ABBREVIATIONS

GENERAL		PLUMBING
AD AFF AFC	ACCESS DOOR ABOVE FINISHED FLOOR ABOVE FINISHED GRADE	AD ADW AR
BHP BOP	BRAKE HORSEPOWER BOTTOM OF PIPE	BFS
BOT C/L	BOTTOM CENTER LINE	CO CRV CRW
CLG CFM CO CO2 CSR	CEILING CUBIC FEET PER MINUTE CARBON MONOXIDE CARBON DIOXIDE CURRENT SENSING RELAY	DCW DF DFBF DHW DHW-105°
DFU DISCH DN DS	DRAINAGE FIXTURE UNIT DISCHARGE DOWN DISCONNECT SWITCH; DOOR SWITCH	DHW-140° DHW-180° DHWR DIR DIS
(E) EA EC EP EPO ESP	EXISTING EACH ELECTRICAL CONTRACTOR; END CAP ELECTRICAL PANEL; END PLUG EMERGENCY POWER OFF EXTERNAL STATIC PRESSURE	DR DS EWC EWCBF
(F) FA FDC FDN FLEX FLR	FUTURE FIRE ALARM FIRE DEPARTMENT CONNECTION FOUNDATION FLEXIBLE FLOOR	FCD FCO FD FE FI G
FP FTG FU	FIRE PROTECTION FOOTING FIXTURE UNIT	#2 G #5 G GARW
GA GALV GC	GAGE GALVANIZED GENERAL CONTRACTOR	GW GWW HE
HP HTG HTR	HORSEPOWER; HIGH PRESSURE HEATING HEATER	IA IE IRR
IAW ID IN WC	IN ACCORDANCE WITH INSIDE DIAMETER/DIMENSION INCHES WATER COLUMN	IW LA LCW
MC MFR MH MTD	MECHANICAL CONTRACTOR MANUFACTURER MANHOLE MOUNTED	LHW LHWR LV LW
N/A NC NIC NO NOM NTS	NOT APPLICABLE NORMALLY CLOSED NOT IN CONTRACT NORMALLY OPEN; NUMBER NOMINAL NOT TO SCALE	MA N2 N2O NPCW NPHW NPHWR
OC OD OVHD	ON CENTER OUTSIDE DIAMETER OVERHEAD	O2 ORL
PERF POC	PERFORATED POINT OF CONNECTION	PD PHW PLBG PRV
QTY	QUANTITY	PSD
(R)	RELOCATED	RPBP RO
RCP REQD SECT	REFLECTED CEILING PLAN REQUIRED SECTION	ROR ROS RWL RWL FM
SIM SPEC STD	SIMILAR SPECIFICATION STANDARD	RWR RWS
TBD TI TOC TOS TSP	TO BE DETERMINED TENANT IMPROVEMENTS TOP OF CONCRETE TOP OF STEEL TOTAL STATIC PRESSURE	SD SS SSD TP
TYP	TYPICAL	TW
UNO	UNLESS NOTED OTHERWISE	V VAC VTR
VFD VSD	VARIABLE SPEED DRIVE	W W FM
W/ W/O WC WG	WITH WITHOUT WATER COLUMN WATER GAUGE	WC WGE WH WSFU

AREA DRAIN ANIMAL DRINKING WATER ARGON
BOTTLE FILL STATION
CLEAN OUT CORROSION RESISTANT VENT CORROSION RESISTANT WASTE
DOMESTIC COLD WATER

WSFU

DRINKING FOUNTAIN **DRINKING FOUNTAIN - BOTTLE FILLER** DOMESTIC HOT WATER DOMESTIC HOT WATER - 105 DEG F DOMESTIC HOT WATER - 140 DEG F DOMESTIC HOT WATER - 180 DEG F DOMESTIC HOT WATER RECIRCULATION DE-IONIZED WATER RETURN DE-IONIZED WATER SUPPLY WATER FEATURE DISPLAY RETURN WATER FEATURE DISPLAY SUPPLY

ELECTRIC WATER COOLER ELECTRIC WATER COOLER - BOTTLE FILLER FLUE CONDENSATE DRAIN FLOOR CLEAN OUT FLOOR DRAIN

WATER FEATURE FILTER INFLUENT NATURAL GAS NATURAL GAS - LOW PRESSURE, 2 PSI NATURAL GAS - LOW PRESSURE, 5 PSI GARAGE WASTE GREASE WASTE

WATER FEATURE FILTER EFFLUENT

GREY WATER WASTE HELIUM INSTRUMENT AIR INVERT ELEVATION

IRRIGATION INDIRECT WASTE LABORATORY AIR LABORATORY COLD WATER LABORATORY HOT WATER

LABORATORY HOT WATER RETURN LABORATORY VENT LABORATORY WASTE MEDICAL AIR LABORATORY GASEOUS NITROGEN

MEDICAL NITROUS OXIDE NON POTABLE COLD WATER NON POTABLE HOT WATER NON POTABLE HOT WATER RETURN OXYGEN . MEDICAL OR LABORATORY

OVERFLOW RAINWATER LEADER PLANTER DRAIN DOMESTIC PREHEAT WATER PLUMBING

PRESSURE REDUCING VALVE SUBSOIL DRAIN (PERFORATED) REDUCED PRESSURE BACKFLOW PREVENTER REVERSE OSMOSIS WATER REVERSE OSMOSIS WATER RETURN REVERSE OSMOSIS WATER SUPPLY

RAINWATER LEADER RAINWATER LEADER FORCE MAIN **RECLAIM WATER RETURN** RECLAIM WATER SUPPLY

STORM DRAIN SANITARY SEWER SUBSOIL DRAIN

TRAP PRIMFR TEMPERED WATER (EMERGENCY ONLY) SANITARY VENT MEDICAL VACUUM, LABORATORY VACUUM VENT THROUGH ROOF

SANITARY WASTE SANITARY WASTE FORCE MAIN WATER CLOSET WASTE GAS EXTRACTION WATER HEATER WATER SUPPLY FIXTURE UNIT

GENERAL INFORMATION SYMBOLS

WATER GAUGE

	NEW PLUMBING WORK
•	POINT OF CONNECTION
•	POINT OF DEMOLITION
<u>ر</u>	CENTERLINE
(\mathbf{x}) (\mathbf{x}) (\mathbf{x})	KEY NOTE REFERENCE
X	PLUMBING FIXTURE CALLOUT (SEE PLUMBING SCHEDULES)
x x	PLUMBING RISER CALLOUT (DCW; DHW; W/V) PLUMBING RISER #
X X	PLAN NUMBER SHEET NUMBER WHERE PLAN SHOWN
x x	DETAIL OR DIAGRAM NUMBER SHEET NUMBER WHERE DETAIL/DIAGRAM SHOWN
	REVISION NUMBER - DENOTES NUMBER AND DATE WHEN REVISION OR ISSUE OCCURRED REVISION CLOUD - DENOTES AREA OF CHANGE
	DETAIL REFERENCE OUTLINE WITH NUMBER AND SHEET LOCATION

PIPING IDENTIFICATION

PLUMBING	

<u>PIPING FITTINGS</u>

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<u>PIPING ACCESSORIES</u>

	PUMP
₩ <u> </u> MV	-
AV	MANUAL AIR VENT
	AUTOMATIC AIR VENT
A	HIGH CAPACITY AIR VENT
FS	SHOCK ARRESTOR
VB	FLOW SWITCH
	VACUUM BREAKER
Υ	PRESSURE GAUGE
	TEMPERATURE SENSOR
¥ FM	TEMPERATURE INDICATOR
	FLOW METER
	Y STRAINER W/ BALL VALVE
	PIPE SLEEVE
	STEAM TRAP
T	PETES PLUG
	SUCTION DIFFUSER W/ STRAINER
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
Y	FUNNEL DRAIN
0	FLOOR DRAIN
\odot	ROOF DRAIN
۲	ROOF OVERFLOW DRAIN

- DCW COLD WATER PIPE (POTABLE)
- DHW HOT WATER PIPE (POTABLE)
- DHWR HOT WATER CIRCULATING (POTABLE)
- V VENT PIPE (SANITARY)
- ALL OTHER PIPE TYPES SEE ABBREVIATION LIST TEE UP TEE DOWN TEE DN W/ ELBOW TEE UP W/ ELBOW 90° ELBOW UP --0 90° ELBOW DN CAP UNION FLANGE FLEX HOSE CONNECTION DOUBLE BELLOWS FLEX CONNECTION SINGLE BELLOWS FLEX CONNECTION FLOW ARROW REDUCER SLOPE SYMBOL BREAK OR CONTINUATION SYMBOL DOWN SPOUT NOZZLE CLEANOUT
- MOTORIZED 2-WAY VALVE MOTORIZED 3-WAY VALVE PRESSURE REDUCING VALVE CONTROL VALVE RELIEF VALVE BALL VALVE 3-WAY GATE VALVE BUTTERFLY VALVE DIAPHRAGM VALVE CHECK VALVE NEEDLE VALVE GLOBE VALVE GLOBE VALVE ANGLE GLOBE VALVE 3-WAY GATE VALVE PLUG VALVE **BALANCING VALVE** AUTO FLOW VALVE HOSE BIBB

FLOOR SINK

GENERAL NOTES

- 1. THE CONTRACTOR IS RESPONSIBLE TO VISIT THE SITE AND DETERMINE THE EXACT EXTENT OF WORK, COORDINATION, DEMOLITION, TEMPORARY CONSTRUCTION, TEMPORARY FACILITIES, ETC., NECESSARY TO COMPLETE THE PROJECT AS INDICATED IN THE CONTRACT DOCUMENTS.
- INTERRUPTIONS OF SERVICES (POWER, WATER, HVAC, ETC.) AND WORK IN OCCUPIED TENANT SPACES MUST BE SCHEDULED THROUGH THE BUILDING MANAGER A MINIMUM OF 24 HOURS IN ADVANCE. ANY INTERRUPTIONS OR CONSTRUCTION WHICH WILL AFFECT NORMAL OPERATION OF THE BUILDING OR TENANTS MUST BE SCHEDULED, WITH THE BUILDING MANAGER'S APPROVAL, ON AN AFTER-HOURS BASIS.
- MECHANICAL CONTRACTOR IS RESPONSIBLE FOR TEMPORARY COOLING DURING CONSTRUCTION. PERMANENT MECHANICAL EQUIPMENT SHALL NOT BE USED FOR TEMPORARY COOLING WITHOUT PROTECTION FROM DUST ACCUMULATION, WRITTEN ACCEPTANCE OF DUST RELATED WARRANTY COSTS, AND PRIOR APPROVAL BY THE MECHANICAL ENGINEER.
- 4. FURNISH LABOR, MATERIALS, EQUIPMENT, APPARATUS, AND APPURTENANCES REQUIRED FOR A COMPLETE WORKING AND COORDINATED SYSTEM. MATERIALS, EQUIPMENT, APPARATUS, AND APPURTENANCES SHALL MATCH EXISTING BUILDING STANDARDS IN QUALITY, TYPE AND FINISH, UNLESS OTHERWISE NOTED.
- 5. VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT. COORDINATE THE EXACT LOCATIONS OF NEW MECHANICAL AND PLUMBING EQUIPMENT WITH THE LOCATIONS OF LIGHTING FIXTURES, PIPING, AND OTHER CONSTRUCTION, TO ALLOW FOR PROPER ACCESS TO SERVICE AND MAINTAIN EQUIPMENT PRIOR TO START OF CONSTRUCTION.
- 6. COORDINATE THE LOCATION OF DUCTWORK AND PIPING WITH OTHER TRADES. PROVIDE OFFSETS IN DUCTWORK AND PIPING AS REQUIRED AT NO ADDITIONAL COST TO OWNER.
- 7. TRADES TO LEAVE 36" CLEARANCE IN FRONT OF MECHANICAL EQUIPMENT ACCESS PANELS FOR SERVICING.
- 8. INSTALL DUCTWORK AND PIPING TO ALLOW MINIMUM ACCESS OF 6" ABOVE AND TO THE SIDE OF THE ELECTRICAL CABLE TRAYS. 9. SUPPORT CONDUIT, PIPING, AND DUCTWORK INDEPENDENTLY. SUPPORTS ARE INDEPENDENT OF
- PARTITION AND CEILING SYSTEM SUPPORTS.
- 10. IN NO INSTANCE SHALL OTHER TRADES HANG OR SUPPORT EQUIPMENT, CEILING WIRES, LIGHT FIXTURE HANGERS, ETC., FROM HVAC EQUIPMENT, DUCTWORK, OR PIPING.
- 11. CUTTING, FRAMING, PATCHING, AND PAINTING OF WALL, CEILING, AND FLOOR OPENINGS SHALL BE BY McKINSTRY. THIS INCLUDES OPENINGS THROUGH AREA SEPARATION WALLS
- 12. OBTAIN APPROVAL OF STRUCTURAL ENGINEER PRIOR TO INSTALLATION OF PENETRATIONS NOT PREVIOUSLY COORDINATED OR AGREED UPON, I.E. ANCHOR BOLT DEPTHS, ETC.
- 13. REFER TO STRUCTURAL DRAWINGS FOR EQUIPMENT SUPPORTS. REFER TO THE SPECIFICATIONS MATRIX FOR ADDITIONAL SEISMIC INFORMATION.
- 14. UNIT WEIGHTS AND LOCATIONS HAVE BEEN COORDINATED TO DETERMINE BUILDING STRUCTURAL ADEQUACY. IF IT IS NECESSARY TO RELOCATE A UNIT, NOTIFY MCKINSTRY ENGINEERING DEPARTMENT FOR RE-COORDINATION.
- 15. PROVIDE SEISMIC RESTRAINTS AND ANCHORAGE PER SMACNA AND THE INTERNATIONAL BUILDING CODE FOR DUCTWORK, PIPING, AND EQUIPMENT. 16. CONCRETE EQUIPMENT CURBS, FLASHINGS, SLEEPERS, CONCRETE STATIONS, EMBED PLATES,
- PIPING RAT SLABS, SUMP BASINS, AND HOUSEKEEPING PADS ARE SHOWN FOR APPROXIMATE LOCATION AND SIZE AND WILL BE PROVIDED BY MCKINSTRY. WHERE PROVIDED, REFER TO STRUCTURAL INFO FOR ADDITIONAL DETAILS.
- 17. CUTTING AND PATCHING OF ROOF OPENINGS SHALL BE BY MCKINSTRY.
- 18. SLEEPERS, HOUSEKEEPING PADS, EMBED PLATES, AND CANT STRIPS SHALL BE BUILT AND FASTENED TO THE ROOF BY McKINSTRY. TOP OF THE CURB MUST BE FLAT TO PROVIDE AN ACCEPTABLE SEALING SURFACE. MAXIMUM ALLOWABLE DEVIATION FROM LEVEL SHALL BE 1/4" IN 10'. ROOF CURBS AND SLEEPERS MUST BE SECURELY FASTENED TO STRUCTURAL SUPPORT MEMBERS.
- 19. LOUVERS, BOTH DUCTED AND NON-DUCTED, ARE TO BE FURNISHED AND INSTALLED BY MckINSTRY. LOUVERS ARE SHOWN ON THESE PLANS BOTH FOR COORDINATION, AND TO INDICATE THE REQUIRED LEVEL OF PERFORMANCE. LOUVERS OF ALTERNATE MAKE AND/OR TYPE MAY BE SUBSTITUTED ONLY IF THEY HAVE BOTH PRESSURE DROP AND WATER CARRY-OVER PERFORMANCE EQUAL TO OR BETTER THAN THE LOUVERS SPECIFIED. LOUVERS MUST CONTAIN THE FREE AREA REQUIREMENT INDICATED ON THE MECHANICAL PLANS. OTHER LOUVER MODELS WITH EQUAL OR BETTER FREE AREA, WATER CARRY-OVER, AND PRESSURE DROP MAY BE SUBSTITUTED IF APPROVED BY THE MECHANICAL ENGINEER AND ARCHITECT.
- 20. VERIFY THAT ALL NECESSARY INFORMATION HAS BEEN PROVIDED PRIOR TO CONNECTION OF EQUIPMENT FURNISHED BY THE OWNER OR OTHERS.
- 21. PROVIDE ACCESS DOORS IN WALLS AND CEILINGS WHERE ACCESS IS REQUIRED TO CONCEALED MECHANICAL OR PLUMBING EQUIPMENT, VALVES, CONTROLS, AND OTHER DEVICES. 22. PROVIDE PIPE, EQUIPMENT, AND VALVE LABELING FOR IDENTIFICATION. MATCH OWNERS EXISTING
- LABELING SCHEME IF APPLICABLE. 23. SEAL CONNECTIONS TO AIR SHAFTS AIRTIGHT. PROVIDE AIRTIGHT SEAL AROUND PENETRATIONS IN
- AIR PLENUMS. 24. LIGHT FIXTURE CLEARANCE: COORDINATE LOCATIONS OF MECHANICAL WORK TO PROVIDE
- CLEARANCES OVER LIGHTING FIXTURES FOR REMOVAL AND REPLACEMENT.
- 25. PROVIDE MODIFICATIONS TO THE EXISTING SPRINKLER SYSTEM FOR ALL REMODEL AREAS AS NEEDED.
- 26. PROVIDE FIRE SAFE PENETRATIONS OF FIRE RATED CONSTRUCTION.
- 27. VARIABLE PITCH SHEAVES TO BE USED FOR SYSTEM BALANCING. REPLACE WITH FIXED PITCH SHEAVES FOR NORMAL OPERATION.





LEGAL DESCRIPTION

PARCEL NUMBER: 9810000014

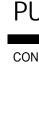
Section 34 Township 20 Range 04 Quarter 23 WOODS 1ST CANNOT BE SOLD OR SUBD WITHOUT 001-5 & 001-6 LOT 1 OF BLA 2010-06-15-5001 DESC AS BEG AT A PT 30 FT E & 151.05 FT N OF INTER OF 15TH AV SE & 3RD ST SE TH N 322.08 FT TH N 305.27 FT TH E 692.45 FT TH S 78 DEG 58 MIN 52 SEC E 0.44 FT TH S 49.97 FT TH E 40.98 FT TH S 43.29 FT TH N 41.04 FT TH S 181.78 FT TH W 30 FT TH S 196.6 FT TO BEG CURVE CONCAVE TO NW HAVING A RAD OF 19.5 FT & C/A OF 59 DEG 50 MIN 20 SEC & BEING SUBTENDED BY A CHORD WHICH BEARS S 56 DEG 53 MIN 06 SEC W 19.45 FT TH SWLY & WLY ALG SD CURVE 20.37 FT TO PT OF REVERSE CURV TH WLY & SWLY & SLY 90.9 FT CONCAVE TO SE HAVING A RAD OF 60.5 FT & C/A OF 86 DEG 05 MIN 15 SEC TH S 3.26 FT TH SLY, SWLY & WLY 14.92 FT ALG CURVE CONCAVE TO NW HAVING A RAD OF 9.5 FT & C/A OF 89 DEG 59 MIN 59 SEC TH W 107.24 FT TO BEG OF CURVE CONCAVE TO NW HAVING A RAD OF 55.98 FT & C/A OF 81 DEG 57 MIN 04 SEC & BEING SUBTENDED BY CHORD WHICH BEARS S 49 DEG 34 MIN 17 SEC W 73.42 FT TH SLY, SWLY & WLY ALG SD CURVE 80.07 FT TH W 6.43 FT TH S 131.8 FT TH SLY & SELY 14.27 FT ALG SD CURVE CONCAVE TO E HAVING A RAD OF 25 FT & C/A OF 32 DEG 42 MIN 11 SEC TH N 88 DEG 06 MIN 01 SEC W 77.46 FT TO BEG OF CURVE CONCAVE TO N HAVING A RAD OF 40 FT & A C/A OF 43 DEG 31 MIN 52 SEC & BEING SUBTENDED BY CHORD WHICH BEARS S 70 DEG 08 MIN 03 SEC W 29.66 FT TH SWLY & WLY ALG SD CURVE 30.39 FT TH N 88 DEG 06 MIN 01 SEC W 238.87 FT TO BEG OF A CURVE CONCAVE TO NE HAVING A RAD OF 63 FT & A C/A OF 65 DEG 47 MIN 29 SEC & BEING SUBTENDED BY CHORD WHICH BEARS N 48 DEG 11 MIN 19 SEC W 68.43 FT TH WLY, NWLY & NLY ALG SD CURVE 72.34 FT TH N 12 DEG 28 MIN 32 SEC W 81.31 FT TO POB TOG/W POR CYD TO CY OF PUY PER ETN 4234255 EXC THOSE POR DETER EXEMPT UNDER DOR REG # 01777-001 & 09663-004 ALSO EXC POR CYD TO CY OF PUYALLUP PER ETN 4232324 TOG/W VAC ORD 2958 EASE OF RECORD OUT OF 981000-042-0, 043-0, 044-0, 045-0, 046-0, 047-0, 048-0, 049-0, 050-0, 051-0, 052-0, 053-0, 054-0, 066-0, 067-0 SEG 2011- 0091 BB 10/11/10 BB DC00354165 5/2/2014 KG

MECHANICAL INDEX		
SHEET NO	SHEET NAME	
M-001	MECHANICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES	
M-002	MECHANICAL BOD AND SPECIFICATIONS	
M-060	SCHEDULES	
MPD-101	ROOF FLOOR PLAN - MECHANICAL PIPING - DEMO	
MPD-102	PENTHOUSE FLOOR PLAN - MECHANICAL PIPING - DEMO	
MP-101	ROOF FLOOR PLAN - MECHANICAL PIPING	
MP-102	PENTHOUSE FLOOR PLAN - MECHANICAL PIPING	
M-500	MECHANICAL DETAILS	
EQ-001	GENERAL NOTES, PARTIAL PLANS & CONNECTION DETAILS	

PER APPLICANT/ENGINEER OF RECORD PIERCE COUNTY HEALTH DEPARTMENT HAS BEEN NOTIFIED OF THE HUMIDIFIER

City of Puyallup Development & Permitting Service ISSUED PERMIT			
Building	Planning		
Engineering	Public Works		
Fire OF W	Traffic		









ISSU

DRAWN CHECKED JOB NO:



SEATTLE 5005 3RD AVENUE S PO BOX 24567 SEATTLE, WA 98124 1-800-669-6223

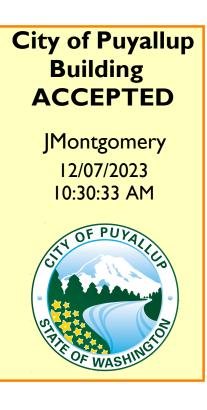
www.mckinstry.com

PROJECT: **GSH HUMIDIFIER** REPLACEMENT

PRMH20231683

401 15TH AVE SE PUYALLUP, WA 98372

CONSULTANTS:



FULL SIZED LEDGIBLE COLOR PLANS ARE REQUIRED TO BE PROVIDED BY THE PERMITTEE ON SITE FOR ALL INSPECTIONS (MIN. PLAN SIZE 24" X 36")

Approval of submitted plans is not an approval of omissions or oversights by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local government.

REGISTRATION:

November 22, 2023

THIS IS AN ELECTRONIC SIGNATURE. DIGITAL STAMP ORIGINAL ON FILE AT MCKINSTRY.

JES:			
10	DATE	DESCRIPTION	
)1	09-12-2023	MECHANICAL PERMIT PROGRESS SET	
)2	11-09-2023	MECHANICAL PERMIT SET	

JUSTIN S. 09-20-2023 ISSUED ON: SHEET TITLE MECHANICAL LEGEND, ABBREVIATIONS AND **GENERAL NOTES**

SHEET NUMBER:



				PRESSURE TE	<u>ST PROCEL</u>	JUR
ATEGORY	SERVICE DESCRIPTION	MAXIMUM PRESSURE & TEMP	MANUFACTURER, PRODUCT OR EQUAL	MEDIA TEST PRESSURI	DURATIO	אנ
W/HIGH PRESSURE STEAM CONDENSATE	COMMERCIAL / INDUSTRIAL UTILITY STEAM					+
PE IDENTIFICATION MARKER	WHITE LETTERING ON GREEN BACKGROUND - ANSI/ASME A 13.1 - 2007		HANPLY (HANSEN SUPPLY), MARKING SERVICES INC. MS-970 (INDOOR); MS-995 (OUTDOOR) ; DURALABEL			
TED LOW PRESSURE & TEMP: TED HIGH PRESSURE & TEMP:	UP TO 15 PS UP TO 150 PS1					
SIGN OPERATING PRESS & TEMP	10-15PSI					
RKING PER ANSI/ASME 13.1 - 2007	WHITE LETTERING ON GREEN BACKGROUND					
EAM TRAPS	CAST IRON BODY - SS INVERTED BUCKET STEAM TRAPS	15 PSIG/30 PSIG/75 PSIG/125 PSIG. MAX TEMP 450F	SPIRAX SARCO MODEL B SERIES			
EAM TRAP TEST VALVE	3-POSITION STEAM TRAP TEST VALVE (STRAIGHT FLOW, COMPLETE ISOLATION, TES/BLEED CAPABILITY)	300 PSIG @ 421F Saturated Steam	SPIRAX SARCO MODEL 25P			
ECIALTIES	SEE SPECIALTIES BELOW					
ZES THRU 2"						
PE MATERIAL	CARBON STEEL PIPE ASTM A106B; SEAMLESS, SCH EH THREADED or SOCKET WELDED		-			
TINGS	ASTM A-105 FORGED CARBON STEEL CLASS 3000 - ASME B 16.1 - SOCKET WELD	150 PSIG @ 350°F Saturated Steam				
TINGS	ASTM A-197 MALLEABLE IRON (BMI) CLASS 150 - ASME 16.3 - THREADED		-			
UPLINGS	ASTM A-197 MALLEABLE IRON (BMI) CLASS 150 - ASME 16.39 - THREADED SLIP ON - CARBON STEEL; CLASS 150 SWP	150 PSIG @ 350°F Saturated Steam 200 PSIG@ 400°F Saturated steam				
ANGED GASKETS - RAISED & FLAT FACED	SPIRAL WOUND GASKET		GARLOCK STYLE RWI	1.5 TIMES MAX		
NGED BOLTS (PLATED) E STRAINERS	CARBON STEEL BOLTS AND STUDS - GRADE A - FOR FLANGED JOINTS IN PIPING SYSTEMS; NUTS: A536A HEX; WASHERS: F884 STANDARD FLAT CAST IRON BODY: 20 MESH SS SCREEN - CLASS 250 SWP - NPT	250 PSIG @ 406°F Saturated Steam	- KECKLEY STYLE B. APOLLO YCT SERIES	OPERATING	- 15 MINUTES	2
E STRAINERS E STRAINERS	2" CAST IRON BODY; 1/8 PERF SCREEN - CLASS 200 SWP - INPT 2" CAST IRON BODY; 1/8 PERF SCREEN - CLASS 125 SWP - FLANGED	200 PSI @ 150°F WOG	KECKLEY STILE B, APOLLO TOT SERIES	PRESSURE, BUT NO	1	
E STRAINERS	ASTM A-216 GRADE WCB CARBON STEEL BODY - 1/16 PERF SCREEN - CLASS 600 - SOCKET WELDED WITH PLUG	1480 psi @ 100 F WOG	TITAN YS 82 - CS, KECKLEY SB-7			
PANSION JOINTS VES - ISOLATION	COMPENSATION FITTING AND/OR PIPING LOOP BRONZE GATE: CLASS 150 SWP: NPT	180 PSIG @ 350°F Saturated Steam	ENGINEERED FLEXIBLE PRODUCTS (EFP) MILWAUKEE 1151:			
LVES - GLOBE	BRONZE GLOBE; CLASS 150 SWP; NPT	180 PSIG @ 350°F Saturated Steam	MILWAUKEE 590-T; APOLLO 122T			
VES - GLOBE VES - CHECK	BRONZE GLOBE: CLASS 150 SWP: NPT BRONZE HORIZONTAL SWING; CLASS 125 SWP; THREADED	165 PSIG @ 350°F Saturated Steam 140 PSIG @ 350°F Saturated Steam	MILWAUKEE 590-T: APOLLO 122T MILWAUKEE 509-T; APOLLO 163T			
LVES - CHECK	BRONZE HORIZONTAL SWING, CLASS 123 SWP; THREADED					
ES 2 1/2" AND UP						
E MATERIAL	CARBON STEEL PIPE ASTM A106B; SEAMLESS, SCH EH BUTT WELD - EH	Rated per pipe wall thickness				
TINGS	ASTM A-234 WROUGHT CARBON STEEL EXTRA-HEAVY - ASME B16.9 - BUTT WELD	Rated per pipe wall thickness				
NGES NGED GASKETS - RAISED & FLAT FACED	WELD NECK - CARBON STEEL; CLASS 150 SWP SPIRAL WOUND GASKET	200 PSIG@ 400°F Saturated steam	- GARLOCK STYLE RWI			
NGED BOLTS (PLATED)	CARBON STEEL BOLTS AND STUDS - GRADE A - FOR FLANGED JOINTS IN PIPING SYSTEMS; NUTS: A536A HEX; WASHERS: F884 STANDARD FLAT		-			
STRAINERS	CAST IRON BODY; 1/8 PERF SCREEN - CLASS 125 SWP - FLANGED	200 PSI @ 150°F W.O.G.	KECKLEY STYLE A, APOLLO 125Y-F no test ports on Apollo			
PANSION JOINTS VES - ISOLATION	COMPENSATION FITTING AND/OR PIPING LOOP IRON GATE; CLASS 125 SWP; FLANGED	150 PSIG @ 350°F Saturated Steam	METRALOOP; DME; EFP V series MILWAUKEE F-2885 (M), APOLLO 611F			
VES - ISOLATION	CAST STEEL GATE: CLASS 150 SWP; FLANGED	200 PSIG@ 400°F Saturated steam	MILWAUKEE - 1550CB2 FLANGED ENDS, APOLLO 610F			
LVES - CHECK	IRON HORIZONTAL SWING; CLASS 125 SWP; FLANGED	150 PSIG @ 350°F Saturated Steam	MILWAUKEE F-2974 (M), APOLLO 910F			
W / HIGH PRESSURE STEAM	COMMERCIAL / INDUSTRIAL UTILITY STEAM					
PE IDENTIFICATION MARKER	WHITE LETTERING ON GREEN BACKGROUND - ANSI/ASME A 13.1 - 2007		HANPLY (HANSEN SUPPLY), MARKING SERVICES INC. MS-970 (INDOOR); MS-995 (OUTDOOR) ; DURALABEL			
TED LOW PRESS	BELOW 15 PSI; 250 F; SET RELIEF AT 15 PSI		LESS THAN 15 PSI			
TED HIGH PRESS SIGN OPERATING PRESS & TEMP	UP TO 125 PSI; 353 F; SET RELIEF AT 145 PSI 10-15 PSI		15 PSI AND GREATER ENGINEER TO FILL IN			
SIGN OFERATING FRESS & TEMP						
ESSURE REGULATOR	PILOT OPERATED PRESSURE REGULATOR, CAST IRON (125) OR STEEL (300)		SPIRAX SARCO MODEL 25P			
EAM STOP VALVE FETY RELIEF VALVES - HIGH / LOW PRESSURE	AUTOMATIC STOP CHECK VALVE - ANGLED - CI - CLASS 250 SWP ASME - SECTION I (STAMPED 'V') OR ASME SECTION VIII (STAMPED 'UV) CAST IRON BOILER/STEAM SAFETY VALVE	250 PSIG @ 406°F Saturated Steam 250 PSIG @ 406°F Saturated Steam	SPIRAX SARCO MODEL SV73			
ME SPOOL PIECE	ASME STAMPED "P" SPOOL PIECE WITH 300 LB FLANGES FOR STOP CHECK AND OS&Y VALVES - 3/4" DRAIN TAP (VALVE BY MC).		VENDOR FURNISHED WITH BOILER			
VENT CIALTIES	BALANCED PRESSURE THERMOSTATIC AIR VENT SEE SPECIALTIES BELOW	250 PSIG @ 450F Saturated Steam	SPIRAX SARCO MODEL VS204/VS206			
ZES THRU 2"						
PE MATERIAL - HEADERS > 200 PSI PE MATERIAL	CARBON STEEL PIPE ASTM A106C SEAMLESS SCHED STD CARBON STEEL PIPE ASTM A53B ERW SCHED STD					,
NTS	SOCKET WELDED OR THREADED AT SPECIALTIES		-			
10.00	ASTM A-105 FORGED CARBON STEEL CLASS 3000 - ASME B 16.1 - SOCKET WELD	150 PSIG @ 350°F Saturated Steam	-			
rings JpLings	ASTM A-197 MALLEABLE IRON (BMI) CLASS 150 - ASME 16.3 - THREADED ASTM A-197 MALLEABLE IRON (BMI) CLASS 150 - ASME 16.39 - THREADED	150 PSIG @ 350°F Saturated Steam				
NGES	SLIP ON - CARBON STEEL; CLASS 150 SWP	200 PSIG@ 400°F Saturated steam				
NGED GASKETS - RAISED & FLAT FACED NGED BOLTS & NUTS (BLACK)	SPIRAL WOUND GASKET HIGH TEMP & PRESS ALLOY STEEL BOLTS AND STUDS - GRADE B7 - FOR FLANGED JOINTS IN PIPING SYSTEMS; NUTS: ASTM A 194 GRADE 2H - QUENCHED & TEMPERED CARBON STEEL - HEAVY HEX NUT;	TO 1200°F UP TO CLASS 2500	GARLOCK STYLE RWI			
STRAINERS	CAST IRON BODY: CLASS 250 SWP: NPT	250 PSIG @ 406°F Saturated Steam	KECKLEY STYLE B: TITAN YS-12 CI	1.5 TIMES MAX OPERATING		
STRAINERS	CAST IRON BODY; 3/64 PERF SCREEN - CLASS 125 SWP - FLANGED	200 PSI @ 150°F WOG	KECKLEY STYLE A, APOLLO 125Y-F no test ports on Apollo	WATER PRESSURE, BUT NO		
STRAINERS ANSION JOINTS	ASTM A 216 GRADE WCB CARBON STEEL BODY - 3/64 PERF SCREEN - CLASS 600 - SOCKET WELDED WITH PLUG COMPENSATION FITTING AND/OR PIPING LOOP	600 PSIG @ 838F Saturated Steam	KECKLEY SB-7 (WITH PLUG): TITAN YS 82-CS EFP EP SERIES	LESS THAN 100 PS		
/ES - ISOLATION	BRONZE GATE; CLASS 125 SWP; THREADED	180 PSIG @ 350°F Saturated Steam	MILWAUKEE 148; NIBCO T-134, APOLLO 107T			
VES - GLOBE VES - GLOBE	BRONZE GLOBE; CLASS 150 SWP; NPT BRONZE GLOBE; CLASS 150 SWP; NPT	180 PSIG @ 350°F Saturated Steam 165 PSIG @ 350°F Saturated Steam	MILWAUKEE 590-T; NIBCO T-235-Y, APOLLO 122T MILWAUKEE 590-T; NIBCO T-235-Y, APOLLO 122T			
/ES - BALL (@ EQUIPMENT)	3-PC FULL PORT CARBON STEEL SOCKET-WELD BALL VALVE WITH LOCKING HANDLE		APOLLO 83A-240; KECKLEY BVM3 ASME 16.34 & API608			
/ES - CHECK	BRONZE HORIZONTAL SWING; CLASS 125 SWP; THREADED	140 PSIG @ 350°F Saturated Steam	MILWAUKEE 509-T; APOLLO 163T			
S 2 1/2" to 12"						
EMATERIAL - HEADERS > 200 PSI EMATERIAL	CARBON STEEL PIPE ASTM A106C SEAMLESS SCHED STD CARBON STEEL PIPE ASTM A53B ERW SCHED STD					
ITS	BUTT WELD	Rated per pipe wall thickness				
	ASTM A-234 WROUGHT CARBON STEEL SCHED STD - ASME B16.9 - BUTT WELD	Rated per pipe wall thickness	-			
PLINGS NGES	ASTM A-197 MALLEABLE IRON (BMI) CLASS 150 - ASME 16.39 - THREADED WELD NECK - CARBON STEEL; CLASS 150 SWP	150 PSIG @ 350°F Saturated Steam 200 PSIG@ 400°F Saturated steam				
NGED GASKETS - RAISED & FLAT FACED	SPIRAL WOUND GASKET	TO 1200°F UP TO CLASS 2500	GARLOCK STYLE RWI			
NGED BOLTS & NUTS (BLACK) E STRAINERS	HIGH TEMP & PRESS ALLOY STEEL BOLTS AND STUDS - GRADE B7 - FOR FLANGED JOINTS IN PIPING SYSTEMS; NUTS: ASTM A 194 GRADE 2H - QUENCHED & TEMPERED CARBON STEEL - HEAVY HEX NUT; CAST IRON BODY: 3/64 PERF SCREEN & 1/16 PERF SCREEN (12") - CLASS 125 SWP - FLANGED	125 PSIG @ 450F (150 PSIG @ 350°F Saturated Steam)	KECKLEY STYLE A. APOLLO 125Y-F no test ports on Apollo			
STRAINERS STRAINER - SOCKET WELDED (UP TO 3")	ASTM A-216 GRADE WCB CARBON STEEL BODY - 3/64 PERF SCREEN - CLASS 600 - SOCKET WELDED WITH PLUG	600 PSIG @ 430F (130 PSIG @ 330 F Saturated Steam)	KECKLEY SB-7 (WITH PLUG); TITAN YS 82-CS			
ANSION JOINTS	COMPENSATION FITTING AND/OR PIPING LOOP		METRALOOP; DME; EFP U & V SERIES			
VES - ISOLATION VES - ISOLATION	IRON GATE; CLASS 125 SWP; FLANGED CAST STEEL GATE: CLASS 150 SWP; FLANGED	150 PSIG @ 350°F Saturated Steam 200 PSIG@ 400°F Saturated steam	MILWAUKEE F-2885 (M), APOLLO 611F MILWAUKEE - 1550CB2 FLANGED ENDS. APOLLO 610F			
VES - ISOLATION >6"	VALVES GREATER THAN 6" SHALL BE GEAR OPERATED					
VES - CHECK	IRON HORIZONTAL SWING: CLASS 125 SWP: FLANGED	125 PSIG @ 353°F Saturated Steam	MILWAUKEE F-2974 (M). APOLLO 910F	1 1	1 I	

HVAC PIPING SPECIFICATION

ENERGY CODE: 2018 INTERNATIONAL E	ENERGY CODE WITH WASH	IINGTON AMENDMENTS	TABLE C403.10.3							
ENERGY CODE: 2018 INTERNATIONAL E	NERGY CODE WITH SEAT	TLE AMENDMENTS TABL	E C403.10.3							
SPECIFICATION: 230700 HVAC INSULATI	ON									
PIPING	TEMP RANGE	THERMAL	MEAN RATING	INSULATION						
SYSTEM	(Deg F)	COND.	TEMPERATURE	MATERIAL	<1"	1" TO <1-1/2"	1 1/2" TO 4"	4" - 8"	OVER 8"	NOTES
NON-POTABLE COLD WATER	40-60	0.21-0.27	75	MPI	0.5	0.5	1.0	1.0	1.0	1, 2, 3,4
	>350	0.32-0.34	250	MPI	4.5	5.0	5.0	5.0	5.0	1, 2, 3,4
STEAM & CONDENSATE (16-120PSIG)		0.29-0.32	200	MPI	3.0	4.0	4.5	4.5	4.5	1, 2, 3,4

STEAM & CONDENSATE (0-15PSIG)	251-350	0.29-0.32	200	
FOR FUTHER INFORMATION ON INSUL	ATING SYSTEMS AND EQUI	PMENT EITHER LISTED OR	R NOT LISTED, SEE SPI	ECIFICA
E: ELASTORMERIC CLOSED CELL IN	SULATION			

KEY NOTES:

1. FOR PIPING CLAMPED TO UNISTRUT SUPPORTS, UTILIZE RIGID INSERTS WITH SHEETMETAL SHIELDS CONTINUOUS THROUGH THE HANGER; UTILIZE CALCIUM SILICATE INSERTS OR STYRENE INSERTS 2. FOR PIPING SUPPORTED FROM CLEVIS HANGERS, IF RIGID INSERTS ARE NOT UTILIZED THE INSULATION SHALL FULLY ENCLOSE THE HANGER AND BE SEALED AT THE TOP AROUND THE SUPPORT ROD; IF RIGID INSERTS ARE UTILIZED THE INSULATION SHALL BE CONTINUOUS THROUGH THE HANGER; INSERT MATERIAL TO BE CALCIUM SILICATE INSERTS OR STYRENE INSERTS

3. JACKETING: ALUMINUM ROLLED JACKETING (ARJ) APPLIED TO EXTERIOR PIPING INSULATION EXPOSED TO WEATHER (I.E. ROOFTOP PIPING). SEE INSULATION SPEC FOR ALTERNATE JACKETING AND LOCATIONS. 4. ASTM E 84 OR UL 723 TESTED TO FLAME SPREAD INDEX OF 25 AND SMOKE DEVELOPED INDEX OF NOT EXCEEDING 450

ITEM #	SYSTEM	CRITERIA	CRITERIA SOURCE
DE BASIS FO	DR PROJECT		
1-1	CODE	2018 WASHINGTON STATE BUILDING CODE	WASHINGTON STATE
1-2	CODE	2018 WASHINGTON STATE MECHANICAL CODE	WASHINGTON STATE
1-3	CODE	2018 WASHINGTON STATE ENERGY CODE	WASHINGTON STATE
1-4	CODE	2018 UNIFORM PLUMBING CODE	WASHINGTON STAT
OPE OF PRO		(QTY 11) EXISTING STEAM TO STEAM GENERATORS ARE TO BE REPLACED IN A LIKE FOR LIKE FASHION. GENERATORS SERVE VARIOUS AIR HANDLERS ON THE ROOF AND PENTHOUSE LEVEL. MAKEUP WATER IS SOFTENED POTABLE WATER. GENERATOR CAPACITIES ARE TO REMAIN THE SAME AND ALL UPSTREAM DEVICES SUCH AS PRV'S ARE TO REMAIN.	
3-1	EXISTING MECHANICAL	ALL STEAM TO STEAM GENERATORS SERVED BY LOW PRESSURE STEAM.	EXISTING
3-2	DEMOLITION	DEMO EXISTING STEAM TO STEAM GENERATORS AS SHOWN ON PLANS. DISCONNECT ELECTRICAL, LOW PRESSURE STEAM AND CONDENSATE CONNECTIONS.	DESIGN APPROAC
3-3	NEW MECHANICAL	INSTALL (QTY 11) NEW STEAM TO STEAM GENERATORS. RECONNECT POWER, SOFTENEDMAKEUP WATER AND LOW PRESSURE STEAM. STEAM GENERATORS SERVING AHU-3 TO BE SERVED BY A SINGLE MANIFOLD.	DESIGN APPROAC
3-4	CONTROLS	CONTROL PANELS TO BE MOUNTED DIRECTLY ON UNIT BESIDES STEAM GENERATORS SERVING AHU-3, THESE PANELS TO BE MOUNTED REMOTELY.	DESIGN APPROAC

City of P Development & Pe ISSUED	ermitting Services
Building	Planning
Engineering	Public Works
Fire of W	Traffic

REGISTRATION:

DRAWN: CHECKED:



SEATTLE: 5005 3RD AVENUE S PO BOX 24567 SEATTLE, WA 98124 1-800-669-6223

www.mckinstry.com

PROJECT: GSH HUMIDIFIER REPLACEMENT

PRMH20231683

401 15TH AVE SE PUYALLUP, WA 98372

CONSULTANTS:

November 22, 2023 THIS IS AN ELECTRONIC SIGNATURE. DIGITAL STAMP ORIGINAL ON FILE AT MCKINSTRY. ISSUES: NO DATE DESCRIPTION 01 09-12-2023 MECHANICAL PERMIT PROGRESS SET 02 11-09-2023 MECHANICAL PERMIT SET _____ -----_____ _____ -----_____ _____ _____ _____ _____ _____ DESIGNED: _____

JOB NO: ISSUED ON: SHEET TITLE: MECHANICAL BOD AND SPECIFICATIONS

M-002

SHEET NUMBER:

STEAM TO STEAM GENERATOR SCHEDULE

								CONTROL					
					PRESSURE	CAPACITY		VALVE SIZE	CONTROL				
TAG	DESCRIPTION	SERVES	MANUFACTURER	MODEL	(PSI)	(LBS/HR)	CAPACITY (GPM)	(IN)	VALVE QTY	V/PH	FLA	WEIGHT	NOTES
H-SF-1	STEAM GENERATOR	SF-1	DRISTEEM	800	15	898	1.79	1.5	2	120/1	3	1450	3,4
H-SF-2	STEAM GENERATOR	SF-2	DRISTEEM	800	15	898	1.79	1.5	2	120/1	3	1450	1,3,4
H-AHU-SS	STEAM GENERATOR	SUPPORT SERVICES AHU	DRISTEEM	400	10	580	1.16	2	1	120/1	3	950	3,4
H-AHU-1	STEAM GENERATOR	AHU-1	DRISTEEM	100	10	320	0.64	1.5	1	120/1	3	350	3,4
H-AHU-2	STEAM GENERATOR	AHU-2	DRISTEEM	100	10	320	0.64	1.5	1	120/1	3	350	3,4
H-AHU-3A	STEAM GENERATOR	AHU-3-H6	DRISTEEM	25	10	25	0.05	0.75	1	120/1	3	175	2,3,4
H-AHU-3B	STEAM GENERATOR	AHU-3-H7	DRISTEEM	25	10	30	0.06	0.75	1	120/1	3	175	2,3,4
H-AHU-3C	STEAM GENERATOR	AHU-3-H8	DRISTEEM	25	10	25	0.05	0.75	1	120/1	3	175	2,3,4
H-AHU-3D	STEAM GENERATOR	AHU-3-H9	DRISTEEM	25	10	25	0.05	0.75	1	120/1	3	175	2,3,4
H-AHU-3E	STEAM GENERATOR	AHU-3-H10	DRISTEEM	25	10	25	0.05	0.75	1	120/1	3	175	2,3,4
H-AHU-3F	STEAM GENERATOR	AHU-3-PACU	DRISTEEM	25	10	50	0.10	0.75	1	120/1	3	175	2,3,4

NOTES: 1.

3.

UNIT TO BE ROTATED FROM ORIGINAL ORIENTATION TO IMPROVE MAINTENANCE ACCESS.

CONNECTS TO COMMON HEADER FOR LPS AND CONDENSATE LINES. 2. REUSE EXISTING DISPERSION TUBES AND SPACE HUMIDITY SENSOR.

EXISTING CONTROL SENSORS (HIGH LIMIT HUMIDISTAT, AIRFLOW PROVING SWITCH AND HUMIDITY TRANSMITTER) TO BE REPLACED BY CC. 4.

STEAM PRE	TEAM PRESSURE REDUCING VALVES								
TAG	DESCRIPTION	MANUFACTURER	MODEL	LOCATION	SIZE	INLET PRESSURE (PSI)	OUTLET PRESSURE (PSI)	CAPACITY (LBS/HR)	NOTES
PRV-SF-1	SINGLE PRV FOR STEAM GENERATOR	Spirax Sarco	25P	ROOF MECH ROOM	1"	70	15	1415	YELLOW SPRING
PRV-SF-2	SINGLE PRV FOR STEAM GENERATOR	Spirax Sarco	25P	ROOF MECH ROOM	1"	70	15	1415	YELLOW SPRING

STEAM SAF	ETY VALVES						
						PRESSURE	CAPACITY
TAG	MANUFACTURER	MODEL	LOCATION	SIZE	ORIFICE	SETTING (PSI)	(LBS/HR)
SV-SF-1	SPIRAX SARCO	SV73	ROOF MECHANICAL ROOM	1-1/2" x 2-1/2"	Н	20	1403
SV-SF-2	SPIRAX SARCO	SV73	ROOF MECHANICAL ROOM	1-1/2" x 2-1/2"	Н	20	1403

NOTES: 1. PROVIDE DRIP PAN ELBOW

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REGISTRATION:	

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DRAWN:

City of Puyallup **Development & Permitting Services** ISSUED PERMIT Building Planning Engineering Public Works Fire

SHEET NUMBER:



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PROJECT: GSH HUMIDIFIER REPLACEMENT

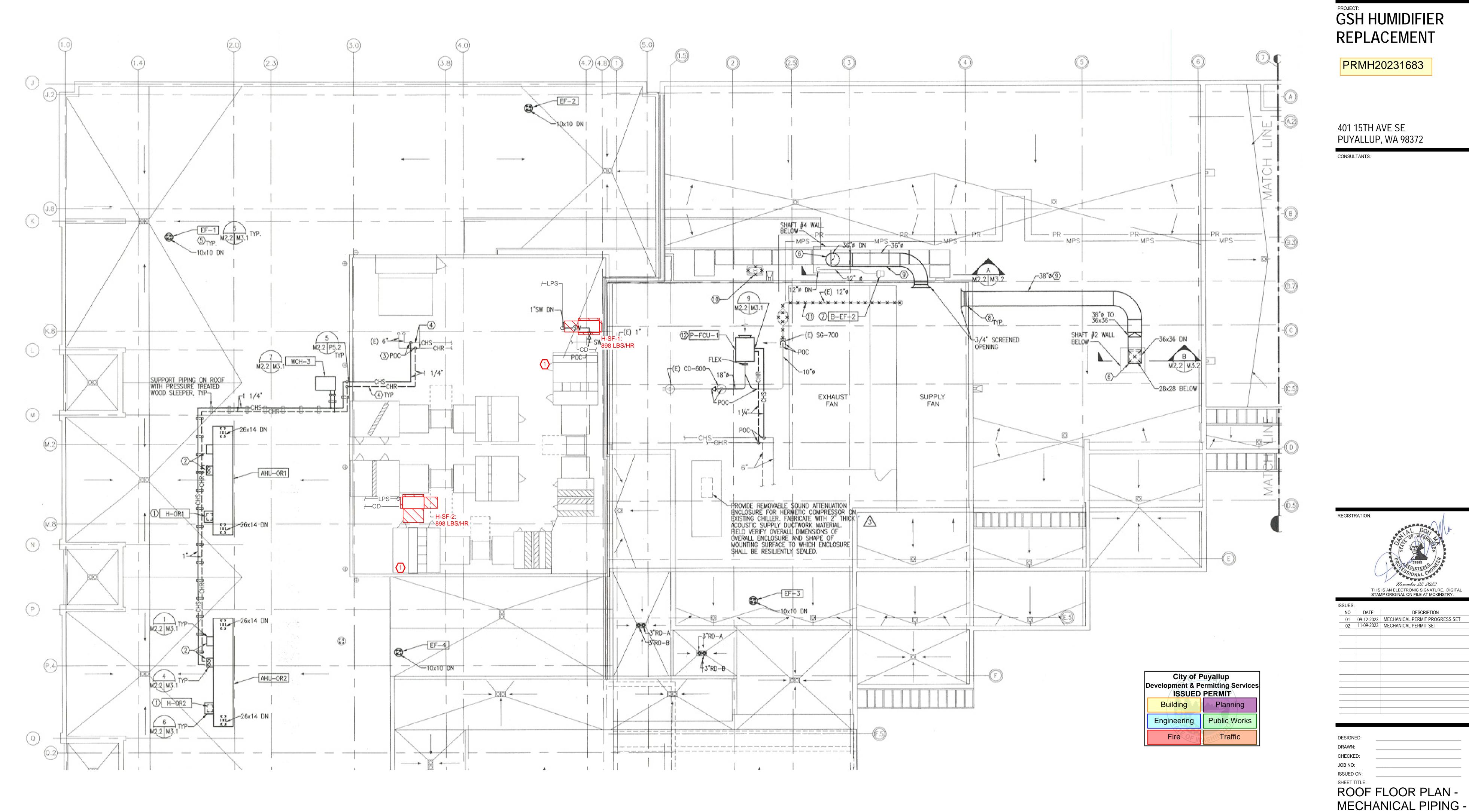
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CONSULTANTS:

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KEYED NOTES: (1) EXISTING HUMIDIFIER DISPERSION TUBES.



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DEMO SHEET NUMBER: MPD-101

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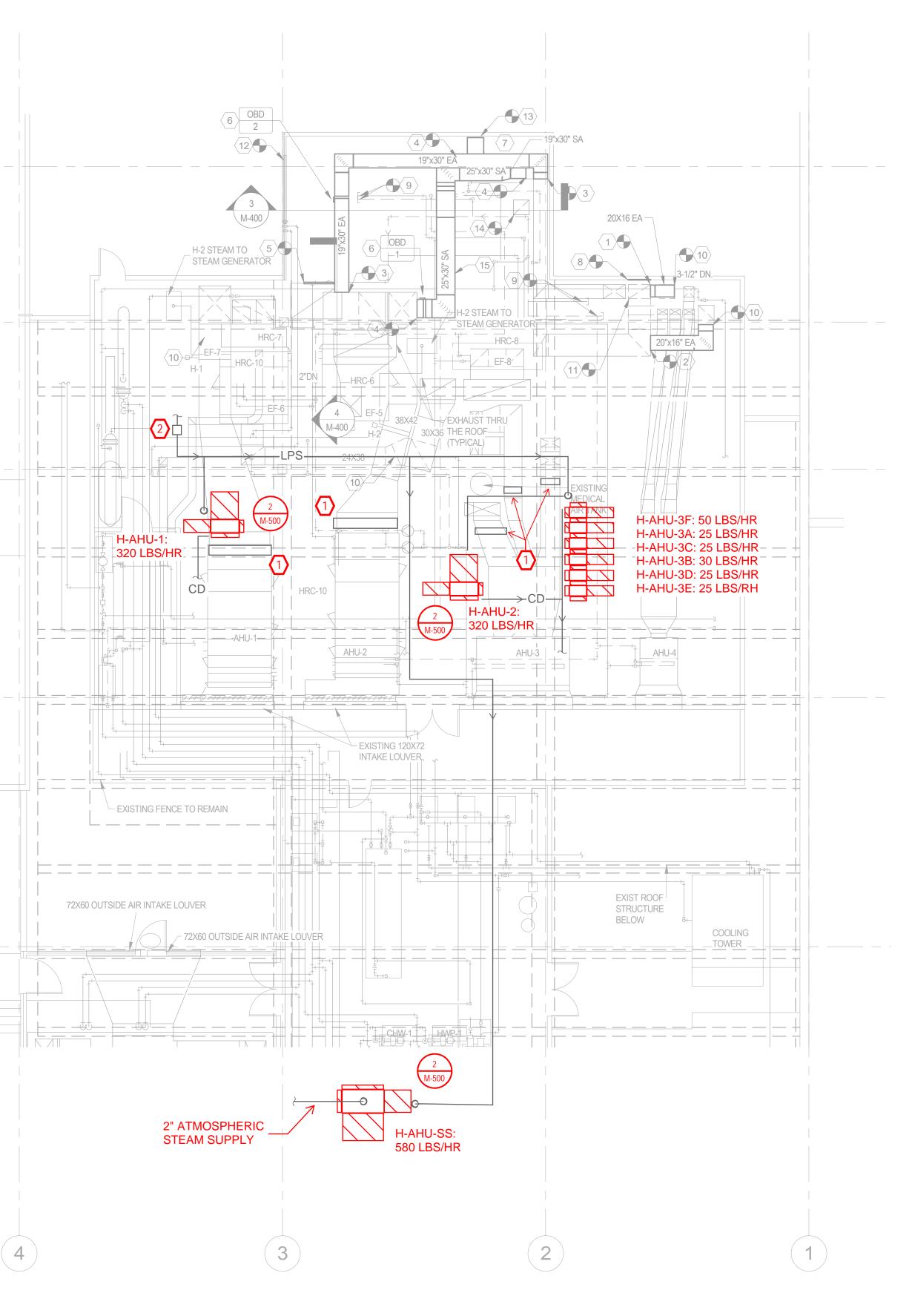
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PENTHOUSE FLOOR PLAN - MECHANICAL PIPING - DEMO SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. DEMO STEAM GENERATORS.



City of Puyallup Development & Permitting Services ISSUED PERMIT		
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Engineering	Public Works	
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- 2 EXISTING PRV SET TO 10 PSI.
- (1) EXISTING HUMIDIFIER DISPERSION TUBES.
- **KEYED DEMO NOTES:**





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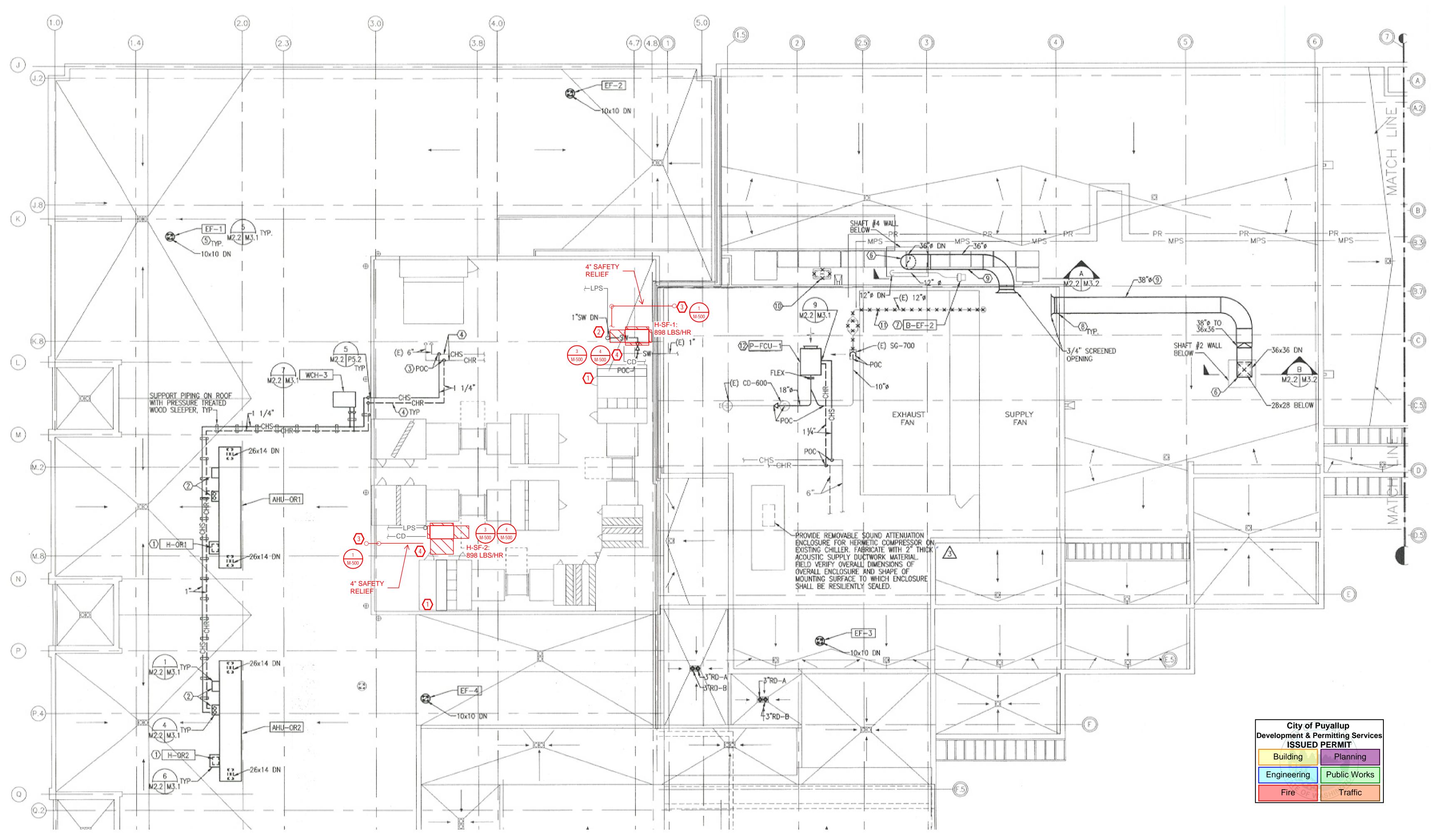
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SHEET NUMBER: MPD-102

PLAN - MECHANICAL

PIPING - DEMO



GENERAL NOTES:

1. RECONNECT ALL EXISTING DISPERSION UNITS TO REPLACED STEAM GENERATORS.

2. NEW STEAM GENERATORS TO MATCH CAPACITY OF EXISTING UNITS, NO ADJUSTMENT OF UPSTREAM DEVICES REQUIRED.



KEYED NOTES:

- (1) EXISTING HUMIDIFIER DISPERSION TUBES. 2 CONTROL PANEL TO BE MOUNTED REMOTELY.
- SAFETY RELIEF OUTDOOR DISCHARGE. MAINTAIN MINIMUM OF 10 FT FROM PROPERTY LINES, 3 FEET FROM EXTERIOR WALLS AND ROOFS, AND 10 FT FROM OPENINGS INTO THE BUILDING.
- PROVIDE NEW STEAM PRESSURE REDUCING STATION AND SAFETY RELIEF VALVES.

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SHEET NUMBER: MP-101

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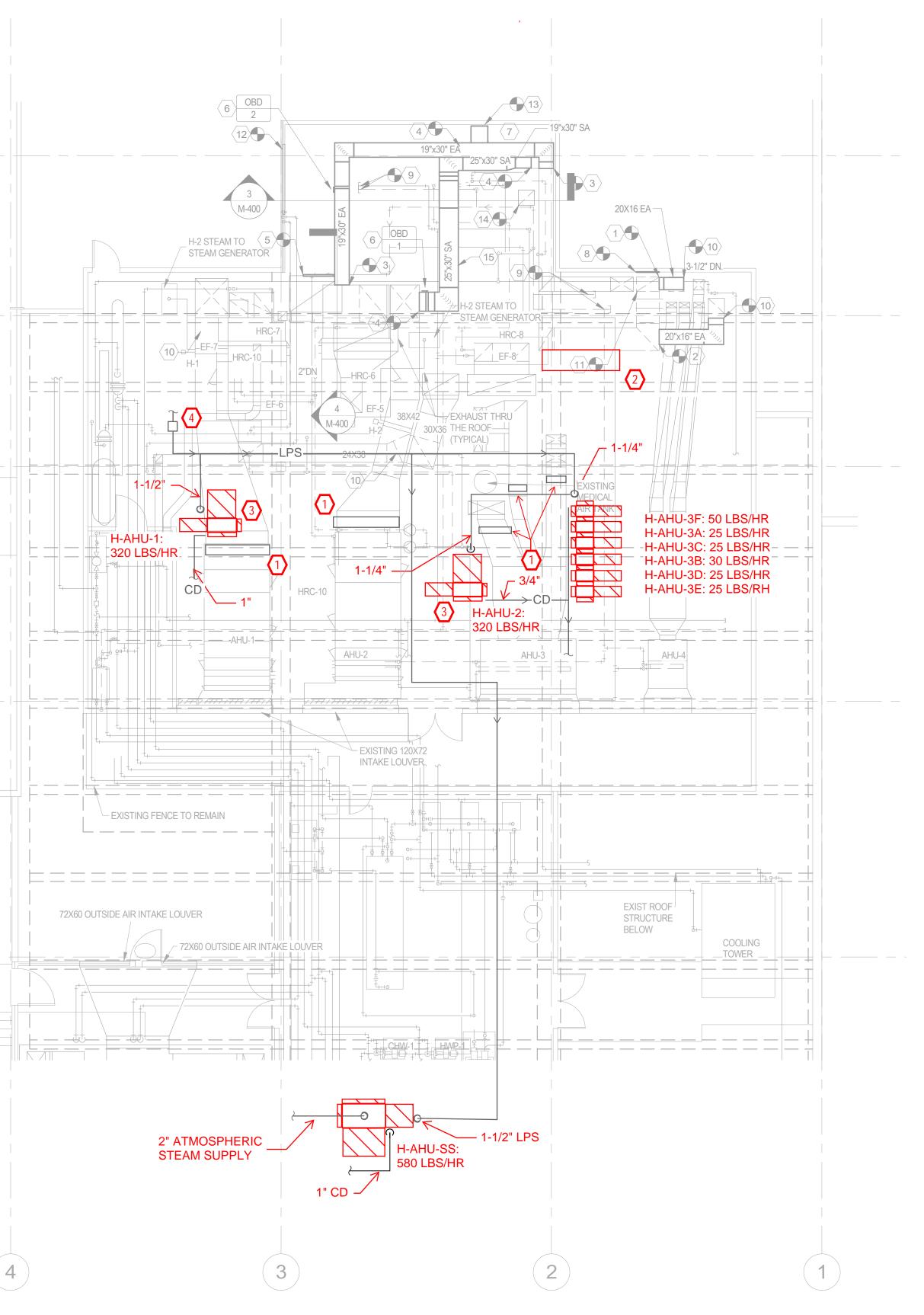
PENTHOUSE FLOOR PLAN - MECHANICAL PIPING SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. RECONNECT ALL EXISTING DISPERSION UNITS TO REPLACED STEAM GENERATORS.

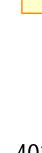
2. NEW STEAM GENERATORS TO MATCH CAPACITY OF EXISTING UNITS, NO ADJUSTMENT OF UPSTREAM DEVICES REQUIRED.

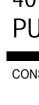
3. ALL ATMOSPHERIC STEAM HOSES CONNECTED TO EXISTING DISPERSION UNITS TO BE REPLACED WITH HARD PIPE KIT.



KEYED NOTES:

- (1) EXISTING HUMIDIFIER DISPERSION TUBES.
- AHU-3 HUMIDIFIER CONTROL PANELS MOUNTED REMOTELY ON NEW WALL BOARD. 3 HUMIDIFIER CONTROL PANEL MOUNTED TO UNIT.
- EXISTING PRV SET TO 10 PSI.





City of Puyallup **Development & Permitting Services** ISSUED PERMIT Building Planning Public Works Engineering Fire



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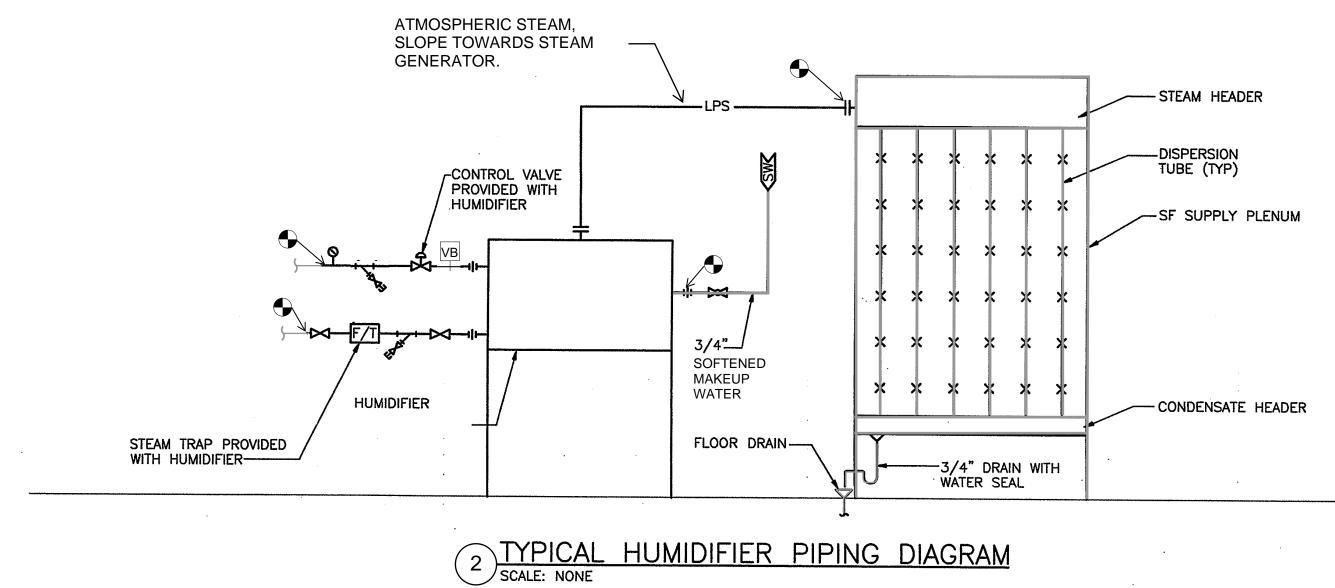
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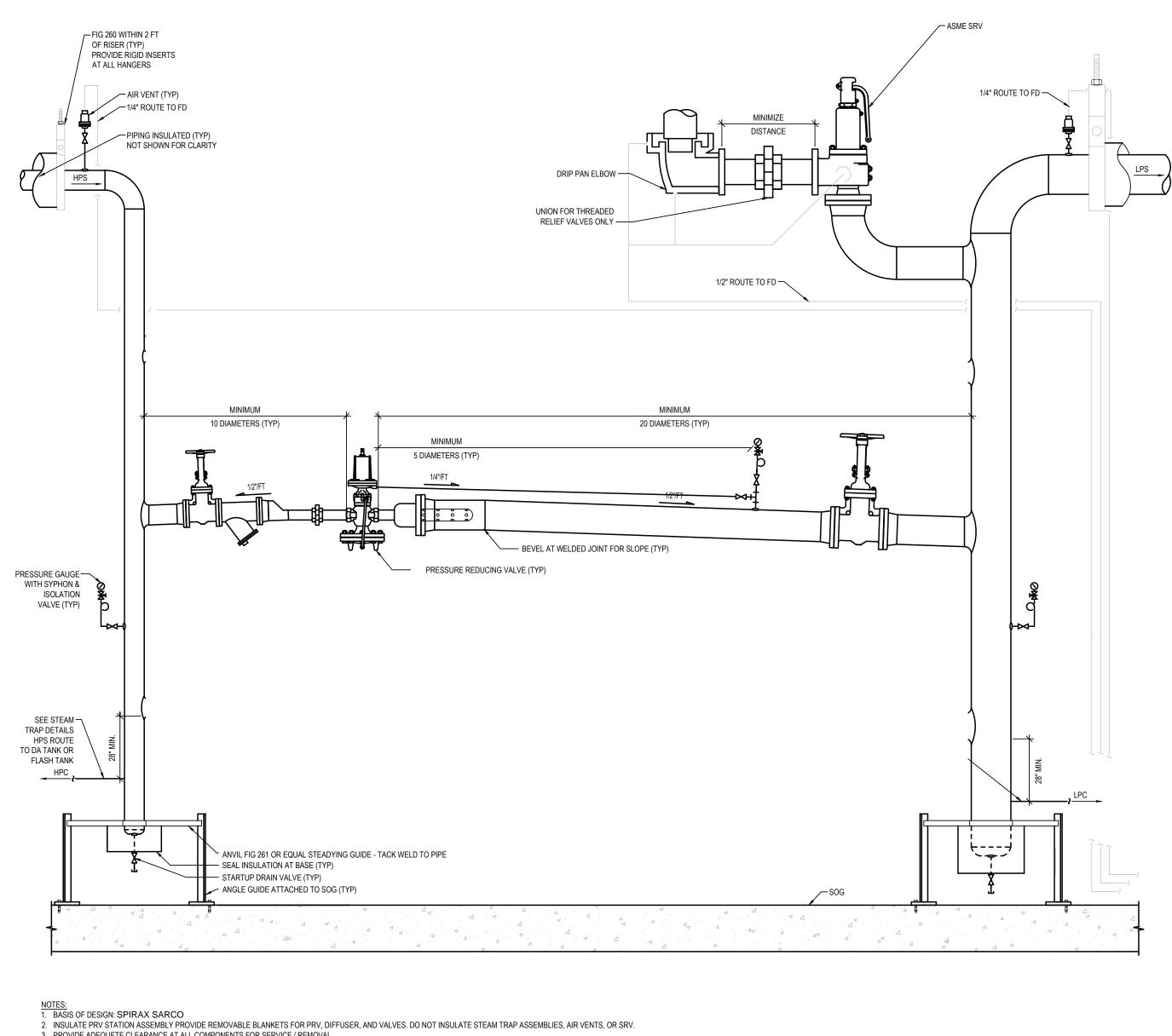
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SHEET NUMBER:

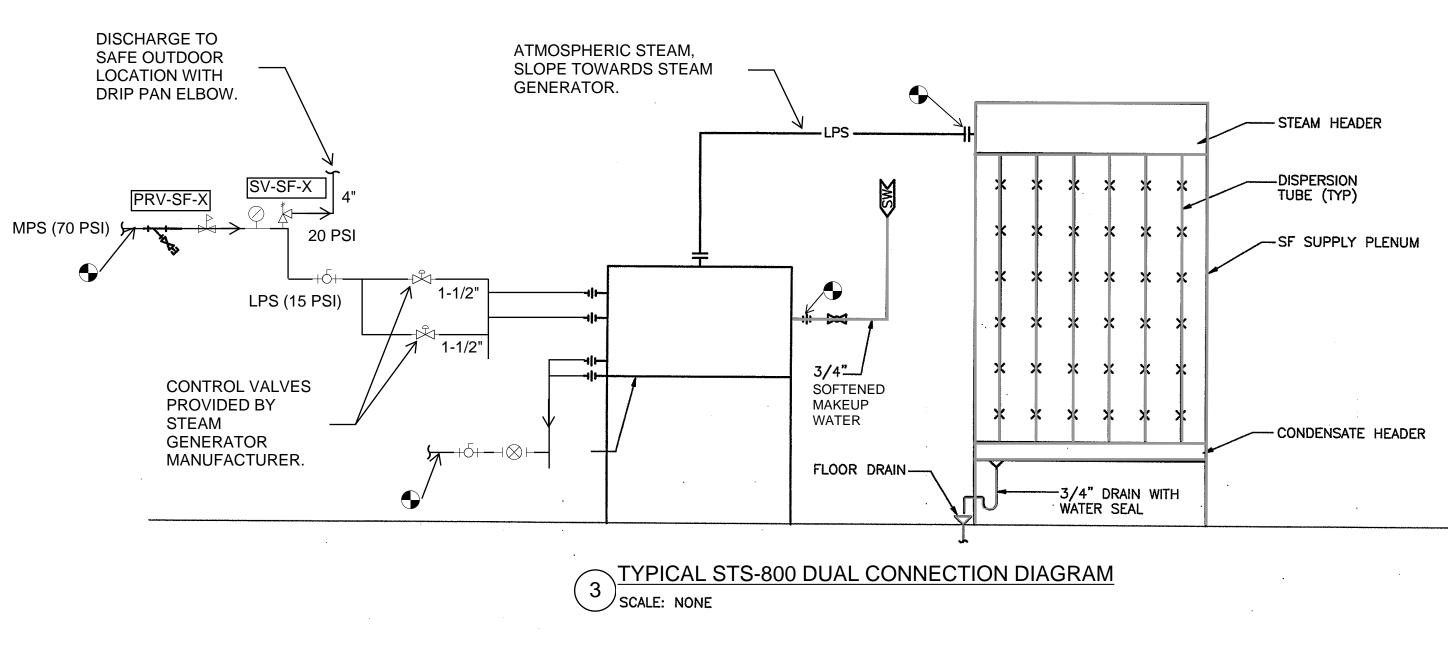


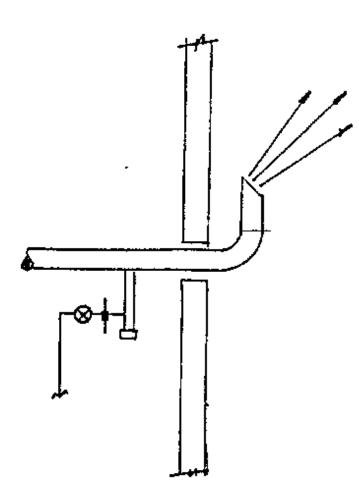




 ROVIDE ADEQUETE CLEARANCE AT ALL COMPONENTS FOR SERVICE / REMOVAL.
 MOUNT ALL STRAINERS HORIZONTALLY, SHOWN VERTICALLY FOR CLARITY. SELECT BYPASS VALVE SIZE FOR CRITICAL (CHOKED FLOW) USING SAFETY RELIEF VALVE FLOW RATE AS THE MAXIMUM FLOW RATE.
 THIS DETAIL IS FOR MPS AND LPS SYSTEMS. MPS AND LPS REDUCING STATIONS CAN BE INCORPORATED INTO A SINGLE VERTICAL STATION.

4 PRESSURE REDUCING VALVE STATION DETAIL NTS





1 SAFETY VALVE DISCHARGE OUTDOOR TERMINATION NTS

City of Puyallup Development & Permitting Services ISSUED PERMIT		
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GSH HUMIDIFIER REPLACEMENT

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CONSULTANTS:

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GENERAL NOTES

THE GENERAL NOTES SUPPLEMENT THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS. IF A CONFLICT IS NOTED, CONTACT THE ENGINEER PRIOR TO CONSTRUCTION. REFERENCE TO CODES, RULES, REGULATIONS, STANDARDS, OR REQUIREMENTS OF

REGULATORY AGENCIES IS TO THE LATEST PRINTED EDITION OF EACH IN EFFECT AT THE DATE OF SUBMISSION.

CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND FOR CHECKING DIMENSIONS. NOTIFY THE OWNER OF ANY DISCREPANCY AND RESOLVE CONFLICTS PRIOR TO CONSTRUCTION.

DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED, BUT ARE OF SIMILAR CHARACTER AS DETAILS INDICTED, USE SIMILAR DETAIL OF CONSTRUCTION, SUBJECT TO REVIEW BY THE ENGINEER OF RECORD.

THE DRAWINGS INDICATE THE STRUCTURE IN ITS FINAL CONDITION. THE CONTRACTOR IS TO PROVIDE MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES INCLUDE, BUT MAY NOT LIMITED TO: BRACING, SHORING AND SEQUENCING TO MAINTAIN STABILITY DURING CONSTRUCTION.

INFORMATION SHOWN ON THE DRAWINGS RELATED TO EXISTING CONDITIONS REPRESENT THE PRESENT KNOWLEDGE BUT WITHOUT CERTAINTY OF ACCURACY. CONTRACTOR IS TO REPORT ANY DISCREPANCY TO THE OWNER AND ENGINEER OF RECORD. CONTRACTOR SHALL NOT DEVIATE FROM THE CONTRACT DOCUMENTS WITHOUT WRITTEN DIRECTION FROM THE ENGINEER.

THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EQUIPMENT, SUPPORTS, AND SEISMIC RESTRAINTS PRIOR TO FABRICATION. IDENTIFICATION OF EXISTING UTILITIES THAT INTERFERE WITH EQUIPMENT INSTALLATION IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO NOTIFY THE ENGINEER IF FIELD CONDITIONS RESTRICT THE INSTALLATION OF COMPONENTS OR RESTRAINTS SHOWN ON THE DRAWINGS.

CONSTRUCTION TOLERANCES: UNLESS NOTED OTHERWISE, STANDARD CONSTRUCTION TOLERANCES SHALL BE BASED ON THE REQUIREMENTS OF THE AISC CODE OF STANDARD PRACTICE AND ACI 117, STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS. ANY CONSTRUCTION TOLERANCES NOTED IN THE DRAWINGS OR SPECIFICATION ARE TO BE CONSIDERED IN CONJUNCTION WITH THE STANDARD TOLERANCES AS INDICATED ABOVE, UNLESS SPECIFICALLY NOTED AS AN EXCEPTION TO, OR IN LIEU OF A STANDARD TOLERANCE.

DESIGN CRITERIA

CODES: IBC 2018 EDITION ALONG WITH WASHINGTON AMENDMENTS, ASCE 7-16, ACI 318-14 LOADING:

DEAD LOADS:		
H-SF-1	WT = 1450 LBS	LXWXH = 55"X30"X30"
H-SF-2	WT = 1450 LBS	LXWXH = 55"X30"X30"
H-AHU-SS	WT = 950 LBS	LXWXH = 55"X30"X20"
SEISMIC LOADS:		
SDS = 1.013	DESIGN SHORT PEF	RIOD ACCELERATION
IP = 1.5	SEISMIC IMPORTANCE FACTOR	

CONCRETE

ANCHORAGE TO HARDENED CONCRETE: ANCHORAGE TO HARDENED CONCRETE IS TO INCLUDE MECHANICAL AND ADHESIVE ANCHORS OF SIZE, NUMBER, AND SPACING AS SHOWN ON THE DRAWINGS. HOLES ARE TO BE DRILLED AND CLEANED, AND ANCHORS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTRUCTIONS AND AN APPROVED ICC_ES REPORT. INSPECTION AND TESTING IS TO BE CONDUCTED IN ACCORDANCE WITH THE GENERAL

WHERE A SPECIFIC TYPE OF ANCHORAGE IS SPECIFIED ON THE DRAWINGS, SUBSTITUTION FOR A DIFFERENT TYPE OF ANCHORAGE, INCLUDING SUBSTITUTION FOR CAST-IN-PLACE ANCHORAGE, IS NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL.

ANCHORS ARE TO BE INSTALLED AND INSPECTED IN STRICT ACCORDANCE WITH THE APPLICABLE ICC-EVALUATION SERVICE REPORT (ESR). SPECIAL INSPECTION IS TO BE PER THE TESTS AND INSPECTIONS SECTION.

MECHANICAL ANCHORS:

NOTES AND THE APPROVED ICC-ES REPORT.

PROVIDE ANCHORS SPECIFIED ON THE DRAWINGS. AT LOCATIONS WHERE ANCHORAGE IS NOT SPECIFIED, PROVIDE HILTI KWIK BOLT TYPE 'TZ' ANCHORS, INSTALLED PER CRITERIA DEFINED IN ICC ESR-1917. PROVIDE STAINLESS STEEL ANCHORS WHEN EXPOSED TO WEATHER OR IN A CLEAN ENVIRONMENT. PROVIDE GALVANIZED CARBON STEEL ANCHORS AT OTHER LOCATIONS, TYP UNO. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, AND OTHER ATTACHED STEEL ASSEMBLIES.

MISCELLANEOUS

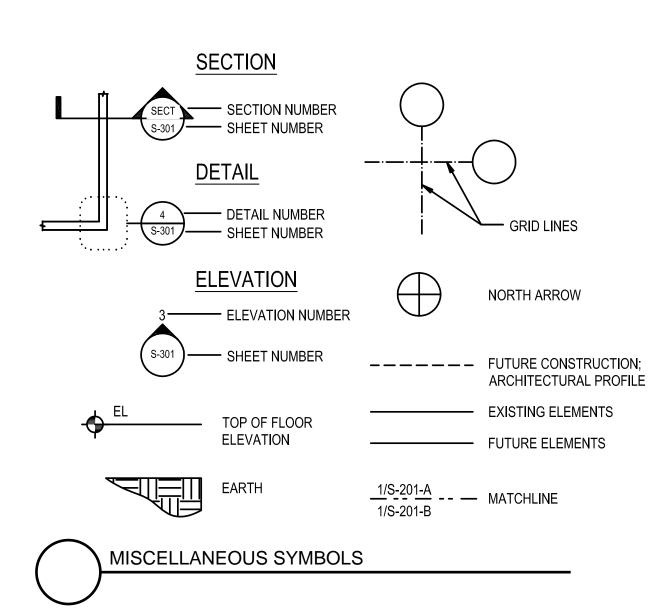
REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, OR OTHER DRAWINGS FOR DIMENSIONS NOT SHOWN, INCLUDING INFORMATION SUCH AS: SIZE AND LOCATION OF CURBS, EQUIPMENT HOUSEKEEPING PADS, WALL AND FLOOR OPENINGS, BLOCK OUTS, FLOOR DEPRESSIONS, SUMPS, DRAINS, ANCHOR BOLTS, EMBEDDED ITEMS, ARCHITECTURAL TREATMENT, ETC. CONTRACTOR TO COORDINATE DIMENSIONS AND RESOLVE DISCREPANCIES OR CONFLICTS PRIOR TO CONSTRUCTION.

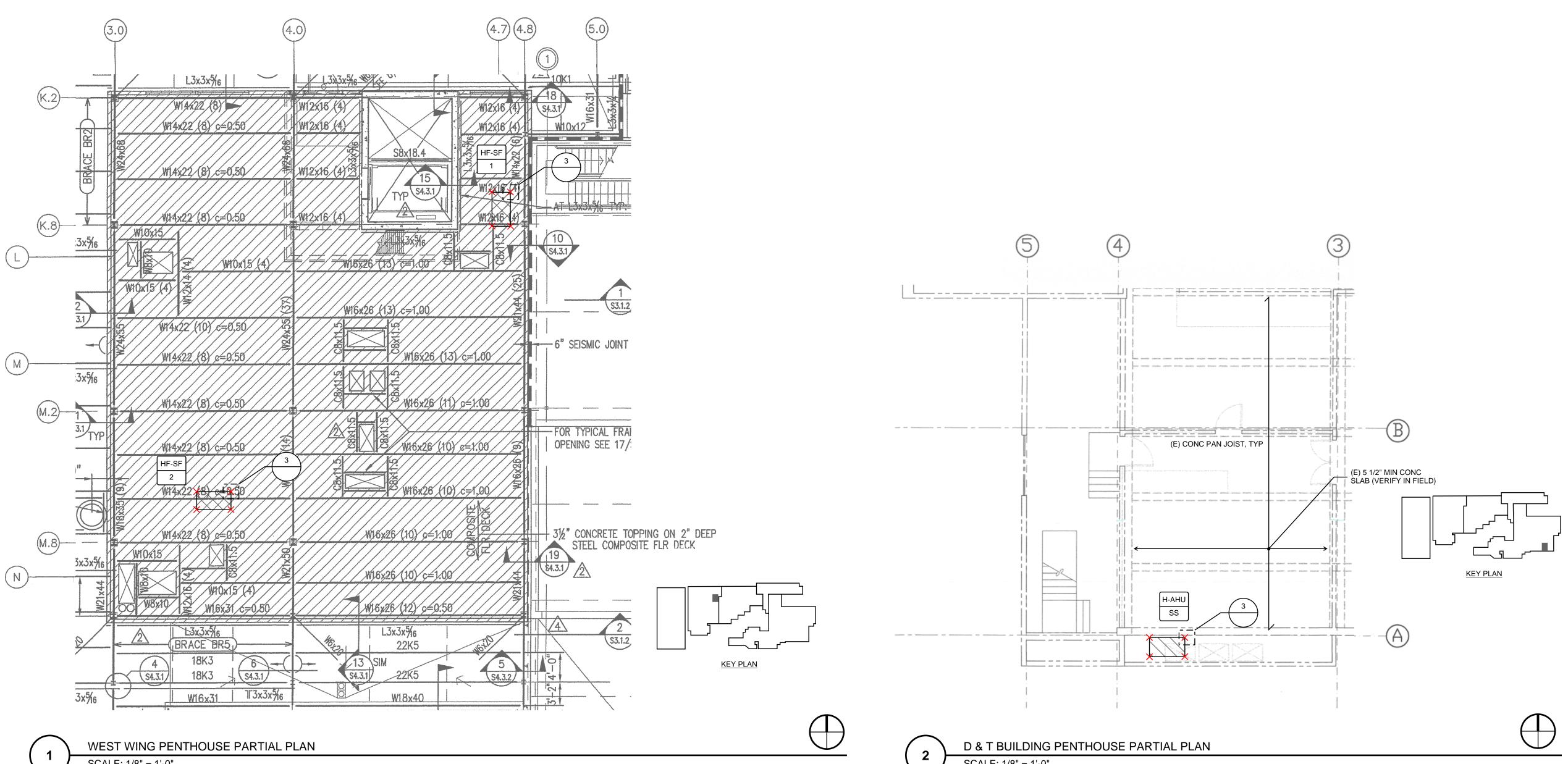
SPECIAL INSPECTION

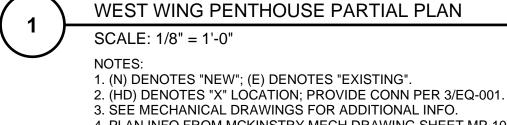
THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION AND TESTING PER IBC SECTION 1705. THIS WORK SHALL BE PERFORMED BY A SPECIAL INSPECTOR CERTIFIED BY THE APPROPRIATE JURISDICTION TO PERFORM THE TYPES OF INSPECTIONS AND TESTS SPECIFIED. THE FREQUENCY OF INSPECTIONS AND TESTING SHALL BE AS OUTLINED IN THE IBC TABLE. DEFICIENCIES ARE TO BE REPORTED DAILY TO THE CONTRACTOR. SUMMARY REPORTS SHALL BE DISTRIBUTED WEEKLY TO THE OWNER, ARCHITECT, CONTRACTOR, BUILDING OFFICIAL, AND STRUCTURAL ENGINEER. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SPECIAL INSPECTIONS AND TESTING. SEE IBC SECTION 1705 FOR ADDITIONAL INFORMATION:

SPECIAL CASES: 1. DRILLED-IN CONCRETE ANCHORS

SPECIAL PERIODIC INSPECTION

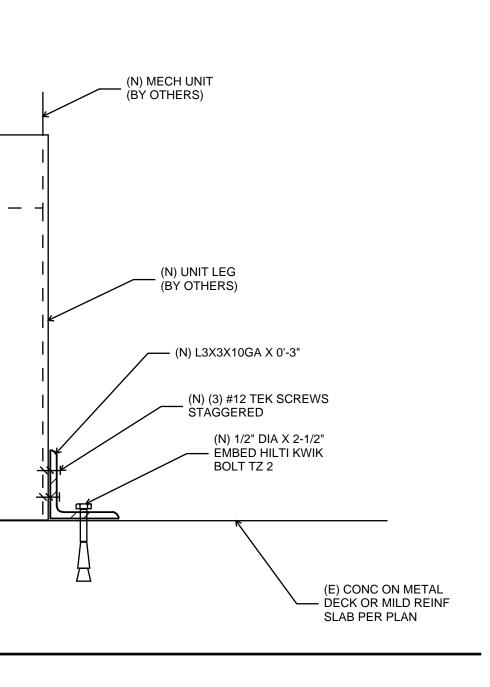








4. PLAN INFO FROM MCKINSTRY MECH DRAWING SHEET MP-101, DATED 11/9/23.



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

NOTES: 1. (N) DENOTES "NEW"; (E) DENOTES "EXISTING". 2. (HD) DENOTES "X" LOCATION: PROVIDE CONN PER MECH CONN SCHEDULE.

3. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFO. 4. PLAN INFO FROM MCKINSTRY MECH DRAWING SHEET MP-102, DATED 11/9/23.

City of Puyallup Development & Permitting Services ISSUED PERMIT		
Building	Planning	
Engineering	Public Works	
Fire	Traffic	



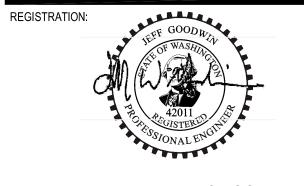
SEATTLE: 5005 3RD AVENUE S PO BOX 24567 SEATTLE, WA 98124 1-800-669-6223

www.mckinstry.com



401 15TH AVE SE PUYALLUP, WA 98372

CONSULTANTS:



ISSUES:

DESIGNED:

JOB NO

SHEET TITLE:

SHEET NUMBER:

EXPIRES: 9-23-24

THIS IS AN ELECTRONIC SIGNATURE. DIGITAL STAMP ORIGINAL ON FILE AT MCKINSTRY

DESCRIPTION PERMIT SET

NO DATE

_____ -----

_____ -----_____ _____ _____ -----_____

_____11/9/23

HBS

GENERAL NOTES,

PARTIAL PLANS &

CONNECTION DETAILS

EQ-001