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REVISED  
4:07 pm, Oct 06, 2023

PLUMBING EQUIPMENT		
MARK	DESCRIPTION	ELECTRICAL
WH-1	COMMERCIAL TANKLESS ELECTRIC WATER HEATER: NICKEL CROME ELEMENTS, NO STORAGE TANK, 0.3 GPM FLOW ACTIVATED TURN ON, 18.25 X 12.25 X 0.5" OVERALL DIMENSIONS, THERMOSTATIC TEMPERATURE CONTROL. 5 YEAR WARRANTY. SET TEMPERATURE TO 120 DEG. F.  BASIS OF DESIGN: EEMAX ED03248T2T ML	480 VOLT 3 PHASE 32 KW
HWRP-1	HOT WATER RECIRCULATING PUMP: IN-LINE WITH 1/2" SWEAT UNIONS, PROVIDE WITH AQUASTAT AND DIGITAL TIMER. PROVIDE WITH AQUASTAT AND TIMER.  BASIS OF DESIGN: GRUNDFOS UP 15-18 B5/TLC	120V 1/25 HP

WATER SERVICE PRESSURE LOSS CALCULATION					
Static Pressure: _____					60
Total Building Fixture Units _____					119
Design gpm Flow Rate (Flush Valves) _____					72
Elevation Loss - 11 ft. x .433 psi _____					5
Flush Valve Required Operating Pressure - psi _____					25
Water Meter Loss - psi _____					7
Double Check Valve Loss - psi _____					5
Pressure Loss Available for Branch Piping - psi _____					25
Design Friction Loss - psi/100 ft. _____					5.6
PIPE SIZE Inches	GPM	FT FU*	FV FU*	VELOCITY (FPS)	
1/2"	2	1	-	3	
3/4"	7	8	-	4	
1"	15	21	-	5.5	
1-1/4"	24	39	7	6.5	
1-1/2"	38	78	25	7.5	
2"	74	245	124	8	

EXISTING FIXTURE LOAD SCHEDULE (AFTER DEMO)					
FIXTURE	QTY	H2O F.U.'S	H2O F.U. TOTAL	WASTE F.U.'S	WASTE F.U. TOTAL
WATER CLOSET, FLUSH VALVE	8	5	40	4	32
WATER CLOSET, FLUSH TANK	1	2.5	2.5	4	4
URINAL	2	4	8	2	4
LAVATORY	6	1	6	1	6
SINK	1	1.5	1.5	2	2
DRINKING FOUNTAIN	1	.5	0.5	.5	0.5
HOSE BIBB	3	1@2.5, 2@1	4.5	-	-
FLOOR DRAIN	6	-	-	2	12
TOTAL			63		62.5

FIXTURE LOAD SCHEDULE (NEW FIXTURES)					
FIXTURE	QTY	H2O F.U.'S	H2O F.U. TOTAL	WASTE F.U.'S	WASTE F.U. TOTAL
WATER CLOSET, FLUSH VALVE	6	5	30	4	24
URINAL	2	4	8	2	4
LAVATORY	4	1	4	1	4
SINK	5	1.5	7.5	2	10
FLOOR DRAIN	3	-	-	2	6
SERVICE SINK	1	3	3	3	3
BOTTLE FILLER/DRINKING FOUNTAIN	5	.5	2.5	.5	2.5
TOTAL			55		53.5

FIXTURE LOAD SCHEDULE AFTER REMODEL					
			H2O F.U. TOTAL		WASTE F.U. TOTAL
TOTAL			118		116

PLUMBING LEGEND

---	CW	COLD WATER
---		PIPE BELOW FLOOR OR GRADE
---	HW	HOT WATER
---	HWR	RECIRCULATED HOT WATER
---	V	VENT
---	W	SANITARY WASTE ABOVE FLOOR OR GRADE
---	W	SANITARY WASTE BELOW FLOOR OR GRADE
---	CTG	CLEANOUT TO GRADE
---	FCO	FLOOR CLEANOUT
---	WCO, CO	WALL CLEANOUT, CLEANOUT
---		SHUTOFF VALVE, BALL VALVE
---		BALANCING VALVE
---		PIPE UP
---		PIPE DOWN

AFF	ABOVE FINISHED FLOOR	I.E.	INVERT ELEVATION
AFG	ABOVE FINISHED GRADE	BFF	BELOW FINISHED FLOOR
SOPSC	STATE OF OREGON PLUMBING SPECIALTY CODE	TYP	TYPICAL
DN	DOWN	VTR	VENT THROUGH ROOF

SYMBOLS

(A)	ABANDON
(C)	CONNECT TO EXISTING
(E)	EXISTING TO REMAIN
(P)	CAP OR PLUG
(R)	RELOCATE
(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 SOPSC. 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 1/4" PER FOOT 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 AND FLOOR SINKS.
- 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. COORDINATE LOCATION OF VALVES ABOVE CEILING WITH HVAC AND OTHER TRADES TO INSURE EASY ACCESSIBILITY. VALVES LOCATED ABOVE CEILING SHOULD BE ACCESSIBLE WITH IN ARMS REACH OF LADDER.

PLUMBING FIXTURE SCHEDULE					
MARK	FIXTURE	CW	HW	V	W
BASIS OF DESIGN					
WC-1	WATER CLOSET, FLUSH VALVE	1-1/4"		2"	4"
WC-2	WATER CLOSET, FLUSH VALVE, ADA. SEE NOTE 1	1-1/2"		2"	4"
U-1 & U-2	URINAL, ADA	3/4"		2"	1-1/2"
L-1	LAVATORY, ADA. SEE NOTE 2	1/2"	1/2"	1-1/4"	1-1/2"
S-1	SINK, ADA. SEE NOTE 2	1/2"	1/2"	1-1/2"	2"
SH-1	SHOWER, ADA	1/2"	1/2"	1-1/2"	2"
HB-1	HOSE BIB	3/4"			
SS-1	SERVICE SINK	1/2"	1/2"	2"	3"
FD-1	FLOOR DRAIN			1-1/2"	2"
S-2	SINK	1/2"	1/2"	1-1/2"	2"
DF-1	BOTTLE FILLING STATION WITH DRINKING FOUNTAIN	1/2"		1-1/2"	2"
DF-2	DUAL HIEGHT DRINKING FOUNTAIN WITH BOTTLE FILLING STATION.	1/2"		1-1/2"	2"
TP-1	ELECTRONIC TRAP PRIMER	1/2"		1-1/2"	2"
NOTES: 1) INSTALL FLUSH HANDLE TOWARDS OPEN SIDE OF STALL. 2) PROVIDE INSULATION KIT FOR P-TRAP AND EXPOSED WASTE AND WATER PIPE.					

Tenant Improvement  
ESD112  
Mental Health Facility Phase II  
2400 NE 65th Ave. Vancouver WA.

Revised:	DATE: AUG. 10, 2023	DATE: AUG. 17, 2023	DATE: SEPT. 22, 2023	DATE: OCT. 03, 2023
PCR 01	APPLICANT EDITS	APPLICANT EDITS	APPLICANT EDITS	APPLICANT EDITS

Job No:	2246
Date:	February 18, 2023
File Size:	24x36
Progress set	
DRAWN:	NLB
CHECKED:	
Sheet Title	Plumbing Floor Plan
Sheet Number	

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