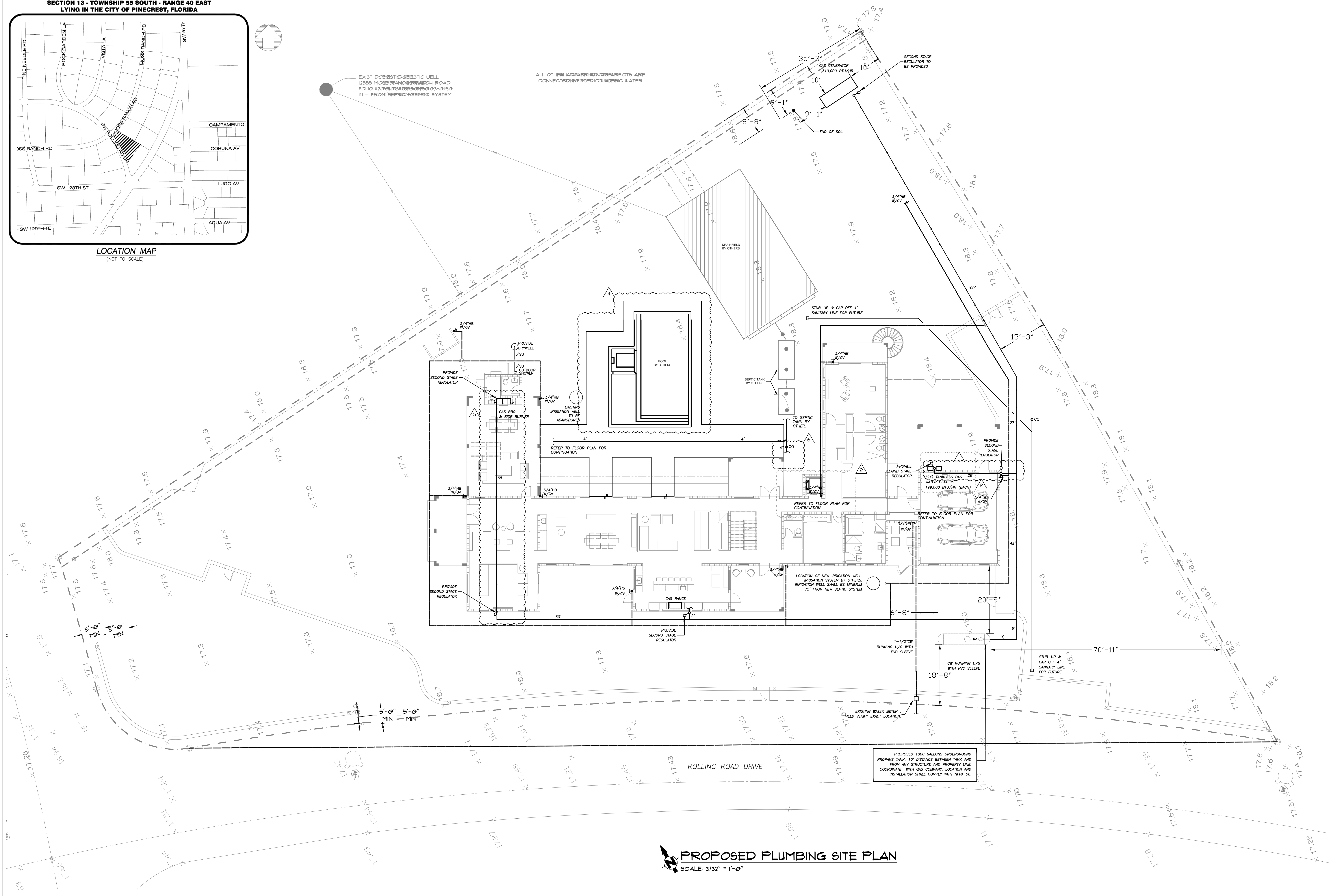


A detailed street map of the SW 25th St area in Miami, Florida. The map shows a grid of streets including Pine Needle Rd, Rock Gardenella, Vista La, Moss Ranch Rd, Campamento, Coruna Av, Lugo Av, and Agua Av. A specific area is highlighted with diagonal hatching and labeled 'SW 25th St' and 'SW 25th St'.

ALL OTHER LADYBIRD AND GEARLOTS ARE
CONNECTED TO PUBLIC WATER



SCALE: $3/32" = 1'-0"$

Amarilis Rodriguez, P.



2020 Ponce de Leon, Suite 1002
Coral Gables, Florida 33134
Phone > 305 444 9809
Fax > 305 444 9827

Engineering Design:
 > Mechanical > Electrical
 > Plumbing > Fire Protection
www.arpe-eng.com

Signature _____
Date _____

PAPER SIZE: ARCH EXPAND E1 (30" X 42")



CASTRO RESIDENCE

PLUMBING SITE PLAN

12715 ROLLING ROAD DRIVE
PINECREST, FL 33156

PREPARED BY: SY

CHECKED BY: NAC

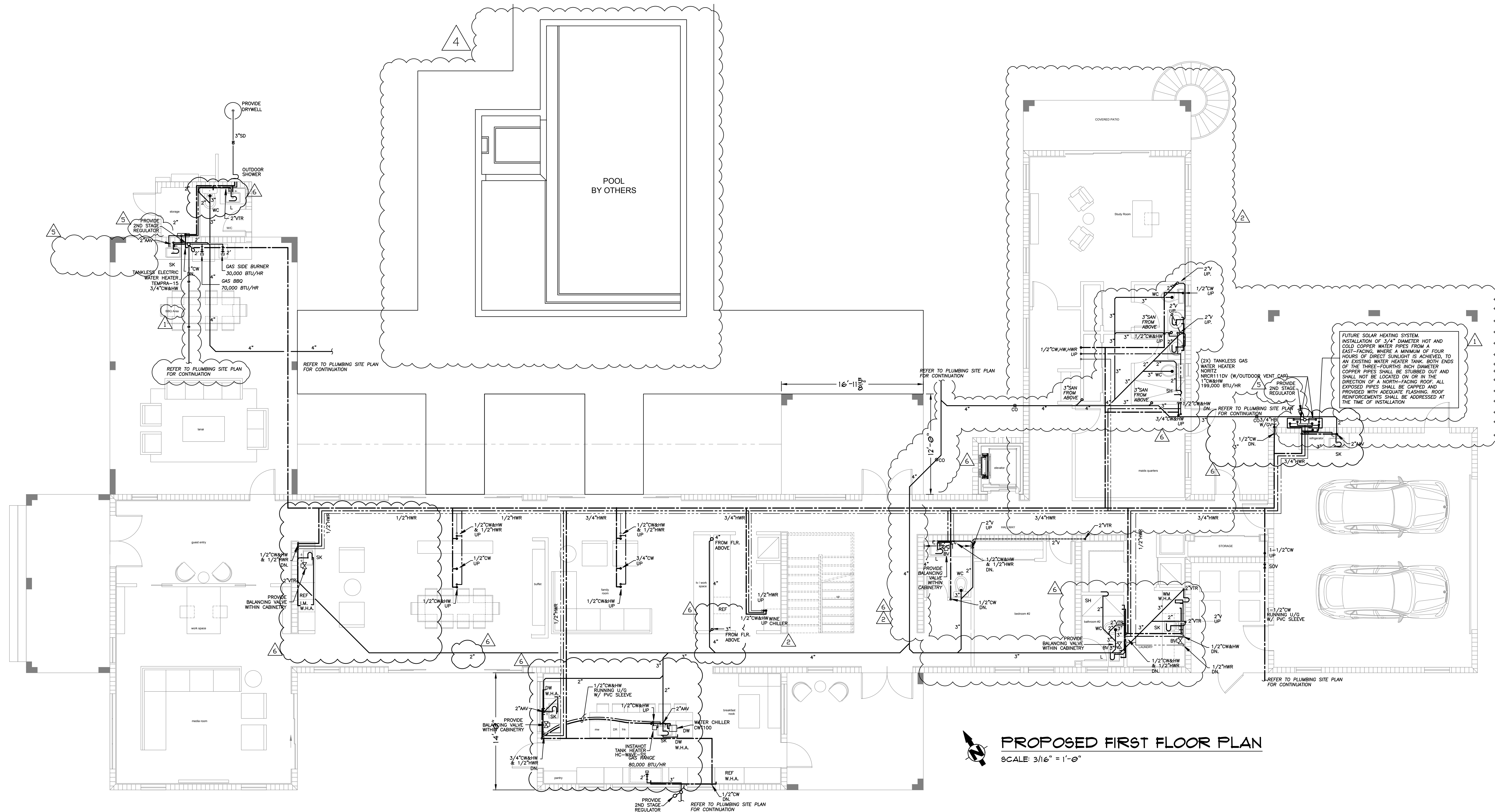
REV	DATE	DESCRIPTION
0	6/3/26	ISSUED FOR BLDG DEPT REVIEW
2	06/21/24	OWNER CHANGES
4	12/09/26	COORDINATION
5	05/13/26	COORDINATION
6	05/08/26	AS-BUILT REV

SCALE: AS SHOWN

JOB NO.: 22-PRO-0028

SHEET NO.

PS-1	0
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PROPOSED FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0"

REV	DATE	DESCRIPTION
0	8/24/24	ISSUED FOR BLDG DEPT REVIEW
1	8/26/24	CITY COMMENTS
2	8/26/24	OWNER CHANGES
4	8/26/24	AS-BUILT REV

SHEET NO.	REV
P-1	0

NEW SHEET

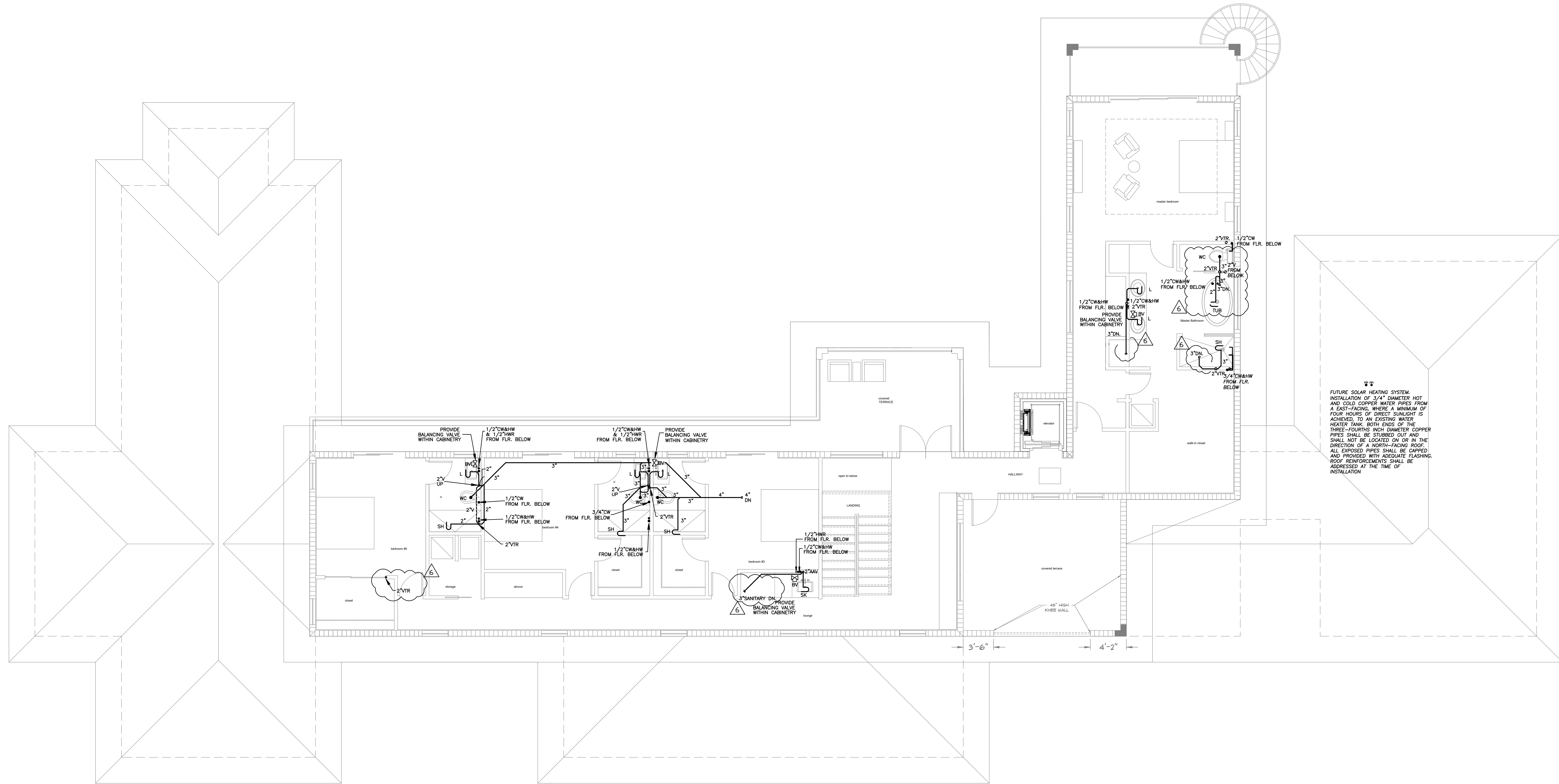
arpe
engineering inc

2020 Ponce de Leon, Suite 1002
Coral Gables, Florida 33134
Phone > 305-444-9809
Fax > 305-444-9827

Engineering Design:
> Mechanical > Electrical
> Plumbing > Fire Protection
www.arpe-eng.com

Signature _____
Date _____

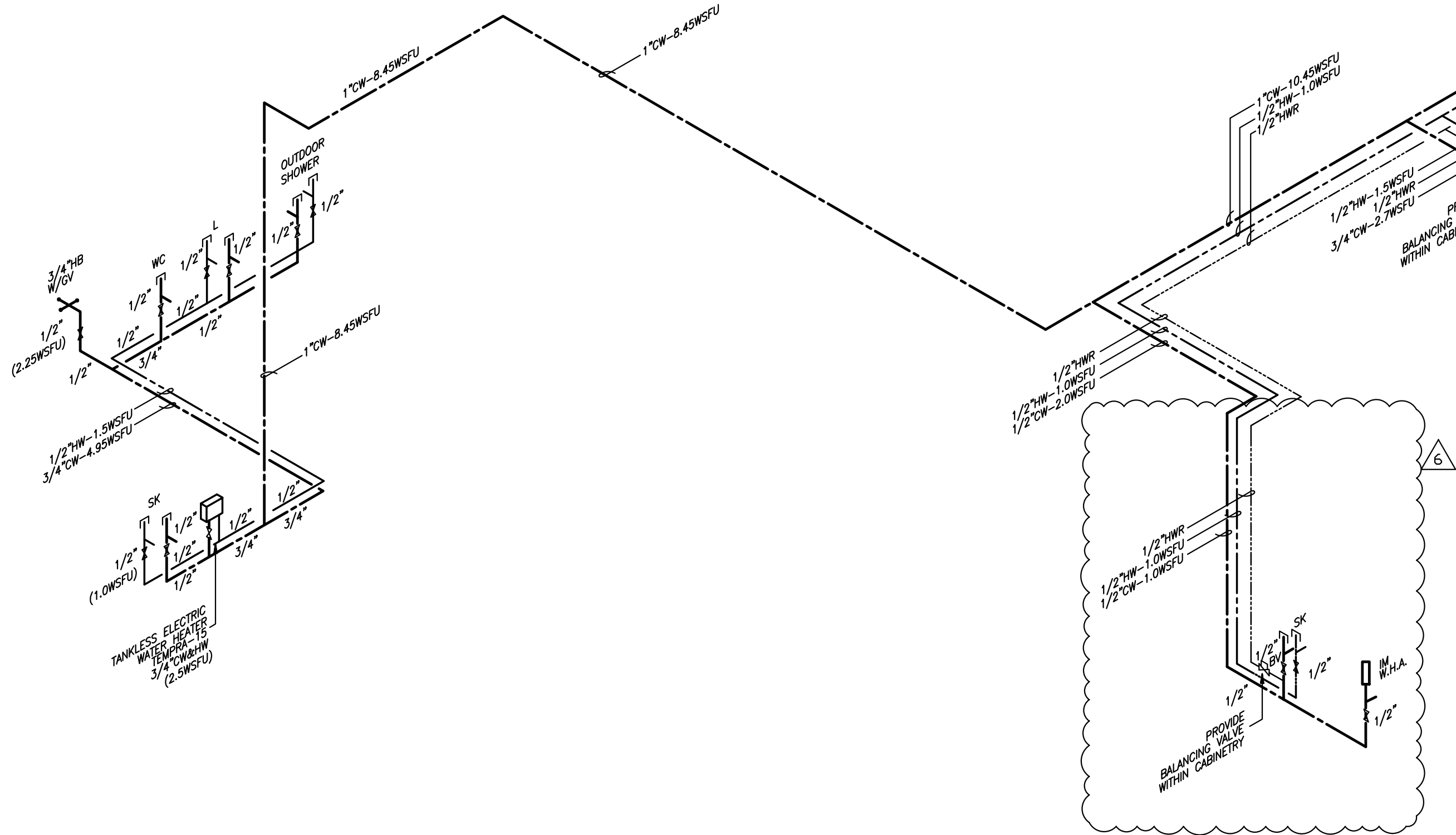
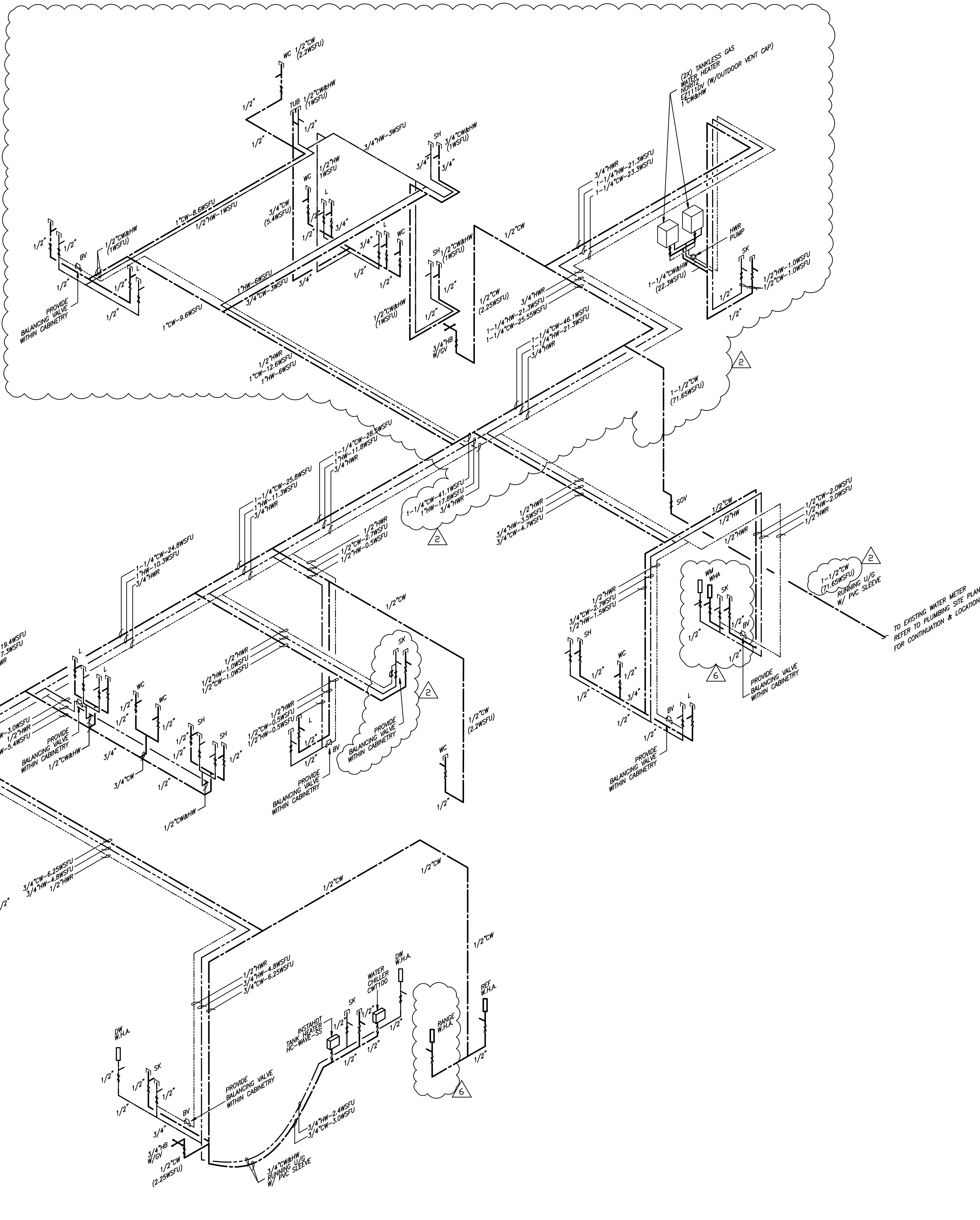
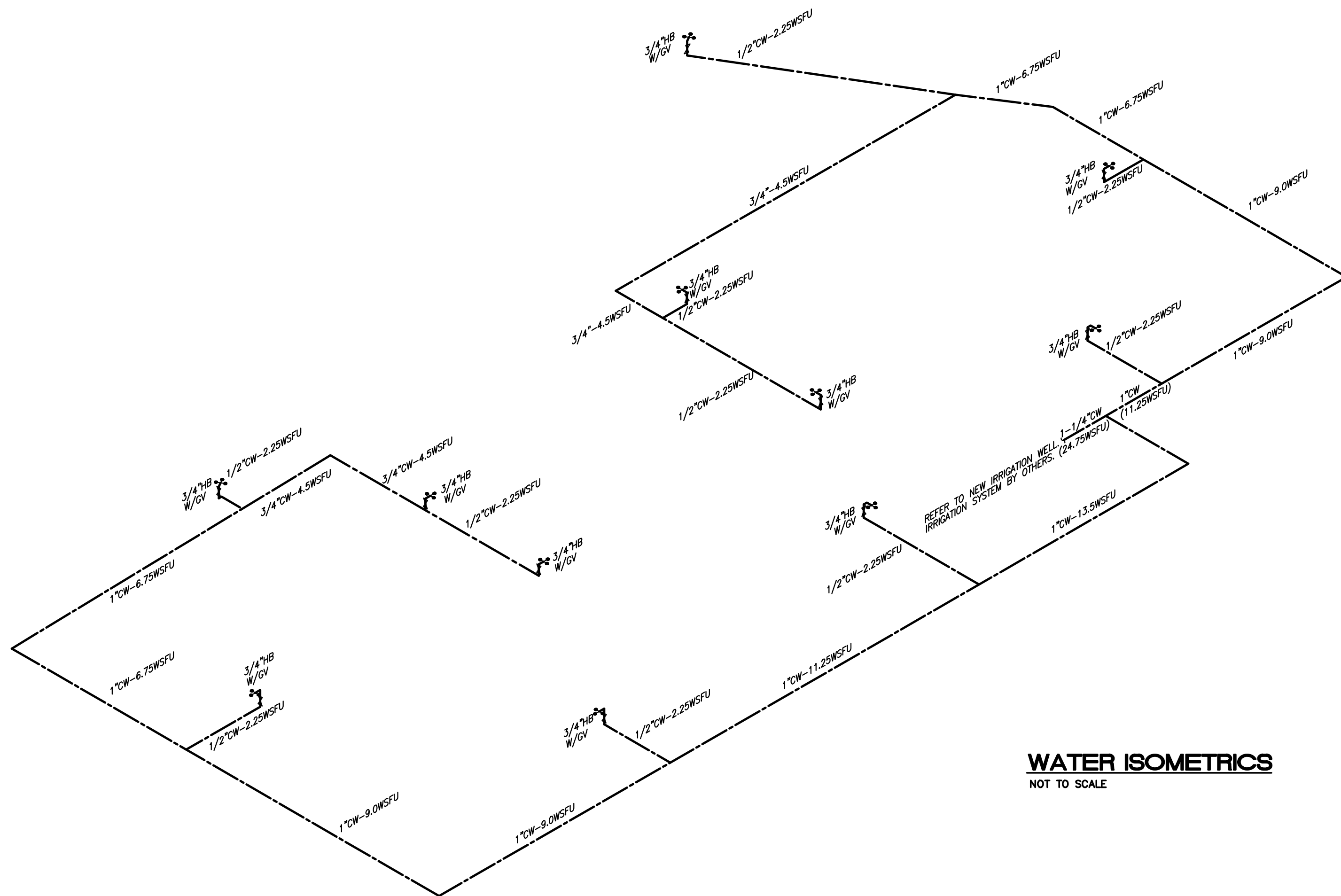
JOB # 22-1008
Amarilis Rodriguez, P.E.
License Number 60236
CA 2659



 **PROPOSED SECOND FLOOR PLAN**
SCALE: 1/4" = 1'-0"

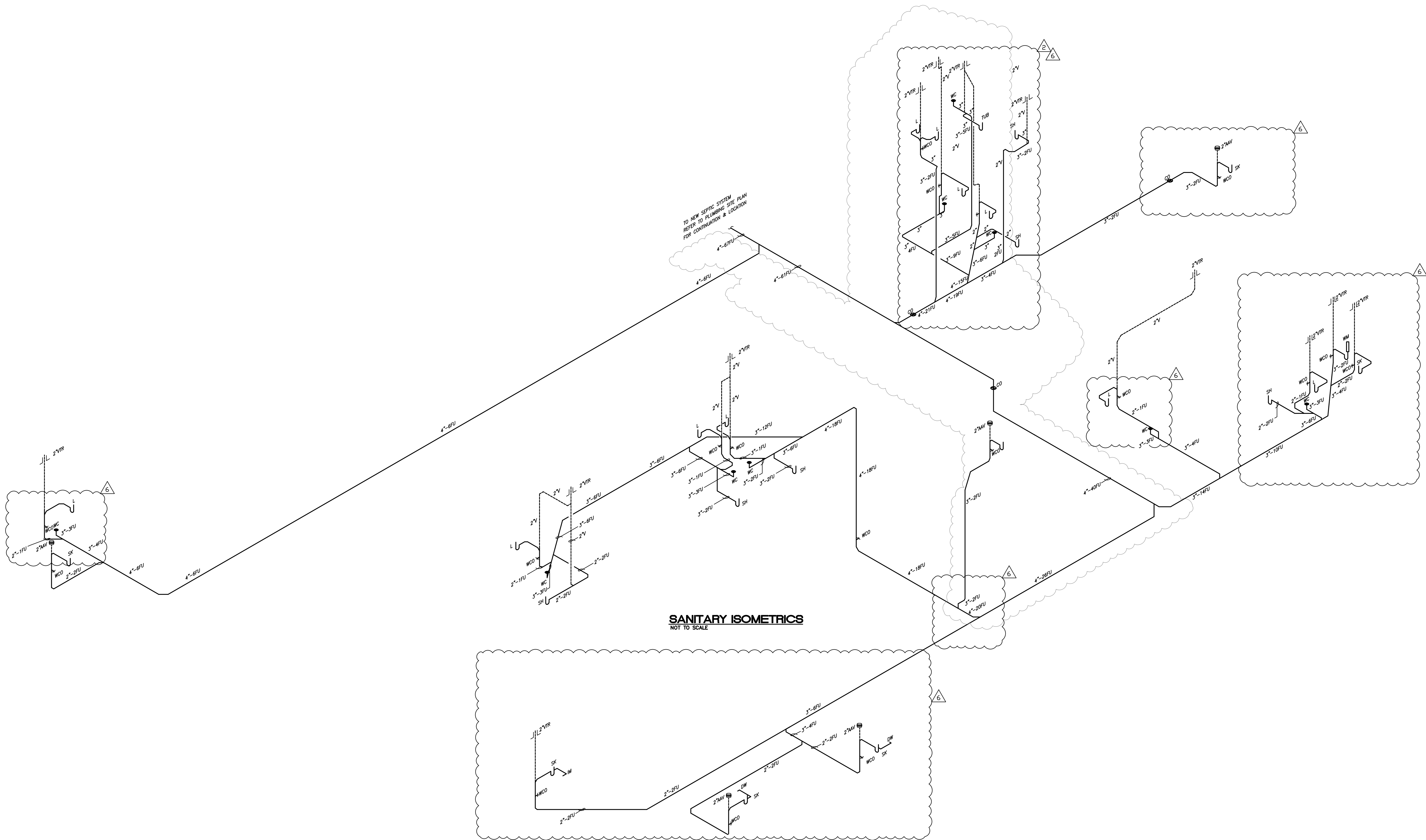
REV	DATE	DESCRIPTION
0	04/24/24	ISSUED FOR BLDG DEPT REVIEW
2	06/25/24	OWNER CHANGES
0	08/16/24	AS-BUILT REV

SHEET NO.	REV
P-2	0



REV	DATE	DESCRIPTION
1	04/24/18	ISSUED FOR BLDG DEPT REVIEW
2	06/20/18	OWNER CHANGES
3	08/09/18	AS-BUILT REV

SHEET NO.	REV
P-3	0





PLUMBING GAS ISOMETRIC

12715 ROLLING ROAD DRIVE
PINECREST, FL 33156

SEAL

REV	DATE	DESCRIPTION
0	5/6/26	ISSUED FOR BLDG DEPT REVIEW
2	06/27/24	OWNER CHANGES
5	08/15/25	COORDINATION

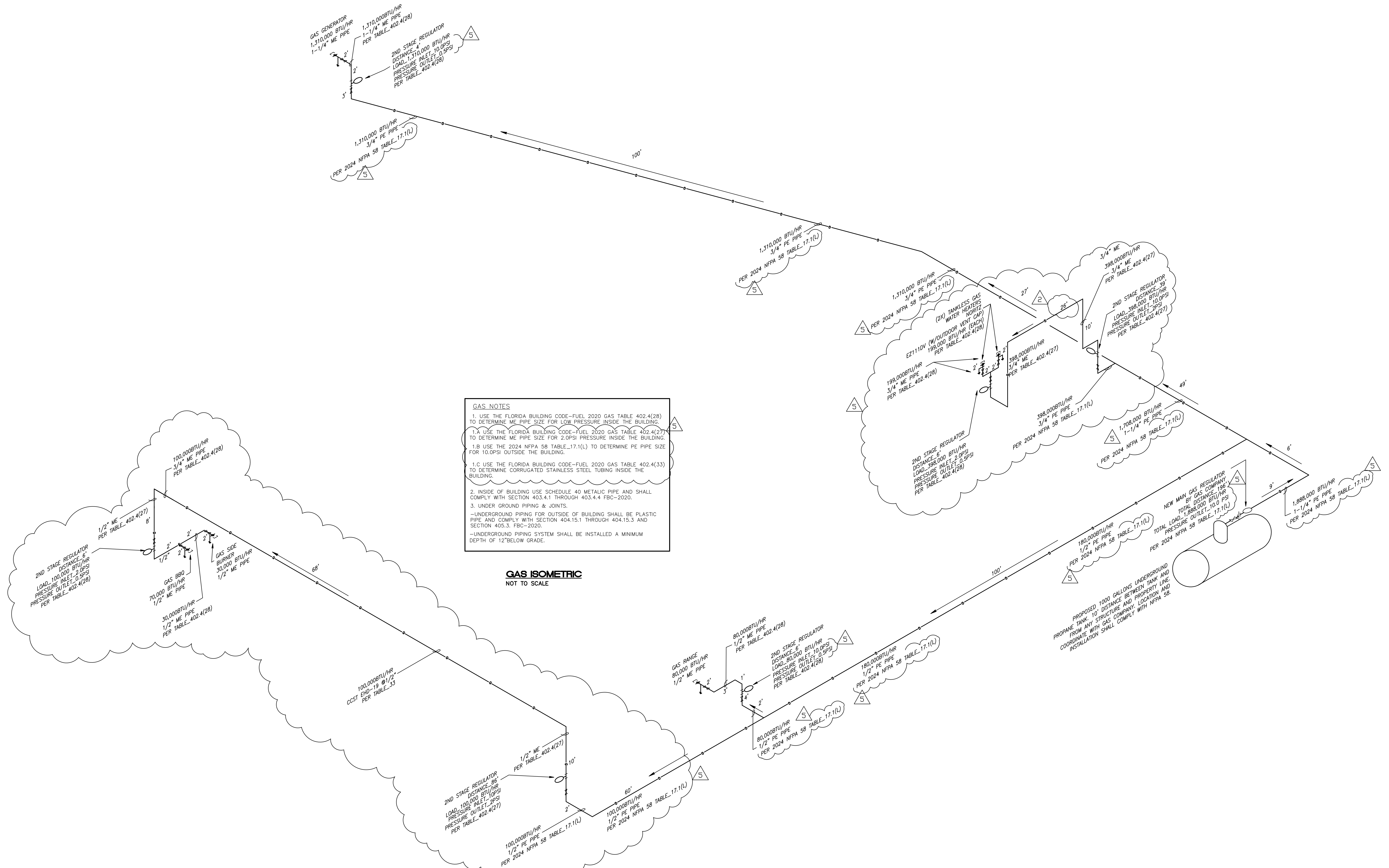
JOB NO.: 22-PRO-0028



Engineering Design: _____
 > Mechanical > Electrical
 > Plumbing > Fire Protection
www.arpe-eng.com

Amarilis Rodriguez, P.E.
License Number 60236
C.A. 26369

PAPER SIZE: ARCH EXPAND E1 (30" X 42")



PLUMBING GENERAL NOTES AND SPECIFICATIONS:

1. A. SCOPE OF WORK:
ALL WORK MUST COMPLY WITH FBC 2020 7TH EDITION.
THE WORK SHALL INCLUDE ALL PLUMBING NECESSARY SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND/OR AS NEEDED FOR A COMPLETE SYSTEM, INCLUDING BUT NOT NECESSARILY LIMITED TO:
1. DOMESTIC COLD AND HOT WATER PIPING SYSTEMS
2. SANITARY DRAIN AND VENT SYSTEMS
3. PLUMBING FIXTURES AND TRIM
4. PRESSURE & TEMPERATURE RELIEF AND PAN DRAIN FROM WATER HEATER
5. PIPING INSULATION
6. SUPPORTS AND HANGERS
- B. ALL PLUMBING WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE "FLORIDA BUILDING CODE" AND LOCAL ORDINANCES AND IN COMPLIANCE WITH THE "FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION", AND "HRS" REGULATIONS. IN THE EVENT OF CONFLICT BETWEEN ANY CODE OR REGULATIONS, THE MORE STRINGENT REQUIREMENTS WILL GOVERN. CONTRACTOR TO VERIFY AT SITE THE LOCATION, ELEVATION AND SIZE OF ALL EXISTING LINES FOR CONNECTION BEFORE INSTALLATION OF ANY PIPING.
3. UNDERGROUND METAL PIPING SHALL BE PROTECTED WITH A COAT OF BITUMINOUS COMPOUND BEFORE COVERING.
4. WATER-HAMMER ARRESTOR SHALL BE INSTALLED WHERE QUICK-CLOSING VALVES ARE UTILIZED, UNLESS OTHERWISE APPROVED. WATER-HAMMER ARRESTORS SHALL CONFORM TO ASSE 1010. ACCESS SHALL BE PROVIDED TO WATER-HAMMER ARRESTORS.
5. ALL FLOOR DRAINS TO HAVE TRAP PRIMERS 1/2" LINE FROM THE NEAREST PLUMBING FIXTURE.
6. PLUMBING FIXTURES SHALL BE CONSTRUCTED WITH THE APPROVED MATERIALS. SHALL HAVE SMOOTH IMPERVIOUS SURFACES AND SHALL BE FREE FROM DEFECTS AND CONCEALED FOULING SURFACES. ALL FIXTURES TRIM TO BE CHROME PLATED. FIXTURES SHALL BE PROVIDED WITH SUPPORTS, HANGERS, ETC.
7. WASTE LINES 3" OR MORE, SLOPE @ 1/8" / FT. AND 2" AND UNDER, SLOPE @ 1/4" / FT.
8. PROVIDE FULLY ACCESSIBLE CLEAN OUTS ON SANITARY AND ANY WASTE PIPING AT EVERY CHANGE OF DIRECTION, AND AT BOTTOM OF STACKS. CLEAN OUT LOCATIONS AND SIZES ON HORIZONTAL LINES SHALL BE ACCORDING TO CODE. WALL CLEAN OUT SHALL NOT BE SEEN FROM ANY LIVING SPACE ROOMS. THEY MUST BE LOCATED UNDER SINKS, LAVATORIES & CABINETS. LOCATIONS MUST BE APPROVED BY ARCHITECT.
9. VENT LINES TO EXTEND 9" MIN. ABOVE ROOF AND FLASH WITH LEAD.
10. THE MAXIMUM WATER CONSUMPTION FLOW RATES AND QUANTITIES FOR ALL PLUMBING FIXTURES FITTINGS SHALL BE IN ACCORDANCE WITH TABLE 604.4 F.B.C.
11. CONTRACTOR SHALL COORDINATE WITH OWNER AMOUNT & LOCATION OF HOSE BIBBS PRIOR TO INSTALLATION.

12. PIPING
- A. SUPPORT ALL PIPE FROM SOUND PORTIONS OF STRUCTURE AND AT PROPER INTERVALS ACCORDING WITH CODE.
- B. PROVIDE SLEEVES FOR ALL PIPING PASSING THROUGH FOUNDATION SLABS OR MASONRY WALLS, CAULK OPENINGS BETWEEN PIPE AND SLEEVES.
- C. WHERE EXPOSED PIPES PASS THROUGH FLOORS, WALLS, OR CEILINGS, PROVIDE ESCUTCHEONS FIRMLY SECURED TO THE PIPES AND OF SUFFICIENT OUTSIDE DIAMETER TO COVER THE SLEEVED OPENINGS FOR THE PIPES. PROVIDE CHROMIUM PLATED ESCUTCHEONS IN BATHROOMS.
- D. LOCATION OF FULL-OPEN VALVES, AS PER FPC 606.1
- F. LOCATION OF SHUTOFF VALVES, AS PER FPC 606.2
- G. SANITARY WASTE, VENTS & STORM DRAIN SHALL BE STANDARD WEIGHT CAST IRON NO-HUB PER CSPI STANDARDS 301 WITH STAINLESS STEEL ONE-PIECE NEOPRENE GASKETS. UNDER SLAB PIPING SHALL BE CAST IRON BELL AND SPIGOT PIPING WITH NEOPRENE GASKETS, OR A.B.I. "BEST" COUPLING, WHERE PERMITTED BY LOCAL AUTHORITY. APPROVED PVC OR ABS PLASTIC PIPE AND FITTINGS, PER ASTM D2661-89 OR D2665-89, MAY BE USED.
- H. CONDENSATE DRAINS FROM AIR CONDITIONING UNITS: "PVC" SCHEDULE 40 PIPE & FITTINGS.
- I. DOMESTIC WATER ABOVE GROUND: COPPER OR COPPER-ALLOY PIPE AS PER ASTM B75; ASTM B88; ASTM B251; ASTM B447, TYPE L COPPER PIPE ABOVE GROUND AND TYPE K COPPER BELOW GROUND PIPE (IN PVC SLEEVES).
- J. ALL CONTROL VALVES FOR DOMESTIC WATER SHALL BE CAST BRASS OR B-88 BRONZE GATE VALVES.
- K. PROVIDE DIELECTRIC FITTINGS FOR JOINING DISSIMILAR METALS.
- L. PIPING TO THE INLET OF THE WATER HEATER AND PIPING CONVEYING WATER HEATED BY A WATER HEATER SHALL BE INSULATED, FPC 607.5, AND FECC C404.4. ADDITIONALLY, HEAT TRAPS ARE REQUIRED IN ACCORDANCE WITH FECC C404.3.

13. INSPECTIONS AND TESTS
- A. CONTRACTOR SHALL BE RESPONSIBLE TO ASK FOR INSPECTIONS TO THE AUTHORITIES HAVING JURISDICTION, AS THE WORK PROGRESSES. ALL SYSTEMS SHALL BE TESTED BY CODE AND/OR LOCAL REGULATIONS.
- B. DRAINAGE PIPING: BEFORE INSTALLATION OF ANY DRAINS, THE ENDS OF SYSTEMS SHALL BE CAPPED AND ALL LINES FILLED WITH THE WATER TO THE HIGHEST POINT AND ALLOWED TO STAND UNTIL INSPECTION IS MADE BY AN OWNER REPRESENTATIVE.
- C. STERILIZE ALL WATER LINES WITH A MIXTURE OF TWO (2) POUNDS OF CHLORINATED LIME TO EACH 1,000 GALLONS OF WATER (50 PPM OF AVAILABLE CHLORINE). RETAIN MIXTURE IN PIPES 48 HOURS AND FLUSH THOROUGHLY WITH POTABLE WATER BEFORE PLACING IN SERVICE.
- D. COMPLETE SYSTEM, FIXTURES AND EQUIPMENT SHALL BE GIVEN AN IN-SERVICE TEST AFTER COMPLETION OF THE INSTALLATION.

PLUMBING FIXTURE SCHEDULE (RESIDENTIAL/PRIVATE)						
MARK	DESCRIPTION	FIXTURE UNITS	HOT WATER	COLD WATER	TRAP	REMARKS
WC	WATER CLOSET	3	----	1/2"	3"	3"DRAIN
L	LAVATORY	1	1/2"	1/2"	1 1/4"	1.0 GPM AT 60 PSI
SH	SHOWER	2	1/2"	3/4"	3"	W/ANTI-SCALD VALVE
SK	KITCHEN SINK	2	1/2"	1/2"		1.0 GPM AT 60 PSI
DW	DISHWASHER	2	1/2"	----	1 1/2"	PROVIDE INDIRECT WASTE W/ AN AIR BREAK
REF	REFRIGERATOR	-	-	1/2"	-	PROVIDE BACKFLOW DEVICE & FILTER IN LINE
WM	WASHER MACHINE	2	1/2"	1/2"	3"	PROVIDE WM BOX W/(2) 1/2" HB & 2" DRAIN
NOTE						
ALL FIXTURE SHALL COMPLY WITH MIAMI DADE COUNTY ORDINANCE B-31						
APPLICABLE CODE FBC 7TH EDITION- 2020 & FPFC 7TH EDITION						
1) FIXTURES TO COMPLY WITH REFERENCE STANDARDS AS PER FBC 2020, 7TH EDITION, PLUMBING SEC. 406 THROUGH 421.						
2) RESIDENTIAL FIXTURES SHALL COMPLY WITH 2020 FBC, 7TH EDITION Section P2701.						
3) ANTI-SCALD VALVE: ALL SHOWERS & BATH/SHOWER COMBINATIONS SHALL BE PROTECTED WITH A CONTROL VALVE OF THE PRESSURE BALANCE, THERMOSTATIC MIXING, OR COMBINATION TYPE SET. HANDLE POSITION STOPS PER MANUFACTURERS INSTRUCTIONS AT TIME OF INSTALLATION TO A MAXIMUM MIXED WATER OUTLET TEMPERATURE OF 110° F.						
4) ALL DRAINS 3" OR ABOVE SHOULD HAVE 1/8" SLOPE & BELOW 3" SHOULD HAVE 1/4" SLOPE.						
5) ICE MAKERS, REFRIGERATORS & DRINKING FOUNTAINS TO BE IN LINE BACKFLOW DEVICE & FILTER.						
6) DISHWASHING MACHINES SHALL CONFORM TO ASSE 1004 AND NSF3. WATER SUPPLY SHALL BE PROTECTED WITH AN BACKFLOW DEVICE AND PROVIDE INDIRECT WASTE W/AN AIR BREAK.						

PLUMBING LEGEND SYMBOLS AND ABBREVIATIONS

	V	VENT		TRAP		
	G	GAS		HOSE HIBB ISO.		THERMOMETER TYPICAL
	SD	STORM DRAIN		CW RESEAL ISO.		UNION (TYPICAL)
	CW	COLD WATER		ROUND FD ISO.		
	S	WASTE		SQUARE FD ISO.		
	HW	HOT WATER		TOILET ISO.		
	HWR	HOT WATER RECIRCULATION		VTR ISO.		
		SHUT-OFF VALVE		CAP		
	CO	CLEANOUT PLUG		CLEANOUT		
	WCO	WALL CLEANOUT		FLOOR CLEANOUT		
	WHA	WATER HAMMER ARRESTOR		GATE VALVE ISO.		
	CV	CHECK VALVE		CHECK VALVE ISO.		
	BV	BALANCING VALVE		GAS COCK ISO.		
	PRV	PRESSURE REDUCING VALVE		CAP ISO.		
	VIV	VALVE IN VERTICAL		WATER FIXTURE SUPPLY		
	BWV	BACKWATER VALVE				
	SV	SOLENOID VALVE				
		ARROW INDICATES DIRECTION OF FLOW				
	HB	HOSE BIBB AND TYPE				
	RPBP	BACKFLOW PREVENTOR		AIR ADMITTANCE VALVE (AAV) / STUDDOR VENT ISO.		
	WM	WATER METER				
	GM	GAS METER				
	GR	GAS REGULATOR				
	FD	FLOOR DRAIN				
	FSK	FLOOR SINK				
	TD	TRENCH DRAIN				
	T & P	TEMPERATURE AND PRESSURE RELIEF VALVE				
	DN	PIPE DOWN				
	UP	PIPE UP				
	DP	PIPE DROP				
	RWL	RAIN WATER LEADER				

LEGEND:

N = NEW
EX. = EXISTING
RP = REPLACE
RL = RELOCATE

	THERMOMETER TYPICAL
	UNION (TYPICAL)
	GAS SUPPLY

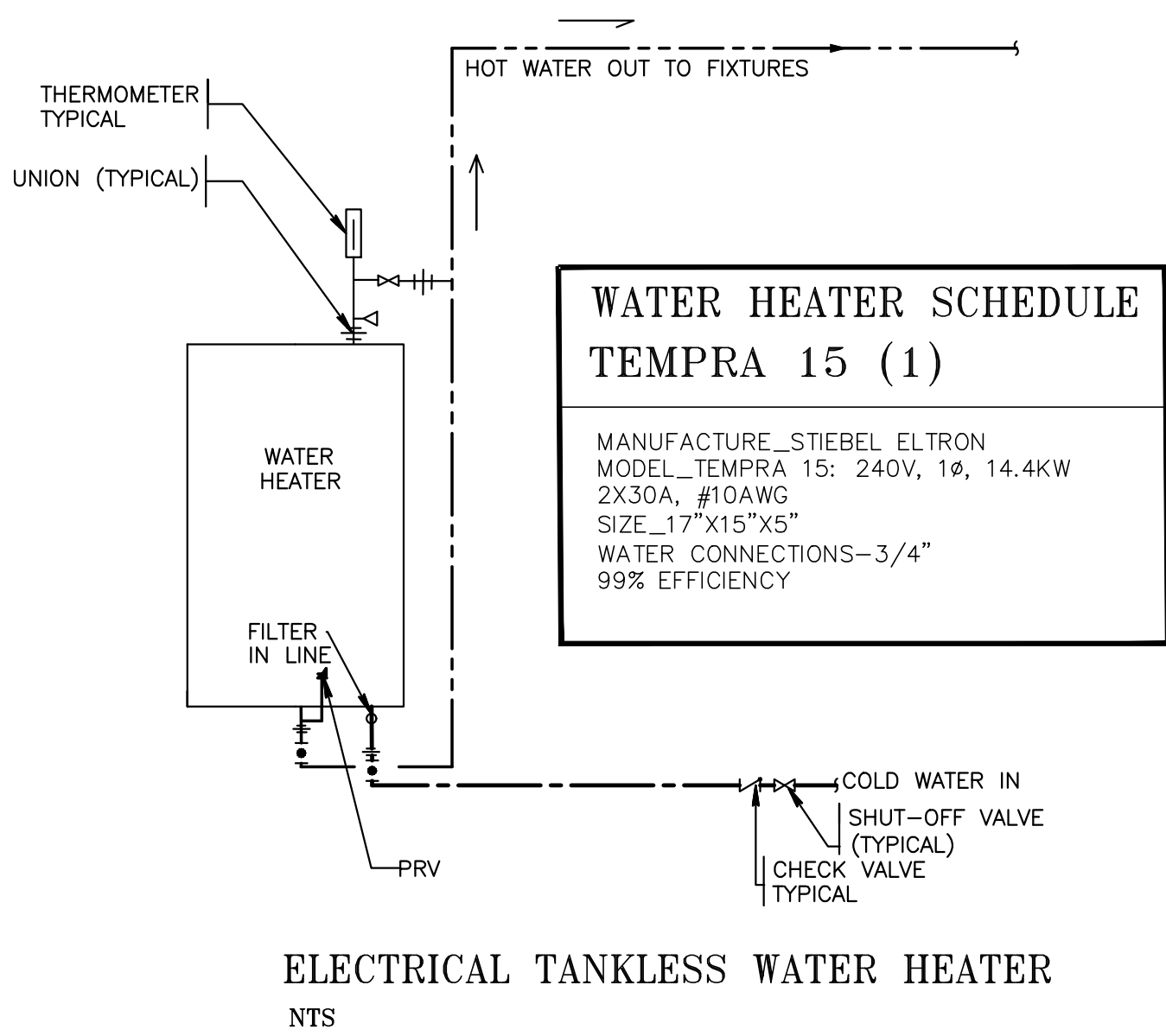
NOTE
AS PER FBC 2020 PLUMBING SEC 603.2, SEPARATION OF WATER SERVICE AND BUILDING SEWER. WHERE WATER SERVICE PIPING IS LOCATED IN THE SAME TRENCH WITH THE BUILDING SEWER, SUCH SEWER SHALL BE CONSTRUCTED OF MATERIALS LISTED IN TABLE 702.2. WHERE THE BUILDING SEWER PIPING IS NOT CONSTRUCTED OF MATERIALS LISTED IN TABLE 702.2, THE WATER SERVICE PIPE AND THE BUILDING SEWER SHALL BE HORIZONTALLY SEPARATED BY NOT LESS THAN 5 FEET (1524 MM) OF UNDISTURBED OR COMPACTED EARTH. THE REQUIRED SEPARATION DISTANCE SHALL NOT APPLY WHERE A WATER SERVICE PIPE CROSSES A SEWER PIPE, PROVIDED THE WATER SERVICE IS SLEEVED TO A POINT NOT LESS THAN 5 FEET (1524 MM) HORIZONTALLY FROM THE SEWER PIPE CENTERLINE ON BOTH SIDES OF SUCH CROSSING. THE SLEEVE SHALL BE OF PIPE MATERIALS LISTED IN TABLE 605.3, 702.2 OR 702.3. THE REQUIRED SEPARATION DISTANCE SHALL NOT APPLY WHERE THE BOTTOM OF THE WATER SERVICE PIPE, LOCATED WITHIN 5 FEET (1524 MM) OF THE SEWER, IS NOT LESS THAN 12 INCHES (305 MM) ABOVE THE HIGHEST POINT OF THE TOP OF THE BUILDING SEWER.

NOTE
IN BIDET, BATHTUB AND WHIRLPOOL, HOT WATER TEMPERATURE SHALL BE DELIVERED THROUGH AND APPROVED WATER TEMPERATURE LIMITING DEVICE THAT CONFORMS TO ASSE 1070 OR CSA B125.3.
MAXIMUM TEMPERATURE A VALVE WILL BE REJECT, IF AT ANY TIME DURING TEMPERATURE VARIATION TIME EXCEEDS 120 F. EACH VALVE MUST HAVE AND ADJUSTABLE AND LOCKABLE MEANS TO LIMIT THE SETTING OF THE DEVICE TO THE HOT POSITION.
ALL HW WATER PIPES (HW & HWR) SHALL BE INSULATED ACCORDING SECTION 607.5.
ALL HOT WATER SUPPLY PIPES SHALL BE IN COMPLIANCE WITH SECTION 607, MAXIMUM TEMPERATURE SUPPLY 120F

WOOD DECK
TOP BEAM C-CLAMP IF STEEL BAR JOIST.
ALL-THREAD ROD, LENGTH AS REQ'D FOR PIPE SLOPE.
PROVIDE COPPER OR NON-METALLIC COATING WHERE HANGERS CONTACT BARE COPPER PIPE.
CLEVIS HANGER FOR PIPE OVER FOUR INCH.
ARMAFLEX INSULATION R-3, 3, 1/2"
DO NOT HANG PIPE LARGER THAN 3" FROM BOTTOM OF JOISTS.
PROVIDE GALVANIZED STEEL SADDLE FOR ALL INSULATED PIPE LARGER THAN 3/4". VERIFY INSULATION THICKNESS WHEN SIZING HANGERS.
PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE. DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER. DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES. TRAPZEE HANGERS MAY BE USED FOR MULTIPLE PARALLEL PIPES. HANGER SPACING FOR PIPE SIZE: COPPER: 4"=12"; 3"=11"; 2-1/2"=10"; 2"=9"; 1-1/2"=8"; 1-1/4"=7"; 1"=6"; 3/4"=6"; 1/2"=5". CAST IRON: 10" & ONE NEAR ALL JOINTS. STEEL: 4=14"; 3=12"; 2-1/2"=11"; 2"=10"; 1-1/2"=9"; 1"=7"; 3/4"=6"; 1/2"=5". LOCATE HANGERS AS CLOSE AS POSSIBLE TO TURNS & TEES OF PIPE. PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQ'D. LOCATE HANGERS TO TAKE LOAD OFF OF EQUIPMENT CONNECTIONS. ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY. PROVIDE SEISMIC BRACING IF/AS REQUIRED BY LOCAL AUTHORITIES. CHAINS OR PERFORATED STRAP IRON OR STEEL IS NOT ACCEPTABLE. REFER TO CODES FOR FURTHER INFORMATION.

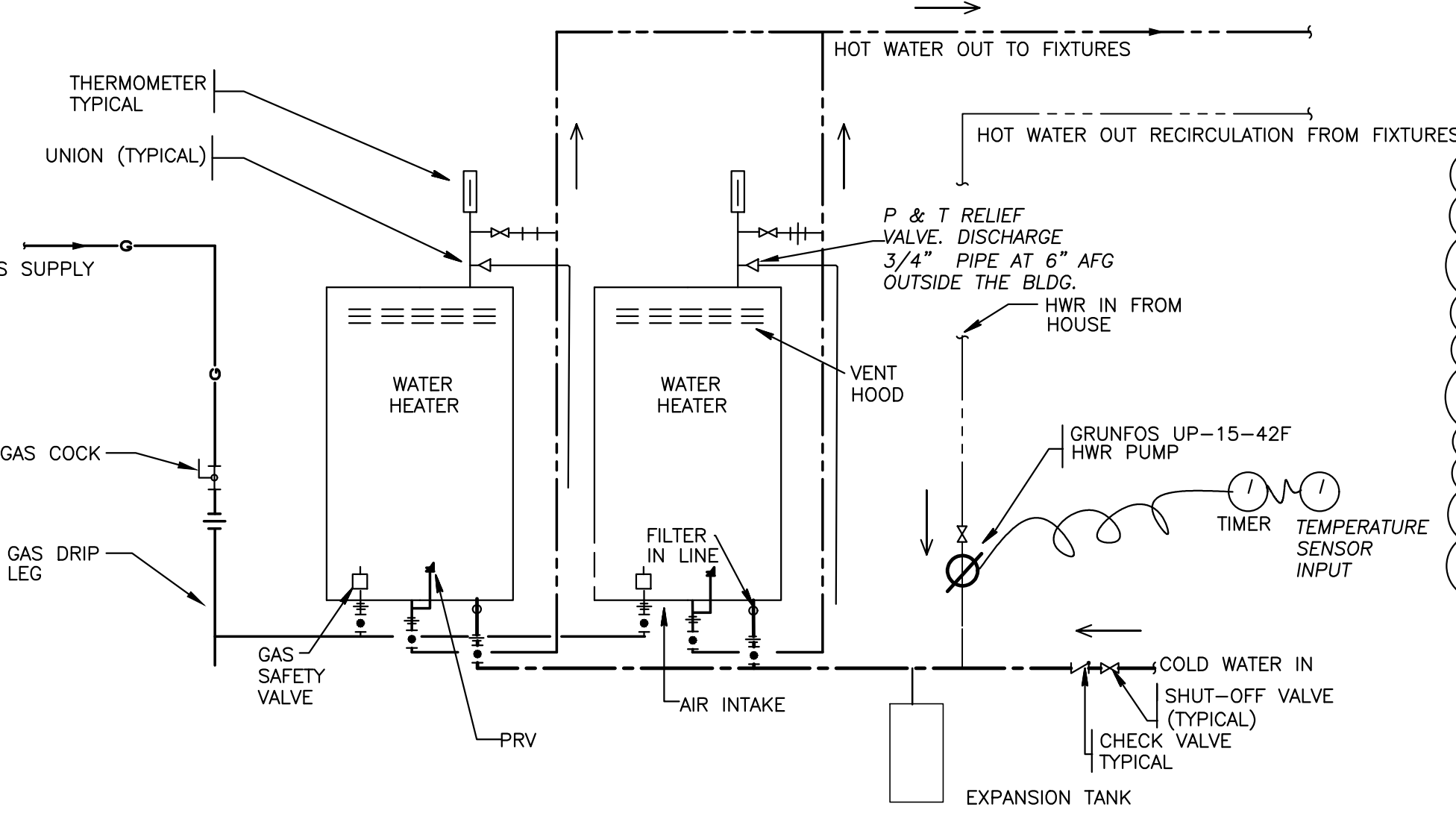
PIPE HANGERS DETAIL

N.T.S.



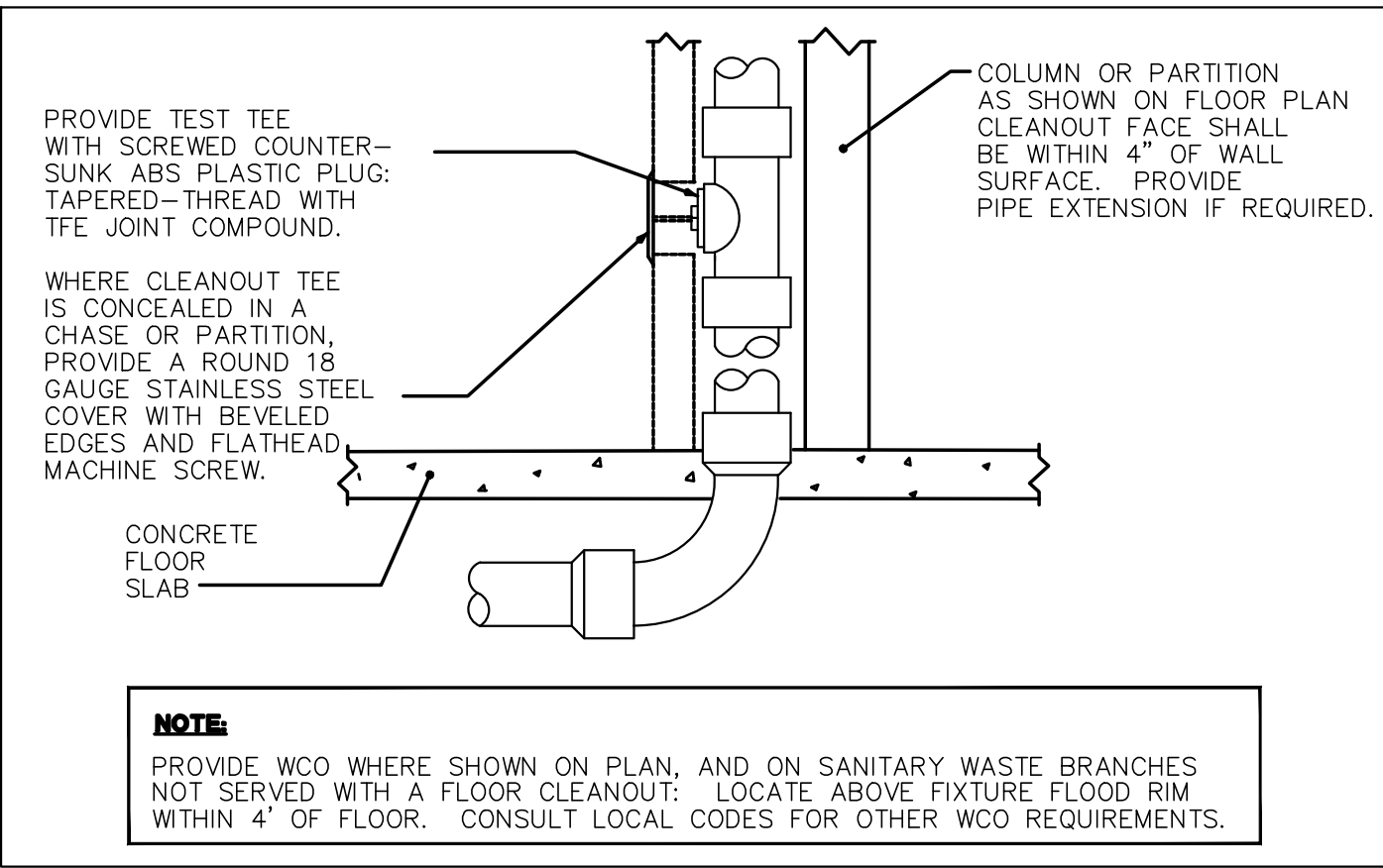
ELECTRICAL TANKLESS WATER HEATER

NTS



GAS TANKLESS WATER HEATER

NTS



WALL CLEANOUT DETAIL

N.T.S.

WATER HAMMER ARRESTOR

MANUFACTURER: WATTS
FOR RESIDENTIAL/DOMESTIC WATER SYSTEM ONLY
MODEL: 150A OR SIMILAR
SIZE: 1/2"
MAXIMUM WORKING PRESSUR_150 PSI
MAXIMUM TEMPERATURE_180 F
MAXIMUM VELOCITY_10FT/SEC
MAXIMUM SHOCK PRESSURE_200 PSI

RECIRCULATION PUMP SCHEDULE

MODEL: GRUNFOS UP-15-42B5/T RECIRCULATOR PUMP
1/25 HP RECIRCULATOR PUMP
FLOW RANGE: 0-17 U.S.GPM
HEAD RANGE: 0-15.5 FEET
MOTOR: 2 POLE, SINGLE PHASE, 115 VOLT
MAX. FLUID TEMPERATURE_220°F
MIN. FLUID TEMPERATURE_36°F
MAX. WORKING PRESSURE_145 PSI
2 GASKET INCLUDED

APPROVED FOR THE TRANSPORT OF POTABLE WATER
NSF/ANSI 61.

OPTIONAL:
GRUNFOS 599388 24 HR PROGRAMMABLE TIMER CLOCK,
INDOOR WORK

POTABLE WATER EXPANSION TANK

MODEL WATTS DET-20M1 OR SIMILAR(2)
MAX. PRESSURE PSI_150
MAX. TEMP. F_200°F
TANK VOLUME_GAL_8.5
AIR PRE-CHARGE PSI_20
DIAMETER_12.5"
LENGTH_19.2"
WEIGHT_15 LBS

TANKLESS WATER HEATER SCHEDULE (2)

MANUFACTURE_NORITZ
MODEL_NRCR111DV
SIZE_26.1"H x 18.1"W x 11.8"D
WEIGHT_62 LB
MAXIMUM GAS INPUT_199,000 BTU/HR
USE OUTDOORS (PROVIDE OUTDOOR VENT CAP VC-6)
GAS TYPE_PROPGANE GAS
GAS SUPPLY_3/4"
WATER CONNECTIONS_3/4"
EFFICIENCY (U.E.F.)_0.98 / BUIL-IN RECIRCULATION

ACCESSORIES:
- WIRELESS MONITOR (#NWC-ADAPTER)
- OUTDOOR VENT CAP (#VC-6)

6

REV	DATE	DESCRIPTION
1	04/04/2024	ISSUED FOR BLDG DEPT REVIEW
2	04/04/2024	AS-BUILT REV

SHEET NO.	REV
P-5	0