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REVISIONS:


ISSUE DATE:

1st	ISSUE FOR BUILDING PERMIT	08-16-18
2nd	ISSUE FOR BID	11-29-18

DRAWN BY: RR  
PANDA PROJECT # S8-19-D6558  
ARCH PROJECT # 1804



PANDA EXPRESS  
US 98 and PORTSIDE DRIVE  
3868 GULF BREEZE PARKWAY  
GULF BREEZE, FL  
2200 TRUE - R1 - DAB 12

P-101

WASTE & VENT PLAN

PLUMBING FIXTURE SCHEDULE

- 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. 412.600 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-D101ET. KCP. INSULATE WATER AND WASTE PIPING UNDER LAVATORY WITH TUBRO "HANDI LAV-GUARD" #102 KIT. R1 3/4" A.F.F. TO RIM. PROVIDE & INSTALLED BY CONTRACTOR. CONTACT CHRISTINE MCALEXANDER 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 17/P-500. PROVIDE TRAP PRIMER
- D1 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 17/P-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. 1250 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 19/P-500
- L HOSE BIBB: ACORN #8121 WITH VACUUM BREAKER, CHROME PLATED.
- L1 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 3/8" 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 RADIUS BOTTOM AND REINFORCED STAINLESS STEEL SLOTTED GRATE.
- N PROVIDE WATTS SD-3 DUAL CHECK VALVE WITH ATMOSPHERIC PORT AND STRAINER AFTER EACH BV.
- O FREEZE PROOF ROOF HYDRANT: WOODFORD MODEL: SRHMS
- P1 MOP SINK: GSW #SE2424FM 24"x24" STAINLESS STEEL UNIT WITH 13" HIGH SIDES. 18 GA. STAINLESS STEEL CHICAGO FAUCET #897 WITH INTEGRAL STOPS 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 R/O @ 30" A.F.F. PROVIDE 1/2" CW HOSE BIBB. ACORN #8121 W/ VACUUM BREAKER. 45" 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. INSTALL WITH CONTROL LOCATION / ORIENTATION AS SHOWN ON ARCH PLAN.
- P3 NOT USED
- 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 #1010 CAST IRON ROOF DRAINS WITH FLASHING COLLAR AND CAST IRON DOME. FURNISH EXTENSION (SUFFIX-E) FOR INSULATED ROOFS. SUMP RECEIVER (SUFFIX-R) AND UNDER-DECK 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". STANDPIPES 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.
- RD2 RD2 - ROOF DRAIN: J.R. SMITH #101H04 PVC ROOF DRAIN WITH FLASHING COLLAR AND DOME. SUMP RECEIVER (SUFFIX-R) AND UNDER-DECK CLAMP (SUFFIX-C) FOR ALL BUT POURED-IN-PLACE INSTALLATIONS. OUTLET CONNECTION TYPE SHALL BE COMPATIBLE WITH PIPING SYSTEM.

FIXTURE BRANCH SCHEDULE

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

KITCHEN EQUIPMENT SCHEDULE

- ITEMS IN THIS SCHEDULE ARE FURNISHED BY THE OWNER AND INSTALLED BY THE GENERAL CONTRACTOR UNLESS NOTED OTHERWISE 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 FLOOR 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 1/2" COPPER PIPE IW FROM COUNTER THROUGH 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. NO LEGS TO BE INSTALLED. MACHINE TO SET DIRECTLY ON COUNTER.
  - 4F WATER FILTER: PROVIDE 1/2" 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. REFER TO DETAIL 19/P-500.
  - 9D ICE TEA MAKER: PROVIDE 1/2" CW AT 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 1/2" 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 1/2" 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 1/2" 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 1/2" 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 1/2" GAS SUPPLY AT 30", AND 3/8" 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 1/2" CW AND 1/2" 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. PROVIDED BY G.C.
  - 41B SINGLE BOWL PREP SINK: PROVIDE 1/2" CW AND 1/2" 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
  - 45A HAND SINK: PROVIDE 1/2" CW AND 1/2" HW AT 24" AFF AND 8" OC WITH CHROME-PLATED, 1/4" 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.

PIPE MATERIAL SCHEDULE

SERVICE	UNDERGROUND	ABOVE GROUND
COLD & HOT WATER	TYPE "K" OR "L" HARD DRAWN COPPER TUBE	PEX
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 PROVIDED IF APPROVED BY AUTHORITY HAVING JURISDICTION. PROVIDE SCHEDULE 40 PVC FOR ALL WASTE VENT PIPING & FITTINGS

PLUMBING KEY NOTES

- 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.
- 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 FLOOR SINK OR MOP SINK WITH AIR GAP OF TWICE PIPE DIAMETER. INSTALL AT MINIMUM 76" HEIGHT A.F.F. REFER TO DETAIL #2 ON SHEET P-500.
- ROUTE WATER HEATER DRAIN PAN TO MOP SINK.
- PROVIDE TRAP PRIMER FOR FLOOR DRAIN. SEE DETAIL 17/P-500.
- NOT USED.
- RDL & ODL LINES ON IN WALL. TERMINATE ODL THRU WALL AS CLOSE TO BOTTOM PLATE AS POSSIBLE. EXTEND 1/2" PAST EFIS. WATER PROOF SEAL ALL AROUND. TERMINATE RDL & ODL WITH 4" PVC LAMB'S TONGUE NOZZLE. COLOR ANTIQUE BRONZE. ARKMANN MODEL #FDN-4
- COMBINATION WASTE/VENT
- 3" PVC ROOF DRAIN WITH 3" PVC LAMB'S TONGUE NOZZLE. COLOR ANTIQUE BRONZE. ARKMANN MODEL #FDN-3. OVERFLOW ACHIEVED WITH SKUPPER AT THIS CONDITION.
- TRAP PRIMER REFER TO DETAIL 9/P-500.

FIXTURE UNIT SCHEDULE

ITEM	FIXTURE	QTY	WATER FU		SEWER FU	
			EACH	TOTAL	EACH	TOTAL
A	WATER CLOSET	2	5	10	4	8
B	LAVATORY	2	2	4	1	2
D/D1	FLOOR DRAIN 3" TRAP	6	---	---	5	30
E/E1	FLOOR SINK 3" TRAP	8	---	---	5	40
P1	MOP SINK	1	3	3	2	2
G	FLOOR DRAIN W/ FUNNEL 2" TRAP	2	---	---	3	6
L/L1	HOSE BIBB	3	4	12	---	---
M	TRENCH DRAIN 3" TRAP	1	---	---	5	5
4F	FILTER SYSTEM	1	1	1	FS	---
9D	ICE TEA BREWER	2	1	2	FS	---
10J	400 LB ICE MACHINE	2	1	2	FS	---
20A	CHINESE RANGE	1	2	2	FS	---
20C	CHINESE RANGE	1	2	2	FS	---
40A	POT SINK (3 COMP.)	1	4	4	---	---
41B	PREP. SINK (1 COMP.)	2	4	---	---	---
45A	HAND SINK	3	2	---	1	3
TOTAL			---	---	---	91

FIXTURE UNIT SUMMARY

SERVICE	TOTAL U.
DOMESTIC WATER	54
SANITARY SEWER	90

SERVICE REQUIREMENTS

SERVICE	SIZE MAIN	CAPACITY
DOMESTIC WATER	1-1/2" INCH	32 GPM
SANITARY SEWER	4" INCH	91 F.U.
FUEL GAS	3" INCH	2073 CFH
FIRE PROTECTION	---	---

WATER PIPE SIZING CHART (COLD WATER)

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"	76.4	7.9	254 F.U. @ psi	132 F.U. @ psi

\* DOMESTIC WATER BACKFLOW PREVENTER MODEL: "WILKINS" 975XL SIZE: 1-1/2"  
\*\* PRESSURE REGULATING VALVE MODEL: "N/A" SIZE: N/A

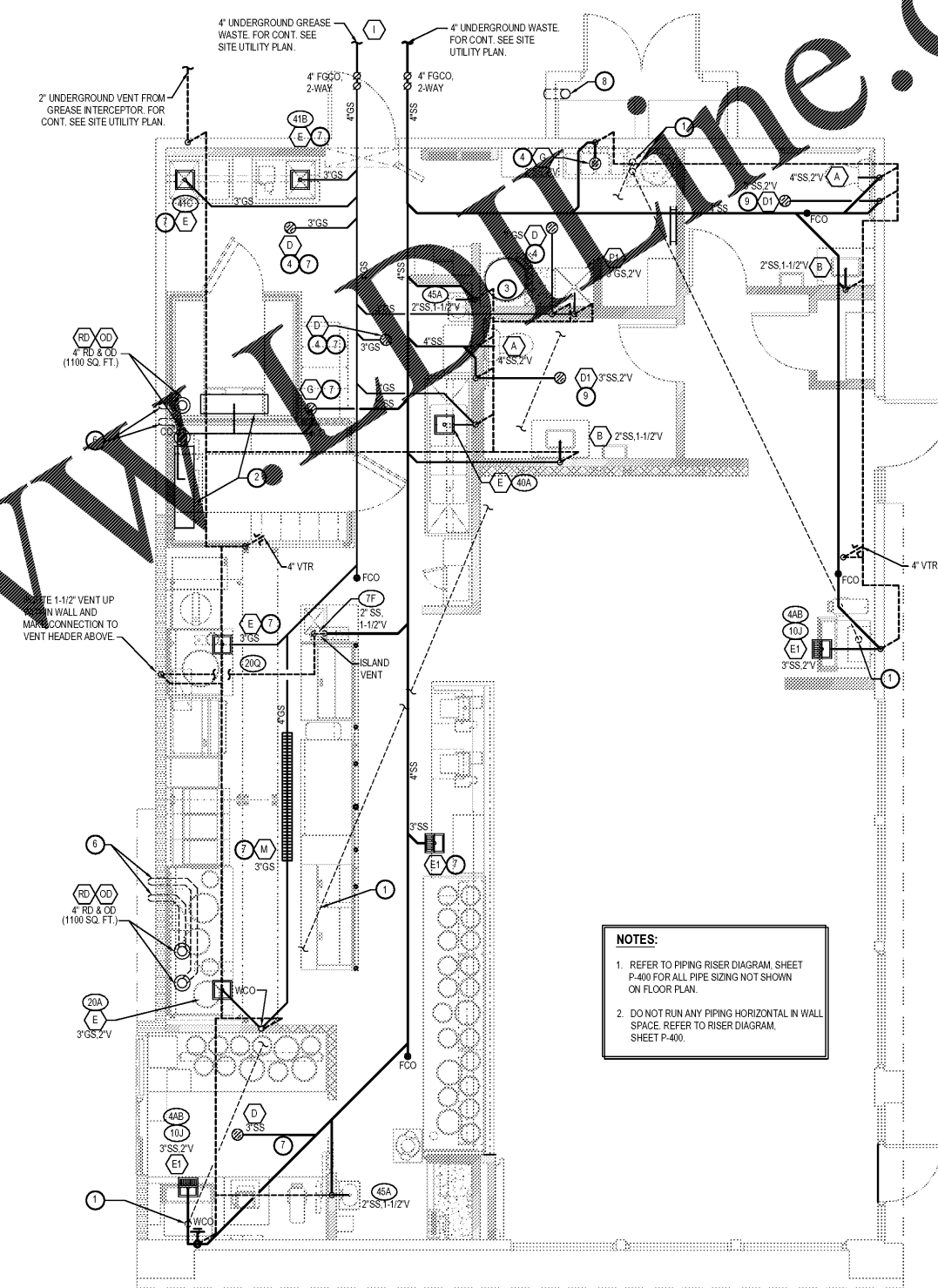
WATER PIPE SIZING CHART (HOT WATER)

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

GREASE INTERCEPTOR CALCULATION

FIXTURE	QTY.	FU	FU TOTAL
FLOOR DRAIN/FLOOR SINK 3" TRAP	8	5	40
TRENCH DRAIN 3" TRAP	1	5	5
MOP SINK	1	2	2
TOTAL	---	---	47 (24 GPM)

FIXTURE UNIT VALUE BASED ON IPC, SECTION 709  
FLOW THROUGH TYPE GREASE INTERCEPTOR MINIMUM SIZE WILL BE 50 POUND GREASE CAPACITY PER IPC, TABLE 1003.34.1.  
GRAVITY TYPE GREASE INTERCEPTOR SIZE BASED ON 24 GPM WITH 30 MINUTE RETENTION TIME (24\*30=720) TO BE SIZED AT 1250 GALLONS.



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