

PLUMBING ABBREVIATIONS

&	AND	HB	HOSE BIBB
∠	ANGLE	HC	HANDICAPPED
⊙	AT	HD	HEAD
CL	CENTER LINE	HW	HARDWARE
PL	PROPERTY LINE	HI	HIGH
φ	DIAMETER or ROUND	HR	HORIZONTAL
(E)	EXISTING	HP	HIGH PRESSURE
(N)	NEW	HR	HOUR
⊥	PERPENDICULAR	HT	HEIGHT
#	FOUND or NUMBER	HVAC	HEATING, VENTILATING, AIR CONDITIONING
A/C	AIR CONDITIONING	ID	INSIDE DIAMETER (DIM.)
AP	ACCESS PANEL	INSUL	INSULATION
AD	AREA DRAIN	INT	INTERIOR
ADJ	ADJUSTABLE	IW	IRIGATION WATER
ADMIN	ADMINISTRATION	LAV	LAVATORY
AGGR	AGGREGATE	LPG	LIQUID PETROLEUM GAS
AL	ALUMINUM	M	MEN
APPROX	APPROXIMATE	MACH	MACHINE
APPT	APPOINTMENTS	MATL	MATERIAL
ARCH.	ARCHITECTURAL	MAX.	MAXIMUM
ASB	ASBESTOS	MECH	MECHANICAL
ASPH	ASPHALT	MS	MOP SINK
ASST	ASSISTANT	MTL	METAL
AUTO.	AUTOMATIC	MFR	MANUFACTURER
		MIN	MINIMUM
		MISC	MISCELLANEOUS
		MONIT	MONITOR
BD	BOARD	N	NORTH
(BF)	BELOW FINISH FLOOR	NIC	NOT IN CONTRACT
(BG)	BELOW FINISH GRADE	NO. or #	NUMBER
BLDG	BUILDING	NOM	NOMINAL
BLKG	BLOCKING	NTS	NOT TO SCALE
BM	BEAM	OA	OVERALL
BOT	BOTTOM	OAV	OXYGEN, AIR & VACUUM
BV	BALL VALVE	OC	ON CENTER
		OVHD	OVERHEAD
		OX.	OXYGEN
CB	CATCH BASIN	PTN	PARTITION
CD	CONDENSATE DRAIN	PHYS	PHYSICAL
CEM	CEMENT	PR	PRESSURE REGULATOR
CER	CERAMIC	PVC	POLY-VINYL CHLORIDE PIPE
CJ	CAST IRON	PLAS	PLASTER
CJ	CONTROL JOINT	PLTW	PLYWOOD
CLG	CEILING	POC	POINT OF CONNECTION
CLKG	CALLING	PREFAB	PREFABRICATED
CLR	CLEAR	PREP	PREPARATION
CO	CLEANOUT	PT	PLUGGED TEE
COL	COLUMN	PW	PROCESSED WATER
COMP	COMPRESSED	R	RISER
CONC	CONCRETE	RAD.	RADIUS
CONF	CONFERENCE	RD	ROOF DRAIN
CONN	CONNECTION	REF	REFERENCE
CONST	CONSTRUCTION	REIN	REINFORCED
CONT	CONTINUOUS	REQD	REQUIRED
CORR	CORRIDOR	RM	ROOM
COTG	CLEANOUT TO GRADE	RWL	RAINWATER LEADER
CP	CIRCULATING PUMP	S	SINK or SOUTH
CKS	COUNTERSINK	SA	WATER HAMMER ARRESTER
CTR	CENTER	SB	SPLASH BLOCK
CV	CHECK VALVE	SCHD	SCHEDULE
		SD	STORM DRAIN LINE
		SECT.	SECTION
		SH	SHOWER
		SHT	SHEET
		SIM	SIMILAR
		SL	SPRINKLER LINE
		SPEC	SPECIFICATION
		SOV	SHUT-OFF VALVE
		SS	SERVICE SINK
		SST	STAINLESS STEEL
		STD	STANDARD
		STL	STEEL
		STOR	STORAGE
		STRUCT	STRUCTURAL
		SUPV	SUPERVISOR
		SUSP	SUSPENDED
		S&W	SOIL & WASTE
		TC	TOP OF CURB
		TEL	TELEPHONE
		TER	TERRAZZO
		THK	THICK
		TOC	TOP OF CONCRETE
		TP	TRAP PRIMER
		TRANS	TRANSCRIPTION
		TREAT.	TREATMENT
		TYP	TYPICAL
		TV	TEMPERING VALVE
		UL	UNDERWRITERS LABORATORIES
		UNON	UNLESS OTHERWISE NOTED
		URINAL	URINAL
		V	VENT
		VA	VALVE
		VCL	VITRIFIED CLAY
		VTR	VENT THRU ROOF
		VO	VENT OFFSET
		W	WASTE LINE
		W/	WITH
		WC	WATER CLOSET
		WCO	WALL CLEANOUT
		WH	WATER HEATER
		WHA	WATER HAMMER ARRESTOR
		W/O	WITHOUT
		WMF	WASHING MACHINE FITTING
		WP	WATERPROOF
		WT	WEIGHT
		YD	YARD
GA	GAUGE		
GALV	GALVANIZED		
GC	GAS COCK		
GEN	GENERAL		
GI	GALVANIZED IRON		
GL	GLASS		
GR	GRADE		
GRD	GROUND		
G	GAS LLINE		

SYMBOLS

SYMBOL	DESCRIPTION
	BALL VALVE
	BRANCH TOP CONNECTION
	BRANCH BOTTOM CONNECTION
	CAPPED PIPE
	CHECK VALVE
	CLEANOUT
	CLEANOUT TO GRADE
	CIRCULATING PUMP
	CONDENSATE DRAIN
	CONDENSATE "P" TRAP
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RETURN
	EXISTING WASTE OR SOIL & WASTE
	FIRE HYDRANT
	FLOOR CLEANOUT
	FLOOR SINK
	GAS
	GAS COCK
	GAS PRESSURE REGULATOR
	GATE VALVE
	HOSE BIBB
	PIPE RISER (ELBOW)
	PIPE DROP (ELBOW)
	PIPE DROP OR RISER
	POINT OF CONNECTION
	PROCESS WASTE
	SHUT-OFF VALVE
	SHUT-OFF VALVE IN YARDBOX
	SOIL & WASTE
	TRAP PRIMER
	VENT
	VENT OFFSET
	VENT THRU ROOF
	WALL CLEANOUT
	WASTE
	WATER HAMMER

SECTION 1 BASIC MECHANICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 SUMMARY

A. LABOR, MATERIALS, TOOLS, AND SERVICES FOR A COMPLETE INSTALLATION OF EQUIPMENT AND SYSTEM CONTAINED IN THE CONTRACT DOCUMENTS.

B. PRINCIPAL FEATURES OF THE WORK INCLUDED ARE:

1. PLUMBING SYSTEM AND RELATED PIPING INSULATION.
2. DOMESTIC WATER PIPING, VALVES, CONNECTIONS AND RELATED PIPING INSULATION.
3. LIMITED AREA FIRE PROTECTION (SPRINKLER SYSTEMS)
4. EXCAVATING AND BACKFILLING FOR MECHANICAL WORK, COORDINATE WITH APPROPRIATE TRADE.
5. ANCHOR BOLTS, SLEEVES, SUPPORTS AND SIMILAR ITEMS TO BE BUILT INTO CONCRETE OR MASONRY.
6. PREPARATION AND SUBMITTAL OF SHOP DRAWING AND PRODUCT DATA.
7. MAINTAINING A RECORD SET OF BLUE LINE PRINTS AND MAKING THEM TO INDICATE LOCATIONS OF CONCEALED ITEMS, AND DEVIATIONS MADE TO SUIT CONDITIONS AND PRODUCTION OF MECHANICAL AS-BUILT (RECORD) DRAWINGS.

1.2 JOB CONDITIONS

A. SUBMITTAL OF BID IMPLIES BIDDER HAS READ APPLICABLE PARAGRAPHS OF THE SPECIFICATIONS AND WILL BE BOUND BY THEIR CONDITIONS.

1.3 LOCAL CONDITIONS

A. CONFORM WITH LOCAL CONDITIONS. COORDINATE WITH LOCAL UTILITIES ON SIZE OF UTILITY SERVICE.

1.4 INTENT

A. THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) DESCRIBE THE PLUMBING WORK OF THIS PROJECT ANY ITEMS MENTIONED IN ONE PART SHALL BE AS BINDING AS THOUGH MENTIONED IN BOTH.

B. THE CONTRACT DOCUMENTS FORM A GUIDE FOR A COMPLETE PLUMBING INSTALLATION. WHERE AN ITEM IS REASONABLY NECESSARY BUT NOT SPECIFICALLY MENTIONED, SUCH AS PIPING OFFSETS, DRAINS, ETC., FOR A COMPLETE SYSTEM, PROVIDE SAME.

C. PLUMBING LAYOUTS INDICATED ON DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATIONS OF PIPES, AND EQUIPMENT SHALL BE GOVERNED BY THE DRAWINGS OF RELATED TRADES.

1.5 DEVIATIONS

A. NO DEVIATIONS FROM SPECIFICATIONS AND DRAWINGS SHALL BE MADE WITHOUT FULL KNOWLEDGE AND WRITTEN CONSENT OF CONSTRUCTION MANAGER.

B. SHOULD CONTRACTOR FIND, DURING PROGRESS OF WORK, CONDITIONS WHICH DICTATE A MODIFICATION OF ANY PARTICULAR REQUIREMENTS, REPORT SUCH ITEM PROMPTLY FOR DECISION OF INSTRUCTIONS.

1.6 QUALITY ASSURANCE

A. COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES.

B. COMPLY WITH APPLICABLE REQUIREMENTS OF RECOGNIZED INDUSTRY ASSOCIATIONS WITH PROMULGATE STANDARDS FOR THE VARIOUS TRADES. (SEE INDIVIDUAL SECTIONS OF DIVISION 15)

C. EMPLOY ONLY QUALIFIED JOURNEMENT FOR THIS WORK. EMPLOY COMPETENT, QUALIFIED PLUMBERS TO SUPERVISE THE WORK.

1.7 CODES AND STANDARDS

A. PERFORM WORK SPECIFIED IN DIVISION 15 IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS LISTED BELOW, AND SUCH STANDARDS THAT MAY BE SPECIFIED IN OTHER SECTIONS. WHEN THESE SPECIFICATIONS ARE MORE STRINGENT, THEY TAKE PRECEDENCE. IN CASE OF CONFLICT, OBTAIN A DECISION FROM THE PLUMBING ENGINEER.

1. NFPA 54: NATIONAL FUEL AND GAS CODE.
3. NFPA 101: LIFE SAFETY CODE.
4. APPLICABLE STATE BUILDING CODE.
5. NATIONAL STANDARD PLUMBING CODE (OR APPLICABLE STATE PLUMBING CODE).
6. HANDICAPPED CODE ANSI A117.1 AND ADA.
7. APPLICABLE STATE ENERGY CODE.
8. AGA: AMERICAN GAS ASSOCIATION.
9. ANSI: AMERICAN NATIONAL STANDARDS INSTITUTE.
10. ASTM: AMERICAN SOCIETY FOR TESTING AND MATERIALS.
11. MSS: MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTING INDUSTRY.
12. NEMA: NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION.
13. NFPA: NATIONAL FIRE PROTECTION ASSOCIATION.
14. UL: UNDERWRITERS LABORATORIES, INC.

1.8 COORDINATION

A. CAREFULLY EXAMINE SPECIFICATIONS AND DRAWINGS TO BE THOROUGHLY FAMILIAR WITH ITEMS WHICH REQUIRE PLUMBING AND COORDINATION.

B. COORDINATE WITH OTHER DIVISIONS TO LEAVE PROPER CHASES AND OPENINGS. PLACE OUTLETS, ANCHORS, SLEEVES, AND SUPPORTS PRIOR TO POURING CONCRETE OF INSTALLATION OF MASONRY WORK.

1.9 SUBMITTALS

A. SUBMITTALS ARE ONLY REQUIRED FOR SPECIFIC ITEMS OF EQUIPMENT OR MATERIAL LISTED IN INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS.

B. WITHIN 15 DAYS AFTER AWARD OF CONTRACT FOR THIS WORK, SUBMIT A LIST OF PROPOSED MANUFACTURERS (OF EQUIPMENT OR MATERIAL TO BE USED) FOR APPROVAL. SUBMIT THIS LIST BEFORE SUBMITTAL OF SHOP DRAWINGS AND PRODUCT DATA, AND OBTAIN APPROVAL BEFORE SUBMITTING REQUIRED ITEMS.

C. SHOP DRAWINGS (NOT REQUIRED FOR OWNER FURNISHED EQUIPMENT).

1.10 DELIVERY AND STORAGE

A. INsofar AS POSSIBLE, DELIVER ITEMS IN MANUFACTURER'S ORIGINAL UNOPENED PACKAGING. WHERE THAT IS NOT PRACTICAL, COVER ITEMS WITH PROTECTIVE MATERIALS TO KEEP THEM FROM BEING DAMAGED. USE CARE IN LOADING, TRANSPORT, UNLOADING, AND STORAGE TO KEEP ITEMS FROM BEING DAMAGED.

1.11 FIRE RATINGS

A. MATERIALS USED ANYWHERE IN THE WORK MUST HAVE NFPA RATINGS AS FOLLOWING:

1. FLAME SPREAD - NOT OVER 25
2. SMOKE DEVELOPED - NOT OVER 50
3. FUEL CONTRIBUTED - NOT OVER 25

B. MATERIALS SHALL BE "SELF EXTINGUISHING".

GENERAL PLUMBING NOTES

1.12 PERMITS AND FEES

A. OBTAIN, PAY FOR, AND DELIVER PERMITS, CERTIFICATION OF INSPECTION, AND OTHER SUCH ITEMS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. DELIVER CERTIFICATION TO THE CONSTRUCTION MANAGER PRIOR TO FINAL ACCEPTANCE OF THE WORK. AN INSPECTION CERTIFICATE FOR EACH CLASS OF WORK REQUIRING INSPECTION MUST BE SUBMITTED PRIOR TO OR WITH THE FINAL PAYMENT INVOICE. THE RESPONSIBLE TRADE CONTRACTOR MUST MAKE APPLICATION FOR THE INSPECTION, COORDINATE SAME AND PAY THE REQUIRED INSPECTION FEE.

1.13 EXTENDED WARRANTIES

A. WORK FURNISHED UNDER THE CONTRACT SHALL BE WARRANTED AGAINST DEFECTS IN WORKMANSHIP AND (CONTRACTOR FURNISHED) MATERIALS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR, OR AS OTHERWISE SPECIFIED, FROM THE DATE OF FINAL ACCEPTANCE OF THE INSTALLATION. DEFECTS OF WORKMANSHIP DEVELOPING DURING THIS PERIOD SHALL BE REMEDIED, AND DEFECTIVE MATERIAL REPLACED, WITHOUT ADDITIONAL COST. WHEN DEFECTS IN A TRADE CONTRACTOR'S WORK CAUSES DAMAGE TO THE WORK OF THE OTHER TRADE CONTRACTORS, SUCH DAMAGE SHALL BE REPAIRED BY THE TRADE CONTRACTOR CAUSING DAMAGE AND WORK RESTORED TO ITS ORIGINAL CONDITION, AT THE EXPENSE OF THE TRADE CONTRACTOR THAT CAUSED THE DAMAGE.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

A. WITHIN THE CONTRACT DOCUMENTS RELATING TO PLUMBING WORK, MANUFACTURER'S NAMES, CATALOG NUMBERS, AND OTHER PROPRIETARY REFERENCES TO MATERIALS AND EQUIPMENT ARE MADE. SUCH REFERENCES ARE MADE TO ESTABLISH THE STANDARDS OF QUALITY AND TYPE REQUIRED, AND NOT TO LIMIT COMPETITION. ACCEPTABLE MANUFACTURERS OF COMPETITIVE PRODUCTS ARE LISTED IN APPLICABLE SECTIONS AS "APPROVED EQUALS". REASONABLE REQUESTS FOR SUBSTITUTION OR ADDITIONS TO "APPROVED EQUALS" WILL BE CONSIDERED, BUT THE MECHANICAL ENGINEER WILL BE THE SOLE JUDGE OF ACCEPTABILITY OF ITEMS PROPOSED AS SUBSTITUTES.

B. MATERIALS AND EQUIPMENT USED IN CARRYING OUT THESE SPECIFICATIONS SHALL BEAR UL OR OTHER RECOGNIZED TESTING LABORATORY LABEL WHEN SUCH LABELS ARE AVAILABLE.

PART 3 - EXECUTION

3.1 LOCATIONS

A. PLUMBING LAYOUTS INDICATED ON DRAWINGS ARE DIAGRAMMATIC. EXACT LOCATIONS OF PIPES, AND EQUIPMENT MAY VARY BECAUSE OF CONFLICTS WITH WORK OF OTHER TRADES. WORK OUT CONFLICTS WHERE RELOCATION'S WILL NOT AFFECT OPERATION OR APPEARANCE OF SYSTEMS.

B. LOCATE EQUIPMENT REQUIRING PERIODIC SERVICING SO THAT IT IS READILY ACCESSIBLE. DO NOT BACK UP SERVICE SIDES TO WALLS, NOR PLACE IT TOO CLOSE TO OTHER EQUIPMENT TO MAKE SERVICE IMPRACTICAL. EQUIPMENT SERVICE CLEARANCE SHALL MEET MINIMUM ACCEPTABLE DISTANCE AS RECOMMENDED BY EQUIPMENT MANUFACTURER.

3.2 UTILITIES EXCAVATING AND BACKFILLING

A. PERFORM TRENCHING, EXCAVATING, BACKFILLING FOR PLUMBING WORK IN ACCORDANCE WITH THE APPROPRIATE SECTIONS AND AS SET FORTH BELOW.

1. PERFORM WORK NECESSARY FOR INSTALLATION OF PLUMBING UTILITIES.

2. DEPTH OF EXCAVATION TO PROVIDE A MINIMUM OF 3" ABOVE TOP OF PIPE. EXCAVATION TO BE CARRIED TO A DEPTH OF AT LEAST 6" BELOW BOTTOM OF PIPE ELEVATION. FILL BELOW PIPE (6") AROUND PIPE, AND A MINIMUM OF 12" ABOVE PIPE WITH SAND OR CLASS "B" CRUSHED STONE TAMPED FIRM AND EVEN. SEPARATE TOPSOIL DURING EXCAVATION. FINAL LAYER OR DIRT (12" MINIMUM) TO BE TOPSOIL. TRENCHES TO BE AT LEAST 18" WIDER THAN PIPE WITH BATTER BOARDS PLACED EVERY 25'. BACKFILLING SHALL BE DONE TO EXCLUDE USE OF ROCK OR STONE ABOVE SAND OR CRUSHED STONE.

3.3 CUTTING AND PATCHING

A. REPAIR OR REPLACE ROUTINE DAMAGE CAUSED BY CUTTING IN PERFORMANCE OF CONTRACT.

B. PERFORM REPAIRS WITH MATERIALS WHICH MATCH EXISTING AND INSTALL IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THESE SPECIFICATIONS OR THE BEST STANDARDS OF THE INDUSTRY.

3.4 CONNECTION TO EQUIPMENT

A. CONNECT OR INSTALL EQUIPMENT SHOWN ON MECHANICAL DRAWINGS THAT REQUIRE PLUMBING

1. ROUGH - IN PIPING AND CONNECT EQUIPMENT
2. PROVIDE PIPING, SHUTOFF VALVES, AND UNIONS REQUIRED FOR A COMPLETE INSTALLATION.

3.5 SERVICE OF SYSTEM

A. EMPLOY COMPETENT, QUALIFIED PERSONNEL IN OPERATION OF THE EQUIPMENT.

B. PROVIDE FOR PROPER OPERATION AND CLEANLINESS.

END OF SECTION

SECTION 2 PLUMBING

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. FURNISHING OF ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION, SERVICE, AND RELATED ITEMS NECESSARY TO COMPLETE THE INSTALLATION OF THE PLUMBING SYSTEM AS ILLUSTRATED ON THE DRAWING AND AS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. HOT & COLD WATER SYSTEM WITH COMPLETE CONNECTIONS FROM METER TO ALL PLUMBING FIXTURES & EQUIPMENT REQUIRING WATER CONNECTIONS
2. SOIL, WASTE, VENT AND CONDENSATE SYSTEM LINES INSIDE AND OUTSIDE THE BUILDING.
3. TRENCHING AND BACKFILLING.
4. FINAL PLUMBING CONNECTIONS TO HEATING AND AIR CONDITIONING EQUIPMENT.
5. GAS PIPING TO HEATING, WATER HEATERS AND ALL OTHER GAS BURNING EQUIPMENT.

PART 2 - PRODUCTS

2.1 DESCRIPTION

A. SOIL, WASTE, AND VENT PIPING BELOW FLOOR TO 5'-0" OUTSIDE BUILDING; STANDARD WEIGHT COATED CAST IRON SOIL PIPE AND CAST IRON/ NEOPRENE GASKET FITTINGS. YARD PIPING, PIPE AND FITTINGS. A.B.S. OR P.V.C. SCHEDULE 40 PIPE AND FITTINGS MAY BE INSTALLED, AS APPROVED BY LOCAL AUTHORITY IN CONCEALED LOCATIONS ONLY. EXCEPTION: ALL SOIL, WASTE & VENTS LOCATED WITHIN A FIRE RATED WALL SHALL BE METALLIC (STEEL, CAST IRON ETC., NO PVC) IT SHALL BE THE RESPONSIBILITY OF THE PLUMBER TO VERIFY ALL FIRE RATED WALLS & CONSTRUCTION AS SHOWN ON THE ARCHITECTURAL DRAWINGS & COORDINATE WITH THE GENERAL CONTRACTOR

B. SOIL, WASTE AND VENT PIPING ABOVE FLOOR: STANDARD WEIGHT COATED CAST IRON PIPE AND STAINLESS STEEL/ NEOPRENE GASKET FITTING, OR A.B.S. OR P.V.C. SCHEDULE 40, AS APPROVED BY LOCAL AUTHORITY IN CONCEALED LOCATIONS.

C. HOT & COLD WATER PIPING ABOVE FLOOR: TYPE "L" COPPER, HARD DRAWN. BELOW GROUND OUTSIDE OF BUILDING: TYPE "K" SOFT DRAWN COPPER TUBING WITH OUT JOINTS.

D. CONDENSATE DRAIN PIPING: TYPE "M" COPPER WITH 95-5 TIN ANTIMONY SOLDER AND WROUGH COPPER FITTINGS OR P.V.C. SCHEDULE 40, AS APPROVED BY LOCAL AUTHORITY.

E. INDIRECT WASTE PIPING: TYPE "M" COPPER WITH 95-5 TIN ANTIMONY SOLDER AND WROUGHT COPPER FITTINGS OR P.V.C. SCHEDULE 40, AS APPROVED BY LOCAL AUTHORITY.

F. UNDERGROUND GAS PIPING: SCHEDULE 40 BLACK STEEL PIPE WITH LONG RADIUS STEEL WELDING FITTINGS INCLUDING CATHOLIC PROTECTION OR POLYETHYLENE AS APPROVED BY LOCAL GAS COMPANY AND AUTHORITY HAVING JURISDICTION. INSTALLATION OF GAS SERVICE PIPING IN VENTED CONDUIT AND MEETING WITH THE LOCAL GAS COMPANY'S APPROVAL.

G. GAS PIPING ABOVE GROUND: SCHEDULE 40 BLACK STEEL WITH 125 POUND BLACK MALLEABLE IRON SCREWED FITTINGS. GAS PIPING COMPOUND AT JOINTS IN COMPLIANCE WITH NFPA BULLETIN #45 AND LOCAL APPLICABLE CODES AND SUITABLE FOR NATURAL GAS SERVICE. INSTALL MOISTURE TRAPS ON HVAC UNITS, WATER HEATERS, AND KITCHEN EQUIPMENT

H. STORM PIPING BELOW GROUND: STANDARD WEIGHT COATED CAST IRON PIPE AND STAINLESS STEEL/ NEOPRENE GASKET FITTING, OR A.B.S. OR P.V.C. SCHEDULE 40, AS APPROVED BY LOCAL AUTHORITY IN CONCEALED LOCATIONS.

I. STORM PIPING ABOVE GROUND: STANDARD WEIGHT COATED CAST IRON PIPE AND STAINLESS STEEL/ NEOPRENE GASKET FITTING, OR A.B.S. OR P.V.C. SCHEDULE 40, AS APPROVED BY LOCAL AUTHORITY.

J. TRAPS AND VENTS FOR SERVICE SINK: A.B.S. OR P.V.C. SCHEDULE 40, AS APPROVED BY LOCAL AUTHORITY.

2.2 INSULATION

A. INSULATE ALL HOT AND COLD WATER COPPER PIPING WITH AT LEAST 1/2" THICK FOAM RUBBER OR FOAM PLASTIC TYPE PIPE INSULATION

2.3 FIXTURES

A. ALL FIXTURES: AS INDICATED ON DRAWINGS WITH EQUAL PRODUCTS FURNISHED BY AMERICAN STANDARD, KOHLER, ELJER OR EQUAL.