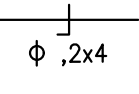
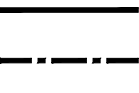
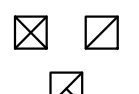
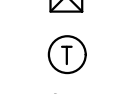
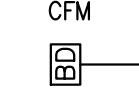

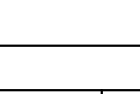
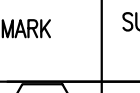
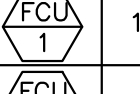
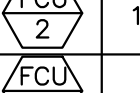


GENERAL MECHANICAL NOTES

1. ALL MECHANICAL EQUIPMENT, MATERIAL AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES. APPLICABLE CODES SHALL INCLUDE, BUT NOT BE LIMITED TO THE 2022 CALIFORNIA MECHANICAL CODE & 2022 CALIFORNIA ENERGY CODE.
2. PRIOR TO PURCHASING ANY MATERIAL OR STARTING ANY WORK, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, AND SHALL REPORT ANY DEVIATIONS FROM DRAWINGS TO THE ARCHITECT. SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE CONTRACTOR PRIOR TO ORDERING, PURCHASING ANY MECHANICAL EQUIPMENT.
3. ANY EXISTING WALL, FLOOR OR CEILING THAT IS EFFECTED DURING HVAC CONSTRUCTION SHALL BE REPAIRED TO MATCH NEW ADJACENT CONDITIONS.
4. AFTER CONSTRUCTION, THE ENTIRE HVAC SYSTEM WILL BE TESTED AND BALANCED TO DELIVER AIR QUANTITIES SHOWN ON DRAWING. AIR SYSTEMS SHALL BE BALANCED BY A QUALIFIED MECHANICAL CONTRACTOR, USING AABC, SMACNA OR NEBB PROCEDURES. AIR QUANTITIES SHALL BE BALANCED TO NOT MORE THAN 10% ABOVE OR 0% BELOW THE QUANTITIES SHOWN ON THE DRAWINGS. CONTRACTOR SHALL SUBMIT A COMPLETE AIR BALANCE REPORT INDICATING, AS A MINIMUM, THE AIR DELIVERY FOR EACH DIFFUSER, THE FINAL OPERATING DATA FOR THE SYSTEMS AND THE AIR CONDITIONING UNITS.
5. CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL NEW WORK, MATERIALS, EQUIPMENT, ETC. WITHIN THE SPACE ALLOWED BY STRUCTURAL CONDITIONS. THE LOCATION OF ALL ROOF MOUNTED EQUIPMENT WITH THE STRUCTURAL ENGINEER. CONTRACTOR SHALL FIELD COORDINATE AND INSTALL PACKAGED ROOFTOP EQUIPMENT TO MAINTAIN A MINIMUM OF 10'-0" CLEARANCE FROM OUTSIDE AIR INTAKE TO ALL EXHAUST OUTLETS AND (VTR) VENT THRU ROOF, TYPICAL.
6. THE DIAGRAMS ARE DIAGRAMMATIC AND DO NOT DEPICT EXACT CONDITIONS. THE LOCATION OF EQUIPMENT, DUCTWORK AND PIPING ETC IS APPROXIMATE ONLY. MATERIALS, EQUIPMENTS OR LABOR NOT INDICATED BUT WHICH CAN BE REASONABLY INFERRED TO BE NECESSARY FOR A COMPLETE INSTALLATION SHALL BE PROVIDED. DRAWINGS DO NOT UNDERTAKE TO DEPICT EVERY ITEM OF MATERIAL, EQUIPMENT OR LABOR REQUIRED TO PRODUCE A COMPLETE AND OPERATING HVAC SYSTEM.
7. ALL REQUIRED CONTROLS, CONTROL WIRING, WIRING AND EQUIPMENT TO PROVIDE POWER FOR HVAC CONTROLS NOT INDICATED ON PLANS SHALL BE THE RESPONSIBILITY OF MECHANICAL CONTRACTOR.
8. ALL EQUIPMENTS SUPPLYING MORE THAN 2,000 CFM OF AIR TO THE SPACE SHALL BE PROVIDED WITH A DUCT SMOKE DETECTOR IN THE SUPPLY DUCTWORK. THE DUCT SMOKE DETECTOR SHALL BE WIRED TO STOP THE EQUIPMENT UPON DETECTION OF SMOKE AND SIGNAL THE FIRE ALARM CONTROL PANEL. THE SMOKE DETECTOR SHALL BE FURNISHED, MOUNTED IN THE DUCT BY MECHANICAL CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR.
9. SUPPLY, RETURN AND AIR DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL IN ACCORDANCE WITH 'SMACNA DUCT CONSTRUCTION STANDARDS' LATEST EDITION. ALL JOINTS AND SEAMS IN DUCTWORK SHALL BE SEALED WITH DUCT SEALER. ALL DUCT JOINTS INCLUDING MECHANICAL FLANGED JOINTS SHALL BE SEALED WITH SILVER TAPE, OR ARABOL AND CANVAS. SEAL THE JOINTS OF ALL DUCTS EXPOSED TO THE WEATHER WITH ARABOL AND CANVAS. PROVIDE ALL BRANCH DUCTS WITH VOLUME DAMPERS WITH LOCKING QUADRANTS LOCATED AT LEAST FIVE FEET (5') FROM THE GRILLE OR DIFFUSER SERVED.
10. EXHAUST DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED SMACNA STANDARDS AND SHALL NOT BE INSULATED UON.
11. ALL DUCTWORK SHALL BE SUPPORTED BY BUILDING STRUCTURE AND NOT WITH CEILING TILES OR CEILING STRUCTURE. SUPPORTS FOR ALL PIPING AND DUCTWORK SHALL BE IN ACCORDANCE WITH SMACNA "GUIDELINES FOR SEISMIC RESTRAINT OF MECHANICAL SYSTEMS". CONTRACTOR SHALL PROVIDE CALCULATIONS FOR ISOLATORS AND MOUNTING ACCEPTABLE TO AHJ WHEN REQUIRED BY AHJ.
12. FLEXIBLE DUCTWORK SHALL BE THERMAFLEX MAKE OR EQUAL. PROVIDE MIN INSULATION VALUE OF R-8 WHEN LOCATED IN UNCONDITIONED SPACE WITHIN BUILDING, WHEN LOCATED WITHIN THE BUILDING ENVELOPE ASSEMBLY & OUTSIDE OF BUILDING. FLEX DUCT DIAMETER SHALL MATCH EQUIPMENT NECK DIAMETER. MAINTAIN MAXIMUM FLEX DUCT LENGTH OF 5'-0". FLEXIBLE DUCTS SHALL NOT BE USED WHERE EXPOSED DUCTWORK OCCURS. SUPPORT FLEXIBLE DUCTS WITH 2" WIDE HANGER STRAPS.
13. DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS. COORDINATE LOCATIONS OF REGISTERS, GRILLES AND DIFFUSERS WITH LIGHTS, CEILING GRID ETC IN FIELD.
14. INSULATE ALL SHEET METAL SUPPLY AND RETURN DUCTS WITH JOHNS MANVILLE MICROLITE XG OR EQUAL UL LISTED FIBERGLASS BLANKET INSULATION WITH FOIL VAPOR BARRIER. PATCH TEARS IN FOIL JACKET WITH FOIL TAPE TO MAINTAIN THE INTEGRITY OF VAPOR BARRIER. SHEET METAL SUPPLY AND OUTSIDE AIR DUCTWORK SHALL BE 2" THICK, 1 LB/FT3 DENSITY R-8 MIN. LAP ALL JOINT 4" MINIMUM, AND SECURE WITH GALVANIZED STEEL WIRE. KITCHEN HOOD EXHAUST DUCTWORK SHALL BE INSULATED PER NFPA 96 AND LOCAL CODES. KITCHEN HOOD SUPPLY DUCTWORK SHALL BE INSULATED AS SPECIFIED FOR HVAC SUPPLY DUCTWORK.
15. LINE ALL SHEET METAL SUPPLY AND RETURN DUCT DROPS FOR A MINIMUM OF 15' FROM THE UNIT WITH 1-1/2" THICK (MIN.R-6) JOHNS MANVILLE PERMACOTE LINACOUSITC R-300 OR EQUAL.
16. PROVIDE PERMANENT ENGRAVED PLASTIC NAME PLATED FOR ALL EQUIPMENT INSTALLED, INDICATING THE PLAN DESIGNATION OF THE UNIT (AC-1, REF., ETC.) AND ALSO THE BUILDING AREA SERVED (CLASSROOMS 2-4, CONFERENCE ROOM, ETC.).
17. ALL HVAC EQUIPMENTS & DUCTS SHALL BE COVERED AND SEALED FROM DELIVERY ON SITE PER LOCAL CODE.
18. PROVIDE A MINIMUM OF MERV-13 RATING FILTERS ON OUTSIDE AIR AND RETURN AIR PER PER LOCAL CODE ON ALL NEW HVAC UNITS.

MECHANICAL LEGEND	
SYMBOL	DESCRIPTION
	BALANCE DAMPER
	DIAMETER OR PHASE, DUCT DIMENSIONS
	SUPPLY DUCT
	RETURN DUCT
	SUPPLY AIR DIFFUSER, RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	THERMOSTAT
	CUBIC FEET OF AIRFLOW PER MINUTE
	BACK DRAFT DAMPER (BD)
	MOTORIZED DAMPER (MD)

AIR BALANCE					
MARK	SUPPLY AIR (CFM)	RETRUN AIR (CFM)	OUTSIDE AIR (CFM)	EXHAUST AIR (CFM)	NET DIFFERENCE
(N) FCU 1	1000	810	190	0	+190
(N) FCU 2	1000	810	190	0	+190
(N) FCU 3	800	620	180	0	+180
(N) KEF 1	0	0	0	420	-420
TOTALS	2800	2240	560	420	+140

EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION
(N) FCU 1	VRF FAN COIL INDOOR UNIT NOMINAL TON 2.5 MAKE: DAIKIN (OR EQUIVALENT) MODEL: FXTQ30TAVJUA (OR EQUIVALENT) TOTAL COOLING: 30 MBH TOTAL HEATING: 34 MBH AIR FLOW SETTING: 1,000 CFM ELECTRICAL: 208-230/1/60 MCA: 4.9 A MOCP:15.0 A OUTSIDE AIR SETTING:190 CFM WEIGHT: 115 LBS
(N) FCU 2	VRF FAN COIL INDOOR UNIT NOMINAL TON 2.5 MAKE: DAIKIN (OR EQUIVALENT) MODEL: FXTQ30TAVJUA (OR EQUIVALENT) TOTAL COOLING: 30 MBH TOTAL HEATING: 34 MBH AIR FLOW SETTING: 1,000 CFM ELECTRICAL: 208-230/1/60 MCA: 4.9 A MOCP:15.0 A OUTSIDE AIR SETTING:190 CFM WEIGHT: 115 LBS
(N) FCU 3	VRF FAN COIL INDOOR UNIT NOMINAL TON 2.0 MAKE: DAIKIN (OR EQUIVALENT) MODEL: FXTQ24TAVJUA (OR EQUIVALENT) TOTAL COOLING: 24 MBH TOTAL HEATING: 27 MBH AIR FLOW SETTING: 800 CFM ELECTRICAL: 208-230/1/60 MCA: 4.9 A MOCP:15.0 A OUTSIDE AIR SETTING:180 CFM WEIGHT: 115 LBS
(N) CU 1	VRF OUTDOOR CONDENSING UNIT NOMINAL TON 6 MAKE: DAIKIN (OR EQUIVALENT) MODEL: RXYQ72AATJA (OR EQUIVALENT) TOTAL COOLING: 69.0 MBH TOTAL HEATING: 77.0 MBH EER: 15.20, IEER: 27.00 ELECTRICAL: 208-230/3/60 MCA: 27.3 A MOCP: 30 A COP: 4.0 WEIGHT: 500 LBS
(N) EF 1	BROAN MODEL # : 682 OR EQUAL DUCTLESS CEILING EXHAUST FAN GRILLE (LXWXH): 8.5"(L)x8.5"(W)x3.75"(H) ELECTRICAL: 120V/1PH RATED AMPS: 1 A SC100W ELECTRONIC VARIABLE SPEED CONTROL- 3 AMP 69W SINGLE FUNCTION CONTROL FAN TO HAVE ACTIVATED CHARCOAL FILTER. UNIT SHALL BE UL LISTED INTERLOCKED WITH RESTROOM LIGHTING OCCUPANCY SENSOR
(N) KEF 1	GREENHECK MODEL # : CSP-A900 OR EQUAL INLINE EXHAUST FAN AIR FLOW SETTING: 420 CFM AT 0.7 E.S.P. MOTOR RPM: 895 ELECTRICAL: 115V/1PH./60HZ, 318 WATTS WEIGHT: 60 LBS

GRILLE SCHEDULE

SYMBOL	DESCRIPTION
S1	TITUS MODEL TMS OR EQUAL, LOUVERED FACE, ALL STEEL CONSTRUCTION LAYIN 24"x24" T BAR FRAME, WITH OPPOSED BLADE DAMPER
S2	12"x6" TITUS MODEL S300FL OR EQUAL, DOUBLE DEFLECTION SUPPLY GRILLES, ALUMINUM CONSTRUCTION, AIR SCOOP DEVICE
S3	TITUS MODEL TDC OR EQUAL, LOUVERED FACE, ALL STEEL CONST, SURFACE MOUNT, WITH OPPOSED BLADE 24"x24" DAMPER.
R1	16"x16" TITUS MODEL 30 RS OR EQUAL, LOUVERED FACE, ALL STEEL S CONSTRUCTION, SIDE, DUCT MOUNTED, WITH OPPOSED BLADE DAMPER
R2	TITUS MODEL TDC OR EQUAL, LOUVERED FACE, ALL STEEL CONST, SURFACE MOUNT, WITH OPPOSED BLADE 24"x24" DAMPER
E1	TITUS MODEL 50F OR EQUAL, EGS CRATE, 1/2"x1/2"x1/2" ALUMINUM GRID, SURFACE MOUNT FRAME, WITH OPPOSED BLADE DAMPER, STANDARD WHITE FINISH (12"x12")

VENTILATION CALCULATION AS PER CALIFORNIA ENERGY CODE 2022 - TABLE 120.1-A & 120.1-B

ROOM NAME	AREA (SQ.FT.)	OCCUPANCY AS PER LAYOUT	TOTAL OUTDOOR AIR RATE	REQUIRED OA (CFM)	PROVIDED OA (CFM)	EXHAUST AIRFLOW RATE (CFM/SQ.FT OR CFM/UNIT)	REQ EXHAUST AIRFLOW RATE (CFM)	PROVIDED EXHAUST AIRFLOW RATE (CFM)
			CFM/SQ.FT					
101 SEATING AREA	786	32	0.5	393	400	0	0	0
102 FRONT KITCHEN	350	3	0.15	53	100	0.7	245	
103 BACK KITCHEN	200	3	0.15	30	60	0.7	140	420
104 ACCESSIBLE RR	64	0	0	0	0	70	70	-
TOTAL	1400	38	-	476	560	-	455	420

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SHEET TITLE

MECHANICAL NOTES,
LEGENDS &
SCHEDULES

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

Project Manager

Sheet No.

Project Architect

Scale

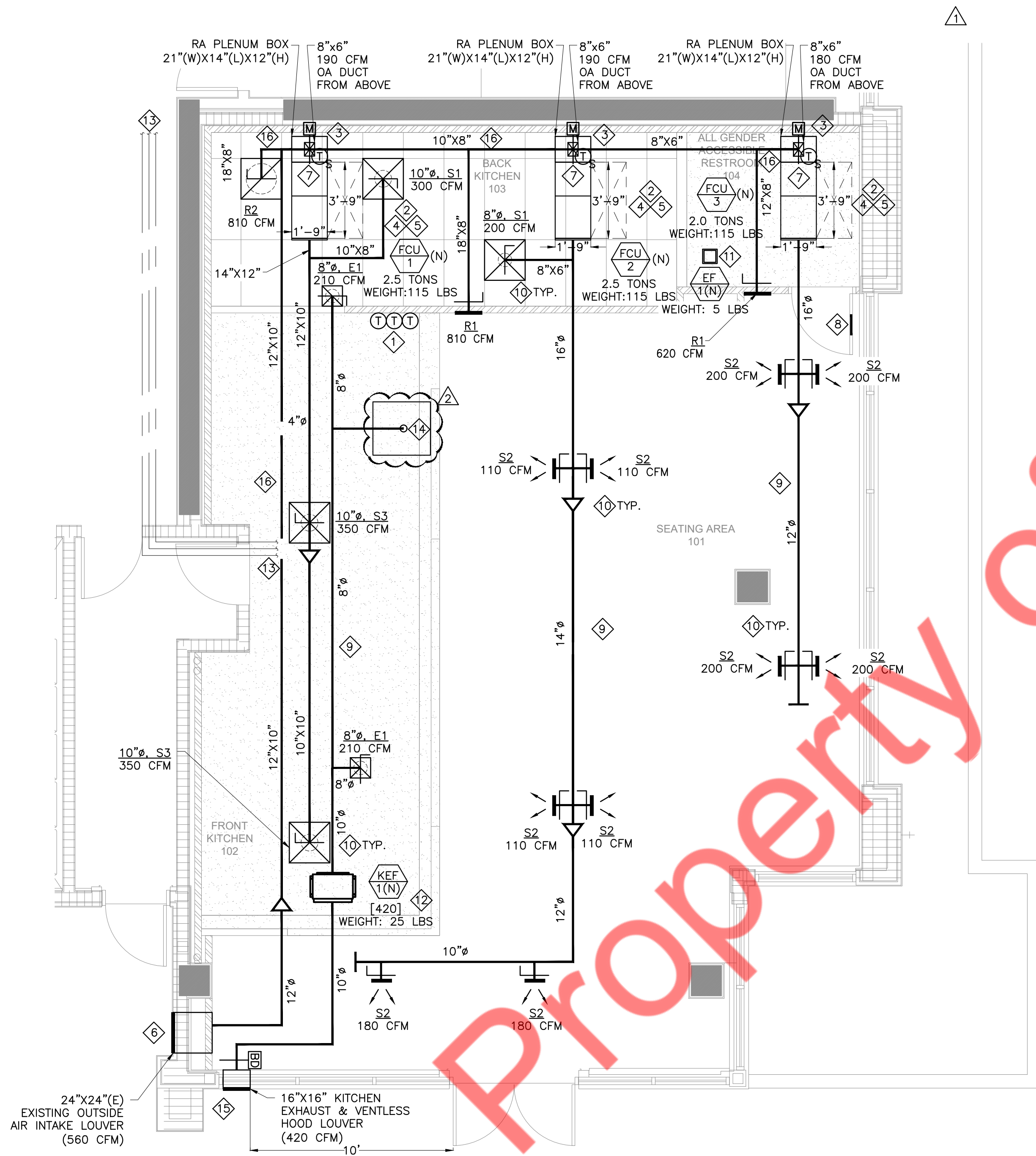
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M1.0



MECHANICAL FLOOR PLAN

SCALE: 1/4"=1'-0"

NUMBERED NOTES

1. MOUNT TOP OF THERMOSTAT 46" AFF. VERIFY LOCATION OF THERMOSTAT WITH OWNER PRIOR TO INSTALLATION. PROVIDE THERMOSTAT WITH KEYPAD LOCKOUT IN ALL PUBLIC AREAS.
2. EXTEND FULL SIZE SUPPLY & RETURN DUCTWORK FROM FAN COIL UNIT TO SPACE. EXTEND AS SHOWN. ACOUSTICALLY LINE THE FIRST 10'-0" OF BOTH SUPPLY & RETURN MAIN DUCTS.
3. MD TO BE INTERLOCKED WITH THE FCU-1(N), FCU-2(N) & FCU-3(N). CONNECT OUTSIDE AIR DUCT FROM THE TOP OF THE PLENUM BOX AND CONNECT RETURN AIR DUCT FROM THE SIDE OF PLENUM BOX.
4. INSTALL CONDENSATE DRAIN FROM FAN COIL UNITS. 1" MINIMUM DRAIN SIZE OR LARGER AS REQUIRED BY CODE. DRAIN SHALL BE ROUTED AS HIGH AS POSSIBLE AFTER CONDENSATE PUMP & EXTEND TO THE MOP SINK LOCATION WITH AN AIR GAP. VERIFY ALL REQUIREMENTS PRIOR TO INSTALLATION. PROVIDE AUXILIARY DRAIN PAN, 1" DEEP, MINIMUM 3" BEYOND FOOTPRINT OF UNIT. PROVIDE CONDENSATE DRAIN LIFT PUMP AS/IF REQUIRED.
5. ROUTE & CONNECT CONDENSATE DRAIN LINES FROM EACH FAN COIL UNIT TO THE DRAIN POINT IN THE RESTROOM. PROVIDE AT LEAST 1% SLOPE FOR ALL THE DRAIN LINES. SLOPE SHALL BE TOWARDS THE DRAIN POINT. COORDINATE IN FIELD WITH PLUMBING CONTRACTOR.
6. 24"x24" EXISTING OUTSIDE AIR INTAKE LOUVER. CONTRACTOR TO FIELD VERIFY 10 FT. DISTANCE SHALL BE MAINTAIN FROM ANY EXHAUST SOURCE.
7. INSTALL TEMPERATURE SENSORS IN RETURN AIR DUCT AND WIRE BACK TO T-STAT.
8. PROVIDE 1" DOOR UNDERCUT.
9. COORDINATE WITH LIGHTING PLAN AND ELECTRICAL ENGINEER.
10. BALANCE AND ADJUST THE VOLUME DAMPERS TO MATCH THE AIR FLOWS AS INDICATED ON THE PLAN.
11. PROVIDE NEW DUCTLESS CEILING MOUNTED TOILET EXHAUST FAN AND FAN TO HAVE ACTIVATED CHARCOAL FILTER. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS.
12. PROVIDE NEW INLINE KITCHEN EXHAUST FAN AND CONNECT 10" KITCHEN EXHAUST DUCT TO KITCHEN EXHAUST LOUVER AS INDICATED ON PLAN. PROVIDE BACK DRAFT DAMPER.
13. ROUTE AND CONNECT NEW REFRIGERANT LINES FROM THE NEW FAN COIL UNITS TILL THE EXISTING REFRIGERANT LINES. CONTRACTOR TO VERIFY EXACT SIZE AND LOCATION IN FIELD.
14. VENTLESS HOOD CONCENTRIC VENT SIZED AT 4" PER MANUFACTURER. CONNECT 4" VENTLESS HOOD EXHAUST DUCT TO KITCHEN EXHAUST DUCT AS INDICATED ON PLAN.
15. THE TERMINATION SHALL BE THROUGH A NON-COMBUSTIBLE WALL WITH A MINIMUM OF 10 FEET OF CLEARANCE FROM THE OUTLET TO ADJACENT BUILDINGS, PROPERTY LINES, GRADE LEVEL, COMBUSTIBLE CONSTRUCTION, ELECTRICAL EQUIPMENT OR LINES, AND WITH THE CLOSEST POINT OF ANY AIR INTAKE OR OPERABLE DOOR OR WINDOW AT OR BELOW THE PLANE OF THE EXHAUST TERMINATION. THE CLOSEST POINT OF ANY AIR INTAKE OR OPERABLE DOOR OR WINDOW ABOVE THE PLANE OF THE EXHAUST TERMINATION SHALL BE A MINIMUM OF 10 FEET HORIZONTAL & 3 FEET VERTICAL IN DISTANCE, PLUS 3 INCHES FOR EACH 1 DEGREE FROM HORIZONTAL.
16. RUN OUTSIDE AIR DUCT CLOSE TO THE SLAB. RUN RETURN AIR DUCT BELOW OUTSIDE AIR DUCT. CONTRACTOR TO COORDINATE DUCT ROUTING AND CONNECTIONS ON SITE.

GENERAL NOTES

1. MAINTAIN A MIN. OF 10 FT. FROM EXHAUST AIR OUTLETS AND OUTSIDE AIR INTAKES.
2. PROVIDE FIRE OR FIRE+SMOKE DAMPER WHEREVER DUCTS ARE CROSSING FIRE/SMOKE RATED WALLS/ BARRIERS. COORDINATE WITH ARCHITECTURAL DRAWING FOR FIRE RATING OF THE WALLS.

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MECHANICAL FLOOR PLAN

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

Project Manager

Sheet No.

Project Architect

Scale

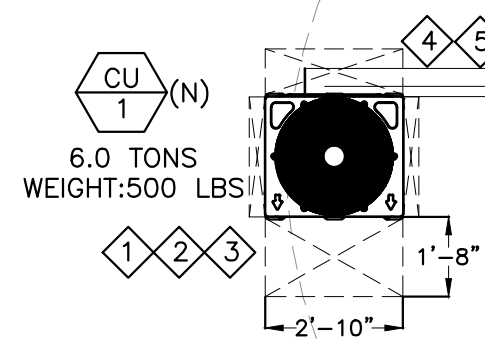
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M2.0



NUMBERED NOTES

- 1 REFRIGERANT PIPING BETWEEN INDOOR AND OUTDOOR UNIT AS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE INSULATION TO REF PIPING AS PER ENERGY CONSERVATION CODE. COORDINATE WITH BASE BUILDING ENGINEER FOR PIPE ROUTING AND RISER LOCATION. NOTIFY THE ENGINEER OF ANY DISCREPANCY BEFORE COMMENCING BID. INSTALL OUTDOOR UNITS AS SHOWN ON THE PLANS. PROVIDE ALL THE NECESSARY SUPPORTS AS/IF REQUIRED.
- 2 CONTRACTOR TO INSTALL OUTDOOR UNIT AS PER MANUFACTURER'S RECOMMENDATIONS.
- 3 CONTRACTOR TO VERIFY EXACT LOCATION AND SIZE OF CONDENSING UNIT IN FIELD. PROVIDE MINIMUM CLEARANCE SPACE AS RECOMMENDED BY MANUFACTURER.
- 4 ROUTE & CONNECT EXISTING REFRIGERANT PIPES FROM CONDENSING UNIT TO NEW FAN COIL UNITS.
- 5 CONTRACTOR TO VERIFY SIZE OF REFRIGERANT PIPES IN FIELD.

MECHANICAL ROOF PLAN

SCALE: 1/4"=1'-0"

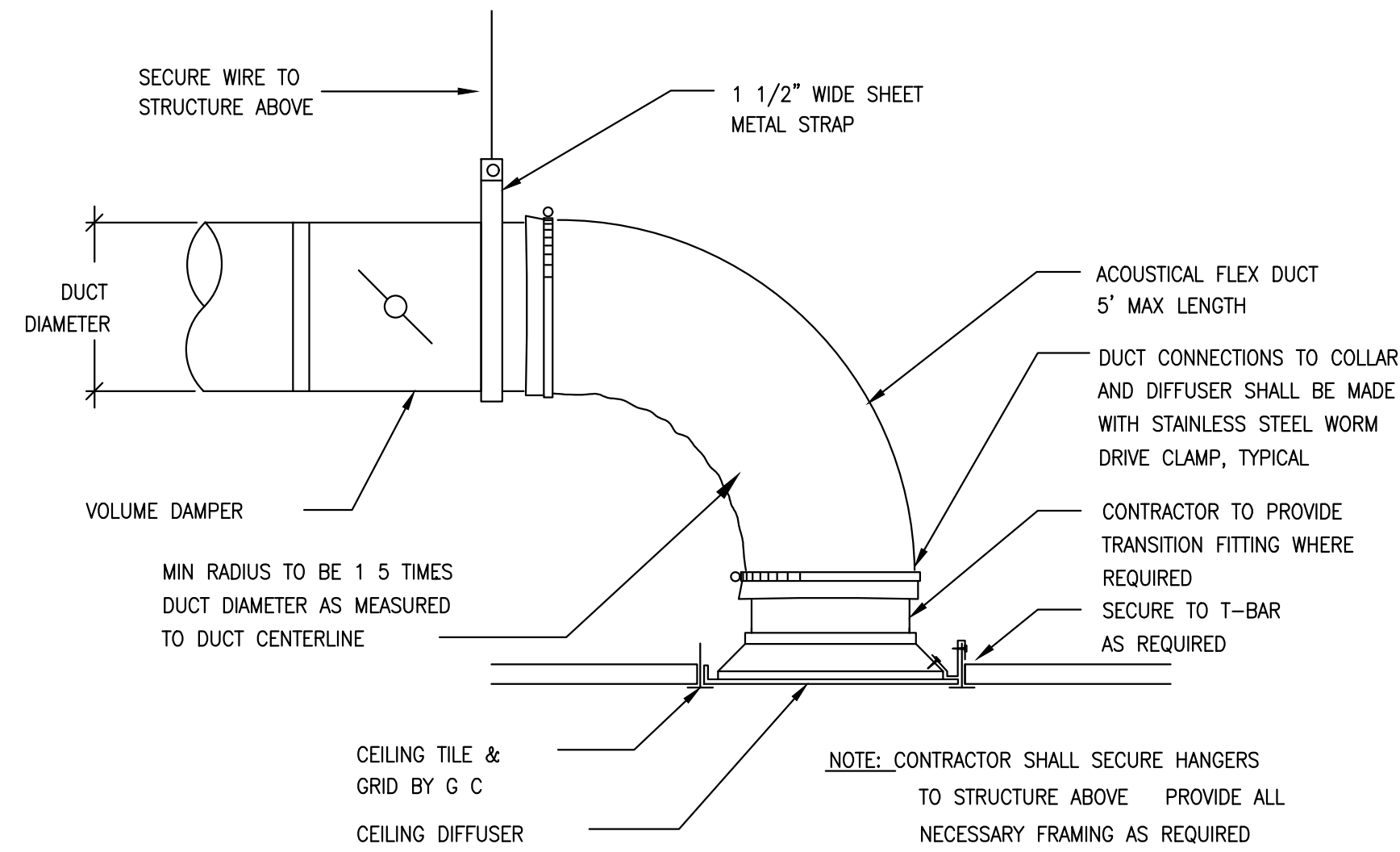
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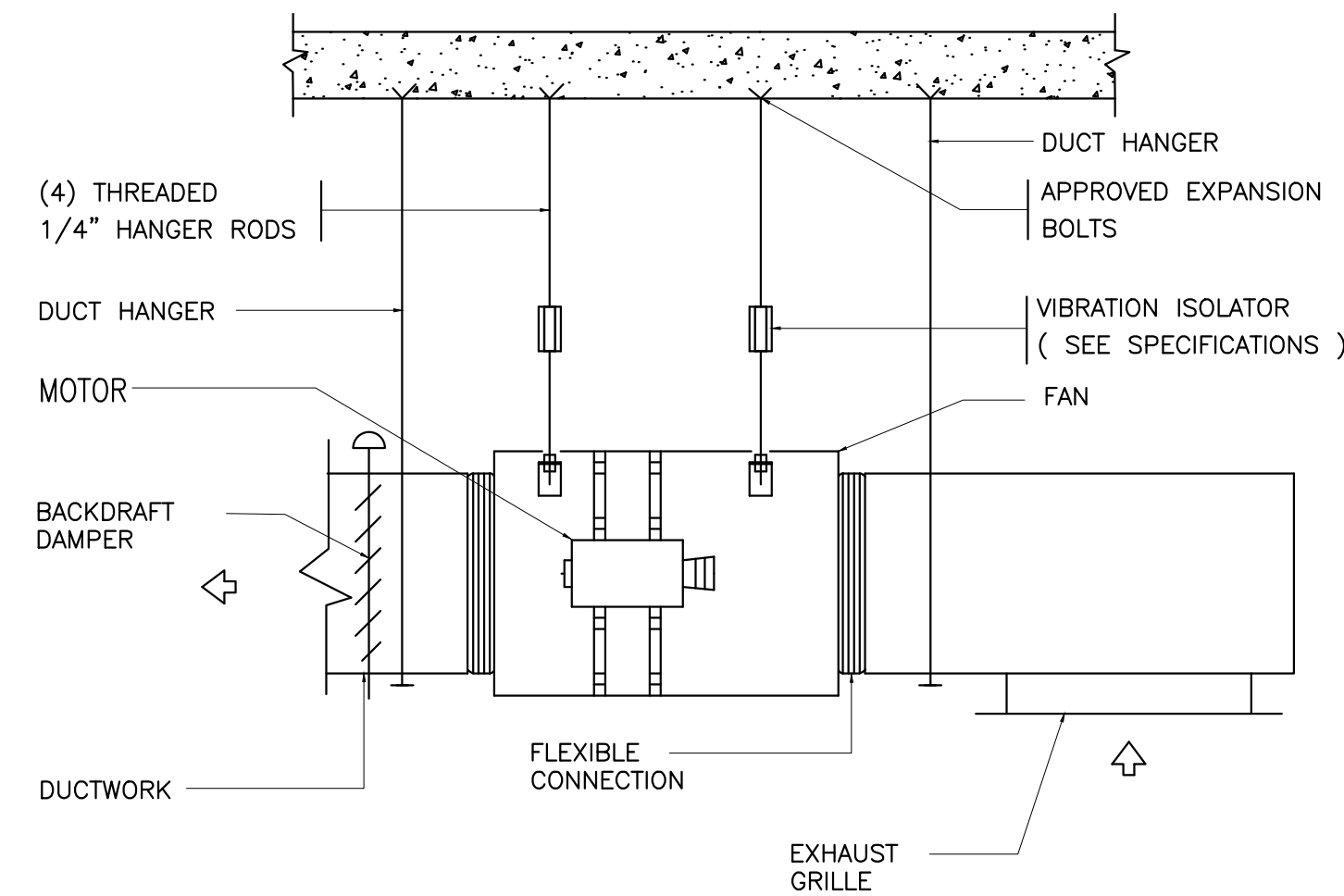
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**MECHANICAL
ROOF PLAN**

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

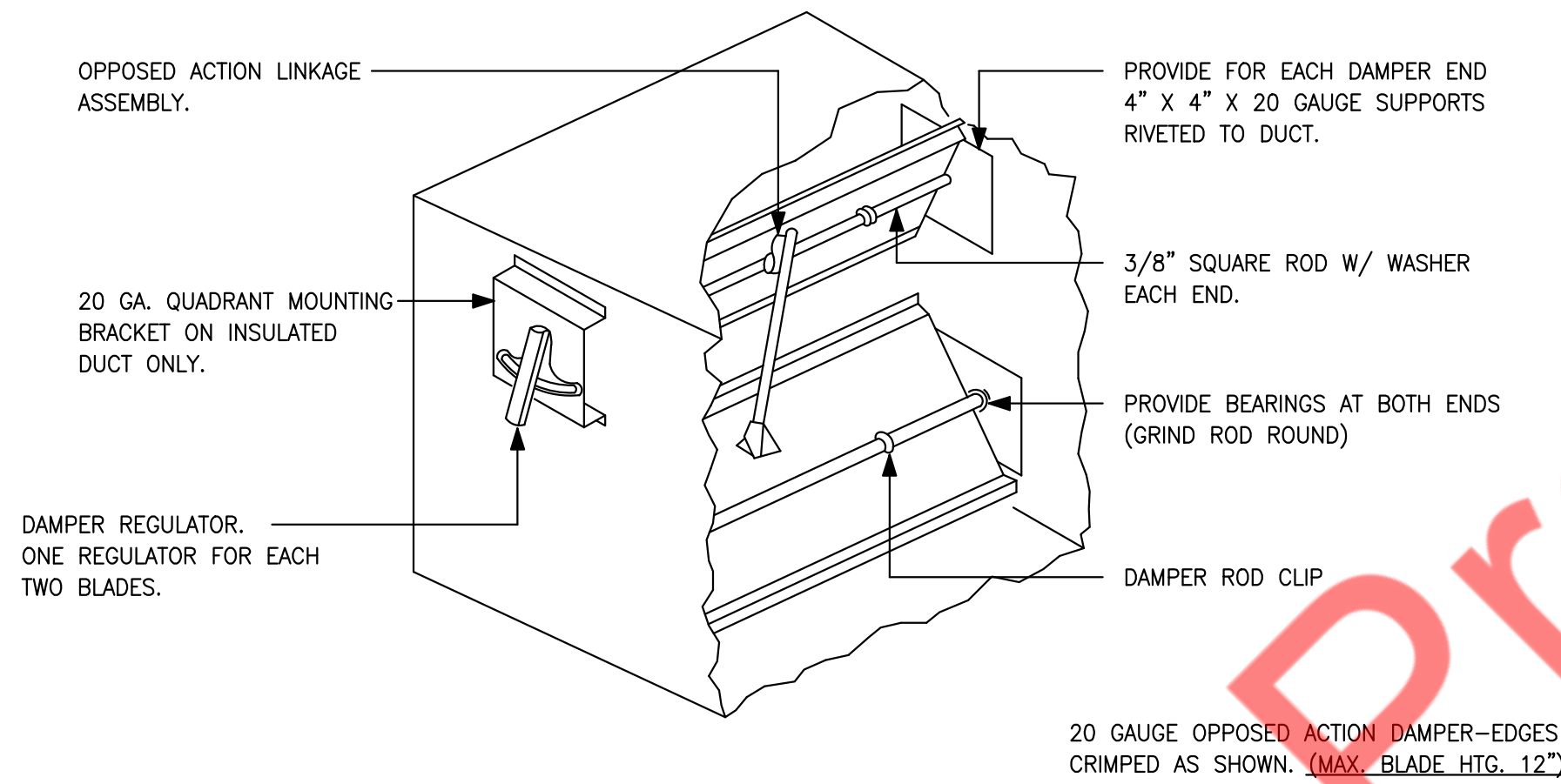
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Project Architect	
Scale As Noted	
Date 1/23/2024	
Project No.	



1 UNCONFINED DIFFUSER MOUNTING
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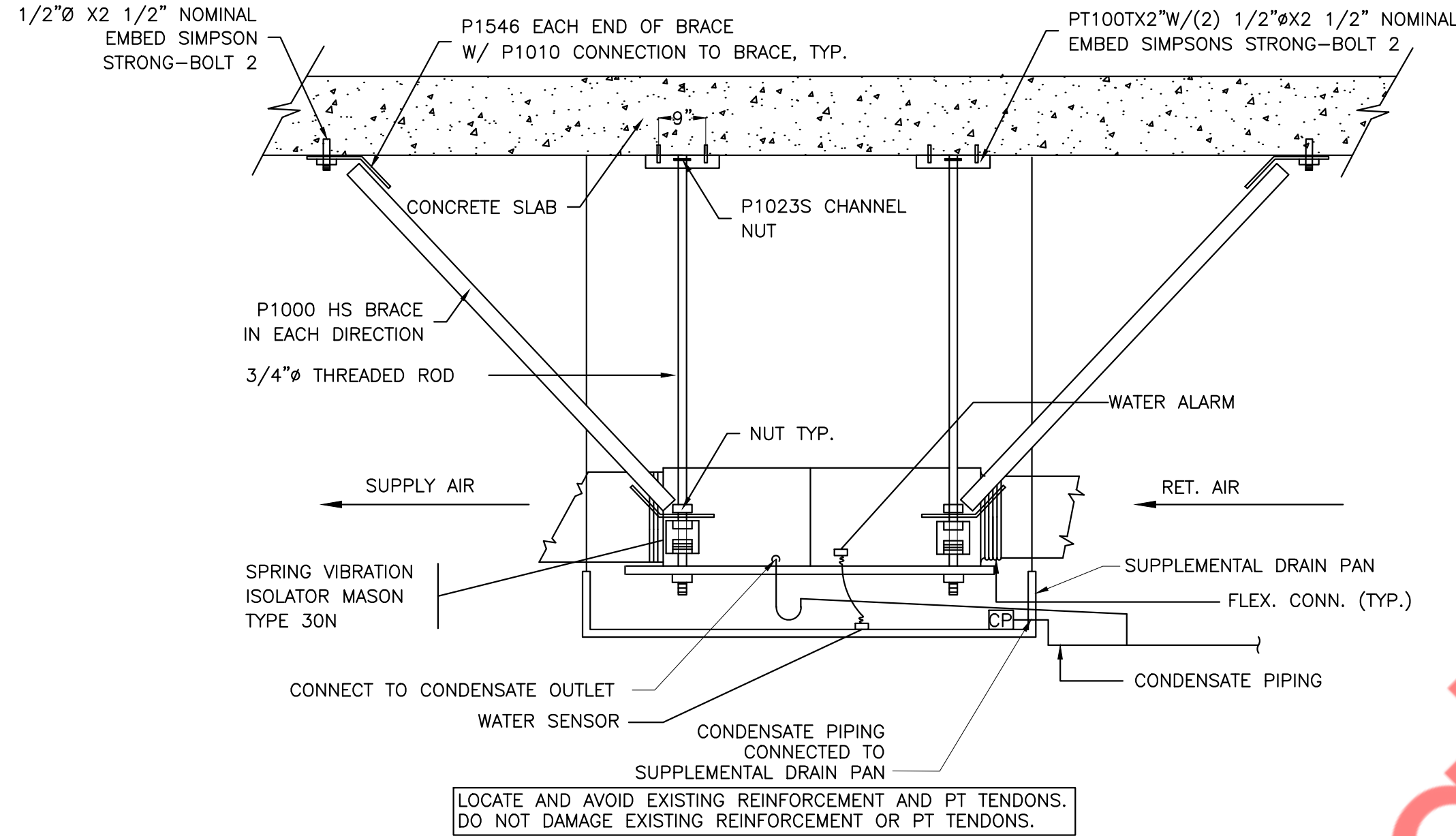


2 INLINE FAN HANGING SUPPORT DETAIL
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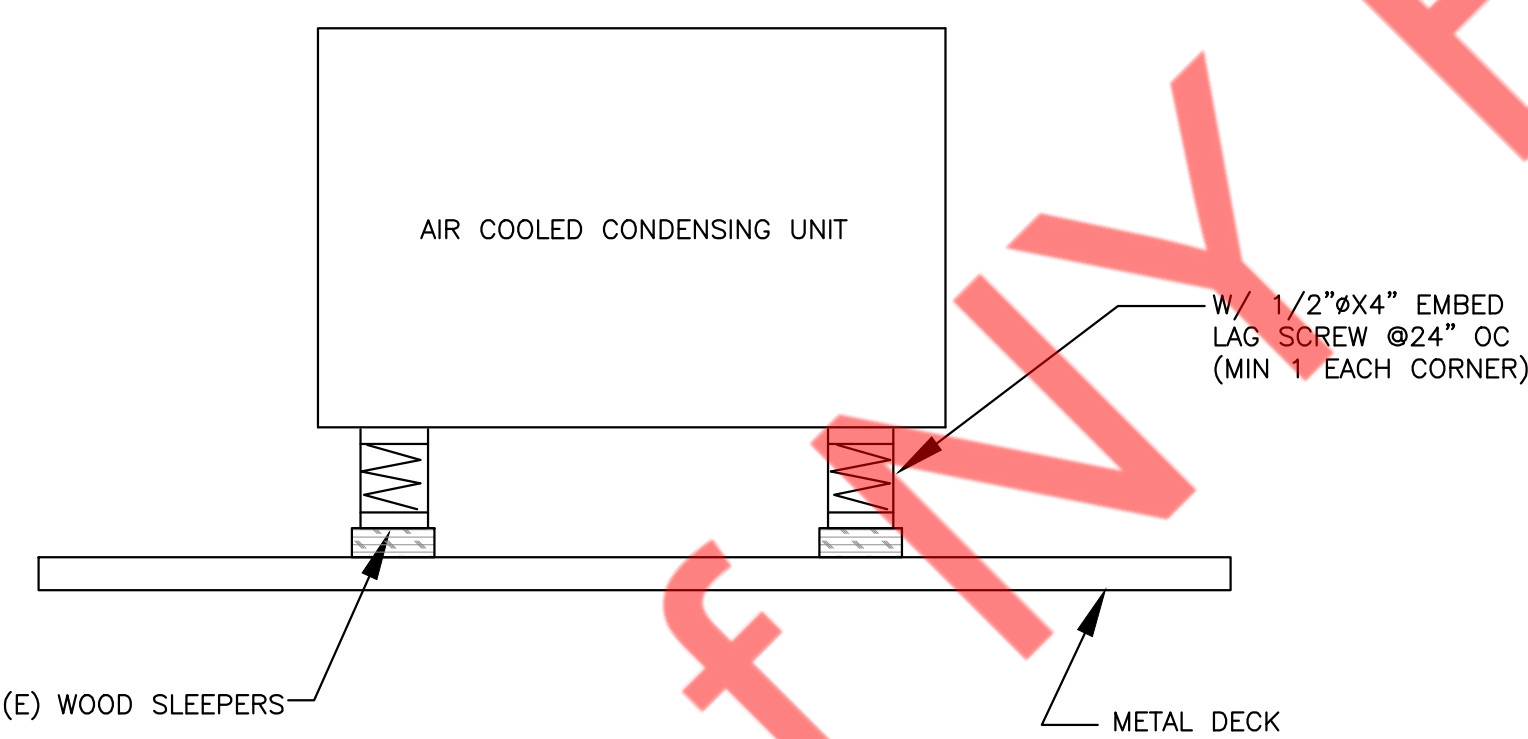


NOTE: 1. FOR DUCTS OVER 29\"/>

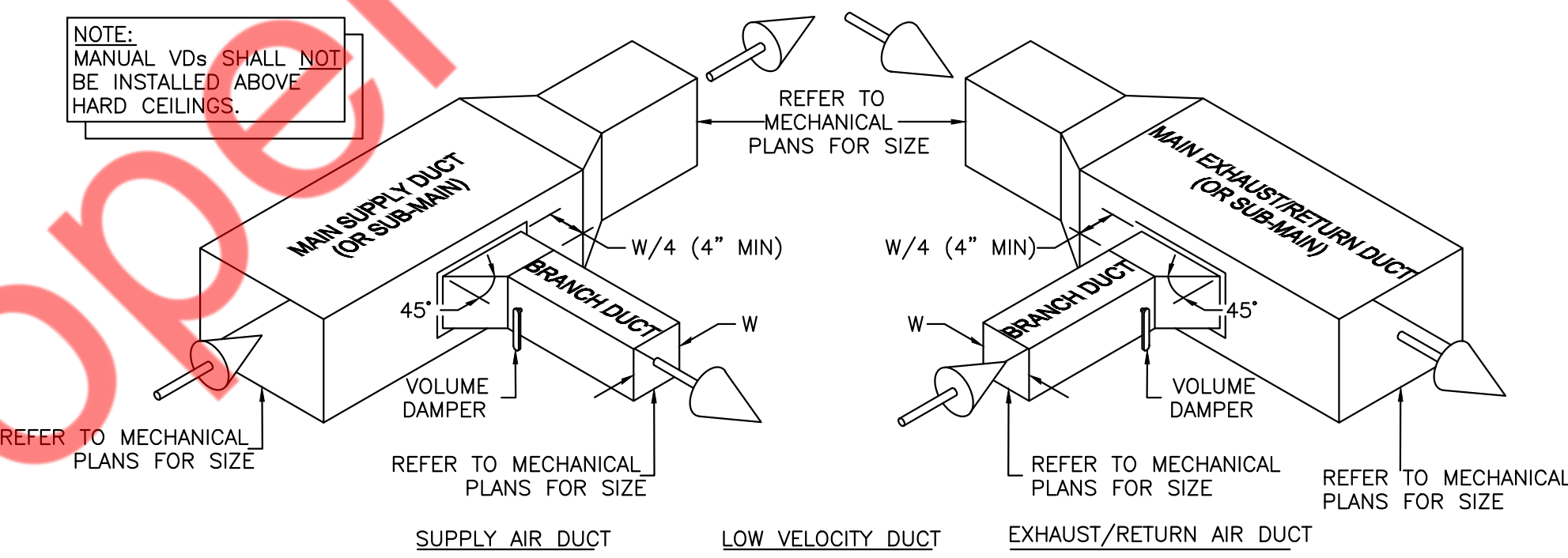
3 LOW PRESSURE BALANCING DAMPER
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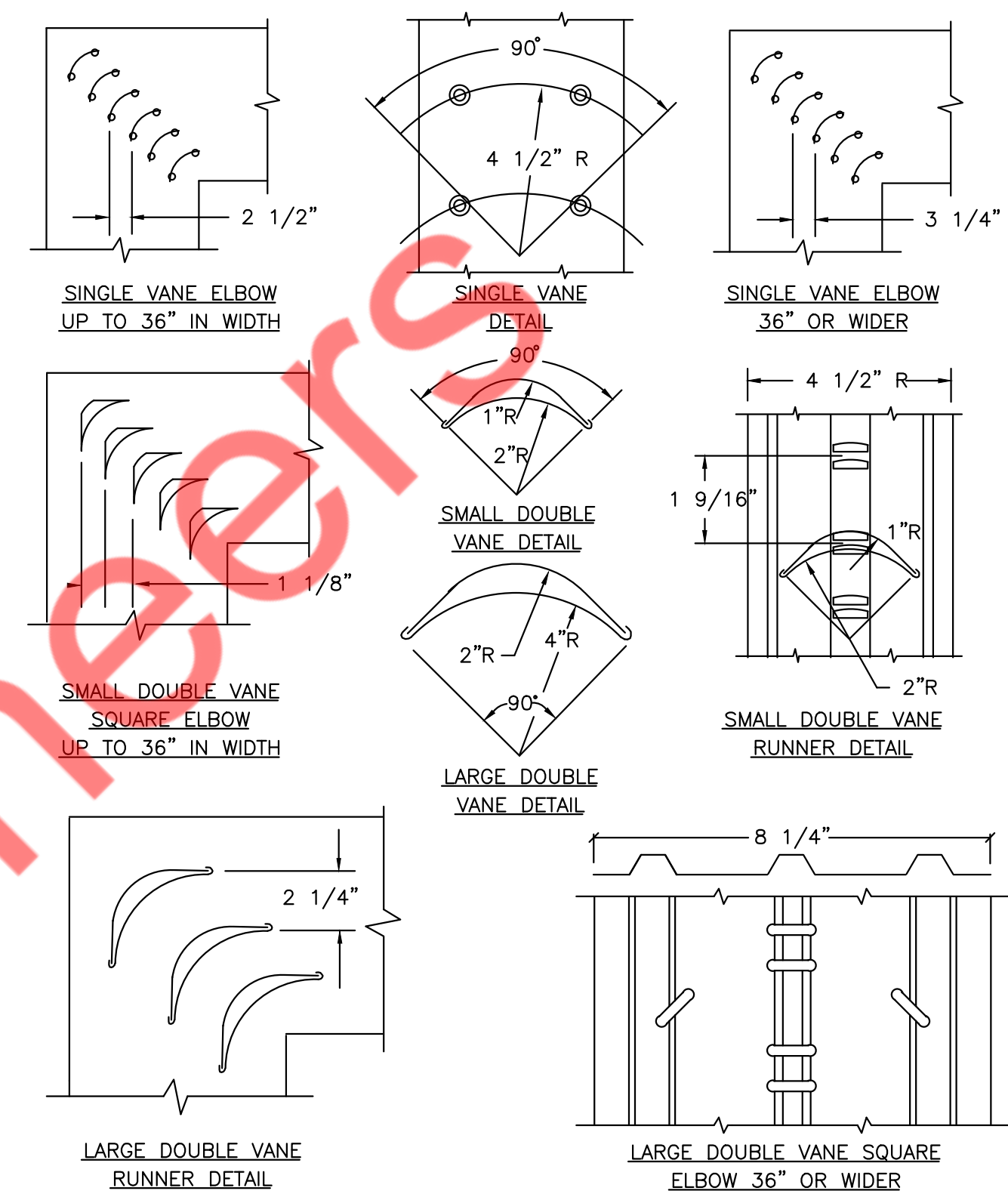
4 FCU UNIT INSTALLATION DETAIL
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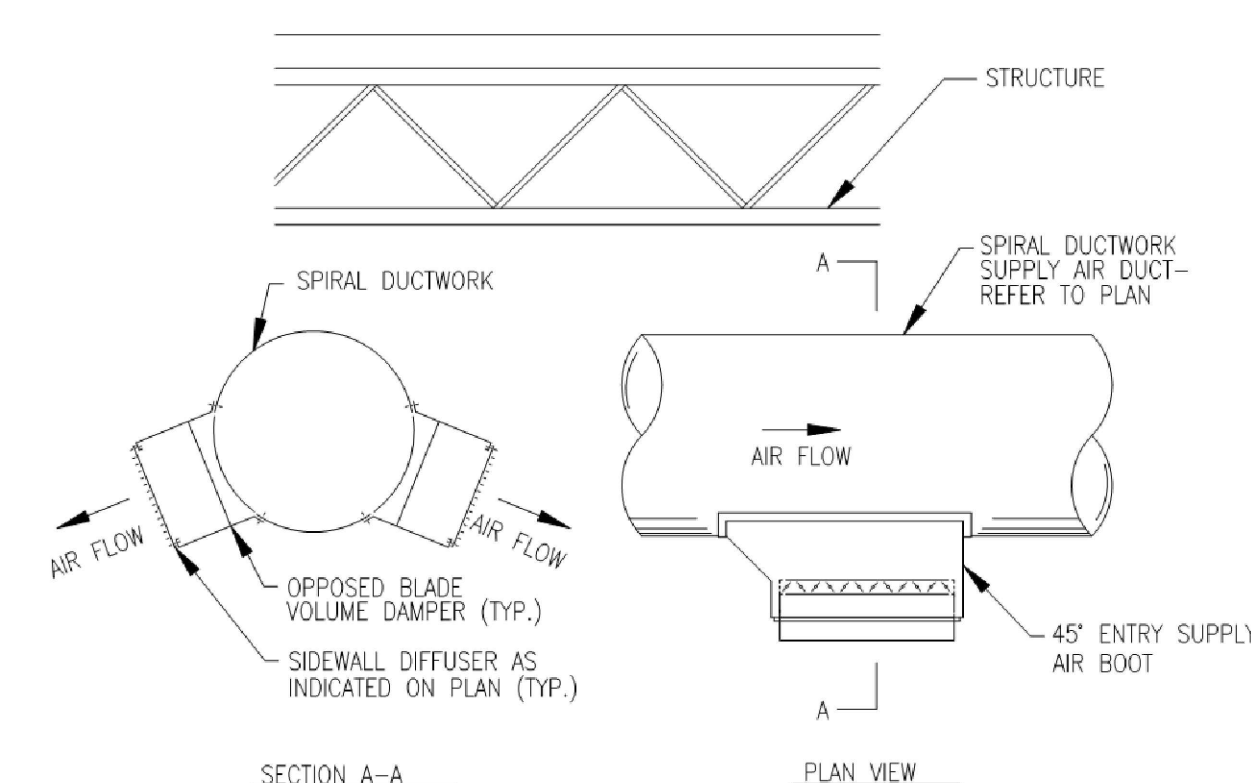
5 CONDENSER UNIT MOUNTING
NTS



6 BRANCH DUCT CONNECTIONS
NTS



7 LOW VELOCITY DUCTWORK ELBOWS
NTS



8 DUCT MOUNTED GRILLE DETAIL
NTS

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2	Plan Check Comments	06/03/2024

Project Manager	Sheet No.
Project Architect	
Scale	M3.0
Date	
1/23/2024	
Project No.	

GENERAL NOTES

1.

ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE PRESENT DAY CODES ALL GOVERNING LOCAL CODES, LAWS AND REGULATION.
2.

CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS THAT MAY AFFECT THE WORK. NO ADDITIONAL COMPENSATION WILL BE CONSIDERED FOR FAILURE TO DO SO.
3.

CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, TEST REPORTS, AND CERTIFICATIONS FOR TEMPORARY AND FINAL CERTIFICATE OF OCCUPANCY.
4.

FIRE STOP ALL PENETRATIONS OF FIRE RATED CONSTRUCTION IN A CODE APPROVED MANNER IN ORDER TO MAINTAIN FIRE RATING. ALL PENETRATIONS SHALL BE SLEEVED AND SEALED WATERTIGHT.
5.

SECURE ALL SUPPORTS TO BUILDING STRUCTURE UTILIZING TOGGLE BOLTS (HOLLOW MASONRY), EXPANSION SHIELDS OR INSERTS (CONCRETE AND BRICK), MACHINE SCREWS (METAL), BEAM CLAMPS (FRAMEWORK), WOOD SCREWS (WOOD) OR PAN THRU STRAPS (METAL DECK). NAILS, RAW PLUGS AND WOOD PLUGS ARE NOT PERMITTED. WHERE REQUIRED BY STRUCTURE, PROVIDE THRU BOLTS AND FISH PLATES. SUPPORT HORIZONTAL RUNS OF METALLIC RACEWAYS NOT MORE THAN 10 FT APART. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS.
6.

LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS. RACEWAYS OVER 10 FT LONG IN WHICH WIRING IS NOT INSTALLED: FURNISH FISH WIRE.
7.

VERIFY LOCATIONS OF OUTLETS AND SWITCHES IN FINISHED ROOMS WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISH. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS. ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT, EQUIPMENT, VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE. CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
8.

CONTRACTOR SHALL PROVIDE A WARRANTY ON ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.
9.

ALL UNUSED MATERIALS AND DEBRIS SHALL BE LEGALLY REMOVED AND DISPOSED OF AWAY FROM THE PREMISES ON A DAILY BASIS.
10.

CONTRACTOR SHALL PATCH, PAINT, AND RESTORE EXISTING SURFACES DAMAGED DURING THE COURSE OF THIS CONSTRUCTION TO PRE-EXISTING CONDITIONS OR BETTER.
11.

MINIMUM SIZE OF CONDUIT SHALL BE ¾", AND TYPE SHALL BE ELECTRICAL METALLIC TUBING (EMT), UNLESS OTHERWISE NOTED. PROVIDE NYLON DRAG LINE AND CONDUIT CAP FOR ALL EMPTY CONDUITS.
12.

CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH FLEXIBLE CONDUIT (MINIMUM 18 IN. LENGTH AND 50% SLACK). DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.
13.

PULL AND JUNCTION BOXES WHERE INDICATED ON THE DRAWINGS, SHALL BE CONSIDERED SHOWN AT THEIR APPROXIMATE LOCATION. THE CONTRACTOR SHALL LOCATE THEM AS FIELD CONDITIONS DICTATE. ADDITIONAL PULL AND JUNCTION BOXES NOT SHOWN ON DRAWINGS SHALL BE PROVIDED WHERE REQUIRED BY APPLICABLE CODE PROVISIONS OR WHERE CALLED FOR BY FIELD CONDITIONS. PULL AND JUNCTION BOXES SHALL BE SURFACE TYPE IN UNFINISHED AREAS AND INSTALLED CONCEALED IN FINISHED AREAS, AND ALL COVERS TO PULL & JUNCTION BOXES SHALL BE READILY ACCESSIBLE.
14.

SUPPORT PANEL, JUNCTION AND PULLBOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.
15.

FOR EXACT LOCATION AND MOUNTING HEIGHT OF LIGHTING FIXTURES AND SWITCH/RECEPTACLE OUTLETS, REFER TO ARCHITECTURAL REFLECTED CEILING AND POWER PLANS.
16.

ALL ELECTRICAL ACCESSORIES AND EQUIPMENT INSTALLED OUTSIDE OR EXPOSED TO WEATHER SHALL HAVE NEMA 3R ENCLOSURES AND SHALL BE TIGHTLY GASKETED FOR A COMPLETE RAINIGHT INSTALLATION. ALL BUILDING EXTERIOR MOUNTED RECEPTACLES SHALL BE GFCI RATED AND MOUNTED IN WEATHERPROOF ENCLOSURE.
17.

ALL ACCESS PANEL LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.
18.

ELECTRICAL CONTRACTOR SHALL COORDINATE THE LOCATION AND INSTALLATION OF NEW WORK WITH THE GENERAL CONTRACTOR AND OTHER ASSOCIATED TRADES IN A TIMELY MANNER. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
19.

ALL CONDUITS AND EQUIPMENT TO BE CONCEALED IN FINISHED SPACES UNLESS OTHERWISE NOTED.
20.

ALL EQUIPMENT AND MATERIALS INSTALLED IN PLENUM CEILINGS SHALL BE APPROVED FOR THAT APPLICATION.
21.

OUTLET BOXES AND JUNCTION BOXES ON OPPOSITE SIDES OF FIRE-RATED WALLS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24 INCHES, UNLESS FIRE-RATED BOXES OR PUTTY PADS ARE UTILIZED.
22.

COORDINATE ALL FLOOR PENETRATIONS WITH THE STRUCTURAL AND ARCHITECTURAL DRAWINGS. CONFIRM PENETRATION LOCATIONS WITH THE ENGINEER AND OWNER BEFORE INSTALLATION.
23.

LIGHTING FIXTURES DESIGNATED AS EMERGENCY TYPE SHALL BE WIRED AHEAD OF ANY CONTROL DEVICES.
24.

NUMBER(S) SHOWN AT RECEPTACLES, JUNCTION BOXES AND EQUIPMENT INDICATES CIRCUIT NUMBERS IN PANELBOARD. PROVIDE WIRE AND CONDUIT TO INTERCONNECT EQUIPMENT AND DEVICES WITH SAME CIRCUIT NUMBERS AND RUN TO PANELBOARD.
25.

PROVIDE RACEWAY, BACK-BOXES, GROUNDING PROVISIONS AND 120V POWER AS NECESSARY FOR LOW VOLTAGE SYSTEMS (SECURITY, TELEPHONE DATA, CABLE TELEVISION, PAGING, INTERCOM, ETC. AS APPLICABLE TO PROJECT). REFER TO ASSOCIATED CONSULTANT'S DRAWING FOR EXACT REQUIREMENTS AND LOCATIONS OF DEVICES.
26.

PROVIDE HANDLE TIES TO ALLOW FOR SIMULTANEOUS DISCONNECTION OF CONDUCTORS IN ANY MULTI-BRANCH CIRCUITS WITH A SHARED NEUTRAL.
27.

THESE DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNLESS APPROVED BY THE BUILDING DEPARTMENT.
28.

THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY, AND NOT INTENDED TO SHOW ROUTING OF CABLES AND CONDUITS WHICH SHALL BE DETERMINED IN THE FIELD. U.O.N. DEVICES ARE NOT SHOWN TO SCALE, AND THEREFORE CANNOT ALWAYS BE SHOWN IN THEIR EXACT LOCATION.
29.

EXISTING DEVICES SHOWN WERE TAKEN FROM EXISTING DRAWINGS, NOT "AS BUILT" DRAWINGS AND LIMITED SITE SURVEYS, AND MAY NOT BE COMPLETELY ACCURATE. THE ELECTRICAL TRADE SHALL VISIT JOB SITE AND VERIFY CONDITIONS PRIOR TO BIDDING. NOTIFY THE ARCHITECT/OWNER OF ANY DISCREPANCIES.
30.

BRANCH CIRCUITRY MAY NOT BE SHOWN FOR EXISTING DEVICES. THE ELECTRICAL TRADE SHALL RELOCATE EXISTING BRANCH CIRCUITRY AND MAKE ALL NECESSARY RECONNECTIONS AS REQUIRED TO FACILITATE REMODEL. VERIFY ALL WORK REQUIRED ON THE JOB AND RECORD ON RECORD DRAWINGS.
31.

ALL EQUIPMENT INSTALLED OR CONNECTED BY ELECTRICAL TRADE SHALL BE LABELED OR CERTIFIED FOR ITS USE BY A NATIONALLY RECOGNIZED TESTING LABORATORY.
32.

REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS OF EQUIPMENT. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR POWER AND CONTROL REQUIREMENTS AND WIRING DIAGRAMS.
33.

WHERE ELECTRICAL CONDUIT ENTERS A WALL, CEILING OR FLOOR, THE OPENING AROUND THE CONDUIT SHALL BE TIGHTLY SEALED.
34.

CONDUIT INSIDE BUILDING SHALL BE EMT OR RSC. FLEXIBLE STEEL CONDUIT MAY BE USED IN SHORT LENGTHS WHERE FLEXIBILITY IS REQUIRED FOR MOVEMENT OR VIBRATION.
35.

FLEXIBLE METALLIC CONDUIT MAY BE USED FOR BRANCH CIRCUITS WHERE METALLIC CONDUIT IS SHOWN. METAL CLAD CABLE MAY BE USED FOR BRANCH CIRCUITS WHERE CONCEALED WITHIN WALLS.
36.

PROVIDE A GROUNDING CONDUCTOR IN ALL FLEXIBLE CONDUITS.
37.

THE COMPLETE SYSTEM SHALL BE GROUNDED PER CEC ART. 250.
38.

GENERAL PURPOSE 120V LIGHTING AND RECEPTACLE CIRCUITS OVER 100' LONG SHALL BE #10 CU. U.O.N. GENERAL PURPOSE 277V LIGHTING CIRCUITS OVER 300' LONG SHALL BE #10 CU U.O.N.
39.

PROVIDE TYPEWRITTEN SCHEDULES INDICATING LOAD DESCRIPTION FOR ALL CIRCUITS IN PANELBOARDS.
40.

CONTRACTOR TO PERFORM TESTING, ADJUSTMENT AND REPORTING OF LIGHTING SYSTEMS PER CQSC SECTION 5.410.4.

FOOD SERVICE GENERAL NOTES

1.

LIGHTING FIXTURES IN AREAS WHERE FOOD IS PREPARED OR OPEN FOOD IS STORED OR WHERE UTENSILS ARE CLEANED SHALL HAVE A SHATTER-PROOF LENS AND ARE READILY CLEANABLE.
2.

LIGHTING INTENSITY SHALL NOT BE LESS THAN 50 FOOT CANDLES AT 30" ABOVE FLOOR IN FOOD PREPARATION AREAS.
3.

FOOD AND UTENSIL STORAGE ROOMS, REFRIGERATION STORAGE, AND TOILET ROOMS SHALL NOT BE LESS THAN 10 FOOT CANDLES AT +30" ABOVE FLOOR.
4.

ALL ELECTRICAL WORK SHALL CONFORM WITH THE CURRENT EDITION OF THE CALIFORNIA ELECTRICAL CODE AND ALL STATE AND LOCAL REQUIREMENTS AND CODES.
5.

VERIFY ALL OUTLET LOCATIONS PRIOR TO ROUGH-IN.
6.

COORDINATE DEMOLITION WORK WITH ARCHITECTURAL DRAWINGS.
7.

PROVIDE TYPEWRITTEN SCHEDULES INDICATING LOAD DESCRIPTION FOR ALL CIRCUITS IN PANELBOARDS, ON PANEL DOOR.
8.

USE ONLY INSULATED CONDUCTORS IN CIRCUITS. CONDUCTORS SHALL BE SIZED PER NEC AND DRAWINGS (MINIMUM #12 COPPER). MINIMUM CONDUCTOR INSULATION SHALL BE "THW" OR "THWN" FOR CONDUCTORS SIZE #6 AWG AND LARGER. NO ROMEX ALLOWED. WHERE PVC CONDUIT IS USED, A GROUND WIRE SIZED PER NEC ART. 250-45 (EQUIPMENT GROUND) SHALL BE PULLED.
9.

FINAL CONNECTIONS TO ALL DIRECT CONNECTED KITCHEN EQUIPMENT SHALL BE WITH U.L. APPROVED LIQUID-TIGHT CONDUIT, PROVIDED WITH GROUND WIRE SIZED PER NEC ART 250-95.
10.

CONDUIT INSIDE BUILDING SHALL BE EMT OR RSC. FLEXIBLE CONDUIT ,AY BE USED WITH OWNER APPROVAL. ALL EXPOSED FLEX CONDUIT SHALL BE SEAL-TIGHT OR EQUAL.
11.

ALL JUNCTION BOXES SHALL BE 4" SQUARE, UNLESS NOTED OTHERWISE.
12.

VERIFY MOUNTING HEIGHTS AND LOCATIONS OF ALL ELECTRICAL OUTLETS, J-BOXES, ETC. WITH OWNER PRIOR TO ROUGH-IN.
13.

ALL SWITCHES TO BE 36" MINIMUM, 48" MAXIMUM A.F.F.
14.

PROVIDE RECEPTACLE, DISCONNECT SWITCH, ETC. AS REQUIRED BY EQUIPMENT BEING INSTALLED. VERIFY RECEPTACLE CONFIGURATION WITH FINAL EQUIPMENT SELECTION.

ELECTRICAL POWER SYMBOLS

- ⊞

DUPLEX RECEPTACLE, NEMA 5-15R, +18" UON
- ⊞

DOUBLE DUPLEX RECEPTACLE, NEMA 5-15R, +18" UON
- ⊞

SWITCHED DUPLEX RECEPTACLE, OCCUPANCY SENSOR CONTROLLED, NEMA 5-15R, +18" UON
- ⊞

DOUBLE DUPLEX WITH (1) SWITCHED DUPLEX OCCUPANCY SENSOR CONTROLLED AND (1) DUPLEX (NORMAL POWER) WITH COMMON FINISH COVER PLATE, NEMA 5-15R, +18" UON
- ⊞

DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER NEMA 5-20R, +18" UON
- NOTE:

CONTROLLED RECEPTACLES TURN ON AUTOMATICALLY WHEN AN OCCUPANT ENTERS THE SPACE. CONTROLLED RECEPTACLES TURN OFF 15 MINUTES AFTER OCCUPANTS LEAVE THE SPACE.
RECEPTACLE SUBSCRIPTS:
GFI, GFCI or G = GROUND FAULT-CIRCUIT INTERRUPTER
S = SHOW WINDOW RECEPTACLES
WP= WEATHER PROOF RECEPTACLES
- ⏏

NON-FUSED DISCONNECT SWITCH, SIZE AS REQUIRED
- ⏏

FUSED DISCONNECT SWITCH WITH TIME DELAY FUSES SIZED PER UNIT NAMEPLATE OR AS NOTED. DISCONNECT SHALL ACCEPT MAXIMUM RECOMMENDED FUSE SIZE.
- ⊙ ⊙

JUNCTION BOX, SIZE AND TYPE AS REQUIRED
- ⌚

RELAY PACK FOR CONTROLLED RECEPACLES
- ⚡

COMBINATION FAN/DATE OUTLET, +18" UON. RING AND STRING.
- ⌚

EXHAUST FAN, N.I.E.S., CONNECT AS REQUIRED
- BRANCH CIRCUIT PANEL, SEE PANEL SCHEDULES
- SIGNAL OR CONTROL PANEL, TYPE AS INDICATED
- ⬡

IDENTIFICATION TAG FOR EQUIPMENT PROVIDED BY M.C. CONNECT EQUIPMENT AS INDICATED OR AS REQUIRED.

ABBREVIATIONS LIST

A	AMPERE	PVC	POLYVINYL CHLORIDE
A.F.F.	ABOVE FINISHED FLOOR	CONDUIT	CONDUIT
AL	ALUMINUM	(R)	RELOCATED
C	CONDUIT	SEC.	SECONDARY
C.O.	CONDUIT ONLY, WITH	TYP.	TYPICAL
CLG	PULL LINE	UG	UNDERGROUND
(E)	EXISTING	UON	UNLESS OTHERWISE NOTED
FWE	FURNISHED WITH EQUIP.	V	VOLTS
GND.	GROUND	WP	WEATHERPROOF
KVA	KILO VOLT AMP	W	WIRE
MSB	MAIN SWITCHBOARD	W/	WITH
PRI.	PRIMARY	XFMR	TRANSFORMER
		AKA	AS KNOWN AS

WIRE AND CONDUIT LEGEND

- CONDUIT RUN CONCEALED IN WALL OR ABOVE CLG.
- >

UNDERGROUND CONDUIT.
- HOME RUN. NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS IN HOME RUN. NO CROSSBARS INDICATE (2)#12 CONDUCTORS IN 1/2" CONDUIT. CONDUCTOR SIZE IS #12, CONDUIT SIZE IS 1/2" UNLESS OTHERWISE NOTED. LONGER CROSS BAR INDICATES NEUTRAL, SHORTER INDICATES PHASE. ARC INDICATES GROUND.
- ⊕

CONDUIT UP.
- ⊖

CONDUIT DOWN.
- ⚡

SO CORD WHIP TO EQUIPMENT. SIZE AS MENTIONED ON PLAN

ELECTRICAL LIGHTING SYMBOLS

- ⚡

EXIT SIGN WITH EMERGENCY EGRESS LIGHT
- ⚡

EMERGENCY EGRESS LIGHT
- NOTE:

UPPERCASE LETTER INDICATES FIXTURE TYPE. SEE FIXTURE SCHEDULE. LOWE CASE LETTER INDICATES CONTROL LEG. SHADING INDICATES EMERGENCY FIXTURE.
- ⏏

LOW VOLTAGE DIMMER LIGHT SWITCH, +44" UON
- ⏏

SINGLE POLE LIGHT SWITCH, +44" UON
- ⏏

OCCUPANCY SENSOR, CEILING MOUNTED
- ⏏

DAYLIGHT SENSOR, CEILING MOUNTED
- ⏏

SWITCH SUBSCRIPTS: a, b, c, etc. = DEVICE CONTROLLED.
- ⊕

LED WALL MOUNTED DECORATIVE FIXTURE
- ⊕

LED CIRCULAR PENDANT
- ⊕

6" LED RECESSED DOWN LIGHT
- ⊕

LIGHT BY HOOD MANUFACTURER
- ⏏

TRACK LIGHTING
- ⏏

LED 2X2 TROFFER WITH nLIGHT CONTROL
- ⊖

WHITE GOOSENECK
- ⏏

MOTORIZED SWITCH

ELECTRICAL DRAWING LIST

E0.1	⚡	ELECTRICAL SYMBOL LIST, ABBREVIATIONS & GENERAL NOTES
E1.0		ELECTRICAL LIGHTING PLAN
E2.0		ELECTRICAL POWER PLAN
E2.1		ELECTRICAL ROOF POWER PLAN
E4.0		ELECTRICAL DETAILS
E5.0		ELECTRICAL RISER DIAGRAM
E6.0		ELECTRICAL PANEL SCHEDULES
E7.1	1 OF 3	⚡
E7.2	2 OF 3	
E7.3	3 OF 3	

CODES & STANDARDS

2020 NEC CODE AS AMENDED BY THE STATE OF CALIFORNIA
2022 CALIFORNIA ENERGY CODE

MEP CONSULTANTS (ENGINEER):

GEMINI
ENGINEERING GROUP
101 NIGHTLINGER LANE
MILLSAP, TX 76066

Sourdough & Co.
Sandwiches • Soups • Salads

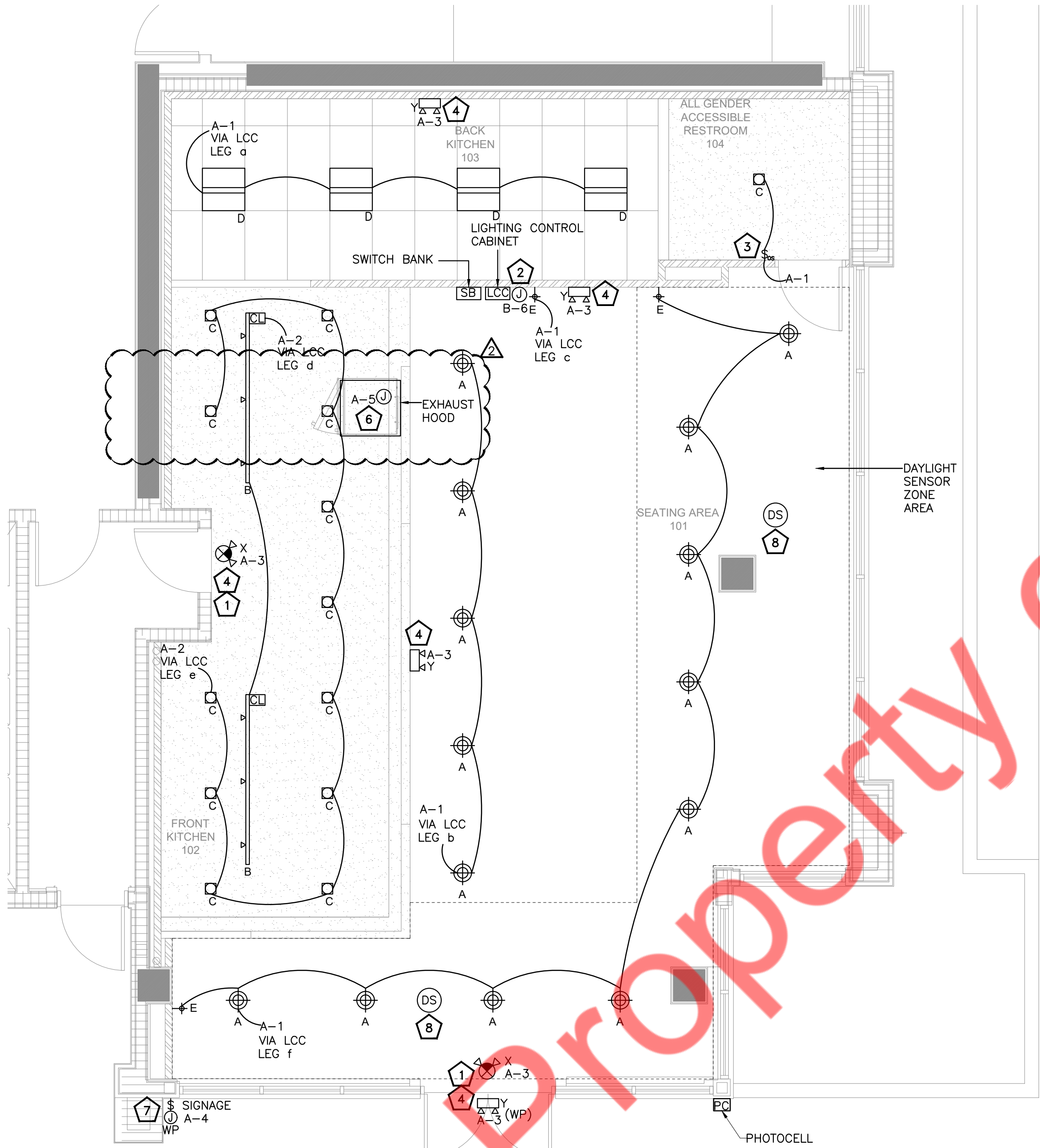
SHEET TITLE

ELECTRICAL SYMBOL
LIST, ABBREVIATIONS
& GENERAL NOTES

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

Project Manager	Sheet No. E0.1
Project Architect	
Scale	
As Noted	
Date 1/23/2024 Project No.	

LIGHTING FIXTURE SCHEDULE						
TYPE	DESCRIPTION	MANUFACTURER	LUMINAIRE SPECIFICATION	LAMP SPECIFICATION	WATTAGES (WATT)	NOTE
A	LED PENDANT LIGHTS	TO BE SELECTED BY OWNER	LED 80CRI, 3500K	2800 LM	28	
B	8' LINE VOLTAGE TRACK WITH LED HEADS	HALO TRACK LZR108MB-LZR200MB-LZRC200.5CB120 FIXTURES L80808FL9035MB-FREF-808302-PK-DIF-20 OR EQUIVALENT	LED 80CRI, 3500K	850 LM	12	
C	6" LED DOWNLIGHT	GOTHAM EVO 35/15 6AR MD LSS MVOLT EZ10 NPS80EZ	LED 80CRI, 3500K	1572 LM	18.5	
D	2X2 LED TROFFER WITH NLIGHT CONTROL	LITHONIA 2TL2-40L-FW-A12-MVOLT-EZ1-LP840-N80 OQ EQUIVALENT	LED 80CRI, 4000K	4000 LM	35	
E	LED GOOSENECK WALL FIXTURE	ASTRALIGHT, ELX-UNVRC-2-RW-WH1-EM	LED 80CRI, 3500K	1000 LM	10	
X	EXIT/EMERGENCY COMBO WITH REMOTE LED HEAD.	LITHONIA, LHQM LED R HO OR EQUIVALENT			4.3	90 MINS BACKUP
Y	EMERGENCY FIXTURE	LITHONIA ELM2 LEDSD			6	90 MINS BACKUP
LIGHTING FIXTURE NOTES:						
1) E.C. SHALL COORDINATE WITH THE ARCHITECT FOR FINAL SELECTION OF THE LIGHT FIXTURES.						
2) E.C. SHALL COORDINATE CURRENT LIMITER (CL) REQUIREMENT WITH VENDOR.						



ELECTRICAL LIGHTING PLAN

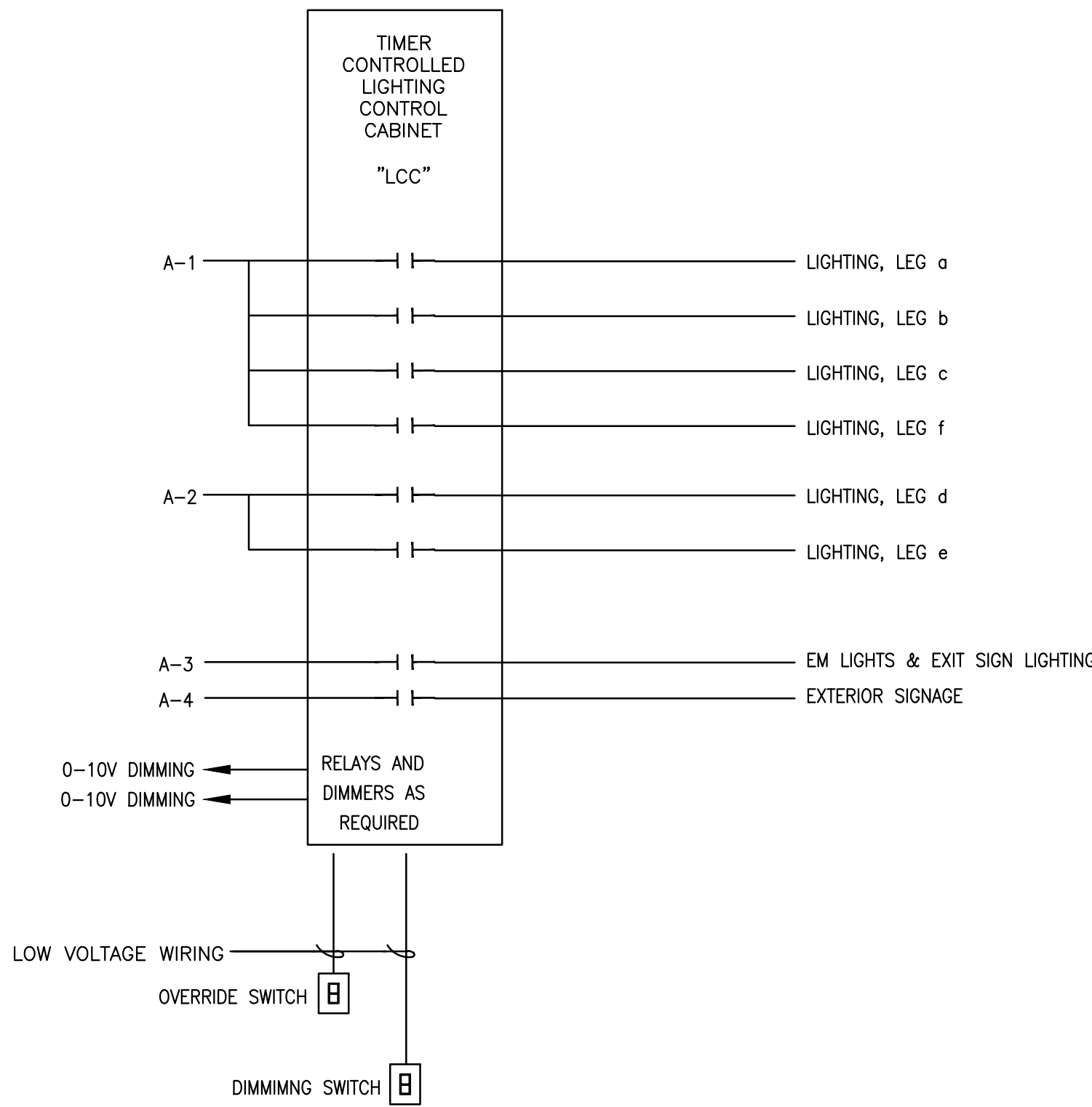
SCALE: 1/4"=1'-0"

ELECTRICAL LIGHTING PLAN GENERAL NOTES

- LAMP COLOR SHALL BE COORDINATED BETWEEN ALL FIXTURES SUPPLIED. COLOR OF ALL NEW LAMPS SUPPLIED SHALL BE COORDINATED WITH (E) BUILDING STANDARD IF ANY.
- COORDINATE DIMMING SWITCH SELECTION AND WIRING REQUIREMENTS WITH DIMMING BALLAST.
- PROVIDE UNSWITCHED HOT CONDUCTOR FOR BATTERY BALLASTS, EXIT SIGNS, AND NIGHT LIGHTS.
- THE EXACT MOUNTING LOCATION FOR ALL LIGHT FIXTURES SHALL BE DETERMINED FROM THE ARCHITECTURAL REFLECTED CEILING PLANS. VERIFY MOUNTING HEIGHTS OF SUSPENDED FIXTURES WITH ARCHITECT PRIOR TO ROUGH-IN UON IN FIXTURE SCHEDULE.
- THE ELECTRICAL TRADE SHALL BE RESPONSIBLE FOR VERIFYING THE CEILING CONDITIONS AND TYPE OF FIXTURE MOUNTING REQUIRED PRIOR TO ORDERING FIXTURES. DETERMINATION SHALL BE MADE FROM THE ARCHITECTURAL REFLECTED CEILING PLANS.
- ALL PENDANT MOUNTED FIXTURES SHALL BE INSTALLED WITH CANOPIES AND STEMS SUCH THAT THEY SWING A MAXIMUM OF 45° IN ALL DIRECTIONS WITHOUT HITTING ANY OBSTRUCTIONS. IF THERE ARE OBSTRUCTIONS WITHIN THE 45° SWING AREA, PROVIDE SWAY BRACING TO RESTRICT ANY MOVEMENT.
- ALL LIGHT FIXTURES RECESSED IN FIRE RATED CEILING SHALL COMPLY WITH U.L. FIRE RESISTANCE DIRECTORY LATEST EDITION.
- BATTERIES IN EMERGENCY AND EXIT LIGHT FIXTURES TO PROVIDE BACKUP FOR A MINIMUM OF 90 MINUTES.

ELECTRICAL LIGHTING PLAN KEYED NOTES

- VERIFY WITH OWNER EXACT LOCATION AND MOUNTING HEIGHT OF EMERGENCY EGRESS LIGHTING ABOVE DOOR AND PLATE GLASS.
- LIGHTING CONTROL CABINET 'LCC' LC&D BLUE BOX #GR1416-ENC-SM-NE1/ #GR1416-INT-DTCMOD-DV-DTCD1 EQUAL OR WITH NECESSARY CABINETS AND RELAYS. E.C. SHALL COORDINATE EXACT LOCATION IN FIELD.
- WALL MOUNTED SWITCH WITH OCCUPANCY SENSOR FOR RESTROOM. E.C. SHALL COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT IN THE FIELD.
- CONNECT EMERGENCY AND EXIT FIXTURE TO THE INDICATED LIGHTING CIRCUIT.
- NOT USED.
- LIGHT BY HOOD MANUFACTURER, E.C. TO PROVIDE CONNECTION AS REQUIRED IN COORDINATION WITH THE HOOD MANUFACTURER.
- JUNCTION BOX FOR EXTERIOR SIGNAGE CONTROLLED WITH TIME CLOCK. ALSO COORDINATE EXACT LOCATION WITH SIGNAGE PROVIDER.
- DAY LIGHT SENSOR FOR LIGHTING CONTROL IN DAY LIGHT ZONE. EC TO PROVIDE CONNECTION AS REQUIRED.



TYPICAL LIGHTING CONTROL CABINET

SCALE: 1/4"=1'-0"

MEP CONSULTANTS (ENGINEER):

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SHEET TITLE

**ELECTRICAL
LIGHTING PLAN**

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

Project Manager

Project Architect

Scale

As Noted

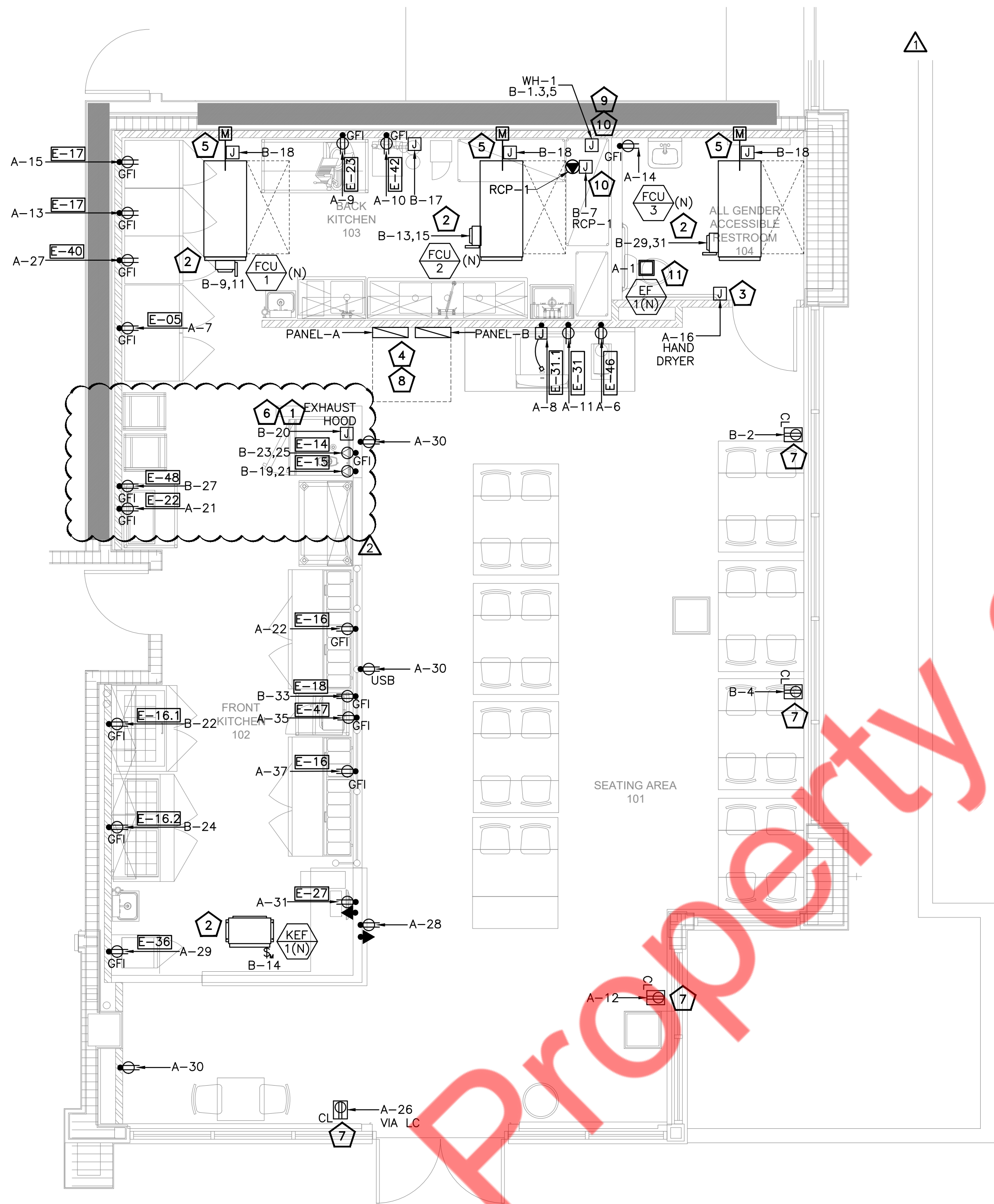
Date

1/23/2024

Project No.

Sheet No.

E1.0



ELECTRICAL POWER FLOOR PLAN

SCALE: 1/4"=1'-0"

EQUIPMENT SCHEDULE

ITEM NO.	QTY.	CATEGORY	MANUFACTURER	MODEL	VOLTAGE	PHASE	AMPS	HZ	CONNECTION TYPE	NEMA
5	1	REACH IN REFRIGERATOR	KELVINATOR COMMERCIAL	KCHRI54R2DRE	115	1	4.5	60	CORD & PLUG	5-15P
14	1	CONVENTION OVEN, ELECT	CADCO	BLS-4FTR-2H	208	1	32	60	CORD & PLUG	6-50P
15	1	EXHAUST HOOD	CADCO	XAKHT-HCFS	208	1	1	60	CORD & PLUG	6-15P
16	2	PIZZA PREPARATION REFRIGERATOR	TRUE MFG. GENERAL FOODSERVICE	TPP-AT-67-HC	115	1	3.9	60	CORD & PLUG	5-15P
16.1	1	MEGA TOP SANDWICH PREP. REFRIGERATOR	TRUE MFG. GENERAL FOODSERVICE	TSSU-48-18M-B-HC	115	1	5.8	60	CORD & PLUG	5-15P
16.2	1	MEGA TOP SANDWICH PREP. REFRIGERATOR	TRUE MFG. GENERAL FOODSERVICE	TSSU-60-24M-B-ST-HC	115	1	6.5	60	CORD & PLUG	5-15P
17	2	REACH IN FREEZER	KELVINATOR COMMERCIAL	KCHRI27R1DFE	115	1	8	60	CORD & PLUG	5-15P
18	1	MICROWAVE OVEN	MIDEA	1025F1A	120	1	15	60	CORD & PLUG	5-15P
22	1	FOOD PAN WARMER,COUNTERTOP	NEMCO	6055A-43	120	1	12.5	60	CORD & PLUG	5-15P
23	1	FOOD SLICER,ELECTRIC	HOBART	HS7N-1	120	1	5.6	60	CORD & PLUG	5-15P
27	1	POS/CASH DRAWER	-	-	120	1	2	60	CORD & PLUG	5-15P
31	1	SODA ICE & BEVERAGE DISPENSER	COKE	621052703	115	1	3	60	-	-
31.1	1	ICE MAKER, CUBE-STYLE	KOOLAIRE	KYT0420A	115	1	10.3	60	DIRECT	-
36	1	COUNTER REFRIGERATOR	TRUE MFG. GENERAL FOODSERVICE	GDM-06-34-HC-TSL01	115	1	1.6	60	CORD & PLUG	5-15P
40	1	REACH IN REFRIGERATOR	KELVINATOR COMMERCIAL	KCHRI27R1DRE	115	1	9	60	CORD & PLUG	5-15P
42	1	BAG IN BOX SYRUP TANK SYSTEM	LANCER	85-1803-2306	120	1	4.5	60	CORD & PLUG	5-15P
46	1	ICED TEA BREWER	BUNN	S2000-0301	120	1	14	60	CORD & PLUG	5-15P
47	1	CONVENTION OVEN	CADCO	OV-013	120	1	12	60	CORD & PLUG	5-15P
48	1	TIMER, ELECTRONIC	PRINCE CASTLE	740-18	120	1	10	60	CORD & PLUG	5-15P

ELECTRICAL POWER PLAN GENERAL NOTES

- VERIFY ALL OUTLET LOCATIONS PRIOR TO ROUGH-IN.
- PROVIDE HAC R (HEATING AIR CONDITIONING AND REFRIGERATION) RATED CIRCUIT BREAKERS FOR ALL HEATING, AIR CONDITIONING, AND REFRIGERATION EQUIPMENT.
- ALL NORMAL AND EMERGENCY SYSTEM RECEPTACLES SHALL HAVE ENGRAVED PLATES OR PHENOLIC LABELS SECURELY GLUED TO COVER PLATE INDICATING PANEL AND CIRCUIT NUMBER OF BRANCH CIRCUIT SERVING THE OUTLET PER CEC 517-19.
- ELECTRICAL CONTRACTOR SHALL COORDINATE DISCONNECT FOR MECHANICAL UNIT WITH CONTRACTOR AND EQUIPMENT CONTRACTOR AND EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED. COORDINATE LOCATION OF DISCONNECT WITH/MANUFACTURER AND MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. LOCATE AS REQUIRED TO MAINTAIN NEC CLEARANCES.
- ALL 125 VOLT, SINGLE PHASE, 15 AND 20 AMP RECEPTACLES INSTALLED IN THE KITCHEN, DISHWASHING, PREP AREAS, BEVERAGE AREAS SHALL HAVE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION FOR PERSONAL. PROVIDE A GFCI TYPE RECEPTACLE WHERE THE RECEPTACLE IS READILY ACCESSIBLE OTHERWISE PROVIDE A GFCI BREAKER IN THE PANELBOARD, PER CEC 210-8 (b), #3.
- ALL EXPOSED CONDUIT SHALL BE INSTALLED AT LEAST 6" OFF THE FLOOR AND 1" AWAY FROM THE WALL TO FACILITATE CLEANING.
- COORDINATE EXACT LOCATION, TERMINATIONS, MOUNTING HEIGHTS AND ELECTRICAL CHARACTERISTICS FOR EACH SPECIFIC MODEL AND PIECE OF EQUIPMENT WITH THE OWNER'S REPRESENTATIVE AND KITCHEN EQUIPMENT SUPPLIER PRIOR TO ROUGH-INS INSTALLATION. PROVIDE ELECTRICAL SERVICE AS REQUIRED FOR EACH PIECE OF EQUIPMENT. ALL RECEPTACLES SHALL BE VOLTAGE RATING AND AMPACITY TO MATCH MANUFACTURERS RECOMMENDATIONS.
- ALL EQUIPMENTS UNDER HOOD SHOULD BE HAVE A SHUNT TRIP BREAKER.
- FLOOR MODEL EQUIPMENT SHALL BE MOUNTED ON A MINIMUM OF SIX INCH LEGS, CASTERS, OR BE SEALED TO AN ELEVATED FOUR INCH HIGH CURB WITH A FOUR INCH HIGH COVE BASE.
- ALL CORD AND PLUG REQUIREMENTS WHERE NEEDED, AND IF NOT SUPPLIED BY THE MANUFACTURER, SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR.

ELECTRICAL POWER PLAN KEYED WORK NOTES

- E.C. SHALL PROVIDE POWER AND NECESSARY WIRING FOR THE HOOD CONTROL PANEL.
- E.C. TO COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION AND POWER REQUIREMENT OF THE MECHANICAL EQUIPMENT IN THE FIELD. PROVIDE CIRCUIT AND CONTROLS AS REQUIRED.
- JUNCTION BOX FOR HAND DRYER. E.C. TO COORDINATE JUNCTION BOX AND ITS POWER DETAILS AS PER ADA REQUIREMENT.
- E.C. SHALL COORDINATE WITH ARCHITECT / OWNER FOR EXACT LOCATION OF THE NEW PANELS.
- MOTORIZED DAMPERS TO BE INTERLOCK WITH FCU-1(N) & FCU-2 (N). E.C SHALL COORDINATE EXACT LOCATION REQUIREMENT WITH MECHANICAL CONTRACTOR IN THE FIELD.
- EQUIPMENT UNDER HOOD. E.C SHALL PROVIDE THE SHUNT TRIP COIL FOR THE EQUIPMENTS UNDER THE HOOD. REFER SHUNT TRIP CONNECTION DETAIL IN DETAIL SHEET.
- PROVIDE CEILING MOUNTED RECEPTACLE FOR SHOW WINDOW AS REQUIRED BY CODE. VERIFY WITH LOCAL ENERGY AGENCY. VERIFY EXACT LOCATION WITH ARCHITECT.
- ENSURE A CLEAR WORKING AND DEDICATED SPACE PER CODE.
- PROVIDE DISCONNECT FOR WATER HEATER AND MISCELLANEOUS LOAD. COORDINATE EXACT LOCATION REQUIREMENT WITH PLUMBING CONTRACTOR IN THE FIELD.
- E.C. TO COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT LOCATION AND POWER REQUIREMENT OF THE PLUMBING EQUIPMENT IN THE FIELD. PROVIDE CIRCUIT AND CONTROLS AS REQUIRED.
- EXHAUST FAN INTERLOCK WITH RESTROOM LIGHTING OCCUPANCY SENSOR AND CONTROLLED FROM THE A-1 CIRCUIT

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**ELECTRICAL
POWER PLAN**

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

Project Manager

Sheet No.

Project Architect

Scale

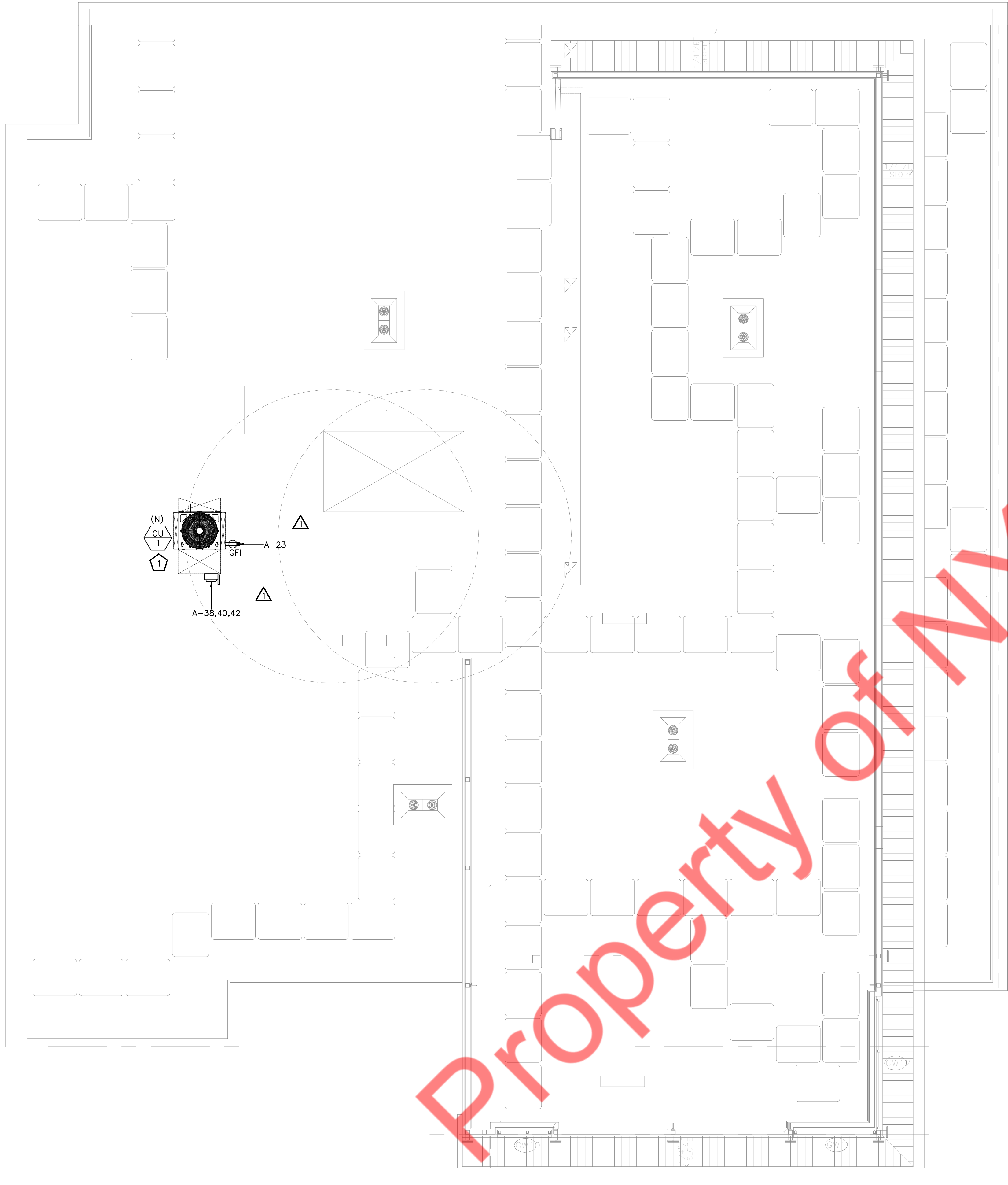
As Noted

Date

1/23/2024

Project No.

E2.0



ELECTRICAL ROOF POWER PLAN KEYED NOTES

1. ELECTRICAL CONTRACTOR SHALL COORDINATE DISCONNECT AND FUSE REQUIREMENT FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED. COORDINATE LOCATION OF DISCONNECT WITH OWNER AND MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. LOCATE AS REQUIRED TO MAINTAIN NEC CLEARANCES.

ELECTRICAL ROOF POWER PLAN GENERAL NOTES

1. A 125-VOLT, SINGLE-PHASE, 15- OR 20-AMPERE-RATED RECEPTACLE OUTLET SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION WITHIN 7.5 M (25 FT) OF THE EQUIPMENT AS SPECIFIED IN 210.63(A) AND (B) AS PER NEC 210.63.

ELECTRICAL ROOF POWER PLAN

SCALE: 1/4"=1'-0"

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POWER PLAN**

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1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

Project Manager	Sheet No. E2.1
Project Architect	
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MANUAL MODE OPERATION:

1. PUSHBUTTON PRESS IS REQUIRED TO TURN LOAD ON.
2. LOAD TURNS OFF WHEN SENSOR TIMES OUT OR BY PRESSING PUSH BUTTON.
3. IF DAYLIGHT SENSOR IS ENABLED AND LIGHT LEVEL IS ABOVE SETPOINT, LOAD WILL NOT TURN ON.

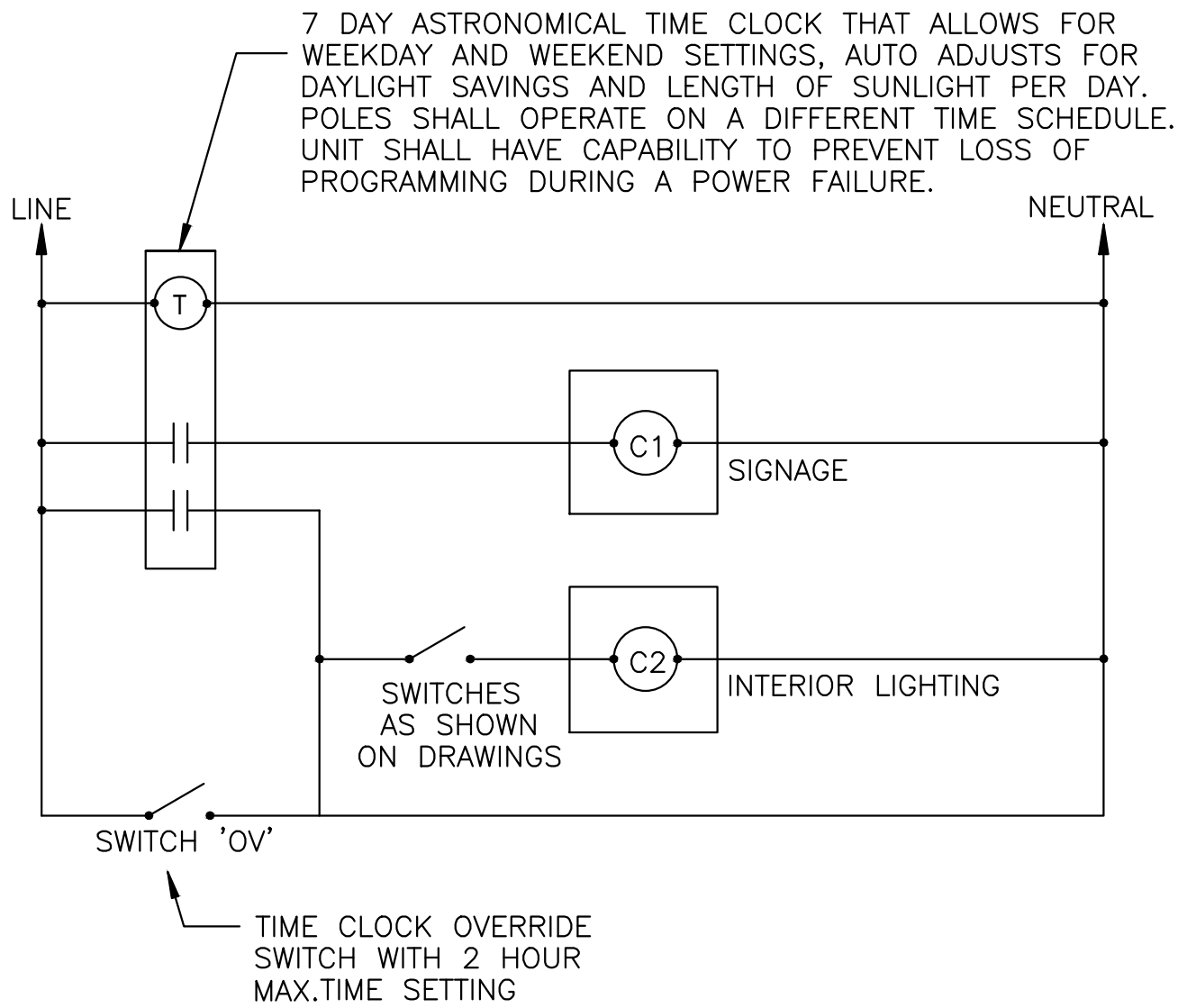
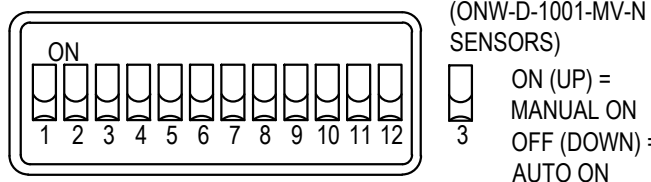
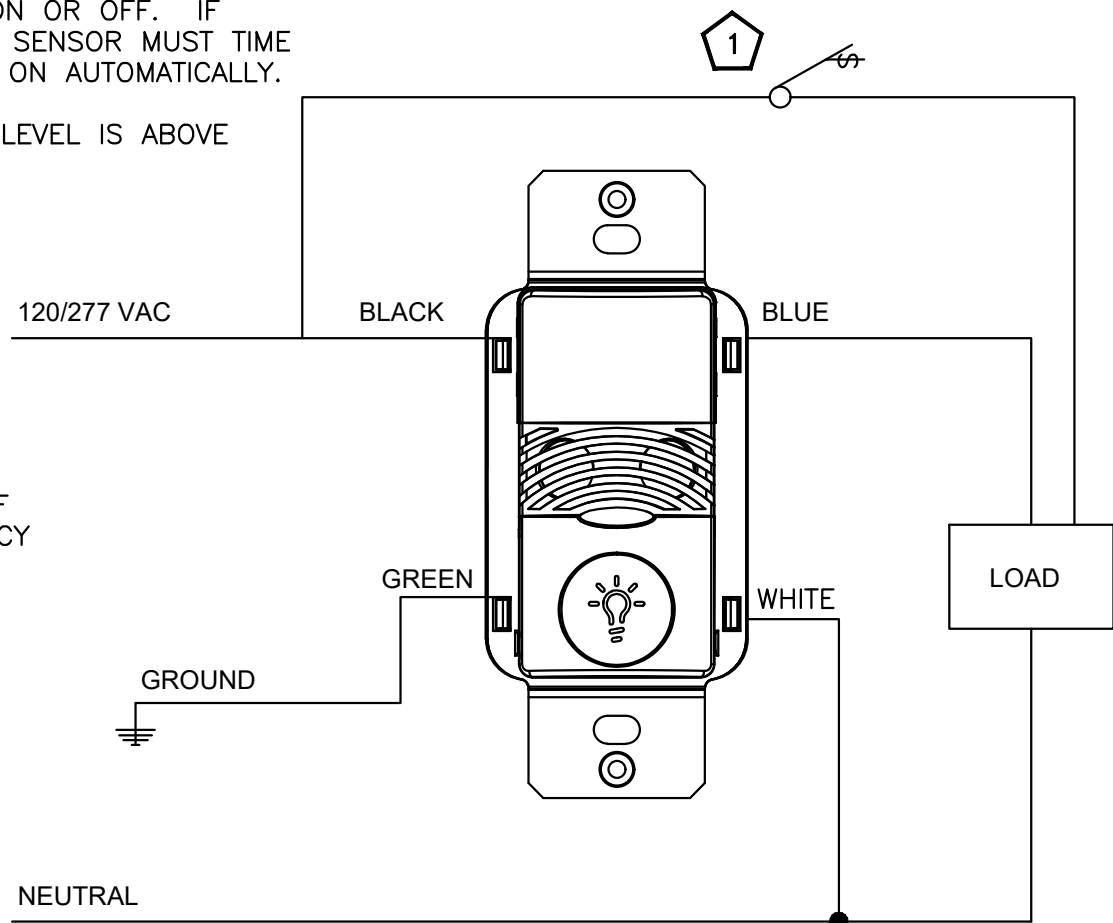
AUTOMATIC MODE OPERATION:

1. WHEN SENSOR ACTIVATES LOAD TURNS ON.
2. PUSHBUTTON CAN BE USED TO TURN LOAD ON OR OFF. IF PUSHBUTTON IS USED TO TURN LOAD OFF, SENSOR MUST TIME OUT FIRST, BEFORE LOAD CAN TURN BACK ON AUTOMATICALLY.
3. IF DAYLIGHT SENSOR IS ENABLED AND LIGHT LEVEL IS ABOVE SETPOINT, LOAD WILL NOT TURN ON.

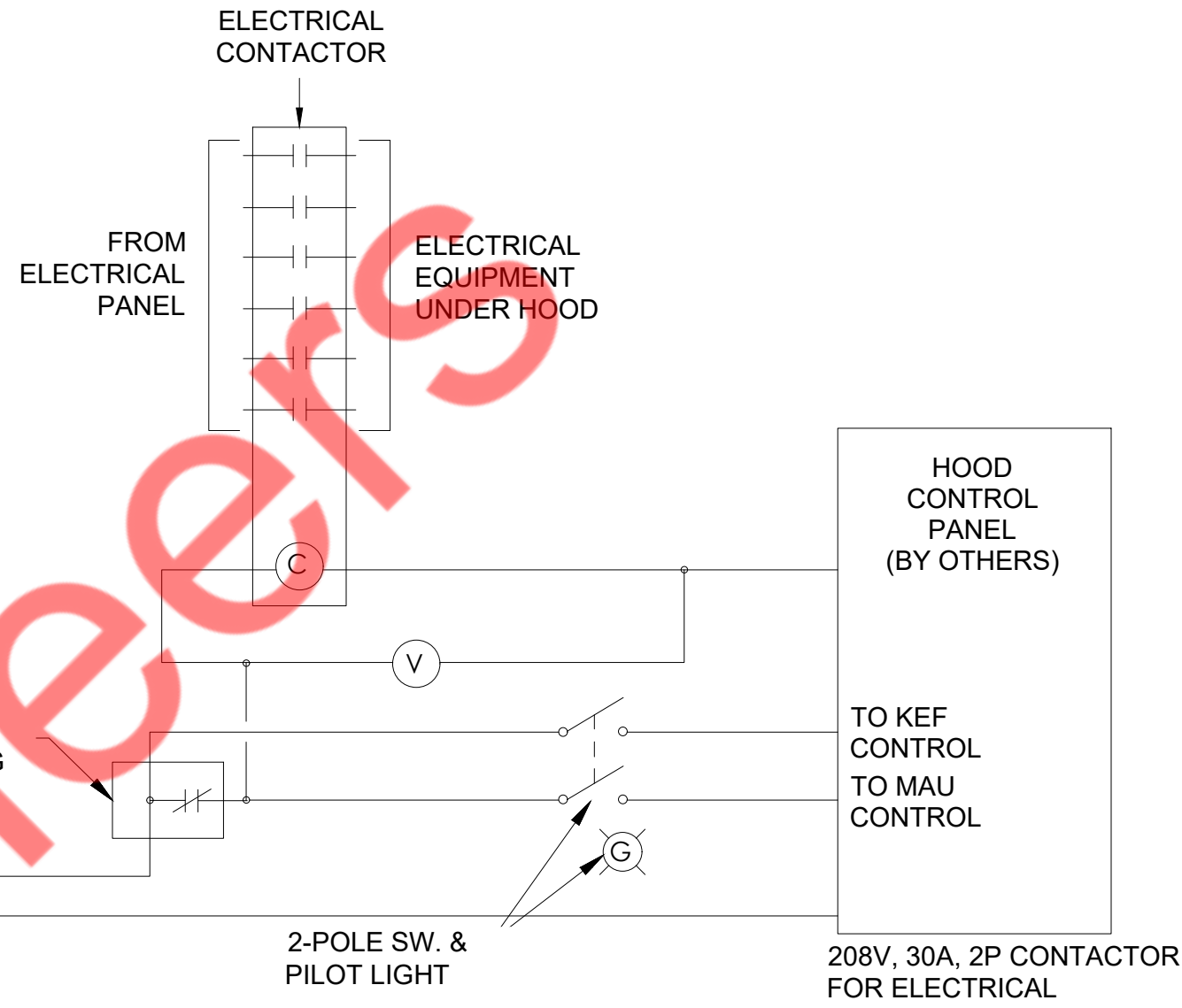
SENSOR TYPES INCLUDE:

ONW-D-1001-MV-N

PROVIDE SENSING CONDUCTOR TAPPED AHEAD OF ANY SWITCHES WHERE SWITCH SERVES EMERGENCY FIXTURES.



COORDINATE NUMBER OF POLES REQUIRED ON EACH CONTACTOR WITH PANEL SCHEDULES.
MINIMUM INTERRUPTING RATING FOR ALL RELAYS AND CONTACTORS SHALL BE 10,000 A.I.C.



- NOTES:
1. ELECTRICAL CONTRACTOR SHALL PROVIDE CONTACTORS AND ALL INTERLOCK WIRING. COORDINATE EXACT TERMINATION REQUIREMENTS WITHIN HOOD CONTROL PANEL AND ANSUL CABINET WITH HOOD MANUFACTURER.
 2. EXACT QUANTITY AND NUMBER OF POLES OF THE ELECTRICAL CONTACTORS TO BE COORDINATED WITH THE PANEL SCHEDULE.

1

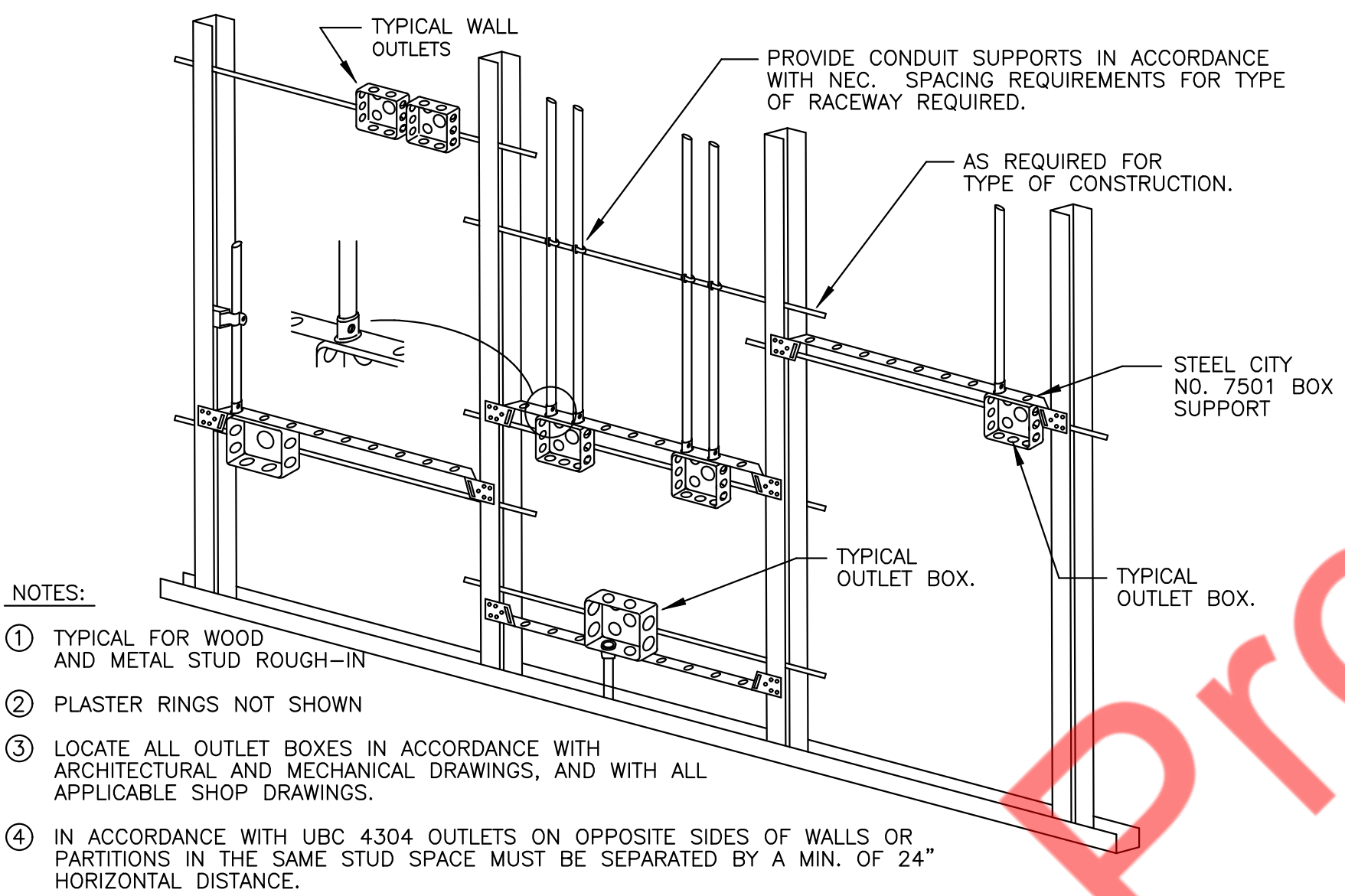
CONNECTION) OCCUPANCY/VACANCY-SINGLE LEVEL
WIRING DIAGRAM-LOW VOLTAGE WALL SWITCH SENSOR(NEUTRAL

2

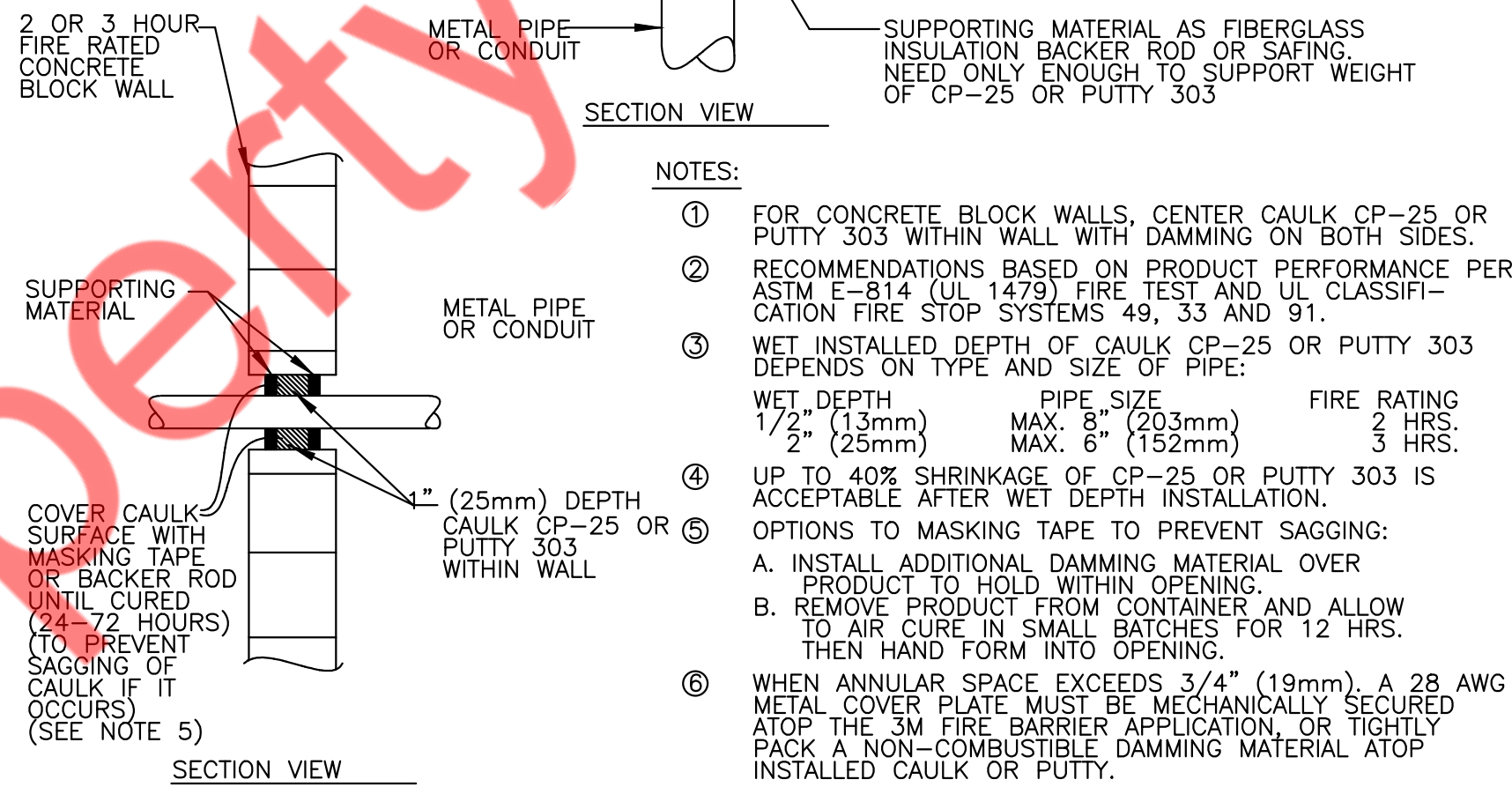
LIGHTING CONTACTOR DETAIL (TYPICAL)

3

FIRE SUPPRESSION SYSTEM TYPICAL DETAIL

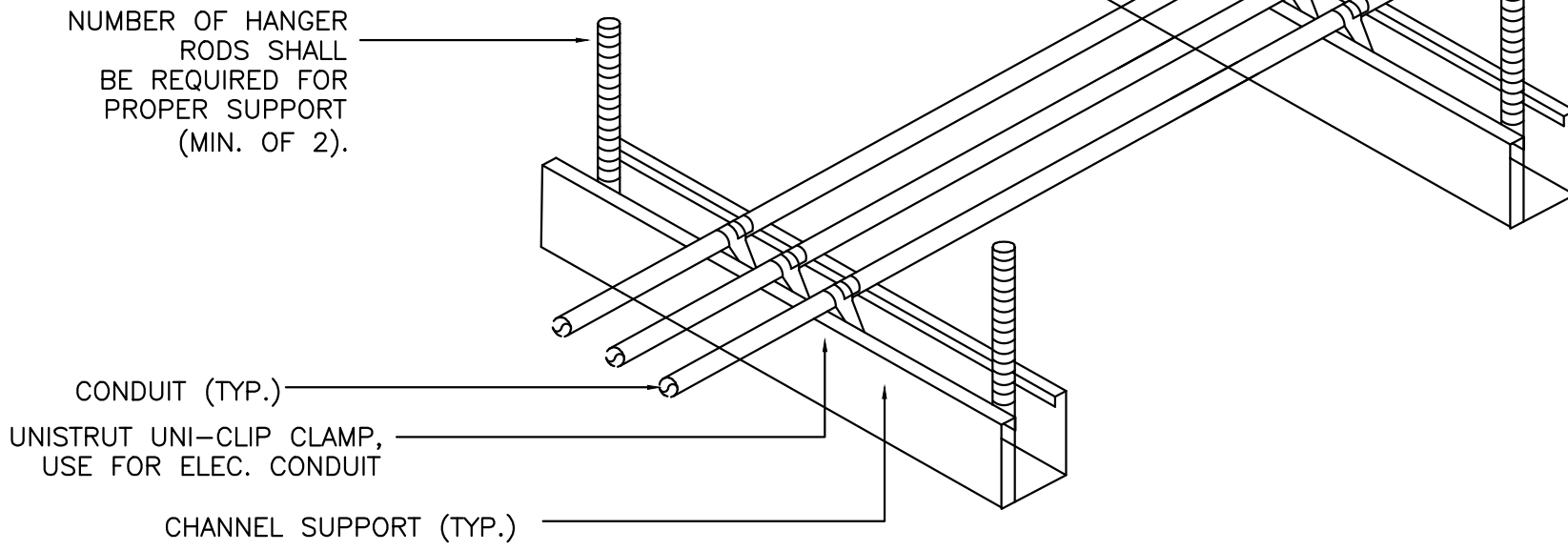


- NOTES:
1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN
 2. PLASTER RINGS NOT SHOWN
 3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
 4. IN ACCORDANCE WITH UBC 4304 OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MIN. OF 24" HORIZONTAL DISTANCE.



- NOTES:
1. FOR CONCRETE BLOCK WALLS, CENTER CAULK CP-25 OR PUTTY 303 WITHIN WALL WITH DAMMING ON BOTH SIDES.
 2. RECOMMENDATIONS BASED ON PRODUCT PERFORMANCE PER ASTM E-814 (UL 1479) FIRE TEST AND UL CLASSIFICATION FIRE STOP SYSTEMS 49, 33 AND 91.
 3. WET INSTALLED DEPTH OF CAULK CP-25 OR PUTTY 303 DEPENDS ON TYPE AND SIZE OF PIPE:
PIPE SIZE: 1/2" (13mm) MAX. 5" (127mm) FIRE RATING: 2 HRS.
PIPE SIZE: 3/4" (19mm) MAX. 6" (152mm) FIRE RATING: 3 HRS.
 4. UP TO 40% SHRINKAGE OF CP-25 OR PUTTY 303 IS ACCEPTABLE AFTER WET DEPTH INSTALLATION.
 5. OPTIONS TO MASKING TAPE TO PREVENT SAGGING:
A. INSTALL ADDITIONAL DAMMING MATERIAL OVER PRODUCT TO HOLD WITHIN OPENING.
B. REMOVE PRODUCT FROM CONTAINER AND ALLOW TO AIR CURE IN SMALL BATCHES FOR 12 HRS. THEN HAND FORM INTO OPENING.
 6. WHEN ANNULAR SPACE EXCEEDS 3/4" (19mm), A 28 AWG METAL COVER PLATE MUST BE MECHANICALLY SECURED ATOP THE 3M FIRE BARRIER APPLICATION, OR TIGHTLY PACK A NON-COMBUSTIBLE DAMMING MATERIAL ATOP INSTALLED CAULK OR PUTTY.

NOTE:
THIS INFORMATION MAY NOT CONTAIN ALL DETAILS REQUIRED FOR CONSTRUCTION. APPROPRIATE MODIFICATION MAY BE REQUIRED TO ENSURE SUITABILITY OF THESE DRAWINGS FOR THE SPECIFIC APPLICATION. IT IS THE USER'S RESPONSIBILITY TO ENSURE INSTALLATION OF THE EQUIPMENT/SYSTEM IS IN ACCORDANCE WITH BUILDING/PROJECT SPECIFICATIONS, APPLICABLE CODES AND STANDARDS.



- NOTES:
1. ALL CONDUIT MAY BE COMBINED ON SAME SUPPORT CHANNEL WHERE PRACTICAL.
 2. SUPPORT CHANNEL LENGTH SHALL NOT BE DETERMINED UNTIL ALL PIPING, CONDUIT, ETC. TO BE SUPPORTED IS COORDINATED.
 3. SUPPORT CHANNEL SPACING SHALL BE NO MORE THAN 10'-0".
 4. UNISTRUT AND CONDUIT INSTALLATION MAY BE REVERSED.

4

DETAIL TYPICAL ROUGH-IN REQUIREMENTS

5

FIRE STOP DETAIL

6

CONDUIT SUPPORT DETAIL

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**ELECTRICAL
DETAILS**

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

Project Manager

Project Architect

Scale

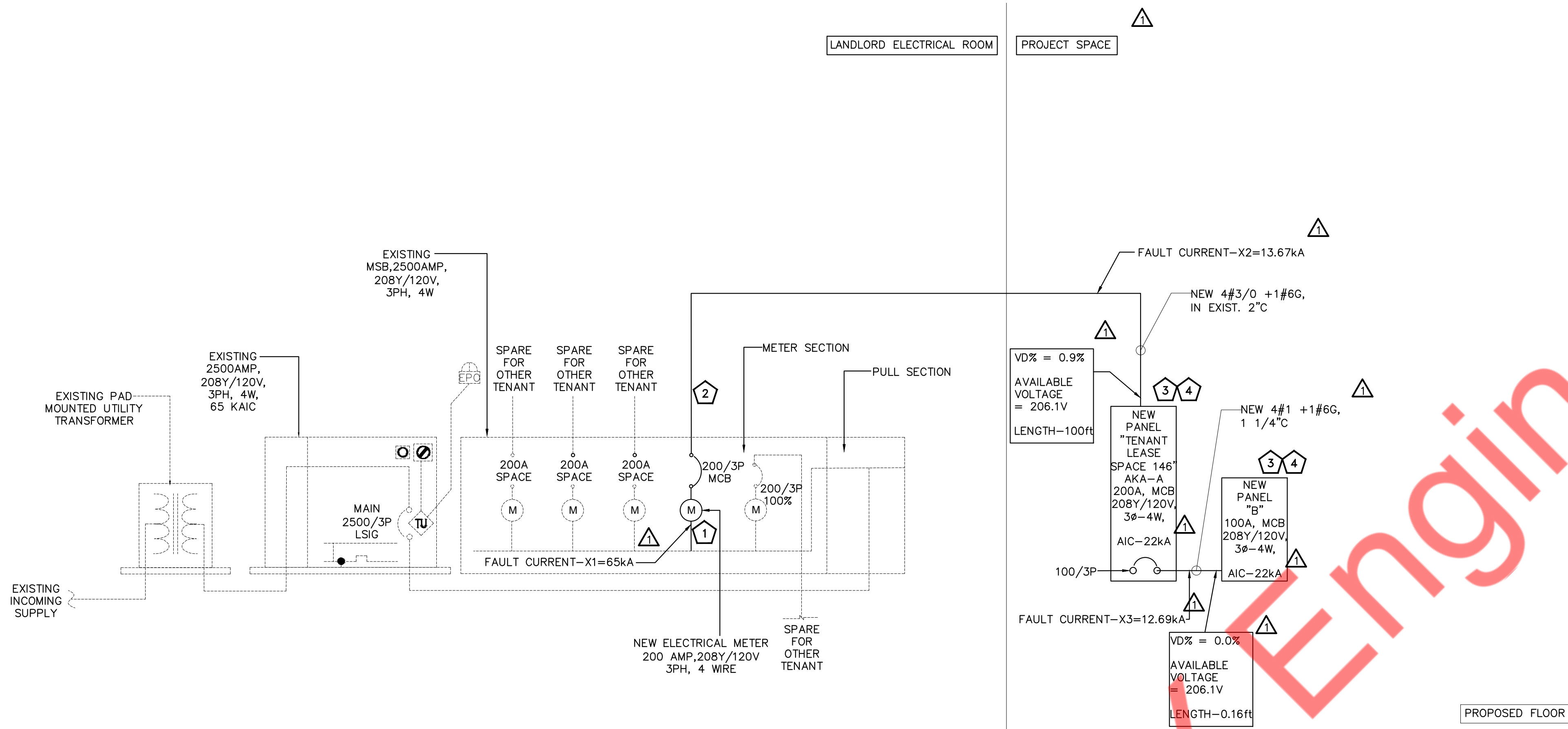
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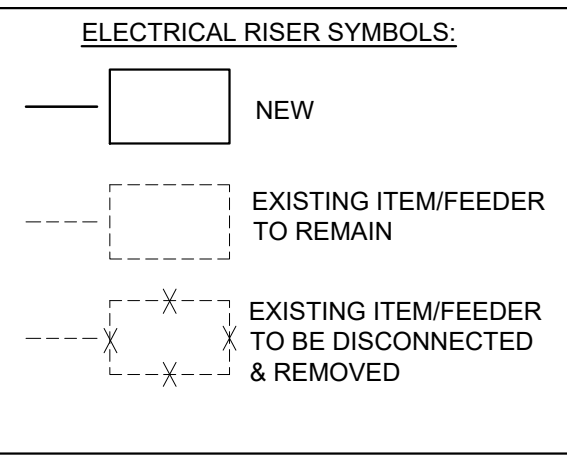
E4.0



ELECTRICAL RISER

SCALE: N.T.S.

- RISER DIAGRAM KEYED WORK NOTES:
- NEW ELECTRICAL METER 200A, 208Y/120V, 3PH, 4W FOR THE PROJECT SPACE. E.C. TO COORDINATE WITH UTILITY/OWNER/LANDLORD FOR MORE INFORMATION. INFORM ENGINEER ON RECORD FOR ANY DISCREPANCY.
 - NEW 200A, 208Y/120V, 3PH, 4W ELECTRICAL SERVICE FEEDER FOR THE PROJECT SPACE. E.C. TO COORDINATE WITH THE LANDLORD/OWNER FOR MORE INFORMATION.
 - E.C. SHALL COORDINATE THE EXACT LOCATION OF THE NEW ELECTRICAL EQUIPMENT IN THE FIELD.
 - EC SHALL VERIFY THE AVAILABLE FAULT CURRENT (AIC RATINGS) IN THE FIELD AND COORDINATE WITH UTILITY/ARCHITECT/OWNER.



- RISER DIAGRAM GENERAL NOTE:
- E.C. SHALL VERIFY/COORDINATE THE FOLLOWING INFORMATION IN THE FIELD WITH THE UTILITY/LANDLORD/OWNER AND INFORM THE ENGINEER ON RECORD OF ANY DISCREPANCY.
 - THE EXACT POWER DISTRIBUTION AND SCOPE OF WORK WITH THE LANDLORD/OWNER BEFORE BID.
 - THE ELECTRICAL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE NEC, LOCAL CODES AND AHJ.
 - COORDINATE THE EXACT LOCATION OF ALL THE NEW ELECTRICAL COMPONENTS SHOWN ON THE RISER. AND ENSURE THE CLEAR WORKING AND DEDICATED SPACE HAS BEEN PROVIDED AS PER NEC 110.26.
 - COORDINATE AVAILABLE FAULT CURRENT (AIC RATING) WITH UTILITY/LANDLORD/OWNER.
 - ENSURE THE COMBINED VOLTAGE DROP OF THE FEEDER AND BRANCH CIRCUIT SHALL NOT EXCEED 5% PER CODE.
 - PROVIDE GEC AND EGC AS PER 250.66 & 250.122 RESPECTIVELY, AS NEEDED. PROVIDE SEPARATE GROUND CONDUCTORS IN ALL CONDUITS.
 - THE PART OF RISER MARKED AS EXISTING IS FOR REFERENCE PURPOSE ONLY. E.C. SHALL VERIFY THAT THE RISER MATCHES THE SITE CONDITION.
 - SPARE AMPS AVAILABLE IN THE EXISTING ELECTRICAL SERVICE ARE MORE THAN THE NEWLY ADDED DEMAND AMPS.
 - ADDITION OR ALTERATION TO THE EXISTING SYSTEM SHALL NOT BE DONE WITH THE WRITTEN CONSENT OF THE OWNER.

FAULT - X1
$I_{Total\ s.c.\ (L-L)}$ 65,000 AMPS
Voltage (L-L) 208 V

CONDUCTOR RUN - C1
LENGTH 100 FT
SIZE 3/0
QTY 1 (per phase)
TYPE Three-Conductor Cable
CONDUIT Nonmagnetic
WIRE Cu, 600 V

FAULT - X2
$I_{Total\ s.c.\ (L-L)}$ 13,670 AMPS
Voltage (L-L) 208 V

CONDUCTOR RUN - C2
LENGTH 5 FT
SIZE 1
QTY 1 (per phase)
TYPE Three-Conductor Cable
CONDUIT Steel
WIRE Cu, 600 V

FAULT - X3
$I_{Total\ s.c.\ (L-L)}$ 12,699 AMPS
Voltage (L-L) 208 V

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**ELECTRICAL
RISER DIAGRAM**

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

Project Manager	Sheet No.
Project Architect	
Scale	E5.0
As Noted	
Date	
1/23/2024	
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PANEL:	A	(NEW)											MOUNTING:	RECESSED
208Y/120	VOLTS		PHASE	3		AIC RATING (in kA)	22kA			DEMAND LOAD	50.54	KVA	PANEL LOCATION:	PASSAGE
200A	MCB		WIRE	4		-	-			DEMAND CURRENT	140.46	AMP	FED FROM:	MSB
NOTE:														
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA)			MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	INTERIOR LIGHTING	L	0.65	2#12, #12G, 3/4"C	0.96			2#12, #12G, 3/4"C	0.31	L	INTERIOR LIGHTING	20	2
3	20	EMERGENCY LIGHTING	L	0.05	2#12, #12G, 3/4"C		0.19		2#12, #12G, 3/4"C	0.14	L	EXTERIOR SIGNAGE	20	4
5	20	HOOD LIGHTING	L	0.10	2#12, #12G, 3/4"C			1.78	2#12, #12G, 3/4"C	1.68	E	46 -ICED TEA BREWER	20	6
7	20	5- REACH IN REFRIGERATOR	E	0.54	2#12, #12G, 3/4"C	1.78			2#12, #12G, 3/4"C	1.24	E	31.1- ICE MAKER, CUBE STYLE	20	8
9	20	23- FOOD SLICER	E	0.67	2#12, #12G, 3/4"C		1.21		2#12, #12G, 3/4"C	0.54	E	42 - BAG IN BOX SYRUP TANK SYSTEM	20	10
11	20	31-SODA ICE & BEVERAGE DISPENSER	E	0.36	2#12, #12G, 3/4"C			0.55	2#12, #12G, 3/4"C	0.19	E	SHOW WINDOW RECEPTACLE	20	12
13	20	17- REACH IN FREEZER	E	0.96	2#12, #12G, 3/4"C	1.32			2#12, #12G, 3/4"C	0.36	E	RESTROOM GFI RECEPTACLE	20	14
15	20	17- REACH IN FREEZER	E	0.96	2#12, #12G, 3/4"C		1.32		2#12, #12G, 3/4"C	0.36	E	HAND DRYER	20	16
17	20	SPARE						0.00				SPARE	20	18
19	20	SPARE	E	1.08	2#12, #12G, 3/4"C	1.08						SPARE	20	20
21	20	22- FOOD PAN WARMER	E	1.50	2#12, #12G, 3/4"C	△	1.97		2#12, #12G, 3/4"C	0.47	E	16- PIZZA PREPARATION REFRIGERATOR	20	22
23	20	SERVICE RECEPTACLE	R	0.18	2#12, #12G, 3/4"C			0.18				SPARE		24
25	20	SPARE				0.26			2#12, #12G, 3/4"C	0.26	E	SHOW WINDOW RECEPTACLE	20	26
27	20	40- REACH IN REFRIGERATOR	E	1.08	2#12, #12G, 3/4"C		1.26		2#12, #12G, 3/4"C	0.18	R	SEATING AREA RECEPTACLE	20	28
29	20	36- COUNTER REFRIGERATOR	E	0.20	2#12, #12G, 3/4"C			0.74	2#12, #12G, 3/4"C	0.54	R	SEATING AREA RECEPTACLE	20	30
31	20	27- POS/CASH DRAWER	E	0.24	2#12, #12G, 3/4"C	△	9.65			9.41	O			32
33	20	SPARE					9.32		4#1, 1#6G, 1 1/4"C	9.32	O	PANEL -B	100/3P	34
35	20	47- CONVENTION OVEN	E	1.44	2#12, #12G, 3/4"C	△		11.46		10.02	O			36
37	20	16- PIZZA PREPARATION REFRIGERATOR	E	0.47	2#12, #12G, 3/4"C	3.75				3.28	H			38
39	20	SPARE					3.28		3#8, #10G, 3/4"C	3.28	H	CU-1(N)	30/3P	40
41	20	SPARE						3.28		3.28	H			42
						18.80	18.55	17.99						
LOAD CLASSIFICATION			CONNECTED LOAD (KVA)			DEMAND FACTOR			DEMAND LOAD (KVA)			PANEL TOTAL LOAD		
TOTAL LIGHTING		L		1.25			125%			1.56				
TOTAL RECEPTACLE		R		0.90			100%			0.90		TOTAL CONNECTED LOAD	55.34	KVA
TOTAL HVAC		H		9.84			100%			9.84		TOTAL DEMAND LOAD	50.54	KVA
TOTAL MOTOR		M		0.00			100%			0.00		TOTAL CONNECTED CURRENT	153.79	AMP
TOTAL EQUIPMENTS		E		14.60			65%			9.49		TOTAL DEMAND CURRENT	140.46	AMP
TOTAL OTHER		O		28.75			100%			28.75				

PANEL SCHEDULE ABBREVIATIONS:	
L = LIGHTING, R = RECEPTACLE, H = HVAC, E = EQUIPMENT, M = MOTOR, O = OTHER, ** = SHUNT TRIP BREAKER	
PANEL SCHEDULE GENERAL NOTES:	
A. E.C. SHALL VERIFY IF THE RATING OF THE BREAKERS AND FEEDER SIZE FOR EACH AND EVERY EQUIPMENT IS CORRECT AND ALL THE EQUIPMENT HAVE BEEN INCLUDED IN THE PANEL SCHEDULE. PRIOR TO BID, INFORM ENGINEER ON RECORD IN CASE OF ANY DISCREPANCY.	
B. THE RECEPTACLES MARKED AS "GFI" ON THE FLOOR PLAN INDICATES THAT THE RECEPTACLE SHALL BE GFI PROTECTED. E.C. SHALL PROVIDE GFI BREAKER IN PANEL IF GFI RECEPTACLE IS NOT READILY ACCESSIBLE OR FOR THE RECEPTACLES OTHER THAN 20A.	
C. E.C. SHALL VERIFY THE OPERABLE CONDITION OF THE BREAKERS IN THE EXISTING PANEL IN THE FIELD. REPLACE OR PROVIDE NEW BREAKER IN THE EXISTING PANEL TO BE IN LINE WITH THE PANEL SCHEDULE, IF REQUIRED. BASE BID ACCORDINGLY.	

PANEL:	B	(NEW)											MOUNTING:	RECESSED
208Y/120	VOLTS		PHASE	3		AIC RATING (in kA)	22kA			DEMAND LOAD	24.46	KVA	PANEL LOCATION:	PASSAGE
100A	MCB		WIRE	4		-	-			DEMAND CURRENT	67.98	AMP	FED FROM:	PANEL-A
NOTE:														
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA)			MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	50/3P	WH-1 (WATER HEATER)	O	4.09	3#8, #10G, 3/4"C	△	4.38		2#12, #12G, 3/4"C	0.29	E	SHOW WINDOW RECEPTACLE	20	2
3			O	4.09			4.38		2#12, #12G, 3/4"C	0.29	E	SHOW WINDOW RECEPTACLE	20	4
5			O	4.09				4.19	2#12, #12G, 3/4"C	0.10	L	LIGHTING CONTROL CABINET	20	6
7	20	RCP-1	O	0.06	2#12, #12G, 3/4"C	△	0.06					SPARE	20	8
9	15/2P	FCU-1 (N)	H	0.51	2#12, #12G, 3/4"C		0.51					SPARE	20	10
11			H	0.51				0.51				SPARE	20	12
13	15/2P	FCU-2 (N)	H	0.51	2#12, #12G, 3/4"C		0.83		2#12, #12G, 3/4"C	0.32	H	KEF-1(N)	20	14
15			H	0.51			0.63		2#12, #12G, 3/4"C	0.12	H	EF-1(N)	20	16
17	20	WATER FILTERATION SYATEM	E	0.20	2#12, #12G, 3/4"C			0.70	2#12, #12G, 3/4"C	0.50	H	MOTORIZED DAMPERS	20	18
19	20/2P	15- EXHAUST HOOD	E	0.10	2#12, #12G, 3/4"C		0.30		2#12, #12G, 3/4"C	0.20	E	HOOD CONTROL PANEL	20	20
21			E	0.10			0.80		2#12, #12G, 3/4"C	0.70	E	16.1-MEGA TOP SANDWICH PREP. REFRIGERATOR	20	22
23	40/2P**	14- CONVENTION OVEN	E	3.33	2#8, #10G, 3/4"C			4.11	2#12, #12G, 3/4"C	0.78	E	16.2-MEGA TOP SANDWICH PREP. REFRIGERATOR	20	24
25			E	3.33		△	3.33					SPARE	20	26
27		SHUNT TRIP					0.00					SPARE	20	28
29	15/2P	FCU-3 (N)	H	0.51	2#12, #12G, 3/4"C			0.51				SPARE	20	30
31			H	0.51			0.51					SPARE	20	32
33	20	18- MICROWAVE OVEN	E	1.80	2#12, #12G, 3/4"C		1.80					SPARE	20	34
35	20	SPARE						0.00				SPARE	20	36
37		SPACE					0.00					SPACE		38
39	20	48-TIMER ELECTRONICS	E	1.20	2#12, #12G, 3/4"C		1.20					SPACE		40
41		SPACE						0.00				SPACE		42
						9.41	9.32	10.02						
LOAD CLASSIFICATION			CONNECTED LOAD (KVA)			DEMAND FACTOR			DEMAND LOAD (KVA)			PANEL TOTAL LOAD		
TOTAL LIGHTING		L		0.10			125%			0.13				
TOTAL RECEPTACLE		R		0.00			100%			0.00		TOTAL CONNECTED LOAD	28.75	KVA
TOTAL HVAC		H		4.00			100%			4.00		TOTAL DEMAND LOAD	24.46	KVA
TOTAL MOTOR		M		0.00			100%			0.00		TOTAL CONNECTED CURRENT	79.90	AMP
TOTAL EQUIPMENTS		E		12.32			65%			8.01		TOTAL DEMAND CURRENT	67.98	AMP
TOTAL OTHER		O		12.33			100%			12.33				

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SHEET TITLE
**ELECTRICAL
PANEL SCHEDULE**

Mark	Description	Date
1	Plan Check Comments	04/01/2024
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Project Manager

Sheet No.

Project Architect

Scale

As Noted

Date

1/23/2024

Project No.

E6.0

GENERAL PLUMBING NOTES

1. ALL EQUIPMENT, MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES. APPLICABLE CODES SHALL INCLUDE, BUT NOT BE LIMITED TO THE LATEST EDITIONS OF THE 2022 CALIFORNIA PLUMBING CODE (UPC 2021), 2022 CALIFORNIA MECHANICAL CODE, 2022 CALIFORNIA ENERGY CODE, 2022 CALIFORNIA ELECTRICAL CODE.
2. PIPING MATERIAL SHALL BE AS FOLLOWS--
- a. WASTE, VENT, SEWER PIPING, COUPLING AND FITTING SHALL BE PVC CONFORMING TO ASTM D 1785 PLASTIC SOLVENT CEMENT FOR PVC PLASTIC PIPE SHALL CONFORM TO ASTM D 2235. ACID RESISTANT WASTE AND VENT SHALL BE SCHEDULE 40 PVC.
- b. CONDENSATE PIPING SHALL BE TYPE L COPPER TUBING PER ASTM B88 AND WROUGHT CABLE FITTING.
- c. ABOVE GRADE HOT AND COLD WATER PIPES SHALL BE CPVC TUBING AS PER ASTM D2846 AND CPVC FITTING ASTM D2846. THREADED FITTING ARE USED FOR CONNECTION AND MIN. SCHEDULE 80 SHALL BE PERMITTED. THREADS SHALL COMPLY WITH ASME B1.20.1. SOLVENT CEMENT ASTM F493 TO USE FOR CONNECTING CPVC PIPE AND FITTINGS.
- d. BELOW GRADE HOT AND COLD WATER PIPE SHALL BE TYPE L COPPER TUBING, HARD--TEMPER, WITH WROUGHT COPPER FITTINGS SILVER SOLDERING SHALL BE USED BELOW GRADE.
3. PIPING AND EQUIPMENT ACCESSORIES SHALL BE AS FOLLOWS--
- a. PROVIDE ELBOWS AT ALL PIPING PENETRATIONS OF WALLS TO STOPS. ELBOWS SHALL HAVE NAILING EARS, AND SHALL BE SECURELY FASTENED TO THE STRUCTURE. NIPPLES THROUGH THE WALLS SHALL BE IPS WEIGHT THREADED COPPER OR BRASS.
- b. PROVIDE TRAPS FOR ALL FIXTURES WITH INTEGRAL CLEANOUTS.
- c. TRAP SEAL PRIMERS: POTABLE WATER SUPPLY TRAP SEAL PRIMER VALVES SHALL HAVE ASSE 1044. DRAIN DRYER AND ELECTRONIC DESIGN TYPE TRAP SEAL PRIMER DEVICES SHALL COMPLY WITH ASSE 1044. SEC. 1007.2, 2022 CA PLUMBING CODE.
- d. CROSS--CONNECTION CONTROL: BACKFLOW PREVENTION DEVICES SHALL COMPLY WITH TABLE 603.2, AND THE MINIMUM AIR GAP TO AFFORD BACKFLOW PROTECTION SHALL BE IN ACCORDANCE WITH TABLE 603.3.1, 2022 CA PLUMBING CODE.
- e. PROVIDE CHROME PLATED ESCUTCHEON PLATES WITH SPRING TAB ON ALL PIPES PASSING THROUGH WALLS OR CEILINGS.
- f. ALL EXPOSED PIPING SHALL BE CHROME PLATED.
- g. PROVIDE CLEVIS TYPE HANGERS WITH CUSHIONING TO PREVENT SWAYING AND VIBRATION FOR ALL PIPING. PROVIDE FELT LINING OR PLASTIC WRAPPING BETWEEN DISSIMILAR METALS TO AVOID ELECTROLYSIS.
- h. PROVIDE WRAP ON WASTE, HOT AND COLD WATER PIPING UNDER ADA ACCESSIBLE PLUMBING FIXTURES.
- a. CATHODIC PROTECTION: WRAP ALL BELOW GRADE COPPER OR STEEL WATER PIPING INCLUDING JOINTS AND FITTINGS WITH TWO LAYERS OF PASCO--WRAP, OR SIMILAR MATERIALS.
- b. INSULATION: AS PER SECTION 609.12.2 OF 2022 CALIFORNIA PLUMBING CODE (UPC 2021) HOT WATER PIPE INSULATION SHALL HAVE A MINIMUM WALL THICKNESS OF NOT LESS THAN THE DIAMETER OF THE PIPE FOR A PIPE UP TO 2 INCHES (50 MM) IN DIAMETER. INSULATION WALL THICKNESS SHALL BE NOT LESS THAN 2 INCHES (51 MM) FOR A PIPE OF 2 INCHES (50 MM) OR MORE IN DIAMETER.
- c. INSTALLATION: INSTALL ALL PIPING IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE. CAREFULLY GRADE ALL WASTE PIPING TO ENSURE A UNIFORM SLOPE IS ACHIEVED, WITHOUT AN DIPS OR HIGH POINTS IN THE PIPING. PROVIDE SHOCK ABSORBERS AT HOT AND COLD WATER AT ALL FIXTURES. CHLORINATE ALL WATER PIPING FOR A PERIOD OF 8 HOURS, BY CHARGING WITH A CHLORINE OR HYPO CHLORITE SOLUTION TO ACHIEVE A 5 PPM STRENGTH AT THE FIXTURE FURTHEST FROM THE POINT OF APPLICATION. UPON COMPLETION OF CHLORINATION, FLUSH ALL PIPING UNTIL NO CHLORINE CAN BE DETECTED BY TASTE. AFTER CHLORINATION AND ALL TESTING HAS BEEN COMPLETED, CLEAN ALL FIXTURE STRAINERS, AND SET WATER FLOWS FROM FIXTURES IN ACCORDANCE WITH THE 2022 CALIFORNIA PLUMBING CODE.
- d. TESTS ON DIFFERENT PLUMBING PIPING SHALL BE AS FOLLOWS--
- a. TEST ALL WASTE AND VENT PIPING FOR A PERIOD OF NOT LESS THAN 8 HOURS BY CAPPING OR PLUGGING ALL JOINTS TO A LEVEL OF THE HIGHEST FIXTURE OR FITTING, FILLING THE SYSTEM WITH WATER, AND OBSERVING FOR LEAKS. TEST UNDERGROUND SECTION OF PIPE WITH A RISER TO ACHIEVE THE PRESSURE EQUIVALENT TO THE HIGHEST FIXTURE OR FITTING.
- b. TEST WATER PIPING AT 100 PSIG FOR A PERIOD OF EIGHT HOURS, OBSERVING FOR ANY VISIBLE LEAKS TEST PIPING AGAIN WITH FIXTURES INSTALLED AT 60 PSIG.
8. ROUTE CONDENSATE PIPING FROM EQUIPMENT TO NEAREST 8 APPROVED RECEPTOR. ALL CONDENSATE SYSTEMS SHALL TERMINATE INTO THE STORM DRAINAGE SYSTEM, UNLESS NOTED OTHERWISE, AND SHALL OTHERWISE BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES. CONNECT TO EQUIPMENT WITH VENTED P--TRAP.
9. PROVIDE ACID RESISTANT PIPING FROM SODA MACHINE TO POINT OF DILUTION ACID RESISTANT WASTE AND VENT SHALL BE SCHEDULE 40 PVC.
10. PROVIDE CONDENSATE DRAIN LINE MUST IMMEDIATELY PENETRATE ROOF AND RUN ALONG THE UNDERSIDE OF ROOF STRUCTURE. EXTERIOR WALL PENETRATIONS RELATING TO TI WORK IS PROHIBITED.

ENERGY CONSERVATION NOTES

1. ALL DOMESTIC WATER PIPING ABOVE GRADE SHALL BE INSULATED WITH FIRE--RETARDENT, FACTORY APPLIED JACKET.PROVIDE COLD WATER PIPING WITH FACTORY--APPLIED VAPOR BARRIER.INSULATION REQUIREMENT SHOULD COMPLY WITH CALIFORNIA STATE ENERGY CODE 2022. SECTION 150.0.
2. INSULATION REQUIREMENT SHOULD COMPLY WITH CALIFORNIA STATE ENERGY CODE 2022. REFER BELOW TABLE FOR MINIMUM PIPE INSULATION THICKNESS ACC. TO CALIFORNIA PLUMBING CODE 2022 SECTION 609.12, 2022 CALIFORNIA ENERGY CODE 2022 SECTION 120.3
- | MINIMUM PIPE INSULATION THICKNESS | | | | | | |
|--|----------------------------------|-----------------------------|------------------------------------|-----------|-----------|----------|
| FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F) | INSULATION CONDUCTIVITY | | NOMINAL PIPE OR TUBE SIZE (INCHES) | | | |
| | CONDUCTIVITY BTU IN./ (H FT2 °F) | MEAN RATING TEMPERATURE, °F | <1 | 1 to < 1½ | 1½ to < 4 | 4 to < 8 |
| 141--200 | 0.25--0.29 | 125 | 1.5 | 1.5 | 2 | 2 |
| 105--140 | 0.22--0.28 | 100 | 1.0 | 1.0 | 1.5 | 1.5 |
| 40--60 | 0.21--0.27 | 75 | 0.5 | 0.5 | 1.0 | 1.0 |
3. AS PER CALIFORNIA STATE ENERGY CODE 2022, SECTION 613.5, TEMPERATURE CONTROL VALVE SHALL BE PROVIDED TO AUTOMATICALLY REGULATE THE TEMPERATURE OF HOT WATER DELIVERED TO PLUMBING FIXTURE TO A RANGE OF 105°F (41°C) MINIMUM TO 120°F (49°C) MAXIMUM.
4. AS PER CALIFORNIA STATE ENERGY CODE 2022, SYSTEMS DESIGNED TO MAINTAIN USAGE TEMPERATURES IN HOT WATER PIPES, SUCH AS RECIRCULATING HOT WATER SYSTEM SHALL BE EQUIPPED WITH AUTOMATIC TIME SWITCHES OR OTHER CONTROLS THAT CAN BE SET TO SWITCH OF THE USAGE TEMPERATURE MAINTENANCE SYSTEM DURING EXTENDED PERIOD WHEN HOT WAER IS NOT REQUIRED .
5. AS PER CALIFORNIA STATE ENERGY CODE 2022, SERVICE WAER HEATING EQUIPMENT SHALL BE EQUIPPED WITH AUTOMATIC TEMPERATURE CONTROLS CAPABLE OF ADJUSTING FROM THE LOWEST TO THE HIGHEST ACCEPTABLE TEMPERATURE SETTING FOR THE INTENDED USE AS PER TABLE 613.1 OF THE CALIFORNIA STATE PLUMBING CODE.

DOMESTIC WATER & WASTE CALCULATION

FIXTURE DESCRIPTION	QTY	WATER		WASTE	
		WSFU	TOTAL	DFU	TOTAL
3" FLOOR DRAIN/ FLOOR SINK	4	—	—	6	24
EMERGENCY FLOOR DRAIN	2	—	—	—	—
WATER CLOSET	1	5.5	5.5	4	4
LAVATORY	1	1	1	1	1
HAND—SINK	2	1	2	1	2
PREP—SINK (I.D TO FS)	1	3	3	—	—
3 COMPARTMENT SINK	1	3	3	3	3
MOP SINK	1	3	3	3	3
SODA MACHINE (I.D TO FS)	1	0.5	0.5	—	—
ICE MACHINE (I.D TO FS)	1	0.5	0.5	—	—
EXHAUST HOOD (I.D TO FS)	1	0.5	0.5	—	—
BAG IN BOX	1	0.5	0.5	—	—
TEA DISPENSER	1	0.5	0.5	—	—
TOTAL		WSFU= 20		DFU= 37	
WSFU VALUES AS PER CALIFORNIA PLUMBING CODE 2022 (UPC 2021) TABLE A 103.1					
PER CALIFORNIA PLUMBING CODE 2022 (UPC 2021) CHART A 105.1(1) FOR 19 GPM CALCULATED PIPE SIZE IS 1–1/4".					

SITE INSPECTION NOTE:

FINAL SITE INSPECTION WILL BE REQUIRED BY THE PUBLIC WORKS DEPARTMENT-- ENGINEERING DIVISION PRIOR OBTAINING BUILDING CERTIFICATE OF OCCUPANCY. CONTACT PUBLIC WORKS @ 650--259--2339 TO SCHEDULE THE FINAL SITE INSPECTION. FINAL SIGN--OFF WILL BE REQUIRED PRIOR TO OBTAINING THE CERTIFICATE OF OCCUPANCY.

PLUMBING LEGEND

SYMBOL	DESCRIPTION
— SAN —	SANITARY SEWER (UNDERFLOOR)
— GSAN —	GREASE SANITARY SEWER (UNDERFLOOR)
— EX.SAN —	EXISTING GREASE SANITARY SEWER (UNDERFLOOR)
— EX.GS.AN —	EXISTING GREASE SANITARY SEWER (UNDERFLOOR)
-----	VENT PIPING
-----	COLD WATER PIPING
-----	EXISTING COLD WATER PIPING
-----	HOT WATER PIPING
-----	HOT WATER RETURN PIPING
---FW---	FILTER COLD WATER PIPING
— ∞ —	P--TRAP
— ○ —	PIPE UP
— ∩ —	PIPE DROP
— ○ — ∩	CLEANOUT
— ∩ — ∩	PLUGGED OUTLET/CLEANOUT
⊙	POINT OF CONNECTION
CO	CLEANOUT
CW	COLD WATER
HW	HOT WATER
HWR	HOT WATER RETURN
SAN	SANITARY
V	VENT
W	WASTE
LAV	LAVATORY
WC	WATER CLOSET
TYP.	TYPICAL
DN	DOWN
AFF	ABOVE FINISH FLOOR
FD	FLOOR DRAIN
BFP	BACK FLOW PREVENTER
WH	WATER HEATER
N.I.C.	NOT IN SCOPE
ET	EXPANSION TANK

GREASE INTERCEPTOR SIZING CALCULATION

FIXTURE	QUANTITY	DFU	TOTAL DFU
3--COMP SINK	1	3	3
HAND SINK	2	2	4
MOP SINK	1	3	3
1--COMP SINK	1	I.D	I.D
FLOOR SINK	3	6	18
TOTAL			28
TOTAL DRAINAGE FIXTURE UNITS = 17, AS PER SECTION 1014.3.6 2022 CALIFORNIA PLUMBING CODE (UPC 2021) MINIMUM REQUIRED SIZE OF GREASE INTERCEPTOR IS 1000 GALLONS.			
EXISTING AVAILABLE GREASE INTERCEPTOR CAPACITY IS 1500 GALLONS.			

WATER PRESSURE CALCULATION

AVAILABLE PRESSURE	APPROXIMATE--	40 PSI
STATIC PRESSURE (ELEVATION) (10'x0.43)	LOSS--	4.3 PSI
MINIMUM PRESSURE TO BE MAINTAINED	LOSS--	15 PSI
BACKFLOW PREVENTER (RP2)	LOSS--	12 PSI
TOTAL PRESSURE AVAILABLE		8.7 PSI
APPROXIMATE DISTANCE FROM METER TO LAST FIXTURE		292'
TOTAL DEVELOPED LENGTH OF SYSTEM (x1.25)		350'
ALLOW. FRICTION LOSS (AVAILABLE PRESSURE/ TOTAL DEVELOPED LENGTH)x100		2.5 PSI
AVAILABLE PRESSURE		6.2 PSI

PLUMBING FIXTURES SCHEDULE

ID	ITEM	DESCRIPTION
ED	FLOOR DRAIN	J R SMITH #2005A 5" DIAMETER NICKEL BRONZE TOP WITH 3" PIPE, FLANGE AND SEEPAGE PAN. PROVIDE TRAP PRIMER CONNECTION, OR EQUAL.
ES	FLOOR SINK	SMITH #325--Y03 WITH CAST IRON BODY, ENAMELED INTERIOR, 6" DEEP SUMP, FLANGE AND SEEPAGE PAN, ALUMINUM BOTTOM DOME STRAINER, HALF GRATE OUTLET, CAULK JOINT, OR EQUAL
MS	MOP SINK	JOHN BOOS #PBMS2018--6--X FLOOR MOUNTED, 3.5" OUTLET WITH AMERICAN STANDARD #8344 012 FAUCET WITH TOP BRACE STOPS AND VACUUM BREAKER AND AMERICAN STANDARD #721 038 DRAIN WITH STRAINER, OR EQUAL
WC	WATER CLOSET	ACCESSIBLE WATER CLOSET: KOHLER #K--3999 HIGHLINE FLOOR MOUNTED, WHITE VITEROUS CHINA, 16.5" HIGH ELONGATED SIPHON ACTION BOWL, CLOSE COUPLED TANK, 1.28 GPF, TRIP LEVER ON OPEN SIDE WITH BOLT COVER/ ALL COMPONENTS SHALL BE WHITE. UNIT SHALL CONFORM TO ADA AND T24 REQUIREMENTS FOR ACCESSIBLE INSTALLATION, OT EQUAL
LAV	LAVATORY	LAVATORY: KOHLER 2005 KINGDTON WALL HUNG VITEROUS CHINA FRONT OVERFLOW WITH KOHLER CHROME PLATED FAUCET MODEL 15598--SP SINGLE LEVER, 4" CENTERSET, AERATOR 0.18 GP CYCLE &METAL GRID DRAIN ASSEMBLY. INSULATE WATER AND WATER PIPING. UNIT SHALL CONFORM TO ADA AND T24 REQUIREMENTS FOR ACCESSIBLE INSTALLATION, OT EQUAL
WH 1	ELECTRIC WATER HEATER	WATER HEATER: RHEEM ES85,CAPACITY: 85 GALLONS, ELECTRIC INPUT: 208V,3PH,60HZ, 34.1 AMPERES, 12.3 KW (50 GPH @ 100°F RISE).DIMENSIONS: 57--11/16"HX28--1/4"D. SHIPPING WEIGHT--350LBS.

FIXTURE CONNECTION SCHEDULE

SYMBOL	FIXTURE DESCRIPTION	VENT	WASTE DIRECT	WASTE IND.	WATER CW/FW	HW	REMARK
FD	3" FLOOR DRAIN	2"	3"	--	--	--	
FS	3" FLOOR SINK	2"	3"	--	--	--	
EX.WC	WATER CLOSET	E	E	--	½"	½"	
EX.LAV	LAVATORY	E	E	--	½"	½"	
7	HAND--SINK	1½"	2"	--	½"	½"	
8	1--COMP SINK	--	--	2"	½"	½"	
11	3--COMPARTMENT SINK	--	2"	--	½"	½"	
15	EXHAUST HOOD	--	--	2"	½"	--	ASSE 1022 APPROVED BFP
2	MOP SINK	2"	3"	--	½"	½"	
31	SODA MACHINE	--	--	2"	½"	--	ASSE 1022 APPROVED BFP
31.1	ICE MACHINE	--	--	2"	½"	--	ASSE 1012 APPROVED BFP
42	BAG IN BOX	--	--	--	½"	--	ASSE 1022 APPROVED BFP
46	TEA DISPENSER	--	--	--	½"	--	ASSE 1012 APPROVED BFP

ALL INDIRECT WASTE CONNECTION WILL BE DONE VIA FLOOR SINK. SEE SHEET P2.0 FOR FLOOR SINK LOCATION AND SHEET P3.0 #4 FOR DETAILS.

GREASE INTERCEPTOR SIZING

DRAINAGE FIXTURE UNITS	INTERCEPTOR VOLUME (GALLONS)
8	500
21	750
35	1000
90	1250
172	1500

RECIRCULATION PUMP SCHEDULE

MARK	SERVICE	QTY	GPM	TOTAL HEAD FT.	ELECTRICAL DATA	MANUFACTURER & REMARKS
RCP--1	HW RECIRCULATION	1	2	11.5	55 WATTS, 115V	BELL & GOSSET #NBF--12U/LM W/AQUASTAT + TIMER

EXPANSION TANK SCHEDULE

ITEM	SERVICE	QTY	GALLONS	MAKE	REMARKS
EXPANSION TANK (ET--1)	HOT WATER	1	3.2	AMTROL ST--8	DIMENSIONS-- 15"(H)x9"(DIA.) SHIPPING WEIGHT-- 7 LBS

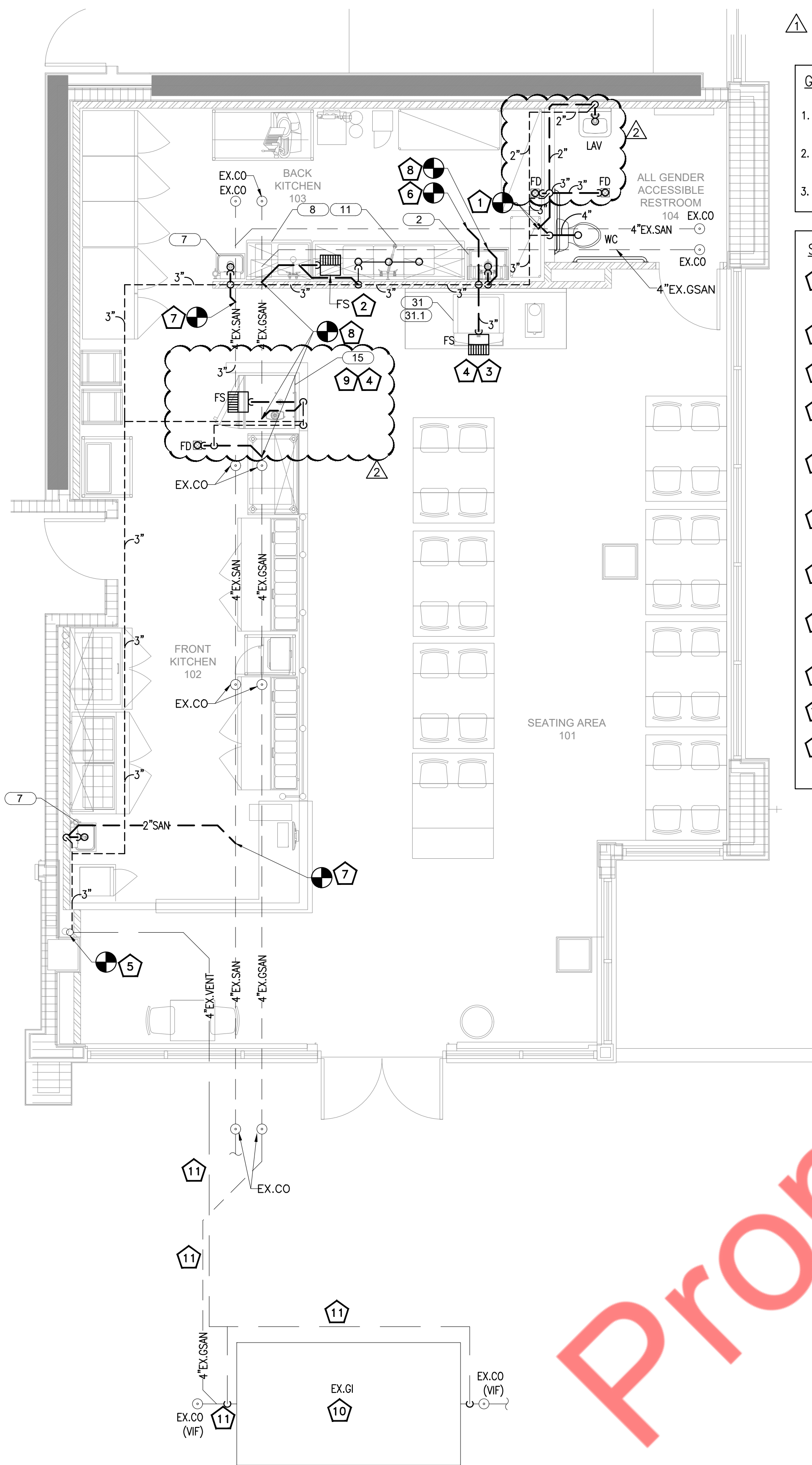
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SHEET TITLE
PLUMBING NOTES, SCHEDULE AND LEGEND

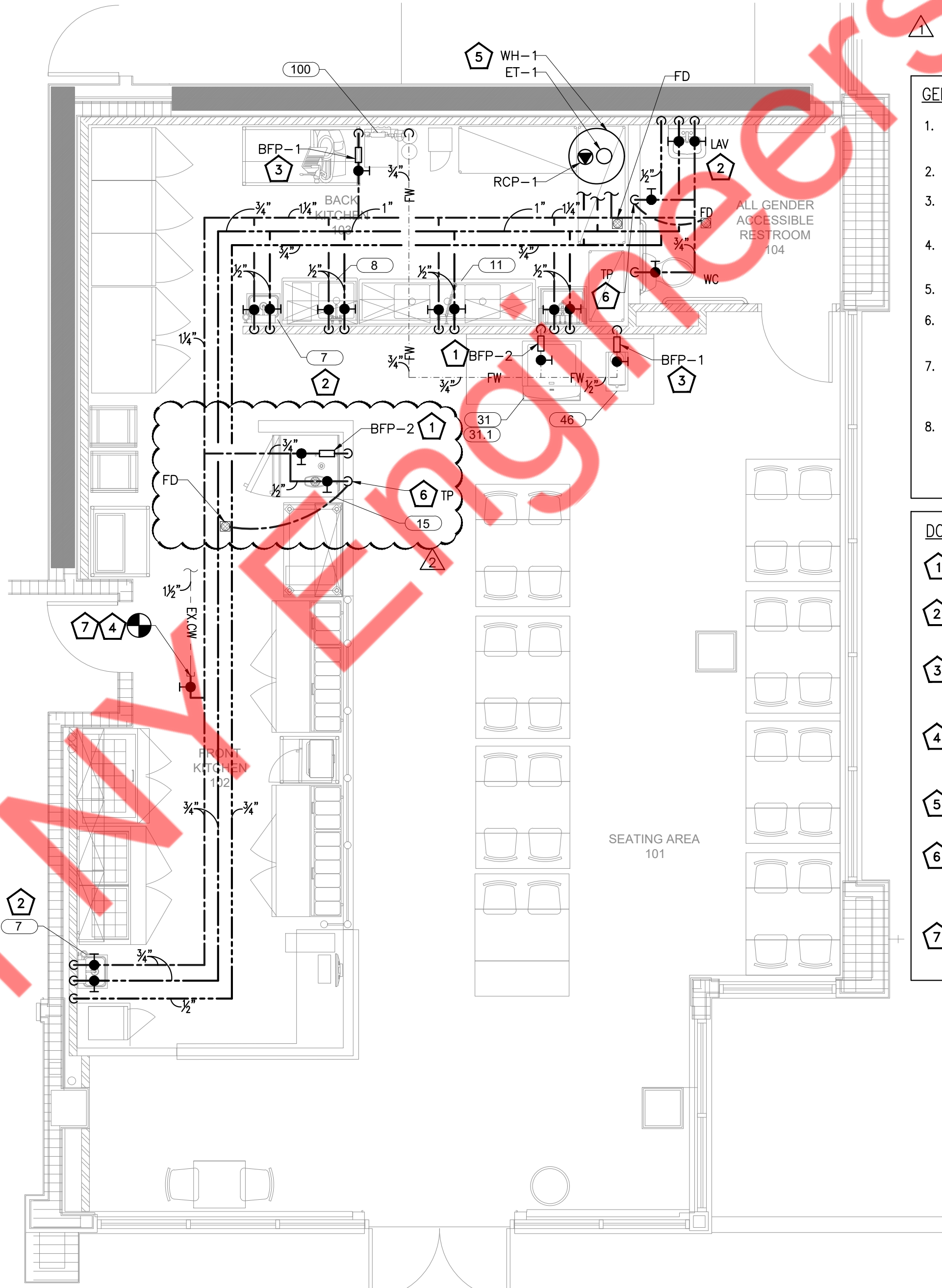
Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024
Project Manager		Sheet No. P1.0
Project Architect		
Scale		
As Noted		
Date		
1/23/2024		
Project No.		

P1.0



- GENERAL NOTES:**
- CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
 - PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR, CLEANOUTS & SHUT-OFF VALVES AS REQUIRED.
 - REFER RISER DIAGRAMS FOR ALL PIPE SIZES.

- SANITARY KEYED NOTES:**
- CONNECT NEW 4" AND 3" SANITARY LINE TO EXISTING SANITARY LINE IN SPACE. CONTRACTOR TO FIELD VERIFY THE SIZE, LOCATION AND INVERT OF EXISTING SANITARY LINE AND UPGRADE IF REQUIRED.
 - INDIRECT WASTE FROM 1-COMP SINK TO ADJACENT FLOOR SINK WITH APPROVED AIR GAP.
 - INDIRECT WASTE FROM ICE MAKER AND SOFT DRINK SODA SYSTEM TO ADJACENT FLOOR SINK WITH APPROVED AIR GAP.
 - CONTRACTOR TO INSTALL FLOOR SINK HALF UNDER THE CABINET AND OTHER HALF EXPOSED FOR EASY CLEANING ACCESSIBILITY. PROVIDE HALF GRATE ON THE OTHER HALF.
 - CONNECT NEW 3" VENT LINE TO EXISTING VTR IN SPACE. CONTRACTOR TO FIELD VERIFY THE SIZE AND LOCATION OF EXISTING VTR.
 - CONNECT NEW 3" SANITARY LINE TO EXISTING SANITARY LINE IN SPACE. CONTRACTOR TO FIELD VERIFY THE SIZE, LOCATION AND INVERT OF EXISTING SANITARY LINE.
 - CONNECT NEW 2" SANITARY LINE TO EXISTING SANITARY LINE IN SPACE. CONTRACTOR TO FIELD VERIFY THE SIZE, LOCATION AND INVERT OF EXISTING SANITARY LINE.
 - CONNECT NEW 3" GREASE SANITARY LINE TO EXISTING GREASE SANITARY LINE. CONTRACTOR TO FIELD VERIFY EXACT LOCATION, SIZE, INVERT OF EXISTING GREASE SANITARY LINE.
 - INDIRECT WASTE FROM KITCHEN EXHAUST HOOD TO ADJACENT FLOOR SINK WITH APPROVED AIR GAP.
 - EXISTING GREASE INTERCEPTOR IS 1500 GALLONS. REFER TO CIVIL PLAN FOR MORE DETAILS.
 - THE SANITARY PIPING FOR REFERENCE PURPOSE ONLY. CONTRACTOR TO FIELD VERIFY EXISTING GREASE WASTE AND VENT PIPING LOCATION, SIZING AND CONDITION. PRIOR TO BID.



- GENERAL NOTES:**
- CW/HW PIPING TO BE PROVIDED WITH INSULATION AS PER 2022 CALIFORNIA ENERGY CODE (REFER SHEET P1.0).
 - PROVIDE BRANCH PRV IF PRESSURE EXCEEDS 80 PSI.
 - CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
 - PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR, CLEANOUTS & SHUT-OFF VALVES AS REQUIRED.
 - REFER RISER DIAGRAMS FOR ALL PIPE SIZES.
 - PROVIDE TRAP PRIMER/SEAL ON FLOOR DRAIN AS PER LOCAL JURISDICTION.
 - CONTRACTOR TO PROVIDE PIPING BETWEEN SODA RACK #42 AND SODA DISPENSER #31.1 PER SODA MACHINE MANUFACTURER'S REQUIREMENTS.
 - CONTRACTOR TO VERIFY IN FIELD THAT THE BACKFLOW PREVENTION DEVICE SHALL BE ASSE 1013 OR SIMILAR APPROVED AS PER LOCAL JURISDICTIONS REQUIREMENT. AND, PROVIDE REQUIRED AIR GAP TO AFFORD BACKFLOW PREVENTION PROTECTION AS PER 2022 CPC SECTION 603.3.1.

- DOMESTIC WATER KEYED NOTES:**
- PROVIDE ASSE 1012 WATTS LF90 BACKFLOW PREVENTER (BFP-2) OR EQUIVALENT FOR EXHAUST HOOD.
 - PROVIDE APPROVED ASSE 1070 OR EQUAL TEMPERING VALVE FOR HAND SINK AND LAVATORY. SET TEMPERATURE TO A MAXIMUM OF 110° F.
 - PROVIDE ASSE 1022 WATTS SD-3 BACKFLOW PREVENTER (BFP-1) OR EQUIVALENT FOR BAG IN BOX SYRUP SYSTEM, ICE MAKER AND TEA DISPENSER.
 - CONNECT NEW 1-1/4" CW LINE WITH SHUT OFF VALVE TO EXISTING CW LINE IN SPACE. CONTRACTOR TO FIELD VERIFY SIZE, AND LOCATION OF EXISTING CW LINE.
 - ROUTE WATER HEATER CONDENSATE DRAIN TO FLOOR DRAIN WITH APPROVED AIR GAP.
 - TRAP PRIMER IN WALL WITH 1/2" CW B.F.F. TO FLOOR DRAIN. PROVIDE APPROVED ASSE 1018 OR EQUAL POTABLE WATER SUPPLY TRAP PRIMER. DRAINAGE AND ELECTRICAL DESIGN TYPE TRAP PRIMER SHALL BE ASSE 1044 APPROVED OR EQUAL.
 - CONTRACTOR TO FIELD VERIFY AVAILABILITY OF EXISTING BFP AND WATER METER. PROVIDE NEW IF NOT EXISTING. BASE BID ACCORDINGLY.

PLUMBING WASTE AND VENT PLAN

SCALE: 1/4"=1'-0"

PLUMBING WATER PLAN

SCALE: 1/4"=1'-0"

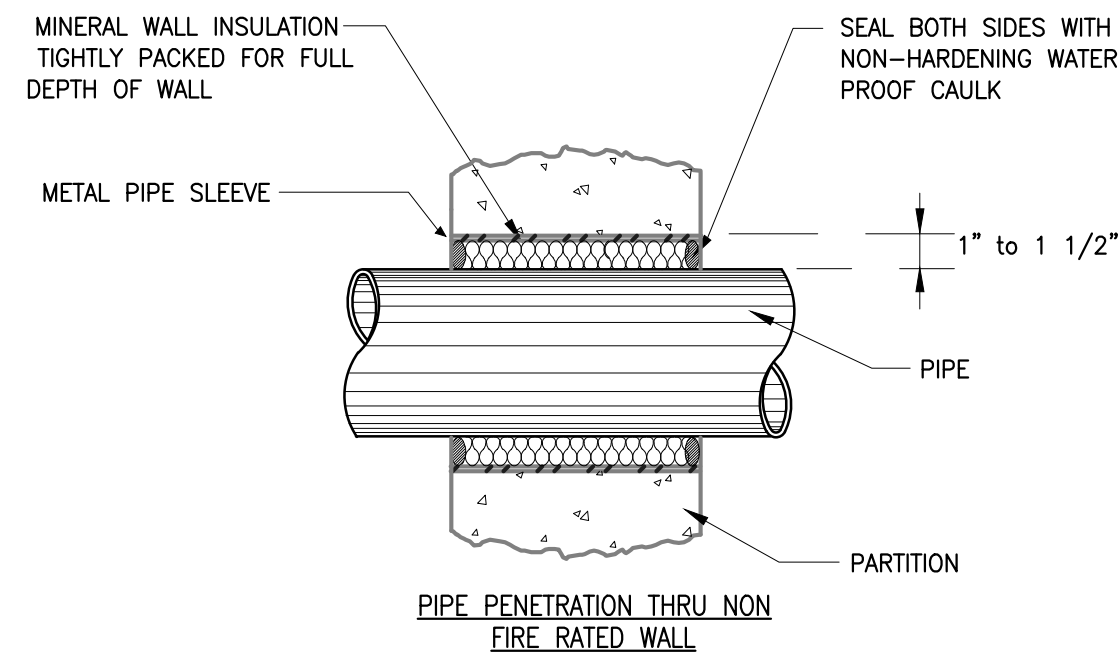
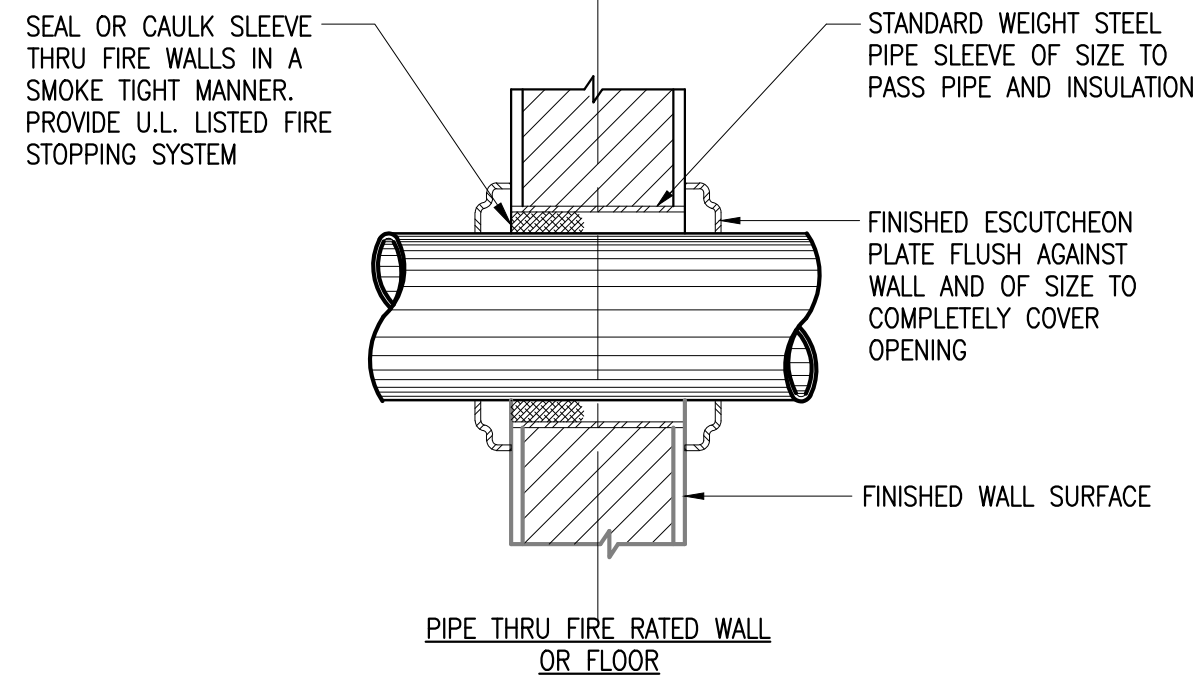
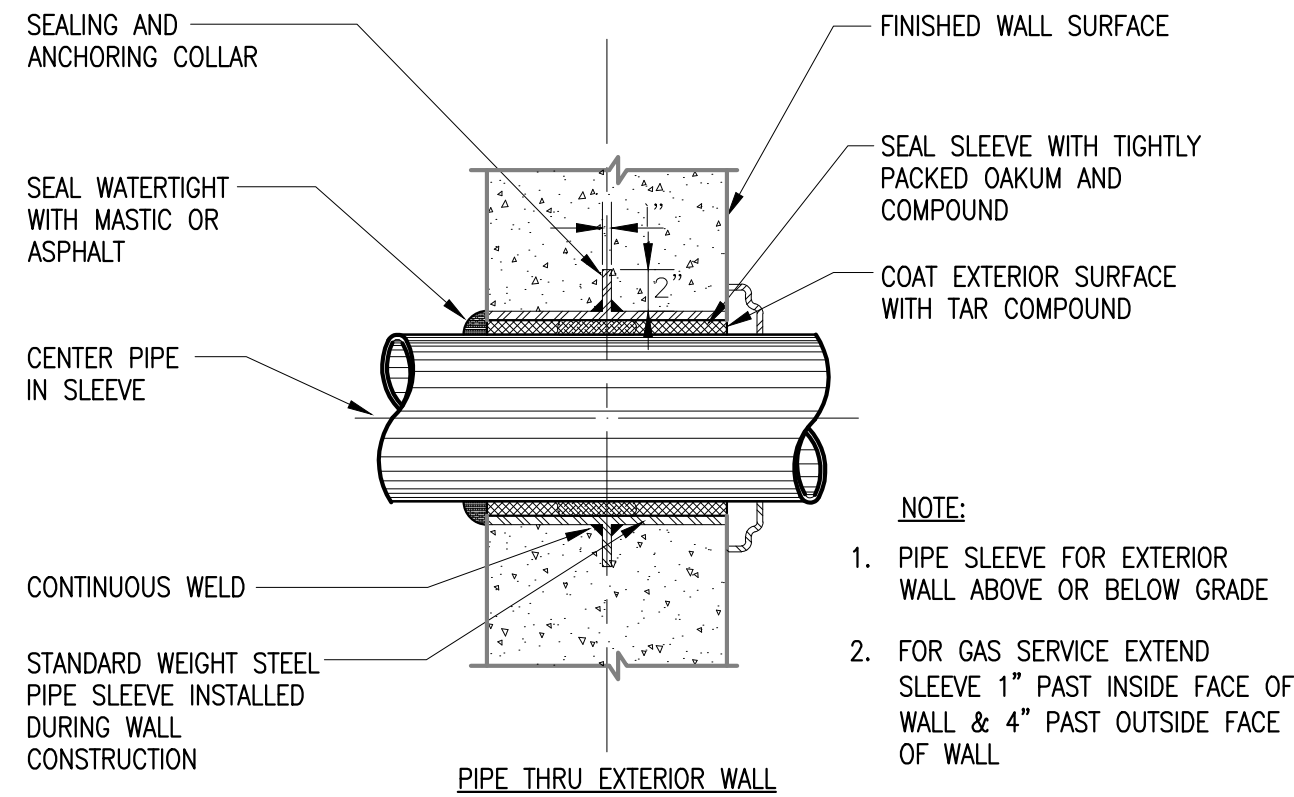
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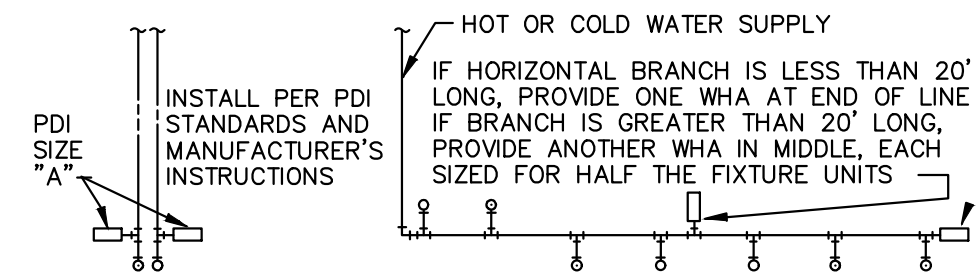
SHEET TITLE
**PLUMBING
SANITARY AND
WATER PLAN**

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

Project Manager	Sheet No.
Project Architect	
Scale	P2.0
As Noted	
Date	
1/23/2024	
Project No.	



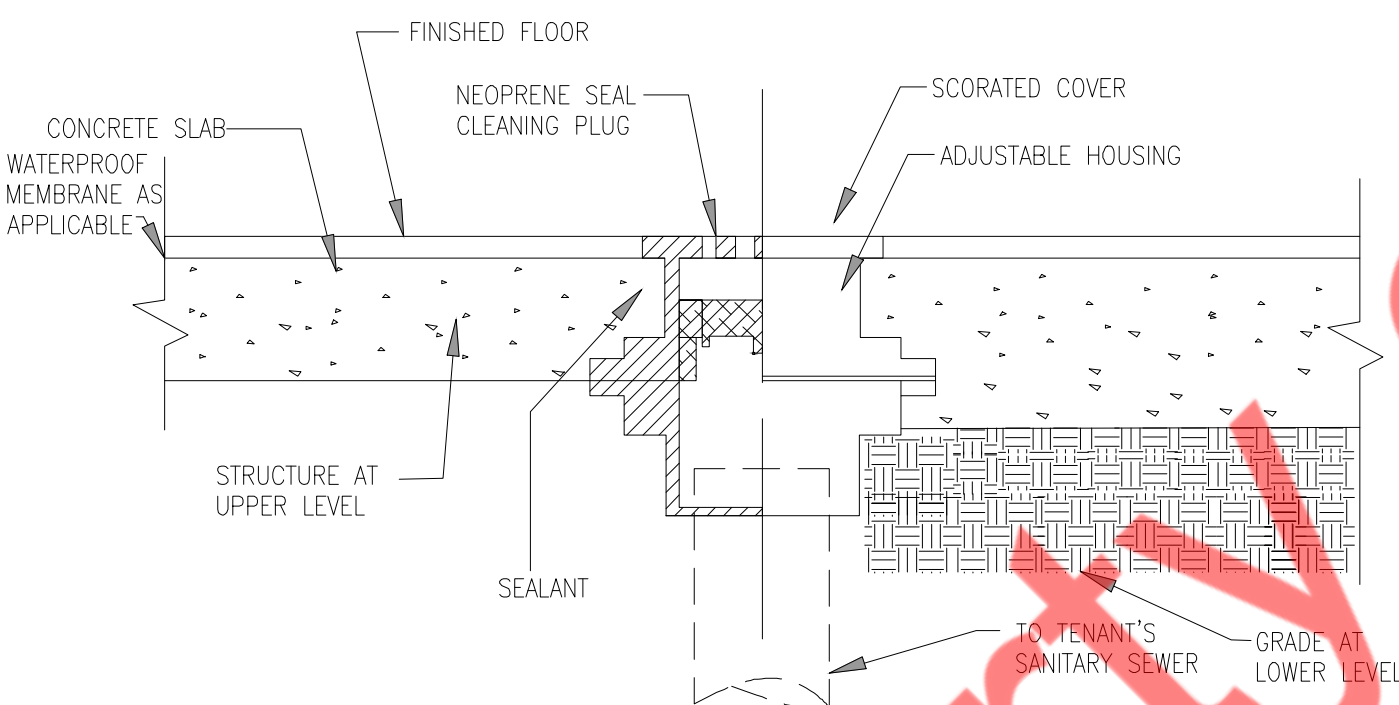
12 SLEEVE THRU WALL SECTION DETAILS
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SINGLE FIXTURE			MULTIPLE FIXTURES		
PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD	FIXTURE	COLD	HOT
A	1/2"	1-11	VALVE WATER CLOSET	10	--
B	3/4"	12-32	TANK WATER CLOSET	5	--
C	1"	33-60	URINAL	5	--
D	1-1/4"	61-113	L-IATORY/SINK	1.5	1.5
E	1-1/2"	114-154	JANITOR'S SINK	3	3
F	2"	154-330	SHOWER/BATHTUB	2	2

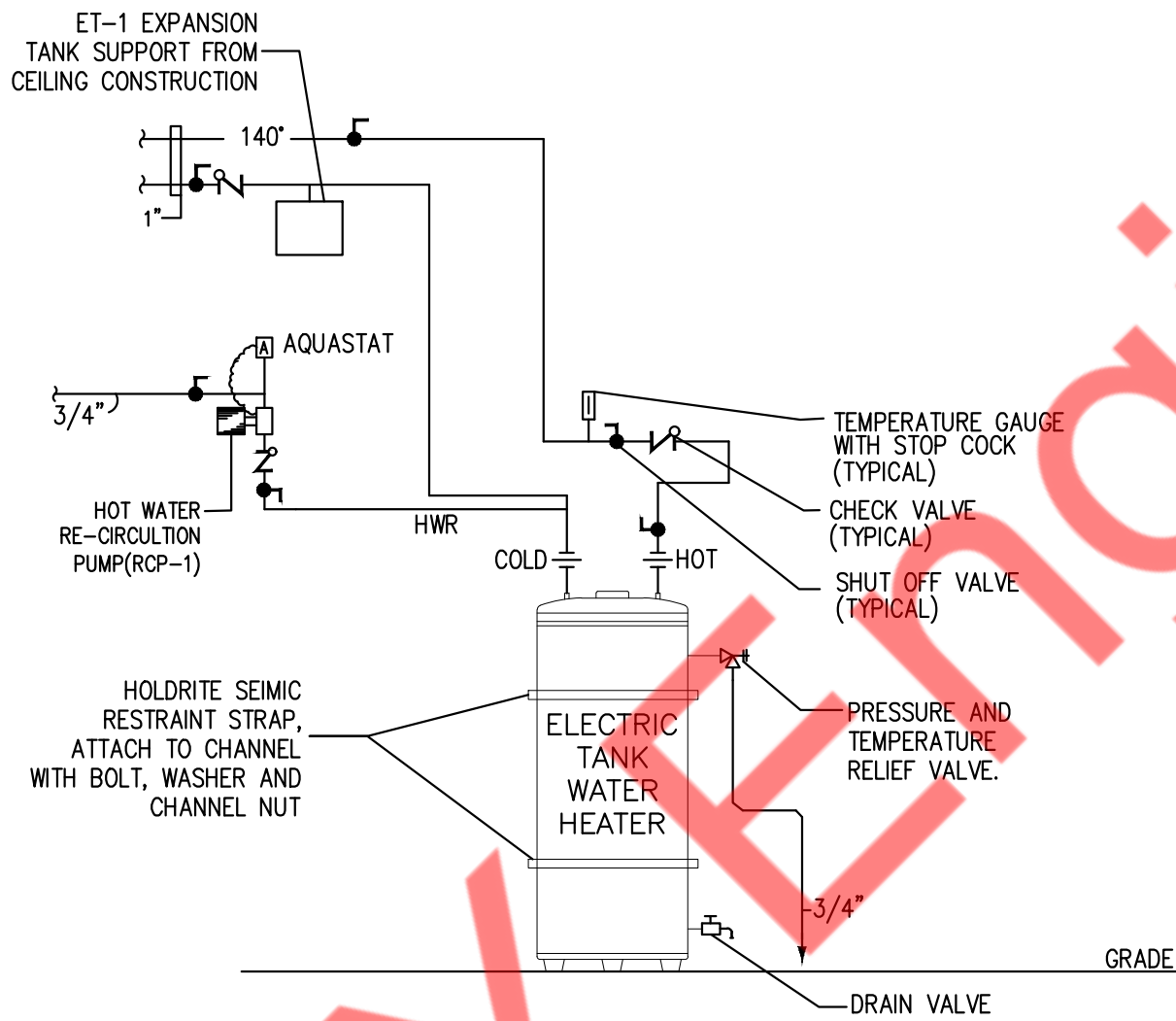
PC TO PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE.

8 WATER HAMMER ARRESTORS DETAIL
NTS

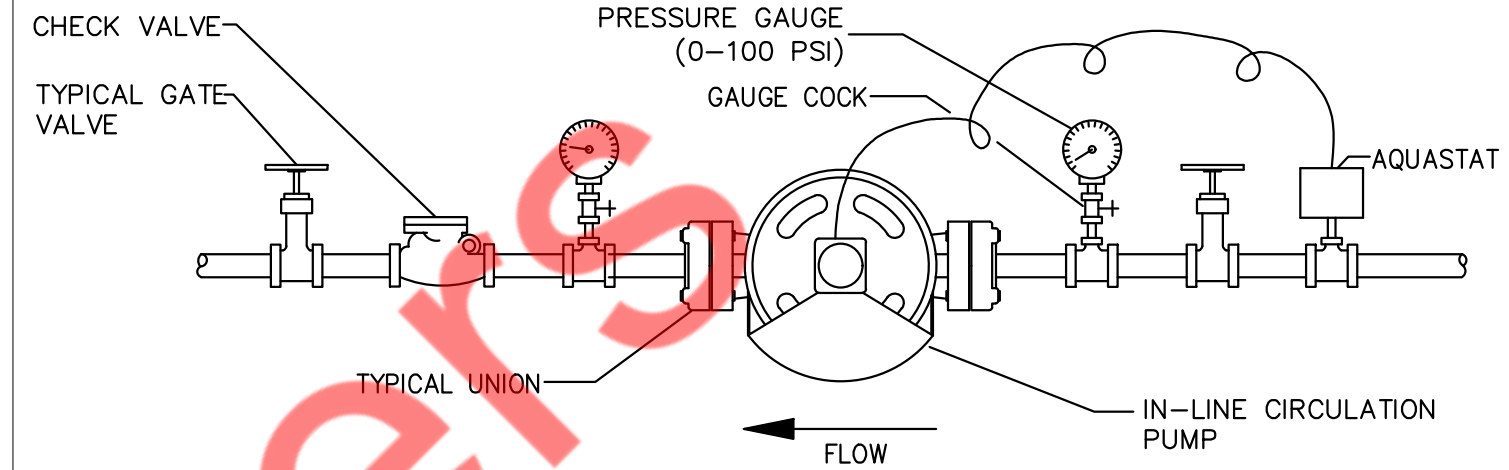


7 FLOOR CLEAN OUT DETAIL
NTS

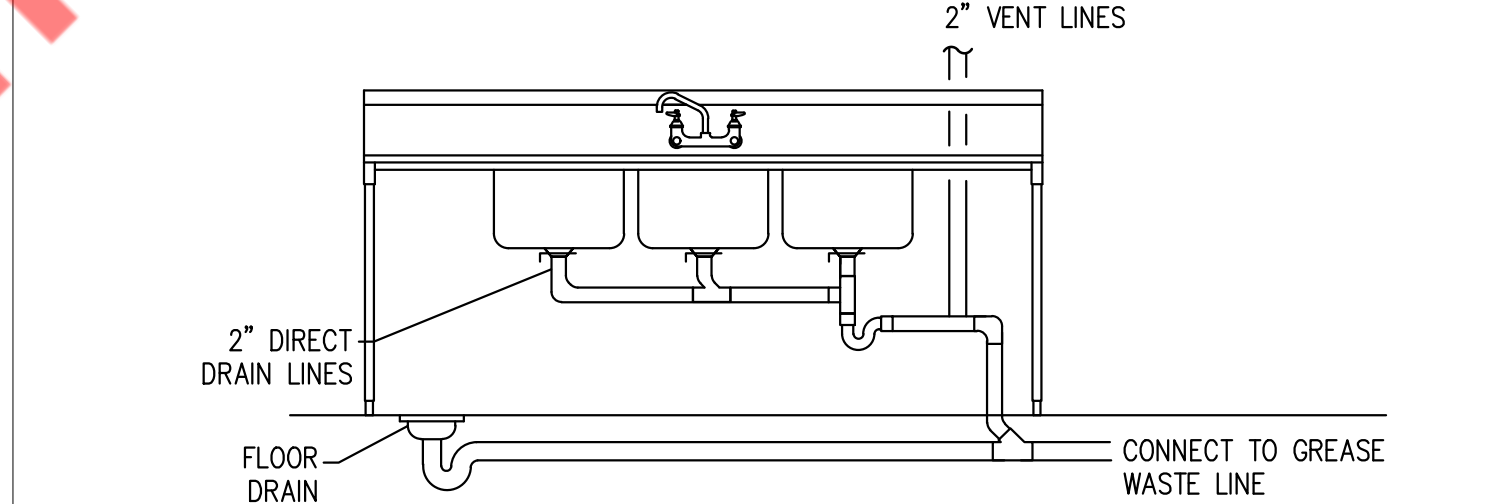
11 ELECTRIC WATER HEATER TYPICAL DETAIL
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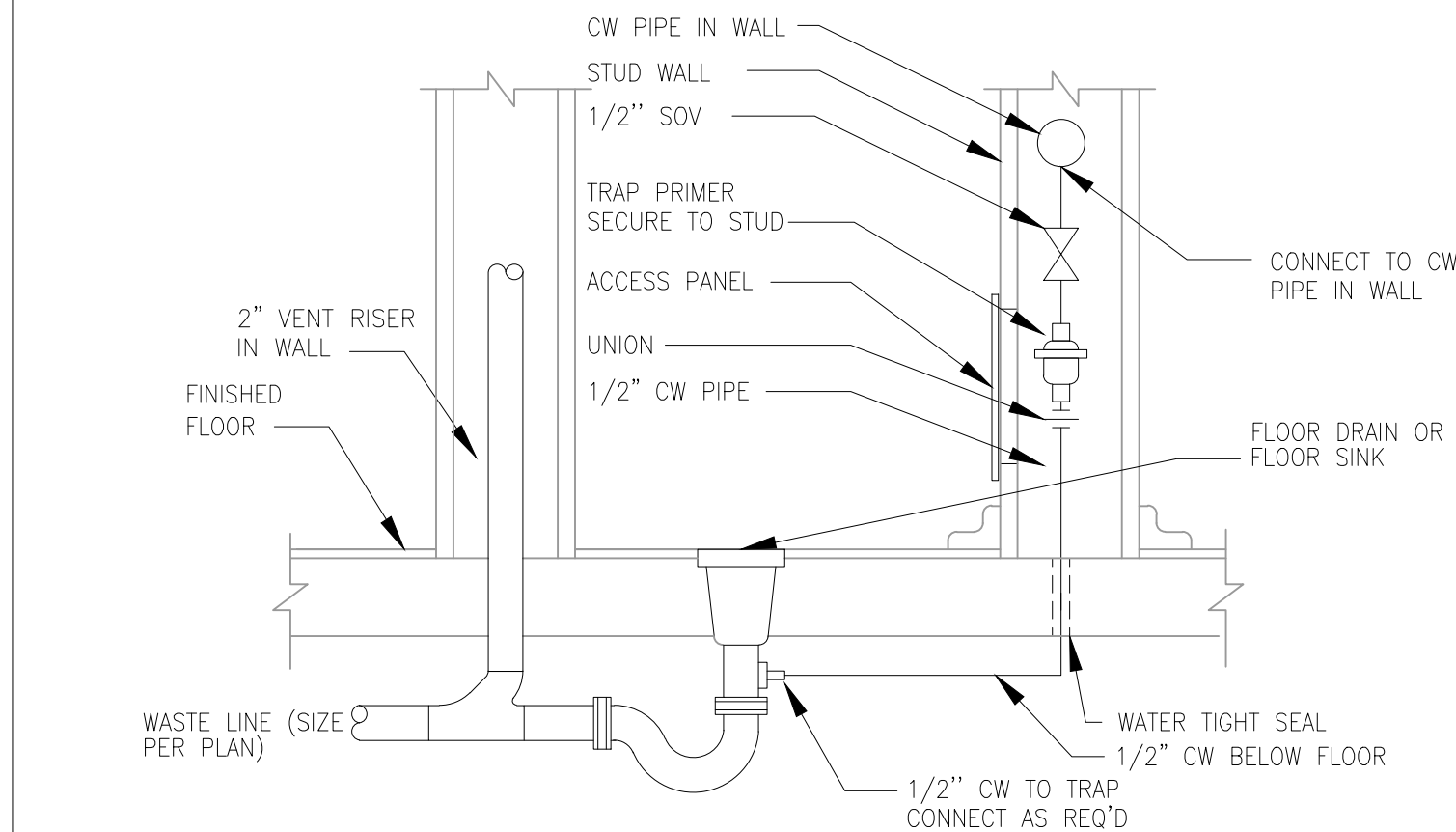
6 NOT USED
NTS



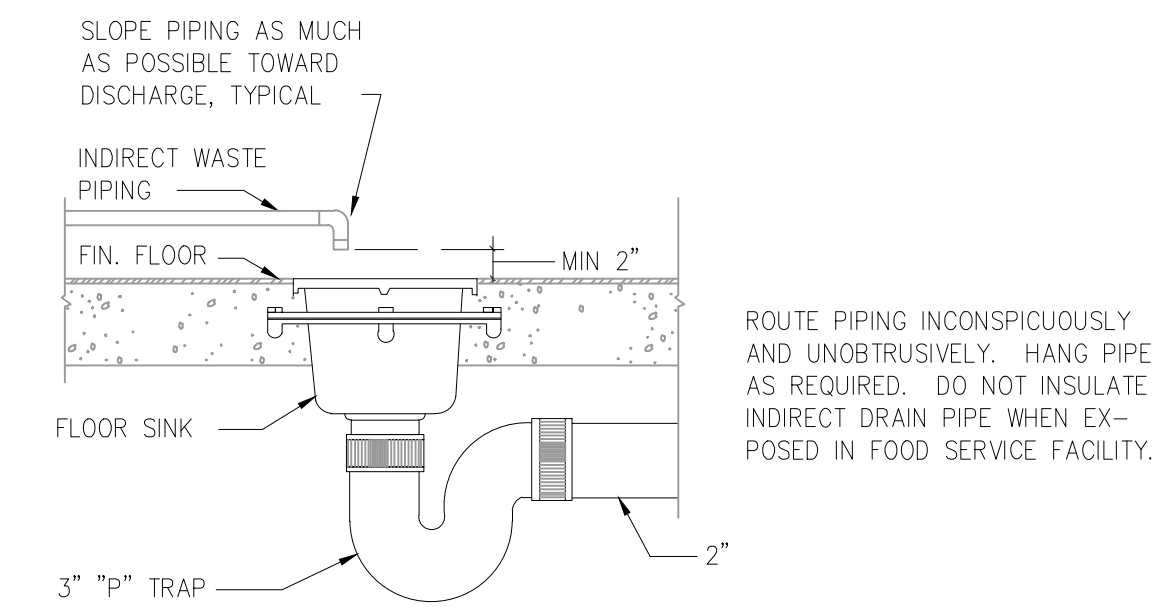
10 INLINE RECIRCULATING PUMP DETAIL
NTS



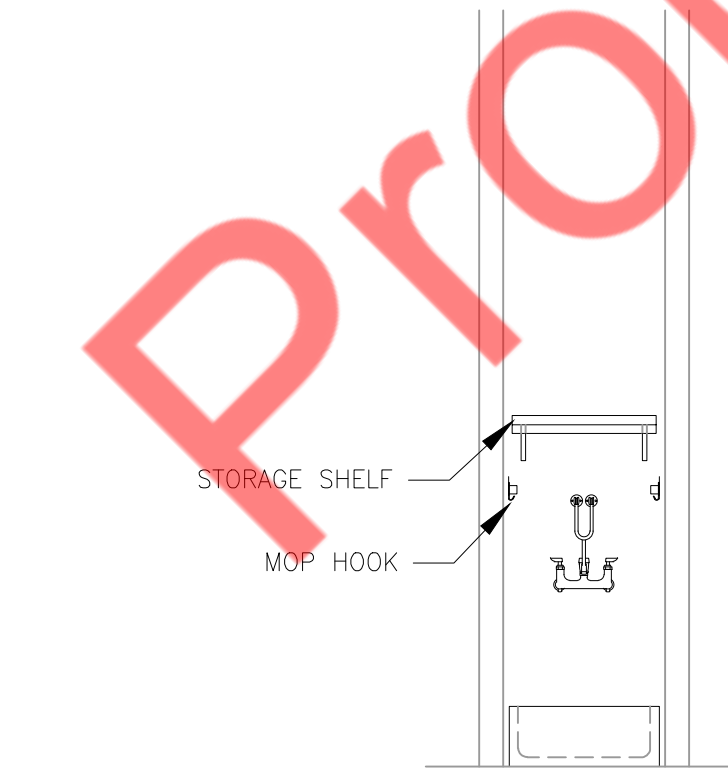
9 3 COMPARTMENT SINK (COMMERCIAL SINK) DETAIL
NTS



5 TRAP PRIMER TO FLOOR DRAIN
NTS

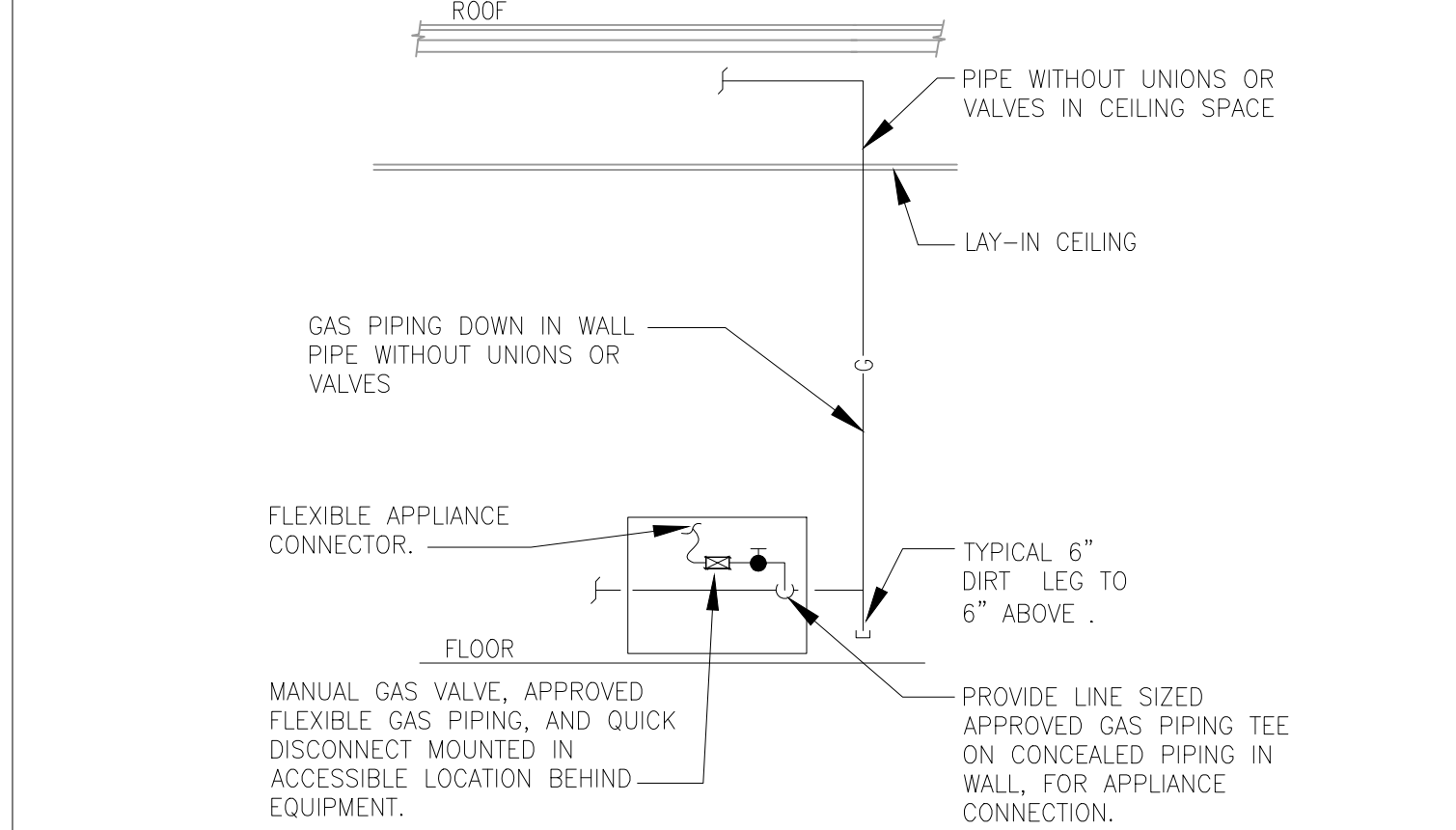


4 FLOOR SINK DETAIL
NTS



3 MOP SINK ELEVATION
NTS

2 NOT USED
NTS



1 GAS EQUIPMENT CONNECTION DETAIL
NTS

MEP CONSULTANTS (ENGINEER):
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Sourdough & Co.
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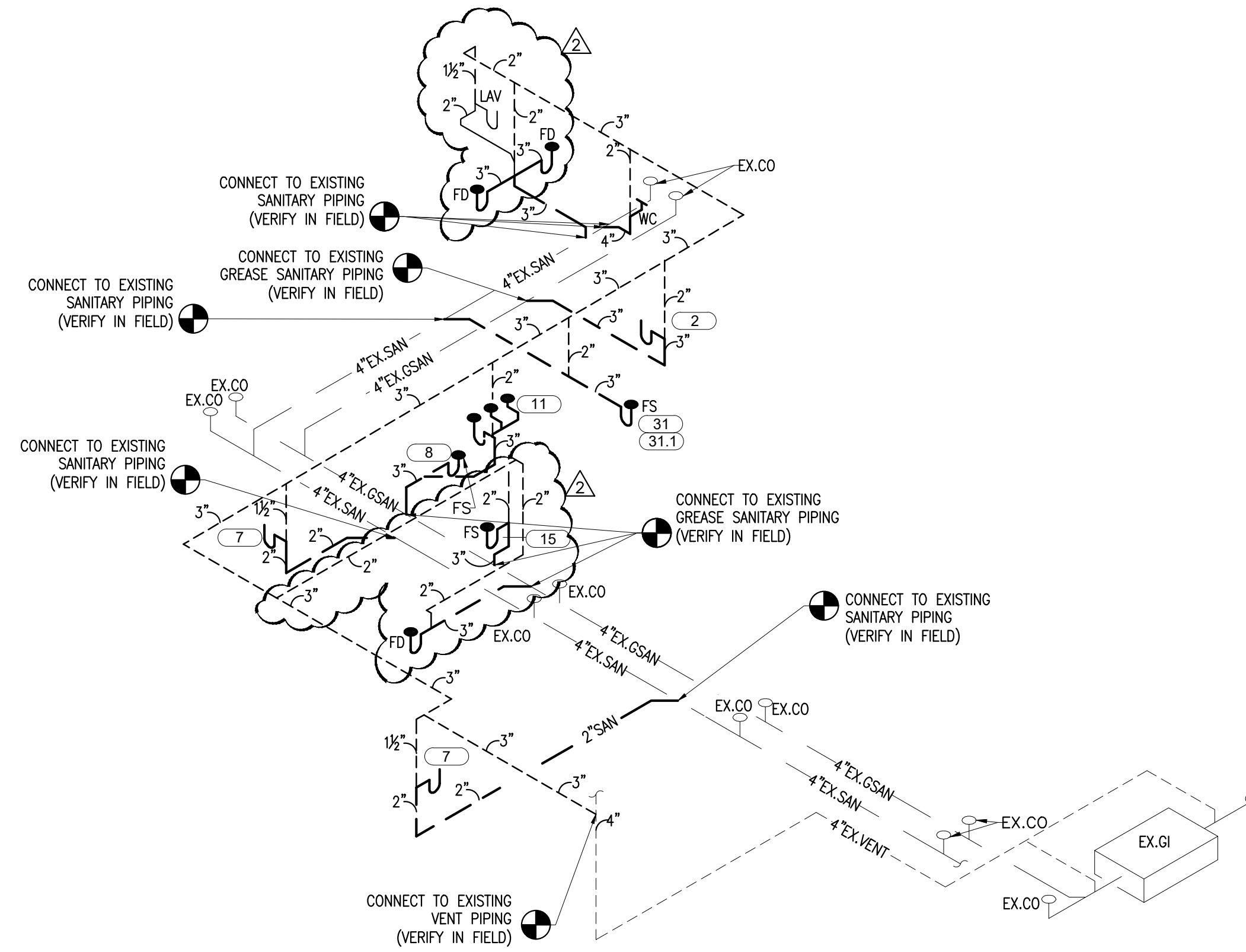
SHEET TITLE

**PLUMBING
DETAILS**

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

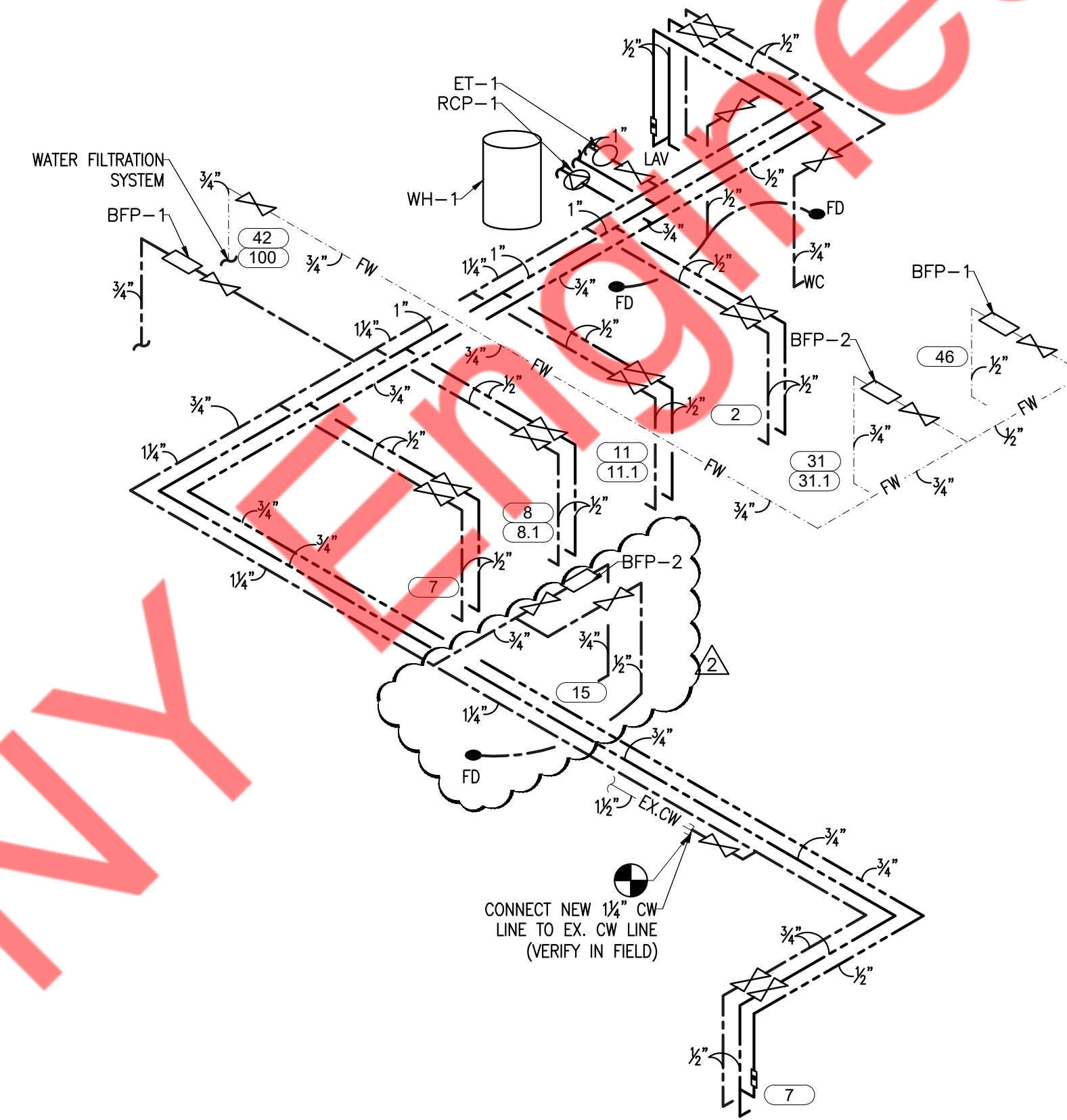
Project Manager	Sheet No.
Project Architect	
Scale	
As Noted	
Date	
Project No.	

P3.0



PLUMBING WASTE AND VENT RISER

SCALE: NTS



PLUMBING WATER RISER

SCALE: NTS

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SHEET TITLE
**PLUMBING
RISERS**

Mark	Description	Date
1	Plan Check Comments	04/01/2024
2	Plan Check Comments	06/03/2024

Project Manager	P4.0
Project Architect	
Scale	
As Noted	
Date	
1/23/2024	
Project No.	