

PLUMBING FIXTURE SCHEDULE						
MARK	FIXTURE	ROUGH-IN SIZE				DESCRIPTION/REMARKS
		SW	V	CW	HW	
WC-1 ALT	WATER CLOSET (ADA)	4"	2"	1 1/2"	-	VITREOUS CHINA, ELONGATED BOWL, SIPHON JET FLUSH ACTION, 1.8 GPF, WALL MOUNTED, SLOAN MODEL 111 FLUSH VALVE, CHURCH MODEL 286SSCT HEAVY DUTY PLASTIC, OPEN FRONT SEAT WITH SELF-SUSTAINING CHECK HINGE. FIXTURE TO CONFORM TO ADA REQUIREMENTS.
LAV-1 ALT	LAVATORY (ADA)	2"	1 1/2"	12"	12"	VITREOUS CHINA, 20" x 18" WALL HUNG LAVATORY BACK DRILLED FOR CONCEALED ARMCHAIR CARRIER, AMERICAN STANDARD MODEL 7385.03 DECK MOUNTED SINGLE LEVER FAUCET, 0.6 GPM, GRID DRAIN AND TALPECE. INSULATE ALL EXPOSED WASTE AND WATER SUPPLY PIPING UNDER LAVATORY WITH SAFETY COVERS PER ADA REQUIREMENTS AS MANUFACTURED BY PLUMBEREX, MCGUIRE, OR TRUERO.
FD-1	FLOOR DRAIN	3"	2"	-	-	ZURN ILC-P35 PVC BODY FLOOR DRAIN WITH ILC-CS CAST IRON ADAPTOR THREADED SHANK, COMPLETE WITH ILC-FR90N 9" ROUND POLISHED NICKEL FRAME TOP GRATE.
FD-2	FLOOR DRAIN	3"	2"	-	1/2"	ZURN ILC-P35 PVC BODY FLOOR DRAIN AND TRAP PRIMER, WITH ILC-CS CAST IRON ADAPTOR THREADED SHANK, COMPLETE WITH ILC-FR90N 9" ROUND POLISHED NICKEL FRAME TOP GRATE.
FS-1	FLOOR SINK	3"	2"	-	-	ZURN #FD-2370 12x12" RADIUSED PVC BODY FLOOR SINK WITH FULL RIM AND SEDIMENT BUCKET STRAINER. COORDINATE GRATE CONFIGURATION WITH KITCHEN ROUGH IN PLANS. PROVIDE MAX-1 UNDER LAV DECK SET AT 80".
UR-1 ALT	URINAL (ADA)	2"	1 1/2"	34"	-	VITREOUS CHINA, WALL MOUNTED, ELONGATED RIM, 2" DRAIN, SLOAN MODEL 186-1.0 FLUSH VALVE, 1.0 GPF. MOUNT FIXTURE AT HANDICAP HEIGHT.
MB-1	MOP BASIN	3"	1 1/2"	34"	34"	36"x24" MOLDED STONE BASIN WITH TILING FLANGES, STAINLESS STEEL CAP, STAINLESS STEEL SPLASH PANELS, MOP HANGER, HOSE WITH WALL HOOK, 3" DRAIN WITH DOME STRAINER AND LINT BASKET, CHICAGO MODEL 887 FAUCET WITH VACUUM BREAKER SPOUT, ADJUSTABLE WALL BRACE, PAUL HOOK AND 3/4" HOSE THREAD OUTLET.

PLUMBING EQUIPMENT SCHEDULE						
MARK	FIXTURE	ROUGH-IN SIZE				DESCRIPTION/REMARKS
		SW	V	CW	HW	
WH-1	WATER HEATER	-	-	1 1/2"	1 1/2"	A.O. SMITH "CYCLONE" MODEL BTH-260 GAS FIRED STORAGE TYPE HEATER, 100 GAL. STORAGE TANK, 288 GPH RECOVER THRU 100" RISE, 250,000 BTUH GAS INPUT. PROVIDE 5-YEAR EXTENDED WARRANTY.
WS-1	WATER SOFTENER NOTE 1	-	-	1"	-	CULLIGAN WATER SOFTENER TO BE FURNISHED BY OWNER AND INSTALLED BY THE PLUMBING CONTRACTOR. CONTACT BOB SHELTON @ SHELTON WATER REFINING FOR EQUIPMENT ORDERING AND INSTALLATION INFORMATION 817.640.6188.
ET-1	EXPANSION TANK NOTE 2	-	-	3/4"	-	WATTS REGULATOR #PLT-12, WITH STEEL BODY AND BUTYL RUBBER DIAPHRAGM FOR 4.5 GALLONS TOTAL CAPACITY/ 2.8 GALLONS ACCEPTANCE CAPACITY, 40 PSI FACTORY PRE-CHARGED.
RCF-1	RE-CIRCULATION PUMP NOTE 3	-	-	3/4"	3/4"	GRUNDFOS #UPIS-1087 IN-LINE HOT WATER OPEN SYSTEM RE-CIRCULATING PUMP, CAPABLE OF 4.5 GPM (140°F) @ 8' HEAD, 1/26 HP, 115V/PH, INTEGRAL ATTACHED TIMER FOR OPERATION CONTROLS, AND ATTACHED POWER CORD.
TP-1	TRAP PRIMER	-	-	1/2"	-	PPP, INC. #PR-600 "PRIME RITE" TRAP PRIMER, BRONZE CONSTRUCTION WITH VACUUM PORTS, ADJUSTABLE WITH 1/2" COPPER TYPE "L" TO RECEPTOR. PROVIDE DISTRIBUTION UNIT AS REQUIRED FOR SUPPLY TO MULTIPLE DRAINS. INSTALL VALVE RECESSED IN WALL A MINIMUM 12" AFF, PROVIDE ACCESS PANEL.
WHA-1	WATER HAMMER ARRESTER	-	-	LINE SIZED	-	PPP, INC. SERIES 9C, FULLY MECHANICAL WATER HAMMER ARRESTER SIZED AND LOCATED PER THE MANUFACTURER SPECIFICATIONS.
MOV-1	MIXING VALVE	-	-	1-1/4"	1-1/2"	WATTS REGULATOR HYDROGUARD XP LHMASH MASTER THERMOSTATIC MIXING VALVE, WITH BRASS BODY AND TAMPER RESISTANT LOCKING MECHANISM.
RPZ-1	REDUCED PRESSURE BACKFLOW PREVENTER	-	-	LINE SIZED	-	WATTS REGULATOR SS809 REDUCED PRESSURE ZONE ASSEMBLY WATER SUPPLY TO CARBONATOR(S) SHALL BE PROTECTED BY AN APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER AND SHALL BE RATED FOR 150 PSI. THE BODY & ADAPTERS ARE OF STAINLESS STEEL. CONSTRUCTION, ALL RUBBER COMPONENTS COMPLY WITH FDA FOOD ADDITIVE REGULATIONS. THE MODEL IS SUBJECT TO LOCAL HEALTH DEPARTMENT APPROVAL WATTS 89-Z.
BFP-1	BACKFLOW PREVENTER	-	-	LINE SIZED	-	WATTS REGULATOR 077 DOUBLE CHECK VALVE ASSEMBLY. DOMESTIC WATER SERVICE TO THE BUILDING SHALL BE PROTECTED BY AN APPROVED BACKFLOW PREVENTER AND SHALL BE RATED FOR 150 PSI. TWO POSITIVE SEATING CHECK MODULES WITH CAPTURED SPRINGS AND RUBBER SEAT DISCS. VERIFY APPROVAL WITH UTILITY AND JURISDICTION PRIOR TO INSTALLATION.
BFP-2	NOT USED	-	-	-	-	
BFP-3	BACKFLOW PREVENTER	-	-	LINE SIZED	-	WATTS REGULATOR SD-3 DUAL CHECK WITH ATMOSPHERIC PORT. WATER SUPPLY TO BEVERAGE FIXTURE APPLIANCES, ICE MAKERS, ETC. SHALL BE PROTECTED BY AN APPROVED BACKFLOW PREVENTER AND SHALL BE RATED FOR CONTINUOUS OR INTERMITTENT PRESSURE, STAINLESS STEEL BODY CONSTRUCTION AND ALL RUBBER INTERNAL COMPONENTS.
BFP-4	BACKFLOW PREVENTER	-	-	LINE SIZED	-	AMES C200 DOUBLE CHECK DETECTOR ASSEMBLY. FIRE WATER SERVICE TO THE BUILDING SHALL BE PROTECTED BY AN APPROVED BACKFLOW PREVENTER AND SHALL BE AVAILABLE TO BE INSTALLED IN THE VERTICAL RISER. VERIFY ACTUAL SIZE WITH THE FIRE SPRINKLER CONTRACTOR, AND APPROVAL WITH THE UTILITY AND JURISDICTION PRIOR TO INSTALLATION.
VB-1	VACUUM BREAKER	-	-	LINE SIZED	-	WATTS REGULATOR 288-A ATMOSPHERIC TYPE ANTI-SIPHON VACUUM BREAKER WITH INTERNAL LIGHT WEIGHT DISC FLOAT WITH SILICONE DISC FOR TIGHT SEATING.
GI-1	GREASE INTERCEPTOR	4"	2"	-	-	EXISTING 1000 GALLON TO REMAIN ON SITE.

BACKFLOW DEVICE SCHEDULE		
ITEM/FIXTURE	ITEM/EQUIPMENT #	BACKFLOW DEVICE
BAG-IN-BOX SODA SYSTEM	P2	RPZ-1
ROOF MOUNTED HOSE BIBB	NA	NA
TEA BREWER(S)	P57	
COFFEE MACHINE(S)	P56	
ICE MAKER(S)	P4	
DISPENSER(S)	P64	
SODA DISPENSER(S)	P54	
DIPPER WELL(S)	-	
POT FILL FAUCET(S)	-	
HOSE BIBB/WALL HYDRANT(S)	-	INTERNAL
SERVICE SINK	-	

TESTING PROCEDURES	
1.	TEST INSTALLED WATER PIPING AT 100 PSI FOR A PERIOD OF 8 HOURS, OBSERVING FOR ANY VISIBLE LEAKS. TEST PIPING AGAIN WITH FIXTURES INSTALLED.
2.	CHLORINATE ALL WATER PIPING FOR A PERIOD OF 8 HRS. BY CHARGING WITH A HYPOCHLORINATE SOLUTION TO ACHIEVE A 5 PPM STRENGTH AT THE FIXTURE FURTHEST FROM THE POINT OF APPLICATION. UPON COMPLETION OF THE CHLORINATION, FLUSH ALL PIPING UNTIL NO CHLORINE CAN BE DETECTED BY TASTE. CLEAN ALL STRAINERS AND SET WATER FLOWS FROM FIXTURES IN ACCORDANCE WITH MANUFACTURER AND LOCAL REQUIREMENTS.
3.	TEST INSTALLED GAS PIPING AT 80 PSI FOR A PERIOD OF 2 HRS, USING SOAP AND WATER OBSERVING FOR ANY VISIBLE LEAKS AT ALL JOINTS.
4.	TEST INSTALLED WASTE AND VENT PIPING FOR A PERIOD OF 8 HRS, BY CAPPING OR PLUGGING ALL JOINTS TO A LEVEL OF THE HIGHEST FIXTURE OR FITTING. FILL THE SYSTEM WITH WATER AND OBSERVE FOR ANY LEAKS.

GAS DEMAND TOTAL				
NO.	DESCRIPTION	CONN. SIZE	QTY.	TOTAL (MBH)
P54	FRYER	3/4"	2	105
P58	PANCAKE GRIDDLE	3/4"	4	195
P42	HOT PLATE	3/4"	1	180
WH-1	WATER HEATER	1 1/4"	1	250
RTU-1	ROOF TOP UNIT (12.5T)	1 1/4"	1	150
RTU-2	ROOF TOP UNIT (7.5T)	1 1/4"	1	120
RTU-3	ROOF TOP UNIT (12.5T)	1 1/4"	1	150
MAU-1	MAKE-UP AIR UNIT	1"	1	370
-	-	-	-	-
COOKING APPLIANCE SUB-TOTAL				930
WATER HEATING SUB-TOTAL				250
HVAC SUB-TOTAL				780
GAS DEMAND TOTAL (MBH)				1,970
GAS DEMAND TOTAL (BTUH)				1,970,000
GAS DEMAND TOTAL (CFH)				1,970

NOTE(S):

- THE ACTUAL LENGTH TO THE MOST REMOTE APPLIANCE CONNECTION IS 140'-0".
- THE SYSTEM IS SIZED FOR A TOTAL DEVELOPED LENGTH OF MAXIMUM 228'-0".
- THE SERVICE TO THE BUILDING SHALL BE INSTALLED AS A LOW PRESSURE SUPPLY (INLET PRESSURE OF 0.5 PSI) AND A 0.5" WC PRESSURE DROP.
- PIPE SIZES SHOWN ON THE RISER DIAGRAM ARE BASED ON 2012 IPC, TABLE 402.4(2) FOR NATURAL GAS. VERIFY FIELD CONDITIONS FOR ACTUAL DEVELOPED LENGTH AND POSSIBLE ADJUSTMENTS TO PIPE SIZES.
- THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY FOR THE PROVISION OF THE COMPLETE METER ASSEMBLY INCLUDING REGULATOR AND VENTING REQUIREMENTS.

KITCHEN H.W. DEMAND			
ITEM	QTY.	GPH	TOTAL GPH
DISHWASHER	1	50	50
KITCHEN HAND SINK	8	5	30
DIPPERWELL	2	5	10
3 COMPARTMENT SINK	1	90	90
HOSE BIBB/WALL HYDRANT	0	0	0
SERVICE SINK FAUCET	1	20	20
LAVATORY	4	5	20
TOTAL			220

HOT WATER CALCULATIONS:

PEAK DEMAND

- 220 GPH (PEAK DEMAND) X 0.4 (DEMAND FACTOR) = 88 GPH.
- 88 GPH (DEMAND) X 1.0 (STORAGE FACTOR) = 88 GALS.
- 220 GPH (PEAK DEMAND) / 60 MIN/HR = 3.6 GPM.
- 50°F DOMESTIC SUPPLY WATER TEMPERATURE.
- 140°F DESIGN SUPPLY HOT WATER FOR SPECIFIED KITCHEN EQUIPMENT.
- 500 GPM X 2.7 = MIN. OUTPUT BTUH REQUIRED AT WATER HEATER. (500)(3.6)(88) = 1,613,333 BTUH.

CAPACITY PROVIDED

- WATER HEATER WITH 250,000 BTUH OUTPUT CAPACITY AND CONTINUOUS RECOVERY.

PIPING MATERIAL SCHEDULE	
1. WATER PIPE (ABOVE GROUND)	UPONOR AQUALUX CROSSLINKED POLYETHYLENE (PEX) TUBING WITH PROPENX LEAD-FREE BRASS INSERT FITTINGS. FIELD COORDINATE COLOR AND COILED LENGTH FOR REQUIRED INSTALLATION. NO JOINTS OR UNIONS SHALL BE INSTALLED WHERE IT IS EXPOSED TO DIRECT SUNLIGHT.
2. (BELOW GROUND)	UPONOR AQUALUX CROSSLINKED POLYETHYLENE (PEX) TUBING WITH PROPENX LEAD-FREE BRASS INSERT FITTINGS. FIELD COORDINATE COLOR AND COILED LENGTH FOR REQUIRED INSTALLATION. NO JOINTS OR UNIONS SHALL BE INSTALLED BELOW THE BUILDING SLAB.
3. SEWER AND VENT PIPE (ABOVE AND BELOW GRADE)	BELOW AND ABOVE GRADE DWV SCHEDULE 40 POLYVINYL CHLORIDE (PVC) PIPING. INSIDE BUILDING SERVICE WEIGHT (HUBLESS) CAST IRON SOIL PIPE AND STAINLESS STEEL. NO HUB COUPLINGS.
4. CONDENSATE DRAIN PIPE AND INDIRECT DRAINAGE PIPE (INTERIOR TO BUILDING)	TYPE M COPPER WITH 99.5 SILVER SOLDER JOINT FITTINGS. INSULATE CONDENSATE PIPING WITH 1/2" ARMAFLEX CLOSED CELL PIPE INSULATION WITH SELF SEALING ADHESIVE JOINTS, OR EQUIVALENT.
5. CONDENSATE DRAIN PIPE (EXTERIOR TO BUILDING)	TYPE M COPPER WITH 99.5 SILVER SOLDER JOINT FITTINGS.
6. STORM DRAIN PIPE (ABOVE AND BELOW GRADE)	INSIDE BUILDING SERVICE WEIGHT (HUBLESS) CAST IRON SOIL PIPE AND STAINLESS STEEL. NO HUB COUPLINGS. INSULATE WITH 1/2" ARMAFLEX CLOSED CELL PIPE INSULATION WITH SELF SEALING ADHESIVE JOINTS, OR EQUIVALENT.
7. GAS PIPE	SCHEDULE 40 BLACK STEEL WITH MALLEABLE IRON FITTINGS. WELDED JOINTS FOR PIPE 2-1/2" AND LARGER AND ALL JOINTS BELOW GRADE.

GREASE INTERCEPTOR CALCULATION				
TAG	DESCRIPTION	QTY.	DFUS	TOTAL (DFUS)
FD-1	FLOOR DRAIN	11	3	33
FS-1	FLOOR SINK	9	3	27
MB-1	SERVICE SINK	1	3	3
TD-1	TRENCH DRAIN	2	3	6
TOTAL DFUS				69

NOTE(S):

- CALCULATIONS WERE PERFORMED PER 2012 IPC.
- (1) 1000 GALLON INTERCEPTORS WILL BE ACCEPTABLE FOR THIS SITE.

PLUMBING LEGEND		
SYMBOL	ABBREV.	DESCRIPTION
--- SAN ---	S OR W	SOIL OR WASTE (BELOW GRADE)
--- GW ---	GW	GREASE WASTE
--- V ---	V	VENT
--- CD ---	CD	CONDENSATE DRAIN
--- ST ---	ST	STORM DRAIN
--- CW ---	CW	COLD WATER
--- FW ---	FW	FILTERED WATER
--- SW ---	SW	SOFTENED WATER
--- FSW ---	FSW	FIRE SERVICE WATER
--- HW (110°) ---	HW (110°)	DOMESTIC HOT WATER PIPING - 110° F
--- HW (140°) ---	HW (140°)	DOMESTIC HOT WATER PIPING - 140° F
--- RHW (110°) ---	RHW (110°)	DOMESTIC RE-CIRCULATING HOT WATER PIPING - 110° F
--- RHW (140°) ---	RHW (140°)	DOMESTIC RE-CIRCULATING HOT WATER PIPING - 140° F
--- RCL ---	RCL	RECLAIMED HEAT WATER
--- G ---	G	GAS, NATURAL OR PROPANE
--- (E) ---	(E)	EXISTING PIPING TO REMAIN
--- ---	---	REMOVE PIPING
○	UP	PIPE UP
○	DN	TEE DOWN
○	DN	PIPE DOWN
●	FOO	FLOOR CLEANOUT
●●	DCO	DOUBLE CLEANOUT
	CO	CLEANOUT, WALL OR PIPE
	SOV	SHUT-OFF VALVE
	SOV	SHUT-OFF VALVE, NORMALLY OPEN
	SOV	SHUT-OFF VALVE, NORMALLY CLOSED
	C.V.	CHECK VALVE
	B.V.	BALANCING VALVE
	U	UNION
	P.V.	MECHANICAL PLUG VALVE (GAS)
	OC	SHUT-OFF COCK (GAS)
	EA	EARTHQUAKE RESISTANT AUTOMATIC VALVE (GAS)
	S	ELECTRIC SOLENOID VALVE (GAS)
	P.R.	PRESSURE REGULATOR (GAS)
	P	POINT OF CONNECTION
	T&P	TEMPERATURE & PRESSURE RELIEF VALVE
	VTR	VENT TO ROOF
	HD	HUB DRAIN
	FD	FLOOR DRAIN (COORDINATE GRATE REQ)
	FS	FLOOR SINK (COORDINATE GRATE REQ)
	RP	RE-CIRCULATION PUMP
	HB	HOSE BIBB
	PR	PIPE REDUCER
	PC	PIPE CAP
	KEC	KITCHEN EQUIPMENT CONTRACTOR
	BTUH	BRITISH THERMAL UNITS PER HOUR
	MBH	MBTUH X 1000
	CFH	CUBIC FEET PER HOUR (1 MBH = 1 CFH)
	(E)	EXISTING
	I.E.	INVERT ELEVATION
	CONN	CONNECTION
	FU	FIXTURE UNITS
	GPM	GALLONS PER MINUTE
	GPH	GALLONS PER HOUR
	HP	HORSEPOWER
	PSI	POUNDS PER SQUARE INCH
	AP	ACCESS PANEL
	W/	WITH
	FLR	FLOOR
	CLG	CEILING
	ABV	ABOVE
	BEL	BELOW
	UG	UNDERGROUND
	DN	DOWN
	CONT.	CONTINUE
	TYP.	TYPICAL
	FOH	FRONT OF HOUSE
	BOH	BACK OF HOUSE
	A.D.A.	AMERICAN DISABILITIES ACT
	A.F.F.	ABOVE FINISH FLOOR
	B.F.F.	BELOW FINISH FLOOR

PLUMBING GENERAL NOTES	
1.	NOTE: FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ALTHOUGH SIZES AND LOCATIONS OF EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, THE CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY MATERIALS.
2.	THE PLUMBING SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL CONFORM TO ALL FEDERAL, STATE AND LOCAL CODES AND AUTHORITIES HAVING JURISDICTION.
3.	PLUMBING QUALITY, WEIGHTS OF MATERIALS AND ALTERNATE METHODS OF CONSTRUCTION SHALL CONFORM TO THE 2012 IPC.
4.	CONTRACTOR SHALL COORDINATE ALL WORK SHOWN ON THESE DRAWINGS AND SPECIFICATIONS WITH ALL DISCIPLINES AND TRADES PRIOR TO SUBMITTAL OF BID AND INSTALLATION OF SYSTEM.
5.	CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH UTILITY COMPANIES FOR SERVICE AND CONNECTIONS AND SHALL PAY FOR ALL FEES, CHARGES, PERMITS AND METERS.
6.	THE PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND LABOR (INCLUDING THE COMPLETE PLUMBING SYSTEM) FOR A PERIOD OF ONE YEAR FROM WRITTEN ACCEPTANCE BY THE TENANT. ANY DEFECTS IN MATERIALS AND OR LABOR FOUND WITHIN THE GUARANTEE PERIOD SHALL BE REMEDIATED OR REPAIRED BY THIS CONTRACTOR IN A TIMELY FASHION, AT NO COST TO THE TENANT.
7.	ALL PLUMBING FIXTURE LOCATIONS (WATER CLOSETS, LAVATORIES ETC.) ARE DIAGRAMMATIC. CONTRACTOR SHALL REFER TO FOOD SERVICE AND ARCHITECTURAL DRAWINGS FOR EXACT PLACEMENT AND MOUNTING HEIGHTS.
8.	ANY DEVIATIONS FROM THE DRAWINGS OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION.
9.	CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTAL OF BID AND FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS. SUBMITTAL OF BID WILL VERIFY THAT THE CONTRACTOR HAS VISITED THE SITE.
10.	PIPING SHALL BE INSTALLED PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. THE INSTALLATION SHALL MEET ALL CONSTRUCTION CONDITIONS AND ALL CODES FOR THE INSTALLATION OF OTHER TRADES.
11.	SUPPORT PIPING WITH CLEVERLY SPLIT RIGID TYPE PIPE HANGERS WITH 3/8" ALL THREAD ROD AND BEAM CLAMPS. PLUMBERS TAP TO WIRE NOT PERMITTED.
12.	TRAP PRIMERS FOR FLOOR DRAINS AND FLOOR SINKS AND WATER HAMMER ARRESTORS TO BE INSTALLED AS PER THE 2012 IPC, WITH CITY AMENDMENTS AND THE LATEST EDITION OF THE AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE 1010) SIZING AND INSTALLATION REQUIREMENTS.
13.	TRAP PRIMERS, TRAP PRIMERS, WATER HAMMER ARRESTORS OR OTHER EQUIPMENT SHOWN IN WALLS OR ABOVE NON-ACCESSIBLE CEILING SHALL BE INSTALLED BEHIND AN ACCESS PANEL.
14.	ALL SERVICE WATER HEATING EQUIPMENT TO BE IN COMPLIANCE WITH THE 2012 IPC REQUIREMENTS AND LABELED AS SUCH.
15.	ALL ITEMS PROJECTING THROUGH THE ROOF SHALL BE FLASHED THROUGH CURBS OR PIPE SEALS A MINIMUM OF 12" ABOVE THE ROOF. THE PIPE CURBS AND SEALS SHALL BE INSTALLED BY THE ROOFING CONTRACTOR. ENSURE THAT AMPLE BOOT OPENINGS ARE PROVIDED TO ACCOMMODATE ANY ELECTRICAL CONDUIT PENETRATIONS REQUIRED FOR POWER.
16.	ALL WATER PIPING TO BE INSULATED AS PER THE 2012 IPC REQUIREMENTS: INSULATION THICKNESS INSULATION VALUE 1/2" THRU 1 1/4" 1/2" R = 6.0 1-1/2" THRU 2" 1" R = 6.0
17.	CONTRACTOR SHALL PROVIDE: FAUCETS, TRAPS, STOPS, BALL VALVES, BACKFLOW DEVICES FOR KITCHEN EQUIP. GASCOCKS, WATER HAMMER ARRESTORS, CLEANOUT COVERS AND INDIRECT WASTE TO AN APPROVED RECEPTOR AND ALL NECESSARY TRIM FOR A COMPLETELY CONNECTED PLUMBING SYSTEM.
18.	ALL CLEANOUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE AND LOCATED AS PER CODE REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE ALL CLEAN OUT LOCATIONS WITH EQUIPMENT, MILLWORK, ETC. PRIOR TO INSTALLATION.
19.	ALL PLUMBING FIXTURE VENTS TO TERMINATE A MINIMUM OF 12 INCHES FROM ANY VERTICAL SURFACE AND 10'-0" FROM OR 3'-0" ABOVE ANY MECHANICAL EQUIPMENT OUTSIDE AIR INTAKE.
20.	ALL VALVES, UNIONS, ETC. TO BE SAME SIZE AS CONNECTED SUPPLY LINE UNLESS OTHERWISE NOTED ON DRAWINGS.
21.	UNIONS SHALL BE PROVIDED AND INSTALLED AFTER EACH SCREW-TYPE VALVE AND PRIOR TO EQUIPMENT CONNECTIONS.
22.	PIPING SHALL BE INSTALLED COMPLETE WITH DIELECTRIC UNIONS BETWEEN CONNECTIONS OF NON-FERROUS MATERIALS.
23.	PROVIDE ACCESSIBLE WATER SUPPLY STOP VALVE(S) AT EACH PLUMBING FIXTURE.
24.	PROVIDE A LINE SIZED PRESSURE REDUCING VALVE AT THE BUILDING SERVICE CONNECTION SHOULD THE SUPPLY PRESSURE EXCEED 80 PSI.
25.	ALL UNDERGROUND METALLIC PIPE AND FITTINGS SHALL BE PROTECTED IN ACCORDANCE WITH THE SOILS ENGINEERS RECOMMENDATIONS.
26.	NO PIPING SHALL BE DIRECTLY EMBEDDED IN CONCRETE, MASONRY WALLS, OR CONCRETE FOOTINGS.
27.	THE PLUMBING CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS FOR ALL POINTS OF CONNECTION WITH THE GENERAL CONTRACTOR AND OTHER TRADES PRIOR TO START OF WORK.
28.	VERIFY EXACT LOCATIONS, DEPTH AND SIZE OF ALL PIPING TO WHICH CONNECTIONS ARE REQUIRED. COORDINATE ALL CONNECTIONS WITH SITE CONDITIONS AND SITE UTILITY CONTRACTOR REPRESENTATIVE.
29.	ALL HORIZONTAL PIPING LINES EXTENDED AND CONNECTED TO EQUIPMENT SHALL BE RUN AT THE HIGHEST POSSIBLE ELEVATIONS AND NOT LESS THAN 6" ABOVE THE FLOOR TO PROVIDE CLEARANCE FOR CLEANING.
30.	ALL CUTTING OF EXISTING PAVING, WALKS AND/OR FLOORS SHALL UTILIZE MACHINE SAW CUTTING EQUIPMENT. HOLES FOR PIPES IN CONCRETE WALLS OR FLOORS SHALL UTILIZE CORE DRILLING EQUIPMENT. COORDINATE WITH ARCHITECTURAL DETAILS FOR FLOOR CUTTING AND PATCHING.
31.	THE PLUMBING CONTRACTOR IS TO PROVIDE ALL ADDITIONAL STEEL, HANGER MATERIALS, RODS AND CLAMPS AS REQUIRED FOR COORDINATION WITH WORK OF OTHER TRADES.
32.	PIPING LAYOUT IS SCHEMATIC ONLY. EXACT ROUTING AND INSTALLATION OF PIPES TO BE COORDINATED WITH THE BUILDING STRUCTURE AND THE WORK OF OTHER CONTRACTORS. NO WATER OR DRAIN LINES ARE PERMITTED TO BE INSTALLED OVER OR UNDER ELECTRICAL PANELS.
33.	NO LIQUID TRANSMISSION PLUMBING PIPING SHALL BE INSTALLED ABOVE ELECTRICAL SWITCH GEAR, EQUIPMENT, OR PANELS. MAKE ADJUSTMENTS NECESSARY TO REROUTE PIPING FOR ACTUAL INSTALLATION OF ELECTRICAL EQUIPMENT.
34.	WHENEVER FOUNDATION WALLS, EXTERIOR WALLS, ROOFS, ETC. ARE PENETRATED FOR THE INSTALLATION OF PLUMBING SYSTEMS, THEY SHALL BE PATCHED TO MATCH EXISTING CONSTRUCTION AND SEALED WEATHER TIGHT.
35.	ANY EXPOSED PIPING IN THE GUEST AREAS SHALL BE PAINTED TO MATCH THE WALL COLOR. ANY EXPOSED GAS PIPING IN THE KITCHEN SHALL BE PAINTED WHITE.
36.	DURING THE PROGRESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF ALL CHANGES MADE IN THE PLUMBING SYSTEMS. THE RECORD DRAWING SHALL SHOW CHANGES IN MANUFACTURER (WITH NUMBERS AND TRADE NAMES), MATERIALS, SIZES, LOCATIONS AND HOOK-UP POINTS. AS-BUILTS SHALL BE GIVEN TO OWNERS' CONSTRUCTION MANAGER AT COMPLETION OF JOB.
37.	UPON COMPLETION OF JOB, THIS CONTRACTOR SHALL INSPECT ALL EXPOSED PORTIONS OF THE PLUMBING INSTALLATION AND COMPLETELY REMOVE ALL EXPOSED LABELS, SOIL, MARKINGS AND FOREIGN MATERIAL EXCEPT PRODUCT LABELS AND THOSE REQUIRED BY LAW.
38.	PLUMBING CONTRACTOR SHALL BE ON SITE AND PRESENT AT THE DATE OF STORE TURNOVER.
39.	PLUMBING CONTRACTOR SHALL PROVIDE MANUFACTURERS OPERATION LITERATURE FOR ALL INSTALLED EQUIPMENT AND FIXTURES AT THE DATE OF STORE TURNOVER.

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