

A	TANK WATER CLOSET (HANDICAPPED): AMERICAN STANDARD 2467 016, FLUSH TANK WITH TRIP LEVER ON OPEN SIDE OF TOILET. FLOOR MOUNTED, STANDARD WHITE FINISHED. ELONGATED FRONT BOWL. PRESSURE ASSISTED 1.6 GPF. RIM 16 1/2" A.F.F. AM. STD. 4142-600 TANK COVER LOCKING DEVICE AM. STD. 5321-110 OPEN FRONT SEAT LESS COVER.
B	LAVATORY (HANDICAPPED UNDER COUNTER): KOHLER MODEL K-2214-G-0, 18"x12" UNDER COUNTER MOUNT LAVATORY, VITREOUS CHINA. FAUCET BY TOTO, SELF GENERATING ECOPOWER SYSTEM, LOW-FLOW SENSOR FAUCET SPOUT WITH THERMAL MIXER AND CONTROLLER, TEL101-D10ET #CP. INSULATE WATER AND WASTE PIPING UNDER LAVATORY WITH TRUBRO "HANDI LAV-GUARD" #102 KIT. RI 3/4" A.F.F. TO RIM. PROVIDE & INSTALLED BY CONTRACTOR CONTACT CHRISTINE MCALXANDER 800-459-7099 PANDARG@HJCINC.COM
C	NOT USED
D	FLOOR DRAIN: ZURN # ZB415-B5 CAST IRON DRAIN WITH 5" ROUND POLISHED BRONZE TOP MEMBRANE FLASHING CLAMP. PROVIDE 3" OUTLET WITH P-TRAP. CLEAN AND POLISH AFTER INSTALLATION. REFER TO DETAIL 9P-500 & 17P-500. PROVIDE TRAP PRIMER
E	FLOOR SINK: ZURN # Z1901-32, RECEPTOR WITH 12" SQUARE TOP x 8" DEEP CAST IRON BODY WITH ACID-RESISTING ENAMEL INTERIOR. RECEPTOR PROVIDED WITH ALUMINUM DOME STRAINER WITHOUT GRATE.
E1	FLOOR SINK: ZURN # Z1901-2-32, RECEPTOR WITH 12" SQUARE TOP x 8" DEEP CAST IRON BODY WITH ACID-RESISTING ENAMEL INTERIOR. RECEPTOR PROVIDED WITH PORCELAIN ENAMEL LOOSE SET 1/2 GRATE AND ALUMINUM DOME STRAINER.
F	NOT USED
G	FLOOR DRAIN WITH FUNNEL: ZURN # ZB415-AR-4 ACID RESISTING EPOXY COATED CAST IRON DRAIN WITH 5" ROUND POLISHED BRONZE TOP. 4" FUNNEL. PROVIDE 2" OUTLET WITH P-TRAP. CLEAN AND POLISH AFTER INSTALLATION. REFER TO DETAIL. PROVIDE TRAP PRIMER
H	NOT USED
I	GREASE INTERCEPTOR: JENSEN OR EQUAL, 1500 GALLONS, 4" INLET AND OUTLET. TRAFFIC COVER. REFER TO CIVIL DRAWINGS FOR LOCATION. THE DESIGN OF THE GREASE INTERCEPTOR SHALL BE APPROVED BY LOCAL CITY REQUIREMENT.
J	WATER HAMMER ARRESTER: J. R. SMITH #5020, 1" NIPPLE OR EQUAL
K	PROVIDE ZURN 375ST STAINLESS STEEL REDUCED PRESSURE PRINCIPLE ASSEMBLY AT BAG-N-BOX. REFER TO 19P-500
L	HOSE BIBB: ACORN #8121 WITH VACUUM BREAKER, CHROME PLATED.
LI	HOSE BIBB: WOODFORD MB65 FREEZELESS COMMERCIAL CONCEALED BOX TYPE WALL HYDRANT IN SECURE LOCK STYLE MODULAR BOX. SINGLE CHECK ANTI SIPHON VACUUM BREAKER, CHROME HEAD, BRASS VALVE BODY HYDRANT WITH 3/2" HOSE CONNECTION 18" A.F.F.
M	TRENCH DRAIN: ZURN #Z-886-RFS, 6" WIDE x 80" LONG. TRENCH DRAIN SYSTEM. MODULAR CHANNEL SECTIONS SHALL BE MADE OF HIGH DENSITY POLYETHYLENE WITH INTERLOCK ENDS, A RADIUSSED BOTTOM AND REINFORCED STAINLESS STEEL SLOTTED GRATE.
N	PROVIDE WATTS SERIES CV CHECK VALVE AFTER EACH BV.
O	FREEZE PROOF ROOF HYDRANT: WOODFORD MODEL: RHY2-MS
PI	MOP SINK: GSW # SE2424PM 24"x24" STAINLESS STEEL UNIT WITH 13" HIGH SIDES, 18 GA. STAINLESS STEEL CHICAGO FAUCET #897 WITH INTEGRAL TAPS IN SHANKS, WALL BRACE, HOSE THREADS, PAIL HOOK, VACUUM BREAKER, ROUGH BRASS FINISH: THREE FOOT RUBBER HOSE, 3" TRAPPED AND VENTED WASTE CONNECTION. PROVIDE 3/4" HW & CW RI 8" OC, 36" A.F.F. PROVIDE 3/2" CW HOSE BIBB, ACORN #8121 W/ VACUUM BREAKER, 48" A.F.F. FOR CHEMICAL CONNECTION.
P2	GAS WATER HEATER MFG: A.O. SMITH MODEL: BTH-120, 60 GALLON, 120,000 BTU/HR GAS INPUT, 138 GPH CONTINUOUS RECOVERY @ 100° RISE.
P3	ELECTRICAL WATER HEATER MFG: A.O. SMITH MODEL: DEL-10, 10 GALLON STORAGE, 6.0 KW, 208 VOLT, 1 PHASE, 30 GPH RECOVERY @ 80° RISE.
CP	HW CIRC. PUMP - MFG: BELL & GOSSETT. MODEL: NBF-22U, 1/12 HP, 120 VOLT, 7.5 GPM @ 10' HEAD
RD	RD - ROOF DRAIN: J.R. SMITH #1070 CAST IRON ROOF DRAINS WITH FLASHING COLLAR AND CAST IRON DOME. FURNISH EXTENSION (SUFFIX-E) FOR INSULATED ROOF. SUMP RECEIVER (SUFFIX-R) AND UNDERDECK CLAMP (SUFFIX-C) FOR ALL BUT POURED-IN-PLACE INSTALLATIONS. OUTLET CONNECTION TYPE SHALL BE COMPATIBLE WITH PIPING SYSTEM.
OD	OD - OVERFLOW ROOF DRAIN: J.R. SMITH #1070 WITH SAME FEATURES AS DESCRIBED FOR "ROOF DRAINS". TANDIPPE'S SHALL BE ADJUSTED AND SECURED SO THAT AFTER THE INSTALLATION OF THE DRAIN ASSEMBLY, THE TOP OF THE STANDPIPE SHALL BE (2") ABOVE THE ADJACENT ROOF SURFACE.
W	FREEZE PROOF YARD HYDRANT: WOODFORD MODEL: Y34 LEVER TYPE AUTOMATIC DRAIN HYDRANT. LOCKABLE LEVER HANDLE, 3/4" HOSE THREAD, AND 24" BURY DEPTH. PROVIDE SUPPLY LINE W/ INTEGRATED BFP. REFER TO DETAIL 1 & 10/A-407 AND 2/P-400.

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
WATER CLOSET (HANDICAPPED)	1/2"	--	4"	2"
LAVATORY	1/2"	1/2"	2"	1 1/2"
2 AND 3 - COMP SINK	1/2"	1/2"	3"	2"
HAND SINK	1/2"	1/2"	2"	1 1/2"
MOP SINK (J.S.)	1/2"	1/2"	3"	2"
EQUIPMENT	1/2"	--	--	--
FLOOR DRAIN/SINK	--	--	2" OR 3"	2"

ITEMS IN THIS SCHEDULE ARE FURNISHED BY THE OWNER AND INSTALLED BY THE GENERAL CONTRACTOR AND CONNECTED TO THE PLUMBING UTILITIES BY THE PLUMBING CONTRACTOR, WHO SHALL INSTALL ALL PLUMBING DEVICES FURNISHED WITH EQUIPMENT.

WASTE, FS = FLOOR SINK, CFD = CONDENSATE DRAIN DRAIN, VB = VACUUM BREAKER, FLEX = A SIX FOOT COILED LENGTH OF FOOD QUALITY FLEXIBLE REINFORCED PLASTIC TUBING CONNECTED FROM THE ROUGH IN TO THE EQUIPMENT WITH ALL REQUIRED ADAPTERS AND HOSE CLAMPS.

ALL PIPES MUST MAINTAIN A MINIMUM CLEARANCE OF 6" AFF AND MUST BE WELL SUPPORTED. NO FLOOR SUPPORTS ALLOWED.

(4A) SERVING COUNTER MOUNTED SODA MACHINE: IF PROVIDED, SODA MACHINE INSTALLER TO PROVIDE DRAIN LINES FROM ICE BIN AND SODA MACHINE TO FS WITH 1" AIR GAP. DRAIN LINE TO BE INSULATED. WATER TO SODA MACHINE TO BE PROVIDED THROUGH BUNDLE FROM FILTER AND RACK IN KITCHEN BY SODA MACHINE INSTALLER.

(4AB) BEVERAGE COUNTER MOUNTED SODA MACHINE WITH ICE MACHINE: PROVIDE 3/4" COPPER PIPE IW FROM COUNTER TROUGH DRAIN TO FS WITH 1" AIR GAP. INSULATE WATER TO SODA MACHINE TO BE PROVIDED THROUGH BUNDLE FROM FILTER AND RACK IN KITCHEN BY SODA MACHINE INSTALLER.

(4F) WATER FILTER: PROVIDE 3/2" CW AT 96" AFF WITH BV. PROVIDE FLEX AND REDUCED PRESSURE STAINLESS STEEL BACKFLOW PREVENTOR, OR OTHER DEVICE AS REQUIRED BY LOCAL CODE. INSTALL OWNER PROVIDED WATER FILTER AND MAKE CONNECTIONS TO BACKFLOW PREVENTOR AND WATER SUPPLY. PROVIDE ALL REQUIRED FITTINGS TO ALLOW SODA MACHINE INSTALLER TO HOOK UP BOOSTER PUMP TO WATER FILTER.

(9D) ICE TEA MAKER: PROVIDE 3/2" CW @ 24" A.F.F. PROVIDE ALL REQUIRED FITTINGS TO ALLOW ICE TEA INSTALLER TO HOOK UP ONE BV, OTHER BV FOR OTHER EQUIPMENT.

(10J) SODA MACHINE MOUNTED ICE MACHINE: PROVIDE 1/2" CW AT 24" A.F.F. WITH BV. PROVIDE ALL REQUIRED FITTINGS TO ALLOW ICE MACHINE INSTALLER TO HOOK UP ICE MACHINE TO CW.

(20A) CHINESE RANGE: PROVIDE 3/2" CW AT 10" AFF WITH BV. PROVIDE PRESSURE TYPE VB OR OTHER BACKFLOW DEVICE AS REQUIRED BY LOCAL CODE, AND CONNECT TO OWNER SUPPLIED FAUCETS. PROVIDE 2" COPPER PIPE IW TO FS WITH 2" AIR GAP.

(20B) PROVIDE 1/2" GAS SUPPLY AT 9" AFF WITH EASILY ACCESSIBLE SHUT-OFF VALVE. INSTALL OWNER SUPPLIED GAS REGULATOR AND ADJUST GAS LEVEL TO BURNERS.

(20C) CHINESE RANGE: PROVIDE 3/2" CW AT 10" AFF WITH BV. PROVIDE PRESSURE TYPE VB OR OTHER BACKFLOW DEVICE AS REQUIRED BY LOCAL CODE, AND CONNECT TO OWNER SUPPLIED FAUCETS. PROVIDE 2" COPPER PIPE IW TO FS WITH 2" AIR GAP. PROVIDE 1" GAS SUPPLY DOWN TO 9" AFF REDUCE TO 3/4" AT EQUIPMENT CONNECTION WITH EASILY ACCESSIBLE SHUT-OFF VALVE. INSTALL OWNER SUPPLIED GAS REGULATOR AND ADJUST GAS LEVEL TO BURNERS.

(21G) FRYER: PROVIDE 1/2" GAS SUPPLY DOWN TO 14" AFF. THEN TRANSITION TO 1" WITH 90° ANGLE AND SHUT OFF VALVE. PROVIDE ALL REQUIRED FITTINGS AND INSTALL OWNER SUPPLIED QUICK DISCONNECT FLEXIBLE PIPE AND CONNECT TO UNITS WITH 90° ANGLE. SEE DETAIL ON P-500

(25A) RICE COOKER: PROVIDE 3/4" GAS SUPPLY AT 30", AND 3/4" GAS SUPPLY AT 10" AFF WITH SHUT OFF VALVES, ONE FOR EACH UNIT. PROVIDE ALL REQUIRED FITTINGS AND INSTALL OWNER SUPPLIED QUICK DISCONNECT FLEXIBLE PIPE AND CONNECT TO UNITS.

(31) WALK-IN COOLER: PROVIDE 1" COPPER PIPE IW FROM DRAIN PAN ON EACH UNIT TO FLOOR DRAIN WITH "P" TRAP AND 1" AIR GAP. MOUNT ALL PIPES WITHIN WALK-IN BOX WITH 1" HOLD-OFF SUPPORTS.

(32) WALK-IN FREEZER: PROVIDE 1" COPPER PIPE IW FROM DRAIN PAN ON EACH UNIT TO FLOOR DRAIN WITH "P" TRAP AND 1" AIR GAP. MOUNT ALL PIPES WITHIN WALK-IN BOX WITH 1" HOLD-OFF SUPPORTS. PROVIDE HEAT TRACE REFER TO ELECTRICAL DRAWING.

(40A) POT SINK: PROVIDE 3/2" CW AND 3/2" HW AT 14" AFF AND 8" OC WITH BVS & CV. CONNECT TO OWNER SUPPLIED FAUCET WITH COPPER PIPING. PROVIDE 2" COPPER PIPE IW (MANIFOLD ALL COMPARTMENT DRAINS INTO ONE LINE) TO FS WITH 2" AIR GAP. OR, IF REQUIRED BY LOCAL CODE, INSTALL 2" COPPER PIPE DIRECTLY TO SEWER SYSTEM. INSTALL OWNER SUPPLIED LEVER DRAIN STOPS. SEE DETAIL ON SHEET P-500.

(40B) FAUCET FOR CHEM: T&S BRASS MODEL #B-0669-POL

(41B) SINGLE BOWL PREP SINK: PROVIDE 3/2" CW AND 3/2" HW AT 14" AFF AND 8" OC WITH BVS. TRANSITION TO 3/4" PRIOR TO CONNECTION. CONNECT TO OWNER SUPPLIED FAUCETS WITH COPPER PIPING. PROVIDE 2" COPPER PIPE IW TO FS WITH 2" AIR GAP. OR, IF REQUIRED BY LOCAL CODE, INSTALL 2" COPPER PIPE DIRECTLY TO SEWER SYSTEM. INSTALL OWNER SUPPLIED LEVER DRAIN STOPS.

(41C) PROVIDE 3/2" CW AND 3/2" HW AT 14" AFF AND 8" OC WITH CHROME-PLATED, 1/2" TURN BALL VALVES. CONNECT TO OWNER SUPPLIED FAUCETS WITH METAL FLEX PIPING. PROVIDE 2" DRAIN PIPE WITH "P" TRAP AND WALL MOUNTED CLEAN-OUT. ALL EXPOSED DRAIN PIPES AND FITTINGS TO BE CHROME PLATED, NOT P.V.C.

SERVICE	UNDERGROUND	ABOVE GROUND
COLD & HOT WATER	TYPE "K" OR "L" HARD DRAWN COPPER TUBE	PEX (BLUE FOR COLD/RED FOR HOT)
SANITARY WASTE	*SCH. 40 PVC	*SCH. 40 PVC
SANITARY VENT	*SCH. 40 PVC	*SCH. 40 PVC
GAS	_____	BLACK STEEL, SCHEDULE 40
INDIRECT DRAIN	_____	HARD DRAWN COPPER TUBE TYPE "M"

\*SCH. 40 PVC IS PREFERRED IF APPROVED BY AUTHORITY HAVING JURISDICTION.  
 PROVIDE SCHEDULE 40 PVC FOR ALL WASTE VENT PIPING & FITTINGS.

1. SODA CONDUIT: PROVIDE 4" PVC CONDUIT BELOW FLOOR FROM THE SIDE OF SODA STORAGE RACK TO SODA DISPENSER PER DETAIL #4 ON SHEET P-500.
2. CONDENSATE: ROUTE SHARED CONDENSATE LINE THROUGH WALK-IN COOLER. DO NOT RUN THROUGH WALK-IN FREEZER. PROVIDE 1" INSULATED CONDENSATE DRAIN PIPE FROM THE EVAPORATIVE COIL DISCHARGE TO FUNNEL DRAIN WITH AIR GAP OF TWICE PIPE DIAMETER. INSTALL AT MINIMUM 76" HEIGHT A.F.F. REFER TO DETAIL #2 ON SHEET P-500.
3. ROUTE WATER HEATER DRAIN PAN TO MOP SINK.
4. PROVIDE TRAP PRIMER FOR FLOOR DRAIN. SEE DETAILS #9 & #17 ON DWG P-500.
5. RE-ENTRY VALVE PROVIDE 3/4" PIPE FULLY INSULATED. CONTINUE AND STOP AT 6" ABOVE GROUND AT MOP SINK.
6. RDL & ODL LINES DN. IN WALL. TERMINATE ODL THRU WALL AS CLOSE TO BOTTOM PLATE AS POSSIBLE, EXTEND 1/2" PAST EFIS, BEVEL BOTTOM OF PIPE, WATER PROOF SEAL ALL AROUND AND PAINT TO MATCH. TERMINATE RDL & ODL WITH 4" PVC LAMB'S TONGUE NOZZLE, COLOR ANTIQUE BRONZE, ARKIMANN MODEL #PN-4
7. COMBINATION WASTEWENT

ITEM	FIXTURE	QTY	WATER FU		SEWER FU	
			EACH	TOTAL	EACH	TOTAL
	WATER CLOSET	2	5	10	4	8
	LAVATORY	2	2	4	1	2
	FLOOR DRAIN	5	—	—	2	10
 	FLOOR SINK	7	—	—	5	35
	MOP SINK	1	4	4	3	3
	FLOOR DRAIN W/ FUNNEL	2	—	—	2	4
 	HOSE BIBB	3	5	15	—	—
	TRENCH DRAIN	1	—	—	4	4
	ROOF HYDRANT	1	5	5	—	—
	FILTER SYSTEM	1	1	1	FS	—
	ICE TEA BREWER	2	1	2	FS	—
	400 LB ICE MACHINE	2	1	2	FS	—
	NOT USED	0	0	0	FS	—
	CHINESE RANGE	1	2	2	FS	—
	CHINESE RANGE	1	1	1	FS	—
 	POT SINK (3.COMP.)	1	4	4	FS	—
	PREP. SINK (1.COMP.)	1	4	4	FS	—
	PREP. SINK (1.COMP.)	1	4	4	FS	—
	HAND SINK (WALL MOUNT)	2	2	4	1	2

FIXTURE UNIT SUMMARY			
SERVICE	OLD F.U.	NEW F.U.	TOTAL F.U.
DOMESTIC WATER	0	62	62
SANITARY SEWER	0	66	66

SERVICE	SIZE MAIN	CAPACITY
DOMESTIC WATER	1-1/2 INCH	35 GPM
SANITARY SEWER	4 INCH	66 F.U.
FUEL GAS	2-1/2 INCH	1664 CFH
FIRE PROTECTION	INCH	GPM

PIPE SIZE	GPM	VELOCITY FT/SEC	FIXTURE UNITS	
			F - TANK	F - VALVE
1/2"	2.5	3.5	2 F.U. @ psi	6.0 F.U. @ psi
3/4"	6.6	4.4	8 F.U. @ psi	F.U. @ psi
1"	13.4	5.2	19 F.U. @ psi	F.U. @ psi
1-1/4"	23.3	5.9	37 F.U. @ psi	6 F.U. @ psi
1-1/2"	36.7	6.6	74 F.U. @ psi	23 F.U. @ psi
2"	66.4	7.9	254 F.U. @ psi	132 F.U. @ psi

### WATER PIPE SIZING CHART (HOT WATER)

PIPE SIZE	GPM	VELOCITY FT/SEC	FIXTURE UNITS	
			F - TANK	F - VALVE
1/2"	2.5	3.5	2 F.U. @ psi	F.U. @ psi
3/4"	6.6	4.4	8 F.U. @ psi	F.U. @ psi
1"	13.2	5.0	19 F.U. @ psi	F.U. @ psi
1-1/4"	19.0	5.0	37 F.U. @ psi	6 F.U. @ psi

FIXTURE	QTY.	FU	FU TOTAL
FLOOR SINK	5	5	25
FLOOR DRAIN	2	2	4
TRENCH DRAIN	1	4	4
MOP SINK	1	3	3
TOTAL			36 (25 GPM)

**NOTES:**

- REFER TO PIPING RISER DIAGRAM, SHEET P-400 FOR ALL PIPE SIZING NOT SHOWN ON FLOOR PLAN.
- DO NOT RUN ANY PIPING HORIZONTAL IN WALL SPACE. REFER TO RISER DIAGRAM, SHEET P-400.

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