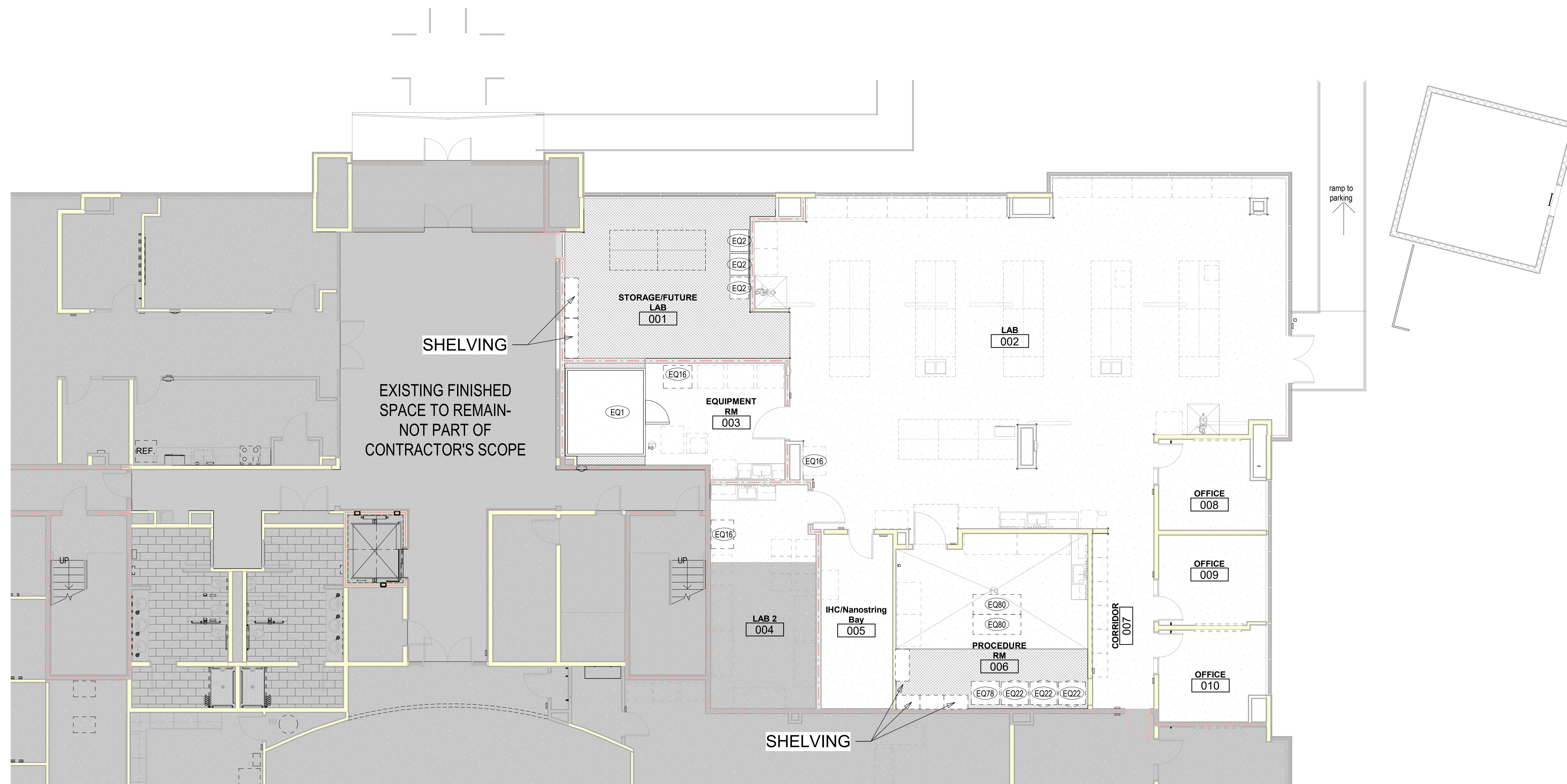


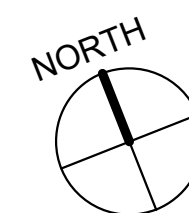
Specialty Equipment Schedule										
Type Mark	New/Existing/Future	Manufacturer	Model	Description	SIZE	WEIGHT	QTY	Power 1	ENERGY CONSUMPTION	Comments
EQ1	NEW	PARAMETER	--	WALK-IN COLD ROOM W/ SPLIT SYSTEM COOLER	EXTERIOR 11' X 10' X 8'		1	208/230V, 1-PHASE, 60HZ, 20A		
EQ2	EXISTING	FRIGIDAIRE	FFFU21M1QW	MANUAL DEFROST UPRIGHT FREEZER			3			EXISTING RELOCATED
EQ16	EXISTING	VWR	CAT #89522-634	90 GAL FLAMMABLE STORAGE CABINET W/SELF-CLOSING DOORS	43"W X 34"D X 65"H	467 LBS	3	NO POWER		
EQ22	EXISTING	OPTIMICE	??	CAGE CAROUSEL			3			
EQ78	NEW	RAD SOURCE	RS 2000	RS 2000 SMALL ANIMAL IRRADIATOR	42" X 34" X 72"- CLEARANCE NEEDED 48" X 39" X 78"	1450 LBS	1	208/240VAC, 1-PHASE, 50/60HZ, 30A, TRUE EARTH GROUND	4000W	
EQ80	NEW	BIOMEDICAL SOLUTIONS		SURGICAL TABLE WITH SHELVING	30" X 72"		2			

EQUIPMENT GENERAL NOTES

- LAB FURNITURE/EQUIPMENT VENDOR WILL SEISMICALLY BRACE ALL NEW ITEMS TO WALL, CEILING, AND FLOOR, PER SDP. THESE ITEMS ARE NIC.
- ALL EQUIPMENT IS BY SDP.



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



REV	DATE	DESCRIPTION

VCBO NUMBER: 21560
CLIENT NUMBER:
DATE: JULY 27, 2021

SUMITOMO DAINIPPON PHARMA

3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043

PERMIT & BID SET

EQUIPMENT PLAN

7/27/2021 1:28:30 PM
A111.5

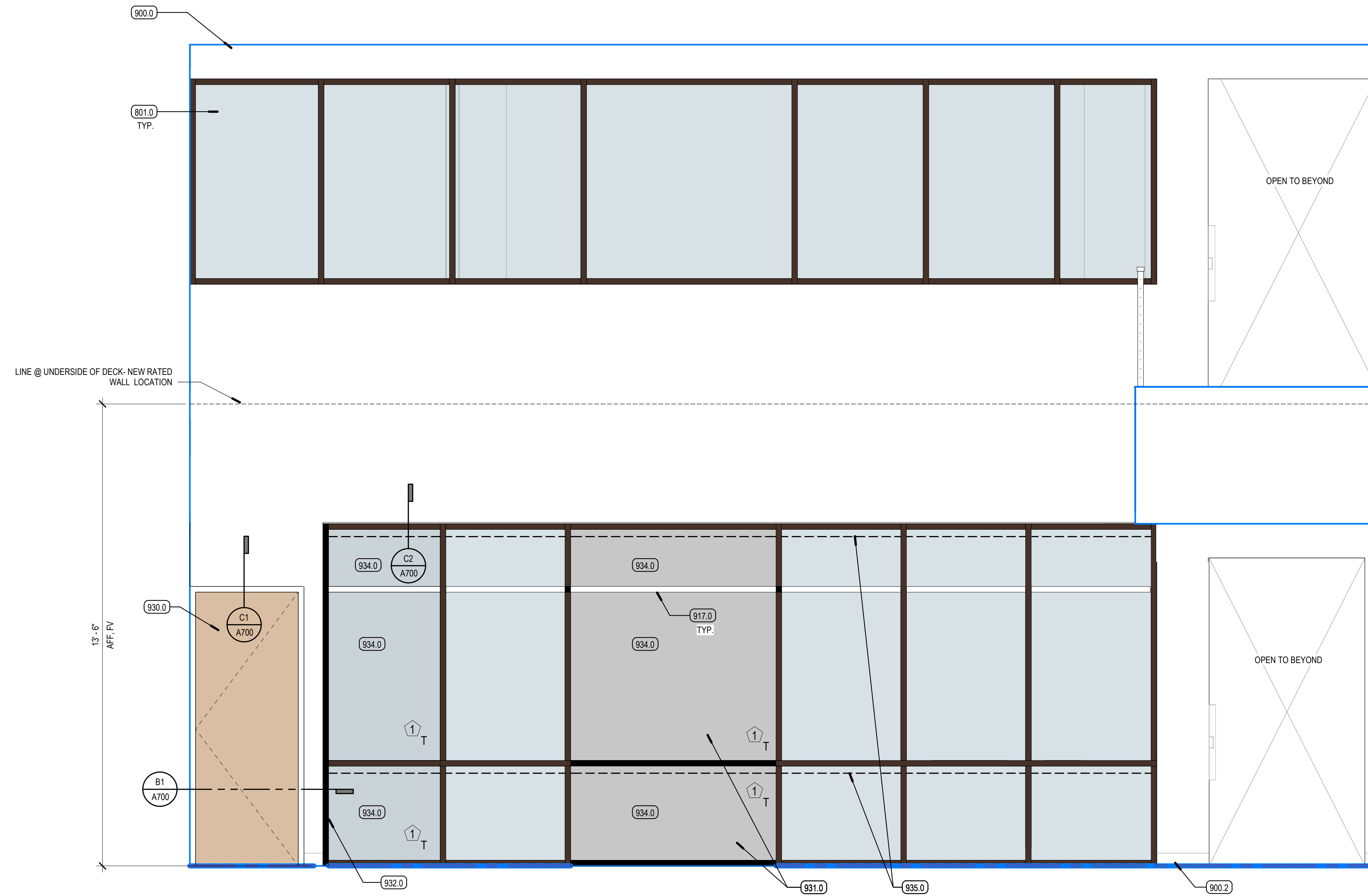
KEYED NOTES

- 801.0 EXISTING STOREFRON WINDOW SYSTEM
- 900.0 SCHEDULED CEILING SYSTEM
- 900.2 SCHEDULED FLOOR FINISH
- 917.0 PROVIDE MATCHING REVEAL AT WINDOW FILM
- 930.0 PROVIDE NEW RATED WOOD DOOR WHERE WINDOW WAS REMOVED, MATCH EXISTING
- 931.0 REMOVE & DISCARD DOOR AND TRANSOM, PROVIDE NEW WINDOW WITH MATCHING FILM
- 932.0 NEW WINDOW END SIZE AT NEW WALL & DOOR. PROVIDE NEW TEMPERED GLAZING
- 934.0 PROVIDE NEW WINDOW FILM
- 935.0 LIGHT FIXTURE MOUNTED TO TOP INSIDE OF FRAME, SEE ELEC.



REV	DATE	DESCRIPTION
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VCBO NUMBER: 21560
 CLIENT NUMBER:
 DATE: JULY 27, 2021



A3 LOBBY WALL ELEVATION
 SCALE: 1/2" = 1'-0"

SUMITOMO DAINIPPON PHARMA

3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043

PERMIT & BID SET

INTERIOR ELEVATIONS

A501

7/27/2021 1:26:11 PM

DOOR & FRAME NOTES

- MATERIAL ABBREVIATIONS:
WD = WOOD
AL = ALUMINUM
HM = HOLLOW METAL
- ALL HOLLOW METAL DOOR AND WINDOW FRAMES ARE TO HAVE A SINGLE RABBET PROFILE
- SEE SPECIFICATION FOR HARDWARE GROUP DEFINITION
- GENERAL CONTRACTOR TO COORDINATE WORK BETWEEN DOOR INSTALLER AND SECURITY SYSTEM INSTALLER
- PAINT HOLLOW METAL DOORS & FRAMES TO MATCH EXISTING

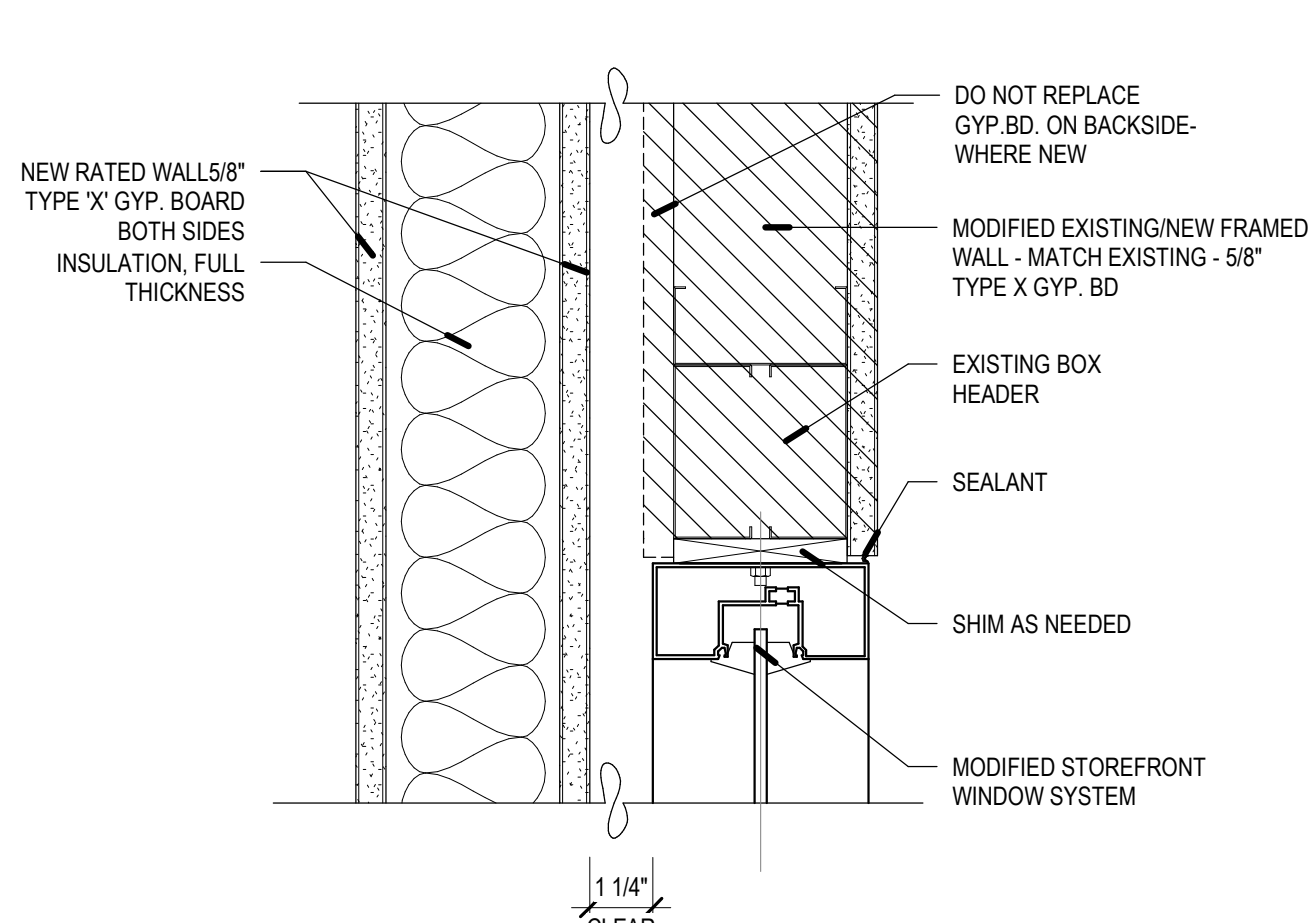
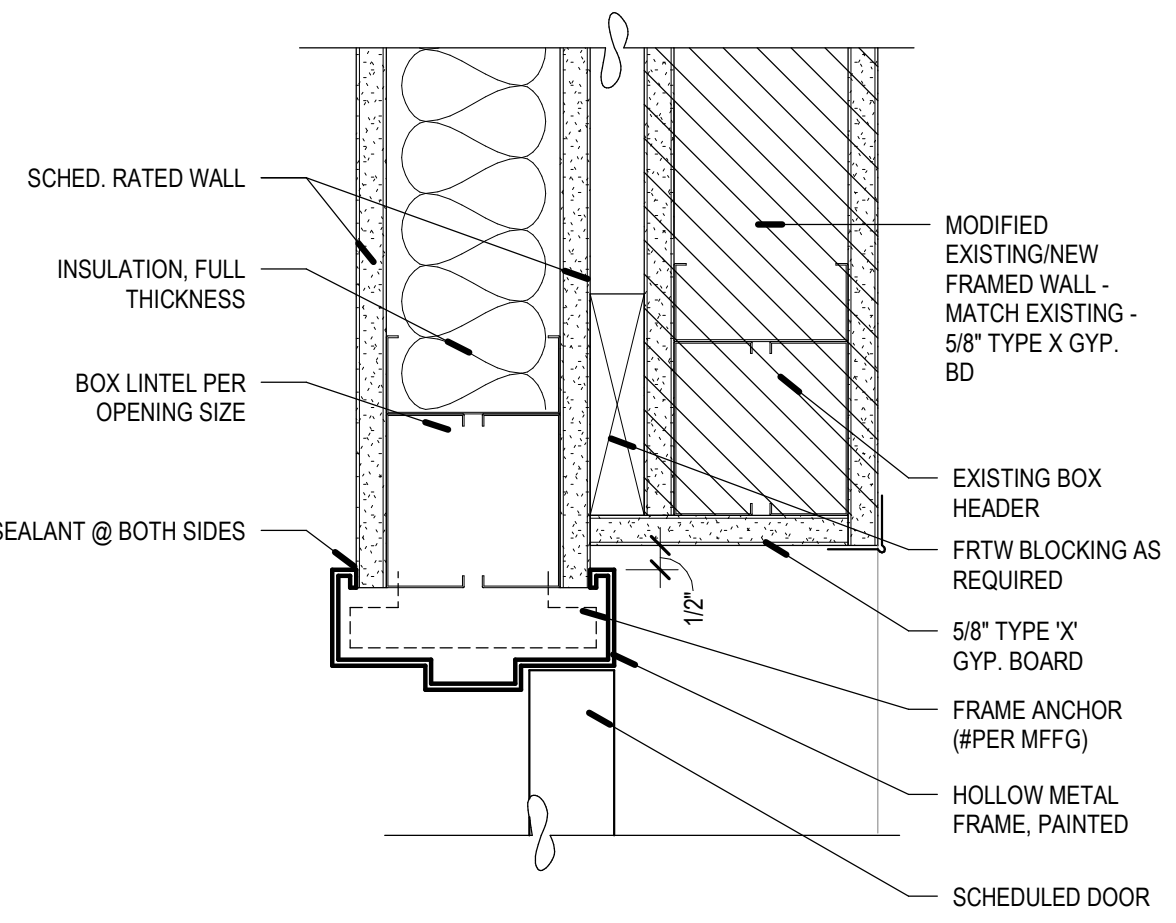
GLAZING TYPE LEGEND

MARK	DESCRIPTION
①	1/4" THICK GLASS
#T	T INDICATES TEMPERED GLASS

NOTE:
WINDOW TYPE QUANTITIES PROVIDED FOR CONVENIENCE, THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE QUANTITIES OF EACH WINDOW TYPE.

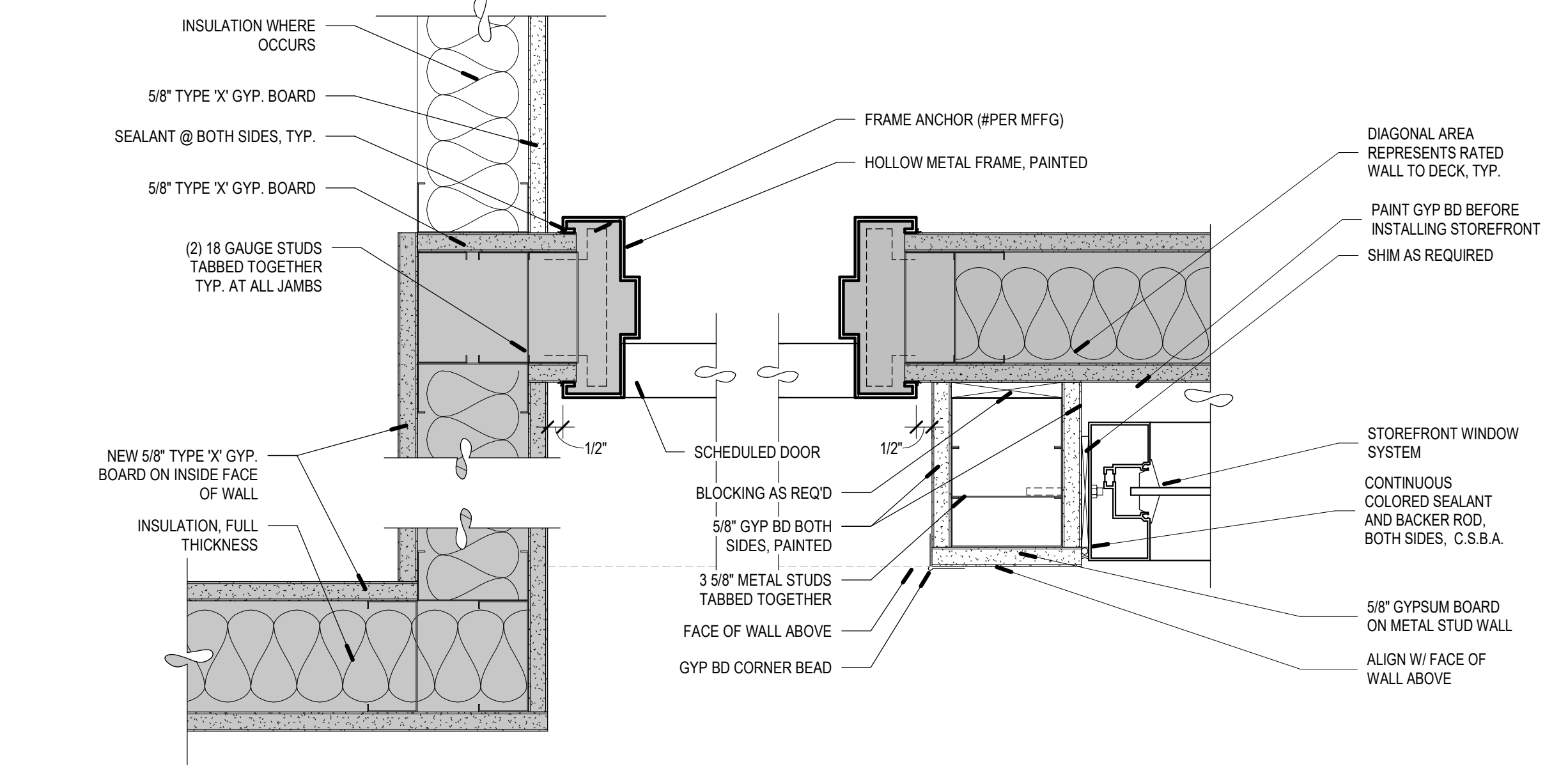
DOOR AND FRAME SCHEDULE

DOOR NUMBER	NEW/EXISTING	DOOR			ELEV. TYPE	MATERIAL	FACING/FINISH	FRAME			HARDWARE GROUP	GLAZING TYPE	LABEL (MIN.)	NOTES	DOOR NUMBER
		WIDTH	HEIGHT	THICK				NEW/EXISTING	ELEV. TYPE	MATERIAL					
R001	NEW	36"	96"	1 3/4"	A2	WD	STAINED	NEW	1	HM	PAINTED	200	NA	45 MIN.	R001
R003	EXISTING	48"	96"	1 3/4"	E	HM	PAINTED	NEW	1	HM	PAINTED	EXIST. RELOCATED		NOT RATED	R003
R004	EXISTING	48"	96"	1 3/4"	E	HM	PAINTED	NEW	1	HM	PAINTED	EXIST. RELOCATED		NOT RATED	R004
R022	EXISTING	36"	96"	1 3/4"	A	WD	STAINED	NEW	2A	HM	PAINTED	EXIST	1		R022

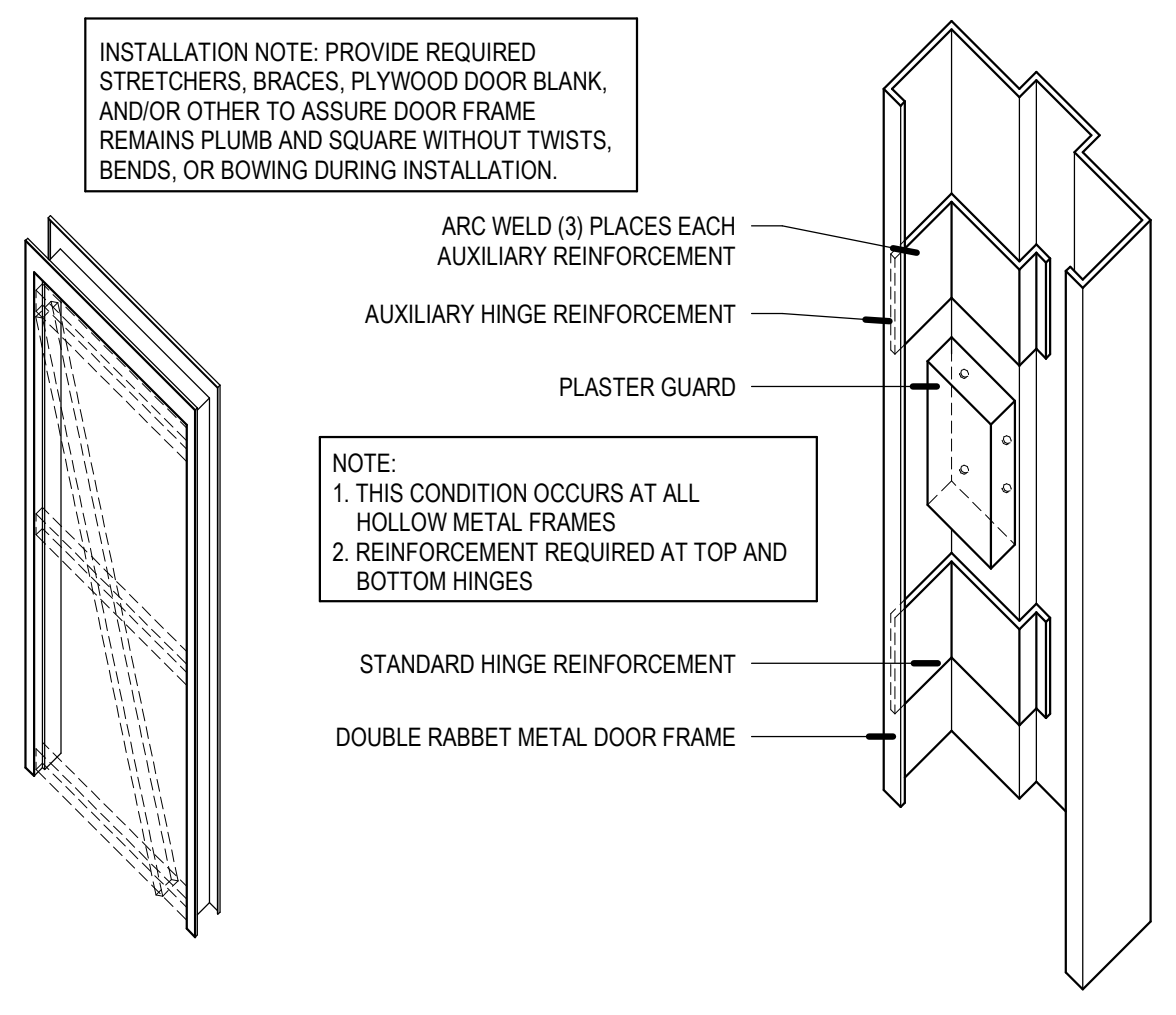


C1 H.M. DOOR HEAD DTL. @ 1 HR WALL
SCALE: 3" = 1'-0"

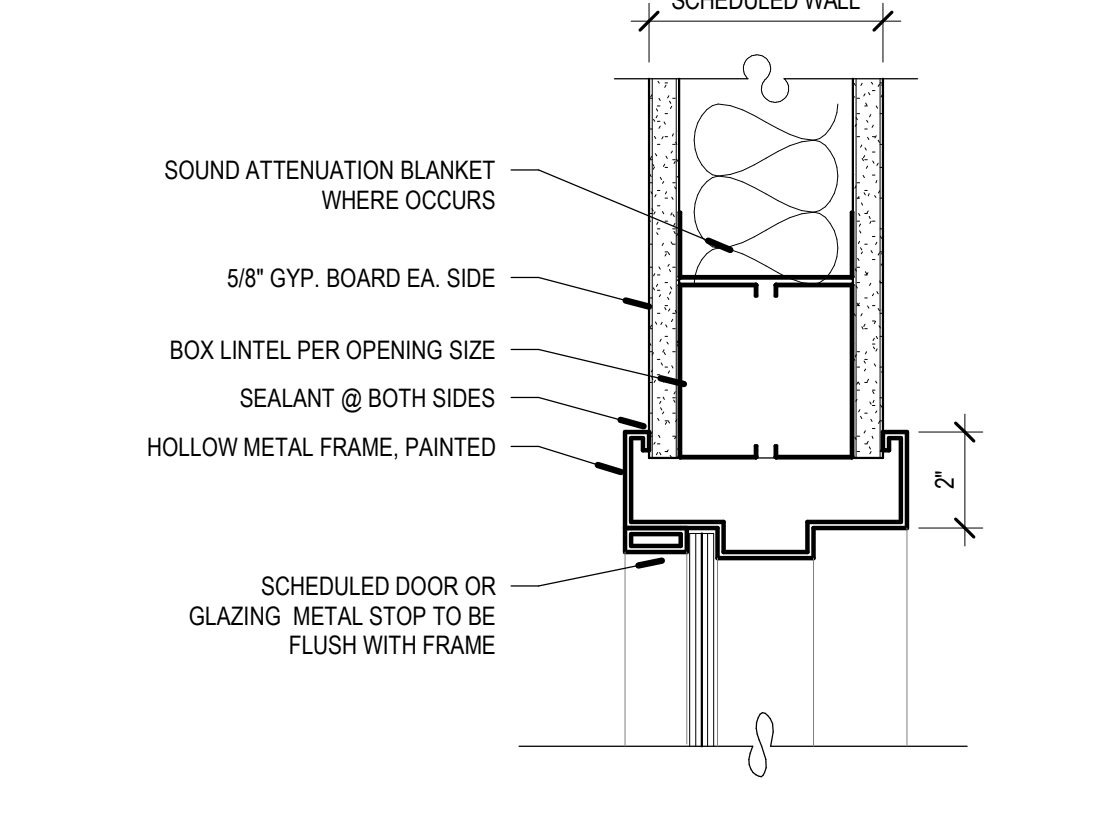
C2 STOREFRONT HEAD DTL. @ 1 HR WALL
SCALE: 3" = 1'-0"



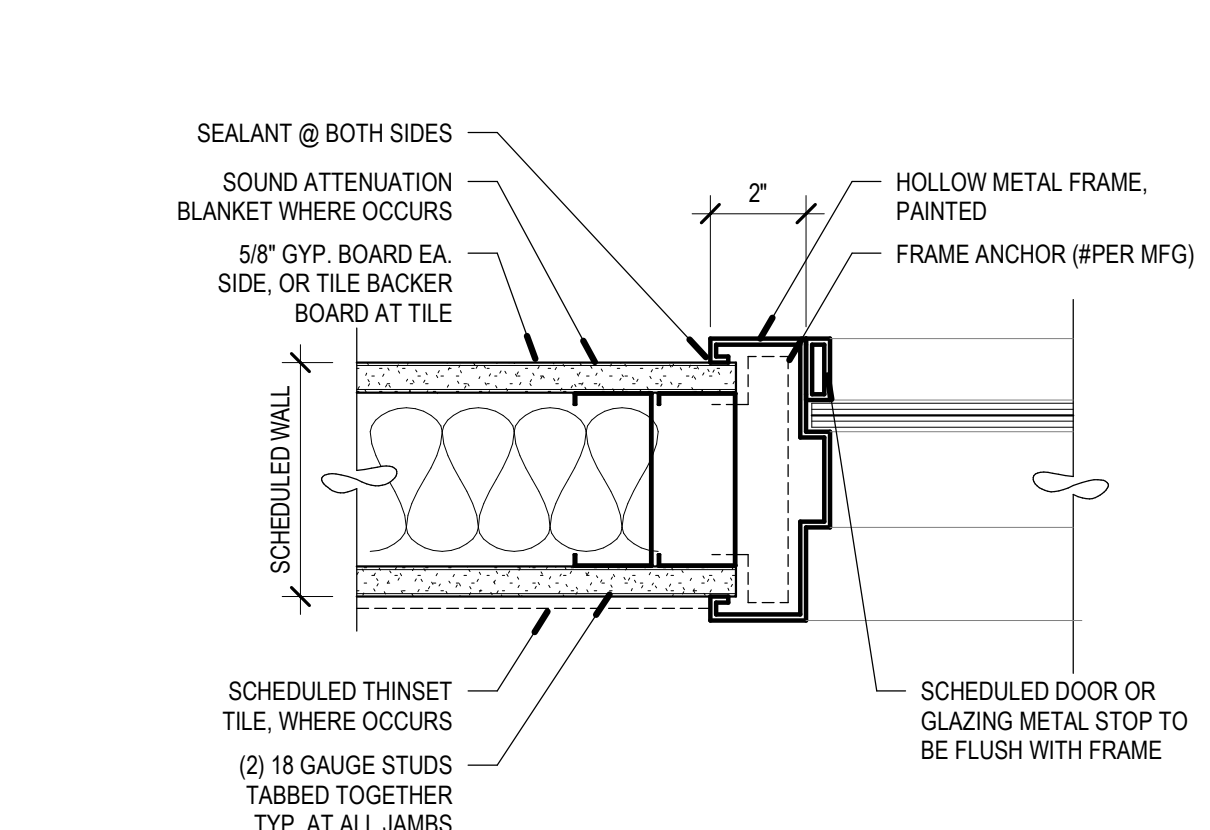
B1 H.M. DOOR JAMB DTL. @ 1 HR WALL
SCALE: 3" = 1'-0"



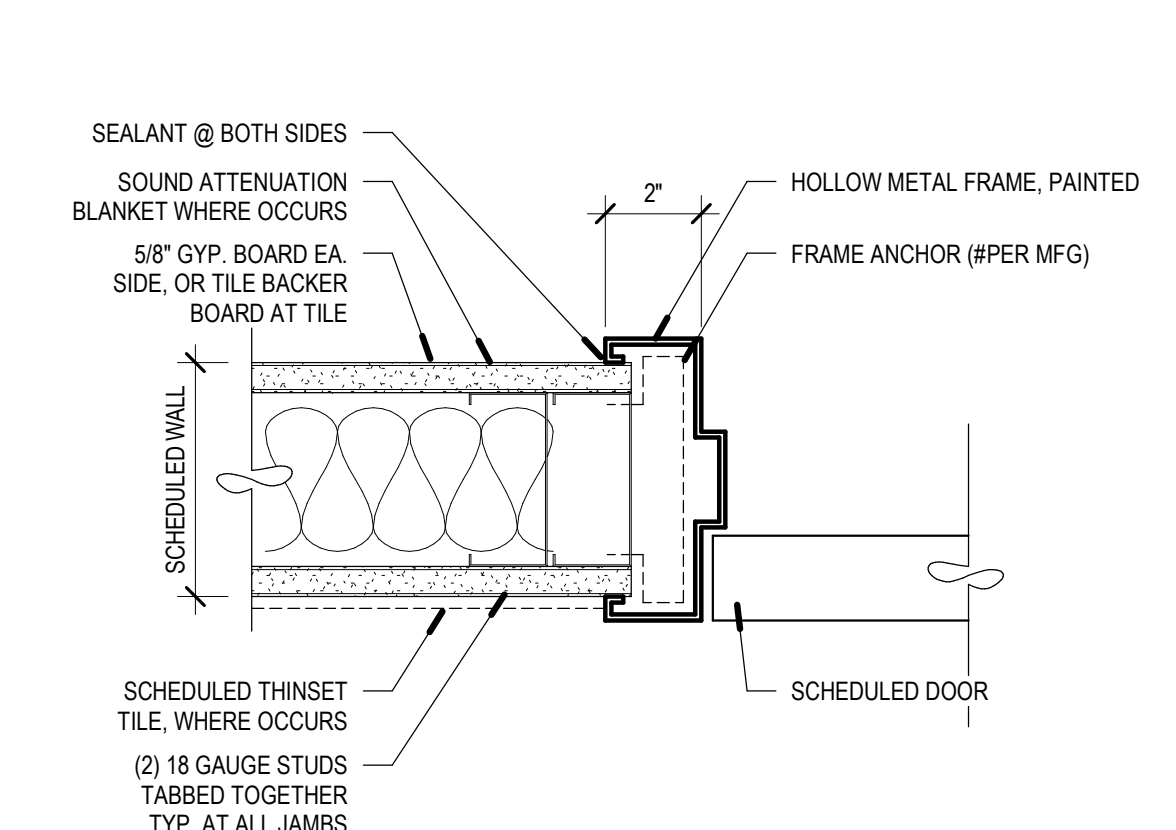
B3 TYPICAL H.M. FRAME DTL.
SCALE: NOT TO SCALE



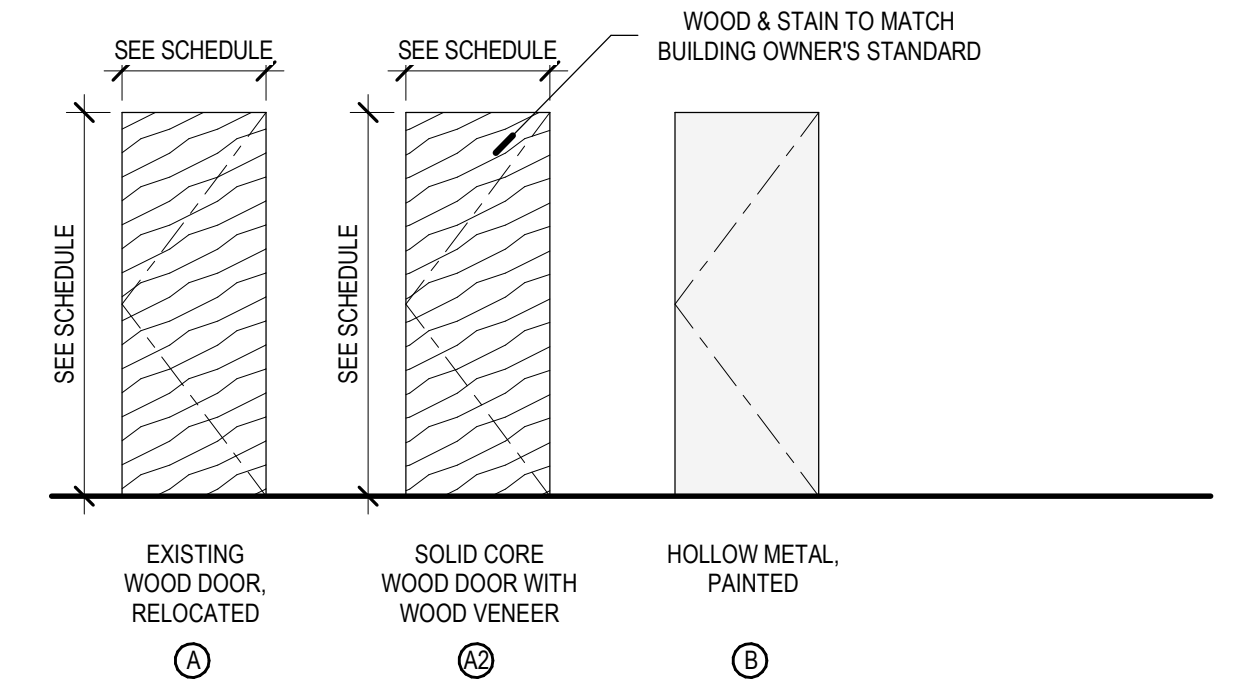
A1 H.M. DOOR OR WINDOW HEAD DTL.
SCALE: 3" = 1'-0"



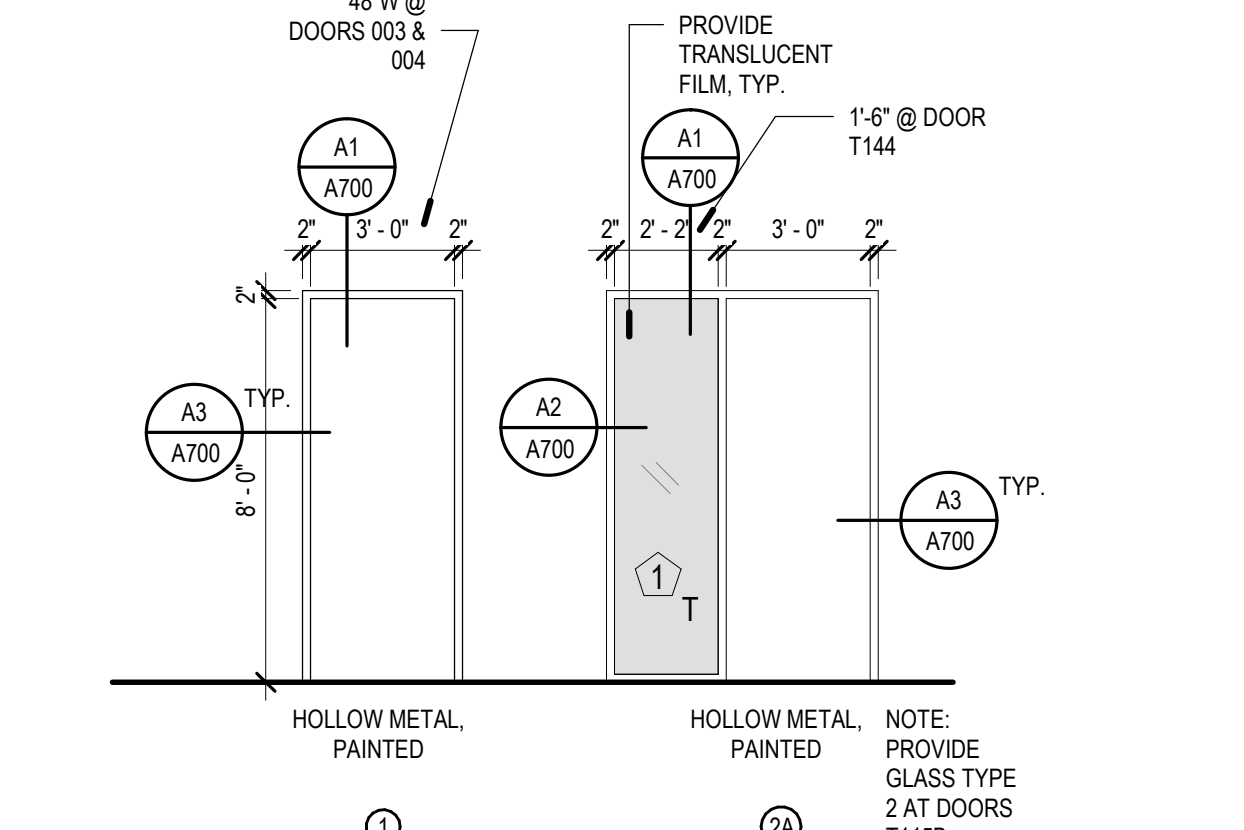
A2 H.M. WINDOW JAMB DTL.
SCALE: 3" = 1'-0"



A3 H.M. DOOR JAMB DTL.
SCALE: 3" = 1'-0"



B4 DOOR TYPES
SCALE: 1/4" = 1'-0"

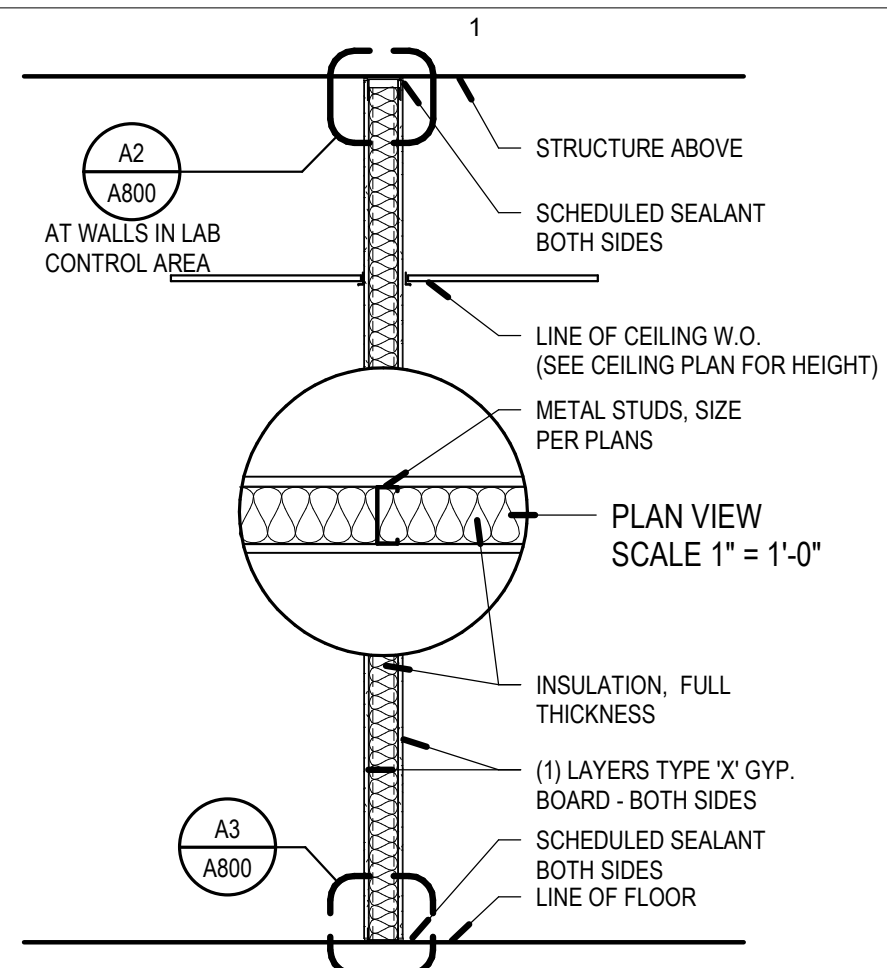


A4 DOOR FRAME TYPES
SCALE: 1/4" = 1'-0"

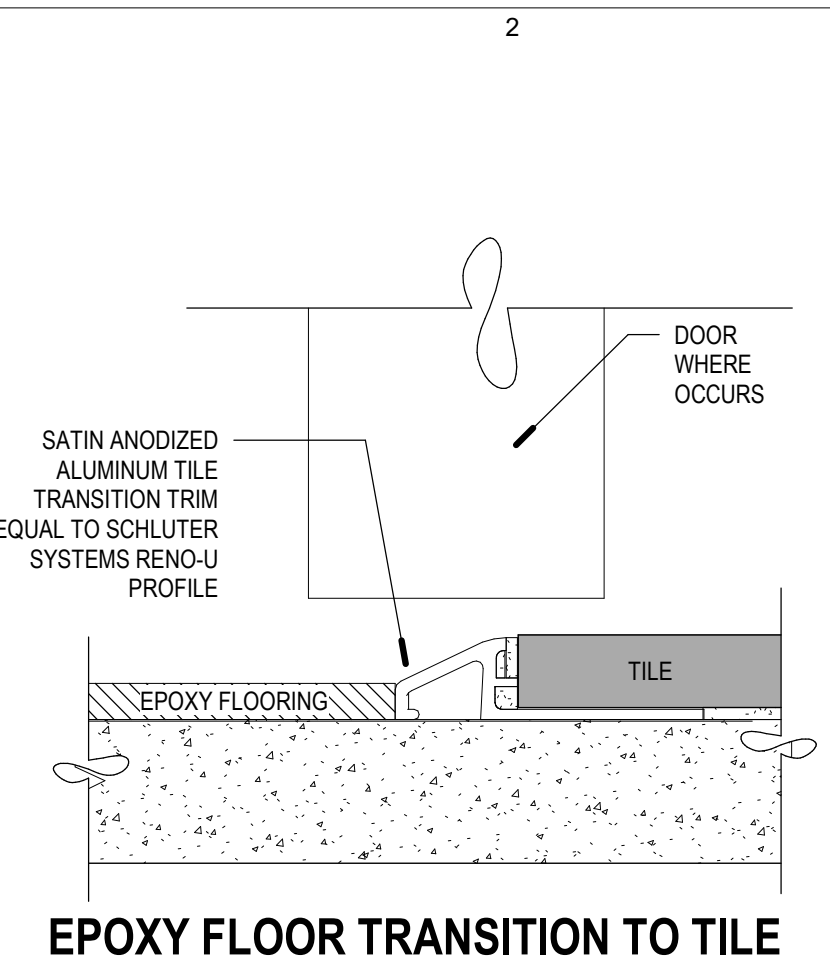


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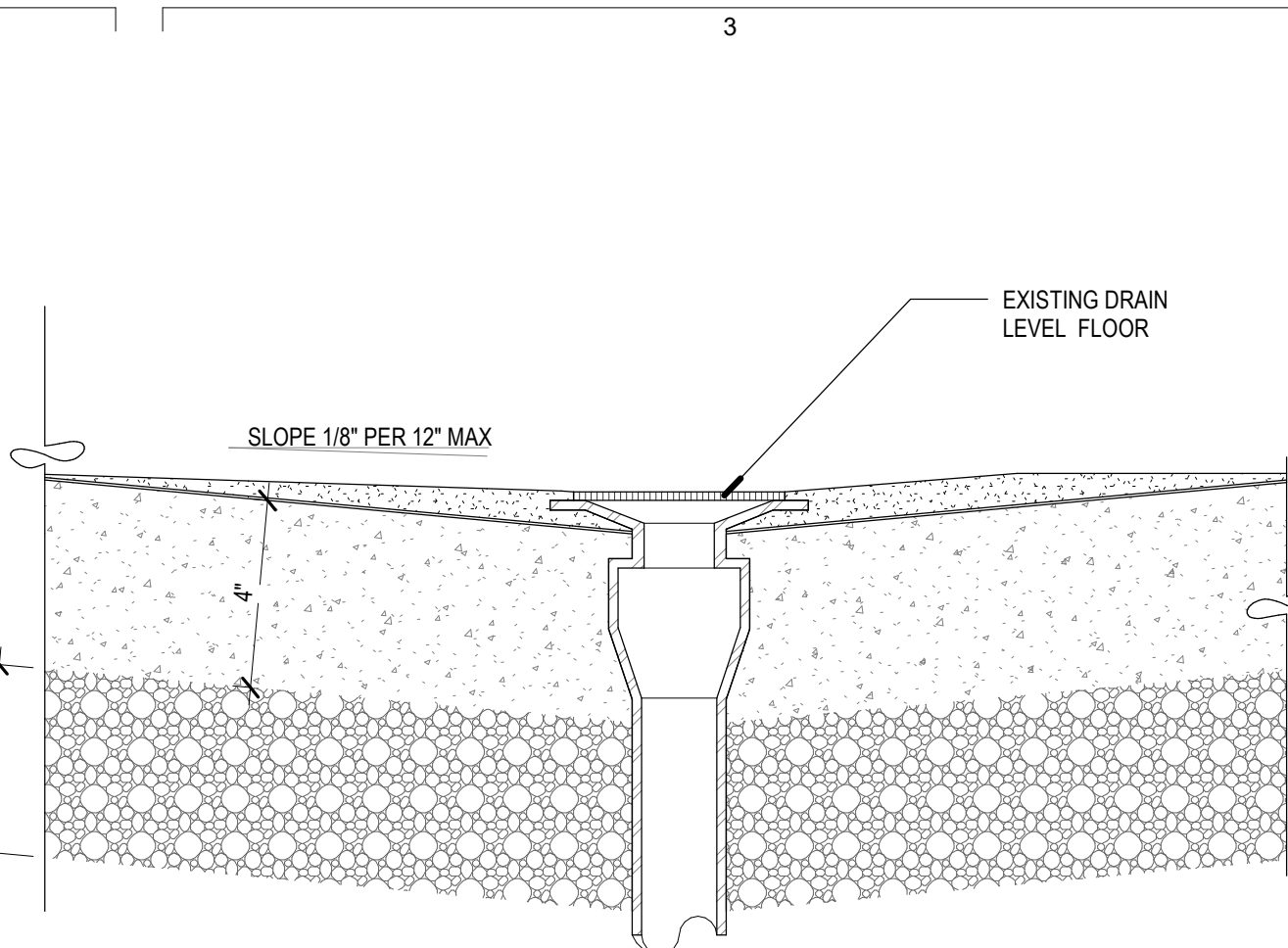
VCBO NUMBER: 21560
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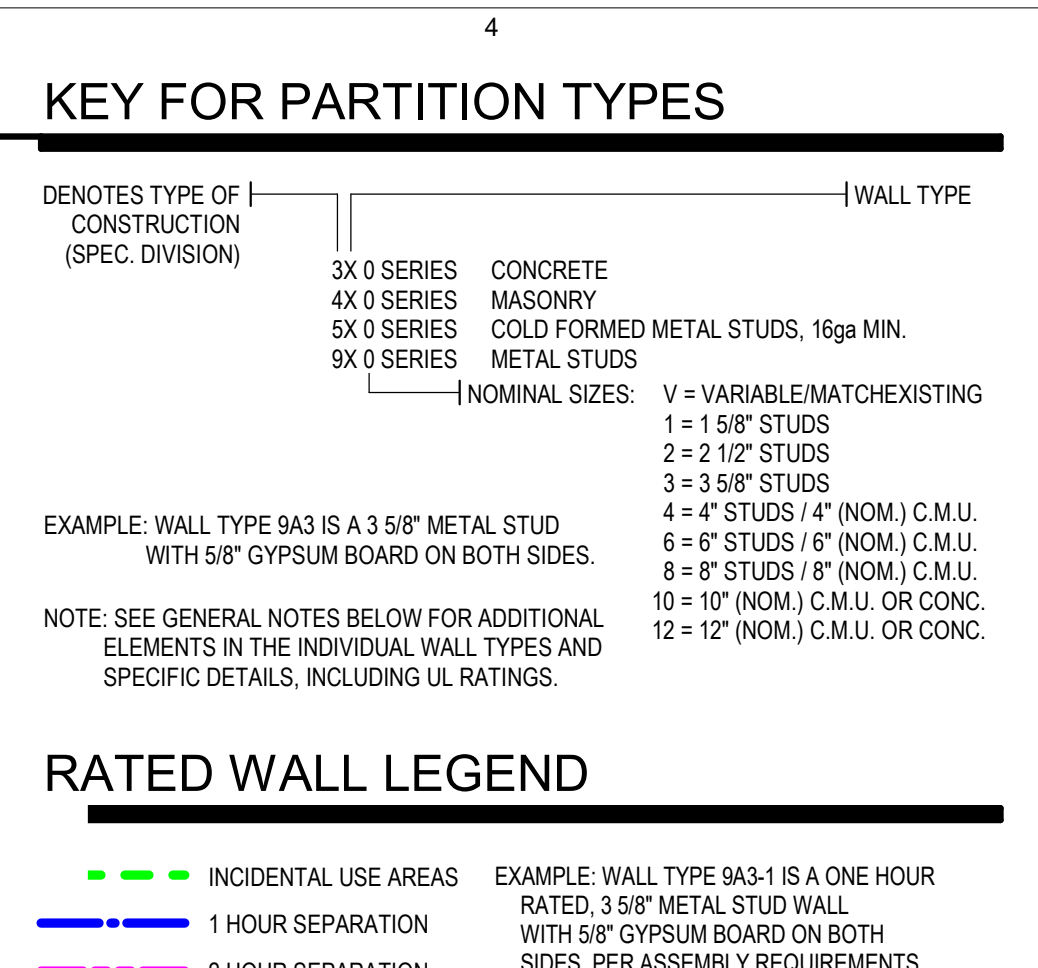
D1 PARTITION TYPE 9A6-1
SCALE: NOT TO SCALE



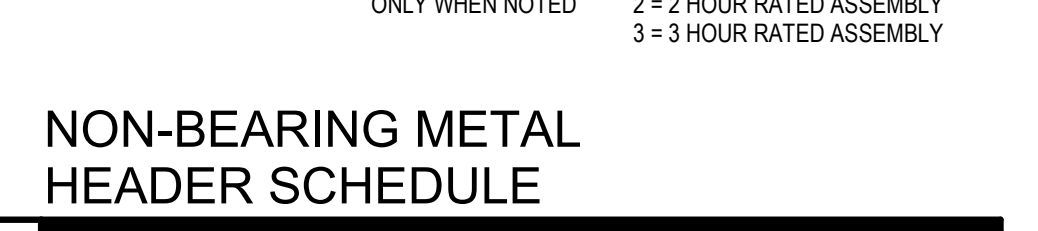
D2 TYP. FLOOR TRANSITIONS
SCALE: 1/2\"/>



D3 TRANSITION - FLOOR/DRAIN
SCALE: 3\"/>



KEY FOR PARTITION TYPES



RATED WALL LEGEND

NON-BEARING METAL HEADER SCHEDULE

MAXIMUM SPAN	HEADER	Fy
4'-0"	(2) 400S137-43	33 ksi
6'-0"	(2) 600S162-43	33 ksi
8'-0"	(2) 800S162-43	33 ksi

NON-BEARING METAL STUD GAUGE SIZING

NON-BEARING METAL STUD GAUGE SIZING

MEMBER DEPTH IN 1/100 INCHES	FLANGE WIDTH IN 1/100 INCHES	STYLE (S=STUD OR JOIST)	MATERIAL THICKNESS IN MILS
400	137-43		

MEMBER DEPTH	MAX STUD HEIGHT	MIN. GA. & SPACING
2 1/2" (250S125-33)	10'-0"	20@16" O.C.
3 5/8" (362S125-33)	14'-0"	20@16" O.C.
3 5/8" (362S162-33)	16'-0"	20@16" O.C.
3 5/8" (362S162-43)	18'-0"	18@16" O.C.
6" (600S162-33)	24'-0"	20@16" O.C.
6" (600S162-43)	26'-0"	18@16" O.C.
6" (600S162-54-50KSI)	28'-0"	16@16" O.C.

METAL STUD NOTES:
1. SCHEDULE TO BE USED FOR NON-BEARING WALLS.
2. HEADERS TO BE CONSTRUCTED AS BOX HEADERS PER SSMA STANDARDS.
3. SEE TYPICAL DETAIL FOR MORE INFORMATION.

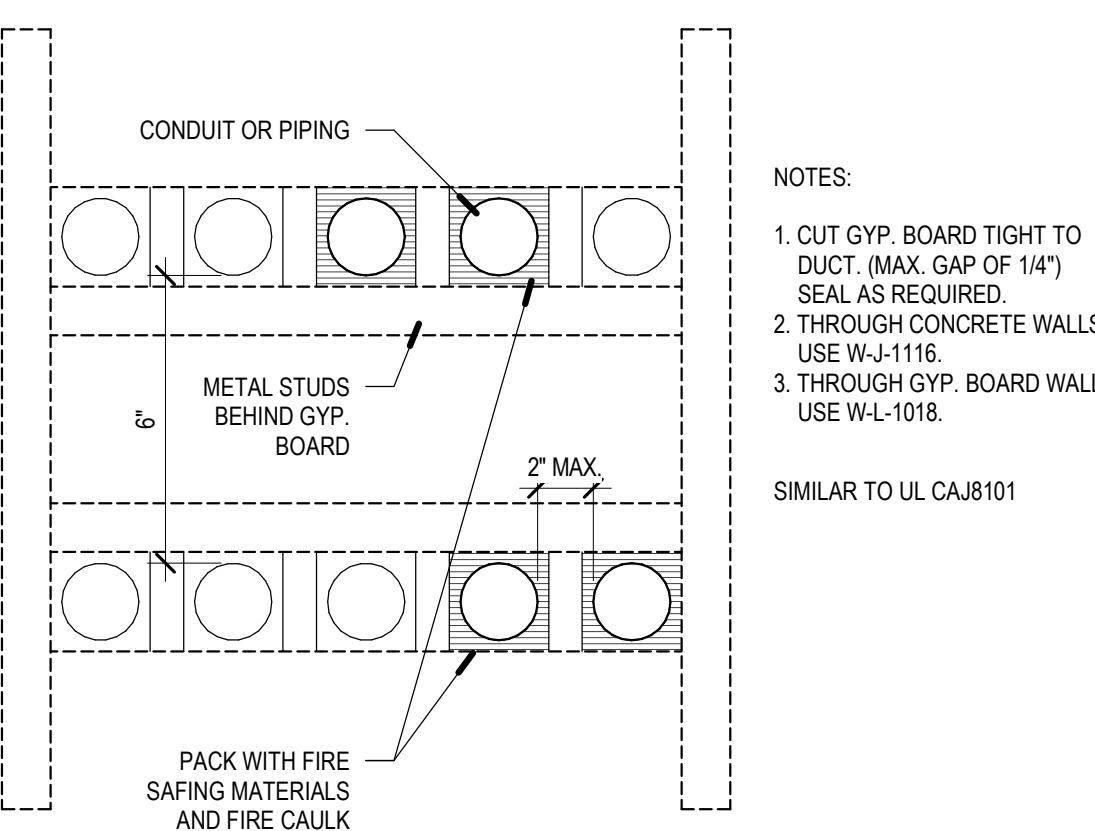
PARTITION & FRAMING GENERAL NOTES

- PARTITION TYPE INDICATIONS ARE INDEPENDANT OF APPLIED FINISHES. SEE THE FINISH SHEETS AND INTERIOR ELEVATIONS FOR WALL FINISHES INCLUDING TILE COURSEING AND LAYOUT AND/OR THE DESIGNATIONS ON THE PLANS FOR ADDITIONAL INFORMATION REGARDING APPLIED FINISHES.
- WHERE PARTITION TYPE DESIGNATION ON FLOOR PLANS IS INTERRUPTED BY DOOR OPENING, GLAZED PARTITION, ETC., CONSTRUCTION ABOVE INTERRUPTION (AND WHERE APPLICABLE BELOW) IS TO BE THE SAME AS THAT DESIGNATED FOR THE PARTITION IN WHICH THE INTERRUPTION OCCURRED.
- ALL WOOD BLOCKING TO BE FIRE-RETARDANT TREATED PER IBC SECTION 2303.2.
- THE MINIMUM REQUIREMENTS FOR CONSTRUCTION OF EACH PARTITION TYPE AS EXPRESSED BY THE INDICATED REFERENCE ARE INCORPORATED BY REFERENCE AND ARE APPLICABLE TO THE WORK OF THIS PROJECT. HOWEVER, ADDITIONAL AND/OR MORE RESTRICTIVE REQUIREMENTS MAY BE INDICATED BY THE SPECIFICATIONS AND DRAWINGS. SUCH REQUIREMENTS ALSO APPLY AND SHALL GOVERN. SUCH REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO:
 - USE 5/8" THICK GYPSUM BOARD THROUGHOUT UNLESS NOTED OTHERWISE.
 - USE 16" OC MAX STUD SPACING UNLESS NOTED OTHERWISE IN THESE DOCUMENTS. THE SPACING STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MAX SPACING IF ALLOWED IN THESE DOCUMENTS.
 - USE STUDS OF GAGE INDICATED ON THE DRAWINGS OR IN THE SPECIFICATIONS. THE GAGE STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MINIMUM GAGE TESTED, 20 GA (30 MILS) IS THE MINIMUM ALLOWED IN THESE DOCUMENTS.
 - USE STUDS OF DEPTH INDICATED BY THIS SET OF DOCUMENTS. THE DEPTH STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MINIMUM DEPTH TESTED DEPTH ALLOWED IN THESE DOCUMENTS. SEE STRUCTURAL DOCUMENTS FOR ADDITIONAL INFORMATION PERTAINING TO THE CONSTRUCTION OF CONCRETE, MASONRY AND STUD WALLS.
- PROVIDE FIRE RATED CONSTRUCTION ASSEMBLIES WHERE INDICATED ON SHEETS G100'S AND FLOOR PLAN DRAWINGS.
- ALL DIMENSIONS ARE CENTER OF STUD OR FACE OF CONCRETE, MASONRY OR ROUGH OPENING UNLESS NOTED OTHERWISE. FACE OF FINISHED WALL WILL BE NOTED AS FOW.
- AT ALL INTERIOR WALLS, GYPSUM BOARD IS TO EXTEND TO THE DECK ABOVE.
- WALL TYPES NOT NOTED ARE ASSUMED TO MATCH ADJACENT ROOMS. SEE SHEETS FOR FINISHES. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- ALL METAL STUD PARTITIONS ARE CONSIDERED ACOUSTIC PARTITIONS AND ARE TO RECEIVE A TYPE 1 SOUND ATTENUATION BLANKET. THICKNESS TO MATCH STUD DEPTH, UNLESS NOTED OTHERWISE.
- REFER TO SHEET A800 FOR TYPICAL INTERIOR WALL CONDITIONS ASSOCIATED WITH ALL METAL STUD PARTITIONS.
- PROVIDE CONTROL JOINTS IN METAL FRAMED WALLS AT APPROXIMATELY 30 FEET ON CENTER. LOCATE AT CORNER ABOVE DOORS OR INSIDE CORNER OF PLASTERS OR OTHER INCONSPICUOUS LOCATION WHERE POSSIBLE. CONSULT WITH ARCHITECT PRIOR TO COMMENCING FRAMING. INSTALL PER DETAIL B2/A800 FOR CONTROL JOINTS.
- AT WALL OPENINGS FOR PENETRATION OF PIPES, DUCTS, DEVICES, ETC., GYPSUM BOARD IS TO BE CUT TO MATCH THE SHAPE AND DIMENSION OF THE PENETRATING OBJECT AND THE GAP BETWEEN THE OBJECT AND THE WALL IS TO BE SEALED W/ ACOUSTICAL OR FIRE SEALANT ON ALL SIDES WITH A 3/4" JOINT AT ALL SIDES. MAXIMUM THE OPENING FOR DUCTS OR LARGE PENETRATIONS SHALL BE FRAMED WITH A HEADER, ADD AN ANGLED CORNER BRACE IF THE GAP EXCEEDS 3" FROM FRAMING TO THE OPENING.
- CONTRACTOR TO PROVIDE BLOCKING / BACKING FOR ALL WALL MOUNTED EQUIPMENT. SEE FLOOR PLANS AND INTERIOR ELEVATIONS FOR CABINETS, GRAB BARS ETC. INSTALL BLOCKING AS DETAILED OR AS REQUIRED TO MOUNT SUCH DEVICES. ALL BLOCKING IS TO BE FIRE RETARDANT TREATED. INSTALL PER SHEET A800.
- WHERE THERE IS LIMITED WATER EXPOSURE: INSTALL ONE LAYER OF 5/8" TYPE X WATER RESISTANT GYPSUM BOARD PER ASTM C1396 (WHERE GYPSUM BOARD OCCURS) OF BASIC PARTITION AT THE FOLLOWING LOCATIONS:
 - WITHIN 2 FEET HORIZONTALLY AND 4 FEET VERTICALLY OF JANITORS SINKS
 - AT OTHER LOCATIONS, I.E. TOILET ROOMS AND KITCHENS, AND AS INDICATED ON THE ARCHITECTURAL FINISH PLANS AND ELEVATIONS.
- INSTALL ONE LAYER OF 5/8" GLASS MAT TILE BACKER BOARD IN LIEU OF GYPSUM BOARD (WHERE GYPSUM BOARD OCCURS) OF BASIC PARTITION WHERE THERE IS NO FIRE RATED AND OVER GYPSUM BOARD FACE LAYER AT FIRE RATED PARTITIONS AT THE FOLLOWING LOCATIONS:
 - AT WET LOCATIONS, SUCH AS SHOWER STALLS AND TUB SURROUNDS.
 - WHERE CERAMIC TILE FINISHES ARE INDICATED PER THE FINISH PLANS AND/OR INTERIOR ELEVATIONS.
 - AT OTHER LOCATIONS AS INDICATED BY THE ARCHITECTURAL FINISH PLANS AND ELEVATIONS.
- WHERE NEW WALLS OR FURRING ARE INDICATED TO BE DIMENSIONED OFF OF AN EXISTING WALL, THE NEW WALL SHALL BE STRAIGHT AND PLUMB REGARDLESS OF THE CONDITION OF THE EXISTING WALL.

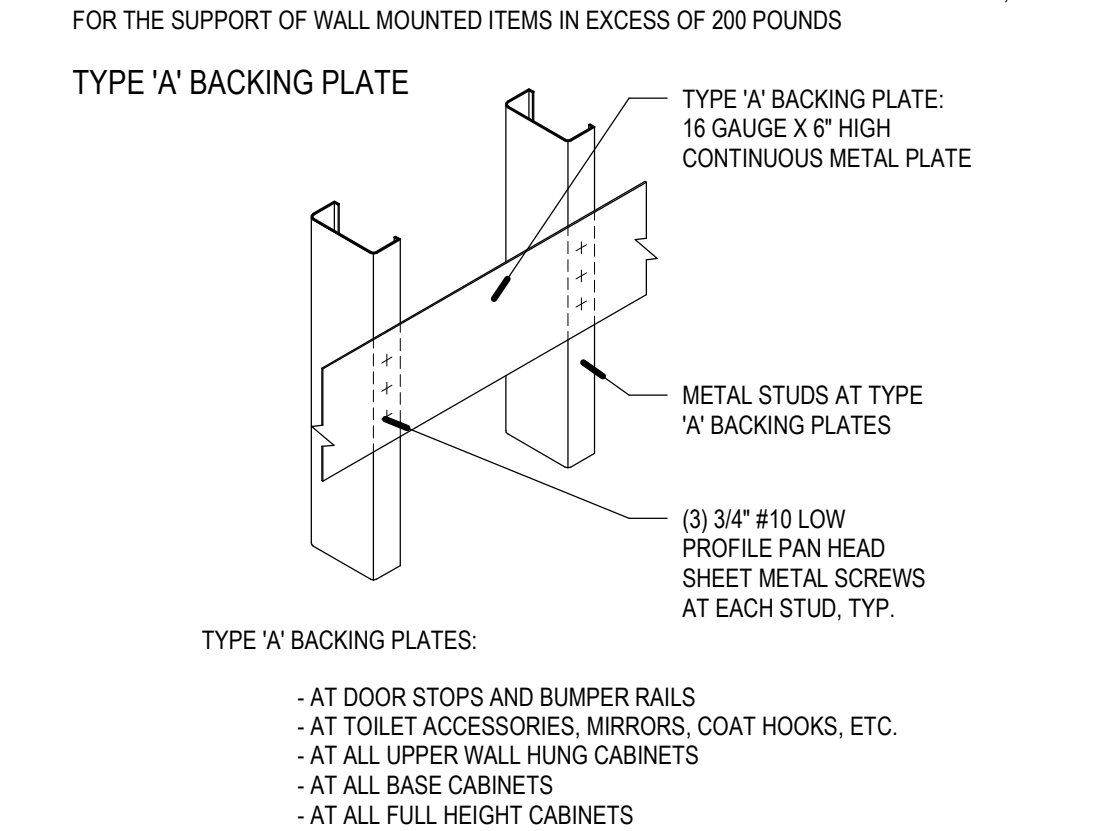


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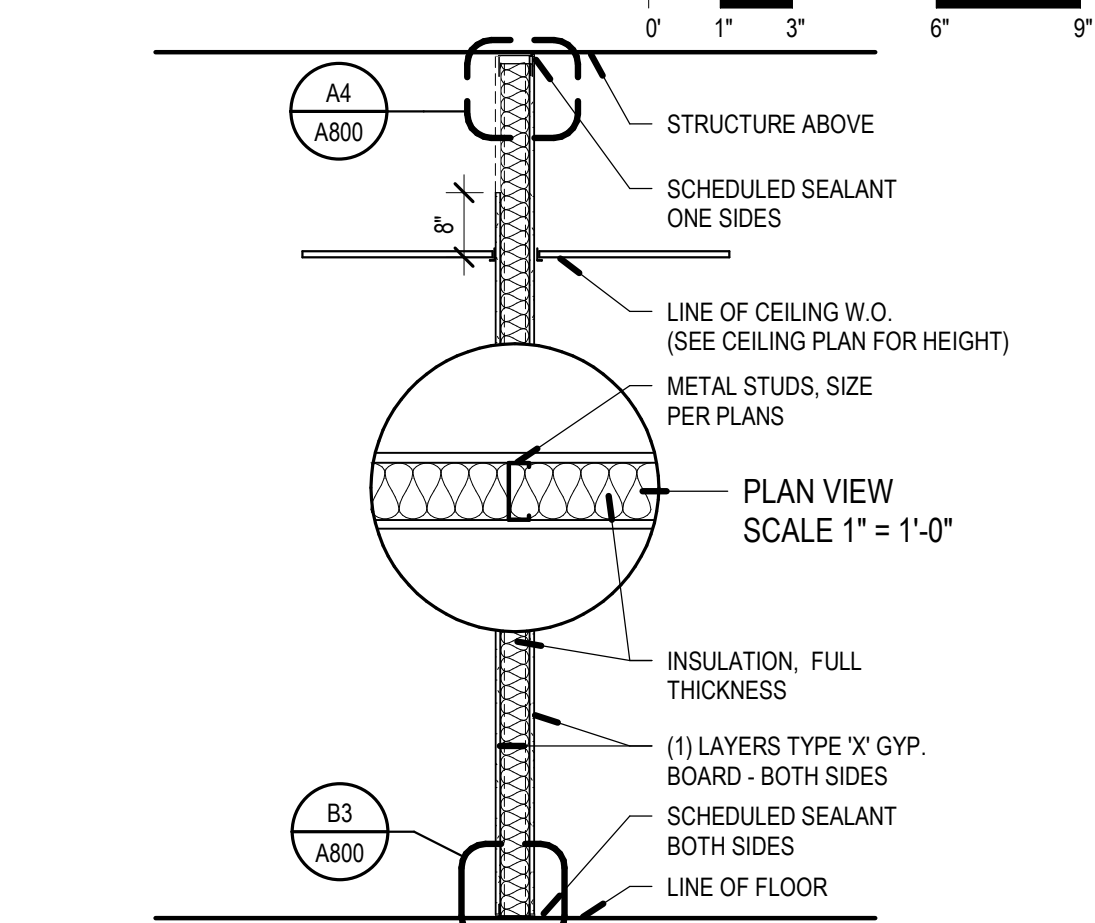
VCBO NUMBER: 21560
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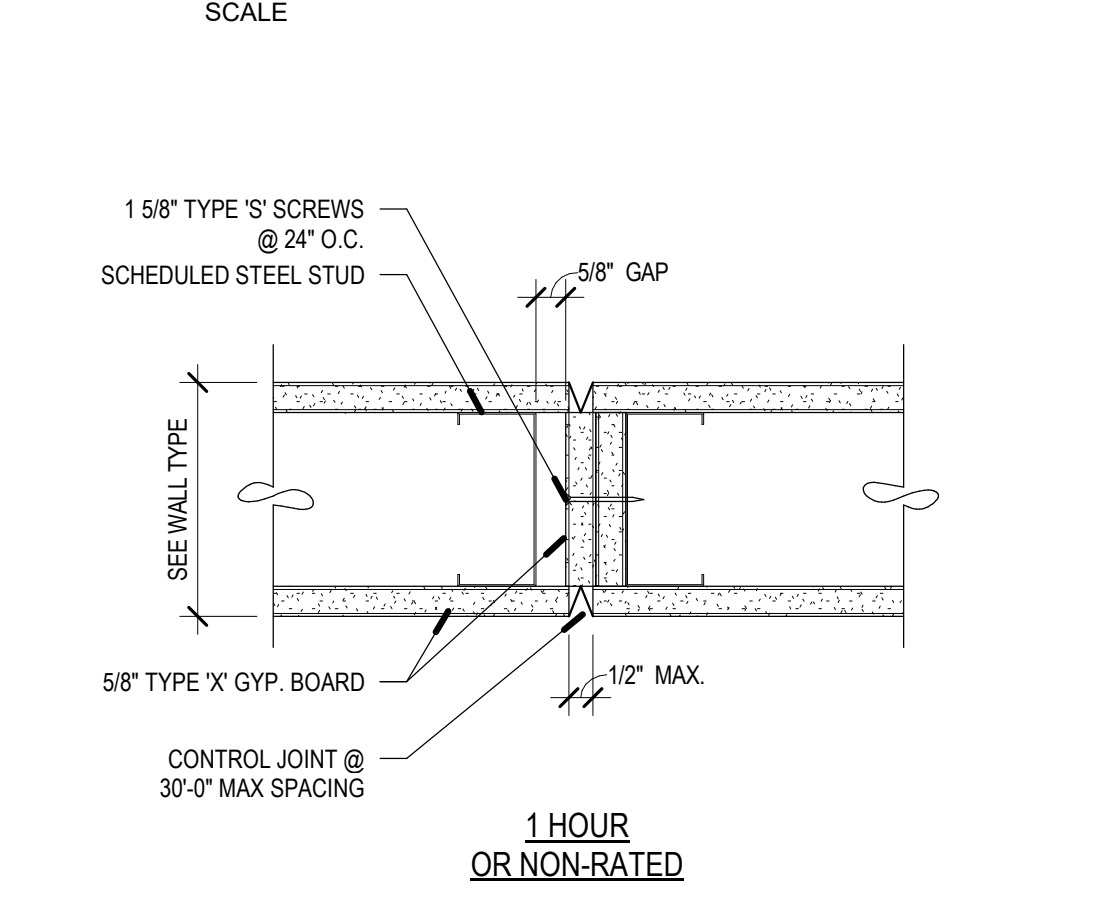
C1 CONDUIT PENETRATION DETAIL
SCALE: 3\"/>



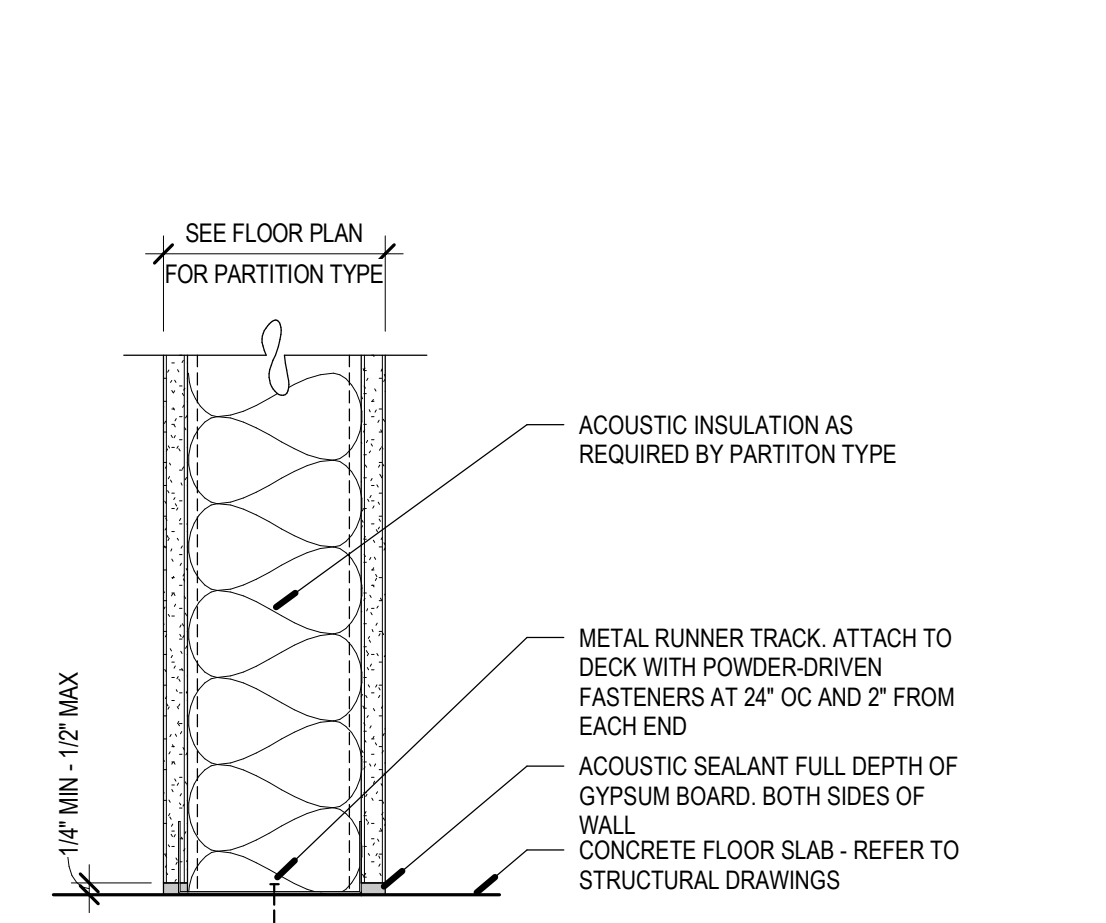
C2 BACKING PLATE SCHEDULE
SCALE: NOT TO SCALE



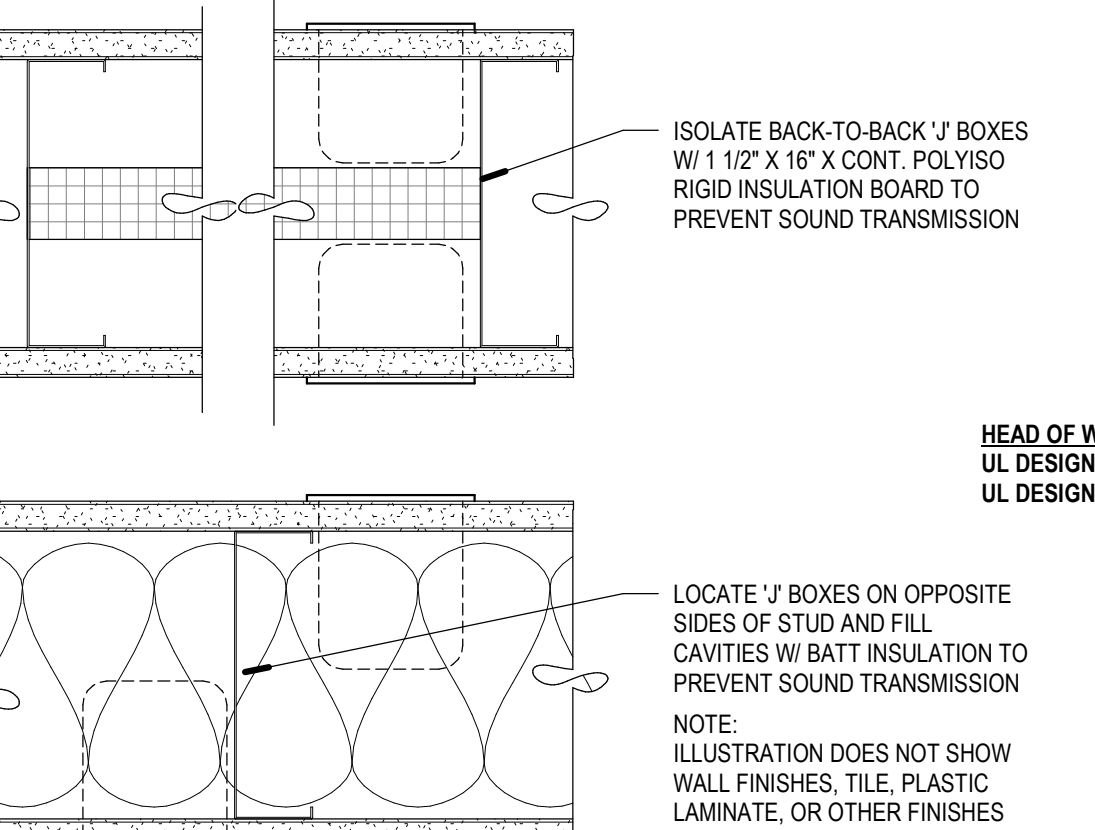
B1 PARTITION TYPE 9A6
SCALE: NOT TO SCALE



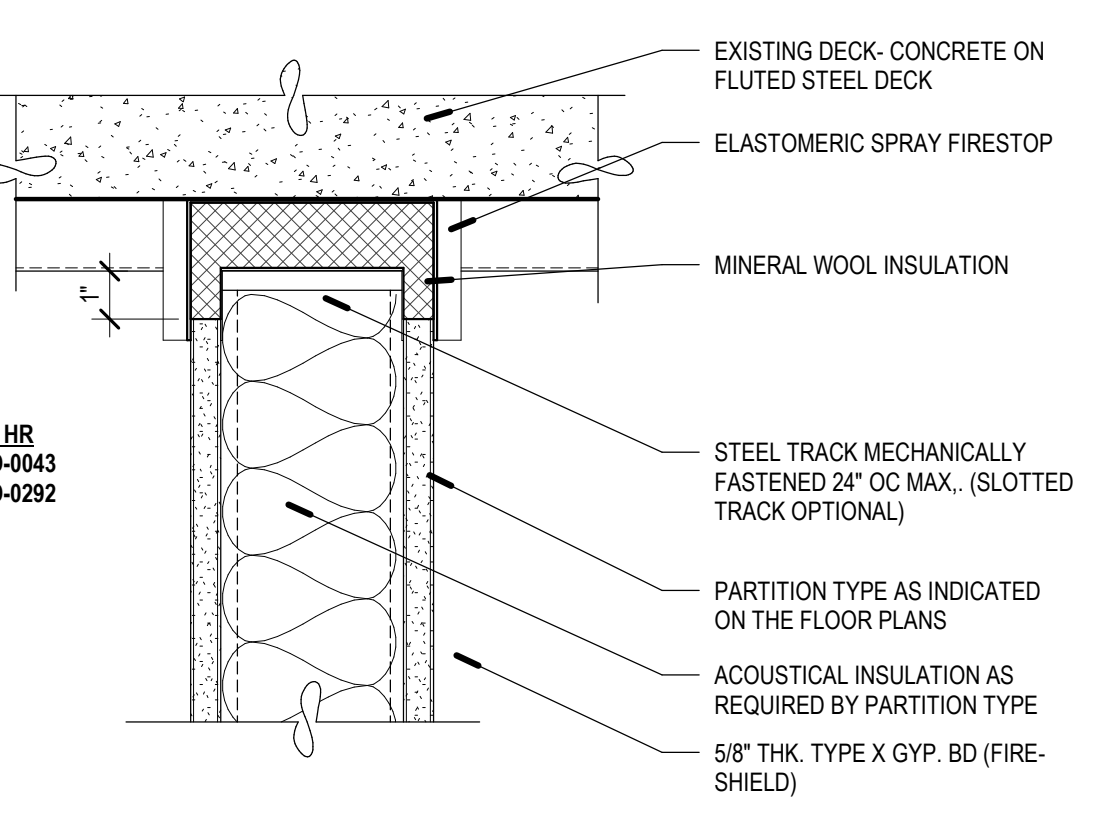
B2 STUD FRAMED CONTROL JOINT
SCALE: 3\"/>



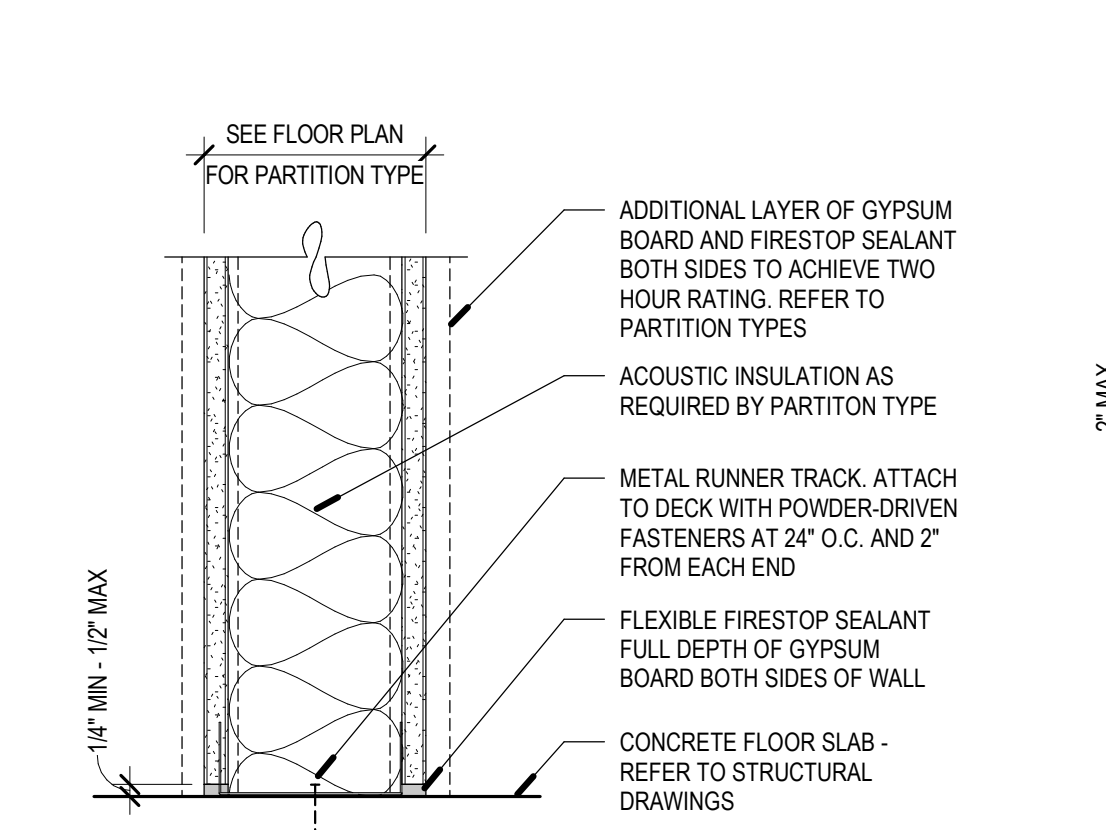
B3 NON-RATED PARTITION BASE DETAIL
SCALE: 3\"/>



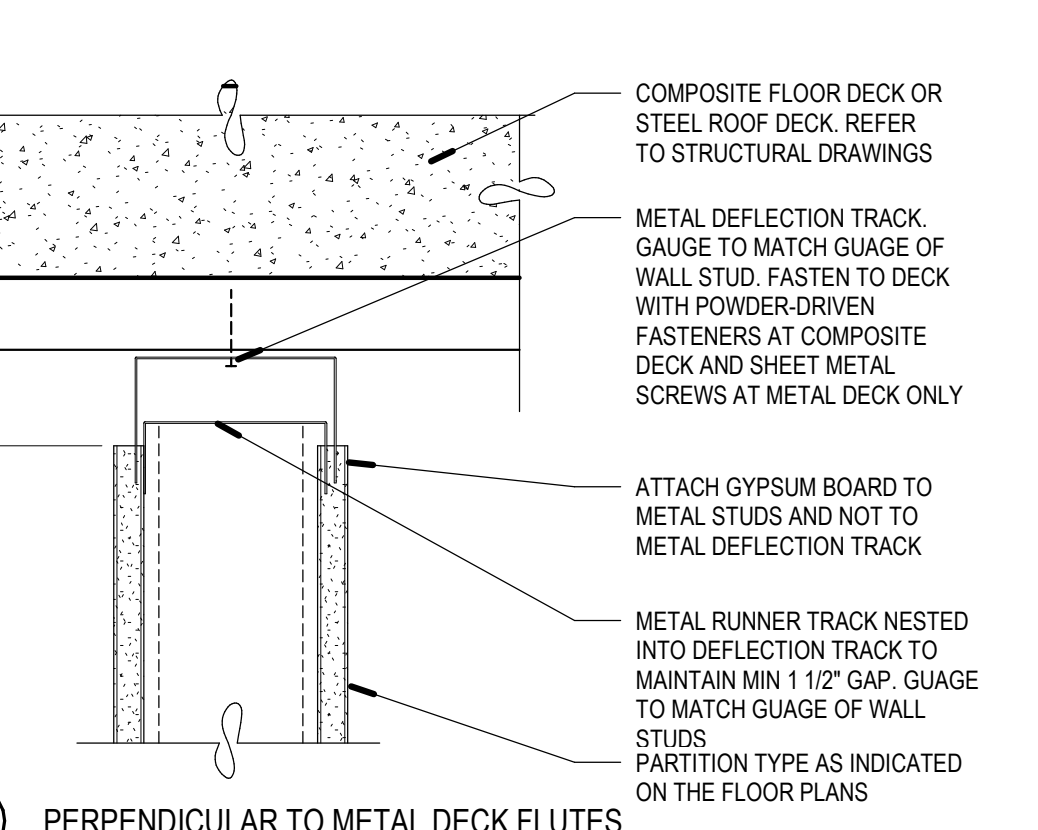
A1 TYPICAL ELECTRICAL DEVICE DETAIL
SCALE: 3\"/>



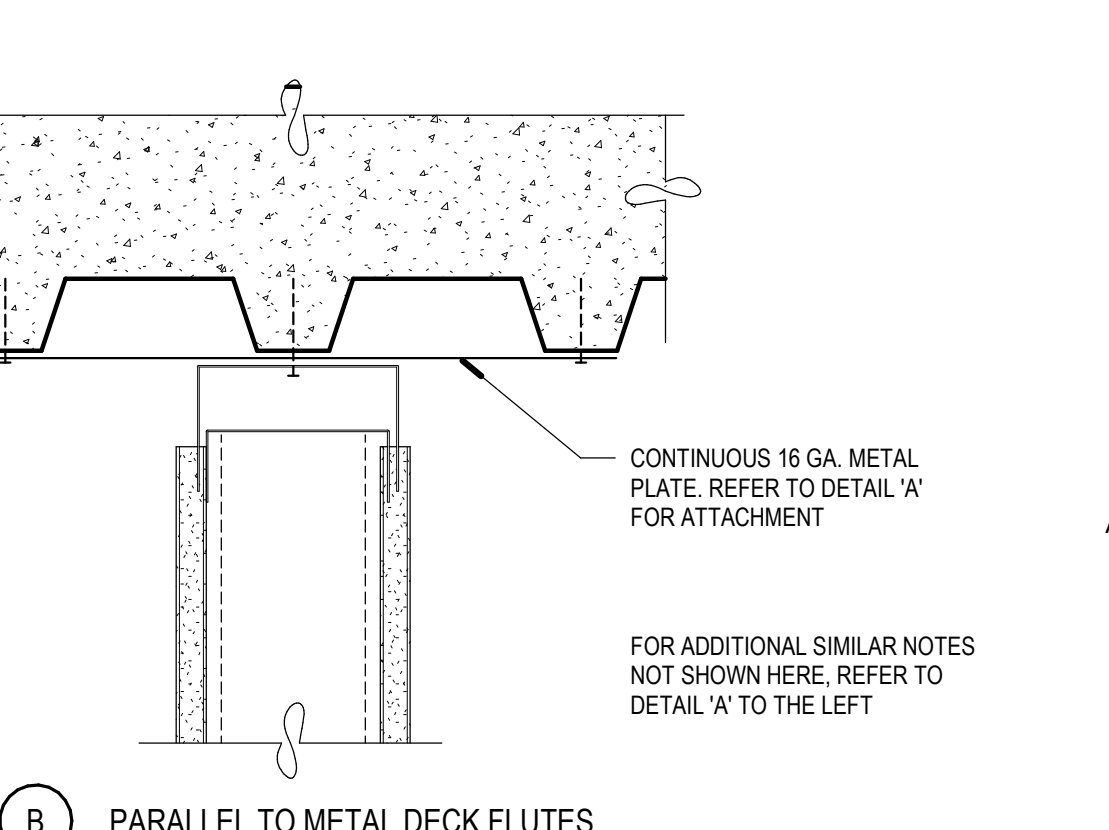
A2 FIRE-RATED PARTITION HEAD ELASTOMERIC SPRAY
SCALE: 3\"/>



A3 FIRE-RATED PARTITION BASE DETAIL
SCALE: 3\"/>



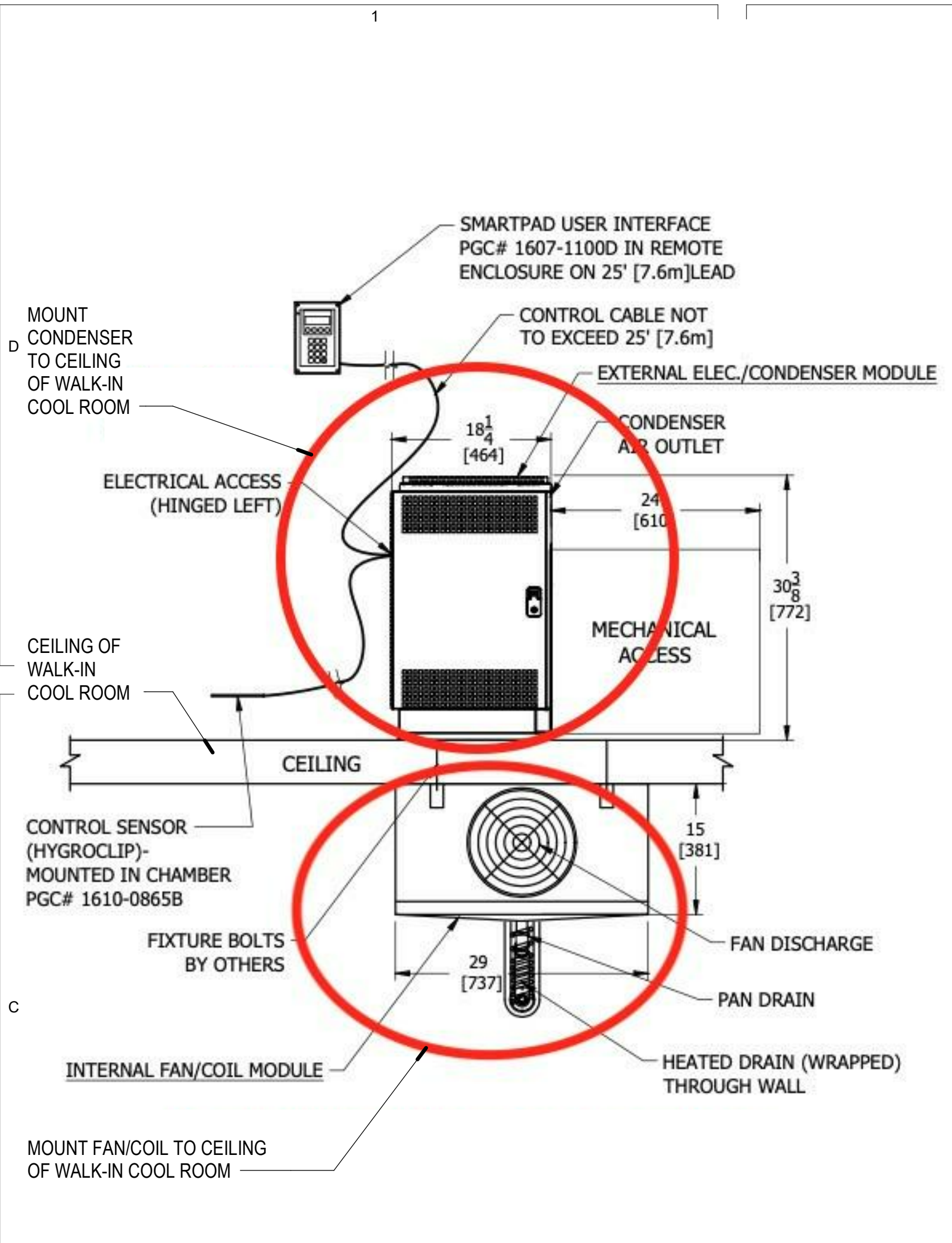
A4 NON-RATED PARTITION HEAD DETAILS
SCALE: 3\"/>



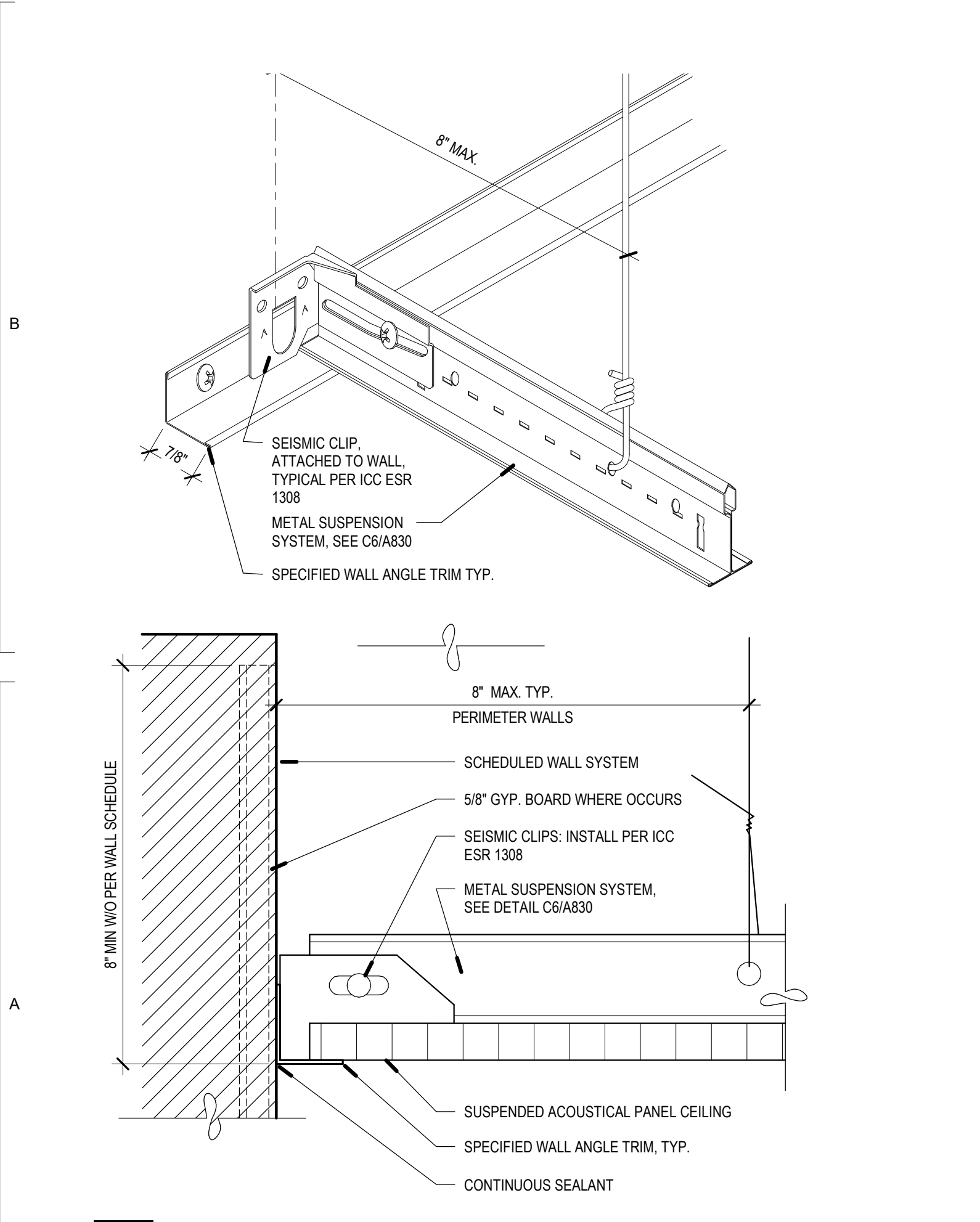
A5 PARALLEL TO METAL DECK FLUTES

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PERMIT & BID SET

WALL TYPES + TYP. INTERIOR DETAILS
A800



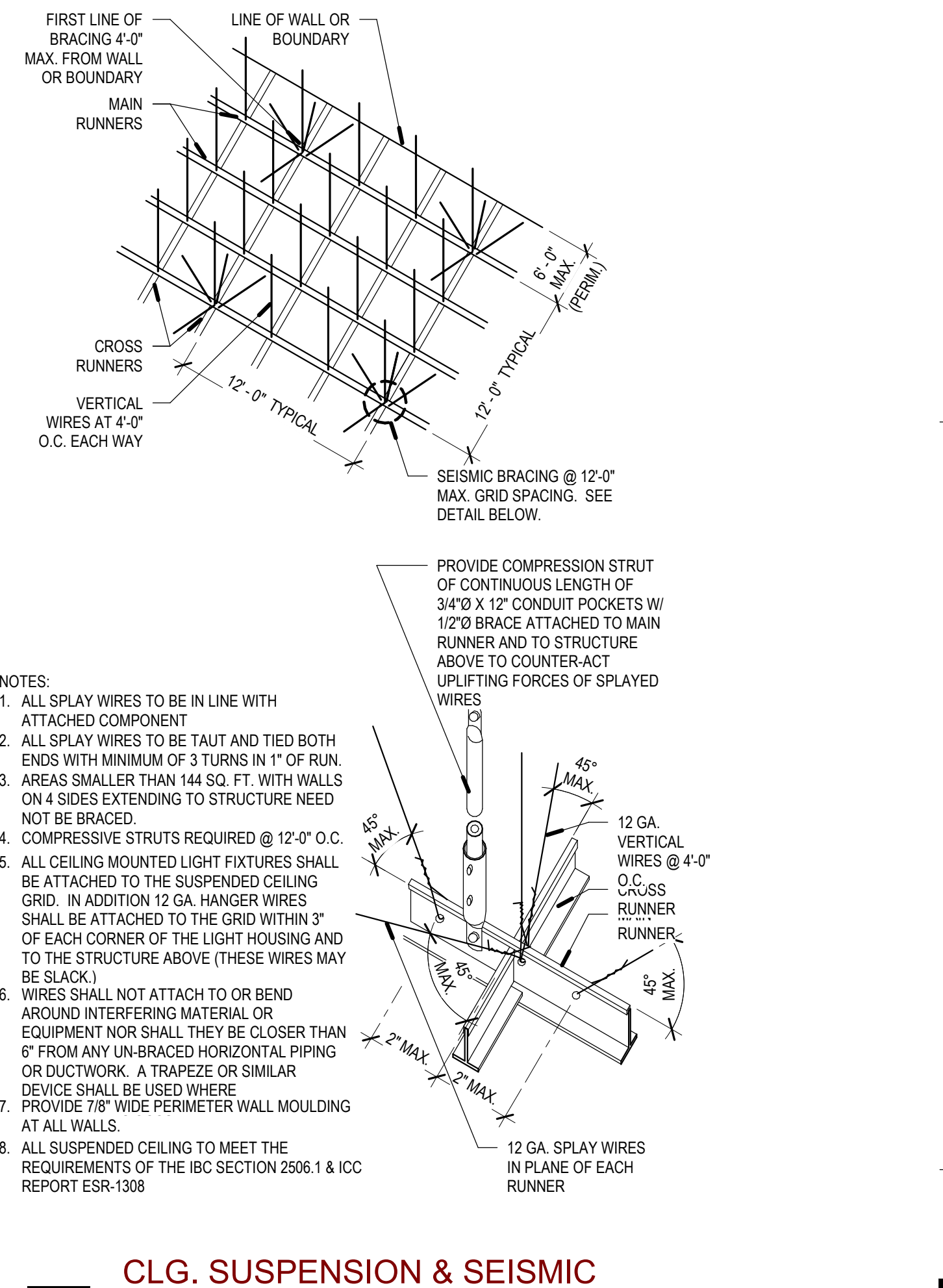
C1 SPLIT SYSTEM COOLER DIAGRAM
SCALE: 1/2" = 1'-0"



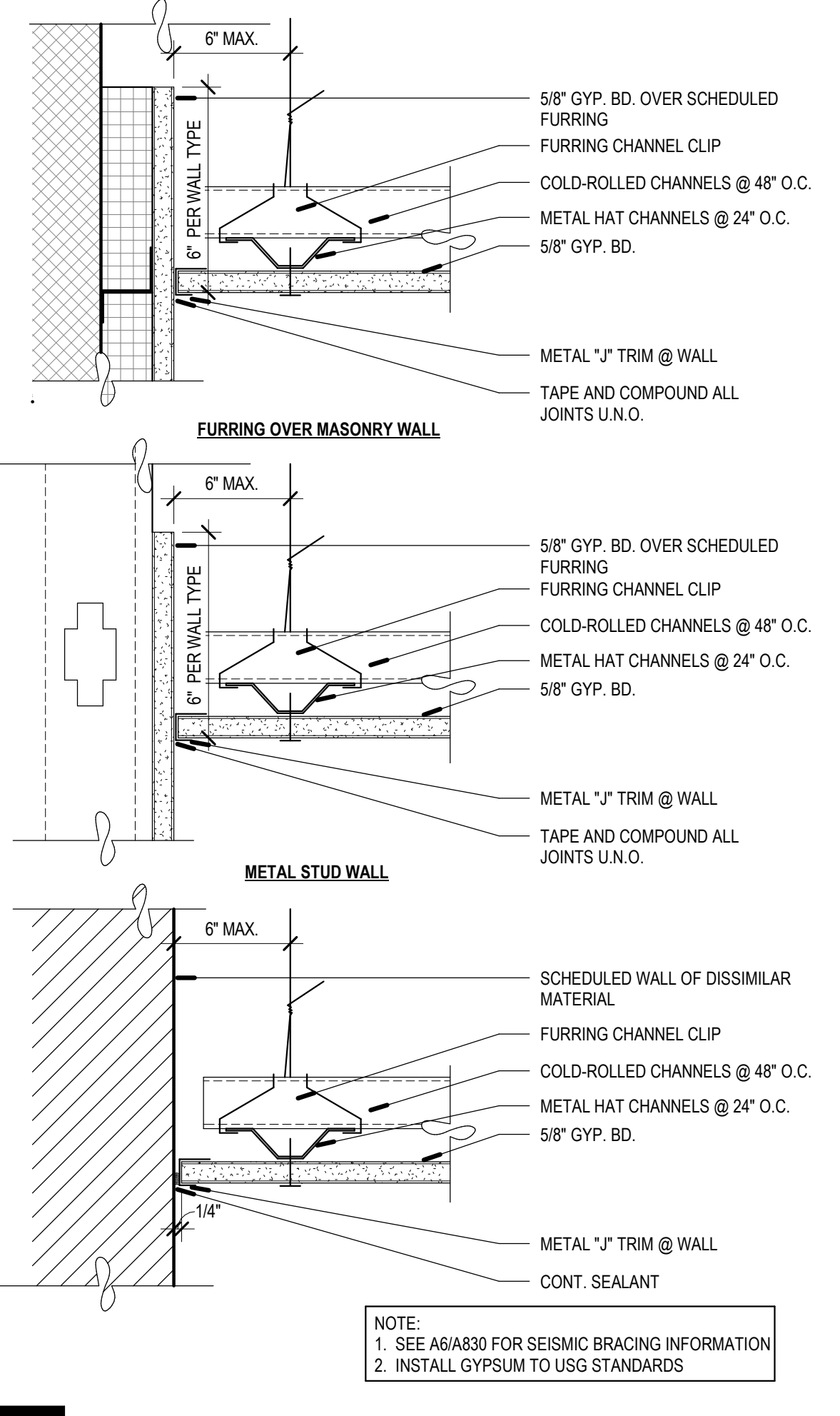
A1 TYP. SUSPENDED CEILING DETAIL
SCALE: 6" = 1'-0"



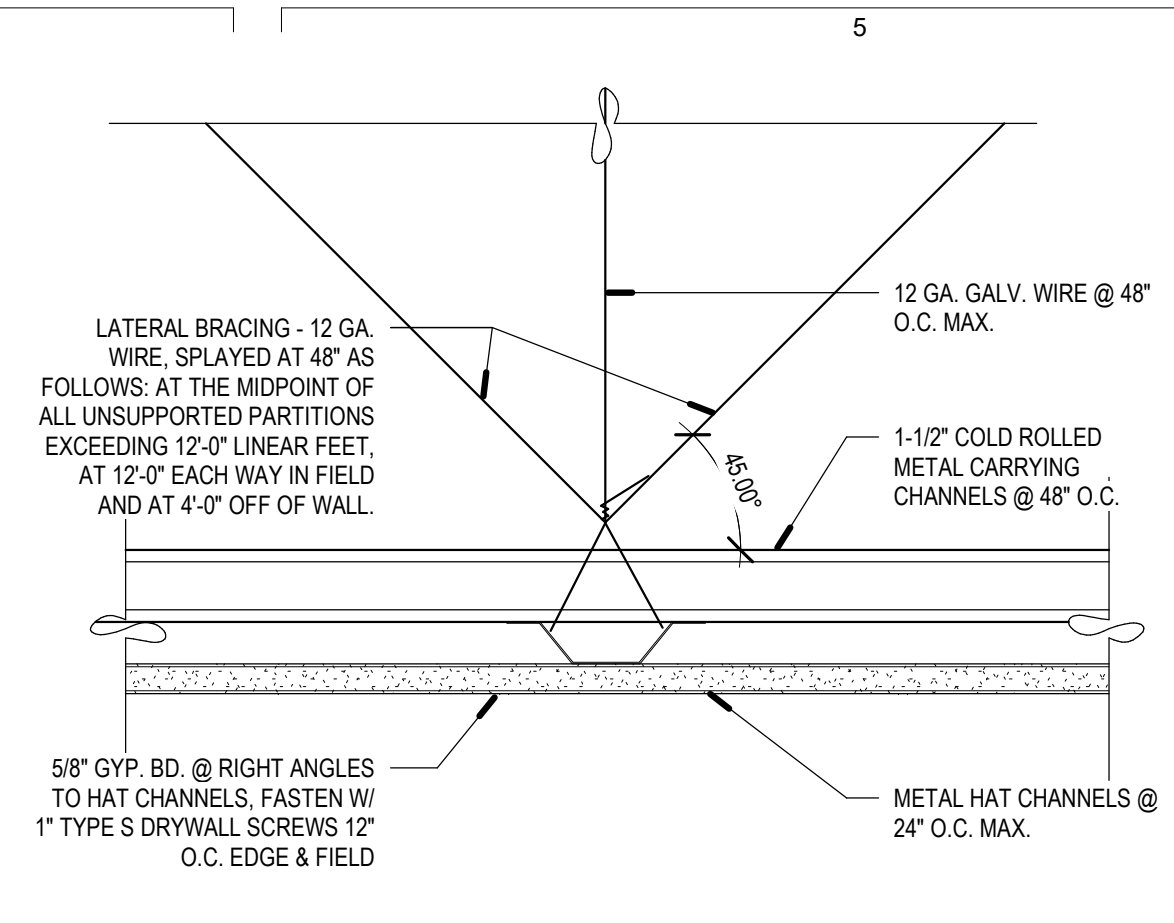
A2 CLG. SUSPENSION & SEISMIC BRACING
SCALE: NOT TO SCALE



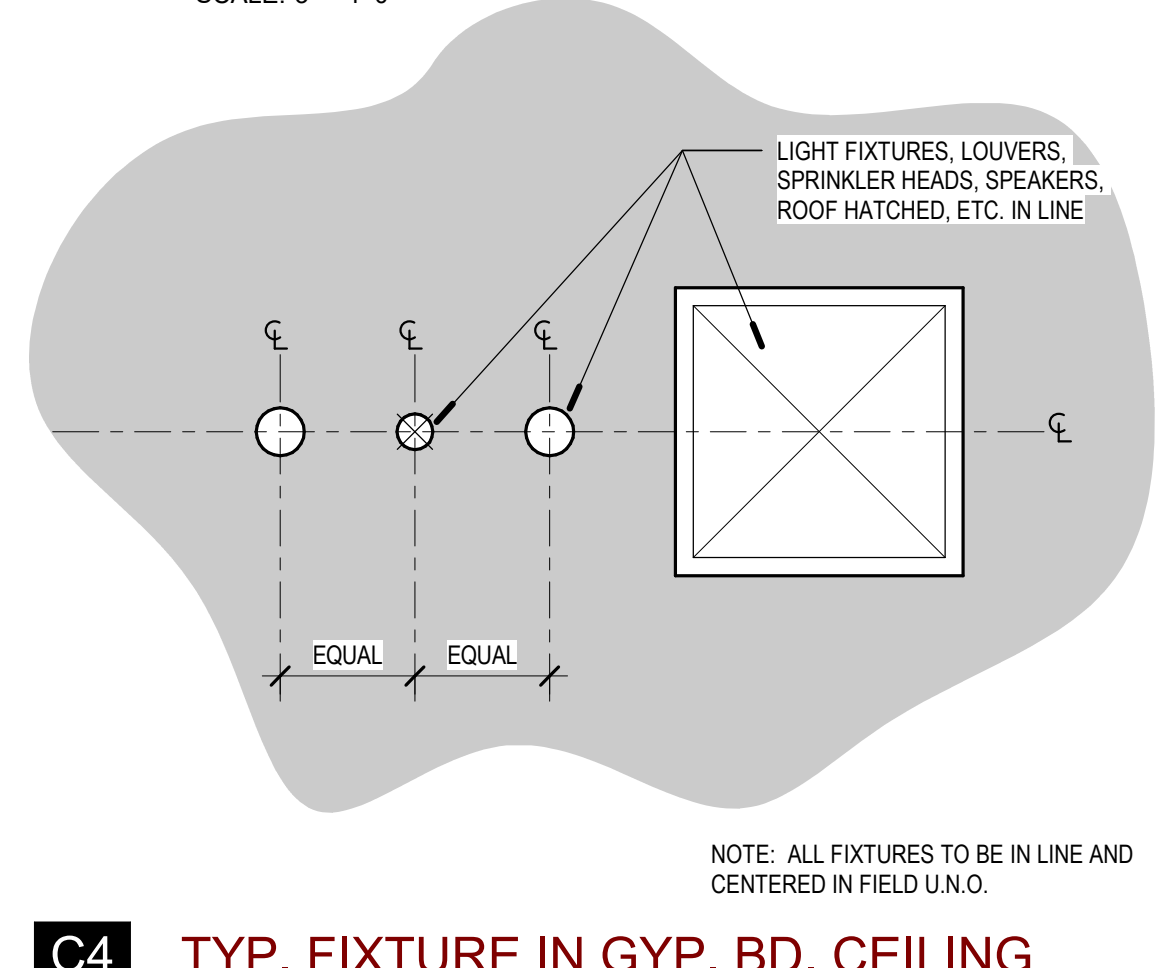
A3 SLIP JOINT DETAILS
SCALE: 3" = 1'-0"



C3 TYP. CEILING TILE PENETRATION
SCALE: 1/2" = 1'-0"



D5 TYP. SUSPENDED GYP. CEILING DETAIL
SCALE: 3" = 1'-0"



C4 TYP. FIXTURE IN GYP. BD. CEILING
SCALE: 3/4" = 1'-0"



REV	DATE	DESCRIPTION

VCBO NUMBER: 21560
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SYMBOL LEGEND	
SYMBOL	DESCRIPTION
VALVES, METERS, AND GAUGES	
	SHUT OFF VALVE
	GATE VALVE
	CHECK VALVE
	AUTO 2-WAY VALVE
	AUTO 3-WAY VALVE
	GLOBE VALVE
	BALL VALVE
	RELIEF VALVE
	CHAIN OPERATED GATE VALVE
	PRESSURE REDUCING VALVE
	BUTTERFLY VALVE
	SOLENOID VALVE
	ANGLE VALVE
	VENTURI
	BALANCING OR PLUG COCK
	FLOW SETTER
	EXPANSION VALVE (REFRIG.)
	GAS COCK
	MANUAL AIR VENT
	STRAINER
	GAUGE COCK
	FLEXIBLE CONNECTION
	PRESSURE GAUGE
	THERMOMETER
	VICTUALIC COUPLING
	REDUCER CONCENTRIC
	REDUCER ECCENTRIC
	REFRIGERANT SITE GLASS
	REFRIGERANT STRAINER
	REFRIGERANT FILTER DRIER
	90 DEG ELBOW UP
	90 DEG ELBOW DOWN
	90 DEG TEE UP
	90 DEG TEE DOWN
	UNION
	CAPPED PIPE
	ANCHOR
	FLOAT AND THERMOSTATIC TRAP
HVAC SYMBOLS	
	THERMOSTAT
	TEMPERATURE SENSOR
	HUMIDISTAT

SYMBOL LEGEND		
SYMBOL	DESCRIPTION	
DUCT WORK		
SINGLE LINE	DOUBLE LINE	DESCRIPTION
		RECTANGULAR SUPPLY DUCT UP
		RECTANGULAR SUPPLY DUCT DOWN
		RECTANGULAR RETURN DUCT UP
		RECTANGULAR RETURN DUCT DOWN
		RECTANGULAR EXHAUST DUCT UP
		RECTANGULAR EXHAUST DUCT DOWN
		ROUND DUCT UP
		ROUND DUCT DOWN
		ACCOUSTICALLY LINED RECTANGULAR DUCT
		90° RECTANGULAR ELBOW WITH TURNING VANES
		90° RADIUS ELBOW R=1.5
		DUCT SIZE OR SHAPE TRANSITION
		OPPOSED BLADE BALANCING DAMPER (O.B.D.) IN RECT DUCT
		BUTTERFLY BALANCING DAMPER IN ROUND DUCTS
		COMBINATION TEE
		SPLITTER DAMPER
		SQUARE OR RECTANGULAR CEILING DIFFUSER
		ROUND CEILING DIFFUSER
		SIDEWALL REGISTER SUPPLY OR RETURN
		ROUND FLEXIBLE DUCT
		RETURN GRILLE
		EXHAUST GRILLE
		FIRE SMOKE DAMPER
		FIRE DAMPER
		SMOKE DAMPER
		FLEXIBLE CONNECTION
		FLEXIBLE CONNECTION

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
REFERENCE LINES AND SYMBOLS	
	DETAIL INDICATOR: # INDICATES DETAIL NUMBER, SHEET INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
	ELEVATION OR SECTION INDICATOR, EXTERIOR: # INDICATES ELEVATION OR SECTION NUMBER, SHEET INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
	ELEVATION OR SECTION INDICATOR, INTERIOR: # INDICATES ELEVATION OR SECTION NUMBER, SHEET INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
	SPACE NUMBER
	KEYNOTE INDICATOR
	REVISION INDICATOR
	EQUIPMENT INDICATOR
	PLUMBING FIXTURE INDICATOR
	DIFFUSER/GRILLE INDICATOR
	DIFFUSER/GRILLE INDICATOR
	BREAK, STRAIGHT
	BREAK, ROUND
	MATCHLINE INDICATOR
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE
	CONTRACT LIMIT LINE: DASHDOT, WIDE LINE
	NEW CONNECTION TO EXISTING
	POINT OF DEMOLITION

PIPING LEGEND	
NOTE: ALL ABBREVIATIONS MAY NOT BE USED.	
	HPS HIGH PRESSURE STEAM
	MPS MEDIUM PRESSURE STEAM
	LPS LOW PRESSURE STEAM
	HPC HIGH PRESSURE CONDENSATE RETURN
	MPC MEDIUM PRESSURE CONDENSATE RETURN
	LPC LOW PRESSURE CONDENSATE RETURN
	PC PUMP DISCHARGE
	TWS TEMPERED WATER SUPPLY
	CHWS CHILLED WATER SUPPLY
	CHWR CHILLED WATER RETURN
	HHWS HEATING HOT WATER SUPPLY
	HHWR HEATING HOT WATER RETURN
	RL REFRIGERANT LIQUID
	RS REFRIGERANT SUPPLY
	CWS CONDENSER WATER SUPPLY
	CWR CONDENSER WATER RETURN
	D DRAIN LINE
	HG HOT GAS BYPASS
	GS GLYCOL SUPPLY
	GR GLYCOL RETURN
	FOS FUEL OIL SUPPLY
	FOV FUEL OIL VENT

DEFINITIONS	
NOTE: ALL DEFINITIONS MAY NOT BE USED.	
INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES IN THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.	
DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", "AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.	
APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.	
FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."	
INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."	
PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."	
INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.	

ABBREVIATIONS	
NOTE: ALL ABBREVIATIONS MAY NOT BE USED.	
(E)	EXISTING
(F)	FUTURE
AD	ACCESS DOOR
AIR COND	AIR CONDITION(-ING,-ED)
APD	AIR PRESSURE DROP
BD	BALANCING DAMPER
BHP	BRAKE HORSE POWER
BTU	BRITISH THERMAL UNIT
BTU/HOUR	BTU/HOUR
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CLG	COOLING
COMP	COMPONENT
COND	CONDENSER (-ER, -ING, -ATION)
CV	CONTROL VALVE
DB	DRY BULB TEMPERATURE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRC
DIA	DIAMETER
DISCH	DISCHARGE
DP	DEPTH OR DEEP
EA	EXHAUST AIR
EER	ENERGY EFFICIENCY RATIO
EFF	EFFICIENCY
EG	ETHYLENE GLYCOL
ELEC	ELECTRIC
ELEV	ELEVATION
ENT	ENTERING
EVAP	EVAPORAT(-E, -ING, -ED, -OR)
EWT	ENTERING WATER TEMPERATURE
EXT	EXTERNAL
FC	FLEXIBLE CONNECT(-OR, -ION)
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FFI	FINS PER INCH
FFM	FEET PER MINUTE
FPS	FEET PER SECOND
FSD	FIRE SMOKE DAMPER
GAL	GALLON(S)
GE	GREASE EXHAUST
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HEAD
HG	MERCURY
HP	HORSEPOWER
HR	HOUR
HT	HEIGHT
HTG	HEATING
HZ	HERTZ (FREQUENCY)
ID	INSIDE DIAMETER
IN	INCH
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LG	LENGTH
LRA	LATENT HEAT
LRA	LOCKED ROTOR AMPS
LVG	LEAVING WATER TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSAND BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPS
MFR	MANUFACTURER (-ER, -ED)
NC	NORMALLY CLOSED
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
OZ	OUNCE
PD	PRESSURE DROP OR DIFFERENCE
PG	PROPYLENE GLYCOL
PH	PHASE
PPM	PARTS PER MILLION
PRESS	PRESSURE
PSF	POUNDS PER SQUARE FOOT
PSIA	PSI ABSOLUTE
PSIG	PSI GAUGE
R	THERMAL RESISTANCE
RA	RETURN AIR
RECIRC	RECIRCULATE
REFR	REFRIGERATION
REQD	REQUIRED
RLA	RATED LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SC	SHADING COEFFICIENT
SCFM	STANDARD CUBIC FEET PER MINUTE
SCW	SOFT COLD WATER
SF	SAFETY FACTOR
SH	SENSIBLE HEAT
SL	SEA LEVEL
SP	STATIC PRESSURE
SPEC(S)	SPECIFICATION(S)
SO	SQUARE
STD	STANDARD
SW	SOIL WASTE
TAR	TRANSFER AIR (RETURN)
TA(S)	TRANSFER AIR (SUPPLY)
TD	TEMP. DROP OR DIFF.
TEMP	TEMPERATURE
THERM	THERMAL
TOT	TOTAL
TS/TAT	THERMOSTAT
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY TEMPERATURE
VEL	VELOCITY
VENT	VENT, VENTILATION
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
WB	WET BULB TEMP
WC	WATER COLUMN
WG	WATER GAUGE
WPD	WATER PRESSURE DROP

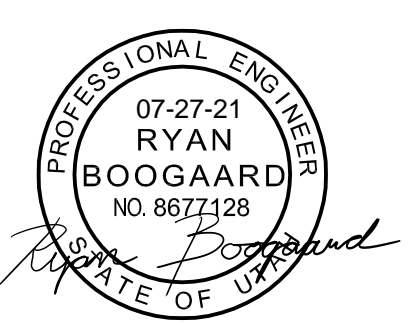
MECHANICAL GENERAL NOTES	
1	THE MECHANICAL DRAWINGS SHOW THE GENERAL DESIGN, ARRANGEMENT & EXTENT OF THE MECHANICAL SYSTEM. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, THESE DRAWINGS DO NOT SHOW ALL OFFSETS, BENDS OR ELBOWS NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. CONTRACTOR SHALL MAKE SUCH SLIGHT ALTERATIONS AS MAY BE NECESSARY TO MAKE THE SYSTEM COMPLETE & OPERATIONAL IN ACCORDANCE WITH THE DESIGN INTENT.
	MAJOR DEVIATIONS SUCH AS CHANGES IN COMPONENT SIZES, WEIGHTS, QUANTITIES OR MATERIAL REQUIRE PRIOR APPROVAL BY THE DESIGN ENGINEER.
2	THE DRAWINGS & SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER & SHALL BE INTERPRETED AS AN INTEGRAL PART OF THE DRAWINGS SHOWN ON ONE & NOT THE OTHER BEING FURNISHED & INSTALLED AS THOUGH SHOWN & CALLED OUT IN BOTH.
3	THE ENTIRE MECHANICAL INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY ADOPTED BUILDING CODES, MECHANICAL CODE, PLUMBING CODE, ELECTRICAL CODE, & ALL OTHER APPLICABLE CITY, COUNTY, STATE, & FEDERAL CODES & REGULATIONS IN EFFECT.
4	THE ENTIRE MECHANICAL INSTALLATION SHALL CONFORM TO ANY CODES, RULES, REGULATIONS & REQUIREMENTS OF THE BUILDING OWNER.
5	PRIOR TO FABRICATION & INSTALLATION OF ANY MECHANICAL COMPONENT THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL WORK WITH ALL OTHER BUILDING TRADES, INCLUDING BUILDING TRADES HIRED DIRECTLY BY THE OWNER. WHERE CONFLICTS MAY OCCUR, THEY SHALL BE RESOLVED PRIOR TO INSTALLATION.
6	THE SPACE ABOVE ALL CEILING IS LIMITED. CAREFUL COORDINATION IS REQUIRED WITH ALL TRADES BEFORE ANY PIPE, DUCT, OR EQUIPMENT IS ORDERED & OR INSTALLED. ANY CONFLICTS & OR CHANGES FOUND DURING INSTALLATION THAT RESULTS FROM THE LACK OF COORDINATION BY THE CONTRACTORS DURING THE SHOP DRAWING PROCESS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
7	ALL MECHANICAL INFORMATION IS NOT SHOWN ON THE MECHANICAL DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENT.
8	THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW & USE, WHERE APPROPRIATE, ALL THE MECHANICAL DETAILS SHOWN ON THE DRAWINGS. DETAILS MAY OR MAY NOT BE CALLED OUT ON THE DRAWINGS WITH SYMBOLS OR KEYED NOTES. ANY CHANGES RESULTING FROM FAILURE TO INSTALL THE MECHANICAL SYSTEM WITHOUT USING THE INCLUDED DETAILS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9	THE STRUCTURE SHOWN ON ALL DETAILS MAY OR MAY NOT PERTAIN TO A PORTION OR ANY PORTION OF THE BUILDING. COORDINATE ALL MOUNTING REQUIREMENTS WITH ARCHITECTURAL & STRUCTURAL DRAWINGS.
10	ANY PART OF THE MECHANICAL INSTALLATION THAT FAILS, IS UNFIT, OR BECOMES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
11	SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING DIFFUSERS & GRILLES.
12	CONTRACTOR SHALL OPERATE THE SYSTEM & DEMONSTRATE ALL ASPECTS OF THE SYSTEM TO THE ENGINEER & OR OWNER TO PROVE ALL SYSTEMS ARE OPERATIONAL.
13	DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN A SET OF AS-BUILT REDLINED RECORD DRAWINGS AT THE PROJECT SITE. ALL CHANGES IN LAYOUT, ROUTING, EQUIPMENT, COMPONENTS, & ACCESSORIES SHALL BE RECORDED. THESE REDLINED DRAWINGS SHALL BE GIVEN TO THE ARCHITECT/ENGINEER AFTER THE FINAL INSPECTION IN ACCORDANCE WITH SPECIFICATIONS.

GENERAL EQUIPMENT NOTES	
1	ALL CAPACITIES ARE AT JOB SITE CONDITIONS & ARE MINIMUM CAPACITY.
2	ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED TO CONFORM WITH LOCAL SEISMIC REQUIREMENTS & THE REQUIREMENTS OF THESE CONSTRUCTION DOCUMENTS.
3	VERIFY ALL REQUIRED SERVICE CONNECTIONS, INCLUDING ELECTRICAL CHARACTERISTICS FOR ALL EQUIPMENT PRIOR TO ORDERING EQUIPMENT.
4	ALL EQUIPMENT SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURAL MEMBERS.
5	ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
6	ALL SIMILAR EQUIPMENT SHALL BE OF THE SAME MANUFACTURER.
7	AIR INLETS & OUTLETS SHALL BE OF THE SAME MANUFACTURER.
8	THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HVAC EQUIPMENT CHECK-IN, SAFEKEEPING, & DAMAGE.

MECHANICAL SHEET INDEX	
ME001	MECHANICAL COVER SHEET
MD101	FIRST FLOOR DEMO PLAN
MH101	FIRST FLOOR MECHANICAL
MH102	MECHANICAL ZONING PLAN
MP101	FIRST FLOOR MECH. DEMO PIPING PLAN
MP102	FIRST FLOOR MECH. PIPING PLAN
MP103	ROOF MECHANICAL PIPING PLAN
ME501	MECHANICAL DETAILS
ME502	MECHANICAL DETAILS
ME601	MECHANICAL SCHEDULES



REV	DATE	DESCRIPTION



VCBO NUMBER: 21560
 CLIENT NUMBER:
 DATE: JULY 27, 2021

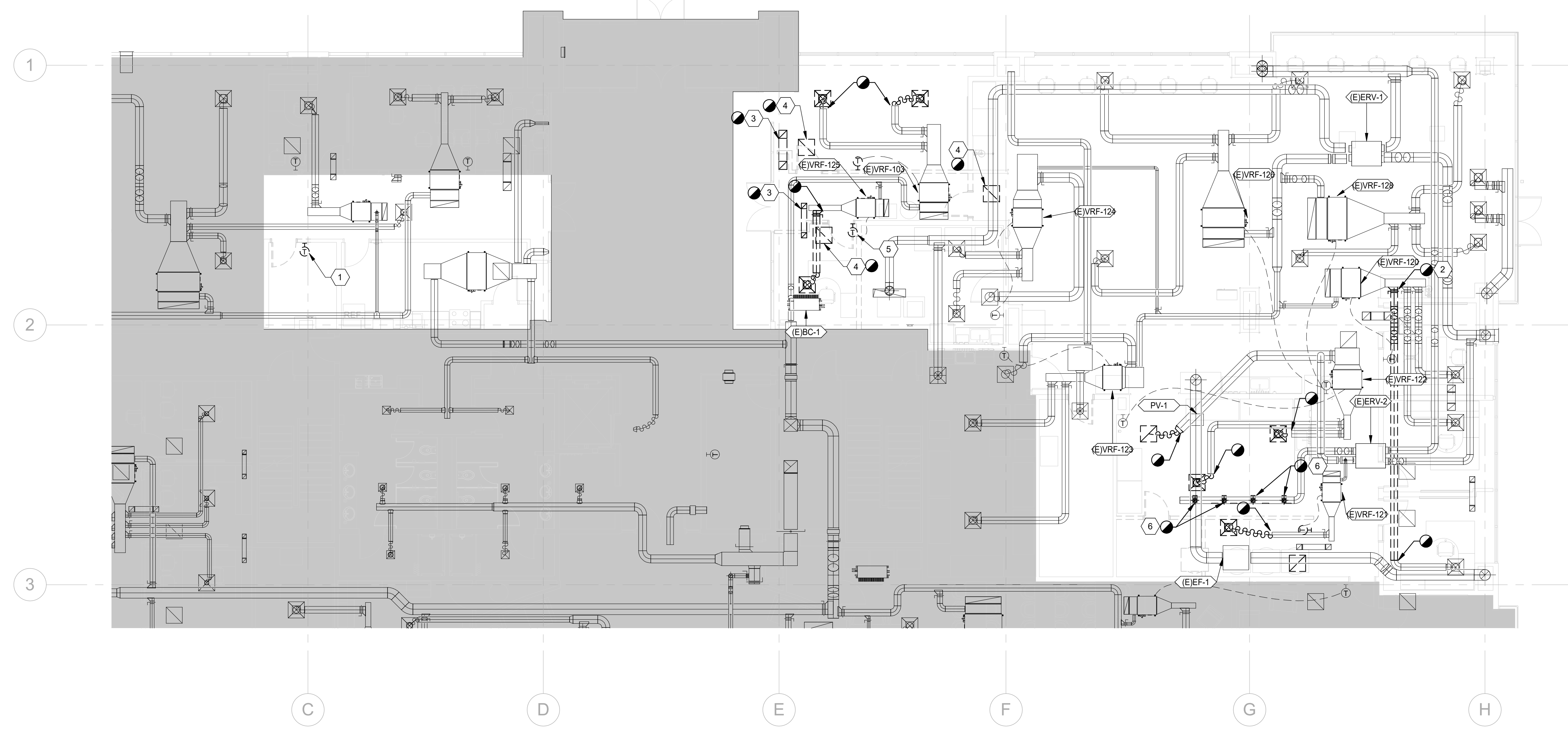
SUMITOMO DAINIPPON PHARMA
 FORGE COMPANIES
 3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
 SCHEMATIC DRAWINGS

MECHANICAL COVER SHEET

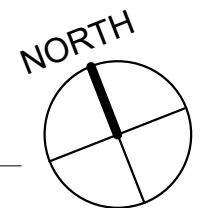
ME001

SHEET KEYNOTES

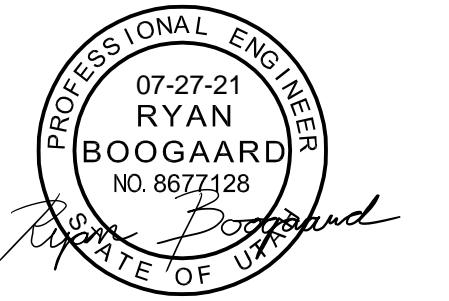
- 1 RELOCATE EXISTING THERMOSTAT TO MAKE WAY FOR NEW DOOR AND WINDOW. COORDINATE LOCATION WITH ARCHITECTURAL DRAWINGS AND FURNITURE LAYOUT.
- 2 REMOVE EXISTING DUCTWORK SECTION. CAP AND SEAL EXISTING HOLE IN DUCTWORK.
- 3 REMOVE EXISTING TRANSFER GRILL.
- 4 REMOVE EXISTING RETURN GRILL.
- 5 RELOCATE EXISTING THERMOSTAT. SEE ME101 FOR NEW LOCATION.
- 6 REMOVE EXISTING EXHAUST CONNECTIONS OVER ANIMAL CAGES. SEE M101 FOR NEW ROUTING.



1 FIRST FLOOR MECHANICAL DEMOLITION PLAN
SCALE: NTS



REV	DATE	DESCRIPTION
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FIRST FLOOR DEMO PLAN

MD101

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MECHANICAL GENERAL NOTES

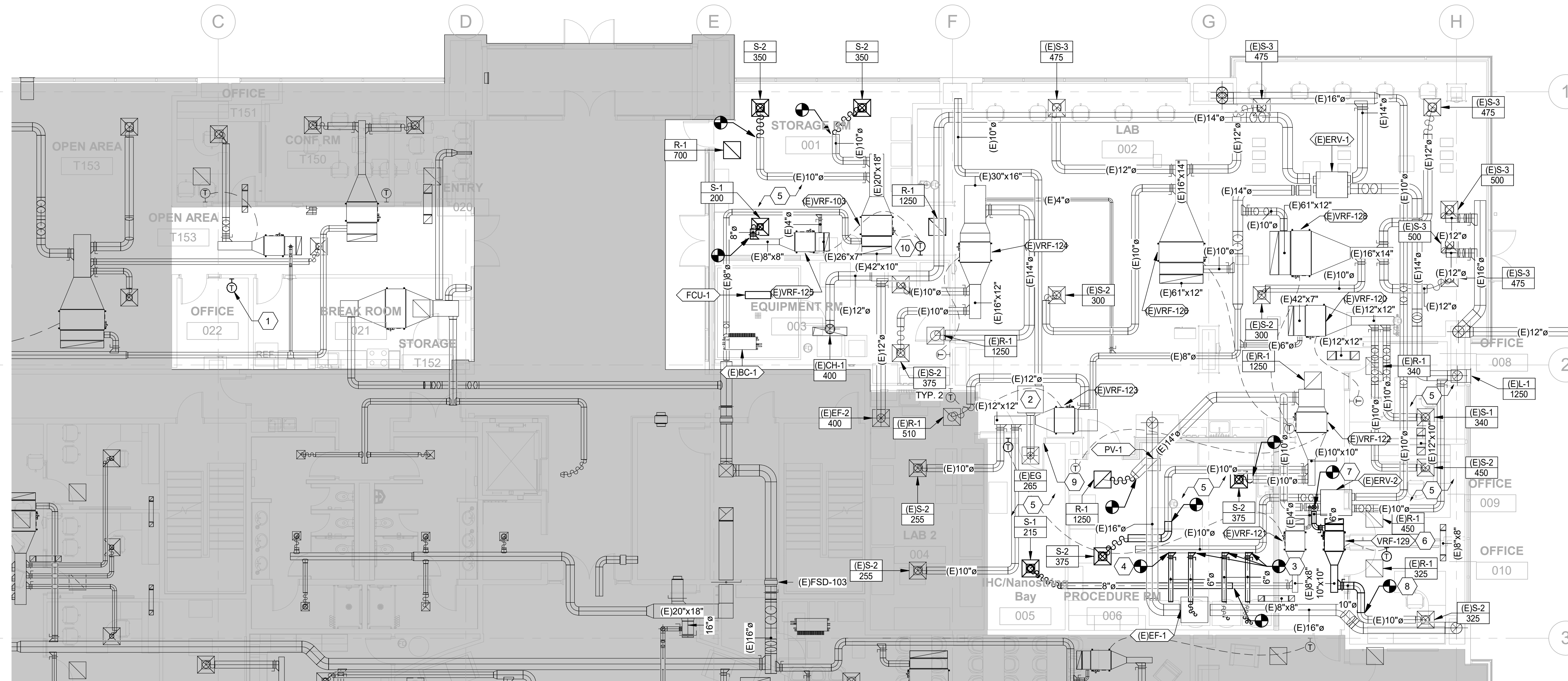
9. WHERE PIPE, OR DUCT PENETRATES A RATED ASSEMBLY OR FLOOR AND IS NOT REQUIRED TO BE PROTECTED BY A DAMPER, ALL SPACE BETWEEN THE DUCT AND ASSEMBLY IS TO BE FIRE CAULKED. INSULATION OR COVERINGS ARE NOT TO CONTINUE THROUGH ASSEMBLY UNLESS TESTED AS PART OF AN APPROVED PENETRATION FIRESTOP SYSTEM.
10. THIS CONTRACTOR SHALL ENGAGE A FIRE PROTECTION DESIGN BUILD CONTRACTOR TO MODIFY THE EXISTING FIRE SPRINKLER SYSTEM. DESIGNER SHALL BE NICET LEVEL III TECHNICIAN. WORKING PLANS AND CALCULATIONS SHALL BE PREPARED ACCORDING TO NFPA 13, AND BE APPROVED BY AUTHORITIES HAVING JURISDICTION, INCLUDING HYDRAULIC CALCULATIONS IF APPLICABLE.
11. FIELD VERIFY EXISTING FIELD CONDITIONS PRIOR TO ORDERING OR FABRICATING.
12. PROVIDE FACTORY AUTHORIZED STARTUP OF ALL EQUIPMENT INCLUDING STARTUP OF ANY FACTORY CONTROLS TO ENSURE PROPER SEQUENCING AND/OR COMMUNICATION TO BMS.
13. PIPING AND DUCTWORK SHALL NOT BE SUPPORTED FROM THE ROOF DECK, JOIST BRIDGING OR OTHER PIPES. HANG PIPES FROM BEAMS, JOIST OR SUPPLEMENTARY STRUCTURAL MEMBERS WHERE POSSIBLE. INSTALL ALL PIPING AND DUCTWORK WITHIN 12" FROM SUPPORTING STRUCTURE.
14. ALL DUCTWORK TO BE 26 GAGE STEEL.

MECHANICAL GENERAL NOTES

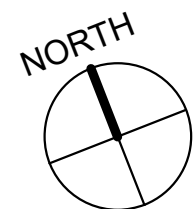
1. ALL DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS.
2. FLEXIBLE DUCT MAY BE USED AT FINAL TERMINATION OF DUCT TO DIFFUSER OR GRILLE. MAXIMUM FLEXIBLE DUCT LENGTH IS 5'-0". PROVIDE DUCT SUPPORTS EVERY 3 FEET.
3. GRILLES AND DUCTWORK ARE SIZED INDEPENDENTLY. THE NECK SIZE OF GRILLES MAY NOT MATCH THE ASSOCIATED DUCT SIZE. PROVIDE TRANSITION TO GRILLES AS NECESSARY.
4. PROVIDE BALANCING DAMPER WITH LOCKING QUADRANT IN EACH DUCT BRANCH OF SUPPLY AND EXHAUST DUCTWORK.
5. PROVIDE REMOTE CABLE OPERATED DAMPERS FOR ALL DUCTWORK ABOVE HARD LID CEILINGS OR WHERE DAMPER IS INACCESSIBLE.
6. PROVIDE ACCESS DOORS FOR ALL SERVICEABLE EQUIPMENT OR VALVES ABOVE HARD LID CEILINGS OR IN WALLS. ALL ACCESS PANELS ARE TO BE PAINTED TO MATCH ADJACENT SURFACES.
7. COORDINATE EXACT THERMOSTAT LOCATIONS WITH FURNITURE AND OWNER. FAILURE TO DO SO MAY REQUIRE MOVING THERMOSTATS AT CONTRACTORS COST.
8. GC TO HIRE NEBB OR AABC CERTIFIED THIRD PARTY TEST AND BALANCE (TAB) CONTRACTOR. TAB CONTRACTOR SHALL ADJUST SHEAVES, BELTS, DAMPERS, ETC AS NECESSARY TO BALANCE SYSTEM TO AIRFLOWS REQUIRED AT LOWEST POSSIBLE SPEEDS. TAB CONTRACTOR SHALL VERIFY THE OUTSIDE AIR AT EACH RTU IS AS SCHEDULED. FOLLOW PROCEDURES AS LAD FORTH IN THE CURRENT VERSION OF PROCEDURAL STANDARDS FOR TESTING ADJUSTING AND BALANCING OF ENVIRONMENTAL SYSTEMS' BY NEBB. PROVIDE REPORT ON NEBB FORMS TO ENGINEER FOR REVIEW.

SHEET KEYNOTES

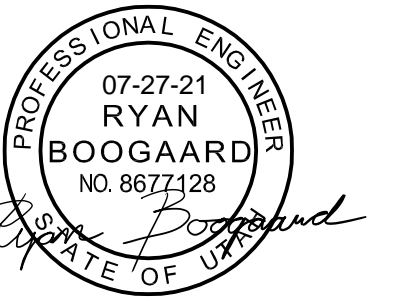
1. RELOCATE EXISTING THERMOSTAT TO MAKE WAY FOR NEW DOOR AND WINDOW. COORDINATE LOCATION WITH ARCHITECTURAL DRAWINGS AND FURNITURE LAYOUT.
2. EXISTING EXHAUST FAN TO REMAIN.
3. CONNECT FLEX EXHAUST DUCTS TO EXISTING EXHAUST DUCT MAIN. COORDINATE DROP LOCATION WITH OWNER AND EQUIPMENT LAYOUT. PROVIDE FLEX DUCT TO CONNECT TO OWNER SUPPLIED EQUIPMENT AND CONNECT WITH HOSE CLAMPS. BALANCE TO 115 CFM, TYP. 3
4. CONNECT NEW EXHAUST DUCT TO EXISTING MAIN. ROUTE TO LOCATION ABOVE OWNER EQUIPMENT. CAP AND SEAL ABOVE CEILING. PROVIDE ACCESS PANEL FOR FUTURE CONNECTION.
5. REBALANCE AREA TO INDICATED AIRFLOWS.
6. BALANCE SUPPLY AIR ON NEW FAN COIL UNIT.
7. CONNECT OUTSIDE AIR DUCT TO EXISTING ERV.
8. CONNECT NEW DUCTWORK TO EXISTING DUCTWORK AND DIFFUSER.
9. EXISTING DOOR LOUVER TO REMAIN.
10. RELOCATED THERMOSTAT FROM SHEET MD101. COORDINATE FINAL LOCATION WITH FURNITURE PLAN AND OWNER.



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



REV	DATE	DESCRIPTION



VCBO NUMBER: 21560
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MECHANICAL GENERAL NOTES

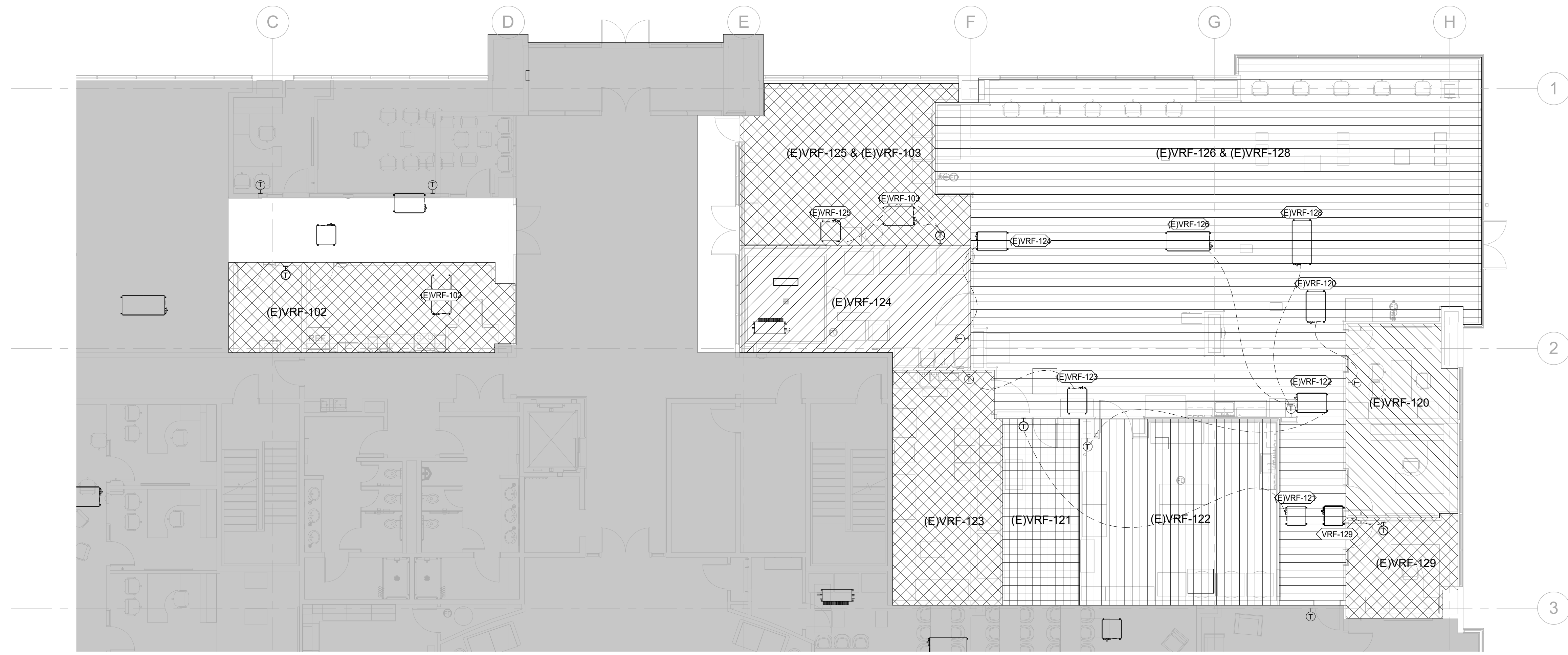
9. WHERE PIPE, OR DUCT PENETRATES A RATED ASSEMBLY OR FLOOR AND IS NOT REQUIRED TO BE PROTECTED BY A DAMPER, ALL SPACE BETWEEN THE DUCT AND ASSEMBLY IS TO BE FIRE CAULKED. INSULATION OR COVERINGS ARE NOT TO CONTINUE THROUGH ASSEMBLY UNLESS TESTED AS PART OF AN APPROVED PENETRATION FIRESTOP SYSTEM.
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11. FIELD VERIFY EXISTING FIELD CONDITIONS PRIOR TO ORDERING OR FABRICATING.
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14. ALL DUCTWORK TO BE 26 GAGE STEEL.

MECHANICAL GENERAL NOTES

1. ALL DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS.
2. FLEXIBLE DUCT MAY BE USED AT FINAL TERMINATION OF DUCT TO DIFFUSER OR GRILLE. MAXIMUM FLEXIBLE DUCT LENGTH IS 5'-0". PROVIDE DUCT SUPPORTS EVERY 3 FEET.
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7. COORDINATE EXACT THERMOSTAT LOCATIONS WITH FURNITURE AND OWNER. FAILURE TO DO SO MAY REQUIRE MOVING THERMOSTATS AT CONTRACTORS COST.
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GENERAL SHEET NOTES

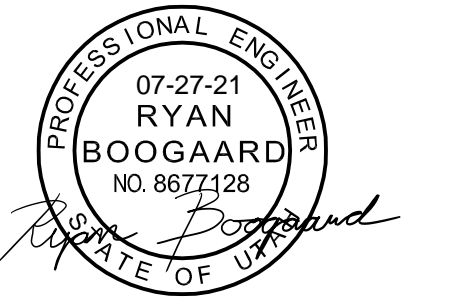
1. MECHANICAL CONTRACTOR TO UPDATE CONTROLS FOR NEW VRF BOX. EXISTING CONTROLS ARE JOHNSON.
2. MECHANICAL CONTRACTOR TO UPDATE ZONING PLAN TO REFLECT NEW MECHANICAL LAYOUT.



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



REV	DATE	DESCRIPTION
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 SCHEMATIC DRAWINGS

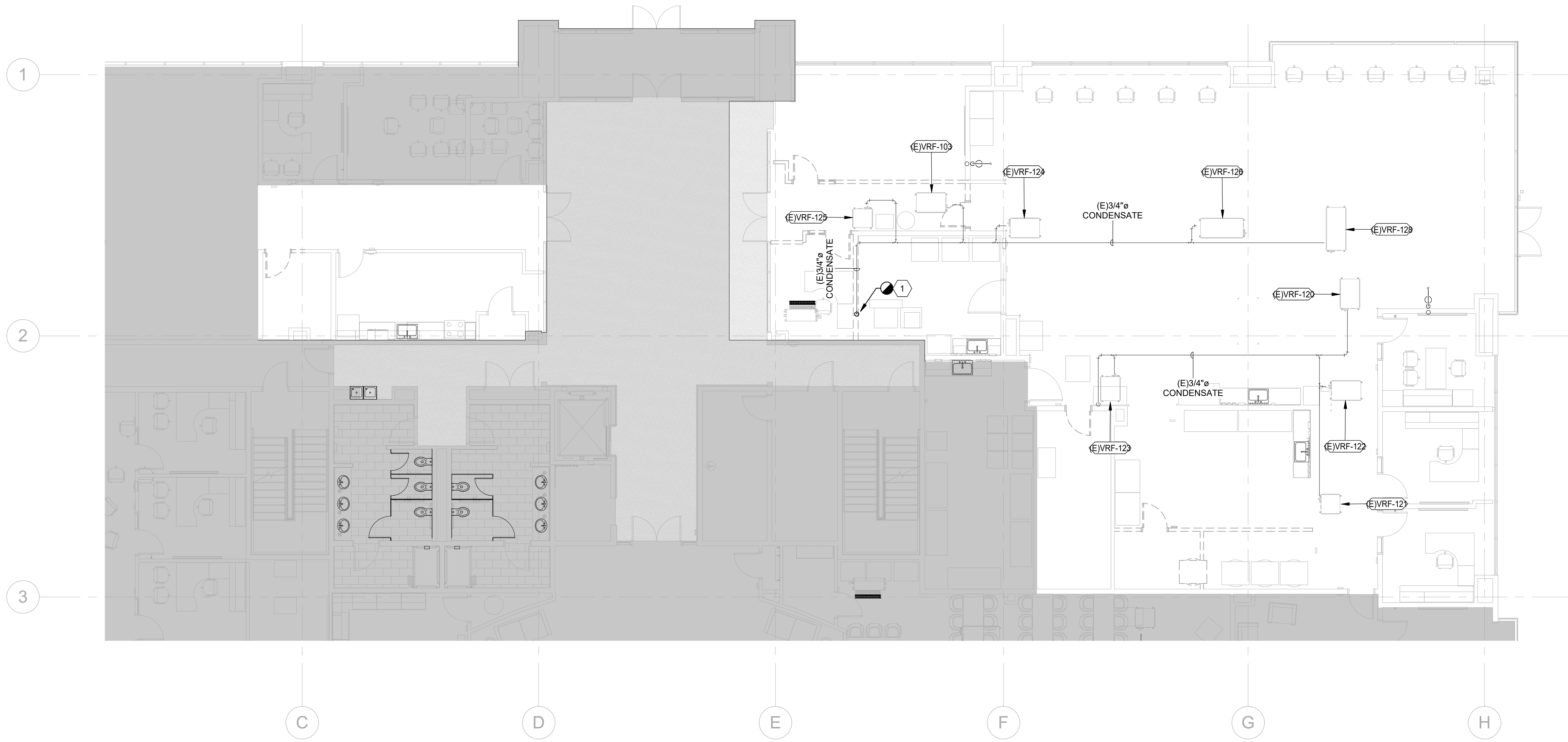
MECHANICAL ZONING PLAN

MH102

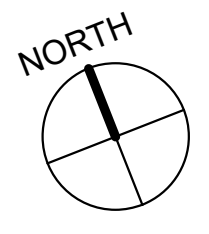
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SHEET KEYNOTES

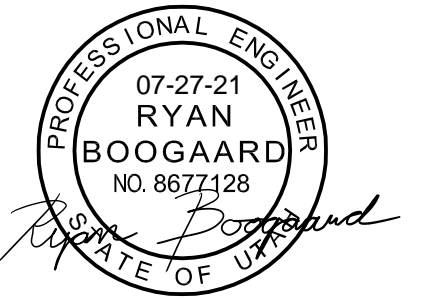
1 REMOVE EXISTING CONDENSATE LINE INSIDE WALL.



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



REV	DATE	DESCRIPTION
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VCBO NUMBER: 21560
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DATE: JULY 27, 2021

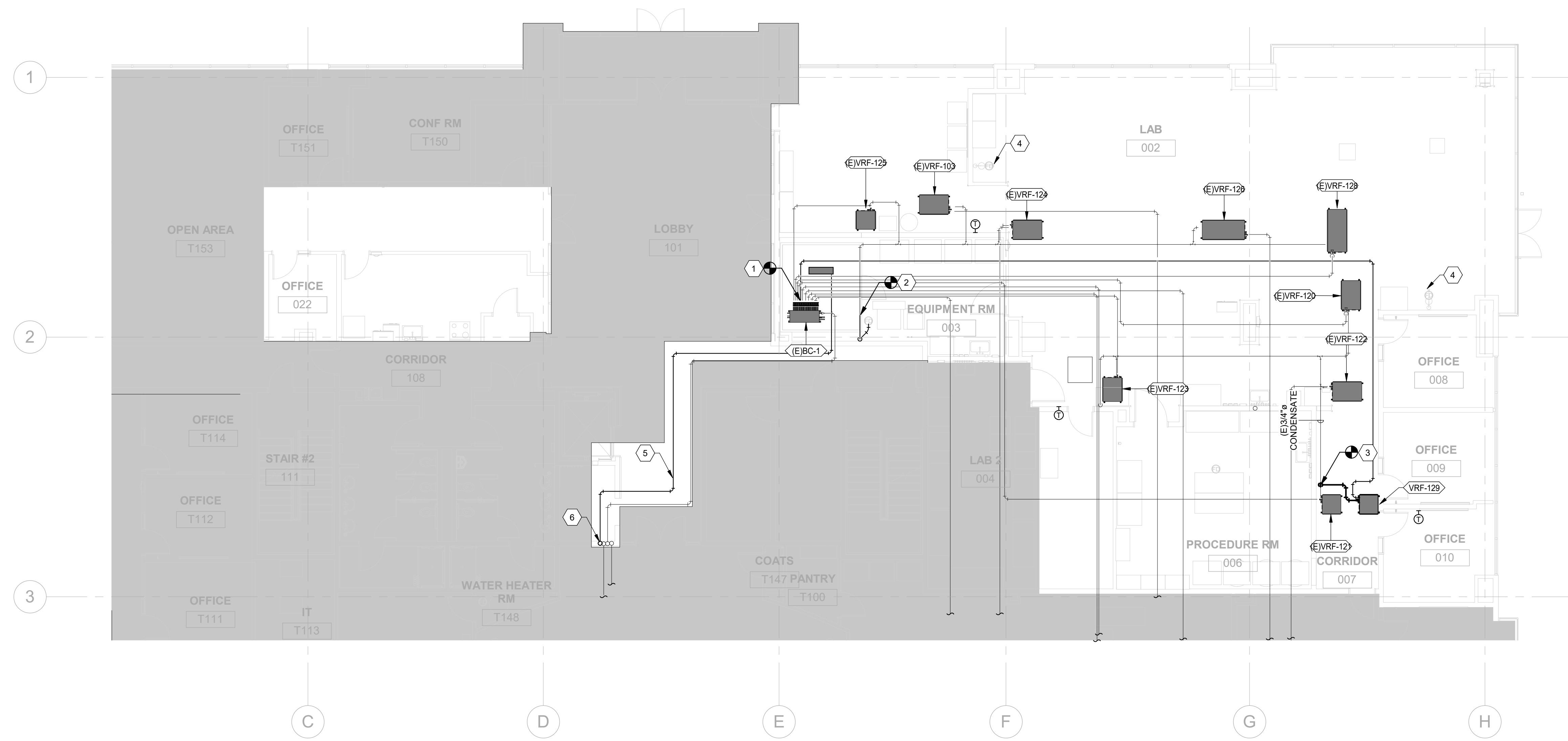
SUMITOMO DAINIPPON PHARMA
FORGE COMPANIES
3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
SCHEMATIC DRAWINGS

FIRST FLOOR MECH.
DEMO PIPING PLAN

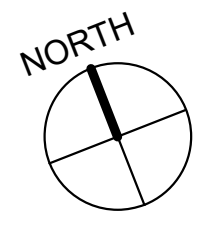
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SHEET KEYNOTES

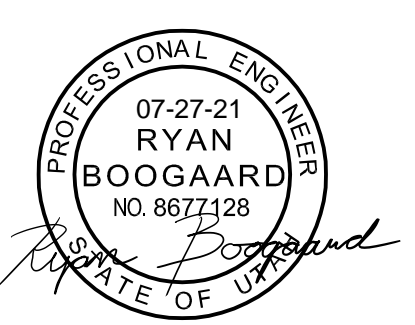
- 1 CONNECT REFRIGERANT LINES (SUCTION AND SUPPLY), TO EXISTING 16 PORT BRANCH SELECTOR. CONTRACTOR TO CONFIRM ROUTING AND LOCATION IN FIELD.
- 2 RELOCATE CONDENSATE LINE TO EXISTING WALL AND ROUTE TO FLOOR SINK. SUPPORT PIPING AS INDICATED IN SPECIFICATIONS.
- 3 CONNECT NEW 3/4" CONDENSATE LINE TO EXISTING CONDENSATE LINE.
- 4 CONNECT NEW 3/4" PVC PIPING FROM EMERGENCY EYEWASH DISCHARGE AND ROUTE TO EXISTING FLOOR DRAIN.
- 5 ROUTE NEW SUCTION AND SUPPLY REFRIGERANT PIPING ABOVE CEILING AND UP EXISTING CHASE ALONG SIDE OF EXISTING REFRIGERANT LINES.
- 6 EXISTING CHASE TO ROOF.



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



REV	DATE	DESCRIPTION
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VCBO NUMBER: 21560
CLIENT NUMBER:
DATE: JULY 27, 2021

SUMITOMO DAINIPPON PHARMA
FORGE COMPANIES
3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
SCHEMATIC DRAWINGS

FIRST FLOOR MECH. PIPING PLAN

MP102

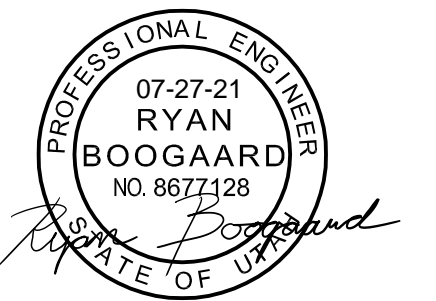
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SHEET KEYNOTES

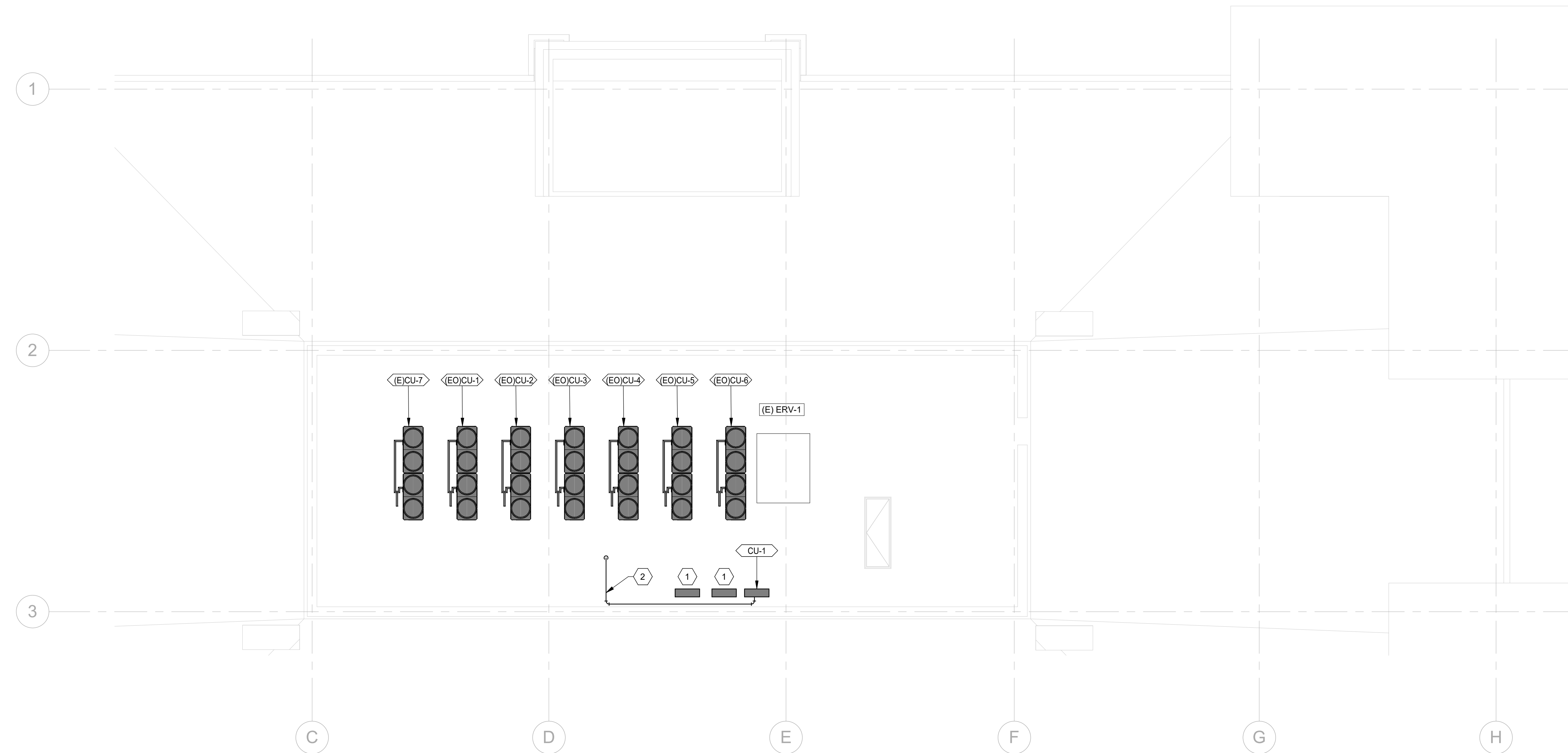
- 1 EXISTING CONDENSING UNIT TO REMAIN.
- 2 ROUTE NEW SUCTION AND SUPPLY REFRIGERANT PIPING UP EXISTING CHASE AND EXISTING REFRIGERANT ROOF SUPPORTS. PROVIDE UV RESISTING COATING ON OUTSIDE OF REFRIGERANT PIPING INSULATION. LINE SIZE BY MANUFACTURER.



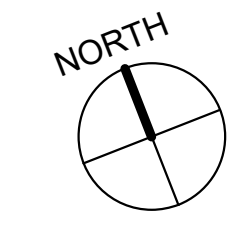
REV	DATE	DESCRIPTION
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VCBO NUMBER: 21560
CLIENT NUMBER:
DATE: JULY 27, 2021



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

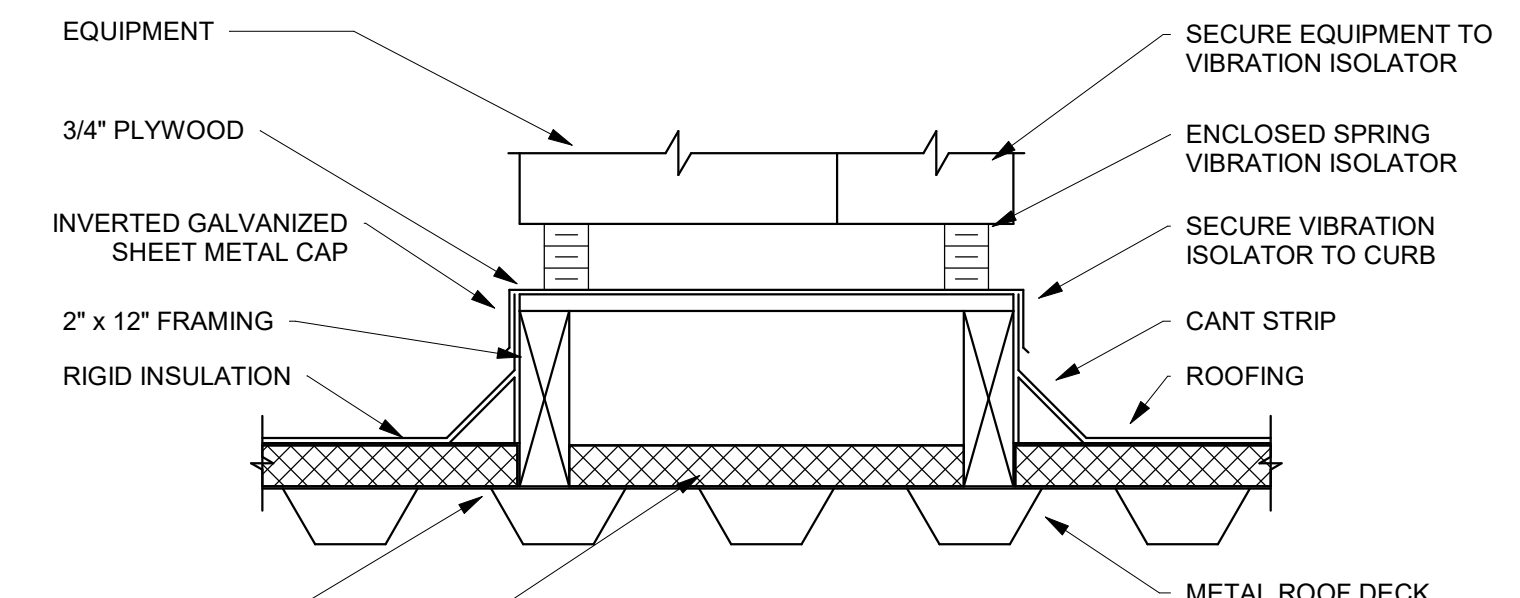


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FORGE COMPANIES
3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
SCHEMATIC DRAWINGS

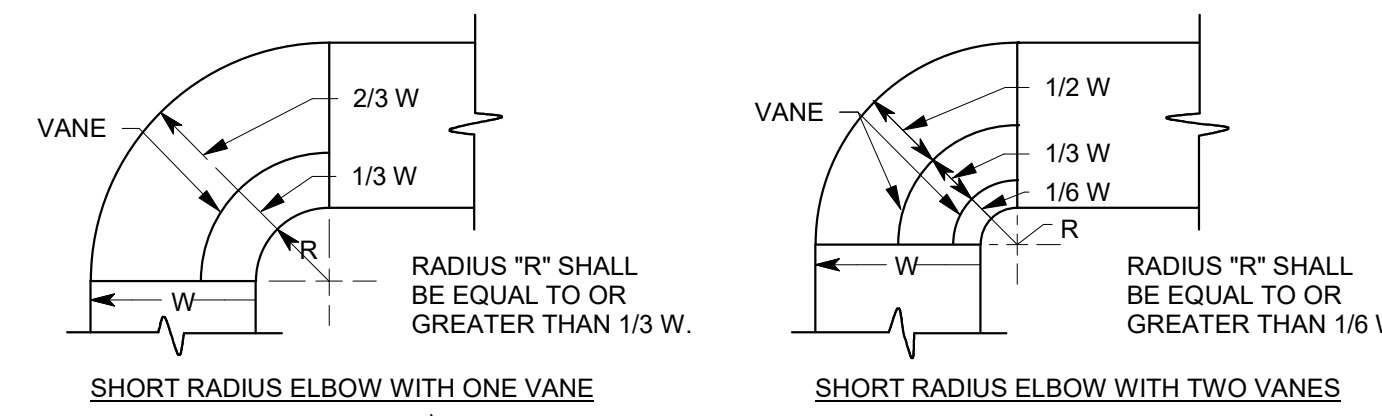
ROOF MECHANICAL
PIPING PLAN

MP103

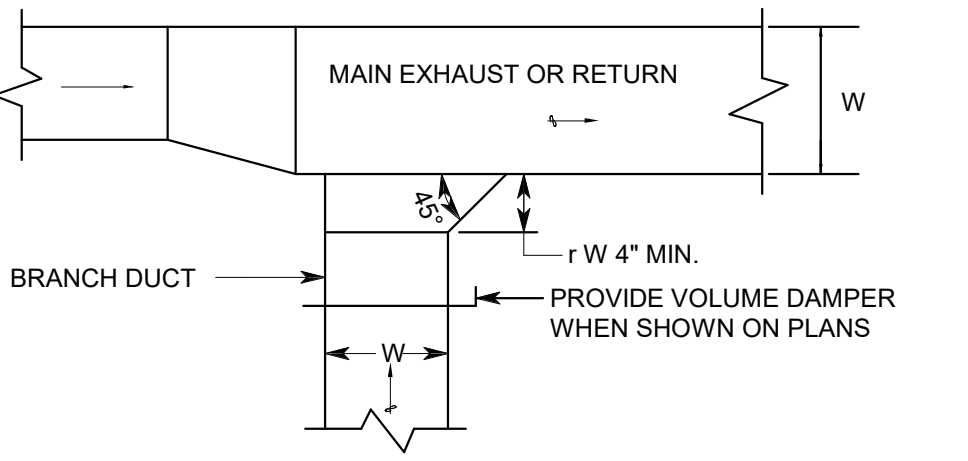
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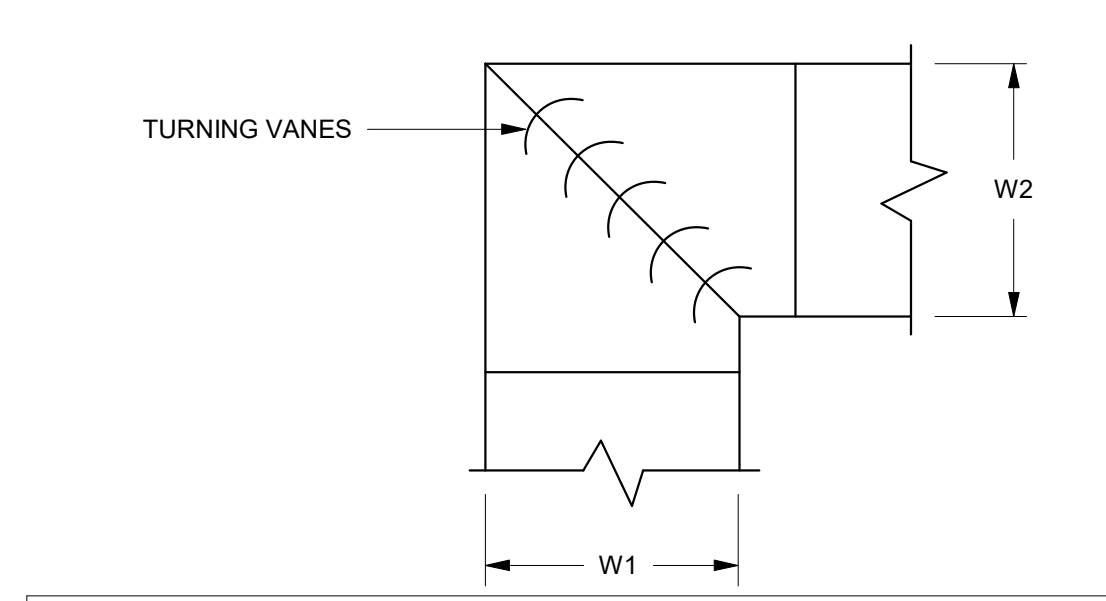
4 EQUIPMENT CURB DETAIL
SCALE: 1/8" = 1'-0"



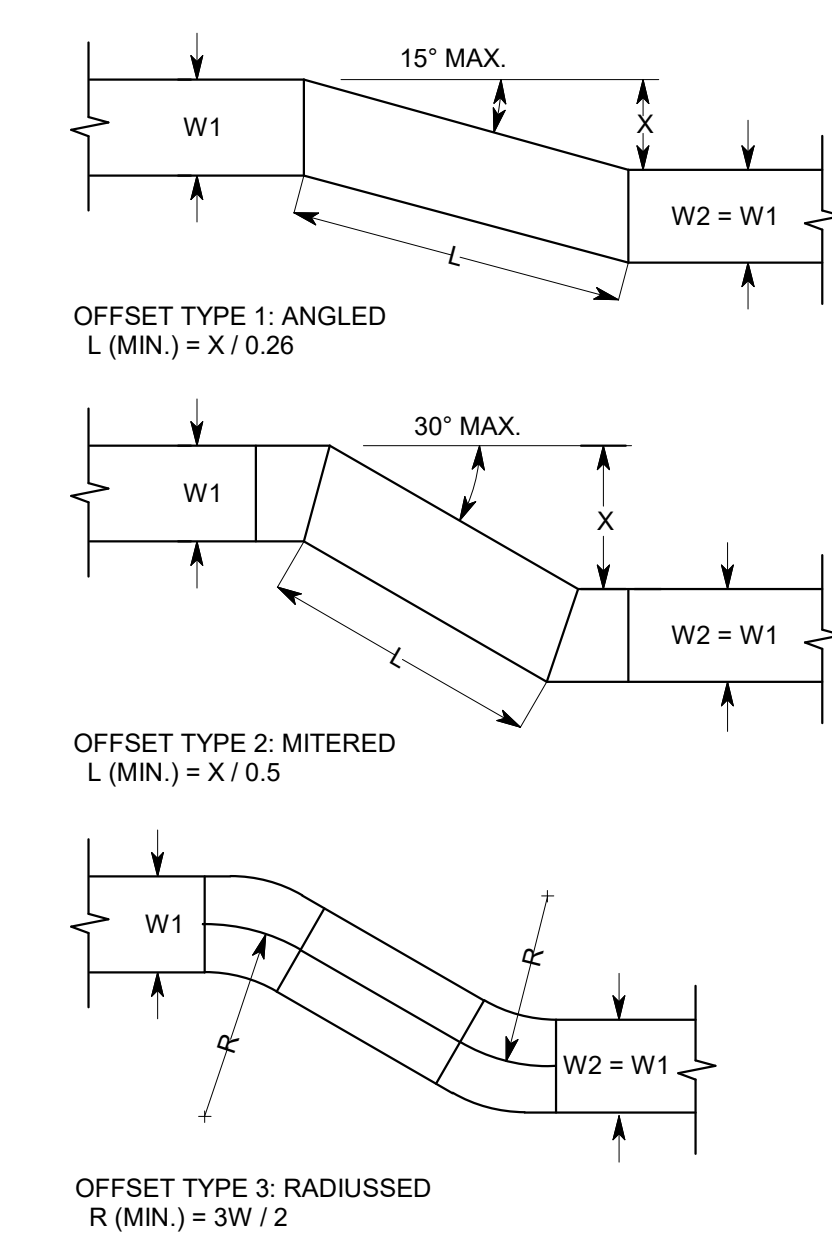
3 DUCT ELBOW - ROUND
SCALE: NTS



2 EXHAUST AND/OR RETURN BRANCH DUCT
SCALE: NTS

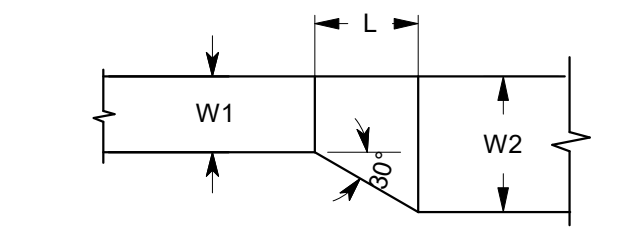


1 DUCT ELBOW - SQUARE
SCALE: NTS

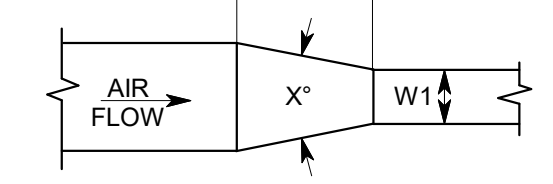


- NOTES:**
- UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.
 - ALL OFFSETS SHOWN ON DRAWINGS MADE BE MADE WITH ANY OF THE 3 OFFSET TYPES ABOVE.

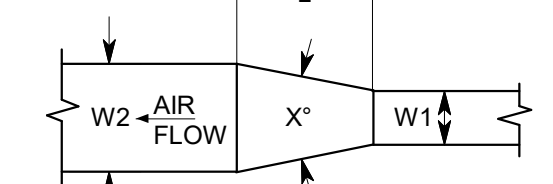
6 DUCT OFFSETS1
SCALE: NTS



ECCENTRIC TRANSITION:
MAX 30° ANGLE
EXCEPT 45° IS PERMITTED AT ROUND TO FLAT OVAL
 $L (MIN.) = (W2-W1)0.58$ FOR 30°
 $L (MIN.) = W2-W1$ FOR 45°



CONVERGING CONCENTRIC TRANSITION:
 $X° = 60°$ MAX.
 $L (MIN.) = (W)$



DIVERGING CONCENTRIC TRANSITION:
 $X° = 45°$ MAX.
 $L (MIN.) = (W2 - W1) / 2$

- NOTE:** UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.

5 DUCT TRANSITIONS
SCALE: NTS

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EXISTING VRF - INDOOR UNIT SCHEDULE

LABEL	ASSOCIATED BC & CU	AIRFLOW	E.S.P.	OUTSIDE AIR FLOW	COOLING MIXED AIR DRY BULB	COOLING MIXED AIR WET BULB	HEATING MIXED AIR DRY BULB	DESIGN COOLING CAPACITY	DESIGN HEATING CAPACITY	REFRIGERANT LIQUID CONNECTION DIAMETER	REFRIGERANT GAS CONNECTION DIAMETER	SOUND RATING (dBA)	VOLTAGE	PHASE	CURRENT	WATTS	EMERGENCY POWER	DISCONNECT BY ELEC	DISCONNECT BY MECH	WEIGHT (LBS)	MANUFACTURER	MODEL	Comments
(E)VRF-101	(E)BC-7 & (E)CU-7	750	0.60 in-wg	69	80 °F	67 °F	70 °F	24000.0 Btu/h	27000.0 Btu/h	3/8"	5/8"	45	208 V	1	1 A	360 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P24NMAU-E	7
(E)VRF-102	(E)BC-2 & (E)CU-2	1200	0.60 in-wg	0	80 °F	67 °F	70 °F	36000.0 Btu/h	40000.0 Btu/h	3/8"	5/8"	41	208 V	1	2 A	240 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P36NMAU-E	7
(E)VRF-103	(E)BC-2 & (E)CU-2	700	0.60 in-wg	109	80 °F	67 °F	70 °F	24000.0 Btu/h	27000.0 Btu/h	3/8"	5/8"	45	208 V	1	1 A	360 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P24NMAU-E	7
(E)VRF-104	(E)BC-2 & (E)CU-2	750	0.60 in-wg	33	80 °F	67 °F	70 °F	24000.0 Btu/h	27000.0 Btu/h	3/8"	5/8"	45	208 V	1	1 A	360 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P24NMAU-E	7
(E)VRF-105	(E)BC-2 & (E)CU-2	700	0.60 in-wg	281	80 °F	67 °F	70 °F	24000.0 Btu/h	27000.0 Btu/h	3/8"	5/8"	45	208 V	1	1 A	360 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P24NMAU-E	7
(E)VRF-106	(E)BC-2 & (E)CU-2	750	0.60 in-wg	29	80 °F	67 °F	70 °F	24000.0 Btu/h	27000.0 Btu/h	3/8"	5/8"	45	208 V	1	1 A	360 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P24NMAU-E	7
(E)VRF-107	(E)BC-7 & (E)CU-7	1250	0.60 in-wg	141	80 °F	67 °F	70 °F	54000.0 Btu/h	60000.0 Btu/h	3/8"	5/8"	44	208 V	1	2 A	340 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P54NMAU-E	7
(E)VRF-108	(E)BC-7 & (E)CU-7	265	0.60 in-wg	12	80 °F	67 °F	70 °F	6000.0 Btu/h	6700.0 Btu/h	1/4"	1/2"	29	208 V	1	1 A	60 W	No	Yes	No	51	Mitsubishi Electric	PEFY-P06NMAU-E	7
(E)VRF-109	(E)BC-7 & (E)CU-7	1250	0.60 in-wg	141	80 °F	67 °F	70 °F	54000.0 Btu/h	60000.0 Btu/h	3/8"	5/8"	44	208 V	1	2 A	340 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P54NMAU-E	7
(E)VRF-110	(E)BC-2 & (E)CU-2	750	0.60 in-wg	131	80 °F	67 °F	70 °F	30000.0 Btu/h	34000.0 Btu/h	3/8"	5/8"	39	208 V	1	1 A	170 W	No	Yes	No	67	Mitsubishi Electric	PEFY-P30NMAU-E	7
(E)VRF-111	(E)BC-7 & (E)CU-7	1200	0.60 in-wg	17	80 °F	67 °F	70 °F	48000.0 Btu/h	54000.0 Btu/h	3/8"	5/8"	44	208 V	1	2 A	340 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P48NMAU-E	7
(E)VRF-112	(E)BC-7 & (E)CU-7	1195	0.60 in-wg	47	80 °F	67 °F	70 °F	48000.0 Btu/h	54000.0 Btu/h	3/8"	5/8"	44	208 V	1	2 A	340 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P48NMAU-E	7
(E)VRF-113	(E)BC-7 & (E)CU-7	265	0.60 in-wg	10	80 °F	67 °F	70 °F	6000.0 Btu/h	6700.0 Btu/h	1/4"	1/2"	29	208 V	1	1 A	60 W	No	Yes	No	51	Mitsubishi Electric	PEFY-P06NMAU-E	7
(E)VRF-114	(E)BC-7 & (E)CU-7	750	0.60 in-wg	29	80 °F	67 °F	70 °F	24000.0 Btu/h	27000.0 Btu/h	3/8"	5/8"	45	208 V	1	1 A	360 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P24NMAU-E	7
(E)VRF-115	(E)BC-7 & (E)CU-7	1200	0.60 in-wg	180	80 °F	67 °F	70 °F	48000.0 Btu/h	54000.0 Btu/h	3/8"	5/8"	44	208 V	1	2 A	340 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P48NMAU-E	7
(E)VRF-116	(E)BC-1 & (E)CU-1	990	0.60 in-wg	47	80 °F	67 °F	70 °F	36000.0 Btu/h	40000.0 Btu/h	3/8"	5/8"	41	208 V	1	2 A	240 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P36NMAU-E	7
(E)VRF-117	(E)BC-1 & (E)CU-1	1200	0.60 in-wg	160	80 °F	67 °F	70 °F	48000.0 Btu/h	54000.0 Btu/h	3/8"	5/8"	44	208 V	1	2 A	340 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P48NMAU-E	7
(E)VRF-118	(E)BC-1 & (E)CU-1	980	0.60 in-wg	38	80 °F	67 °F	70 °F	36000.0 Btu/h	40000.0 Btu/h	3/8"	5/8"	41	208 V	1	2 A	240 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P36NMAU-E	7
(E)VRF-119	(E)BC-2 & (E)CU-2	425	0.60 in-wg	23	80 °F	67 °F	70 °F	15000.0 Btu/h	17000.0 Btu/h	1/4"	1/2"	34	208 V	1	1 A	90 W	No	Yes	No	58	Mitsubishi Electric	PEFY-P15NMAU-E	7
(E)VRF-120	(E)BC-1 & (E)CU-1	800	0.60 in-wg	40	80 °F	67 °F	70 °F	30000.0 Btu/h	34000.0 Btu/h	3/8"	5/8"	39	208 V	1	1 A	170 W	No	Yes	No	67	Mitsubishi Electric	PEFY-P30NMAU-E	7
(E)VRF-121	(E)BC-1 & (E)CU-1	215	0.60 in-wg	8	80 °F	67 °F	70 °F	6000.0 Btu/h	6700.0 Btu/h	1/4"	1/2"	29	208 V	1	1 A	60 W	No	Yes	No	51	Mitsubishi Electric	PEFY-P06NMAU-E	7
(E)VRF-122	(E)BC-2 & (E)CU-2	750	0.60 in-wg	102	80 °F	67 °F	70 °F	24000.0 Btu/h	27000.0 Btu/h	3/8"	5/8"	45	208 V	1	1 A	360 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P24NMAU-E	7
(E)VRF-123	(E)BC-1 & (E)CU-1	510	0.60 in-wg	147	80 °F	67 °F	70 °F	18000.0 Btu/h	20000.0 Btu/h	1/4"	1/2"	35	208 V	1	1 A	110 W	No	Yes	No	58	Mitsubishi Electric	PEFY-P15NMAU-E	7
(E)VRF-124	(E)BC-2 & (E)CU-2	750	0.60 in-wg	18	80 °F	67 °F	70 °F	30000.0 Btu/h	34000.0 Btu/h	3/8"	5/8"	39	208 V	1	1 A	170 W	No	Yes	No	67	Mitsubishi Electric	PEFY-P30NMAU-E	7
(E)VRF-125	(E)BC-1 & (E)CU-1	215	0.60 in-wg	17	80 °F	67 °F	70 °F	6000.0 Btu/h	6700.0 Btu/h	1/4"	1/2"	29	208 V	1	1 A	60 W	No	Yes	No	51	Mitsubishi Electric	PEFY-P06NMAU-E	7
(E)VRF-126	(E)BC-2 & (E)CU-2	1250	0.60 in-wg	323	80 °F	67 °F	70 °F	54000.0 Btu/h	60000.0 Btu/h	3/8"	5/8"	44	208 V	1	2 A	340 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P54NMAU-E	7
(E)VRF-127	(E)BC-1 & (E)CU-1	215	0.60 in-wg	21	80 °F	67 °F	70 °F	6000.0 Btu/h	6700.0 Btu/h	1/4"	1/2"	29	208 V	1	1 A	60 W	No	Yes	No	51	Mitsubishi Electric	PEFY-P06NMAU-E	7
(E)VRF-128	(E)BC-1 & (E)CU-1	1250	0.60 in-wg	323	80 °F	67 °F	70 °F	54000.0 Btu/h	60000.0 Btu/h	3/8"	5/8"	44	208 V	1	2 A	340 W	No	Yes	No	86	Mitsubishi Electric	PEFY-P54NMAU-E	7
VRF-129	(E)BC-1 & (E)CU-1	325	0.60 in-wg	65	80 °F	67 °F	70 °F	12000.0 Btu/h	13500.0 Btu/h	1/4"	1/2"	29	208 V	1	1 A	60 W	No	Yes	No	51	Mitsubishi Electric	PEFY-P12NMAU-E	1,2,3,4,5

- PROVIDE WITH MERV 7 FILTERS.
- PROVIDE WITH LINED RETURN DUCT WITH UPTURNED ELBOW. PROVIDE DROP OUT BOTTOM FILTER RACK WITH STANDARD SIZE FILTERS.
- PROVIDE WITH INTEGRAL CONDENSATE PUMP. ROUTE COPPER CONDENSATE PIPING AS INDICATED ON PLANS.
- BALANCE OUTSIDE AIR DUCT TO CFM INDICATED IN SCHEDULE.
- MITSUBISHI CONTROLS TO BE TIED INTO EXISTING CENTRAL CONTROLS BY CCI. CCI IS ONLY APPROVED CONTROLS CONTRACTOR.
- PROVIDE SUCTION LINE FILTER WITH BYPASS ON LARGEST CAPACITY FAN COIL. AFTER A WEEK OF USE CHECK FILTER. IF DIRTY REPLACE AND REPEAT. IF CLEAN REMOVE FILTER AND LEAVE IN BYPASS MODE.
- EXISTING TO REMAIN.

EXISTING ENERGY RECOVERY VENTILATOR SCHEDULE

LABEL	SUPPLY FAN		EXHAUST FAN		SUMMER AIR CONDITIONS			WINTER AIR CONDITIONS			DUCT HEATER KW	WEIGHT	HP (x2 MOTORS)	MCA	MOCP	VOLTAGE	PHASE	Hz	EMERGENCY POWER	DISCONNECT		STARTER		MANUFACTURER	MODEL	REMARKS
	CFM	EXT. S.P.	CFM	EXT. S.P.	O.A.D.B.	O.A.W.B.	S.A.	O.A.D.B.	O.A.W.B.	S.A.										FURN BY ELEC	FURN BY MECH	FURN BY ELEC	FURN BY MECH			
(E)ERV-1	800	0.50 in-wg	800	0.50 in-wg	96 °F	63 °F	82 °F	6 °F	4 °F	50 °F	8	300	.5	20.	25	120	1	60	NO	YES	NO	NO	ECM	RENEWAIRE	HE1XINH	1
(E)ERV-2	300	0.50 in-wg	350	0.50 in-wg	96 °F	63 °F	82 °F	6 °F	4 °F	50 °F	4	250	.5	10.1	15	120	1	60	NO	YES	NO	NO	ECM	RENEWAIRE	EV450IN	1

- EXISTING TO REMAIN.

EXISTING MAKEUP AIR UNIT SCHEDULE

LABEL	UNIT TYPE	CFM	EXTERNAL S.P.	HEATING		DX COOLING CAPACITY	EER	MCA	FLA	MOCP	VOLTAGE	PHASE	WEIGHT	SOUND RATING	EMERGENCY POWER	DISCONNECT		VFD		MANUFACTURER	MODEL	REMARKS
				TEMP RISE	HEATING kW											FURN BY ELEC	FURN BY MECH	FURN BY ELEC	FURN BY MECH			
(E)MAU-1	HOOD MAKE UP	1000	0.75 in-wg	70 °F	20.0	40.5 Btu/h	13.55	33	26.0	35	460	3	1500	75 dB	NO	NO	FACTORY	NO	FACTORY	AAON	RQ-003-3-V-EA09-12A	1

- EXISTING TO REMAIN.

EXISTING BRANCH CONTROLLER SCHEDULE

LABEL	EQUIPMENT TYPE	EQUIPMENT SERVED	NUMBER OF PORTS	CONNECTED CAPACITY	VOLTAGE	PHASE	MCA	MANUFACTURER	MODEL	REMARKS
(E)BC-1	MAIN	(E)CU-1	16	204474.0 Btu/h	208 V	1	1.65	Mitsubishi Electric	CMB-P1016NU-HA1	1
(E)BC-2	MAIN	(E)CU-2	16	242813.0 Btu/h	208 V	1	1.65	Mitsubishi Electric	CMB-P1016NU-HA1	1
(E)BC-3	MAIN	(E)CU-7	16	247833.0 Btu/h	208 V	1	1.65	Mitsubishi Electric	CMB-P1016NU-HA1	1

- EXISTING UNIT.

REGISTER - GRILLE- DIFFUSER SCHEDULE

LABEL	TYPE	BLOW PATTERN	MAX AIR FLOW (CFM)	FACE SIZE	NECK SIZE	NC	PRESSURE DROP (in-wg)	THROW	MANUFACTURER	MODEL	REMARKS
R-1	CEILING MOUNTED RETURN GRILLE	N/A	1750	24X24	N/A	30	0.100	N/A	Price Industries	535	1,2,3,4
S-1	CEILING MOUNTED SUPPLY GRILLE	4-WAY	235	24X24	8"	30	0.150	4-5-8	Price Industries	SPD	1,2,3,4
S-2	CEILING MOUNTED SUPPLY GRILLE	4-WAY	375	24X24	10"	30	0.150	5-7-11	Price Industries	SPD	1,2,3,4

- PROVIDE TRANSITION AS NECESSARY
- PROVIDE LAY-IN MODULE AS NECESSARY
- COLOR BY ARCHITECT
- ACCEPTABLE MANUFACTURERS: PRICE, KRUEGER, TITUS OR PRIOR APPROVED EQUAL.
- MOUNT APPROXIMATE 6" FROM TOP OF AUTOCLAVE. CENTER OVER FRONT FACE FOR CAPTURE OF STEAM FROM DOOR.

EXISTING CONDENSING UNIT SCHEDULE

LABEL	WEIGHT	SOUND RATING (dBA)	COOLING DATA		HEATING DATA		MCA (PER MODULE)	VOLTAGE	PHASE	Hz	EMERGENCY POWER	DISCONNECT		MANUFACTURER	MODEL	REMARKS
			CAP. (BTU)	EER	CAP. (BTU)	COP						FURN BY ELEC	FURN BY MECH			
(E)CU-7	1430	64	288000.0	11.2	320000.0	3.41	2424	460	3	60	NO	YES	NO	Mitsubishi Electric	PUHY-P288	1

- EXISTING TO REMAIN

COLD ROOM DUCTLESS SPLIT SYSTEM INDOOR UNIT

LABEL	DESCRIPTION	AREA SERVED	CFM	COOLING TOTAL	MCA	VOLT	PHASE	WEIGHT	MANUFACTURER	MODEL	REMARKS
FCU-1	COLD ROOM	COLD ROOM	800	11383.0 Btu/h	17	208 V	1	42 lb	PERAMETER	T693-3140-OC00900	ALL

ACCEPTABLE MANUFACTURERS: PERAMETER

(1) SUMMER: 80F DB, 60F WB ENTERING AIR
 (2) WINTER: 60F DB, 60F WB ENTERING AIR
 (3) REFRIGERANT LINE SET BY MANUFACTURER
 (4) INDOOR UNIT RECEIVES POWER FROM OUTDOOR UNIT THROUGH FIELD SUPPLIED INTERCONNECTED WIRING

(5) THERMOSTATIC EXPANSION VALVE
 (6) RUN CONDENSATE DRAIN LINE IN WALL TO DRAIN

COLD ROOM DUCTLESS SPLIT SYSTEM OUTDOOR UNIT

LABEL	DESCRIPTION	EQUIPMENT SERVED	COOLING TOTAL	MCA	VOLT	PHASE	WEIGHT	MANUFACTURER	MODEL	REMARKS
CU-1	COLD ROOM	COLD ROOM	11383.0 Btu/h	17	208 V	1	120 lb	PERAMETER	T693-3140-OC00900	ALL

ACCEPTABLE MANUFACTURERS: NONE

(1) 95F DB, 63F WB AMBIENT AIR TEMPERATURE SUMMER
 (2) 9F AMBIENT AIR TEMPERATURE WINTER
 (3) R-410A REFRIGERANT
 (4) INDOOR UNIT RECEIVES POWER FROM OUTDOOR UNIT THROUGH FIELD SUPPLIED INTERCONNECTED WIRING

(5) RUN CONDENSATE DRAIN LINE IN WALL TO DRAIN
 (6) REFRIGERANT LINE SET BY MANUFACTURER
 (7) WIRELESS REMOTE CONTROLLER
 (8) THERMOSTATIC EXPANSION VALVE



REV DATE DESCRIPTION



VCBO NUMBER: 21560
 CLIENT NUMBER:
 DATE: JULY 27, 2021

SUMITOMO DAINIPPON PHARMA
 FORGE COMPANIES
 3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
 SCHEMATIC DRAWINGS

MECHANICAL SCHEDULES

ME601

SYMBOLS LEGEND	
SYMBOL	DESCRIPTION
REFERENCE AND LINE SYMBOLS	
	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
	ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.
	KEYNOTE INDICATOR.
	REVISION INDICATOR.
	EQUIPMENT INDICATOR.
	MECHANICAL EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "XMDP" IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING
	BREAK, ROUND
	NEW LINE: MEDIUM LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE
	EXISTING TO REMAIN LINE: THIN LINE.
	DEMOLITION LINE: DASHED, MEDIUM LINE
WIRING METHODS	
	WIRING.
	WIRING TURNED UP OR TOWARDS OBSERVER.
	WIRING TURNED DOWN OR AWAY FROM OBSERVER.
	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT SCHEDULE. FOR BRANCH WIRING USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
	FLEXIBLE WIRING.
	LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.
	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
	ADA ACCESS PUSH PLATE
	JUNCTION BOX.
	PULL BOX.
	EARTH GROUND (ONE-LINE DIAGRAM).
	JUNCTION BOX, CEILING.
	MECHANICAL EQUIPMENT CONNECTION. REFER TO EQUIPMENT SCHEDULE FOR REQUIREMENTS.
WIRING DEVICES	
	RECEPTACLE, DUPLEX: NEMA 5-20R.
	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WET LABEL, "WEATHERPROOF IN USE": NEMA 5-20R.
	RECEPTACLE, DUPLEX ON EMERGENCY POWER: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
	RECEPTACLE, QUADRUPLE: NEMA 5-20R.
	RECEPTACLE, QUADRUPLE ON EMERGENCY POWER: NEMA 5-20R.
	RECEPTACLE, QUADRUPLE WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
	FLUSH FLOOR BOX. "F" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
	FLUSH FIRE RATED POKE THRU. "F" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
	SWITCH, SINGLE POLE ("X" INDICATES FIXTURES CONTROLLED).

SYMBOLS LEGEND	
SYMBOL	DESCRIPTION
STRUCTURED CABLING	
	TELEPHONE, WALL MOUNTED ("X" INDICATES QUANTITY OF CABLES).
	DATA CONNECTION: WIRELESS ACCESS POINT (WAP). REQUIRES (2) DATA DROPS PER DEVICE
	TELEPHONE, WALL MOUNTED: WALL PHONE.
	OUTLET, DATA COMMUNICATION ("X" INDICATES QUANTITY OF CABLES).
	TELEPHONE TERMINAL BOARD, FIRE TREATED PLYWOOD PAINTED.
ELECTRICAL POWER AND DISTRIBUTION	
	METER.
	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, UNFUSED.
	STARTER, COMBINATION WITH DISCONNECT SWITCH.
	STARTER OR MOTOR CONTROLLER.
	PUSHBUTTON.
	PUSHBUTTONS, MOTOR CONTROL.
	PANELBOARD CABINET, FLUSH MOUNTED.
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
	DISTRIBUTION PANEL OR SWITCHBOARD.
	LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.
	LIGHTING CONTROL STATION.
	DIMMING ENTRY STATION OR CONTROL STATION, FLUSH MOUNTED.
	SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.
	TRANSFORMER: NUMBER INDICATES kVA.
LIGHTING	
	FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
	FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
	EMERGENCY.
	EGRESS DIRECTION ARROW (EXIT SIGNS).
	EXIT SIGN: SINGLE FACE; CEILING MOUNTED
	EXIT SIGN: DOUBLE FACE; CEILING MOUNTED
LIGHTING CONTROL	
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
	VACANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
	PHOTOCELL.
	SWITCH/OCCUPANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL.
	SWITCH/VACANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL.
	DIGITAL LIGHTING CONTROL SWITCH: LETTER "a,b" INDICATES ZONING WHERE SHOWN (REFER TO PLANS, SCHEDULES, AND DETAILS FOR EXACT BUTTON CONFIGURATION AND PROGRAMMING REQUIREMENTS)
	DIGITAL LIGHTING DIMMING CONTROLLER
	LIGHTING NETWORK SEGMENT MANAGER
	LIGHTING SPACE CONTROL TYPE. X INDICATES TYPE. SEE SCHEDULE / DIAGRAM.
FIRE ALARM	
	FIRE ALARM CONTROL PANEL, SEMI-RECESSED.
	CONTROL MODULE.
	MONITOR MODULE.
	FIRE ALARM MANUAL PULL STATION.
	DETECTOR, SMOKE.
	ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING.
	ALARM, HORN/STROBE, ONE ASSEMBLY, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
SECURITY	
	INTRUSION DETECTION HEADEND EQUIPMENT.
	CARD READER.

ABBREVIATIONS			
NOTE: ALL ABBREVIATIONS MAY NOT BE USED.			
1P	SINGLE POLE	kV	KILOVOLT
1PH	SINGLE-PHASE	kVA	KILOVOLT AMPERE
1WAY	ONE-WAY	kVAR	KILOVOLT AMPERE REACTIVE
2/C	TWO-CONDUCTOR	kW	KILOWATT
2WAY	TWO-WAY	kWh	KILOWATT HOUR
3/C	THREE-CONDUCTOR	LED	LIGHT EMITTING DIODE
3WAY	THREE-WAY	LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
4OUT	QUADRUPLE RECEPTACLE OUTLET	LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
4PDT	FOUR-POLE DOUBLE THROW	LPS	LOW PRESSURE SODIUM
4PST	FOUR-POLE SINGLE THROW	LRA	LOCKED ROTOR AMPS
4W	FOUR-WIRE	LTG	LIGHTING
4WAY	FOUR-WAY	LV	LOW VOLTAGE
A	ABOVE COUNTER	MATV	MASTER ANTENNA TELEVISION SYSTEM
AC	ARMORED CABLE	MAX	MAXIMUM
ADA	AMERICANS WITH DISABILITIES ACT	MC	METAL CLAD
ADJ	ADJACENT	MCA	MINIMUM CIRCUIT AMPS
AFF	ABOVE FINISHED FLOOR	MCB	MAIN CIRCUIT BREAKER
AFG	ABOVE FINISHED GRADE	MCC	MOTOR CIRCUIT CENTER
AIC	AMPERE INTERRUPTING CAPACITY	MCP	MOTOR CIRCUIT PROTECTION
ALUM	ALUMINUM	MDP	MAIN DISTRIBUTION PANEL
AMP	AMPERE	MG	MOTOR GENERATOR
ANN	ANNUNCIATOR	MH	MANHOLE
AP	ACCESS POINT (WIRELESS DATA)	MIN	MINIMUM
AR	AS REQUIRED	MLO	MAIN LUGS ONLY
ASC	AMPS SHORT CIRCUIT PROTECTION	MOC	MAXIMUM OVERCURRENT PROTECTION
ATS	AUTOMATIC TRANSFER SWITCH	MTC	MANUAL TRANSFER SWITCH
AV	AUDIO VISUAL	NA	NOT APPLICABLE
AWG	AMERICAN WIRE GAGE	NC	NORMALLY CLOSED
BB	BUCK-BOOST TRANSFORMER	NEC	NATIONAL ELECTRICAL CODE
XFMR	TRANSFORMER	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
C	CEILING MOUNTED	NFC	NATIONAL FIRE CODE
CATV	COMMUNITY ANTENNA TELEVISION	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CB	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
CCBA	CUSTOM COLOR AS SELECTED BY ARCHITECT	NL	NIGHT LIGHT
CCTV	CLOSED CIRCUIT TELEVISION	NO	NORMALLY OPEN
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED	NTS	NOT TO SCALE
CF/OI	CONTRACTOR FURNISHED/ OWNER INSTALLED	OC	ON CENTER
CFBA	CUSTOM FINISH AS SELECTED BY ARCHITECT	OC	ON CENTER
CKT	CIRCUIT	OC	ON CENTER
CM	CONSTRUCTION MANAGER	OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED
CND	CONDUIT	OF/OI	OWNER FURNISHED/ OWNER INSTALLED
CO	CONVENIENCE OUTLET	OPF	OBTAIN FROM PLANS
COR	CONTRACTING OFFICER'S REPRESENTATIVE	OH DR	OVERHEAD (COLING) DOOR
CP	CONTROL PANEL	OL	OVERLOAD
CT	CURRENT TRANSFORMER	PB	PUSHBUTTON
CTV	CABLE TELEVISION	PF	POWER FACTOR
CU	COPPER	PH	PHASE
dBA	UNIT OF SOUND LEVEL	PNL	PANEL
DPDT	DOUBLE POLE, DOUBLE THROW	PT	POTENTIAL TRANSFORMER
DS	DISCONNECT SWITCH	PTZ	PANTILT/ZOOM
EA	EACH	QTY	QUANTITY
EM	EMERGENCY	R	REMOVE
EMT	ELECTRICAL METALLIC TUBING	RCP	REFLECTED CEILING PLAN
ENT	ELECTRIC NONMETALLIC TUBING	RMC	RIGID METAL CONDUIT
EPO	EMERGENCY POWER OFF EQUIPMENT	RNC	RIGID NONMETAL CONDUIT
EQUIP	EQUIPMENT	RPM	REVOLUTIONS PER MINUTE
EX	EXISTING	RR	REMOVE AND RELOCATE
FA	FIRE ALARM	S/S	START/STOP
FCP	FIRE ALARM CONTROL PANEL	SCA	SHORT CIRCUIT AMPS
FLA	FULL LOAD AMPS	SCBA	STANDARD COLOR AS SELECTED BY ARCHITECT
FMC	FLEXIBLE METAL CONDUIT	SF	SQUARE FOOT (FEET)
FOB	FREIGHT ON BOARD	SFBA	STANDARD FINISH AS SELECTED BY ARCHITECT
FVNR	FULL VOLTAGE NON-REVERSING	SPD	SURGE PROTECTIVE DEVICE
FVR	FULL VOLTAGE REVERSING	SPDT	SINGLE POLE, DOUBLE THROW SPECIFICATION
GEN	GENERATOR	SPST	SINGLE POLE, SINGLE THROW
GFCI	GROUND FAULT INTERRUPTER	ST	SINGLE THROW
GFP	GROUND FAULT PROTECTION	SWBD	SWITCHBOARD
GND	GROUND	SWGGR	SWITCHGEAR
HD	HEAVY DUTY	TL	TWIST LOCK
HID	HIGH INTENSITY DISCHARGE	TP	TELEPHONE POLE
HOA	HAND-OFF-AUTOMATIC	TP	TWISTED PAIR
HP	HORSE POWER	TB	TELEPHONE TERMINAL BOARD
HPF	HIGH POWER FACTOR	TV	TELEVISION
HPS	HIGH PRESSURE SODIUM	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
HV	HIGH VOLTAGE	TYP	TYPICAL
HZ	HERTZ	UF	UNDERFLOOR
I/O	INPUT/OUTPUT	UGND	UNDERGROUND
IG	ISOLATED GROUND	UPS	UNINTERRUPTIBLE POWER SUPPLY
IMC	INTERMEDIATE METAL CONDUIT	V	VOLTS
INIS	INSULATED/ISOLATED	VA	VOLT AMPERE
IR	INFRARED	VFC/VF	VARIABLE FREQUENCY MOTOR CONTROLLER
J-BOX	JUNCTION BOX	W	WITH
		W/O	WITHOUT
		WP	WEATHERPROOF
		XFMR	TRANSFORMER

ELECTRICAL SHEET INDEX	
EE001	SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES
EE501	ELECTRICAL DETAILS
EE701	TYPICAL MOUNTING HEIGHT DETAILS
EE702	TYPICAL MOUNTING HEIGHT DETAILS
ED101A	LEVEL 1 ELECTRICAL DEMOLITION PLAN
ED101B	LEVEL 1 CEILING DEMOLITION PLAN
EP101	LEVEL 1 POWER PLAN
EP601	EQUIPMENT SCHEDULE
EP602	PANEL SCHEDULES
EL101	LEVEL 1 LIGHTING PLAN
EL601	LIGHTING FIXTURE SCHEDULES
EL602	INTERIOR LIGHTING COM-CHECK
EY101	LEVEL 1 AUXILIARY PLAN

GENERAL ELECTRICAL NOTES	
1.	CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED.
2.	OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS NOTED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM. <ul style="list-style-type: none"> A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT. B. THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER. C. THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE. THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.
3.	EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.
4.	SUBMITTALS: PROVIDE ORIGINAL ELECTRONIC PDF FORMAT, BOUND, BOOKMARKED (EACH SECTION AND PRODUCT), AND HIGHLIGHTED. JOB NAME AND SUBCONTRACTOR SHALL BE ON THE FRONT COVER. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.
5.	REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.
6.	ALL WORK SHALL BE DONE ACCORDING TO THE CURRENT NATIONAL ELECTRIC CODE (NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.

DEFINITIONS	
NOTE: ALL DEFINITIONS MAY NOT BE USED.	
INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.	
DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", "AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.	
APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.	
FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE. READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."	
INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."	
PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."	
INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.	
TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...	



524 SOUTH 400 EAST
SALT LAKE CITY, UT 84102

801.575.8000
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No. 8182456
TYLER SOYURE
LICENSED PROFESSIONAL ENGINEER
STATE OF UTAH
07/27/2021

REV	DATE	DESCRIPTION

VCBO NUMBER: 21560
CLIENT NUMBER:
DATE: 07/27/2021



324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

SUMITOMO DAINIPPON PHARMA TI

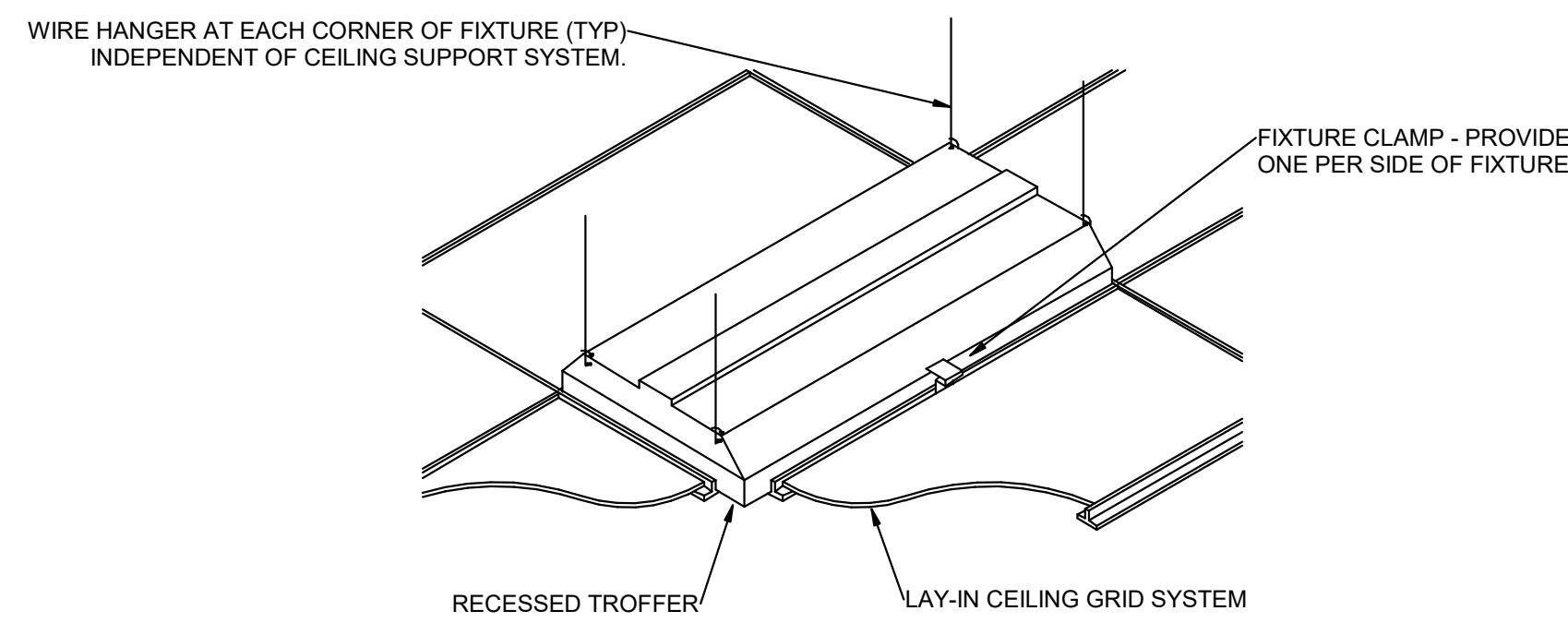
FORGE COMPANIES
3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043

CONSTRUCTION DOCUMENTS

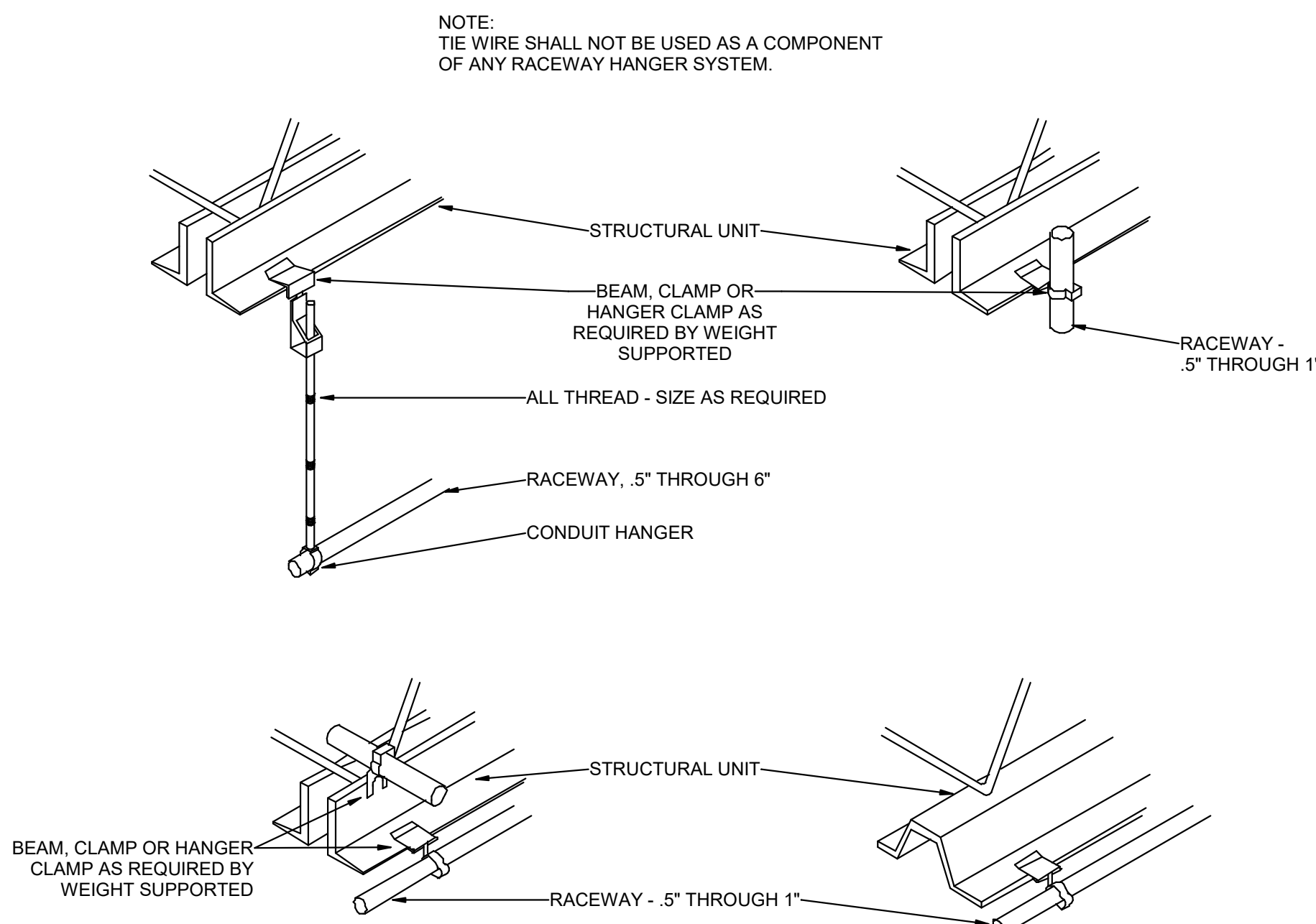
SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES
EE001



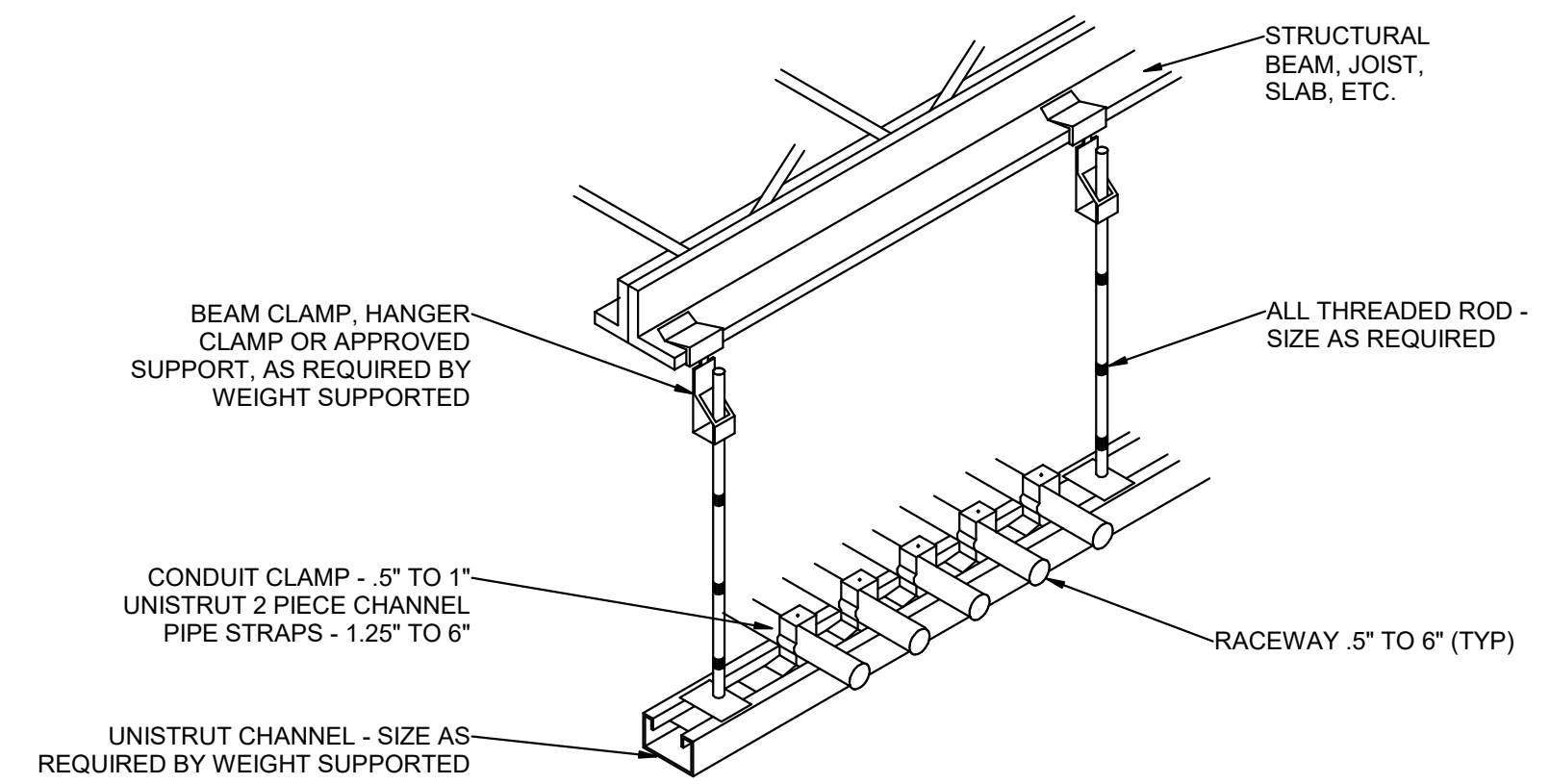
C2: EXISTING ELECTRICAL CEILING PANEL



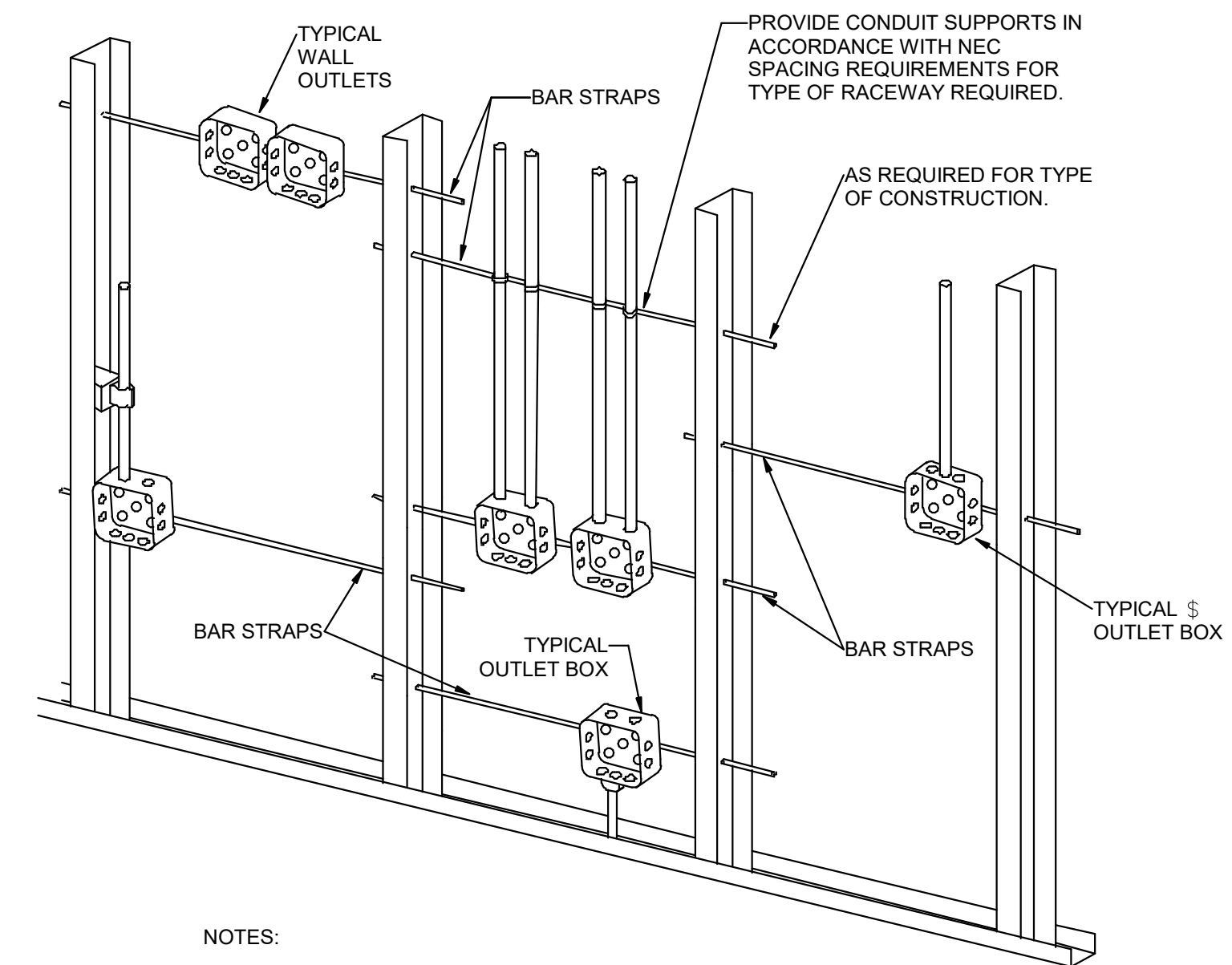
B2 RECESSED FIXTURE MOUNTING DETAIL
SCALE: 1/8" = 1'-0"



A2 TYPICAL RACEWAY SUPPORT METHODS DETAIL
SCALE: 1/8" = 1'-0"



C4 TYPICAL CONDUIT RACK DETAIL
SCALE: 1/8" = 1'-0"



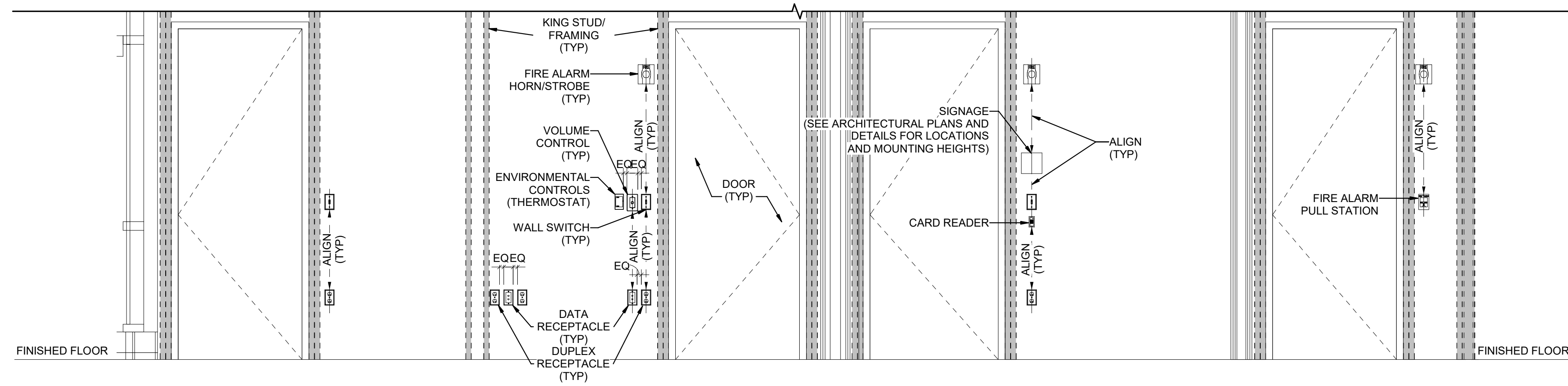
- NOTES:
1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
 2. PLASTER RINGS NOT SHOWN.
 3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.
 4. IN ACCORDANCE WITH IBC 714.3.2 EXCEPTION 1, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE IN A RATED FIRE SEPARATION WALL MUST BE SEPARATED BY A MINIMUM OF 24" HORIZONTAL DISTANCE OR LISTED. SOUND AND FIRE RATED PUTTY PADS SHALL BE USED ON THE OUTLET BOXES.
 5. IN NON-RATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 16" FOR SOUND ATTENUATION.

A4 TYPICAL ROUGH-IN REQUIREMENTS DETAIL
SCALE: 1/8" = 1'-0"

REV	DATE	DESCRIPTION
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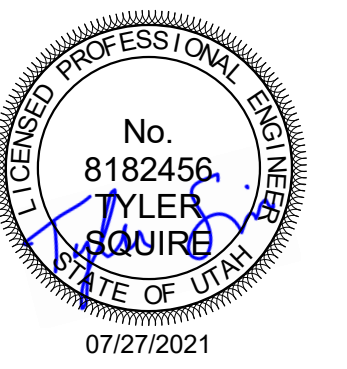
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ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com



D1 TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL
SCALE: NTS

GENERAL SHEET NOTES

- DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:
 - ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).
 - EQUIPMENT SHOP DRAWINGS.
 - FIELD INSTRUCTIONS.
- LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.
- MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.
- MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.
- SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.
- LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.
- VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING SWITCHES.
- LOCATE WIRING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.
- WHERE DEVICES ARE LOCATED IN CLOSE PROXIMITY OF THE SAME VERTICAL PLANE, ALIGN DEVICES VERTICALLY PER THE TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL, UNLESS OTHERWISE INDICATED.



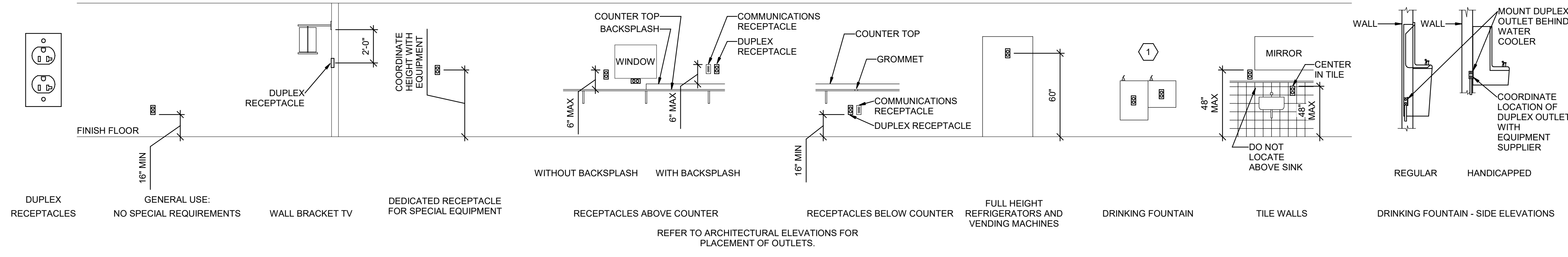
REV	DATE	DESCRIPTION

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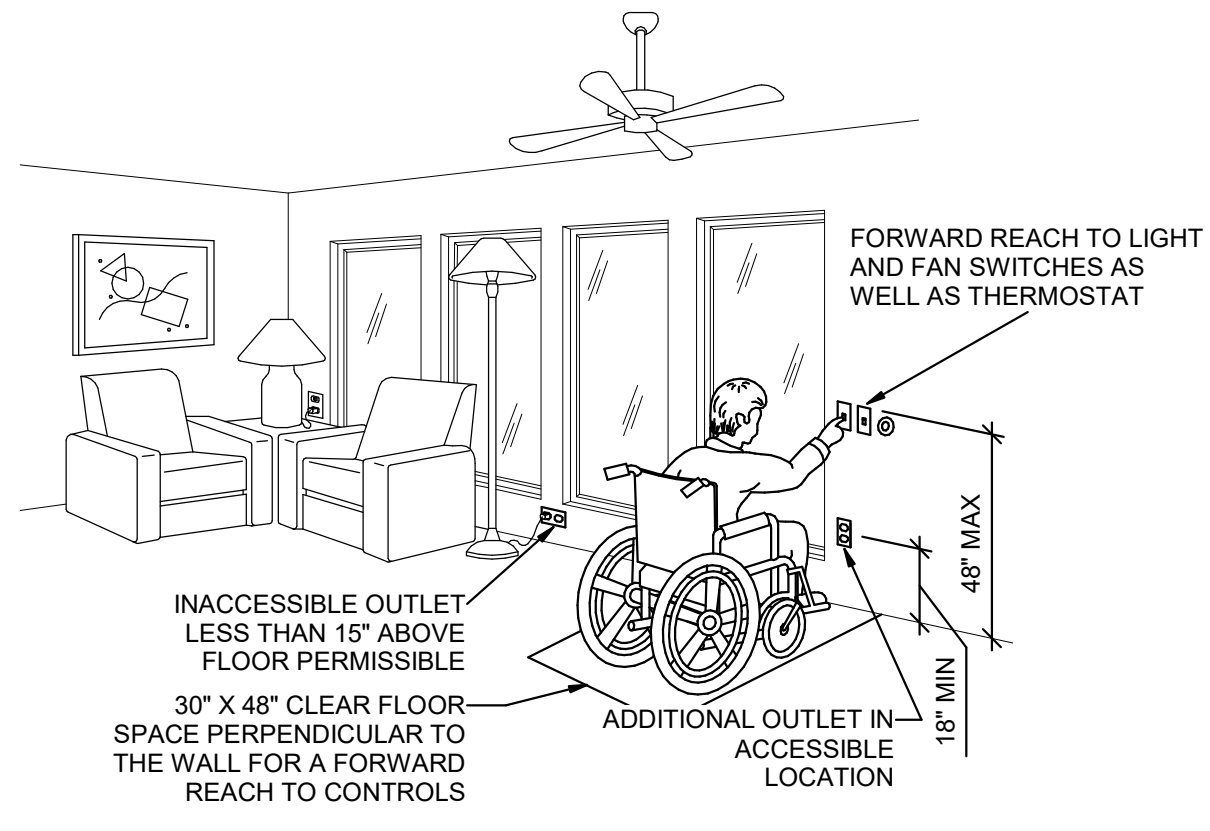
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SHEET KEYNOTES

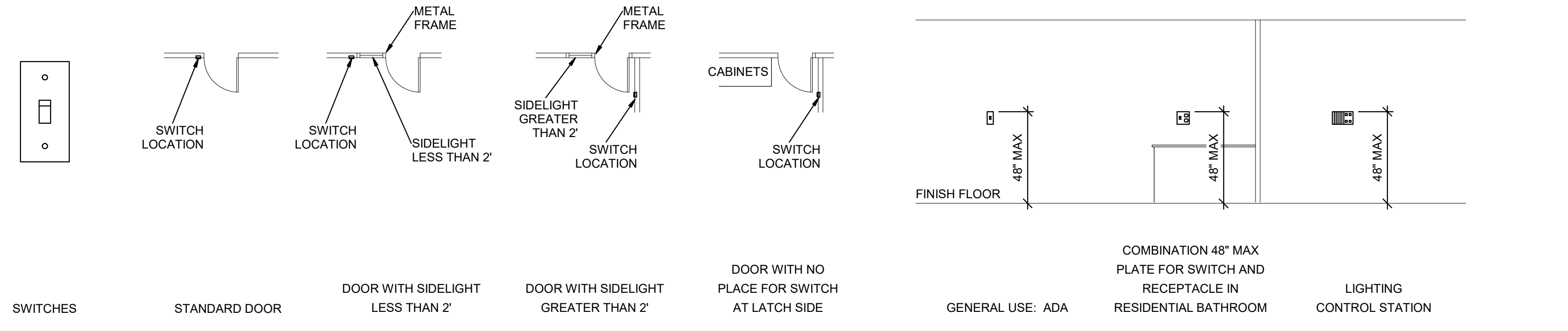
- LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
- REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
- LOCATE AT BOTTOM OF BEAMS (OR JOISTS) OR AT CEILING. (REDUCE SPACING BY .5 PERPENDICULAR TO BEAM OR JOIST DIRECTION.) FOR OTHER CONDITIONS, REFER TO NFPA 72.
- LOCATE DETECTOR ANYWHERE IN SHADED AREA BUT NOT IN TOP 4" OF PEAK.
- LOCATE AT BOTTOM OF BEAMS IF D/H < .1 OR W/H < .4; OTHERWISE, LOCATE IN BEAM POCKET. FOR D > 4 REDUCE SPACING .33 PERPENDICULAR TO BEAMS.



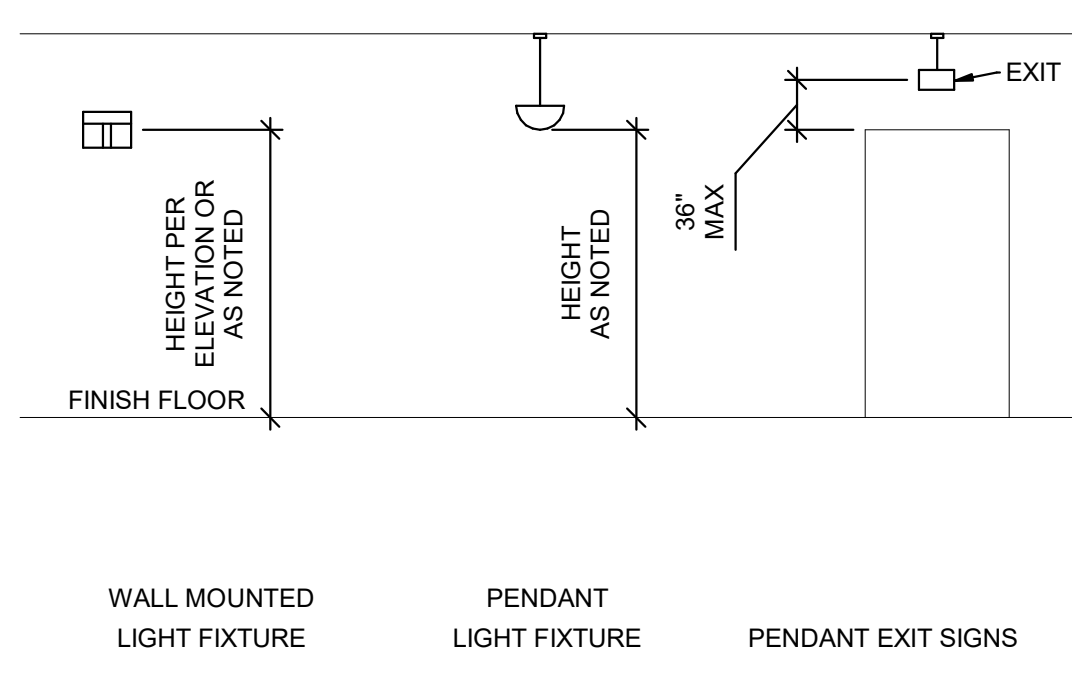
C1 RECEPTACLE MOUNTING DETAILS
SCALE: NTS



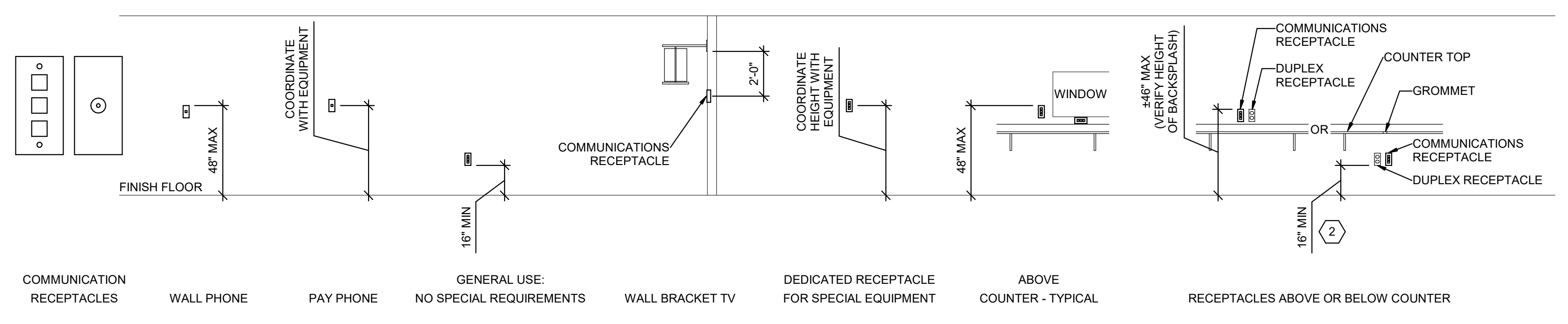
B1 ADA DETAIL
SCALE: NTS



B2 SWITCH MOUNTING DETAILS
SCALE: NTS



A1 LIGHTING MOUNTING DETAILS
SCALE: NTS



A2 COMMUNICATIONS MOUNTING DETAILS
SCALE: NTS

SUMITOMO DAINIPPON PHARMA TI
FORGE COMPANIES
3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
CONSTRUCTION DOCUMENTS

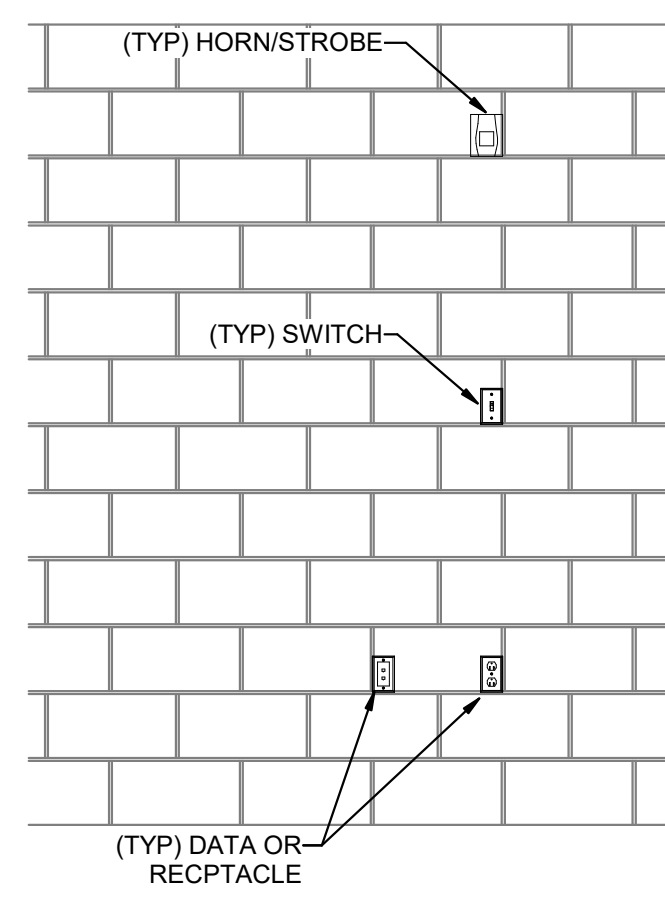


1 2 3 4 5

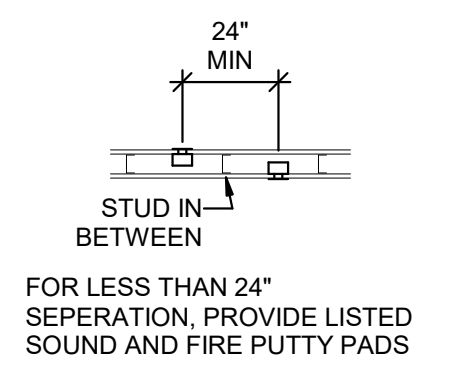
D

C

B



B1 CMU DEVICE MOUNTING ALIGNMENT DETAIL
SCALE: 1/2" = 1'-0"



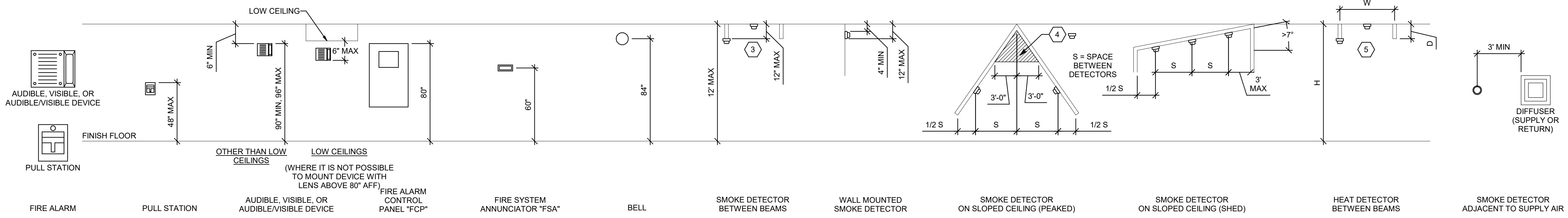
B2 BOX MOUNTING DETAILS
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

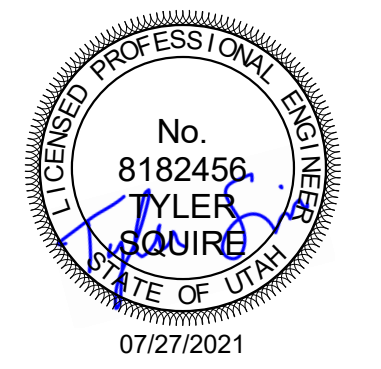
1. DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:
 - 1 - ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).
 - 2 - EQUIPMENT SHOP DRAWINGS.
 - 3 - FIELD INSTRUCTIONS.
2. LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.
3. MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.
4. MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.
5. SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.
6. LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.
7. VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING SWITCHES.
8. LOCATE WIRING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.
9. WHERE DEVICES ARE LOCATED IN CLOSE PROXIMITY OF THE SAME VERTICAL PLANE, ALIGN DEVICES VERTICALLY PER THE TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL, UNLESS OTHERWISE INDICATED.

SHEET KEYNOTES

1. LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
3. LOCATE AT BOTTOM OF BEAMS (OR JOISTS) OR AT CEILING. (REDUCE SPACING BY .5 PERPENDICULAR TO BEAM OR JOIST DIRECTION.) FOR OTHER CONDITIONS, REFER TO NFPA 72.
4. LOCATE DETECTOR ANYWHERE IN SHADED AREA BUT NOT IN TOP 4" OF PEAK.
5. LOCATE AT BOTTOM OF BEAMS IF D/H < .1 OR W/H < .4; OTHERWISE, LOCATE IN BEAM POCKET. FOR D > 4 REDUCE SPACING .33 PERPENDICULAR TO BEAMS.



A1 FIRE ALARM MOUNTING DETAILS
SCALE: 1/8" = 1'-0"



REV	DATE	DESCRIPTION
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Salt Lake City, UT 84111
800-678-7077
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TYPICAL MOUNTING HEIGHT DETAILS
EE702

1 2 3 4 5

A

A

GENERAL SHEET NOTES

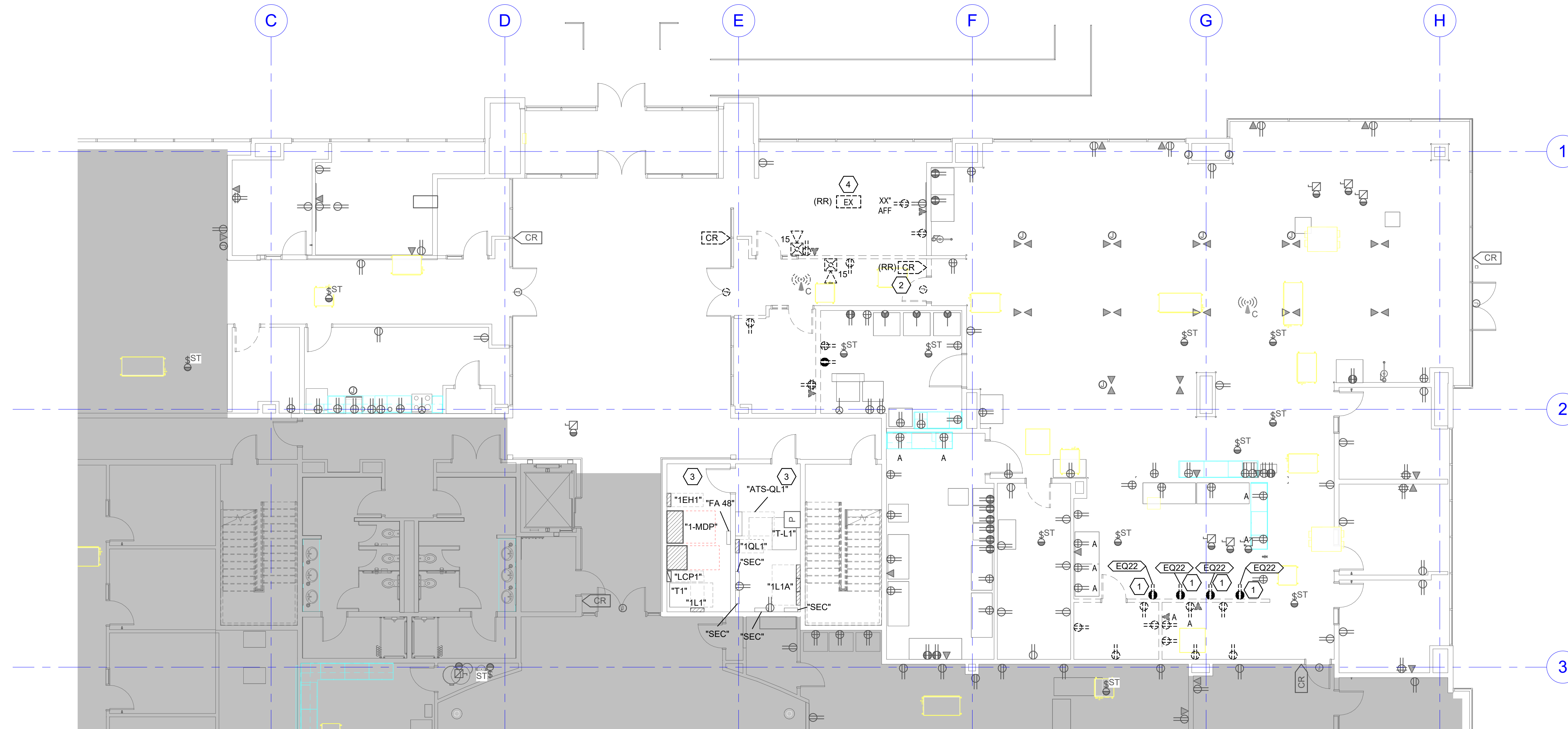
- 1 EVERY EFFORT HAS BEEN MADE TO SHOW EXISTING DEVICES THAT NEED TO BE DEMOLISHED ON WALLS AND CEILINGS, BUT EXACT SCOPE MUST BE CONFIRMED ON-SITE.
- 2 PRIOR TO SUBMITTING BID, VISIT THE SITE AND FIELD VERIFY THE EXTENT OF ELECTRICAL DEMOLITION WORK TO MEET THE INTENT OF THE BID DOCUMENTS AND INCLUDE ALL COSTS IN BID.
- 3 PRIOR TO REMOVAL OF ANY ELECTRICAL EQUIPMENT OR WIRING, FIELD VERIFY THAT THE EQUIPMENT OR WIRING IS INACTIVE OR NO LONGER IN USE.
- 4 REMOVE ALL DEVICES, RACEWAYS AND WIRING FROM WALLS TO BE REMOVED. WHERE ACTIVE RACEWAYS OCCUR IN WALLS TO BE REMOVED, RE-ROUTE THE RACEWAY WITH ASSOCIATED WIRING TO KEEP THE CIRCUIT OPERATIONAL.
- 5 REMOVE ALL ABANDONED RACEWAY, CONDUIT, WIRING AND CABLING WHETHER ABANDONED PREVIOUS TO THIS PROJECT OR AS A RESULT OF THIS PROJECT. NOT ALL ABANDONED ITEMS ARE SHOWN ON THESE PLANS AND FIELD VERIFICATION OF DEMOLITION SCOPE EXTENT IS REQUIRED.
- 6 ALL HVAC UNITS TO BE REMOVED BY MECHANICAL CONTRACTOR UNLESS NOTED OTHERWISE. REMOVE ALL ASSOCIATED RACEWAYS AND CONDUCTORS BACK TO SOURCE.
- 7 ALL ITEMS INDICATED TO REMAIN SHALL BE PROTECTED DURING ALL PHASES OF CONSTRUCTION.

GENERAL SHEET NOTES

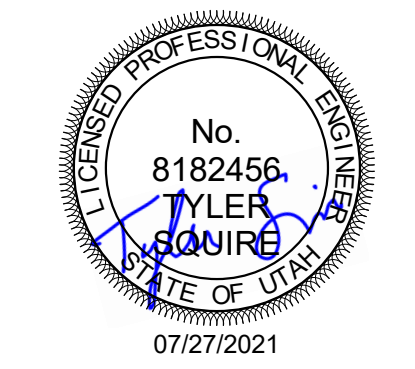
- 8 DEVICES MARKED "(RR)" ARE TO BE REMOVED AND RELOCATED PER NEW PLANS. EXTEND CIRCUITING AS REQUIRED FOR RELOCATION.
- 9 PROVIDE UPDATED AND TYPEWRITTEN PANEL SCHEDULES AT THE COMPLETION OF THE PROJECT.

SHEET KEYNOTES

- 1 REMOVE AND RELOCATE OUTLET AS INDICATED ON LEVEL 1 POWER PLANS.
- 2 CARD READER AT THIS LOCATION TO BE REMOVED AND RELOCATED. SALVAGE CARD-READER AND PROTECT UNTIL RE-INSTALL.
- 3 ALL EQUIPMENT IN THIS ROOM IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
- 4 COORDINATE WITH GENERAL CONTRACTOR TO REMOVE FLOORBOX AND GRIND THE FLOOR AROUND THE FLOORBOX TO ALLOW THE COVER TO SIT FLUSH IN THE CONCRETE. PROTECT FLOORBOX DURING GRINDING AND WHILE FLOOR EPOXY IS BEING INSTALLED.



A1 LEVEL 1 ELECTRICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



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801-328-5151
fax: 801-328-5155
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LEVEL 1 ELECTRICAL DEMOLITION PLAN
ED101A

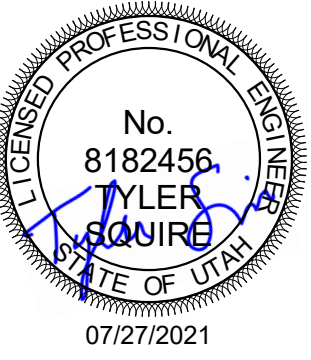
GENERAL SHEET NOTES

- 1 EVERY EFFORT HAS BEEN MADE TO SHOW EXISTING DEVICES THAT NEED TO BE DEMOLISHED ON WALLS AND CEILINGS, BUT EXACT SCOPE MUST BE CONFIRMED ON-SITE.
- 2 UNLESS NOTED OTHERWISE REMOVE ALL LIGHTING FIXTURES DEVICES AND EQUIPMENT SHOWN DASHED. REMOVE CONDUIT AND WIRING BACK TO PANELBOARD OF ORIGIN OR TO FIRST ACTIVE DEVICE THAT REMAINS.
- 3 SALVAGE ALL LIGHT FIXTURES, TWIST-LOCK RECEPTACLES AND WALLPLATES, CEILING SPEAKERS AND SECURITY AND FIRE ALARM DEVICES TO OWNER. PROTECT SALVAGED EQUIPMENT FROM DAMAGE.
- 4 PRIOR TO REMOVAL OF ANY ELECTRICAL EQUIPMENT OR WIRING, FIELD VERIFY THAT THE EQUIPMENT OR WIRING IS INACTIVE OR NO LONGER IN USE.
- 5 REMOVE ALL FIRE ALARM DEVICES WHERE EXISTING WALLS AND CEILINGS ARE BEING REMOVED, WITH ASSOCIATED CONDUIT AND WIRING. EXISTING FIRE ALARM DEVICES AND SYSTEM NOT INDICATED FOR REMOVAL SHALL REMAIN ACTIVE THROUGHOUT DEMOLITION AND CONSTRUCTION UNTIL THE NEW SYSTEM IS TESTED AND OPERATIONAL. MAINTAIN ALL CLASS A FIRE ALARM INITIATING AND INDICATING LOOPS WHERE EXISTING DEVICES ARE REMOVED.
- 6 CONTRACTOR TO TRACE AND LABEL ALL EXISTING LOADS TO REMAIN, THAT ARE CURRENTLY FED FROM PANELS THAT ARE BEING DEMOLISHED IN THIS PHASE. THESE LOADS TO BE RE-FED FROM NEW PANELS IN NEXT PHASE.
- 7 REFER TO ARCHITECTURAL DRAWINGS FOR REMOVAL OF MOTORS, CONDUIT, CONDUCTOR AND CONTROL WIRING ASSOCIATED WITH EXISTING PARTITIONS AND LIGHTING.

GENERAL SHEET NOTES

- 8 ALL ITEMS INDICATED TO REMAIN SHALL BE PROTECTED DURING ALL PHASES OF CONSTRUCTION.
- 9 DEVICES MARKED "(RR)" ARE TO BE REMOVED AND RELOCATED PER NEW PLANS. EXTEND CIRCUITING AS REQUIRED FOR RELOCATION.

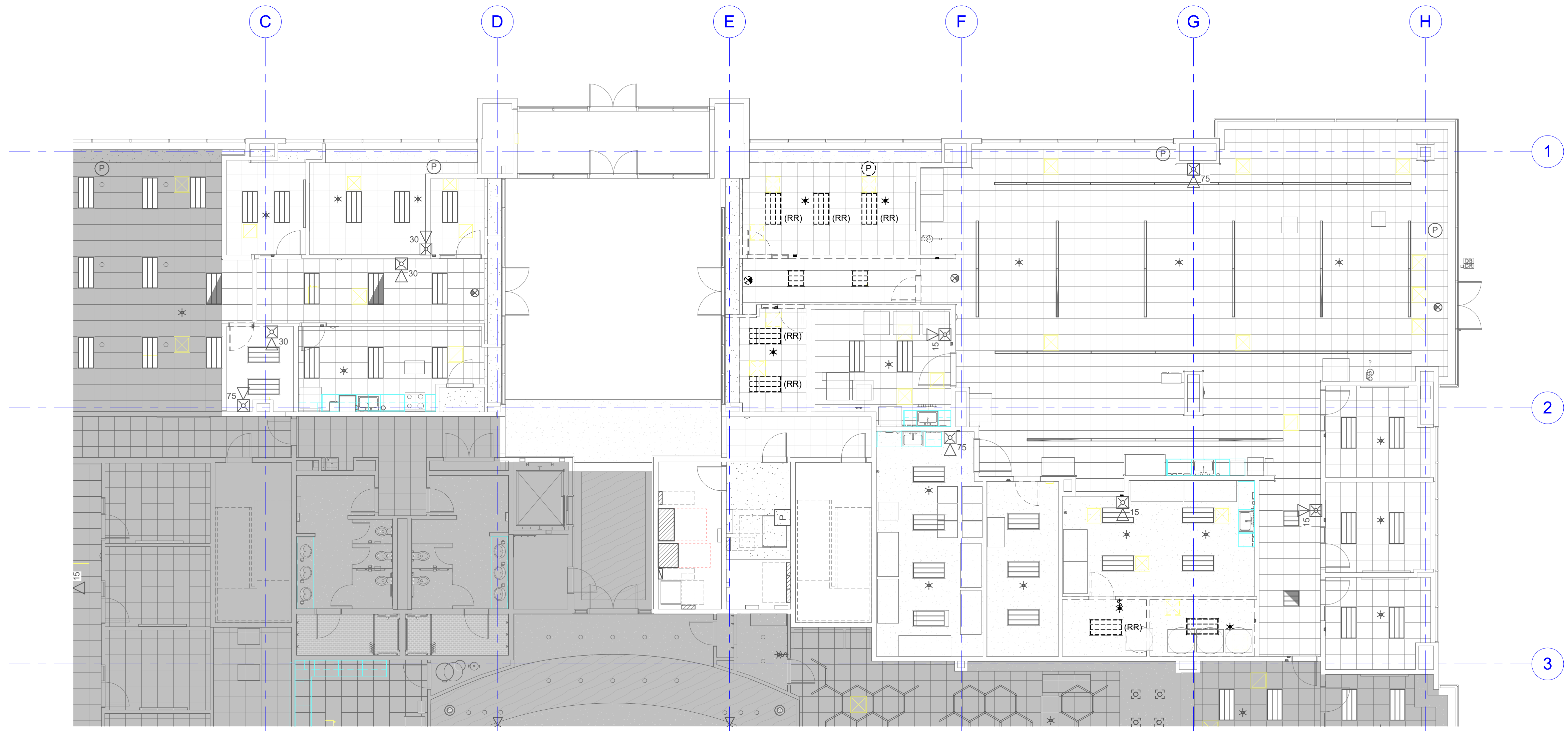
SHEET KEYNOTES



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A1 LEVEL 1 CEILING DEMOLITION PLAN
 SCALE: 1/8" = 1'-0"

SUMITOMO DAINIPPON PHARMA TI
 FORGE COMPANIES
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 CONSTRUCTION DOCUMENTS

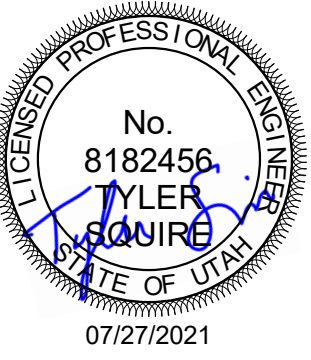
LEVEL 1 CEILING DEMOLITION PLAN
ED101B

GENERAL SHEET NOTES

1. OUTLETS ADJACENT TO WET AREAS OR WITHIN 6'-0" OF A SINK ARE TO BE GFCI PROTECTED.
2. THE EXACT LOCATION OF ALL ELECTRICAL DEVICES SHALL BE COORDINATED WITH THE OWNER/ ARCHITECT DURING A WALK-THROUGH PRIOR TO ROUGH-IN.
3. LOCATE ALL DISCONNECT SWITCHES ADJACENT TO EQUIPMENT IN ACCESSIBLE LOCATION. EACH DISCONNECT SWITCH LOCATION TO MEET ALL APPLICABLE WORKING CLEARANCE REQUIREMENTS.
4. CIRCUITING TO EXISTING DEVICES MAY BE MAINTAINED. FIELD VERIFY DEVICES THAT REMAIN ACTIVE ONCE DEMOLITION HAS BEEN COMPLETED. DRAWINGS SHOW CIRCUITING INTENT. EXACT CIRCUIT NUMBERS MAY BE DETERMINED IN THE FIELD BASED ON FIELD CONDITIONS. PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULES AT THE COMPLETION OF CONSTRUCTION.

SHEET KEYNOTES

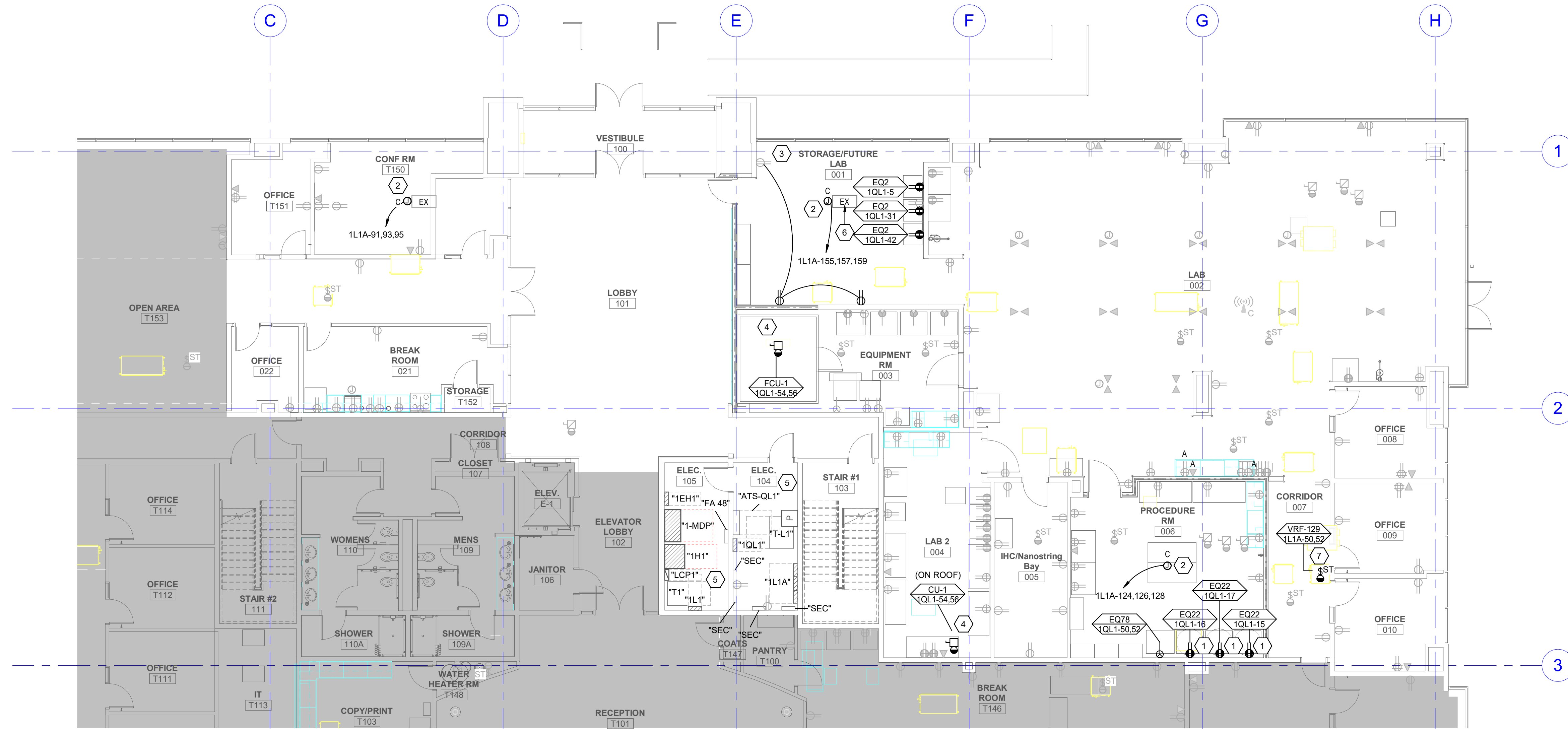
1. FIXTURES LABELED "(R)" ARE RELOCATED FIXTURES. EXTEND CIRCUITING AS REQUIRED FOR RELOCATION. VERIFY OUTLET LOCATION WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN AND CIRCUIT TO ORIGINAL EMERGENCY CIRCUIT AS INDICATED.
2. ELECTRICAL CEILING PANEL, MOUNTED FLUSH WITH CEILING TILES. SEE DETAIL/PHOTOGRAPH "C2" ON SHEET EE01. THE EXACT NUMBER OF SPECIALTY RECEPTACLES IS TO BE VERIFIED WITH THE OWNER PRIOR TO ROUGH-IN. VERIFY EXACT LOCATION WITH ARCHITECT/ OWNER PRIOR TO ROUGH-IN.
3. CIRCUIT WITH EXISTING DEVICE AS INDICATED.
4. VERIFY EXACT LOCATION OF MECHANICAL EQUIPMENT CONNECTIONS WITH MECHANICAL DRAWINGS.
5. ALL EQUIPMENT IN THIS ROOM IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
6. COORDINATE WITH GENERAL CONTRACTOR TO REMOVE FLOORBOX AND GRIND THE FLOOR AROUND THE FLOORBOX TO ALLOW THE COVER TO SIT FLUSH IN THE CONCRETE. PROTECT FLOORBOX DURING GRINDING AND WHILE FLOOR EPOXY IS BEING INSTALLED.
7. VRF IS TO BE VERIFIED WITH OWNER/ MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.



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fax: 801-328-5155
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A1 LEVEL 1 POWER PLAN
SCALE: 1/8" = 1'-0"

SUMITOMO DAINIPPON PHARMA TI
FORGE COMPANIES
3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
CONSTRUCTION DOCUMENTS

EQUIPMENT SCHEDULE

MARK	QTY	ITEM DESCRIPTION	HP	kW	MCA	FLA	VOLT	PH	Hz	WIRE AND CONDUIT SIZE	FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	SIZES	SELECTOR SWITCH	PILOT LAMP	NORMALLY OPEN CONTACT	NORMALLY CLOSED CONTACT	PHASE FAILURE RELAY	NOTES	MARK	
CU-1	1	CONDENSING UNIT	-	-	-	20	208	1	60	2 #10, #10 GR 0.75" CND	E	30/2 CB	1QL1	E	30A/2P NF	ADJ TO EQUIP	Q	-	-	-	-	-	-	-	-		CU-1
FCU-1	1	DUCTLESS SPLIT SYSTEM INDOOR UNIT	-	-	-	20	208	1	60	2 #10, #10 GR 0.75" CND	E	30/2 CB	1QL1	E	30A/2P NF	ADJ TO EQUIP	Q	-	-	-	-	-	-	-	-		FCU-1
VRF-129	1	VRF - INDOOR UNIT	-	-	-	1	208	1	60	2 #12, #12 GR 0.75" CND	E	20/2 CB	1L1A	E	TOGGLE SWITCH	ADJ TO EQUIP	Q	-	-	-	-	-	-	-	-		VRF-129

EQUIPMENT SCHEDULE KEY
 E - DIVISION 26
 Q - FURNISHED WITH EQUIPMENT
 * - COORDINATE WITH THE DIVISION 23 TEMPERATURE CONTROL INSTALLER
 ** - AUTOMATIC CONTROL WIRING BY DIVISION 23

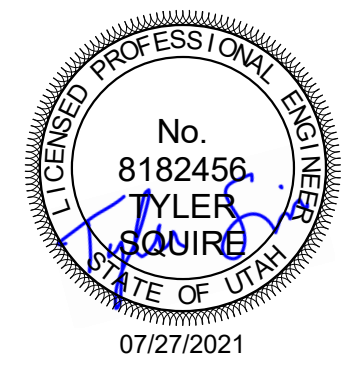
NOTES:
 1. NEMA 3R
 2. TOGGLE SWITCH W/ THERMAL OVERLOAD.
 3. PROVIDE FUSED DISCONNECT ELEVATOR POWER MODULE WITH SHUNT TRIP.
 4. CONTRACTOR TO PERFORM FINAL CONNECTION TO LINE VOLTAGE THERMOSTATS.
 5. TOGGLE SWITCH W/BACNET INTERFACE.
 6. INDOOR UNITS FED FROM OUTDOOR UNIT. PROVIDE DISCONNECTS FOR BOTH.
 7. PROVIDE SWITCH WITH BACNET MS/TP CAPABILITY.
 8. PROVIDE LABEL ON DISCONNECT "DISCONNECT OUTDOOR UNIT PRIOR TO INDOOR."
 9. LINE VOLTAGE THERMOSTAT ON WALL.
 10. PROVIDE EXPLOSION PROOF DEVICES AND WIRING METHODS.
 11. PROVIDE DUAL-REDUNDANT 100% RATED VFD'S FOR AIR HANDLER.
 12. PROVIDE MANUAL STARTER WITH THERMAL OVERLOAD AND RELAY FOR ATC/BAS CONTROL.

GENERAL NOTES:
 1. WHERE DISCONNECTS, STARTERS, OR VFCs ARE BEING PROVIDED BY ELECTRICAL CONTRACTOR, LOCATE EQUIPMENT IN ACCESSIBLE LOCATION, SUCH THAT IT IS WITHIN SITE OF THE MECHANICAL EQUIPMENT IT IS SERVING, AND COMPLIES WITH N.E.C. REQUIRED CLEARANCES.

OWNER EQUIPMENT SCHEDULE

MARK	QTY	ITEM DESCRIPTION	HP	kW	MCA	FLA	VOLT	PH	Hz	WIRE AND CONDUIT SIZE	FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	SIZES	SELECTOR SWITCH	PILOT LAMP	NORMALLY OPEN CONTACT	NORMALLY CLOSED CONTACT	PHASE FAILURE RELAY	NOTES	MARK
EQ2	3	FREEZER	-	-	-	10	120	1	60	2 #12, 12 GR 0.75" CND	E	20/1 CB	1QL1	E		1QL1									1	EQ2
EQ22	3	CAGE CAROUSEL	-	-	-	6.7	120	1	60	2 #12, 12 GR 0.75" CND	E	20/1 CB	1QL1	E		1QL1									1	EQ22
EQ78	1	SMALL ANIMAL IRRADIATOR	-	-	-	30	208	1	60	2 #8, #10 GR 0.75" CND	E	40/2 CB	1QL1	E		1QL1									1	EQ78

SUMITOMO DAINIPPON PHARMA TI



REV	DATE	DESCRIPTION

VCBO NUMBER: 21560
 CLIENT NUMBER:
 DATE: 07/27/2021



SUMITOMO DAINIPPON PHARMA TI
 FORGE COMPANIES
 3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
 CONSTRUCTION DOCUMENTS



NOTE: ALL EXISTING CIRCUITS ON THIS PANEL ARE LABELED "(EX)".

EXISTING PANEL: "1QL1"

VOLTS/PHASE/WIRE:		PANEL SIZE & TYPE:		MAIN SIZE AND TYPE:		FED FROM:	CABINET:	LOCATION:	NOTES:								
120/208V, 3 PH 4 WIRE		22" W x 6" D, BOLT-ON		225 AMPERE			SURFACE	ELEC. 104									
ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR																	
CKT NO	AMP	OCP	POLE	BKR	LOAD (kVA)			DESCRIPTION	PHASE LOAD			LOAD (kVA)	OCP	AMP	CKT NO		
					LTG	PWR	CO		A	B	C					CO	PWR
1	20	1	--	--	--	--	--	(EX) FREEZER T141	0.0	0.0				1	15	2	
3	20	1	--	--	--	--	--	(EX) FREEZER RM T141						1	15	4	
5	20	1	--	0.0	1.2	0.0		PWR: (EQ2) FREEZER				1.2	0.0		1	15	6
7	20	1	--	--	--	--		(EX) FREEZER T141	0.0	0.0				1	20	8	
9	20	1	--	--	--	--		(EX) LIQUID NITRO FREEZER RM T141						1	20	8	
11	20	1	--	--	--	--		(EX) FREEZER T140-2						1	20	10	
13	30	1	--	--	--	--		(EX) FREEZER T140-2						1	20	12	
15	20	1	--	0.0	0.8	0.0		PWR: (EQ22) CAGE CAROUSEL	0.0	0.8	0.0			1	20	16	
17	20	1	--	0.0	0.8	0.0		(EX) CAGE CAROUSEL T137				0.8	0.0		1	20	18
19	20	1	--	--	--	--		(EX) INCUBATOR T140	0.0	0.0				1	20	20	
21	20	1	--	--	--	--		(EX) INCUBATOR T140				0.0	0.0		1	20	22
23	20	1	--	--	--	--		(EX) INCUBATOR T140				0.0	0.0		1	20	24
25	20	1	--	--	--	--		(EX) NUAIRE, BSC II, A2 (EQ21AA)	0.0	0.0				1	20	26	
27	20	1	--	--	--	--		(EX) DED EM OUTLET IT T113				0.0	0.0		1	20	28
29	20	1	--	--	--	--		(EX) DED EM OUTLET IT T113				0.0	0.0		1	20	30
31	20	1	--	0.0	1.2	0.0		PWR: (EQ2) FREEZER	1.2	0.0				1	20	32	
33	20	1	--	--	--	--		(EX) POWER LAB 3-2 T140-2				0.0	0.0		1	20	34
35	20	1	--	--	--	--		(EX) POWER LAB 3-2 T140-2				0.0	0.0		1	20	36
37	20	1	--	--	--	--		(EX) EF-1 T137	0.0	0.0				1	20	38	
39	20	1	--	--	--	--		(EX) POWER LAB 3-2 T140-2				0.0	0.0		1	20	40
41	20	1	--	--	--	--		(EX) POWER LAB 3-2 T140-2				0.0	1.2		1	20	42
43	20	1	--	--	--	--		SPARE	0.0	0.0				1	20	44	
45	20	1	--	--	--	--		SPARE				0.0	0.0		1	20	46
47	20	1	--	--	--	--		SPARE				0.0	0.0		1	20	48
49	20	1	--	--	--	--		SPARE	0.0	3.1				2	40	50	
51	20	1	--	--	--	--		SPARE				0.0	3.1		--	52	
53	20	1	--	--	--	--		SPARE				0.0	4.2		2	54	
55	20	1	--	--	--	--		SPARE	0.0	4.2				--	56		
57	20	1	--	--	--	--		TOLERO I.T. SPLIT				0.0	0.0		1	20	58
59	20	1	--	--	--	--		SPARE				0.0	0.0		1	20	60
TOTALS:										8	5	7	CONNECTED TOTAL KVA =			21	
										74	39	65	CONNECTED AMPS PER PHASE			57	
NEC DIVERSIFIED LOAD CALCULATIONS																	
LIGHTING & CONTINUOUS LOADS:										- 100% CONNECTED LOAD PLUS 25%			DIVERSIFIED TOTAL KVA =			22	
RECEPTACLES:										- FIRST 10kVA @ 100%, REMAINDER @ 50%			AVERAGE AMPS PER PHASE =			61	
ALL OTHER LOADS @ 100%:										22.1 KVA			MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC				
BKR: GF=GFCI, GF3=30mA GFCI CAPABLE OF BEING LOCKED OUT IN OPEN POSITION, IG=ISOLATED GROUND, AF=AFCI, ST=SHUNT TRIP, RED=PROVIDE RED COLORED BREAKER, AF=ARC FAULT CURRENT INTERRUPTER, GA=COMBINATION OF GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTER, GS=COMBINATION OF SHUNT TRIP WITH GFCI																	

NOTE: ALL EXISTING CIRCUITS ON THIS PANEL ARE LABELED "(EX)".

EXISTING PANEL: "1L1A"

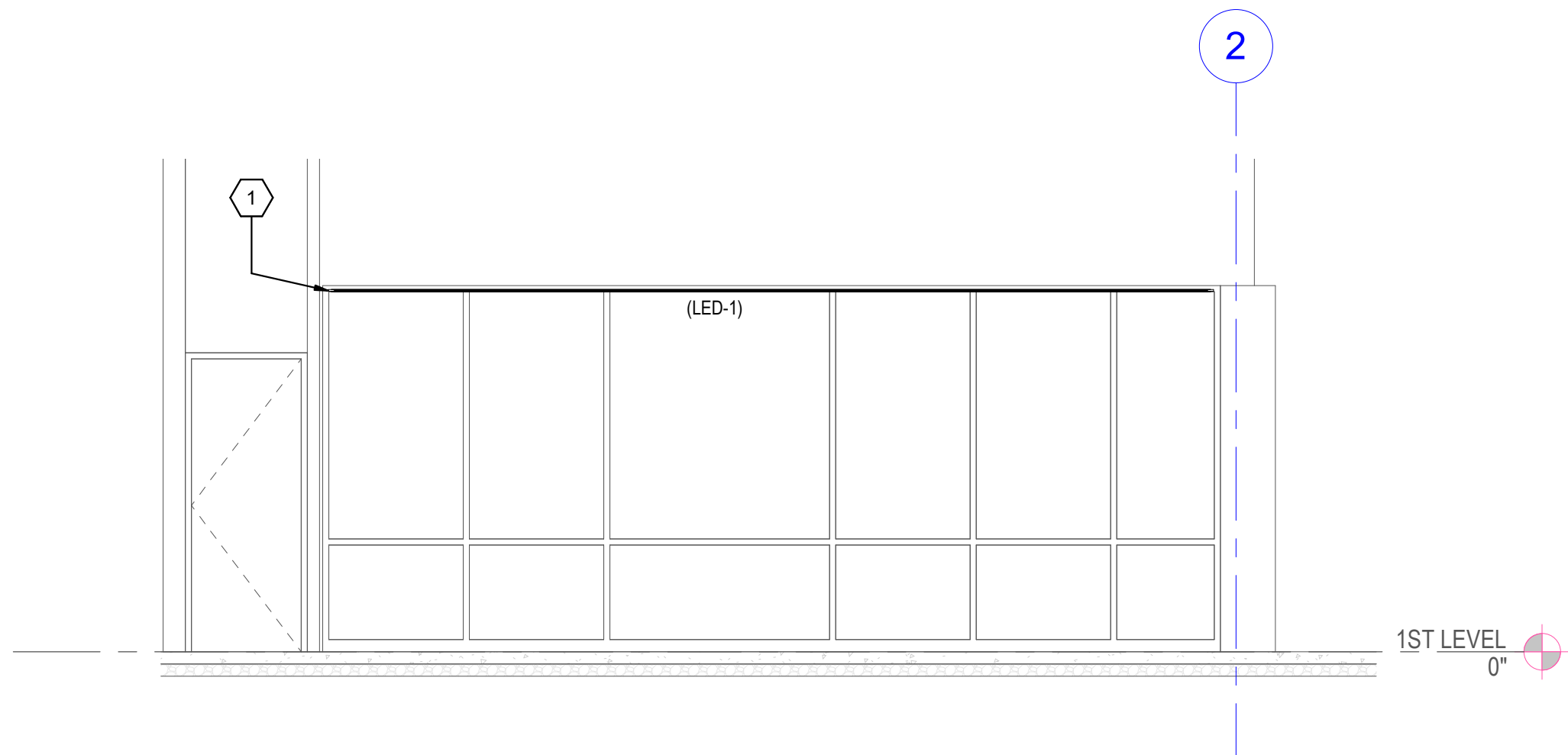
VOLTS/PHASE/WIRE:		PANEL SIZE & TYPE:		MAIN SIZE AND TYPE:		FED FROM:	CABINET:	LOCATION:	NOTES:								
120/208V, 3 PH 4 WIRE		22" W x 6" D, BOLT-ON		600 AMPERE			SURFACE	ELEC. 104									
ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR																	
CKT NO	AMP	OCP	POLE	BKR	LOAD (kVA)			DESCRIPTION	PHASE LOAD			LOAD (kVA)	OCP	AMP	CKT NO		
					LTG	PWR	CO		A	B	C					CO	PWR
1	20	1	--	--	--	--	--	(EX) LIGHTING RECEPTION T101	0.0	0.0				1	20	2	
3	20	1	--	--	--	--	--	(EX) RED TAPE LIGHT T101				0.0	0.0		1	20	4
5	20	1	--	--	--	--		(EX) UC DISHWASHER T153				0.0	0.0		1	20	6
7	50	1	--	--	--	--		(EX) RANGE T153	0.0	0.0				1	20	8	
9	50	1	--	--	--	--		SPARE				0.0	0.0		1	20	10
11	20	1	--	--	--	--		SPARE				0.0	0.0		1	20	12
13	20	1	--	--	--	--		(EX) MICROWAVE T153	0.0	0.0				1	20	14	
15	20	1	--	--	--	--		(EX) ICE MACHINE T153				0.0	0.0		1	20	16
17	20	1	--	--	--	--		SPARE				0.0	0.0		1	20	18
19	20	1	--	--	--	--		(EX) MICROWAVE T104	0.0	0.0				1	20	20	
21	20	1	--	--	--	--		(EX) ICE MACHINE T104				0.0	0.0		1	20	22
23	20	1	--	--	--	--		(EX) UC REFRIGERATOR T104				0.0	0.0		1	20	24
25	20	1	--	--	--	--		(EX) BSC T137	0.0	0.0				1	20	26	
27	20	1	--	--	--	--		(EX) BSC T137				0.0	0.0		1	20	28
29	20	1	--	--	--	--		(EX) REFRIGERATOR T140				0.0	0.0		1	20	30
31	20	1	--	--	--	--		(EX) BSC T140	0.0	0.0				1	20	32	
33	20	1	--	--	--	--		(EX) BSC T140				0.0	0.0		1	20	34
35	20	1	--	--	--	--		(EX) BSCT140				0.0	0.0		1	20	36
37	20	1	--	--	--	--		(EX) WATER DISPENSER T127	0.0	0.0				1	20	38	
39	20	1	--	--	--	--		(EX) UC REFRIGERATOR T127				0.0	0.0		1	20	40
41	20	1	--	--	--	--		(EX) UC DISHWASHER T127				0.0	0.0		1	20	42
43	50	1	--	--	--	--		(EX) RANGE T127	0.0	0.0				1	20	44	
45	50	1	--	--	--	--		SPARE				0.0	0.0		1	20	46
47	20	1	--	--	--	--		(EX) ROOM 106 SOUTH				0.0	0.0		1	20	48
49	20	1	--	--	--	--		(EX) MICROWAVE T127				0.0	0.1		2	50	50
51	20	1	--	--	--	--		(EX) MICROWAVE T127				0.0	0.1		--	52	
53	20	1	--	--	--	--		(EX) CO FUTURE T153				0.0	0.0		1	20	54
55	20	1	--	--	--	--		(EX) COUNTER CO T153	0.0	0.0				1	20	56	
57	20	1	--	--	--	--		(EX) COUNTER CO CONF RM T106				0.0	0.0		1	20	58
59	20	1	--	--	--	--		(EX) CO T106, T105				0.0	0.0		1	20	60
61	20	1	--	--	--	--		(EX) CO OFFICE T117	0.0	0.0				1	20	62	
63	20	1	--	--	--	--		(EX) INSTA HOT				0.0	0.0		1	20	64
65	20	1	--	--	--	--		(EX) CO OFFICE T119				0.0	0.0		1	20	66
67	20	1	--	--	--	--		(EX) CO ROOM T109, T111, T110	0.0	0.0				1	20	68	
69	20	1	--	--	--	--		(EX) CO ROOM T115, T116				0.0	0.0		1	20	70
71	20	1	--	--	--	--		(EX) CO COPY/PRINT T103				0.0	0.0		1	20	72
73	20	1	--	--	--	--		(EX) CO	0.0	0.0				1	20	74	
75	20	1	--	--	--	--		(EX) FLOORBOX RECEPTION T101				0.0	0.0		1	20	76
77	20	1	--	--	--	--		(EX) FLOORBOX BOARD ROOM...				0.0	0.0		1	20	78
79	20	1	--	--	--	--		(EX) FLOORBOX BOARD ROOM...	0.0	0.0				1	20	80	
81	20	1	--	--	--	--		(EX) ROOM 106 NORTH	0.0	0.0				1	20	82	
83	20	1	--	--	--	--		SPARE				0.0	0.0		1	20	84
85	20	1	--	--	--	--		(EX) CO BREAK ROOM T127	0.0	0.0				1	20	86	
87	20	1	--	--	--	--		(EX) POWER BREAK ROOM T127				0.0	0.0		1	20	88
89	20	1	--	--	--	--		(EX) CO BREAK ROOM T127				0.0	0.0		1	20	90
91	20	3	--	0.0	1.1	0.0		PWR: ELEC. CEILING PANEL	0.4	0.0				1	20	92	
93	--	--	--	--	--	--		SPARE				0.4	0.0		1	20	94
95	--	--	--	--	--	--		SPARE				0.4	0.0		1	20	96
97	20	1	--	--	--	--		(EX) CO ROOM T144, T142	0.0	0.0				1	20	98	
99	20	1	--	--	--	--		(EX) CO ROOM T132, T137				0.0	0.0		1	20	100
101	20	1	--	--	--	--		(EX) CO FLUORIMICRO T132				0.0	0.0		1	20	102
103	20	1	--	--	--	--		(EX) CO ROOM T131, T140-2	0.0	0.0				1	20	104	
105	20	1	--	--	--	--		(EX) CO ROOM T139, T140				0.0	0.0		1	20	106
107	20	1	--	--	--	--		(EX) VRF-109, 126, 128, T140-2				0.0	0.0		1	20	108
109	20	1	--	--	--	--		SPARE				0.0	0.0		1	20	110
111	20	1	--	--	--	--		(EX) CO ROOM T140-2, T143	0.0	0.0				1	20	112	
113	20	1	--	--	--	--		(EX) VRF-101,107,109 T153				0.0	0.0		1	20	114
115	20	1	--	--	--	--		SPARE				0.0	0.0		1	20	116
117	20	1	--	--	--	--		(EX) VRF-104,113,114 T116, T113...				0.0	0.0		1	20	118
119	20	1	--	--	--	--		SPARE				0.0	0.0		1	20	120
121	20	1	--	--	--	--		(EX) VRF-116,117,118 T126, T127	0.0	0.0				1	20	122	
123	20	1	--	--	--	--		SPARE				0.0	0.4		3	20	124
125	20	1	--	--	--	--		(EX) CO LAB 3-2 T140-2				0.0	0.4		--	128	
127	20	1	--	--	--	--		(EX) PWR: FURN LABS-2 T140-2	0.0	0.4				--	128		
129	20	1	--	--	--	--		(EX) VRF-124,125 RM T141				0.0	0.0				

GENERAL SHEET NOTES

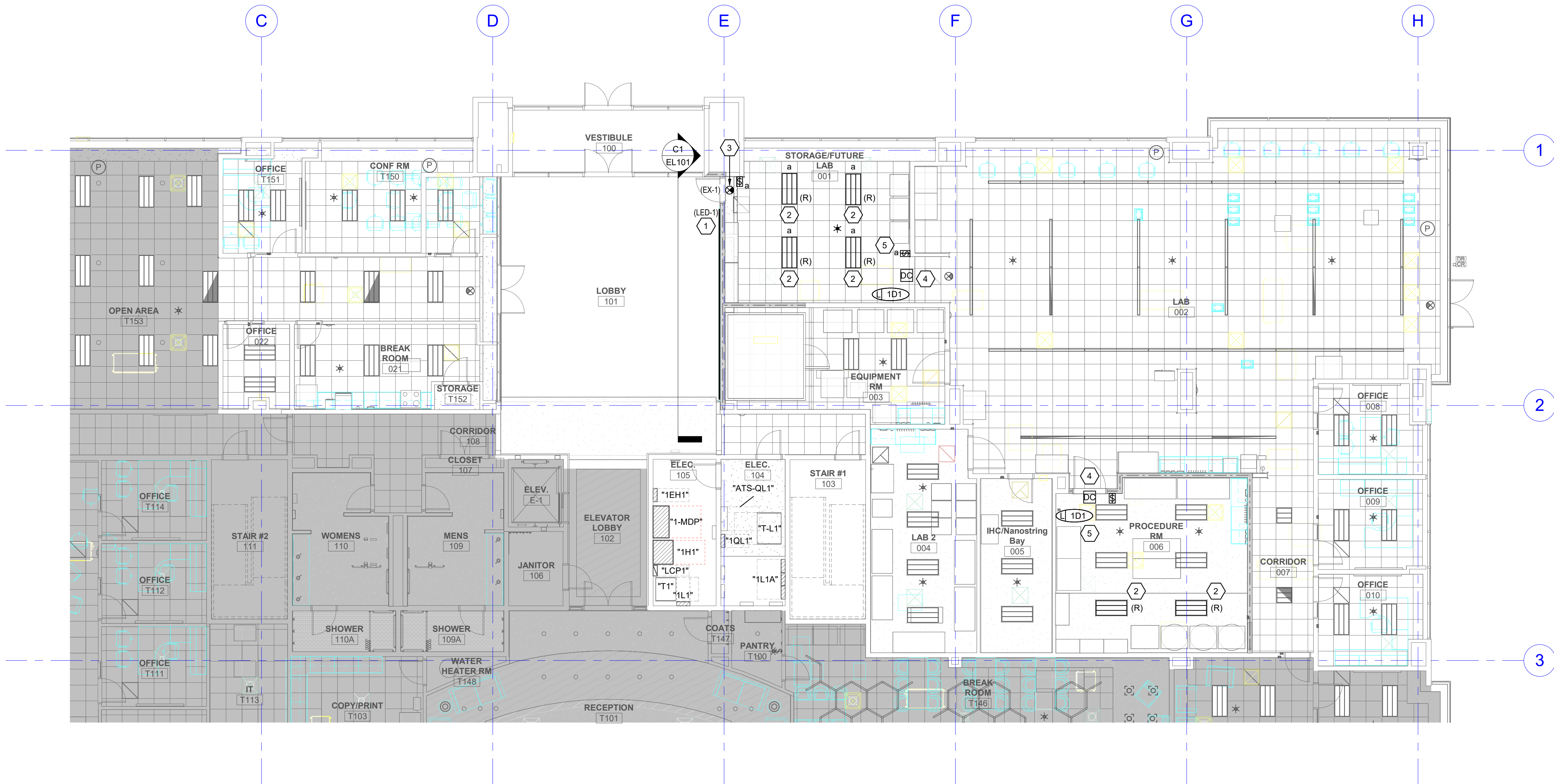
- 1 CIRCUIT ALL EXIT SIGNS AND EMERGENCY BATTERY PACKS TO UNSWITCHED LEG OF ASSOCIATED CIRCUIT.
- 2 COORDINATE THE MOUNTING HEIGHT OF ALL LIGHT FIXTURES WITH THE ARCHITECT PRIOR TO ROUGH-IN OR INSTALLATION.
- 3 UNLESS OTHERWISE SPECIFIED CONNECT ALL NEW FIXTURES IN THIS SPACE TO EXISTING CIRCUIT PREVIOUSLY FEEDING LIGHTING IN THE AREA. PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULES AT THE COMPLETION OF THE PROJECT.
- 4 ALL CEILING MOUNTED LIGHT FIXTURES AND DEVICES SHALL BE CENTERED IN CEILING TILE, UNLESS OTHERWISE NOTED.
- 5 UNLESS OTHERWISE NOTED ALL EMERGENCY LIGHTING FIXTURES ARE REQUIRED TO HAVE EMERGENCY BATTERY PACKS.
- 6 ALL LIGHT FIXTURES LABELED "R" ARE SALVAGED FIXTURES FROM DEMOLITION PHASE. LIGHT FIXTURE IS TO BE RELOCATED IN THE LOCATION INDICATED.

SHEET KEYNOTES

- 1 LINEAR LED STRIP LIGHT MOUNTED IN EXTRUDED ALUMINUM MOUNTING CHANNEL, FINISH CHOSEN BY ARCHITECT. LENGTH IS APPROXIMATE. COORDINATE EXACT LENGTH AND MOUNTING DETAILS WITH ARCHITECT. CIRCUIT TO EXISTING LOBBY LIGHTING CIRCUIT. CONTROL WITH EXISTING FEATURES.
- 2 FIXTURES LABELED "R" ARE RELOCATED FIXTURES. EXTEND CIRCUITING AS REQUIRED FOR RELOCATION. VERIFY LIGHT FIXTURE LOCATION WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN AND CIRCUIT TO EXISTING LIGHTING CIRCUIT IN THIS AREA.
- 3 CONNECT TO EXISTING EMERGENCY CIRCUIT PREVIOUSLY FEEDING LIGHTING IN THIS AREA.
- 4 CONNECT TO EXISTING LIGHTING CIRCUIT PREVIOUSLY FEEDING LIGHTING IN THIS AREA.
- 5 PROVIDE UPDATED LIGHTING CONTROLS FOR THIS ROOM AS INDICATED. CONTROL ALL LIGHTS WITHIN THE ROOM TOGETHER.



C1 LOBBY ELEVATION VIEW
SCALE: 1/4" = 1'-0"



A1 LEVEL 1 LIGHTING PLAN
SCALE: 1/8" = 1'-0"

REV	DATE	DESCRIPTION

VCBO NUMBER: 21560
CLIENT NUMBER:
DATE: 07/27/2021

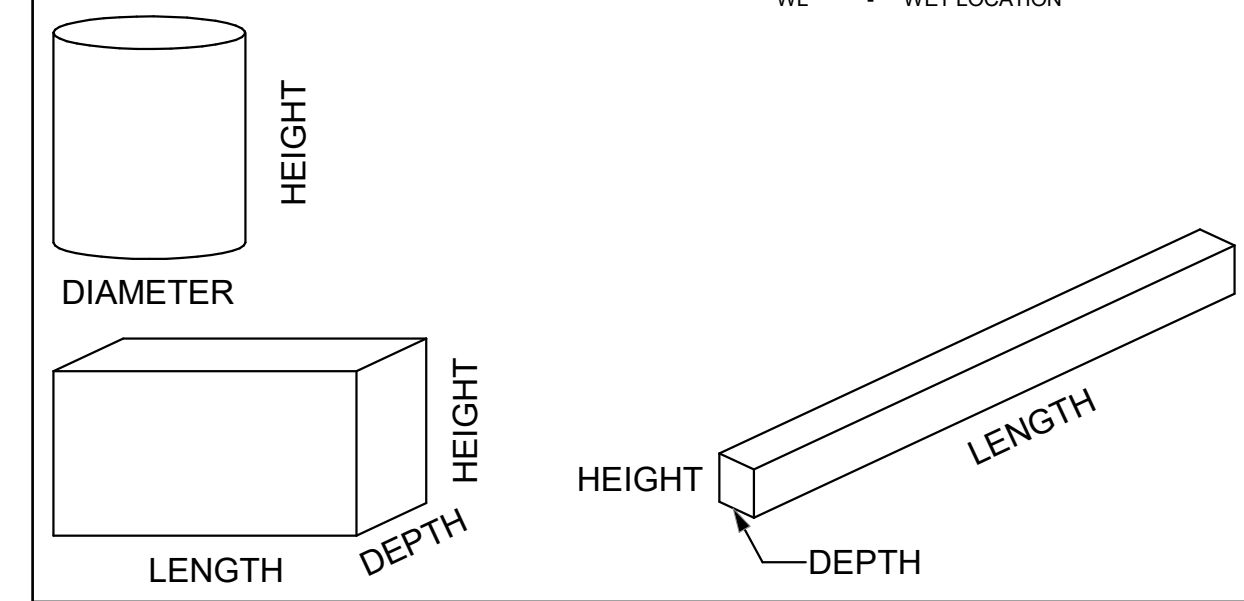
SPECTRUM
ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

SUMITOMO DAINIPPON PHARMA TI
FORGE COMPANIES
3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
CONSTRUCTION DOCUMENTS

INTERIOR LIGHTING FIXTURE SCHEDULE

ABBREVIATIONS

MOUNTING	LUMINAIRE OPTIONS	FINISH	DIFFUSER/LENS	REFLECTOR
B - BASE C - CEILING F - FLANGE G - GRID P - PENDANT PL - POLE R - RECESSED S - SURFACE W - WALL	ARHR - AIR RETURN AND HEAT REJECTION DL - DAMP LOCATION EOC - EARTHQUAKE CLIPS F - FUSING HLD - HINGED AND LATCHED DOOR HS - HOUSE SIDE SHIELD PS - PHOTOCCELL SWITCH QRS - QUARTZ RESTRIKE ST - STATIC WG - WIRE GUARD WL - WET LOCATION	MW - MATTE WHITE BL - BLACK SL - SILVER GL - GOLD CL - CLEAR PW - PAINTED WHITE EA - EXTRUDED ALUMINUM S - STEEL GS - GALVANIZED STEEL C - CAST CBA - COLOR BY ARCHITECT SCBA - STANDARD COLOR BY ARCHITECT CCA - CUSTOM COLOR BY ARCHITECT FS - MEETS FEDERAL STANDARD 209D TP - THERMALLY PROTECTED FL - FLUSH R - REGRESS M - MITERED	#A - ACRYLIC #THICK #OA - ACRYLIC #THICK (OPAL) GC - GLASS (CLEAR) GO - GLASS (OPAL) GF - GLASS (FROSTED) SGL - SOFT GLOW LENS HPL - HIGH PERFORMANCE LENS DO - DROP OPAL CGL - CONVEX GLASS LENS S - SATIN LENS	OP - NONE/OPEN SP - SPECULAR SS - SEMI-SPECULAR D - DIFFUSE (WHITE ENAMEL) SC - SPECULAR (COLORED) PR - PRISMATIC FDR - FULL DEPTH REFLECTOR DS - DIFFUSE (SEMI SPECULAR) SILVER LI - LOW IRIDESCENT IR - IRIDESCENT SL - SILVER GL - GOLD CA - CLEAR ALZAK

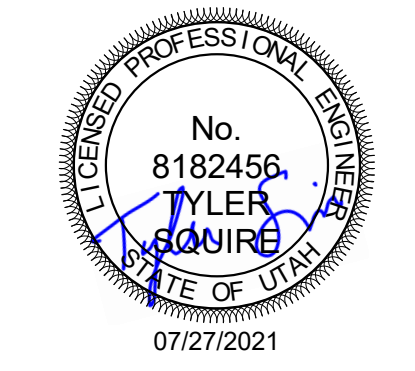


GENERAL NOTES

1. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPLOYER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER.
2. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED. CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES.
3. SUBSTITUTIONS AND/OR EQUAL FIXTURES MUST RECEIVE APPROVAL PRIOR TO BIDDING, THEY MUST BE SUBMITTED TO THE ENGINEER NO LESS THAN 2 WEEKS PRIOR TO BID OPENING.
4. SAMPLES MUST BE PROVIDED FOR ANY AND ALL FIXTURES UPON A/E REQUEST PRIOR TO RELEASING FIXTURES.
5. ALL FIXTURES SHALL BE LISTED AND APPROVED FOR THEIR INTENDED USE AND LOCATION.
6. VERIFY THE PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS.
7. COMPLY WITH THE "INTERIOR LIGHTING" SECTION OF THE SPECIFICATIONS.
8. REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, DRIVERS, AND LAMPS.
9. ALL LIGHT FIXTURES TO BE EITHER "DLC" OR "LIGHTING FACTS" LISTED OR TO BE APPROVED BY ARCHITECT/ENGINEER AND OWNER.

NOTES

ID	DESCRIPTION	NOMINAL SIZE				MOUNTING	TYPE	COLOR TEMP	CRI	DRIVER CONFIGURATION	VOLTAGE	WATTS	FINISH	FIXTURE LUMENS	DIFFUSER/LENS	REFLECTOR	OPTIONS	NOTES	MANUFACTURER (CATALOG SERIES)			
		LENGTH	DEPTH	HEIGHT	DIAMETER APERTURE														OPTION 1	OPTION 2	OPTION 3	
(EX-1)	EXIT SIGN (SINGLE FACE)	11 3/4"	8 1/4"	2"	-	W, C, S, P	LED	GREEN	-	LED DRIVER	120/277	2	WH	0	-	-	-	-	-	ISOLITE (EUN-EM-G-1C)	CHLORIDE (CN-6-GC-CBA-1-IC-T)	LITHONIA (LES-W-1-G)
(LED-1)	LINEAR LED STRIP LIGHT, 340 LM/FT, 3 WATTS/FT. PROVIDE EXTRUDED ALUMINUM MOUNTING CHANNEL. FINISH CHOSEN BY ARCHITECT.	PER PLANS	0.7"	0.3"	-	C, R	LED	3500K	-	0-10V DIMMING	120VOLT	3	EA	340	-	-	-	-	-	KELVIX (PH35K-24V)	-	-



REV	DATE	DESCRIPTION

VCBO NUMBER: 21560
 CLIENT NUMBER:
 DATE: 07/27/2021

SPECTRUM ENGINEERS
 324 S. State St., Suite 400
 Salt Lake City, UT 84111
 801-678-7077
 801-328-5151
 fax: 801-328-5155
 www.spectrum-engineers.com

LIGHTING/SPACE CONTROL TYPE SCHEDULE

WIRING LEGEND	APPROVED MANUFACTURERS	LIGHTING CONTROL ID	GENERAL NOTES										GENERAL NOTES						
_____ LINE VOLTAGE WIRING - - - - - 0-10V WIRING - · - · - CAT5E CABLING - - - - - WIRING BY OTHERS ○ - ○ TMP SEGMENT NETWORK CABLING	1. WATTSTOPPER (BASIS OF DESIGN) 2. NLIGHT 3. HUBBELL BUILDING AUTOMATION 4. GREENGATE	1. # = NUMBER OF ZONES 2. D = DIMMING, S = SWITCHING 3. P = DAYLIGHT PHOTOCELL 4. L = PLUG LOAD CONTROLLER 5. # = INSTANCE	1. COORDINATE INITIAL PROGRAMMING WITH OWNER AND MODIFY CONTROL TIMES AND OPERATION AS REQUESTED BY OWNER. 2. PROVIDE FINE TUNING PROGRAMMING AND ADJUSTMENTS UPON REQUEST BY OWNER WITHIN FIRST 6 MONTHS AFTER SUBSTANTIAL COMPLETION. 3. PROVIDE CUSTOMIZED ENGRAVED PERMANENT BUTTON LABELS ON EACH SWITCH, LABEL TO MATCH BUTTON LABEL ID OR AS DIRECTED BY OWNER. 4. PART NUMBERS SHOWN ARE BASED ON WATTSTOPPER AS THE BASIS OF DESIGN. ALL APPROVED MANUFACTURERS ARE SUBJECT TO MEETING ALL FUNCTIONS AND CAPABILITIES OF THE BASIS OF DESIGN SYSTEM AND PRODUCTS. FAILURE TO MEET THESE SHALL REQUIRE THE CONTRACTOR TO PROVIDE A SYSTEM THAT DOES AT NOT ADDITIONAL COST.										5. REFER TO PLANS FOR LOCATIONS AND QUANTITIES OF DEVICES. 6. INSTALL ONE OF EACH CONTROL TYPE WITH PROGRAMMING, ADJUST, AND OBTAIN OWNERS APPROVAL PRIOR TO PROGRAMMING THE REMAINING CONTROLS. 7. WIRING MAY VARY BETWEEN MANUFACTURERS. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE REQUIRED WIRING THAT WILL BOTH MEET THE MANUFACTURERS REQUIREMENTS AND MATCH WITH THE SHOWN SYSTEM. 8. PROVIDE COMPLETE SHOP DRAWING SUBMITTALS INCLUDING OCCUPANCY SENSOR LAYOUT AND COVERAGE PATTERNS. PROVIDE ADDITIONAL SENSORS AS REQUIRED FOR 100% COVERAGE OF SPACES WITH OCCUPANCY SENSOR CONTROL.						
ID	DETAIL	LIGHTS ON CONTROL	LIGHTS OFF CONTROL	LIGHTING CONTROL TYPE	DAYLIGHT SENSOR SETTING (FC)	TIME DELAY TO OFF (MIN.)	BAS AUX RELAY SIGNAL	PLUG LOAD CONTROLLER	NETWORKED CONTROLS	BUTTON_1	BUTTON_2	BUTTON_3	BUTTON_4	BUTTON_5	BUTTON_6	BUTTON_7	BUTTON_8	BUTTON_9	NOTES
1D1		MANUAL & OCCUPANCY	MANUAL OR OCCUPANCY	DIMMING 0-10V	-	15	RELAY CLOSED ON OCCUPANCY	-	-	-	-	-	-	-	-	-	-	-	FUNCTION: PRESS TOP-ON, HOLD TOP-RAISE LABEL ID: TOP- "ON/RAISE" BOTTOM-"OFF/LOWER"

SUMITOMO DAINIPPON PHARMA TI
 FORGE COMPANIES
 3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
 CONSTRUCTION DOCUMENTS

COMcheck Software Version 4.1.5.3 Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
 Project Title: SUMITOMO DAINIPPON PHARMA TI
 Project Type: Addition

Construction Site: 3900 TRAVERSE MOUNTAIN BLVD
 SUITE 100
 LEHI, UT 84043
 Owner/Agent:
 Designer/Contractor:
 TYLER SQUIRE
 SPECTRUM ENGINEERS
 324 S. STATE ST.
 SUITE 400
 SALT LAKE CITY, UT 84111
 801-401-9472
 TDS@SPECTRUM-ENGINEERS.COM

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts (B X C)
1-Common Space Types:Lobby - General	300	1.00	300
Total Allowed Watts =			300

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Common Space Types:Lobby - General LED 1: LED-1: Other:	1	1	78	78
Total Proposed Watts =				78

Interior Lighting PASSES: Design 74% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

JON JACOBS - EIT
 Signature: *Jon Jacobs* Date: 07-27-2021

Project Title: SUMITOMO DAINIPPON PHARMA TI Report date: 07/21/21
 Data filename: P:\2021\210228\2Design\4COMcheck\SDP TI - Lighting COMcheck.cck Page 1 of 6

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3 [EL22] ¹	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.4 [EL26] ¹	Separate lighting control devices for specific uses installed per approved lighting plans.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.4 [EL27] ¹	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.3 [EL6] ¹	Exit signs do not exceed 5 watts per face.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: SUMITOMO DAINIPPON PHARMA TI Report date: 07/21/21
 Data filename: P:\2021\210228\2Design\4COMcheck\SDP TI - Lighting COMcheck.cck Page 4 of 6

COMcheck Software Version 4.1.5.3 Inspection Checklist

Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4] ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: SUMITOMO DAINIPPON PHARMA TI Report date: 07/21/21
 Data filename: P:\2021\210228\2Design\4COMcheck\SDP TI - Lighting COMcheck.cck Page 2 of 6

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5 [F117] ³	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.4.1 [F118] ¹	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Interior Lighting fixture schedule for values.
C408.2.5.1 [F116] ³	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C408.3 [F133] ¹	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

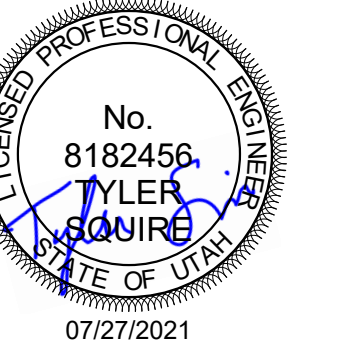
1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: SUMITOMO DAINIPPON PHARMA TI Report date: 07/21/21
 Data filename: P:\2021\210228\2Design\4COMcheck\SDP TI - Lighting COMcheck.cck Page 5 of 6

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.2 [EL22] ¹	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.1 [EL18] ¹	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.1 [EL19] ¹	Occupancy sensors control function in warehouses; the lighting in aislesways and open areas is controlled with occupancy sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.1 [EL20] ¹	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.2 [EL21] ¹	Each area not served by occupancy sensors (per C405.2.1) have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: SUMITOMO DAINIPPON PHARMA TI Report date: 07/21/21
 Data filename: P:\2021\210228\2Design\4COMcheck\SDP TI - Lighting COMcheck.cck Page 3 of 6



REV DATE DESCRIPTION

VCBO NUMBER: 21560
 CLIENT NUMBER:
 DATE: 07/27/2021



SUMITOMO DAINIPPON PHARMA TI
 FORGE COMPANIES
 3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043
 CONSTRUCTION DOCUMENTS

INTERIOR LIGHTING COM-CHECK

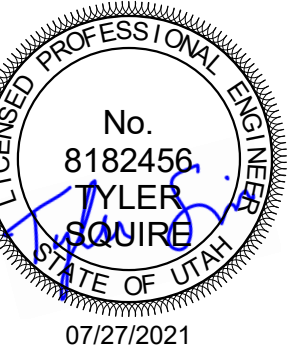
EL602

GENERAL SHEET NOTES

- CONNECT ALL NEW FIRE ALARM DEVICES TO EXISTING SENSOR/ FIRE ALARM SYSTEM.
- COORDINATE SPEAKER/STROBE PLACEMENT WITH FURNISHINGS, CABINETS AND EQUIPMENT SO THAT HORN STROBES ARE NOT COVERED OR OBSTRUCTED FROM VIEW.
- CONNECT ALL FIRE ALARM DEVICES TO THE EXISTING HONEYWELL NOTIFIER FIRE ALARM SYSTEM IN THE BUILDING.

SHEET KEYNOTES

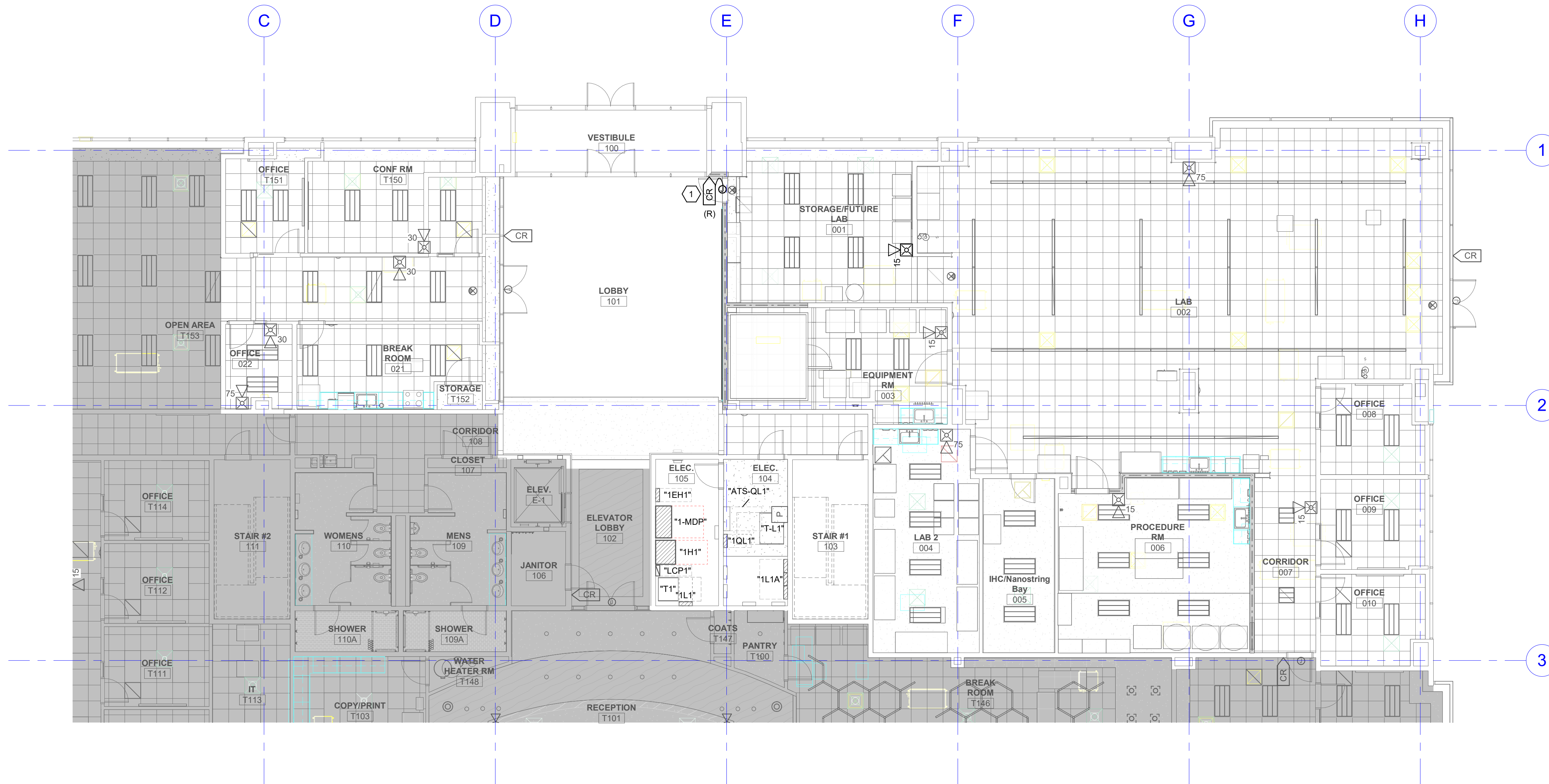
- FIXTURES LABELED "(R)" ARE RELOCATED FIXTURES. EXTEND CIRCUITING AS REQUIRED FOR RELOCATION. VERIFY CARD READER LOCATION WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN.



REV	DATE	DESCRIPTION
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VCBO NUMBER: 21560
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SPECTRUM
ENGINEERS
 324 S. State St., Suite 400
 Salt Lake City, UT 84111
 800-678-7077
 801-328-5151
 fax: 801-328-5155
 www.spectrum-engineers.com



A1 LEVEL 1 AUXILIARY PLAN
 SCALE: 1/8" = 1'-0"

SUMITOMO DAINIPPON PHARMA TI

FORGE COMPANIES
 3900 TRAVERSE MOUNTAIN BLVD, SUITE 100, LEHI, UTAH 84043

CONSTRUCTION DOCUMENTS

LEVEL 1 AUXILIARY PLAN

EY101