

NATURAL GAS CALCULATIONS				
FIXTURE	CONNECTION SIZE	NO. OF FIXTURES	INPUT (BTU/HR)	TOTAL (BTU/HR)
SHOP BUILDING (ADDITIONAL LOAD TO EXISTING NATURAL GAS SYSTEM)				
MECHANICAL				
RH-1	3/4"	1	50,000	50,000
RH-2	3/4"	1	50,000	50,000
RH-3	3/4"	1	50,000	50,000
RH-4	3/4"	1	50,000	50,000
TOTAL DEMAND (BTU/HR)				200,000
TOTAL DEMAND (CFH)				197
NOTES: DEVELOPED LENGTH (INC. ELBOWS): 275 FEET @ 2 PSI PRESSURE MAIN LINE SIZE (PER TABLE C402.4(4)): 1" 1,015 BTU = 1 CFH NATURAL GAS				

PLUMBING SEISMIC CRITERIA			
OCCUPANCY CLASSIFICATION	SEISMIC DESIGN CATEGORY	COMPONENT IMPORTANCE FACTOR (Ip)	
II	D	GENERAL PLUMBING	1.0
II	D	NATURAL GAS PIPING	1.5

### PLUMBING LEGEND

	CW	COLD WATER
	FS	FIRE SERVICE
		PIPE BELOW FLOOR OR GRADE
	HW	HOT WATER, 120°F
	HWR	RECIRCULATED HOT WATER
	V	VENT
	W	SANITARY WASTE ABOVE FLOOR OR GRADE
	W	SANITARY WASTE BELOW FLOOR OR GRADE
	SD	STORM DRAIN ABOVE FLOOR OR GRADE
	SD	STORM DRAIN BELOW FLOOR OR GRADE
	CTG	CLEANOUT TO GRADE
	FCO	FLOOR CLEANOUT
	WCO, CO	WALL CLEANOUT, CLEANOUT
		SHUTOFF VALVE, BALL VALVE
		CHECK VALVE, STRAINER
		BALANCING VALVE
		PIPE UP
		PIPE DOWN
	(K)	CAP OR PLUG
	G	NATURAL GAS

### ABBREVIATIONS LEGEND

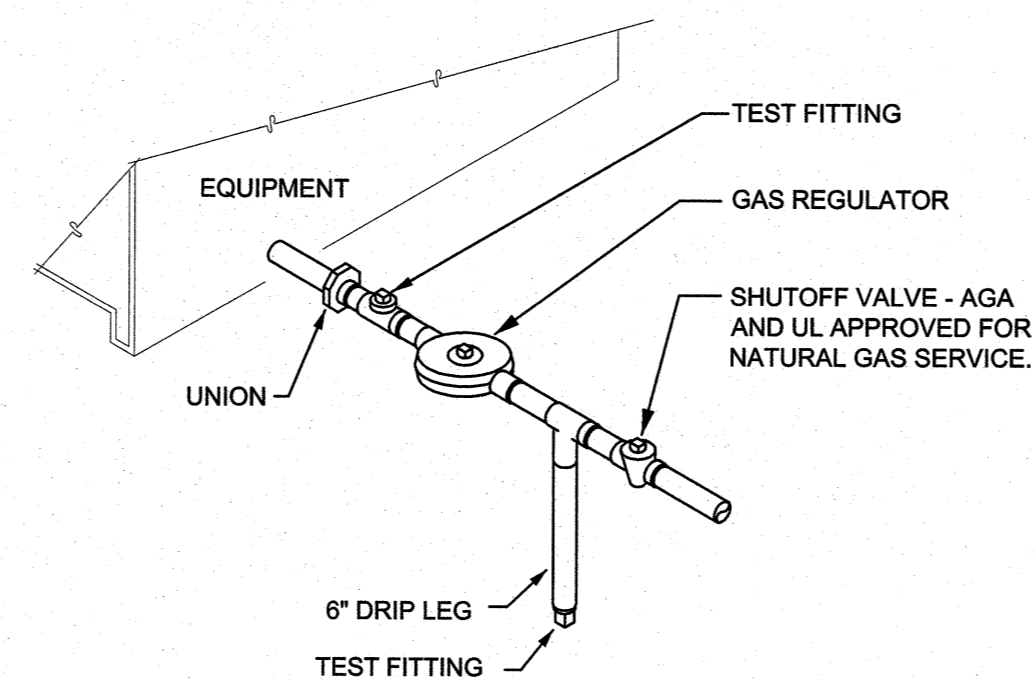
AFF	ABOVE FINISHED FLOOR
CA	COMPRESSED AIR
BV	BALANCING VALVE
DN	DOWN
DW	DISHWASHER
EWC	ELECTRIC WATER COOLER
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
HWRP	HOT WATER RECIRCULATING PUMP
IE	INVERT ELEVATION
L	LAVATORY
PRV	PRESSURE REDUCING VALVE
SH	SHOWER
TYP	TYPICAL
U	URINAL
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WATER HEATER

### SYMBOLS LEGEND

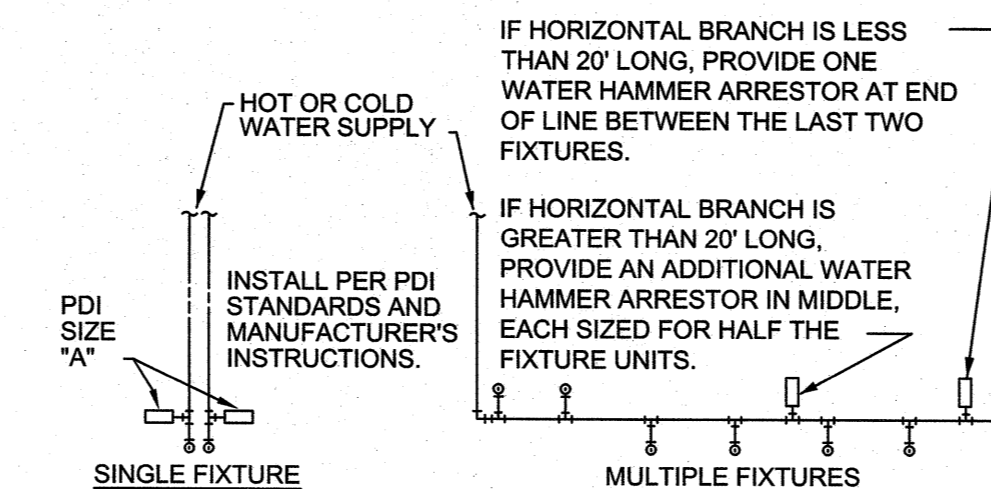
(C)	CONNECT TO EXISTING
(E)	EXISTING
(K)	CAP OR PLUG
(R)	RELOCATE EXISTING
(X)	REMOVE EXISTING

### GENERAL PLUMBING NOTES

- OBTAIN EXACT LOCATIONS AND MOUNTING HEIGHTS OF PLUMBING FIXTURES FROM ARCHITECTURAL DRAWINGS.
- SEE ARCHITECTURAL DRAWINGS FOR A.D.A. COMPLIANT FIXTURE LOCATIONS AND MOUNTING HEIGHTS.
- INSTALL ALL PLUMBING WORK SO AS TO AVOID INTERFERENCE WITH ELECTRICAL AND MECHANICAL EQUIPMENT AND STRUCTURAL FRAMING.
- INSTALL ALL CLEANOUTS WHERE READILY ACCESSIBLE AND AS PER SECTION 707 AND 719 OF THE SOPS. COORDINATE ALL CLEANOUT LOCATIONS WITH EQUIPMENT, CABINETS, ETC., AND THE ARCHITECT PRIOR TO ANY INSTALLATION.
- ALL VALVES, UNIONS, ETC. TO BE SAME SIZE AS LINE SIZE UNLESS OTHERWISE INDICATED ON DRAWINGS.
- PROVIDE UNIONS AFTER EACH SCREW TYPE VALVE AND PRIOR TO EQUIPMENT CONNECTIONS.
- ALL WASTE PIPING SHALL SLOPE AT 2% UNLESS OTHERWISE INDICATED.
- ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF ANY STATE OR LOCAL LAWS OR ORDINANCES. OBTAIN AND PAY FOR ALL REQUIRED PERMITS, LICENSES, CODE INSPECTIONS, ECT.
- ROUTE ALL PIPING ON THE WARM SIDE OF BUILDING ENVELOPE INSULATION.
- COORDINATE ALL REQUIREMENTS FOR ALL POINTS OF CONNECTION WITH THE GENERAL CONTRACTOR AND OTHER TRADES PRIOR TO BID.
- PRIME ALL FLOOR DRAINS, DECK DRAINS, TRENCH DRAINS, FLOOR SINKS AND ALL OTHER SIMILAR FIXTURES.
- COORDINATE THE LOCATION OF ALL CEILING ACCESS PANELS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND LIGHTING LAYOUT.
- ALL PIPING DISCHARGING INTO FLOOR SINKS AND/OR FLOOR DRAINS TO HAVE A MINIMUM AIR GAP AS REQUIRED BY LOCAL CODES AND ARRANGED TO PERMIT EASY REMOVAL OF FLOOR SINK BASKET STRAINERS.
- BEFORE FABRICATION OR INSTALLATION, VERIFY EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT AND OTHER EQUIPMENT PROVIDED UNDER OTHER SECTIONS OF THE SPECIFICATION. COORDINATE EXACT ROUGH-IN LOCATIONS AND REQUIREMENTS IN THE FIELD.
- INSTALL ALL VALVES, TRAP PRIMERS, WATER HAMMER ARRESTORS AND OTHER EQUIPMENT SHOWN IN WALLS OR ABOVE NON-ACCESSIBLE CEILINGS BEHIND AN ACCESS PANEL.



1 EQUIPMENT GAS CONNECTION  
SCALE: NONE

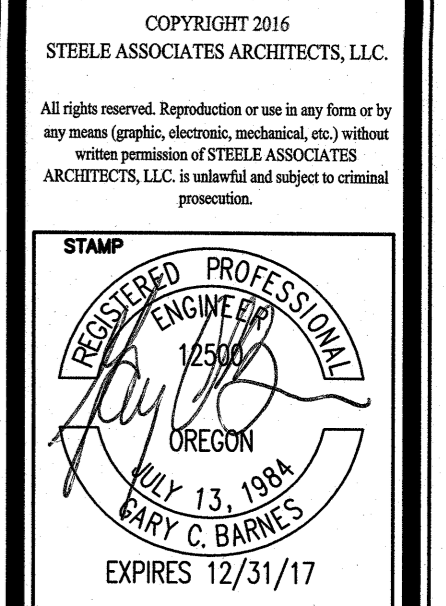


PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	154-330

FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
WATER CLOSET	10	--
URINAL	5	--
LAVATORY/HAND SINK	1.5	1.5
SINK/JANITOR'S SINK	3	3

PLUMBING CONTRACTOR TO PROVIDE WATER HAMMER ARRESTORS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS OR WATTS WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN THE HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. PROVIDE ACCESS DOOR FOR SERVING.

2 WATER HAMMER ARRESTOR DETAIL  
DIAGRAMATIC



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BLS - TRANSPORTATION FACILITY 2017  
 501 SE 2ND STREET BEND, OR  
**PLUMBING LEGEND, SCHEDULES, AND DETAILS - SHOP BUILDING**

JOB NO.	16116.01
DATE	7/12/2017
DRAWN BY	NG
CHECKED BY	GCB
REVISIONS	DATE
PERMIT SUBMITTAL	07/14/2017

BDC - QUALITY CONTROL	
PROJ.MGR.:	
PRODUCTION:	
QUAL. CONTROL:	
ENGINEER:	

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PERMIT REVIEW SET