



CITY OF WEST MEMPHIS
RECREATION CENTER
ST HWY 191/I-40 SERV
West Memphis, AR 72301

CURRENT ISSUE: ISSUE FOR PERMIT
ISSUE DATE: 2026-05-01

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Client
City of West Memphis
205 Redding St. West
Memphis, AR 72301

DRAWING ISSUE

NO.	DATE	DESCRIPTION
1	2025-02-01	ISSUE FOR SCHEDULED DESIGN
2	2025-04-01	ISSUE FOR PERMIT
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JOB INFO

CITY OF WEST MEMPHIS
RECREATION CENTER
ST HWY 191/I-40 SERV
West Memphis, AR 72301

JOB No.: WESCIT00561

SHEET TITLE

COVER PAGE

SHEET NUMBER

G-000



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ABBREVIATIONS

Table of abbreviations for construction elements, including symbols for ID, AT, A, AFF, AHJ, ALUM, ANOD, AFES, B, BLDG, BLDG, C, CL, CAB, CB, CER, CJI, CLJ, CLD, CLR, COL, CONC, CONSTR, CONT, CONTR, D, DR, DET, DN, DS, DWG, E, EA, EDF, EL, ELEC, ELEV, EQ, EJ, EXT, F, FA, FE, FHC, FN, FLR, FOC, FOM, FT, G, GA, GALV, GI, GL, GYP, HD, H, HC, HM, HNR, HT, HW.

GRAPHICS AND SYMBOLS

Construction Type Symbols, Material Symbols - Plan, Material Symbols - Detail, and Plan Reference Symbols. Includes symbols for existing and new construction, materials like brick, concrete, steel, and various plan reference symbols like room symbols, section symbols, and elevation symbols.

SHEET INDEX

Sheet Index table with columns: SHEET #, SHEET NAME, INITIAL ISSUE DATE, CURRENT REV, CURRENT REVISION DATE. Lists sheets for GENERAL, CIVIL, LANDSCAPE, STRUCTURAL, ARCHITECTURE, FOOD SERVICE, FIRE PROTECTION, PLUMBING, ELECTRICAL, AQUATICS, and various equipment schedules.

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DRAWING ISSUE

Table with columns for issue number, date, and description of drawing revisions.

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Project Luong logo and contact information for Houston, San Antonio, and Santa Monica offices.

CONSULTANT

City of West Memphis Recreation Center, ST HWY 191/I-40 SERV, West Memphis, AR 72301

JOB INFO

JOB No.: WESCIT00561, SHEET TITLE: SHEET INDEX AND GENERAL INFO, SHEET NUMBER: G-002

PROJECT INFORMATION

SCOPE OF WORK:
NEW CONSTRUCTION OF A RECREATION CENTER WITH NATATORIUM, COURTS, CONCESSIONS, OFFICES AND RESTROOMS.

AUTHORITIES HAVING JURISDICTION:
CITY OF WEST MEMPHIS BUILDING DEPARTMENT AND FIRE DEPARTMENT

APPLICABLE CODES:
BUILDING CODE: 2021 ARKANSAS FIRE PREVENTION CODE VOL. II (BUILDING)
ENERGY CODE: 2014 ARKANSAS ENERGY CODE
MECHANICAL CODE: 2021 ARKANSAS MECHANICAL CODE
ELECTRICAL CODE: 2020 NATIONAL ELECTRICAL CODE
PLUMBING CODE: 2018 ARKANSAS PLUMBING CODE AND ARKANSAS GAS CODE
FIRE CODE: 2021 ARKANSAS FIRE PREVENTION CODE VOL. I (FIRE)
ACCESSIBILITY: 2010 ADA STANDARDS

BUILDING ADDRESS:
ST HWY 191/40 SERV, West Memphis, AR 72301

BUILDING NUMBER:
1 OF 1

BUILDING HEIGHT:
37'-8 1/4"

NUMBER OF STORES:
1 STORY

CONDITIONED	TYPE	AREA
		83,108 SF
UNCONDITIONED		4,495 SF
TOTAL GROSS		87,603 SF

VICINITY MAP



BUILDING OCCUPANCY AND CONSTRUCTION

OCCUPANCY CLASSIFICATION (IBC SECTION 302):
NON-SEPARATED MIXED USE

A-4 ASSEMBLY (PRIMARY USE)
A-2 ASSEMBLY
A-3 ASSEMBLY
B BUSINESS
S STORAGE

H2 HAZARD

CONSTRUCTION TYPE (IBC TABLE 601):
TYPE I-B

ALLOWABLE HEIGHT/STORIES ABOVE GRADE PLANE (IBC TABLE 501.3 & 504.4)

HEIGHT: 7 FT
STORIES: 1 (PER 507.4 RESTRICTIONS)

ALLOWABLE BUILDING AREA (IBC TABLE 506.2)
BASED ON THE MOST RESTRICTIVE USE FOR NON-SEPARATED MIX USE
AREA (SPRINKLERED): 36,000 SF
FRONTAGE INCREASE: N/A
TOTAL ALLOWABLE: UNLIMITED PER SEC 507.4

REQUIRED SEPARATION OF OCCUPANCIES (IBC TABLE 508.6)

OCCUPANCY TYPE	ADJACENT OCCUPANCY	REQUIRED SEPARATION (HOURS)
H2	A-2,2	3
H2	B	2

FIRE RESISTANCE REQUIREMENTS

FIRE RESISTANCE REQUIREMENTS FOR ALL BUILDING ELEMENTS (IBC TABLE 601)

BUILDING ELEMENT	FIRE RATING (HOURS)	UL ASSEMBLY
PRIMARY STRUCTURAL FRAME	0	N/A
BEARING WALLS		
EXTERIOR	0	N/A
INTERIOR	0	N/A
NON-BEARING WALLS & PARTITIONS		
EXTERIOR	0	N/A
INTERIOR	0	N/A
FLOOR CONSTRUCTION & ASSOCIATED SECONDARY STRUCTURAL MEMBERS:		
FLOOR CONSTRUCTION & ASSOCIATED SECONDARY STRUCTURAL MEMBERS	0	N/A
ROOF CONSTRUCTION & ASSOCIATED SECONDARY STRUCTURAL MEMBERS	0	N/A

FIRE PROTECTION (IBC SECTION 901, 906.1 & 907.2.1)
AUTOMATIC FIRE SPRINKLER SYSTEM REQUIRED & PROVIDED. RE: SHEET XXXXXXX
PORTABLE FIRE EXTINGUISHERS REQUIRED & PROVIDED. RE: SHEET 0410
FIRE ALARM DETECTION SYSTEM
MANUAL FIRE ALARM BOXES: NOT REQUIRED

FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS (IBC TABLE 705.5)

FIRE SEPARATION (FEET)	FIRE RESISTANCE (HOURS)
X ≥ 30'	H OCC = 0 HR A,B,S-E OCC = 0 HR

MAXIMUM AREA OF EXTERIOR WALL OPENINGS (IBC TABLE 705.6)

FIRE SEPARATION (FEET)	DEGREE OF OPENING PROTECTION	ALLOWABLE PERCENT:
X ≥ 30'	UNPROTECTED, SPRINKLERED	NO LIMIT

CONCEALED SPACES (SECTION 710)
DRAFTSTOPPING NOT REQUIRED IN NON-COMBUSTIBLE CONSTRUCTION AND BUILDINGS EQUIPPED WITH AUTOMATIC SPRINKLER SYSTEM.
FIRE RESISTING (718.2)
CONCEALED WALL SPACES (718.2.2)
DRAFTSTOPPING IN FLOORS NOT REQUIRED (718.3)
DRAFTSTOPPING IN ATTICS NOT REQUIRED (718.4)

CORRIDOR FIRE RESISTANCE RATING (TABLE 1002.2)

OCCUPANCY	OCCUPANCY LOAD SERVED BY CORRIDOR	REQUIRED FIRE RATING
A	> 30	WITH SPRINKLER = 0 HR

PLUMBING FIXTURE COUNTS - BUILDING

MINIMUM FIXTURES REQUIRED ARE CALCULATED BASED ON 50% MALE AND 50% FEMALE OCCUPANTS

ASSEMBLY
1,195 OCCUPANTS = 598 MALE, 598 FEMALE

STORAGE
5 OCCUPANTS = 3 MALE, 3 FEMALE

CLASSIFICATION	DESCRIPTION	WATER CLOSET		LAVATORIES		SHOWERS	DRINKING FOUNTAINS	SERVICE SINKS
		MALE	FEMALE	MALE	FEMALE			
ASSEMBLY CODE REQ'S	INDOOR SPORTING EVENTS	FIRST 1,500 = 1/175	FIRST 1,500 = 1/140	1,020	1/150	--	1/1,000	1
FIXTURES REQUIRED		7.97	14.95	2.99	3.99	--	1.20	1
STORAGE CODE	CHEMICAL STORAGE ROOMS	1/100	1/100	1/100	1/100	--	1/1,000	1
FIXTURES REQUIRED		.03	.03	.03	.03	--	.01	1
TOTAL FIXTURES REQUIRED		8	15	4	5	--	2	2
TOTAL FIXTURES PROVIDED		15+2*	15	11+2*	11	--	4	2

NOTES:
* UNSEX RESTROOMS

PLUMBING FIXTURE COUNTS - POOL

IBC SECTION 609
MINIMUM FIXTURES REQUIRED ARE CALCULATED BASED ON 50% MALE AND 50% FEMALE OCCUPANTS

2,000 OCCUPANTS = 1,000 MALE, 1,000 FEMALE

FIXTURES REQUIRED	WATER CLOSET		LAVATORIES		CLEANSING SHOWERS		RINSE SHOWERS	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
TOTAL FIXTURES PROVIDED*	--	--	--	--	3	3	1	1

NOTES:
* SEE SECTION ABOVE FOR TOTAL WATER CLOSETS AND LAVATORIES PROVIDED
** 7/18/2017/2007: 76 +1
*** 2/26/2017/2007: 82 +1

ENERGY CODE

CLIMATE ZONE:
3

INTERNATIONAL ENERGY CONSERVATION CODE REQUIREMENTS:

	CODE DESIGN REQUIREMENTS	PROPOSED DESIGN VALUES
WINDOWS	U-FACTOR: ≤ 0.50	U-FACTOR: SHGC: ≤ 0.30
	VISIBLE LIGHT TRANSMISSION: U-FACTOR: ≤ 0.65	VISIBLE LIGHT TRANSMISSION: U-FACTOR:
DOORS	U-FACTOR: U-FACTOR:	U-FACTOR:
OVERHEAD DOOR	METAL BUILDING	METAL BUILDING
WALL INSULATION	R-VALUE: R-13 + R-3 CONTIGUOUS INSULATION OR EQUIVALENT	R-VALUE: X
	METAL BUILDING	METAL BUILDING
ROOF INSULATION	R-VALUE: R-15 W/ R-5 THERMAL BLOCKS	R-VALUE: X
	METAL BUILDING	METAL BUILDING

NOTE: R-VALUES LISTED ARE MINIMUMS. U-FACTORS LISTED ARE MAXIMUMS

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DRAWING ISSUE

NO.	DATE	DESCRIPTION
1	2024-07-15	ISSUE FOR DESIGN DEVELOPMENT
2	2024-07-15	2024-07-15 THE CITY OF WEST MEMPHIS DOCUMENT PROCESSING

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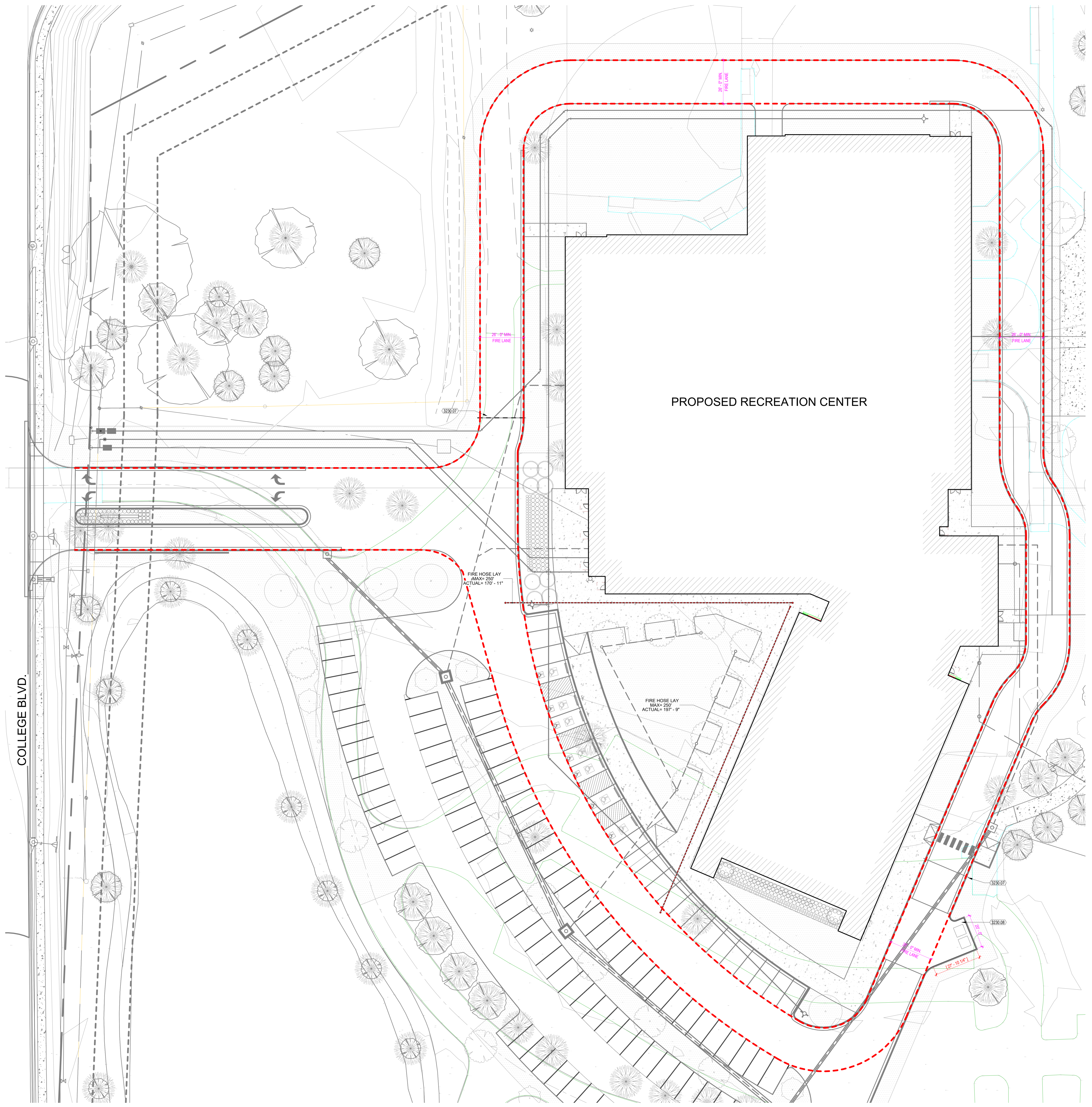
JOB No.: WESCIT00561

SHEET TITLE

CODE ANALYSIS

SHEET NUMBER

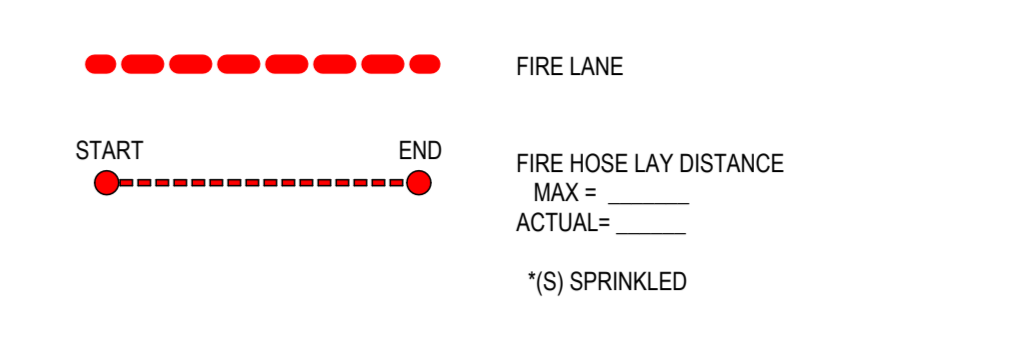
G-010



GENERAL NOTES - FIRE HOSE LAY

1. ANY DIMENSIONS INDICATED ON THIS PLAN ARE FOR LIFE SAFETY REVIEW ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES OR SIZES.
2. FIRE ACCESS ROADS TO MEET ALL APPLICABLE REQUIREMENTS OF APPENDIX D OF THE INTERNATIONAL FIRE CODE.
3. REFER TO CIVIL DRAWINGS FOR LOCATIONS OF EXISTING AND PROPOSED FIRE HYDRANTS.

LEGEND - FIRE HOSE LAY



KEYNOTES

NOTE: KEYNOTE NUMBERING IS FOR ORGANIZATIONAL PURPOSES ONLY AND NOT INTENDED TO REFERENCE A SPECIFIC CSI DIVISION

NUMBER	DESCRIPTION
3230.07	EMERGENCY BREAKAWAY GATE RE. LANDSCAPE
3230.08	ASPHALT DUMPSTER PAD

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ST HWY 191/I-40 SERV
West Memphis, AR 72301

JOB No.: WESCIT00561

SHEET TITLE

FIRE ACCESS PLAN

SHEET NUMBER

G-011

CONTRACTOR PRICING NOTE:

NOT ALL PIPING, EQUIPMENT, VALVES, APPURTENANCES, ETC. HAVE BEEN INDICATED ON THE DOCUMENTS. CONTRACTOR SHALL INCLUDE SUFFICIENT COST ALLOWANCES TO PROVIDE FULLY FUNCTIONAL SYSTEMS FOR ALL FIXTURES, EQUIPMENT AND SYSTEMS. COST ALLOWANCES SHALL INCLUDE, BUT NOT LIMITED TO, EXTENDING PIPING FROM WATER MAINS AND RISERS, DRAINAGE WASTE, VENT MAINS AND STACKS, STORM MAINS AND STACKS, NATURAL GAS MAINS AND RISERS TO PLUMBING EQUIPMENT, PLUMBING EQUIPMENT, MECHANICAL EQUIPMENT, AND FOODSERVICE EQUIPMENT. PIPING AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND PER CODE REQUIREMENTS. PLANS AND SPECIFICATIONS COVER WHERE THEY EXCEED CODE REQUIREMENTS.

PLUMBING SCOPE NOTES:

CONTRACTOR SHALL EXAMINE THE PLANS AND SPECIFICATIONS OF ALL TRADES. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE VARIOUS CONCEPTS PRESENTED BY OTHER TRADES AND ADAPT THIS WORK AND ANY ASSOCIATED PROVISIONS ACCORDINGLY. WHERE CONFLICTS EXIST BETWEEN THESE PLANS AND SPECIFICATIONS AND THOSE OF OTHER TRADES, THE MORE STRINGENT (AS DETERMINED BY THE ENGINEER) SHALL TAKE PRECEDENCE. IN PARTICULAR, WHERE ARCHITECTURAL BACKGROUND INDICATES PROGRAMMATIC DIFFERENCES IN ROOM LOCATIONS, ROOM FUNCTIONS, PLUMBING FIXTURE COUNTS, CEILING TYPES, RATED ASSEMBLY CONSTRUCTION, CLEARANCES, OR ROOM RELATIONSHIPS, THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE AND THIS CONTRACTOR SHALL ADAPT THEIR PRICING ACCORDINGLY WHILE MAINTAINING THE DESIGN INTENT REPRESENTED BY THE DOCUMENT OF THIS DIVISION.

1. ALL TOILET ROOMS WITH WATER CLOSETS AND URINALS SHALL HAVE FULL-SIZE WATER CLOSING VALVES INSTALLED BEHIND FLUSH VALVE FIXTURES.

2. ALL PIPING SHALL BE ROUTED AS HIGH AS POSSIBLE, PARALLEL AND PERPENDICULAR TO STRUCTURE. THE USE OF CUSTOM ANGLE FITTINGS SHALL BE USED AS NECESSARY TO MEET BUILDING GEOMETRY. CONTRACTOR PRICING SHALL INCLUDE COSTS ASSOCIATED WITH THESE REQUIREMENTS.

3. REFER TO FOODSERVICE DOCUMENTS FOR FIXTURES AND EQUIPMENT REQUIRING DOMESTIC WATER AND NATURAL GAS. PROVIDE BACKFLOW PREVENTERS, STRAINERS, SHUT-OFF VALVES, AND OTHER WATER/GAS APPURTENANCES AS REQUIRED FOR COMPLETE FIXTURE INSTALLATION. UNLESS NOTED OTHERWISE, PROVIDE EACH SPACE WITH 2-INCH COLD AND HOT WATER LINES, 3/4-INCH HOT WATER RETURN, AND 2-INCH MEDIUM PRESSURE GAS LINE ALONG WITH A GAS SHUT-OFF VALVE.

4. REFER TO FOODSERVICE DOCUMENTS FOR PLUMBING FIXTURES AND EQUIPMENT REQUIRING SANITARY, GREASE WASTE OR VENT CONNECTION. PROVIDE FLOOR DRAIN AND FLOOR SINKS ALONG WITH ARCHITECT WASTE PIPING AS REQUIRED FOR COMPLETE FIXTURE INSTALLATION. UNLESS NOTED OTHERWISE, PROVIDE EACH SPACE WITH 4-INCH SANITARY, 4-INCH GREASE WASTE, AND 3-INCH SANITARY VENT CONNECTIONS.

5. ALL GAS PRESSURE REGULATORS WITHOUT VENT LIMITING DEVICES OR WHEELED TAP SHALL BE INSTALLED IN SAME ROOM SHALL BE PROVIDED WITH RELIEF VENT OUTLET SIZE AS FOLLOWS:

- a. 1/2" DEVELOPED LENGTH = SIZE VENT ONE PIPE SIZE LARGER THAN RELIEF VENT OUTLET SIZE.
b. 20' DEVELOPED LENGTH = SIZE VENT TWO PIPE SIZE LARGER THAN RELIEF VENT OUTLET SIZE.
c. 30' DEVELOPED LENGTH = SIZE VENT THREE PIPE SIZE LARGER THAN RELIEF VENT OUTLET SIZE.
d. 40' DEVELOPED LENGTH = SIZE VENT FOUR PIPE SIZE LARGER THAN RELIEF VENT OUTLET SIZE.

6. PROVIDE A POINT-OF-USE THERMOSTATIC MIXING VALVE AT EACH LAVATORY AND HAND SINK. REFER TO PLUMBING FIXTURE SCHEDULE.

7. PROVIDE HOT WATER RECIRCULATION LOOP DOWN IN WET WALL BEHIND ALL LAVATORIES AND HAND SINKS.

8. SECTIONAL AND BRANCH ISOLATION VALVES SHALL BE PROVIDED IN THE DOMESTIC COLD WATER, DOMESTIC HOT WATER, DOMESTIC HOT WATER RECIRCULATION, AND NATURAL GAS PIPING THROUGHOUT THE FACILITY TO ENABLE SERVICING OF ANY PART OF THE FACILITY WITHOUT INTERRUPTION OF PLUMBING SERVICES TO ADJACENT SPACES.

9. PROVIDE WATER HAMMER ARRESTORS ON ALL DOMESTIC HOT AND COLD WATER PIPING WITH QUICK CLOSING VALVES AS DEFINED BY THE PLUMBING CODE AND WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION. WATER HAMMER ARRESTORS SHALL BE SIZED AND LOCATED IN ACCORDANCE WITH THE LATEST VERSION OF (PLUMBING DRAINAGE INSTITUTE) STANDARD PDF-WH-201.

10. ALL FLOOR DRAINS, EXCEPT DRAINS IN SHOWERS SHALL BE INSTALLED WITH PRIMER TAP AND A 1/2" LINE ROUTED FROM AN ELECTRIC FLOOR DRAIN PRIMER TAP TO TRAP PRIMER ABOVE CEILING. ALL PIPING BELOW SLAB SHALL BE ONE PIECE FROM PRIMER TAP TO STRIBUP.

11. IN ADDITION TO CLEANOUT LOCATIONS SHOWN ON DRAWINGS, CLEANOUTS SHALL BE PROVIDED IN ACCORDANCE WITH THE LOCAL GOVERNING CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL CLEANOUT LOCATION REQUIREMENTS.

12. PROVIDE DRIP PANS BENEATH ALL PLUMBING PIPING IN TELECOM, DATA, AND ELECTRICAL ROOMS.

13. PROVIDE DRIP PANS BENEATH ALL SANITARY WASTE, GREASE WASTE, AND STORM PIPING ROUTED ABOVE FOOD SERVICE SPACES.

14. PROVIDE PRIMARY CONDENSATE FROM ALL MECHANICAL EQUIPMENT INSIDE THE BUILDING. TERMINATE PRIMARY CONDENSATE OVER FLOOR RECEPTORS WITH AIR GAP. PROVIDE CONDENSATE PUMPS FOR PIPING THAT CANNOT GRAVITY DRAIN. PROVIDE CONDENSATE FROM ALL MECHANICAL EQUIPMENT OUTSIDE THE BUILDING AND TERMINATE AT THE NEAREST PRIMARY ROOF DRAIN OR APPROVED RECEPTOR WITH AIR GAP. MINIMUM CONDENSATE PIPE SIZE SHALL NOT BE LESS THAN THE DIAMETER OF THE OUTLET CONNECTION PROVIDED ON THE EQUIPMENT DRAIN. MINIMUM CONDENSATE SIZING SHALL BE AS FOLLOWS:

- a. UP TO 20 TONS = 3/4"
b. 21-40 TONS = 1"
c. 41-80 TONS = 1 1/4"
d. 81-125 TONS = 1 1/2"
e. 126-250 TONS = 2"

15. ROOF DRAINAGE IS SIZED AT A RAINFALL RATE OF 2" PER HOUR. THE PRIMARY STORM SYSTEM WILL CONNECT TO EACH PRIMARY ROOF DRAIN WILL BE PIPED TO THE SITE STORM SEWER SYSTEM. OVERFLOW DRAINS WILL TERMINATE AT GRADE THROUGH DOWNSPOUT NOZZLES. ALL VERTICAL STORM STACKS SHALL USE HORIZONTAL STORM SIZING CRITERIA.

16. PROVIDE COLD WATER HOSE BIBBS WITH ISOLATION VALVES AT THESE FOLLOWING LOCATIONS AND SPACINGS:
a. LOCKERS AND TOILET ROOMS - HOSE BIBB FOR WASH DOWN. DO NOT PROVIDE HOSE BIBB IN SINGLE TOILET ROOMS WITH NO FLOOR DRAIN.
b. POOL DECK - HOSE BIBB INSTALLED AT 50 FOOT MAXIMUM SPACING.
c. BUILDING EXTERIOR - RECESSED NON-FREEZE WALL HYDRANTS INSTALLED AT 200 FOOT MAXIMUM SPACING AND NEAR EACH ENTRY TO BUILDING.
d. ROOFS - ROOF HYDRANTS INSTALLED WITHIN 50 FEET OF ALL MECHANICAL UNITS.

17. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR BUILDING EXPANSION JOINT LOCATIONS. PROVIDE EXPANSION COMPENSATION SUPPORTS, ANCHORS, AND GUIDES AS REQUIRED FOR PROPER SUPPORT AND OPERATION OF THE PLUMBING SYSTEM. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

CONTRACTOR SHALL CARRY ALLOWANCES FOR THE FOLLOWING ITEMS DESIGNED BY OTHERS OR UNDER DEVELOPMENT AND NOT CONSISTENT WITH REMAINDER OF DOCUMENTS:

- 1. BEVERAGE CONDUIT BY OTHERS
2. PERMANENT SUBSOL DRAINAGE SYSTEM AND RETENTION WALL DRAINAGE BY OTHERS
3. SITE IRRIGATION BY OTHERS.

POOL GENERAL NOTES:

1. REFERENCE POOL EQUIPMENT DRAWINGS FOR ITEMS TO BE FURNISHED AND / OR INSTALLED AND PROVIDE ITEMS AND WORK AS REQUIRED TO COMPLETE THE INSTALLATION OF PLUMBING SYSTEMS FOR POOL EQUIPMENT. REFERENCE THE POOL EQUIPMENT DRAWINGS FOR REQUIRED ROUGH-IN AND FINAL CONNECTIONS FOR POOL EQUIPMENT.

2. REFERENCE THE POOL EQUIPMENT SHOP DRAWINGS PRIOR TO THE START OF INSTALLATION FOR ADDITIONAL REQUIREMENTS.

KITCHEN GENERAL NOTES:

1. REFERENCE KITCHEN EQUIPMENT DRAWINGS FOR ITEMS TO BE FURNISHED AND / OR INSTALLED AND PROVIDE ITEMS AND WORK AS REQUIRED TO COMPLETE THE INSTALLATION OF PLUMBING SYSTEMS FOR KITCHEN EQUIPMENT. REFERENCE THE KITCHEN EQUIPMENT DRAWINGS FOR REQUIRED ROUGH-IN AND FINAL CONNECTIONS FOR KITCHEN EQUIPMENT. REFER TO THE START OF INSTALLATION FOR ADDITIONAL REQUIREMENTS.

2. PROVIDE ITEMS AND WORK AS REQUIRED FOR A COMPLETE AND WORKING PLUMBING INSTALLATION FOR EACH PIECE OF KITCHEN EQUIPMENT. PROVIDE ROUGH-INS AND CONNECT TO THE KITCHEN EQUIPMENT WITH TRAPS, SUPPLIES, SHUT-OFF VALVES, PIPES TO THE WALL, EJECTORS, ETC AS SHOWN, SPECIFIED AND REQUIRED.

3. WHERE "FLEX" TUBING IS CALLED FOR, PROVIDE A FOUR FOOT COILED LENGTH OF "TYPE K" SOFT COPPER TUBING FROM WATER SHUT-OFF VALVE TO THE EQUIPMENT CONNECTION OF SAME SIZE AS CONNECTION TO KITCHEN EQUIPMENT WITH 1/4" BEING MINIMUM SIZE. PROVIDE CONNECTORS AND ADAPTERS AS REQUIRED.

4. VERIFY GAS LOADS AND GAS ROUGH-IN OF KITCHEN EQUIPMENT WITH THE KITCHEN EQUIPMENT SHOP DRAWINGS PRIOR TO INSTALLING GAS PIPING. PROVIDE GAS COCKS, UNIONS, ETC. AS SPECIFIED AND REQUIRED. INSTALL GAS QUICK DISCONNECTS WHERE FURNISHED WITH THE KITCHEN EQUIPMENT.

5. PROVIDE INDIRECT WASTE LINES OF SAME SIZE AS CONNECTION TO EQUIPMENT WITH 3/4" BEING MINIMUM SIZE ROUTE FROM EQUIPMENT CONNECTION POINTS INDICATED TO FLOOR DRAIN OR FLOOR SINK. PROVIDE AIR GAP OF TWO PIPE DIAMETERS MINIMUM PER CODE.

6. COMPLY WITH HEALTH DEPARTMENT REGULATIONS. PROVIDE CLEARANCE FOR CLEANING BEHIND AND UNDER EXPOSED PIPING AS REQUIRED BY HEALTH DEPARTMENT. CONFORM HEALTH DEPARTMENT REQUIREMENTS FOR LOCATIONS OF FLOOR SINKS.

7. PROVIDE AIRTIGHT SEAL AROUND PIPING PENETRATIONS THROUGH WALK-IN COOLER OR FREEZER WALLS OR CEILING.

8. DO NOT INSTALL PIPING IN COOLER OR FREEZER WALLS. INSTALL EXPOSED PIPING IN A NEAT MANNER.

9. COORDINATE FLOOR DRAIN LOCATION AND FLOOR SLOPE; REQUIREMENTS WITH THE ARCHITECT.

10. INSTALL RIM OF FLOOR DRAINS AND FLOOR SINKS BELOW FINISHED FLOOR LEVEL. SLOPE FLOOR TO DRAINS. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.

11. COORDINATE LOCATION OF VENT, WATER, AND GAS PIPING TO AVOID CONFLICT WITH OTHER TRADES.

12. CLEAN INSTALLED PLUMBING FIXTURES AND EQUIPMENT.

13. PROVIDE WALL BACKING OR SPECIFIED CARRIERS FOR THE PROPER SUPPORT OF INSTALLED WALL HUNG FIXTURES AND EQUIPMENT.

14. PROVIDE VERTICAL LIFT SPRING LOADED CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR 3-COMPARTMENT SINKS, PRE-RINSE UNITS, JANITOR SINKS, MIXING HOSE BIBBS & MIXING WALL HYDRANTS DOWNSTREAM OF SHUT-OFF VALVES.

15. SEAL AROUND INSTALLED FIXTURES AND KITCHEN EQUIPMENT WITH CAULK.

16. PROVIDE APPROPRIATE BACKFLOW PREVENTION DEVICES FOR KITCHEN EQUIPMENT REQUIRING THEM PER LOCAL AUTHORITY REQUIREMENTS. INSTALL BACKFLOW PREVENTION DEVICES FURNISHED WITH KITCHEN EQUIPMENT.

GENERAL NOTES:

1. PROVIDE A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE ARCHITECT REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS. REFER TO SPECIFICATIONS.

2. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.

3. PROVIDE TO THE ARCHITECT A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM LOCAL AND STATE INSPECTIONS. REFER TO SPECIFICATIONS.

4. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.

5. VERIFY SIZE, LOCATION AND DEPTH OF UTILITIES AT POINTS OF CONNECTION BEFORE START OF PIPING INSTALLATION.

6. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.

7. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE ROUTING.

8. INSTALL CONCEALED PIPING TIGHT TO THE STRUCTURE AND AS HIGH AS POSSIBLE.

9. VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.

10. INSTALL EXPOSED PIPING, WHERE NECESSARY, IN FINISHED AREAS TIGHT TO THE STRUCTURE, WALL OR CEILING AND AS HIGH AS POSSIBLE. INSTALL PIPING PARALLEL AND / OR PERPENDICULAR TO WALLS.

11. INSTALL VALVES AND APPURTENANCES A MAXIMUM OF 24" ABOVE CEILING IN ACCESSIBLE LOCATION WITHIN 24" OF ACCESS DOORS OR ACCESSIBLE CEILING TILES. PROVIDE PIPE AND FITTINGS TO INSTALL VALVES AND APPURTENANCES AT REQUIRED HEIGHT AND WITHIN 24" OF ACCESS DOORS OR ACCESSIBLE CEILING TILES.

12. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.

13. COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRADE BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS, FOOTING, ETC. WHERE REQUIRED AND AS NOTED ON PLANS. COORDINATE SLEEVE INSTALLATION WITH ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR BEFORE CONCRETE IS INSTALLED.

14. CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER.

15. PROVIDE TRAP PRIMERS WHERE REQUIRED BY LOCAL AUTHORITIES.

16. COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT INSTALL PIPING OVER ELECTRICAL PANELS.

17. PAINT EXPOSED OUTDOOR GAS PIPING USING RUST INHIBITOR PAINT. COORDINATE PAINT AND COLOR WITH THE ARCHITECT AND / OR OWNER.

18. COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 10" MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2" CLEARANCE FROM ALL OTHER EQUIPMENT.

19. INSULATE PIPING ROUTED IN EXTERIOR BUILDING WALLS WITH MINIMUM 2" BATT INSULATION TO PREVENT FREEZING.

20. PROVIDE "HEAVY-DUTY" NO-HUB COPPLINGS ON STORM PIPING, INCLUDING CONNECTIONS TO ROOF DRAINS AND SANITARY PIPING 4" AND LARGER. SEE DIVISION 22 SPECIFICATIONS FOR MORE INFORMATION.

21. PROVIDE TRANSITION ADAPTER COUPLINGS FOR CONNECTION OF PVC DWV TO CAST IRON STORM PIPE AT SLAB ON GRADE. SEE DIVISION 22 SPECIFICATION SECTION STORM DRAINAGE PIPING AND SPECIALTIES FOR MORE INFORMATION.

22. PROVIDE TRANSITION ADAPTER COUPLINGS FOR CONNECTION OF PVC DWV TO CAST IRON STORM PIPE AT SLAB ON GRADE. SEE DIVISION 22 SPECIFICATION SECTION STORM DRAINAGE PIPING AND SPECIALTIES FOR MORE INFORMATION.

23. FLOW CONTROL VALVES SHALL BE SIZE 1/2" AND SET AT 0.5 GPM UNLESS NOTED OTHERWISE.

24. WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE.

25. PROVIDE VERTICAL LIFT SPRING LOADED CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR MOP SINK FAUCETS DOWNSTREAM OF SHUT-OFF VALVES.

26. PROVIDE WALL PIPES AT PIPING PENETRATIONS OF ELEVATED WATERPROOF FLOOR SLABS. REFER TO SPECIFICATIONS.

27. PAINT EXPOSED INDOOR WATER PIPING IN FINISHED SPACES. COORDINATE PAINT AND COLOR WITH THE ARCHITECT AND / OR OWNER.

28. PROVIDE SEISMIC RESTRAINTS AS NEEDED FOR THE MECHANICAL SYSTEMS IN THE PROJECT BASED ON THE SEISMIC ANALYSIS REQUIRED BY THE SPECIFICATIONS.

29. INSTALL OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT AND PIPING FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.

30. SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.

PLUMBING SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

Table with 2 columns: STANDARD MOUNTING HEIGHTS and PIPING SYMBOLS. Lists various plumbing symbols and their corresponding mounting heights (e.g., CLINIC SERVICE SINKS (RIM) 30", HOSE BIBB (CENTERLINE) 36").

Table with 2 columns: ANNOTATION and SYMBOLS. Lists various annotation symbols and their meanings (e.g., PLUMBING PLAN NOTE CALLOUT, PLUMBING EQUIPMENT DESIGNATION).

Table with 2 columns: ABBREVIATIONS and SYMBOLS. Lists various abbreviations and their corresponding symbols (e.g., ADA AMERICANS WITH DISABILITIES ACT, AFF ABOVE FINISHED FLOOR).

LINETYPE LEGEND

Table with 2 columns: EXISTING and NEW. Lists various line types and their corresponding symbols (e.g., EXISTING, NEW, DEMOLISH, FUTURE).

Table with 2 columns: PIPING LINETYPES and SYMBOLS. Lists various piping line types and their corresponding symbols (e.g., CW DOMESTIC COLD WATER (CW), SCW SOFTENED COLD WATER (SCW)).

Table with 2 columns: HATCHING LEGEND and SYMBOLS. Lists various hatching patterns and their corresponding symbols (e.g., ENLARGED PLAN, NOT IN SCOPE (NIS)).

HATCHING LEGEND

Table with 2 columns: ENLARGED PLAN and NOT IN SCOPE (NIS). Lists various hatching patterns and their corresponding symbols.

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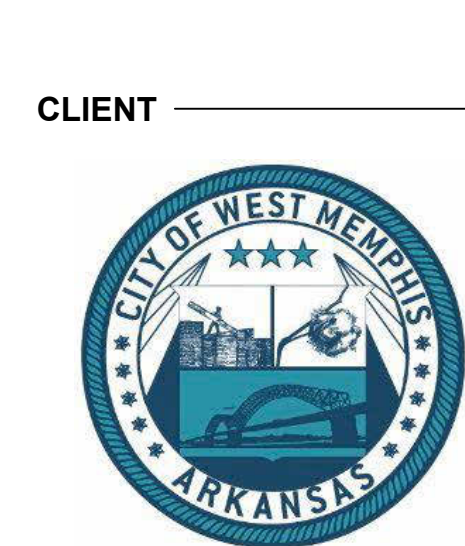
HATCHING LEGEND

Table with 2 columns: ENLARGED PLAN and NOT IN SCOPE (NIS). Lists various hatching patterns and their corresponding symbols.

SEAL

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF THE PUBLIC RECORD. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES.

CLIENT



City of West Memphis

DRAWING ISSUE

Table with 2 columns: ISSUE NUMBER and DESCRIPTION. Lists various drawing issues and their descriptions (e.g., 1. PLUMBING PLAN NOTE CALLOUT).

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JOB INFO

JOB No.: WESCIT00561

SHEET TITLE

PLUMBING GENERAL NOTES AND LEGEND

SHEET NUMBER

P-000

DAVID S. WOLFORD

REGISTERED PROFESSIONAL ENGINEER
No. 4884

CITY OF WEST MEMPHIS RECREATION CENTER

ST HWY 191/40 SERV. West Memphis, AR 72301

EXPIRES 12/31/2028

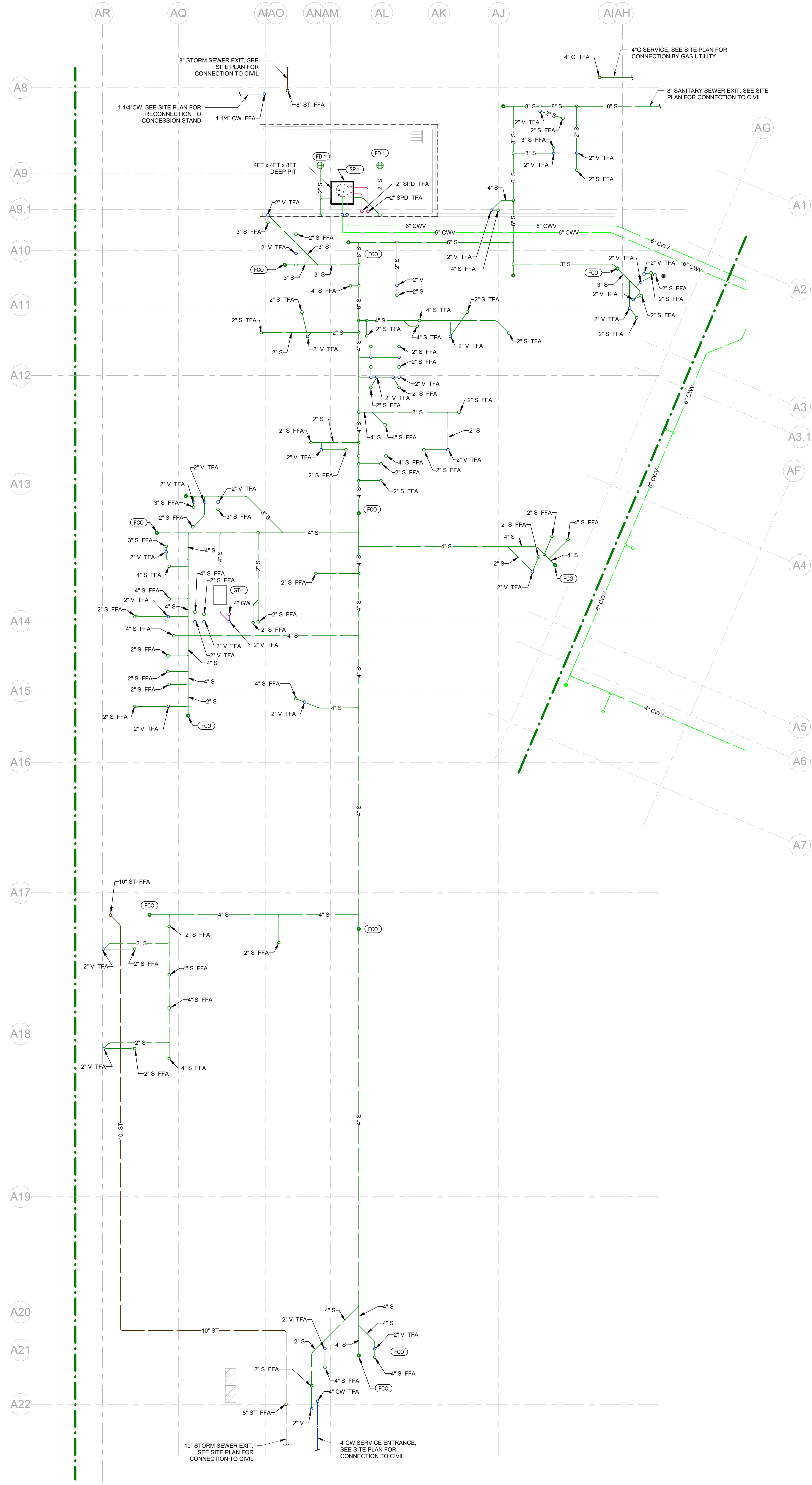


Table with 2 columns: Issue No., Description. Contains revision information.

PROJECT LƯƠNG logo and contact information for Houston, San Antonio, and Santa Monica offices.

HENDERSON ENGINEERS logo and contact information for Lenexa, KS office.

CITY OF WEST MEMPHIS RECREATION CENTER project information.



PLUMBING UNDERGROUND - SECTOR B 1/8" = 1'-0"

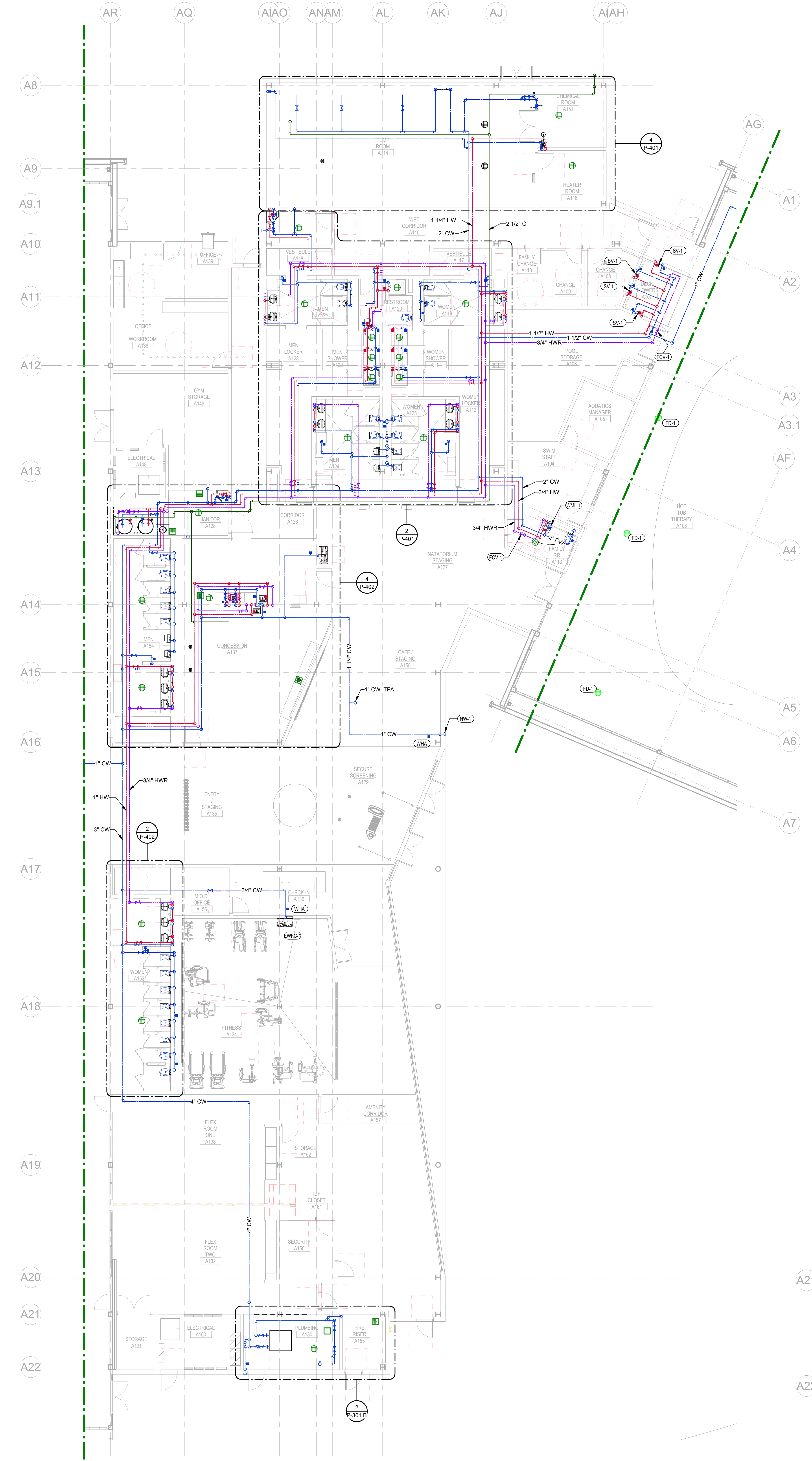


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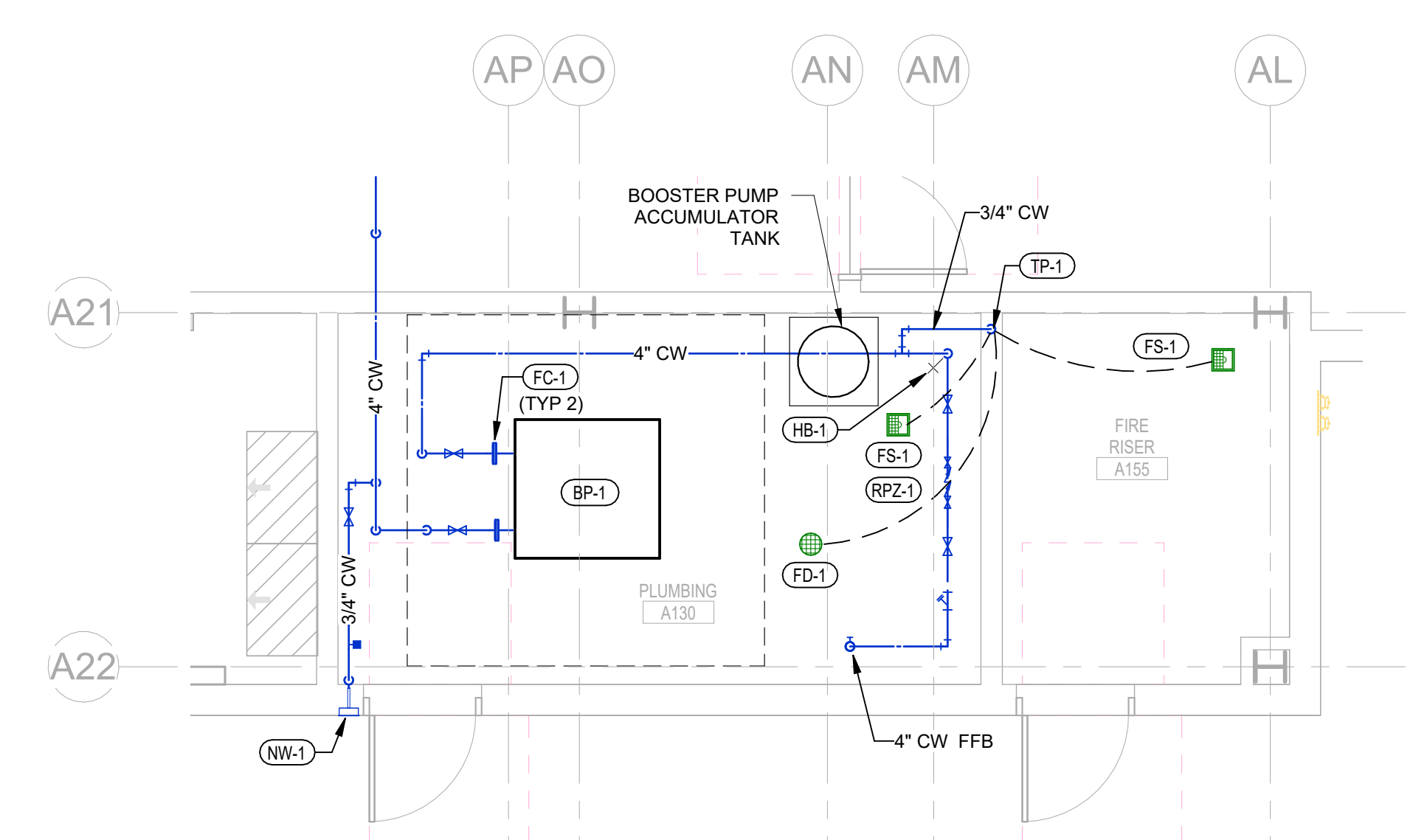
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CITY OF WEST MEMPHIS RECREATION CENTER project details.



1 PLUMBING WATER & GAS LEVEL 01 PLAN - SECTOR B 1/8" = 1'-0"



2 PLUMBING WATER & GAS LEVEL 01 PLAN - PLUMBING ROOM A130 1/4" = 1'-0"

GAS LOADS

Mechanical Equipment				
EQUIPMENT DESIGNATION	QUANTITY	DESCRIPTION	CFH	TOTAL CFH
RTU 01	1	SPACE HEATING	400	400
RTU 02	1	SPACE HEATING	400	400
RTU 03	1	SPACE HEATING	400	400
RTU 04	1	SPACE HEATING	400	400
RTU 05	1	SPACE HEATING	400	400
RTU 06	1	SPACE HEATING	150	150
RTU 07	1	SPACE HEATING	200	200
RTU 08	1	SPACE HEATING	250	250
RTU 09	1	SPACE HEATING	130	130
RTU 10	1	SPACE HEATING	120	120
TOTAL=			2,850	2,850

Plumbing Equipment				
EQUIPMENT DESIGNATION	QUANTITY	DESCRIPTION	CFM	TOTAL CFH
WHG-1	1	GAS WATER HEATER	300	300
WHG-2	1	GAS WATER HEATER	300	300
TOTAL=			600	600

Food Service...				
EQUIPMENT DESIGNATION	QUANTITY	DESCRIPTION	CFM	TOTAL CFH
33	1	GAS FLOOR FRYER	175	175
45	1	CHARBROILER GRILL	99	99
TOTAL=			274	274

TOTAL BUILDING LOAD				
Total	-	Mechanical Equipment	-	2,850
Total	-	Plumbing Equipment	-	600
Total	-	Food Service Equipment	-	274
TOTAL=				3,724

DOMESTIC BOOSTER PUMP SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	TYPE (NOTE A)	DISCHARGE HEAD (PSI)	SUCTION HEAD (PSI)	NUMBER OF PUMPS	SYSTEM FLOW RATE (GPM)	INDIVIDUAL PUMP CAPACITY (%)	SUCTION HEAD SIZE (IN.)	DISCHARGE HEAD SIZE (IN.)	ELECTRICAL (NOTE B)	NO. OF POLES	HP	ACCUMULATOR TANK SIZE (GAL.)	WEIGHT (LB)	NOTES	
BP-1	DOMESTIC BOOSTER	GRUNDFOS	HYDRO MPC-E 3CRE 15.3	T-VFD	62.80	35.16	3	176	50	4"	4"	460V	3	1	5	68.0	680	A-E

- NOTES:
- BOOSTER PUMP CONFIGURATION TYPES: T-VFD = TRIPLEX W/ VARIABLE FREQUENCY DRIVE FOR EACH VERTICAL MULTI-STAGE PUMP. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
 - MOTOR HORSEPOWER SHOWN IS FOR ONE PUMP.
 - PROVIDE WITH CONTROL PANEL. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
 - PROVIDE WITH DISCHARGE HEADER PRESSURE IS 79 PSI.
 - PROVIDE PUMPS WITH SCHEDULED DESIGN FLOW RATE WITH TOTAL DYNAMIC HEAD + DISCHARGE PRESSURE - SUCTION PRESSURE + 2PSI FOR SYSTEM LOSSES.

GAS STORAGE ASME WATER HEATER SCHEDULE

MARK	MANUFACTURER	MODEL#	AREA SERVED (GALLONS)	TANK SIZE (GALLONS)	INPUT (MBH)	ELECTRICAL DATA	RECOVERY (GPM)	EFFICIENCY	WEIGHT (LB)	NOTES	
WHG-1	A.O. SMITH	B7H-300	FULL BLDG	119	300	120	1	562	0.96	1900	A, B, C, D
WHG-2	A.O. SMITH	B7H-300	FULL BLDG	119	300	120	1	562	0.96	1900	A, B, C, D

- NOTES:
- 80°F TEMPERATURE RISE WITH 140°F OPERATING TEMPERATURE.
 - 150# ASME TANK CONSTRUCTION.
 - ULTRA LOW NOX TYPE - RESIDUAL NOX IS LESS THAN 14 mg /hour. COMPLIES WITH SCAQMD RULE 11462.
 - FURNISH WITH CONDENSATE NEUTRALIZATION KIT TO MATCH HEATER INPUT. A.O. SMITH # CDS SERIES.

RECIRCULATION PUMP SCHEDULE

MARK	MANUFACTURER	MODEL	LOCATION	GPM	HEAD (FT.)	CONNECTION	ELECTRICAL DATA	NOTES	
RP-1	BELL & GOSSETT	NBF-22U	JANITOR A128	2.5	11	3/4"	120	1	1/18

- NOTES:
- ALL LEAD FREE CAST BRONZE BOOSTER.
 - PROVIDE WITH STRAINER UPSTREAM OF PUMP.
 - PROVIDE ADJUSTABLE SURFACE MOUNTED ADJUSTAT - HONEYWELL L6000C.

PLUMBING ASME EXPANSION TANK SCHEDULE

MARK	MANUFACTURER	MODEL	TANK SIZE (GALLONS)	MIN. ACCEPTANCE VOLUME (GALLONS)	AIR PRESSURE SETTING (PSI)	SERVICE	WEIGHT (LB)	NOTES
ET-1	AMTROL	ST-30V-C	14	9	0	WHG-1 & 2	59	A

- NOTES:
- CHARGE TANK WITH AIR TO IDENTICAL PRESSURE AS STATIC DOMESTIC WATER PRESSURE.

CONDENSATE PUMP SCHEDULE

MARK	MANUFACTURER	MODEL	LOCATION	PLENUM RATED (Yes/No)	MAX LOAD SERVED (NOMINAL COOLING TONS)	FLOWRATE GAL/HR	HEAD (FT WGT)	SHUTOFF HEAD (FT WGT)	RESERVOIR SIZE (GAL.)	ELEC DATA (1 PHASE)		NOTES
										HP	FLA @ 120V / FLA @ 240V	
CP-1	LITTLE GIANT	VCCA-20P		Yes	30	40	12	17	0.3	1.5	0.6	A,B,C,D,E
CP-1	LITTLE GIANT	VCCA-20P		Yes	30	40	12	17	0.3	1.5	0.6	A,B,C,D,E
CP-1	LITTLE GIANT	VCCA-20P		Yes	30	40	12	17	0.3	1.5	0.6	A,B,C,D,E
CP-1	LITTLE GIANT	VCCA-20P		Yes	30	40	12	17	0.3	1.5	0.6	A,B,C,D,E
CP-1	LITTLE GIANT	VCCA-20P		Yes	30	40	12	17	0.3	1.5	0.6	A,B,C,D,E

- NOTES:
- REFER TO ELECTRICAL PLANS FOR ELECTRICAL JUNCTION BOX LOCATION.
 - PROVIDE WITH HIGH LEVEL SAFETY SWITCH OR PUMP FAILURE SAFETY SWITCH.
 - FOR NON-CRITICAL COOLING APPLICATIONS. COORDINATE INTERLOCK OF SAFETY SWITCH WITH MECHANICAL FAN COIL UNIT TO SHUT DOWN UNIT IN THE EVENT OF HIGH LIQUID LEVEL IN ESSERVOIR OR PUMP FAILURE.
 - FOR CRITICAL COOLING APPLICATIONS. COORDINATE INTERLOCK OF SAFETY SWITCH TO SIGNAL AN ALARM AT THE BAS IN THE EVENT OF HIGH LIQUID LEVEL IN RESERVOIR OR PUMP FAILURE.
 - ADJUSTABLE VOLTAGE FOR SAFETY SWITCH (HIGH LEVEL OR PUMP FAILURE) IS 24 VOLTS (CLASS 2 LOW VOLTAGE CIRCUIT).
 - 24 VOLTS (CLASS 2 LOW VOLTAGE CIRCUIT).
 - LOCATE RESERVOIR BELOW THE DRAIN OUTLET OF HVAC UNIT SERVED TO ALLOW FREE DRAINAGE BY GRAVITY INTO THE PUMPS RESERVOIR. LOCATE PUMP IN AN ACCESSIBLE LOCATION PER MANUFACTURERS INSTRUCTIONS.
 - PUMP SHALL BE TESTED AND LABELLED PER UL STANDARD 2043 FOR USE IN A RETURN AIR PLenum.

PLUMBING FIXTURES CONNECTION SCHEDULE

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
9 th FLOOR DRAIN				
DRINKING FOUNTAIN	1/2"		2"	1 1/2"
FLOOR DRAIN			2"	2"
JANITOR'S SINK	1/2"	1/2"	3"	2"
LAVATORY/HAND SINK	1/2"	1/2"	2"	1 1/2"
SINK	1/2"	1/2"	2"	2"
URINAL	1" (NOTE 2)	1"	2"	2"
WATER CLOSET (FLUSH VALVE)	1 1/4" (NOTE 1)		4"	2"
WATER CLOSET (FLUSH VALVE)	1 1/4" (NOTE 1)		4"	2"

- NOTES:
- PIPE SIZES SHOWN ARE MINIMUM.
- (NOTE 1) PROVIDE 1 1/4" CW TO FLUSH VALVE. REDUCE TO 1" PRIOR TO CONNECTING TO FLUSH VALVE INLET AT INSIDE OF WALL.
- (NOTE 2) PROVIDE 1" CW TO FLUSH VALVE. REDUCE TO 3/4" PRIOR TO CONNECTING TO FLUSH VALVE INLET AT INSIDE OF WALL.

SEWAGE EJECTOR SCHEDULE

MARK	MANUFACTURER	MODEL	LOCATION	GPM	HEAD (FT.)	DISCHARGE SIZE (IN.)	ELECTRICAL	HP	NOTES
SP-1	WEIL	2442Z	PUMP ROOM A114	40	38	2"	460V 3 PH	0.75	A-J

- NOTES:
- PROVIDE WITH WEIL #8101E DUPLEX CONTROL PANEL. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
 - PROVIDE WITH WEIL #8150-7031-7072 DUPLEX CONTROL PANEL. REFER TO SPECIFICATIONS FOR MORE INFORMATION. DISCONNECT IS PROVIDED BY DIVISION 26.
 - PROVIDE DISCHARGE VALVE, FULL PORT BALL VALVE AND FLOT SERIES 14-6655-051 BALL TYPE NON-CLOG CHECK VALVE.
 - REFER TO DETAIL FOR MORE INSTALLATION INFORMATION.
 - 8" SQUARE BY 6" DEEP CONCRETE BASIN. SEE STRUCTURAL DRAWINGS.
 - INFORMATION IS FOR ONE PUMP. PROVIDE DUPLEX SYSTEM.
 - FURNISH WITH RAIL RETRIEVAL SYSTEM. WEIL #2013.
 - PROVIDE WEIL #894K2309 BASIN COVER WITH BLANK OPENINGS.
 - PROVIDE BILCO JAL-1K-36" X 48" DOOR OVER EJECTOR PIT. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
 - PROVIDE WITH FOUR WEIL #8230 TETHERED FLOT SWITCHES.
 - PROVIDE WEIL #8251 NEMA 6F JUNCTION BOX, POWER & FLOAT SWITCH WIRING TO JUNCTION BOX BY DIVISION 26.

PLUMBING FIXTURE SCHEDULE

PLUMBING PLAN MARK	DESCRIPTION
DSN	DOWNPOUT NOZZLE. JAY R. SMITH # 1707, CAST BRONZE BODY AND FLANGE. PROVIDE OUTLET SIZE AS SHOWN ON PLANS.
EES	EMERGENCY EYEWASH AND SHOWER. GUARDIAN # 1920FC, 10" SAFETY ORANGE ABS SHOWER HEAD, 30 GPM AT 30 PSI. CHROME-PLATED STAY-OPEN BALL VALVES. 1 1/2" DIAMETER STAINLESS STEEL. TWO FILTERED SPRAY HEADS WITH SELF-REGULATING FLOW CONTROL AND DUST COVERS. POWDER COATED ALUMINUM FLANGE AND WASTE ARM WITH CLEANOUT PLUG AND FITTINGS. CAST ALUMINUM FLOOR FLANGE, AND 1-1/4" INLET.
EMV-1	EMERGENCY MIXING VALVE - POWERS # E5150-AF05012. BRONZE BODY WITH ROUGH BRONZE FINISH. CORROSION RESISTANT INTERNAL PARTS. CHECK STOPS WITH REMOVABLE STRAINERS. DUAL INTERNAL COLD WATER BYPASS. PARAFFIN FLED TEMPERATURE SENSITIVE DIAPHRAGM. CONTROL OUTLET. CAPABLE OF 4 GPM WITH A PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 1.0 GPM. AND STAINLESS STEEL WALL-MOUNTED CABINET. MAXIMUM TEMPERATURE STOP SET FOR 90°F.
EWFC-1	ELECTRIC WATER - BOTTLE FILLER COOLER (ADA ACCESSIBLE). SLOAN #RS120 UNL-RS-50 BARBER FREE LEAD FREE MOLYBRADEN COIL WITH BOTTLE FILLING STATION. FRONT AND SIDE PUSH ACTUATOR BARS. STAINLESS STEEL BOWL. LENOX POLYESTER ESTER SAFETY BURBLER AND GALVANIZED STEEL FRONT AND SIDES. CHILLER WITH CAPACITY OF 8.0 GALLONS PER HOUR. AT 50F INLET 60F OUTLET AND 70F AMBIENT TEMPERATURES. BOTTLE FILLING STATION. ELECTRONIC SENSOR FOR TOUCHLESS ACTION WITH AUTO 20-SECOND SHUT OFF. UNIT PROVIDES 1.2GPM WITH LAMINAR FLOW TO MINIMAL SPLASHING. TRIM: MCGUIRE # L2F165CCLN LEAD FREE BRASS STOP VALVE WITH RISER AND ESCUTCHEON. MCGUIRE # B8872CF 1-1/4" 17 GAUGE CAST CHROME PLATED BRASS ADJUSTABLE TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON. AND SUITABLE CARRIER WITH STANCHIONS TO FLOOR. ELECTRICAL REQUIREMENTS: 120V-VOLT, 5.3 FULL LOAD AMPS.
FC-1	ELECTRICAL CONNECTOR. LIMITED MODEL #WFLX1. 4" X 12" LONG CORRUGATED 316L STAINLESS STEEL BELLOWS AND 304 STAINLESS STEEL SINGLE BRAID WITH CLASS 150 STAINLESS STEEL FLANGE ON EACH PIPE WITH MAXIMUM OPERATING PRESSURE OF 181 PSI.
FCO	FLOOR CLEANOUT. JAY R. SMITH. CAST IRON BODY. FLASHING FLANGE WITH CLAMPING COLLAR. ABS FLUSH AND ADJUSTABLE. ROUND. UNFINISHED. NICKEL BRONZE. TOP # 4031L (F-C), SCROTTED TOP FOR EXPOSED. FLUSH WITH FINISHED FLOOR. APPLICATION # 4031L (F-C-1). STAINLESS STEEL MARKER FOR INSTALLATION IN CARPETED FLOOR AREAS. # 4151 (F-C), 1/8" RECESS FOR INSTALLATION IN TILE AND GRANITE FLOOR AREAS. # 4151 (F-C), 1/8" RECESS FOR INSTALLATION IN TERRAZZO AND SIMILAR POURED FLOOR AREAS). REFER TO SPECIFICATION FOR INSTALLATION.
FCV-1	FLOW CONTROL VALVE. FLOW DESIGN # ICSS "AUTOFLOW" SERIES 300 STAINLESS UNION BODY WITH NICKEL PLATED UNION NUT. STAINLESS STEEL PRESSURE COMPENSATING CARTRIDGE. MEETING NSF #1 ANNEK G. NAMEPLATE AND 12" VALVE BODY SIZE UNLESS SHOWN OTHERWISE ON PLANS. PROVIDE 0.5 GPM FLOW RATE CARTRIDGE UNLESS SHOWN OTHERWISE ON PLANS.
FD-1	FLOOR DRAIN. JAY R. SMITH # 200SL (A), CAST IRON BODY AND CLAMPING COLLAR. ADJUSTABLE 6" ROUND NICKEL BRONZE STRAINER. PROVIDE TRAP PRIMER PORT IF TRAP PRIMER IS PROVIDED ON THE DRAWINGS. USE PUSH-IN JOINT OF OUTLET SIZE AS SHOWN ON PLANS.
FS-1	FLOOR SINK. JAY R. SMITH # 3131L (1-12), 6" DEEP CAST IRON BODY WITH ADA RESISTING ENAMELED INTERIOR. ANCHOR FLANGE WITH SEEPAGE HOLES. CLAMP COLLAR. ALUMINUM SEDIMENT BUCKET, AND 12" SQUARE NICKEL BRONZE RIM AND HALF GRATE. USE PUSH-IN JOINT OF OUTLET SIZE AS SHOWN ON PLANS.
FS-2	FLOOR SINK. JAY R. SMITH # 3121L (1-12), 6" DEEP CAST IRON BODY WITH ADA RESISTING ENAMELED INTERIOR. ANCHOR FLANGE WITH SEEPAGE HOLES. CLAMP COLLAR. ALUMINUM SEDIMENT BUCKET, AND 12" SQUARE NICKEL BRONZE RIM AND HALF GRATE. USE PUSH-IN JOINT OF OUTLET SIZE AS SHOWN ON PLANS.
GT-1	GREASE TRAP. SCHER, 68-75, 75 GALLON CAPACITY. 47 L X 37 W X 42-3/4" TOTAL DIMENSION. 26-1/2" OUTLET INVERT. WITH P24-GI PEDESTRIAN RATED POLY COVER SHALL PROVIDE WATERGAS TIGHT SEAL FOR INDOOR INSTALLATION AND ADJUSTABLE COVER ADAPTORS.
HB-1	HOSE BIBB. PRIMER PRODUCTS # C-2562P 75. FINISHED CHROME PLATED BRASS 3/4" MALE INLET. 3/4" THREADED HOSE CONNECTION. LOOSE KEY HANDLE. AND ASSE 1011 INTEGRAL VACUUM BREAKER.
HJ-1	HUB DRAIN. PROVIDE A TRAP BELLOW FLOW FINISHED FLOOR AND SUB THE BELL END OF PIPE 4" ABOVE FINISHED FLOOR. SIZE AS SHOWN ON FLOOR PLANS.)
JS-1	JANITOR'S SINK. STERN-WILLIAMS # SSC-1500. 24" X 24" X 12" CORNER MODEL. TERRAZZO BASIN WITH ONE PIECE STAINLESS STEEL. CAP AND 3/4" TRAP. STAINLESS STEEL DRAIN BODY. FAUCET, CHICAGO FAUCET # 887-CP FAUCET WITH WALL BRACE. INTEGRAL VACUUM BREAKER. PAL HOOK. AND 3/4" MALE HOSE THREADED OUTLET. SECURE FAUCET IN WALL WITH BACKDRAG. TRIM: # BP TYPE 304, 20 GAUGE, STAINLESS STEEL WALL SURROUNDS. # T-35 THREE FOOT LONG REINFORCED HOSE WITH 3/4" CHROME COUPLING AND WALL HOOK. AND # T-40 24" STAINLESS STEEL MOP HANGER.
NW-1	NON-FREEZE WALL HYDRANT. PRER PRODUCTS # C-6AN1K1. SATIN NICKEL PLATED BRASS. 1/2" MALE INLET. 1/2" MALE OUTLET. 3/4" TRAP. STAINLESS STEEL CONNECTION. LOOSE KEY HANDLE. HYDRANT LENGTH AS REQUIRED FOR INSTALLED WALL CLAMP. HYDRANT WALL CLAMP. BRASS BOX WITH SATIN NICKEL PLATED FINISH AND INTEGRAL ASSE 1052 DOUBLE CHECK VACUUM BREAKER.
ORD-1	OVERFLOW ROOF DRAIN. JAY R. SMITH # 1087Y (EOX-C-R-CID), 15" DIAMETER CAST IRON BODY. FLASHING CLAMP. GRAVEL STOP. UNDERDECK CLAMP. SUMP RECEIVER. HUBLESS OUTLET. FIXED EXTENSION - HEIGHT AS REQUIRED BY INSTALLED INSULATION THICKNESS. CAST IRON DOME BOLTED OR LOCKED DOWN AND 2" HIGH WATER DAM. PROVIDE OUTLET SIZE AS SHOWN ON PLANS.
ORD-2	OVERFLOW ROOF DRAIN. JAY R. SMITH # 1087Y (EOX-C-R-CID), 15" DIAMETER CAST IRON BODY. FLASHING CLAMP. GRAVEL STOP. UNDERDECK CLAMP. SUMP RECEIVER. HUBLESS OUTLET. FIXED EXTENSION - HEIGHT AS REQUIRED BY INSTALLED INSULATION THICKNESS. CAST IRON DOME BOLTED OR LOCKED DOWN AND 2" HIGH WATER DAM. PROVIDE OUTLET SIZE AS SHOWN ON PLANS.
RD-1	ROOF DRAIN. JAY R. SMITH # 1010Y (EOX-C-R-CID), 15" DIAMETER CAST IRON BODY. FLASHING CLAMP. GRAVEL STOP. UNDERDECK CLAMP. SUMP RECEIVER. HUBLESS OUTLET. FIXED EXTENSION - HEIGHT AS REQUIRED BY INSTALLED INSULATION THICKNESS. AND CAST IRON DOME BOLTED OR LOCKED DOWN. PROVIDE OUTLET SIZE AS SHOWN ON PLANS.
RD-2	ROOF DRAIN. JAY R. SMITH # 1010Y (EOX-C-R-CID), 20" DIAMETER CAST IRON BODY. FLASHING CLAMP. GRAVEL STOP. UNDERDECK CLAMP. SUMP RECEIVER. HUBLESS OUTLET. FIXED EXTENSION - HEIGHT AS REQUIRED BY INSTALLED INSULATION THICKNESS. AND CAST IRON DOME BOLTED OR LOCKED DOWN. PROVIDE OUTLET SIZE AS SHOWN ON PLANS.
RH-1	SANITARY ROOF HYDRANT. HOEFTNER "EXECUTIVE ROOF HYDRANT" MEETING ASSE #107 WITH 3/4" HOSE CONNECTION. 1" INLET CONNECTION. VACUUM BREAKER MEETING ASSE #1052. STAINLESS STEEL RESERVOIR AND ROOF MOUNTING FLANGE.
RPZ-1	REDUCED PRESSURE ZONE BACKFLOW PREVENTER. WATTS # 967-NRS. MEETING ASSE 1013. 304 STAINLESS STEEL BODY AND SLEEVE. QUARTER TURN TEST COCKS. RESILIENT SEATED NON-RETURN STEM VALVES AND WATTS #777-DI-FOA EPOXY COATED CAST IRON STRAINER AND # 957AG AIR GAP FITTING.
RPZ-2	REDUCED PRESSURE ZONE BACKFLOW PREVENTER. WATTS # LF900T.3. MEETING ASSE 1013. LEAD FREE CARTRIDGE BRONZE STRAINER AND # 909AG AIR GAP FITTING.
SV-1	SHOWER VALVE. SYMONDS # 9005-X-PLR. PISTON TYPE PRESSURE BALANCING MIXING VALVE WITH BRASS STEM. MEETING ASSE 1016P. SINGLE BLADE LEVER HANDLE. SET ADJUSTABLE LIMIT STOP SCREW TO 110F. INTEGRAL SERVICE STOPS. 2.0 GPM "CLEAR-FLO" SHOWER HEAD WITH ARM AND FLANGE.
SV-2	SHOWER VALVE (ADA ACCESSIBLE). SYMONDS # 9005-X-PLR. PISTON TYPE PRESSURE BALANCING MIXING VALVE WITH BRASS STEM. MEETING ASSE 1016P. SINGLE BLADE LEVER HANDLE. SET ADJUSTABLE LIMIT STOP SCREW TO 110F. INTEGRAL SERVICE STOPS. DIVERTER VALVE. 2.0 GPM "CLEAR-FLO" SHOWER HEAD WITH ARM AND FLANGE. 2.0 GPM WALL HAND SHOWER WITH FLEXIBLE METAL HOSE. IN-LINE VACUUM BREAKER. WALL CONNECTION AND FLANGE. AND 3/4" SLIDE BAR.
TD-1	SHOWER TRENCH DRAIN. REFER TO ARCHITECTURAL FOR SPEC.
TD-2	TRENCH DRAIN (POOL ZURN # 886-P02 2.5" WIDE HIGH DENSITY POLYETHYLENE TRENCH). COMPOSITE TRENCH DRAIN WITH HELIX-DRIP. WITH POLYETHYLENE GRATE. CUT IN 24" SECTIONS FOR REQUIRED LENGTH AS SHOWN ON FLOOR PLAN. PROVIDE WITH END CAP OR BOTTOM OUTLET AS REQUIRED. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
TMV-1	SOLID LEAD FREE BRASS OR BRONZE BODY. THERMOSTATIC WAX ELEMENT CORROSION RESISTANT INTERNAL PARTS. AND INTEGRAL CHECKS. CAPABLE OF 1.6 GPM WITH A 20 PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 0.25 GPM.
TP-1	TRAP PRIMER. PRECISION PLUMBING PRODUCTS # PR-500. PRIME RITE. CORROSION RESISTANT BRASS BODY. "O" RING SEALS. 1/2" INLET AND OUTLET. AND INTEGRAL VACUUM BREAKER. INSTALL THE VALVE AT A MINIMUM OF 12" ABOVE FINISHED FLOOR. PROVIDE WITH DISTRIBUTION # DU-2 OR DU-4 FOR TWO DRAIN CONNECTIONS.
TP-2	TRAP PRIMER. PRECISION PLUMBING PRODUCTS # MP-500-115V "MIN PRIME ELECTRONIC" CORROSION RESISTANT BRASS BODY. "O" RING SEALS. 1/2" INLET AND OUTLET. SOLENOID VALVE ACTUATOR AND INTEGRAL VACUUM BREAKER. CONTROL PANEL WITH INTEGRAL TIMER. INSTALL THE VALVE AND CONTROL PANEL ABOVE CEILING. ELECTRICAL REQUIREMENTS: 120V 1PH AT 1 FLA.
UCL-1	UNDERCOUNTER LAVATORY. WILSONART # AV1812 RECTANGLE ADA RAMP VANITY. REFER TO ARCHITECTURAL FOR SIZE AND COUNTERTOP WITH CHEMICALLY BONDED ADHESIVE AND SEAM KIT. FAUCET: SLOAN #SF-2450. BATTERY SENSOR. VANDAL RESISTANT. LEAD FREE 0.5 GPM AERATOR. TRIM: MCGUIRE # 155A GRID DRAIN WITH TAILPIECE. MCGUIRE # L2F165CCLN LEAD FREE BRASS LOOSE KEY COMPRESSION ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS. MCGUIRE # B8872CF 1-1/4" 17 GAUGE CAST CHROME PLATED BRASS ADJUSTABLE T-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON.
UCL-2	UNDERCOUNTER LAVATORY. WILSONART # AV1812 RECTANGLE ADA RAMP VANITY. REFER TO ARCHITECTURAL FOR SIZE AND COUNTERTOP WITH CHEMICALLY BONDED ADHESIVE AND SEAM KIT. FAUCET: SLOAN #SF-2450. BATTERY SENSOR. VANDAL RESISTANT. LEAD FREE 0.5 GPM AERATOR. TRIM: MCGUIRE # 155A GRID DRAIN WITH TAILPIECE. MCGUIRE # L2F165CCLN LEAD FREE BRASS LOOSE KEY COMPRESSION ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS. MCGUIRE # B8872CF 1-1/4" 17 GAUGE CAST CHROME PLATED BRASS ADJUSTABLE T-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON.
UR-1	URINAL. KOHLER #K-5016-ET "DEXTER". WHITE VITREOUS CHINA FIXTURE WITH FLUSHING RM. 3/4" TOP SPRUD. AND SIFON FLUSH ACTION. VALVE: SLOAN "SLDQY" G2 OPTIMA PLUS# 818. 0.5 GALLON PER FLUSH. EXPOSED CHROME-PLATED DIAPHRAGM TYPE BATTERY POWERED FLUSHOMETER VALVE WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED DRIFICE. OSCILLATING ADA COMPLIANT HANDLE WITH VANDAL RESISTANT CAP. ESCUTCHEON. INTEGRAL SCREWDRIVER STOP. VACUUM BREAKER. 3/4" FLUSH TUBE. AND SWEAT ADAPTER KIT. TRIM: SUITABLE CARRIER WITH STANCHIONS TO FLOOR.
UR-2	URINAL (ADA ACCESSIBLE). KOHLER #K-5016-ET "DEXTER". WHITE VITREOUS CHINA FIXTURE WITH FLUSHING RM. 3/4" TOP SPRUD. AND SIFON FLUSH ACTION. VALVE: SLOAN "SLDQY" G2 OPTIMA PLUS# 818. 0.5 GALLON PER FLUSH. EXPOSED CHROME-PLATED DIAPHRAGM TYPE BATTERY POWERED FLUSHOMETER VALVE WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED DRIFICE. OSCILLATING ADA COMPLIANT HANDLE WITH VANDAL RESISTANT CAP. ESCUTCHEON. INTEGRAL SCREWDRIVER STOP. VACUUM BREAKER. 3/4" FLUSH TUBE. AND SWEAT ADAPTER KIT. TRIM: SUITABLE CARRIER WITH STANCHIONS TO FLOOR.
WC-1	WALL MOUNTED WATER CLOSET. KOHLER #K-4425 "KINGSTON ULTRA". WHITE VITREOUS CHINA FIXTURE WITH ELONGATED UNIVERSAL BOWL. AND DIRECT-FED SIFON JET ACTION. VALVE: SLOAN "SLDQY" G2 OPTIMA PLUS# 811. 1.6 GALLON PER FLUSH. EXPOSED CHROME-PLATED DIAPHRAGM TYPE BATTERY POWERED FLUSHOMETER WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED DRIFICE. OSCILLATING ADA COMPLIANT HANDLE. ESCUTCHEON. INTEGRAL SCREWDRIVER STOP WITH VANDAL RESISTANT CAP. VACUUM BREAKER. AND SWEAT ADAPTER KIT. TRIM: CHURCH # 6505SSTC WHITE OPEN-FRONT CONTOURED. SOLID PLASTIC. HEAVY DUTY. SEAT LESS COVER WITH SELF-SUSTAINING CHECK HINGES AND STAINLESS STEEL BOLTS. PROVIDE SUITABLE FIXTURE CARRIER.
WC-2	WALL MOUNTED WATER CLOSET (ADA ACCESSIBLE). KOHLER #K-4432 "KINGSTON ULTRA". WHITE VITREOUS CHINA FIXTURE WITH ELONGATED UNIVERSAL BOWL. AND DIRECT-FED SIFON JET ACTION. VALVE: SLOAN "SLDQY" G2 OPTIMA PLUS# 811. 1.6 GALLON PER FLUSH. EXPOSED CHROME-PLATED DIAPHRAGM TYPE BATTERY POWERED FLUSHOMETER WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED DRIFICE. OSCILLATING ADA COMPLIANT HANDLE. ESCUTCHEON. INTEGRAL SCREWDRIVER STOP WITH VANDAL RESISTANT CAP. VACUUM BREAKER. AND SWEAT ADAPTER KIT. TRIM: CHURCH # 6505SSTC WHITE OPEN-FRONT CONTOURED. SOLID PLASTIC. HEAVY DUTY. SEAT LESS COVER WITH SELF-SUSTAINING CHECK HINGES AND STAINLESS STEEL BOLTS. PROVIDE SUITABLE FIXTURE CARRIER.
WC0	WALL CLEANOUT. JAY R. SMITH # 4530S. CAST IRON CLEANOUT TEE. COUNTER SUNK PLUG. STAINLESS STEEL ROUND COVER AND SCREW. AND IRON PLUG WITH GASKET SEAL. REFER TO SPECIFICATIONS FOR INSTALLATION.
WHA	WATER HAMMER ARRESTER. PRECISION PLUMBING PRODUCTS. HARD DRAWN COPPER BODY WITH WROUGHT WITHNESS PISTON TYPE WITH LUBRICATED EPDM "O" RING SEALS. MEETING ASSE 1010 OR PD WH-201. PROVIDE PDI SIZES "A" THROUGH "F" AS SHOWN ON PLANS. PROVIDE SIZE "A" UNLESS SHOWN OTHERWISE ON THE PLANS.
WML-1	WALL MOUNTED LAVATORY. AMERICAN STANDARD #9024 201EC "DECORUM" 20"X18" RECTANGLE WALL MOUNTED CENTER HOLE WHITE VITREOUS CHINA FIXTURE WITH OVERFLOW. FAUCET: CHICAGO ELECTRONIC AS #116-686 AS 11. BATTERY SENSOR. VANDAL RESISTANT. LEAD FREE FAUCET. 0.5 GPM AERATOR. TRIM: MCGUIRE # 155A GRID DRAIN WITH TAILPIECE. MCGUIRE # L2F165CCLN LEAD FREE BRASS LOOSE KEY COMPRESSION ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS. MCGUIRE # B8872CF 1-1/4" 17 GAUGE CAST CHROME PLATED BRASS ADJUSTABLE T-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON. CONCEALED ARM CARRIER WITH STANCHIONS TO FLOOR.

SEAL

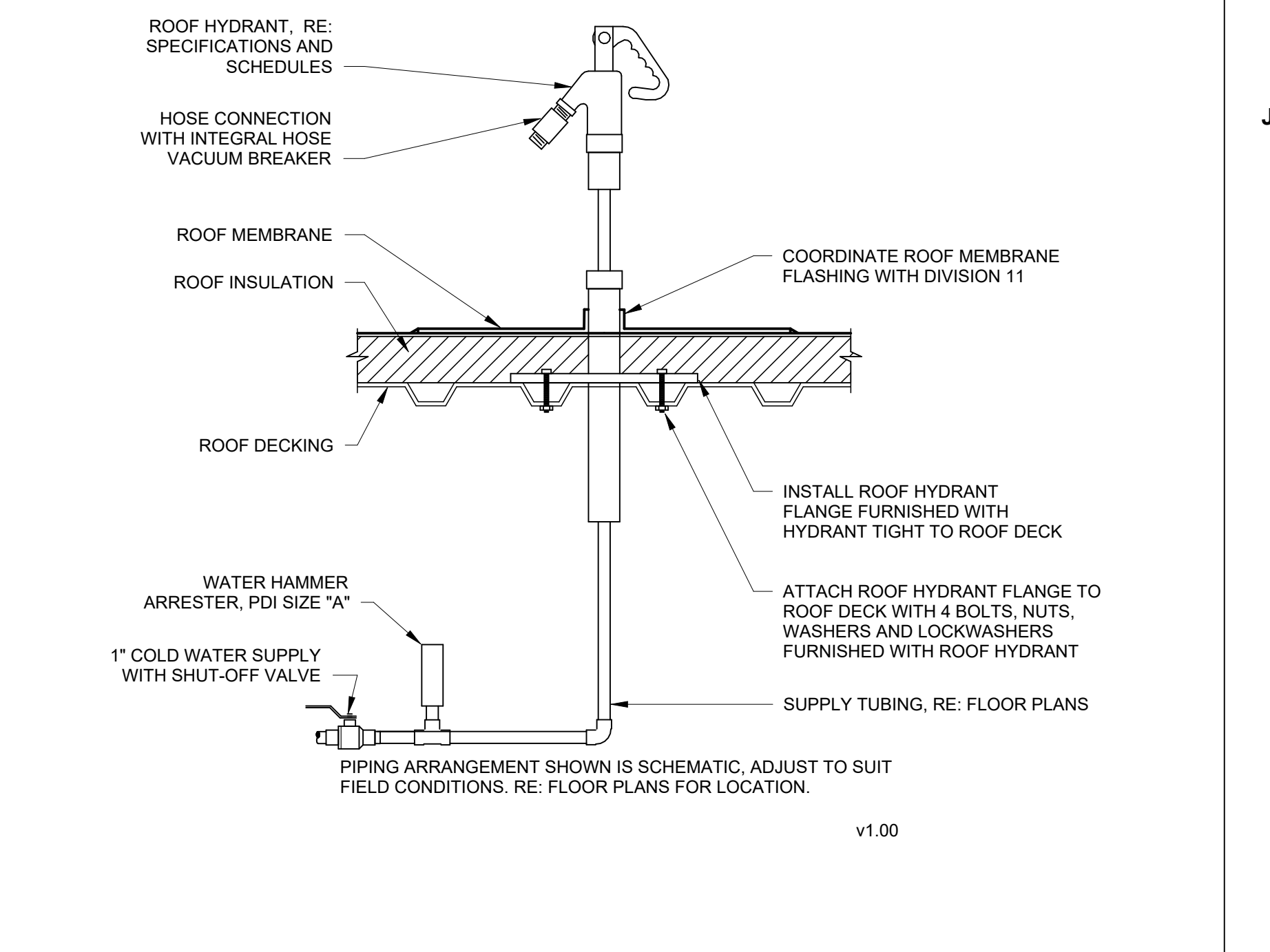
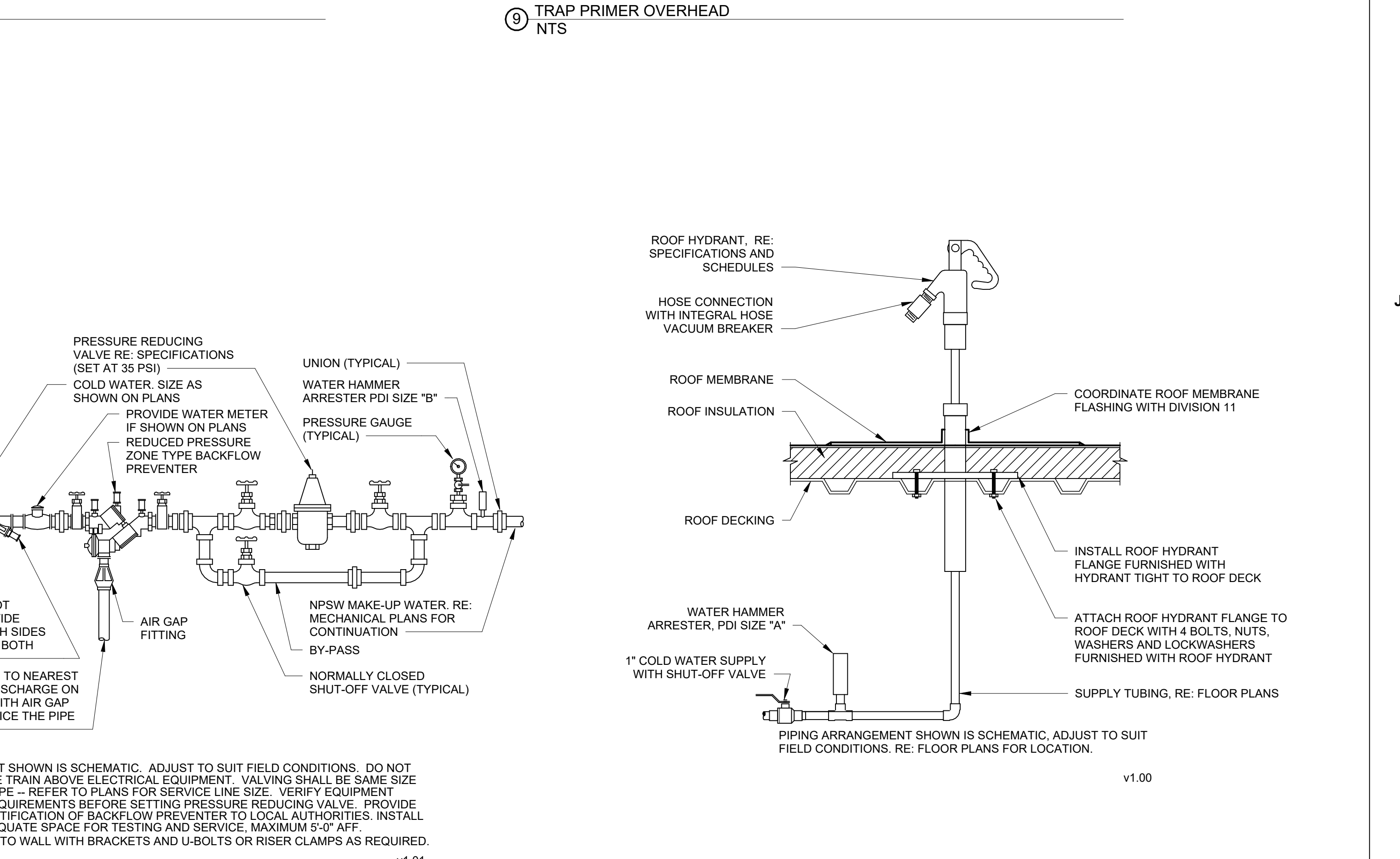
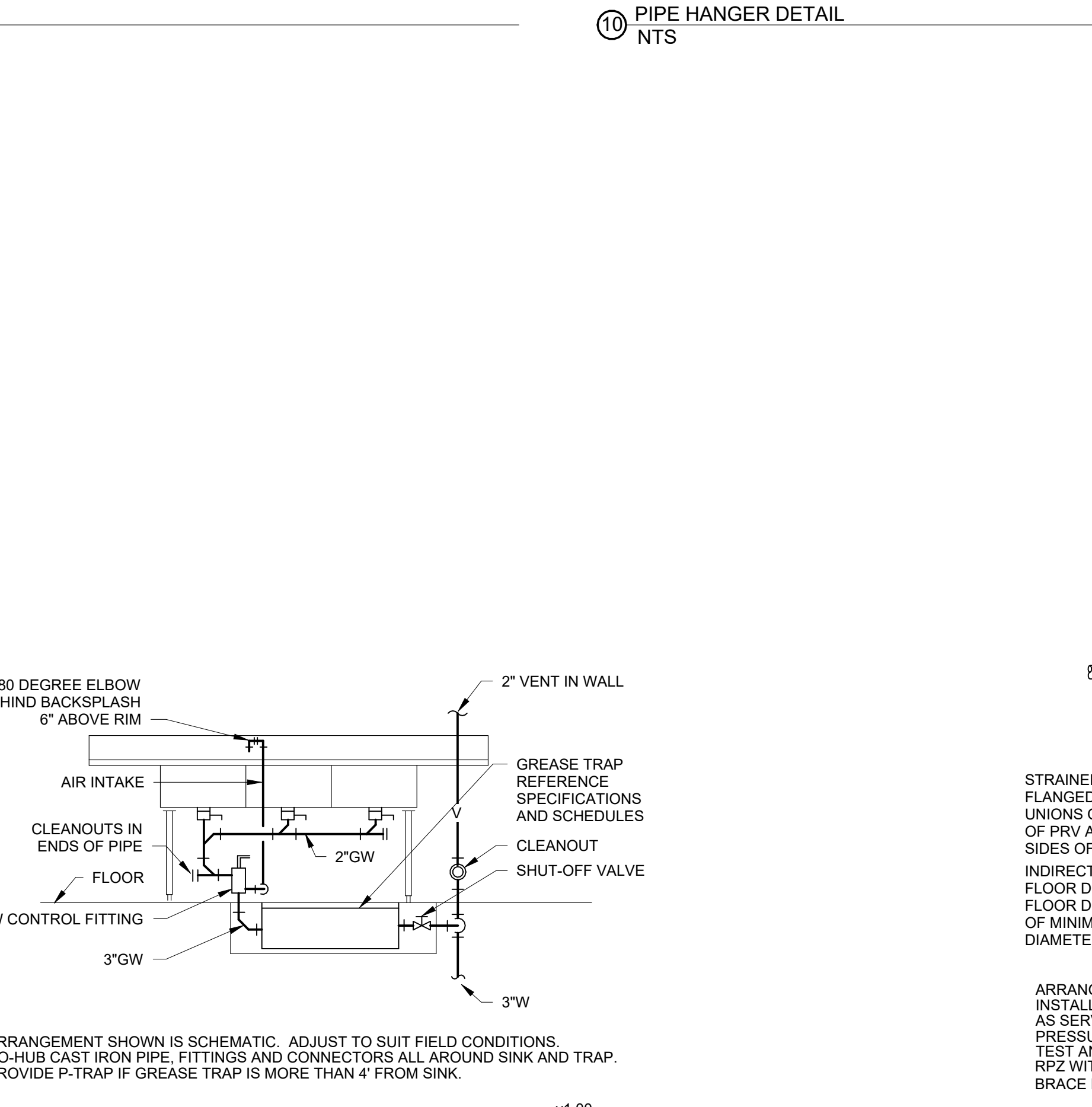
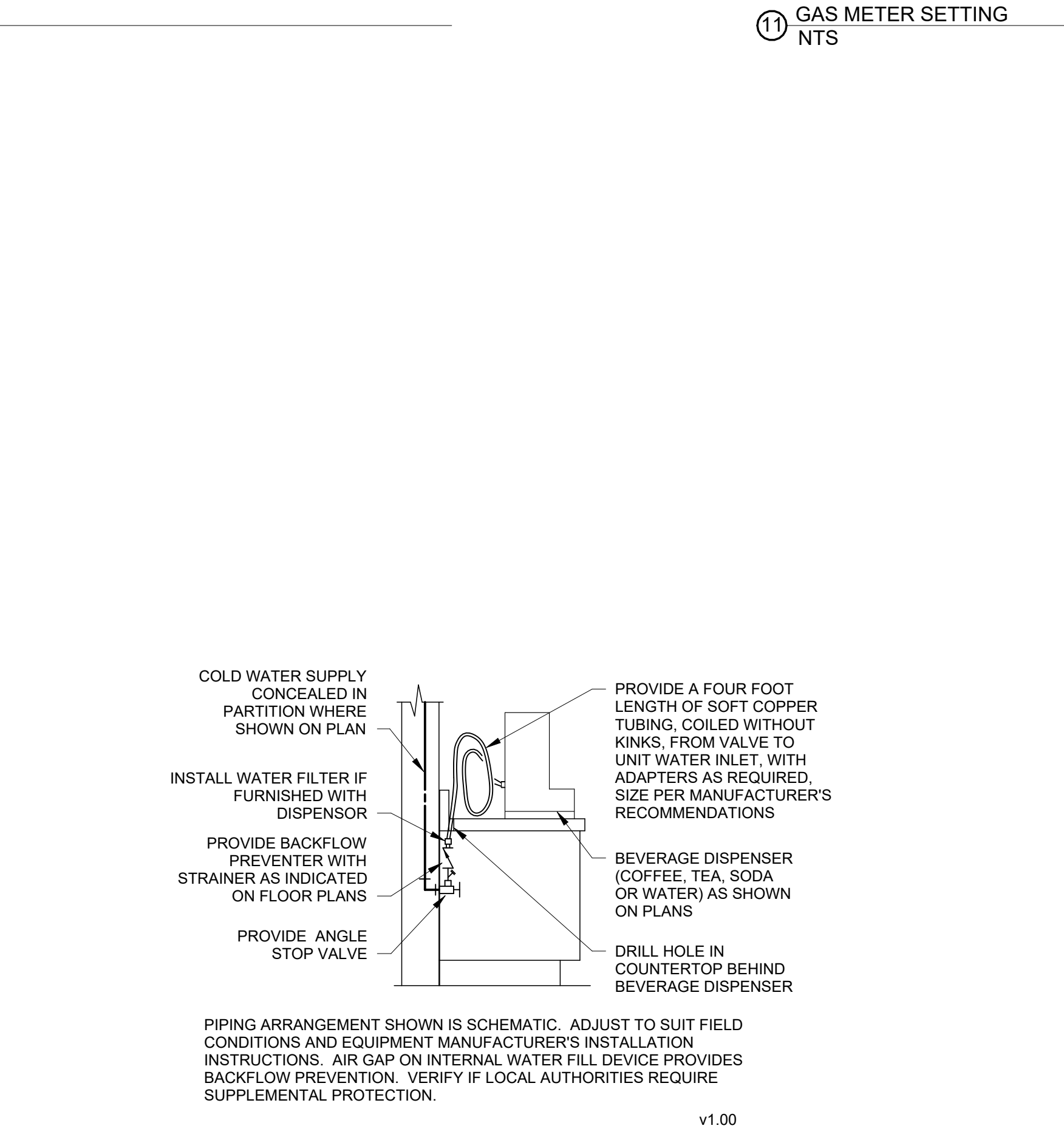
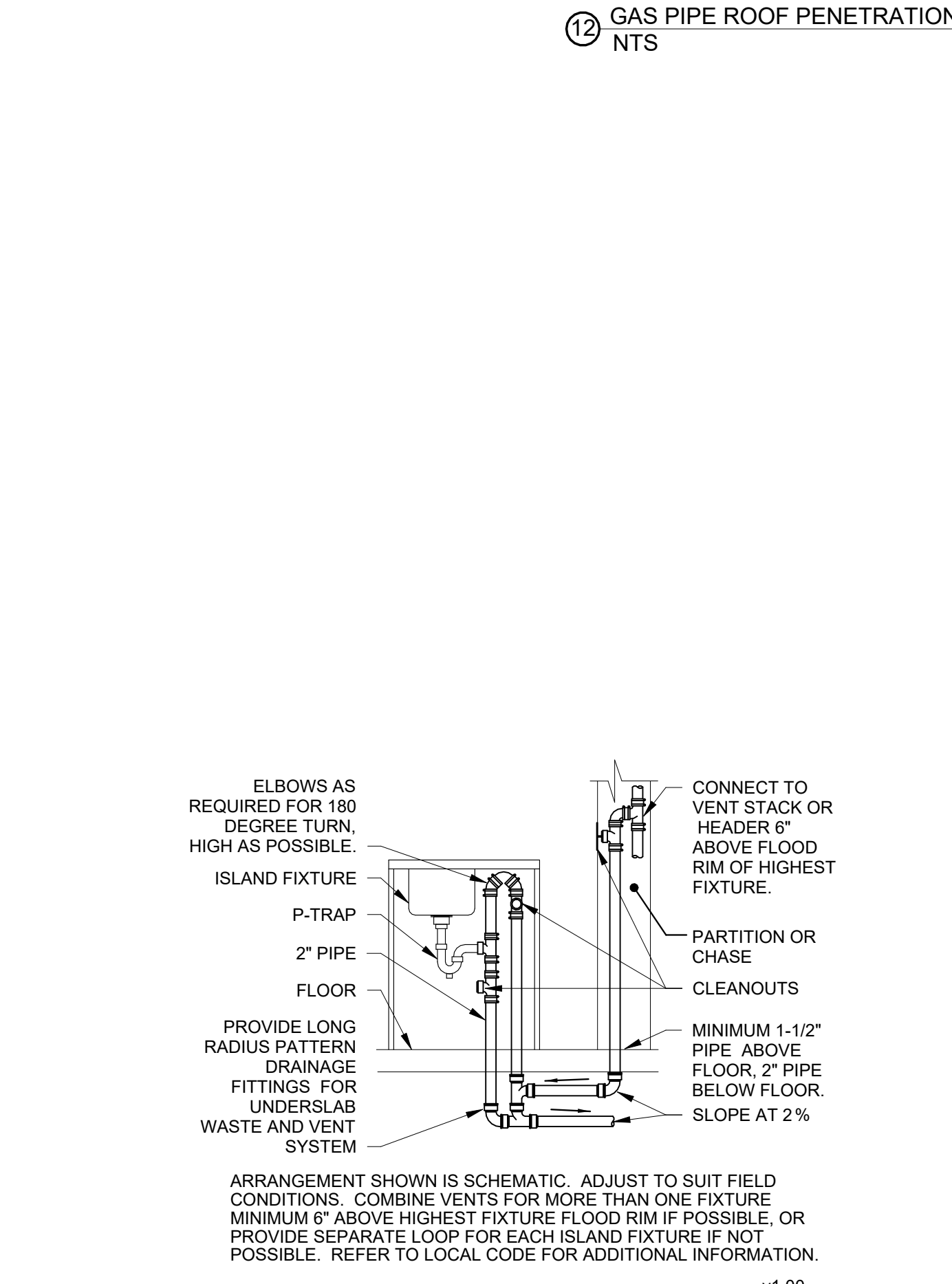
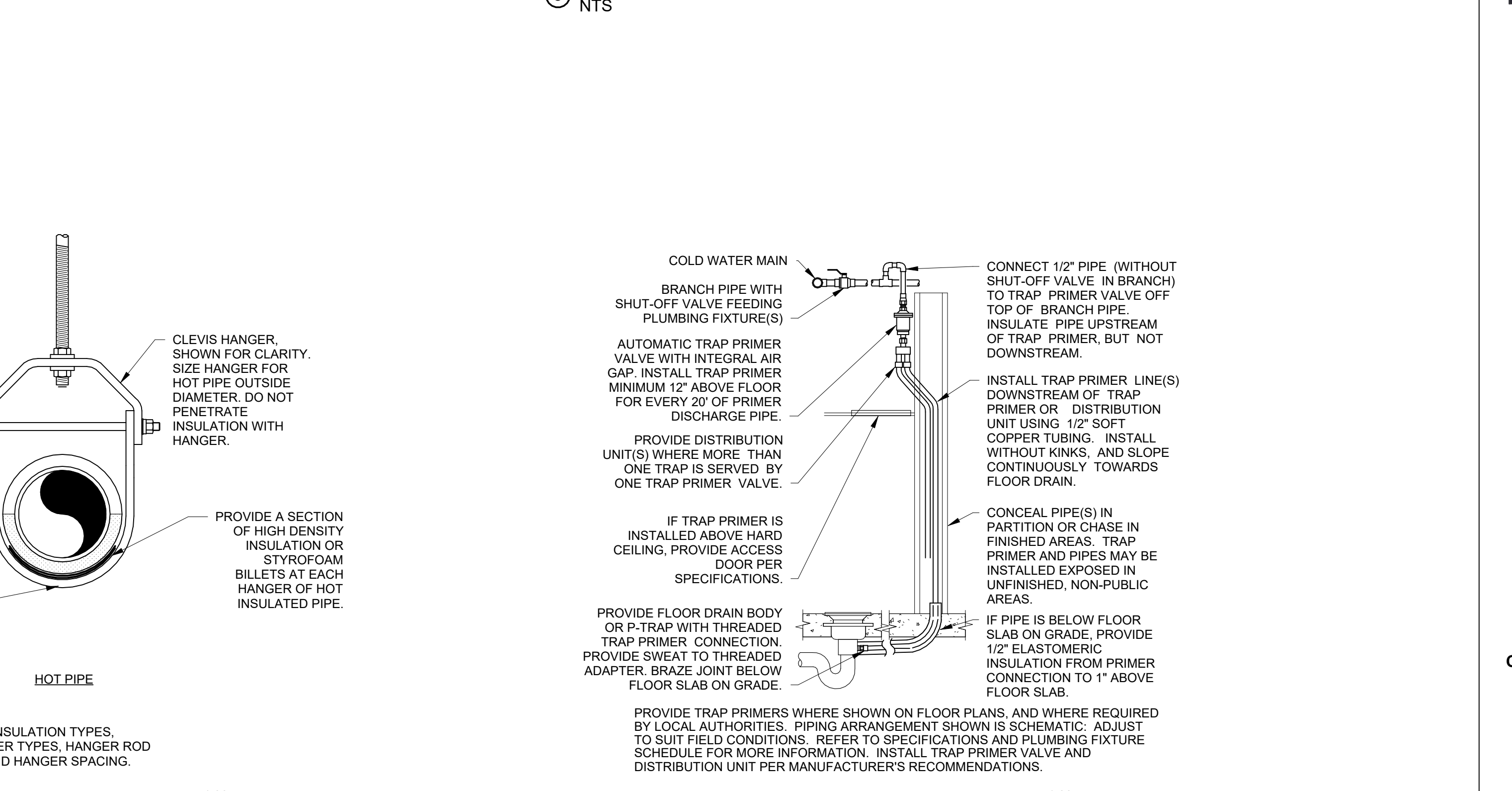
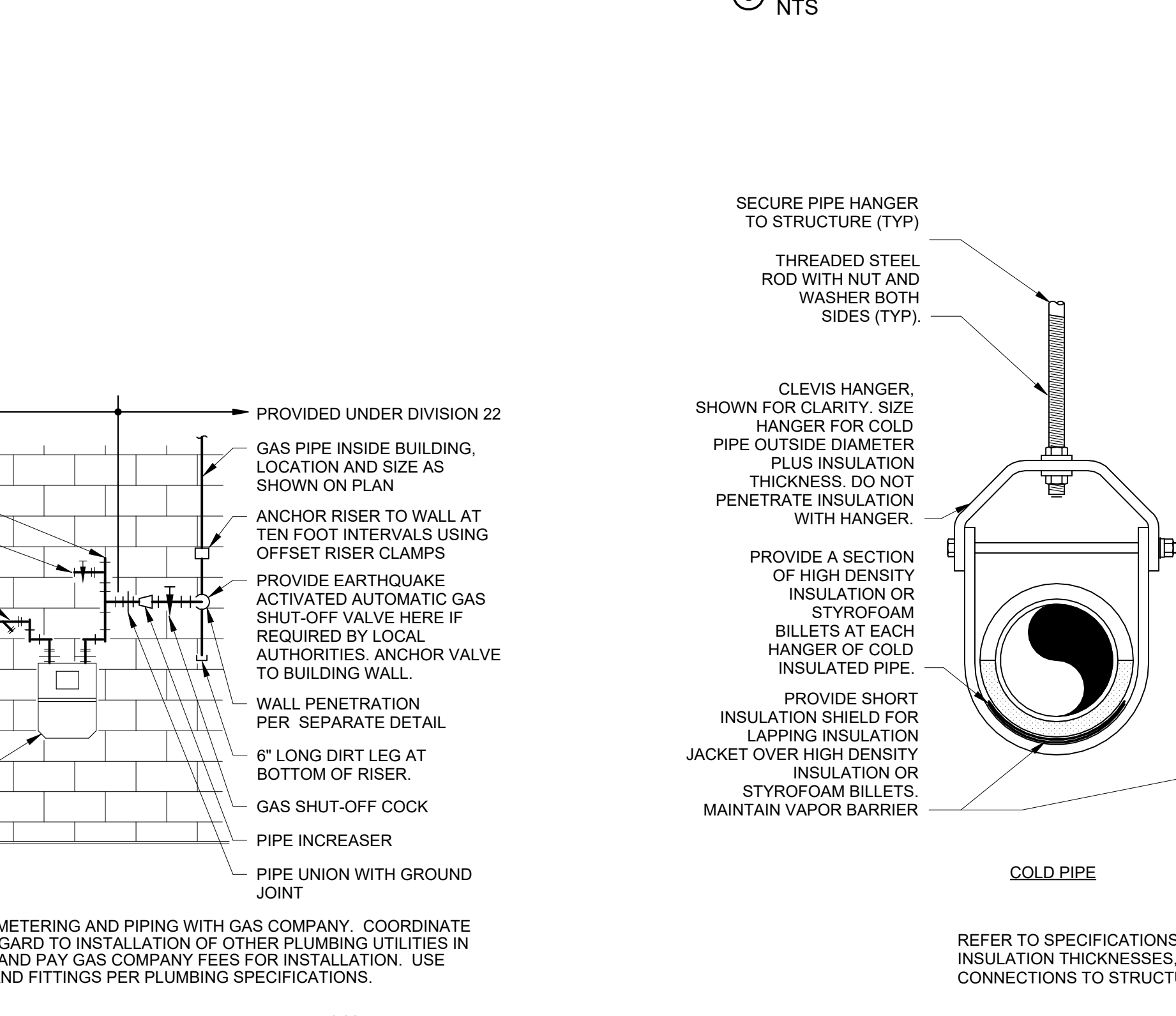
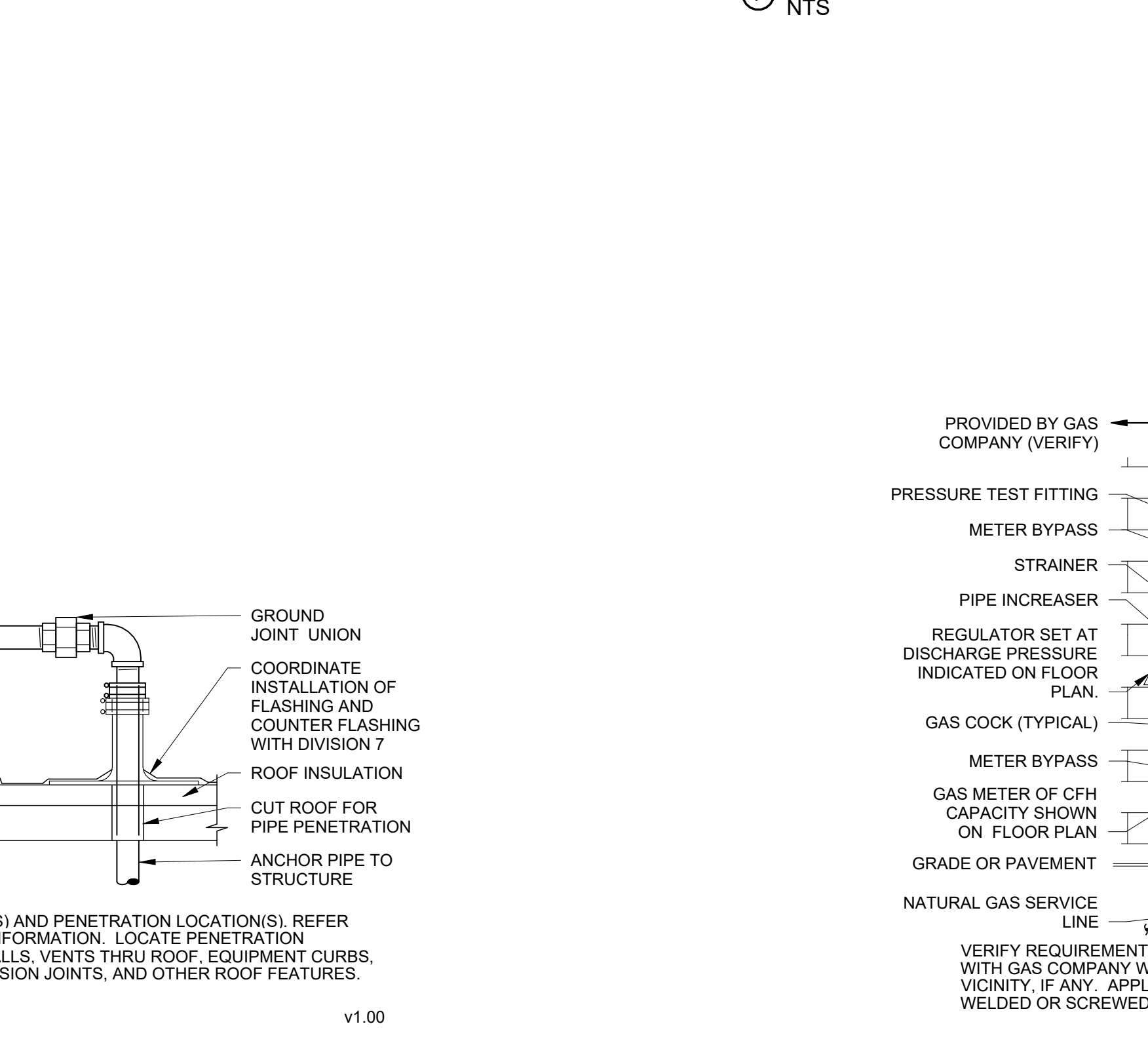
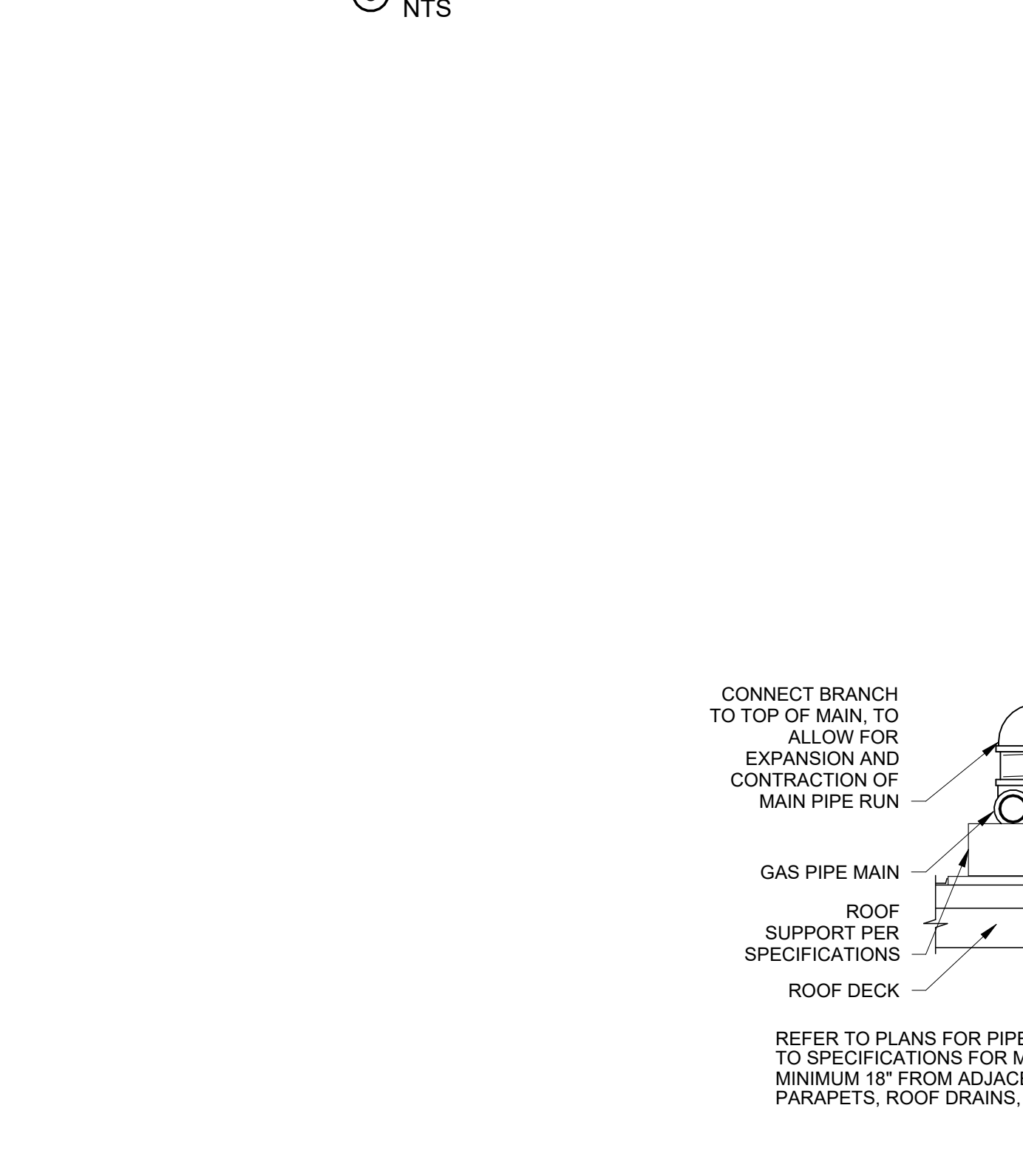
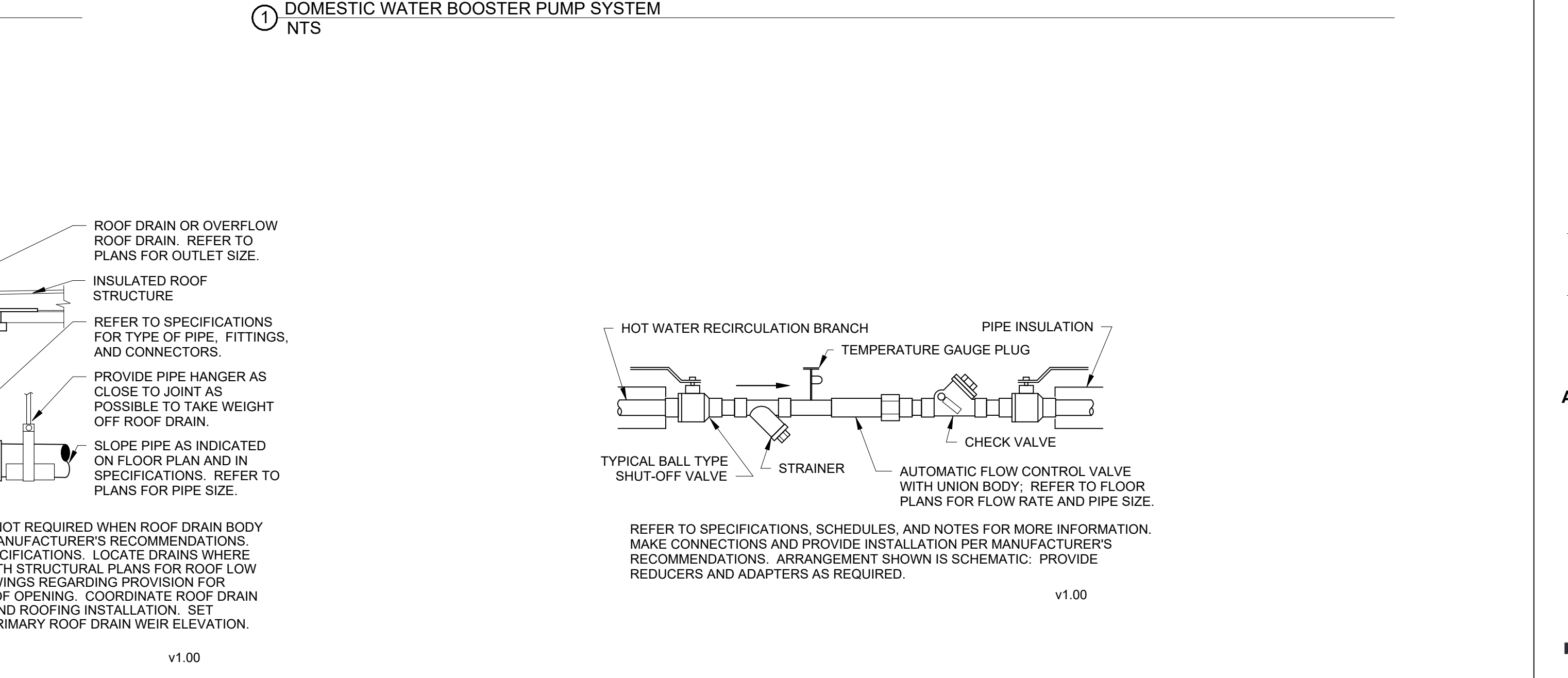
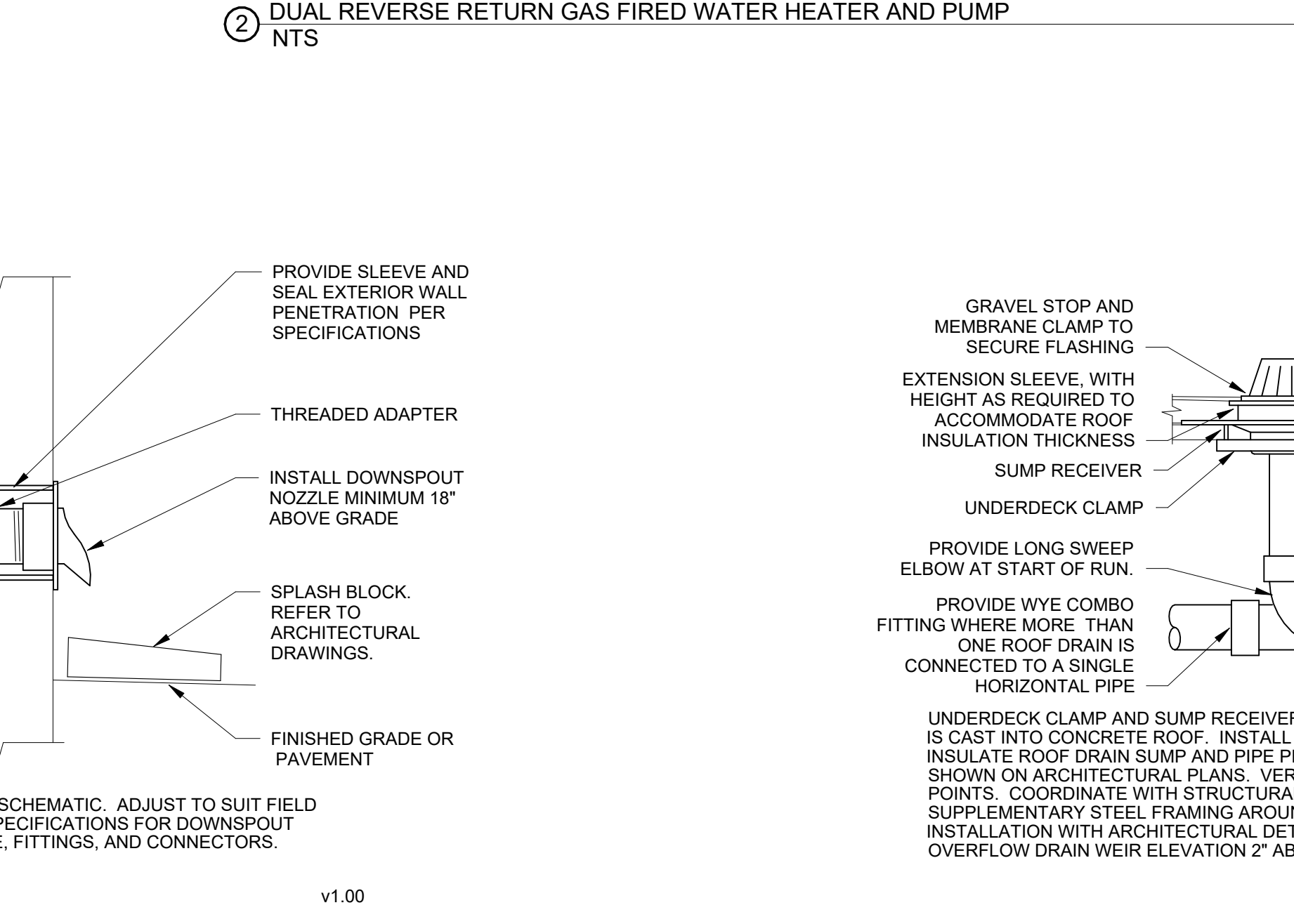
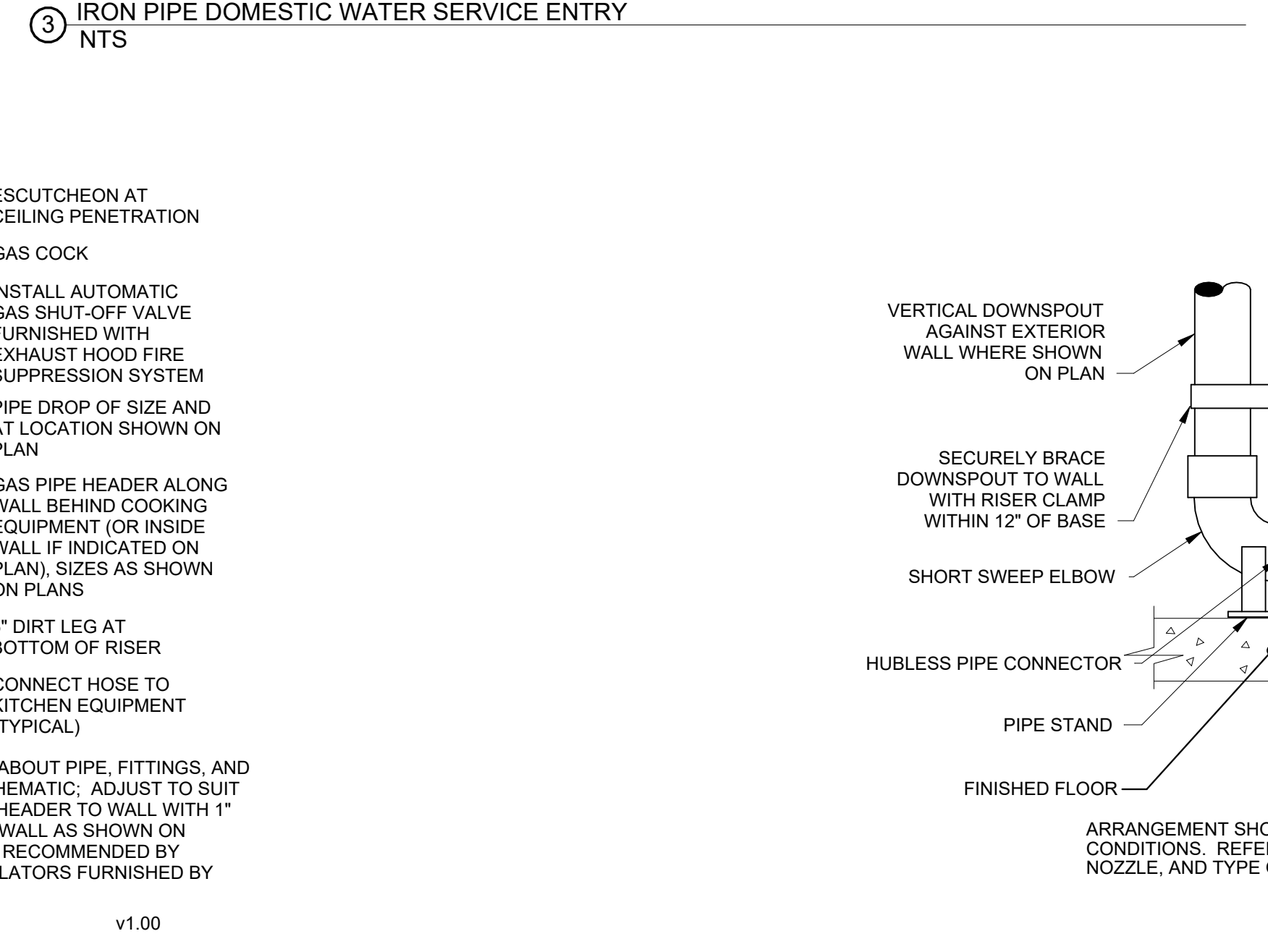
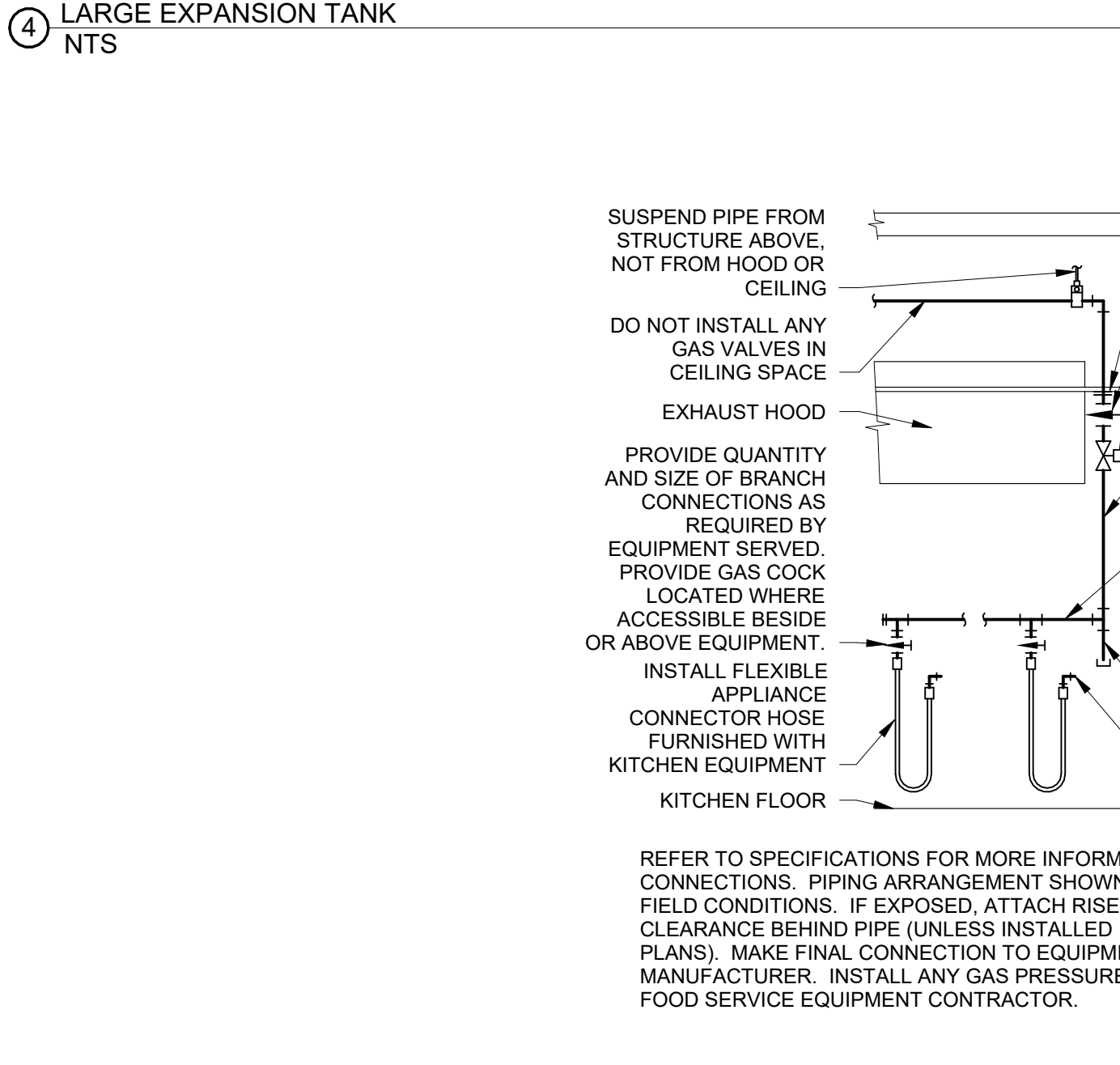
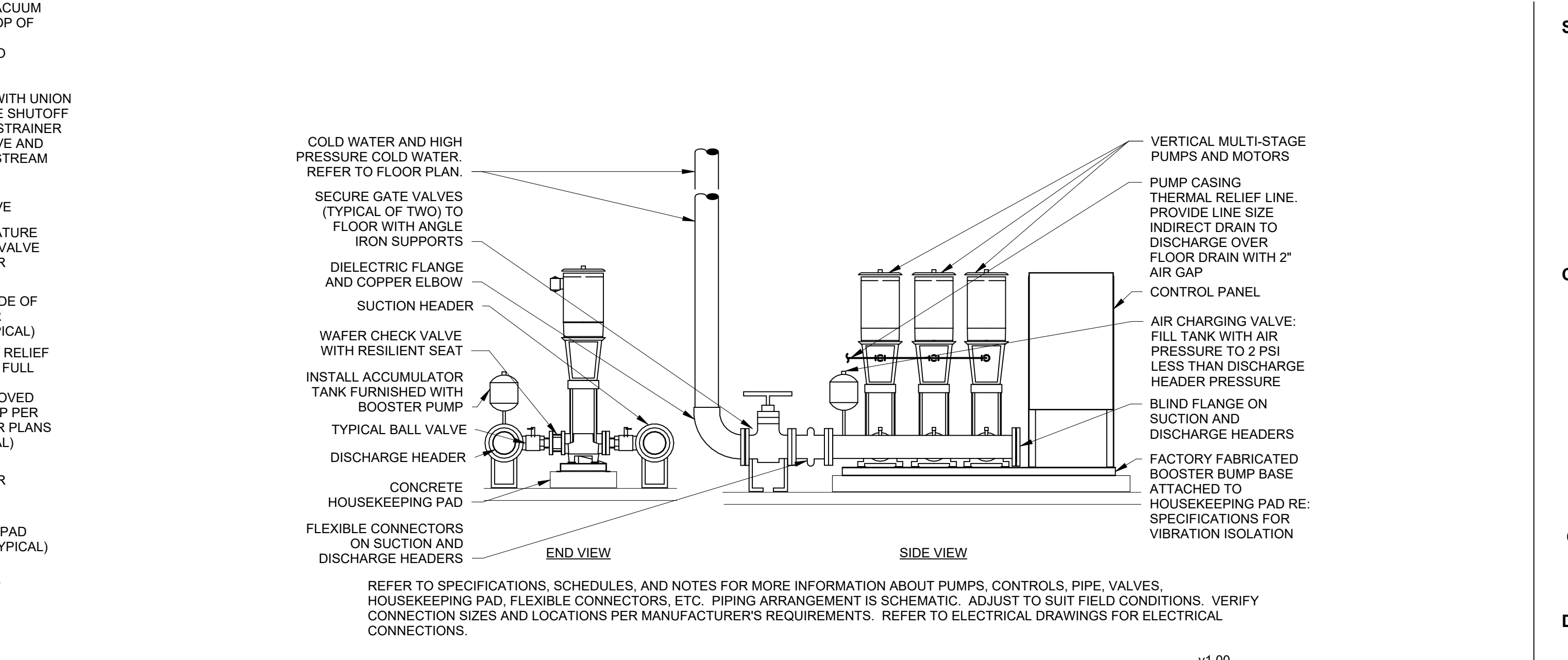
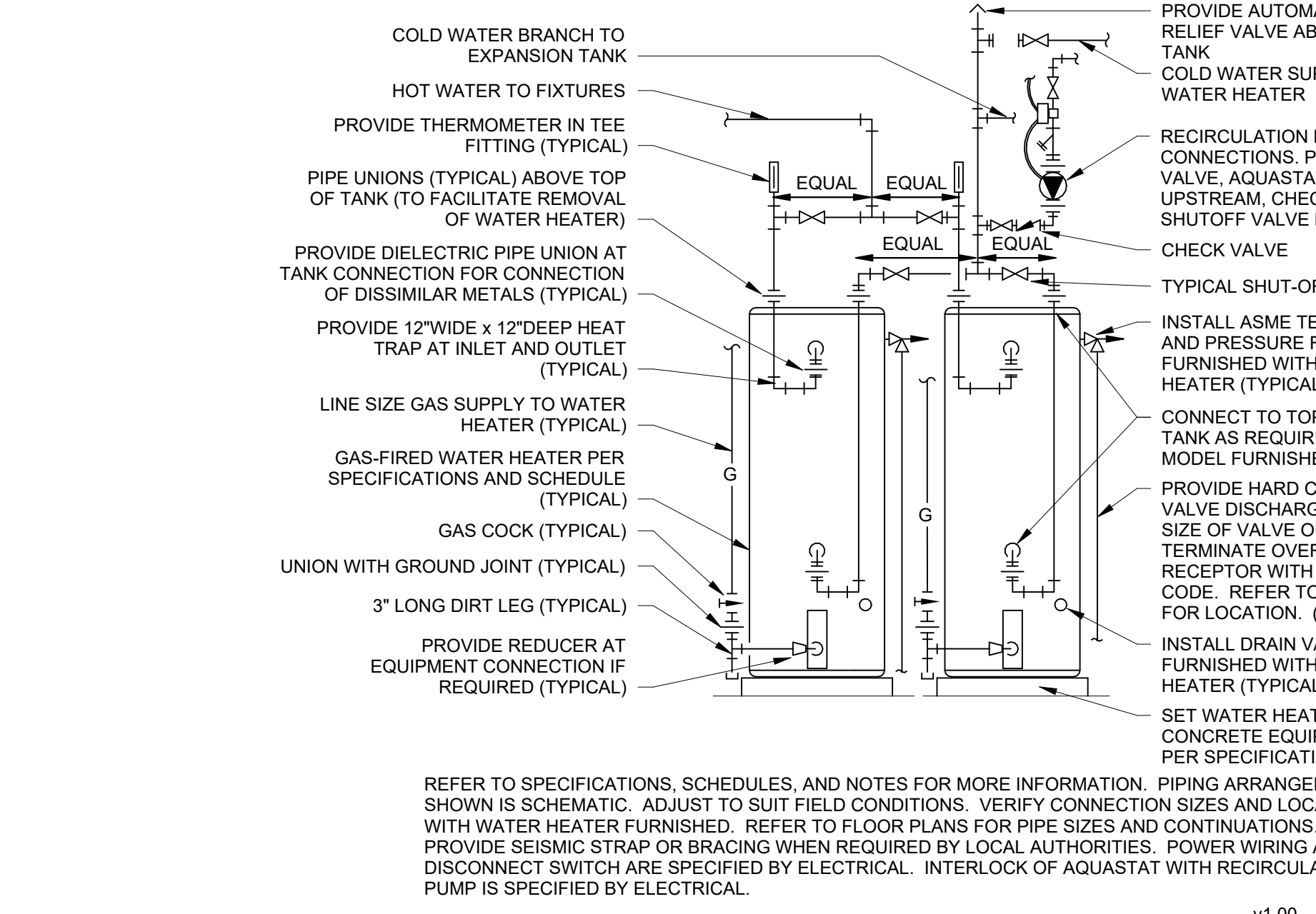
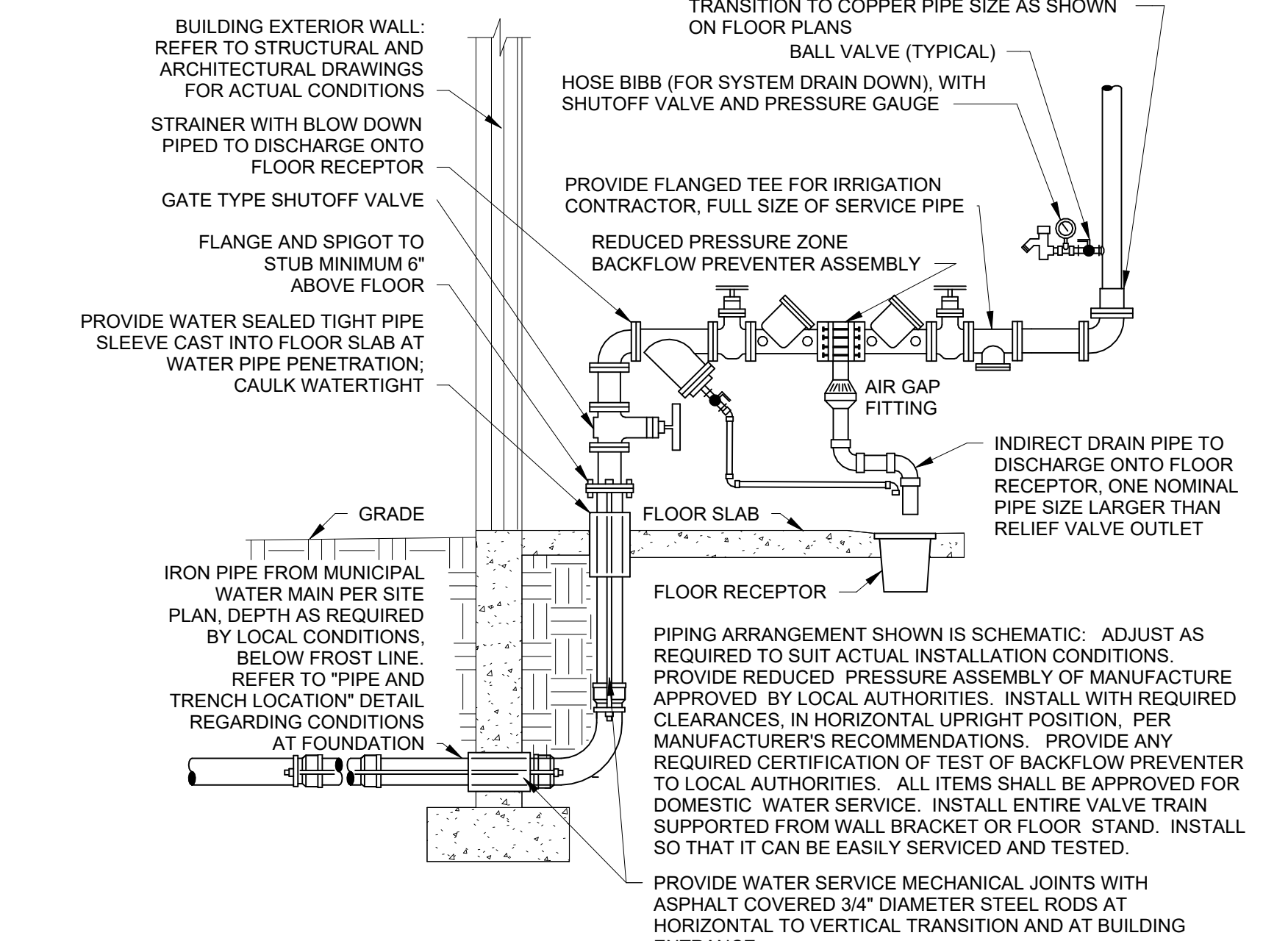
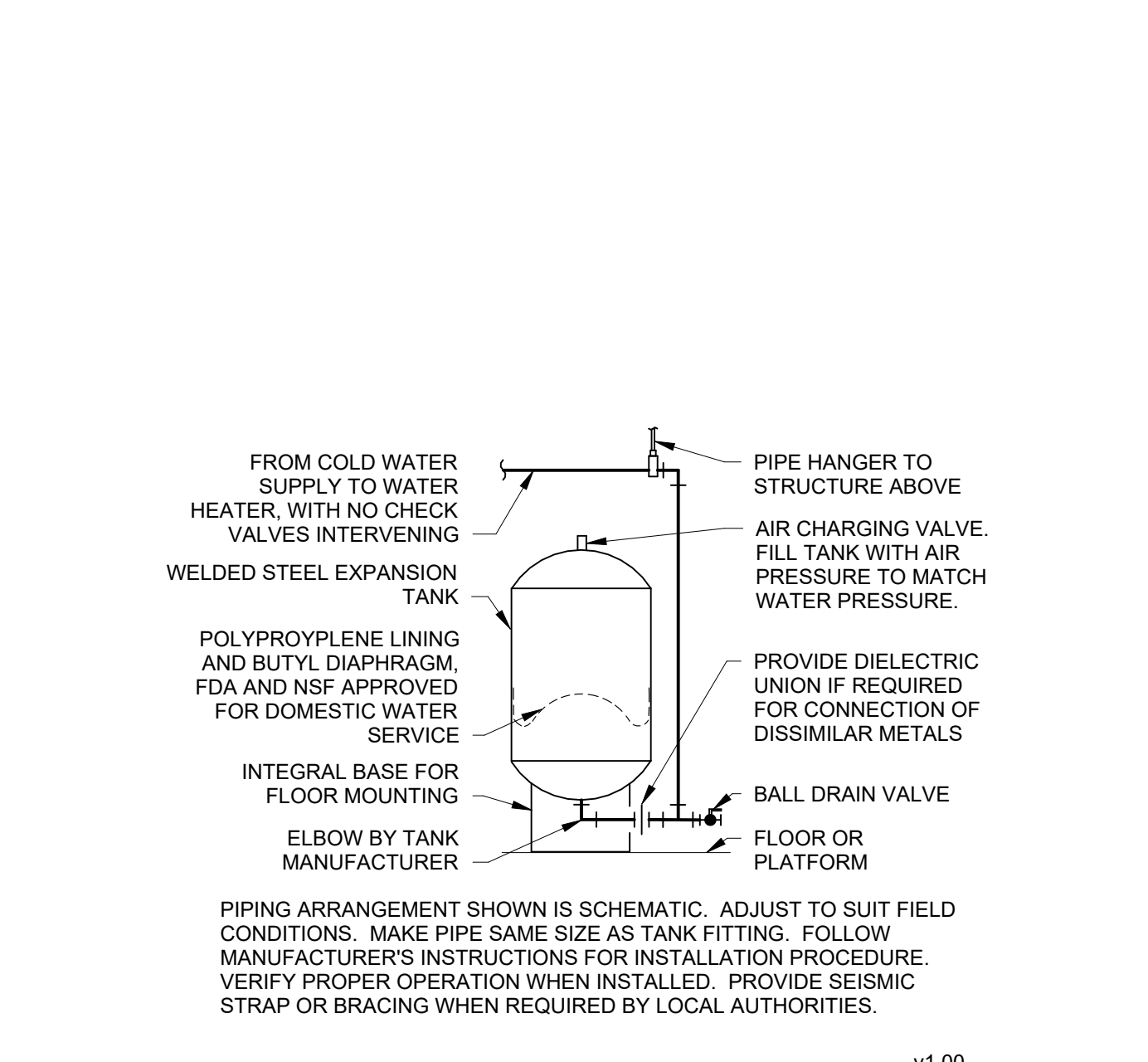
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IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES

CLIENT



City of West Memphis



REVISIONS
 1. 01/15/2025: REVISED PER 2025 CONSTRUCTION DOCUMENT PROCESS

ARCHITECT
 PROJECT LUONG
 HOUSTON
 SAN ANTONIO
 SANTA MONICA
 CONSULTANT
 HENDERSON ENGINEERS
 JOB INFO
 CITY OF WEST MEMPHIS RECREATION CENTER
 ST HWY 191/40 SERV.
 West Memphis, AR 72301
 JOB No.: WESCIT00561
 SHEET TITLE
 PLUMBING DETAILS
 SHEET NUMBER
 P-600

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 EXPIRES 12/31/2026

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 CITY OF WEST MEMPHIS RECREATION CENTER
 ST HWY 191/40 SERV.
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DIVISION 22: PLUMBING

1. GENERAL INSTRUCTIONS

A. GENERAL REQUIREMENTS

All requirements under Division 01 and the general and supplementary conditions of these specifications apply to this section and division. Where the requirements of this section and division exceed those of Division 01, this section and division take precedence. Become thoroughly familiar with all its contents so as requirements that affect this division, section, or both. Work required under this division includes all material, equipment, appliances, accessories, services and the installation as indicated by the drawings and specifications, or necessary inferred to do so. The contractor shall be responsible for the drawings and specifications, or necessary inferred to do so, necessary to facilitate the function of each system as implied by the design and equipment specified.

The specifications and drawings for the Project are complementary, and any portion of work described in one shall be provided as described in both. In the event of a discrepancy or conflict between the drawings and specifications, the drawings shall prevail unless otherwise indicated.

Drawings are graphic representations of the work upon which the contract is based. They show the materials and their relationship to one another, including sizes, shapes, locations, and connections. They convey the scope of work, indicating the intended general arrangement of the systems without showing details of the exact details as to elevations, offsets, control lines, and other installation requirements. Use the drawings as a guide when laying out the work and "double check" into the designated spaces, and when installing per manufacturer's requirements, unless complete, contradictory, and properly equipment specific.

B. DEFINITIONS

- Division: References contained in this specification show the numbering system defined in the Construction Specifications Institute (CSI) MasterFormat 2004 Edition. Specification Divisions in this specification follow the numbering system defined in the CSI MasterFormat 1995 Edition. The corresponding division references between the 2004 Edition and 1995 Edition are as follows:
- | | |
|---|-------------|
| 1. Division 22 – Plumbing | Division 15 |
| 2. Division 22 – Fire Suppression | Division 15 |
| 3. Division 22 – HVAC | Division 15 |
| 4. Division 26 – Electrical | Division 16 |
| 5. Division 27 – Communications | Division 16 |
| 6. Division 28 – Electronic Security and Security | Division 16 |

Furnish: To supply and deliver to the project site, ready for unloading, unpacking, assembly, installation and similar operations.*

Install: To perform all operations at the project site, but not limited to, the actual installing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, testing, commissioning, starting up and similar operations, complete, and ready for operation.

Provide: To furnish and install, complete and ready for the intended use.

Furnished by Owner (or Owner-Furnished) or Furnished by Others: "an item furnished by the Owner or under other divisions or contracts, and installed under the requirements of this specification, and ready for the intended use, including all items and services incidental to the work necessary for proper installation and operation. Include the installation under the warranty required by this division."

Engineer: Where referenced in this division, "Engineer" is the Engineer of Record and the Design Professional for the work under this division, and is a professional engineer and an authorized signatory, as defined in the General and/or Supplementary Conditions and the manufacturer's standard warranty documents. The Engineer shall be responsible for the drawings and specifications, or necessary inferred to do so, necessary to facilitate the function of each system as implied by the design and equipment specified. The Engineer, in addition to involvement by and obligations to the Architect.

AHJ: The local code enforcement agency (Authority) Having Jurisdiction over the work.

NRTL: Nationally recognized testing laboratory, as defined and listed by OSHA in 29 CFR 1910.7 (e) UL, ETL, CSA, and acceptable to the AHJ over this project. Nationally recognized testing laboratories and standards listed are used in 29 CFR 1910.7 to identify the characteristics required and are not intended to restrict any other NRTLs or standards approved by the AHJ and standards that meet the specified criteria.

Substitution: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by the Contractor. Substitution Request: A written request for substitution of materials, equipment, or methods of construction from the Contractor. Substitution Request Form: A form provided by the Contractor for the purpose of proposing a substitution. Substitution Request Form: A form provided by the Contractor for the purpose of proposing a substitution. Substitution Request Form: A form provided by the Contractor for the purpose of proposing a substitution.

1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes or other circumstances.

2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may advantage to Contractor, Owner or others.

The terms "approved usage," "equivalent," or "equal" are used synonymously and shall mean "accepted by and acceptable to the Engineer as equivalent to the item or manufacturer specified." The term "approved" shall mean labeled, listed, or both, by an NRTL, or acceptable to the AHJ over this project. The term "equal" refers to the wetted surface of pipe, fittings and fixtures in potable water systems that have a weighted average lead content of less than or equal to 0.25% per safe drinking water act as amended January 4, 2011 Section 1417.

C. PREBID SITE VISIT

Prior to submitting bid, visit the site of the proposed work and become fully informed as to the conditions under which the work is to be done. Failure to comply with this requirement shall not be considered sufficient justification to request or obtain extra compensation over and above the contract price.

D. MATERIAL AND WORKMANSHIP

Provide new material, equipment, and apparatus under this contract unless otherwise stated herein, of best quality normally used for the purpose in good commercial practice. Contractor shall furnish the Contractor with information where changes are required. Contractor shall keep informed as to the work of other trades engaged in the construction of the project and shall execute his work in such a manner as to not interfere with or delay the work of other trades.

Items specified in the contract documents shall be manufactured in plants located in the United States or certified to meet the specified ASTM and ANSI standards.

Work performed under this contract shall provide a neat and "workmanlike" appearance when completed, to the satisfaction of the Architect and Engineer. Workmanship shall be the finest possible by experienced mechanics. Installations shall comply with applicable codes and laws.

The complete installation shall function as designed and intended with respect to efficiency, capacity, noise level, etc. Abnormal noise caused by rattling equipment, piping and squeaky or rattling components shall not be acceptable. Materials and equipment shall be of commercial specification grade as specified in the contract documents and shall not be accepted unless otherwise indicated.

Remove from the premises waste material present as a result of his work, including cartons, crating, paper, stickers, and/or excavation material not used in backingfill, etc. Clean equipment installed under this contract to present a neat and clean installation at the termination of the work.

Repair or replace pipe and all safety related parts, damaged as a result of work performed under this contract to the satisfaction of authorities and regulations having jurisdiction. Provide all private safety lights, guards, and warning signs required for the performance of the work and for the safety of the public.

E. MANUFACTURERS

In other articles where lists of manufacturers are introduced, subject to compliance with requirements, provide products by one of the manufacturers specified.

Where a list is provided, manufacturers are listed alphabetically and not in accordance with any ranking or preference.

Where manufacturers are not listed, provide products subject to compliance with requirements from manufacturers that have been actively involved in manufacturing the specified product for not less than 5 years.

F. COORDINATION

Coordinate work with that of other trades so that the various components of the systems are installed at the proper time, file the available space, and will allow proper service access to all items requiring maintenance. Components which are installed without regard to the above shall be relocated at no additional cost to the Owner.

Unless otherwise indicated, General Contractor shall provide chases and openings in building construction required for installation of the systems specified in the contract documents. Contractor shall furnish the Contractor with information where changes are required. Contractor shall keep informed as to the work of other trades engaged in the construction of the project and shall execute his work in such a manner as to not interfere with or delay the work of other trades.

Figured dimensions shall be taken in preference to scaled dimensions. Contractor shall take his own measurements at the building, as variations may occur. Contractor shall be held responsible for errors which could have been avoided by proper checking and verification.

Provide materials with trim that will properly fit the joints of ceiling, wall, or floor finishes actually installed. Model numbers listed in the specifications or shown on the drawings are not intended to designate the required trim.

G. ORDINANCES AND CODES

Work performed under this contract shall, at a minimum, be in conformance with applicable national, state and local codes having jurisdiction. Equipment materials and associated installation shall conform to the applicable codes and standards that shall be in strict compliance with current applicable codes adopted by the local AHJ, including any amendments and standards as set forth by the following:

- National Fire Protection Association (NFPA)
- Underwriters Laboratories (UL)
- Occupational Safety and Health Administration (OSHA)
- International Brotherhood of Electrical Engineers (IBEE)
- American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE)
- American National Standards Institute (ANSI)
- American Society of Testing Materials (ASTM)
- Other national standards and codes where applicable.

Where the contract documents exceed the requirements of the referenced codes, standards, etc., the contract documents shall take precedence. Where there are conflicts, codes, ordinances, rules, and regulations exist, comply with the most stringent.

Promptly bring all conflicts between codes, ordinances, rules, regulations, referenced standards, and these documents to the attention of the Architect and Engineer for final resolution. Contractor will be held responsible for any violation of the law.

Procure and pay for permits and licenses required for the accomplishment of the work herein described. Where required, obtain, pay for, and furnish certificates of inspection to Owner.

H. PROTECTION OF EQUIPMENT AND MATERIAL

Store and protect from damage equipment and material after delivery to job site. For materials and equipment susceptible to changing weather conditions, store and protect in suitable storage. For materials and equipment susceptible to moisture, store and protect in suitable storage. For materials and equipment susceptible to theft, store and protect in suitable storage. For materials and equipment susceptible to damage, store and protect in suitable storage. For materials and equipment susceptible to damage, store and protect in suitable storage.

Keep premises broom clean of debris material created during work performed under this contract. Piping, equipment, etc. shall have a neat and clean appearance at the termination of the work.

Plug or cap open ends of piping systems while stored and installed during construction when not in use to prevent the entrance of debris into the systems.

Keep the manufacturer-provided protective coverings on floor drains, floor sinks and trench drains during construction. Remove coverings at the termination of the work and patch openings.

I. SUBSTITUTIONS

Materials, products, equipment, and systems described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by the proposed substitution. The base bid shall include only the products from manufacturers specifically named in the drawings and specifications. To request a substitution, request the Substitution Request Form from the Architect/Engineer. Complete the Substitution Request Form and submit it with the Request Form for each material, product, equipment, or system that is proposed to be substituted. The burden of proof of the merit of the proposed substitution is upon the proposer.

Unless stated otherwise in writing to the Engineer, Contractor warrants to the Engineer, Architect, and Owner the following:

- Proposed substitution has been fully investigated and determined to meet or exceed the specified work in all respects unless stated otherwise in the substitution request.
- Proposed substitution is consistent with the Contract Documents and will produce indicated results, including functional clearances, maintenance service, and sourcing of replacement parts.
- If accepted substitution fails to perform as required, Contractor shall replace substitute material or system with that originally specified and bear cost of rework.
- Same warranty will be furnished for proposed substitution as for specified Work.
- If accepted substitution fails to perform as required, Contractor shall replace substitute material or system with that originally specified and bear cost of rework.

J. SUBMITTALS

Assemble and submit for review shop drawings, material lists, manufacturer product literature for equipment to be furnished, and items requiring coordination between contractors under this contract. Provide submittals in sufficient detail to allow the Owner to demonstrate compliance with these Contract Documents and the design concept. Prior to transmitting submittals, verify that the equipment submitted is mutually compatible and suitable for the intended use. Provide a complete manufacturer recommended service clearances. If the size of equipment furnished is different from that specified, changes in location or configuration, submit a shop drawing showing the proposed layout.

Transmit submittals as early as required to support the project schedule. Allow for two weeks Engineer review time, plus follow mailing time with the manufacturer. Provide a complete manufacturer recommended service clearances. If the size of equipment furnished is different from that specified, changes in location or configuration, submit a shop drawing showing the proposed layout.

Submit submittals that contain the project name, applicable specification section, submittal data, equipment identification acronym as used on the drawings, and the Contractor's stamp. The stamp shall certify that the submittal has been checked by the contractor, complies with all codes and specifications, and is coordinated with other trades. Manufacturer's product literature shall include shop drawings, product data, performance sheets, and similar information as specified in Division 01. Contractor shall include the website, user name, and password information needed to access the submittals. For submittals sent by e-mail, Contractor shall copy the designated representatives of the Architect and Engineer. Contractor shall allow for the Engineer review time as specified above in the construction schedule. Contractor shall submit only the documents required to purchase the materials and/or equipment in the electronic submittal.

The checking and subsequent acceptance of submittals by the Engineer and/or Architect shall not relieve the Contractor from responsibility for deviations from the drawings and specifications, errors in dimensions, details, size of members, or quantities, omissions of components or fittings, coordination of electrical requirements, and not coordinating items with actual building conditions and adjacent work. The procurement and installation of equipment only after receiving approved shop drawings related to each item.

K. ELECTRONIC DRAWINGS

In preparation of shop drawings or record drawings, Contractor may, at his option, obtain electronic drawing files in AutoCAD or DXF format on CD-ROM or DVD disk. Each drawing shall be submitted to the Engineer for a plotting and handling fee of \$200 for a drawing set up to 12 sheets and \$15 per sheet for each additional sheet. Contact the Architect for written authorization and Engineer for the necessary release agreement form and to specify shipping method and drawing format to be sent. The Engineer will accept, without authorization from the Architect and release agreement form from the Engineer may be received before electronic drawing files will be permitted.

L. RECORD DRAWINGS (AS-BUILT DRAWINGS)

During preparation of the work in this division, Contractor shall maintain an accurate record of all changes made during the installation of the system. Upon completion of the work, accurately transfer all record information to three identical sets of the approved shop drawings. Insert one set into each copy of the manual description and the record drawings for the work involved.

M. OPERATION AND MAINTENANCE INSTRUCTIONS

During the course of construction, collect and compile a complete set of equipment furnished and installed on this project. Include operational and maintenance instructions, manuals, and approved literature, and approved literature, warranties, and approved literature, and approved literature as furnished by the equipment manufacturer. Include an inside cover sheet that lists the project name, date, Owner, Architect, Engineer, General Contractor, and Contractor. Provide a complete set of equipment furnished and installed on this project. Include operational and maintenance instructions, manuals, and approved literature, and approved literature, warranties, and approved literature, and approved literature as furnished by the equipment manufacturer. Include an inside cover sheet that lists the project name, date, Owner, Architect, Engineer, General Contractor, and Contractor.

Submit three copies of literature bound in approved binders with labels and tab separating equipment notes to the Architect, for Engineer's review, at the termination of the work. Paper clips, staples, rubber bands, loose-leaf binding, and mailing envelopes are not considered approved binders. Final approval of systems installed under this contract shall be withheld until this equipment brochure is received and deemed complete by the Architect and Engineer.

N. SPARE PARTS

Include record drawings as described above.

Refer to Division 01 for acceptance of electronic manuals for this project. For electronic manuals, refer to paragraph "Submittals" for requirements.

Furnish to Owner, with receipt, the spare parts for faucet washers and O-rings, flushometer repair kits, and water closet tank repair kits for the fixtures specified on this project.

O. TRAINING

At a time mutually agreed upon between the Owner and Contractor, provide the services of a factory trained and authorized representative to train Owner's designated personnel on the operation and maintenance of the equipment provided for this project.

Provide training to include, but not be limited to, an overview of the system and/or equipment as it relates to the facility as a whole; operation and maintenance procedures and schedules related to startup and shutdown, troubleshooting, servicing, preventive maintenance and operator operation and maintenance; and a demonstration of the operation and maintenance of the system.

Submit a certification letter to the Architect stating that the Owner's designated representative has been trained as specified herein. Letter shall include date, time, attendees and subject of training. The Contractor and the Owner's representative shall sign the certification letter indicating agreement that the training has been provided.

P. WARRANTIES

Schedule training with Owner at least 7 days advance notice.

Warrant each system and each element thereof against all defects due to faulty workmanship, design, or material for a period of 12 months from date of Substantial Completion, unless specifications are noted to carry a longer warranty in the construction documents or manufacturer's standard warranty exceeds 12 months. Remedy all elements free of charge within the warranty period unless otherwise specified in the General Conditions and Division 01.

Warranty shall include a guarantee of free circulation of liquids throughout the system as intended without leaks, excessive noise, or water hammer.

Warranties shall include labor and material, including travel expenses. Make repairs or replacements without any additional costs to the Owner, and to the satisfaction of the Owner, Architect, and Engineer.

Perform the remedial work promptly upon written notice from the Engineer or Owner.

At the time of Substantial Completion, deliver to the Owner all warranties, in writing and properly executed, including term limits for warranties extending beyond the one year period and any actions the Owner must take in order to maintain warranty status. Each warranty instrument shall be addressed to the Engineer and the commencement date of the work.

2. GENERAL MATERIALS AND INSTALLATION

A. EXCAVATION AND BACKFILLING

Perform excavation and backfill required for installation of underground work under this contract. Trenches shall be of sufficient width, cut or back trench to prevent collapse or settlement, and shall not excavate trenches close to columns and walls of new building without prior consultation with the Architect. Use pumping equipment if required to keep trenches free of water. Backfill trenches in maximum 6 inch layers of well-amped dry earth or an approved equivalent material in accordance with the material manufacturer's installation instructions. Moisture content shall be tested in the field.

Excavation as specified herein shall be classified as common excavation. Common excavation shall include the satisfactory removal and disposition of material of various substances and of every description encountered, including rock, if any, within the limits of the work as specified and shown on the drawings. Excavation shall be performed to the lines and grades indicated on the drawings. Dispose of excavated materials that are considered unsuitable for backfilling in accordance with applicable codes and regulations.

B. EXTERIOR UTILITY CONNECTIONS

Terminate domestic water, storm, and sewer lines at a point approximately five feet from the building wall, or as shown on the drawings. Make connection to the appropriate services provided by others and coordinate connection requirements with civil engineer. Verify that installation will fit into the various trenches provided by others at the indicated invert elevation prior to installation. If the installation will not fit into the indicated invert elevation point while maintaining proper fall, notify architect and civil engineer so that an alternative may be determined.

Provide service piping and accessories required to complete utility connections that are not furnished by the serving utility.

Coordinate with the local gas service company to provide a new gas service, including gas meter, shut-off valves, and regulator as indicated on the drawings. Installation shall be in complete conformance with the requirements of the local gas service company.

C. INCIDENTAL DAMAGE

Repair streets, sidewalks, drives, paving, walls, finishes, and other facilities damaged in the course of the work. Repair materials shall match existing materials. Repair work shall be free of charge. Repair work shall be free of charge. Repair work shall be free of charge. Repair work shall be free of charge.

Coordinate with the local gas service company to provide a new gas service, including gas meter, shut-off valves, and regulator as indicated on the drawings. Installation shall be in complete conformance with the requirements of the local gas service company.

D. ROUGH-IN

Coordinate without delay all rough-in with other divisions. Conceal piping, conduit, and rough-in except in unfinished areas and where otherwise shown.

E. CONCRETE BASES

Provide concrete bases (e.g., housekeeping pads) shall be a minimum of 4 inches greater than the footprint of the equipment that it is supporting and shall have a minimum height as described below.

Construct equipment bases of a minimum 28 day, 4000 psi concrete conforming to American Concrete Institute Standard Building Code for Reinforced Concrete (ACI 318) and the latest applicable recommendations of the ACI standard practice manual. Concrete shall be composed of cement, sand, aggregate, and water in accordance with ASTM C150 Type I, aggregate conforming to ASTM C33, and potable water. Exposed exterior concrete shall contain 5 to 7 percent air entrainment.

Unless otherwise specified or shown on the structural drawings, reinforce equipment bases and housekeeping pads with No. 4 reinforcing bars conforming to ASTM A618 or A618 - W2.9 x W2.9 welded wire mesh conforming to ASTM A185. Place reinforcing bars 24 inches on center with a minimum of two bars each direction.

Provide galvanized anchor bolts for equipment placed on concrete equipment bases and housekeeping pads or on concrete slabs. Anchor bolts size, number and placement shall be as recommended by the manufacturer of the equipment.

Concrete equipment bases shall have minimum heights in accordance with the following:

- For water heaters and other equipment not listed, minimum height not listed.
- For water heaters over 200 gallons capacity and domestic water booster pumps, minimum height is 5-12 inches.
- Height of equipment bases applies to equipment installed on slab-on-grade. For equipment installed on floors above grade and on the roof, refer to the drawings.

F. SUPPORT SYSTEMS

Structural steel used for pipe supports, equipment supports, etc., shall be new and clean, and shall conform to ASTM designation A-36.

Support plumbing equipment and piping from the building structure, with free-standing jacketing with self-sealing tape to provide a continuous vapor barrier by CertainTeed Corp., Knauf Insulation, Johns Manville or Owens Corning. Provide insulation thickness as follows:

