

A A.C.T. ACOUSTIC CEILING TILE
A.D. AREA DRAIN
A.F.F. ABOVE FINISH FLOOR
AC. DR. ACCESS DOOR
AC. PL. ACCESS PANEL
ACCESS. ACCESSIBLE
ADJ. ADJUSTABLE
AGG. AGGREGATE
ALT. ALTERNATE or ALTERNATIVE
ALUM. ALUMINUM
ANOD. ANODIZED
APPROX. APPROXIMATE(LY)
ARCH. ARCHITECTURAL/ARCHITECT
ASPH. ASPHALT
ATTN. ATTENTION

B B.F.F. BELOW FINISH FLOOR
B.O. BOTTOM OF
B.O.C. BOTTOM OF CONCRETE/CURB
B.O.F. BOTTOM OF FOOTING
B.U.R. BUILT UP ROOFING
BD. BOARD
BL. BUILDING LINE
BLDG. BUILDING
BLK. BLOCK
BLKG. BLOCKING
BM. BEAM
BOTT. BOTTOM
BR. BRICK
BRG. BEARING

C C.B. CATCH BASIN(S)
C.F. CUBIC FEET
C.J. CONTROL JOINT
C.M.P. CORRUGATED METAL PIPE
C.M.U. CONCRETE MASONRY UNIT
C.O. CLEAN OUT
C.T. CERAMIC TILE
C.T.B. CERAMIC TILE BASE
C.Y. CUBIC YARD
CAB.(S) CABINET(S)
CFCI CONTRACTOR FURNISHED
CONTRACTOR INSTALLED
CEM. CEMENT
CL OR CENTERLINE
CLG. CEILING
CLO. CLOSET
CLR. CLEAR
COL. COLUMN
CONC. CONCRETE
CONF. CONFERENCE
CONN. CONNECTION
CONST. CONSTRUCTION
CONT. CONTINUOUS (CONTINUED)
CONTR. CONTRACTOR
CPT. CARPET
CPT.T. CARPET TILE
CSK. COUNTERSINK (SUNK)

D D. DEEP OR DEPTH
D.S. DOWNSPOUT
D.T. DRAIN TILE
DBL. DOUBLE
DEG. DEGREE
DET. DETAIL
DIA. DIAMETER
DIAG. DIAGONAL
DIFF. DIFFUSER
DIM. DIMENSION
DISP. DISPENSER
DN. DOWN
DR. DOOR
DWG.(S) DRAWING (S)
DWL.(S) DOWEL (S)
DWR. DRAWER

E E.F. EACH FACE
E.I.F.S. EXTERIOR INSULATION FINISH
SYSTEM
E.J. EXPANSION JOINT
E.M. ENTRY MAT
E.P. ELECTRICAL PANEL
E.W. EACH WAY
E.W.C. ELECTRIC WATER COOLER
EA. EACH
EL. ELEVATION
ELEC. ELECTRIC (AL)
ELEV. ELEVATOR
ENCL. ENCLOSURE
ENGR. ENGINEER
EQ. EQUAL
EQUIP. EQUIPMENT
EXH. EXHAUST
EXIST. EXISTING
EXP. EXPANSION, EXPOSED
EXP. AGG. EXPOSED AGGREGATE
EXP. STR. EXPOSED STRUCTURE
EXT. EXTERIOR

F F. & I. FURNISH & INSTALL
F.A. FIRE ALARM
F.A.WP. FLUID APPLIED WATERPROOFING
F.D. FLOOR DRAIN
F.E. FIRE EXTINGUISHER
F.E.C. FIRE EXTINGUISHER CABINET
F.H.C. FIRE HOSE CABINET
F.O.C. FACE OF CONCRETE
FAB. FABRIC
FBGL. FIBERGLASS
FIN. FINISH
FIN. FLR. FINISH FLOOR
FL. FLOW LINE
FLASH. FLASHING
FLR. FLOOR
FLUOR. FLUORESCENT
FND. FOUNDATION
FP. FIRE PROTECTION
FR. FRAME
FRT. FIRE RETARDANT
FT. FEET (FOOT)
FTG. FOOTING
FUR. FURRING
FUT. FUTURE
FWC. FABRIC WALL COVERING

G G.B. GRAB BAR
G.C. GENERAL CONTRACTOR
G.O. GLASS OPENING
GA. GAUGE
GAL. GALLON
GALV. GALVANIZED
GL. GLASS
GND. GROUND
GR. GRADE
GT. GROUT
GYP. BD. GYPSUM BOARD

H H. HIGH
H.B. HOSE BIBB
H.C. HOLLOW CORE
H.M. HOLLOW METAL
H.P. HIGH POINT
H.V.A.C. HEATING, VENTILATING AND
AIR CONDITIONING
HD. HEAD
HDCP. HANDICAP
HDW. HARDWARE
HDWD. HARDWOOD
HORIZ. HORIZONTAL
HR. HOUR
HT. HEIGHT

I I.D. INSIDE DIAMETER
IN. INCH
INFO. INFORMATION
INSUL. INSULATION
INT. INTERIOR

J JAN. CLO. JANITOR CLOSET
JST. JOIST
JT. JOINT

K KIT KITCHEN

L L.F. LINEAR FEET
L.L.H. LONG LEG HORIZONTAL
L.L.V. LONG LEG VERTICAL
L.P. LOW POINT
LAM. LAMINATE (ED)
LAV. LAVATORY
LBR. LUMBER
LIN. PNL. LINER PANEL
LKR. LOCKER
LOC. LOCATION
LT. LIGHT

M M.B. MOP BASIN
M.B.S. METAL BUILDING SUPPLIER
M.D.F. MEDIUM DENSITY
FIBERBOARD
M.O. MASONRY OPENING
M.P. MOVABLE PARTITION
M.R.C.T. MOISTURE RESISTANT
CEILING TILE
MACH. MACHINE
MAS. MASONRY
MATL. MATERIAL
MAX. MAXIMUM
MECH. MECHANICAL
MEMB. MEMBRANE
MEZZ. MEZZANINE
MFG. MANUFACTURING
MFR. MANUFACTURE (ER) (ED)
MH. MANHOLE
MIN. MINIMUM
MISC. MISCELLANEOUS
MTD. MOUNTED
MTL. METAL
MTL. LAM. METAL LAMINATE
MULL. MULLION

N N.I.C. NOT IN CONTRACT
N.T.S. NOT TO SCALE
NEG. NEGATIVE
NO. or # NUMBER
NOM. NOMINAL

O O.A. OVERALL
O.C. ON CENTER
O.D. OUTSIDE DIAMETER
O.H. OPPOSITE HAND
o/ OVER
OFCl OWNER FURNISHED
CONTRACTOR INSTALLED
OFOI OWNER FURNISHED OWNER
INSTALLED
OFF. OFFICE
OH. OVERHEAD
OPNG. OPENING
OPP. OPPOSITE
OZ. OUNCE

P P.LAM. PLASTIC LAMINATE (ED)
P.S.F. POUNDS PER SQUARE FOOT
P.S.I. POUNDS PER SQUARE INCH
P.T.D. PAPER TOWEL DISPENSER
P.T.D.R. PAPER TOWEL DISPENSER/RECEPTACLE
P.T.R. PAPER TOWEL RECEPTACLE
P.V.C. POLYVINYLCHLORIDE
PART. PARTICLE
PARTN. PARTITION
PC. PIECE
PERIM. PERIMETER
PL. PLATE
PL. PLATE or PROPERTY LINE
PLAS. PLASTER
PLBG. PLUMBING
PLYWD. PLYWOOD
PNL. PANEL
POL. POLISHED
PORT. PORTABLE
PR. PAIR
PRCST. PRECAST
PRCST. DK. PRECAST CONCRETE DECK
PREFAB. PREFABRICATED
PREFIN. PREFINISHED
PROJ. PROJECTION
PROP. PROPERTY
PT. PAINT (ED)

Q Q.T. QUARRY TILE
Q.T.B. QUARRY TILE BASE
QTR. QUARTER

R R. RISER
R.A. RETURN AIR
R.B. RUBBER BASE
R.C.P. REINFORCED CONCRETE PIPE
R.D. ROOF DRAIN
R.O. ROUGH OPENING
R.R. RESTROOM
R.T.U. ROOF TOP UNIT
RAD. RADIUS
RB.S.T. RUBBER STAIR TREAD
RB.T. RUBBER TILE
RE. REFER TO
REF. REFERENCE
REFR. REFRIGERATOR
REINF. REINFORCE (ED) (ING)
REQ'D. REQUIRED
REV. REVISION or REVISED
RM. ROOM
RND. ROUND

S S. CONC. SEALED CONCRETE
SSM. SOLID SURFACE MATERIAL
S.A. SUPPLY AIR
S.A.B. SOUND ATTENUATION BLANKETS
S.C. SOLID CORE
S.D. SMOKE DETECTOR
S.D.T. STATIC DISSIPATIVE TILE
S.F./SQ. FT. SQUARE FEET
S.N.D. SANITARY NAPKIN DISPENSER
S.N.R. SANITARY NAPKIN RECEPTACLE
S.P.M.R. SINGLE-PLY MEMBRANE ROOF(ING)
S.R.T. SLIP RETARDANT TILE
S.S. SERVICE SINK
S.T.C. SOUND TRANSMISSION COEFFICIENT
S.V. SHEET VINYL
S/V STAIN & VARNISH
SAN. SANITARY
SCHED. SCHEDULE
SECT. SECTION
SH. SHELF
SHR. SHOWER
SHT. SHEET
SIM. SIMILAR TO
SL. STRUCTURE LINE
SP.D. SOAP DISPENSER
SPAN. SPANDREL
SPEC. SPECIFICATION(S)
SQ. SQUARE
ST. STL. STAINLESS STEEL
STD. STANDARD
STL. STEEL
STOR. STORAGE
STRUCT. STRUCTURE or STRUCTURAL
SUSP. SUSPENDED
SYM. SYMMETRICAL

T T. TREAD
T. & B. TOP & BOTTOM
T. & G. TONGUE & GROOVE
T.C.S.S. TERNE COATED STAINLESS
STEEL
T.O. TOP OF
T.O.C. TOP OF CONCRETE/CURB
T.O.M. TOP OF MASONRY
T.O.P. TOP OF PANEL/PAVING
T.O.S. TOP OF STEEL
T.O.W. TOP OF WALL
T.P. TOILET PARTITION
T.S. TRANSITION STRIPS
T.T.D. TOILET TISSUE DISPENSER
TELE. TELEPHONE
TEMP. TEMPERED
TERR. TERRAZZO
THK. THICK
THRU THROUGH
TRANS. TRANSFORMER
TV TELEVISION
TYP. TYPICAL

U U.L. UNDERWRITERS LABORATORY
U.REFR. UNDERCOUNTER REFRIGERATOR
U.S.D. UNDERSIDE OF DECK
UN.O. UNLESS NOTED OTHERWISE
UNFIN. UNFINISHED
UR. URINAL
UTIL. UTILITIES

V V. VINYL
V.B. VINYL BASE
V.C.T. VINYL COMPOSITION TILE
V.C.T.S.R. VINYL COMPOSITION TILE
SLIP RETARDANT
V.S.R. VINYL STAIR RISERS
V.S.T. VINYL STAIR TREADS
V.T. VINYL TILE
V.T.S. VINYL TRANSITION STRIPS
V.W.C. VINYL WALL COVERING
VENT. VENTILATOR
VERT. VERTICAL
VEST. VESTIBULE

W W. WIDE or WIDTH
W.C. WATER CLOSET
W.GL. WIRE GLASS
W.H. WATER HEATER
W.P. WORKING POINT
W.W.F. WELDED WIRE FABRIC
w/(o) WITH/(OUT)
WD. WOOD
WIN. WINDOW
WSCOT. WAINSCOT
WT. WEIGHT

Y Y.D. YARD DRAIN
Y.H. YARD HYDRANT
YD. YARD

EXISTING WALL
EXISTING WALL - TO BE REMOVED
(OR GENERAL DEMOLITION WORK)

NEW DOOR & FRAME

EXISTING DOOR & FRAME

FLOOR DRAIN

D.S.

AED

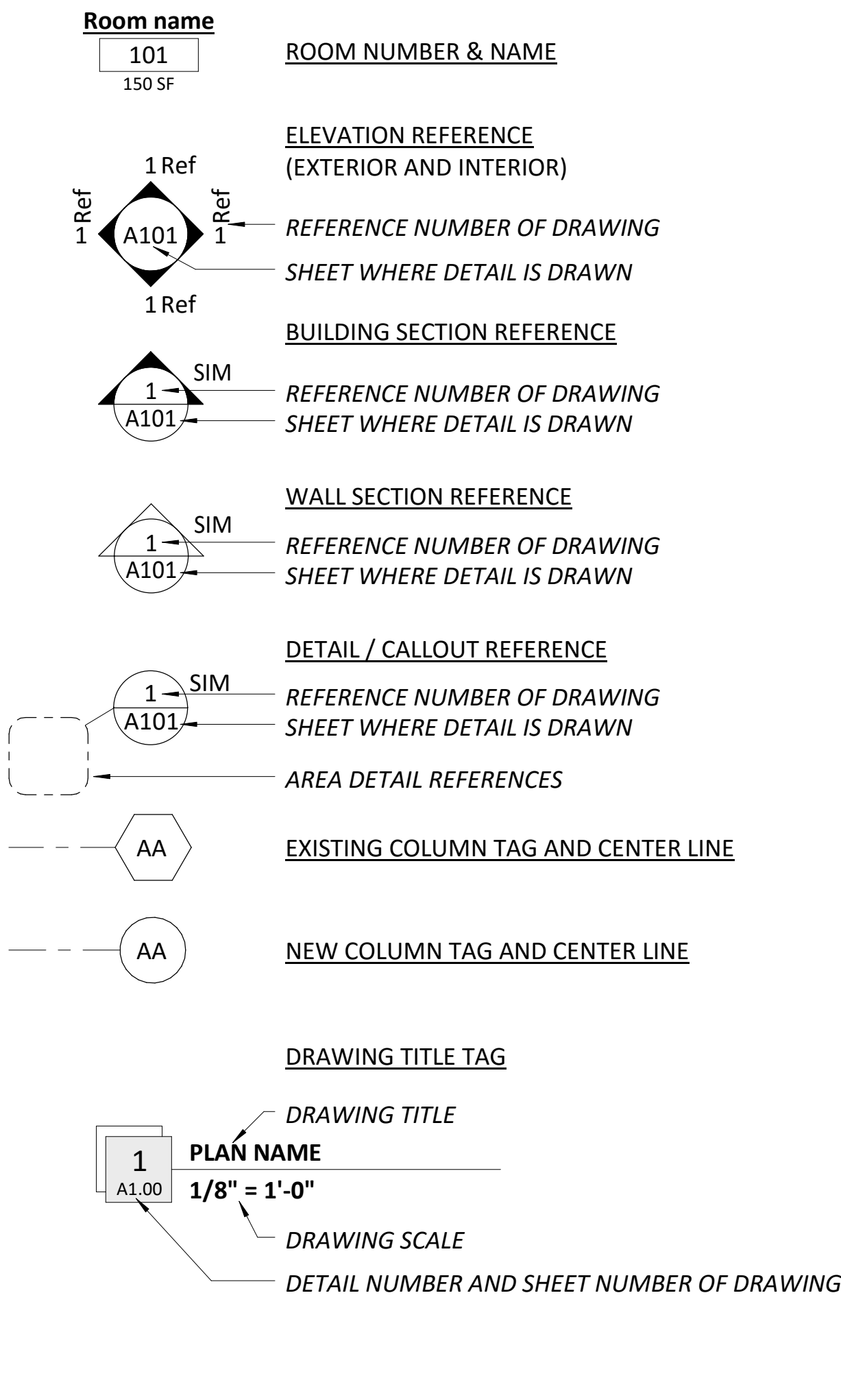
F.E.C.

C.G.

↓

CORNER GUARDS

ARCHITECTURAL SYMBOLS
1/4" = 1'-0"



ALUMINUM
BATT INSULATION
BRICK
CAST SONE
CONCRETE (CAST IN PLACE)
CONCRETE (PRECAST)
CONCRETE MASONRY UNIT
EARTH
GRAVEL
GROUT
PLYWOOD
SAND
STEEL
WOOD (FINISH)
WOOD (ROUGH LUMBER)
WOOD (BLOCKING)
RIGID INSULATION

MATERIALS LEGEND
N.T.S.

STANDARD LIST OF ABBREVIATIONS
12" = 1'-0"

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REVISIONS
NO. DATE DESCRIPTION

PROJECT NUMBER: 15088
RELEASE DATE: 04/27/2016

SYMBOLS AND ABBREVIATIONS

A0.01

7

6

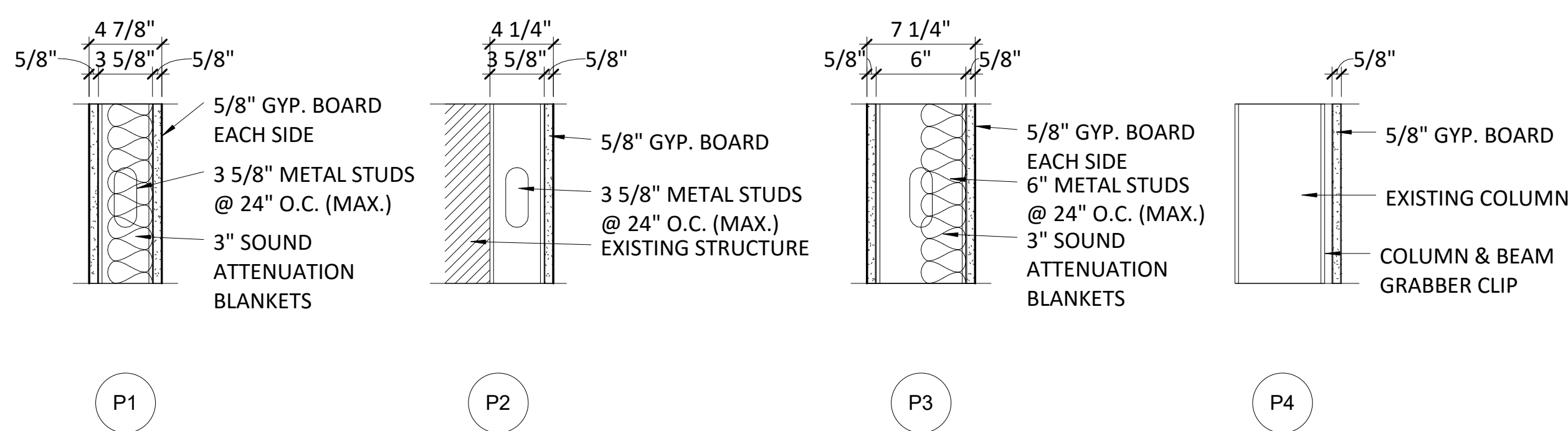
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4

3

2

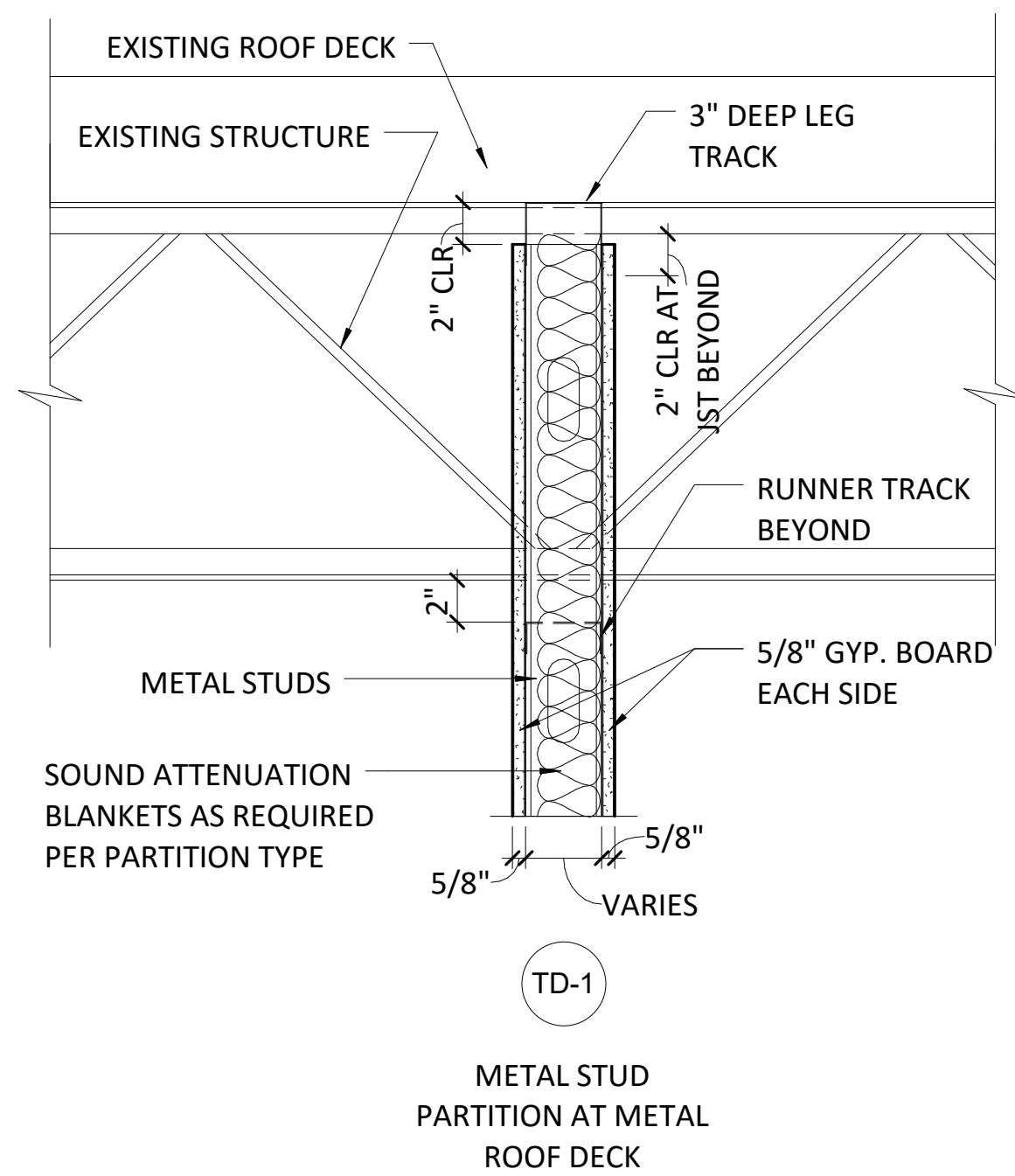
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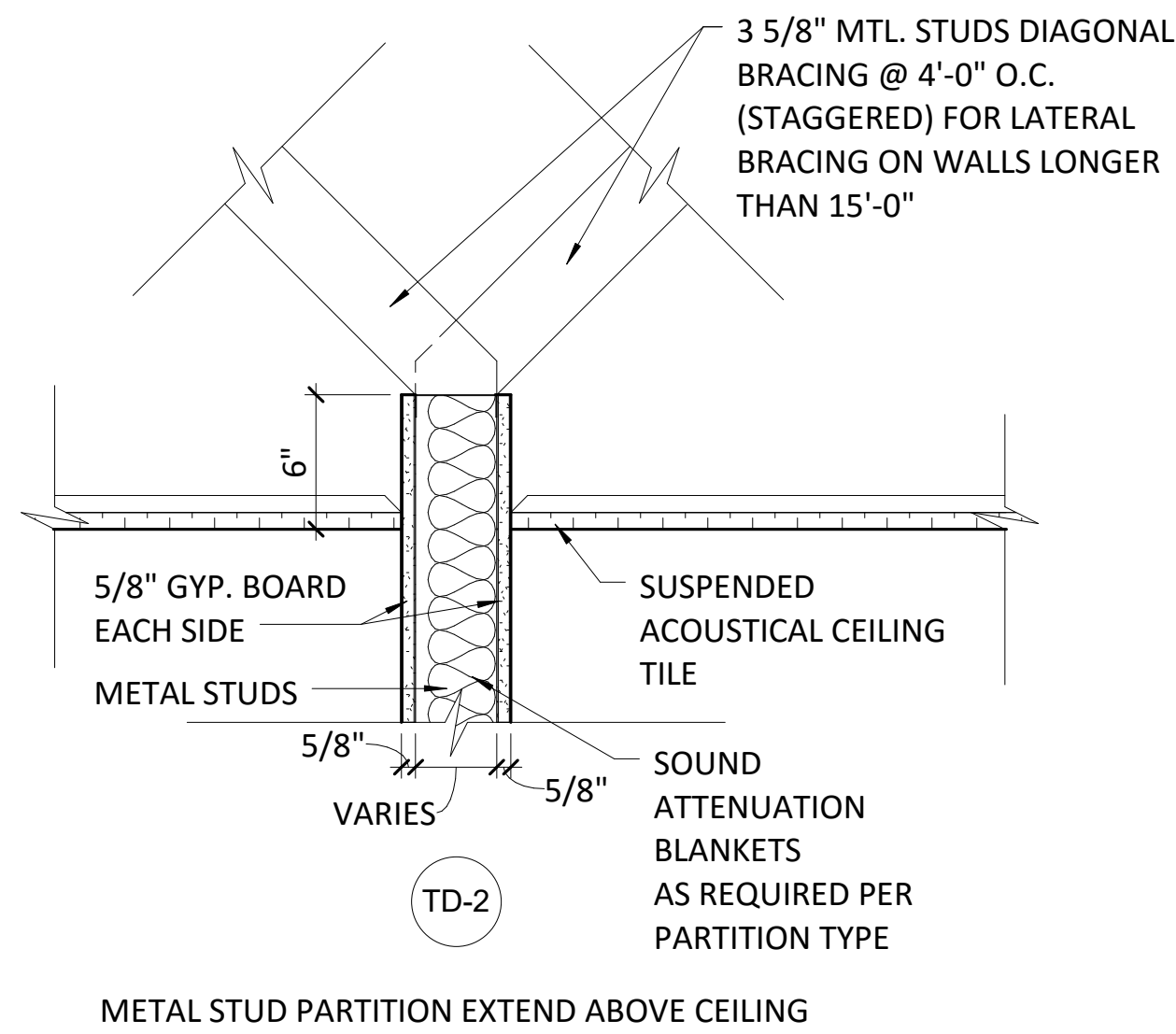
PARTITION TYPES

LIGHT GAUGE METAL STUD LIMITING HEIGHTS			
WIDTH	MAX. UNSUPPORTED HEIGHT	GAUGE	SPACING
3 5/8"	13'-7"	26 GA.	24" O.C.
3 5/8"	15'-6"	26 GA.	16" O.C.
3 5/8"	17'-1"	26 GA.	12" O.C.
3 5/8"	14'-8"	20 GA.	24" O.C.
3 5/8"	16'-9"	20 GA.	16" O.C.
3 5/8"	18'-5"	20 GA.	12" O.C.
6"	19'-2"	26 GA.	24" O.C.
6"	21'-11"	26 GA.	16" O.C.
6"	24'-2"	26 GA.	12" O.C.
6"	21'-0"	20 GA.	24" O.C.
6"	24'-0"	20 GA.	16" O.C.
6"	26'-5"	20 GA.	12" O.C.

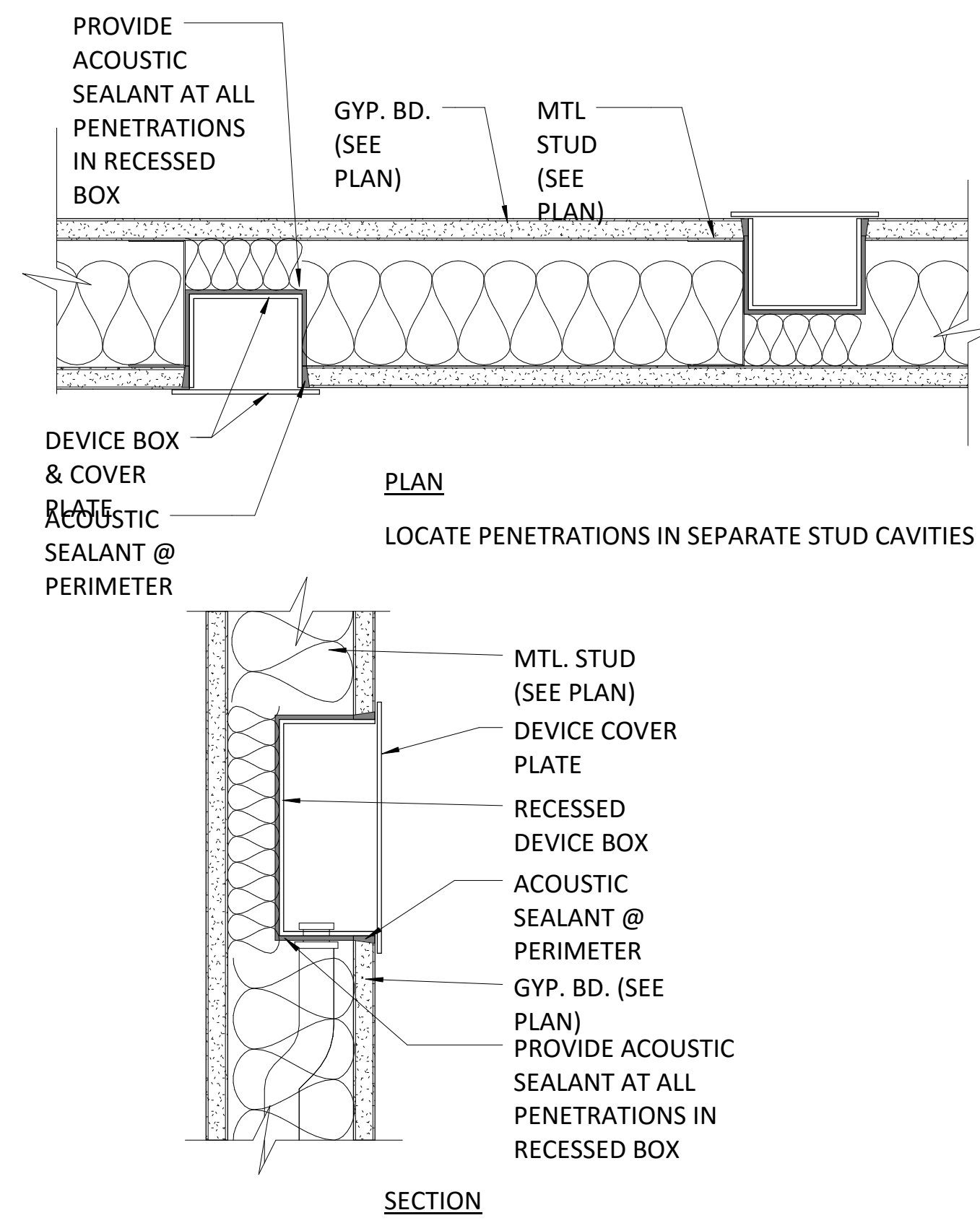
NOTE:
1. METAL STUD LENGTHS PER DIETRICH PROSTUDS BASED ON 5/8" GYP. BOARD FULL HEIGHT EACH SIDE OF STUD, 5 PSF, L/240



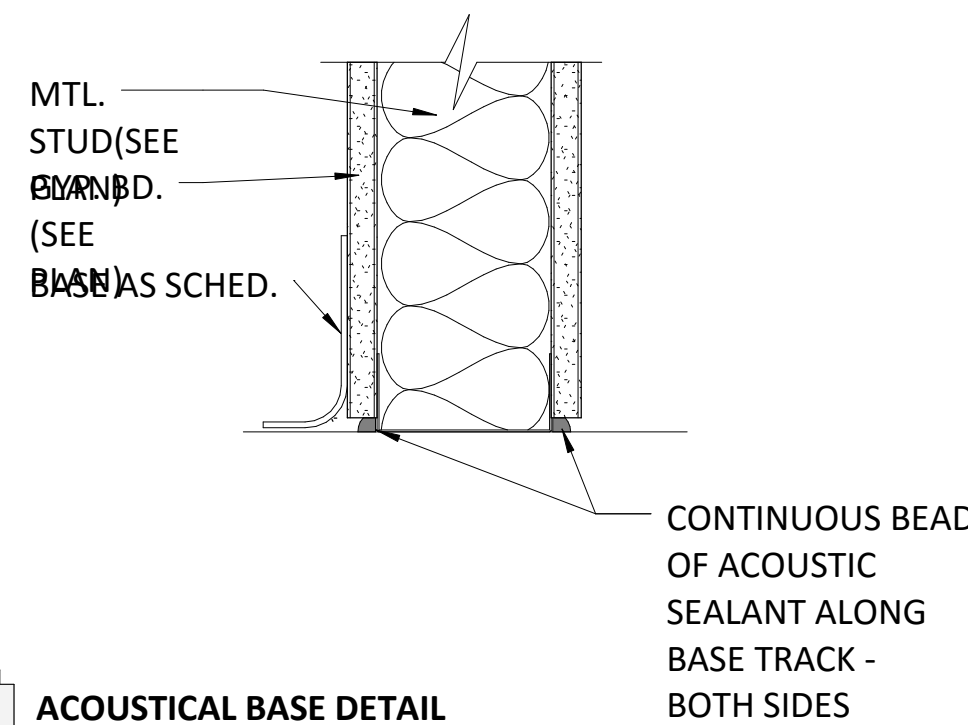
C7 AD.02 TERMINATION DETAIL - TD-1
1 1/2" = 1'-0"



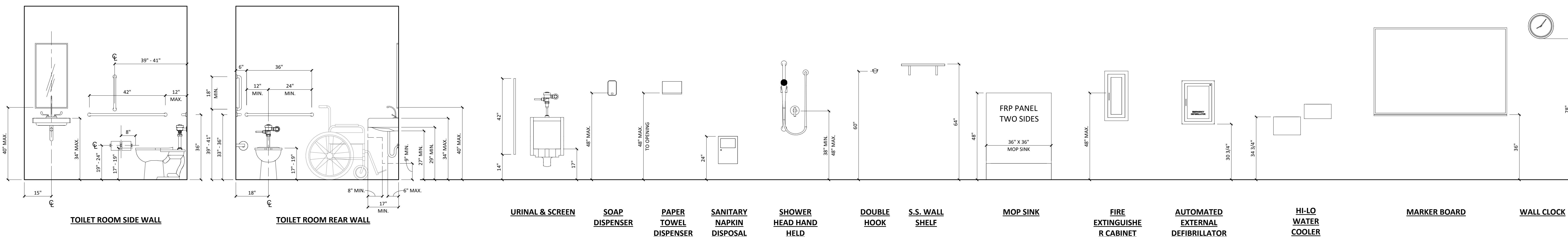
C6 AD.02 TERMINATION DETAIL - TD-2
1 1/2" = 1'-0"



C4 AD.02 ACOUSTIC PARTITION PENETRATIONS
3" = 1'-0"



C2 AD.02 ACOUSTICAL BASE DETAIL
3" = 1'-0"



LEGEND - TYP. MOUNTING HEIGHTS
1/2" = 1'-0"

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F

E

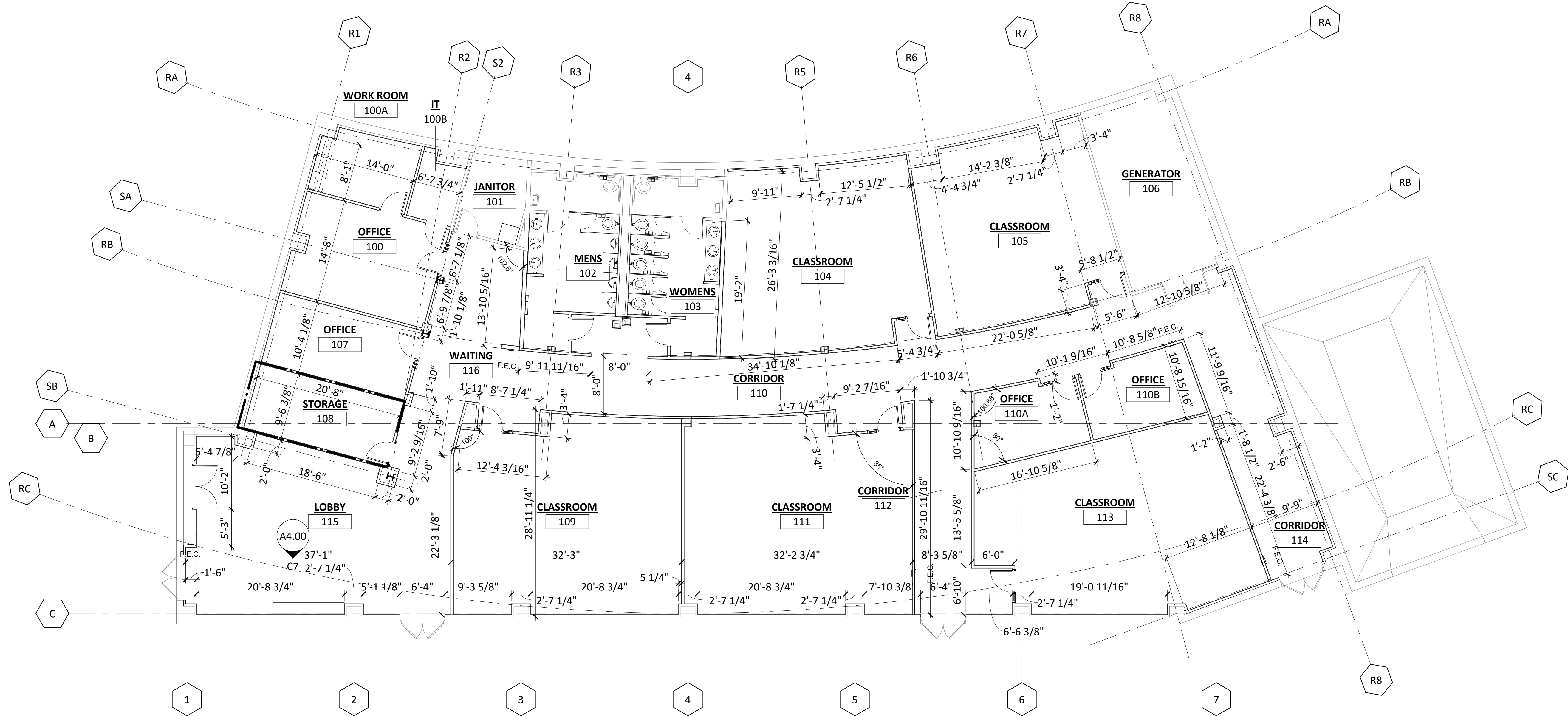
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C

B

A

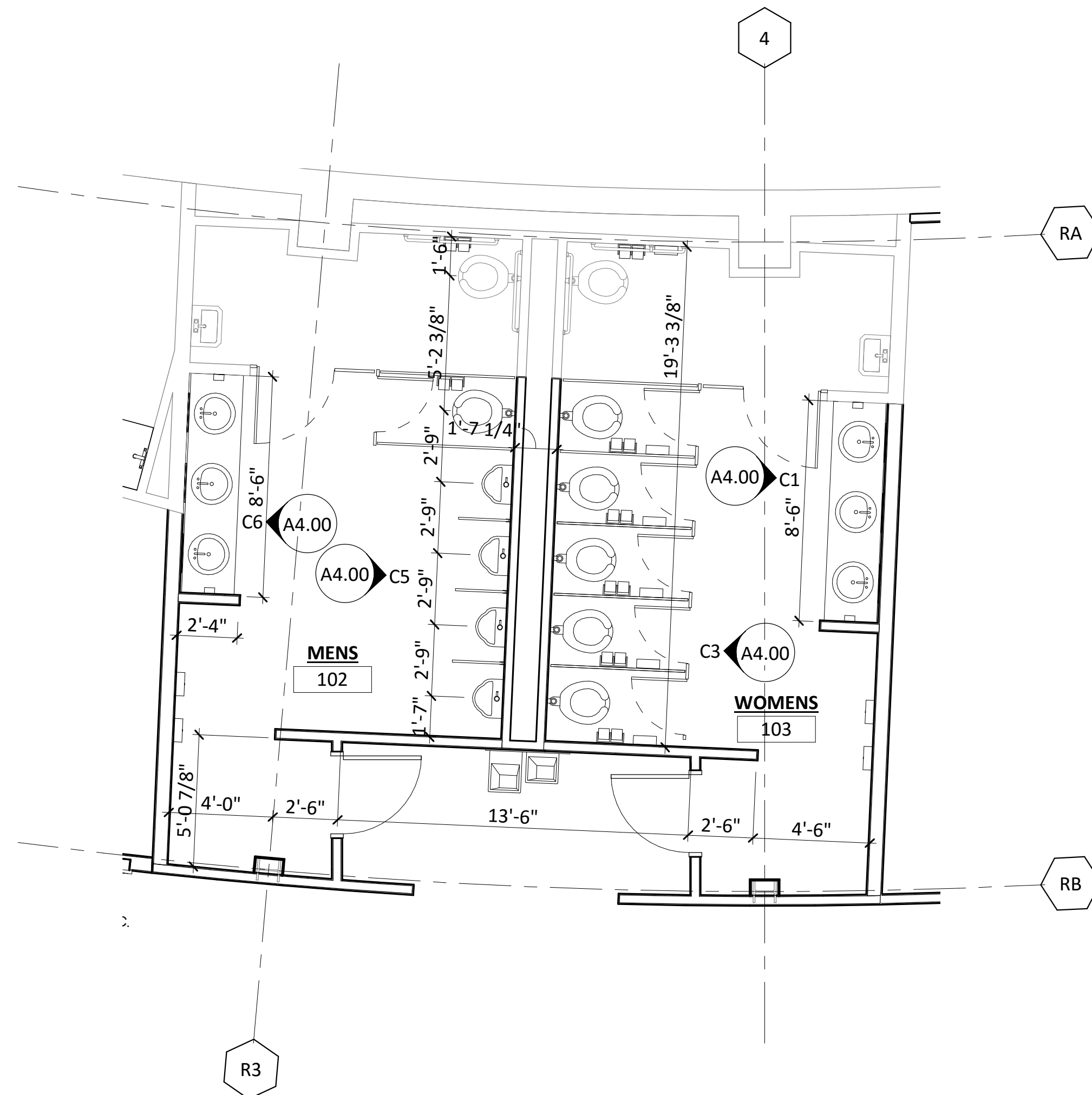
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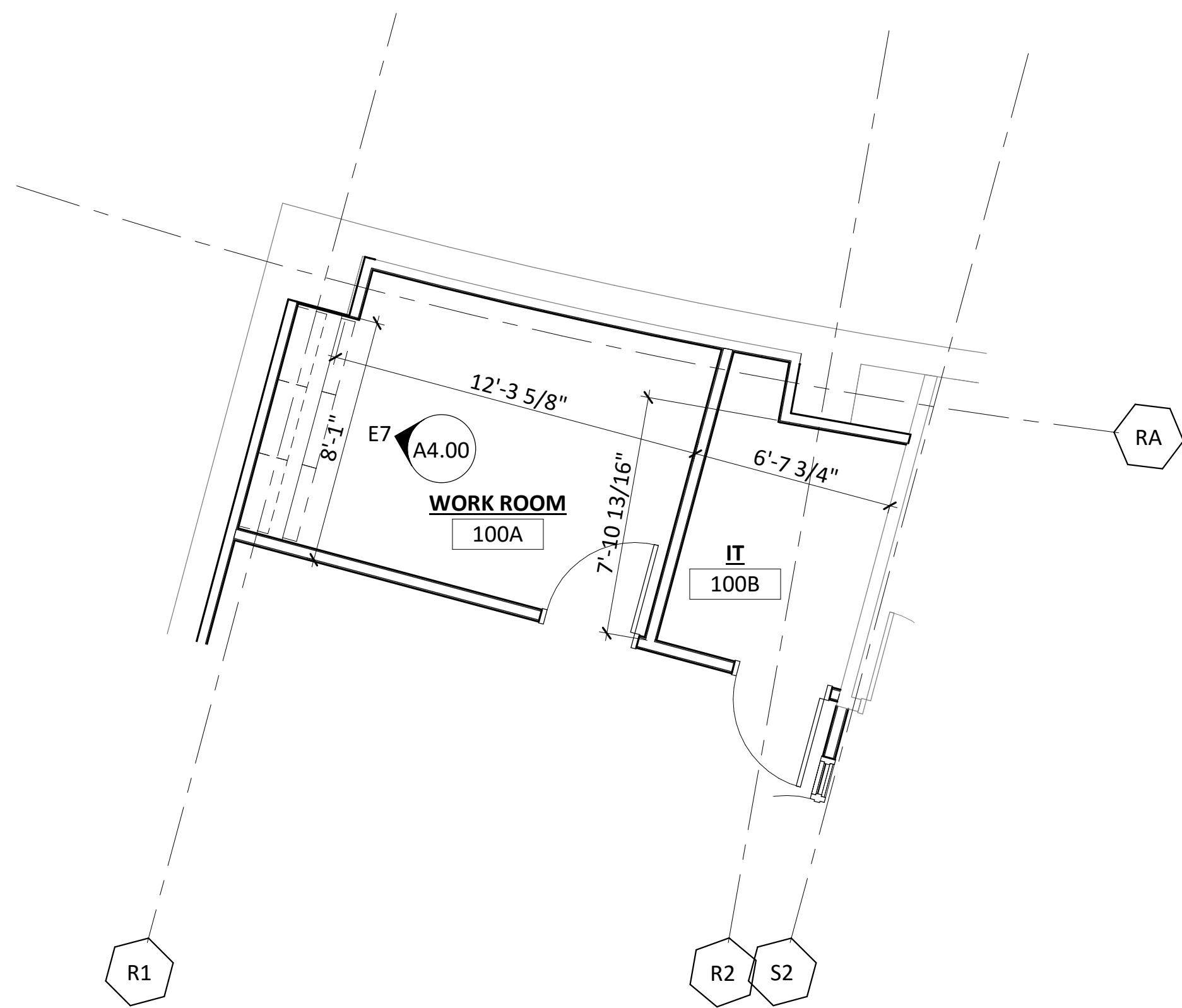
C7
A2.00
DIMENSION FLOOR PLAN
1/8" = 1'-0"

PLAN GENERAL NOTES
3" = 1'-0"

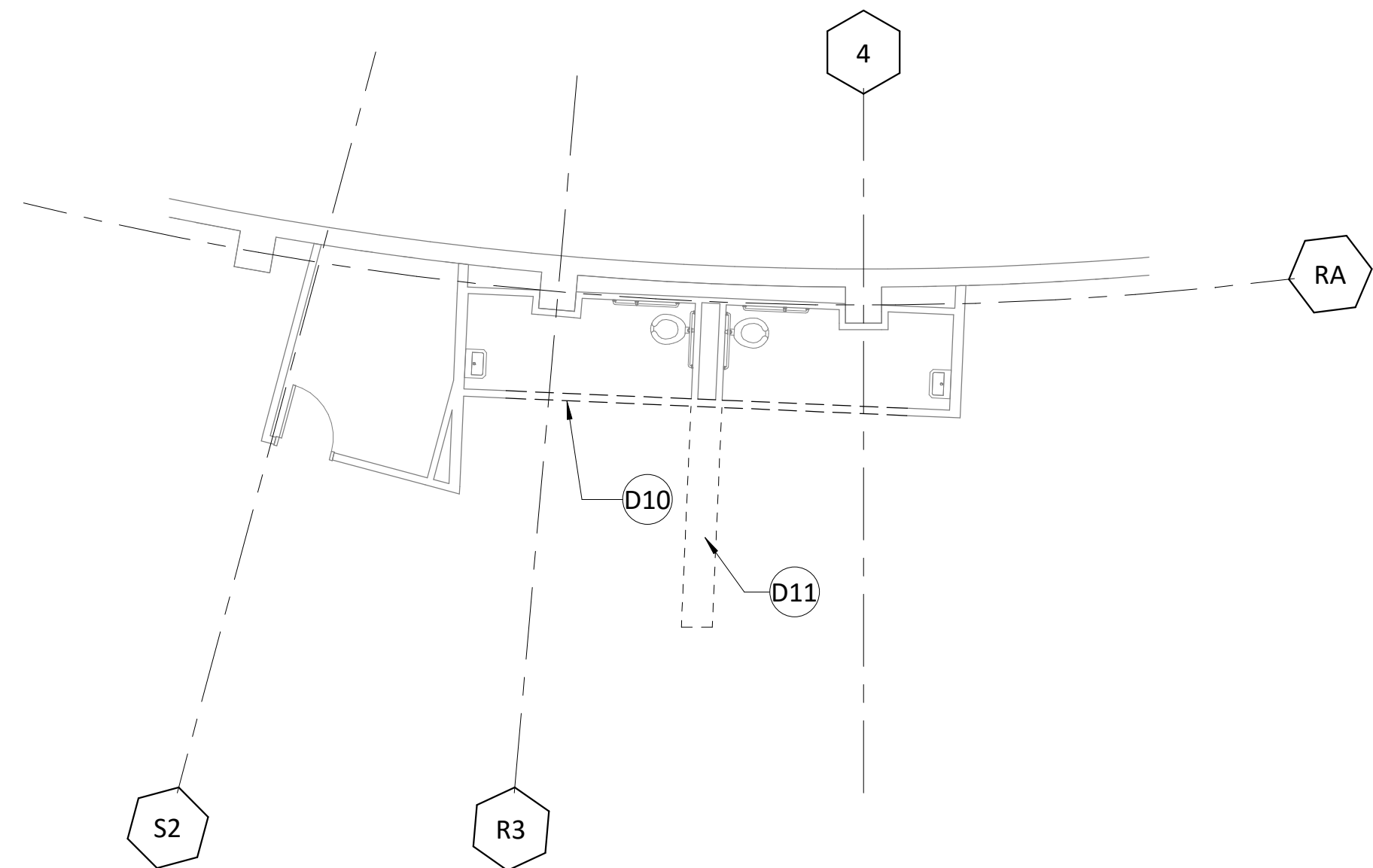
- REFERENCE DETAILS ON SHEET A0.02 FOR ALL INTERIOR PARTITIONS. PENETRATIONS INTO ALL PARTITIONS SHALL APPLY TO THESE DETAILS.
- ALL DIMENSIONS TO EXISTING WALLS AND EQUIPMENT/MILLWORK IS TO THE FINISH FACE. ANY DIMENSIONS SHOWN TO NEW WALLS ARE TO THE FRAMING.
- REFERENCE DETAILS ON SHEET A0.02 FOR ADA STANDARDS.
- STORAGE ROOM 108 IS 1-HR FIRE RATED. PROVIDE 5/8" TYPE "X" GYPSUM ON ALL WALLS AND FIRE CAULK ANY PENETRATIONS.



A7
A2.00
ENLARGED RESTROOM PLAN
1/4" = 1'-0"



A5
A2.00
ENLARGED WORK ROOM PLAN
1/4" = 1'-0"



B3
A2.00
DEMOLITION FLOOR PLAN
1/8" = 1'-0"

KEYNOTES - DEMOLITION	
NO.	DESCRIPTION
D1	REMOVE EXISTING MODULAR WALLS AND RETURN TO OWNER.
D2	REMOVE EXISTING CASEWORK. PATCH AND REPAIR WALL AS REQUIRED. REPAINT TO MATCH EXISTING PAINT COLOR AS NEEDED.
D3	REMOVE EXISTING DOOR.
D4	REMOVE EXISTING WALL (PREP FOR NEW WINDOW WHERE APPLICABLE).
D5	REMOVE EXISTING SECURITY GATE AND ALL HARDWARE, PATCH WALL AS REQUIRED.
D6	EXISTING MODULAR FURNITURE TO BE MODIFIED BY OWNER.
D7	REMOVE EXISTING CARPET.
D8	REMOVE EXISTING KIOSKS.
D9	REMOVE EXISTING CEILING TILES AND GRID.
D10	REMOVE EXISTING WALL AND DOOR. DOORS TO BE REUSED PER DOOR SCHEDULE. COORDINATE EXTENSION AND REPLACEMENT OF ALL MEP ITEMS WITH MEP DRAWINGS.
D11	COORDINATE EXTENT OF EXISING CONCRETE SLAB DEMOLITION WITH REQUIRED UNDERGROUND PLUMBING.
D12	REMOVE EXISTING CEILING AND PATCH WALLS AS NEEDED.

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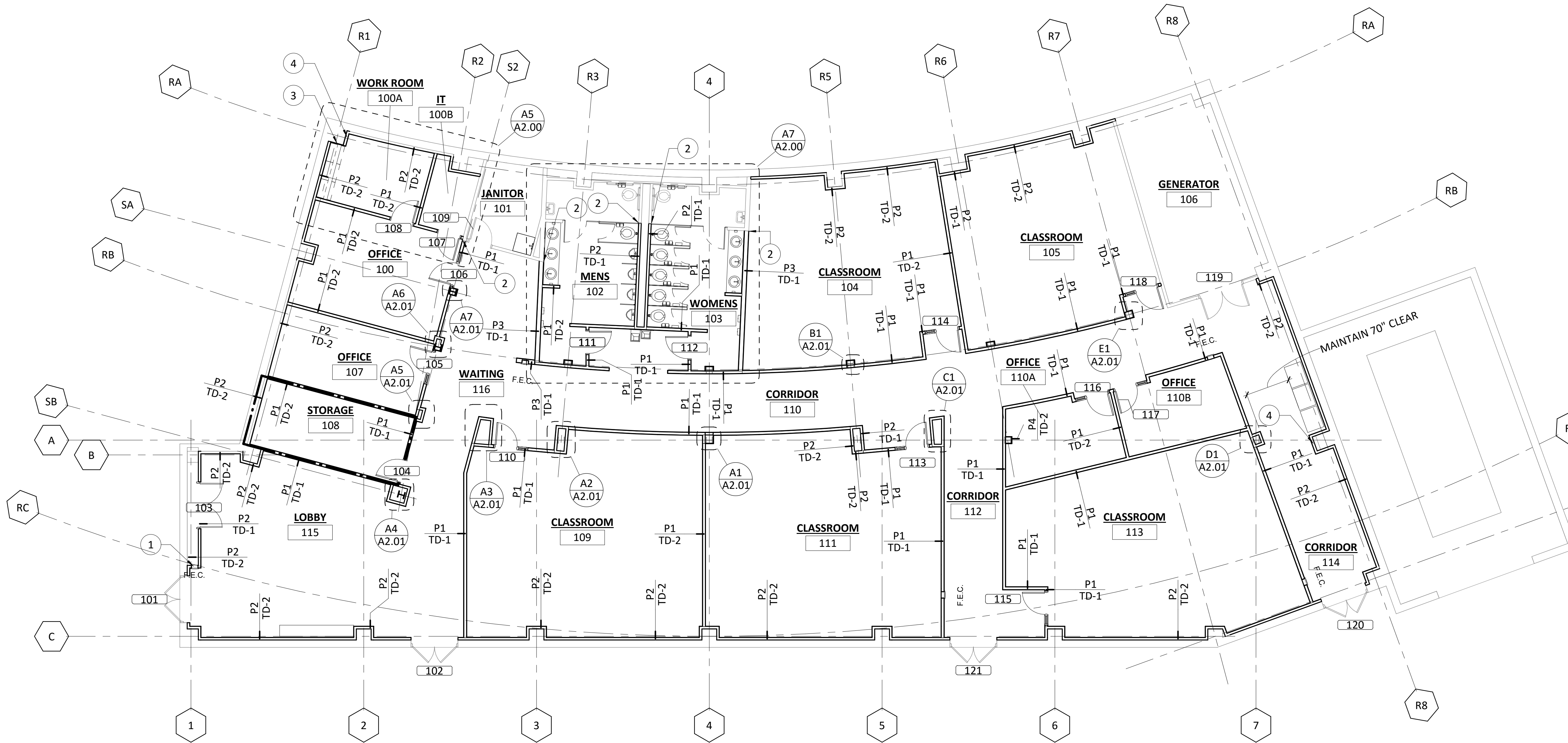
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REVISIONS
NO. DATE DESCRIPTION

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DIMENSION PLAN

A2.00

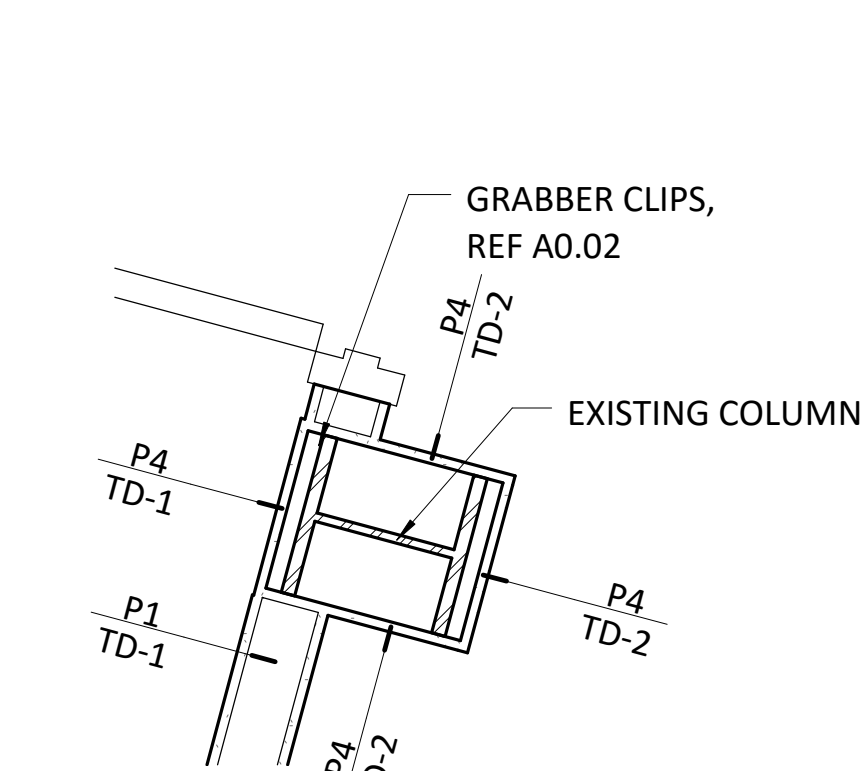


D7 NOTATION FLOOR PLAN
1/8" = 1'-0"

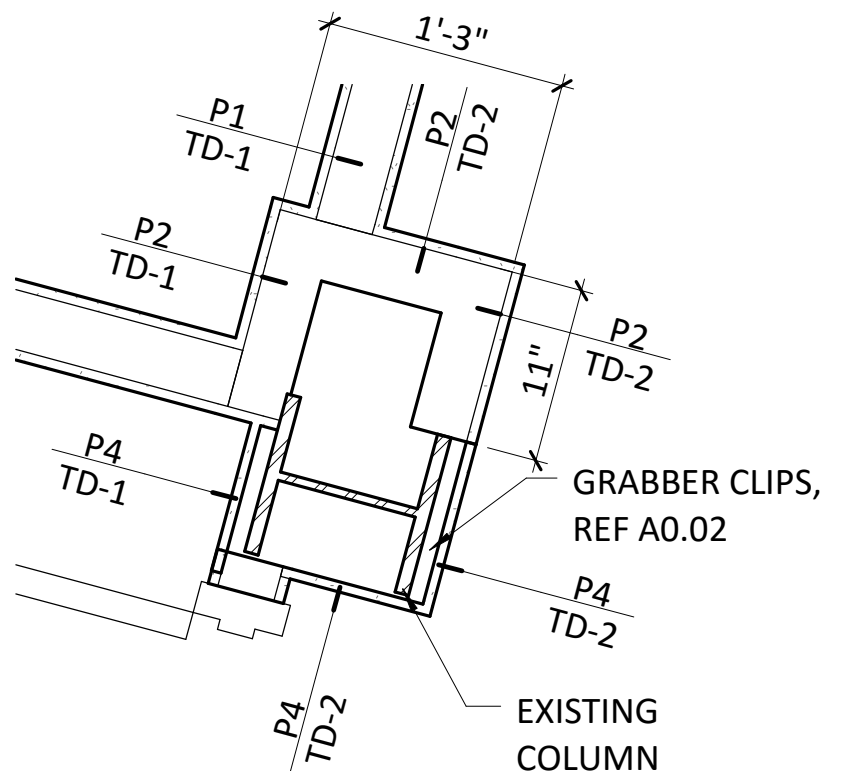
PLAN GENERAL NOTES
3" = 1'-0"

KEYNOTES - FLOOR PLAN	
NO.	DESCRIPTION
1	COORDINATE LOCATION OF WALL WITH EXISTING ROOF DRAIN PIPING AND FDC PIPING, REFERENCE FIRE PROTECTION SHEET FOR FDC DETAILS.
2	ALIGN PARTITION WITH EXISTING WALL FOR A SMOOTH UNINTERRUPTED SURFACE. IF APPLICABLE REMOVE CORNER GUARDS. PATCH AND REPAIR EXISTING WALL AS REQUIRED.
3	APPLY GYPSUM BOARD DIRECTLY TO EXISTING COLUMN. SHIM AS NECESSARY TO PROVIDE ALIGNMENT FOR CASEWORK.
4	ALIGN OUTSIDE EDGE OF WALL WITH FRONT EDGE OF COUNTERTOP (WORKROOM) OR VENDING MACHINES (CORRIDOR).
5	FIELD VERIFY EXACT LOCATION OF WINDOW WITH FURNITURE LAYOUT IN OFFICE 120. CONTRACTOR TO DEMO PORTION OF WALL TO VERIFY THAT STRUCTURAL BRACED FRAME DOES NOT INTERFERE WITH WINDOW LOCATION. CONTACT ARCHITECT FOR RESOLUTION IF EXISTING BRACED FRAME IS IN CONFLICT.
6	ALIGN WALL WITH EXISTING STOREFRONT MULLION. PROVIDE APPROPRIATE MULLION MATE FROM GORDON INTERIOR SPECIALTIES DIVISION, PAINTED TO MATCH EXISTING CURTAIN WALL OR STOREFRONT FRAMING. IF WALL IS NOT GOING TO ALIGN WITH EXISTING MULLION CONTACT ARCHITECT FOR RESOLUTION. FOR WALLS NOT ALIGNING A JOG MAY BE REQUIRED TO MAKE THE WALL LINE UP AS NEEDED.

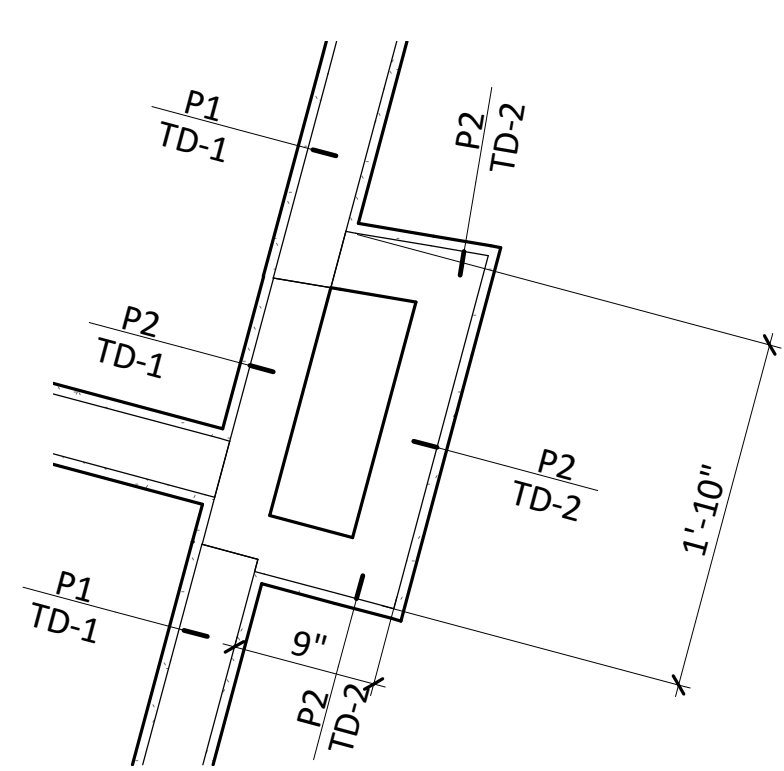
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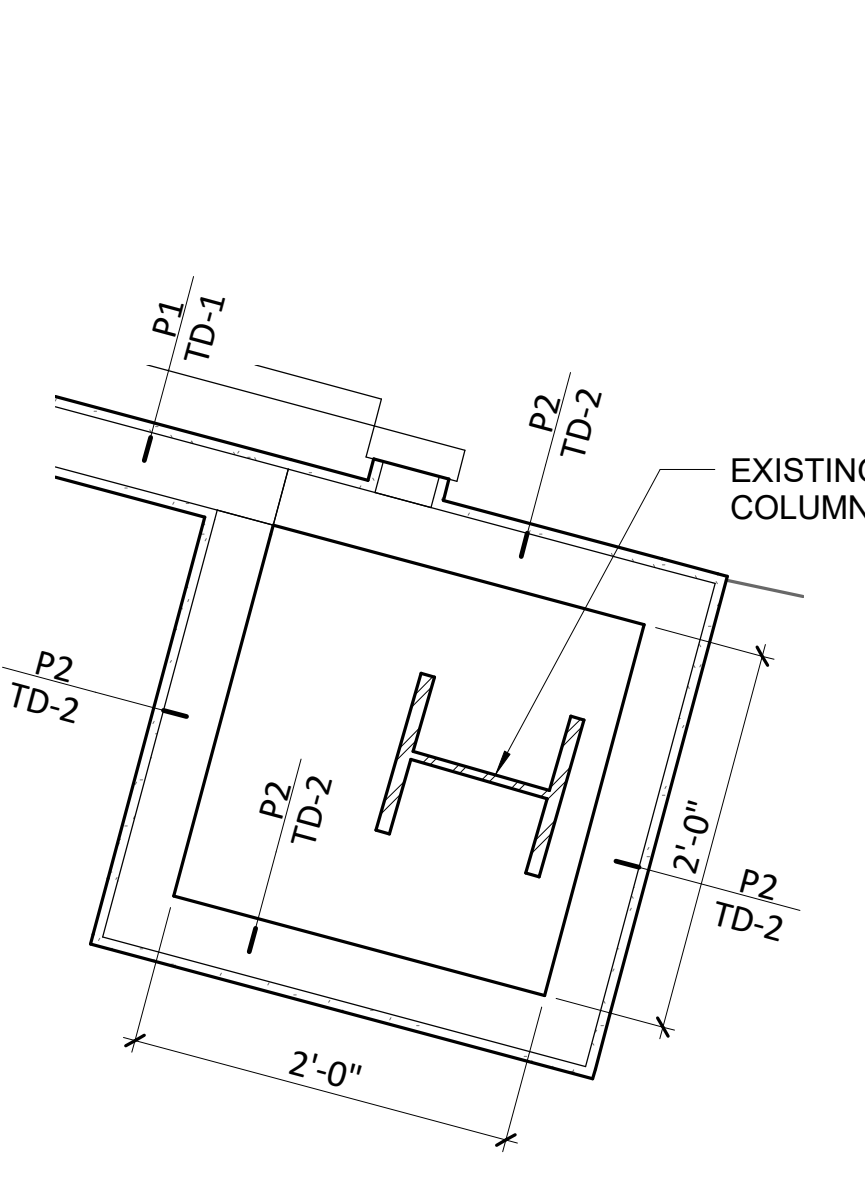
A7 ENLARGED COLUMN DETAIL
1" = 1'-0"



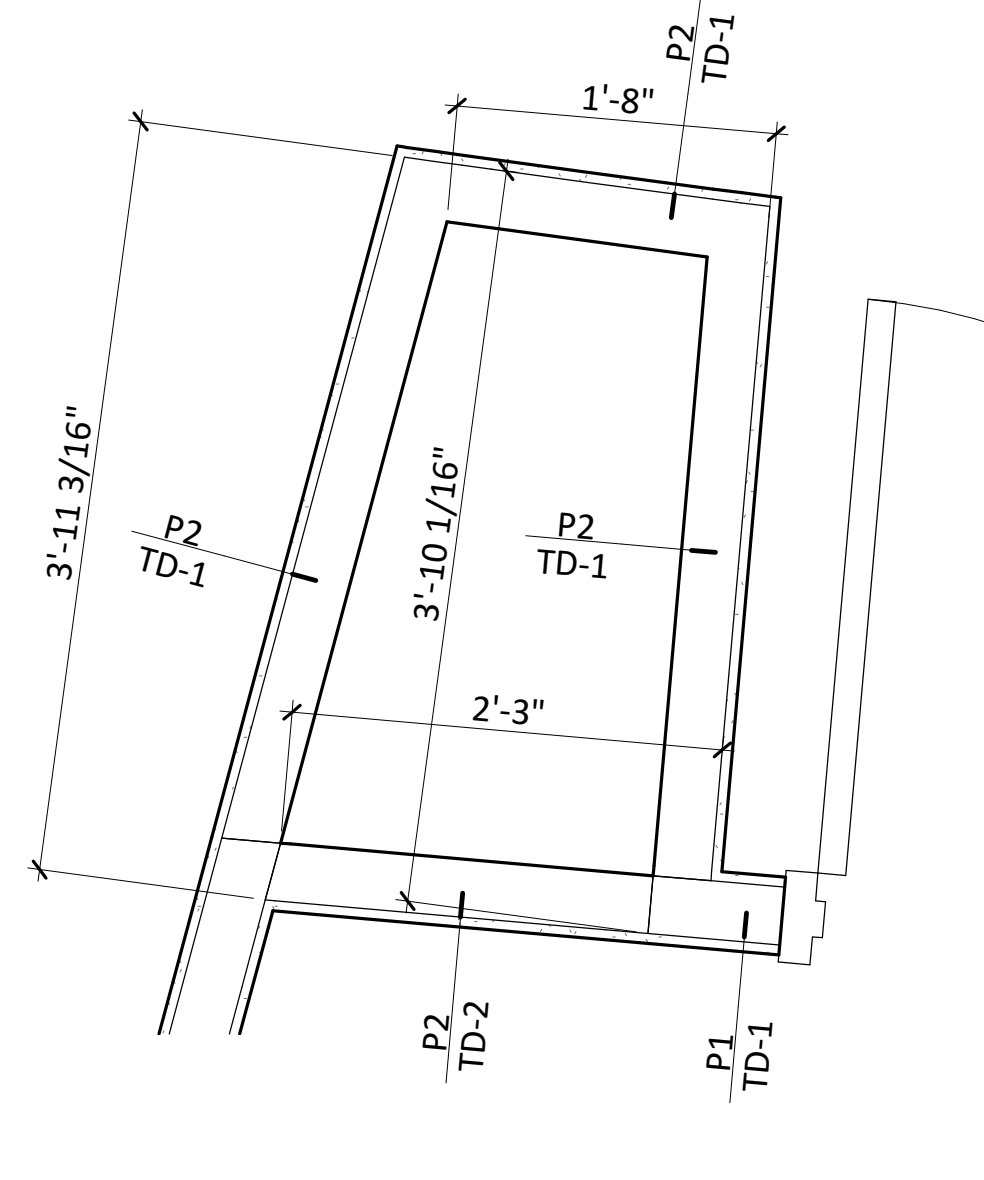
A6 ENLARGED COLUMN DETAIL
1" = 1'-0"



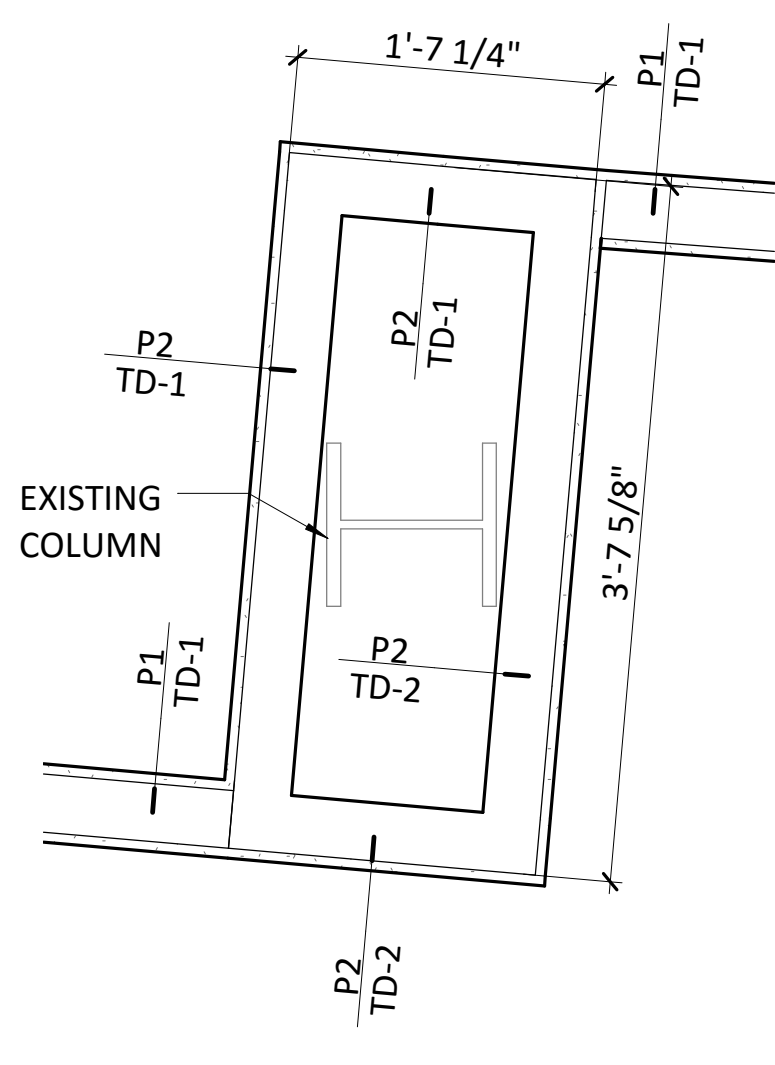
A5 ENLARGED PLAN DETAIL
1" = 1'-0"



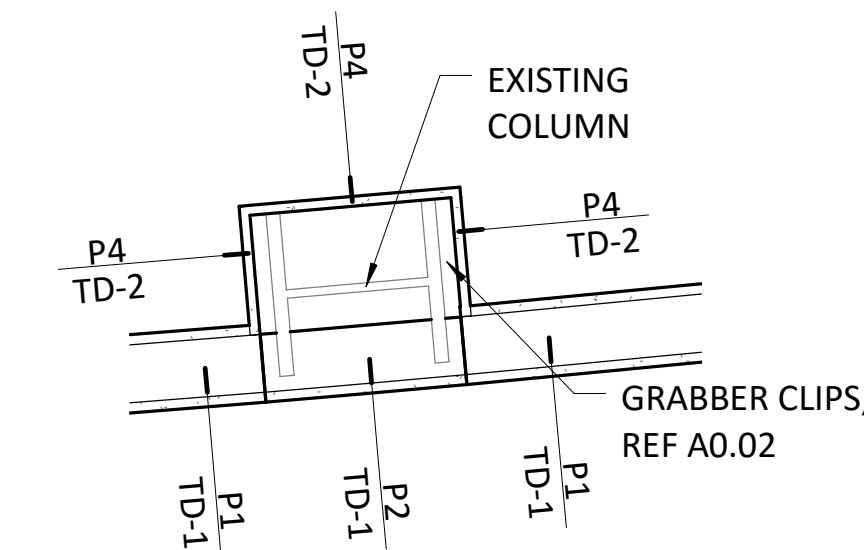
A4 ENLARGED COLUMN DETAIL
1" = 1'-0"



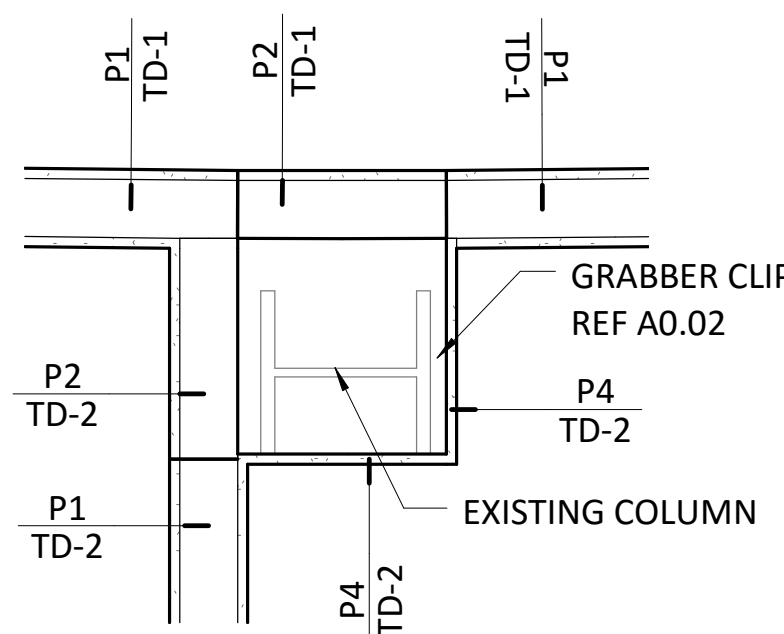
A3 ENLARGED PLAN DETAIL
1" = 1'-0"



A2 ENLARGED COLUMN DETAIL
1" = 1'-0"



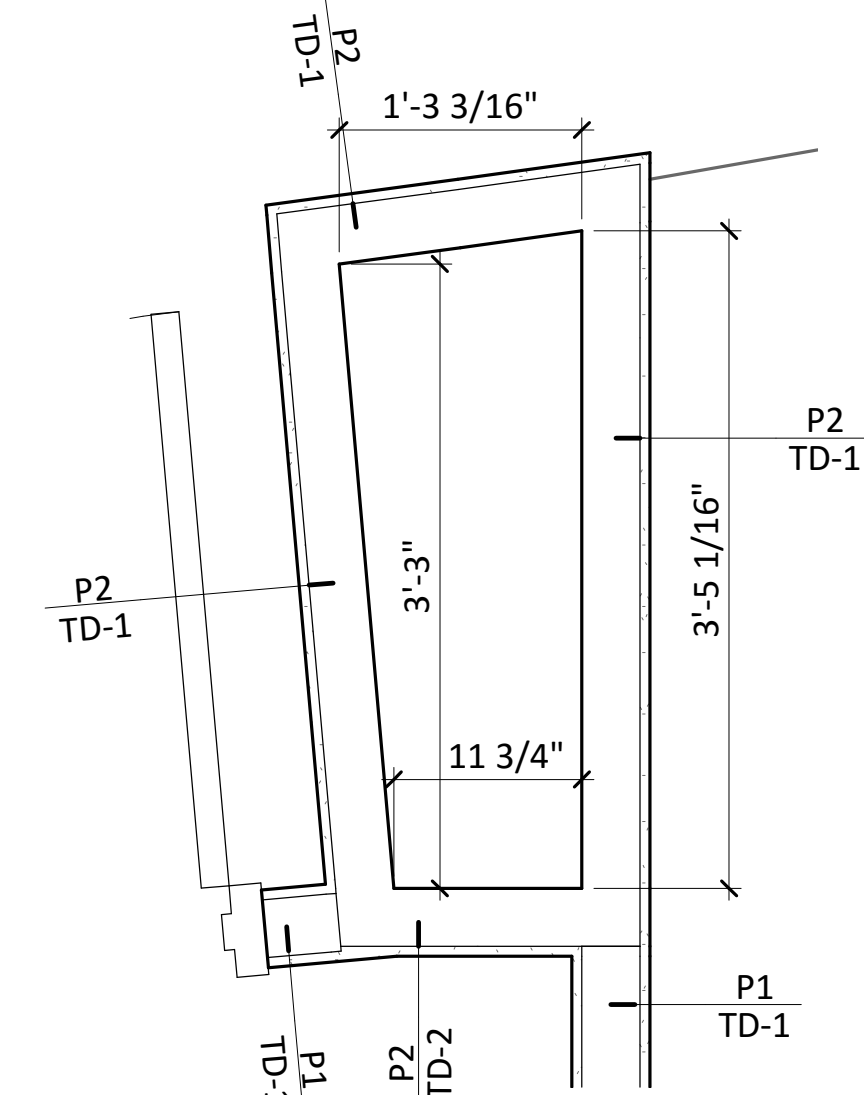
B1 ENLARGED COLUMN DETAIL
1" = 1'-0"



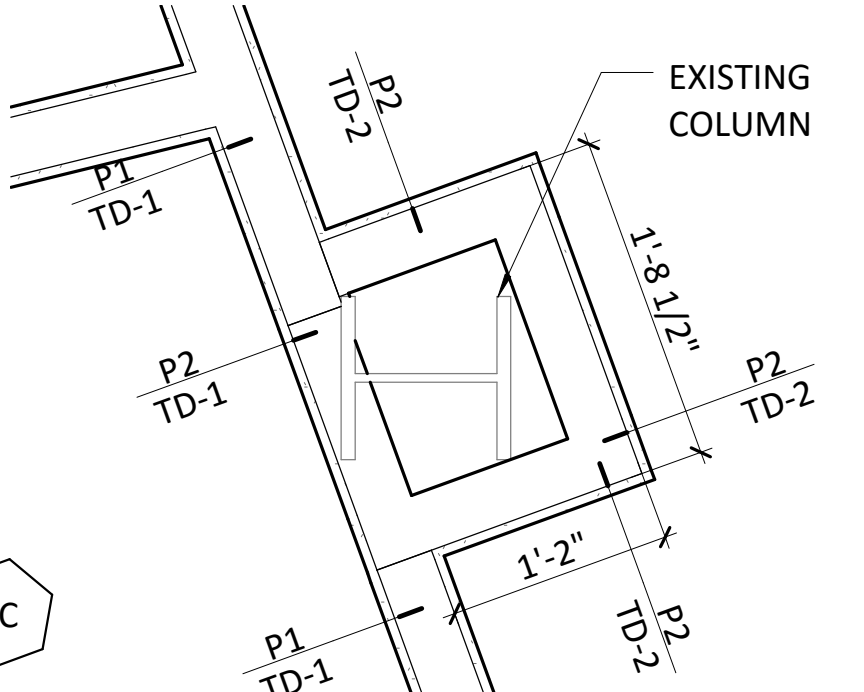
A1 ENLARGED COLUMN DETAIL
1" = 1'-0"

E1 ENLARGED COLUMN DETAIL
1" = 1'-0"

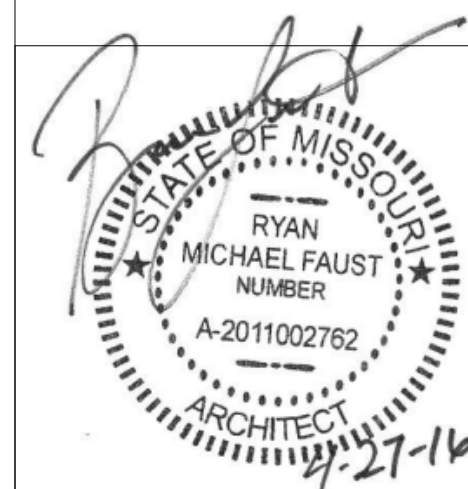
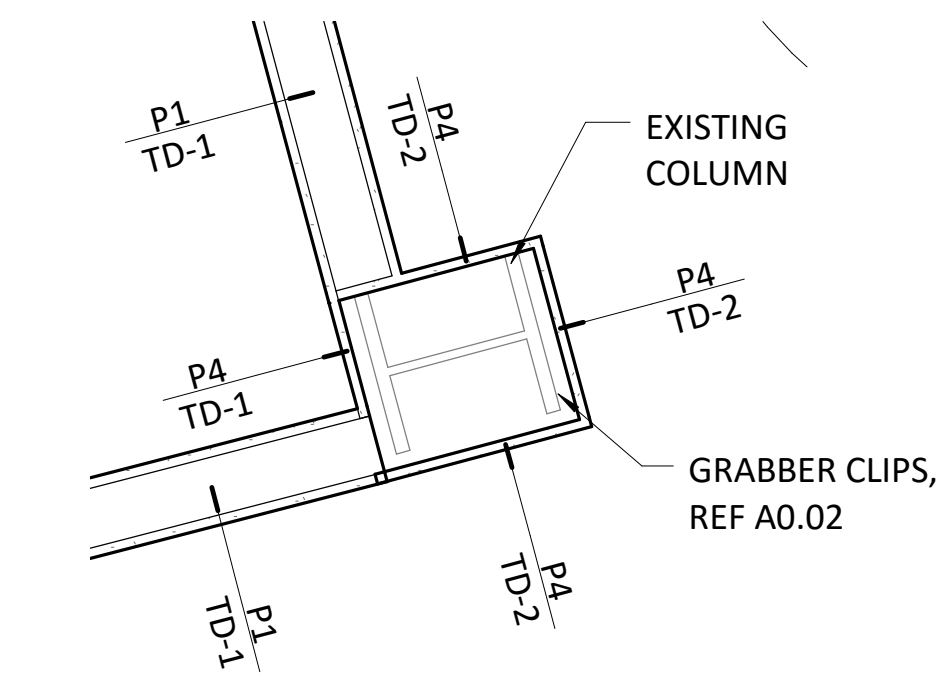
D1 ENLARGED COLUMN DETAIL
1" = 1'-0"



C1 ENLARGED PLAN DETAIL
1" = 1'-0"



E1 ENLARGED COLUMN DETAIL
1" = 1'-0"



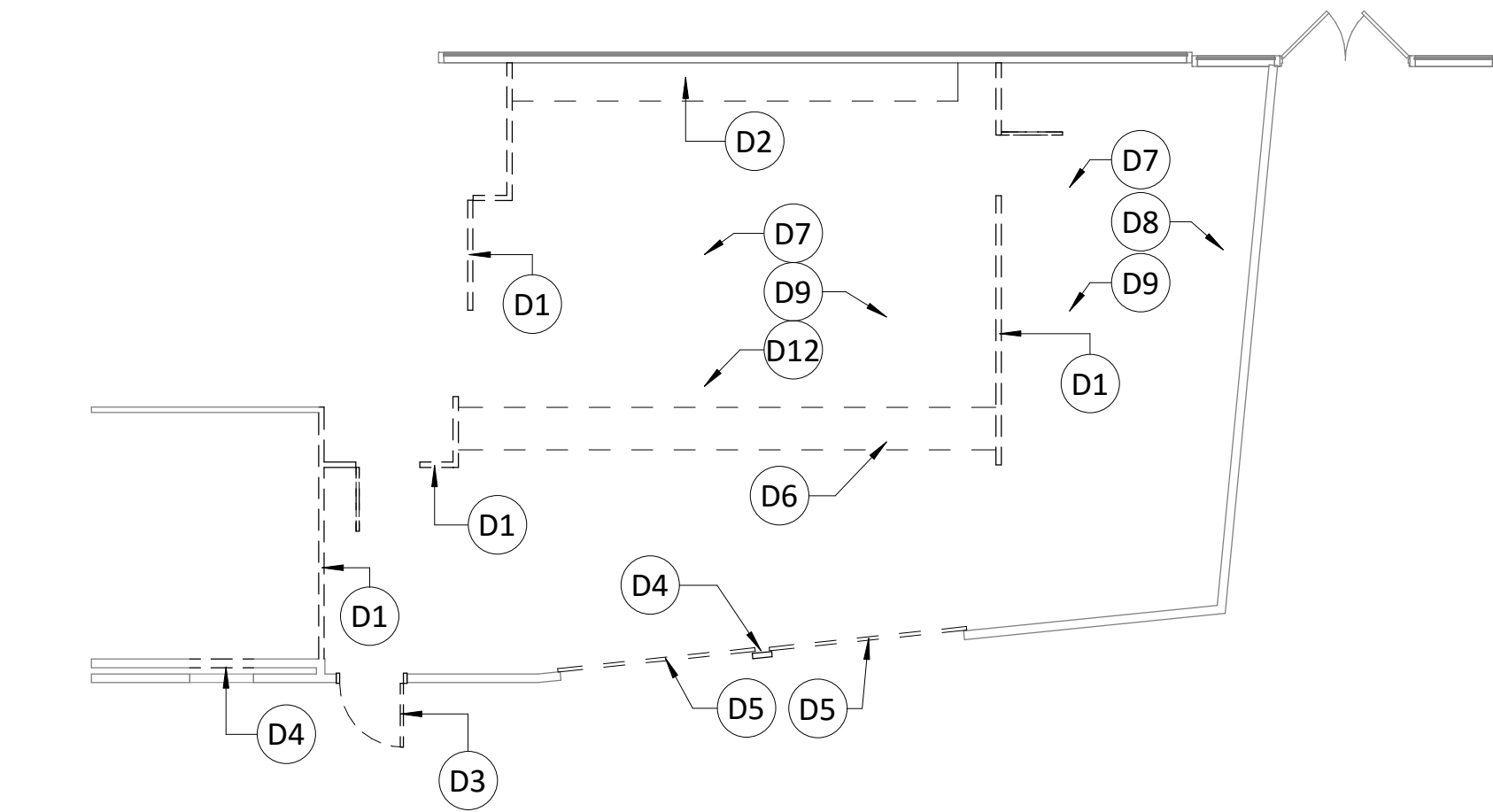
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A2011002762

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NO.	DATE	DESCRIPTION

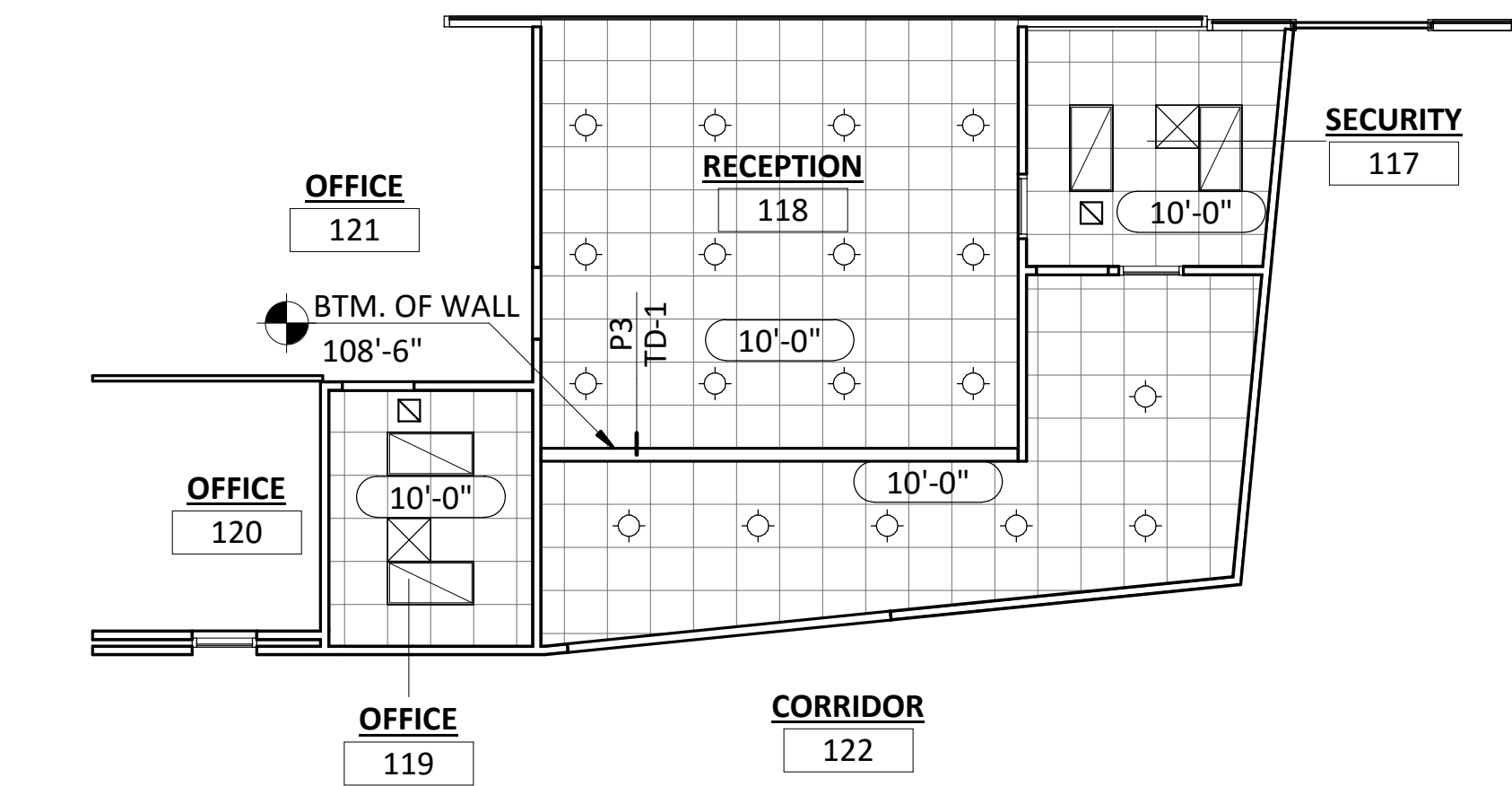
PROJECT NUMBER: 15088
RELEASE DATE: 04/27/2016

NOTATION PLAN



E7 DEMOLITION FLOOR PLAN
1/8" = 1'-0"

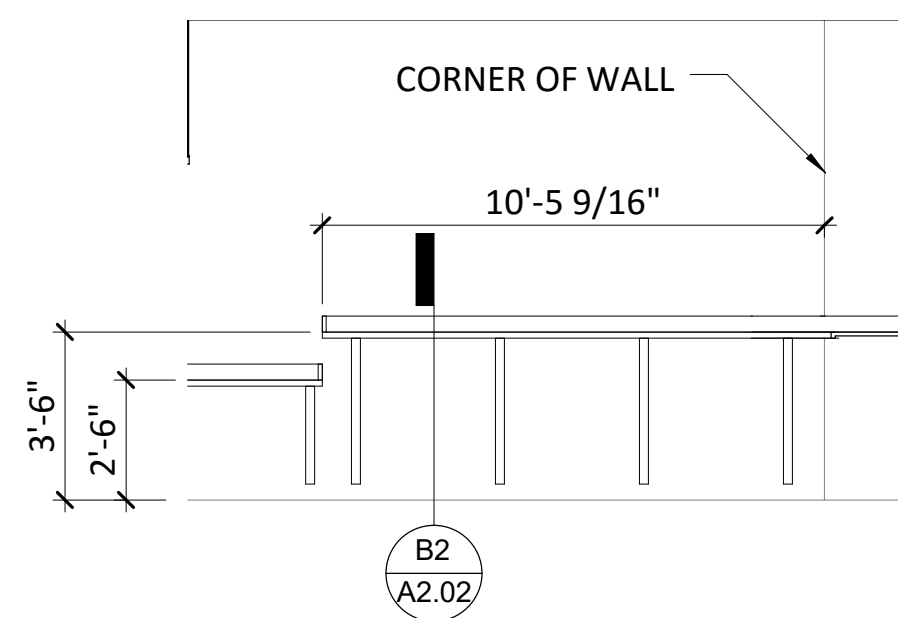
KEYNOTES - DEMOLITION	
NO.	DESCRIPTION
D1	REMOVE EXISTING MODULAR WALLS AND RETURN TO OWNER.
D2	REMOVE EXISTING CASEWORK. PATCH AND REPAIR WALL AS REQUIRED. REPAINT TO MATCH EXISTING PAINT COLOR AS NEEDED.
D3	REMOVE EXISTING DOOR.
D4	REMOVE EXISTING WALL (PREP FOR NEW WINDOW WHERE APPLICABLE).
D5	REMOVE EXISTING SECURITY GATE AND ALL HARDWARE, PATCH WALL AS REQUIRED.
D6	EXISTING MODULAR FURNITURE TO BE MODIFIED BY OWNER.
D7	REMOVE EXISTING CARPET.
D8	REMOVE EXISTING KIOSKS.
D9	REMOVE EXISTING CEILING TILES AND GRID.
D10	REMOVE EXISTING WALL AND DOOR. DOORS TO BE REUSED PER DOOR SCHEDULE. COORDINATE EXTENSION AND REPLACEMENT OF ALL MEP ITEMS WITH MEP DRAWINGS.
D11	COORDINATE EXTENT OF EXISING CONCRETE SLAB DEMOLITION WITH REQUIRED UNDERGROUND PLUMBING.
D12	REMOVE EXISTING CEILING AND PATCH WALLS AS NEEDED.



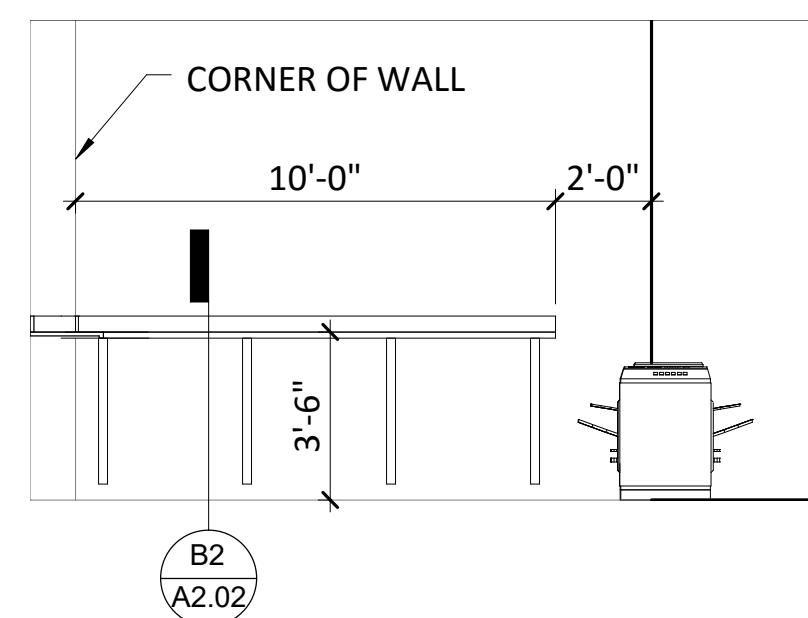
B7 LOBBY REFLECTED CEILING PLAN
1/8" = 1'-0"

REFLECTED CEILING PLAN NOTE
3" = 1'-0"

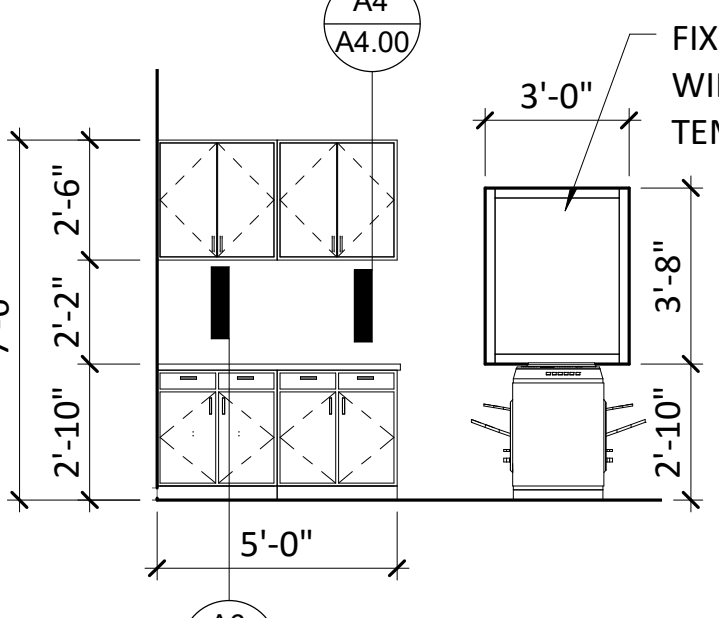
- LIGHT FIXTURES SHOWN ARE FOR REFERENCE ONLY. SEE ELECTRICAL SPECIFICATIONS FOR FOOT CANDLE LEVELS REQUIRED AND ADJUST QUANTITY ACCORDINGLY.
- ON ALL WALLS WITH TERMINATION TD-2 (SHOWN WITH CROSS HATCH ABOVE) APPLY 4" ACOUSTICAL BATT INSULATION ABOVE CEILING/SOFFIT 4'-0" WIDE. DO NOT INSTALL INSULATION ABOVE LIGHT FIXTURES. REFERENCE A0.02
- SUBCONTRACTORS SHALL COORDINATE LOCATIONS OF LIGHT FIXTURES, MECHANICAL GRILLES, SPRINKLER HEADS, ETC.
- SEE MEPPF ENGINEER DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN.



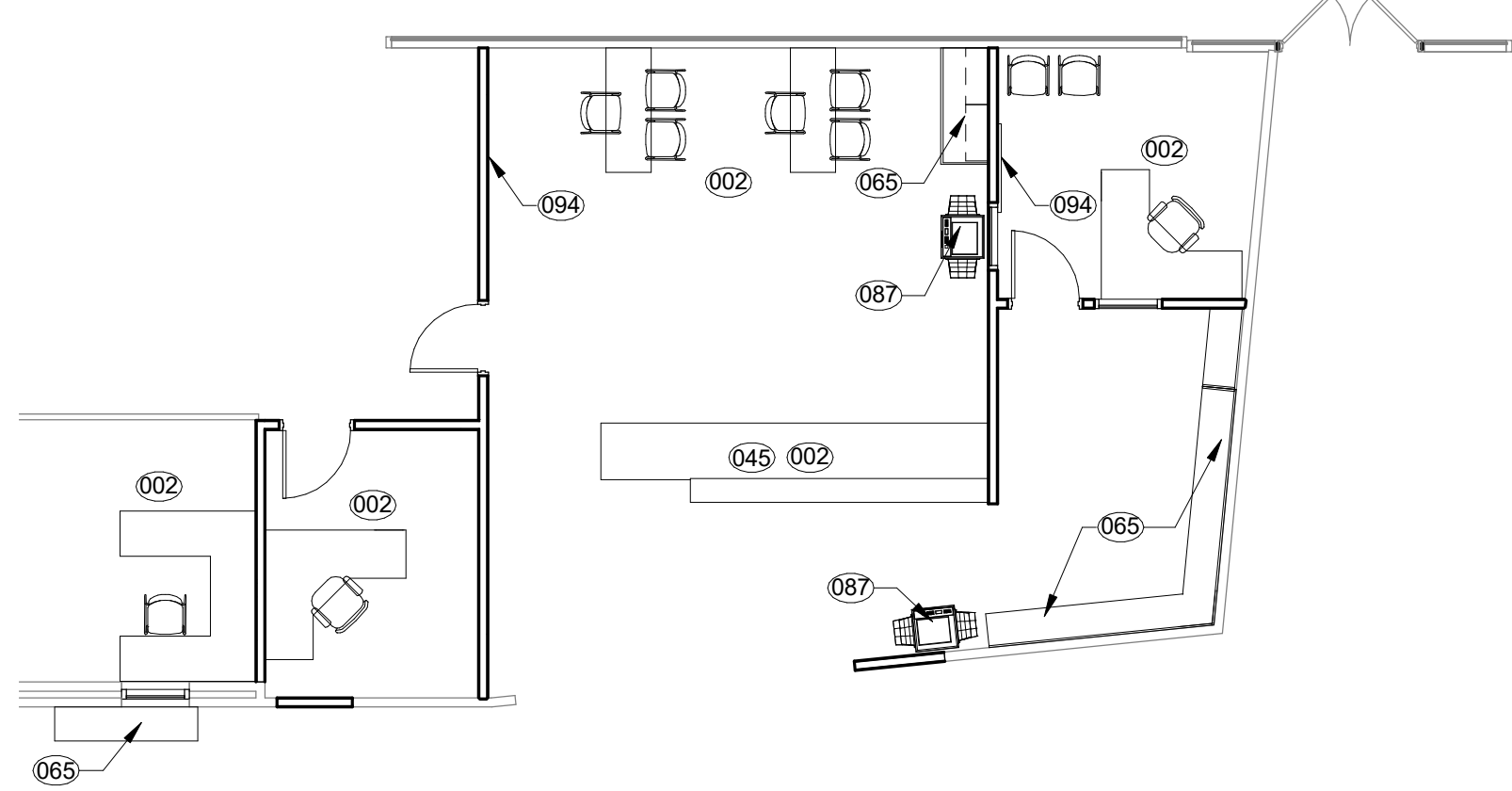
A5 INTERIOR ELEVATION
1/4" = 1'-0"



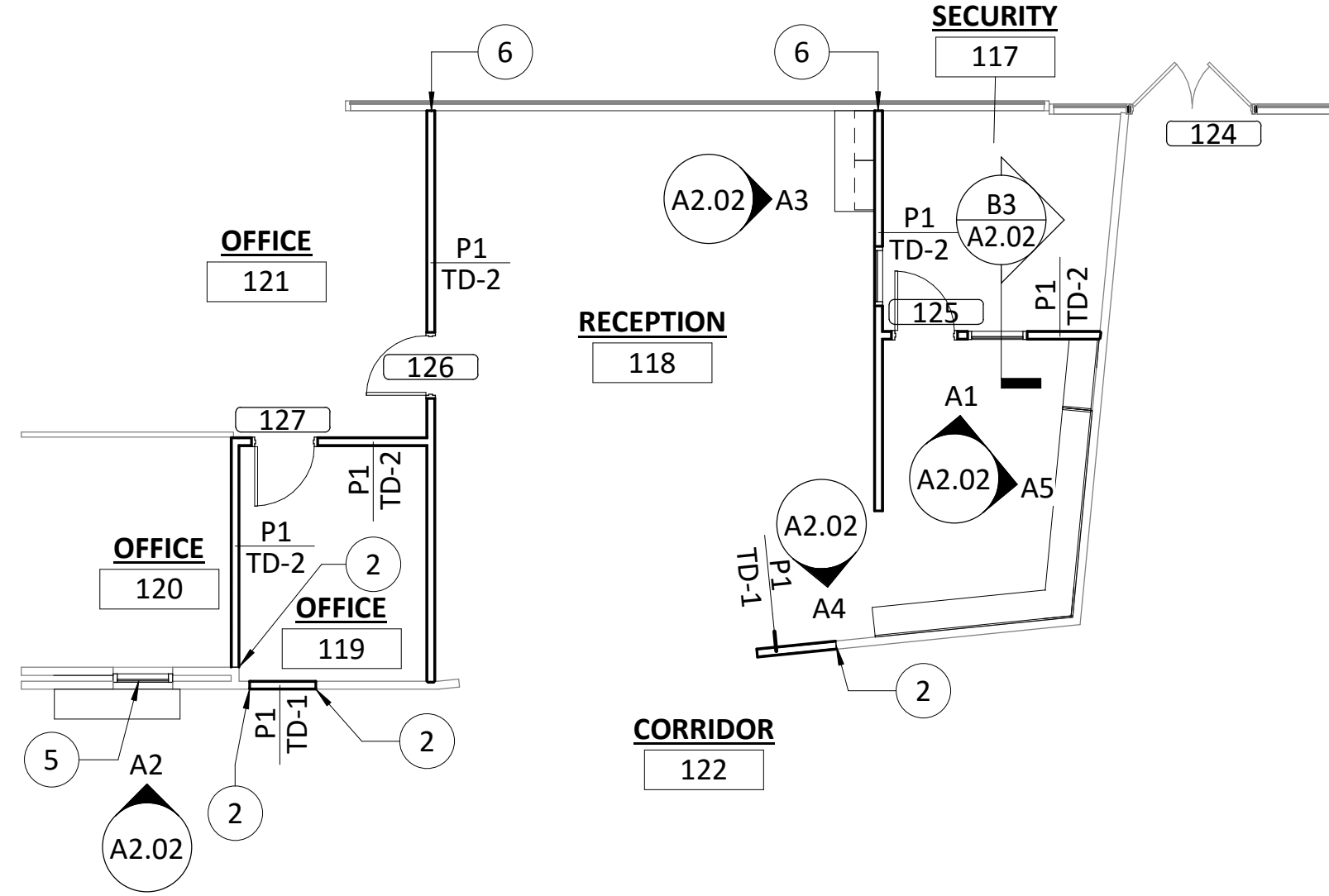
A4 INTERIOR ELEVATION
1/4" = 1'-0"



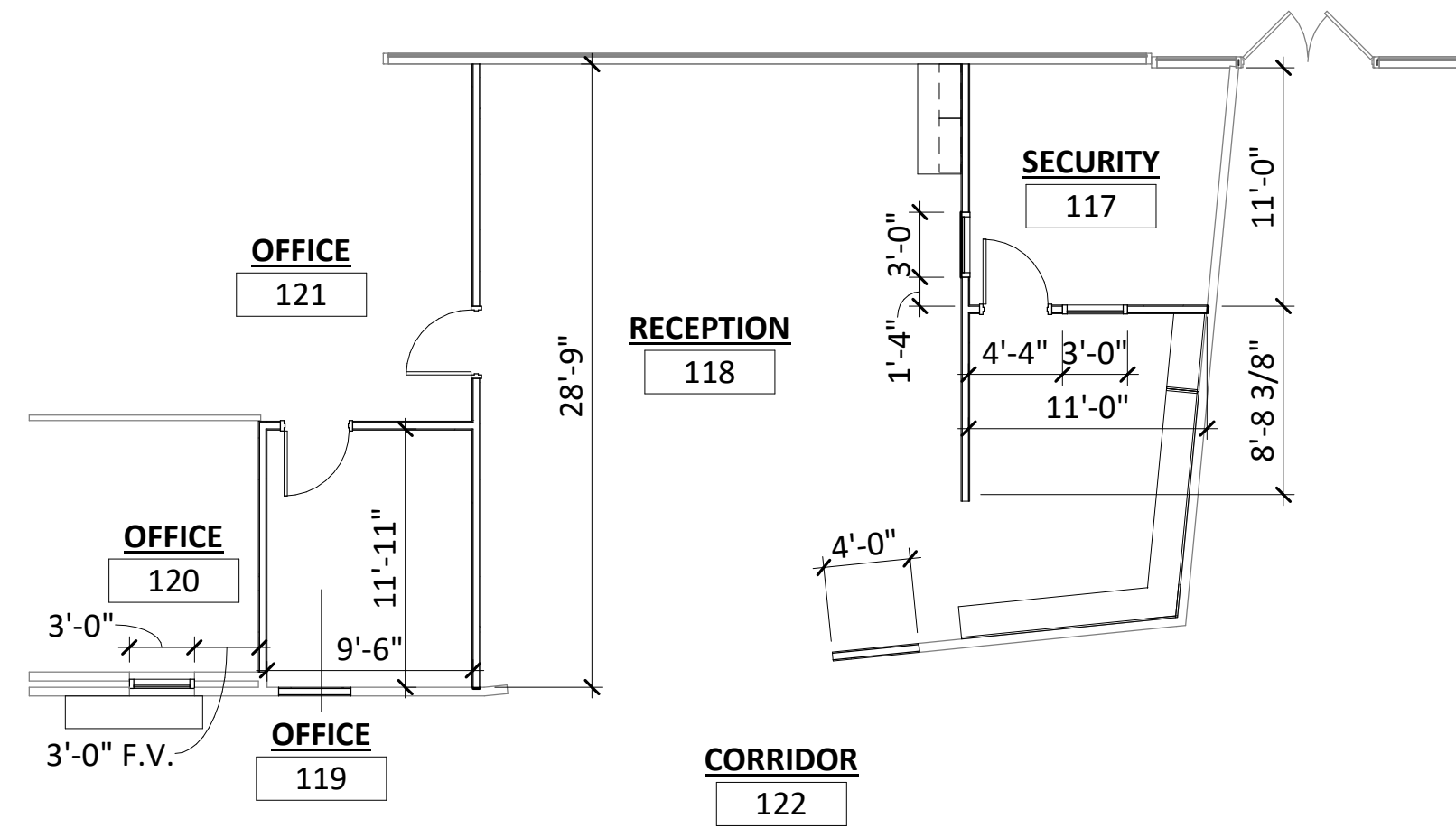
A3 INTERIOR ELEVATION
1/4" = 1'-0"



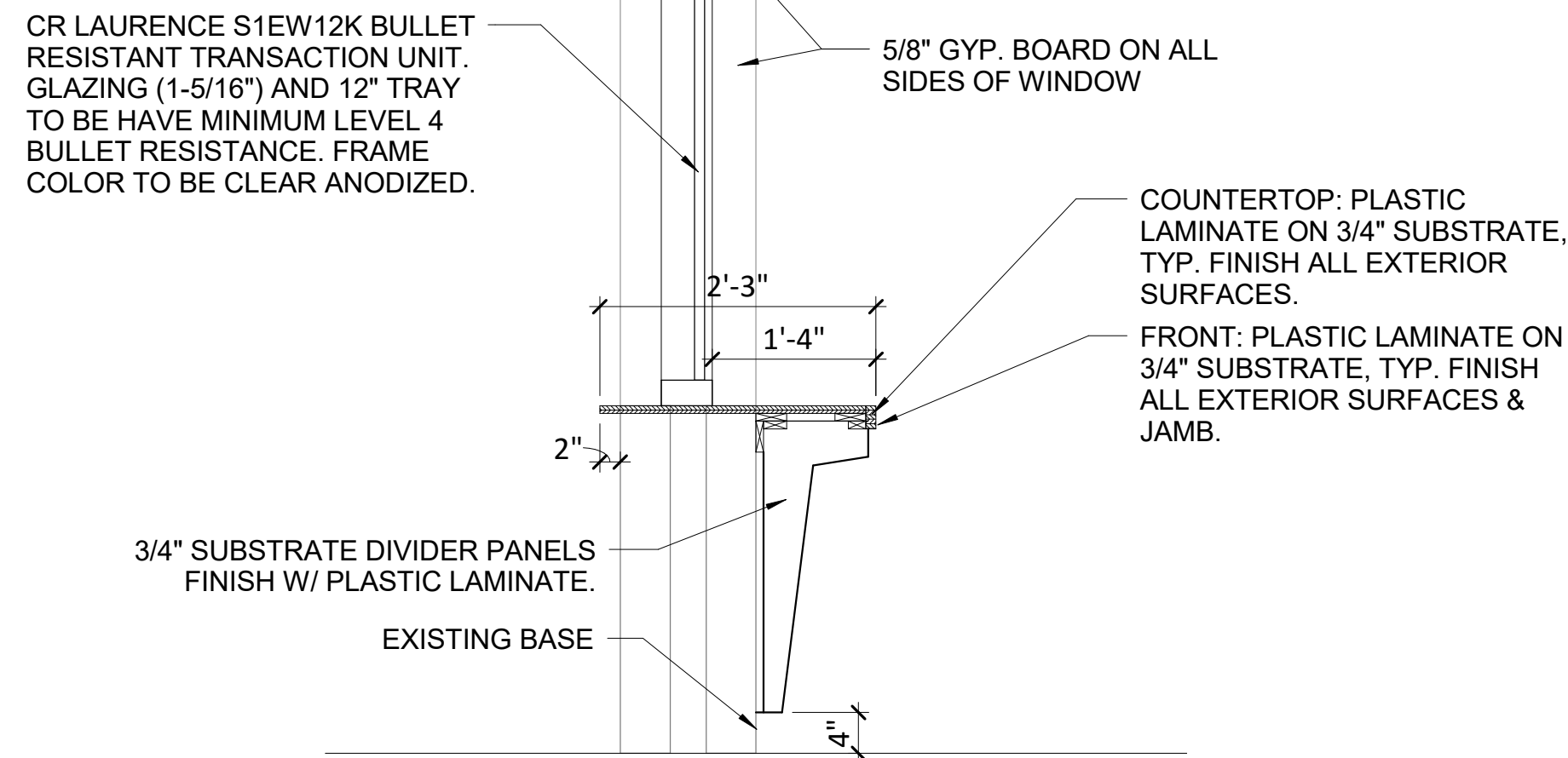
B5 EQUIPMENT FURNITURE PLAN
1/8" = 1'-0"



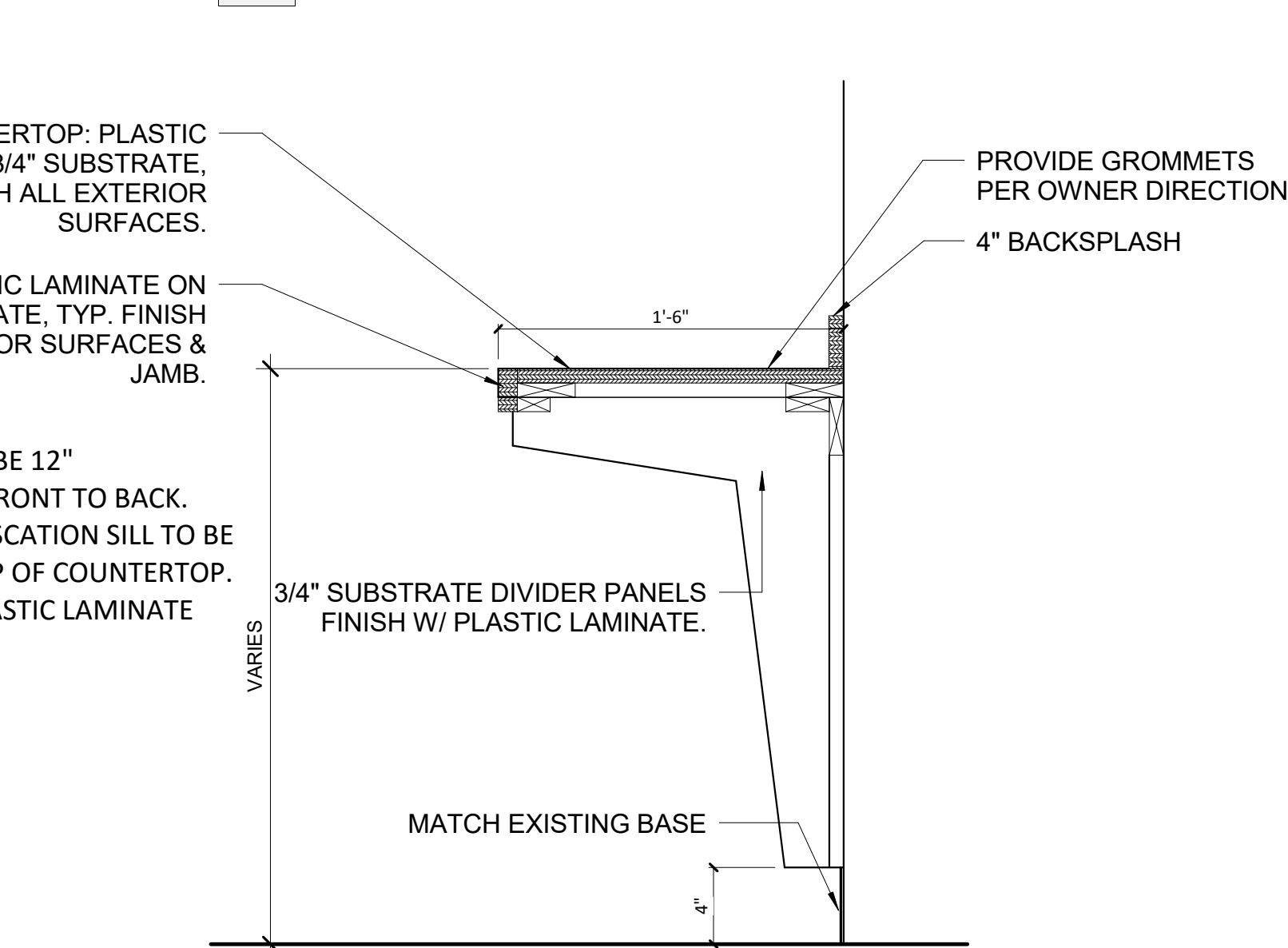
E5 OVERALL LOBBY NOTATION PLAN
1/8" = 1'-0"



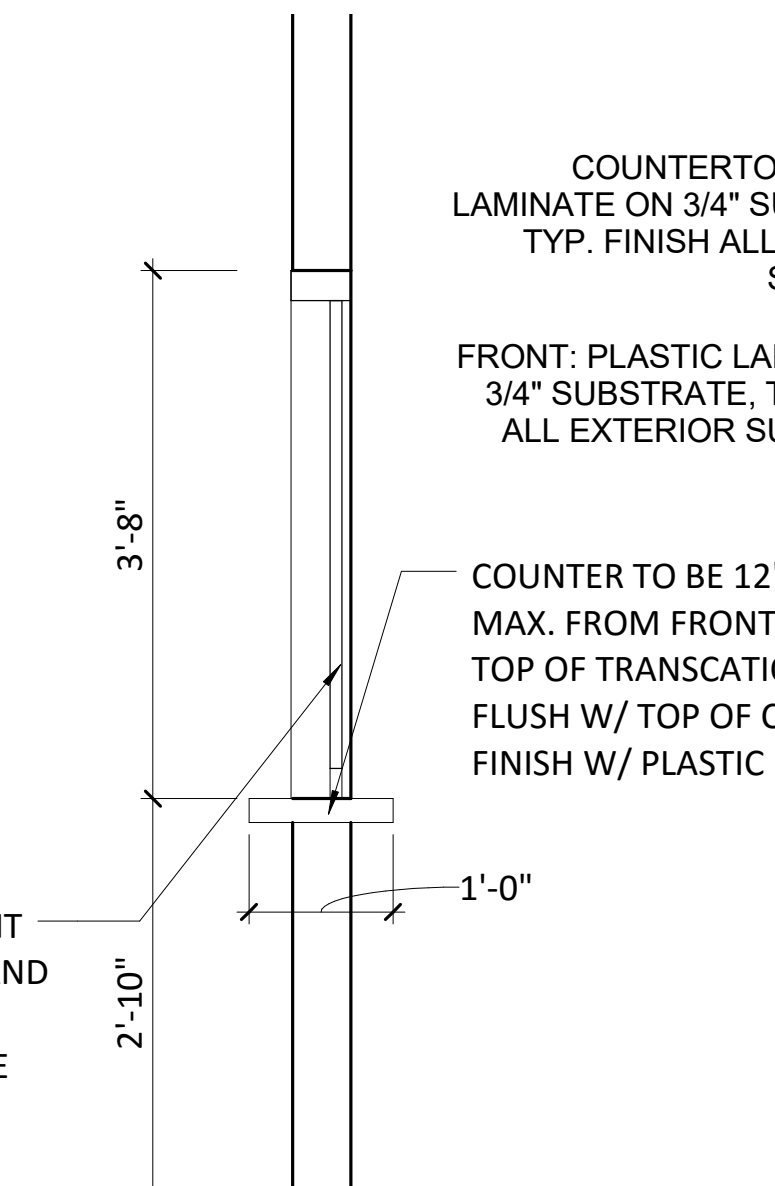
E3 DIMENSION FLOOR PLAN
1/8" = 1'-0"



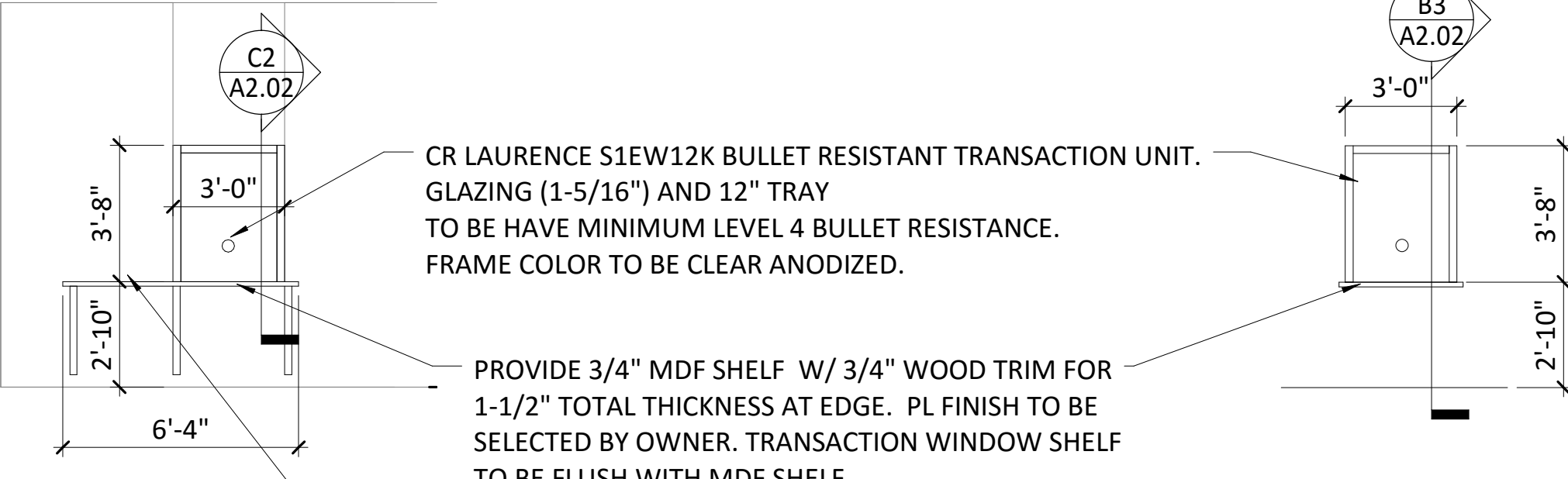
B2 SECTION @ CASEWORK SUPPORT (TYP)
1 1/2" = 1'-0"



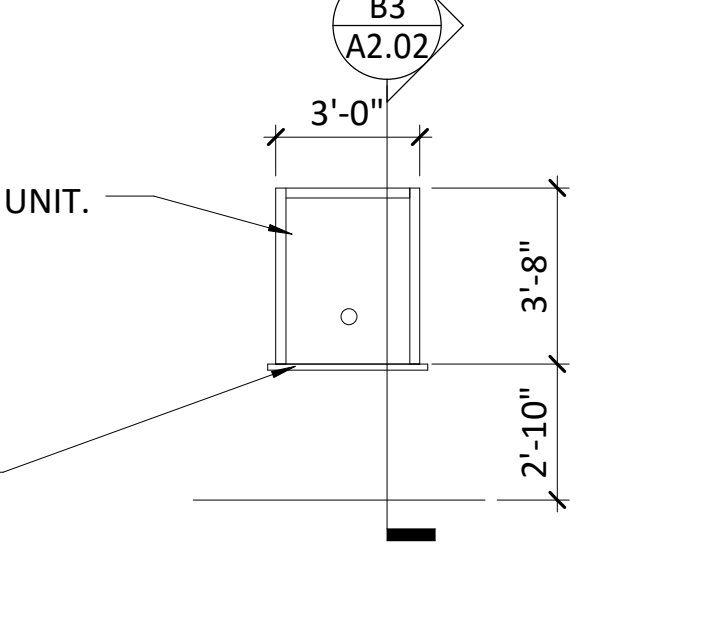
C2 TRANSACTION WINDOW-OFFICE 120
3/4" = 1'-0"



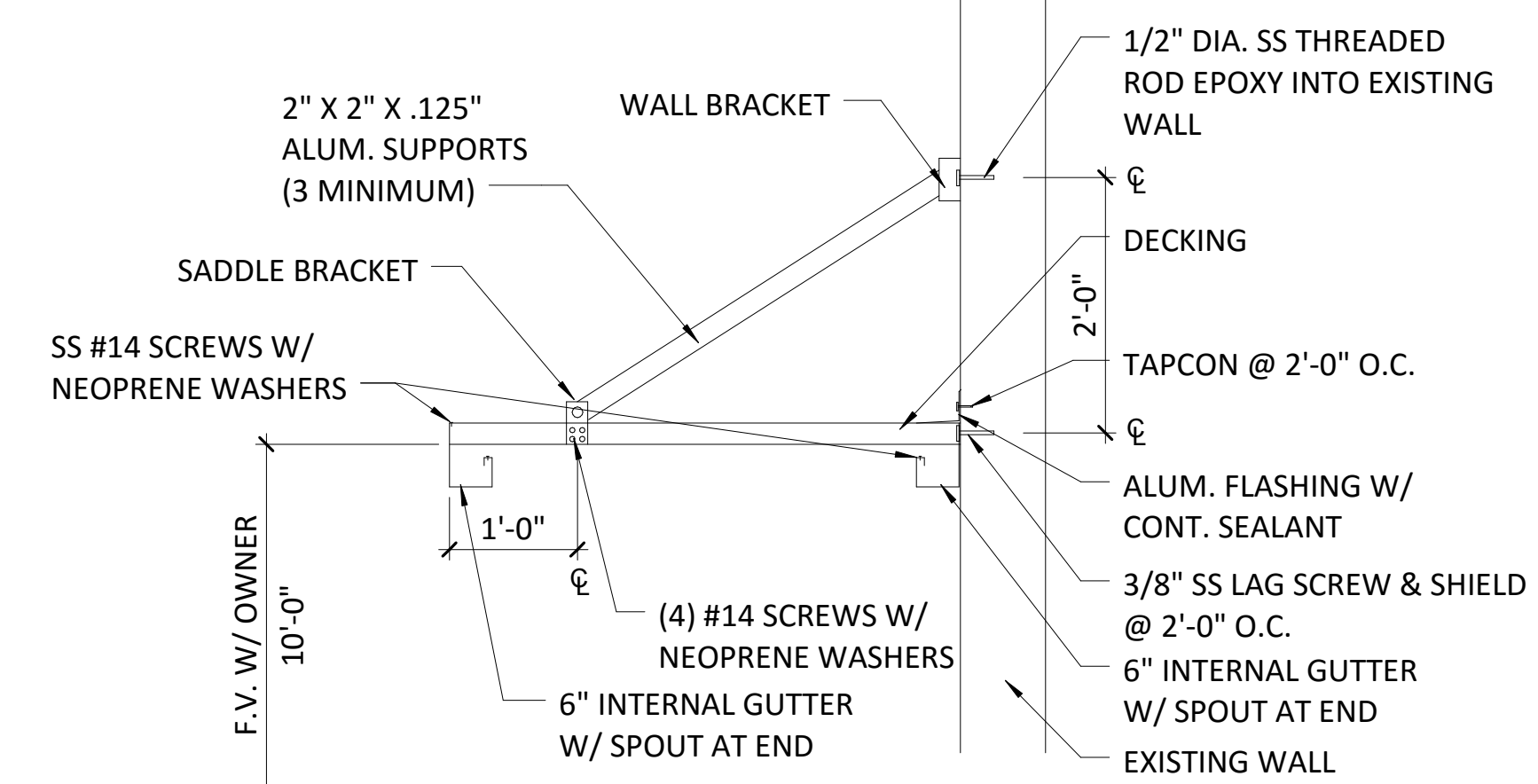
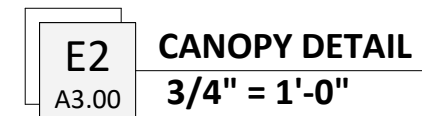
B3 TRANSACTION WINDOW-SECURITY
3/4" = 1'-0"



A2 TRANSACTION WINDOW-OFFICE 120
1/4" = 1'-0"



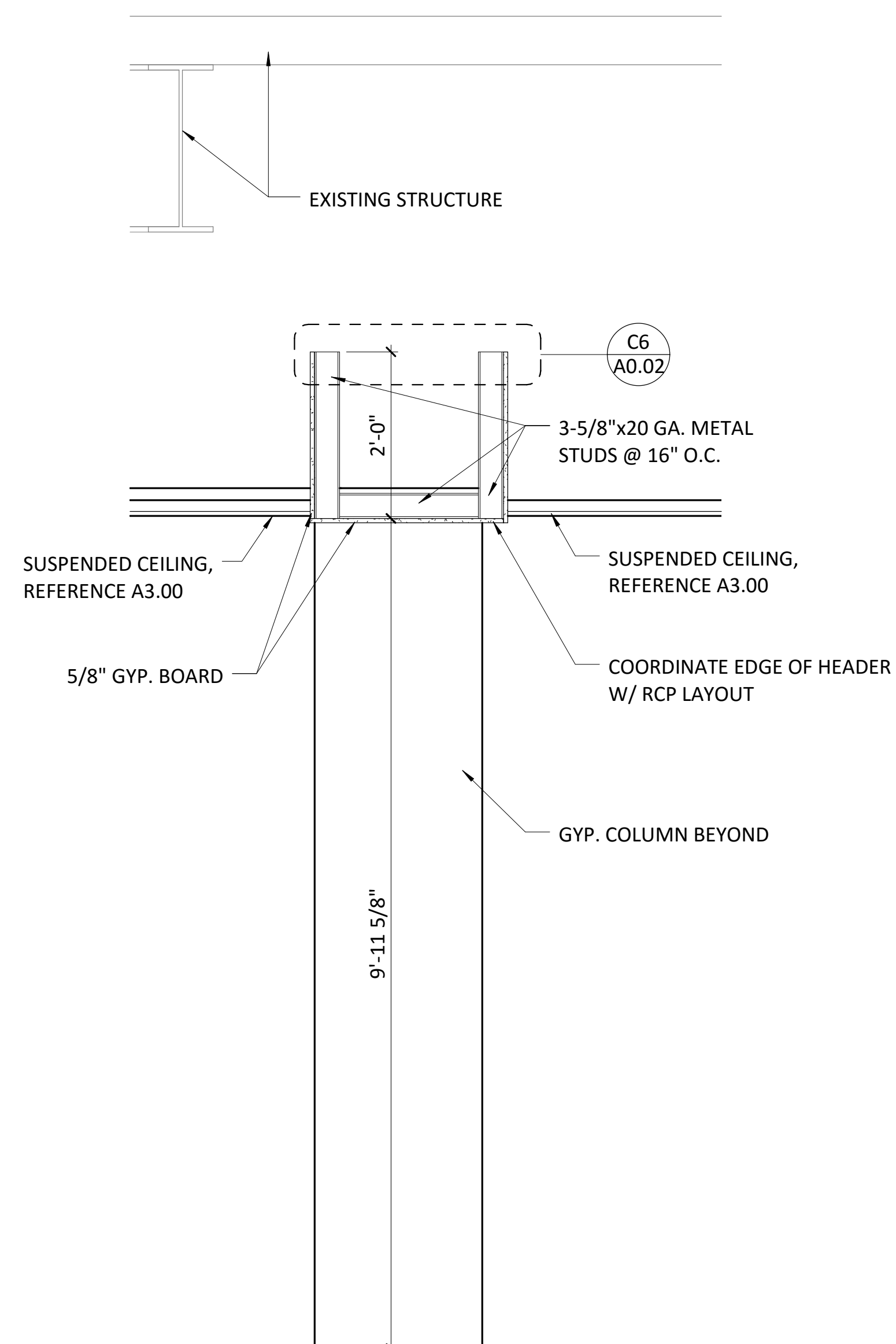
A1 TRANSACTION WINDOW-SECURITY
1/4" = 1'-0"



D7 FEMA REFLECTED CEILING PLAN
A3.00 1/8" = 1'-0"

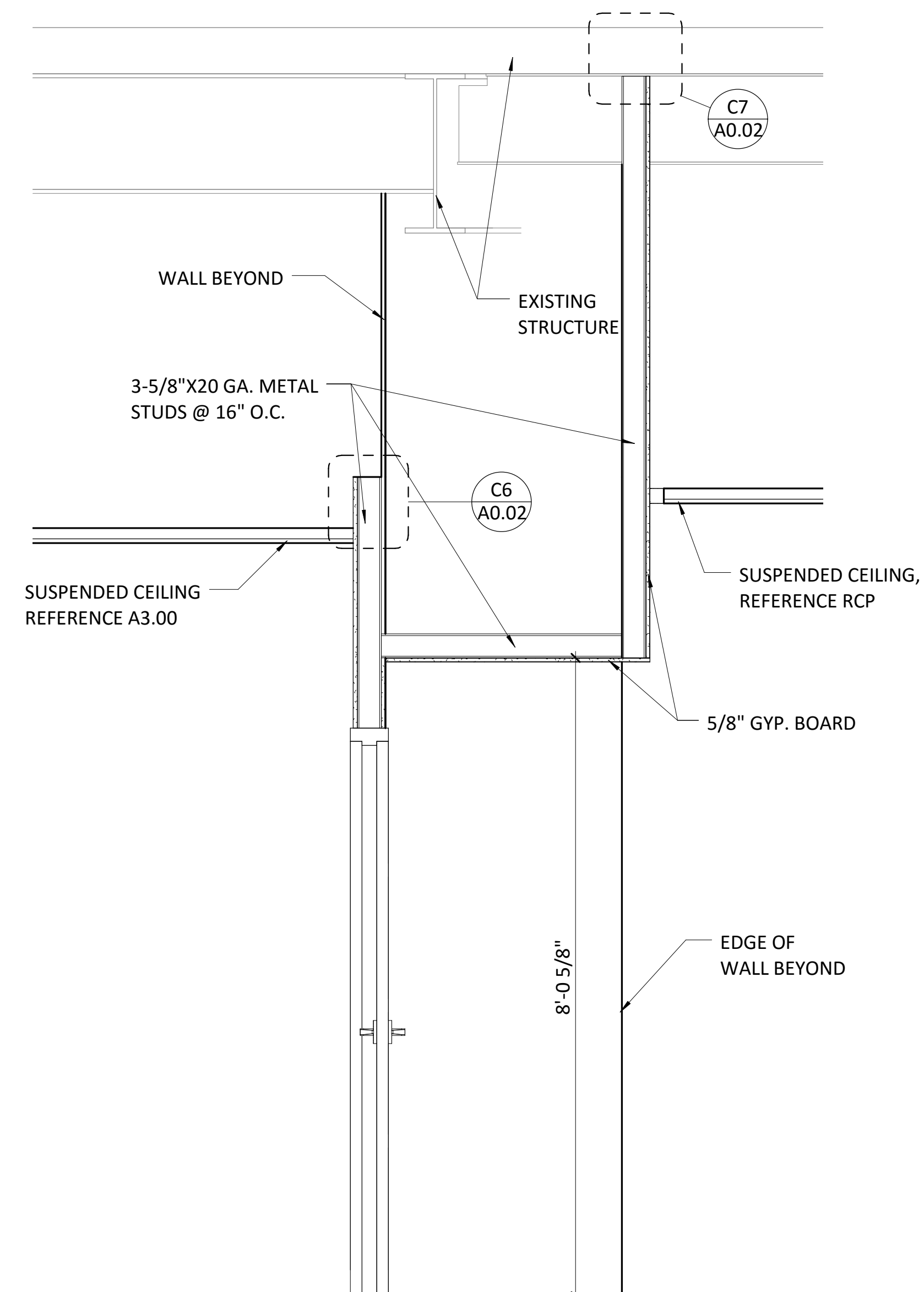
REFLECTED CEILING PLAN NOTE
3" = 1'-0"

1. LIGHT FIXTURES SHOWN ARE FOR REFERENCE ONLY. SEE ELECTRICAL SPECIFICATIONS FOR FOOT CANDLE LEVELS REQUIRED AND ADJUST QUANTITY ACCORDINGLY.
2. ON ALL WALLS WITH TERMINATION TD-2 (SHOWN WITH CROSS HATCH ABOVE) APPLY 4" ACOUSTICAL BATT INSULATION ABOVE CEILING/SOFFIT 4'-0" WIDE. DO NOT INSTALL INSULATION ABOVE LIGHT FIXTURES. REFERENCE A0.02
3. SUBCONTRACTORS SHALL COORDINATE LOCATIONS OF LIGHT FIXTURES, MECHANICAL GRILLES, SPRINKLER HEADS, ETC.
4. SEE MEPFP ENGINEER DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN.

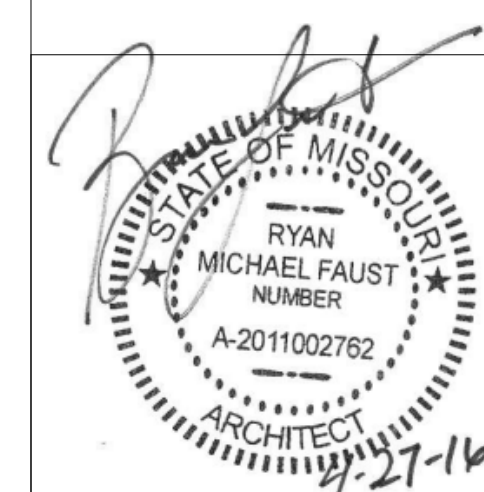


A7
A3.00

CEILING DETAIL
3/4" = 1'-0"



A3 **CEILING DETAIL**
A3.00 **3/4" = 1'-0"**



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NO.	DATE	DESCRIPTION

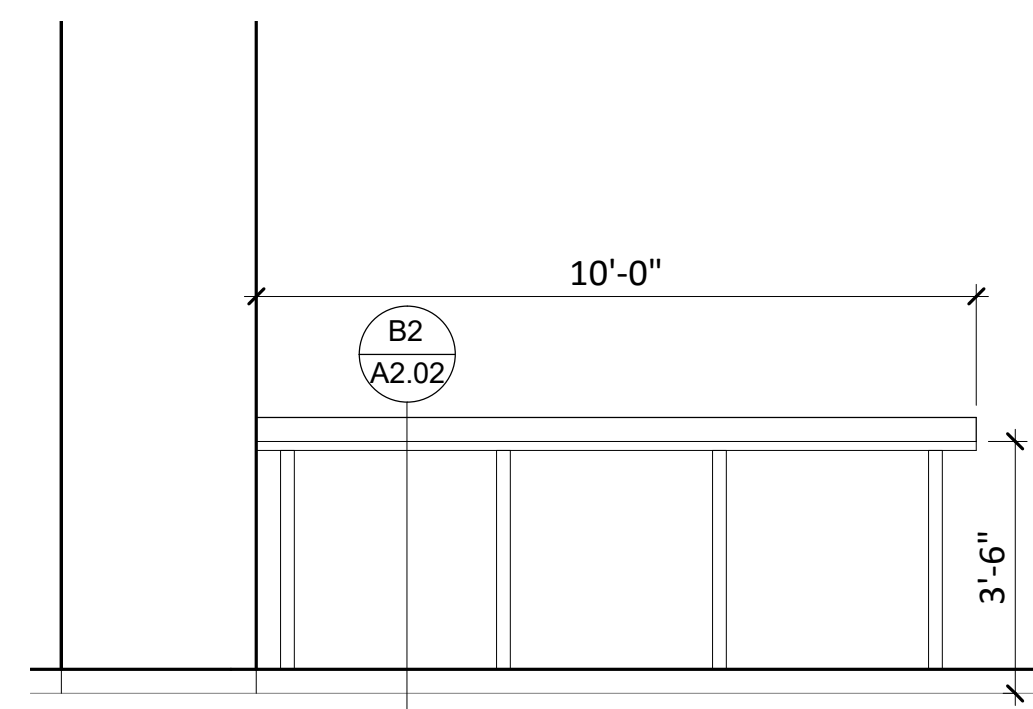
PROJECT NUMBER:	1508
RELEASE DATE:	04/27/201

REFLECTED CEILING PLAN

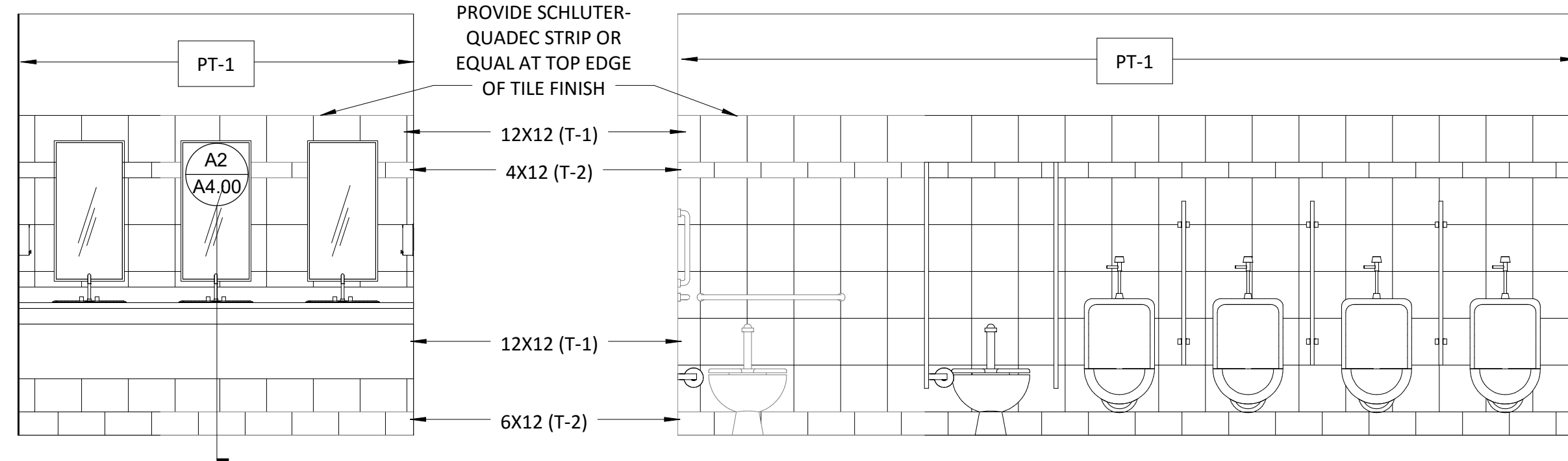
A3.00



1 FINISH FLOOR PLAN
1/8" = 1'-0"

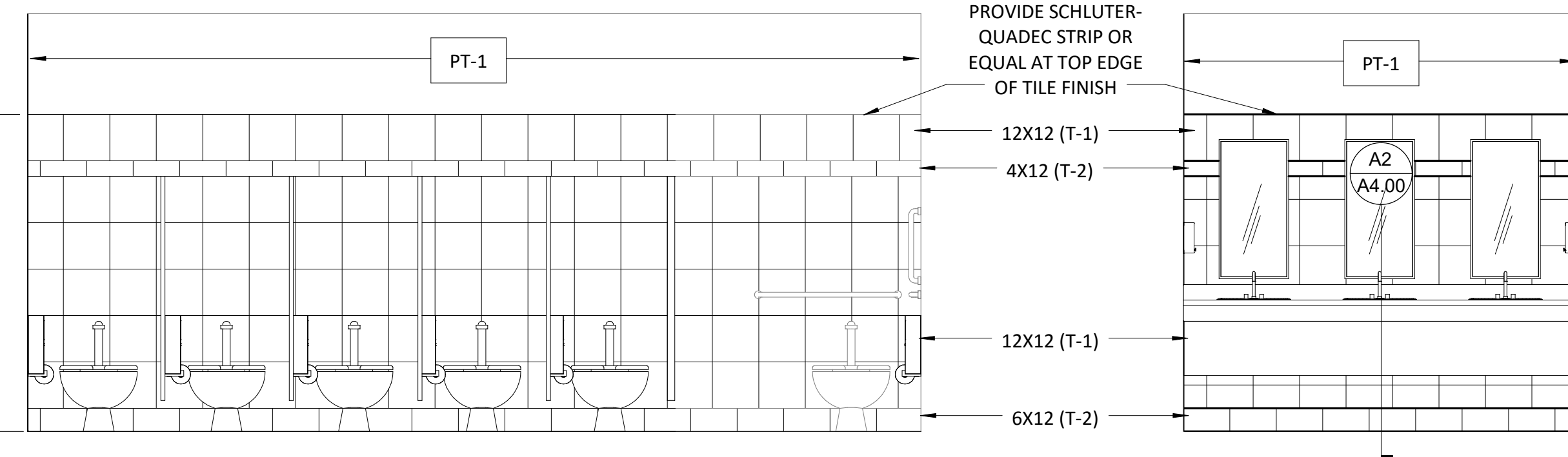


C7 LOBBY CASEWORK
3/8" = 1'-0"



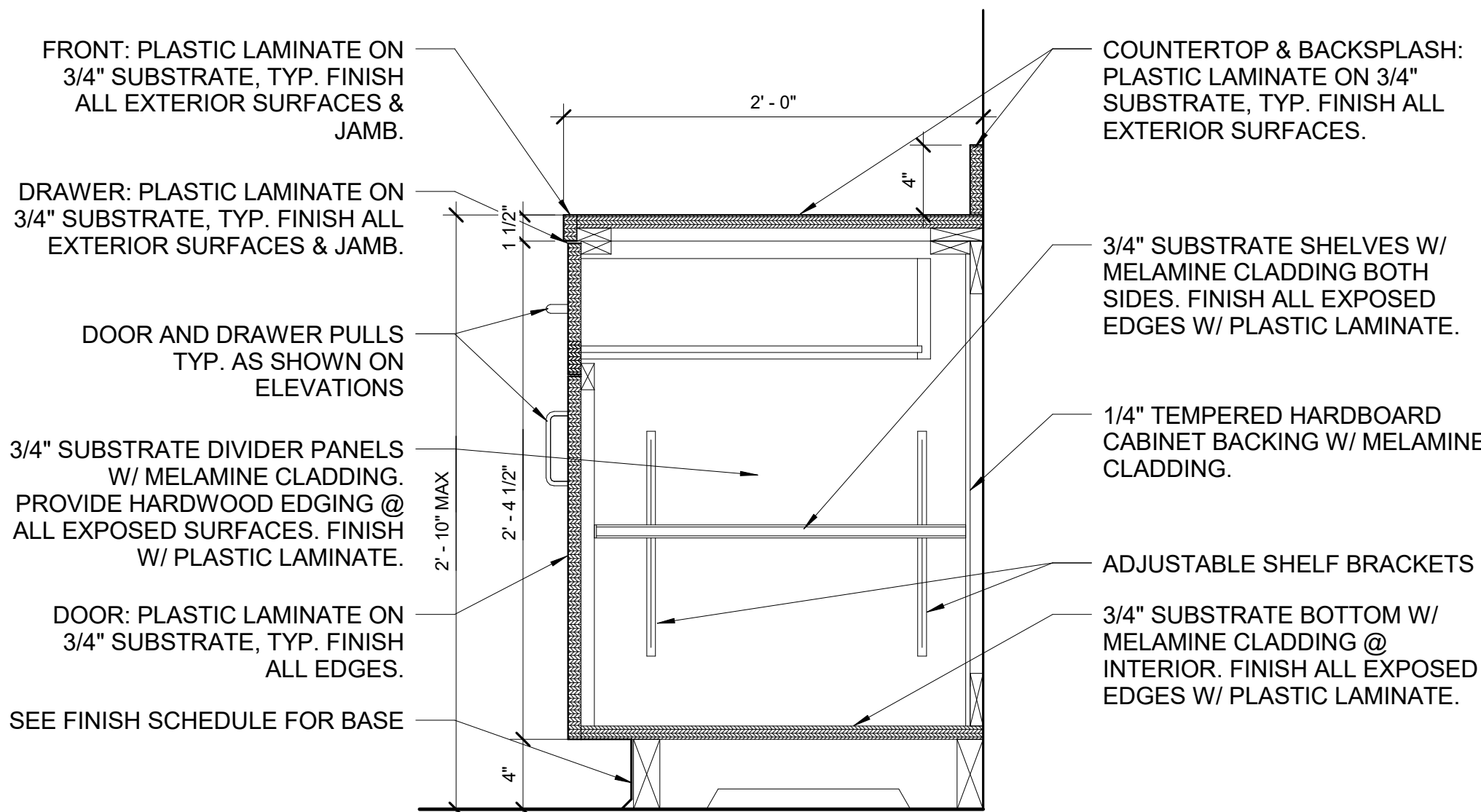
C6 MENS SINKS
3/8" = 1'-0"

C5 MENS RR WATER CLOSETS
3/8" = 1'-0"

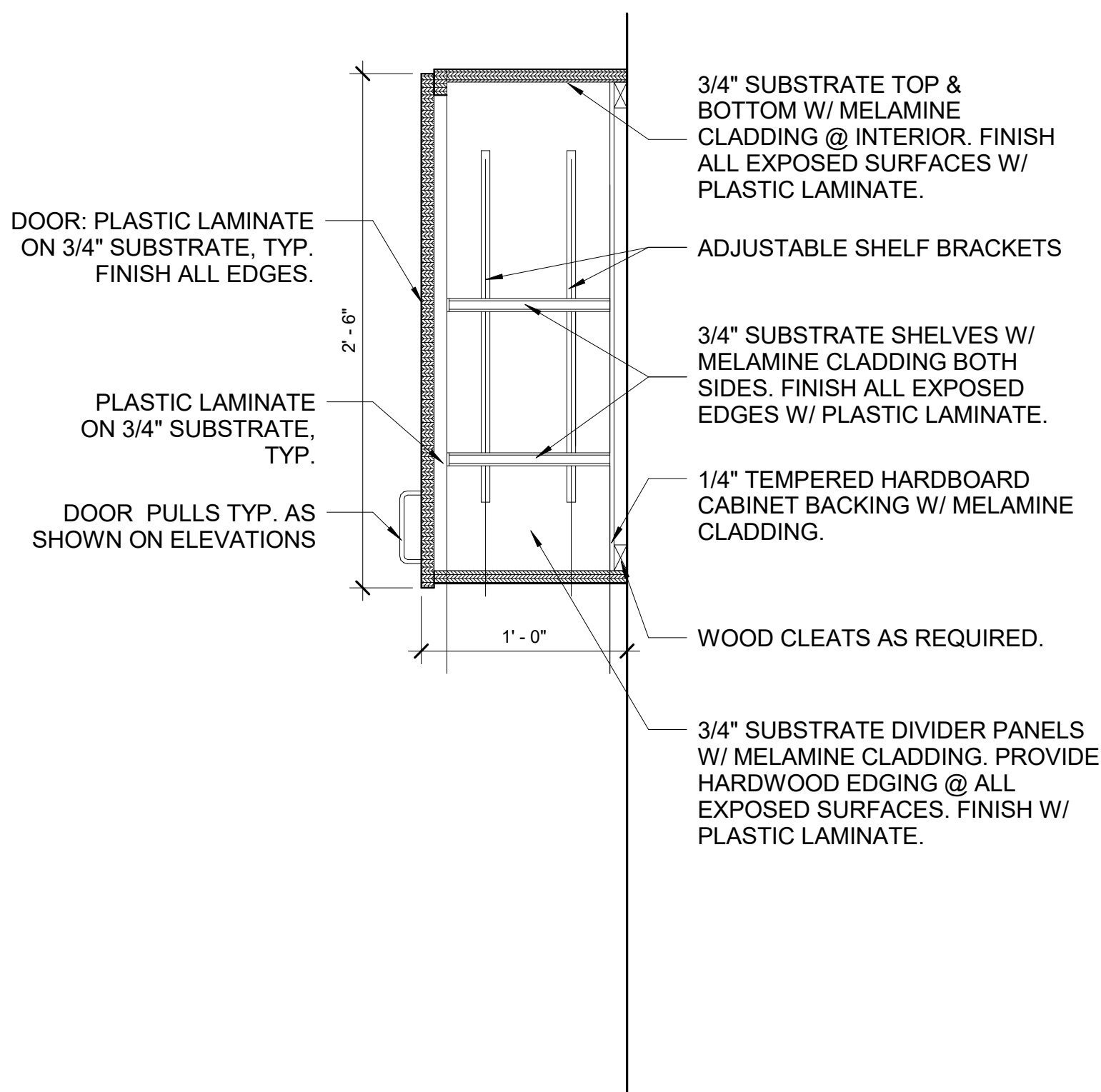


C3 WOMENS RR WATER CLOSETS
3/8" = 1'-0"

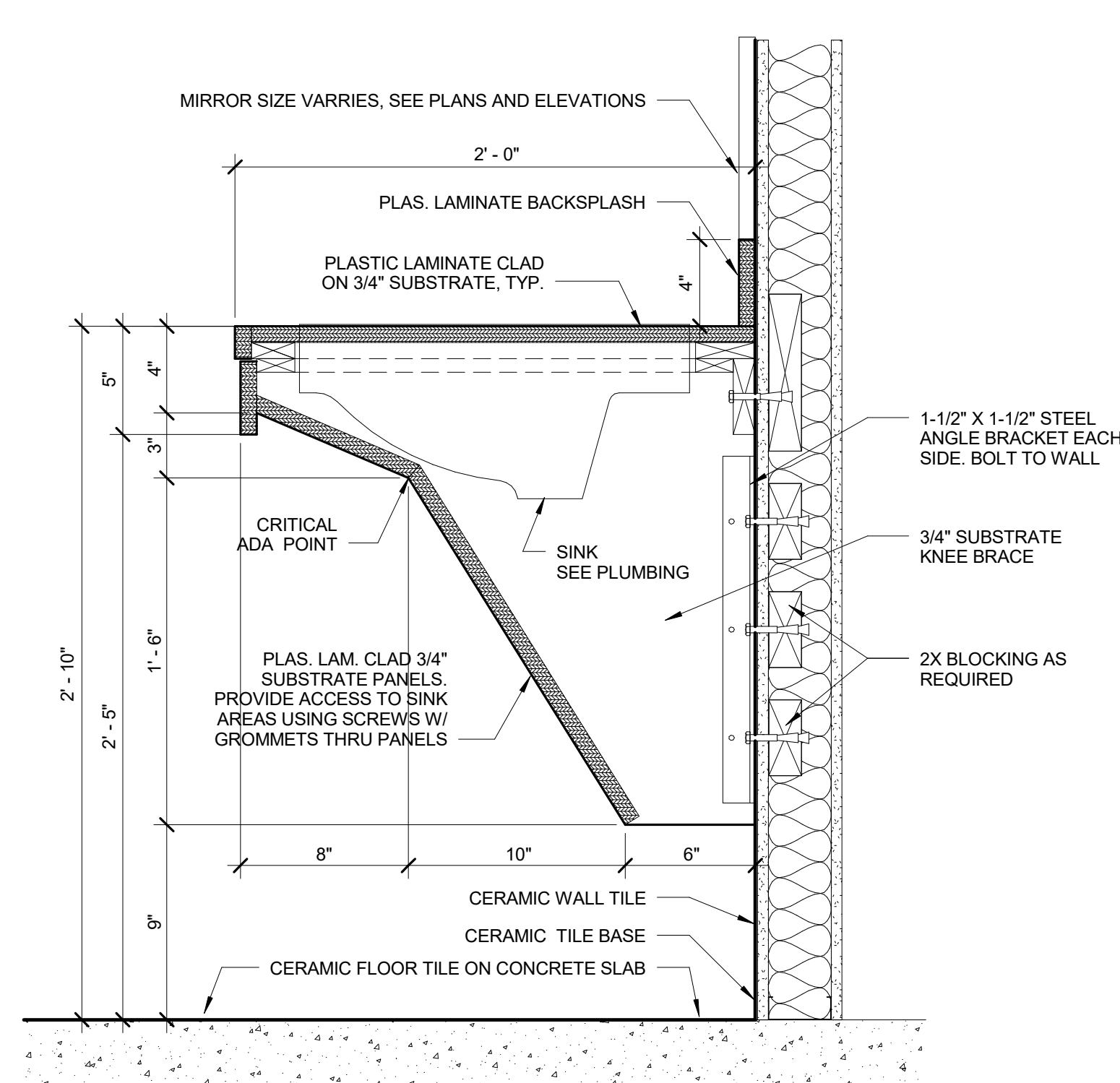
C1 WOMENS SINKS
3/8" = 1'-0"



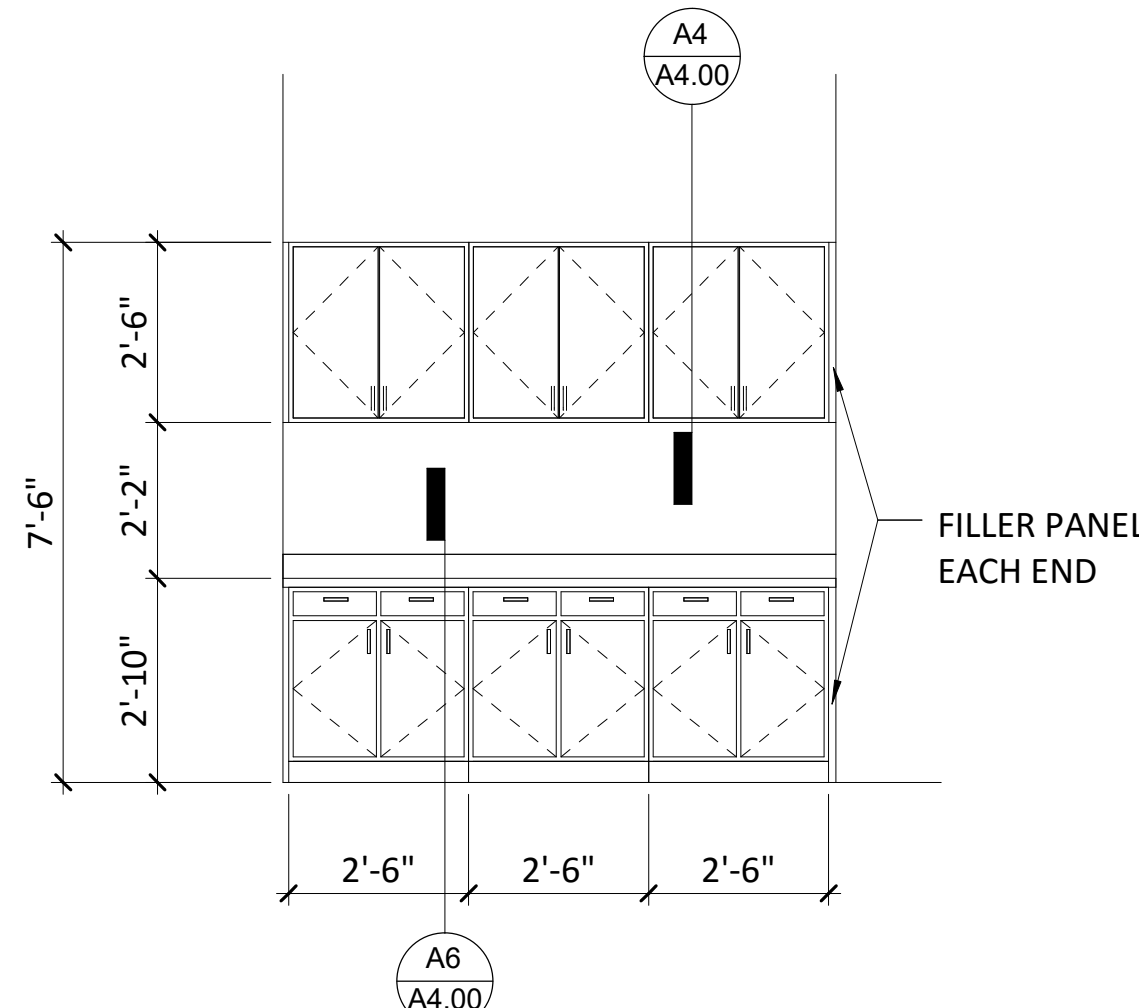
A6 SECTION @ BASE CABINET
1 1/2" = 1'-0"



A4 SECTION @ UPPER CABINET
1 1/2" = 1'-0"



A2 DETAIL @ ADA LAVATORY
1 1/2" = 1'-0"



E7 WORK ROOM CASEWORK
3/8" = 1'-0"

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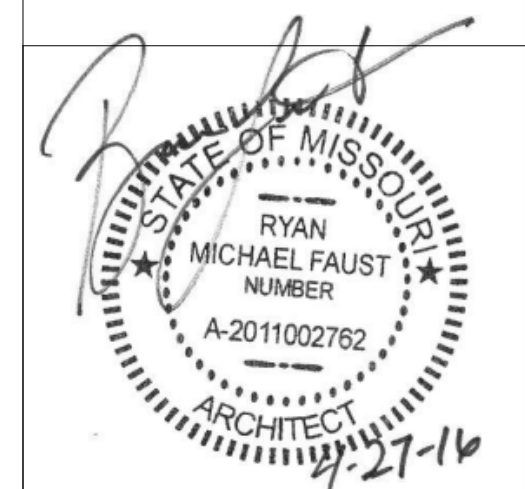
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CONSULTANT
SMITH-GOTH ENGINEERS, INC.
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SPRINGFIELD, MO 65807

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REVISIONS		
NO.	DATE	DESCRIPTION
PROJECT NUMBER: 15088		
RELEASE DATE: 04/27/2016		
FINISH FLOOR PLAN & INTERIOR ELEVATIONS		

A4.00

4/27/2016 11:43:48 AM

F

E

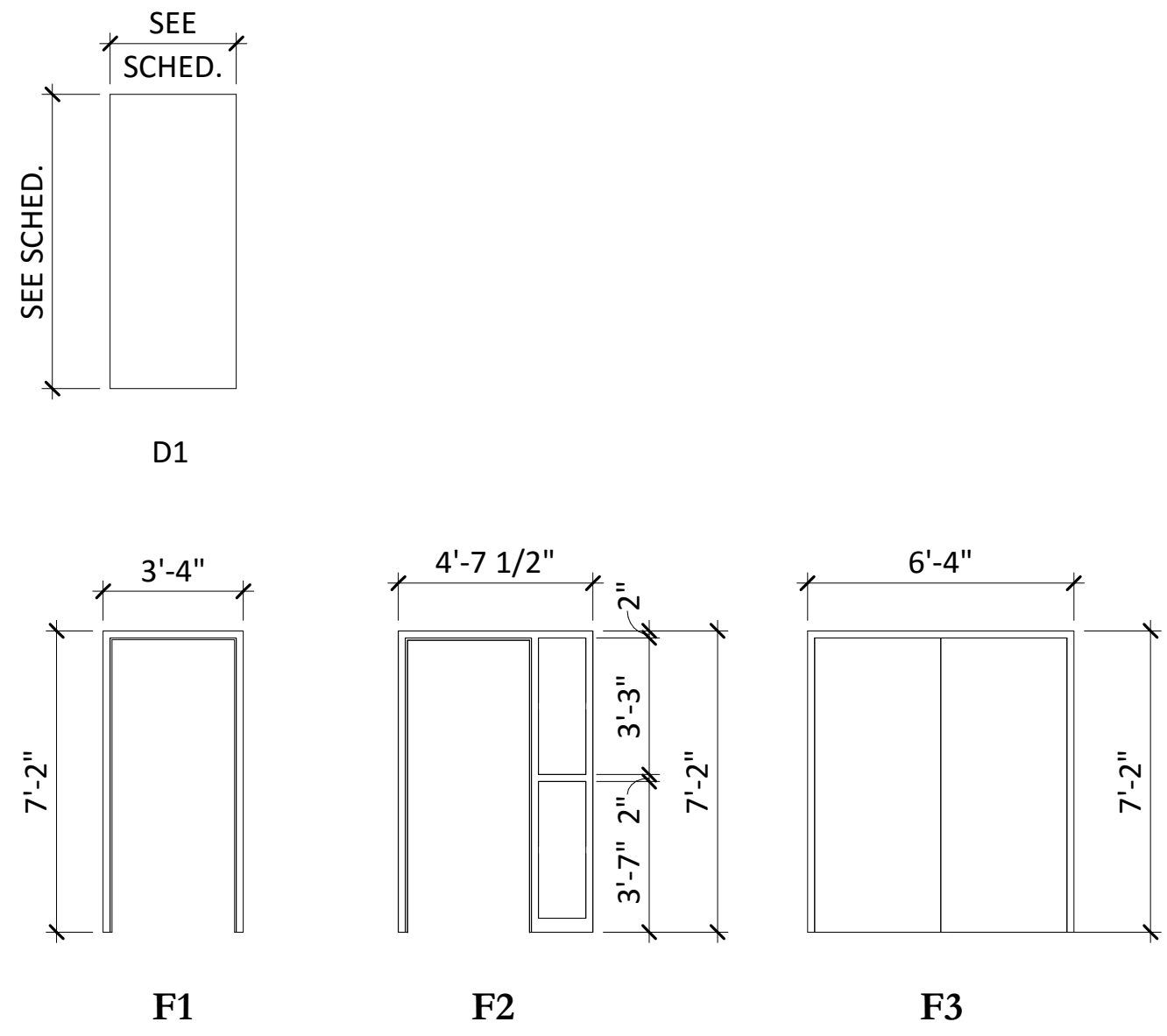
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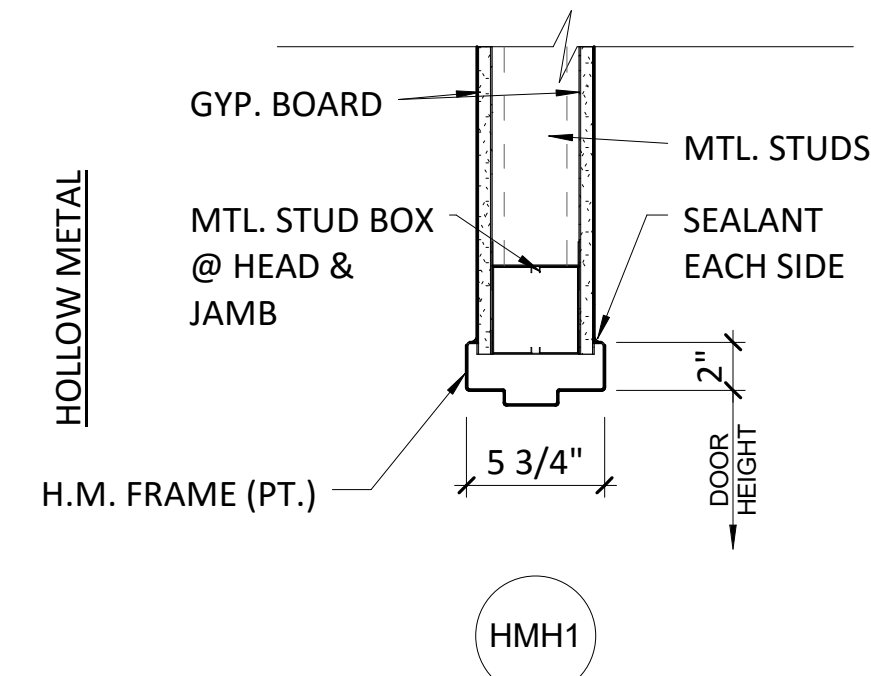
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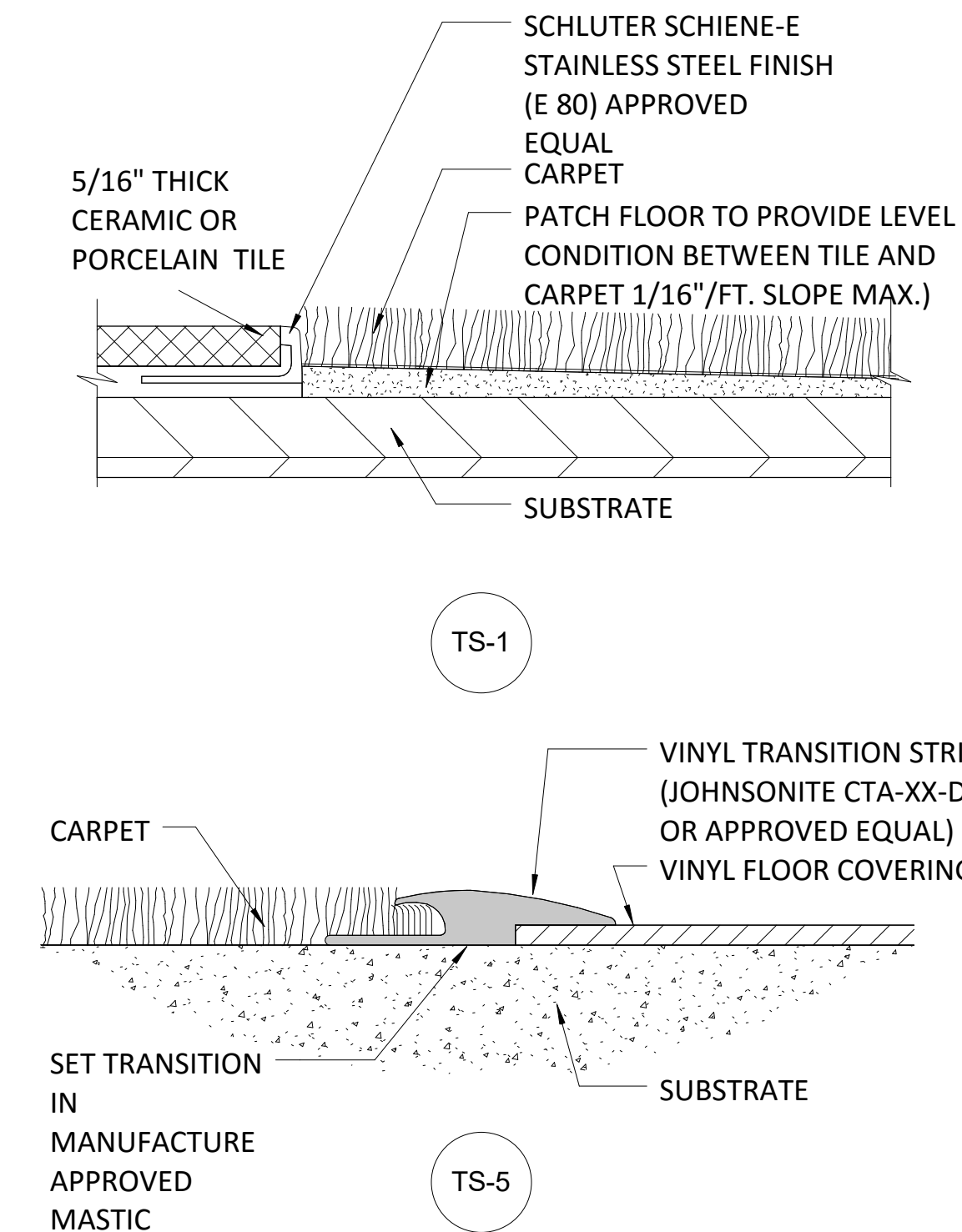
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LEGEND - DOOR & FRAME TYPES

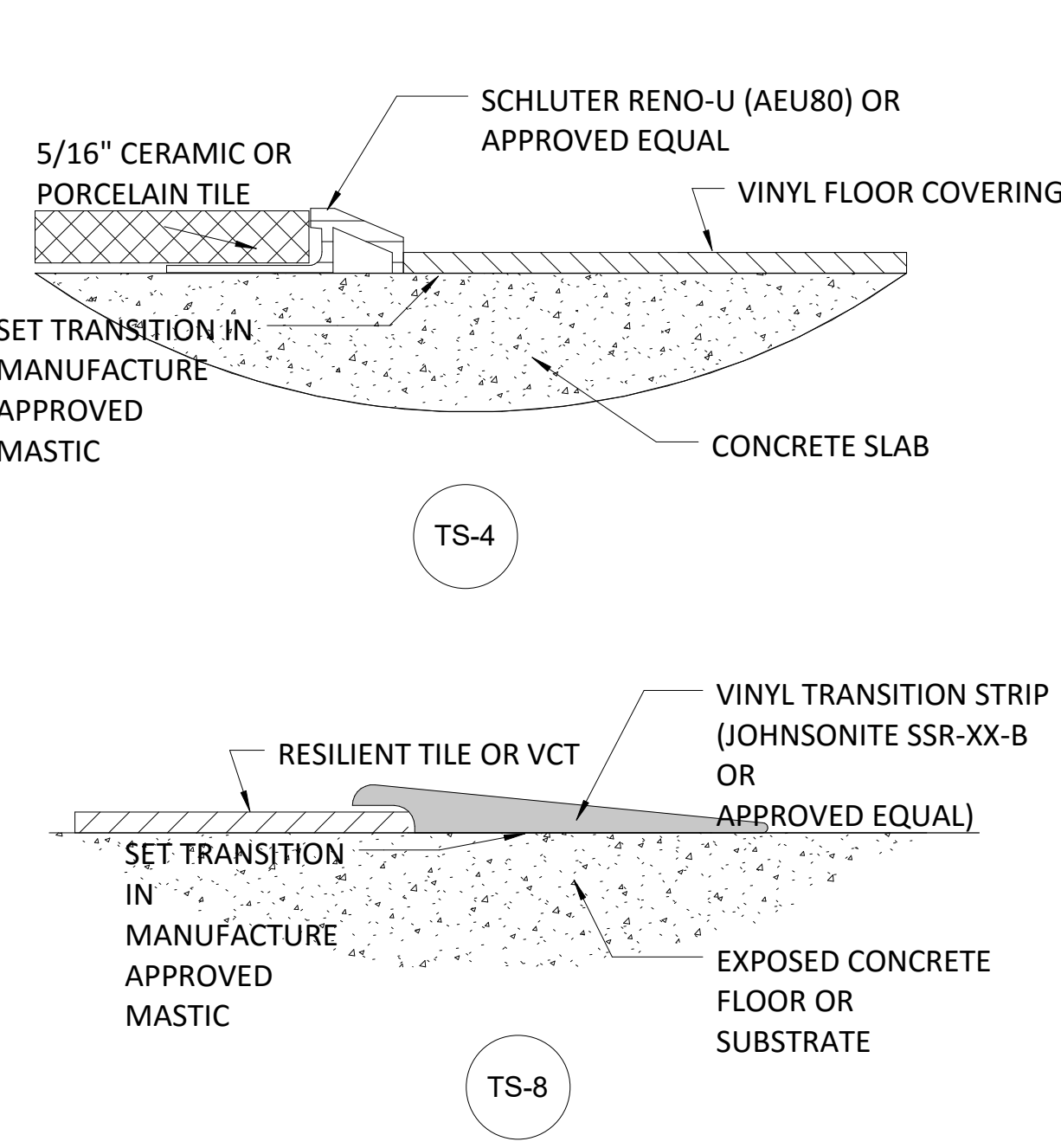
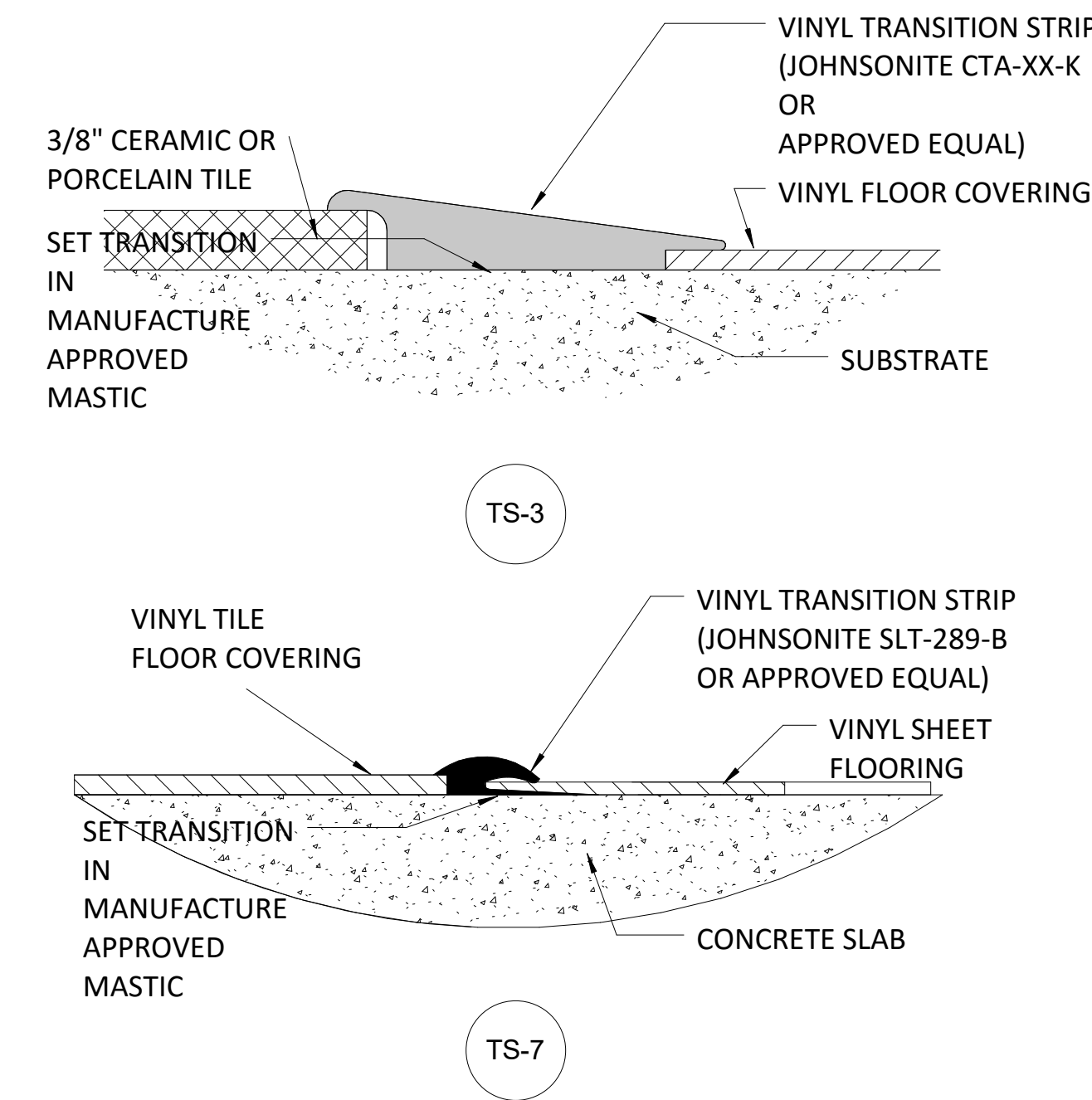
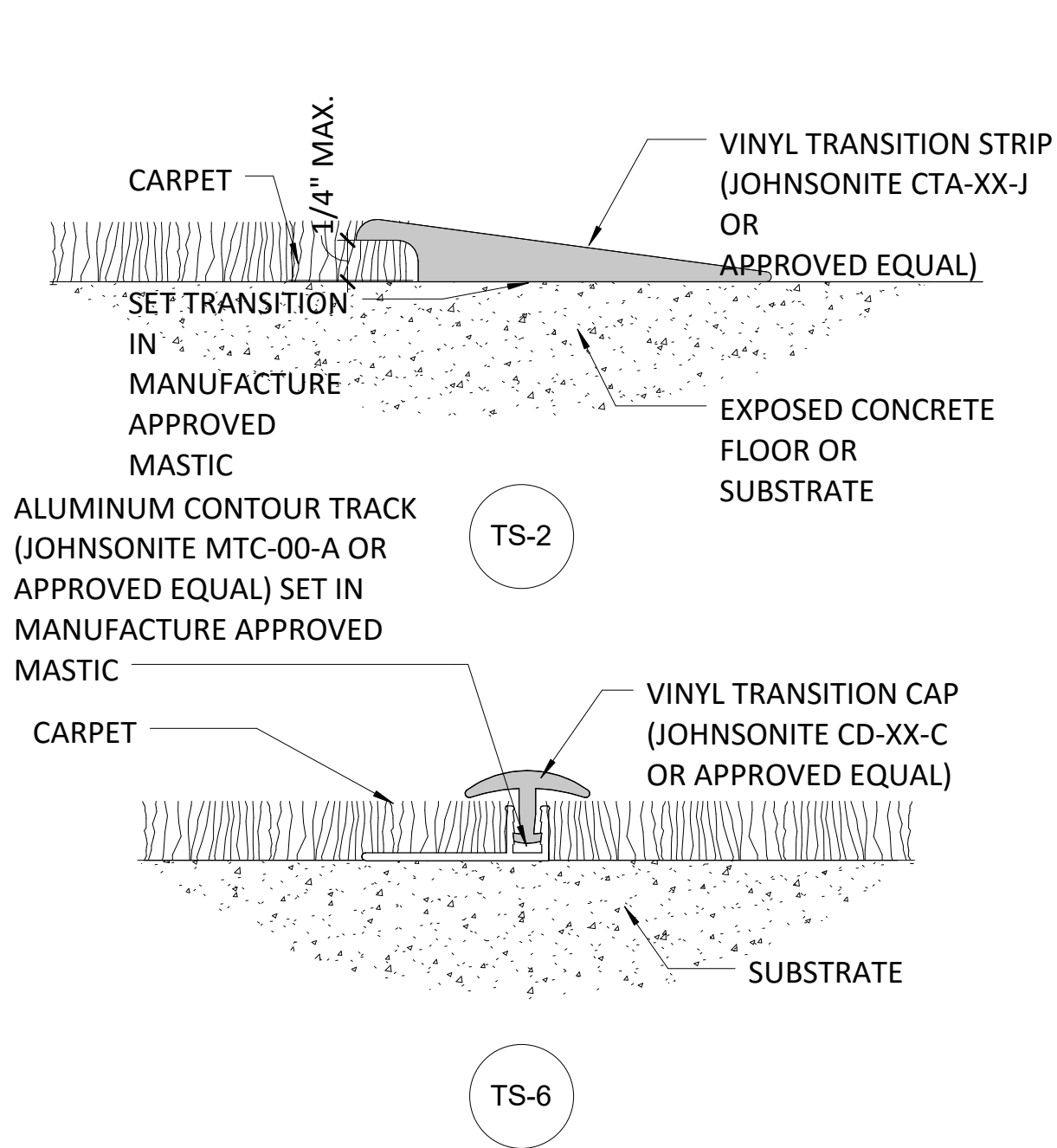


1 DOOR HEAD/JAMB/SILL
1 1/2" = 1'-0"



2 FLOORING TRANSITIONS
12" = 1'-0"

DENOTATION	MANUFACTURER	STYLE	NUMBER	SIZE	COLOR	REMARKS
ACT-1	ARMSTRONG	FINE FISSURED	1719	24X24	WHITE	
ACT-2	ARMSTRONG	UNPERFORATED	673	24X24	WHITE	
CPT-1	J&J INVISION	KINETEX	TBD	24X24	TBD	
CT-1	DAL-TILE	VERANDA	TBD	20X20	TBD	
PLAM-1	TBD	TBD	TBD	-	TBD	
PLAM-2	TBD	TBD	TBD	-	TBD	
PT-1	SHERWIN WILLIAMS		SW6001	-	GRAYISH	
PT-2	SHERWIN WILLIAMS		SW7664	-	STEELY GRAY	
PT-3	SHERWIN WILLIAMS		SW6713	-	VERDANT	DONOR WALL COLOR
T-1	DAL-TILE	CONTINENTAL SLATE	CS57	12X12	ENGLISH GRAY	
T-2	DAL-TILE	CONTINENTAL SLATE	CS53	VARIES	ASIAN BLACK	



DOOR SCHEDULE

NO.	SIZE				LEAF			FRAME				FIRE RATING	HEAD	REMARKS
	LEAF QNTY	WIDTH	HEIGHT	THICKNESS	ELEVATION	FINISH	GLAZING	ELEVATION	MATERIAL	FINISH	GLAZING			
101	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	NONE	EXISTING	EXISTING	P-1	NONE	NONE		PAINT EXISTING DOOR AND FRAME
102	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	NONE	EXISTING	EXISTING	P-1	NONE	NONE		PAINT EXISTING DOOR AND FRAME
103	2	6'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F3	HOLLOW METAL	P-1	NONE	NONE	HMH1	
104	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F1	HOLLOW METAL	P-1	NONE	45 MIN. RATED	HMH1	
105	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F2	HOLLOW METAL	P-1	1/4" TEMPERED	NONE	HMH1	
106	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F2	HOLLOW METAL	P-1	1/4" TEMPERED	NONE	HMH1	
107	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F1	HOLLOW METAL	P-1	NONE	NONE	HMH1	
108	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F1	HOLLOW METAL	P-1	NONE	NONE	HMH1	
109	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	NONE	EXISTING	EXISTING	P-1	NONE	NONE		PAINT EXISTING DOOR AND FRAME
110	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F2	HOLLOW METAL	P-1	1/4" TEMPERED	NONE	HMH1	
111	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	NONE	F1	HOLLOW METAL	P-1	NONE	NONE	HMH1	RELOCATE EXISTING DOOR & HARDWARE FROM EXISTING LOCATION, EXISTING FRAME NOT TO BE REUSED.
112	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	NONE	F1	HOLLOW METAL	P-1	NONE	NONE	HMH1	RELOCATE EXISTING DOOR & HARDWARE FROM EXISTING LOCATION, EXISTING FRAME NOT TO BE REUSED.
113	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F2	HOLLOW METAL	P-1	1/4" TEMPERED	NONE	HMH1	
114	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F2	HOLLOW METAL	P-1	1/4" TEMPERED	NONE	HMH1	
115	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F2	HOLLOW METAL	P-1	1/4" TEMPERED	NONE	HMH1	
116	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F2	HOLLOW METAL	P-1	1/4" TEMPERED	NONE	HMH1	
117	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F2	HOLLOW METAL	P-1	1/4" TEMPERED	NONE	HMH1	
118	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F2	HOLLOW METAL	P-1	1/4" TEMPERED	NONE	HMH1	
119	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	NONE	EXISTING	EXISTING	P-1	NONE	NONE		PAINT EXISTING DOOR AND FRAME
120	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	NONE	EXISTING	EXISTING	P-1	NONE	NONE		PAINT EXISTING DOOR AND FRAME
121	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	NONE	EXISTING	EXISTING	P-1	NONE	NONE		PAINT EXISTING DOOR AND FRAME
124	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	ALUMINUM	EXISTING	EXISTING	NONE		EXISTING DOOR IS ALUMINUM EXTERIOR DOOR.
125	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F1	HOLLOW METAL	P-1	NONE	NONE	HMH1	
126	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F1	HOLLOW METAL	P-1	NONE	NONE	HMH1	
127	1	3'-0"	7'-0"	1-3/4"	D1	ST-1	NONE	F1	HOLLOW METAL	P-1	NONE	NONE	HMH1	

ROOM FINISH SCHEDULE

NO.	ROOM NAME	FLOOR MAT'L	BASE FINISH	NORTH WALL FINISH	EAST WALL FINISH	SOUTH WALL FINISH	WEST WALL FINISH	REMARKS
100	OFFICE	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
100A	WORK ROOM	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
100B	IT	SC-1	VWB-1	PT-1	PT-1	PT-1	PT-1	APPLY 3/4" PLYWOOD TO STUDS IN LIEU OF GYPSUM BOARD ON ALL WALLS
101	JANITOR	E.T.R.	E.T.R.	PT-1	PT-1	PT-1	PT-1	
102	MENS	T-1	T-1	T-2 / PT-1	T-2 / PT-1	T-2 / PT-1	T-2 / PT-1	
103	WOMENS	T-1	T-1	T-2 / PT-1	T-2 / PT-1	T-2 / PT-1	T-2 / PT-1	
104	CLASSROOM	CPT-1	VWB-1	PT-1	PT-1	PT-2	PT-1	
105	CLASSROOM	CPT-1	VWB-1	PT-1	PT-1	PT-2	PT-1	
106	GENERATOR	E.T.R.	E.T.R.	PT-1	PT-1	PT-1	PT-1	
107	OFFICE	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
108	STORAGE	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
109	CLASSROOM	CPT-1	VWB-1	PT-2	PT-1	PT-1	PT-1	
110	CORRIDOR	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
110A	OFFICE	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
110B	OFFICE	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
111	CLASSROOM	CPT-1	VWB-1	PT-2	PT-1	PT-1	PT-1	
112	CORRIDOR	CPT-1/CT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
113	CLASSROOM	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-2	
114	CORRIDOR	CPT-1/CT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
115	LOBBY	CPT-1/CT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	DONOR WALL TO BE PAINTED PT-3
116	WAITING	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
117	SECURITY	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
118	RECEPTION	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	PROVIDE CPT-1 TO ENTRYWAY TO CORRIDOR, PROVIDE TRANSITION STRIP AS NECESSARY BETWEEN EXISTING CARPET AND CPT-1
119	OFFICE	CPT-1	VWB-1	PT-1	PT-1	PT-1	PT-1	
120	OFFICE	E.T.R.	E.T.R.	E.T.R.	E.T.R.	E.T.R.	E.T.R.	
121	OFFICE	E.T.R.	E.T.R.	E.T.R.	E.T.R.	E.T.R.	E.T.R.	
122	CORRIDOR	E.T.R.	E.T.R.	E.T.R.	E.T.R.	E.T.R.	E.T.R.	

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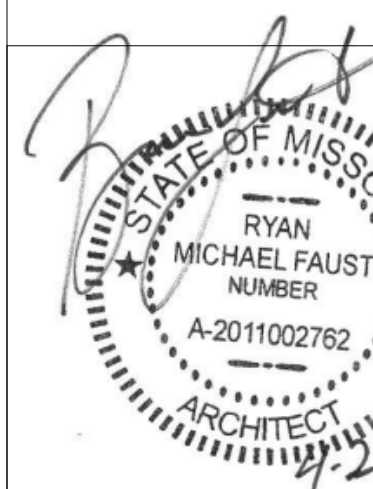
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REVISIONS
NO. DATE DESCRIPTION

PROJECT NUMBER: 15088
RELEASE DATE: 04/27/2016

SCHEDULES

A6.00

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GENERAL PLUMBING NOTES

1. ALL DRAWINGS ARE DIAGRAMMATIC AND ARE NOT TO BE SCALED. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS.
2. ALL PLUMBING WORK IS TO BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2012 INTERNATIONAL PLUMBING CODE.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL STATE AND LOCAL BUILDING REGULATION AGENCIES AND UTILITY COMPANIES IN THE PROCUREMENT OF AND PAYMENT OF ALL PERMITS, LICENSES, FEES AND CHARGES REQUIRED FOR THE PERFORMANCE OF THE WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL FEES AND DIRECT EXPENSES INVOLVED IN ANY INSPECTION REQUIRED FOR THE PROJECT.
5. SEE SPECIFICATION SECTION "CONTRACT CLOSE-OUT AND COMMISSIONING" FOR WORK REQUIRED TO COMPLETE THIS PROJECT.
6. PIPING MATERIAL SHALL BE AS CALLED FOR IN THE SPECIFICATIONS OR AS DETAILED ON THE DRAWINGS.
7. VALVES ON WATER LINES SHALL BE BRONZE BALL VALVES. DO NOT SUBSTITUTE GATE OR GLOBE VALVES. VALVES SHALL BE THE SAME SIZE AS THEIR INLET PIPING.
8. ALL PLUMBING FIXTURES ARE TO BE FURNISHED COMPLETE WITH NECESSARY STOPS, TRAPS, TAILPIECES, TRIM, ETC.
9. THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS WORK WITH THE WORK OF OTHER CONTRACTORS ON THE PROJECT. COORDINATION DOES NOT MEAN IT WAS HERE FIRST.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A COMPLETE AND FUNCTIONAL SYSTEM IN ACCORDANCE WITH THE INTENT OF THE PLANS, WHETHER OR NOT EVERY ELEMENT THEREOF IS SPECIFICALLY CALLED OUT.
11. DO NOT INSTALL CAPPED AIR CHAMBERS AT FIXTURES. INSTALL WATER HAMMER ARRESTERS AS CALLED FOR ON PLAN. ARRESTERS ARE TO BE RATED FOR INSTALLATION IN CONCEALED LOCATIONS.
12. ALL HOT AND COLD WATER SUPPLY PIPING CONNECTION TO FIXTURES ARE TO BE 1/2" UNLESS NOTED OTHERWISE.
13. ALL VENT PIPING IS TO BE 1-1/2" UNLESS NOTED OTHERWISE.
14. PLUMBING PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL PANELS. PROVIDE REQUIRED CLEARANCES PER "N.E.C." COORDINATE ELECTRICAL PANELS LOCATIONS WITH THE ELECTRICAL CONTRACTOR.
15. PIPE INSULATION SHALL BE AS CALLED FOR IN THE SPECIFICATIONS OR AS DETAILED ON THE DRAWINGS.
16. CONTRACTOR SHALL PROVIDE ONE YEAR WARRANTY ON ALL WORK PERFORMED.
17. PROVIDE CHROME ESCUTCHEON COVERPLATES AT ALL PIPE PENETRATIONS OF FINISHED WALL SURFACES.
18. PLUMBING CONTRACTOR SHALL INFORM THE ELECTRICAL CONTRACTOR OF THE VOLTAGE AND POWER REQUIREMENTS OF ALL PLUMBING EQUIPMENT TO BE INSTALLED.
19. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ROUTE ALL WATER PIPING AROUND SPACES WITH TEMPERATURES BELOW FREEZING (i.e. ATTICS, CHASES, EXTERIOR WALLS, ETC.). IF FREEZING OF ANY WATER PIPING OCCURS IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO REPAIR THE PIPING THRU A NON-FREEZING SPACE TO THE FIXTURE/APPLIANCE ORIGINALLY SERVED BY THE FROZEN PIPING.
20. ALL CHALKING ON BUILDING PENETRATIONS SHALL BE ELASTOMERIC POLYURETHANE (NO EXCEPTIONS) EQUAL TO "VALKEM" 116. ANY CONTRACTOR WHO USES SILICONE OR ANY OTHER CHALKING WILL BE REQUIRED TO REMOVE AND REPLACE WITH ELASTOMERIC POLYURETHANE.
21. INSTALL ACCESS PANELS OR DOORS WHERE EQUIPMENT AND/OR VALVES ARE LOCATED IN CONCEALED SPACES.
22. ALL WATER HEATERS AND HOT WATER STORAGE TANKS SHALL HAVE A DRAIN VALVE INSTALLED AT THE BOTTOM OF THE TANK AS REQUIRED BY CODE.
23. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH PLUMBING SUBMITTALS CONTAINING INFORMATION SHEETS ON ALL PLUMBING FIXTURES, PIPE, MATERIALS, VALVES, AND ALL INDIVIDUAL ITEMS SPECIFIED IN NOTES ON THE PLANS.
24. BEFORE BEING PLACED IN SERVICE AND AFTER TESTING IS COMPLETED, ALL POTABLE WATER PIPING SHALL BE CHLORINATED AS SPECIFIED HEREIN, IN ACCORDANCE WITH AWWA STANDARD C651 OR AWWA C652 AND AS REQUIRED BY THE LOCAL HEALTH DEPARTMENT CODES.

PLUMBING LEGEND

---	COLD WATER
---	HOT WATER
---	WASTE
---	WASTE (BELOW GRADE)
---	VENT
---	STORM DRAIN
---	CONDENSATE
---	GAS PIPING
---	BALL VALVE
---	BALANCING VALVE
---	MIXING VALVE
---	CHECK VALVE
---	WATER HAMMER ARRESTER (SEE PLUMBING FIXTURE SCHEDULE)
---	REDUCER
---	FLOOR DRAIN
---	CLEANOUT (INTERIOR)
---	CLEANOUT (EXTERIOR)
---	V.T.R. - VENT THROUGH THE ROOF

KEY NOTES

1. INSTALL C.O.1 ON EXISTING CLEANOUT PLUG. ADJUST TO GRADE AS REQUIRED.
2. RELOCATED EXISTING WATER COOLER.
3. REMOVE AND REPLACE FLOOR AS REQUIRED FOR NEW WASTE PIPING.
4. CONNECT TO EXISTING WASTE BELOW FLOOR.
5. REMOVE EXISTING WATER CLOSETS, LAVATORIES, AND FLOOR DRAINS FOR NEW TILE INSTALLATION. REPLACE EXISTING FIXTURES AT COMPLETION. EXISTING MOP BASIN TO REMAIN.
6. REMOVE EXISTING 4 GALLON WATER HEATER ABOVE MOP BASIN. CONNECT 3/4" HW AND CW TO NEW WATER HEATER, W.H.
7. CONNECT TO EXISTING 1/2" CW AND HW ABOVE LAVATORY, 2 PLACES.
8. CONNECT TO EXISTING 2-1/2" CW SUPPLY.
9. EXISTING 2-1/2" CW LINE AND 3" SERVICE TO REMAIN.
10. EXISTING HOSE BIBB AND PIPING ARE TO REMAIN.

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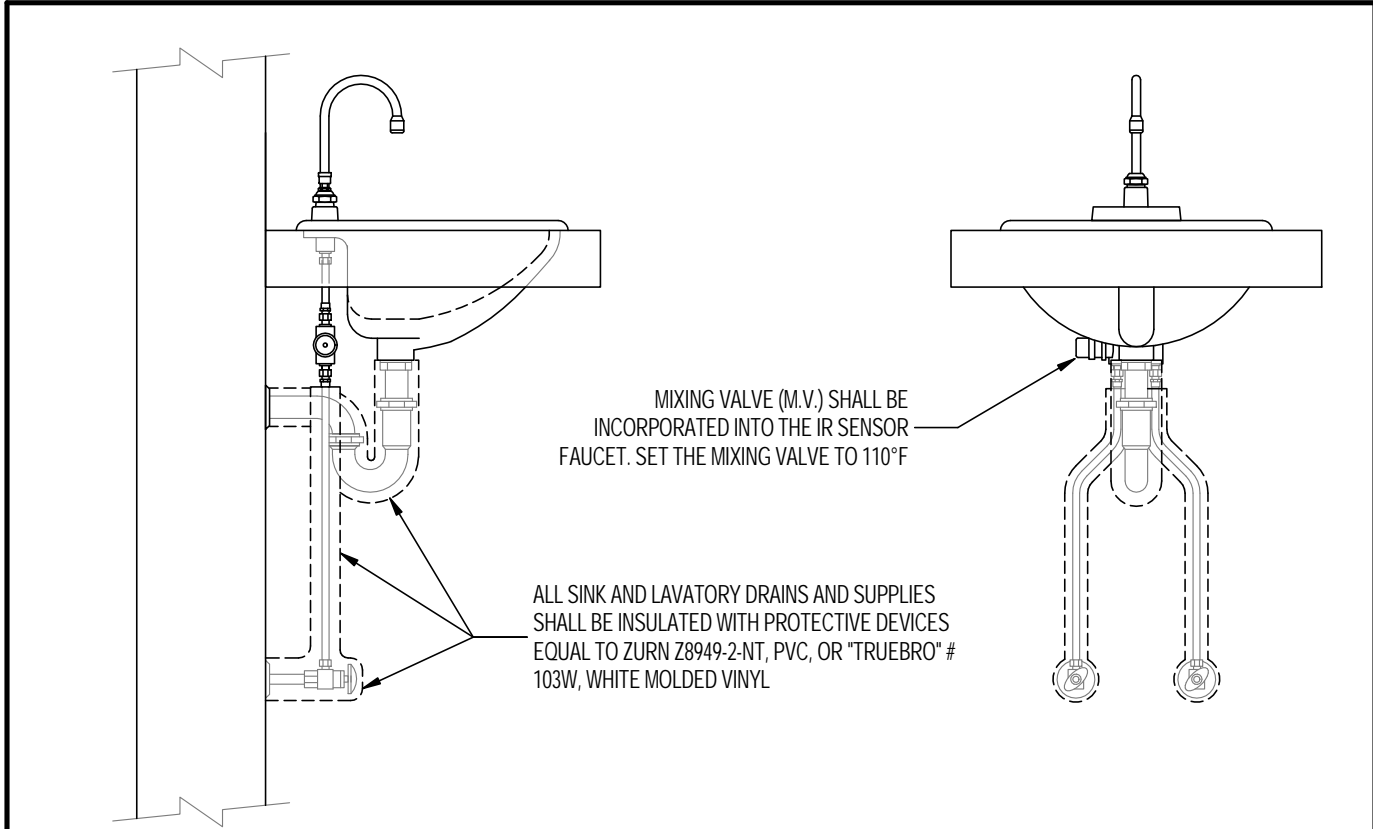
PLUMBING PLAN

P1.00

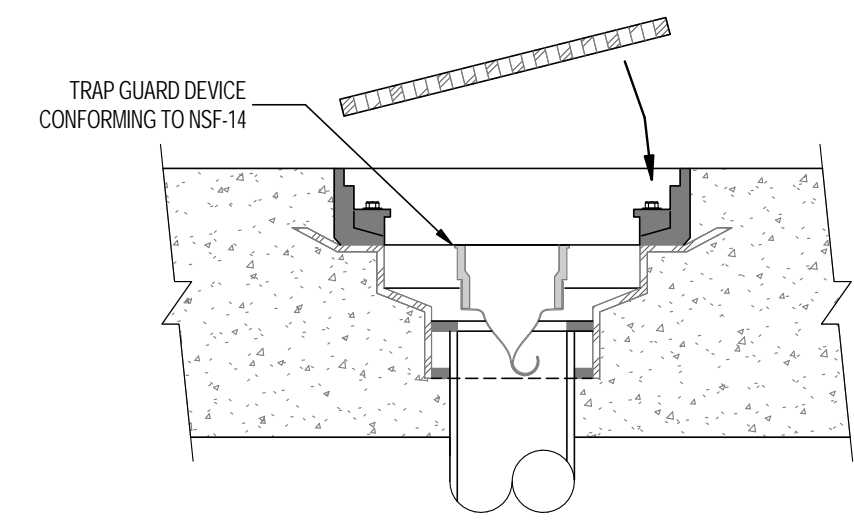
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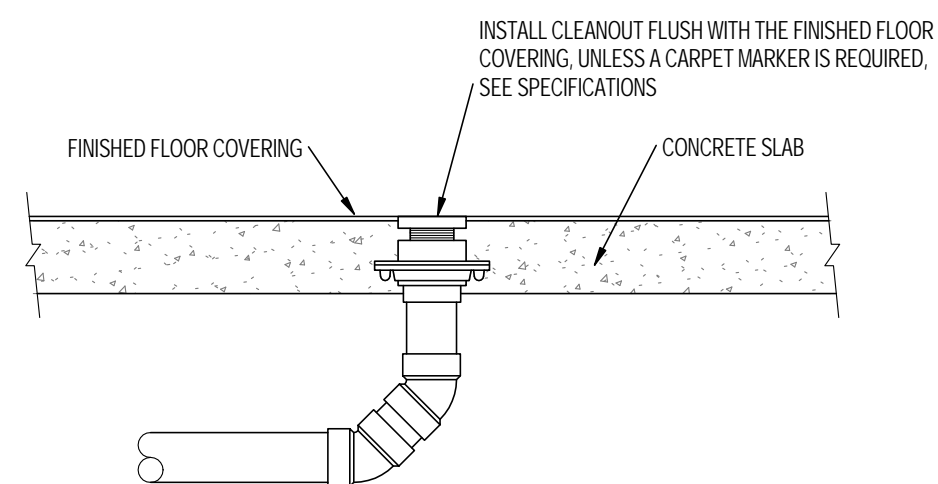
PLUMBING FIXTURE SCHEDULE									
MARK	DESCRIPTION	MFG.	MODEL	ACCESSORIES	WASTE	VENT	SUPPLY	COMMENTS	APPROVED MANUFACTURERS
C.LAV.	LAVATORY (COUNTERTOP)	ZURN	Z5114	WITH ZURN FAUCET Z6915-TMV-1 AQUASENSE FAUCET WITH THERMOSTATIC MIXING VALVE WITH 1.5 GPM AERATOR, #Z8743-PC GRID STRAINER	2"	1 1/2"	1/2"	COORDINATE ROUGH IN OF ALL PLUMBING FIXTURES WITH ARCHITECTURAL DRAWINGS. SINKS AND LAVATORIES FOR HANDICAPPED ACCESS SHALL BE INSTALLED WITH OFFSET TAILPIECES. ALL SINK AND LAVATORY DRAIN AND WATER LINES SHALL BE INSULATED WITH PROTECTIVE DEVICES EQUAL TO ZURN Z8946 KIT AS REQUIRED, OR "TRUEBRO" #103W, WHITE MOLDED VINYL.	TOTO, KOHLER, AND GERBER
C.O.1	CLEANOUT (EXTERIOR)	ZURN	ZN-1474-G		4"			SAME SIZE AS LINE	WADE AND JAY R. SMITH
F.D.	FLOOR DRAIN	ZURN	Z415-B	TRAP GUARD TG-33 ZURN	2"	1 1/2"			WADE AND JAY R. SMITH
T.E.A.	THERMAL EXPANSION ABSORBER	AMTROL	ST-5						
URN.	URINAL (WALL MOUNTED)	ZURN	Z5755-U	WITH ZURN #Z6003AV-EWS-YK 0.5 GAL. FLUSH VALVE WITH SOLID RING PIPE SUPPORT, ZURN Z1222 FLOOR MOUNTED URINAL SUPPORT	2"	1 1/2"	1"	COORDINATE ROUGH-IN OF ALL PLUMBING FIXTURES WITH ARCHITECTURAL DRAWINGS. URINAL CARRIER MAY BE OMITTED WHERE URINAL IS MOUNTED TO 6" MINIMUM MASONRY WALL.	TOTO AND KOHLER
W.C.	WALL MOUNT WATER CLOSET (FLUSH VALVE TYPE)	ZURN	Z5615	ZURN #Z6000AV-HET-YK 1.28 GAL FLUSH VALVE WITH SOLID RING PIPE SUPPORT, ZURN Z5950 WHITE OPEN FRONT SEAT COMPLETE WITH BOLT CAPS AND ZURN WALL CARRIER #Z1203 VERTICAL WALL CARRIER BACK TO BACK OR SINGLE AS REQUIRED. COORDINATE COUPLING LENGTH WITH CHASE DIMENSION.	4"	2"	1 1/4"	INSTALL RIM HEIGHT AT 15" AFF. COORDINATE ROUGH-IN OF ALL PLUMBING FIXTURES WITH ARCHITECTURAL DRAWINGS. PER ARCHITECTURAL ELEVATION VIEW FOR MOUNTING HEIGHT. INSTALL ALL ANCHOR BOLTS. PROVIDE EXTENDED FIXTURE BOLTS AS REQUIRED.	TOTO, KOHLER AND GERBER
W.H.	ELECTRIC TANK TYPE WATER HEATER	BRADFORD WHITE	LE240S3	WITH PRESSURE AND TEMPERATURE RELIEF VALVE AND WATER HEATER PAN			3/4"	40 GALLONS, 277V/1 PHASE, 4.5KW ELECTRIC	STATE AND RHEEM
W.H.A.	WATER HAMMER ARRESTOR	SIOUX CHIEF	653-B						WATTS
W.H.A.2	WATER HAMMER ARRESTOR	SIOUX CHIEF	653-D						WATTS



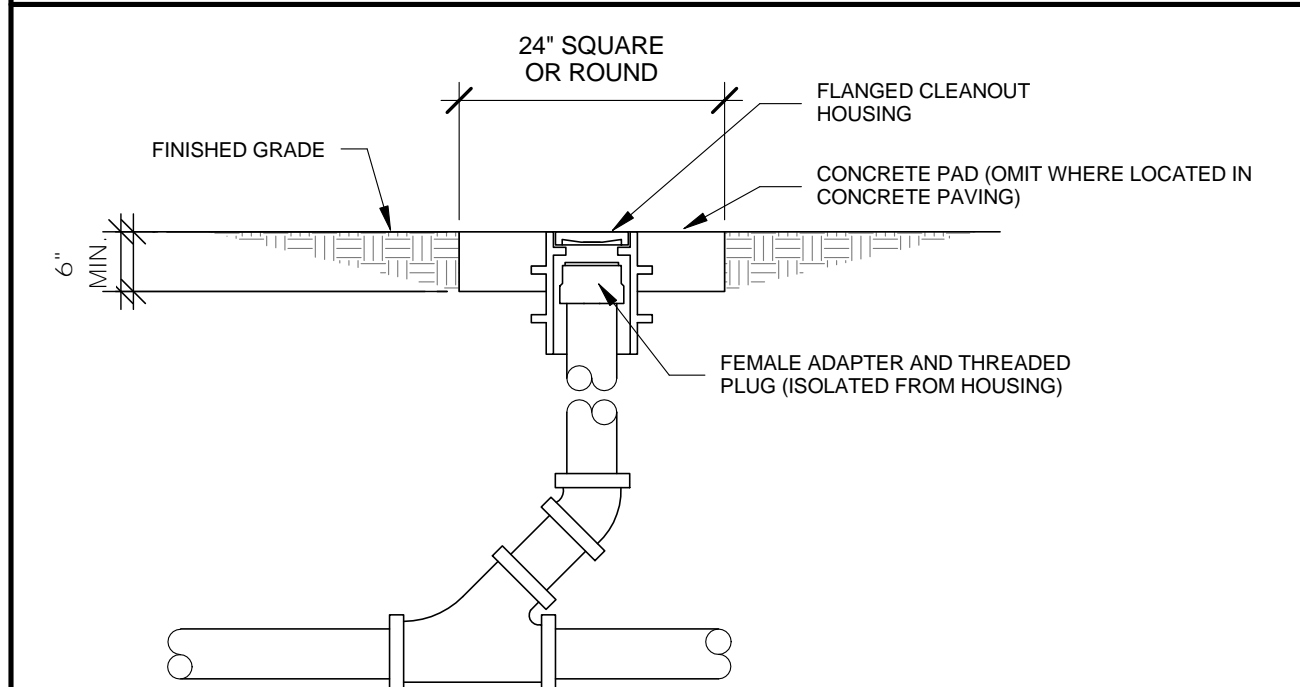
3 P2.00 LAVATORY INSTALLATION DETAIL N.T.S.



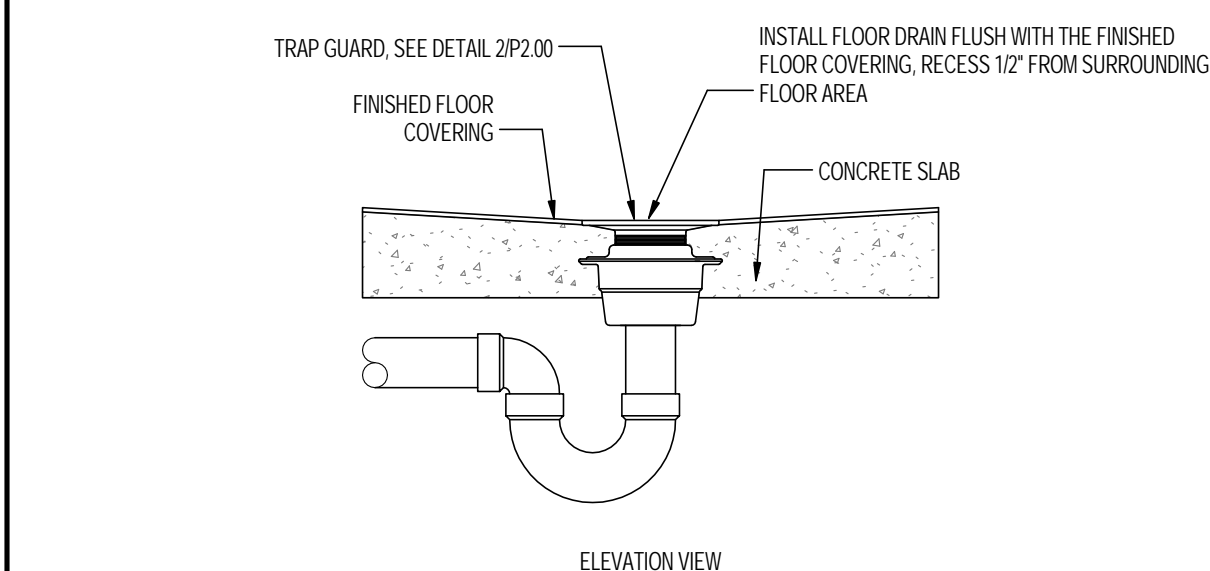
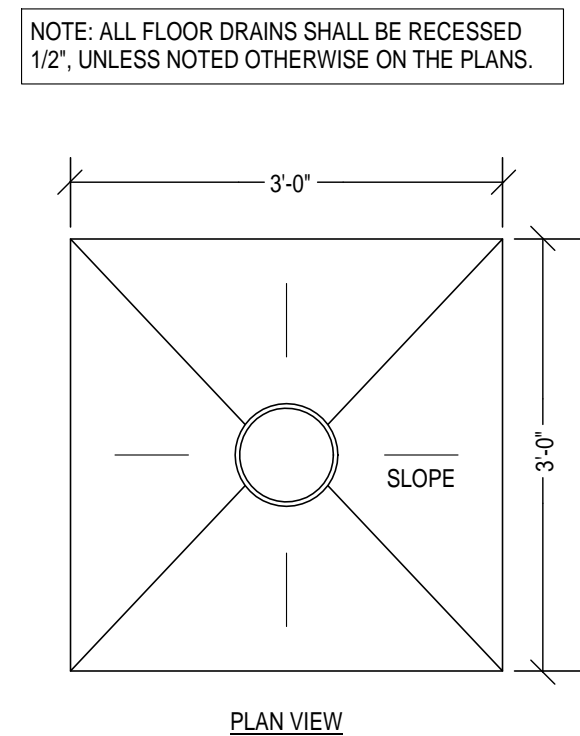
2 P2.00 TRAP GUARD DETAIL N.T.S.



5 P2.00 INTERIOR CLEANOUT DETAIL N.T.S.



4 P2.00 EXTERIOR CLEANOUT DETAIL N.T.S.



1 P2.00 FLOOR DRAIN DETAIL N.T.S.

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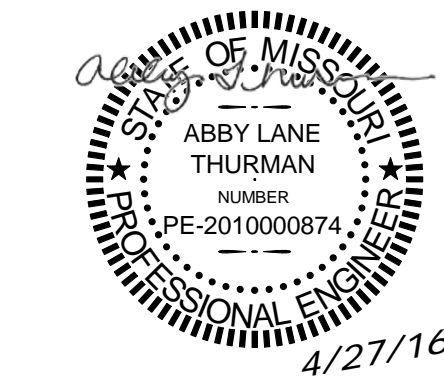
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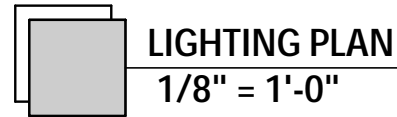
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




PLUMBING SCHEDULES
AND DETAILS

P2.00




LIGHTING SYMBOL LEGEND

- ALL SYMBOLS MAY NOT OCCUR ON THIS PROJECT
- COLOR OF ALL SWITCHES AND RECEPTACLES SHALL BE SELECTED BY OWNER ARCHITECT. COVERS/PLATES SHALL BE STAINLESS STEEL. EMERGENCY RECEPTACLES SHALL BE RED

$\a	SINGLE POLE SWITCH (WITH LOWERCASE SWITCH DESIGNATION WHERE REQUIRED)
$\a_2	2-POLE SWITCH (WITH LOWERCASE SWITCH DESIGNATION WHERE REQUIRED)
$\a_3	THREE-WAY SWITCH (WITH LOWERCASE SWITCH DESIGNATION WHERE REQUIRED)
$\a_4	FOUR-WAY SWITCH (WITH LOWERCASE SWITCH DESIGNATION WHERE REQUIRED)
	RECESSED OR SURFACE MOUNT LIGHT FIXTURE
	SURFACE MOUNT LIGHT FIXTURE
	RECESSED MOUNT LIGHT FIXTURE
	RECESSED LIGHT FIXTURE: WIRED FROM A GENERATOR OR BACKED UP SOURCE
	WALL OR CEILING MOUNT "EXIT" SIGN
	WALL MOUNT "EXIT" SIGN WITH SHADING INDICATING FACES)
	JUNCTION BOX

LIGHT FIXTURE AND TYPICAL CALL OUTS AS FOLLOWS:

A	= UPPERCASE LETTER INDICATES FIXTURE TYPE. REFER TO LIGHT FIXTURE SCHEDULE
1B	= NUMBER INDICATES FIXTURE NUMBER
a	= LOWERCASE LETTER INDICATES SWITCH DESIGNATION (ONLY USED WHERE A SWITCH NOT APPARENT)
NULC	= FIXTURE COMMENTS, REFER TO ELECTRICAL ABBREVIATIONS



1B

NULC

ELECTRICAL NOTES

1. ALL DRAWINGS ARE DIAGNOSTIC AND ARE NOT TO BE SCALED. SEE THE ARCHITECTURAL PLANS AND FIELD VERIFY FOR CONDITIONS FOR DIMENSIONS.
2. ALL ELECTRICAL WORK SHALL COMPLY WITH THE 2017 NEC.
3. THE CONTRACTOR SHALL COORDINATE WITH ALL STATE AND LOCAL BUILDING REGULATION AGENCIES AND UTILITY COMPANIES IN THE PROCUREMENT OF AND PAYMENT OF ALL PERMITS, LICENSES, FEES AND CHARGES REQUIRED FOR THE PERFORMANCE OF THE WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL FEES AND DIRECT EXPENSES INVOLVED IN ANY INSPECTION REQUIRED FOR THE PROJECT.
5. SEE SPECIFICATION SECTION "CONTRACT CLOSE-OUT AND COMMISSIONING" FOR WORK REQUIRED TO COMPLETE THIS PROJECT.
6. ALL WIRING SHALL BE IN CONDUIT. ALL UNDERGROUND CONDUIT SHALL BE PVC, SCHEDULE 40 WITH RGS EELS. EXPOSED OUTDOOR CABLES SHALL BE IN RGS. ALL INTERIOR CONDUIT SHALL BE EMT ABOVE GROUND, OR RCP OR CPVC CABLE EXPOSED ONLY IN AREAS OF ENLIGHTENMENT ONLY. AT THE LOCATIONS SHOWN ON THE "ALLOWABLE BAYWAY INSTALLATIONS" DETAIL, FOOD SERVICE EQUIPMENT, APPLIANCES AND EQUIPMENT WITH MOTORS SHALL BE FLEXIBLE METALLIC CONDUIT, FLEXIBLE METALLIC CONDUIT NOT ALLOWED FOR "HOME RUN" CIRCUITS BEYOND PERIMETER OF ROOM WHERE LEAD IS SERVED.
7. COORDINATE ALL WORK WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATION DOES NOT MEAN "I WAS HERE FIRST".
8. ALL WIRING IN FINISHED SPACES SHALL BE CONCEALED. UNLESS NOTED OTHERWISE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A COMPLETE AND FUNCTIONAL SYSTEM IN ACCORDANCE WITH THE INTENT OF THE PLANS), WHETHER OR NOT ANY ELEMENT THEREOF IS SPECIFICALLY CALLOUTED.
10. ALL BRANCH CIRCUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUIT ROUTED WITH THE CIRCUIT CONDUITS THROUGHOUT. THIS MEANS THAT ALL CONDUITS MUST HAVE A "GREEV" WIRE INSTALLED IN THEM AND SEND IN ACCORDANCE WITH TABLE 250.122 OF THE NEC.
11. CONTRACTOR SHALL VERIFY THE POWER REQUIREMENTS OF ALL PLUMBING AND HVAC EQUIPMENT PRIOR TO ROUGHING IN AND PRIOR TO EQUIPMENT BEING INSTALLED. ELECTRICAL CHARACTERISTICS OF INSTALLED PLUMBING AND HVAC EQUIPMENT MAY VARY FROM CHARACTERISTICS OF EQUIPMENT SPECIFIED.
12. ON 20/240 VOLT THREE PHASE ELECTRICAL SYSTEMS ALL 120/240 VOLT ELECTRICAL CONNECTIONS SHALL BE VERIFIED FOR PROPER CORRECTED VOLTAGE, AND PHASING BEFORE EQUIPMENT STARTUP.
13. ALL OUTLET BOXES SHALL BE METALLIC.
14. RECEPTACLES INSTALLED IN RESTROOMS AND KITCHENS SHALL BE GFCI TYPE OR SHALL BE PROTECTED BY A GFCI DEVICE.
15. BRANCH CIRCUITS FEEDING EMERGENCY ILLUMINATION UNITS SHALL BE THE SAME BRANCH CIRCUIT AS THAT SERVING THE NORMAL LIGHTING IN THAT AREA AND CONNECTED ALONG OF ANY LOCAL SWITCHES. SEE NOTE 700.40.
16. IF THE BUILDINGS HVAC SYSTEM UTILIZES THE PLUMBING ABOVE THE CEILING FOR RETURN AIR THEN THE E.C. SHALL AVOID THE INSTALLATION OF ANY COMBUSTIBLE INSULATION, PVC CONDUIT AND LOW VOLTAGE WIRING THAT IS NOT RATED FOR USE IN PLUMBING.
17. MULTITRACE BRANCH CIRCUITS WITH A "SHARED NEUTRAL" ARE NOT ALLOWED FOR SINGLE PHASE CIRCUITS.

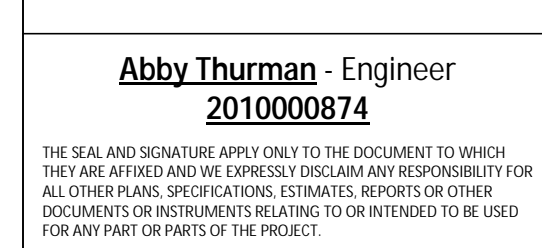
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[illegible]

LIGHTING PLAN

E1.00



FIRE ALARM PLAN
1/8" = 1'-0"

POWER PLAN
1/8" = 1'-0"

FIRE ALARM SYMBOL LEGEND

- FACP** FIRE ALARM CONTROL PANEL (FACP) WITH 120V POWER AND TWO PAIR TELEPHONE CABLE TO TELEPHONE EQUIPMENT LOCATION.
- RA** REMOTE ANNUNCIATOR PANEL (RA)
- RPS** REMOTE POWER SUPPLY (RPS) WITH ADDRESSABLE CONTROL MODULE. COORDINATE LOCATIONS AND 120V POWER REQUIREMENTS WITH E.C.
- FIRE ALARM MANUAL PULL STATION
- ⊙** SMOKE DETECTOR
- ⊙** ADDRESSABLE FIRE ALARM SMOKE DUCT DETECTOR (SEE MECHANICAL FOR LOCATIONS)
- ⊙** HEAT DETECTOR
- ⊙** WALL MOUNTED SYNCHRONIZED FIRE ALARM AV DEVICE (HORN/STROBE) WITH SELECTABLE CANDELA UNLESS OTHERWISE SPECIFIED. E.C. SHALL COORDINATE WITH E.C. DEPTH OF BOX AND BOX EXTENSION.
- ⊙** WHITE CEILING MOUNTED SYNCHRONIZED FIRE ALARM AV DEVICE (HORN/STROBE) WITH SELECTABLE CANDELA UNLESS OTHERWISE SPECIFIED.
- ⊙** WALL MOUNTED SYNCHRONIZED FIRE ALARM STROBE (VISUAL ONLY) WITH SELECTABLE CANDELA UNLESS OTHERWISE SPECIFIED.
- ⊙** WHITE CEILING MOUNTED SYNCHRONIZED FIRE ALARM STROBE (VISUAL ONLY) WITH SELECTABLE CANDELA UNLESS OTHERWISE SPECIFIED.
- R** RELAY
- ⊙** FIRE ALARM WHITE CEILING MOUNTED SPEAKER
- ⊙** INDIVIDUAL ADDRESSABLE MODULE
- W** WIREGUARD, PROVIDE AND INSTALL WITH FIRE ALARM DEVICE
- ES** FLOW SWITCH
- ES** TAMPER SWITCH

FIRE ALARM NOTES

1. FIRE ALARM CONTROL PANEL SHALL PROVIDE A POINT ADDRESSABLE SYSTEM.
2. SEE SPECIFICATIONS FOR EQUIPMENT AND DEVICES.
3. DIAGRAM IS NOT INTENDED TO SHOW EXACT WIRING. REFER TO FIRE ALARM MANUFACTURER'S WIRING DIAGRAM.
4. ALARM CIRCUIT IS SHOWN FOR CONCEPT ONLY. WIRING SHALL BE AS REQUIRED BY POWER REQUIREMENTS.
5. E.C. SHALL COORDINATE POWER REQUIREMENTS AND LOCATIONS FOR AUXILIARY POWER SUPPLIES WITH FIRE ALARM CONTRACTOR DURING FIRE ALARM SYSTEM INSTALLATION.
6. AUTOMATIC FIRE ALARM SYSTEM SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION. SUPERVISION OF THE SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY THE OWNER.
7. FIRE ALARM CONTROL PANEL AND NAC POWER PANELS SHALL BE A DEDICATED 20AMP BREAKER. THE BREAKER SHALL BE PAINTED RED AND LOCKABLE.
8. MANUAL PULL STATIONS, BREAK GLASS TYPE IS NOT AN OPTION.
9. SMOKE DETECTORS SHALL BE THE PHOTOELECTRIC TYPE.
10. SMOKE AND HEAT DETECTORS SHALL BE PROTECTED DURING DUSTY/DIRTY CONSTRUCTION CONDITIONS.
11. DETECTORS SHALL NOT BE INSTALLED WITHIN 36" OF SUPPLY REGISTERS.
12. DETECTORS SHALL NOT BE INSTALLED WITHIN 36" OF THE TIP OF THE BLADE OF A CEILING FAN.
13. DUCT DETECTORS SUPPLIED, INSTALLED AND WIRED BY FIRE ALARM CONTRACTOR (TYPICAL).
14. INSTALL REMOTE TEST SWITCH FOR DUCT DETECTORS IN ACCESSIBLE LOCATION. FIRE ALARM CONTRACTOR TO VERIFY LOCATION ON SITE.
15. FIRE ALARM WIRING SHALL BE IN EMT CONDUIT WHEREVER IT IS EXPOSED BELOW 15' AFF.
16. DELAYED EGRESS DOORS SHALL UNLOCK.
17. A SURGE ARRESTER SHALL BE INSTALLED ON ANY FIRE ALARM CIRCUIT EXTENDING OUTSIDE THE BUILDING ENVELOPE.
18. EXISTING FIRE ALARM CONTROL PANEL IN MAIN CAMPUS BUILDING AND THE NEW FIRE ALARM CONTROL PANEL IN THE FEMA SHELTER INFILL SHALL COMMUNICATE WITH EACH OTHER. PANELS SHALL INDICATE WHEN THE OTHER PANEL IS IN SUPERVISORY, ALARM OR TROUBLE MODE. FIRE ALARM CONTRACTOR SHALL INSTALL DEVICES (ADDRESSABLE MODULES, NEW ZONES, ETC.) TO ACCOMPLISH THIS. ALL LOW VOLTAGE WIRING BETWEEN BUILDINGS BY FIRE ALARM CONTRACTOR AND ALL LINE VOLTAGE WIRING BY E.C. WIRING BETWEEN BUILDINGS SHALL BE INSTALLED IN EXISTING 4" CONDUIT. COORDINATE WITH ALL DISCIPLINES (HVAC) WHICH CONDUIT IS AVAILABLE FOR ELECTRICAL WIRING BETWEEN BUILDINGS.

POWER SYMBOL LEGEND

- ALL SYMBOLS MAY NOT OCCUR ON THIS PROJECT
- COLOR OF ALL SWITCHES AND RECEPTACLES SHALL BE SELECTED BY OWNER/ARCHITECT. COVERPLATES SHALL BE STAINLESS STEEL. EMERGENCY RECEPTACLES SHALL BE RED.
- ⊙** STANDARD DUPLEX RECEPTACLE (WITH NUMERICAL CIRCUIT DESIGNATION WHERE REQUIRED)
- ⊙** GFI (GROUND FAULT INTERRUPTING) DUPLEX RECEPTACLE (WITH NUMERICAL CIRCUIT DESIGNATION WHERE REQUIRED)
- ⊙** GFI DUPLEX RECEPTACLE WITH IN USE WEATHER COVER (WITH NUMERICAL CIRCUIT DESIGNATION WHERE REQUIRED)
- ⊙** POWER DATA DEVICE MOUNTED FLUSH IN CEILING (WITH NUMERICAL CIRCUIT DESIGNATION WHERE REQUIRED)
- ⊙** THREE GANG RECESSED TV BOX EQUAL TO "PASS & SEYMOUR TVLWITWOCZ" WITH DATA AND POWER DEVICES AS REQUIRED. COORDINATE EXACT HEIGHT AND LOCATION WITH OWNER PRIOR TO ROUGHING IN TO CORRELATE BEHIND WALL MOUNTED ALL-IN-ONE P.C.S.
- ⊙** QUADPLEX RECEPTACLE (TWO DUPLEX RECEPTACLES IN ONE 2-GANG BOX UNDER A SINGLE COVERPLATE. WITH NUMERICAL CIRCUIT DESIGNATION WHERE REQUIRED)
- ⊙** COMBINATION/COMMUNICATION/OUTLET DATA OUTLET BOX WITH 3/4" CONDUIT STUBBED INTO CEILING SPACE. VERIFY EXACT LOCATION. INSTALL PULL STRING WITH 12" OF EXCESS COILED AT EACH END OF CONDUIT RUN. SEE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ⊙** DATA OUTLET BOXES FOR PROJECTOR ANY CONNECTIONS. BOXES SHALL BE INSTALLED THE SAME AS STANDARD DATA BOX WITH THE FOLLOWING EXCEPTION: 3/4" CONDUIT SHALL BE ROUTED BETWEEN ONE OF THE DATA BOXES IN THE CEILING MOUNTED PROJECTOR PLATE AND THE DATA BOX INDICATED BEHIND TEACHERS STATION. COORDINATE EXACT REQUIREMENTS AND DESIRED LOCATIONS WITH OWNER.
- ⊙** DATA BOX IN OWNER PROVIDED PROJECTOR PLATE FOR PROJECTOR DATA CONNECTION
- ⊙** CEILING MOUNTED DATA BOX FOR WIRELESS ACCESS POINT DEVICE
- ⊙** DATA PORT FOR CLOCK. INSTALL SAME AS STANDARD DATA BOX EXCEPT LOCATED ABOVE WHITE BOARD. FIELD VERIFY EXACT HEIGHT.
- ⊙** SPECIAL RECEPTACLE. VERIFY CONFIGURATION
- ⊙** CEILING MOUNTED SECURITY CAMERA LOCATION. E.C. SHALL PROVIDE A BOX AND ROUTE 3/4" CONDUIT TO WITHIN NEAREST CABLE TRAY. COORDINATE EXACT REQUIREMENTS WITH OWNER AND SECURITY DEVICE INSTALLER PRIOR TO ROUGHING IN.
- ⊙** NON FUSED DISCONNECT (SAFETY) SWITCH WITH AMPACITY AS INDICATED
- ⊙** FUSED DISCONNECT (SAFETY) SWITCH WITH AMPACITY AS INDICATED
- ⊙** JUNCTION BOX
- ⊙** RELAY. SEE DETAIL OR DESCRIPTIVE TEXT ON PLAN FOR MORE INFORMATION
- ⊙** LIGHTING RELAY CONTROL DEVICE (LRCD). REFER TO EMERGENCY LIGHT FIXTURE WIRING DIAGRAM DETAIL 2E3.00.
- ⊙** POWER OR LIGHTING PANEL WITH PANEL DESIGNATION SHOWN ON PLAN (SIZES AND MOUNTING INDICATED ON PLANS)
- ⊙** FEEDING PANEL AND CIRCUIT NUMBERS (NOTE: EQUIPMENT GROUND/CONDUCTOR NOT SHOWN)
- ⊙** CIRCUIT CONDUCTORS
- ⊙** GROUNDING CIRCUIT CONDUCTOR (OR NEUTRAL)

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ABBY THURMAN
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REVISIONS
NO. DATE DESCRIPTION

PROJECT NUMBER: 15088
RELEASE DATE: 04/27/2016

POWER AND FIRE ALARM PLAN

E2.00

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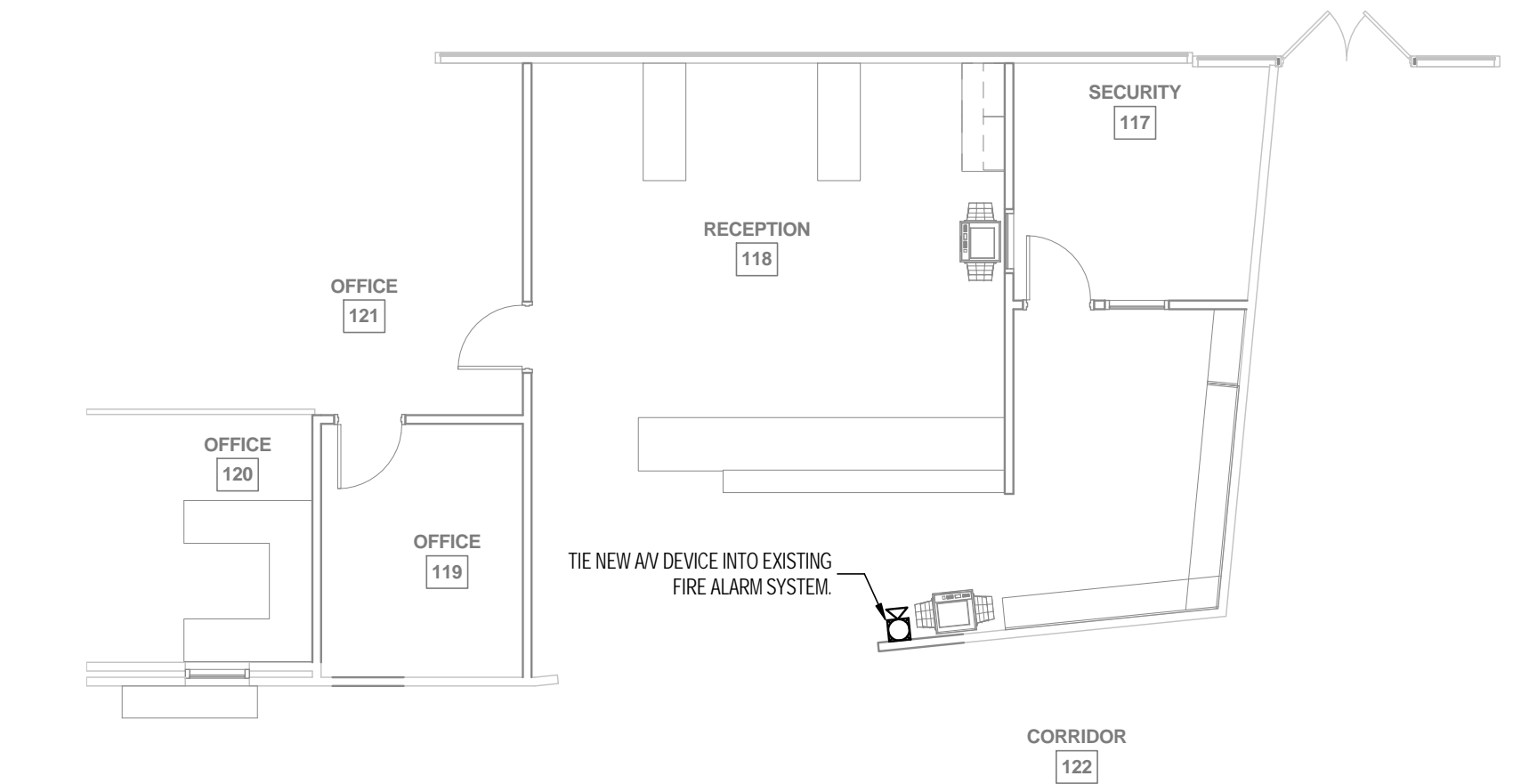
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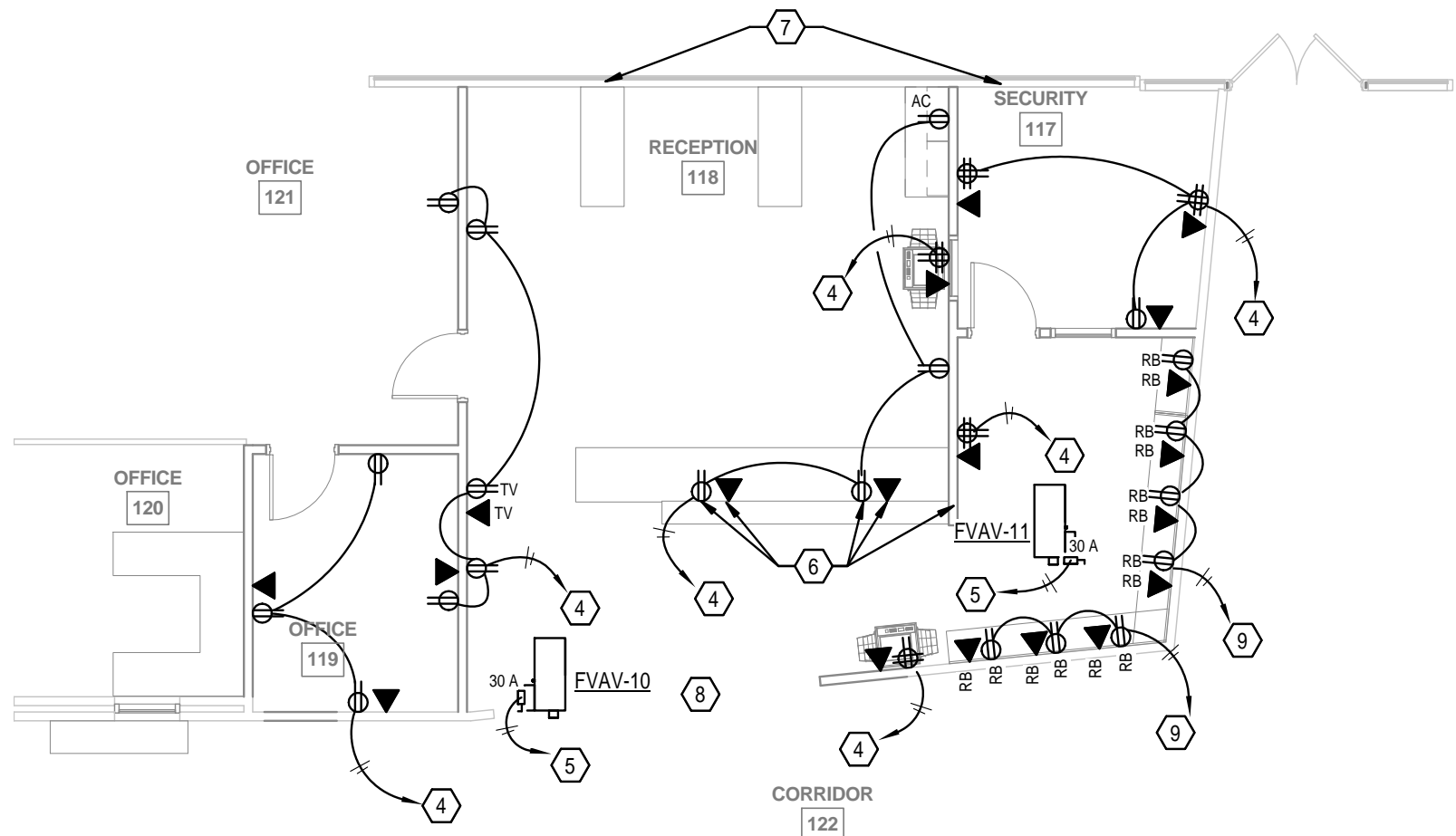
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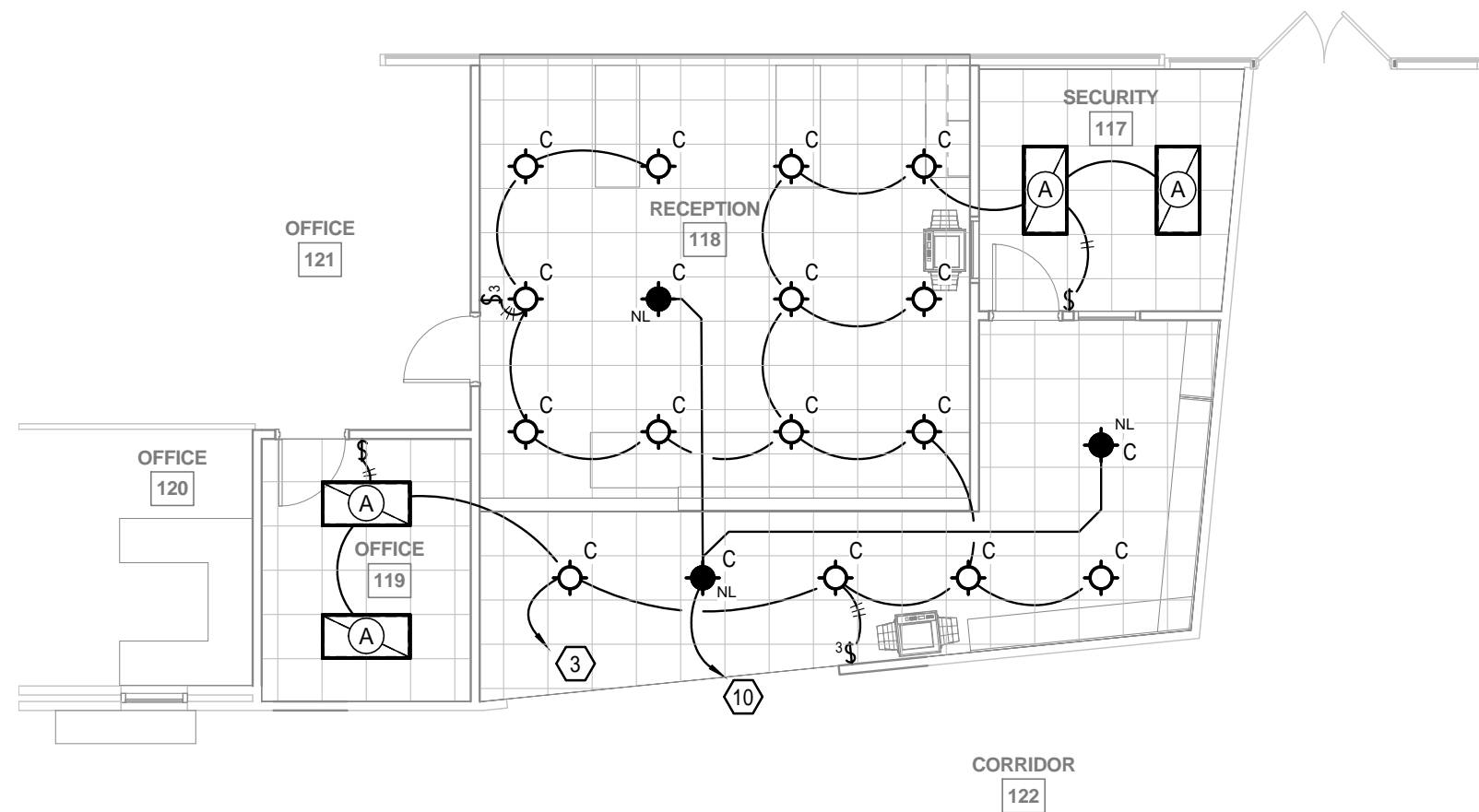
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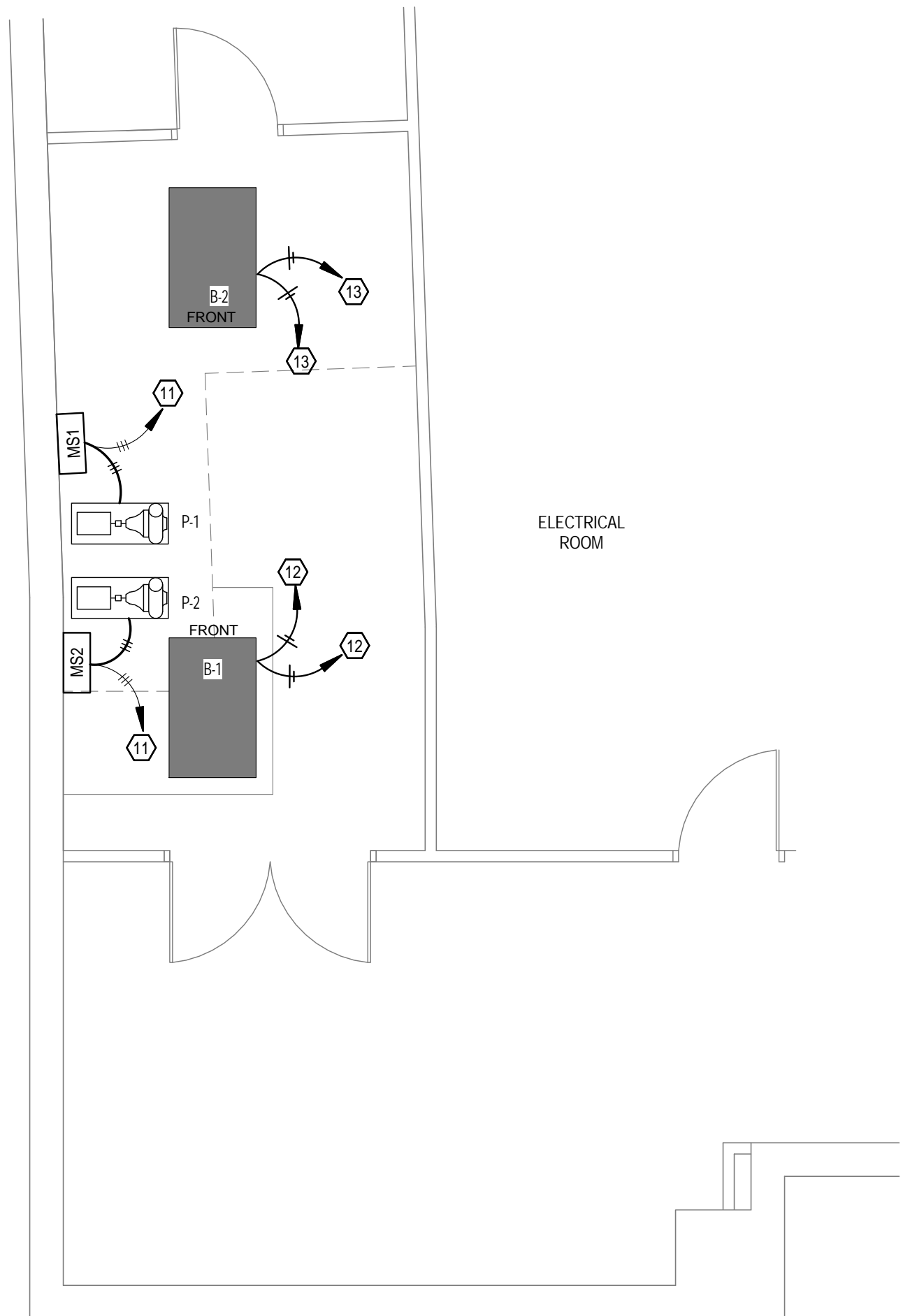
FIRE ALARM PLAN - ALTERNATE #1
1/8" = 1'-0"



POWER PLAN - ALTERNATE #1
1/8" = 1'-0"



LIGHTING PLAN - ALTERNATE #1
1/8" = 1'-0"

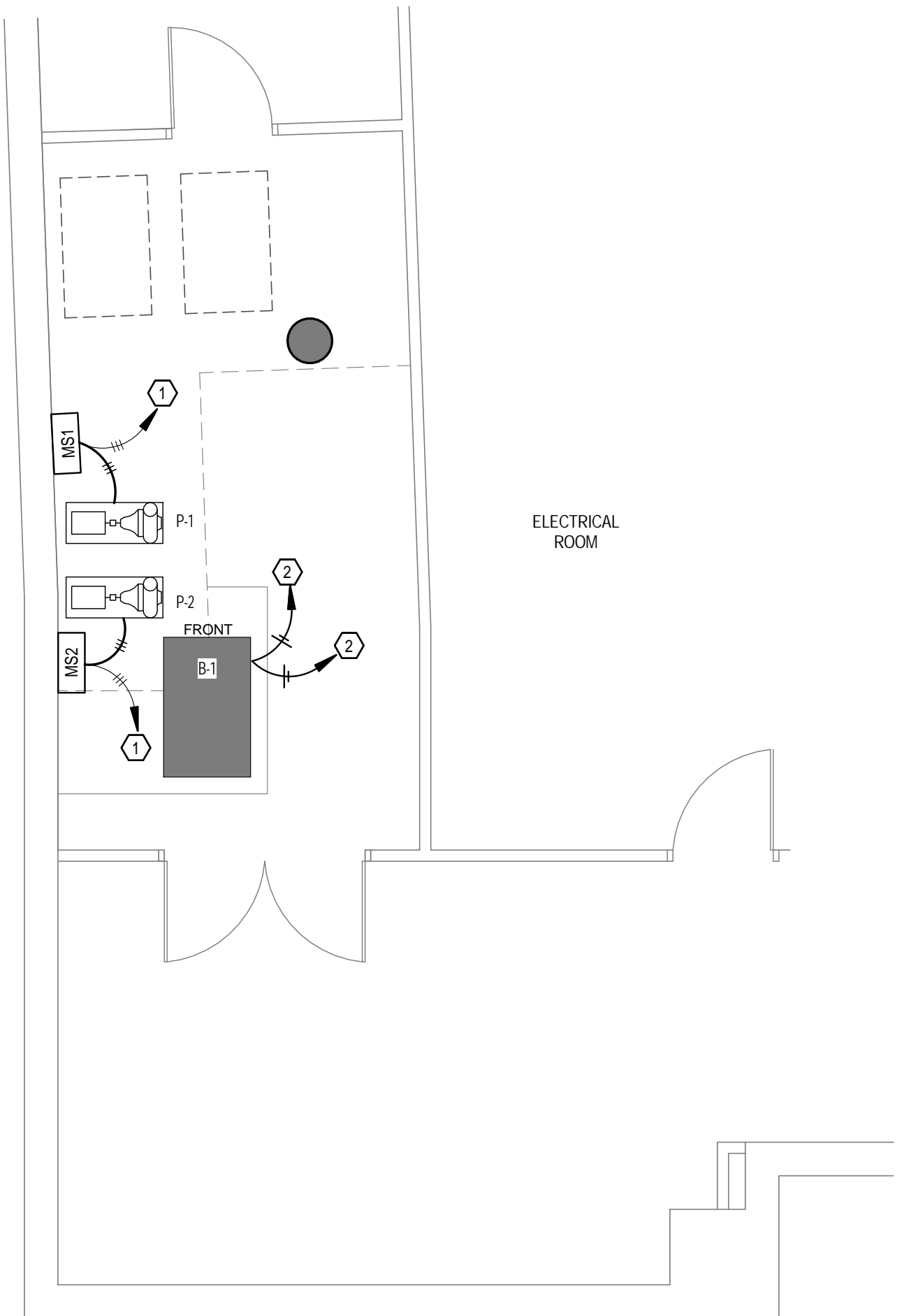


BOILER ROOM - ALTERNATE #2
1/4" = 1'-0"

- ALTERNATE#2 ELECTRICAL KEY NOTES**
- 1. REPLACE EXISTING 15A/2P BREAKER IN PANEL "A1" PREVIOUSLY FEEDING PLUMB WITH NEW 20A/2P BREAKER. REPLACE AND INCREASE ALL CIRCUITRY TO #12S WIRES. REPLACE AND INCREASE EXISTING MOTOR STARTER WITH STARTER RATED FOR MINIMUM OF 7.5 HP (IF EXISTING STARTER IS RATED HIGH ENOUGH, REUSE). FIELD VERIFY EXACT REQUIREMENTS.
 - 2. PROVIDE AND INSTALL NEW 20A/1P BREAKER (USE EXISTING SPARE IF AVAILABLE) IN EXISTING PANEL "GP". WIRE USING #12S BOILER CONTROL CIRCUIT SHALL BE TIED INTO EXISTING EMERGENCY SHUTOFF SWITCHES). FIELD VERIFY EXACT LOCATIONS AND REQUIREMENTS.
 - 3. REUSE EXISTING 20A/1P CIRCUITS FROM DEMOLISHED BOILERS. EXTEND/REROUTE CIRCUITRY AS REQUIRED TO NEW BOILER. E.C. SHALL CONFIRM THAT BOILER CONTROL CIRCUIT IS PROPERLY TIED INTO EXISTING EMERGENCY SHUTOFF SWITCHES). FIELD VERIFY EXACT REQUIREMENTS.

ALTERNATE #1 ELECTRICAL KEY NOTES

- NOTE:**
EXISTING POWER/DATA LOCATIONS NOT SHOWN. E.C. SHALL NOT REMOVE ANY EXISTING POWER/DATA IN EXISTING WALLS UNLESS NOTED OTHERWISE. CONFIRM ALL EXISTING LOCATIONS AND COORDINATE NEW LOCATIONS AND REQUIREMENTS WITH OWNER PRIOR TO ROUGHING IN.
- 3. WIRE NEW LIGHT FIXTURES TO EXISTING CIRCUIT "P1-2" PREVIOUSLY FEEDING RECEPTION AREA LIGHTING USING #12S WIRES. FIELD VERIFY EXACT REQUIREMENTS.
 - 4. WIRE TO NEW 20A/1P BREAKER (USE SPARE IF AVAILABLE) IN AVAILABLE SPACE IN EITHER PANEL "GP1C" OR "GP1D". FIELD VERIFY EXACT LOCATIONS AND REQUIREMENTS.
 - 5. WIRE TO NEW 15A/1P IN AVAILABLE SPACE IN EITHER PANEL "GP1C" OR "GP1D". FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
 - 6. CIRCUITRY AND CONDUIT FOR CASEWORK MOUNTED DEVICES SHALL BE ROUTED DOWN WALL FROM CEILING SPACE AND THEN THROUGH CASEWORK TO DEVICE LOCATIONS. COORDINATE WITH FURNITURE PROVIDER PRIOR TO ROUGHING IN.
 - 7. EXISTING DEVICES LOCATED IN THIS WALL SHALL REMAIN AND BE REUSED. COORDINATE WITH OWNER WHETHER ANY EXISTING DEVICES WILL NEED TO BE RELOCATED. IF SO, EXTEND/REROUTE CONDUIT, CIRCUITRY, AND DEVICES AS REQUIRED.
 - 8. EXISTING OVERHEAD DOOR OPERATOR(S) AND EXISTING SWITCHES). CONDUIT AND CIRCUITRY SHALL BE REMOVED. LEAVE BREAKERS IN PANEL AS SPARE FOR FUTURE USE. FIELD VERIFY EXACT REQUIREMENTS.
 - 9. WIRE TO NEW 20A/1P BREAKER (USE SPARE IF AVAILABLE) IN AVAILABLE SPACE IN EITHER PANEL "GP1C" OR "GP1D". CIRCUIT SHALL BE ROUTED THROUGH SURGE PROTECTION DEVICE EQUAL TO ZERO SURGE FF1-20W-120" TWO CIRCUIT SURGE PROTECTION DEVICE. MOUNT ENCLOSURE ON AVAILABLE WALL SPACE IN ELECTRICAL ROOM. FIELD VERIFY EXACT LOCATIONS AND REQUIREMENTS.
 - 10. WIRE TO NEAREST EXISTING CORRIDOR EMERGENCY/EGRESS LIGHTING CIRCUIT. FIELD VERIFY EXACT REQUIREMENTS.



BOILER ROOM - BASE BID
1/4" = 1'-0"

- BASE BID ELECTRICAL KEY NOTES**
- 1. REPLACE EXISTING 15A/2P BREAKER IN PANEL "A1" PREVIOUSLY FEEDING PLUMB WITH NEW 20A/2P BREAKER. REPLACE AND INCREASE ALL CIRCUITRY TO #12S WIRES. REPLACE AND INCREASE EXISTING MOTOR STARTER WITH STARTER RATED FOR MINIMUM OF 7.5 HP (IF EXISTING STARTER IS RATED HIGH ENOUGH, REUSE). FIELD VERIFY EXACT REQUIREMENTS.
 - 2. PROVIDE AND INSTALL NEW 20A/1P BREAKER (USE EXISTING SPARE IF AVAILABLE) IN EXISTING PANEL "GP". WIRE USING #12S BOILER CONTROL CIRCUIT SHALL BE TIED INTO EXISTING EMERGENCY SHUTOFF SWITCH (ES). FIELD VERIFY EXACT LOCATIONS AND REQUIREMENTS.

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REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT NUMBER: 15088
RELEASE DATE: 04/27/2016

ELECTRICAL PLANS - ALTERNATES

E2.01

ELECTRICAL EQUIPMENT NOTES

- BOND ALL INTERIOR BUILDING SYSTEM PIPING PER NEC.
- ALL BRANCH CIRCUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR ROUTED WITH THE CIRCUIT CONDUCTORS. THIS MEANS ALL CONDUITS MUST HAVE A GREEN WIRE INSTALLED IN THEM AND SIZED IN ACCORDANCE WITH TABLE 250.122 OF THE NEC.
- VERIFY ALL ELECTRIC SERVICE REQUIREMENTS AND COORDINATE CONNECTION WITH OWNER PRIOR TO ORDERING OF EQUIPMENT.
- ALL ABOVE GRADE CONDUIT SHALL BE EMT/RGS. BELOW GRADE CONDUIT BETWEEN ELLS SHALL BE SCHEDULE 40 PVC. EMPTY CONDUIT SHOULD INCLUDE A PULL WIRE. BELOW GRADE PRIMARY ELLS ARE 36" RAD R.G.S., BELOW GRADE SECONDARY ELLS ARE 24" RAD RGS. PVC ELBOWS ARE NOT ALLOWED.
- SEE SITE UTILITIES PLAN FOR TRANSFORMER LOCATIONS.
- BOND ALL NONCURRENT CARRYING METAL PARTS OF SERVICE EQUIPMENT (INCLUDING METER ENCLOSURE) TO GROUNDING ELECTRODE AS REQUIRED PER NEC ARTICLE 250.
- ALL ELECTRIC SERVICE EQUIPMENT, PANELBOARDS, CIRCUIT BREAKERS, AND FUSED SWITCHES SHALL HAVE A MINIMUM INTERRUPTING RATING AS SHOWN IN ACCORDANCE WITH NEC ARTICLE 110.
- THE GROUNDING NEUTRAL CONDUCTOR SHALL BE RUN TO AND BONDED TO EACH SERVICE DISCONNECTING MEANS ENCLOSURE IN ACCORDANCE WITH NEC ARTICLE 250.
- BONDING OF OTHER ENCLOSURES SHALL BE IN ACCORDANCE WITH NEC ARTICLE 250.

FEEDER SCHEDULE

EXISTING FEEDER SHALL REMAIN

- 3/4" CONDUIT WITH THREE(3) #12s THHN AND ONE(1) #12 GROUND
- 1" CONDUIT WITH FOUR(4) #8s THHN AND ONE(1) #8 COPPER GROUND
- COPPER GROUNDING ELECTRODE. REFER TO SEPARATELY DERIVED SYSTEM GROUNDING DETAIL 4/E3.00
- REMOVE EXISTING FEEDER AND REPLACE WITH 1" CONDUIT WITH THREE(3) #8s THHN AND ONE(1) #8 COPPER GROUND
- REMOVE EXISTING FEEDER AND REPLACE WITH 2" CONDUIT WITH FOUR(4) #20s THHN AND ONE(1) #4 COPPER GROUND

NOTES:
1. ALL CONDUCTORS SHALL BE COPPER.
2. PVC CONDUIT IS NOT ALLOWABLE FOR FEEDER CONDUIT ABOVE GRADE.

Branch Panel: ELP1

Location: JANITOR 101
Supply From: TE1
Mounting: Surface
Enclosure: NEMA 1

Manufacture/Type: SIEMENS
Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22k AIC
Mains Type: BREAKER
Mains Rating: 100 A
MCB Rating: 50 A

Notes:

CKT	Circuit Description	Wire Size	Trip	Poles	A	B	C	Poles	Trip	Wire Size	Circuit Description	CKT
1	REC: CLASS 109/111/113	#12s	20 A	1	1080	240				#12s	FVAV-1	2
3	REC: CLASS 104/105	#12s	20 A	1		720	1006			#12s	FVAV-2	4
5	REC: IT	#12s	20 A	1			360	1006		#12s	FVAV-3	6
7	REC: IT	#12s	20 A	1	360	1006				#12s	FVAV-4	8
9	REC: IT	#12s	20 A	1		360	1006			#12s	FVAV-5	10
11	HVAC CONTROL PANEL	#12s	20 A	1			500	826		#12s	FVAV-6	12
13	Spare	20 A	1	0	1006					#12s	FVAV-7	14
15	Spare	20 A	1		0	1006				#12s	FVAV-8	16
17	Spare	20 A	1				0	1006		#12s	FVAV-9	18
					Total Phase Load:		3691 VA	4097 VA		Total Connected Load:		11466 VA
					Total Phase Amps:		31 A	34 A		Total Connected Amps:		32 A

Branch Panel: LP1

Location: JANITOR 101
Supply From: T1
Mounting: Surface
Enclosure: NEMA 1

Manufacture/Type: SIEMENS
Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22k AIC
Mains Type: BREAKER
Mains Rating: 250 A
MCB Rating: 175 A

Notes:

CKT	Circuit Description	Wire Size	Trip	Poles	A	B	C	Poles	Trip	Wire Size	Circuit Description	CKT
1	REC: RRS/DK FT/WAITING/ROOFTOP	#12s	20 A	1	1320	1440				#12s	REC: COMPUTERS 104	2
3	REC: SHELTER (EXISTING)	20 A	1			540	1440			#12s	REC: COMPUTERS 104	4
5	EXISTING LOAD	20 A	1				0	1080		#12s	REC: COMPUTERS/PROJECTOR 104	6
7	REC: RTU-1 CONV OUTLET (EXISTING)	20 A	1		180	900				#12s	REC: COMPUTERS/PRINTER 105	8
9	GENERATOR BATT CHRG (EXISTING)	20 A	1			1200	900			#12s	REC: COMPUTERS 105	10
11	RTU-1 CTRL UNIT (EXISTING)	20 A	1				1000	1080		#12s	REC: COMPUTERS/PROJECTOR 105	12
13	REC: WRKRM/OFF 100 & 107	#12s	20 A	1	1260	1080				#12s	REC: COMPUTERS 113	14
15	REC: WRKRM/OFF 100 & 107/STOR	#12s	20 A	1		1440	1440			#12s	REC: COMPUTERS/PROJECTOR 113	16
17	REC: WORK ROOM COPIER	#12s	20 A	1			1500	1080		#12s	REC: COMPUTERS/PRINTER 113	18
19	REC: VENDING	#12s	20 A	1	600	900				#12s	REC: COMPUTERS 113	20
21	REC: VENDING	#12s	20 A	1		600	1620			#12s	REC: COMPUTERS 111	22
23	REC: VENDING	#12s	20 A	1			600	1440		#12s	REC: COMP/PROJ/PRINT 111	24
25	MS-1	#12s	15 A	2	1191	1440				#12s	REC: COMPUTERS 109/111	26
27					1191	1440				#12s	REC: COMPUTERS 109/111	28
29	Spare	20 A	1				0	1440		#12s	REC: COMP/PROJ/PRINT 109	30
31	Spare	20 A	1	0	1620					#12s	REC: COMPUTERS 109	32
33	Spare	20 A	1			0	1080			#12s	REC: OFFICE 110A/110B	34
35	Spare	20 A	1				0	1080		#12s	REC: OFFICE 110A/110B	36
37	Spare	20 A	1	0	1260					#12s	REC: LOBBY	38
39	SPARE	20 A	1			0	0			#12s	SPARE	40
41	SPARE	20 A	1				0	0		#12s	SPARE	42
					Total Phase Load:		13191 VA	12891 VA		Total Connected Load:		36404 VA
					Total Phase Amps:		113 A	111 A		Total Connected Amps:		101 A

Branch Panel: EHP1

Location: JANITOR 101
Supply From: ATS2
Mounting: Surface
Enclosure: NEMA 1

Manufacture/Type: SIEMENS
Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22k AIC
Mains Type: BREAKER
Mains Rating: 100 A
MCB Rating: 30 A

Notes:

CKT	Circuit Description	Wire Size	Trip	Poles	A	B	C	Poles	Trip	Wire Size	Circuit Description	CKT
1	LTG: OUTDOOR (EXISTING)	20 A	1		700	0				20 A	I.T. EQUIPMENT (EXISTING)	2
3	TIME CLOCK (EXISTING)	20 A	1			0	2849			20 A	LTG: EMERGENCY	4
5	LTG: IT/JANGEN (EXISTING)	20 A	1				1120	0		20 A	Spare	6
7	DAMPERS/SUPPLY FAN (EXISTING)	20 A	1		1176	0				20 A	Spare	8
9	SPARE BREAKER (EXISTING)	20 A	1			0	0			20 A	Spare	10
11	EXHAUST FAN (EXISTING)	20 A	1				528	0		20 A	Spare	12
13					3691	0				--	Space	14
15	ELP1 VIA XFRM TE1	SEE RISER	20 A	3		4097	0			--	Space	16
17					5567 VA	6945 VA	3697 VA			--	Space	18
					Total Phase Load:		5567 VA	6945 VA		Total Connected Load:		17857 VA
					Total Phase Amps:		20 A	25 A		Total Connected Amps:		21 A

Branch Panel: HP1

Location: JANITOR 101
Supply From: JANITOR 101
Mounting: Surface
Enclosure: NEMA 1

Manufacture/Type: SIEMENS
Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22k AIC
Mains Type: BREAKER
Mains Rating: 400 A
MCB Rating: 400 A

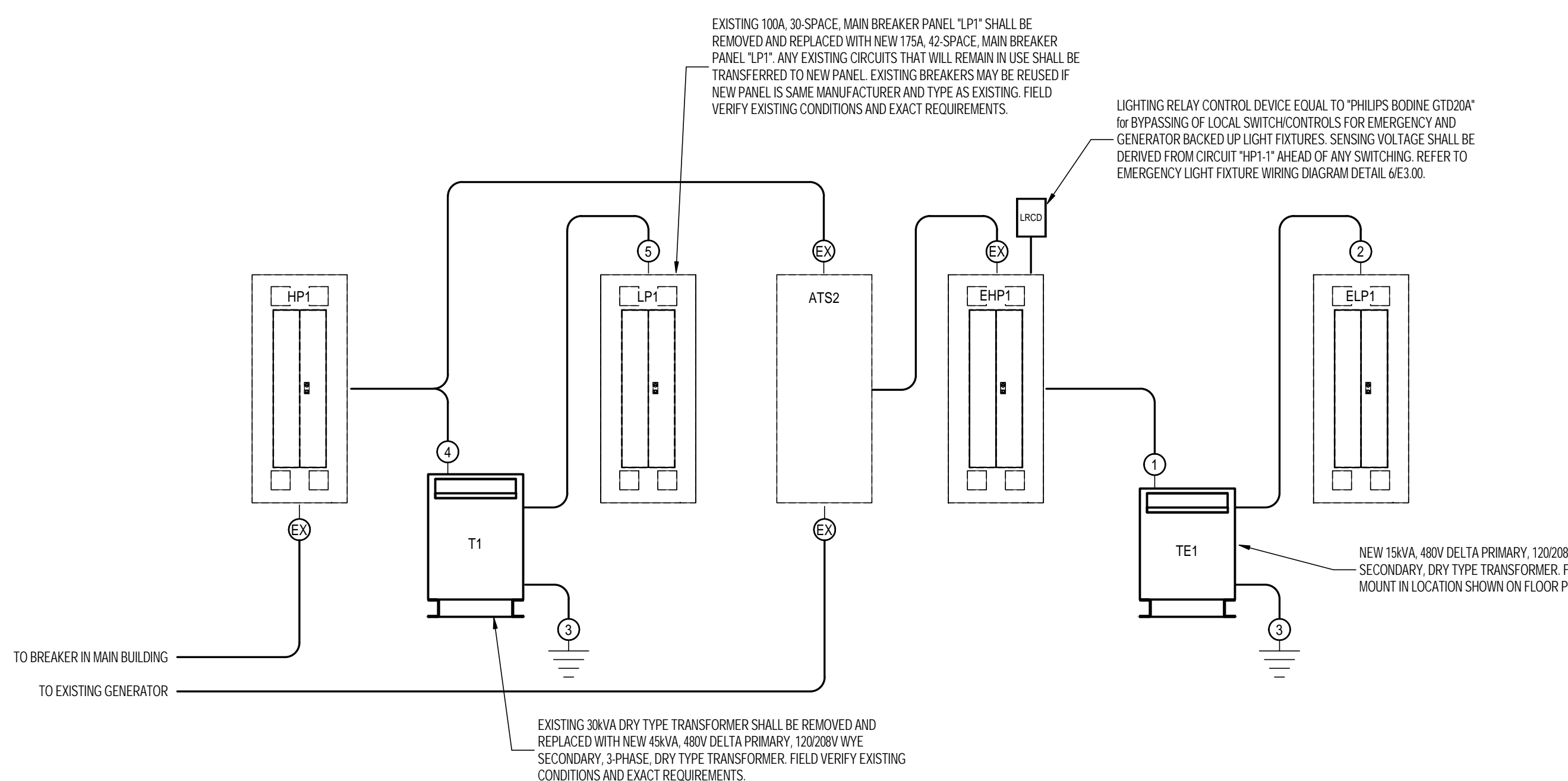
Notes:

CKT	Circuit Description	Wire Size	Trip	Poles	A	B	C	Poles	Trip	Wire Size	Circuit Description		
1	LTG: LOBBY/CORR/RR/CLASS	#12s	20 A	1	3227	0		1	20 A		SPARE (EXISTING)		
3	LTG: SOUTH CLASS/OFF	#12s	20 A	1		1610	0	1	20 A		SPARE (EXISTING)		
5	SPARE (EXISTING)		20 A	1			0	0	1	20 A	SPARE (EXISTING)		
7	SPARE (EXISTING)		20 A	1	0	0		1	20 A		SPARE (EXISTING)		
9	SPARE (EXISTING)		20 A	1		0	0		20 A		SPARE (EXISTING)		
11	SPARE (EXISTING)		20 A	1			0	0	1	20 A	SPARE (EXISTING)		
13	SPARE (EXISTING)		20 A	1	0	0			1	20 A	SPARE (EXISTING)		
15	SPARE (EXISTING)		20 A	1		0	0	1	20 A		SPARE (EXISTING)		
17	W.H.	#10s	25 A	1			4500	0	1	20 A	SPARE (EXISTING)		
19					5567	13011							
21						6945	11151						
23	ATS/EHP1	EX	30 A	3				5345	9300	3	70 A	SEE RISER	
25					0	19067						PANEL LP1 VIA XFMR T1 (REPLACE EXISTING 45A/3P BREAKER)	
27	TVSS		50 A	3		0	19067			3	110 A	EX	
29							0	19067				RTU-1	
Total Phase Load:					40872 VA		38773 VA		38211 VA		Total Connected Load:		120799 VA
Total Phase Amps:					148 A		140 A		138 A		Total Connected Amps:		145 A

LIGHT FIXTURE SCHEDULE

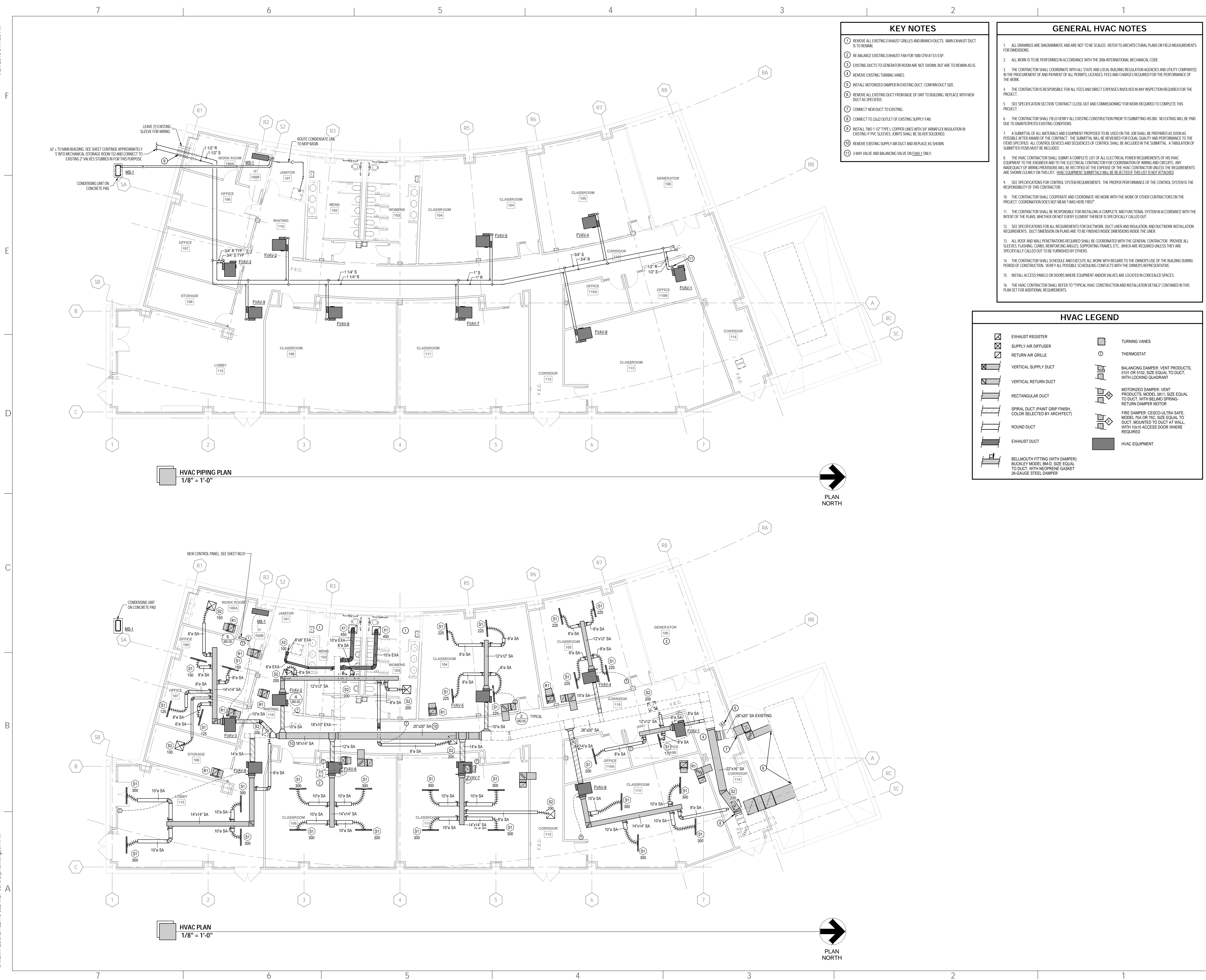
Type Mark	Count	Manufacturer	Catalog Number	Supply Voltage	Finish	Lamp Quantity	Lamp	Lamp Wattage	Notes	Approved Manufacturers
A	100	WILLIAMS	AT1-24-L70/835-D-DRV-UNV	277 V	WHITE		LED	70 W	PAINT AFTER FAB	METALUX, LITHONIA, LSI, COLUMBIA, LAY-IN
C	32	WILLIAMS	LED60-QS20/835-CS-EDD*OS-277	277 V	SEMI-SPEC CLEAR		LED	40 W	RECESSED IN CEILING	LITHONIA, LIGHTOLIER, PORTFOLIO
D03	8	AXIS LIGHTING	SK-10003-B3-MF-CIR-AL94.25"-400-80-35-SO-W-UNV-D-1-DF	277 V	WHITE		5.7W/FT, 400 LUMEN/FT, 3500K LED	46 W	FOUR(4) 90 DEGREE, 2 SECTIONS PER FIXTURE RECESSED IN CEILING CLOUD	VOKSLYTE
D05	8	AXIS LIGHTING	SK-10005-B3-MF-CIR-AL188.5"-400-80-35-SO-W-UNV-D-1-DF	277 V	WHITE		5.7W/FT, 400 LUMEN/FT, 3500K LED	91 W	EIGHT(8) 45 DEGREE, 2 SECTIONS PER FIXTURE RECESSED IN CEILING CLOUD	VOKSLYTE
F	1	WILLIAMS	LX4RT-R-15-L12/835-F/J-A-ASY-DRV-UNV	277 V	WHITE		104 W/8FT SECT, 3500K LED	208 W	RECESSED IN CEILING 15' TOTAL LENGTH	FOCAL POINT, PEERLESS
X	7	WILLIAMS	EXIT-R-AC-WHT	277 V	WHITE		LED	3 W	LAMPS BY MANUFACTURER	CHLORIDE, LITHONIA, SURE-LITE, DUAL-LITE

ELECTRICAL SERVICE/DISTRIBUTION DIAGRAM



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REVISIONS

NO. DATE DESCRIPTION

PROJECT NUMBER 15088

RELEASE DATE 04/27/2016

MECHANICAL PLAN

M1.00

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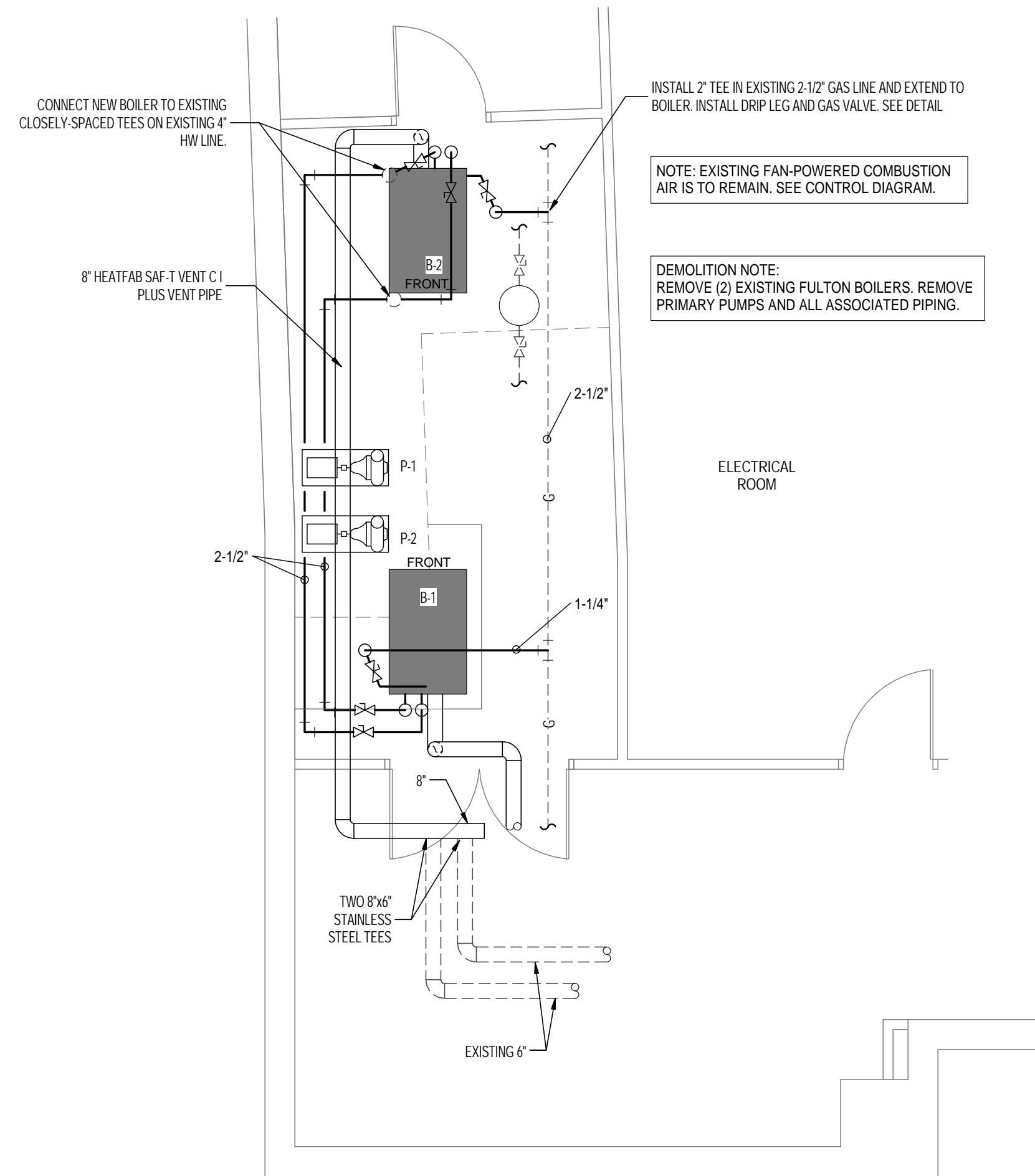
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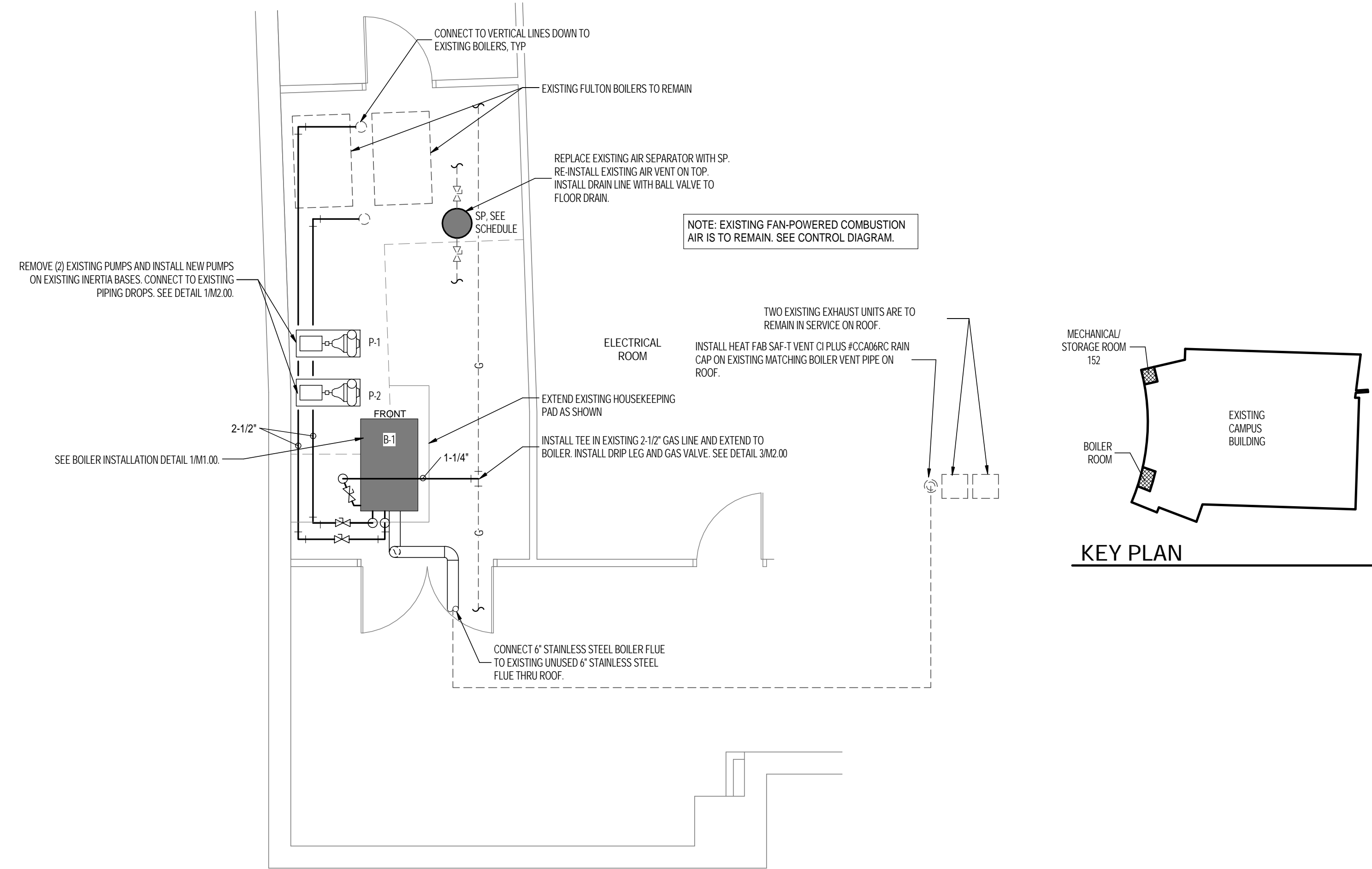
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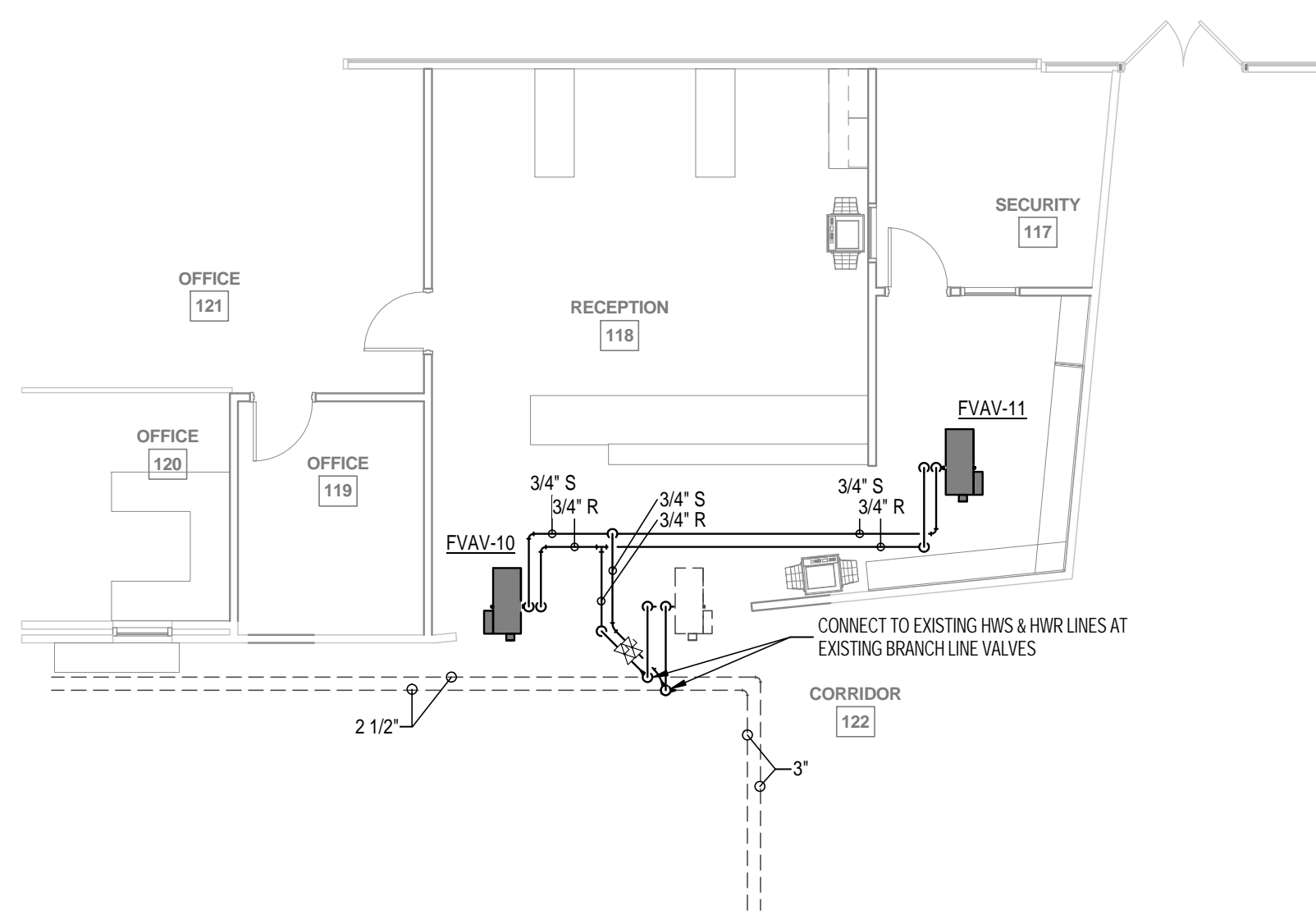
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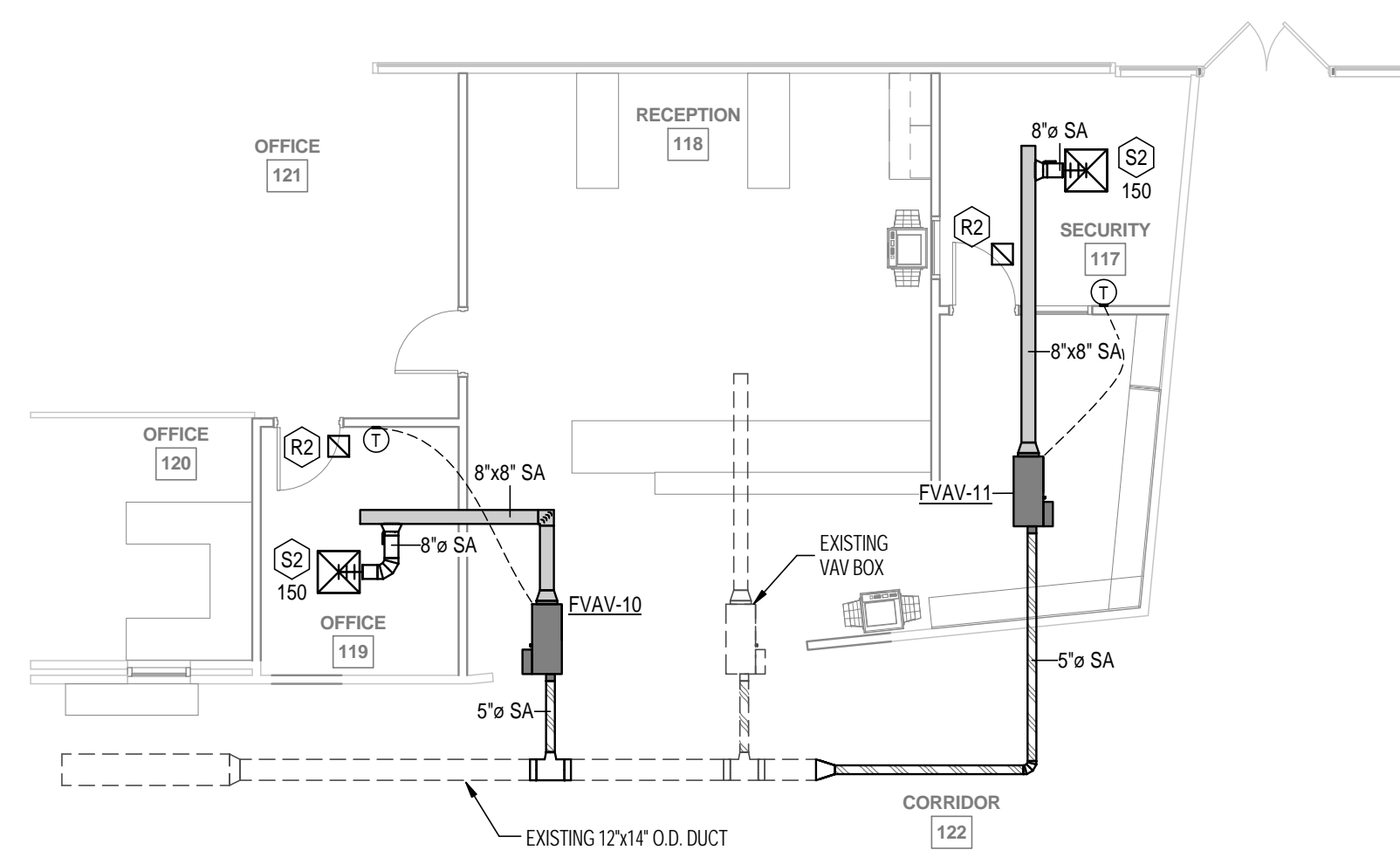
BOILER ROOM - ALTERNATE #2
1/4" = 1'-0"



BOILER ROOM - BASE BID
1/4" = 1'-0"



HVAC PIPING PLAN - ALTERNATE #1
1/8" = 1'-0"



HVAC PLAN - ALTERNATE #1
1/8" = 1'-0"

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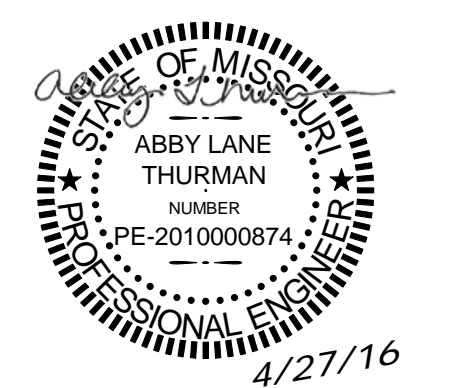
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REVISIONS

NO.	DATE	DESCRIPTION
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PROJECT NUMBER: 15088
RELEASE DATE: 04/27/2016

**MECHANICAL PLANS -
ALTERNATES**

M1.01

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MINI-SPLIT/CONDENSING UNIT SCHEDULE									
MARK	DESCRIPTION	MFG.	MODEL	CAPACITY (BTU/H)	ELECTRICAL			ACCESSORIES	COMMENTS
					VOLTAGE	PHASE	MCA	MOCP	
MS-1	SPLIT SYSTEM INDOOR AIR HANDLER	DAIKIN	MSZ-FH09NA	9000.0	208 V	1	11 A	15 A	WALL MOUNTED THERMOSTAT (NO WIRELESS REMOTE CONTROLLER)
MS-1	SPLIT SYSTEM OUTDOOR CONDENSER	DAIKIN	MUZ-FH09NA	9000.0	208 V	1	11 A	15 A	0°F LOW AMBIENT CAPABLE

SPIROTHERM SCHEDULE				
MARK	DESCRIPTION	MFG.	MODEL	COMMENTS
SP	AIR/DEBRIS SEPARATOR	DAIKIN	VDT-400	REPLACE EXISTING AIR SEPARATOR

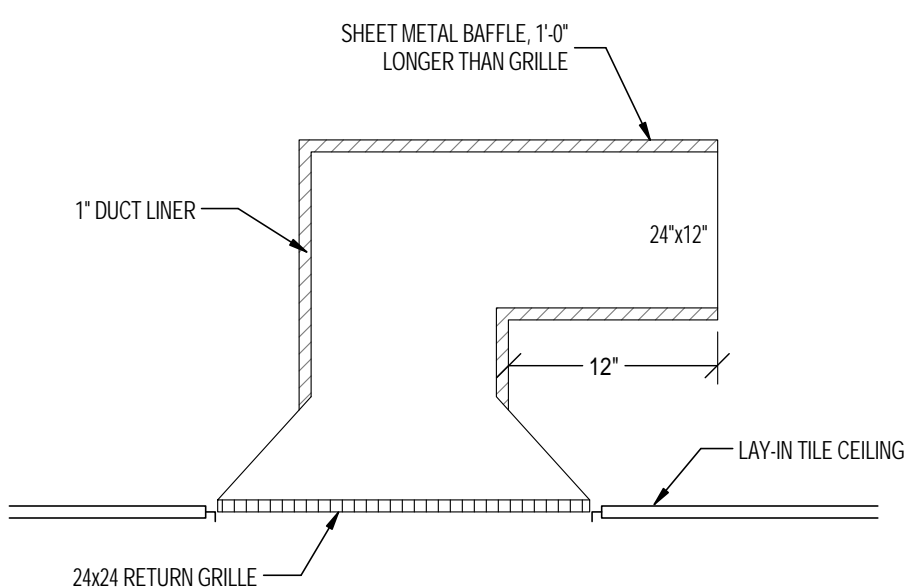
VAV BOX SCHEDULE (OFCI)																	
MARK	DESCRIPTION	MFG.	MODEL	HEATING COIL			CONTROL VALVE	AIR VALVE			ELECTRICAL DATA					ACCESSORIES	COMMENTS
				MBH	PD (FT)	GPM		MIN CFM	MAX CFM	AIR P.D.	FAN CFM	MAX VOLTAGE	PHASE	MCA	MOCP		
FVAV-1	PARALLEL FAN POWERED VAV BOX	TRANE	VPWF	21.98	1.50	1.00	1/2" - 1.0 GPM - BELIMO 3-WAY CONTROL VALVE	200	570	0.14	300	120 V	1	2	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	
FVAV-2	PARALLEL FAN POWERED VAV BOX	TRANE	VPWF	28.04	0.78	1.50	1/2" - 1.5 GPM - BELIMO 2-WAY PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE	300	800	0.11	400	120 V	1	8.38	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	
FVAV-3	PARALLEL FAN POWERED VAV BOX	TRANE	VPWF	28.04	0.78	1.50	1/2" - 1.5 GPM - BELIMO 2-WAY PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE	300	800	0.11	400	120 V	1	8.38	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	
FVAV-4	PARALLEL FAN POWERED VAV BOX	TRANE	VPWF	29.49	0.78	1.50	1/2" - 1.5 GPM - BELIMO 2-WAY PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE	400	900	0.13	400	120 V	1	8.38	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	
FVAV-5	PARALLEL FAN POWERED VAV BOX	TRANE	VPWF	29.49	0.78	1.50	1/2" - 1.5 GPM - BELIMO 2-WAY PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE	400	900	0.13	400	120 V	1	8.38	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	
FVAV-6	PARALLEL FAN POWERED VAV BOX	TRANE	VPWF	36.97	1.32	2.00	1/2" - 2.0 GPM - BELIMO 2-WAY PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE	400	1200	0.19	600	120 V	1	8.88	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	
FVAV-7	PARALLEL FAN POWERED VAV BOX	TRANE	VPWF	44.97	1.99	2.50	1/2" - 2.5 GPM - BELIMO 2-WAY PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE	500	1400	0.24	800	120 V	1	8.38	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	
FVAV-8	PARALLEL FAN POWERED VAV BOX	TRANE	VPWF	44.97	1.99	2.50	1/2" - 2.5 GPM - BELIMO 2-WAY PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE	500	1400	0.24	800	120 V	1	8.38	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	
FVAV-9	PARALLEL FAN POWERED VAV BOX	TRANE	VPWF	44.97	1.99	2.50	1/2" - 2.5 GPM - BELIMO 2-WAY PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE	500	1400	0.24	800	120 V	1	8.38	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	
FVAV-10	SERIES FAN POWERED VAV BOX	TRANE	VSWF-05P	11.3	1.30	1.00	1/2" - 1.0 GPM - BELIMO 3-WAY CONTROL VALVE	50	150	0.25	150	120 V	1	2	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	ECM MOTOR
FVAV-11	SERIES FAN POWERED VAV BOX	TRANE	VSWF-05P	11.3	1.30	1.00	1/2" - 1.0 GPM - BELIMO 3-WAY CONTROL VALVE	50	150	0.25	150	120 V	1	2	15	1/2" MATTE INSULATION, SOUND ATTENUATION PACKAGE	ECM MOTOR

BOILER SCHEDULE																				
MARK	DESCRIPTION	MFG.	MODEL	HEATING (MBH)			GPM	EWT	LWT	RATING	ELECTRICAL			PUMP ELECTRICAL			COMBUSTION AIR	FLUE	ACCESSORIES	COMMENTS
				IN	OUT						VOLTAGE	PHASE	MCA	MOCP	VOLTAGE	PHASE				
B-1	MODULATING VERTICAL HYDRONIC BOILER	RAYPAK	X-THERM HP-1005A	999	959		*	120 °F	160 °F	96%	120 V	1	12 A	20 A	120 V	1	8"ø	6"ø	FLOW SWITCH, ADJUSTABLE AUTO HIGH LIMIT CONTROL, LOW WATER CUT-OFF, MODULATING CONTROL (7-1)	PROVIDE BOILER WITH INTEGRAL CONTROLLER TO MAINTAIN A FIXED LEAVING WATER TEMPERATURE WHEN ENABLED (ADJUSTABLE). PROVIDE BOILER VENT CONNECTOR "AL29-4C," STAINLESS STEEL
B-2	(PART OF BID ALTERNATE #2) MODULATING VERTICAL HYDRONIC BOILER	RAYPAK	X-THERM HP-2005A	1999	1919		*	120 °F	160 °F	96%	120 V	1	18 A	20 A	120 V	1	8"ø	8"ø	FLOW SWITCH, ADJUSTABLE AUTO HIGH LIMIT CONTROL, LOW WATER CUT-OFF, MODULATING CONTROL (7-1)	PROVIDE BOILER WITH INTEGRAL CONTROLLER TO MAINTAIN A FIXED LEAVING WATER TEMPERATURE WHEN ENABLED (ADJUSTABLE). PROVIDE BOILER VENT CONNECTOR "AL29-4C," STAINLESS STEEL

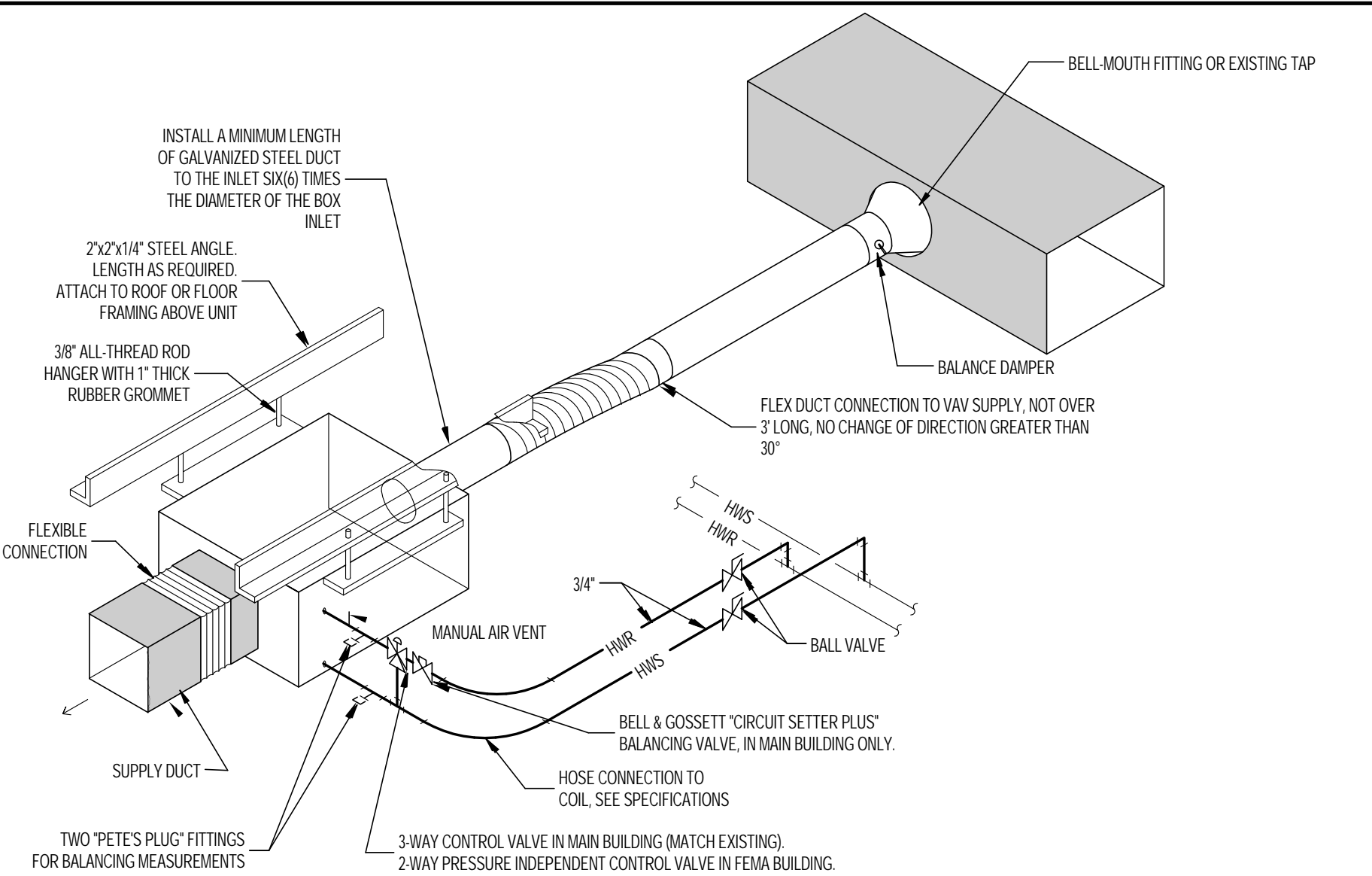
*FLOW IS SELF-REGULATING VIA THE INTERNAL PRIMARY PUMP

AIR DEVICE SCHEDULE									
MARK	DESCRIPTION	MFG.	MODEL	SIZE (INCHES)	FINISH	MOUNTING	NECK SIZE	ACCESSORIES	COMMENTS
R1	EGGGRATE RETURN GRILLE	KRUEGER	EGC5	24x24	WHITE	LAY-IN	PER PLAN	-	SOUND ATTENUATION BOOT, SEE DETAIL 5/M2.00
R2	EGGGRATE RETURN GRILLE	KRUEGER	EGC5	12x12	WHITE	CEILING	PER PLAN	-	-
S1	LINEAR SUPPLY DIFFUSER	KRUEGER	1900	48	WHITE	LAY-IN	PER PLAN	PLENUM BOOT	TWO(2) 1" SLOTS, ADJUST FOR HORIZONTAL THROW
S2	SUPPLY DIFFUSER	KRUEGER	SSHR	24x24	WHITE	LAY-IN	PER PLAN	-	-
X1	EXHAUST GRILLE	KRUEGER	EGC5	24x24	WHITE	LAY-IN	PER PLAN	SQUARE TO ROUND ADAPTER	-
X2	EXHAUST GRILLE	KRUEGER	SS80	8x8	WHITE	WALL	PER PLAN	OPPOSED BLADE DAMPER	0° DEFLECTION

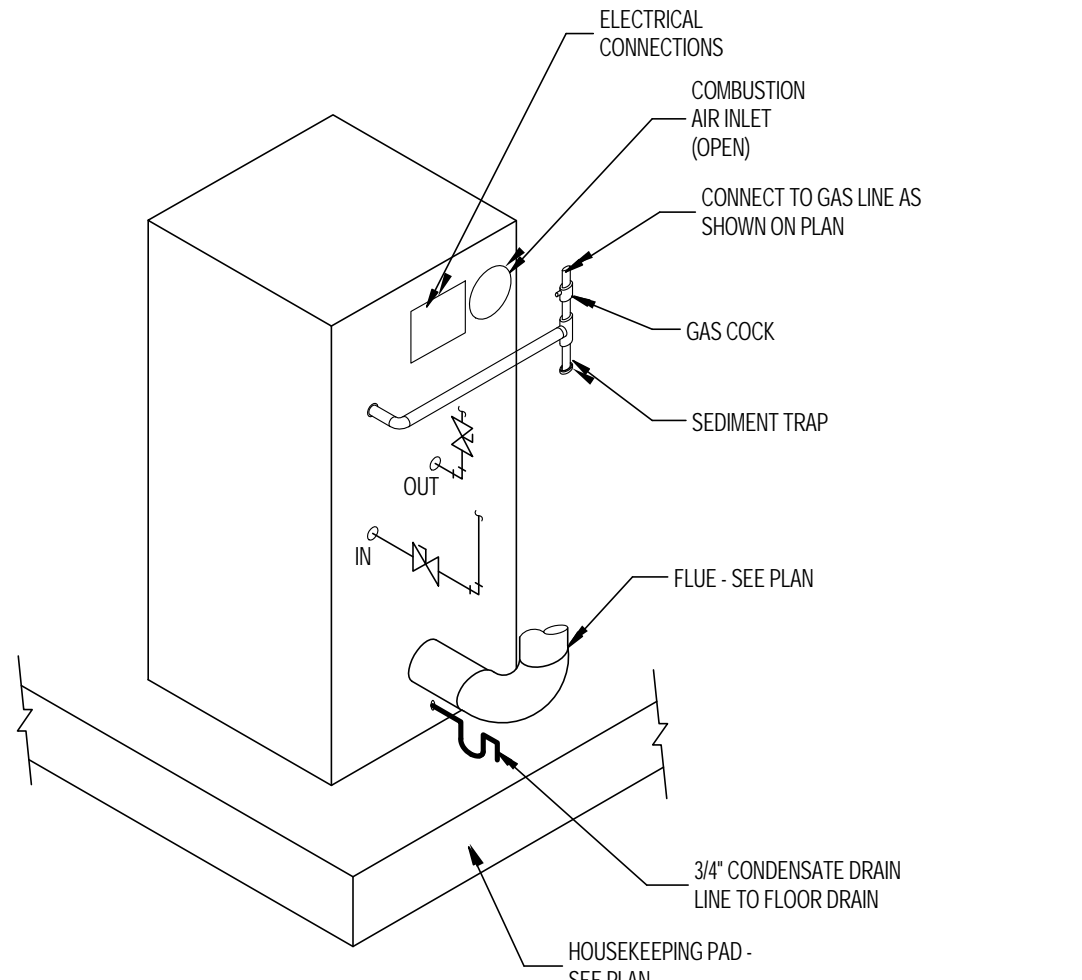
PUMP SCHEDULE													
MARK	DESCRIPTION	MFG.	MODEL	FLOW (GPM)	HEAD (FT)	MOTOR HP	MOTOR RPM	ELECTRICAL				ACCESSORIES	COMMENTS
								VOLTAGE	PHASE	MCA	MOCP		
P-1 AND P-2	BASE MOUNTED PUMP HOT WATER	BELL & GOSSETT	2-1/2 BB	265 GPM	60	7-1/2	1750	460 V	3	11 A	20 A	SUCTION DIFFUSER, TRIPLE DUTY VALVE	PROVIDE WITH FLANGED CONNECTIONS. OPERATE AS LEAD/LAG.



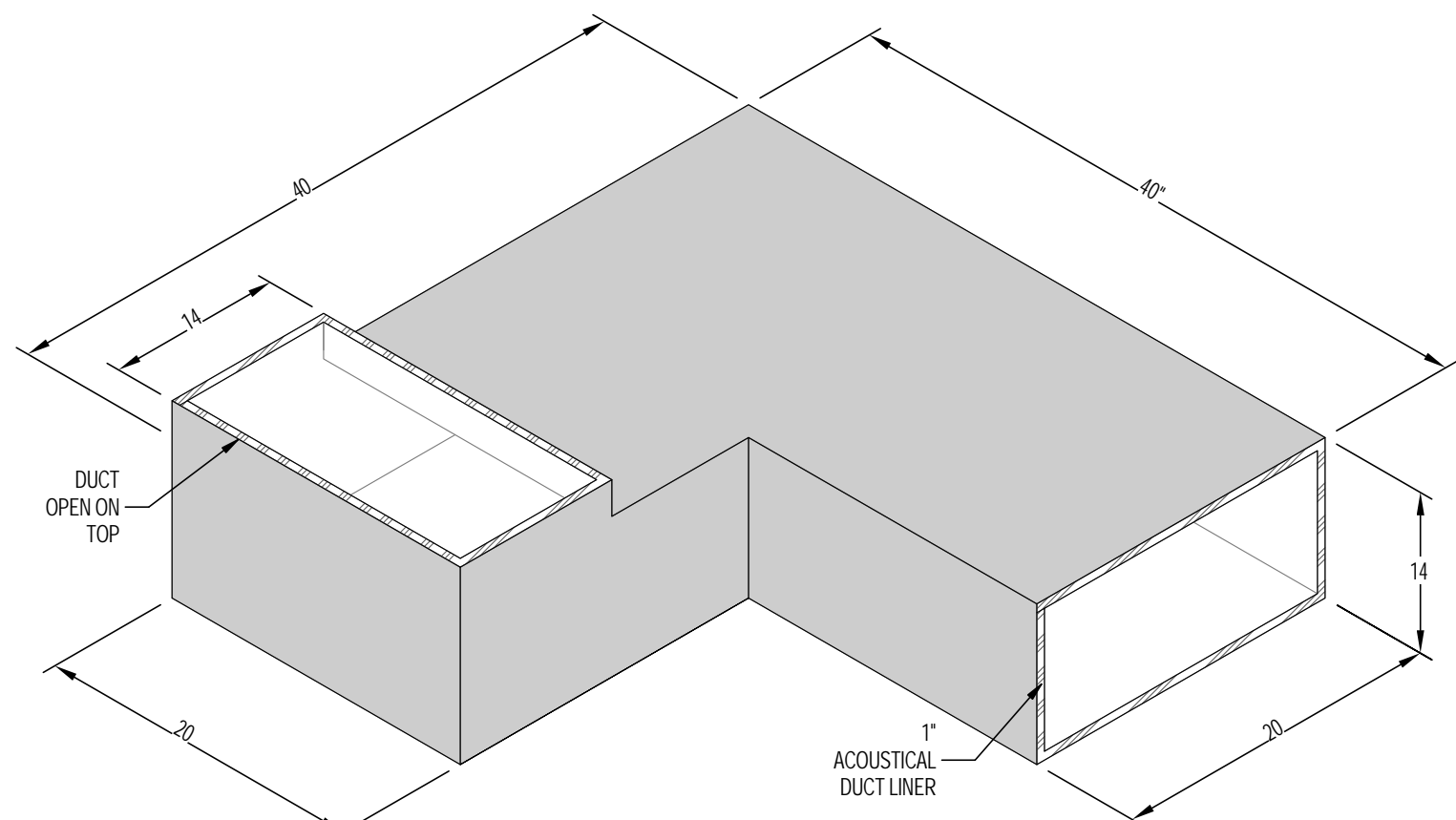
5
M2.00
RETURN AIR GRILLE SOUND ATTENUATION BOOT DETAIL
N.T.S.



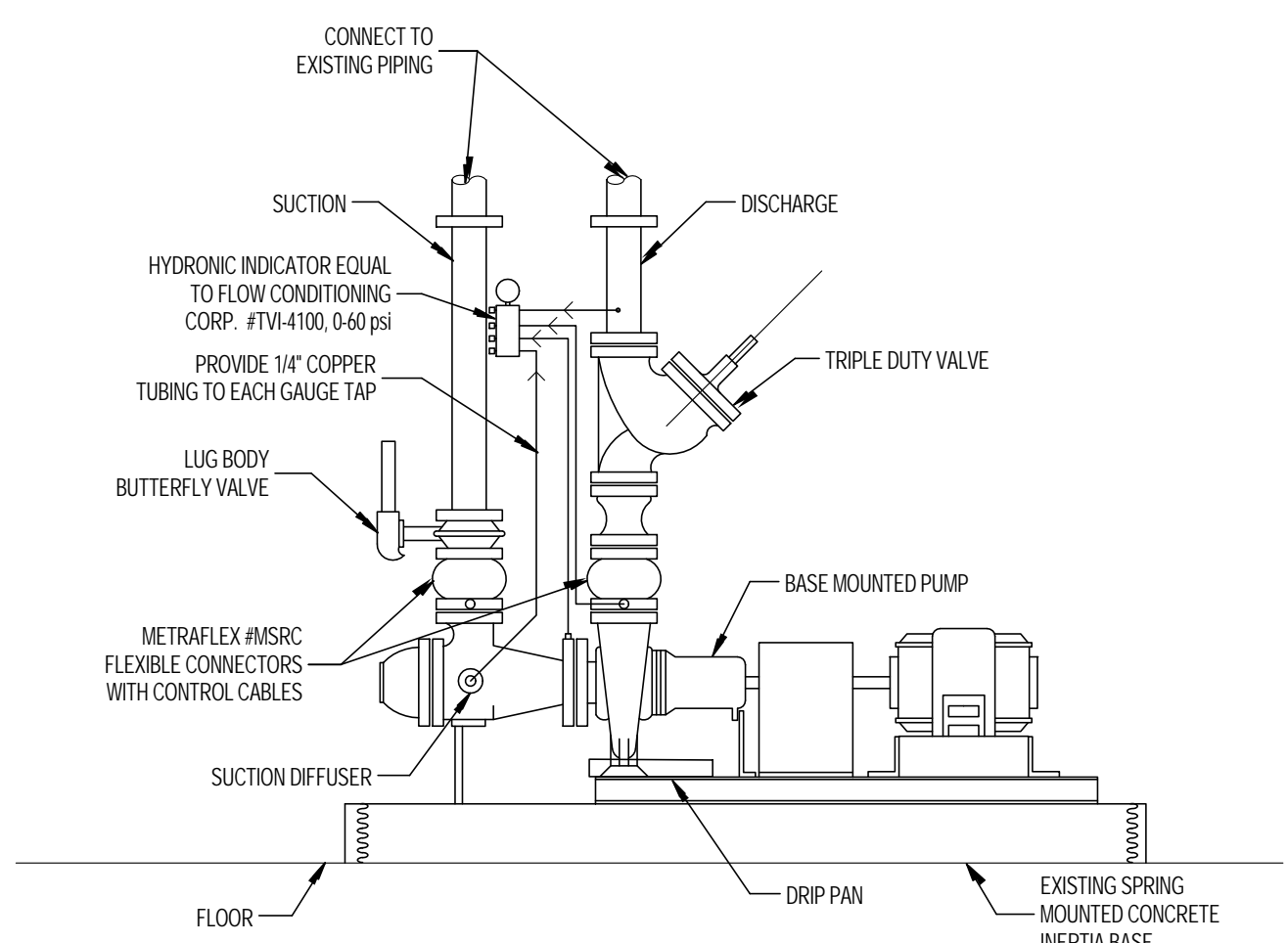
4
M2.00
FVAV BOX INSTALLATION DETAIL
N.T.S.



3
M2.00
BOILER INSTALLATION DETAIL
N.T.S.

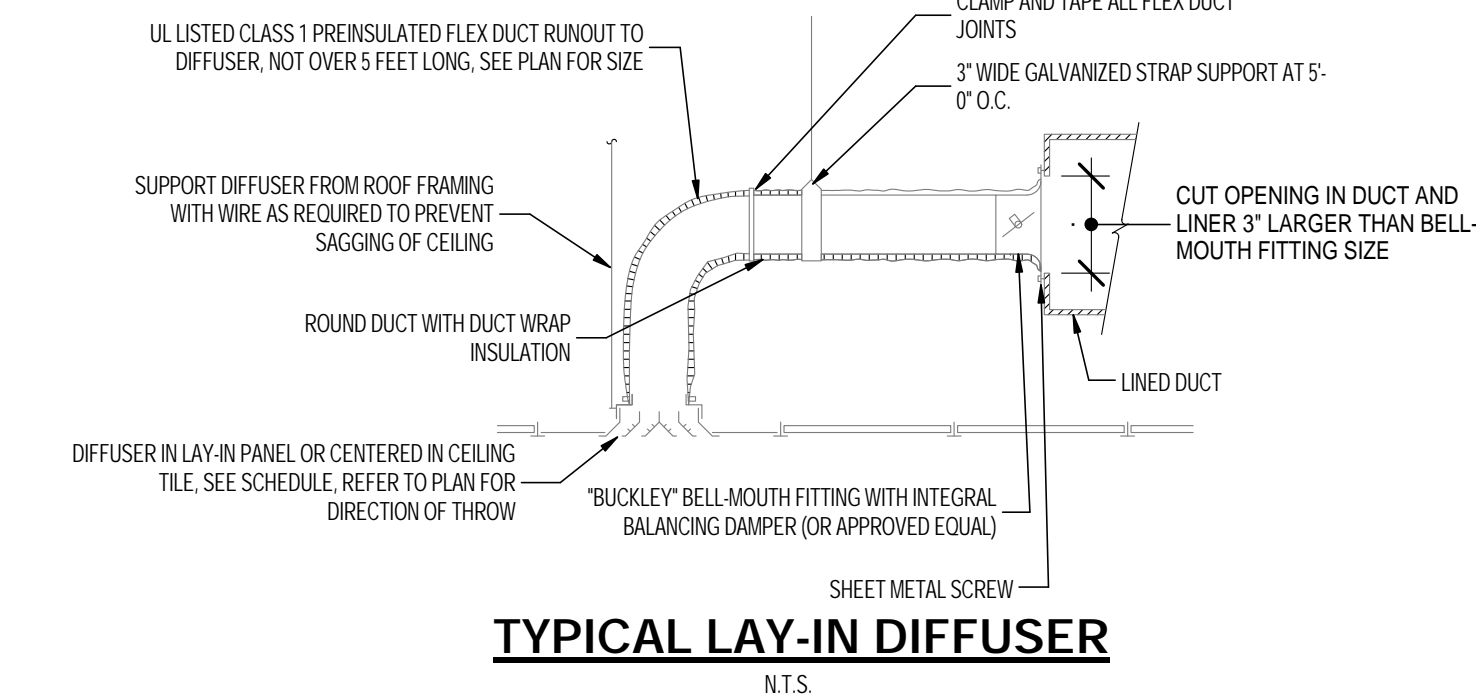


2
M2.00
RETURN AIR TRANSFER DUCT DETAIL
N.T.S.

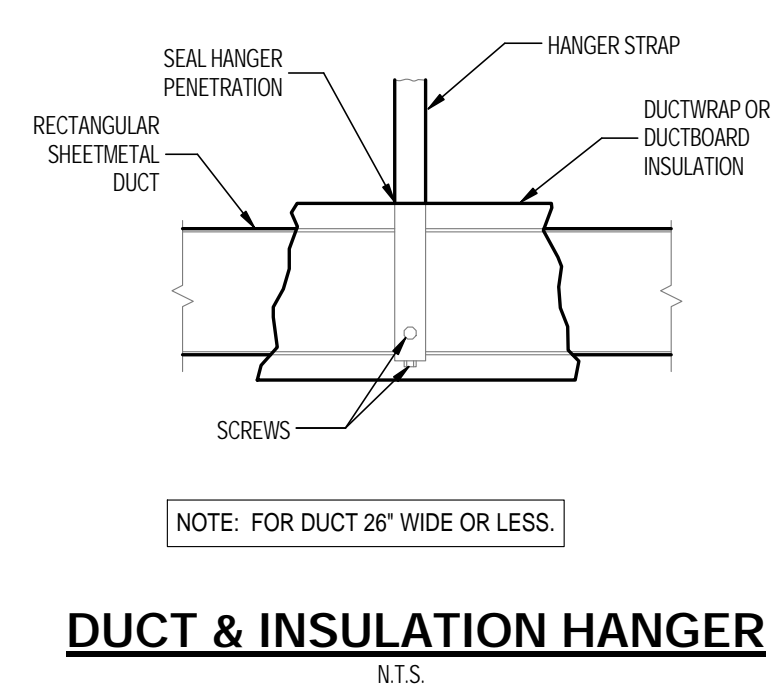


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M2.00
TYPICAL END SUCTION PUMP DETAIL
N.T.S.

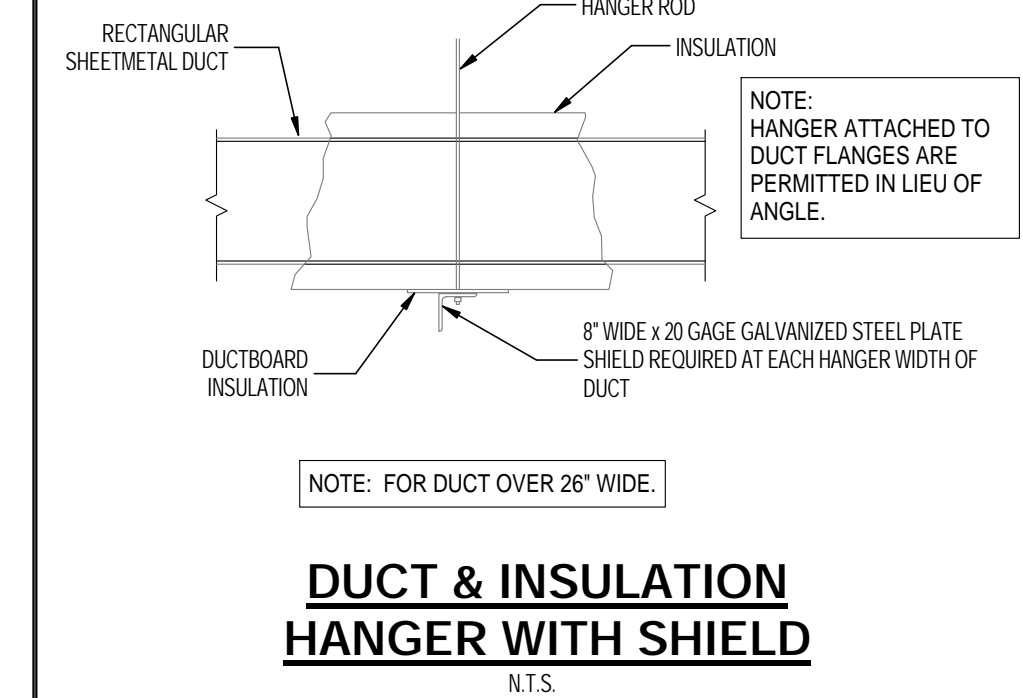
TYPICAL HVAC CONSTRUCTION DETAILS



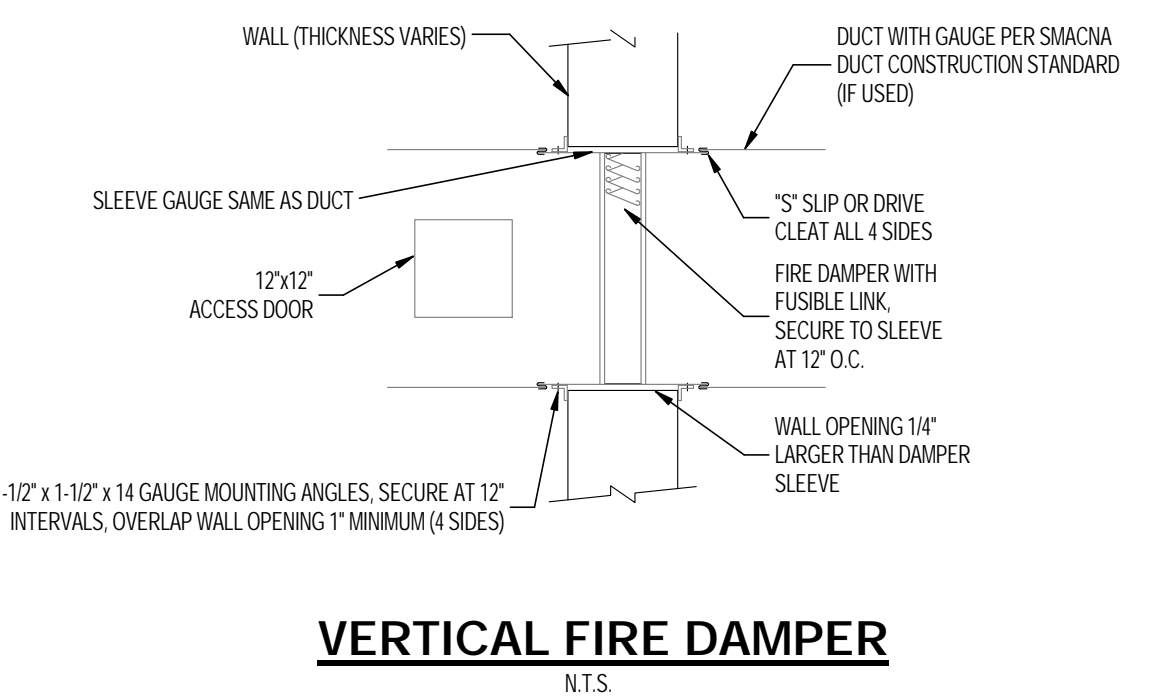
TYPICAL LAY-IN DIFFUSER
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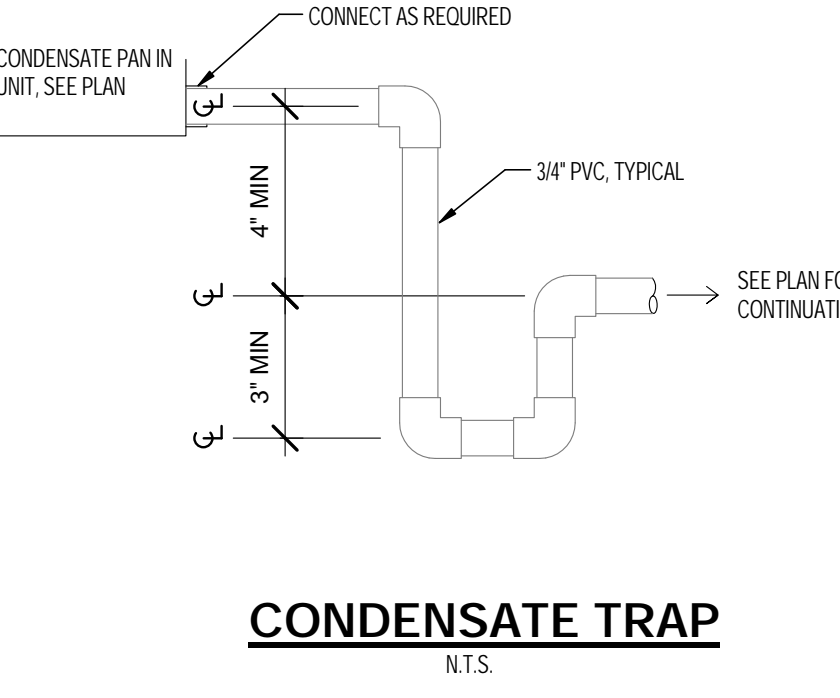
DUCT & INSULATION HANGER
N.T.S.



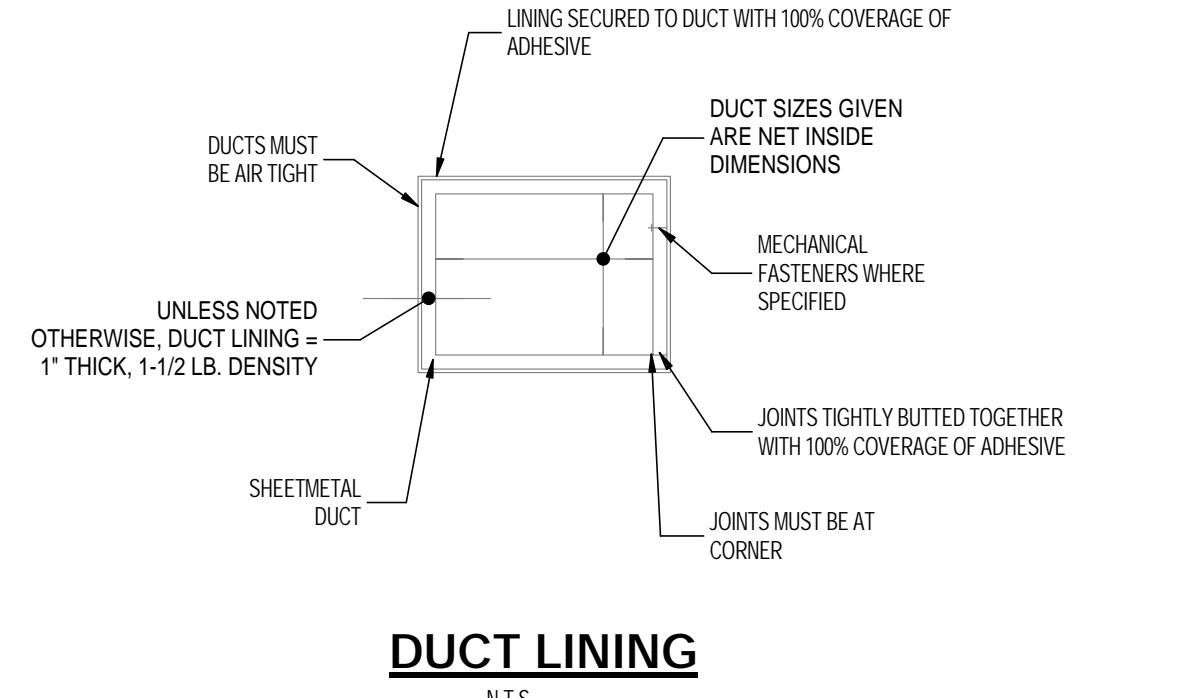
DUCT & INSULATION HANGER WITH SHIELD
N.T.S.



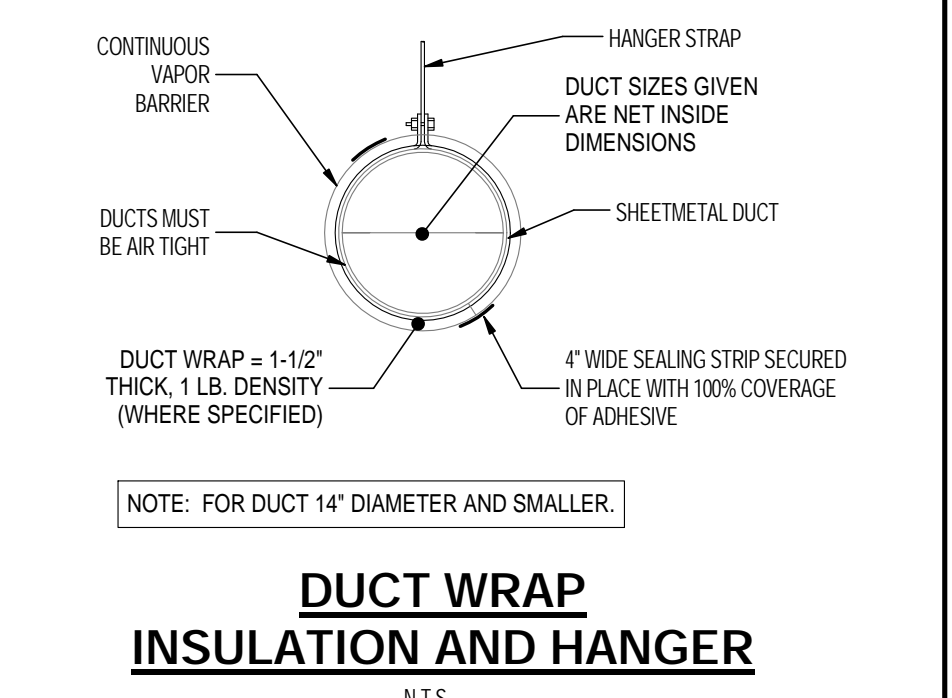
VERTICAL FIRE DAMPER
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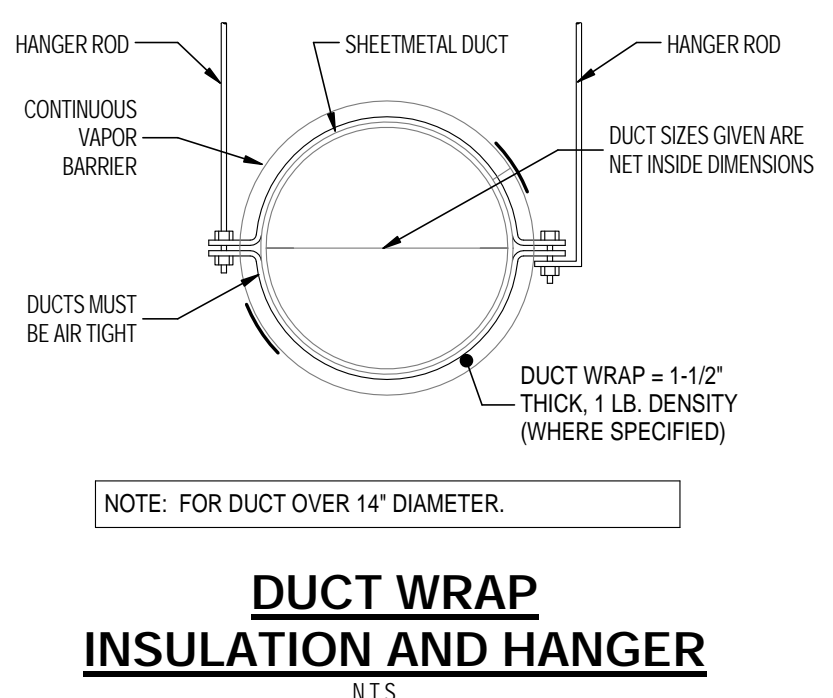
CONDENSATE TRAP
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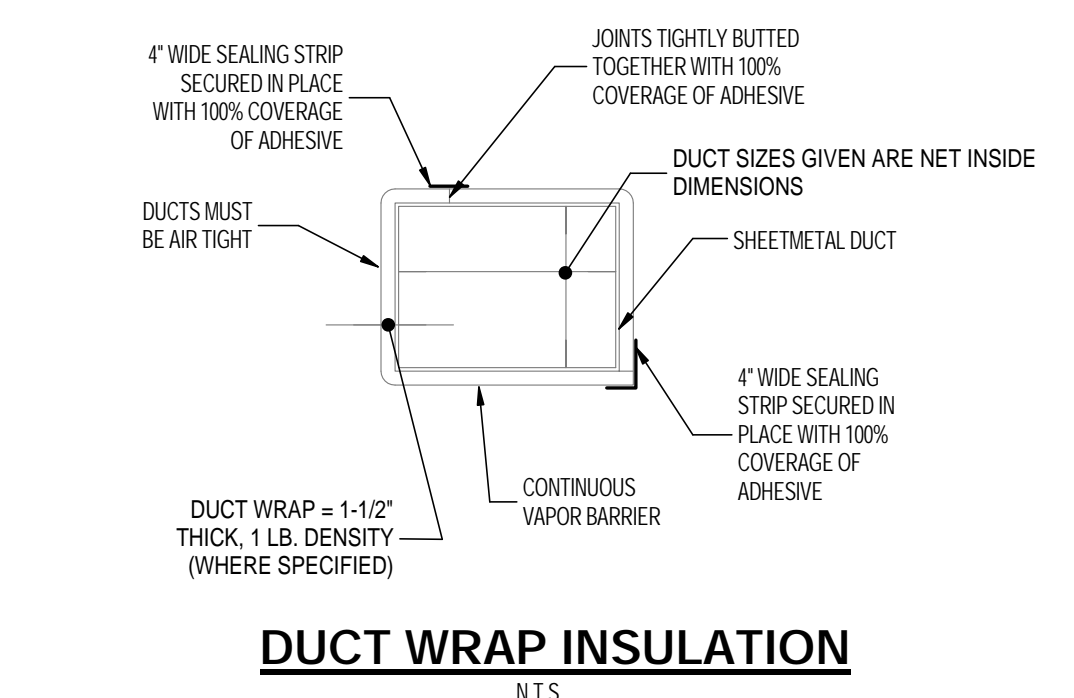
DUCT LINING
N.T.S.



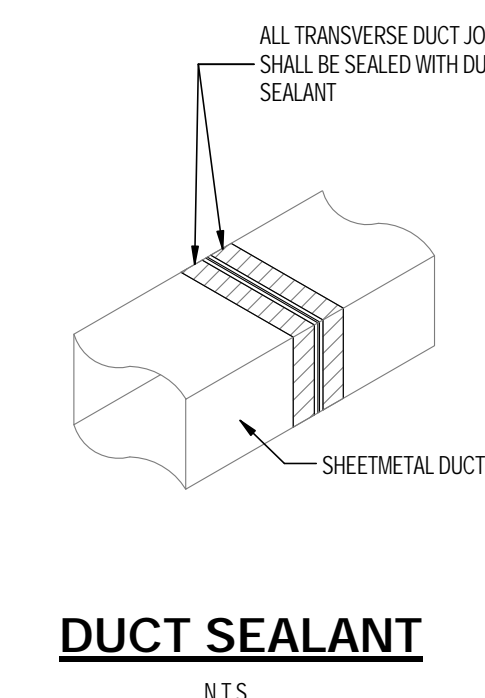
DUCT WRAP INSULATION AND HANGER
N.T.S.



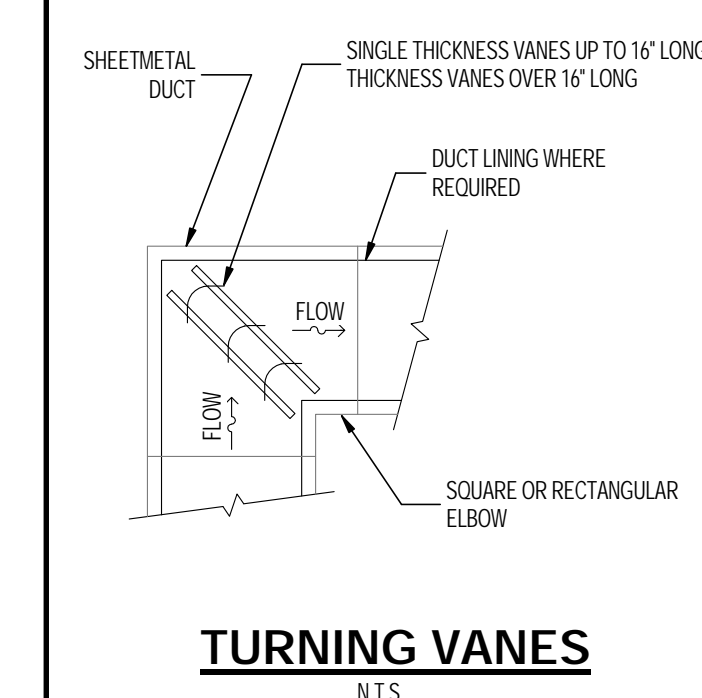
DUCT WRAP INSULATION AND HANGER
N.T.S.



DUCT WRAP INSULATION
N.T.S.



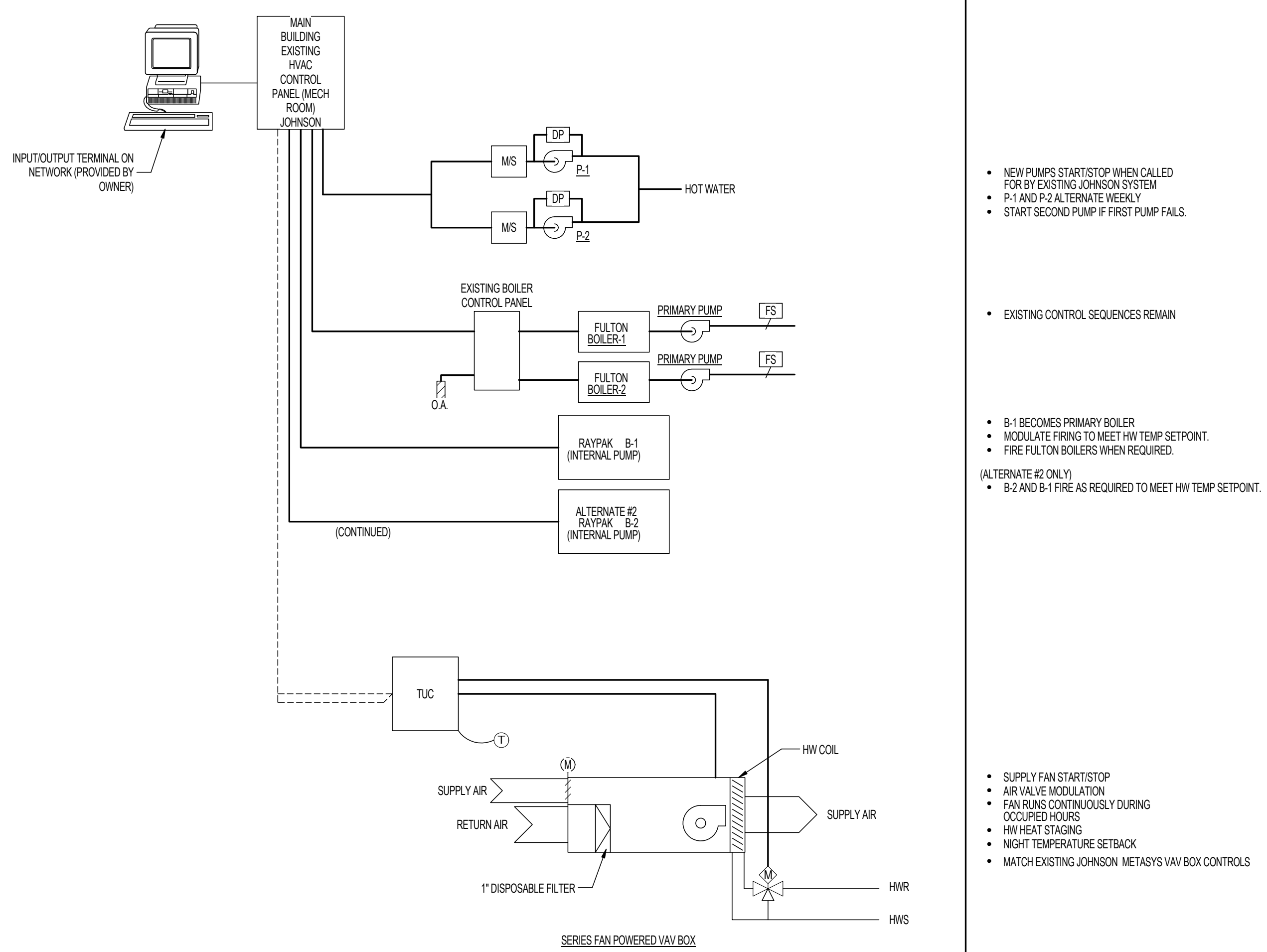
DUCT SEALANT
N.T.S.



TURNING VANES
N.T.S.

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CONTROL FUNCTIONS AND SEQUENCES

- NEW PUMPS START/STOP WHEN CALLED FOR BY EXISTING JOHNSON SYSTEM
- P1 AND P2 ALTERNATE WEEKLY
- START SECOND PUMP IF FIRST PUMP FAILS

- EXISTING CONTROL SEQUENCES REMAIN

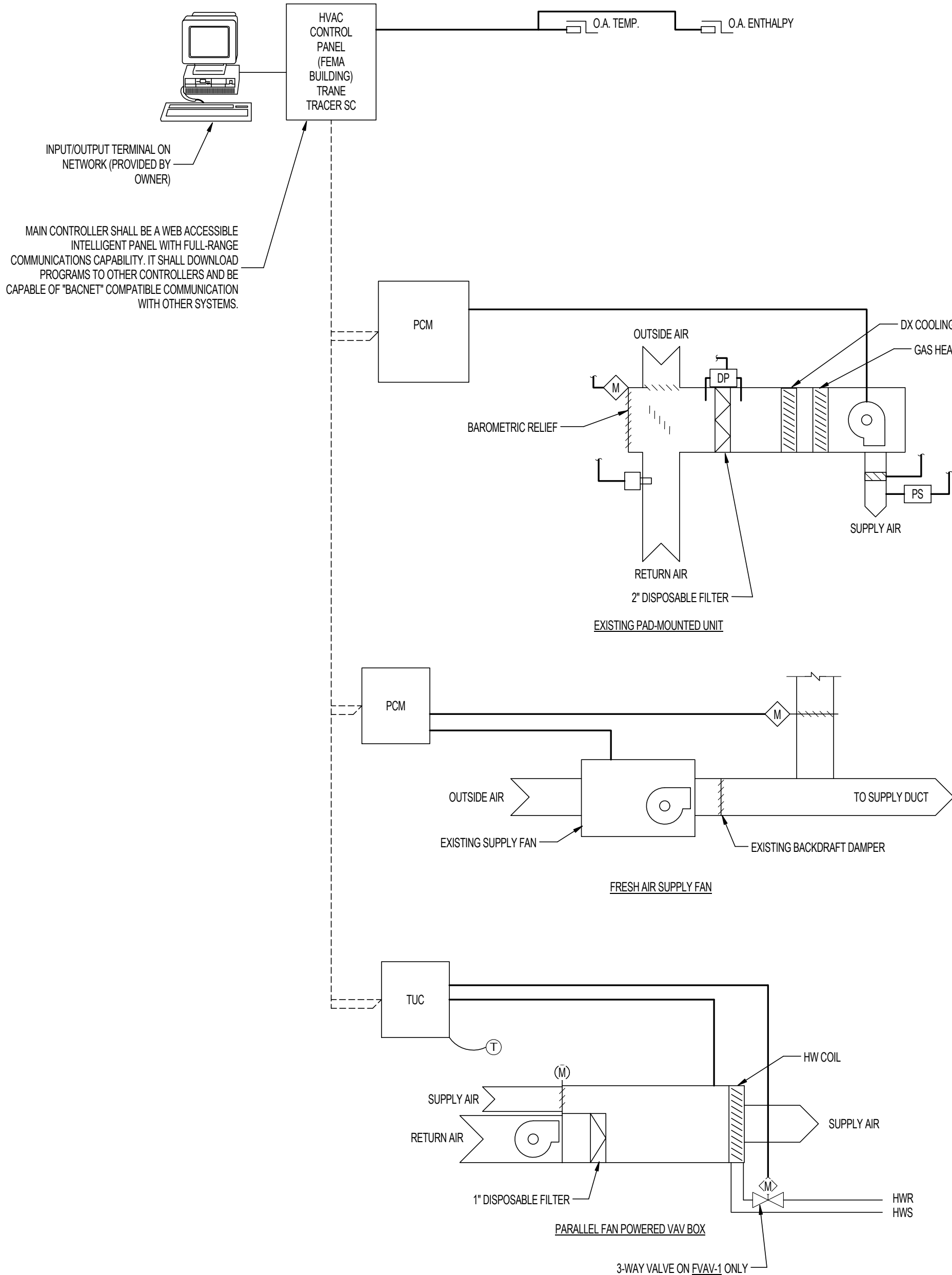
- B-1 BECOMES PRIMARY BOILER
- MODULATE FIRING TO MEET HW TEMP SETPOINT.
- FIRE FILT ON BOILERS WHEN REQUIRED.

(ALTERNATE #2 ONLY)

- B-2 AND B-1 FIRE AS REQUIRED TO MEET HW TEMP SETPOINT.

- SUPPLY FAN START/STOP
- AIR VALVE MODULATION
- FAN RUNS CONTINUOUSLY DURING OCCUPIED HOURS
- HW HEAT STAGING
- NIGHT TEMPERATURE SETBACK
- MATCH EXISTING JOHNSON METASYS VAV BOX CONTROLS

CONTROLS DIAGRAM



CONTROL FUNCTIONS AND SEQUENCES

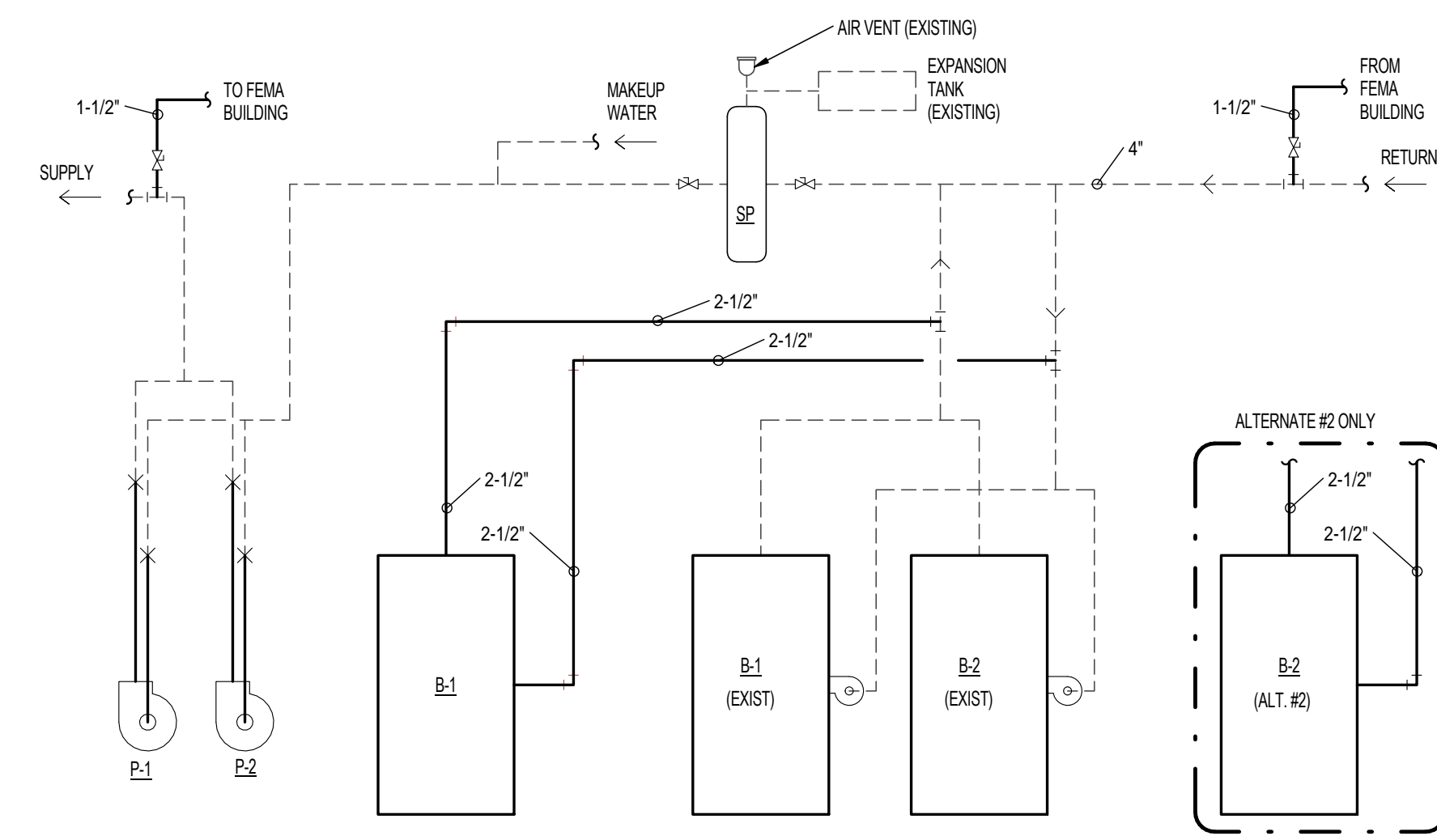
- OCCUPIED/UNOCCUPIED STATUS
- SUPPLY FAN START/STOP
- SHUT DOWN WHEN UNOCCUPIED
- FILTER MONITORING
- SHUT DOWN ON SMOKE DETECTION
- OUTSIDE AIR/RETURN AIR DAMPER POSITION CONTROL
- MORNING WARM-UP CYCLE (GAS HEAT)
- MIN O.A. DURING OCCUPIED HOURS PER SCHEDULE
- MODULATE FAN SPEED TO MAINTAIN DUCT PRESSURE SETPOINT
- MAINTAIN 350 CFM MINIMUM AIR FLOW
- MODULATE COOLING FOR 55°F LEAVING AIR TEMPERATURE
- ENABLE ECONOMIZER WHEN O.A. ENTHALPY IS SUITABLE

- FAN STARTS ONLY IN EMERGENCY CONDITION ON GENERATOR POWER
- FAN DOES NOT START ON GENERATOR EXERCISE CYCLE
- CLOSE MOTORIZED DAMPER WHEN FAN STARTS

- SUPPLY FAN START/STOP
- AIR VALVE MODULATION
- FAN RUNS ONLY WHEN REQUIRED FOR HEATING
- HW HEAT STAGING
- NIGHT TEMPERATURE SETBACK

CONTROL LEGEND

- ROOM SENSOR (LIMITED TO ±3°F), ONE OVERRIDE BUTTON
- BELOW (OR EQUAL) SHAFT MOUNTED DAMPER ACTUATOR, MODULATING OR 2-POSITION AS REQUIRED
- 2-WAY PRESSURE INDEPENDENT VALVE ASSEMBLY WITH MODULATING ACTUATOR
- 3-WAY VALVE ASSEMBLY (MATCH EXISTING)
- AIR VALVE INTEGRAL WITH VAV BOX
- DUCT OR PIPE TEMPERATURE SENSOR
- RELAY WITH COIL VOLTAGE AS REQUIRED
- PROGRAMMABLE CONTROL MODULE
- TERMINAL UNIT CONTROLLER
- DUCT SMOKE DETECTOR
- AIR PRESSURE SENSOR
- SPACE OR DUCT MOUNTED CO2 SENSOR
- DIFFERENTIAL PRESSURE SWITCH



HOT WATER SYSTEM FLOW DIAGRAM

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STATE OF MISSOURI
ABBY LANE THURMAN
NUMBER
PE-2010000874
PROFESSIONAL ENGINEER
4/27/16

Abby Thurman - Engineer
2010000874

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PROJECT NUMBER: 15088
RELEASE DATE: 04/27/2016
HVAC CONTROLS DIAGRAM

M2.01

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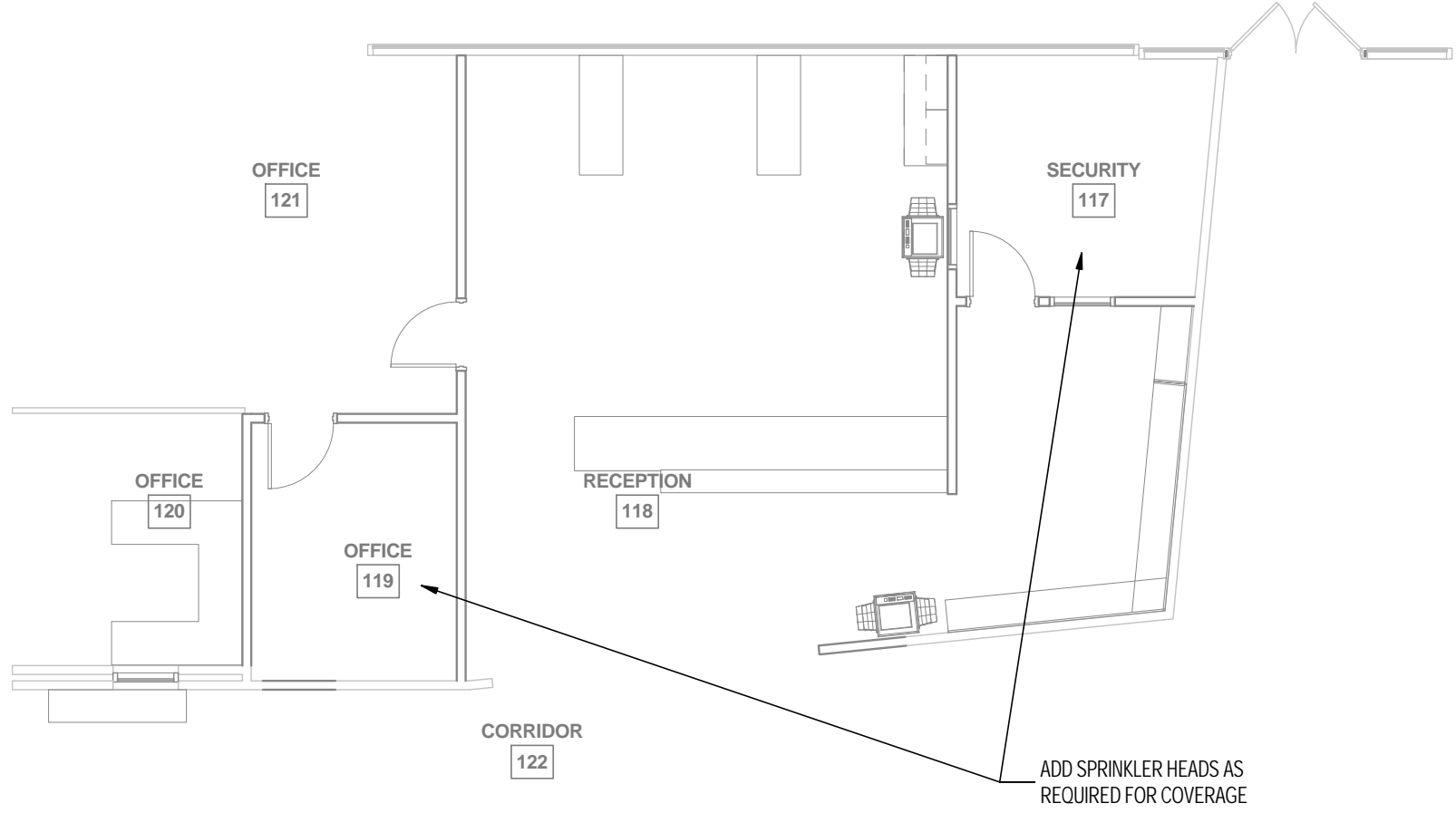
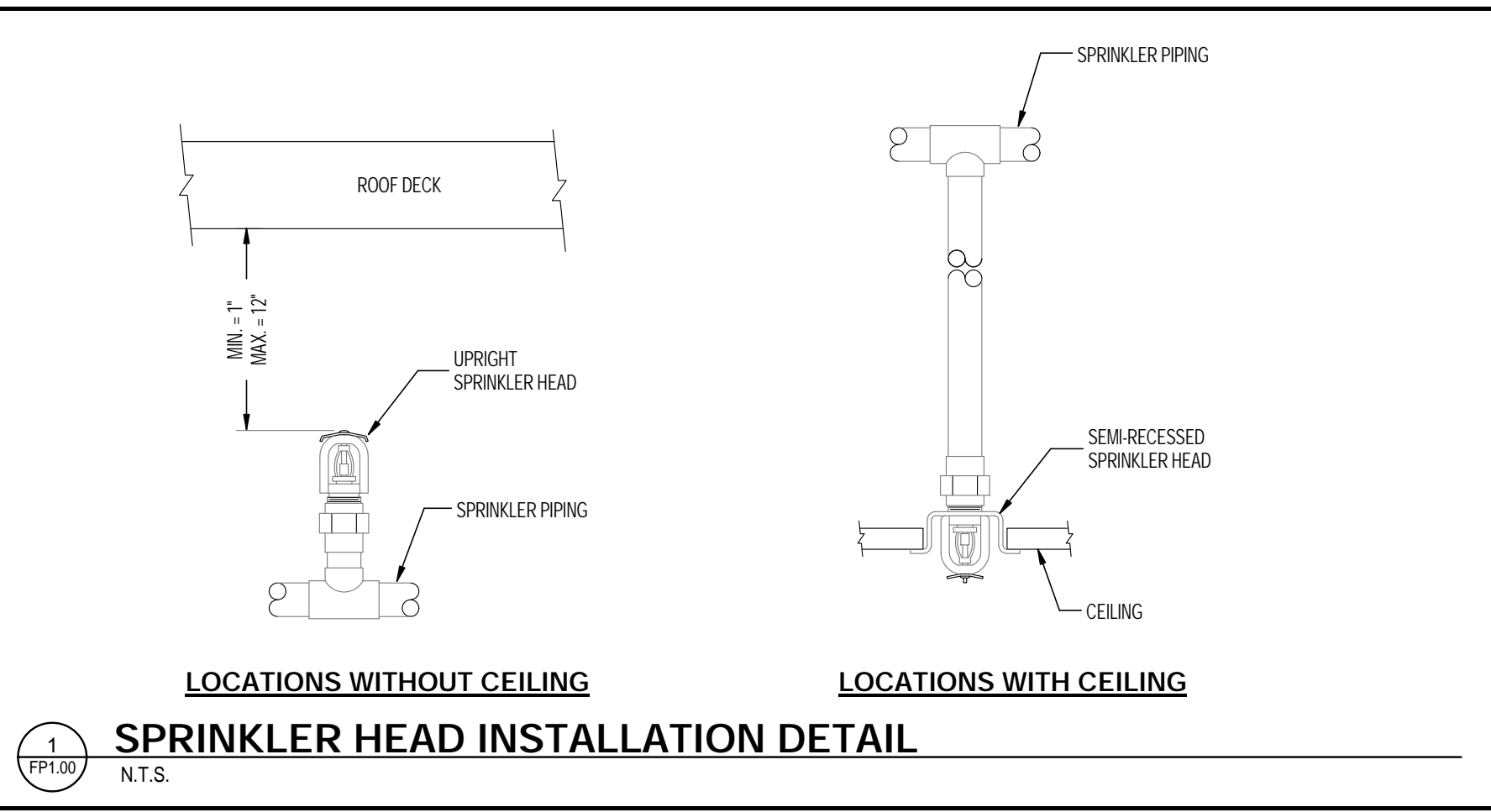
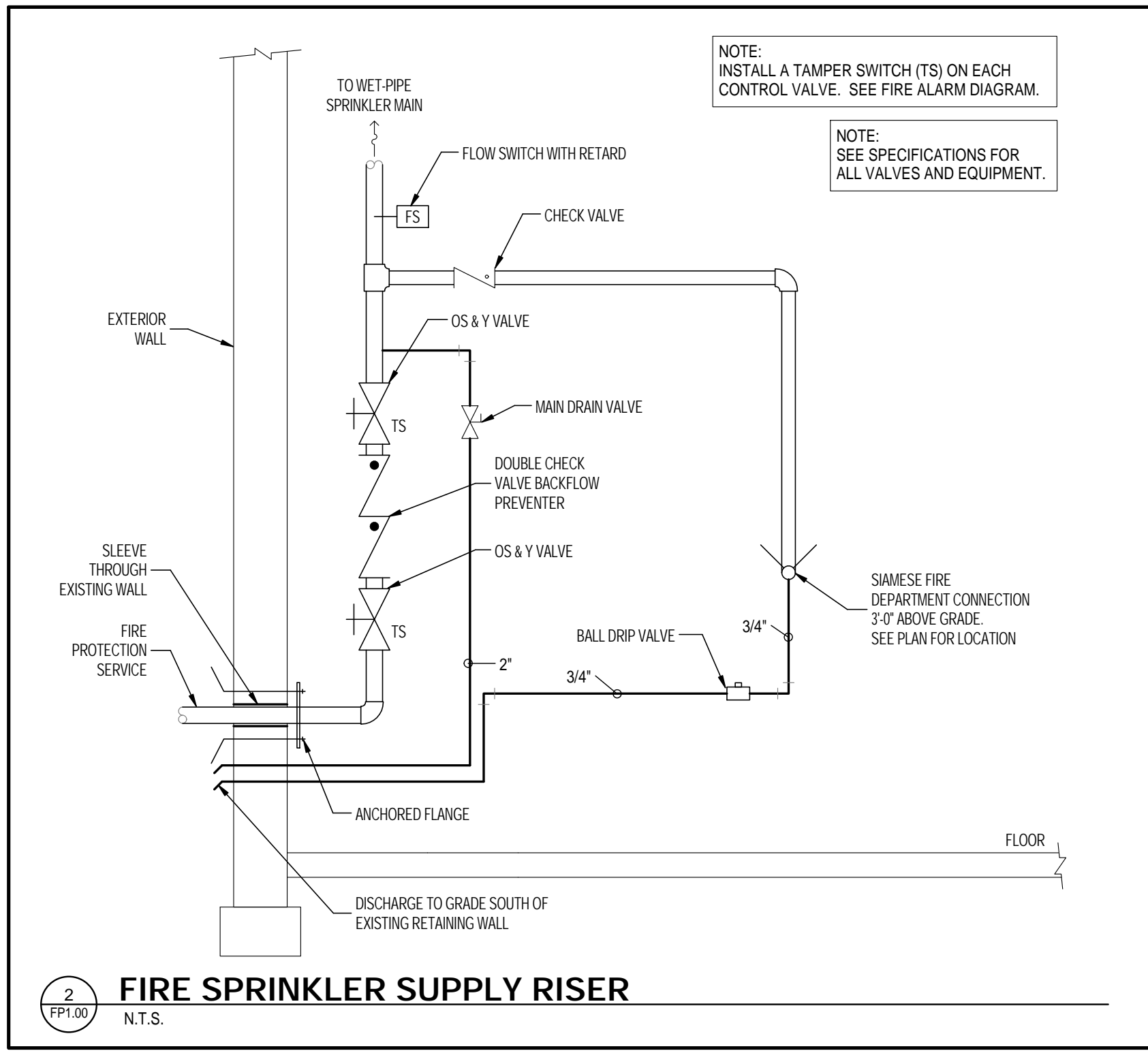
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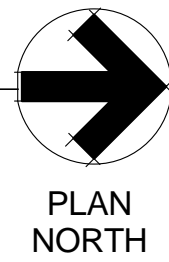
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FIRE PROTECTION PLAN - ALTERNATE 1
1/8" = 1'-0"



FIRE PROTECTION PLAN
1/8" = 1'-0"



FIRE PROTECTION GENERAL NOTES

1. ALL DRAWINGS ARE "PRELIMINARY" (AS DEFINED BY NFPA 13, DIAGRAMMATIC) AND ARE NOT TO BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
2. THE CONTRACTOR SHALL COORDINATE WITH ALL STATE AND LOCAL BUILDING REGULATION AGENCIES AND UTILITY COMPANY(S) IN THE PROCUREMENT OF AND PAYMENT OF ALL PERMITS, LICENSES, FEES AND CHARGES REQUIRED FOR THE PERFORMANCE OF THE WORK.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL FEES AND DIRECT EXPENSES INVOLVED IN ANY INSPECTION REQUIRED FOR THE PROJECT.
4. SEE SPECIFICATION SECTION "CONTRACT CLOSE-OUT AND COMMISSIONING" FOR WORK REQUIRED TO COMPLETE THIS PROJECT.
5. SEE SPECIFICATIONS FOR REQUIREMENTS FOR PIPING, SPRINKLER HEADS, BACKFLOW PREVENTION, SUBMITTALS, ETC.
6. SEE SPECIFICATIONS AND PLAN NOTES FOR HAZARD CLASSIFICATIONS. ALL PIPING SHALL BE SIZED BY HYDRAULIC CALCULATIONS.
7. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 13 AND THE APPLICABLE BUILDING CODE REQUIREMENTS FOR PIPING INSTALLATIONS.
8. COORDINATE ALL HEAD AND PIPE LOCATIONS WITH THE WORK OF OTHER TRADES. VERIFY ALL CEILING CONDITIONS. COORDINATION DOES NOT MEAN "I WAS HERE FIRST".
9. THE CONTRACTOR SHALL INSTALL A COMPLETE AND OPERABLE SYSTEM TO PROTECT THE BUILDING AS INDICATED, WHETHER OR NOT EVERY ELEMENT REQUIRED IS SPECIFICALLY CALLED OUT.
10. CONTRACTOR SHALL SUBMIT SPRINKLER SYSTEM DRAWINGS IDENTIFIED AS "WORKING PLANS". PREPARED ACCORDING TO NFPA 13. SUBMIT REQUIRED NUMBER OF SETS TO AUTHORITY HAVING JURISDICTION FOR REVIEW, COMMENT AND APPROVAL. INCLUDE SYSTEM HYDRAULIC CALCULATIONS. WORKING PLANS AND HYDRAULIC CALCULATIONS SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER. DO NOT SUBMIT UNSEALED DRAWINGS, AS THEY WILL BE REJECTED.
11. DO NOT INSTALL THE FIRE SERVICE OR ANY SPRINKLER SYSTEM PIPING UNTIL THE SPRINKLER SHOP DRAWINGS AND HYDRAULIC CALCULATIONS ARE APPROVED BY THE FOLLOWING:
 - * OWNER
 - * ENGINEER
 - * CODE OFFICIALS

FIRE PROTECTION PIPING LEGEND

- FS— FIRE SERVICE PIPING
—FS— FIRE SERVICE PIPING (BELOW GRADE)
—FPM— FIRE PROTECTION MAIN PIPING
—FP— FIRE PROTECTION BRANCH PIPING

PRELIMINARY SPRINKLER SYSTEM DESIGN CRITERIA

HAZARD GROUP	AREA OF PROJECT	DENSITY (CFMSF)	OVER MOST REMOTE AREA (SF)	MAXIMUM AREA PER SPRINKLER (SF)	HOSE ALLOWANCE (GPM)
LIGHT HAZARD	CLASSROOMS, CORRIDORS, OFFICES, LOBBY, RESTROOMS	0.10	1,500 NOTE 1	225 NOTE 2	100
	GENERATOR ROOM STORAGE ROOM		1,500 NOTE 1	130 NOTE 2	250

- NOTES**
1. OPERATION AREA MAY BE REDUCED BY USING QUICK-RESPONSE SPRINKLERS IN ACCORDANCE WITH APPLICABLE PROVISIONS OF NFPA 13.
 2. COORDINATE ALL HEAD AND PIPE LOCATIONS WITH THE WORK OF OTHER TRADES. VERIFY ALL CEILING CONDITIONS WITH ARCHITECTURAL PLANS.

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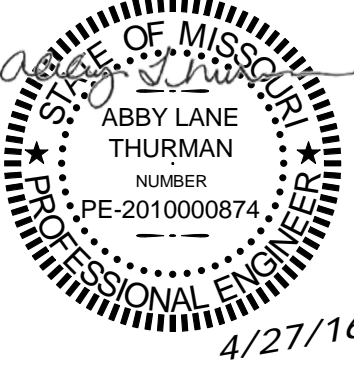
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Abby Thurman - Engineer
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NO.	DATE
DESCRIPTION	

PROJECT NUMBER: 15088
RELEASE DATE: 04/27/2016

FIRE PROTECTION PLAN

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1 FEMA EQUIPMENT FURNITURE PLAN
Q1.00 1/8" = 1'-0"

FURNITURE, FIXTURES & EQUIPMENT (FF&E) SCHEDULE							
MARK	FF&E TYPE	BASIS OF DESIGN	CSI SECTION #	FURNISHED BY	INSTALLED BY	CONNECTED BY	SPECIAL REMARKS (CONTRACTOR)
001	Furniture - Commons Furniture (tables, chairs, etc.)	N/A	N/A	OWNER	OWNER	N/A	
002	Furniture - Offices (desks, chairs, filing cabinets etc.)	N/A	N/A	OWNER	OWNER-OTHERS	N/A	
003	Classroom - Student Desk	KI	N/A	OWNER	OWNER-OTHERS	OWNER-OTHERS	24" X 72"; COORDINATE ELECTRICAL / DATA REQUIREMENTS
004	Classroom - Student Chair	KI	N/A	OWNER	OWNER-OTHERS	N/A	
005	Classroom - Instructor Desk	KI	N/A	OWNER	OWNER-OTHERS	OWNER-OTHERS	30" X 72"; COORDINATE ELECTRICAL / DATA REQUIREMENTS
006	Classroom - Lab - Instructor Chair	KI	N/A	OWNER	OWNER-OTHERS	N/A	
007	Classroom - Printer Table	KI	N/A	OWNER	OWNER-OTHERS	N/A	18" X 48"
008	Classroom - Marker Board	N/A	10100	OWNER	CONTRACTOR	N/A	4"HIGH, 12", 20", 24", 28" LENGTHS.COORDINATE MOUNTING REQUIREMENTS. ALL CLASSROOMS TO HAVE 24'-0" LENGTH.
045	Signage - Building (aluminum letters)	N/A	10426	CONTRACTOR	CONTRACTOR	N/A	TWO DIFFERENT SIZE LETTERS.
046	Signage - Room Identification	N/A	10426	CONTRACTOR	CONTRACTOR	N/A	
047	Signage - Directional (interior)	N/A	10426	CONTRACTOR	CONTRACTOR	N/A	
048	Signage - Occupancy Identification	N/A	10426	CONTRACTOR	CONTRACTOR	N/A	
052	Restroom - Paper Towel Dispenser	N/A	10990	OWNER	CONTRACTOR	N/A	
053	Restroom - Toilet Paper Dispenser	N/A	10990	OWNER	CONTRACTOR	N/A	
054	Restroom - Sanitary Napkin / Tampon Vendor	N/A	10990	OWNER	CONTRACTOR	N/A	
056	Restroom - Soap Dispenser	N/A	10990	OWNER	CONTRACTOR	N/A	
057	Restroom - Baby Changing Station	N/A	10990	OWNER	CONTRACTOR	N/A	
059	Restroom - ADA Grab Bars	N/A	10990	OWNER	CONTRACTOR	N/A	
060	Restroom - Coat Hook	N/A	10990	OWNER	CONTRACTOR	N/A	
061	Restroom - Toilet Partitions	N/A	10155	CONTRACTOR	CONTRACTOR	N/A	
062	Restroom - Mirror	N/A	10801	CONTRACTOR	CONTRACTOR	N/A	
063	Restroom - Vanities (Millwork)	N/A	06402	CONTRACTOR	CONTRACTOR	CONTRACTOR	VERIFY ADA VANITIES ARE PROVIDED.
065	Millwork	N/A	06402	CONTRACTOR	CONTRACTOR	CONTRACTOR	VERIFY CABINET LOCKING REQUIREMENTS WITH THE OWNER.
066	Vending Machines	N/A	N/A	OWNER-OTHERS	OWNER-OTHERS	OWNER-OTHERS	COORDINATE UTILITY HOOK-UP REQUIREMENTS
067	Drinking Fountains	ELKAY - EZDSTLBC	15410	CONTRACTOR	CONTRACTOR	CONTRACTOR	
068	Mop Sink	FIAT - MSB-2424	15410	CONTRACTOR	CONTRACTOR	CONTRACTOR	
069	Mop Hangers	N/A	N/A	CONTRACTOR	CONTRACTOR	N/A	Roll N' Grip Brush and Broom Holder, 18" L, 3 Grips, by Cole-Parmer. Quantity: 2
073	Fire Extinguishers & Cabinets (recessed)	NYSTROM - PALISADE	10520	CONTRACTOR	CONTRACTOR	N/A	ABC DRY CHEMICAL
080	Cable Tray	COOPER ELECTRIC	18135	CONTRACTOR	CONTRACTOR	N/A	COORDINATE TRANSITION RISE/DROP ANGLES BETWEEN DIFFERENT HEIGHT AREAS WITH THE OWNER.
081	AV / Data Cabling	N/A	N/A	OWNER	OWNER	OWNER	
082	Communications Cabling	N/A	N/A	OWNER	OWNER-OTHERS	OWNER-OTHERS	
083	AV / Data Outlets	N/A	N/A	OWNER	OWNER	OWNER	
084	Copy Machine	N/A	N/A	OWNER	OWNER	OWNER	COORDINATE HOOK-UP REQUIREMENTS
085	Projectors	N/A	N/A	OWNER	OWNER	OWNER	COORDINATE WALL PLATE REQUIREMENTS WITH THE OWNER.
086	Computers	N/A	N/A	OWNER	OWNER	OWNER	
087	Printers	N/A	N/A	OWNER	OWNER	OWNER	
088	Projector Mounting Plate	N/A	10990	OWNER	CONTRACTOR	CONTRACTOR	
089	Projector Screen	N/A	11132	OWNER	CONTRACTOR	N/A	MANUAL PULL-DOWN SCREENS
090	IT Racks & IT equipment (servers, switches, routers, etc.)	N/A	N/A	OWNER	OWNER	OWNER	
091	Door Hardware (excluding cylinders)	N/A	08710	CONTRACTOR	CONTRACTOR	CONTRACTOR	
092	Door Hardware - Cylinders / Keying	N/A	N/A	OWNER	OWNER	N/A	
093	Wall Clocks	N/A	10990	OWNER	CONTRACTOR	CONTRACTOR	
094	Televisions	N/A	N/A	OWNER	OWNER	OWNER	
096	Security Cameras	N/A	N/A	OWNER	OWNER-OTHERS	OWNER-OTHERS	
097	Finishes - Carpet Tile	N/A	09680	OWNER	CONTRACTOR	N/A	
098	Finishes - Vinyl Base	N/A	09650	OWNER	CONTRACTOR	N/A	
099	Finishes - Ceramic wall/floor tile & base	N/A	09310	OWNER	CONTRACTOR	N/A	
100	Finishes - VCT	N/A	09650	OWNER	CONTRACTOR	N/A	
102	Building Security Alarm System	N/A	N/A	OWNER	OWNER-OTHERS	OWNER-OTHERS	
103	Trash Bins	N/A	N/A	OWNER	OWNER	N/A	
104	Vinyl Wall Edge Guards	N/A	N/A	CONTRACTOR	CONTRACTOR	N/A	Flexible Vinyl Corner Guard, 2-1/2" Wings, 3/16" Radius, 4"H. CG-3 BY GLOBAL INDUSTRIES. COLOR TO MATCH EXISTING.
105	Donor Wall	N/A	N/A	CONTRACTOR	CONTRACTOR	N/A	NO MEP DEVICES SHALL BE PLACED ON DONOR WALL.

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Contractor is responsible for confirming and correcting dimensions at job site. The Architect will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the project.

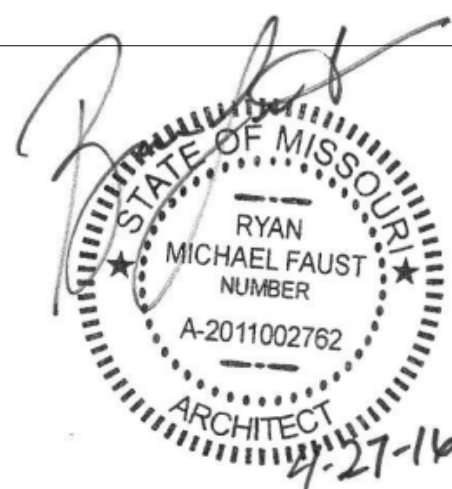
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