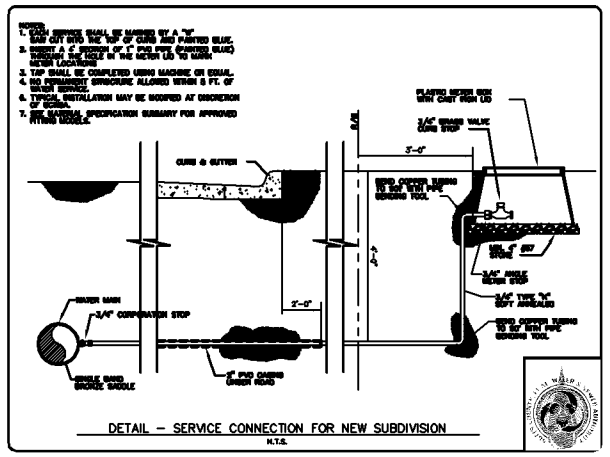
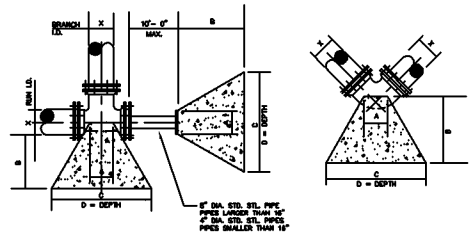
BUTTS COUNTY, ET AL. WATER AND SEWER AUTHORITY
MATERIAL SPECIFICATION SUMMARY
All products must meet ANSI/NSF Standard 61 for Drinking Water System Components

ITEM	SPECIFICATION
Water Pipe, 6" and larger	C909 PVCO (MO), Push-on joint, CI OD, 150 psi (Ultra Blue) preferred OR C900 PVC, Push-on joint, DR 18, CI 150, no.IM or NAP brand OR Ductile Iron, ANSI/AWWA C151/A21.51, Pressure Class 350 min , exterior coat of bituminous and interior cement mortar lining
Fire Hydrants	4 1/2" valve opening, 3-way, American Darling MK-73-1, Mueller Super-Centurion, M&H Model 129 or AVK brands ONLY, must be factory painted silver directly over primer (NO RE-PAINTS!) Hydrants are to be installed with hydrant tees, anchor couplings, and 6" gate valves Max separation of 750' on existing county roads, 500' in subdivisions & commercial developments
Gate Valves, 6" and larger	Mechanical joint, resilient seat conforming to AWWA 500, 2" square operating nut. Must have epoxy coat inside and outside. American, Clow,M&H, or Mueller brands only
Fittings	Short body ductile iron fittings for 350 psi water pressure conforming to ANSI/AWWA C110/A21.0 or ANSI/AWWA C153/A21.53, Cement linedwith bituminous outside coating. No imports
Tapping Sleeves and Valves	Tapping sleeves shall be fabricated stainless steel. JCM Model: 432, 462 or equal. Tapping valves shall be gate valves furnished in accordance with sp ecifications shown ab ove with flanged connection to the tapping sleeve and mj connection to the branch pipe.
Valve Boxes	Heavy roadway type cast iron, two piece slip or crew type with drop covers. Imports are acceptable
Valve Collars	24"x24"x4" concrete pads with 9" opening
Locate Wire	14 gauge coated copper
Service Tapping Saddles, 3/4" & 1"	less than 10" Bronze single band, (Ford model S90, Mueller model H-15000, McDonald model 3801 only) 10" & up: Stainless steel single band (Smith-Blair 315, 325,or equal)
Meter Boxes	DFW Alliance 1200, or exact equal, plastic box Vestal 1419, or exact equal, cast iron lid
Corporation Stops, 3/4" & 1"	Mueller H-15008, Ford F1000 or A.Y.McDonald 4701T ONLY
Curb Stops, 3/4" & 1"	Main Pressure Less than 90 psi: Ford B43-232WO, B43-444WO or Mueller, A.Y McDonald equal, Main Pressure Greater than 90 psi: Ford B41-233WO, B41-444WO or Mueller, A.Y McDonald equal,
Service Line	Type K soft copper tubing,
Valve Markers	To be provided by Water Authority
ALL OTHER MATERIALS	Ask for information

Updated July 31, 2006





BLOCKING DIMENSIONS

BENDS

		A	B	C	D
90° BEND	4"	1'-0"	1'-0"	1'-0"	1'-0"
	6"	1'-0"	1'-0"	1'-0"	1'-0"
	8"	1'-0"	1'-0"	1'-0"	1'-0"
	10"	1'-0"	1'-0"	1'-0"	1'-0"
	12"	1'-0"	1'-0"	1'-0"	1'-0"
	16"	1'-0"	1'-0"	1'-0"	1'-0"
	20"	1'-0"	1'-0"	1'-0"	1'-0"
	24"	1'-0"	1'-0"	1'-0"	1'-0"
45° BEND	4"	1'-0"	1'-0"	1'-0"	1'-0"
	6"	1'-0"	1'-0"	1'-0"	1'-0"
	8"	1'-0"	1'-0"	1'-0"	1'-0"
	10"	1'-0"	1'-0"	1'-0"	1'-0"
	12"	1'-0"	1'-0"	1'-0"	1'-0"
	16"	1'-0"	1'-0"	1'-0"	1'-0"
	20"	1'-0"	1'-0"	1'-0"	1'-0"
	24"	1'-0"	1'-0"	1'-0"	1'-0"
22 1/2° BEND	4"	1'-0"	1'-0"	1'-0"	1'-0"
	6"	1'-0"	1'-0"	1'-0"	1'-0"
	8"	1'-0"	1'-0"	1'-0"	1'-0"
	10"	1'-0"	1'-0"	1'-0"	1'-0"
	12"	1'-0"	1'-0"	1'-0"	1'-0"
	16"	1'-0"	1'-0"	1'-0"	1'-0"
	20"	1'-0"	1'-0"	1'-0"	1'-0"
	24"	1'-0"	1'-0"	1'-0"	1'-0"
11 1/4° BEND	4"	1'-0"	1'-0"	1'-0"	1'-0"
	6"	1'-0"	1'-0"	1'-0"	1'-0"
	8"	1'-0"	1'-0"	1'-0"	1'-0"
	10"	1'-0"	1'-0"	1'-0"	1'-0"
	12"	1'-0"	1'-0"	1'-0"	1'-0"
	16"	1'-0"	1'-0"	1'-0"	1'-0"
	20"	1'-0"	1'-0"	1'-0"	1'-0"
	24"	1'-0"	1'-0"	1'-0"	1'-0"

BENDS

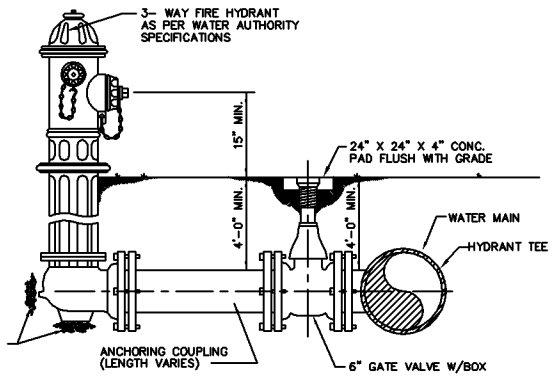
		A	B	C	D
1/32 BEND	4"	1'-0"	1'-0"	1'-0"	1'-0"
	6"	1'-0"	1'-0"	1'-0"	1'-0"
	8"	1'-0"	1'-0"	1'-0"	1'-0"
	10"	1'-0"	1'-0"	1'-0"	1'-0"
	12"	1'-0"	1'-0"	1'-0"	1'-0"
	16"	1'-0"	1'-0"	1'-0"	1'-0"
	20"	1'-0"	1'-0"	1'-0"	1'-0"
	24"	1'-0"	1'-0"	1'-0"	1'-0"

TEES & DEAD ENDS

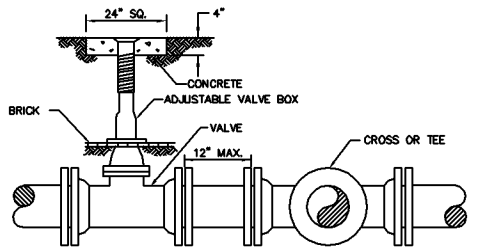
	A	B	C	D
4"	1'-0"	1'-0"	1'-0"	1'-0"
6"	1'-0"	1'-0"	1'-0"	1'-0"
8"	1'-0"	1'-0"	1'-0"	1'-0"
10"	1'-0"	1'-0"	1'-0"	1'-0"
12"	1'-0"	1'-0"	1'-0"	1'-0"
16"	1'-0"	1'-0"	1'-0"	1'-0"
20"	1'-0"	1'-0"	1'-0"	1'-0"
24"	1'-0"	1'-0"	1'-0"	1'-0"

NOTE: 200 P.S.I. TEST PRESSURE.
SOIL BEARING OF 2500 P.S.F.
3000 P.S.I. CONCRETE.
PIPE LESS THAN 4" IN DIAMETER SHALL HAVE THE SAME REQUIREMENTS AS 4" DIAMETER PIPE

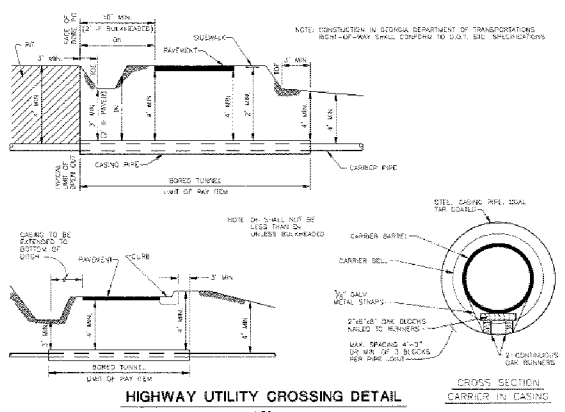
DETAIL – THRUST BLOCK
N.T.S.



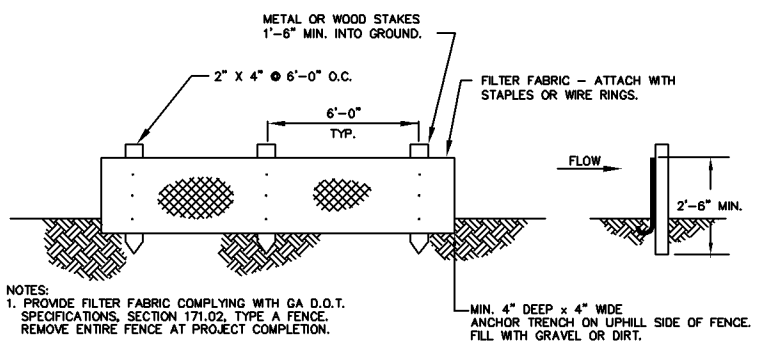
DETAIL – TYPICAL FIRE HYDRANT SETTING
N.T.S.



DETAIL – VALVE SETTING AND BOX
N.T.S.



HIGHWAY UTILITY CROSSING DETAIL
N.T.S.



DETAIL – SILT FENCE
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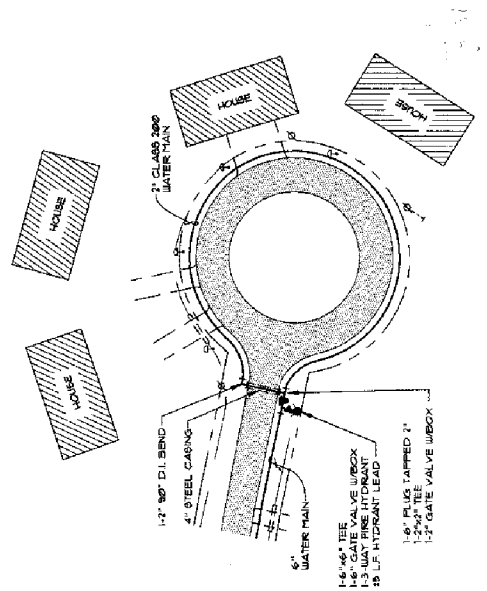

WATER DISTRIBUTION SYSTEM NOTES:

1. ALL WATER MAINS INSTALLED WITHIN THE BUTTS COUNTY WATER AND SEWER AUTHORITY JURISDICTION MUST MEET THE AUTHORITY'S SPECIFICATIONS.

2. ALL ENGINEERING PLANS FOR EXTENSIONS MUST BE SEPARATELY REVIEWED AND APPROVED BY THE BUTTS COUNTY, ET AL. WATER & SEWER AUTHORITY. AND A PRECONSTRUCTION CONFERENCE WITH CONTRACTOR IS REQUIRED PRIOR TO THE BEGINNING OF ANY INSTALLATION.

3. WATER LINES TO BE CONSTRUCTED PER BUTTS COUNTY'S UTILITY PLACEMENT STANDARDS AND AT A TYPICAL AND MINIMUM DEPTH OF 48".

4. ALL SERVICE TUBING SHALL BE TYPE "K" SOFT COPPER TUBING, 3/4" FOR SINGLE SERVICE.

5. REFER TO WATER DETAIL SHEET & BUTTS CO. WATER & SEWER AUTHORITY SPECIFICATIONS FOR ADDITIONAL MATERIAL SPECS.

6. THE BUTTS W & S AUTHORITY WILL SET WATER METERS IN METER BOXES INSTALLED BY THE CONTRACTOR.

7. ALL GATE VALVES ARE TO BE INSTALLED OUTSIDE OF PAVEMENT AND CURB.

8. THE SPACING BETWEEN FIRE HYDRANTS WILL BE NOT MORE THAN THE DISTANCE SHOWN FOR DEVELOPMENT TYPES AS FOLLOWS: 500' APART FOR SINGLE FAMILY RESIDENTIAL DEVELOPMENTS, MULTI FAMILY RESIDENTIAL DEVELOPMENTS, AND MOBILE HOME PARKS; 400' APART FOR INDUSTRIAL/COMMERCIAL DEVELOPMENTS, AND 750' APART FOR EXISTING COUNTY ROADS.

9. TEMPORARY WATER MAIN ENDS SHALL BE EQUIPPED WITH RESTRAINED JOINT PLUGS OR CAPS. IF CONCRETE THRUST BLOCKS ARE USED, THEY SHALL BE INSTALLED SUCH THAT THEY DO NOT COVER OR INTERFERE WITH ACCESS TO THE TEMPORARY MAIN END FOR FUTURE EXPANSION.

10. VALVES NEAR TEES AND/OR CROSSES SHALL BE RESTRAINED TO TEE OR CROSS BY THREADED RODS OR ANCHORING PIPE/FITTINGS.

11. WATER SERVICE TAPS SHALL BE MADE SUCH THAT THEY CENTER ON THE LOT WHENEVER POSSIBLE. WHEN TAPS MUST BE PLACED AT LOT CORNERS, THEY SHOULD BE PLACED AT LEAST 5' FROM PROPERTY PINS SO AS TO NOT INTERFERE WITH OTHER UTILITY SERVICE CONNECTIONS.

12. VALVE MARKERS MUST BE OBTAINED DIRECTLY FROM THE BUTTS COUNTY WATER AUTHORITY.

13. MARK EACH METER BOX WITH A "W" CUT INTO TOP OF CURB.

14. MARK EACH VALVE BOX WITH A "V" CUT INTO TOP OF CURB.

15. COATED 14 GAUGE LOCATE WIRE IS REQUIRED.

15. THE CONTRACTOR MUST ATTEND A PRECONSTRUCTION CONFERENCE WITH AUTHORITY STAFF PRIOR TO BEGINNING ANY WORK.

16. ALL WET TAPS MUST BE PREFORMED WITH AUTHORITY STAFF PRESENT.

17. PRIOR TO INITIATION OF SERVICE, PROJECT MUST PASS INSPECTION INCLUDING A PRESSURE TEST AND BACTERIA TEST.

18. THE INSTALLER WILL MAINTAIN FIELD "AS-BUILT" DRAWINGS AND WILL MEASURE AND SHOW INSTALLED LOCATIONS OF ALL MAINS, VALVES, HYDRANTS, AND SERVICES.

BUTTS COUNTY, ET AL. WATER & SEWER AUTHORITY
STANDARD WATER DETAILS

BUTTS COUNTY, ET AL.
WATER & SEWER AUTHORITY
100 W. SECOND STREET
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