

**GAS WATER HEATER**

DESIGNATION:	GB 1	GB 2
MANUFACTURER:	INTELLIHOT	INTELLIHOT
MODEL:	i251	i200
TYPE:	CONDENSING	CONDENSING
BTU INPUT (EA):	251,000	199,000
BTU OUTPUT (EA):	235,940	187,060
THERMAL EFFICIENCY:	94%	94%
GPM @ 77F TEMP RISE:	6.3	5.0
STORAGE CAPACITY (GAL.):	-	-
VOLTAGE/PHASE:	120/1	120/1

- NOTES:  
(1) WITH DRAIN AND P/T VALVE.  
(2) PROVIDE CONDENSATE NEUTRALIZATION TRAP FOR FLUE AND WATER HEATER DRAINS  
(3) SET FOR 140°F OUTLET TEMPERATURE  
(4) PROVIDE WITH INTELLIHOT IntelliBot ACID NEUTRALIZER

**PUMP SCHEDULE**

DESIGNATION:	CP 1	CP 2	HWCP 1
LOCATION:	MECH 005	MECH 005	MECH 005
MANUFACTURER:	B & C	B & C	B & C
MODEL:	PL-30 (1)	PL-30 (1)	PL-30
TYPE:	IN-LINE	IN-LINE	IN-LINE
G.P.M.:	7	7	5.5
HEAD (FT-H2O):	11	11	14
MOTOR HP	1/12	1/12	1/12
AMPS	1.4	1.4	1.4
VOLTAGE:	120	120	208
PHASE:	1 & 2	1 & 2	1

- REMARKS:  
1. PROVIDE LEAD FREE, BRONZE BODY PUMP  
2. PROVIDE WITH HEAT TIMER PL PUMP CONTROLLER WITH LEAD/LAG CONTROLS AND TEMPERATURE SENSORS AS REQUIRED FOR DOMESTIC HOT WATER HEATER STORAGE TANK TEMPERATURE CONTROL

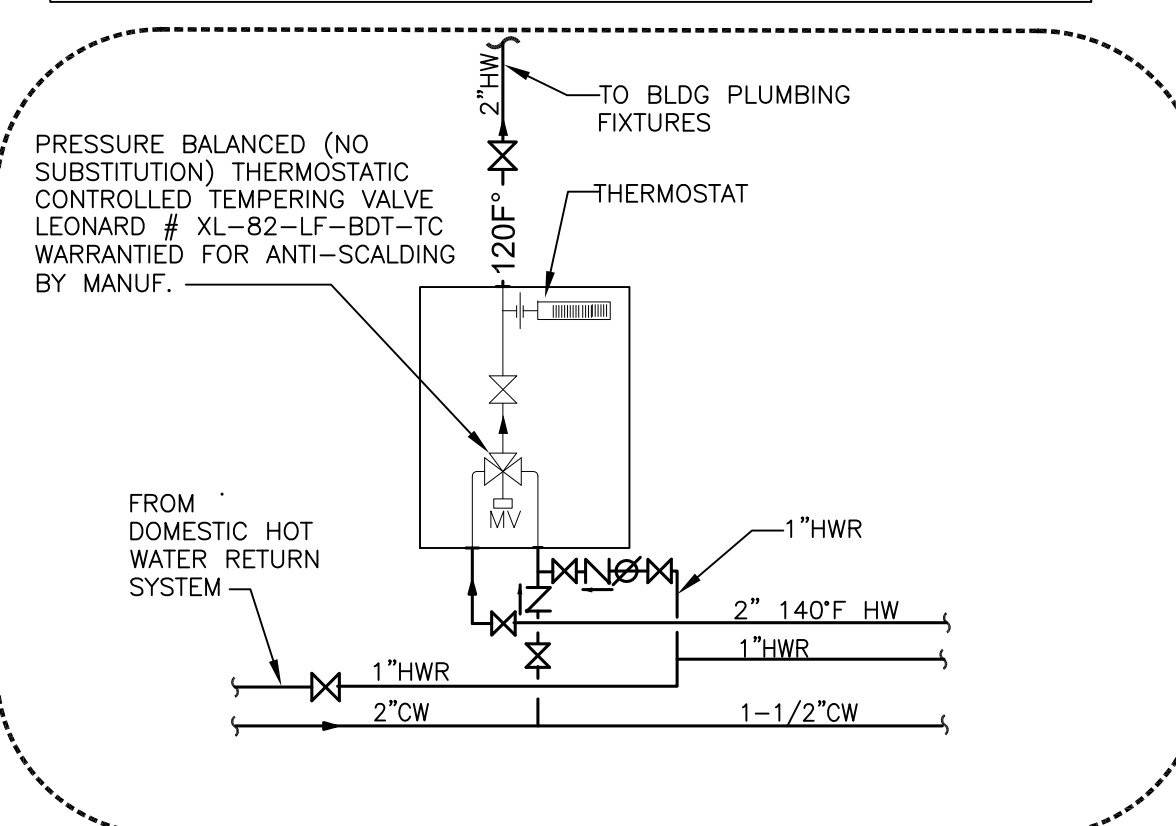
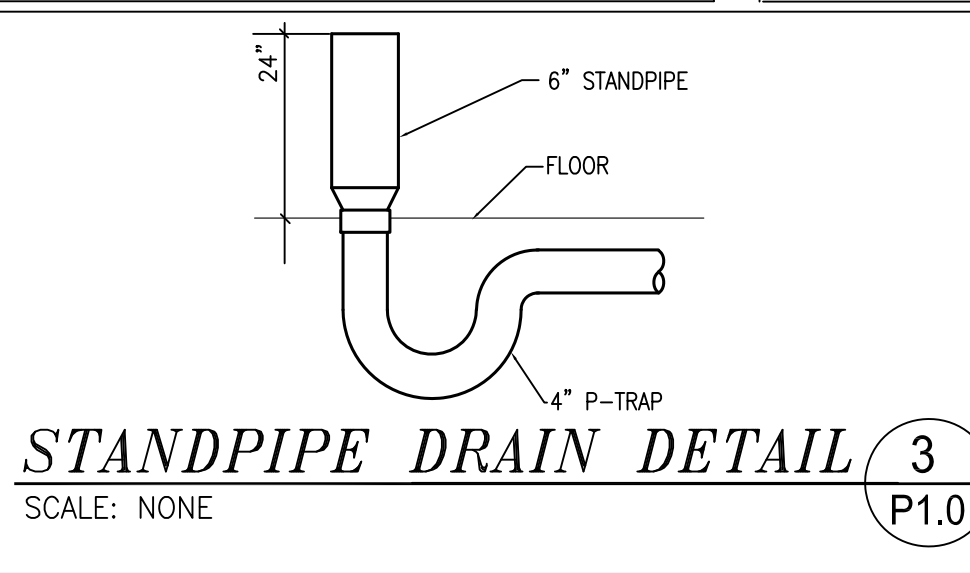
**PLUMBING LEGEND**

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CW	COLD WATER PIPE	---	COLD WATER
HW	HOT WATER PIPE	FW	FILTERED WATER
W	WASTE/SOIL PIPE	---	HOT WATER
V	VENT PIPE	140F	HOT WATER (140°F)
G	GAS PIPE	HW-C	HOT WATER CIRCULATION
RL	RAIN LEADER PIPE	---	VENT
P1	PLUMBING FIXTURE TAG	GW	WASTE, GREASE
1	PLAN NOTE #1	RL	RAIN LEADER
WH#1	WH #1 (EQUIP. TAG)	ORL	OVERFLOW RAIN LEADER
FFD	FLOOR DRAIN W/ FUNNEL	G	GAS (7 IN-W.C.)
FS	FLOOR SINK	CD	CONDENSATE
FD	FLOOR DRAIN	GV	GATE VALVE
GD	GARAGE DRAIN	---	COLD WATER PEX
PD	PLANTER DRAIN	---	HOT WATER PEX
DD	DECK DRAIN	CW	CW MANIFOLD PEX/WIRTSBO
RD/OF	ROOF/OVERFLOW DRAIN	HW	HW MANIFOLD PEX/WIRTSBO
AD	AREA DRAIN	---	BALANCING/SHUT-OFF VALVE
FCO	FLOOR CLEANOUT	Ø	BALL VALVE
WCO	WALL CLEANOUT	Ø	PRESSURE GAUGE
GCO	GRADE CLEANOUT		UNION
0.5"	1/2" PIPE SIZE	-- SR	SUDS RELIEF
0.75"	3/4" PIPE SIZE	SR	RELIEF VALVE
1"	1" PIPE SIZE	VTR	VENT THROUGH ROOF
1.25"	1-1/4" PIPE SIZE	VTR	VENT THRU ROOF
1.5"	1-1/2" PIPE SIZE	---	BURIED PIPE
2"	2" PIPE SIZE	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
2.5"	2-1/2" PIPE SIZE	PRV	PRESSURE REDUCING VALVE
3"	3" PIPE SIZE	---	BACK WATER VALVE
Ø	PIPE ELBOW UP		
Ø	PIPE ELBOW DOWN		
Ø	PIPE TEE UP		
Ø	PIPE TEE DOWN		

**EXPANSION TANKS**

DESIGNATION:	ET 1
LOCATION:	FIRST FLOOR
MANUFACTURER:	AMTROL (1)
MODEL:	ST-30V-C
SERVICE:	BLDG HW
ACCEPT. VOL. (GAL)	9.0
TOTAL VOL. (GAL)	14.0
WEIGHT (lb's)	64

- NOTES:  
1. OR APPROVED EQUAL



- NOTE:  
1. SUBSTITUTION OF ALTERNATE MIXING VALVE MANUFACTURER WILL REQUIRE MODIFICATION OF MIXING VALVE PIPING. VALVES TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS

**WATER STORAGE TANKS**

DESIGNATION:	ST 1&2
LOCATION:	FIRST FLR
MANUFACTURER:	A.O. SMITH
MODEL:	T-120 STD
STORAGE CAP (GAL.)	119
CONFIGURATION	VERTICLE
NOTES:	1, 2

- NOTES:  
1. PROVIDE FIELD INSTALLED TANK INSULATION  
2. PROVIDE CONNECTION LOCATION AS REQUIRED.  
3. PROVIDE MOUNTING BASE AS REQUIRED

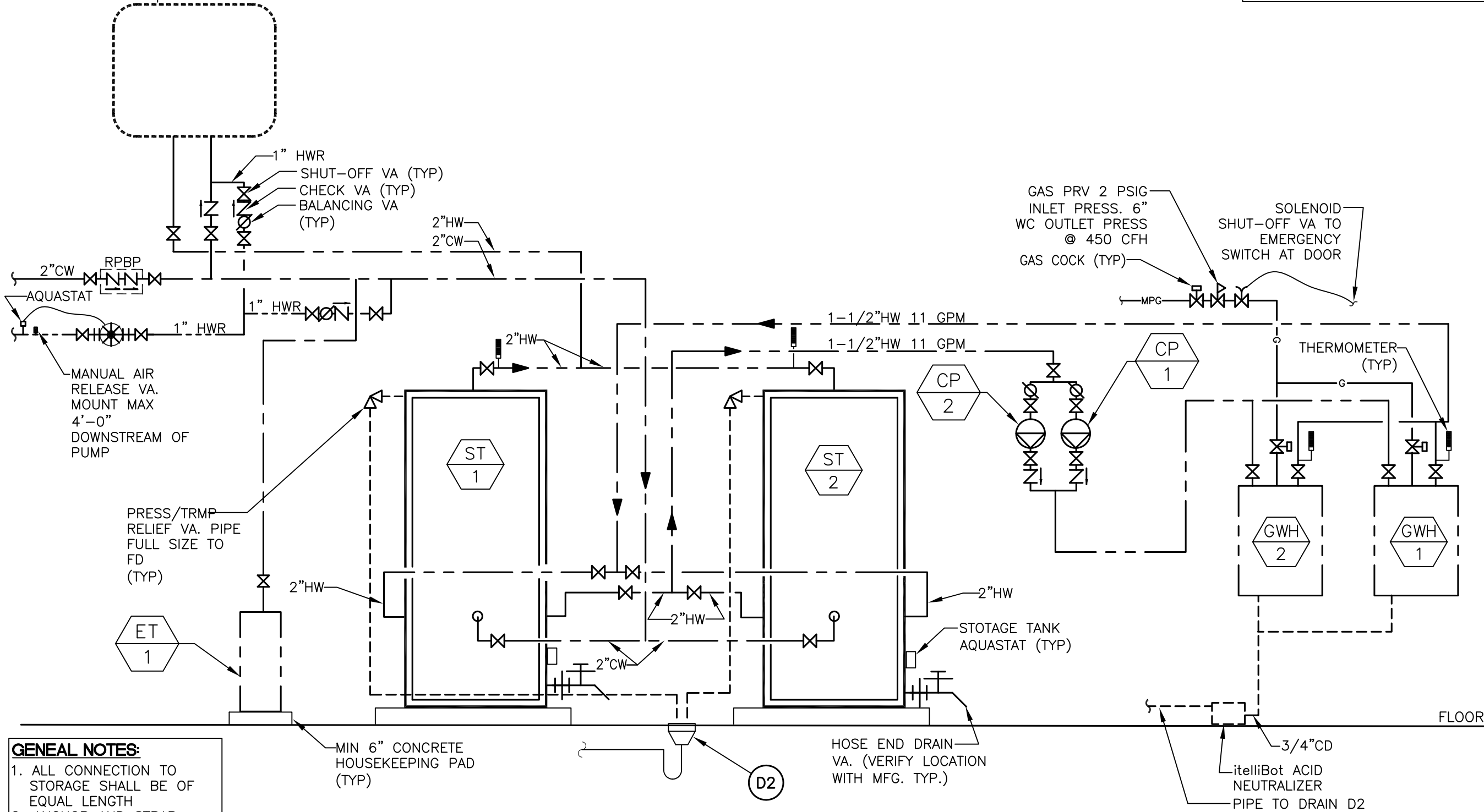
**PLUMBING GENERAL NOTES**

- COORDINATE WITH STRUCTURAL FOR EXACT LOCATION OF ALL STRUCTURAL FRAMING AND FOOTINGS AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH STRUCTURAL AND AT SITE PRIOR AND DURING THE CONSTRUCTION.
- COORDINATE WITH ARCHITECTURAL AND AT SITE FOR EXACT LOCATION OF ALL PLUMBING FIXTURES.
- ALL FIXTURES REQUIRING PLUMBING SHALL BE CONNECTED TO BUILDING WASTE, VENT, COLD WATER AND HOT WATER SYSTEM AS REQUIRED BY THE CODES. WASTE AND VENT PIPE SIZES SHALL NOT BE SMALLER THAN UPC 2012 TABLE 703.2.
- SEE PLUMBING FIXTURE CONNECTION SCHEDULE ON SHEET "P1".
- NOT USED
- INSTALL CLEANOUTS PER UPC 2012 SECTION 707.0, SIZED PER TABLE 707.1 AND AS REQUIRED BY LOCAL JURISDICTIONS. ALL CLEANOUTS SHALL BE LOCATED IN WALLS/FLOORS IN A NOT HIGHLY VISIBLE LOCATION AS APPROVED BY THE ARCHITECT.
- ALL EXPOSED PIPING FOR HANDICAPPED FIXTURES SHALL BE INSULATED WITH HANDI-LAV GUARD (OR EQUAL). OFFSET P-TRAPS TO CLEAR WHEEL CHAIR ACCESS.
- INSTALL EXPANSION AND CONTRACTION JOINTS FOR PLASTIC PIPING AS NEEDED PER LOCAL JURISDICTION AND 2015 UPC.
- COORDINATE WITH THE STRUCTURAL ENGINEER AND GENERAL CONTRACTOR TO PROVIDE STRUCTURAL SUPPORT FOR ALL EQUIPMENT.
- PLUMBING CONTRACTOR SHALL VERIFY ALL SPACE CONDITIONS AND DIMENSIONS AT JOB SITE PRIOR TO FABRICATION AND INSTALLATION OF MATERIALS AND EQUIPMENT.
- PLUMBING CONTRACTOR SHALL COORDINATE PLUMBING VENT STACKS WITH THE HVAC CONTRACTOR TO MAINTAIN A MINIMUM OF 10 FT. FROM THE OUTSIDE AIR INTAKES.
- ALL ROOF PENETRATIONS SHALL BE MINIMUM 5 FEET AWAY FROM AREA/OCCUPANCY SEPARATION WALLS.
- COMPLETE INSTALLATION OF THE MECHANICAL SYSTEM SHALL BE PER THE STATE OF WASHINGTON BUILDING, MECHANICAL ENERGY, FIRE, PLUMBING AND HEALTH CODES AND REGULATIONS AS ADOPTED BY THE LOCAL JURISDICTIONS.
- ALL EQUIPMENT SHALL BE FREE FROM DEFECTS IN MATERIAL, WORKMANSHIP AND SHALL BE OF THE KIND AND QUALITY DESCRIBED HEREIN.
- PLUMBING CONTRACTOR SHALL CONNECT TO EACH PIECE OF EQUIPMENT WITH ALL REQUIRED ACCESSORIES AND IN ACCORDANCE WITH DRAWINGS, MANUFACTURER'S RECOMMENDATIONS AND LOCAL CODES.
- INSTALL SHUT OFF VALVES/STOPS AT HOT AND COLD WATER SUPPLY TO EACH FIXTURE EQUIPMENT.
- INSTALL ALL TRAP ARMS SUCH THAT THE MAXIMUM LENGTH WILL NOT EXCEED THE CODE REQUIREMENTS. ALL TRAPS WITHOUT HAVING CONTINUOUS WATER DISCHARGE TO BE PROTECTED AGAINST TRAP EVAPORATION AND TO HAVE AUTOMATIC TRAP PRIMERS CONNECTED TO NEAREST MOST FREQUENTLY USED FIXTURE.
- SUDS RELIEF SHALL COMPLY WITH UPC 2015 SECTION 711.0 .
- ROUTE/DISCHARGE CONDENSATE PIPES FOR HEAT PUMPS/FURNACES TO LAVATORY TAILPIECE IN RESIDENTIAL UNITS OR M
- VENT LENGTH SHALL NOT EXCEED 2015 UPC TABLE 703.2 .
- VERIFY WITH GENERAL CONTRACTOR FOR FURRING OUT PIPES OUTSIDE OF WALLS DUE TO FLOOR STRUCTURAL FRAMING IN LINE WITH WALLS PRIOR TO BIDDING.
- VERIFY WITH GENERAL CONTRACTOR AND ARCHITECT FOR OUTSIDE ROOF AND DECK DRAINAGE LOCATIONS PRIOR TO BIDDING. (MAY NOT BE SHOWN ON THE DRAWINGS)
- ALL DRAINAGE PIPING INSIDE BUILDING SHALL BE SLOPED AT MINIMUM 1/4" PER FOOT (2%) UNLESS OTHERWISE APPROVED BY LOCAL JURISDICTIONS. (OTHER THAN 2% SLOPE WILL REQUIRE ADJUSTMENT FACTOR (0.80 FOR 1% SLOPE) FOR TOTAL F.U. COUNT CAPACITIES PER UPC 2015 TABLE 703.2)
- ALL WATER PIPING SHALL BE INSTALLED ON THE WARM SIDE OF INSULATION.
- ALL PLUMBING, PIPING AND EQUIPMENT SHALL CONFORM TO SMACNA & LOCAL REGULATIONS FOR SEISMIC RESTRAINTS.
- ALL PIPING SHALL BE INSULATED PER THE STATE ENERGY CODE UNLESS OTHERWISE NOTED.
- ALL SUMP PUMPS TO HAVE ACCESSIBLE SHUT-OFF AND CHECK VALVE.
- MAX. 3 WATER CLOSETS ON HORIZONTAL BRANCH AND 4 WATER CLOSETS ON VERTICAL STACK ON ANY 3" WASTE. (TYP.)
- CLOTHES WASHING AREA W/ CLOTHES WASHERS IN A BATTERY OF THREE (3) OR MORE CLOTHES WASHERS SHALL BE RATED AT 6 FIXTURE UNITS PER FIXTURE.
- EACH VENT SHALL RISE 6" ABOVE THE FIXTURE FLOOD RIM BEFORE OFFSETTING HORIZONTALLY OR CONNECTING TO ANY OTHER FIXTURE PER UPC 2015 905.3
- CONTRACTOR IS TO BRING UP THE DISCREPANCIES AND ITEMS WHICH ARE NOT SPECIFICALLY CALLED FOR OR SHOWN BUT ARE REQUIRED FOR A COMPLETE MECHANICAL SYSTEM UP AND AFFECT HIS CONTRACT PRIOR TO ENTERING AND SIGNING THE CONTRACT; AFTER AWARDED THE CONTRACT ALL SUCH ITEMS REQUIRED FOR A COMPLETE SYSTEM READY FOR THE OWNER'S BENEFICIAL USE SHALL BE FURNISHED AND INSTALLED INCLUDING ALL SUCH DISCREPANCY ITEMS MENTIONED ABOVE, AT NO ADDITIONAL COST TO THE OWNER AND PER LOCAL CODES. MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE STANDARDS WITH THE ARCHITECT/ENGINEER'S APPROVAL.
- ENTIRE INSTALLATION OF ALL EQUIPMENT, CONTROL, PIPING AND RELATED ACCESSORIES SHALL BE PER BASIC OWNERS' STANDARDS. PLUMBING CONTRACTOR IS TO FAMILIARIZE HIMSELF WITH THESE STANDARDS.
- COORDINATE THE CONSTRUCTION SCHEDULE WITH THE ARCHITECT AND PERFORM ALL REQUIRED WORK IN STRICT ACCORDANCE WITH THE OWNER'S SCHEDULE.
- PLUMBING CONTRACTOR SHALL PAY FOR AND OBTAIN ALL REQUIRED PERMITS AND CERTIFICATES REQUIRED BY THE AUTHORITIES HAVING JURISDICTION.
- VERIFY OVERFLOW DRAIN REQUIREMENTS AT FOR ALL ROOF AND DECK AREAS, INSTALLAS NEEDED PER LOCAL JURISDICTION AND 2015 UPC.

**PLUMBING FIXTURE CONNECTION SCHEDULE**

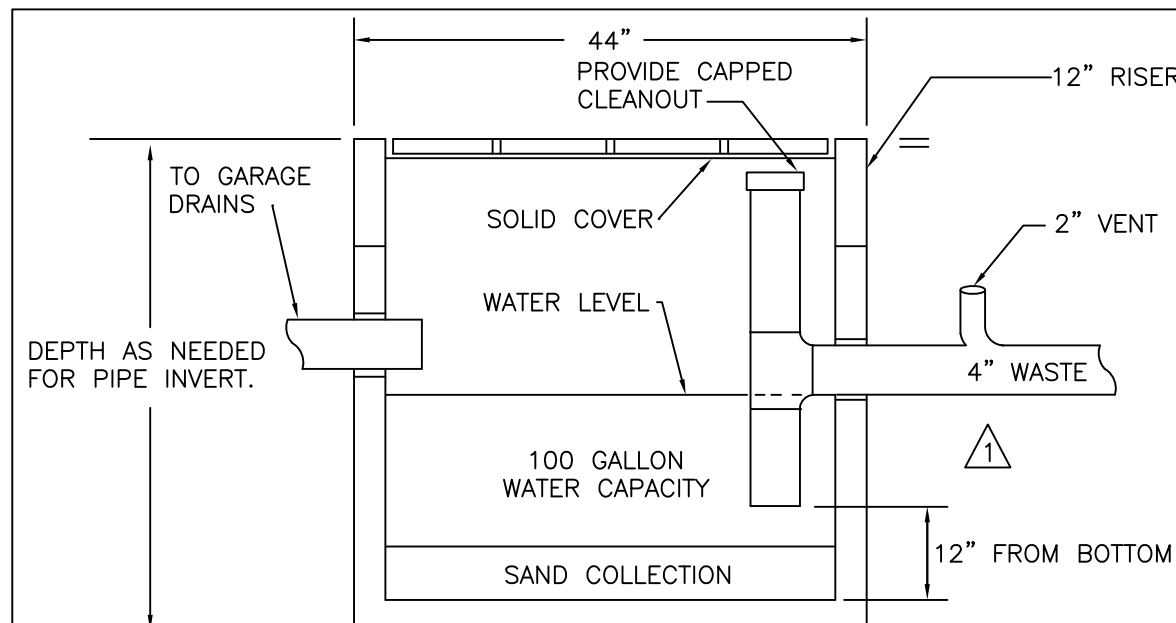
DESIG:	ITEM#	TRAP:	WASTE:	VENT:	CW:	HW:
P-1	WATER CLOSET, STERLING WINDHAM # 402015 (1.6 GPF F.T.), WHITE VITREOUS CHINA, ELONGATED BOWL. PROVIDE CHROME PLATED STOP VA. MOUNTED 10.25" ABOVE FINISHED FLOOR AND BEMIS #1900CCP WHITE CLOSED FRONT SEAT WITH LID.					-
P-1A	WATER CLOSET ADA, STERLING WINDHAM# 402315 (1.6 GPF F.T.), WHITE VITREOUS CHINA, ELONGATED BOWL. PROVIDE CHROME PLATED STOP VA. MOUNTED 10.25" ABOVE FINISHED FLOOR AND BEMIS #1900CCP WHITE CLOSED FRONT SEAT WITH LID.	3"	3"	2"	1/2"	-
P-2	LAVATORY, STERLING WESCOTT # 442040, WHITE VITREOUS CHINA WITH OVERFLOW, UNDER COUNTER MOUNT, 17"x13"x7.5" DEEP. PROVIDE WITH CHROME PLATED STOP VALVES & AMERICAN STANDARD # 2064.131 SINGLE LEVEL FAUCET WITH POP-UP DRAIN	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"
P-2A	LAVATORY ADA, STERLING WESCOTT # 442040, WHITE VITREOUS CHINA WITH OVERFLOW, UNDER COUNTER MOUNT, 17"x13"x7.5" DEEP. PROVIDE WITH CHROME PLATED STOP VALVES, AMERICAN STANDARD # 2064.131 SINGLE LEVEL FAUCET WITH POP-UP DRAIN, OFFSET P-TRAP WITH TRU BRO TRAP WRAP	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"
P-3	BATHTUB, STERLING # 71121120, 60" X 32" X 21" DEEP WHITE COMPRESSED MOLDED VIKRELL. PROVIDE WITH SLIP RESISTANT FLOOR, SYMMONS # C-96-2-X CHROME PLATED PRESSURE BALANCING MIXING VALVE WITH INTEGRAL STOPS, HANDLE STOP LIMIT SCREWS, TUB SPOUT, 1 MODE SHOWER HEAD, AND KOHLER # K-7163 POP-UP DRAIN ASSEMBLY.	2"	2"	1-1/2"	1/2"	1/2"
P-3A	BATHTUB (ADA) , STERLING # 71121120, 60" X 32" X 21" DEEP WHITE COMPRESSED MOLDED VIKRELL. PROVIDE WITH SLIP RESISTANT FLOOR, SYMMONS # C-96-600-B30-V-X CHROME PLATED PRESSURE BALANCING MIXING VALVE WITH INTEGRAL STOPS, HANDLE STOP LIMIT SCREWS, LEVER/TROL DIVERTER VALVE, TUB SPOUT, ADJUSTABLE SHOWER HEAD, AND KOHLER # K-7163 POP-UP DRAIN ASSEMBLY. PROVIDE WITH SEAT	2"	2"	1-1/2"	1/2"	1/2"
P-3B	SHOWER, STERLING # 72270100, 60" X 36" X 75.75" HIGH, WHITE COMPRESSED MOLDED VIKRELL, CAULK FREE INSTALLATION WITH. PROVIDE WITH SLIP RESISTANT FLOOR, KOHLER # K-70629-L FRAMELESS GLASS DOOR 0.03125" THICK, SYMMONS # C-96-1-X CHROME PLATED PRESSURE BALANCING MIXING VALVE, INTEGRAL SERVICE STOPS, ADJUSTABLE HANDLE LIMIT SCREWS AND ADJUSTABLE SPRAY SHOWER HEAD, CHROME PLATED FLAT GRID STRAINER. PROVIDE STERLING # 800010112 24" GRAB LOCATED OPPOSITE SHOWER HEAD. COORDINATE LOCATION WITH ARCH.	2"	2"	1-1/2"	1/2"	1/2"
P-4	SINK, JUST # SLF-2019-A-GR, 18 GAUGE TYPE 304 STAINLESS STEEL, SINGLE COMPARTMENT WITH FAUCET LEDGE 20" X 19" X 7.5" DEEP. PROVIDE WITH JUST # J-35-FS CHROME PLATED FLAT GRID STRAINER AND KOHLER # K-15888-K CHROME PLATED GOOSE NECK FAUCET WITH LEVER HANDLES.	2"	2"	1-1/2"	1/2"	1/2"
D-1	FLOOR DRAIN, J.R. SMITH # 2005Y-NB-B-P-050, WITH NICKEL BRONZE GRATE, TRAP PRIMER CONNECTION, DUCO CAST IRON BODY, FLASHING COLLAR, AND ADJUSTABLE STRAINER HEAD	2"	2"	1-1/2"	-	-
D-2	FUNNEL FLOOR DRAIN, J.R. SMITH # 2005Y-NB-P050 WITH # 3581 FUNNEL, NICKEL BRONZE TOP, TRAP PRIMER CONNECTION, DUCO CAST IRON BODY, FLASHING COLLAR, AND ADJUSTABLE STRAINER HEAD	2"	2"	1-1/2"	-	-
D-3	GARAGE DRAIN, J.R. SMITH # 2415Y-M, 11" SQUARE DUCTILE IRON HINGED GRATE, LOCKING SEDIMENT BUCKET, AND DUCTILE CAST IRON BODY	3"	2"	-	-	-
D-4	ROOF DRAIN, J.R. SMITH 1330-RDF, DUCO CAST IRON BODY WITH ADJUSTABLE EXTENSION SLEEVE, GRAVEL STOP, & LOW PROFILE POLYETHYLENE DOME.	-	3"	-	-	-
D-5	OVERFLOW ROOF DRAIN, SAME AS D-10 EXCEPT WITH 2" EXTERNAL WATER DAM COLLAR	-	3"	-	-	-

- NOTES:  
(1) ALL HANDICAPPED FIXTURES SHALL BE APPROVED FOR USE BY DISABLED PERSONS.  
(2) ALL FIXTURES SHALL COMPLY WITH LOCAL WATER CONSERVATION ACT REQUIREMENTS.  
(3) COORDINATE WITH ARCHITECTURAL FOR EXACT LOCATION OF ALL PLUMBING FIXTURES.  
(4) SHOWERS SHOULD BE EQUIPPED WITH FLOW CONTROL DEVICES TO LIMIT TOTAL FLOW TO A MAXIMUM OF 2.5 GPM PER SHOWERHEAD.  
(5) NO UNDERGROUND WASTE PIPING LESS THAN 2".  
(6) FLOOR DRAINS WITHOUT RECEIVING CONTINUOUS WATER SHALL HAVE TRAP PRIMERS PER SPEC. AND LOCAL JURISDICTIONS.  
(7) DISABLED ACCESS WATER CLOSET TRIP LEVERS SHALL BE MOUNTED ON THE WIDE SIDE FOR THE STAFF OR PUBLIC RESTROOMS.  
(8) PROVIDE INTEGRAL STOPS ON ALL TUB/SHOWER VALVES.  
(9) PROVIDE LISTED WATER HAMMER ARRESTERS TO SERVE THE PUBLIC TOILET ROOM, ICE MACHINE, PER 2012 UPC SEC. 609.10. WATER HAMMER SHALL BE ENCASED IN WALL OR CEILING.  
(10) ALL EXPOSED PLUMBING FIXTURE FITTINGS SHALL BE CHROME PLATED.  
(11) ALL SHOWER HEADS SHALL BE MOUNTED 6"-10" ABOVE FINISHED FLOOR.



- GENERAL NOTES:  
1. ALL CONNECTION TO STORAGE SHALL BE OF EQUAL LENGTH  
2. ANCHOR AND STRAP STORAGE TANKS TO MEET SEISMIC ISOLATION REQUIREMENTS

**BUILDING DOMESTIC WATER HEATER DETAIL 2**  
NO SCALE



**100 GAL. SAND/OIL INTERCEPTOR SECTION 1**  
NO SCALE (FOGTT 36"x36" OR EQUAL)

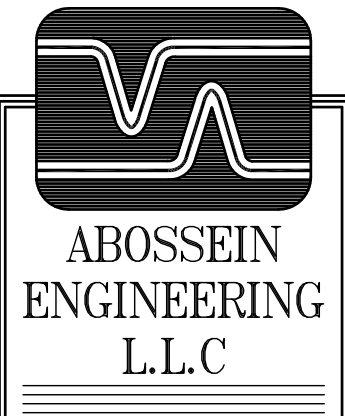
**B-20-0078**  
City of Puyallup

SHT.	DESCRIPTION
P1.0	GENERAL NOTES, LEGEND, SCHEDULES & DETAILS
P2.0	1ST FLOOR PLAN - PLUMBING
P3.0	2ND FLOOR PLAN - PLUMBING
P4.0	3RD FLOOR PLAN - PLUMBING
P5.0	4TH FLOOR PLAN - PLUMBING
P6.0	ROOF PLAN - PLUMBING
P7.0	RISE R DIAGRAMS PLUMBING
P8.0	PLUMBING SPECIFICATIONS



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RESPONSE TO DRT #P-19-0050



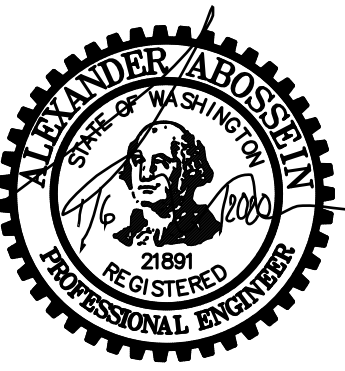
MECHANICAL - ELECTRICAL  
CIVIL - LEED - STRUCTURAL  
FIRE PROTECTION

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GENERAL NOTES, SCHEDULES  
AND LEGEND

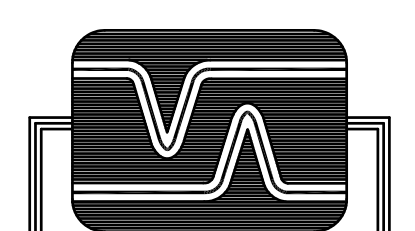
Addition to Hampton Inn & Suites  
Hampton Inn & Suites  
1515 S. Meridian, Puyallup, WA

Job #:  
Date: January 6, 2020  
Revs:

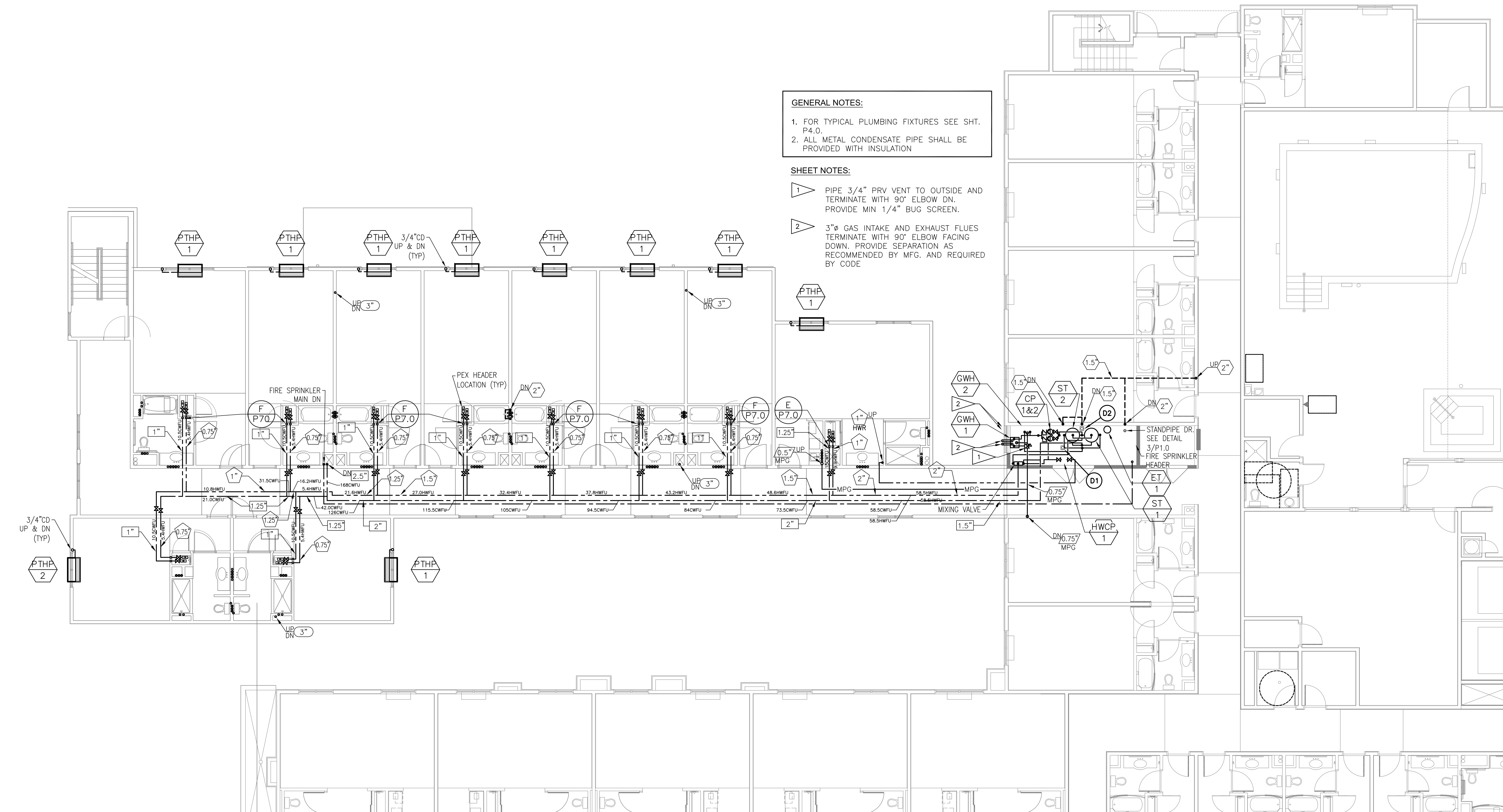
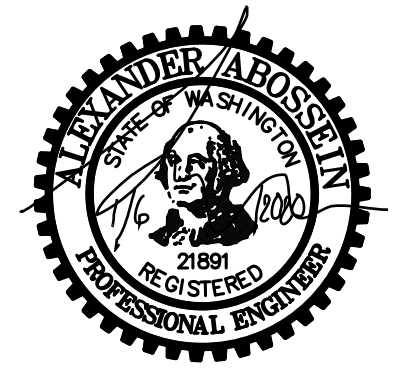
**P1.0**







**ABOSSEIN ENGINEERING L.L.C.**  
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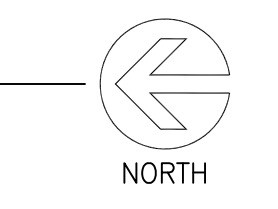
- FOR TYPICAL PLUMBING FIXTURES SEE SHT. P4.0.
- ALL METAL CONDENSATE PIPE SHALL BE PROVIDED WITH INSULATION

**SHEET NOTES:**

- PIPE 3/4" PRV VENT TO OUTSIDE AND TERMINATE WITH 90° ELBOW DN. PROVIDE MIN 1/4" BUG SCREEN.
- 3"Ø GAS INTAKE AND EXHAUST FLUES TERMINATE WITH 90° ELBOW FACING DOWN. PROVIDE SEPARATION AS RECOMMENDED BY MFG. AND REQUIRED BY CODE

**2ND FLOOR PLAN - PLUMBING**


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



2ND FLOOR PLAN -  
PLUMBING  
Addition to Hampton Inn & Suites  
Hampton Inn & Suites  
1515 S. Meridian, Puyallup, WA

Job #: \_\_\_\_\_  
Date: January 6, 2020  
Revs: \_\_\_\_\_





**ABOSSEIN**  
ENGINEERING  
L.L.C.

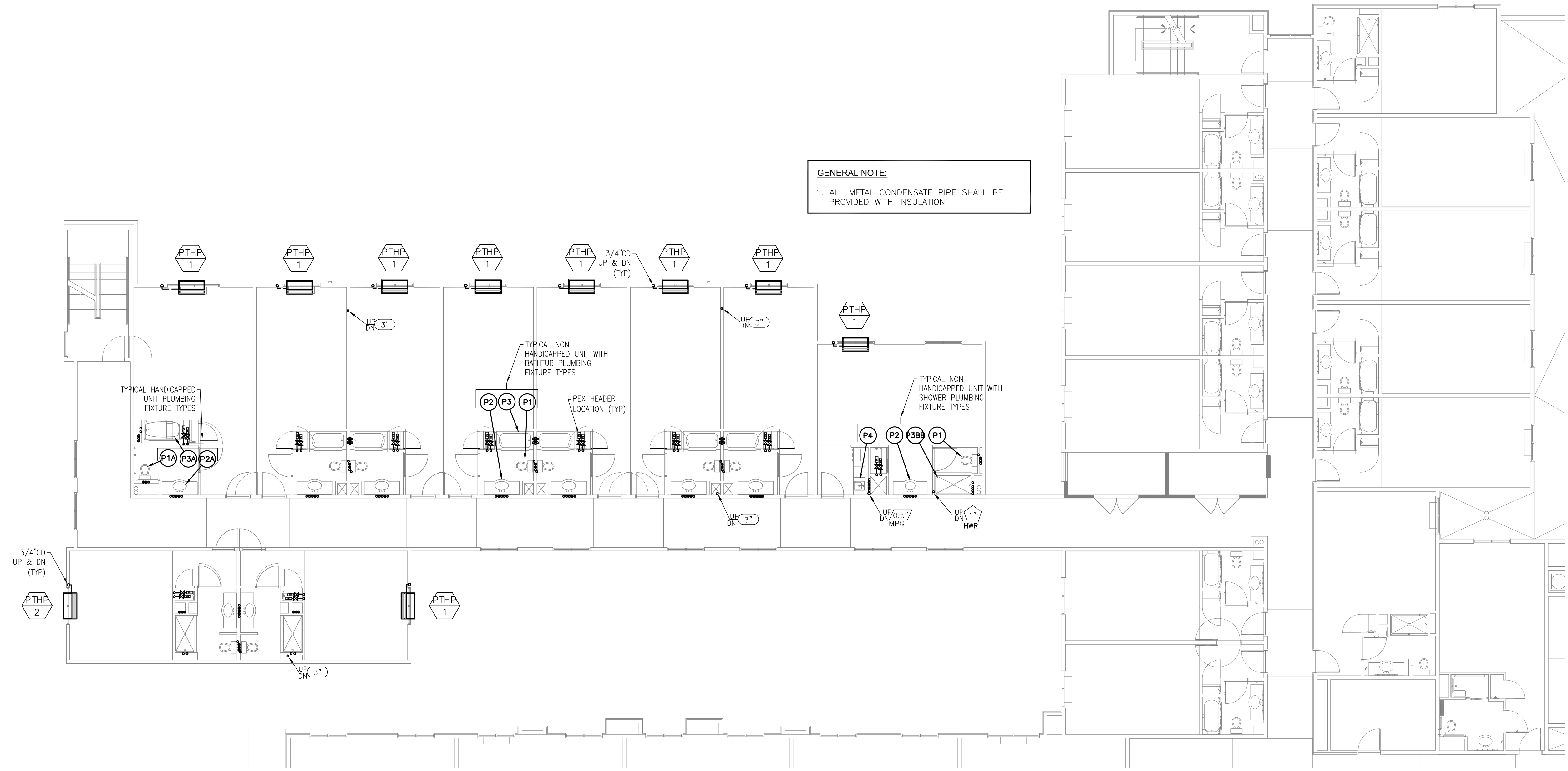
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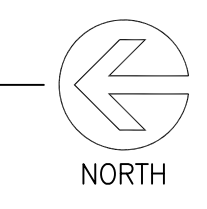
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**GENERAL NOTE:**  
1. ALL METAL CONDENSATE PIPE SHALL BE PROVIDED WITH INSULATION

**3RD FLOOR PLAN - PLUMBING**

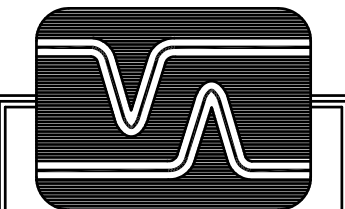
SCALE: 1/8" = 1'-0"



3RD FLOOR PLAN -  
PLUMBING

Addition to Hampton Inn & Suites  
Hampton Inn & Suites  
1515 S. Meridian, Puyallup, WA

Job #:  
Date: January 6, 2020  
Revs:



**ABOSSEIN**  
**ENGINEERING**  
**L.L.C.**

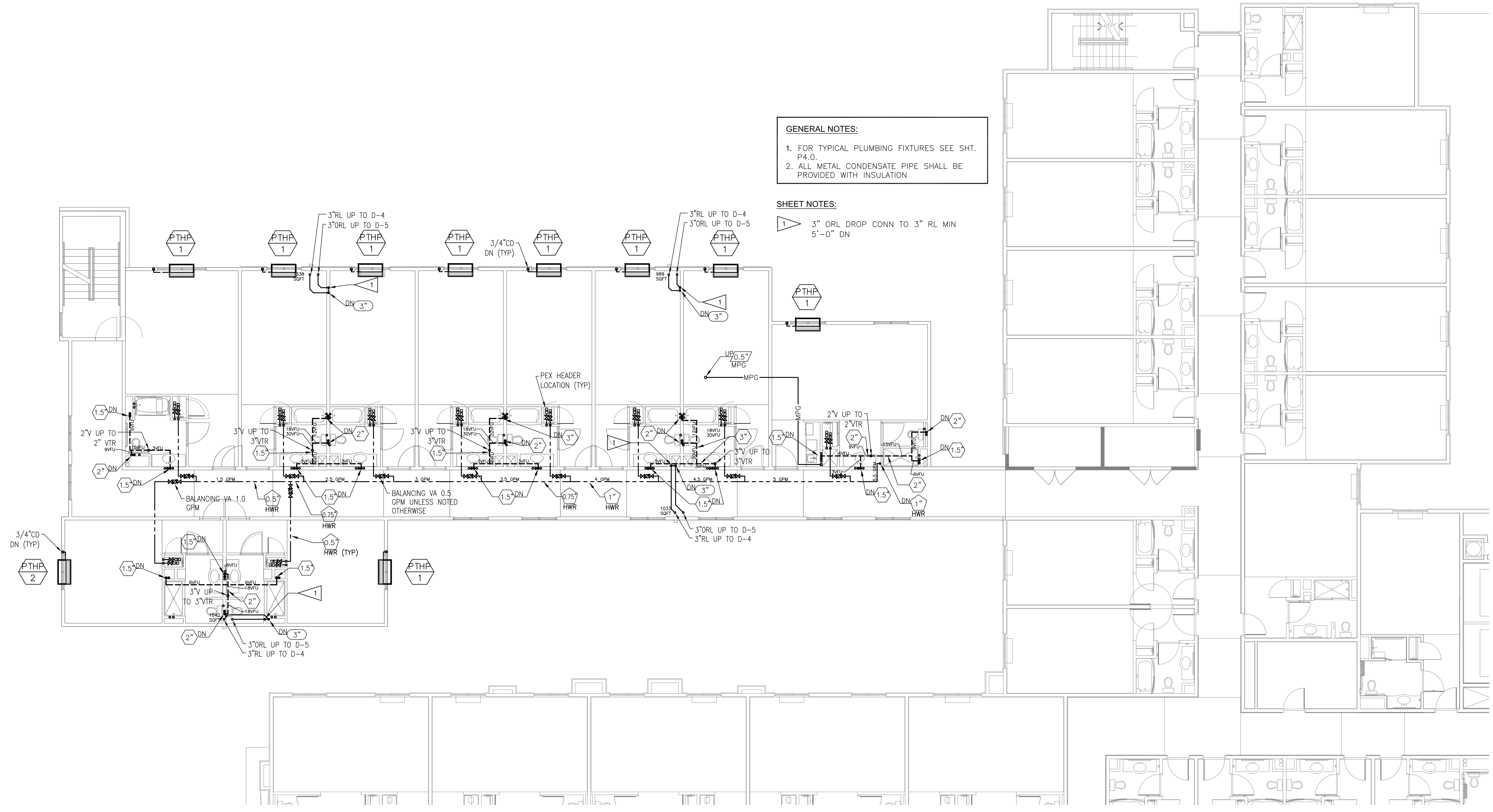
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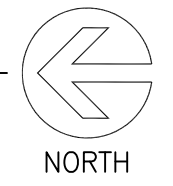
**GENERAL NOTES:**

- FOR TYPICAL PLUMBING FIXTURES SEE SHT. P4.0.
- ALL METAL CONDENSATE PIPE SHALL BE PROVIDED WITH INSULATION

**SHEET NOTES:**

- 3" ORL DROP CONN TO 3" RL MIN 5'-0" DN

**4TH FLOOR PLAN - PLUMBING**  
SCALE: 1/8" = 1'-0"



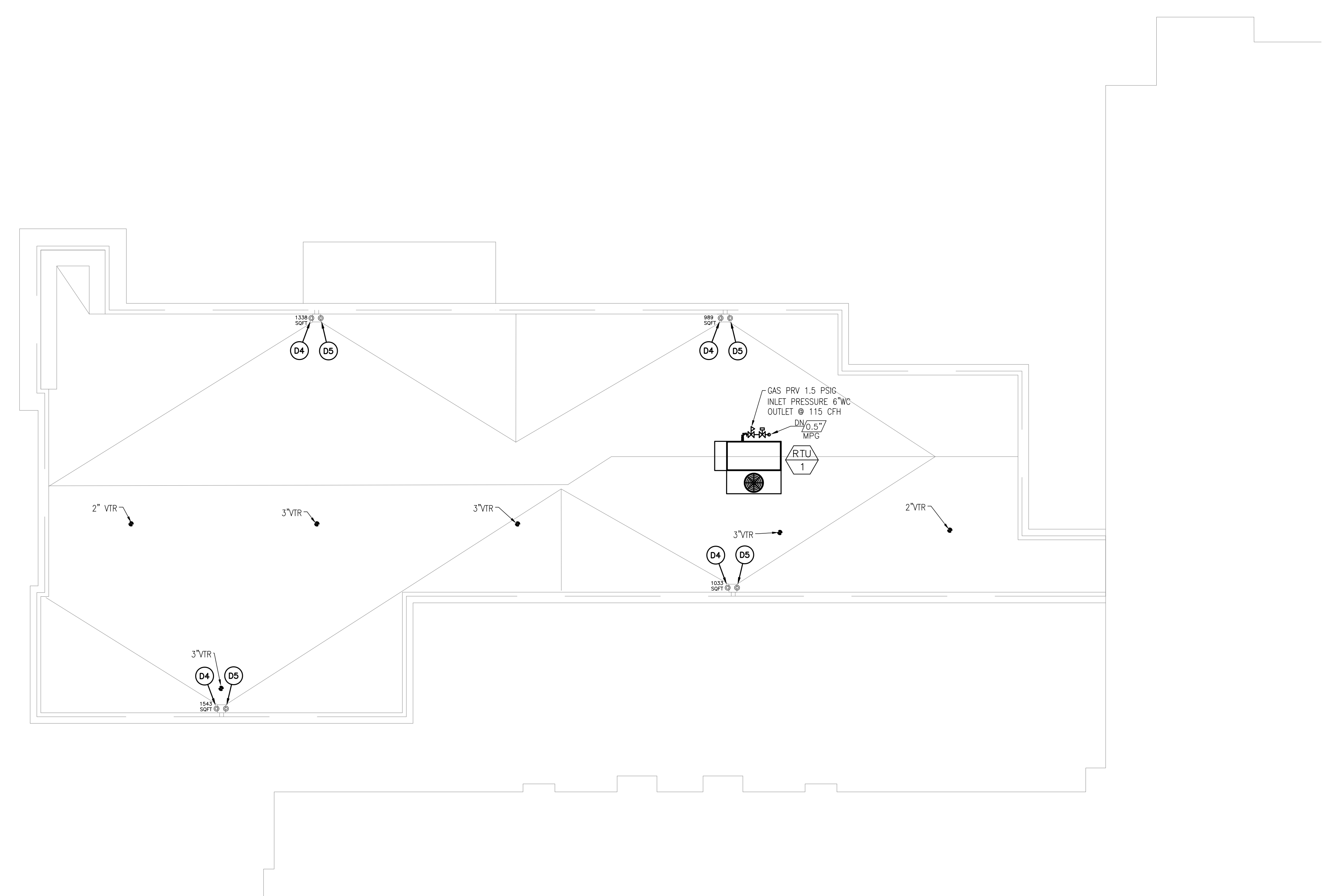
4TH FLOOR PLAN -  
PLUMBING

Addition to Hampton Inn & Suites  
Hampton Inn & Suites  
1515 S. Meridian, Puyallup, WA

Job #:  
Date: January 6, 2020  
Revs:

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

RESPONSE TO DRT #P-19-0050



**ROOF PLAN – PLUMBING**  
SCALE: 1/8" = 1'-0"  
NORTH



**ABOSSEIN ENGINEERING L.L.C.**

MECHANICAL - ELECTRICAL  
CIVIL - LEED - STRUCTURAL  
FIRE PROTECTION

18465 NE 68TH ST.  
SUITE 200  
REDMOND, WA 98052

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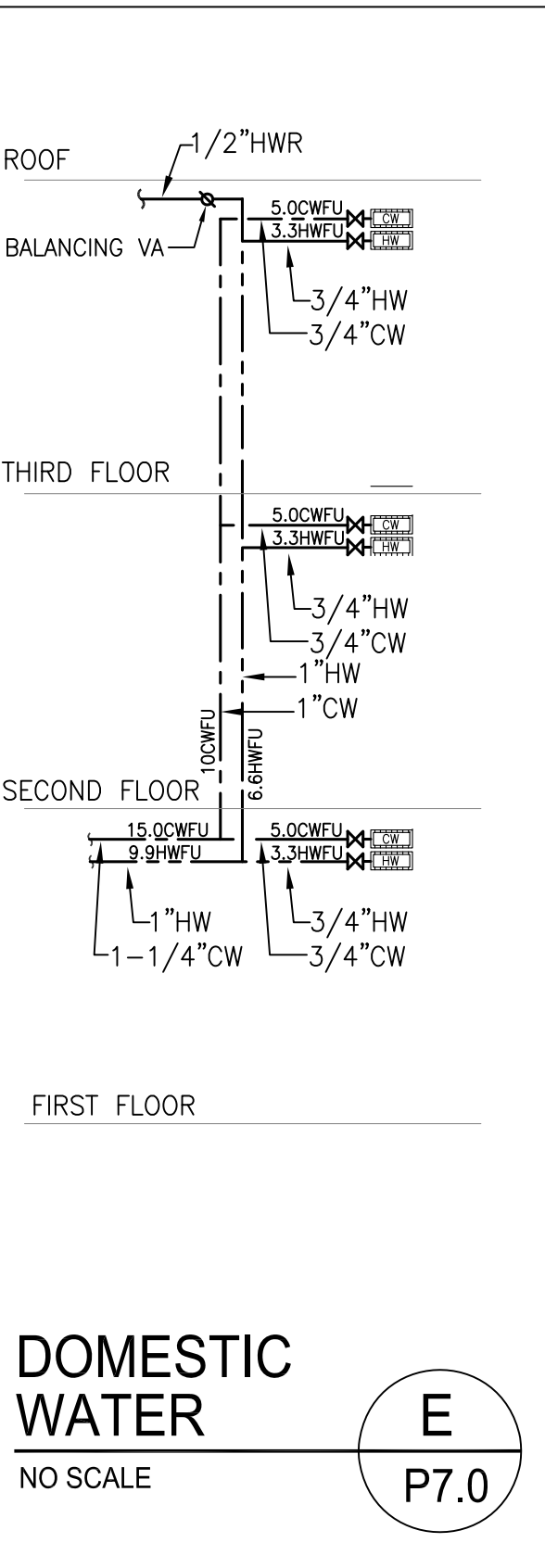
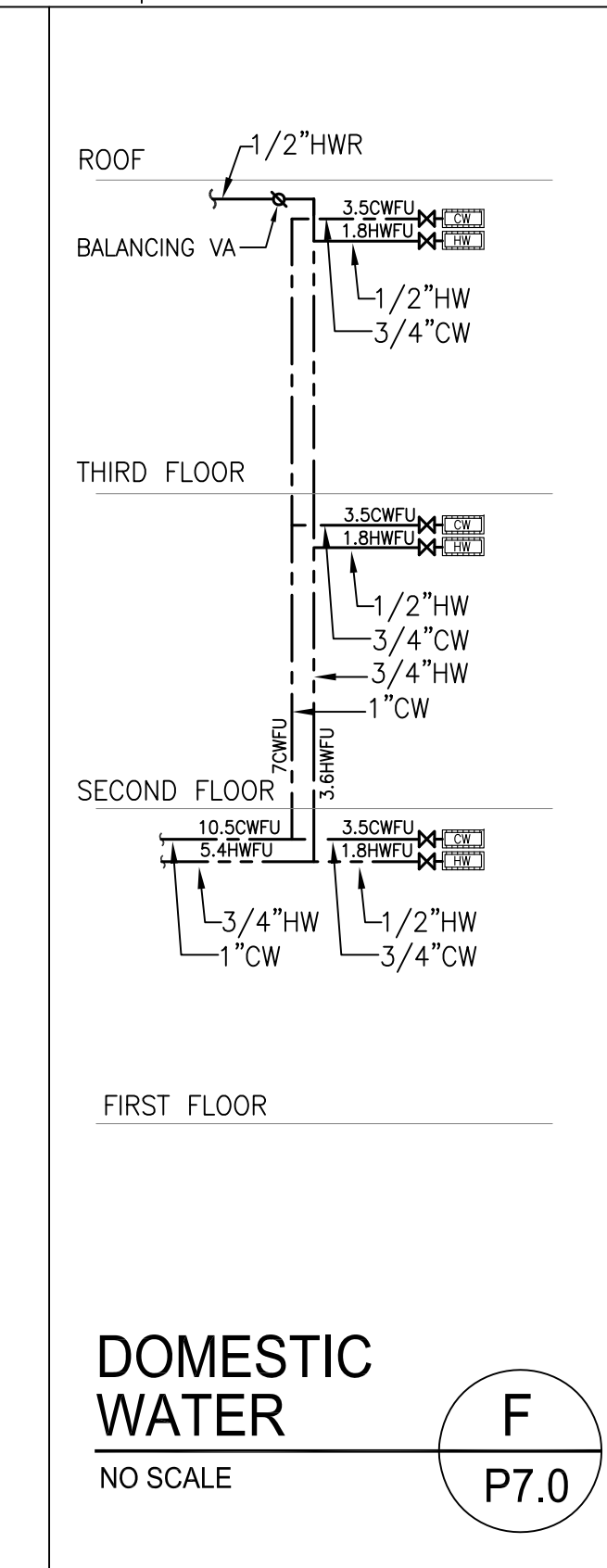
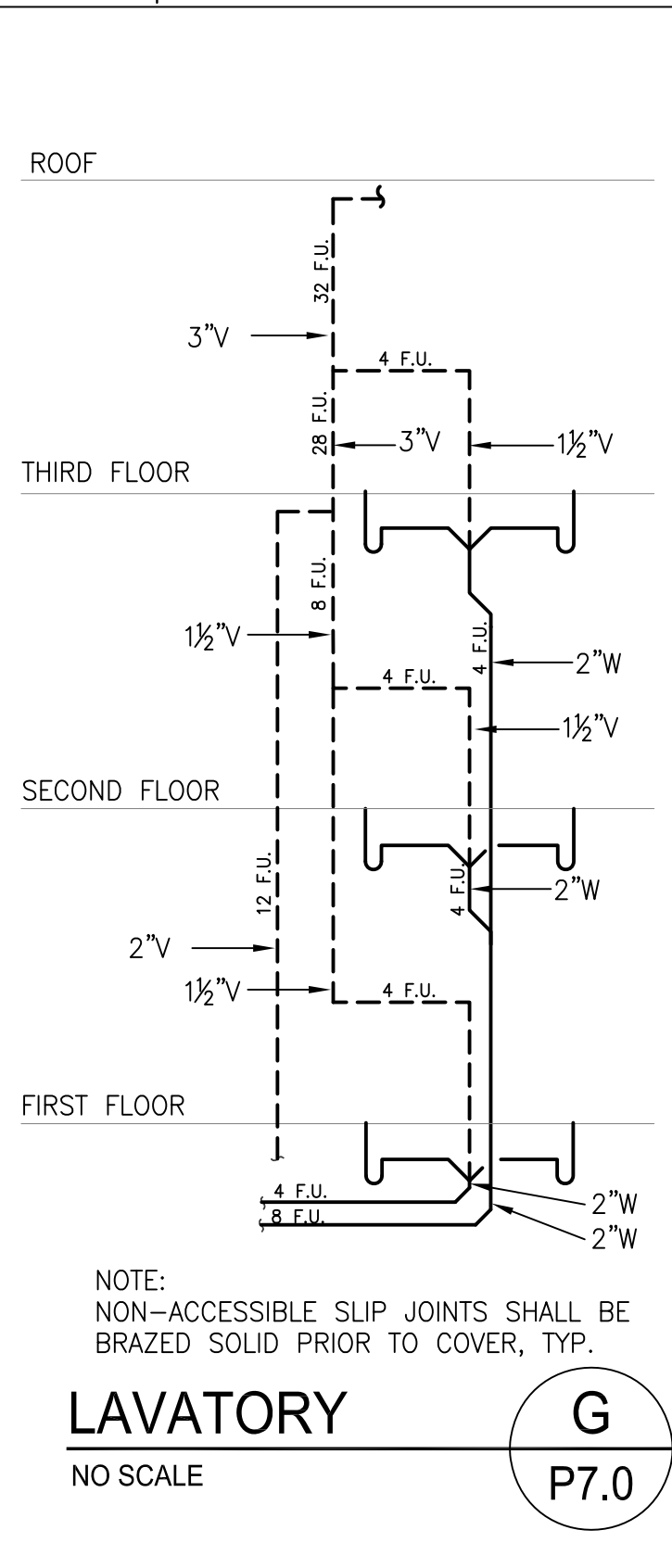
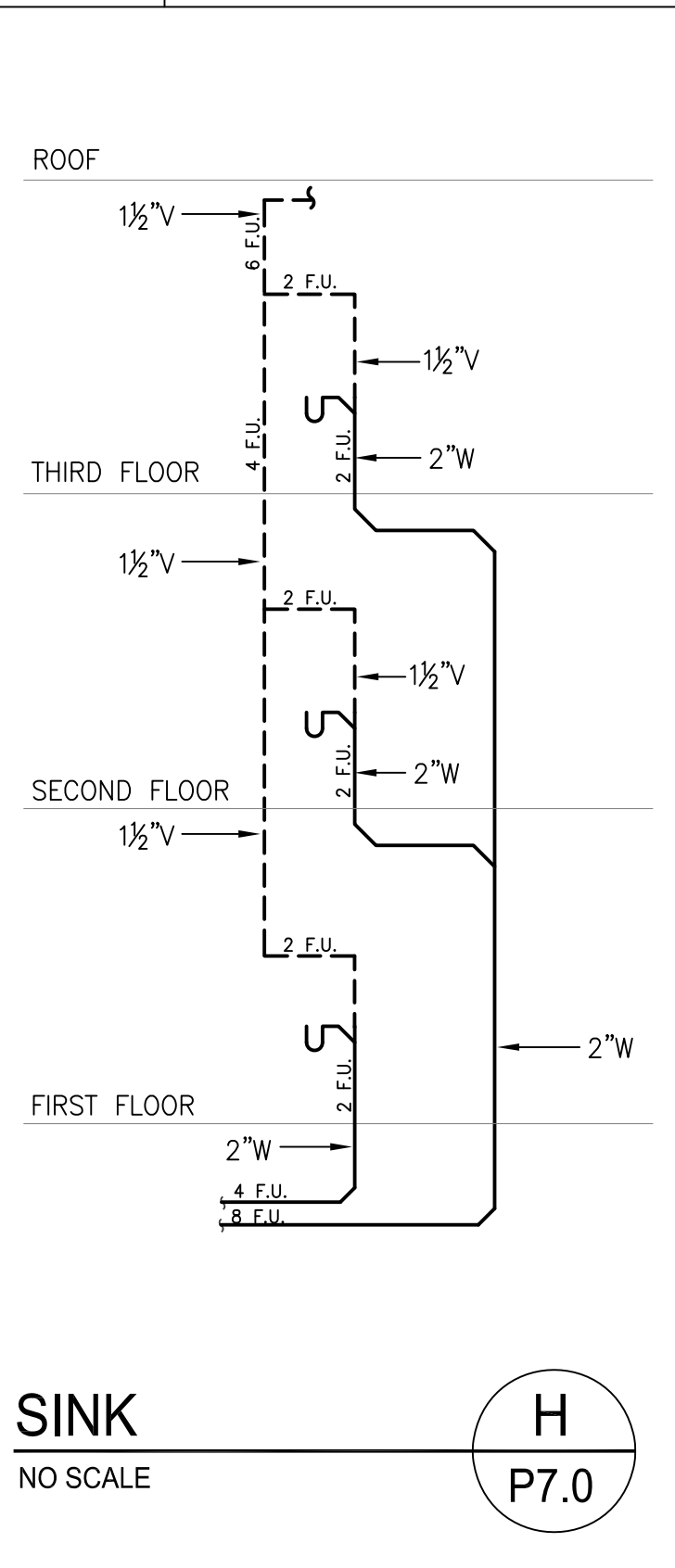
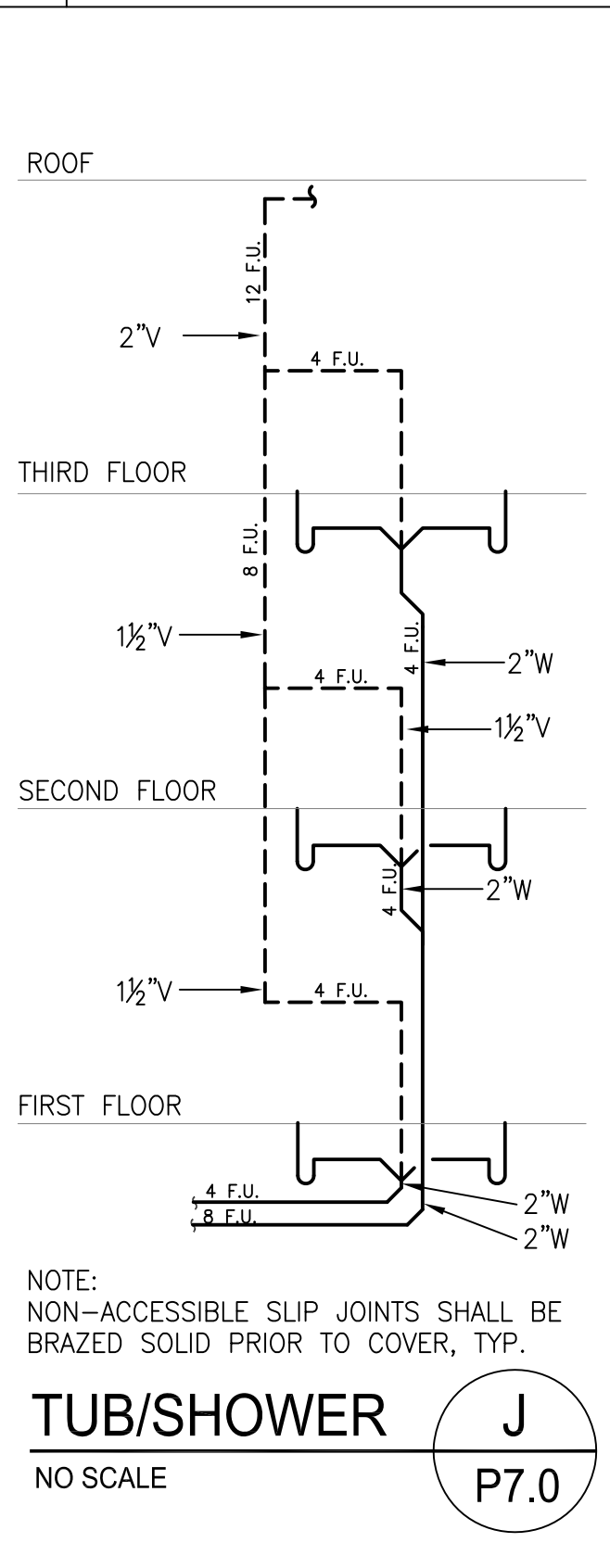
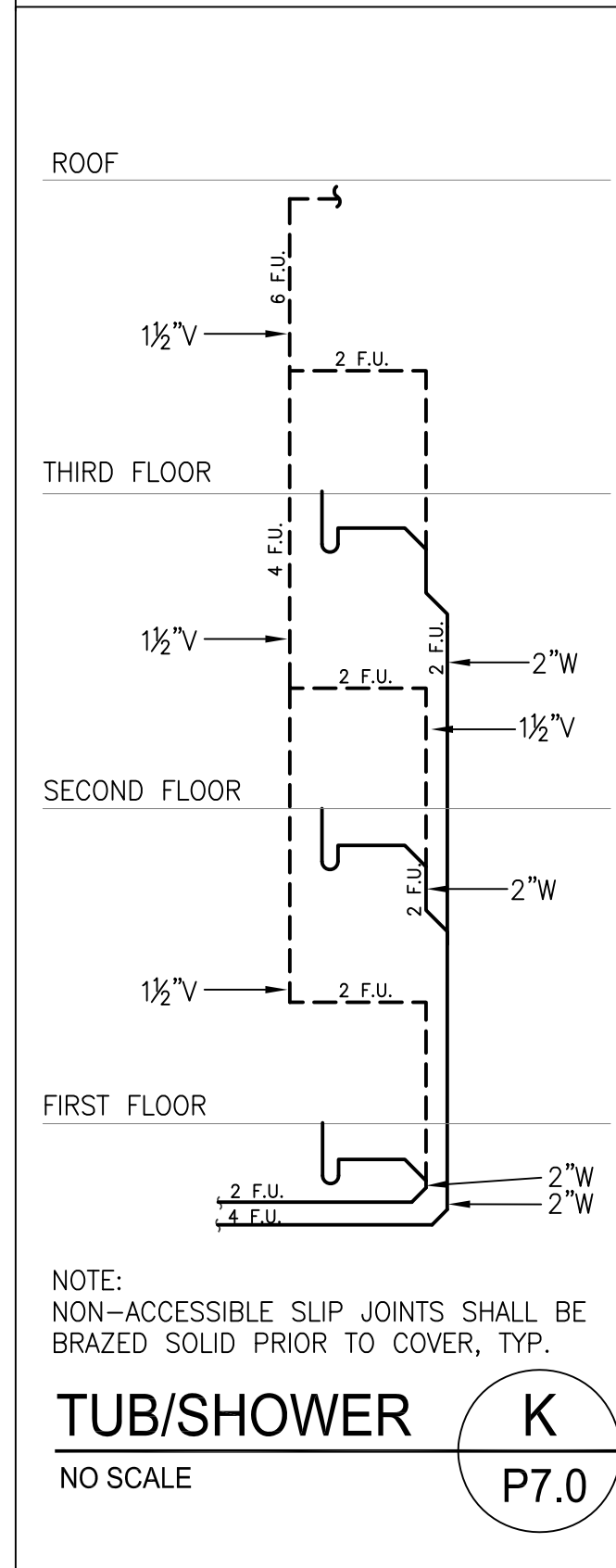
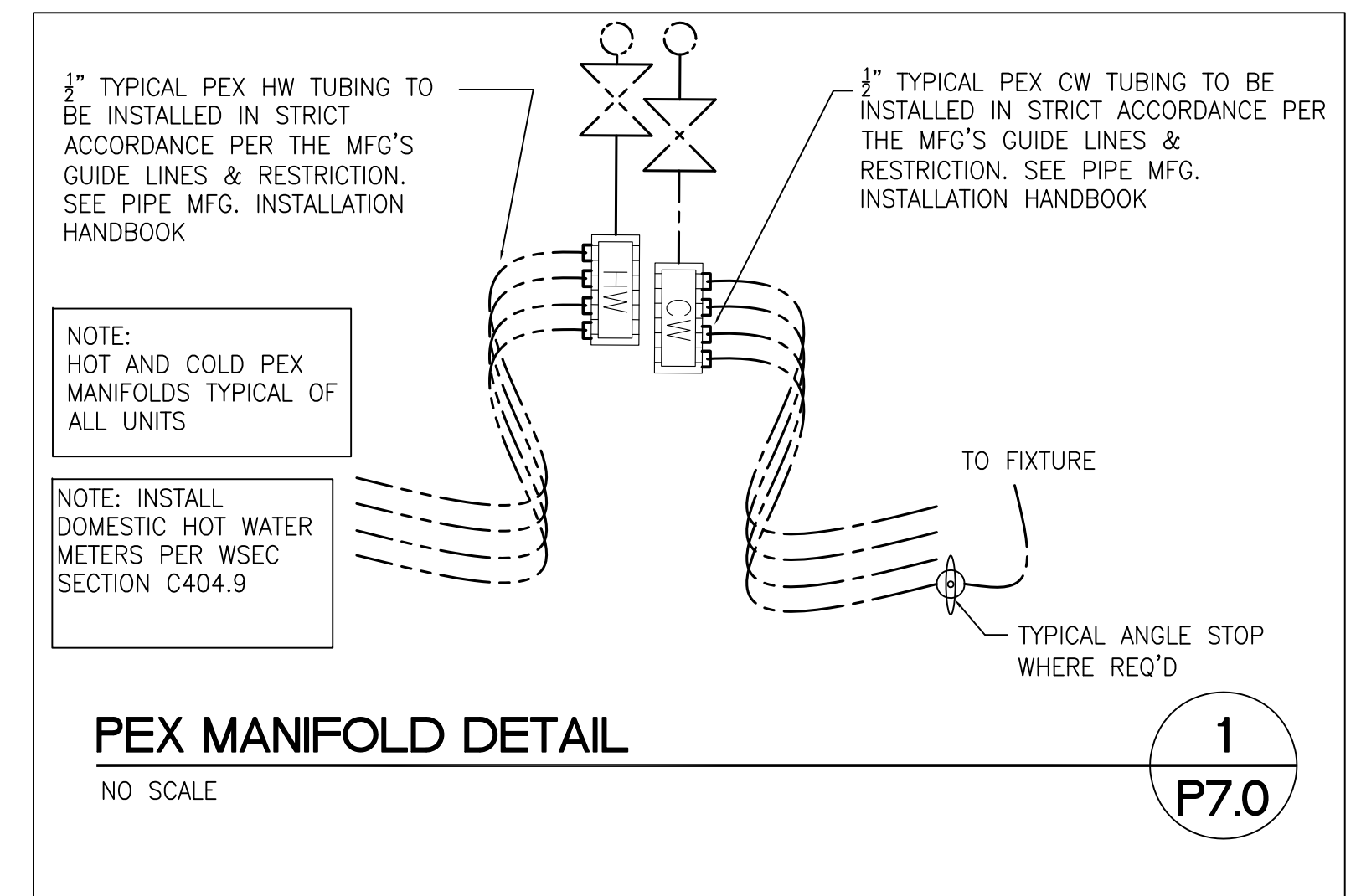
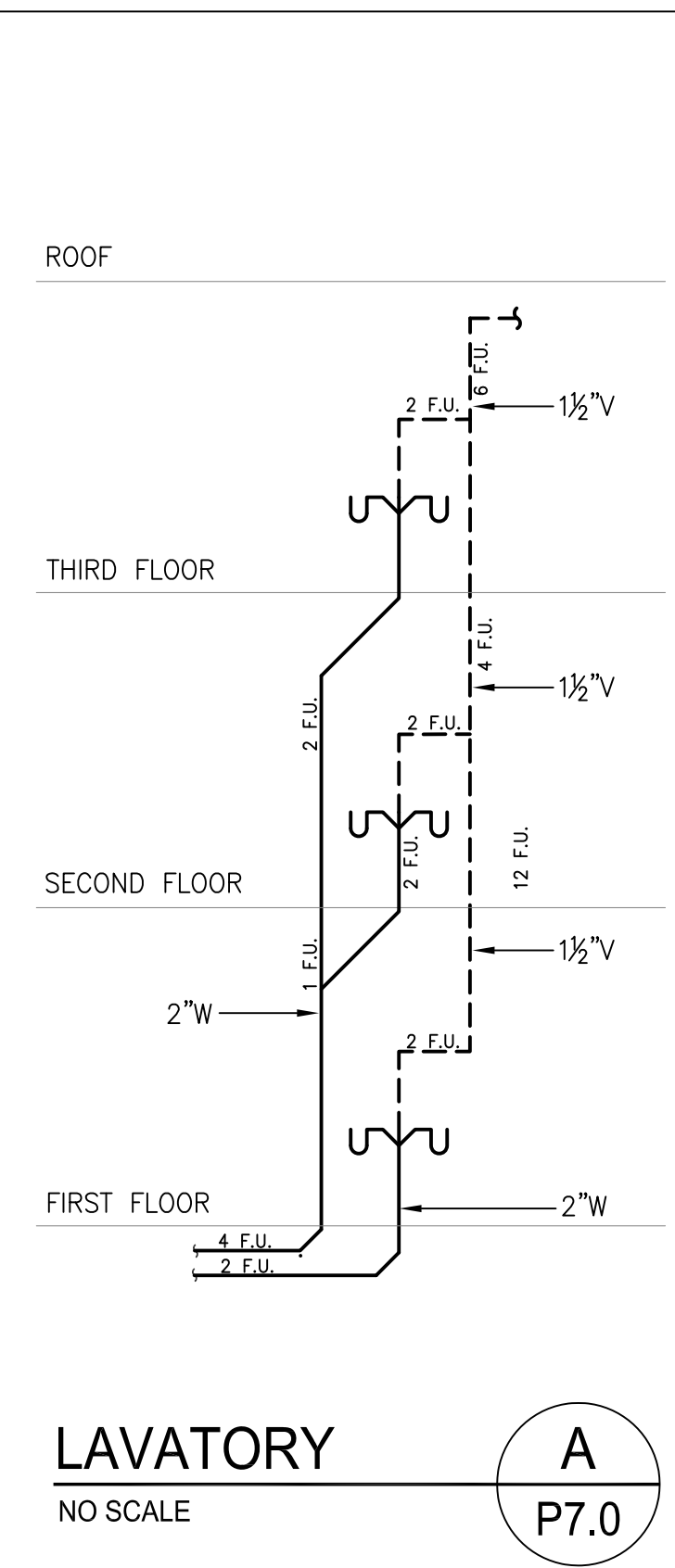
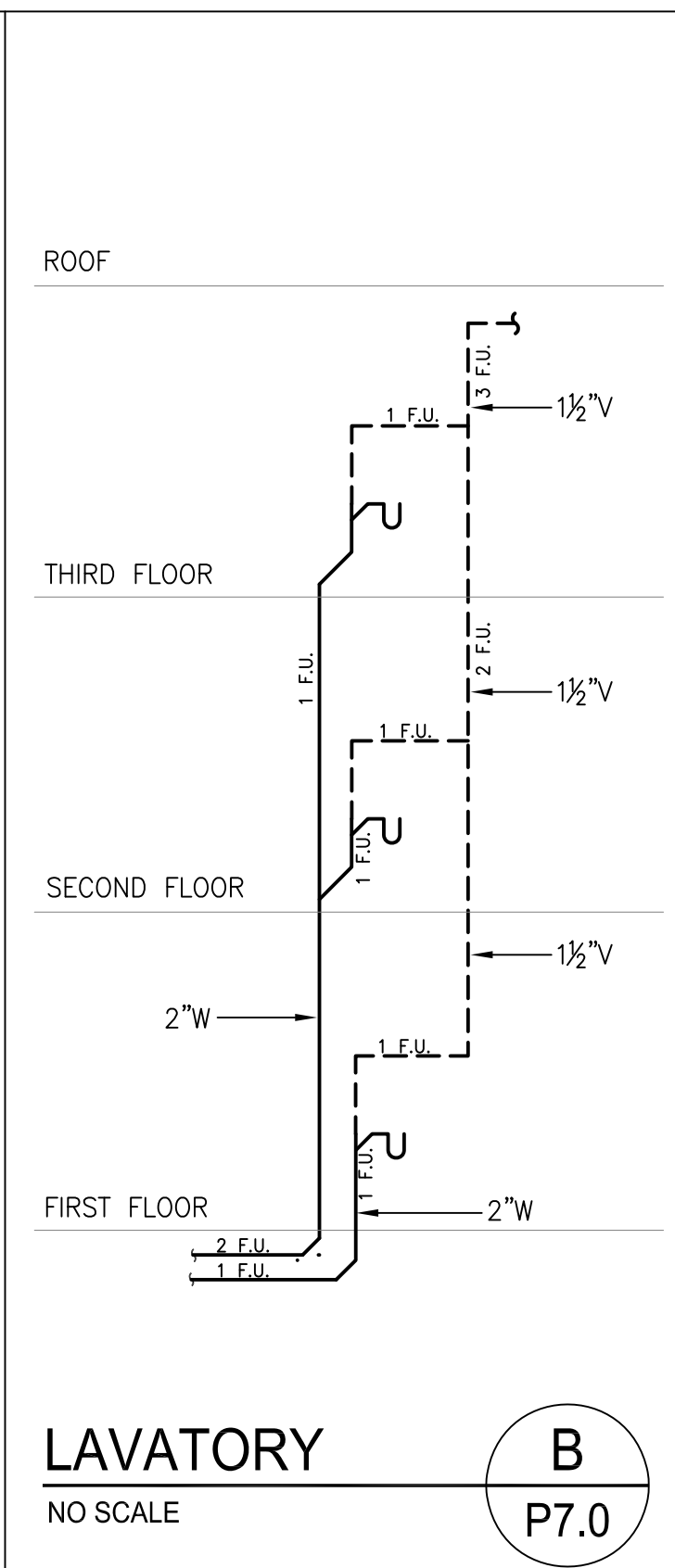
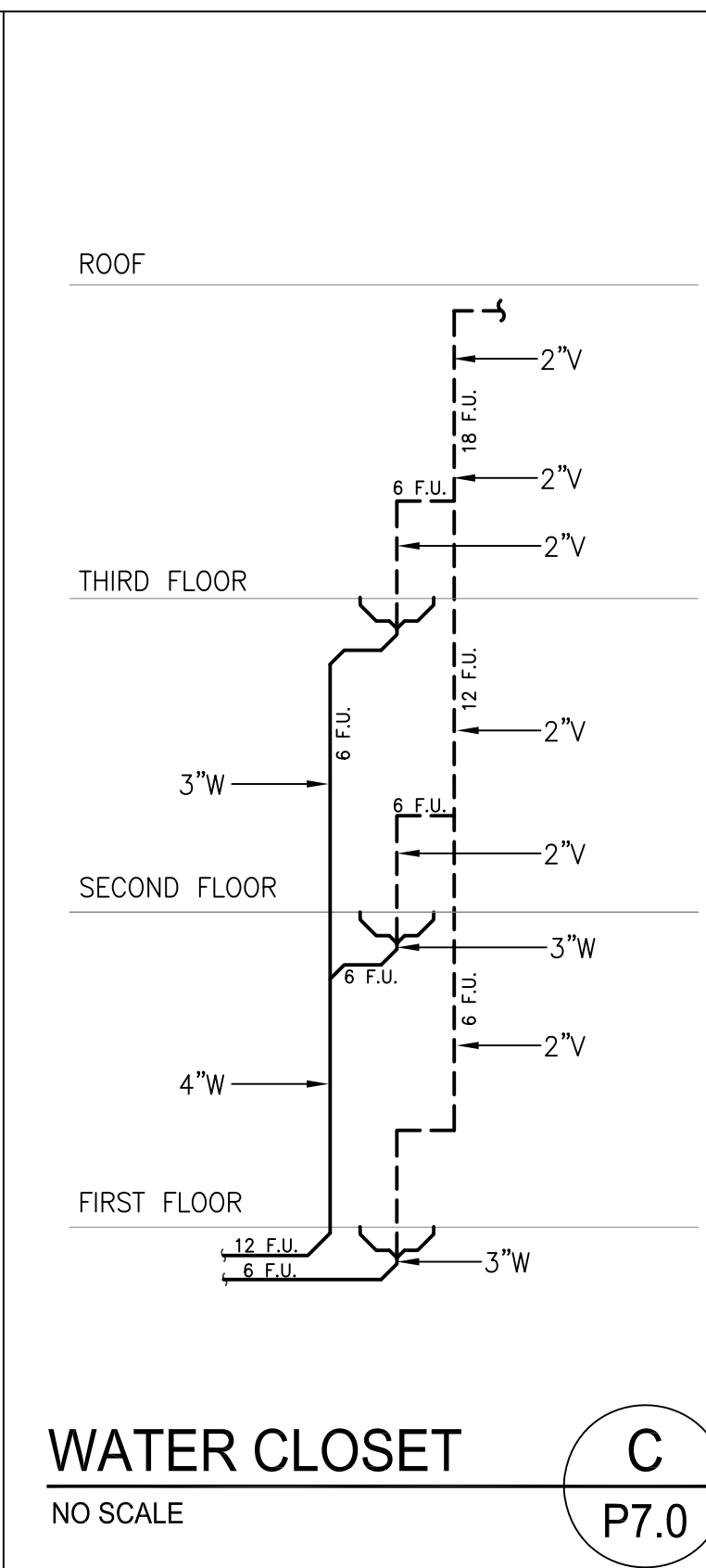
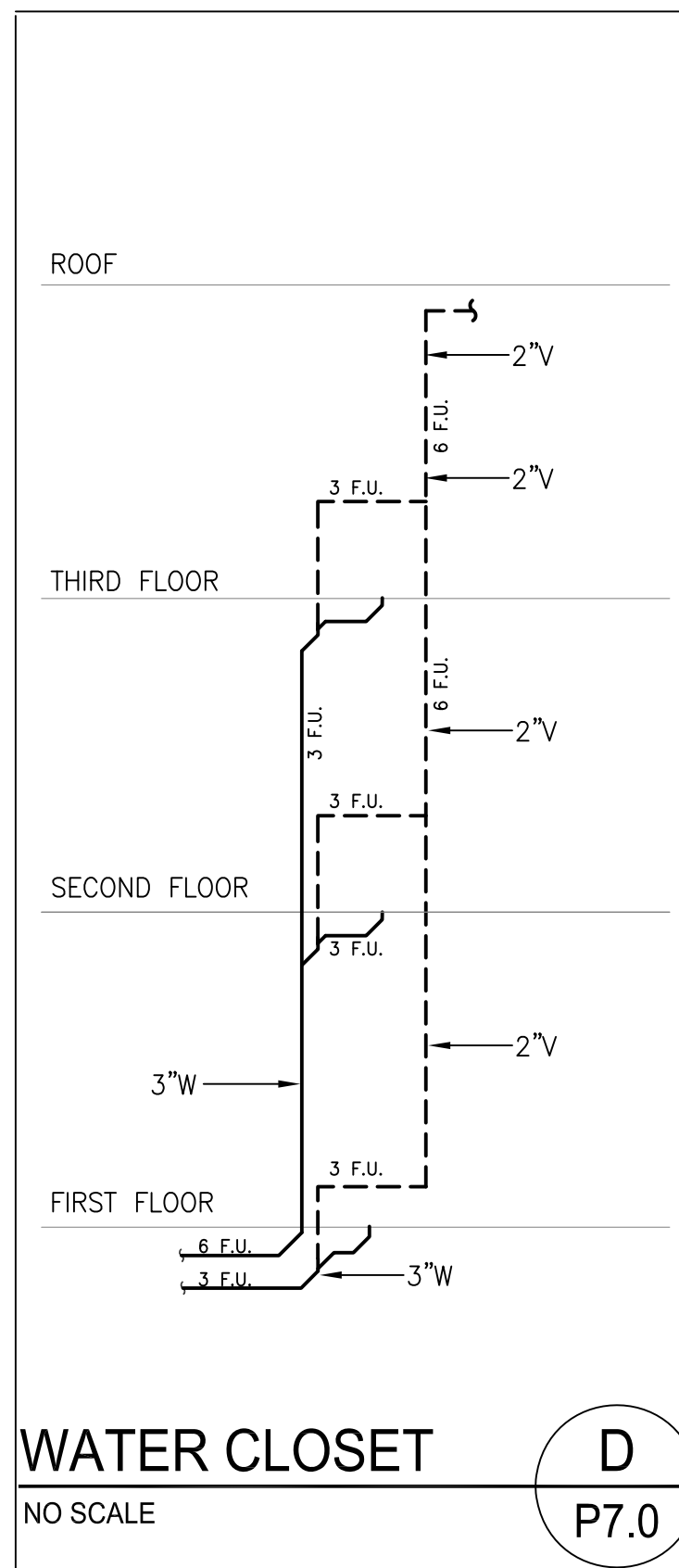


ROOF PLAN -  
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**GENERAL NOTES:**

- 1) INSTALL CLEAN-OUTS PER 2009-UPC-SEC. 707 & AS REQ'D BY LOCAL JURISDICTIONS.
- 2) INSTALL SUDS RELIEF PER 2009-UPC-SEC. 711.
- 3) VENT LENGTH SHALL NOT EXCEED 2009-UPC-TABLE-7-5.
- 4) WASTE & VENT FIXTURES SHALL NOT BE SMALLER THAN SIZES PER 2009-UPC-TABLE-7-5.
- 5) COLD & HOT WATER PIPING SHALL NOT BE SMALLER THAN PIPE SIZES PER 2009-UPC-TABLE-6-4.
- 6) MAX. 3 WATER CLOSETS ON HORIZONTAL BRANCH AND 4 WATER CLOSETS ON VERTICAL STACK ON ANY 3"
- 7) EACH VENT SHALL RISE 6" ABOVE THE FIXTURE FLOOD RIM BEFORE OFFSETTING HORIZONTALLY OR CONNECTING TO ANY OTHER FIXTURE PER UPC-2009

**STANDARDS FOR INSTALLATION OF NON-METALLIC DWV PIPING:**

(NOTE: REFER TO IAPMO/UPC INSTALLATION STANDARDS "IS 5 & IS 9" FOR ADDITIONAL REQUIREMENTS)

1. SUPPORT BUT DO NOT RIGIDLY RESTRAIN PIPING AT CHANGES OF DIRECTION.
2. DO NOT ANCHOR PIPE RIGIDLY IN WALLS.
3. HOLES THROUGH FRAMING MEMBERS MUST BE ADEQUATELY SIZED TO ALLOW FOR FREE MOVEMENT
4. FOR VERTICAL STRAIGHT RUNS IN EXCESS OF 30' PROVIDE EXPANSION JOINTS OR A MINIMUM 24" 45° OFFSET AT NO MORE THAN 30 INTERVALS



RISER DIAGRAMS  
PLUMBING

Addition to Hampton Inn & Suites  
Hampton Inn & Suites  
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# PLUMBING SPECIFICATIONS - DIVISION #22

## PART 100 GENERAL

- 1.01 LOCAL CONDITIONS: VISIT AND INSPECT THE PREMISES TO ASCERTAIN THE EXISTING CONDITIONS BEFORE SUBMITTING A BID. NO EXTRA PAYMENT WILL BE ALLOWED FOR THE LACK OF KNOWLEDGE OF THESE CONDITIONS.
- 1.02 CODES: STRICTLY COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS.
  - IMC - International Mechanical Code
  - UPC - Uniform Plumbing Code
  - IFGC - International Fuel Gas Code
- 1.03 STANDARDS: THE FOLLOWING PUBLICATIONS (LATEST EDITION) FORM A PART OF THESE REQUIREMENTS TO THE EXTENT INDICATED BY THE REFERENCES THERE TO:
  - NFPA PAMPHLET 54 GAS APPLIANCES & GAS PIPING
  - NFPA PAMPHLET 90A AIR CONDITIONING & VENTILATION SYSTEMS
- 1.04 PLANS AND SPECIFICATIONS: THE PLUMBING DRAWINGS ARE DIAGRAMMATIC IN CHARACTER INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT, PIPING, ETC., AND APPROXIMATE SIZES AND LOCATIONS OF EQUIPMENT AND OUTLETS. DETERMINE THE EXACT LOCATION OF THE ELEMENTS OF THE SYSTEM FROM THE STRUCTURE AND FROM THE EQUIPMENT, NOT FROM THE DRAWINGS. DO NOT SCALE DRAWINGS FOR MEASUREMENTS NOR USE AS SHOP DRAWINGS.
- 1.05 PROVIDE ALL ITEMS, EQUIPMENT, MATERIALS, OPERATIONS, OR METHODS LISTED, MENTIONED OR SCHEDULED ON THE DRAWINGS, AND/OR HEREIN INCLUDING ALL INCIDENTALS AND ACCESSORIES NECESSARY AND REQUIRED FOR INSTALLATION OR MOUNTING, OR NORMALLY SUPPLIED BY COMMON PRACTICE WHETHER SPECIFICALLY MENTIONED OR NOT, TO PROVIDE COMPLETE AND PROPERLY FUNCTIONING SYSTEMS.
- 1.06 BRING ANY NON-COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS, CONFLICTS AND DISCREPANCIES TO THE ENGINEER'S ATTENTION BEFORE SUBMITTING BID. A CORRECT, COMPLETE AND EASILY MAINTAINED SYSTEM IS INTENDED.
- 1.07 THE CONTRACTOR'S BID WILL BE CONSTRUED AS AN AGREEMENT TO COMPLETE THE WORK WITHOUT ADDITIONAL COST TO THE OWNER. WHERE CONFLICTS BETWEEN PLANS AND SPECIFICATIONS OR CONFLICTING INFORMATION ON THE PLANS OCCURS, THE CONFLICTS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO BIDDING. THE MORE COSTLY ALTERNATIVE SHALL BE INCLUDED IN THE BID PRICE.
- 1.08 MAKE NO CHANGES IN THE WORK SPECIFIED, UNLESS SUCH CHANGES ARE AUTHORIZED IN WRITING BY THE OWNER, ARCHITECT AND/OR ENGINEER. NO CHARGES FOR EXTRA WORK WILL BE PAID UNLESS SUCH EXTRA WORK HAS BEEN AUTHORIZED AND THE AUTHORIZATION CONTAINS A STATEMENT OF THE WORK TO BE ACCOMPLISHED AND THE CHARGES TO BE MADE FOR THE WORK.
- 1.09 THE INFORMATION PRESENTED ON THESE DRAWINGS IS DIAGRAMMATIC IN NATURE. IT DOES NOT NECESSARILY REPRESENT ALL FITTINGS, HANGERS, ETC. REQUIRED FOR A COMPLETE WORKING SYSTEM. PROVIDE ALL MATERIALS AND LABOR FOR COMPLETELY FINISHED AND OPERATIONAL SYSTEMS.
- 1.10 REFER TO LATEST ARCHITECTURAL DRAWINGS FOR: EXACT WALL LOCATIONS, DIMENSIONS, AND PLUMBING FIXTURE LOCATIONS AND REQUIREMENTS.
- 1.11 CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY ALTERATIONS REQUIRED BY THE OWNER, ARCHITECT, OR FIELD CONDITIONS.
- 1.12 ALL EQUIPMENT SHALL BE NEW, SHALL COMPLY WITH SPECIFICATIONS ON DRAWINGS, AND SHALL COMPLY WITH ENERGY CONSERVATION CODE REQUIREMENTS AS ADOPTED BY THE STATE, AS WELL AS LOCAL JURISDICTIONAL BUILDING DEPARTMENT. SUBMIT DATA FOR APPROVAL PRIOR TO ORDERING EQUIPMENT. SUBMITTAL SHALL INCLUDE ENERGY CODE COMPLIANCE CERTIFICATION.
- 1.13 THE CONTRACTOR SHALL REFER TO ALL OTHER DRAWINGS, INCLUDING: ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND FOOD SERVICE, FOR ALL COORDINATION AND REFERENCE DATA. COORDINATE INSTALLATION WITH WORK OF OTHER TRADES.
- 1.14 DURING BID PERIOD: INVESTIGATE AND VERIFY EXISTING CONDITIONS, EXACT LOCATIONS, ELEVATIONS, AND CHARACTERISTICS OF EXISTING UTILITIES AND PIPING. BRING ANY DISCREPANCIES TO ATTENTION OF ARCHITECT AS SOON AS POSSIBLE.
- 1.15 REVIEW ELECTRICAL LAYOUT, ROUTING OF UNDERGROUND ELECTRICAL UTILITIES INCLUDING POWER AND TELEPHONE, NEW AND EXISTING UNDERGROUND ELECTRICAL CONDUIT LINES, PRIOR TO START OF WORK.
- 1.16 CONSULT WITH ALL TRADES AND DETERMINE EXTENT OF PLUMBING WORK DURING BID PERIOD. EXTEND ALL SERVICES TO LOCATIONS DESIGNATED AND REQUIRED, FURNISH ALL MATERIALS, AND PAY ALL COSTS NOT FURNISHED BY OTHERS.
- 1.17 IT IS THE INTENT OF THESE SPECIFICATIONS TO PROVIDE A MECHANICAL SYSTEM COMPLETE, FULLY ADJUSTED, AND READY FOR OWNER'S BENEFICIAL USE.
- 1.18 IT IS THE INTENTION OF THESE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED, AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY TO USE." MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR THE PROPER INSTALLATION AND OPERATION, SHALL BE INCLUDED IN THE WORK, THE SAME AS IF HEREIN SPECIFIED OR SHOWN.
- 1.19 THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL GOVERNMENT SALES TAXES, FEES AND OTHER COSTS, INCLUDING UTILITY CONNECTIONS OR EXTENSIONS, IN CONNECTION WITH HIS WORK; FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION; OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION OF HIS WORK AND DELIVER SAME TO THE ARCHITECT BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR WORK.
- 1.20 THE CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST TO THE OWNER, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS, IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS, WHETHER OR NOT SHOWN ON DRAWINGS AND/OR SPECIFIED.

## PART 200 PRODUCTS

- 2.01 MATERIALS AND EQUIPMENT SUBSTITUTIONS: THE BID PRICE SHALL BE BASED ON THE MATERIALS, EQUIPMENT AND/OR SERVICES AS SCHEDULED ON THE DRAWINGS AND/OR SPECIFIED HEREIN, AND/OR AS ACCEPTED PRIOR TO BIDDING.
- 2.02 ACCEPTANCE OF ALTERNATE OR SUBSTITUTE EQUIPMENT IN NO WAY VOIDS MATERIAL OR PERFORMANCE REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERFORMANCE OF ANY MATERIAL OR EQUIPMENT SUBSTITUTED FOR SPECIFIED ITEMS ACCEPTED BY THE ARCHITECT AND/OR ENGINEER BEFORE OR AFTER THE BID DATE. CONTRACTOR SHALL BE RESPONSIBLE FOR INCORPORATING ANY SUBSTITUTE EQUIPMENT IN THE SYSTEM DESIGN.
- 2.03 CONTRACTOR SHALL PAY FOR ALL EXTRA COSTS BY ANY TRADE FOR CHANGES NECESSITATED BY MATERIAL OR EQUIPMENT SUBSTITUTIONS REGARDLESS OF ACCEPTANCE WITHOUT FURTHER COST TO THE CLIENT.
- 2.04 INSULATION ON HEAT TRACED 115' DOMESTIC HOT WATER PIPE SHALL BE AS FOLLOWS:
  - 1/2"-1" - 1" THICK INSULATION, 1-1/4"-2" PIPE - 1-1/2" THICK INSULATION, 2-1/2" - 2" THICK INSULATION, ALL OTHER DOMESTIC WATER PIPING - 1" THICK INSULATION, DOMESTIC COLD WATER PIPING - 1/2" THICK INSULATION.
- 2.05 PROVIDE A 115' ELECTRIC HEAT TRACE (HWAT-G2) SYSTEM INSTALLED IN STRICT ACCORDANCE WITH MFG. INSTRUCTIONS. INCLUDE END KITS, SPLICE KITS, TEE KITS AND LATHER MATERIAL NECESSARY FOR A COMPLETE SYSTEM. TRACE PIPING FROM HEATING MIXING VALVES TO INDIVIDUAL ISOLATION VALVES. PIPING WITHIN UNIT FROM ISOLATION VALVES TO FIXTURES SHALL NOT BE TRACED. ALL CONNECTIONS SHALL BE MADE BY THE ELECTRICAL CONTRACTOR.
- 2.06 DOMESTIC WATER PIPING ABOVE GROUND SHALL BE TYPE "L" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS OR PEX. JOINTS AND CONNECTIONS SHALL BE COMPLETED WITH 95 PERCENT TIN, 5 PERCENT ANTIMONY OR PEX JOINTS. WATER PIPING BELOW GROUND SHALL BE TYPE "X", NON-METALIC CPVC "GOLD" (OR EQUAL) MAY BE USED IN-LIEU OF COPPER PIPING IF ITEMIZED AS A "DEDUCT" IN BID AND SUBMITTED FOR THE OWNER'S CONSIDERATIONS.
- 2.07 WASTE AND VENT PIPING SHALL BE SERVICE WEIGHT CAST IRON SOIL PIPE WITH NO HUB FITTINGS. PVC OR APPROVED ABS NON-METALIC PIPING SHALL BE IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE. ALTERNATES SHALL BE SUBMITTED TO OWNER AND APPROVED BY THE BUILDING DEPARTMENT PRIOR TO START OF WORK. NON-METALIC PIPING MAY BE USED FOR UNDERGROUND HOWEVER ABOVE GROUND PIPING (AND PROPERLY FIRE STOPPED) WHERE APPROVED BY LOCAL JURISDICTION SHALL BE ITEMIZED "DEDUCT" IN BID FOR OWNER'S CONSIDERATIONS. IF ALLOWED AND USED ABOVE GRADE SOILD INSULATION SHALL BE PROVIDED.
- 2.08 INSULATE ALL PIPING, VALVES, AND FITTINGS FOR DOMESTIC COLD, HOT AND RECIRC. LINES WITH (1/2" CW, 1" HW & RECIRC) PRE-FORMED FIBERGLASS INSULATION WITH "K" FACTOR OF 0.30 MAXIMUM AT 200 DEG. F. MEAN TEMPERATURE. PROVIDE ALL SERVICE, SELF LAP JACKET, AND VAPOR BARRIER. INSULATE CONDENSATE DRAINS W/ A" ARMAFLEX #22 OR "JM" AEROTUBE INSULATION. PROVIDE ADDITIONAL INSULATION IN AREAS SUBJECT TO FREEZING. SEE SPECIFICATION FOR TRACED-LINE INSULATION.

- 2.09 NO STRUCTURAL MEMBERS SHALL BE CUT WITHOUT THE APPROVAL OF THE ARCHITECT, AND ALL SUCH CUTTING SHALL BE DONE IN A MANNER DIRECTED BY HIM.
- 2.10 PROVIDE WEATHERPROOF FLASHING AT ALL DUCT, PIPE, ETC., MECHANICAL PENETRATIONS THROUGH THE BUILDING WALLS AND ROOF. FLASHING SHALL BE DESIGNED AND INSTALLED PER SMACNA AND SHALL BE GUARANTEED WEATHER PROOF FOR THE DURATION OF THE GUARANTEE.
- 2.11 ALL INSULATION SHALL HAVE A COMPOSITE (INSULATION, JACKET OR FACING, AND ADHESIVE) FIRE HAZARD RATING AS TESTED BY ASTM E-84, NFPA 255, OR UL 723, NOT TO EXCEED 25 FLAME SPREAD AND 50 SMOKE DEVELOPED. ACCESSORIES SUCH AS COATINGS, TAPES, AND ADHESIVES SHALL HAVE THE SAME COMPONENT RATINGS. ALL INSULATING MATERIALS OR THEIR CONTAINERS SHALL HAVE A LABEL INDICATING COMPLIANCE WITH THE ABOVE RATING. REFERENCE STANDARDS: NFPA D-255, A.S.T.M. E-84, UL-723, ASHRAE 90-75 AND THE STATE ENERGY CODE (IF APPLICABLE). ACCEPTABLE MANUFACTURERS: CERTAINEED, OWENS-CORNING, KNAUF AND MANVILLE.
- 2.12 PIPE MATERIAL:
  - COLD WATER AND HOT WATER.....COPPER "L" (LEAD FREE)
  - WASTE AND VENT.....CAST IRON (ABOVE GRADE)NOTE: JOINTS AND METHOD OF CONNECTIONS SHALL BE PER THE IPC-CHAPTER #13, ASTM STANDARDS AND MANUFACTURERS RECOMMENDATIONS FOR EACH PIPE TYPE AND APPLICATIONS.
- 2.13 PIPE INSULATION:
  - COLD WATER - 1/2" INSULATION WITH VAPOR BARRIER JACKETS.
  - HOT WATER - 1/2" INSULATION WITH VAPOR BARRIER JACKETS FOR RUNOUTS UP TO 12 FEET, AND 1" INSULATION FOR ALL PIPING UP TO 2" DIAMETER. UNDERGROUND PIPING WITH 1" CLOSED CELL FOAM INSULATION.

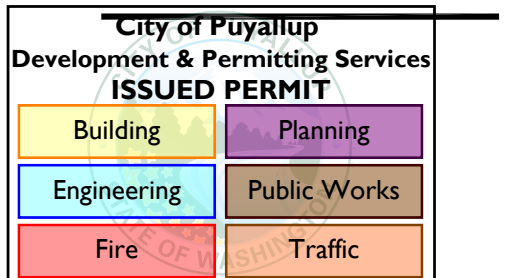
## PART 300 EXECUTIONS

- 3.01 PERMITS AND INSPECTIONS: APPLY AND PAY FOR ALL PERMITS AND CERTIFICATES OF INSPECTION REQUIRED FOR THE WORK, AND AT COMPLETION, PRESENT THE OWNER WITH THE SIGNED CERTIFICATES OF FINAL INSPECTION.
- 3.02 UTILITIES: CHARGES BY UTILITY COMPANIES FOR PROVIDING SERVICES SHALL BE PAID BY OWNER AND WILL NOT BE A PART OF THIS CONTRACT. THE CONTRACTOR SHALL DO INSTALLATION WORK NORMALLY PROVIDED IN THIS CONTRACT.
- 3.03 PLACE AND ARRANGE EQUIPMENT, PIPING, CONTROLS, ETC., TO FIT THE SPACE AVAILABLE. INCLUDING ALL OFFSETS IN PIPING, ETC. REQUIRED.
- 3.04 SUBMIT SHOP DRAWINGS FOR ALL PLUMBING FIXTURES, HOT WATER HEATERS, PUMPS, SPECIALTIES, CONTROL WIRING DIAGRAM FOR PUMP CONTROL.
- 3.05 THE ENGINEER'S CHECK SHALL BE GENERAL, AND DOES NOT RELIEVE THE CONTRACTOR OF FINAL RESPONSIBILITY OF COMPLIANCE TO THE INTENT OF THE PLANS AND SPECIFICATIONS.
- 3.06 SUPERVISION AND WORKMANSHIP: QUALIFIED SUPERVISION FOR EACH TRADE SHALL BE IN CHARGE OF THE WORK AT ALL TIMES AND SHALL BE ON THE JOB SITE WHENEVER WORK IN THAT TRADE IS BEING ACCOMPLISHED.
- 3.07 ALL WORK SHALL BE DONE IN A FIRST-CLASS MANNER BY WORKMEN SKILLED IN THE TRADE AFFECTED.
- 3.08 CLEANING PIPING & EQUIPMENT, TESTING:
  - PLUG ALL NECESSARY OPENINGS OF THE ENTIRE DRAINAGE AND VENTING SYSTEM TO PERMIT THE COMPLETE SYSTEM OR PORTION THEREOF TO BE FILLED WITH WATER TO THE LEVEL OF THE HIGHEST VENT STACK ABOVE THE ROOF OR A VERTICAL STACK MAY BE FILLED WITH WATER TO A HEIGHT OF 10 FT. ABOVE THE HIGHEST HORIZONTAL RUN TO BE TESTED. THE SYSTEM SHALL MAINTAIN THE WATER LEVEL WITHIN 1 IN. WHEN TESTED FOR 30 MINUTES. WHEN AN AIR TEST IS USED, APPLY A PRESSURE OF NOT LESS THAN 5 PSI WITH A FORCE PUMP AND MAINTAIN AT LEAST 15 MINUTES WITHOUT LEAKAGE WHEN TESTED WITH A MERCURY COLUMN GAUGE.
- 3.09 CLEAN ALL EQUIPMENT, PIPE, VALVES AND FITTINGS OF GREASE, METAL CUTTINGS, DIRT AND SLUDGE THAT MAY HAVE ACCUMULATED BY OPERATION OF THE SYSTEM FOR TESTING. REPAIR ANY STOPPAGE OR DAMAGE TO PARTS OF THE BUILDING, TO ITS FINISH OR FURNISHINGS DUE TO THE CONTRACTOR'S FAILURE TO PROPERLY CLEAN THE PIPING SYSTEM WITHOUT COST TO THE OWNER. ADJUST THE HOT WATER SYSTEM FOR UNIFORM FLOW. ADJUST FLUSH VALVES AND OTHER PARTS OF THE SYSTEM FOR QUIET OPERATION. AFTER CLEANING THE POTABLE WATER SYSTEM, OR PART THEREOF, FILL WITH A SOLUTION CONTAINING 50 PARTS PER MILLION OF AVAILABLE CHLORINE AND ALLOW TO STAND FOR SIX (6) HOURS BEFORE FLUSHING.
- 3.10 COMPLETION: OPERATE ALL PLUMBING SYSTEMS, INCLUDING ALL EQUIPMENT FURNISHED UNDER THIS DIVISION TO PROVE THAT ALL COMPONENTS ARE PROPERLY OPERATING AND THAT THE COMPLETE INSTALLATION IS FUNCTIONING SMOOTHLY AND NOISELESSLY TO THE FULL EXTENT OF PLANS AND SPECIFICATIONS. ANY REBALANCING, READJUSTING OF SYSTEM ELEMENTS FOUND NECESSARY WHEN THE SYSTEMS ARE SUBJECT TO ACTUAL OPERATING CONDITIONS SHALL BE DONE BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
- 3.11 OPERATING INSTRUCTIONS:
  - PROVIDE TYPEWRITTEN OPERATING INSTRUCTIONS IN THE BROCHURE COVERING EACH PIECE OF PLUMBING EQUIPMENT. GIVE NORMAL STARTING AND STOPPING PROCEDURES, ALONG WITH PROPER PARTIES TO CONTACT IN THE EVENT OF EMERGENCY, FAILURE OF EQUIPMENT. OUTLINE OF INSTRUCTIONS AS FOLLOWS:
- 3.12 AS-BUILT DRAWINGS: SUBMIT AS-BUILT DRAWINGS AT COMPLETION OF WORK.
- 3.13 GUARANTEE: THE PLUMBING SYSTEM SHALL BE LEFT IN PROPER WORKING ORDER. REPLACE ANY WORK, MATERIAL OR EQUIPMENT PROVIDED UNDER THIS CONTRACT WHICH DEVELOPS DEFECTS WITHIN ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION WITHOUT ADDITIONAL CHARGES. A NEW ONE (1) YEAR GUARANTEE ON THE AFFECTED ITEM OR ITEMS SHALL BE PROVIDED COMMENCING ON THE DATE OF THE APPROVED REPAIR OR REPLACEMENT.
- 3.14 CUTTING AND PATCHING: CAREFULLY PERFORM ALL WORK WHERE CUTTING, CHANNELING, CHASING, OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES IS NECESSARY FOR PROPER INSTALLATION OR SUPPORT OF PIPING, OR OTHER PLUMBING EQUIPMENT.
- 3.15 ANY DAMAGE TO BUILDING, PIPING, EQUIPMENT, PLASTER, WOODWORK OR METAL WORK SHALL BE REPAIRED BY SKILLED MECHANICS OF TRADES INVOLVED, AT NO ADDITIONAL COST TO THE OWNER.
- 3.16 DO NOT CUT, CHANNEL, CHASE OR DRILL MASONRY OR TILE, OR CUT, DRILL OR WELD STRUCTURAL MEMBERS OF THE BUILDING, ETC., WITHOUT FIRST OBTAINING ARCHITECT'S PERMISSION, IF PERMISSION IS GRANTED, PERFORM THIS WORK IN A MANNER APPROVED BY THE ARCHITECT.
- 3.17 CAULKING & WATERPROOFING: CAULK AROUND ALL PIPES, ETC. TO PREVENT AIR AND MOISTURE LEAKAGE WITH COMPOUND APPROVED BY ARCHITECT/ENGINEER.
- 3.18 SEAL AROUND ALL PIPES WITH FIREPROOF CAULKING OR GROUT WHERE THEY PASS THROUGH FLOORS, FIREWALLS, AND SHAFTS.
- 3.19 PROVIDE FLASHINGS WHERE ALL PIPES PIERCE OUTSIDE WALLS OR ROOF AS NECESSARY TO PREVENT MOISTURE ENTRY.
- 3.20 INSERTS, SLEEVES & BLOCKOUTS: FURNISH AND INSTALL, PRIOR TO CONCRETE POURING OR OTHER CONSTRUCTION, INSERTS, SLEEVES, OR BLOCKOUTS IN WALLS, FLOOR SLABS, ROOFS AND PARTITIONS FOR PASSAGE OF ALL WORK INSTALLED UNDER THIS DIVISION.
- 3.21 PROVIDE GALVANIZED IRON AND STEEL PIPE SLEEVES FOR IRON PIPES. USE COPPER SLEEVES FOR COPPER PIPES. PROVIDE WOOD OR STEEL BLOCKOUTS FOR LARGE OPENINGS. SECURE ALL SUCH ITEMS FIRMLY IN POSITION.
- 3.22 TRENCHING AND BACKFILLING: PERFORM ALL TRENCHING AND BACKFILLING REQUIRED BY WORK PERFORMED UNDER THIS DIVISION. TRENCHING AND BACKFILLING DONE IN ACCORDANCE WITH "EXCAVATING AND GRADING" SPECIFICATIONS AND AS HEREIN SPECIFIED. TRENCHES SHALL BE EXCAVATED TO THE DEPTH REQUIRED FOR THE UTILITIES INVOLVED. THE TRENCH BOTTOM SHALL BE FREE FROM STONES OR SOFT SPOTS.
- 3.23 BACKFILLING PIPING TRENCHES AS SOON AS PIPING IS TESTED AND APPROVED BY THE ARCHITECT AND BUILDING INSPECTOR. BACKFILL FOR A DEPTH OF 12 IN. OVER THE TOP OF THE PIPING WITH SAND, OR CLEAN EARTH OF SPECIFIED BACKFILL MATERIAL. UNIFORMLY PLACE AND TAMP BACKFILL BY APPROPRIATE METHODS TO ENSURE PROPER ALIGNMENT OF PIPING TO AVOID INJURY TO THE INSTALLED MATERIALS.
- 3.24 GRADE THE BOTTOM OF TRENCHES TO SECURE THE REQUIRED FALL WITH A UNIFORM PITCH AND ADEQUATE WIDTH TO ENSURE PROPER INSTALLATION OF PIPING. REMOVE DIRT UNDER CAST IRON HUBS SO THAT THE ENTIRE PIPE BARREL RESTS ON FIRM EARTH. BRING OVER-EXCAVATED OR INADEQUATELY COMPACTED GROUND TO THE PROPER LEVEL WITH GRAVEL.
- 3.25 REPAIR OF DAMAGE TO STREETS OR PARKING AREAS FROM THE INSTALLATION OF PIPING SYSTEMS SHALL BE INCLUDED IN THE CONTRACT PRICE IN THIS DIVISION.
- 3.26 MEASUREMENT, LINES AND LEVELS: ESTABLISH AND MAINTAIN ALL GRADES AND LEVELS RELATIVE TO THE INSTALLED SYSTEMS. VERIFY GRADES AS INDICATED ON DRAWINGS BEFORE STARTING WORK. VERIFY LOCATIONS OF EXISTING SEWER LINES BEFORE STARTING WORK.

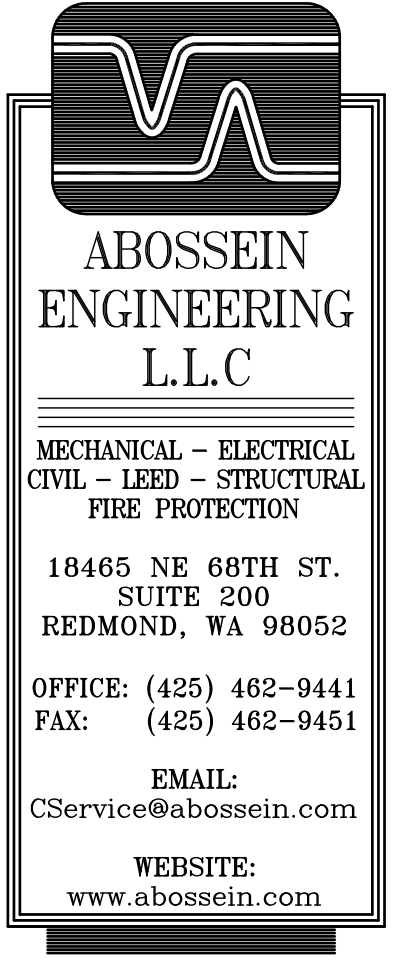
- 3.27 ACCESS DOORS AND PANELS: FURNISH AND INSTALL ACCESS DOORS OR PANELS AS SHOWN ON THE DRAWINGS AND/OR AS REQUIRED FOR PROPER ACCESS TO ALL CONCEALED EXPANSION JOINTS, VALVES, ETC. IF ACCESS DOOR OR SIZE IS NOT SHOWN, PROVIDE A SIZE APPROPRIATE TO THE CONDITIONS, BUT IN NO CASE LESS THAN 12 IN. X 12 IN.
- 3.28 PIPING INSTALLATION: ARRANGE AND INSTALL PIPING APPROXIMATELY AS INDICATED. STRAIGHT, PLUMB AND AS DIRECT AS POSSIBLE. FORM RIGHT ANGLES OR PARALLEL LINES WITH BUILDING WALLS. PRIOR TO INSTALLATION, CHECK MECHANICAL DRAWINGS, ARCHITECTURAL, STRUCTURAL, AND ELECTRICAL DRAWINGS FOR INTERFERENCES. WHERE DEPARTURES FROM INDICATED ARRANGEMENTS ARE REQUIRED, VERIFY PROPOSED CHANGES WITH THE ARCHITECT/ENGINEER BEFORE PROCEEDING. COORDINATE WITH ALL TRADES SO THAT PIPES, CONDUITS, DUCTS, ETC., WILL NOT INTERFERE WITH EACH OTHER.
- 3.29 CUT PIPES ACCURATELY TO MEASUREMENT ESTABLISHED AT THE BUILDING, AND WORK INTO PLACE WITHOUT SPRINGING OR FORCING. PROPERLY CLEAR ALL WINDOWS, DOOR AND OTHER OPENINGS. MAKE CHANGES IN DIRECTION WITH FITTINGS. WHERE CHANGES IN PIPE SIZES OCCUR, USE ONLY REDUCING FITTINGS. CAP AND/OR PLUG OPEN ENDS OF PIPELINES AND OTHER EQUIPMENT DURING INSTALLATION TO KEEP DIRT OR OTHER FOREIGN MATERIAL OUT OF THE SYSTEM. INSTALL HORIZONTAL PIPING AS HIGH AS POSSIBLE WITHOUT SAGS OR HUMPS. KEEP PIPES CLOSE TO WALLS, PARTITIONS, CEILINGS, OFFSET ONLY WHERE NECESSARY TO FOLLOW WALLS AS DIRECTED. LOCATE GROUPS OF PIPES PARALLEL TO EACH OTHER. SPACE PIPING AT DISTANCES TO PERMIT APPLIED FULL INSULATION AND TO PERMIT ACCESS FOR SERVICING VALVES.
- 3.30 CONCEAL ALL PIPING IN BUILDING CONSTRUCTION OR UNDERGROUND IN FINISHED AREAS. THE PIPING INSTALLATION SHALL NOT CAUSE DELAY IN THE WORK OF OTHER TRADES. ALLOW AMPLE TIME FOR TESTS AND APPROVAL. KEEP FIXTURE BRANCHES CONCEALED TO POINTS ABOVE FLOOR CLOSE TO FIXTURES. EXPOSED PIPE SHALL BE CHROME PLATED. INSTALL CHROMIUM PLATED WALL AND CEILING PLATES ON ALL PIPES PASSING THROUGH WALLS, PARTITIONS, AND FLOORS WHEREVER PIPING IS EXPOSED IN FINISHED PARTS OF THE BUILDING.
- 3.31 PROVIDE UNIONS OR FLANGES TO ALLOW REMOVAL OF EACH PIECE TO EQUIPMENT OR CONTROL DEVICE. LOCATE BETWEEN SHUT-OFF AND EQUIPMENT.
- 3.32 LOCATE PIPE SUPPORT HANGERS SPACED ON STRAIGHT RUNS NOT TO EXCEED 6 FT. FOR SIZES UP TO 1-1/2" AND NOT TO EXCEED 10 FT. FOR SIZES 2" AND LARGER.
- 3.33 PROVIDE LINE SIZE VALVES WHERE INDICATED. VALVES IN HORIZONTAL LINES SHALL BE INSTALLED WITH STEMS HORIZONTAL OR ABOVE THE LINE. ISOLATION VALVES SHALL BE INSTALLED IN WATER LINES CONNECTED TO EACH PIECE OF EQUIPMENT AND AT ANY OTHER POINTS INDICATED.
- 3.34 JOINTS
  - TAPERED THREADS OF SCREW JOINTS SHALL BE PROPERLY CUT. SEAL SCREWS JOINTS WITH AN APPROVED PIPE JOINT COMPOUND OR TAPE APPLIED TO THE PIPE THREADS AND NOT THE FITTING.
- 3.35 CUT COPPER TUBING SQUARE AND REMOVE BURRS. CLEAN BOTH INSIDE OF FITTINGS AND OUTSIDE OF TUBING WITH STEEL WOOL BEFORE SWEATING. DO NOT ANNEAL FITTINGS AND TUBING WHEN MAKING CONNECTIONS. USE COMPOSITION LEAD FREE SOLDER FOR ALL JOINTS.
- 3.36 FIXTURE INSTALLATION: PROVIDE ALL HANGERS NECESSARY TO PROPERLY SECURE FIXTURES TO THE TYPE OF CONSTRUCTION USED. COVER ALL FIXTURES WITH MANILLA PAPER. DO NOT REMOVE UNTIL COMPLETION OF THE WORK. INSTALL SUCH GUARDS AND BOXING AS NECESSARY TO PROTECT FIXTURES AGAINST DAMAGE DURING CONSTRUCTION. PROVIDE STOPS ON THE SUPPLY PIPING TO EACH FIXTURE WHETHER SPECIFIED OR NOT. PROVIDE UNIONS AT EACH FIXTURE TO PERMIT REMOVAL OF THE FIXTURE FOR REPAIR OR REPLACEMENT. ALL EQUIPMENT SHALL BE MOUNTED IN ACCORDANCE WITH MANUFACTURER'S ROUGH-IN MEASUREMENTS UNLESS OTHERWISE NOTED ON THE DRAWINGS. SEAL WATERTIGHT THE JUNCTURE OF A FIXTURE AND THE FLOOR OR WALL.
- 3.37 PROVIDE VACUUM BREAKERS AND BACK FLOW PREVENTORS AS NECESSARY TO AVOID WATER BEING DRAWN BACK INTO THE WATER-SUPPLY PIPING. INSTALLATION SHALL BE IN FULL COMPLIANCE OF THE REQUIREMENTS OF THE BUILDING DEPARTMENT AND THE LOCAL HEALTH DEPARTMENT. PROVIDE SHOCK ABSORBERS IN THE PIPING SYSTEM AS NECESSARY TO PRECLUDE A WATER HAMMER PROBLEM WITH THE PIPING SYSTEM.
- 3.38 GAS PIPING INSTALLATION: INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF NFPA PAMPHLET 54 AND TO LOCAL CODES. PROVIDE A GAS COCK AND UNION AT EACH APPLIANCE AND AT THE BUILDING ENTRY.
- 3.39 PIPE INSULATION: INSULATE ALL HOT, COLD, AND RECIRCULATION PIPING, AS WELL AS ALL FITTINGS AND VALVES, WITH GLASS FIBER INSULATION. NOT REQUIRED FOR RUNOUTS TO FIXTURES, RISERS FEEDING FIXTURES, UNIONS, FLANGES, STRAINERS, FLEXIBLE CONNECTIONS OR EXPANSION JOINTS. APPLY ON PIPING OVER CLEAN AND DRY SURFACES WITH EDGES FIRMLY BUTTED TOGETHER. MAKE CONTINUOUS THROUGH SLEEVES OR OPENINGS IN WALL AND FLOORS. FINISH INSULATION NEATLY AT HANGERS AND SUPPORTS. FOR FITTINGS, PROVIDE ONE COAT CEMENT, PRE-MOLDED GLASS FIBER FITTING COVER AND FINISH WITH GLASS FABRIC EMBEDDED IN FIRE RETARDANT MASTIC.
- 3.40 KITCHEN EQUIPMENT CONNECTION REQUIREMENTS:
  - PLUMBING CONTRACTOR SHALL PROVIDE ALL ROUGH-IN AND FINAL CONNECTIONS FOR ALL FOOD AND BEVERAGE SERVICE EQUIPMENT.
- 3.41 PLUMBING CONTRACTOR SHALL ALLOW FOR INSTALLATION OF VALVES, FITTINGS, TRAPS, AND CONTROLS REQUIRED BETWEEN STUB-OUT POINT AND POINT-OF-CONNECTION ON THE EQUIPMENT.
- 3.42 PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL SUPPLIES AND STOPS, TRAPS, VALVES, CONTROLS, AND OTHER ACCESSORIES THAT ARE NOT AN INTEGRAL PART OF THE KITCHEN EQUIPMENT AS REQUIRED TO MAKE FINAL CONNECTIONS TO THE EQUIPMENT FOR A COMPLETE AND OPERATING SYSTEM IN COMPLIANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
- 3.43 ALL INDIRECT DRAIN LINES FROM FOOD SERVICE EQUIPMENT TO THE NEAREST INDIRECT DRAIN SHALL BE FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR TO CONFORM WITH ALL APPLICABLE CODES AND ORDINANCES. VERIFY ROUTING OF DRAIN LINES WITH FOOD SERVICE EQUIPMENT CONTRACTOR. PLUMBING CONTRACTOR SHALL INSULATE DRAINS SERVICE FREEZER, ICE BINS, ETC.
- 3.44 NO KITCHEN FAUCETS WILL BE SUPPLIED UNDER PLUMBING SECTION OF WORK EXCEPT AS SCHEDULED ON THE PLUMBING DRAWINGS.
- 3.45 CAREFULLY REVIEW ALL PLUMBING AND FOOD SERVICE DRAWINGS WITH REFERENCE TO KITCHEN EQUIPMENT FOR INSTRUCTIONS REGARDING THE INSTALLATION OF PLUMBING SERVICES. REVIEW PLUMBING CONTRACTOR RESPONSIBILITIES. MAKE ALL REQUIRED CONNECTIONS AND COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER WHERE APPLICABLE. REVIEW THIS PORTION OF THE PLUMBING INSTALLATION WITH THE GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK.
- 3.46 PLUMBING CONTRACTOR SHALL PROVIDE SHUT-OFF VALVES AT ALL WATER AND GAS CONNECTIONS TO KITCHEN EQUIPMENT.
- 3.47 PRIOR TO ROUGH-IN OF ANY FIXTURE OR EQUIPMENT, REVIEW ALL CURRENT ARCHITECTURAL, MECHANICAL, AND KITCHEN WHERE APPLICABLE EQUIPMENT DRAWINGS, EQUIPMENT/FIXTURE ROUGH-IN DRAWINGS AND DATA SHEETS AND CONFER WITH ARCHITECT, MECHANICAL CONTRACTOR, AND KITCHEN EQUIPMENT CONTRACTOR FOR INSTRUCTIONS AND CLARIFICATIONS.
- 3.48 ALL VENT LINES SHALL BE SLOPED AWAY FROM CONNECTIONS TO STACK AND TOWARD THE FIXTURE IN ORDER TO PREVENT THE ENTRAPMENT OF FLUIDS IN THE VENT LINE.
- 3.49 ALL DRAINAGE LINES SHALL BE SLOPED AT A MINIMUM OF 1/4 IN. PER LINEAL FOOT UNLESS OTHERWISE SHOWN OR NOT ALLOWED DUE TO FIELD CONDITIONS.
- 3.50 PIPE SUPPORTS SHALL BE ADJUSTABLE BAND HANGERS WITH ZINC ELECTROPLATING FOR STEEL PIPE AND COPPER ELECTROPLATING FOR COPPER TUBE. SUPPORT PIPING FROM HANGERS WITH SUP-PORTING RODS. UPPER ATTACHMENTS SHALL BE AS RECOMMENDED BY MANUFACTURER FOR SECURING TO EXISTING STRUCTURE. SUPPORT VERTICAL PIPES WITH APPROVED BRACKETS OR CLAMPS. ROD DIAMETERS PER APPLICABLE CODE. SUPPORT GAS PIPING AT 8ft. INTERVALS WITH HANGERS AND SOLID RODS AT EACH HANGER. ALL PIPE HANGERS SHALL BE INSTALLED TO CONFORM TO LOCAL SEISMIC REQUIREMENTS. INSULATED PIPING SHALL HAVE INSULATION SHIELD.
- 3.51 THIS CONTRACTOR SHALL PROVIDE PLUMBING EQUIPMENT, FITTINGS, AND TRIM WHERE SPECIFIED OR AS REQUIRED FOR COMPLETE INSTALLATION. THIS CONTRACTOR SHALL ROUGH-IN AND CONNECT ALL EQUIPMENT INCLUDING EQUIPMENT FURNISHED BY OTHERS.
- 3.52 SOIL, WASTE, AND VENT SYSTEMS SHALL BE TESTED AT 10 ft. STATIC HEAD 30 min. WITH NO DROP. POTABLE WATER PIPES, VALVES, AND FITTINGS SHALL BE DISINFECTED, AND HYDRO-STATICALLY TESTED AT 100 p.s.i.g. FOR 30 min. WITH NO DROP IN PRESSURE.
- 3.53 ALL COLD AND HOT WATER SUPPLY LINES SHALL BE RUN CONCEALED ABOVE CEILING AND/OR CONCEALED IN WALLS UNLESS OTHERWISE NOTED. INSTALL ON BUILDING SIDE OF INSULATION AND PROVIDE HEAT TAPE WHERE NECESSARY TO KEEP LINES FROM FREEZING.
- 3.54 FUEL GAS PIPING SHALL CONNECT TO APPLIANCES OR EQUIPMENT WITH GAS COCK, UNION, AND 6 in. DIRT LEG. ALL GAS LINES SHALL BE SUPPORTED 8 ft. ON CENTER. MATERIALS AND INSTALLATION SHALL COMPLY WITH UNIFORM PLUMBING CODE CHAPTER 12.
- 3.55 PIPING SHOWN ON THE DRAWINGS IS DIAGRAMMATIC AND SHALL BE COORDINATED WITH ACTUAL JOB CONDITIONS, WORK OF OTHER TRADES, HEALTH DEPARTMENT, BUILDING DEPARTMENT INSPECTION AUTHORITIES. NO ADDITIONAL COST WILL BE ALLOWED FOR RELOCATION DUE TO CONFLICTS WITH OTHER TRADES OR LOCAL CODE REQUIREMENTS.
- 3.56 PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES, WHETHER SHOWN OR NOT HEREON. REVIEW ENTIRE INSTALLATION WITH FRESH CHOICE REPRESENTATIVE PRIOR TO START OF WORK.



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PLUMBING SPECIFICATIONS  
Addition to Hampton Inn & Suites  
Hampton Inn & Suites  
1515 S. Meridian, Puyallup, WA

Job #: January 6, 2020  
Revs:

P9.0

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