NOT LESS THAN 2"

HEAVY DUTY CLEANOUT.

FLOW —

30' EQUIV

LENGTH

WATER HEATER 76 MBH

FLEX CONNECTOR

SEE SPECIFICATIONS

CONCRETE SLAB

18" X 18" X 6" MIN

- GRADE

MAIN SEWER

I. ONE-WAY CLEANOUT IS SHOWN FOR ILLUSTRATION PURPOSES. PROVIDE ONE-WAY OR

(SEE CIVIL)

4 EXTERIOR CLEANOUT DETAIL

60' EQUIV

LENGTH

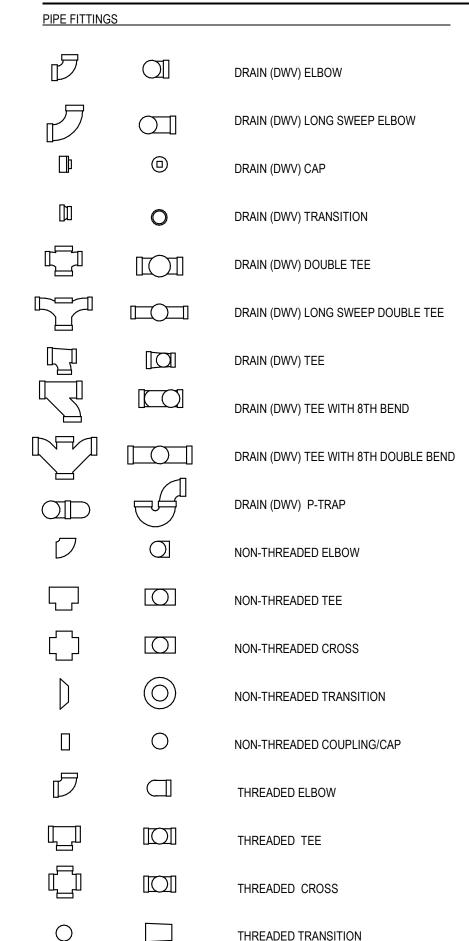
3/4"

TWO-WAY CLEANOUT WHERE INDICATED.

NG SUPPLY

40' EQUIV LENGTH

DIRT LEG (TYP)



PLUMBING VALVES

PLUMBING FIXTURES

<u>ANNOTATIONS</u>

LINE TYPES

BALL VALVE

BALANCING VALVE

CHECK VALVE

GATE VALVE

FLOOR DRAIN

CLOSET FLANGE

ELEVATION

SHEET REFERENCE CALL OUT

CONNECT TO EXISTING

SHEET NOTE CALL OUT

DEMOLITION NOTE CALL OUT

SECTION CALL OUT

REVISION LABEL

DEMOLITION

NEW WORK

EXISTING TO REMAIN

BACKFLOW PREVENTER

\cup	1	ITK	EADED CAP
PIPING LEGEN	ND		
NEW WORK	EXISTING	DEMOLITION	_
DCW	DCW	DCW	DOMESTIC COLD WATER
DHW	DHW	DHW	DOMESTIC HOT WATER
DHR	DHR	DHR	DOMESTIC HOT WATER RETURN
SAN	SAN	SAN	SANITARY
V	V	V	VENT
NG	NG	NG	NATURAL GAS

THREADED CAP

ABBREVIATIONS

SHEET NUMBER

P103

ABV AD	CLG ABOVE FINISHED CEILING	MAX MBH	MAXIMUM THOUSANDS OF BTU'S
	AREA DRAIN ABOVE FINISHED FLOOR	MCF	THOUSANDS OF BTUS THOUSANDS OF CUBIC FEET
	ACCESS PANEL	MH	MANHOLE
	ACID VENT	MIN	MINUTE; MINIMUM
	ACID VENT ACID WASTE	MR	MOP RECEPTOR
BFP	BACKFLOW PREVENTER	MV	MEDICAL VACUUM
	BRITISH THERMAL UNITS	N2	NITROGEN
	BTU PER HOUR	N20	NITROUS OXIDE
В	BOILER	NC	NORMALLY CLOSED
	COMPRESSED AIR	NG	NATURAL GAS
		NIC	NOT IN CONTRACT
	CUBIC FEET PER HOUR	NO	NORMALLY OPEN, NUMBER
CFM	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
	CAST IRON	02	OXYGEN
	COMBUSTION AIR INTAKE	OC	ON CENTER
	0	OD	OUTSIDE DIAMETER
	CLEANOUT UP TO GRADE	Р	PUMP
CWV	COMBINATION WASTE VENT	PH, \emptyset	PHASE
D	INDIRECT DRAIN	PRESS	PRESSURE
DCW	DOMESTIC COLD WATER	PRV	PRESSURE REDUCING VALVE
DHW	DOMESTIC HOT WATER	PSI PVC	POUNDS PER SQUARE INCH
	DOMESTIC HOT WATER RETURN	PVC	POLYVINYL CHLORIDE
	DEIONIZED	RD	ROOF DRAIN
,		RL	RAIN LEADER
	DEMINERALIZED	RPBFP	
EA .	EACH	DDM	PREVENTER
ELEV	ELECTRIC WATER COOLER	RPM RW	REVOLUTIONS PER MINUTE
	EXISTING TO REMAIN	SAN	RAINWATER SANITARY
	DEGREES FAHRENHEIT	SAN	
	FLOOR CLEANOUT	SIM	SIMILAR
	FLOOR DRAIN	SK	SINK
	FUME HOOD	SPEC	SPECIFICATION
	FLUE	SS	SANITARY SEWER, STAINLESS STEEL
	FEET	SSD	SITE STORM DRAIN
	FEET OF WATER, GAUGE	STD	STANDARD
GA	GAUGE	ST	STORM
GAL	GALLONS	STL	STEEL
GALV	GALVANIZED	SW	SOFT WATER
GPH	GALLONS PER HOUR	TEMP	TEMPERATURE
GPM	GALLONS PER MINUTE	TP	TRAP PRIMER
HB	HOSE BIBB	TS	TEMPERED WATER
HP	HORSEPOWER	TYP	TYPICAL
HPW	HIGH PURITY WATER	UG	UNDERGROUND
HR	HOUR	UTG	UP TO GRADE
HW	HEADWALL	UR	URINAL
ID IN	INSIDE DIAMETER	VED	VENT
IN WC	INCHES OF WATER CALICE	VFD	VARIABLE FREQUENCY DRIVE
IN. WG	INCHES OF WATER, GAUGE	VFM VIYB	VENTURI FLOW METER VALVE-IN-YARD-BOX
INV KW	INVERT KILOWATTS	VLV	VALVE VALVE
KWH	KILOWATTS KILOWATT HOUR	W	WASTE OR SOIL
	LAVATORY	WC	WASTE OR SOIL WATER CLOSET
	LABORATORY AIR	WCO	WALL CLEANOUT
LV	LABORATORY VENT	WH	WALL HYDRANT
- v	LABORATORY WASTE	WHA'X'	
LW	LABURATURT WASTE		

PLUMBING SHEET LIST
SHEET NAME
LEGEND, ABBREVIATIONS, CODES AND STANDARDS
SPECIFICATIONS
FLOOR PLAN - SANITARY DRAIN AND VENT PIPING
FLOOR PLAN - DOMESTIC WATER PIPING
FLOOR PLAN - NATURAL GAS PIPING
SANITARY AND VENT RISER DIAGRAM

DOMESTIC WATER RISER DIAGRAM

PRELIMINARY SELECTIONS PRELIMINARY SELECTIONS

DIVISION 22 CODES & STANDARDS

1. THE WORK COVERED BY THIS DIVISION CONSISTS OF PROVIDING ALL LABOR, EQUIPMENT AND MATERIALS AND PERFORMING ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF THE MECHANICAL WORK AS HEREIN CALLED FOR AND SHOWN ON THE DRAWINGS.

1. ALL WORK UNDER DIVISION 22 SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CODES LISTED HEREIN. THE DESIGN HAS BEEN BASED ON THE REQUIREMENTS OF THESE CODES; AND WHILE IT IS NOT THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT ALL WORK CALLED FOR COMPLIES WITH THESE CODES, HE SHALL BE RESPONSIBLE FOR CALLING TO THE ARCHITECT/ENGINEER'S ATTENTION ANY DRAWINGS OR SPECIFICATIONS THAT ARE NOT IN

- CONFORMANCE WITH THESE OR OTHER CODES PRIOR TO ORDERING EQUIPMENT OR INSTALLING WORK. COMPLY WITH REGULATIONS AND CODES OF UTILITY SUPPLIERS. WHERE NO SPECIFIC METHOD OR FORM OF CONSTRUCTION IS CALLED FOR IN THE CONTRACT DOCUMENTS, THE
- 4. WHERE CODE CONFLICT EXISTS, GENERALLY THE MOST RESTRICTIVE REQUIREMENT APPLIES. COMPLY WITH CURRENT CODE EDITION, UNLESS NOTED.
- ADDITIONAL CODES OR STANDARDS APPLYING TO A SPECIFIC PART OF THE WORK MAY BE INCLUDED IN THAT SECTION. 6. THE FOLLOWING CODES GOVERN THE WORK:
- A. FLORIDA BUILDING CODE BUILDING EIGHTH EDITION (2023). B. FLORIDA BUILDING CODE - PLUMBING - EIGHTH EDITION (2023).
- C. FLORIDA BUILDING CODE MECHANICAL EIGHTH EDITION (2023).
- D. FLORIDA BUILDING CODE FUEL GAS EIGHTH EDITION (2023). FLORIDA BUILDING CODE - TEST PROTOCOLS FOR HIGH VELOCITY HURRICANE ZONES - EIGHTH EDITION (2023).
- F. FLORIDA FIRE PREVENTION CODE EIGHTH EDITION (2023).

CONTRACTOR SHALL COMPLY WITH CODE REQUIREMENTS WHEN CARRYING OUT SUCH WORK.

- a. FIRE CODE (NFPA 1) 2021 FLORIDA EDITION b. LIFE SAFETY CODE (NFPA 101) - 2021 FLORIDA EDITION
- G. NATIONAL ELECTRIC CODE (NFPA 70) 2020. H. STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS (NFPA 90A).
- a. 2015 IN ACCORDANCE WITH FBC MECHANICAL EIGHTH EDITION (2023) b. 2021 IN ACCORDANCE WITH FAC 69A-3.012 STANDARDS OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND
- OTHER STANDARDS ADOPTED. I. INSTALLATION OF SPRINKLER SYSTEMS (NFPA 13) - 2019.

- 1. ALL DIVISION 22 MATERIALS, INSTALLATION AND SYSTEMS SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS, INCLUDING THE LATEST ADDENDA AND AMENDMENTS, TO THE EXTENT REFERENCED:
 - UNDERWRITERS' LABORATORIES (UL)
- AMERICAN NATIONAL STANDARDS INSTITUTION (ANSI)
- AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) NATIONAL FIRE PROTECTION (NFPA)
- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
- AIR CONDITIONING AND REFRIGERATION INSTITUTE (ARI) SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)
- AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS (ASHRAE) AIR MOVEMENT AND CONTROL ASSOCIATION (AMCA)
- J. STANDARDS OF THE HYDRONIC INSTITUTE (IBR)

GAS PIPE SIZING CALCULATIONS

TOTAL EQUIVALENT LENGTH OF GAS PIPE (FT) FROM REMOTE OUTLET TO THE SOURCE 100

GAS PIPE IS SIZED PER 2023 FLORIDA BUILDING CODE-FUEL GAS TABLE 402.4(2) WITH PRESSURE DROP OF 0.5 IN W.C.

TOTAL GAS LOAD = CFH

DESIGN NARRATIVE

THIS PLUMBING DESIGN HAS BEEN DEVELOPED TO PROVIDE A COST-EFFECTIVE SOLUTION FOR PROVIDING BASIC PLUMBING SERVICES FOR THIS NEWLY CONSTRUCTED FACILITY. THIS PROJECT INCLUDES THE PROVISION OF ALL NEW PLUMBING SERVICES TO COMPLETE THE BUILDING'S FUNCTION. THIS INCLUDES NEW DOMESTIC COLD WATER DISTRIBUTION SYSTEM, NEW GAS FIRED WATER HEATER WITH DOMESTIC HOT WATER DISTRIBUTION SYSTEMS, AND NEW SANITARY DRAIN/VENT DISTRIBUTION SYSTEM. CONTRACTOR SHALL PROVIDE ALL COMPONENTS NECESSARY TO COMPLETE THE INDICATED WORK.

PLUMBI	NG FIXTURE SCH	HEDULE				
	FIXTURE		F.A	$\overline{}$		
TAG	TYPE	MFR	MODEL	MFR	MODEL	NOTES
CW-1	CLOTHES WASHER	-	1=1	=	=:	4, 6
HB-1	HOSE BIB	WOODFORD	MODEL B65	*	-	
IK-1	ICE KIT	OATEY	F1960	*	-	
L-1	LAVATORY (PRIVATE)	KOHLER	K-2699-1	DELTA	599LF-GPM-PP	5
L-2	LAVATORY (PUBLIC)	KOHLER	K-2031-0	DELTA	599LF-HGM-PP	2, 3, 5
LT-1	LAUNDRY TRAY	PROFLO	PFLT2024	DELTA	2131LF	5
SH-1	SHOWER	(4)	(4)	MOEN	L2352	1
SK-1	KITCHEN SINK	ELKAY	LRADQ332155	KOHLER	K-22033	5
WC-1	WATER CLOSET (PUBLIC)	KOHLER	K-3493	-	-	5
WC-2	WATER CLOSET (PRIVATE)	KOHLER	K-3493	_	-	5

1. PROVIDE SHOWER TRIM KIT WITH PRESSURE BALANCING VALVE. INCLUDE INTEGRAL STOPS.

2. PROVIDE ADA COMPLIANT PIPE JACKET.

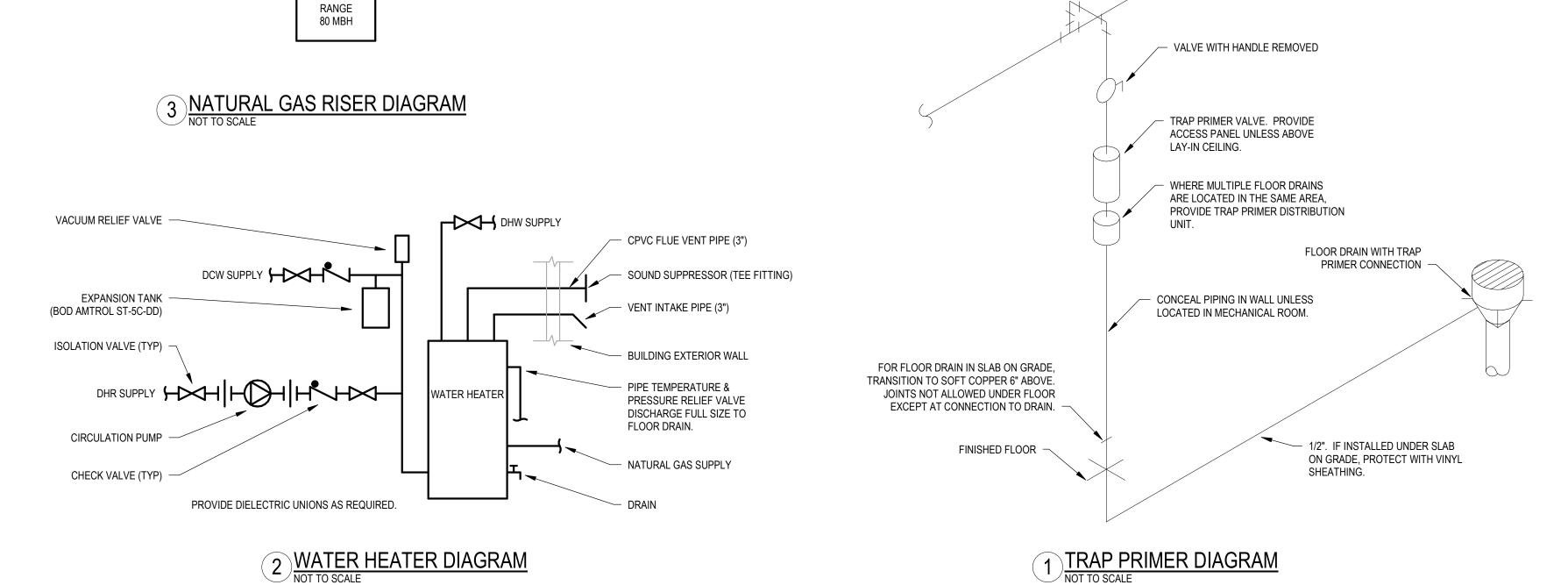
3. PROVIDE ASSE 1070 VALVE.
4. SEE ARCHITECTURAL SET FOR MFR, MODEL, ETC.
5. PROVIDE 1/4-TURN CHROME PLATED BRASS SHUTOFF VALVES AT FIXTURE.

6. PROVIDE CLOTHES WASHER OUTLET BOX WITH 1/4-TURN BRASS SHUTOFF VALVES AND ASSE 1010 WATER HAMMER ARRESTORS. BASIS OF DESIGN IS

GAS	EQUIPMENT S	CHEDULE								
TAG	TYPE	MANUFACTURER	MODEL	CAPACITY (GAL)	FUEL SOURCE	INPUT (BTUH)	EWT (F)	LWT (F)	VOLTS-PHASE	SCHEDULE NOTE
	DOMESTIC WATER HEATER		BPD-80	 	NATURAL GAS	· · · · · · · · · · · · · · · · · · ·	70	120	120-1	1
RA-1	COOKING RANGE	-	-	-	NATURAL GAS	80,000	-	-	120-1	2
NOTES										

1. UNIT SHALL BE DIRECT-VENT DESIGN WITH A TWO-PIPE AIR INTAKE AND EXHAUST SYSTEM COMMUNICATING DIRECTLY WITH THE OUTSIDE OF THE BUILDING. THE BLOWER SHALL HAVE A SAFETY DEVICE THAT WILL NOT ALLOW THE OPERATION OF THE MAIN BURNERS UNLESS THE BLOWER IS IN OPERATION. USE 3" SCHEDULE 40 CPVC PIPE FOR INTAKE AND VENTING RUNS. 2. SEE ARCHITECTURAL SET FOR MFR, MODEL, ETC.

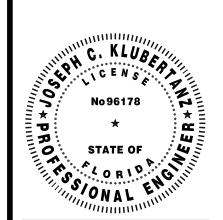
RECIRCULATION PUMP SCHEDULE									
TAG	DUTY	MANUFACTURER	MODEL	(GPM)	(FT-HD)	POWER (W)	VOLTS-PHASE	ECM	SCHEDULE NOTES
RCP-1	DOMESTIC HOT WATER	BELL & GOSSETT	ECOCIRC 20-18	1	10	70	120/1	YES	
NOTES									
1. NONE									



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Superlative







REVISIONS

NO: DATE: REF:

DRAWING STATUS **100% CONSTRUCTION** DOCUMENTS **ISSUE DATE:**

09/27/2024 DRAWN BY: CHECKED BY: PROJECT NUMBER:

DRAWING TITLE: LEGEND, ABBREVIATIONS, CODES AND STANDARDS

SHEET NO.

9/30/2024 4:23:55 PM

1. **GENERAL PLUMBING**

- A. DEFINITIONS a. PROVIDE: SUPPLY, ERECT, INSTALL AND CONNECT IN READINESS FOR REGULAR OPERATION, THE PARTICULAR WORK REFERRED TO, UNLESS OTHERWISE
- b. FURNISH: SUPPLY AND DELIVER TO PROJECT SITE, READY FOR SUBSEQUENT INSTALLATION BY OWNER.
- c. INSTALL: EQUIPMEMT SUPPLIED BY OWNER AND SHALL INCLUDE UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, TEST COMPLETE READY FOR INTENDED USE, AND SIMILAR REQUIREMENTS.

B. THE WORK COVERED BY THESE SPECIFICATIONS CONSISTS OF PROVIDING ALL LABOR, EQUIPMENT AND MATERIALS AND PERFORMING ALL OPERATIONS

NECESSARY FOR THE INSTALLATION OF THE MECHANICAL WORK AS HEREIN CALLED FOR AND SHOWN ON THE DRAWINGS AND AS DESCRIBED IN THESE C. PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACCURACY OF ALL DATA INDICATED ON THE DRAWINGS AND/OR PROVIDED BY THE OWNER. SHOULD THE CONTRACTOR DISCOVER ANY INACCURACIES, ERRORS, OR OMISSIONS IN THE DATA, THEY SHALL IMMEDIATELY NOTIFY THE

ENGINEER. COMMENCEMENT OF WORK BY THE CONTRACTOR SHALL BE HELD AS AN ACCEPTANCE OF THE DATA BY THEM AFTER WHICH TIME THE CONTRACTOR

- HAS NO CLAIM AGAINST THE OWNER RESULTING FROM ALLEGED ERRORS, OMISSIONS, OR INACCURACIES OF THE SAID DATA. D. MATERIALS DELIVERED TO THE SITE SHALL BE INSPECTED FOR DAMAGE, UNLOADED, AND STORED WITH A MINIMUM OF HANDLING. ALL MATERIAL SHALL BE STORED TO PROVIDE PROTECTION FROM THE WEATHER AND ACCIDENTAL DAMAGE.
- E. INSTALL WORK AS REQUIRED TO FIT STRUCTURE, AVOID OBSTRUCTIONS, AND RETAIN CLEARANCE, HEADROOM, OPENINGS AND PASSAGEWAYS. CUT NO
- STRUCTURAL MEMBERS WITHOUT WRITTEN APPROVAL FROM ENGINEER AND/OR ARCHITECT. F. CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING OF ALL HOLES, CHASES, SLEEVES, AND OTHER OPENINGS REQUIRED FOR INSTALLATION OF
- EQUIPMENT FURNISHED AND INSTALLED UNDER THIS SECTION. UTILIZE EXPERIENCED TRADES FOR CUTTING AND PATCHING. OBTAIN PERMISSION FROM ARCHITECT/ENGINEER BEFORE CUTTING ANY STRUCTURAL ITEMS. G. PROVIDE PIPE SLEEVES WHERE PIPING PASSES THROUGH SLAB. SECURE SLEEVES IN PROPER POSITION AND LOCATION DURING CONSTRUCTION. PROVIDE
- CEMENT WITH WILL DRY TO A FIRM BUT PLIABLE MASS OR PROVIDE A SEGMENTED ELASTOMERIC SEAL. H. EXTEND SLEEVES IN FLOOR SLABS 3" ABOVE FINISHED FLOOR, AS REQUIRED. CONTRACTOR TO ENSURE SLEEVES ARE INSTALLED PER STRUCTURAL

SLEEVES OF SUFFICIENT LENGTH TO PASS THROUGH ENTIRE THICKNESS OF THE SLAB. PROVIDE NO LESS THAN 1/4-INCH SPACE BETWEEN EXTERIOR OF PIPING

OR PIPE INSULATION AND INTERIOR OR SLEEVE. FIRMLY PACK SPACE WITH INSULATION AND CAULK AT BOTH ENDS OF THE SLEEVE WITH PLASTIC WATERPROOF

- CONTRACTOR SHALL PROVIDE ALL THE LABOR AND MATERIALS TO PERFORM THE DRAINAGE/VENT SYSTEM TESTS. THE PLUMBING OFFICIAL SHALL BE GIVEN AT LEAST 10 DAYS OF NOTICE TO SCHEDULE OBSERVATION OF THESE TESTS.
- J. PER FBC, ALL FLOOR DRAINS SHALL INCLUDE A POTABLE WATER-SUPPLIED TRAP SEAL PRIMER VALVE WITH SUPPLY WATER TO THE TRAP. WATER SUPPLIED TRAP SEAL PRIMER VALVES SHALL CONFORM TO ASSE 1018. THE DISCHARGE PIPE FROM THE TRAP SEAL PRIMER VALVE SHALL CONNECT TO THE TRAP ABOVE THE TRAP SEAL ON THE INLET SIDE OF THE TRAP. AS REQUIRED, PROVIDE AS NEEDED WITH UNDERGROUND PACKAGE.
- K. CONTRACTOR TO PROVIDE CLEANOUT AS REQUIRED PER FBC PLUMBING 708. NUMBER CLEANOUTS SHOWN ON PLANS MAY NOT BE THE FINAL QUANTITY. CONTRACTOR TO VERIFY REQUIREMENTS PRIOR TO SLAB POUR.
- AS-BUILTS: PROVIDE A MARKED-UP SET OF DRAWINGS FOR AS-BUILTS. M. SUBMIT TEST REPORTS, CERTIFICATIONS, AND VERIFICATION LETTERS AS CALLED FOR IN OTHER SECTIONS. THE CONTRACTOR SHALL COORDINATE THE REQUIRED TESTING AND DOCUMENTATION OF SYSTEM PERFORMANCE SUCH THAT SUFFICIENT TIME EXISTS TO PREPARE THE REPORTS, SUBMIT THE REPORTS, REVIEW THE REPORTS, AND TAKE CORRECTIVE ACTION WITHIN THE SCHEDULED CONTRACT TIME.
- N. ALL EQUIPMENT MODELS LISTED IN THIS DOCUMENT ARE BASIS OF DESIGN. ALTERNATES THAT MEET OR EXCEED DESIGN INTENT AS INDICATED SHALL BE CONSIDERED, PRIOR APPROVAL PROCESS WILL BE REQUIRED.
- 2. BASIC MATERIAL & METHODS A. EQUIPMENT SHALL BE NEW AND THE MOST SUITABLE GRADE FOR THE PURPOSE INTENDED. EQUIPMENT FURNISHED UNDER THIS SECTION SHALL BE THE PRODUCT OF A MANUFACTURER REGULARLY ENGAGED IN THE MANUFACTURE OF SUCH ITEMS FOR A PERIOD OF THREE YEARS. WHERE PRACTICAL, ALL THE COMPONENTS SHALL BE PRODUCTS OF A SINGLE MANUFACTURER IN ORDER TO PROVIDE PROPER COORDINATION AND RESPONSIBILITY. WHERE REQUIRED,
- CONTRACTOR SHALL FURNISH PROOF OF INSTALLATION OF SIMILAR UNITS OR EQUIPMENT B. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED AND COMPLETED IN A FIRST-CLASS WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE BEST MODERN METHODS AND PRACTICE. ANY MATERIALS INSTALLED WHICH DO NOT PRESENT AN ORDERLY AND REASONABLY NEAT AND/OR WORKMANLIKE APPEARANCE, OR
- DO NOT ALLOW ADEQUATE SPACE FOR MAINTENANCE, SHALL BE REMOVED AND REPLACED WHEN SO DIRECTED BY THE ARCHITECT/ENGINEER. C. THE LABEL OF THE APPROVING AGENCY, SUCH AS UL, IBR, ASME, ARI, AMCA, BY WHICH A STANDARD HAS BEEN ESTABLISHED FOR THE PARTICULAR ITEM SHALL
- D. MATERIALS AND EQUIPMENT ARE SPECIFIED HEREIN BY A SINGLE OR BY MULTIPLE MANUFACTURERS TO INDICATE QUALITY, MATERIAL AND TYPE OF CONSTRUCTION DESIRED. MANUFACTURER'S PRODUCTS SHOWN ON THE DRAWINGS HAVE BEEN USED AS A BASIS FOR DESIGN; IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THAT ALTERNATE MANUFACTURER'S PRODUCTS MEET DETAILED SPECIFICATIONS AND THAT SIZE AND ARRANGEMENT OF EQUIPMENT ARE SUITABLE FOR INSTALLATION.

- A. GENERAL PROVIDE PIPE AND TUBE OF TYPE, JOINT TYPE, GRADE, SIZE AND WEIGHT (WALL THICKNESS OR CLASS) INDICATED FOR EACH SERVICE. WHERE TYPE, GRADE OR CLASS IS NOT INDICATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER FOR INSTALLATION REQUIREMENTS, AND COMPLY WITH GOVERNING REGULATIONS AND INDUSTRY STANDARDS. ALL PIPING PROVIDED FOR A PARTICULAR SYSTEM SHALL BE BY THE SAME MANUFACTURER. PROVIDE FACTORY-FABRICATED FITTINGS OF TYPE, MATERIALS, GRADE, CLASS AND PRESSURE RATING INDICATED FOR EACH SERVICE AND PIPE SIZE. PROVIDE SIZES AND TYPES MATCHING PIPE, TUBE, VALVE OR EQUIPMENT CONNECTION IN EACH CASE. WHERE NOT OTHERWISE INDICATED, COMPLY WITH GOVERNING REGULATIONS AND INDUSTRY STANDARDS FOR SELECTIONS, AND WITH PIPE MANUFACTURER'S RECOMMENDATIONS WHERE APPLICABLE.
- B. MATERIALS PROVIDE SCHEDULE 40 PVC DWV PIPE AND FITTINGS PER ASTM D-2665 STANDARD. C. SUBMITTALS - CONTRACTOR TO SUBMIT MATERIAL DATA SHEETS DESCRIBING THE PIPE AND FITTINGS TO BE USED FOR THE PROJECT.
- D. EXECUTION INSTALL PIPES AND PIPE FITTINGS IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE PERMANENTLY-LEAKPROOF PIPING SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE WITHOUT PIPING FAILURE. INSTALL EACH RUN WITH MINIMUM JOINTS AND COUPLINGS. BUT WITH ADEQUATE AND ACCESSIBLE UNIONS FOR DISASSEMBLY AND MAINTENANCE OR REPLACEMENT OF VALVES AND EQUIPMENT. REDUCE SIZES (WHERE
- INDICATED) BY USE OF REDUCING FITTINGS, NOT BUSHINGS. ALIGN PIPING ACCURATELY AT CONNECTIONS, WITHIN 1/16-INCH MISALIGNMENT TOLERANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULL COORDINATION OF THE PLUMBING SYSTEMS WITH SHOP DRAWINGS OF THE BUILDING CONSTRUCTION SO
- THE PROPER OPENINGS AND SLEEVES OR SUPPORTS ARE PROVIDED FOR PIPING OR OTHER EQUIPMENT PASSING THROUGH SLABS OR WALLS. B. ANY ADDITIONAL STEEL SUPPORTS REQUIRED FOR THE INSTALLATION OF ANY PLUMBING EQUIPMENT OR PIPING, SHALL BE FURNISHED AND INSTALLED UNDER
- THIS SECTION WITH REQUIRED ADDITIONAL SUPPORTS. C. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL EQUIPMENT SUCH AS VALVES, PIPING, FIXTURES AND SUCH OTHER APPARATUS OR
- EQUIPMENT THAT MAY REQUIRE MAINTENANCE AND OPERATION ARE MADE EASILY ACCESSIBLE, REGARDLESS OF THE DIAGRAMMATIC LOCATION SHOWN ON THE **DRAWINGS**
- D. ALL CONNECTIONS TO FIXTURES AND EQUIPMENT SHOWN ON THE DRAWINGS SHALL BE CONSIDERED DIAGRAMMATIC UNLESS OTHERWISE INDICATED BY A SPECIFIC DETAIL ON THE DRAWINGS. THE ACTUAL CONNECTIONS SHALL BE MADE TO FULLY SUIT THE REQUIREMENTS OF EACH CASE AND ADEQUATELY PROVIDE
- E. BEFORE ANY EQUIPMENT IS SHUT DOWN FOR DISCONNECTING OR TIE-INS, ARRANGEMENTS SHALL BE MADE WITH THE OWNER AND SHALL BE DONE AT THE TIME BEST SUITED TO THE OWNER. SERVICES SHALL BE RESTORED THE SAME DAY UNLESS PRIOR ARRANGEMENTS ARE MADE WITH THE OWNER. ALL OVERTIME OR PREMIUM COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE BASE BID.

5. PIPING SPECIALTIES A. GENERAL

- a. PROVIDE FACTORY-FABRICATED PIPING SPECIALTIES RECOMMENDED BY MANUFACTURER FOR USE IN SERVICE INDICATED. PROVIDE PIPING SPECIALTIES OF TYPES AND PRESSURE RATINGS INDICATED FOR EACH SERVICE, OR IF NOT INDICATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS. PROVIDE SIZES AS INDICATED, AND CONNECTIONS, WHICH PROPERLY MATE WITH PIPE, TUBE, AND EQUIPMENT CONNECTIONS. WHERE MORE THAN ONE TYPE IS INDICATED, SELECTION IS INSTALLER'S OPTION.
- B. ESCUTCHEONS a. PROVIDE PIPE ESCUTCHEONS AS SPECIFIED HEREIN WITH INSIDE DIAMETER CLOSELY FITTING PIPE OUTSIDE DIAMETER, OR OUTSIDE OF PIPE INSULATION WHERE PIPE IS INSULATED. SELECT OUTSIDE DIAMETER OF ESCUTCHEON TO COMPLETELY COVER PIPE PENETRATION HOLE IN FLOORS, WALLS, OR CEILINGS: AND PIPE SLEEVE EXTENSION, IF ANY. FURNISH PIPE ESCUTCHEONS WITH NICKEL OR CHROME FINISH FOR OCCUPIED AREAS, PRIME PAINT FINISH
- FOR UNOCCUPIED AREAS. b. PIPE ESCUTCHEONS FOR MOIST AREAS: FOR WATERPROOF FLOORS, AND AREAS WHERE WATER AND CONDENSATION CAN BE EXPECTED TO ACCUMULATE,
- PROVIDE CAST BRASS OR SHEET BRASS ESCUTCHEONS, SOLID OR SPLIT HINGED.
- c. PIPE ESCUTCHEONS FOR DRY AREAS: PROVIDE SHEET STEEL ESCUTCHEONS, SOLID OR SPLIT HINGED. C. DIELECTRIC UNIONS
- a. PROVIDE STANDARD PRODUCTS RECOMMENDED BY MANUFACTURER FOR USE IN SERVICE INDICATED, WHICH EFFECTIVELY ISOLATE FERROUS FROM NON-FERROUS PIPING (ELECTRICAL CONDUCTANCE), PREVENT GALVANIC ACTION AND STOP CORROSION.
- a. PIPE ESCUTCHEONS INSTALL PIPE ESCUTCHEONS ON EACH PIPE PENETRATION THROUGH FLOORS, WALLS, PARTITIONS, AND CEILINGS WHERE PENETRATION IS EXPOSED TO VIEW, AND ON EXTERIOR OF BUILDING. SECURE ESCUTCHEON TO PIPE OR INSULATION SO ESCUTCHEON COVERS
- PENETRATION HOLE AND IS FLUSH WITH ADJOINING SURFACE. b. DIELECTRIC UNIONS - INSTALL AT EACH PIPING JOINT BETWEEN FERROUS AND NON-FERROUS PIPING. COMPLY WITH MANUFACTURER'S INSTALLATION
- c. PIPE SLEEVES INSTALL PIPE SLEEVES OF TYPES INDICATED WHERE PIPING PASSES THROUGH WALLS. FLOORS. CEILINGS. AND ROOFS. DO NOT INSTALL SLEEVES THROUGH STRUCTURAL MEMBERS OF WORK, EXCEPT AS DETAILED ON DRAWINGS, OR AS REVIEWED BY ARCHITECT/ENGINEER. INSTALL SLEEVES ACCURATELY CENTERED ON PIPE RUNS. SIZE SLEEVES SO THAT PIPING AND INSULATION (IF ANY) WILL HAVE FREE MOVEMENT IN SLEEVE, INCLUDING ALLOWANCE FOR THERMAL EXPANSION; BUT NOT LESS THAN 2 PIPE SIZES LARGER THAN PIPING RUN. WHERE INSULATION INCLUDES VAPOR-BARRIER JACKET, PROVIDE SLEEVE WITH SUFFICIENT CLEARANCE FOR INSTALLATION. INSTALL LENGTH OF SLEEVE EQUAL TO THICKNESS OF CONSTRUCTION PENETRATED, AND FINISH FLUSH TO SURFACE, EXCEPT FLOOR SLEEVES. EXTEND FLOOR SLEEVES 1/4" ABOVE LEVEL FLOOR FINISH, AND 3/4" ABOVE FLOOR FINISH SLOPED TO DRAIN. PROVIDE TEMPORARY SUPPORT OF SLEEVES DURING PLACEMENT OF CONCRETE AND OTHER WORK AROUND SLEEVES AND PROVIDE TEMPORARY CLOSURE TO PREVENT CONCRETE AND OTHER MATERIALS FROM ENTERING SLEEVES.

6. SUPPORTS, ANCHORS, AND SEALS

INSTRUCTIONS.

- A. GENERAL PROVIDE PIPE HANGERS AND SUPPORTS OF WHICH MATERIALS, DESIGN, AND MANUFACTURE COMPLY WITH ANSI/MSS SP-58. SELECT AND APPLY PIPE HANGERS AND SUPPORTS, COMPLYING WITH MSS SP-69. FABRICATE AND INSTALL PIPE HANGERS AND SUPPORTS, COMPLYING WITH MSS SP-89. B. FXFCUTION
- a. PROCEED WITH INSTALLATION OF HANGERS, SUPPORTS AND ANCHORS ONLY AFTER REQUIRED BUILDING STRUCTURAL WORK HAS BEEN COMPLETED IN AREAS WHERE THE WORK IS TO BE INSTALLED. CORRECT INADEQUACIES INCLUDING (BUT NOT LIMITED TO) PROPER PLACEMENT OF INSERTS, ANCHORS AND OTHER BUILDING STRUCTURAL ATTACHMENTS. b. INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED MOVEMENT OF PIPING SYSTEMS AND TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE
- ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS AND SIMILAR UNITS. : LOAD DISTRIBUTION: INSTALL HANGERS AND SUPPORTS SO THAT PIPING LIVE AND DEAD LOADING AND STRESSES FROM MOVEMENT WILL NOT BE

TRANSMITTED TO CONNECTED EQUIPMENT. PLUMBING IDENTIFICATION

- N. GENERAL COMPLY WITH ANSI A13.1 FOR LETTERING SIZE, LENGTH OF COLOR FIELD, COLORS, AND VIEWING ANGLES OF IDENTIFICATION DEVICES. PROVIDE EQUIPMENT MANUFACTURER'S STANDARD STAMPED NAMEPLATES FOR WATER HEATERS, PUMPS, ETC.
- a. WHERE IDENTIFICATION IS TO BE APPLIED TO SURFACES WHICH REQUIRE INSULATION, PAINTING OR OTHER COVERING OR FINISH, INCLUDING VALVE TAGS IN FINISHED MECHANICAL SPACES, INSTALL IDENTIFICATION AFTER COMPLETION OF COVERING AND PAINTING. INSTALL IDENTIFICATION PRIOR TO
- INSTALLATION OF ACOUSTICAL CEILINGS AND SIMILAR REMOVABLE CONCEALMENT. b. LOCATE PIPE MARKERS AS FOLLOWS WHEREVER PIPING IS EXPOSED TO VIEW IN OCCUPIED SPACES, MACHINE ROOMS, ACCESSIBLE MAINTENANCE SPACES AND EXTERIOR NON-CONCEALED LOCATIONS. NEAR EACH VALVE AND CONTROL DEVICE.
- NEAR EACH BRANCH, EXCLUDING SHORT TAKE-OFFS FOR FIXTURES AND TERMINAL UNITS; MARK EACH PIPE AT BRANCH, WHERE THERE COULD BE
- QUESTION OF FLOW PATTERN. NEAR LOCATIONS WHERE PIPES PASS THROUGH WALLS, FLOORS, CEILINGS, OR ENTER NON-ACCESSIBLE ENCLOSURES.
- AT ACCESS DOORS AND SIMILAR ACCESS POINTS WHICH PERMIT VIEW OF CONCEALED PIPING.
- NEAR MAJOR EQUIPMENT ITEMS AND OTHER POINTS OF ORIGINATION AND TERMINATION. SPACED INTERMEDIATELY AT MAXIMUM SPACING OF 75' ALONG EACH PIPING RUN, EXCEPT REDUCE SPACING TO 25' IN CONGESTED AREAS OF PIPING
- ON PIPING ABOVE REMOVABLE ACOUSTICAL CEILINGS, EXCEPT OMIT INTERMEDIATELY SPACED MARKERS
- C. INSTALL ENGRAVED PLASTIC LAMINATE SIGN ON OR NEAR EACH MAJOR ITEM OF PLUMBING EQUIPMENT AND EACH OPERATIONAL DEVICE. LABEL SHALL INDICATE TYPE OF SYSTEM AND AREA SERVED.

8. <u>INSULATION FOR PLUMBING EQUIPMENT AND PIPING</u>

- A. GENERAL a. PROVIDE COMPOSITE PLUMBING INSULATION (INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS, AND ADHESIVE) WITH A FLAME-SPREAD RATING OF 25 OR LESS, AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ANSI/ASTM E84.
- a. FIBERGLASS PIPE INSULATION: ASTM C547, CLASS 1 UNLESS OTHERWISE INDICATED. (PREFORMED SLEEVING WITH WHITE ALL-SERVICE JACKET, SUITABLE
- FOR TEMPERATURES UP TO 450°F)
- b. CELLULAR GLASS PIPE INSULATION: ASTM C552, TYPE II, CLASS 1. (UNCOVERED.) c. FLEXIBLE UNICELLULAR PIPE INSULATION: ASTM C534, TYPE I. (TUBULAR, SUITABLE FOR USE TO 200°F.)
- d. STAPLES, BANDS, WIRES, AND CEMENT: AS RECOMMENDED BY THE INSULATION MANUFACTURER FOR APPLICATIONS INDICATED
- e. ADHESIVES, SEALERS, PROTECTIVE FINISHES: PRODUCTS RECOMMENDED BY THE INSULATION MANUFACTURER FOR THE APPLICATION INDICATED. JACKETS: ASTM C921, TYPE I (VAPOR BARRIER) FOR PIPING BELOW AMBIENT TEMPERATURE, TYPE II (VAPOR PERMEABLE) FOR PIPING ABOVE AMBIENT TEMPERATURE. TYPE I MAY BE USED FOR ALL PIPING AT INSTALLER'S OPTION.
- C. EXECUTION a. INSTALL THERMAL INSULATION PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, AND IN COMPLIANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT INSULATION SERVES INTENDED PURPOSE.
- b. INSTALL INSULATION MATERIALS WITH SMOOTH AND EVEN SURFACES AND ON CLEAN AND DRY SURFACES. REDO POORLY FITTED JOINTS. DO NOT USE MASTIC OR JOINT SEALER AS FILLER FOR GAPPING JOINTS AND EXCESSIVE VOIDS RESULTING FROM POOR WORKMANSHIP
- c. MAINTAIN INTEGRITY OF VAPOR-BARRIER ON INSULATION AND PROTECT IT TO PREVENT PUNCTURE AND OTHER DAMAGE. LABEL ALL INSULATION
- d. DO NOT APPLY INSULATION TO SURFACES WHILE THEY ARE HOT OR WET. e. DO NOT INSTALL INSULATION UNTIL SYSTEMS HAVE BEEN CHECKED AND FOUND FREE OF LEAKS. SURFACES SHALL BE CLEAN AND DRY BEFORE ATTEMPTING TO APPLY INSULATION. A PROFESSIONAL INSULATOR WITH ADEQUATE EXPERIENCE AND ABILITY SHALL INSULATION.

f. DO NOT INSTALL INSULATION ON PIPE SYSTEMS UNTIL ACCEPTANCE TESTS HAVE BEEN COMPLETED EXCEPT FOR FLEXIBLE UNICELLULAR INSULATION. DO

- NOT INSTALL INSULATION UNTIL THE BUILDING IS "DRIED-IN". g. FIBERGLASS PIPE INSULATION - INSULATE THE FOLLOWING PIPING SYSTEMS (INDOOR LOCATIONS):
- DOMESTIC HOT WATER, GREATER THAN 140° F: UP TO 2" PIPE 1-1/2" THICK, OVER 2" PIPE 2" THICK. DOMESTIC HOT WATER, 140° F AND LOWER: UP TO 1-1/2" PIPE - 1" THICK, OVER 1-1/2" PIPE - 1-1/2" THICK.
- h. APPLY INSULATION TO PIPE WITH ALL SIDE AND END JOINTS BUTTED TIGHTLY. SEAL LONGITUDINAL LAP BY PRESSURIZING WITH PLASTIC SEALING TOOL. APPLY 3 INCH WIDE SELF-SEALING BUTT STRIPS TO JOINTS BETWEEN INSULATION SECTIONS. INSULATE ALL FITTINGS, FLANGES, VALVES AND STRAINERS WITH PREMOLDED INSULATION. PREMOLDED PVC COVERS MAY ALSO BE USED, BUT NO FLEXIBLE INSERTS ARE ALLOWED.
- PROVIDE HANGER OR PIPE SUPPORT SHIELDS OF 16 GAUGE (MINIMUM) GALVANIZED STEEL OVER THE INSULATION WHICH EXTENDS HALFWAY UP THE PIPE INSULATION COVER AND AT LEAST 6" ON EACH SIDE OF THE HANGER.
- CELLULAR GLASS PIPE INSULATION (UNDERGROUND) INSULATE THE FOLLOWING PIPING SYSTEMS:
- DOMESTIC HOT WATER: SMALLER THAN 6" PIPE -1-1/2" THICK, 6" AND LARGER PIPE -2" THICK. k. CUT INSULATION IN SECTIONS AT FITTINGS AND CAREFULLY FIT TO THE PIPE AND FITTINGS. NO STOVEPIPE OR SINGLE MITER INSULATION IS ALLOWED. APPLY VAPOR BARRIER MASTIC TO ALL EDGES OF THE CELLULAR INSULATION AND BETWEEN JOINTS IN THE INSULATION. INSULATE ALL ANCHORS, GUIDES, WALL PENETRATIONS, EXPANSION JOINTS, LOOPS AND ELLS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. USE RUBBER SPACERS AT

9. TESTING, CLEANING, AND STERILIZATION OF PIPING SYSTEMS

- A. GENERAL ALL MATERIALS, TEST EQUIPMENT, AND DEVICES REQUIRED FOR CLEANING, TESTING, STERILIZING OR PURGING SHALL BE PROVIDED BY THE B. TEST PIPING SYSTEMS BEFORE INSULATION IS INSTALLED WHEREVER FEASIBLE AND REMOVE CONTROL DEVICES BEFORE TESTING. TEST EACH NATURAL SECTION OF EACH PIPING SYSTEM INDEPENDENTLY BUT DO NOT USE PIPING SYSTEM VALVES TO ISOLATE SECTIONS WHERE TEST PRESSURE EXCEEDS VALVE PRESSURE RATING. FILL EACH SECTION WITH INDICATED MEDIUM AND PRESSURIZE FOR INDICATED PRESSURE AND TIME.
- C. REQUIRED TEST PERIOD IS 2 HOURS. D. NO PIPING, FIXTURES, OR EQUIPMENT SHALL BE CONCEALED OR COVERED UNTIL THEY HAVE BEEN TESTED. TEST SHALL BE REPEATED UPON REQUEST TO THE
- SATISFACTION OF THOSE MAKING THE INSPECTION. E. OBSERVE EACH TEST SECTION FOR LEAKAGE AT THE END OF THE TEST PERIOD. TEST FAILS IF LEAKAGE IS OBSERVED OR IF PRESSURE DROP EXCEEDS 5% OF
- F. REPAIR PIPING SYSTEMS SECTIONS WHICH FAIL REQUIRED PIPING TEST. DISASSEMBLE AND RE-INSTALL USING NEW MATERIALS TO EXTENT REQUIRED TO
- OVERCOME LEAKAGE. DO NOT USE CHEMICALS, STOP-LEAK COMPOUNDS, MASTICS, OR OTHER TEMPORARY REPAIR METHODS. G. PRESSURE TEST REQUIREMENTS
- a. SOIL, WASTE, VENT: TEST ALL PIPING WITHIN THE BUILDING WITH A 10-FOOT HEAD OF WATER. TEST PIPING IN SECTIONS SO THAT ALL JOINTS ARE TESTED b. DOMESTIC WATER: PERFORM HYDROSTATIC TEST ON ALL PIPING WITHIN THE BUILDING AT TWICE THE NORMAL STATIC PRESSURE AT SERVICE POINT, BUT NOT LESS THAN 100 PSIG. ONCE TESTED, FLUSH OUT PIPING AND LEAVE UNDER PRESSURE OF THE SUPPLY MAIN OR 40 PSIG FOR THE BALANCE OF THE
- c. GAS: TEST WITH AIR OR NITROGEN AT 150% OF NORMAL WORKING PRESSURE, BUT NOT LESS THAN 25 PSIG. THE TEST AND CHECK FOR LEAKS SHALL BE IN ACCORDANCE WITH NFPA-54 AND LOCAL UTILITY REQUIREMENTS.
- a. CLEAN EXTERIOR SURFACES OF INSTALLED PIPING SYSTEMS OF SUPERFLUOUS MATERIALS AND PREPARE FOR APPLICATION OF SPECIFIED COATINGS (IF ANY). FLUSH OUT PIPING SYSTEMS WITH CLEAN WATER OR BLOWDOWN WITH AIR BEFORE PROCEEDING WITH REQUIRED TESTS. INSPECT EACH RUN OF
- EACH SYSTEM FOR COMPLETION OF JOINTS, SUPPORTS AND ACCESSORY ITEMS. b. FLUSH AND DRAIN ALL WATER SYSTEMS AT LEAST THREE TIMES. REVERSE FLUSH SYSTEMS FROM SMALLEST PIPING TO LARGEST PIPING. REPLACE STARTUP STRAINERS WITH OPERATING STRAINERS.
- c. BLOWDOWN ALL GAS SYSTEMS WITH AIR OR NITROGEN (AT A RATE OF FLOW EXCEEDING DESIGN) AT LEAST THREE TIMES OR UNTIL NO RESIDUE SHOWS AT EACH OUTLET. REVERSE BLOWDOWN SYSTEMS FROM SMALLEST PIPING TO LARGEST PIPING.
- I. STERILIZATION OF DOMESTIC WATER SYSTEMS a. PREREQUISITES: ALL NEW HOT AND COLD WATER PIPING INSTALLED (COMPLETE), ALL FIXTURES CONNECTED, SYSTEM FLUSHED OUT, AND SYSTEM FILLED
- b. THE SHUT OFF VALVE AT THE WATER MAIN SHALL BE CLOSED, ALL FIXTURE OUTLETS OPENED SLIGHTLY, AND A STERILIZING SOLUTION SHALL BE
- INTRODUCED AT A MANIFOLD CONNECTION INSTALLED BY THE CONTRACTOR AT THE METER. THE SOLUTION SHALL CONTAIN 50 PARTS PER MILLION OF AVAILABLE CHLORINE. THE CHLORINATING MATERIAL SHALL BE EITHER LIQUID CHLORINE OR CALCIUM HYPOCHLORITE. THE SOLUTION SHALL BE ALLOWED TO STAND IN THE SYSTEM FOR AT LEAST EIGHT HOURS AFTER WHICH THE ENTIRE SYSTEM
- SHALL BE FLUSHED. d. AFTER FINAL FLUSHING, ALL AERATORS SHALL BE REMOVED, CLEANED, AND REINSTALLED. AFTER FINAL FLUSH THE RESIDUAL CHLORINE SHALL NOT EXCEED 0.2 PARTS PER MILLION.
- e. PROVIDE SAMPLING AND CERTIFIED REPORT BY AN INDEPENDENT TESTING LAB. PROVIDE WRITTEN HEALTH DEPARTMENT APPROVAL OF DISINFECTION
- f. FLUSHING, CLEANING, STERILIZATION, AND PRESSURE TESTING PROCEDURES SHALL COMPLY WITH STATE OF FLORIDA HEALTH STANDARDS.
- A. GENERAL COMPLY WITH APPLICABLE PORTIONS OF FLORIDA BUILDING CODE-PLUMBING PERTAINING TO SELECTION AND INSTALLATION OF PLUMBING MATERIALS AND PRODUCTS. COMPLY WITH LOCAL UTILITY REQUIREMENTS. ALL PRODUCTS USED IN POTABLE WATER SYSTEMS SHALL MEET THE LOW LEAD REQUIREMENTS OF NSF-372.
- B. PRODUCTS a. PROVIDE PIPING MATERIALS AND FACTORY-FABRICATED PIPING PRODUCTS OF SIZES, TYPES, PRESSURE RATINGS, TEMPERATURE RATINGS, AND CAPACITIES AS INDICATED. WHERE NOT INDICATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS. PROVIDE MATERIALS AND PRODUCTS COMPLYING WITH FLORIDA BUILDING CODE - PLUMBING WHERE APPLICABLE. PROVIDE SIZES AND TYPES MATCHING PIPE MATERIALS USED IN POTABLE WATER SYSTEMS. WHERE MORE THAN ONE TYPE OF MATERIALS OR PRODUCTS IS INDICATED. SELECTION IS INSTALLER'S OPTION.
- b. INTERIOR WATER PIPING: • ABOVE GRADE: CHLORINATED POLYVINYL CHLORIDE PIPE (CPVC), SCHEDULE 40; CPVC SOCKET FITTINGS, SOLVENT CEMENT JOINTS.
- BELOW GRADE: SAME AS SITE. C. EXECUTION
- a. EXAMINE AREAS AND CONDITIONS UNDER WHICH POTABLE WATER SYSTEMS ARE TO BE INSTALLED. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY
- CONDITIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO INSTALLER. b. INSTALL PIPING WITH 1/32" PER FOOT (1/4%) DOWNWARD SLOPE TOWARDS DRAIN POINT.
- c. Locate groups of Pipes Parallel to each other, spaced to permit applying full insulation and servicing of Valves.
- d. SECTIONAL VALVES: INSTALL ON EACH BRANCH AND RISER, CLOSE TO MAIN, WHERE BRANCH OR RISER SERVES TWO OR MORE PLUMBING FIXTURES OR EQUIPMENT CONNECTIONS, AND ELSEWHERE AS INDICATED.
- SHUTOFF VALVES: INSTALL ON INLET OF EACH PLUMBING EQUIPMENT ITEM, AND ON INLET OF EACH PLUMBING FIXTURE, AND ELSEWHERE AS INDICATED. DRAIN VALVES: INSTALL ON EACH PLUMBING EQUIPMENT ITEM LOCATED TO COMPLETELY DRAIN EQUIPMENT FOR SERVICE OR REPAIR. INSTALL AT BASE OF EACH RISER, AT BASE OF EACH RISE OR DROP IN PIPING SYSTEM, AND ELSEWHERE WHERE INDICATED OR REQUIRED TO COMPLETELY DRAIN POTABLE
- g. HOSE BIBBS INSTALL ON CONCEALED PIPING WHERE INDICATED WITH VACUUM BREAKER. PROVIDE SHUTOFF VALVE AT INLET. MOUNT 18 INCHES ABOVE
- GRADE OR FINISHED FLOOR h. PROVIDE HOT AND COLD WATER PIPING RUNOUTS TO FIXTURES OF SIZES INDICATED, BUT IN NO CASE SMALLER THAN REQUIRED BY FLORIDA BUILDING
- i. INSTALL WATER HAMMER ARRESTERS IN UPRIGHT POSITION, IN LOCATIONS AND OF SIZES INDICATED IN ACCORDANCE WITH PDI STANDARD WH-201.

11. SOIL, WASTE AND VENT SYSTEM

- A. GENERAL COMPLY WITH APPLICABLE PORTIONS OF FLORIDA BUILDING CODE-PLUMBING PERTAINING TO PLUMBING MATERIALS, CONSTRUCTION AND
- INSTALLATION OF PRODUCTS. COMPLY WITH LOCAL UTILITY REQUIREMENTS. PROVIDE PIPING MATERIALS AND FACTORY-FABRICATED PIPING PRODUCTS OF SIZES, TYPES, PRESSURE RATINGS, AND CAPACITIES AS INDICATED. WHERE NOT INDICATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS. PROVIDE SIZES AND TYPES MATCHING PIPING AND EQUIPMENT CONNECTIONS; PROVIDE FITTINGS OF MATERIALS WHICH MATCH PIPE MATERIALS USED IN SOIL AND WASTE SYSTEMS. WHERE MORE THAN ONE TYPE OF MATERIALS OR PRODUCTS IS INDICATED, SELECTION IS INSTALLER'S OPTION.
- C. CLEANOUTS a. PROVIDE FACTORY-FABRICATED DRAINAGE PIPING PRODUCTS OF SIZE AND TYPE INDICATED. WHERE NOT INDICATED, PROVIDE PROPER SELECTION AS
 - DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS AND GOVERNING REGULATIONS. CLEANOUT PLUGS: CAST-BRONZE OR BRASS, THREADS COMPLYING WITH ANSI B2.1 COUNTERSUNK HEAD.
- c. CLEANOUTS FOR PVC SYSTEMS: FLOOR CLEANOUTS: CAST-IRON BODY WITH ADJUSTABLE HEAD, BRASS PLUG, AND SCORIATED NICK-BRASS COVER. FURNISH WITH RECESSED COVER. FOR TILE FLOORS. FURNISH WITH CLAMPING RING FOR FLOORS WITH MEMBRANE.
- CLEANOUTS IN PIPING: PVC CLEANOUT ADAPTOR WITH THREADED PVC PLUG. WALL CLEANOUTS: PVC CLEANOUT ADAPTOR WITH TAPPED, COUNTERSUNK, THREADED BRASS PLUG AND ROUND STAINLESS STEEL ACCESS COVER
- GRADE CLEANOUTS: PVC CLEANOUT ADAPTOR WITH COUNTERSUNK, THREADED BRASS PLUG. IN SIDEWALKS AND OTHER FINISHED CONCRETE
- PROVIDE ACCESS COVER FRAMES WITH A NON-TILTING TRACTOR COVER. CLEANOUTS IN PAVED AREAS: CAST IRON BODY, ADJUSTABLE HOUSING, FERRULE WITH PLUG AND ROUND LOOSE SCORIATED TRACTOR COVER.
- COORDINATE CONCRETE DEPTH AT SITE WITH ADJUSTABLE FLANGE. D. FLOOR DRAINS - PROVIDE FLOOR DRAINS OF SIZE AS INDICATED ON DRAWINGS; AND TYPE, INCLUDING FEATURES, AS SPECIFIED HEREIN. PROVIDE INSIDE CAULK BOTTOM OUTLET OR TY-SEAL HUB OUTLET AND A 4" DEEP TRAP SEAL.
- a. EXAMINE SUBSTRATES AND CONDITIONS UNDER WHICH SOIL AND WASTE SYSTEMS ARE TO BE INSTALLED. DO NOT PROCEED WITH WORK UNTIL
- UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- INSTALL ABOVE GRADE SOIL AND WASTE PIPING IN ACCORDANCE WITH FLORIDA BUILDING CODE-PLUMBING INSTALL UNDERGROUND SOIL AND WASTE PIPES AS INDICATED AND IN ACCORDANCE WITH FLORIDA BUILDING CODE-PLUMBING. LAY UNDERGROUND PIPING BEGINNING AT LOW POINT OF SYSTEMS, TRUE TO GRADES AND ALIGNMENT INDICATED WITH UNBROKEN CONTINUITY OF INVERT. PLACE BELL ENDS OF PIPING FACING UPSTREAM. INSTALL REQUIRED GASKETS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR USE OF LUBRICANTS, CEMENTS, AND OTHER SPECIAL INSTALLATION REQUIREMENTS. CLEAN INTERIOR OF PIPING OF DIRT AND OTHER SUPERFLUOUS MATERIAL AS WORK PROGRESSES. MAINTAIN SWAB OR DRAG IN LINE AND PULL PAST EACH JOINT AS IT IS COMPLETED. PLACE PLUGS IN ENDS OF UNCOMPLETED PIPING AT END
- d. INSTALLATION OF CLEANOUTS: INSTALL IN ABOVE GROUND PIPING AND BUILDING DRAIN PIPING AS INDICATED, AS REQUIRED BY FLORIDA BUILDING CODE-PLUMBING; AND AT EACH CHANGE IN DIRECTION OF PIPING GREATER THAN 45°; AT MINIMUM INTERVALS OF 100'; AND AT BASE OF EACH VERTICAL SOIL OR WASTE STACK. INSTALL FLOOR AND WALL CLEANOUT COVERS FOR CONCEALED PIPING. SELECT TYPE TO MATCH ADJACENT BUILDING FINISH.
- e. CLEANOUTS SHALL BE FULL SIZE UP TO 4". PIPING OVER 4" SHALL HAVE A REDUCING FITTING TO ACCOMMODATE A 4" CLEANOUT UNLESS INDICATED OTHERWISE ON DRAWINGS. INSTALL CLEANOUTS TO ALLOW ADEQUATE CLEARANCE FOR RODDING. CLEANOUTS ON PIPING 6" AND SMALLER PIPING SHALL HAVE A MINIMUM OF 18"
- CLEARANCE; CLEANOUTS ON PIPING 8" AND LARGER SHALL HAVE 36" CLEARANCE. PROTECT ALL FINISHED SURFACES OF CLEANOUTS WITH A SUITABLE ADHESIVE COVERING UNTIL CONSTRUCTION IS COMPLETED FLASHING FLANGES - INSTALL FLASHING FLANGE AND CLAMPING DEVICE WITH EACH STACK AND CLEANOUT PASSING THROUGH WATERPROOF MEMBRANES.
- VENT FLASHING SLEEVES INSTALL ON STACK PASSING THROUGH ROOF, SECURE TO STACK FLASHING IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION OF FLOOR DRAINS - INSTALL FLOOR DRAINS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND IN LOCATIONS INDICATED. COORDINATE FLASHING WORK WITH WORK OF WATERPROOFING AND ADJOINING SUBSTRATE WORK. INSTALL FLOOR DRAINS AT LOW POINTS OF SURFACE AREAS TO BE DRAINED, OR AS INDICATED. SET TOPS OF DRAINS FLUSH WITH FINISHED FLOOR. INSTALL DRAIN FLASHING COLLAR OR FLANGE SO THAT NO LEAKAGE OCCURS BETWEEN DRAIN AND ADJOINING FLOORING. MAINTAIN INTEGRITY OF WATERPROOF MEMBRANES, WHERE PENETRATED. POSITION DRAINS SO THAT THEY ARE ACCESSIBLE AND EASY TO MAINTAIN.

A. GENERAL - COMPLY WITH APPLICABLE PORTIONS OF FLORIDA BUILDING CODE-PLUMBING PERTAINING TO PLUMBING MATERIALS, CONSTRUCTION AND

- INSTALLATION OF PRODUCTS. COMPLY WITH LOCAL UTILITY REQUIREMENTS. PROVIDE PIPING MATERIALS AND FACTORY-FABRICATED PIPING PRODUCTS OF SIZES, TYPES, PRESSURE RATINGS, AND CAPACITIES AS INDICATED. WHERE NOT INDICATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS. PROVIDE SIZES AND TYPES MATCHING PIPING AND EQUIPMENT CONNECTIONS; PROVIDE FITTINGS OF MATERIALS WHICH MATCH PIPE MATERIALS USED IN GAS SYSTEMS. WHERE MORE THAN ONE TYPE OF MATERIALS OR PRODUCTS IS INDICATED, SELECTION IS INSTALLER'S OPTION.
- C. PIPES AND FITTINGS a. PIPE SIZE 2" AND SMALLER: BLACK STEEL PIPE; SCHEDULE 40; MALLEABLE-IRON THREADED FITTINGS.
- b. PIPE SIZE 2-1/2" AND LARGER: BLACK STEEL PIPE; SCHEDULE 40; WROUGHT-STEEL BUTTWELDING FITTINGS.
- a. GAS COCKS 2" AND SMALLER: UL-LISTED, AGA APPROVED, 150 PSI NON-SHOCK WOG, TWO PIECE BALL TYPE, FULL PORT, BRONZE, LEVER HANDLE, THREADED
- b. GAS COCKS 2-1/2" AND LARGER: UL-LISTED, CGA APPROVED, MSS SP-78; 175 PSI, LUBRICATED PLUG TYPE, FULL PORT, SEMI-STEEL BODY, SINGLE GLAND,
- WRENCH OPERATED. FLANGED ENDS. GAS APPLIANCE CONNECTORS: PROVIDE GAS APPLIANCE CONNECTORS OF ANNEALED 304 STAINLESS STEEL TUBING WITH TYPE 304 STAINLESS STEEL BRAIDING TO PROTECT TUBING FROM ELONGATION AND A PVC COATING SURROUNDING STEEL BRAIDING WITH SUITABLE ENDS FOR APPLIANCE CONNECTION. PROVIDE NSF & CGA APPROVALS. HOSE LENGTH FOR MOVABLE APPLIANCES SHALL BE 1.25 TIMES THE DEPTH OF THE APPLIANCE.
- a. EXAMINE AREAS AND CONDITIONS UNDER WHICH GAS SYSTEMS MATERIALS AND PRODUCTS ARE TO BE INSTALLED. DO NOT PROCEED WITH WORK UNTIL
- UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. b. COORDINATE WITH GAS SUPPLIER PRIOR TO STARTING WORK.
- c. USE SEALANTS ON METAL GAS PIPING THREADS WHICH ARE CHEMICALLY RESISTANT TO GAS. USE SEALANTS SPARINGLY AND APPLY TO ONLY MALE

INSTALLATION OF ACCESS DOORS FOR ALL VALVES AND DEVICES.

- REMOVE CUTTING AND THREADING BURRS BEFORE ASSEMBLING PIPING. e. DO NOT INSTALL DEFECTIVE PIPING OR FITTINGS. DO NOT USE PIPE WITH THREADS WHICH ARE CHIPPED, STRIPPED OR DAMAGED. DO NOT USE BUSHINGS
- PLUG EACH GAS OUTLET, INCLUDING VALVES, WITH THREADED PLUG OR CAP IMMEDIATELY AFTER INSTALLATION AND RETAIN UNTIL CONTINUING PIPING, OR
- EQUIPMENT CONNECTIONS ARE COMPLETED. GROUND GAS PIPING ELECTRICALLY AND CONTINUOUSLY WITHIN PROJECT, AND BOND TIGHTLY TO GROUNDING CONNECTION.
- INSTALL DRIP-LEGS (DIRT LEG) IN GAS PIPING WHERE INDICATED, AND WHERE REQUIRED BY CODE OR GAS COMPANY REQUIREMENTS. INSTALL "TEE" FITTING WITH BOTTOM OUTLET PLUGGED OR CAPPED, AT BOTTOM OF PIPE RISERS.

APPLIANCE RESTRAINING DEVICE SHALL PREVENT OVER EXTENSION OF CONNECTING TUBE.

- INSTALL PIPING PARALLEL TO OTHER PIPING. GAS COCKS: PROVIDE AT CONNECTION TO GAS TRAIN FOR EACH GAS-FIRED EQUIPMENT ITEM; AND ON RISERS AND BRANCHES WHERE INDICATED. LOCATE
- GAS COCKS WHERE EASILY ACCESSIBLE, AND WHERE THEY WILL BE PROTECTED FROM POSSIBLE INJURY. KITCHEN APPLIANCE CONNECTORS: INSTALL TUBING, VALVES, CONNECTORS, FITTINGS IN ACCORDANCE WITH THEIR LISTING. HOSE, FITTINGS AND VALVES SHALL NOT RESTRICT GAS FLOW AND SHALL BE RATED FOR THE CAPACITY OF THE APPLIANCE THEY SERVE. HOSES SHALL NOT BE CRIMPED. HOSES BEHIND MOVABLE APPLIANCES SHALL NOT BE CRIMPED WHEN APPLIANCE IS EXTENDED FROM WALL OR WHEN APPLIANCE IS SET IN WORKING POSITION. APPLIANCE RESTRAINING DEVICE SHALL BE SET TO ENGAGE JUST PRIOR TO THE CONNECTOR BEING FULLY EXTENDED. LOCATE AND COORDINATE

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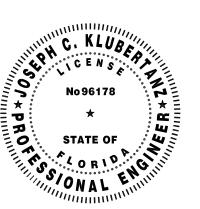
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AKIN BROOKS ENGINEERING, INC. FL LICENSE 3530 14260 W NEWBERRY RD #115 352.281.710 NEWBERRY, FL 32669 AB23023 AKINBROOKS.COI









REVISIONS

NO: DATE: REF: BY:

DRAWING STATUS: 100% CONSTRUCTION DOCUMENTS

ISSUE DATE: 09/27/2024 DRAWN BY: CHECKED BY:

PROJECT NUMBER: 24064 DRAWING TITLE: FLOOR PLAN - SANITARY DRAIN AND VENT PIPING

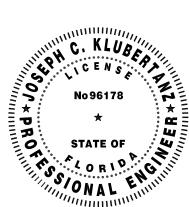
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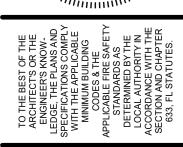
Akin Brooks
Engineering

AKIN BROOKS ENGINEERING, INC. 14260 W NEWBERRY RD #115 352.281.7104

NEWBERRY, FL 32669 AB23023 AKINBROOKS.COM DATE/TIME STAMP: 9/30/2024 4:23:59 PM









O CODE TRUST

BRADFORD COUNTY SLI QUARTERS

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ISSUE DATE:
09/27/2024

09/27/2024

DRAWN BY: CHECKED BY:

TJM JCK

PROJECT NUMBER:

24064

DRAWING TITLE:
FLOOR PLAN - DOMESTIC WATER PIPING

SHEET NO.

AKIN BROOKS ENGINEERING, INC. 14260 W NEWBERRY, FL 32669 AB23023 AKINBROOKS.COM

SHEET NO. P 102

DATE/TIME STAMP: 9/30/2024 4:24:04 PM









BRADFORD

REVISIONS NO: DATE: REF: BY:

DRAWING STATUS: 100% CONSTRUCTION **DOCUMENTS**

ISSUE DATE: 09/27/2024 DRAWN BY: CHECKED BY: JCK

PROJECT NUMBER: 24064 DRAWING TITLE: FLOOR PLAN - NATURAL GAS PIPING

P103

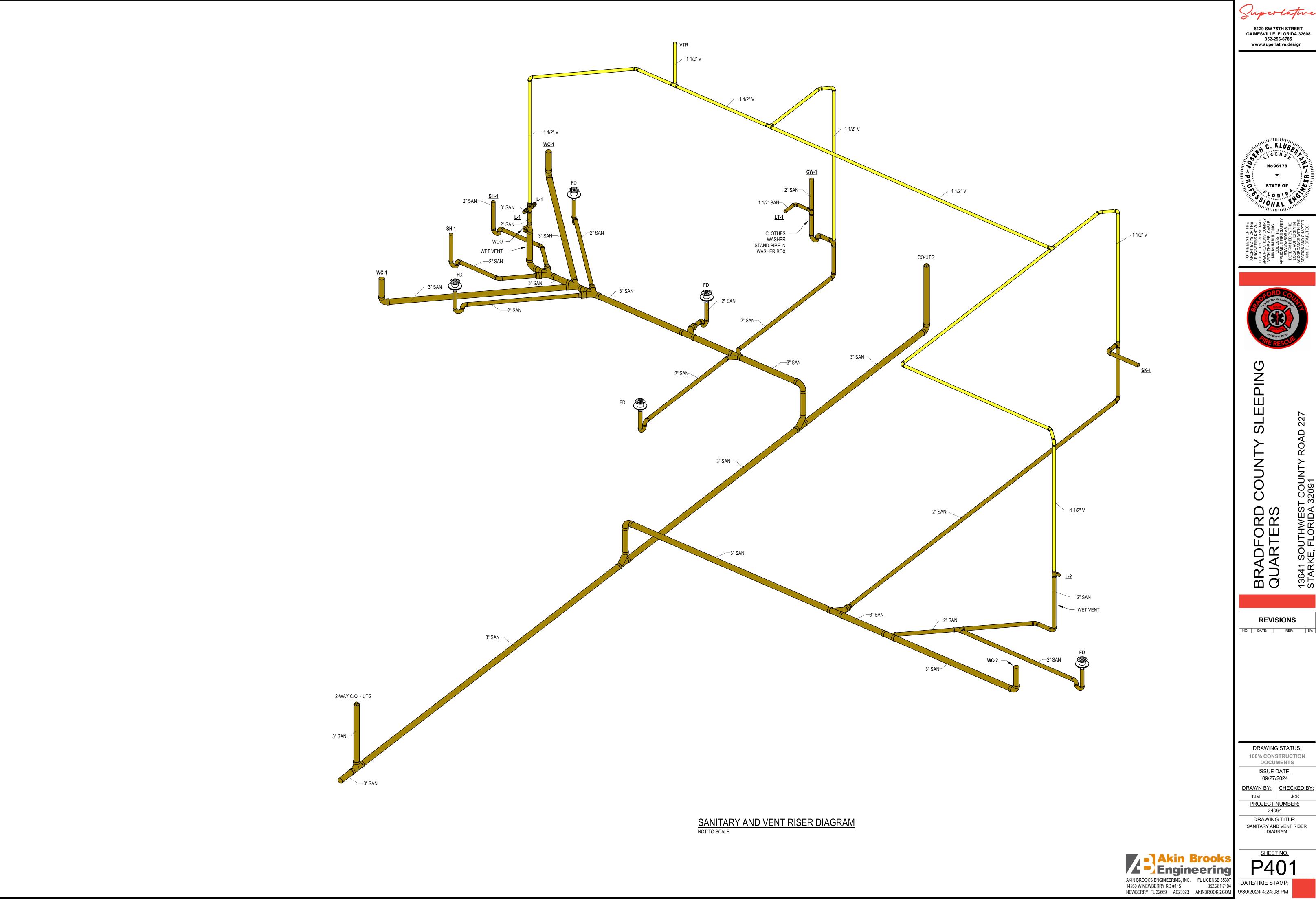
AKIN BROOKS Engineering

AKIN BROOKS ENGINEERING, INC. FL LICENSE 35307
14260 W NEWBERRY RD #115 352.281.7104
NEWBERRY, FL 32669 AB23023 AKINBROOKS.COM

SHEET NO.

P 103

DATE/TIME STAMP:
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8129 SW 75TH STREET GAINESVILLE, FLORIDA 32608 352-256-6785 www.superlative.design







REVISIONS

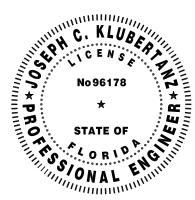
DRAWING STATUS: 100% CONSTRUCTION DOCUMENTS

ISSUE DATE: 09/27/2024 DRAWN BY: CHECKED BY:
TJM JCK PROJECT NUMBER: 24064

DRAWING TITLE: SANITARY AND VENT RISER DIAGRAM

P401

8129 SW 75TH STREET GAINESVILLE, FLORIDA 32608 352-256-6785 www.superlative.design





REVISIONS

DRAWING STATUS: 100% CONSTRUCTION DOCUMENTS ISSUE DATE: 09/27/2024

DRAWN BY: CHECKED BY:
TJM JCK PROJECT NUMBER: 24064

DRAWING TITLE:

DOMESTIC WATER RISER DIAGRAM

P402 Akin Brooks
Engineering

AKIN BROOKS ENGINEERING, INC. 14260 W NEWBERRY RD #115 352.281.7104

NEWBERRY, FL 32669 AB23023 AKINBROOKS.COM

Features

Material

Drop-in

Oval basin

Overflow drain

Vitreous china

Installation

Single faucet hole

Bryant® 20-1/4" oval drop-in bathroom sink K-2699-1



Recommended Products/Accessories

K-9018 P-Trap K-7129-A Bathroom sink grid drain with overflow K-23726 Drain treatment K-23725 Cast iron cleaner

ADA CSA B651 OBC

Codes/Standards ASME A112.19.2/CSA B45.1 ICC/ANSI A117.1 **CSA B651** OBC IAPMO Certification

Warranty

Available Colors/Finishes

0 White

1-800-4KOHLER (1-800-456-4537) Kohler Co. reserves the right to make revisions without notice to product specifications.

WM PART KIT F/PFLT

PF83BRSS Chrome plated stainless steel sink strainer

Stainless steel sink strainer

ship newly designed product to fill any order unless we agree in writing to do otherwise.

PFLTWM

Warranty and Codes

©2021 Ferguson Enterprises, LLC 0621 2821415

THE BOLD LOOK

FINISHED FLOOR

FERGUSON.COM/PROFLO

KOHLER® One-Year Limited

See website for detailed warranty information.

Color tiles intended for reference only. Color Code Description

96 Biscuit 7 Black Black™

1-800-4KOHLER (1-800-456-4537) Kohler Co. reserves the right to make revisions without notice to product specifications. For the most current Specification Sheet, go to www.kohler.com USA or www.kohler.ca Canada 7-8-2024 22:14 - US

THE BOLD LOOK

Greenwich™

Wall-Mount Bathroom Sink

Codes/Standards

ICC/ANSI A117.1

Warranty

IAPMO Certification

ASME A112.19.2/CSA B45.1

KOHLER® One-Year Limited

Available Colors/Finishes

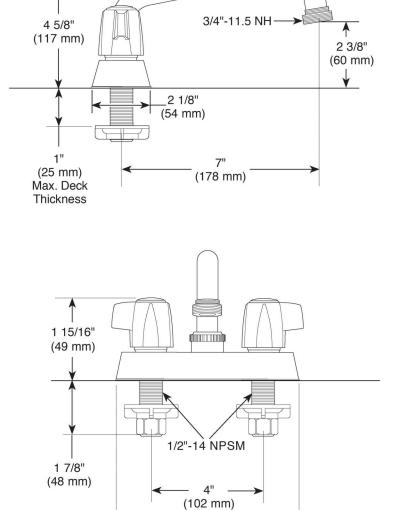
Color Code Description

0 White

Color tiles intended for reference only.

See website for detailed warranty information.

(117 mm)



Centers

_ 6 1/2"_

(165 mm)

Delta reserves the right (1) to make changes in specifications and materials, and (2) to change or discontinue models, both without notice or obligation. Dimensions are for reference only. See full-line price

book or www.deltafaucet.com for finish options and product availability.

SPECIALTY FAUCETS

■ Two Handle Laundry Faucet Deck Mount

■ 2 or 3 Hole Sink Applications ■ 4" (102 mm) Centerset

STANDARD SPECIFICATIONS:

 Two handle deck faucets for exposed mounting on 2 or 3 hole sinks. Solid brass cast body.

 4" (102 mm) Centerset. ■ 7" (178 mm) long, 4 5/8" (117 mm)

high spout swings 360°. Hot and cold stems are interchangeable. Control mechanism shall be of the rotating cylinder type with stainless steel plate and 90° rotation, with replaceable non-metallic

■ 1/2"-14 NPSM threaded male shanks. Spout has hose thread.

WARRANTY

■ Lifetime Faucet and Finish Limited Warranty to the original consumer purchaser to be free from defects in material and workmanship. ■ 5 Year Limited Warranty for usage in all industrial, commercial and business applications.

COMPLIES WITH:

■ ASME A112.18.1 / CSA B125.1 Indicates compliance to ICC/ANSI A117.1 Verified compliant with .25% weighted average Pb content regulations.

55 E. 111th Street, Indianapolis, Indiana 46280 350 South Edgeware Road, St. Thomas, ON N5P 4L1

559LF-▲PP* 559LF-GPM-PP* 559LF-HGM-PP 559LF-MPU-PP*

Submitted Model No.:_

Specific Features:

L-1 & L-2

 $\left| \begin{array}{c} 3 \ 1/2'' \\ (89 \ \text{mm}) \end{array} \right| \rightarrow \left| \begin{array}{c} \\ \\ \end{array} \right|$

LAVATORY FAUCETS

Modern series ■ Single Handle Deck Mount

STANDARD SPECIFICATIONS:

 Max flow rate 1.2 gpm @ 60 psi, 4.5 L/min @ 414 kPa. ■ GPM models provide 1.0 gpm @ 60 psi, 3.8 L/min @ 414 kPa. HGM models provide 0.5 gpm @ 60 psi, 1.9 L/min @ 414 kPa. • One or three hole mount (Escutcheon optional, not included).

 Control mechanism is the ceramic disc cartridge with temperature limiter.

• Red/blue indicator markings. Control handle shall return to neutral position when valve is turned off.

 Solid brass body. Lift rod hole plug included.

1/4" threaded stud mounting.

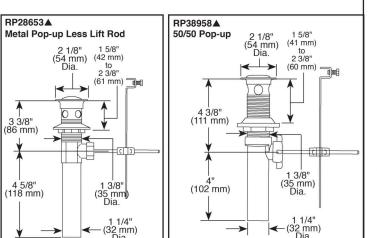
 Models have 50/50 pop-up type fitting with plated flange and stopper.

 Models with suffix "MPU" have metal drain with pop-up type fitting with plated flange and stopper.

WARRANTY

 Lifetime limited warranty on parts (other than electronic parts and batteries) and finishes: or, for commercial users, for 5 years from

date of purchase. 5 year limited warranty on electronic parts (other than batteries); or, for commercial users, for 1 year from the date of purchase. No warranty is provided on batteries.



3/8" (9 mm)
Compression Fitting

▲ Designate Proper Finish Suffix Delta reserves the right (1) to make changes in specifications and materials, and (2) to change or discontinue models, both without notice or obligation. Dimensions are for reference only. See current full-line price book or www.deltafaucet.com for finish options and product availability.



■ ASME A112.18.1 / CSA B125.1 ASME A112.18.2 / CSA B125.2 Indicates compliance to ICC / ANSI A117.1

★ ■ EPA WaterSense[®] Verified compliant with 0.25% weighted average Pb content regulations

⚠DELTA

55 E. 111th Street, Indianapolis, Indiana 46280 © 2017 Masco Corporation of Indiana

Chrome plated metal construction with various finishes identified

Pressure balancing cycle valve design with an adjustable temperature limit stop

OPERATION

DSP-L-559LF-PP Rev. E

 1/2" CC connections · Includes showerhead, arm and flange Lever style handle

• Handle operates counterclockwise through a 270° arc with off at 6 o'clock and maximum hot at the 9 o'clock position. Shut off in clockwise direction

 Adjustable temperature limit stop to control maximum hot water Pressure balancing mechanism maintains selected discharge temperature to $\pm 3^{\circ}$

FLOW Showerhead is limited to 2.5 gpm (9.5 L/min) Max **CARTRIDGE**

1222 cartridge designNonmetallic/nonferrous and stainless steel materials Accommodates back to back installations

STANDARDS Third party certified to meet ASSE 1016, ASME A112.18.1/CSA B125.1, A117.1 and all applicable requirements referenced therein

 ADA for lever handle WARRANTY

Rev. 4/16

• Lifetime limited warranty against leaks, drips and finish defects to the original consumer purchaser • 5 year warranty if used in commercial installations

Specifications

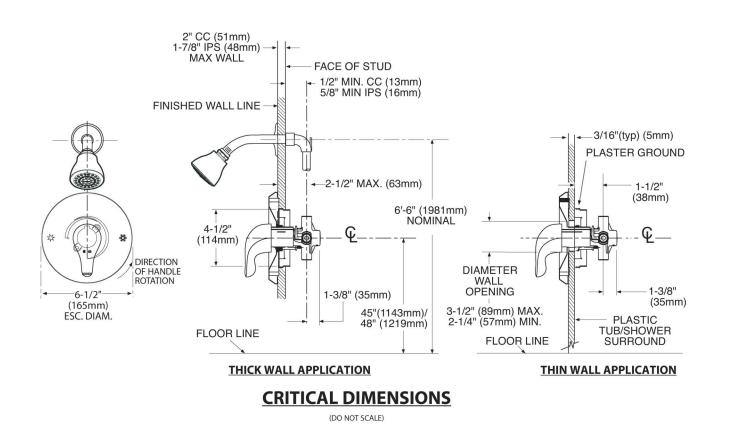
CHATEAU® POSI-TEMP® **Single-Handle Shower Valve**

Model: L2352 series

Model: L2362 (with 1/4 Turn Stops)

FOR MORE INFORMATION CALL: 1-800-BUY-MOEN

www.moen.com



8129 SW 75TH STREET GAINESVILLE, FLORIDA 32608

352-256-6785

www.superlative.design



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REVISIONS NO: DATE:

> **DRAWING STATUS 100% CONSTRUCTION DOCUMENTS ISSUE DATE:**

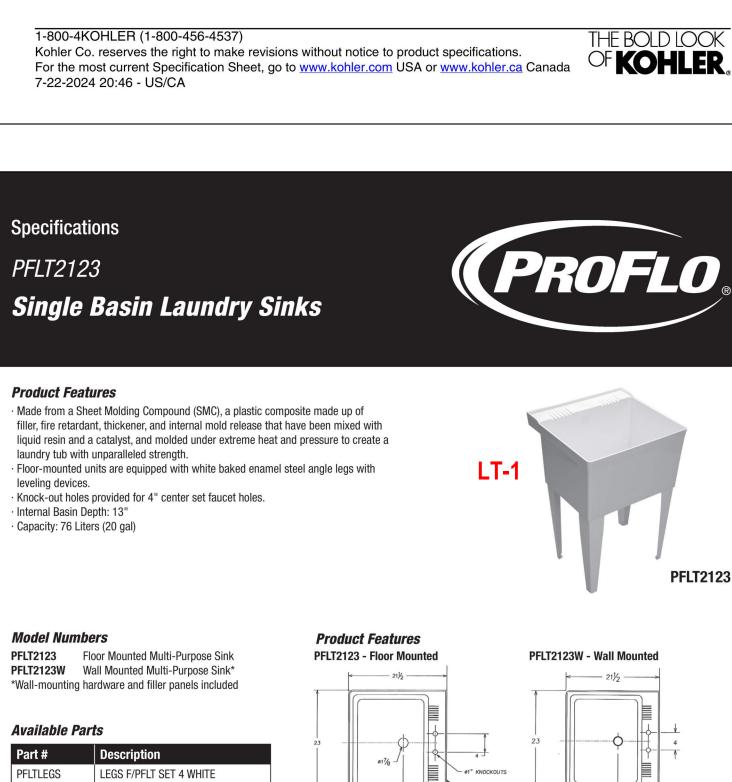
09/27/2024 DRAWN BY: CHECKED BY: JCK JCK PROJECT NUMBER:

24064 **DRAWING TITLE:** PRELIMINARY SELECTIONS

SHEET NO.

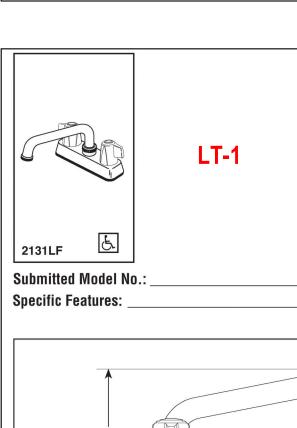
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Lengineering AKIN BROOKS ENGINEERING, INC. FL LICENSE 353 14260 W NEWBERRY RD #115 352.281.71 NEWBERRY, FL 32669 AB23023 AKINBROOKS.CC



These products come complete with installation, operating, care and maintenance instructions. All PROFLO laundry sinks carry a 1-year

limited warranty. In an effort to continually improve our products, we will make design changes from time to time. We reserve the right to



KOHLER

20-3/4"L x 18-1/4"W

Includes wall hanger

Vitreous china

K-8998 P-Trap

K-23726 Drain treatment

K-23725 Cast iron cleaner

Installation

Wall-mount

Material

Faucet sold separately

Made from premium materials that withstand high-volume

Drilled for concealed arm carrier installation

Recommended Products/Accessories

K-1808-P Wall-Mount Sink Brackets

PRODUCT SPECIFICATIONS Elkay Lustertone™ Classic Stainless Steel 33" x 21-1/4" x 5-1/2", Equal Double Bowl Drop-in ADA Sink with Quick-clip. Sink is manufactured from 18 gauge 304 Stainless Steel with a Lustrous Satin finish, Rear Center drain placement, and Bottom only pads.

Installation Type:	Drop-in
Material:	304 Stainless Steel
Special Features:	Quick-Clip Mounting System
Finish:	Lustrous Satin
Gauge:	18
Sound Deadening:	Bottom only pads
Number of Bowls:	2
Sink Dimensions:	33" x 21-1/4" x 5-1/2"
Bowl 1 Dimensions:	13-1/2" x 16" x 5-3/8"
Bowl 2 Dimensions:	13-1/2" x 16" x 5-3/8"
Drain Size:	3-1/2" (89mm)
Drain Location:	Rear Center
Minimum Cabinet Size:	36"
Mounting Hardware:	Included for 3/4" (19mm) countertop
Template Included:	No
Cutout Template #:	1000001288

Template is available for download at elkay.com. CAD software will be required to open the template. **Cutout Dimensions for Drop-in Installation:** 32-3/8" x 20-5/8" (822mm x 524mm) with 1-1/2" (38mm) corner radius

32-3/8" x 20-5/8" (822mm x 524mm) with 1-1/2" (38mm) corner radius					
Custom Options					
□ Type 316 Stainless Steel	□ Type 316 Stainless Steel				
Drain Location					
□ Right Rear	□ Left Rear				
□ Center	□ Center Rear				
Overflow Location	Overflow Location				
□ Front	□ Rear				
Alternate Punching					
□ Faucet Model:	□ Punch Required:				
Sink Size					

□ Bowl Depth:

Drainboard Width



A Century of Tradition and Quality. For more than 100 years, Elkay has been making innovative products and providing exceptional customer care. We take pride in offering plumbing products that make life easier, inspire change and leave the world a better place.

Clean and Care Manual (PDF)

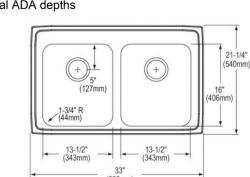
Installation Instructions (PDF) - 1000005236

Product Compliance: ADA & ICC A117.1 ASME A112.19.3/CSA B45.4

Buy American Act Sinks are listed by IAPMO® as meeting the applicable requirements of the Uniform Plumbing Code®, International Plumbing Code®, and

National Plumbing Code of Canada. Complies with ADA & ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards.

Warranty (PDF) Similar models are available with: U Channel mounting system, additional ADA depths



PART:	QTY:
PROJECT:	
CONTACT:	
DATE:	
NOTES:	
APPROVAL:	

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

Elkay REV 06302022	1-800-476-4106	© 2022 Page 1
<u>LRADQ332155</u>	CustCare@Elkay.com	LRADQ332155_spec.pdf

KOHLER, Faucets

Simplice® Semi-professional kitchen sink faucet with threefunction sprayhead K-22033

SK-1

- Professional-style faucet with an easy-to-clean coated hose and removable coil
- Three-function pull-down sprayhead with touch control allows you to switch between aerated stream, Sweep® spray, and Boost technology
- Sweep® spray creates a wide, forceful blade of water for superior cleaning
- Boost technology increases the flow rate by 30% with the press of a button
- Magnetic docking arm keeps the sprayhead securely in place MasterClean™ sprayface features an easy-to-clean surface that withstands mineral buildup and maximizes spray
- performance Single lever handle is simple to use and makes adjusting water temperature easy
- Temperature memory allows faucet to be turned on and off at the temperature set during prior usage
- KOHLER® ceramic disc valves exceed industry longevity standards for a lifetime of durable performance

Premium metal construction for durability and reliability

• 1.5 gpm (5.7 lpm) maximum flow rate at 60 psi (4.14 bar) Material

Installation

8-16-2024 23:03 - US/CA

- Single- or three-hole installation (escutcheon included)
- Flexible supply lines simplify installation
- **Recommended Products/Accessories** K-77685 Single-cartridge water filtration system K-77686 Double-cartridge water filtration system K-77687 single replacement filter cartridge K-77688 Replacement Filter Cartridges, Two-Pack K-23723 Faucet cleaner



ADA CSA B651

ASME A112.18.1/CSA B125.1 NSF/ANSI/CAN 61

NSF/ANSI/CAN 372 All applicable US Federal and State material regulations DOE - Energy Policy Act 1992

California Energy Commission (CEC) ICC/ANSI A117.1 CSA B651

IAPMO Certification

KOHLER® Faucet Lifetime Limited Warranty

See website for detailed warranty information.

Available Colors/Finishes Color tiles intended for reference only.

Color Code Description CP Polished Chrome

VS Vibrant® Stainless Matte Black

Vibrant® Brushed Moderne

1-800-4KOHLER (1-800-456-4537) Kohler Co. reserves the right to make revisions without notice to product specifications. For the most current Specification Sheet, go to www.kohler.com USA or www.kohler.ca Canada



KOHLER®

Features

- Vitreous china.
- Elongated bowl.
- Equipped with Sloan FLUSHMATE®

 Sloan® Valve Company. Polished chrome trip lever.
- Less seat and supply.
- 12" (305 mm) rough-in.
- 1.6 gpf (6.0 lpf).
- 2-1/4" (57 mm) glazed trapway. • 12" (305 mm) x 10" (254 mm) water area.
- 30-1/8" (765 mm) x 21-1/4" (540 mm) x 31-1/4" (794 mm).

Recommended Accessories

K- 4650 Toilet Seat K- 7637 Angle Supply with Stop (single)

Components

Product includes: K- 4304 Toilet Bowl

K- 4645 Toilet Tank

Additional included component/s: Tank cover, Trip lever, Tank accessory pack, Bolt cap accessory pack, and Equipped with Sloan FLUSHMATE® - Sloan® Valve Company.

Highline® Pressure-Lite® Toilet K-3493



ADA CSA B651 OBC Codes/Standards ASME A112.19.2/CSA B45.1

DOE - Energy Policy Act 1992 ADA ICC/ANSI A117.1 CSA B651

KOHLER® One-Year Limited Warranty See website for detailed warranty information.

Available Color/Finishes

Color tiles intended for reference only.

Color Code Description 0 White 96 Biscuit

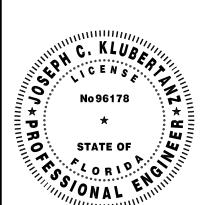
47 Almond Black Black™

USA/Canada: 1-800-4KOHLER (1-800-456-4537)

Kohler Co. reserves the right to make revisions without notice to product specifications. For the most current Specification Sheet, go to www.kohler.com. 3-27-2016 05:32











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REVISIONS

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09/27/2024 DRAWN BY: CHECKED BY: JCK PROJECT NUMBER: **DRAWING TITLE:**

PRELIMINARY SELECTIONS

ISSUE DATE:

Akin Brooks Engineering AKIN BROOKS ENGINEERING, INC. FL LICENSE 3530 14260 W NEWBERRY RD #115 352.281.7104



DIVISION 21 CODES & STANDARDS

1. THE WORK COVERED BY THIS DIVISION CONSISTS OF PROVIDING ALL LABOR, EQUIPMENT AND MATERIALS AND PERFORMING ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF THE MECHANICAL WORK AS HEREIN CALLED FOR AND SHOWN ON THE DRAWINGS.

ALL WORK UNDER DIVISION 21 SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CODES LISTED HEREIN. THE DESIGN HAS BEEN BASED ON THE REQUIREMENTS OF THESE CODES; AND WHILE IT IS NOT THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT ALL WORK CALLED FOR COMPLIES WITH THESE CODES, HE SHALL BE RESPONSIBLE FOR CALLING TO THE ARCHITECT/ENGINEER'S ATTENTION ANY DRAWINGS OR SPECIFICATIONS THAT ARE NOT IN CONFORMANCE WITH THESE OR OTHER CODES PRIOR TO ORDERING EQUIPMENT OR INSTALLING WORK.

COMPLY WITH REGULATIONS AND CODES OF UTILITY SUPPLIERS.

- WHERE NO SPECIFIC METHOD OR FORM OF CONSTRUCTION IS CALLED FOR IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL COMPLY WITH CODE REQUIREMENTS WHEN CARRYING OUT SUCH WORK.
- WHERE CODE CONFLICT EXISTS, GENERALLY THE MOST RESTRICTIVE REQUIREMENT APPLIES. COMPLY WITH CURRENT CODE EDITION, UNLESS NOTED. ADDITIONAL CODES OR STANDARDS APPLYING TO A SPECIFIC PART OF THE WORK MAY BE INCLUDED IN THAT SECTION.
- 6. THE FOLLOWING CODES GOVERN THE WORK:
- A. FLORIDA BUILDING CODE BUILDING EIGHTH EDITION (2023).
- FLORIDA BUILDING CODE PLUMBING EIGHTH EDITION (2023)
- FLORIDA BUILDING CODE MECHANICAL EIGHTH EDITION (2023) FLORIDA BUILDING CODE - FUEL GAS - EIGHTH EDITION (2023).
- FLORIDA BUILDING CODE TEST PROTOCOLS FOR HIGH VELOCITY HURRICANE ZONES EIGHTH EDITION (2023).
- F. FLORIDA FIRE PREVENTION CODE EIGHTH EDITION (2023). a. FIRE CODE (NFPA 1) - 2021 FLORIDA EDITION
- b. LIFE SAFETY CODE (NFPA 101) 2021 FLORIDA EDITION
- NATIONAL ELECTRIC CODE (NFPA 70) 2020. H. STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS (NFPA 90A).
- a. 2015 IN ACCORDANCE WITH FBC MECHANICAL EIGHTH EDITION (2023) b. 2021 IN ACCORDANCE WITH FAC 69A-3.012 STANDARDS OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND OTHER STANDARDS ADOPTED.
- I. INSTALLATION OF SPRINKLER SYSTEMS (NFPA 13) 2019.

- ALL DIVISION 21 MATERIALS, INSTALLATION AND SYSTEMS SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS, INCLUDING THE LATEST ADDENDA AND AMENDMENTS, TO THE EXTENT REFERENCED:
- A. UNDERWRITERS' LABORATORIES (UL)
- AMERICAN NATIONAL STANDARDS INSTITUTION (ANSI)
- AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
- NATIONAL FIRE PROTECTION (NFPA)
- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
- AIR CONDITIONING AND REFRIGERATION INSTITUTE (ARI) SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)
- AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS (ASHRAE)
- AIR MOVEMENT AND CONTROL ASSOCIATION (AMCA)
- J. STANDARDS OF THE HYDRONIC INSTITUTE (IBR)

DESIGN NARRATIVE

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF A NEW SINGLE-STORY FIRE STATION SLEEPING QUARTERS OF APPROXIMATELY 2,300 FT2 WHICH INCLUDES SLEEPING AND LIVING QUARTERS. THIS IS A DELEGATED DESIGN APPROACH WHICH CALLS FOR A LICENSED FIRE PROTECTION CONTRACTOR TO PROVIDE WORKING PLANS TO THE AUTHORITY HAVING JURISDICTION (AHJ) FOR THE PROVISION OF A NEW WET SPRINKLER SYSTEM COMPLETE WITH STAND PIPES, HORIZONTAL DISTRIBUTION PIPING, AND MULTIPLE SPRINKLER HEADS FOR A COMPLETE AND FUNCTIONAL FIRE SUPPRESSION SYSTEM. ANALYSIS AND EVALUATION OF HYDRANT FLOW TEST DATA WILL BE REQUIRED TO ASCERTAIN WHETHER THERE IS SUFFICIENT PRESSURE AVAILABLE SO AS TO NOT REQUIRE THE PROVISION OF A FIRE PUMP.

FIRE PROTECTION NOTES

- 1. LICENSED FIRE PROTECTION ENGINEER: FIRE SUPPRESSION PLANS ARE SHOWN FOR BIDDING PURPOSES ONLY. THE FIRE SPRINKLER SUBCONTRACTOR SHALL OBTAIN A CURRENT WATER FLOW TEST AND PROVIDE SYSTEM HYDRAULIC CALCULATIONS FOR SYSTEM PIPE SIZING PER RELEVANT CODES AND STANDARDS. FIRE SPRINKLER SUBCONTRACTOR SHALL PROVIDE A COMPLETE DESIGN INCLUDING DRAWINGS, CALCULATIONS, AND SPECIFICATIONS TO SUPPORT REVIEW BY THE AUTHORITY HAVING JURISDICTION (AHJ). FIRE SPRINKLER SUBCONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH HYDRAULIC CALCULATIONS, PIPING DISTRIBUTION LAYOUT, AND PIPE SIZES FOR REVIEW. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A FLORIDA STATE LICENSED ENGINEER (FPE). WHERE NOTED ON THESE DOCUMENTS, THE TERM "PROVIDE" OR "PROVISION" SHALL INDICATE FURNISH AND INSTALL.
- RELEVANT CODES AND STANDARDS: ALL WORK SHALL BE IN ACCORDANCE WITH NFPA 13, NFPA 14, NFPA 101, NFPA 1, FLORIDA BUILDING CODE 2020, FLORIDA RULE 61G15-32.004, AND ALL OTHER RELATED CODES UTILIZED FOR A COMPLETE AND CODE-COMPLIANT SYSTEM. ALL FIRE PROTECTION PIPING SHALL BE TESTED IN
- 4. FINAL APPROVAL: BEFORE ASKING FOR APPROVAL OF THE FIRE SUPPRESSION SYSTEM INSTALLATION, THE FIRE SPRINKLER SUBCONTRACTOR SHALL FURNISH A
- WRITTEN STATEMENT THAT THE WORK HAS BEEN COMPLETED AND TESTED IN ACCORDANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS. TO ADVISE THE ARCHITECT AND ENGINEER IF CODE OR SAFETY CONFLICTS EXIST. THE FIRE SPRINKLER SUBCONTRACTOR IS REQUIRED TO VISIT THE SITE (PRIOR TO THE BID) TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS THAT WILL AFFECT THE WORK. CHANGES IN THE CONTRACT SUM AT CONTRACT TIME SHALL NOT BE ALLOWED FOR FAILURE TO INVESTIGATE FIELD CONDITIONS, ALL WORK IS NEW UNLESS NOTED OTHERWISE.
- 6. MULTIPLE DISCIPLINE COORDINATION: FIRE SPRINKLER SUBCONTRACTOR SHALL COORDINATE WITH OTHER TRADES (INCLUDING MECHANICAL, PLUMBING, ELECTRICAL, STRUCTURAL, AND ARCHITECTURAL) FOR AVAILABLE SPACE AND INSTALLATION REQUIREMENTS, PRIOR TO COMMENCING CONSTRUCTION. FIRE SPRINKLER SUBCONTRACTOR SHALL NOTIFY ARCHITECT AND ENGINEER OF ANY CHANGES IN THE CONTRACT DOCUMENTS THAT MAY BE REQUIRED FOR THE WORK TO BE PERFORMED. FIRE SPRINKLER SUBCONTRACTOR SHALL CONFIRM EXACT LOCATIONS OF SPRINKLERS, PIPING, FIRE HOSE VALVES, AND OTHER EQUIPMENT IN THE FIELD AS REQUIRED FOR A COMPLETE AND COORDINATED SYSTEM.
- 7. FIRE SPRINKLER PIPING WORKING PLANS: A. SPRINKLERS SHALL BE PROVIDED THROUGHOUT THE BUILDING. REFER TO THE COVERAGE MAPS FOR ADDITIONAL DETAILS REGARDING FIRE PROTECTION. FIRE SPRINKLER SUBCONTRACTOR SHALL ROUTE ALL FIRE SPRINKLER PIPING ABOVE THE CEILING AND AS LOW AS POSSIBLE TO ALLOW FREE SPACE FOR OTHER SYSTEM ROUTING. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR STRUCTURAL FRAMING PLANS, DETAILED REFLECTED CEILING PLANS,
- B. PROVIDE AUTOMATIC SPRINKLERS, SPARE HEADS, PIPE ESCUTCHEONS, DIELECTRIC UNIONS, DRIP PANS, PIPE LABELS, VALVE TAGS, SPRINKLERS CABINETS,
- WRENCHES, ANCHORS, SUPPORTS, SLEEVES, SEALS, ETC. IN QUANTITIES ADEQUATE TO SATISFY THE INTENT OF THE CONTRACT DOCUMENTS. C. ALL SPRINKLERS IN SPACES WITH FINISHED CEILINGS SHALL BE ALIGNED WITH CEILING COMPONENTS IN ACCORDANCE WITH ARCHITECTURAL REFLECTED CEILING PLAN (RCP), WITH NO VISIBLE DEVIATION. SPRINKLER HEADS SHALL BE IN ALIGNMENT WITH EACH OTHER FOR INDIVIDUAL LINE OF SIGHT. UPON DISCOVERED CONFLICTS WITH THE RCP, FIRE SPRINKLER SUBCONTRACTOR SHALL COMMUNICATE DETAILS WITH THE ARCHITECT ACCORDINGLY.
- D. FIRE SPRINKLER SUBCONTRACTOR SHALL PROVIDE PIPING INSULATION FOR ALL SPRINKLER PIPING LOCATED IN WALKWAYS, STAIRWELLS, UNCONDITIONED
- ATTIC SPACE, AND EXTERIOR WALLS TO PREVENT FREEZING OF THE PIPING IN ACCORDANCE WITH NFPA 13. E. FIRE SPRINKLER SUBCONTRACTOR SHALL PROVIDE ADDITIONAL SPRINKLERS BEYOND CODE REQUIRED MINIMUMS AS NECESSARY TO PROVIDE SYMMETRICAL
- LAYOUTS AS REFLECTED ON THE ARCHITECTURAL RCP. F. ALL PIPING SHALL BE ARRANGED TO DRAIN BACK TO CONTROL VALVE ASSEMBLY. WHERE PIPING CANNOT DRAIN BACK TO CONTROL VALVE ASSEMBLY, FIRE SPRINKLER SUBCONTRACTOR SHALL PROVIDE ADDITIONAL DRAIN CONNECTIONS IN ACCORDANCE WITH NFPA 13 REQUIREMENTS. SPRINKLER SYSTEMS SHALL
- BE PROVIDED WITH FLUSHING CONNECTIONS. PROVIDE LOW DRAIN POINTS WHEREVER NECESSARY. G. FIRE SPRINKLER SUBCONTRACTOR SHALL MAINTAIN SPRINKLER CLEARANCE FROM CEILING AND FLOOR MOUNTED OBSTRUCTIONS SIMILAR TO (BUT NOT LIMITED TO) SHELVING, ROOM DIVIDERS, LIGHT FIXTURES, EXIT SIGNS, SOFFITS AND CHANGES IN CEILING ELEVATION, IN ACCORDANCE WITH THE SPECIFIC
- REQUIREMENTS OF NFPA 13. H. FIRE SPRINKLER SUBCONTRACTOR SHALL MAINTAIN A MINIMUM OF 18" CLEARANCE BETWEEN SPRINKLER DEFLECTORS AND TOP OF SHELVING.
- ALL PAINTED AND / OR OTHERWISE DAMAGED SPRINKLERS OR COVER PLATES SHALL BE REPLACED WITH NEW. FIRE SPRINKLER SUBCONTRACTOR SHALL PROVIDE GUARDS ON SPRINKLERS SUSCEPTIBLE TO MECHANICAL DAMAGE INCLUDING, BUT NOT LIMITED TO,
- SPRINKLERS IN MECHANICAL ROOMS, ELEVATOR PIT, AND SPRINKLERS INSTALLED LESS THAN 7 FEET ABOVE FINISHED FLOOR (AFF). K. ALL CONTROL VALVES SHALL BE SUPERVISED AND INDICATING. FIRE SPRINKLER SUBCONTRACTOR SHALL PROVIDE ALL CONTROL VALVES TO HAVE TAMPER SWITCHES SUCH THAT OPERATION OF VALVE SHALL NOT AFFECT THE OPERATION OF SPRINKLER FLOW SWITCH.
- FLOW SWITCHES SHALL BE CONNECTED TO FIRE ALARM SYSTEM AS AN AUTOMATIC INDICATING DEVICE. REFER TO ELECTRICAL DOCUMENTS FOR FIRE ALARM. M. ALTHOUGH NOT SHOWN, ALL PIPING TO BE SUPPORTED FROM THE BUILDING STRUCTURE, IN ACCORDANCE WITH NFPA. FIRE SPRINKLER SUBCONTRACTOR SHALL USE EMBEDDED PLATES FOR CAST-IN-PLACE ANCHORS WHERE SUPPORTING FROM CONCRETE SLABS. DO NOT USE DRILL BOLTS IN POST-TENSIONED
- N. LONG RUNS OF PIPING SHALL BE PROVIDED WITH SUITABLE MEANS TO PERMIT FREE MOVEMENT RESULTING FROM PIPE EXPANSION AND CONTRACTION
- FORCES. O. REDUCTION OF PIPE SIZE SHALL BE MADE WITH ONE-PIECE REDUCTION FITTINGS.

SHEET NUMBER

- P. SEAL ALL PENETRATIONS OF FIRE RATED ASSEMBLIES USING APPROPRIATE UL RATED ASSEMBLIES. PROVIDE FIRE STOPPING AS REQUIRED. REFER TO ARCHITECTURAL DOCUMENTS FOR FIRE STOPPING REQUIREMENTS.
- 8. ALL ELECTRICAL, CONTROL, AND / OR ALARM SYSTEM WIRING TO BE COORDINATED WITH ELECTRICAL SUBCONTRACTOR FOR PROVISION. REFER TO THE FIRE ALARM SYSTEM RISER DIAGRAM ON THE ELECTRICAL DOCUMENTS FOR ADDITIONAL REQUIREMENTS AND COORDINATION.
- 9. NO SPRINKLER PIPING SHALL PASS OVER ELECTRICAL PANELS OR SWITCH BOARDS. FIRE SPRINKLER SUBCONTRACTOR SHALL COORDINATE ACCORDINGLY WITH THE ELECTRICAL SUBCONTRACTOR.
- 10. FIRE SPRINKLER SUBCONTRACTOR SHALL FIELD VERIFY PIPE ROUTING AND ACTUAL LENGTHS OF PIPE PRIOR TO FABRICATION OR INSTALLATION.
- 11. BEFORE ANY SPRINKLER PIPING IS CONCEALED, THE FIRE SPRINKLER SUBCONTRACTOR SHALL NOTIFY THE AHJ, AT LEAST 48 HOURS IN ADVANCE, SO THAT INSPECTION OF THE SYSTEM PIPING FOR CONFORMANCE WITH CODE REQUIREMENTS CAN BE COMPLETED.
- 12. PROJECT CLOSEOUT:
- A. FIRE SPRINKLER SUBCONTRACTOR SHALL TEST THE SYSTEM'S CONTROLS, PIPING, AND MONITORING PER NFPA 25. B. FIRE SPRINKLER SUBCONTRACTOR SHALL PROVIDE COPY OF MATERIAL AND TEST CERTIFICATE, WARRANTY INFO, AND INSTRUCTIONS TO THE OWNER.
- FIRE SPRINKLER SUBCONTRACTOR SHALL PROVIDE SPARE HEAD CABINET WITH SPRINKLERS OF EACH TYPE PER NFPA. D. FIRE SPRINKLER SUBCONTRACTOR SHALL PROVIDE HYDRAULIC PLACARDS ON BUILDING RISERS.

FIRE PROTECTION SHEET LIST

LEGEND, ABBREVIATIONS, CODES AND STANDARDS

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