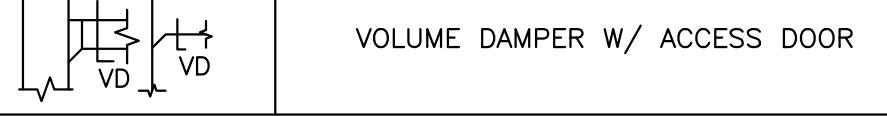


PAPER RICE

MECHANICAL SYMBOLS LIST	
AC-1	TXF-D
	EQUIPMENT SYMBOL
XX	RISER SYMBOL
AIR DEVICES	
□	CEILING DIFFUSER SUPPLY
□	CEILING DIFFUSER RETURN
DUCT ACCESSORIES	
	VOLUME DAMPER W/ ACCESS DOOR
CONTROLS AND SENSORS	
①	THERMOSTAT
DUCTWORK	
=====	AIR DUCT W/ 1.5" ACOUSTICAL LINING
~~~~~	FLEXIBLE DUCT
FC FC	FLEXIBLE CONNECTION
24X12	RECTANGULAR DUCT (WIDTH X DEPTH)
Φ12	ROUND DUCT (DIAMETER)
◎	ROUND DUCT CROSS SECTION
☒	SUPPLY AIR RECTANGULAR DUCT CROSS SECTION
☒	RETURN AIR RECTANGULAR DUCT CROSS SECTION
MECHANICAL DRAWING LIST	
M.001	MECHANICAL GENERAL NOTES
M.002	MECHANICAL SPECIFICATIONS
M.101	MECHANICAL FLOOR PLAN, SCHEDULES & DETAILS

CALIFORNIA ENERGY CONSERVATION CODE-2022 COMPLIANCE  
TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND JUDGEMENT, THESE PLANS AND SPECIFICATION ARE IN COMPLIANCE WITH THE CALIFORNIA ENERGY CONSERVATION CODE-2022.

## SCOPE OF WORK

SCOPE OF WORK  
1. 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 PLANS, SECTION, DETAIL DRAWINGS, NOTES, RFTS, ETC. FOR THIS PROJECT. WORK SHALL BE INSTALLED IN A NEAT, WORKMANLIKE MANNER.  
2. 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 ALL PARTS OF THE WORK AS 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.  
3. THE CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES OF REPAIR AND REPAIR OF 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, PROVIDED THAT THE OWNER, THE CONTRACTOR 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	
GFNFR:	
1.	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.
2.	CONTRACT DOCUMENT DRAWINGS FOR MECHANICAL WORK (HVAC, PLUMBING, AND FIRE PROTECTION) ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.
3.	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 PROFESSIONAL CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
4.	WHEN MECHANICAL WORK (HVAC, PLUMBING, SHEET METAL, FIRE PROTECTION, ETC.) IS SUBCONTRACTED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 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.
5.	COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
6.	INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
7.	WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED.
8.	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.

## GENERAL NOTES

- CONTRACTOR SHALL SURVEY THE AREA OF THIS WORK BEFORE SUBMITTING A BID AND SHALL BE RESPONSIBLE FOR NOTIFYING MPD 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. THE CONTRACTOR WILL 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 OBLIGATED TO PAY THE OWNER, 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 PREDICTED ON THE PERFORMANCE OF THE WORK DURING REGULAR WORKING HOURS. WHERE SO DIRECTED, HOWEVER, THE CONTRACTOR SHALL WORK OVERNIGHT AND THE ADDITIONAL COST TO BE CHARGED THEREFOR SHALL BE ONLY THE "PREMIUM" PORTION OF THE WAGES PAID.
- CONTRACTOR SHALL ASCERTAIN THE APPROPRIATE METHOD FOR BENDING THE UNIT INTO AND THROUGH THE BUILDING AND POSITION UNIT AS LOW AS DOWN ON THE FLOORS, 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.
- WHERE PENETRATIONS THROUGH FIRE RATED WALLS ARE NOT FIRE PROOFED THIS CONTRACTOR SHALL BE RESPONSIBLE TO SEAL SAME TO MAINTAIN THE RATED INTEGRITY.
- 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 AS REQUIRED.
- 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.
- 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.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK WITH ITS COMPLETION AND FINAL ACCEPTANCE AND SHALL REPLACE ANY PARTS WHICH MAY BE DAMAGED, LOST, OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FAILURE OF ANY EQUIPMENT TO FUNCTION PROPERLY UPON COMPLETION OF HIS WORK UPON SAID SYSTEM OR EQUIPMENT.
- SUBMIT SHOP DRAWING OF ALL WORK WHICH MUST BE APPROVED BY THE MPD AND ENGINEER BEFORE WORK COMMENCES.
- ALL MATERIAL AND EQUIPMENT TO BE NEW UNLESS OTHERWISE NOTED AND SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
- SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE CONDITIONS OF THE EXISTING BUILDING EQUIPMENT AND WORK AFFECTED BY THIS WORK AND THE ACCESS TO SUCH SPACES, HAS BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. LATENT CLAIMS SHALL NOT BE MADE FOR LABOR, EQUIPMENT, OR MATERIALS SHIPPED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN DURING SUCH AN EXAMINATION. THE ON-SITE INSPECTION SHALL VERIFY EXISTING DUCTWORK, PIPING (SIZES, CLEARANCES, ETC) AND CONDITIONS.
- INSURANCE: IN ACCORDANCE WITH BUILDING REQUIREMENTS THE CONTRACTOR SHALL INCLUDE A HOLD HARMLESS CLAUSE FOR OWNER AND ENGINEER.
- THE FINAL ACCEPTANCE WILL BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS EQUIPMENT TO MEET THE VARIOUS SYSTEMS DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS AND HAS FURNISHED ALL THE REQUIRED CERTIFICATES OF INSPECTION AND APPROVAL.
- SPECIFICATIONS ARE OF SIMPLIFIED FORM AND INCLUDE INCOMPLETE SENTENCES, WORDS OR PHRASES SUCH AS "THE CONTRACTOR SHALL," "SHALL BE," "FURNISH," "PROVIDE," "A," "THE," AND "ALL" HAVE BEEN OMITTED FOR BREVITY.

## SPECIFICATIONS

### SECTION 0001 - NOTICE TO BIDDERS

- 1.1 BIDDERS REPRESENTATIONS
  - A. THE BIDDER BY MAKING A BID REPRESENTS THAT: THE BIDDER HAS READ AND UNDERSTANDS THE BIDDING DOCUMENTS, TO THE EXTENT THAT SUCH DOCUMENTATION RELATES TO THE WORK FOR WHICH THE BID IS SUBMITTED, AND FOR OTHER PORTIONS OF THE PROJECT, IF ANY, BEING BID CONCURRENTLY OR PRESENTLY UNDER CONSTRUCTION.
  - B. THE BID IS MADE IN COMPLIANCE WITH THE BIDDING DOCUMENTS.
  - C. THE SPECIFICATIONS AND DRAWINGS ARE INTENDED TO SERVE JOINTLY AS A BASIS FOR THE BIDDER TO SUBMIT A CONTRACT PRICE FOR THE MATERIAL AND LABOR.
  - D. SHOULD CONFLICTS OR DISCREPANCIES OCCUR WITHIN THE BIDDING DOCUMENTS, THE ITEM OR ITEMS IN DISPUTE THAT REPRESENT THE GREATER COST SHALL PREVAIL IN THE FINAL BID.
  - E. THE BID IS BASED UPON THE MATERIALS, EQUIPMENT AND SYSTEMS REQUIRED BY THE BIDDING DOCUMENTS WITHOUT EXCEPTION.

### 1.2 EXISTING CONDITIONS AND COORDINATION

- A. THE BIDDER HAS VISITED THE SITE, BECOME FAMILIAR WITH LOCAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND HAS CORRELATED THE BIDDER'S PERSONAL OBSERVATIONS WITH THE REQUIREMENTS OF THE PROPOSED BIDDING DOCUMENTS.
- B. THE BIDDER SHALL PROPOSE COORDINATION OF WORK SUCH THAT CONFLICTS WITH OTHER TRADES AND SPACE ALLOCATIONS ARE AVOIDED.
- C. THE BIDDER UNDERSTANDS THAT ANY CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE TIMELY COMPLETION AND ACCEPTANCE OF THEIR WORK AND THAT ANY ITEMS DAMAGED, LOST OR STOLEN DURING TIME OF CONSTRUCTION SHALL BE REPAIRED OR REPLACED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- D. THE BIDDER UNDERSTANDS THAT ANY PROPOSED WORK IN OCCUPIED TENANT SPACES SHALL BE PERFORMED DURING TIMES OF NON-TENANT OCCUPANCY OR AS SCHEDULED OR DIRECTED BY THE BUILDING MANAGER.
- E. THE BIDDER UNDERSTANDS THAT ANY PROPOSED SHUT-DOWN OF EXISTING SYSTEMS DURING CONSTRUCTION SHALL BE PRE-ARRANGED WITH THE BUILDING MANAGER AND THAT SUCH SHUT-DOWNS ARE TO BE KEPT TO A MINIMUM.

END OF SECTION 0001

### SECTION 0101 - QUALITY OF WORK

- 1.1 WORKMANSHIP
  - A. ALL WORK SHALL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.
  - B. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ARCHITECT OR BUILDING MANAGER AT NO ADDITIONAL COST TO THE OWNER.
  - C. UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL REMOVE FROM THE SITE ALL TOOLS, DEMOLISHED APPLIANCES AND ANY SURPLUS MATERIAL.
- 1.2 CODE COMPLIANCE
  - A. ALL WORK SHALL MEET ALL STATE AND LOCAL CODES HAVING JURISDICTION.

END OF SECTION 0101

### SECTION 0101 - QUALITY OF WORK

- 1.1 WORKMANSHIP
  - A. ALL WORK SHALL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.
  - B. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ARCHITECT OR BUILDING MANAGER AT NO ADDITIONAL COST TO THE OWNER.
  - C. UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL REMOVE FROM THE SITE ALL TOOLS, DEMOLISHED APPLIANCES AND ANY SURPLUS MATERIAL.
- 1.2 CODE COMPLIANCE
  - A. ALL WORK SHALL MEET ALL STATE AND LOCAL CODES HAVING JURISDICTION.

END OF SECTION 0101

### SECTION 0102 - REQUIRED DOCUMENTS

- 1.1 SHOP DRAWINGS
  - A. A SET OF PRINTS FOR ANY MECHANICAL WORK INCLUDING BUT NOT LIMITED TO, DUCTWORK AND PIPING LAYOUT SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER PRIOR TO CONSTRUCTION OR PURCHASE OF MATERIALS.
- 1.2 SUBMITTALS
  - A. EQUIPMENT SUBMITTALS OF ALL PROPOSED MECHANICAL AND AUXILIARY EQUIPMENT INCLUDING ALL ACCESSORIES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW ALL PERTINENT MODELS, SIZES, ACCESSORIES AND CHOICES SHALL BE CLEARLY CHECKED, PRINTED OR OTHERWISE INDICATED ON THE SUBMITTALS.

- 1.3 RECORD DRAWINGS
  - A. UPON COMPLETION OF THE WORK, A RECORD DRAWING SHALL BE SUBMITTED TO THE OWNER DEPICTING ALL SUBSEQUENT CHANGES, ADDITIONS AND OR CORRECTIONS TO THE CONTRACT DRAWINGS AND OR CONTRACT SCOPE MADE DURING CONSTRUCTION. THIS DRAWING SHALL REPRESENT A COMPLETE RECORD OF THE WORK INSTALLED.

- 1.4 EQUIPMENT OPERATING INSTRUCTIONS
  - A. ON COMPLETION AND ACCEPTANCE OF WORK, THIS CONTRACTOR SHALL FURNISH WRITTEN INSTRUCTIONS, 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. THE CONTRACTOR SHALL GIVE THREE COPIES OF THE INSTRUCTIONS TO THE OWNER AND ONE ELECTRONIC COPY TO THE ENGINEER.
- C. THE INSTRUCTION BOOKLET SHALL BE ORGANIZED IN SECTIONS WITH ONE SECTION PER SYSTEM. THE COVER OF THE INSTRUCTION BOOKLET SHALL BEAR THE NAME, ADDRESS AND PHONE NUMBER OF THE PROJECT, ARCHITECT, ENGINEER, MECHANICAL CONTRACTOR AND SUBCONTRACTORS.

END OF SECTION 0102

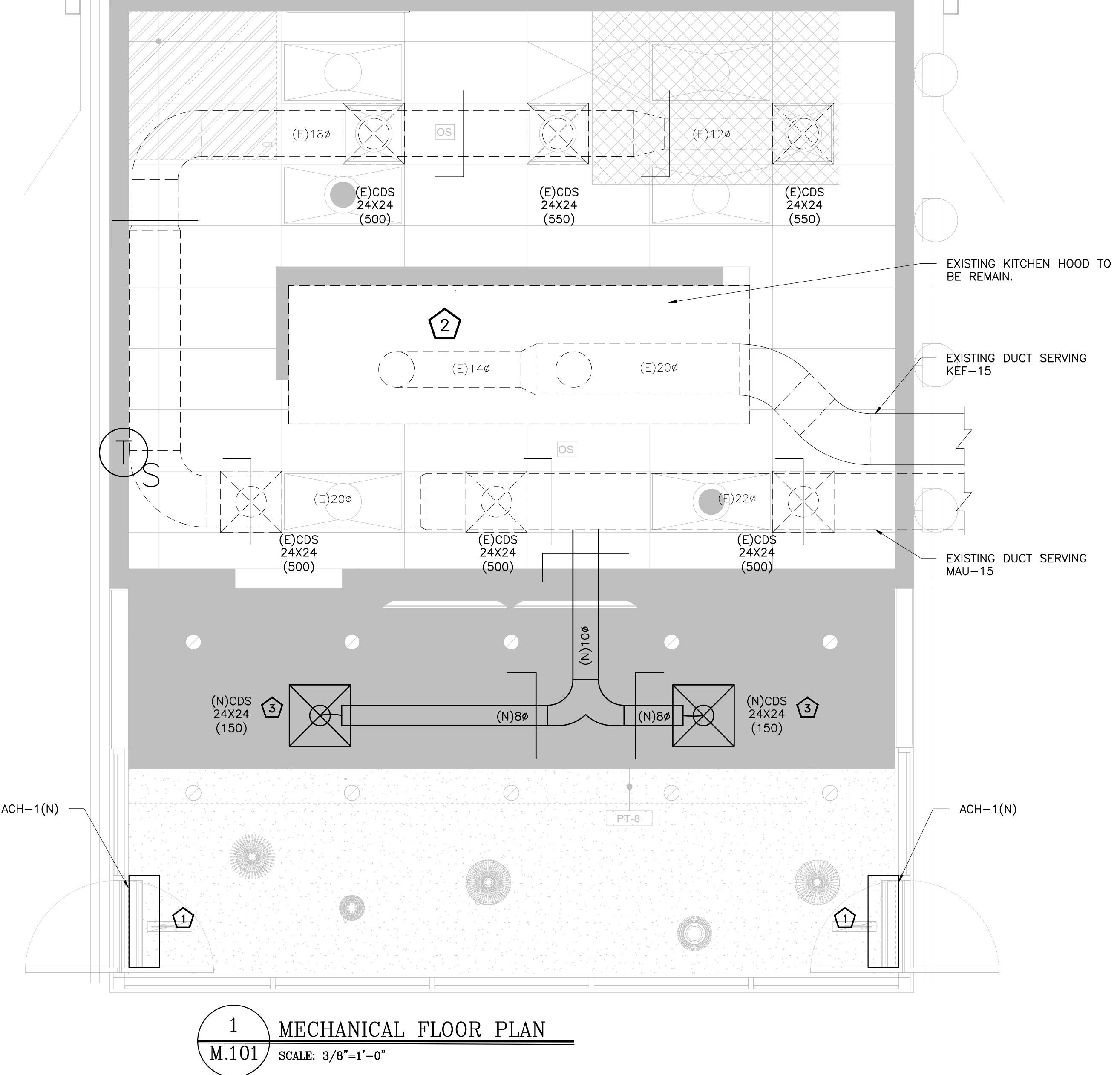
ISSUED FOR	ISSUE DATE	Date	Description

SHEET TITLE:  
MECHANICAL  
GENERAL NOTES

M.001

It is the client's responsibility prior to during construction to notify the architect in writing of any perceived errors or omissions in the plans and specifications of which a contractor thoroughly knowledgeable with the building codes and methods of construction should be aware. Without such notice, the architect will not be liable for errors or omissions that shall be received from the architect prior to the client or clients sub-contractors proceeding with the work. The client will be responsible for any defects in construction if these procedures are not followed.

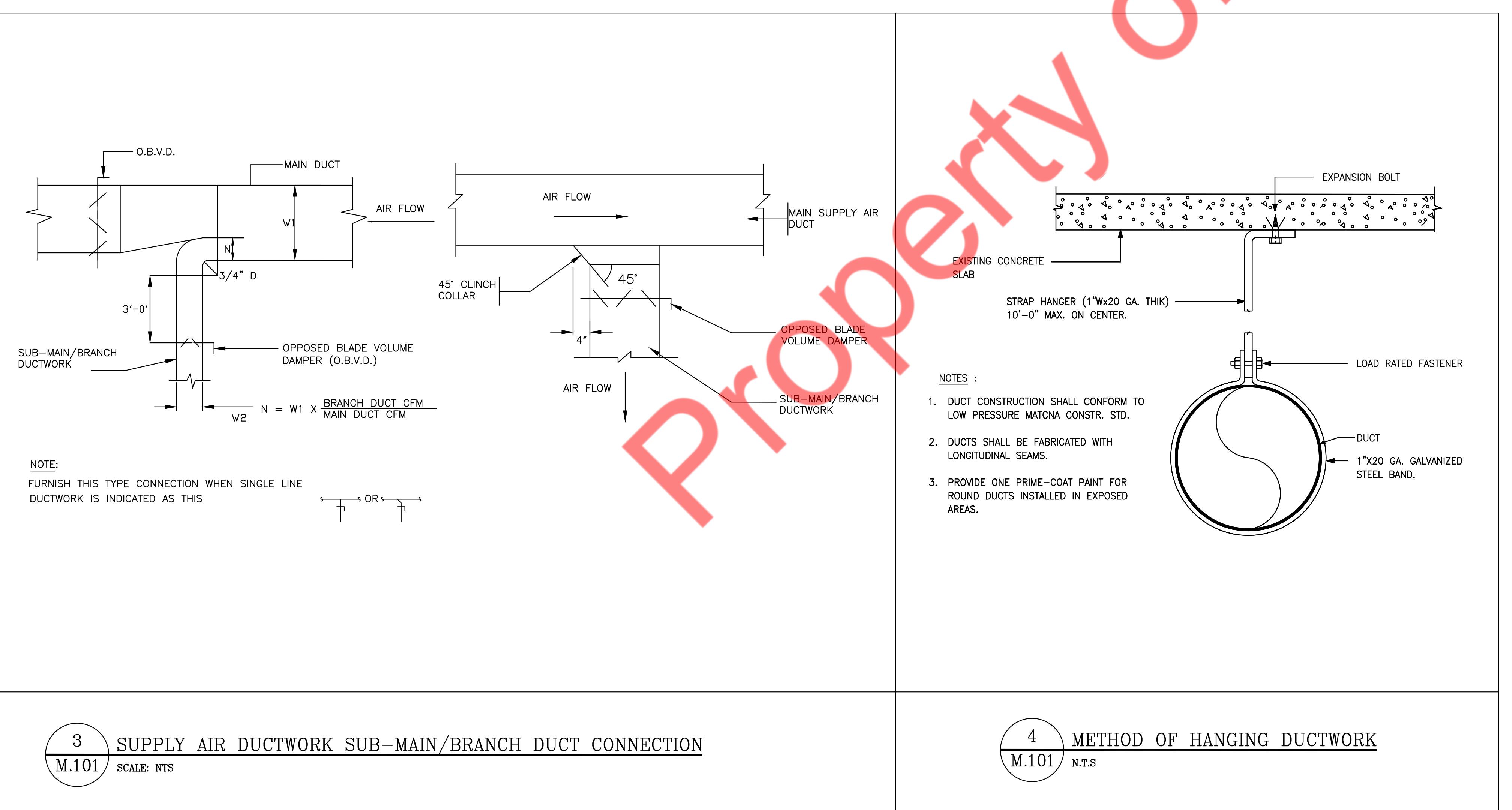
SECTION 078413—PENETRATION FIRE-STOPPING	
1.1 QUALITY ASSURANCE	
A. INSTALLER: QUALIFICATIONS: AN FM GLOBAL-APPROVED FIRE-STOP CONTRACTOR OR A UL-QUALIFIED FIRE-STOP CONTRACTOR.	
B. FIRE-TEST-RESPONSE CHARACTERISTICS: UL, INTERTEC ETL SEMKO OR FM GLOBAL.	
1.2 PENETRATION FIRESTOPPING	
A. PENETRATIONS IN FIRE-RESISTANCE-RATED WALLS: F-RATINGS PER ASTM E 814 OR UL 1479.	
B. PENETRATIONS IN HORIZONTAL ASSEMBLIES: F- AND T-RATINGS PER ASTM E 814 OR UL 1479.	
C. PENETRATIONS IN SMOKE BARRIERS: L-RATINGS PER UL 1479.	
D. W-RATINGS: PER UL 1479.	
1.3 INSTALLATION	
A. IDENTIFICATION: PREPRINTED METAL OR PLASTIC LABELS.	
1.4 FIELD QUALITY CONTROL	
A. INSPECTION OF INSTALLED FIRE-STOPPING: BY OWNER-ENGAGED AGENCY ACCORDING TO ASTM E 2174.	
1.5 THROUGH-PENETRATION FIRESTOP SYSTEM SCHEDULE WHERE UL-CERTIFIED SYSTEMS ARE INDICATED, THEY REFER TO SYSTEM NUMBERS IN UL'S "FIRE RESISTANCE DIRECTORY" UNDER PRODUCT CATEGORY XHEZ.	
FOR THE FOLLOWING SYSTEMS:	
METALLIC AND NON-METALLIC PIPES, CONDUIT, OR TUBING, ELECTRICAL CABLES, CABLE TRAYS WITH ELECTRIC CABLES, MISCELLANEOUS ELECTRICAL PENETRANTS, INSULATED PIPES, GROUPINGS OF PENETRANTS, USE ON OR MORE OF THE FOLLOWING MATERIALS:	
a. LATEX SEALANT	
b. SILICONE SEALANT	
c. INTUMESCENT PUTTY	
d. MORTAR	
e. SILICONE FOAM	
f. PILLOWS/BAGS	
g. INTUMESCENT WRAP STRIPS	
h. INTUMESCENT COMPOSITE SHEET	
1.6 MANUFACTURERS	
1. HILTI CONSTRUCTION CHEMICAL, INC	
2. TREMCO INC.	
3. 3M FIRE PROTECTION PRODUCTS	
END OF SECTION 078413	
SECTION 230517 — SLEEVES AND SLEEVE SEALS FOR HVAC PIPING	
1.1 SLEEVE-SEAL SYSTEMS	
A. FIELD-ASSEMBLED, MODULAR SEALING-ELEMENT UNIT FOR FILLING ANNUAL SPACE BETWEEN PIPING AND SLEEVE.	
1. SEALING ELEMENTS: EPDM RUBBER OR NBR.	
2. PRESSURE PLATES: CARBON STEEL PLASTIC, STAINLESS STEEL.	
3. CONNECTING BOLTS AND NUTS: CARBON STEEL WITH CORROSION-RESISTANT COATING, STAINLESS STEEL.	
B. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:	
1. ADVANCE PRODUCTS & SYSTEMS, INC.	
2. CALPICO, INC.	
3. METRAFLEX COMPANY (THE).	
4. PIPELINE SEAL AND INSULATOR, INC.	
5. PROCO PRODUCTS, INC.	
1.2 SLEEVE-SEAL FITTINGS	
A. MANUFACTURED PLASTIC, SLEEVE-TYPE, PLASTIC OR RUBBER WATER-STOP ASSEMBLY MADE FOR IMBEDDING IN CONCRETE SLAB OR WALL.	
1.3 GROUT	
A. NON-SHRINK, FACTORY PACKAGED.	
1.4 SLEEVE AND SLEEVE-SEAL SCHEDULE	
A. USE SLEEVES AND SLEEVE SEALS FOR THE FOLLOWING PIPING-PENETRATION APPLICATIONS:	
1. INTERIOR PARTITIONS:	
a. PIPING SMALLER THAN NPS 6 (DN 150); GALVANIZED-STEEL PIPE SLEEVES, PVC-PIPE SLEEVES.	
b. PIPING NPS 6 (DN 150) AND LARGER: GALVANIZED-STEEL-SHEET SLEEVES.	
END OF SECTION 230517	
SECTION 230518 — ESCUTCHEONS FOR HVAC PIPING	
PART 2 — PRODUCTS	
2.1 ESCUTCHEONS	
A. ONE-PIECE, CAST-BRASS TYPE: WITH POLISHED, CHROME-PLATED AND ROUGH-BRASS FINISH AND SETSCREW FASTENER.	
B. ONE-PIECE, DEEP-PATTERN TYPE: DEEP-DRAWN, BOX-SHAPED BRASS WITH CHROME-PLATED FINISH AND SPRING-CLIP FASTENERS.	
C. ONE-PIECE, STAMPED-STEEL TYPE: WITH CHROME-PLATED FINISH AND SPRING-CLIP FASTENERS.	
2.2 FLOOR PLATES	
A. ONE-PIECE FLOOR PLATES: CAST-IRON FLANGE WITH HOLES FOR FASTENERS.	
PART 3 — EXECUTION	
3.1 INSTALLATION	
A. INSTALL ESCUTCHEONS FOR PIPING PENETRATIONS OF WALLS, CEILINGS, AND FINISHED FLOORS.	
B. INSTALL ESCUTCHEONS WITH ID TO CLOSELY FIT AROUND PIPE, TUBE, AND INSULATION OF PIPING AND WITH OD THAT COMPLETELY COVERS OPENING.	
1. ESCUTCHEONS FOR NEW PIPING:	
a. PIPING WITH FITTING OR SLEEVE PROTRUDING FROM WALL: ONE-PIECE, DEEP-PATTERN TYPE.	
b. INSULATED PIPING: ONE-PIECE, STAMPED-STEEL TYPE.	
c. BARE PIPING AT WALL AND FLOOR PENETRATIONS IN FINISHED SPACES: ONE-PIECE, CAST-BRASS TYPE WITH POLISHED, CHROME-PLATED FINISH OR STAMPED-STEEL TYPE.	
d. BARE PIPING AT CEILING PENETRATIONS IN FINISHED SPACES: ONE-PIECE, CAST-BRASS TYPE WITH POLISHED, CHROME-PLATED FINISH OR STAMPED-STEEL TYPE.	
1.2 FIELD QUALITY CONTROL	
A. TESTING: BY EITHER: OWNER-ENGAGED AGENCY, CONTRACTOR-ENGAGED AGENCY, OR CONTRACTOR.	
PART-2 PRODUCTS	
1.1 VIBRATION ISOLATORS & SEISMIC-RESTRAINT DEVICES	
A. AVAILABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:	
B. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:	
1. ACE MOUNTINGS CO., INC.	
2. AMBER/BOOTH COMPANY, INC.	
3. CALIFORNIA DYNAMICS CORPORATION.	
4. HILTI, INC.	
5. ISOLATION TECHNOLOGY, INC.	
6. KINETICS NOISE CONTROL	
7. LOOS & CO.; CABLEWARE DIVISION.	
8. MASON INDUSTRIES.	
9. TOLCO INCORPORATED; A BRAND OF NIBCO INC.	
10. UNISTRUT; TYCO INTERNATIONAL, LTD.	
END OF SECTION 230548	
SECTION 230593 — TESTING, ADJUSTING, AND BALANCING FOR HVAC	
1.1 SUMMARY	
A. TESTING, ADJUSTING, AND BALANCING FOR THE FOLLOWING:	
1. AIR SYSTEMS: CONSTANT-VOLUME SYSTEMS.	
2. CONDENSING UNITS.	
1.2 QUALITY ASSURANCE	
A. THE CONTRACTOR SHALL PROCUER THE SERVICES OF A TESTING, ADJUSTING AND BALANCING (TAB) SPECIALIST WHO SPECIALIZES IN HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS. THE TAB AGENT SHALL HAVE THE FOLLOWING QUALIFICATIONS: AABC, NEBB OR TABB CERTIFIED.	
1.3 EXECUTION	
A. THE TAB SPECIALIST SHALL PERFORM FLOW MEASUREMENTS OF ALL EXISTING AIR AND HYDROIC SYSTEMS THAT ARE TO REMAIN OR TO BE INCORPORATED INTO NEW WORK PRIOR TO THE STARTING OF WORK IN THE PROJECT SCOPE. A REPORT OF THESE MEASUREMENTS, INDICATING ANY AND ALL DEFICIENCIES SHALL BE SUBMITTED FOR OWNER REVIEW.	
B. THE TAB SPECIALIST SHALL PERFORM FLOW MEASUREMENTS OF ALL NEW AIR AND HYDROIC SYSTEMS AS LISTED ABOVE IN THE PROJECT SCOPE. A REPORT OF THESE MEASUREMENTS, INDICATING ANY AND ALL DEFICIENCIES SHALL BE SUBMITTED FOR OWNER REVIEW.	
C. THE REPORT SHALL INDICATE A SCHEMATIC DIAGRAM INDICATING LOCATIONS OF ALL EQUIPMENT TESTED AND MEASUREMENT LOCATIONS.	
D. PRIOR TO FINAL INSPECTION OF THE WORK, THE TAB SPECIALIST SHALL BALANCE ALL SYSTEMS AS INDICATED ABOVE TO THE REQUIREMENTS OF THE DESIGN.	
E. THE CONTRACTOR SHALL HAVE FURNISH AND INSTALL ALL ADDITIONAL BALANCING EQUIPMENT, PRESSURE TAPS, GAUGES AND OTHER EQUIPMENT AS REQUIRED FOR A PROPERLY BALANCED SYSTEM AT NO ADDITIONAL COST TO THE OWNER. SUCH ADDITIONAL EQUIPMENT SHALL ADHERE IN STRICT ACCORDANCE WITH THE RESPECTIVE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.	
F. THE CONTRACTOR SHALL HAVE THE TESTING AND BALANCING SPECIALIST COORDINATE ALL WORK OF THIS SECTION WITH THE BUILDING MANAGER. BALANCING WORK SHALL NOT CONFLICT WITH OTHER WORK SO AS TO MAINTAIN COMPLETION WITHIN THE SPECIFIED TIME.	
G. ALL INSTRUMENTS USED FOR TAB SHALL BE MAINTAINED IN GOOD WORKING CONDITION AND ACCURATELY CALIBRATED.	
H. TOLERANCES: PLUS OR MINUS 5 PERCENT OF DESIGN VALUES.	
I. INSPECTIONS: RANDOM CHECKS BY OWNER OR ARCHITECT TO VERIFY FINAL TESTING, ADJUSTING, AND BALANCING REPORT.	
J. ADDITIONAL TESTS: RANDOM TESTS WITHIN 90 DAYS OF COMPLETING TAB TO VERIFY BALANCE CONDITIONS AND SEASONAL TESTS.	
END OF SECTION 230593	
SECTION 233713 — DIFFUSERS, REGISTERS, AND GRILLES	
1.1 PRODUCTS	
A. DIFFUSERS, REGISTERS AND GRILLES SHALL BE FURNISHED AND INSTALLED FOR CAPACITIES AND IN LOCATIONS INDICATED ON DRAWINGS. ALL REGISTERS AND DIFFUSERS SHALL BE PRIME COATED STEEL OR EXTRUDED ALUMINUM FINISHED UNLESS OTHERWISE NOTED IN BAKED WHITE ENAMEL.	
B. MANUFACTURERS: TITUS	
1. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT BY ONE OF THE FOLLOWING:	
a. CARNES.	
b. HART & COOLEY, INC.	
c. KRUEGER.	
d. METALAIR, INC.	
e. NAILOR INDUSTRIES INC.	
C. ALL DIFFUSERS SHALL HAVE CONTROLLING/EQUALIZING GRID AND OPPOSED BLADE DAMPER UNLESS OTHERWISE NOTED.	
D. ALL DUCTED RETURN REGISTERS SHALL HAVE AN OPPOSED BLADE DAMPER UNLESS OTHERWISE NOTED.	
END OF SECTION 233713	
SECTION 233113 — METAL DUCTS	
1.1 CONSTRUCTION	
A. EACH DUCT SYSTEM SHALL BE CONSTRUCTED FOR THE SPECIFIC SMACNA DUCT PRESSURE CLASSIFICATIONS SHOWN ON THE CONTRACT DRAWINGS. WHERE NO PRESSURE CLASSES ARE SPECIFIED BY THE DESIGNER, THE SMACNA 2-1/2 INCH WG PRESSURE CLASS IS THE BASIS OF COMPLIANCE WITH THESE STANDARDS, REGARDLESS OF THE DUCT.	
B. ALL DUCTWORK SHALL BE CONSTRUCTED TO SMACNA 2" WG DESIGN AND NOT LESS THAN THE FOLLOWING STANDARDS:	
1. DUCTWORK SHALL BE TRANSVERSELY JOINTED BY CONNECTING SEAMS OF COMPANION ANGLES, FORGED FROM 1-1/2"X1-1/2"X1/8" GALVANIZED ANGLES, TAB WELDED TO THE DUCT. THE FRAME SHALL BE CONTINUOUSLY FLANGED UP INTO UPRIGHT OF ANGLE AND EACH CORNER SHALL BE FILLED IN AND GRIND SMOOTH. JOINTS SHALL BE GASKETED WITH 1/8" THICK REINFORCED GASKET, OVERLAPPED AT CORNERS, GASKET SIMILAR TO 3M 3020 OR APPROVED EQUAL.	
2. RECTANGULAR FITTINGS AND ALL TRANSITION PIECES FROM RECTANGULAR TO ROUND SHALL BE NO. 16 GAUGE ALL WELDED CONSTRUCTION.	
3. HORIZONTAL DUCTS SHALL BE SUPPORTED ON NOT MORE THAN VERTICAL VERTICAL RISERS SHALL BE SUPPORTED AT EACH FLOOR.	
4. LONGITUDINAL SEAMS FOR RECTANGULAR DUCTWORK SHALL BE PITTSBURGH LOCK SEAMS WITH SEALING COMPOUND, EQUAL TO BENJAMIN FOSTER NO. 30-03 INSERTED INTO SEAM. ALL SEAMS SHALL BE BRUSHED WITH NO. 30-02 AND COVERED WITH APPROVED SEALING TAPE.	
5. RECTANGULAR DUCTWORK 18 GAUGE AND HEAVIER, FILLER RODS SHALL BE IN ACCORDANCE WITH SPECIFICATIONS FOR IRON AND STEEL GAS WELDING RODS, ASTM A 15, AWG 52.	
6. ALL FITTINGS SUCH AS ELBOWS, TEES, ETC., SHALL BE NO. 20 GAUGE ZINC COATED STEEL. ELBOWS SHALL BE OF FIVE (5) PIECE WELDED AIRTIGHT CONSTRUCTION.	
C. WHERE LATEST EDITION OF SMACNA DOES NOT CLEARLY STATE GAUGES AND/OR STIFFENERS TO BE USED OR, WHERE SMACNA STANDARDS REQUIRE INTERPRETATION, THE FOLLOWING MINIMUM METAL GAUGES AND BRACING SHALL BE USED:	
USC MAX. SIDE INCHES TRANSVERSE JOINTS AND BRACING	
22 UP TO 12 S SLIP, DRIVE SLIP, ONE INCH CENTERS	
22 13 TO 24 1"X1"X1/8" ANGLES ON 4 FOOT CENTERS	
20 25 TO 35 1"X1"X1/8" ANGLES ON 2 FOOT CENTERS	
D. PROVIDE TAPPING IN DUCTS FOR THERMOMETERS WHERE SPECIFIED. IN ADDITION, PROVIDE AN AIRTIGHT PLUGGED TAPPING LOCATED AS FOLLOWS:	
1. UPSTREAM OF EACH REHEAT COIL AND VAV BOX.	
2. DOWNSTREAM OF EACH REHEAT COIL AND VAV BOX.	
E. FLAT OVAL OR ROUND DUCTWORK MAY BE PROVIDED IN LIEU OF RECTANGULAR DUCTWORK WITH THE REINFORCEMENT FOR FLAT SIDES SAME AS SPECIFIED FOR THE RECTANGULAR DUCTWORK, AND AS PER SMACNA FLAT OVAL DUCT CONSTRUCTION STANDARDS SHOWN IN FIG. 3-6 AND AS SHOWN IN FIG. 3-1 AND 3-2 FOR ROUND DUCTWORK.	
F. ALL DUCTWORK SHALL BE SEALED TO CLASS "A" AND LEAK TESTED TO MEET SMACNA CLASS 6 FOR RECTANGULAR AND CLASS 3 FOR ROUND DUCTWORK.	
END OF SECTION 233113	
SECTION 233113 — METAL DUCTS	
1.1 CONSTRUCTION	
A. EACH DUCT SYSTEM SHALL BE CONSTRUCTED FOR THE SPECIFIC SMACNA DUCT PRESSURE CLASSIFICATIONS SHOWN ON THE CONTRACT DRAWINGS. WHERE NO PRESSURE CLASSES ARE SPECIFIED BY THE DESIGNER, THE SMACNA 2" WG PRESSURE CLASS IS THE BASIS OF COMPLIANCE WITH THESE STANDARDS, REGARDLESS OF THE DUCT.	
B. ALL DUCTWORK SHALL BE CONSTRUCTED TO SMACNA 2" WG DESIGN AND NOT LESS THAN THE FOLLOWING STANDARDS:	
1. DUCTWORK SHALL BE TRANSVERSELY JOINTED BY CONNECTING SEAMS OF COMPANION ANGLES, FORGED FROM 1-1/2"X1-1/2"X1/8" GALVANIZED ANGLES, TAB WELDED TO THE DUCT. THE FRAME SHALL BE CONTINUOUSLY FLANGED UP INTO UPRIGHT OF ANGLE AND EACH CORNER SHALL BE FILLED IN AND GRIND SMOOTH. JOINTS SHALL BE GASKETED WITH 1/8" THICK REINFORCED GASKET, OVERLAPPED AT CORNERS, GASKET SIMILAR TO 3M 3020 OR APPROVED EQUAL.	
2. RECTANGULAR FITTINGS AND ALL TRANSITION PIECES FROM RECTANGULAR TO ROUND SHALL BE NO. 16 GAUGE ALL	



AIR CURTAIN SCHEDULE									
UNIT ID	QUANTITY	MODEL	LENGTH (IN.)	CFM	HEATING MODE	ELECTRIC HEAT (kW)	V/PH/Hz	AMPS	MANUFACTURER
ACH-1(N)	2	LPV236-1UA-OB	36	900	-	-	115/1/60	2.4	MARS
NOTES / ACCESSORIES:									
1. PROVIDE DOOR SWITCH: 99-014 OR COMPATIBLE EQUIVALENT. 2. PROVIDE MANUFACTURER RECOMMENDED ACCESSORIES. 3. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER REQUIREMENT.									

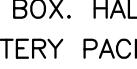
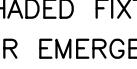
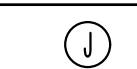
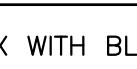
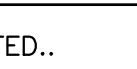
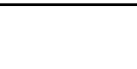
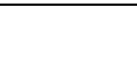
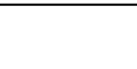
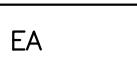
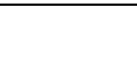
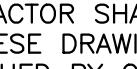
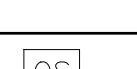
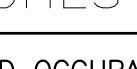
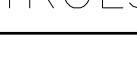
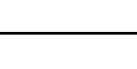
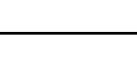
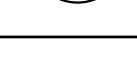
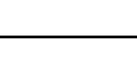
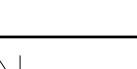
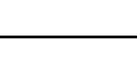
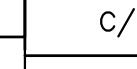
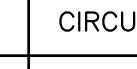
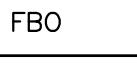
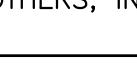
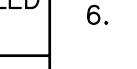
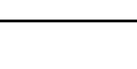
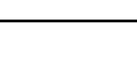
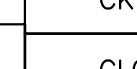
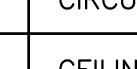
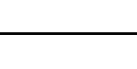
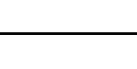
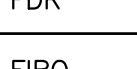
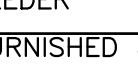
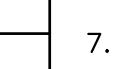
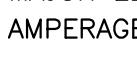
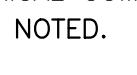
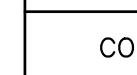
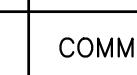
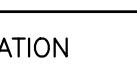
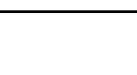
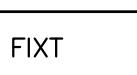
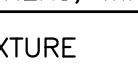
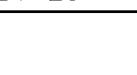
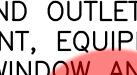
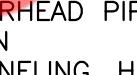
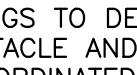
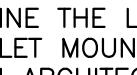
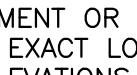
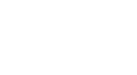
2 MECHANICAL SCHEDULES  
M.101  
SCALE: NTS

MECHANICAL PLAN KEYED NOTES:	
①	COORDINATE REQUIREMENT & FINAL LOCATION OF AIR CURTAIN WITH OWNER/ARCHITECT. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER SUPPLY.
②	CONTRACTOR TO VERIFY EXISTING EXHAUST DUCT CONNECTION TO KITCHEN HOOD. REPORT TO ENGINEER FOR UPDATED DRAWINGS IN CASE OF DISCREPANCIES IN THIS CONNECTION.
③	PROVIDE NEW SUPPLY DIFFUSER SIMILAR IN KIND TO EXISTING WITH 8" NECK SIZE.
MECHANICAL GENERAL NOTES	
A.	CONTRACTOR SHALL BALANCE EACH DEVICE WITH THE CFM SHOWN ON PLAN.
B.	NEW DUCTWORK SHOWN ON PLAN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING, OFFSET AND RUN PIPING, DUCTWORK INSIDE THE STRUCTURE IF REQUIRED. PROVIDE ANY EXTRA DUCTWORK, FITTINGS, INSULATIONS AND SUPPORTS AS REQUIRED BY THE CONTRACTOR.
C.	EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK.
D.	DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
E.	CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
F.	CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
G.	COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
H.	TEST AND BALANCE AIR SYSTEMS. PROVIDE REPORT TO G.C. AND OWNER.
I.	NEW DUCTWORK IN CONCEALED AREAS MAY BE RECTANGULAR WITH EQUIVALENT CROSS SECTIONAL FLOW AREA.
J.	EXISTING KITCHEN EXHAUST FAN (KEF-15) TO BE INTERLOCKED WITH EXISTING MAKEUP AIR UNIT (MAU-15).
THIS RECORD DRAWING HAS BEEN PREPARED BASED UPON INFORMATION FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE DESIGN PROFESSIONAL ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS RECORD DRAWING OR FOR ANY ERRORS OR OMISSIONS WHICH MAY BE PRESENT. THE DESIGN PROFESSIONAL IS A RESULT OF INCORRECT INFORMATION PROVIDED TO THE DESIGN PROFESSIONAL. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY.	



ISSUED FOR:	ISSUE DATE:	Description
No.	Date	
It is the client's responsibility prior to or during construction to notify the architect in writing of any perceived errors or omissions in the plans and specifications of which a contractor thoroughly knowledgeable with the building codes and methods of construction should reasonably be aware. When installing according to the received drawings, errors or omissions shall be resolved from the architect prior to the client or clients subcontractors proceeding with the work. The client will be responsible for any defects in construction if these procedures are not followed.		

# ELECTRICAL SYMBOLS LIST

ELECTRICAL SYMBOLS LIST				GENERAL NOTES ( APPLY TO ALL "E" DRAWINGS)		GENERAL NOTES	
LIGHTING		POWER AND TELECOMMUNICATION		ELECTRICAL ABBREVIATIONS			
 FLUORESCENT LIGHTING FIXTURE AND OUTLET BOX. HALF SHADED FIXTURE OR "EM" INDICATES FIXTURES WITH INTEGRAL BATTERY PACK FOR EMERGENCY SERVICE, U.O.N.  LUMINAIRE TYPE : INDICATE BY UPPERCASE LETTER SEE LIGHTING EXTURE SCHEDULE.  CIRCUIT NUMBER : INDICATED BY NUMBER  SWITCHING INDICATED BY LOWER CASE LETTERS.  DENOTES LUMINAIRE ON EMERGENCY CIRCUIT.  DENOTES FIXTURES DESIGNATED AS NIGHTLIGHT, WIRED TO 24 HOURS UNSWITCHED CIRCUIT.  CEILING/WALL MOUNTED SELF POWERED EXIT LIGHT FIXTURE WITH DIRECTIONAL ARROWS AS INDICATED. SHADED AREA DENOTES FACE(S). ISOLITE ELITE SERIES LED EXIT SIGN		 JUNCTION BOX WITH BLANK COVER PLATE, CEILING MOUNTED..  DUPLEX CONVENIENCE RECEPTACLE, +18" AFF OR AS NOTED.  DUPLEX CONVENIENCE RECEPTACLE, +18" AFF OR AS NOTED.  DUPLEX CONVENIENCE RECEPTACLE - 20A-1P, 125V, NEMA 5-20R MOUNTED FLUSH IN CEILING.  DOUBLE DUPLEX RECEPTACLE - 20A-1P, 125V, NEMA 5-20R.		 AMPERES  AIR CONDITIONING UNIT  AMPERE FRAME/AMP FUSE  EXHAUST FAN  ABOVE FINISHED FLOOR  EMERGENCY  AMP SWITCH  ELECTRICAL METALLIC TUBING  AMPS INTERRUPTING CAPACITY  EQUIPMENT  AMP TRIP  EXISTING TO BE RELOCATED	<ol style="list-style-type: none"> <li>ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CURRENT VERSION OF THE CALIFORNIA ELECTRICAL CODE, 2020 NEC, LOCAL JURISDICTION REQUIREMENTS, AND ALL GOVERNING LOCAL CODES, LAWS, AND REGULATIONS.</li> <li>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.</li> <li>CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, TEST REPORTS, AND CERTIFICATIONS FOR TEMPORARY AND FINAL CERTIFICATE OF OCCUPANCY.</li> <li>FIRE STOP ALL PENETRATIONS OF FIRE RATED CONSTRUCTION IN A CODE APPROVED MANNER IN ORDER TO MAINTAIN FIRE RATING. ALL PENETRATIONS SHALL BE SLEEVED AND SEALED WATERTIGHT.</li> <li>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.</li> <li>LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS. RACEWAYS OVER 10 FT LONG IN WHICH WIRING IS NOT INSTALLED: FURNISH FISH WIRE.</li> <li>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.</li> <li>CONTRACTOR SHALL PROVIDE A WARRANTY ON ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OR AS PER CONTRACT WITH OWNER/ARCHITECT.</li> <li>ALL UNUSED MATERIALS AND DEBRIS SHALL BE LEGALLY REMOVED AND DISPOSED OF AWAY FROM THE PREMISES ON A DAILY BASIS.</li> <li>CONTRACTOR SHALL PATCH, PAINT, AND RESTORE EXISTING SURFACES DAMAGED DURING THE COURSE OF THIS CONSTRUCTION TO PRE-EXISTING CONDITIONS OR BETTER.</li> <li>MINIMUM SIZE OF CONDUIT SHALL BE $\frac{3}{4}$", AND TYPE SHALL BE ELECTRICAL METALLIC TUBING (EMT), UNLESS OTHERWISE NOTED. PROVIDE NYLON DRAG LINE AND CONDUIT CAP FOR ALL EMPTY CONDUITS.</li> <li>CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH FLEXIBLE CONDUIT (MINIMUM 18 IN. LENGTH AND 50% SLACK). DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.</li> <li>PULL AND JUNCTION BOXES WHERE INDICATED ON THE DRAWINGS, SHALL BE CONSIDERED SHOWN AT THEIR APPROXIMATE LOCATION. THE CONTRACTOR SHALL LOCATE THEM AS FIELD CONDITIONS DICTATE. ADDITIONAL PULL AND JUNCTION BOXES NOT SHOWN ON DRAWINGS SHALL BE PROVIDED WHERE REQUIRED BY APPLICABLE CODE PROVISIONS OR WHERE CALLED FOR BY FIELD CONDITIONS. PULL AND JUNCTION BOXES SHALL BE SURFACE TYPE IN UNFINISHED AREAS AND INSTALLED CONCEALED IN FINISHED AREAS, AND ALL COVERS TO PULL &amp; JUNCTION BOXES SHALL BE READILY ACCESSIBLE.</li> <li>SUPPORT PANEL, JUNCTION AND PULL BOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.</li> </ol>	 CONTRACTOR SHALL PROVIDE CONSTRUCTION AND SHOP DRAWINGS BASED ON THESE DRAWINGS, SPECIFICATIONS, AND ADDITIONAL DESIGN CRITERIA FURNISHED BY OWNER AND SUBMIT TO ARCHITECT/CONTRACTOR. SHALL SUBMIT ALL DRAFTED APPROVAL CONSTRUCTION DRAWINGS TO ALL GOVERNMENTAL AGENCIES AND UTILITY COMPANIES HAVING JURISDICTION INCLUDING POLICE AND FIRE DEPARTMENTS FOR THEIR REVIEW AND APPROVAL OF DRAWINGS FOR CONSTRUCTION.  OWNER SHALL NOT BE LIMITED TO THE WORK SHOWN IN PLANS AND SPECIFICATIONS. ALL PREMIUM OVERHEAD COSTS, UTILITIES, CHARGES, COSTS FOR TEMPORARY UTILITY SERVICES, ALTERATION, DEMOLITION, AND EXTENSION WORKS, PLANCHER/INSPECTION FEES, MISCELLANEOUS CONINGENCY COSTS, ETC., SHALL BE INCLUDED IN BID. (THE CONINGENCY COST SHALL NOT BE LESS THAN 2% OF THE OVERALL ELECTRICAL BID. CONTRACTOR SHALL IDENTIFY THE CONINGENCY AMOUNT IN THE BID DOCUMENT.)  CONTRACTOR'S BID SHALL NOT BE LIMITED TO THE WORK SHOWN IN PLANS AND SPECIFICATIONS. ALL PREMIUM OVERHEAD COSTS, UTILITIES, CHARGES, COSTS FOR TEMPORARY UTILITY SERVICES, ALTERATION, DEMOLITION, AND EXTENSION WORKS, PLANCHER/INSPECTION FEES, MISCELLANEOUS CONINGENCY COSTS, ETC., SHALL BE INCLUDED IN BID. (THE CONINGENCY COST SHALL NOT BE LESS THAN 2% OF THE OVERALL ELECTRICAL BID. CONTRACTOR SHALL IDENTIFY THE CONINGENCY AMOUNT IN THE BID DOCUMENT.)  CONTRACTOR'S BID SHALL NOT BE LIMITED TO THE WORK SHOWN IN PLANS AND SPECIFICATIONS. ALL PREMIUM OVERHEAD COSTS, UTILITIES, CHARGES, COSTS FOR TEMPORARY UTILITY SERVICES, ALTERATION, DEMOLITION, AND EXTENSION WORKS, PLANCHER/INSPECTION FEES, MISCELLANEOUS CONINGENCY COSTS, ETC., SHALL BE INCLUDED IN BID. (THE CONINGENCY COST SHALL NOT BE LESS THAN 2% OF THE OVERALL ELECTRICAL BID. CONTRACTOR SHALL IDENTIFY THE CONINGENCY AMOUNT IN THE BID DOCUMENT.)  ALL NEW EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR, UNLESS OTHERWISE NOTED. IF CONTRACTOR PROPOSES TO SUBSTITUTE SPECIFIED EQUIPMENT, THE SAME SUBSTITUTION IS REQUESTED IN WRITING TO THE OWNER AND ENGINEER FOR CONSIDERATION PRIOR TO THE ALL SUBSTITUTIONS MUST BE REVIEWED BY THE ENGINEER. SUCH REVIEWS SHALL NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH DRAWING REQUIREMENTS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS OWN EXPENSE FOR ANY CHANGES RESULTING FROM HIS PROPOSED SUBSTITUTION WHICH AFFECT OTHER PARTS OF HIS WORK OR THE WORK OF OTHER CONTRACTORS. CONTRACTOR SHALL RELOCATE AND RECONNECT THE EXISTING EQUIPMENT, DEVICES, BEING RE USED IN COORDINATION WITH ARCHITECT/OWNER.  ELECTRICAL DRAWINGS, CONDUIT RUNS, WIRING, AND ELECTRICAL INFORMATION ARE GRAMMATICAL ONLY. DO NOT CALL THE ELECTRICAL DRAWINGS TO DETERMINE THE LOCATION OF EQUIPMENT OR OUTLETS. ALL RECEPTACLES AND OUTLET MOUNTING HEIGHTS AND EXACT LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS ELEVATIONS PRIOR TO ROUGH-IN WORK.  REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES, CEILING MOUNTED OUTLETS, AND EQUIPMENT. PORTIONS OF CEILING SYSTEMS MAY BE INACCESSIBLE. CONTRACTOR SHALL STRATEGICALLY LOCATE ACCESS BOXES, ETC., WHICH SHALL BE READILY ACCESSIBLE IN COMPLIANCE WITH NEC ARTICLE 10. ALL LIGHTING FIXTURE WIRING, BALASTS, J-BOXES, ETC., SHALL BE ACCESSIBLE FROM FIXTURE OPENINGS. PROVIDE AN ADDITIONAL JUNCTION BOX (SIZE AS REQUIRED) WHERE THE NUMBER OF CONDUCTORS EXCEEDS THE MAXIMUM ALLOWED FOR A GIVEN JUNCTION POINT OR OUTLET.  IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE TYPES OF CEILING SYSTEMS AND TO FURNISH APPROVED LIGHTING FIXTURES OF THE REQUIRED TYPE FOR MOUNTING IN CEILING FIXTURES. SHALL BE COMPLETED WITH NECESSARY MOUNTING HARDWARE AND ACCESSORIES. FIXTURES LOCATED IN DAMP OR WET LOCATIONS SHALL BE LABELED FOR USE IN SUCH LOCATIONS.  ALL PENETRATIONS THROUGH FIRE RATED WALLS, CEILINGS, FLOORS, ETC., TO MAINTAIN FIREWORKS, FURNISH AND INSTALL FIRE RATED ENCLOSURES FOR ALL EQUIPMENT PENETRATING INTO FIRE RATED ENVELOPES, SPACES, ETC. ALL RECESSED LIGHTING FIXTURES, PANEL BOARDS, SWITCHES, ETC., MOUNTED IN FIRE RATED STRUCTURES, SHALL BE ENCLOSED WITHIN APPROVED ENCLOSURE CARRYING THE SAME FIRE RATING AS THAT OF THE STRUCTURE.  ALL WIRING AND ELECTRICAL EQUIPMENT INSTALLED FOR MECHANICAL AND PLUMBING EQUIPMENT SHALL BE IN ACCORDANCE WITH DIVISION 15 AND ASSOCIATED DRAWINGS. CONTRACTOR SHALL OBTAIN THE REQUIRED MECHANICAL AND PLUMBING DRAWINGS AND PROVIDE ALL EQUIPMENT, WIRING, ETC., AS INDICATED THEREON.  ALL CONNECTIONS TO OWNER'S PRE-EXISTING EQUIPMENT, SHALL BE MADE	
SWITCHES AND CONTROLS		POWER DISTRIBUTION					
 CEILING MOUNTED OCCUPANCY SENSOR		 MAJOR ELECTRICAL COMPONENT OR DEVICE. VOLTAGE AND AMPERAGE AS NOTED.		 CEILING  COMMUNICATION  DISTRIBUTION PANELBOARD, 208Y/120V-SURFACE OR FLUSH MOUNTED.	 FURNISHED & INSTALLED BY OTHERS, WIRED BY EC  FIXT  CURRENT TRANSFORMER  COPPER  DEGREE CELSIUS  DEGREE FAHRENHEIT  DIAMETER  DISC  DOWN  DP  DWH  DWG  JB  KCMIL  KV  KVA  KW	 FIBO  FIXT  FL  FLUOR  G  GFI  GP  HC  HP  HWH  HZ  HPOWER  HOW WATER HEATER  HERTZ  IC  IC  PWR  POWER PANEL  PVC  POLYVINYL CHLORIDE  REMOVE  RELOCATED EXISTING	 EA  EC  EF  EM  EQUIP  EQUIPMENT  ER  EACH  EWF  EMT  F  FA  FBO  FDR  FIXT  FL  FLUOR  FIBO  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR  FLOOR <img alt

## ELECTRICAL DRAWING LIST

E.001	ELECTRICAL SYMBOL LIST, ABBREVIATIONS & GENERAL NOTES
E.101	ELECTRICAL PLANS, RISER & SCHEDULE
E.102	ENERGY COMPLIANCE

## NOTICE

THESE DRAWINGS ARE DIAGRAMMATIC AND SHOW INTENT OF PROJECT AND ARE SUBJECT TO THE APPROVAL OF THE BUILDING DEPARTMENT, FIRE MARSHAL, UTILITY COMPANY AND OTHER AGENCY AUTHORITIES HAVING JURISDICTION (AHJ). BY THE ACT OF SUBMITTING A BID PROPOSAL FOR WORK, THE CONTRACTOR HAS REVIEWED THE PLANS THOROUGHLY, VERIFIED FIELD CONDITIONS, AND ACCEPTED FULL RESPONSIBILITY OF PLAN CORRECTIONS, CONTINGENCY, AND ASSOCIATED EXTRA CONSTRUCTION COSTS THAT HAVE BEEN INCLUDED IN THE CONTRACTOR'S BID.

ELECTRICAL ABBREVIATIONS			GENERAL NOTES ( APPLY TO ALL "E" DRAWINGS)		GENERAL NOTES	
AMPERES	EA	EACH				
AIR CONDITIONING UNIT	EC	EMPTY CONDUIT/ ELECTRICAL CONTRACTOR				
AMPERE FRAME/AMP FUSE	EF	EXHAUST FAN				
ABOVE FINISHED FLOOR	EM	EMERGENCY				
AMP SWITCH	EMT	ELECTRICAL METALLIC TUBING				
AMPS INTERRUPTING CAPACITY	EQUIP	EQUIPMENT				
AMP TRIP	ER	EXISTING TO BE RELOCATED				
AUTOMATIC TRANSFER SWITCH	ETR	EXISTING TO REMAIN				
AUTOMATIC	EWF	ELECTRIFIED WORKSTATION FURNITURE				
AMERICAN WIRE GAUGE	EWH	ELECTRIC WATER HEATER				
CONDUIT	FA	FIRE ALARM				
CIRCUIT BREAKER	FBO	FURNISHED BY OTHERS, INSTALLED & WIRED BY EC				
CIRCUIT	FDR	FEEDER				
CEILING	FIBO	FURNISHED & INSTALLED BY OTHERS, WIRED BY EC				
COMMUNICATION	FIXT	Fixture				
CURRENT TRANSFORMER	FL	FLOOR				
COPPER	FLUOR	FLUORESCENT				
DEGREE CELSIUS	G	GROUND				
DEGREE FAHRENHEIT	GFI	GROUND FAULT INTERRUPTER				
DIA METER	GP	GENERAL PURPOSE				
DISCONNECT	HC	HUNG CEILING				
DOWN	HP	HORSEPOWER				
DISTRIBUTION PANEL	HWH	HOW WATER HEATER				
DOMESTIC WATER HEATER	HZ	HERTZ				
DRAWING	IC	INTERRUPTING CAPACITY				
JUNCTION BOX	PP	POWER PANEL				
ONE THOUSAND CIRCULAR MILS	PVC	POLYVINYL CHLORIDE				
KILOVOLT	PWR	POWER				
KILOVOLT-AMPERES	R	REMOVE				
KILOWATTS	RE	RELOCATED EXISTING				
LIGHTING PANEL	REC	RECEPTACLE				
LIGHTING	RGS	RIGID GALVANIZED STEEL				
MAXIMUM	RR	REMOVE & RELOCATE				
MOTOR CONTROLLER	SECT	SECTION				
MAIN CIRCUIT BREAKER	SPDT	SINGLE POLE DOUBLE THROW				
MECHANICAL EQUIPMENT ROOM	SPST	SINGLE POLE SINGLE THROW				
MINIMUM	SPEC	SPECIFICATION				
MAIN LUGS ONLY	SW	SWITCH				
MONTE D	SWBD	SWITCHBOARD				
MANUAL TRANSFER SWITCH	SYM	SYMMETRICAL				
NEUTRAL	SYS	SYSTEMS				
NEW DEVICE TO REPLACE EXISTING	TELE	TELEPHONE				
NOT IN CONTRACT	TEMP	TEMPERATURE				
NIGHT LIGHT	TXF	TOILET EXHAUST FAN				
NOT TO SCALE	TYP	TYPICAL				
ON CENTER	UON	UNLESS OTHERWISE NOTED				
POLES	V	VOLT/VOLTAGE				
PULLBOX	VA	VOLT AMPERE				
PERSONAL COMPUTER	VAV	VARIABLE AIR VOLUME				
PHASE	VFD	VARIABLE FREQUENCY DRIVE				
PANEL	VP	VAPORPROOF				
WATT	WP	WEATHER PROOF				
WIRE	XFMR	TRANSFORMER				
WALL HEATER	ZRT	ZONE REGISTER TERMINALS				
EXISTING	IG	ISOLATED GROUND				

# PANEL BOARD AND SWITCH BOARD NOTES

1. PROVIDE NAMEPLATE IDENTIFICATION TO BE MOUNTED ABOVE DOOR AND CIRCUIT DIRECTORY HOLDER FRAMED WITH PLASTIC COVER MOUNTED BEHIND THE DOOR. ADHESIVE TYPE PLASTIC ENVELOPE ATTACHED BEHIND THE DOOR IS NOT AN ACCEPTABLE TYPE OF DIRECTORY CARD HOLDER.
2. BUILDING STEEL, UFER, COLD WATER PIPE, AND DRIVEN GROUNDING ROD BONDING TO BE UTILIZED FOR COMPLETE GROUNDING ELECTRODE SYSTEM & SUPPLEMENTS PER CEC 250, GROUNDING. THE BONDING TO BUILDING NATURAL GAS PIPING MAY BE REQUIRED BY THE AHJ.
3. CONTRACTOR TO VERIFY ALL EXISTING CIRCUITS FOR EXISTING AREAS THAT ARE TO REMAIN AND IDENTIFY IN PANEL & IN AS-BUILT. E.C. SHALL MAINTAIN CIRCUIT CONTINUITY OF THESE CIRCUITS SERVE AREAS THAT ARE TO REMAIN.
4. NEW BREAKERS TO BE INSTALLED IN EXISTING PANEL ARE TO MATCH THE EXISTING PANEL BOARD MFG. AND AIC RATING AS INDICATED OR AS REQUIRED PER AIC RATING FROM THE UTILITY COMPANY.
5. CONTRACTOR SHALL EXTEND THE CONDUIT AND INCOMING FEEDER OF THE EXISTING PANELS UPTO NEW LOCATION OF THE PANEL AS SHOWN ON THE PLAN IN COORDINATION WITH ARCHITECT/OWNER.
6. CONTRACTOR SHALL PROVIDE ALL REQUIRED MATERIAL, WIRING, CABLES, CONDUITS AND DEVICES IN ORDER TO WORK ELECTRICAL SYSTEM PROPERLY AS PER DESIGN INTEND.
7. E.C. SHALL VERIFY THE OPERABLE CONDITION OF ALL DEVICES, BREAKERS AND CONNECTIONS INSIDE THE PANEL. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
8. CONTRACTOR SHALL PROVIDE ALL THE BRANCH BREAKERS, SHUNT BREAKER & GFI BREAKERS AS PER EQUIPMENT REQUIREMENTS IN COORDINATION WITH THE EQUIPMENT SUPPLIER/OWNER IN FIELD. BASE BID ACCORDINGLY.

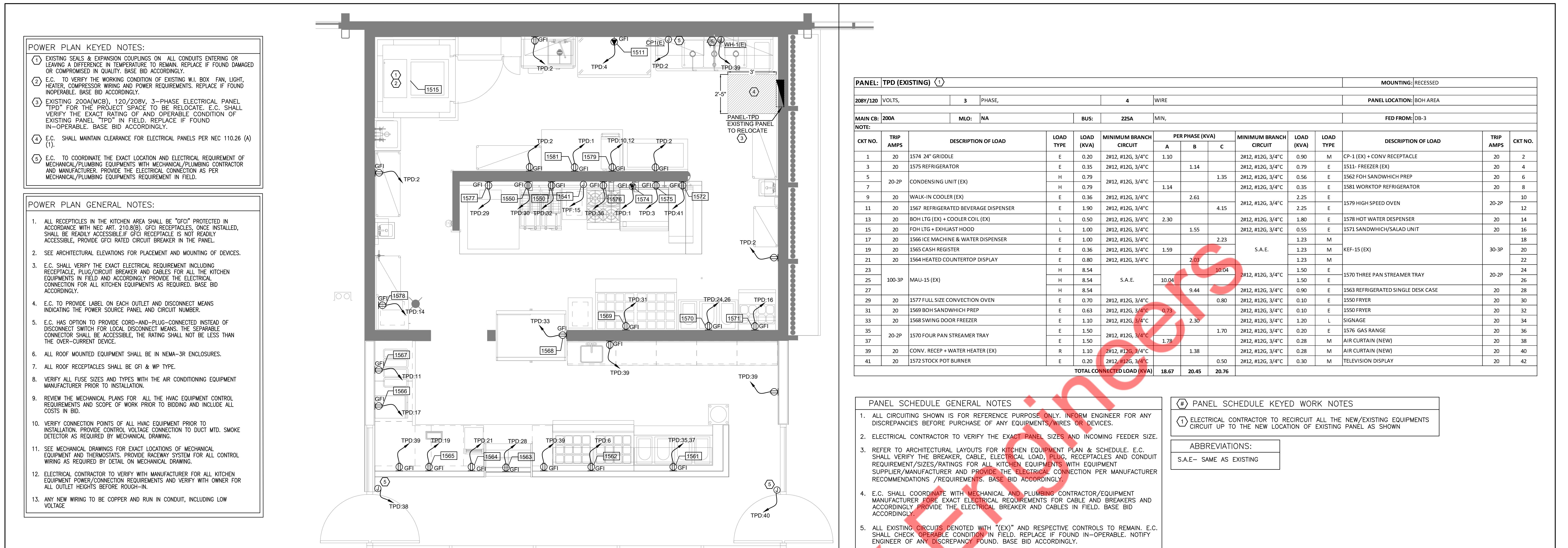
It is the clients responsibility prior to or during construction to notify the architect in writing of any perceived errors or omissions in the plans and specifications of which a contractor thoroughly knowledgeable with the building codes and methods of construction should reasonably be aware. Written instructions addressing such perceived errors or omissions shall be received from the architect prior to the client or clients subcontractors proceeding with the work. The client will be responsible for any defects in construction if these procedures are not followed.

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SHEET TITLE:

# ELECTRICAL SYMBOL LIST, ABBREVIATIONS & GENERAL NOTES

E_001



1 POWER PLAN

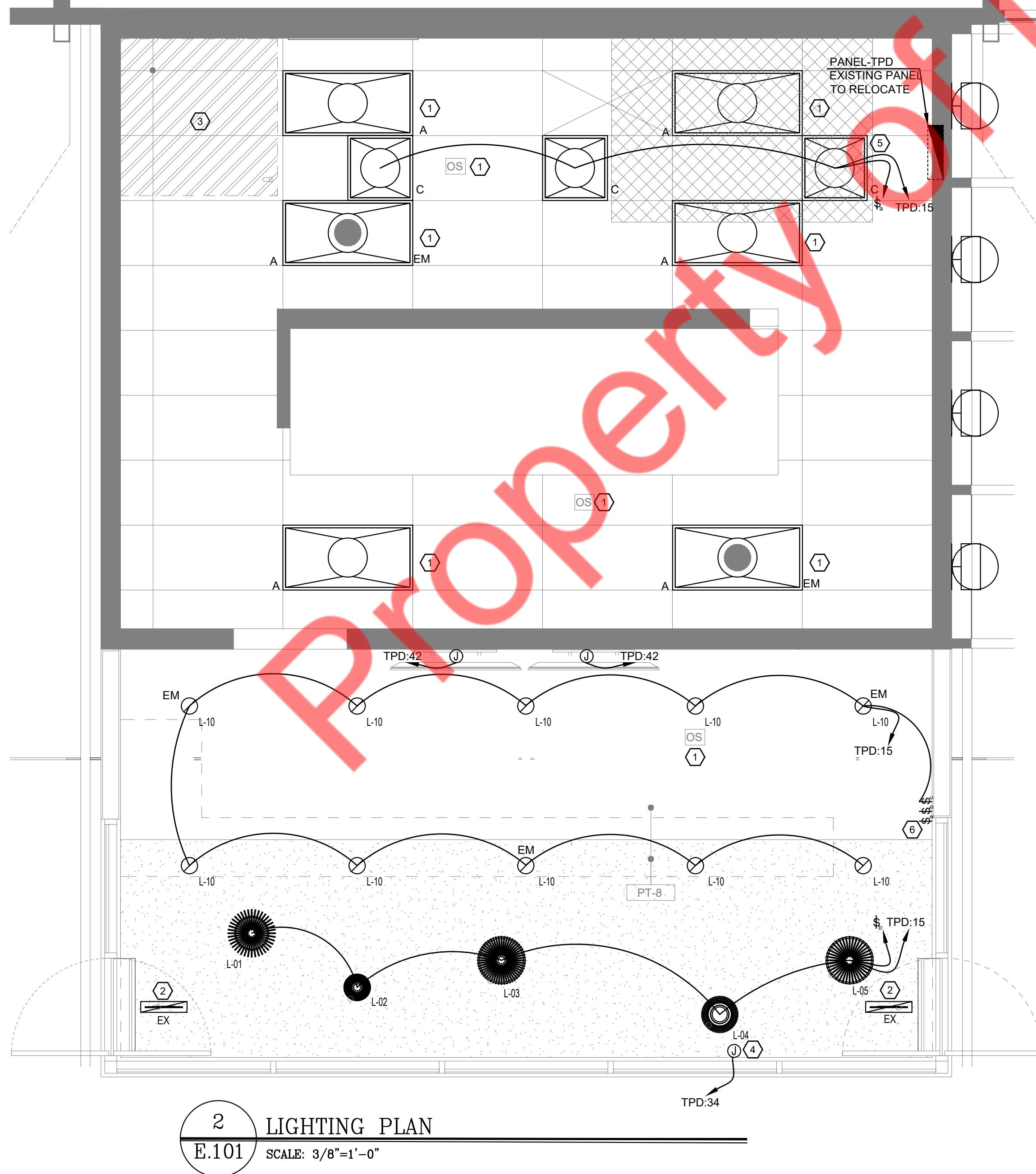
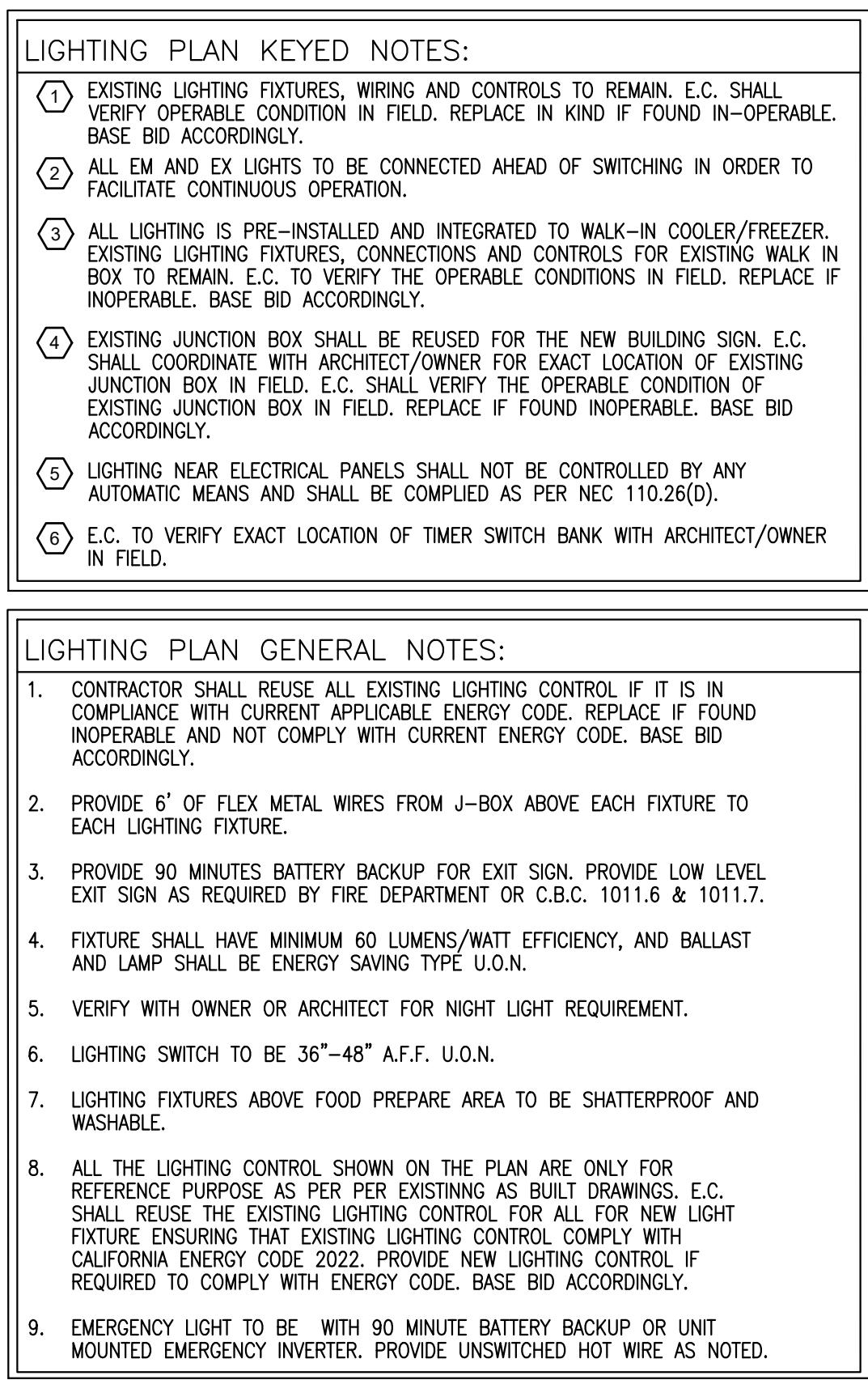
E.101

SCALE: 3/8"=1'-0"

3 ELECTRICAL PANEL SCHEDULE

E.101

SCALE: N.T.S.



RISER DIAGRAM KEYED WORK NOTES

- ① EXISTING 800A, 208/120V, 3-PHASE ELECTRICAL SERVICE FOR FROM THE LANDLORD MAIN SWITCH BOARD TO THE PROJECT SPACE SHALL REMAIN. E.C. SHALL COORDINATE WITH LANDLORD/OWNER FOR EXACT LOCATION OF EXISTING MAIN SWITCH BOARD IN FIELD. E.C. SHALL VERIFY THE EXACT RATING AND OPERABLE CONDITION OF EXISTING SERVICE IN FIELD. INFORM ENGINEER FOR ANY DISCREPANCY FOUND BEFORE COMMENCING ANY WORK.
- ② EXISTING 200A (MCB), 208/120V, 3-PHASE ELECTRICAL PANEL, "TPD" FOR THE PROJECT SPACE TO BE RELOCATE. E.C. SHALL VERIFY THE EXACT RATING OF AND OPERABLE CONDITION OF EXISTING PANEL "TPD" IN FIELD. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
- ③ EXISTING FEEDER AND CONDUIT SHALL REMAIN. E.C. SHALL VERIFY THE EXACT RATING, SIZE AND OPERABLE CONDITION OF EXISTING FEEDER AND CONDUIT IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
- ④ EXISTING 200A, 3PH, 4W ELECTRICAL METER SHALL REMAIN. E.C. SHALL VERIFY EXACT LOCATION IN FIELD. INFORM ENGINEER OF ANY DISCREPANCIES.

4 ELECTRICAL RISER DIAGRAM

E.101

SCALE: N.T.S.

ELECTRICAL GENERAL NOTES

1. E.C. SHALL VERIFY INCOMING SERVICE AMPERAGE, WIRE SIZING AND DISTRIBUTION.
2. E.C. SHALL INFORM ENGINEER FOR ANY DISCREPANCY BEFORE COMMENCING ANY WORK.
3. E.C. SHALL VERIFY THE RATING AND OPERABLE CONDITION OF EXISTING TRANSFORMER AND PANELS IN FIELD. INFORM ENGINEER FOR ANY DISCREPANCY FOUND BEFORE COMMENCING ANY WORK.
4. E.C. SHALL VERIFY THE FAULT CURRENT (Isc) RATING OF EXISTING PANELS WITH UTILITY COMPANY AND AHJ PRIOR TO COMMENCING ANY WORK.
5. E.C. SHALL COORDINATE WITH LANDLORD/OWNER AND VERIFY THE LOCATION, RATING AND OPERABLE CONDITION OF EXISTING EQUIPMENT, PANEL IN FIELD. INFORM ENGINEER FOR ANY DISCREPANCY FOUND.

It is the client's responsibility prior to or during construction to notify the architect in writing of any perceived errors or omissions in the plans and specifications of which a contractor thoroughly knowledgeable with the building codes and methods of construction should reasonably be aware. Often instances of addressing such errors or omissions shall require the architect to rework the plans prior to the client or clients sub-contractors proceeding with the work. The client will be responsible for any defects in construction if these procedures are not followed.

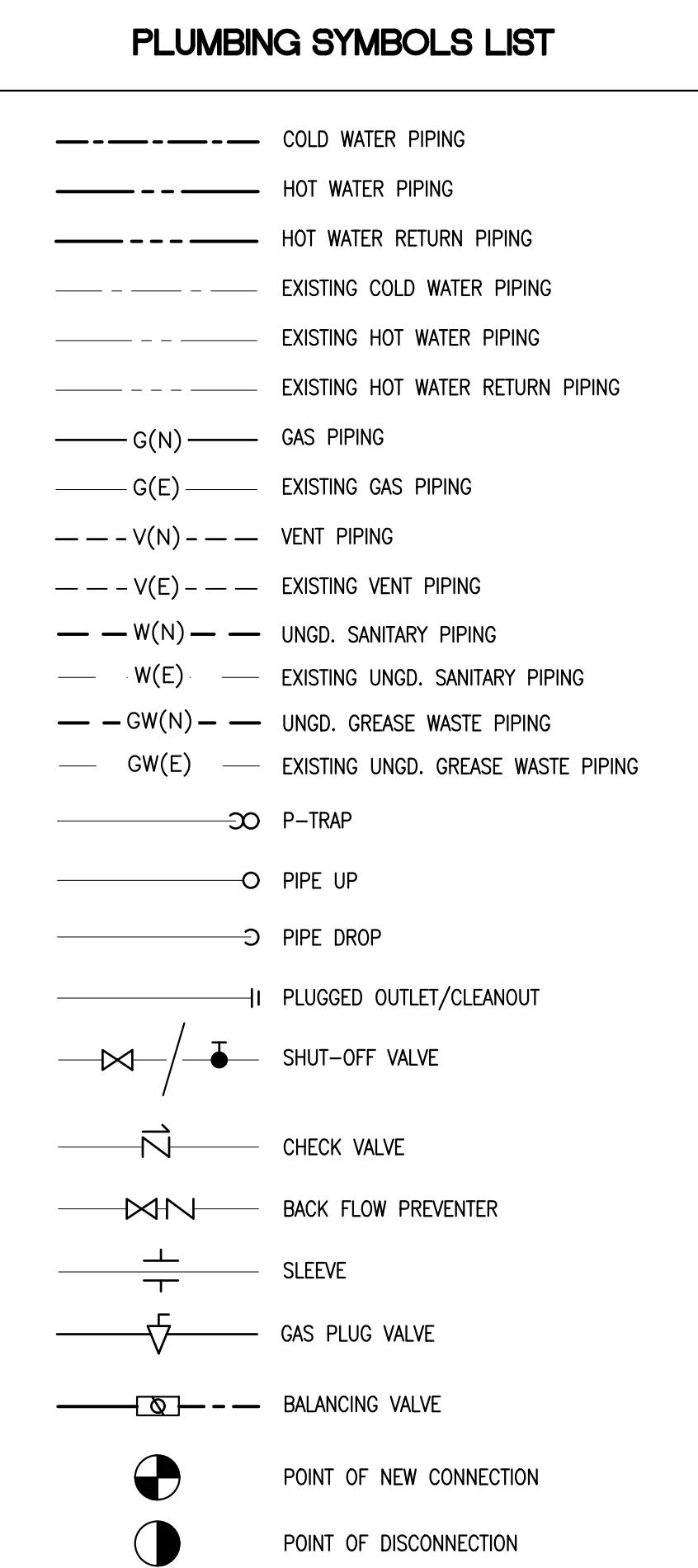
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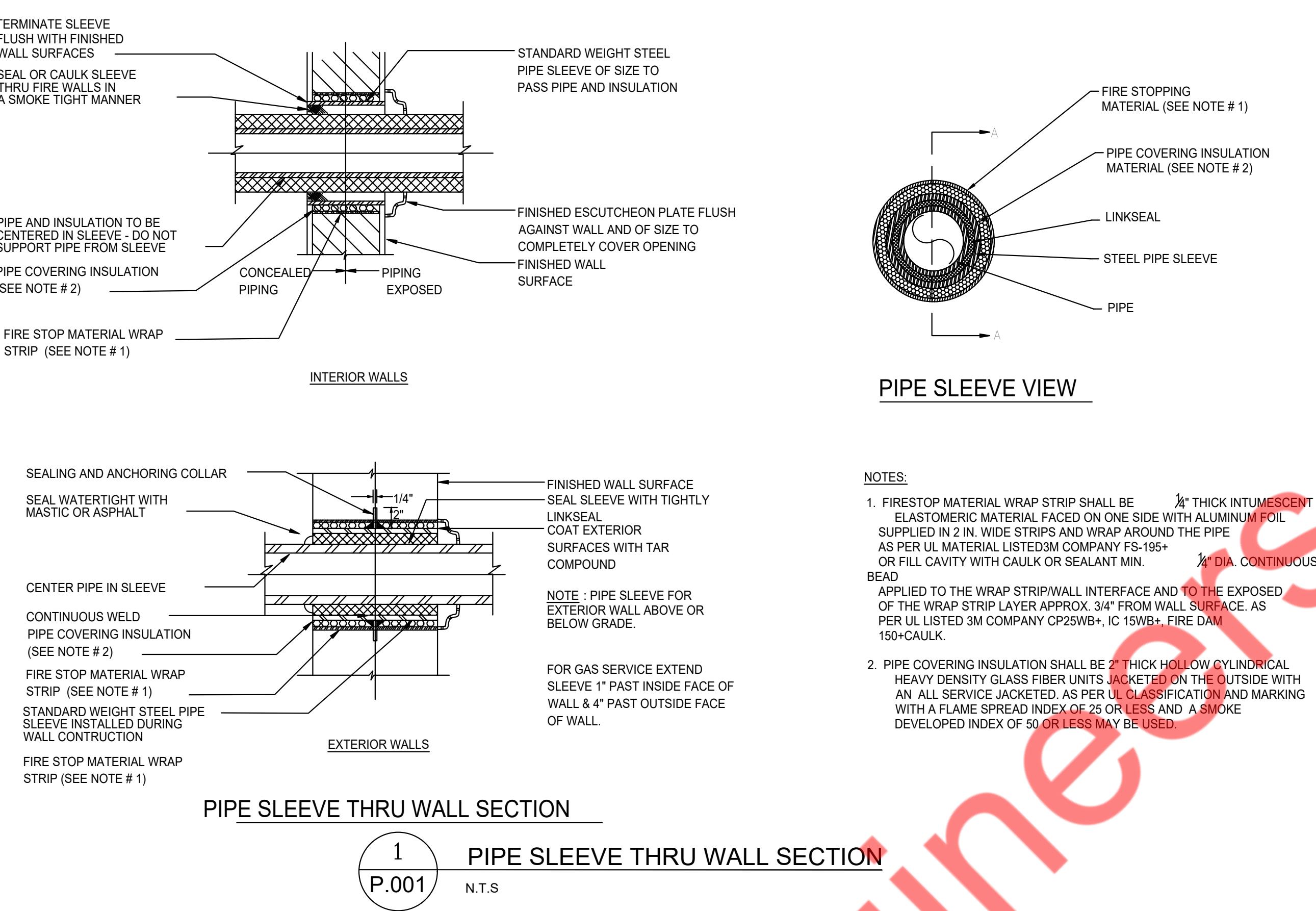
Property of Engineers

**PLUMBING SYMBOLS LIST**



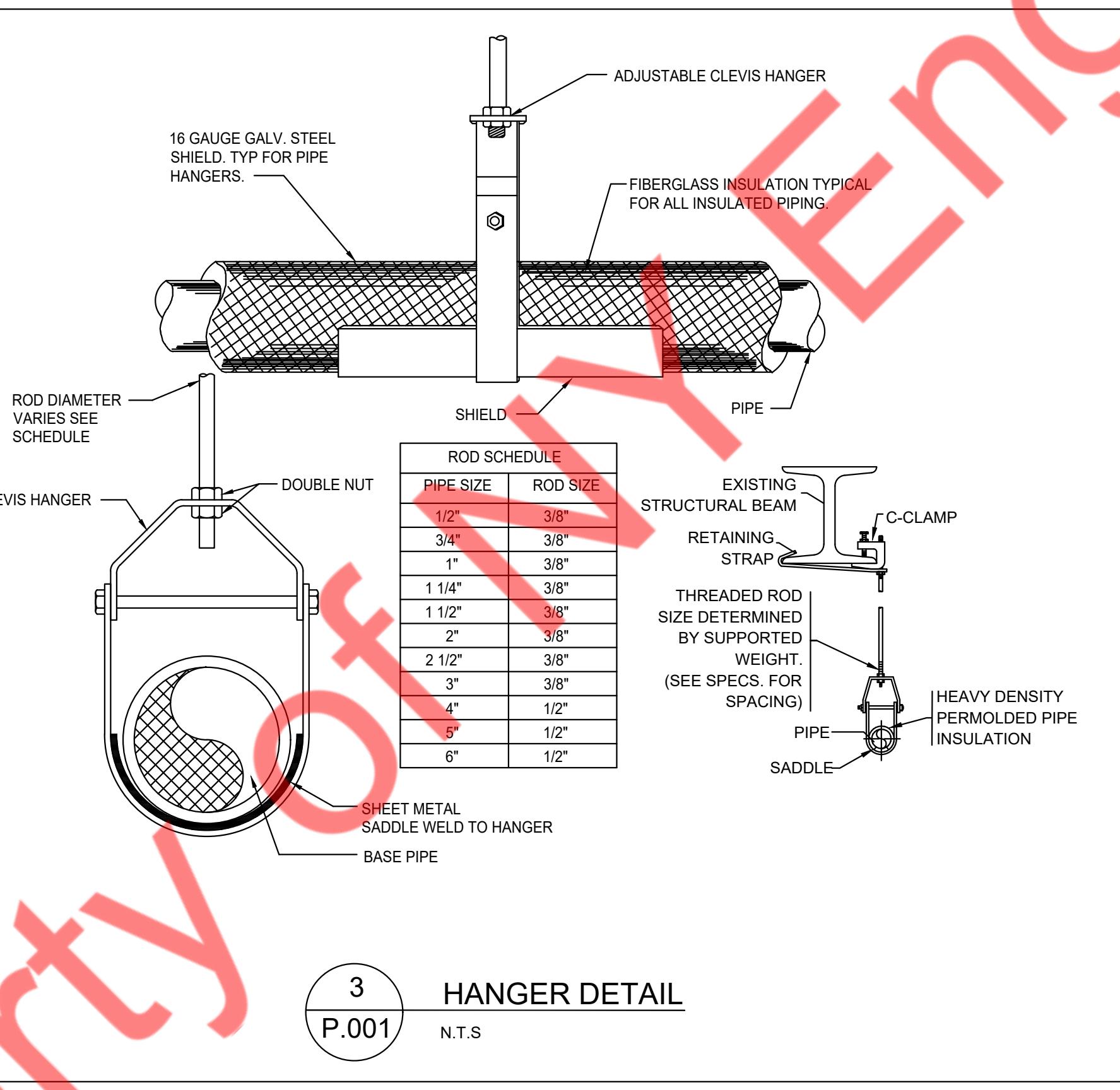
**PLUMBING GENERAL NOTES:**

- ALL PLUMBING SYSTEMS (SANITARY, WASTE, VENT & WATER PIPING SYSTEMS) SHALL COMPLY WITH 2022 CALIFORNIA PLUMBING CODE.
- DRAWING AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
- CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF UTILITIES AT POINT OF CONNECTION BEFORE START OF WORK.
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF PLUMBING FIXTURES AND KITCHEN EQUIPMENT.
- ALL UNDERGROUND SHUT-OFF VALVES OUTSIDE OF BUILDING SHALL BE IN CONCRETE BOXES WITH THE NAME OF THE SERVICE CASTED IN THE COVER.
- ALL PLUMBING FIXTURES AND EQUIPMENT SHALL HAVE ISOLATING VALVES ON WATER SUPPLY LINES. VALVES SHALL BE LINE SIZED UNLESS NOTED OTHERWISE.
- ALL PLUGGED TEES AND PLUGGED WYES SHALL BE LINE SIZED UNLESS NOTED OTHERWISE.
- ALL PIPING PENETRATING WALLS, CEILING, AND FLOOR SHALL BE ISOLATED FROM BUILDING STRUCTURES WITH RESILIENT SEALS.
- RUN ALL INDOOR PLUMBING PIPING CONCEALED IN WALL OR ABOVE CEILING, UNLESS NOTED OTHERWISE.
- PROVIDE DIELECTRIC UNIONS AT BIMETALLIC PIPE JOINTS.
- PROVIDE CHROME PLATED CAPS FOR WALL CLEANOUTS.
- SANITARY & GREASE WASTE LINE SHALL NOT BE SLOPED LESS THAN 1/4" PER FT. IN THE DIRECTION OF FLOW.
- ALL VALVES AND COCKS SHALL BE LOCATED TO BE READILY ACCESSIBLE. WHERE VALVES ARE INSTALLED WITHIN OR BEHIND WALLS OR CEILING, ACCESS PANELS SHALL BE INSTALLED.
- WATER SUPPLY AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE BE CONFIGURED TO PROTECT AGAINST CONTACT. PROTECTORS, INSULATORS, OR BOTH SHALL COMPLY WITH ASME A112.18.9.
- EACH VENT SHALL TERMINATE NOT LESS THAN 10 FT. FROM OR AT LEAST 3 FT. ABOVE ANY WINDOW, DOOR, OPENING AIR INTAKE OR VENT SHFT, NOR LESS THAN 3 FT. FROM ANY LOT LINE IN ANY DIRECTION; ALLEY AND STREET EXCEPTED.
- ALL REQUIRED CLEANOUTS SHALL BE INSTALLED PER SECTION 707 & 719 OF 2022 CALIFORNIA PLUMBING CODE.
- EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN SIX INCHES IN HEIGHT ABOVE THE FLOOD LEVEL RIM OF THE FIXTURE BEFORE BEING CONNECTED TO ANY OTHER VENT.
- NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE DISINFECTED PRIOR TO USE ACCORDING TO THE METHOD SET IN SECTION 609.10 OF THE 2022 CALIFORNIA PLUMBING CODE.
- PROVIDE NON-LEAD SOLDER FOR POTABLE WATER PIPING JOINTS AND CONNECTION.
- MAX. HOT WATER TEMPERATURE TO PUBLIC LAVATORIES TO BE MIN. 110 DEG F & MINIMUM TEMPERATURE TO KITCHEN FIXTURES TO BE 120 DEG F.
- FLOOR DRAIN OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH TRAP PRIMING. TRAP PRIMING DEVICES SHALL BE ACCESSIBLE FOR MAINTENANCE (SECTION 1007 OF 2022 CALIFORNIA PLUMBING CODE).
- COMBUSTIBLE PIPING INSTALLATIONS SHALL BE INSTALLED PER CHAPTER 14 OF 2022 CALIFORNIA PLUMBING CODE FOR FIRESTOP PROTECTION.
- PROPOSED ADDITION, ALTERATION OR IMPROVEMENT REQUIRES THAT ALL NON-COMPLIANT FIXTURES BE REPLACED WITH WATER CONSERVING PLUMBING FIXTURE.
- CONDENSATE DRAIN ARE TRAPPED IN ACCORDANCE WITH THE APPLIANCE MANUFACTURER'S INSTRUCTION.
- PROTECT RECEPTOR ON ROOF OR OUTSIDE OF THE BUILDING FROM RAIN WATER BY ELEVATING THE RIM TWO INCHES ABOVE ADJACENT SURFACE.
- PUBLIC LAVATORIES SHALL HAVE A WATER TEMPERING DEVICE THAT COMPLIES WITH ASSE 1070 OR CSA B125.3. WATER HEATER THERMOSTAT SHALL NOT BE CONSIDERED A CONTROL TO MEET THIS PROVISION.
- INSULATION OF DOMESTIC HOT WATER PIPING SHALL BE IN ACCORDANCE WITH SECTION 609.12 OF 2022 CALIFORNIA PLUMBING CODE.



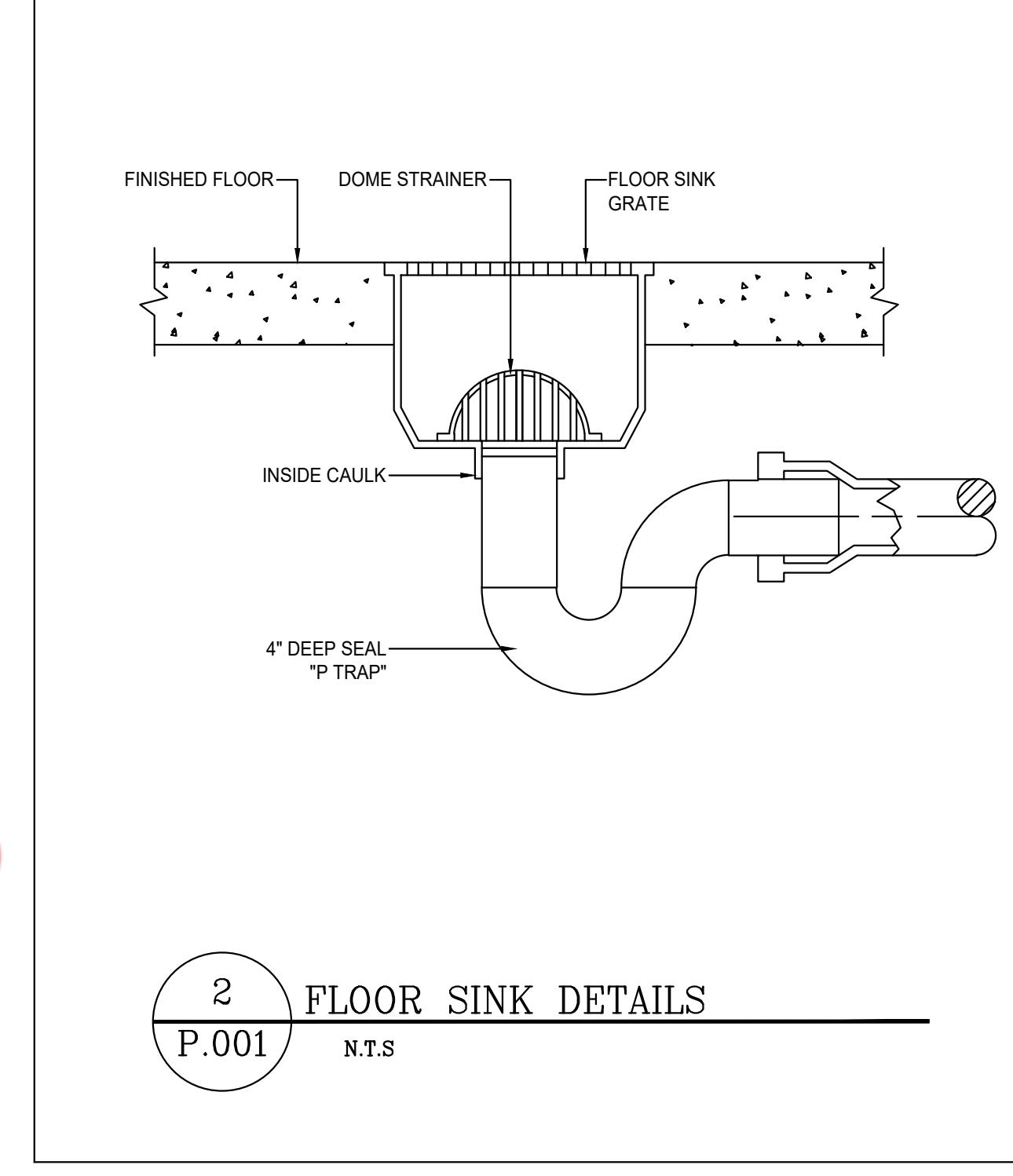
**PIPE SLEEVE THRU WALL SECTION**

1 P.001 N.T.S.



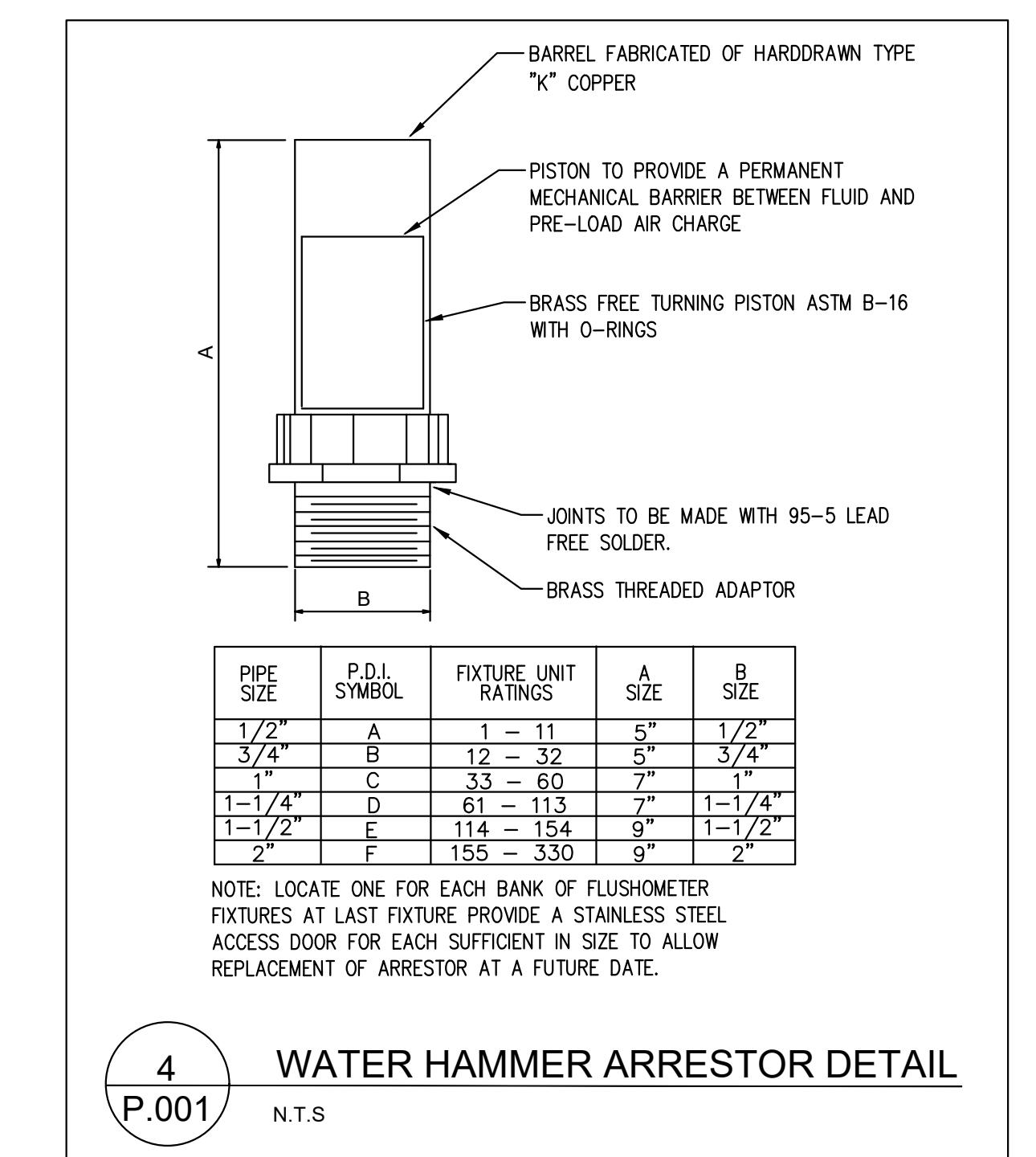
**HANGER DETAIL**

3 P.001 N.T.S.



**FLOOR SINK DETAILS**

2 P.001 N.T.S.

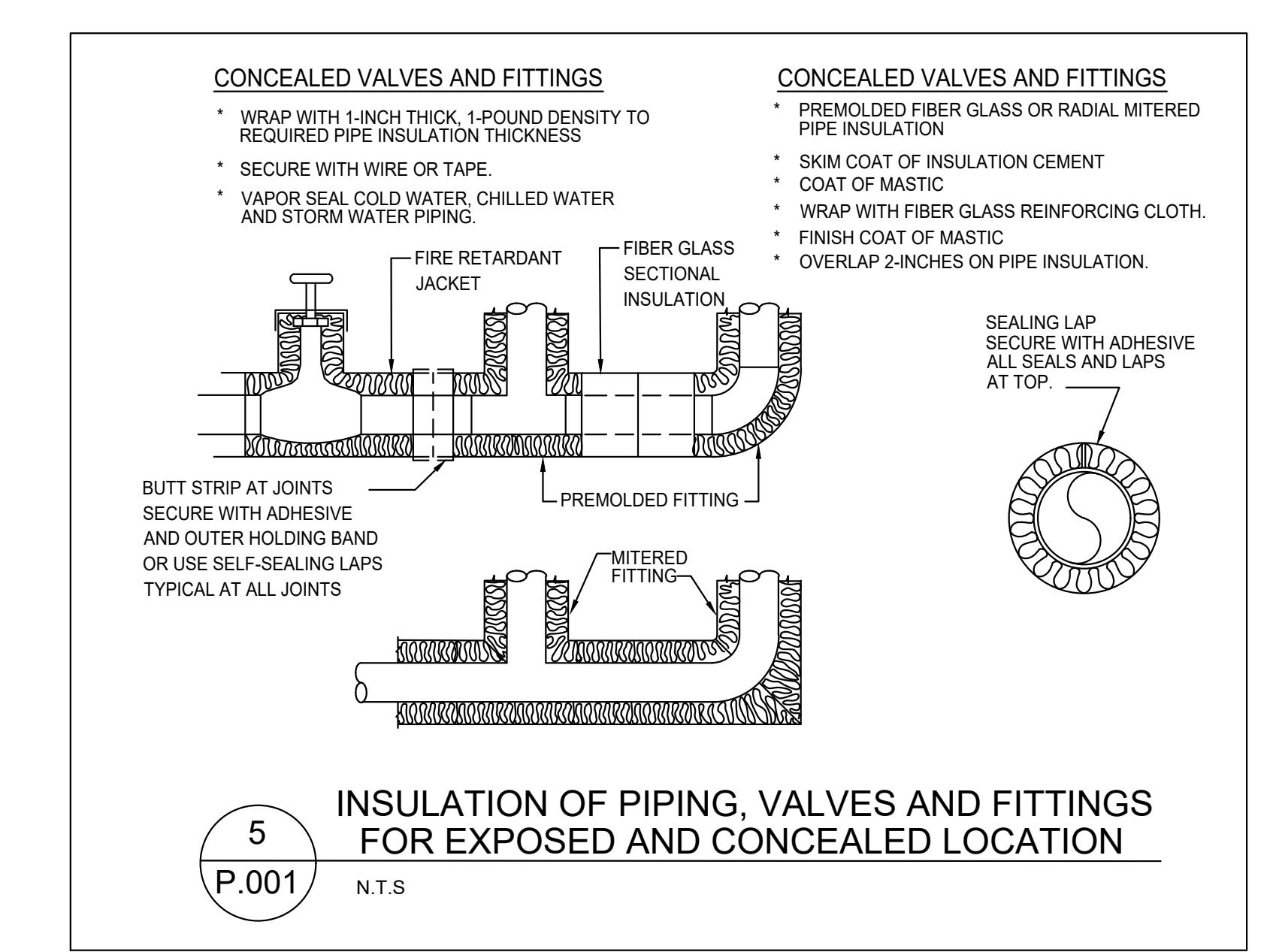


**WATER HAMMER ARRESTOR DETAIL**

4 P.001 N.T.S.

PIPE SIZE	P.D.I. SYMBOL	Fixture Unit Ratings	A SIZE	B SIZE
1/2"	A	1 - 11	5"	1/2"
3/4"	B	12 - 32	5"	3/4"
1"	C	33 - 50	7"	1"
1 1/4"	D	61 - 113	7"	1 1/4"
1 1/2"	E	114 - 154	9"	1 1/2"
2"	F	155 - 330	9"	2"

NOTE: LOCATE ONE FOR EACH BANK OF FLUSHMETER FIXTURES AT LAST FIXTURE. PROVIDE A STAINLESS STEEL ACCESS DOOR FOR EACH SUFFICIENT IN SIZE TO ALLOW REPLACEMENT OF ARRESTOR AT A FUTURE DATE.



**INSULATION OF PIPING, VALVES AND FITTINGS FOR EXPOSED AND CONCEALED LOCATION**

5 P.001 N.T.S.

ISSUED FOR:

ISSUE DATE: _____

No. _____

Description: _____

Date: _____

SHEET TITLE: PLUMBING LEGENDS, NOTES, DETAILS & SCHEDULES

P.001

It is the client's responsibility prior to or during construction to notify the architect in writing of any perceived errors or omissions in the plans and specifications of which a contractor thoroughly knowledgeable with the building codes and methods of construction should reasonably be aware. Written notice shall be received by the architect prior to the client or clients subcontractors proceeding with the work. The client will be responsible for any defects in construction if these procedures are not followed.

EXISTING WATER SUBMETER SCHEDULE				
SYMBOL	SERVICE	MANUFACTURER AND MODEL NUMBER	CONNECTION SIZE	REMARK
WM-1(E)	DOMESTIC WATER	EKM 2.0 INCH WATER METER	2"	STAINLESS STEEL, NSF 61, PULSE OUTPUT

EXISTING GAS WATER HEATER SCHEDULE													
NO.	SERVICE	LOCATION	MANUFACTURER MODEL	GAS INPUT (CFH)	NOMINAL GAL CAPACITY	RECOVERY & TEMP. RISE	FLUE SIZE	AIR INTAKE	DIMENSIONS		DISCHARGE TEMP.	OPERATING WT (LBS)	REMARKS
									DIA.	HEIGHT			
WH-1(E)	DOMESTIC HOT WATER	SEE PLANS	RHEEN GHE50SU-76	76 CFH	50	80 °F TEMPERATURE RISE AT 112 GPH	4"	2"	21.75"	64.5"	140	630	PLATFORM MOUNTED ABOVE CEILING.

EXISTING EARTHQUAKE VALVE SCHEDULE								
SYMBOL	SERVICE	LOCATION	MANUFACTURER	MODEL	DIMENSIONS (L X H X W)	NOMINAL SIZE	MAX PRESSURE	REMARKS
EQ-1 (E)	GAS	GAS METER	KOSO THE CALIFORNIA VALVE	301	4" X 4 $\frac{3}{4}$ " X 3 $\frac{7}{8}$ "	1"	7 PSI	USE MODEL VB-301 FOR VERTICAL INSTALLATION
EQ-2 (E)	GAS	GAS METER	KOSO THE CALIFORNIA VALVE	302 (7)	5 $\frac{1}{4}$ " X 5" X 3 $\frac{7}{8}$ "	1 $\frac{1}{4}$ "	7 PSI	USE MODEL VB-302(7) FOR VERTICAL INSTALLATION

EXISTING CIRCULATING PUMP SCHEDULE								
SYMBOL	SERVICE	MANUFACTURER AND MODEL NUMBER	TYPE	GPM	TDH	HP	V/PH/HZ	REMARKS
CP-1(E)	DOMESTIC HOT WATER RECIRCULATION	TACO 006-IFC	IN-LINE CIRCULATOR	3	6	1/40	115/1/60	PROVIDE TIME CLOCK.

EXISTING GAS SOLENOID VALVE SCHEDULE								
SYMBOL	SERVICE	MANUFACTURER	CATALOG NUMBER	PIPE SIZE	ORIFICE SIZE	MAX PRESSURE	WATTAGE	REMARKS
GSV-1(E)	GAS	ASCO SERIES 8042	8042C075	2"	2 $\frac{3}{32}$ "	20 PSI	59.5	GAS SHUTOFF VALVE, DIE-CAST ALUMINIUM BODY.
GSV-2(E)	GAS	ASCO SERIES 8042	8042C085	2 $\frac{1}{2}$ "	3"	20 PSI	66.0	GAS SHUTOFF VALVE, DIE-CAST ALUMINIUM BODY.
GSV-3(E)	GAS	ASCO SERIES 8042	8042C065	1 $\frac{1}{2}$ "	1 $\frac{5}{8}$ "	20 PSI	59.5	GAS SHUTOFF VALVE, DIE-CAST ALUMINIUM BODY.

EXISTING EXPANSION TANK SCHEDULE													
SYMBOL	MANUFACTURER AND MODEL NUMBER	LOCATION	SERVICE	TYPE	TANK VOLUME (GAL)	ACCEPTED VOLUME (GAL)	OPER. TEMP (°F)	CONN SIZE	PRESSURE (PSIG)		TANK SIZE		REMARKS
									CHARGED	WORKING	DIA.	HEIGHT	
ET-1(E)	AMTROL "THERM-X-TROL" ST-5C-DD	SEE PLANS	HEAT EXCHANGER	IN-LINE	2.0	0.9	140	3/4"	50	150	8"	14"	CONTROL PRESSURE BUILD-UP IN CLOSED POTABLE WATER SYSTEMS.

EXISTING GAS PRESSURE REGULATOR SCHEDULE							
SYMBOL	SERVICE	MANUFACTURER AND MODEL NUMBER	CAPACITY	INLET PRESSURE	OUTLET PRESSURE	OUTLET COLOR SPRING RANGE	REMARKS
GPR-1(E)	GAS	PIETRO FIORENTINI GOVERNOR 31053-1"	1270 CFH	2 PSIG	11" W.C.	BLACK/6" WC TO 14" WC	ANSI Z21.80A-2012 / CSA 6.22A-2012(R2016), CLASS I FOR OUTLET PRESSURES UP TO 14" h W.C., CERTIFIED INTEGRAL VENT LIMITER, EXTERNAL VENT LIMITER – NO VENT LINE REQUIRED, POSITIVE 100% BUBBLE TIGHT LOCKUP
GPR-2(E)	GAS	PIETRO FIORENTINI GOVERNOR 31051-1/2"	785 CFH	2 PSIG	11" W.C.	BLACK/6" WC TO 14" WC	ANSI Z21.80A-2012 / CSA 6.22A-2012(R2016), CLASS I FOR OUTLET PRESSURES UP TO 14" h W.C., CERTIFIED INTEGRAL VENT LIMITER, EXTERNAL VENT LIMITER – NO VENT LINE REQUIRED, POSITIVE 100% BUBBLE TIGHT LOCKUP

BACKFLOW PREVENTER SCHEDULE			
TAG	LOCATION	MODEL	ASSE
BFP-1	HOT WATER DISPENSER	WATTS SD-3 DCV	1022
BFP-2	ICE MACHINE & WATER DISPENSER	WATTS LF9D DCV	1012

AKE VALVE SCHEDULE		
OMINAL SIZE	MAX PRESSURE	REMARKS
1"	7 PSI	USE MODEL VB-301 FOR VERTICAL INSTALLATION
1/4"	7 PSI	USE MODEL VB-302(7) FOR VERTICAL INSTALLATION

EXISTING CIRCULATING PUMP SCHEDULE								
SYMBOL	SERVICE	MANUFACTURER AND MODEL NUMBER	TYPE	GPM	TDH	HP	V/PH/HZ	REMARKS
CP-1(E)	DOMESTIC HOT WATER RECIRCULATION	TACO 006-IFC	IN-LINE CIRCULATOR	3	6	1/40	115/1/60	PROVIDE TIME CLOCK.

EXISTING EXPANSION TANK SCHEDULE													
SYMBOL	MANUFACTURER AND MODEL NUMBER	LOCATION	SERVICE	TYPE	TANK VOLUME (GAL)	ACCEPTED VOLUME (GAL)	OPER. TEMP (°F)	CONN SIZE	PRESSURE (PSIG)		TANK SIZE	REMARKS	
									CHARGED	WORKING			DIA.
ET-1(E)	AMTROL "THERM-X-TROL" ST-5C-DD	SEE PLANS	HEAT EXCHANGER	IN-LINE	2.0	0.9	140	3/4"	50	150	8"	14"	CONTROL PRESSURE BUILD-UP IN CLOSED POTABLE WATER SYSTEMS.

EXISTING ELECTRONIC TRAP PRIMER SCHEDULE					
SYMBOL	MANUFACTURER AND MODEL NUMBER	SUPPLY OUTLETS	V/PH/HZ	INLET	REMARKS
ETP-1(E)	"PPP" MODEL # MPB-500	6	120/1/60	1/2"	TRAP PRIMING MANIFOLD WITH DISTRIBUTION UNIT (DU SERIES), WITH 12" SIZE BOX MOUNTED IN WALL.

EXISTING GAS PRESSURE REGULATOR SCHEDULE							
SYMBOL	SERVICE	MANUFACTURER AND MODEL NUMBER	CAPACITY	INLET PRESSURE	OUTLET PRESSURE	OUTLET COLOR SPRING RANGE	REMARKS
GPR-1(E)	GAS	PIETRO FIORENTINI GOVERNOR 31053-1"	1270 CFH	2 PSIG	11" W.C.	BLACK/6"WC TO 14" WC	ANSI Z21.80A-2012 / CSA 6.22A-2012(R2016), CLASS I FOR OUTLET PRESSURES UP TO 14" h W.C., CERTIFIED INTEGRAL VENT LIMITER, EXTERNAL VENT LIMITER – NO VENT LINE REQUIRED, POSITIVE 100% BUBBLE TIGHT LOCKUP
GPR-2(E)	GAS	PIETRO FIORENTINI GOVERNOR 31051-1/2"	785 CFH	2 PSIG	11" W.C.	BLACK/6"WC TO 14" WC	ANSI Z21.80A-2012 / CSA 6.22A-2012(R2016), CLASS I FOR OUTLET PRESSURES UP TO 14" h W.C., CERTIFIED INTEGRAL VENT LIMITER, EXTERNAL VENT LIMITER – NO VENT LINE REQUIRED, POSITIVE 100% BUBBLE TIGHT LOCKUP

BACKFLOW PREVENTER SCHEDULE			
TAG	LOCATION	MODEL	ASSE
BFP-1	HOT WATER DISPENSER	WATTS SD-3 DCV	1022
BFP-2	ICE MACHINE & WATER DISPENSER	WATTS LF9D DCV	1012

NOTE:  
1. VERIFY BACKFLOW VALVE REQUIREMENTS FOR APPROVAL FOR ALL EQUIPMENT WITH AUTHORITIES HAVING JURISDICTIONS PRIOR TO INSTALLATION.  
2. ENSURE ISOLATION VALVE BEFORE AND AFTER BFP FOR MAINTENANCE.

Property of

Engineering

PAPER RICE

ISSUED FOR: _____

ISSUE DATE: _____

No. _____

Description _____

Date _____

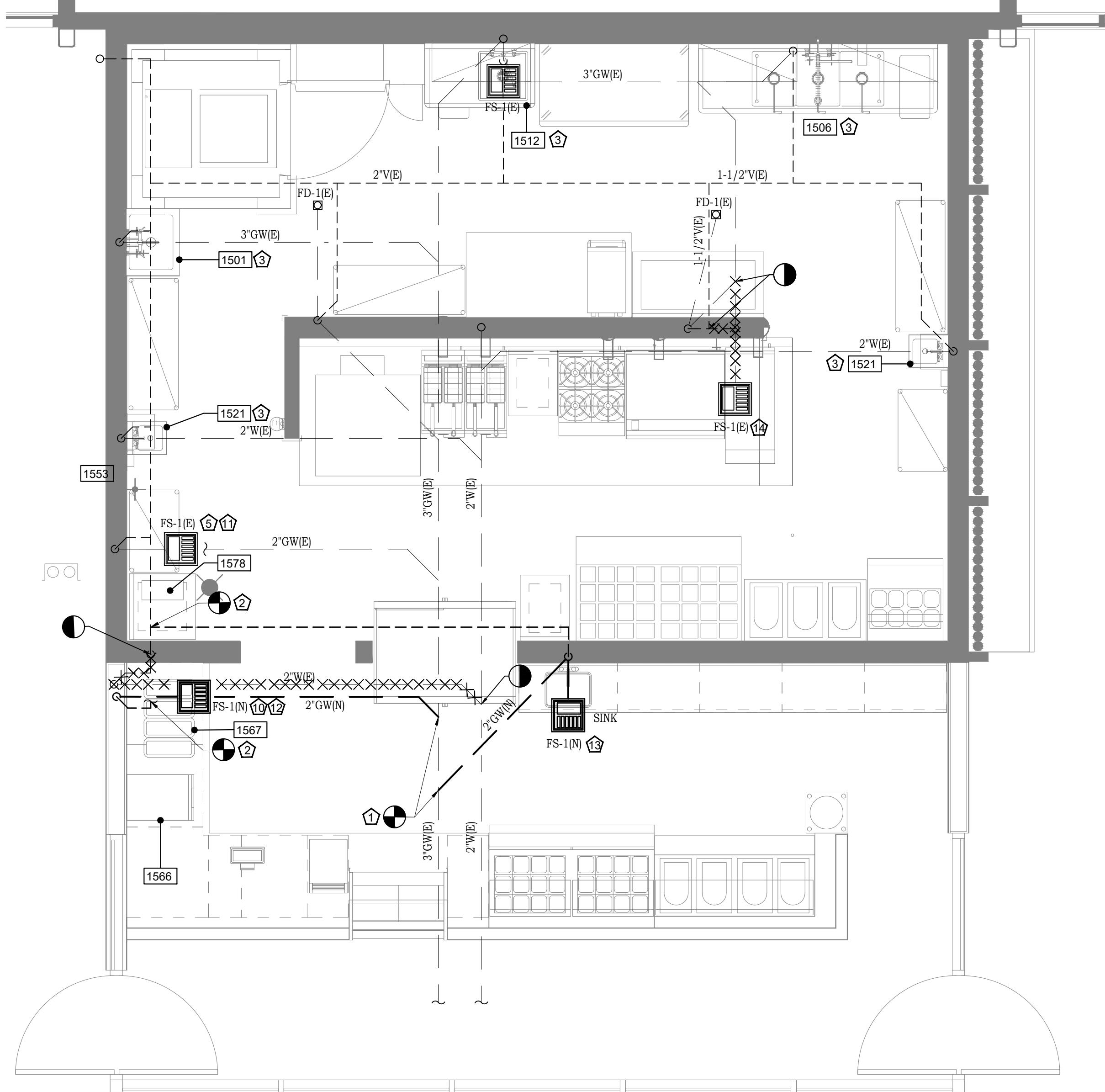
It is the clients responsibility prior to notify the architect in writing of any omissions in the plans and specific contractor thoroughly knowledgeable codes and methods of construction aware. Written instructions addressin

ISSUED FOR:	ISSUE DATE:							
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It is the clients responsibility prior to or during construction to notify the architect in writing of any perceived errors or omissions in the plans and specifications of which a contractor thoroughly knowledgeable with the building codes and methods of construction should reasonably be aware. Written instructions addressing such perceived errors or omissions shall be received from the architect prior to the client or clients subcontractors proceeding with the work. The client will be responsible for any defects in construction if these procedures are not followed.

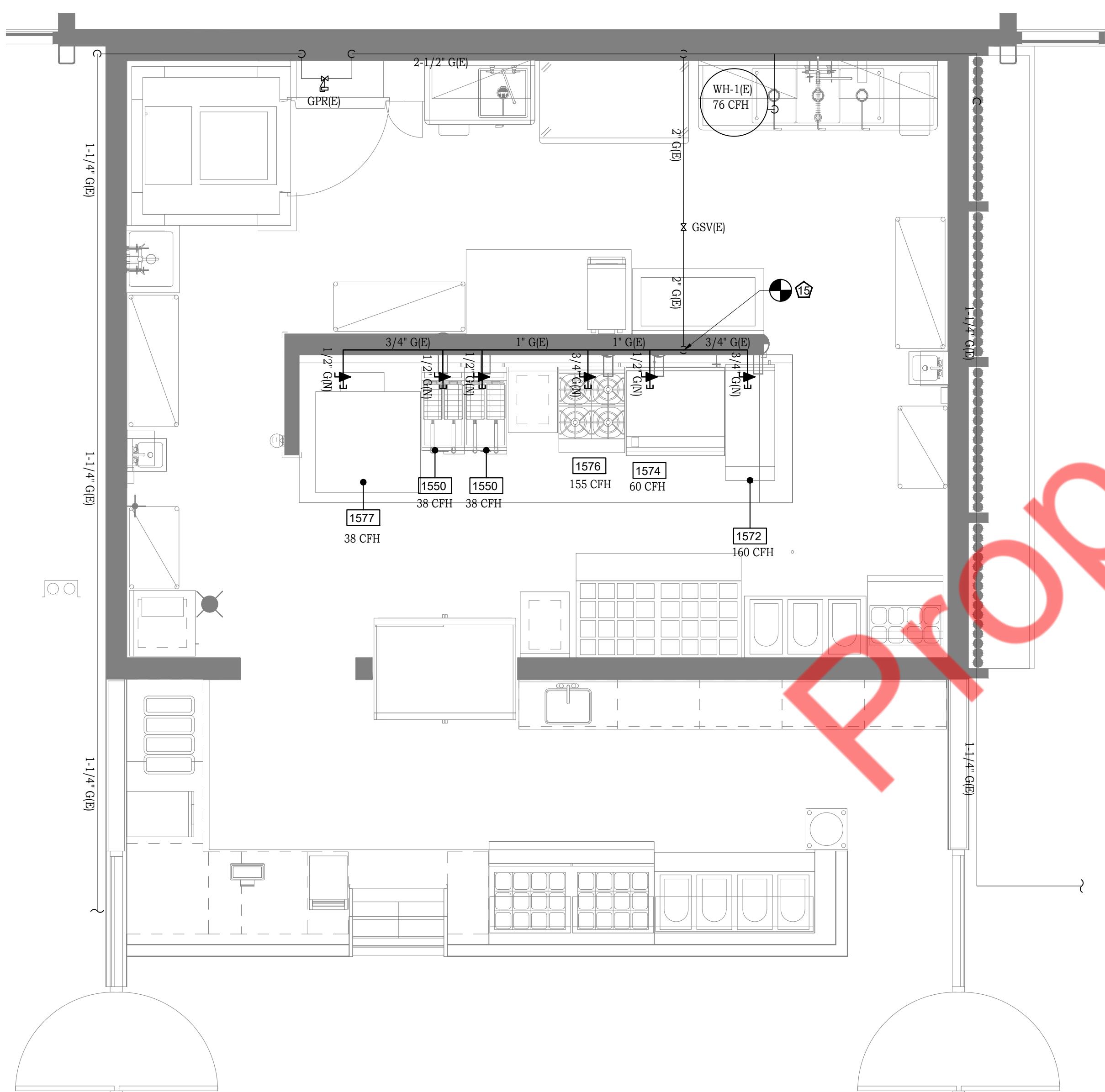
SHEET TITLE:  
**PLUMBING  
SCHEDULES**



1 PLUMBING SANITARY FLOOR PLAN

P.101

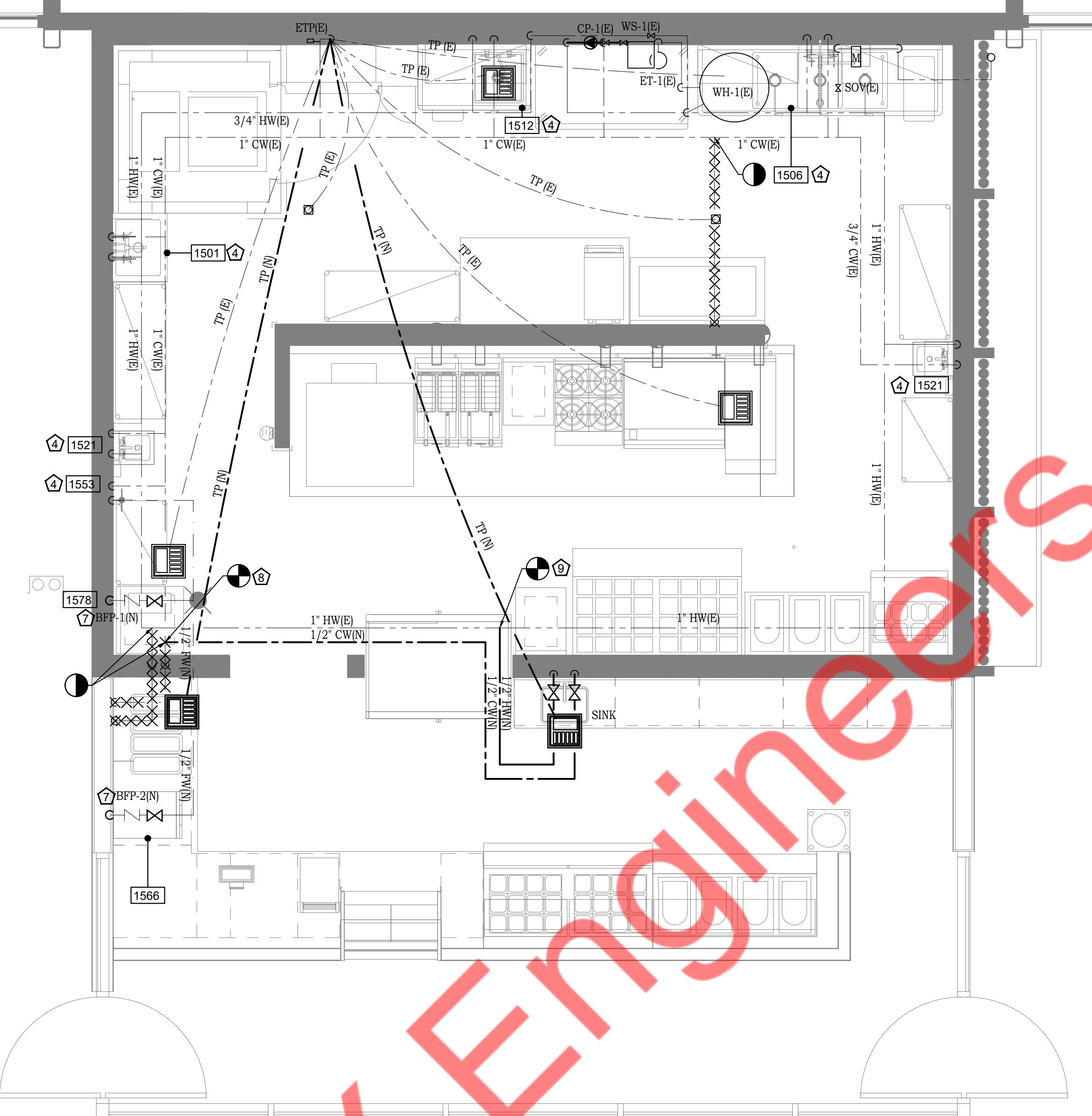
SCALE: 3/8"=1'-0"



3 PLUMBING GAS SUPPLY FLOOR PLAN

P.101

SCALE: 3/8"=1'-0"



2 PLUMBING WATER SUPPLY FLOOR PLAN

P.101

SCALE: 3/8"=1'-0"

PLUMBING KEYED NOTES:	
①	CONNECT NEW 2" GREASE PIPE TO EXISTING GREASE PIPE. CONTRACTOR TO FILED VERIFY EXACT SIZE, LOCATION & INVERT ON SITE.
②	CONNECT NEW 2" VENT PIPE TO EXISTING VENT PIPE. CONTRACTOR TO FILED VERIFY EXACT SIZE & LOCATION.
③	EXISTING SAN, VENT PIPING TO REMAIN FOR EXISTING PLUMBING FIXTURE.
④	EXISTING CW, HW & HWP PIPING TO REMAIN FOR EXISTING PLUMBING
⑤	ROUTE INDIRECT WASTE FROM HOT WATER DISPENSER (#TAG 1578 ) TO EXISTING FLOOR SINK (FS) WITH APPROVED AIR GAP.
⑥	ROUTE INDIRECT WASTE FROM HOT WATER DISPENSER (#TAG 1578 ) TO EXISTING FLOOR SINK (FS) WITH APPROVED AIR GAP.
⑦	PROVIDE BACK FLOW PREVENTER. REFER SHEET P.002 FOR SCHEDULE.
⑧	CONNECT NEW 1/2" CW PIPE TO EXISTING CW PIPE. CONTRACTOR TO FILED VERIFY EXACT SIZE & LOCATION.
⑨	CONNECT NEW 1/2" HW PIPE TO EXISTING HW PIPE. CONTRACTOR TO FILED VERIFY EXACT SIZE & LOCATION.
⑩	ROUTE INDIRECT WASTE FROM BEVERAGE DISPENSER (#TAG 1567) TO NEW FLOOR SINK (FS) WITH APPROVED AIR GAP.
⑪	EXISTING INDIRECT WASTE FROM WATER FILTER ASSEMBLY (#TAG 1553) TO EXISTING FLOOR SINK (FS) WITH APPROVED AIR GAP TO REMAIN.
⑫	ROUTE INDIRECT WASTE FROM ICE MACHINE AND WATER DISPENSER (#TAG 1566) TO NEW FLOOR SINK (FS) WITH APPROVED AIR GAP.
⑬	ROUTE INDIRECT WASTE FROM SINK TO NEW FLOOR SINK (FS) WITH APPROVED AIR GAP.
⑭	CONTRACTOR TO PROVIDE COVER TO SEAL OFF EXISTING FLOOR SINK.
⑮	CONNECT NEW 1/2" GAS PIPE TO EXISTING GAS PIPE. CONTRACTOR TO FILED VERIFY EXACT SIZE & LOCATION.

GENERAL NOTES:	
1.	SAWCUT EXISTING FLOOR AND WALL CONSTRUCTION AS REQUIRED IN ORDER TO ACCOMMODATE NEW WASTE, VENT AND WATER SUPPLY PIPING. PATCH ALL NEW WORK TO MATCH EXISTING CONSTRUCTION. DEMOLITION OF ALL PLUMBING WASTE LINES SHALL NOT RESULT IN DEAD ENDS GREATER THAN 10'-0" IN LENGTH AND ALL WATER SUPPLY PIPING DEAD ENDS SHALL NOT EXCEED 2'-0" IN LENGTH.
2.	PROVIDE DI-ELECTRIC UNIONS, COUPLINGS, ADAPTORs OR FLANCES AT ALL TRANSITIONS OF FERROUS PIPING TO NON-FERROUS PIPING.
3.	ALL EXPOSED WASTE PIPING LOCATED IN TOILET ROOMS SHALL BE CHROME PLATED BRASS WITH MATCHING STOPS. EGCOTHEONS. PROVIDE LOOSE KEY TYPE STOPS IN ALL PUBLIC AREAS OR WHERE VANDAL RESISTANT INSTALLATIONS ARE REQUIRED. ALL RISER TUBES SHALL BE CHROME PLATED COPPER.
4.	PLUMBING CONTRACTOR TO VERIFY ALL EXISTING WASTE, VENT AND WATER SUPPLY PIPING WHERE NEW CONNECTIONS ARE TO BE MADE. PRIOR TO BID. VERIFY EXACT SIZE, LOCATION, INVERT, CONDITION AND REQUIREMENTS IN FIELD. REPORT ANY MAJOR DISCREPANCIES TO ARCHITECT/ENGINEER.
5.	ALL VALVES AND SPECIALTY EQUIPMENT FOR THE PLUMBING INSTALLATION IS TO BE RUN IN ACCESSIBLE CEILING AREAS. NO VALVES OR EQUIPMENT ARE TO BE INSTALLED ABOVE A DRYWALL CEILING OR WITHIN THE WALLS.
6.	COORDINATE ROUTING OF ALL PIPING SYSTEMS TO AVOID DUCTWORK, ELECTRICAL CONDUIT, BEAMS AND OTHER STRUCTURAL MEMBERS.
7.	PLUMBING CONTRACTOR TO RUN ALL PLUMBING WATER DISTRIBUTION PIPING AT THE SAME ELEVATION WHERE POSSIBLE. ALL PIPING IS TO BE LABELED AS TO TYPE AND DIRECTION OF FLOW ON THE OUTSIDE OF THE INSULATION SO THAT IT IS READABLE FROM THE GROUND.
8.	PROVIDE PROTECTIVE INSULATED PIPE COVERS ON P-TRAPS, ANGLE STOPS, OFFSET TAILPIECES, RISER SUPPLY TUBES, ETC. FOR ALL ADA ACCESSIBLE FIXTURES.
9.	ALL WORK MUST COMPLY WITH LOCAL AND STATE PLUMBING CODES.
10.	ALL CLEANOUTS ARE TO BE ACCESSIBLE WITHOUT REMOVAL OF ANY ANCHORED FIXTURE OR FURNITURE. CONTRACTOR TO COORDINATE LOCATIONS PRIOR TO INSTALLATION. WALL CLEANOUTS TO RUN AT FULL LINE SIZE OF FROM BELOW GROUND IN WALL.
11.	PIPE ROUTING SHOWN IS DIAGRAMMATIC AND SHALL BE ADJUSTED ACCORDINGLY PER ACTUAL FIELD CONDITIONS.
12.	WATER PIPING TO BE INSTALLED WITH ISOLATION VALVES IN COMPLIANCE WITH THE LOCAL PLUMBING CODE.
13.	JOINTS BETWEEN PLASTIC PIPE AND NON PLASTIC MATERIAL SHALL BE MADE ONLY WITH AN APPROPRIATE TYPE OF ADAPTER.
14.	CLEAN-OUTS TO BE PROVIDED PER PLUMBING CODE.

EXISTING PLUMBING FIXTURE SCHEDULE								
ITEM	PLUMBING FIXTURE	CONNECTION SIZE - INCHES						REMARKS
		P-TRAP	SOIL/WASTE	VENT	COLD WATER	HOT WATER	THERMOSTATIC MIXING VALVE	
FD-1(E)	EXISTING FLOOR DRAIN	E	E	E	-	-	-	-
FS-1(E)	EXISTING FLOOR SINK	E	E	E	-	-	-	-
1501	EXISTING MOP SINK	E	E	E	E	E	-	-
1506	EXISTING 3 COMP SINK	-	-	-	E	E	-	-
1512	EXISTING PREP SINK	-	-	-	E	E	-	-
1521	EXISTING HAND SINK	E	E	E	E	E	-	-
1553	EXISTING WATER FILTER ASSEMBLY	-	-	-	E	-	-	-

NOTE: CONTRACTOR TO COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ALL PLUMBING FIXTURES SPECIFICATIONS.

NEW PLUMBING FIXTURE SCHEDULE										
ITEM	PLUMBING FIXTURE	CONNECTION SIZE - INCHES						REMARKS		
		P-TRAP	SOIL/WASTE	VENT	COLD WATER	HOT WATER	FILTER WATER	GAS	THERMOSTATIC MIXING VALVE	
1550	FRYER	-	-	-	-	-	-	1/2"	-	38 CFH
1566	ICE MACHINE & WATER DISPENSER	-	-	-	-	-	-	1/2"	-	INDIRECT WASTE TO FLOOR SINK WITH APPROVED AIR GAP
1567	BEVERAGE DISPENSER	-	-	-	-	-	-	-	-	INDIRECT WASTE TO FLOOR SINK WITH APPROVED AIR GAP
1572	STOCK POT BURNER	-	-	-	-	-	-	3/4"	-	160 CFH
1574	GRIDLE	-	-	-	-	-	-	1/2"	-	60 CFH
1576	RANGE	-	-	-	-	-	-	3/4"	-	155 CFH
1577	DOUBLE CONVECTION OVEN	-	-	-	-	-	-	1/2"	-	76 CFH
1578	HOT WATER DISPENSER	-	-	-	-	-	-	1/2"	-	INDIRECT WASTE TO FLOOR SINK WITH APPROVED AIR GAP
FS-1(N)	NEW FLOOR SINK	2"	2"	1-1/2"	-	-	-	-	-	-
SINK	SINK	-	-	-	1/2"	1/2"	-	-	-	INDIRECT WASTE TO FLOOR SINK WITH APPROVED AIR GAP

NOTE: CONTRACTOR TO COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ALL PLUMBING FIXTURES SPECIFICATIONS.

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SHEET TITLE:

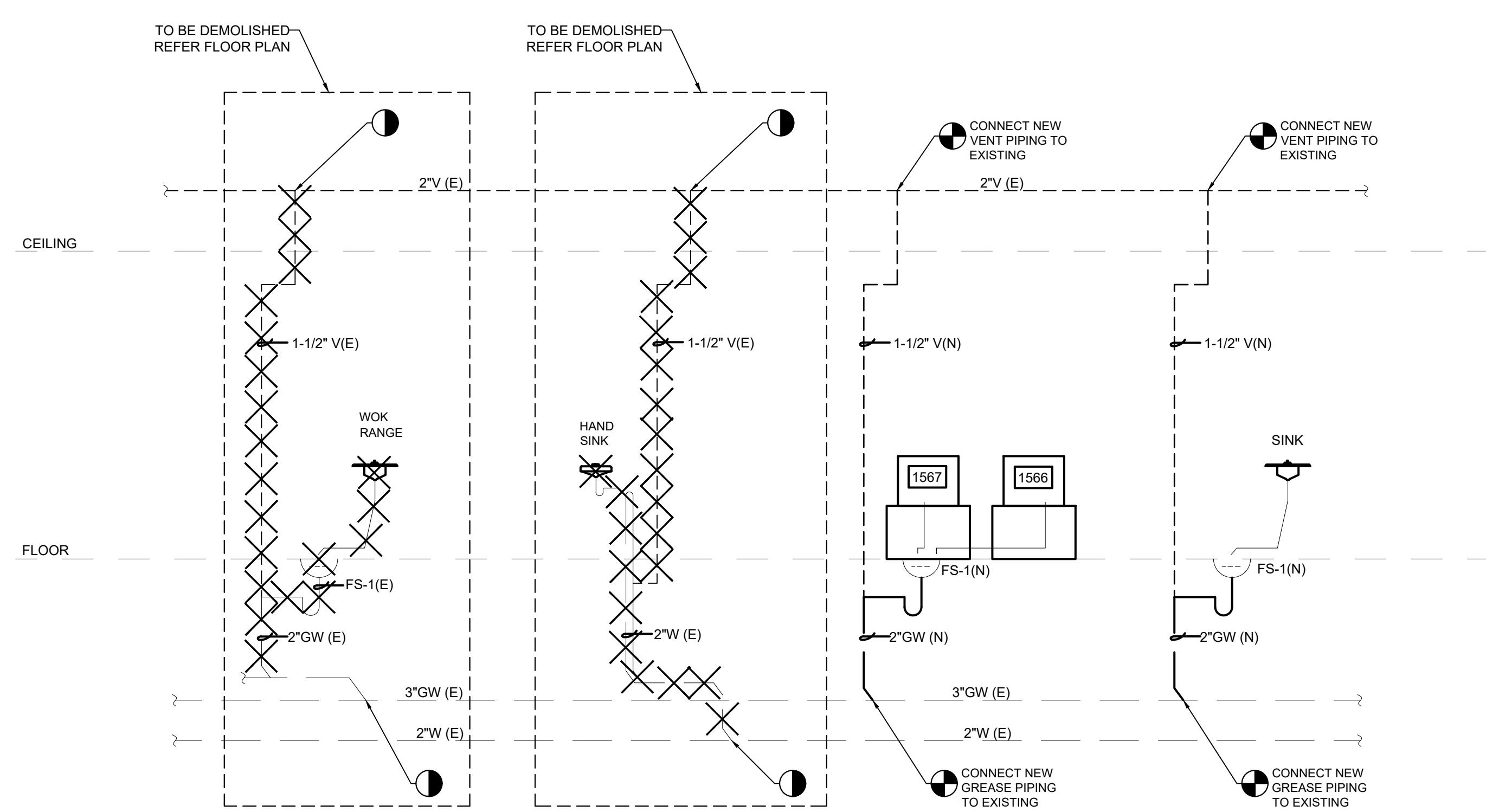
PLUMBING FLOOR PLAN

ISSUED FOR: _____

No. _____

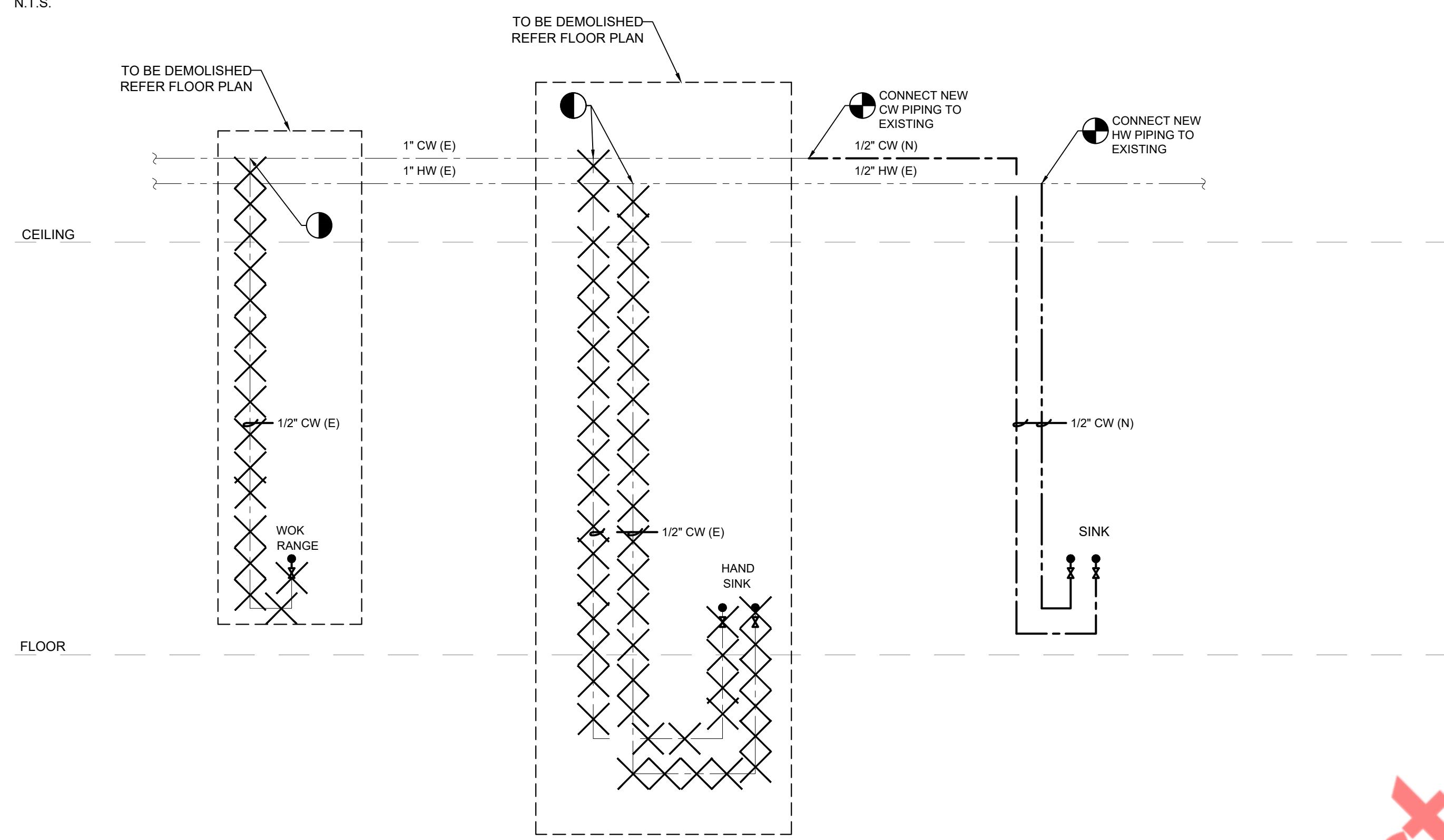
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Description: _____



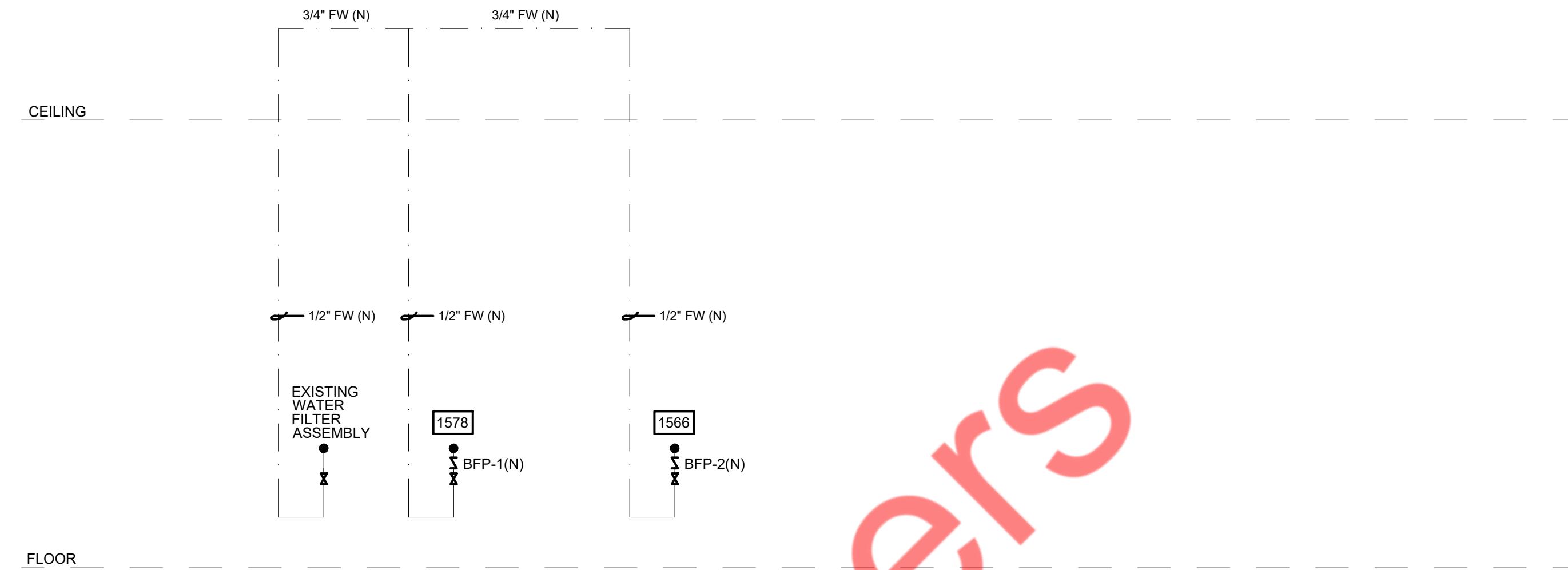
SANITARY RISER DIAGRAM

N.T.S.



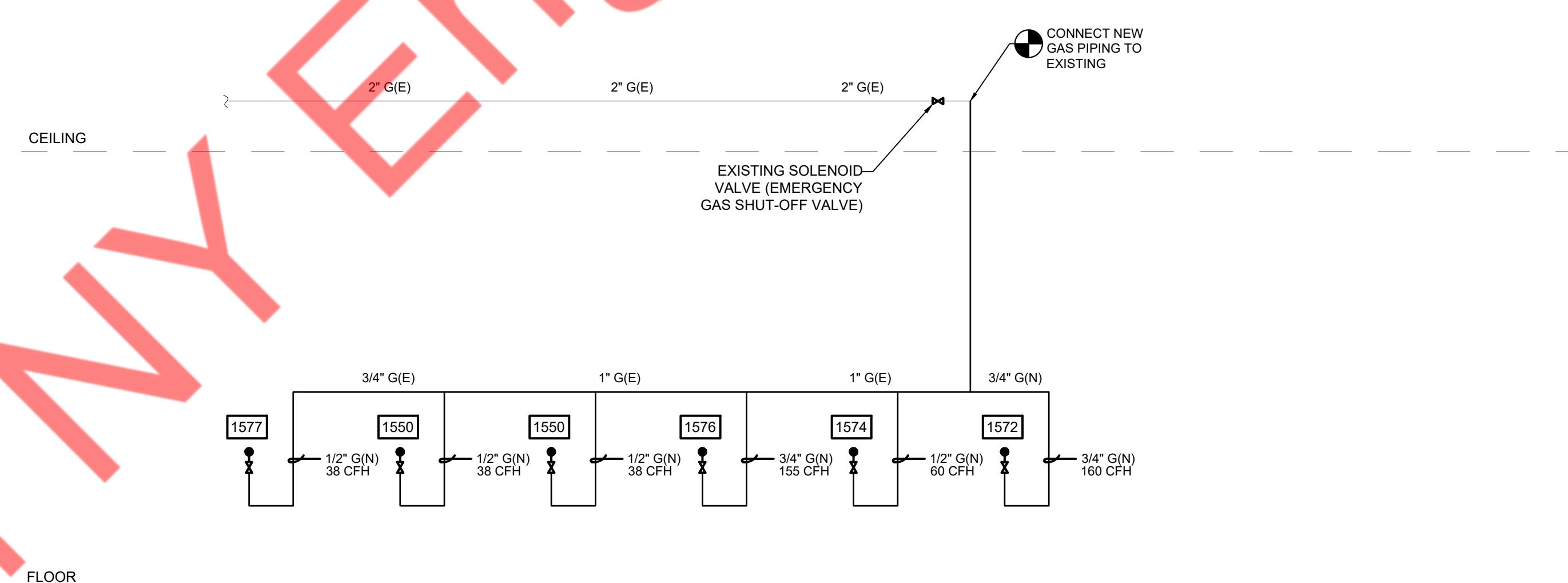
WATER RISER DIAGRAM

N.T.S.



FILTER WATER RISER DIAGRAM

N.T.S.



GAS RISER DIAGRAM

N.T.S.

NEW PLUMBING FIXTURE SCHEDULE								
ITEM	PLUMBING FIXTURE	CONNECTION SIZE - INCHES						REMARKS
		P-TRAP	SOIL/WASTE	VENT	COLD WATER	HOT WATER	FILTER WATER	
1550	FRYER	-	-	-	-	-	1/2"	- 38 CFH
1566	ICE MACHINE & WATER DISPENSER	-	-	-	-	-	1/2"	- INDIRECT WASTE TO FLOOR SINK WITH APPROVED AIR GAP
1567	BEVERAGE DISPENSER	-	-	-	-	-	-	- INDIRECT WASTE TO FLOOR SINK WITH APPROVED AIR GAP
1572	STOCK POT BURNER	-	-	-	-	-	3/4"	- 160 CFH
1574	GRIDDLE	-	-	-	-	-	1/2"	- 60 CFH
1576	RANGE	-	-	-	-	-	3/4"	- 155 CFH
1577	DOUBLE CONVECTION OVEN	-	-	-	-	-	1/2"	- 76 CFH
1578	HOT WATER DISPENSER	-	-	-	-	-	1/2"	- INDIRECT WASTE TO FLOOR SINK WITH APPROVED AIR GAP
FS-1(N)	NEW FLOOR SINK	2"	2"	1-1/2"	-	-	-	-
SINK	SINK	-	-	-	1/2"	1/2"	-	- INDIRECT WASTE TO FLOOR SINK WITH APPROVED AIR GAP

NOTE: CONTRACTOR TO COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ALL PLUMBING FIXTURES SPECIFICATIONS.

GAS LOAD SUMMARY			
TAG	EQUIPMENT	QTY	CFH LOAD
WH-1(E)	EXISTING WATER HEATER	1	76
1577	DOUBLE CONVECTION OVEN	1	76
1550	FRYER	2	38
MAU-1 (E)	MAKE UP AIR UNIT	1	152
1576	RANGE	1	155
1574	GRIDDLE	1	60
1572	STOCK POT BURNER	1	160
TOTAL LOAD			755

NEW GAS PIPE SIZING PER TABLE 1215.2(3) -  
2013 UNIFORM PLUMBING CODE  
GAS INLET PRESSURE - LESS THAN 2 PSI  
PRESSURE DROP - 6.0" WC  
SPECIFIC GRAVITY - 0.60  
EQUIVALENT LENGTH OF PIPE = 150 FT

ISSUED FOR: _____  
SHEET TITLE: _____  
No. _____ Date _____  
It is the client's responsibility prior to or during construction to notify the architect in writing of any perceived errors or omissions in the plans and specifications of which a contractor thoroughly knowledgeable with the building codes and methods of construction should reasonably be aware. Often instances of missing such errors or omissions or omissions shall be recorded in the architect's files and shall be communicated to the client or clients subcontractors proceeding with the work. The client will be responsible for any defects in construction if these procedures are not followed.

PAPER RICE

PLUMBING RISER  
DIAGRAM