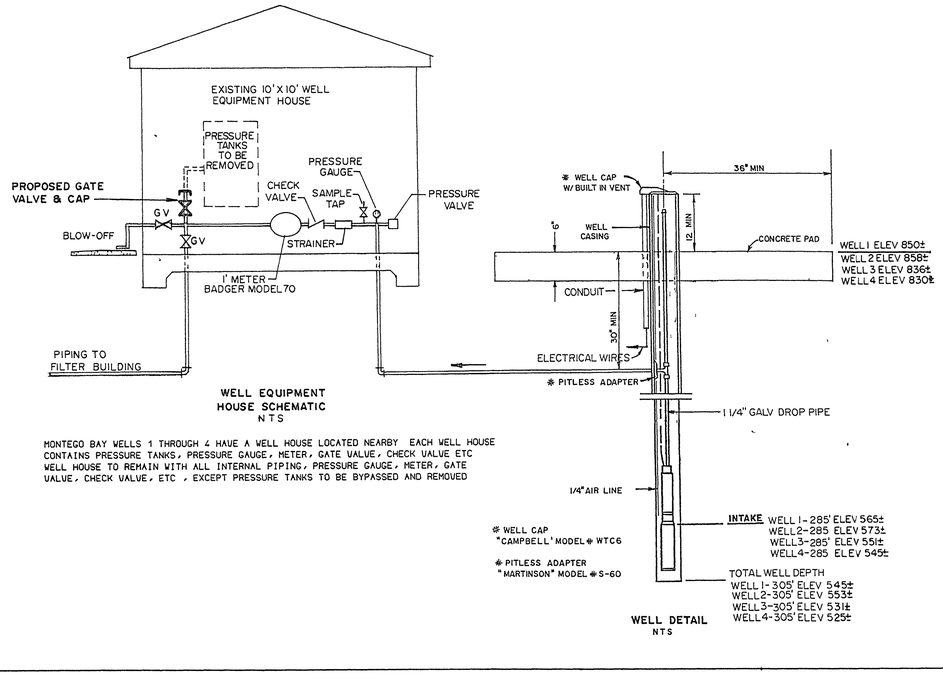
Well Head and Water Distribution Specifications

ITEM	DESCRIPTION
Well Pump	
Well #1	Goulds Model 10GS15, 1 5 hp, 1 ph, 230 V, Operating Design - 12 GPM @ 370' TDH
Well #2	Goulds Model 10GS15, 1 5 hp, 1 ph, 230 V, Operating Design - 13 GPM @ 345' TDH
Well #3	Goulds Model 10GS15, 1 5 hp, 1 ph, 230 V, Operating Design - 13 GPM @ 345' TDH
Well #4	Goulds Model 10GS15, 1 5 hp, 1 ph, 230 V, Operating Design - 11 5 GPM @ 400' TDH
Pump Motors Shall Be Equipped With an HOA Switch	
Watertight Well Cap	Campbell Model # WTC 6M Well Cap Shall be a unit certified for this use and approved by the Virginia Department of Health
Pitless Adapter	Campbell Model # B 20 Pitless Adapter shall be certified by PAS-1 and approved by the Virginia Department of Health
Check Valves	Mueller, Watts, or Equal
Gate Valves	Mueller, Watts or Equal
Air Release Valve	Hoffman Model 79 or Equal
Piping	See General Notes for Specifications



GENERAL NOTES.

1 CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION LIMITS OF THE PROJECT PRIOR TO COMMENCEMENT OF CONSTRUCTION

2 CONTRACTOR SHALL FIELD VERIFY EXISTING WATER LINES AND SANITARY SEWER LOCATION AND DEPTH PRIOR TO CONSTRUCTION AND MAKE ADJUSTMENTS AS NECESSARY FOR CONNECTION OF THE WATER LINES AND SANITARY SEWER LINES

3 SEPARATION OF WATER LINES AND SANITARY AND/OR COMBINED SEWERS OR SEWER FORCE MAINS AS USED BELOW THE WORK "SEWER" IS INTENDED TO ALSO INCLUDE SEWER FORCE MAINS

A FOLLOW STATE HEALTH DEPARTMENT STANDARDS FOR SEPARATION OF WATER MAINS AND SEWER LINES

B PARALLEL INSTALLATION
(1) NORMAL CONDITIONS WATER LINES SHALL BE CONSTRUCTED AT LEAST 10 FEET HORIZONTALLY FROM A SEWER OR SEWER MANHOLE WHENEVER POSSIBLE THE DISTANCE SHALL BE MEASURED EDGE TO-EDGE
(2) UNUSUAL CONDITIONS WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF AT LEAST 10 FEET THE WATER LINE MAY BE LAID CLOSER TO A SEWER OR SEWER MANHOLE PROVIDED THAT
A THE BOTTOM OF THE WATER LINE IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER,
B WHERE THIS VERTICAL SEPARATION CANNOT BE OBTAINED THE SEWER SHALL BE CONSTRUCTED OF AWWA APPROVED WATER PIPE PRESSURE TESTED IN PLACE TO 50 PSI WITHOUT LEAKAGE PRIOR TO BACKFILLING THE SEWER MANHOLE SHALL BE OF WATERTIGHT CONSTRUCTION AND TESTED IN PLACE

C CROSSING
(1) NORMAL CONDITIONS WATER LINES CROSSING OVER SEWERS SHALL BE LAID TO PROVIDE A SEPARATION OF AT LEAST 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE SEWER WHENEVER POSSIBLE
(2) UNUSUAL CONDITIONS WHEN LOCAL CONDITIONS PREVENT A VERTICAL SEPARATION DESCRIBED IN CROSSING NORMAL CONDITIONS PARAGRAPH ABOVE THE FOLLOWING CONSTRUCTION SHALL BE USED
A SEWERS PASSING OVER OR UNDER WATER LINES SHALL BE CONSTRUCTED OF THE MATERIALS DESCRIBED IN PARALLEL INSTALLATION UNUSUAL CONDITIONS - PARAGRAPH 2 ABOVE
B WATER LINES PASSING UNDER SEWERS SHALL IN ADDITION BE PROTECTED BY PROVIDING
1 VERTICAL SEPARATION OF AT LEAST 18 INCHES BETWEEN THE BOTTOM OF THE SEWER AND THE TOP OF THE WATER LINE
2 ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF THE JOINTS AND SETTLING ON AND BREAKING WATER LINE
3 THAT THE LENGTH OF THE WATER LINE BE CENTERED AT THE POINT OF THE CROSSING SO THAT JOINTS SHALL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER
C SANITARY AND/OR COMBINED SEWERS OR SEWER MANHOLES NO WATER PIPES SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SEWER OR SEWER MANHOLE

3 1 SEPARATION OF WATERLINES AND SEPTIC SYSTEMS
WATERLINES (RAW AND FINISHED) SHALL BE CONSTRUCTED A MINIMUM OF 30 FEET FROM SEPTIC TANKS AND DRAINFIELDS

4 CONTRACTOR SHALL INSTALL DETECTABLE TAPE ACCORDING TO MANUFACTURER'S RECOMMENDATION IN TRENCH ABOVE ALL NONMETALLIC PIPE THE TAPE SHALL HAVE A METALLIC CORE PROTECTED BY A PLASTIC JACKET AND SHALL BE CONTINUOUSLY MARKED INDICATING THAT A WATER MAIN IS BURIED BENEATH THE TAPE

5 CONCRETE FOR REACTION ANCHORS SHALL HAVE 3 500 PSI STRENGTH AT 28 DAYS AND SHALL MEET REQUIREMENTS OF ASTM C 94 CONCRETE REACTION ANCHORS SHALL BEAR AGAINST UNDISTURBED EARTH ANCHORS SHALL BE OF THE SIZE AND SHAPE INDICATED ON THE DRAWINGS CONTRACTOR SHALL PROVIDE REACTION ANCHORS AT ALL CHANGES IN DIRECTION AND AT ALL DEAD ENDS OF PRESSURE PIPELINES AND AS SHOWN ON THE DRAWINGS

6 PROVIDE A COMBINATION AIR RELEASE VALVE AT LOCATIONS SHOWN ON DRAWINGS AND AT ALL HIGH POINTS ON THE MAINS INSTALL GATE VALVE BETWEEN WATER MAIN AND RELIEF VALVE CONSTRUCT MANHOLES/VALVE BOXES FOR VALVES BELOW GRADE VALVES SHALL BE FOR WORKING PRESSURES INDICATED ON DRAWINGS MANUFACTURERS SHALL BE VALVE & PRIMER CORP AMERICAN DARLING VALVE AND MANUFACTURING VAL-MATIC VALVE & MANUFACTURING COMPANY, OR CLOW CORP

7 WATER LINE PIPE PVC PIPE 4-12 INCHES IN DIAMETER SHALL MEET REQUIREMENTS OF AWWA C900 PIPE CONNECTION SHALL BE PLAIN END PIPE WITH A RUBBER GASKETED COUPLING OR PLAIN END AND RUBBER GASKETED BELL END PIPE SHALL BE PRESSURE CLASS SHOWN ON THE DRAWINGS THE PIPE SHALL CONFORM TO THE OUTSIDE DIMENSION OF DUCTILE IRON PIPE PIPE FOR POTABLE WATER SHALL BE APPROVED BY NATIONAL SANITATION FOUNDATION USE AWWA C900-DR18 150 PSI PIPE

POLYVINYL CHLORIDE (PVC) PLASTIC PIPE LESS THAN 4 INCH DIAMETER PVC PIPE 4 AND SMALLER IN DIAMETER SHALL MEET THE REQUIREMENTS OF ASTM D1784 AND SHALL BE SUITABLE FOR USE AT THE MAXIMUM HYDROSTATIC WORKING PRESSURE OF 200 PSI AT 73 DEGREES F CLASS 200 PIPE SHALL CONFORM TO THE REQUIREMENTS OF SDR 21 WITH STANDARD LAYING LENGTHS OF 13 AND 18 FEET WITH A TOLERANCE NOT TO EXCEED 1 USE SDR 21 200 PSI PIPE

PROVISIONS FOR EXPANSION AND CONTRACTIONS AT EACH JOINT SHALL BE MADE WITH AN ELASTOMERIC RING THE BELL SHALL CONSIST OF AN INTEGRAL WALL SECTION WITH AN ELASTOMERIC RING MEETING THE REQUIREMENTS OF ASTMF-477 THE WALL THICKNESS OF THE BELL SECTION SHALL CONFORM TO ASTM D3139

ALL FITTINGS SHALL BE CLASS 250 GRAY CAST IRON CONFORMING TO ANSI A21 10-82 OR AWWA C110-82 OR CLASS 300 DUCTILE IRON DUCTILE IRON SHALL CONFORM TO ASTM A 536-72 MINIMUM GRADE NOMINAL THICKNESS OF ALL FITTINGS SHALL BE EQUAL TO OR EXCEED CLASS 53 DUCTILE IRON PIPE THICKNESSES RADII OF CURVATURES SHALL CONFORM TO ANSI A21 10-82 OR AWWA C110 82

CERTIFICATION OF THE PVC PIPE AND CAST IRON FITTING WILL BE REQUIRED AND THE CONTRACTOR SHALL INDICATE THIS REQUIREMENT ON HIS PURCHASE ORDER.

PIPE STIFFNESS USING F/Y FOR PVC MUNICIPAL WATER PIPE SHALL BE 375

MATERIALS USED IN THE MANUFACTURE OF PVC PIPE SHALL CONFORM TO ASTM SPECIFICATIONS D1784

EACH LENGTH OF PVC PIPE SHALL BE MARKED WITH THE MANUFACTURERS IDENTIFICATION SIZE MATERIAL TYPE AND GRADE OF COMPOUND PRESSURE RATING AND THE LETTERS NSF DENOTING NATIONAL SANITATION FOUNDATION APPROVAL FOR USE TO TRANSPORT POTABLE WATER

8 PIPE LAYING EXERCISE CARE TO KEEP FOREIGN MATERIAL AND DIRT FROM ENTERING PIPE DURING STORAGE HANDLING AND PLACING IN TRENCH CLOSE ENDS OF IN-PLACE PIPE AT THE END OF ANY WORK PERIOD TO PRECLUDE THE ENTRY OF ANIMALS AND FOREIGN MATERIAL DO NOT LAY PIPE WHEN TRENCH BOTTOM IS MUDDY OR FROZEN OR HAS STANDING WATER REFER TO WATERLINE TRENCH DETAIL.

8 1 PIPE CASING
WATERLINE AND INDIVIDUAL SERVICE LINES SHALL BE CASED BENEATH ROADWAY REFER TO DETAIL

9 ACCEPTANCE TESTS
A THE OWNER OR CONTRACTOR SHALL NOTIFY THE COUNTY AND ENGINEER AT LEAST TWENTY FOUR (24) HOURS PRIOR TO THE COMMENCEMENT OF TESTING TESTS SHALL BE MADE ON ALL SECTIONS OF PIPE THROUGHOUT THE ENTIRE PROJECT AND SHALL BE CONDUCTED ONLY IN THE PRESENCE OF THE COUNTY AND ENGINEER OR ITS AUTHORIZED AGENT TESTS SHALL BE MADE AFTER THE CORPORATION STOPS HAVE BEEN INSTALLED AND SHALL BE MADE BETWEEN SUCH INTERMEDIATE VALVES CARE SHALL BE TAKEN TO ENSURE THAT THE ENTIRE TEST RUN OF PIPE IS SECURELY BRACED AND BLOCKED AGAINST THRUST WHEN PRESSURE IS APPLIED ALL THRUST BLOCKS MUST BE COMPLETELY SET AND ALL PIPE MUST BE FIRMLY SUPPORTED AND WEIGHTED DOWN BY PARTIAL BACKFILL SOIL ON TOP

B ALL PIPE JOINTS VALVES AND FITTINGS IN THE TEST SECTION SHALL BE EXAMINED DEFECTIVE MATERIAL DISCLOSED AS A CONSEQUENCE OF THE TESTS SHALL BE REMOVED AND REPLACED BY SOUND MATERIAL AT THE OWNER/CONTRACTOR'S EXPENSE ANY JOINT SHOWING VISIBLE LEAKAGE SHALL BE MADE AIRTIGHT THE TEST AS SHOWN BELOW SHALL BE REPEATED UNTIL ITS RESULTS ARE SATISFACTORY TO THE COUNTY AND ENGINEER

C AFTER THE LINE HAS BEEN BACKFILLED AND AT LEAST 7 DAYS AFTER THE LAST CONCRETE REACTION ANCHOR HAS BEEN POURED SUBJECT THE LINE OR ANY VALVED SECTION OF THE LINE TO A HYDROSTATIC PRESSURE TEST FILL THE SYSTEM WITH WATER AT A VELOCITY OF APPROXIMATELY 1-FOOT PER SECOND WHILE NECESSARY MEASURES ARE TAKEN TO ELIMINATE ALL AIR AFTER THE SYSTEM HAS BEEN FILLED RAISE THE PRESSURE BY PUMP TO 1 5 TIMES THE WORKING PRESSURE MEASURE PRESSURE AT THE LOW POINT ON THE SYSTEM COMPENSATING FOR GAGE ELEVATION MAINTAIN THIS PRESSURE FOR 2 HOURS IF PRESSURE CANNOT BE MAINTAINED DETERMINE CAUSE REPAIR, AND REPEAT THE TEST UNTIL SUCCESSFUL

D A LEAKAGE TEST SHALL BE CONDUCTED CONCURRENTLY WITH THE PRESSURE TEST LEAKAGE SHALL BE DETERMINED WITH A CALIBRATED TEST METER FURNISHED BY THE CONTRACTOR LEAKAGE WILL BE DEFINED AS THE QUANTITY OF WATER REQUIRED TO MAINTAIN A PRESSURE WITHIN 5 PSI OF THE SPECIFIED TEST PRESSURE AFTER AIR HAS BEEN EXPELLED AND THE PIPE FILLED WITH WATER LEAKAGE IN GALLONS PER HOUR SHALL NOT EXCEED THAT QUANTITY DETERMINED BY L=SD × SQUARE ROOT OF P × 133200 (P=AVG TEST PRESSURE IN PSIG) IF LEAKAGE EXCEEDS THAT AMOUNT FIND AND REPAIR THE LEAKS AND REPEAT THE TEST UNTIL SUCCESSFUL ALL VISIBLE LEAKS SHALL BE REPAIRED REGARDLESS OF THE AMOUNT OF LEAKAGE

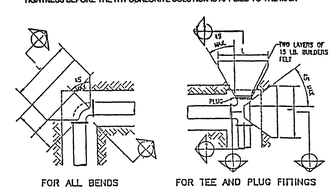
10 DISINFECT AND TEST WATER MAINS AND ACCESSORIES IN ACCORDANCE WITH THE PROCEDURES LISTED BELOW AND MEET REQUIREMENTS OF VDH AND IN ACCORDANCE WITH AWWA C651

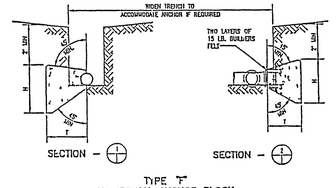
A PRELIMINARY FLUSHING THE MAIN SHALL BE FLUSHED PRIOR TO DISINFECTION EXCEPT WHEN THE TABLET METHOD IS USED FLUSHING SHALL BE AT A VELOCITY OF NOT LESS THAN 2.5 FEET PER SECOND ADEQUATE PROVISIONS SHALL BE MADE FOR DRAINAGE OF FLUSHING WATER.

B FORM OF CHLORINE FOR DISINFECTION
(1) CALCIUM HYPOCHLORITE CONTAINS 70 PERCENT AVAILABLE CHLORINE BY WEIGHT IT SHALL BE EITHER GRANULAR OR TABULAR IN FORM THE TABLETS SIX TO EIGHT TO THE OUNCE ARE DESIGNED TO DISSOLVE SLOWLY IN WATER A CHLORINE WATER SOLUTION SHALL BE PREPARED BY DISSOLVING THE GRANULES OR TABLETS IN WATER IN THE PROPORTION REQUISITE FOR THE DESIRED CONCENTRATION

(2) SODIUM HYPOCHLORITE IS SUPPLIED IN STRENGTHS FROM 5 25 TO 16 PERCENT AVAILABLE CHLORINE THE CHLORINE WATER SOLUTION SHALL BE PREPARED BY ADDING HYPOCHLORITE TO WATER PRODUCT DETERIORATION SHALL BE RECKONED WITH IN COMPUTING THE QUANTITY OF SODIUM HYPOCHLORITE REQUIRED FOR THE DESIRED CONCENTRATION

(3) APPLICATION THE HYPOCHLORITE SOLUTIONS SHALL BE APPLIED TO THE WATER MAIN WITH A GASOLINE OR ELECTRICALLY-POWERED CHEMICAL FEED PUMP DESIGNED FOR FEEDING CHLORINE SOLUTIONS FOR SMALL APPLICATIONS THE SOLUTIONS MAY BE FED WITH A HAND PUMP FOR EXAMPLE A HYDRAULIC TEST PUMP FEED LINES SHALL BE OF SUCH MATERIAL AND STRENGTH AS TO WITHSTAND SAFELY THE MAXIMUM PRESSURES THAT MAY BE CREATED BY THE PUMPS ALL CONNECTIONS SHALL BE CHECKED FOR TIGHTNESS BEFORE THE HYPOCHLORITE SOLUTION IS APPLIED TO THE MAIN





C METHODS OF CHLORINE APPLICATION
(1) CONTINUOUS FEED METHOD WATER FROM THE EXISTING DISTRIBUTION SYSTEM OR OTHER APPROVED SOURCES OF SUPPLY SHALL BE MADE TO FLOW AT A CONSTANT MEASURED RATE INTO THE NEWLY-LAID PIPELINE THE WATER SHALL RECEIVE A DOSE OF CHLORINE ALSO FED AT A CONSTANT MEASURED RATE THE TWO RATES SHALL BE PROPORTIONED SO THAT THE CHLORINE CONCENTRATION IN THE WATER IN THE PIPE IS MAINTAINED AT A MINIMUM OF 50 MG/L AVAILABLE CHLORINE TO ASSURE THAT THIS CONCENTRATION IS MAINTAINED THE CHLORINE SHALL BE MEASURED AT INTERVALS NOT EXCEEDING 2 000 FEET IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN THE CURRENT EDITION OF "STANDARD METHODS" AND AWWA M12 "SIMPLIFIED PROCEDURES FOR WATER EXAMINATION IN THE ABSENCE OF A METER, THE RATE MAY BE DETERMINED EITHER BY PLACING A PITOT GAGE AT THE DISCHARGE OR BY MEASURING THE TIME TO FILL A CONTAINER OF KNOWN VOLUME TABLE 1 GIVES THE AMOUNT OF CHLORINE REQUIRED FOR EACH 100 FEET OF PIPE OF VARIOUS DIAMETERS SOLUTIONS OF 1 PERCENT CHLORINE MAY BE PREPARED WITH SODIUM HYPOCHLORITE OR CALCIUM HYPOCHLORITE THE LATTER SOLUTION REQUIRES APPROXIMATELY 1 POUND OF CALCIUM HYPOCHLORITE IN 8 5 GALLONS OF WATER.

TABLE 1
CHLORINE REQ D TO PRODUCE 50 MG/L CONC IN 100 FT OF PIPE BY DIAMETER

PIPE SIZE INCHES	100% CHLORINE POUNDS	1% CHLORINE SOL NS GALLONS
4 AND SMALLER	0 027	0 33
6	0 061	0 73
8	0 108	1 30

DURING THE APPLICATION OF THE CHLORINE VALVES SHALL BE MANIPULATED TO PREVENT THE TREATMENT DOSAGE FROM FLOWING BACK INTO THE LINE SUPPLYING THE WATER. CHLORINE APPLICATION SHALL NOT CEASE UNTIL THE ENTIRE MAIN IS FILLED WITH THE CHLORINE SOLUTION THE CHLORINATED WATER SHALL BE RETAINED IN THE MAIN FOR AT LEAST 24 HOURS DURING WHICH TIME ALL VALVES IN THE SECTION TREATED SHALL BE OPERATED IN ORDER TO DISINFECT THE APPURTENANCES AT THE END OF THIS 24-HOUR PERIOD THE TREATED WATER SHALL CONTAIN NO LESS THAN 25 MG/L CHLORINE THROUGHOUT THE LENGTH OF THE MAIN

(2) TABLET METHOD USE ONLY WHEN SCRUPULOUS CLEANLINESS HAS BEEN EXERCISED BECAUSE PRELIMINARY FLUSHING CANNOT BE USED DO NOT USE THIS METHOD IF TRENCH WATER OR FOREIGN MATERIAL HAS ENTERED THE MAIN OR IF THE WATER IS BELOW 41 DEGREES F (5 DEGREES C) THIS METHOD MAY BE USED FOR MAINS UP TO 12 INCHES IN DIAMETER AND WHERE THE TOTAL LENGTH OF THE MAIN IS LESS THAN 2 500 FEET

PLACE TABLETS IN EACH SECTION OF PIPE AND OTHER APPURTENANCES ENOUGH TABLETS SHALL BE USED TO ENSURE THAT A CHLORINE CONCENTRATION OF 25 MG/L IS PROVIDED IN THE WATER ATTACH TABLETS USING PERMATEX NO 1 ADHESIVE OR APPROVED EQUAL EXCEPT FOR THE TABLETS PLACED IN HYDRANTS AND IN THE JOINTS BETWEEN THE PIPE SECTIONS TABLETS SHALL BE FREE OF ADHESIVE EXCEPT ON THE ONE BROAD SIDE TO BE ATTACHED PLACE ALL TABLETS AT THE TOP OF THE MAIN IF THE TABLETS ARE ATTACHED BEFORE THE PIPE SECTION IS PLACED IN THE TRENCH MARK THE POSITION OF THE TABLET IN THE PIPE AND ASSURE THAT THE PIPE IS PLACED WITH THE TABLET AT THE TOP THE FOLLOWING TABLE SHOWS THE NUMBER OF 5-GRAIN WITH TABLETS NECESSARY PER JOINT OF PIPE TO OBTAIN 50 PPM CHLORINE

PIPE SIZE	TABLETS PER JOINT
3-INCH AND SMALLER	1
4-INCH	1
6-INCH	2
8-INCH	3

WHEN INSTALLATION IS COMPLETED FILL THE MAIN WITH WATER AT A VELOCITY OF LESS THAN 1-FOOT PER SECOND THE WATER SHALL REMAIN IN THE PIPE FOR AT LEAST 24 HOURS OPERATE VALVES SO THAT THE STRONG CHLORINE SOLUTION WILL NOT FLOW BACK INTO THE LINE SUPPLYING THE WATER.

D FINAL FLUSHING AFTER THE APPLICABLE RETENTION PERIOD THE HEAVILY CHLORINATED WATER SHALL BE FLUSHED FROM THE MAIN UNTIL THE CHLORINE CONCENTRATION IN THE WATER LEAVING THE MAIN IS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM OR LESS THAN 1 MG/L CHLORINE RESIDUAL DETERMINATION SHALL BE MADE TO ASCERTAIN THAT THE HEAVILY CHLORINATED WATER HAS BEEN REMOVED FROM THE PIPELINE

E BACTERIOLOGIC TESTS
(1) AFTER FINAL FLUSHING AND BEFORE THE WATER MAIN IS PLACED IN SERVICE SAMPLES SHALL BE COLLECTED AND TESTED FOR BACTERIOLOGIC QUALITY AND SHALL SHOW THE ABSENCE OF COLIFORM ORGANISMS AT LEAST TWO SAMPLES SHALL BE COLLECTED AT LEAST 24 HOURS APART AT INTERVALS NOT EXCEEDING 2 000 FEET AND TESTED BY A STATE HEALTH DEPARTMENT APPROVED LABORATORY AND RESULTS SUBMITTED TO BERKLEY-HOWELL

(2) SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED IN STERILE BOTTLES TREATED WITH SODIUM THIOSULFATE IF LABORATORY RESULTS INDICATE THE PRESENCE OF COLIFORM BACTERIA, THE SAMPLES ARE UNSATISFACTORY AND DISINFECTION SHALL BE REPEATED UNTIL THE SAMPLES ARE SATISFACTORY

(3) A SAMPLING TAP CONSISTING OF A CORPORATION COCK WITH METAL PIPE SHALL BE INSTALLED WITHIN 2 FEET OF VALVES THE CORPORATION STOP INLET SHALL BE MALE 1 INCH IN SIZE, AND THE OUTLET SHALL HAVE 1 INCH IP THREADS AND A CAP

F CLEANING DISINFECTION AND TESTING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. WATER FOR THESE OPERATIONS WILL BE FURNISHED BY THE OWNER BUT THE CONTRACTOR SHALL INCLUDE IN HIS BID THE COST OF LOADING HAULING AND DISCHARGING THE WATER.

G TESTING AND DISINFECTION OF THE COMPLETED SECTIONS SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO REPAIR OR REPLACE ANY CRACKED OR DEFECTIVE PIPE ALL WORK NECESSARY TO SECURE A TIGHT LINE SHALL BE DONE AT THE CONTRACTOR'S EXPENSE

H DISINFECTION PIPING TREATMENT UNITS AND ACCESSORIES WITHIN TREATMENT BUILDING PIPING TREATMENT UNITS AND ACCESSORIES WITHIN THE TREATMENT BUILDING SHALL BE DISINFECTED SIMILARLY IN ACCORDANCE WITH SECTION 11 ABOVE BACTERIOLOGICAL SAMPLE TESTS SHALL BE COLLECTED AND TESTED AT EACH RAW WATER TAP AND FILTER TAP SIMILARLY IN ACCORDANCE WITH SECTION E ABOVE

TYPE "F" HORIZONTAL ANCHOR BLOCK DATUM

TYPE FITTING	PIPE SIZE, INCH	DIMENSIONS (FT)			VOL CONC CU YARDS
				T	
TEST PRESSURE = 150 PSI					
11 1/4	4" SCH 80 PVC PLUG	1 50	1 00	1 50	0 10
22 1/2		1 50	1 00	1 50	0 10
45		2 00	2 00	3 00	0 19
90		3 00	2 00	3 00	0 28
TEE		3 00	4 00	3 00	0 56
PLUG		3 00	3 25	3 00	0 19
11 1/4	6	1 66	1 16	2 49	0 13
22 1/2	6	1 66	1 16	2 49	0 13
45	6	3 66	2 16	3 27	0 25
90	6	3 66	2 16	3 27	0 25
TEE	6	3 66	2 16	3 27	0 50
PLUG	6	3 16	1 91	2 66	0 21
11 1/4	12	2 00	1 50	3 00	0 22
22 1/2	12	2 00	1 33	3 00	0 22
45	12	4 00	2 50	3 00	0 5
90	12	4 00	2 50	3 00	0 5
TEE	12	4 00	2 33	3 00	0 97
PLUG	12	4 00	2 75	3 00	0 37
TEST PRESSURE = 200 PSI					
11 1/4	4" SCH 80 PVC PLUG	1 50	1 00	2 00	0 10
22 1/2		1 50	1 00	2 00	0 10
45		3 00	2 00	3 00	0 19
90		3 00	2 29	3 00	0 22
TEE		3 00	4 00	3 00	0 72
PLUG		3 00	3 25	3 00	0 19
11 1/4	6	1 66	1 16	2 49	0 13
22 1/2	6	1 66	1 16	2 49	0 13
45	6	3 66	2 16	3 27	0 25
90	6	3 66	2 16	3 27	0 25
TEE	6	3 66	2 16	3 27	0 50
PLUG	6	3 16	1 91	2 66	0 21
11 1/4	12	3 00	2 00	3 00	0 29
22 1/2	12	3 00	2 00	3 00	0 29
45	12	5 00	3 33	3 00	0 64
90	12	5 00	4 33	3 00	0 84
TEE	12	5 00	4 33	3 00	1 29
PLUG	12	4 00	2 75	3 00	0 37
TEST PRESSURE = 250 PSI					
11 1/4	4" SCH 80 PVC PLUG	1 50	1 00	2 00	0 10
22 1/2		1 50	1 00	2 00	0 10
45		3 00	2 00	3 00	0 19
90		3 00	2 29	3 00	0 22
TEE		3 00	4 00	3 00	0 72
PLUG		3 00	3 25	3 00	0 19
11 1/4	6	1 66	1 16	2 49	0 13
22 1/2	6	1 66	1 16	2 49	0 13
45	6	3 66	2 16	3 27	0 25
90	6	3 66	2 16	3 27	0 25
TEE	6	4 16	2 41	3 66	0 49
PLUG	6	4 16	2 41	3 66	0 49
11 1/4	12	3 00	2 25	3 00	0 29
22 1/2	12	3 00	2 00	3 00	0 29
45	12	5 00	3 33	3 00	0 64
90	12	5 00	4 33	3 00	0 84
TEE	12	6 00	5 33	3 00	1 03
PLUG	12	5 00	4 33	3 00	0 64

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COMMONWEALTH OF VIRGINIA — WILLIAM C. BERKLEY, JR. — No. 10759 — 3-7-04 — PROFESSIONAL ENGINEER

PARK PLACE WATER SYSTEM
IMPROVEMENTS FOR
ADDITION OF MONTEGO BAY
GILLS CREEK DISTRICT FRANKLIN CO , VA

MISC. DETAILS

DATE: 3-9-04
TECHNICIAN:
CHECKED BY:

REVISIONS

NO.	DATE

SCALES AS SHOWN

PROJ NO | DIV

SHEET NO. 9 OF 10

DRAWING NO.

MANUSCRIPT DRAWING NUMBER — VIEWS TO CREATE THIS DRAWING: — FIELDBOOK IDENTIFICATION: — SURVEY DATUM USED: