILDING EXPANSION COORDINATION</u> 1. THE CONTRACTOR SHALL FURNISH AND INSTALL EXPANSION DEVICES AT ALL LOCATIONS WHERE THERE IS A BUILDING EXPANSION JOINT OR A CONNECTION OF AN ADDITION TO AN EXISTING BUILDING. FOR DUCTWORK, THE DEVICE SHALL BE A FLEXIBLE CONNECTOR. FOR PIPING THE DEVICE SHALL BE AN EXPANSION LOOP OR SLIP-STYLE EXPANSION DEVICE.
<u>VIBRATION ISOLATION, SEISMIC & WIND RESTRAINTS</u>	
1. AS DESCRIBED BELOW AND IN THE SPECIFICATION, MECHANICAL SYSTEMS SHALL BE INSTALLED WITH WIND & SEISMIC RESTRAINTS AND VIBRATION ISOLATORS TO PREVENT THE TRANSMISSION OF VIBRATION AND MECHANICALLY TRANSMITTED SOUND TO THE BUILDING STRUCTURE. WIND & SEISMIC RESTRAINTS AND VIBRATION ISOLATORS SHALL BE SELECTED IN ACCORDANCE WITH THE SPECIFICATIONS AND ON ACTUAL WEIGHT DISTRIBUTION OF THE EQUIPMENT FURNISHED, SO AS TO PRODUCE REASONABLY UNIFORM DEFLECTION. DEFLECTIONS SHALL BE AS NOTED ON THE EQUIPMENT SHOP DRAWING SUBMITTALS. 2. ALL WIND & SEISMIC RESTRAINTS AND VIBRATION ISOLATORS WILL BE IN STRICT ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE/2021 ASCE7/2016. THE MANUFACTURER OF THE WIND & SEISMIC RESTRAINTS AND VIBRATION CONTROL EQUIPMENT WILL DESIGN AND CALCULATE THE WIND & SEISMIC RESTRAINTS AND VIBRATION ISOLATORS TYPES, SIZES, LOCATIONS, DEFLECTIONS, DEAD LOADS, ANCHORING METHODS, BOLT DIAMETERS, EMBEDMENT AND WELD LENGTHS BASED ON ACTUAL EQUIPMENT BEING INSTALLED. THIS MANUFACTURER WILL SUBMIT THESE CALCULATIONS STAMPED AND APPROVED BY A PROFESSIONAL MECHANICAL ENGINEER, AS PART OF THE WIND & SEISMIC RESTRAINTS AND VIBRATION ISOLATORS SHOP DRAWINGS. ALSO SUBMIT SEISMIC DESIGN ERRORS AND OMISSIONS INSURANCE CERTIFICATE AS PART OF THIS SHOP DRAWING. THE MANUFACTURER WILL PROVIDE INSTALLATION INSTRUCTIONS, DRAWINGS, DETAILS, AND FIELD SUPERVISION AS NOTED IN SPECIFICATION. 3. ALL EQUIPMENT, PIPING, AND DUCTWORK SHALL BE PROVIDED WITH WIND & SEISMIC RESTRAINTS AND VIBRATION ISOLATORS AS DESCRIBED IN THE SPECIFICATIONS ACCORDING TO THE WIND DESIGN SPEED AND SEISMIC DESIGN CATEGORY OF THE SITE LISTED BELOW: DESIGN WIND SPEED: 115 MPH SITE CLASSIFICATION : D SEISMIC RISK CATEGORY : II SEISMIC DESIGN CATEGORY : B 4. IN A BUILDING CLASSIFIED AS SEISMIC CATEGORY "A" OR "B" SEISMIC ISOLATION IS NOT REQUIRED. INSTALL ONLY VIBRATION ISOLATION AS SPECIFIED.	<u>CONNECTIONS (NEW TO EXISTING OR EXISTING TO NEW)</u> 1. WHERE NEW EQUIPMENT IS INDICATED TO BE "RECONNECTED" TO EXISTING WIRING, PIPING, DUCTWORK OR OTHER PART OF AN EXISTING ELECTRICAL OR MECHANICAL SYSTEM THE CONTRACTOR SHALL MODIFY OR EXTEND THE EXISTING SYSTEM COMPONENTS AS REQUIRED TO MEET THE CONNECTION POINT OF THE NEW ITEM. THE CONTRACTOR SHALL USE MATERIALS AND METHODS THAT MATCH THE EXISTING SYSTEM, OR AS SPECIFIED FOR NEW WORK, WHICHEVER IS MORE SUITABLE FOR THE APPLICATION. 2. WHERE EXISTING EQUIPMENT IS SHOWN TO BE "CONNECTED" OR "RECONNECTED" TO NEW WIRING, PIPING, DUCTWORK, ETC, THE CONTRACTOR SHALL FABRICATE AND INSTALL THE NEW SYSTEM CONNECTIONS TO MATCH THE CONNECTION POINTS AND OTHER REQUIREMENTS OF THE EXISTING EQUIPMENT. WHERE THE EXISTING EQUIPMENT MUST BE REMOVED AND REINSTALLED TO FACILITATE THE REMOVAL OF THE OLD CONNECTIONS AND/OR THE CONNECTION OF THE NEW MATERIAL, THAT WORK SHALL BE A PART OF THIS CONTRACT.

1. THE AUTOMATIC TEMPERATURE CONTROL (ATC) SYSTEM SHALL BE AN EXTENSION OF THE FACILITIES EXISTING. DDC CONTROL SYSTEM NETWORK COMPRISED OF STAND ALONE BACNET DIRECT DIGITAL CONTROL (DDC) PANELS FOR AUTOMATIC UNATTENDED OPERATION OF THE NEW HVAC EQUIPMENT.
2. THE SYSTEM DESIGN SHALL INCLUDE THE CAPACITY TO SUPPORT 15% ADDITIONAL POINTS.
3. ACCESS SHALL BE PROVIDED AT A MINIMUM OF FOUR LEVELS:: LEVEL 4-ONLY READ ACCESS, LEVEL 3-OCCUPIED/UNOCCUPIED AND ROOM TEMPERATURE RANGES, LEVEL 2-FULL USER INPUT CHANGES, LEVEL 1-PROGRAMMING. COORDINATE EXACT PERMISSION REQUIREMENTS WITH FACILITY PERSONNEL.
4. THE OWNER SHALL BE PROVIDED WITH FULL OWNERSHIP AND ACCESS TO THE ATC SYSTEM AT COMPLETION OF PROJECT. THIS SHALL INCLUDE ALL SOFTWARE, PROGRAMMING INTERFACE, PASSWORDS AND PROGRAMMING DISK. NOTE NO PART OF THE SYSTEM SHALL BE LICENSED OR CONTROLLED BY THE ATC CONTRACTOR.
5. THE CONTROL SYSTEM SHALL INCLUDE REMOTE WEB-BASED ACCESS AND LOCAL COMPUTER DISPLAYS LOCATED IN THE FACILITY MANAGEMENT OFFICE. GRAPHICS PACKAGE SHALL SHOW FLOOR PLAN AND EQUIPMENT SCHEMATICS WITH COLOR-CODED INDICATION SHOWING ALARM/WARNING. ALL DESIGN VALUES THAT ARE USER-ADJUSTABLE. ROOM SET POINT, SHALL BE HARD CODED TO DISPLAY ON SCREEN ALLOWING FOR EASY REFERENCE. WORKSTATION TO INCLUDE: 32" LED SCREEN, KEYBOARD, MOUSE AND PRINTER.
6. SECURED OFFSITE REAL-TIME BACKUP SHALL BE PROVIDED FOR ALL PROGRAMMING, FUNCTIONS AND SETPOINTS TO ENABLE REMOTE OPERATION IN THE EVENT OF LOCAL FAILURE OF THE HOST COMPUTER.
7. THE ATC SYSTEM SHALL BE INSTALLED BY COMPETENT MECHANICS REGULARLY EMPLOYED BY THE CONTROL SYSTEM MANUFACTURER OR AN APPROVED AUTHORIZED AGENT WITH FULL RESPONSIBILITY FOR PROPER OPERATION OF THE CONTROL SYSTEM INCLUDING DEBUGGING AND PROPER CALIBRATION OF EACH COMPONENT IN THE ENTIRE SYSTEM.
8. ATC CONTRACTOR SHALL THOROUGHLY EXAMINE ALL PROJECT CONTRACT DOCUMENTS AND INSPECT THE SITE, IF APPLICABLE, FOR CONTROL DEVICE AND EQUIPMENT LOCATIONS TO VERIFY THAT EQUIPMENT CAN BE INSTALLED AS SHOWN.
9. ALL EQUIPMENT, INSTALLATION, RACEWAYS, CONTROL AND INTERLOCK WIRING, SHALL COMPLY WITH ACCEPTABLE INDUSTRY STANDARDS FOR PERFORMANCE, RELIABILITY, AND COMPATIBILITY AND SHALL BE EXECUTED IN STRICT ADHERENCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
10. ALL EQUIPMENT SHALL BE PROVIDED WITH A HAND-AUTO-OFF SWITCH. ALL SAFETY DEVICES SHALL BE WIRED SO THEY STOP THE MOTOR WITH THE HAND-OFF-AUTO SWITCH IN THE HAND AS WELL AS THE AUTO POSITION. THIS WILL NORMALLY MEAN BREAKING THE COMMON WIRE FROM THE HAND-OFF-AUTO SWITCH TO THE STARTER'S HOLDING COIL THROUGH THE SAFETY DEVICES.
11. THE ATC CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY PROGRAMMING AND COORDINATION WITH EQUIPMENT MANUFACTURERS TO ACCOMMODATE THE NEW MECHANICAL EQUIPMENT. PROVIDE COLOR, ON SCREEN GRAPHICS SHOWING ALL AVAILABLE CONTROL INPUTS, EQUIPMENT STATUS, AND ADJUSTABLE SETTINGS.
12. THE ATC CONTRACTOR SHALL PROVIDE ALL REQUIRED PROGRAMMING AND SCHEDULING OF THE ATC SYSTEM. COORDINATE EQUIPMENT SCHEDULES, OPERATING CHARACTERISTICS, ETC. WITH THE BUILDING OWNER.
13. PROVIDE ALL REQUIRED EQUIPMENT CONTROLLERS, RELAYS, CURRENT SENSORS, SPACE SENSORS, DUCT SENSORS, SWITCHES, DAMPERS, VALVES, ACTUATORS, INTERCONNECTING WIRING, CONDUIT, ENCLOSURES, ETC. FOR A COMPLETE AND OPERATIONAL INSTALLATION.
14. THE CONTROL SEQUENCES DESCRIBE ALL NECESSARY EQUIPMENT OPERATION INCLUDING THOSE OPERATIONS THAT ARE PROVIDED BY THE HVAC EQUIPMENT MANUFACTURERS AND THOSE AS PART OF THE CENTRAL CONTROL SYSTEM. REFER TO INDIVIDUAL EQUIPMENT SPECIFICATIONS FOR DEVICES PROVIDED BY THE HVAC EQUIPMENT MANUFACTURERS. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO PROVIDE A FULLY COORDINATED AND OPERATIONAL CONTROL SYSTEM.
15. WHERE THE ATC IS INTERFACING WITH AN UNIT'S INTERNAL CONTROLLER THE ATC CONTRACTOR SHALL CONFIRM THAT THE UNIT WILL BE ABLE TO OPERATE AS REQUIRED IN THE SEQUENCE AND SUBMIT THE MANUFACTURER'S LITERATURE (SEQUENCE AND COMPONENT DIAGRAM) WITH THE ATC SHOP DRAWING AND O&M MANUALS. THE CONTRACTOR SHALL PROVIDE LISTING OF ALL AVAILABLE BACNET POINTS FOR EACH PIECE OF MECHANICAL EQUIPMENT. THE LISTING WILL BE USED BY THE OWNER TO INDICATE WHICH DATA POINTS SHALL BE REPORTED AT THE BMS FRONT END. ANY DEVICES NOT INCLUDED AS PART OF FACTORY INSTALLED COMPONENTS SHALL BE PROVIDED/INSTALLED BY ATC.
16. ATC CONTRACTOR SHALL SUBMIT ENGINEERED SHOP DRAWINGS AND MANUFACTURER'S SPECIFICATION DATA SHEETS FOR ALL HARDWARE AND SOFTWARE TO BE PROVIDED. NO WORK SHALL BEGIN ON ANY SEGMENT OF THIS PROJECT UNTIL THE ENGINEER AND OWNER HAVE REVIEWED THE SUBMITTALS FOR CONFORMITY WITH THE PLANS AND SPECIFICATIONS.
17. ALL THERMOSTATS LOCATED IN COMMON/PUBLIC SPACES, WHETHER PROVIDED BY THE HVAC EQUIPMENT MANUFACTURER OR THE CONTROLS MANUFACTURER SHALL BE PROVIDED WITH MATCHING LOCKING METAL COVERS BY THE CONTROLS MANUFACTURER IN ORDER TO PREVENT UNAUTHORIZED TAMPERING AND VANDALISM.
18. ALL ZONE EQUIPMENT (I.E. FCU, VAV, SINGLE ZONE ERU, RTU) TO BE PROVIDED WITH LOCAL ADJUSTABLE THERMOSTAT. DEVICE TO INCLUDE WARMER/COLDER SLIDER, ATC ADJUSTED ALLOWABLE SETPOINT RANGE AND OVERRIDE BUTTON.
19. WHERE NOTED ON PLANS 24V CONTROL DEVICES SHALL BE POWERED FROM TRANSFORMERS INSTALLED WITHIN THE ATC CONTROL PANEL.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL 120V AND 24V POWER NEEDS FOR CONTROL DEVICES. ALL ATC POWER TO BE CONNECTED TO EMERGENCY CIRCUITS (WHERE APPLICABLE)
21. ALL EXPOSED CONTROL WIRING LOCATED IN UNFINISHED SPACE (MECHANICAL ROOMS), WITHIN WALL CAVITIES OR ABOVE INACCESSIBLE CEILING (DRYWALL CEILING) SHALL BE INSTALLED IN APPROPRIATELY SIZED E.M.T.
22. WIRING LOCATED ABOVE ACCESSIBLE CEILING TO BE SUPPORTED FROM CABLE TRAY OR J-HOOKS. WIRING SHALL NOT BE SUPPORTED FROM CEILING STRUCTURE. NO WIRING SHALL BE INSTALLED IN WIREMOLD UNLESS SPECIFICALLY NOTED ON PLANS OR APPROVED BY OWNER/ARCHITECT AT SPECIFIC LOCATIONS
23. ALL POWER WIRING SHALL BE INSTALLED IN APPROPRIATELY SIZED E.M.T. INSTALLATION OF ALL ELECTRICAL DEVICES AND WIRING SHALL FOLLOW WIRING METHODS SPECIFIED ON THE ELECTRICAL CONTRACT DRAWINGS AND SPECIFICATIONS.
24. MECHANICAL CONTRACT WORK WILL INCLUDE ALL CONTROL WIRING. POWER SUPPLY WIRING TO ALL ACTUATORS (VALVES, DAMPERS, ETC.), INCLUDING LOW VOLTAGE TRANSFORMERS, SHALL BE PROVIDED AS PART OF THE MECHANICAL CONTRACT.
25. INSTALL ALL EQUIPMENT IN READILY ACCESSIBLE LOCATIONS.
26. WHERE CLASS 2 WIRES ARE IN CONCEALED AND ACCESSIBLE LOCATIONS INCLUDING CEILING RETURN AIR PLENUMS, APPROVED CABLES, NOT IN RACEWAY MAY BE USED, PROVIDED THAT: CIRCUITS MEET NEC CLASS 2 (CURRENT LIMITED) REQUIREMENTS; LOW-VOLTAGE POWER CIRCUITS SHALL BE SUB-FUSED WHEN REQUIRED TO MEET CLASS 2 CURRENT LIMIT; ALL CABLES SHALL BE UL LISTED FOR APPLICATION, I.E. CABLES USED IN CEILING PLENUMS SHALL BE UL LISTED SPECIFICALLY FOR THAT PURPOSE.
27. INSTALL WIRING IN SLEEVES WHERE IT PASSES THROUGH WALLS AND FLOORS. MAINTAIN FIRE RATING AT ALL PENETRATIONS IN ACCORDANCE WITH SPECIFICATIONS AND LOCAL CODES. SLEEVES SHALL HAVE NYLON RINGS AT EACH END TO PROTECT WIRING JACKET.
28. WHERE WIRING IS RUN IN EXPOSED RACEWAYS, SUCH AS IN MECHANICAL EQUIPMENT ROOMS, WIRING SHALL BE IN EMT, RUN PARALLEL TO THE SURFACE OR PERPENDICULAR TO IT. CONTROL WIRING IN WET OR EXTERIOR LOCATIONS SHALL BE IN WEATHERPROOF EMT
29. SHOP DRAWINGS SHALL BE COMPLETE WITH POINT-TO-POINT TERMINATION WIRING DIAGRAMS, SYSTEM SEQUENCES OF OPERATION, AND ALL SYSTEM HARDWARE AND MODEL NUMBER TECHNICAL DATA SHEETS.
30. PROJECT RECORD DOCUMENTS: UPON COMPLETION OF THE INSTALLATION, SUBMIT THREE (3) COPIES OF PROJECT DRAWINGS AND OPERATING & MAINTENANCE (O&M) MANUALS. THESE SHALL BE THE "AS-BUILT" VERSIONS OF THE APPROVED SUBMITTAL SHOP DRAWINGS AND THE PRODUCT DATA LITERATURE.
31. ATC COMPONENTS AND LABOR FURNISHED BY THIS SECTION SHALL BE WARRANTED TO BE FREE FROM DEFECTS FOR A PERIOD OF TWELVE MONTHS AFTER SUBSTANTIAL COMPLETION. BAS FAILURES DURING THE WARRANTY PERIOD SHALL BE ADJUSTED, REPAIRED, OR REPLACED AT NO CHARGE TO THE OWNER.
32. UPON NOTIFICATION OF THE OWNER'S REQUEST FOR WARRANTY SERVICE, THE BAS MANUFACTURER MUST ATTEMPT TO RECTIFY THE PROBLEM VIA TELEPHONE, WITHIN (8) HOURS OF NOTIFICATION. IF UNABLE TO RESOLVE VIA TELEPHONE, THE BAS MANUFACTURER SHALL RESPOND TO THE SITE WITHIN (24) HOURS OF THE ORIGINAL CALL AT NO CHARGE, DURING THE WARRANTY PERIOD.
33. ALL PRODUCTS USED FOR THIS INSTALLATION SHALL BE THE LATEST VERSION OFFERED BY THE MANUFACTURER AND REPLACEMENT PARTS SHALL BE AVAILABLE FOR AT LEAST 5 YEARS AFTER COMPLETION OF THIS CONTRACT.
34. PROVIDE TWO SESSIONS OF (8) HOURS OF ON-SITE TRAINING, WHICH SHALL BE COMPLETED WITHIN 30 DAYS OF PROJECT COMPLETION. THE OBJECTIVE IS TO ALLOW OWNER DESIGNATED PERSONNEL TO RECEIVE HANDS-ON TRAINING IN ORDER TO PROFICIENTLY OPERATE THE SYSTEM. EACH SESSION SHALL BE VIDEOTAPED AND COPIES SHALL BE SUBMITTED TO THE DISTRICT ON A DVD OR OTHER MEDIA AS REQUESTED BY THE OWNER.
35. CONTROL SYSTEM SHALL NOT BE DEEMED ACCEPTED AS MEETING THE REQUIREMENTS OF COMPLETION, UNTIL ALL SYSTEMS HAVE BEEN SHOWN TO PERFORM, TO THE SATISFACTION OF BOTH THE ENGINEER AND OWNER. ANY TEST THAT CANNOT BE PERFORMED DUE TO CIRCUMSTANCES BEYOND THE CONTROL OF THE ATC CONTRACTOR MAY BE EXEMPTED FROM THE COMPLETION REQUIREMENTS ONLY IF PERMITTED, IN WRITING, BY THE OWNER. SUCH TESTS SHALL THEN BE PERFORMED AS PART OF THE WARRANTY.



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MECHANICAL NOTES
SHEET NO. 2

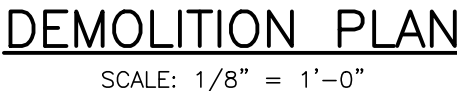
**MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**

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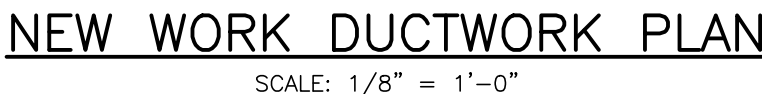
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Job No.	2241895
Drawing No.	

M-002



KEY PLAN
SCALE: NTS



MECHANICAL PLAN GENERAL NOTES	
#	NOTES:
1	THE EXACT MOUNTING HEIGHTS AND LOCATIONS OF ALL HVAC EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL OTHER MECHANICAL, ELECTRICAL, ARCHITECTURAL, AND STRUCTURAL SYSTEMS.
2	VERIFY ALL EQUIPMENT VOLTAGES WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING ANY EQUIPMENT.
3	PROVIDE DISCONNECT SWITCHES FOR ALL HVAC EQUIPMENT.
4	PROVIDE PHASE LOSS PROTECTION FOR ALL POLY-PHASE MOTOR DEVICES.
5	ALL CEILING MOUNTED EQUIPMENT MUST BE SUPPORTED DIRECTLY FROM THE SLAB ABOVE WITH COMBINATION SPRINGS AND NEOPRENE-IN-SHEAR HANGERS AND ROD.
6	LOCATE MECHANICAL EQUIPMENT SO ALL SERVICEABLE PARTS ARE ACCESSIBLE. COORDINATE LOCATION WITH PIPING, THE WORK OF OTHER TRADES, ETC. SO THAT THE MANUFACTURER'S AND CODE REQUIRED CLEARANCES ARE MET OR EXCEEDED.
7	UNLESS OTHERWISE NOTED, ALL SUPPLY AND RETURN DUCTWORK 15 FT. UPSTREAM AND DOWNSTREAM OF AIR HANDLING UNITS SHALL BE INTERNALLY LINED WITH 1" THICK ACOUSTICAL DUCT LINER.
8	EXHAUST DUCTS SHALL BE PROVIDED WITH 1.5" EXTERNAL DUCT WRAP INSULATION A MINIMUM OF 10 FEET FROM THE EXTERIOR PENETRATION OR TO THE MOTORIZED DAMPER.
9	CONTRACTOR TO SUBMIT FULL COORDINATION DRAWINGS TO SHOW EXACT LOCATION OF DUCTWORK AND LIGHT FIXTURES.



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LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. 24GE05120300

SHEET CONTENTS:

MECHANICAL DEMOLITION AND DUCTWORK PLAN

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING
FIRST FLOOR
IMPROVEMENTS
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

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M-100



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SHEET CONTENTS:

MECHANICAL PIPING PLAN

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

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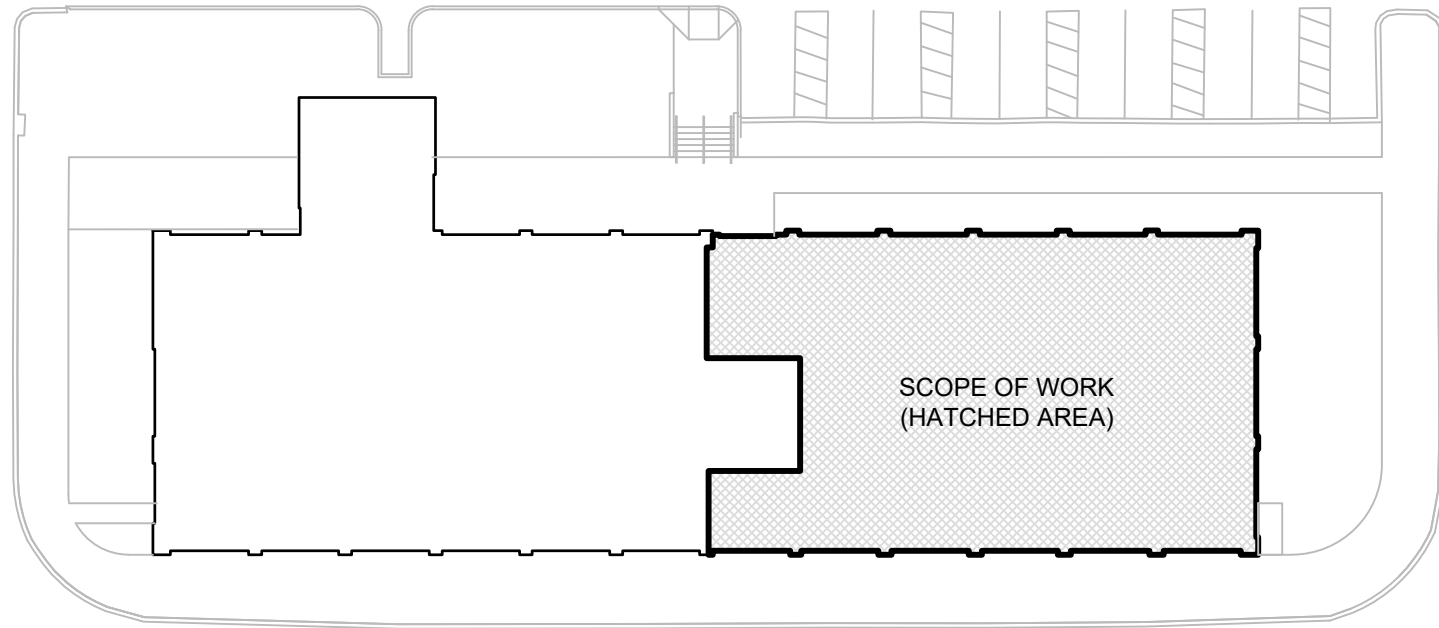
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Job No. 2241895

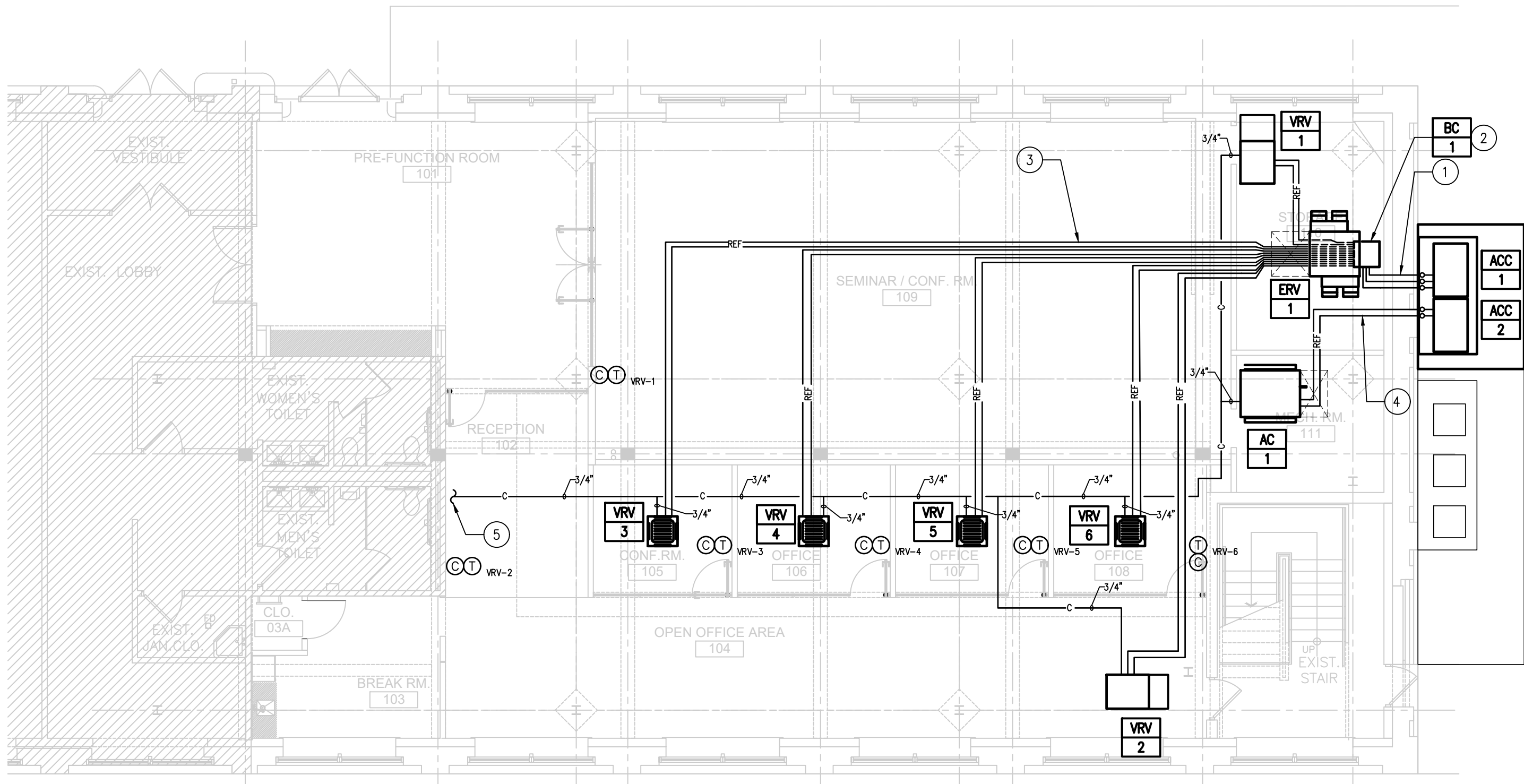
Drawing No.

M-101



KEY PLAN

SCALE: NTS



PIPING PLAN

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

PIPING PLAN KEYNOTES

#	NOTES:
1	CONTRACTOR SHALL FURNISH AND INSTALL INSULATED COPPER REFRIGERANT PIPING FROM EACH BRANCH CONTROLLER TO ITS RESPECTIVE VRF HEAT RECOVERY UNIT. REFRIGERANT PIPE SIZING AND LAYOUT BY EQUIPMENT MANUFACTURER.
2	CONTRACTOR SHALL FURNISH AND INSTALL A BRANCH SELECTOR TO CONTROL THE DESIGNATED INDOOR AC UNITS.
3	CONTRACTOR SHALL FURNISH AND INSTALL INSULATED COPPER REFRIGERANT PIPING FROM EACH BRANCH CONTROLLER TO ITS RESPECTIVE CEILING HUNG INDOOR UNIT. REFRIGERANT PIPE SIZING AND LAYOUT BY EQUIPMENT MANUFACTURER.
4	CONTRACTOR SHALL FURNISH AND INSTALL INSULATED COPPER REFRIGERANT PIPING FROM THE OUTDOOR CONDENSING UNIT TO THE CEILING HUNG OA PROCESSING UNIT.
5	CONDENSATE DRAIN TO EXISTING JANITOR'S CLOSET MOP SINK. ROUTE CONDENSATE DOWN TO TERMINATE 1" ABOVE EDGE OF SINK

PIPING PLAN GENERAL NOTES

#	NOTES:
1	THE EXACT MOUNTING HEIGHTS AND LOCATIONS OF ALL HVAC EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL OTHER MECHANICAL, ELECTRICAL, ARCHITECTURAL, AND STRUCTURAL SYSTEMS.
2	VERIFY ALL EQUIPMENT VOLTAGES WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING ANY EQUIPMENT.
3	PROVIDE DISCONNECT SWITCHES FOR ALL HVAC EQUIPMENT.
4	PROVIDE PHASE LOSS PROTECTION FOR ALL POLY-PHASE MOTOR DEVICES.
5	ALL CEILING MOUNTED EQUIPMENT MUST BE SUPPORTED DIRECTLY FROM THE SLAB ABOVE WITH COMBINATION SPRING AND NEOPRENE-IN-SHEAR HANGERS AND ROD.
6	LOCATE MECHANICAL EQUIPMENT SO ALL SERVICEABLE PARTS ARE ACCESSIBLE. COORDINATE LOCATION WITH PIPING, THE WORK OF OTHER TRADES, ETC. SO THAT THE MANUFACTURER'S AND CODE REQUIRED CLEARANCES ARE MET OR EXCEEDED.
7	THE CONTRACTOR SHALL VERIFY THE EXACT SIZE OF PIPING BASED ON THE ACTUAL INSTALLED PIPING, FITTINGS, EQUIPMENT, ETC. WITH THE VRF EQUIPMENT MANUFACTURER. ALL FITTINGS, TAKEOFFS, FLARES, VALVES, SPECIALTIES, ETC. SHALL BE APPROVED BY THE VRF SYSTEM MANUFACTURER AND SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. PROVIDE CONTINUOUS NITROGEN PURGE DURING ALL BRAZING TO PREVENT SCALE FORMATION.
8	CONDENSATE DRAIN PIPING SHALL BE 1" UNLESS OTHERWISE NOTED. PROVIDE TRAP IN ACCORDANCE WITH TRAP PIPING DETAIL.



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STATE OF NJ LICENSE No. 24GE05120300

SHEET CONTENTS:

MECHANICAL DETAIL
SHEET NO. 1

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

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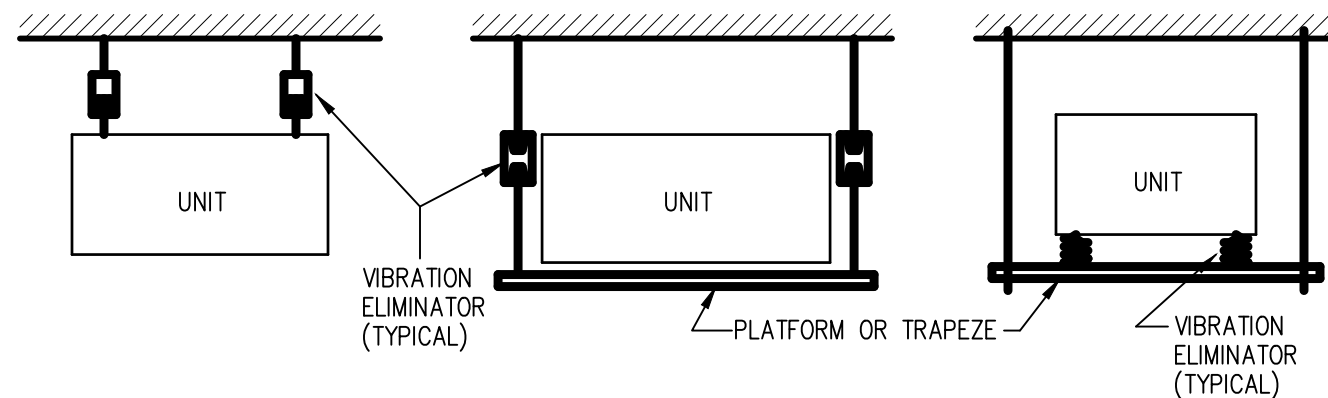
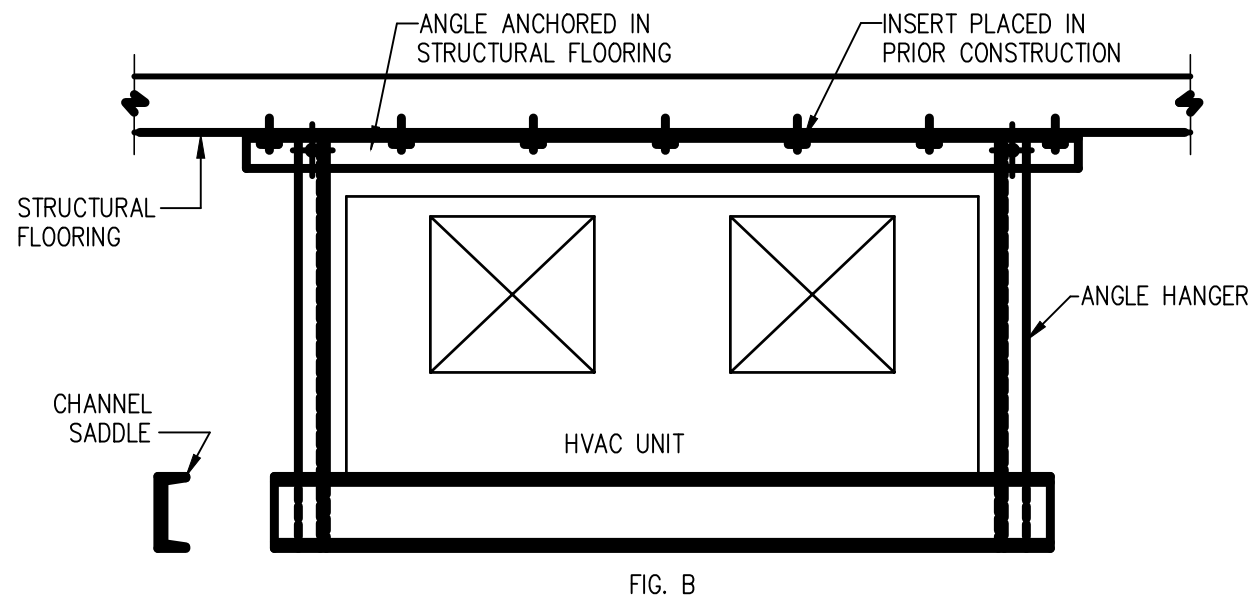
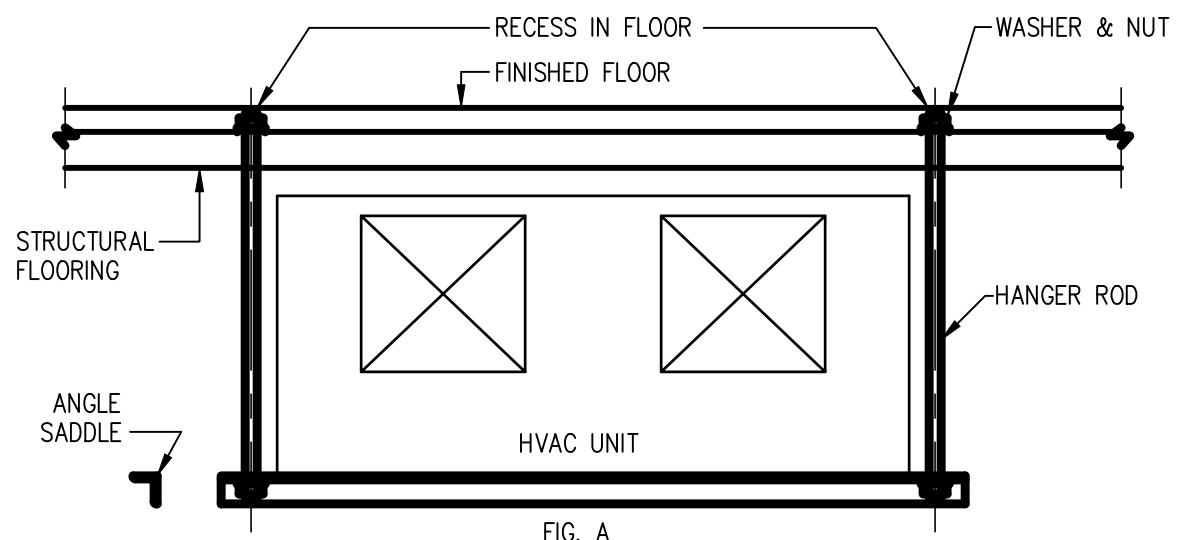
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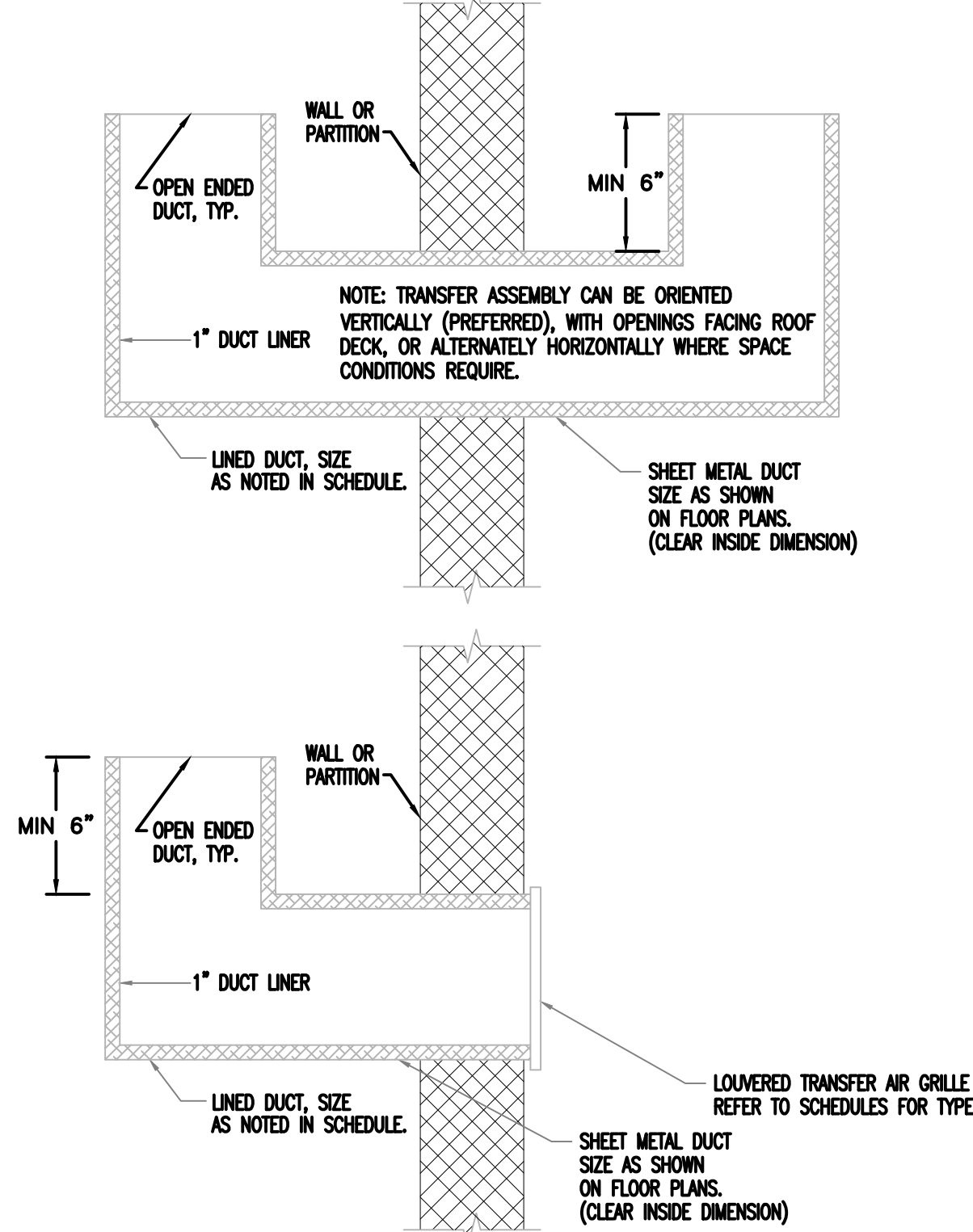
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M-200



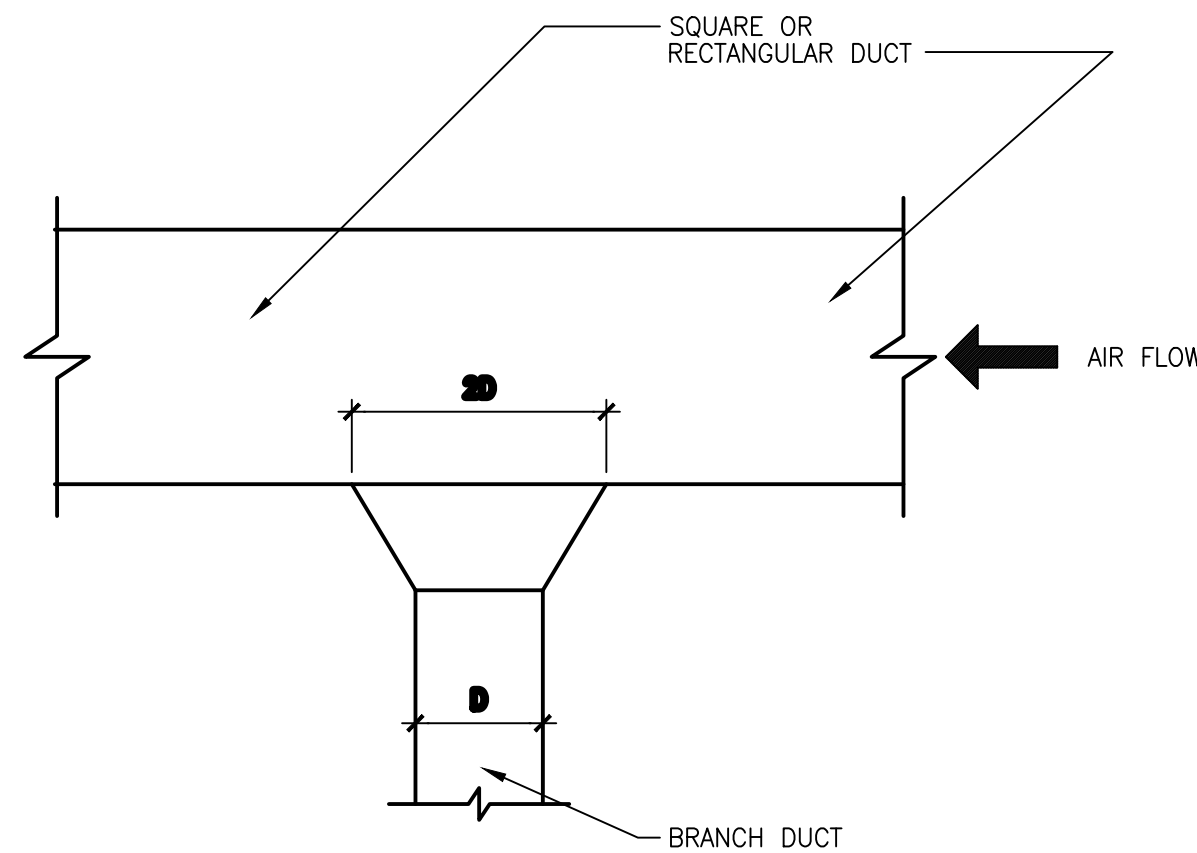
M-1

TYPICAL HVAC UNIT SUSPENSION DETAIL
NOT TO SCALE



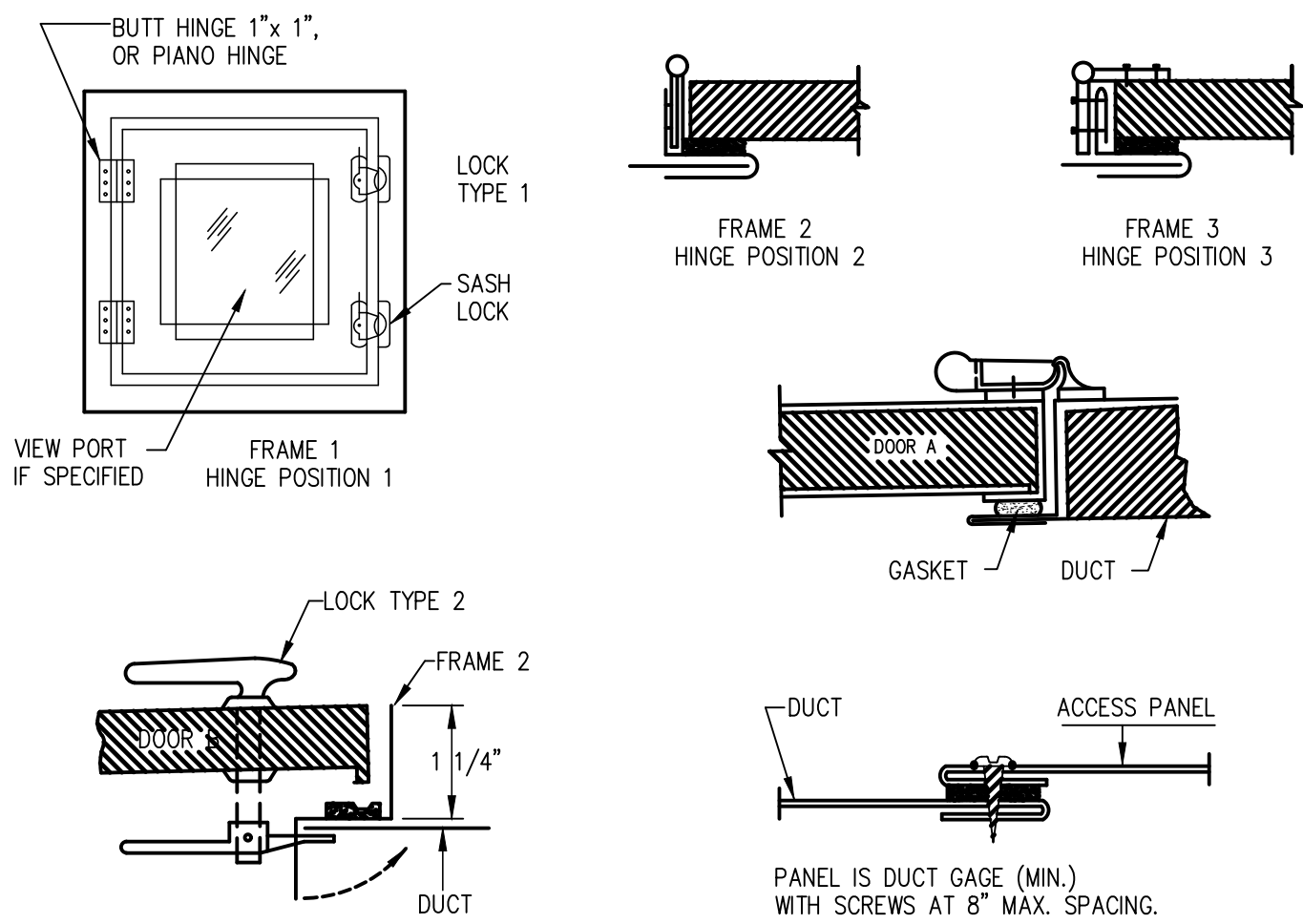
M-2

TRANSFER DUCT DETAIL
NOT TO SCALE



45° BELLMOUTH TAKE-OFF FITTING
NOT TO SCALE

M-3

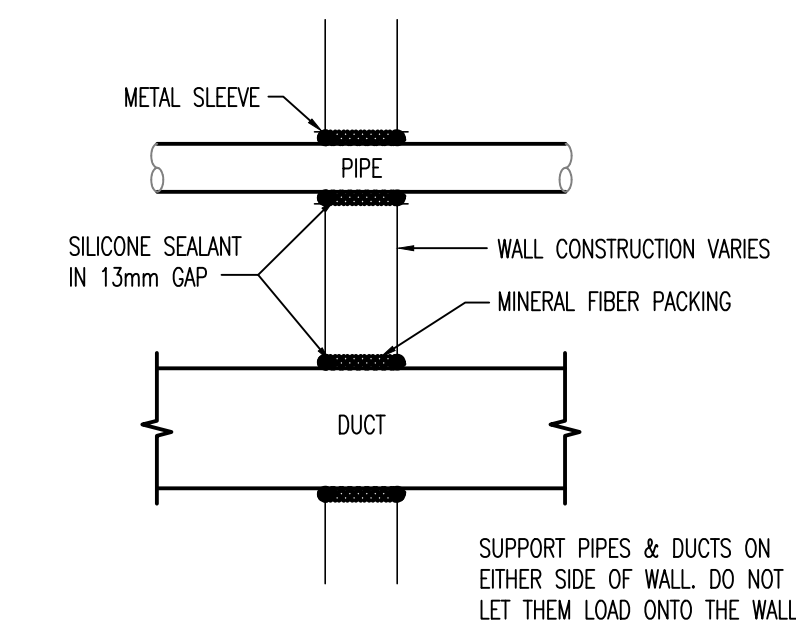


	DOOR SIZE	No. HINGES	No. LOCKS	METAL GAGE		
				FRAME	DOOR	BACK
2" W.G. STATIC AND LESS	12" x 12"	2	1-S	24	26	26
	16" x 20"	2	2-S	22	24	26
	24" x 24"	3	2-S	22	22	26
3" W.G. STATIC	12" x 12"	2	1-S	22	22	26
	16" x 20"	2	1-S, 1-T, 1-B	20	20	26
	24" x 24"	3	2-S, 1-T, 1-B	20	20	24
4" W.G. TO 10" W.G.	12" x 12"	2	1-S, 1-T, 1-B	20	20	26
	16" x 20"	3	2-S, 1-T, 1-B	20	18	24
	24" x 24"	3	2-S, 2-T, 2-B	18	18	24

S = SIDE OPPOSITE HINGES, T = TOP, B = BOTTOM
CONSTRUCTION AND AIRTIGHTNESS MUST BE SUITABLE FOR THE DUCT PRESSURE CLASS USED.

M-4

DUCT ACCESS DOORS
NOT TO SCALE

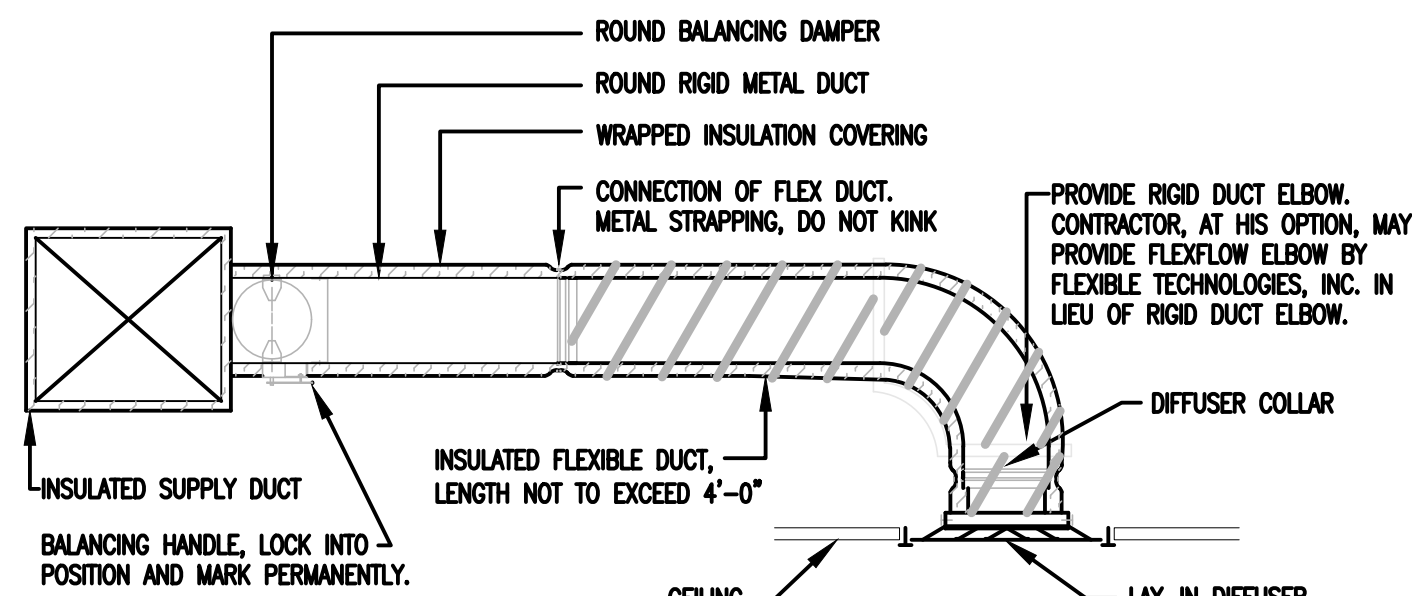


WALL PENETRATIONS:
WHEN DUCTWORK OR PIPING PENETRATES A WALL, THE PENETRATION SHOULD BE MADE THROUGH A SLEEVE WITH THE DUCT OR PIPE FLOATING INSIDE THE SLEEVE WITH A RESILIENT SEALANT FILLING THE GAP.

ACOUSTICAL WALL AND PIPE
PENETRATION DETAIL
NOT TO SCALE

AUDITORIUM DUCT DESIGN TABLE				
NC-25	TERMINAL SLOT SPEED	NEAREST 10 FEET OF DUCT	NEXT 10 FEET OF DUCT	NEXT 10 FEET OF DUCT
SUPPLY	350	425	550	700
RETURN	425	500	650	800

M-5



NOTES:

1. PROVIDE AT FLEXIBLE DUCT CONNECTION METAL OR "PANOUT" DRAWBAND ON THE INTERIOR FLEXIBLE DUCT HELIX. SECURE THE INSULATION OVER THE DRAW BAND WITH AN ADDITIONAL DRAWBAND.
2. PROVIDE BEADING ON ROUND METAL DUCT 12" OR LARGER IN DIAMETER.
3. PROVIDE MINIMUM 2" COLLARS FOR ATTACHMENT OF THE FLEX DUCT TO ROUND DUCT, DAMPERS AND DIFFUSERS.
4. BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.

DIFFUSER DUCT CONNECTION
& BRANCH TAKE-OFF DETAIL
NOT TO SCALE

M-6

MARY ELAINE DASTI, PE
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STATE OF NJ LICENSE No. 24GE05120300

SHEET CONTENTS:

MECHANICAL DETAIL
SHEET NO. 2

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

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M-201

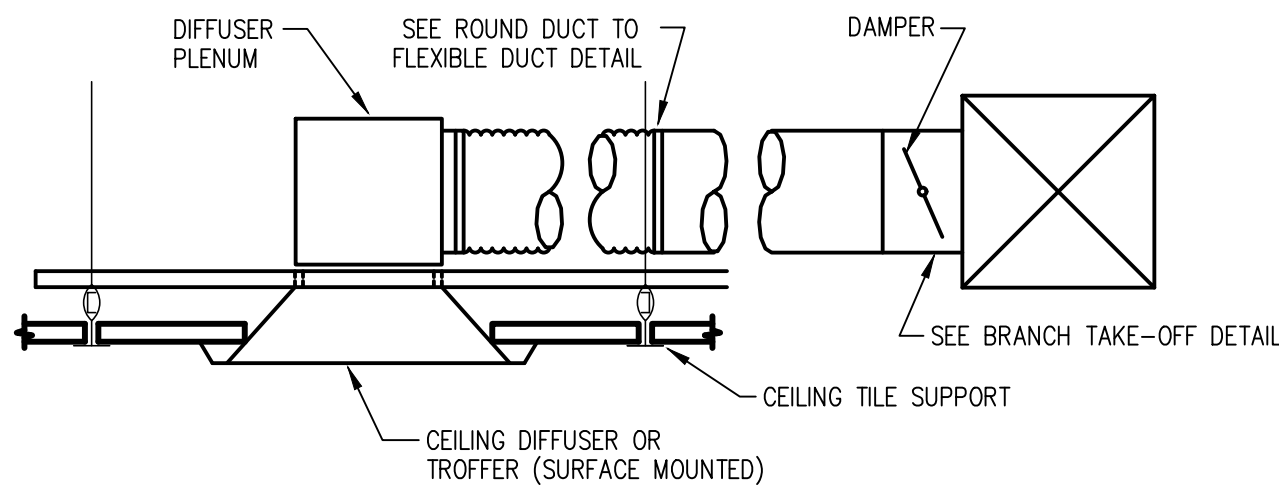


FIG. A - SURFACE MOUNT

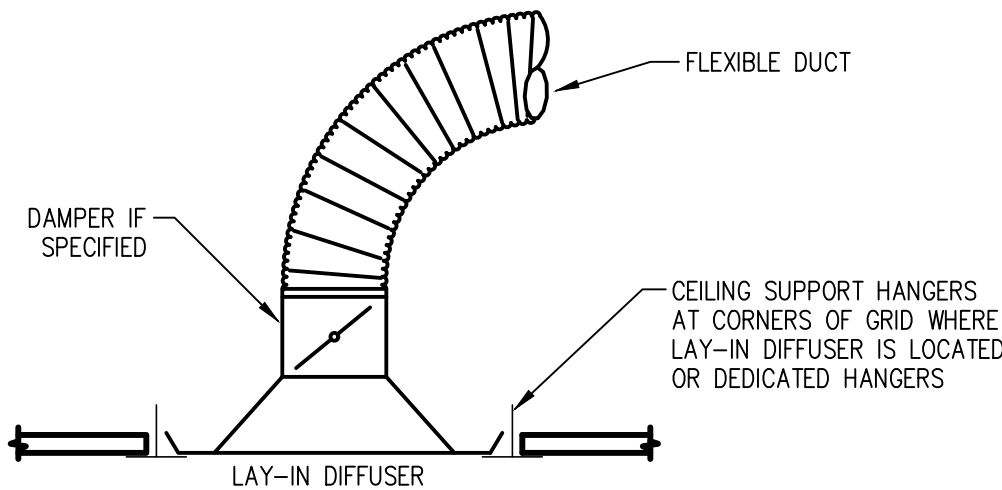


FIG. B - LAY-IN MOUNT

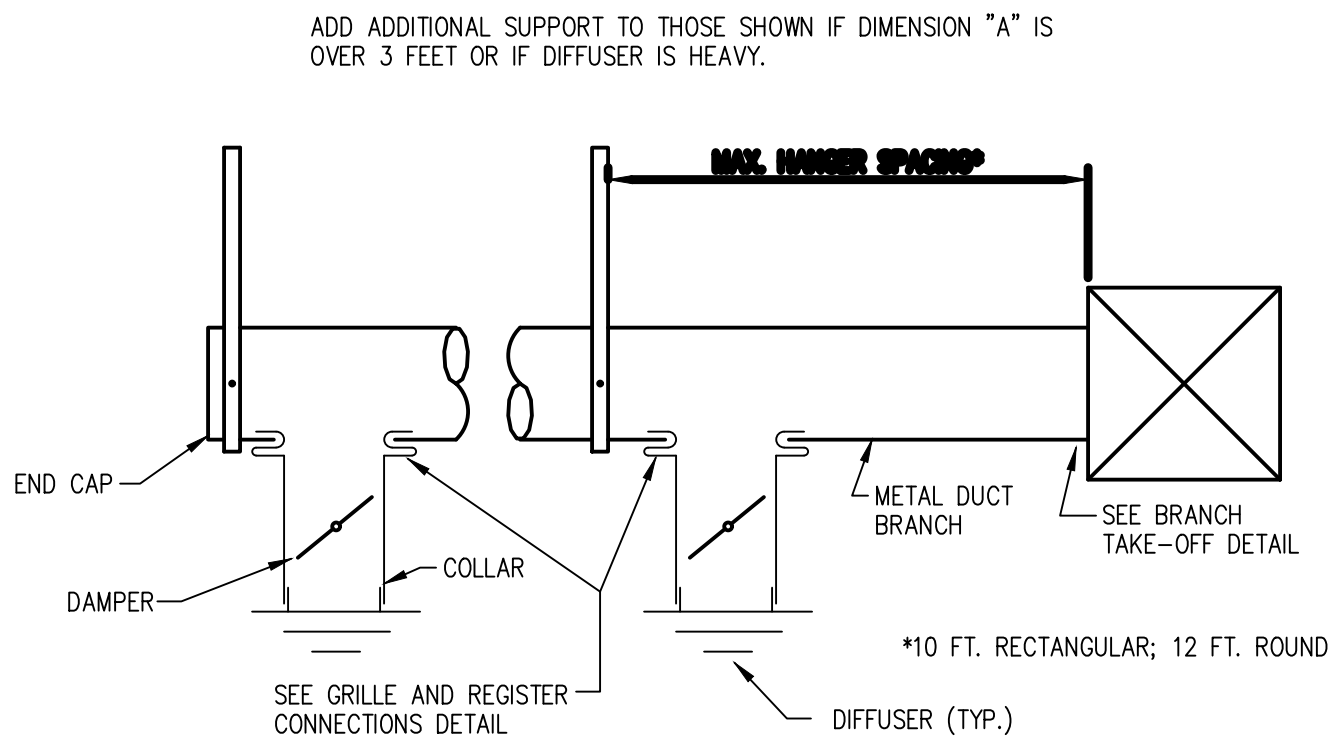
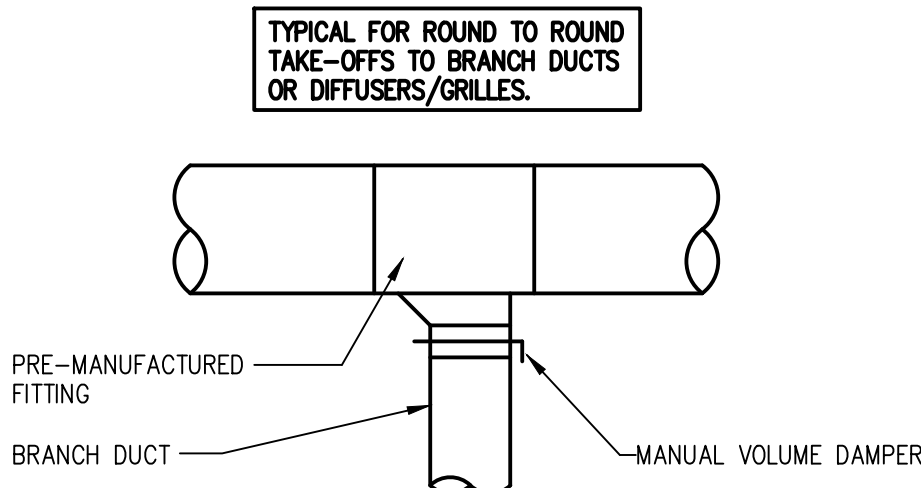
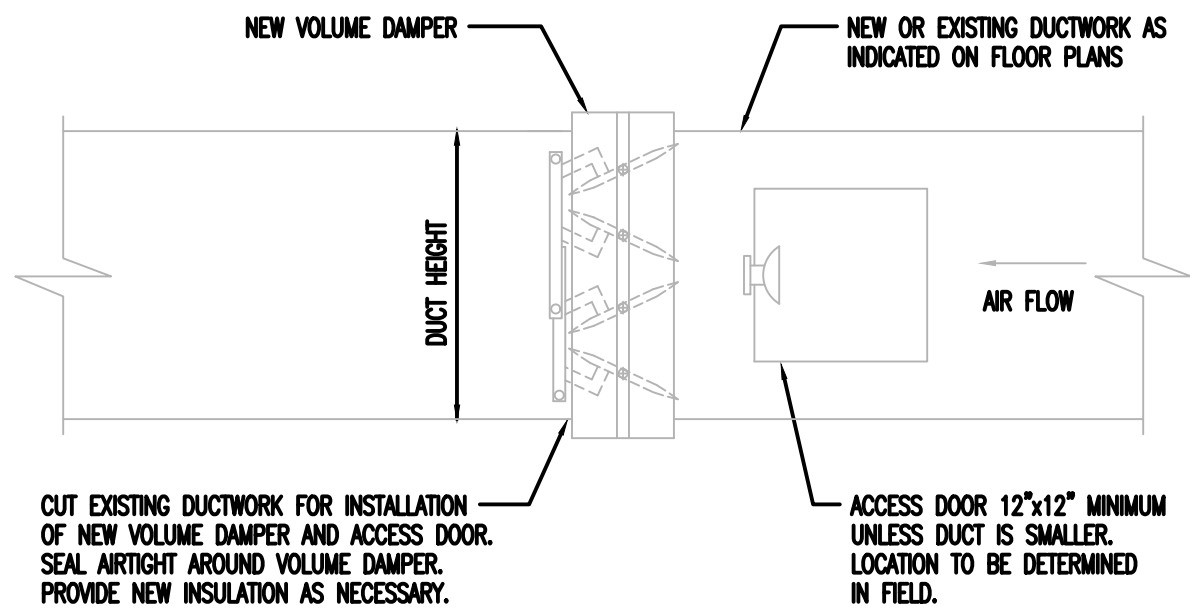


FIG. C - EXPOSED

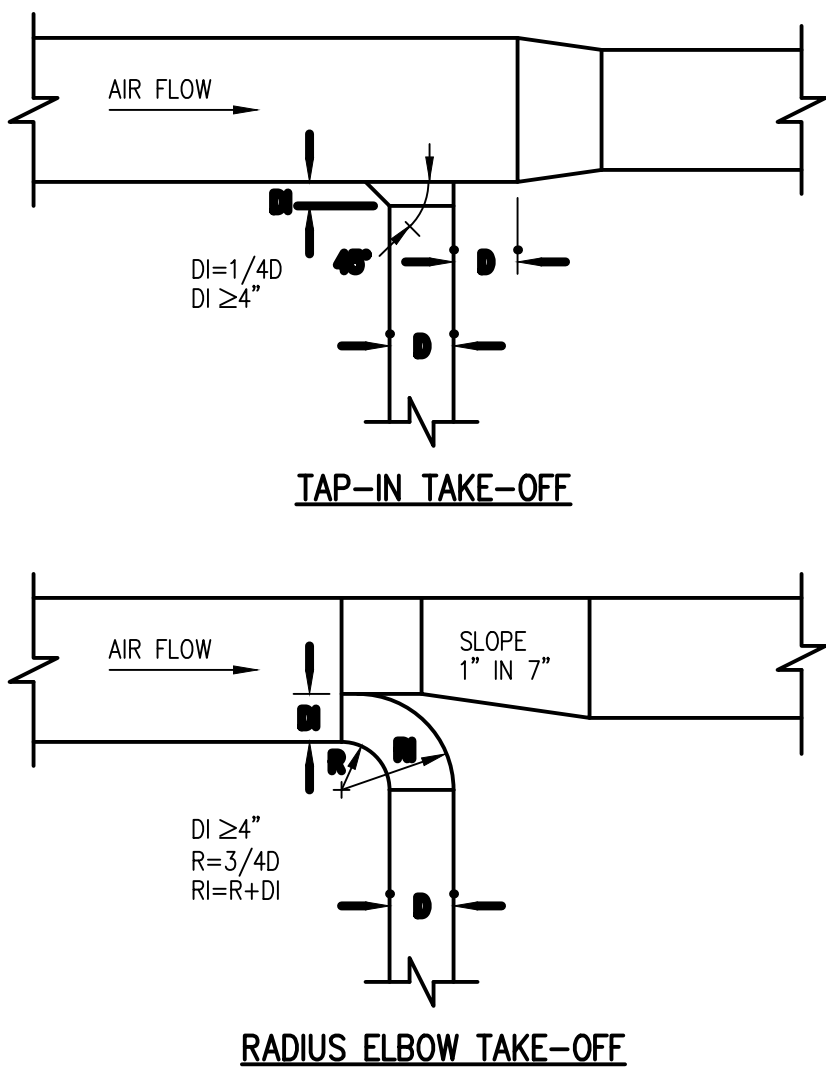
CEILING DIFFUSER BRANCH DUCT DETAIL
NOT TO SCALE PLAN SYMBOL



ROUND BRANCH TAKE-OFF DETAIL
NOT TO SCALE



VOLUME DAMPER DETAIL
NOT TO SCALE



DUCT BRANCH TAKE-OFF DETAIL
NOT TO SCALE

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LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. 24GE05120300

SHEET CONTENTS:

MECHANICAL DETAIL
SHEET NO. 3

PROJECT TITLE:

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80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

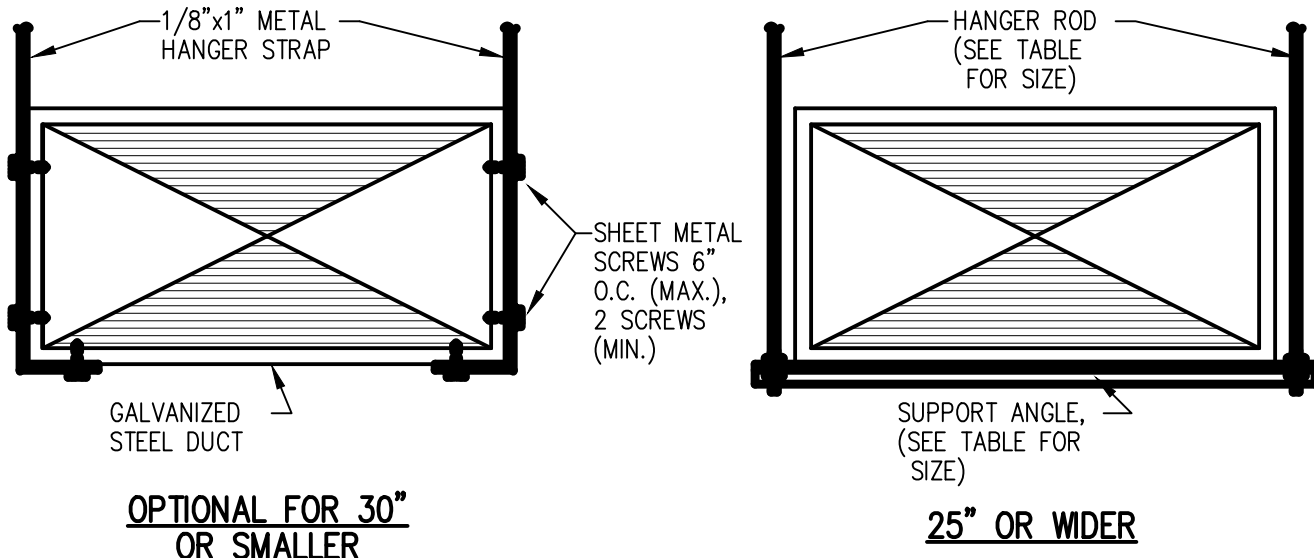
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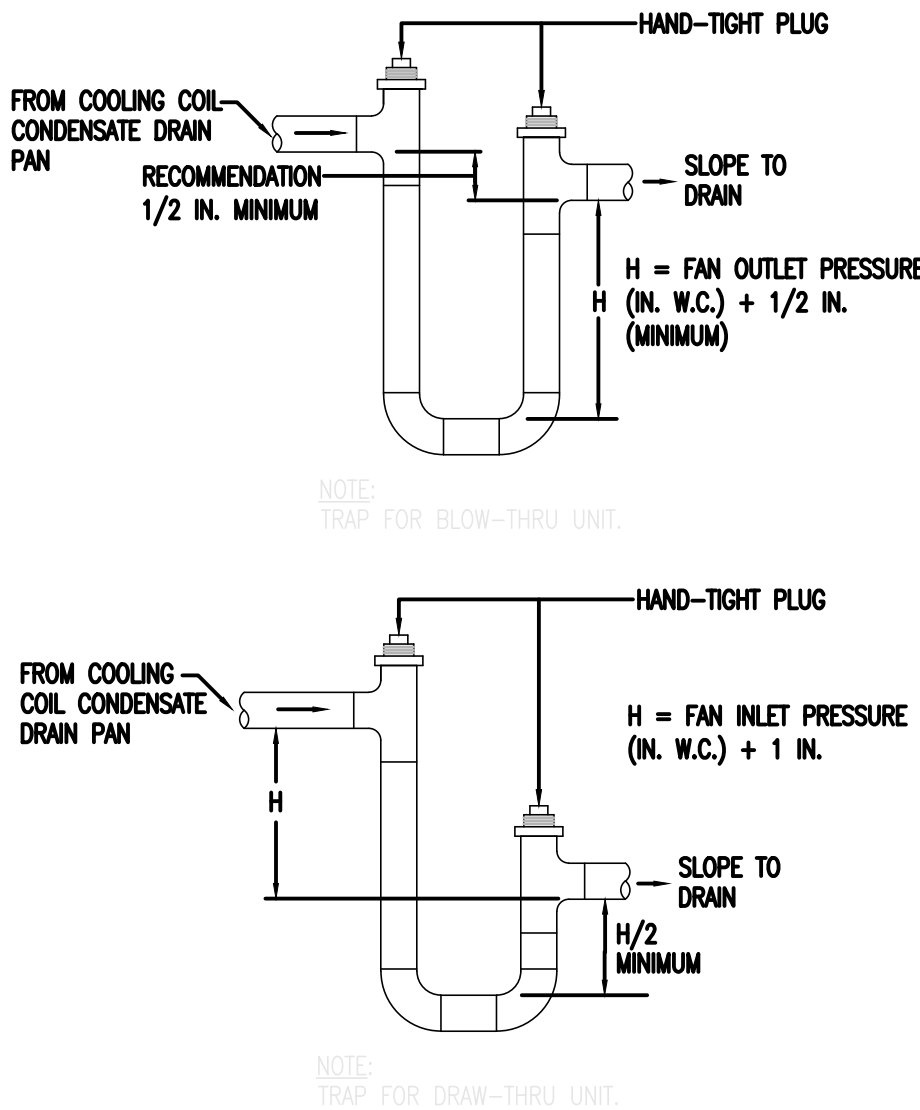
M-202



DUCT WIDTH	ROD DIA.	SUPPORT ANGLE OR EQUIVALENT CHANNEL	MAX. SPACING
26" TO 30"	3/8"	1-1/2" x 1-1/2" x 1/8"	8'-0" O.C.
31" TO 42"	3/8"	1-1/2" x 1-1/2" x 1/8"	6'-0" O.C.
43" TO 60"	1/2"	1-1/2" x 1-1/2" x 1/8"	6'-0" O.C.
61" TO 84"	1/2"	2" x 2" x 1/4"	4'-0" O.C.
85" AND UP	1/2"	3" x 3" x 1/4"	4'-0" O.C.

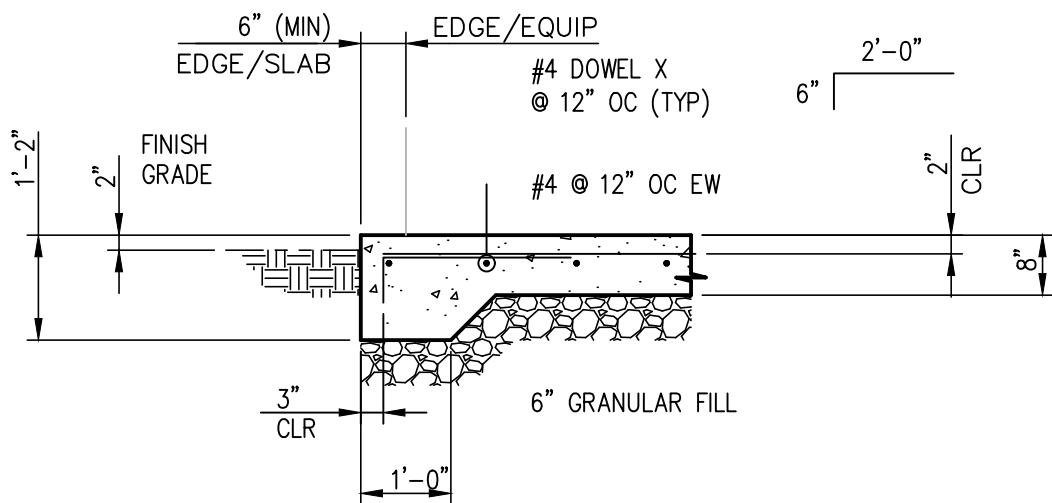
DUCT SUPPORT DETAIL
NOT TO SCALE

M-1



CONDENSATE TRAP DETAIL
FOR COOLING COILS
NOT TO SCALE

M-2



EXTERIOR EQUIPMENT PAD DETAIL
NOT TO SCALE

M-3

- COORDINATION NOTES:
- GC TO COORDINATE SIZE AND LOCATION OF EQUIPMENT PAD WITH RELATED TRADES.
 - GC TO COORDINATE ANCHORAGE DETAIL REQUIREMENTS WITH EQUIPMENT MFR.
- GENERAL NOTES:
- ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318), THE ACI DETAILING MANUAL (ACI 315), AND THE SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301).
 - ALL CONCRETE SHALL BE NORMAL WEIGHT, READY-MIX CONCRETE AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS, WITH A MAXIMUM WATER CEMENT RATIO OF 0.45 BY WEIGHT. CEMENT SHALL CONFORM TO ASTM C150, TYPE I, WITH A MAXIMUM AGGREGATE SIZE OF 3/4 INCH, CONFORMING TO ASTM C33. SLUMP AT POINT OF CONCRETE PLACEMENT SHALL BE THREE (3) INCH MINIMUM AND SIX (6) INCH MAXIMUM. CONCRETE EXPOSED TO WEATHER SHALL HAVE 6 PERCENT AIR ENTRAINMENT.
 - SUBMIT CONCRETE MIX DESIGNS AND ASSOCIATED PRODUCT DATA, IN ACCORDANCE WITH ACI 301, TO THE STRUCTURAL ENGINEER FOR REVIEW, A MINIMUM OF TWO WEEKS PRIOR TO CONCRETE PLACEMENT. CONCRETE MIX DESIGN SUBMITTAL SHALL INCLUDE, BUT NOT BE LIMITED TO, COMPRESSIVE STRENGTH TEST RESULTS, UNIT WEIGHT AND MIX PROPORTIONS. PRODUCT DATA SUBMITTAL SHALL INCLUDE, BUT NOT BE LIMITED TO, CEMENT MILL TEST CERTIFICATE, AGGREGATE GRADATION, ADMIXTURE MANUFACTURER DATA SHEETS AND COMPATIBILITY LETTER. ADMIXTURES SHALL BE FROM A SINGLE SOURCE MANUFACTURER.
 - ALL REINFORCING STEEL SHALL BE MANUFACTURED FROM HIGH STRENGTH BILLET STEEL CONFORMING TO ASTM A615 GRADE 60. EPOXY-COATED REINFORCING STEEL SHALL COMPLY WITH ASTM A775. WELDED WIRE REINFORCEMENT SHALL COMPLY WITH ASTM A1064 (FORMERLY ASTM A185).
 - PROVIDE PLASTIC-TIPPED CHAIRS AT ALL LOCATIONS WHERE THE CONCRETE SURFACE IN CONTACT WITH THE CHAIRS IS EXPOSED.
 - BONDING AGENT SHALL BE USED WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE.
 - GUARD AGAINST EARLY DRYING OUT OF CONCRETE, ESPECIALLY IN THE FIRST 24 HOURS. ALL SURFACES SHALL BE MOIST-CURED OR PROTECTED USING A MEMBRANE CURING AGENT, APPLIED AS SOON AS FORMS ARE REMOVED. IF MEMBRANE CURING AGENT IS USED, EXERCISE CARE NOT TO DAMAGE COATING.
 - COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306R. HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305R.

- VRF SYSTEM W/ HEAT RECOVERY
SEQUENCE OF OPERATION
- VRF

BC

ACC

X

1

1
- A. GENERAL

1. PROVIDE A DDC CONTROLLER WITH MEANS TO MONITOR THE OUTLINED CONTROL POINTS, SOFTWARE, HARDWARE, SENSORS, CONTROLLERS, WIRES, PNEUMATIC TUBING, ETC. TO ACCOMPLISH THE CONTROL OF THE SYSTEM.

B. SYSTEM OFF

1. THE INDOOR UNITS CAN BE COMMANDED ON/OFF EITHER BY A SCHEDULE IN THE CENTRAL CONTROLLER, AT THE REMOTE CONTROLLER, OR BY THE BMS. IF ALL INDOOR UNITS ARE OFF, THE OUTDOOR UNIT SHALL TURN OFF.

C. NIGHT SETBACK

1. THE SYSTEM SHALL CYCLE ON DURING UNOCCUPIED PERIODS AS NEEDED TO MAINTAIN UNOCCUPIED TEMPERATURE SET POINT (60°F HEATING, 80° COOLING, ADJUSTABLE).

D. OCCUPIED MODE

1. THE INDOOR UNIT SHALL DETERMINE WHETHER IT SHOULD BE IN AUTO-HEAT MODE OR AUTO-COOL MODE BASED ON SPACE TEMPERATURE RELATIVE TO TEMPERATURE SETPOINT. IF THE INDOOR UNIT IS IN AUTOHEAT MODE, THE INDOOR UNIT CONTROL BOARD SHALL FOLLOW THE HEAT MODE SEQUENCE. IF THE INDOOR UNIT IS IN AUTOCOOL ODE, THE INDOOR UNIT CONTROL BOARD SHALL FOLLOW THE COOL MODE SEQUENCE.

2. THE INDOOR UNIT SHALL SWITCH FROM AUTOHEAT TO AUTOCOOL WHEN THE SPACE TEMPERATURE RISES ABOVE AND REMAINS ABOVE THE TEMPERATURE SET POINT PLUS THE DEAD BAND FOR 3 MINUTES.

3. THE INDOOR UNIT SHALL SWITCH FROM AUTOCOOL TO AUTOHEAT WHEN THE SPACE TEMPERATURE DROPS BELOW AND REMAINS BELOW THE TEMPERATURE SET POINT MINUS THE DEAD BAND FOR 3 MINUTES.

4. HEATING MODE: THE INDOOR UNIT SHALL MODULATE ITS INTERNAL LINEAR EXPANSION VALVE TO MAINTAIN THE SPACE TEMPERATURE SET POINT (74°F, ADJUSTABLE).

5. COOLING MODE: THE INDOOR UNIT SHALL MODULATE ITS INTERNAL LINEAR EXPANSION VALVE TO MAINTAIN THE SPACE TEMPERATURE SET POINT (72°F, ADJUSTABLE).

6. FAN CONTROL: FAN SPEED DIRECTION SHALL BE ADJUSTABLE BY THE USER AT THE REMOTE CONTROLLER AND/OR THE CENTRAL CONTROLLER.

E. ALARMS

1. HIGH ZONE TEMPERATURE.

2. LOW ZONE TEMPERATURE.

3. DIFFERENTIAL PRESSURE SWITCH FOR THE FILTER DOES NOT INDICATE THAT FLOW IS PRESENT.

4. SUPPLY FAN FAILURE: COMMANDED ON, BUT STATUS IS OFF.

5. HIGH SUPPLY AIR TEMPERATURE: IF THE DISCHARGE AIR TEMPERATURE IS GREATER THAN THE SETPOINT BY 5°F (ADJUSTABLE) AFTER THE UNIT HAS BEEN OPERATING FOR A MINIMUM OF 15 MINUTES.

6. LOW SUPPLY AIR TEMPERATURE: IF THE DISCHARGE AIR TEMPERATURE IS LESS THAN SETPOINT BY 5°F AFTER THE UNIT HAS BEEN OPERATING FOR A MINIMUM OF 15 MINUTES.

VRV SYSTEM UNIT POINTS LIST							
POINT DESCRIPTION	ANALOG INPUT	BINARY INPUT	ANALOG OUTPUT	BINARY OUTPUT	ALARM POINT	NON-DDC POINT	NOTES
SUPPLY AIR TEMPERATURE	1						
SUPPLY FAN START/STOP				1			
ZONE TEMPERATURE	1						
ZONE SETPOINT ADJUST	1						
SETBACK OVERRIDE		1					
FILTER STATUS		1					
SCHEDULE						1	
HEATING SETPOINT						1	
COOLING SETPOINT						1	
DIFF PRESSURE SWITCH					1		
HIGH SUPPLY AIR TEMP					1		
LOW SUPPLY AIR TEMP					1		
SUPPLY FAN FAILURE					1		
HIGH ZONE TEMPERATURE					1		
LOW ZONE TEMPERATURE					1		

- OUTDOOR AIR PROCESSING UNIT AND ENERGY RECOVERY VENTILATOR
SEQUENCE OF OPERATION
- AC

ERV

ACC

1

1

2
- A. GENERAL

1. PROVIDE AN AIR HANDLING UNIT DDC CONTROLLER WITH MEANS TO MONITOR THE OUTLINED CONTROL POINTS, SOFTWARE, HARDWARE, SENSORS, CONTROLLERS, WIRES, PNEUMATIC TUBING, ETC. TO ACCOMPLISH THE CONTROL OF THE SYSTEM.

2. ERV UNIT OPERATION SHALL BE INTERLOCKED WITH OUTDOOR AIR PROCESSING UNIT.

B. OCCUPIED MODE

1. THE OUTDOOR AIR PROCESSING UNIT SUPPLY FAN SHALL ENERGIZE. THE ENERGY RECOVERY VENTILATOR UNIT SUPPLY AND EXHAUST FANS SHALL ENERGIZE. THE SAFETY TRIPS SHALL OVERRIDE THE MINIMUM ON AND OFF TIMES.

2. COOLING: UPON A CALL FOR COOLING BY THE DUCT TEMPERATURE SENSOR, THE UNIT SHALL MODULATE ITS INTERNAL LINEAR EXPANSION VALVE AS REQUIRED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 70°F (ADJUSTABLE).

3. HEATING: UPON A CALL FOR HEATING BY THE DUCT TEMPERATURE SENSOR, THE UNIT SHALL MODULATE ITS INTERNAL LINEAR EXPANSION VALVE AS REQUIRED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 75°F (ADJUSTABLE).

4. DEHUMIDIFICATION: IF SUPPLY AIR HUMIDITY IS ABOVE SETPOINT (50% RELATIVE HUMIDITY, ADJUSTABLE) THE SYSTEM SHALL ENERGIZE COOLING MODE. IF COOLING IS SATISFIED BUT HUMIDITY IS ABOVE SETPOINT, THE UNIT SHALL MODULATE ITS INTERNAL LINEAR EXPANSION VALVE AS REQUIRED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 55°F (ADJUSTABLE), THE UNIT SHALL CONTINUE TO SUPPLY 55°F AIR (ADJUSTABLE) UNTIL THE SPACE HUMIDITY DROPS BELOW THE HUMIDITY SETPOINT.

5. ECONOMIZER: WHEN THE ENTHALPY OF OUTDOOR AIR PROVES TO BE LOWER THAN THE ENTHALPY OF RETURN AIR THE ERV BYPASS DAMPERS SHALL MODULATE OPEN AS REQUIRED BY MANUFACTURER'S PROGRAMMING.

C. UNOCCUPIED MODE

1. UNOCCUPIED OFF: ALL FANS SHALL BE DE-ENERGIZED.

D. SYSTEM SAFETIES

1. UPON DETECTION OF PRODUCTS OF COMBUSTION BY THE SMOKE DETECTORS THE SYSTEM SHALL SHUTDOWN BY A CONNECTION TO THE FIRE ALARM SYSTEM.

E. ALARMS

1. OUTDOOR AIR PROCESSING UNIT SUPPLY FAN FAILURE: COMMANDED ON, BUT STATUS IS OFF.

2. ERV SUPPLY FAN FAILURE: COMMANDED ON, BUT STATUS IS OFF.

3. ERV EXHAUST FAN FAILURE: COMMANDED ON, BUT STATUS IS OFF.

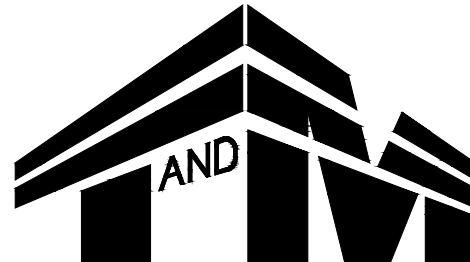
4. HIGH SUPPLY AIR TEMPERATURE: IF THE DISCHARGE AIR TEMPERATURE IS GREATER THAN THE SETPOINT BY 5°F (ADJUSTABLE) AFTER THE UNIT HAS BEEN OPERATING FOR A MINIMUM OF 15 MINUTES.

5. LOW SUPPLY AIR TEMPERATURE: IF THE DISCHARGE AIR TEMPERATURE IS LESS THAN SETPOINT BY 5°F AFTER THE UNIT HAS BEEN OPERATING FOR A MINIMUM OF 15 MINUTES.

F. OUTDOOR AIRFLOW MONITORING

1. PROVIDE CARBON DIOXIDE SENSOR WHERE LOCATED ON PLANS. PROVIDE A SYSTEM ALARM WHEN THE INDOOR CO2 LEVEL EXCEEDS THE OUTDOOR CO2 LEVEL BY 700 PPM.

OUTDOOR AIR UNIT AND ERV POINTS LIST							
POINT DESCRIPTION	ANALOG INPUT	BINARY INPUT	ANALOG OUTPUT	BINARY OUTPUT	ALARM POINT	NON-DDC POINT	NOTES
RETURN AIR CARBON DIOXIDE	1				1		CO2 LEVELS >700 PPM
RETURN AIR TEMPERATURE	1						
RETURN AIR HUMIDITY	1						
SUPPLY AIR TEMPERATURE	1						
OUTDOOR AIR TEMPERATURE	1						
OUTDOOR AIR HUMIDITY	1						
OUTDOOR AIR CARBON DIOXIDE	1						
HEAT PUMP COOLING/HEATING			1				
OAU UNIT SUPPLY FAN START/STOP				1			
ERV SUPPLY FAN START/STOP				1			
ERV RETURN FAN START/STOP				1			
SCHEDULE						1	
HIGH SUPPLY AIR TEMP					1		
LOW SUPPLY AIR TEMP					1		
OAU SUPPLY FAN FAILURE					1		
ERV SUPPLY FAN FAILURE					1		
ERV EXHAUST FAN FAILURE					1		
ERV SUPPLY FAN IN HAND					1		
ERV SUPPLY FAN IN HAND					1		
ERV SUPPLY FAN IN HAND					1		
HIGH DISCHARGE AIR TEMP					1		
LOW DISCHARGE AIR TEMP					1		



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SHEET CONTENTS:

MECHANICAL CONTROLS

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

10.09.2026 ISSUED FOR BID

DATE	REVISIONS	REV

Date 10.07.2026

Scale AS NOTED

Drawn by TMW

Checked by JM

Job No. 2241895

Drawing No.

M-400

ELECTRICAL GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT EDITION IN EFFECT OF THE NATIONAL ELECTRICAL CODE (NFPA-70 2020), NEW JERSEY UNIFORM CONSTRUCTION CODE (NUCC), INTERNATIONAL FIRE CODE (IFC 2021), INTERNATIONAL BUILDING CODE (IBC 2021), ACCESSIBLE & USABLE BUILDINGS & FACILITIES (ICC/ANSI A117.1-2017) AND NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION (NECA) STANDARD OF INSTALLATION.

2. AMERICAN MANUFACTURED PRODUCTS SHALL BE USED WHERE POSSIBLE FOR ALL WORK IN ACCORDANCE WITH NJAC 40A:11-18. CONTRACTOR SHALL VERIFY THAT ALL SUBMITTED EQUIPMENT FOR ALL CONTRACTS FOR COUNTY OR MUNICIPAL WORK OR FOR WORK FOR WHICH IT WILL PAY ANY PART OF THE COST, OR WORK WHICH BY CONTRACT OR ORDINANCE IT WILL ULTIMATELY OWN AND MAINTAIN, THAT ONLY MANUFACTURED PRODUCTS OF THE UNITED STATES, WHEREVER AVAILABLE, BE USED IN SUCH WORK. ANY SUBSTITUTIONS OF BASIS OF DESIGN EQUIPMENT SHALL BE VERIFIED BY CONTRACTOR TO CONFORM TO THE ABOVE NOTED REQUIREMENTS.

3. OBTAIN ALL PERMITS REQUIRED, HAVE THE WORK INSPECTED FOR CODE COMPLIANCE AND PAY ALL FEES FOR INSPECTION AND CERTIFICATION.

4. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL OF MAIN SERVICE ENTRANCE EQUIPMENT FROM THE UTILITY COMPANY PRIOR TO PURCHASING AND FABRICATION OF EQUIPMENT. CONTRACTOR SHALL COORDINATE WITH THE UTILITY ALL REQUIRED COLD OR HOT SEQUENCING OF METERING COMPONENTS WITH UTILITY PRIOR TO SUBMISSION OF SHOP DRAWINGS.

5. MAKE THE NECESSARY ARRANGEMENTS, AND PAY ALL COSTS, FOR TEMPORARY ELECTRIC SERVICE FOR THE PROJECT.

6. PROVIDE ADEQUATE TEMPORARY ELECTRICAL LIGHT AND POWER FOR THE PROJECT WORK OF ALL TRADES.

7. DRAWINGS ARE DIAGRAMMATIC AND DEFINE THE INTENT OF THE WORK. LOCATIONS OF EQUIPMENT, FIXTURES, DEVICES, PANELBOARDS, DUCTS, PIPING, DIFFUSERS, PARTITIONS, OPENINGS, ETC. ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATIONS CAUSED BY STRUCTURAL CONDITIONS AND EQUIPMENT PROVIDED BY OTHER CONTRACTORS, SUBCONTRACTORS OR THE OWNER. COORDINATE ALL WORK WITH THE WORK OF OTHER TRADES. DETERMINE ROUGHING LOCATIONS FROM APPROVED SHOP DRAWINGS. MINOR MODIFICATIONS OF LOCATIONS REQUIRED TO AFFECT SUCH COORDINATION SHALL BE MADE AT NO COST TO THE OWNER.

8. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLEMENTARY TO EACH OTHER, SPECIFICATIONS MAY REQUIRE ADDITIONAL WORK, EQUIPMENT, SYSTEMS, METHODS, ETC. THAT IS NOT INDICATED ON THE DRAWINGS.

9. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLEMENTARY TO EACH OTHER, WHERE DISCREPANCIES OR CONFLICTS OCCUR, THE CONTRACTOR SHALL INCLUDE THE MORE COSTLY METHOD IN HIS PROPOSAL UNLESS CLARIFIED BY BULLETIN OR ADDENDUM ACKNOWLEDGED PRIOR TO RECEIPT OF BIDS.

10. DRAWINGS SHALL NOT BE SCALED. DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND REQUIREMENTS OF THE WORK. ALTHOUGH SIZE AND LOCATION OF EQUIPMENT IS DRAWN TO SCALE WHEREVER POSSIBLE, CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND VERIFY INFORMATION AT THE PROJECT SITE.

11. EXISTING PROJECT CONDITIONS INDICATED ARE BASED ON FIELD OBSERVATION, EXISTING DESIGN / CONSTRUCTION DOCUMENTS AND EXISTING RECORD DOCUMENTS AND ARE INTENDED TO INDICATE THE SCOPE OF THE WORK AFFECTED BY THIS PROJECT.

12. THE TERM "OTHERS" SHALL BE UNDERSTOOD TO MEAN CONTRACTORS, SUBCONTRACTORS OR TRADESMEN ON THE PROJECT PERFORMING WORK ON THIS PROJECT UNDER SECTIONS OR DIVISIONS OTHER THAN DIVISION 16 – ELECTRICAL WORK.

13. PRIOR TO BIDDING VISIT THE PROJECT SITE TO DETERMINE THE CONDITIONS UNDER WHICH THE WORK IS TO BE DONE. SCHEDULE SITE VISIT WITH OWNER.

14. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR THE INSTALLATION, RELOCATION AND CONNECTION OF THE ELECTRICAL WORK.

15. ALL MATERIAL SHALL BE UNDERWRITERS' LABORATORIES LISTED FOR ITS APPLICATION WHERE SUCH LISTING IS APPLICABLE.

16. ALL EQUIPMENT SHALL BE AS INDICATED OR AS APPROVED BY THE ENGINEER.

17. SUBMIT SHOP DRAWINGS, PRODUCT DATA SHEETS AND WIRING DIAGRAMS FOR ALL ELECTRICAL CONSTRUCTION MATERIALS, DEVICES, EQUIPMENT, APPLIANCES AND SYSTEMS, UNLESS SPECIFICALLY INDICATED OR REQUESTED OTHERWISE. BIND ALL RELATED PRODUCT DATA TOGETHER PROPERLY INDEXED AND IDENTIFIED AND WITH ALL PERTINENT CATALOG NUMBERS, OPTIONS, ETC. HIGHLIGHTED OR TARGETED. INCOMPLETE SUBMITTALS WILL BE DISCARDED AND THE TRANSMITTAL RETURNED TO THE CONTRACTOR.

18. OBTAIN SHOP DRAWINGS AND WIRING DIAGRAMS FROM OTHER CONTRACTORS AND OWNER FOR THE PROPER INSTALLATION OF RELATED ELECTRICAL WORK OF OTHER RELATED SYSTEMS INCLUDING BUT NOT LIMITED TO: SECURITY EQUIPMENT, IT EQUIPMENT, CONTROL DEVICES, VALVES, THERMOSTATS, ETC. REQUIRED FOR THE PROPER OPERATION OF THEIR SYSTEMS.

19. MAINTAIN CONTINUITY OF EXISTING CIRCUITS AFFECTED BY THIS WORK WHICH MUST REMAIN IN SERVICE.

20. MAKE ALL MODIFICATIONS NECESSARY TO EXISTING PANELBOARDS AND SWITCHBOARDS TO ACCEPT NEW CIRCUITS.

21. WHERE ELECTRICAL EQUIPMENT (I.E. SWITCHBOARDS, PANELBOARDS, BUS DUCTS, TRANSFORMERS, DISCONNECTS, ETC.) OR SYSTEMS (I.E. FIRE ALARM, SOUND, INTERCOMMUNICATIONS, ALARM, ETC.) IS INDICATED TO BE MODIFIED TO ACCEPT NEW WORK SAID MODIFICATIONS SHALL BE PERFORMED BY ELECTRICAL EQUIPMENT FABRICATORS OR MANUFACTURER'S REPRESENTATIVES WHO CAN AFFECT SUCH MODIFICATIONS WITHOUT VOIDING THE U. L. LABEL OR MANUFACTURER'S WARRANTIES.

22. WHERE NEW EQUIPMENT IS INDICATED TO BE "RECONNECTED" TO EXISTING WIRING, CONDUIT OR OTHER PART OF AN EXISTING ELECTRICAL SYSTEM, THE CONTRACTOR SHALL MODIFY OR EXTEND THE EXISTING SYSTEM COMPONENTS AS REQUIRED TO MEET THE CONNECTION POINT OF THE NEW ITEM. THE CONTRACTOR SHALL USE MATERIALS AND METHODS THAT MATCH THE EXISTING SYSTEM, OR AS SPECIFIED FOR NEW WORK, WHICHEVER IS MORE SUITABLE FOR THE APPLICATION.

23. WHERE EXISTING EQUIPMENT IS INDICATED TO BE "CONNECTED" OR "RECONNECTED" TO NEW WIRING, CONDUIT, ETC, THE CONTRACTOR SHALL FABRICATE AND INSTALL THE NEW SYSTEM CONNECTIONS TO MATCH THE CONNECTION POINTS AND OTHER REQUIREMENTS OF THE EXISTING EQUIPMENT, WHERE THE EXISTING EQUIPMENT MUST BE REMOVED AND REINSTALLED TO FACILITATE THE REMOVAL OF THE OLD CONNECTIONS AND/ OR THE CONNECTION OF THE NEW MATERIAL, THAT WORK SHALL BE A PART OF THIS CONTRACT.

24. EXACT LOCATION OF EQUIPMENT SHALL BE COORDINATED IN THE FIELD.

25. REFER TO APPROVED REFLECTED CEILING PLANS FOR EXACT LIGHTING LAYOUTS.

26. REFER TO DRAWINGS AND SPECIFICATIONS OF OTHER TRADES FOR EQUIPMENT LOCATIONS
- AND CONTROLS.

27. GROUNDING AND BONDING SHALL MEET NEC AND EQUIPMENT / SYSTEM MANUFACTURER'S REQUIREMENTS.

28. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF DEBRIS GENERATED BY HIS WORK AND WORKERS AT THE END OF EACH WORKING DAY AND FOR GENERAL GOOD HOUSEKEEPING BY HIS WORKERS.

29. CONTRACTOR SHALL PROVIDE REQUIRED REFUSE CONTAINERS.

30. DISCONNECT AND REMOVE FROM THE PREMISES, OR STORE ON THE PREMISES IF REQUESTED BY THE OWNER, ALL EQUIPMENT FIXTURES, DEVICES, RACEWAY, WIRING, CABLE, SUPPORTING DEVICES, ETC.

31. REMOVED OR ABANDONED AS A RESULT OF THIS WORK. MAKE SAFE ALL WIRING AND CABLE WHICH MUST REMAIN IN SERVICE.

32. REMOVE AND RELOCATE EXISTING EQUIPMENT, FIXTURES, DEVICES, ETC. AS INDICATED AND AS REQUIRED TO CLEAR NEW WORK. EXTEND AND CONNECT NEW WIRING TO EXISTING.

33. DISCONNECT AND REMOVE, OR TEMPORARILY RELOCATE, EXISTING LIGHTING FIXTURES, LOUDSPEAKERS, ETC. TO CLEAR THE INSTALLATION OF NEW DUCTWORK, PIPING, EQUIPMENT, ETC. THROUGHOUT THE ENTIRE RENOVATED AREAS AND REINSTALL WHEN WORK IS COMPLETE. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS FOR THE EXTENT OF THE WORK. PROVIDE TEMPORARY NORMAL AND EMERGENCY LIGHTING, AND TEMPORARILY RECONNECT LOUDSPEAKERS, ETC. UNTIL THE CEILING IS REINSTALLED. REINSTALL WHEN WORK IS COMPLETED AND EXTEND EXISTING WIRING TO NEW LOCATIONS AS REQUIRED.

34. TEMPORARILY RELOCATE, EXISTING FIRE ALARM DEVICES, HEAT/SMOKE DETECTORS, ETC. TO CLEAR THE INSTALLATION OF NEW DUCTWORK, PIPING, EQUIPMENT, ETC. THROUGHOUT THE ENTIRE RENOVATED AREA. PROVIDE TEMPORARY SUPPORT OF EXISTING DEVICES AND REINSTALL WHEN WORK IS COMPLETED. RE-TEST THE FIRE ALARM SYSTEM PER NFPA 72 REQUIREMENTS. EXISTING FIRE ALARM DEVICES SHALL NOT BE DISABLED OR REMOVED FROM SERVICE UNTIL THE NEW SYSTEM IS INSTALLED AND TESTED PER 1996 NFPA 72, 7-1.6.2.1, OR THE SPRINKLER SYSTEM & ALL NOTIFICATION, SIGNALING AND SUPERVISORY DEVICES ARE PROPERLY INSTALLED AND TESTED PER NFPA 13. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL PLANS AND SPECIFICATIONS FOR THE EXTENT OF THIS WORK.

35. PERFORM ALL CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF THE WORK. CUT NO STRUCTURAL MEMBER WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. FINISH AND PAINT ALL PATCHED SURFACES WITH TWO COATS OF PAINT TO MATCH EXISTING SURFACES AS CLOSELY AS POSSIBLE. SEAL OPENINGS VENTILATION AND WATER PROOF AND MAINTAIN FIRE RATING. USE SPECIFIED TECHNOLOGIES, INC. "SPECSEAL" SERIES 100 FOR SLEEVED PENETRATIONS (U. L. SYSTEM #C-AJ-1028; F = 3, T = 0) AND "SPECSEAL" PENCIL 300 SEALANT FOR CUT OR CORED PENETRATIONS (U. L. SYSTEM #C-AJ-1030; F = 3, T = 0). SLEEVES AND ACCESSORIES SHALL BE PER ASTM E 814.

36. ALL PENETRATIONS IN FOUNDATION WALLS AND FLOORS INCLUDING SLAB PENETRATIONS SHALL BE SUBSTANTIALLY SEALED BY UTILIZING A NON-CRACKING POLYURETHANE OR SIMILAR CAULK OR EQUIVALENT TO CLOSE OFF THE SOIL GAS ENTRY ROUTES. ALL CONDUITS IN THE SPACE BELOW THE FOUNDATION FLOOR WHICH PENETRATE THESE BARRIERS SHALL HAVE THREADED OR SOLVENT WELD FITTINGS.

37. EXISTING CONDUIT MAY BE REUSED IF APPROVED BY THE ENGINEER. WHERE SUCH REUSE IS NOT PRACTICABLE, PROVIDE NEW CONDUIT.

38. ALL NEW RACEWAY, WIRING AND CABLE IN NEW AND EXISTING SPACES SHALL BE RUN CONCEALED IN NEW AND EXISTING CONSTRUCTION UNLESS OTHERWISE INDICATED; CUT AND PATCH AS REQUIRED. PROVIDE FULBBOXES, SIZE AND TYPE AS REQUIRED.

39. EXPOSED RACEWAY, IF PERMITTED, SHALL BE RUN TRUE, PLUMB AND PARALLEL OR PERPENDICULAR TO BUILDING LINES. ELECTRICAL METALLIC TUBING, 3/4 INCH MINIMUM, SHALL BE USED IN UNFINISHED SPACES; SURFACE METAL RACEWAY (WIREDMOLD) SHALL BE USED IN FINISHED SPACES.

40. ALL WIRING SHALL BE COPPER CONDUCTOR WITH 600 VOLTS INSULATION IN METAL RACEWAY WITH APPROVED FITTINGS UNLESS OTHERWISE INDICATED.

41. INTERIOR FEEDERS AND BRANCH CIRCUITS IN RACEWAY: TYPE THHN 90 DEGREE C.

42. BRANCH CIRCUIT HOMERUNS TO FIRST OUTLET: TYPE THHN IN RACEWAY. AFTER THE FIRST OUTLET BOX, APPROVED CABLE MAY BE USED.

43. FEEDERS SHALL BE MINIMUM #8 AWG; BRANCH CIRCUIT WIRING MINIMUM #12 AWG; CONTROL WIRING MINIMUM #14 AWG; UNLESS OTHERWISE INDICATED. FEEDER AND BRANCH CIRCUIT WIRING LARGER THAN #10 AWG SHALL BE STRANDED CONDUCTOR; #10 AWG AND SMALLER, STRANDED CONDUCTOR OR SOLID CONDUCTOR; CONTROL WIRING, STRANDED CONDUCTOR.

44. DO NOT INSTALL CONDUCTORS, WIRES OR CABLES OF ANY OTHER SYSTEM IN THE SAME RACEWAY OR CABLE WITH FIRE ALARM POWER SUPPLY CIRCUITS, NON-POWER LIMITED FIRE ALARM CIRCUITS OR POWER LIMITED FIRE ALARM CIRCUITS.

45. MAKE FLEXIBLE CONNECTIONS TO MOTORS AND OTHER ROTATING / VIBRATING EQUIPMENT.

46. TAPS AND SPLICES FOR BRANCH CIRCUITS AND FEEDERS LARGER THAN #10 AWG SHALL BE MADE WITH BURNDY "INSUL-TAP" TYPE BIPC, OR APPROVED EQUAL, INSULATION PIERCING CONNECTORS OR BURNDY "HYLUG", OR APPROVED EQUAL, COMPRESSION SPLICES.

47. TAPS AND SPLICES FOR BRANCH CIRCUITS AND FEEDERS #10 AWG AND SMALLER SHALL BE MADE WITH IDEAL MODELS 410, 411 AND 412 CRIMP CONNECTORS, OR APPROVED EQUAL, WITH MODELS 415 OR 417 INSULATED CAPS.

48. BRANCH CIRCUIT AND FEEDER TAPS SHALL BE FULL CIRCUIT SIZE UP TO THEIR OVERCURRENT PROTECTION DEVICE.

49. CONNECTIONS TO FIXTURE AND MOTOR LEADS #10 AWG AND SMALLER SHALL BE MADE WITH 3M "SCOTCHLOK" PRE-INSULATED SPRING PRESSURE CONNECTOR TYPES Y, R OR G OR APPROVED EQUAL.

50. STRANDED WIRING CONDUCTORS SHALL BE MADE UP TO SCREW TERMINALS WITH 3M, T&B OR PANDUIT LOCKING FORK CRIMP TERMINALS WITH NYLON INSULATED GRIPS.

51. WIRE EMERGENCY LIGHTING FIXTURES (UNIT EQUIPMENT) TO LOCAL AREA LIGHTING CIRCUIT SERVING THE RESPECTIVE AREA AHEAD OF SWITCH / DIMMER CONTROL.

52. WIRE EXIT LIGHTS TO THE CIRCUITS INDICATED.

53. WIRE ELECTRONIC TRAP PRIMERS TO NEAREST AVAILABLE 1P20A 120 VAC CIRCUIT UNLESS OTHERWISE INDICATED. REFER TO PLUMBING FLOOR PLANS AND SCHEDULES FOR LOCATIONS.
54. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION AND INSTALLATION DETAILS AND VERIFY ALL MANUFACTURER'S REQUESTS PRIOR TO ANY SUBMISSION FOR CONSIDERATION BY THE ARCHITECT, ENGINEER OR OWNER.

55. WIRING RUNS INDICATED ON THE DRAWINGS EXPRESS THE INTENT OF CIRCUIT ASSIGNMENT AND SWITCH CONTROL. ACTUAL WIRING METHODS USED SHALL BE SUITED FOR THE CONSTRUCTION OF THE BUILDING. REFER TO DRAWINGS OF OTHER TRADES AND EXISTING CONDITIONS. SEE ARCHITECTURAL DRAWINGS FOR DETAILS. NUMBER OF CONDUCTORS IS NOT ALWAYS INDICATED.

56. FURNISH AND INSTALL ALL CODE REQUIRED DISCONNECT SWITCHES OR LOCKABLE BREAKER FOR PERMANENTLY CONNECTED APPLIANCES PER NEC 422-III. PROVIDE GFI RECEPTACLE OR CIRCUIT BREAKER FOR ALL HAND DRYERS AND/OR VENDING MACHINES.

57. INSTALL MOTOR STARTERS, CONTROLLERS OR COMBINATION STARTERS FURNISHED FOR EACH MOTOR. LOCATE AS DIRECTED IN THE FIELD.

58. PROVIDE UN-SWITCHED 125 VOLT 20 AMP RECEPTACLE OUTLETS LOCATED ON THE SAME LEVEL AND WITHIN 25 FEET OF ALL HEATING, AIR-CONDITIONING AND REFRIGERATION EQUIPMENT UNLESS OTHERWISE NOTED.

59. PROVIDE PERMANENTLY INSTALLED LIGHTING OUTLETS TO ILLUMINATE THE AREAS IN ATTICS OR CRAWL SPACES IN WHICH EACH PIECE OF HEATING, AIR-CONDITIONING AND REFRIGERATION EQUIPMENT IS LOCATED. PROVIDE LUMINAIRE, LAMP AND LIGHT SWITCH APPROPRIATE FOR THE LOCATION. INSTALL LIGHT SWITCH NEAR THE ACCESS TO THE AREA UNLESS OTHERWISE NOTED.

60. ROUTE RACEWAYS THROUGH ROOF USING DEDICATED ROOF JACKS OR PITCH POCKETS. RUN RACEWAY ON ROOF ON DEDICATED ROOF SUPPORTS EIGHT INCHES HIGH MINIMUM.

61. ALL 125 VOLT, SINGLE PHASE, 15- AND 20-AMPERE SINGLE AND DUPLEX RECEPTACLES WHICH DO NOT SERVE A DEDICATED APPLIANCE AND ARE WITHIN A 6 FOOT RADIUS OF A SINK, ARE INSTALLED IN WET LOCATIONS, ARE INSTALLED IN BATHROOMS, ON ROOFS, OR OUTDOORS WITH DIRECT GRADE ACCESS, SHALL BE GROUND FAULT CIRCUIT INTERRUPTING TYPE WHERE AVAILABLE OR SHALL BE PROTECTED BY GROUND FAULT CIRCUIT INTERRUPTING CIRCUIT BREAKERS.

62. DO NOT INSTALL EXPOSED WIRING, OR CABLE NOT U. L. LISTED FOR THE PURPOSE; WOOD SUPPORTS OR ANCHORAGES; NONMETALLIC CONDUIT, BOXES OR FITTINGS; OR VINYL, PLASTIC, NYLON, OR OTHER COMBUSTIBLE OR SMOKE PRODUCING IDENTIFICATION OR CONSTRUCTION MATERIALS IN THE SPACE ABOVE HUNG CEILINGS USED AS A PLENUM FOR THE RETURN OF ENVIRONMENTAL AIR.

63. DEMONSTRATE PRODUCT CAPABILITY AND COMPLIANCE WITH REQUIREMENTS OF ALL ELECTRICAL DEVICES, EQUIPMENT AND SYSTEMS.

64. PERFORM MANUFACTURER'S RECOMMENDED TESTS AND SUBMIT RESULTS.

65. VERIFY PROPER ROTATION OF ALL ROTATING ELECTRICAL MACHINERY.

66. TEST SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CABLES, BUS DUCTS, SWITCHES, CIRCUIT BREAKERS, GROUNDING SYSTEM, GROUND FAULT PROTECTION SYSTEM, SURGE ARRESTORS AND TVSS DEVICES, GENERATORS, AND TRANSFER SWITCHES IN ACCORDANCE WITH APPLICABLE SECTIONS OF INTERNATIONAL ELECTRICAL TESTING ASSOCIATION ACCEPTANCE TESTING SPECIFICATIONS FOR ELECTRIC POWER DISTRIBUTION EQUIPMENT AND SYSTEMS (NETA ATS-1999). PERFORM EACH VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST LISTED.

67. DELIVER CERTIFICATES OF ELECTRICAL AND OTHER INSPECTIONS, OR COPIES THEREOF, TO THE OWNER AT THE COMPLETION OF THE PROJECT WITH COPIES TO THE ENGINEER.

68. GUARANTEE ALL WORK IN WRITING TO THE OWNER AGAINST ANY AND ALL DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE AND PERFORM ALL CORRECTIVE WORK AT NO COST TO THE OWNER.

69. PRE-EXISTING CONDITIONS ARE EXEMPT PER NJAC 5:23-6.8(d)10. "EXISTING WORKING CLEARANCES, CLEAR SPACE, ACCESS AND ENTRANCE DIMENSIONS TO WORKING SPACES, ILLUMINATION, HEADROOM CLEARANCES, AND LOCATION OF OVERCURRENT PROTECTION DEVICES SHALL BE ALLOWED TO REMAIN WITHOUT MODIFICATION."

70. THE EMERGENCY SYSTEM CONSISTS OF ALL FEEDERS AND BRANCH CIRCUITS INDICATED AS THE LIFE SAFETY AND CRITICAL BRANCHES. THE WIRING OF THE EMERGENCY SYSTEM SHALL BE RUN IN ELECTRICAL METALLIC TUBING IN ACCORDANCE WITH [2021] NEC 517-30(C)(3).

71. CONDUCTOR SIZES (PHASE AND GROUND) SHALL BE INCREASED DUE TO DE-RATING AND VOLTAGE DROP REQUIREMENTS AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING VOLTAGE DROP BASED ON THE FEEDER AND BRANCH CIRCUIT RUNS SUCH THAT THE TOTAL VOLTAGE DROP ON EACH RUN DOES NOT EXCEED 5% TOTAL. PROVIDE AND INSTALL SPLICE/TAP J-BOX BEFORE CONNECTION TO LOAD AND TRANSFER TO SMALLER CONDUCTORS (PER CODE) FOR CONNECTION TO DEVICE TERMINALS WHERE REQUIRED.

72. PROVIDE ALL SAFETY SWITCHES AS SHOWN ON THE DRAWINGS AND/OR AS REQUIRED BY NEC FOR MOTOR, APPLIANCE AND ELECTRIC HEAT EQUIPMENT DISCONNECTION. ALL DISCONNECT SWITCHES SHALL BE LOCAL TO THE EQUIPMENT THEY ARE SERVING AND SHALL BE LOCKABLE IN THE "ON" OR "OFF" POSITION. LOCKABLE CIRCUIT BREAKERS SHALL NOT BE ACCEPTABLE.

73. PANEL BOARD LOCKS SHALL BE KEYED IN ACCORDANCE TO OWNER REQUIREMENTS.

74. AS-BUILTS SHALL BE PROVIDED WITHIN 30 DAYS OF SYSTEM ACCEPTANCE, INCLUDING BUT NOT LIMITED TO SINGLE-LINE OF ELECTRICAL DISTRIBUTION SYSTEM AND FLOOR PLAN WITH LOCATIONS OF DISTRIBUTION EQUIPMENT AND AREAS SERVED BY THAT EQUIPMENT. (ASHRAE STANDARD 90.1-2013.)

75. O & M MANUALS MUST BE PROVIDED FOR THE ELECTRICAL DISTRIBUTION SYSTEM, INCLUDING BUT NOT LIMITED TO NAMEPLATE RATINGS, SCHEDULED MAINTENANCE, SPECIFIC EQUIPMENT SUPPLIED, NAMES AND ADDRESSES OF QUALIFIED SERVICE AGENCIES, COMPLETE NARRATIVE AND SCHEMATIC OF SYSTEM IN NORMAL OPERATION. (ASHRAE STANDARD 90.1-2013.)

76. DEVICE AND EQUIPMENT MOUNTING HEIGHTS ARE AS LISTED ON DRAWING AND/OR DESCRIBED IN SPECIFICATIONS UNLESS ITEMIZED BY ARCHITECTURAL DOCUMENTS.

77. PROVIDE AUTOMATIC RECEPTACLE CONTROL IN ACCORDANCE WITH ASHRAE 90.1-2013. 50% OF RECEPTACLES IN ALL PRIVATE OFFICES, CONFERENCE ROOMS, ROOMS USED PRIMARILY FOR PRINTING AND/OR COPYING FUNCTIONS, BREAK ROOMS, CLASSROOMS, AND INDIVIDUAL WORKSTATIONS SHALL BE PROVIDED WITH AUTOMATIC RECEPTACLE CONTROL. 25% OF BRANCH CIRCUIT FEEDERS INSTALLED FOR MODULAR FURNITURE NOT SHOWN ON CONSTRUCTION DOCUMENTS SHALL BE CONTROLLED WITH AUTOMATIC RECEPTACLE CONTROL. PERMANENTLY MARK ALL CONTROLLED RECEPTACLES TO VISUALLY DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLES AND ARE TO BE UNIFORMLY DISTRIBUTED THROUGHOUT THE SPACE.

78. APPLY U.L. APPROVED FIRE STOPPING ("3M" FIRE STOP SEALANT 2000 AND/OR "3M" FIRE BARRIER CP25 WB) TO ALL PENETRATIONS OF FIRE RATED FLOORS, WALL AND CEILING ASSEMBLIES. RATING MUST RE-ESTABLISH THE ORIGINAL FIRE RESISTANCE.

POWER SYMBOL LEGEND

SYMBOL	DESCRIPTION
	PANELBOARD
	DISCONNECT SWITCH – UNFUSED. (SWITCH AMPS)
	DISCONNECT SWITCH – FUSED. (SWITCH AMPS/FUSE AMPS)
	MOTOR STARTER – MANUAL SWITCH WITH THERMAL OVERLOAD.
	JUNCTION BOX
	MOTOR
	DUPLEX RECEPTACLE, NEMA 5–20R
	DUPLEX RECEPTACLE WITH GFCI, NEMA 5–20R
	QUAD RECEPTACLE, NEMA 5–20R
	4P – DATA PORT, CONTRACTOR TO PROVIDE BACK BOX AND EMPTY CONDUIT TO DEVICE LOCATIONS, CONDUIT TO BE ROUTED BACK TO EXISTING MECHANICAL ROOM.
	CARD READER, CONTRACTOR TO PROVIDE BACK BOX AND EMPTY CONDUIT TO DEVICE LOCATIONS, CONDUIT TO BE ROUTED BACK TO EXISTING MECHANICAL ROOM.
	WIRELESS ACCESS POINT, CONTRACTOR TO PROVIDE BACK BOX AND EMPTY CONDUIT TO DEVICE LOCATIONS, CONDUIT TO BE ROUTED BACK TO EXISTING MECHANICAL ROOM.
	LOW VOLTAGE MOMENTARY SWITCH. PROVIDE MULTI BUTTON SWITCH FOR MULTIPLE CONTROL ZONES.
	OCCUPANCY SWITCH
	VACANCY SWITCH
	OCCUPANCY SENSOR
	VACANCY SENSOR
	PHOTOCELL
	TIME CLOCK
	EXIT SIGN

FIRE ALARM SYMBOL LIST

SYMBOL	DESCRIPTION
	SMOKE DETECTOR
	PULL STATION
	SPEAKER STROBE
	STROBE



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STATE OF NJ LICENSE No. 246E05123000

SHEET CONTENTS:

ELECTRICAL NOTES AND DETAILS

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
**ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

10.09.2026	ISSUED FOR BID

DATE	REVISIONS	REV

Date 10.07.2026
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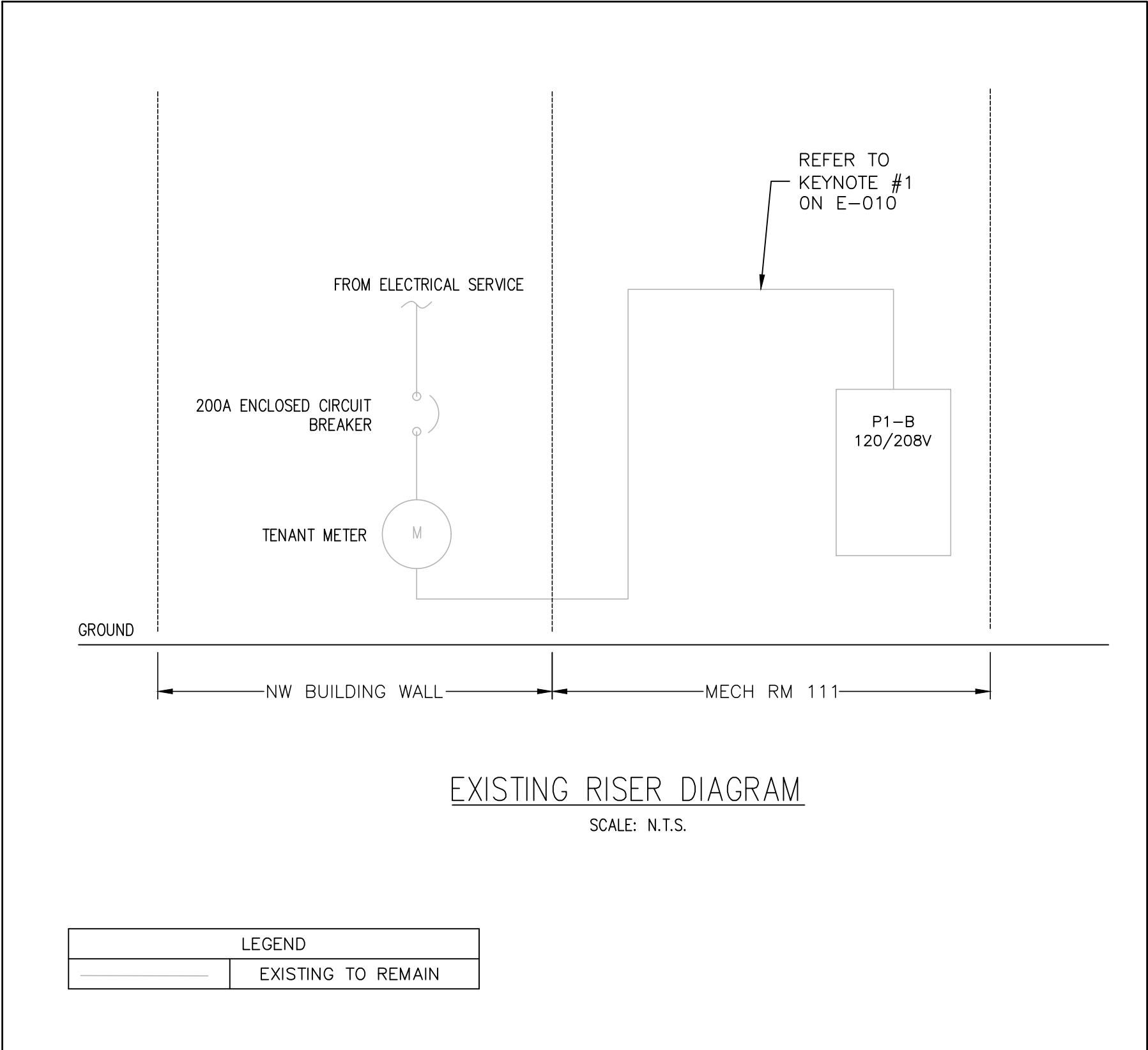
E-000

LIGHT FIXTURE SCHEDULE							
SYMBOL TAG	MANUFACTURER	CATALOGUE NUMBER	VOLTAGE	TOTAL WATTAGE	DESCRIPTION	SPECIFIED BY	NOTES
A	COLUMBIA LIGHTING	PER ARCHITECT	120V	45W	2' x 2' LAY-IN RECESSED LIGHT FIXTURE (CLT-LSCS CENTER LENS TROFFER BY COLUMBIA LIGHTING OR EQUAL)	ARCHITECT / LIGHTING DESIGNER	
A1	CORONET	PER ARCHITECT	120V	30W	2' x 4'-0" RECESSED LIGHT FIXTURE (LSR1 RECESSED BY CORONET LIGHTING OR EQUAL)	ARCHITECT / LIGHTING DESIGNER	
B	CORONET	PER ARCHITECT	120V	100W	48" DIAMETER DIRECT / INDIRECT @ 8'-6" A.F.F. (CIRCULAR PENDANT MOUNTED FIXTURE HOOP BY CORONET OR EQUAL)	ARCHITECT / LIGHTING DESIGNER	
C	CORONET	PER ARCHITECT	120V	48W	CUSTOM CURVE LIGHTING FIXTURE @ 8'-6" A.F.F. CORONET LS1 CURVE INDIRECT / DIRECT PENDANT LIGHT FIXTURE OR EQUAL	ARCHITECT / LIGHTING DESIGNER	
D	CORONET	PER ARCHITECT	120V	10W	4' x 4' PENDANT LIGHT FIXTURE WITH NOISE REDUCTION BAFFLE @ 9'-0" A.F.F. (CORONET GRIDIRON DIRECT OR EQUAL)	ARCHITECT / LIGHTING DESIGNER	
E	COLUMBIA LIGHTING	PER ARCHITECT	120V	40W	SUSPENDED LIGHT FIXTURE @ 9'-0" A.F.F.	ARCHITECT / LIGHTING DESIGNER	
E1	COLUMBIA LIGHTING	PER ARCHITECT	120V	27W	SUSPENDED LIGHT FIXTURE @ 9'-0" A.F.F.	ARCHITECT / LIGHTING DESIGNER	
F		PER ARCHITECT	120V	50W	RECESSED DOWNLIGHT	ARCHITECT / LIGHTING DESIGNER	
G		PER ARCHITECT	120V	50W	PENDANT DOWNLIGHT	ARCHITECT / LIGHTING DESIGNER	
H		PER ARCHITECT	120V	10W/FT	COVE LIGHT FIXTURE	ARCHITECT / LIGHTING DESIGNER	
I		PER ARCHITECT	120W	9W	WALL SCENCE	ARCHITECT / LIGHTING DESIGNER	
EX		PER ARCHITECT	120V	5W	EXIT SIGN	ARCHITECT / LIGHTING DESIGNER	

GENERAL ABBREVIATIONS	
A	AMPERES
AFF	ABOVE FLOOR FINISH
AIC	AMPERES INTERRUPTING CAPACITY
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
E	EXISTING
EC	ELECTRICAL CONTRACTOR
EQP	EQUIPMENT
ETR	EXISTING TO REMAIN
EX	EXPLOSION PROOF
FACP	FIRE ALARM CONTROL PANEL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER.
GRD/G	GROUNDING
HOA	HAND-OFF--AUTOMATIC
JB	JUNCTION BOX
KV	KILOVOLTS
KVA	KILOVOLT AMPERES
KW	KILOWATTS
NTS	NOT TO SCALE
R	REMOVE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLTS
W	WATTS
WP	WEATHERPROOF

NOTE:
NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HERE MAY
APPEAR ON THE DRAWINGS FOR THIS PROJECT.

TYPICAL MOUNTING HEIGHTS	
12'-0"	EXTERIOR WALL MOUNTED LIGHTING FIXTURES
TBD	BATTERY UNITS AND EMERGENCY REMOTE HEADS SHALL BE MOUNTED (OR 1'-0" BELOW FINISHED CEILING TO TOP OF FIXTURE, WHICHEVER IS LOWER)
8'-6"	PENDANT MOUNTED INDUSTRIAL AND STRIP LIGHTING FIXTURES
PER N.F.P.A. & A.D.A. CODE REQUIREMENTS 6'-8" (MIN.)	WALL- MOUNTED CLOCKS, PROGRAM BELLS, BOTTOM OF FIRE ALARM AUDIBLE AND VISUAL DEVICES (OR 9" BELOW CEILING, OR AS SHOWN ON ARCHITECTURAL DETAILS)
90" TO 6" BELOW CEILING	WARNING AND SIGNALING FIXTURES/SIGNS.
6'-6"	CENTERLINE OF INTERIOR WALL MOUNTED FIXTURES
6'-6"	TOP OF FLUSH AND SURFACE MOUNTED ELECTRICAL PANELBOARDS, TELEPHONE CABINETS, OR FIRE ALARM CABINETS.
6'-3"	TOP OF BACK-MOUNTED WALL EXIT FIXTURES (NOT MOUNTED ABOVE DOORS)
6'-0"	TOP OF HIGHEST ELECTRICAL SAFETY DISCONNECT SWITCHES, MAGNETIC STARTERS, CONTACTORS.
4'-6"	WALL MOUNTED TELEPHONES AND PAY STATIONS (3'-6" AT HANDICAP LOCATIONS).
4'-0"	CENTER OF WALL MOUNTED ELECTRICAL LIGHT SWITCHES, MANUAL MOTOR STARTERS, THERMOSTATS, FIRE ALARM PULL STATIONS, GARAGE AREA RECEPTACLES AND TOP OF WIREMOLD.
2'-0"	ELECTRICAL RECEPTACLE WITHIN ELECTRICAL/MECHANICAL SPACES AND ELEVATOR ROOMS, AND EXTERIOR OF BUILDING.
1'-6"	ELECTRICAL RECEPTACLES TELEPHONE OUTLETS TELEVISION OUTLETS COMPUTER OUTLETS
FINISHED FLOOR	
NOTES: 1. MOUNTING HEIGHTS TO CENTER OF OUTLETS UNLESS OTHERWISE NOTED. IN MASONRY WALL CONSTRUCTION THE ABOVE MOUNTING HEIGHTS SHALL BE USED FOR REFERENCE TO NEAREST BLOCK OR BRICK COURSING. 2. THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWINGS OR SPECIFICATIONS. 3. VERIFY ALL MOUNTING HEIGHTS WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN. 4. ALL MOUNTING HEIGHTS SHALL COMPLY WITH ANSI A117.1-2009.	



ELECTRICAL DEMOLITION/RENOVATION NOTES

THE OWNER WILL OCCUPY THE SITE AND EXISTING BUILDING(S) DURING THE ENTIRE CONSTRUCTION PERIOD. COOPERATE WITH THE OWNER DURING CONSTRUCTION OPERATIONS TO AVOID ANY CONFLICTS. PERFORM THE WORK SO AS NOT TO INTERFERE WITH THE OWNER'S OPERATIONS. SCHEDULE ALL POWER OUTAGES IN ADVANCE WITH OWNER FOR OVERTIME ON SUNDAYS AND HOLIDAYS AT NO ADDITIONAL COST TO THE OWNER.

REPORT DISCREPANCIES TO ARCHITECT / ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.

VERIFY THAT FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS ARE AS INDICATED.

VERIFY THAT ABANDONED WIRING AND EQUIPMENT SERVE ONLY ABANDONED FACILITIES.

1. THE ELECTRICAL CONTRACTOR SHALL MEASURE THE STEADY STATE LOAD CURRENT AT EACH AFFECTED PANEL BOARD FEEDER AND DOCUMENT PRE-CONSTRUCTION VALUES FOR EXISTING LIGHTING AND MECHANICAL LOADS TO UNDERSTAND AVAILABILITY OF ADDITIONAL PANEL BOARD LOADING WITHIN THE CONSTRAINTS OF THE STATE BUILDING AND ELECTRICAL CODES. PROVIDE FINDINGS IN REPORT FORM WITH MARKED UP DRAWINGS. TO THE ENGINEER AS SOON AS COMPLETED. NO REWIRING SHALL BEGIN UNTIL THIS STEP IS COMPLETED.

2. WHERE ELECTRICAL EQUIPMENT (I.E. SWITCHBOARDS, PANELBOARDS, BUS DUCTS, TRANSFORMERS, DISCONNECTS, ETC.) OR SYSTEMS (I.E. FIRE ALARM, SOUND, INTERCOMMUNICATIONS, ALARM, ETC.) IS INDICATED TO BE MODIFIED TO ACCEPT NEW WORK SAID MODIFICATIONS SHALL BE PERFORMED BY ELECTRICAL EQUIPMENT FABRICATORS OR MANUFACTURER'S REPRESENTATIVES WHO CAN AFFECT SUCH MODIFICATIONS WITHOUT VOIDING THE U. L. LABEL OR MANUFACTURER'S WARRANTIES.

3. IT SHALL BE THE RESPONSIBILITY OF ELECTRICAL CONTRACTOR TO LOCATE ALL UNDER-SLAB CONDUITS

4. PRIOR TO STARTING ANY WORK THAT MAY CONFLICT WITH THE PROJECT IN HAND.

5. THE ELECTRICAL CONTRACTOR SHALL TRACE AFFECTED POWER PANEL BRANCH CIRCUITS IN CONTRACT AREAS TO DETERMINE WIRING CONFIGURATION OF AFFECTED AND SURROUNDING AREAS. ELECTRICAL CONTRACTOR SHALL DOCUMENT EXISTING CONDITIONS TO AID IN REWIRING CONTRACT AREAS IN COMPLIANCE WITH ENGINEERING DOCUMENTS, LOCAL CODES, AND ORDINANCES. PROVIDE FINDINGS IN REPORT FORM WITH MARKED UP DRAWINGS. TO THE ENGINEER AS SOON AS COMPLETED. NO REWIRING SHALL BEGIN UNTIL THIS STEP IS COMPLETED.

6. PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION THAT ARE NECESSARY FOR THE OPERATION OF THE BUILDING.

7. RELOCATE EXISTING JUNCTION BOXES, PULL/SPLICE BOXES, ETC. WHICH REQUIRE ACCESS THAT WILL BE BLOCKED BY NEW CONSTRUCTION (MECHANICAL AND ELECTRICAL). CONTRACTOR SHALL COORDINATE WITH FIELD CONDITIONS AND OTHER TRADES FOR NEW OR EXISTING ELECTRICAL ITEMS REQUIRING ACCESS LOCATED OVER G.W.B. OR OTHER INACCESSIBLE CEILINGS. PROVIDE ACCESS PANELS TO BE LOCATED IN COORDINATION WITH ARCHITECT AND INSTALLED BY G.C.

8. MAINTAIN CONTINUITY OF EXISTING CIRCUITS AFFECTED BY THIS WORK WHICH MUST REMAIN IN SERVICE.

9. MAKE ALL MODIFICATIONS NECESSARY TO EXISTING PANELBOARDS AND SWITCHBOARDS TO ACCEPT NEW CIRCUITS.

10. REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY, EXPOSED ABANDONED RACEWAY, BOXES and OUTLETS INCLUDING ABANDONED SYSTEMS ABOVE ACCESSIBLE CEILING FINISHES.

11. PROVIDE BLANK COVERS FOR ABANDONED OUTLET BOXES WHICH CANNOT BE REMOVED. REFURBISH AND REINSTALL COVERS WHERE PRACTICABLE.

12. DISCONNECT AND REMOVE ELECTRICAL DEVICES AND EQUIPMENT SERVING UTILIZATION EQUIPMENT, WHICH HAS BEEN REMOVED.

13. DISCONNECT AND REMOVE ABANDONED LUMINAIRES, BRACKETS, STEMS, HANGERS AND OTHER ACCESSORIES.

14. REMOVE EQUIPMENT INDICATED TO REMAIN AND REINSTALL ON NEW FINISHED SURFACES AS REQUIRED.
15. ELECTRICAL CONTRACTOR SHALL REVIEW ARCHITECTURAL AND MECHANICAL DRAWINGS TO UNDERSTAND THE EXTENT OF LIGHTING FIXTURE REMOVAL AND REPLACEMENT TO ACCOMMODATE OUT OF CONTRACT AREAS THAT ARE AFFECTED IN SYSTEMS CONSTRUCTION

16. REMOVE AND REINSTALL CEILING SYSTEM AS REQUIRED FOR THE INSTALLATION OF ELECTRICAL WORK AND REPLACE IN KIND. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY DAMAGED GRID TILE THAT MIGHT OCCUR DURING DEMOLITION AND/OR RE-INSTALLATION OF THE EXISTING CEILING AND/OR CEILING MOUNTED DEVICES. NEW GRID/TILES TO MATCH EXISTING. PATCH AND REPAIR ALL DAMAGE CAUSED BY REMOVAL, MATCH EXISTING ADJACENT FINISH.

17. FOR ANY EXISTING PARTITIONS THAT WILL BE FURRED-OUT, ELECTRICAL CONTRACTOR TO PROVIDE J-BOX EXTENSIONS AND/OR NEW J-BOXES TO ACCOMMODATE EXISTING TO REMAIN ELECTRICAL DEVICES. REFER TO ARCHITECT'S DRAWINGS FOR PARTITION WORK.

18. IN ALL AREAS WHERE WORK IS BEING PERFORMED UNDER THIS CONTRACT, CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING ALL EXISTING ELECTRICAL DEVICES AND WIRING/CONDUIT ABOVE THE EXISTING CEILINGS, PER NEC. ALL TELE/DATA AND FIRE ALARM WIRING SHALL BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE WITH J-HOOKS AND NOT TIE-WRAPPED TO CONDUITS OR MECHANICAL PIPING. ALL EXISTING POWER WIRING/CONDUIT AND JUNCTION BOXES SHALL BE INDEPENDENTLY SUPPORTED TO THE STRUCTURE AND NOT TO THE CEILING GUIDE WIRES, HVAC DUCTS, PIPING, ETC. PROVIDE ALL REQUIRED SUPPORTS AND ACCESSORIES AS REQUIRED PER NEC.

19. FOR ANY ABOVE CEILING SPACE THAT, AS A RESULT OF NEW CONSTRUCTION WILL BECOME AN "EXPOSED" CONDITION, THE ELECTRICAL CONTRACTOR SHALL RE-ROUTE, RE-CONFIGURE AND RE-BUNDLE ALL NEW AND EXISTING WIRING & RACEWAYS AS NECESSARY TO PROVIDE A NEAT, WORKMAN-LIKE CONDITION TO THE SATISFACTION OF THE ARCHITECT OR ENGINEER. ROUTE AND BUNDLE ALL WIRING, RACEWAYS, ETC. TIGHT TO BEAMS, TIGHT TO UNDERSIDE OF STRUCTURE, PARALLEL TO MAJOR ELEMENTS AND AT 90 DEGREE ANGLES TO MAJOR ELEMENTS IN THE EXPOSED CAVITY SPACE.

20. DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT, LIGHTING FIXTURES, WIRING DEVICES, RACEWAY, WIRING, CABLE, OUTLET BOXES, ETC. ABANDONED OR REPLACED AS A RESULT OF THIS WORK. DISCONNECT APPLIANCES, ETC., FOR REMOVAL BY OTHERS.

21. EXISTING PROJECT CONDITIONS INDICATED ARE BASED ON FIELD OBSERVATION, EXISTING DESIGN / CONSTRUCTION DOCUMENTS AND EXISTING RECORD DOCUMENTS AND ARE INTENDED TO INDICATE THE SCOPE OF THE WORK AFFECTED BY THIS PROJECT.

22. DISCONNECT EXISTING ELECTRICAL SYSTEMS IN WALLS, FLOORS AND CEILINGS INDICATED FOR REMOVAL.

23. REPAIR OPENINGS LEFT IN BUILDING COMPONENTS AS A RESULT OF REMOVAL OF ELECTRICAL WORK AND RESTORE ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING REMOVAL OF EXISTING ELECTRICAL WORK. PROVIDE MATCHING TILES IN ACCESSIBLE CEILINGS.

24. CLEAN AND REPAIR EXISTING MATERIALS AND EQUIPMENT WHICH REMAIN OR ARE TO BE REUSED.

25. CLEAN AND CHECK TIGHTNESS OF PANELBOARD ELECTRICAL CONNECTIONS; REPLACE DAMAGED CIRCUIT BREAKERS INDICATED TO BE REUSED AND PROVIDE CLOSURE PLATES FOR VACANT POSITIONS; REVISE CIRCUIT DIRECTORY.

26. CLEAN EXTERIOR AND INTERIOR LUMINAIRE SURFACES OF LIGHTING FIXTURES THAT ARE TO REMAIN AND BE RE-USED AND PROVIDE NEW LAMPS; REPLACE DAMAGED AND DISCOLORED LENSES, DEFECTIVE BALLASTS, AND BROKEN ELECTRICAL PARTS.

27. AT COMPLETION OF THE PROJECT THE ELECTRICAL CONTRACTOR SHALL COMPILE A LIST OF EXISTING AND NEW CIRCUITS DESCRIBED ON CONTRACT DOCUMENTS, TO PROVIDE A FULL PANEL SCHEDULE DIRECTORY WITH DEVICE NAME (LIGHTING, RECEPTACLES, EQUIPMENT, ETC.) AND ROOM NUMBERS BEING SERVED. LABEL ALL CIRCUIT BREAKERS NOT BEING USED AS SPARE AND REMOVE CONDUCTORS FROM PANEL BOARD AND CONDUITS.

AND M

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LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. 24GE05120300

SHEET CONTENTS:

ELECTRICAL DEMOLITION NOTES, LIGHT FIXTURE SCHEDULE, AND RISER DIAGRAM

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
**ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

10.09.2026 ISSUED FOR BID

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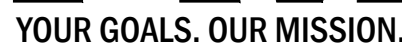
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Drawing No.

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SHEET CONTENTS:

ELECTRICAL DEMO PLAN

PROJECT TITLE:

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ROEBLING BUILDING 4
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IMPROVEMENTS**
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Job No.	2241895
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Drawing No.

E-010



SCALE: NTS

ELECTRICAL — FLOOR PLAN DEMOLITION PLAN

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

LEGEND	
—————	EXISTING TO REMAIN
-----	EXISTING TO BE DEMOLISHED
—————R	EXISTING TO BE RELOCATED

FLOOR PLAN DEMOLITION GENERAL NOTES

1. FIRE ALARM SYSTEM SHALL REMAIN OPERATIONAL DURING DEMOLITION AND CONSTRUCTION. IF REQUIRED, DEVICES SHALL BE TEMPORARILY RELOCATED TO FACILITATE ADEQUATE COVERAGE DURING CONSTRUCTION.
2. FIRE ALARM PANEL LOCATED IN MACHINE ROOM ON GROUND FLOOR.
3. REFER TO E-100 FOR LOCATION OF RELOCATED DEVICES.
4. PANEL SERVICE METER IS LOCATED NEAR THE NORTH WEST EXTERIOR WALL OF THE BUILDING.
5. ALL EXISTING RECEPTACLES, JUNCTION BOXES, CONDUIT, CABLE, ETC. THAT DO NOT SERVE OTHER SPACES, OR BUILDING SYSTEMS SHALL BE DEMOLISHED UNLESS OTHERWISE NOTED. CONTRACTOR SHALL VERIFY EQUIPMENT IS NOT IN USE OR SERVING OTHER SPACES PRIOR TO DEMOLITION. PATCH AND FIRE PROOF ALL UNUSED PENETRATIONS TO MAINTAIN WALL RATINGS.

FLOOR PLAN DEMOLITION KEY NOTES

SYMBOL = $\odot$

1. PROVIDE AN ADD-ALTERNATE PRICE TO RELOCATE THE CONDUIT SERVING P1-B CLOSER TO THE CEILING IN THE TENANT SPACE.. COORDINATE ALL SHUTDOWNS WITH PSE&G AND THE OWNER PRIOR TO COMMENCEMENT OF WORK.

CEILING PLAN DEMOLITION GENERAL NOTES

1. ALL EXISTING LIGHT FIXTURES AND LIGHTING CONTROLS SHALL REMAIN OPERATIONAL THROUGHOUT CONSTRUCTION AND BE REMOVED AFTER INSTALLATION OF NEW FIXTURES AND CONTROLS. BRANCH CIRCUITS SHALL BE REMOVED BACK TO THE PANEL OF ORIGIN. EXISTING LIGHTING AND CONTROLS SHALL BE STORED PER OWNERS DISCRETION.

ELECTRICAL – CEILING DEMOLITION PLAN

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

RATING: 208/120V, 4W, 3PH, 225A			P1-B (EXISTING)												
CKT NO.	DESCRIPTION	POLE	LOAD KVA	BKR	BRANCH CIRCUIT	A	B	C	BRANCH CIRCUIT	BKR	LOAD KVA	POLE	CIRCUIT DESCRIPTION	CKT NO.	
3	EXISTING RECEPTACLES	1	0.18	20	EXISTING	1.2			EXISTING	20	1.00	1	EXISTING UNIT HEATER	2	
5	EXISTING LIGHTING	1	1.92	20	EXISTING		3.4		EXISTING	20	1.50	1	EXISTING BUILDING SIGN	6	
7	SPARE	1	20	20	EXISTING			0.0		20			SPARE	8	
9	SPARE	1	20	20	EXISTING	0.0		0.0		20		1	SPARE	10	
11	SPARE	1	20	20	EXISTING			0.0		20		1	SPARE	12	
13	SPARE	1	20	20	EXISTING	0.0			EXISTING	40		3	TVSS	14	
15	SPARE	1	20	20	EXISTING		0.0								16
17	SPACE	1	20					0.0						18	
19	SPACE	1	20			0.0				20		1	SPACE	20	
21	SPACE	1	20				0.0			20		1	SPACE	22	
23	SPACE	1	20					0.0		20		1	SPACE	24	
25	SPACE	1	20			0.0				20		1	SPACE	26	
27	SPACE	1	20					0.0		20		1	SPACE	28	
29	SPACE	1	20						0.0	20		1	SPACE	30	
31	SPACE	1	20			0.0				20		1	SPACE	32	
33	SPACE	1	20				0.0			20		1	SPACE	34	
35	SPACE	1	20					0.0		20		1	SPACE	36	
37	SPACE	1	20			0.0				20		1	SPACE	38	
39	SPACE	1	20					0.0		20		1	SPACE	40	
41	SPACE	1	20						0.0	20		1	SPACE	42	

PANEL TYPE: NEMA 1	
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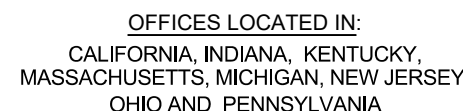
MOUNTING: SURFACE

INTERRUPTING RATING: 30KA SYM.

NOTES

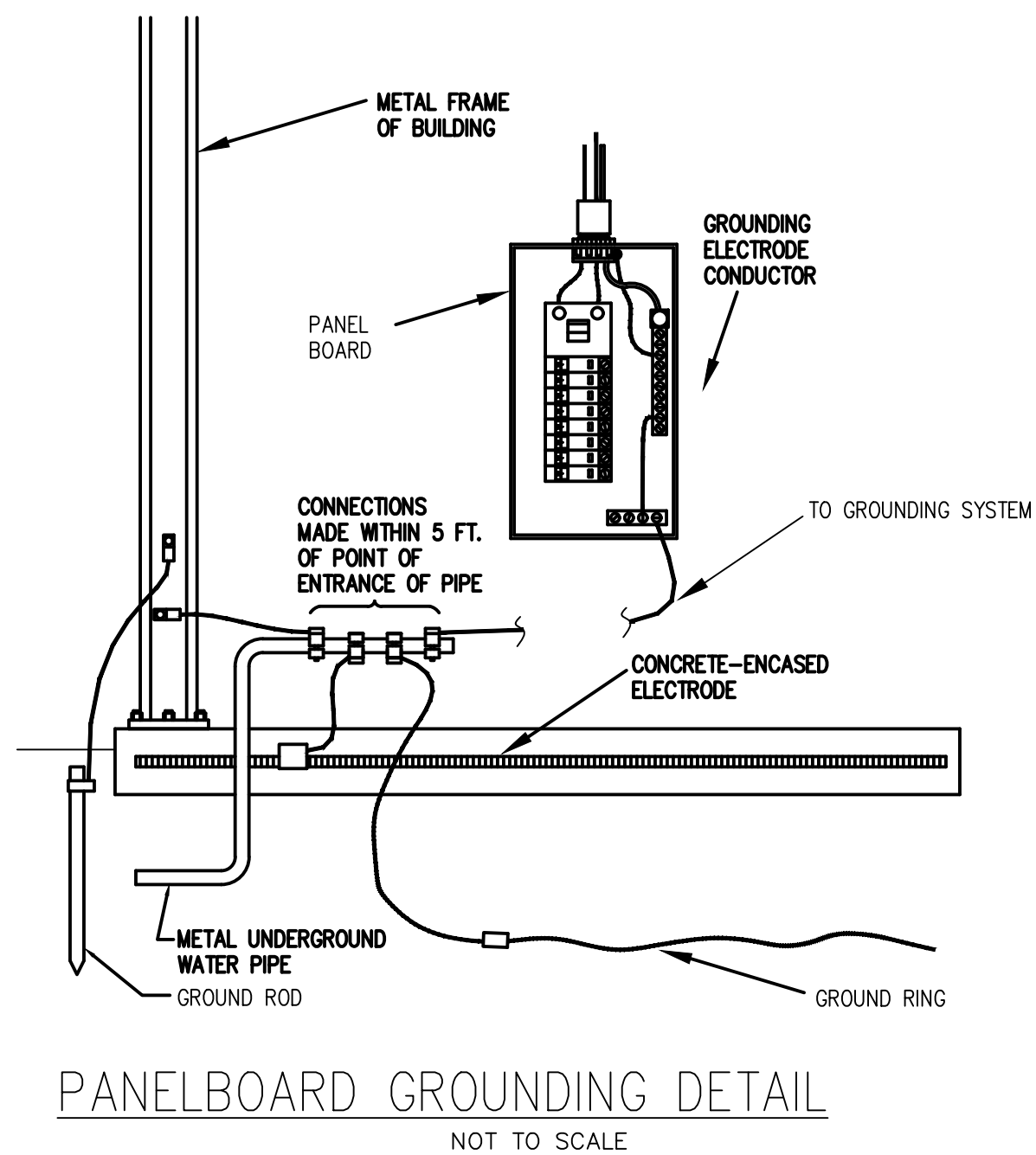
NOTES

1. EXISTING RECEPTACLES, UNIT HEATER AND LIGHTING TO BE DEMOLISHED BACK TO PANEL

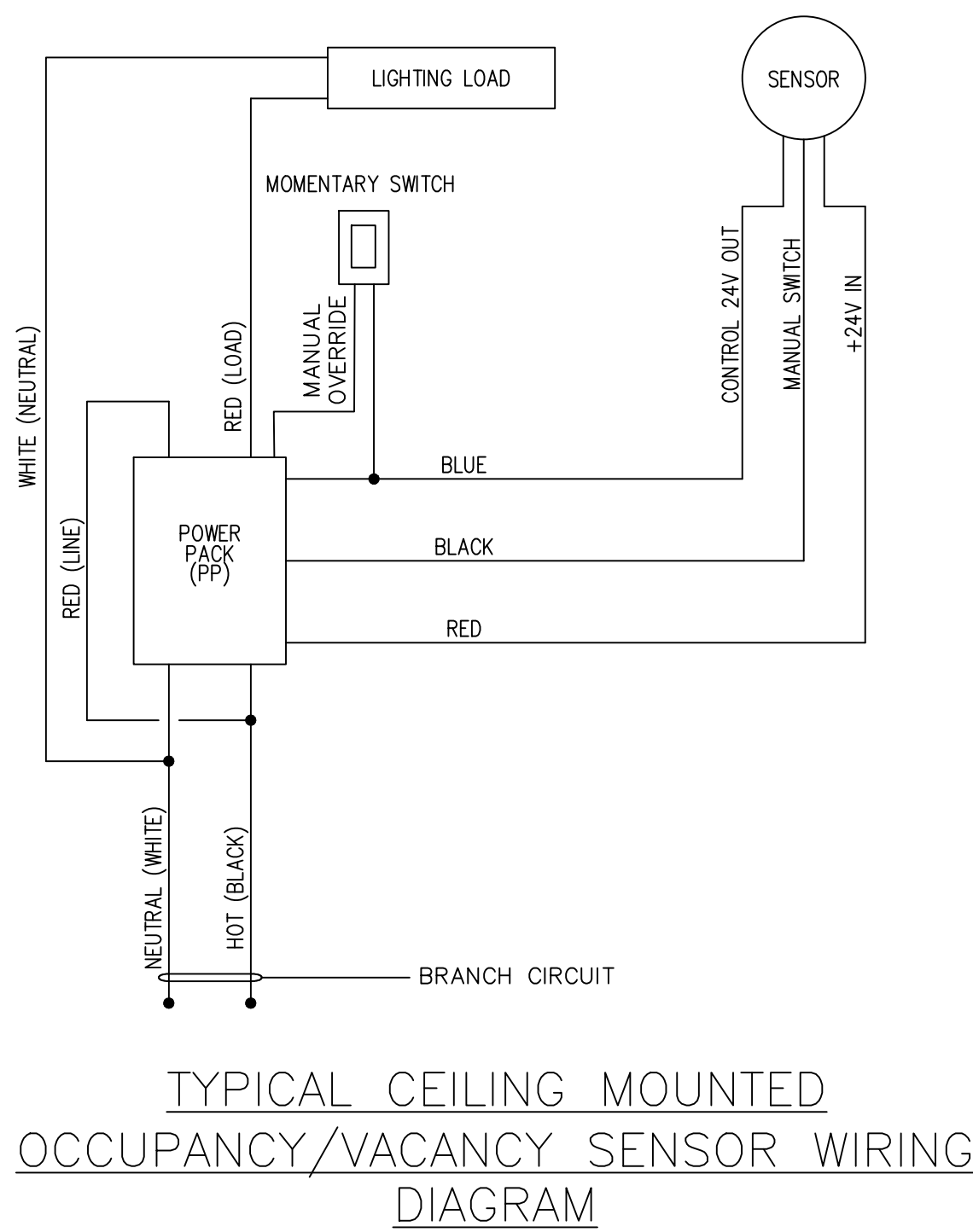


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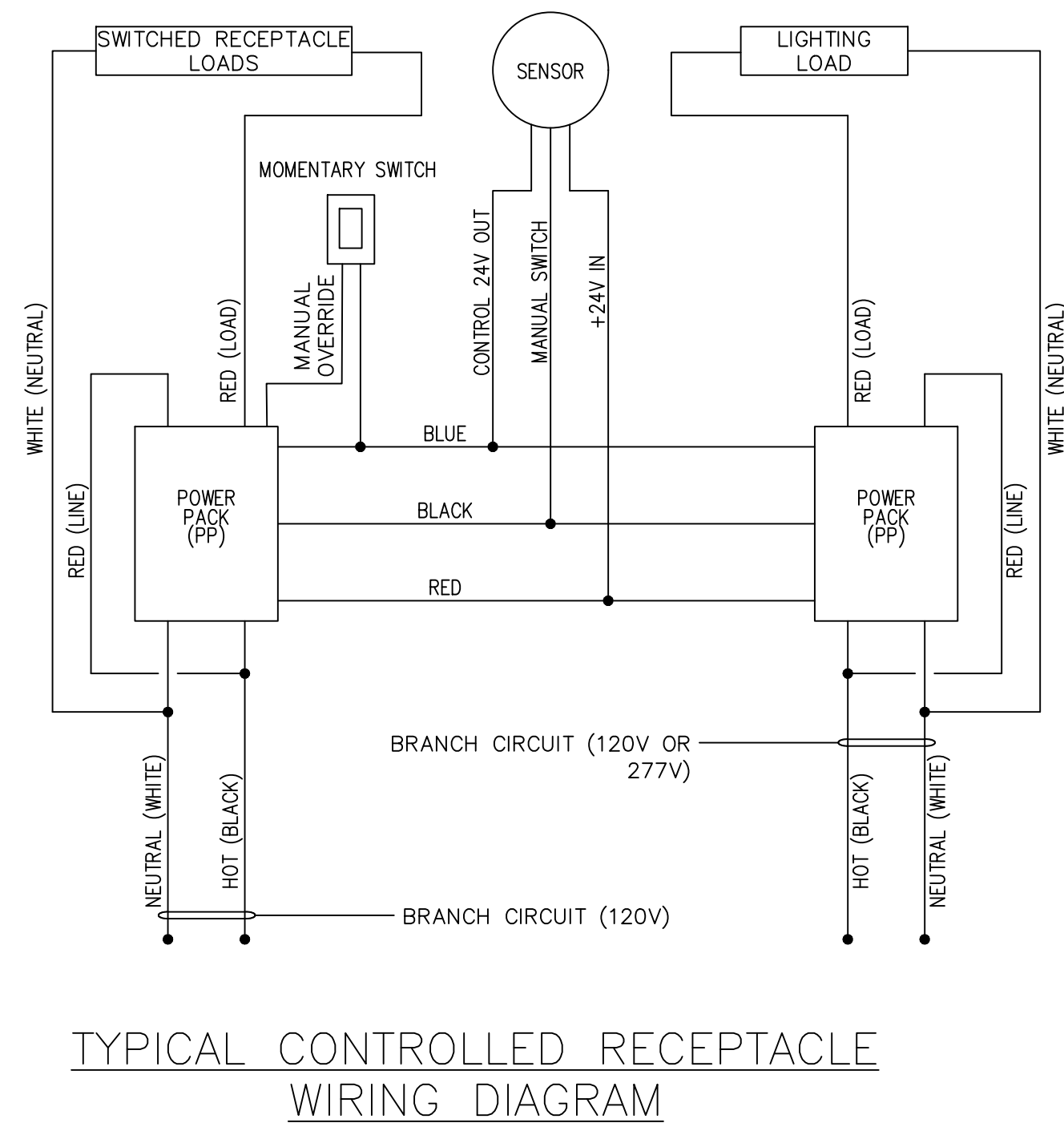
RATING: 208/120V, 4W, 3PH, 225A				P1-B (EXISTING NEW WORK)													
CKT. NO.	CIRCUIT DESCRIPTION	POLE	LOAD KVA	BKR.	BRANCH CIRCUIT	A	B	C	BRANCH CIRCUIT	BKR.	LOAD KVA	POLE	CIRCUIT DESCRIPTION	CKT. NO.			
2	REFRIGERATOR	1	1.20	20	2#12, #12G IN 3/4" CDT	2.2			2#12, #12G IN 3/4" CDT	20	1.00	1	DISPLAY MONITORS	2			
3	CONV. RECEPT 105-108	1	1.44	20	2#12, #12G IN 3/4" CDT		2.4		EXISTING	20	1.00	1	EXISTING BUILDING SIGN	4			
5	RECEPT RM 102 103	1	0.90	20	2#12, #12G IN 3/4" CDT			1.8	2#12, #12G IN 3/4" CDT	20	0.72	1	RECEPT RM 101	6			
7	RECEPT RM 105,106	1	1.44	20	2#12, #12G IN 3/4" CDT	2.3			2#12, #12G IN 3/4" CDT	20	0.90	1	RECEPT RM 110,111,104	8			
9	RECEPT RM 109	1	1.08	20	2#12, #12G IN 3/4" CDT		1.9		2#12, #12G IN 3/4" CDT	20	0.80		TV	10			
11	RECEPT RM 107,108	1	1.44	20	2#12, #12G IN 3/4" CDT			2.4	2#12, #12G IN 3/4" CDT	20	1.00	1	PRINTER	12			
13	POWERED FURNITURE	1	1.62	20	2#12, #12G IN 3/4" CDT	1.6								14			
15	POWERED FURNITURE	1	1.44	20	2#12, #12G IN 3/4" CDT		1.4		EXISTING	40		3	TVSS	16			
17	LIGHTING	1	1.17	20	2#12, #12G IN 3/4" CDT			1.2						18			
19	LIGHTING	1	1.00	20	2#12, #12G IN 3/4" CDT	2.5			2#10, #10G IN 3/4" CDT	20	1.50	1	IT RACK	20			
21			4.59				5.4							22			
23	ACC-1	3	4.59	50	3#6 & 1#10 IN 3/4" CDT			5.4	2#12, #12G IN 3/4" CDT	15	0.84	2	ERV-1	24			
25			4.59			6.1			2#12, #12G IN 3/4" CDT	20	1.50	1	COFFEE MACHINE*	26			
27			2.62				4.1		2#12, #12G IN 3/4" CDT	20	1.50	1	COFFEE MACHINE*	28			
29	ACC-2	3	2.62	30	3#10 & 1#10 IN 3/4" CDT			3.0			0.37			30			
31			2.62			3.0			2#12, #12G IN 3/4" CDT	15	0.37	2	AC-1	32			
33	VRF-1,2,3,4,5,6,7,8 BC-1	2	0.74	15	2#12, #12G IN 3/4" CDT		0.7			20			SPARE	34			
35			0.74					0.7		20			SPARE	36			
37	SPARE	1		20		0.0				20		1	SPARE	38			
39	SPARE	1		20			0.0			20		1	SPARE	40			
41	SPARE	1		20				0.0		20		1	SPARE	42			
TOTAL (PHASE):						17.7	16.1	14.4									
CONNECTED LOADS..						48.2			KVA								
MOUNTING: SURFACE																	
MAIN CIRCUIT BREAKER: 200A																	
INTERRUPTING RATING: 30KA SYM.																	
NOTES																	
1. ALL BUSING TO BE COPPER																	
2. BOLT ON BREAKERS ONLY																	
3. CONTRACTOR IS RESPONSIBLE TO COORDINATE THE SHORT CIRCUIT RATING AT THE UTILITY TRANSFORMER AND NOTIFY THE ENGINEER PRIOR TO PURCHASING ANY EQUIPMENT.																	
4. ALL WIRE SIZES ARE BASED ON 75 DEGREE WIRE.																	
5. *COORDINATE THE EXACT LOCATION WITH THE ARCHITECT.																	



E-1

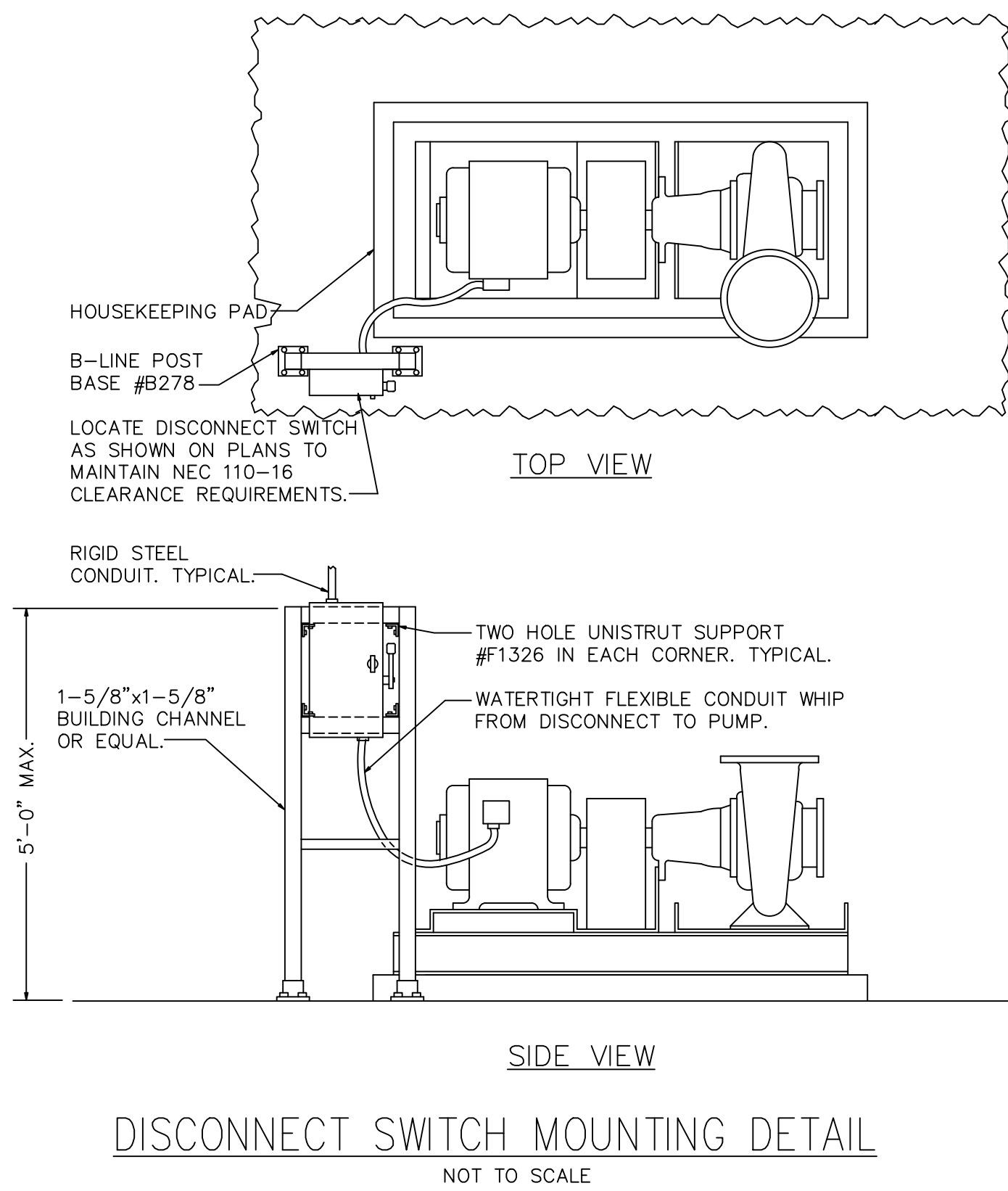


E-2

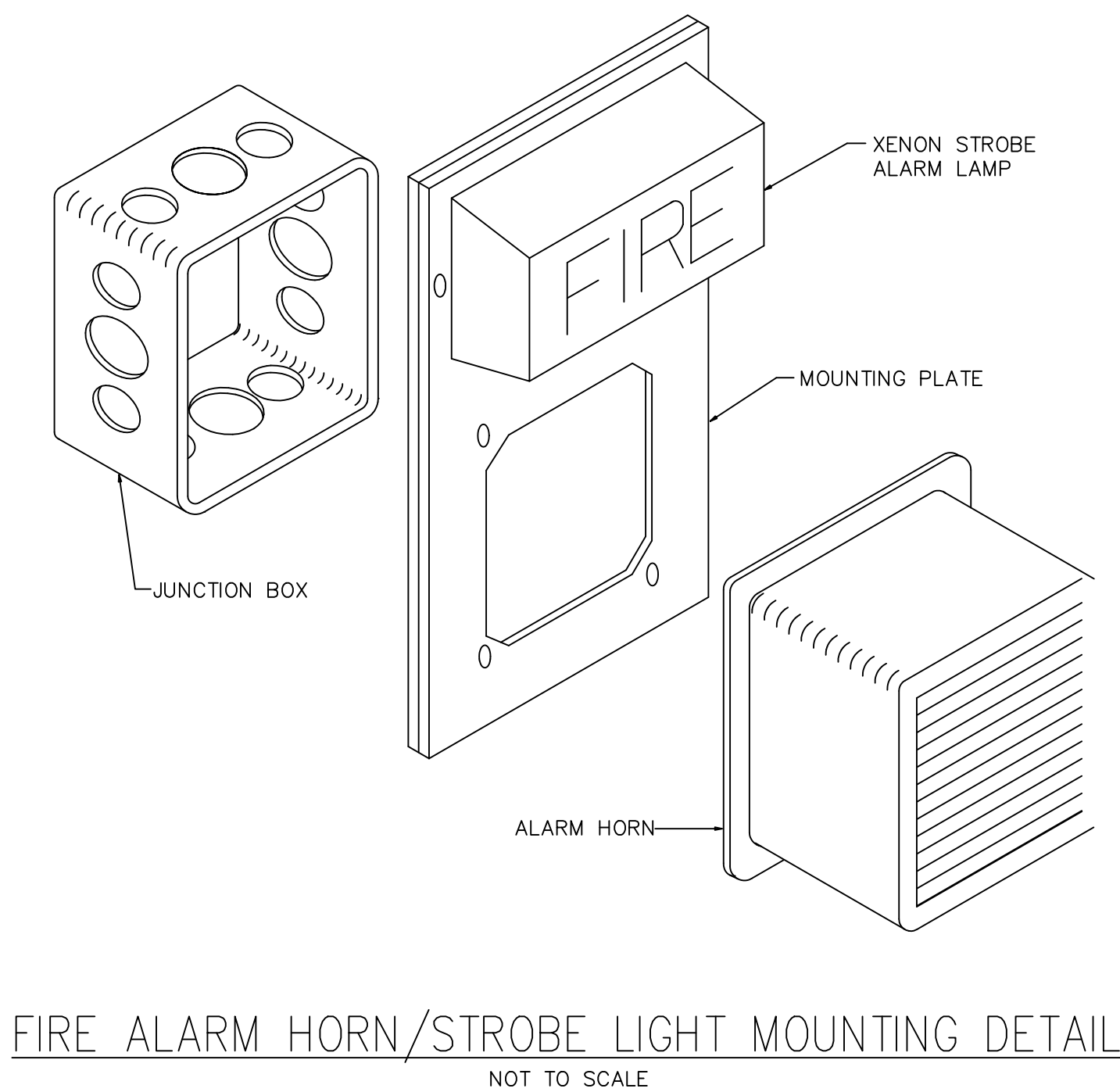


NOTE:
1. FOR LIGHTING POWERED AT 277V, ENSURE POWER PACK IS COMPATIBLE WITH 120V RECEPTACLE CIRCUIT, OR PROVIDE ADDITIONAL POWER PACK THAT IS CAPABLE OF TYING INTO LIGHTING OCCUPANCY/VACANCY SWITCH.

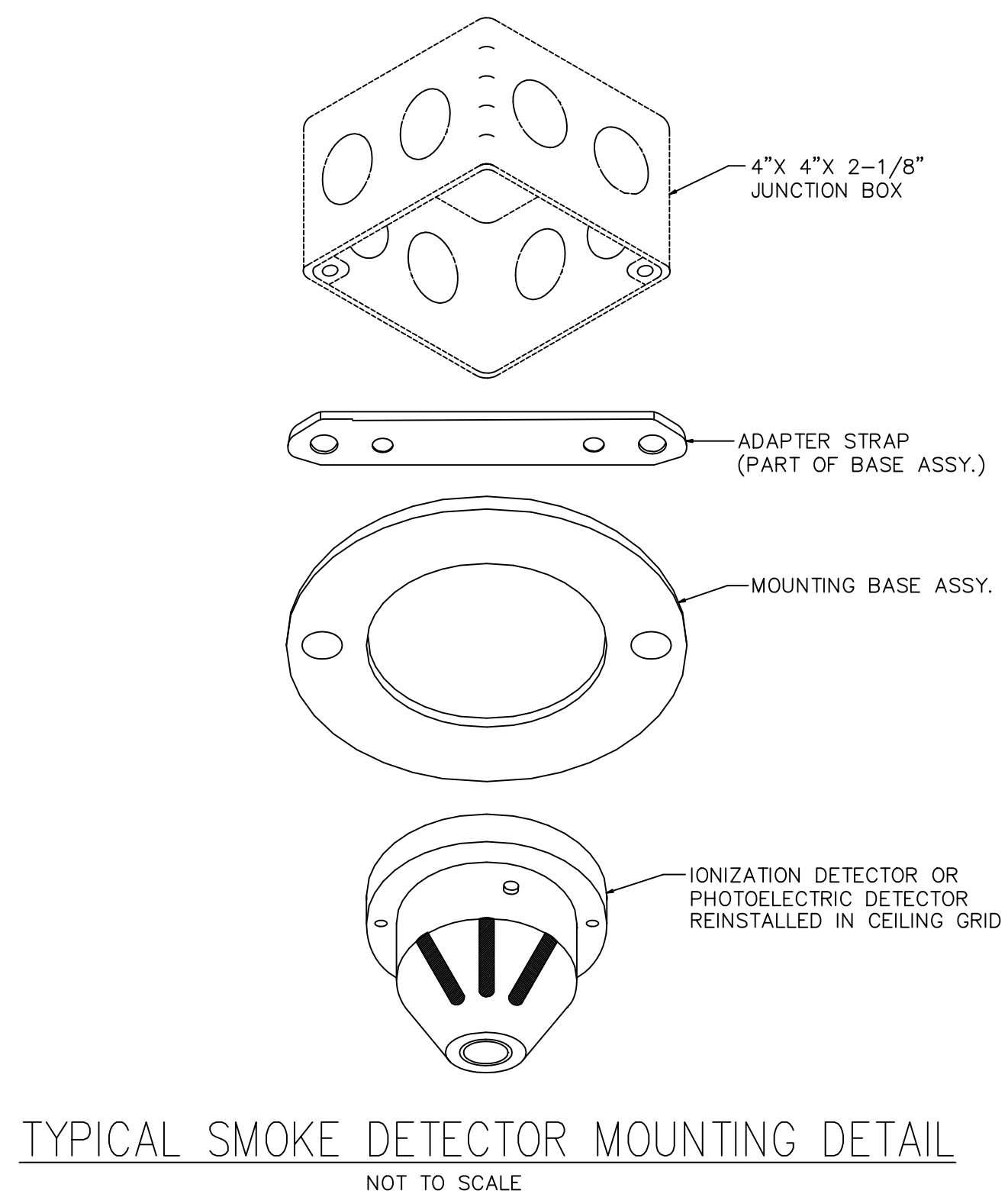
E-3



E-4



E-5



E-6

MARY ELAINE DASTI, PE
SENIOR VICE PRESIDENT, MARKET LEADER

LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. 24GE05120300

SHEET CONTENTS:

ELECTRICAL DETAIL
SHEET NO.1

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
**ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

10.09.2026 ISSUED FOR BID

DATE	REVISIONS	REV

Date 10.07.2026

Scale AS NOTED

Drawn by BD

Checked by VP

Job No. 2241895

Drawing No.

E-300

GENERAL

A. DEFINITIONS:

- a. FURNISH: TO PURCHASE, PROCURE, ACQUIRE AND DELIVER, COMPLETE WITH RELATED ACCESSORIES.
- b. INSTALL: TO ERECT, MOUNT AND CONNECT, COMPLETE WITH RELATED ACCESSORIES.
- c. PROVIDE: TO FURNISH AND INSTALL.
- d. PLUMBING CONTRACTOR, THE CONTRACTOR, THIS CONTRACTOR: THE CONTRACTOR FOR PLUMBING WORK, WHICH IS SPECIFIED HEREIN AND SHOWN ON THE DRAWINGS.
- e. OWNER: THE INDIVIDUAL OR ENTITY HOLDING OWNERSHIP OF THE PROPERTY, OR A DESIGNATED REPRESENTATIVE THEREOF, WHERE THE WORK IS TO BE PERFORMED, AND SHALL INCLUDE TENANTS LEASING SPACE AT THE LOCATION OF THE PROJECT, WHERE APPLICABLE.

B. COMPLY WITH THE LATEST ADOPTED EDITIONS OF ALL APPLICABLE CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO:

- a. INTERNATIONAL BUILDING CODE – NEW JERSEY EDITION (IBC–NJ);
- b. INTERNATIONAL FUEL GAS CODE (IFGC);
- c. INTERNATIONAL MECHANICAL CODE (IMC);
- d. NEW JERSEY UNIFORM CONSTRUCTION CODE (NUCC);
- e. NATIONAL STANDARD PLUMBING CODE (NSPC);
- f. NATIONAL ELECTRIC CODE (NEC/NFPA 70);
- g. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA);
- h. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM);
- i. FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA);
- j. NEW JERSEY BARRIER-FREE REQUIREMENTS;
- k. APPLICABLE UNION AND EQUAL OPPORTUNITY STANDARDS OR REQUIREMENTS.

C. CONTRACTOR–FURNISHED PRODUCTS

- a. CONTRACTOR SHALL FURNISH PRODUCTS INDICATED. THE WORK INCLUDES DELIVERING, UNLOADING, HANDLING, STORING, PROTECTING AND ASSEMBLING. CONTRACTOR SHALL FURNISH PRODUCTS AS DIRECTED AND TURN THEM OVER TO OWNER AT PROJECT CLOSEOUT.

D. ACCESS TO SITE

- a. LIMIT USE OF PROJECT SITE TO WORK IN AREAS INDICATED. DO NOT DISTURB PORTIONS OF PROJECT SITE BEYOND AREAS IN WHICH THE WORK IS INDICATED.
- b. KEEP DRIVEWAYS, PARKING GARAGE, LOADING AREAS, ENTRANCES ETC. SERVING PREMISES CLEAR AND AVAILABLE TO OWNER, OWNER'S EMPLOYEES AND EMERGENCY VEHICLES AT ALL TIMES. DO NOT USE THESE AREAS FOR PARKING OR STORAGE OF MATERIALS.
- c. THE CONTRACTOR'S BID SHALL INCLUDE ALL COSTS ASSOCIATED WITH AFTER-HOURS WORK/PREMIUM TIME NECESSARY TO PREVENT DISRUPTION TO THE OWNER'S OPERATIONS OR BUILDING OCCUPANTS.

E. COORDINATION

- a. COOPERATE WITH OWNER DURING CONSTRUCTION OPERATIONS TO MINIMIZE CONFLICTS AND FACILITATE OWNER USAGE. PERFORM THE WORK SO AS NOT TO INTERFERE WITH THE OWNER'S DAY-TO-DAY OPERATIONS.
- b. COORDINATE THE PLUMBING WORK WITH ALL OTHER AFFECTED WORK AND THE CONSTRUCTION SCHEDULE.
- c. COORDINATE WITH THE WORK OF OTHER TRADES. PROVIDED ROUTING OF ALL PIPING SYSTEMS IS APPROPRIATE. INDICATED OFFSETS AND MINOR DEVIATIONS TO INDICATED ROUTING ARE REQUIRED TO COORDINATE WITH THE WORK OF OTHER TRADES AND THE GENERAL BUILDING CONDITIONS.

2. PRODUCTS

- A. PROVIDE ALL MATERIALS, TOOLS, SUPERVISION AND LABOR REQUIRED FOR THE PLUMBING INSTALLATION SHOWN OR DESCRIBED ON THE DRAWINGS AND IN THESE SPECIFICATIONS.
- B. ALL PRODUCTS AND MATERIALS SHALL BE NEW AND LISTED BY A RECOGNIZED TESTING LABORATORY.
- C. COLOR AND FINISH SELECTIONS FOR ALL PRODUCTS AND MATERIALS SHALL AS BE DIRECTED OR APPROVED BY THE ARCHITECT.
- D. ALL COMPONENTS AND ACCESSORIES OF EQUIPMENT, FIXTURES AND PRODUCTS OF THE PLUMBING WORK SHALL BE INCLUDED SO AS TO MAKE THE WORK COMPLETE IN ALL RESPECTS, EVEN IF NOT INDICATED OR SPECIFIED.

3. EXECUTION

- A. OBTAIN ALL PERMITS, PAY ALL FEES AND SCHEDULE ALL REQUIRED INSPECTIONS. COPY ALL PERMITS AND INSPECTION CERTIFICATES SHALL BE FORWARDED TO THE OWNER FOR RECORD.
- B. CONTACT UTILITY SERVICE PROVIDERS, COORDINATE AND ARRANGE FOR THE INSTALLATION OF ALL UTILITY SERVICES INCLUDING PAYMENT OF ALL APPLICABLE FEES.
- C. THE GENERAL CONDITIONS OF THE CONTRACT AND ALL DIVISION REQUIREMENTS APPLY TO THE WORK OF THIS SECTION.
- D. COMPLY WITH THE REGULATIONS AND REQUIREMENTS OF ALL UTILITY SERVICE PROVIDERS AND ALL AUTHORITIES HAVING JURISDICTION.
- E. COMPLY WITH ALL THE REQUIREMENTS OF THE OWNER'S INSURANCE CARRIER.
- F. WHERE APPLICABLE, COMPLY WITH THE PUBLISHED REQUIREMENTS OR STANDARDS OF THE LANDLORD OR PROPERTY MANAGER.
- G. INSTALL PIPING, EQUIPMENT AND FIXTURES IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THE INSTALLATION COMPLIES WITH REQUIREMENTS AND SERVES INTENDED PURPOSES. MAINTAIN ALL REQUIRED AND RECOMMENDED CLEARANCES.
- H. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID TO DETERMINE ALL CONDITIONS AFFECTING HIS SCOPE OF WORK AND BID PRICE.

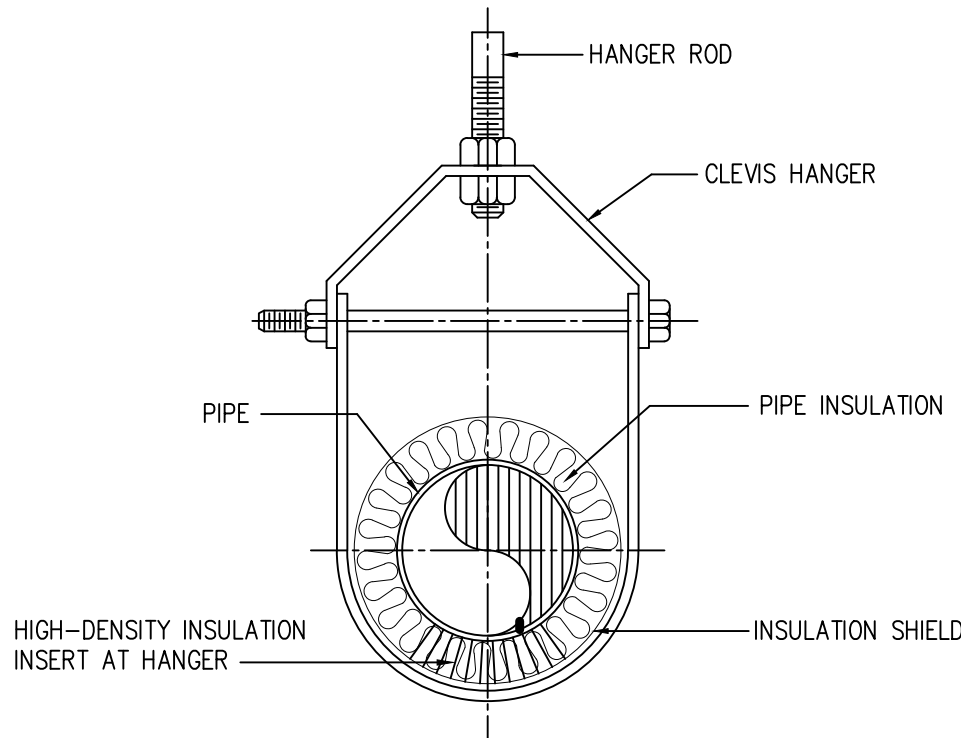
I. SUBMITTALS:

- a. SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:
 - a.1. ALL SCHEDULED PLUMBING EQUIPMENT;
 - a.2. PIPE AND FITTINGS;
 - a.3. PLUMBING FIXTURES;
 - a.4. VALVES AND SPECIALTIES;
 - a.5. INSULATION;
 - a.6. HANGERS AND SUPPORTS;
- b. INCLUDE ELECTRICAL DATA FOR ALL ITEMS WHICH REQUIRE ELECTRICAL POWER.
- c. PIPING COORDINATION DRAWINGS: DETAIL AT 1/4" SCALE, THE PIPING AND EQUIPMENT LAYOUT, FABRICATION OF PIPE ANCHORS, HANGERS, SUPPORTS, ALIGNMENT GUIDES, EXPANSION JOINTS AND LOOPS AND ATTACHMENTS OF THE SAME TO THE BUILDING STRUCTURE. COORDINATION DRAWINGS SHALL REFLECT THE WORK OF ALL TRADES AND SHALL BE PREPARED AND SUBMITTED FOR REVIEW PRIOR TO THE INSTALLATION OF ANY SUCH WORK.
- d. TEST AND BALANCE REPORTS.
- e. SUBMIT CLOSE-OUT DOCUMENTS, INCLUDING: ALL EQUIPMENT O&M MANUALS, WARRANTIES, AND AS-BUILT DRAWINGS INDICATING ALL ALTERNATIONS, ADDITIONS AND DELETIONS OF THE SYSTEMS DESIGNED AND AS SHOWN ON THE CONTRACT DOCUMENTS.

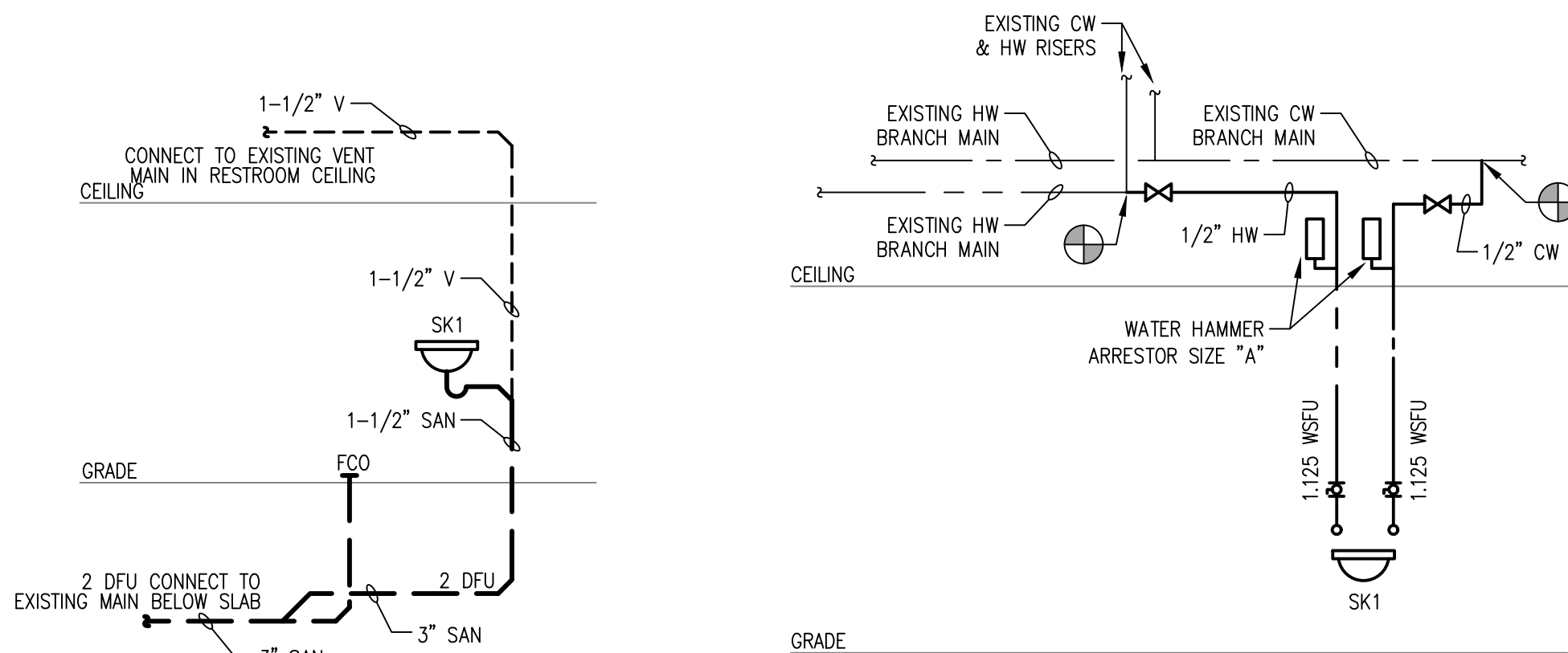
BL	BELOW
C	COLD (WATER)
CL	CEILING
CO	CLEANOUT
CW	COLD WATER
DIA, Ø	DIAMETER
DN	DOWN
EXIST (E)	EXISTING
F	FAHRENHEIT
FL	FLOOR
H	HOT (WATER)
HW	HOT WATER
HWR	HOT WATER RECIRCULATING
IN	INCH
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
TEMP	TEMPERATURE
TYP	TYPICAL
V/PH/Hz	VOLTS/PHASE/FREQUENCY (HERTZ)
V	VENT
W	WATT OR WIDTH OR WASTE

	PIPE TURNING DOWN
	PIPE TURNING UP
	PIPING TOP TAKEOFF
	PIPING TOP TAKEOFF
	PIPING FLOW ARROW
	SHUT-OFF VALVE
	SANITARY SEWER PIPING BELOW GRADE/FLOOR
	SANITARY SEWER PIPING ABOVE GRADE/FLOOR
	VENT PIPING
	DOMESTIC COLD WATER PIPING
	DOMESTIC HOT WATER PIPING
	DOMESTIC HOT WATER RECIRCULATING PIPING

	EQUIPMENT MARK. SEE SCHEDULES, THIS SHEET.
	EXISTING EQUIPMENT MARK FOR EQUIPMENT TO BE REMOVED.
	DETAIL OR PART PLAN TITLE.
	REVISION TAG.
	POINT OF CONNECTION, NEW TO EXISTING.
	POINT OF DISCONNECT.
	DRAWING KEYNOTE.



CLEVIS HANGER DETAIL
N.T.S.



NOTES:
- DRAINAGE FIXTURE UNITS ARE RECORDED AND CALCULATED PER NSPC 2024 NJ, NJAC 5:23-3.15.

DRAINAGE RISER DIAGRAM
N.T.S.

NOTES:

- WATER FIXTURE UNITS ARE RECORDED AND CALCULATED PER NSPC 2021 NJ, NJAC 5:23-3.15.

SUPPLY RISER DIAGRAM
N.T.S.



SHEET CONTENTS:

PLUMBING GENERAL INFORMATION

PROJECT TITLE:

**MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**

30 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

03.17.2025	100% CD SUBMISSION
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DATE	REVISIONS	REV

Date	10.24.2024
Scale	AS NOTED
Drawn by	JMB
Checked by	JWM
Job No.	2241895
Drawing No.	

P-000



11 TINDALL ROAD
MIDDLETOWN, NJ 07748
TEL 732-671-6400
FAX 732-671-7365

NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS
AND LAND SURVEYORS
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OHIO AND PENNSYLVANIA

MARY ELAINE DASTI, PE
SENIOR VICE PRESIDENT, MARKET LEADER

LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. 24GE05120300

SHEET CONTENTS:

PLUMBING FLOOR PLANS

PROJECT TITLE:

MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS
80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

03.17.2025 100% CD SUBMISSION

DATE	REVISIONS	REV

Date 10.24.2024

Scale AS NOTED

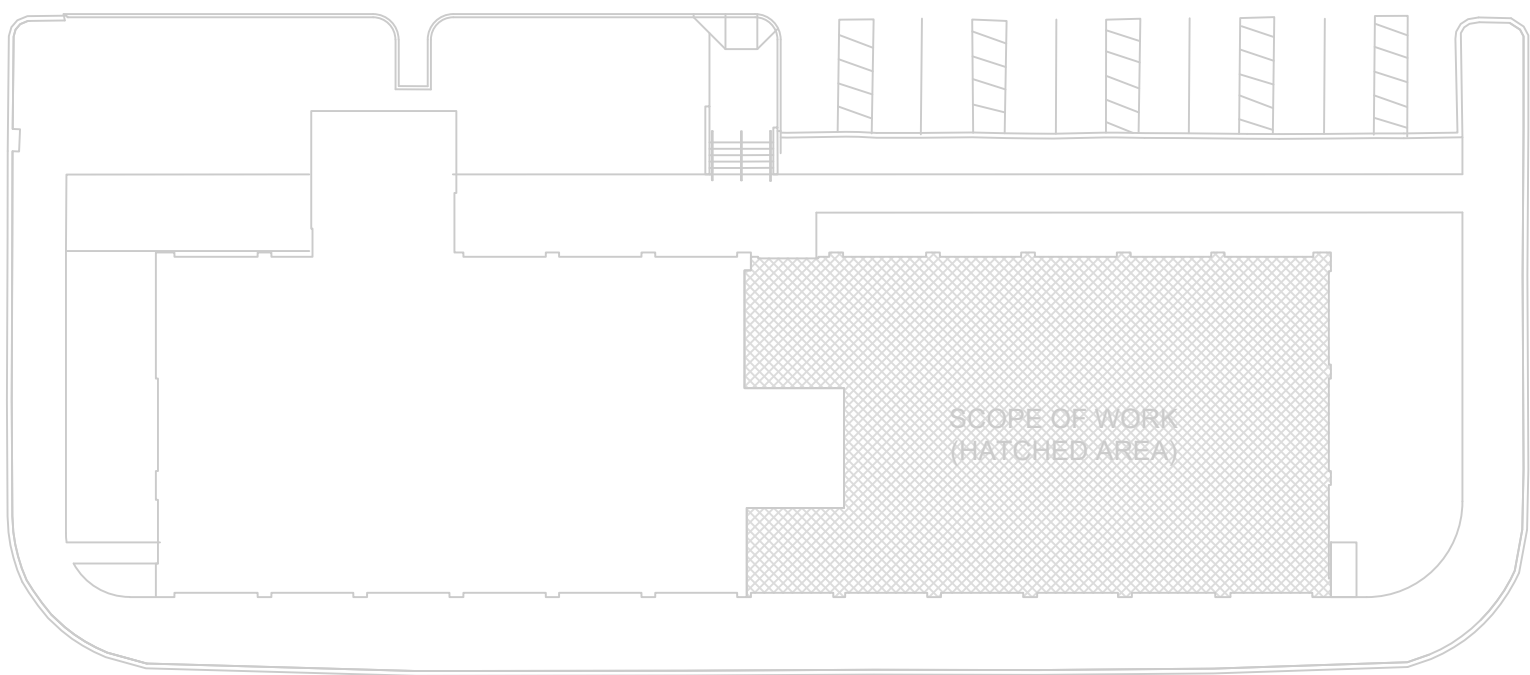
Drawn by JMB

Checked by JWM

Job No. 2241895

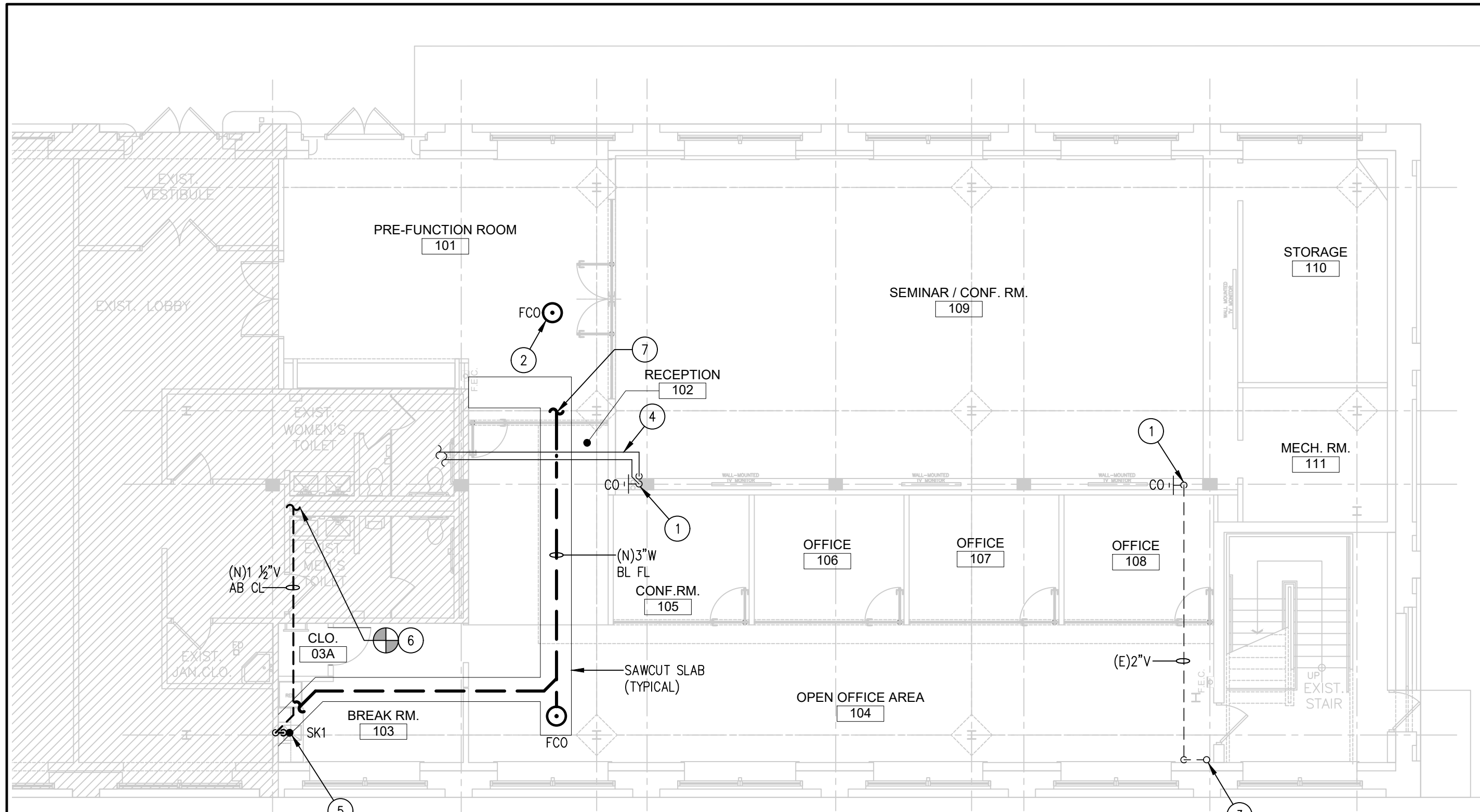
Drawing No.

P-001



KEY PLAN

SCALE: NTS

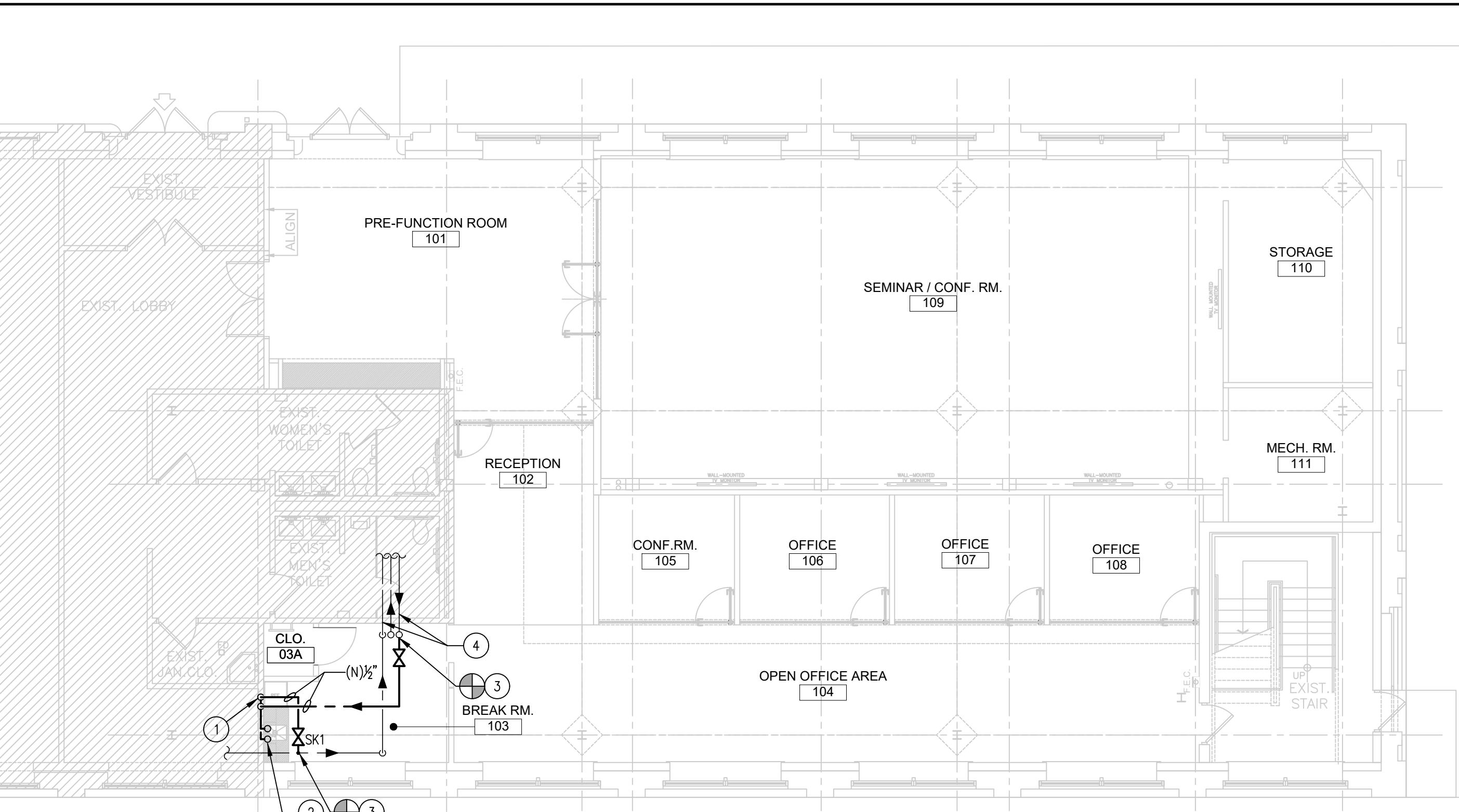


FLOOR PLAN

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

DRAINAGE PLAN KEYNOTES SYMBOL = #

- EXISTING 4" PIPING TO REMAIN.
- EXISTING 4" FLOOR CLEANOUT TO REMAIN.
- EXISTING 2" VENT UP.
- EXISTING PIPING TO REMAIN ABOVE CEILING.
- NEW 1 1/2" WASTE UP AND 3" BELOW SLAB TO SERVE BREAK ROOM SINK.
- NEW 1 1/2" VENT TO CONNECT TO EXISTING VENT ABOVE CEILING SERVING TOILET ROOMS. CONTRACTOR TO VERIFY EXACT LOCATION IN-FIELD PRIOR TO INSTALLATION.
- NEW 3" WASTE AT 1/8IN /FT SLOPE TO CONNECT TO EXISTING WASTE BELOW SLAB. CONTRACTOR TO VERIFY EXACT LOCATION IN-FIELD PRIOR TO INSTALLATION.



FLOOR PLAN

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

WATER PLAN KEYNOTES SYMBOL = #

- NEW 1/2" H. & C.W. DROP TO SERVE SINK.
- NEW 1/2" H. & C.W. RISE TO SERVE SINK, PROVIDE WITH STOP VALVES.
- NEW 1/2" H. & C.W. TO CONNECT TO EXISTING DOMESTIC WATER PIPING IN CEILING. CONTRACTOR TO VERIFY EXACT LOCATION IN-FIELD.
- EXISTING DOMESTIC WATER PIPING TO REMAIN.

PLUMBING FIXTURE SCHEDULE

MARK	MAKE	MODEL	DESCRIPTION	FAUCET/CONTROLS	TRIM	FEATURES/SUPPORTS/OPTIONS	COLOR/FINISH	CONNECTION SIZES				FIXTURE UNITS			REMARKS
								SAN.	VENT	C.W.	H.W.	DFU	WSFU-C	WSFU-H	
SK1	ELKAY	ELUHAD211550PD	STAINLESS STEEL 18 GAUGE UNDERMOUNT SINK 23-1/2" X 18-1/4" X 4-7/8" SINGLE BOWL SINK	SINGLE HOLE EXPOSED MANUAL FAUCET	GRID STRAINER DRAIN, BRASS TAILPIECE, CHROME-PLATED BRASS P-TRAP, LOOSE KEY STOPS, BRAIDED STAINLESS STEEL FLEXIBLE SUPPLIES.	LK99 DRAIN, MOUNTING ACCESSORIES, LKDV208513C FAUCET.	STAINLESS STEEL	1-1/2"	1-1/2"	1/2"	1/2"	2.0	0.75	0.75	1,2

- REMARKS:
- ADA COMPLIANT - MOUNT ACCORDING TO BARRIER-FREE REQUIREMENTS, WHERE INDICATED
 - SPECIFY DECK HOLE PUNCHING WHEN ORDERING

1. SCOPE OF WORK

- A. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR REQUIRED TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- B. THE WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH NFPA 13 (LATEST EDITION) AND THE NATIONAL BUILDING CODE. (LATEST EDITION)

2. PERMITS

- A. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

3. SPRINKLER PIPING

- A. SPRINKLER PIPING SHALL BE STEEL PIPE (ASTM 53, 120, OR 135) WITH 150 PSI MALLEABLE IRON FITTINGS WITH THREADED CONNECTIONS OR TYPE "L" HARD DRAWN COPPER TUBING WITH COPPER OR BRASS FITTINGS AND 125 PSI SOLDER JOINTS ("NO-LEAD SOLDER").

4. PIPE SUPPORTS

- A. ALL HANGERS MUST BE AN APPROVED TYPE BY NFPA 13. NO SPRINKLER PIPING IS TO BE SUPPORTED FROM ANY MECHANICAL OR ELECTRICAL DEVICES.

- B. MAXIMUM DISTANCE BETWEEN PIPE SUPPORTS:
- * 12'-0" FOR 1 1/4" DIAMETER PIPE AND SMALLER
 - * 15'-0" FOR 1 1/2" DIAMETER PIPE AND LARGER

5. TESTS

- A. ACCEPTANCE AND HYDROSTATIC TESTS TO BE PERFORMED IN ACCORDANCE WITH CHAPTER 10 OF NFPA 13.

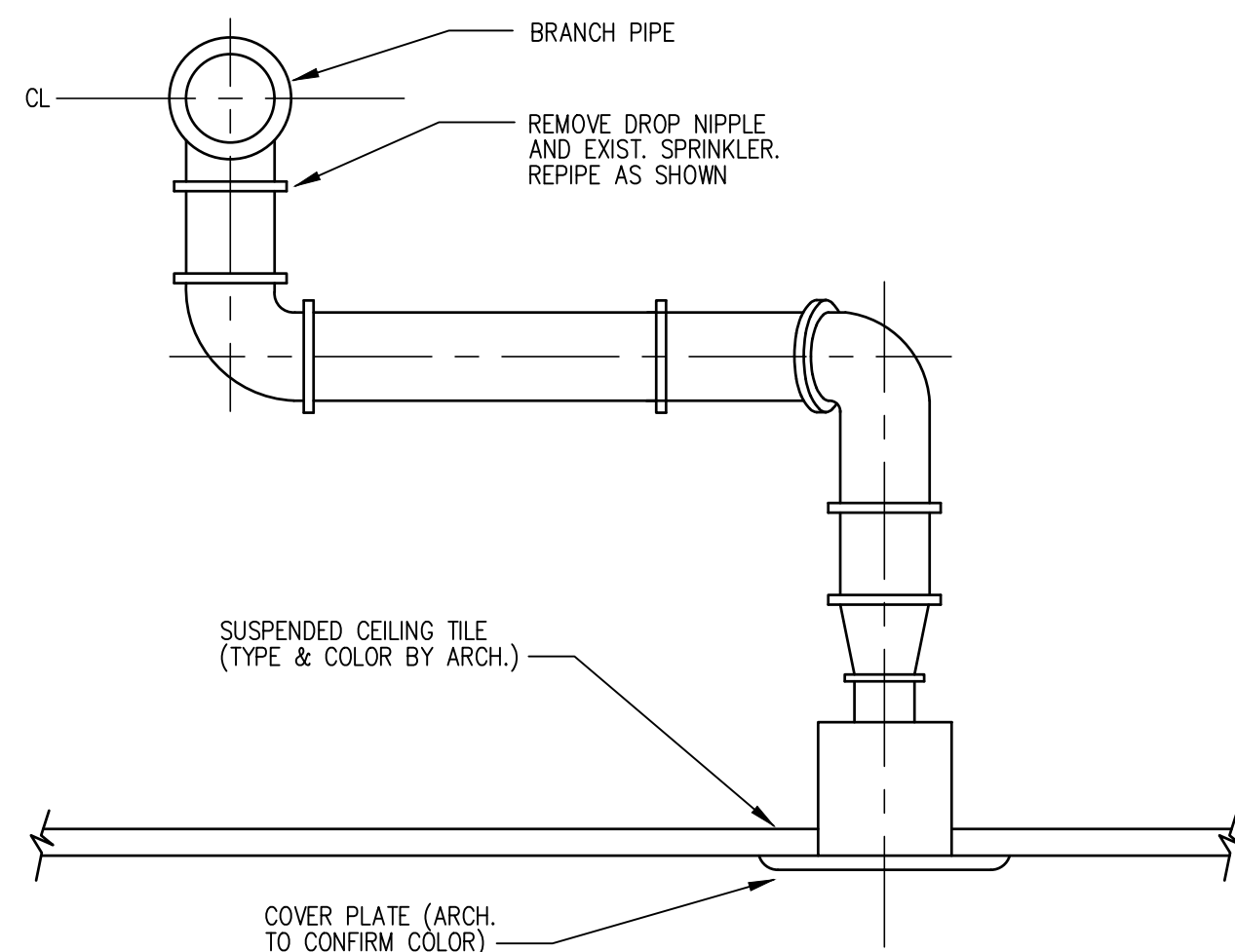
6. MISCELLANEOUS

- A. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS, AND DIMENSIONS AT THE JOB SITE.
- B. THE SPRINKLER PLANS ARE INTENDED TO BE DIAGRAMATIC. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION.

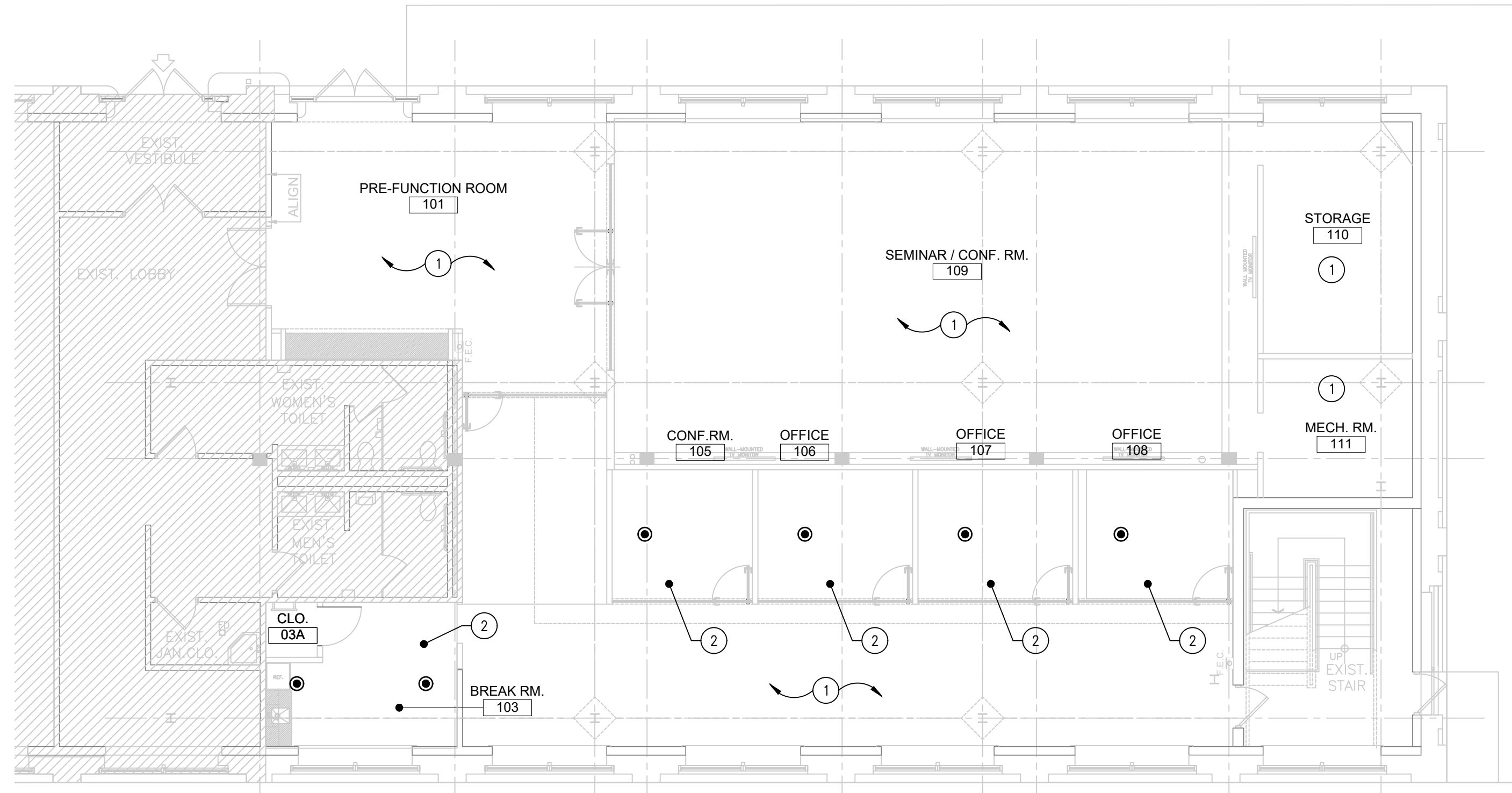
7. GUARANTEE

- A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR PERIOD OF ONE(1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THE SPRINKLER CONTRACTOR'S EXPENSE.

NEW PENDENT SPRINKLER HEAD



N.T.S

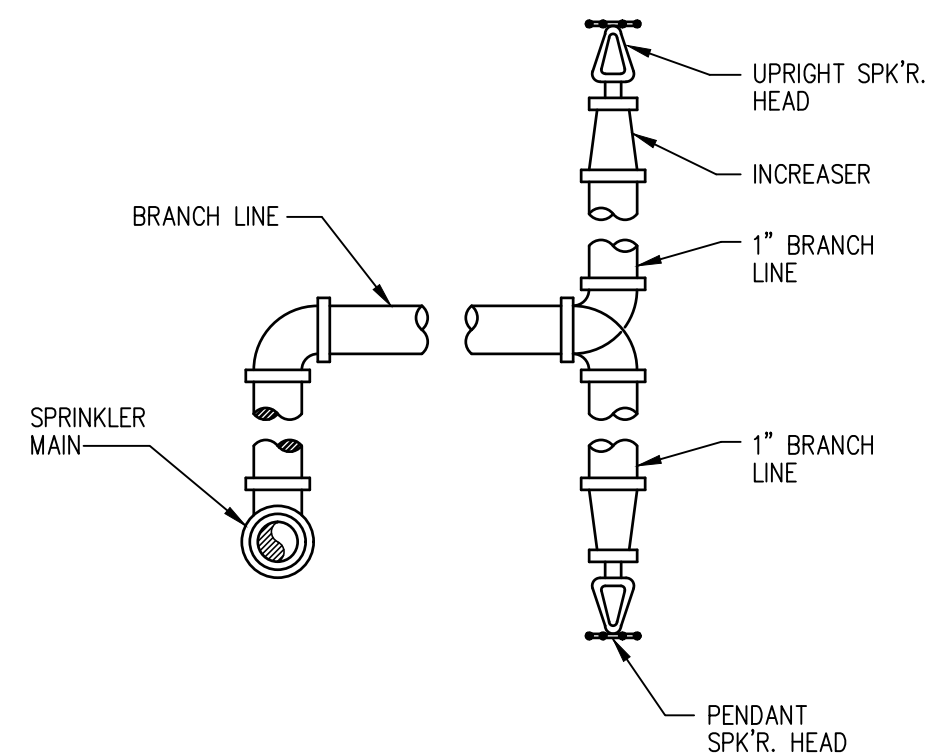


SCALE: 1/8" = 1'-0"

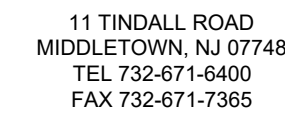
SYMBOL = $\left(\frac{H}{H} \right)$

1. UPRIGHT SPRINKLER HEADS TO REMAIN IN OPEN CEILING SPACES, ADJUST COVERAGE AS REQUIRED.
2. PROVIDE CONCEALED TYPE SPRINKLER HEADS AT DROP CEILINGS. SPRINKLER HEADS TO BE IN CENTER OF TILE UNLESS OTHERWISE NOTED.

HAZARD CLASSIFICATION	:	LIGHT HAZARD
OPERATING AREA	:	1,500 SQ FT MINIMUM
DENSITY	:	0.1 MINIMUM GPM/SQ FT
HOSE STREAM	:	100 GPM
SPRINKLER COVERAGE	:	225 SQ FT MAXIMUM
SPRINKLER TYPE	:	CONCEALED/CONCEALED SIDE WALL/UPRIGHT
SPRINKLER RESPONSE TYPE	:	QUICK RESPONSE ORDINARY TEMPERATURE
TEMPERATURE RATING	:	PER NFPA 13
NOMINAL K-FACTOR	:	5.6
PIPING - WET SYSTEM	:	SCHEDULE 40 BLACK STEEL, GROOVED, THREADED OR WELDED, CLASS 125 FITTINGS



N.T.S



NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS
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OHIO AND PENNSYLVANIA

MARY ELAINE DASTI, PE
SENIOR VICE PRESIDENT, MARKET LEADER

LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. 24GE05120300

SHEET CONTENTS:

SPRINKLER FLOOR PLAN

PROJECT TITLE:

**MERCER COUNTY IMPROVEMENT AUTHORITY
ROEBLING BUILDING 4
FIRST FLOOR
IMPROVEMENTS**

80 HAMILTON AVENUE, TRENTON, NEW JERSEY 08611

SUBMISSION:

03.17.2025	100% CD SUBMISSION
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[illegible]

Date	10.24.2024
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Scale	AS NOTED
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Drawn by	JMB
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Checked by	JWM
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Job No.	2241895
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Drawing No.

FP-000