
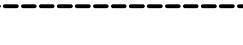
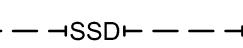


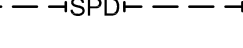
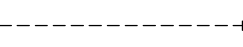



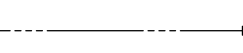


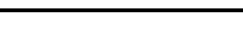
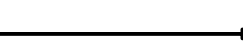















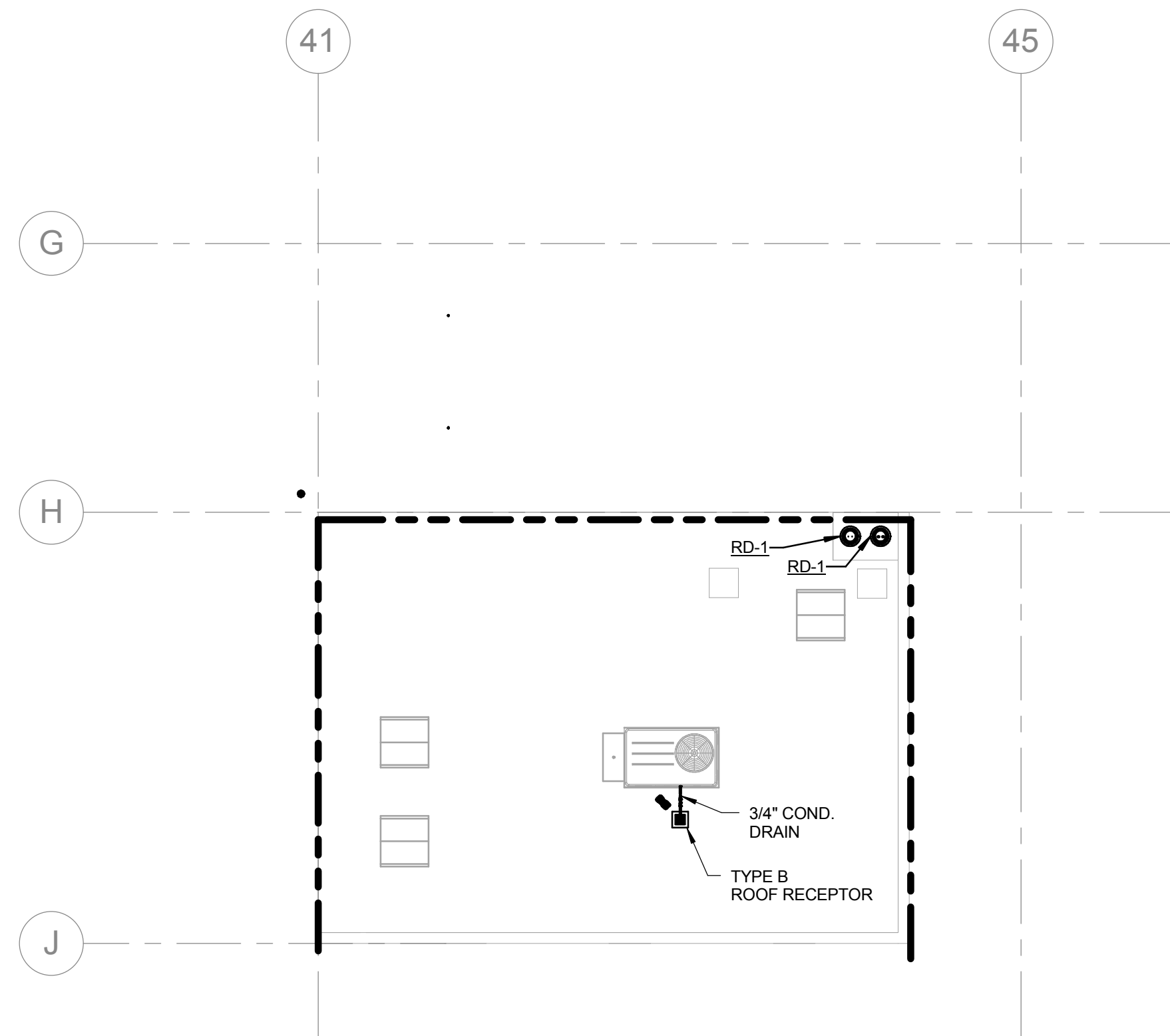


PIPING	
	SANITARY PIPING
	EXISTING SANITARY PIPING
	UNDERGROUND SANITARY DRAINAGE
	EXISTING UNDERGROUND SANITARY DRAINAGE
	STORM DRAIN
	EXISTING STORM DRAIN
	UNDERGROUND STORM DRAINAGE
	OVERFLOW DRAIN
	SUB-SOIL DRAINAGE
	GRAY WATER
	CONDENSATE DRAIN
	GREASE WASTE
	SEWAGE EJECTOR DISCHARGE
	SUMP PUMP DISCHARGE
	VENT
	EXISTING VENT
	GREASE VENT
	DOMESTIC COLD WATER
	EXISTING DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	EXISTING DOMESTIC HOT WATER
	DOMESTIC HOT WATER RETURN
	EXISTING DOMESTIC HOT WATER RETURN
	FILTERED WATER
	NON-POTABLE WATER
	RECLAIMED WATER
	FIRE LINE
	AUTOMATIC FIRE SPRINKLER
	PREACTION FIRE SPRINKLER PIPING
	NATURAL GAS (LOW PRESSURE)
	EXISTING NATURAL GAS (LOW PRESSURE)
	MEDIUM PRESSURE GAS
	EXISTING MEDIUM PRESSURE GAS
	HIGH PRESSURE GAS
	EXISTING HIGH PRESSURE GAS

1. ALL EXISTING PIPING SHOWN ARE BASED ON AVAILABLE DRAWINGS AND DO NOT REFLECT THE ACTUAL INSTALLED EXISTING CONDITION. CONTRACTOR SHALL FIELD VERIFY THE CONNECTIONS, DEPTHS, SIZE AND LOCATION OF EXISTING PIPING FOR NEW P.D.C.'S OR DEMOLITION AS REQUIRED PRIOR TO START OF WORK. PLUMBING CONTRACTOR SHALL INFORM THE ARCHITECT OF ANY DISCREPANCIES.
2. ALL WORK SHALL COMPLY WITH THE CURRENT INTERNATIONAL PLUMBING CODE (IPC), INTERNATIONAL FUEL GAS CODE (IFGC), AND AUTHORITIES HAVING JURISDICTION.
3. ALL SYMBOLS SHOWN ON SYMBOLS LIST ARE NOT NECESSARILY USED ON THIS PROJECT.
4. ALL WORK/MATERIALS SHOWN ON PLANS SHALL BE NEW UNLESS NOTED OTHERWISE, AND SHALL CONFORM TO THE CURRENT EDITION OF THE INTERNATIONAL PLUMBING CODE (IPC) AND ALL LOCAL APPLICABLE CODES AND REGULATIONS.
5. BEFORE STARTING ANY WORK, CONTRACTOR SHALL EXAMINE THE COMPLETE SET OF DRAWINGS FOR ALL TRADES, INCLUDING ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, AND ELECTRICAL, VERIFY ALL DIMENSIONS, SPACE REQUIREMENTS, AND POINTS OF CONNECTION TO ALL FIXTURES AND EQUIPMENT. MAKE ANY MINOR ADJUSTMENTS NECESSARY TO AVOID CONFLICTS WITH THE BUILDING STRUCTURE AND THE WORK OF OTHER TRADES.
6. UNLESS INSTRUCTED OTHERWISE, THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES, AND FEES REQUIRED FOR INSTALLATION OF ALL THE WORK AND ALL OTHER AGENCIES HAVING JURISDICTION OVER SERVICES TO THIS BUILDING. FURNISH FINAL CERTIFICATE OF INSPECTION OR WRITTEN EVIDENCE OF ACCEPTANCE BY INSPECTION AUTHORITIES FOR ALL WORK INSTALLED.
7. SEE ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION AND NEW CONSTRUCTION, FOR EXACT PLUMBING FIXTURE LOCATIONS AND QUANTITIES, EQUIPMENT, DEVICES, ETC.
8. PROVIDE ACCESS PANELS IN WALLS FOR SHUT-OFF VALVE AND TRAP PRIMERS, OR LOCATE ABOVE ACCESSIBLE CEILINGS. CONTRACTOR IS ADVISED THAT ITEMS REQUIRING ACCESS SHALL NOT BE LOCATED ABOVE THE AREAS OF GYPSUM BOARD CEILINGS WITHOUT PERMISSION OF THE ARCHITECT. ALL REQUIRED SHUT-OFF AND CONTROL VALVES SHALL BE ACCESSIBLE.
9. ALL DOMESTIC HOT WATER PIPING SHALL BE INSULATED AS REQUIRED BY CALIFORNIA ENERGY COMMISSION, SECTION 123, TABLE 1-6. ABOVE GROUND PIPING INSULATION SHALL CONSIST OF 3 LB. DENSITY FIBERGLASS, ONE PIECE MOLDED SECTIONAL PIPE-COVERING COMPLYING WITH ASTM C547-95, TYPE I, WITH A MAXIMUM K FACTOR OF 0.23 AT 75F MEAN TEMPERATURE, AND FLAMESPREAD RATING OF 25 MAX. AND SMOKE DEVELOPED RATING OF 50 MAX., WITH A LAMINATE OF WHITE KRAFT PAPER FACING, GLASS SCIRM REINFORCING AND ALUMINUM FOIL WITH A SELF SEALING LAP. ALL UNDERGROUND HOT WATER PIPING SHALL BE INSULATED BY CLOSED CELL FOAM TYPE INSULATION WITH MAXIMUM K FACTOR OF 0.27 AT 75F MEAN TEMPERATURE SIMILAR TO ARMAFLEX.
10. ALL CONDENSATE DRAIN PIPING SHALL BE INSULATED SIMILAR TO HOT WATER PIPING INSULATION'S MATERIALS AND THICKNESS.
11. INSULATE INDIRECT DRAIN LINES FROM REFRIGERATORS, FREEZERS, ICE BINS, ETC., TO PREVENT CONDENSATION. INSULATE ALL WASTE PIPING RECEIVING CONDENSATE DRAIN INCLUDING THE RECEPTOR DRAIN BODY. INSULATION SHALL BE SIMILAR TO HOT WATER PIPING INSULATION'S MATERIALS AND THICKNESS.
12. PROVIDE PIPING ISOLATION ON STUD WALL USING 1/4" FELT OR NEOPRENE ISOLATION, OR APPROVED SMWF ISOLATOR.
13. CIRCULATING HOT WATER SYSTEMS SHALL BE EQUIPPED WITH A CONTROL CAPABLE OF AUTOMATICALLY TURNING OFF THE CIRCULATING PUMP(S) WHEN HOT WATER IS NOT REQUIRED (TIME CLOCK).
14. ALL WATER FAUCETS SHALL BE PROVIDED WITH CODE APPROVED FLOW RESTRICTORS. SINK FAUCETS (NOT INCLUDING SERVICE SINK FAUCETS) SHALL MEET THE FLOW REQUIREMENTS OUTLINED IN THE APPLIANCE EFFICIENCY STANDARDS AND SPECIFICATIONS.
15. COORDINATE ALL SHUT-DOWN OF THE FIRE PROTECTION AND DOMESTIC WATER SYSTEMS WITH THE BUILDING ENGINEER.
16. PROTECT IN PLACE ALL USED PIPING BELOW AND ABOVE CEILING, AND BELOW SLAB.
17. CONTRACTOR TO REPLACE ALL EXISTING PIPING, VALVES, FITTINGS, HANGERS, ETC. FOUND TO BE DEFECTIVE, CORRODED, LEAKING, FROZEN AND CLOGGED UP.
18. RAISE ALL EXISTING PIPING AS REQUIRED TO ACCOMMODATE NEW CEILING, HVAC DUCTS, LIGHTING.
19. ALL EXISTING ABANDONED SAN. & VENT PIPING AND STUBOUTS FROM DEMOLISHED PLUMBING FIXTURES SHALL BE REMOVED, AND EXISTING PIPING SHALL BE CAPPED WHERE THEY ARE OUT OF SIGHT. SLAB SHALL BE FINISHED TO MATCH EXISTING. CONCRETE FILL OF STUBOUTS ARE NOT ACCEPTABLE AND SHALL NOT BE PERMITTED.
20. ALL PLUMBING FIXTURES SHALL BE CERTIFIED TO THE CALIFORNIA ENERGY COMMISSION - A.E.S. SECTION 1605.1 TABLE H-1. (WATER CLOSET 1.6 GPF, URINAL 1.0 GPF, SHOWER HEAD 2.5 GPM, LAVATORY 0.5 GPM, AND SINK FAUCETS 2.0 GPM).
21. COORDINATE WITH ELECTRICAL SECTION PRIOR TO ORDERING EQUIPMENT FOR AVAILABLE VOLTAGES AT EQUIPMENT LOCATIONS.
22. PROVIDE PIPE SLEEVES TO ALL PIPING PASSING THROUGH A MASONRY, CONCRETE, STRUCTURAL WALL. PROVIDE FIRE RATED CAULKING OF SAME RATING AS THE WALL AND SHALL BE HAVE AUTHORITY HAVING JURISDICTION APPROVALS.
23. A MINIMUM 1/2" CLEARANCE SHALL BE PROVIDED AROUND PIPES AT ALL PENETRATIONS THROUGH WALLS AND ROOF. THE GAP SHALL BE PACKED TIGHTLY WITH LOOSE, LIGHTWEIGHT INSULATION THROUGH NON RATED WALLS, AND APPROVED UL LISTED FIRE SAFING MATERIAL RATED WALLS TO MATCH WALL RATING
24. ROOF CONTRACTOR TO PROVIDE WATER TIGHT SEAL AROUND ALL NEW PENETRATIONS THRU ROOF. REFER TO ARCHITECTURAL DWGS. FOR DETAILS OF ALL PENETRATIONS THRU ROOF.
25. PROVIDE AND INSTALL SHOCK ARRESTORS OR WATER HAMMER ARRESTORS WITH ACCESS PANELS OF REQUIRED SIZE AT ALL QUICK CLOSING VALVES, MANUFACTURER AND MODEL NUMBER SHALL BE PER SPECIFICATIONS AND SIZES PER MANUFACTURER REQUIREMENTS.
26. ALL FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH CODE-APPROVED ACCESSIBLE TRAP PRIMERS. CONCEALED TRAP PRIMER VALVES SHALL BE PROVIDED WITH ACCESS PANELS.
27. PROVIDE ACCESS PANELS FOR VALVES, TRAP PRIMERS, AND WATER HAMMER ARRESTORS. LOCATIONS SHALL BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.
28. EXISTING FLOOR REQUIRING CORING OR SAWCUTTING SHALL BE PATCHED FOR INSTALLATION OF NEW FIXTURES AND PIPING AS REQUIRED TO MATCH EXISTING SLAB RATING.
29. CONTRACTOR TO GET APPROVAL FROM THE BUILDING STRUCTURAL ENGINEER IN CORE DRILLING EXISTING CONCRETE FLOOR AND WALL SLAB. CONTRACTOR TO USE CARE AND CAUTION IN CORING EXISTING REINFORCED CONCRETE SLAB. USE X-RAY TO VERIFY EXISTING REINFORCED BARS TO AVOID CUTTING OR DAMAGING THEM.
30. COORDINATE ALL STRUCTURAL CUTTING, DRILLING, PATCHING AND REINFORCING REQUIRED FOR PLUMBING WORK WITH THE GENERAL CONTRACTOR AND REQUIREMENTS OF STRUCTURAL ENGINEER.
31. NO PLUMBING INSTALLATION THAT IS NOT DIRECTLY NECESSARY FOR MECHANICAL REFRIGERATION EQUIPMENT OPERATION SHALL BE PLACED OR PASS THROUGH THE REFRIGERATION MACHINERY ROOM PER UMC 1109.1. ONLY SPRINKLER HEADS AND PIPING SERVING THE MECHANICAL ROOM IN ACCORDANCE WITH NFPA STANDARDS ARE ACCEPTED INSIDE.
32. NO PIPING, DUCTS, LEAK PROTECTION APPARATUS, OR OTHER FOREIGN EQUIPMENT ARE ALLOWED INSIDE THE ELECTRICAL ROOM AND OVER THE ELECTRICAL EQUIPMENT PER NEC SECTION 110.26.F.1. ONLY SPRINKLER HEADS AND PIPING SERVING THE ELECTRICAL ROOM IN ACCORDANCE WITH NFPA STANDARDS ARE ACCEPTED INSIDE.
33. NO PIPING, DUCTS, LEAK PROTECTION APPARATUS, OR OTHER FOREIGN EQUIPMENT ARE ALLOWED INSIDE THE ELEVATOR MACHINE ROOM AND ELEVATOR SHAFT PER ASME 17.1A RULE 102. ONLY SPRINKLER HEADS AND PIPING SERVING THESE ROOMS IN ACCORDANCE WITH NFPA STANDARDS ARE ACCEPTED INSIDE. REROUTE PLUMBING, FIRE MAIN LINES AND OTHER PIPING OUTSIDE THESE AREAS.
34. ROOMS CONTAINING FIRE PUMPS SHALL BE FREE FROM STORAGE AND PENETRATIONS NOT ESSENTIAL TO THE OPERATION PER 2002 NFPA-20 SECTION 2-7.1 (2007 NFPA-20 SECTION 5.12.1.1.4).
35. PENETRATIONS INTO OR THROUGH THE EXIT PASSAGEWAY ARE PROHIBITED PER 2007 CALIFORNIA BUILDING CODE SECTION 1021.5 EXCEPT FOR THOSE SERVING THE EXIT PASSAGEWAY SUCH AS FIRE SPRINKLER PIPING, AND STANDPIPES IN ACCORDANCE WITH NFPA STANDARDS.
36. ALL BACKFLOW DEVICES SHALL BE TESTED BY A CERTIFIED BACKFLOW TESTER WITH THE RESULTS DOCUMENTED ON FORMS PROVIDED BY THE SAN FRANCISCO COUNTY DEPT. OF HEALTH SERVICES CROSS CONNECTION CONTROL SECTION. THE FORMS SHALL BE REGISTERED WITH THE ABOVE AGENCY AND COPIES OF THE FORMS SHALL BE PRESENTED TO THE CITY BUILDING INSPECTOR PRIOR TO FINAL APPROVAL.
37. ALL PIPING SHALL BE PROVIDED WITH SEISMIC JOINTS OR SEISMIC LOOP CONNECTIONS WHERE STRUCTURAL SEISMIC JOINT OCCURS.

FINAL BID DOCUMENTS

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② ROOF PLUMBING PLAN ADMIN.
1/8" = 1'-0"

FINAL BID DOCUMENTS

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