	OMES	TIC V	NA TER	B00S	STER P	PUMF	SCH	HEDULE
<u>PUMP</u>	<u>MODEL</u>	<u>SIZE</u>	ELECTRICAL	<u>FLOW</u>	<u>HEAD</u>	<u>PRV</u>	<u>IMPELLER</u>	<u>PUMP PACKAGE</u>
BP-1	6900	2AC	5 H.P. 208/3/60 3,600 RPM	210 GPM	155 FT. H <sub>2</sub> O			ARMSTRONG MODEL N6906-05.0-5HP VERIABLE SPEED DRIVE

DESIGN ENVELOPE DOMESTIC WATER BOOSTER SYSTEM

PROVIDE AN ARMSTRONG DESIGN ENVELOPE PACKAGED BOOSTER SYSTEM INCLUDING FRAME, PUMPS, MOTORS, PRESSURE TANK, CONTROL PANEL AND PIPING, ENVELOPE NUMBER 6500. THE DESIGN ENVELOPE SHALL ENCOMPASS AN INITIAL DESIGN POINT OF 210.0 USGPM AT 70.0 PSI HEAD AT 64 % MINIMUM EFFICIENCY

EACH VERTICAL MULTISTAGE (VMS) PUMP. WITH PUMP CHARACTERISTICS WHICH PROVIDE RISING HEADS TO SHUT OFF, SHALL BE SUPPLIED WITH A 5 HP, ODP, 208V/3/60 NEMA PREMIUM®EFFICIENCY MOTOR AND AN ARMSTRONG UL TYPE-12 ENCLOSURE VARIABLE SPEED DRIVE, WHICH SHALL BE INTEGRATED WITH THE MOTOR. DRIVES SHALL NOT BE ENCLOSED WITHIN THE CONTROL PANEL.

VARIABLE SPEED DRIVES SUPPLIED SHALL HAVE THE FOLLOWING FEATURES: VVC-PWM TYPE PROVIDING NEAR UNITY DISPLACEMENT POWER FACTOR WITHOUT THE NEED FOR EXTERNAL POWER FACTOR CORRECTION CAPACITORS AT ALL LOADS AND SPEEDS. DC LINK CHOKES FOR THE REDUCTION OF MAINS BORNE HARMONIC CURRENTS. UL AND C-UL LISTED & CE MARKED SHOWING COMPLIANCE WITH BOTH THE EMC DIRECTIVE 89/336/EEC AND THE LOW VOLTAGE DIRECTIVE 72/23/EEC, RFI FILTERS INCORPORATED WITHIN THE DRIVE TO ENSURE IT MEETS THE EMISSION AND IMMUNITY REQUIREMENTS OF EN61800-3 TO THE 1ST ENVIRONMENT CLASS C1 (EN55011 UNRESTRICTED SALES CLASS B), AND MOTOR PROTECTION SHALL INCLUDE: MOTOR PHASE TO PHASE FAULT, MOTOR PHASE TO EARTH FAULT, LOSS OF SUPPLY PHASE, OVER VOLTAGE, UNDER VOLTAGE, MOTOR OVER TEMPERATURE, INVERTER OVERLOAD, OVER CURRENT.

PUMP SEAQUENCYING SHALL BE PER THE MANUFACTURERS RECOMENDATIONS

## PLUMBING SPECIFICATIONS

BEING CONNECTED.

- LICENSED PLUMBING CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED BY LOCAL CODE.
- WATER SUPPLY SYSTEM AND SEWER SYSTEM SHALL BE PERMITTED AND INSPECTED BY LOCAL AUTHORITIES PRIOR TO BUILDING OCCUPANCY AND PROJECT CLOSEOUT.
- THE WORK UNDER PLUMBING SECTION SHALL INCLUDE ALL LABOR, SERVICES, MATERIALS, EQUIPMENT, AND PERFORMANCE OF ALL WORK REQUIRED FOR THE INSTALLATION OF ALL PLUMBING WORK. AS SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED.
- SHOULD THERE BE ANY DISCREPANCIES OR A QUESTION OF INTENT. REFER THE MATTER TO THE ENGINEER FOR A DECISION BEFORE ORDERING ANY EQUIPMENT OR MATERIALS, OR BEFORE STARTING ANY RELATED WORK.
- WHERE WORK CONNECTS TO THAT OF ANOTHER TRADE OR TO PIPING OR EQUIPMENT IN PLACE, FIELD MEASUREMENTS SHALL BE MADE TO MAKE CONNECTING WORK COME TRUE AND LINE UP WITH THE ITEM
- WHERE WORK OF OTHER TRADES CONNECTS TO EQUIPMENT WHICH IS A PART OF THIS TRADE PROVIDE PROPER CONNECTION(S) TO SUCH EQUIPMENT.
- MINOR ITEMS AND ACCESSORIES OR DEVICES REASONABLY INFERRED AS NECESSARY TO THE COMPLETE AND PROPER INSTALLATION AND OPERATION OF ANY SYSTEM SHALL BE PROVIDED BY THE CONTRACTOR FOR SUCH SYSTEM, WHETHER OR NOT THEY ARE SPECIFICALLY CALLED FOR BY THE SPECIFICATIONS OR DRAWINGS.
- CAREFULLY CHECK AND COORDINATE THE LOCATION AND LEVEL OF ALL PIPES, DUCTS, ETC. RUN PRELIMINARY LEVELS AND CHECK WITH ALL OTHER CONTRACTORS SO THAT CONFLICTS IN ALL LOCATIONS MAY BE AVOIDED.
- 9. ALL WORK SHALL BE EXECUTED AND INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF ALL FEDERAL. STATE. AND LOCAL CODES, LAWS, ORDINANCES, RULES, AND REGULATIONS, AND OSHA REQUIREMENTS APPLICABLE TO THE PARTICULAR CLASS OF WORK. ALL PERMITS AND FEES FOR PLUMBING WORK SHALL BE PAID BY PLBG. CONTRACTOR AND SHALL BE INCLUDED IN HIS BID.
- THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF OTHER CONTRACTORS ON THE JOB IN ORDER THAT THERE BE NO DELAY IN THE PROPER INSTALLATION AND COMPLETION OF SEVERAL PARTS OF THE WORK. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF HIS WORK WITH THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND ALL OTHER TRADES ON THE JOB, AND SHALL FIT HIS WORK TO AVOID INTERFERENCE. ANY RELOCATIONS OF DUCTWORK, EQUIPMENT. PIPING, VALVES, ETC., REQUIRED BECAUSE OF AN INTERFERENCE SHALL BE MADE AT THIS CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COST TO THE OWNER.
- 11. ALL PIPE, TUBE, AND FITTINGS SHALL COMPLY WITH LATEST ISSUED CODE AND STANDARDS, UNLESS INDICATED OTHERWISE BY LOCAL CODES.
- 12. WELDING PROCEDURES, WELDERS, AND OPERATORS SHOULD BE CERTIFIED IN ACCORDANCE WITH ASME B 31.1, OR ASME B 31.9, AS APPLICABLE, FOR SHOP AND PROJECT SITE WELDING OF PIPE
- 13. CERTIFY WELDING OF PIPING WORK USING STANDARD PROCEDURE SPECIFICATIONS BY, AND WELDERS TESTED UNDER SUPERVISION OF, NATIONAL CERTIFIED PIPE WELDING BUREAU (NCPWB).
- 14. WHERE PLASTIC PIPING IS INDICATED TO TRANSPORT POTABLE WATER, PROVIDE PIPES AND PIPE FITTINGS BEARING APPROVAL LABEL BY NATIONAL SANITATION FOUNDATION (NSF).
- 15. COPPER TUBE AND FITTINGS
- A. COPPER TUBE: ASTM B 88 TYPE (WALL THICKNESS), AS INDICATED, FOR EACH SERVICE; HARD-DRAWN OR SOFT-DRAWN TEMPER, AS INDICATED, EXCEPT AS OTHERWISE INDICATED.
- B. CAST COPPER SOLDER JOINT FITTINGS: ANSI B16.18. C. WROUGHT COPPER SOLDER JOINT FITTINGS: ANSI B16.22.
- 16. BRASS PIPE FITTINGS
- A. RED BRASS PIPE: ASTM B 43 IN REGULAR WEIGHT.
- B. CAST BRONZE THREADED FITTINGS: ANSI B16.15, CLASS 150, OR 250, AS REQUIRED. C. CAST BRONZE THREADLESS FITTINGS: ASTM B 61.
- 17. PLASTIC PIPES AND PIPE FITTINGS
- A. POLYVINYL CHLORIDE PIPE (PVC): ASTM D 1785, IN SCHEDULE WEIGHT, AS INDICATED ON THE DRAWINGS.
- B. POLYVINYL CHLORIDE WATER PIPE (PVC): AWWA C 900 IN C. POLYVINYL CHLORIDE SEWER PIPE (PVC): ASTM D 2729.
- D. POLYVINYL CHLORIDE DRAIN, WASTE, AND VENT PIPE (PVC-DWV): ASTM D 2665.
- E. POLYVINYL CHLORIDE TYPE PSM SEWER PIPE: ASTM D 3034.
- F. PVC FITTINGS: 1. SCHEDULE 40 SOCKET: ASTM D 2466
- 2. SCHEDULE 80 SOCKET: ASTM D 2467
- 3. SCHEDULE 80 THREADED: ASTM D 2464
- 4. DWV SOCKET: ASTM D 2665
- 5. SEWER SOCKET: ASTM D 2729
- 6. SOLVENT CEMENT: ASTM D 2564 7. SOLVENT CEMENT (TO JOIN PVC TO ABS): ASTM D 3138

## 18. INSULATION:

- A. MANUFACTURERS
- ARMACELL INTERNATIONAL OR APPROVED EQUAL INSULATE STORM DRAIN, OVERFLOW DRAIN, CONDENSATE DRAIN, DOMESTIC COLD, HOT AND HOT WATER RETURN PIPING SYSTEMS WITH ARMACELL INTERNATIONAL; MODEL AP ARMAFLEX OR APPROVED EQUAL, 4.2 PER INCH R VALUE, PREFORMED FLEXIBLE ELASTOMERIC CLOSED-CELL RUBBER INSULATION COMPLYING WITH ASTM C 534 TYPE 1. USE MOLDED TUBULAR MATERIAL WHEREVER POSSIBLE AND HAVE WATERPROOF VAPOR BARRIER ADHESIVE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSULATE ENTIRE SYSTEM INCLUDING FITTINGS, VALVES, UNIONS, FLANGES, STRAINERS, FLEXIBLE CONNECTIONS, PUMP BODIES, AND EXPANSION JOINTS. USE OVERSIZED HANGERS TO ALLOW THE INSULATION TO PASS THROUGH THE HANGER WITHOUT CUTTING OR PIERCING. MAINTAIN A CONTINUOUS VAPOR BARRIER.
- INSULATION SHALL BE APPLIED TO THE FOLLOWING PIPING SYSTEM WITH THICKNESS AS INDICATED
- C. PIPING SYSTEM, PIPE SIZE, THICKNESS DOMESTIC COLD WATER, ALL SIZES, 1/2"
- DOMESTIC HOT WATER, 2" AND SMALLER, 1" D. FURNISH AND INSTALL ZESTON 2000 OR PROTO PVC INSULATED FITTING COVERS ON ALL PIPE FITTINGS, FLANGES, VALVES, AND PIPE
- TERMINATIONS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. PIPE INSULATION SHALL RUN CONTINUOUS THROUGH NON-RATED WALLS AND PARTITIONS, EXCEPT WHERE PIPE PASSES THROUGH FIRE RATED WALLS. PENETRATION OF FIRE RATED WALLS SHALL BE ACCOMPLISHED BY MEANS OF FIRE RATED PIPE PENETRATIONS, AS DETAILED BY U.L.
- 19. SANITARY SEWER UNDERGROUND INSIDE BUILDING CAST IRON. (OWNERS MAY DIRECT USE OF PVC INSTEAD OF CAST IRON AT THEIR OWN RISK.) SANITARY SEWER SHALL BE DWV SCHEDULE 40 PVC AS ALLOWED BY SANITARY SEWER ABOVE FLOOR MAY BE SCH 40 SOLID CORE PVC DEPENDING ON CODES. CELLULAR CORE PVC PIPING IS NOT ACCEPTABLE. SANITARY SEWER OUTSIDE THE BUILDING MAY BE DWV SCHEDULE 40 PVC AS ALLOWED BY LOCAL CODE.
- 20. GENERAL CONTRACTOR WILL PROVIDE OPENINGS IN ROOF, FLOORS AND EXTERIOR WALLS FOR PLUMBING EQUIPMENT AND PIPE PENETRATIONS.
- INSULATE ALL ABOVE GRADE DOMESTIC WATER PIPE AND COLD CONDENSATE DRAIN PIPES.
- 22. SHOCK ABSORBERS (SA) SHALL BE WADE #10, WATTS #SG-050,
- 23. WALL HYDRANTS SHALL BE WATTS #HY-420, OR EQUAL.
- 24. DOMESTIC WATER PIPING BELOW GRADE SHALL BE TYPE "K" SOFT DRAWN COPPER PIPE WRAPPED WITH VINYL TAPE. NO JOINTS BELOW FLOOR SLAB.
- 25. DOMESTIC WATER PIPING ABOVE GRADE SHALL BE HARD DRAWN TYPE "L" COPPER WITH WROUGHT SWEAT SOLDER JOINTS OR COMBINED COPPER-PEX-A SYSTEM PER HILTON HOTEL STANDARD SPECIFICATIONS.
- 26. VALVES SHALL BE FULL PORT BALL VALVES. NIBCO, OR EQUAL
- 27. SEISMIC RESTRAINTS (WHERE REQUIRED BY CODE) A. THIS CONTRACTOR SHALL PROVIDE SEISMIC RESTRAINTS FOR PLUMBING PIPING AND EQUIPMENT IN ACCORDANCE WITH THE
- STANDARD BUILDING CODE 1997, SECTION 1607. B. PROVIDE TRANSVERSE AND LONGITUDINAL BRACING AS FOLLOWS UNLESS INDICATED OTHERWISE BY LOCAL CODE. 1" 11/4" 11/2" 2" 21/2" 3" 4" 6" 8" PIPE SIZE:
- MAX. TRANSVERSE SPACING (FT.): 14 16 18 20 24 26 28 34 38 MAX. LONGITUDINAL SPACING (FT.): 28 32 36 44 48 52 56 68 76 SOIL PIPING WITH NO HUB AND BELL AND SPIGOT CAST IRON
- SOIL PIPE SHALL HAVE TRANSVERSE BRACING 10'-0" O.C. MAXIMUM AND LONGITUDINAL BRACING 20'-0" O.C. MAXIMUM. C. PLUMBING CONTRACTOR SHALL PROVIDE SEISMIC RESTRAINT CALCULATIONS FOR PLUMBING PIPING AND EQUIPMENT CONNECTED TO THE BUILDING STRUCTURE. CALCULATIONS MUST BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE JOB
- D. SEISMIC RESTRAINT MATERIALS SHALL BE AS MANUFACTURED BY MASION INDUSTRIES, B-LINE SYSTEMS OR AN APPROVED EQUAL.
- 28. PIPE PENETRATIONS THROUGH FIRE RATED WALLS AND FLOORS SHALL BE PROVIDED WITH U.L. FIRE RATED PIPE SLEEVE ASSEMBLIES AND SEALED AS REQUIRED BY LOCAL AND STATE CODES AND ORDINANCES.
- 29. PIPE PENETRATIONS THROUGH SMOKE BARRIERS (1 HOUR FIRE RESISTANT RATING REQUIRED FOR SMOKE BARRIERS.) SHALL BE PROVIDED WITH U.L. FIRE RATED PIPE SLEEVE ASSEMBLIES AND SEALED AS REQUIRED BY LOCAL AND STATE CODES AND ORDINANCES.
- 30. PIPE PENETRATIONS THROUGH SMOKE PARTITIONS SHALL BE SEALED TO PREVENT PASSAGE OF SMOKE AS REQUIRED BY LOCAL AND STATE CODES AND ORDINANCES.
- 31. IF PVC DRAINAGE PIPE IS USED ABOVE GUEST ROOMS OR ANY OTHER PUBLIC AREA, THE PIPES SHALL BE IN INSULATED FOR SOUND CONTROL.
- 32. PLUMBING CONTRACTOR SHALL HAVE IN POSSESSION A COPY OF "FURNISHINGS & CONSTRUCTION STANDARDS", FOR USE BY HOME2 SUITES BY HILTON ONLY, LATEST EDITION AND COMPLY WITH DIRECTIVE, UNLESS INSTRUCTED OTHERWISE BY OWNER.

## DOMESTIC HW CIRCULATOR PUMP SCHEDULE <u>MARK</u> <u> GPM</u> <u>MOTOR</u> <u>REMARKS</u> <u>HEAD</u> 1/6 H.P. CP-1 25 FT. H<sub>2</sub> O GRUNDFOS MODEL #UP-26-99BF 10 GPM

115/1/60

	PLUMBING FIXTURE SCHEDULE (CONT.)									
MARK	<u>FIXTURE</u>	SOIL	<u>WASTE</u>	<u>VENT</u>	<u>H.W.</u>	<u>C.W.</u>	<u>REMARKS</u>			
DW	GUEST ROOM DISHWASHER (BY OWNER)		1"		1/2"		OWNER TO FURNISH DISHWASHERS FOR GUEST ROOMS, CONTRACTOR TO INSTALL WITH HW CONNECTION AND DRAIN CONNECTION TO DISPOSAL UNIT AT THE KITCHEN SINK, PROVIDE HW SHUT-OFF VALVE.			
KDW	KITCHEN DISHWASHER IN PANTRY (BY OWNER)		2"	1 1/2"	3/4"		OWNER TO FURNISH DISHWASHER IN PANTRY, CONTRACTOR TO INSTALL WITH HW CONNECTION AND DRAIN CONNECTION AS REQUIRED BY LOCAL CODES.			
<u>IWH</u>	INSTANTANEOUS WATER HEATER				1/2"	1/2"	EEMAX #EX012240T, 120 VOLT, 11.5 KW, 48 AMPS, 31° TEMP. RISE @ 2.5 GPM.			

\* SHOWER HEADS IN ALL TUBS AND SHOWERS SHALL BE LOCATED 6'-6" ABOVE FLOOR OF TUBS AND SHOWERS. THIS DISTANCE IS FROM FLOOR OF TUB OR SHOWER TO THE LOWEST PART OF THE SHOWER HEAD.

NOTE: ALL EXPOSED WATER AND DRAIN PIPNG AT FIXTURES SHALL HAVE CHROME FINISH.

- PROVIDE 1.8 GPM FLOW SHOWER HEADS ON ALL SHOWERS AND 0.5 GPM FLOW RESTRICTORS ON ALL LAVATORIES, OR PER CODE, IF MORE RESTRICTIVE.
- INSULATE ALL TRAPS AND SUPPLIES ON HANDICAPPED LAVATORIES WITH TRUEBRO, INC. MODEL #102W OR #105W. MOUNT ALL HANDICAPPED FIXTURES AT HEIGHT AS REQUIRED BY CODES & PER ARCHITECTURAL DETAILS, ADVISE ARCHITECT IF CONFLICTS OCCUR BETWEEN CODES AND PLANS.
- VERIFY CODE SPACE REQUIREMENTS PRIOR TO INSTALLATION OF PIPING AND FIXTURES.
- ALL FIXTURES ARE WHITE OR STAINLESS STEEL, UNLESS NOTED OTHERWISE. VERIFY THAT ALL SINKS WILL FIT INTO COUNTERTOP SPACE PRIOR TO ORDERING SAME.
- WALL OUTLET ROUGH-IN FOR SHOWER HEADS SHALL BE LOCATED 6'-11" ABOVE THE CONCRETE SLAB, MOUNT BOTTOM OF ALL SHOWER HEADS AT 6'-6" HEIGHT ABOVE TUB FLOOR, PER ARCHITECTURAL DRAWINGS.

15. THE TEMPERATURE LIMIT STOP SCREW ON BATHTUBS, SHOWERS AND LAVATORY FAUCETS, SHALL BE SET AT A MAXIMUM TEMPERATURE OF 110° F.

- 8. WATER SUPPLY FOR TANK WATER CLOSETS SHALL BE ROUGHED-IN AT 10" A.F.F.
- MOUNT THE BOTTOM OF THE HAND HELD SHOWER SLIDE BARS AT 42" ABOVE FLOOR.
- 10. ALL SHOWER AND TUB VALVES SHALL HAVE BUILT-IN STOPS.

16. MOEN FAUCETS SHALL BE CONSIDERED AS EQUAL, IF OWNER AND HOME2 APPROVE SAME.

- . PROVIDE HOT AND COLD WATER INDICATORS AT ALL FAUCETS, (BATHTUBS, SINKS ETC. 12. ALL FIXTURES SHALL HAVE INDIVIDUAL SHUT OFF VALVES.
- 13. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO HOME2 SUITES PRIOR TO ORDERING, FOR APPROVAL. 14. THE MAXIMUM WATER TEMPERATURE DELIVERED TO THE GUEST ROOMS, SHALL NOT EXCEED 110° F

ROOF DRAIN SCHEDULE										
<u>MARK</u>	BODY	DOME OR STRAINER	<u>REMARKS</u>							
3RD #1	C.I.	CAST IRON DOME WITH FLOW CONTROL ASSEMBLY	J.R. SMITH #1085-R-C-WR2 RAINTROL ROOF DRAIN WITH SUMP RECEIVER, AND UNDER DECK CLAP WITH TWO WEIR OPENING PER DRAIN							

GAS FIRED WATER HEATER SCHEDULE									
<u>MARK</u>	<u>TYPE</u>	<u>STORAGE</u>	<u>RECOVERY</u>	<u>BTU/HR</u>	<u>REMARKS</u>				
* GWH−1 THRU GWH−6	GAS-FIRED POWER BURNER SEALED COMBUSTION SYSTEM	100 GALLON EACH	270 GPM @ 110°F RISE	NATURAL GAS 199,000 BTU/HR	STATE SUS100-199NE WITH 3" PVC AIR INTAKE, 3" EXHAUST THROUGH EXTERIOR WALL.				

★INSTALL A TRU-FLO MANIFOLD KIT PER MANUFACTURERS WRITTEN INSTRUCTIONS. (GAS PIPING BY HVAC AND ELECTRICAL

CONNECTIONS BY ELECTRICAL). ET-1 EQUAL TO WATTS DETA 100 ASME THERMAL EXPANSION TANK. MX-1 EQUAL TO LEONARD 2" HIGH-LOW MIXING VALVE WITH A MINIMUM FLOW OF 1/2 GPM.

	FLOOR DRAIN SCHEDULE											
<u>MARK</u>	<u>BODY</u>	GRATE OR STRAINER	<u>REMARKS</u>									
FD #1	C.I.	7" DIA. NICKEL BRONZE	J.R. SMITH #3510-F1107NB-P050 WITH TRAP PRIMER CONNECTION									
FD #2	C. I.	7" DIA. NICKEL BRONZE	J.R. SMITH #2005-A07NB-P050 WITH TRAP PRIMER CONNECTION									
FD #3	C.I.	7" DIA. NICKEL BRONZE STRAINER WITH 4" FUNNEL	J.R. SMITH #3510-F1107NB-P050 WITH 4" FUNNEL DRAIN									
FD #4	C.I.	7" DIA. NICKEL BRONZE RECESSED ANTI-FLOOD RIM.	J.R. SMITH #2005-F37-NB									
FD #5	C.I.	8" C.I. TRACTOR GRATE WITH SEDIMENT BUCKET	J.R. SMITH #2120-B									
FD #6	C.I.	STAINLESS STEEL SCREEN DOME	J.R. SMITH #2671-G4									

NOTE: FURNISH ALL FLOOR DRAINS WITH DEEP SEAL TRAPS.

COMPACTED TO DENSITY OF SURROUNDING SOIL.

PLUMBING HYDRANT SCHEDULE									
MARK	DESCRIPTION	SOIL	WASTE	VENT	CW	HW	REMARKS		
WH	NON FREEZE HOSE BIBB				3/4"		ZURN NO. Z-1310, WITH INTEGRAL VACUUM BREAKER, SELF DRAINING, LOOSE KEY OPERATING HANDLE.		

## TRENCHING AND BACKFILLING:

- 1. TRENCHES SHALL HAVE 12" MINIMUM AND 24" MAXIMUM CLEARANCE ON ALL SIDES. 2. UNIFORM SLOPE SO THAT THE PIPING IS UNIFORMLY SUPPORTED THROUGHOUT ITS ENTIRE LENGTH OF UNDISTURBED SOIL. WHEN NECESSARY, TRENCHES SHALL BE
- UNDERCUT TO A DEPTH REQUIRED TO REACH STABLE SOIL AND FILLED TO THE FLOW LINE DEPTH WITH COMPACTED SAND. 3. MATERIAL AND CLODS. BACKFILL AND TAMP IN 4" LAYERS TO A HEIGHT AT LEAST 2" ABOVE PIPE. THE REMAINDER OF BACKFILL SHALL BE BROUGHT TO GRADE AND

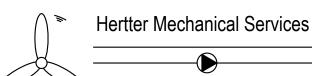
		P	LUMB	ING FIX	(TUR	E SC	HEDU	ILE
<u> </u>	<u>MARK</u>	<u>FIXTURE</u>	<u>SOIL</u>	<u>WASTE</u>	<u>VENT</u>	<u>H.W.</u>	<u>C.W.</u>	<u>REMARKS</u>
	<u>WC1</u>	HANDICAP WATER CLOSET GUEST ROOM	3"	_	2"	_	1/2"	STERLING #402088 "ROCKTON" TWO PIECE ELONGATED DUAL FLUSH WATER CLOSET ADA COMPLIANT, 1.1 GPF, BEMIS #1900SS, STAINLESS STEEL BOLTS, SELF SUSTAINING HINGE, ELONGATED CLOSED SEAT, WITH COVER, CLOSET BOLTS, AND COMPRESSION STOPS.
	<u>WC2</u>	WATER CLOSET	3"	_	2"		1/2"	STERLING #402027 "ROCKTON" TWO PIECE ELONGATED DUAL FLUSH WATER CLOSET, 1.6 GPF, BEMIS #1900SS, SELF SUSTAINING ELONGATED SEAT AND COVER, CLOSET BOLTS AND COMPRESSION STOPS.
	<u>WC3</u>	HANDICAP WATER CLOSET PUBLIC AREA	3"	_	2"		1/2"	STERLING #402088 "ROCKTON" TWO PIECE ELONGATED DUAL FLUSH WATER CLOSET, 1.6 GPF, BEMIS 9400SSCT, SELF SUSTAINING STAINLESS STEEL CHECK HINGE, OPEN FRONT ELONGATED SEAT, NO COVER, CLOSET BOLTS AND COMPRESSION STOPS.
	<u>WC4</u>	WATER CLOSET PUBLIC AREA	3"	_	2"		1/2"	STERLING #402027 "ROCKTON" TWO PIECE ELONGATED DUAL FLUSH WATER CLOSET, 1.6 GPF, BEMIS 9400SSCT, SELF SUSTAINING STAINLESS STEEL CHECK HINGE, OPEN FRONT ELONGATED SEAT, NO COVER, CLOSET BOLTS AND COMPRESSION STOPS.
U-	-1	URINAL	2"	_	2"	3/4"		KOHLER K-4989 T BOWL, ZURN Z-6003-WS-1 (1.0 GPF) FLUSH VALVE, ZURN MODEL NO. Z-1222 CARRIER.
U-	-2	URINAL HANDICAPPED	2"		2"	3/4"	_	KOHLER K-4989 T BOWL, ZURN Z-6003-WS-1 (1.0 GPF ) FLUSH VALVE, ZURN MODEL NO. Z-1222 CARRIER. MOUNT AT HANDICAPPED HEIGHT.
*	<u>TB1</u>	HANDICAP BATHTUB GUEST ROOM		1 1/2"	1 1/2"	1/2"	1/2"	AMERICAN STANDARD 2390.202 (RIGHT OR LEFT HAND AS REQUIRED), 60×30×14", ACID RESISTANT TUB, WITH TILTING FLANGE AND FRONT APRON, #104239BN ROTHBURY SHOWER HEAD, MOEN #123815BN 8" SHOWER ARM AND FLANGE, MOEN #72131BN SINGLE LEVER VALVE, #3853 DIVERTER TUB SPOUT, #62370 ROUGH—IN VALVE, #T4171BN DIVERTER VALVE TRIM, #3372 TRANSFER VALVE, A730ST BRACKET, A725BN DROP ELBOW #A726ST HAND HELD SHOWER HOSE, #128875BN HAND HELD SHOWER HEAD, LIFT & TURN WASTE CONNECTION, BRUSHED NICKEL TRIM.
*	<u>TB2</u>	BATHTUB GUEST ROOM		1 1/2"	1 1/2"	1/2"	1/2"	AMERICAN STANDARD 2390.202 (RIGHT OR LEFT HAND AS REQUIRED), 60x30x14", ACID RESISTANT TUB, #104239BN ROTHBURY SHOWER HEAD, MOEN #123815BN 8" SHOWER ARM AND FLANGE, MOEN #T2131BN SINGLE LEVER VALVE, #3853 DIVERTER TUB SPOUT, #62370 ROUGH-IN VALVE, LIFT & TURN WASTE CONNECTION, BRUSHED NICKEL TRIM.
	<u>LV1</u>	HANDICAP LAVATORY GUEST ROOM	_	1 1/4"	1 1/2"	1/2"	1/2"	LENOVA #PU-01-W, 19 ½ X15 ½ UNDERMOUNT RECTANGULAR VITREOUS CHINA LAVATORY MODEL #6400BN EVA SINGLE LEVER, BRUSHED NICKEL FAUCET, COMPRESSION STOPS, 1 ½ P-TRAP TRUBRO#102W ADA INSULATION KIT, IN GUEST ROOMS WITH FLOOR DRAINS IN TOILET AREA, FURNISH P-TRAP WITH PRIMER CONNECTION AND ½" PRIMER LINE TO FLOOR DRAIN. OMNI ½ GPM OR EQUAL FLOW RESTRICTOR.
	LV2	LAVATORY GUEST ROOM		1 1/4"	1 1/2"	1/2"	1/2"	LENOVA #PU-01-W, 19 ½ X15 ½ UNDERMOUNT RECTANGULAR VITREOUS CHINA LAVATORY MODEL #6400BN EVA SINGLE LEVER, BRUSHED NICKEL FAUCET, COMPRESSION STOPS, 1 ½ P-TRAP. OMNI ½ GPM OR EQUAL FLOW RESTRICTOR.
	LV3	HANDICAP WALL HUNG LAVATORY		1 1/4"	1 1/2"	1/2"	1/2"	KOHLER #K102154 BN, 20x18 WALL HUNG ADA APPROVED LAVATORY AND CHAIR CARRIER, K-2084, K-8998-CP KOHLER "FORTE" SINGLE LEVER BRUSHED NICKEL FAUCET, P-TRAP AND TRUBRO ADA INSULATION KIT. OMNI 1/2 GPM OR EQUAL FLOW RESTRICTOR.
*	SR1	HANDICAP SHOWER STALL		2"	1 1/2"	1/2"	1/2"	#104239BN ROTHBURY SHOWER HEAD, BRUSHED NICKEL MOEN #T2131BN SHOWER VALVE #3853 DIVERTER TUN SPOU #62370 POSI-TEMP VALVE #T4171BN DIVERTER VALVE TRIM #3372 TRANSFER VALVE #A726ST HAND HELD SHOWER HOSE AND MOEN #128875 BN HAND HELD SHOWER UNIT.
*	SR2	SHOWER UNIT		2"	1 1/2"	1/2"	1/2"	STERLING #72260100 "ACCORD" 48"x36" FOUR PIECE HOGH GLOSS VIKRELL SHOWER WITH SIMULATED TILE BACK WALL SET, PVC SHOWER DRAIN, BRUSHED NICKEL MOEN #104239BI 8" SHOWER ARM WITH FLANGE, MOEN #T2131 SINGLE LEVER VALVE AND #62370 POSI-TEMP ROUGH-IN VALVE.
	<u>SK1</u>	HANDICAP KITCHEN SINK GUEST ROOM		1 1/2"	1 1/2"	1/2"	1/2"	ELKAY #ELUHAD211545PD UNDERMOUNT STAINLESS STEEL ADA SINK, MOEN #7423 SINGLE LEVER KITCHEN FAUCET IN BRUSHED NICKEL TO MATCH BATH FIXTURE FAUCETS.  COMPRESSION STOPS, P-TRAP, AND WHIRLAWAY #191PC 1/3 H DISPOSAL UNIT. OMNI 1/2 GPM OR EQUAL FLOW RESTRICTOR.
	<u>SK2</u>	KITCHEN SINK GUEST ROOM	_	1 1/2"	1 1/2"	1/2"	1/2"	KOHLER #K-3182 "SPRINGDALE" 16"x20"x8" UNDERMOUNT ST SINK, MOEN #7423 SINGLE LEVER KITCHEN FAUCET IN BRUSHED NICKEL FINISH TO MATCH BATH FIXTURE FAUCETS. COMPRESSION STOPS, 1 ½" P-TRAP AND WHIRLAWAY #191PC 1/3 HP DISPOSAL UNIT. OMNI ½ GPM OR EQUAL FLOW RESTRICTOR.
	<u>SK3</u>	BREAK ROOM KITCHEN SINK		1 1/2"	1 1/2"	1/2"	1/2"	STERLING #UCL1515, 15"x15" UNDERMOUNT SS SINK, KOHLER BRUSHED NICKEL #K-15172-XF-CP SINK FAUCET, K-8801-CP BASKET STRAINER, COMPRESSION STOPS, 1 ½" P-TRAP AND WHIRLAWAY #191PC ½ HP DISPOSAL UNIT. OMN ½ GPM OR EQUAL FLOW RESTRICTOR.
	<u>SK4</u>	3-COMP SINK BY OWNER		(3) 1 1/2"	1 1/2"	(2) 1/2"	(2) 1/2"	STAINLESS STEEL SINK & FAUCETS PROVIDED BY OWNER, CONTRACTOR SHALL INSTALL SINK AND FAUCET & PROVIDE ROUGH-IN WITH ALL RELATED PIPING WITH SHUT-OFF VALVES AT WALL.
	<u>SK5</u>	KITCHEN SINK BY OWNER		1 1/2"	1 1/2"	1/2"	1/2"	KITCHEN SINK & FAUCETS PROVIDED BY OWNER, CONTRACTOR SHALL INSTALL SINK AND FAUCET & PROVIDE ROUGH-IN WITH ALL RELATED PIPING WITH SHUT-OFF VALVES AT WALL.
	<u>SK6</u>	WALL HUNG HANDWASH SINK	_	1 1/2"	1 1/2"	1/2"	1/2"	ADVANCE TABCO #7-PS-65, 14"x10"x5" DEEP SS SINK WITH 7" BACKSPLASH, BRUSHED NICKEL FAUCET, P-TRAP, ANGLE STOPS AND CHAIR CARRIER.
	<u>LT</u>	DOUBLE BOWL LAUNDRY TUB		2"	1 1/2"	1/2"	1/2"	FIAT #FLTD11 MOLDED STONE DOUBLE BOWN LAUNDRY SINK WITH LEGS, LAUNDRY TRAY, A-1 FAUCET, P-TRAP AND ANGLE STOPS HARDWARE PACKAGE.
	<u>DF1</u>	ELECTRIC DRINKING FOUNTAIN		2"	2"	1/2"	_	ELKAY MODEL NO.LZSTL8C (DUAL) COOLER, MCGUIRE 8872 P-TRAP, MCGUIRE 165 SUPPLY AND STOP, ZURN Z-1225 CARRIER
	DF2	DRINKING FOUNTAIN		2"	2"	1/2"		MOST DEPENDABLE FOUNTAIN MODEL NO. 475 (DUAL) COOLER, MCGUIRE 8872 P-TRAP, MCGUIRE 165 SUPPLY AND STOP. PROVIDE IN WALL P-TRAPS, CUTOFF VALE AND DRAIN VALVE ALL IN ACCESSABLE PANEL.
	<u>PS</u>	POOL SHOWER					1/2"	DELTA #R-10000-UNWS ROGH-IN VALVE, DELTA #T13H163 SHOWER TRIM WITH FIXED VANDAL RESISTANT HEAD.
	<u>JC</u>	MOP SINK		3"	1 1/2"	3/4"	3/4"	FIAT #TSB 3000 24" X 24" X 12" DEEP FLOOR MOUNTED MOP BASIN, T & S BRASS B-665-BSTR WALL MOUNTED SINK FAUCET W/ V.B. SS MOP HANGER, HOSE & BRACKET, WITH SS WALL GUARDS.
	<u>EW</u>	WALL HUNG EYE WASH	_	1 1/4"	1 1/2"	1/2"	1/2"	GUARDIAN #G1814P WITH YELLOW PLASTIC EYE/FACE WASH HEADS, WITH DUST COVERS. ½" NPT CHROME PLATED BRASS STAY OPEN BALL VALVE WITH SS PUSH HANDLE, DRAIN TAIL PIECE TO WITHIN 6" OF FINISHED FLOOR AND IN-LINE STRAINER. GUARIDIAN G3600 MIXING VALVE SET FOR 85" WATER.
	<u>WCB</u>	WASHER CONNECTION BOX		2"	1 1/2"	3/4"	3/4"	GUY GRAY #82048 WITH WATER HAMMER ARRESTOR. INSTALI BACKFLOW CHECK VALVES FOR VALVES IN HW & CW LINES WITH ACCESS PANEL.

12

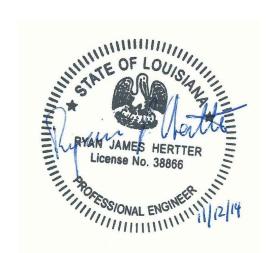


Richard Molenaar

ARCHITECT



Ryan J. Hertter, P.E., LEED AP 4700 WILD FERN DR Bartlett, TN 38135 (662) 890-4220



W Mane Street West Monroe, Lousiana

PLUMBING GENERAL NOTES AND SCHEDULES

DRAWN BY: CHECKED BY:

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