

# MECHANICAL SYMBOLS LIST

AC-1 (TXF-1)	EQUIPMENT SYMBOL
<b>AIR DEVICES</b>	
	CEILING DIFFUSER SUPPLY
	CEILING DIFFUSER RETURN
	LINEAR DIFFUSER SUPPLY
<b>DUCT ACCESSORIES</b>	
	BACKDRAFT DAMPER
	VOLUME DAMPER W/ ACCESS DOOR
<b>CONTROLS AND SENSORS</b>	
	THERMOSTAT
	DUCT SMOKE DETECTOR
	TEMPERATURE SENSOR
	HUMIDISTAT
	MANUAL PUSH BUTTON
<b>DUCTWORK</b>	
	AIR DUCT W/ 1.5" ACOUSTICAL LINING
	FLEXIBLE DUCT
	FLEXIBLE CONNECTION
	RECTANGULAR DUCT (WIDTH X DEPTH)
	SUPPLY AIR RECTANGULAR DUCT CROSS SECTION
	RETURN AIR RECTANGULAR DUCT CROSS SECTION
	ROUND DUCT (DIAMETER)
	ROUND DUCT CROSS SECTION

## ABBREVIATIONS

AL	ACOUSTIC LINING
BD	BACKDRAFT DAMPER
CDS	CEILING DIFFUSER SUPPLY
CDR	CEILING DIFFUSER RETURN
CFM	CUBIC FEET OF AIR PER MINUTE
RG	RETURN GRILLE
SG	SUPPLY GRILLE
EG	EXHAUST GRILLE
FC	FLEXIBLE CONNECTION
IEER	INTEGRATED ENERGY EFFICIENCY RATIO
EER	ENERGY EFFICIENCY RATIO
SEER	SEASONAL ENERGY EFFICIENCY RATIO
RTU	ROOF TOP UNIT
DN	DOWN
KEF	KITCHEN EXHAUST FAN
EF	EXHAUST FAN
VD	VOLUME DAMPER
(E)	EXISTING
(N)	NEW

## MECHANICAL DRAWING LIST

MO.1	MECHANICAL GENERAL NOTES, SYMBOLS LIST & ABBREVIATIONS
MO.2	MECHANICAL SPECIFICATIONS
M1.0	MECHANICAL FLOOR & ROOF PLANS
M5.0	MECHANICAL DETAILS (1 OF 2)
M5.1	MECHANICAL DETAILS (2 OF 2)
M6.0	MECHANICAL SCHEDULES
H1.0	HOOD DATA (1 OF 2)
H1.1	HOOD DATA (2 OF 2)

## TEXAS BUILDING DEPARTMENT NOTES

ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF THE 2018 BUILDING CODE AND ALL AMENDMENTS AND RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE.

- THE CONTRACTOR SHALL ENGAGE THE THE SERVICES OF A PROFESSIONAL ENGINEER TO PROVIDE THE REQUIRED SPECIAL INSPECTIONS AND TESTS.
- TESTS WILL BE CONDUCTED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF SUCH MECHANICAL SYSTEMS. THE TESTS WILL SHOW COMPLIANCE WITH 2018 BUILDING CODE REQUIREMENTS AS OUTLINES IN SECTION [BC 1704].
- THE LICENSED PROFESSIONAL ENGINEER, ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF SUCH MECHANICAL SYSTEMS AND CONDUCTING SUCH TESTS WILL FILE DOCUMENTATION AND REPORTS OF TESTS THAT THE SYSTEM COMPLIES WITH THE CONSTRUCTION DOCUMENTS AND APPLICABLE LAWS.
- TESTS OF MECHANICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE 2018 UNIFORM MECHANICAL CODE:
  - MECHANICAL VENTILATION – SECTION 402.3
- THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC. SHALL COMPLY WITH THE REFERENCED CODE OR STANDARD:
  - STANDARDS OF HEATING – 2018 IMC SECTION 309
  - DUCT CONSTRUCTION AND INSTALLATION – 2018 IMC SECTION 603
  - AIR INTAKES, EXHAUSTS AND RELIEF – 2018 IMC SECTION 403
  - AIR FILTERS – 2018 SECTION 603
  - SMOKE DETECTION CONTROL SYSTEM – 2018 IMC SECTION 606
- MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.
- VENTILATION OF ALL AREA SHALL COMPLY WITH 2018 IMC 401.
- A STATEMENT SHALL BE FILED BY THE OWNER OR TENANT IN POSSESSION THAT THE VENTILATION SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION AT ALL TIMES DURING THE NORMAL OCCUPANCY OF THE STRUCTURE AS REQUIRED BY IMC 2018 CHAPTER 4.
- REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE-RATED WALL AND SMOKE WALL CONSTRUCTION AND LOCATION.
- THESE PLANS ARE APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.
- ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.
- AIR BALANCING REPORT SHALL BE PROVIDED IN ACCORDANCE WITH 2015 IECC C408.2.2.
- SMOKE DETECTOR SHALL MEET UL268A.

## CODE COMPLIANCE

ALL WORK AND MATERIAL SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED AND AMENDED BY THE INSPECTING AUTHORITY. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHERS APPLICABLE TO THESE PROJECT:

- 2018 IBC – INTERNATIONAL BUILDING CODE
- 2018 IMC – INTERNATIONAL MECHANICAL CODE
- 2018 IPC – INTERNATIONAL PLUMBING CODE
- 2015 IFC – INTERNATIONAL FIRE CODE
- 2023 NEC – NATIONAL ELECTRICAL CODE
- 2015 IECC – INTERNATIONAL ENERGY CONSERVATION CODE.

## GENERAL NOTES

- CONTRACTOR SHALL SURVEY THE AREA OF THIS WORK BEFORE SUBMITTING A BID AND SHALL BE RESPONSIBLE FOR NOTIFYING THE ARCHITECT OF ANY CONDITIONS WHICH WOULD PREVENT THE INSTALLATION OF THE WORK AS SHOWN ON DRAWINGS.
- ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER, PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIALS WHICH VIOLATE ANY OF THE ABOVE LAWS AND REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH VIOLATION SHALL BE CORRECTED BY THE CONTRACTOR.
- BEFORE PROCEEDING WITH ANY WORK IN OCCUPIED OR USED AREAS, THE CONTRACTOR SHALL APPLY TO OWNER FOR PERMISSION TO ENTER SUCH AREAS. THE CONTRACTOR IS OBLIGED TO PERFORM HIS WORK ONLY AT THE TIMES DESIGNATED BY OWNER. THERE WILL BE NO ADDITIONAL COMPENSATION FOR THE WORK PERFORMED AFTER HOURS OR ON OFF-DAYS WITHOUT PRIOR WRITTEN APPROVAL.
- THE WORK IN THE BUILDING SHALL BE DONE WHEN AND AS DIRECTED, AND IN A MANNER SATISFACTORY TO THE OWNER. THE WORK SHALL BE PERFORMED SO AS TO CAUSE THE LEAST POSSIBLE INCONVENIENCE AND DISTURBANCE TO THE PRESENT OCCUPANTS.
- THE CONTRACTOR'S PROPOSAL FOR ALL WORK SHALL BE PREDICATED ON THE PERFORMANCE OF THE WORK DURING REGULAR WORKING HOURS. WHEN SO DIRECTED, HOWEVER, THE CONTRACTOR SHALL INSTALL WORK IN OVERTIME AND THE ADDITIONAL COST TO BE CHARGED THEREFORE SHALL BE ONLY THE "PREMIUM" PORTION OF THE WAGES PAID.
- CONTRACTOR SHALL ASCERTAIN THE APPROPRIATE METHOD FOR BRINGING THE UNITS INTO AND THROUGH THE BUILDING TO POSITION UNIT IN LOCATION SHOWN ON THE PLANS. WHERE NECESSARY, EQUIPMENT SHALL BE SHIPPED FROM MANUFACTURER IN SECTIONS OF SIZE SUITABLE FOR MOVING THROUGH RESTRICTIVE SPACES. COORDINATE WITH BUILDING OWNER APPROPRIATE TIMES OF DAY SUCH EQUIPMENT MAY BE MOVED THROUGH ALL AREAS.
- DISCONNECT, REMOVE AND/OR RELOCATE EXISTING MATERIAL, EQUIPMENT AND OTHER WORK AS NOTED OR REQUIRED FOR PROPER INSTALLATION OF NEW SYSTEM.
- CONNECT NEW WORK TO EXISTING WORK IN NEAT AND APPROVED MANNER. RESTORE EXISTING WORK DISTURBED WHILE INSTALLING NEW WORK TO ACCEPTABLE CONDITION AS DETERMINED BY ARCHITECT.
- PLAN INSTALLATION OF NEW WORK AND CONNECTIONS TO EXISTING WORK TO INSURE MINIMUM INTERFERENCE WITH REGULAR OPERATION OF EXISTING FACILITIES. ALL SYSTEM SHUTDOWNS AFFECTING OTHER AREAS SHALL BE COORDINATED WITH BUILDING OWNER. INSTALL ISOLATION VALVES AT POINT OF CONNECTION TO THE EXISTING PIPING. PROVIDE TEMPORARY DUCT CAPS AND/OR CONNECTIONS TO MINIMIZE SHUTDOWN TIME.
- SUPPORT ALL DUCTWORK AND PIPING FROM BUILDING STRUCTURE AND/OR FRAMING IN AN APPROVED MANNER. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OR SUPPORTS FOR EQUIPMENT, FURNISH ADDITIONAL FRAMING. INSERTS SHALL BE STEEL, SLOTTED TYPE AND FACTORY PAINTED. SINGLE ROD SHALL BE SIMILAR TO GRINWELL FIG. 281 MULTIPLE ROD SHALL BE SIMILAR TO FEE & MASON SERIES 9000 WITH END CAPS AND CLOSURE STRIPS. MAXIMUM LOADING INCLUDING PIPES, DUCTWORK CONTENTS AND COVERING SHALL NOT EXCEED 75% OF RATED INSERT CAPABILITY. WHEN SUPPORTING FROM BUILDING USE BEAM CLAMPS IN APPROVED MANNER.
- PROVIDE ALL NECESSARY FLASHING AND COUNTER FLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THIS BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF PIPES, DUCTS, LOUVERS, CONDUIT, AND EQUIPMENT. PROVIDE EQUIPMENT CURBS AND DUNNAGE STEEL AS REQUIRED. FLASHING AND SEALED BY LL APPROVED ROOFING CONTRACTOR AS A PART OF THE TENANT CONSTRUCTION.
- SEAL OPENINGS AROUND DUCTS AND PIPING THROUGH PARTITIONS, WALLS AND FLOORS (NOT IN SHAFTS) WITH MINERAL WOOL OR OTHER NONCOMBUSTIBLE MATERIAL (FIBERGLASS INSULATION IS NOT ACCEPTABLE).
- WHERE PENETRATIONS THROUGH FIRE RATED WALLS ARE NOT FIRE PROOFED THIS CONTRACTOR SHALL BE RESPONSIBLE TO SEAL SAME TO MAINTAIN THE RATED INTEGRITY.
- INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.
- ACCESS DOORS ARE REQUIRED FOR ALL BUILDING SERVICE VALVES THAT RUN THROUGH THE SPACE, AND ACCESS DOOR SHALL HAVE THE EQUAL RATED CAPACITY (1HR, 2HR, ETC.) AS WALL. COORDINATE ALL LOCATIONS OF ACCESS DOORS WITH THE ARCHITECT.
- REMOVABLE ACCESS TILE AND/OR ACCESS DOOR ARE REQUIRED IN HUNG CEILINGS, SHAFTS AND WALLS FOR ALL VOLUME AND FIRE DAMPERS, AUTOMATIC DAMPERS AND ALL OTHER MECHANICAL EQUIPMENT AND DEVICES. HVAC CONTRACTOR TO FURNISH ACCESS LOCATION REQUIREMENTS TO GENERAL CONTRACTOR ACCESS TILE IDENTIFICATION: PROVIDE BUTTONS, TABS, AND MARKERS TO IDENTIFY LOCATION OF CONCEALED VALVES, DAMPERS AND EQUIPMENT.
- THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND MATERIALS, AND ALL PARTS OF THE BUILDING, EXTERIOR SPACES AND ADJACENT STREETS, SIDEWALKS AND PAVEMENTS, FREE FROM MATERIAL AND DEBRIS RESULTING FROM THE EXECUTION OF THIS WORK. EXCESS MATERIALS WILL NOT BE PERMITTED TO ACCUMULATE EITHER ON THE INTERIOR OR THE EXTERIOR.
- UNLESS OTHERWISE SPECIFICALLY SPECIFIED, INCLUDE ALL CUTTING AND PATCHING OF EXISTING FLOORS, WALLS, PARTITIONS AND OTHER MATERIALS IN THE EXISTING BUILDING. THE CONTRACTOR SHALL RESTORE THESE AREAS TO ORIGINAL CONDITION.
- MATERIALS AND WORKMANSHIP, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
- ALL EQUIPMENT SHALL BE PROVIDED WITH ONE YEAR WARRANTY PARTS AND LABOR AND FIVE YEARS ON COMPRESSORS. WARRANTY PERIOD BEGINS UPON PROJECT ACCEPTANCE

## SCOPE OF WORK

### SCOPE OF WORK

- THE WORK UNDER CONTRACT INCLUDES ALL LABOR, MATERIALS AND APPLIANCES NECESSARY FOR THE FURNISHING, INSTALLING AND TESTING, COMPLETE AND READY FOR SAFE OPERATION OF THE SYSTEMS AS DESCRIBED IN THE SPECIFICATIONS, FLOOR PLAN(S) DESIGN, DETAIL DRAWINGS, NOTES, RFI'S, ETC. FOR THIS PROJECT. WORK SHALL BE INSTALLED IN A NEAT, WORKMANLIKE MANNER.
- THE CONTRACTOR SHALL GIVE NECESSARY NOTICE, FILE DRAWINGS AND SPECIFICATIONS WITH THE DEPARTMENT HAVING JURISDICTION, OBTAIN PERMITS OR LICENSES NECESSARY TO CARRY OUT THIS WORK AND PAY ALL FEES THEREFORE. THE CONTRACTOR SHALL ARRANGE FOR INSPECTION AND TESTS OF ANY OR ALL PARTS OF THE WORK IF SO REQUIRED BY AUTHORITIES AND PAY ALL CHARGES FOR SAME. THE CONTRACTOR SHALL PAY ALL COSTS FOR, AND FURNISH TO THE OWNER BEFORE FINAL BILLING, ALL CERTIFICATES NECESSARY AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH ALL REGULATIONS WHERE THEY APPLY TO THIS WORK.
- THE CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN ONE YEAR FROM THE DATE OF FINAL CERTIFICATE FOR PAYMENT AND/OR FROM DATE OR ACTUAL USE OF EQUIPMENT OR OCCUPANCY OF SPACES, BY OWNER, INCLUDED UNDER THE VARIOUS PARTS OF THE WORK, WHICHEVER DATE IS EARLIER. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE SHALL ALSO PROVIDE THAT WHERE DEFECTS OCCUR, THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED IN REPAIRING AND REPLACING WORK OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENT SUPPLIED BY THE CONTRACTOR.

## GENERAL HVAC NOTES

### GENERAL:

- PROVIDE ALL MATERIAL AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- CONTRACT DOCUMENT DRAWINGS FOR MECHANICAL WORK (HVAC, PLUMBING, AND FIRE PROTECTION) ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.
- THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
- WHEN MECHANICAL WORK (HVAC, PLUMBING, SHEET METAL, FIRE PROTECTION, ETC.) IS SUBCONTRACTED, IT SHALL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE SUBCONTRACTORS AND THE ASSOCIATED CONTRACTS. WHEN DISCREPANCIES ARISE PERTAINING TO WHICH CONTRACTOR PROVIDES A PARTICULAR ITEM OF THE MECHANICAL CONTRACT OR WHICH CONTRACTOR PROVIDES FINAL CONNECTIONS FOR A PARTICULAR ITEM OF THE MECHANICAL CONTRACT, IT SHALL BE BROUGHT TO THE ATTENTION OF THE MECHANICAL CONTRACTOR, WHOSE DECISION SHALL BE FINAL.
- COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
- WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED.
- COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL DUCT AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION.
- ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE AND ELECTRICAL DIVISION OF THE SPECIFICATION.
- PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.
- LOCATE ALL TEMPERATURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH THE STRAIGHT SECTION OF PIPE OR DUCT UP-- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER FOR GOOD ACCURACY.
- WHERE BEAMS ARE INDICATED TO BE PENETRATED WITH DUCTWORK OR PIPING, COORDINATE DUCTWORK AND PIPING LAYOUT WITH BEAM OPENING SIZE AND OPENING LOCATIONS. COORDINATION SHALL BE DONE PRIOR TO THE FABRICATION OF DUCTWORK, CUTTING OF PIPING, OR FABRICATION OF BEAMS.
- ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN THE DETAILS FOR DUCTWORK, AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS WHERE REQUIRED, TO SERVICE DAMPERS, VALVES, SMOKE DETECTORS, AND OTHER CONCEALED MECHANICAL EQUIPMENT. ACCESS PANELS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR FOR INSTALLATION. ACCESS PANELS SHALL HAVE THE EQUAL RATED CAPACITY (1HR, 2HR, ETC.) AS WALL.
- MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING SHALL NOT BE SUPPORTED FROM A METAL DECK.
- ALL EQUIPMENT, PIPING, DUCTWORK, ETC., SHALL BE SUPPORTED AS DETAILED, SPECIFIED AND REQUIRED TO PROVIDE A VIBRATION-FREE INSTALLATION.
- ALL DUCTWORK, PIPING, AND EQUIPMENT SUPPORTED FROM STRUCTURAL STEEL SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR. ALL ATTACHMENTS TO STEEL BAR JOISTS, TRUSSES, OR JOIST GIRDERS SHALL BE AT PANEL POINTS. PROVIDE BEAM CLAMPS MEETING MSS STANDARDS. WELDING TO STRUCTURAL MEMBERS SHALL NOT BE PERMITTED. THE USE OF C-CLAMPS SHALL NOT BE PERMITTED.
- LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.
- ALL OPENINGS IN FIRE WALLS DUE TO DUCTWORK, PIPING, CONDUIT, ETC., SHALL BE FIRE STOPPED WITH A PRODUCT SIMILAR TO 3M OR APPROVED EQUAL.
- ALL CONDENSATE DRAIN LINES FROM EACH ROOF TOP UNIT SHALL BE PIPED FULL SIZE OF THE UNIT DRAIN OUTLET, WITH "P" TRAP, AND PIPED TO THE NEAREST DRAIN OR GUTTER OR DOWN SPOUT PROVIDED THAT DOWNSPOUT DOES NOT DISCHARGE ONTO PAVEMENT. SEE THE DETAILS SHOWN IN THE DRAWINGS OR THE CONTRACT SPECIFICATIONS FOR THE DEPTH OF THE AIR CONDITIONING CONDENSATE TRAP.
- REFER TO TYPICAL DETAILS FOR DUCTWORK, PIPING, AND EQUIPMENT INSTALLATION.
- ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.
- TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THE AABC STANDARDS.

## KITCHEN EXHAUST SYSTEM NOTES :

- PROVIDE CLEAN OUT AT ALL ELBOWS AND EVERY 15 FEET HORIZONTAL KITCHEN EXHAUST DUCT.
- COMMERCIAL KITCHEN GREASE DUCTS SHALL BE DESIGNED FOR THE TYPE OF COOKING APPLIANCE AND HOOD SERVED.
- JOINTS, SEAMS AND PENETRATIONS OF GREASE DUCTS SHALL BE MADE WITH A CONTINUOUS LIQUID TIGHT WELD OR BRAZE MADE IN THE EXTERNAL SURFACE IF THE DUCT SYSTEMS.
- DUCT TO EXHAUST FAN CONNECTIONS SHALL BE FLANGED, GASKETED AND BOLTED TO THE INLET AND OUTLET OF THE FAN FOR INLINE FANS. APPROVED FLEXIBLE CONNECTIONS MAY BE PROVIDED.
- A VIBRATION ISOLATION CONNECTOR FOR CONNECTING A DUCT TO A FAN SHALL CONSIST OF NON-COMBUSTIBLE PACKING IN A METAL SLEEVE JOINT OF APPROVED DESIGN OR SHALL BE A COATED-FABRIC FLEXIBLE DUCT CONNECTOR LISTED AND LABELED FOR THE APPLICATION. VIBRATION ISOLATION CONNECTORS SHALL BE INSTALLED ONLY AT THE CONNECTION OF A DUCT TO A FAN INLET OR OUTLET.
- PRIOR TO THE USE OR CONCEALMENT OF ANY PORTION OF A GREASE DUCT SYSTEM, A LEAKAGE TEST SHALL BE PERFORMED. DUCT SHALL BE CONSIDERED TO BE CONCEALED WHERE INSTALLED IN SHAFTS OR COVERED BY COATINGS OR WRAPS THAT PREVENT THE DUCTWORK FROM VISUALLY INSPECTED ON ALL SIDE. THE DUCT INSTALLER SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY EQUIPMENT AND PERFORMING THE GREASE DUCT LEAKAGE TEST. THE DUCT LEAKAGE TEST SHALL BE PERFORMED FOR ALL THE DUCT SYSTEMS, INCLUDING THE DUCT-TO-DUCT CONNECTION. THE DUCTWORK SHALL BE PERMITTED TO BE TESTED IN SECTIONS, PROVIDED THAT EVERY JOINT IS TESTED (IF TEST IS FAILED, CONTRACTOR TO PROVIDE NEW KITCHEN EXHAUST DUCT).
- PROVIDE SMOKE TEST TO PROOF TIGHTNESS OF THE GREASE DUCT.
- GREASE DUCT BRACING AND SUPPORTS SHALL BE OF NON-COMBUSTIBLE MATERIAL SECURELY ATTACHED TO THE STRUCTURE AND DESIGNED TO CARRY GRAVITY AND SEISMIC LOADS WITHIN THE STREET LIMITATIONS OF THE 2018 INTERNATIONAL BUILDING CODE. BOLTS, SCREWS, NUTS AND OTHER MECHANICAL FASTENERS SHALL NOT PENETRATE DUCT WALLS.
- PROVIDE A FUSIBLE LINK FIRE DAMPER OF THE SAME GAGE AS THE HOOD EXHAUST DUCT SHALL BE ADDED AT THE POINT OF CONNECTION OF THE BRANCH DUCT TO THE EXHAUST DUCT. THE FIRE DAMPER SHALL BE CLOSED AUTOMATICALLY UPON THE PENETRATION OF THE FIRE-EXTINGUISHING SYSTEM, AND THE BRANCH DUCT SHALL BE MADE IN EITHER THE TOP OR SIDES OF THE MAIN DUCT IN A MANNER TO PREVENT GREASE FROM FLOWING INTO THE BRANCH DUCT.
- CLEANOUT OPENINGS SHALL BE EQUIPPED WITH TIGHT-FITTING DOORS CONSTRUCTED OF STEEL HAVING A THICKNESS NOT LESS THAN THAT REQUIRED FOR THE DUCT. DOORS SHALL BE EQUIPPED WITH A SUBSTANTIAL METHOD OF LATCHING, SUFFICIENT TO HOLD THE DOOR TIGHTLY CLOSED. DOOR ASSEMBLIES SHALL HAVE A GASKET OR SEALANT THAT IS NON-COMBUSTIBLE AND LIQUID TIGHT AND SHALL NOT HAVE FASTENERS THAT PENETRATED THE DUCT.
- THE CLEANOUTS FOR HORIZONTAL GREASE DUCT SHALL BE LOCATED ON THE SIDE OF THE DUCT WITH THE OPENING NOT LESS THAN 1.5" ABOVE THE BOTTOM OF THE DUCT AND NOT LESS THAN 1" BELOW THE TOP OF THE DUCT.
- A GREASE DUCT SERVING THE TYPE-1 HOOD THAT PENETRATED A CEILING, WALL OR FLOOR SHALL BE ENCLOSED FROM THE FIRE POINT OF PENETRATION TO THE OUTLET TERMINAL. DUCT ENCLOSURES SHALL HAVE A FIRE-RESISTANCE RATING NOT LESS THAN THAT OF THE FIRE-RESISTANCE RATED ASSEMBLY PENETRATED BUT NEED NOT EXCEED 2 HOURS.
- KITCHEN-EXHAUST OUTLETS SHALL BE LOCATED NOT LESS THAN 10 FEET HORIZONTALLY FROM PARTS OF THE SAME OR CONTIGUOUS BUILDINGS, ADJACENT BUILDINGS AND ADJACENT PROPERTY LINE. THIS EXHAUST OUTLETS SHALL BE LOCATED NOT LESS THAN 10 FEET HORIZONTALLY FROM AND NOT LESS THAN 3 FEET ABOVE AIR INTAKE OPENINGS INTO ANY BUILDING.
- CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF THE DUCTWORK. MODIFY DUCTWORK AS PER SITE CONDITIONS IF REQUIRED.
- PROVIDE 2 LAYERS OF 1.5" THICK 3-M FIRE WRAP FOR THE KITCHEN GREASE EXHAUST DUCT TILL THE MAIN ROOF.

## SHEET HISTORY SCHEDULE

PERMIT SET	2026-01-12
REVISION 1	2026-01-27

ISSUE DATE: 01/27/2026

## TENANT INTERIOR BUILD-OUT

### MOTOMEDI

DRAWN BY:

QAQC:

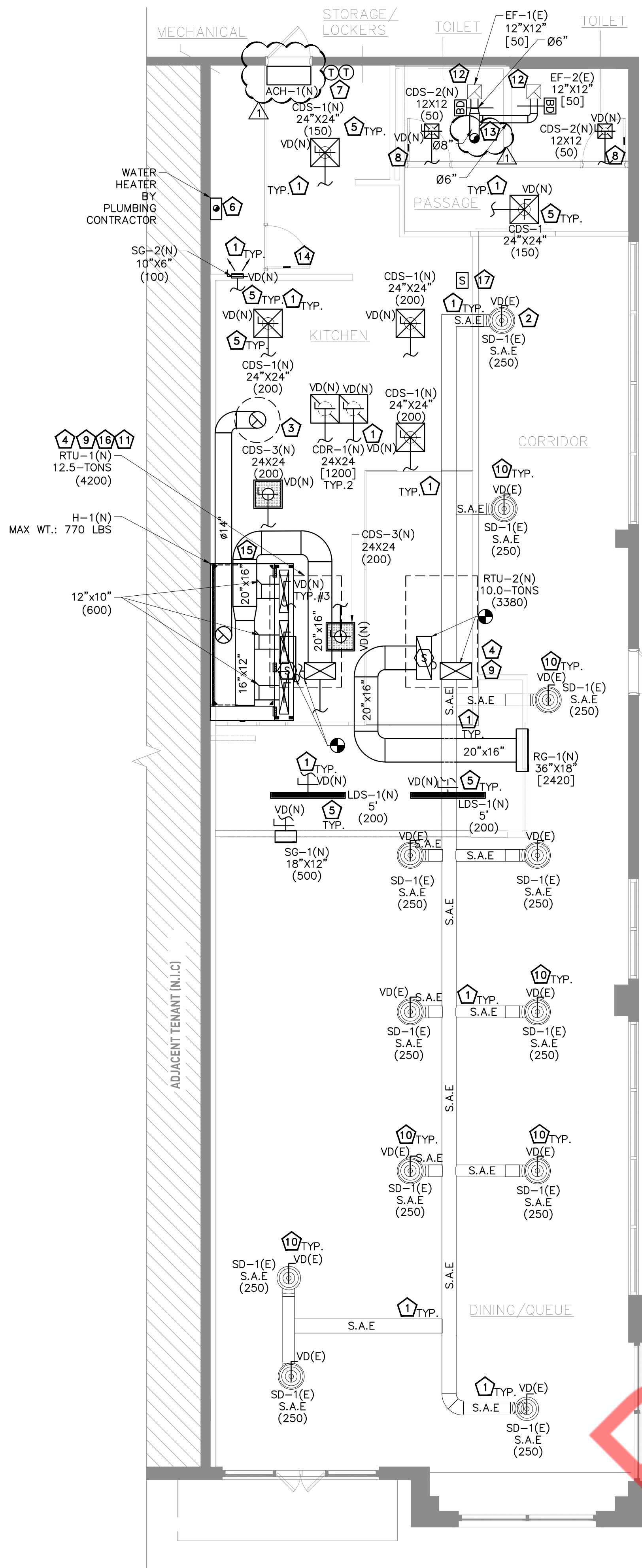
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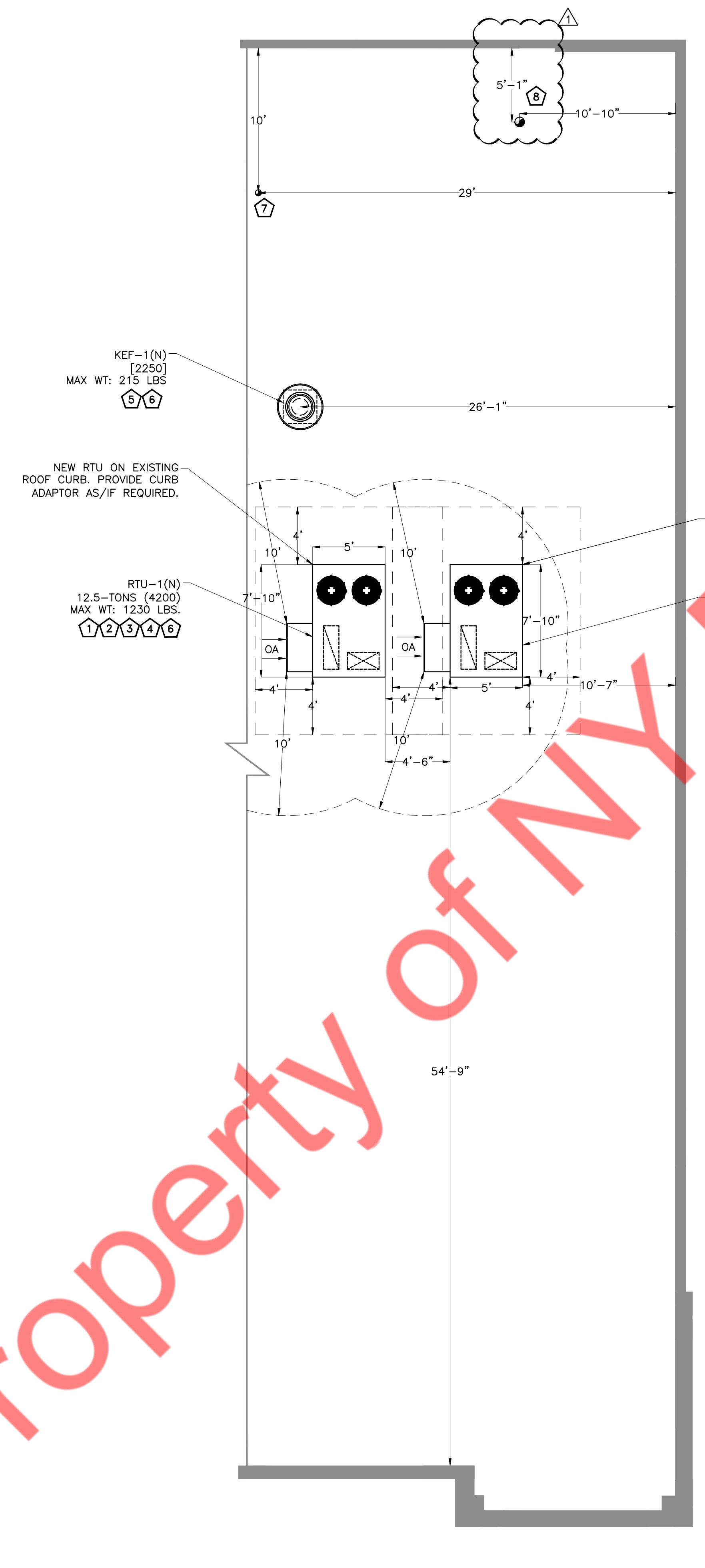
MECH. GENERAL NOTES,  
SYMBOLS LIST &  
ABBREVIATIONS

# MO.1





1 MECHANICAL FLOOR PLAN  
SCALE: 3/16" = 1'-0"



2 MECHANICAL ROOF PLAN  
SCALE: 3/16" = 1'-0"

**MECHANICAL GENERAL NOTES:**

- NEW DUCTWORK SHOWN ON PLAN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING, OFFSET AND RUN PIPING, MODIFY DUCT/PIPE ROUTE IF REQUIRED. PROVIDE ANY EXTRA PIPING, DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.
- COORDINATE LOCATIONS AND SIZES OF INTAKE & EXHAUST OPENINGS WITH OWNER AND RESPECTIVE ENGINEER.
- EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED. VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING ETC.
- CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
- COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
- ALL SOURCE OF MECHANICAL INTAKE SHALL MAINTAIN 10 LINEAR FEET SEPARATION BETWEEN ANY SOURCE OF EXHAUST. CONTRACTOR IS RESPONSIBLE TO ADJUST DUCT LENGTH AS NEEDED.
- PROVIDE FIRE OR FIRE+SMOKE DAMPER WHEREVER DUCTS ARE CROSSING FIRE/SMOKE RATED WALLS/BARRIERS. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR FIRE RATINGS OF THE WALLS.
- ARCHITECTURAL LAYOUT AND DIMENSIONS FOR EQUIPMENT TO TAKE PRECEDENCE OVER MEP.
- LIMIT FLEXIBLE DUCT LENGTH TO 5 LINEAR FEET. MAKE SURE DUCT IS FULLY STRETCHED OUT WITH NO KINKS & SHARP BENDS.
- ACOUSTICALLY LINE THE FIRST 10'-0" OF BOTH SUPPLY AND RETURN DUCTS.
- RETAIN AND REUSE EXISTING DUCTWORK & DIFFUSERS AS MUCH AS POSSIBLE. CLEAN THE EXISTING DIFFUSERS. REPLACE THE EXISTING DUCTWORK/DIFFUSERS IF NECESSARY.

**LANDLORD GENERAL NOTES:**

- ANYTHING PROPOSED TO BE LOCATED ON OR THROUGH ROOF SHALL BE LOCATED AT LEAST 2'-0" FROM ADJACENT TENANT DEMISING WALLS AND 5'-0" FROM BACK WALL AND PARAPET WALLS.
- HVAC RTU CONDENSATE LINES SHALL BE ROUTED DOWN THROUGH ROOF WITHIN 2'-0" OF EACH ROOFTOP UNIT AND THEN BE ROUTED INSIDE THE BUILDING TO AN OUTSOURCE POINT (MOP SINK).
- CONDENSATE DRAIN LINES, ELECTRICAL CONDUIT SERVING ROOFTOP EQUIPMENT LOCATED WITHIN 2'-0" OF ALL ROOFTOP EQUIPMENT INCLUDING KEF SHALL BE ROUTED THROUGH PITCH PANS INSTALLED ON ROOF THAT ARE FLASHED AND SEALED BY LANDLORD-APPROVED ROOFING CONTRACTOR.
- ROOF OPENINGS SHALL BE SUPPORTED PER STRUCTURAL ROOF OPENING DETAILS. REFER TO THE STRUCTURAL DETAIL #1 ON SHEET S1-2.
- ALL ROOF PENETRATIONS SHALL BE COORDINATED WITH ROOFER AND BE VERIFIED/APPROVED BY LANDLORD PRIOR TO BEING MADE AND BE FLASHED AND SEALED BY LANDLORD-APPROVED ROOFING CONTRACTOR AS A PART OF THE TENANT CONSTRUCTION.
- ANYTHING PROPOSED TO BE ATTACHED TO OR SUSPENDED FROM ABOVE SHALL BE ATTACHED TO OR SUSPENDED FROM THE BUILDING STRUCTURE.

**MECHANICAL FLOOR PLAN KEY NOTES:**

- EXISTING SUPPLY, RETURN & EXHAUST AIR DUCTWORK TO REMAIN & TO BE REUSED. CONTRACTOR SHALL CLEAN AND REFURBISH TO "LIKE NEW" CONDITION. CONTRACTOR TO FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING DUCTWORK. EXTEND/MODIFY DUCTWORK AS/IF REQUIRED. REPLACE WITH SIMILAR KIND IF BEYOND REPAIR/CLEAN. CONTRACTOR TO VERIFY IN FIELD PRIOR TO BID.
- REUSE AND RELOCATE EXISTING SUPPLY, RETURN & EXHAUST AIR DIFFUSERS/GRILLES AS SHOWN ON PLAN. CONTRACTOR TO FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING DIFFUSERS/GRILLES. CLEAN AND REFURBISH TO "LIKE NEW" CONDITION. EXTEND/MODIFY DUCTWORK AS/IF REQUIRED. REPLACE WITH SIMILAR KIND IF BEYOND REPAIR/CLEAN. CONTRACTOR TO VERIFY IN FIELD PRIOR TO BID.
- 14" GREASE EXHAUST DUCT FROM HOOD UP THRU ROOF TO KITCHEN EXHAUST FAN. PROVIDE FIRE WRAP ON DUCT RATED FOR 0" CLEARANCE TO COMBUSTIBLES.
- EXTEND FULL SIZE SUPPLY & RETURN DUCTWORK FROM THE NEW ROOFTOP UNITS TO SPACE & CONNECT TO THE EXISTING DUCTWORK. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION & ROUTING OF EXISTING SUPPLY & RETURN DUCTWORK. MAKE ANY NECESSARY TRANSITIONS, RELOCATIONS AND/OR MODIFICATIONS TO THE EXISTING DUCTWORK. ACOUSTICALLY LINE THE FIRST 10'-0" OF BOTH SUPPLY AND RETURN MAIN DUCTS.
- CONNECT NEW SUPPLY/RETURN GRILLE/DIFFUSER/REGISTER TO THE EXISTING DUCTWORK. EXACT POINT OF CONNECTION SHALL BE DETERMINED IN FIELD. ANY NECESSARY TRANSITIONS AND/OR MODIFICATIONS TO THE EXISTING DUCTWORK SHALL BE MADE AS PER SITE CONDITIONS.
- PROVIDE A DRAFT HOOD AND A 4" ROUND VENT PIPE FOR THE WATER HEATER VENTING AS PER THE MANUFACTURER'S RECOMMENDATIONS. ROUTE AND TERMINATE THE VENT PIPE THROUGH THE ROOF.
- PROVIDE NEW 7-DAY PROGRAMMABLE THERMOSTAT WITH LOCKING COVER. PROVIDE REMOTE SENSOR LOCATED 48" A.F.F. NEAR LOCATION INDICATED. COORDINATE LOCATION ON SITE WITH GENERAL CONTRACTOR AND EQUIPMENT. AVOID LOCATING NEAR OR ABOVE SOURCES OF HEAT. INTERLOCK WITH ASSOCIATED RTU. CONFIRM FINAL LOCATION WITH ARCHITECT/OWNER.
- PROVIDE 6"x6" DOOR GRILLE FOR AIR TRANSFER.
- DUCT MOUNTED SMOKE DETECTOR SHALL BE FURNISHED/INSTALLED BY MECHANICAL CONTRACTOR IN RETURN AIR DUCT AND WIRED BY ELECTRICAL CONTRACTOR TO SHUT DOWN CORRESPONDING RTU UNDER ALARM CONDITIONS. ALL WIRING SHALL BE IN CONDUIT PER N E C SMOKE DETECTOR SHALL BE SYSTEM SENSOR MODEL DH100AGDCLP OR EQUAL.
- EXISTING VOLUME DAMPERS TO REMAIN & TO BE REUSED. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF EXISTING VOLUME DAMPERS. RE-BALANCE OR RE-ADJUST THE VOLUME DAMPERS TO MATCH THE AIRFLOW AS INDICATED ON PLAN. PROVIDE A NEW VOLUME DAMPER OR COLLAR DAMPER IF THE EXISTING ONE IS DAMAGED. CONTRACTOR TO VERIFY IN FIELD PRIOR TO BID.
- CONTRACTOR TO CO-ORDINATE THE DUCTWORK WITH HOOD TO AVOID ANY CLASHES.
- EXISTING TOILET EXHAUST FANS TO BE RELOCATED. CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION OF THE EF-1(E) & EF-2(E).
- ROUTE Ø8" EXHAUST AIR DUCT UP THROUGH ROOF. TERMINATE WITH GOOSENECK AND BIRD SCREEN. MAINTAIN MINIMUM OF 10'-0" DISTANCE FROM ANY OUTSIDE AIR INTAKE SOURCE AND ATLEAST 5'-0" FROM BACK WALL OF BUILDING AND FROM PARAPET WALLS.
- PROVIDE 8"x8" DOOR GRILLE FOR AIR TRANSFER.
- CONNECT NEW HOOD MAKEUP AIR DUCT TO THE EXISTING DUCTWORK CONNECTED TO RTU-1(N). EXACT POINT OF CONNECTION SHALL BE DETERMINED IN FIELD. ANY NECESSARY TRANSITIONS AND/OR MODIFICATIONS TO THE EXISTING DUCTWORK SHALL BE MADE AS PER SITE CONDITIONS.
- INTERLOCK RTU-1(N) WITH HOOD. CONTRACTOR TO CO-ORDINATE WITH HOOD VENDOR AND MANUFACTURER FOR THE SPECIFIC CONTROLS OF THE INTERLOCKING AND THERMOSTATIC CONTROLS.
- LOCATION OF ANSUL SYSTEM REMOTE MANUAL PULL STATION. VERIFY EXACT LOCATION WITH KITCHEN EQUIPMENT SUPPLIER. PROVIDE AND INSTALL EMERGENCY MANUAL SHUTDOWN PUSH BUTTON FOR HOOD-1(N). PUSH BUTTON SHALL BE IN THE PATH OF EGRESS, A MINIMUM OF 10 FT. AWAY FROM THE HOOD AND A MAXIMUM OF 20 FT.

**MECHANICAL ROOF PLAN KEY NOTES:**

- EXISTING ROOF CURB TO REMAIN AND TO BE REUSED. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND CONFIGURATION ON SITE. CLEAN AND REFURBISH TO "LIKE-NEW" CONDITION. REPAIR/REPLACE AS IF REQUIRED. PROVIDE CURB ADAPTOR AS/IF REQUIRED.
- CONTRACTOR TO FIELD VERIFY THAT THE LOCATION OF ANY EXHAUST SOURCE SHOULD BE AT LEAST 10'-0" HORIZONTALLY AWAY OR 3'-0" VERTICALLY ABOVE ALL THE OUTSIDE AIR OPENING OF RTUS.
- PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCT CONNECTIONS. MAKE NECESSARY TRANSITIONS AND CONNECT TO THE EXISTING.
- CONDENSATE DRAIN FROM RTU-1(N), RTU-2(N) SHALL BE CONVEYED TO AN APPROVED PLACE OF DISPOSAL. SUCH PIPING SHALL MAINTAIN A MINIMUM HORIZONTAL SLOPE IN THE DIRECTION OF DISCHARGE OF NOT LESS THAN THE 1/8TH UNIT VERTICAL IN 12 UNITS HORIZONTAL (1% SLOPE). CONDENSATE SHALL NOT DISCHARGE INTO A STREET, ALLEY OR OTHER AREAS SO AS TO CAUSE A NUISANCE.
- CONTRACTOR TO INSTALL KEF-1(N) ON ROOF WITH REQUIRED ACCESSORIES AND AS PER MANUFACTURER RECOMMENDATION. COORDINATE FINAL LOCATION OF EQUIPMENT WITH ARCHITECT/OWNER. MAINTAIN 10'-0" HORIZONTAL OR 3'-0" VERTICAL DISTANCE FROM ALL THE OUTSIDE AIR OPENING OF RTUS.
- COORDINATE FINAL LOCATION OF EQUIPMENT WITH STRUCTURAL DRAWINGS/ENGINEER OR LANDLORD/CLIENT.
- ROUTE AND TERMINATE THE 4" VENT PIPE ON THE ROOF AT A MINIMUM OF 18" HEIGHT FROM THE FINISHED ROOF LEVEL. TERMINATE WITH EITHER GOOSENECK & BIRD-SCREEN SETUP OR RAINGARF & BIRD-SCREEN SETUP AND ATLEAST 5'-0" FROM BACK WALL OF BUILDING AND FROM PARAPET WALLS.
- TERMINATE Ø8" TOILET EXHAUST DUCT UP THROUGH ROOF WITH GOOSENECK & BIRDSCREEN. MAINTAIN A MINIMUM OF 10'-0" FROM ALL OUTSIDE AIR INTAKES AND ATLEAST 5'-0" FROM BACK WALL OF BUILDING AND FROM PARAPET WALLS.

SHEET HISTORY SCHEDULE	
PERMIT SET	2026-01-12
REVISION 1	2026-01-27
ISSUE DATE:	01/27/2026

**TENANT INTERIOR BUILD-OUT**

**MOTOMEDI**

DRAWN BY:

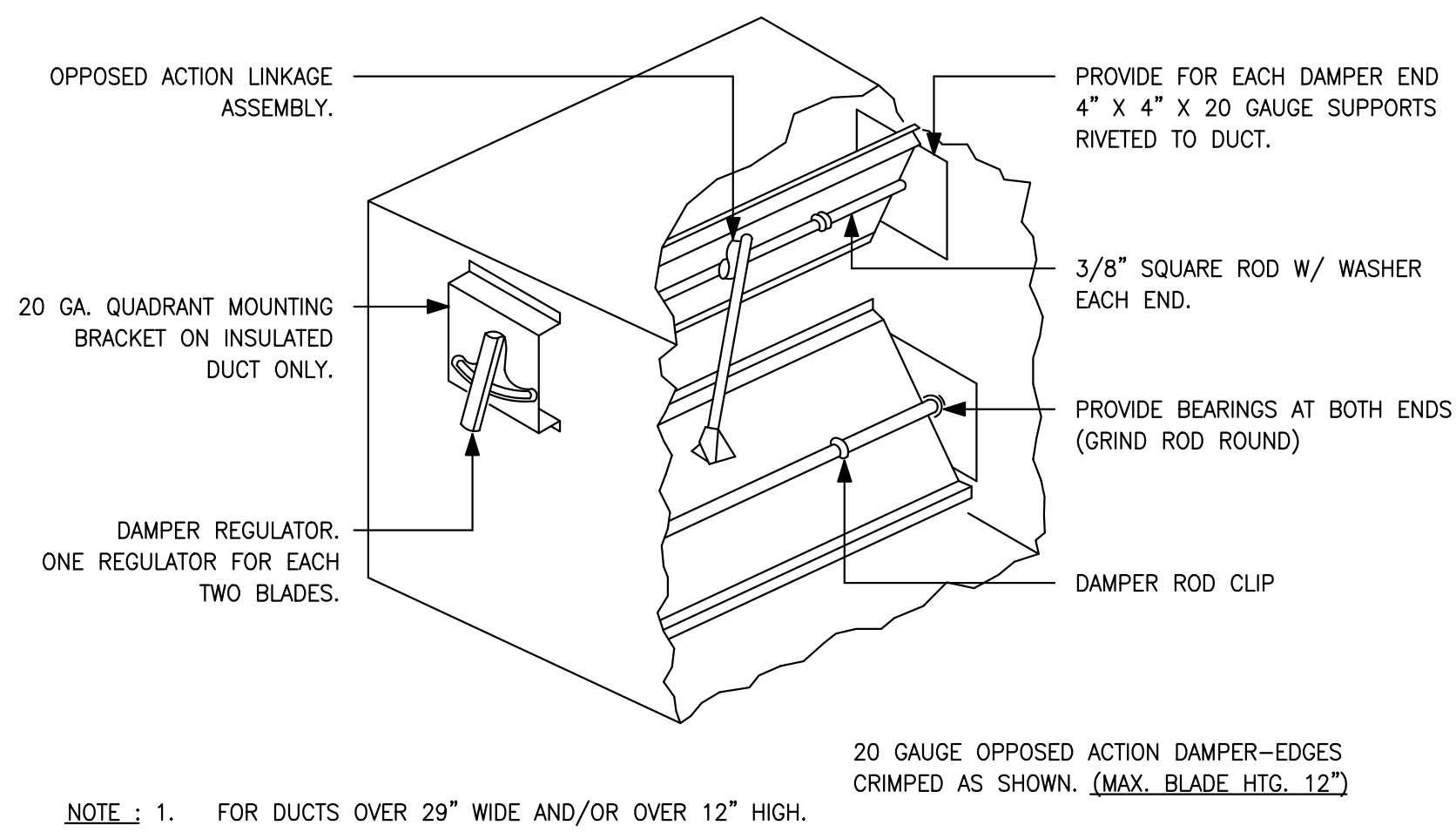
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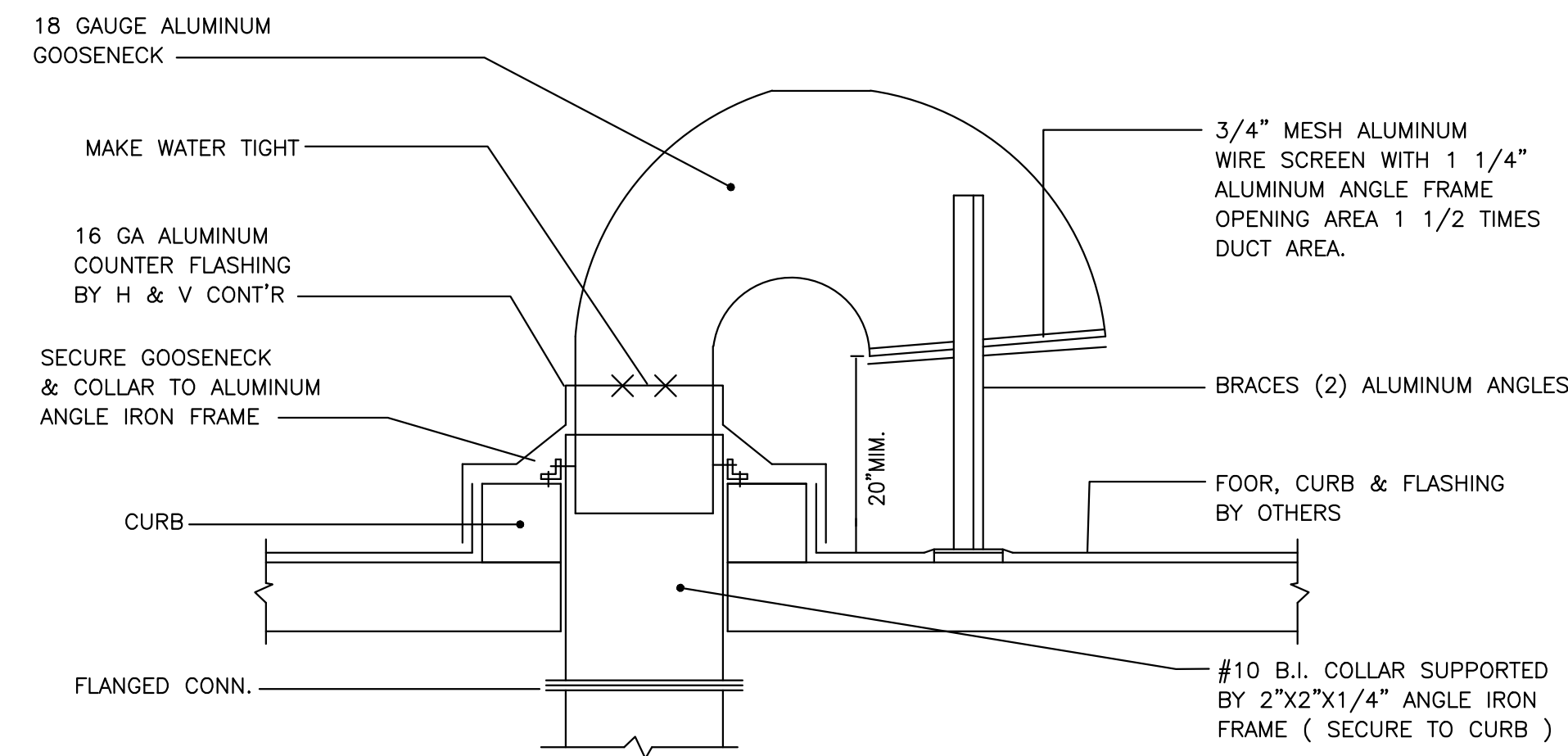
PROJECT NUMBER:

**MECHANICAL FLOOR & ROOF PLANS**

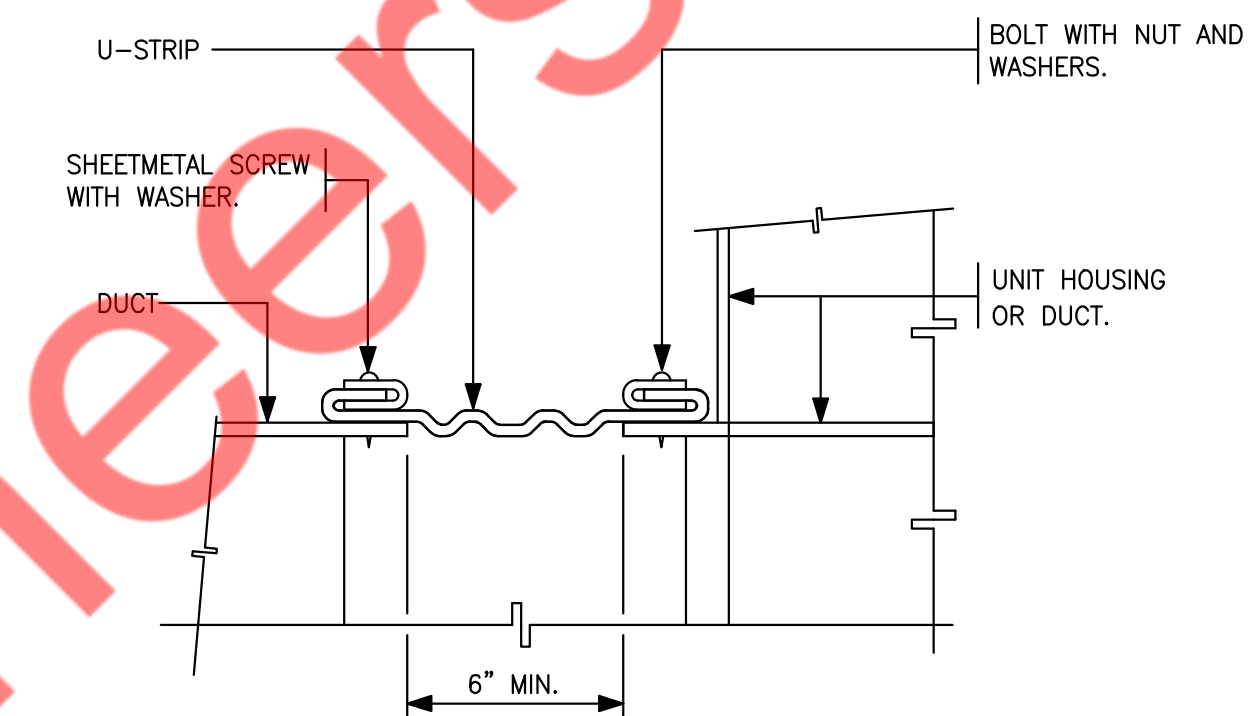
**M1.0**



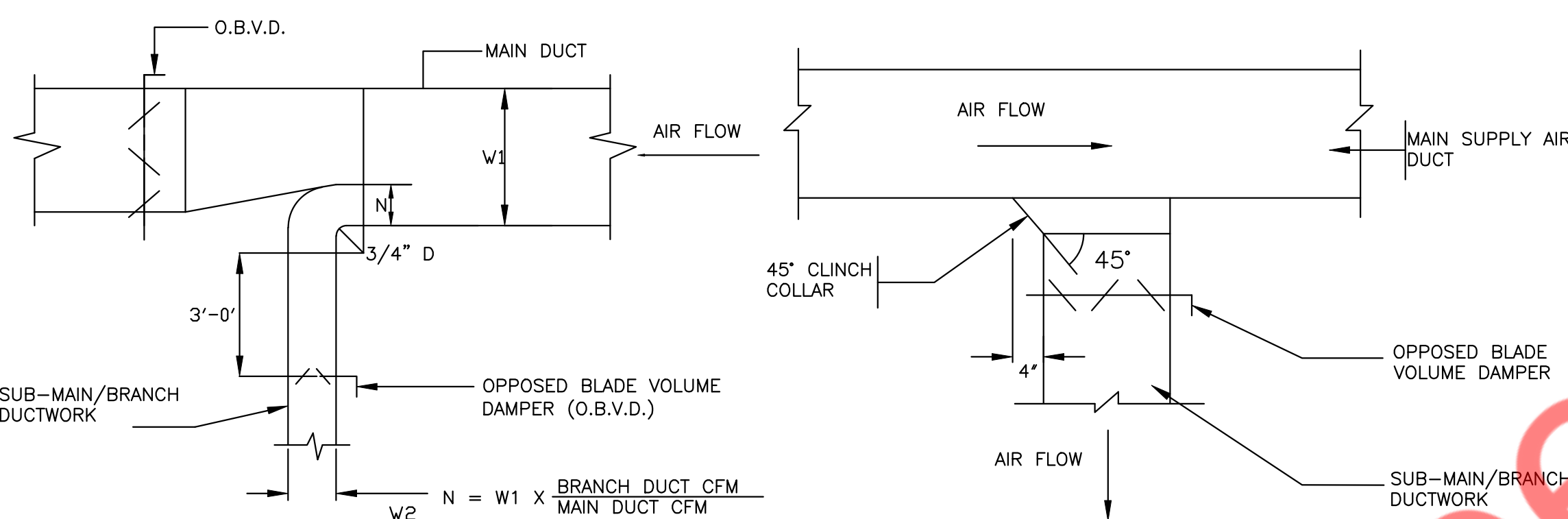
1 LOW PRESSURE BALANCING DAMPER  
M5.0 N.T.S



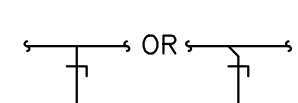
2 TYPICAL DETAIL OF ROOF GOOSENECK  
M5.0 N.T.S



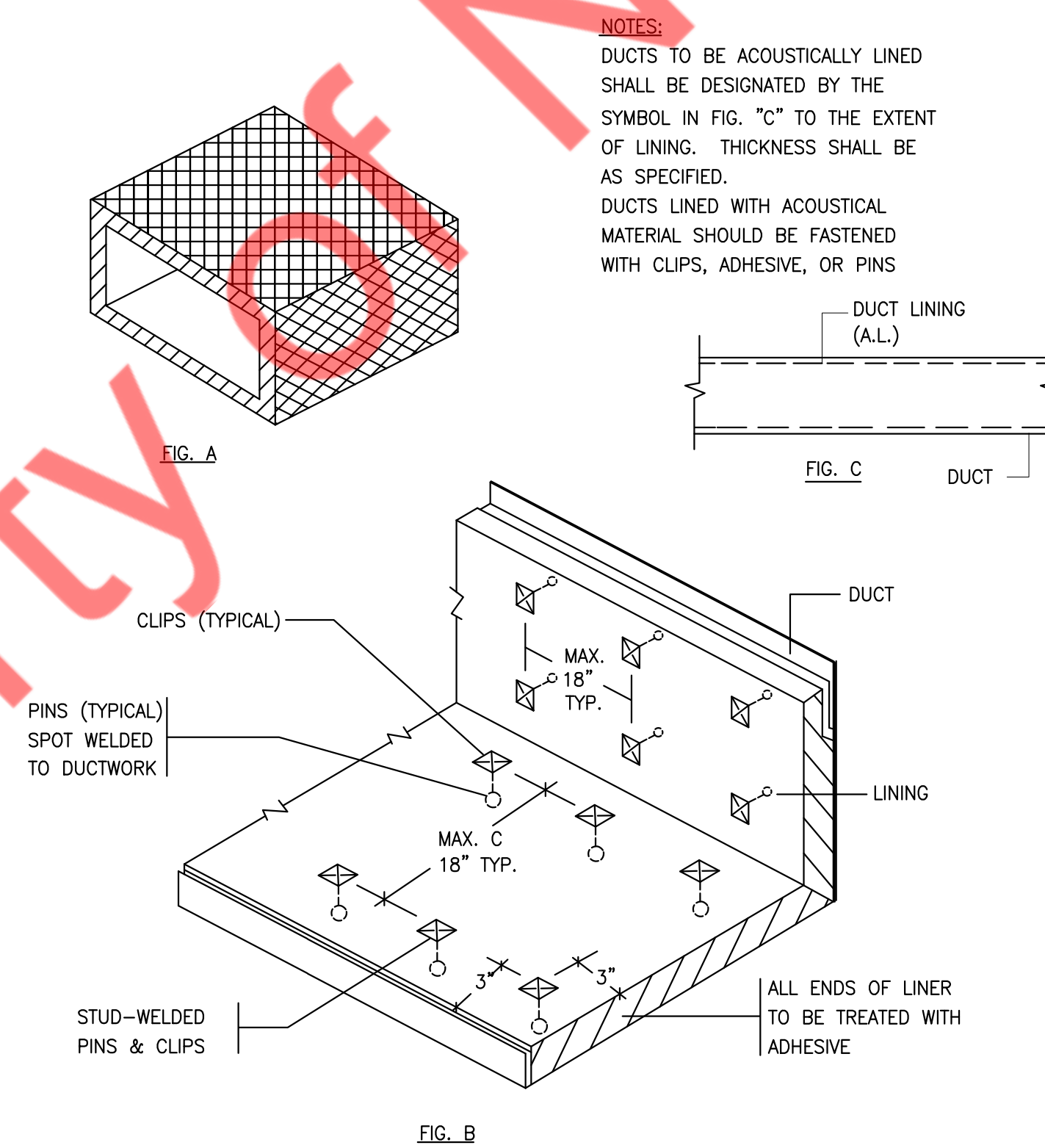
3 FLEXIBLE CONNECTION (DUCT-EQUIPMENT)  
M5.0 N.T.S



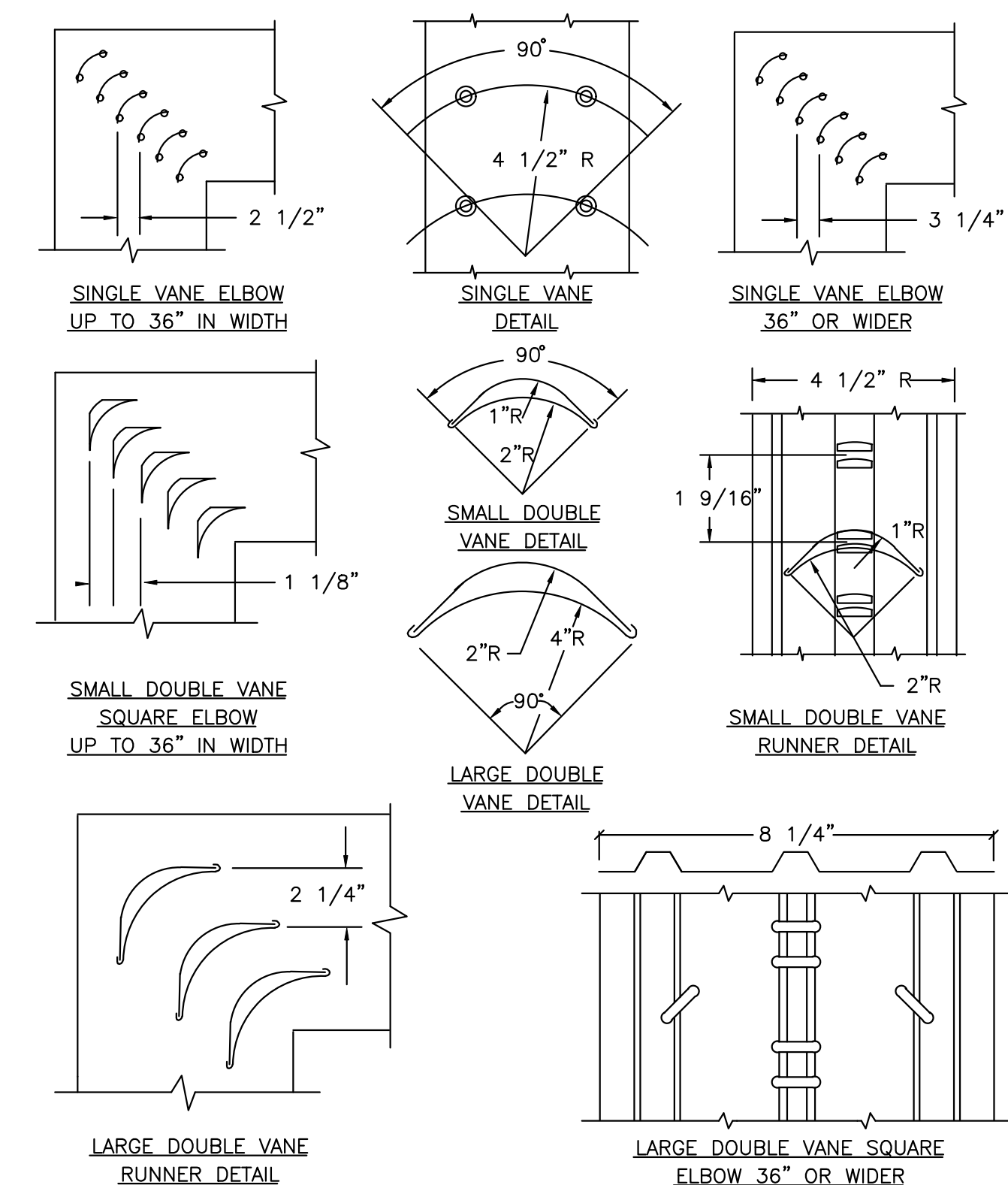
NOTE:  
FURNISH THIS TYPE CONNECTION WHEN SINGLE LINE DUCTWORK IS INDICATED AS THIS



4 SUPPLY AIR DUCTWORK SUB-MAIN/BRANCH DUCT CONNECTION  
M5.0 N.T.S



5 ACOUSTICAL TREATMENT DUCT LINING  
M5.0 N.T.S



6 LOW VELOCITY DUCTWORK ELBOWS  
M5.0 N.T.S

SHEET HISTORY SCHEDULE	
PERMIT SET	2026-01-12
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TENANT INTERIOR BUILD-OUT

MOTOMEDI

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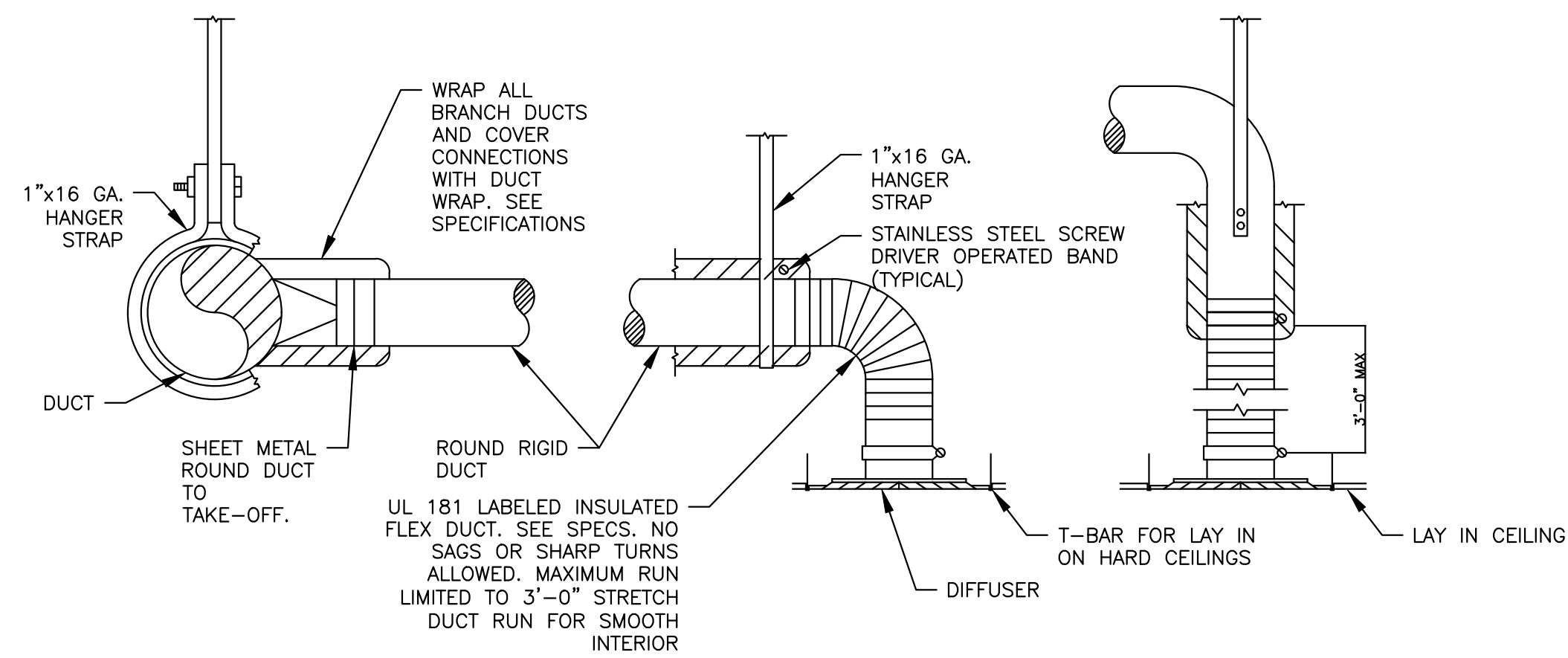
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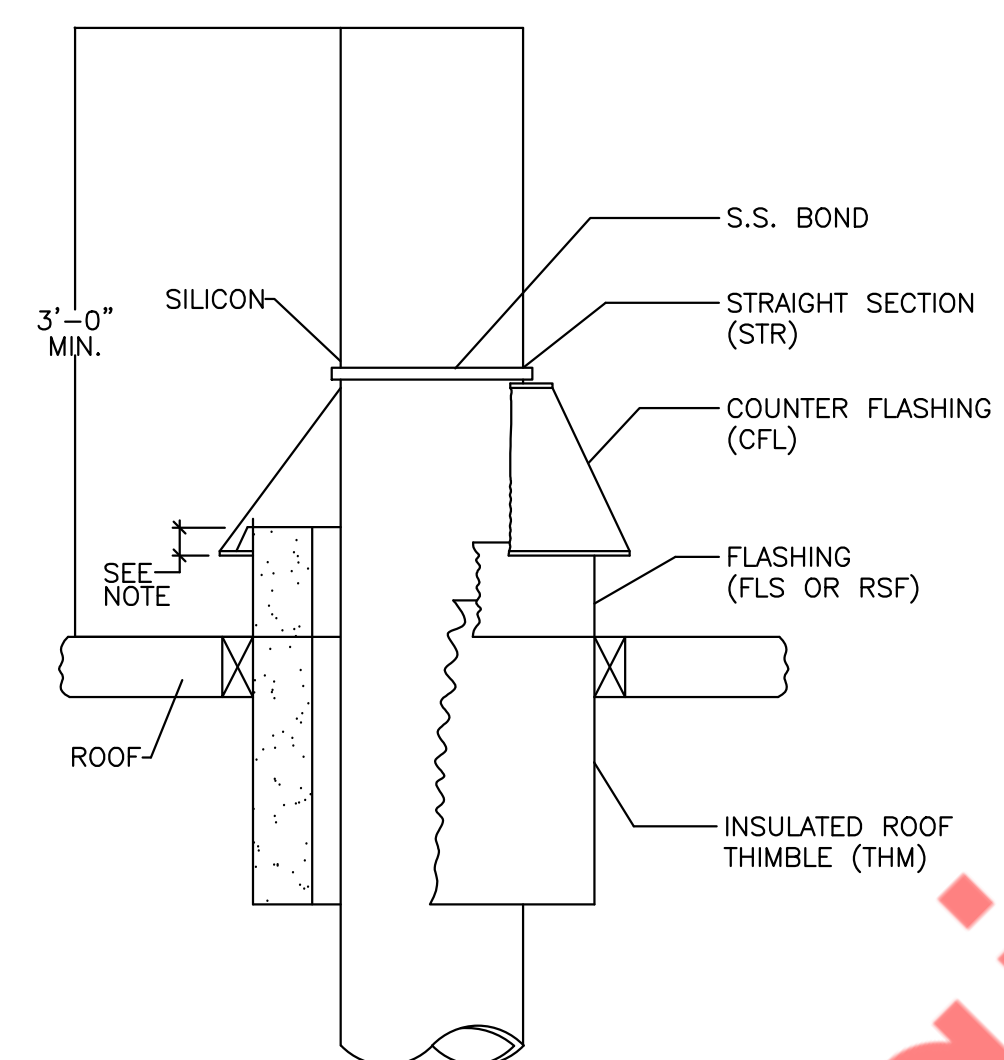
PROJECT NUMBER:

MECHANICAL DETAILS  
(1 OF 2)

M5.0

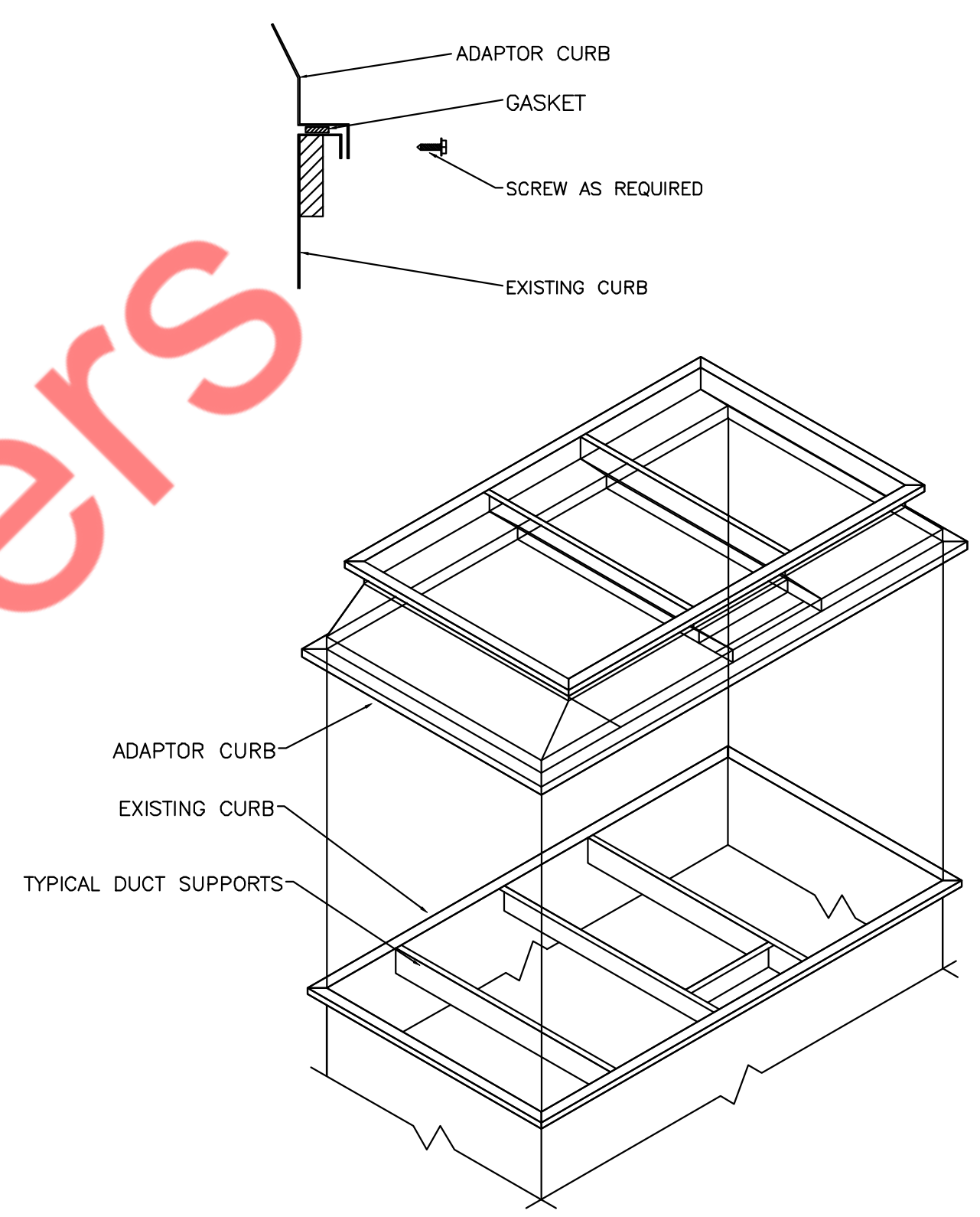


1 TYPICAL DIFFUSER CONNECTION DETAIL  
M5.1 N.T.S

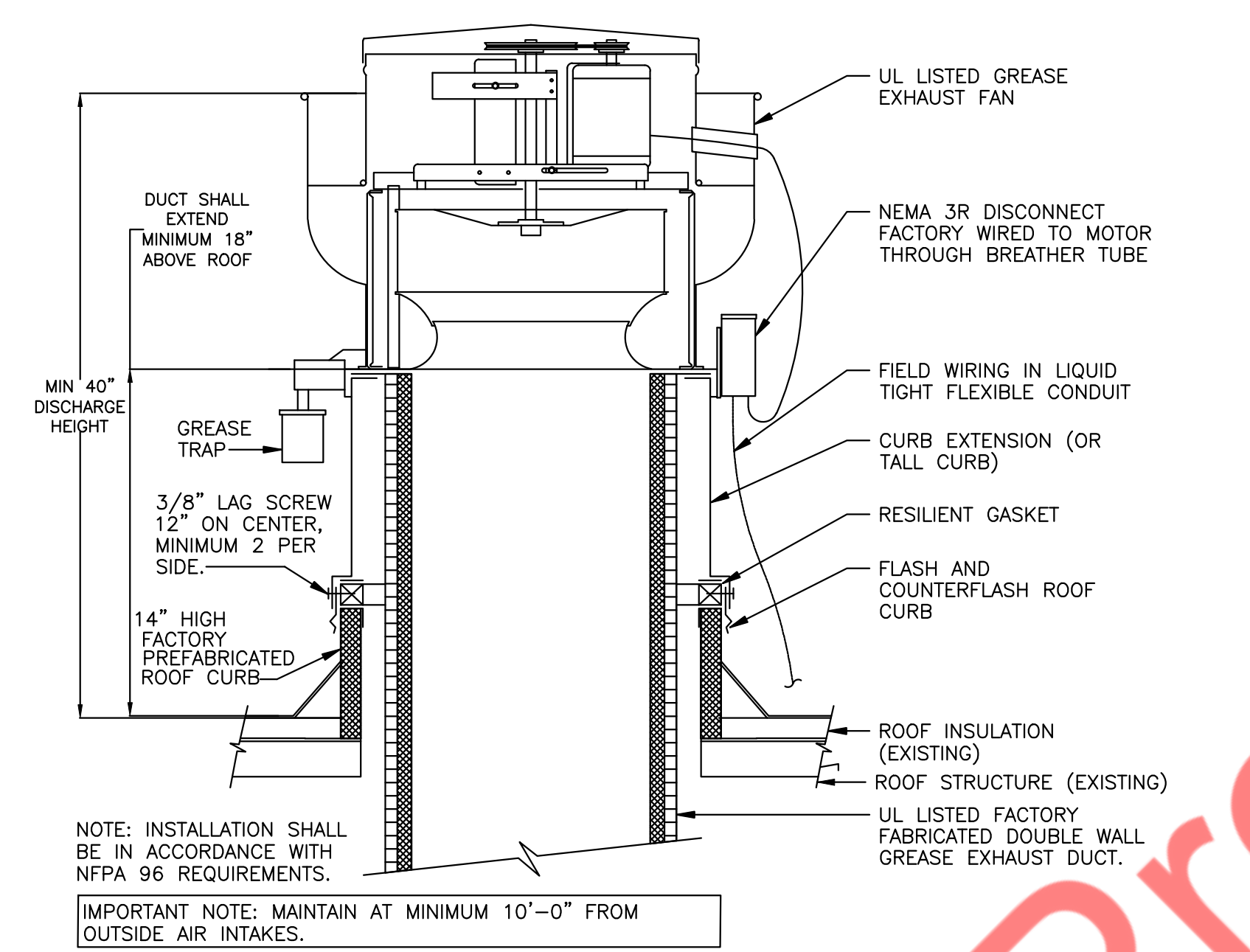


NOTES:  
1. MINIMUM REQUIRED DISTANCE FOR OVERLAP SHALL BE 12" TO ALLOW FOR EXPANSION OF FLUE.

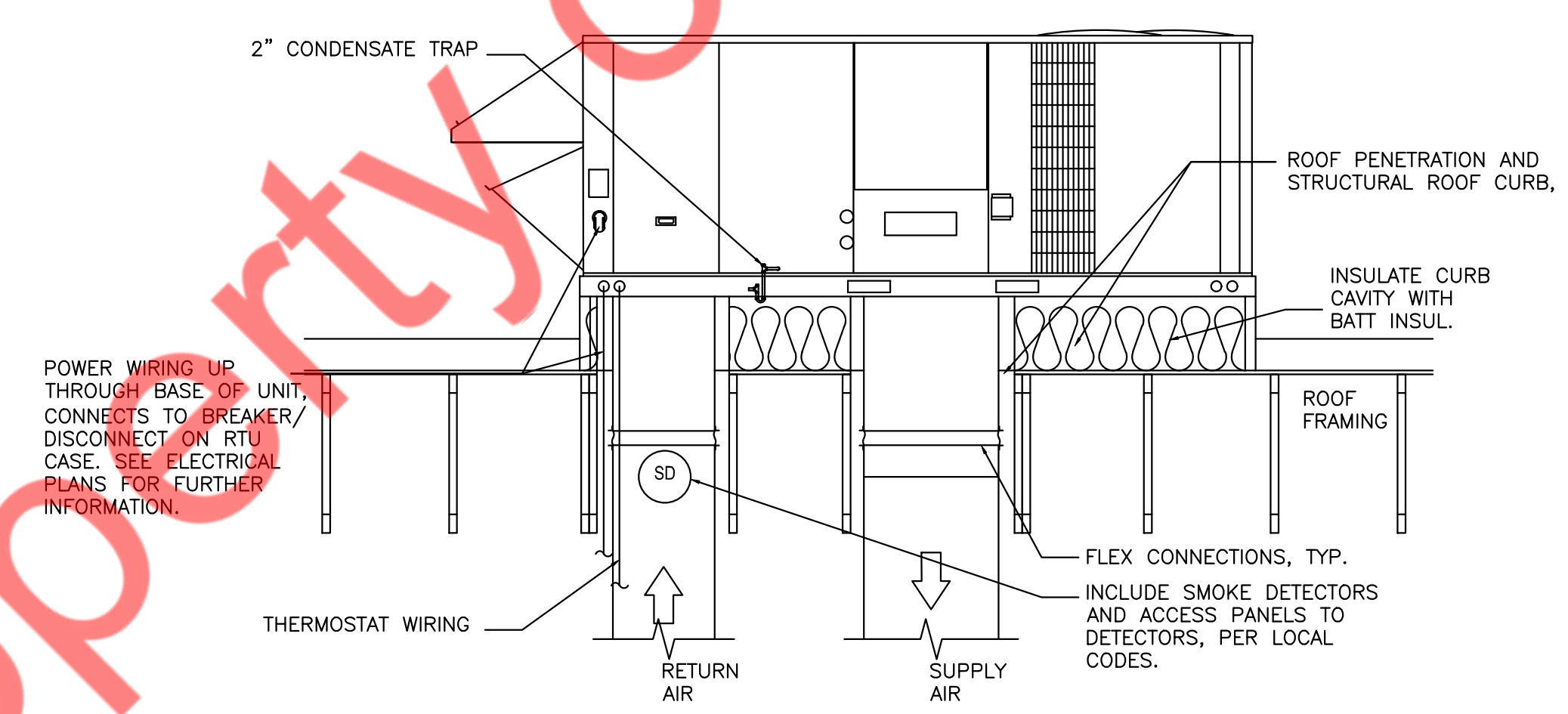
3 HOT WATER HEATER FLUE THRU ROOF  
M5.1 N.T.S



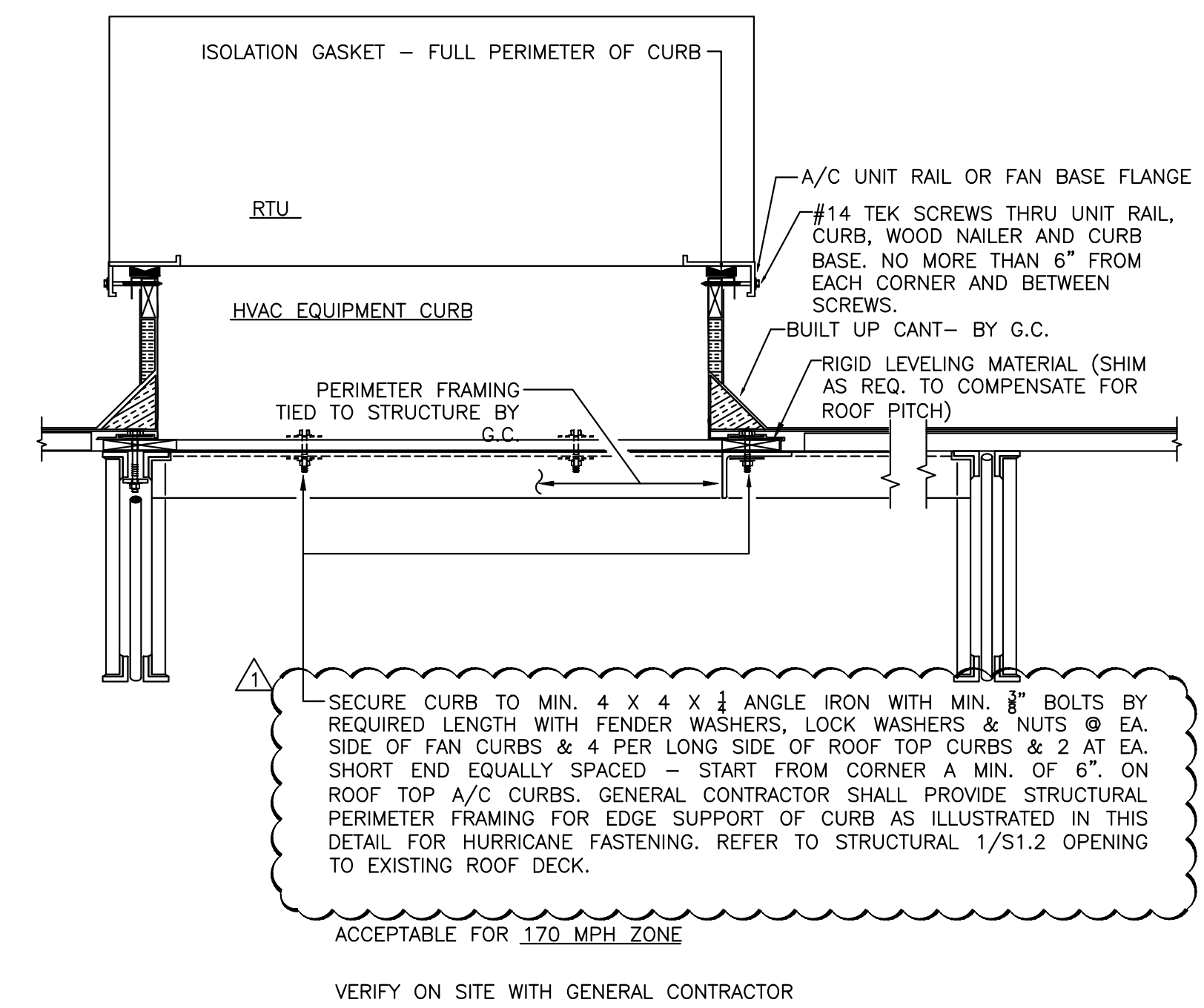
4 ROOF CURB ADAPTOR DETAILS  
M5.1 N.T.S



5 ROOF MOUNTED EXHAUST FAN DETAIL  
M5.1 N.T.S



6 TYPICAL ROOF TOP UNIT DETAIL  
M5.1 N.T.S



7 UNIT INSTALLATION ON ROOF  
M5.1 N.T.S

SHEET HISTORY SCHEDULE	
PERMIT SET	2026-01-12
REVISION 1	2026-01-27
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TENANT INTERIOR BUILD-OUT	
<b>MOTOMEDI</b>	
DRAWN BY:	
QA/QC:	
APPROVED BY:	
PROJECT NUMBER:	

MECHANICAL DETAILS  
(2 OF 2)  
**M5.1**



FOR QUESTIONS CALL THE Austin Office  
PHONE 512-239-5483  
EMAIL: [info@econ-air.com](mailto:info@econ-air.com)

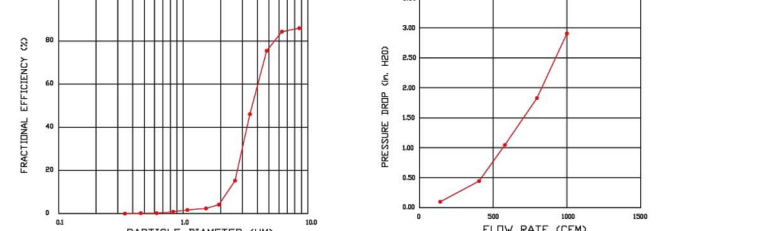
HOOD INFORMATION - JOB#8420702												
HOOD NO.	TAG	MODEL	MANUFACTURER	LENGTH	WIDTH	HEIGHT	APPLIANCE	DESIGN	TOTAL CONSTRUCTION	TOTAL SUPPLY CFM	HOOD SUPPLY CFM	HOOD TYPE
1	S424	ECON-AIR	13' 0"	36" 0"	25" 0"	1	HEAVY	BIS	BSS	1800	430 SS	ALCNE

HOOD INFORMATION											
HOOD NO.	TAG	TYPE	SPRINT	HEIGHT	EFFICIENCY # 7	BTU	TYPE	WIRE GAUGE	LOCATION	SIZE	TYPE
1		CAPTIVATE SOLID FILTER	7	25"	36"	300	REC. ROUND	NO	LEFT	18"X18"X24"	TANK FS

HOOD OPTIONS											
NO.	TAG	DESCRIPTION									
1		FIELD W/WRAPPER 120" HIGH FRONT LEFT, RIGHT, REAR AND 180" HIGH 4" SS VERTICAL QUARTER END PANEL, 24" TOP WIDTH, 24" BOTTOM WIDTH, 24" HIGH 430 SS LEFT QUARTER END PANEL, 24" TOP WIDTH, 24" BOTTOM WIDTH, 24" HIGH 430 SS INSULATION FOR BACK OF HOOD									

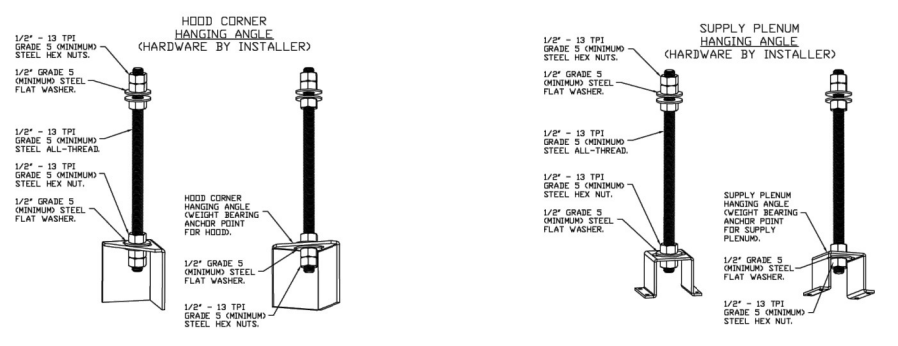
PREPARED SUPPLY PLENUM(S)											
HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	WIRE LENS	WIRE DIA	CFM	SP	
1		Front	130"	36"	6"	MSK	20"	3/8"	430	3/8"	

**SPECIFICATION: CAPTIVATE GREASE-STOP SOLID FILTER**  
 THE CAPTIVATE GREASE-STOP SOLID FILTER IS A SINGLE-STAGE F3, F30 FEATURING A MEDIUM-DENSITY BATTERY IN CONJUNCTION WITH A SLANTED REAR IMPLE DESIGN TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.  
 FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 6" HOOD SUPPLY CHANNELS.  
 UNITS SMALL, INCLUDE STAINLESS STEEL WHEELS AND A FASTENING DEVICE TO SECURE THE COMPONENTS TOGETHER.  
 GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 70% OF GREASE PARTICLES FROM AIR IN 100% OF CASES. PARTICLES GREATER IN SIZE AND LARGER WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1/8" INCHES OF WATER GAUGE.  
 THE CAPTIVATE GREASE-STOP SOLID HAS TESTED TO MEET STANDARD ASTM E838. MANUFACTURER APPROVES FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER EFFICIENCY VS. PARTICLE SIZE.



CAPTIVATE FILTERS ARE BUILT IN COMPLIANCE WITH:  
 NFPA 96, UL 710 AND NFPA 96, AND ARE RECOGNIZED BY THE ETL SANITATION LISTED ETL LISTED FILE # 3054804-001

ECON AIR HOODS ARE BUILT IN COMPLIANCE WITH UL 710 AND NFPA 96 AND ARE RECOGNIZED BY THE ETL SANITATION LISTED ETL LISTED FILE # 3054804-001



**ASSEMBLY INSTRUCTIONS**  
 HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 UNFINISHED ALL-THREAD SANDWICH HANGING ANGLE AND CEILING ANCHORS WITH 1/2" GRADE 5 UNFINISHED STEEL PLAT WASHERS AND 1/2" - 13 TPI GRADE 5 UNFINISHED HEX NUTS AS SHOWN MUST USE DOUBLE HEX NUT CONSTRUCTION BEHIND HANGING ANGLE AND ABOVE CEILING ANCHORS MAINTAIN 1/4" OF EXPOSED THREADS BEHIND BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

**REVISIONS**

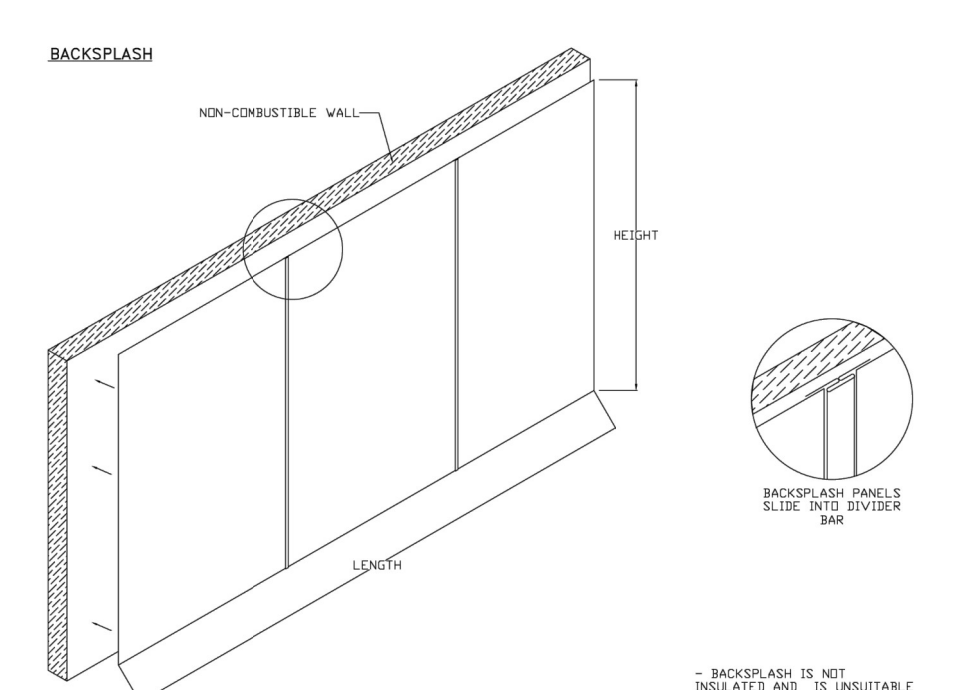
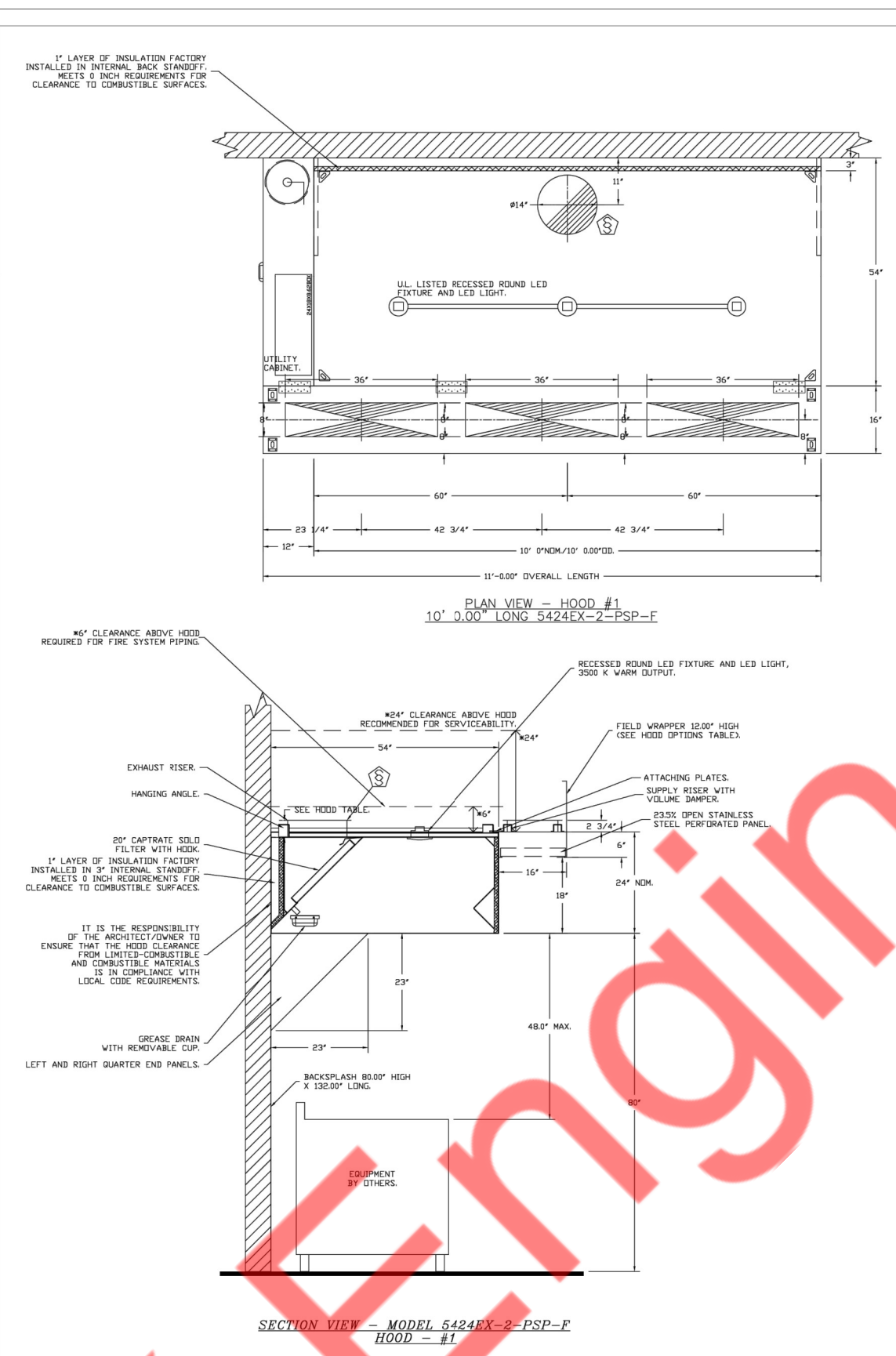
NO.	DATE	DESCRIPTION
1	12/22/2025	ISSUED FOR PERMIT

**econ-air**  
Austin Office  
11520 MacArthur Blvd., Suite 100, Austin, TX 78750 PHONE: 512.239.5483 FAX: 512.239.5484 EMAIL: [info@econ-air.com](mailto:info@econ-air.com)

MotoMedi - Midland, TX - Rev 1

DATE: 12/22/2025  
 DWG.#: 8420702  
 DRAWN BY: J.B-47  
 SCALE: 3/4" = 1'-0"  
 MASTER DRAWING

SHEET NO. 1



**REVISIONS**

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SHEET NO. 2

**REVISIONS**

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1	12/22/2025	ISSUED FOR PERMIT

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MotoMedi - Midland, TX - Rev 1

DATE: 12/22/2025  
 DWG.#: 8420702  
 DRAWN BY: J.B-47  
 SCALE: 3/4" = 1'-0"  
 MASTER DRAWING

SHEET NO. 2

FIRE SYSTEM INFORMATION - JOB#8420702											
FIRE SYSTEM NO.	TAG	TYPE	SIZE	WALL FT	DESIGN	SYSTEM	LOCATION ON HOOD				
1		TANK FS	4.0	20	IF	FIRE CABINET LEFT	LEFT, HOOD 1				

FIRE SYSTEM PARTS LIST KEY											
NO.	QTY BY FACTORY	QTY BY INST	KEY NUMBER	PART DESCRIPTION							
1	1	0	1-0	TANK FIRE SUPPRESSION POST-DECHARGE PROCEDURE UTILITY CABINET LABEL SHEET							
2	1	0	2-0	TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET							
3	1	0	3-0	1/2" X 1/2" X 1/2" BRASS BUSH FOR PERMANENT WITH 1/2" WIRE LEADS, NO. 1000000000							
4	1	0	4-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
5	1	0	5-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
6	1	0	6-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
7	1	0	7-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
8	1	0	8-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
9	1	0	9-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
10	1	0	10-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
11	1	0	11-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
12	1	0	12-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
13	1	0	13-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
14	1	0	14-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
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55	1	0	55-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
56	1	0	56-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
57	1	0	57-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
58	1	0	58-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
59	1	0	59-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
60	1	0	60-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
61	1	0	61-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
62	1	0	62-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
63	1	0	63-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
64	1	0	64-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
65	1	0	65-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
66	1	0	66-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
67	1	0	67-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
68	1	0	68-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
69	1	0	69-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
70	1	0	70-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
71	1	0	71-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
72	1	0	72-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
73	1	0	73-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
74	1	0	74-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
75	1	0	75-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
76	1	0	76-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
77	1	0	77-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
78	1	0	78-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
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80	1	0	80-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
81	1	0	81-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
82	1	0	82-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
83	1	0	83-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
84	1	0	84-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
85	1	0	85-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
86	1	0	86-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
87	1	0	87-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
88	1	0	88-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
89	1	0	89-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
90	1	0	90-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
91	1	0	91-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
92	1	0	92-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
93	1	0	93-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
94	1	0	94-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
95	1	0	95-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
96	1	0	96-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
97	1	0	97-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
98	1	0	98-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
99	1	0	99-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							
100	1	0	100-0	44000000 1/2" X 1/2" BRASS RELEASE BUSHING							

**NOTES**  
 - FIELD PIPE DROPS AS SHOWN  
 - FIELD INSTALLED DROP FACTORY WILL PROVIDE QTY 2 GAIN LONG PIECES OF CHROME  
 - SHIP LUGS DROP FACTORY WILL PROVIDE THE EXACT HOOD PIPE LENGTH NEEDED  
 - SHIPPED LUGS TO BE FIELD INSTALLED  
 - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHIELDING  
 - OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION  
 - IF APPLIANCE EXTENDED PROTRUDS AND SHIPPER LUGS  
 - FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.  
 - APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.  
 - THIS PRE-ENGINEERED FIRE SYSTEM COMPLIES WITH UL 300 REQUIREMENTS.  
 - DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-18-SS  
 - JOB # 8420702  
 - JOB NAME: MOTOMEDI - MIDLAND, TX - REV 1  
 - SYSTEM SIZE: TANK-SP-1 DESIGN FOR 18" MAXIMUM FPA 20  
 - HOOD # 1 10" DIA LENS 4" WIDE X 24" HIGH  
 - RISER # 1 SIZE 1/4" DIA  
 - HOOD # 1 METAL BLEW-OFF CAPS INCLUDED  
 - HEAVY-DUTY APPLIANCES RATED 4500°F WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 15 FT AND 1/4" DIA.  
 - MEDIUM TO LIGHT-DUTY APPLIANCES RATED 4500°F WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM FIRESTAT.

**AGENT DIMENSION PIPING LIMITATIONS**

PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SHIP LINE TO FIRST OVERLAPPING NOZZLE	40
DOWNSTREAM NOZZLE BRANCH	10
UPSTREAM NOZZLE BRANCH	10

**LEGEND - FIRE CABINET TANK SYSTEM**

- 4 GALLON TANK
- PRIMARY WATER RELEASE
- SECONDARY WATER RELEASE
- PRESSURE SENSITIVE SWITCH
- PRIMARY HOSE ASSEMBLY
- SECONDARY HOSE ASSEMBLY
- REMOTE MANUAL ACTIVATION DEVICE

**REVISIONS**

NO.	DATE	DESCRIPTION
1	12/22/2025	ISSUED FOR PERMIT

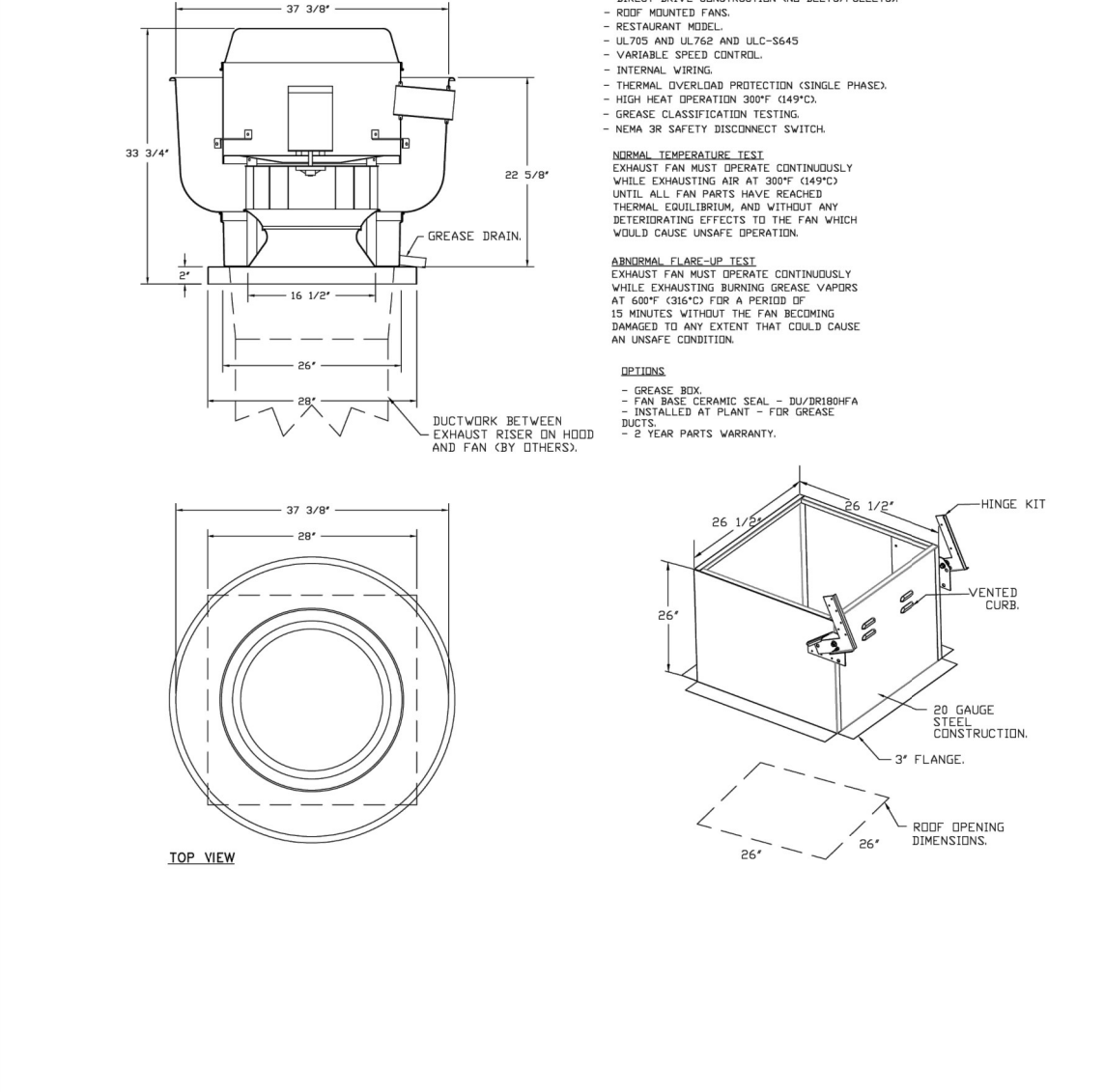
**econ-air**  
Austin Office  
11520 MacArthur Blvd., Suite 100, Austin, TX 78750 PHONE: 512.239.5483 FAX: 512.239.5484 EMAIL: [info@econ-air.com](mailto:info@econ-air.com)

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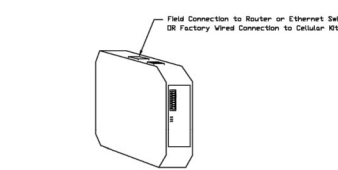
DATE: 12/22/2025  
 DWG.#: 8420702  
 DRAWN BY: J.B-47  
 SCALE: 3/4" = 1'-0"  
 MASTER DRAWING

SHEET NO. 3

EXHAUST FAN INFORMATION - JOB#8420702																
FAN UNIT TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	WIND ENCL	HP	SHD PHASE	VOLT	FLA	STANDARD VELOCITY	WEIGHT (LBS)	SERIES		
1 KEF-1	1	EADURBH	ECON-AIR	8500	1.000	1100	HP/PP/PH/WH	1.500	180/70	3	208	66	SS	FRP	178	55

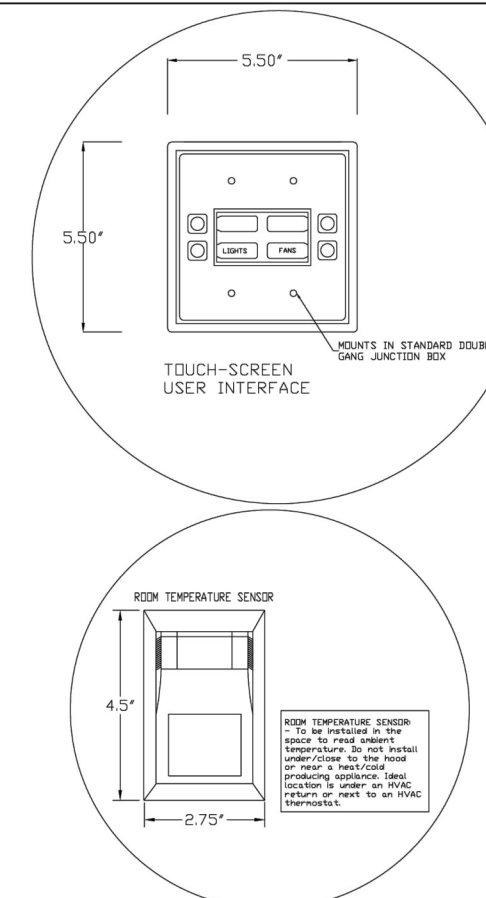
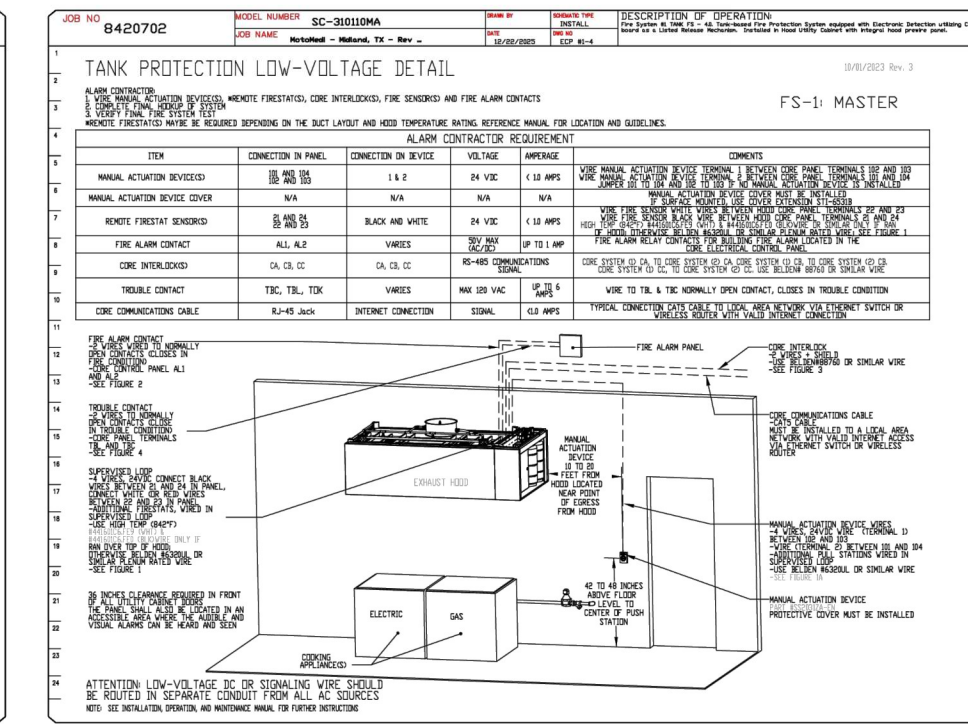
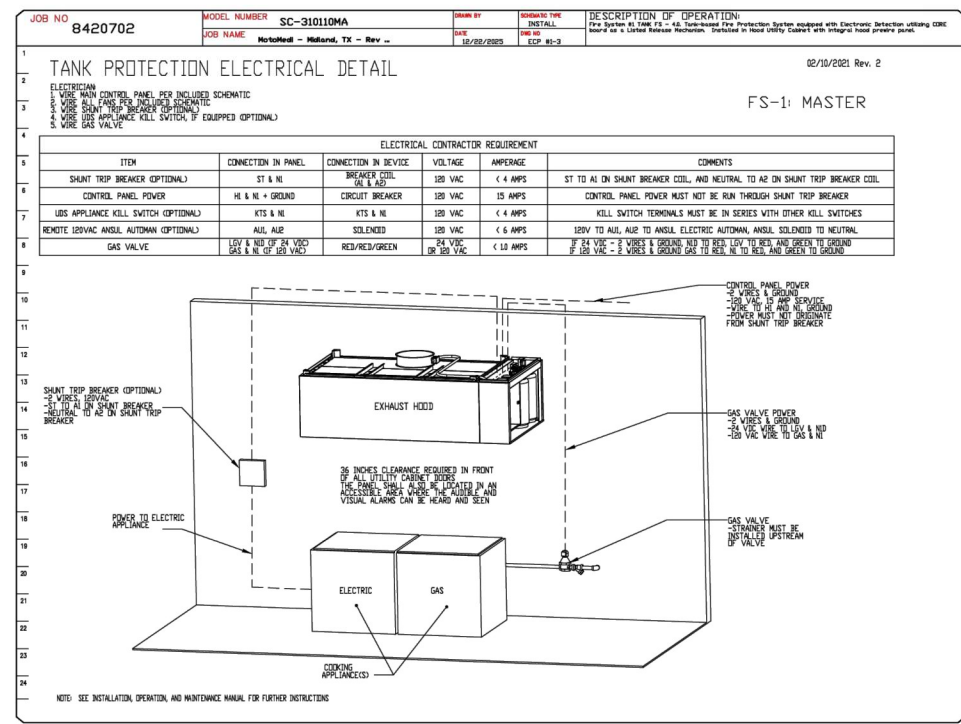
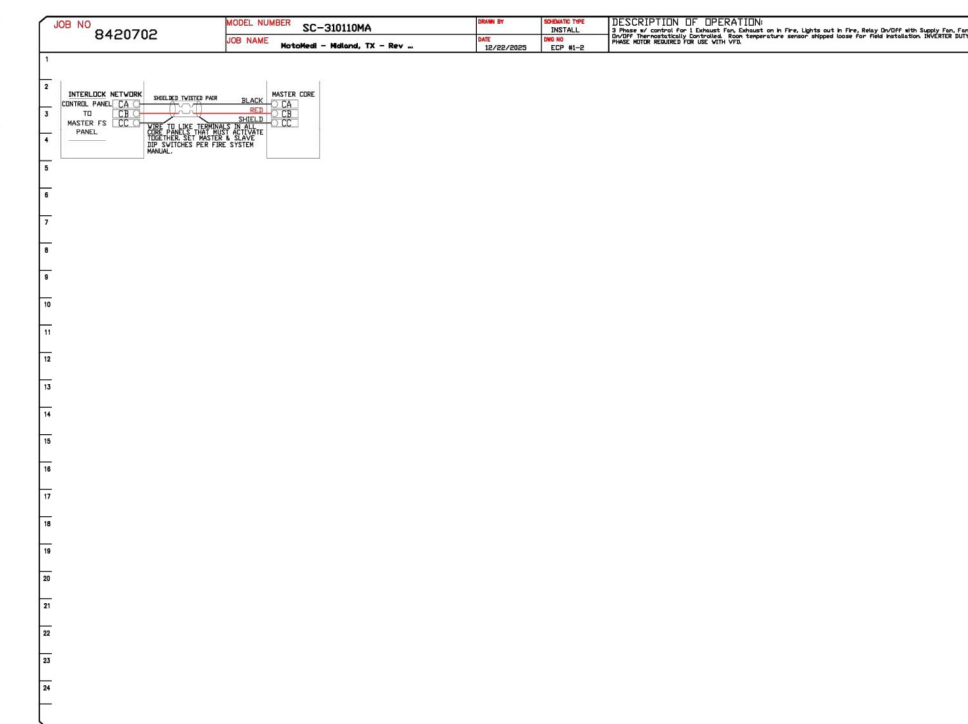
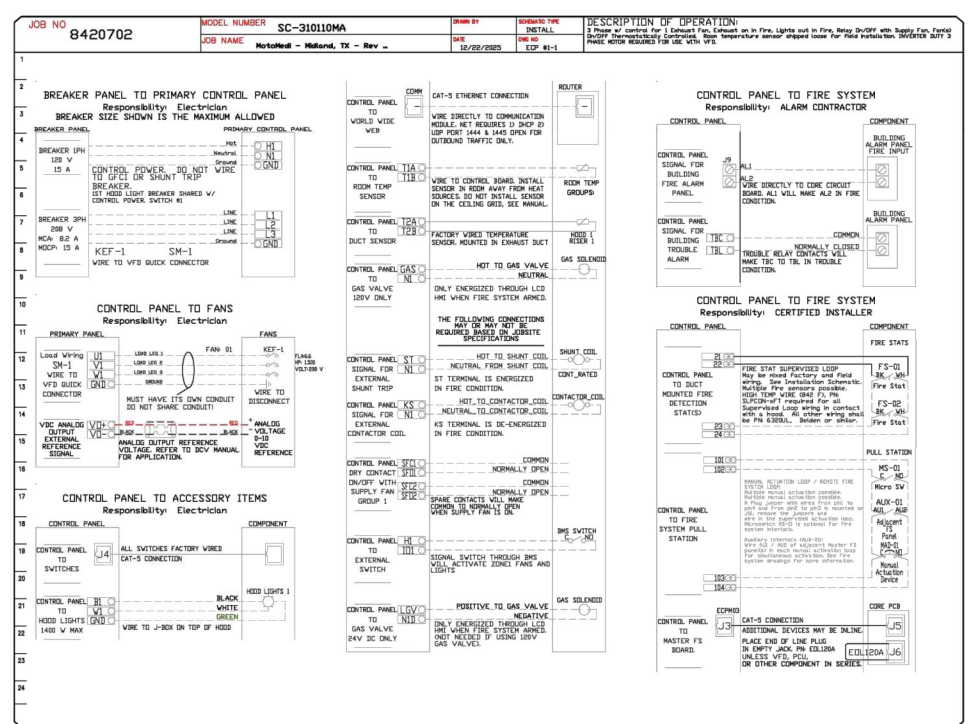


NO.	PACKAGE #	LOCATION	QUANTITY	OPTION	PRICE CONTROLLED
1	SC-000004	UTILITY CABINET LEFT	1 UNIT	SMART CONTROL & TOOLS/STANDARD CONTROL	407-1
				VS. RELAY CONTROL VS.0001	407-1
					338
					208 0.4



**Caution: Installation and Operation**  
 1. Read instructions carefully to insure proper installation and operation.  
 2. Do not attempt to install or operate this equipment until you have read and understood the instructions.  
 3. This equipment is not to be used in a hazardous or explosive atmosphere.  
 4. Do not use this equipment in a wet or damp location.  
 5. Do not use this equipment in a location where it is subject to vibration or shock.  
 6. Do not use this equipment in a location where it is subject to excessive heat or cold.  
 7. Do not use this equipment in a location where it is subject to excessive humidity.  
 8. Do not use this equipment in a location where it is subject to excessive dust or dirt.  
 9. Do not use this equipment in a location where it is subject to excessive noise.  
 10. Do not use this equipment in a location where it is subject to excessive electromagnetic interference (EMI).  
 11. Do not use this equipment in a location where it is subject to excessive radio frequency interference (RFI).  
 12. Do not use this equipment in a location where it is subject to excessive static electricity.  
 13. Do not use this equipment in a location where it is subject to excessive lightning strikes.  
 14. Do not use this equipment in a location where it is subject to excessive fire or explosion.  
 15. Do not use this equipment in a location where it is subject to excessive theft or vandalism.  
 16. Do not use this equipment in a location where it is subject to excessive unauthorized access.  
 17. Do not use this equipment in a location where it is subject to excessive unauthorized modification.  
 18. Do not use this equipment in a location where it is subject to excessive unauthorized repair or maintenance.  
 19. Do not use this equipment in a location where it is subject to excessive unauthorized disposal.  
 20. Do not use this equipment in a location where it is subject to excessive unauthorized reuse or recycling.

NO.	DESCRIPTION	QTY.	UNIT PRICE	TOTAL PRICE
1	Smart Control & Tools/Standard Control	1	407.00	407.00
2	VS. Relay Control VS.0001	1	338.00	338.00
3	VS.0001	1	208.00	208.00
4	0.4	1	208.00	208.00



**REVISIONS**

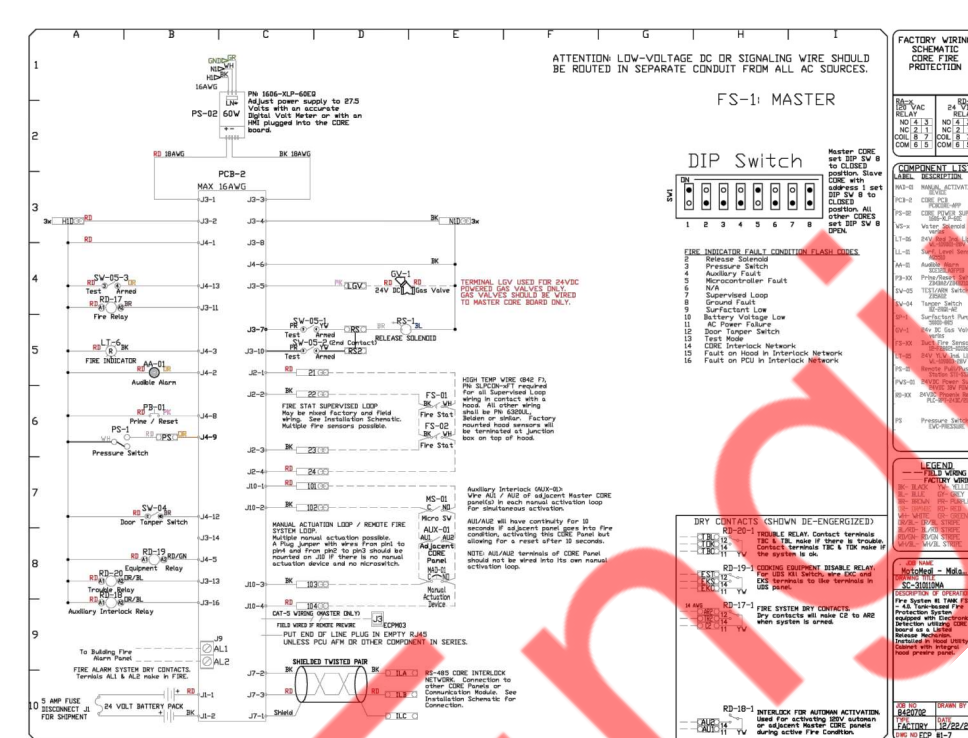
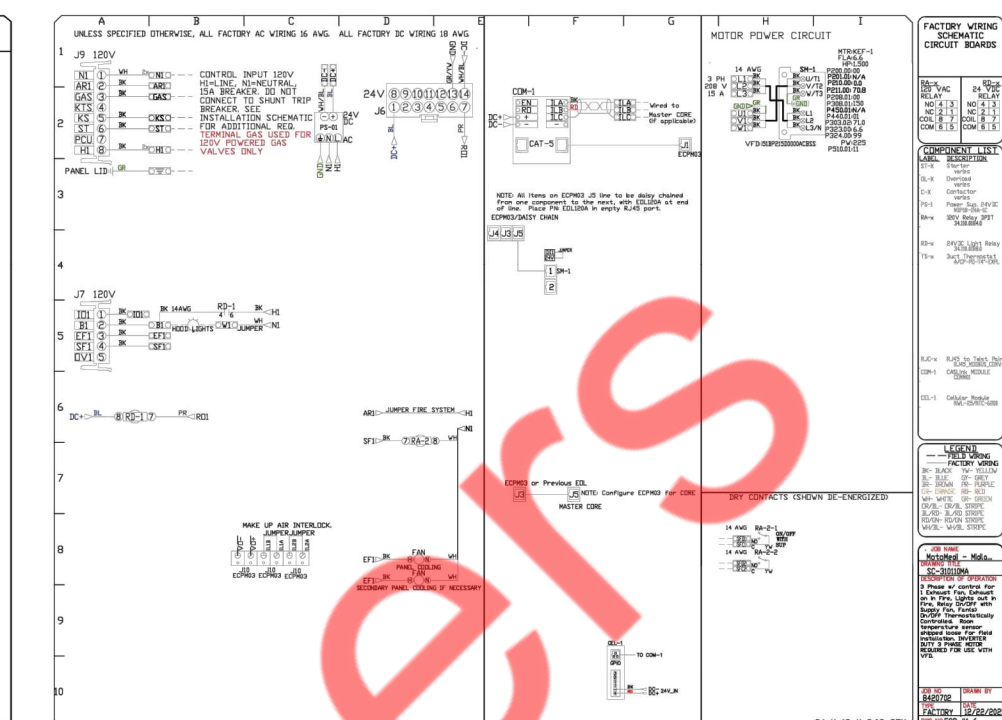
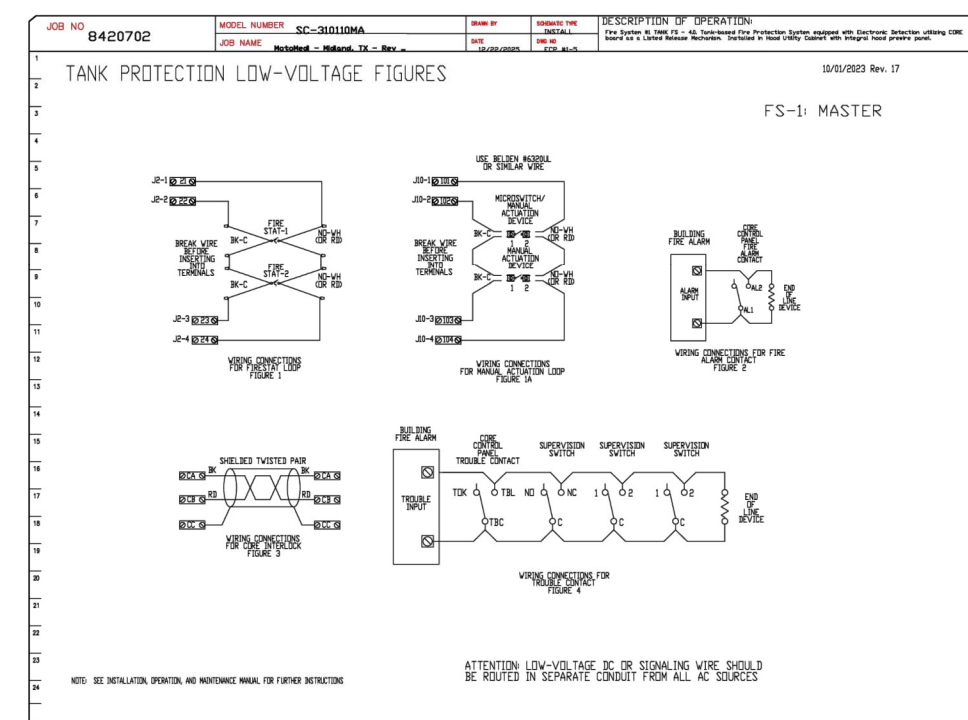
NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT SET	12/22/2025

**econ·air**  
 Automation Office  
 11000 MacArthur Blvd., Suite 300, Dallas, TX 75244 (972) 422-1100 FAX: (972) 422-1101 www.econair.com

MotorMedi - Midland, TX - Rev 1

DATE: 12/22/2025  
 DWG.#: 8420702  
 DRAWN BY: JLB-47  
 SCALE: 3/4" = 1'-0"  
 MASTER DRAWING

SHEET NO. 5



**REVISIONS**

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT SET	12/22/2025

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 11000 MacArthur Blvd., Suite 300, Dallas, TX 75244 (972) 422-1100 FAX: (972) 422-1101 www.econair.com

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 DWG.#: 8420702  
 DRAWN BY: JLB-47  
 SCALE: 3/4" = 1'-0"  
 MASTER DRAWING

SHEET NO. 6

Property of NY Engineers

SHEET HISTORY SCHEDULE	
PERMIT SET	2026-01-12
REVISION 1	2026-01-27

ISSUE DATE: 01/27/2026

TENANT INTERIOR BUILD-OUT

MOTOMEDI

DRAWN BY:

QAQC:

APPROVED BY:

PROJECT NUMBER:

HOOD DETAILS (2 OF 2)

H1.1

LIGHTING PLAN LEGEND	
$\$^A$	SWITCH TYPE (SUPERSCRIPIT IN UPPERCASE)
$\$^A$	20A, 120V SPST WALL SWITCH (UON)
$\$^a$	SWITCH TAG (SUBSCRIPT IN LOWERCASE)
$\$^{OS}$	WALL SWITCH WITH OCCUPANCY SENSOR
$\$^{VS}$	WALL SWITCH WITH VACANCY SENSOR
$\$^T$	WALL SWITCH WITH TIMER
$\$^{D,T}$	WALL SWITCH WITH DIMMER & TIMER
$\$^3$	3 WAY WALL SWITCH (SPDT)
$\$^4$	4 WAY / INTERMEDIATE WALL SWITCH (DPDT)
$\$^R$	WALL SWITCH WITH SPEED REGULATOR
$\$^M$	MOTOR RATED WALL SWITCH
$\$^h$	THERMOSTAT WALL SWITCH
$\$^{MO}$	MANUAL OVERRIDE WALL SWITCH
$\$^{PC}$	PHOTOCELL WALL MOUNTED
$\$^{OS}$	OCCUPANCY SENSOR WALL MOUNTED
$\$^{VS}$	OCCUPANCY SENSOR CEILING MOUNTED
$\$^{VS}$	VACANCY SENSOR CEILING MOUNTED
$\$^{CS}$	DAY LIGHT SENSOR CEILING MOUNTED
$\$^{TC}$	TIME CLOCK - DUAL CHANNEL
$\$^{LC}$	LIGHTING CONTACTOR

ANNOTATIONS

TO #1 VIA LC#1 AND #0@SB

CONNECT THE HOME RUN TO CIRCUIT BREAKER #1 OF THE ELECTRICAL PANEL "A" VIA LIGHTING CONTACTOR (LC) #1 AND SWITCH(§) "a" WHICH IS LOCATED IN THE SWITCH BANK "SB"

ELECTRICAL DRAWING LIST	
E0.1	ELECTRICAL LEGENDS, ABBREVIATIONS & NOTES
E0.2	ELECTRICAL SPECIFICATION SHEET
E2.0	ELECTRICAL LIGHTING PLAN
E2.1	ELECTRICAL FLOOR & ROOF POWER PLAN
E3.0	ELECTRICAL DETAILS
E4.0	ELECTRICAL RISER DIAGRAM & PANEL SCHEDULE

APPLICABLE CODES

ALL WORK AND MATERIAL SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED AND AMENDED BY THE INSPECTING AUTHORITY. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHERS CODES APPLICABLE TO THIS PROJECT.

2023 NEC-NATIONAL ELECTRIC CODE  
2015 IECC-INTERNATIONAL ENERGY CONSERVATION CODE

GENERAL NOTE:

THE TERMS "OWNER" IN THESE PLANS REFER TO THE TENANT/ MOTOMEDI AND NOT THE LANDLORD/ BUILDING OWNER.

POWER AND COMMUNICATION PLAN LEGEND	
$\Phi$	WALL MOUNTED SIMPLEX RECEPTACLE, RATING SHALL MATCH BREAKER OR AS NOTED
$\Phi$	20A, 120V WALL MOUNTED DUPLEX RECEPTACLE
$\Phi$	20A, 120V WALL MOUNTED RECEPTACLE WITH USB OUTLET
$\Phi$	20A, 120V WALL MOUNTED HALF SWITCHED DUPLEX RECEPTACLE WITH SWITCH
$\Phi$	20A, 120V WALL MOUNTED FULL SWITCHED DUPLEX RECEPTACLE WITH SWITCH
$\Phi$	20A, 120V WALL MOUNTED GFCI DUPLEX RECEPTACLE
$\Phi$	20A, 120V CEILING MOUNTED DUPLEX RECEPTACLE
$\Phi$	20A, 120V FLOOR MOUNTED DUPLEX RECEPTACLE
$\Phi$	20A, 120V WALL MOUNTED QUAD RECEPTACLE
$\Phi$	WALL MOUNTED SPECIAL RECEPTACLE, RATING SHALL MATCH BREAKER OR AS NOTED
$\Phi$	JUNCTION BOX
$\Phi$	DATA OUTLET
$\Phi$	TELEPHONE OUTLET
$\Phi$	DATA / TELEPHONE COMBINATION OUTLET
$\Phi$	DATA RACK + TELEPHONE DISTRIBUTION BOARD - AS REQUIRED
$\Phi$	CURRENT LIMITER
$\Phi$	CABLE TV OUTLET
$\Phi$	NON FUSED DISCONNECT SWITCH - RATING EQUAL TO OR MORE THAN BREAKER
$\Phi$	FUSED DISCONNECT SWITCH - FUSE RATING AS NEEDED

ELECTRICAL ABBREVIATIONS	
A	AMPERES
AF	AMPERE FRAME / AMP FUSE
AFF	ABOVE FINISHED FLOOR
AS	AMP SWITCH
AIC	AMPS INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
C/B, CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	CEILING
COMM	COMMUNICATION
CT	CURRENT TRANSFORMER
CU	COPPER
°C	DEGREE CELSIUS
CL	CURRENT LIMITER
DWG	DRAWING
DPSP	DOUBLE POLE SINGLE THROW
DPDT	DOUBLE POLE DOUBLE THROW
E	EXISTING
EF	EXHAUST FAN
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
ER	EXISTING TO BE RELOCATED
ETR	EXISTING TO REMAIN
EOR	ENGINEER OF RECORD
°F	DEGREE FAHRENHEIT
FA	FIRE ALARM
G	GROUND
GFI	GROUND FAULT INTERRUPTER
GC	GENERAL CONTRACTOR
HD	HAND DRYER
HP	HORSEPOWER
HZ	HERTZ
IG	ISOLATED GROUND
IC	INTERRUPTING CAPACITY
JB	JUNCTION BOX
KCMIL	ONE THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT-AMPERES
KW	KILOWATTS
LP	LIGHTING PANEL
LL	LAND LORD
LTG	LIGHTING
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
N	NEUTRAL
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
PP	POWER PANEL
PVC	POLYVINYL CHLORIDE
PWR	POWER
R	REMOVE
RE	RELOCATED EXISTING
RR	REMOVE & RELOCATE
SPDT	SINGLE POLE DOUBLE THROW
SPST	SINGLE POLE SINGLE THROW
TR	TAMPER RESISTANT
TYP	TYPICAL
USB	USB JACK
UON	UNLESS OTHERWISE NOTED
VA	VOLT AMPERE
VIF	VERIFY IN FIELD
WP	WEATHER PROOF
W	WIRE / WATT
XMER	TRANSFORMER

ELECTRICAL SHEET GENERAL NOTES

- 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.
- CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, TEST REPORTS, AND CERTIFICATIONS FOR TEMPORARY AND FINAL CERTIFICATE OF OCCUPANCY.
- 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 WATERIGHT.
- 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, RAWL 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.
- LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS. RACEWAYS OVER 10 FT LONG IN WHICH WIRING IS NOT INSTALLED: FURNISH FISH WIRE.
- 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.
- CONTRACTOR SHALL PROVIDE A WARRANTY ON ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.
- ALL UNUSED MATERIALS AND DEBRIS SHALL BE LEGALLY REMOVED AND DISPOSED OF AWAY FROM THE PREMISES ON A DAILY BASIS.
- CONTRACTOR SHALL PATCH, PAINT, AND RESTORE EXISTING SURFACES DAMAGED DURING THE COURSE OF THIS CONSTRUCTION TO PRE-EXISTING CONDITIONS OR BETTER.
- MINIMUM SIZE OF CONDUIT SHALL BE 3/4", AND TYPE SHALL BE ELECTRICAL METALLIC TUBING (EMT), UNLESS OTHERWISE NOTED. PROVIDE NYLON DRAG LINE AND CONDUIT CAP FOR ALL EMPTY CONDUITS.
- CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH FLEXIBLE CONDUIT (MINIMUM 1/8 IN. LENGTH AND 50% SLACK). DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.
- 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. ALL BUILDING 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.
- SUPPORT PANEL, JUNCTION AND PULLBOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.
- FOR EXACT LOCATION AND MOUNTING HEIGHT OF LIGHTING FIXTURES AND SWITCH/RECEPTACLE OUTLETS, REFER TO ARCHITECTURAL REFLECTED CEILING AND POWER PLANS.
- ALL ELECTRICAL ACCESSORIES AND EQUIPMENT INSTALLED OUTSIDE OR EXPOSED TO WEATHER SHALL HAVE NEMA 3R ENCLOSURES AND SHALL BE TIGHTLY GASKETED FOR A COMPLETE RAIN-TIGHT INSTALLATION. ALL BUILDING EXTERIOR MOUNTED RECEPTACLES SHALL BE GFCI RATED AND MOUNTED IN WEATHERPROOF ENCLOSURE.
- ALL ACCESS PANEL LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.
- 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.
- ALL CONDUITS AND EQUIPMENT TO BE CONCEALED IN FINISHED SPACES UNLESS OTHERWISE NOTED. CONDUITS SHALL BE ENCASED IN THE CONCRETE FLOOR SLAB.
- ALL EQUIPMENT AND MATERIALS INSTALLED IN PLENUM CEILINGS SHALL BE APPROVED FOR THAT APPLICATION.
- 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.
- COORDINATE ALL FLOOR PENETRATIONS WITH THE STRUCTURAL AND ARCHITECTURAL DRAWINGS. CONFIRM PENETRATION LOCATIONS WITH THE ENGINEER AND OWNER BEFORE INSTALLATION.
- COORDINATE THE MOUNTING HEIGHT AND LOCATION OF RACEWAYS, COMMUNICATIONS OUTLETS, AND RECEPTACLES WITH THE ARCHITECTURAL CASEWORK DRAWINGS AND DETAILS. COORDINATE LOCATIONS OF LIGHT FIXTURES, SWITCHES, AND RELATED DEVICES WITH THE ARCHITECTURAL DRAWINGS AND DETAILS.
- REFER TO ARCHITECTURAL PLANS FOR FINAL LOCATIONS OF ALL LUMINAIRES AND SWITCHES, AND FOR ALL FINISHED CEILING HEIGHTS.
- REFER TO ARCHITECTURAL PLANS FOR FINAL LOCATIONS OF ALL ELECTRICAL DEVICES, AND FOR FINAL CEILING AND WALL HEIGHTS AND LAYOUTS.
- LIGHTING FIXTURES PROVIDED WITH EMERGENCY BATTERY PACKS AND INDICATED WITH SWITCH CONTROL SHALL BE WIRED WITH BATTERY CHARGING/SENSING CIRCUIT WIRED AHEAD OF SWITCH CONTROL.
- NUMBER(S) SHOWN AT RECEPTACLES, JUNCTION BOXES AND EQUIPMENT INDICATES CIRCUIT NUMBERS IN PANEL BOARD. PROVIDE WIRE AND CONDUIT TO INTERCONNECT EQUIPMENT AND DEVICES WITH SAME CIRCUIT NUMBERS AND RUN TO PANEL BOARD.

ELECTRICAL SPECIFICATIONS

1. GENERAL:

- THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION," AIA DOCUMENT A201, LATEST EDITION, AND THESE SPECIFICATIONS AS APPLICABLE ARE PART OF THIS CONTRACT.
- DRAWING ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS AND RISERS OF RUNS. THE CONTRACTOR SHALL ALLOW IN THEIR PRICE FOR ROUTING OF CONDUIT TO AVOID OBSTRUCTIONS. COORDINATION WITH EXISTING SERVICES, INCLUDING THOSE OF OTHER TRADES, IS REQUIRED. MAINTAIN HEADROOM AND SPACE CONDITIONS.
- BIDDERS, BEFORE SUBMITTING PROPOSALS, SHALL VISIT AND CAREFULLY EXAMINE THE AREA AFFECTED BY THIS WORK TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND THE DIFFICULTIES THAT WILL ATTEND THE EXECUTION OF THIS WORK. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE, AND LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT, OR MATERIALS, REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE.
- INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWING MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.
- REMOVAL AND RELOCATION OF CERTAIN EXISTING WORK MAY BE NECESSARY FOR THE PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND INCLUDE ALL CHANGES AND CHARGES IN MAKING UP THE WORK PROPOSAL.
- CONNECTIONS TO EXISTING WORK: INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES. TEMPORARY SHUTDOWNS OF EXISTING SERVICES SHALL BE PERFORMED AT NO ADDITIONAL CHARGES, AT TIMES NOT TO INTERFERE WITH NORMAL OPERATION OF EXISTING FACILITIES AND ONLY WITH WRITTEN CONSENT OF OWNER. ALARM AND EMERGENCY SYSTEMS SHALL NOT BE INTERRUPTED. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES AS REQUIRED WITH NECESSARY TEMPORARY CONNECTIONS BETWEEN NEW AND EXISTING WORK. CONNECT NEW WORK TO EXISTING WORK IN NEAT AND ACCEPTABLE MANNER. RESTORE EXISTING DISTURBED WORK TO ORIGINAL CONDITION, INCLUDING MAINTENANCE OF WIRING CONTINUITY AS REQUIRED.
- DISCONNECT, REMOVE AND/OR RELOCATE EXISTING MATERIAL, EQUIPMENT AND OTHER WORK AS NOTED OR REQUIRED FOR PROPER INSTALLATION OF NEW WORK.
- THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND MATERIALS, AND ALL PARTS OF THE BUILDING EXTERIOR SPACES AND ADJACENT STREETS, SIDEWALKS AND PAVEMENTS, FREE FROM MATERIAL AND DEBRIS RESULTING FROM THE EXECUTION OF THIS WORK. EXCESS MATERIALS WILL NOT BE PERMITTED TO ACCUMULATE EITHER ON THE INTERIOR OR THE EXTERIOR.
- SEAL OPENINGS THROUGH PARTITIONS, WALLS AND FLOORS WITH MINERAL WOOL OR OTHER NONCOMBUSTIBLE MATERIAL, UNLESS OTHERWISE NOTED.
- PROVIDE ALL NECESSARY FLASHING AND COUNTER FLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THE BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF CONDUIT AND EQUIPMENT, PROVIDE EQUIPMENT CURBS AS REQUIRED.
- ALL EXISTING MATERIAL, EQUIPMENT AND CONSTRUCTION DEBRIS TO BE REMOVED UNDER THIS CONTRACT SHALL BECOME THE PROPERTY OF THE CONTRACTOR WITH THE EXCEPTION OF SPECIFIC EQUIPMENT OR APPARATUS REQUESTED BY THE BUILDING REPRESENTATIVE, ARCHITECT OR AS NOTED TO BE RELOCATED ON THE DRAWINGS. REMOVED EQUIPMENT SHALL BE PROPERLY DISPOSED OF BY THIS CONTRACTOR.
- THE CONTRACTOR'S PROPOSAL FOR ALL WORK SHALL BE PREDICATED ON THE PERFORMANCE OF THE WORK DURING REGULAR WORKING HOURS. WHEN SO DIRECTED, HOWEVER, THE CONTRACTOR SHALL INSTALL WORK DURING OVERTIME HOURS AND THE ADDITIONAL COST TO BE CHARGED THEREFORE SHALL BE ONLY THE "PREMIUM" PORTION OF THE WAGES PAID.
- UNLESS OTHERWISE SPECIFICALLY NOTED OR SPECIFIED, INCLUDE ALL CUTTING AND PATCHING OF EXISTING FLOORS, WALLS, PARTITIONS AND OTHER MATERIALS IN THE EXISTING BUILDING. THE CONTRACTOR SHALL RESTORE THESE AREAS TO ORIGINAL CONDITION.
- ALL MATERIAL AND EQUIPMENT SHALL BE NEW UNLESS OTHERWISE NOTED AND SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
- INSURANCE: PROVIDE IN ACCORDANCE WITH OWNER/BUILDING REQUIREMENTS AND SHALL INCLUDE A HOLD HARMLESS CLAUSE FOR OWNER AND ENGINEER.
- THE FINAL ACCEPTANCE SHALL BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS EQUIPMENT, TESTED THE VARIOUS SYSTEMS, DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS AND HAS FURNISHED ALL THE REQUIRED CERTIFICATED OF INSPECTION AND APPROVAL.

2. GENERAL PROVISIONS FOR ELECTRICAL WORK:

- DEFINITIONS:
  - "PROVIDE": TO FURNISH, INSTALL AND CONNECT UP COMPLETE AND READY FOR SAFE AND REGULAR OPERATION THE PARTICULAR WORK REFERRED TO UNLESS SPECIFICALLY OTHERWISE NOTED.
  - "INSTALL": TO ERCT, MOUNT AND CONNECT COMPLETE WITH RELATED ACCESSORIES.
  - "FURNISH" OR "SUPPLY": TO PURCHASE, PROCURE, ACQUIRE AND DELIVER COMPLETE WITH RELATED ACCESSORIES.
  - "WORK": LABOR, MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES AND OTHER ITEMS REQUIRED FOR PROPER AND COMPLETE INSTALLATION.
  - "WIRING": RACEWAY, FITTINGS, WIRE, BOXES, AND RELATED ITEMS.
  - "CONCEALED": EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, INSTALLED IN FURRED SPACES, WITHIN DOUBLE PARTITIONS OR HUNG CEILINGS, IN TRENCHES, IN CRAWL SPACES, OR IN ENCLOSURES.
- "EXPOSED": NOT INSTALLED UNDERGROUND OR "CONCEALED" AS DEFINED ABOVE.
- "SIMILAR" OR "EQUAL": EQUAL IN MATERIALS, WEIGHT, SIZE, DESIGN AND EFFICIENCY OF SPECIFIED PRODUCT.

- TEMPORARY LIGHT AND POWER: PROVIDE TEMPORARY LIGHT AND POWER SYSTEMS AT EARLIEST POSSIBLE DATE WITHIN THE CONSTRUCTION AREAS FOR THE REQUIREMENTS OF ALL TRADES AS HEREIN DESCRIBED. EXTEND SYSTEMS TO NEW CONSTRUCTION AS SOON AS PHYSICALLY POSSIBLE. MAINTAIN SYSTEM DURING WORKING HOURS. PROVIDE ALL REQUIRED MAINTENANCE, INCLUDING LAMPS AND SOCKETS.

- QUALITY ASSURANCE
  - QUALITY OF MATERIALS: ALL EQUIPMENT SHALL BE NEW SPECIFICATION GRADE, FREE FROM DEFECTS AND LISTED BY APPROVED TESTING AGENCY AND BEARING THEIR LABEL. MATERIALS AND EQUIPMENT OF SIMILAR APPLICATION SHALL BE OF SAME MANUFACTURER, EXCEPT AS NOTED.
  - GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED AS DEFINED IN PARAGRAPH 2.C.
  - HEIGHTS OF OUTLETS: REFER TO ARCHITECTURAL AND/OR INTERIOR DESIGNER'S PLANS FOR DEVICE HEIGHTS IN NON BOH SPACES.
    - FROM FINISHED FLOOR TO CENTERLINE OF OUTLETS FOR:
      - RECEPTACLES AND TELEPHONES: 1 FT-6 IN.
      - WALL SWITCHES: 4 FT-0 IN.
      - WALL FIXTURES: 7 FT-0 IN.
      - MOTOR CONTROLLERS: 5 FT-0 IN.
      - CLOCKS: 7 FT 6 IN.
    - EXCEPTIONS: AT JUNCTION OF DIFFERENT WALL FINISH MATERIALS, ON MOLDING OR BREAK IN WALL SURFACE, IN VIOLATION OF CODE, OR AS NOTED OR DIRECTED.
  - REFER TO ARCHITECTURAL AND/OR INTERIOR DESIGNER'S PLANS FOR DEVICE HEIGHTS IN NON BOH SPACES.
- PRODUCT DELIVERY, STORAGE AND HANDLING
  - MOVING OF EQUIPMENT: WHERE NECESSARY, SHIP IN CARTED SECTIONS OF SIZE TO PERMIT PASSING THROUGH AVAILABLE SPACES.
  - ACCESSIBILITY: FOR OPERATION, MAINTENANCE AND REPAIR, MINOR DEVIATIONS SHALL BE PERMITTED. CHANGES OF MAGNITUDE OR INVOLVING EXTRA COST ARE NOT PERMISSIBLE WITHOUT REVIEW. GROUP CONCEALED ELECTRICAL EQUIPMENT REQUIRING ACCESS WITH EQUIPMENT FREELY ACCESSIBLE THROUGH ACCESS DOORS.

- MATERIALS
  - NAMEPLATES: PROVIDE BLACK LAMACOID SHEET WITH 3/4 IN. WHITE LETTERING, FASTENED WITH EPOXY CEMENT FOR EACH DISCONNECT SWITCH, CIRCUIT BREAKER, PANEL, CABINET, TRANSFORMER, ENCLOSURE, MOTOR CONTROLLER AND THE LIKE. NAMEPLATES SHALL DESCRIBE THE NAME AND NUMBER OF EACH COMPONENT.
  - CABLE TAGS: TAG EACH CONDUCTOR PASSING THROUGH SPLICE OR PULLBOX WITH A WHITE LINEN TAG, INDICATING POINT ORIGIN AND TERMINATION OF THE CIRCUIT.
  - INSERTS AND SUPPORTS:
    - INSERTS: STEEL, SLOTTED TYPE, FACTORY PAINTED.
      - SINGLE ROD: SIMILAR TO GRINNELL FIG. 281.
      - MULTI-ROD: SIMILAR TO FEE AND MASON SERIES 9000 WITH END CAPS AND CLOSURE STRIPS.
      - CLIP FORM NAILS FLUSH WITH INSERTS.
      - MAXIMUM LOADING 75 PERCENT OF RATING.
    - SUPPORTS FROM BUILDING CONSTRUCTION: INSERTS, BEAM CLAMPS, STEEL FISHPLATES (IN CONCRETE FILL ONLY), CANTILEVER BRACKETS OR OTHER MEANS. SUBMIT FOR REVIEW.
    - GROUPED LINES AND SERVICES: TRAPEZE HANGERS OF BOLTED ANGLES OR CHANNELS.
    - WHERE BUILDING CONSTRUCTION IS INADEQUATE: PROVIDE ADDITIONAL FRAMING. SUBMIT FOR REVIEW.
- SUBMIT ELECTRICAL POWER SYSTEM STUDIES INCLUDING SUPPORTING DATA AND RECOMMENDATIONS FOR THE FOLLOWING:
  - SHORT CIRCUIT CURRENT AND PROTECTIVE DEVICE COMBINATION.
  - ARC FLASH HAZARD ANALYSIS.

- PAINT SHALL BE THE BEST GRADE FOR ITS PURPOSE. DELIVER IN ORIGINAL SEALED CONTAINERS AND APPLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. COLORS SHALL BE AS SELECTED BY ARCHITECT OR ENGINEER. UTILIZE GALVANIZED IRON PRIMER ON PANEL AND PULL BOXES, AFTER FABRICATION. UTILIZE HOT DIPPED GALVANIZED OR DIPPED IN ZINC BASED PRIMER FOR OUTLET BOXES, JUNCTION BOXES, CONDUIT HANGERS, RODS, INSERTS AND SUPPORTS. ZINC BASED PRIMER WITH FINISH TO MATCH SURROUNDINGS SHALL BE USED FOR MARRED SURFACES OF STEEL EQUIPMENT AND RACEWAYS. A FIELD-APPLIED ZINC BASED PRIME COAT SHALL BE UTILIZED FOR STEEL OR IRONWORK.
- BRUSH AND CLEAN WORK PRIOR TO CONCEALING, PAINTING AND ACCEPTANCE. PAINTED EXPOSED WORK SOLED OR DAMAGED; CLEAN AND REPAIR TO MATCH ADJOINING WORK BEFORE FINAL ACCEPTANCE. REMOVE DEBRIS FROM INSIDE AND OUTSIDE OF MATERIAL AND EQUIPMENT.
- FINAL LOCATIONS AND MOUNTING ORIENTATIONS OF ALL SWITCHES, RECEPTACLES AND LIGHT FIXTURES SHALL BE VERIFIED WITH ARCHITECT.
- ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.

SHEET HISTORY SCHEDULE	
PERMIT SET	2026-01-12
REVISION 1	2026-01-27
ISSUE DATE:	01/27/2026

TENANT INTERIOR BUILD-OUT

MOTOMEDI

DRAWN BY:

QAQC:

APPROVED BY:

PROJECT NUMBER:

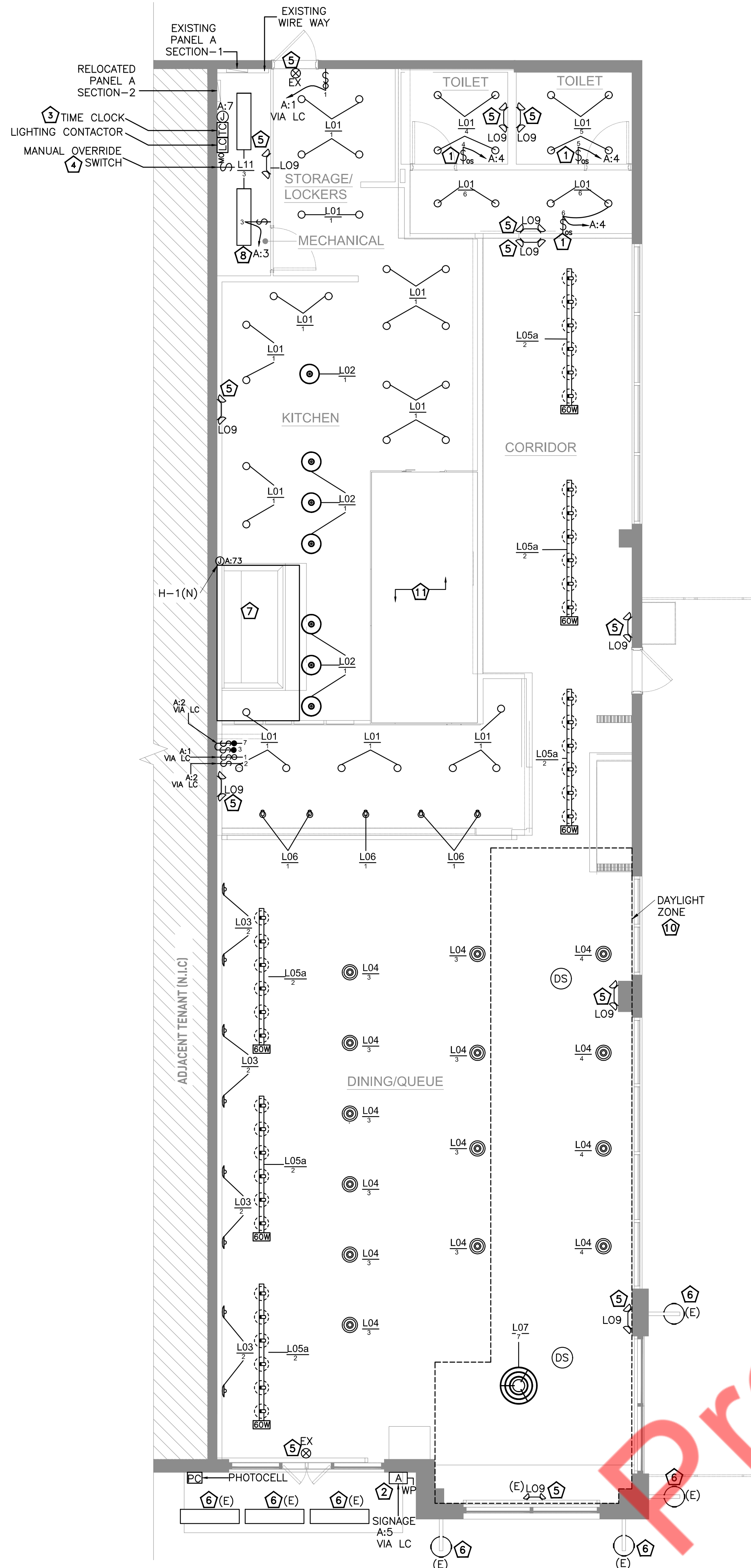
ELECTRICAL LEGENDS, ABBREVIATIONS & NOTES

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ELECTRICAL SPECIFICATIONS

3. SCOPE OF WORK:
- A. SCOPE OF WORK SHALL CONSIST OF PROVIDING LABOR, MATERIALS, EQUIPMENT, SERVICES AND FEES NECESSARY FOR COMPLETE AND SAFE INSTALLATION IN CONFORMING WITH THE APPLICABLE CODES WITH LOCAL AMENDMENTS, AND ALL OTHER APPLICABLE INDUSTRY, NATIONAL AND LOCAL CODES AND AUTHORITIES HAVING JURISDICTION, AS INDICATED ON DRAWINGS AND HEREIN SPECIFIED.
- B. ALL DRAWINGS, PLANS, DETAILS, SPECIFICATIONS AND SPECIFICATION ADDENDA ARE MADE PART OF THIS CONTRACT AND SHALL APPLY TO ALL WORK UNDER THE CONTRACT UNLESS OTHERWISE AMENDED, MODIFIED, SUPPLIED OR SPECIFIED HEREIN.
- C. THE CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN ONE YEAR FROM THE DATE OF FINAL CERTIFICATE FOR PAYMENT AND/OR FROM DATE OF ACTUAL USE OF EQUIPMENT OR OCCUPANCY OF SPACES BY OWNER INCLUDED UNDER THE VARIOUS PARTS OF THE WORK, WHICHEVER, DATE IS EARLIER, THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE SHALL ALSO PROVIDED THAT WHERE DEFECTS OCCUR, THE CONTRACTOR WILL ASSUME RESPONSIBILITY OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENT SUPPLIED BY THE CONTRACTOR.
- D. THE CONTRACTOR SHALL GIVE NECESSARY NOTICE, FILE DRAWINGS AND SPECIFICATIONS WITH ALL DEPARTMENTS HAVING JURISDICTION, WORK AND PAY ALL FEES THEREFORE. THE CONTRACTOR SHALL ARRANGE FOR INSPECTION AND TESTS OF ANY OR ALL PARTS OF THE WORK IF SO REQUIRED BY AUTHORITIES AND PAY ALL CHARGES FOR SAME. THE CONTRACTOR SHALL PAY ALL COSTS FOR, AND FURNISH TO THE OWNER BEFORE FINAL BILLING, ALL CERTIFICATES NECESSARY AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH ALL REGULATIONS WHERE THEY APPLY TO THIS WORK.
- E. CONTRACTOR SHALL PERFORM ALL CONTROLLED INSPECTIONS IN ACCORDANCE WITH THE NYC BUILDING CODE. SECURE ALL REQUIRED PERMITS AND APPROVALS AND TRANSMIT SAME TO OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES.
- F. AREAS WITH NO ELECTRICAL WORK SHALL REMAIN AS IS. CONTRACTOR SHALL MAINTAIN CONTINUITY OF ALL ELECTRICAL SYSTEMS TO ALL AREAS NOT COVERED BY THIS RENOVATION AND SHALL PROVIDE 48 HOUR NOTICE TO LANDLORD OF ANY PLANNED POWER INTERRUPTIONS OR SIGNAL SYSTEM OUTAGES.
4. SHOP DRAWINGS
- A. PRIOR TO THE INSTALLATION OF ANY WORK AND PROCUREMENT OF EQUIPMENT, CONTRACTOR SHALL PROVIDE COMPLETE SETS OF COORDINATED SHOP DRAWINGS OF ALL NEW EXISTING EQUIPMENT, INDICATING CAPACITY, DIMENSIONS AND SEQUENCE OF OPERATION FOR WRITTEN APPROVAL BY THE ARCHITECT AND ENGINEER.
- B. INDICATE ON EACH SHOP DRAWINGS SUBMITTED:
- 1) PROJECT NAME AND LOCATION
  - 2) NAME OF ARCHITECT AND ENGINEER
  - 3) ITEM IDENTIFICATION
  - 4) APPROVAL STAMP OF PRIME CONTRACTOR
- C. SUBMISSIONS:
- 1) SUBMISSIONS 11 IN. X 17 IN. OR SMALLER: IF THE SUBMISSION IS A CATALOG CUT, THEN THE CONTRACTOR SHALL SUBMIT ONE ORIGINAL AND TWO COPIES. OTHERWISE, HE SHALL SUBMIT THREE COPIES. THE ARCHITECT WILL FORWARD THE ORIGINAL AND ONE COPY (TWO COPIES WHEN NO ORIGINAL IS RECEIVED) TO THE ENGINEER. ALL CATALOG CUTS SHALL BE COMPLETE.
  - 2) SUBMISSIONS LARGER THAN 11 IN. X 17 IN.: SUBMIT TWO PRINTS AND ONE PAPER SEPIA TO THE ARCHITECT. THE ARCHITECT WILL FORWARD ONE PRINT AND THE PAPER SEPIA TO THE ENGINEER.
- D. SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:
- 1) SAFETY/DISCONNECT SWITCHES
  - 2) FUSES
  - 3) CIRCUIT BREAKERS
  - 4) DISTRIBUTION EQUIPMENT INCLUDING SWITCHBOARDS, TRANSFORMERS, PANELBOARDS AND LOAD CENTERS.
  - 5) RACEWAYS
  - 6) WIRE AND CABLE
  - 7) LIGHTING CONTROL DEVICES
  - 8) INSERTION RECEPTACLES
  - 9) MOMENTARY CONTACT SWITCHES
  - 10) TIME SWITCHES
  - 11) LIGHTING FIXTURES, BALLASTS AND LAMPS.
  - 12) FIRE ALARM EQUIPMENT AND DEVICES.
  - 13) MOTOR STARTERS.
- SUBMIT ELECTRICAL POWER SYSTEM STUDIES INCLUDING SUPPORTING DATA AND RECOMMENDATIONS FOR THE FOLLOWING:
- 1) SHORT CIRCUIT CURRENT AND PROTECTIVE DEVICE COORDINATION
  - 2) ARC FLASH HAZARD ANALYSIS.
  - 3) EQUIPMENT SHOP DRAWINGS SHALL NOT BE SUBMITTED UNTIL THESE SHOP DRAWINGS HAS BEEN COMPLETED.
- E. ASSIST AND PROVIDE ALL NECESSARY INFORMATION, DIAGRAMS, SKETCHES, ETC. TO THE HVAC CONTRACTOR, FOR THE PREPARATION OF COORDINATED SHOP DRAWINGS INDICATING ROUTING OF FEEDERS, CONTROL CONDUITS, RECESSED FIXTURES AND ADJACENT NEARBY PIPING AND DUCTWORK WHERE APPLICABLE, CERTIFIED BY ALL TRADES THAT COORDINATION HAS BEEN ESTABLISHED. SUBMIT FOUR(4) BOOKBOUND OPERATING AND SERVICE MANUALS WHICH SHALL INCLUDE COPIES OF ALL SHOP DRAWING, PROVIDE SHOP DRAWINGS FOR PANELS, FIXTURES, WIRING DEVICES, CONDUIT, CABLE, DISCONNECT SWITCH, RELAYS, CONTRACTORS, AND OTHER SYSTEMS AS DIRECTED BY THE ENGINEER.
5. AS-BUILT DRAWINGS AND EQUIPMENT OPERATIONAL INSTRUCTIONS
- A. UPON COMPLETION AND ACCEPTANCE OF WORK, CONTRACTOR SHALL FURNISH WRITTEN INSTRUCTIONS AND EQUIPMENT MANUALS AND DEMONSTRATE TO THE OWNER THE PROPER OPERATION AND MAINTENANCE OF ALL EQUIPMENT AND APPARATUS FURNISHED UNDER THIS CONTRACT.
- B. THESE INSTRUCTIONS SHALL BE TYPED ON 8-1/2 IN. X 11 IN. PAPER AND BOUND IN THREE RING BINDERS WITH CLEAR ACETATE COVERS. CONTRACTOR SHALL GIVE THREE COPIES OF THE INSTRUCTIONS TO THE OWNER AND ONE COPY TO THE ENGINEER.
- C. THE INSTRUCTION BOOKLET SHALL BEAR THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE PROJECT, ARCHITECT AND ENGINEER.
- D. REPRODUCIBLE "AS-BUILT" DRAWINGS SHALL BE PROVIDED INDICATING THE AS INSTALLED CONDITIONS OF THE WORK. "AS-BUILT" DRAWINGS SHALL BE PROVIDED TO THE ARCHITECT AFTER COMPLETION OF THE INSTALLATION.
6. LOW-VOLTAGE DISTRIBUTION EQUIPMENT:
- A. PROVIDE COMPLETE EQUIPMENT INCLUDING: SWITCHES, FUSES, CIRCUIT BREAKERS, PANELS AND TRANSFORMERS.
- B. ALL EQUIPMENT SHALL CONFORM TO NEMA, ANSI AND IEEE STANDARDS.
- C. DISCONNECT SWITCHES SHALL BE FUSED OR NONFUSED AS NOTED. VOLTAGE SHALL BE AS REQUIRED. SWITCHES SHALL BE HEAVY DUTY, EXCEPT AS NOTED, AND HORSEPOWER RATED FOR MOTOR LOADS. TOGGLE TYPE SWITCHES SHALL BE NONFUSED, LOAD BREAK, HAVING MAXIMUM RATINGS OF 20 AMP AT 600 VOLTS AND 30 AMP AT 240 VOLTS. TWO-POLE SWITCHES SHALL BE SIMILAR TO HART AND HEGEMAN NO. 6808F. THREE-POLE SWITCHES SHALL BE SIMILAR TO HART AND HEGEMAN NO. 7810F. KNIFE-BLADE TYPE SWITCHES SHALL BE LOAD BREAK, QUICK-MAKE- QUICK-BREAK, UL CLASS R UP TO 600 AMP. MAXIMUM RATING EXCEPT AS NOTED SHALL BE 800 AMP. ARC QUENCHERS SHALL BE PROVIDED. SWITCHES SHALL BE SIMILAR TO GENERAL ELECTRIC. ALL SWITCH ENCLOSURES SHALL BE DEAD FRONT, NEMA TYPE 1, EXCEPT AS NOTED.
7. FUSES:
- A. OVERCURRENT AND SHORT CIRCUIT PROTECTION WITHIN FUSIBLE SWITCHES SHALL BE CLASS L CURRENT LIMITING TIME DELAY FUSES FOR SWITCHES RATED 800A AND LARGER AND CLASS RK-1 CURRENT LIMITING TIME DELAY FUSES FOR SWITCHES RATED 600A AND SMALLER. MANUFACTURER SHALL BE BUSSMAN.
- B. INDIVIDUAL MOTOR STARTERS SHALL INCLUDE TWO SETS OF NORMALLY OPEN CONTACTS, ONE SET OF NORMALLY CLOSED CONTACTS, THREE OVERLOAD RELAYS, INDIVIDUALLY FUSED CONTROL TRANSFORMER, HAND OFF AUTO SELECTOR SWITCH FOR AUTOMATIC START AND PILOT LIGHT(S) AS REQUIRED. COMBINATION STARTER DISCONNECTS SHALL INCLUDE FUSIBLE SWITCHES, CONTACTORS, RELAYS, CONTACTS, MANUFACTURER SHALL BE EATON, SIEMENS OR SQUARE D.
- C. ALL FUSES SHALL BE PROVIDED BY SAME MANUFACTURER.
- D. PROVIDE 1 SPACE MATCHING FUSE FOR EACH SET OF 3.
- E. CIRCUIT BREAKERS: MOLDED CASE BREAKERS SHALL BE THERMAL-MAGNETIC, QUICK-MAKE-QUICK-BREAK, BOLT-ON TYPE, MANUALLY OPERATED WITH INSULATED TRIP-FREE HANDLE. MULTI-POLE TYPE BREAKERS SHALL CONTAIN INTERNAL TRIP BAR. TERMINALS SHALL BE SUITABLE FOR COPPER OR ALUMINUM CABLE. FURNISH AUXILIARY DEVICES WHERE REQUIRED FOR SHUNT-TRIPPING, OPEN AND CLOSE MOTOR OPERATOR AND ALARM INDICATION. ENCLOSURES SHALL BE DEAD FRONT, NEMA TYPE 1, EXCEPT AS NOTED. FRAMES, IC AND INTERCHANGEABLE TRIPS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
- 1) 120 VOLTS, 100-AMP FRAME: 10,000 AMPS, 1 POLE.
  - 2) 120/240 VOLTS, 225-AMP FRAME: 22,000 AMPS MINIMUM
8. DISTRIBUTION PANEL BOARDS, CIRCUIT BREAKER TYPE:
- A. DISTRIBUTION PANEL BOARDS SHALL BE FULLY RATED WITH COPPER PHASE, NEUTRAL, AND GROUND BUS, BRACED AT 65000 AIC FOR 480/277 VOLT SYSTEM AND 42000 AIC FOR 208Y/120 VOLT SYSTEM, OR MORE TO BE GREATER THAN THE AVAILABLE SHORT CIRCUIT CURRENT. ISOLATED GROUND BUS SHALL BE AS REQUIRED. MANUFACTURERS SHALL BE EATON, SIEMENS OR SQUARE D.
- B. BRANCH PANEL BOARDS SHALL BE FULLY RATED WITH COPPER PHASE, NEUTRAL AND GROUND BUS, BRACED AT 14000 AIC FOR 480/277 VOLT SYSTEM AND 1008Y/120 AIC FOR 208Y/120 VOLT SYSTEM, OR MORE TO BE GREATER THAN THE AVAILABLE SHORT CIRCUIT CURRENT. NEUTRAL BUS SHALL BE RATED AT 200 PERCENT WITHIN PANELS SERVING NON-LINEAR LOADS. ISOLATED GROUND BUS SHALL BE AS REQUIRED. MANUFACTURER SHALL BE EATON, SIEMENS, OR SQUARE D.
9. DISTRIBUTION PANEL BOARDS, SWITCH AND FUSE:
- A. THREE PHASE, 3 OR 4 WIRE WITH COPPER BUS BARS. ALL THROUGH BUS SHALL BE INSULATED.
- B. NEMA CLASS 1 CONSTRUCTION TO ACCOMMODATE FUSIBLE, INDIVIDUALLY ENCLOSED SWITCHES, FRONT REMOVABLE, SWITCH AND DOOR INTERLOCKS. COVERS TO BE PAD-LOCKABLE.
- C. PANEL BOARD SHALL BE CONSTRUCTED OF CODE-GAUGE STEEL, GRAY FINISH OVER RUST INHIBITOR, FOR SURFACE MOUNTING. BOX AND PANEL FRAME SHALL BE FLANGED AND REINFORCED FOR RIGID SUPPORT OF INTERIOR AND ACCURATE ALIGNMENT OF INTERIOR WITH FRONT. TRIMS TO BE FASTENED TO BACK BOX WITH SCREWS.
- D. ALL BRANCH SWITCHES SHALL HAVE INDIVIDUAL ENGRAVED LAMICOID NAMEPLATES (BLACK WITH WHITE CORE).
10. DISCONNECTS
- A. DISCONNECT SWITCHES SHALL CONFORM TO NEMA AND UL STANDARDS, AND SHALL BE HORSEPOWER RATED.
- B. SWITCHING MECHANISM SHALL BE QUICK-MAKE, QUICK-BREAK, SINGLE THROW WITH EXTERNAL OPERATING HANDLE MECHANICALLY INTERLOCKED WITH ENCLOSURE COVER TO PROVIDE ACCESS TO INTERIOR WHEN DISCONNECT IS IN OFF POSITION ONLY. PROVIDE MEANS TO LOCK OPERATING HANDLE IN THE OPEN AND CLOSED POSITION. DESIGNATE ON THE ENCLOSURE THE OPEN AND CLOSED POSITION OF THE OPERATING HANDLE.
- C. SWITCHES SHALL BE OF THE DOUBLE STATIONARY CONTACT TYPE.
- D. SWITCHES SHALL BE EQUIPPED WITH REJECTION TYPE FUSE HOLDERS, FUSIBLE AS SHOWN ON THE DRAWINGS; PROVIDE COMPLETE WITH FUSES AS SCHEDULED.
11. INSTALLATION
- A. DISTRIBUTION PANEL BOARD SHALL BE MOUNTED TO STRUCTURAL STEEL CHANNEL (KINDORF) WHICH SHALL BE BOLTED TO THE WALL USING EXPANSION ANCHORS FOR LARGE PANELS.
12. IDENTIFICATION
- A. PROVIDE NAMEPLATE AT EACH SWITCH IDENTIFYING THE LOAD SERVED.
- B. NAMEPLATES SHALL BE MOUNTED ON THE FRONT COVER SECURED WITH SELF-TAPPING SCREWS OR NUTS AND BOLTS. NAMEPLATES SHALL BE LAMINATED PHENOLIC, BLACK WITH A MINIMUM OF 1/4" HIGH WHITE LETTERING.
- C. DISTRIBUTION AND SUB-DISTRIBUTION PANEL BOARDS SHALL BE A MINIMUM OF 30" WIDE AND 10" DEEP.
- D. POWER PANEL BOARDS SHALL BE SIMILAR TO GENERAL ELECTRIC TYPE "OMR," AS MANUFACTURED BY ATLAS SWITCH COMPANY, ELECTRIC SWITCHBOARD COMPANY OR APPROVED EQUAL.
- E. PANEL BOARD SHALL HAVE MAIN CIRCUIT BREAKER OR MAIN LUGS AS INDICATED ON THE DRAWINGS. QUANTITY, POLES AND TRIP RATINGS OF BRANCH CIRCUIT BREAKERS TO BE AS INDICATED ON DRAWINGS.
- F. PANEL BOARD SHALL HAVE ENGRAVED WHITE CORE, BLACK LAMICOID NAMEPLATE SCREWED ONTO PANEL TRIM WITH DESIGNATION LISTED (PANEL BOARD NAME, VOLTAGE, RATING OR MAINS IN AMPS).
13. MATERIALS
- A. RACEWAYS:
- a. RIGID STEEL CONDUIT: FULL-WEIGHT PIPE, GALVANIZED, THREADED.
  - b. ELECTROMETALLIC TUBING (EMT): THIN WALL PIPE, GALVANIZED, THREADED.
  - c. FLEXIBLE STEEL CONDUIT: CONTINUOUS SINGLE STRIP, GALVANIZED.
  - d. WIREWAYS: STEEL WITH GROUND CONTINUITY. FINISH SHALL BE BAKED ENAMEL. COVERS SHALL BE SCREW-ON.
  - e. SURFACE METAL RACEWAY: SURFACE METAL RACEWAY INCLUDING POWER DEVICES, FITTINGS, CONNECTORS, FEEDS, ELBOWS, COUPLINGS, BLANKS, TEES, WIRE CLIPS, DEVICE BRACKETS, DEVICE COVERS AND OTHER ASSOCIATED APPARATUS SHALL BE SIZED TO FACILITATE PULLING THE QUANTITY AND SIZE OF WIRES AND CABLES, AND INSTALLING THE DEVICES CONTAINED. RACEWAY SHALL BE OF CODE GAUGE GALVANIZED STEEL, SHALL INCLUDE MOUNTING KNOCK-OUTS, WHICH SHALL BE FINISHED AS DIRECTED BY THE ARCHITECT. MANUFACTURER SHALL BE WIREMOLD.
- B. FITTINGS AND ACCESSORIES:
- a. RIGID STEEL: NONSPILT, THREADED, STEEL OR MALLEABLE IRON. ZINC DIE CAST NOT PERMITTED.
  - b. ELECTROMETALLIC TUBING: COMPRESSION TYPE. GALVANIZED RIGID STEEL ELBOWS, 2 IN. OR LARGER.
  - c. FLEXIBLE METALLIC CONDUIT: ANGLE WEDGE TYPE WITH INSULATED THROAT.
  - d. BUSHINGS: METALLIC INSULATED TYPE.
- C. BOXES:
- a. OUTLET BOXES: EXCEPT AS OTHERWISE REQUIRED BY CONSTRUCTION, DEVICES OR WIRING, BOXES SHALL BE CLEAR STAMPED STEEL, 4 IN. SQUARE OR OCTAGON FOR FIXTURES. BOXES ABOVE CEILING SHALL BE 1-1/2 IN. DEEP. BOXES IN CEILING OR SLAB SHALL BE 3 IN. DEEP. BOXES IN WALL FOR FIXTURES SHALL BE 2-3/4 IN. DEEP. BOXES IN WALL FOR RECEPTACLES AND SWITCHES SHALL BE 1-1/2 IN. DEEP. FURNISH WITH RAISED COVERS AND FIXTURE STUDS WHERE REQUIRED. WITHOUT FIXTURE OR DEVICE: FURNISH BLANK COVER, OFFSET BACK-TO-BACK OUTLETS WITH MINIMUM 8 IN. SEPARATION. MANUFACTURER SHALL BE APPLETON, RAGO OR STEEL CITY.
  - b. JUNCTION AND PULL BOXES: GALVANIZED SHEET STEEL WITH SCREW-ON COVERS, EXCEPT AS NOTED. FURNISH WITH INSULATED SUPPORTS FOR CABLES. LOCATIONS SHALL BE AS NOTED OR REQUIRED AND ACCESSIBLE. PROVIDE BARRIERS IN NEW AND RENOVATED BOXES BETWEEN 120/208 VOLT AND 265/460 VOLT WIRING AND BETWEEN EMERGENCY AND NORMAL WIRING. FLOOR BOXES SHALL BE ADJUSTABLE CONCRETE TRIM PRESSED STEEL WITH BRASS FLANGE AND COVERS. FLUSH FLOOR BOXES SHALL INCLUDE BRASS TRIM AND HINGED OUTLET OPENING COVERS. FIRE RATED POKE-THROUGH FLOOR FITTINGS SHALL BE UL LISTED AND APPROVED FOR THE FLOOR SLAB FIRE RATING.
- FLOOR MOUNTED SERVICE FITTING FOR SERVICE FITTINGS FOR CONNECTION TO UNDER-FLOOR ELECTRIFIED METAL DECK SHALL BE COMPATIBLE WITH THE DECK MANUFACTURER. ACCESS FLOOR MOUNTED FITTINGS FOR USE WITH RAISED FLOOR SHALL BE FLUSH TYPE WITH SPACE FOR EQUIPMENT CORD PLUG DEVICES AND SUITABLE FLIP TYPE COVER. MANUFACTURER SHALL BE HUBBELL, WIREMOLD, OR STEEL CITY.
- PROVIDE RACEWAYS ONLY AS HEREIN SPECIFIED, EXCEPT AS NOTED. RACEWAYS SHALL BE RUN CONCEALED, EXCEPT AS NOTED.
- PROVIDE RACEWAY SUPPORT UTILIZING CEILING TRAPEZE, STRAP HANGERS, OR WALL BRACKETS. PROVIDE U-BOLTS AT EACH FLOOR LEVEL OF RISER RACEWAYS AND CONNECTED TO ACCEPTABLE SUPPORTS. PROVIDE RISER CLAMPS AT EACH FLOOR LEVEL OF RISER RACEWAYS AND RESTING ON SLAB. FOR THROUGH-THE-FLOOR SYSTEMS, UTILIZE AN ASSEMBLY SIMILAR TO HUBBELL FIRE RATED POKE-THROUGH-FLOOR BOX SYSTEM. FOR ABOVE FLOOR FITTINGS, TELEPHONE SHALL BE BUSHED HOLE AND POWER SHALL BE DUPLEX RECEPTACLE OR OTHER AS NOTED. PROVIDE SEPARATION BARRIER BETWEEN POWER AND TELEPHONE COMPARTMENTS. PROVIDE JUNCTION BOX ON UNDERSIDE OF FLOOR. PACK FITTING TO RESTORE FIRE RATING OF FLOOR.
- SECURE ALL RACEWAYS TO SUPPORTS WITH PIPE STRAPS OR U-BOLTS. SPACING OF SUPPORTS SHALL BE A MINIMUM OF 10 FT ON CENTER FOR METALLIC RACEWAY AND AS NOTED FOR NONMETALLIC RACEWAY. SPACING SHALL BE 5 FT ON CENTER FOR WIREWAYS AND PER CODE AND AS NOTED FOR OTHERS. MOUNT SUPPORTS TO STRUCTURE MASONRY WITH TOGGLE BOLTS ON HOLLOW MASONRY. EXPANSION SHIELDS OR INSERTS IN CONCRETE AND BRICK. MACHINE SCREWS ON METAL, BEAM CLAMPS ON FRAMEWORK, WOOD SCREWS ON WOOD, AND PAN THROUGH STRAPS IN METAL DECK. NAILS, RAWL PLUGS OR WOOD PLUGS SHALL NOT BE USED. WHERE REQUIRED BY STRUCTURE, FURNISH THROUGH BOLTS AND FISHPLATES.
- EXPOSED RACEWAYS SHALL BE RUN PARALLEL WITH OR AT RIGHT ANGLES TO WALLS. PROVIDE CLEARANCE WITH WATER, STEAM OR OTHER PIPING (MINIMUM 3 IN. SEPARATION FROM STEAM AND HOT WATER PIPES), AND AS REQUIRED FOR OTHERS. AT CROSSINGS AND 18 IN. FOR PARALLEL RUNS). FOR HUNG CEILING OUTLETS, RUN IN HUNG CEILING AND CONNECT TO CEILING SUPPORT CHANNELS. IN MASONRY AND POURED CONCRETE, RUN VERTICALLY ONLY.
- MAINTAIN GROUNDING CONTINUITY OF INTERRUPTED METALLIC RACEWAYS WITH GROUND CONDUCTOR, AND IN FLEXIBLE CONDUIT FOR FEEDERS AND MOTOR TERMINAL CONNECTIONS. EMPTY RACEWAYS OVER 10 FT LONG: PROVIDE FISH OR PULL WIRE, GALVANIZED OR NYLON ROPE.
- RIGID STEEL CONDUIT SHALL BE PERMITTED FOR FEEDERS AND BRANCH CIRCUITS. PAINT MALE THREADS OF FIELD-THREADED CONDUIT WITH GRAPHITE-BASE PIPE COMPOUND AND BUTT CONDUIT ENDS. TOUCH UP MARRED SURFACES AND FIELD-CUT THREADS, CRC-COLD GALVANIZED. EXCEPT 1 IN. FROM PIPE COMPOUND PERMITTED FOR BRANCH CIRCUITS ONLY, IN DRY LOCATIONS, DRY WALLS, HUNG CEILING, HOLLOW BLOCK WALLS AND FURRED SPACES. EMT SHALL NOT BE PERMITTED IN RAISED FLOORS. FLEXIBLE STEEL CONDUIT SHALL BE UTILIZED FOR SHORT CONNECTIONS WHERE RIGID CONDUIT IS IMPRACTICAL. FROM OUTLET BOX TO RECESSED LIGHTING FIXTURE: PROVIDE MINIMUM 4 FT AND MAXIMUM 6 FT LENGTHS. FOR FINAL CONNECTION TO MOTOR TERMINAL BOX, TRANSFORMER AND OTHER VIBRATING EQUIPMENT: PROVIDE MINIMUM 12 IN. OF SHEATHING AND GROUND CONDUIT. MINIMUM LENGTH: 18 IN. WITH SLACK. CONNECT GROUND CONDUCTOR TO ENCLOSURE OR RACEWAY AT EACH END. FOR EXPANSION JOINT CROSSINGS, CROSS AT RIGHT ANGLES AND ANCHOR ENDS.
- CUT CONDUIT ENDS SQUARE. REAM SMOOTH. PAINT MALE THREADS OF FIELD THREADED RACEWAYS WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH RACEWAY COUPLING.
- ALL COUPLINGS SHALL BE COMPRESSION TYPE. NO SET SCREW FITTINGS.
- EXPANSION FITTINGS SHALL BE INSTALLED AT RIGHT ANGLES WITH CLIP JOINT CENTERED IN EXPANSION JOINT. PROVIDE A LENGTH OF RUN IN ACCORDANCE MANUFACTURER'S RECOMMENDATIONS. PRESET FITTINGS SHALL ALLOW FOR TEMPERATURE VARIATION.
- RACEWAYS PASSING THROUGH FIRE-RATED CONSTRUCTION: SEAL OPENING WITH FIRE SEALANT.
- D. PROVIDE CABLE SUPPORTS IN ACCORDANCE WITH NATIONAL ELECTRIC CODE ARTICLE 300.19. CABLE SUPPORTS SHALL UTILIZE A ONE-PIECE PLUG WITH POZI-GRIP WEDGING PLUG AS MANUFACTURED BY OZ-GEDNEY. TYPE SF SHALL BE USED FOR ARMORED CABLE.
- INSTALL CABLE SUPPORTS AT THE TOP OF A VERTICAL RISE AND PROVIDE INTERMEDIATE ADDITIONAL SUPPORTS AS REQUIRED TO LIMIT SUPPORTED CONDUCTOR LENGTHS TO NOT GREATER THAN THOSE SPECIFIED IN NEC TABLE 300.19(A).
- E. ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING. OUTLET BOXES SHALL BE SET SQUARE AND TRUE WITH BUILDING FINISH. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRON OR GROUT IN WITH MASONRY. VERIFY OUTLET LOCATIONS IN FINISHED SPACES WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISHES. PROVIDE BARRIERS BETWEEN SWITCHES CONNECTED TO DIFFERENT PHASES FOR VOLTAGES EXCEEDING 150 VOLTS TO GROUND.
- F. PANEL, JUNCTION AND PULL BOXES SHALL BE LOCATED CLEAR OF OTHER TRADES. CONCEAL JUNCTION AND PULL BOXES IN FINISHED SPACES. WHERE NECESSARY, REROUTE RACEWAYS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT. BOXES SHALL BE ACCESSIBLE. SUPPORT BOXES FROM BUILDING STRUCTURE, INDEPENDENT OF CONDUIT. PROVIDE FLOOR-TO-CEILING CHANNELS FOR MOUNTING ON DRYWALL AND LIGHTWEIGHT CONSTRUCTION. OUTLET BOXES FOR FIXTURES RECESSED IN HUNG CEILING SHALL BE ACCESSIBLE THROUGH OPENING CREATED BY REMOVAL OF FIXTURE. SECURE TO BLACK IRON SUPPORT. MOTOR TERMINAL BOXES: COORDINATE WITH MOTOR BRANCH CIRCUIT CONDUIT AND WIRING; ADD BOX VOLUME WHERE REQUIRED.
- G. FIRE SEALANTS: PROVIDE FOR RACEWAYS AND WIRE PASSING THROUGH FLOOR SLOTS, SLEEVES OR OPENINGS IN FIRE-PARTITIONS ROOMS.
- H. PERFORM CONTINUITY TESTS OF RESISTANCE OF FEEDER CONDUITS FROM SERVICE TO POINT OF FINAL DISTRIBUTION USING 1 CONDUCTOR RETURN. MAXIMUM RESISTANCE SHALL BE 25 OHMS.
14. WIRE AND CABLE:
- A. PROVIDE WIRE AND CABLE COMPLETE WITH ACCESSORIES. SIZE REFERENCE SHALL BE AWG EXCEPT AS NOTED.
- B. CONDUCTORS SHALL BE COPPER, ASTM STANDARD SOLID (NO. 10 AND SMALLER) OR STRANDED (NO. 8 AND LARGER). GENERAL USE CABLING SHALL BE NO. 12 MINIMUM. AT 120 VOLTS AND OVER 100 FT CIRCUIT LENGTH PROVIDE NO. 10 MINIMUM. AT 265 VOLTS AND OVER 200 FT CIRCUIT LENGTH PROVIDE NO. 10 MINIMUM. ALL MOTOR BRANCH CIRCUITS SHALL BE AMERICAN INSULATED WIRE CORP., CERRO, COLLYER, CAPITOL WIRE AND CABLE, OKONITE, SENATOR, SOUTH WIRE OR TRIANGLE.
- C. CONTROL AND ALARM CABLING, EXCEPT AS NOTED, SHALL BE NO. 14 MINIMUM AT 120 VOLTS AND OVER 200 FT CIRCUIT LENGTH PROVIDE NO. 12 MINIMUM. OTHER VOLTAGES AND PHASES: ADJUST CABLE SIZING AS REQUIRED TO MAINTAIN VOLTAGE DROP. INCREASE RACEWAY SIZES FOR LARGER WIRE AS REQUIRED.
- D. INSULATION SHALL BE RUBBER AND THERMOPLASTIC MEETING ASTM AND IPCEA STANDARDS. TYPE THW OR THWN SHALL BE UTILIZED FOR FEEDERS AND BRANCH CIRCUITS EXCEPT AS NOTED. TYPE SFF-2 SHALL BE UTILIZED FOR BRANCH CIRCUITS LOCATED IN WIRING CHANNELES OF CONTINUOUS FLUORESCENT FIXTURES AND IN AMBIENT TEMPERATURES OVER 90 DEG C. FOR UNGROUNDING ISOLATED BRANCH CIRCUITS PROVIDE CROSS-LINKED POLYETHYLENE INSULATION (TYPE XHHW).
- E. ARMORED CABLE (BX) SHALL BE UTILIZED FOR BRANCH CIRCUITS IN DRY HOLLOW LOCATIONS. SHALL BE TYPE BX AND BLOCK WALLS. WHEN USED IN LIEU OF WIRING IN CONDUIT, STATE IN PROPOSAL THAT PRICE IS BASED UPON THE USE OF HOSPITAL GRADE 'BX'.
- F. METAL-CLAD CABLE, NFPA 70 ARTICLE 330 TYPE MC:
1. INTERLOCKED FLEXIBLE GALVANIZED STEEL ARMOR SHEATH, CONFORMING TO UL REQUIREMENTS FOR TYPE MC METAL CLAD CABLE.
  2. INSULATED COPPER CONDUCTORS, SUITABLE FOR 600 VOLTS, RATED 90C, ONE OF THE TYPES LISTED IN NFPA 70 TABLE 310.13(A) OR OF A TYPE IDENTIFIED FOR USE IN TYPE MC CABLE.
  3. INTERNAL FULL SIZE COPPER GROUND CONDUCTOR WITH GREEN INSULATION.
  4. ACCEPTABLE COMPANIES: AFC CABLE SYSTEMS INC., SOUTHWIRE, GENERAL CABLE.
  5. CONNECTORS FOR MC CABLE: AFC FITTING INC.'S AFC SERIES, ARLINGTON INDUSTRIES INC.'S SADDLE GRIP, OR THOMAS & BETTS CO.'S TITE-BITE WITH ANTI-SHORT BUSHINGS.
- G. COLOR CODING SHALL BE AS FOLLOWS:
1. 120/208 VOLT SYSTEM:
  2. BLACK FOR A PHASE
  3. RED FOR B PHASE
  4. BLUE FOR C PHASE
- H. NEUTRAL WIRE SHALL UTILIZE WHITE OUTER COVERING THROUGHOUT. EQUIPMENT GROUND WIRE SHALL UTILIZE GREEN OUTER COVERING THROUGHOUT.
- a. WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION TO OVERLAP CONDUCTORS WITH 6 IN. OF COLOR TAPING IN ACCESSIBLE LOCATIONS.
  - b. PROVIDE FLAMEPROOF LINEN OR FIBER TAGS IN ACCESSIBLE LOCATIONS. FOR FEEDERS INDICATE FEEDER NUMBER, SIZE, PHASE AND POINTS OF ORIGIN AND TERMINATIONS. FOR CONTROL AND ALARM WIRING INDICATE TYPE (CONTROL OR ALARM), SIZE OF WIRE, AND POINTS OF ORIGIN AND TERMINATIONS.
  - c. TERMINATIONS, SPLICES AND TAPS UNDER 600 VOLTS: COPPER CONDUCTORS NO. 10 AND SMALLER SHALL UTILIZE COMPRESSION-TYPE OF TWIST-ON SPRING-LOADED CONNECTORS AND CLEAR NYLON-INSULATED COVERING. COPPER CONDUCTORS NO. 8 AND LARGER SHALL UTILIZE MECHANICAL BOLTED PRESSURE OR HYDRAULIC COMPRESSION TYPE USING MANUFACTURER'S RECOMMENDED TOOLING. CABLE LUGS AND CONNECTORS SHALL UTILIZE COMPRESSION TYPE OF SAME METAL AS CONDUCTOR. PROVIDE TO MATCH CABLE, WITH MARKING INDICATING SIZE AND TYPE. COPPER LUG CONNECTIONS TO BUS BARS: USE ANTISEIZE COMPOUND ON TANG.
- d. NOT MORE THAN 3 LIGHTING OR CONVENIENCE OUTLET CIRCUITS SHALL BE INSTALLED IN ONE CONDUIT UNLESS OTHERWISE INDICATED. PULL NO THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32 DEG F. PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF 120/208 AND 265/460 VOLT SYSTEMS, EXCEPT 460 VOLT MOTOR BRANCH CIRCUIT WIRING AND RELATED 120 VOLT CONTROL WIRING. THERMOPLASTIC WIRES SHALL NOT BE INSTALLED IN COMPUTER AREA RAISED FLOORS.
- e. LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS.
- f. PERFORM CONTINUITY AND INSULATION TESTS. MEGGER TEST 100 PERCENT OF FEEDERS, 10 PERCENT OF BRANCH CIRCUITS AND ALL MOTOR BRANCH CIRCUITS OVER 25 HP.
- g. PERFORM TESTS PRIOR TO CONNECTING EQUIPMENT AND IN PRESENCE OF AUTHORIZED REPRESENTATIVES. SUBMIT WRITTEN REPORT OF RESULTS. CORRECT OR REPLACE CABLE TESTING BELOW MANUFACTURER'S STANDARDS.
15. INTERCOM CONDUIT SYSTEM:
- A. PROVIDE COMPLETE SYSTEM OF: RACEWAYS AND ACCESSORIES, J-BOXES, SLEEVES AND FISHWIRES.
- B. EQUIPMENT SHALL CONFORM TO REQUIREMENTS OF INTERCOM MANUFACTURER.
- C. J-BOXES SHALL BE:
- WALL : 4 IN. SQUARE WITH SINGLE GANG COVER PLATE.
- D. PROVIDE FISHWIRES, IN RACEWAYS OVER 10 FT LONG.
- E. CONDUIT SHALL BE 3/4 IN. MINIMUM. FURNISH EMPTY CONDUIT FROM EACH APARTMENT TO MAIN INTERCOM CONTROLLER AT ENTRANCE.
16. ELECTRICAL WIRING METHOD:
- A. ALL CONDUIT SHALL BE RUN CONCEALED IN SO FAR AS IS PRACTICABLE. CONDUITS SHALL BE EXPOSED ONLY WHERE SO INDICATED ON THE DRAWINGS OR IN UNFINISHED AREAS SUCH AS ELECTRICAL AND BOILER ROOMS.
- B. MINIMUM CONDUIT SIZE SHALL BE 3/4" UNLESS NOTED OTHERWISE ON THE PLANS.
- C. RIGID METAL CONDUIT: HOT DIPPED GALVANIZED, MILD STEEL PIPE, ZINC COATED THREADS WITH AN OUTER COATING OF ZINC BICHROMATE, AS MANUFACTURED BY TRIANGLE, REPUBLIC, WHEATLAND OR EQUAL.
- D. INTERMEDIATE METAL CONDUIT (IMC): HOT DIPPED GALVANIZED, MILD STEEL PIPE, ZINC COATED THREADS WITH AN OUTER COATING OF ZINC BICHROMATE AS MANUFACTURED BY TRIANGLE, REPUBLIC, WHEATLAND OR EQUAL.
- E. FLEXIBLE METAL CONDUIT: GALVANIZED OR ZINC METALIZED STEEL, SINGLE STRIP INTERLOCKED CONSTRUCTION AS MANUFACTURED BY TRIANGLE, ANACONDA, AMERICAN FLEXIBLE CONDUIT, ELECTRIC-FLEX, OR EQUAL.
- F. ELECTRIC METALLIC TUBING (EMT): HOT DIPPED GALVANIZED, MILD STEEL TUBE, ZINC COATED, AS MANUFACTURED BY TRIANGLE, REPUBLIC, WHEATLAND OR EQUAL.
- G. RIGID NONMETALLIC CONDUIT: SCHEDULE 40 PVC AS MANUFACTURED BY CARLON OR EQUAL.
- H. METAL CLAD CABLE: TYPE MC, COPPER CONDUCTOR, 600 VOLT THERMOPLASTIC INSULATION, 90 DEG. C, INTERLOCKED STEEL TAPE ARMOR.
- I. ARMORED CABLE: TYPE AC, COPPER CONDUCTOR, 600 VOLT THERMOPLASTIC INSULATION, 90 DEG. C.
- J. ANY EXPOSED RACEWAY SHALL BE RUN TRUE, PLUMB AND PARALLEL OR PERPENDICULAR TO BUILDING LINES.
- K. ALL CONDUCTORS SHALL BE COPPER.
- L. RACEWAYS SHALL BE SEALED WHERE ENTERING PULL BOXES OR STRUCTURES.
- M. SINGLE CONDUCTOR CABLES SHALL BE USED FOR FEEDERS AND BRANCH CIRCUIT WIRING (EXCEPT WHERE AC AND MC CABLE IS USED). MINIMUM SIZE WIRE SHALL BE #12 AWG UNLESS OTHERWISE INDICATED AND SHALL BE SIZED TO CONFORM TO NORMAL NEC VOLTAGE DROPS. WIRE SIZES #10 AWG AND SMALLER SHALL BE SOLID. #8 AWG AND LARGER SHALL BE STRANDED.
- N. FEEDERS AND ALL WIRING IN MOIST OR WET LOCATIONS UNDERGROUND OR UNDER THE SLAB SHALL BE 600 VOLT CODE TYPE THHN-THWN. BRANCH CIRCUIT WIRING IN DRY LOCATIONS, ABOVE GRADE, IN THE INTERIOR OF THE BUILDING SHALL BE 600 VOLT CODE TYPE THHN-THWN OR XHHW.
- O. WIRING TO RECESSED FIXTURE AND WITHIN FIXTURE RACEWAYS SHALL BE TYPE THHN, #12 AWG MINIMUM.
- P. EQUIPMENT GROUND: GREEN CONDUCTOR SHALL BE USED.

SHEET HISTORY SCHEDULE	
PERMIT SET	2026-01-12
REVISION 1	2026-01-27
ISSUE DATE:	01/27/2026
<b>TENANT INTERIOR BUILD-OUT</b>	
<b>MOTOMEDI</b>	
DRAWN BY:	
QAQC:	
APPROVED BY:	
PROJECT NUMBER:	
<b>ELECTRICAL SPECIFICATION SHEET</b>	
<b>E0.2</b>	



**ELECTRICAL SYMBOLS**

- ⊕ DUPLEX RECEPTACLE
- ⊕ QUADPLEX RECEPTACLE
- ⊕ GCFI DUPLEX RECEPTACLE
- ⊕ COUNTER DUPLEX RECEPTACLE
- ⊕ RECEPTACLE HEIGHT AFF
- ⊕ LIGHT SWITCH
- ⊕ SWITCH W/ DIMMER
- ⊕ 3-WAY SWITCH
- ⊕ 3-WAY SWITCH W/ DIMMER
- ⊕ SWITCH W/ OCCUPANCY SENSOR
- ⊕ DATA
- ⊕ TELEPHONE
- ⊕ DATA/TELEPHONE COMBINED
- ⊕ SURFACE MOUNT - DATA
- ⊕ SURFACE MOUNT - TELEPHONE
- ⊕ SURFACE MOUNT - DATA/TELEPHONE COMBINED
- ⊕ LIGHT FIXTURE TAG
- ⊕ SWITCHING SYSTEM
- ⊕ SWITCH NUMBER
- ⊕ EX- EMERGENCY LIGHT WITH EXIT SIGN
- ⊕ EM- DUAL HEAD EMERGENCY LIGHT
- ⊕ 3A CURRENT LIMITER

- LIGHTING PLAN KEYED NOTES:**
1. WALL MOUNTED OCCUPANCY SENSOR WITH SWITCH.
  2. EXTERIOR TENANT STOREFRONT SIGNS SHALL BE CONTROLLED BY A 24-HOUR TIME CLOCK SET TO MEET. AT MINIMUM, THE SHOPPING CENTER OPERATING HOURS AS ESTABLISHED BY THE PROPERTY MANAGER (TYPICALLY DUSK TO MIDNIGHT). THE EXTERIOR STOREFRONT SIGN DISCONNECT SHALL BE LOCATED WITHIN THE TENANT SPACE, TYPICALLY ON THE INTERIOR HEADWALL ABOVE THE STOREFRONT. E.C. SHALL COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT.
  3. E.C. SHALL COORDINATE EXACT LOCATION OF TIME CLOCK AND LIGHTING CONTACTOR WITH ARCHITECT/OWNER IN THE FIELD. REFER LIGHTING CONTACTOR TYPICAL DETAIL.
  4. MANUAL OVERRIDE SWITCH. THE OVERRIDE SWITCH, WHEN INITIATED, SHALL PERMIT THE CONTROLLED LIGHTING TO REMAIN ON FOR NOT MORE THAN 2 HOURS. COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER IN THE FIELD.
  5. CONNECT ALL THE EXISTING AND NEW EMERGENCY LIGHTING, EXIT SIGNS, OR EXIT SIGN AND BUG-EYE COMBO TO THE NEAREST LIGHTING CIRCUIT AHEAD OF SWITCHING. UON.
  6. EXISTING EXTERIOR LANDLORD CANOPY LIGHTING AND TOWER WALL SCONCE LIGHTING, INCLUDING LANDLORD-PROVIDED POWER TO THESE FIXTURES, SHALL REMAIN INTACT AND UNDISTURBED. THIS LIGHTING AND ITS CONTROLS ARE NOT INCLUDED IN THE TENANT FINISH-OUT SCOPE OF WORK (N.I.S.).
  7. PROVIDE JUNCTION BOX, CIRCUIT(A:73), AND SWITCH FOR HOOD LIGHTING. COORDINATE THE EXACT LOCATION OF THE SWITCH IN THE FIELD.
  8. LIGHTING NEAR ELECTRICAL PANELS SHALL NOT BE CONTROLLED BY ANY AUTOMATIC MEANS AND SHALL BE COMPLIED AS PER NEG 110.26(D).
  9. E.C. TO COORDINATE WITH MECHANICAL DRAWINGS / MANUFACTURER FOR MSDS, VVTS, AND EBDs LOCATION. PROVIDE A JUNCTION BOX FOR EACH ONE OF THEM AND WILL BE POWERED VIA CIRCUIT A:80. BASE BID ACCORDINGLY.
  10. THE LIGHTING FIXTURES IN THE DAYLIGHT ZONE SHALL BE CONTROLLED THROUGH THE DAYLIGHT SENSOR. THE DAYLIGHT SENSOR SHALL MATCH THE CONTROL FUNCTION REQUIREMENT OF THE IECC.
  11. E.C. SHALL COORDINATE FOR LIGHT FIXTURE & CONTROL IN THIS AREA WITH ARCHITECT/OWNER. PROVIDE LIGHTING & CONTROL AS PER APPLICABLE CODES.

**LIGHTING FIXTURE SCHEDULE**

TAG	QTY	DESCRIPTION	MANUFACTURER	MODEL	WATTAGE	NOTE
L01	40	6" RECESSED CAN	SELECTED BY OWNER	SELECTED BY OWNER	20	1
L02	6	FACTORY LIGHT 7 CABLE PENDANT	SCHOOLHOUSE	121684-BLACK-NO CAGE-STANDARD-XX	13	1
L03	8	SONOMA WABI SABI STONE WALL SCONCE	TUDO&CO	MODEL A	40	1
L04	14	MILLER ART DECO MILK GLASS PENDANT	TUDO&CO	MODEL C	40	1
L05a	36	SINGLE CIRCUIT TRACK	JUNO	R 8FT BL	10	1,2
L05b	6	WL TRACK LIGHTING	JUNO	TBD	-	1,2
L06	5	BRASS MONOPOINT CEILING MOUNTED	LONG MADE CO.	MONOPOINT CYLINDER SIDE ADJ. SPOT LIGHT-NATURAL BRASS	15	1
L07	1	CHANDELIER	TBD	TBD	50	1
L09	11	EMERGENCY LIGHT	TBD	TBD	3	1,3
EX	2	EXIT SIGN WITH EMERGENCY LIGHT	TBD	TBD	3	1,3
L11	2	LINEAR PENDANT LIGHT	TBD	TBD	30	1

**NOTES:-**

- 1- COORDINATE EXACT MAKE/MODEL NUMBER WITH THE OWNER/ARCHITECT.
- 2- SELECT EQUIVALENT FIXTURE AT 120V OR PROVIDE ADAPTER OF TRANSFORMER AS NEEDED.
- 3- THE LIGHT FIXTURE SHALL HAVE MINIMUM OF 90MNTS OF BATTERY BACKUP.

- LIGHTING FIXTURE SCHEDULE NOTES:**
- A. ALL (NEW) LIGHTING FIXTURES SHOWN ON THE LIGHTING FIXTURES SCHEDULE ARE SUBJECT TO THE ARCHITECTS APPROVAL. E.C. SHALL COORDINATE MAKE, MODEL, FINISHES, AND OTHER CRITICAL PARAMETERS WITH THE ARCHITECT BEFORE PURCHASING.
  - B. THE ADDITIONAL ACCESSORIES (VIZ. DRIVERS AND CURRENT LIMITERS) REQUIRED FOR THE PROPER WORKING OF THE LIGHTING FIXTURES MIGHT NOT BE PROVIDED BY THE VENDOR. E.C. SHALL PURCHASE IT SEPARATELY.
  - C. ALL LIGHTING FIXTURES ARE RATED FOR 120V UNLESS OTHERWISE NOTED.
  - D. ALL EMERGENCY LIGHTING FIXTURES AND EXIT SIGNS SHALL HAVE A MINIMUM OF 90 MINUTES OF BATTERY BACKUP OR AS REQUIRED BY AHJ.
  - E. WATTS PER FACE FOR EXIT SIGNS SHALL NOT EXCEED 5 WATTS.
  - F. ALL LIGHTING CONTROLS SHALL BE PER AHJ AND CODE COMPLIANCE.

- LIGHTING PLAN GENERAL NOTES:**
- A. ELECTRICAL SWITCHES: CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF A ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL COMPLY WITH CODE EXCEPT THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX.
  - B. E.C. TO VERIFY REQUIREMENT OF THE NO. OF SWITCHES AND CONTROL PER PLAN AND PROVIDE ACCORDINGLY.
  - C. MINIMUM #12 AWG COPPER WIRING SHALL BE USED FOR THE LIGHTING CIRCUIT.
  - D. THE NEUTRAL AND GROUNDING ARE NOT SHOWN ON THE DRAWING. E.C. TO PROVIDE AS REQUIRED.
  - E. EMERGENCY LIGHT SHALL TURN ON DURING POWER FAILURE WHEREAS ALL EXIT SIGNS SHALL BE PERMANENTLY ON.
  - F. THE OCCUPANCY SENSOR, TIMERS, AND OTHER APPROVED LIGHTING CONTROLS SHALL MATCH THE CONTROL FUNCTION REQUIREMENT SPECIFIED IN THE IECC C405.2.
  - G. THE MANUAL OVERRIDE SWITCH SHALL TURN OFF THE INTENDED LIGHTING (TIME CLOCK AND CONTACTORS) BEFORE 2 HOURS. WHEN IT IS INITIATED.
  - H. A PHOTOCELL IS USED IN CONJUNCTION WITH THE STOREFRONT SIGN, LOCATE THE PHOTOCELL ON THE ROOF WHERE IT IS NOT VISIBLE FROM THE EXTERIOR. ROUTE ALL ASSOCIATED CONDUIT AND J-BOX THROUGH A PITCH PAN, PROPERLY FLASHED AND SEALED BY A LANDLORD-APPROVED ROOFING CONTRACTOR.
  - I. REFER TO THE LIGHTING CONTACTOR DETAIL FOR TYPICAL CONNECTION OF THE TIME CLOCK, MANUAL OVERRIDE SWITCH, CONTACTORS AND PHOTOCELL.
  - J. CONNECT THE EMERGENCY LIGHTING, EXIT SIGNS, OR EXIT SIGN AND BUG-EYE COMBO TO THE NEAREST LIGHTING CIRCUIT AHEAD OF SWITCHING. UON.
  - K. EMERGENCY LIGHT FIXTURES (BUG EYES) SHALL TURN ON DURING POWER FAILURE WHEREAS ALL EXIT SIGNS SHALL BE PERMANENTLY ON. E.C. TO WIRE THE FIXTURE ACCORDINGLY.
  - L. E.C. SHALL REARRANGE (IF REQUIRED) THE EMERGENCY FIXTURES TO PROVIDE INITIAL ILLUMINATION THAT IS NOT LESS THAN AN AVERAGE OF 1 FOOTCANDLE (11 LUX) AND A MINIMUM AT ANY POINT OF 0.1 FOOTCANDLE (1 LUX) MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. ILLUMINATION LEVELS SHALL BE PERMITTED TO DECLINE TO 0.6 FOOTCANDLE (6 LUX) AVERAGE AND A MINIMUM AT ANY POINT OF 0.06 FOOTCANDLE (0.6 LUX) AT THE END OF THE EMERGENCY LIGHTING TIME DURATION. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATIO OF 40 TO 1 SHALL NOT BE EXCEEDED.
  - M. ALL EXISTING HOUSE (LANDLORD) ELECTRICAL CONDUITS SERVING BUILDING LIGHTING, IRRIGATION, HOT BOXES, AND SIMILAR SYSTEMS WITHIN THE SPACE SHALL REMAIN INTACT AND UNDISTURBED, INCLUDING ALL ASSOCIATED J-BOX ACCESS PANELS.

**1 ELECTRICAL LIGHTING PLAN**  
E2.0 SCALE: 3/16" = 1'-0"

**SHEET HISTORY SCHEDULE**

PERMIT SET	2026-01-12
REVISION 1	2026-01-27
ISSUE DATE:	01/27/2026

**TENANT INTERIOR BUILD-OUT**

**MOTOMEDI**

DRAWN BY:

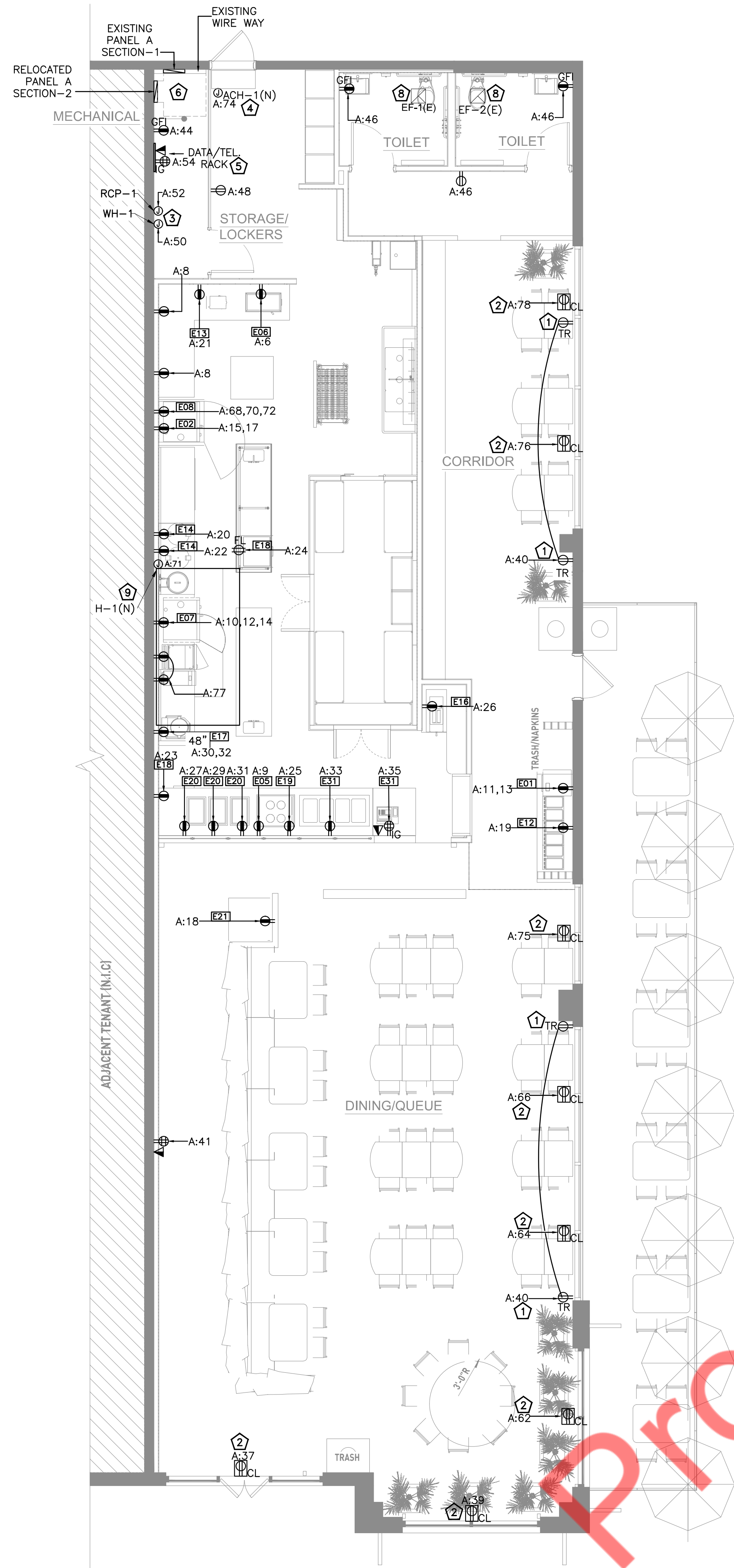
QAQC:

APPROVED BY:

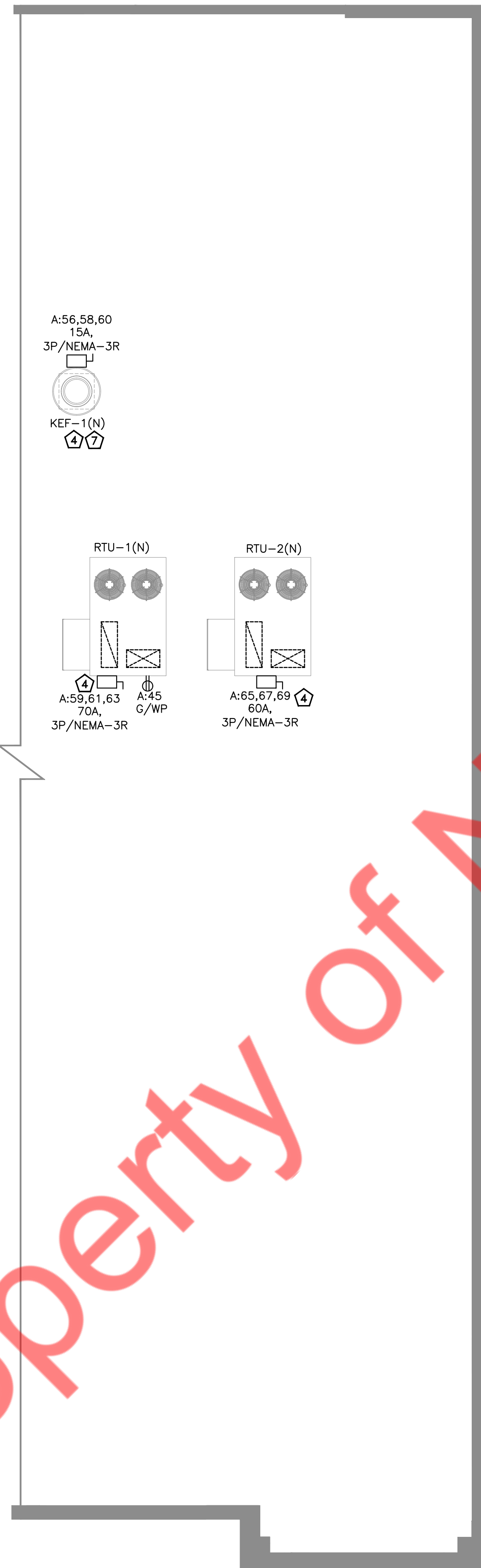
PROJECT NUMBER:

**ELECTRICAL LIGHTING PLAN**

**E2.0**



1 ELECTRICAL POWER PLAN  
SCALE: 3/16" = 1'-0"



2 ELECTRICAL ROOF POWER PLAN  
SCALE: 3/16" = 1'-0"

POWER PLAN KEYED NOTES:

- E.C. SHALL COORDINATE THE POWER REQUIREMENT WITH MANUFACTURER FOR ADDITIONAL CONVENIENCE OUTLET AT STANDARD HEIGHT AND VERIFY EXACT LOCATION WITH ARCHITECT.
- PROVIDE RECEPTACLES WITHIN 18" ABOVE THE TOP OF THE SHOW WINDOW. RECEPTACLES ARE TO BE CONTROLLED BY L.C..
- E.C. SHALL COORDINATE WITH THE PLUMBING CONTRACTOR FOR EXACT LOCATION AND ELECTRICAL CONNECTION REQUIREMENT OF THE UNIT IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED.
- E.C. SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR FOR EXACT LOCATION AND ELECTRICAL CONNECTION REQUIREMENT OF THE UNIT IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED.
- PLYWOOD-BACKED OUTLETS FOR DATA AND TELEPHONE SERVICES. COORDINATE WITH THE ARCHITECT/OWNER/SERVICE PROVIDER FOR OTHER REQUIREMENTS. PROVIDE CONDUIT AND CONNECTION AS REQUIRED.
- E.C. SHALL COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT LOCATION OF ELECTRICAL EQUIPMENTS IN THE FIELD. ALSO, ENSURE CLEAR WORKING AND DEDICATED SPACE AS PER NEC 110.26.
- KEF-1(N) SHALL BE CONTROLLED BY HOOD CONTROLS. INTERLOCK RTU-1(N) TO OPERATE IN OCCUPIED MODE WHILE KITCHEN EXHAUST FANS ARE ENERGIZED.
- E.C. SHALL VERIFY THE EXACT LOCATION AND OPERABLE CONDITION OF THE EXISTING MECHANICAL UNIT IN THE FIELD. THE EXHAUST FAN IN THE ROOM SHALL BE CIRCUITED AND CONTROLLED WITH THE LIGHTING FIXTURES SERVING THE SAME ROOM. COORDINATE WITH HVAC DRAWINGS.
- PROVIDE JUNCTION BOX FOR THE HOOD/HOOD CONTROL PANEL AND CONNECT TO THE INDICATED CIRCUIT.

GENERAL NOTES

- ELECTRICAL CONDUIT SERVING ROOFTOP EQUIPMENT SHALL BE ROUTED THROUGH THE ROOF WITHIN 2'-0" OF EACH PIECE OF EQUIPMENT AND SHALL PASS THROUGH A PITCH PAN, PROPERLY FLASHED AND SEALED BY A LANDLORD-APPROVED ROOFING CONTRACTOR.

ROOF POWER PLAN GENERAL NOTES

- ALL THE ELECTRICAL ELEMENTS, VIZ., CONDUITS, WIRING, AND DISCONNECT SWITCHES, SHALL BE RATED FOR EXTERIOR USE.
- THE DISCONNECT SWITCHES FOR THE BRANCH CIRCUIT SHOWN ON THE PLAN SHALL BE RATED EQUAL TO OR HIGHER THAN THE BREAKER RATING. REFER TO BREAKER RATING IN THE PANEL SCHEDULE AND PROVIDE DISCONNECT AS NEEDED.
- GFI MARKED ON THE PLAN INDICATES THAT THE CIRCUIT SHALL BE GFI PROTECTED. E.C. SHALL PROVIDE A GFI BREAKER IN THE PANEL FOR THE INDICATED CIRCUIT IF EITHER THE RECEPTACLE IS NOT AVAILABLE OR NOT ACCESSIBLE.
- 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.

KITCHEN EQUIPMENT GENERAL NOTES

- NEMA X-XX DESIGNATES NEMA PLUG TYPE AND AMPERAGE.
- VERIFY ALL INSTALLATION REQUIREMENTS WITH FOOD SERVICE CONSULTANT AND EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN.
- VERIFY ALL MCA AND MOCIP REQUIREMENTS WITH SUBMITTED AND APPROVED EQUIPMENT PRIOR TO ELECTRICAL ROUGH-IN.
- VERIFY NEMA RECEPTACLE CONFIGURATIONS WITH EQUIPMENT VENDOR PRIOR TO ELECTRICAL ROUGH-IN.
- CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL CONDUIT, WIRE, SUPPORT SYSTEM, DISCONNECTS, AND OUTLETS TO ALLOW FOR A COMPLETE CODE COMPLIANT KITCHEN INSTALLATION.
- ALL ELECTRICAL EQUIPMENT LOCATED ON WALLS OF PRODUCTION KITCHEN AREAS SHALL BE A MINIMUM OF 48" AFF UNLESS NOTED OTHERWISE. ALL ELECTRICAL EQUIPMENT LOCATED ABOVE COUNTERS OF KITCHEN AREAS SHALL BE 6" ABOVE COUNTER UNLESS NOTED OTHERWISE. ALL ELECTRICAL EQUIPMENT LOCATED BELOW COUNTERS AND WITHIN CASEWORK OF KITCHEN AREAS SHALL BE 6" BELOW THE TOP OF COUNTERS UNLESS NOTED OTHERWISE.
- ALL RECEPTACLES IN KITCHEN AREA SHALL BE GFCI PROTECTED. E.C. SHALL PROVIDE AND INSTALL GFCI CIRCUIT BREAKERS FOR ALL CIRCUITS FEEDING KITCHEN EQUIPMENT REQUIRING GFCI PROTECTION THAT ARE INACCESSIBLE, BEFORE OR AFTER APPLIANCE HAS BEEN INSTALLED. IF RECEPTACLE DOESNT PROVIDE GFCI PROTECTION. NEC 210.8 AND 422.5(A).
- LOCATIONS OF DISCONNECTS FOR EACH PIECE OF EQUIPMENT MAY NOT BE SHOWN ON PLANS. IF DISCONNECT FOR EQUIPMENT IS NOT SHOWN, CONTRACTOR TO FIELD COORDINATE LOCATION IN ACCORDANCE WITH CODE.
- CONTRACTOR SHALL LIMIT THE AMOUNT OF EXPOSED CONDUIT. ANY EXPOSED CONDUIT SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT OR RIGID GALVANIZED STEEL CONDUIT.
- COORDINATE EXACT LOCATION OF ALL REMOTE CONDENSING UNITS WITH HVAC AND FOOD SERVICE DRAWINGS.
- FUSED DISCONNECTS SHALL HAVE FUSES SIZED AS LISTED ON EQUIPMENT NAMEPLATE, OTHERWISE MATCH UPSTREAM OVERCURRENT DEVICE IF NO MAXIMUM OVER CURRENT SIZE LISTED ON EQUIPMENT, UNLESS NOTED OTHERWISE.

POWER PLAN GENERAL NOTES:

- EXACT LOCATION OF MECHANICAL, PLUMBING, KITCHEN, FURNITURE SYSTEMS, OWNER FURNISHED EQUIPMENT ETC. THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL, PLUMBING, AND/OR ARCHITECTURAL DRAWINGS. E.C. TO COORDINATE EXACT LOCATIONS WITH RESPECTIVE CONTRACTORS AND/OR VENDORS PRIOR TO ANY ROUGH-INS.
- REVIEW AND COORDINATE WITH ALL TRADES CONTRACT DOCUMENTS TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR EQUIPMENT WITH ELECTRICAL CONNECTIONS. COORDINATE EXACT MOUNTING LOCATIONS WITH THE SPECIFIC TRADE AND ARCHITECT.
- MINIMUM CONDUCTOR SIZE FOR 120V BRANCH CIRCUITS SHALL BE 12-AWG. FOR 120V BRANCH CIRCUITS WITH HOME-RUN OVER 100 LINEAR FEET, A MINIMUM WIRE SIZE OF 10-AWG SHALL BE PROVIDED FROM FIRST JUNCTION/OUTLET BOX TO BRANCH CIRCUIT PANEL BOARD. FOR 120V BRANCH CIRCUITS WITH HOME RUN OVER 150 LINEAR FEET, A MINIMUM OF 8-AWG SHALL BE PROVIDED FROM FIRST JUNCTION/OUTLET BOX TO BRANCH CIRCUIT PANEL BOARD.
- ALL WIRING SHALL BE IDENTIFIED BY PANEL BOARD AND CIRCUIT NUMBERS IN ALL CABINETS, JUNCTION BOXES, WIRING TROUGHS, ENCLOSURES, SPLICE OR TERMINATION POINTS ETC.
- ALL 120V, 15A AND 20A RECEPTACLES IN KITCHEN AREA SHALL BE "GFCI" IN ACCORDANCE WITH NEC ARTICLE 210.8(B). GFI RECEPTACLE TO BE MOUNTED AT ACCESSIBLE LOCATION, ELSE PROVIDE GFI RATED BREAKER AT PANEL FOR KITCHEN EQUIPMENT.
- ELECTRICAL CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS COMBINED SHALL BE SIZED FOR A MAXIMUM OF 5 PERCENT VOLTAGE DROP.
- COORDINATE EXACT LOCATION AND ELECTRICAL CONNECTION REQUIREMENTS OF THE MOTORIZED DAMPERS AND THERMOSTATS IN THE FIELD. PROVIDE WIRING AS REQUIRED.
- E.C. SHALL COORDINATE WITH THE MECHANICAL DRAWINGS FOR THE EXACT LOCATION OF THE DETECTORS, DAMPERS AND THERMOSTAT IN THE FIELD. PROVIDE WIRING AS REQUIRED.
- GFI MARKED ON THE PLAN INDICATES THAT THE CIRCUIT SHALL BE GFI PROTECTED. E.C. SHALL PROVIDE A GFI BREAKER IN THE PANEL FOR THE INDICATED CIRCUIT IF EITHER THE RECEPTACLE IS NOT AVAILABLE OR NOT ACCESSIBLE.
- 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.
- ALL EXISTING HOUSE (LANDLORD) ELECTRICAL CONDUITS SERVING BUILDING LIGHTING, IRRIGATION, HOT BOXES, AND SIMILAR SYSTEMS WITHIN THE SPACE SHALL REMAIN INTACT AND UNDISTURBED, INCLUDING ALL ASSOCIATED J-BOX ACCESS PANELS.

SHEET HISTORY SCHEDULE

PERMIT SET	2026-01-12
REVISION 1	2026-01-27

ISSUE DATE: 01/27/2026

TENANT INTERIOR BUILD-OUT

MOTOMEDI

DRAWN BY:

QA/C:

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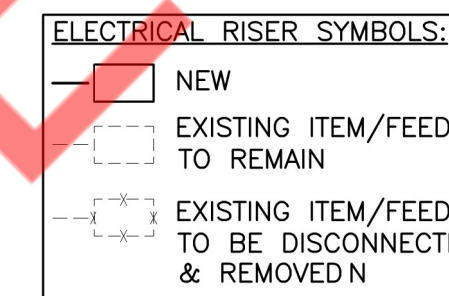
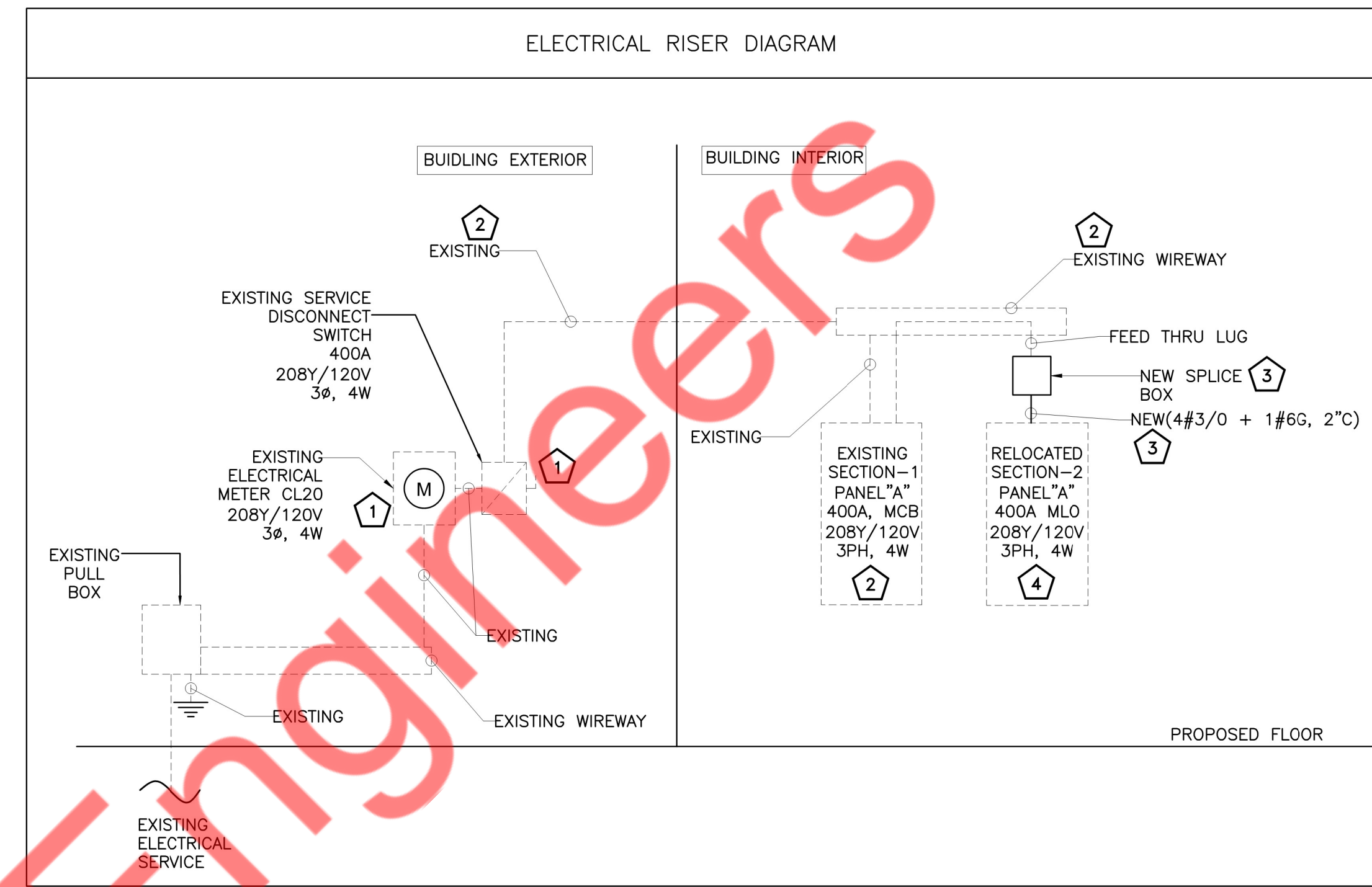
ELECTRICAL FLOOR & ROOF POWER PLAN

E2.1



PANEL: A (EXISTING SECTION-1)		-						MOUNTING: SURFACE						
208Y/120V	VOLTS	3	PHASE	AIC RATING (in kA)	VIF		DEMAND LOAD	96.51	PANEL LOCATION: -					
400	AMPS	4	WIRE	-	-		DEMAND CURRENT	268.19	FED FROM: METER VIA SERVICE DISC.					
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	NOTES	PER PHASE (KVA)			NOTES	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
						A	B	C						
1	20/1P	KITCHEN & STORAGE LIGHTING	L	0.93	RWC	2.17			RWC	1.24	L	DINING & CORRIDOR LIGHTING	20/1P	2
3	20/1P	MECHANICAL RM LIGHTING	L	0.06			0.54			0.48	L	RESTROOM LIGHTING	20/1P	4
5	20/1P	SIGNAGE	L	1.20	RWC			3.00	RWC	1.80	E	E06 MEAT GRINDER	20/1P	6
7	20/1P	TIMECLOCK	L	1.20	RWC	1.56				0.36	R	GENERAL RECEPTACLE	20/1P	8
9	20/1P	E05 HEAT LAMP	E	0.26	RWC					3.60	E			10
11	20/2P	E01 PRODIGY ICE MACHINE	E	1.13	RWC	4.73		4.73	RWC	3.60	E	E07 ELECTRICAL COMBI-STEAMER	20/3P	12
13			E	1.13										14
15	20/2P	E02 BLAST CHILLER/SHOCK FREEZER	E	0.62	RWC		0.62	1.59	RWC	0.97	E	E21 OASIS Refrigerated Self-Service	20/1P	16
17			E	0.62										18
19	20/1P	E12 TRIPLE STANDARD BOWL	E	1.02	RWC	1.22			RWC	0.20	E	E14 RICE WARMER	20/1P	20
21	25/1P	E13 COMBI VEGETABLE PREP CUTTER	E	1.80	RWC			2.00	RWC	0.20	E	E14 RICE WARMER	20/1P	22
23	20/1P	E18 DRAWER WARMERS	E	1.28	RWC			2.56	RWC	1.28	E	E18 DRAWER WARMERS	20/1P	24
25	20/1P	E19 DROP-IN HEATED SHELF, FLUSH	E	0.39	RWC	1.99			RWC	1.60	E	E16 SOFT SERVE FREEZER	20/2P	26
27	20/1P	E20 DROP-IN INDUCTION DRY WELL	E	0.72	RWC			0.72				SPARE	20/2P	28
29	20/1P	E20 DROP-IN INDUCTION DRY WELL	E	0.72	RWC			1.62				E17 TORTILLA WARMER GRILL	20/2P	30
31	20/1P	E20 DROP-IN INDUCTION DRY WELL	E	0.72	RWC	1.62				0.90	E			32
33	20/1P	E31 LIQUITEC REFRIGERATED COLD PAN	E	0.44	RWC			0.44	STB					34
35	20/1P	E41 POS	R	0.36	RWC			0.36				SPARE	20/2P	36
37	20/1P	SHOW WINDOW RECEPT	R	1.40	RWC	1.40							20/1P	38
39	20/1P	SHOW WINDOW RECEPT	R	1.80	RWC			2.52		0.72	R	GENERAL RECEPT	20/1P	40
41	20/1P	BEVERAGE CENTER TV RECEPT	E	0.36				0.36				SPARE	20/1P	42
		FEED THRU LUG	X	22.03										
			X	22.03										
			X	22.03										
						14.69	10.70	14.22						

PANEL: A (EXISTING SECTION-2)		-						MOUNTING: SURFACE						
208Y/120V	VOLTS	3	PHASE	AIC RATING (in kA)	VIF		DEMAND LOAD	66.08	PANEL LOCATION: -					
400	AMPS	4	WIRE	-	-		DEMAND CURRENT	183.63	FED FROM: PANEL A					
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	NOTES	PER PHASE (KVA)			NOTES	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
						A	B	C						
43	15/1P	EF-1 (N)	M	0.27	RWC	0.45			RWC,NBEP	0.18	R	PANEL SERVICE RECEPT	20/1P	44
45	20/1P	ROOF SERVICE RECEPT	R	0.36	RWC			0.90		0.54	R	RESTROOM RECEPT	20/1P	46
47										0.18	R	STORAGE RM RECEPT	20/1P	48
49	30/3P**	SPARE			VIF	0.10			RWC,NBEP	0.10	O	WH-1	20/1P	50
50						0.10			RWC,NBEP	0.10	O	RCP-1	20/1P	52
53								0.36	RWC,NBEP	0.36	R	DATA/TEL RACK	20/1P	54
55	30/3P**	SPARE			VIF	0.79				0.79	H			56
57						0.79			RWC,NBEP	0.79	H	KEF-1 (N)	15/3P	58
59			H	7.10				7.89		0.79	H			60
61	70/3P	RTU-1 (N)	H	7.10	RWC	8.90			RWC,NBEP	1.80	L	SHOW WINDOW RECEPT	20/1P	62
63			H	7.10				8.90	RWC,NBEP	1.80	L	SHOW WINDOW RECEPT	20/1P	64
65			H	6.02				7.82	RWC,NBEP	1.80	L	SHOW WINDOW RECEPT	20/1P	66
67	60/3P	RTU-2 (N)	H	6.02	RWC	9.62				3.60	E			68
69			H	6.02				9.62	RWC	3.60	E	E08 ELECTRICAL COMBI-STEAMER	40/3P	70
71	20/1P	HOOD CONTROL	O	0.50	RWC			4.10		3.60	E			72
73	20/1P	HOOD LIGHTS	L	0.50	RWC	0.85			RWC,NBEP	0.35	M	ACH-1(N)	15/1P	74
75	20/1P	SHOW WINDOW RECEPT	L	1.40	RWC			3.20	RWC,NBEP	1.80	L	SHOW WINDOW RECEPT	20/1P	76
77	20/1P	KITCHEN RECEPT	R	0.36	RWC			2.16	RWC,NBEP	1.80	L	SHOW WINDOW RECEPT	20/1P	78
79		SPACE				0.20			RWC,NBEP	0.20	M	MECH. MISC.	20/1P	80
81		SPACE						0.00				SPACE		82
83		SPACE						0.00				SPACE		84
		SPACE										SPACE		
						20.91	23.51	22.51						



**RISER GENERAL NOTE:**

- E.C. SHALL COORDINATE WITH UTILITY FOR THE AVAILABLE FAULT CURRENT AND VERIFY AIC RATING OF THE EXISTING DEVICES IN FIELD ACCORDINGLY.
- ENSURE THE COMBINED VOLTAGE DROP OF THE FEEDER AND BRANCH CIRCUIT SHALL NOT EXCEED 5% PER CODE.
- 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.
- ADDITION OR ALTERATION TO THE EXISTING SYSTEM SHALL NOT BE DONE WITHOUT THE WRITTEN CONSENT OF THE OWNER.
- VERIFY/COORDINATE THE EXACT POWER DISTRIBUTION AND SCOPE OF WORK WITH THE LANDLORD/OWNER BEFORE BID.
- E.C. SHALL VERIFY THE INCOMING SERVICE AMPERAGE, VOLTAGE, NUMBER OF PHASES, WIRE SIZE AND DISTRIBUTION IN FIELD.
- THE VOLTAGE AND FREQUENCY FLUCTUATION IN THE ELECTRICAL UTILITY SERVICE AT THE SERVICE ENTRY SHALL NOT BE MORE THAN +/- 5% AND +/- 1%, RESPECTIVELY. PROVIDE THE REGULATORS IF SUCH A CASE IS OBSERVED.
- PROVIDE GEC AND EGC AS PER 250.66 & 250.122, RESPECTIVELY, AS NEEDED. PROVIDE SEPARATE GROUND CONDUCTORS IN ALL CONDUITS.

**RISER DIAGRAM KEYED WORK NOTES**

- EXISTING 400A, 120/208V, 3PH, 4W ELECTRICAL METER AND DISCONNECT/BREAKER FOR THE PROJECT SPACE SHALL REMAIN. E.C. TO VERIFY EXACT LOCATION, RATING AND OPERABLE CONDITION OF THE EXISTING METER & DISCONNECT/BREAKER IN FIELD. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
- E.C. SHALL VERIFY THE EXACT LOCATION, RATING, AND OPERABLE CONDITION OF EVERY EQUIPMENT MARKED EXISTING IN THE FIELD. INFORM THE ENGINEER OF RECORD OF ANY DISCREPANCY, BEFORE BIDDING.
- E.C. SHALL FIELD VERIFY THE EXACT LENGTH OF THE EXISTING FEEDER AND EXTEND AS PER SITE CONDITION. REPLACE/PROVIDE WITH NEW FEEDER WITH REQUIRED ACCESSORIES IF FOUND INOPERABLE. BASE BID ACCORDINGLY..
- EXISTING 400A(MLO), 1208Y/120V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A"(SECTION-2) TO REMAIN AND RELOCATED TO THE LOCATION SHOWN IN THE PLAN. E.C. TO VERIFY LOCATION, RATING AND OPERABLE CONDITION OF PANEL IN FIELD. REPLACE IF FOUND INOPERABLE. REPORT EOR FOR ANY DISCREPANCY. BASE BID ACCORDINGLY.

**PANEL & EQUIPMENT SCHEDULE GENERAL NOTE**

- CONTRACTOR SHALL VERIFY BREAKER AND BRANCH CIRCUIT REQUIREMENTS FOR THE EQUIPMENT IN THE FIELD.
- THE ELECTRICAL LOAD IS BALANCED WITHIN 10% FOR ALL 3 PHASES.
- THE VOLTAGE DROP FOR THE BRANCH CIRCUIT SHALL NOT EXCEED 3%.
- GFI MARKED ON THE PLAN INDICATES THAT THE CIRCUIT SHALL BE GFI PROTECTED. E.C. SHALL PROVIDE A GFCI BREAKER IN THE PANEL FOR THE INDICATED CIRCUIT IF EITHER THE RECEPTACLE IS NOT AVAILABLE OR NOT READILY ACCESSIBLE.
- PROVIDE BREAKER LOCKING DEVICES IN THE PANELS, WHERE EVER REQUIRED BY CODE. INCLUDING BUT NOT LIMITED TO EMERGENCY LIGHTING, AND HARD-WIRED EQUIPMENT.
- THE BREAKER FEEDING HVAC UNITS SHALL BE HACR TYPE.
- ALL CIRCUITING SHOWN IS FOR REFERENCE PURPOSE ONLY. E.C. SHALL VERIFY CIRCUITING OF THE EXISTING DEVICES IN FIELD AND INFORM ENGINEER FOR DISCREPANCIES.
- REFER TO THE BRANCH CIRCUIT WIRING CHART FOR WIRE SIZES. THE WIRE SIZES HAVE BEEN SELECTED BASED ON THE 75-DEGREE COLUMN OF NEC 310.15 B 16 FOR COPPER CONDUCTOR. THE WIRE SIZE MIGHT CHANGE IF THE TEMPERATURE, MATERIAL, OR VOLTAGE DROP IS DIFFERENT. E.C. SHALL SIZE THE BRANCH CIRCUIT ACCORDINGLY.
- THE CONTRACTOR IS TO PROVIDE A CIRCUIT DIRECTORY FOR EACH PANEL BOARD AS PER 408.4 (A).
- THIS EQUIPMENT SCHEDULE SHOWS ALL CIRCUITING INFORMATION FOR KITCHEN / FOOD SERVICE EQUIPMENT.

TAG	DESCRIPTION
L	LIGHTING
R	RECEPTACLE
H	HVAC
E	ELECTRICAL EQUIPMENT
M	LARGEST MOTOR
O	OTHER
N	NON COINCIDENT
X	LINKED CELL
*	VERIFY/COORDINATE IN FIELD
**	EXISTING BREAKER ONLY TO REMAIN.
RWC	REFER TO THE WIRING CHART FOR WIRE SIZE
RRF	REFER RISER FOR FEEDER SIZE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
AFCI	ARC FAULT CIRCUIT INTERRUPTER
NBEP	NEW BREAKER IN THE EXISTING PANEL
HACR	HEAT AIR CONDITIONING AND REFRIGERATION
PAN	PROVIDE ADDITIONAL WIRE FOR NEUTRAL
LO	LOCKOUT BREAKER
STB	SHUNT TRIP BREAKER
SB	SPLIT BREAKER
ETR	EXISTING TO REMAIN
SAE	SAME AS EXISTING
VIF	VERIFY IN FIELD
LC	WIRE THROUGH LIGHTING CONTACTOR
NCL	NON COINCIDENT LOAD
DFB	DUAL FUNCTION BREAKER (AFCI+GFCI)
CB	COMBINATION BREAKER (S/P)

BREAKER	BRANCH CIRCUIT SIZE
15/1P	2#12 + 1#12G, 3/4"C
20/1P	2#12 + 1#12G, 3/4"C
15/2P	2#12 + 1#12G, 3/4"C
20/2P	2#12 + 1#12G, 3/4"C
25/2P	2#10 + 1#10G, 3/4"C
30/2P	2#10 + 1#10G, 3/4"C
35/2P	2#8 + 1#10G, 3/4"C
40/2P	2#8 + 1#10G, 3/4"C
45/2P	2#8 + 1#10G, 3/4"C
50/2P	2#8 + 1#10G, 3/4"C
15/3P	3#12 + 1#12G, 3/4"C
20/3P	3#12 + 1#12G, 3/4"C
25/3P	3#10 + 1#10G, 3/4"C
30/3P	3#10 + 1#10G, 3/4"C
35/3P	3#8 + 1#10G, 3/4"C
40/3P	3#8 + 1#10G, 3/4"C
45/3P	3#8 + 1#10G, 3/4"C
50/3P	3#8 + 1#10G, 3/4"C
60/3P	3#6 + 1#10G, 3/4"C
70/3P	3#4 + 1#8G, 1"C
80/3P	3#4 + 1#8G, 1"C
90/3P	3#3 + 1#8G, 1"C
100/3P	3#3 + 1#8G, 1"C

NO.	QTY.	EQUIPMENT	MANUFACTURER	MODEL	WATTS	VOLTAGE	PHASE	PANEL	CIRCUIT	CONNECTION
E01	1	PRODIGY ICE MACHINE	SCOTSMAN ICE	NS0622A-32	2250	208	1	A	11,13	-
E02	1	BLAST CHILLER/SHOCK FREEZER	IRINOX NORTH AMERICA	EASYFRESH NEXT SL	1250	208	1	A	15,17	-
E05	1	HEAT LAMP	HANSON	700-RET	260	120	1	A	9	-
E06	1	MEAT GRINDER	PRO-CUT	KG-22-W	1800	120	1	A	6	NEMA 5-15P
E07	1	ELECTRICAL COMBI-STEAMER	RATIONAL AG	iCombi Classic 6-1/1 E	10800	208	3	A	10,12,14	-
E08	1	ELECTRICAL COMBI-STEAMER	RATIONAL AG	iCombi Pro 10-1/1 E on Assembly	10800	208	3	A	68,70,72	-
E12	1	TRIPLE STANDARD BOWL	CRATHCO	D354	1020	115	1	A	19	NEMA 5-15P
E13	1	COMBI VEGETABLE PREP CUTTER	SAMMIC S.L.	1050769	3HP	120	1	A	21	-
E14	1	RICE WARMER	TOWN	56920	100	120	1	A	20	-
E14	1	RICE WARMER	TOWN	56920	100	120	1	A	22	-
E16	1	SOFT SERVE FREEZER	SPACEMAN	6210-C	1600	120	1	A	26	NEMA 5-20P
E17	1	TORTILLA WARMER GRILL	ANT LINES	TW-100	1800	208	1	A	30,32	NEMA 6-15P
E18	1	DRAWER WARMERS	ALTO-SHAAM INC.	500-1D	1280	120	1	A	23	NEMA 5-15P
E18	1	DRAWER WARMERS	ALTO-SHAAM INC.	500-1D	1280	120	1	A	24	NEMA 5-15P
E19	1	DROP-IN HEATED SHELF, FLUSH MOUNT	Vollrath	FC-4HS-30120-SSF	386	120	1	A	25	NEMA 5-15P
E20	1	DROP-IN INDUCTION DRY WELL	HATCO	IWELB-FUL-A	720	120	1	A	27	NEMA 5-15P
E20	1	DROP-IN INDUCTION DRY WELL	HATCO	IWELB-FUL-A	720	120	1	A	29	NEMA 5-15P
E20	1	DROP-IN INDUCTION DRY WELL	HATCO	IWELB-FUL-A	720	120	1	A	31	NEMA 5-15P
E21	1	OASIS Refrigerated Self-Service	STRUCTURAL CONCEPTS	C33R-UC	965	120	1	A	18	NEMA 5-15P
E31	1	LIQUITEC REFRIGERATED COLD PAN	DELFIELD	8159-EFP	440	120	1	A	33	NEMA 5-15P

**SHEET HISTORY SCHEDULE**

PERMIT SET	DATE
2026-01-12	
REVISION 1	DATE
2026-01-27	

**PLUMBING SYMBOLS LIST**

— SAN —	SANITARY SEWER (UNDER FLOOR)
— EX.SAN —	SANITARY SEWER (ABOVE FLOOR)
— EX.SAN —	EXISTING SANITARY SEWER (UNDER FLOOR)
— EX.GSAN —	EXISTING GREASE SANITARY SEWER (UNDER FLOOR)
— — — — —	VENT PIPING
— — — — —	COLD WATER PIPING
— — — — —	HOT WATER PIPING
— — — — —	HOT WATER RETURN PIPING
— — — — —	EXISTING COLD WATER PIPING
— G —	GAS PIPING
— EX.G —	EXISTING GAS PIPING
— P —	P—TRAP
— O —	PIPE UP
— O —	PIPE DROP
— O —	CLEANOUT
— X —	SHUT OFF VALVE
— P —	GAS PLUG VALVE
— ● —	POINT OF CONNECTION

**PLUMBING ABBREVIATIONS**

CO	CLEANOUT
FCO	FLOOR CLEANOUT
DCO	TWO-WAY CLEANOUT
WC	COLD WATER
HW	HOT WATER
HWR	HOT WATER RETURN
SAN	SANITARY
S	SOIL
V	VENT
W	WASTE
LAV	LAVATORY
WC	WATER CLOSET
TP.	TYPICAL
DN	DOWN
EX.	EXISTING
FD	FLOOR DRAIN
BFP	BACK FLOW PREVENTER
WH	WATER HEATER
ET	EXPANSION TANK

**PLUMBING DRAWING LIST**

P0.1	PLUMBING NOTES, SYMBOLS, ABBREVIATIONS & SPECIFICATIONS
P1.0	PLUMBING FLOOR PLAN
P2.0	PLUMBING DETAILS
P3.0	PLUMBING SCHEDULES AND RISERS

**BUILDING DEPARTMENT PLUMBING NOTES**

- ALL PLUMBING SYSTEMS (SANITARY, WASTE, VENT, WATER) AND ASSOCIATED EQUIPMENT SHALL BE INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF INTERNATIONAL PLUMBING CODE 2018
- INSTALLATION OF UNDERGROUND PIPING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION PC 702.2
- PROTECTION OF PIPING AND PLUMBING SYSTEM COMPONENTS AS PER SECTION PC 305.
- TRENCHING, EXCAVATION AND BACKFILL AS PER SECTION PC 306.
- RODENT PROOFING AS PER PC 304.
- MATERIALS USED IN PLUMBING SYSTEMS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION PC 312, PC 604, PC 701, PC 903, PC 1102.
- EQUIPMENT CONNECTIONS AND JOINING OF PIPING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTERS 4, 5, 6, 7 AND 9.
- DEEP SEAL TRAPS FOR FLOOR DRAINS SHALL BE PROVIDED AS PER PC 1002, AND CLEANOUTS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION PC 708.
- DRAINAGE PIPE CLEANOUTS AS PER SECTION PC 708.
- VERTICAL AND HORIZONTAL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION PC 308.
- WATER SUPPLY SYSTEMS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 6 SECTION PC 601-603, 604, 606, 607, 608, 610
- THE SANITARY DRAINAGE SYSTEM SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 7 SECTION PC 701, 704, 705, 706, 707, 708, 711.
- VENT PIPING FOR THE SANITARY DRAINAGE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 9 SECTIONS PC 901 THROUGH PC 912 THROUGH PC 917
- INSPECTION AND TESTING OF PLUMBING SYSTEMS SHALL BE IN ACCORDANCE WITH SECTION PC 312.
- ALL GAS SYSTEMS AND ASSOCIATED EQUIPMENT SHALL BE INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF INTERNATIONAL FUEL GAS CODE 2018

**PLUMBING SPECIFICATION**

- BASIC PLUMBING REQUIREMENTS, MATERIALS AND METHODS
  - SCOPE
    - PROVIDE ALL MATERIAL, TOOLS, SUPERVISION AND LABOR INCLUDING ALL MISCELLANEOUS AND INCIDENTAL ITEMS REQUIRED FOR COMPLETE AND OPERABLE PLUMBING INSTALLATIONS AS SHOWN OR DESCRIBED ON THE DRAWINGS AND IN THESE SPECIFICATIONS.
    - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING AND NEW CONDITIONS AND MATERIALS WITHIN THE CONSTRUCTION AREA. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE OWNER'S SATISFACTION.
    - OBTAIN ALL PERMITS, PAY ALL PERMIT FEES AND SCHEDULE ALL REQUIRED INSPECTIONS. COPIES OF ALL PERMITS AND INSPECTION CERTIFICATES SHALL BE FORWARDED TO THE OWNER FOR RECORD.
    - THE GENERAL CONDITIONS OF THE CONTRACT AND ALL DIVISION 1 REQUIREMENTS APPLY TO THE WORK OF THIS SECTION.
    - THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID TO DETERMINE CONDITIONS AND THE EXTENT OF THE WORK. BY COMMENCING WORK, THE CONTRACTOR ACKNOWLEDGES HIS CONFIRMATION OF ALL CONDITIONS AS ACCEPTABLE WITH REFERENCE TO HIS CONTRACT, SCOPE OF WORK AND BID PRICE SUCH THAT NO ADDITIONAL COMPENSATION SHALL BE FORTHCOMING FOR UNFORESEEN EXISTING CONDITIONS.
    - IN ALL AREAS SUBJECT TO FREEZING CONDITIONS, THE CONTRACTOR SHALL PROVIDE FREEZE PROTECTION FOR ALL DOMESTIC WATER PIPING INSTALLED UNDER HIS CONTRACT.
    - ALL ELECTRICAL REQUIREMENTS SHALL BE COORDINATED WITH THE CONTRACTOR FOR ELECTRICAL WORK. THIS CONTRACTOR IS RESPONSIBLE FOR ALL LOW VOLTAGE WIRING FOR EQUIPMENT INSTALLED UNDER HIS CONTRACT. THE CONTRACTOR FOR ELECTRICAL WORK IS RESPONSIBLE FOR LINE VOLTAGE POWER WIRING ONLY.
    - COLOR AND FINISH SELECTIONS FOR ALL MATERIALS, INCLUDING PAINTING OF PIPING, SHALL BE AS DIRECTED AND/OR APPROVED BY THE ARCHITECT AND BY LANDLORD FOR EXTERIOR FINISHES.
    - MINOR DETAILS NOT SHOWN OR SPECIFIED, BUT NECESSARY FOR THE PROPER AND ACCEPTABLE CONSTRUCTION, INSTALLATION OR OPERATION OF ANY PART OF THE WORK AS DETERMINED BY THE ENGINEER SHALL BE INCLUDED AS IF SPECIFIED OR INDICATED ON THE DRAWINGS.
    - THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIREMENTS FOR THE INSTALLATION, CONNECTION, EXTENSION OR MODIFICATION TO ALL UTILITY SERVICES WITH RESPECTIVE PROVIDERS INCLUDING PAYMENT OF ALL ASSOCIATED FEES.
    - THE CONTRACTOR IS RESPONSIBLE FOR ALL PAINTING ASSOCIATED WITH CUTTING AND PATCHING. ALL PAINTING IN AREAS WITH COMPLETE FINISH RENOVATIONS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
  - SUBMITTALS
    - SUBMITTALS REQUIREMENTS SHALL BE COORDINATED WITH THE ARCHITECT AND AUTHORITIES HAVING JURISDICTION, UNLESS OTHERWISE DIRECTED, CONTRACTOR SHALL PROVIDE SUBMITTALS AS LISTED BELOW.
      - PIPE AND FITTINGS
      - VALVES
      - HANGERS AND SUPPORTS
      - PLUMBING PIPING LAYOUT
      - TESTS
      - PLUMBING FIXTURES
      - WATER HEATERS & ACCESSORIES
      - GREASE INTERCEPTOR
      - MIXING VALVES
      - ALL SCHEDULED PLUMBING EQUIPMENT
    - SUBMITTALS FROM SUPPLIERS OR MANUFACTURERS WHICH DO NOT BEAR THE STAMP OF THE SUBMITTING CONTRACTOR INDICATING THAT THE CONTRACTOR HAS REVIEWED THE SUBMITTAL FOR CONFORMANCE WITH THE PROJECT REQUIREMENTS WILL BE RETURNED REJECTED.
    - THE ENGINEER'S REVIEW OF SUBMITTALS IS A COURTESY WHICH DOES NOT RELIEVE THE CONTRACTOR FROM CONFORMING WITH THE CONSTRUCTION DOCUMENTS, REGARDLESS OF THE ACTION INDICATED BY THE SHOP DRAWINGS STAMP.
    - REVIEW OF SHOP DRAWINGS BY THE ENGINEER SHALL BE LIMITED TO THE INITIAL REVIEW, AND A SECOND REVIEW OF ANY REQUIRED RESUBMITTED DATA. IF THE ENGINEER IS REQUIRED TO REVIEW SHOP DRAWINGS FOR A THIRD (OR MORE) SUBMISSION OF THE SAME ITEM, THE CONTRACTOR SHALL BE LIABLE FOR COMPENSATING THE ENGINEER FOR THESE SUBSEQUENT REVIEWS AS PER THE ENGINEER'S CURRENT HOURLY RATE SCHEDULE.
    - SUBMIT PROOF OF APPROVAL AND/OR CONFIRMATION OF SATISFACTORY TEST RESULTS TO THE OWNER AND THE ARCHITECT.
    - SUBMIT TO THE OWNER'S MAINTENANCE PERSONNEL OPERATION AND MAINTENANCE DATA FOR ALL SYSTEM COMPONENTS, SERVICING REQUIREMENTS, INSPECTION DATA, REPLACEMENT PART NUMBERS AND AVAILABILITY AND CONTACT INFORMATION FOR SERVICE/SUPPLY COMPANY.
    - FOR ALL BELOW GRADE PIPING WHERE ACTUAL INSTALLATION DEVIATES FROM CONSTRUCTION DRAWINGS, THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS INDICATING BELOW GRADE PIPE LOCATIONS DIMENSIONED TO NEAREST COLUMN LINES.
    - RECORD AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE OWNER/TENANT AFTER COMPLETION OF THE WORK SHOWING ANY ALTERATIONS, ADDITIONS AND/OR DELETIONS TO THE SYSTEM(S) INSTALLED.
  - SUBSTITUTIONS
    - ALL EQUIPMENT SHALL BE PRODUCTS OF THE SPECIFIED MANUFACTURER OR MANUFACTURERS. ALL BIDS SHALL BE BASED ON THE SPECIFIED MANUFACTURER OR MANUFACTURER'S EQUIPMENT. FOR SUBSTITUTIONS OF OTHER MANUFACTURER'S EQUIPMENT TO BE CONSIDERED, THE SUBSTITUTION MUST BE INDICATED PRIOR TO BIDDING WITH THE REASON FOR THE PROPOSED SUBSTITUTION IDENTIFIED, AND THE PROPOSED CREDIT TO THE OWNER INDICATED. THE ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF ANY PROPOSED SUBSTITUTIONS.
    - THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR COORDINATING THE WORK OF OTHER TRADES WHICH MAY BE AFFECTED BY SUBSTITUTIONS, INCLUDING ALL RELATED COSTS.

- DEFINITIONS
  - FURNISH: TO PURCHASE, PROCURE, ACQUIRE AND DELIVER, COMPLETE WITH RELATED ACCESSORIES.
  - INSTALL: TO ERRECT, MOUNT AND CONNECT, COMPLETE WITH RELATED ACCESSORIES.
  - PROVIDE: TO FURNISH AND INSTALL.
  - PLUMBING CONTRACTOR, THE CONTRACTOR, THIS CONTRACTOR: THE CONTRACTOR FOR PLUMBING WORK WHICH IS SPECIFIED HEREIN AND SHOWN ON THESE DRAWINGS.
- DRAWINGS
  - THE DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO ILLUSTRATE THE GENERAL ARRANGEMENT AND ROUTING OF PIPING AND GENERAL LOCATIONS OF EQUIPMENT. PRECISE LOCATIONS OF EQUIPMENT, RISERS AND STACKS, AND ROUTING AND ELEVATION OF ALL PIPING SYSTEMS SHALL BE COORDINATED IN THE FIELD WITH THE ARCHITECT, ARCHITECTURAL DRAWINGS, THE WORK OF OTHER TRADES, EXISTING AND NEW BUILDING CONDITIONS AND/OR THE PREFERENCES OF THE OWNER/TENANT AS CONSTRUCTION PROCEEDS. ALL PIPING SHALL BE INSTALLED CONCEALED IN FINISHED SPACES, UNLESS NOTED OTHERWISE.
  - PROVIDE ALL NECESSARY INCIDENTAL MATERIALS AND ACCESSORIES REQUIRED TO MAKE THE WORK COMPLETE IN ALL RESPECTS, EVEN IF NOT PARTICULARLY SHOWN OR SPECIFIED.
  - REFER TO PLUMBING EQUIPMENT/FIXTURE SCHEDULE ON THE DRAWINGS FOR ALL FIXTURE AND EQUIPMENT SPECIFICATIONS.
  - REFER TO FIXTURE CONNECTION SIZE SCHEDULE FOR ALL FIXTURE ROUGHING SIZE REQUIREMENTS.
  - VERIFY ALL INDICATED CONDITIONS BEFORE STARTING WORK AND REPORT ANY DISCREPANCIES. THE DRAWINGS REFLECT CONDITIONS WHICH CAN BE REASONABLY INTERPRETED FROM THE EXISTING VISIBLE CONDITIONS OR FROM DRAWINGS AND INFORMATION FURNISHED BY THE OWNER.
  - LOCATE ALL FIXTURES AND EQUIPMENT AS PER THE FINAL ARCHITECTURAL DRAWINGS.
- PRODUCTS
  - SANITARY AND VENT PIPING:
    - ABOVE GRADE PIPING SHALL BE HUBLESS CAST IRON PIPE WITH STAINLESS STEEL COUPLINGS AND ELASTOMERIC GASKETS WITH A MINIMUM 4 BANDS PER COUPLING.
    - SLOPE OF DRAINAGE SYSTEM SHALL BE 1/8" PER FOOT OF RUN FOR PIPE OVER 3" (I.D.) AND 1/4" PER FOOT OF RUN FOR PIPE 3" AND SMALLER (I.D.). VENT PIPING SHALL BE PITCHED TO DRAIN.
    - PVC OR OTHER COMBUSTIBLE PLASTIC PIPING SHALL NOT BE INSTALLED IN CEILING PLenum SPACES.
    - ALL CAST IRON SOIL PIPE AND FITTINGS SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE (CISPI) AND BE LISTED BY NSF INTERNATIONAL.
  - DOMESTIC WATER PIPING:
    - ABOVE GRADE WATER PIPING SHALL BE TYPE 'L' HARD-DRAWN COPPER TUBE, OR CPVC AS PER ASTM D2846, ASTM F441, ASTM F442 AND CSA B137.6 STANDARDS.
    - FITTINGS IN DOMESTIC WATER PIPING SHALL BE WROUGHT COPPER OR CAST BRASS/OR CPVC AS PER ASSE 1061, ASTM D2846, ASTM F437, ASTM F438, ASTM F439, CSA B137.6 STANDARDS
    - JOINTS SHALL BE MADE WITH LEAD-FREE SOLDER.
    - THE ENTIRE DOMESTIC WATER DISTRIBUTION SYSTEM SHALL BE INSULATED INCLUDING ALL VALVES, FITTINGS, ETC.
    - COMPLY WITH NSF 61 FOR MATERIALS FOR WATER-SERVICE PIPING AND SPECIALTIES FOR DOMESTIC WATER.
    - ALL DOMESTIC WATER PIPING ABOVE GRADE SHALL BE INSULATED WITH FIRE-RETARDANT, FACTORY-APPLIED JACKET. PROVIDE COLD WATER PIPING WITH FACTORY-APPLIED VAPOR BARRIER. INSULATION REQUIREMENT SHOULD COMPLY WITH 2018 INTERNATIONAL ENERGY CONSERVATION CODE SECTION C403.11.3 REFER BELOW TABLE.

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"	1½" to < 4"	4" to < 8"	≥ 8"
141-200	0.25-0.29	125	1.5	1.5	2	2.2
105-140	0.21-0.26	100	1.0	1.0	1.5	1.5
40-60	0.21-0.27	75	0.5	0.5	1.0	1.0

- HW SYSTEM PIPING IS DESIGNED AS PER MAXIMUM ALLOWED PIPE LENGTH METHOD AS PER 2018 INTERNATIONAL ENERGY CONSERVATION CODE . C404.5.1. THE HOT WATER PIPE LENGTH FROM THE NEAREST SOURCE OF HEATED WATER TO THE TERMINATION OF THE FIXTURE SUPPLY PIPE SHALL BE AS PER FOLLOWING TABLE.
 

NOMINAL PIPE SIZE (INCHES)	MAXIMUM PIPING LENGTH (FEET)	
	PUBLIC LAV	OTHER FIXTURES
½"	2'	43'
¾"	0.5'	21'
1"	0.5'	13'
1¼"	0.5'	8'
1½"	0.5'	6'
2" OR LARGER	0.5'	4'
- WATER DISTRIBUTION SYSTEM AS PER INTERNATIONAL ENERGY CONSERVATION CODE 2018, C404.7, HAVING ONE OR MORE RE-CIRCULATION PUMPS THAT PUMP WATER FROM A HEATED-WATER SUPPLY PIPE BACK TO THE HEATED-WATER SOURCE THROUGH A COLD-WATER SUPPLY PIPE SHALL BE A DEMAND RE-CIRCULATION WATER SYSTEM. PUMPS SHALL HAVE CONTROLS THAT COMPLY WITH BOTH OF THE FOLLOWING:
  - THE CONTROL SHALL START THE PUMP UPON RECEIVING A SIGNAL FROM THE ACTION OF A USER OF A FIXTURE OR APPLIANCE, SENSING THE PRESENCE OF A USER OF A FIXTURE OR SENSING THE FLOW OF HOT OR TEMPERED WATER TO A FIXTURE FITTING OR APPLIANCE.
  - THE CONTROL SHALL LIMIT THE TEMPERATURE OF THE WATER ENTERING THE COLD-WATER PIPING TO 104°F (40°C).
- AS PER INTERNATIONAL ENERGY CONSERVATION CODE 2018, C404.6.1 HEATED-WATER CIRCULATION SYSTEMS SHALL BE PROVIDED WITH A CIRCULATION PUMP. THE SYSTEM RETURN PIPE SHALL BE A DEDICATED RETURN PIPE OR A COLD WATER SUPPLY PIPE. CONTROLS FOR CIRCULATING HOT WATER SYSTEM PUMPS SHALL START THE PUMP BASED ON THE IDENTIFICATION OF A DEMAND FOR HOT WATER WITHIN THE OCCUPANCY. THE CONTROLS SHALL AUTOMATICALLY TURN OFF THE PUMP WHEN THE WATER IN THE CIRCULATION LOOP IS AT THE DESIRED TEMPERATURE AND WHEN THERE IS NO DEMAND FOR HOT WATER.

- SEAL ALL JOINTS BETWEEN SEGMENTS OF INSULATION.
- PROVIDE SHIELDS BETWEEN HANGERS AND INSULATION.
- GAS PIPING:
  - GAS PIPING SHALL BE SIZED IN ACCORDANCE WITH PIPE SIZING TABLES OR SIZING EQUATIONS IN ACCORDANCE WITH SECTION 402.4.
  - METALLIC PIPE SHALL COMPLY WITH SECTIONS 403.4.1 THROUGH 403.4.4.
  - PIPING SYSTEM INSTALLATION SHALL COMPLY WITH REQUIREMENTS OF INTERNATIONAL FUEL GAS CODE 2018 SECTION 404.
  - AS PER INTERNATIONAL FUEL GAS CODE 2018 SECTION 404.6; UNDERGROUND PIPING, WHERE INSTALLED BELOW GRADE THROUGH THE OUTER FOUNDATION OR BASEMENT WALL OF A BUILDING, SHALL BE ENCASED IN A PROTECTIVE PIPE SLEEVE. THE ANNULAR SPACE BETWEEN THE GAS PIPING AND THE SLEEVE SHALL BE SEALED.
  - PIPING INSTALLED UNDERGROUND BENEATH BUILDINGS IS PROHIBITED EXCEPT WHERE THE PIPING IS ENCASED IN A CONDUIT OF WROUGHT IRON OR STEEL PIPE DESIGNED TO WITHSTAND THE SUPERIMPOSED LOADS. THE CONDUIT SHALL BE PROTECTED FROM CORROSION IN ACCORDANCE WITH SECTION 404.11 AND SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 404.11.1 OR 404.11.2 OF INTERNATIONAL FUEL GAS CODE 2018
  - AS PER INTERNATIONAL FUEL GAS CODE 2018 SECTION 404.12; UNDERGROUND PIPING SYSTEMS SHALL BE INSTALLED A MINIMUM DEPTH OF 12 INCHES BELOW GRADE.
  - THE GAS PIPING IS ENCASED IN A CONDUIT OF WROUGHT IRON OR STEEL PIPE TO WITH STAND THE SUPERIMPOSED LOADS. SHUTOFF VALVES SHALL BE LOCATED IN PLACES SO AS TO PROVIDE ACCESS FOR OPERATION AND SHALL BE INSTALLED SO AS TO BE PROTECTED FROM DAMAGE.
- HOT WATER RE-CIRCULATING PUMP
  - IN-LINE PUMP: SINGLE STAGE VOLUTE TYPE PUMP SHALL BE MADE OF CAST IRON OR FORGED LEAD-FREE BRONZE IMPELLER.
  - THE PUMP SHALL HAVE A GROUND AND POLISHED STEEL SHAFT WITH A HARDENED INTEGRAL THRUST COLLAR. THE SHAFT SHALL BE SUPPORTED BY TWO HORIZONTAL SLEEVE BEARINGS DESIGNED TO CIRCULATE OIL. THE PUMPS ARE TO BE EQUIPPED WITH A MECHANICAL SEAL WITH CARBON SEAL FACE ROTATING AGAINST CERAMIC SEAT. THE MOTOR SHALL BE NON-OVERLOADING AT ANY POINT ON PUMP CURVE.
  - DIRECT CONNECT PUMP TO ELECTRIC MOTOR WITH FLEXIBLE COUPLING. THE MOTOR SHALL BE OF THE DRIP-PROOF, SLEEVE-BEARING, QUIET OPERATING, RUBBER-MOUNTED CONSTRUCTION. EQUIPMENT MOTOR WITH BUILT-IN THERMAL OVERLOAD PROTECTION.
  - INSTALL IN-LINE CIRCULATING PUMPS BETWEEN PIPE FLANGES IN PIPING SYSTEMS. INSTALL OVERHEAD PIPE SUPPORTS, BOTH SIDES OF IN-LINE PUMPS, INSTALLED IN HORIZONTAL PIPING RUNS.
- HANGERS AND SUPPORTS:
  - HANGERS SHALL BE STANDARD STEEL, MALLEABLE OR WROUGHT IRON, AS MANUFACTURED BY GRINNELL OR APPROVED EQUAL SUITABLE FOR THE TYPE OF CONSTRUCTION. PIPING SHALL NOT BE HUNG FROM OTHER PIPE.
  - SECTIONS OF INDIVIDUAL PIPE RUNS SHALL BE SUPPORTED BY CLEVIS HANGERS.
  - ALL EQUIPMENT SHALL BE PROVIDED WITH APPROVED SUPPORTS..
  - SUPPORTS SHALL BE PROVIDED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE PIPING MANUFACTURER.
- VALVES:
  - PROVIDE GATE VALVES, BUTTERFLY OR BALL VALVES FOR SHUT-OFF DUTY ON MAIN AND BRANCH SUPPLY LINES. FOR ALL PIPE RUNS 2" AND SMALLER, PROVIDE BALL FOR ALL PIPE RUNS LARGER THAN 2" AND SMALLER THAN 4". PROVIDE GATE VALVES FOR PIPING 4" AND LARGER, PROVIDE BUTTERFLY VALVES FOR SHUT-OFF DUTY.
  - ALL FIXTURES WITH THE EXCEPTION O FLUSHMETER -EQUIPPED WATER CLOSETS AND URINALS SHALL HAVE STOP VALVES TO CONTROL SUPPLY TO THE FIXTURE. WHERE SUPPLIES ARE EXPOSED PROVIDE CHROME-PLATED STOPS WITH CHROME-PLATED ESCUTCHEONS ON PIPING PENETRATIONS.
  - ALL PLUMBING FIXTURES AND EQUIPMENT TO HAVE SHUT-OFF VALVES ON SUPPLY LINES.
  - ALL BRANCH LINES TO HAVE SHUT-OFF VALVES.
  - ALL VALVES SHALL BE ACCESSIBLE. PROVIDE ACCESS DOORS WHERE REQUIRED FOR VALVE ACCESS.
  - PROVIDE GLOBE VALVES FOR THROTTLING/BALANCING OF THE HOT WATER CIRCULATING SYSTEM.
- SLEEVES AND ESCUTCHEONS:
  - SLEEVES THROUGH STRUCTURAL CONCRETE MEMBERS AND SLEEVES FOR WALLS BELOW GRADE AND FLOORS ON GRADE SHALL BE STANDARD WEIGHT GALVANIZED SCHEDULE 40 STEEL PIPE. SLEEVES THROUGH OTHER THAN STRUCTURAL COMPONENTS OF THE BUILDING SHALL BE 20 GAGE GALVANIZED SHEET METAL WITH LOCK SEAM JOINTS. USE THERMAL FIBER SAFING INSULATION SHALL BE INSTALLED BETWEEN PIPE AND SLEEVE.
  - PIPE ESCUTCHEON PLATES SHALL BE INSTALLED WHERE EXPOSED PIPING PASSES THROUGH WALLS, CEILINGS, AND FLOORS AND SHALL BE MINIMUM 20 GAGE STEEL. PROVIDE CHROME PLATED ESCUTCHEON PLATES IN FINISHED AREAS.

- DRAINAGE ACCESSORIES
  - GENERAL:
    - INSTALL THE WORK OF THIS SECTION IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS, UNLESS OTHERWISE SPECIFIED.
    - SECURE EXTERNAL COMPONENTS IN PLACE WITH VANDAL RESISTANT FASTENERS OR DEVICES WHICH CANNOT BE REMOVED WITHOUT SPECIAL TOOLS.
  - DEVICES:
    - CLEANOUT & CLEANOUT PLUG
      - THREADED PIPE FITTING OR CAST IRON FERRULE WITH TIGHT CLEANOUT PLUG
      - PLUG SHOULD BE CAST BRASS OR BRONZE, WITH THREADED END, AND RAISED OR COUNTERSUNK HEAD.
      - LUBRICATE THREADS OF CLEANOUT PLUG WITH ANTI-SEIZE LUBRICANT BEFORE FINAL INSTALLATION.
    - CLEANOUT WALL PLATE: IT SHOULD BE ROUND, STAINLESS STEEL OR POLISHED CHROME PLATED BRONZE COVER PLATE WITH STAINLESS STEEL VANDAL RESISTANT FASTENER TO SECURE TO CLEANOUT PLUG.
    - CLEANOUT DECK PLATE: IT SHOULD BE STANDARD DUTY FLOOR CLEANOUT FITTING WITH COATED CAST IRON BODY; ROUND, POLISHED NICKEL BRONZE SCORLATED TOP SECURED TO CLEANOUT PLUG WITH STAINLESS STEEL VANDAL RESISTANT FASTENER. THREADED HEIGHT ADJUSTMENT, CAST IRON HEAD, TIGHT CLEANOUT PLUG, AND CONNECTION TO MATCH PIPING OPTION SELECTED.
  - INSTALL PIPING TO CONSERVE BUILDING SPACE. DO NOT INTERFERE WITH USE OF BUILDING SPACE AND THE WORK OF OTHER TRADES. ALL PIPING RUN IN CEILING SHALL BE INSTALLED TIGHT TO THE STRUCTURE ABOVE.
  - VERIFY EXACT LOCATIONS OF ALL EXISTING UTILITIES.
  - INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS OR CONNECTED EQUIPMENT. PROVIDE PIPE ANCHORS, GUIDES AND EXPANSION JOINTS OR LOOPS IN ALL HOT WATER AND HOT WATER CIRCULATING MAIN SUPPLY PIPING AND SEGMENTS OF SUCH PIPE THAT EXCEED 30'-0" IN LENGTH.
  - IN ALL AREAS WITH FINISHED SURFACES, SYSTEM PIPING AND COMPONENTS SHALL BE CONCEALED ABOVE OR WITHIN FINISHED SURFACES.
  - INSTALL VALVES WITH STEMS UPRIGHT OR HORIZONTAL. REMOVE PROTECTIVE COATINGS PRIOR TO INSTALLATION.
  - REDUCTIONS IN PIPE SIZES SHALL BE MADE WITH ONE-PIECE REDUCING FITTINGS. BUSHINGS ARE NOT ACCEPTABLE. USE FLANGED FITTINGS AT THE BASE OF RISERS.
  - IF WATER PRESSURE EXCEEDS 80 PSI, A WATER PRESSURE REDUCING VALVE SHALL BE INSTALLED IN WATER PIPING AT CONNECTION TO MAIN.
  - PROVIDE DIELECTRIC FITTINGS BETWEEN DISSIMILAR METALS.
  - PROVIDE ACCESS DOORS/PANELS FOR SERVICE AND ACCESS TO ALL VALVES AND OTHER SYSTEM COMPONENTS ENCLOSED IN WALLS AND CEILINGS. ACCESS DOORS SHALL BE FURNISHED BY THIS CONTRACTOR, INSTALLED BY THE GENERAL CONTRACTOR.
  - ALL FIXTURES REQUIRING VACUUM BREAKERS SHALL BE EQUIPPED WITH INTEGRAL VACUUM BREAKERS.
  - ANY PENETRATIONS THROUGH FIRE RATED PARTITIONS, FLOORS, OR CEILINGS SHALL BE STEEL SLEEVED AND SEALED WITH 3M BRAND UL RATED FIRE BARRIER AULK OR APPROVED EQUAL.
  - WHEN THE WATER PIPING SYSTEM IS COMPLETE, THOROUGHLY FLUSH ALL DIRT, SEDIMENT, SOLDER, ETC., OUT OF THE SYSTEM, REMOVING ALL STRAINERS, VALVE STEM SEATS, ETC., REQUIRED TO ACCOMPLISH THE FLUSHING.
  - AT ALL INDIRECT WASTE DRAINS, MAINTAIN AIR GAP AS REQUIRED BY CODE.
  - INSTALL SLEEVES FOR ALL PIPES WHICH PASS THROUGH WALLS, FLOORS, AND CEILINGS, WHERE PIPES ARE TO BE INSULATED, THE SLEEVE SHALL BE LARGE ENOUGH TO ACCOMMODATE INSULATION. SLEEVES SHALL BE FLUSH WITH FINISHED SURFACES AT BOTH ENDS, ON FINISHED SURFACES IN EXPOSED AREAS PROVIDE ESCUTCHEONS COMPATIBLE WITH FINISH.
  - PROVIDE WATER HAMMER ARRESTERS ON SUPPLY PIPING TO ALL FLUSHMETER VALVES AND QUICK-CLOSING VALVES.
  - UNLESS OTHERWISE INDICATED, TRAPS SEALS AT ALL FLOOR DRAINS SHALL BE MAINTAINED BY AN APPROVED TRAP PIPING DEVICE.
  - MAINTAIN ALL REQUIRED AND RECOMMENDED CLEARANCES FOR ALL PLUMBING SYSTEM COMPONENTS AND EQUIPMENT.
  - MAINTAIN MINIMUM 10'-0" CLEARANCE BETWEEN ALL PLUMBING V.T.R.S AND ALL OUTDOOR AIR INTAKES. OFFSET VENT STACKS AND STACK VENTS IF AND AS REQUIRED BELOW ROOF TO MAINTAIN SUCH CLEARANCE WHETHER OR NOT SUCH OFFSET IS INDICATED ON THE DRAWINGS. PROVIDE ALL REQUIRED SEISMIC SUPPORTS.
- INSTALLATION
  - GENERAL
    - ROOFING SHALL BE DONE BY LANDLORD APPROVED ROOFING CONTRACTOR.
    - EXTERIOR INSTALLATIONS TO BE WEATHER PROOF IN ALL RESPECTS.
    - EXTERIOR MATERIALS AND EQUIPMENT SHALL BE PAINTED TO PREVENT CORROSION. COLOR PER ARCHITECT.
    - COORDINATE THE PLUMBING WORK WITH ALL OTHER AFFECTED WORK AND THE CONSTRUCTION SCHEDULE.
    - REAM PIPE AND TUBE ENDS. REMOVE BURRS. BEVEL PLAIN AND FERRUSS END PIPE.
    - REMOVE SEAL AND FOREIGN MATERIAL, FROM INSIDE AND OUTSIDE, BEFORE ASSEMBLY.
    - PREPARE PIPING CONNECTIONS TO EQUIPMENT WITH FLANGES AND UNIONS.
    - COORDINATION WITH THE WORK OF OTHER TRADES IS REQUIRED. PROVIDE OFFSETS IN PIPING SYSTEMS OR MINOR DEVIATIONS TO THE INDICATED PIPE ROUTING IN ORDER TO COORDINATE THE PLUMBING WORK WITH THE WORK OF ALL OTHER TRADES AND THE GENERAL BUILDING CONDITIONS.
    - NO DOMESTIC WATER PIPING SHALL BE INSTALLED IN UNHEATED SPACES.
    - PRIOR TO DISCONNECTING AND CONNECTING NEW WORK TO EXISTING SYSTEMS, THE PLUMBING CONTRACTOR SHALL NOTIFY THE PROPERTY MANAGER AND OFFER A PROPOSED SCHEDULE OF WORK. ESB WILL AUTHORIZE CONNECTIONS AND COORDINATE NECESSARY SHUT DOWNS AND DRAIN DOWNS AS REQUIRED. SHUT DOWNS AND DRAIN DOWNS MAY BE PERFORMED BY THE PLUMBING CONTRACTOR ONLY AFTER RECEIVING ESB AUTHORIZATION, AND SHOULD BE PERFORMED UNDER SUPERVISION OF ESB PERSONNEL (3) DAYS ADVANCE NOTICE TO THE PROPERTY MANAGER IS REQUIRED.
  - WARRANTY
    - EQUIPMENT, MATERIALS AND WORKMANSHIP FURNISHED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER. THE CONTRACTOR SHALL KEEP THE WORK IN GOOD REPAIR FOR ONE YEAR AFTER THE DATE OF FINAL APPROVAL. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROMPTLY CORRECT AND REPAIR ANY AND ALL BREAKS, FAILURES OR WEAR DUE TO FAULTY MATERIALS, WORKMANSHIP OR EQUIPMENT. ALL SETTLEMENTS OF SURFACES THAT MAY OCCUR WITHIN THAT PERIOD SHALL ALSO BE PROMPTLY REPAIRED.

- THE PLUMBING CONTRACTOR IS ADVISED THAT DUE TO THE NATURE OF THE OPERATIONS AND TENANT REQUIREMENTS, CONNECTIONS TO EXISTING SYSTEMS MAY HAVE TO BE MADE AFTER REGULAR WORKING HOURS. THE PROPERTY MANAGER WILL ADVISE THE PLUMBING CONTRACTOR OF THE TIME CONSTRAINTS UPON RECEIPT AND APPROVAL OF THE PLUMBING CONTRACTOR'S REQUEST FOR SHUT DOWN AND CONNECTION TO EXISTING SYSTEMS.
- WHEN CONNECTING TO EXISTING STACKS AND RISERS, PROVISION IS TO BE MADE FOR FUTURE CONNECTIONS BY PROVIDING CAPPED AND VALVED OUTLETS ON WATER RISERS AND PLUGGED OUTLETS ON THE SANITARY AND VENT STACKS.
- ABOVE GRADE
  - INSTALL PLUMBING PIPING IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT PIPING COMPLIES WITH REQUIREMENTS AND SERVES INTENDED PURPOSES.
  - ROUTE PIPING IN AN ORDERLY MANNER, PLUMB AND PARALLEL TO BUILDING STRUCTURE. MAINTAIN GRADIENT, SLOPE PIPING AND ARRANGE SYSTEMS TO DRAIN. IN WATER SYSTEMS, PROVIDE DRAIN VALVES AT MAIN SHUT-OFF VALVES AND ALL LOW POINTS IN PIPING.
  - USE EXISTING CONNECTIONS AT MAINS WHERE AVAILABLE FOR NEW BRANCH PIPING. LOCATE ALL RISERS AND PIPING BEFORE CONSTRUCTION COMMENCES AND TAKE CARE NOT TO DAMAGE SAME. ANY DAMAGE OCCURRING TO THE EXISTING PIPING WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
  - TESTING
    - AT THE COMPLETION OF THE PLUMBING WORK, COMPLETELY TEST THE ENTIRE INSTALLATION OF ALL SYSTEMS FOR PROPER OPERATION AND COMPLIANCE WITH APPLICABLE CODES AND LOCAL REQUIREMENTS. CORRECT ALL DEFICIENCIES FOUND.
    - TESTING OF THE INSTALLED SYSTEMS SHALL BE MADE BY THE CONTRACTOR IN THE PRESENCE OF A REPRESENTATIVE OF THE OWNER.
    - THE CONTRACTOR SHALL NOT COVER UP OR PERMANENTLY CONCEAL PIPING, DEVICES OR ANY PORTION OF NEWLY CONSTRUCTED PLUMBING SYSTEM(S) UNTIL SUCH SYSTEM, OR PORTION OF THE SYSTEM, HAS BEEN TESTED IN THE PRESENCE OF A REPRESENTATIVE OF THE OWNER AND INSPECTED BY THE LOCAL INSPECTOR AND APPROVED IN WRITING, EXCEPT PIPING PASSING THROUGH FLOORS, WALLS, PARTITIONS, OR BEAMS, FOR DISTANCES EQUAL TO THE THICKNESS OF SUCH FLOOR, WALL, PARTITION OR BEAM.
    - THIS CONTRACTOR SHALL NOTIFY THE VARIOUS DEPARTMENTS, BUREAUS AND INDIVIDUALS AT LEAST TWO WEEKS IN ADVANCE OF THE TIME THAT THE TESTS ARE TO BE CONDUCTED.
    - ALL DEFECTIVE PARTS SHALL BE REPLACED OR CORRECTED BY THIS CONTRACTOR AND AN EXTRA TEST OR TESTS SHALL BE MADE UNTIL THE OPERATION IS SATISFACTORY. ALL ARRANGEMENTS AND EXPENSES NECESSARY TO CONDUCT ALL TESTS REQUIRED BY THESE SPECIFICATIONS AND THE VARIOUS AGENCIES HAVING JURISDICTION OVER THE WORK INSTALLED UNDER THIS CONTRACT SHALL BE MADE BY THIS CONTRACTOR. NO EXTRA COMPENSATION WILL BE ALLOWED FOR THESE TESTS, THE COST THEREOF BEING INCLUDED IN THE LUMP SUM BID FOR THIS CONTRACT.
    - WHERE ANY EVIDENCE OF STOPPAGE IS FOUND IN PIPING OR EQUIPMENT, THIS CONTRACTOR SHALL DISCONNECT, CLEAN, REPAIR AND RECONNECT ALL OBSTRUCTED PIPING OR EQUIPMENT AND SHALL ALSO PAY FOR ALL NECESSARY CUTTING AND REPAIRS TO ADJOINING WORK.
    - ALL PIPING AND EQUIPMENT SHALL BE THOROUGHLY CLEANED INSIDE AND OUT, OF DIRT, CUTTINGS, OILS AND OTHER FOREIGN SUBSTANCES AND SHALL BE LEFT CLEAN.
    - ALL REQUIRED TESTS SHALL BE WITNESSED BY LOCAL AUTHORITIES AND THE OWNER'S REPRESENTATIVE.
    - ALL EQUIPMENT WILL BE FACTORY TESTED.
    - CONTRACTOR SHALL IDENTIFY TO THE OWNER'S REPRESENTATIVE ANY LEAKS OR DAMAGE THAT OCCURS AS A RESULT OF SYSTEM TESTING. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO LIMIT ANY POTENTIAL DAMAGE. CORRECTIVE ACTION REQUIRED AS A RESULT OF TESTING SHALL BE PERFORMED IMMEDIATELY AND AT THE CONTRACTOR'S EXPENSE.
    - REPORT IN WRITING TO AUTHORITIES HAVING JURISDICTION, THE ARCHITECT AND THE OWNER THE RESULTS OF ALL TESTING.
    - TESTING REQUIREMENTS
      - DOMESTIC WATER PIPING SHALL BE TESTED AND PROVED TIGHT UNDER A WATER PRESSURE NOT LESS THAN THE WORKING PRESSURE OF THE SYSTEM.
      - THIS WORKING PRESSURE SHALL BE HELD FOR NOT LESS THAN 15 MINUTES.
      - THE REQUIRED TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THIS SECTION AND SECTION 312.
      - REFILL ENTIRE POTABLE HOT AND COLD WATER SUPPLY SYSTEM WITH CHLORINE SOLUTION (HTH OLIN CHEMICAL CORP.) AT A STRENGTH TO MEET STANDARDS OF THE DEPARTMENT OF HEALTH, AND FOR A PERIOD OF RETENTION AS STIPULATED.
      - THOROUGHLY FLUSH PIPING SYSTEM WITH FRESH WATER IMMEDIATELY PRIOR TO FINAL ACCEPTANCE.

**SHEET HISTORY SCHEDULE**

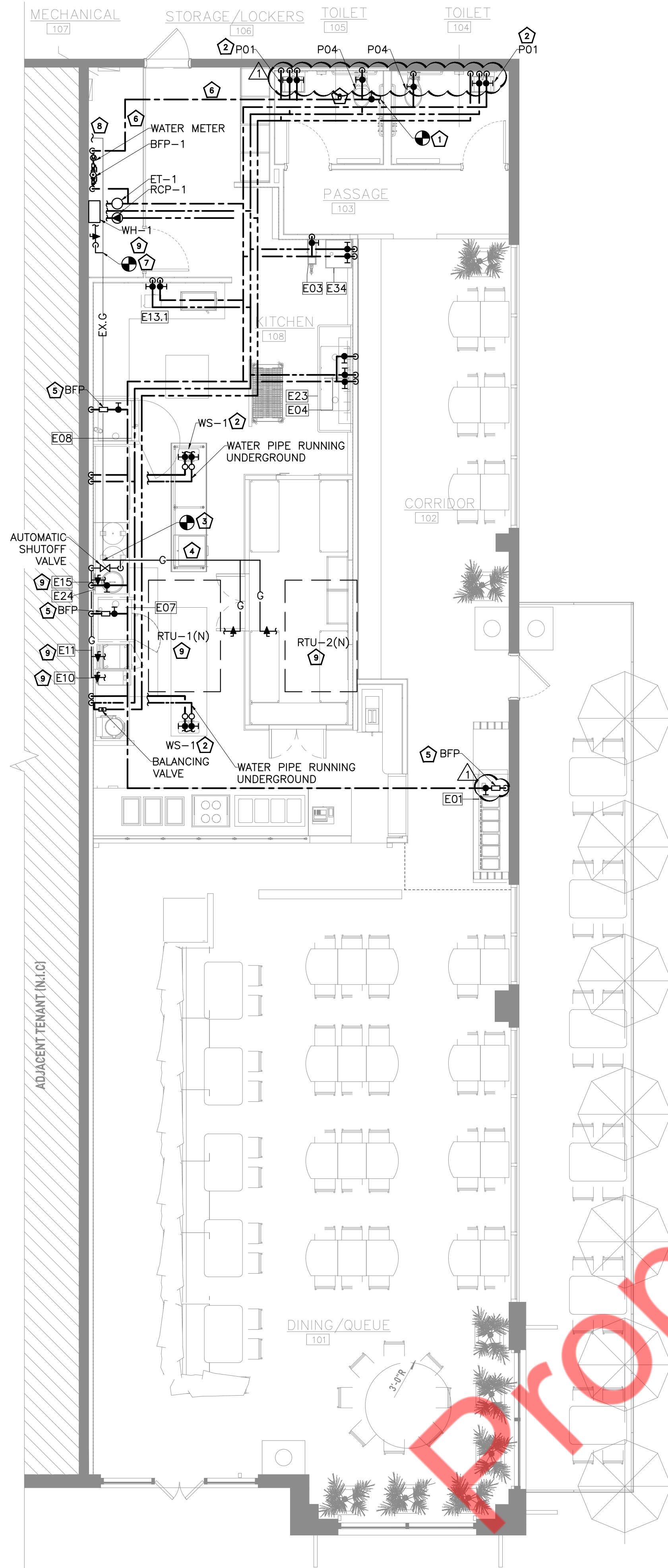
PERMIT SET	2026-01-12
REVISION 1	2026-01-27
ISSUE DATE:	01/27/2026

**TENANT INTERIOR BUILD-OUT**

**MOTOMEDI**

DRAWN BY:	
QAQC:	
APPROVED BY:	
PROJECT NUMBER:	

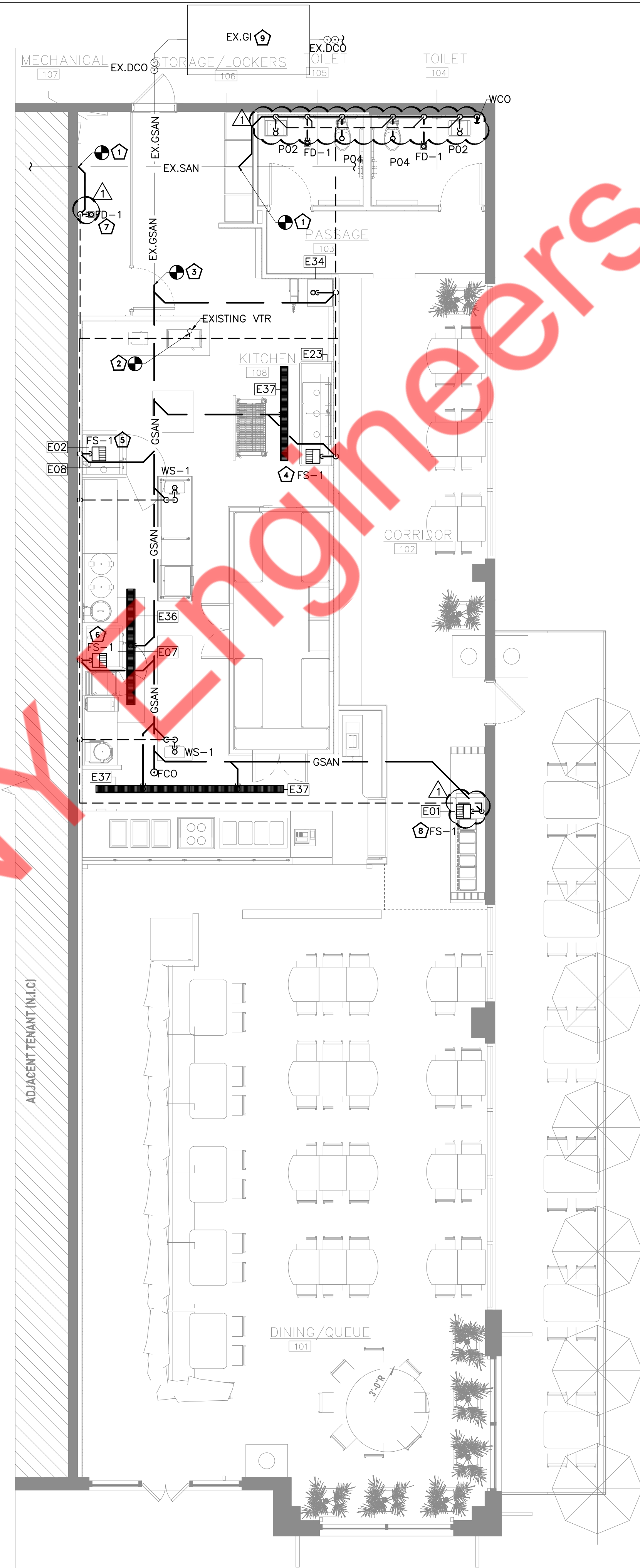
**PLUMBING NOTES, SYMBOLS, ABBREVIATION & SPECIFICATION**  
**P0.1**



- GENERAL NOTES:**
1. CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
  2. CW/HW PIPING TO BE PROVIDED WITH INSULATION AS PER 2018 INTERNATIONAL ENERGY CONSERVATION CODE (REFER SHEET P0.1)
  3. PROVIDE BRANCH PRV IF PRESSURE EXCEEDS 80 PSI.
  4. PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR, CLEANOUTS & SHUT-OFF VALVES AS REQUIRED.
  5. REFER RISER DIAGRAMS FOR ALL PIPE SIZES.

- WATER AND GAS KEYED NOTES:**
1. EXTEND AND CONNECT NEW 2" CW PIPING WITH SHUT-OFF VALVE AND TIE INTO THE EXISTING WATER LINE. A BALL VALVE SHALL BE INSTALLED ON WATER LINE AHEAD OF ANY WATER USE IN THE SPACE AND SHALL BE LOCATED IN AN ACCESSIBLE LOCATION FOR EMERGENCY WATER CUT OFF BY TENANT AND FOR FUTURE SERVICE WORK. CONTRACTOR TO FIELD VERIFY EXISTING WATER LINE SIZE AND LOCATION PRIOR TO BID.
  2. PROVIDE A TEMPERING VALVE FOR LAVATORY AND WORK STATION SINK THAT CONFORMS TO ASSE 1070.
  3. CONNECT NEW 2" GAS LINE TO EXISTING GAS LINE. CONTRACTOR TO FIELD VERIFY EXISTING GAS LINE LOCATION AND SIZE. UPGRADE IF REQUIRED.
  4. GAS PIPE RUNNING AT ROOF.
  5. PROVIDE ASSE 1012 APPROVED BACKFLOW PREVENTER TO ICE MACHINE AND OVEN FOR BACKFLOW PREVENTION. INSTALL BFP IN ACCESSIBLE LOCATION.
  6. NO TAKE OFF TO BE TAKEN BEFORE BFP.
  7. CONNECT NEW 1/2" GAS LINE TO EXISTING GAS LINE. CONTRACTOR TO FIELD VERIFY EXISTING GAS LINE LOCATION AND SIZE. UPGRADE IF REQUIRED.
  8. CONTRACTOR TO FIELD VERIFY THE EXISTING METER LOCATION AND CAPACITY. THE EXISTING GAS METER CAPACITY SHOULD BE EQUAL TO OR GREATER THAN 885.2 CFH. UPGRADE THE EXISTING PIPING AND METER IF REQUIRED.
  9. CONTRACTOR TO FIELD VERIFY AND ENSURE, ALL MECHANICAL UNITS, KITCHEN EQUIPMENT AND WATER HEATER SHALL RECEIVE THE REQUIRED GAS PRESSURE.

2 DOMESTIC WATER AND GAS FLOOR PLAN  
P1.0 SCALE: 3/16" = 1'-0"



- GENERAL NOTES:**
1. CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
  2. PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR, CLEANOUTS & SHUT-OFF VALVES AS REQUIRED.
  3. REFER RISER DIAGRAMS FOR ALL PIPE SIZES.
  4. PROVIDE TRAP PRIMER FOR FLOOR DRAIN AS PER LOCAL JURISDICTION.
  5. WATER, SEWER, VENT, AND/OR GAS LINES INCLUDING CLEAN-OUTS SHALL NOT BE LOCATED IN EXTERIOR WALLS OR TENANT DEMISING WALLS. ROUTING OF THOSE LINES AT THOSE LOCATIONS SHALL REQUIRE A CHASE, FURR-OUT, AND/OR PLUMBING WALL FOR THOSE SERVICES.
  6. EXTERIOR BUILDING WALLS, ASSOCIATED GRADE BEAMS, SLAB TURNDOWNS, CONTINUOUS FOOTINGS AND TENANT DEMISING WALLS SHALL REMAIN INTACT AND UNDISTURBED.
  7. FOR EXTERIOR AND INTERIOR METAL STUD DEMISING WALLS THE HORIZONTAL STUD BRACING LOCATED TYPICALLY AT 48" O.C. VERTICALLY AND THE WEB OF STUD WALLS SHALL REMAIN INTACT AND UNDISTURBED.
  8. ANYTHING PROPOSED TO BE MOUNTED ON OR THROUGH ROOF SHALL BE LOCATED AT LEAST 2'-0" FROM ADJACENT TENANT DEMISING WALL AND AT LEAST 5'-0" FROM PARAPET WALLS AND BACK WALL OF THE BUILDING.
  9. ALL ROOF PENETRATIONS PRIOR TO BEING MADE SHALL HAVE SEPARATE LAND LORD APPROVAL AND SHALL BE COORDINATED WITH LANDLORD APPROVED ROOFING CONTRACTOR.
  10. CONDENSATE, ELECTRICAL, AND REFRIGERANT LINES ETC. SHALL BE ROUTED DOWN THROUGH ROOF WITHIN 2'-0" OF EACH RTU AND/OR OTHER ROOFTOP EQUIPMENT ITEM.

- SANITARY AND VENT KEYED NOTES:**
1. CONNECT NEW 4" SANITARY LINE TO EXISTING SANITARY WASTE LINE IN SPACE. CONTRACTOR TO FIELD VERIFY EXISTING SANITARY SIZE, ROUTING AND INVERT PRIOR TO BID.
  2. CONNECT NEW 3" VENT LINE TO EXISTING VTR. CONTRACTOR VERIFY EXISTING VTR EXACT LOCATION AND SIZE.
  3. CONNECT NEW 4" GREASE LINE TO EXISTING GREASE LINE IN SPACE. CONTRACTOR TO FIELD VERIFY EXISTING GREASE SANITARY SIZE, ROUTING AND INVERT PRIOR TO BID.
  4. INDIRECT DRAIN FROM 3-COMPARTMENT SINK (E23) AND WALK IN COOLER TO FLOOR SINK WITH APPROVED AIR GAP.
  5. INDIRECT DRAIN FROM BLAST CHILLER (E02) AND OVEN (E08) TO FLOOR SINK WITH APPROVED AIR GAP.
  6. INDIRECT DRAIN FROM COMBI-STEAMER (E07) AND TO FLOOR SINK WITH APPROVED AIR GAP.
  7. INDIRECT DRAIN FROM BFP TO FLOOR SINK WITH APPROVED AIR GAP.
  8. INDIRECT DRAIN FROM ICE MACHINE (E01) TO FLOOR SINK WITH APPROVED AIR GAP.
  9. EXISTING GREASE INTERCEPTOR TO REMAIN WITH PIPING, FITTINGS AND ACCESSORIES. CONTRACTOR TO FIELD VERIFY THE EXISTING GREASE INTERCEPTOR WORKING CONDITION AND CAPACITY. THE GREASE INTERCEPTOR CAPACITY IS EQUAL TO OR GREATER THAN 68-75. REPLACE, UPGRADE IF REQUIRED. BASE BID ACCORDINGLY.

1 SANITARY AND VENT FLOOR PLAN  
P1.0 SCALE: 3/16" = 1'-0"

SHEET HISTORY SCHEDULE	
PERMIT SET	2026-01-12
REVISION 1	2026-01-27
ISSUE DATE:	01/27/2026

TENANT INTERIOR BUILD-OUT

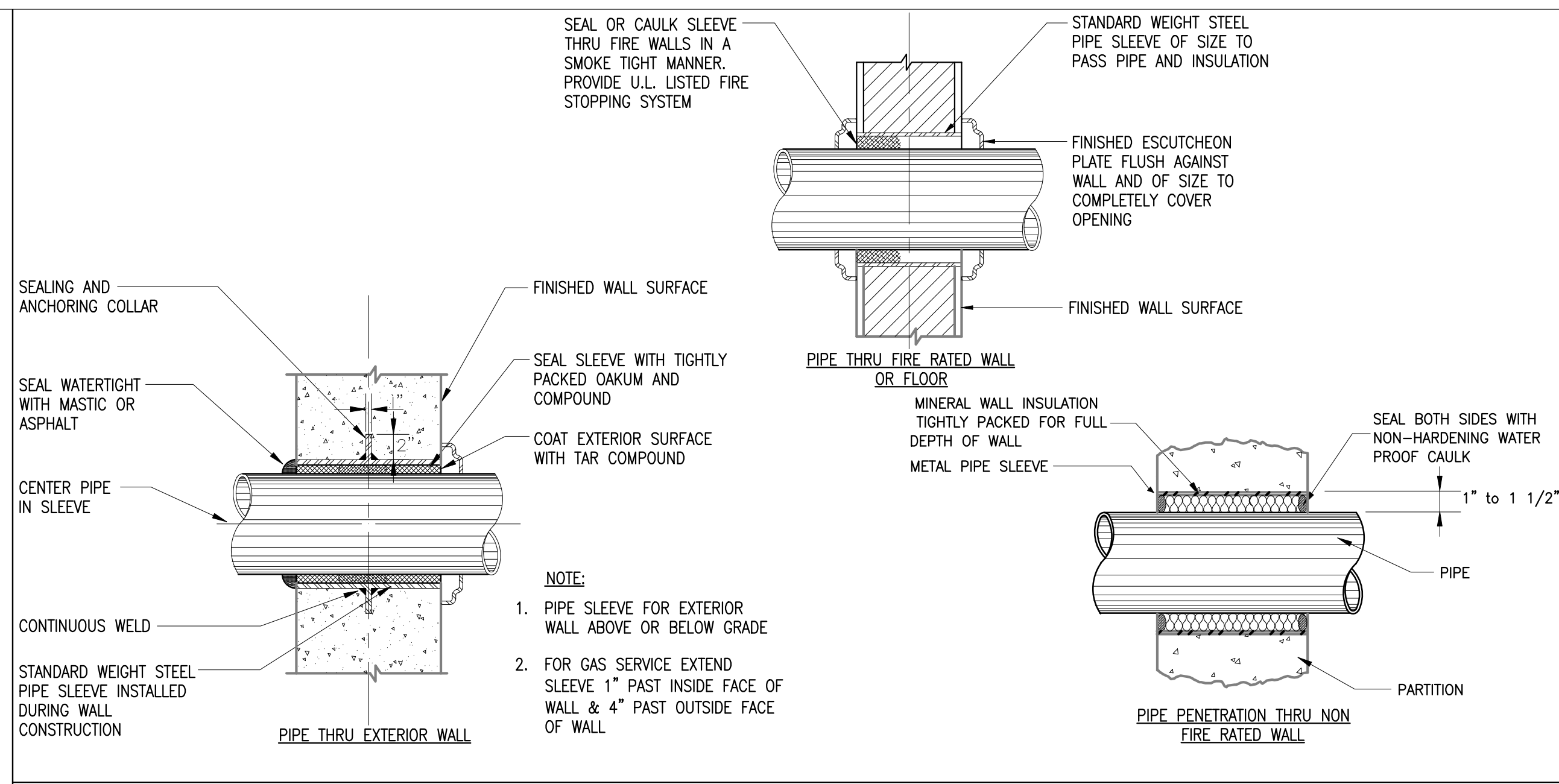
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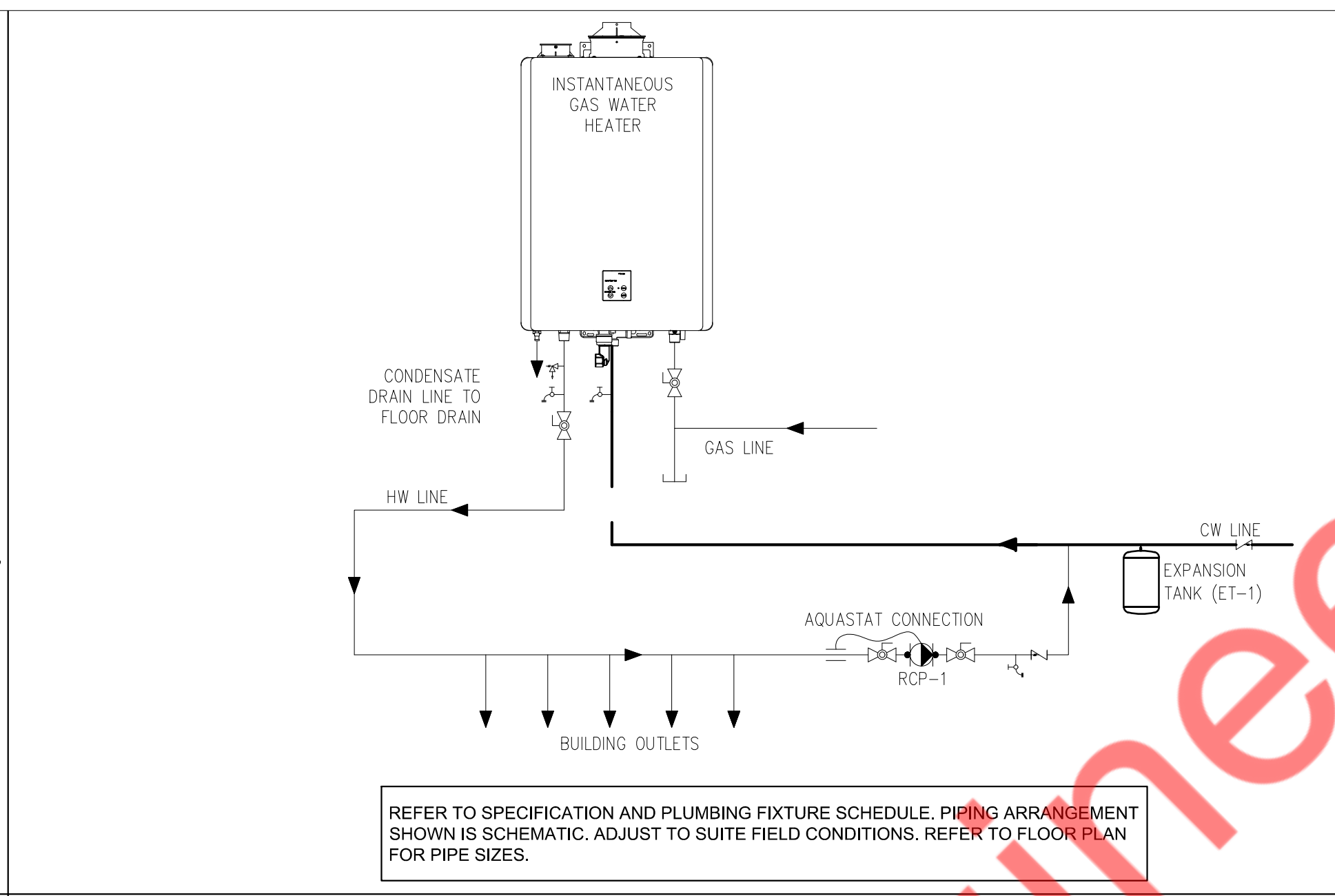
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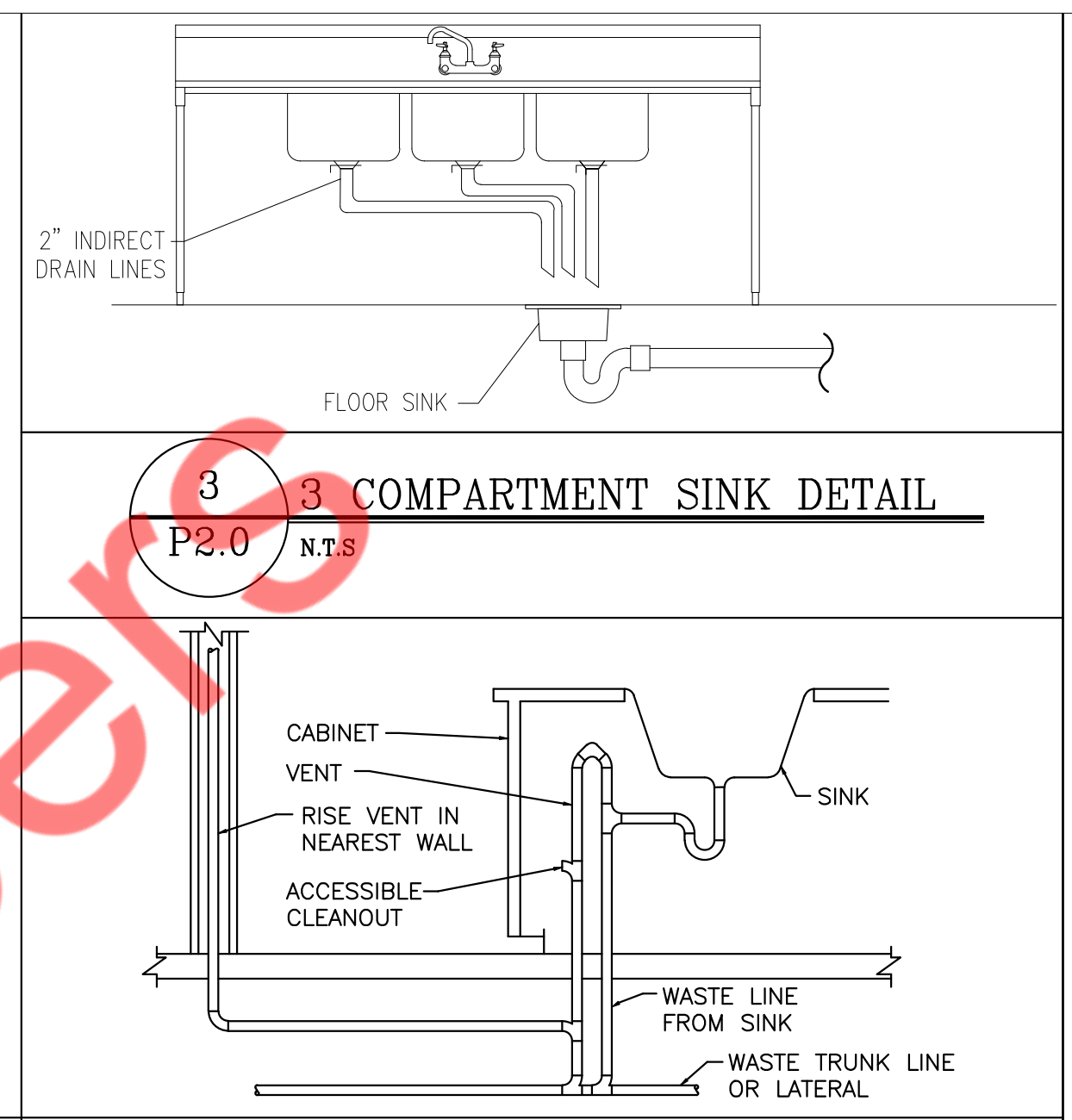
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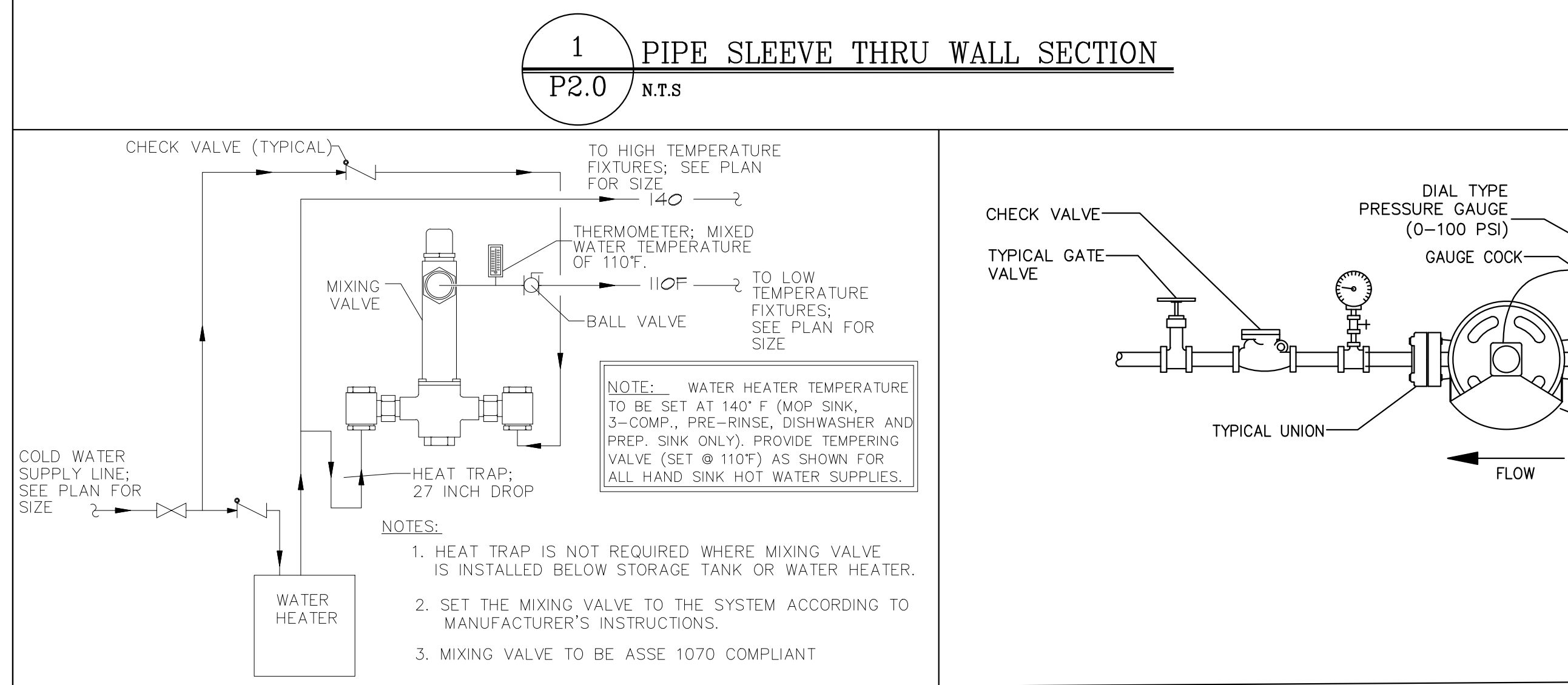
**1** PIPE SLEEVE THRU WALL SECTION  
P2.0 N.T.S



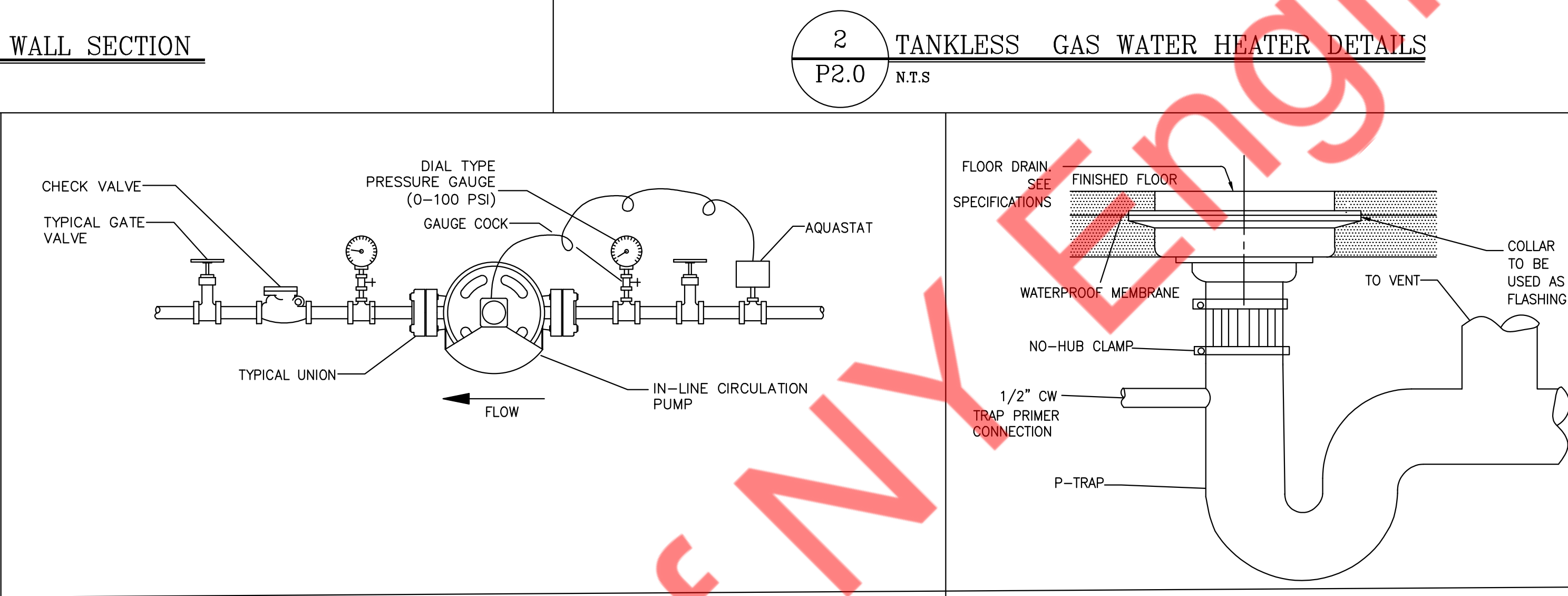
**2** TANKLESS GAS WATER HEATER DETAILS  
P2.0 N.T.S



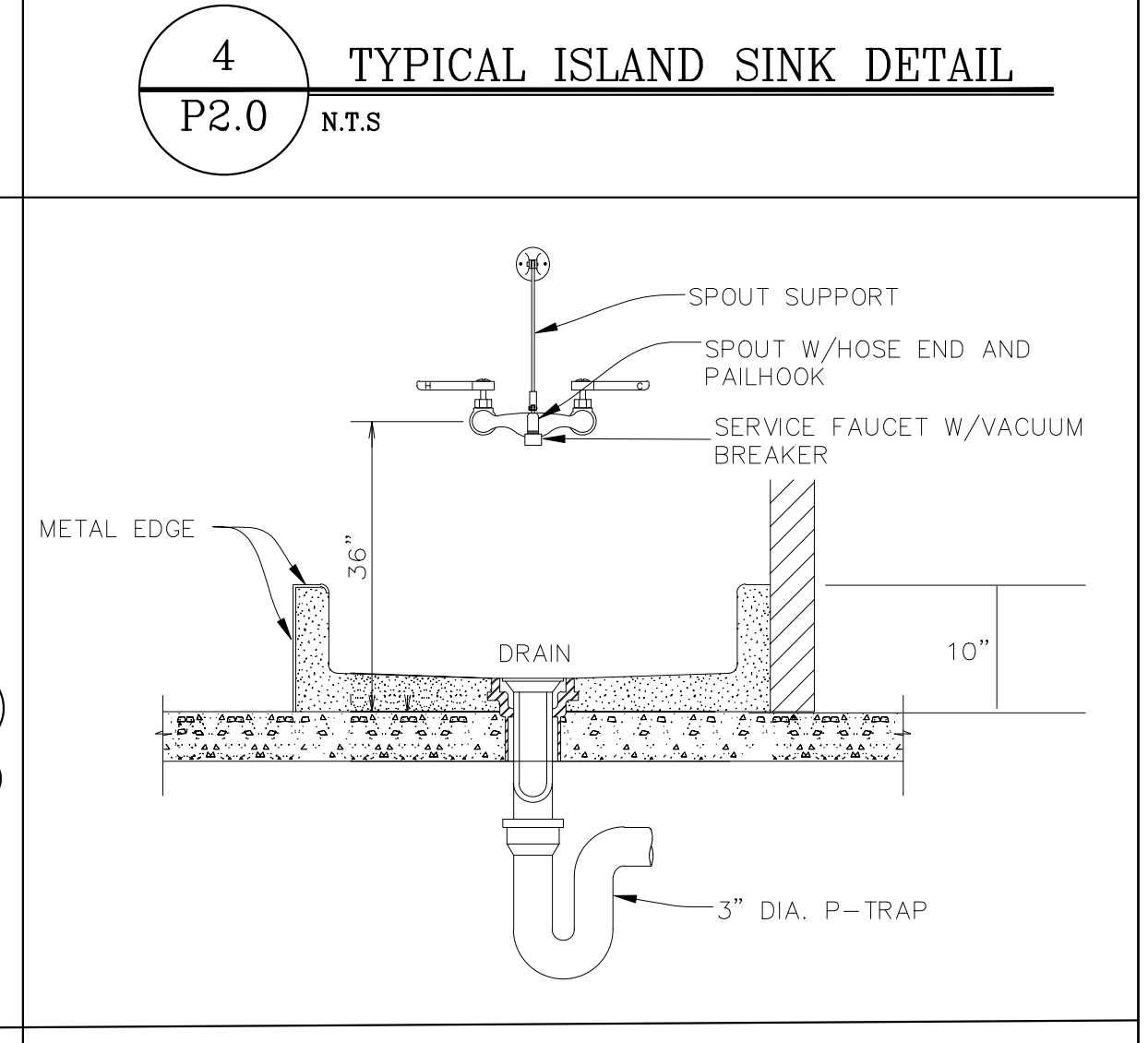
**3** 3 COMPARTMENT SINK DETAIL  
P2.0 N.T.S



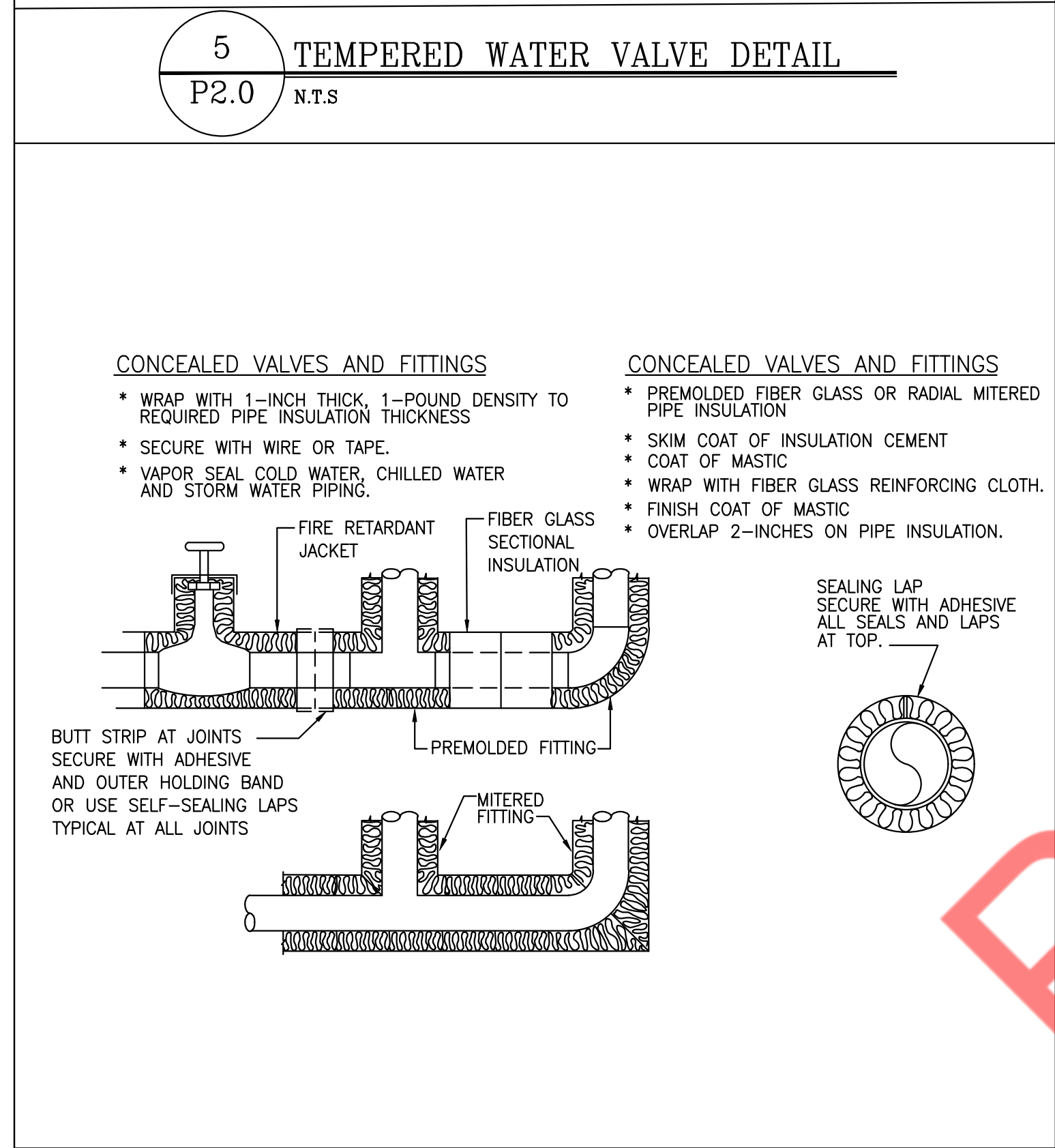
**5** TEMPERED WATER VALVE DETAIL  
P2.0 N.T.S



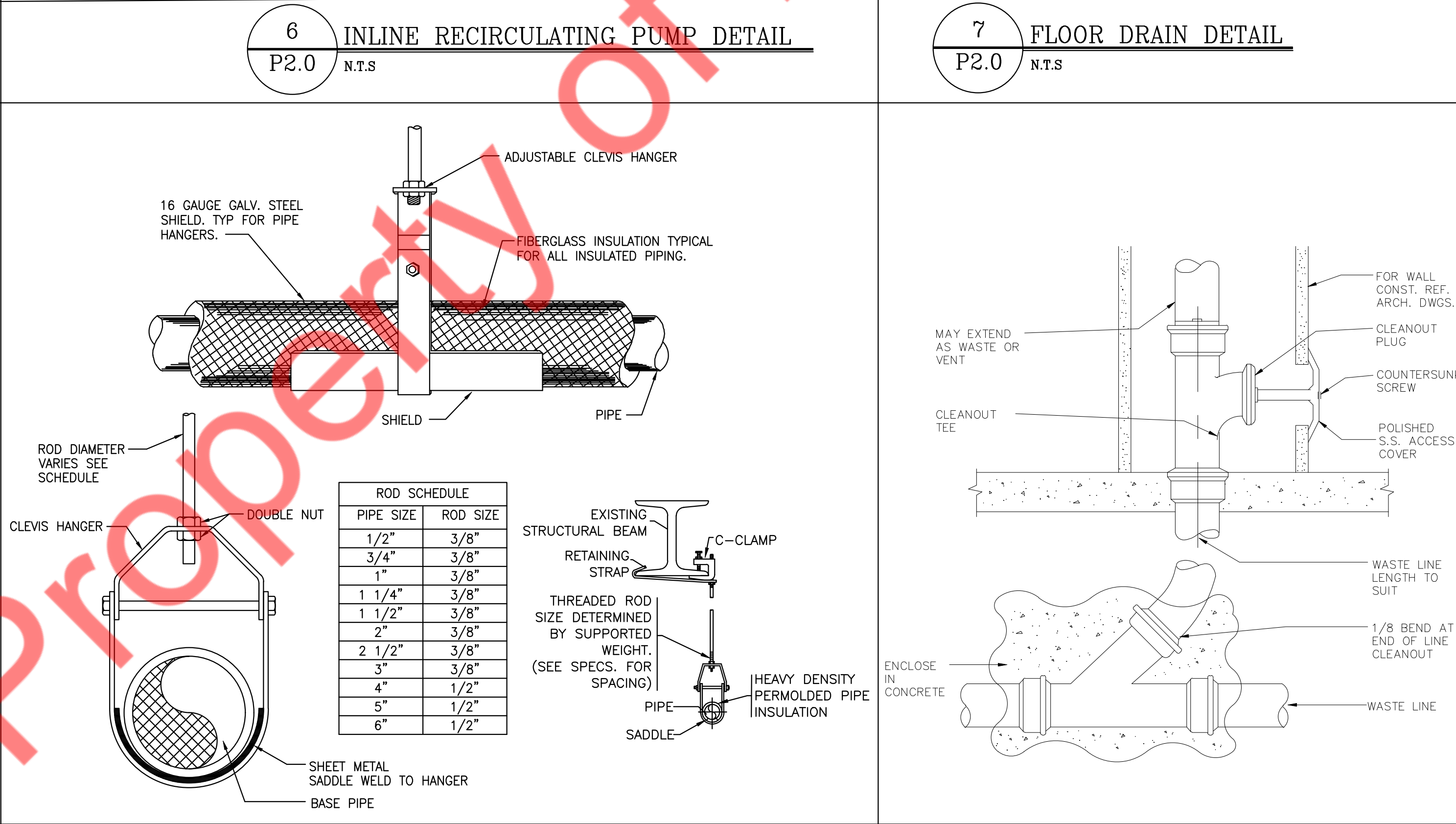
**6** INLINE RECIRCULATING PUMP DETAIL  
P2.0 N.T.S



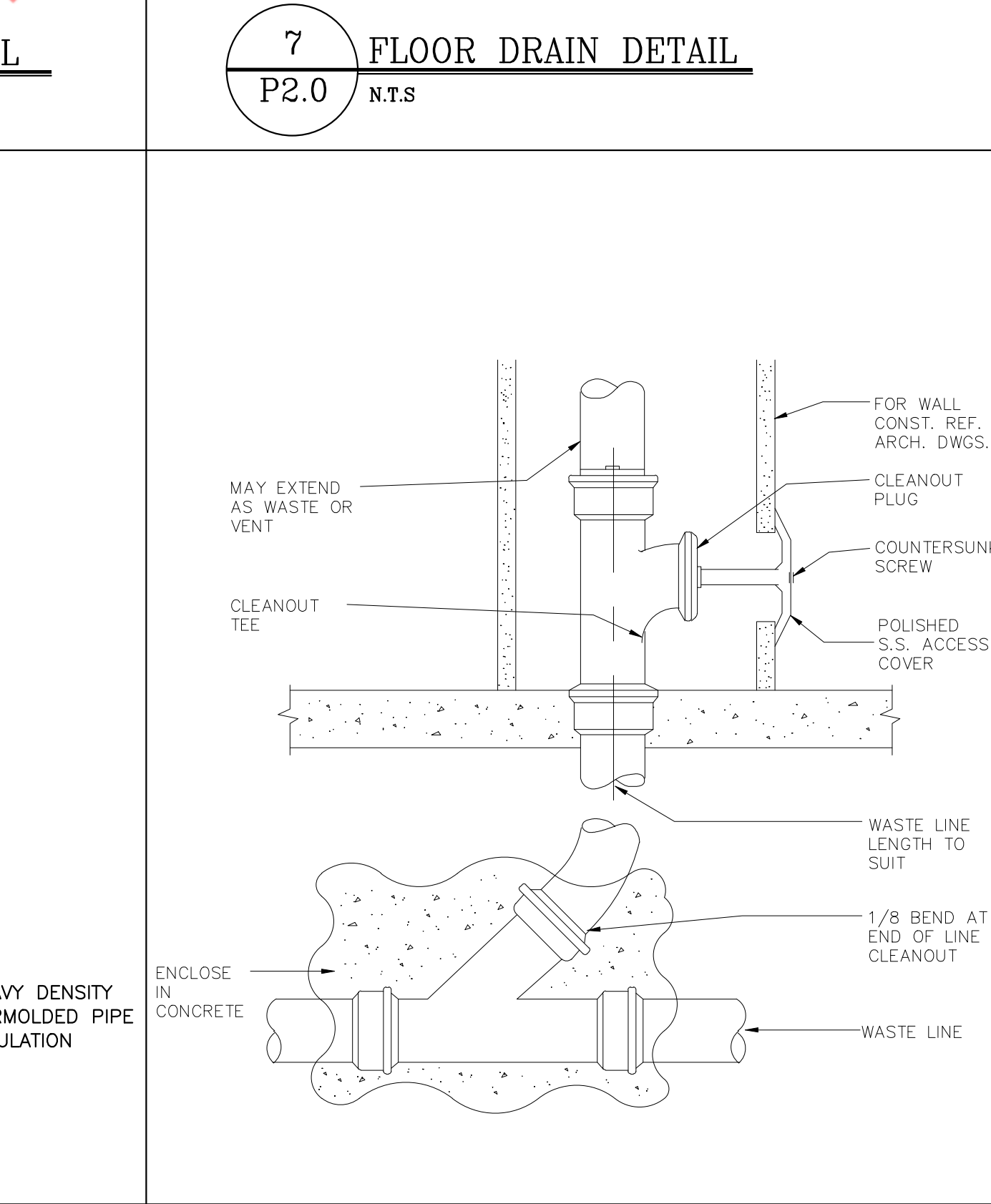
**8** MOP SINK DETAIL  
P2.0 N.T.S



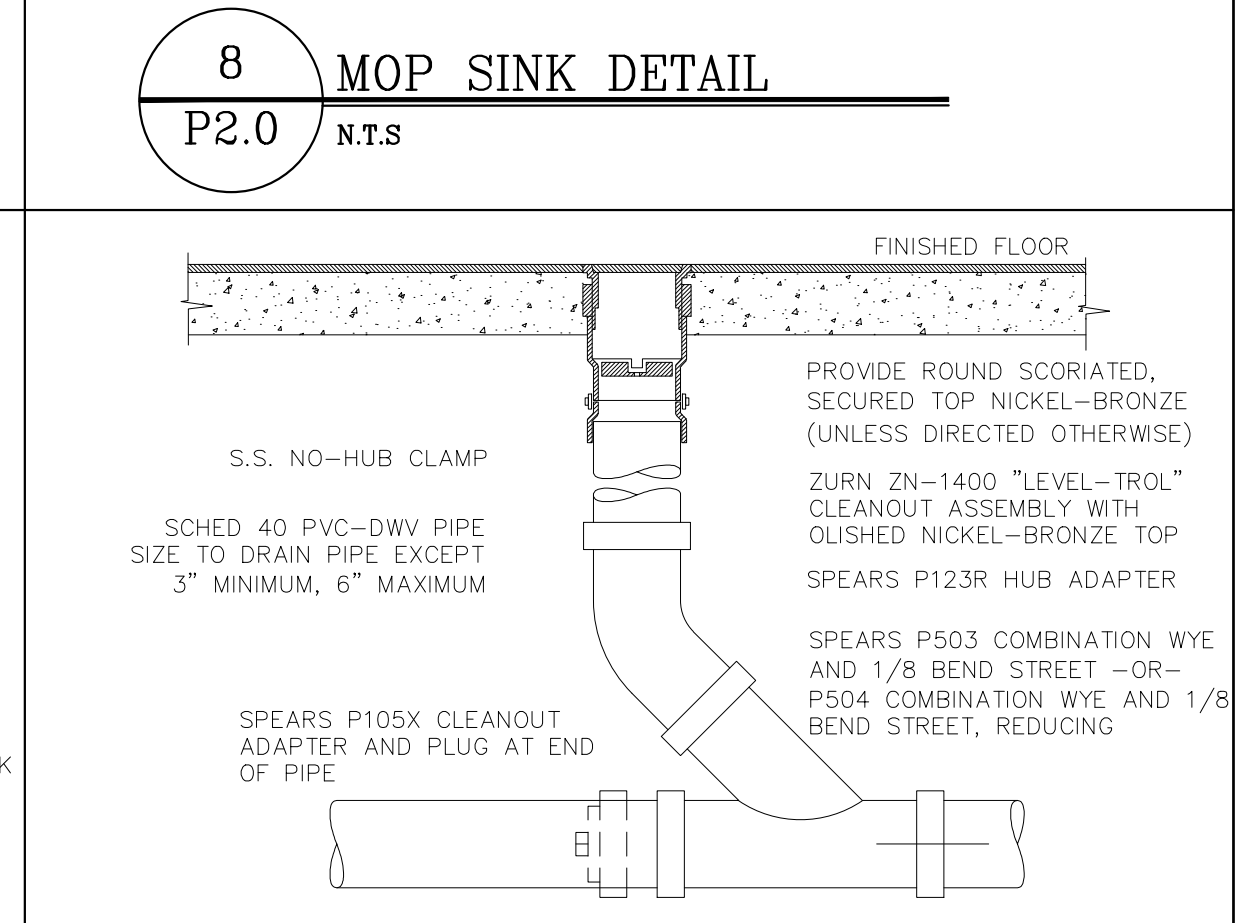
**9** INSULATION OF PIPING, VALVES AND FITTINGS FOR EXPOSED AND CONCEALED LOCATIONS  
P2.0 N.T.S



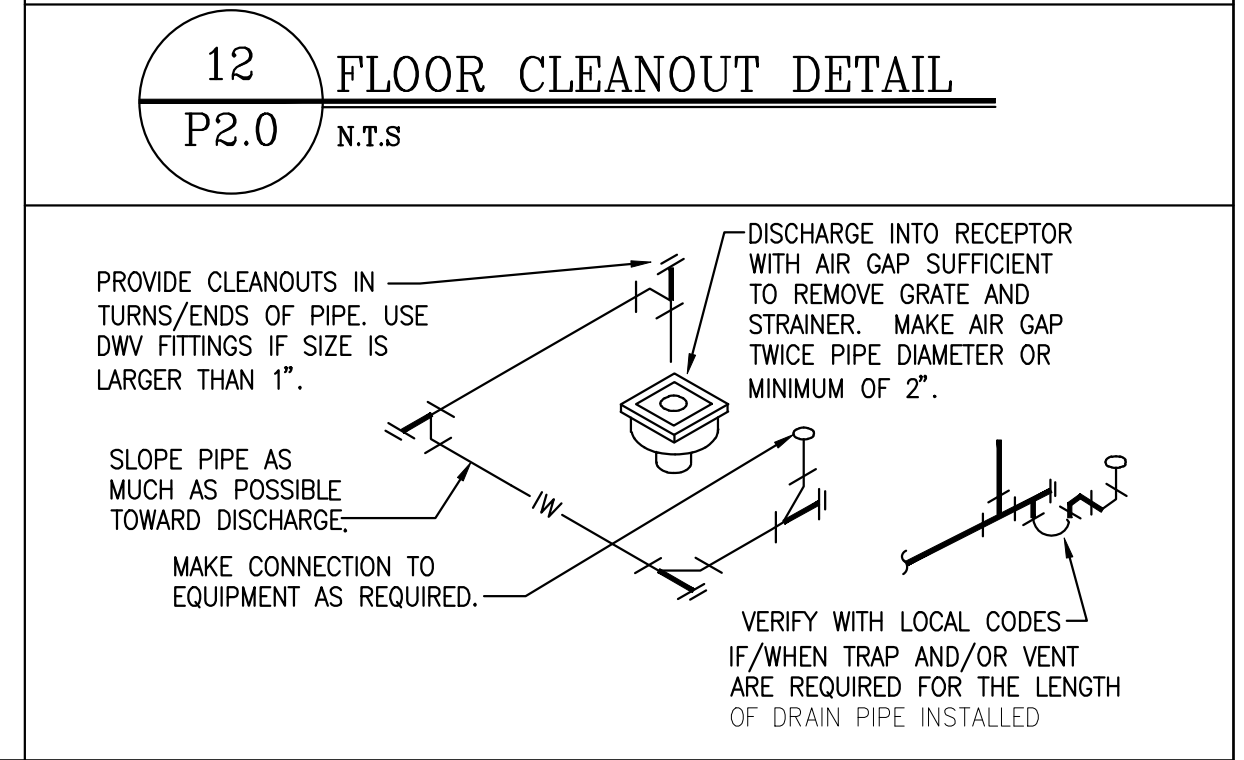
**10** HANGER DETAIL  
P2.0 N.T.S



**11** WALL CLEAN OUT DETAIL  
P2.0 N.T.S



**12** FLOOR CLEANOUT DETAIL  
P2.0 N.T.S



**13** INDIRECT WASTE CONNECTION DETAIL  
P2.0 N.T.S

**SHEET HISTORY SCHEDULE**

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**TENANT INTERIOR BUILD-OUT**

**MOTOMEDI**

DRAWN BY:

QAQC:

APPROVED BY:

PROJECT NUMBER:

**PLUMBING DETAILS**

**P2.0**

PLUMBING FIXTURE AND KITCHEN EQUIPMENT SCHEDULE

FIXTURE	QTY.	EQUIPMENT CATEGORY	MANUFACTURER	MODEL	TRAP	SOIL/WASTE		VENT	CW	HW	THERMOSTATIC MIXING VALVE	REMARKS
						DIRECT	INDIRECT					
P01	2	LAVATORY FAUCET	TBD	TBD	-	-	-	-	1/2"	1/2"	PROVIDE	-
P02	2	LAVATORY	AMERICAN STANDARD	9024901EC.020	1 1/4"	-	-	1 1/2"	-	-	-	-
P04	2	WATER CLOSET	TBD	TBD	-	4"	-	2"	1"	-	-	FLUSH VALVE
E01	1	PRODIGY ICE MACHINE	SCOTSMAN ICE	NS0622A-32	-	-	3/4"	-	3/4"	-	-	INDIRECT WASTE TO ADJACENT FLOOR SINK.
E02	1	BLAST CHILLER / SHOCK FREEZER	IRINOX NORTH AMERICA	EASYFRESH NEXT SL	-	-	1 1/4"	-	-	-	-	INDIRECT WASTE TO ADJACENT FLOOR SINK.
E03	1	HOSE REEL	T&S BRASS AND BRONZE WORKS, INC.	B-7142-C05	-	-	-	-	1/2"	-	-	WATER PROOF WALL AND FLOOR MEMBRANE SYSTEM REQUIRED IN ALL WET AREAS. AT THOSE LOCATIONS.
E04	1	POT FILLER	T&S BRASS AND BRONZE WORKS, INC.	B-0592	-	-	-	-	1/2"	-	-	-
E07	1	ELECTRICAL COMBI-STEAMER	RATIONAL AG	ICOMBI CLASSIC 6-1/1 E	-	-	2"	-	3/4"	-	-	-
E08	1	ELECTRICAL COMBI-STEAMER	RATIONAL AG	ICOMBI PRO 6-1/1 E ON ICOMBI PRO 10-1/1 E ASSEMBLY	-	-	2"	-	3/4"	-	-	-
E13.1	1	FAUCET, SPLASH MOUNT	JHON BOOS	PBF-4-S-LF-X	-	-	-	-	3/4"	3/4"	-	-
E23	1	3-COMPARTMENT SINK	ADVANCE TABCO	FC-3-1824-18RL	-	-	1	-	3/4"	3/4"	-	INDIRECT WASTE TO ADJACENT FLOOR SINK.
E24	1	KETTLE FAUCET	BK RESOURCES	BKF-SSMPF-G	-	-	-	-	1/2"	-	-	-
E34	1	MOP SINK	-	-	3"	3"	-	2"	3/4"	3/4"	-	-
E36	1	7 INCH WIDE REVEAL TRENCH DRAIN SYSTEM WITH 6 INCH WIDE GRATE AND V BOTTOM	ZURN WATER, LLC	Z890	4"	4"	-	2"	-	-	-	WATER PROOF WALL AND FLOOR MEMBRANE SYSTEM REQUIRED IN ALL WET AREAS. AT THOSE LOCATIONS.
E37	3	6.25 WIDE REVEAL TRENCH DRAIN SYSTEM	ZURN WATER, LLC	Z886	4"	4"	-	2"	-	-	-	WATER PROOF WALL AND FLOOR MEMBRANE SYSTEM REQUIRED IN ALL WET AREAS. AT THOSE LOCATIONS.
WS-1	2	WORK STATION SINK	-	-	-	2"	-	-	1/2"	1/2"	-	-
FS-1	1	FLOOR SINK	-	-	3"	3"	-	2"	-	-	-	WATER PROOF WALL AND FLOOR MEMBRANE SYSTEM REQUIRED IN ALL WET AREAS. AT THOSE LOCATIONS.
FD-1	1	FLOOR DRAIN	-	-	3"x4"	3"x4"	-	2"	-	-	-	WATER PROOF WALL AND FLOOR MEMBRANE SYSTEM REQUIRED IN ALL WET AREAS. AT THOSE LOCATIONS.

WATER CALCULATION

FIXTURE	QTY.	EQUIPMENT CATEGORY	UNITS PER FIXTURE			TOTAL		
			CW	HW	TOTAL	CW	HW	TOTAL
P01	2	LAVATORY FAUCET	1.5	1.5	2	3	3	4
P03	2	WATER CLOSET	10	-	10	20	-	20
E01	1	ICE MACHINE	0.5	-	0.5	0.5	-	0.5
E03	1	HOSE REEL	2	-	2	2	-	2
E04	1	POT FILLER	2	-	2	2	-	2
E04	1	3 COMPARTMENT SINK	3	3	4	3	3	4
E07&E08	2	OVEN	0.5	-	0.5	1	-	1
E13.1	1	FAUCET	1	1	1.4	1	1	1.4
E24	1	KETTLE FAUCET	2	-	2	2	-	2
E34	1	MOP SINK & FAUCET	2.25	2.25	3	2.25	2.25	3
HS-1	2	STATION SINK	1	1	1.4	2	2	2.8
TOTAL FIXTURE UNITS			38.75	11.25	42.7			
TOTAL FIXTURE UNITS			-42.7 = 46GPM					

WSFU VALUES AS PER IPC -2018, APPENDIX E, SECTION 103, TABLE 103.3(2).  
FOR 46 GPM CALCULATED PIPE SIZE IS 2"

TANKLESS WATER HEATER SCHEDULE

ITEM	QUANTITY	MANUFACTURER & MODEL NO	AREA SERVED	INPUT (BTU/h)	ENERGY FACTOR	ACTIVATION FLOW (GPM)	RECOVERY RATE (GPM)
WH-1	1	NORITZ & NCC199-SV	LAVS / KITCHEN	199,900	0.97	0.01	5.3

NOTES:  
1. 70°F TEMPERATURE RISE WITH 140°F OPERATING TEMPERATURE.  
2. FURNISH WITH FACTORY CONCENTRIC COMBUSTION AIR INTAKE AND EXHAUST KIT.

RECIRCULATING PUMP SCHEDULE

ITEM	QUANTITY	GPM	TOTAL HEAD(FT)	MOTOR HP	MANUFACTURER & MODEL NO	REMARK
RCP-1	1	2	10	0.03	GRUNDFOS UP 15-10 B5	PROVIDE AQUASTAT AND TIMER KIT FOR CONTROL

EXPANSION TANK SCHEDULE

TAG	LOCATION	SERVICE	TANK VOLUME (GALLONS)	MAX. ACCEPT VOLUME (GALLONS)	MANUFACTURER & MODEL	DIMENSION (DIA X HEIGHT)
ET-1	REFER FLOOR PLANS	HW	2	0.9	THERM-X-TROL & ST-5	8"x13"

GAS PIPE SIZING PER INTERNATIONAL FUEL GAS CODE 2018

INLET PRESSURE- LESS THAN 2 PSI  
SPECIFIC GRAVITY- 0.6  
PRESSURE DROP 0.5" WC

EQUIVALENT LENGTH OF PIPE =  
109 + FITTINGS (+40%) = 153 FEET

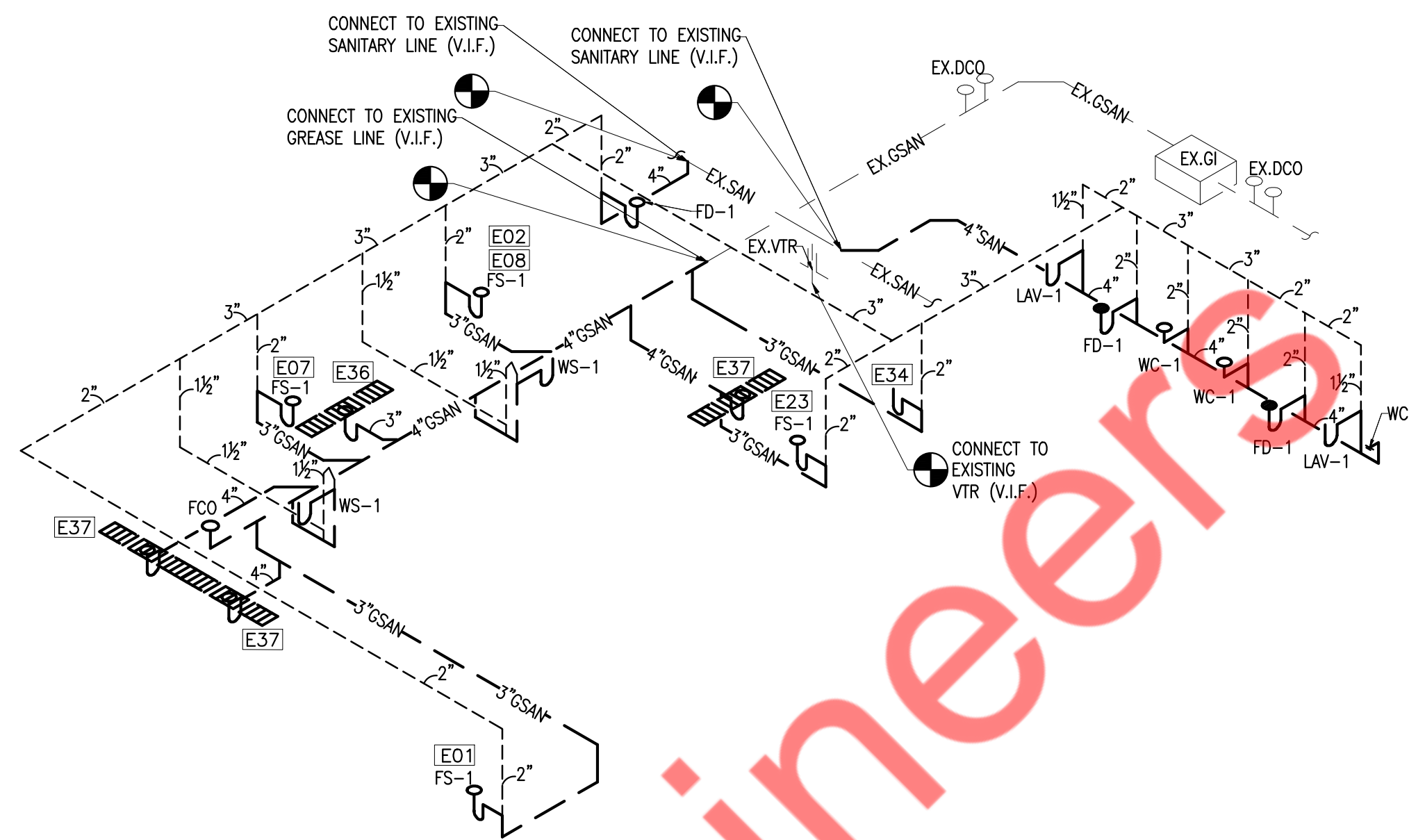
- GAS NOTE:  
1. PROVIDE SHUT-OFF VALVE AN ACCESSIBLE LOCATION. PROVIDE GAS PRESSURE REGULATOR FOR ALL GAS EQUIPMENT IF REQUIRED.  
2. CONTRACTOR SHALL VERIFY ACTUAL GAS PRESSURE AND LONGEST LENGTH OF RUN TO FARTHEST APPLIANCE PRIOR TO INSTALLATION AND NOTIFY ENGINEER IF CONDITION DIFFER THAN SHOWN ON THIS PLAN.

GREASE INTERCEPTOR SIZING

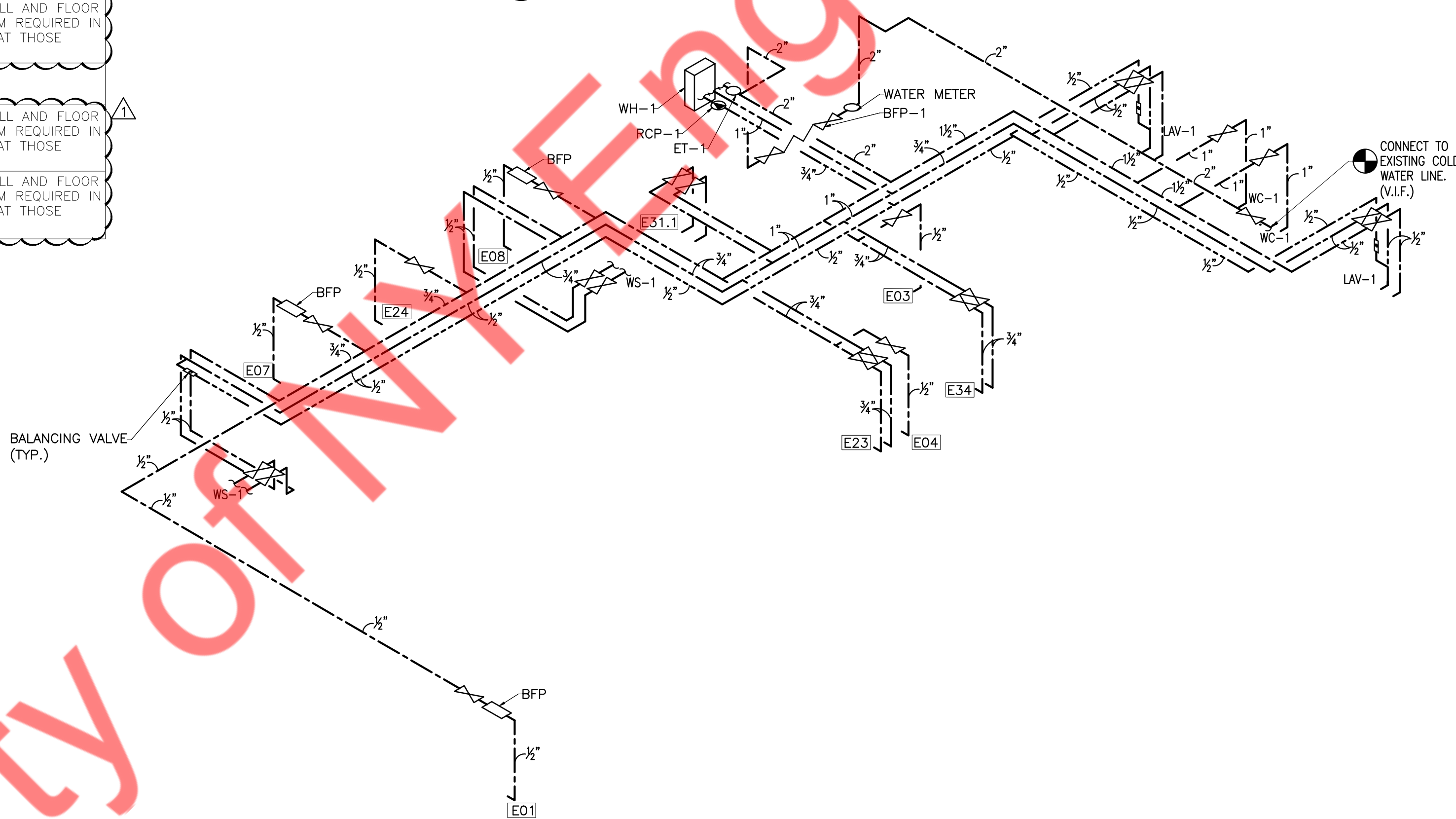
FIXTURE	QTY	DIMENSIONS			VOLUME CU.IN	GALLONS	%USAGE	GPM	GPM
		LENGTH	WIDTH	DEPTH					
3 COMPARTMENT SINK	01	24	18	14	18144	78.5	0.75	58.9	29.5
DISH TABLE SINK	02	18	10	5	1800	7.8	0.75	5.8	2.9
MOP SINK	01	24	24	10	5760	24.9	0.75	18.7	9.4
OVEN	02	-	-	-	-	-	-	8.0	4.0
FLOOR SINK	02	-	-	-	-	-	-	5.0	2.5
TRENCH DRAIN	04	-	-	-	-	-	-	12.0	6.0
TOTAL GPM								108.5	54.2

GAS LOAD SUMMARY

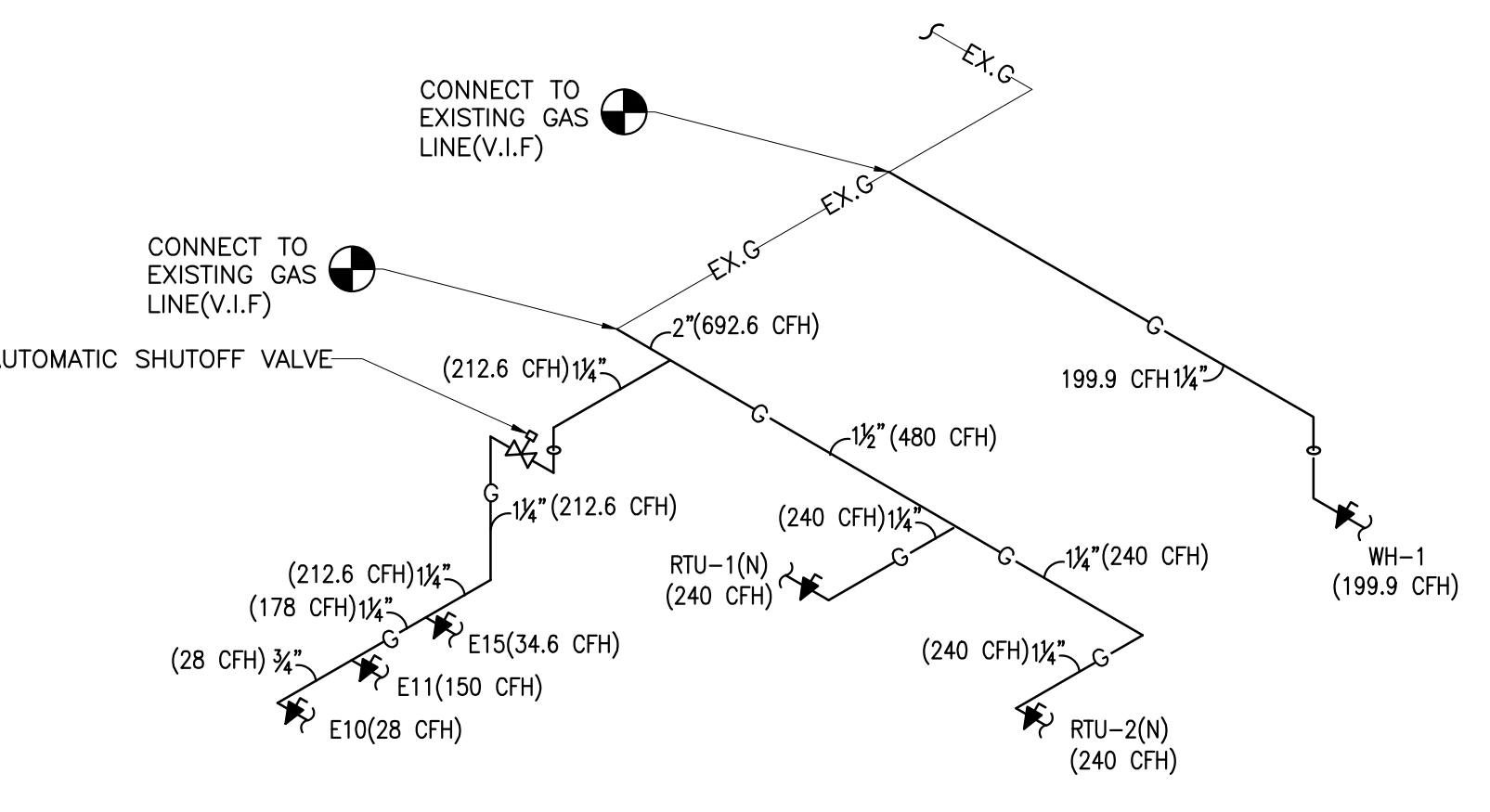
TAG NO.	QTY.	DESCRIPTION	MANUFACTURER	MODEL	SIZE	BTU/HR.	TOTAL BTU/HR.
E10	1	GAS GRIDDLE	VOLLRATH	GGMDM-12	3/4"	28,000	28,000
E11	1	GAS FRYER	VULCAN	LG500	1"	150,000	150,000
E15	1	RICE/GRAIN COOKER	TOWN	RM-55N-R	3/4"	34,600	34,600
RTU-1(N)	1	ROOF TOP UNIT	DAIKIN	DFG1503DH00001S	1-1/4"	240,000	240,000
RTU-2(N)	1	ROOF TOP UNIT	DAIKIN	DFG1203DH00001S	1-1/4"	240,000	240,000
WH-1	1	WATER HEATER	NORITZ	NCC199-SV	1-1/4"	199,900	199,900
TOTAL LOAD						892,500	



1 SANITARY AND VENT RISER  
P3.0 SCALE: NTS



2 DOMESTIC WATER RISER  
P3.0 SCALE: NTS



3 GAS RISER  
P3.0 SCALE: NTS

GAS PIPE SIZING	
TOTAL CFH	150 FEET
SIZE	CFH
3/4"	83
1"	157
1 1/4"	322
1 1/2"	482
2"	928
2 1/2"	1480
3"	2610

- GENERAL NOTE:  
1. ANY NEW GAS PIPE ON THE ROOF SHALL BE PLACED ON PIPE STANDS WITH ROLLERS MODEL 3-RAH-8 FROM MIRO INDUSTRIES WITH ROOF PADS.

SHEET HISTORY SCHEDULE

PERMIT SET	2026-01-12
REVISION 1	2026-01-27

ISSUE DATE: 01/27/2026

TENANT INTERIOR BUILD-OUT

MOTOMEDI

DRAWN BY:  
QAQC:  
APPROVED BY:  
PROJECT NUMBER:

PLUMBING SCHEDULES AND RISERS  
P3.0