



DRAINAGE FIXTURE UNITS SCHEDULE					
TYPE OF FIXTURE	QTY.	FIX. UNITS (EACH)	MINIMUM FIX. TRAP AND DRAIN SIZE	TOTAL FIX. UNITS	NOTES
ELECTRIC WATER COOLER	1	0.5	1-1/2"	0.5	X
FLOOR SINK	2	3.0	3"	6.0	X
FLOOR DRAIN	12	2.0	3"	24.0	X
LAVATORY	18	1.0	1-1/4"	18.0	X
HAND SINK	18	1.0	1-1/4"	18.0	X
MOP BASIN	1	2.0	3"	2.0	X
3-COMP SINK	1	2.0	1-1/2"	2.0	X
ADA WATER CLOSET	16	4.0	-	64.0	X
WASHING MACHINE OUTLET BOX	1	3.0	2"	3.0	X
TOTAL DRAINAGE FIXTURE UNITS:				137.5	

DOMESTIC WATER SUPPLY FIXTURE UNITS									
TYPE OF FIXTURE	TYPE OF SUPPLY CONTROL	QUANTITY	HW (EACH)	HW (TOTAL)	CW (EACH)	CW (TOTAL)	TOTAL (EACH)	TOTAL (F.U.'S) (TOTAL)	
ELECTRIC WATER COOLER	VALVE	1	0.0	0.00	0.25	0.25	0.25	0.25	
LAVATORY	FAUCET	18	1.5	27.00	1.5	27.00	2.0	36.00	
HAND SINK	FAUCET	18	1.5	27.00	1.5	27.00	2.0	36.00	
MOP BASIN	FAUCET	1	2.25	2.25	2.25	2.25	3.0	3.00	
3-COMPARTMENT SINK FAUCET	FAUCET	1	3.0	3.00	3.0	3.00	4.0	4.00	
ADA WATER CLOSET (TANK)	VALVE	16	0.0	0.00	5.0	80.00	5.0	80.00	
HOSE BIB	VALVE	4	0.0	0.00	1.5	6.00	1.5	6.00	
WASHING MACHINE OUTLET BOX	VALVE	1	2.25	2.25	2.25	2.25	3.0	3.00	
					HW	CW		TOTAL (FIXTURE UNITS) (TOTAL)	
SERVICE TOTAL FIXTURE UNITS							61.50	147.75	168.25
SERVICE TOTAL GPM							32.2 GPM	55.1 GPM	58.8 GPM
SERVICE SIZE								2"	

GREASE INTERCEPTOR CALCULATIONS										
SYMBOL	FIXTURE TYPE	COMPARTMENT QUANTITY	L	W	D	VOLUME (CU. IN.)	VOLUME (GALLONS)	% FULL	DRAIN TIME (MINUTES)	DRAINAGE LOAD (GALLONS)
-	3-COMP SINK	3	16	20	12	11520	49.9	0.5	2	12.5
*TOTAL FIXTURE FLOW RATE (GPM):										16.5

WATER SHOCK ARRESTOR SIZING CHART						
(BASED ON SOUX CHIEF HYDRA-RESTOR) OR (BASED ON ZURN MODEL Z-1700) REFER PDI STANDARDS						
NO. FIXTURE UNITS	MODEL NO.	UNIT SIZE	CONNECTION SIZE	LOCATION	REMARKS	
1-11	652-A	A	1/2"	CONTRACTOR TO LOCATE IN FIELD	LOCATE AT HIGH POINTS	
12-32	653-B	B	3/4"	CONTRACTOR TO LOCATE IN FIELD	LOCATE AT HIGH POINTS	

PLUMBING FIXTURE / COMPONENT SCHEDULE

UNIT NO.	FIXTURE TYPE	WASTE	VENT	CW	HW	SPEC
P-1	WATER CLOSET (JUNIOR HEIGHT)	4"	2"	1/2"	-	AMERICAN STANDARD "BABY DEVORO 10" HIGH TOILET. FLOOR MOUNTED WITH CLOSED COUPLED TANK. WHITE W/WHITE OLSONITE 126-CC SEAT LESS COVER. SUPPLY: CHICAGO 101(SS) W/ END CAPS.
P-2	WATER CLOSET	4"	2"	1/2"	-	KOHLER, WELLWORTH CLASS FIVE TOILET K-3988. 14 1/2" HEIGHT. 1.28 GPF FLOOR MOUNTED, W/CLOSED COUPLED TANK, ELONGATED BOWL. PROVIDE RIGHT/LEFT TRIP LEVER AS REQUIRED. PROVIDE ALL ADDITIONAL ACCESSORIES/COMPONENTS AS REQUIRED INCLUDING TANK COVER, TRIP LEVER, BOLT CAP ACCESSORY PACK, SEAT, ETC.
P-2H	WATER CLOSET (ADA)	4"	2"	1/2"	-	AMERICAN STANDARD "CHAMPION PRO" 211AA.104. ADA ACCESSIBLE TOILET. 16 1/2" HEIGHT. FLOOR MOUNTED, W/CLOSED COUPLED TANK. ELONGATED BOWL. WHITE W/WHITE TYPE 1, BEMIS 1955-SS/C SEAT, LESS COVER. SUPPLY: CHICAGO 101(SS) W/ END CAPS. PROVIDE RIGHT/LEFT TRIP LEVER AS REQUIRED.
P-3	LAVATORY	1/2"	1/2"	1/2"	1/2"	AMERICAN STANDARD "LUCERNE" ADA ACCESSIBLE, WALL HUNG @ 34" A.F.F., WHITE, 20.5"Wx18"D LAVATORY. SUPPLIES: (2) CHICAGO NO. 1017 SSW & TEMPERED WATER MIXING VALVE WITH COLD WATER BYPASS (ASSE 1070). CHICAGO 2200-4CP FAUCET. CHROME STRAINER AND TRAP.
P-4	LAVATORY (COUNTER MOUNTED)	1/2"	1/2"	1/2"	1/2"	ELKAY "DAYTON" D11719, 22 GA. TYPE 302 SS SINGLE COMPARTMENT COUNTER SINK W/SATIN FINISH. SUPPLIES: CHICAGO NO. 1017. FAUCET: CHICAGO NO. 201-AGN2AE3VP, 12" SPOUT HEIGHT. TRAP: TYPE 1 W/WALL ESCUTCHEON. TEMPERED WATER MIXING VALVE W/COLD WATER BYPASS (ASSE 1070).
P-5	SINGLE COMPARTMENT SINK	2"	1/2"	1/2"	1/2"	ELKAY "DAYTON" PSRQ00191950L, 20 GA. TYPE 304 SS, SINGLE COMPARTMENT COUNTER SINK WITH SATIN FINISH. SUPPLIES: CHICAGO NO. 1017. FAUCET: CHICAGO NO. 201-AGN2AE3VP, 12" SPOUT HEIGHT. TRAP: TYPE 1 W/WALL ESCUTCHEON. TEMPERED WATER MIXING VALVE W/ COLD WATER BYPASS (ASSE 1070).
P-6	HAND SINK	2"	1 1/2"	1/2"	1/2"	UNIVERSAL STAINLESS EHS-1. TYPE 304 SS. 12"x10"x6"D. SUPPLIES: PER MANUF. RECOMMENDATIONS W/TEMPERED WATER MIXING VALVE (ASSE 1070). EXCLUDED: SS BASKET DRAIN, TYPE 1 CONCEALED TRAP. SELF-RIMMING.
P-7	STAINLESS STEEL 3-COMP. SINK	(3) 2"	(3) 1/2"	(3) 3/4"	(3) 3/4"	ELKAY: E3C16X20-2-18X. FAUCET: ADVANCE TABCO K-1111 14" SWING SPOUT (2). BASKET STRAINER. TRAP: TYPE 1, CONCEALED. SELF-RIMMING.
P-8	LAUNDRY TUB	2"	1/2"	1/2"	1/2"	FIAT FL-1 MOLDED STONE FLOOR SET LAUNDRY TUB. 20x24x13. FAUCET: CHICAGO 891-E2-E27-369 (6" SPOUT). STRAINER: STAINLESS STEEL WITH RUBBER STOP.
P-9	MOP SINK	3"	1/2"	1/2"	1/2"	FIAT MSB-24x24, MOLDED STONE, FLOOR SET, 6" DEEP. FAUCET: CHICAGO 897-CP VACUUM BREAKER SPOUT W/ PAUL HOOK & BELL-COPIE. DOME STRAINER. PROVIDE W/FIAT MODEL 832-AA HOSE & BRACKET, FIAT MODEL 889-CC MOP RACK, & SPLASH GUARD AS REQUIRED.
P-10	WASHING MACHINE OUTLET BOX	2"	1/2"	1/2"	1/2"	BY OATEY, MODEL NUMBER 38993, 20 GAUGE STEEL ENCLOSURE WITH 2" NPT THREADED DRAIN CONNECTION. WATER HAMMER ARRANGERS SHALL BE PROVIDED SEPARATELY FROM THE OUTLET BOX.
P-11	ELECTRIC WATER COOLER	1 1/2"	1 1/2"	1/2"	-	OASIS MODEL PBACSL. STAINLESS STEEL, WALL MOUNTED, REFRIGERATED, ADA APPROVED. POLISHED SATIN FINISH. CAPACITY AT 30F TROP & 90F AMBIENT. TWO STREAM BUBBLER W/ BUILT IN PRESSURE REGULATOR. DRAIN-REMOVABLE. CHROME PLATED BRASS. TRAP: 1/4" #30 TRAP.
FD-1	FINISHED FLOOR DRAIN	3"	-	-	-	SIOUX CHIEF "FINISHLINE" 5-1/2" FLOOR DRAIN: 632-350NR WITH POLISHED NICKEL BRONZE TOP. PROVIDE WITH INTEGRATED DEEP DRAIN TRAP AND TRAP SEAL BY SURESEAL. SIZE AS INDICATED ON PLANS.
FD-2	KITCHEN FLOOR SINK	3"	-	-	-	J.R. SMITH 3000 SERIES: TYPE "K" FLOOR SINK IN KITCHEN AND FOOD SERVICE AREAS SHALL BE J.R. SMITH 3000 SERIES WITH RECYCLED BUCKET AND 12 1/2" NICKEL BRONZE SQUARE TOP 10" DEEP 1/2" GRATE. SEE PLAN FOR LOCATION.
CO	CLEANOUT	SEE PLAN	-	-	-	ZURN, SIZE SAME AS PLAN PIPE SIZE, MATERIAL SAME AS PIPE MATERIAL, POLISHED BRONZE COVER, BRASS CLOSURE PLUG.
WCO	CLEANOUT	SEE PLAN	-	-	-	ZURN, SIZE SAME AS PLAN PIPE SIZE, MATERIAL SAME AS PIPE MATERIAL, POLISHED BRONZE COVER, BRASS CLOSURE PLUG.
WH	WALL HYDRANT	-	-	3/4"	-	WOODFORD, FROST PROOF, MODEL B65, POLISHED BRASS COVER BRASS CLOSURE PLUG.
RP-1	RECIRCULATION PUMP	-	-	-	-	BELL&GOSSETT: MODEL NBF-36 1/15 HP 115V 60HZ 3/4" GPM @ 10' HEAD
TP-1	TRAP PRIMER	-	-	1/2"	-	ZURN: Z1022-XL TRAP PRIMER
HD-1	HUB DRAIN	3"	1-1/2"	-	-	----
MV-1	HOT WATER MIXING VALVE	-	-	-	-	LEONARD: MODEL # TM-26-DT-RF-R

- NOTES:
1. PROVIDE MANUFACTURER LISTED OR APPROVED ALTERNATES.
2. PROVIDE LAVATORIES & STAND ALONE HAND SINKS WITH ADA TRAP WRAPS.
3. ASSE 1070 MIXING VALVE TO BE WAITS LFUSG-B-M2 (OR APPROVED ALTERNATES) WITH BRAIDED STEEL SUPPLIES TO FAUCETS. EACH INDIVIDUAL FAUCET SHALL BE SUPPLIED BY A SINGLE MIXING VALVE.

DOMESTIC WATER HEATER SCHEDULE

UNIT NO.	SERVES	MANUFACTURER	MODEL NUMBER	TANK TYPE OR ELECTR.	KW	STORAGE CAP. (GALLONS)	GPH RECOVERY @ 80° RISE	WATER TEMP.	VOLTS	PHASE	NOTES
DWH-1	DOMESTIC HOT WATER	A.O. SMITH	DR	ELECTR.	30	60	154	140°F	208	3	1,2,3

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. SHALL HAVE ASME SECTION VIII DIV. 1 PRESSURE VESSEL DESIGN RELIEF VALVE.
3. CONDENSATE NEUTRALIZATION KIT.

EXPANSION TANK SCHEDULE

UNIT NO.	SERVES	MANUFACTURER	MODEL NUMBER	TANK TYPE	AVERAGE WATER TEMP.	MINIMUM PRECHARGE PRESS.	MAXIMUM OPER.	EXPANSION VOLUME	TANK HEIGHT	TANK DIA.	NOTES
ET-1	ET-1	AMTROL	ST-25V	IN-LINE, FLOOR MOUNT	110	60	80	10.3	19"	15"	1,2

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. PROVIDE AUTOMATIC AIR VENT PIPED TO NEAREST FLOOR DRAIN.

GREASE INTERCEPTOR

UNIT NO.	SERVES	MANUFACTURER	MODEL NUMBER	GPM	GREASE CAPACITY (LBS.)	DIMENSIONS	INLET/OUTLET SIZE	SPEC	NOTES
GI-1	3 COMPARTMENT SINK	SCHIER	GB-15	15.0	74	25"Lx19"Wx14.5"D	3"	-	1,2

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. RECESSED MOUNTED IN AOD-RESISTANT, COATED STEEL FRAME AND CRADLE.

PIPING TYPES:

ALL UTILITY PIPING UPSTREAM OF UTILITY METER - PIPING SHALL MATCH EXISTING UTILITY STANDARDS.
ABOVE AND BELOW GROUND CW SERVICE PIPING - TYPE K DRAWN COPPER TUBE WITH WROUGHT COPPER FITTINGS AND SOLDER JOINTS OR BLUE PVC.
ABOVE & BELOW GROUND DOMESTIC CW, HW & RECIRC DISTRIBUTION PIPING - CROSS LINKED POLYETHYLENE (PEX) PLASTIC TUBING.
INDOOR GAS PIPING - STEEL PIPE WITH THREADED JOINTS OR COPPER PIPE WITH BRAZED JOINTS. WELD JOINTS FOR PIPE SIZE OVER 2".
OUTDOOR GAS PIPING - STEEL PIPE WITH THREADED JOINTS.
ABOVE GROUND SANITARY/VENT - PVC SEWER PIPE AND FITTINGS.
BELOW GROUND SANITARY - PVC SEWER PIPE AND FITTINGS.
INDIRECT WASTE/DRAIN PIPING - PVC PIPE AND FITTINGS.
REFRIGERANT - TYPE L DRAWN COPPER TUBE W/WROUGHT COPPER FITTINGS AND BRAZED JOINTS.

BACKFLOW DEVICE SCHEDULE

TAG	SERIES	SIZE	TYPE	USAGE	APPROVAL
BFP-1	909	4"	DOUBLE CHECK VALVE ASSEMBLY	FIRE RISERS	ASSE 1015, AWWA 1013
BFP-2	009QT	2"	REDUCED PRESSURE BACKFLOW PREVENTER	DOMESTIC WATER CONNECTION	ASSE 1015, AWWA 1013
BFP-3	SD-3	3/8"	DUAL CHECK VALVE W/ ATMOSPHERIC VENT	CARBONATED BEVERAGE	ASSE 1022
BFP-4	9D	1/2"	BACKFLOW PREVENTER W/ ATMOSPHERIC VENT	TEA MAKER, COFFEE MACHINE, JUICE DISPENSER, ETC	ASSE 1012
BFP-5	007QTS	1/2"	DUAL CHECK VALVE	NON-CARBONATED BEVERAGE, SOFT SERVE ICE CREAM, WATER FILTER, HUMIDIFIER, EYE WASH, ETC	ASSE 1015
BFP-6	8	3/4"	VACUUM BREAKER	WALL HYDRANT CONNECT VACUUM BREAKER	ASSE 1011
BFP-7	N9-CD	3/4"	DUAL CHECK VACUUM BREAKER	HOSE BIBB	ASSE 1052
BFP-8	008PQD	1/2"	SPILL RESISTANT VACUUM BREAKER	SOAP DISPENSER, SPECIALTY SINK, CLEANING EQUIPMENT, DISHWASHER	ASSE 1056

CONTRACTOR TO VERIFY EXACT REQUIREMENTS OF ALL REQUIRED BACKFLOW DEVICES AND FIXTURES WITH AUTHORITIES HAVING JURISDICTION PRIOR TO BID.

WATER HEATER SIZING CALCULATION

FIXTURE	FIXTURE DESIGNATION	QTY.	GPH	TOTAL
MOP SINK	-	1	15	15.0
HAND SINK	-	24	5	120.0
3 COMP SINK	-	1	15	15.0
WASHING MACHINE	-	1	20	20.0
WASH TUB	-	1	10	10.0
PREP SINK	-	1	15	15.0
LAVATORY	-	11	5	55.0
TOTAL				250.0
GPH		USAGE FACTOR		
250.0		60%		TOTAL 150.0

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