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January 27, 2015 10:50:40 a.m.
Drawing: H:\PROJ2015\20150017\DRAWINGS\XREF\MAS-BORD.DWG
Xrefs: No Xrefs found

# PLUMBING FIXTURE CONNECTIONS

| MARK | DESCRIPTION | MIN BRANCH SIZE W | V | CW | HW | TRAP | REMARKS |
|---|---|---|---|---|---|---|---|
| S-1 | COUNTER MOUNTED SINK | 2" | 1 1/2" | 1/2" | 1/2" | 1 1/2" | (1) (2) |

(1) ADA HEIGHT, WITH TRUBRO LAVGUARD2 PIPE COVERS

(2) OFF-CENTER REAR DRAIN COMPLETE WITH FAUCET AND TRAP, SEE SPECIFICATIONS.

## PLUMBING FIXTURE SPECIFICATION

1. SINK S-1: BASED ON ELKAY, LRAD1720, "LUSTERTONE", SINGLE COMPARTMENT, 18 GAUGE, TYPE 304 STAINLESS STEEL, SELF-RIMMING, SIZE = 17" x 20" x 6" DEEP. MUST MEET ALL STATE OF CALIFORNIA REQUIREMENTS FOR ACCESSIBILITY. SEE PLUMBING FIXTURE SPECIFICATION FOR COMPONENTS.

## GENERAL NOTES

1. THIS PROJECT IS A REMODEL. THE PLANS AND SPECIFICATIONS INDICATE THE GENERAL EXTENT OF THE WORK BASED ON OWNER PROVIDED RECORD DRAWINGS AND LIMITED FIELD VERIFICATION. CONTRACTOR SHALL VISIT SITE, VERIFY EXISTING CONDITIONS, AND REPORT ANY DISCREPANCIES NOTED TO THE ARCHITECT PRIOR TO SUBMITTING A BID. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISCONNECTION AND RECONNECTION OF MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS NECESSARY TO ACCOMPLISH THE WORK WHETHER OR NOT SPECIFIED AND/OR INDICATED.
2. PLUMBING CONTRACTOR SHALL NOTIFY GENERAL CONTRACTOR TO REPAIR WALL, FLOOR, AND CEILING SURFACES AS REQUIRED DUE TO DEMOLITION OR INSTALLATION WORK.
3. REMOVE ALL ABANDONED PIPING, EQUIPMENT, AND FIXTURES INTERFERING WITH NEW WORK WHETHER NEW WORK IS ARCHITECTURAL, STRUCTURAL, MECHANICAL, OR ELECTRICAL.
4. CONTRACTOR SHALL SAW-CUT SLAB AS REQUIRED FOR INSTALLATION OF WASTE AND VENT PIPING BELOW FLOOR.
5. CUTTING OR CORING OF STRUCTURAL MEMBERS OR FOOTINGS IS PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF THE STRUCTURAL ENGINEER AND THE ARCHITECT.
6. CONTRACTOR SHALL VERIFY THAT THE ELECTRICAL CONNECTIONS TO THE UNITS, INCLUDING CIRCUIT PROTECTION, CONFORM TO UNIT LABELS AND MANUFACTURER'S DIRECTIONS. WHERE WIRE SIZES SHOWN ON DRAWING EXCEED MANUFACTURER'S RECOMMENDATIONS, THE DRAWINGS SHALL GOVERN. ALL WIRING SHALL BE PER THE NATIONAL ELECTRICAL CODE.
7. ALL CONTROL WIRING SHALL BE IN CONDUIT. CONDUIT SHALL BE PROVIDED AND INSTALLED BY THE PLUMBING CONTRACTOR.
8. COORDINATE WITH OWNER ON SPACE REQUIRED AND TIME SCHEDULE FOR DELIVERY OF ALL ITEMS WHICH ARE TO BE GIVEN TO THE OWNER FOR HIS DISPOSITION.
9. LABEL ALL PIECES OF EQUIPMENT WITH MARK MATCHING SCHEDULE OR EQUIPMENT LIST WITH ENGRAVED PLASTIC LABELS WITH MINIMUM 1/4" HIGH LETTERS. LABELS EXPOSED TO WEATHER SHALL BE ENGRAVED BRASS.
10. PRIME AND PAINT ALL EXPOSED PIPING PER ARCHITECTURAL SPECIFICATIONS. PAINT SHALL NOT EXCEED THE FOLLOWING VOLATILE ORGANIC COMPOUND CONTENT LIMITS: FLATS < 50 GRAMS PER LITER, NON-FLATS < 100 GRAMS PER LITER.
11. COORDINATE WITH ELECTRICAL ON REQUIRED POWER OUTLETS AND LIGHT SWITCHES NEAR PLUMBING EQUIPMENT.
12. ALL PIPING, VALVES, EQUIPMENT, ETC. SHOWN IS NEW UNLESS OTHERWISE NOTED.

PER SPECIFICATION SECTION 220311 PARAGRAPH 1.5.D.3:
"COMPLETE LAYOUT DRAWINGS SHALL BE REQUIRED BY PARAGRAPH, SUBMITTALS. CONSTRUCTION WORK SHALL NOT START ON ANY SYSTEM UNTIL THE LAYOUT DRAWINGS HAVE BEEN APPROVED BY VA."

## PLUMBING PIPING SYMBOLS

| Symbol | Description |
|---|---|
| | DOMESTIC COLD WATER, COLD WATER |
| | DOMESTIC HOT WATER, HOT WATER |
| | DOMESTIC HOW WATER RETURN, HOT WATER RETURN |
| MA | MEDICAL AIR |
| MV | MEDICAL VACUUM |
| LA | LABORATORY AIR |
| LV | LABORATORY VACUUM |
| OA | ORAL EVACUATION |
| IA | INDUSTRIAL AIR |
| D | DRAIN |
| | VENT (SANITARY) |
| SS | SOIL, WASTE, OR SANITARY SEWER |
| SAN | SANITARY SEWER, BELOW GRADE |
| SD | STORM WATER |
| SD | STORM WATER, BELOW GRADE |
| SCW | SOFTEN COLD WATER |
| FCW | FILTERED COLD WATER |
| DWS | DRINKING WATER SUPPLY |
| DWR | DRINKING WATER RETURN |
| TWS | TEMPERED WATER SUPPLY |
| TWR | TEMPERED WATER RETURN |
| $N_2O$ | NITROUS OXIDE |
| O | OXYGEN |
| $N_2$ | NITROGEN |
| NG | NATURAL GAS |
| NG | NATURAL GAS, BELOW GRADE |
| FOD | FUEL OIL DISCHARGE |
| FOS | FUEL OIL SUPPLY |
| FOV | FUEL OIL VENT |
| FOR | FUEL OIL RETURN |

## GENERAL PLUMBING SYMBOLS

- DIRECTION OF PIPE PITCH (DOWN)
- DIRECTION OF FLOW
- ANCHOR
- REDUCER OR INCREASER
- ECCENTRIC REDUCER
- TOP CONNECTION, 45° OR 90°
- BOTTOM CONNECTION, 45° OR 90°
- SIDE CONNECTION
- CAPPED OUTLET
- RISE OR DROP IN PIPE
- UNION
- PIPE UP
- PIPE DOWN
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- LIMIT OF DEMOLITION
- INVERTED BUCKET TRAP SET INCLUDING PIPING ACCESSORIES
- FLOAT & THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES
- STRAINER
- THERMOMETER
- PRESSURE GAGE
- FE — FLOW ELEMENT
- CO — CLEAN OUT
- HOSE BIB

## PLUMBING VALVE SYMBOLS

- GATE VALVE
- GLOBE VALVE
- GATE VALVE WITH 3/4 " HOSE ADAPTER
- CHECK VALVE
- ANGLE GLOBE VALVE
- BUTTERFLY VALVE
- BALL VALVE
- MODULATING CONTROL VALVE
- TWO POSITION CONTROL VALVE
- THREE-WAY MODULATING CONTROL VALVE
- THREE-WAY TWO POSITION CONTROL VALVE
- PRESSURE REGULATING VALVE
- AUTOMATIC FLOW CONTROL VALVE
- PRESSURE RELIEF VALVE
- MANUAL AIR VENT
- TEST PLUG (PRESSURE/TEMPERATURE)
- AV — AUTOMATIC AIR VENT

## PLUMBING ABBRIEVIATIONS

| | |
|---|---|
| A/E | ARCHITECT / ENGINEER |
| AD | AREA DRAIN/ACCESS DOOR |
| AFF | ABOVE FINISH FLOOR |
| AFG | ABOVE FINISH GRADE |
| AG | AIR GAP |
| AP | ACCESS PANEL |
| AS | AUTOMATIC SPRINKLER |
| ASD | ADJUSTABLE SPEED DRIVES |
| ASD | AUTOMATIC SPRINKLER DRAIN |
| ASHRAE | AMERICAN SOCIETY OF HEATING, REFRIGERATION, AIR CONDITIONING ENGINEERS |
| ASME | AMERICAN SOCIETY OF ECHANICAL ENGINEERS |
| ASPE | AMERICAN SOCIETY OF PLUMBING ENGINEERS |
| ASR | AUTOMATIC SPRINKLER RISER |
| AV | ACID VENT |
| AW | ACID WASTE |
| BFP | REDUCED PRESSURE BACKFLOW PREVENTER |
| BHP | BREAK HORSEPOWER |
| BSP | BLACK STEEL PIPE |
| BT | BATHTUB |
| BTU | BRITISH THERMAL UNIT |
| BTUH | BRITISH THERMAL UNIT PER HOUR |
| C | CELSIUS |
| CA | COMPRESSED AIR |
| CGA | COMPRESSED GAS ASSOCIATION |
| CFM | CUBIC FEET PER MINUTE |
| CI | CAST IRON |
| CO | CLEANOUT |
| CS | CLINICAL SINK |
| CV | CONTROL VALVE |
| DCW | DOMESTIC COLD WATER |
| DFU | DRAINAGE FIXTURE UNITS |
| DHW | DOMESTIC HOT WATER |
| DHWR | DOMESTIC HOT WATER RETURN |
| DHWS | DOMESTIC HOT WATER SUPPLY |
| DI | DEIONIZED WATER |
| DN | DOWN |
| DOE | DEPARTMENT OF ENERGY |
| DS | DOWNSPOUT |
| DW | DISHWASHER |
| DWG | DRAWING |
| DWH | DOMESTIC WATER HEATER |
| DWR | DRINKING WATER RETURN |
| DWS | DRINKING WATER SUPPLY |
| DWV | DRAIN WASTE VENT |
| EL | ELEVATION |
| EMCS | ENERGY MONOSERRAT AND CENTRAL SYSTEM |
| EPA | ENVIROMENTAL PROTECTION AGENCY |
| EPACT | ENERGY POLICY ACT |
| ESC | ESCUTCHEON |
| ESH | EMERGENCY SHOWER |
| ET | EXPANSION TANK |
| EWH | ELECTRIC WATER HEATER |
| EWS | EYE WASH STATION |
| EWS/SH | EYE WASH/DRENCH SHOWER |
| EX | EXISTING |
| F | FAHRENHEIT |
| FCO | FLOOR CLEANOUT |
| FCW | FILTERED COLD WATER |
| FD | FLOOR DRAIN |
| FDC | FIRE DEPARTMENT (HOSE) CONNECTION |
| FM | FLOW METER |
| FOP | FUEL OIL PUMP |
| FOR | FUEL OIL RETURN |
| FOS | FUEL OIL SUPPLY |
| FOV | FUEL OIL VENT |
| FS | FLOOR SINK |
| FS | FLOW SWITCH |
| FU | FIXTURE UNITS |
| GAL | GALLON |
| GCO | GRADE CLEANOUTS |
| GPD | GALLONS PER DAY |
| GPH | GALLONS PER HOUR |
| GPM | GALLONS PER MINUTE |
| GPR | GAS PRESSURE REGULATOR |
| GRS | GAS REGULATOR STATION |
| GT | GREASE TRAP |
| GVTR | GAS VENT THROUGH ROOF |
| GWH | GAS FIRED WATER HEATER |
| H&CW | HOT AND COLD WATER |
| HB | HOSE BIBB |
| HD | HUB DRAIN |
| HEX | HEAT EXCHANGER |
| HP | HORSEPOWER |
| HS | HAND SINK |
| HST | HOT WATER STORAGE TANK (DOMESTIC) |
| HWB | HOT WATER BOILER |
| HWCP | HOT WATER CIRCULATING PUMP |
| HWP | HOT WATER PUMP |
| HYD | HYDRANT |
| ID | INSIDE DIAMETER |
| IE | INVERT ELEVATION |
| ICW | INDUSTRIAL COLD WATER |
| IHW | INDUSTRIAL HOT WATER |
| INV | INVERT |
| IPC | INTERNATIONAL PLUMBING CODE |
| IRW | IRRIGATION WATER |
| IW | INDIRECT WASTE |
| IWH | INSTANTANEOUS WATER HEATER |
| IWR | INDUSTRIAL WATER RETURN |
| IWS | INDUSTRIAL WATER SUPPLY |
| KW | KILOWATT |
| KWH | KILOWATT-HOUR |
| L/S | LITER PER SECOND |
| LA | LABORATORY AIR |
| LAV | LAVATORY |
| LBS/HR | POUNDS PER HOUR |
| LCW | LABORATORY COLD WATER |
| LHW | LABORATORY HOT WATER |
| LNG | LIQUID NATURAL GAS |
| LOX | LIQUID OXYGEN |
| LV | LABORATORY VACUUM |
| LW | LOW WATER |
| M | METER |
| MA | MEDICAL AIR |
| MAV | MANUAL AIR VENT |
| MBH | 1000 BTUH |
| MED | MEDICAL |
| MER | MECHANICAL EQUIPMENT ROOM |
| MH | MANHOLE |
| MOU | MEMORANDUM OF UNDERSTADING |
| MSB | MOP SERVICE BASIN |
| MV | MEDICAL VACUUM |
| N2 | NITROGEN |
| N20 | NITROUS OXIDE |
| NC | NORMALLY CLOSED |
| NG | NATURAL GAS |
| NIC | NOT IN CONTRACT |
| NO | NORMALLY OPEN |
| NOM. | NOMINAL |
| NPW | NON POTABLE WATER |
| NTS | NOT TO SCALE |
| O2 | OXYGEN |
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OFD | OVERFLOW DRAIN |
| OR | OPERATING ROOM |
| OVFL | OVERFLOW |
| PA | PASCAL |
| PD | PRESSURE DROP OR DIFFERENCE |
| PDI | PLUMBING AND DRAINAGE INSTITUTE |
| PG | PRESSURE GAGE |
| PP | PLUMBING PUMP |
| PPM | PARTS PER MILLION |
| PRS | PRESSURE REDUCING STATION |
| PRV | PRESSURE REDUCING VALVE |
| PSI | POUNDS PER SQUARE INCH |
| PSIA | POUNDS PER SQUARE INCH ATMOSPHERE |
| PSIG | POUNDS PER SQUARE INCH GAGE |
| PTRV | PRESSURE TEMPERATURE RELIEF VALVE |
| PW | POTABLE WATER |
| RD | ROOF DRAIN |
| RDL | ROOF DRAIN LEADER |
| RL | ROOF LEADER |
| RP | RECIRCULATION PUMP |
| RO | REVERSE OSMOSIS WATER |
| RWL | RAIN WATER LEADER |
| SAN | SANITARY SEWER |
| SMACNA | SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION |
| SCFM | STANDARD CUBIC FOOT/MINUTE |
| SCW | SOFTENED COLD WATER |
| SDMH | STORM DRAIN MANHOLE |
| SMH | SANITARY MANHOLE |
| SP | SUMP PUMP |
| SPR | SPRINKLER LINE |
| SQFT/SF | SQUARE FEET |
| SS | STAINLESS STEEL |
| ST | STORAGE TANK |
| SW | STORM WATER |
| TCV | TEMPERATURE CONTROL VALVE |
| TD | TEMPERATURE DIFFERENCE |
| TD | TRENCH DRAIN |
| TDH | TOTAL DYNAMIC HEAD |
| TEMP | TEMPERATURE |
| TMV | THERMOSTATIC MIXING VALVE |
| TP | TRAP PRIMER |
| TSTAT | THERMOSTAT |
| TWR | TEMPERED WATER RETURN |
| TWS | TEMPERED WATER SUPPLY |
| TYP | TYPICAL |
| V | VENT |
| VAC | VACUUM |
| VB | VACUUM BREAKER |
| VCO | VACUUM CLEANER OUTLET |
| VP | VACUUM PUMP |
| VS | VENT STACK |
| VSD | VARIABLE SPEED DRIVE |
| VTR | VENT THROUGH ROOF |
| W | WASTE |
| WC | WATER CLOSET |
| WCO | WALL CLEANOUT |
| WG | WATER GAGE |
| WH | WALL HYDRANT |
| WH | WATER HEATER |
| WHA | WATER HAMMER ARRESTER |
| WL | WATER LINE |
| WM | WATER METER |
| WPD | WATER PRESSURE DROP |
| WS | WASTE STACK |
| WSFU | WATER SUPPLY FIXTURE UNITS |
| YCO | YARD CLEANOUT |
| YH | YARD HYDRANT |

# 100% CONSTRUCTION DOCUMENTS

Revisions: | Date

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