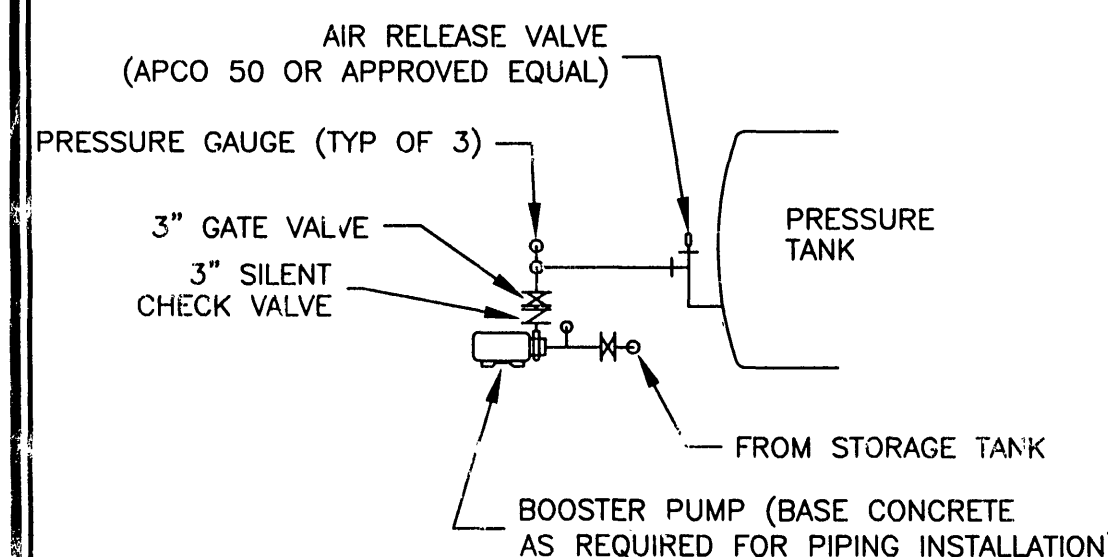


LAYOUT

SCALE: 1/4" = 1'

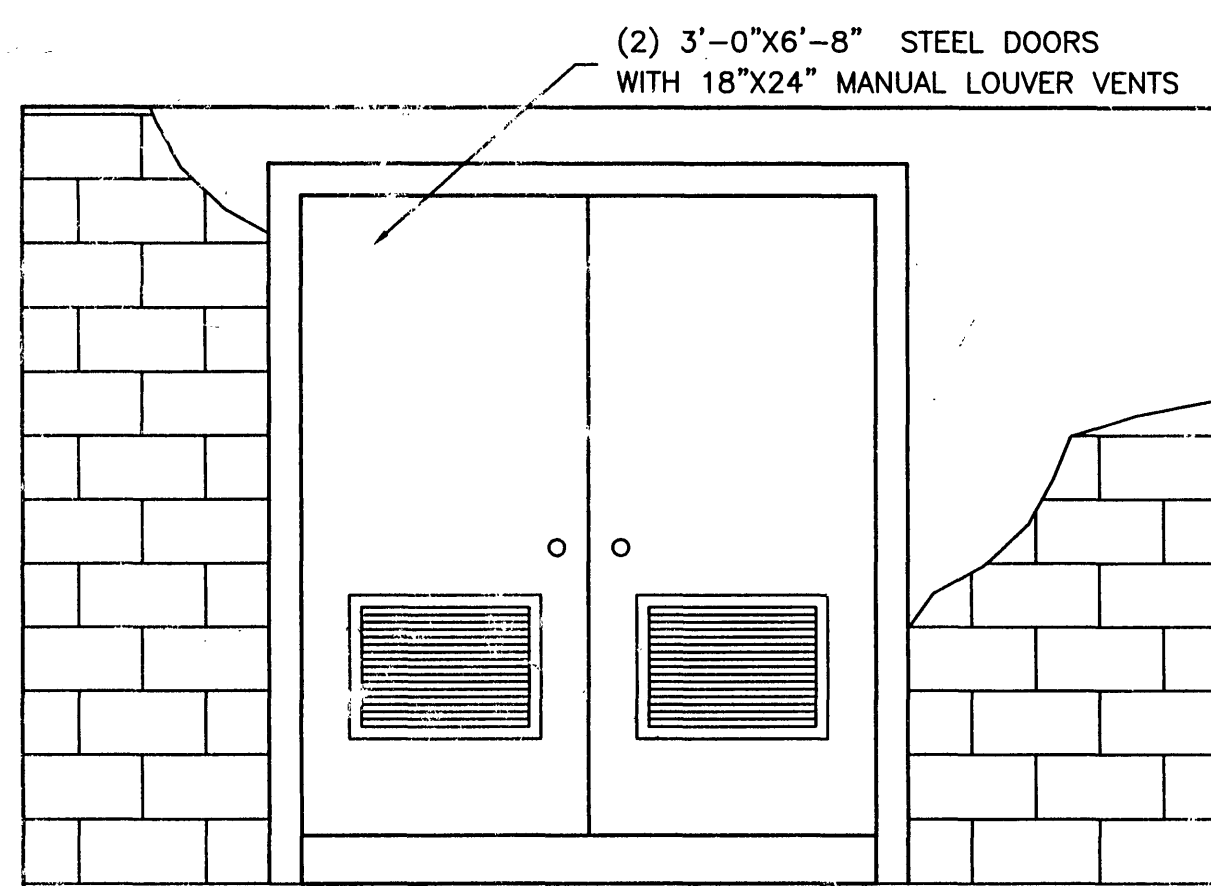
OPERATIONAL DESCRIPTION

1. THE TRIPLEX BOOSTER PUMP SYSTEM SHALL TURN ON BOOSTER PUMPS IN AN ALTERNATING PATTERN (I.E. PUMP 1 ON, THEN PUMP 2 ON, THEN PUMP 3 ON, THEN BACK TO PUMP 1). PRESSURE SWITCHES, ON PRESSURE TANK, SHALL CONTROL PUMP START AND STOP. WHEN PRESSURE, IN 2000 GALLON PRESSURE TANK, REACHES 53 PSI ONE BOOSTER PUMP SHALL BE STARTED. IF PRESSURE FALLS TO 50 PSI, WHILE ONE PUMP IS RUNNING, THEN A SECOND PUMP SHALL BE STARTED. ALL PUMPS SHALL TURN OFF AT 61 PSI. IN ADDITION A LOW WATER FLOAT IS SPECIFIED IN THE GROUND STORAGE TANK TO TURN BOOSTER PUMPS OFF IF STORAGE TANK EMPTIES.
2. UNDER PROPOSED DESIGN, EXISTING WELL PUMP #2 WILL BE DIRECTLY CONNECTED TO THE DISTRIBUTION SYSTEM AND THEREFORE, WILL PRESSURIZE THE PRESSER TANK. THEREFORE, WELL PUMP #2 START AND STOP SHALL BE REMOVED FROM ITS EXISTING CONTROL SYSTEM AND INTEGRATED WITH PROPOSED BOOSTER PUMP CONTROL SYSTEM. WELL PUMP #2 SHALL BE SEQUENCED IN WITH BOOSTER PUMPS, TO START EVERY OTHER TIME THE PRESSURE TANK CALLS FOR WATER. LIKE THE BOOSTER PUMPS IF WELL #2 IS NOT ABLE TO KEEP UP WITH DEMAND AND PRESSURE IN PRESSURE TANK FALLS TO 50 PSI THEN A BOOSTER PUMP SHALL BE STARTED. A SECOND BOOSTER PUMP SHALL BE TURNED ON IF PRESSURE FALLS TO 47 PSI. WELL PUMP STOP CONDITION SHALL ALSO BE WHEN PRESSURE TANK REACHES 61 PSI.



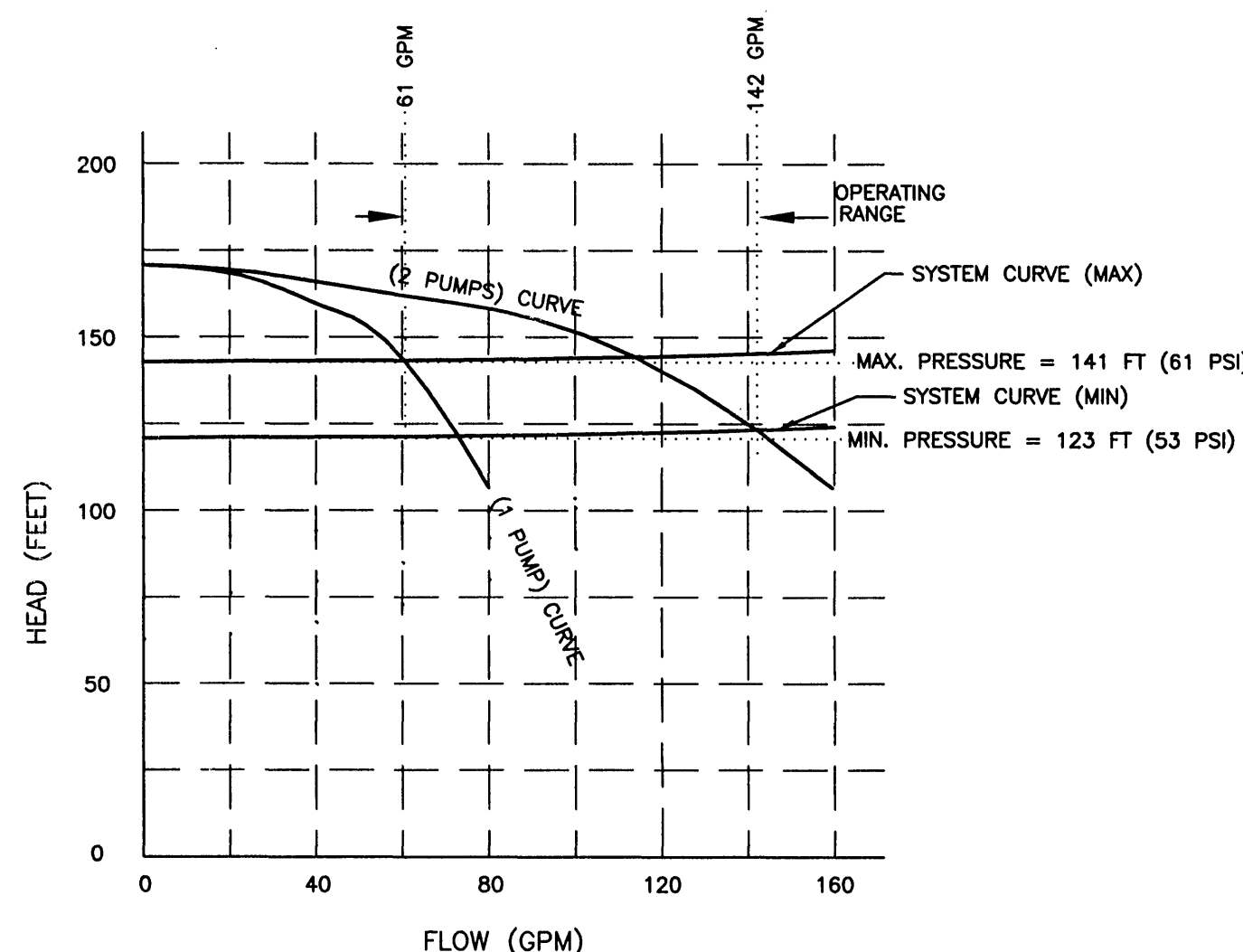
VIEW A-A

SCALE: 1/4" = 1'

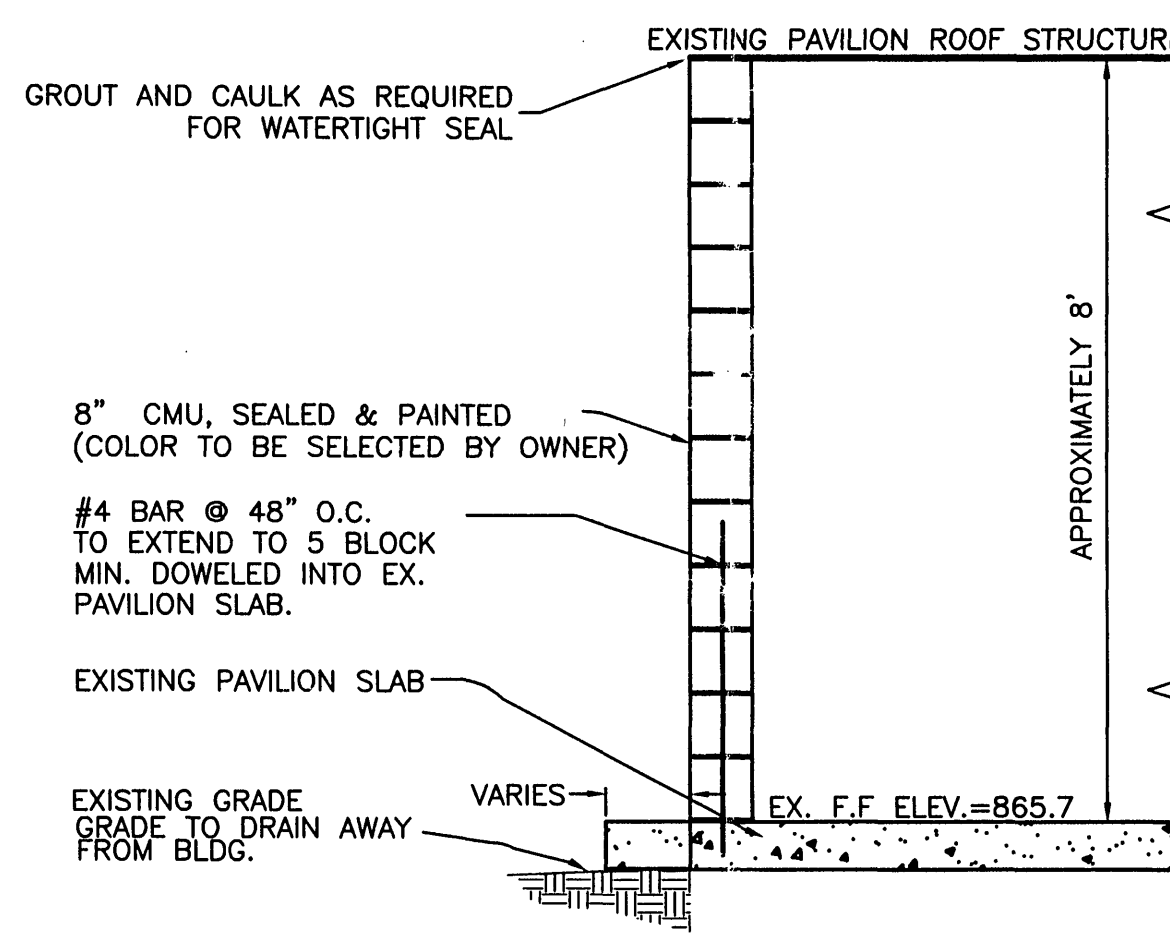


FRONT ELEVATION

SCALE: 1/2"=1'-0"



BOOSTER PUMP SYSTEM CURVE



TYPICAL WALL SECTION

SCALE: 1/2"=1'-0"

EQUIPMENT SCHEDULE

WATER METER	SENSUS SERIES "W" TURBO-METER OR APPROVED EQUAL. MODEL W-350 DR SIZE 3". CONFORMS TO AWWA C701.
3" GATE VALVE	AS MANUFACTURED BY AMERICAN FLOW CONTROL, OR APPROVED EQUAL. 250 lb WATER, SCREW ENDS
3" SILENT CHECK VALVE	AS MANUFACTURED BY APCO VALVES OR APPROVED EQUAL. MODEL 603 SIZE 3".
SAMPLE TAP	HEAVY DUTY HOSE BIB WITH BACK FLOW PREVENTOR
PRESSURE GAUGE	ASHCROFT OR APPROVED EQUAL. 4" STANDARD LIQUID FILLED GAUGE, PRESSURE RANGE 0 - 200 PSI, MODEL # 10-1008AL
PIPING	3" SCHEDULE 40 THREADED STEEL ASTM A 53 TYPE F.
AIR AND VACUUM VALVE	VALVE FLOAT SHALL BE RATED FOR 1000 PSI APCO SERIES 140/150 OR APPROVED EQUAL.
STORAGE TANK	AS MANUFACTURED BY PEABODY TECTANK 18,000 GALLON MINIMUM STORAGE. MUST COMPLY WITH ANSI/AWWA D100-96 FOR WELDED CONSTRUCTION OR AWWA D103-87 FOR BOLTED TANK CONSTRUCTION. TANK TO BE FURNISHED, INSTALLED, AND COMMISSIONED BY A CONTRACTOR LICENSED IN VIRGINIA. SEE SPECIFICATIONS FOR MORE DETAIL.
HYDROPNEUMATIC TANK	STANDARD HORIZONTAL TYPE AS MANUFACTURED BY RECO INDUSTRIES, INC. CARRYING A NAME'S LABEL AND FABRICATED IN ACCORDANCE WITH AWWA D100. TANK SHELL SHALL BE ASME STAMPED FOR 150 lbs. WORKING PRESSURE WITH STEEL SUPPORT SADDLES FURNISHED BY TANK FABRICATOR. INTERIOR TANK SURFACES SHALL BE PREPARED AFTER FABRICATION IN ACCORDANCE WITH SSPC-SP5 "WHITE METAL" SURFACE WITH 1-2 MIL PROFILE. COATING SHALL BE AWWA APPROVED FOR POTABLE WATER CONTACT, EPOXY POLYAMIDE, GLOSS FINISH, WHITE, AND 14 - 20 MILS DFT. EXTERIOR TANK SURFACES SHALL BE PREPARED AFTER FABRICATION IN ACCORDANCE WITH SSPC-SP6 "COMMERCIAL BLAST" SURFACE WITH 1-2 MIL PROFILE. EXTERIOR COATING SHALL BE ALIPHATIC POLYURETHANE, GLOSS FINISH, GREEN, AND 5.5 - 8.5 MILS DFT.
AIR COMPRESSOR	SELF CONTAINED UNIT AS MANUFACTURED BY AIR RITE MODEL 610 SUITABLE FOR HYDROPNEUMATIC TANK APPLICATION.
BOOSTER PUMPS (QUANTITY = 3)	JACUZZI OR APPROVED EQUAL. MODEL 50B1 CLOSED-COUPLED CENTRIFUGAL PUMP SIZE 1" x 1-1/2" 3500 RPM WITH 6-1/8" DIAMETER IMPELLER 5 HP MOTOR. DESIGN 64 GPM @ 135' TDH.
PAINT	WALLS AND CEILING: HI GLOSS LATEX ACRYLIC PIPES & TANKS: HI GLOSS ENAMEL (OIL BASE)
BLOCK SEALER	WALLS: AS MANUFACTURED BY SEAL KRETE OR APPROVED EQUAL

GENERAL NOTES

1. INFORMATION ON THESE DRAWINGS CONCERNING THE LOCATION AND ELEVATION OF EXISTING UTILITIES, STRUCTURES, AND OBSTRUCTIONS HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION ARE NOT GUARANTEED, HOWEVER, NOR DOES THE ENGINEER ACCEPT ANY RESPONSIBILITY WHATSOEVER FOR DEVIATIONS OF THE EXISTING UTILITIES, STRUCTURES, OTHER FACILITIES, AND OBSTRUCTIONS FROM THE LOCATIONS AND ELEVATIONS INDICATED OR FOR THE EXISTENCE OF UTILITIES, STRUCTURES, OTHER FACILITIES, AND OBSTRUCTIONS NOT INDICATED ON THESE DRAWINGS.
2. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, TAKE ALL MEASURES NECESSARY TO PROVIDE, AND SHALL BE SOLELY RESPONSIBLE FOR, TEMPORARY SUPPORT AND SHORING, ADEQUATE PROTECTION, AND MAINTENANCE OF CONTINUOUS OPERATION OF ALL UNDERGROUND AND ABOVEGROUND WATER, SEWER, AND GAS MAINS AND SERVICE LINES; PETROLEUM LINES; TELEPHONE, TELEVISION, AND ELECTRICAL LINES, CABLES, AND POLES; EQUIPMENT CABLES AND CONDUITS; STORM SEWERS; BUILDINGS; TANKS; FENCES; AND ALL OTHER UTILITIES, STRUCTURES, FACILITIES, AND OBSTRUCTIONS, WHETHER OR NOT INDICATED ON THESE DRAWINGS. ALL DISTURBED OR DAMAGED UTILITIES, STRUCTURES, OTHER FACILITIES, AND OBSTRUCTIONS SHALL BE IMMEDIATELY REPAIRED, REPLACED, OR COMPENSATED FOR BY THE CONTRACTOR TO OWNER'S SATISFACTION, AND AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR THE CHARACTER AND ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, STRUCTURES, OTHER FACILITIES, AND OBSTRUCTIONS WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONTACT THE OWNERS/OPERATORS OF ALL UTILITIES AND ARRANGE FOR THE VERIFICATION AND MARKING OF UTILITY AND/OR LOCATION INDICATED ON THESE DRAWINGS. THE CONTRACTOR SHALL ASSIST THE UTILITY OWNERS/OPERATORS BY EVERY MEANS POSSIBLE TO DETERMINE THE LOCATION OF UTILITIES. THE CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR ALL DISTURBANCE OF ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S FAILURE TO ARRANGE FOR THE LOCATION OF UTILITIES BY THE OWNERS/OPERATORS OF THE UTILITIES. CONTACT MISS UTILITY (800) 552-7001.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL NEW ABOVE AND BELOW GRADE PIPING, STRUCTURES, ELECTRICAL EQUIPMENT AND CONDUIT, AND OTHER FACILITIES AT THE PROJECT SITE, FROM ALL DISTURBANCE OR DAMAGE WHICH MAY RESULT FROM THE PERFORMANCE OF WORK ON THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REPAIR OR REPLACEMENT OF ALL NEW ABOVE AND BELOW GRADE PIPING, STRUCTURES, ELECTRICAL EQUIPMENT AND CONDUIT, AND OTHER FACILITIES AT THE PROJECT SITE WHICH MAY BE DISTURBED OR DAMAGED AS A RESULT OF THE PERFORMANCE OF WORK ON THIS PROJECT.
5. SITE CONDITIONS MAY NECESSITATE SLIGHT DEVIATIONS IN ALIGNMENT, GRADE, AND/OR LOCATION OF NEW FACILITIES FROM THE ALIGNMENT, GRADE, AND/OR LOCATION INDICATED ON THESE DRAWINGS. THE CONTRACTOR SHALL CONSTRUCT THE NEW FACILITIES TO SUCH DEVIATIONS AS DIRECTED BY THE ENGINEER WITHOUT INCREASE IN THE CONTRACT PRICE OR FINE.
6. THE CONTRACTOR SHALL MAINTAIN A CLEAR FLOW PATH TO AND THROUGH ALL SURFACE WATER AND STORM WATER DRAINAGE FACILITIES AT ALL TIMES.
7. THE CONTRACTOR SHALL GRADE, SEED, AND/OR SOD, AND MULCH THE ENTIRE AREA(S) DISTURBED BY CONSTRUCTION ACTIVITIES.
8. CONSTRUCTION AND START-UP OF ALL WORK SHALL NOT INTERFERE WITH THE OPERATION OF WATER AND SEWERAGE FACILITIES. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL WORK WITH THE OWNERS AS REQUIRED.
9. MINIMUM COVER ON ALL PIPE SHALL BE 3 FEET, UNLESS OTHERWISE SPECIFICALLY INDICATED ON THESE DRAWINGS. ALL PVC PIPE SHALL BE INSTALLED WITH COATED TRACER WIRE TO FACILITATE FUTURE LOCATION OF PIPE AFTER CONSTRUCTION IS COMPLETED.
10. WHERE IT IS NECESSARY TO DEFLECT PIPE EITHER HORIZONTALLY OR VERTICALLY, PIPE JOINT DEFLECTION OR BARREL BEND RADIUS SHALL NOT EXCEED 75% OF THE MANUFACTURER'S RECOMMENDED DEFLECTION ANGLE OR BEND RADIUS.
11. ALL PIPING SHALL BE PROPERLY SUPPORTED. ALL PIPING WHICH WILL BE PRESSURIZED DURING OPERATION SHALL BE PROPERLY RESTRAINED.
12. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CURRENT BOCA AND/OR STATE AND LOCAL BUILDING CODES.
13. CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION AREA IN A MANNER ACCEPTABLE TO OWNER AND SHALL BE RESPONSIBLE FOR REMEDIATING ANY DAMAGES RESULTING FROM FAILURE TO DO SO.
14. ALL EXCAVATION SHALL BE UNCLASSIFIED. NO ADDITIONAL PAYMENT WILL BE CONSIDERED FOR ROCK EXCAVATION.
15. CONTRACTOR SHALL MAINTAIN LIMITS OF CONSTRUCTION WITHIN THE BOUNDARIES OF THE PROPERTY AS INDICATED ON THE SITE PLAN.
16. WATER PIPING CROSSING UNDER ROADWAYS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL OBTAIN THE REQUIRED PERMITS FOR WATER PIPING CROSSING UNDER PUBLIC ROADWAYS AND SHALL CONDUCT ALL WORK AND RESTORATION IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. ALL WORK AND RESTORATION REQUIREMENTS SHALL BE INCLUDED IN THE BID PRICE FOR THE WATERLINE CROSSING.
17. CONTRACTOR SHALL KEEP EXISTING DISTRIBUTION SYSTEM IN SERVICE DURING CONSTRUCTION OF NEW PRESSURE SYSTEM.
18. CONTRACTOR SHALL SEAL AND PAINT ALL WALLS, PIPING, DOORS, ETC. IN THE NEW WATER PRESSURE BUILDING. COLOR SHALL BE SELECTED BY OWNER.