

INTERIOR RENOVATIONS TO
NAUGATUCK POLICE DEPARTMENT
CENTRAL DISPATCH FACILITY

PROJECT NUMBER FY27-B138

211 SPRING STREET

JULY 6, 2026

NAUGATUCK, CONNECTICUT

LIST OF DRAWINGS:

TITLE SHEET

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D-1	FIRST FLOOR DEMOLITION PLANS
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A-4	CASEWORK
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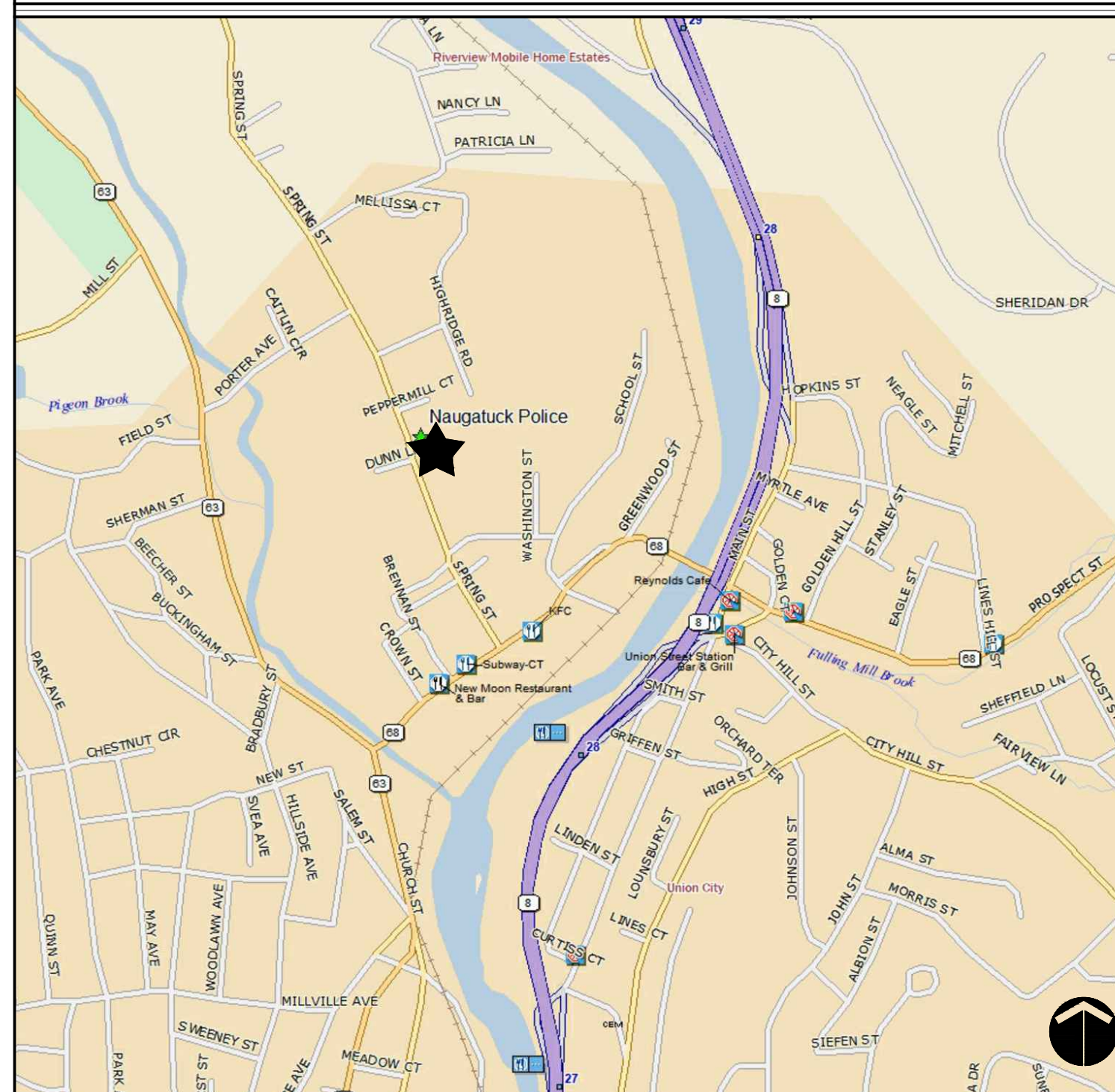
COMMUNICATIONS DRAWINGS

C-1	FIRST FLOOR FIRE ALARM AND COMMUNICATIONS PLANS
C-2	FIRE ALARM & COMMUNICATION NOTES, LEGENDS AND DETAILS

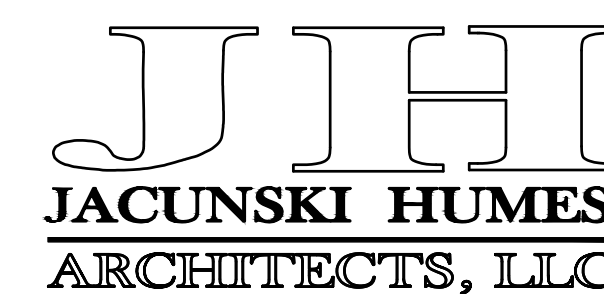
TECHNOLOGY DRAWINGS

T-1	FIRST FLOOR TECHNOLOGY PLANS
T-2	TECHNOLOGY NOTES, LEGENDS AND DETAILS

LOCATION MAP:



ARCHITECT:



JACUNSKI HUMES ARCHITECTS, LLC
15 MASSIRIO DRIVE, SUITE 101
BERLIN, CONNECTICUT 06037
TEL 860-828-9221 FAX 860-828-9223

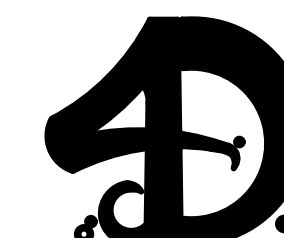
CONSULTANTS:

M / E / P / FP / Structural Engineers:

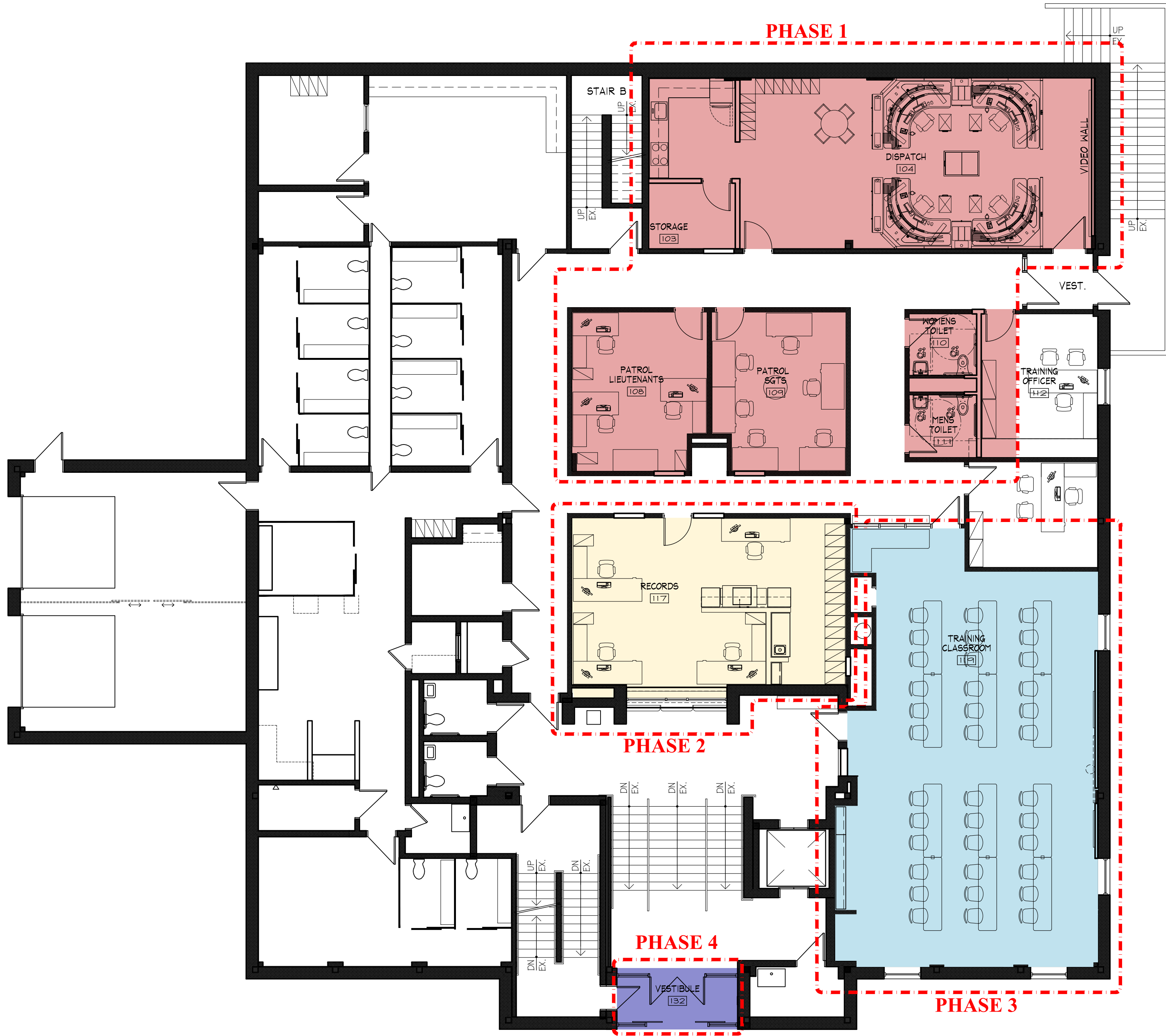


Innovative Engineering Services, LLC
33 North Plains Industrial Road
Wallingford, CT 06492
tel: (203) 467-4370
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Interior Designer:



4D Design & Decorating
26 Stuart Drive
Bloomfield, CT 06002
tel: (860) 716-2363



**PHASING
LEGEND**

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4

PHASING NOTES

- EACH PHASE FOR PHASES #1-3 MUST BE COMPLETED THROUGH OCCUPANCY PRIOR TO BEGINNING THE NEXT PHASE.
- ALL MEP/FP WORK SUPPORTING EACH PHASE SHALL BE COMPLETED DURING THAT PHASE
- PHASE 4 WORK MAY BE COMPLETED DURING ANY PHASE #1 THRU #3

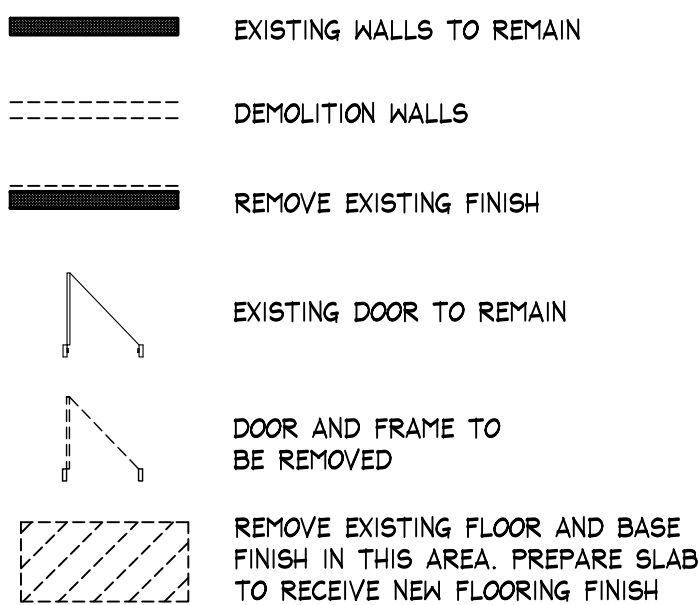
INTERIOR RENOVATIONS TO
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211 SPRING STREET
NAUGATUCK, CONNECTICUT
FY27-B138

J J H
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**FIRST FLOOR
PHASING
PLAN**

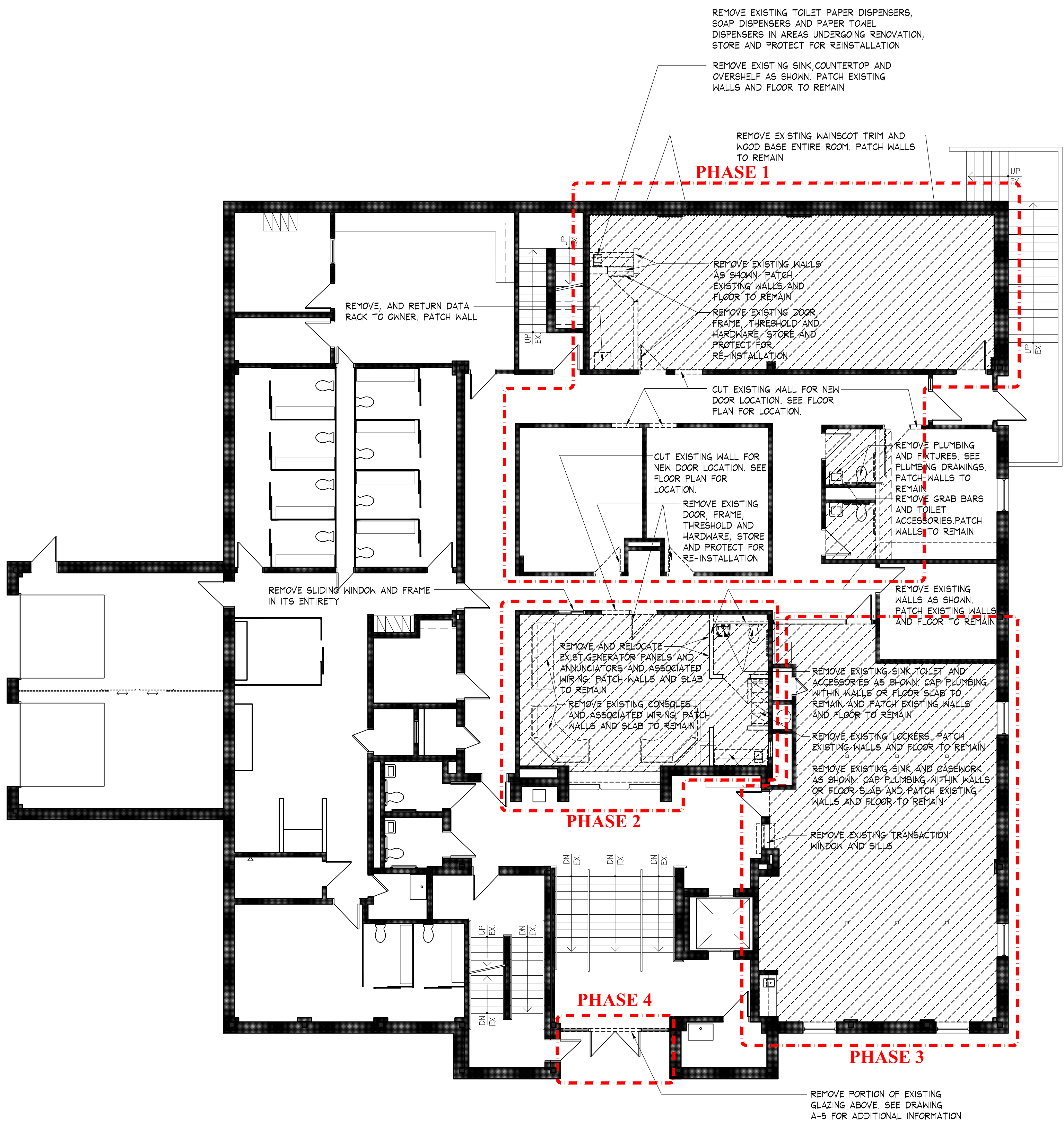
PROJ. NO. JH2516	DRAWING NO. PH-1
SCALE: 1/8" = 1'-0"	
DATE: JULY 6, 2026	

LEGEND

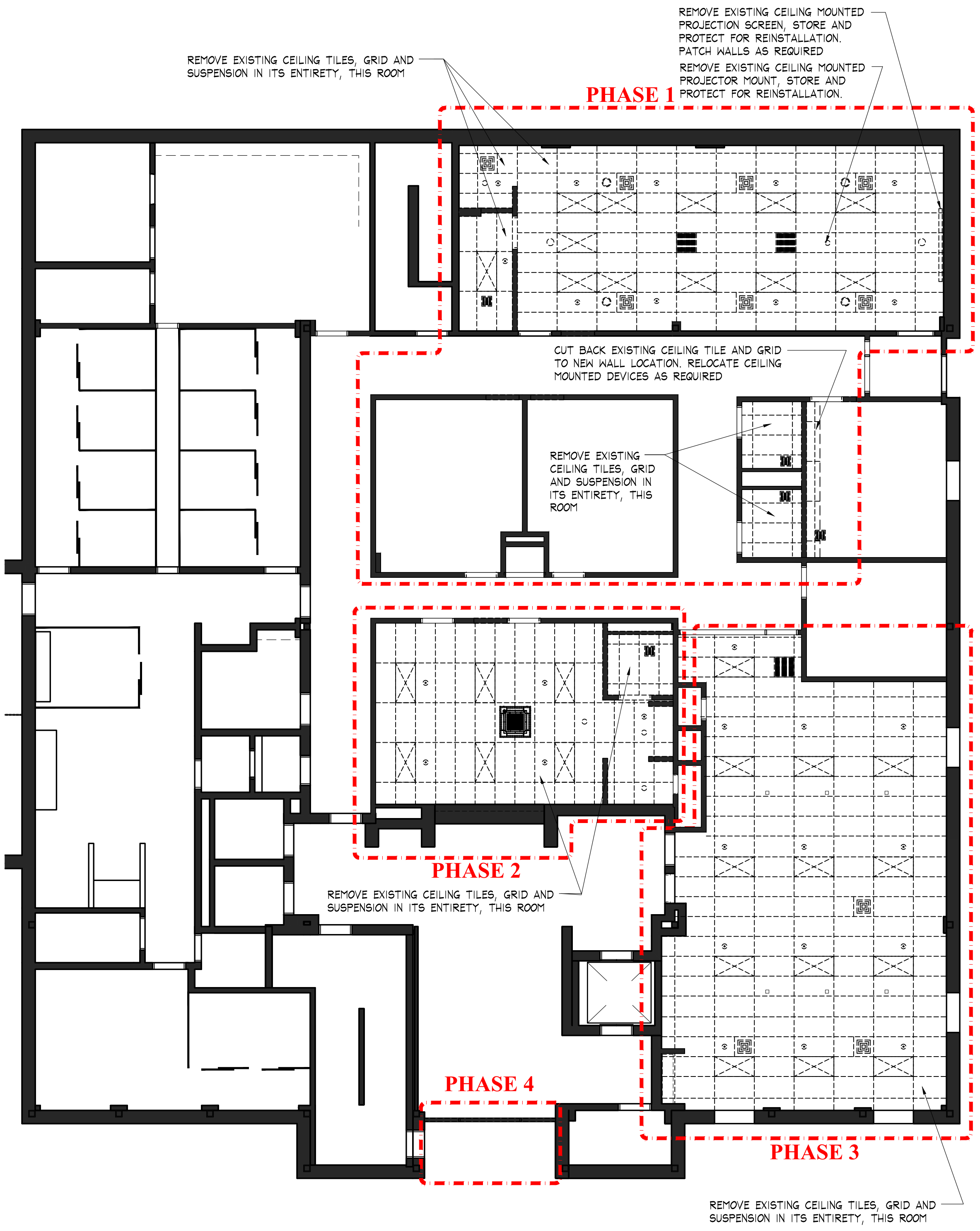


DEMO NOTES

1. ALL DEMOLITION WORK TO BE COORDINATED WITH CORRESPONDING NEW CONSTRUCTION.
2. ALL AREAS AFFECTED BY DEMOLITION TO BE RETURNED TO A STATE OF COMPLETION EQUAL TO OR GREATER THAN THE FINISHED STATE PRIOR TO DEMOLITION.
3. DEMOLITION CONTRACTOR TO CLEAN ALL DEMOLISHED AREAS PRIOR TO ANY COMMENCEMENT OF NEW CONSTRUCTION.
4. ALL AREAS TO BE DEMOLISHED TO BE VERIFIED IN THE FIELD, AND ANY INCONSISTENCIES ARE TO BE REPORTED TO THE OWNER AND ARCHITECT IMMEDIATELY.
5. DEMOLITION CONTRACTOR TO COORDINATE ARCHITECTURAL DEMOLITION WITH STRUCTURAL, MECHANICAL AND ELECTRICAL DEMOLITION. ANY INCONSISTENCIES ARE TO BE REPORTED TO THE ARCHITECT IMMEDIATELY.



1 DEMOLITION FLOOR PLAN
SCALE: 1/8" = 1'-0"



2 DEMOLITION REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

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NAUGATUCK, CONNECTICUT

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**FIRST FLOOR
DEMOLITION
PLANS**

PROJ. NO. JH2516	DRAWING NO. D-1
SCALE: 1/8" = 1'-0"	
DATE: JULY 6, 2026	

WALL NOTES

- FIRECODE GYPSUM BOARD IN A ONE OR TWO-HOUR RATED PARTITION MUST BEAR THE U.L. CLASSIFICATION
- ALL FIRE AND SMOKE RESISTANT SEPARATIONS ARE TO EXTEND TO THE UNDERSIDE OF FLOOR OR ROOF DECK ABOVE, TYPICAL.
- FOR SMOKE RESISTANT SEPARATIONS PROVIDE FIRE SAFING AND SEALANT AT FLOOR, ROOF DECK AND ALL PENETRATIONS TO PREVENT THE PASSAGE OF SMOKE.
- FOR ALL FIRE RATED PARTITIONS PROVIDE FIRE SAFING AND SEALANT AT FLOOR, ROOF DECK AND ALL PENETRATIONS TO PREVENT THE PASSAGE OF SMOKE, THE FIRE SAFING AND SEALANT SYSTEM MUST MAINTAIN THE RATING OF THE SEPARATION.
- AT ALL NON-RATED PARTITIONS, FILL ALL VOIDS INCLUDING METAL DECK FLUTES WHERE PARTITIONS MEET THE STRUCTURE ABOVE WITH BATT INSULATION.
- AT ALL NON-RATED PARTITIONS, FILL ALL VOIDS BETWEEN PIPES, ELECTRICAL CONDUIT, DUCTWORK, ETC. WHERE THEY PENETRATE WALLS WITH BATT INSULATION.
- PROVIDE SMOKE DAMPERS AT ALL MECHANICAL PENETRATIONS THROUGH ONE HOUR FIRE RATED SMOKE BARRIERS.
- PROVIDE FIRE DAMPERS AT ALL MECHANICAL PENETRATIONS THROUGH TWO HOUR FIRE RATED PARTITIONS.
- EXTEND ALL METAL STUD PARTITIONS TO THE UNDERSIDE OF DECK/ STRUCTURE, UNLESS OTHERWISE NOTED.

GENERAL NOTES

- CONTRACTOR TO TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB AND SHALL BE HELD RESPONSIBLE FOR THE SAME.
- ALL NOTES AND DIMENSIONS DESIGNATED AS TYPICAL APPLY TO ALL SIMILAR CONDITIONS THROUGHOUT THE PROJECT.
- ALL DIMENSIONS ARE TO FACE OF MASONRY, FACE OF METAL STUD AND CENTERLINE OF STRUCTURAL STEEL COLUMNS UNLESS OTHERWISE NOTED.
- ROOFING CONTRACTOR TO VERIFY QUANTITY AND LOCATION OF ROOF PENETRATIONS, AND TO FLASH ACCORDING TO MANUFACTURERS' SPECIFICATIONS.
- PROVIDE A 1" BULLNOSE AT ALL EXPOSED CONCRETE MASONRY UNIT CORNERS.
- FOR MASONRY REINFORCEMENT SEE SPECIFICATIONS AND STRUCTURAL DRAWINGS.
- ALL DOOR FRAME EDGES SHALL BE LOCATED 4" FROM WALL INTERSECTIONS UNLESS OTHERWISE NOTED.
- SEE STRUCTURAL DRAWINGS AND FINISH PLANS FOR LOCATION OF DEPRESSED STRUCTURAL CONCRETE SLABS.
- THE REQUIREMENTS FOR SEISMIC LOADS HAVE BEEN INCORPORATED INTO THE DESIGN OF THE STRUCTURAL, MECHANICAL AND SUSPENDED CEILING SYSTEMS AS REQUIRED FOR THE NEW CONSTRUCTION.
- FOR EXTERIOR MASONRY CONTROL JOINTS REFER TO THE EXTERIOR ELEVATION SHEETS.
- FOR INTERIOR MASONRY EXPANSION JOINTS, JOINTS SHALL BE PLACED AS IDENTIFIED BY THE SPECIFICATION, PREFERABLY AT THE JUNCTION OF WALLS FIRST AND THEN BY THE REQUIRED DISTANCES. PROVIDE A CONTROL JOINT AT ALL EDGES WHERE MASONRY ABUTS STRUCTURAL STEEL.
- ELECTRICAL CONTRACTOR TO COORDINATE PLACEMENT OF ELEC./ DATA OUTLETS AND SWITCHES WITH THE LOCATION OF CASEWORK. REFER TO CASEWORK DRAWINGS AND ELECTRICAL DRAWINGS.
- ALL SPRINKLER PIPING TO BE LOCATED ABOVE FINISH CEILING UNLESS OTHERWISE NOTED.
- SPRINKLER HEADS SHALL BE LOCATED IN THE CENTER OF CEILING PADS.
- EXPOSED SPRINKLER INSTALLATION SHALL BE CAREFULLY COORDINATED IN THE FIELD TO AVOID CONFLICTS WITH LIGHTING AND OTHER CEILING MOUNTED EQUIPMENT.
- ALL RATED DOORS SHALL HAVE POSITIVE LATCHING LOCK SETS OR LATCH SETS AND CLOSERS.
- ALL DOOR LEVERS ON DOORS LEADING TO HAZARDOUS SPACES SHALL BE KNURLED.
- ALL DOORS EXITING 100 OR MORE PERSONS SHALL HAVE PANIC EXIT DEVICES.
- METAL STUD CONTRACTOR TO PROVIDE AND COORDINATE PLACEMENT OF METAL STUD SLIP TRACKS AT ALL STUD WALLS BUILT ON TOP OF OR UNDER STRUCTURAL STEEL BRACING FRAMES, TYPICAL.
- PROVIDE AN ALUMINUM DIVIDER STRIP AT ALL DOOR THRESHOLDS WHERE TWO DIFFERENT FINISHES MEET UNLESS OTHERWISE NOTED.
- METAL STUD CONTRACTOR TO PROVIDE AND COORDINATE PLACEMENT AND BLOCKING FOR ALL WALL MOUNTED ELEMENTS ON METAL STUD WALL CONSTRUCTION, TYPICAL.

KEY FOR TYPES

F = FLOOR

C = POURED IN PLACE CONCRETE
ID = METAL DECK
P = FIRE RATED
P = PRECAST CONCRETE PLANK

W = WALL

A = ATTENUATION INSULATION
B = BLOCK (CONCRETE MASONRY UNIT)
F = FIRE RATED
G = GYPSUM BOARD
I = INSULATION
W = WINDOW WALL
R = BULLET RESISTANT

C = CEILING

A = ACOUSTICAL CEILING PANEL
G = GYPSUM BOARD
M = METAL DECK

ABBREVIATIONS

ABOVE FINISH FLOOR
AC
ACUSTIC, ACOUSTICAL
ADDITION
AIR CONDITIONING
AIR HANDLING UNIT
ALTERNATE
ALUMINUM
ALUMINUM FRAME
ANCHOR, ANCHORAGE
ANCHOR BOLTS
AND
ANGLE
ANODIZED
APPROVED
ARCHITECT, ARCHITECTURAL
ASBESTOS
ASPHALT
ASSEMBLY
ASSISTANT
AT
AUTOMATIC

BEAM
BEARING
BETWEEN
BEVEL, BEVELED
BITUMINOUS
BLOCK
BLOCKING
BOARD
BOTTOM
BOTTOM OF
BRICK EXPANSION JOINT
BUILDING
BUILT UP ROOFING

CABINET
CABINET UNIT HEATER
CAPACITY
CEILING
CEILING HEIGHT
CEMENT
CENTER
CENTERLINE
CERAMIC TILE
CHALKBOARD
CHANNEL
CLOSET
COLUMN
CONC.
CONFERENCE
CONTROL JOINT
CONTINUOUS
CONTRACTOR
CORNER GUARD
CORRIDOR
COURSE, COURSES

DAMPPOOFING
DEGREE
DEMOLITION
DEPARTMENT
DETAIL
DIAMETER
DIMENSION
DISTANCE
DOOR
DOUBLE
DOUBLE HUNG
DOWN
DOWNSPOUT
DRAWING
DRINKING FOUNTAIN

EACH
ELECTRIC, ELECTRICAL
ELECTRIC WATER COOLER
ELEVATION
ELEVATOR
EMERGENCY
EQUAL
EQUIPMENT
EXISTING
EXISTING TO REMAIN
EXPANSION
EXPANSION JOINT
EXTERIOR
EXTERIOR FINISH
INSULATION SYSTEM

FEET, FOOT
FIBER REINFORCED
GYPSUM PANELS
FINISH, FINISHED
FIRE EXTINGUISHER
FIRE RETARDANT
FIREPROOFING
FIXTURE
FLASHING
FLOOR
FLOOR DRAIN
FLOOR FINISH
FOOTING
FOUNDATION
FURNISH, FURNISHED
FURRED, FURRING

GAUGE
GALVANIZED
GLAZING
GRAB BAR
GYPSUM WALLBOARD

HANDRAIL
HANDICAPPED
HEIGHT
HIGH POINT
HOLLOW METAL
HOLLOW METAL FRAME
HORIZONTAL
HOSE BIBB

A.F.F.
AC
AC.T.
ADDN
A/C
A.H.U.
ALT
ALUM.
ALF.
ANCH.
ASB
L
ANOD.
APPR.
ARCH.
ASB.
ASPH.
ASSY
ASST
AT
AUTO

BM
BRG
BET
BEV.
BIT.
BLK
BLKG.
BD
BOT.
B.O.
B.E.J.
BLDG.
B.U.R.

CAB.
C.U.H.
CAP.
CLG.
CLG. HT.
CEM.
CTR.
CL
CER.T.
C. BD.
CLO.
COL.
CONC.
CONF.
CJ.
CONT.
CONTR.
C.G.
CORR.
CRS.

DMPPFG.
DEG.
DEMO.
DEPT.
DET./DTL.
DIA.
DIM.
DIST.
DR
DBL.
D.H.
DN
D.S.
DNW.
D.F.

EA.
ELEC.
ENC
ELEV.
ELEV.
EMERG.
EQ.
EQUIP.
EXIST.
E.T.R.
EXP.
E.J.
EXT.
E.I.F.S.

FT
F.R.G.P.

FIN.
F.E.
F.R.
FPRFG.
FIXT.
FLASH.
FLR.
F.D.
FLR. FIN.
FTG.
FDN.
FURN.
FURR.

GA.
GALV.
GLAZ.
G.B.
GYP. BD.

H.R.
H.C.
HGT.
H.P.
H.M.
H.M.F.
HORIZ.
H.B.

INCH OR INCHES
INCLUDE, INCLUDING
INFORMATION
INSIDE DIAMETER
INSULATION
INTERIOR

KICK PLATE

LABORATORY
LAV.
LIGHTING
LOCKER, LOCKERS

MACHINE
MAINTENANCE
MANUFACTURER
MARKER BOARD
MASONRY
MASONRY OPENING
MAXIMUM
MECHANICAL
METAL
MEZZANINE
MINIMUM
MISCELLANEOUS
MOUNTED

NORTH
NOT IN CONTRACT
NOT IN SCOPE
NOT TO SCALE
NUMBER

OFFICE
ON CENTER
OPPOSITE HAND
OUTSIDE DIAMETER

PAINTED
PAIR
PAPER TOWEL DISPENSER
PASSAGE
PERPENDICULAR
PLASTER
PLASTIC LAMINATE
PLATE
PLUMBING
PLYWOOD
POLYVINYLCHLORIDE
PRECAST
PRECAST EXPANSION JOINT
PREFABRICATED

QUANTITY
QUARRY TILE

RADIUS
RAIN WATER CONDUCTOR
RAIN WATER LEADER
RECEIVING
REFRIGERATOR
REINFORCE
REQUIRE(D)
RISER
ROOF DRAIN
ROOM
ROBE HOOK

SANITARY NAPKIN DISPOSAL
SANITARY NAPKIN VENDING MACHINE
SCHEDULE
SCUPPER
SECTION
SEISMIC JOINT
SHEET
SIMILAR
SOAP DISPENSER
SOUND TRANSMISSION CLASS
SPECIFICATIONS
SPLASH BLOCK
SQUARE
SQUARE FEET
STAINLESS STEEL
STANDARD
STEEL
STORAGE
STRUCTURAL
STRUCTURAL STEEL
SUSPEND, SUSPENSION
SWING-UP GRAB BAR

TACKBOARD
THROUGH
TOILET PAPER DISPENSER
TOUNGE AND GROOVE
TOP OF
TREAD
TYPICAL

UNDERWRITER'S LABORATORY
INCORPORATED
UNIT HEATER
UNIT VENTILATOR
UNLESS OTHERWISE NOTED
URINAL

VENT THROUGH ROOF
VERIFY IN FIELD
VESTIBULE
VINYL COMPOSITION TILE

WATER CLOSET
WATERPROOFING
WELDED WIRE FABRIC
WHITE BOARD
WINDOW
WITH
WOOD

IN.
INCL.
INFO.
I.D.
INSUL.
INT.

K.P.
LAB
LAV.
LTG.
LKR./LKRS.

MACH.
MAINT.
MFR.
M.BD.
MAS.
M.O.
MAT.
MAX.
MECH.
MET./MTL.
MEZZ.
MIN.
MISC.
MTD.

N
N.I.C.
N.I.S.
N.T.S.
NO.

OFF.
O.C.
O.H.
O.D.

PTD.
PR.
P.T.D.
PASS.
PERP.
PLAS.
PLANT.
PLATE
PLUMB.
PLYMND
PVC
PC
P.E.J.
PREFAB.

QTY.
Q.T.

R/RAD.
RVC
RNL
RECV.
REF.
REINF.
REQ./REQ'D.
REV.
R.
R.D.
R.M.
R.H.

S.N.D.
S.N.V.M.
SCHED.
SCUPPER
SECT.
S.J.
SHT
SIM.
S.D.
S.T.C.
SPEC.
S.B.
SQ.
S.F.
S.S.
STD
STEEL
STOR.
STRUCT.
S.STL.
SUSP.
S.G.B.

T.BD.
THRU
T.P.D.
TAG
T.O.
T.
TYP.

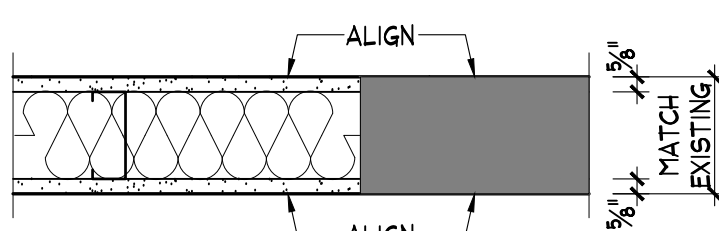
UL.
U.H.
U.V.
U.O.N.
U./UR.

VTR
V.I.F.
VEST.
VCT

W.C.
WP.
W.W.F.
W.BD.
WIN.
W/
WD

WALL TYPES

FGA-SERIES
FIRE RATED, GYPSUM BOARD (METAL STUDS), ATTENUATION



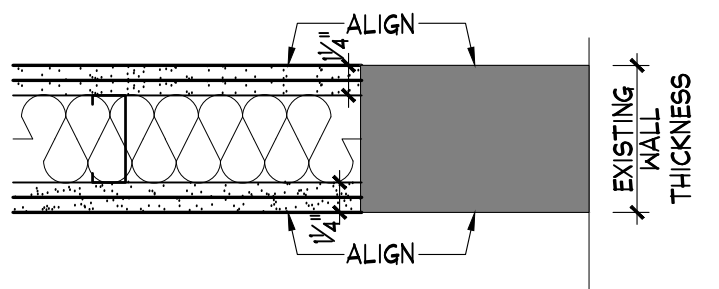
W
FGA-1

5/8" FIRE CODE GYPSUM BOARD, 3/8" METAL STUDS AT 16" O.C., 3/4" UN-FACED FIBERGLASS BATT INSULATION, 5/8" FIRE CODE GYPSUM BOARD.

REFERENCED THICKNESS: MATCH EXISTING WALL THICKNESS.

TOTAL HEIGHT: ENCLOSE ENTIRE WALL OPENING

1 HOUR RATED: U.L. #U-465.



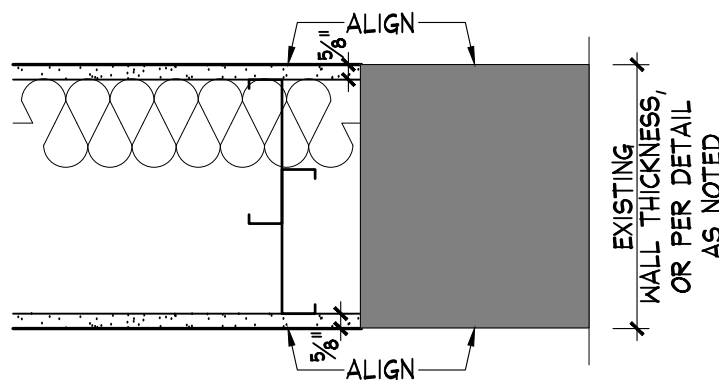
W
FGA-2

2 LAYERS 5/8" FIRE CODE GYPSUM BOARD, 3/8" METAL STUDS AT 16" O.C., 3/4" UN-FACED FIBERGLASS BATT INSULATION, 2 LAYERS 5/8" FIRE CODE GYPSUM BOARD.

REFERENCED THICKNESS: TO MATCH EXISTING WALL THICKNESS

TOTAL HEIGHT: ENCLOSE ENTIRE WALL OPENING

2 HOUR RATED: U.L. #U-419.



W
FGA-3

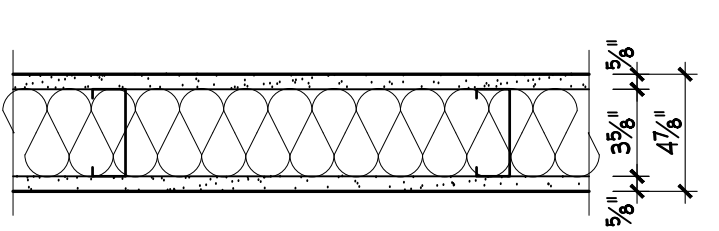
5/8" FIRE CODE GYPSUM BOARD, TWO ROWS OF 4" OR 6" METAL STUDS AT 16" O.C., 3/4" UN-FACED FIBERGLASS BATT INSULATION, 5/8" FIRE CODE GYPSUM BOARD.

REFERENCED THICKNESS: TO MATCH EXISTING WALL THICKNESS

TOTAL HEIGHT: ENCLOSE ENTIRE WALL OPENING

1 HOUR RATED: U.L. #U-465.

FGA-SERIES
FIRE RATED, GYPSUM BOARD (METAL STUDS), ATTENUATION



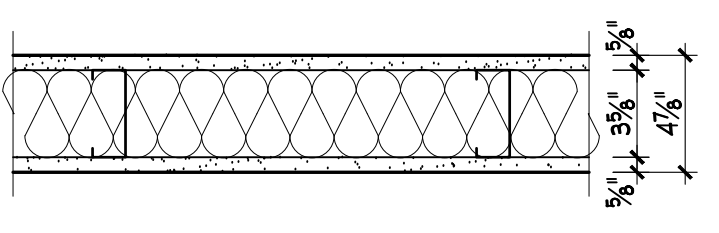
W
GA-1

5/8" GYPSUM BOARD, 3/8" METAL STUDS AT 16" O.C., 3/4" UN-FACED FIBERGLASS BATT INSULATION, 5/8" GYPSUM BOARD.

TOTAL THICKNESS: 4 1/8".

TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF FLOOR DECK OR BOTTOM OF ROOF TRUSSES.

ACOUSTICAL RATING: STC 49.

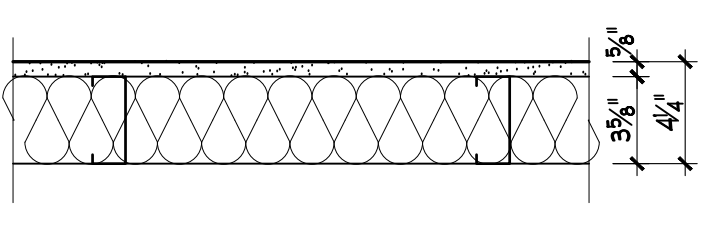


W
GA-2

5/8" GYPSUM BOARD, 3/8" METAL STUDS AT 16" O.C., 3/4" UN-FACED FIBERGLASS BATT INSULATION, 5/8" GYPSUM BOARD.

TOTAL THICKNESS: 4 7/8".

TOTAL HEIGHT: FROM FLOOR TO 8'-0" ABOVE FINISH FLOOR



W
GA-3

5/8" GYPSUM BOARD, 3/8" METAL STUDS AT 16" O.C., 3/4" UN-FACED FIBERGLASS BATT INSULATION

TOTAL THICKNESS: 4 1/4".

TOTAL HEIGHT: FROM FLOOR TO UNDERSIDE OF FLOOR DECK OR BOTTOM OF ROOF TRUSSES.

ACOUSTICAL RATING: STC 49.

INTERIOR RENOVATIONS TO

NAUGATUCK POLICE DEPARTMENT

CENTRAL DISPATCH FACILITY

FY27-B138

NAUGATUCK, CONNECTICUT

211 SPRING STREET

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ARCHITECTURAL
GENERAL
NOTES

PROJ. NO.

JH2516

DRAWING NO.

SCALE:

N.T.S.

DATE:

JULY 6, 2026

A-0

FLOOR PLAN LEGEND

	NEW C.M.U. WALL CONSTRUCTION		PLAN DETAIL DETAIL NUMBER / SHEET NUMBER
	NEW STUD WALL CONSTRUCTION		WALL TYPE TAG
	EXISTING WALL TO REMAIN		DOOR AND/OR FRAME TAG
	ROOM NAME / ROOM NUMBER		COLUMN DETAIL TAG
	WALL SECTION MARKER DETAIL NUMBER / SHEET NUMBER		WINDOW TAG
	EXTERIOR ELEVATION MARKER DETAIL NUMBER / SHEET NUMBER		RELOCATED DOOR
	CASEWORK OR INTERIOR ELEVATION MARKER		EXISTING DOOR

NOTE:

SEE CODE PLAN FOR LOCATIONS OF ALL RATED CONSTRUCTION, TYPICAL.

COORDINATE ALL LIGHTING QUANTITIES AND LOCATIONS WITH THE ARCHITECT. REPORT ANY DISCREPANCIES BETWEEN CEILING AND ELECTRICAL, MECHANICAL, AND/OR FIRE PROTECTION DRAWINGS TO THE ARCHITECT IMMEDIATELY.

CEILING PLAN LEGEND

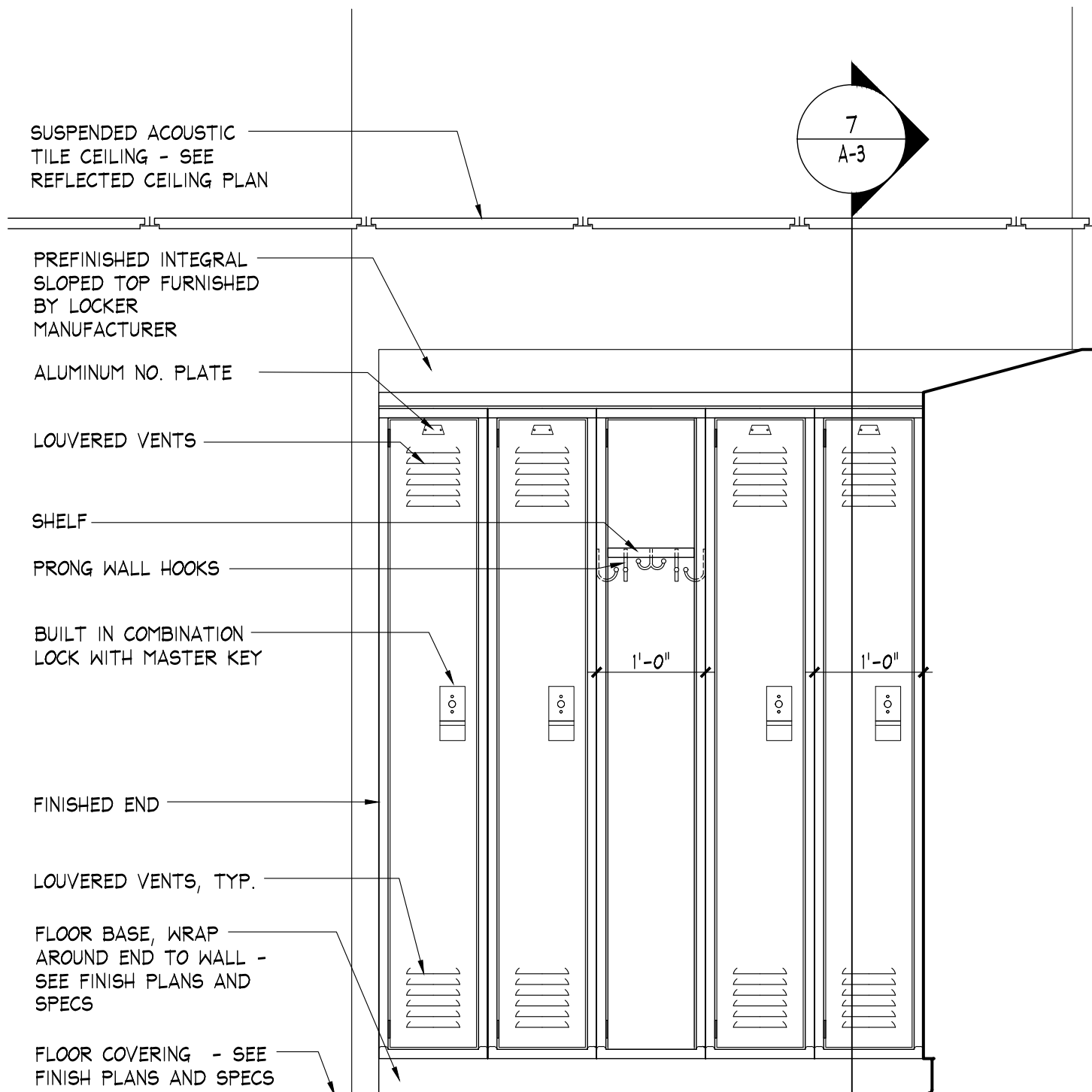
	2X4 SUSPENDED ACOUSTICAL CEILING TILE		PENDANT, OR WALL MOUNTED LIGHTING FIXTURES. SUBSCRIPT IS MOUNTING HEIGHT TO BOTTOM OF FIXTURE ABOVE FINISHED FLOOR IN FEET. SEE ELECTRICAL DWGS.
	2X2 SUSPENDED ACOUSTICAL CEILING TILE		DIFFUSER, SEE MECHANICAL DWGS.
	GYPSTUM BOARD CEILING		PAGING SPEAKER, SEE ELECTRICAL DWGS.
	EXPOSED STRUCTURE		RADIO SPEAKER, SEE ELECTRICAL DWGS.
	RECESSED CEILING LIGHTING FIXTURES, SEE ELECTRICAL DWGS.		AV SPEAKER, SEE ELECTRICAL DWGS.
	SURFACE MOUNTED LIGHTING FIXTURES, SEE ELECTRICAL DWGS.		HEAT AND/OR SMOKE DETECTOR, SEE ELECTRICAL DWGS.
	RECESSED CEILING LIGHTING FIXTURES, SEE ELECTRICAL DWGS.		SPRINKLER, SEE FIRE PROTECTION DWGS.
	SURFACE MOUNTED LIGHTING FIXTURES, SEE ELECTRICAL DWGS.		TV MOUNTING BRACKET
	SURFACE MOUNTED LIGHTING FIXTURES, SEE ELECTRICAL DWGS.		CCTV CAMERA LOCATION



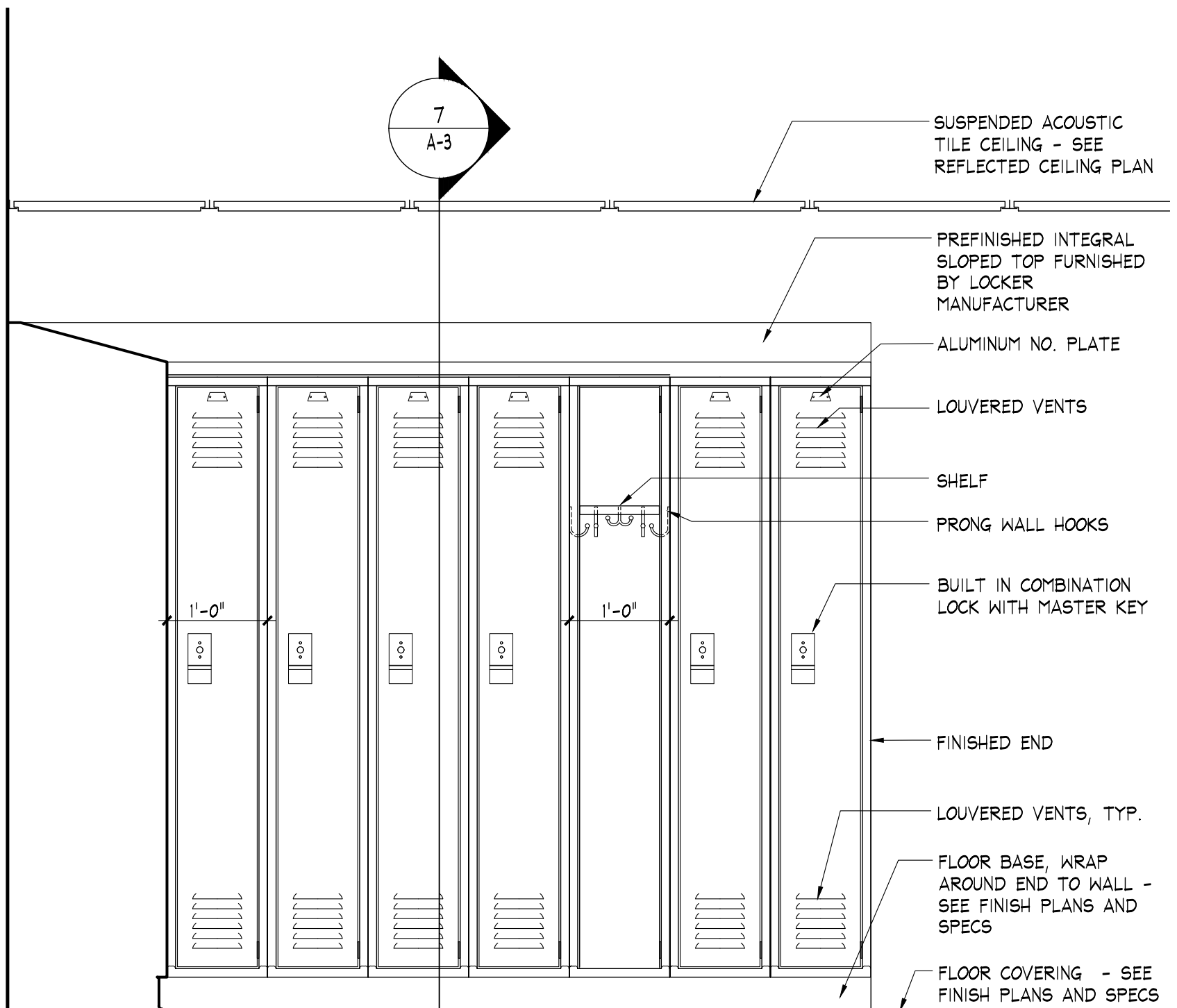
JH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
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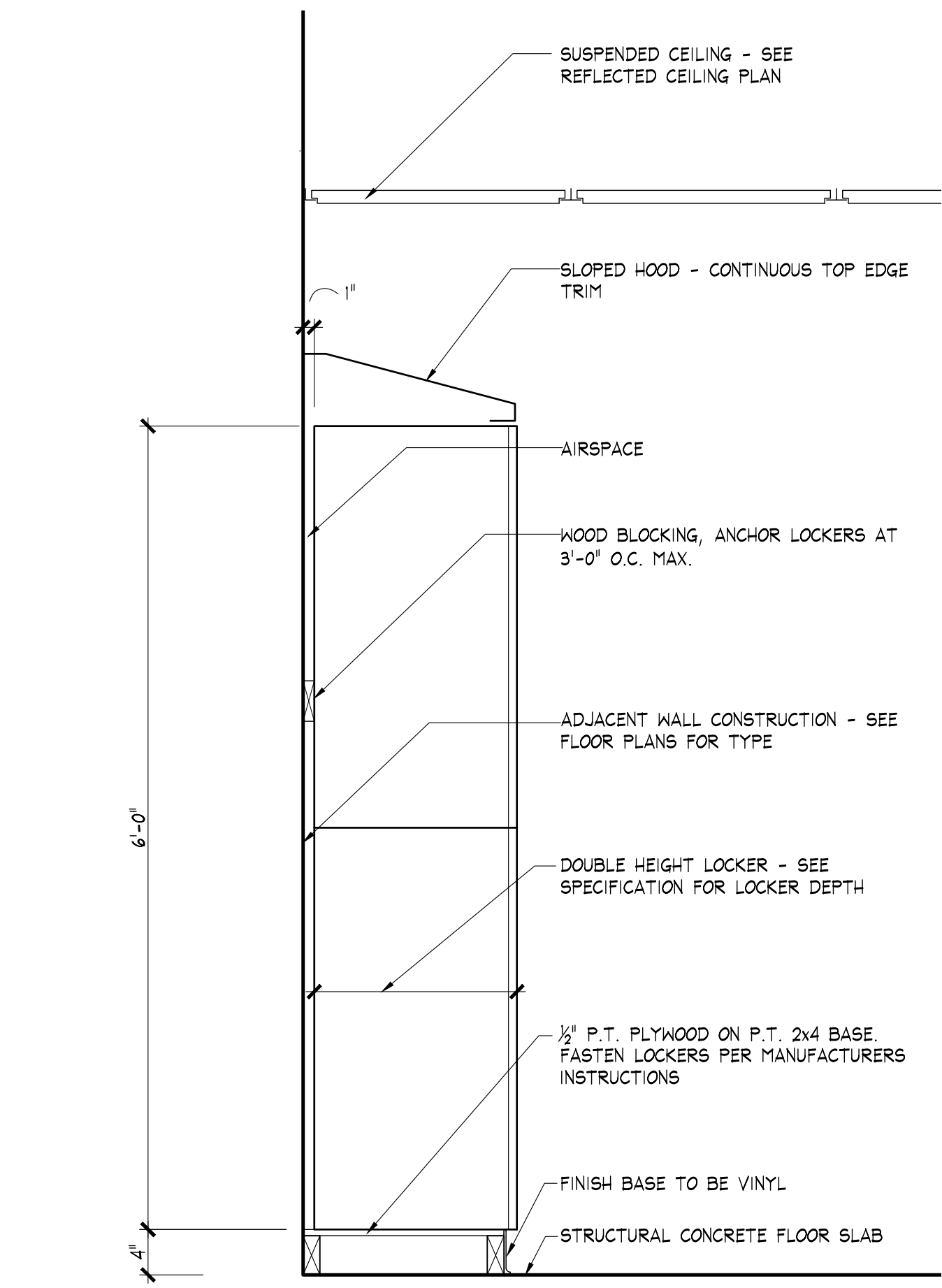
PROJ. NO. JH2516	DRAWING NO.
SCALE: 1/8" = 1'-0"	<i>A-1</i>
DATE: JULY 6, 2026	



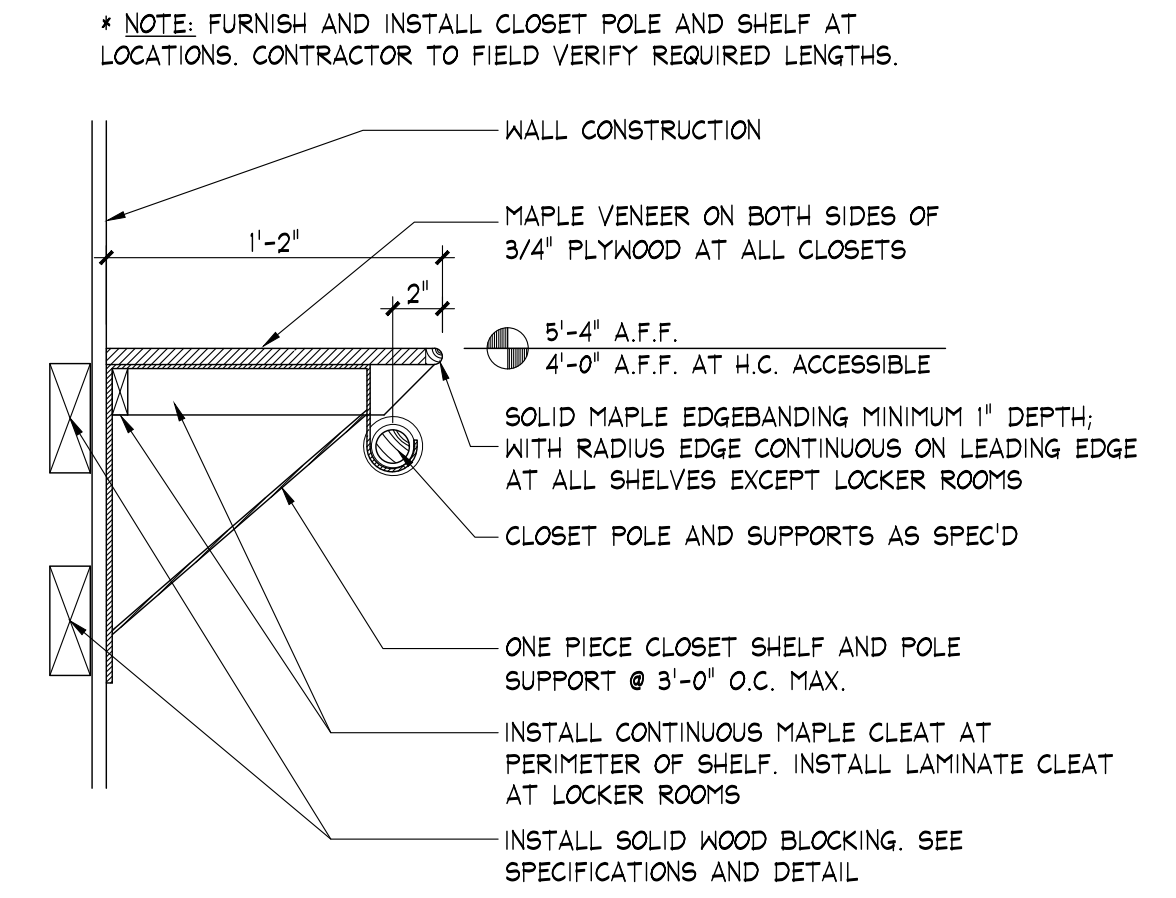
8 PERSONAL PROPERTY LOCKER ELEVATION
SCALE: 3/4" = 1'-0"



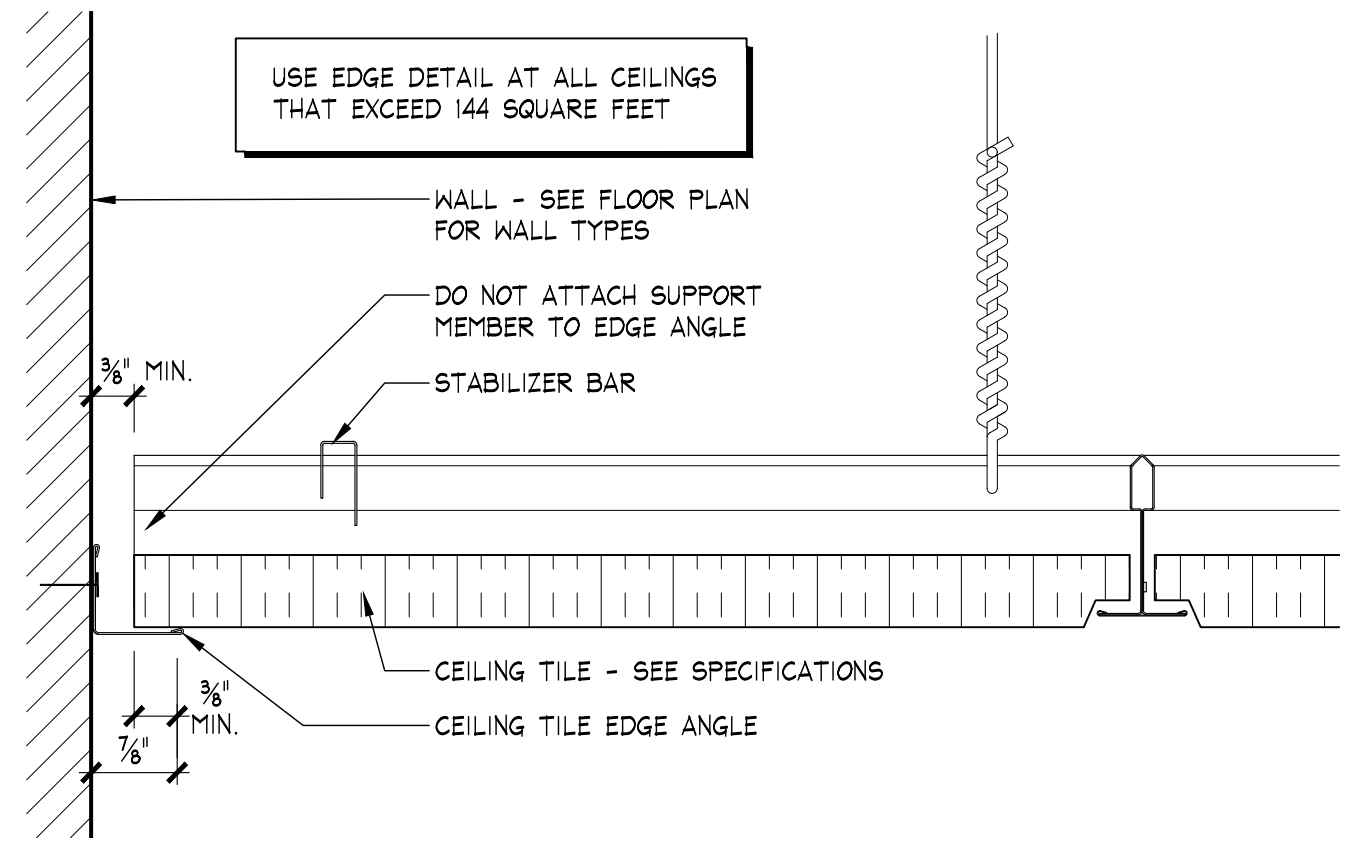
9 PERSONAL PROPERTY LOCKER ELEVATION
SCALE: 3/4" = 1'-0"



7 TYPICAL PERSONAL PROPERTY LOCKER SECTION
SCALE: 1" = 1'-0"

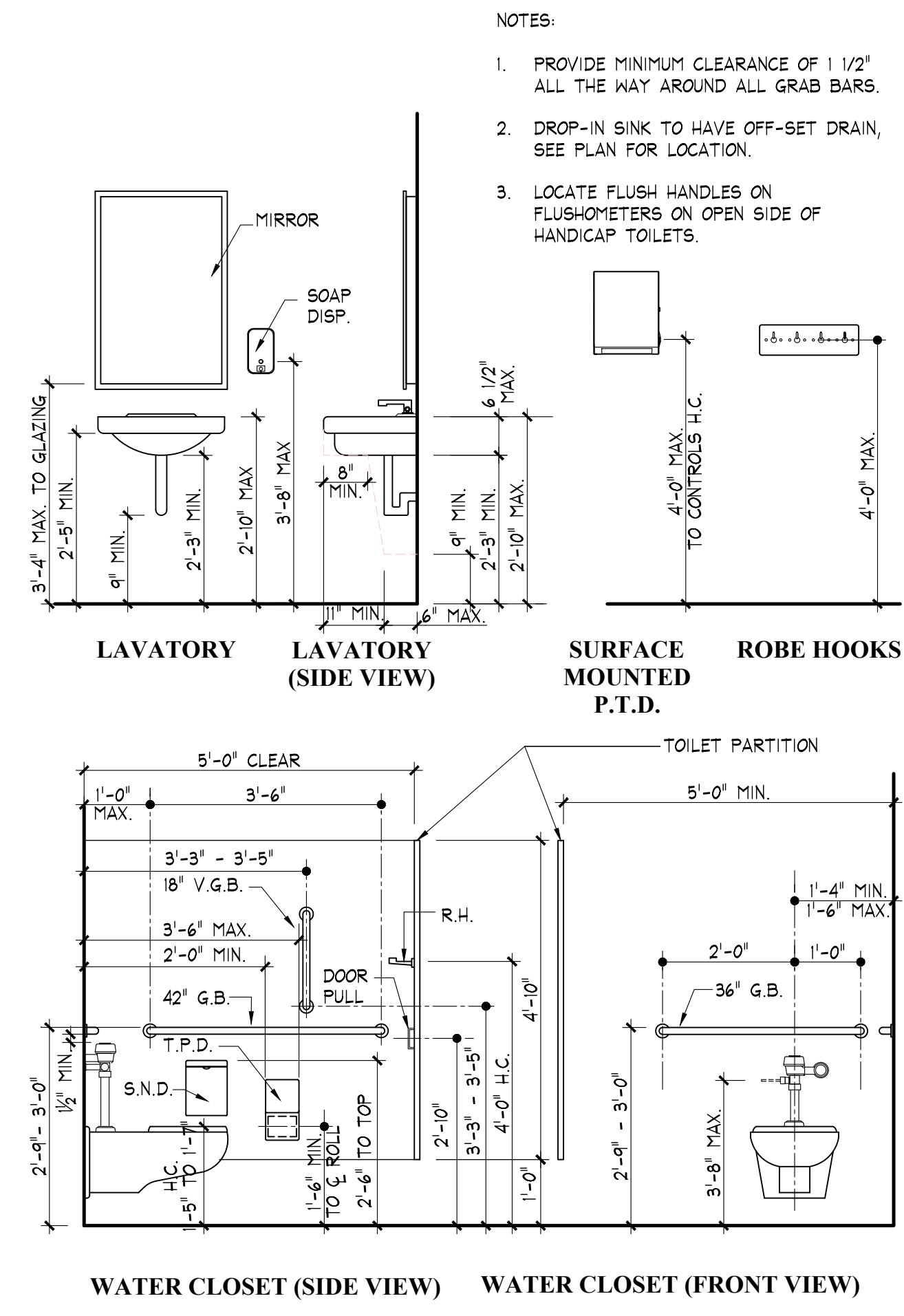


6 TYPICAL CLOSET POLE AND SHELF DETAIL
SCALE: 1 1/2" = 1'-0"



5 TYPICAL CEILING EDGE DETAIL
SCALE: 6" = 1'-0"

FIXTURE MOUNTING HEIGHTS



GENERAL NOTES:

ALL WALL AREAS TO RECEIVE TILE SHALL HAVE CONCRETE TILE BACKER BOARD INSTALLED TO WITHIN 1" OF EDGE OF TILE

ALL OTHER GYPSUM BOARD IN TOILET, SHOWER AND WET ROOMS TO BE MOISTURE RESISTANT GYPSUM WALL BOARD AS SPECIFIED.

ALL SINGLE SHOWER UNITS ARE TO BE FURNISHED WITH CURTAIN, HOOKS AND ROD.

H.C. SHOWER UNITS ARE TO BE FURNISHED WITH MANUFACTURER'S STANDARD 1-PIECE 18"x30" GRAB BAR, SWING UP H.C. SEAT AND ACCESSIBLE SHOWER CONTROLS, UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ON THE LARGE SCALE TOILET PLANS ARE FROM FINISH FACE OF WALL SURFACE, UNLESS OTHERWISE NOTED.

REFER TO PLUMBING DRAWINGS AND SPECIFICATIONS FOR LAVATORY, TOILET AND URINAL EQUIPMENT INFORMATION.

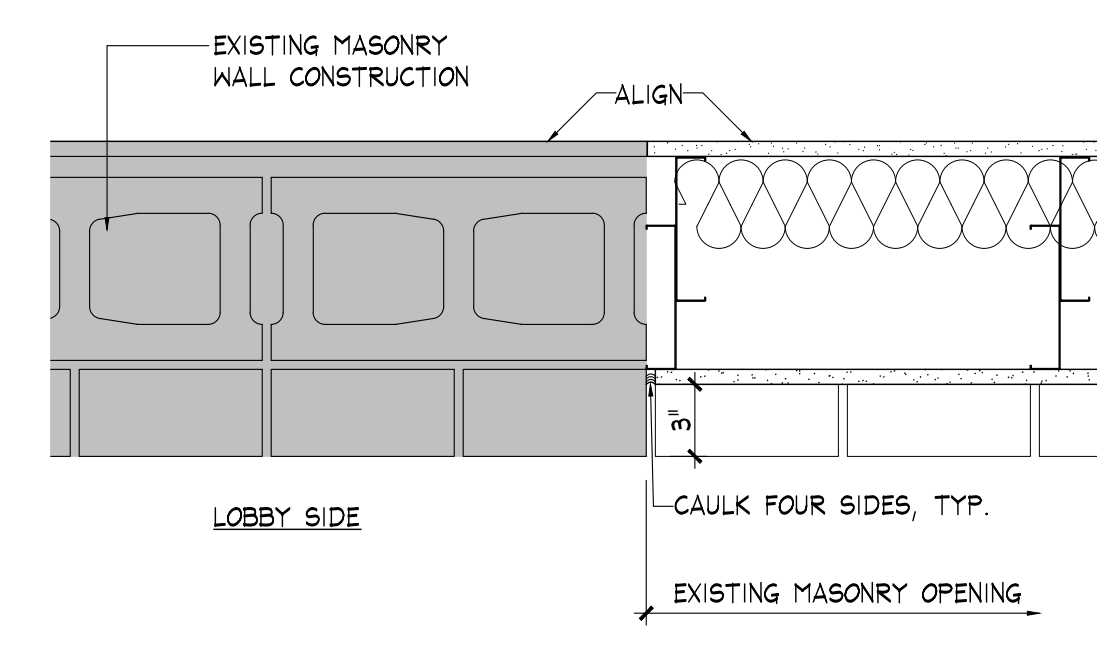
PROVIDE MINIMUM CLEARANCE OF 1 1/2" ALL THE WAY AROUND ALL GRAB BARS

DROP-IN SINK TO HAVE OFF-SET DRAIN, SEE PLAN FOR LOCATION

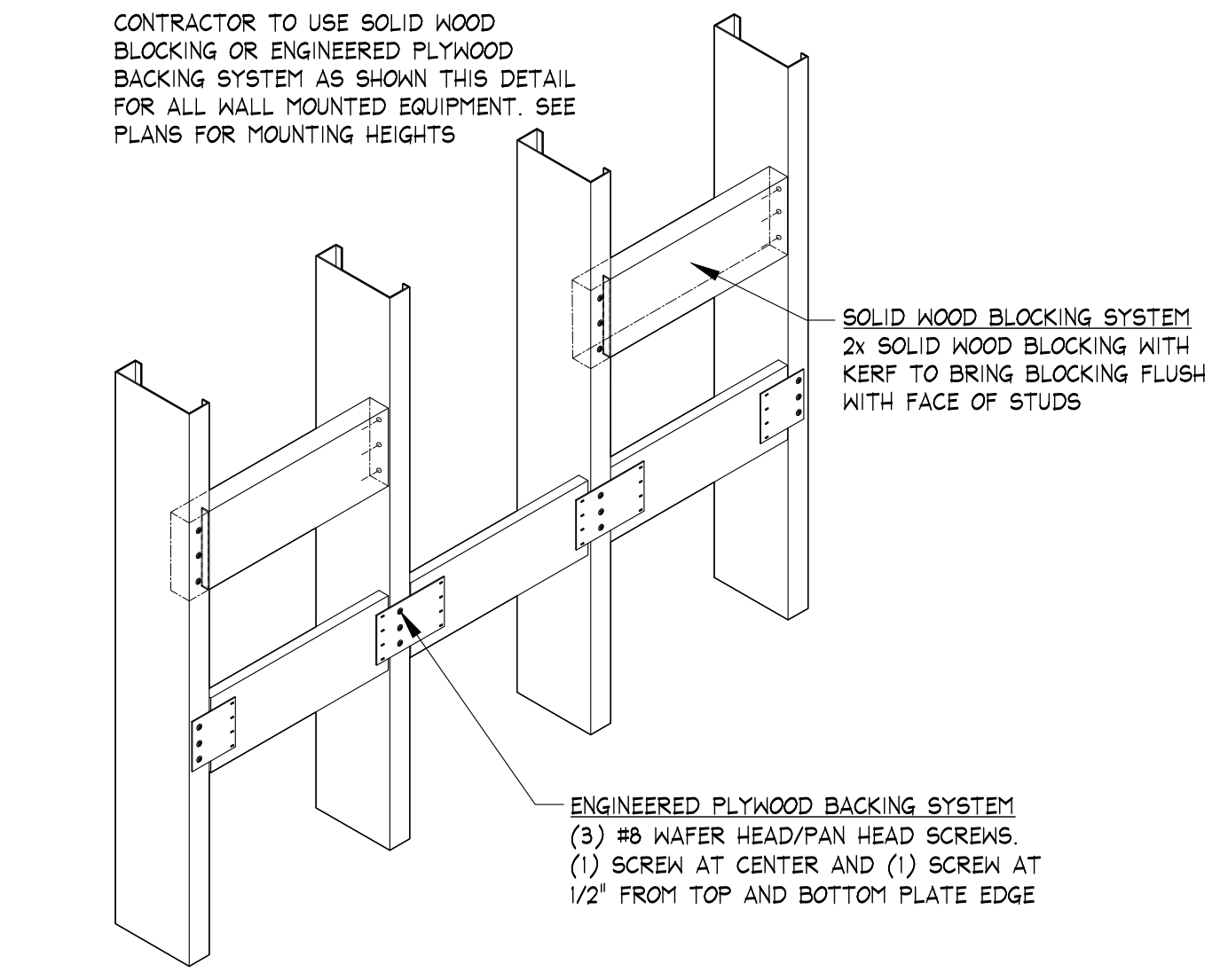
REFER TO LARGE SCALE PLANS FOR CLEAR FLOOR SPACE REQUIREMENTS

SEE CASEWORK ELEVATIONS FOR ADDITIONAL SD AND PTD LOCATIONS

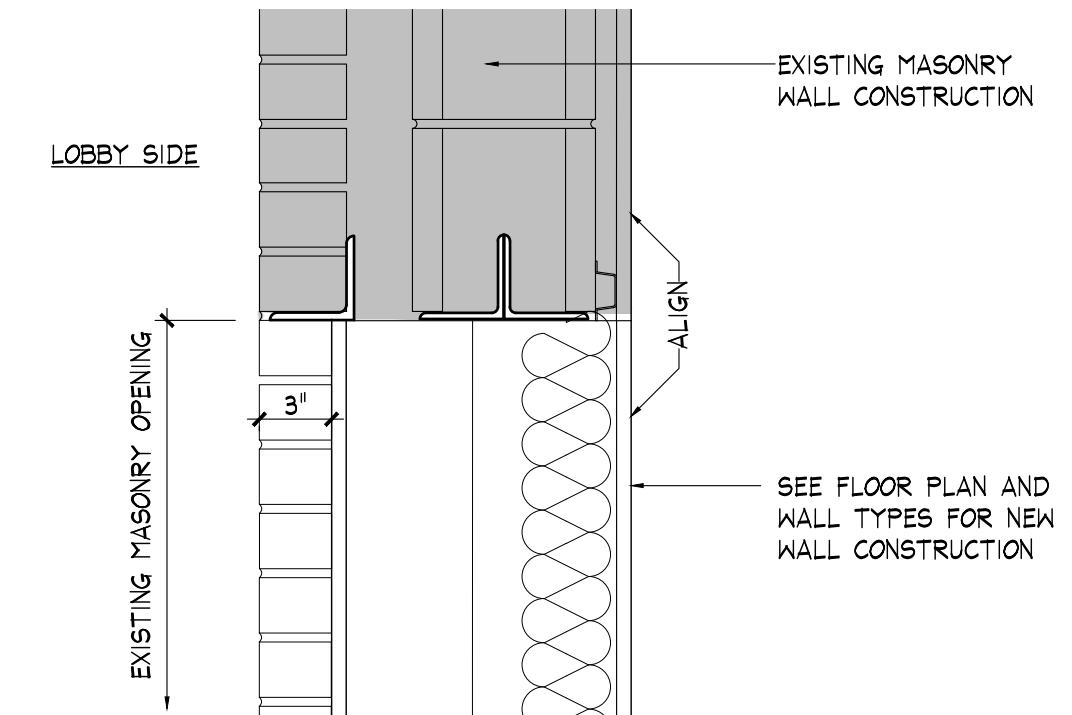
TOILET ACCESSORIES KEY	
ALL ITEMS BY SECTION 10 28 00 UNLESS OTHERWISE NOTED	
18 G.B.	18" GRAB BAR - VERTICAL MOUNT
36 G.B.	36" GRAB BAR
42 G.B.	42" GRAB BAR
D.P.	DOOR PULL
R.H.	ROBE HOOK
P.T.D.	WALL MOUNTED PAPER TOWEL DISPENSER- EXISTING TO BE RELOCATED
S.D.	WALL MOUNTED SOAP DISPENSER EXISTING TO BE RELOCATED
T.P.D.	WALL MOUNTED TOILET PAPER DISPENSER EXISTING TO BE RELOCATED
S.N.D.	WALL MOUNTED SANITARY NAPKIN DISPOSAL EXISTING TO BE RELOCATED
M.W.F.	BACKLIT MIRROR W/ STAINLESS STEEL FRAME



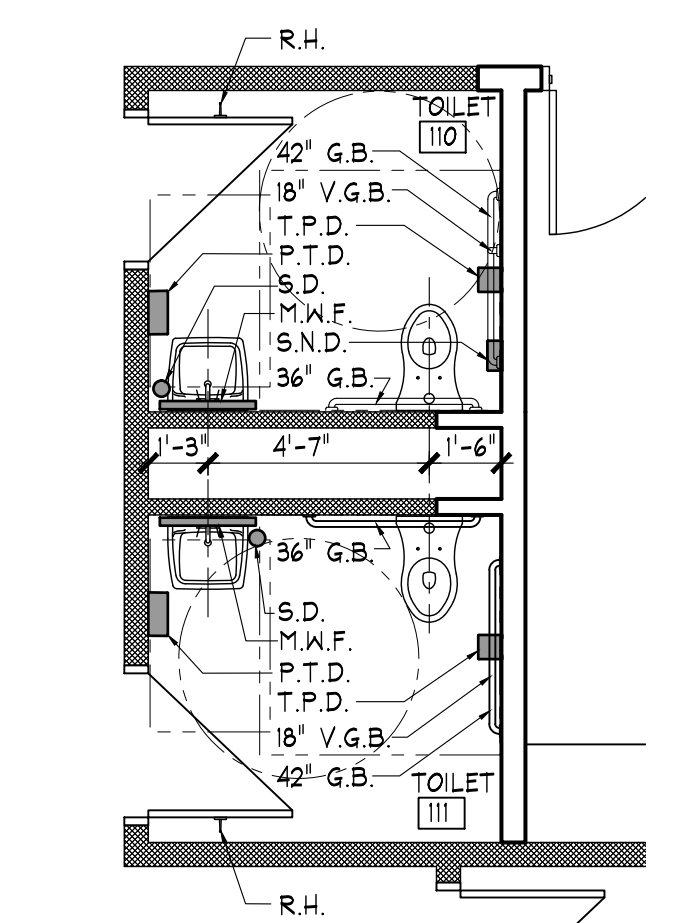
3 WINDOW OPENING INFILL PLAN SECTION
SCALE: 1 1/2" = 1'-0"



4 TYPICAL SOLID WOOD BLOCKING DETAIL
SCALE: 6" = 1'-0"



2 WINDOW OPENING INFILL SECTION
SCALE: 1 1/2" = 1'-0"



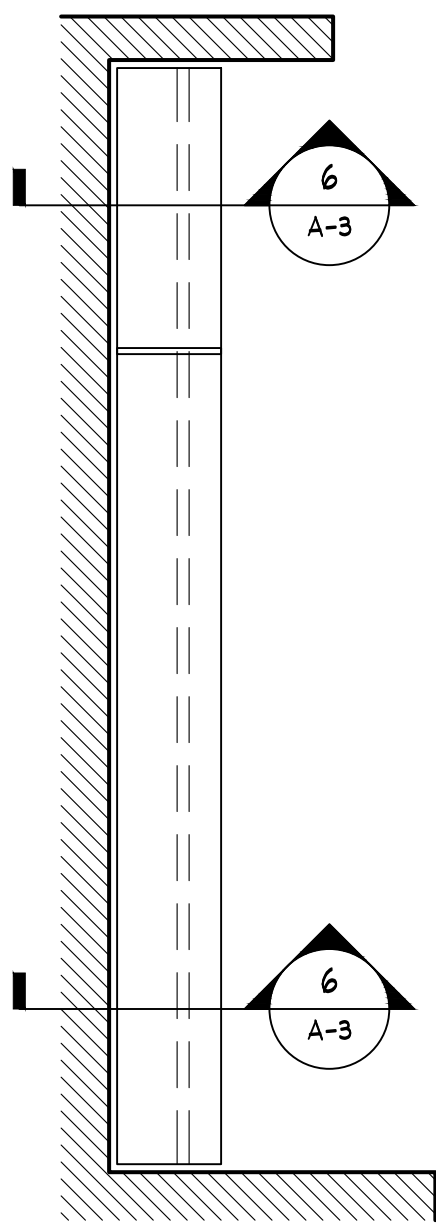
1 LARGE SCALE TOILET PLAN
SCALE: 1/4" = 1'-0"

INTERIOR RENOVATIONS TO
**NAUGATUCK POLICE DEPARTMENT
CENTRAL DISPATCH FACILITY**
211 SPRING STREET
NAUGATUCK, CONNECTICUT
FY27-B138

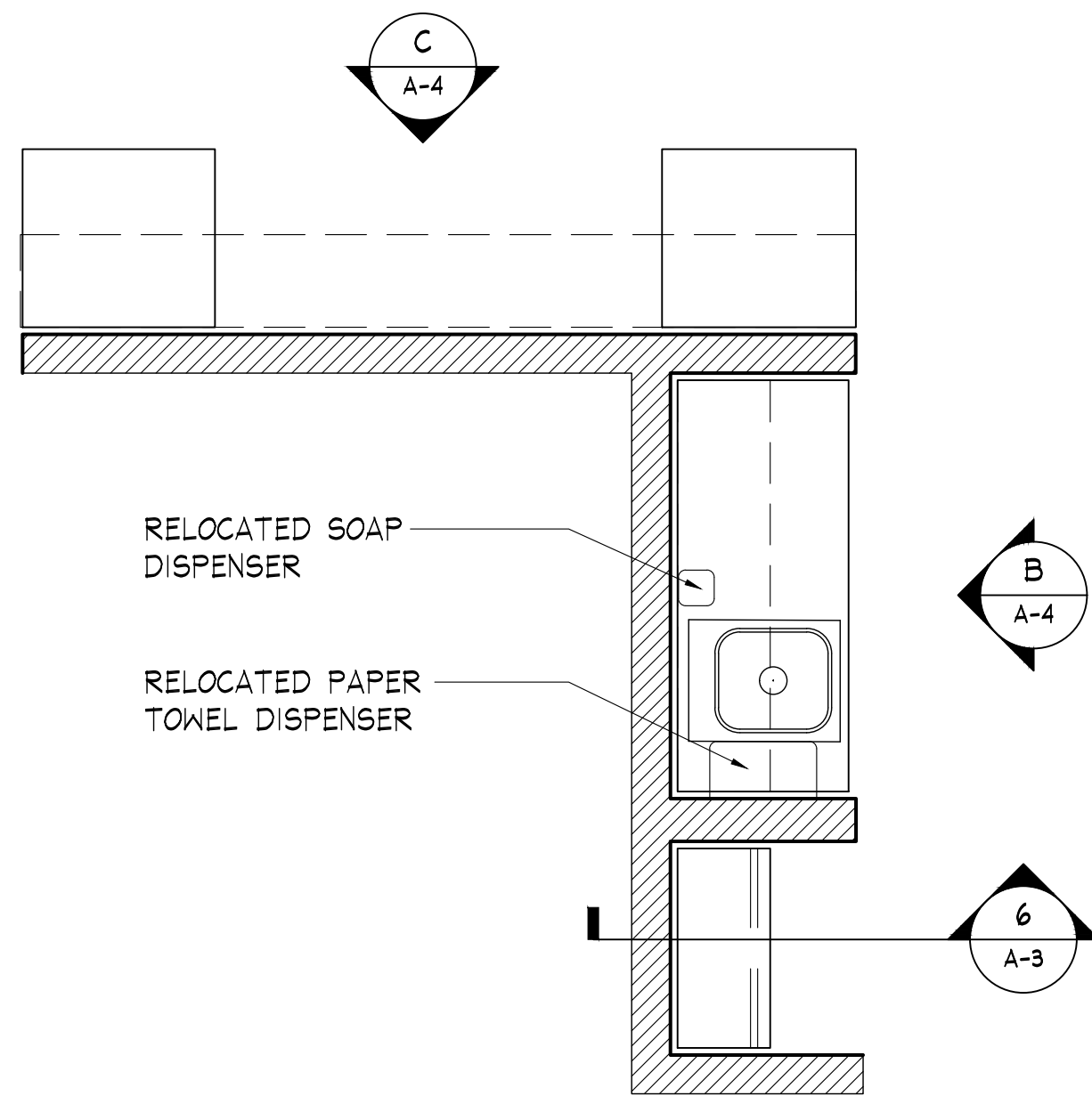
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**LARGE SCALE
FLOOR PLANS
AND DETAILS**

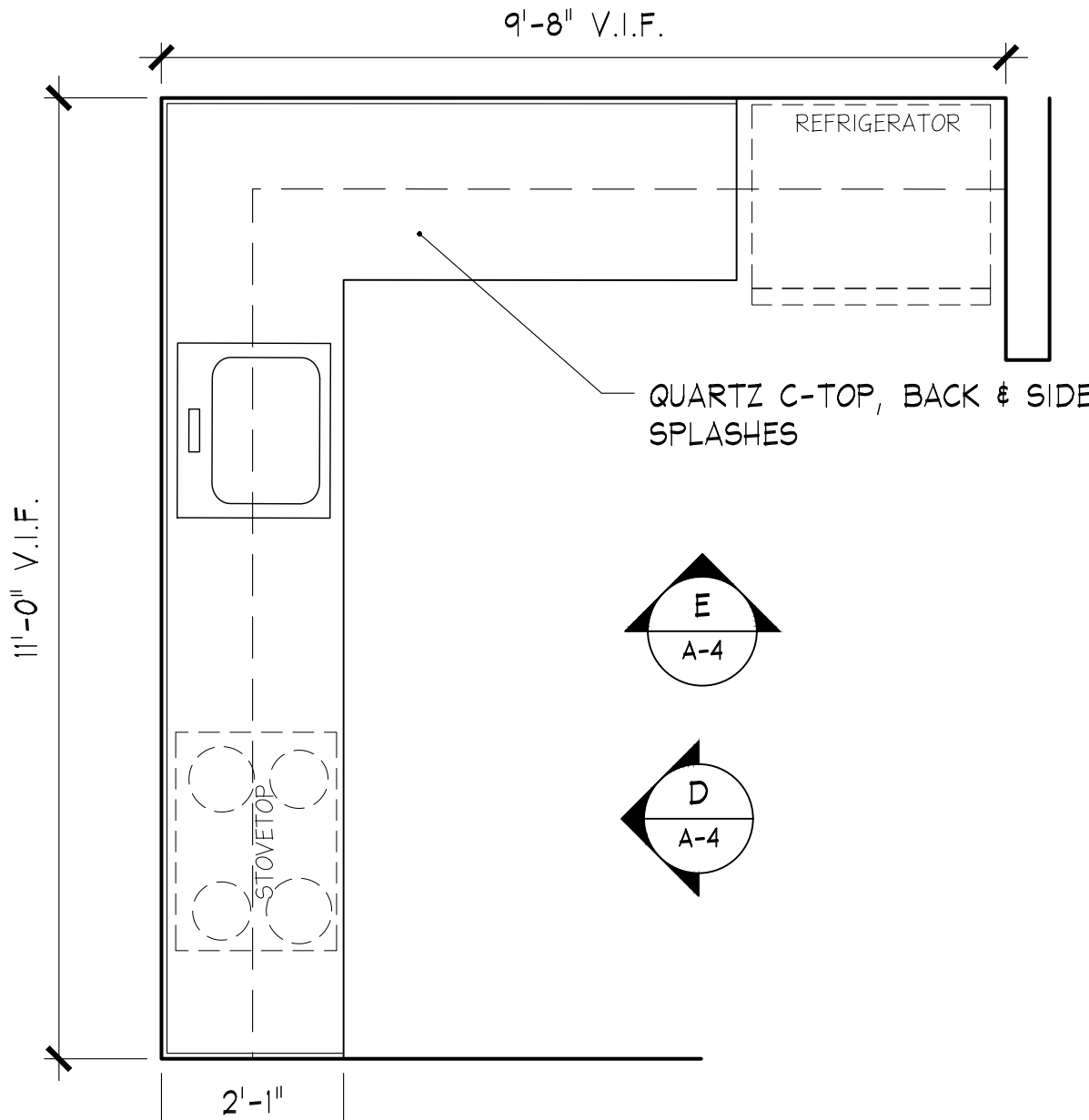
PROJ. NO.	JH2516	DRAWING NO.	A-3
SCALE:	AS NOTED		
DATE:	JULY 6, 2026		



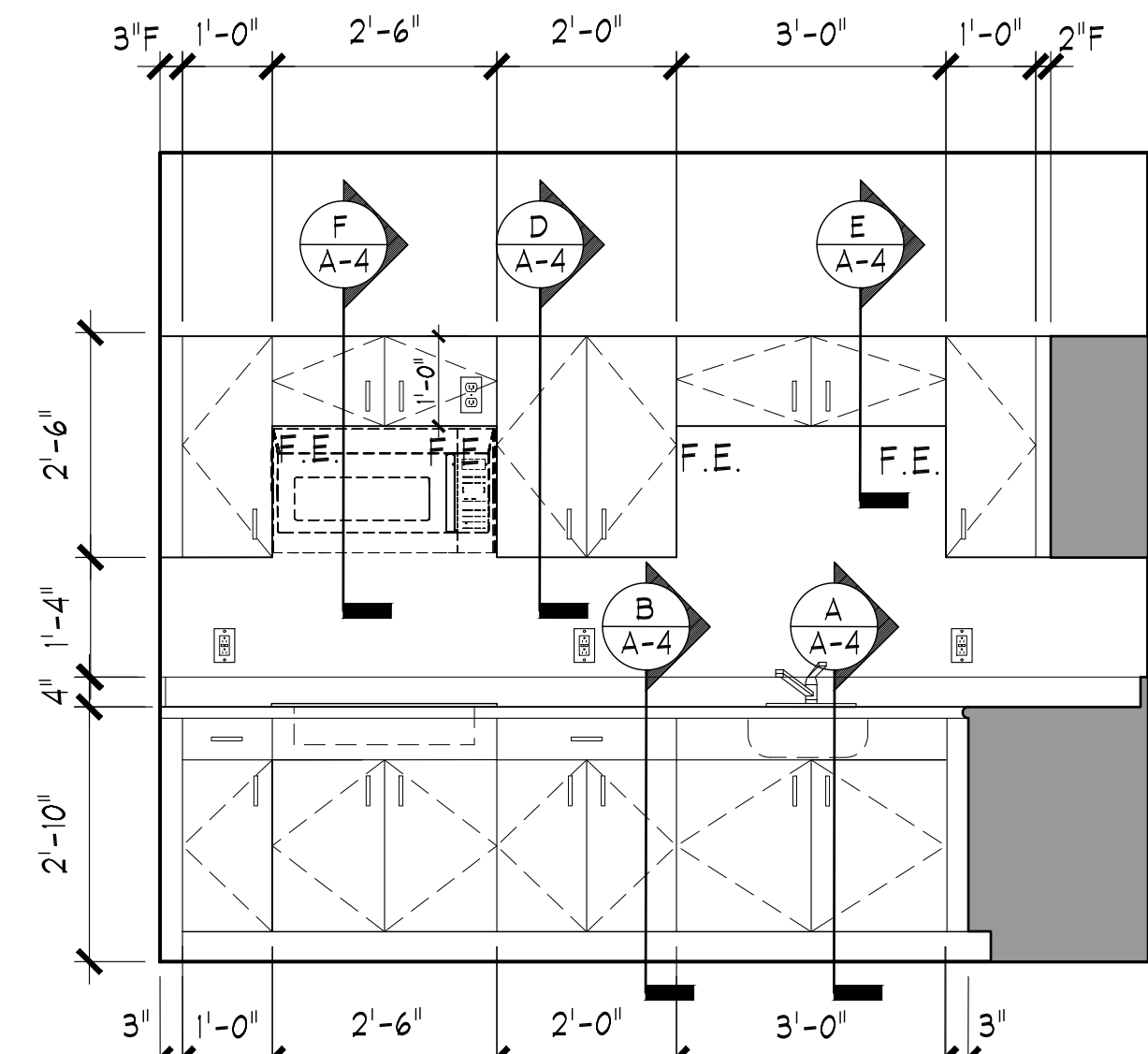
1 ROD AND SHELF CASEWORK PLAN
SCALE: 1/2" = 1'-0"



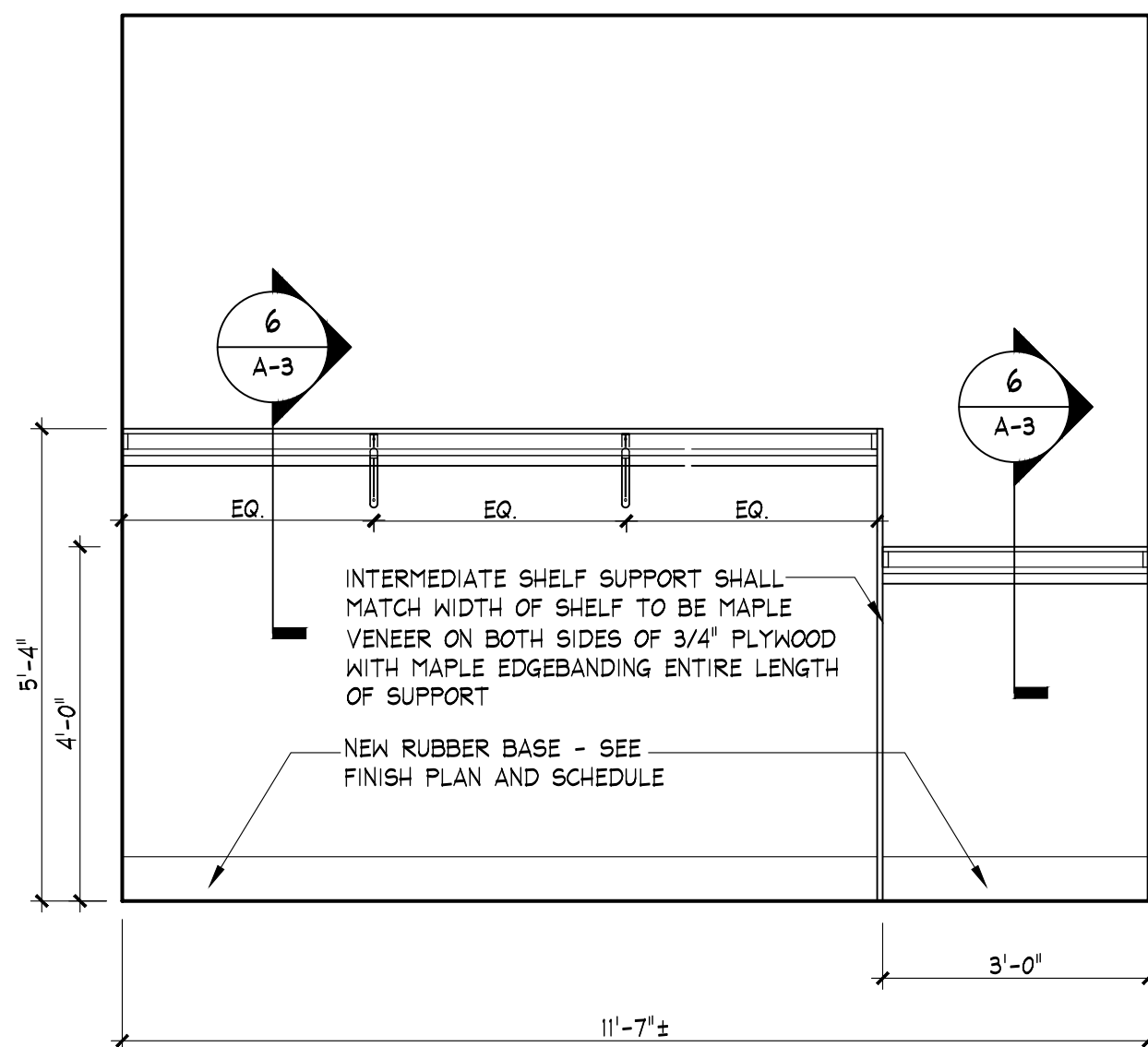
2 RECORDS CASEWORK PLAN
SCALE: 1/2" = 1'-0"



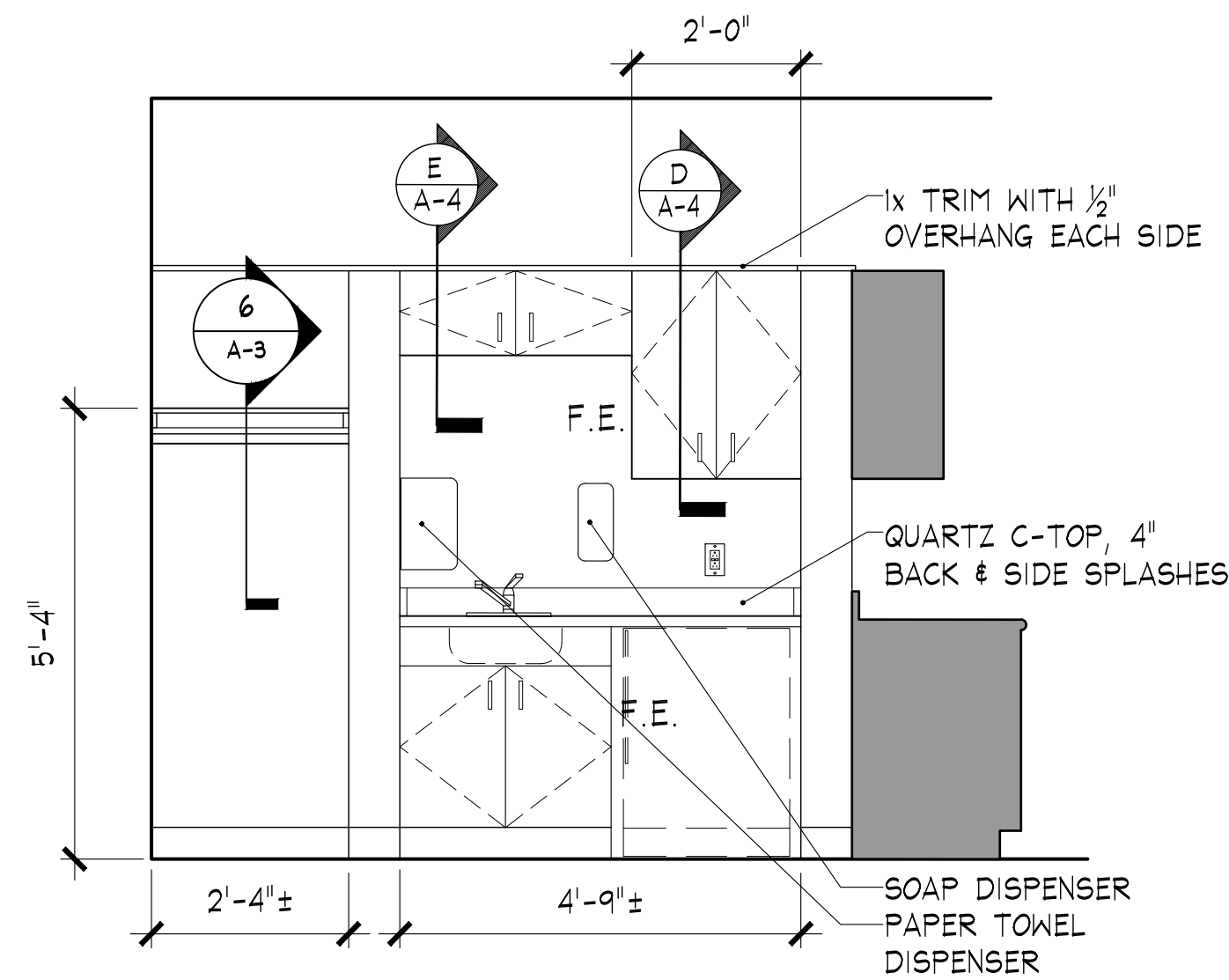
3 DISPATCH KITCHEN CASEWORK PLAN
SCALE: 1/2" = 1'-0"



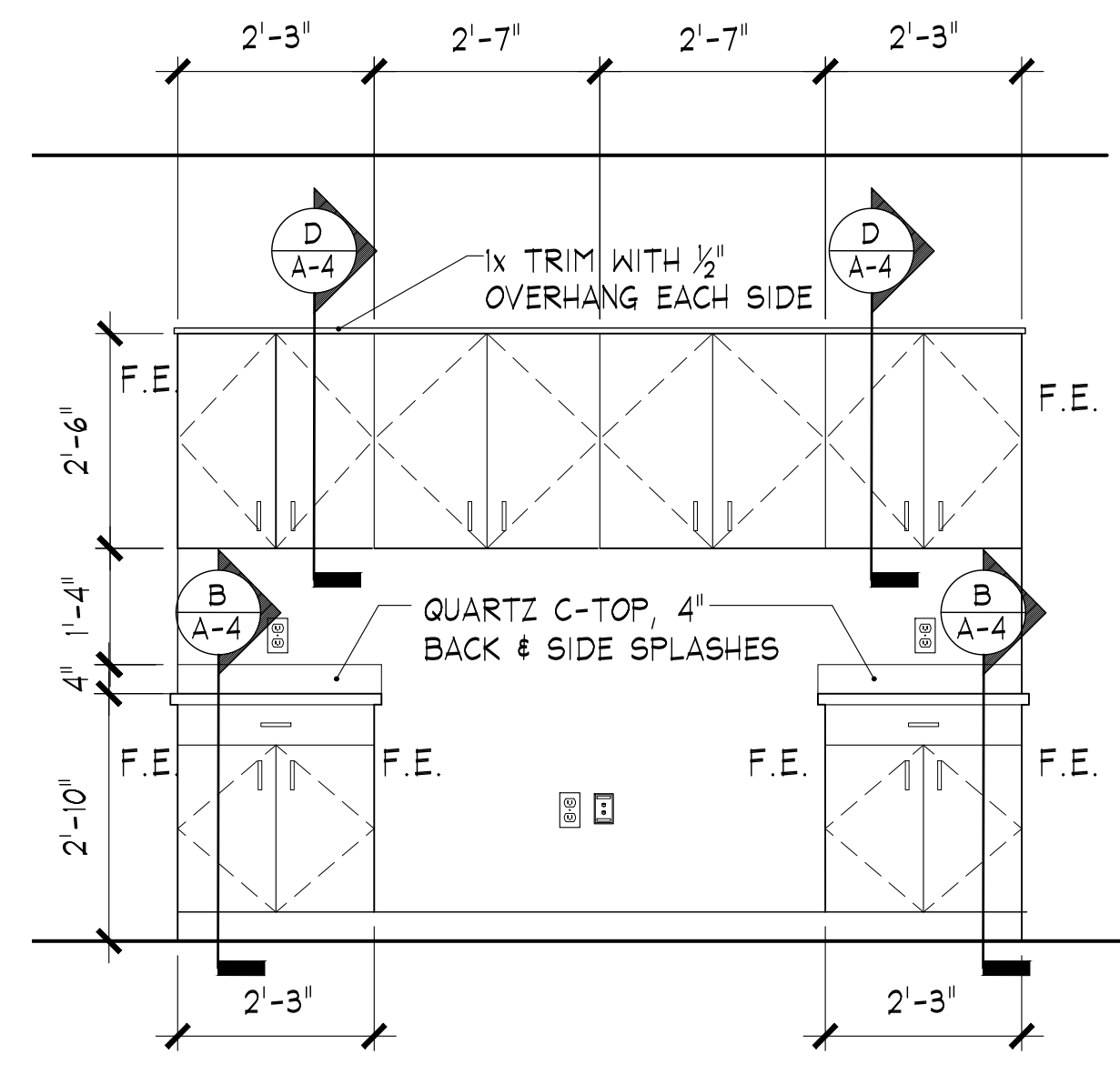
ELEVATION D



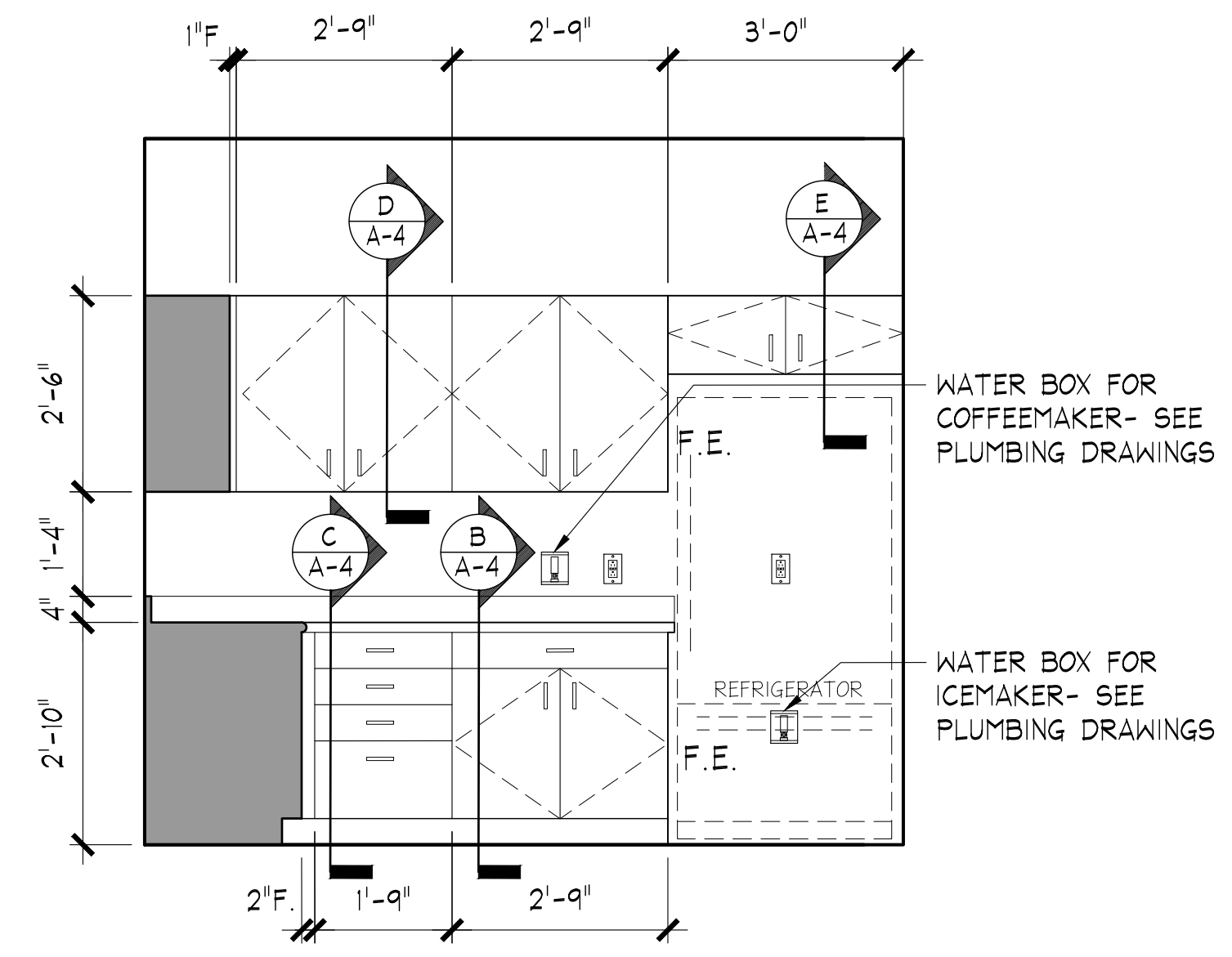
ELEVATION A



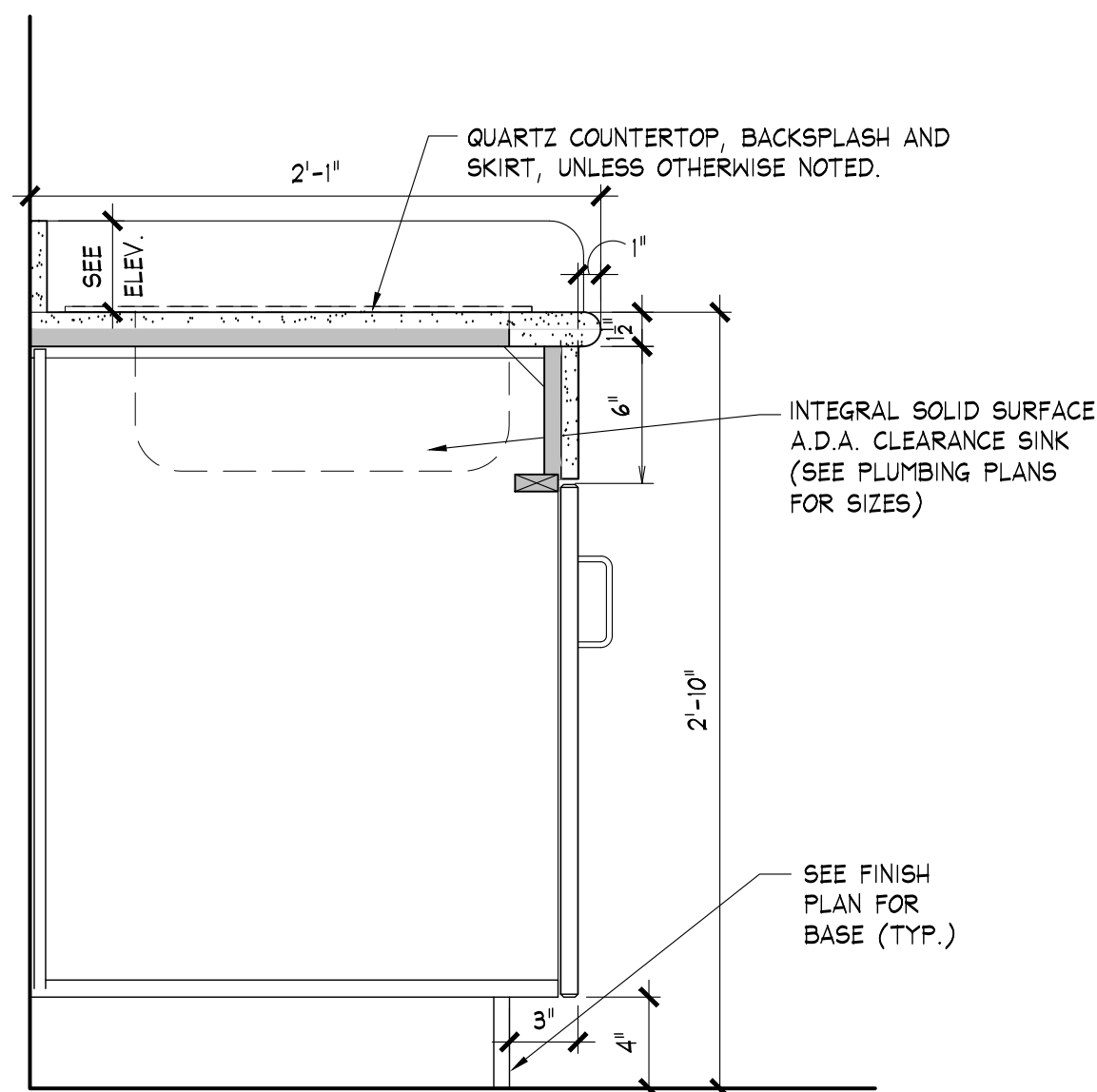
ELEVATION B



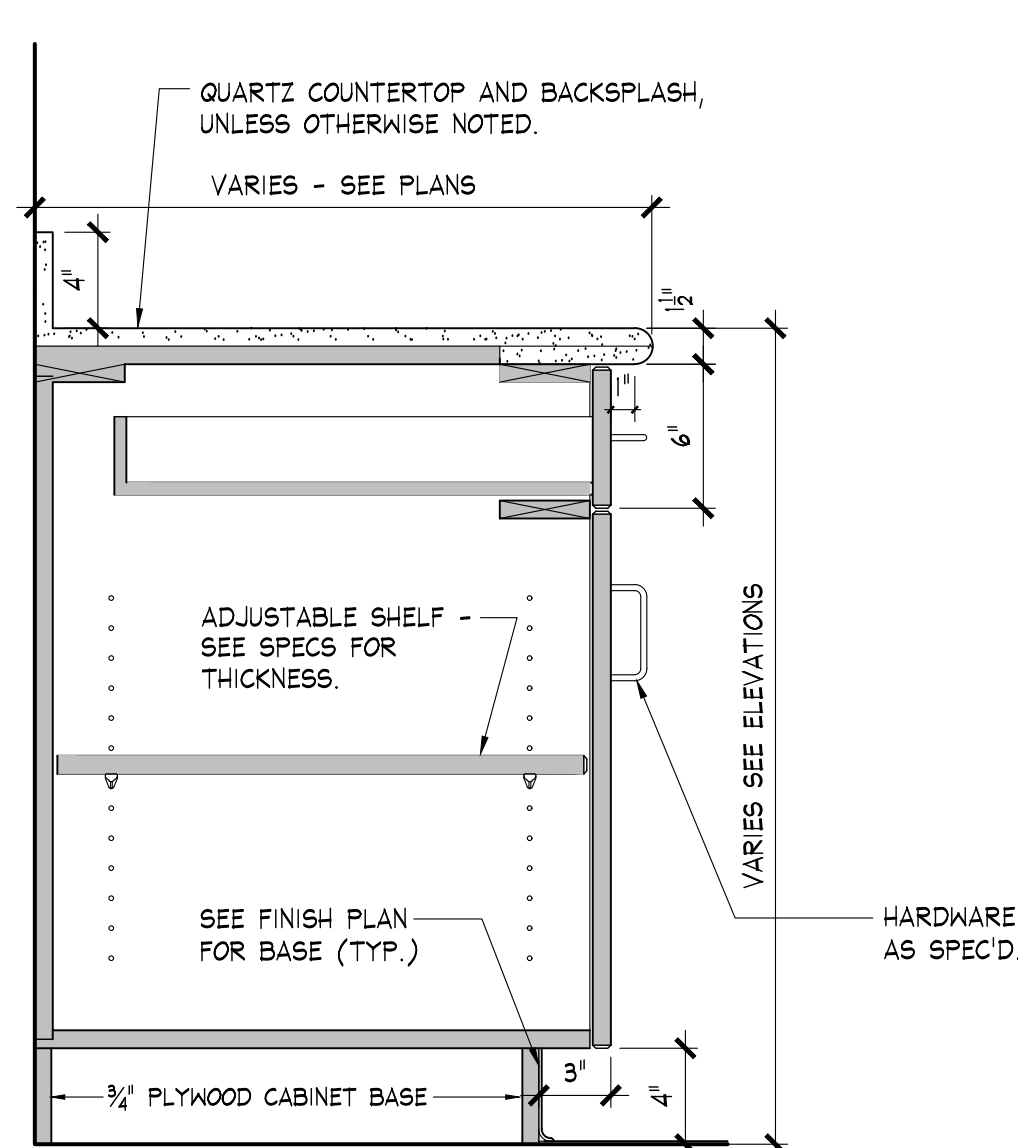
ELEVATION C



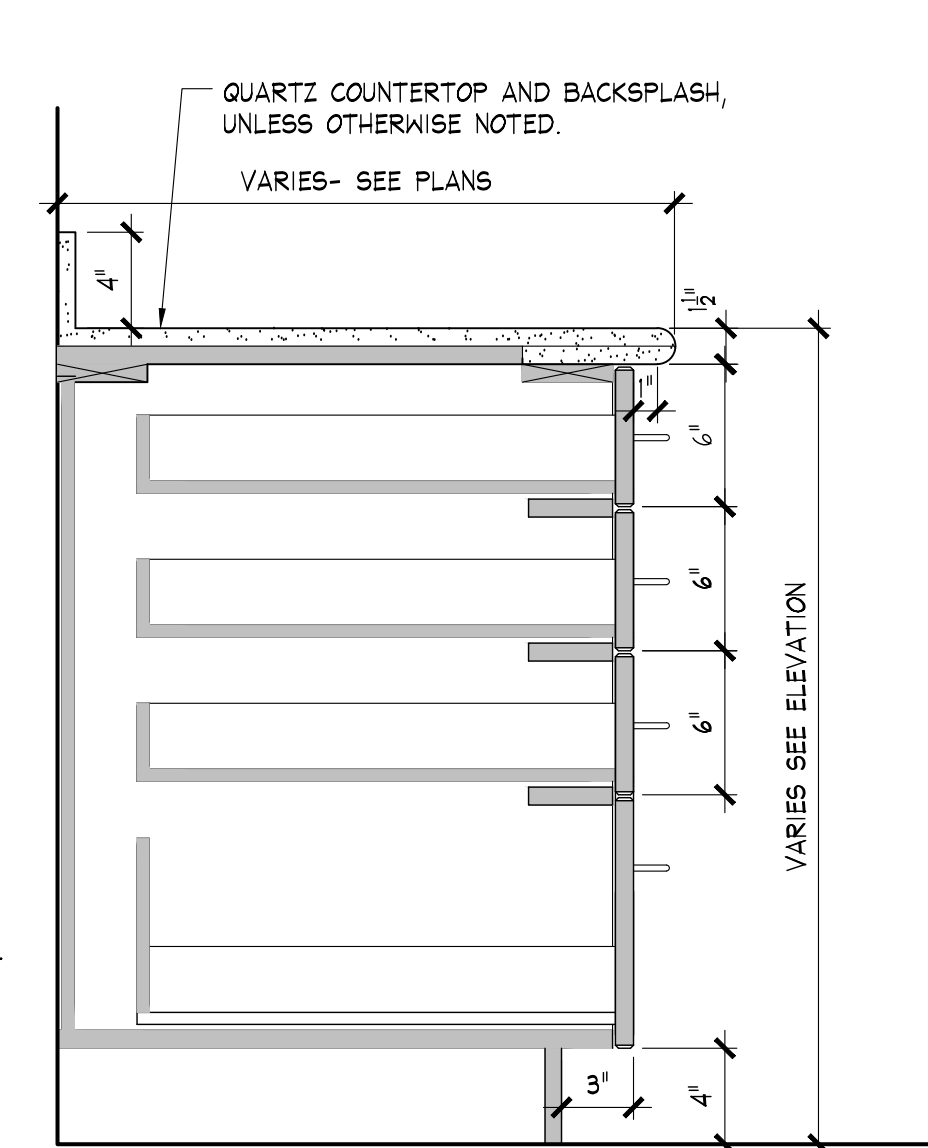
ELEVATION E



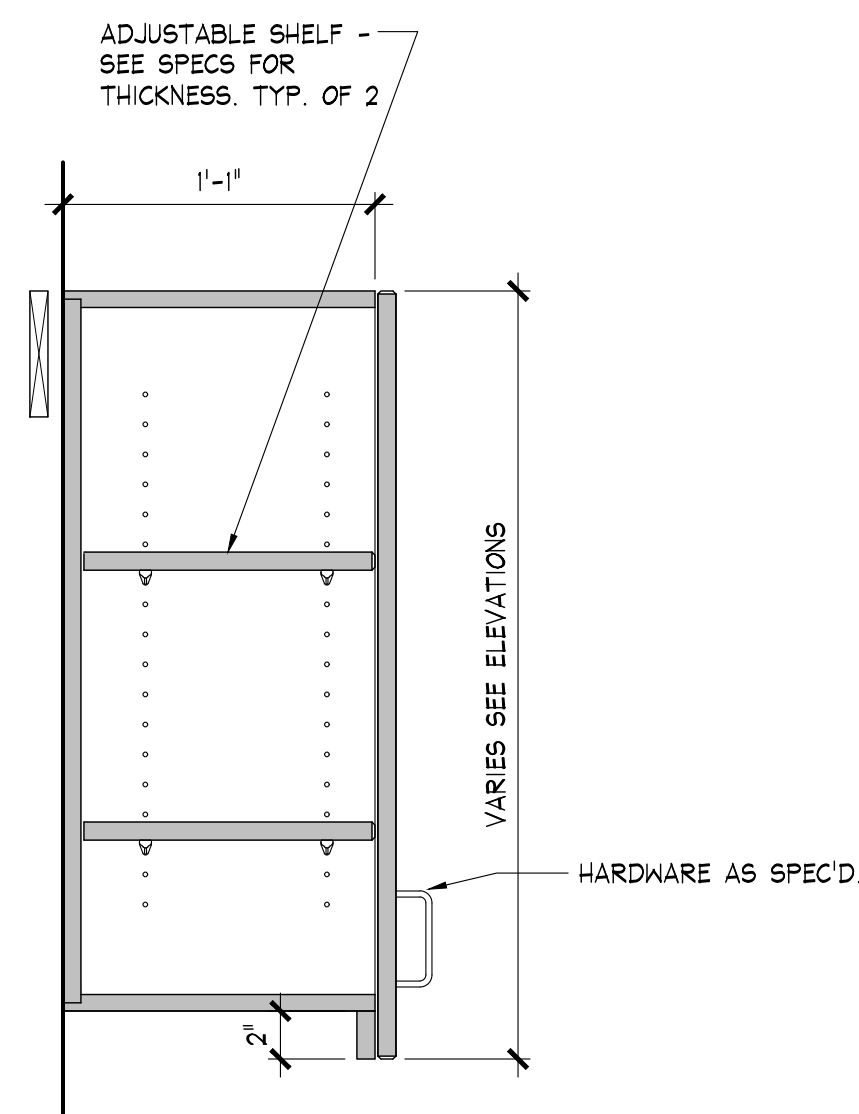
SECTION A
COUNTERTOP - (SINK)



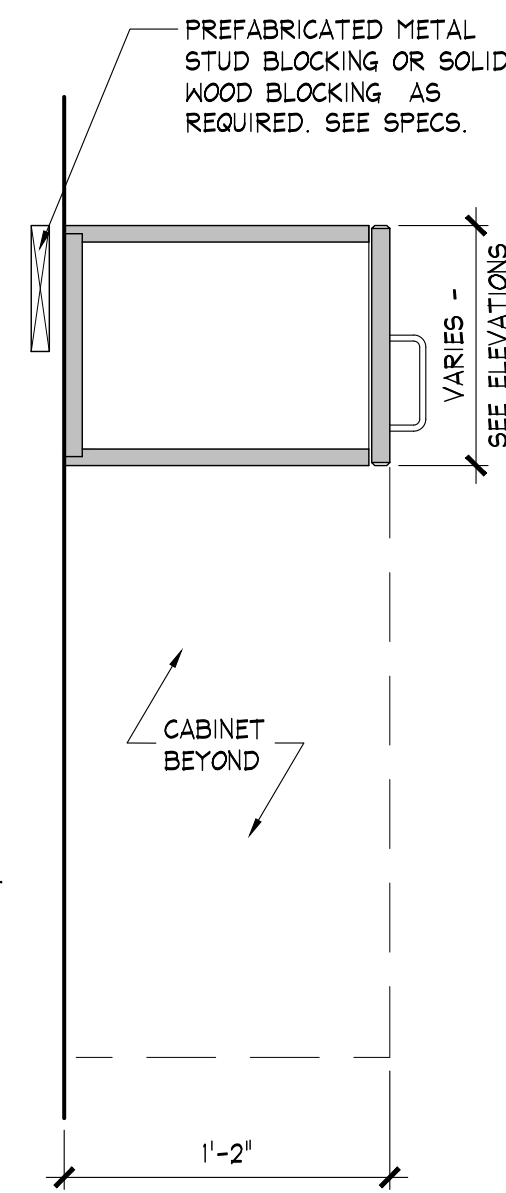
SECTION B
BASE CABINET (1 DRAWER / 1 DOOR)



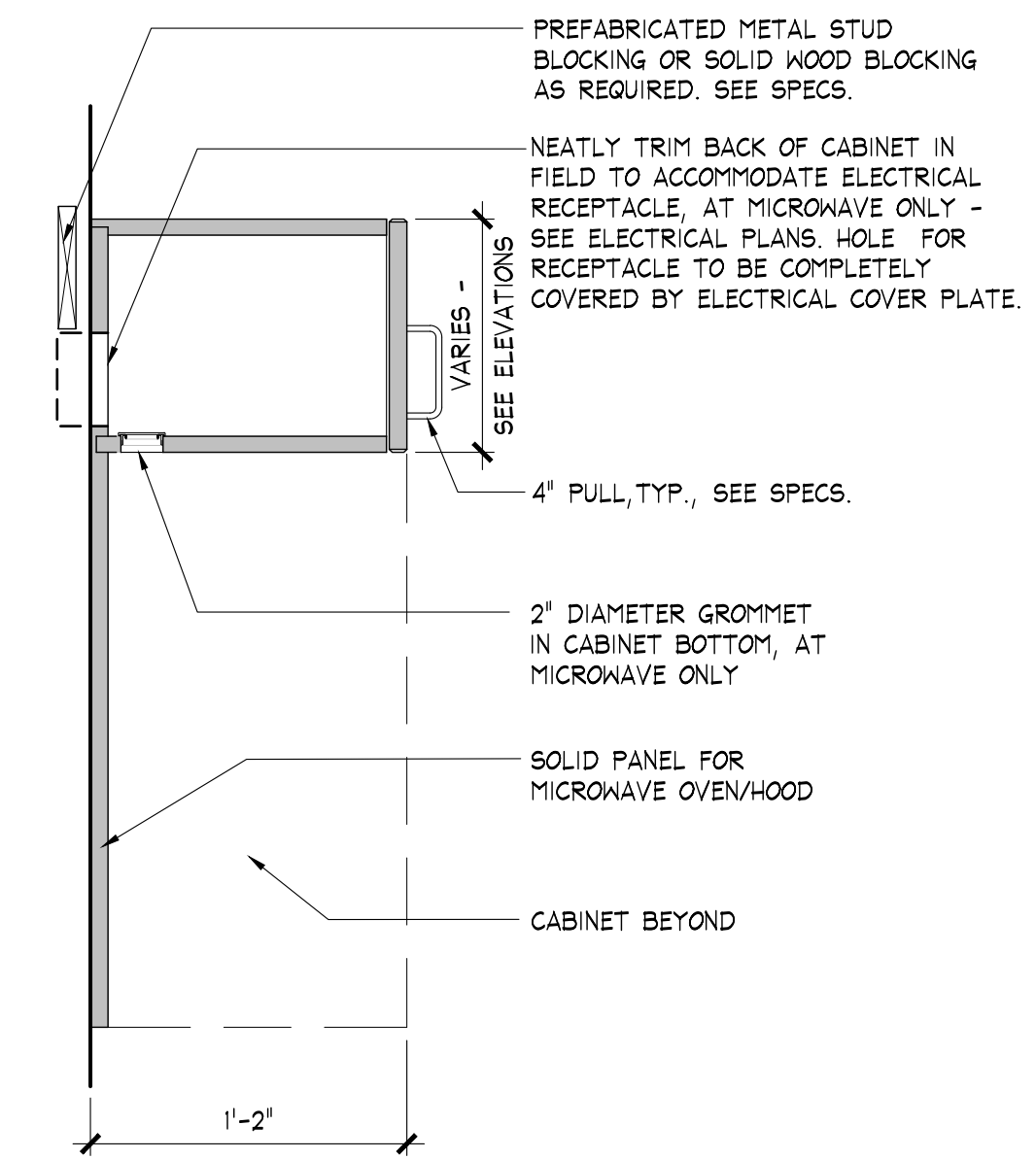
SECTION C
BASE CABINET (4 DRAWERS)



SECTION D
UPPER CABINET (DOOR)



SECTION E
UPPER CABINET



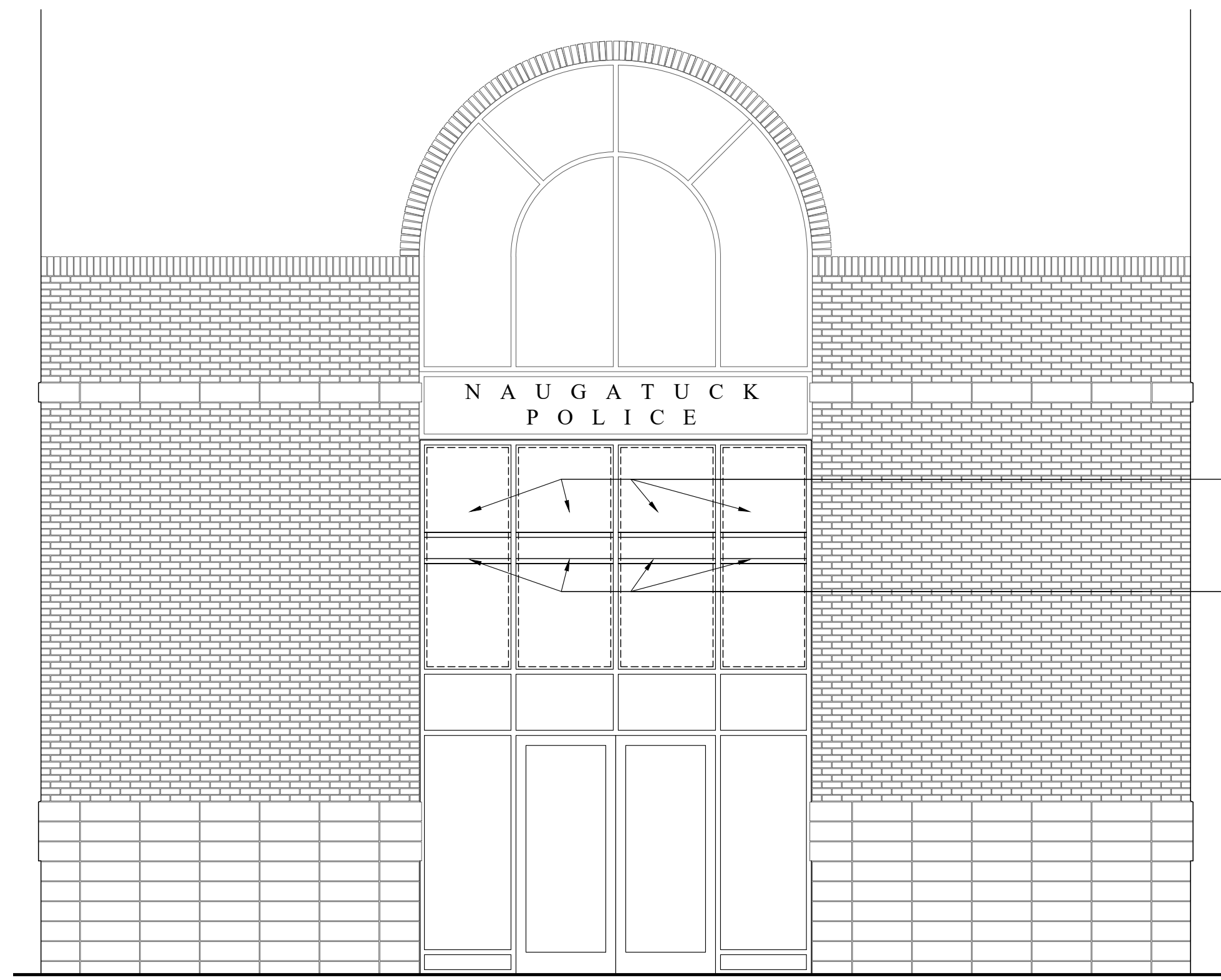
SECTION F
UPPER CABINET (MICROWAVE/ HOOD)

INTERIOR RENOVATIONS TO
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CASEWORK

PROJ. NO. JH2516
SCALE: AS NOTED
DATE: JULY 6, 2026
DRAWING NO. A-4



1 MODIFICATIONS TO EXISTING ENTRANCE SYSTEM - ELEVATION
SCALE: 1/4" = 1'-0"

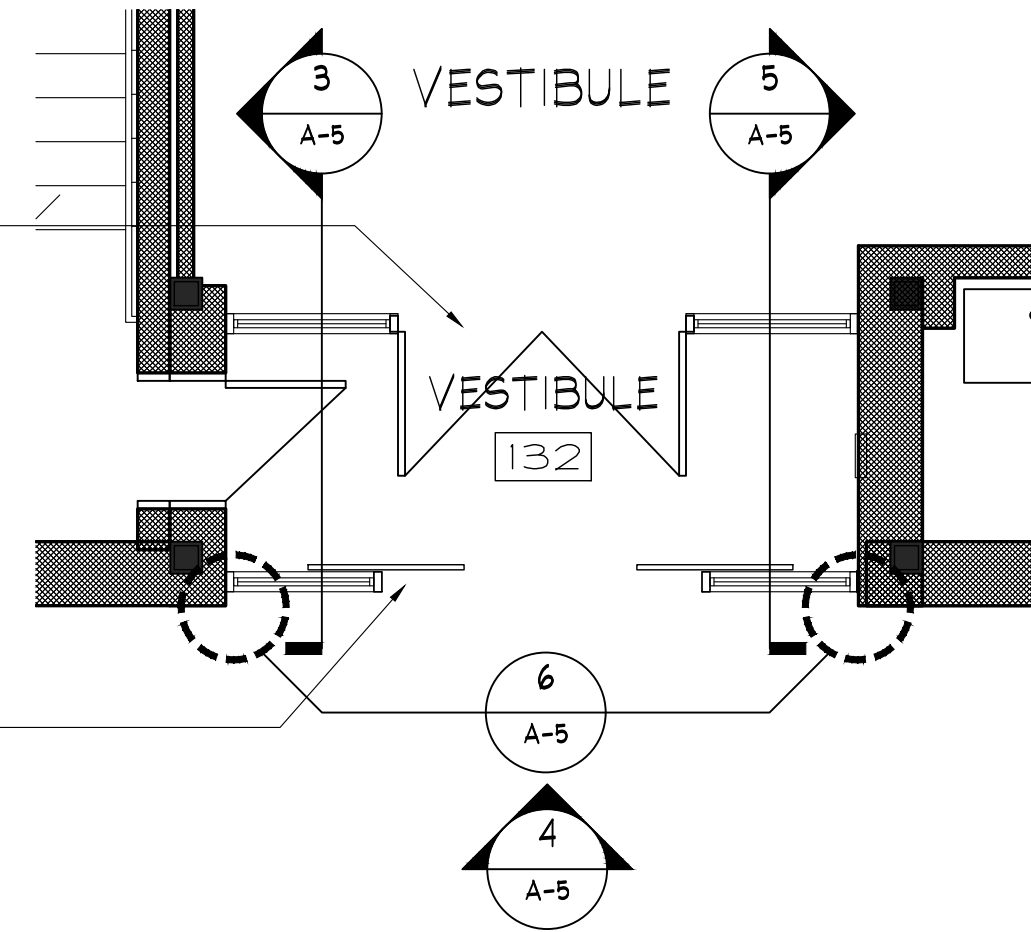
NOTE: CONTRACTOR SHALL MAINTAIN PUBLIC ACCESS TO THE LOBBY AT ALL TIMES THROUGHOUT CONSTRUCTION OF NEW VESTIBULE

REMOVE EXISTING GLAZING IN THESE FOUR PANELS ABOVE ENTRANCE DOORS

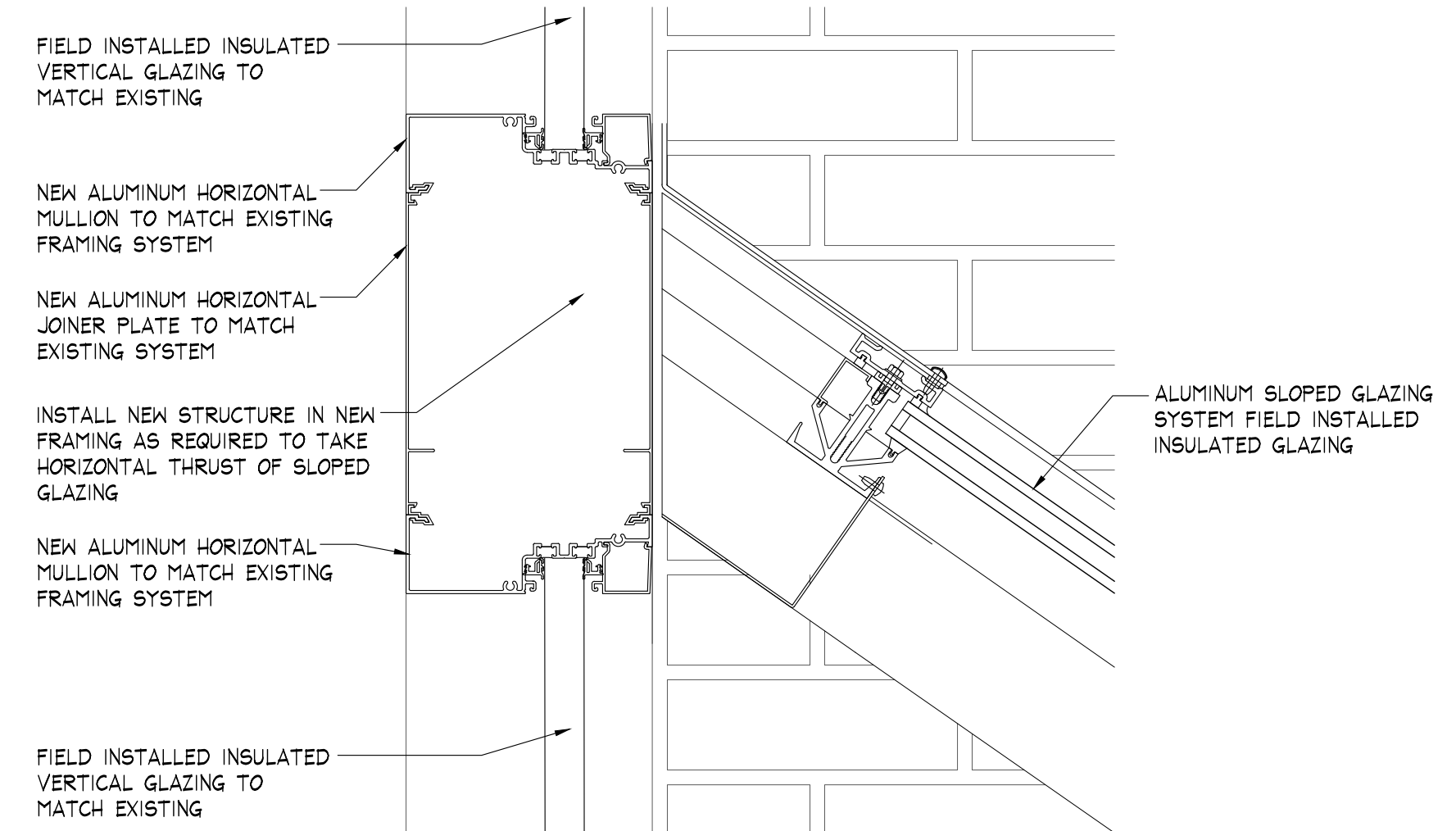
INSTALL NEW HORIZONTAL MULLIONS WITH INTERMEDIATE ANODIZED PANEL TO MATCH EXISTING FRAMING AS REQUIRED TO RECEIVE NEW SLOPED GLASS MULLION MEMBERS

INSTALL NEW 1" INSULATED GLAZING TO MATCH EXISTING AT LOCATIONS OF REMOVED GLAZING

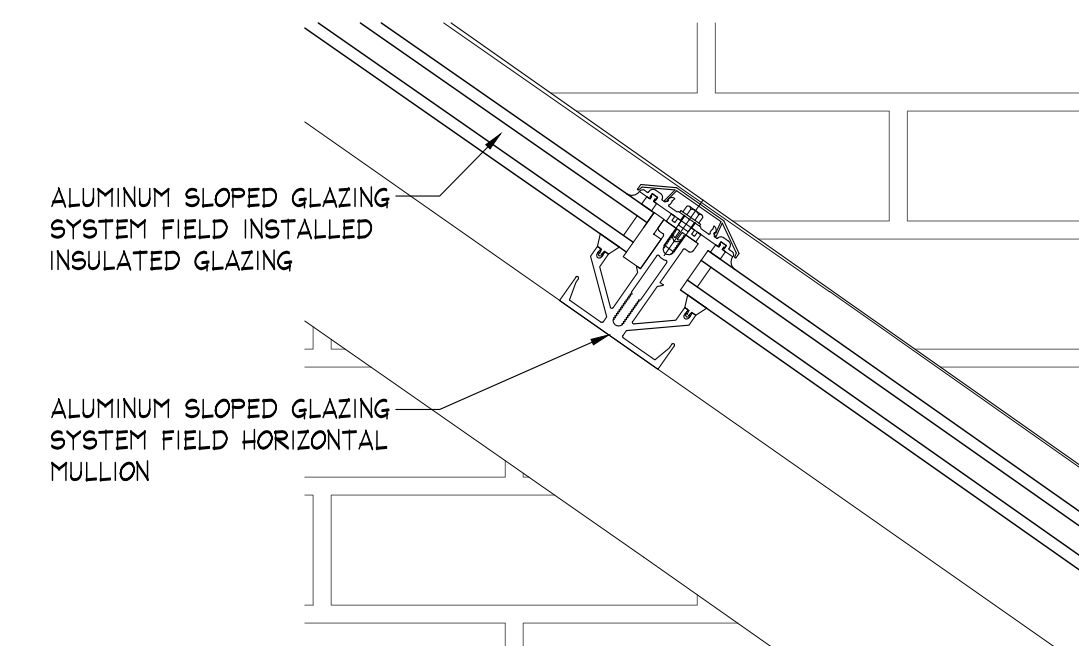
INSTALL NEW AUTOMATIC SLIDING DOORS. SEE SPECIFICATIONS



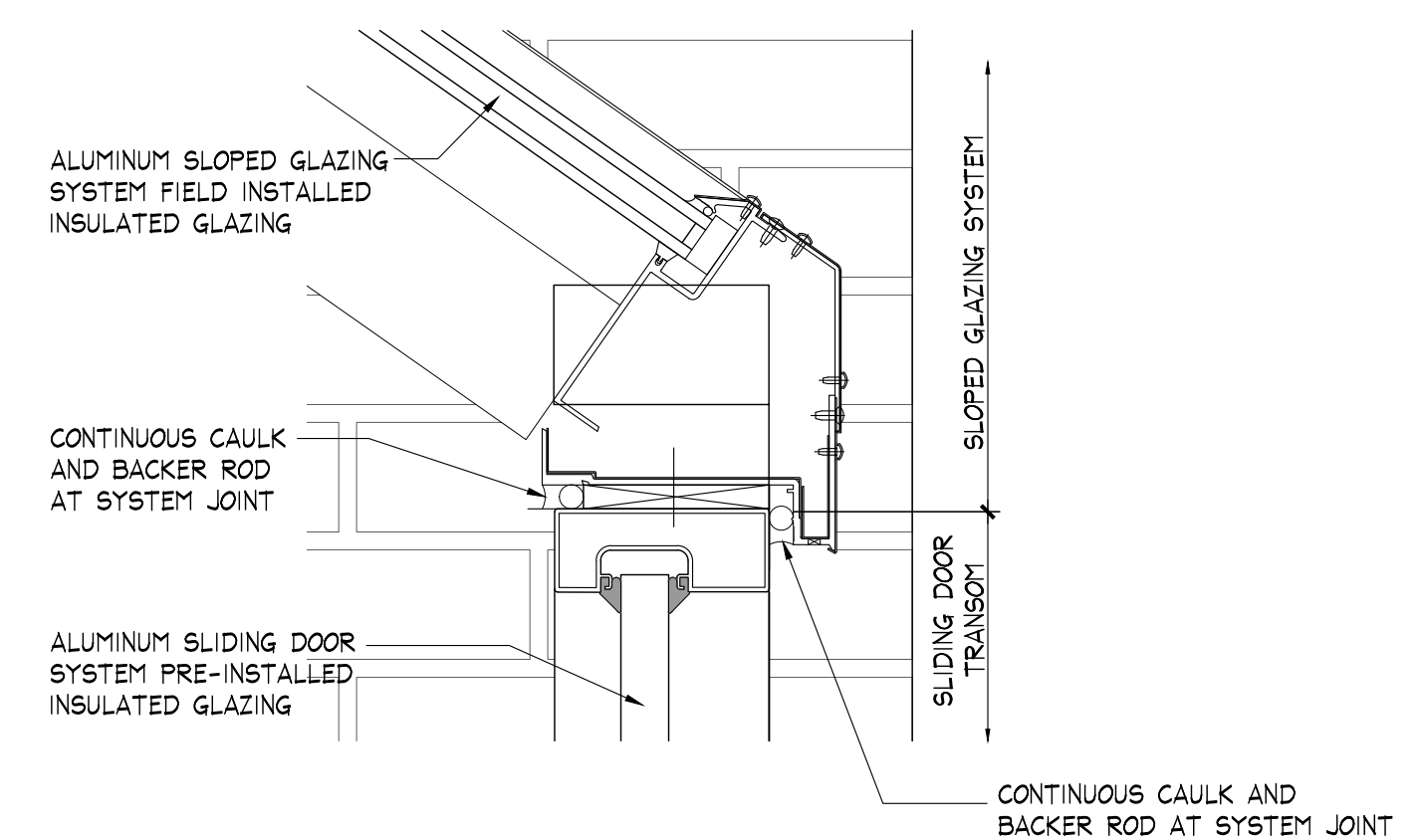
2 MODIFICATIONS TO EXISTING ENTRANCE SYSTEM - PLAN
SCALE: 1/4" = 1'-0"



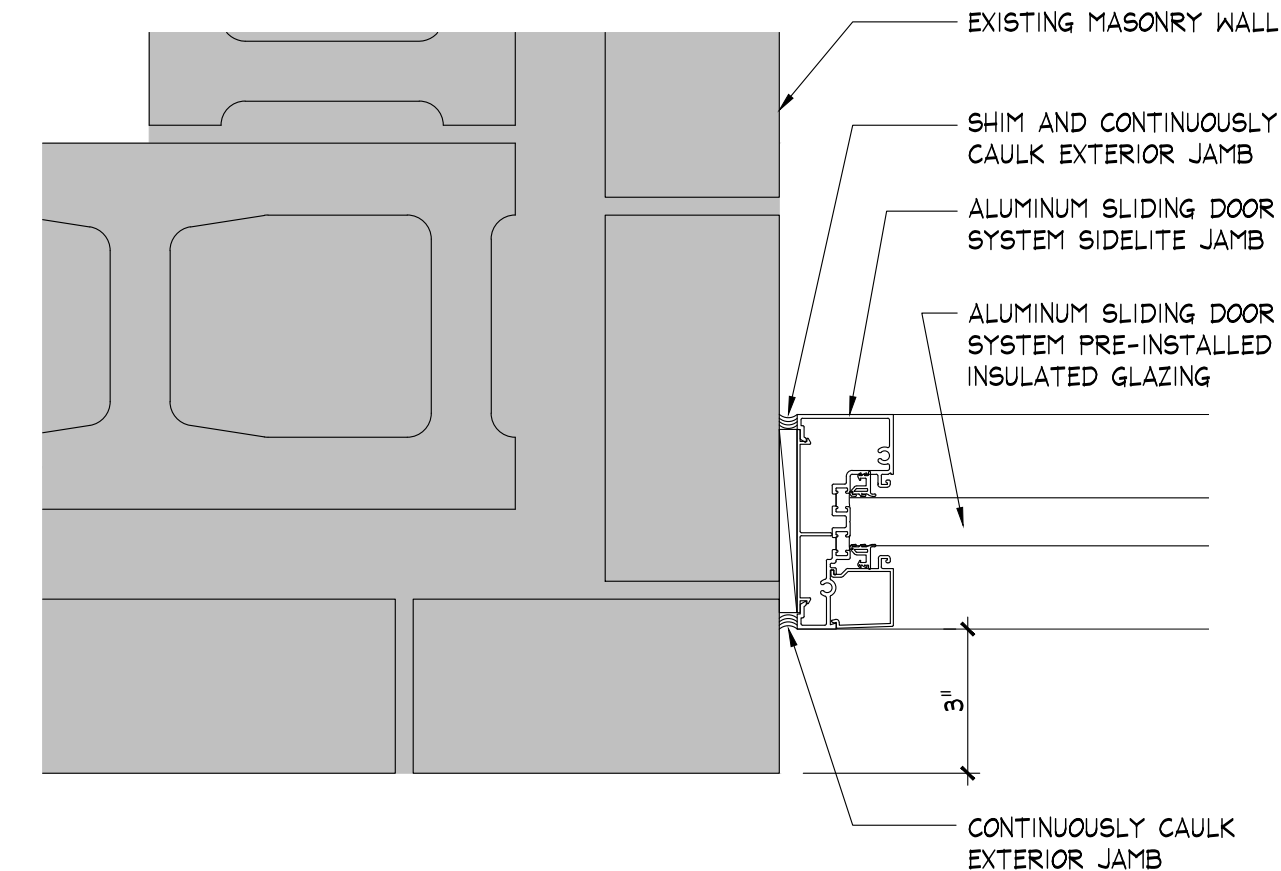
9 SLOPED GLAZING MULLION
SCALE: 3" = 1'-0"



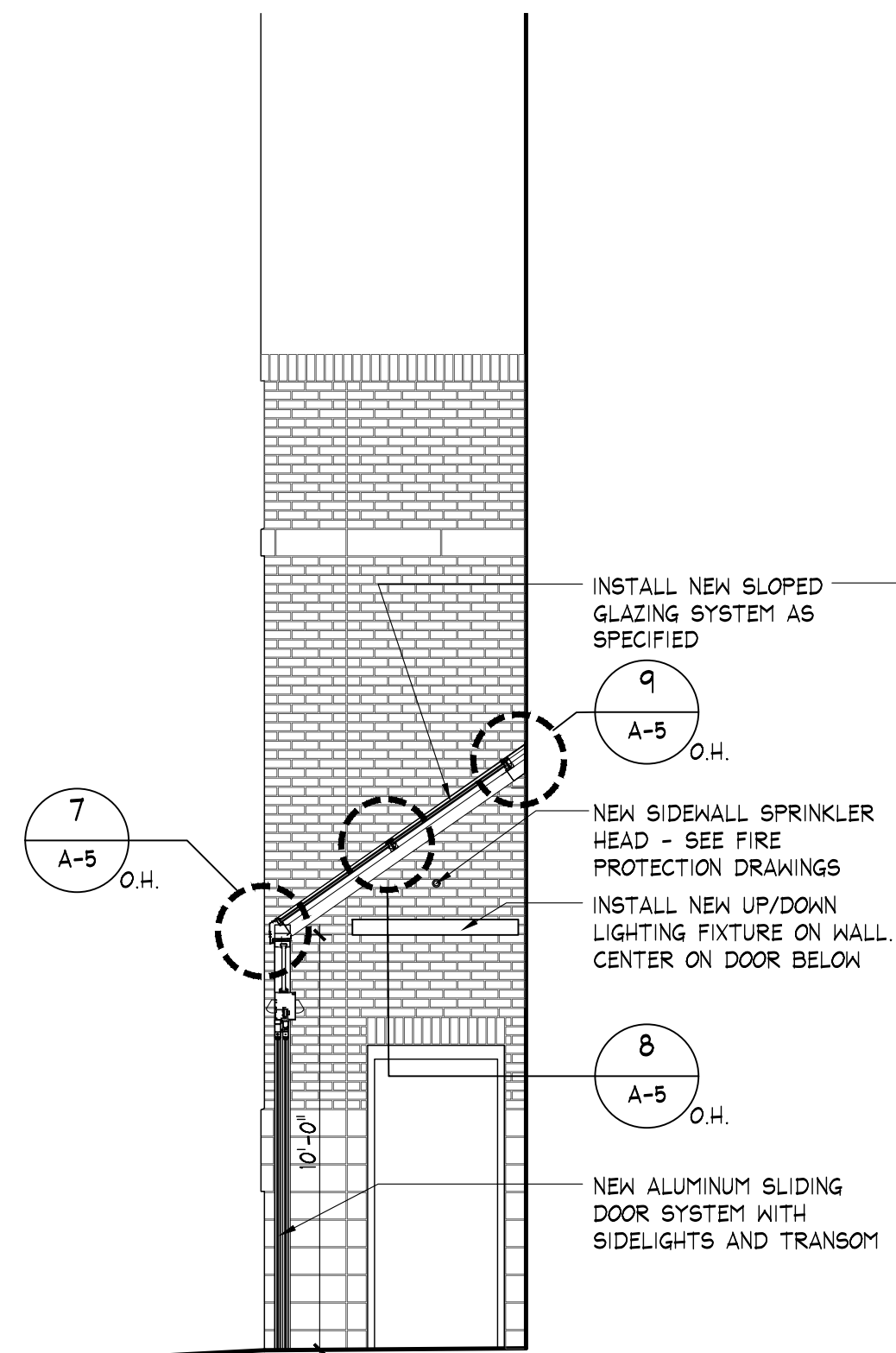
8 SLOPED GLAZING MULLION
SCALE: 3" = 1'-0"



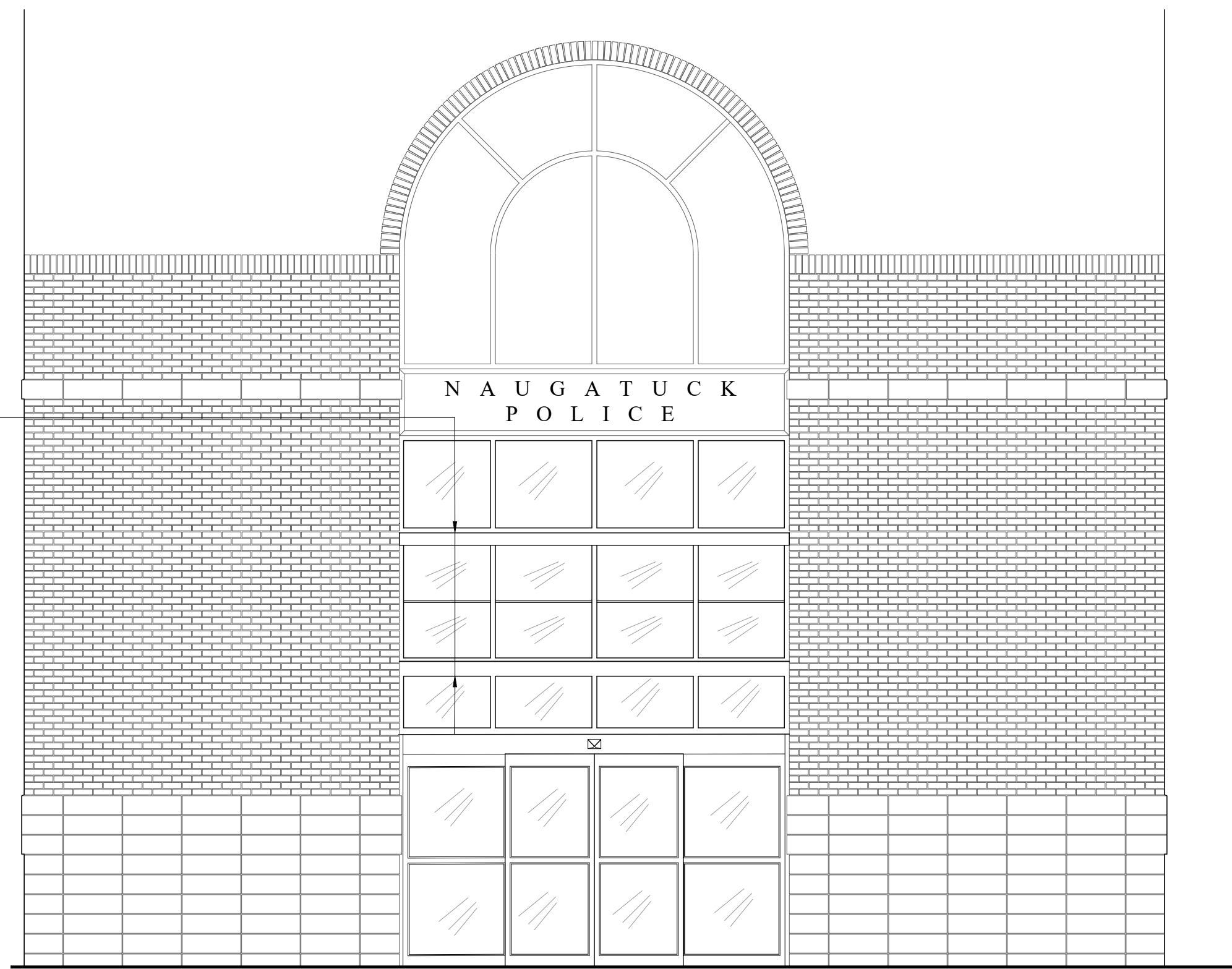
7 ALUMINUM GLAZING TRANSITION
SCALE: 3" = 1'-0"



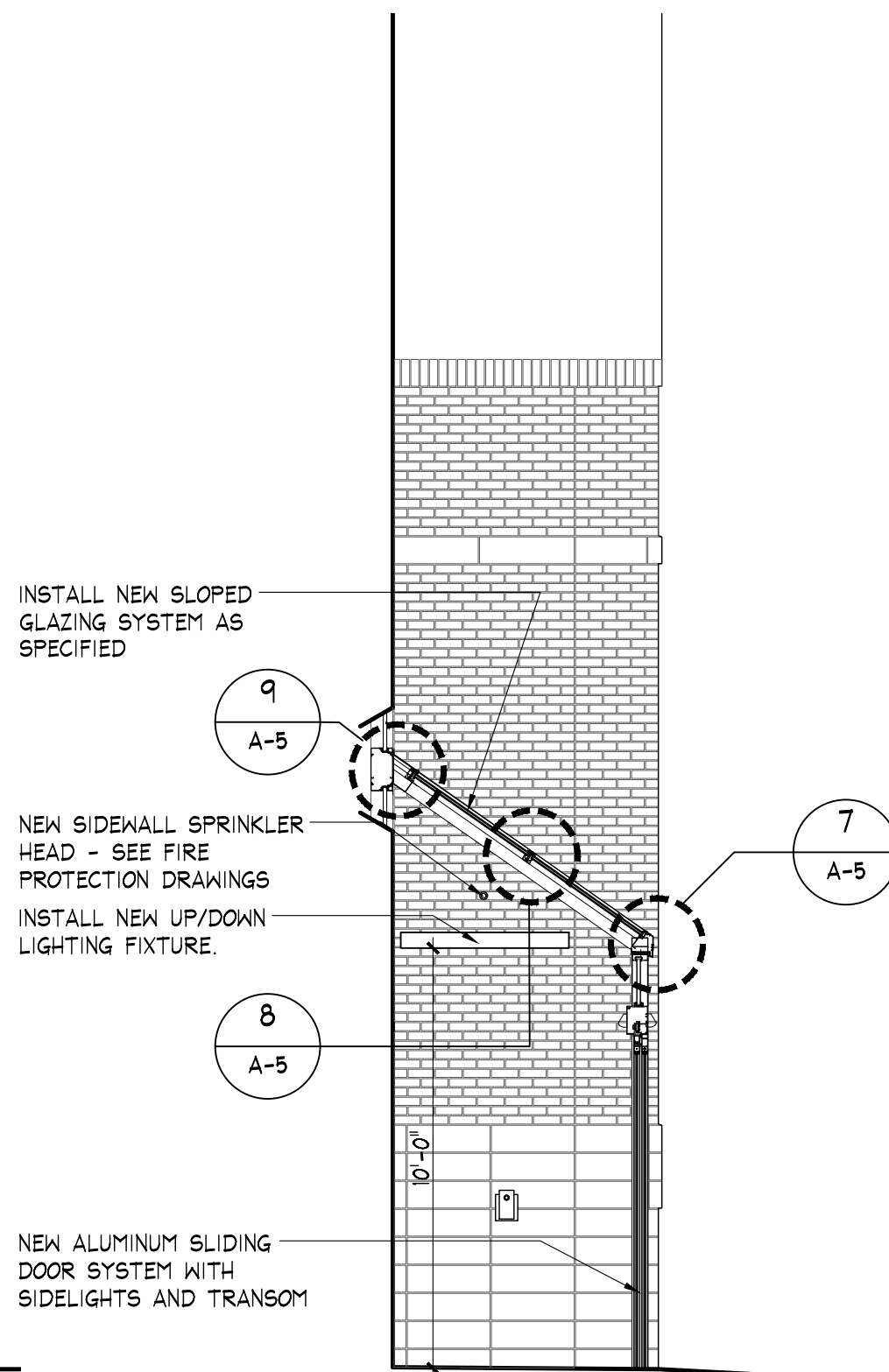
6 ALUMINUM SIDELIGHT JAMB
SCALE: 3" = 1'-0"



3 NEW VESTIBULE - SECTION
SCALE: 1/4" = 1'-0"



4 NEW VESTIBULE - ELEVATION
SCALE: 1/4" = 1'-0"



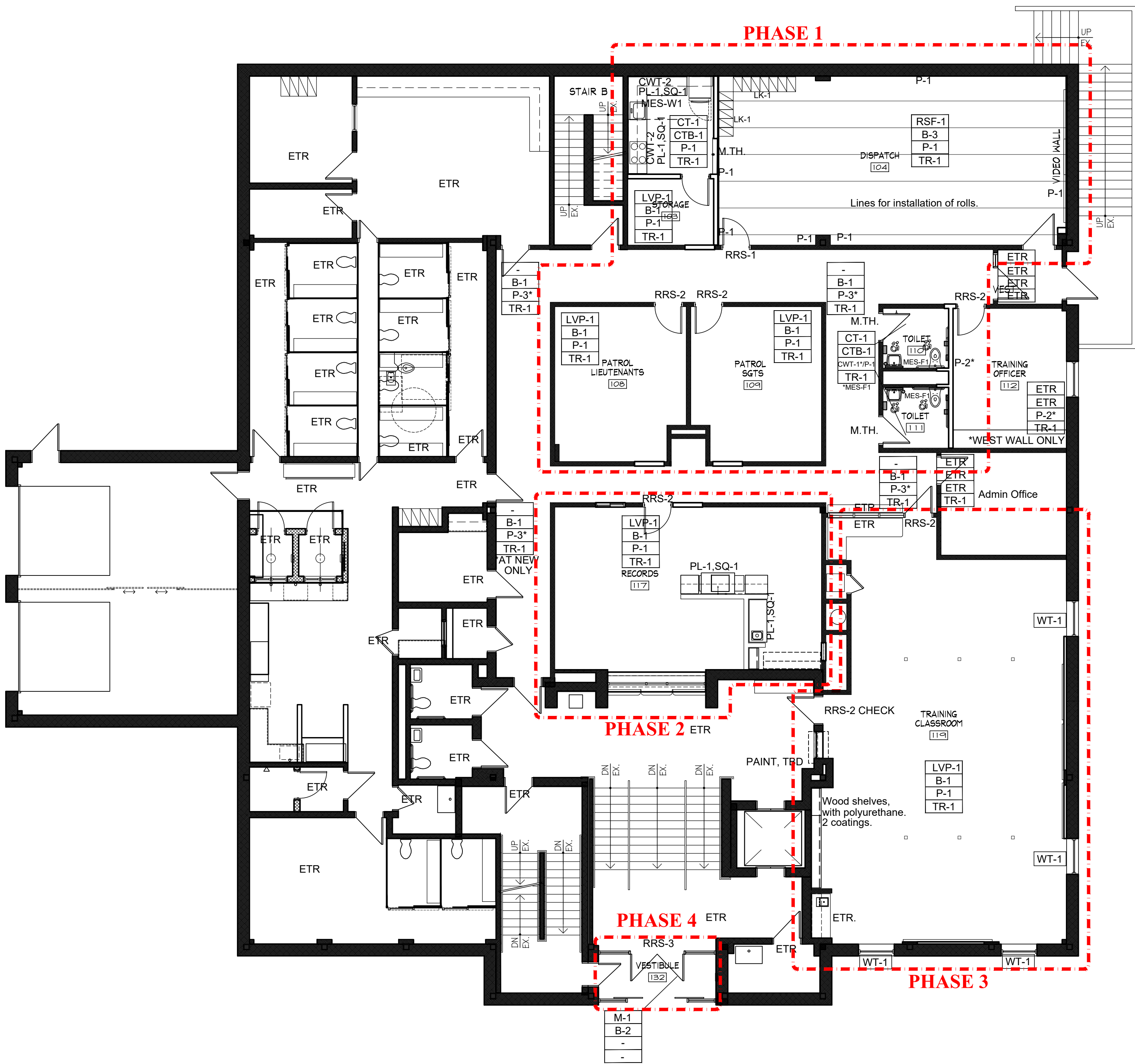
5 NEW VESTIBULE - SECTION
SCALE: 1/4" = 1'-0"

INTERIOR RENOVATIONS TO
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ENTRY
VESTIBULE
ELEVATIONS
AND DETAILS

PROJ. NO. JH2516
SCALE: AS NOTED
DATE: JULY 6, 2026
DRAWING NO. **A-5**



1 FLOOR FINISH PLAN & SCHEDULE
SCALE: 1/8" = 1'-0"

Finish Key

CODE	MANUFACTURER	MATERIAL / STYLE	PATTERN/COLOR DETAILS		REMARKS / SPECIFICATIONS
Flooring					
CT-1	DALTILE	PORTFOLIO 12"x24"	CHOCOLATE	PF08	GT-1. GROUT- MAPEI CQ- MOCHA 5042
LVP-1	MOHAWK COMMERCIAL	H&H II SECOYA 5.0 10" x 59"	928	STORM OAK	PATTERN BRICK ASHLAR
M-1	MAOHAWK COMMERCIAL	STEP IN STYLE II	24"x 24"	WALNUT	
RSF-1	CENTAUR FLOORING	TENACITY- ROLLS 70" (7MM)	256	DEL MAR	HEAT WELDED SEAMS
Base					
B-1	MOHAWK COMMERCIAL	RUBBER BASE 6"	846	GREIGE	
B-1A	MOHAWK COMMERCIAL	RUBBER BASE 4"	846	GREIGE	
B-2	MOHAWK COMMERCIAL	RUBBER BASE 6"	969	ONYX	
B-3	MOHAWK COMMERCIAL	RUBBER BASE 6"	863	CHOCOLATE	
CTB-1	DALTILE	COVE BASE 6" X 12" PC36C9TB	CHOCOLATE	PF08	GT-1. GROUT- MAPEI CQ-MOCHA 5042
Walls					
P-1	SHERWIN WILLIAMS	Latex Eggshell Finish Wall Paint	NATURAL LINEN	SW9109	GENERAL WALLS
P-2	SHERWIN WILLIAMS	Latex Eggshell Finish Wall Paint	MOONMIST	SW9144	ONE WALL IN OFFICE 112 MATCH EXISTING.
P-3	SHERWIN WILLIAMS	Latex Eggshell Finish Wall Paint	FIELD	MATCH	CORRIDOR WALLS FOR PATCH TO MATCH
CWT-1	DALTILE	ACREAGE WOOD TILE-VERTICAL 8" X 48" staggered brick joint	RESERVE	AC12	GT-2. GROUT- MAPEI CQ-DRIFTWOOD 5105
CWT-2	DALTILE	COLOR WHEEL LINEAR 3" X 6" HORIZONTAL FOR BACKBAY ASH	ALMOND MATTE	X735	GT-3. GROUT- MAPEI CQ-BISCUIT 5014
Door Frames / Misc.					
TR-1	SHERWIN WILLIAMS	INTERIOR- Alkyd Satin Trim Paint	WHITE FLOUR	SW7102	METAL DOORS AND DOOR AND WINDOW TRIM
Ceilings Non-factory Fin.					
CP-1	SHERWIN WILLIAMS	Latex Flat Finish Wall Paint	CLASSIC	WHITE	GYPSUM BOARD SOFFITS AND CEILINGS
Flooring Transitions					
M.T.H.	xxxxxxx	MARBLE THRESHOLD	Beige travertine		TO MATCH EXITING THRESHOLDS.
RRS-1	JOHNSONITE	ACCESSORIES - TRANSITIONS	CTA-XX-Z	XX- XX- XX	FROM RT-1 TO EXISTING FLOORING
RRS-2	JOHNSONITE	ACCESSORIES - TRANSITIONS	CTA-XX-N	XX- XX- XX	FROM LVP-1 TO EXISTING FLOORING
RRS-3	JOHNSONITE	ACCESSORIES - TRANSITIONS	CTA-XX-D	XX- XX- XX	FROM M-1 TO EXISTING FLOORING
MES-F1	SCHULTER SYSTEMS	SANITARY COVE TRANSITION- 316 ss	DILEX HSU	V4A BRUSHED 316 STAINLESS STEEL	FROM WALL TILE TO FLOOR TILE TO CREATE SANITARY COVE.
MES-W1	SCHULTER SYSTEMS	COVE FROM COUNTER TO WALL TILE	DILEX AHK ALUMINUM	BRUSH CHROME ANODIZED	FROM QUARTZ COUNTER TO CWT-2 PORCELAIN TILE.
Countertops & Supports					
PL-1	WILSONART	PLASTIC LAMINATE	PALISADES OAK	7997-38	CABINETRY
SQ-1	DUPONT CORIAN	QUARTZ COUNTERTOPS	BEIGE ROYAL	X	COUNTERTOPS, BACKSPLASHES AND SIDE SPLASHES
Lockers					
LK-1	PENCO	LOCKERS	CHAMPAGNE	073	
Window Treatment					
WT-1	DRAPER INC.	L.F. SHADES W/ NEXD HEADRAIL SHEERWEAVE FABRIC 3%	2400 / 2410	BEIGE 2440	

General Notes

General Notes	General Notes
1 All faces of non-factory finished doors and door frames to be painted.	10 P-2 and P-3, paint colors need to be color matched in field for accuracy of the match. This is for new wall matching existing conditions, door in-fills, and other areas requiring patch to match conditions. Corridors are the areas most being affected.
2 All floor finishes to extend to the wall, this includes going under casework and appliances.	11 At door in-fills when existing thresholds are being removed the floor must be patched, leveled and primed for new flooring at patch on both sides of the infill. Architect to approve flooring material.
3 All receptacle, switch, fixture, cover plates, etc are to be Ivory.	
4 All plumbing fixtures planned to be porcelain shall be in color white unless noted as SS.	
5 Finishes in closets to be the same as the main room unless noted.	
6 All gypsum soffit and ceiling surfaces are to be finished painted with one (1) coat primer and two (2) coats finish. Coordinate extents of gypsum soffits and ceiling surfaces with balance of drawings.	
7 Transition materials vary. They include marble thresholds- White color to match existing, stainless steel adaptors and resilient strips, adaptors and reducers. In some locations the materials are the same height and a transition is not required. Transition strips are required at all changes in material unless otherwise noted. See finish schedule for types.	
8 All wall in-fills must be patched, primed and painted with two coats of field color.	
9 All floor in-fills must be patched, leveled and primed prior to finish floor covering. Manufacturer's recommendations must be followed for the prep levels and the adhesives required.	

Legend

X - #	Floor Finish	RT	RUBBER TILE
X - #	Base	RRS	RESILIENT REDUCING STRIP
X - #	Wall Finish	RSF	RESILIENT SPORT FLOOR
X - #	Door Frame Finish	RSTR	RESILIENT STAIR/TREAD/RISER
B	BASE / RUBBER	SC	SEALED CONCRETE
BRB	THIN BRICK BASE	SCC	STAIN CLEAR COAT FINISH
BRW	THIN BRICK WALL TILES	SD	STATIC DISS. VINYL FLOOR
C	CARPET TILE	SS	SOLID SURFACE MATERIAL
CTB	CERAMIC BASE	SQ	(SOLID) QUARTS MATERIAL
CONC	CONCRETE	STS	STAINLESS STEEL COUNTERTOPS
C.O.M.	CUSTOMERS / CLIENTS OWN MATERIAL	TH	THRESHOLD
CP	CEILING PAINT	TR	TRIM (PAINTED)
CT	CERAMIC & PORCELAIN TILE	UC	URETHANE CEMENT
CWT	CERAMIC WALL TILE	UCR	URETHANE CEMENT BASE
D	DOOR FINISH	VCT	VINYL COMPOSITION TILE
EP	EPOXY WALL PAINT	VET	VINYL ENHANCED TILE
ETR	EXISTING TO REMAIN	VP	VINYL PLANK
LVP	LUXURY VINYL PLANK	VWC	VINYL WALL-COVERING
LVT	HOMOGENEOUS LUXURY VINYL TILE	WB	WOOD - BASE
M	WALK OFF MAT	WC	WALL CORNER GUARD
MTS	METAL TRANSITION STRIP	WCC	CONCRETE COUNTERTOPS - WOOD STYLE
M.T.H.	MARBLE THRESHOLD	WD	WOOD CABINETRY -PREFINISHED
NG	NICKEL GAP WOOD - HORIZONTAL	WG	WALL GUARD - PROTECTION
NIS	NOT IN SCOPE	WS	WINDOW SILLS
PC	POLISHED CONCRETE 09 46 00	WP	SHEET WALL (PANELS) PROTECTION
P	PAINT	WT	WINDOW TREATMENT
PL	PLASTIC LAMINATE	WW	WOOD WAINSCOT- BEADBOARD
RF	RESINOUS FLOORING		SOME ABBREVIATIONS MAY NOT BE USED.
RFB	RESINOUS FLOORING BASE		

4D Design & Decorating

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Owner, Interior Designer

25 Stuart Drive
Bloomfield, CT 06002
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www.4Ddesignct.com

INTERIOR RENOVATIONS TO
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FIRST FLOOR
FINISH PLANS
& SCHEDULE

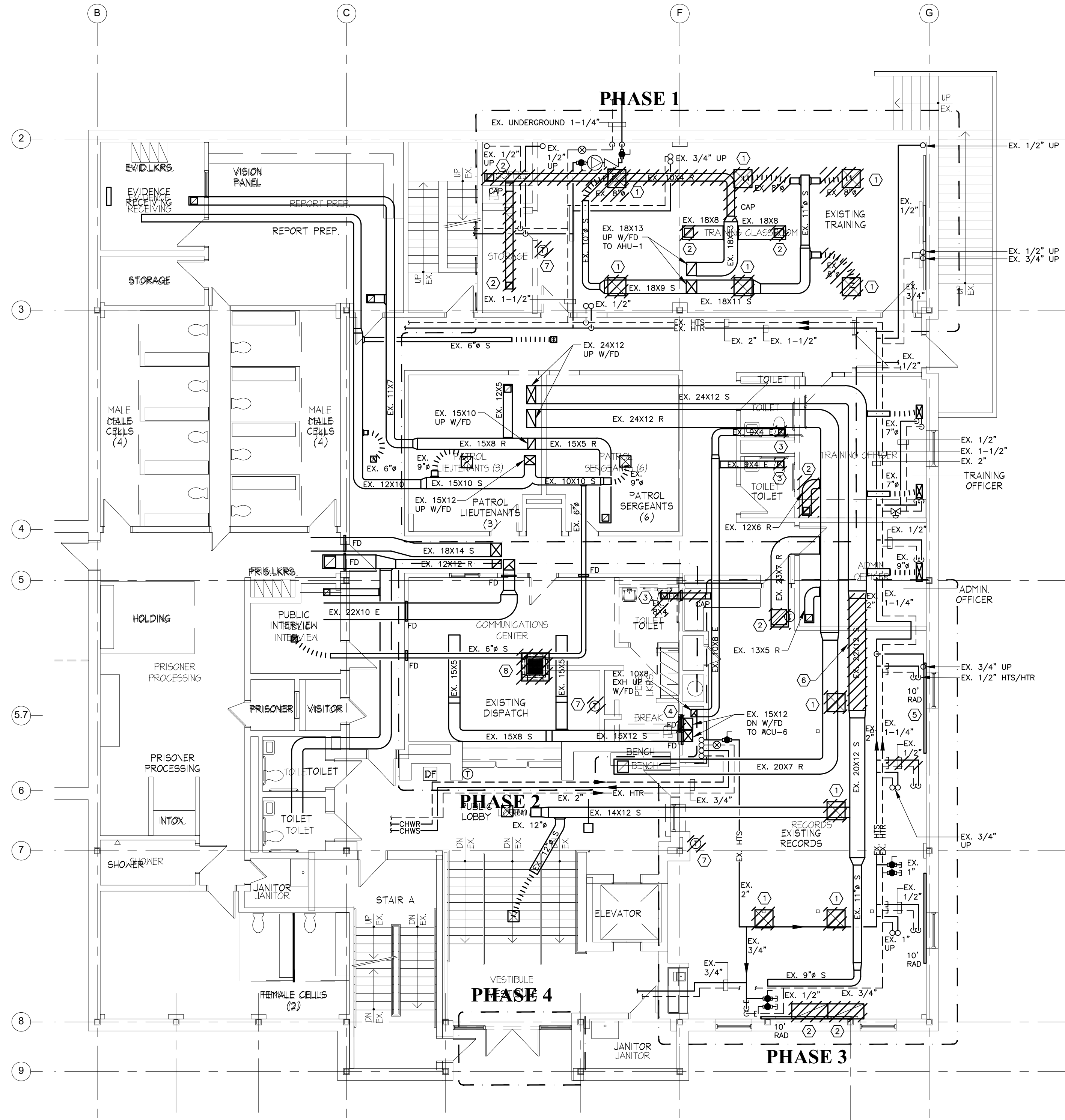
PROJ. NO. JH2516
SCALE: AS NOTED
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DRAWING NO.
F-1

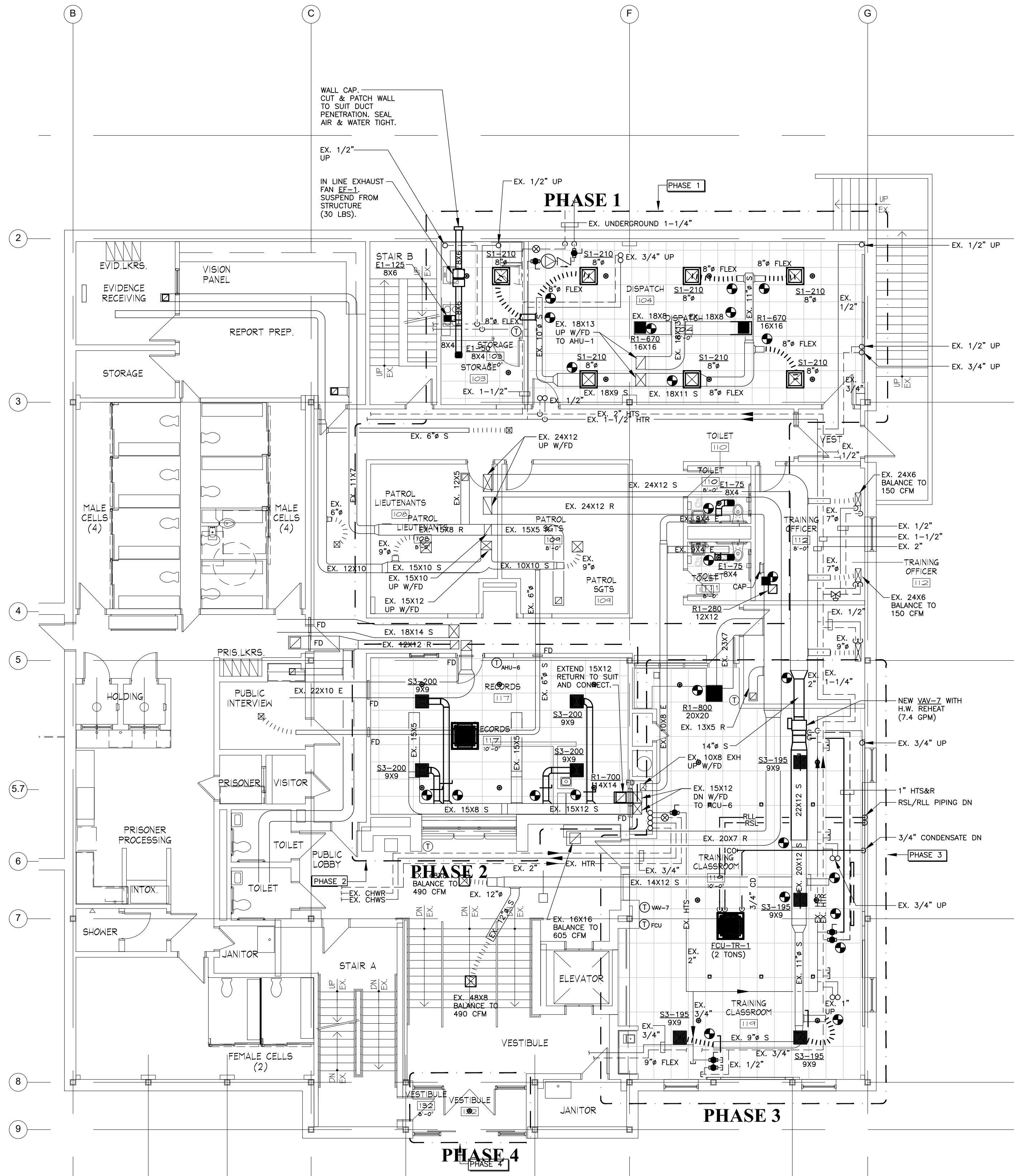
G:\IES Projects\2025 Projects\Team PJP\25141 Naugatuck Police Renovation\Contract Documents\25141 M-1.dwg Plotted by czuzzi on Jul 07, 2026 - 2:06pm

MECHANICAL DEMOLITION NOTES

- 1 DISCONNECT, REMOVE AND DISCARD EXISTING CEILING SUPPLY DIFFUSER INCLUDING ASSOCIATED FLEX BRANCH DUCT BACK TO TAKE OFF.
- 2 DISCONNECT, REMOVE AND DISCARD EXISTING CEILING RETURN GRILLE INCLUDING SECTION OF ASSOCIATED BRANCH DUCT BACK TO THE TAKE OFF AS SHOWN.
- 3 DISCONNECT, REMOVE AND DISCARD EXISTING CEILING EXHAUST GRILLE INCLUDING BUT NOT LIMITED TO ASSOCIATED BRANCH DUCT AS SHOWN, EXISTING FIRE DAMPER, FUSIBLE LINK, ACCESS DOOR, ETC.
- 4 DISCONNECT, REMOVE AND DISCARD EXISTING WALL RETURN GRILLE. PREPARE EXISTING DUCT FOR CONNECTION TO NEW GRILLE.
- 5 DISCONNECT, REMOVE AND DISCARD EXISTING SUPPLY DIFFUSER. CUT BACK ASSOCIATED SUPPLY BRANCH DUCT BACK TO TAKE OFF.
- 6 DISCONNECT, REMOVE, AND DISCARD SECTION OF SUPPLY DUCT TO SUIT INSTALLATION OF NEW VAV BOX WITH HOT WATER REHEAT COIL. CAP BOTH ENDS TO PREVENT DEBRIS FROM ENTERING DUCT.
- 7 DISCONNECT, REMOVE & DISCARD EXISTING THERMOSTAT INCLUDING ASSOCIATED CONTROL WIRING.
- 8 DISCONNECT, REMOVE AND DISCARD EXISTING CEILING VRF UNIT INCLUDING ASSOCIATED CONDENSING UNIT, REFRIGERANT PIPING, CONDENSATE PIPING, CONTROLS, WIRING, ETC.

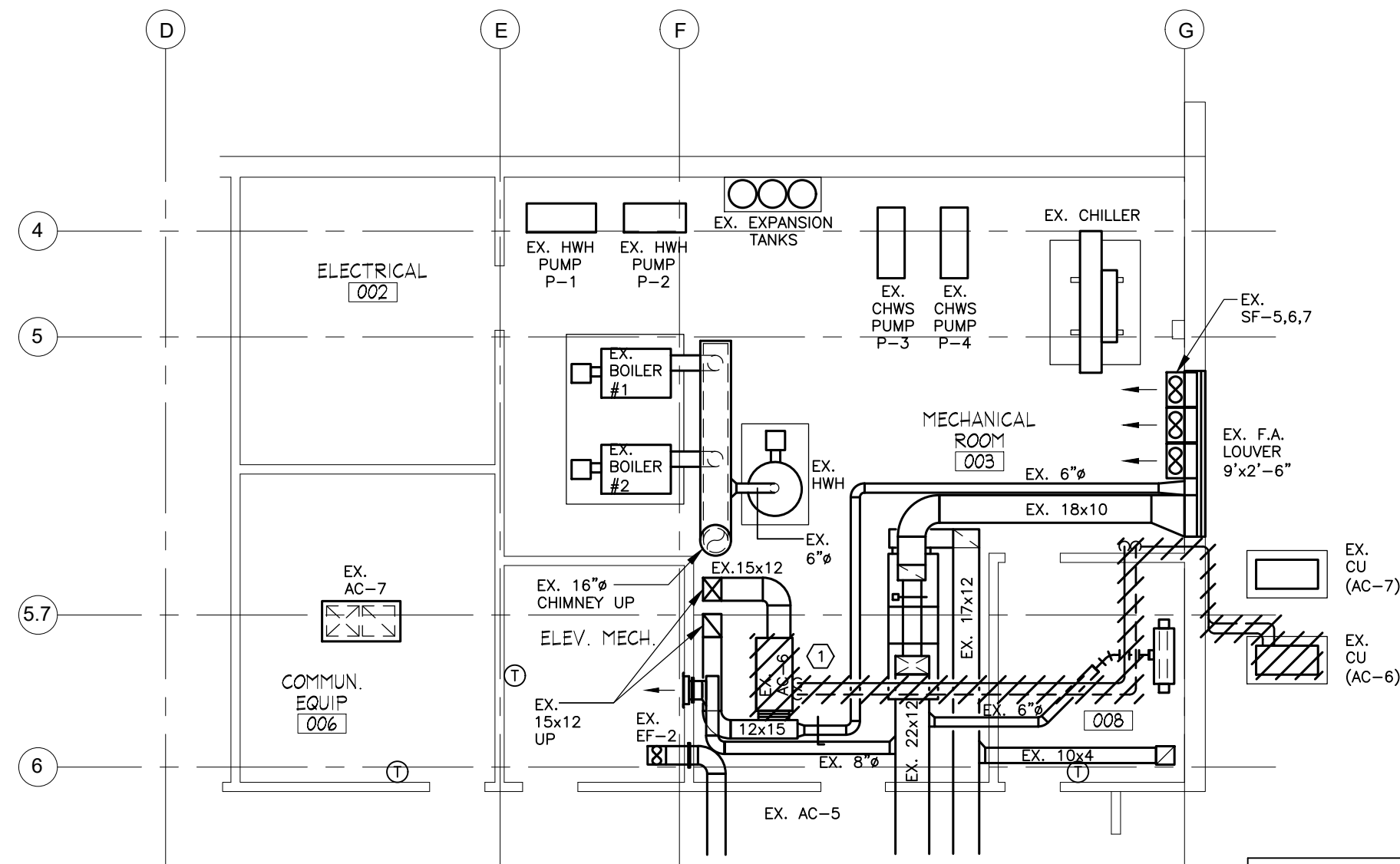


FIRST FLOOR MECHANICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



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

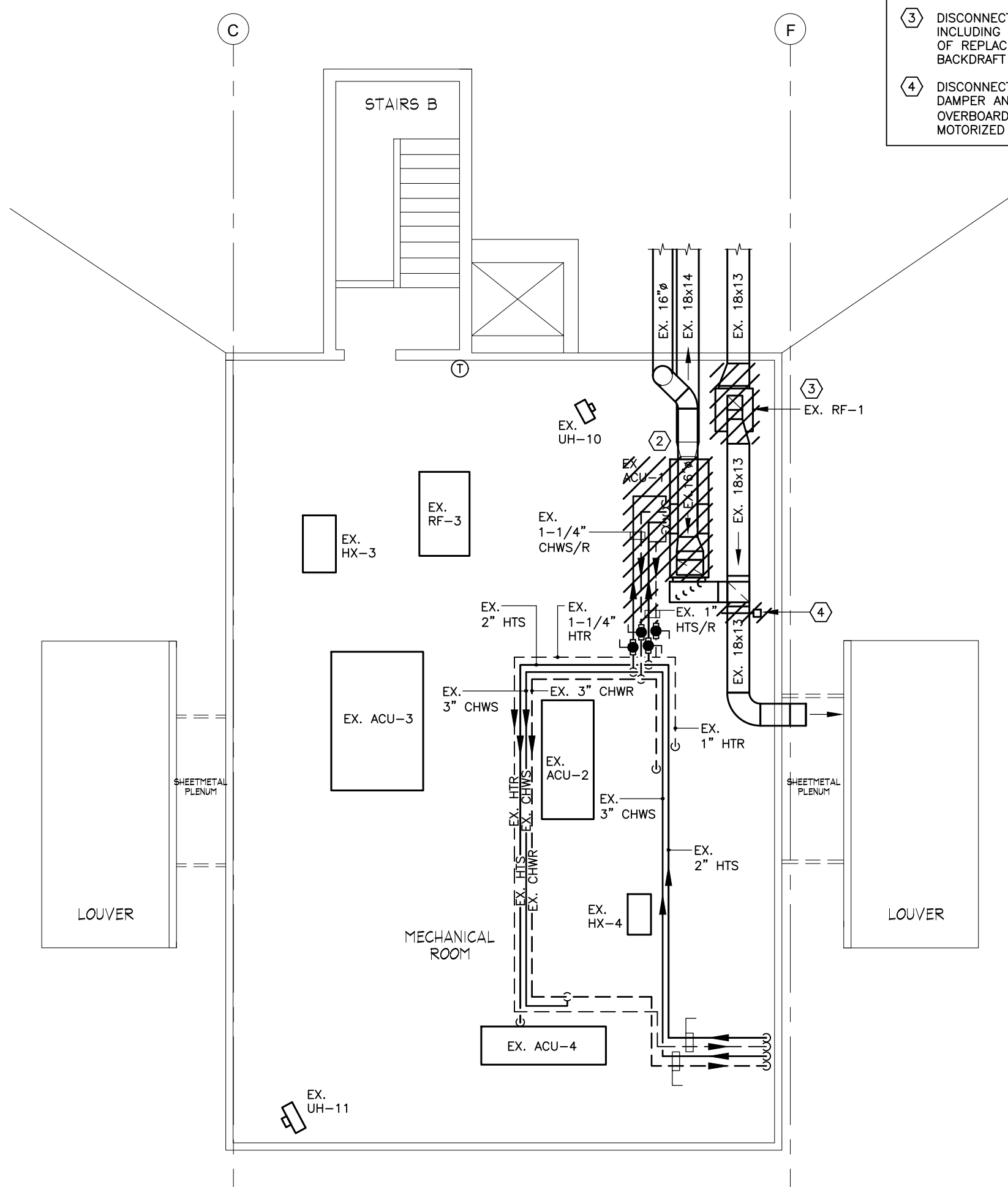
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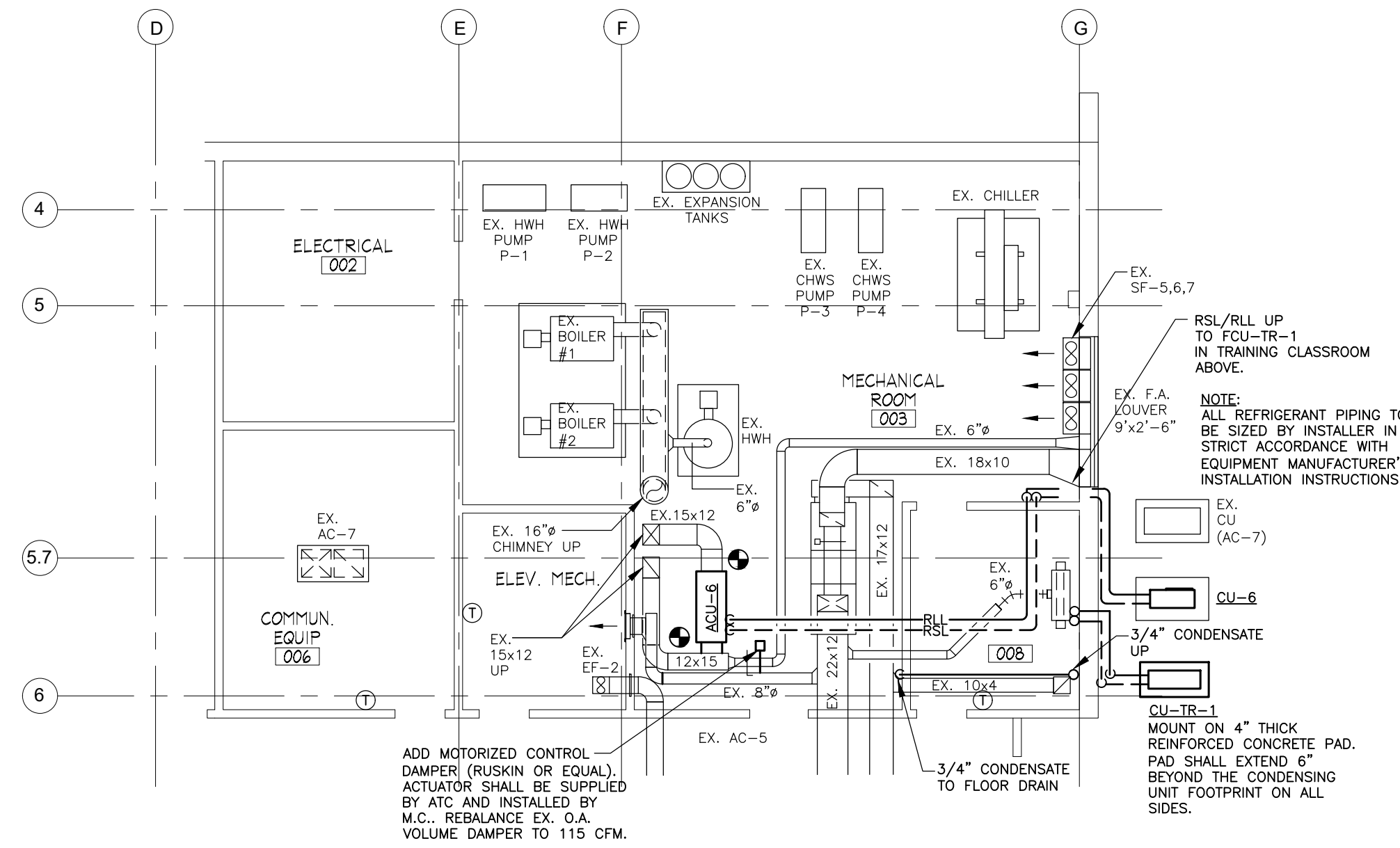
LOWER LEVEL MECHANICAL ROOM DEMOLITION PLAN
SCALE: 1/8"= 1'-0"

MECHANICAL DEMOLITION NOTES

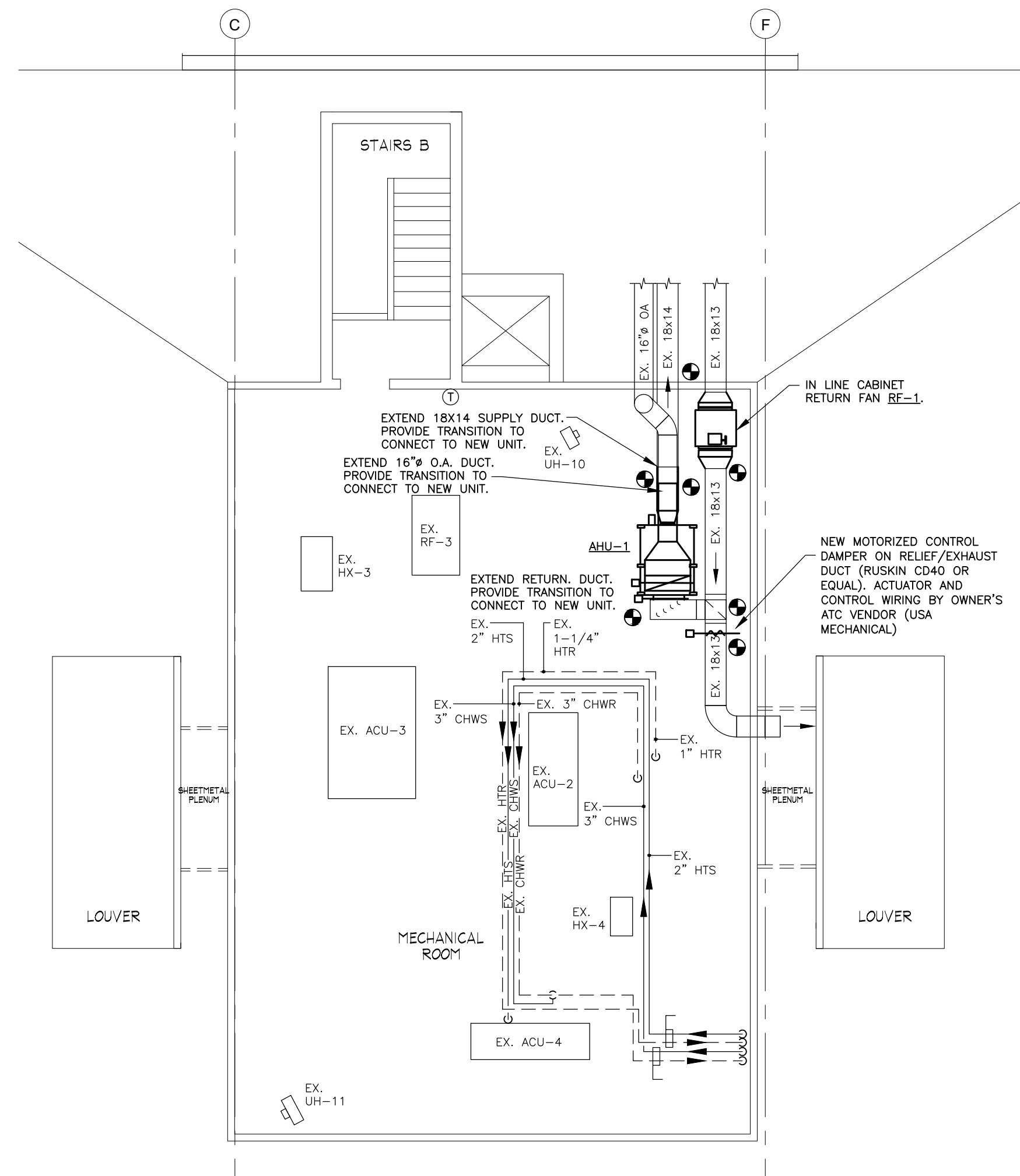
- DISCONNECT, REMOVE AND PROPERLY DISCARD EXISTING HORIZONTAL AIR HANDLING UNIT (AHU-6) INCLUDING BUT NOT LIMITED TO ASSOCIATED OUTDOOR CONDENSING UNIT (CU-6), REFRIGERATION PIPING, VALVES, CONTROLS, ETC.; CONTRACTOR SHALL RECLAIM AND RECYCLE EXISTING REFRIGERANT IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS PRIOR TO DEMOLITION.
- DISCONNECT, REMOVE AND DISCARD EXISTING AIR HANDLING UNIT (AHU-1) INCLUDING BUT NOT LIMITED TO FILTER/MIXING BOX, HOT WATER COIL, CHILLED WATER COIL, SUPPLY FAN, MOTORIZED CONTROL DAMPERS, ACTUATORS, CONTROLS, ETC. CUT BACK AND REMOVE SECTION OF 1" HOT WATER AND 1-1/4" CHILLED WATER SUPPLY AND RETURN INCLUDING CONTROL VALVES, STRAINERS, CIRCUIT SETTERS, ETC. BACK TO EXISTING ISOLATION BALL VALVES. DISCONNECT AND REMOVE SECTION OF CONDENSATE PIPING.
- DISCONNECT, REMOVE AND DISCARD EXISTING CABINET RETURN FAN INCLUDING ASSOCIATED SECTIONS OF RETURN DUCT TO SUIT INSTALLATION OF REPLACEMENT FAN. REMOVE AND DISCARD ASSOCIATED CONTROLS, BACKDRAFT DAMPERS, ETC.
- DISCONNECT, REMOVE AND DISCARD DUCT MOUNTED MOTORIZED CONTROL DAMPER AND ASSOCIATED ACTUATOR AND CONTROLS. REMOVE SECTION OF OVERBOARD RELIEF/EXHAUST DUCT TO SUIT INSTALLATION OF NEW MOTORIZED CONTROL DAMPER.



ATTIC / MECHANICAL ROOM MECHANICAL DEMOLITION PLAN
SCALE: 1/8"= 1'-0"



LOWER LEVEL MECHANICAL ROOM PLAN
SCALE: 1/8"= 1'-0"



ATTIC / MECHANICAL ROOM MECHANICAL PLAN
SCALE: 1/8"= 1'-0"

INTERIOR RENOVATIONS TO
**NAUGATUCK POLICE DEPARTMENT
CENTRAL DISPATCH FACILITY**
FY27-B138
211 SPRING STREET
NAUGATUCK, CONNECTICUT

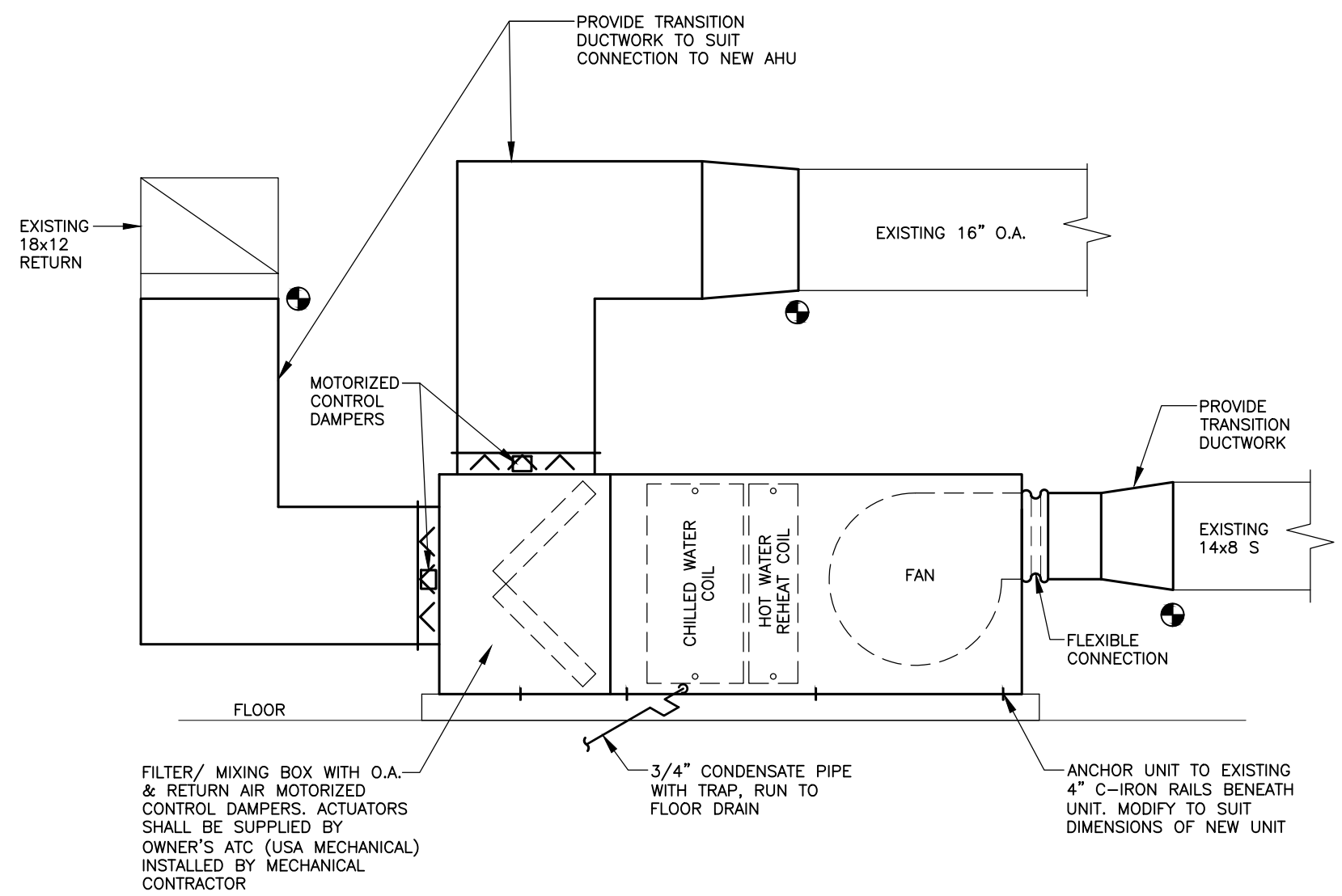
JH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

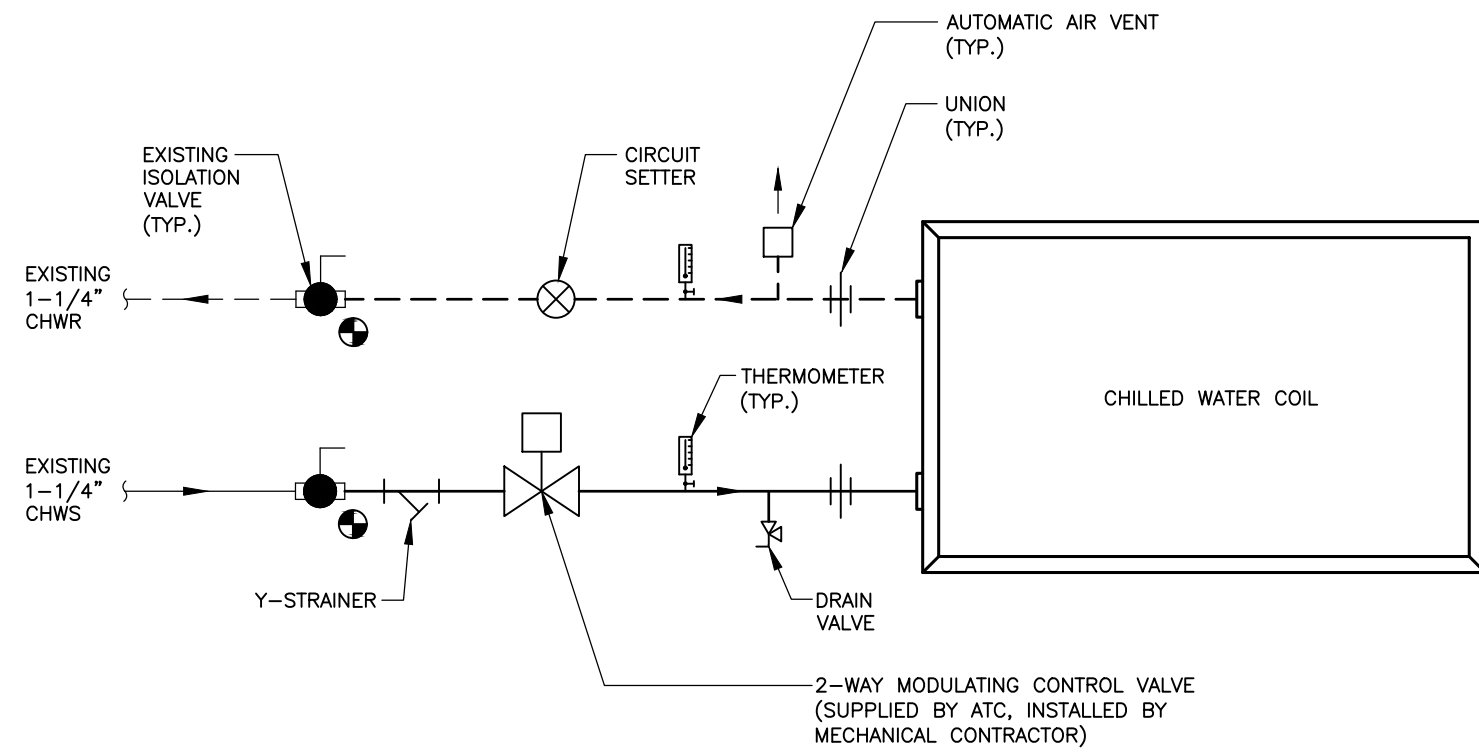
**MECHANICAL
ROOM
MECHANICAL
PLANS**

PROJ. NO. JH2516	DRAWING NO.
SCALE: 1/8" = 1'-0"	M-2
DATE: JULY 6, 2026	

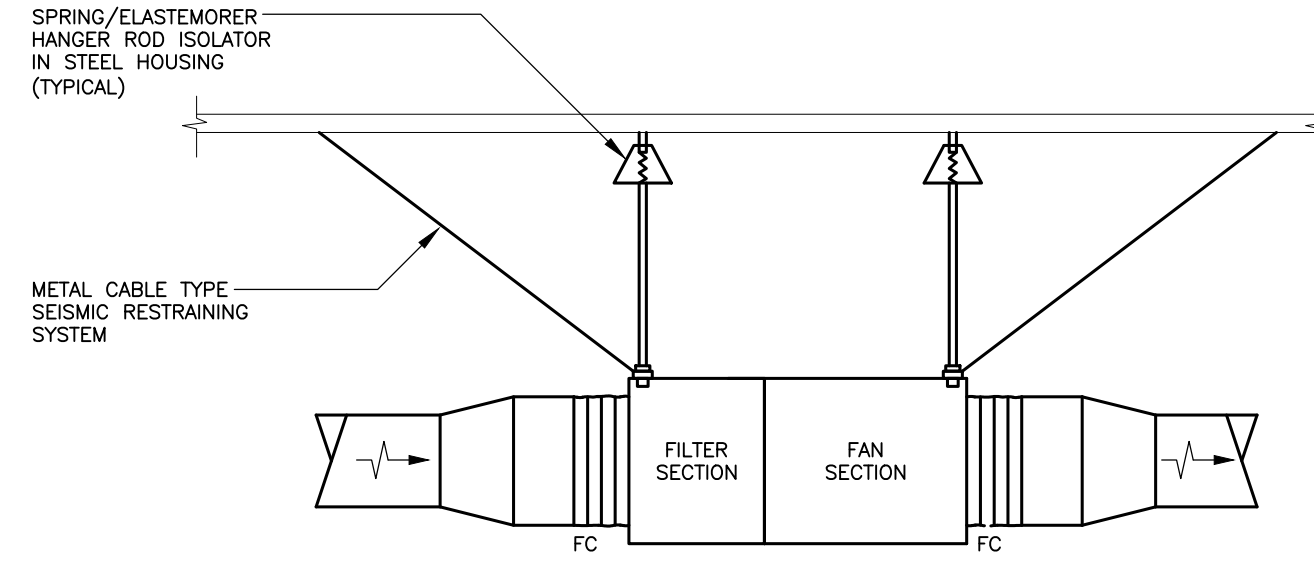
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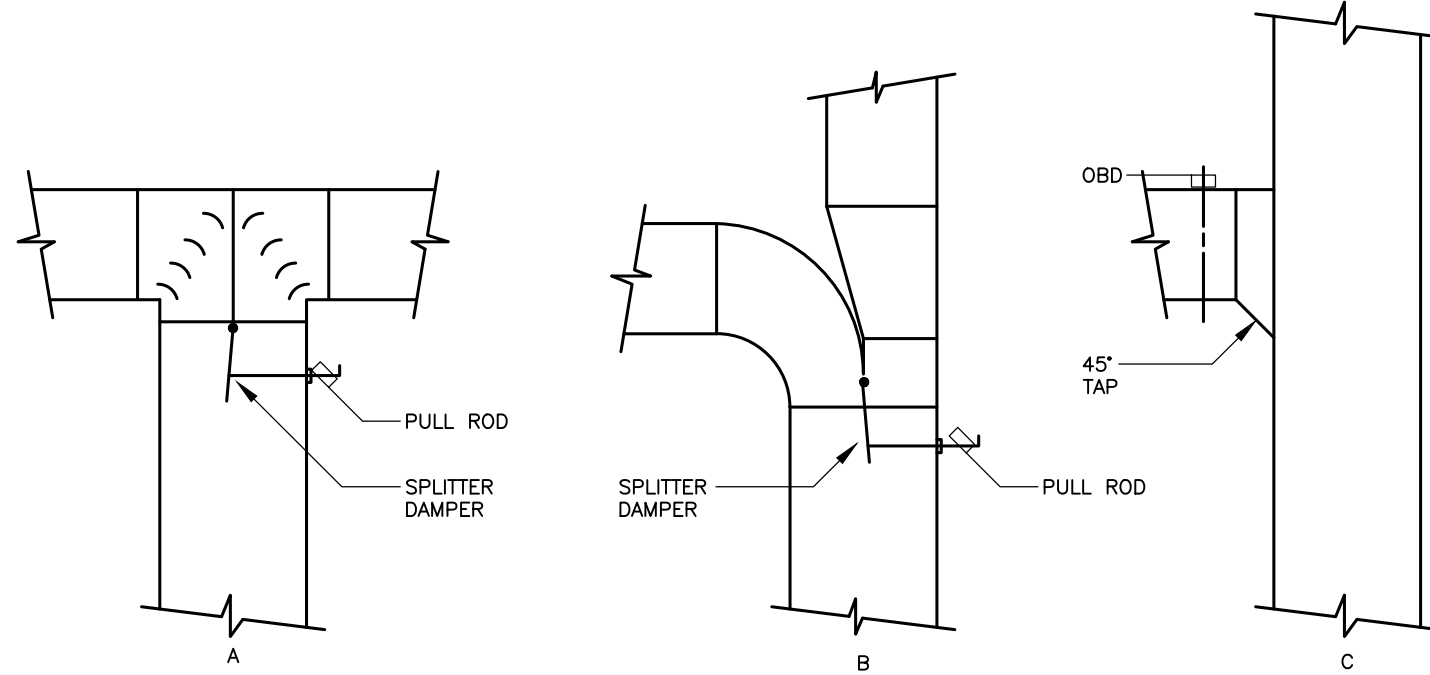
SCHEMATIC DETAIL OF AHU-1
SCALE: N.T.S.



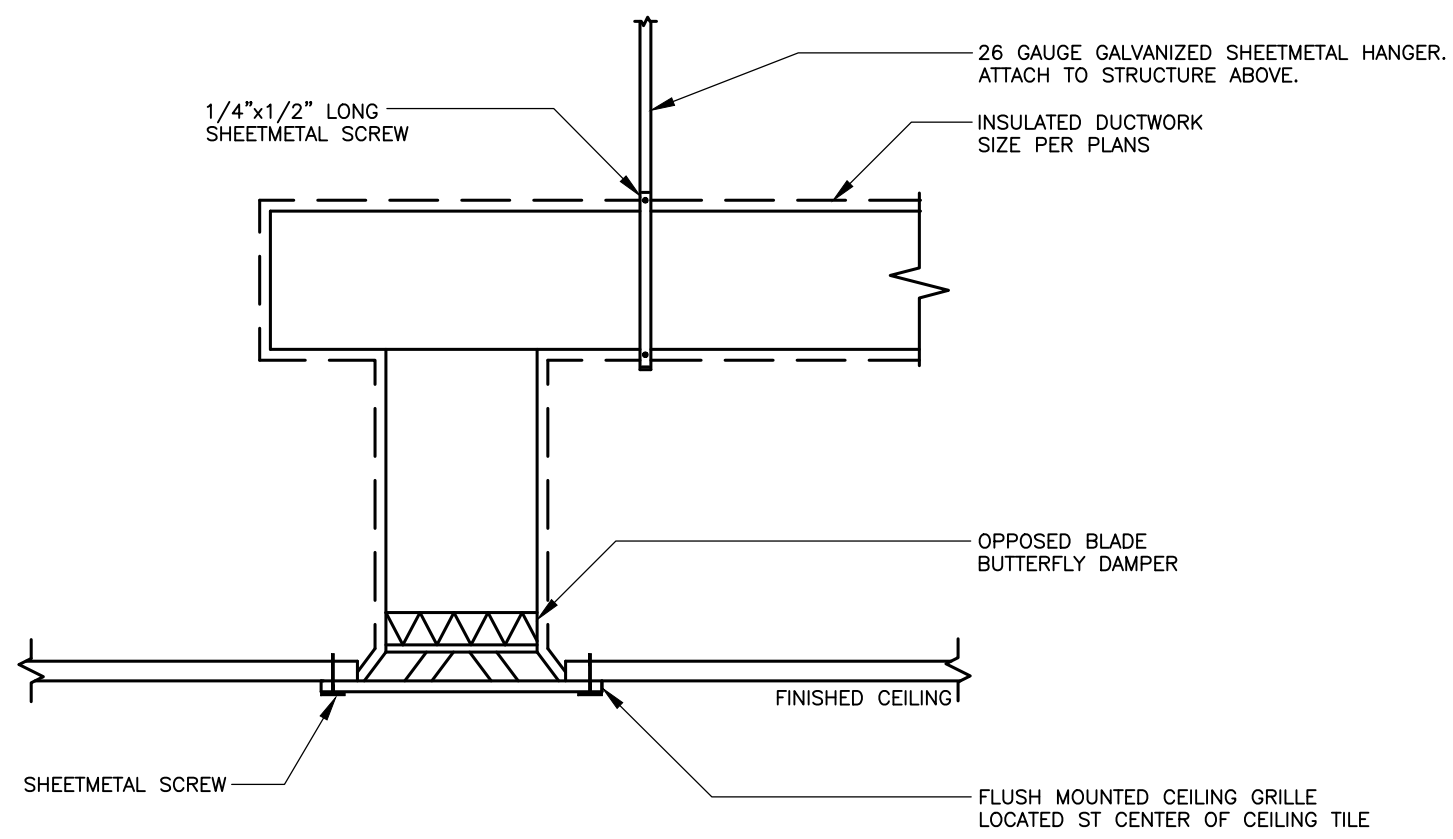
CHILLED WATER COIL PIPING DETAIL
SCALE: N.T.S.



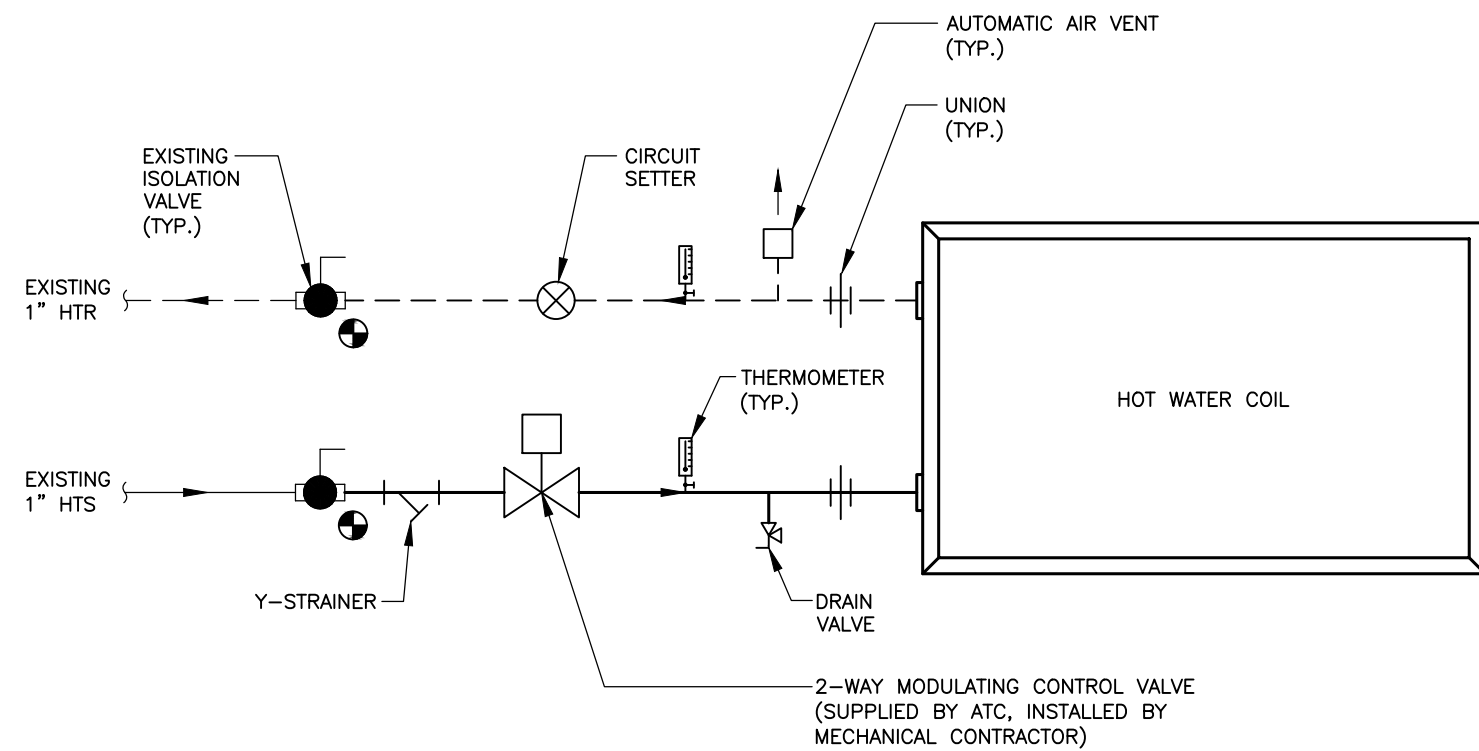
INLINE FAN DETAIL
N.T.S.



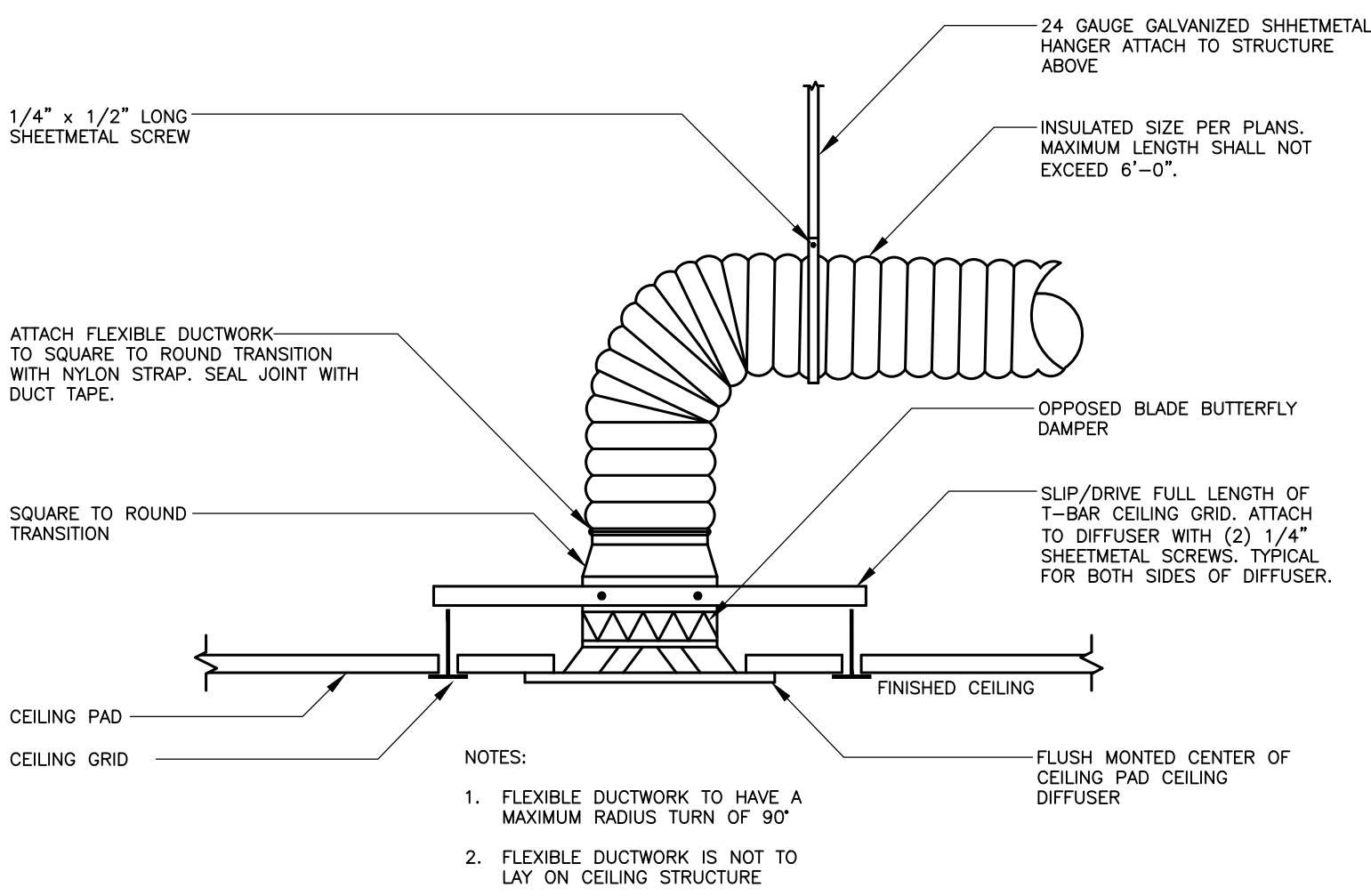
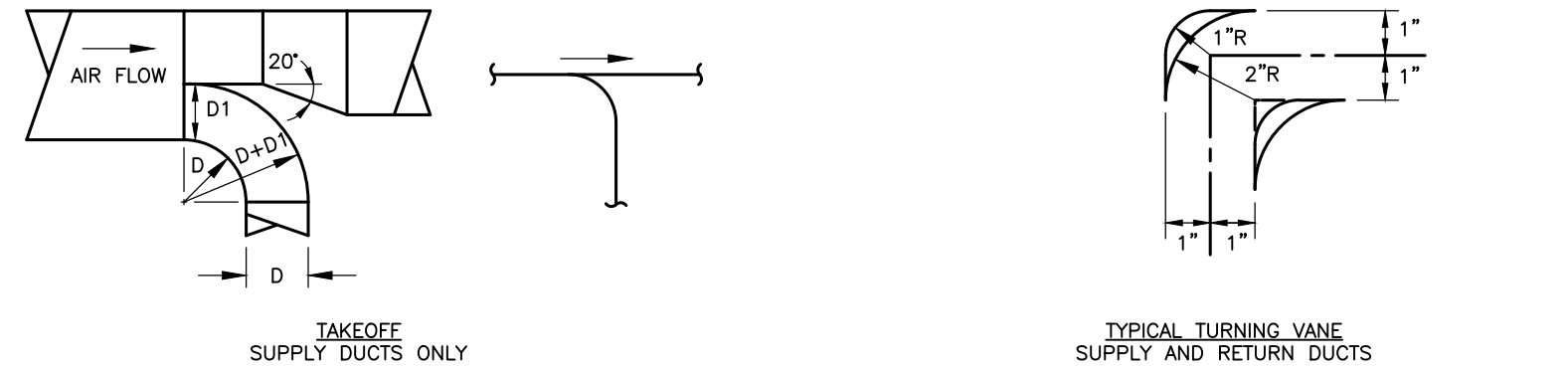
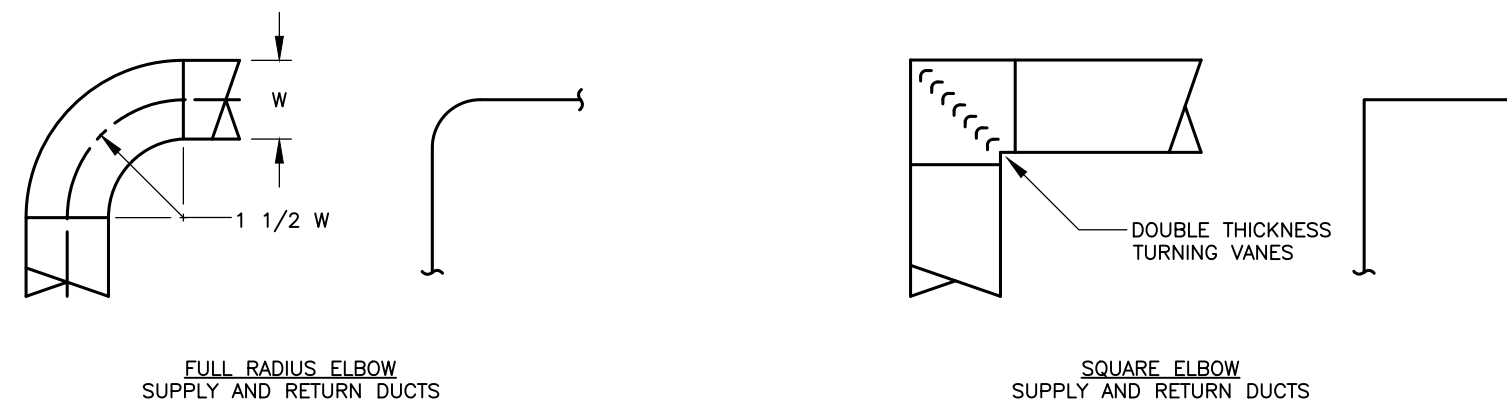
TYPICAL DUCT DETAIL
SCALE: N.T.S.



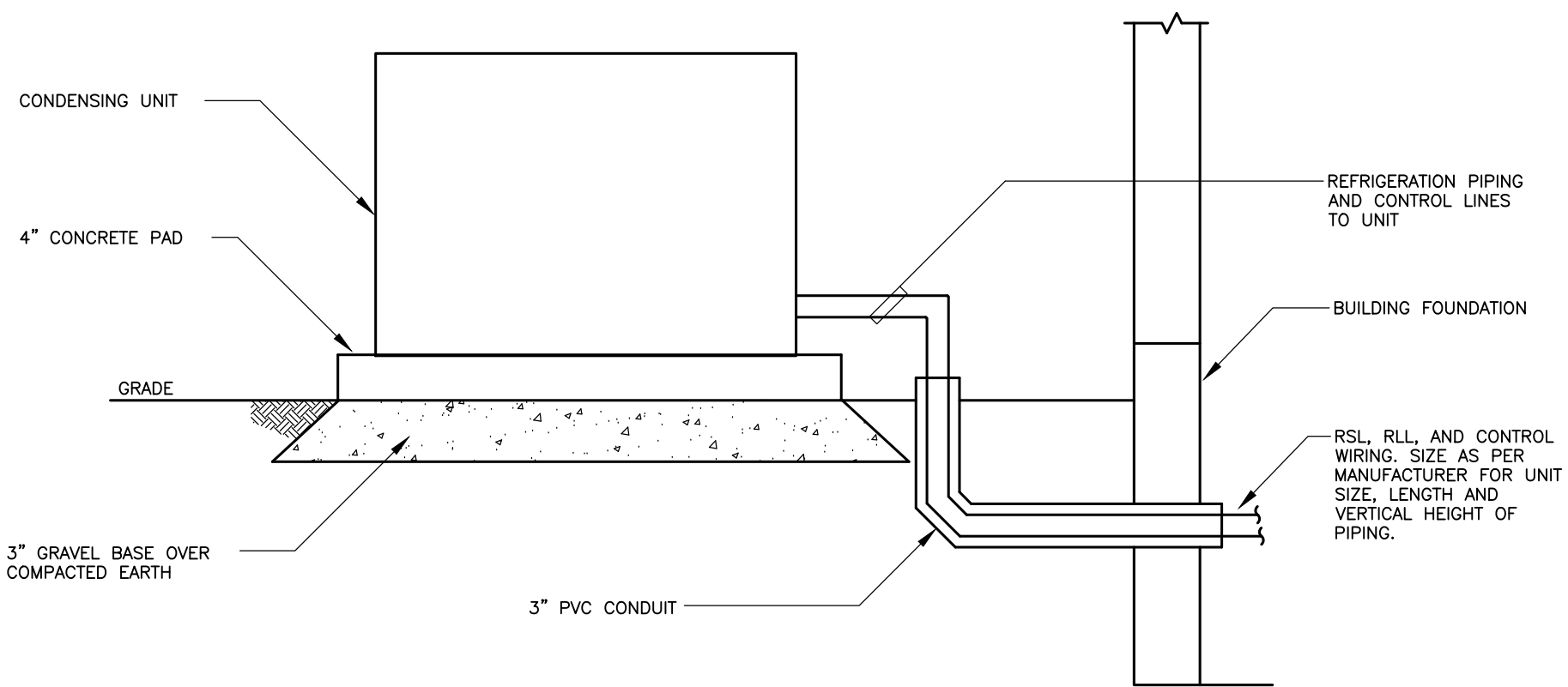
CEILING GRILLE DETAIL (HARD DUCT)
SCALE: N.T.S.



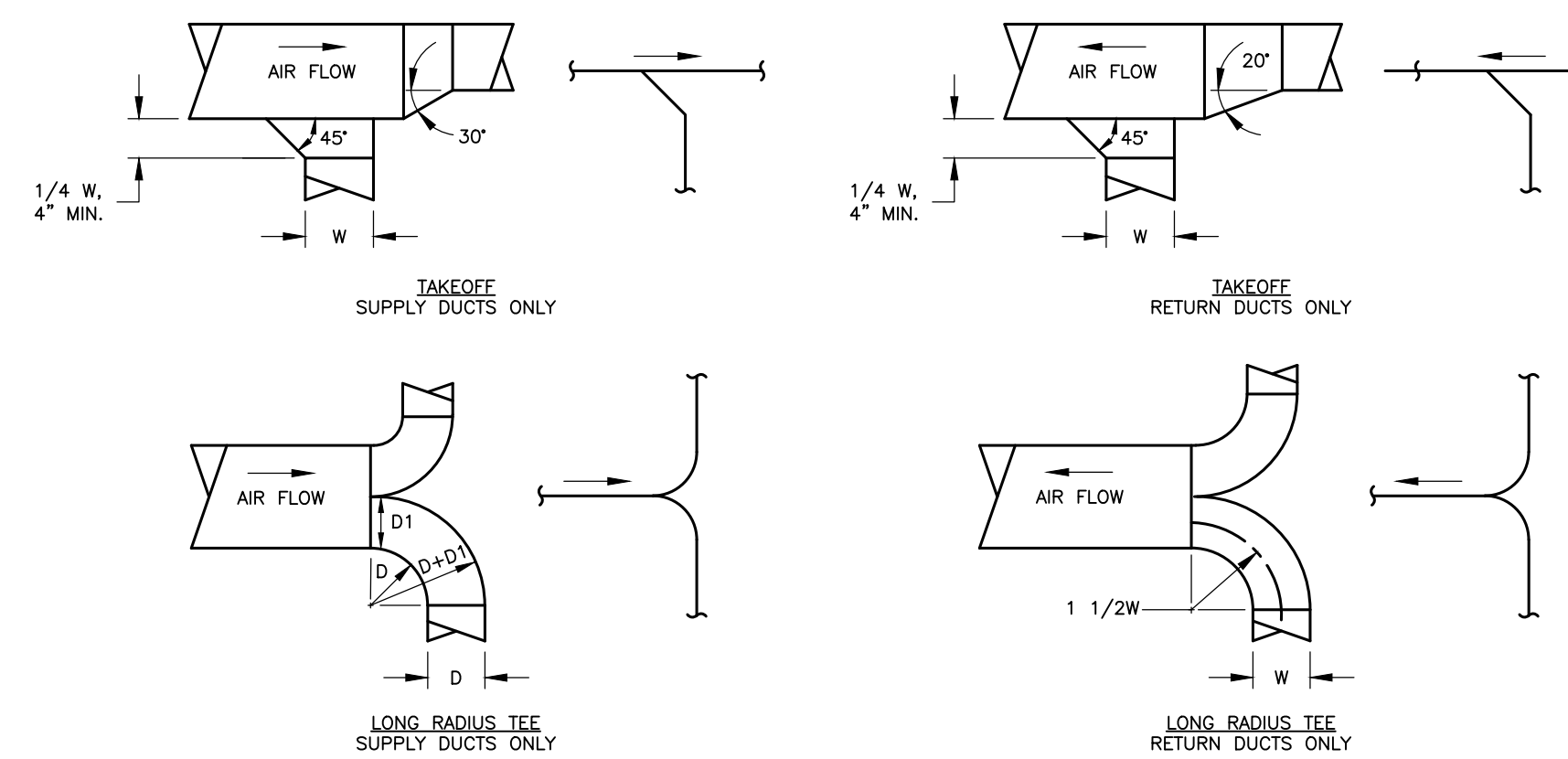
HOT WATER COIL PIPING DETAIL (SIMILAR FOR VAV REHEAT COIL)
SCALE: N.T.S.



CEILING DIFFUSER CONNECTION DETAIL
SCALE: N.T.S.



CONDENSING UNIT DETAIL
N.T.S.



TYPICAL DUCT DETAILS WITH SINGLE LINE REPRESENTATION
SCALE: N.T.S.

INTERIOR RENOVATIONS TO
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**MECHANICAL
DETAILS**

PROJ. NO. JH2516	DRAWING NO. M-3
SCALE: AS NOTED	
DATE: JULY 6, 2026	

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AIR HANDLING UNIT SCHEDULE																														
GENERAL DATA									CHILLED WATER COIL DATA							HOT WATER COIL DATA							FILTER DATA			ELECTRICAL DATA				NOTES
SYMBOL	MANUFACTURER MODEL NUMBER	AREA SERVED	LOCATION	SUPPLY FLOW (CFM)	MIN. O.A. (CFM)	ESP (IN)	FAN POWER (HP)	SPEED (RPM)	NUMBER OF COIL ROWS	TOTAL COOLING (MBH)	EAT/LAT (DEG F)	EWI/LWT (DEG F)	AIR PD (IN. WG)	WATER FLOW (GPM)	WPD (FT H ₂ O)	NUMBER OF COIL ROWS	TOTAL HEATING (MBH)	EAT/LAT (DEG F)	EWI/LWT (DEG F)	AIR PD (IN. WG)	WATER FLOW (GPM)	WPD (FT H ₂ O)	TYPE	EFFICIENCY	AIR PD (IN. WG)	CONTROL	VOLT-PH	MIN. CIRCUIT AMPS	MOPP (A)	
AHU-1	TRANE BCHES4	DISPATCH 104	ATTIC MECHANICAL ROOM	1470	200	1.0	1.0	1,525	4 ROWS	54.51	77.7/65.0	44.0/56.0	0.391"	9.0	4.65	1 ROW	67.42	60.4/90.0	180/160	0.081"	5.0	1.08	2" PLEATED	MERV 8	0.25"	BMS	208V-3PH	5.75	15 A	1,2,3,4,5,6,7
NOTES: 1. PROVIDE WITH DISCONNECT SWITCH. 2. PROVIDE ECM MOTOR. 3. 2 WAY MODULATING HOT WATER CONTROL VALVE SUPPLIED BY ATC, INSTALLED BY MECHANICAL CONTRACTOR. 4. 2 WAY MODULATING CHILLED WATER CONTROL VALVE SUPPLIED BY ATC, INSTALLED BY MECH CONTRACTOR. 5. PROVIDE WITH MOTORIZED CONTROL DAMPERS IN O.A. AND RETURN AIR CONNECTIONS. ACTUATORS BY OWNER'S ATC (USA MECHANICAL). 6. PROVIDE NEW 3/4" SCH 40 PVC CONDENSATE PILE WITH TRAP TERMINATED AT FLOOR DRAIN. 7. CONTROLS BY OWNER'S AUTOMATIC TEMPERATURE CONTROL VENDOR (USA MECHANICAL).																														

VRF AIR HANDLING UNIT SCHEDULE																							
GENERAL DATA								COOLING DATA						HEATING DATA				FILTER DATA			ELECTRICAL DATA		NOTES
SYMBOL	MANUFACTURER MODEL NUMBER	AREA SERVED	LOCATION	SUPPLY AIR FLOW (CFM)	MINIMUM O.A. FLOW (CFM)	ESP (IN)	SPEED	TYPE	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	EAT WB/DB (DEG F°)	LAT WB/DB (DEG F°)	SUCTION TEMP (DEG F°)	TOTAL HEATING (MBH)	EAT (DEG F°)	LAT (DEG F°)	AIR PD (IN. WG)	TYPE	EFFICIENCY	AIR PD (IN. WG)	CONTROL	AMP-VOLT-PH	
ACU-6	MITSUBISHI PVA-A30AA7	RECORDS (PHASE 2)	BASEMENT MECHANICAL ROOM	800	100	0.75"	HIGH	DX	30.0	23.4	77.5/64.9	56.0/56.0	45.0°F	32.0	61.2°F	90.0°F	0.3"	2" PLEATED	MERV-8	0.25"	24 VAC	4.3-208-1	1,2,3,4,5
NOTES: 1. PROVIDE SHEET METAL EMERGENCY DRAIN PAN BENEATH UNIT WITH WATER SENSOR TO SHUT FAN DOWN UPON DETECTION OF WATER. 2. PROVIDE DISCONNECT SWITCH. 3. R454B OR R32 REFRIGERANT. 4. RECONNECT TO EXISTING DUCTWORK AND CONDENSATE PIPING. 5. PROVIDE FACTORY CONTROLLER, SENSORS, ETC., MONITORED BY BMS. 6. UNIT SHALL BE POWERED BY MATCHING OUTDOOR CONDENSING UNIT (CU-6).																							

FAN SCHEDULE														
SYMBOL	MANUFACTURER MODEL NUMBER	LOCATION	SERVING	TYPE	AIR FLOW CFM	ESP IN. WS.	FAN RPM	DRIVE	CONTROL	POWER (W)	HP	ELECTRICAL V-PH-RPM	SONES (LWA)	NOTES
EF-1	LOREN COOK GN-320	BREAK ROOM	BREAK ROOM	INLINE EXHAUST	175	0.4"	1360	DIRECT	BMS	77 W	1/8 HP	120-1-1725	2.3	1,2,3,4,5
RF-1	LOREN COOK Z10SQN-HP	ATTIC MECH.	AHU-1	INLINE RETURN	1,340	0.7"	780	BELT	BMS	274 W	1 HP	208-3	6.4	2,3,4,5
NOTES: 1. PROVIDE WITH FACTORY WALL CAP (LOREN COOK WCA-2). 2. PROVIDE WITH SELF-ACTING BACKDRAFT DAMPER AT DISCHARGE OUTLET. 3. PROVIDE FACTORY HANGING ISOLATOR KIT. 4. PROVIDE DISCONNECT SWITCH. 5. INTEGRATE TO EXISTING BUILDING MANAGEMENT SYSTEM.														

VRF FAN COIL UNIT SCHEDULE												
UNIT. NO	MANUFACTURER MODEL NUMBER	ROOM SERVED	TYPE	GAS/LIQUID CONNECTION SIZE	CFM (HIGH/LOW)	ESP (IN. H ₂ O)	TOTAL COOLING (MBH)	TOTAL HEATING (MBH)	MINIMUM CIRCUIT AMPS	MOC ^P (A)	NOTES	
FCU-TR-1	MITSUBISHI PLA-A24EA8	TRAINING CLASSROOM (PHASE 3)	HP	5/8" / 3/8"	770/490	0.1"	24.0	14.9	1.0	15 A	1,2,3,4,5	
NOTES: 1. R-454B OR R32 REFRIGERANT. 2. PROVIDE 3/4" CONDENSATE PIPING TO OUTDOORS OR INDIRECT WASTE CONNECTION. 3. PROVIDE FACTORY CONTROLLER, SENSORS, LOW VOLTAGE WIRING FOR FULLY OPERATIONAL SYSTEM. 4. HEAT CAPACITY RATED FOR 17°F AMBIENT TEMPERATURE. 5. POWERED BY MATCHING OUTDOOR CONDENSING UNIT CU-TR-1.												

VRF CONDENSING UNIT SCHEDULE										
SYMBOL	MANUFACTURER MODEL NUMBER	TYPE	MODULE 1	CORRECTED COOLING CAPACITY MBH	CORRECTED HEATING CAPACITY MBH	MODULE 1 ELECTRICAL DATA MCA	MODULE 1 ELECTRICAL DATA VOLT-PH	MOC ^P (A)	TONS CONNECTED LOAD	NOTES
CU-6	MITSUBISHI PUZ-HA30NKA	DX	MITSUBISHI PUZ-HA30NKA	30.0	32.0	24.0	208V-1PH	40 A	2.5	1,2,3,4
CU-TR-1	MITSUBISHI PUZ-A24NHA7	DX	MITSUBISHI PUZ-A24NHA7	24.0	14.9	19.0	208V-1PH	26 A	2.0	1,2,3,4
NOTES: 1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67° F (DB/WB), OUTDOOR OF 95° F. 2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 17° F (DB), OUTDOOR OF 43° F (WB). 3. INCLUDE LOW AMBIENT HOOD KIT WITH ASSOCIATED WIND BAFFLES FOR 100% LOW AMBIENT COOLING DOWN. 4. R-454B OR R32 REFRIGERANT.										

VAV SCHEDULE													
SYMBOL	MANUFACTURER MODEL NUMBER	SERVING	CFM		APD IN. WG	INLET DUCT SIZE	2 ROW HOT WATER COIL DATA						NOTES
			MIN.	MAX.			MBH	EWI/LWT	EAT/LAT	PD FT. WG	GPM	CFM	
VAV-7	TRANE VCWE-14	TRAINING CLASSROOM	690	1960	0.20"	14"	74.1	180/160	50/85	2.6'	7.4	1960	1,2,3
NOTES: 1. ACTUATOR AND CONTROL WIRING SHALL BE FURNISHED BY OWNER'S ATC VENDOR (U.S. MECHANICAL). 2. 2-WAY MODULATING HOT WATER CONTROL VALVE SUPPLIED BY ATC, INSTALLED BY M.C. 3. PROVIDE FLEX CONNECTOR AT INLET AND OUTLET OF VAV.													

GRILLE, DIFFUSER AND REGISTER SCHEDULE								
SYMBOL	MANUFACTURER MODEL NUMBER	DUTY	TYPE	BORDER TYPE	CONSTRUCTION			NOTES
					OBD	FRAME	BLADES	
S1	TITUS OMNI AA	SUPPLY	D.D.	TYPE 3	—	ALUMINUM	ALUMINUM	1,4,7,9
S2	TITUS 300FL	SUPPLY	D.D.	TYPE 1	—	ALUMINUM	ALUMINUM	1,3,4,7,9
S3	TITUS TDC-AA	SUPPLY	D.D.	TYPE 1	—	ALUMINUM	ALUMINUM	4,7,9
R1	TITUS 350RL	RETURN	L.F.	TYPE 1	—	STEEL	STEEL	4,5,7,9
E1	TITUS 350RL	EXHAUST	L.F.	TYPE 1	—	STEEL	STEEL	4,5,7,9

TYPES:

- L.S. — LINEAR SLOT
- L.B. — LINEAR BAR
- D.D. — DIRECTIONAL DIFFUSER
- P.F. — PERFORATED FACE
- L.F. — LOUVERED FACE
- C.C. — CUBE CORE
- S.W. — SIDE WALL
- S.W./C.G. — SIDE WALL OR CEILING

DESIGNATIONS:

SYMBOL

NECK SIZE

FLOW (CFM)

S1-150
6"6"

TYPICAL RDG

NECK SIZE (ROUND OR EQUIV. FLAT OVAL)

S1-150
8"6"-4

QTY. OF SLOTS

LINEAR SLOT

NOTES:

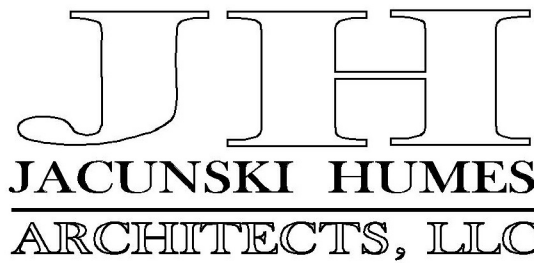
1. SQUARE TO ROUND TRANSITION.
2. OPPOSED BLADE DAMPER.
3. DOUBLE DEFLECTION.
4. FACE VELOCITY 600 FPM MAX.
5. 45° DEFLECTION (FIXED).
6. 45° DEFLECTION (FULLY ADJUSTABLE).
7. NC LEVEL NOT TO EXCEED 25.
8. PROVIDE VOLUME DAMPERS ON ALL BRANCH DUCTS.
9. HINGED CORE WITH 1" DISPOSABLE FILTER.

ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AMB	AMBIENT
AMP	AMPERE (AMP, AMPS)
BAL	BALANCE
BTU	BRITISH THERMAL UNIT
CAP	CAPACITY
CFM	CUBIC FEET PER MINUTE
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
CLG	COOLING
CU	CONDENSING UNIT
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EWI	ENTERING WATER TEMPERATURE
EXH	EXHAUST
F	DEGREES FAHRENHEIT
FC	FLEXIBLE CONNECTION
FD	FIRE DAMPER
FPM	FEET PER MINUTE
FT	FEET
FTR	FIN TUBE RADIATION
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H-1	HUMIDIFIER
HWC	HOT WATER COIL
HP	HORSE POWER
HTR	HEATING RETURN (HOT WATER)
HTS	HEATING SUPPLY (HOT WATER)
HTG	HEATING
HZ	FREQUENCY
IN.	INCH
IN. WG	INCHES WATER GAUGE
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LBS/HR	POUNDS PER HOUR
LWT	LEAVING WATER TEMPERATURE
MBH	BTU PER HOUR (THOUSAND)
N.T.S.	NOT TO SCALE
O.A.	OUTSIDE AIR
OED	OPEN END DUCT
P-1	PUMP
PD	PRESSURE DROP
PH	PHASE
PSI	POUNDS PER SQUARE INCH
RDG	REGISTER DIFFUSER GRILLE
RET	RETURN
RH	RELATIVE HUMIDITY
RPM	ROTATIONS PER MINUTE
SP-1	SUMP PUMP
SQ.FT.	SQUARE FEET
SUP	SUPPLY
T&P	TEMPERATURE & PRESSURE RELIEF VALVE
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
VD	VOLUME DAMPER
VIF	VERIFY IN FIELD
WB	WET BULB
WP	WORKING PRESSURE
ZC	ZONE CONTROLLER
ZV	ZONE VALVE

MECHANICAL LEGEND	
	DIFFUSER/GRILLE - SUPPLY
	GRILLE/REGISTER - RETURN
	GRILLE/REGISTER - EXHAUST
	ROUND DUCT UP
	ROUND DUCT DN
	AIR FLOW DIRECTION INDICATOR - SUPPLY
	AIR FLOW DIRECTION INDICATOR - RETURN
	DUCT RISER - SUPPLY/COMBUSTION AIR
	DUCT DROP - SUPPLY/COMBUSTION AIR
	DUCT RISER - RETURN/EXHAUST
	DUCT DROP - RETURN/EXHAUST
	EXHAUST FAN
	THERMOSTAT
	VOLUME DAMPER
	MOTORIZED DAMPER
	REDUCER
	HOT WATER SUPPLY - HEATING
	HOT WATER RETURN - HEATING
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	DIRECTION OF FLOW
	PIPE DOWN
	PIPE DROP
	PIPE RISE
	PLUGGED OR CAPPED PIPE
	EXISTING TO BE REMOVED
	CONNECT TO EXISTING

MECHANICAL DEMOLITION NOTES	
1.	THE MECHANICAL CONTRACTOR SHALL REMOVE ALL MECHANICAL EQUIPMENT, ACCESSORIES, CONTROLS AND ASSOCIATED PIPING AS SHOWN OR INDICATED ON THE DRAWINGS.
2.	NO EQUIPMENT OR DEVICES THAT HAVE BEEN DISCONNECTED AND OR ABANDONED SHALL REMAIN.
3.	THE MECHANICAL CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING SYSTEMS AND CONDITIONS IN AREAS OF RENOVATION.
4.	ANY SYSTEMS OR EQUIPMENT TO REMAIN ACTIVE DURING RENOVATION SHALL BE KEPT IN OPERATION BY PROVIDING TEMPORARY CONNECTIONS AS REQUIRED UNTIL NEW SYSTEMS ARE INSTALLED AND OPERATIONAL.
5.	THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE OWNER, CM, AND OR GENERAL CONTRACTOR ANY AND ALL PHASING OF THE MECHANICAL DEMOLITION WORK IN ORDER TO SATISFY THE CONSTRUCTION SCHEDULE AND OWNERS OCCUPANCY REQUIREMENTS.
6.	ANY MECHANICAL EQUIPMENT TO BE REMOVED AND REUSED OR TURNED OVER TO THE OWNER, AT OWNERS REQUEST, OR AS INDICATED ON THE DRAWINGS SHALL BE CAREFULLY REMOVED AND STORED TO PREVENT DAMAGE.
7.	THE MECHANICAL CONTRACTOR SHALL ALSO REVIEW THE ARCHITECTURAL DEMOLITION DRAWINGS AS PART OF THIS CONTRACT FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
8.	ALL SERVICE INTERRUPTIONS SHALL BE COORDINATED AND APPROVED WITH THE OWNER IN ADVANCE PRIOR TO COMMENCEMENT OF ANY WORK.
9.	THE MECHANICAL CONTRACTOR SHALL COORDINATE HIS DEMOLITION WORK WITH THAT OF OTHER TRADES IN ORDER TO AVOID CONFLICTS.

MECHANICAL GENERAL NOTES	
1.	THESE GENERAL NOTES ARE APPLICABLE TO ALL MECHANICAL DRAWINGS.
2.	DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK. SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3.	MECHANICAL CONTRACTOR MUST REVIEW DRAWINGS OF THE OTHER TRADES AS PART OF THIS CONTRACT FOR ADDITIONAL WORK REQUIRED AND OR COORDINATION OF HIS WORK FOR OPERATIONS OR CONNECTIONS TO OTHER SYSTEMS.



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**MECHANICAL
NOTES,
LEGENDS, AND
SCHEDULES**

PROJ. NO. JH2516	DRAWING NO.
SCALE: AS NOTED	M-4
DATE: JULY 6, 2026	

MECHANICAL (HVAC) SPECIFICATIONS

GENERAL

SCOPE

THE GENERAL SCOPE OF THE HVAC WORK IS TO REMOVE EXISTING SYSTEMS, MODIFY THE EXISTING SYSTEMS, AND PROVIDE NEW SYSTEMS AS INDICATED ON THESE DOCUMENTS

THE WORK TO BE DONE UNDER THIS DIVISION OF THE SPECIFICATIONS INCLUDE THE FURNISHING OF ALL EQUIPMENT, SUPPLIES, LABOR, SUPERVISION AND ALL MATERIALS NOT SPECIFICALLY MENTIONED, BUT NECESSARY OR REQUIRED TO PROVIDE COMPLETE AND FULLY OPERATIONAL HVAC SYSTEMS. IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION.

IT IS THE INTENT THAT ALL MECHANICAL WORK AND MATERIALS NECESSARY TO COMPLETE THE ENTIRE PROJECT IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS, WHETHER SPECIFICALLY MENTIONED HERE OR NOT, SHALL BE FURNISHED. ALL WORK AND MATERIALS NECESSARY TO FULFILL THIS INTENT SHALL BE SUPPLIED UNDER THE MECHANICAL SPECIFICATIONS WITHOUT ADDITIONAL COST TO THE OWNER.

DEFINITIONS

'FURNISH' OR 'PROVIDE' - TO FURNISH, ERECT, INSTALL AND CONNECT UP COMPLETE AND READY FOR OPERATION PARTICULAR WORK REFERRED TO, UNLESS SPECIFICALLY INDICATED OR SPECIFIED OTHERWISE.

'WORK' - LABOR, MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES AND ALL OTHER ITEMS CUSTOMARILY FURNISHED AND/OR REQUIRED FOR PROPER AND COMPLETE INSTALLATION OF WORK.

'EXPOSED' - NOT INSTALLED UNDERGROUND OR 'CONCEALED' AS DEFINED ABOVE.

'INDICATE' OR 'SHOW' - AS INDICATED OR SHOWN ON DRAWINGS OR SPECIFIED WITH SPECIFICATIONS.

'PIPE' - PIPE, FITTINGS, FLANGES, VALVES, CONTROLS, HANGERS, TRAPS, DRAINS, INSULATION AND ITEMS CUSTOMARILY OR REQUIRED IN CONNECTION WITH OR RELATING TO SUCH PIPING.

'SUPPLY' - TO PURCHASE, PRODUCE, ACQUIRE AND DELIVER COMPLETE WITH ALL RELATED ITEMS.

'INSTALL' - TO ERECT, MOUNT AND CONNECT UP COMPLETE WITH ALL RELATED ACCESSORIES.

'NOTED' - AS INDICATED ON DRAWINGS AND/OR SPECIFIED.

CODES, RULES, PERMITS AND FEES

THIS CONTRACTOR SHALL OWE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL STATE AND LOCAL TAXES, FEES AND OTHER COSTS IN CONNECTION WITH HIS WORK; FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL STATE AND LOCAL DEPARTMENTS HAVING JURISDICTION; OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK AND DELIVERY OF SAME TO THE OWNER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.

THIS CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST TO THE OWNER, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS), IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS WHETHER OR NOT SHOWN ON THE DRAWINGS AND/OR SPECIFIED.

THIS CONTRACTOR SHALL PERFORM AND FILE ALL TESTS IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE STATE AND LOCAL AUTHORITIES. HE SHALL FURNISH AND INSTALL SIGNS REQUIRED BY THE STATE AND LOCAL AUTHORITIES.

ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE RULES AND RECOMMENDATIONS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS, WITH ALL REQUIREMENTS OF LOCAL UTILITIES COMPANIES, WITH THE RECOMMENDATIONS OF THE FIRE INSURANCE RATING ORGANIZATION HAVING JURISDICTION.

CODES, REGULATIONS AND STANDARDS

ALL MECHANICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING APPROVED CODES, REGULATIONS AND STANDARDS:

IBC - INTERNATIONAL BUILDING CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

IMC - INTERNATIONAL MECHANICAL CODE, 2021 EDITION, WITH 2022 CONNECTICUT AMENDMENTS.

IFC - INTERNATIONAL FIRE CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

2022 CONNECTICUT STATE FIRE SAFETY CODE

STATE DEMOLITION CODE

LOCAL BUILDING CODE

NFPA - NATIONAL FIRE PROTECTION CODE

NFPA 70 - NATIONAL ELECTRICAL CODE, 2020 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

NFPA 72 - NATIONAL FIRE ALARM CODE, 2019 EDITION

NFPA 99 - HEALTH CARE FACILITIES CODE, 2021 EDITION

NFPA 101 - LIFE SAFETY CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

IECC - INTERNATIONAL ENERGY CONSERVATION CODE, 2021, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

ICC/ANSI A117.1, 2017, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, AS AMENDED BY THE STATE OF CONNECTICUT 2018 AMENDMENTS.

ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE

ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS

OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

U.L. - UNDERWRITERS LABORATORIES

EPA - ENVIRONMENTAL PROTECTION AGENCY

COMPLY WITH REQUIREMENTS OF LOCAL AUTHORITY HAVING JURISDICTION.

INSURANCE

THE MECHANICAL CONTRACTOR SHALL FURNISH STATUTORY COMPENSATION INSURANCE CERTIFICATES FOR PERSONAL AND PROPERTY DAMAGE LIABILITY/ABILITY AS REQUIRED BY THE OWNER AND/OR AS HEREINBEFORE DESCRIBED.

GUARANTEE AND SERVICE

THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE INSTALLATION. IN ADDITION, THE CONTRACTOR SHALL PROVIDE, FREE OF CHARGE, ONE YEAR'S MAINTENANCE GUARANTEE ON MAINTAINED SERVICE AND ADJUSTMENT OF ALL EQUIPMENT IN THIS CONTRACT.

ALL COMPRESSORS TO HAVE (5) FIVE YEAR EXTENDED WARRANTIES.

DRAWINGS AND INTENT

DRAWINGS ARE INTENDED AS WORKING DRAWINGS FOR GENERAL LAYOUT OF THE VARIOUS HVAC SYSTEMS. HOWEVER, LAYOUT OF EQUIPMENT, ACCESSORIES, SPECIALTY DUCTWORK, AND PIPING SYSTEMS ARE DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED, AND DO NOT NECESSARILY INDICATE EVERY REQUIRED PIPE, VALVE, FITTINGS, TRAP, ELBOW, TRANSITION, OFFSETS, OR SIMILAR ITEMS REQUIRED FOR A COMPLETE INSTALLATION.

ALL EXISTING CONDITIONS ARE NOT INDICATED ON THE DOCUMENTS AND THOSE SHOWN ARE APPROXIMATIONS. THE CONTRACTOR IS TO VERIFY, IN THE FIELD, ALL EXISTING CONDITIONS.

EXAMINATION OF PREMISES - SPECIAL NOTE: NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR FAILURE TO VISIT SITE, OR ANY ALLEGED MISUNDERSTANDING OF MATERIAL TO BE FURNISHED OR WORK TO BE DONE. IT BEING THAT TENDER OF PROPOSAL INDICATED WITH ITS AGREEMENT TO ITEMS AND CONDITIONS REFERRED TO HEREIN OR INDICATED ON AFOREMENTIONED DRAWINGS.

MEASUREMENTS

ALL MEASUREMENTS TAKEN AT THE BUILDING SHALL TAKE PRECEDENCE OVER SCALE DIMENSIONS. EVERY PART OF THE PLANS SHALL BE FITTED TO THE ACTUAL CONDITIONS AT THE BUILDING. IF IN CONFLICT WITH SCALE DIMENSIONS, CONTACT ARCHITECT FOR CLARIFICATION.

TEMPORARY SERVICES

THE HVAC CONTRACTOR IS TO COORDINATE WITH THE GENERAL CONTRACTOR, PRIOR TO PERFORMING WORK REQUIRING INTERRUPTION OF EXISTING SERVICES. THE CONTRACTOR SHALL SECURE FROM THE OWNER, APPROVAL OF THE PROPOSED OPERATION.

WORK SHALL BE ARRANGED FOR CONTINUOUS PERFORMANCE WHENEVER POSSIBLE. THE MECHANICAL CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AND/OR CONNECTIONS WHERE REQUIRED AND/OR SCHEDULE AND PERFORM OVERTIME WORK FOR ANY OPERATION WHICH REQUIRED SHUTDOWN OF THE FACILITIES AT NO ADDITIONAL COST TO THE OWNER.

THE AREA OF CONSTRUCTION AND/OR ADJACENT SPACES MAY BE OCCUPIED DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR IS TO TAKE ALL NECESSARY MEASURES AND PROVIDE ALL MATERIALS TO ENSURE A SAFE ENVIRONMENT FOR THE FACILITY'S OCCUPANTS.

CONTINUITY OF EXISTING SYSTEMS

WHEREVER AN EXISTING SYSTEM IS REMOVED, PARTIALLY REMOVED, OR MODIFIED THE REMAINING SYSTEM IS TO FUNCTION FULLY AS BEFORE.

MAINTAIN CONTINUITY OF THE EXISTING AIR SYSTEMS, HYDRONIC SYSTEMS, AND CONTROL SYSTEMS TO THE AREAS NOT AFFECTED BY THIS ALTERATION.

SCAFFOLDING, RIGGING AND HOISTING

UNLESS OTHERWISE SPECIFIED, CONTRACTOR SHALL FURNISH ALL SCAFFOLDING, RIGGING, HOISTING AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES OF ANY EQUIPMENT AND APPARATUS FURNISHED.

THE CONTRACTOR SHALL REMOVE SAME FROM PREMISES WHEN NO LONGER REQUIRED.

HOUSEKEEPING

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING STOCK OF MATERIALS AND EQUIPMENT STORED ON PREMISES, AT LOCATIONS DESIGNATED FOR SUCH USE, IN A NEAT AND ORDERLY MANNER.

THIS CONTRACTOR SHALL AT ALL TIMES, KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH CAUSED BY HIS EMPLOYEES AT WORK. HE SHALL REMOVE HIS RUBBISH AND SURPLUS MATERIALS FROM THE JOB SITE AT THE END OF EACH WORK DAY AND SHALL LEAVE THE PREMISES AND HIS WORK IN A CLEAN AND ORDERLY CONDITION.

ALL MATERIAL SCHEDULED FOR REMOVAL IS TO BE DISPOSED OF IN A MANNER MEETING ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

PROTECTION OF MATERIALS AND EQUIPMENTS

CLOSE PIPE OPENINGS WITH CAPS OR PLUGS DURING INSTALLATION.

PROVIDE TEMPORARY CLOSURES ON OPEN ENDED DUCTS DURING CONSTRUCTION PERIOD.

TIGHTLY COVER AND PROTECT FIXTURES AND EQUIPMENT AGAINST DIRT, WATER AND CHEMICAL OR MECHANICAL INJURY.

AT COMPLETION OF ALL WORK, FIXTURES, EXPOSED MATERIALS AND EQUIPMENT SHALL BE THOROUGHLY CLEANED.

WORK NOT INCLUDED

ALL ELECTRICAL WORK
CUTTING AND PATCHING
UNITLS AND STRUCTURAL FRAMING
ALL CONCRETE WORK
ALL PAINTING

THIS CONTRACTOR SHALL FURNISH THE GENERAL CONTRACTOR WITH THE SIZES AND LOCATIONS OF CHASES AND OPENINGS WHICH OCCUR IN WALLS, PARTITIONS, FLOORS, ROOFS, ETC., REQUIRED FOR THE INSTALLATION OF THE WORK CALLED FOR UNDER THIS CONTRACT. THIS WORK WILL BE DONE BY THE GENERAL CONTRACTOR, EXCEPT CUTTING REQUIRED FOR THE INSTALLATION OF HANGERS.

SHOP DRAWINGS

PRIOR TO DELIVERY TO THE JOB SITE, BUT SUFFICIENTLY IN ADVANCE OF REQUIREMENTS NECESSARY TO ALLOW ENGINEER AMPLE TIME FOR REVIEW, CONTRACTOR SHALL SUBMIT FOR APPROVAL, FIVE (5) COPIES OF EACH SHOP DRAWING.

INDICATE ON EACH SUBMISSION:

1. PROJECT NAME AND LOCATION
2. ARCHITECT AND ENGINEER
3. ITEM IDENTIFICATION
4. APPROVAL STAMP OF PRIME CONTRACTOR

ALL DUCTWORK SHOP DRAWINGS AND COORDINATION DRAWINGS SHALL BE SUBMITTED ON 5/8" IN SCALE DRAWINGS AND SHALL INCLUDE LOCATIONS AND SIZES OF EXISTING EQUIPMENT ALONG WITH NEW WORK. DRAWINGS SHALL INDICATE LOCATIONS OF HANGERS, SUPPORTS, EXPANSION JOINTS, GUIDES, ANCHORS AND ANCHOR LOADS.

COORDINATION DRAWINGS SHALL INDICATE ALL MEP EQUIPMENT, DUCTS AND PIPES AND PERTINENT ARCHITECTURAL ITEMS. MOUNTING HEIGHTS SHALL BE NOTED.

SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:

1. DUCTWORK LAYOUT, SHEET METAL DETAILS/STANDARDS
2. COORDINATION DRAWINGS

SUBMITTALS

PRIOR TO DELIVERY TO THE JOB SITE, BUT SUFFICIENTLY IN ADVANCE OF REQUIREMENTS NECESSARY TO ALLOW ENGINEER AMPLE TIME FOR REVIEW, CONTRACTOR SHALL SUBMIT FOR APPROVAL, FIVE (5) COPIES OF EACH SHOP DRAWING.

INDICATE ON EACH SUBMISSION:

1. PROJECT NAME AND LOCATION
2. ARCHITECT AND ENGINEER
3. ITEM IDENTIFICATION
4. APPROVAL STAMP OF PRIME CONTRACTOR

SUBMIT SUBMITTALS ON THE FOLLOWING:

1. PIPING MATERIALS
2. PIPING SPECIALTIES
3. PIPING INSULATIONS
4. DUCT MATERIALS
5. DUCTWORK SPECIALTIES
6. DUCTWORK INSULATORS
7. AIR OUTLETS (RIG)
8. HEATING EQUIPMENT
9. AIR CONDITIONING EQUIPMENT (AHU, ACU, CU, VRF SYSTEMS)
10. FANS
11. TEMPERATURE CONTROLS
12. HYDRONIC SYSTEMS BALANCING REPORTS
13. AIR SYSTEMS BALANCING REPORTS

EQUIPMENT/VEHATION

THE PLANS AND/OR SPECIFICATIONS INDICATE THE NAME, MODEL NUMBER OR TYPE OF EQUIPMENT OR MATERIALS SPECIFIED TO SET THE STANDARD OF THE EQUIPMENT FOR THE PROJECT. THE ENGINEER WILL ENTERTAIN THE USE OF OTHER MANUFACTURER'S EQUIPMENT OF LIKE FUNCTIONS AND EQUAL QUALITY. FINAL ACCEPTANCE OF SUBSTITUTES IS AT THE ENGINEER'S DISCRETION. SHOULD THE BIDDER DESIRE TO USE EQUIPMENT OR MATERIALS OR A MANUFACTURER OTHER THAN THOSE SPECIFIED OR SHOWN, HE SHALL ATTACH A RIDER TO THE BID FORM LISTING THE DEDUCTIONS AND/OR ADDITIONS TO HIS BASE BID, TOGETHER WITH THE MANUFACTURER'S NAME AND MODEL NUMBERS OF THE EQUIPMENT OR MATERIALS HE PROPOSED TO FURNISH AS 'SUBSTITUTES', IF NO SUBSTITUTE INFORMATION IS FURNISHED, IT WILL BE EXPRESSLY UNDERSTOOD THAT ALL EQUIPMENT AND MATERIALS NAMED WILL BE FURNISHED IN FULL ACCORDANCE WITH THE PLANS AND/OR SPECIFICATIONS.

RECORD DRAWINGS

CONTRACTOR SHALL KEEP ACCURATE RECORD OF ALL DEVIATIONS IN WORK AS ACTUALLY INSTALLED FROM WORK INDICATED PAYING PARTICULAR ATTENTION TO DIMENSIONING OUTSIDE UNDERGROUND UTILITY LINES, THEIR OFFSETS AND VALVES.

AT THE CLOSE-OUT OF THE PROJECT THE CONTRACTOR IS TO DELIVER TO THE OWNER TWO SETS OF "AS-BUILT" DRAWINGS COPIES OF ALL APPROVED SHOP DRAWINGS.

OWNER'S INSTRUCTIONS AND SYSTEM OPERATION

THE CONTRACTOR IS TO INSTRUCT THE OWNER, OR HIS REPRESENTATIVE, ON THE OPERATION AND MAINTENANCE PROCEDURES FOR ALL OF THE INSTALLED SYSTEMS AND EQUIPMENT. IN ADDITION TO THE VERBAL INSTRUCTIONS, THESE INSTRUCTIONS SHALL BE WRITTEN IN LAYMAN'S LANGUAGE AND SHALL BE INSERTED IN VINYL-COVERED THREE-RING LOOSE LEAF BINDER. THIS INFORMATION IN BINDER SHALL BE FIRST SENT TO AND APPROVED BY THE ARCHITECT/ENGINEER BEFORE TURNING OVER TO OWNER.

INSTALLATIONS

SLEEVES

PROVIDE NO. 22 GA. GALVANIZED IRON SLEEVES EXTENDED THROUGH CONSTRUCTION AT ALL PENETRATIONS THROUGH CEILINGS, WALLS AND PARTITIONS.

FOR INSULATED PIPING THE SLEEVE IS TO BE SIZED TO ALLOW INSULATION TO PASS THROUGH SLEEVE, PROVIDE 1/2 INCH SPACE BETWEEN PIPE AND/OR INSULATION AND SLEEVE.

FIRE SEAL ALL SLEEVES IN ACCORDANCE WITH BUILDING CODE AND APPLICABLE SECTIONS OF THE NFPA.

EXPANSION ANCHORS

SUSPEND HANGERS FROM EXPANSION ANCHORS IN SOLID CONCRETE SLABS SIMILAR TO HULT-HOI. PROVIDE HANGER IN PLACE WITH DOUBLE NUTS.

PROVIDE PROTECTION SHIELDS IN INSULATED PIPING. INSTALL HANGERS OVER INSULATION AND SHIELDS.

WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING HANGER RODS IN REQUIRED LOCATIONS, PROVIDE ADDITIONAL STEEL FRAMING AS REQUIRED AND REVIEWED.

HANGERS AND SUPPORTING

PIPE HANGING AND SUPPORTING - PIPING SHALL NOT BE SUPPORTED BY OTHER PIPING, BUT SHALL BE SUPPORTED WITH PIPE HANGERS SUITABLE FOR THE SIZE OF PIPE AND PROPER STRENGTH AND QUALITY AT PROPER INTERVALS SO THAT THE PIPING CANNOT BE MOVED ACCIDENTALLY FROM THE INSTALLED POSITION AS FOLLOWS:

PROVIDE CLEVIS HANGERS

AT CENTER OF CENTER SPACING (UNLESS OTHERWISE NOTED)	
1/2 INCH PIPE OR TUBING	6 FEET
3/4 INCH OR 1 INCH PIPE OR TUBING	8 FEET
1-1/4 INCH OR LARGER (HORIZONTAL)	10 FEET
1-1/4 INCH OR LARGER (VERTICAL)	EVERY FLOOR LEVEL

DUCT HANGING AND SUPPORTING - DUCTWORK SHALL NOT BE SUPPORTED BY OTHER DUCTWORK OR PIPING, BUT SHALL BE SUPPORTED WITH HANGERS OF TYPE AND AT SPACING AS PER SMACNA STANDARDS.

VIBRATION AND SEISMIC CONTROL

QUIET OPERATION - ALL WORK SHALL OPERATE UNDER ALL CONDITIONS OF LOAD WITHOUT ANY SOUND OR VIBRATION WHICH IS OBJECTIONABLE IN THE OPINION OF THE ENGINEER. IN CASE OF MOVING MACHINERY, SOUND OR VIBRATION NOTICEABLE OUTSIDE OF ROOM IN WHICH IT IS INSTALLED, OR ANNOYING INSIDE ITS OWN ROOM, WILL BE CONSIDERED OBJECTIONABLE BY THE ENGINEER AND SHALL BE REMEDIED IN APPROVED MANNER BY THE CONTRACTOR AT HIS EXPENSE.

PROVIDE FLEXIBLE PIPE CONNECTIONS AT ALL PIPING CONNECTED TO MOVING EQUIPMENT.

PROVIDE FLEXIBLE DUCT CONNECTIONS AT ALL DUCTWORK CONNECTED TO MOVING EQUIPMENT. FLEXIBLE CONNECTIONS SHALL BE 29 OZ. NEOPRENE COATED FIBERGLASS, 6" WIDE. BURNING PROPERTIES SHALL CONFORM TO NFPA 90A. FASTEN TO DUCTWORK PER MANUFACTURER'S RECOMMENDATIONS. FABRIC SHALL NOT BE STRESSED OTHER THAN BY AIR PRESSURE. ALLOW AT LEAST ONE INCH SLACK TO INSURE THAT NO VIBRATION IS TRANSMITTED.

PROVIDE VIBRATION ISOLATION SPRINGS OR PADS AT MOUNTING AND SUPPORTS FOR ALL EQUIPMENT CAPABLE OF TRANSMITTING VIBRATIONS.

SEISMIC RESTRAINTS

SEISMIC RESTRAINTS DESIGNED AND CONSTRUCTED FOR LATERAL FORCES IN ANY DIRECTION SHALL BE PROVIDED FOR ALL MECHANICAL EQUIPMENT IN ACCORDANCE WITH THE STATE BUILDING CODE.

SEISMIC RESTRAINTS SHALL NOT BE REQUIRED FOR THE FOLLOWING:

1. PIPING IN BOILER AND MECHANICAL ROOMS LESS THAN 1-1/4 INCH INSIDE DIAMETER.
2. ALL OTHER PIPING LESS THAN 2-1/2 INCH INSIDE DIAMETER.
3. RECTANGULAR AIR-HANDLING DUCTS LESS THAN 6 SQUARE FEET IN CROSS-SECTIONAL AREA.
4. ROUND AIR-HANDLING DUCTS LESS THAN 28 INCHES IN DIAMETER.
5. PIPING SUSPENDED BY INDIVIDUAL HANGERS 12 INCHES OR LESS IN LENGTH FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE SUPPORT FOR THE HANGER.
6. DUCTS SUSPENDED BY HANGERS 12 INCHES OR LESS IN LENGTH FROM THE TOP OF THE DUCT TO THE BOTTOM OF THE SUPPORT FOR THE HANGER.

SEISMIC RESTRAINT FOR DUCTWORK: PROVIDE REQUIRED BRACING MATERIAL. DUCTWORK SHALL BE SUBSIDIARY TO ALLOW ENGINEER TO RESIST ALL DIRECTIONAL (TRANSVERSE, LONGITUDINAL AND VERTICAL) FORCES EQUAL TO 10 PERCENT OF THE WEIGHT OF THE DUCT SYSTEM.

IDENTIFICATION

ALL IDENTIFICATION LABELING IS TO COMPLY WITH ASME A13.1

ALL PIPING IS TO BE LABELED WITH INDICATIONS OF SERVICE AND DIRECTION OF FLOW.

ALL DUCTWORK IS TO BE LABELED WITH INDICATIONS OF SERVICE, DIRECTION OF FLOW AND ASSOCIATED SYSTEM DESIGNATION.

ALL EQUIPMENT IS TO HAVE PERMANENT LABELS INDICATING EQUIPMENT DESIGNATION.

PIPING INSTALLATION

SIZES AND APPROXIMATE LOCATION OF PIPING SYSTEMS ARE SHOWN ON THE DRAWINGS. CHECK CAREFULLY WITH THE ARCHITECTURAL DRAWINGS, DRAWINGS SHOWING WORK OF OTHER TRADES, AND EXISTING FIELD CONDITIONS TO MAKE SURE THAT THERE WILL BE NO CONFLICT BETWEEN THESE TRADES AND THE PIPING SYSTEMS. PIPES SHALL BE OFFSET AS REQUIRED TO CLEAR STRUCTURAL MEMBERS AND EXISTING FIELD CONDITIONS.

PIPING TO BE INSTALLED WITH PROPER PITCH TO LOW POINTS. PROVIDE DRAIN VALVES AT ALL LOW POINTS AND AIR VENTS AT ALL HIGH POINTS OF THE PIPING SYSTEM.

INSTALL PIPING TO ALLOW FOR PIPE EXPANSION.

DUCT INSTALLATION

SIZES AND APPROXIMATE LOCATION OF ALL DUCTS ARE SHOWN ON THE DRAWINGS. CHECK CAREFULLY WITH THE ARCHITECTURAL DRAWINGS, DRAWINGS SHOWING WORK OF OTHER TRADES, AND EXISTING FIELD CONDITIONS TO MAKE SURE THAT THERE WILL BE NO CONFLICT BETWEEN THESE TRADES AND THE PIPING SYSTEMS. PIPES SHALL BE OFFSET AS REQUIRED TO CLEAR STRUCTURAL MEMBERS AND EXISTING FIELD CONDITIONS. IF NECESSARY, THE DIMENSIONS OF THE DUCT MAY BE ALTERED PROVIDED THE CROSS-SECTIONAL AREA IS IN NO CASE REDUCED.

FIELD QUALITY CONTROL

PERFORM THE FOLLOWING FIELD TESTS AND INSPECTIONS ACCORDING TO SMACNA'S "HVAC AIR DUCT LEAKAGE TEST MANUAL" AND PREPARE TEST REPORTS:

DISASSEMBLE, REASSEMBLE AND SEAL SEGMENTS OF SYSTEMS TO ACCOMMODATE LEAKAGE TESTING AND FOR COMPLIANCE WITH TEST REQUIREMENTS.

CONDUCT TESTS AT STATIC PRESSURES EQUAL TO MAXIMUM DESIGN PRESSURE OF SYSTEM OR SECTION BEING TESTED. IF PRESSURE CLASSES ARE NOT INDICATED, TEST ENTIRE SYSTEM AT MAXIMUM SYSTEM DESIGN PRESSURE. DO NOT PRESSURIZE SYSTEMS ABOVE MAXIMUM DESIGN OPERATING PRESSURE. GIVE SEVEN DAYS ADVANCE NOTICE FOR TESTING.

MAXIMUM ALLOWABLE LEAKAGE, COMPLY WITH REQUIREMENTS FOR LEAKAGE CLASS 3 FOR ROUND AND FLAT-OVAL DUCTS; LEAKAGE CLASS 12 FOR RECTANGULAR DUCTS IN PRESSURE CLASSES LOWER THAN AND EQUAL TO 2-INCH WG (500 PA) (BOTH POSITIVE AND NEGATIVE PRESSURES), AND LEAKAGE CLASS 6 FOR PRESSURE CLASSES FROM 2-- TO 10-- WG (500 TO 2500 PA).

REMAKE LEAKING JOINTS AND RETEST UNTIL LEAKAGE IS EQUAL TO OR LESS THAN MAXIMUM ALLOWABLE.

MATERIALS

DISSIMILAR METALS

WHENEVER DISSIMILAR PIPING MATERIALS ARE CONNECTED THE TWO SHALL BE SEPARATED WITH AN 'INSULATION' CONNECTION (DIELECTRIC) FITTING.

PIPING

HOT WATER HEATING PIPING

TYPE L COPPER TUBING WITH SWEAT FITTINGS WITH 95-5 SOLDER OR STANDARD WEIGHT, SCHEDULE 40, OPEN HEARTH STEEL, NATIONAL OR EQUAL, FITTINGS FOR STEEL PIPE SHALL BE AS FOLLOWS: GENERALLY, BUTT WELDING FITTINGS OVER TWO INCHES SHALL BE USED AND EITHER SOCKET-WELD OR SCREWED FOR TWO INCHES AND UNDER. WELDING FITTINGS SHALL BE STANDARD FORGED STEEL WITH CHAMFERED ENDS. ALL BRANCHES SHALL BE WELDED WITH EITHER WELDOLETE OR TEES, OR MATCH EXISTING MATERIALS.

CHILLED WATER PIPING

TYPE L COPPER TUBING WITH SWEAT FITTINGS WITH 95-5 SOLDER OR STANDARD WEIGHT, SCHEDULE 40, OPEN HEARTH STEEL, NATIONAL OR EQUAL, FITTINGS FOR STEEL PIPE SHALL BE AS FOLLOWS: GENERALLY, BUTT WELDING FITTINGS OVER TWO INCHES SHALL BE USED AND EITHER SOCKET-WELD OR SCREWED FOR TWO INCHES AND UNDER. WELDING FITTINGS SHALL BE STANDARD FORGED STEEL WITH CHAMFERED ENDS. ALL BRANCHES SHALL BE WELDED WITH EITHER WELDOLETE OR TEES, OR MATCH EXISTING MATERIALS.

CONDENSER WATER PIPING

TYPE L COPPER TUBING WITH SWEAT FITTINGS WITH 95-5 SOLDER OR PVC (EXCEPT IF LOCATED IN A SPACE USED AS AN AIR PLENUM) OR MATCH EXISTING MATERIALS.

CONDENSATION DRAIN PIPING

TYPE DWV COPPER TUBING WITH DWV SWEAT FITTINGS OR PVC (EXCEPT IF LOCATED IN A SPACE USED AS AN AIR PLENUM)

REFRIGERANT PIPING

TYPE ACR SERVICE COPPER TUBING MEETING ASTM B260: HARD DRAWN (ANY SIZE) OR SOFT DRAWN (1-5/8" DR OR SMALLER), OR AS PER MANUFACTURER'S RECOMMENDATIONS.

PIPE INSULATION

THE FOLLOWING PIPING SYSTEMS ARE TO BE INSULATED:

- HEATING HOT WATER SUPPLY AND RETURN PIPING
- CHILLED WATER SUPPLY AND RETURN PIPING
- CONDENSATION DRAIN PIPING
- REFRIGERANT SUCTION LINE PIPING

HOT WATER HEATING AND CHILLED WATER PIPING INSULATION

INSULATE WITH RIGID PREFORMED FIBERGLASS WITH AP-T PLUS JACKET, SCHULLER MICRO-LOK OR EQUAL. INSULATION THICKNESS SHALL BE 1" THICK FOR BELOW 1 1/2" OR SMALLER PIPING, 1-1/2" THICK FOR 2" TO 3" PIPING AND 2" THICK FOR PIPING 4" AND LARGER. PROVIDE ZESTON COVERS ON ALL FITTINGS.

CONDENSATE DRAIN PIPING INSULATION

INSULATE WITH 1/2" THICK HEAVY DENSITY FIBERGLASS 25 ASU WITH VAPOR BARRIER AND LAP ADHESIVE JACKET. INSULATION ON FITTINGS SHALL BE FIBERGLASS WITH PRE-MOLDED JACKET.

REFRIGERANT PIPING INSULATION

INSULATE SUCTION LINE AND LIQUID WITH ARMAFLEX INSULATION. MINIMUM INSULATION THICKNESS SHALL BE 1".

VALVES AND SPECIALTIES

BALANCING FITTINGS

PROVIDE 'B & G' CIRCUIT SETTER BALANCING FITTINGS ON ALL WATER SYSTEMS WHENEVER REQUIRED FOR BALANCING OF SYSTEMS.

HOT AND CHILLED WATER VALVES

BALL TYPE VALVES TO BE JAMESBURY, CLINCHER, OR APOLLO GATE TYPE VALVES TO BE MILWAUKEE #F-2885M (FLANGED) OSAY TYPE VALVES TO BE IRON BODY, BRONZE MOUNTED OR (SCREWED), BRONZE, RISING STEM. CHECK VALVES TO BE CRANE/JENKINS VALVES.

THERMOMETERS

SHALL BE TERECIE UNIVERSAL ANGLE TYPE #LB0732, SOLID LIQUID FILLED, 4 1/2" DIA. SIZE. FURNISH WITH SEPARABLE SOCKET WITH 2" EXTENSION NECK.

DUCTWORK

SHEET METAL DUCTWORK

ALL DUCTWORK SHALL BE CONSTRUCTED OF #1 QUALITY SHEETS OF GALVANIZED STEEL FREE OF CRACKS OR BLEMISHES. WHEN PITTSBURGH OR SNAP LOCKING A JOINT, THE GALVANIZED STEEL SHALL NOT BE CHIPPED OFF. ALL PARTS OF THE SHEET METAL DUCT SYSTEM SHALL BE OF THE GAGE, CONSTRUCTION, HANGING METHOD, AND INSTALLED IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF THE SMACNA STANDARDS, INCLUDING DUCT LEAKAGE REQUIREMENTS.

FLEXIBLE DUCTWORK

FLEXIBLE DUCTS TO BE INSULATED TYPE: UL 181, CLASS 1, 2-PLY VINYL FILM SUPPORTED BY HELICALLY WOUND, SPRING-STEEL WIRE WITH FIBROUS-GLASS INSULATION AND POLYETHYLENE VAPOR BARRIER FILM. THE LENGTH OF FLEXIBLE DUCT IS NOT TO EXCEED 12'-0". FLEXIBLE DUCT MAY ONLY BE USED ON THE SUPPLY AIR SIDE OF LOW PRESSURE DUCT SYSTEMS.

MOISTURE LADEN AIR DUCTWORK

DUCTWORK WHICH CONVEYS AIR WITH A HIGH MOISTURE CONTENT, SUCH AS SHOWER EXHAUST AIR, SHALL BE CONSTRUCTED OF ALUMINUM SHEET MATERIAL MEETING SMACNA STANDARDS.

DUCT INSULATION

SOUND (ACOUSTIC) INSULATION

PROVIDE INTERNAL SOUND INSULATION IN ALL DUCTS WITHIN 10'-0" OF THE DISCHARGE OF AN AIR HANDLING UNITS (AHU-1, ACU-6) AND WHERE INDICATED ON THE DRAWINGS. THE DUCTWORK SHALL BE LINED WITH JOHNS MANVILLE PERMACOTE UNACOUSTIC THICKNESS, UNLESS SPECIFIED OTHERWISE, SHALL BE 1". LINER SHALL BE APPLIED TO DUCT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SMACNA GUIDELINES, LATEST EDITION, WHERE SOUND INSULATION IS INDICATED. DUCTWORK SIZES DENOTED ARE THE INSIDE DIMENSIONS AFTER THE INSULATION HAS BEEN INSTALLED.

THERMAL INSULATION

COVER ALL CONCEALED UNLINED SUPPLY AIR AND OUTSIDE AIR DUCTWORK WITH FIBERGLASS DUCT WRAP HAVING A MIN. R-6, EQUAL TO JOHNS MANVILLE R-SERIES MICROLITE WITH F.R.G. VAPOR BARRIER. ALL SUPPLY DUCTS, LOCATED IN ATTIC SHALL BE INSULATED TO MINIMUM R-8 COVER EXPOSED UNLINED SUPPLY AIR AND OUTSIDE AIR DUCTWORK WITH RIGID FIBERGLASS BOARD INSULATION HAVING MIN. R-6. PROVIDE ALL TAPE, MASTICS, SEALANTS, MOUNTING PINS, AND ETC. TO INSTALL INSULATION AS RECOMMENDED BY THE MANUFACTURER.

THERMAL INSULATION SCHEDULE

INSULATE DUCTS IN COMPLIANCE WITH THE INTERNATIONAL ENERGY CONSERVATION CODE. COMMERCIAL DUCTWORK SHALL BE INSULATED TO R-6 WHEN IN UNCONDITIONED SPACES AND R-8 WHEN LOCATED OUTSIDE THE BUILDING. COMMERCIAL DUCTWORK IN CONDITIONED SPACES DOES NOT REQUIRE INSULATION. RESIDENTIAL DUCTS OUTSIDE THE BUILDING ENVELOPE SHALL BE INSULATED TO A MINIMUM OF R-6. RESIDENTIAL DUCTWORK INSIDE THE BUILDINGS THERMAL ENVELOPE DOES NOT REQUIRE INSULATION. ALL EXTERIOR DUCTS TO BE INSULATED TO A MINIMUM OF R-8.

DUCT SEALING

SEAL ALL DUCTWORK IN COMPLIANCE WITH THE INTERNATIONAL ENERGY CONSERVATION CODE.

COMMERCIAL DUCTS, SEAL ALL LONGITUDINAL AND TRANSVERSE JOINTS, SEAMS AND CONNECTIONS.

RESIDENTIAL DUCTS, VERIFY DUCT LEAKAGE WITH POST CONSTRUCTION OR ROUGH-IN TEST. RESIDENTIAL DUCT LEAKAGE VERIFICATION NOT REQUIRED IF AIR HANDLER AND ALL DUCTS ARE LOCATED WITHIN "CONDITIONED SPACE."

DUCT INSULATION - EXTERIOR DUCTWORK

EXTERIOR DUCTWORK SHOULD FIRST BE WRAPPED WITH 1-1/2" THICK RIGID FIBERGLASS INSULATION, COVERED WITH #907 MASTIC, WEATHERPROOF MEMBRANE APPLIED AND WRAPPED FOR THE ENTIRE LENGTH, THEN RE-APPLY MASTIC AS FINAL SEALING AGENT.

DUCT CLEANING - EXISTING DUCTWORK

COMPLY WITH NADCA ARC, INCLUDING ITEMS IDENTIFIED AS "RECOMMENDED," "ADVISED," AND "SUGGESTED." PERFORM ELECTRICAL LOCKOUT AND TAGOUT ACCORDING TO OWNER'S STANDARDS OR AUTHORITIES HAVING JURISDICTION. REMOVE NON-ADHERED SUBSTANCES AND DEPOSITS FROM WITHIN THE HVAC SYSTEM. COMPLETE CLEANING IN ACCORDANCE WITH OWNER'S CONTRACT. ALL DUCTS SHALL BE CLEANED UPON SCOPE OF WORK. SYSTEMS AND COMPONENTS TO BE CLEANED: ALL AIR-MOVING AND DISTRIBUTION EQUIPMENT. DEBRIS REMOVED FROM THE INSULATION. IN ACCORDANCE WITH NFPA 90A LATEST EDITION AND BEAR U.L. LABEL AND SHALL CONFORM TO BULLETIN #UL-655. INSTALL IN ALL RATED WALLS AND CEILINGS AS REQUIRED AND/OR INDICATED ON DRAWINGS.

DUCT ACCESSORIES

VOLUME DAMPERS

SINGLE BLADE OR OPPOSED BLADE MULTI-LOUVER TYPE AS DETAILED IN SMACNA STANDARDS. PROVIDE END BEARING FOR ALL DAMPERS. QUADRANT OR OTHER OPERATOR FOR EXTERNALLY INSULATED DUCT SHALL HAVE STAND-OFF MOUNT SO OPERATION IS CLEAR OF THE INSULATION. PROVIDE VOLUME DAMPER IN DUCTWORK AT ALL RUN-OUT DUCT TO EACH CEILING DIFFUSER, AT ALL BRANCH DUCTS AND WHERE INDICATED.

SMOKE AND/OR FIRE DAMPERS

PROVIDE SMOKE AND/OR FIRE DAMPERS AS REQUIRED, WHETHER INDICATED OR NOT, AT ALL FIRE AND SMOKE RATED PARTITIONS. REVIEW ARCHITECTURAL PLANS FOR DESIGNATIONS. FIRE DAMPERS SHALL BE RUSKIN JOB 2, VERTICAL OR HORIZONTAL, STYLE B OR STYLE C FOR ROUND DUCTS, OR EQUAL. EACH SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH NFPA 90A LATEST EDITION AND BEAR U.L. LABEL AND SHALL CONFORM TO BULLETIN #UL-655. INSTALL IN ALL RATED WALLS AND CEILINGS AS REQUIRED AND/OR INDICATED ON DRAWINGS.

DUCT ACCESS DOORS

PROVIDE ACCESS DOORS, SIZED AND LOCATED FOR MAINTENANCE WORK, UPSTREAM WHERE POSSIBLE, FOR EACH DUCT MOUNTED SMOKE DETECTOR AND EACH FIRE DAMPER OR DEVICE WITHIN THE DUCT THAT REQUIRES SERVICE OR INSPECTION. ACCESS SECTIONS IN INSULATED DUCTS SHALL BE DOUBLE-WALL, INSULATED, REFER TO SMACNA STANDARDS. PROVIDE LOCK TYPE 2 (DOOR LATCH, NOT SASH LOCK).

COMMERCIAL APPLICATIONS

MOTORIZED DAMPERS

PROVIDE MOTORIZED CONTROL DAMPERS ON EXHAUST AND OUTDOOR AIR SUPPLY OPENINGS IN COMPLIANCE WITH THE IECC.

EQUIPMENT

EQUIPMENT SHALL BE PROVIDED TO MEET SPECIFIED CAPACITIES AS INDICATED ON SCHEDULES. THE EQUIPMENT LISTED ON THE SCHEDULES ARE TEH BASIS OF DESIGN. SUBSTITUTED EQUIPMENT MAY BE ALLOWED AS FOLLOWS:

AIR HANDLING EQUIPMENT: ACCEPTABLE MANUFACTURERS OF AIR HANDLER AHU-1 SHALL BE ONE OF THE FOLLOWING:

1. TRANE
2. ACO
3. DAKIN
4. YORK
5. CARRIER

ACCEPTABLE MANUFACTURERS OF RETRN FAN RF-1 AND EXHAUST FAN EF-1 SHALL BE ONE OF THE FOLLOWING:

1. LOREN COOK
2. GREENHECK
3. DAYTON

ACCEPTABLE MANUFACTURERS OF VRF EQUIPMENT (ACU-6, CU-6, FCU-TR-1, CU-TR-1) SHALL BE ONE OF THE FOLLOWING:

1. MITSUBISHI
2. DAIKIN
3. TRANE
4. NO OTHER MANUFACTURERS WILL BE ACCEPTED.

ACCEPTABLE MANUFACTURERS OF VAV-7 SHALL BE ON OF THE FOLLOWING:

1. TRANE
2. CARRIER
3. NAILOR
4. PRICE

ACCEPTABLE MANUFACTURERS OF RGD'S SHALL BE ONE OF THE FOLLOWING:

1. TITL
2. PRICE
3. KRUEGER
4. NAILOR

TESTING AND BALANCING

GENERAL

COMPLETELY TEST AND BALANCE HOT AND CHILLED WATER SYSTEMS AND ALL SUPPLY, RETURN AND EXHAUST AIR SYSTEMS AND PROVE THE CAPACITIES OF THE SYSTEM AND THE SYSTEM COMPONENTS. SUBMIT RESULTS TO ENGINEER FOR APPROVAL.

GENERAL PIPE TEST

UNLESS OTHERWISE NOTED, TEST ALL PIPING HYDROSTATICALLY AT NOT LESS THAN 200 PSIG (41 PER SOLID) AND PRESSURED FOR TWO HOURS AND ALL DEFECTIVE MATERIAL SHALL BE REPLACED. BEFORE MAKING FINAL APPROVAL, THE SUBCONTRACTOR SHOULD PRODUCE A WRITTEN STATEMENT, SIGNED BY A REPRESENTATIVE OF THE OWNER'S UNDERWRITER, THAT THE WORK HAS BEEN COMPLETED AND TESTED IN ACCORDANCE WITH APPROVED SPECIFICATIONS AND PLANS. UNLESS OTHERWISE NOTED, PERFORM PRESSURE TESTS AND OBTAIN APPROVAL. TEST RESULTS BEFORE STARTING CLEANING OR REPAIRS. IF THE PRESSURE TESTS REVEAL INSULATION OR OTHER FINISH INSULATION REMOVAL AND REINSTALLATION WHICH IS REQUIRED BECAUSE INSULATION WAS INSTALLED PRIOR TO TESTING SHALL BE DONE BY THE CONTRACTOR AT NO EXTRA COST.

TESTS ARE SATISFACTORY ONLY WHEN JOISTS SHOW NO VISIBLE LEAKS AND TEST PRESSURE REMAINS CONSTANT AFTER CONTINUOUS TEST PERIOD. REPAIR LEAKS, AND REMOVE AND REPLACE DEFECTIVE PIPE, FITTINGS AND JOISTS WITH NEW MATERIAL, UNTIL ACCEPTED BY ARCHITECT AND INSPECTING AUTHORITY. WICKING, CAULKING, COMPOUNDING, FEEDING, OR OTHER MAKE-SHIFT TYPE OF REPAIRS ARE NOT PERMITTED. REPEAT TESTS AFTER REPAIRS UNTIL SYSTEMS ARE PROVEN TIGHT.

HOT OR CHILLED WATER PIPE TEST

TESTS SHALL BE MAINTAINED AS LONG AS NECESSARY TO COMPLETELY INSPECT PIPING (MINIMUM 4 HOURS).

TEST WATER PIPING BY APPLYING HYDROSTATIC PRESSURE USING PUMP; ENSURE THAT LINES ARE VENTED OF ALL AIR.

FOLLOWING PRECAUTIONS SHALL BE TAKEN DURING PRESSURE TESTS:

1. HOT WATER SYSTEM RELIEF VALVE SHALL BE REMOVED.
2. SYSTEM PRESSURE GAUGES WITH SCALE RANGES LOWER THAN TEST PRESSURE SHALL BE REMOVED OR ISOLATED.
3. WATER CONTROL VALVES SHALL BE REMOVED.

REFRIGERANT PIPE TEST

TEST FOR LEAKS BY FILLING SYSTEM WITH DRY NITROGEN. COMPRESSOR SUCTION AND DISCHARGE VALVES SHALL BE CLOSED. EXPANSION VALVES SHALL BE PLUGGED. USE SEPARATE PUMP OR AVAILABLE GAS CYLINDER PRESSURE TO PRESSURIZE SYSTEM.

MAXIMUM TEST PRESSURE SHALL NOT EXCEED 120% OF FOLLOWING MINIMUM TEST PRESSURE:

- A. REFRIGERANT HIGH SIDE PIPING: 250 PSIG
- B. REFRIGERANT LOW SIDE PIPING

APPLY SOAPY WATER MIXTURE AND VISUALLY INSPECT EACH PIPE JOINT, VALVE PACKING AND BONNET, FLANGE, SIGHT GLASS, FITTING AND PIECE OF EQUIPMENT FOR LEAKAGE. LIQUID LEAK DETECTOR SHALL NOT BE USED EXCEPT WITH PRIOR WRITTEN APPROVAL FROM ARCHITECT. AFTER PRESSURE TESTS HAVE BEEN COMPLETED AND ACCEPTED, EVACUATE SYSTEMS TO ATMOSPHERE AND PROCEED WITH EVALUATION TESTS.

AIR SYSTEMS BALANCING

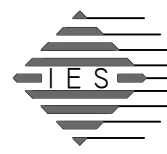
PROCURE THE SERVICES OF A CERTIFIED BALANCING CO. TO PERFORM THE TESTING AND BALANCING OF THE AIR SYSTEMS.

COMPLETELY TEST AND BALANCE ALL SUPPLY, RETURN AND EXHAUST AIR SYSTEMS AND PROVE THE CAPACITIES OF THE SYSTEM AND THE SYSTEM COMPONENTS. BALANCE THE GRILLS, REGISTERS, DIFFUSERS AND EQUIPMENT TO OBTAIN THE RESULTS INDICATED ON THE DWGS. SUBMIT A BALANCING REPORT INDICATING THE RESULTS TO ENGINEER FOR APPROVAL.

WATER SYSTEMS BALANCING

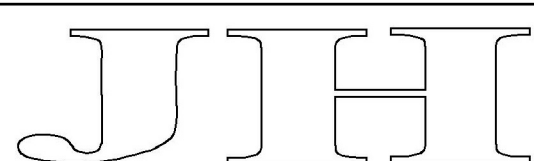
PROCURE THE SERVICES OF A CERTIFIED BALANCING CO. TO PERFORM THE TESTING AND BALANCING OF THE WATER SYSTEMS.

COMPLETELY TEST AND BALANCE ALL SUPPLY AND RETURN PIPING SYSTEMS. BALANCE FLOWS TO DESIGN/SCHEDULED LISTING FOR EACH PIECE OF EQUIPMENT (PUMP, COIL, TERMINAL UNIT, ETC.). INCLUDE SIZE, CV VALUE OF EACH CONTROL VALVE, AND EQUIPMENT SERVED IN THE FINAL BALANCING REPORT. SUBMIT THE REPORT TO THE ENGINEER FOR APPROVAL.



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MECHANICAL SPECIFICATIONS

PROJ. NO. JH2516
DRAWING NO.
SCALE: AS NOTED
DATE: JULY 6, 2026

M-5

TEMPERATURE CONTROLS SPECIFICATIONS

GENERAL
THE OWNER'S TEMPERATURE CONTROL (ATC) VENDOR (USA MECHANICAL, INC. ZACH LLEWELLYN 860-653-3536) SHALL PROVIDE ALL CONTROLS REQUIRED TO ACHIEVE A FULLY OPERATIONAL TEMPERATURE CONTROL SYSTEM THAT INTEGRATES TO THE EXISTING BUILDING MANAGEMENT SYSTEM (BMS).

SCOPE
THE GENERAL SCOPE OF THE HVAC WORK IS TO REMOVE EXISTING SYSTEMS, MODIFY THE EXISTING SYSTEMS, AND PROVIDE NEW SYSTEMS AS INDICATED ON THESE DOCUMENTS
THE WORK TO BE DONE UNDER THIS DIVISION OF THE SPECIFICATIONS INCLUDE THE FURNISHING OF ALL EQUIPMENT, SUPPLIES, LABOR, SUPERVISION AND ALL MATERIALS NOT SPECIFICALLY MENTIONED BUT NECESSARY OR REQUIRED TO PROVIDE COMPLETE AND FULLY OPERATIONAL HVAC SYSTEMS. IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION.
IT IS THE INTENT THAT ALL MECHANICAL WORK AND MATERIALS NECESSARY TO COMPLETE THE ENTIRE PROJECT IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS, WHETHER SPECIFICALLY MENTIONED HERE OR NOT, SHALL BE FURNISHED. ALL WORK AND MATERIALS NECESSARY TO FULFILL THIS INTENT SHALL BE SUPPLIED UNDER THE MECHANICAL SPECIFICATIONS WITHOUT ADDITIONAL COST TO THE OWNER.

DEFINITIONS
'FURNISH' OR 'PROVIDE' -- TO FURNISH, ERECT, INSTALL AND CONNECT UP COMPLETE AND READY FOR OPERATION PARTICULAR WORK REFERRED TO, UNLESS SPECIFICALLY INDICATED OR SPECIFIED OTHERWISE.
'WORK' -- LABOR, MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES AND ALL OTHER ITEMS CUSTOMARILY FURNISHED AND/OR REQUIRED FOR PROPER AND COMPLETE INSTALLATION OF WORK.
'EXPOSED' -- NOT INSTALLED UNDERGROUND OR 'CONCEALED' AS DEFINED ABOVE.
'INDICATE' OR 'SHOW' -- AS AS INDICATED OR SHOWN ON DRAWINGS OR SPECIFIED WITH SPECIFICATIONS.
'PIPING' -- PIPE, FITTINGS, FLANGES, VALVES, CONTROLS, HANGERS, TRAPS, DRAINS, INSULATION AND ITEMS CUSTOMARILY OR REQUIRED IN CONNECTION WITH OR RELATING TO SUCH PIPING.
'SUPPLY' -- TO PURCHASE, PRODUCE, ACQUIRE AND DELIVER COMPLETE WITH ALL RELATED ITEMS.
'INSTALL' -- TO ERECT, MOUNT AND CONNECT UP COMPLETE WITH ALL RELATED ACCESSORIES.
'NOTED' -- AS INDICATED ON DRAWINGS AND/OR SPECIFIED.

CODES, RULES, PERMITS AND FEES
THIS CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL STATE AND LOCAL TAXES, FEES AND OTHER COSTS IN CONNECTION WITH HIS WORK; FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL STATE AND LOCAL DEPARTMENTS HAVING JURISDICTION; OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK AND DELIVERY OF SAME TO THE OWNER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.
THIS CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST TO THE OWNER, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS), IN ORDER TO COMPLY WITH THE APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS WHETHER OR NOT SHOWN ON THE DRAWINGS AND/OR SPECIFIED.
THIS CONTRACTOR SHALL PERFORM AND FILE ALL TESTS IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE STATE AND LOCAL AUTHORITIES. HE SHALL FURNISH AND INSTALL SIGNS REQUIRED BY THE STATE AND LOCAL AUTHORITIES.
ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE RULES AND RECOMMENDATIONS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS, WITH ALL REQUIREMENTS OF LOCAL UTILITIES COMPANIES, WITH THE RECOMMENDATIONS OF THE FIRE INSURANCE RATING ORGANIZATION HAVING JURISDICTION.

CODES, REGULATIONS AND STANDARDS
ALL MECHANICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING APPROVED CODES, REGULATIONS AND STANDARDS:
IBC -- INTERNATIONAL BUILDING CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.
IMC -- INTERNATIONAL MECHANICAL CODE, 2021 EDITION, WITH 2022 CONNECTICUT AMENDMENTS.
IFC -- INTERNATIONAL FIRE CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.
2022 CONNECTICUT STATE FIRE SAFETY CODE
STATE DEMOLITION CODE
LOCAL BUILDING CODE
NFPA -- NATIONAL FIRE PROTECTION CODE
NFPA 70 -- NATIONAL ELECTRICAL CODE, 2020 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.
NFPA 72 -- NATIONAL FIRE ALARM CODE, 2019 EDITION
NFPA 99 -- HEALTH CARE FACILITIES CODE, 2021 EDITION
NFPA 101 -- LIFE SAFETY CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.
IECC -- INTERNATIONAL ENERGY CONSERVATION CODE, 2021, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.
ICC/ANSI A117.1, 2017, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, AS AMENDED BY THE STATE OF CONNECTICUT 2018 AMENDMENTS.
ANSI -- AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM -- AMERICAN SOCIETY FOR TESTING AND MATERIALS
OSHA -- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
U.L. -- UNDERWRITERS LABORATORIES
EPA -- ENVIRONMENTAL PROTECTION AGENCY
COMPLY WITH REQUIREMENTS OF LOCAL AUTHORITY HAVING JURISDICTION.

INSURANCE
THE MECHANICAL CONTRACTOR SHALL FURNISH STATUTORY COMPENSATION INSURANCE CERTIFICATES FOR PERSONAL AND PROPERTY DAMAGE DISABILITY/LIABILITY AS REQUIRED BY THE OWNER AND/OR AS HEREINBEFORE DESCRIBED.

GUARANTEE AND SERVICE
THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE INSTALLATION. IN ADDITION, THE CONTRACTOR SHALL PROVIDE, FREE OF CHARGE, ONE YEAR'S MAINTENANCE GUARANTEE ON MAINTAINED SERVICE AND ADJUSTMENT OF ALL EQUIPMENT IN THIS CONTRACT.
ALL COMPRESSORS TO HAVE (5) FIVE YEAR EXTENDED WARRANTIES.

DRAWINGS AND INTENT
DRAWINGS ARE INTENDED AS WORKING DRAWINGS FOR GENERAL LAYOUT OF THE VARIOUS HVAC SYSTEMS. HOWEVER, LAYOUT OF EQUIPMENT, ACCESSORIES, SPECIALTIES, DUCTWORK, AND PIPING SYSTEMS ARE DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED, AND DO NOT NECESSARILY INDICATE EVERY REQUIRED PIPE, VALVE, FITTINGS, TRAP, ELBOW, TRANSITION, OFFSETS, OR SIMILAR ITEMS REQUIRED FOR A COMPLETE INSTALLATION.
ALL EXISTING CONDITIONS ARE NOT INDICATED ON THE DOCUMENTS AND THOSE SHOWN ARE APPROXIMATIONS. THE CONTRACTOR IS TO VERIFY, IN THE FIELD, ALL EXISTING CONDITIONS.
EXAMINATION OF PREMISES -- SPECIAL NOTE: NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR FAILURE TO VISIT SITE, OR ANY ALLEGED MISUNDERSTANDING OF MATERIAL TO BE FURNISHED, WORK TO BE DONE, IT BEING THAT TENDER OF PROPOSAL INDICATED WITH ITS AGREEMENT TO ITEMS AND CONDITIONS REFERRED TO HEREIN OR INDICATED ON AFOREMENTIONED DRAWINGS.

MEASUREMENTS
ALL MEASUREMENTS TAKEN AT THE BUILDING SHALL TAKE PRECEDENCE OVER SCALE DIMENSIONS. EVERY PART OF THE PLANS SHALL BE FITTED TO THE ACTUAL CONDITIONS AT THE BUILDING. IF IN CONFLICT WITH SCALE DIMENSIONS, CONTACT ARCHITECT FOR CLARIFICATION.

TEMPORARY SERVICES
THE HVAC CONTRACTOR IS TO COORDINATE WITH THE GENERAL CONTRACTOR, PRIOR TO PERFORMING WORK REQUIRING INTERRUPTION OF EXISTING SERVICES, THE CONTRACTOR SHALL SECURE FROM THE OWNER, APPROVAL OF THE PROPOSED OPERATION.
WORK SHALL BE ARRANGED FOR CONTINUOUS PERFORMANCE WHENEVER POSSIBLE. THE MECHANICAL CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AND/OR CONNECTIONS WHERE REQUIRED AND/OR SCHEDULE AND PERFORM OVERTIME WORK FOR ANY OPERATION WHICH REQUIRED SHUTDOWN OF THE FACILITIES AT NO ADDITIONAL COST TO THE OWNER.
THE AREA OF CONSTRUCTION AND/OR ADJACENT SPACES MAY BE OCCUPIED DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR IS TO TAKE ALL NECESSARY MEASURES AND PROVIDE ALL MATERIALS TO ENSURE A SAFE ENVIRONMENT FOR THE FACILITY'S OCCUPANTS.

GENERAL
THE OWNER'S TEMPERATURE CONTROL (ATC) VENDOR (USA MECHANICAL, INC. ZACH LLEWELLYN 860-653-3536) SHALL PROVIDE ALL CONTROLS REQUIRED TO ACHIEVE A FULLY OPERATIONAL TEMPERATURE CONTROL SYSTEM THAT INTEGRATES TO THE EXISTING BUILDING MANAGEMENT SYSTEM (BMS).

MOTORIZED DAMPERS
MOTORIZED DAMPERS SHALL BE SUPPLIED BY THE AIR HANDLING UNIT EQUIPMENT MANUFACTURER. ACTUATORS AND ASSOCIATED CONTROLS (RELAYS, DEVICES AND CONTROL WIRING) SHALL BE FURNISHED BY OWNER'S AUTOMATIC TEMPERATURE CONTROL CONTRACTOR (USA MECHANICAL). THE INTENT IS TO REPLACE ALL MOTORIZED DAMPER ACTUATORS ON THE O.A., RETURN AND RELIEF EXHAUST DAMPERS FOR AHU-1 & ACU-6 TO ENSURE PROPER MODULATION OF DAMPERS.

EQUIPMENT
THE INTENT OF THE PROJECT IS TO FOR THE ATC TO SUPPLY THE 2 WAY MODULATING HOT WATER REHEAT VALVES FOR NEW UNITS AHU-1 AND VAV-7, AND A 2 WAY MODULATING CHILLED WATER CONTROL VALVE FOR NEW AHU-1. ALL CONTROL VALVES SHALL BE INSTALLED BY THE MECHANICAL CONTRACTOR AND WIRED BY THE ATC.
ACTUATORS ON ALL MOTORIZED DAMPERS ASSOCIATED WITH NEW UNITS AHU-1 AND ACU-6 (OUTDOOR AIR, RETURN AIR AND RELIEF EXHAUST) SHALL BE REPLACED WITH NEW. ALL REQUIRED DEVICES AND CONTROL WIRING SHALL BE EXTENDED/MODIFIED TO SUIT. ATC SHALL PROVIDE ACTUATOR FOR NEW VAV-7 IN THE TRAINING CLASSROOM.
FOR NEW UNIT AHU-1 THE ATC SHALL PROVIDE ALL CONTROLLERS, DUCT MOUNTED STATIC PRESSURE, TEMPERATURE AND HUMIDITY SENSORS, FREEZE PROTECTION SAFETIES, RELAYS, CONTROL TRANSFORMERS, LOW VOLTAGE WIRING, PROGRAMMING, ETC TO PERFORM THE SEQUENCE OF OPERATION.
FOR ACU-6, THE ATC SHALL PROVIDE DUCT MOUNTED TEMPERATURE SENSORS, STATIC PRESSURE SENSORS, SAFETIES, RELAYS, DEVICES AND LOW VOLTAGE WIRING REQUIRED FOR A FULLY OPERATIONAL SYSTEM. THE CONTRACTOR AND ALL SPACE SENSORS SHALL BE FACTORY SUPPLIED WITH THE UNIT AND INSTALLED BY THE MECHANICAL CONTRACTOR.
ALL CONTROLLERS, STATIC PRESSURE SENSORS AND ASSOCIATED RELAYS, DEVICES AND LOW VOLTAGE CONTROL WIRING SHALL BE PROVIDED BY THE ATC FOR RETURN FAN RF-1 AND EXHAUST FAN EF-1.

CONTROLS
AHU-1
PROVIDE AUTOMATIC ELECTRONIC CONTROLS AND SAFETIES INCLUDING BUT NOT LIMITED TO EQUIPMENT CONTROLLER INCLUDING SUPPLY AIR DISCHARGE AIR TEMPERATURE SENSOR, RETURN AIR TEMPERATURE SENSOR AND OUTDOOR AIR TEMPERATURE SENSORS, PROVIDE DUAL ENTHALPY CONTROLLER TO MODULATE RETURN AIR, O.A. AND RELIEF AIR MOTORIZED DAMPERS IN ECONOMIZER MODE WITH FAULT DETECTION AND DIAGNOSTICS INCLUDING:
THE BMS SHALL ENABLE AHU-1 AND MODULATE CHILLED WATER AND HOT WATER MODULATING CONTROL VALVES BASED ON THE OWNER'S OCCUPANCY SCHEDULE. OCCUPIED HOURS SHALL BE ON A TIMED SCHEDULE PROVIDED BY THE OWNER (24/7/365). THE BMS CONTROLLER SHALL OPERATE IN OCCUPIED OR UNOCCUPIED MODE UNLESS ANY OF THE FOLLOWING DEVICES ARE ACTIVATED:
1. INTERNAL SAFETY DEVICES
2. LOW TEMPERATURE LIMIT
3. HIGH STATIC PRESSURE LIMIT.
OCCUPIED MODE (DISPATCH SHALL BE 24/7/365 OCCUPIED):
OCCUPIED DAMPER CONTROL: BMS CONTROLLER SHALL COMMAND THE FOLLOWING DAMPER CONTROL SEQUENCE:
1. INITIAL DAMPER COMMAND: MODULATE O.A. DAMPER TO THE MINIMUM POSITION AS DETERMINED BY THE TAB. INTERLOCK THE RETURN AIR DAMPER TO OPEN TO REGULATE SYSTEM PRESSURE.
2. EXHAUST AIR DAMPER SHALL REMAIN CLOSED.
OCCUPIED FAN CONTROL: BMS CONTROLLER SHALL COMMAND THE FOLLOWING FAN SEQUENCE:
A. SUPPLY FAN SHALL RUN CONTINUOUSLY.
B. RETURN FAN SHALL RUN CONTINUOUSLY.
C. BMS SHALL MONITOR DAMPER POSITIONS OF O.A, RETURN AIR AND RELIEF EXHAUST AIR DAMPERS.
D. THE EXHAUST RELIEF DAMPER SHALL TRACK THE O.A. INTAKE DAMPER AND RETURN DAMPER.
OCCUPIED HEATING MODE: BMS CONTROLLER SHALL COMMAND THE FOLLOWING SEQUENCE:
A. WHEN THE SPACE TEMPERATURE DROPS BELOW OCCUPIED SET POINT (70°F ADJ.), THE BMS CONTROLLER SHALL MODULATE THE HOT WATER HEATING CONTROL VALVE AS REQUIRED TO MAINTAIN A SUPPLY AIR DISCHARGE TEMP OF 85°F ADJ.
OCCUPIED COOLING MODE: WHEN THE SPACE TEMPERATURE RISES ABOVE THE OCCUPIED SET POINT (72°F ADJ.), THE FOLLOWING SEQUENCE SHALL BE PERFORMED:
BMS SHALL ENABLE ECONOMIZER COOLING MODE WHEN SPACE TEMPERATURE INCREASES ABOVE SET POINT AND INDOOR ENTHALPY IS GREATER THAN OUTDOOR AIR ENTHALPY. CONTROL SEQUENCE FOR ECONOMIZER COOLING:
1. MECHANICAL COOLING SHALL BE LOCKED OUT.
2. MODULATE O.A, RETURN AIR AND EXHAUST/RELIEF DAMPERS AS REQUIRED TO MEET SUPPLY AIR TEMPERATURE SET POINT (56°F ADJ.).
3. EXHAUST AIR DAMPER SHALL MODULATE TO PREVENT OVER PRESSURIZATION. RETURN AIR AND O.A. SHALL ALL TRACK EACH OTHER.
4. EXHAUST FAN EF-1 (ASSOCIATED WITH AHU-1) SHALL RUN DURING ECONOMIZER MODE.
BMS SHALL INDEX CONTROLLER TO MECHANICAL COOLING MODE WHEN SPACE TEMPERATURE SET POINT INCREASES ABOVE OCCUPIED TEMP SET POINT AND ECONOMIZER COOLING CONTROL IS NOT ENABLED. MECHANICAL COOLING SHALL PERFORM THE FOLLOWING SEQUENCE:
A. BMS CONTROLLER SHALL MODULATE THE 2 WAY CHILLED WATER CONTROL VALVE AS REQUIRED TO MAINTAIN SUPPLY AIR TEMPERATURE SET POINT (56°F ADJ.). DISCHARGE TEMP SHALL BE MONITORED ON THE LEAVING FACE OF THE CHILLED WATER COOLING COIL.
RETURN FANS RF-1 AND EXHAUST FAN EF-1:
BMS SHALL INTERLOCK RETURN FANS AS FOLLOWS:
A. INTERLOCK RF-1 WITH SUPPLY FAN IN AHU-1
B. INTERLOCK EXHAUST FAN EF-1 WITH SUPPLY FAN IN AHU-1.
OCCUPIED DEHUMIDIFICATION MODE CONTROL FOR AHU-1
THE BMS SHALL INDEX TO DEHUMIDIFICATION MODE WHEN THE SPACE OCCUPIED DEWPOINT TEMPERATURE INCREASES ABOVE OCCUPIED SETPOINT (54°F ADJ) AND COOLING OR HEATING MODE IS NOT ACTIVATED. DEHUMIDIFICATION SEQUENCE SHALL BE:
A. MODULATE O.A DAMPER AND RETURN AIR DAMPERS TO MAINTAIN MINIMUM O.A. BASED ON PRE-DETERMINED TAB. REFER TO SCHEDULE FOR MINIMUM O.A. FLOW RATES. RELIEF/EXHAUST DAMPER SHALL BE FULLY CLOSED.
B. BMS CONTROLLER SHALL MODULATE THE 2 WAY CHILLED WATER CONTROL VALVE AS REQUIRED TO ACHIEVE A LEAVING AIR TEMPERATURE OF 54°F (ADJ.) OFF THE CHILLED COIL.
C. BMS CONTROLLER SHALL MODULATE THE 2 WAY HOT WATER REHEAT COIL CONTROL VALVE AS REQUIRED TO MAINTAIN A SUPPLY AIR DISCHARGE TEMPERATURE OF 65°F (ADJ.). THE SUPPLY AIR TEMPERATURE SHALL INCREASE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE.
AIR HANDLER ACU-6:
THE BMS SHALL ENABLE ACU-6 BASED ON THE OWNER'S OCCUPANCY SCHEDULE. OCCUPIED HOURS SHALL BE ON A TIMED SCHEDULE PROVIDED BY THE OWNER. THE FACTORY CONTROLLER SHALL OPERATE IN OCCUPIED OR UNOCCUPIED MODE UNLESS ANY OF THE FOLLOWING DEVICES ARE ACTIVATED:
1. INTERNAL SAFETY DEVICES
2. LOW TEMPERATURE LIMIT
3. HIGH STATIC PRESSURE LIMIT.
ACU-6:
PROVIDE FACTORY AUTOMATIC ELECTRONIC CONTROLS AND SAFETIES INCLUDING BUT NOT LIMITED TO EQUIPMENT CONTROLLER INCLUDING SUPPLY AIR DISCHARGE AIR TEMPERATURE SENSOR, RETURN AIR TEMPERATURE SENSORS.
FOR EACH CONDENSING UNIT (CU-6), PROVIDE COMPRESSOR STAGING AND STAGED HEATING FUNCTIONS. CONDENSING UNITS SHALL BE INTERLOCKED WITH THEIR ASSOCIATED AHU (ACU-6).
THE FACTORY CONTROLLER SHALL ENABLE ACU-6 AND CONDENSING UNIT CU-6 BASED ON THE OWNER'S OCCUPANCY SCHEDULE. OCCUPIED HOURS SHALL BE ON A TIMED SCHEDULE PROVIDED BY THE OWNER. THE FACTORY CONTROLLER SHALL OPERATE IN OCCUPIED OR UNOCCUPIED MODE UNLESS ANY OF THE FOLLOWING DEVICES ARE ACTIVATED:
1. INTERNAL SAFETY DEVICES
2. LOW TEMPERATURE LIMIT
3. HIGH STATIC PRESSURE LIMIT.
UNOCCUPIED MODE (ACU-6):
BMS SHALL COMMAND THE FOLLOWING UNOCCUPIED SEQUENCE:
A. OUTSIDE AIR DAMPER SHALL BE FULLY CLOSED
B. RETURN AIR DAMPER SHALL BE FULLY OPEN
BMS SHALL COMMAND THE FOLLOWING UNOCCUPIED FAN CONTROL SEQUENCE:
A. SUPPLY FAN SHALL BE OFF UNLESS UNOCCUPIED HEATING OR COOLING MODE IS ACTIVATED.
BMS SHALL COMMAND THE FOLLOWING UNOCCUPIED HEATING SEQUENCE:
A. WHEN THE SPACE TEMPERATURE DROPS BELOW THE UNOCCUPIED TEMP SET POINT (60°F ADJ.), THE FOLLOWING SEQUENCE SHALL BE PERFORMED
1. SUPPLY FAN SHALL START
2. THE FACTORY CONTROLLER SHALL ENABLE DX CONDENSING UNIT CU-6 AS TO HEATING MODE AND MODULATE THE REFRIGERANT AS REQUIRED TO MAINTAIN A SUPPLY AIR TEMPERATURE SET POINT (85°F ADJ.). THE DISCHARGE TEMP SHALL BE MONITORED BY THE BMS ON THE LEAVING FACE OF THE DX COIL.
BMS SHALL COMMAND THE FOLLOWING UNOCCUPIED COOLING SEQUENCE:
A. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING TEMP SET POINT (78°F ADJ) THE FOLLOWING SEQUENCE SHALL BE PERFORMED
1. FACTORY CONTROLLER SHALL COMMAND ACU-6 SUPPLY FAN TO OPERATE AT A PRE-DETERMINED FAN SPEED AS DETERMINED BY THE TAB.
2. BMS CONTROLLER SHALL ENABLE DX COMPRESSOR(S) AS REQUIRED TO MAINTAIN A SUPPLY DISCHARGE TEMP OF 58°F ADJ.

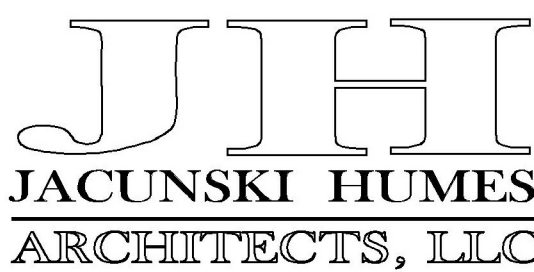
OCCUPIED MODE:
OCCUPIED DAMPER CONTROL: BMS CONTROLLER SHALL COMMAND THE FOLLOWING DAMPER CONTROL SEQUENCE:
1. INITIAL DAMPER COMMAND: MODULATE O.A. DAMPER TO THE MINIMUM POSITION AS DETERMINED BY THE TAB. INTERLOCK THE RETURN AIR DAMPER TO OPEN TO REGULATE SYSTEM PRESSURE.
OCCUPIED FAN CONTROL: FACTORY CONTROLLER SHALL COMMAND THE FOLLOWING FAN SEQUENCE:
A. SUPPLY FAN SHALL RUN CONTINUOUS DURING OCCUPIED MODE TO A PRE-DETERMINED FREQUENCY SET POINT.
B. BMS SHALL MONITOR DAMPER POSITIONS OF O.A. DAMPER.
OCCUPIED HEATING MODE: BMS CONTROLLER SHALL COMMAND THE FOLLOWING SEQUENCE:
A. WHEN THE SPACE TEMPERATURE DROPS BELOW OCCUPIED SET POINT (70°F ADJ.), THE FACTORY CONTROLLER SHALL MODULATE DX REFRIGERANT IN HEATING MODE AS REQUIRED TO MAINTAIN A SUPPLY AIR DISCHARGE TEMP OF 85°F ADJ.
OCCUPIED COOLING MODE: WHEN THE SPACE TEMPERATURE RISES ABOVE THE OCCUPIED SET POINT (72°F ADJ.), THE FOLLOWING SEQUENCE SHALL BE PERFORMED:
FACTORY CONTROLLER SHALL INDEX TO MECHANICAL COOLING MODE WHEN SPACE TEMPERATURE SET POINT INCREASES ABOVE OCCUPIED TEMP SET POINT (72°F ADJ.). MECHANICAL COOLING SHALL PERFORM THE FOLLOWING SEQUENCE:
A. FACTORY CONTROLLER SHALL MODULATE REFRIGERANT FLOW OF THE DX CONDENSING UNIT AS REQUIRED TO MAINTAIN SUPPLY AIR TEMPERATURE SET POINT (56°F ADJ.). DISCHARGE TEMP SHALL BE MONITORED ON THE LEAVING FACE OF THE DX COOLING COIL.
VAV BOX VAV-7 OCCUPIED MODE:
COOLING MODE:
THE BMS SHALL MODULATE VAV-7 ACTUATOR BASED ON SPACE TEMPERATURE. WHEN THE SPACE COOLING TEMPERATURE RISES ABOVE THE COOLING SET POINT TEMPERATURE (72°F ADJ) THE BMS SHALL MODULATE THE VAV DAMPER OPEN. AS THE COOLING SETPOINT TEMPERATURE ACHIEVES SET POINT, THE ACTUATOR SHALL MODULATE CLOSED.
HEATING MODE:
THE BMS SHALL MODULATE VAV-7 ACTUATOR BASED ON SPACE TEMPERATURE. WHEN THE SPACE HEATING TEMPERATURE FALLS BELOW SPACE HEATING TEMPERATURE SETPOINT (70°F ADJ.), THE VAV ACTUATOR SHALL MODULATE OPEN AND THE 2 WAY MODULATING HOT WATER REHEAT CONTROL VALVE SHALL OPEN TO ACHIEVE A SUPPLY DISCHARGE TEMPERATURE OF 90°F (ADJ.). AS THE SPACE TEMPERATURE APPROACHES SETPOINT, THE HOT WATER HEATING CONTROL VALVE SHALL MODULATE CLOSED AND THE DAMPER ACTUATOR SHALL MODULATE CLOSED.

IN UNOCCUPIED COOLING MODE, THE VAV ACTUATOR SHALL REMAIN IN THE MINIMUM POSITION.
IN UNOCCUPIED HEATING MODE, IF THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING SET POINT (60°F ADJ), THE VAV DAMPER ACTUATOR SHALL MODULATE OPEN AND THE 2 WAY HOT WATER CONTROL VALVE SHALL MODULATE OPEN TO MAINTAIN A SUPPLY AIR DISCHARGE TEMP OF 90°F (ADJ.), AS THE SPACE TEMPERATURE APPROACHES UNOCCUPIED HEATING TEMPERATURE SET POINT, THE DAMPER ACTUATOR AND 2 WAY HOT WATER HEATING CONTROL VALVE SHALL MODULATE CLOSED.
VRF SYSTEM FAC-TR-1 AND CU-TR-1:
THE VRF SYSTEM FOR THE TRAINING CLASSROOM (PHASE 3) SHALL BE USED AS A SECONDARY/SUPPLEMENTAL SYSTEM. THE NEW VAV-7 SHALL BE THE PRIMARY SOURCE OF HEATING AND COOLING FOR THE TRAINING CLASSROOM. THE VRF SYSTEM SHALL BE PROVIDED WITH FACTORY CONTROLLER AND SENSORS. THE BMS SHALL ENABLE THE VRF SYSTEM (CU-TR-1 AND FCU-TR-1) WHENEVER THE SPACE COOLING TEMPERATURE RISES ABOVE VRF OCCUPIED SET POINT (74°F ADJ) WITH THE VAV-7 ACTUATOR OPEN 100% FOR A TIME PERIOD OF 10 MINUTES (ADJ.). THE FACTORY VRF CONTROLLER SHALL MODULATE THE FLOW OF REFRIGERANT TO SUIT SPACE TEMPERATURE. BMS SHALL MONITOR THE OPERATION OF THE VRF SYSTEM.



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INTERIOR RENOVATIONS TO
NAUGATUCK POLICE DEPARTMENT
CENTRAL DISPATCH FACILITY
FY27-B138
211 SPRING STREET
NAUGATUCK, CONNECTICUT



15 MASSIRIO DRIVE
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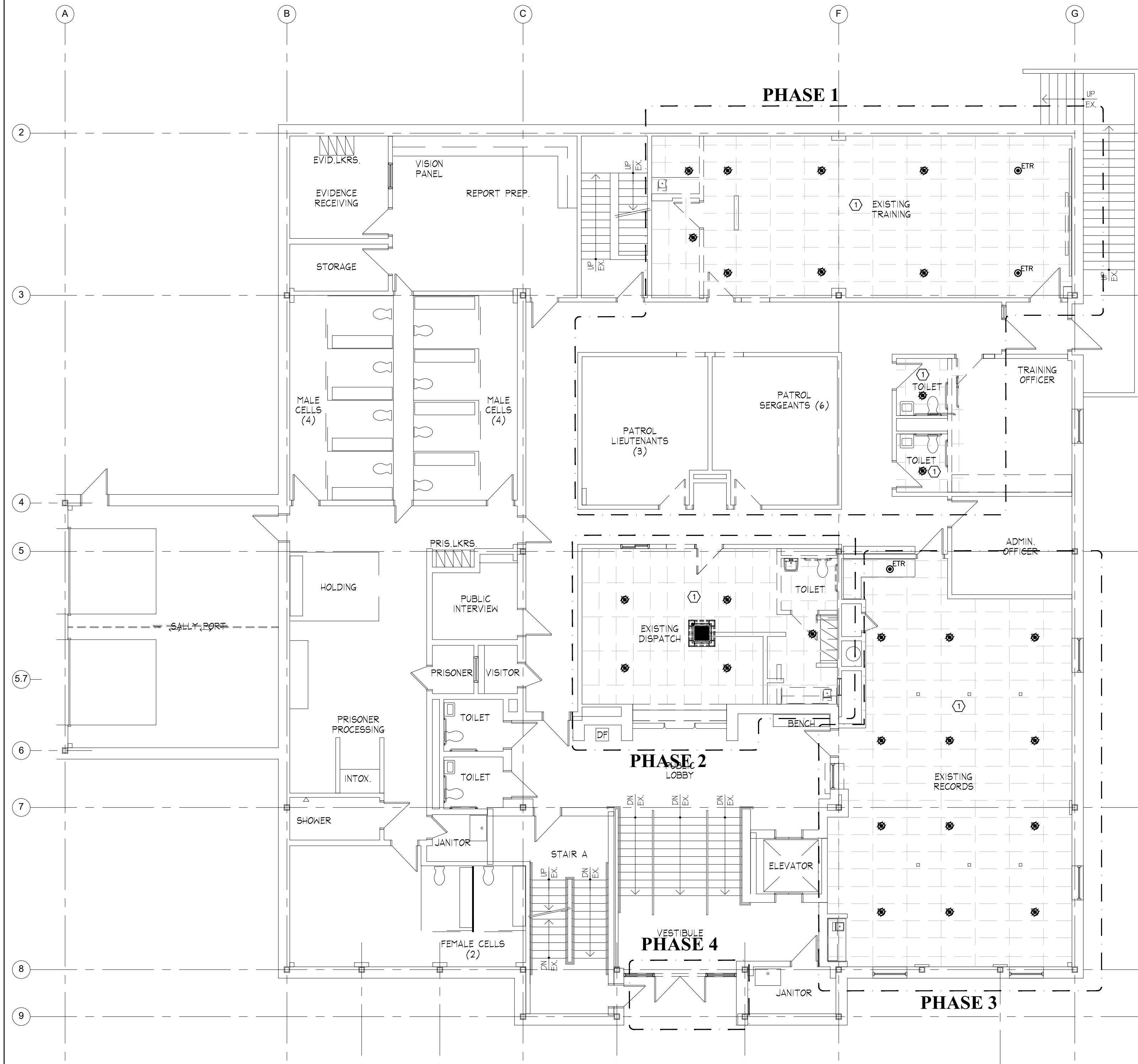
MECHANICAL
TEMP CONTROL
SPECIFICATIONS

PROJ. NO. JH2516	DRAWING NO.
SCALE: NOT TO SCALE	M-6
DATE: JULY 6, 2026	

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FIRE PROTECTION DEMOLITION NOTE

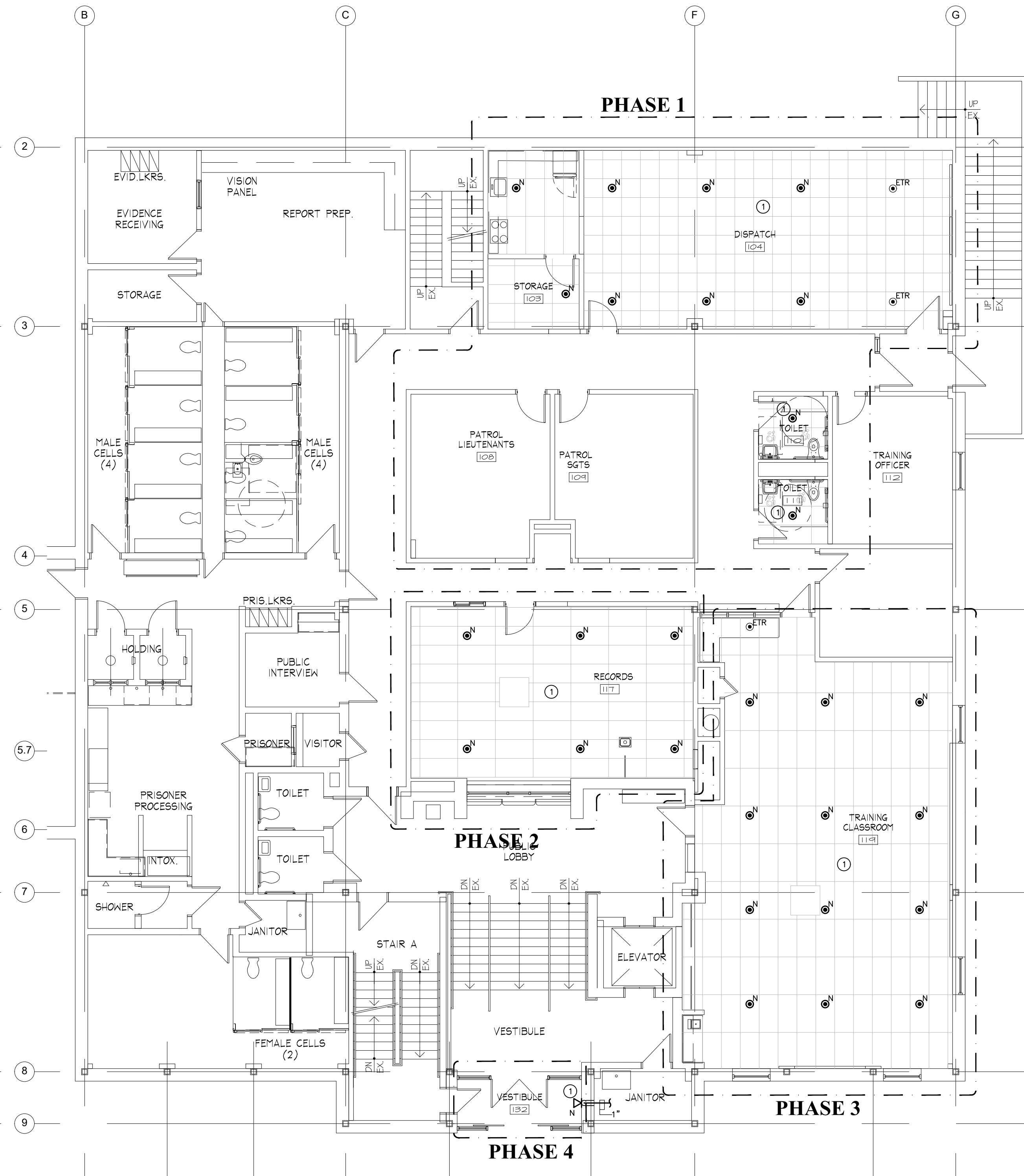
① DISCONNECT, AND REMOVE EXISTING SPRINKLER HEADS IN AREA AS NOTED ON THE DRAWING, AND CAP BRANCH PIPING THAT IS ASSOCIATED WITH SPRINKLER HEAD UNLESS NOTED OTHERWISE.



FIRST FLOOR FIRE PROTECTION DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

FIRE PROTECTION DRAWING NOTE

① PROVIDE NEW SPRINKLER HEADS IN AREA AS NOTED ON THE DRAWING, AND CONNECT TO EXISTING WET SPRINKLER PIPING SYSTEM UNLESS NOTED OTHERWISE.



FIRST FLOOR FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0"

**INTERIOR RENOVATIONS TO
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**FIRST FLOOR
FIRE
PROTECTION
PLANS**

PROJ. NO. JH2516
SCALE: 1/8" = 1'-0"
DATE: JULY 6, 2026
DRAWING NO. **FP-1**

FIRE PROTECTION SPECIFICATIONS

TECHNICAL REQUIREMENTS

THESE SPECIFICATIONS CALL OUT CERTAIN DUTIES OF THE CONTRACTOR AND HIS SUBCONTRACTOR. THEY ARE NOT INTENDED AS SUBCONTRACT DOCUMENTS, NOR ARE THEY INTENDED AS A MATERIAL LIST OF ITEMS REQUIRED BY THE CONTRACT.

PROVIDE ALL ITEMS AND WORK CALLED FOR IN THIS DIVISION OF THE SPECIFICATIONS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THIS INCLUDES ALL INCIDENTALS, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, SUPERVISION LABOR, CONSUMABLE ITEMS, FEES, LICENSES, ETC., NECESSARY TO PROVIDE COMPLETE SYSTEMS. PERFORM START UP AND CHECK OUT EACH ITEM AND SYSTEM TO PROVIDE FULLY OPERABLE SYSTEMS.

INTENT OF DRAWINGS

PIPING SHOWN ON DRAWINGS IS DIAGRAMMATIC, AND INDICATES GENERAL ARRANGEMENT OF WORK. LOCATE SPRINKLER HEADS AS INDICATED ON DRAWINGS, CONNECT TO EXISTING, OR RUN NEW PIPING, AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM IN ACCORDANCE WITH NFPA 13.

DO NOT SCALE DRAWINGS. CHECK EXISTING SPACE CONDITIONS AT THE JOB SITE.

CODES AND STANDARDS

INTERNATIONAL BUILDING CODE IBC, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

INTERNATIONAL FIRE CODE IFC, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

THE 2022 STATE OF CONNECTICUT FIRE PREVENTION CODE.

THE 2022 STATE OF CONNECTICUT FIRE SAFETY CODE.

NFPA 101, LIFE SAFETY CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

NFPA 70: NATIONAL ELECTRICAL CODE, 2020 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

NFPA 13 2019 EDITION.

NFPA 72: NATIONAL FIRE ALARM CODE, 2019 EDITION.

OCCUPATIONAL SAFETY AND HEALTH STANDARDS.

DEPARTMENT OF ENVIRONMENTAL PROTECTION.

INTERNATIONAL ENERGY CONSERVATION CODE, 2021, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

STATE DEMOLITION CODE.

LOCAL BUILDING CODE.

ICC/ANSI A117.1, 2017, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, AS AMENDED BY THE STATE OF CONNECTICUT 2018 AMENDMENTS.

COMPLY WITH ALL APPLICABLE GOVERNMENTAL REGULATIONS. COMPLY WITH ALL FEDERAL, STATE, CITY, INSURANCE UNDERWRITERS AND OTHER APPLICABLE CODES AND ORDINANCES. IF ANY CONFLICT ARISES BETWEEN THESE SPECIFICATIONS, CODES AND ORDINANCES, IMMEDIATELY NOTIFY THE ENGINEER. DO NOT DEVIATE FROM THE SPECIFICATIONS NOR INSTALL ANY WORK WHICH MAY BE IN CONFLICT WITH CODES AND ORDINANCES UNTIL THE CONFLICT IS RESOLVED AND THE SOLUTION APPROVED BY THE ENGINEER.

SUBMITTALS

PRODUCT DATA: SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA, INCLUDING RATED CAPACITIES OF SELECTED MODEL CLEARLY INDICATED, FURNISHED SPECIALTIES AND ACCESSORIES; AND INSTALLATION INSTRUCTIONS.

SHOP DRAWINGS: SUBMIT MANUFACTURER'S ASSEMBLY TYPE SHOP DRAWINGS INDICATING DIMENSIONS, ROUGHING-IN REQUIREMENTS, REQUIRED CLEARANCES, AND METHODS OF ASSEMBLY OF COMPONENTS AND ANCHORAGES.

MAINTENANCE DATA: SUBMIT MAINTENANCE DATA AND PARTS LISTS FOR EACH TYPE OF PLUMBING FIXTURE AND ACCESSORY; INCLUDING "TROUBLE SHOOTING" MAINTENANCE GUIDE. INCLUDE THIS DATA, PRODUCT DATA AND SHOP DRAWINGS IN MAINTENANCE MANUAL.

MAKE SUBMITTALS OF SHOP DRAWINGS OF ALL FIRE PROTECTION EQUIPMENT AS FOLLOWS:

SPRINKLER HEADS

SPECIALTIES

CERTAIN TERMS SUCH AS "SHALL, PROVIDE, INSTALL, COMPLETE, START-UP" ARE NOT USED IN SOME PARTS OF THESE SPECIFICATIONS. THIS DOES NOT INDICATE ITEMS SHALL BE LESS THAN COMPLETELY INSTALLED OR THAT SYSTEMS SHALL BE LESS THAN COMPLETE.

CONFORM THE FIRE PROTECTION WORK TO THE REQUIREMENTS HEREIN, PROVIDE OFFSETS, FITTINGS, DRAINS AND ACCESSORIES WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING THE WORK, AND ARRANGE THE WORK ACCORDINGLY. PROVIDE SUCH PIPING, FITTINGS, VALVES AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS.

SUBMIT SHOP DRAWINGS OR CATALOG CUTS APPROVED BY "INSURANCE COMPANY" SHOWING NEW SPRINKLER EQUIPMENT, ALARM EQUIPMENT, VALVES AND GAGES.

SUBMIT, FOR ENGINEER AND OWNER'S USE TWO PRINT COPIES OF UPDATED WORKING DRAWINGS STAMPED "APPROVED" BY INSURANCE COMPANY.

SUBMIT, TO BOTH STATE AND LOCAL FIRE MARSHAL, ONE SIGNED COPY OF "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE".

SUBMIT WORKING SPRINKLER DRAWINGS TO LOCAL FIRE MARSHAL.

A COMPLETE SET OF DETAILED CONTRACTOR'S INSTALLATION DRAWINGS TO INCLUDE A FULL HEIGHT CROSS SECTION, LOCATIONS OF ALL WALLS, PARTITIONS, LIGHTS, DIFFUSERS, GRIDS, MAJOR EQUIPMENT AND DUCTWORK, SIZE OF SITE WATER MAIN AND PRESSURE, NOMINAL PIPE SIZES, CUTTING LENGTHS AND FINISHED FLOOR TO PIPE ELEVATION LENGTH, LOCATION OF ALL VALVES, MAINS, BRANCH PIPING AND SPRINKLER HEADS HYDRAULIC NAMEPLATE DATA AND ALL PERTINENT INFORMATION.

SUBMITTAL INFORMATION OUTLINED IN NFPA 13 SECTION 1-9.

A COMPLETE SET OF DETAILED HYDRAULIC CALCULATIONS FOR EACH SYSTEM WITH HYDRAULIC REFERENCE POINTS, AS PER NFPA 13. SUBMITTAL INFORMATION OUTLINED IN NFPA 13 SECTION 7-3.

PERMITS AND FEES

SECURE AND PAY COSTS OF PERMITS, CERTIFICATES, LICENSES, INSPECTIONS AND APPROVALS.

ADJUSTMENTS

UPON COMPLETION OF WORK, PERFORM THE FOLLOWING ADJUSTMENT PROCEDURES:

ADJUST SYSTEMS COMPONENTS FOR PROPER PERFORMANCE. OPEN AND CLOSE VALVES, SET IN PROPER OPERATING POSITION.

ACCESSIBILITY

PLACE VALVES, UNIONS, DRAINS, AND ITEMS REQUIRING MAINTENANCE, ADJUSTMENT, OR REPAIR, IN ACCESSIBLE LOCATIONS. COORDINATE ACCESS PANELS WITH ARCHITECT.

APPROVALS

OBTAIN INSURANCE SERVICE'S OFFICE APPROVAL OF WORKING DRAWINGS. OBTAIN CERTIFICATES OF APPROVAL FROM FIRE ADMINISTRATION OFFICIAL.

REFERENCE PUBLICATIONS

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) PUBLICATIONS ARE REFERRED TO HEREIN, BECAUSE THESE PUBLICATIONS ARE REVISED FREQUENTLY, DATES FOLLOWING PUBLICATION NUMBERS HAVE BEEN OMITTED. REFER TO LATEST EDITION.

COORDINATION OF WORK

FIRE PROTECTION SYSTEMS SHALL BE COMPLETELY OPERATIONAL UPON COMPLETION OF WORK. RE-PIPE AND RECONFIGURE SYSTEM FEED AND CROSS MAINS (AS REQUIRED) BACK TO AUTOMATIC SPRINKLER RISER FOR WATER SUPPLY. TEST AND ENSURE THAT ALARM AND TEST EQUIPMENT IS OPERATIONAL.

CAREFULLY CHECK SPACE REQUIREMENTS WITH OTHER TRADES TO INSURE THAT ALL MATERIALS CAN BE INSTALLED IN THE SPACES ALLOTTED THERETO, INCLUDING FINISHED SUSPENDED CEILING.

TRANSMIT TO OTHER TRADES ALL INFORMATION REQUIRED FOR WORK TO BE PROVIDED UNDER THEIR RESPECTIVE SECTIONS IN AMPLE TIME FOR INSTALLATION.

WHEREVER WORK INTERCONNECTS WITH WORK OF OTHER TRADES, COORDINATE WITH OTHER TRADES TO INSURE THAT ALL TRADES HAVE THE INFORMATION NECESSARY SO THEY MAY PROPERLY INSTALL ALL THE NECESSARY CONNECTIONS AND EQUIPMENT. IDENTIFY ALL WORK ITEMS (VALVES, DRAINS, ETC.) IN AN APPROVED MANNER IN ORDER THAT THE CEILING SUBCONTRACTOR WILL KNOW WHERE TO INSTALL ACCESS DOORS AND PANELS.

CONSULT WITH OTHER TRADES REGARDING EQUIPMENT SO, WHEREVER POSSIBLE, MOTORS AND CONTROL ARE OF THE SAME MANUFACTURER.

FURNISH AND SET ALL SLEEVES FOR PASSAGE OF PIPES AND CONDUITS THROUGH STRUCTURAL MASONRY AND CONCRETE WALL AND FLOORS, AND ELSEWHERE AS WILL BE REQUIRED FOR THE PROTECTION OF EACH PIPE PASSING THROUGH BUILDING SURFACES.

PROVIDE REQUIRED SUPPORTS AND HANGERS FOR PIPING, FIXTURES AND EQUIPMENT, SO LOADING WILL NOT EXCEED ALLOWABLE LOADINGS OF STRUCTURE.

PIPING IDENTIFICATION

CONSPICUOUSLY IDENTIFY NEW PIPING WITH SELF-ADHERING VINYL PLASTIC COLOR BANDS AND PIPE MARKERS PRINTED WITH THE FOLLOWING LEGEND, BASED ON ANSO A13.1 "SCHEME FOR THE IDENTIFICATION OF PIPING SYSTEMS".

APPLY LEGENDS TO FEED AND CROSS MAIN PIPING ADJACENT TO CHANGES IN DIRECTION WHERE PIPES PASS THROUGH WALLS OR FLOORS, AT INTERVALS NOT EXCEEDING 40 FEET IN STRAIGHT PIPING RUNS, AND ADJACENT TO CROSS MAIN CONNECTIONS WITH FEED MAIN.

MINIMUM LETTER SIZE:

1/2" FOR PIPING 3/4" TO 1-1/4" OD

3/4" FOR PIPING 1-1/2" TO 2" OD

1-1/4" FOR PIPING 2-1/2" TO 6" OD

MINIMUM COLOR BAND WIDTH:

8" FOR PIPING 3/4" TO 2" OD

12" FOR PIPING 2-1/2" TO 6" OD

IDENTIFICATION SIGNS

PROVIDE ENAMELED STEEL IDENTIFICATION SIGNS FOR ALL NEW ALARM DEVICES AND ALL NEW CONTROL, DRAIN AND TEST VALVES.

OPERATING INSTRUCTIONS

INSTRUCT OWNER'S OPERATING PERSONNEL ON PROPER CARE, MAINTENANCE AND OPERATING PROCEDURES.

MAINTENANCE MANUAL

INCLUDE FOLLOWING IN MANUALS:

MANUFACTURER'S DESCRIPTIVE DATA
OPERATION AND MAINTENANCE INSTRUCTIONS
REPLACEMENT PART LISTS
WIRING DIAGRAMS
MANUFACTURER'S WARRANTY & SERVICE CERTIFICATES
INSTRUCTIONS FOR PERIODIC CLEANING AND MAINTENANCE
PROCEDURES FOR SYSTEMS START-UP AND SHUT-DOWN
VALVE LOCATION AND TAG NUMBER CHARTS
NFPA 25 "CARE AND MAINTENANCE OF SPRINKLER SYSTEMS"

CLEANING

CLEAN PIPING PRIOR TO PAINTING.

UPON COMPLETION OF WORK, PERFORM THE FOLLOWING CLEANING PROCEDURES:

REMOVE PROTECTIVE COVERS AFTER PAINTING

CLEAN PIPING AND EQUIPMENT

REMOVE SURPLUS MATERIALS AND RUBBISH

RESTORE DAMAGED SURFACE FINISHES

ADJUSTMENTS

UPON COMPLETION OF WORK, PERFORM THE FOLLOWING ADJUSTMENT PROCEDURES:

ADJUST SYSTEMS COMPONENTS FOR PROPER PERFORMANCE. OPEN AND CLOSE VALVES, SET IN PROPER OPERATING POSITION. SEAL CONTROL VALVES OPEN

GUARANTEE

SUPPLY TWO COPIES OF A WARRANTY COUNTERSIGNED AND GUARANTEED BY CONTRACTOR, STATING THAT IMPERFECT SYSTEM OPERATION AND ALL DEFECTS IN LABOR AND MATERIALS OF FIRE PROTECTION WORK WILL BE REPAIRED WITHOUT COST TO OWNER FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION, AND STATING THAT ALL FIRE PROTECTION EQUIPMENT HAS BEEN FULLY SERVICED AND LEFT IN PROPER OPERATING CONDITION.

ALSO GUARANTEE THAT SERVICING WILL BE PROVIDED WITHOUT COST DURING GUARANTEE PERIOD.

PIPE SLEEVE INSTALLATION

PROVIDE FOR PIPING PASSING THROUGH WALLS, PARTITIONS AND SLAB, SLEEVES SIZED AT LEAST 1 INCH LARGER THAN OD OF PIPE.

SLEEVES ARE REQUIRED FOR PIPING PASSING THROUGH FIRE-RATED WALLS CONSTRUCTED OF METAL STUDS AND GYPSUM WALLBOARD.

TERMINATE SLEEVES THROUGH WALLS, PARTITIONS AND CEILINGS FLUSH WITH FINISHED SURFACES. THROUGH SLABS 1/2" ABOVE FLOOR FINISH IN HABITABLE SPACES AND 2" ABOVE ROUGH FINISH IN PIPE SPACES AND OTHER UNFINISHED AREAS.

SET SLEEVES IN PLACE BEFORE PLACING CONCRETE, OR SECURELY FASTEN AND GROUT IN PLACE WITH CONCRETE. EXERCISE CARE IN LOCATING AND SETTING OF SLEEVES TO ASSURE ACCURATE ALIGNMENT. IN ABSENCE OF SLEEVES, USE CORE DRILLED HOLES AND PROVIDE SUCH PIPING TO PREVENT PASSAGE OF WATER.

FILL VOID SPACES BETWEEN PIPING AND PIPE SLEEVES WITH PENETRATION SEAL, OR APPROVED ELASTOMERIC CAULKING MATERIALS.

ESCUTCHEON INSTALLATION

PROVIDE ESCUTCHEONS ON PIPE PROTRUSIONS AT WALLS, PARTITIONS, CEILING AND FLOORS. ESCUTCHEONS SHALL FIT SNUGLY AROUND PIPING AND COVER SURFACE OPENING.

FIRE STOPPING

FILL VOID SPACE BETWEEN PIPING AND PIPING SLEEVES WITH DOW CORNING 3 - 6548 RTV SILICONE FOAM, OR WITH FIBROUS GLASS SEALED WITH FIRE TESTED AND APPROVED ELASTOMERIC CAULKING MATERIALS.

ACCESSORIES

FLANGE DIMENSIONS: DRILLING AND FACING: ANSI B16.1
PIPE THREADS: ANSI B2.1
IDENTIFICATION OF PIPING SYSTEMS: ANSI A13.1
PIPE HANGERS AND SUPPORTS: MSS SP-58, NFPA 13, NON-METALLIC PIPE
FLANGE GASKETS: ANSI B16.21

WHERE PIPING IS TO BE RUN THROUGH EXPANSION JOINTS CONTRACTOR SHALL INSTALL EXPANSION LOOPS AT THAT POINT.

PIPE HANGER COMPONENTS AND SUPPORT INSTALLATION (GENERAL)

TYPE OF HANGERS, HANGER COMPONENTS, SUPPORTS, SPACING AND INSTALLATION METHODS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA-13, CHAPTER 3-15.

PIPE SLEEVES

INTERIOR PARTITIONS: #20 GAGE GALVANIZED STEEL, LOCK SEAM JOINT.

INTERIOR MASONRY WALL AND SLABS: SCHEDULE 40 GALVANIZED STEEL PIPE.

ESCUTCHEONS

PAINTED SURFACES: PRIME COATED SHEET STEEL, BEATON & CADWELL 13 OR 40.

ACOUSTICAL SURFACES: FACTORY PAINTED TO MATCH SURFACE SHEET STEEL, BEATON & CADWELL 13 OR 40.

PREFINISHED SURFACES: CHROME PLATED CAST BRASS, BEATON & CADWELL 35.

METAL FRAMING

MATERIAL: RUST RESISTANT, CONTINUOUS SLOT STEEL CHANNEL OR SLOTTED STEEL ANGLE, WITH MATCHING FITTINGS ASSEMBLED WITH RUST RESISTANT HEX HEAD BOLTS AND NUTS.

DESIGN LOADING: AS RECOMMENDED BY MANUFACTURER.

PIPE FITTINGS AND VALVES

PIPE: SCHEDULE 40 BLACK STEEL, ASTM A53, CROSS MAIN AND BRANCH LINE PIPING AT CEILINGS JOINED BY WELDING OR BE ROLL GROOVED PIPE COUPLING MAY BE SCHEDULE 10 (LIGHT WALL) STEEL SPRINKLER PIPE, ASTM A135, SYSTEM RISERS AND FEED MAINS MUST BE SCHEDULE 40 PIPE. THREADED SCHEDULE 10 PIPING WILL NOT BE ACCEPTABLE.

THREAD FITTINGS: 175 PSI WOG MALLEABLE IRON, ANSI B16.3 AND ASTM A47.

FLANGE FITTINGS: CLASS 250, CAST IRON, ANSI B16.1, ASTM A126.

GROOVED PIPE FITTINGS: FM APPROVED MALLEABLE/DUCTILE IRON

MECHANICAL GROOVED COUPLINGS: FM APPROVED, MALLEABLE OR DUCTILE IRON HOUSING, RESILIENT ELASTOMERIC GASKET, GROOVED PIPE CONFIGURATION.

DRAIN AND TEST VALVES: ALL BRONZE THREADED AND GLOBE OR ANGLE VALVE.

CHECK VALVES - 2 INCH AND SMALLER: ALL BRONZE THREADED END.
CHECK VALVES - 2-1/2 INCH AND LARGER: IBBM, FLANGED.

CONTROL VALVES - 2-1/2 INCH AND SMALLER: ALL BRONZE, SLOW BUTTERFLY BALL WITH BUILT IN SUPERVISORY SWITCH.

CONTROL VALVES - 3 INCH AND LARGER: IBBM OSY FLANGED GATE VALVE.

TEST PIPE OUTLETS: CORROSION RESISTANT SMOOTH BORE PIPE NIPPLE HAVING FLOW EQUIVALENT TO ONE SPRINKLER.

GAUGE VALVES: 1/4" SOFT METAL SEAT GLOBE VALVE WITH DRAIN PLUG.

PRESSURE GAUGES: LISTED 3-1/2" DIAL, STEM MOUNTED, BOURDON TUBE TYPE, WITH BRASS CASE AND RING, PHOSPHOR BRONZE TUBE, BRASS SOCKET, BRASS MOVEMENT, HEAVY FLAT GLASS CRYSTAL, 0-300 PSI RANGE.

INSPECTORS TEST CONNECTION: U.L. LISTED, FM APPROVED, 300 PSI MAXIMUM WORKING PRESSURE, ONE PIECE DUCTILE IRON BODY, ASTM A536, 1-1/4" INLET AND OUTLET CONNECTIONS, EQUIPPED WITH BRONZE FITTED TEST AND DRAIN VALVES, ACRYLIC SIGHT GLASS, INSTALL 1/2" ALUMINUM ORIFICE INSETS GIVING FLOW EQUAL TO ONE SPRINKLER HEAD, VICTAULIC "TESTMASTER" STYLE 718/719.

SPRINKLER EQUIPMENT

SPRINKLER HEADS

AUTOMATIC TYPE: CONCEALED PENDENT OR SIDEWALL, TO MEET CONDITIONS AND OF PROPER TEMPERATURE RATING. DEFLECTOR TO BE MARKED TO INDICATE POSITION.

PENDENT HEADS - CONCEALED PIPING: BRIGHT CHROME PLATED BRONZE, FUSIBLE LINK, WITH SPRINKLER CUP ASSEMBLY. TYCO MODEL #TY-FRB-TY3231.

SIDEWALL: BRIGHT CHROME PLATED BRONZE, FUSIBLE LINK, WITH WALL FLANGE. TYCO MODEL #TY-FRB-TY3331.

HEAD GUARDS: REQUIRED FOR HEADS SUBJECT TO MECHANICAL INJURY.

SPARE HEADS: NOT LESS THAN 12, TOTAL NUMBER BASED ON ONE SPARE HEAD OF EACH TYPE AND RATING PER EACH 100 SIMILAR HEADS, OR PART THEREOF, INSTALLED.

SPARE HEAD CABINET: BAKED ENAMELED STEEL CABINET, HINGED COVER, OF ADEQUATE SIZE TO CONTAIN HEADS AND WRENCH.

HEAD WRENCH: PROVIDE AT LEAST ONE, WITH SUITABLE OPENINGS.

INSTALLATION

PIPE JOINTS

GENERAL: CUT PIPE ENDS SQUARE. REMOVE BURRS AND JOIN TO ORIGINAL BORE. CLEAN JOINT SURFACES PRIOR TO ASSEMBLY. WIPE OFF EXCESS JOINTING COMPOUNDS.

SCREWED: USE AMERICAN STANDARD TAPER PIPE THREADS CUT SHARP AND TRUE, AND SUITABLE FOR NORMAL ENGAGEMENT. SCREW THREADED ITEMS UP CLOSE TO SHOULDERS WITH NOT MORE THAN THREE INCOMPLETE THREADS EXPOSED. DO NOT USE LAMP WICK, CORD, WOOL, OR OTHER "WICKING" MATERIALS. REPAIR LEAKS WITH NEW MATERIALS. DO NOT PREEN OF CAULK. "TEFLON" PIPE JOINT TAPE OR JOINT COMPOUNDS COMPOSED OF RED LEAD AND GRAPHITE GROUND IN LINSEED OIL WILL BE PERMITTED, APPLIED TO MALE THREADS.

FLANGED: USE FLANGES COMPATIBLE WITH SYSTEM MATERIALS. MATING FLANGES SHALL HAVE SIMILAR FACINGS. ASSEMBLE JOINTS WITH GASKETS AND AMERICAN STANDARD CARBON STEEL BOLTS AND HEX NUTS MADE-UP WITH TORQUE LIMITING WRENCH.

GROOVED PIPE COUPLINGS: USE MANUFACTURER'S MATERIAL AND METHODS.

PAINTING

PAINT FERROUS HANGER ROD AND PIPE HANGER COMPONENTS WITH ZINC CHROMATE PRIMER, UNLESS FACTORY COATED.

VALVE SEALS

PROVIDE STURDY PADLOCKS, CHAIN AND OTHER SECURING DEVICES TO SEAL - OPEN ANY NEW INDICATING VALVES 1-1/2" AND LARGER NOT EQUIPPED WITH VALVE SUPERVISORY DEVICE.

PADLOCKS: CORROSION RESISTANT TUMBLER TYPE, BREAK RESISTANT, EXCEPT BY HEAVY DUTY BOLT CUTTERS, KEYS OR ALIKE.

PROVIDE VALVES SMALLER THAN 1-1/2" WITH CORROSION RESISTANT TAMPER-PROOF SEALS.

SPRINKLER INSTALLATION

INSPECTOR'S TEST CONNECTION: INSTALL AT END OF MOST REMOTE BRANCH LINE. PLACE TEST VALVE IN ACCESSIBLE HEATED LOCATION, NOT OVER 7 FEET ABOVE FLOOR, AND PIPE TO BUILDING EXTERIOR OR OTHER ACCESSIBLE DRAINAGE POINT. TERMINATE WITH 45 DEGREE ELBOW AND TEST PIPE OUTLET.

VALVE SUPERVISORY DEVICES: INSTALL ON ALL CONTROL VALVES.

DRAIN TERMINATIONS: PROVIDE GALVANIZED ESCUTCHEONS, 45 DEGREE ELBOW, AND PLAIN END NIPPLE.

INSTALL SPRINKLER BENEATH DUCTS AND CEILING MOUNTED EQUIPMENT MORE THAN 4 FEET WIDE.

INSTALL FIRE EXTINGUISHER IN ACCORDANCE WITH NFPA 10 LATEST APPROVED EDITION. ADHERE TO FIRE EXTINGUISHER MOUNTING HEIGHT REQUIREMENTS.

FLUSHING

FLUSH SPRINKLER PIPING BE HYDRAULIC METHOD. REMOVE PENDENT HEADS AFTER FLUSHING, AND CLEAN.

TESTS

TEST ALL PIPING UNDER HYDROSTATIC PRESSURE OF 200 PSI FOR 2 HOURS. TEST PRESSURE TO BE READ FROM A GAGE LOCATED AT THE LOWEST ELEVATION POINT OF THE SYSTEM BEING TESTED. PERMISSIBLE LEAKAGE: NOT ALLOWED.

TEST WATER FLOW ALARM DEVICES UNDER OPERATING CONDITIONS.

CLOSE AND OPEN CONTROL VALVES UNDER SYSTEM WATER PRESSURE TO ENSURE PROPER OPERATION.

EARTHQUAKE BRACE AND SURGE RESTRAINT COMPONENTS

TOLCO FIG. 1000 FAST CLAMPS, UNDERWRITERS LABORATORIES LISTED, MUST BE USED WITH TOLCO U.L. LISTED ATTACHMENTS FIG. 909 OR 910 SWIVEL FITTINGS OR FIG. 975 OR FIG. 908 STRAIGHT FITTINGS

DRAIN AND TEST VALVES: ALL BRONZE THREADED AND GLOBE OR ANGLE VALVE.

CHECK VALVES - 2 INCH AND SMALLER: ALL BRONZE THREADED END.
CHECK VALVES - 2-1/2 INCH AND LARGER: IBBM, FLANGED.

CONTROL VALVES - 2-1/2 INCH AND SMALLER: ALL BRONZE, SLOW BUTTERFLY BALL WITH BUILT IN SUPERVISORY SWITCH.

CONTROL VALVES - 3 INCH AND LARGER: IBBM OSY FLANGED GATE VALVE.

TEST PIPE OUTLETS: CORROSION RESISTANT SMOOTH BORE PIPE NIPPLE HAVING FLOW EQUIVALENT TO ONE SPRINKLER.

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PROVIDE VALVES SMALLER THAN 1-1/2" WITH CORROSION RESISTANT TAMPER-PROOF SEALS.

INSPECTOR'S TEST CONNECTION: INSTALL AT END OF MOST REMOTE BRANCH LINE. PLACE TEST VALVE IN ACCESSIBLE HEATED

- ① DISCONNECT AND REMOVE PLUMBING FIXTURE. CAP ALL ASSOCIATED PLUMBING PIPING ABOVE IN THE CEILING AND BELOW THE SLAB.
- ② DISCONNECT, REMOVE, 2" CW, 1" HW, AND 3/4" HWR IN CHASE WALL, AND RELOCATE 2" CW, 1" HW, AND 3/4" HWR INTO CORRIDOR WALL. RECONNECT TO EXISTING SYSTEMS IN THE FLOOR BELOW.

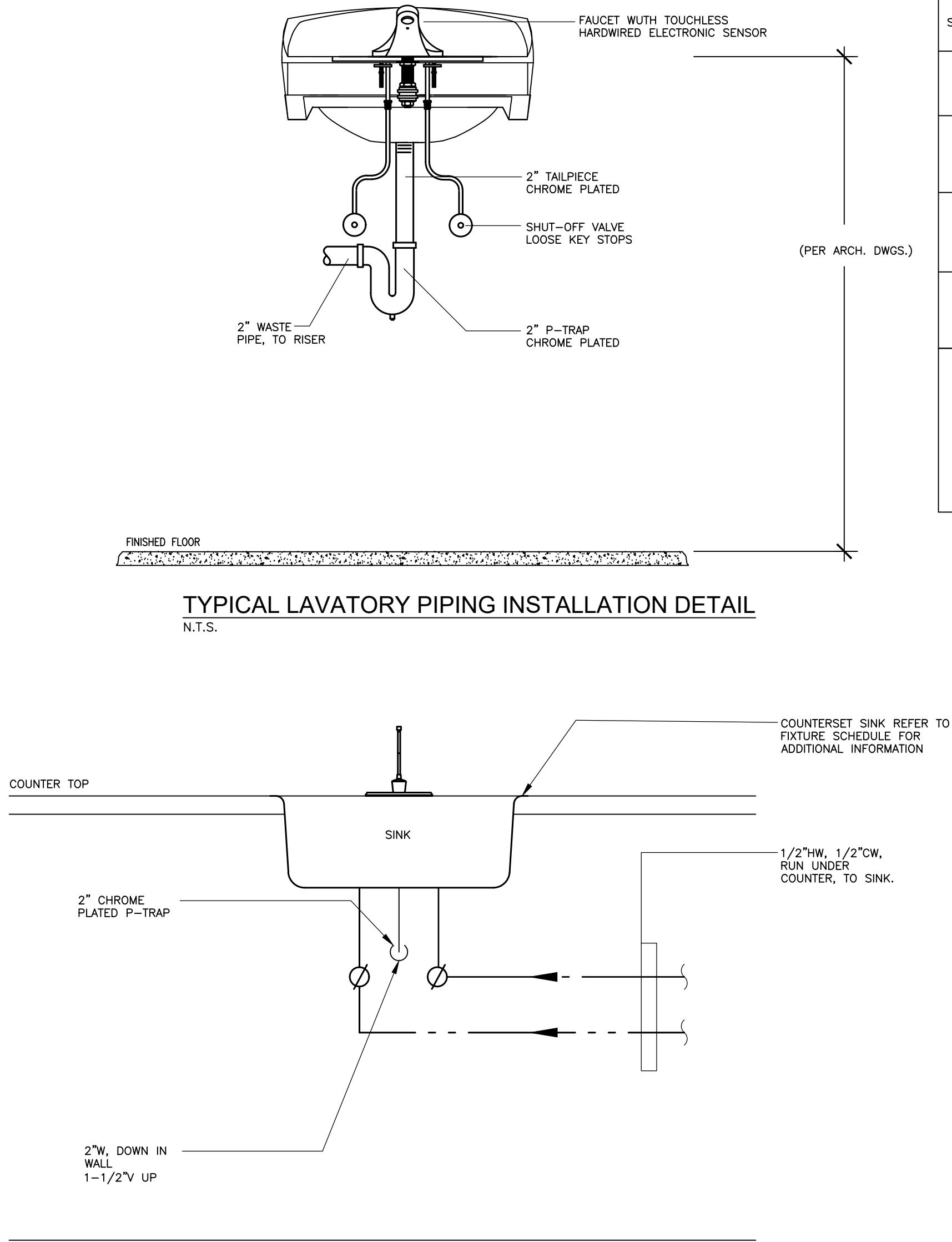
- 1 PROVIDE NEW WATER CLOSET AND CONNECT TO EXISTING PLUMBING PIPING WITH CHASE WALL. PROVIDE 4" SAN, 2" VENT, 1" CW PIPING TO WATER CLOSET. CONTRACTOR TO PROVIDE 1/2" CW PIPING TO ACCOMMODATE PLUMBING FUTURE. REFER TO DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION.
- 2 PROVIDE NEW LAVATORY AND CONNECT TO EXISTING PLUMBING PIPING WITH CHASE WALL. PROVIDE 2" SAN, 1-1/2" VENT, 1/2" HW, AND 1/2" CW PIPING TO LAVATORY. CONTRACTOR TO FIELD VERIFY CONDITIONS AND PROVIDE TO ADEQUATELY ACCOMMODATE PLUMBING FUTURE. REFER TO DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION.
- 3 PROVIDE NEW KITCHEN SINK WITH 2" SAN, 1-1/2" VENT, 1/2" HW, AND 1/2" CW PIPING. REFER TO DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION.
- 4 PROVIDE NEW KITCHEN SINK WITH 2" SAN, 1-1/2" VENT, 1/2" HW, AND 1/2" CW PIPING. REFER TO DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION.



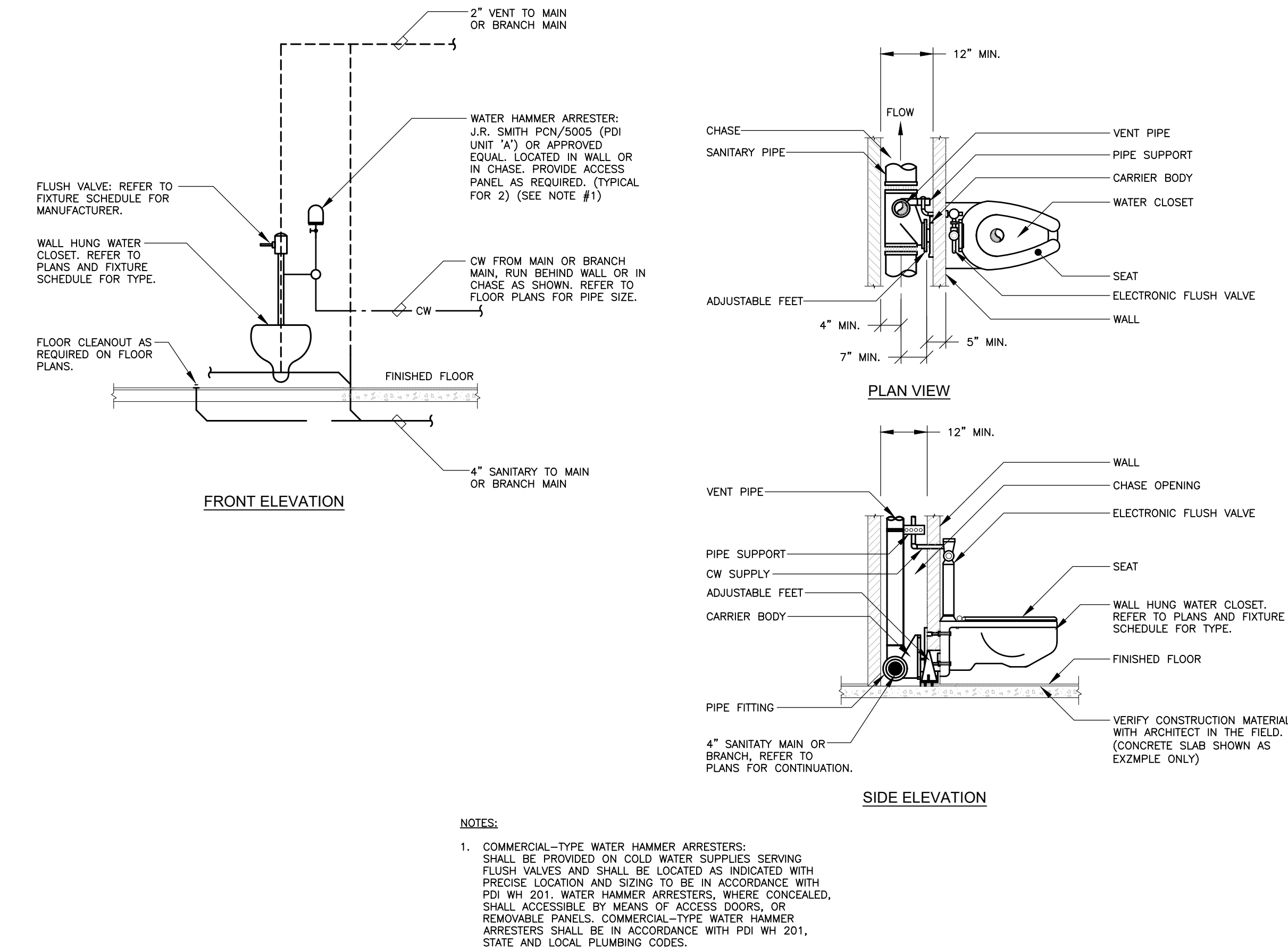
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

PROJ. NO. JH2516	DRAWING NO. <i>P-1</i>
SCALE: 1/8" = 1'-0"	
DATE: JULY 6, 2026	

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TYPICAL SINGLE BOWL SINK PIPING INSTALLATION DETAIL (P3)
(STANDARD AND ACCESSIBLE TYPES)
SCALE: N.T.S.



TYPICAL SINGLE WALL HUNG WATER CLOSET
SERVICE PIPING INSTALLATION DETAIL
SCALE: N.T.S.

PLUMBING FIXTURE SCHEDULE									
SYMBOL	FIXTURE TYPE	MANUFACTURER MODEL NUMBER	DESCRIPTION	ACCESSORIES	CONNECTIONS				REMARKS
					WASTE	VENT	COLD WATER	HOT WATER	
P1	WALL MOUNT WATER CLOSET	SLOAN MODEL #ST-2459	PROVIDE WHITE VITREOUS CHINA, ELONGATED BOWL, WALL MOUNT, AND TOP SPUD, 1.6 GPF, FLUSHMETER WATER CLOSET.	PROVIDE AMERICAN STANDARD TOILET SEAT, MODEL #5901.110T, SLOAN SENSOR HARDWARE ELECTRONIC FLUSHMETER, POLISHED CHROME FINISH, MODEL #SLOAN III SF5M-1.6-CP-TMO-LT.	4"	2"	1"	-	1,2,3
P2	WALL HUNG LAVATORY	SLOAN MODEL #SS-3103	PROVIDE WHITE VITREOUS CHINA, SINGLE HOLE CENTER SET, 18 1/4" X 20 3/4" X 12 1/4", WALL MOUNT LAVATORY.	PROVIDE CHICAGO FAUCETS, TOUCHLESS HARDWIRED, ELECTRONIC SENSOR, CHROME FINISH FAUCET, MODEL #E80-AIH-47ABCF	2"	1-1/2"	1/2"	1/2"	1,3,4
P3	KITCHEN SINK	ELKAY/DAYTON MODEL #DXR2522	PROVIDE 25" X 22" X 8" SINGLE BOWL, 304 STAINLESS STEEL SINK, DROP-IN SATIN FINISH WITH CENTER DRAIN, AND SINGLE HOLE PUNCH FOR FAUCET.	PROVIDE CHICAGO MANUAL, SINGLE LEVER GOOSE NECK, DECK MOUNTED 1.5 GPM LAMINAR OUTLET, BRUSH NICKEL FAUCET MODEL #436-ABBN, PROVIDE ELKAY DRAIN FITTING MODEL #LK99.	2"	1-1/2"	1/2"	1/2"	1,4
P4	SINK	ELKAY/DAYTON MODEL #D11721	PROVIDE 17" X 21-1/4" X 6-1/2" SINGLE BOWL, 304 STAINLESS STEEL SINK, DROP-IN SATIN FINISH WITH CENTER DRAIN, AND SINGLE HOLE PUNCH FOR FAUCET.	PROVIDE CHICAGO MANUAL, SINGLE LEVER GOOSE NECK, DECK MOUNTED 1.5 GPM LAMINAR OUTLET, BRUSH NICKEL FAUCET MODEL #436-ABBN, PROVIDE ELKAY DRAIN FITTING MODEL #LK99 AND LAVATORY SUPPLY EXTENSION #LFH170LK.	2"	1-1/2"	1/2"	1/2"	1,4
NOTES:									
1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES. ALL HANDICAP ACCESSIBLE FIXTURES SHALL BE MOUNTED IN ACCORDANCE WITH ADA SPECIFICATIONS WHERE IDENTIFIED ON THE ARCHITECTURAL AND PLUMBING DRAWINGS.									
2. WATER CLOSET MINIMUM WORKING PRESSURE RANGE: 15 - 25 PSI AT FLUSH WHEN ACTIVATED. LAVATORY FAUCET HOT/COLD WATER SUPPLY MINIMUM WATER PRESSURE - 20 PSI/MAXIMUM - 125 PSI. FLOW RATE: 1.06 GPM, 0.25 GAL/CYCLE. VERIFY WATER PRESSURE AT FLUSH VALVES AND LAVATORY IN THE FIELD.									
3. PROVIDE PLUMBING FIXTURE WITH THE COLOR WHITE.									
4. PROVIDE CHROME PLATED BRASS P-TRAP, CHROME PLATED BRASS ANGLE STOPS WITH SUPPLIES, AND TRUEBRO PIPING COVERS.									

PLUMBING WATER SPECIALTIES SCHEDULE					
SYMBOL	FIXTURE TYPE	MANUFACTURER/ MODEL NUMBER	DESCRIPTION	ACCESSORIES AND TRIM	REMARKS
WHA	WATER HAMMER ARRESTOR	PPP MODEL# SC-500A	WATER HAMMER ARRESTOR: CORROSION RESISTANT BRASS	-	#2
REMARKS:					
1. REFER TO FLOOR PLANS FOR SIZES.					
2. PROVIDE ISOLATION VALVE ON WATER SUPPLY.					

PLUMBING SYMBOL LEGEND	
	WATER HAMMER ARRESTOR
	P-TRAP
	BALL VALVE
	BUTTERFLY VALVE
	CHECK VALVE
	PLUMBING WORK ITEM NOTE
	PLUMBING DEMO WORK ITEM NOTE
	CONNECT TO EXISTING

PLUMBING DEMOLITION NOTES	
PLUMBING DEMOLITION NOTES:	
1. THE PLUMBING CONTRACTOR SHALL REMOVE ALL PLUMBING FIXTURES, CARRIERS, TRIM, ACCESSORIES, EQUIPMENT, FLOOR DRAINS AND PIPING AS SHOWN OR INDICATED ON THE DRAWINGS.	
2. ALL PIPING TO BE REMOVED SHALL BE REMOVED COMPLETELY OR AS OTHERWISE SHOWN OR INDICATED ON DRAWINGS. ALL PIPE HANGERS, SLEEVES, RISER CLAMPS, ETC. SHALL BE REMOVED COMPLETELY WITH PIPING. NO EXISTING HANGER SYSTEMS SHALL BE REUSED FOR NEW PIPING.	
3. ALL PIPING TO BE REMOVED SHALL BE REMOVED TO BELOW FLOOR, ABOVE CEILING OR IN WALLS BACK TO MAINS OR SHUT-OFF VALVES AT MAINS, AND PROPERLY CAPPED PER CODE WITHOUT LEAVING DEAD ENDED PIPING.	
4. NO EQUIPMENT OR DEVICES THAT HAVE BEEN DISCONNECTED AND OR ABANDONED SHALL REMAIN.	
5. ALL EXISTING PIPING AND EQUIPMENT SHOWN HAS BEEN TAKEN FROM THE BEST AVAILABLE EXISTING INFORMATION. THE DRAWINGS ARE DIAGRAMMATIC AND ALL FIXTURES, PIPING, AND DEVICES MAY NOT BE SHOWN. THE INTENT OF THESE DRAWINGS IS THAT IN ALL AREAS OF RENOVATION THAT THEY ARE REMOVED, WHETHER OR NOT SHOWN.	
6. THE PLUMBING CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING SYSTEMS AND CONDITIONS IN AREAS OF RENOVATION.	
7. ANY SYSTEMS OR EQUIPMENT TO REMAIN ACTIVE DURING RENOVATION SHALL BE KEPT IN OPERATION BY PROVIDING TEMPORARY PIPING CONNECTIONS AS REQUIRED UNTIL NEW SYSTEMS ARE INSTALLED AND OPERATIONAL.	
8. THE PLUMBING CONTRACTOR SHALL COORDINATE WITH THE OWNER, CM, AND OR GENERAL CONTRACTOR ANY AND ALL PHASING OF THE PLUMBING DEMOLITION WORK IN ORDER TO SATISFY THE CONSTRUCTION SCHEDULE AND OWNERS OCCUPANCY REQUIREMENTS.	
9. ANY FIXTURE OR EQUIPMENT TO BE REMOVED AND REUSED OR TURNED OVER TO THE OWNER, AT OWNERS REQUEST, OR AS INDICATED ON THE DRAWINGS SHALL BE CAREFULLY REMOVED AND STORED TO PREVENT DAMAGE.	
10. THE PLUMBING CONTRACTOR SHALL ALSO REVIEW THE ARCHITECTURAL DEMOLITION DRAWINGS AS PART OF THIS CONTRACT FOR ADDITIONAL INFORMATION AND REQUIREMENTS.	
11. ALL SERVICE INTERRUPTIONS SHALL BE COORDINATED AND APPROVED WITH THE OWNER IN ADVANCE PRIOR TO COMMENCEMENT OF ANY WORK.	
12. THE PLUMBING CONTRACTOR SHALL COORDINATE HIS DEMOLITION WORK WITH THAT OF OTHER TRADES IN ORDER TO AVOID CONFLICTS.	

PLUMBING GENERAL NOTES	
PLUMBING GENERAL NOTES	
1. THESE GENERAL NOTES ARE APPLICABLE TO ALL PLUMBING DRAWINGS.	
2. DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK, SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.	
3. PLUMBING CONTRACTOR MUST REVIEW DRAWINGS OF THE OTHER TRADES AS PART OF THIS CONTRACT FOR ADDITIONAL WORK REQUIRED AND OR COORDINATION OF HIS WORK FOR OPERATIONS OR CONNECTIONS TO OTHER SYSTEMS.	
4. THE PLUMBING CONTRACTOR SHALL PROVIDE PIPE EXPANSION JOINTS ON PIPING PASSING THRU ALL BUILDING EXPANSION JOINT LOCATIONS AS REQUIRED PER BUILDING CODES WHETHER OR NOT SHOWN ON DRAWINGS. REVIEW ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR EXACT BUILDING EXPANSION JOINT LOCATIONS AND EXPANSION DIMENSIONS.	
5. THE PLUMBING CONTRACTOR SHALL INSTALL ALL PIPING EQUIPMENT AND ACCESSORIES IN ACCORDANCE WITH THE LATEST STATE BUILDING CODE AND LOCAL AUTHORITIES HAVING JURISDICTION. COORDINATION BETWEEN TRADES IS REQUIRED TO INSURE COMPLIANCE WITH THE GOVERNING CODES.	
6. ALL PIPING, EQUIPMENT OR ACCESSORIES INSTALLED IN PLENUM RATED CEILINGS SHALL BE LISTED AND APPROVED FOR SUCH INSTALLATION.	

ABBREVIATIONS	
AFF CW C/C GPM H HC HWR INV. ELEV. LAV NIC SAN TYP V VIF W WC WHA	ABOVE FINISHED FLOOR COLD WATER CONNECT TO EXISTING GALLONS PER MINUTE HOT WATER HANDICAP ACCESSIBLE HOT WATER RECIRCULATION INVERT ELEVATION LAVATORY NOT IN CONTRACT SANITARY TYPICAL VENT VERIFY IN FIELD WASTE WATER CLOSET WATER HAMMER ARRESTOR

PLUMBING PIPING LEGEND	
	COLD WATER
	HOT WATER
	HOT WATER RECIRCULATION
	WASTE, SANITARY OR SOIL
	WASTE, SANITARY, SOIL BURIED
	VENT
	DIRECTION OF FLOW
	EXISTING PIPING TO BE REMOVED
	PIPE DOWN
	PIPE DROP
	PIPE RISE
	PIPE EXPANSION FITTING (AT BLDG. EXP. JOINTS)
	VIBRATION ISOLATION FITTING
	PLUGGED OR CAPPED PIPE
	CLEANOUT



INTERIOR RENOVATIONS TO
NAUGATUCK POLICE DEPARTMENT
CENTRAL DISPATCH FACILITY
FY27-B138
211 SPRING STREET
NAUGATUCK, CONNECTICUT

J J H
JACUNSKI HUMES
ARCHITECTS, LLC
15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

PLUMBING
NOTES, LEGENDS,
SCHEDULES,
AND DETAILS

PROJ. NO. JH2516	DRAWING NO. P-2
SCALE: AS NOTED	
DATE: JULY 6, 2026	

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PLUMBING SPECIFICATIONS

TECHNICAL REQUIREMENTS

THESE SPECIFICATIONS CALL OUT CERTAIN DUTIES OF THE CONTRACTOR AND HIS SUBCONTRACTOR. THEY ARE NOT INTENDED AS SUBCONTRACT DOCUMENTS, NOR ARE THEY INTENDED AS A MATERIAL LIST OF ITEMS REQUIRED BY THE CONTRACT.

PROVIDE ALL ITEMS AND WORK CALLED FOR IN THIS DIVISION OF THE SPECIFICATIONS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THIS INCLUDES ALL INCIDENTALS, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, SUPERVISION LABOR, CONSUMABLE ITEMS, FEES, LICENSES, ETC., NECESSARY TO PROVIDE COMPLETE SYSTEMS, PERFORM START UP AND CHECK OUT EACH ITEM AND SYSTEM TO PROVIDE FULLY OPERABLE SYSTEMS.

INTENT OF DRAWINGS

DO NOT SCALE DRAWINGS. CHECK EXISTING SPACE CONDITIONS AT THE JOB SITE.

CODES AND STANDARDS

INTERNATIONAL BUILDING CODE IBC, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

INTERNATIONAL PLUMBING CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

NFPA 101, LIFE SAFETY CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

NFPA 54, NATIONAL FUEL GAS CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

NFPA 70, NATIONAL ELECTRICAL CODE, 2020 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH CODE.

OCCUPATIONAL SAFETY AND HEALTH STANDARDS.

DEPARTMENT OF ENVIRONMENTAL PROTECTION.

INTERNATIONAL ENERGY CONSERVATION CODE, 2021, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

STATE DEMOLITION CODE.

LOCAL BUILDING CODE.

ICC/ANSI A117.1, 2017, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

COMPLY WITH ALL APPLICABLE GOVERNMENTAL REGULATIONS. COMPLY WITH ALL FEDERAL, STATE, CITY, INSURANCE UNDERWRITERS AND OTHER APPLICABLE CODES AND ORDINANCES. IF ANY CONFLICT ARISES BETWEEN THESE SPECIFICATIONS, CODES AND ORDINANCES, IMMEDIATELY NOTIFY THE ENGINEER. DO NOT DEVIATE FROM THE SPECIFICATIONS NOR INSTALL ANY WORK WHICH MAY BE IN CONFLICT WITH CODES AND ORDINANCES UNTIL THE CONFLICT IS RESOLVED AND THE SOLUTION APPROVED BY THE ENGINEER.

SUBMITTALS

PRODUCT DATA: SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA, INCLUDING RATED CAPACITIES OF SELECTED MODEL CLEARLY INDICATED, FURNISHED SPECIALTIES AND ACCESSORIES; AND INSTALLATION INSTRUCTIONS.

SHOP DRAWINGS: SUBMIT MANUFACTURER'S ASSEMBLY TYPE SHOP DRAWINGS INDICATING DIMENSIONS, ROUGH-IN REQUIREMENTS, REQUIRED CLEARANCES, AND METHODS OF ASSEMBLY OF COMPONENTS AND ANCHORAGES.

MAINTENANCE DATA: SUBMIT MAINTENANCE DATA AND PARTS LISTS FOR EACH TYPE OF PLUMBING FIXTURE AND ACCESSORY; INCLUDING "TROUBLE SHOOTING" MAINTENANCE GUIDE. INCLUDE THIS DATA, PRODUCT DATA AND SHOP DRAWINGS IN MAINTENANCE MANUAL.

PROVIDE SHOP DRAWING SUBMITTALS OF ALL PLUMBING EQUIPMENT INCLUDING:

FIXTURES

PIPING

VALVES

SPECIALTIES

CERTAIN TERMS SUCH AS "SHALL, PROVIDE, INSTALL, COMPLETE, START-UP" ARE NOT USED IN SOME PARTS OF THESE SPECIFICATIONS. THIS DOES NOT INDICATE ITEMS SHALL BE LESS THAN COMPLETELY INSTALLED OR THAT SYSTEMS SHALL BE LESS THAN COMPLETE

PERMITS AND FEES

SECURE AND PAY COSTS OF PERMITS, CERTIFICATES, LICENSES, INSPECTIONS AND APPROVALS.

ADJUSTMENTS

UPON COMPLETION OF WORK, PERFORM THE FOLLOWING ADJUSTMENT PROCEDURES:

ADJUST SYSTEMS COMPONENTS FOR PROPER PERFORMANCE.
OPEN AND CLOSE VALVES, SET IN PROPER OPERATING POSITION.

ACCESSIBILITY

PLACE VALVES, UNIONS, DRAINS, AND ITEMS REQUIRING MAINTENANCE, ADJUSTMENT, OR REPAIR, IN ACCESSIBLE LOCATIONS. COORDINATE ACCESS PANELS WITH ARCHITECT.

REFERENCE PUBLICATIONS

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) PUBLICATIONS ARE REFERRED TO HEREIN, BECAUSE THESE PUBLICATIONS ARE REVISED FREQUENTLY, DATES FOLLOWING PUBLICATION NUMBERS HAVE BEEN OMITTED. REFER TO LATEST EDITION.

COORDINATION OF WORK

TRANSMIT TO OTHER TRADES ALL INFORMATION REQUIRED FOR WORK TO BE PROVIDED UNDER THEIR RESPECTIVE SECTIONS IN AMPLE TIME FOR INSTALLATION.

WHEREVER WORK INTERCONNECTS WITH WORK OF OTHER TRADES, COORDINATE WITH OTHER TRADES TO INSURE THAT ALL TRADES HAVE THE INFORMATION NECESSARY SO THEY MAY PROPERLY INSTALL ALL THE NECESSARY CONNECTIONS AND EQUIPMENT. IDENTIFY ALL WORK ITEMS (VALVES, DRAINS, ETC.) IN AN APPROVED MANNER IN ORDER THAT THE CEILING SUBCONTRACTOR WILL KNOW WHERE TO INSTALL ACCESS DOORS AND PANELS.

CONSULT WITH OTHER TRADES REGARDING EQUIPMENT SO, WHEREVER POSSIBLE, MOTORS AND CONTROL ARE OF THE SAME MANUFACTURER.

FURNISH AND SET ALL SLEEVES FOR PASSAGE OF PIPES AND CONDUITS THROUGH STRUCTURAL MASONRY AND CONCRETE WALL AND FLOORS, AND ELSEWHERE AS WILL BE REQUIRED FOR THE PROTECTION OF EACH PIPE PASSING THROUGH BUILDING SURFACES.

PROVIDE REQUIRED SUPPORTS AND HANGERS FOR PIPING, FIXTURES AND EQUIPMENT, SO LOADING WILL NOT EXCEED ALLOWABLE LOADINGS OF STRUCTURE.

CONFORM THE PLUMBING WORK TO THE REQUIREMENTS HEREIN. PROVIDE OFFSETS, FITTINGS, DRAINS, AND ACCESSORIES WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING THE WORK, AND ARRANGE THE WORK ACCORDINGLY. PROVIDE SUCH PIPING, FITTINGS, VALVES AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS.

ELECTRICAL CONNECTIONS

POWER SUPPLY WILL BE PROVIDED UNDER DIVISION 16, AND CONNECTIONS MADE TO ANY NEW ELECTRICAL ITEMS.

TO FACILITATE ELECTRICAL CONNECTIONS EQUIP ELECTRICAL ITEMS WITH NEMA ENCLOSURES HAVING ADEQUATE KNOCKOUTS, CONNECTORS, TERMINAL BLOCKS AND/OR CONTACTS.

PIPING IDENTIFICATION

CONSPICUOUSLY IDENTIFY NEW PIPING WITH SELF-ADHERING VINYL PLASTIC COLOR BANDS AND PIPE MARKERS IMPRINTED WITH LEGEND, BASED ON ANSO A13.1 "SCHEME FOR THE IDENTIFICATION OF PIPING SYSTEMS".

APPLY LEGENDS TO FEED AND CROSS MAIN PIPING ADJACENT TO CHANGES IN DIRECTION WHERE PIPES PASS THROUGH WALLS OR FLOORS, AT INTERVALS NOT EXCEEDING 40 FEET IN STRAIGHT PIPING RUNS, AND ADJACENT TO CROSS MAIN CONNECTIONS WITH FEED MAIN.

MINIMUM LETTER SIZE:

1/2" FOR PIPING 3/4" TO 1-1/4" OD
3/4" FOR PIPING 1-1/2" TO 2" OD
1-1/4" FOR PIPING 2-1/2" TO 6" OD

MINIMUM COLOR BAND WIDTH:

8" FOR PIPING 3/4" TO 2" OD
12" FOR PIPING 2-1/2" TO 6" OD

OPERATING INSTRUCTIONS

INSTRUCT OWNER'S OPERATING PERSONNEL ON PROPER CARE, MAINTENANCE AND OPERATING PROCEDURES.

MAINTENANCE MANUAL

INCLUDE FOLLOWING IN MANUALS:

MANUFACTURER'S DESCRIPTIVE DATA
OPERATION AND MAINTENANCE INSTRUCTIONS
REPLACEMENT PART LISTS

WIRING DIAGRAMS
MANUFACTURER'S WARRANTY & SERVICE CERTIFICATES
INSTRUCTIONS FOR PERIODIC CLEANING AND MAINTENANCE
PROCEDURES FOR SYSTEMS START-UP AND SHUT-DOWN
VALVE LOCATION AND TAG NUMBER CHARTS.

CLEANING

CLEAN PIPING PRIOR TO PAINTING.

UPON COMPLETION OF WORK, PERFORM THE FOLLOWING CLEANING PROCEDURES:

REMOVE PROTECTIVE COVERS AFTER PAINTING
CLEAN PIPING AND EQUIPMENT
REMOVE SURPLUS MATERIALS AND RUBBISH
RESTORE DAMAGED SURFACE FINISHES

ADJUSTMENTS

UPON COMPLETION OF WORK, PERFORM THE FOLLOWING ADJUSTMENT PROCEDURES:

ADJUST SYSTEMS COMPONENTS FOR PROPER PERFORMANCE
OPEN AND CLOSE VALVES, SET IN PROPER OPERATING POSITION.
SEAL CONTROL VALVES OPEN

GUARANTEE

SUPPLY TWO COPIES OF A WARRANTY COUNTERSIGNED AND GUARANTEED BY CONTRACTOR, STATING THAT IMPERFECT SYSTEM OPERATION AND ALL DEFECTS IN LABOR AND MATERIALS WILL BE REPAIRED WITHOUT COST TO OWNER FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION, AND STATING THAT ALL PLUMBING EQUIPMENT HAS BEEN FULLY SERVICED AND LEFT IN PROPER OPERATING CONDITION.

ALSO GUARANTEE THAT SERVICING WILL BE PROVIDED WITHOUT COST DURING GUARANTEE PERIOD.

PIPE SLEEVE INSTALLATION

PROVIDE FOR PIPING PASSING THROUGH WALLS, PARTITIONS AND SLAB, SLEEVES SIZED AT LEAST 1 INCH LARGER THAN OD OF PIPE.

SLEEVES ARE REQUIRED FOR PIPING PASSING THROUGH FIRE-RATED WALLS CONSTRUCTED OF METAL STUDS AND GYPSUM WALLBOARD.

TERMINATE SLEEVES THROUGH WALLS, PARTITIONS AND CEILINGS FLUSH WITH FINISHED SURFACES; THROUGH SLABS 1/2" ABOVE FLOOR FINISH IN HABITABLE SPACES AND 2" ABOVE ROUGH FINISH IN PIPE SPACES AND OTHER UNFINISHED AREAS.

SET SLEEVES IN PLACE BEFORE PLACING CONCRETE, OR SECURELY FASTEN AND GROUT IN PLACE WITH CONCRETE. EXERCISE CARE IN LOCATING AND SETTING OF SLEEVES TO ASSURE ACCURATE ALIGNMENT. IN ABSENCE OF SLEEVES, USE CORE DRILLED HOLES AND PROVIDE CURBS TO PREVENT PASSAGE OF WATER.

FILL VOID SPACES BETWEEN PIPING AND PIPE SLEEVES WITH PENETRATION SEAL, OR APPROVED ELASTOMERIC CAULKING MATERIALS.

ESCUTCHEON INSTALLATION

PROVIDE ESCUTCHEONS ON PIPE PROTRUSIONS AT WALLS, PARTITIONS, CEILING AND FLOORS. ESCUTCHEONS SHALL FIT SNUGLY AROUND PIPING AND COVER SURFACE OPENING.

FIRE STOPPING

FILL VOID SPACE BETWEEN PIPING AND PIPING SLEEVES WITH DOW CORNING 3 - 6548 RTV SILICONE FOAM, OR WITH FIBROUS GLASS SEALED WITH FIRE TESTED AND APPROVED ELASTOMERIC CAULKING MATERIALS.

INSTALLATION - GENERAL

PREPARATION: CUT PIPE AND TUBING ENDS SQUARE, REMOVE BURRS AND REAM TO ORIGINAL BORE. CLEAN JOINT SURFACES PRIOR TO ASSEMBLY. WIPE OFF EXCESS JOINING COMPOUNDS AND FLUX RESIDUE.

SCREWED: USE AMERICAN STANDARD TAPER PIPE THREADS CUT SHARP AND TRUE AND SUITABLE FOR NORMAL ENGAGEMENT. SCREW THREADED ITEMS UP CLOSE TO SHOULDERS WITH NOT MORE THAN THREE INCOMPLETE THREADS EXPOSED. DO NOT USE LAMP WICK, CORD, WOOL OR OTHER "WICKNOT" MATERIALS. REPAIR LEAKS WITH NEW MATERIALS, DO NOT PEEN OR CAULK. "TEFLON" PIPE JOINT TAPE OR JOINT COMPOUNDS COMPOSED OF RED LEAD AND GRAPHITE GROUND IN LINSEED OIL WILL BE PERMITTED, APPLIED TO MALE THREADS ONLY.

SOLDER: MAKE UP JOINTS WITH 95-5 TIN-ANTIMONY WIRE SOLDER AND NON-CORROSIVE FLUX. DO NOT USE 50-50 OR OTHER TIN-LEAD SOLDERS.

MECHANICAL COUPLINGS: USE MANUFACTURER'S MATERIALS AND METHODS.

PIPE HANGER AND SUPPORT INSTALLATION

REFER TO MSS-SP-58; STANDARD FOR PIPE HANGERS AND SUPPORTS.

SUPPORT, ANCHOR AND GUIDE PIPING SYSTEMS TO WITHSTAND STATIC AND DYNAMIC LOAD CONDITIONS, TO ALLOW FOR EXPANSION AND CONTRACTION; TO PREVENT VIBRATION AND SWAYING; TO MAINTAIN ALIGNMENT AND MINIMIZE VERTICAL DEFLECTION.

DO NOT SUPPORT PIPING FROM OTHER PIPING OR DUCTWORK. DO NOT USE WIRE, TAPE, METAL BAND, OR OTHER MAKE-SHIFT DEVICES AS MEANS OF SUPPORT OR ATTACHMENT.

TESTING

GENERAL: TEST PLUMBING SYSTEMS TO SATISFACTION OF BUILDING OFFICIAL. DO NOT CLOSE IN, CONCEAL OR COVER UP ANY WORK UNTIL IT HAS BEEN TESTED, INSPECTED, AND APPROVED BY ENGINEER AND LOCAL OFFICIALS.

FLUSH PIPING, PRIOR TO TESTING, TO REMOVE FOREIGN MATERIAL WHICH MAY HAVE ENTERED DURING COURSE OF INSTALLATION. CLEAN FILTERS AND STRAINERS AFTER FLUSHING.

PLUMBING MATERIALS

DOMESTIC HOT AND COLD WATER: PIPING - CPVC OR PEX PIPE PER ASTM F441/F441M AND CPVC SOCKET FITTINGS ASTM F438/ASTM F439. PEX TUBING 1/2" TO 1 1/4" SIZING DISTRIBUTION SYSTEM PER ASTM F877, PEX TUBE FITTINGS FOR TUBE, PER ASTM F877. MANIFOLD MULTIPLE-OUT CORROSION-RESISTANT METAL ASSEMBLY COMPLYING WITH ASTM F877 WITH CORROSION-RESISTANT METAL VALVES FOR EACH OUTLET.

SANITARY WASTE AND VENT PIPING ABOVE GROUND: - PVC PIPE AND FITTINGS - SOLID WALL PVC PIPE PER ASTM D2665 AND PVC SOCKET FITTINGS PER ASTM D2665, MADE TO ASTM D3311. ADHESIVE PRIMER F856 AND SOLVENT CEMENT ASTM D2564.

VALVES

BALL VALVE - 2" AND SMALLER: LEAD FREE BRONZE BODY AND BALL, TEFLON SEATS AND SEALS, LEVER HANDLE, 400 PSI WOG, NIBCO, APOLLO OR EQUAL.

PIPE HANGER MATERIAL STANDARDS

BOLTING - ASTM A307, GRADE A
CAST IRON - ASTM A48, GRADE 30
FORGINGS - AST A521, GRADE CA
MALLEABLE IRON - ASTM A47, ASTM A197
STEEL - ASTM A36, ASTM A569, ASTM A570
STEEL PIPE - ASTM A53, ASTM A120
STEEL ROD - ASTM A36, ASTM A575

PIPE HANGER COMPONENTS

COMPONENTS: DESIGNED WITH MINIMUM SAFETY FACTOR OF 5, OF ALL METAL CONSTRUCTION; ASSEMBLED WITH CORROSION RESISTANT SQUARE HEAD MACHINE BOLTS AND SQUARE OR HEX HEAD NUTS, STEEL WASHERS; IN SUCH A MANNER AS TO PREVENT SELF-DISENGAGEMENT.

PIPE ATTACHMENTS: CAPABLE OF VERTICAL ADJUSTMENT UNDER LOAD, SHAPED TO OD IF PIPING; SIZED ALLOW CONTINUOUS INSULATION.

SURFACE FINISH - GENERALLY: CORROSION RESISTANT PAINT COATING.

SURFACE FINISH - UNINSULATED COPPER AND BRASS PIPING; COPPER-PLATED OR PLASTIC COATED.

SURFACE FINISH - CHROME PLATED PIPING: CHROME PLATED.

ESCUTCHEONS

PAINTED SURFACES: PRIME COATED SHEET METAL.

ACOUSTICAL SURFACES: FACTORY PAINTED TO MATCH SURFACE SHEET STEEL.

PREFINISHED SURFACES: CHROME-PLATED CAST BRASS

PIPE SLEEVES, SEALS AND ADAPTERS

INTERIOR PARTITIONS: #20 GAUGE GALVANIZED STEEL, LOCK SEAM JOINT

PIPE INSULATION

PIPE: SECTIONAL PREMOLED FIBROUS GLASS, FACTORY APPLIED FLAME RETARDANT VAPOR BARRIER JACKET.

MINIMUM DENSITY: 3.5 LBS. PCF.

MAXIMUM K-FACTOR: 0.25 AT 75 DEGREES FAHRENHEIT, MEAN.

VALVES AND FITTINGS: PREMOLED, FIBROUS GLASS FITTING COVERS, OR FABRICATED MITERED SEGMENTS OF PIPE INSULATION, FINISHED WITH 20-20 COUNT GLASS CLOT EMBEDDED IN SURFACE COATING. NO STAPLES, TACKS OR BANDS.

SURFACE FINISH - EXPOSED: UNIFORM COAT OF SURFACE COATING
SURFACE FINISH - CONCEALED: NONE REQUIRED.

WATER PIPING SPECIALTIES

SHOCK ABSORBER: SA; ALL COPPER, MECHANICAL-PNEUMATIC TYPE, HERMETICALLY SEALED BELLOWS, THREADED INLET, 150 PSI WPR. SIZE AND PLACEMENT DETERMINATION: FDI-WH 201 AND A.S.S.E. STANDARD 1010.



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211 SPRING STREET
NAUGATUCK, CONNECTICUT



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PLUMBING
SPECIFICATIONS

PROJ. NO. JH2516	DRAWING NO.
SCALE: AS NOTED	P-3
DATE: JULY 6, 2026	

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GENERAL ELECTRICAL DEMOLITION NOTES

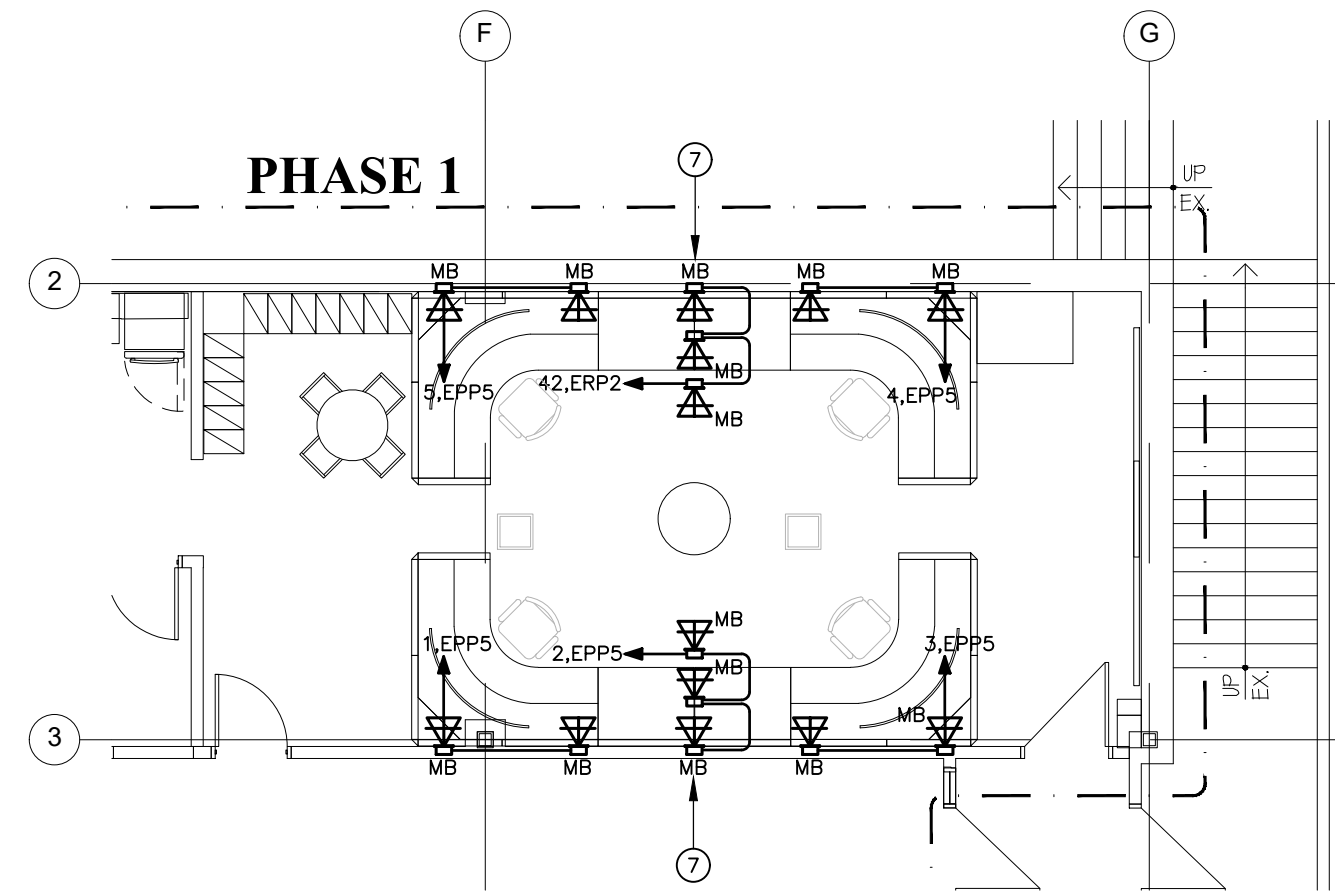
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- "RR" - INDICATES EXISTING ELECTRICAL EQUIPMENT AND/OR DEVICE TO BE REMOVED AND RELOCATED. (EXTEND EXISTING WIRING AS REQUIRED)
- "ER" - INDICATES EXISTING ELECTRICAL EQUIPMENT AND/OR DEVICE TO REMAIN.
- "R" - INDICATES EXISTING ELECTRICAL DEVICE TO BE REPLACED WITH NEW DEVICE IN KIND WITHIN EXISTING LOCATION, REUSE BACK BOX AND WIRING, PROVIDE NEW FACE PLATE TO DEVICE.
- NO EQUIPMENT OR DEVICES THAT HAVE BEEN DISCONNECTED AND OR ABANDONED SHALL REMAIN.
- THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING SYSTEMS AND CONDITIONS IN AREAS OF RENOVATION.
- ANY SYSTEMS OR EQUIPMENT TO REMAIN ACTIVE DURING RENOVATION SHALL BE KEPT IN OPERATION BY PROVIDING TEMPORARY CONNECTIONS AS REQUIRED UNTIL NEW SYSTEMS ARE INSTALLED AND OPERATIONAL.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OWNER, CM, AND OR GENERAL CONTRACTOR ANY AND ALL PHASING OF THE MECHANICAL DEMOLITION WORK IN ORDER TO SATISFY THE CONSTRUCTION SCHEDULE AND OWNERS OCCUPANCY REQUIREMENTS.
- ANY ELECTRICAL EQUIPMENT TO BE REMOVED AND REUSED OR TURNED OVER TO THE OWNER, AT OWNERS REQUEST, OR AS INDICATED ON THE DRAWINGS SHALL BE CAREFULLY REMOVED AND STORED TO PREVENT DAMAGE.
- THE ELECTRICAL CONTRACTOR SHALL ALSO REVIEW THE ARCHITECTURAL DEMOLITION DRAWINGS AS PART OF THIS CONTRACT FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- ALL SERVICE INTERRUPTIONS SHALL BE COORDINATED AND APPROVED WITH THE OWNER IN ADVANCE PRIOR TO COMMENCEMENT OF ANY WORK.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS DEMOLITION WORK WITH THAT OF OTHER TRADES IN ORDER TO AVOID CONFLICTS.

DEMOLITION DRAWING NOTES

- REMOVE ALL POWER WIRING AND GROUNDING AT THE EXISTING DISPATCH CONSOLES.
- DISCONNECT BRANCH CIRCUIT WIRING TO EXISTING FIRE ALARM CONTROL PANEL AND GENERATOR REMOTE ANNUNCIATOR, EXTEND AND RECONNECT WIRING AT THE NEW DISPATCH LOCATION. SEE POWER FLOOR PLAN.

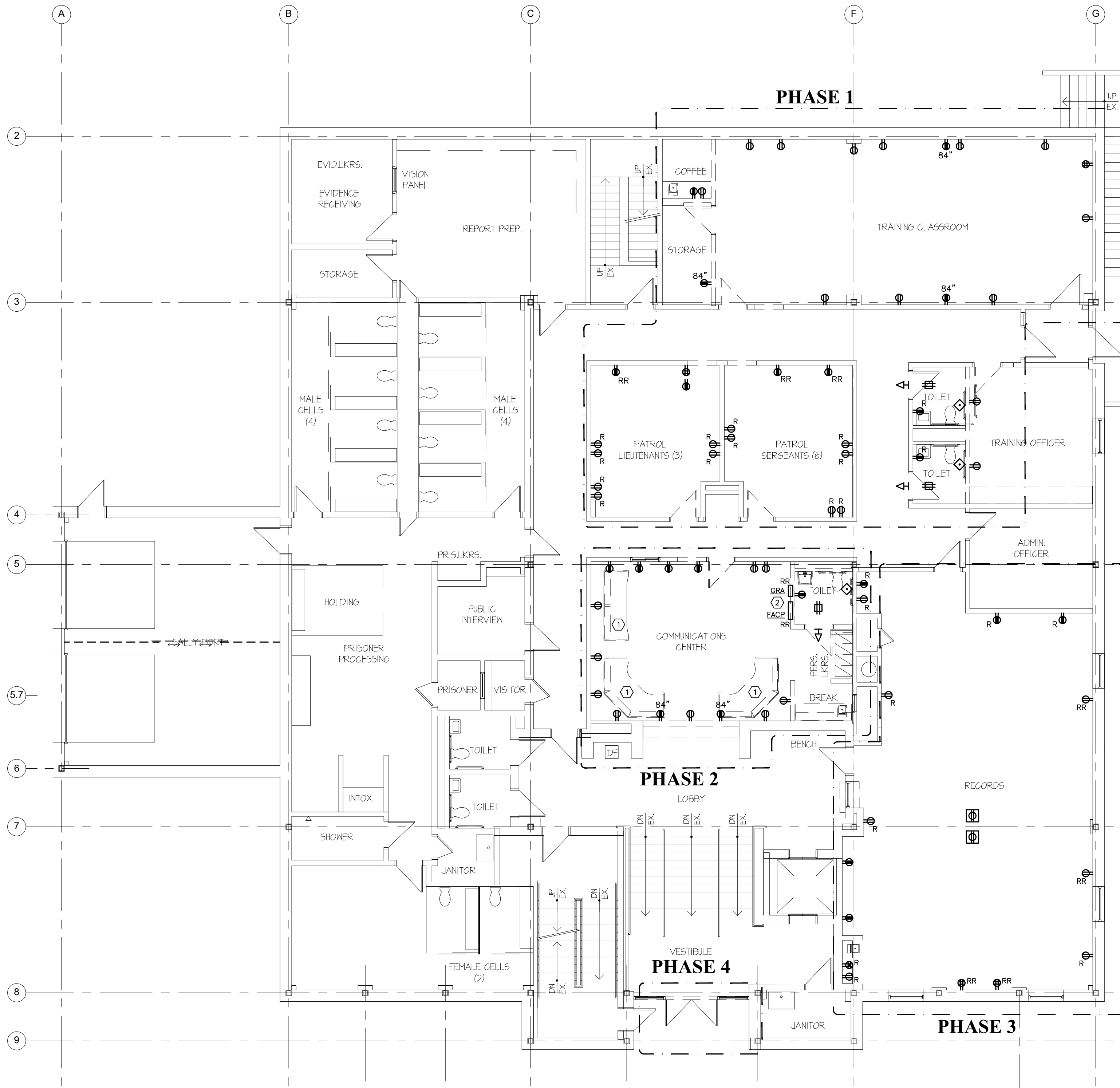
DRAWING NOTES

- HARDWIRED 50 AMP CONNECTION TO COOKTOP: COORDINATE WITH EQUIPMENT INSTALLER TO CONFIRM EXACT ELECTRICAL CONNECTION REQUIREMENTS.
- RECEPTACLES MOUNTED IN CABINET ABOVE THE COOKTOP FOR OVER-THE-RANGE MICROWAVE OVEN.
- DOUBLE DUPLEX RECEPTACLES MOUNTED HIGH ON WALL FOR POWER TO VIDEO WALL. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.
- NEMA 5-20R ISOLATED GROUND DOUBLE DUPLEX RECEPTACLE, ORANGE COLOR, TWO DEDICATED CIRCUITS, ONE FROM EACH RECEPTACLE, WITH LIGHTWEIGHT ALUMINUM MC CABLE, 2#12 AWG COPPER THHN/THWN INSULATED CONDUCTORS AND TWO INSULATED GROUND CONDUCTORS PER CIRCUIT, ROUTE TO NG911 STATE RADIO RACK, AND PLUG INTO THE STATE UPS.
- 3/4" C, 2#12, #12G TO A 1P, 20A CIRCUIT BREAKER IN PANELBOARD INDICATED.
- SEE ARCHITECTURAL DRAWINGS FOR LAYOUT OF MONITORS ALONG THIS WALL IN DISPATCH 104.
- COORDINATE WITH ARCHITECTURAL DRAWINGS FOR LAYOUT OF MONITOR BOXES ALONG THIS WALL IN DISPATCH 104.
- 3/4" C, 3#12, #12G TO CU-TR-1 (OUTSIDE AT GRADE) FOR POWER AND CONTROL WIRING TO THIS FAN COIL UNIT.
- DEDICATED CIRCUIT FOR OWNER'S AUDIO/VIDEO EQUIPMENT. COORDINATE EXACT LOCATION WITH THE OWNER IN THE FIELD.
- PROVIDE BOX EXTENSION ON EXISTING BACK BOX TO ACCOMMODATE FURRED OUT WALL AT THIS LOCATION.
- RECEPTACLES MOUNTED INSIDE DISPATCH CONSOLE ENCLOSURE. COORDINATE WITH CONSOLE VENDOR/ INSTALLER IN THE FIELD. RECEPTACLE FINISH COLORS SHALL BE THE FOLLOWING:
a. RED RECEPTACLES ON EMERGENCY POWER CIRCUIT
b. ORANGE RECEPTACLES WITH ISOLATED GROUND ON NG911 CIRCUIT
c. BLUE RECEPTACLES ON UPS POWER CIRCUIT
d. WHITE RECEPTACLES ON NORMAL POWER CIRCUIT
- RECEPTACLES MOUNTED AT 18" AFF AND WIRED TO EXISTING RECEPTACLE BRANCH CIRCUIT WITH 2#12, #12G MC CABLE. CUT AND PATCH WALL AS REQUIRED.
- RELOCATED EXISTING BATTERY CABINET FOR THE FIRE ALARM CONTROL PANEL (FACP); WIRE TO NEW LOCATION OF FACP. COORDINATE EXACT MOUNTING LOCATION WITHIN STORAGE 103 IN THE FIELD.
- RELOCATED EXISTING GENERATOR REMOTE ANNUNCIATOR. PROPOSED LOCATION SHOWN; CONFIRM EXACT LOCATION WITH THE OWNER IN THE FIELD.
- FLUSH WALL MOUNTED JUNCTION BOX FOR POWER TO ELECTRONIC FLUSH VALVES AND FAUCETS, TYPICAL IN THE TOILET ROOMS.
- RECESSED CLOCK-TYPE RECEPTACLE FOR BACKLIT LED MIRROR. MOUNT RECEPTACLE 34" AFF CENTERED ON THE SINK. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- ROUTE BRANCH CIRCUIT WIRING DOWN TO THE LOWER LEVEL THROUGH THIS CLOSET.

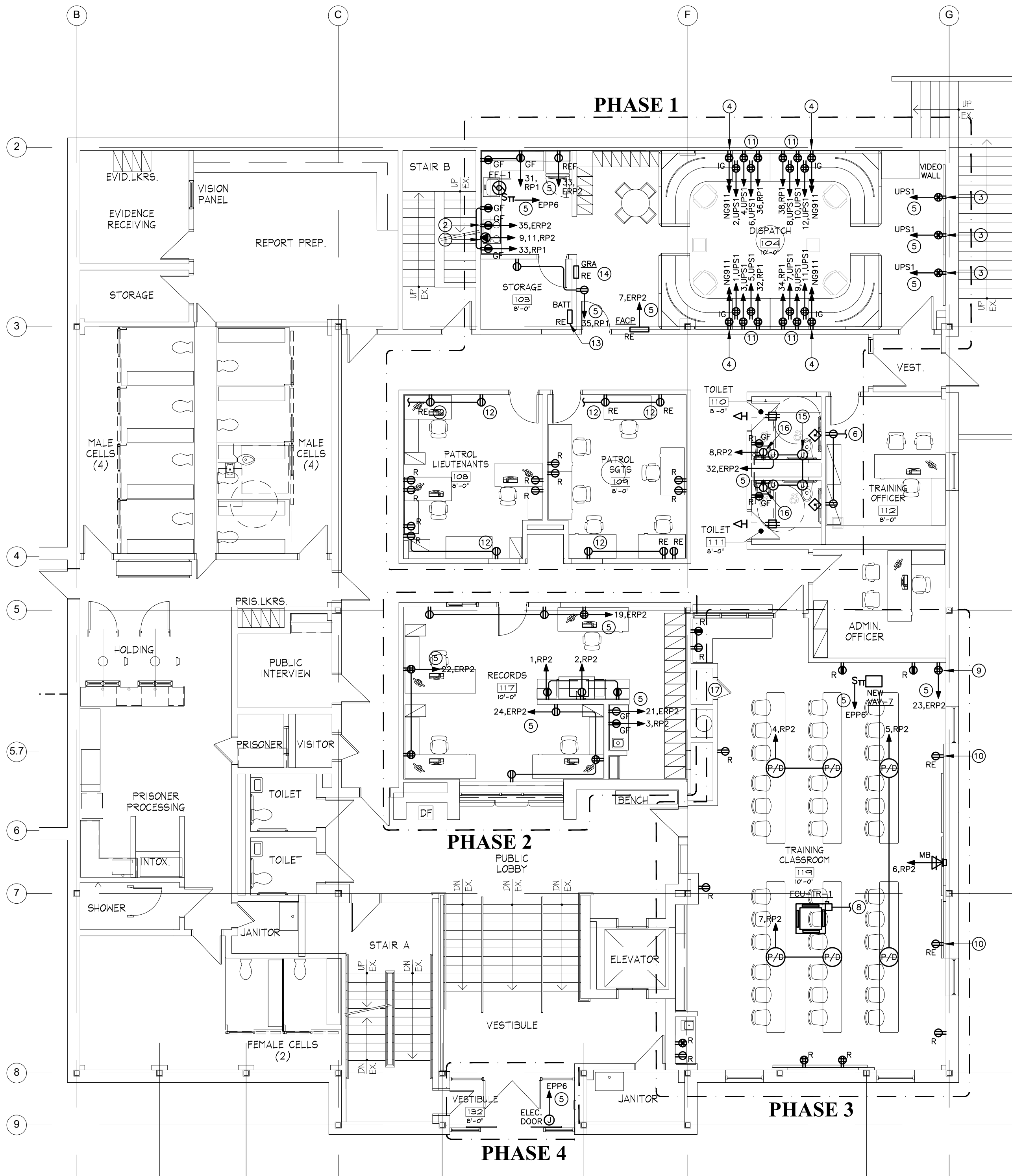


PARTIAL PLAN AT DISPATCH 104
SCALE: 1/8" = 1'-0"

NOTE: SEE DRAWING E-3 FOR PARTIAL LOWER LEVEL ELECTRICAL PLAN.



FIRST FLOOR POWER DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



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



INNOVATIVE ENGINEERING
SERVICES, LLC
AN INTEGRATED ENGINEERING & DESIGN FIRM
33 N PLAINS INDUSTRIAL RD
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INTERIOR RENOVATIONS TO
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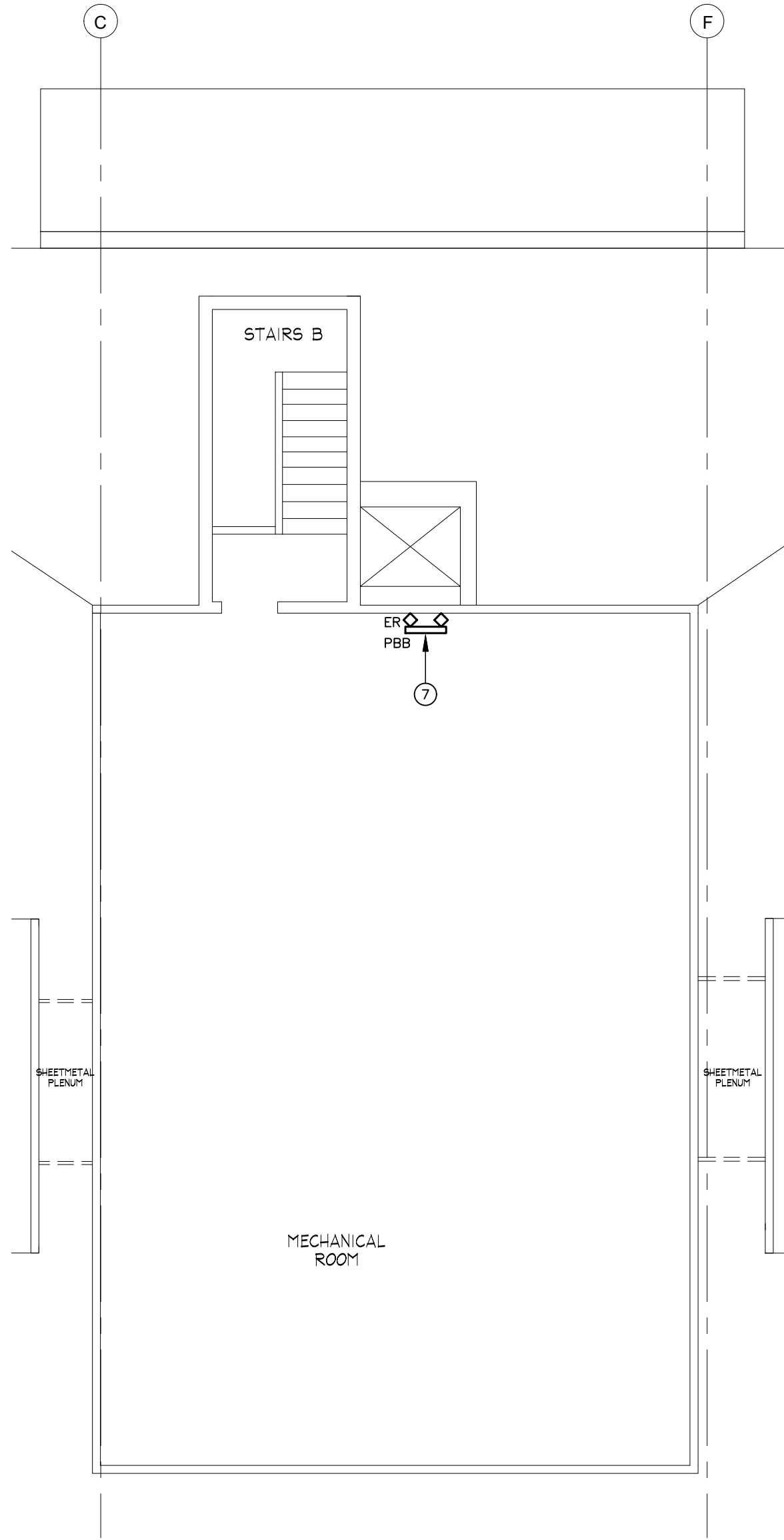
FIRST FLOOR
POWER
PLANS

PROJ. NO.
JH2516
SCALE:
1/8" = 1'-0"
DATE:
JULY 6, 2026

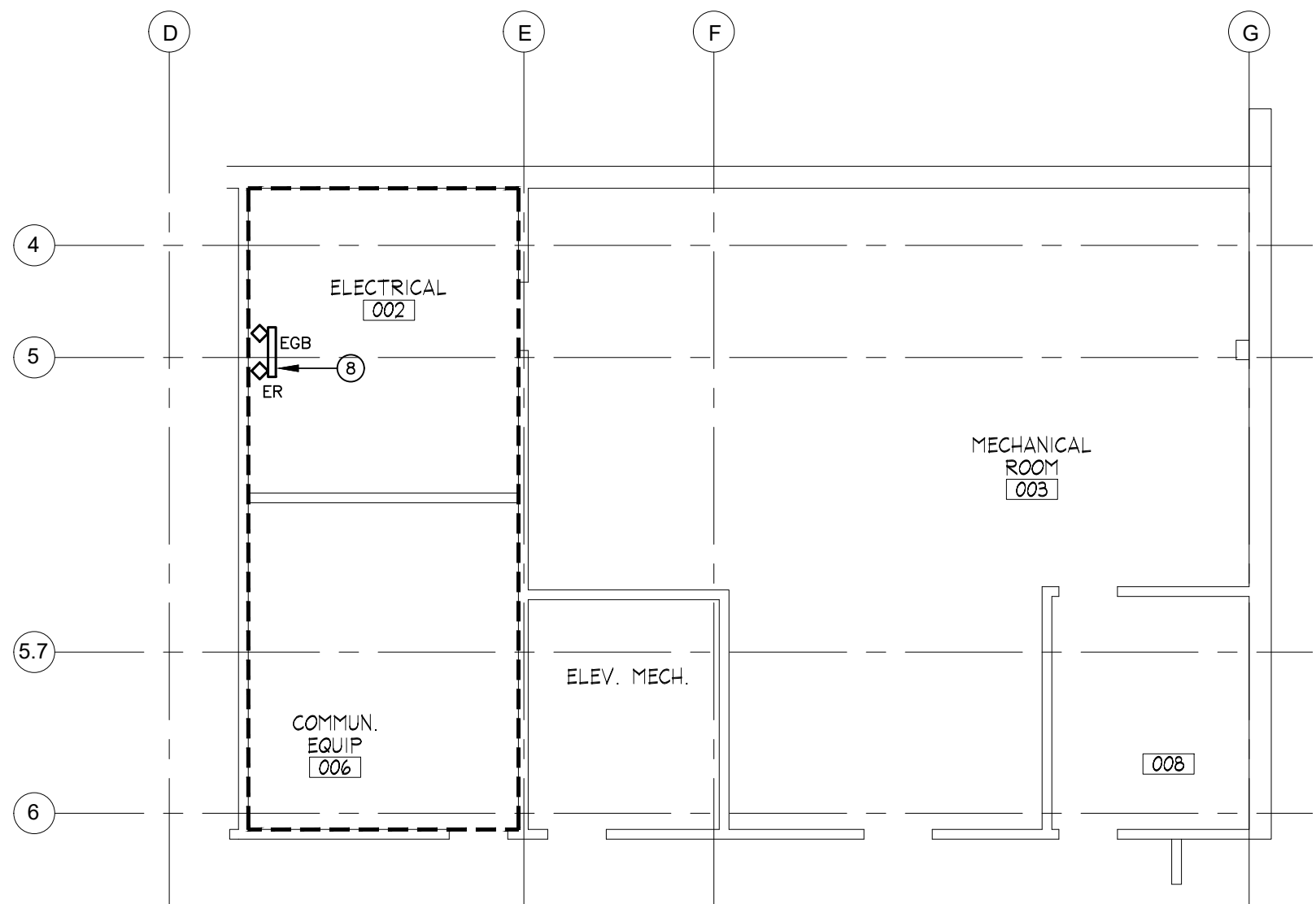
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E-1

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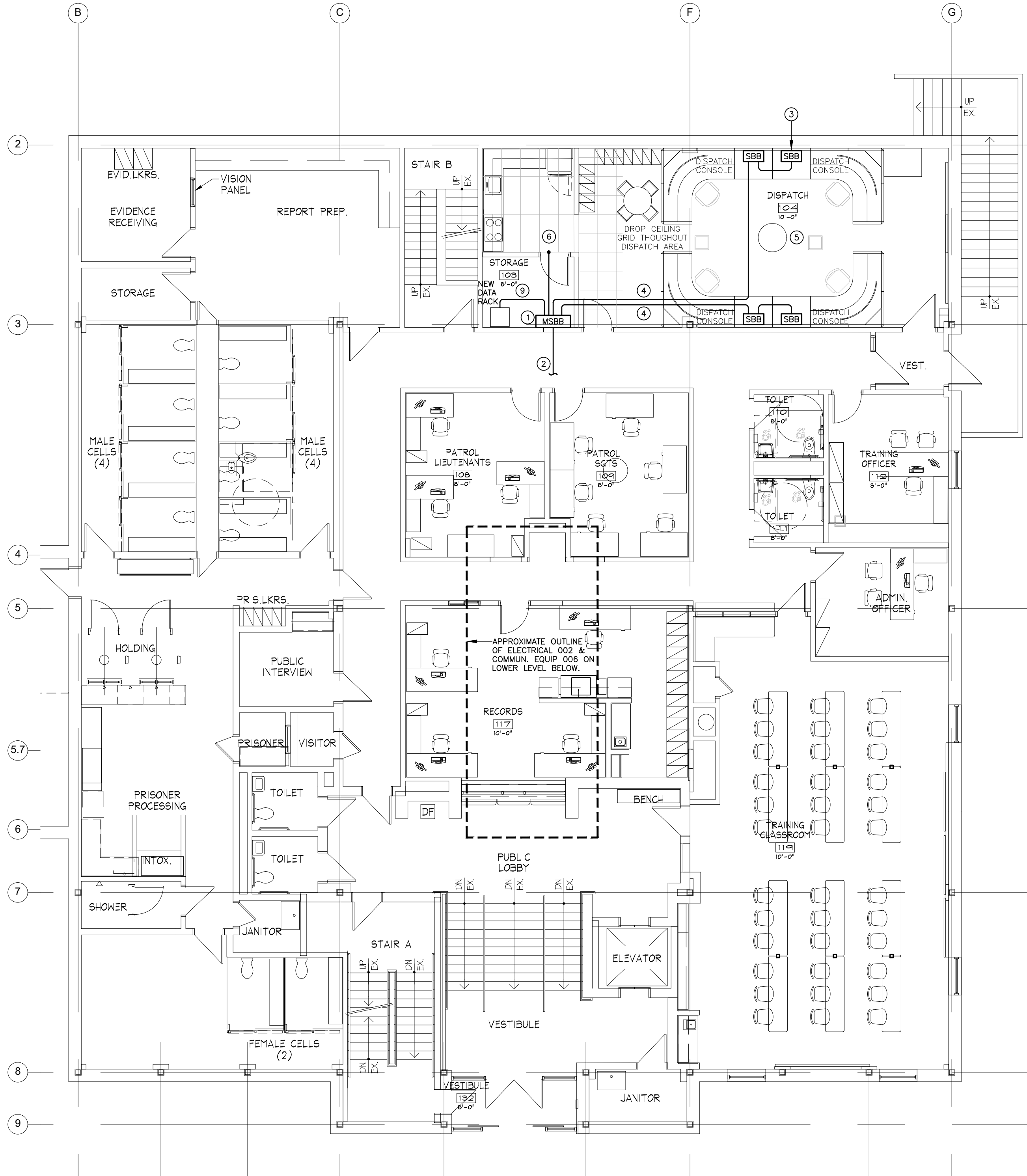


ATTIC/MECHANICAL ROOM GROUNDING PLAN
SCALE: 1/8" = 1'-0"



LOWER LEVEL GROUNDING PLAN
SCALE: 1/8" = 1'-0"

- GROUNDING PLAN NOTES**
- 1 MAIN SECONDARY BONDING BAR (MSBB): APPROXIMATE LOCATION SHOWN ALONG THIS WALL. COORDINATE EXACT LOCATION IN THE FIELD.
 - 2 COMMUNICATIONS BONDING BACKBONE CONDUCTOR: #2/0 AWG GREEN-JACKETED COPPER GROUNDING CONDUCTOR (PER MOTOROLA R56 TABLE 5.3) FROM DISPATCH MAIN SECONDARY BONDING BAR (MSBB) TO COMMUNICATIONS PRIMARY BONDING BAR (PBB) IN THE ATTIC MECHANICAL ROOM. CONTRACTOR TO CONFIRM EXACT LOCATION OF EXISTING COMMUNICATIONS BONDING BAR IN THE FIELD. ROUTE CONDUCTOR ABOVE CEILING AND CONCEALED IN WALLS.
 - 3 SECONDARY BONDING BAR (SBB): INSTALL WITHIN DISPATCH CONSOLE. COORDINATE EXACT MOUNTING LOCATION AT CONSOLE IN THE FIELD. TYPICAL OF FOUR (4).
 - 4 #2 AWG GREEN-JACKETED COPPER GROUNDING CONDUCTOR; TYPICAL TO SBB AT THE INDICATED CONSOLES.
 - 5 PROVIDE GROUND CONNECTION FOR STATIC DISSIPATIVE FLOORING IN DISPATCH 104: #10 AWG GREEN INSULATED COPPER GROUND CONDUCTOR FROM CONNECTION AT FLOOR TO MSBB GROUND BAR IN STORAGE 103.
 - 6 CEILING GRID THROUGHOUT THE DISPATCH AREA SHALL BE BONDED TO THE MAIN SECONDARY BONDING BAR (MSBB) WITH #6AWG GREEN INSULATED COPPER GROUND CONDUCTOR.
 - 7 APPROXIMATE LOCATION OF EXISTING COMMUNICATIONS PRIMARY BONDING BAR (PBB) LOCATED IN THE ATTIC MECHANICAL ROOM WHERE RADIO ANTENNA CABLES ENTER THE BUILDING.
 - 8 APPROXIMATE LOCATION OF EXISTING ELECTRICAL GROUND BAR LOCATED IN ELECTRICAL 002 ON THE LOWER LEVEL.
 - 9 BONDING CONDUCTOR FROM MSBB TO NEW DATA RACK: #6 AWG GREEN INSULATED COPPER GROUND CONDUCTOR.



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



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LOWER AND
FIRST FLOOR
GROUNDING
PLANS

PROJ. NO. JH2516
DRAWING NO. **E-1.1**
SCALE: 1/8" = 1'-0"
DATE: JULY 6, 2026

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GENERAL ELECTRICAL DEMOLITION NOTES

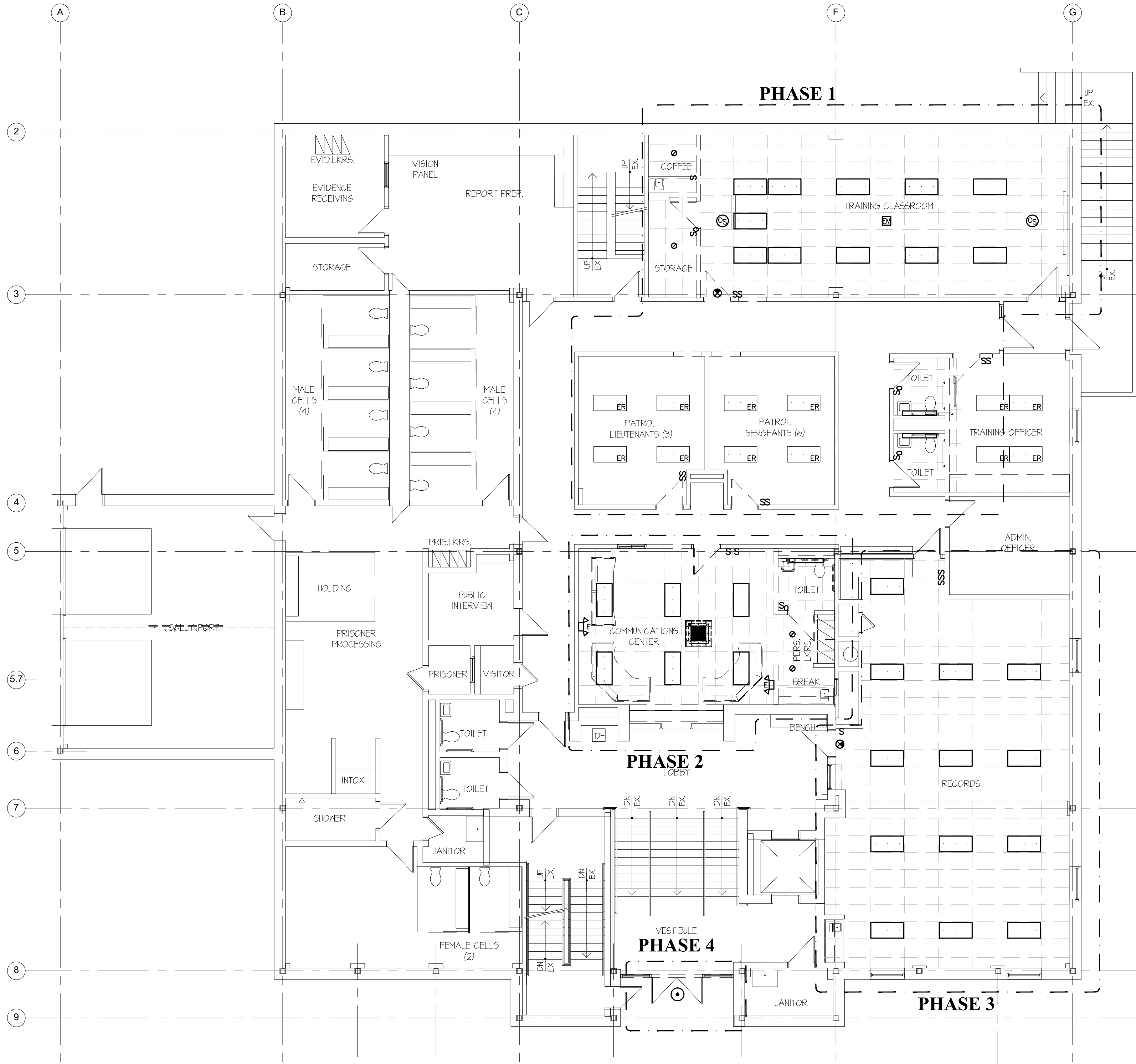
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DEMOLITION DRAWING NOTES

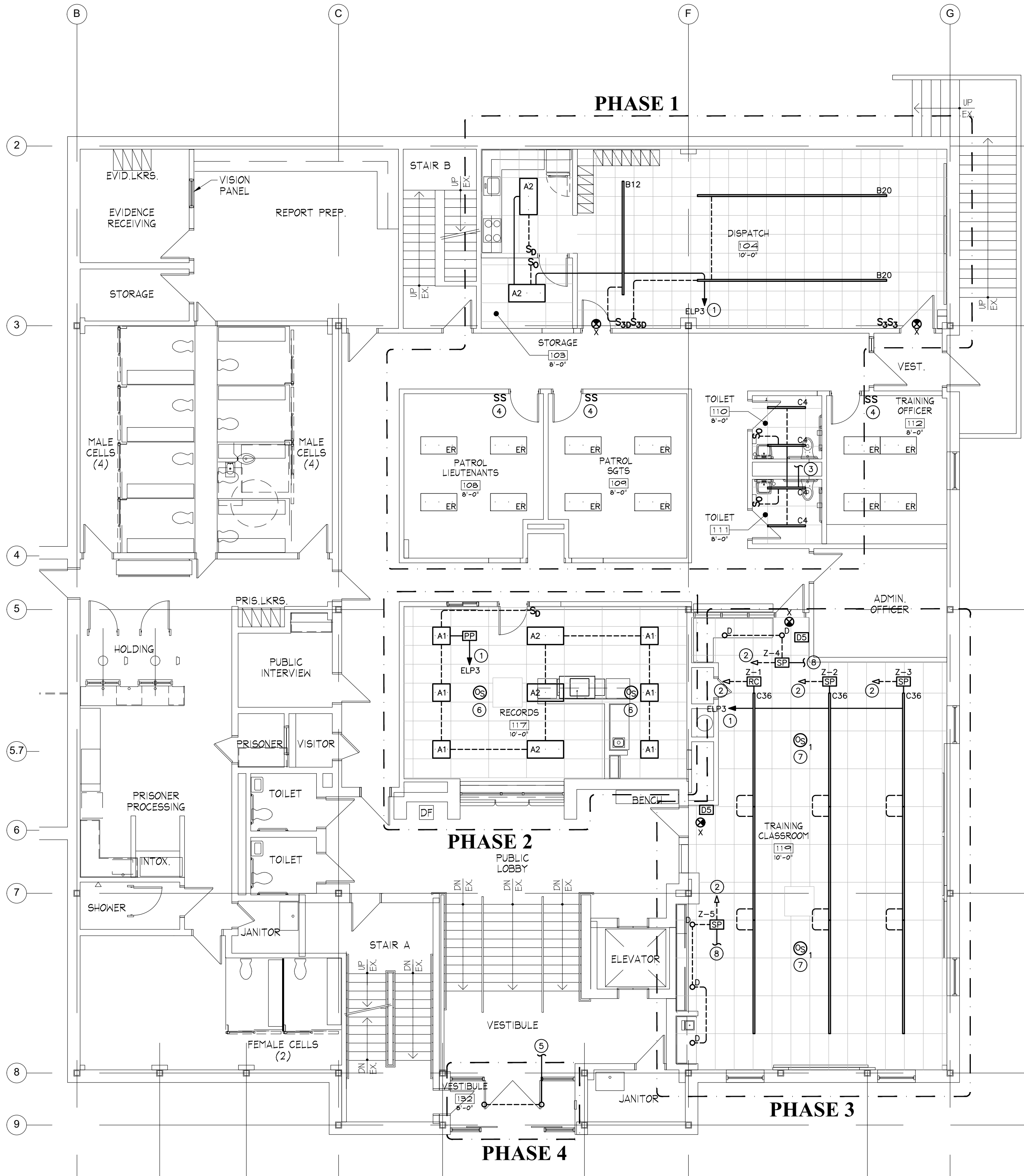
- ① xxxxxxxxxxxxxxxxxxxxxxxxxxxx

DRAWING NOTES

- ① 3/4"C, 2#12, #12G TO A 1P,20A CIRCUIT BREAKER IN PANELBOARD INDICATED.
- ② CAT-5 LOW VOLTAGE SWITCHLEG WIRING TO SWITCH STATIONS AND RELAYS; SEE TRAINING CLASSROOM LIGHTING CONTROL DETAIL.
- ③ CONNECT TO UNSWITCHED PORTION OF EXISTING LIGHTING BRANCH CIRCUIT SERVING THIS AREA WITH 3/4"C, 2#12, #12G.
- ④ WIRE NEW SWITCHES TO EXISTING LIGHT FIXTURES IN THIS ROOM; MATCH EXISTING CONTROL CONFIGURATION.
- ⑤ CONNECT TO EXISTING LIGHTING BRANCH CIRCUIT SERVING THE PUBLIC VESTIBULE WITH 3/4"C, 2#12, #12G; CONTROL WITH VESTIBULE LIGHTS.
- ⑥ SEE TYPICAL LOW VOLTAGE OCCUPANCY SENSOR LIGHTING CONTROL SCHEMATIC FOR WIRING OF POWER PACKS AND OCCUPANCY SENSORS.
- ⑦ SEE TRAINING CLASSROOM LIGHTING CONTROL DETAIL FOR WIRING OF MULTI-TECH OCCUPANCY SENSORS IN THE TRAINING CLASSROOM.
- ⑧ CONNECT TO UNSWITCHED PORTION OF LIGHTING BRANCH CIRCUIT SERVING THE TRAINING ROOM WITH 3/4"C, 2#12, #12G.



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



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



INTERIOR RENOVATIONS TO
NAUGATUCK POLICE DEPARTMENT
CENTRAL DISPATCH FACILITY
FY27-B138
211 SPRING STREET
NAUGATUCK, CONNECTICUT

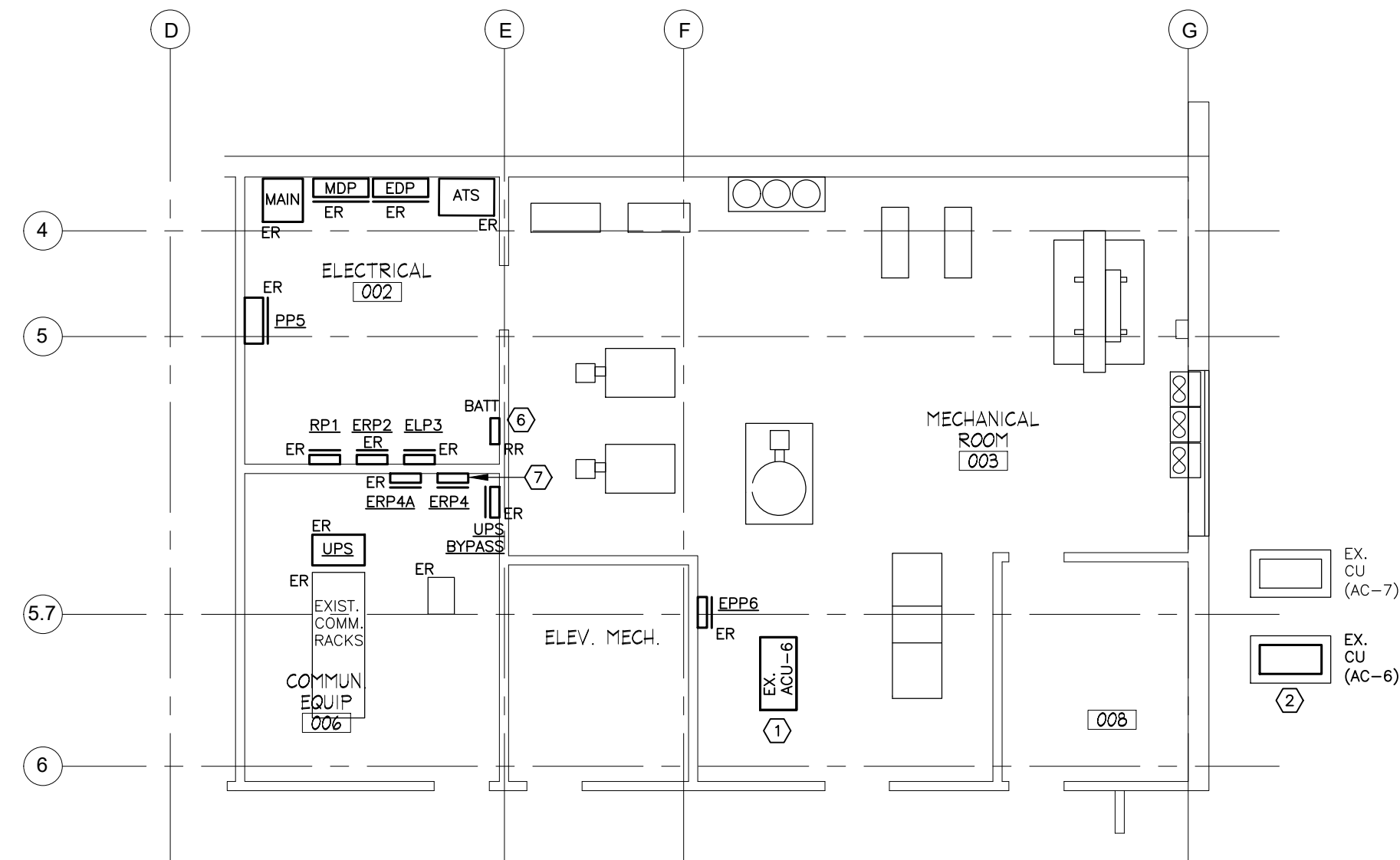
JH
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

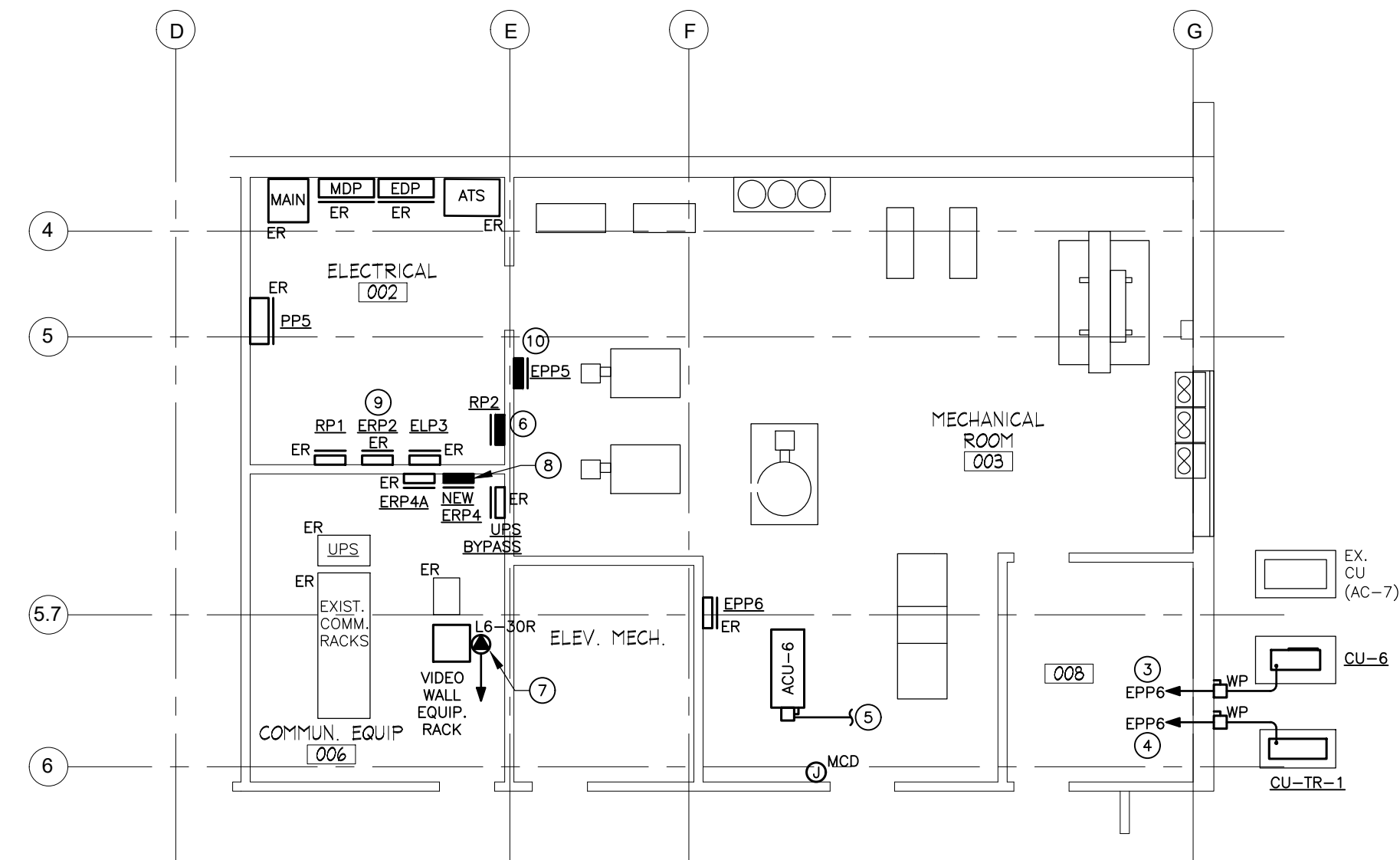
FIRST FLOOR
LIGHTING
PLANS

PROJ. NO.
JH2516
SCALE:
1/8" = 1'-0"
DATE:
JULY 6, 2026

DRAWING NO.
E-2



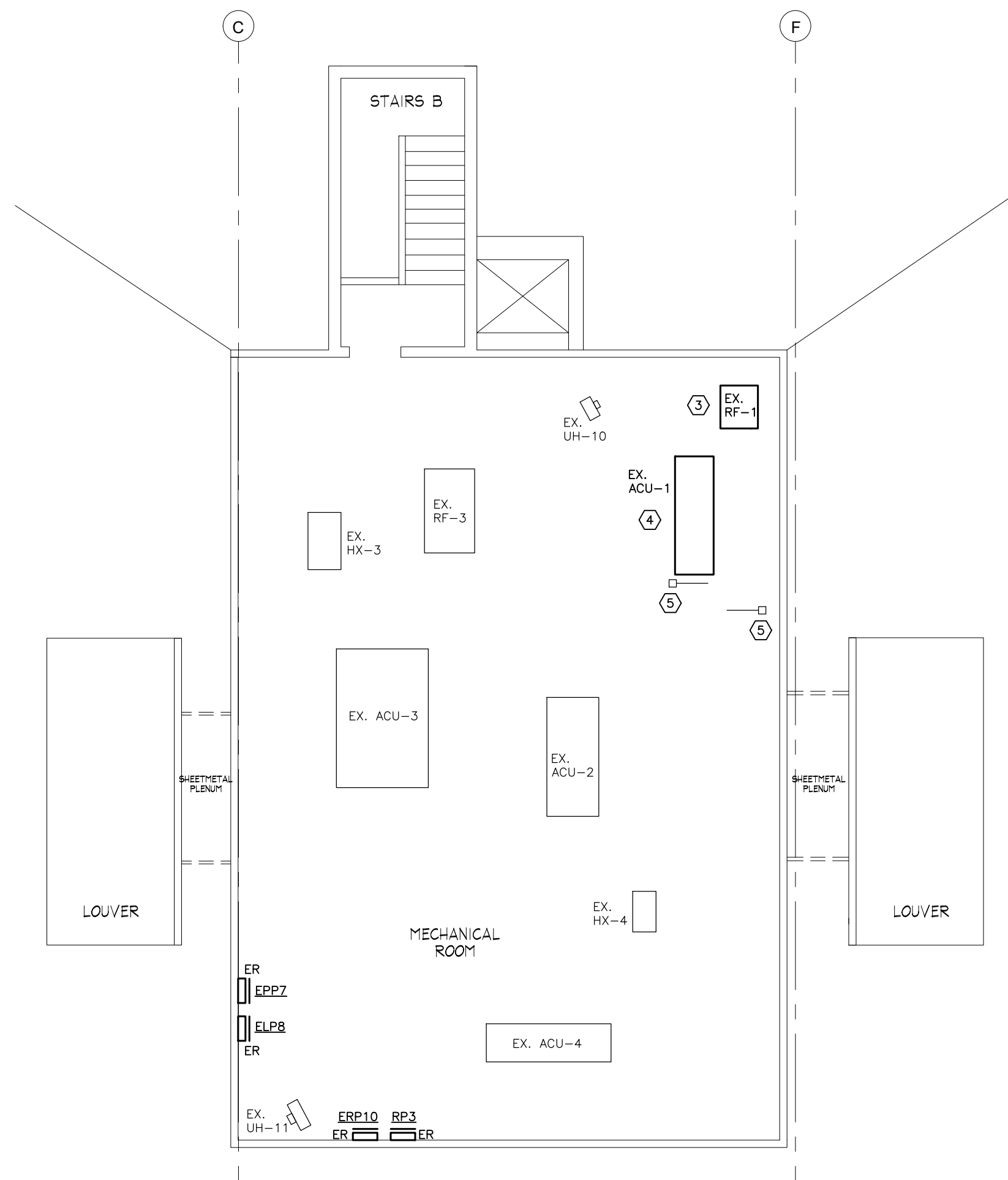
PARTIAL LOWER LEVEL ELECTRICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



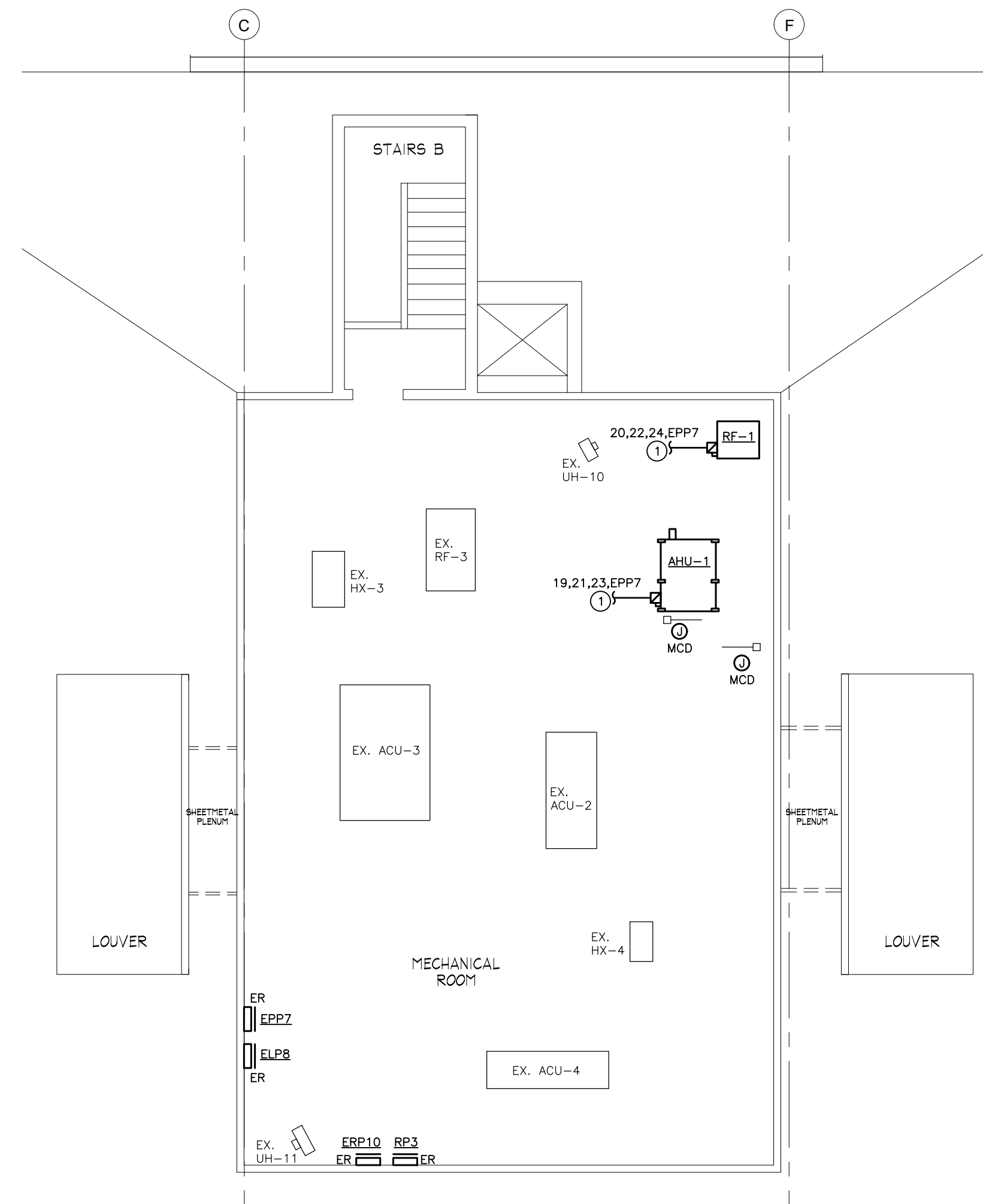
PARIAL LOWER LEVEL ELECTRICAL PLAN
SCALE: 1/8"= 1'-0"

- ## DEMOLITION DRAWING NOTES

- ① DISCONNECT AND REMOVE EXISTING WIRING TO ACU-6.
- ② DISCONNECT AND REMOVE EXISTING WIRING TO AC-6.
- ③ DISCONNECT EXISTING WIRING TO RF-1. REMOVE EXISTING WIRING SUCH THAT EXISTING BRANCH CIRCUIT WIRING SHALL REMAIN FOR REUSE AND BE EXTENDED TO NEW SAFETY SWITCH LOCATION.
- ④ DISCONNECT EXISTING WIRING TO ACU-1. REMOVE EXISTING SAFETY SWITCH, EXISTING BRANCH CIRCUIT WIRING SHALL REMAIN FOR REUSE AND BE EXTENDED TO NEW SAFETY SWITCH LOCATION.
- ⑤ DISCONNECT 120V POWER WIRING TO MOTORIZED CONTROL DAMPERS. REUSE EXISTING BRANCH CIRCUIT WIRING FOR NEW CONTROL DAMPERS.
- ⑥ REMOVE AND RELOCATE EXISTING BATTERY CABINET (FOR TAGS) TO STORAGE ROOM ON THE FIRST FLOOR. SEE FIRST FLOOR POWER PLAN.
- ⑦ REMOVE EXISTING PANEL ERP4 AND REPLACE WITH NEW PANEL ERP4. SEE POWER PLAN AND POWER RISER.



ATTIC / MECHANICAL ROOM ELECTRICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



ATTIC / MECHANICAL ROOM ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

- DRAWING NOTES

- ① CONNECT TO EXISTING 15 AMP, 3-POLE BRANCH CIRCUIT. EXTEND EXISTING WIRING TO NEW SAFETY SWITCH LOCATION WITH 3/4", 5#12, #120.
- ② CONNECT MOTORIZED CONTROL DAMPERS TO EXISTING 120V BRANCH CIRCUIT WITH 3/4", 5#12, #120.
- ③ 3/4", 5#8, #106 TO A 3P, 40A CIRCUIT BREAKER IN PANELEBOARD EPPE6 (ALSO POWER NEW ACU-6).
- ④ 3/4", 5#10, #106 TO A 2P, 25A IN PANELEBOARD EPPE6 (ALSO POWER FCU-TR-1 IN TRAINING CLASSROOM).
- ⑤ 3/4", 3#12, #120 TO CU-6 FOR POWER AND CONTROL WIRING TO ACU-6.
- ⑥ COORDINATE INSTALLATION OF PANEL RP2 AT THIS LOCATION WITH REMOVAL AND RELOCATION OF EXISTING PAF BATTERY
- ⑦ NEMA 16-30W TWIST-LOCK RECEPTACLE TO SERVE DATA RACK FOR VIDEO WALL REQUIREMENTS; APPROXIMATE LOCATION SHOWN; COORDINATE EXACT LOCATION IN THE FIELD WITH VIDEO WALL SUPPLIER AND INSTALLER.
- ⑧ NEW PANEL EPF4; APPROXIMATE LOCATION SHOWN; COORDINATE EXACT LOCATION IN THE FIELD.
- ⑨ EXISTING PANEL ERP2; SEE POWER RISER DIAGRAM.
- ⑩ PROPOSED LOCATION FOR PANEL EPF5, EXACT LOCATION DETERMINED IN THE FIELD.

*INTERIOR RENOVATIONS TO
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CENTRAL DISPATCH FACILITY
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FAX 860-828-9223

ELECTRICAL & MECHANICAL ROOM POWER PLANS

PROJ. NO.	
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DRAWING NO.

SCALE:

$$1/8'' = 1'-0''$$

DATE: _____

Y 6, 2026

E-3

PARTIAL POWER RISER NOTES

- ① EXISTING MAIN DISTRIBUTION PANEL MDP: 208Y/120V 3 PHASE, 4 WIRE, 1000A BUS: USE EXISTING 3P,100A SPARE CIRCUIT BREAKER FOR FEEDER TO PANEL RP2.
- ② 1 1/2", 4#1, #8G.
- ③ NEW PANELBOARD RP2, 208Y/120V, 3 PHASE, 4 WIRE; SEE PANEL RP2 SCHEDULE.
- ④ EXISTING NORMAL POWER PANEL RP1: 208Y/120V 3 PHASE, 4 WIRE, 225A BUS, SQUARE D NQDD SERIES. FED FROM 3P,100A CB IN MDP. SEE PANEL SCHEDULE RP1 FOR ADDED CIRCUIT BREAKERS.
- ⑤ EXISTING EMERGENCY POWER PANEL ERP2: 208Y/120V 3 PHASE, 4 WIRE, 225A BUS, SQUARE D NQDD SERIES. FED FROM 3P,100A CB IN EDP. PROVIDE FOUR (4) ADDITIONAL 1P,20A CIRCUIT BREAKERS IN THIS PANEL.
- ⑥ EXISTING EMERGENCY POWER PANEL ELP3: 208Y/120V 3 PHASE, 4 WIRE, 225A BUS, SQUARE D NQDD SERIES. FED FROM 3P,100A CB IN EDP.
- ⑦ EXISTING EMERGENCY DISTRIBUTION PANEL EDP TO REMAIN: 208Y/120V, 3 PHASE, 4 WIRE, 800A MCB.
- ⑧ EXISTING BYPASS PANEL FOR UPS, FED FROM 3P,100A CB IN EDP.
- ⑨ NEW PANEL UPS1, SEE PANEL SCHEDULE.
- ⑩ 1-1/2", 4#1, #6G.
- ⑪ EXISTING PANEL ERP4 TO REMAIN; REFEED FROM PANEL UPS1.
- ⑫ 1", 4#8, #10G.
- ⑬ EXISTING PANEL ERP4-A TO REMAIN; REFEED FROM PANEL UPS1.
- ⑭ 1-1/4", 4#4, #10G.
- ⑮ NEW PANELBOARD EPP5, 208Y/120V, 3 PHASE, 4 WIRE; SEE PANEL EPP5 SCHEDULE.
- ⑯ 1 1/2", 4#1, #8G; CONNECT TO 3P,100A CIRCUIT BREAKER #5 IN EXISTING EMERGENCY DISTRIBUTION PANEL EDP.

DEMOLITION POWER RISER NOTES

- ① REMOVE FEEDER TO EXISTING PANEL ERP4.
- ② REMOVE EXISTING 3P,40A CB IN PANEL ERP4 AND PROVIDE SPACE COVERS. (PANEL ERP4-A WILL BE FED FROM PANEL UPS1.)
- ③ REMOVE FEEDER TO EXISTING PANEL ERP4-A.
- ④ REMOVE AND RELOCATE EXISTING JUNCTION BOX TO WALL SPACE ABOVE THE PANELS.

PANELBOARD SCHEDULE NOTES

- Ⓐ PROVIDE 1P,20A CB IN EXISTING SPACE.
- Ⓑ PROVIDE GFCI TYPE CIRCUIT BREAKER.
- Ⓒ REMOVE EXISTING 3P,40A CB AND PROVIDE SPACE COVERS. (PANEL ERP4-A WILL BE FED FROM PANEL UPS1.)

EXISTING PANEL RP1															
RATING: 208Y/120V, 3 PHASE, 4 WIRE MAIN BUS: ☒ CU ☐ AL 225A MAIN BUS MAIN DEVICE: EXISTING INTERRUPTING RATING: 22KAIC						LOCATION: ELECTRICAL 002 MOUNTING: ☐ FLUSH ☒ SURFACE TRIM: ☐ SINGLE DOOR ☒ DOOR-IN-DOOR									
CKT. NO.	CKT. BKR.	TRIP AMPS	POLES	DESCRIPTION	WIRE & CONDUIT	KVA	A B C			KVA	WIRE & CONDUIT	DESCRIPTION	CKT. BKR.	CKT. NO.	
							POLES	TRIP AMPS					POLES		TRIP AMPS
1	20	1		ELEVATOR CAR LIGHTS	EXISTING CIRCUIT	—	●			—	EXISTING CIRCUIT	ELECTRICAL BOILER RM PLUGS	1	20	2
3	20	1		ELEVATOR RECALL	EXISTING CIRCUIT	—		●		—	EXISTING CIRCUIT	PLUGS MALE CELL & SALLY PT	1	20	4
5	20	1		ELEVATOR PIT	EXISTING CIRCUIT	—			●	—	EXISTING CIRCUIT	PLUGS PUBLIC INTERVIEW	1	20	6
7	20	1		PLUGS EVIDENCE ARCHIVES	EXISTING CIRCUIT	—	●			—	EXISTING CIRCUIT	PLUGS PUBLIC BATHROOM	1	20	8
9	20	1		BASEMENT PLUGS	EXISTING CIRCUIT	—				—	EXISTING CIRCUIT	PLUGS AND HEATERS VEST.	1	20	10
11	20	1		BASEMENT PLUGS	EXISTING CIRCUIT	—			●	—	EXISTING CIRCUIT	PLUGS RECORDS, JAN, LOBBY	1	20	12
13	20	1		PLUGS RECORDS	EXISTING CIRCUIT	—	●			—	EXISTING CIRCUIT	PLUGS RECORDS, KITCHENETTE	1	20	14
15	20	1		RECORDS COPIER	EXISTING CIRCUIT	—			●	—	EXISTING CIRCUIT	PLUGS OFFICES 1 AND 2	1	20	16
17	20	1		PLUGS REPORT PREP/INTERVIEW	EXISTING CIRCUIT	—			●	—	EXISTING CIRCUIT	PLUGS TRAINING KITCHENETTE	1	20	18
19	20	1		PLUGS TRAINING CLASSROOM	EXISTING CIRCUIT	—	●			—	EXISTING CIRCUIT	EXISTING LOAD	1	20	20
21	20	1		PLUGS BATHROOM AND CORR	EXISTING CIRCUIT	—			●	0.0	—	SPARE	1	20	22
23	20	1		PLUGS TRAINING OFFICER	EXISTING CIRCUIT	—				0.0	—	SPARE	1	20	24
25	20	1		EXISTING LOAD	EXISTING CIRCUIT	—	●			—	EXISTING CIRCUIT	EXISTING LOAD	1	20	26
27	20	1		EXISTING LOAD	EXISTING CIRCUIT	—			●	—	EXISTING CIRCUIT	EXISTING LOAD	1	20	28
29	20	1		EXISTING LOAD	EXISTING CIRCUIT	—				—	EXISTING CIRCUIT	EXISTING LOAD	1	20	30
31	20	1		RECEPTACLES – DISPATCH	3/4", 2#12, #12G	0.4	●			0.4	3/4", 2#12, #12G	RECEPTACLES – CONSOLE	1	20	32
33	20	1		RECEPTACLES – DISPATCH	3/4", 2#12, #12G	0.4		●		0.4	3/4", 2#12, #12G	RECEPTACLES – CONSOLE	1	20	34
35	20	1		RECEPTACLES – DISPATCH	3/4", 2#12, #12G	0.4			●	0.4	3/4", 2#12, #12G	RECEPTACLES – CONSOLE	1	20	36
37	30	3		SURGE SUPPRESSION	EXISTING CIRCUIT	—	●			0.4	3/4", 2#12, #12G	RECEPTACLES – CONSOLE	1	20	38
39	—	—	—	—	—	—			●	0.0	—	SPACE	1	40	
41	—	—	—	—	—	—				0.0	—	SPACE	1	42	

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Ⓐ

PANEL RP2

RATING: 208Y/120V, 3 PHASE, 4 WIRE MAIN BUS: ☒ CU ☐ AL 125A MAIN BUS MAIN DEVICE: MLO INTERRUPTING RATING: 22KAIC										LOCATION: ELECTRICAL 002 MOUNTING: ☐ FLUSH ☒ SURFACE TRIM: ☐ SINGLE DOOR ☒ DOOR-IN-DOOR				
CKT. NO.	CKT. BKR.	POLES	DESCRIPTION	WIRE & CONDUIT	KVA				KVA	WIRE & CONDUIT	DESCRIPTION	CKT. BKR.	POLES	CKT. NO.
						TRIP AMPS	A	B						
1	20	1	RECEPTACLES - RECORDS 117	3/4", 2#12, #12G	0.4				1.0	3/4", 2#12, #12G	COPIER/PRINTER-RECORDS 117	1	20	2
3	20	1	RECEPTACLES - RECORDS 117	3/4", 2#12, #12G	0.2				0.8	3/4", 2#12, #12G	POKE-THRU, TRAINING 119	1	20	4
5	20	1	POKE-THRU, TRAINING 119	3/4", 2#12, #12G	0.8				0.6	3/4", 2#12, #12G	MONITOR BOXES-TRAINING 119	1	20	6
7	20	1	POKE-THRU, TRAINING 119	3/4", 2#12, #12G	0.8				0.2	3/4", 2#12, #12G	RECEPTACLES - LED MIRROR	1	20	8
9	50	2	COOKTOP - DISPATCH KITCHEN	1", 3#6, #10G	4.0				0.0	-	SPARE	1	20	10
11	-	-	-	-	4.0				0.0	-	SPARE	1	20	12
13	20	1	SPARE	-	0.0				0.0	-	SPARE	1	20	14
15	20	1	SPARE	-	0.0				0.0	-	SPARE	1	20	16
17	20	1	SPARE	-	0.0				0.0	-	SPARE	1	20	18
19	1	SPACE	-	-	0.0				0.0	-	SPACE	1	20	20
21	1	SPACE	-	-	0.0				0.0	-	SPACE	1	22	22
24	1	SPACE	-	-	0.0				0.0	-	SPACE	1	24	24
TOTALS PER PHASE						2.4	5.0	5.4						
GRAND TOTAL					12.8									

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PANEL EPP5

RATING: 208Y/120V, 3 PHASE, 4 WIRE MAIN BUS: ☒ CU ☐ AL 125A MAIN BUS MAIN DEVICE: MLO INTERRUPTING RATING: 22KAIC										LOCATION: MECHANICAL/ELECTRICAL ROOM MOUNTING: ☐ FLUSH ☒ SURFACE TRIM: ☐ SINGLE DOOR ☒ DOOR-IN-DOOR												
CKT. NO.	CKT. BKR.	TRIP AMPS	POLES	DESCRIPTION	WIRE & CONDUIT	KVA	A			B			C			KVA	WIRE & CONDUIT	DESCRIPTION	CKT. BKR.	TRIP AMPS	POLES	CKT. NO.
1	20	1		MONITOR BOXES - DISPATCH	3/4", 2#12, #12G	0.4									0.6	3/4", 2#12, #12G	MONITOR BOXES - DISPATCH	1		20	2	
3	20	1		MONITOR BOXES - DISPATCH	3/4", 2#12, #12G	0.4									0.4	3/4", 2#12, #12G	MONITOR BOXES - DISPATCH	1		20	4	
5	20	1		MONITOR BOXES - DISPATCH	3/4", 2#12, #12G	0.4									0	-	SPARE	1		20	6	
7	20	1		SPARE	-	0.0									0	-	SPARE	1		20	8	
9	20	1		SPARE	-	0.0									0	-	SPARE	1		20	10	
11	20	1		SPARE	-	0.0									0	-	SPARE	1		20	12	
13	20	1		SPARE	-	0.0									0	-	SPARE	1		20	14	
15	20	1		SPARE	-	0.0									0	-	SPARE	1		20	16	
17	20	1		SPARE	-	0.0									0	-	SPARE	1		20	18	
19	1			SPACE	-	0.0									0	-	SPACE	1		20	20	
21	1			SPACE	-	0.0									0	-	SPACE	1		22	22	
24	1			SPACE	-	0.0									0	-	SPACE	1		24	24	
TOTALS PER PHASE							-		-		-											
GRAND TOTAL							-															

RATING: 208Y/120V, 3 PHASE, 4 WIRE MAIN BUS: ☒ CU ☐ AL 125A MAIN BUS MAIN DEVICE: 3P,100A MCB INTERRUPTING RATING: 22KAIC										PANEL UPS1 (UPS POWER)										LOCATION: COMM. EQUIPMENT 006 MOUNTING: ☐ FLUSH ☒ SURFACE TRIM: ☐ SINGLE DOOR ☒ DOOR-IN-DOOR									
CKT. NO.	CKT. BKR.	POLES	DESCRIPTION	WIRE & CONDUIT	KVA	A			B			C			KVA	WIRE & CONDUIT	DESCRIPTION	CKT. BKR.	POLES	TRIP AMPS	CKT. NO.								
1	20	1	RECEPTACLES - DISPATCH 104	3/4", 2#12, #12G	0.4									0.4	3/4", 2#12, #12G	RECEPTACLES - DISPATCH 104	1	20	2										
3	20	1	RECEPTACLES - DISPATCH 104	3/4", 2#12, #12G	0.4									0.4	3/4", 2#12, #12G	RECEPTACLES - DISPATCH 104	1	20	4										
5	20	1	RECEPTACLES - DISPATCH 104	3/4", 2#12, #12G	0.4									0.4	3/4", 2#12, #12G	RECEPTACLES - DISPATCH 104	1	20	6										
7	20	1	RECEPTACLES - DISPATCH 104	3/4", 2#12, #12G	0.4									0.4	3/4", 2#12, #12G	RECEPTACLES - DISPATCH 104	1	20	8										
9	20	1	RECEPTACLES - DISPATCH 104	3/4", 2#12, #12G	0.4									0.4	3/4", 2#12, #12G	RECEPTACLES - DISPATCH 104	1	20	10										
11	20	1	RECEPTACLES - DISPATCH 104	3/4", 2#12, #12G	0.4									0.4	3/4", 2#12, #12G	RECEPTACLES - DISPATCH 104	1	20	12										
13	60	3	SUB-PANEL ERP4	SEE POWER RISER	-									-	SEE POWER RISER	SUB-PANEL ERP4-A	3	40	14										
15	-	-	-	-	-									-	-	-	-	-	16										
17	-	-	-	-	-									-	-	-	-	-	18										
19	1	SPACE	-	-	0.0									0.0	-	SPACE	1	20	20										
21	1	SPACE	-	-	0.0									0.0	-	SPACE	1	22	22										
23	1	SPACE	-	-	0.0									0.0	-	SPACE	1	24	24										
TOTALS PER PHASE					-	-	-	-	-	-	-	-	-	-															
GRAND TOTAL					-																								

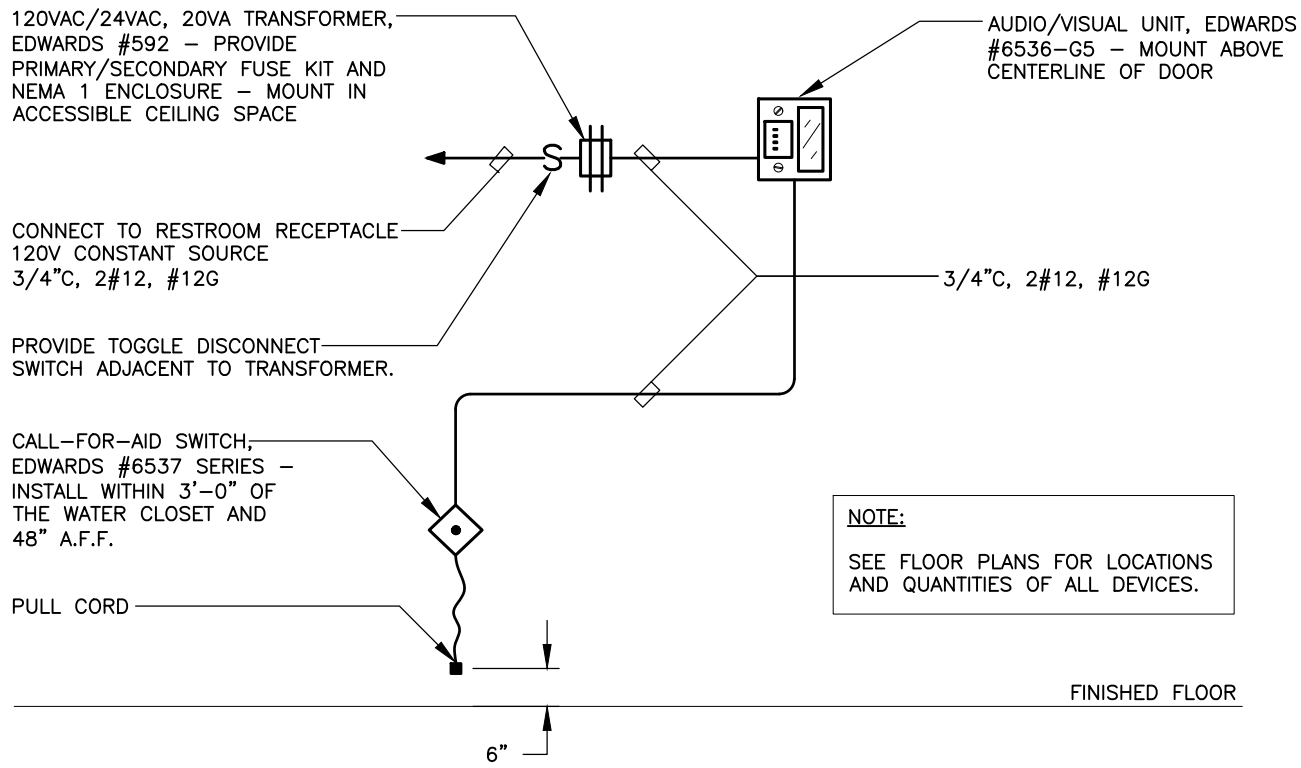
EXISTING PANEL ERP4

RATING: 208Y/120V, 3 PHASE, 4 WIRE MAIN BUS: ☒ CU ☐ AL 60A MAIN BUS MAIN DEVICE: 3P, 60A MCB				(UPS POWER)				LOCATION: COMM. EQUIPMENT 006 MOUNTING: ☐ FLUSH ☒ SURFACE TRIM: ☒ SINGLE DOOR ☐ DOOR-IN-DOOR						
CKT. NO.	CKT. BKR.		DESCRIPTION	WIRE & CONDUIT	KVA				KVA	WIRE & CONDUIT	DESCRIPTION	CKT. BKR.		CKT. NO.
	TRIP AMPS	POLES				A	B	C				POLES	TRIP AMPS	
1	20	1	RECEPTACLES - COMM. RM.	EXISTING CIRCUIT	0.0	●			0.0	EXISTING CIRCUIT	ACCESS CONTROL PANEL	1	20	2
3	20	1	RECEPTACLES - 1ST FL OFFICE	EXISTING CIRCUIT	0.0	●	●		0.0	EXISTING CIRCUIT	RECEPTACLES-COMM EQUIP RM	1	20	4
5	20	1	ATTIC PDU	EXISTING CIRCUIT	0.0			●	0.0	EXISTING CIRCUIT	RECEPTACLES-COMM EQUIP RM	1	20	6
7	20	1	TRANSFER SWITCH	EXISTING CIRCUIT	0.0	●			0.0	EXISTING CIRCUIT	RECEPTACLES-EXIST. DISPATCH	1	20	8
9	20	1	TRANSFER SWITCH	EXISTING CIRCUIT	0.0		●		0.0	EXISTING CIRCUIT	RECEPTACLES-EXIST. DISPATCH	1	20	10
11	20	1	EXISTING LOAD	EXISTING CIRCUIT	0.0			●	0.0	EXISTING CIRCUIT	RECEPTACLES - COMPUTERS	1	20	12
13	20	1	EXISTING LOAD	EXISTING CIRCUIT	0.0	●			0.0	EXISTING CIRCUIT	EXISTING LOAD	1	20	14
15	20	1	COMP. RECEPTACLE #7	EXISTING CIRCUIT	0.0		●		0.0	EXISTING CIRCUIT	RECEPTACLES - COMPUTERS	1	20	16
17	20	1	911 UPS SYSTEM	EXISTING CIRCUIT	0.0				0.0	EXISTING CIRCUIT	PDU-1	2	20	18
19	40	1	SUB-PANEL ERP4-A	-	0.0	●			-	-	-	-	-	20
21	-	-	-	-	0.0		●		0.0	EXISTING CIRCUIT	PDU-2	2	20	22
23	-	-	-	-	0.0			●	-	-	-	-	-	24

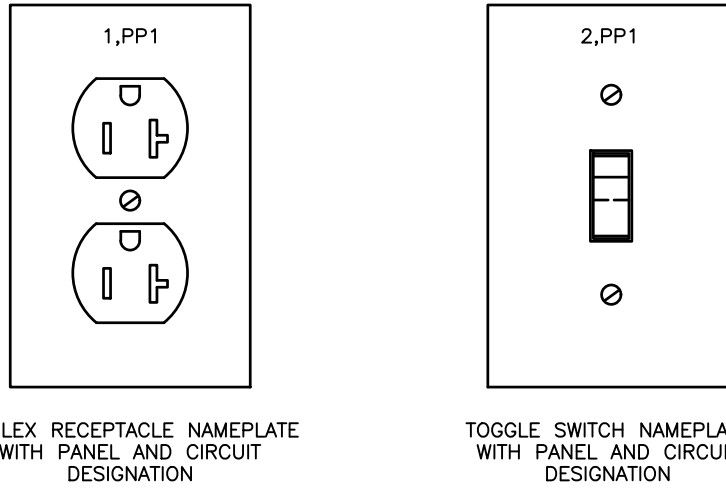
EXISTING PANEL ERP4-A

RATING: 208Y/120V, 3 PHASE, 4 WIRE MAIN BUS: ☒ CU ☐ AL 100A

G:\IES Projects\2025 Projects\Team PJP\25141 Naugatuck Police Renovation\Contract Documents\25141 E-5.dwg Plotted by cguzzi on Jul 07, 2026 -- 2:07pm

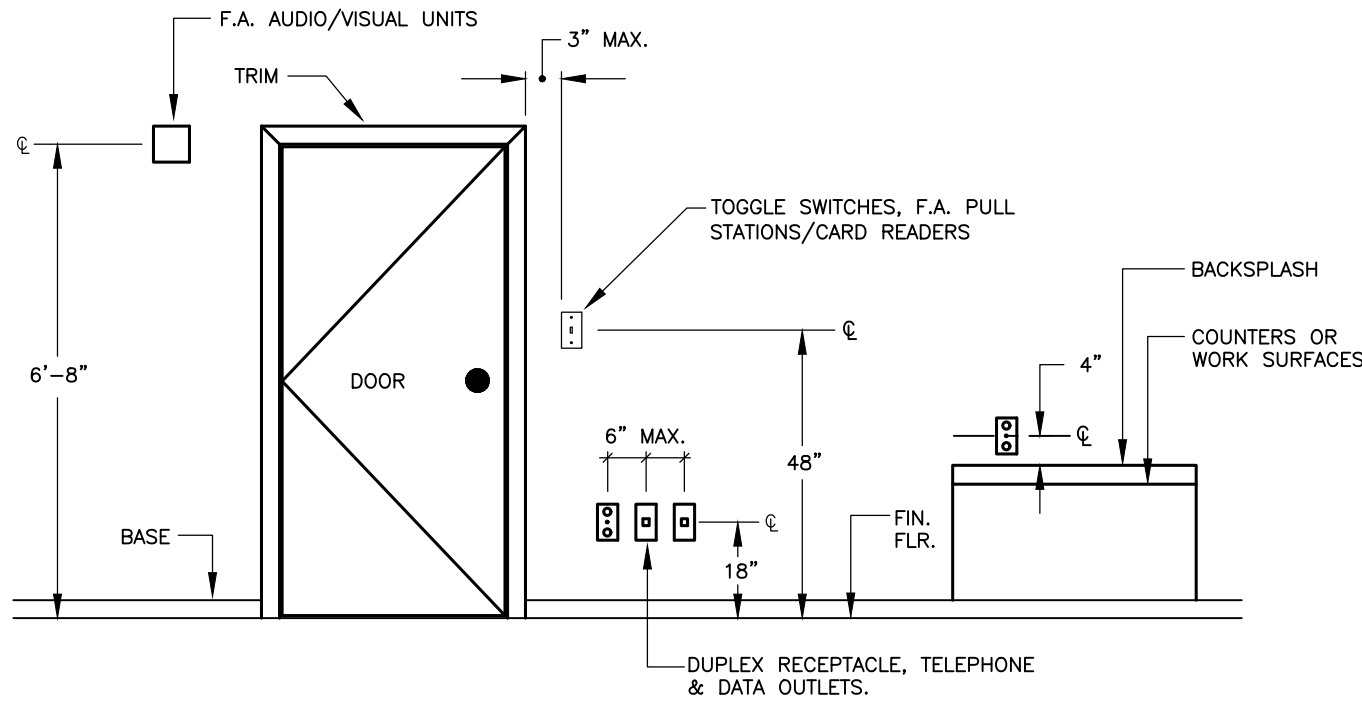


TYPICAL CALL-FOR-AID WIRING DETAIL
SCALE: N.T.S.

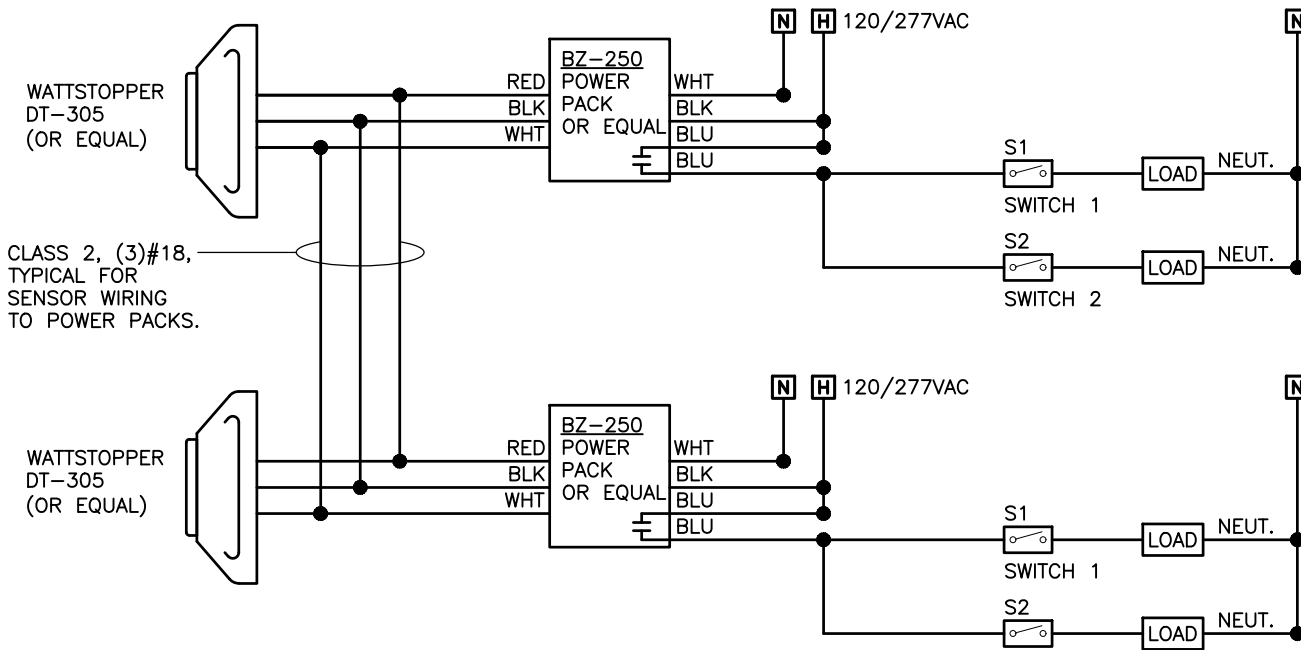


* APPLIES TO ALL DEVICES, ALL AREAS.

TYPICAL ELECTRICAL DEVICE ENGRAVING DETAIL
SCALE: N.T.S.



DEVICE MOUNTING DETAIL
SCALE: N.T.S.



TYPICAL LOW-VOLTAGE OCCUPANCY SENSOR LIGHTING CONTROL SCHEMATIC
SCALE: N.T.S.

LIGHTING SPECIFICATIONS

LIGHTING FIXTURE TYPE A1	
MANUFACTURER	METALUX/COOPER LIGHTING
CATALOG NO.	22C22-34HE-UNV-LB35-HCD1
FIXTURE DESCRIPTION	2'x2' LAY-IN LUMINAIRE
VOLTAGE	120
LAMP & DESIGNATION	24.3W LED, 3426 LUMENS, 3500K
BALLAST	LED DRIVER, 0-10V DIMMABLE, 1%
MOUNTING	RECESSED, GRID
HOUSING	STEEL
LENS/LOUVER	RIBBED FROSTED ACRYLIC LENS
REMARKS	-

LIGHTING FIXTURE TYPE A2	
MANUFACTURER	METALUX/COOPER LIGHTING
CATALOG NO.	24C22-45HE-UNV-LB35-HCD1
FIXTURE DESCRIPTION	2'x4' LAY-IN LUMINAIRE
VOLTAGE	120
LAMP & DESIGNATION	36.3W LED, 4712 LUMENS, 3500K
BALLAST	LED DRIVER, 0-10V DIMMABLE, 1%
MOUNTING	RECESSED, GRID
HOUSING	STEEL
LENS/LOUVER	RIBBED FROSTED ACRYLIC LENS
REMARKS	-

LIGHTING FIXTURE TYPE B12	
MANUFACTURER	NEO-RAY/COOPER LIGHTING
CATALOG NO.	S124DP-C575D835-C411-12F0-1-UDD-F-W
FIXTURE DESCRIPTION	4'x12' LINEAR LUMINAIRE
VOLTAGE	120
LAMP & DESIGNATION	LED, 4.8W/FT, 575LM/FT, 3500K
BALLAST	LED DRIVER, 0-10V DIMMABLE, 1%
MOUNTING	SUSPENDED PENDANT
HOUSING	STEEL
LENS/LOUVER	CONTINUOUS MOUNT
REMARKS	-

LIGHTING FIXTURE TYPE B20	
MANUFACTURER	NEO-RAY/COOPER LIGHTING
CATALOG NO.	S124DP-C575D835-C411-20F0-1-UDD-F-W
FIXTURE DESCRIPTION	4'x20' LINEAR LUMINAIRE
VOLTAGE	120
LAMP & DESIGNATION	LED, 4.8W/FT, 575LM/FT, 3500K
BALLAST	LED DRIVER, 0-10V DIMMABLE, 1%
MOUNTING	SUSPENDED PENDANT
HOUSING	STEEL
LENS/LOUVER	CONTINUOUS MOUNT
REMARKS	-

LIGHTING FIXTURE TYPE C4	
MANUFACTURER	NEO-RAY/COOPER LIGHTING
CATALOG NO.	S124DP-C575D835-ETG-
FIXTURE DESCRIPTION	4F0-1B1-UDD-F-W
VOLTAGE	120
LAMP & DESIGNATION	LED, 4.8W/FT, 575LM/FT, 3500K
BALLAST	LED DRIVER, 0-10V DIMMABLE, 1%
MOUNTING	RECESSED, GRID
HOUSING	STEEL ALUMINUM TRIM
LENS/LOUVER	SATIN WHITE ACRYLIC LENS
REMARKS	-

LIGHTING FIXTURE TYPE C36	
MANUFACTURER	NEO-RAY/COOPER LIGHTING
CATALOG NO.	S124DR-S575D835-ETG-
FIXTURE DESCRIPTION	36F0-1B1-UDD-F-W
VOLTAGE	120
LAMP & DESIGNATION	LED, 4.8W/FT, 575LM/FT, 3500K
BALLAST	LED DRIVER, 0-10V DIMMABLE, 1%
MOUNTING	RECESSED, GRID
HOUSING	STEEL ALUMINUM TRIM
LENS/LOUVER	SATIN WHITE ACRYLIC LENS
REMARKS	-

LIGHTING FIXTURE TYPE O	
MANUFACTURER	PORTFOLIO/COOPER LIGHTING
CATALOG NO.	LDS4C-1590-350010-S2MW
FIXTURE DESCRIPTION	4" DIA SHALLOW DOWNLIGHT
VOLTAGE	120
LAMP & DESIGNATION	16.2W LED, 1500 LUMENS, 3500K
BALLAST	LED DRIVER, 0-10V DIMMING
MOUNTING	RECESSED
HOUSING	GALVANIZED STEEL
LENS/LOUVER	RED
REMARKS	-

LIGHTING FIXTURE TYPE X	
MANUFACTURER	SURE-LITES
CATALOG NO.	LPX7RSF
FIXTURE DESCRIPTION	EXIT SIGN, SINGLE FACE
VOLTAGE	120
LAMP & DESIGNATION	LED
BALLAST	-
MOUNTING	UNIVERSAL
HOUSING	THERMOPLASTIC, WHITE
LENS/LOUVER	RED
REMARKS	INTEGRAL MAINTENANCE-FREE LITHIUM-ION BATTERY, CHARGER, SELF-TESTING, CIRCUIT TO NON-SWITCHED SIDE OF LOCAL LIGHTING CIRCUIT

- LIGHTING NOTES:
1. ALL LAMP COLOR TEMPERATURE SHALL BE 3500K UNLESS OTHERWISE SPECIFIED.
 2. CONFIRM FINISHES OF ALL FIXTURES WITH ARCHITECTURAL DRAWINGS.
 3. CONFIRM CEILING TYPES AND MOUNTING HEIGHTS OF ALL FIXTURES WITH ARCHITECTURAL DRAWINGS.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
S	SINGLE POLE TOGGLE SWITCH
S ₃	THREE WAY TOGGLE SWITCH
S ₄	FOUR WAY TOGGLE SWITCH
S ₀	SINGLE POLE DIMMER SWITCH
S _F	FAN SWITCH
S ₀	OCCUPANCY SENSOR SWITCH
S _{TT}	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD PROTECTION
RC	LIGHTING ROOM CONTROLLER, 120-277VAC, "Z-B" WHERE SHOWN INDICATES LIGHTING ZONE NUMBER WITHIN ROOM; INTELLIGENT LIGHTING CONTROLS #EVO-INT-2.
Z-#	SUPPLEMENTAL LIGHTING CONTROL RELAY, 120-277VAC, 0-10V DIMMING, "Z-# WHERE SHOWN INDICATES LIGHTING ZONE NUMBER WITHIN ROOM; ILC #EVO-INT-2-RC.
SD	DIGITAL SWITCH STATION: 5-BUTTON, WITH CAT5 CABLE AND RJ45 CONNECTORS; INTELLIGENT LIGHTING CONTROLS G3 SERIES SWITCH STATION #LSG3-WH-S-MZD.
PP	POWER PACK FOR LIGHTING CONTROL, 20A RATED.
PE	POWER PACK FOR LIGHTING CONTROL, 20A RATED WITH UL924 LISTING FOR EMERGENCY OPERATION.
CS	OCCUPANCY SENSOR, CEILING MOUNT
CS ₁	OCCUPANCY SENSOR, CEILING MOUNT, DUAL-TECH OPERATION, PASSIVE INFRARED AND ACOUSTIC SENSING, INTELLIGENT LIGHTING CONTROLS #LSCS-06-AR.
Φ	DUPLEX RECEPTACLE
Φ	DUPLEX RECEPTACLE, MOUNTED ABOVE COUNTER
Φ	DOUBLE DUPLEX RECEPTACLE
Φ	OUTLET TO SUIT EQUIPMENT (CONTRACTOR TO VERIFY)
■	PANELBOARD, 208V
■	EXISTING PANELBOARD
—	CONDUIT AND WIRE
1,PP	HOME/RUN TO PANELBOARD, NUMBERS/LETTERS INDICATE CIRCUIT AND PANELBOARD TERMINATION UNLESS OTHERWISE INDICATED.
---	CONDUIT AND WIRE, SWITCHED
○	JUNCTION BOX
○	MOTOR
□	SAFETY DISCONNECT SWITCH
□	FUSIBLE SAFETY DISCONNECT SWITCH
⊗	MOTOR STARTER
—	FIRE STOP SLEEVE, HILTI CP653 4"
◇	CALL-FOR-AID PULL STATION
△	CALL-FOR-AID AUDIO/VISUAL UNIT
Φ	CALL-FOR-AID TRANSFORMER
■	2'x2' LIGHT FIXTURE
■	LINEAR LIGHT FIXTURE
⊗	EXIT SIGN
⊗	CLOCK OUTLET ON MASTER CLOCK SYSTEM, 120VAC.
Φ	EXISTING POWER OUTLETS, FLOOR MOUNTED
MB	MONITOR UTILITY BOX, PEERLESS-AV #B14X9-W WITH IN-WALL BOX COVER, NEMA 5-20R DUPLEX POWER RECEPTACLE AND COVER PLATE, TWO (2) RJ-45 DATA JACKS AND COVER PLATE. SEE COMMUNICATIONS PLANS FOR ADDITIONAL DATA REQUIREMENTS.
Φ	LEGRAND WIREMOLD EVOLUTION 8AT SERIES POKE-THRU, WITH RECESSED PREWIRED SURFACE STYLE POKE-THRU ASSEMBLY #B8122MA, BRUSHED ALUMINUM DURABLE FINISH, TWO (2) PRE-WIRED, PRE-INSTALLED DUPLEX RECEPTACLES, AND THREE (3) SINGLE-GANG COMPARTMENTS FOR DATA AND HDMI OUTLETS.

NOTE: FINISH COLOR OF ALL DEVICES AND COVER PLATES SHALL BE WHITE.

GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK REQUIRED FOR A COMPLETE, FULLY OPERABLE INSTALLATION. ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE NEC AND APPLICABLE LOCAL CODES.
2. PRIOR TO SUBMISSION OF BIDS GIVE WRITTEN NOTICE TO ARCHITECT AND ENGINEER OF ANY MATERIAL OR APPARATUS THAT IS INADEQUATE, UNSUITABLE FOR THE USE, IN VIOLATION OF LAWS, ORDINANCES, RULES, CODES OR ANY REGULATIONS OF AUTHORITIES HAVING JURISDICTION OR ANY NECESSARY ITEMS OF WORK THAT HAS BEEN OMITTED. CONTRACTOR AFFIRMS THAT ABSENT SUCH NOTICE, ALL SYSTEMS WILL FUNCTION SATISFACTORILY WITHOUT ADDITIONAL EXTRA COMPENSATION.
3. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND ADHERE TO THE CONTENTS OF THE BID DOCUMENTS. ANY DEVIATIONS FROM THE INFORMATION PROVIDED IN THE DOCUMENTS MUST BE LISTED IN WRITING. INNOVATIVE ENGINEERING SERVICES, LLC HAS THE RIGHT TO BE COMPENSATED FOR REVIEW OF VALUE ENGINEERING OR SUBSTITUTED MATERIALS AND EQUIPMENT.
4. ELECTRICAL CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED TO THEIR ORIGINAL CONDITION. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, PAINTING, CLEAN-UP, ELECTRICAL DEBRIS REMOVAL, AND GENERAL COORDINATION OF THE WORK EFFORT AS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL ITEMS OF WORK.
5. THE DRAWINGS SHOW THE GENERAL LAYOUT AND SOME OF THE DETAIL, BUT THEY DO NOT SHOW EVERY FITTING, BEND, ... ETC. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SUCH MATERIALS TO MAKE A COMPLETE INSTALLATION.
6. ALL PART NUMBERS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THEY ARE NOT TO BE CONSIDERED THE COMPLETE SPECIFICATION OF THE PRODUCT, THE PART NUMBER AND DESCRIPTION WILL BE THE COMPLETE SPECIFICATION. IN THE EVENT OF A DISCREPANCY BETWEEN THE TWO, THE MORE STRINGENT, MORE COSTLY FEATURE/PERFORMANCE WILL BE REQUIRED.
7. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING OF ALL PHASES OF THE WORK AND TO DEMONSTRATE TO OWNER THAT THE EQUIPMENT IS IN FULL OPERATING ORDER.
8. DO NOT SCALE DRAWINGS; ACTUAL FIELD MEASUREMENTS AND DIMENSIONS TAKE PRECEDENCE IN ALL CASES.
9. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT, AIA DOCUMENT 201, LATEST EDITION.
10. ELECTRICAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND OR REQUIREMENTS FOR PROPER OPERATION AND MAINTENANCE.
11. IN ADDITION TO THE REQUIREMENTS SHOWN FOR LOW VOLTAGE EQUIPMENT AND RACEWAYS, THE ELECTRICIAN SHALL CARRY AN ALLOWANCE FOR FINAL COORDINATION OF ALL RACEWAYS AND SLEEVES REQUIRED TO FACILITATE THE LOW VOLTAGE CONSULTANT WORK.
12. ELECTRICAL CONTRACTOR SHALL WARRANT AND GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
13. ELECTRICAL CONTRACTOR SHALL GIVE OWNER 10 DAYS ADVANCE NOTICE OF SHUTDOWNS, OR AS DIRECTED BY THE OWNER. SHUTDOWNS TO BE KEPT TO A MINIMUM. AT NO TIME SHALL THE BUILDING/SPACE BE LEFT WITHOUT COMMERCIAL POWER IN FULL OPERATING ORDER.
14. PROVIDE INDEPENDENT SEISMIC SUPPORT OF ALL ELECTRICAL EQUIPMENT PER THE LATEST ADOPTED VERSION OF THE INTERNATIONAL BUILDING CODE.
15. ALL ELECTRICAL PENETRATIONS TO BE FIREPROOFED TO MAINTAIN INTEGRITY OF FIRE WALLS/FLOORS/CEILINGS.
16. ALL THE WIRE SIZES ARE BASED ON COPPER, ALUMINUM IS NOT TO BE USED UNLESS NOTED OTHERWISE.
17. MINIMUM CONDUCTOR SIZE FOR A FULLY LOADED 20A CIRCUIT, UNLESS OTHERWISE NOTED, SHALL BE #12 FOR ALL BRANCH CIRCUIT RUNS UP TO THE FIRST OUTLET; OVER 60 FEET, #10; OVER 100 FEET, #8; INCREASE CONDUIT SIZE TO SUIT.
18. CIRCUIT NUMBERS ARE INDICATED FOR INTENT ONLY. THE ELECTRICAL CONTRACTOR SHALL ADJUST ACCORDINGLY IN THE FIELD, TO BALANCE CIRCUITS EVENLY ON ALL PHASES.
19. ALL WIRING METHODS ARE TO BE IN ACCORDANCE WITH THE CURRENT ISSUE OF THE NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES. ALL WIRING IS TO BE IN CONDUIT, UNLESS SPECIFICALLY NOTED OTHERWISE. ALL WIRING IS TO BE CONCEALED.
20. ELECTRICAL CONTRACTOR MUST COORDINATE LED DRIVER WITH DIMMER SWITCH FOR COMPATIBILITY.
21. SHARED NEUTRALS ARE NOT TO BE USED. PROVIDE SEPARATE NEUTRALS FOR ALL CIRCUITS INCLUDING SWITCHES PER THE LATEST EDITION OF THE NEC.
22. FOR ALL ROOFTOP OR GRADE LEVEL HVAC EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL SUPPLY A GFCI WP WHILE-IN-USE, 20A RECEPTACLE FOR EQUIPMENT SERVICING. ALL DISCONNECT SWITCHES ARE TO BE HEAVY DUTY, FUSED, WEATHERPROOF (WP) DEVICES.
23. FOR ALL FLOOR BOXES WITH DATA COMMUNICATIONS SERVICES PROVIDE 1-1/4" EMPTY CONDUIT TO HUNG CEILING OR OTHER ACCESSIBLE SPACE. INSTALL A DRAG WIRE.
24. FOR ALL WALL/CEILING BOXES FOR DATA COMMUNICATIONS PROVIDE 1-1/4" EMPTY CONDUITS TO HUNG CEILING OR OTHER ACCESSIBLE SPACE. INSTALL A DRAG WIRE.
25. RISER DIAGRAMS ARE PROVIDED TO SHOW DIAGRAMMATIC GENERAL WIRING REQUIREMENTS. WIRING IS TO BE PROVIDED FOR THE PARTICULAR VENDOR/SYSTEM APPROVED FOR THE PROJECT. ALL WIRING IS TO BE CONCEALED.
26. ALL WIRING IN AIR PLENUM CEILINGS SHALL BE TEFLON COATED AND RATED FOR USE WITHIN THE PLENUM.
27. NO LOW VOLTAGE WIRING SHALL BE PERMITTED IN THE SAME RACEWAY AS POWER WIRING.
28. EMERGENCY SERVICES SHALL BE RUN IN SEPARATE RACEWAYS FROM ALL OTHER SYSTEMS.
29. PROVIDE DRAG LINES IN ALL EMPTY RACEWAYS.
30. ELECTRICAL CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL FOR ALL LIGHT FIXTURES, PANELS, SWITCHES, RECEPTACLES, POKE-THROUGHS, WIREMOLD, TRANSFORMERS, GENERATOR, ATS, UPS AND SPECIALTY ELECTRICAL SYSTEMS, ETC.
31. ELECTRICAL CONTRACTOR TO VERIFY LIGHTING FIXTURE MOUNTING HEIGHT REQUIREMENTS FOR VARIOUS CEILING TYPES AND ORDER APPROPRIATE HARDWARE.
32. COORDINATE EXACT PLACEMENT OF EQUIPMENT WITH ARCHITECTURAL AND MECHANICAL PLANS, MAKE FIELD ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS, VERIFY WITH OWNER.
33. ELECTRICAL CONTRACTOR TO COORDINATE WITH ARCHITECTURAL AND MECHANICAL CONTRACTOR FOR ITEMS SUPPLIED BY THE MECHANICAL/OTHER DIVISIONS BUT INSTALLED BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO REVIEW ALL THE PLANS FOR THE PROJECT AND ASSIST IN PROVIDING COORDINATION DRAWINGS WITH OTHER TRADES.
34. ELECTRICAL CONTRACTOR TO VERIFY LOADS, SETTINGS, OVERCURRENT PROTECTION... ETC TO INSURE COMPATIBILITY OF EQUIPMENT.
35. PROVIDE LAMICOID NAMEPLATES AND TYPEWRITTEN PANEL SCHEDULES FOR ALL PANEL BOARDS, DISTRIBUTION AND DISCONNECT EQUIPMENT, MODIFIED OR PROVIDED AS NEW AS PART OF THE SCOPE OF WORK. ALTERNATE LABELING PROVISIONS MUST BE APPROVED BY THE ENGINEER.
36. REFER TO ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF ALL DEVICES AND OUTLETS.
37. DISCONNECT SWITCHES AND CIRCUIT BREAKER USED AS SWITCHES SHALL BE INSTALLED IN ACCORDANCE WITH ALL LOCAL CODES AND THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE "NEC" SECTION 110.26(A)(1) AND SECTION 404.8. ALL DISCONNECT SWITCHES AND CIRCUIT BREAKERS SHALL BE LOCATED SO THAT THEY MAY BE OPERATED FROM A READILY ACCESSIBLE PLACE. THEY SHALL BE INSTALLED SUCH THAT THE CENTER OF THE GRIP OF THE OPERATING HANDLE OF THE SWITCH OR CIRCUIT BREAKER, WHEN IN ITS HIGHEST POSITION, IS NOT MORE THAN 6'-7" ABOVE THE FLOOR OR WORKING PLATFORM WITH 36" CLEAR IN FRONT.

ABBREVIATIONS

A	AMPERE
ADA	AMERICANS WITH DISABILITIES ACT
AFT	ABOVE FINISHED FLOOR
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CLG	MOUNTED IN CEILING
CIRCUIT	CIRCUIT
DW	DISHWASHER
DWG.	DRAWING
ELEC	ELECTRICAL
E/EM	EMERGENCY POWER CIRCUIT
ER	EXISTING TO REMAIN
FL	FLOOR
FV	FLUSH VALVE (ELECTRONIC)
G	GROUND
GF	GROUND FAULT CIRCUIT INTERRUPTER
JB	JUNCTION BOX
OHD	OVERHEAD DOOR
MB	MONITOR BOX
MD	MOTORIZED DAMPER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
P	POLE
Φ	PHASE
RE	RELOCATED EXISTING
RR	TO BE REMOVED AND RELOCATED
UN	UNLESS OTHERWISE NOTED
V	VOLT
W	WATT
WC	WATER COOLER
WM	WIREMOLD SURFACE RACEWAY
WP	WEATHERPROOF



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ELECTRICAL
NOTES,
LEGENDS, AND
DETAILS

PROJ. NO. JH2516

SCALE: AS NOTED

DATE: JULY 6, 2026

E-5

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ELECTRICAL SPECIFICATIONS

PART 1 – GENERAL PROVISIONS FOR ELECTRICAL WORK

REFERENCES

THIS SECTION COVERS THE GENERAL REQUIREMENTS FOR ELECTRICAL WORK. EXAMINE ALL CONTRACT DRAWINGS AND ALL OTHER SECTIONS OF THE SPECIFICATIONS FOR ADDITIONAL WORK RELATED TO THE WORK OF THIS DIVISION.

DEFINITIONS

'PROVIDE' – TO FURNISH, INSTALL, AND CONNECT UP COMPLETE AND READY FOR SAFE AND REGULAR OPERATION OF PARTICULAR WORK REFERRED TO UNLESS, SPECIFICALLY OTHERWISE NOTED.

'INSTALL' – TO ERCT, MOUNT AND CONNECT COMPLETE WITH RELATED ACCESSORIES.

'WORK' – LABOR, MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES AND OTHER ITEMS REQUIRED FOR PROPER AND COMPLETE INSTALLATION.

'WIRING' – RACEWAY, FITTINGS, WIRE, BOXES, MOUNTING HARDWARE AND RELATED ITEMS.

'CONCEALED' – EMBEDDED IN MASONRY OR OTHER CONSTRUCTION CAVITY, INSTALLED IN FURRED SPACES, WITHIN DOUBLE PARTITIONS OR HUNG CEILINGS.

'SIMILAR' OR 'EQUAL' – EQUAL MATERIALS, WEIGHT, SIZE, DESIGN AND EFFICIENCY OF SPECIFIED PRODUCT.

'CONTRACTOR' – THE ELECTRICAL CONTRACTOR.

'NOTED' – AS INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS.

SCOPE

THIS WORK SHALL CONSIST OF THE FURNISHINGS OF ALL LABOR, MATERIALS AND SERVICES REQUIRED, COMPLETE, READY FOR CORRECT OPERATION FOR ALL ELECTRICAL WORK CALL FOR BY THE ACCOMPANYING DRAWINGS AND SPECIFICATIONS. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, STATE AND LOCAL CODES.

THE DATA INDICATED IN THESE DRAWINGS AND SPECIFICATIONS ARE AS EXACT AS CAN BE SECURED. BUT THEIR ABSOLUTE ACCURACY IS NOT GUARANTEED. DO NOT SCALE DRAWINGS. EXACT LOCATIONS, DISTANCES, LEVELS AND OTHER CONDITIONS WILL BE GOVERNED BY THE BUILDING. USE THE DRAWINGS AND SPECIFICATIONS FOR GUIDANCE AND SECURE THE ENGINEER'S APPROVAL OF CHANGES IN LOCATIONS, CIRCUITS, WHERE SHOWN ON AN ELECTRICAL DRAWINGS, ARE SO INDICATED PRIMARILY FOR THE PURPOSE OF INDICATING THE GENERAL CIRCUIT PLAN AND DO NOT NECESSARILY INDICATE THE EXACT LOCATION OF ROUTING OF THE RACEWAYS UNLESS SPECIFICALLY INDICATED. CIRCUITS SHALL BE RUN IN SUT CONDITIONS CONSIDERING STRUCTURAL FEATURES, OTHER TRADES, CONSTRUCTION METHODS AND GOOD INSTALLATION PRACTICE.

BEFORE SUBMITTING A BID, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS UNDER WHICH THE WORK AND WORK OF OTHER TRADES WILL BE INSTALLED. THIS CONTRACT INCLUDES ALL NECESSARY OFFSETS, TRANSITIONS, MODIFICATIONS AND RELOCATION REQUIRED TO INSTALL ALL NEW EQUIPMENT IN NEW OR EXISTING SPACES. THE CONTRACTOR SHALL INCORPORATE MODIFICATIONS REQUIRED IN EXISTING ELECTRICAL EQUIPMENT FOR INSTALLATION OF NEW ELECTRICAL EQUIPMENT AND NEW EQUIPMENT OF OTHER TRADES. (LIGHTING FIXTURES, DEVICES, CONDUIT WIRING, ETC.) ALL NEW AND EXISTING EQUIPMENT AND SYSTEMS SHALL BE FULLY OPERATIONAL UNDER THIS CONTRACT BEFORE THE PROJECT IS CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS THAT ARE MADE, ANY OMISSIONS OR ERRORS MADE AS A RESULT OF FAILURE TO VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH THE EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS OF ALL TRADES.

CODES, REGULATIONS AND STANDARDS

ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING APPROVED CODES, REGULATIONS AND STANDARDS:

IBC – INTERNATIONAL BUILDING CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

IFC – INTERNATIONAL FIRE CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

2022 CONNECTICUT STATE FIRE SAFETY CODE

LOCAL BUILDING CODE

NFPA – NATIONAL FIRE PROTECTION CODE

NFPA 70 NATIONAL ELECTRICAL CODE, 2020 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS

NFPA 72 – NATIONAL FIRE ALARM CODE, 2019 EDITION

NFPA 101 – LIFE SAFETY CODE, 2021 EDITION, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

IECC – INTERNATIONAL ENERGY CONSERVATION CODE, 2021, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS

OC/ANSI A117.1 – 2017, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, AS AMENDED BY THE STATE OF CONNECTICUT 2022 AMENDMENTS.

ANSI – AMERICAN NATIONAL STANDARDS INSTITUTE

ASTM – AMERICAN SOCIETY FOR TESTING AND MATERIALS

OSHA – OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

UL – UNDERWRITERS LABORATORIES

EPA – ENVIRONMENTAL PROTECTION AGENCY

IEEE – INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

NEMA – NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

PERMITS, FEES AND INSPECTIONS

THE CONTRACTOR SHALL OVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS, PAY FOR ALL GOVERNMENT, STATE SALES TAXES AND APPLICABLE FEES. THE CONTRACTOR SHALL FILE ALL DRAWINGS, COMPLETE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS FROM THE PROPER AUTHORITY OR AGENCY HAVING JURISDICTION OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION COVERING WORK. THE CONTRACTOR SHALL SEE THAT ALL REQUIRED INSPECTIONS AND TESTS ARE MADE AND SHALL COOPERATE TO MAKE THESE TESTS AS THOROUGH AND AS READILY MADE AS POSSIBLE.

MATERIALS AND WORKSMANSHIP

ALL MATERIALS AND APPARATUS REQUIRED FOR THE WORK, EXCEPT AS OTHERWISE SPECIFIED, SHALL BE NEW AND OF FIRST-CLASS QUALITY. IT SHALL BE FURNISHED DELIVERED, ERECTED, CONNECTED, FINISHED IN EVERY DETAIL AND SO SELECTED AND ARRANGED AS TO FIT PROPERLY INTO THE BUILDING SPACES. WHERE NO SPECIFIC KIND OR QUALITY MATERIAL IS GIVEN, A FIRST-CLASS STANDARD ARTICLE AS ACCEPTED BY THE ENGINEER SHALL BE FURNISHED.

ALL EQUIPMENT AND MATERIALS SHALL BE SPECIFICATION GRADE AND BEAR THE UNDERWRITER'S LABEL. NO SUBSTITUTE OR ALTERNATE EQUIPMENT, MATERIAL, ETC. WILL BE CONSIDERED FOR THIS PROJECT.

ALL WORK SHALL BE OF A QUALITY CONSISTENT WITH GOOD TRADE PRACTICE AND SHALL BE INSTALLED IN A NEAT, WORKSMANLIKE MANNER. THE ENGINEER/OWNER RESERVES THE RIGHT TO REJECT ANY WORK WHICH, IN HIS OPINION, HAS BEEN INSTALLED IN A SUBSTANDARD, DANGEROUS OR IN A UNSERVICEABLE MANNER. THE CONTRACTOR SHALL REPLACE REJECTED WORK IN A SATISFACTORY MANNER AT NO EXTRA COST TO THE OWNER.

GUARANTEES

ALL WORKMANSHIP AND MATERIALS SHALL BE FULLY GUARANTEED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THE ENTIRE INSTALLATION COVERED BY THIS CONTRACT. SHOULD ANY DEFECTS OCCUR DURING THE GUARANTEED PERIOD, THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ALL DEFECTIVE EQUIPMENT, MATERIAL AND/OR WORK AT NO EXTRA CHARGE TO THE OWNER.

RECORD DRAWINGS

MAINTAIN, AT THE JOB SITE, A SET OF ELECTRICAL DRAWINGS INDICATING ALL CHANGES IN LOCATION AND CIRCUITING OF THE EQUIPMENT, PANELS, DEVICES, ETC. FROM THE ORIGINAL LAYOUT. CLEARLY MARK IN RED ALL CHANGES ON THE DRAWINGS. AT THE COMPLETION OF THE PROJECT THE CONTRACTOR SHALL TURN OVER THE RECORD DRAWINGS TO THE ENGINEER/OWNER.

COORDINATION

ALL WORK SHALL BE COORDINATED AND CARRIED OUT IN CONJUNCTION WITH ALL TRADES AND FULL COORDINATION DRAWINGS SHALL BE CREATED IN ORDER THAT ALL WORK MAY PROCEED WITH A MINIMUM OF DELAY AND INTERFERENCE.

SHOP DRAWINGS

SUBMIT ELECTRONIC PDF FORMAT OR EIGHT (8) COPIES FOR REVIEW, DETAILED SHOP DRAWINGS OF ALL EQUIPMENT AND MATERIAL SPECIFIED. THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMISSION TO THE ENGINEER FOR REVIEW. NO MATERIAL OR EQUIPMENT MAY BE DELIVERED TO THE JOB SITE OR INSTALLED UNTIL CONTRACTOR HAS IN THEIR POSSESSION, APPROVED SHOP DRAWINGS FOR THE PARTICULAR MATERIAL OR EQUIPMENT. SHOP DRAWINGS SHALL BE SPECIFIC WITH ITEMS SUBMITTED FOR APPROVAL CLEARLY IDENTIFIED.

THE FOLLOWING IS A LIST OF ELECTRICAL ITEMS THAT MUST BE SUBMITTED FOR REVIEW:

- a. PANELBOARDS
- b. SAFETY/DISCONNECT SWITCHES
- c. CIRCUIT BREAKERS
- d. LIGHTING
- e. FUSES
- f. CONDUIT, WIRE AND CABLE
- g. FIRE ALARM EQUIPMENT
- h. DEVICES (RECEPTACLES, TOGGLE SWITCHES, ETC.)

OPERATING INSTRUCTIONS

THE CONTRACTOR SHALL FURNISH TO THE ENGINEER, FOUR (4) COMPLETE BOUND SETS OF TYPEWRITTEN OR BLUEPRINTED INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL SYSTEMS AND EQUIPMENT INCLUDED IN THIS DIVISION. MANUFACTURER'S ADVISING LITERATURE OR CATALOGS WILL NOT BE ACCEPTABLE FOR OPERATING AND MAINTENANCE INSTRUCTIONS.

THE CONTRACTOR, IN THE ABOVE-MENTIONED INSTRUCTIONS, SHALL INCLUDE THE MAINTENANCE SCHEDULE FOR THE PRINCIPAL ITEMS OF EQUIPMENT FURNISHED UNDER THIS DIVISION.

AN AUTHORIZED MANUFACTURER'S REPRESENTATIVE SHALL ATTEST IN WRITING THAT HIS EQUIPMENT HAS BEEN PROPERLY INSTALLED PRIOR TO STARTUP. THESE LETTERS WILL BE BOUND INTO OPERATING AND MAINTENANCE BOOKS.

EQUIPMENT PROTECTION

PROPERLY AND COMPLETELY PROTECT AGAINST ALL DAMAGE, ALL APPARATUS, EQUIPMENT, ETC., INCLUDED IN THIS CONTRACT. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO FURNISHED APPARATUS, EQUIPMENT, ETC., UNTIL FINAL ACCEPTANCE.

PROPERTY PROTECTION

THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY AND/OR REQUIRED TO PROTECT OWNER'S PROPERTY WITHIN THE WORKING AREAS FROM DUST, DEBRIS AND OTHER MATTER GENERATED BY THE WORK. NO WORK SHALL COMMENCE IN AREAS WHERE PROTECTION IS REQUIRED UNTIL APPROVAL HAS BEEN GIVEN TO THE CONTRACTOR BY THE OWNER.

MANUFACTURER'S INSTRUCTION

INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS OR REQUIREMENTS FOR PROPER OPERATION AND MAINTENANCE.

EQUIPMENT PAINTING AND CLEANING

THOROUGHLY CLEAN ALL ELECTRICAL EQUIPMENT DEVICES AND ENCLOSURES UPON COMPLETION OF WORK. REPAIR ANY EQUIPMENT WHERE FINISH IS DAMAGED OR RUSTED. MATCH MANUFACTURER'S ORIGINAL FINISH.

DEMOLITION/REMOVAL AND RECONNECTION

BEFORE SUBMITTING A BID, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS UNDER WHICH HIS WORK WILL BE INSTALLED.

ALL EXISTING ACTIVE CIRCUITS WHICH FEED EQUIPMENT OR DEVICES THAT ARE TO REMAIN, SHALL BE MAINTAINED IN SERVICE AND SHALL BE PERMANENTLY REFEED.

ALL ITEMS BEING REMOVED SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AND BE THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS UNDER WHICH THE WORK AND WORK OF OTHER TRADES WILL BE INSTALLED. THIS CONTRACT INCLUDES ALL NECESSARY OFFSETS, TRANSITIONS, MODIFICATIONS AND RELOCATION REQUIRED TO INSTALL ALL NEW EQUIPMENT IN NEW OR EXISTING SPACES. THE CONTRACTOR SHALL INCORPORATE MODIFICATIONS REQUIRED IN EXISTING ELECTRICAL EQUIPMENT FOR INSTALLATION OF NEW ELECTRICAL EQUIPMENT AND NEW EQUIPMENT OF OTHER TRADES. (LIGHTING FIXTURES, DEVICES, CONDUIT WIRING, ETC.) ALL NEW AND EXISTING EQUIPMENT AND SYSTEMS SHALL BE FULLY OPERATIONAL UNDER THIS CONTRACT BEFORE THE PROJECT IS CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS THAT ARE MADE, ANY OMISSIONS OR ERRORS MADE AS A RESULT OF FAILURE TO VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH THE EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS OF ALL TRADES.

ALL MATERIAL CHOSEN TO BE RETAINED BY THE OWNER SHALL BE DELIVERED BY THE CONTRACTOR TO SUCH POINT AS DESIGNATED BY THE OWNER.

MATERIAL TO BE REUSED SHALL BE CAREFULLY REMOVED AND STORED AND SHALL BE REINSTALLED IN AS-FOUND CONDITION EXCEPT AS OTHERWISE INDICATED ON THE PLANS. DAMAGE OR LOSS OF MATERIAL TO BE REUSED SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE REPAIRED OR REPLACED WITH THE EQUIVALENT MATERIAL ACCEPTABLE BY THE OWNER.

DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL WORK IN CONTRACT AREA AS INDICATED ON DRAWINGS.

ALL WIRING, CABLEING, AND RACEWAYS SHALL BE REMOVED BACK TO ORIGINATION PANEL, UNLESS OTHERWISE INDICED.

CONTRACTOR SHALL KEEP PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL AND RUBBISH, AND AT COMPLETION OF WORK DAY, SHALL REMOVE ALL RUBBISH AND IMPLEMENTS TO A DESIGNATED LOCATION, IF AVAILABLE, LEAVING WORK AREAS BROOM CLEAN. UNUSED OUTLET BOXES AND PLASTER RINGS SHALL BE PROVIDED WITH BLANK COVER PLATES AND MATCH DEVICE PLATES WITHIN THE ROOM.

PENETRATION SEALANT

ALL PENETRATIONS SHALL BE SEALED WITH 3M INTUMESCENT FIRE BARRIER PENETRATION SEALANT, APPLIED PER MANUFACTURER'S AND U.L. GUIDELINES.

CUTTING, PATCHING, REPAIRING AND PAINTING

THE GENERAL CONTRACTOR SHALL PERFORM ALL CUTTING, PATCHING, REPAIRING AND PAINTING FOR ALL ELECTRICAL ITEMS AND EQUIPMENT CALLED FOR UNDER THIS CONTRACT.

FIRE STOPS AND SEALS

PENETRATIONS THROUGH FIRE-RATED WALLS, CEILING OR FLOORS IN WHICH CABLES OR CONDUITS PASS SHALL BE FILLED SOLIDLY BY U. APPROVED FIRE STOPPING MATERIALS. CLASSIFIED FOR AN HOUR RATING EQUAL TO THE FIRE RATINGS OF THE WALL, CEILING OR FLOOR. PROVIDE TO 3M BRAND FIRE BARRIER CP25WB CAULK OR APPROVED EQUIVALENT.

SEALING BUSHINGS SHALL BE USED ON CONDUIT AND CABLE ENDS TO EFFECTIVELY PREVENT THE INTRUSION OF WATER, A DAMP OR CORROSIVE ATMOSPHERE, DRAFT OR DUST.

ACCESS PANELS

THE CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS AND DOORS AS REQUIRED FOR ACCESS TO INACCESSIBLE PULLBOXES, JUNCTION BOXES AND OTHER SPECIALTIES.

THE CONTRACTOR SHALL COORDINATE THE LOCATIONS OF ACCESS PANELS AND DOORS WITH THE GENERAL CONTRACTOR AND OTHER TRADES. FINAL LOCATIONS SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT.

INTERRUPTION OF EXISTING SERVICES

PRIOR TO PERFORMING WORK REQUIRING INTERRUPTION OF EXISTING SERVICES, THE CONTRACTOR SHALL SECURE FROM THE OWNER, APPROVAL OF THE PROPOSED OPERATION. (48 HOURS IN ADVANCE) WORK SHALL BE ARRANGED FOR CONTINUOUS PERFORMANCE. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, INCLUDING OVERTIME, IF REQUIRED, TO ASSURE THAT THE EXISTING OPERATING SERVICES WILL BE SHUT DOWN ONLY DURING THE TIME ACTUALLY REQUIRED TO MAKE NECESSARY CONNECTIONS.

TEMPORARY LIGHT AND POWER

FURNISH AND INSTALL TEMPORARY ELECTRICAL SERVICE OF SUFFICIENT SIZE FOR POWER AND LIGHTING USE BY ALL TRADE CONTRACTORS DURING THE COURSE OF CONSTRUCTION. TEMPORARY WORK SHALL BE DONE IN COMPLIANCE WITH ALL APPLICABLE ARTICLES THE NATIONAL ELECTRICAL CODE, O.S.H.A. AND WITH ALL REQUIREMENTS OF ANY AUTHORITY HAVING JURISDICTION OVER THE WORK. PROVIDE TEMPORARY POWER CONNECTION TO A CONSTRUCTION TRAILER. THE LOCATION OF THE TRAILER IS TO BE DETERMINED ON SITE. PROVIDE FEEDER TO TRAILER OF SUFFICIENT SIZE TO POWER HEATING, AIR CONDITIONING, GENERAL POWER AND LIGHTING.

PART 2 – PRODUCTS

DESCRIPTION

ALL MATERIALS AND EQUIPMENT PROVIDED UNDER THIS SECTION SHALL BE NEW, FIRST GRADE, BEST OF THEIR RESPECTIVE KINDS AND IN NO WAY SHALL THEY BE LESS THAN THE QUALITY AND INTENT SET FORTH UNDER THIS SECTION. EXCEPT AS NOTED, THE REQUIREMENTS OF ALL STANDARDS SET UP TO GOVERN THE MANUFACTURER OF ELECTRICAL MATERIALS AND COMPLY WITH ALL APPLICABLE CODES AND STANDARDS.

WIRE

CONDUCTORS SHALL BE U.L. LISTED, 600 VOLTS, 90 DEG. C., SINGLE CONDUCTOR TYPE THWN/THHN, 98% CONDUCTIVITY, ANNEALED UNCOATED COPPER WITH PVC INSULATION COVERED WITH NYLON SHEATH JACKET, TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF UNDERWRITERS LABORATORIES STANDARD 83. WIRE SHALL BE IDENTIFIED BY SURFACE MARKING INDICATING MANUFACTURER'S IDENTIFICATION CONDUCTOR SIZE AND METAL. VOLTAGE RATING, U.L. SYMBOL AND, U.S. PHASE, (NON-FUSED, FUSED, THERMAL MAGNETIC CIRCUIT BREAKER, MINIMUM SIZE SHALL BE #12 AWG UNLESS OTHERWISE INDICATED, MANUFACTURED BY ROME CABLE, TRIANGLE WIRE & CABLE, GENERAL CABLE OR ESSEX WIRE & CABLE.

RIGID GALVANIZED STEEL CONDUIT (RGS)

RIGID STEEL CONDUIT SHALL BE FULL WEIGHT, HEAVY WALL STEEL PIPE WITH GALVANIZED PROTECTIVE COATING, MANUFACTURED BY TRIANGLE WIRE AND CABLE, ALLIED TUBE AND CONDUIT, REPUBLIC OR STEELDUOT, CONDUCTOR FITTINGS SHALL BE MALLEABLE IRON, CADMIUM PLATED WITH FULL THREADED HUBS.

RIGID POLYVINYL CHLORIDE CONDUIT (PVC)

RIGID POLYVINYL CHLORIDE CONDUIT SHALL BE TYPE DB, SCHEDULE 40, SUNLIGHT RESISTANT, RATED OR USE WITH 90 DEGREES C. CONDUCTORS, U.L. RATED. ALL PVC CONDUIT AND FITTINGS SHALL BE SOLVENT WELDED, MANUFACTURED BY CARLON, ELECTRI-FLEX OR PLASTILENE.

ELECTRIC METALLIC TUBING (EMT)

ELECTRICAL METALLIC TUBING SHALL BE GALVANIZED THIN WALL STEEL CONDUIT, MANUFACTURED BY TRIANGLE WIRE AND CABLE, ALLIED TUBE AND CONDUIT, REPUBLIC OR STEELDUOT, THE CONDUCTORS AND COUPLINGS SHALL BE HEAVY DUTY, STEEL-ZINC PLATED, SET SCREW TYPE.

FLEXIBLE METALLIC CONDUIT (FMC)

FLEXIBLE METALLIC CONDUIT SHALL BE OF HEAVY GALVANIZED SHEET METAL, STRIP IN INTERLOCKED CONSTRUCTION, MANUFACTURED BY TRIANGLE WIRE AND CABLE, AMERICAN FLEXIBLE CONDUIT OR ELECTRIC-FLEX. THE CONNECTORS SHALL BE SQUEEZE TYPE MALLEABLE IRON, CADMIUM PLATED.

LIQUID-TIGHT FLEXIBLE METAL CONDUIT (LFMC)

LIQUID-TIGHT FLEXIBLE CONDUIT SHALL BE CONSTRUCTED OF HEAVY GALVANIZED SHEET METAL, STRIP, SPRALLY-WOUND INTERLOCK CONSTRUCTION WITH AN EXTRUDED POLYVINYL GRAY JACKET. CONDUIT SHALL BE U.L. LABELED AND CONFORMED TO THE APPLICATION AND ENVIRONMENT IN WHICH IT WILL BE USED. ALL CONNECTIONS, COUPLINGS AND FITTINGS SHALL BE OF HIGH QUALITY STEEL-ZINC RATED TYPE SPECIFICALLY DESIGNED FOR THIS PURPOSE. MANUFACTURED BY O/Z GEDNEY OR ELECTRI-FLEX.

METAL CLAD CABLE (MC)

METAL CLAD CABLE SHALL BE INTERLOCKING GALVANIZED STEEL ARMOR CONSTRUCTION. COLOR CODED THERMOPLASTIC/NYLON INSULATION THHN, 90 DEGREE C., 600 VOLTS, COPPER CONDUCTORS AND INTERNAL INSULATED EQUIPMENT CORDER GROUND CONDUCTOR. MARKER TAPE AND TAPE OVER MINIMUM SIZE #12 AWG UNLESS OTHERWISE INDICATED. MANUFACTURED BY AMERICAN FLEXIBLE CONDUIT, TRIANGLE WIRE AND CABLE, GENERAL CABLE OR STANDARD CABLE.

FITTINGS

CONDUIT BODIES FOR RIGID GALVANIZED STEEL CONDUIT (RGS) SHALL BE MALLEABLE IRON-ZINC PLATED WITH TAPERED HUBS AND GASKETED ALUMINUM COVER.

CONDUIT BODIES FOR ELECTRICAL METALLIC TUBING (EMT) SHALL BE CAST ALUMINUM-ALUMINUM ENAMEL FINISH WITH SET SCREW HUBS AND ALUMINUM COVER.

INSULATION BUSHINGS SHALL BE HIGH IMPACT THERMOPLASTIC PHENOLIC WITH 150 DEG. C. UL TEMPERATURE RATING.

INSULATED GROUNDING BUSHINGS SHALL BE MALLEABLE IRON ZINC PLATED WITH MOLDED ON PHENOLIC INSULATION AND LAT-IN GROUNDING LUG.

CONDUIT LOCKNUTS SHALL BE HEAVY NUT STOCK STEEL-ZINC PLATED.

OFFSET NIPPLES SHALL BE MALLEABLE IRON ZINC PLATED WITH RIGID CONDUIT THREADING AND 3/4" OFFSET.

CONNECTORS AND COUPLINGS FOR ELECTRICAL METALLIC TUBING (EMT) SHALL BE HEAVY STEEL-ZINC PLATED WITH PRE-SET/PRE-SHAKED SET SCREWS.

CONDUIT STRAPS SHALL BE SNAP-TYPE, DOUBLE RIBBED STEEL-ZINC PLATED.

METAL CLAD CABLE AND FLEXIBLE METALLIC CONDUIT CONNECTORS SHALL BE MALLEABLE IRON-ZINC PLATED, MALE HUB THREADS WITH LOCKNUT.

CONDUIT FITTINGS SHALL BE MANUFACTURED BY O/Z GEDNEY, CROUSE-HINDS OR APPLETON.

SUPPORT FITTINGS

SUPPORT CHANNEL SHALL BE ROLL-FORMED #12 GAUGE STEEL, SOLID BASE OR BOLT HOLE BASE – HOT DIP GALVANIZED FINISH. COMPLETE WITH ANGLE FITTINGS, SPRING NUTS, CONDUIT SUPPORTS, 3/8" OR 1/2" THREADED RODS (SIZE REQUIRED FOR LOAD), ETC.

CABLE TIES

CABLE TIES SHALL BE FABRICATED OF ONE-PIECE HALLAR WITH NO METAL PARTS. MANUFACTURED BY BURNDY, T&B, PANDUIT OR BLACKBURN.

FUSES

FUSES SHALL NOT BE INSTALLED UNTIL EQUIPMENT IS READY TO BE ENERGIZED. THIS REQUIREMENT PREVENTS DAMAGE DURING SHIPMENT OF THE EQUIPMENT FROM THE MANUFACTURER TO THE JOB SITE.

ALL FUSES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. FUSES SHALL BE OF THE SAME MANUFACTURER, COPPER BUSSMAN, FERRAZ SHAWMUT OR LITFUSEE. FUSE TYPES DESCRIBE BELOW SHALL BE U.L. LISTED DUAL ELEMENT TIME DELAY TYPE.

CIRCUIT 0 TO 600 AMPERE SHALL BE PROTECTED BY DUAL ELEMENT, TIME DELAY, CURRENT LIMITING FUSES WITH AN INTERRUPTING RATING OF 200,000 A.I.C. U.L. LISTED CLASS 'RK1'.

MOTOR CIRCUITS SHALL BE PROTECTED BY DUAL ELEMENT, TIME DELAY, CURRENT LIMITING FUSES WITH AN INTERRUPTING RATING OF 200,000 A.I.C. U.L. LISTED CLASS 'RK1'.

LARGE MOTORS SHALL BE PROTECTED BY TIME DELAY, CURRENT LIMITING FUSES WITH AN INTERRUPTING RATING OF 200,000 A.I.C. U.L. LISTED CLASS 'L'. KLP-C.

OUTLET BOXES

OUTLET BOXES SHALL BE GALVANIZED STEEL, FLUSH OR SURFACE MOUNTED AND OF PROPER TYPE AND SIZE AS REQUIRED FOR THE PARTICULAR APPLICATION. SIZE AND TYPE DICTATED BY THE NUMBER OF DEVICES, NUMBER OF CONDUCTORS AND WIRING METHOD UTILIZED. BOXES SHALL BE ADEQUATE SIZE FOR THE INSTALLATION OF CONDUCTORS WITHOUT EXCESSIVE BENDING OR CRIMPING OF THE CONDUCTORS AND DAMAGING OF CONDUCTOR INSULATION. MANUFACTURED BY STEEL CITY OR RACO.

OUTLET BOXES SHALL BE SECURED FIRMLY IN PLACE TO THE BUILDING STRUCTURE AND SET TRUE AND SQUARE. PROVIDE SUITABLE MEANS TO SUPPORT OUTLET BOX TO TAKE THE WEIGHT OF THE LIGHTING FIXTURE OR DEVICE. OUTLET BOXED OR BOX EXTENSION RINGS SHALL BE SET FLUSH TO THE FINISHED WALL OR CEILING. BOXES MUST BE ATTACHED THAT THEY WILL NOT 'ROCK', 'SHIFT' OR 'MOVE' IN AND OUT WHEN DEVICES ARE USED. IN NO CASE SHALL BOXES BE INSTALLED BACK-TO-BACK IN A COMMON WALL DIVIDING TWO SPACES.

WHERE MORE THAN ONE OUTLET IS SHOWN OR SPECIFIED TO BE THE SAME ELEVATION OR ONE ABOVE THE OTHER, ALIGN THEM EXACTLY ON CENTER LINES HORIZONTALLY OR VERTICALLY.

MULTIPLE SWITCHES SHOWN AT ONE LOCATION SHALL BE INSTALLED CANNED TOGETHER UNDER ONE WALL PLATE. SWITCHES SHALL BE ARRANGED IN AN ORDER APPROPRIATE TO THE LOCATIONS OF LIGHTING FIXTURE BEING CONTROLLED.

PANELBOARDS

PANELBOARDS SHALL BE THE COMBINATION THERMAL/MAGNETIC CIRCUIT BREAKER TYPE, 3 PHASE, 4 WIRE WITH THE NUMBER OF BRANCH CIRCUITS AS INDICATED ON THE SCHEDULES. PROVIDE WITH FULLY RATED HARD-DRAWN COPPER, 98 PERCENT CONDUCTIVE PHASE AND GROUND BUS. LUGS SIZED TO ACCOMMODATE WIRE QUALITY AND SIZES. PANELS SHALL BE U.L. LISTED, DOOR-IN-DOOR DESIGN. BOXES SHALL BE CORROSION RESISTANT, ZINC FINISH GALVANIZED. FRONTS SHALL BE REINFORCED STEEL POWDER FINISH PAINTED LIGHT GRAY (ANSI-#1) AND SHALL BE EQUIPPED WITH CONCEALED HINGES AND CONCEALED TRIM ADJUSTING SCREWS. DIRECTORY CARD HOLDERS SHALL BE CORROSION-PROOF VALOX WITH RETRACTABLE LATCH, KEYED ALIKE. PHASE BUS SHALL BE SEQUENCED AND FULLY INSULATED RATINGS SHALL BE DISPLAYED ON THE DEAD FRONT SHEILD AND TOTALLY VISIBLE WITH THE DOOR OPEN. REFER TO SCHEDULES FOR OTHER REQUIREMENTS.

CIRCUIT BREAKERS

BRANCH CIRCUIT BREAKERS SHALL BE QUICK-MAKE, QUICK-BREAK, BOLT-IN THERMAL MAGNETIC TYPE WITH VISIBLE CURRENT TRIP POSITION, MANUFACTURED BY ABB, SIEMENS, SQUARE 'D' OR CUTLER HAMMER, REFER TO SCHEDULES FOR AC RATING.

ALL MULTI-POLE BREAKERS SHALL BE EQUIPPED WITH HANDLE TIES FOR MULTI-POLE USE.

PHASE SEQUENCE AND BALANCING

MAINTAIN CORRECT PHASE SEQUENCE OF ALL FEEDERS AND CIRCUITS WITH PHASE IDENTIFICATION THROUGHOUT THE ENTIRE SYSTEM. BALANCING ALL FEEDERS AND CIRCUITS TO WITHIN 10 PERCENT.

PHASE ROTATION

DESCRIPTION

MAINTAIN CORRECT PHASE ROTATION FOR ROTATING MACHINES (MOTORS).

SAFETY/DISCONNECT SWITCHES

DISCONNECT/SAFETY SWITCHES SHALL BE MOTOR RATED, METAL ENCLOSED, INTERLOCKING, FUSIBLE OR NONFUSED AS INDICATED. HEAVY DUTY TYPE, WITH APPROPRIATE VOLTAGE RATINGS, QUICK-MAKE, QUICK-BREAK MECHANISMS, SOLID NEUTRAL AND U.L. LISTED. SWITCHES SHALL HAVE PROPER TYPE METAL ENCLOSURES, STANDARD, WEATHERPROOF, DUSTPROOF, ETC., TO SUIT THEIR SPECIFIC LOCATIONS. MANUFACTURED BY ABB, SIEMENS, SQUARE 'D', OR CUTLER HAMMER.

COMBINATION MOTOR STARTERS

FURNISH AND INSTALL COMBINATION MOTOR STARTER, NEMA SIZE X, NEMA TYPE X, RATED VOLTAGE RATING, U.L. SYMBOL AND, U.S. PHASE, (NON-FUSED, FUSED, THERMAL MAGNETIC CIRCUIT BREAKER, MOTOR CIRCUIT PROTECTOR), FULL VOLTAGE, NON-REVERSING, MELTING ALLOY OVERLOADS, HAND-OFF-AUTO SWITCH AND AUXILIARY CONTACTS, MANUFACTURED BY ABB, SIEMENS, SQUARE 'D' OR ALLEN BRADLEY.

MANUAL MOTORS STARTERS

FURNISH AND INSTALL FRACTIONAL HORSEPOWER MANUAL MOTOR STARTERS WITH ON-OFF CONTROL, THERMAL OVERLOAD RELAY AND PILOT LIGHTS, MANUFACTURED BY ABB, SIEMENS, SQUARE 'D', OR ALLEN BRADLEY.

ABB	SQUARE 'D'	ALLEN BRADLEY	SIEMENS
1 POLE, SURFACE	CR101111	2510FP1P	600-TAX4
2 POLE, SURFACE	CR101111	2510GP2P	600-TAX5

JUNCTION BOXES, PULLBOXES AND WIREWAYS

JUNCTION BOXES, PULLBOXES AND WIREWAYS SHALL BE OF PROPER TYPE AND SIZES AS REQUIRED. CODE GAUGE, GALVANIZED STEEL WITH KNOCKOUTS AND FLANGES TO RECEIVE THE COVERS. COVERS SHALL BE FLAT, OF THE SAME MATERIAL AS THE BOX AND FASTENED TO THE BOX WITH MACHINE SCREWS. MANUFACTURED BY HOFFMAN, SQUARE 'D', OR LEE PRODUCTS.

BACKBOARDS

BACKBOARDS SHALL BE FIRE RETARDANT, HICKSON CO. (DRI-CO) 3/4 INCH TYPE AS PLYWOOD OF SUFFICIENT SIZE FOR MOUNTING OF SPECIFIED EQUIPMENT. PAINT ALL SIDES WITH TWO (2) COATS OF FIRE-RETARDANT GRAY ENAMEL PAINT.

GROUND RODS

GROUND RODS SHALL BE HIGH STRENGTH STEEL CORE WITH ELECTROLYTIC ALLY BONDED COPPER JACKET. GROUND RODS SHALL CONFORM TO THE REQUIREMENTS OF THE U.I. SPEC. NO. 467 (ANSI C-33.8-1972). MINIMUM SIZE SHALL BE 5/8 INCH DIAMETER BY EIGHT (8) FT. UNLESS OTHERWISE INDICATED. LENGTH MANUFACTURED BY ERICO, BLACKBURN PRODUCTS, ANIKTER, OR GAVIN.

WIRING DEVICES

ALL DEVICES SHALL BE COMMERCIAL, SPECIFICATION GRADE, U.L. LISTED, SELF-GROUNDING, GROUND LUG, SIDE/BACK WIRED. COLOR SHALL BE SELECTED BY ARCHITECT OR OWNER UNLESS OTHERWISE INDICATED. MANUFACTURED BY HUBBELL, LEVITON, OR PASS & SEYMOUR.

DEVICES COLOR SHALL BE SELECTED BY ARCHITECT OR OWNER UNLESS OTHERWISE INDICATED FOR NORMAL POWER CIRCUITS AND RED FOR EMERGENCY POWER CIRCUITS.

RECEPTACLES THAT HAVE A POWER FEED THRU (FEED IN – FEED OUT) ARRANGEMENT SHALL BE PIOTGALED. FEED THRU FEATURE ON DUPLEX RECEPTACLES USE IS NOT ACCEPTABLE.

SWITCHES: 20A 120/277V	HUB
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- GENERAL FA/COMM DEMOLITION NOTES
1. ALL EXISTING FA/COMM EQUIPMENT AND/OR DEVICE SHOWN WITHOUT ("RR", "ER" OR "RT") SHALL BE DISCONNECTED AND REMOVED; REMOVE ALL ASSOCIATED BACK BOX, CONDUIT AND WIRING BACK TO SOURCE OR LAST DEVICE.

2. "RR" - INDICATES EXISTING FA/COMM EQUIPMENT AND/OR DEVICE TO BE REMOVED AND RELOCATED. (EXTEND EXISTING WIRING AS REQUIRED)

3. "ER" - INDICATES EXISTING FA/COMM EQUIPMENT AND/OR DEVICE TO REMAIN.

4. "R" - INDICATES EXISTING FA/COMM DEVICE TO BE REPLACED WITH NEW DEVICE IN KIND WITHIN EXISTING LOCATION, REUSE BACK BOX AND WIRING, PROVIDE NEW FACE PLATE TO DEVICE.

5. NO EQUIPMENT OR DEVICES THAT HAVE BEEN DISCONNECTED AND OR ABANDONED SHALL REMAIN.

6. THE FA/COMM CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILAR WITH THE EXISTING SYSTEMS AND CONDITIONS IN AREAS OF RENOVATION.

7. ANY SYSTEMS OR EQUIPMENT TO REMAIN ACTIVE DURING RENOVATION SHALL BE KEPT IN OPERATION BY PROVIDING TEMPORARY CONNECTIONS AS REQUIRED UNTIL NEW SYSTEMS ARE INSTALLED AND OPERATIONAL.

8. THE FA/COMM CONTRACTOR SHALL COORDINATE WITH THE OWNER, CM, AND OR GENERAL CONTRACTOR ANY AND ALL PHASING OF THE DEMOLITION WORK IN ORDER TO SATISFY THE CONSTRUCTION SCHEDULE AND OWNERS OCCUPANCY REQUIREMENTS.

9. ANY FA/COMM EQUIPMENT TO BE REMOVED AND REUSED OR TURNED OVER TO THE OWNER, AT OWNERS REQUEST, OR AS INDICATED ON THE DRAWINGS SHALL BE CAREFULLY REMOVED AND STORED TO PREVENT DAMAGE.

10. THE FA/COMM CONTRACTOR SHALL ALSO REVIEW THE ARCHITECTURAL DEMOLITION DRAWINGS AS PART OF THIS CONTRACT FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

11. THE FA/COMM CONTRACTOR SHALL COORDINATE HIS DEMOLITION WORK WITH THAT OF OTHER TRADES IN ORDER TO AVOID CONFLICTS.

- DEMOLITION DRAWING NOTES
1. REMOVE AND RELOCATE EXISTING FIRE ALARM CONTROL PANEL TO NEW DISPATCH LOCATION.

2. REMOVE AND RELOCATE EXISTING GENERATOR REMOTE ANNUNCIATOR TO NEW DISPATCH LOCATION.

3. REMOVE AND RELOCATE EXISTING FIRE ALARM STROBE.

4. REMOVE AND RELOCATE EXISTING FIRE ALARM MANUAL PULL STATION TO NEW DISPATCH LOCATION.

5. REMOVE, STORE AND PROTECT EXISTING CLOCK FOR REINSTALLATION AT THE SAME LOCATION.

6. REMOVE CEILING PROJECTOR, DATA OUTLET AND CABLING.

7. REMOVE DATA OUTLETS AND CABLES AT THE EXISTING DISPATCH CONSOLES.

- DRAWING NOTES
1. RELOCATED EXISTING FIRE ALARM CONTROL PANEL (FACP) RECESSED IN WALL. EXTEND AND RECONNECT ALL EXISTING FIRE ALARM WIRING TO THE NEW LOCATION FOR FACP.

2. RELOCATED EXISTING GENERATOR REMOTE ANNUNCIATOR RECESSED IN WALL; PROPOSED LOCATION SHOWN; EXTEND EXISTING WIRING TO THIS NEW LOCATION. CONFIRM EXACT MOUNTING LOCATION WITH THE OWNER IN THE FIELD.

3. CABLE INSTALLATION AT EACH DISPATCH CONSOLE IS THE FOLLOWING:
TWO(2) 3 CAT-6A (PD) BLUE COLOR
TWO(2) 3 CAT-6A (NG911) UNTERMINATED, UNTESTED, RED COLOR
TWO(2) 3 CAT-6A (RADIO) YELLOW COLOR
ONE(1) 1-RG6 COAX

4. ALL COMMUNICATION CABLING SHALL HOMERUN BACK TO THE COMMUNICATION EQUIPMENT ROOM ON THE LOWER LEVEL.

5. 2-GANG RECESSED JUNCTION BOX WITH A/V WALL POKE-THRU FOR VIDEO WALL COMMUNICATION CABLE. PROVIDE 1-1/4" CONDUIT WITH NYLON PULL STRING FROM JUNCTION BOX UP TO ABOVE FINISHED CEILING, TYPICAL AT THE VIDEO WALL. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.

6. ROUTE COMMUNICATIONS CABLES ABOVE THE CEILINGS AND THROUGH THIS CLOSET, DOWN TO THE LOWER LEVEL VIA THREE (3) 4" CONDUITS. MAXIMUM 80 CAT6A CABLES PER 4" CONDUIT.

7. COMMUNICATION EQUIPMENT ROOM 006 LOCATED ON THE LOWER LEVEL.

8. EXISTING VIDEO INTERCOM STATION: REWIRE TO MASTER INTERCOM UNIT AT EACH CONSOLE IN DISPATCH 104.

9. RELOCATE EXISTING DATA OUTLET TO ACCOMMODATE FURRED OUT WALL.

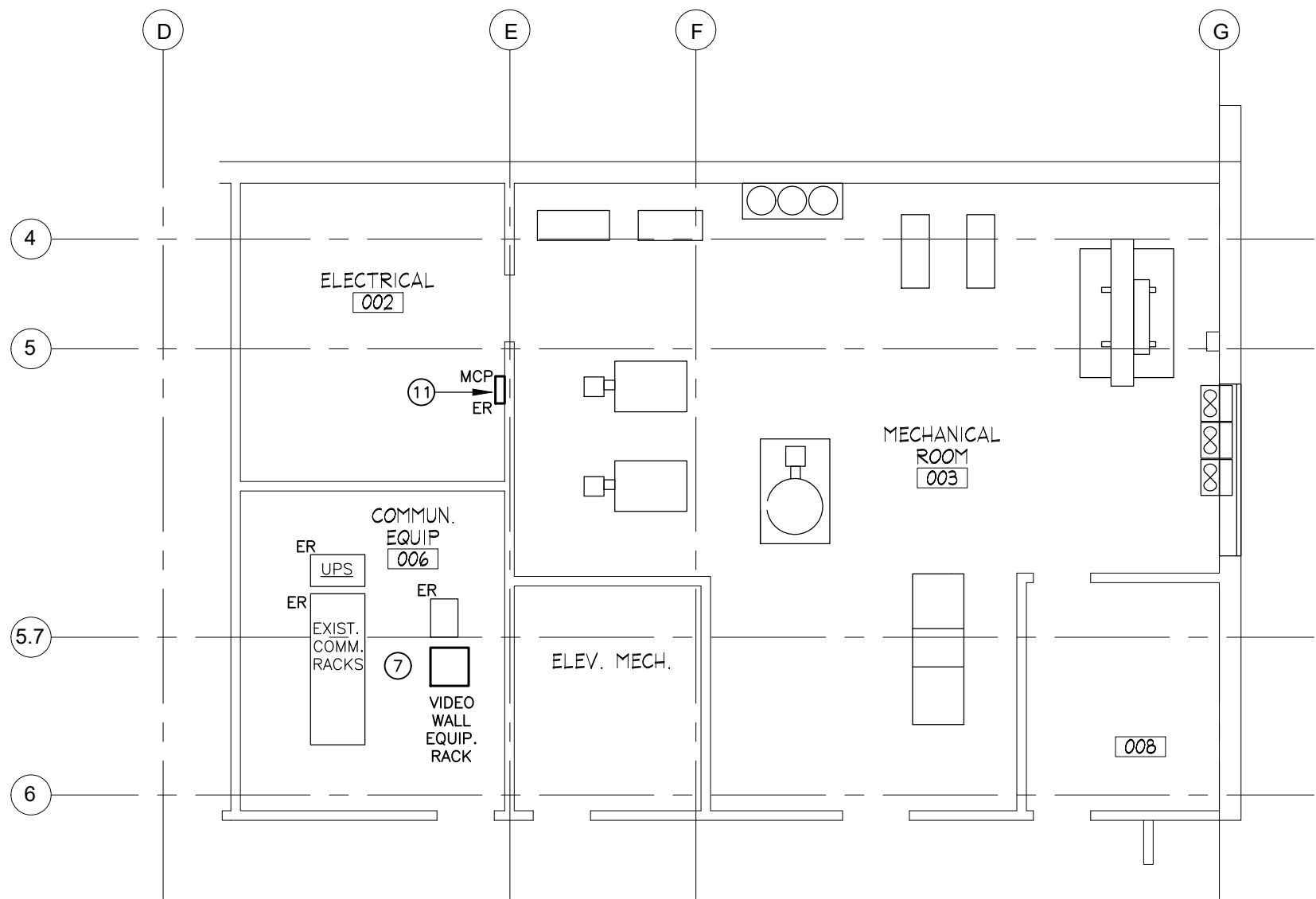
10. REINSTALL EXISTING CLOCK ON THE MASTER CLOCK SYSTEM.

11. MASTER CLOCK PANEL (120VAC) TO REMAIN.

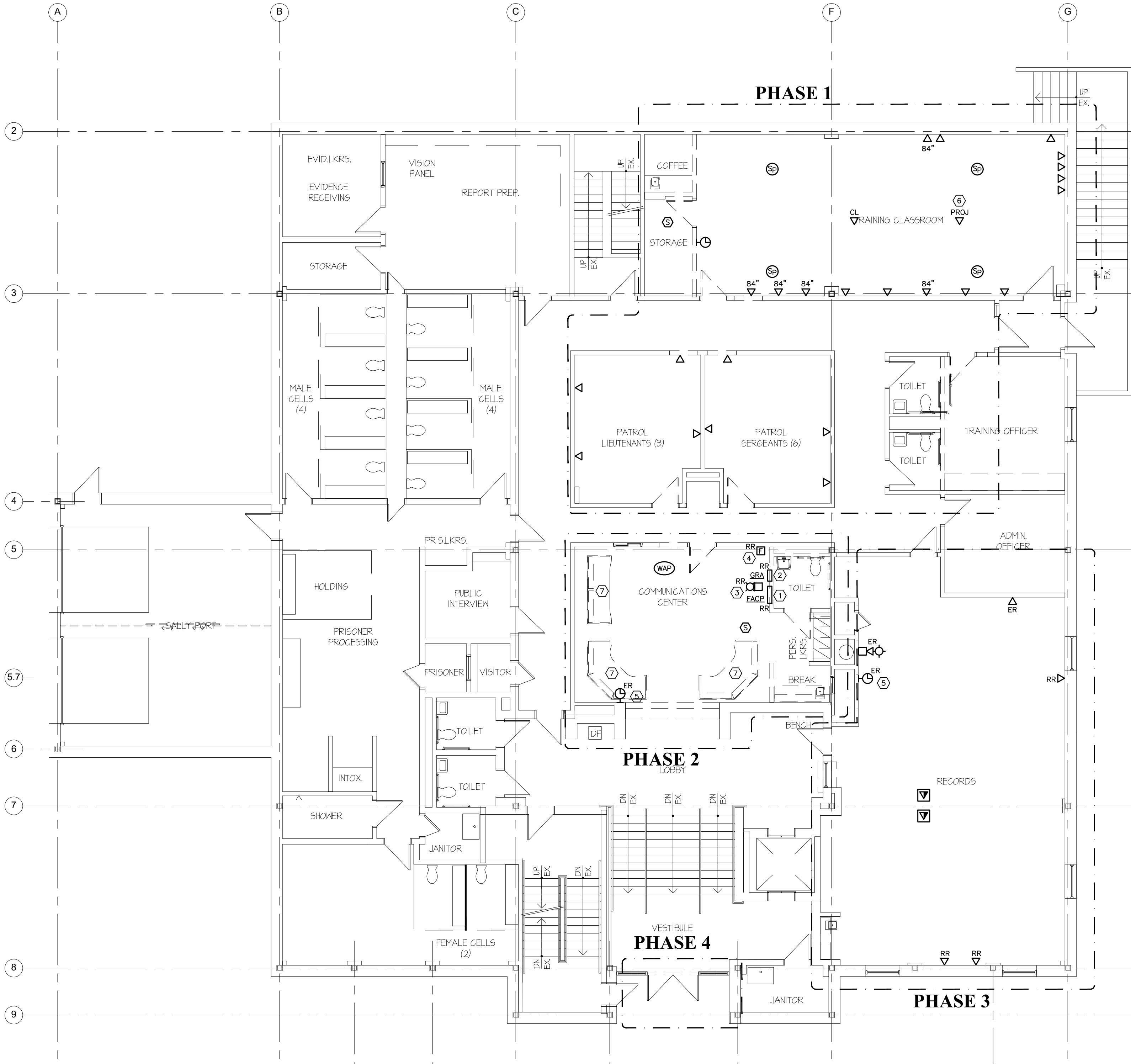
12. RELOCATED EXISTING BATTERY CABINET FOR FIRE ALARM CONTROL PANEL.

13. VOICE DATA OUTLET MOUNTED AT 52" AFF FOR WALL MOUNTED TELEPHONE.

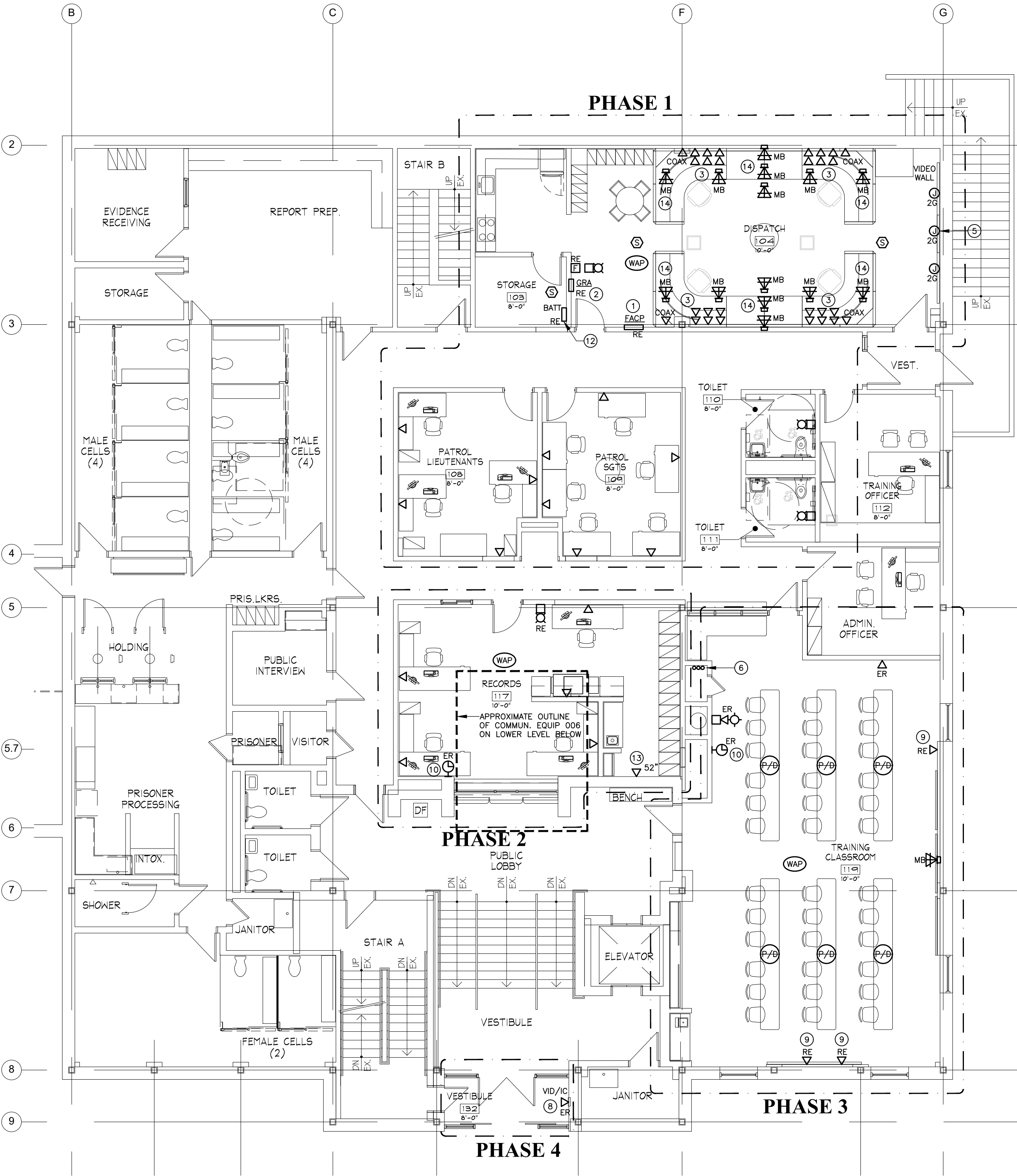
14. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR LAYOUT OF MONITOR BOXES ALONG THIS WALL IN DISPATCH 104.



PARTIAL LOWER LEVEL COMMUNICATION PLAN
SCALE: 1/8" = 1'-0"



FIRST FLOOR FIRE ALARM AND COMMUNICATION DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



FIRST FLOOR FIRE ALARM AND COMMUNICATION PLAN
SCALE: 1/8" = 1'-0"



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INTERIOR RENOVATIONS TO
NAUGATUCK POLICE DEPARTMENT
CENTRAL DISPATCH FACILITY
FY27-B138
211 SPRING STREET
NAUGATUCK, CONNECTICUT

JH
JACUNSKI HUMES
ARCHITECTS, LLC

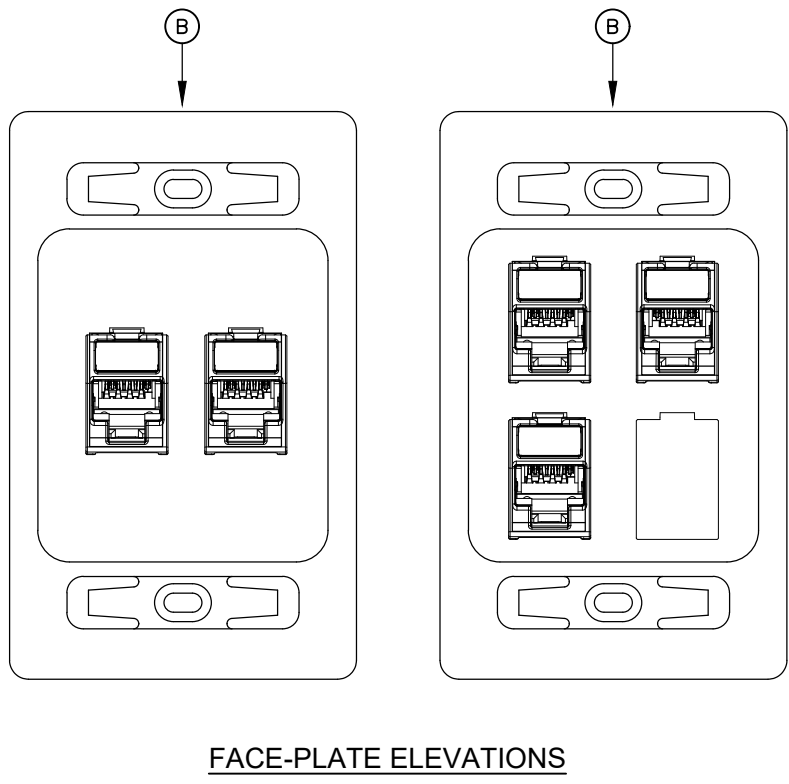
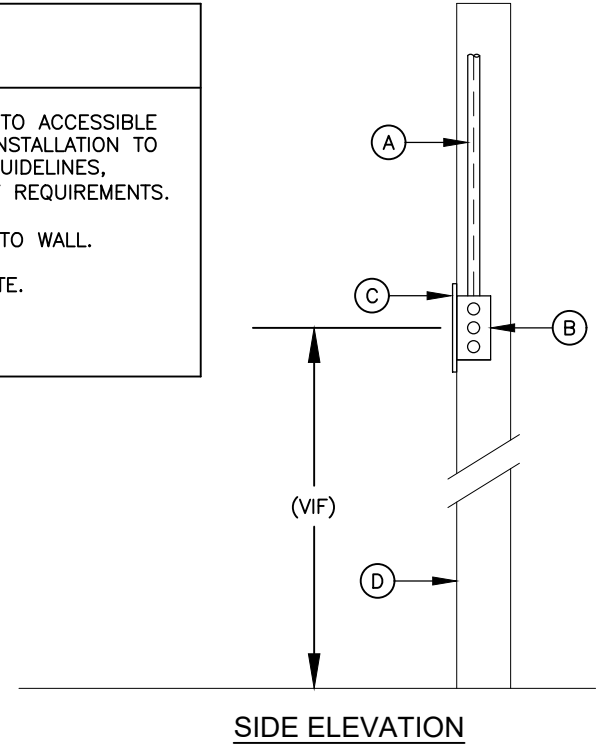
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FIRST FLOOR
FIRE ALARM
AND
COMMUNICATION
PLANS

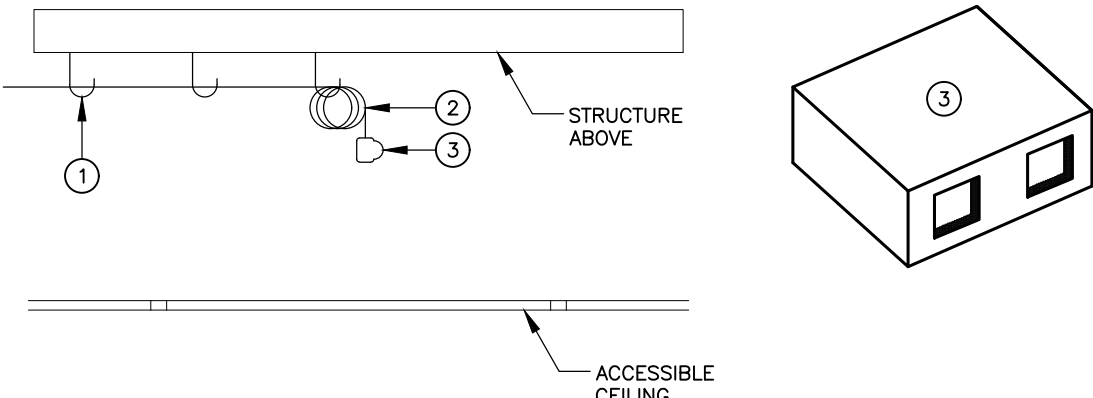
PROJ. NO. JH2516
SCALE: 1/8" = 1'-0"
DATE: JULY 6, 2026
DRAWING NO. **C-1**

G:\IES Projects\2025 Projects\Team PJP\25141 Naugatuck Police Renovation\Contract Documents\25141 C-2.dwg Plotted by cquzzi on Jul 07, 2026 - 2:07pm

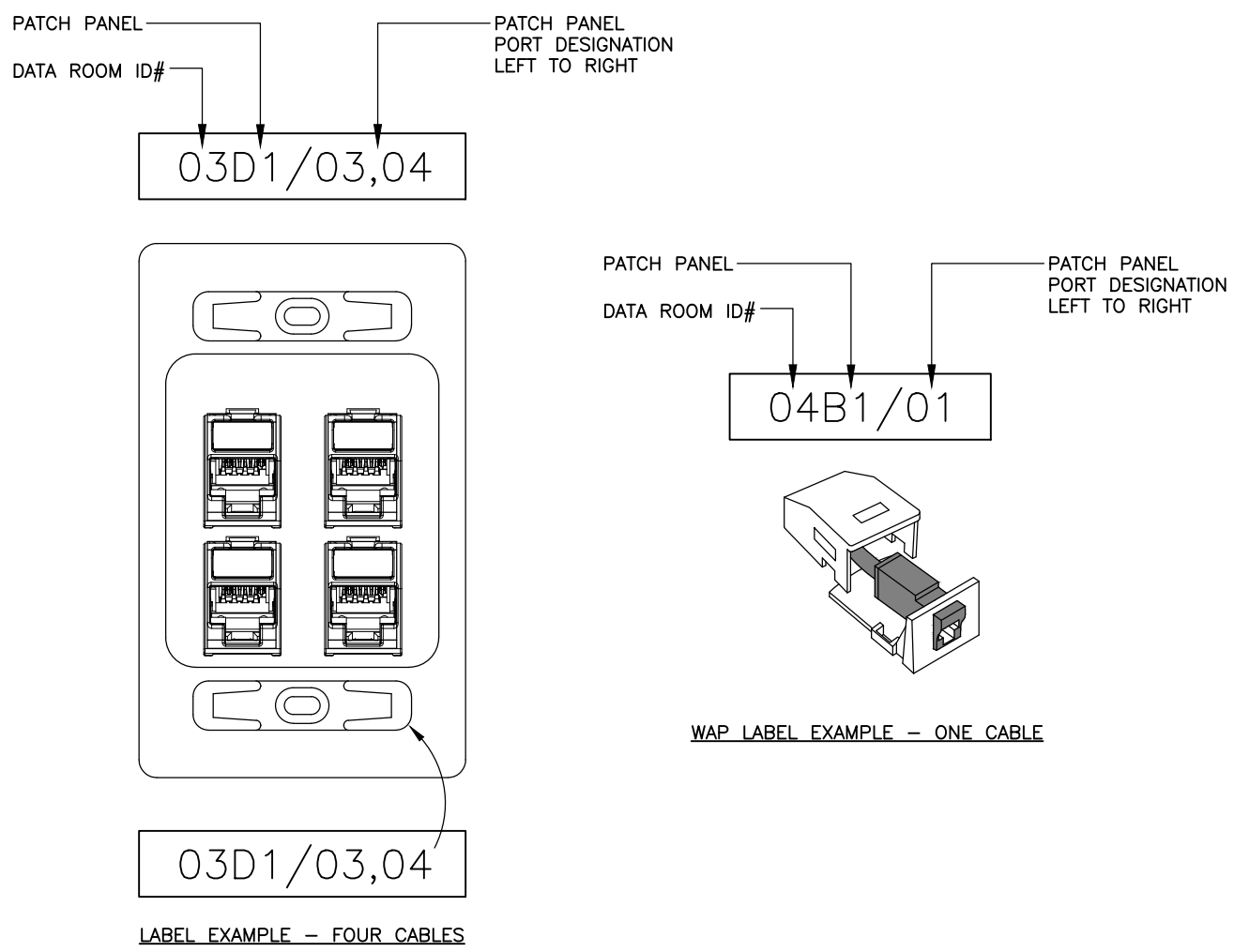
NOTES	
A	CONDUIT WITHIN FINISHED WALL UP TO ACCESSIBLE CEILING OR CABLE TRAY. CONDUIT INSTALLATION TO FOLLOW NATIONAL ELECTRIC CODE GUIDELINES, ANSI/TIA GUIDELINES AND WARRANTY REQUIREMENTS.
B	4"x4"x2 1/8" DEEP BOX MOUNTED TO WALL.
C	4 POSITION SINGLE GANG FACE PLATE.
D	SCHEDULED WALL.



TYPICAL CEILING WAP OUTLET NOTES	
1	J-HOOK TYPE SUPPORT HUNG FROM STRUCTURE ABOVE PER MANUFACTURER'S SPECIFICATION.
2	30' COIL OF SLACK CABLING SUPPORTED BY INDEPENDENT J-HOOK WITH A VELCRO FASTENER. INSTALLATION TO FOLLOW NATIONAL ELECTRIC CODE GUIDELINES, ANSI/TIA GUIDELINES AND WARRANTY REQUIREMENTS.
3	FIELD ASSEMBLED 2-PORT PLENUM RATED BOX TERMINATED WITH RJ45 JACK.
4	PRIOR TO INSTALLATION COORDINATE AND FIELD VERIFY FINAL LOCATION, HEIGHT, PENETRATIONS, PATHWAYS, JUNCTION BOXES AND CONNECTIONS WITH SUNY PURCHASE CTS REPRESENTATIVE.

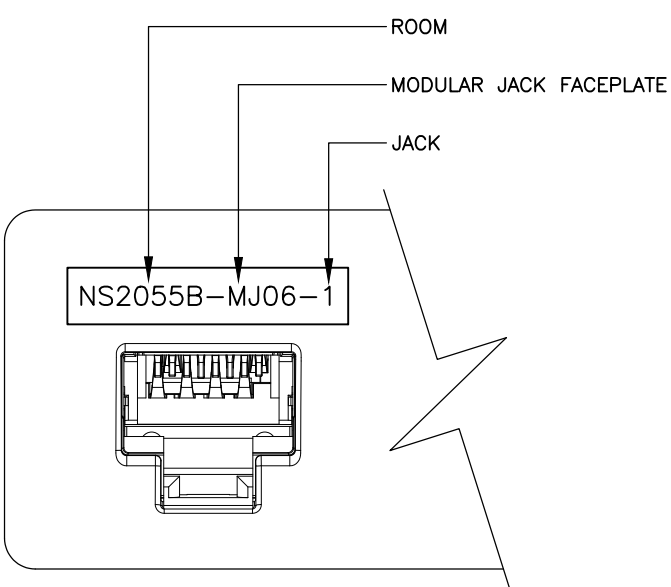


1, 2, OR 3 POSITION RECESSED WALL MOUNTED WORK AREA OUTLET (WAO) DETAIL N.T.S.

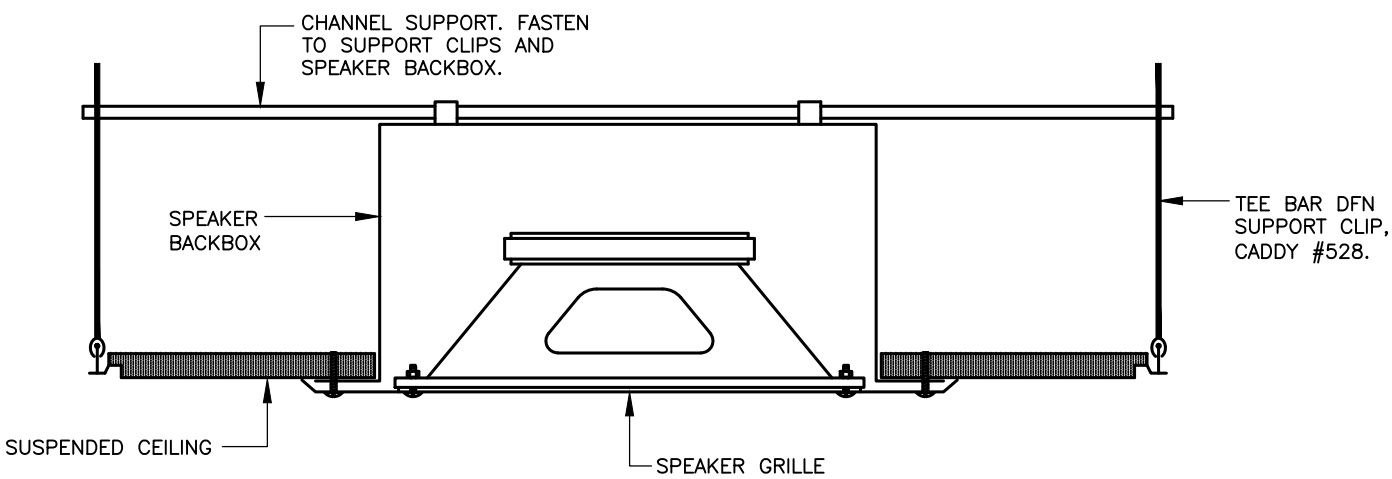


TYPICAL LABEL EXAMPLES N.T.S.

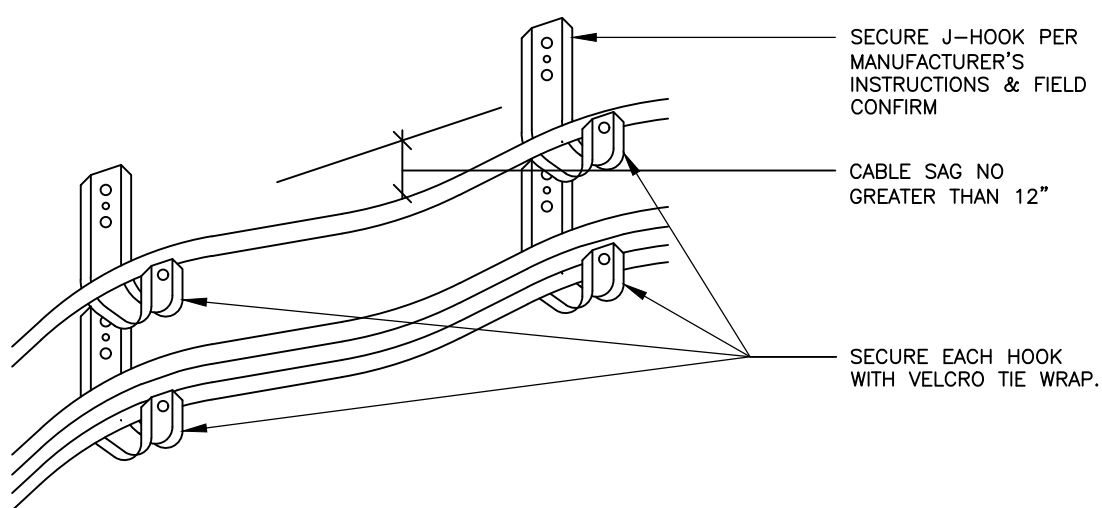
- NOTE:
1. LABELS SHALL BE MACHINE GENERATED AND PERMANENTLY AFFIXED.
 2. CAMERA LABELS SHALL BE MACHINE GENERATED AND PERMANENTLY AFFIXED WITH A WRAP AROUND LABEL ON CABLE.



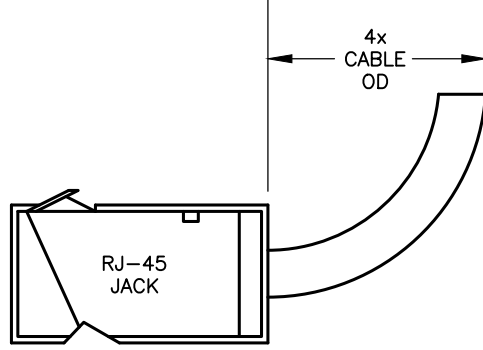
TYPICAL PATCH PANEL PORT LABEL EXAMPLE N.T.S.



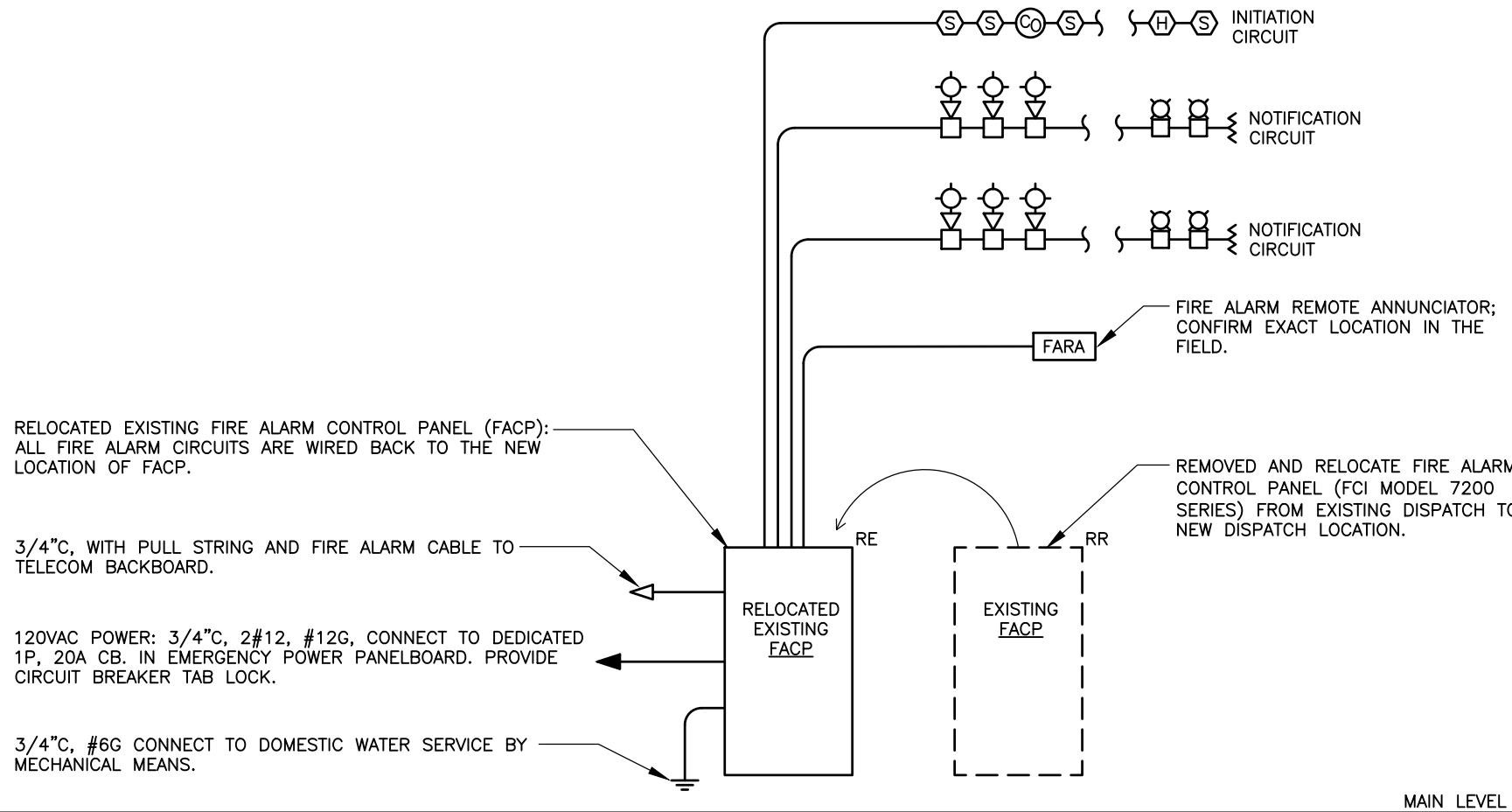
FLUSH CEILING SPEAKER MOUNTING DETAIL N.T.S.



DETAIL: "J" HOOK CABLE HANGER SCALE: N.T.S.



TYPICAL CAT6/6A DEPTH REQUIREMENTS SCALE: N.T.S.



TYPICAL FIRE ALARM RISER DIAGRAM SCALE: NTS

FIRE ALARM RISER NOTES:

1. REFER TO FLOOR PLANS FOR LOCATIONS AND QUANTITIES OF ALL DEVICES.
2. COORDINATE EXACT LOCATION OF FACP AND FARA WITH THE FIRE MARSHAL.
3. PROVIDE A MINIMUM OF 2 NOTIFICATION CIRCUITS PER FLOOR. CIRCUIT EVERY OTHER DEVICE TO A SEPARATE CIRCUIT.

FIRE ALARM LEGEND	
SYMBOL	DESCRIPTION
	FIRE ALARM VISUAL INDICATING UNIT
	FIRE ALARM HORN/STROBE UNIT
	FIRE ALARM HEAT DETECTOR
	FIRE ALARM SMOKE DETECTOR
	FIRE ALARM DUCT SMOKE DETECTOR
	FIRE ALARM MANUAL PULL STATION
	FIRE ALARM CONTROL PANEL
	RELAY CONTROL MODULE
	ADDRESSABLE RELAY MODULE
	END-OF-LINE RESISTOR

COMMUNICATIONS LEGEND		CABLES
SYMBOL	DESCRIPTION	
	VOICE, DATA OUTLET WITH 1-1/4" CONDUIT TO HUNG CEILING OR OTHER ACCESSIBLE SPACE	3 CAT-6A
	DATA OUTLET FOR COAX AND 1-1/4" CONDUIT TO HUNG CEILING OR OTHER ACCESSIBLE SPACE	1 RG6, SHIELDED
	WIRELESS ACCESS POINT	2 CAT-6A
	MONITOR UTILITY BOX, (PEERLESS-AV #B14X9-W SPECIFIED ON POWER DRAWINGS); PROVIDE CAT-6A CABLES AND TWO (2) RJ-45 DATA JACKS WITH COVER PLATE.	2 CAT-6A
	LEGEND WIREMOLD EVOLUTION BAT SERIES POKE-THRU, (SPECIFIED ON POWER DRAWINGS); THREE (3) SINGLE-GANG COMPARTMENTS FOR DATA AND HDMI OUTLETS. PROVIDE CAT-6A CABLES AND RJ-45 DATA JACKS WITH COVER PLATES.	3 CAT-6A
	FLUSH CEILING SPEAKER	

ABBREVIATIONS	
A	AMPERE
ADA	AMERICANS WITH DISABILITIES ACT
AFT	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CL	MOUNTED IN CEILING
C/B	CIRCUIT BREAKER
CLS	MOUNTED IN CEILING
CKT	CIRCUIT
DWG	DRAWING
EDO	ELECTRIC DOOR OPENER
ELEC	ELECTRICAL
FACP	FIRE ALARM CONTROL PANEL
FARA	FIRE ALARM REMOTE ANNUNCIATOR
FB	FLOOR BOX
FL	FLOOR
G	GROUND
GEC	GROUNDING ELECTRODE CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
INT	INTERCOM
JB	JUNCTION BOX
MTD	MOUNTED
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OD	OUTDOOR
P	POLE
PHASE	PHASE
TBD	TO BE DETERMINED
TEL	TELEPHONE
UON	UNLESS OTHERWISE NOTED
V	VOLT
W	WATT
WP	WEATHERPROOF

25. COMMUNICATION OUTLETS REQUIRING METAL CONDUIT SHALL BE 1" AND HAVE A METAL WORK BOX.
26. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE SITE AND BE RESPONSIBLE FOR THEIR ACCURACY.
27. FIELD VERIFY FINAL LOCATIONS OF WIRELESS ACCESS POINTS (WAP) WITH MERIDEN PD.
28. PROJECT WILL REQUIRE AS NEEDED FIELD VERIFICATION IF EXISTING CABLING AND DEVICES CAN BE USED. DURING CONSTRUCTION THESE MAY REQUIRE DISCONNECTING AND RECONNECTING. COORDINATE WITH PROJECT TEAM ANY ACTIVE EQUIPMENT OR PORTS THAT WILL NEED TO BE SHUT DOWN PRIOR TO DISCONNECTING OR MODIFYING.
29. NEW WIRELESS ACCESS POINTS SHALL BE TWO (2) PLENUM RATED CAT6A CABLES WITH 30' FOOT SERVICE SLACK AND SHALL BE INSTALLED FOR EACH WIRELESS ACCESS POINT.
30. INSTALLED MATERIALS MUST FORM AN INTEGRATED SYSTEM AND MUST INTEGRATE WITH EXISTING NETWORK COMPONENTS AND INTERCONNECTIONS MUST MATCH FOR OPTIMUM FUTURE PERFORMANCE. ALL COMPONENTS MUST BE PRODUCED BY THE SAME MANUFACTURER OR BE WARRANTED BY AN EXCLUSIVE PARTNERSHIP.

FIRE ALARM / COMM. GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK REQUIRED FOR A COMPLETE, FULLY OPERABLE INSTALLATION. ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST APPLIED ISSUE OF THE NEC AND APPLICABLE LOCAL CODES.
 2. PRIOR TO SUBMISSION OF BIDS GIVE WRITTEN NOTICE TO ARCHITECT AND ENGINEER OF ANY MATERIAL OR APPARATUS THAT IS INADEQUATE, UNSUITABLE FOR THE USE, IN VIOLATION OF LAWS, ORDINANCES, RULES, CODES OR ANY REGULATIONS OF AUTHORITIES HAVING JURISDICTION OR ANY NECESSARY ITEMS OF WORK THAT HAVE BEEN OMITTED. CONTRACTOR AFFIRMS THAT AGEN CHANG NOTICE, ALL SYSTEMS WILL FUNCTION SATISFACTORILY WITHOUT ADDITIONAL EXTRA COMPENSATION.
 3. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND ADHERE TO THE CONTENTS OF THE BID DOCUMENTS. ANY DEVIATIONS FROM THE INFORMATION PROVIDED IN THE DOCUMENTS MUST BE LISTED IN WRITING. INNOVATIVE ENGINEERING SERVICES, LLC HAS THE RIGHT TO BE COMPENSATED FOR REVIEW OF VALUE ENGINEERING OR SUBSTITUTED MATERIALS AND EQUIPMENT.
 4. CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED TO THEIR ORIGINAL CONDITION. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, PAINTING, CLEAN-UP, ELECTRICAL DEBRIS REMOVAL AND GENERAL COORDINATION OF THE WORK EFFORT AS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL ITEMS OF WORK.
 5. THE DRAWINGS SHOW THE GENERAL LAYOUT AND SOME OF THE DETAIL, BUT THEY DO NOT SHOW EVERY FITTING, BEND, ... ETC. CONTRACTOR SHALL PROVIDE ALL SUCH MATERIALS TO MAKE A COMPLETE INSTALLATION.
 6. IT SHALL BE UNDERSTOOD THAT THE DETAILS AND DRAWINGS PROVIDED ARE DIAGRAMMATIC. THEY ARE INCLUDED TO SHOW THE INTENT OF THE SPECIFICATIONS AND TO AID THE CONTRACTOR IN BIDDING THE JOB. THE CONTRACTOR SHALL MAKE ALLOWANCE IN THE BID PROPOSAL TO COVER ALL WORK REQUIRED TO COMPLY WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.
 7. ALL PART NUMBERS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THEY ARE NOT TO BE CONSIDERED THE COMPLETE SPECIFICATION OF THE PRODUCT. THE PART NUMBER AND DESCRIPTION WILL BE THE COMPLETE SPECIFICATION. IN THE EVENT OF A DISCREPANCY BETWEEN THE TWO, THE MORE STRINGENT, MORE COSTLY FEATURE/PERFORMANCE WILL BE REQUIRED.
 8. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING OF ALL PHASES OF THE WORK AND TO DEMONSTRATE TO OWNER THAT THE EQUIPMENT IS IN FULL OPERATING ORDER.
 9. DO NOT SCALE DRAWINGS; ACTUAL FIELD MEASUREMENTS AND DIMENSIONS TAKE PRECEDENCE IN ALL CASES.
 10. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT, AIA DOCUMENT 201, LATEST EDITION.
 11. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND OR REQUIREMENTS FOR PROPER OPERATION AND MAINTENANCE.
 12. CONTRACTOR SHALL WARRANT AND GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
 13. CONTRACTOR SHALL GIVE OWNER 10 DAYS ADVANCE NOTICE OF SHUTDOWNS, OR AS DIRECTED BY THE OWNER. SHUTDOWNS TO BE KEPT TO A MINIMUM. AT NO TIME SHALL THE BUILDING/SPACE BE LEFT WITHOUT THE FIRE ALARM SYSTEM IN FULL OPERATING ORDER.
 14. ALL FIRE ALARM SYSTEM AND COMMUNICATION SYSTEM PENETRATIONS TO BE FIREPROOFED TO MAINTAIN INTEGRITY OF FIRE WALLS/FLOORS/CEILINGS.
 15. ALL WIRING METHODS ARE TO BE IN ACCORDANCE WITH THE CURRENT ISSUE OF THE NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES. ALL WIRING IS TO BE IN CONDUIT, UNLESS SPECIALLY CALLED OUT OTHERWISE. ALL WIRING IS TO BE CONCEALED.
 16. RISER DIAGRAMS ARE PROVIDED TO SHOW DIAGRAMMATIC GENERAL WIRING REQUIREMENTS. WIRING IS TO BE PROVIDED FOR THE PARTICULAR VENDOR/SYSTEM APPROVED FOR THE PROJECT. ALL WIRING IS TO BE CONCEALED.
 17. ALL WIRING IN AIR PLENUM CEILINGS SHALL BE TEFLON COATED AND RATED FOR USE WITHIN THE PLENUM.
 18. NO LOW VOLTAGE WIRING SHALL BE PERMITTED IN THE SAME RACEWAY AS POWER WIRING.
 19. EMERGENCY SERVICES SHALL BE RUN IN SEPARATE RACEWAYS FROM ALL OTHER SYSTEMS.
 20. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL FOR ALL FIRE ALARM SYSTEM AND COMMUNICATION SYSTEM DEVICES, WIRING AND ASSOCIATED EQUIPMENT, ETC.
 21. CONTRACTOR TO COORDINATE EXACT PLACEMENT OF EQUIPMENT WITH ARCHITECTURAL AND MECHANICAL PLANS, MAKE FIELD ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS, VERIFY WITH OWNER.
 22. CONTRACTOR TO COORDINATE WITH ARCHITECTURAL AND OTHER TRADE CONTRACTORS FOR ITEMS SUPPLIED BY OTHER DIVISIONS BUT INSTALLED BY FIRE ALARM/ COMMUNICATIONS CONTRACTOR. CONTRACTOR TO REVIEW ALL THE PLANS FOR THE PROJECT AND ASSIST IN PROVIDING COORDINATION DRAWINGS WITH OTHER TRADES.
 23. REFER TO ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF ALL DEVICES AND OUTLETS.
 24. FIRE ALARM SYSTEM: THE WORK COVERED BY THIS SECTION OF THE SPECIFICATION SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND SERVICES TO FURNISH AND INSTALL A NEW FIRE ALARM CONTROL PANEL OF THE ADDRESSABLE TYPE. THE ADDRESSABLE FIRE ALARM SYSTEM SHALL BE COMPLETE WITH ALL NECESSARY HARDWARE AND SOFTWARE SPECIFICALLY TAILORED FOR THIS INSTALLATION. IT SHALL BE POSSIBLE TO PERMANENTLY MODIFY THE SOFTWARE ON SITE BY USING A PLUG-IN PROGRAMMER.
- A. ALL PRODUCTS USED SHALL BE OF A SINGLE MANUFACTURER. SUBMISSION OF NOTIFICATION APPLIANCES, AUXILIARY RELAYS, OR DOCUMENTATION FROM OTHER THAN A SINGLE MANUFACTURER SHALL NOT BE ACCEPTABLE AND WILL BE GROUNDS FOR IMMEDIATE DISAPPROVAL WITHOUT COMMENT.
- B. THE ENTIRE FIRE ALARM SYSTEM SHALL BE INSTALLED WITH AESTHETICS IN MIND. ALL REMOTE ANNUNCIATORS INSTALLED SHALL BE SEMI-FLUSH MOUNTED WITH NO EXPOSED CONDUIT OR CABLE TRAYS.
- C. THE EXISTING CONVENTIONAL FIRE ALARM SYSTEM SHALL REMAIN IN OPERATION AT ALL TIMES, DURING AND AFTER CONSTRUCTION. THE INSTALLING ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUED OPERATION OF THE EXISTING SYSTEM.
- D. ALL FIRE ALARM WIRING SHALL BE INSTALLED USING A DEDICATED SYSTEM OF SUPPORTS (I.E. BRIDLE RINGS). FIRE ALARM WIRING SHALL NOT BE BUNDLED OR STRAPPED TO EXISTING CONDUIT, PIPE OR WIRE IN THE FACILITY.
- E. INTELLIGENT DEVICES, GENERAL REQUIREMENTS: EACH REMOTE DEVICE SHALL HAVE A MICROPROCESSOR WITH NON-VOLATILE MEMORY TO SUPPORT ITS FUNCTIONALITY AND SERVICEABILITY. EACH DEVICE SHALL BE CAPABLE OF ELECTRONIC ADDRESSING, EITHER AUTOMATICALLY OR APPLICATION PROGRAMMED ASSIGNED, TO SUPPORT PHYSICAL/ELECTRICAL MAPPING AND SUPERVISION BY LOCATION. SETTING A DEVICE'S ADDRESS BY PHYSICAL MEANS SHALL NOT BE NECESSARY.
- F. INTELLIGENT DETECTORS, GENERAL REQUIREMENTS: THE SYSTEM INTELLIGENT DETECTORS SHALL BE CAPABLE OF FULL DUAL COMMUNICATIONS USING BOTH BROADCAST AND POLLING PROTOCOL. EACH DETECTOR SHALL HAVE AN INTEGRAL MICROPROCESSOR CAPABLE OF MAKING ALARM DECISIONS BASED ON FIRE PARAMETER INFORMATION STORED IN THE DETECTOR HEAD. EACH SMOKE DETECTOR SHALL BE CAPABLE OF TRANSMITTING PRE-ALARM AND ALARM SIGNALS IN ADDITION TO THE NORMAL, TROUBLE AND NEED CLEANING INFORMATION. EACH DETECTOR MICROPROCESSOR SHALL CONTINUALLY MONITOR THE ENVIRONMENTAL IMPACT OF TEMPERATURE, HUMIDITY, OTHER CONTAMINATES AS WELL AS DETECTOR AGING.
- G. NOTIFICATION APPLIANCES, GENERAL REQUIREMENTS: ALL APPLIANCES SHALL BE UL LISTED FOR FIRE PROTECTIVE SERVICE. ALL STROBE APPLIANCES OR COMBINATION APPLIANCES WITH STROBES SHALL BE CAPABLE OF PROVIDING THE "EQUIVALENT FACILITATION" WHICH IS ALLOWED UNDER THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG), AND SHALL BE UL 1971, AND UL5526 LISTED.
- H. STROBES: STROBES SHALL PROVIDE SYNCHRONIZED FLASH OUTPUTS. STROBE OUTPUT SHALL BE FIELD SELECTABLE IN ONE OF THE FOLLOWING INTENSITY LEVELS: 15CD, 50CD, 75CD OR 110CD.
- I. HORN/STROBES: SHALL PROVIDE AN AUDIBLE OUTPUT OF 84DBA AT 10 FT. STROBES SHALL PROVIDE SYNCHRONIZED FLASH OUTPUTS. THE STROBE OUTPUT SHALL BE 75CD OR AS INDICATED ON THE DRAWINGS. THE HORN SHALL HAVE A SELECTABLE STEADY OR SYNCHRONIZED TEMPORAL OUTPUT.
- J. END OF LINE RESISTORS SHALL BE FURNISHED AS REQUIRED FOR MOUNTING AS DIRECTED BY THE MANUFACTURER. DEVICES CONTAINING RESISTORS SHALL BE APPROPRIATELY LABELED. DEVICES SHOULD BE LABELED SO REMOVAL OF THE DEVICE IS NOT REQUIRED TO IDENTIFY THE EOL DEVICE.
- K. ALL AUDIO/VISUAL DEVICES SHALL BE MOUNTED 80 INCHES ABOVE THE FINISHED FLOOR, AS MEASURED ON CENTER. DEVICES SHALL BE MOUNTED NO LESS THAN 6 INCHES FROM THE CEILING. ALL AUDIO/VISUAL DEVICES SHALL HAVE LEVAIN COVERS IN ALL AREAS.
- L. NO AREA SMOKE DETECTORS SHALL BE MOUNTED WITHIN 36 INCHES OF ANY HVAC SUPPLY, RETURN AIR REGISTER OR LIGHTING FIXTURE.
- M. NO AREA SMOKE OR HEAT DETECTOR SHALL BE MOUNTED WITHIN 12 INCHES OF ANY WALL.
- N. ALL MECHANICAL ROOMS, ELECTRICAL ROOMS, WIRING CLOSETS, CUSTODIAN ROOMS, ETC. OR AREAS WITH NO HUNG CEILINGS SHALL BE PIPED WITH 3/4" CONDUIT. ALL DEVICE PLENUM RATED WIRING SHALL BE MECHANICALLY PROTECTED WITH CONDUIT.
- O. ALL ADDRESSABLE MODULES SHALL BE MOUNTED WITHIN 36 INCHES OF THE MONITORED OR CONTROLLED POINT OF TERMINATION. THIS SHALL INCLUDE, BUT IS NOT NECESSARILY LIMITED TO, FAN SHUTDOWN, SMOKE DAMPERS, SHUNT TRIP, SPRINKLER STATUS POINTS, OR DOOR RELEASE. LABEL ALL ADDRESSABLE MODULES AS TO THEIR FUNCTION.
- P. ALL JUNCTION BOX COVERS SHALL BE PAINTED FEDERAL SAFETY RED AND LABELED FIRE ALARM SYSTEM ONLY IN BLACK LETTERS.
- Q. FIRE ALARM SYSTEM WIRING SHALL NOT CO-MINGLE WITH ANY OTHER SYSTEM WIRING IN THE FACILITY.
- R. AUXILIARY RELAYS SHALL BE APPROPRIATELY LABELED TO INDICATE "FIRE ALARM SYSTEM" AND THEIR SPECIFIC FUNCTION (I.E. FAN S-I SHUTDOWN).
- S. ALL FIRE ALARM WIRING SHALL BE CONTINUOUS AND UNSPLICED. TERMINATIONS SHALL ONLY OCCUR AT FIRE ALARM DEVICES OR CONTROL PANEL ENCLOSURES UNDER TERNAL PERFORMS. ALL OTHER SPLICING METHODS ARE SPECIFICALLY DISALLOWED. (I.E. PLASTIC WIRENUTS)



INTERIOR RENOVATIONS TO
NAUGATUCK POLICE DEPARTMENT
CENTRAL DISPATCH FACILITY
FY27-B138
211 SPRING STREET
NAUGATUCK, CONNECTICUT

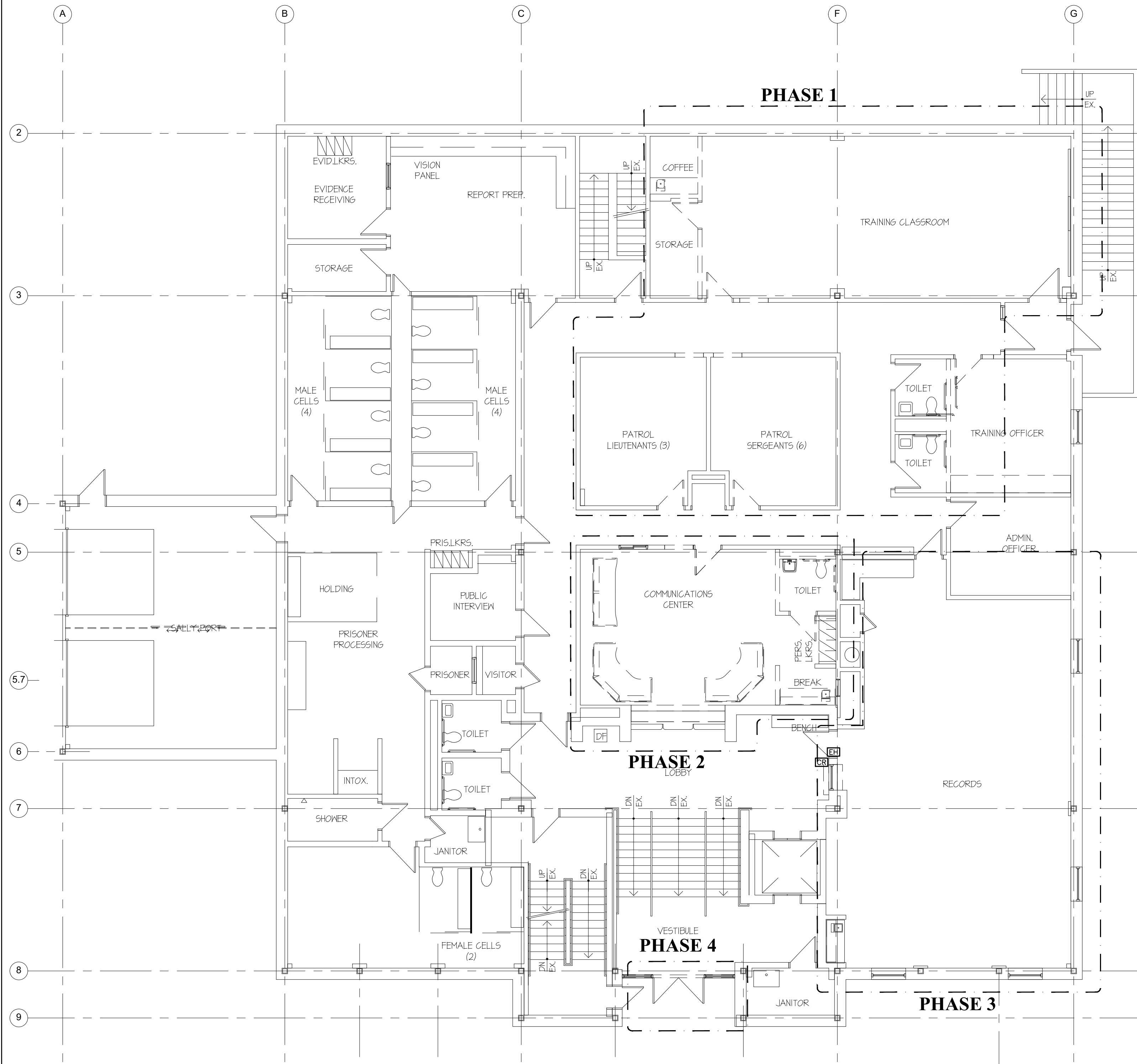
J J H
JACUNSKI HUMES
ARCHITECTS, LLC

15 MASSIRIO DRIVE
SUITE 101
BERLIN, CT 06037
TEL 860-828-9221
FAX 860-828-9223

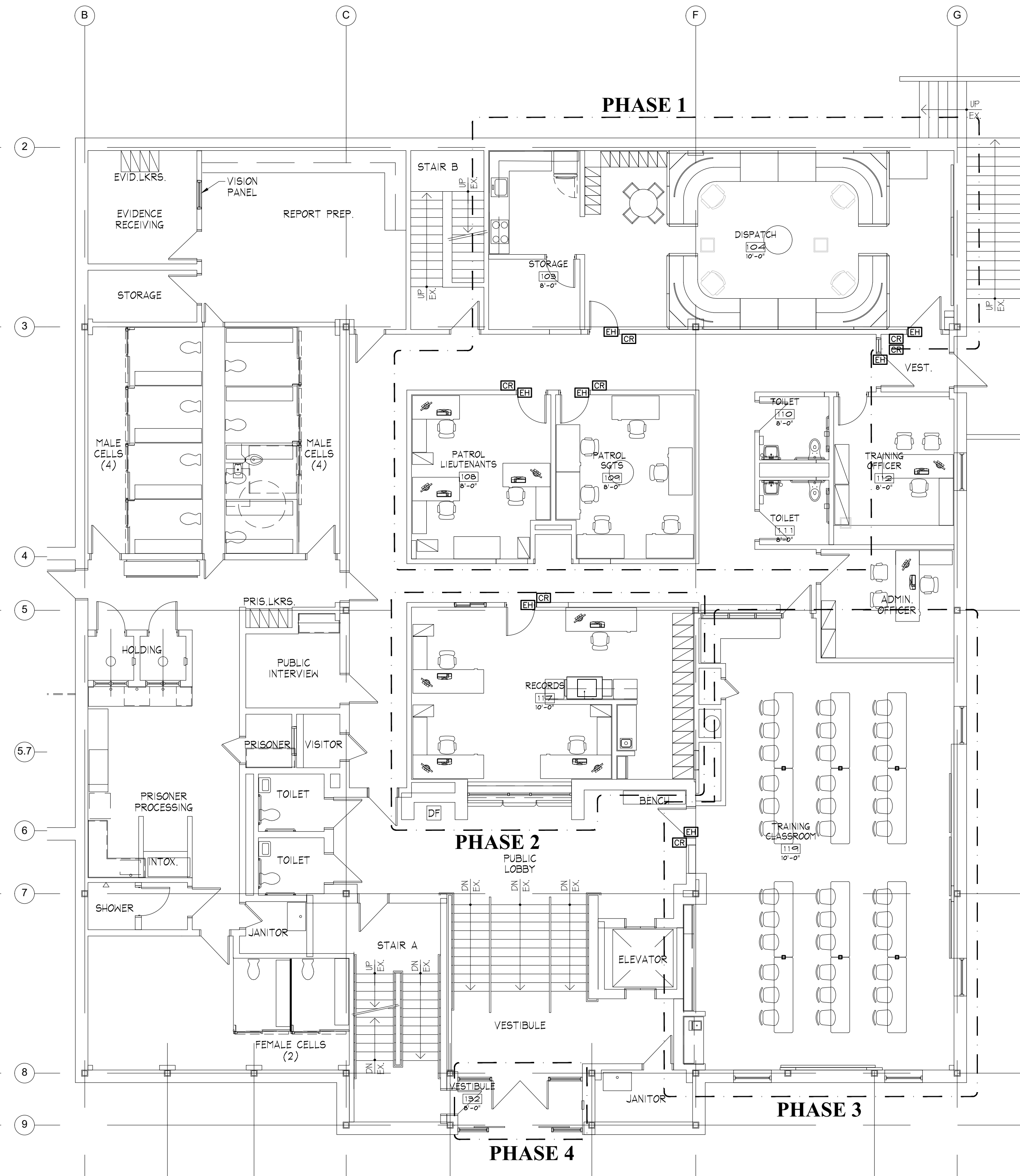
**FIRE ALARM &
COMMUNICATION
NOTES,
LEGENDS,
AND DETAILS**

PROJ. NO.	JH2516	DRAWING NO.
SCALE:	AS NOTED	C-2
DATE:	JULY 6, 2026	

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FIRST FLOOR TECHNOLOGY DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



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

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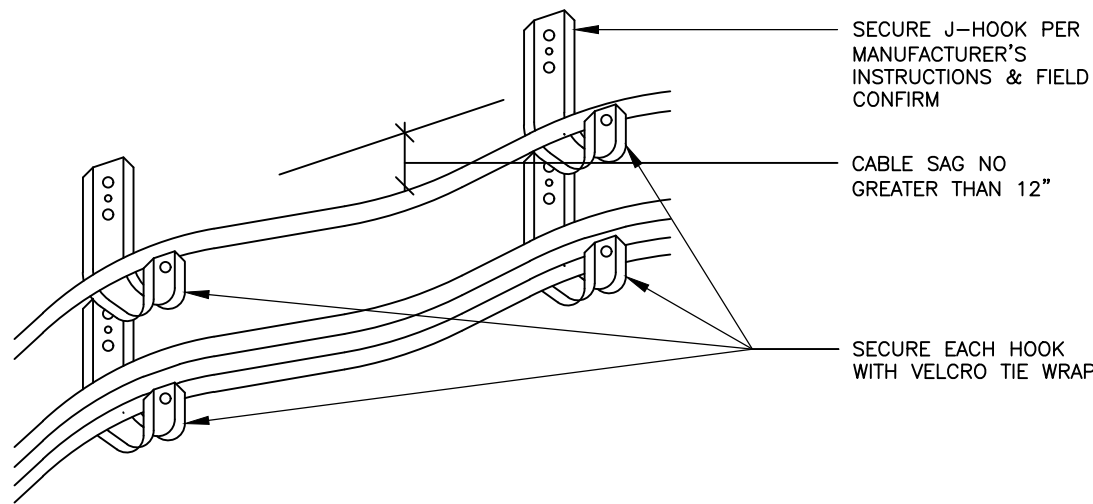
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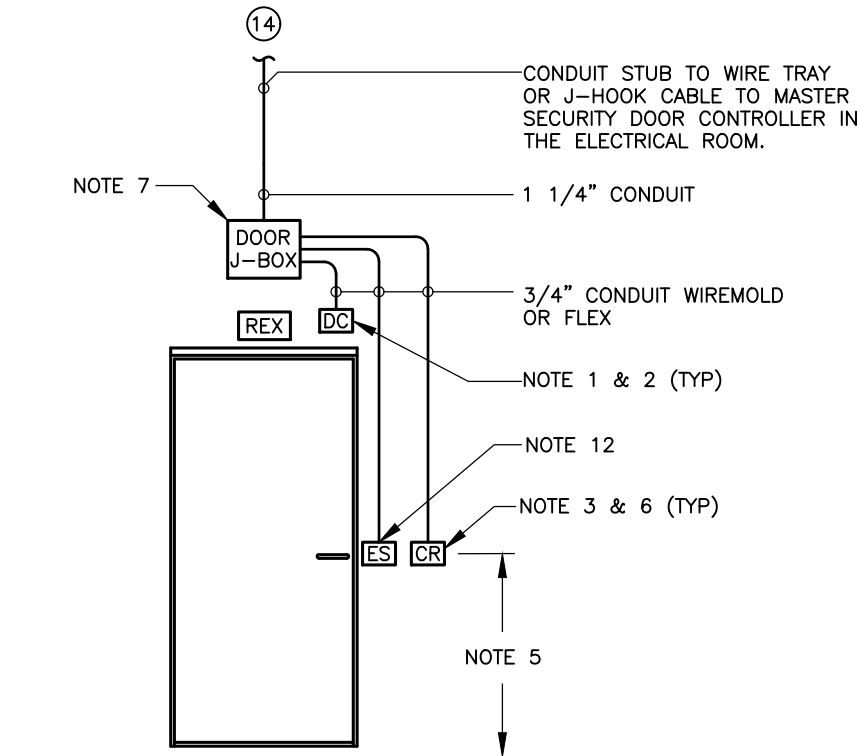
FIRST FLOOR
TECHNOLOGY
PLANS

PROJ. NO. JH2516	DRAWING NO. T-1
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DETAIL: "J" HOOK CABLE HANGER
SCALE: N.T.S.



SECURITY DOOR DETAIL
SCALE: N.T.S.

NOTE: ALL SECURITY DOOR NOTES APPLY TO DETAIL.

SECURITY DOOR NOTES

1. DRILL UP TO 1" DIA. HOLE IN DOOR FRAME 6" FROM LATCH SIDE OF DOOR IN HEADER FOR SECURITY DOOR CONTACT. COORDINATE HOLE SIZE WITH MANUFACTURER.
2. STUB CONDUIT OR FLEX INTO DOOR FRAME. PROVIDE PULL STRING FOR SECURITY DOOR CONTACT.
3. PROVIDE A SINGLE GANG JUNCTION BOX MOUNTED VERTICALLY. LEAVE PULL STRING FOR SECURITY CARD READER.
4. PROVIDE A SINGLE GANG JUNCTION BOX MOUNTED HORIZONTALLY FOR SECURITY REX SERVICE AND/OR MAGNETIC LOCK. LEAVE PULL STRING IN CONDUIT.
5. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL DEVICES WITH ARCHITECTURALS AND EQUIPMENT PROVIDER.
6. COORDINATE WITH OWNER EXACT LOCATIONS OF CARD READER AND/OR PUSH PLATE(S) FOR EACH LOCATION.
7. MOUNT DOOR J-BOX INSIDE PROTECTED AREA, ABOVE ACCESSIBLE CEILING SPACE. 6"x6"x4" J-BOX, TAMPER PROOF HARDWARE.
8. COORDINATE EXACT RACEWAY REQUIREMENTS WITH ARCHITECTURALS AND EQUIPMENT PROVIDER. LEAVE PULL STRING IN ALL CONDUIT, EXTEND CONDUIT TO ACCESSIBLE LOCATION ABOVE CEILING CAVITY, AND TERMINATE BOTH ENDS OF CONDUIT WITH CONNECTOR AND INSULATING BUSHING.
9. ALL CONDUITS SHALL BE TERMINATED WITH CONNECTOR AND INSULATING BUSHING AT BOTH ENDS.
10. PROVIDE 2 GANG BACK BOX FOR INDICATED DEVICE.
11. PROVIDE ASSOCIATED CONTROL WIRING FROM PUSH PLATE TO DOOR CONTROLLER.
12. ELECTRIC STRIKE AT DOOR'S LATCH SIDE. COORDINATE WITH ARCHITECT/OWNER FOR EXACT MOUNTING HEIGHT LOCATION.
13. DETAIL IS SCHEMATIC ONLY. COORDINATE EXACT REQUIREMENTS OF RACEWAYS, BACKBOXES, JUNCTION BOXES, ETC., WITH SECURITY VENDOR PRIOR TO INSTALLATION. ALL CONDUIT RACEWAYS TO BE RECESSED TO EVERY EXTENT POSSIBLE. PROVIDE WIREMOLD AL2000 RACEWAY & FITTINGS IN INTERIOR SPACES WHEN CONDUIT CAN NOT BE RECESSED.
14. 1-1/4" CONDUIT WITH ACCESS CONTROL COMPOSITE CABLE: 'SMART WIRE' PART NUMBER 446100 - ELEMENT 1: 18 AWG 4 CONDUCTOR NON-SHIELDED; ELEMENT 2: 22 AWG 3 PAIR SHIELDED; ELEMENT 3: 22 AWG 2 CONDUCTOR NON-SHIELDED; ELEMENT 4: 22 AWG 4 CONDUCTOR NON-SHIELDED PLENUM COMPOSITE CABLE. MANUFACTURED BY WINDY CITY WIRE.
15. LEAVE A 20-FOOT COILED LOOP AT EACH END OF THE COMPOSITE CABLE.

INTEGRATED TECHNOLOGY LEGEND

SYMBOL	DESCRIPTION
	DURESS ALARM BUTTON
	DURESS ALARM BEACON (CEILING MOUNTED)
	CARD READER
	ELECTRIFIED HARDWARE
	INTERCOM
	INTERCOM MASTER
	DOOR ACCESS CONTROL - MAGNETIC LOCK
	DOOR ACCESS CONTROL - TEMPORARY MOMENT SWITCH
	NET CLOCK
	DOOR ACCESS CONTROL - AUTOMATIC OPERATOR PUSH BUTTON
	SECURITY KEY PAD
	SECURITY REQUEST TO OPEN DEVICE
	MOTION SENSOR - WALL MOUNTED
	DOOR CONTACT, INTERLOGIX 1078CW-N
	DOOR STATUS SWITCH

ABBREVIATIONS

ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AH	AFTER HOURS
AHJ	AUTHORITY HAVING JURISDICTION
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
C	CONDUIT
CATV	CABLE TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CR	COMMUNICATIONS ROOM
DB	DECIBEL
DD	DIGITAL DISPLAY
DWG	DRAWING
ER	EXISTING TO REMAIN
FB	FLOOR BOX
FBO	FURNISHED BY OTHERS
FL	FLOOR
G	GROUND
IG	ISOLATED GROUND
JB	JUNCTION BOX
MMF	MULTIMODE FIBER
MTD	MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NM	NANOMETER
NTS	NOT TO SCALE
OD	OUTDOOR
PR	PAIR
PTZ	PAN TILT ZOOM
RR	REMOVE AND RELOCATE
SMF	SINGLEMODE FIBER
SPD	SURGE PROTECTION DEVICE
SPOB	SURGE PROTECTION GROUNDING BAR
TBB	TELECOMMUNICATION BONDING BACKBONE
TBD	TO BE DETERMINED
TEL	TELECOMMUNICATION
TGB	TELECOMMUNICATION GROUNDING BAR
TGGB	TELECOMMUNICATION MAIN GROUNDING BAR
TV	TELEVISION
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLT
VIF	VERIFY IN FIELD
WAO	WORK AREA OUTLET
WAP	WIRELESS ACCESS POINT
WP	WALL PHONE
WPE	WEATHERPROOF ENCLOSURE

INTEGRATED TECHNOLOGY GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK REQUIRED FOR A COMPLETE, FULLY OPERABLE INSTALLATION. ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST APPROVED ISSUE OF THE NEC AND APPLICABLE LOCAL CODES.
2. PRIOR TO SUBMISSION OF BIDS GIVE WRITTEN NOTICE TO ARCHITECT AND ENGINEER OF ANY MATERIAL OR APPARATUS THAT IS INADEQUATE, UNSUITABLE FOR THE USE, IN VIOLATION OF LAWS, ORDINANCES, RULES, CODES OR ANY REGULATIONS OF AUTHORITIES HAVING JURISDICTION OR ANY NECESSARY ITEMS OF WORK THAT HAS BEEN OMITTED. CONTRACTOR AFFIRMS THAT ABSENT SUCH NOTICE, ALL SYSTEMS WILL FUNCTION SATISFACTORILY WITHOUT ADDITIONAL EXTRA COMPENSATION.
3. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND ADHERE TO THE CONTENTS OF THE BID DOCUMENTS. ANY DEVIATIONS FROM THE INFORMATION PROVIDED IN THE DOCUMENTS MUST BE LISTED IN WRITING. INNOVATIVE ENGINEERING SERVICES, LLC HAS THE RIGHT TO BE COMPENSATED FOR REVIEW OF VALUE ENGINEERING OR SUBSTITUTED MATERIALS AND EQUIPMENT.
4. CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED TO THEIR ORIGINAL CONDITION. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, PAINTING, CLEAN-UP, ELECTRICAL DEBRIS REMOVAL AND GENERAL COORDINATION OF THE WORK EFFORT AS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL ITEMS OF WORK.
5. THE DRAWINGS SHOW THE GENERAL LAYOUT AND SOME OF THE DETAIL, BUT THEY DO NOT SHOW EVERY FITTING, BEND, ... ETC. CONTRACTOR SHALL PROVIDE ALL SUCH MATERIALS TO MAKE A COMPLETE INSTALLATION.
6. IT SHALL BE UNDERSTOOD THAT THE DETAILS AND DRAWINGS PROVIDED ARE DIAGRAMMATIC. THEY ARE INCLUDED TO SHOW THE INTENT OF THE SPECIFICATIONS AND TO AID THE CONTRACTOR IN BIDDING THE JOB. THE CONTRACTOR SHALL MAKE ALLOWANCE IN THE BID PROPOSAL TO COVER ALL WORK REQUIRED TO COMPLY WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.
7. ALL PART NUMBERS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THEY ARE NOT TO BE CONSIDERED THE COMPLETE SPECIFICATION OF THE PRODUCT. THE PART NUMBER AND DESCRIPTION WILL BE THE COMPLETE SPECIFICATION. IN THE EVENT OF A DISCREPANCY BETWEEN THE TWO, THE MORE STRINGENT, MORE COSTLY FEATURE/PERFORMANCE WILL BE REQUIRED.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING OF ALL PHASES OF THE WORK AND TO DEMONSTRATE TO OWNER THAT THE EQUIPMENT IS IN FULL OPERATING ORDER.
9. DO NOT SCALE DRAWINGS; ACTUAL FIELD MEASUREMENTS AND DIMENSIONS TAKE PRECEDENCE IN ALL CASES.
10. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT, AIA DOCUMENT 201, LATEST EDITION.
11. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND OR REQUIREMENTS FOR PROPER OPERATION AND MAINTENANCE.
12. CONTRACTOR SHALL WARRANT AND GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
13. CONTRACTOR SHALL GIVE OWNER 10 DAYS ADVANCE NOTICE OF SHUTDOWNS, OR AS DIRECTED BY THE OWNER. SHUTDOWNS TO BE KEPT TO A MINIMUM. AT NO TIME SHALL THE BUILDING/SPACE BE LEFT WITHOUT THE FIRE ALARM SYSTEM IN FULL OPERATING ORDER.
14. ALL PENETRATIONS TO BE FIREPROOFED TO MAINTAIN INTEGRITY OF FIRE WALLS/FLOORS/CEILINGS.
15. ALL WIRING METHODS ARE TO BE IN ACCORDANCE WITH THE CURRENT ISSUE OF THE NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES. ALL WIRING IS TO BE IN CONDUIT, UNLESS SPECIFICALLY NOTED OTHERWISE. ALL WIRING IS TO BE CONCEALED.
16. RISER DIAGRAMS ARE PROVIDED TO SHOW DIAGRAMMATIC GENERAL WIRING REQUIREMENTS. WIRING IS TO BE PROVIDED FOR THE PARTICULAR VENDOR/SYSTEM APPROVED FOR THE PROJECT. ALL WIRING IS TO BE CONCEALED.
17. ALL WIRING IN AIR PLENUM CEILINGS SHALL BE TEFLON COATED AND RATED FOR USE WITHIN THE PLENUM.
18. NO LOW VOLTAGE WIRING SHALL BE PERMITTED IN THE SAME RACEWAY AS POWER WIRING.
19. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL FOR ALL INTEGRATED TECHNOLOGY SYSTEMS DEVICES, WIRING AND ASSOCIATED EQUIPMENT, ETC.
20. CONTRACTOR TO COORDINATE EXACT PLACEMENT OF EQUIPMENT WITH ARCHITECTURAL AND MECHANICAL PLANS. MAKE FIELD ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS, VERIFY WITH OWNER.
21. CONTRACTOR TO COORDINATE WITH ARCHITECTURAL AND OTHER TRADE CONTRACTORS FOR ITEMS SUPPLIED BY OTHER DIVISIONS, BUT INSTALLED BY INTEGRATED TECHNOLOGY CONTRACTOR. CONTRACTOR TO REVIEW ALL THE PLANS FOR THE PROJECT AND ASSIST IN PROVIDING COORDINATION DRAWINGS WITH OTHER TRADES.
22. REFER ALSO TO THE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF DEVICES.
23. ALL INTEGRATED TECHNOLOGY DEVICES SHALL MATCH THE EXISTING BUILDING STANDARD MANUFACTURER. THE INTEGRATED TECHNOLOGY SYSTEM'S SOFTWARE AND DISPLAY SHALL BE UPGRADED AS REQUIRED WITH NEW ROOM NAMES AND FLOOR PLAN LAYOUT. THE INTEGRATED TECHNOLOGY SYSTEMS SHALL BE TESTED UPON COMPLETION OF ALL NEW AND/OR RELOCATED DEVICES.
24. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE SITE AND BE RESPONSIBLE FOR THEIR ACCURACY.
25. PROJECT WILL REQUIRE AS NEEDED FIELD VERIFICATION IF EXISTING CABLING AND DEVICES CAN BE USED. DURING CONSTRUCTION THESE MAY REQUIRE DISCONNECTING AND RECONNECTING. COORDINATE WITH PROJECT TEAM ANY ACTIVE EQUIPMENT OR PORTS THAT WILL NEED TO BE SHUT DOWN PRIOR TO DISCONNECTING OR MODIFYING.
26. INSTALLED MATERIALS MUST FORM AN INTEGRATED SYSTEM AND MUST INTEGRATE WITH EXISTING NETWORK. COMPONENTS AND INTERCONNECTIONS MUST MATCH FOR OPTIMUM FUTURE PERFORMANCE. ALL COMPONENTS MUST BE PRODUCED BY THE SAME MANUFACTURER OR BE WARRANTED BY AN EXCLUSIVE PARTNERSHIP.
27. ANY USE OF EXISTING PATHWAYS AND SPACES SHALL BE FIELD VERIFIED THAT THEY MEET THE MOST CURRENT CTS SPECIFICATION. ANY DEVIATION SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT TEAM AND WILL REQUIRE WRITTEN AUTHORIZATION TO PROCEED. NOTIFY CTS PROJECT REPRESENTATIVE OF MODIFICATIONS OR NON-COMPLIANT CONDITIONS.
28. FIELD VERIFY FINAL LOCATIONS OF SECURITY CAMERAS WITH BERLIN PD.
29. NEW CAMERA LOCATIONS SHALL HAVE TWO (2) PLENUM RATED CAT6A CABLES WITH 10' FOOT SERVICE SLACK AND SHALL BE INSTALLED FOR EACH INTERIOR CAMERA LOCATION. VERIFY FINAL LOCATIONS IN THE FIELD WITH BERLIN PD.
30. NEW ACCESS CONTROL DOOR CONTROLLER SHALL BE POWERED BY (FOUR 4) CAT6A PLENUM RATED CABLES UTILIZING POE. SEE DOOR DETAILS FOR NETWORK JACK JUNCTION BOX AND INSTALLATION REQUIREMENTS.



INTERIOR RENOVATIONS TO
NAUGATUCK POLICE DEPARTMENT
CENTRAL DISPATCH FACILITY
FY27-B138
211 SPRING STREET
NAUGATUCK, CONNECTICUT

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TECHNOLOGY
NOTES,
LEGENDS, AND
DETAILS

PROJ. NO.
JH2516
SCALE:
AS NOTED
DATE:
JULY 6, 2026

DRAWING NO.
T-2