

CITY OF ANN ARBOR UTILITY MATERIAL REQUIREMENTS		CONTRACTOR TO PROVIDE
WATER		
Ductile Iron Pipe	Pressure Class 350 or Greater; Thickness Class 50 or Greater (w/ polywrap)	
HDPE Water Main Pipe	HDPE SDR 7.0; AWWA C906 and approved for use with potable water under ANSI/NSF Standard 14. AWWA C906 and NSF 14 identifications must appear on exterior wall print line.	
HDPE Pipe & Fittings	HDPE pipe, restraining collar, reducer and ductile iron to HDPE transition adaptor shall be industrial polyethylene pipe size (IPS) and meet AWWA C906 and ANSI/NSF Standard 14.	
Push-On Restrained Joint Gaskets	American Pipe "Fast Grip" Gasket System Griffin Pipe "Field Lok 350" Gasket System U.S. Pipe "Field Lok 350" Gasket System	
Fire Hydrants	EJIW5-BR/ WaterMaster Br 250 w/ the 4" Stortz Connection Waterous Model TVC-5 with Traffic Flanges American Flow Control 5-1/4" Pacer, WB 67-250 (Non-High Density)	
Fire Hydrant Extensions	East Jordan Iron Works Hydrant Model 5-BR Extension Kit Waterous Part #F1-K562-6	
Tapping Sleeves	Clow No. F-5205 Ford Meter Box Co. Style FTSS Mueller Co. No. H-615 Power Seal Model No. 3490 AS Smith Blair Model No. 622 (if existing main is not pitted) Waterous Series 800 JCM 432 All Stainless Steel Tapping Sleeve Price Brothers Company Tapping Sleeve for Prestressed Concrete Steel Cylinder Pipe (concrete mains) EJIW MJ Tapping Sleeve & EJIW FlowMaster RW Valve Tyler/Union D.I. MJ Tapping Sleeve Ford Meter Box Co. Style FAST (only allowed if proven nothing else is available; not a preferred product)	
Gate Valves <i>(open to the right, push-on only)</i>	American Flow Control Double Disc American Flow Control Series 2500 Single Resilient Wedge Clow Model 2639/2640 (2" through 12"), F-6112 EJIW FlowMaster Resilient Wedge Valve (pg. 279) Kennedy AWWA 571X Double Disc Mueller Series 4"-12" A-2360-38 Resilient Wedge - SL. x SL. Tyler Series DRS 250-22 Double Resilient Wedge U.S. Pipe Metroseal Series 250-5460 Single Resilient Wedge (w/out Lock Nuts on Bonnet Bolts) U.S. Pipe & Foundry Tyton Joint, Resilient Wedge Seated Gate Valve, Meeting AWWA C509, AWWA C550 & ASTM D2794 Waterous Series 300 and T300 NRS Double Disc Gate Valve	
Butterfly Valves	Henry Pratt "Groundhog" Mueller "Linesal III" DeZURIK AWWA 16" Butterfly Valve (MJ)	
Solid Sleeves	Shall be long sleeves	

Fittings	ANSI/AWWA C110/A21.10 w/ Cement Mortar Lining & Asphaltic Seal Coat per ANSI/AWWA C104/A21.4 & Asphaltic Coating on Outside per ANSI/AWWA C110/A21.10	
Mechanical Joints for Hydrants & Solid Sleeves	EBA Mega Lug Series 1100 Joint Restraint System; Bolts to be High Strength, Low Alloy Steel	
	Ford Meter Box Company, Uni-Flange Retainer (UFR1400-D-x style)	
Valve Boxes	Tyler 6860 Buffalo type, size D, screw type 3-piece, 5 1/4 inch shaft and a #6 base for a valve 8 inched or less and #8 base for 10 and 12 inch valves	
Curb Boxes	Tyler 6500 Bibby Ste. Croix B-2000	
Sampling Station	Elipse No. 88 Sampling Station	
SEWER/DRAINAGE		
Concrete Pipe	Reinforced ASTM Designation C-76 Class IV Reinforced Elliptical - ASTM Designation C-507 Non-Reinforced ASTM Designation C-14	
Concrete Pipe Joints	ASTM C-443	
HDPE Pipe	ADS N-12 Hancor Titeline Meeting AASHTO M-294 or ASTM F-892	
Steel Casing Pipe	Diameter of Pipe --> Wall thickness (minimum) Under 14" --> 0.250" 14", 16", 18" --> 0.312" 18" --> 0.375" 20", 22" --> 0.375" 24", 26", 28", 30" --> 0.500" 32", 34" --> 0.563" 36", 38", 40", 42" 48" --> 0.625" non-spiral, minimum yeild strength 35,000psi, leakproof joints, continuous welds; ASTMA53; Type E or S; Grade B Midway Structural Pipe and Supply ASTM A-139, Grade B, 35,000 PSI Minimum Yelid Strength	
HDPE Sewer Pipe Joints	ASTM D-3212	
Vitrified Clay Pipe	ASTM C700, Extra Strength	
Vitrified Clay Pipe Joints	ASTM C-425	
Ductile Iron Sewer Pipe	Griffin H2Sewer Safe American Pipe with Protecto 401 Lining	
PVC Pipe	ASTM D3034-83 Mininum SDR-35	
PVC Pipe Joints	ASTM D 3212-81	
Edgedrain/Underdrain	except PVC plastic, shall conform with ASTM D3033; Geotextile wrapping	
Precast Manholes	ASTM C-478	
Concrete Masonry Units	ASTM C139 (only for use on storm sewer manholes)	
Concrete Brick	ASTM C-55, Grade N-1	

Frames and Covers	Cast Iron ASTM A 48, Class No. 30 per Casting Schedule (SD-GU-5 in PSSS); Note: 2 Pick holes allowed, not 3	
AGGREGATES/BACKFILL MATERIAL		
City of Ann Arbor Class II Sand	Conforms to MDOT Class II with exceptions: 100% Passes 2" Sieve, Uniformity Coefficient = 6.0 or Greater	
21AA	Conforms to MDOT Sec. 8.02, Except Max. Loss by Wash is 8%	
6A Crushed Limestone	Required Bedding & Initial Backfill for PVC Sewer Pipe	
2NS	Required Bedding & Backfill for Road Underdrain/Edgedrain	
Additional Items:		
Concrete	Mix design and sieve analysis on aggregates	
Bituminous Paving Materials	Mix design and sieve analysis on aggregates	
Concrete Pipe	Pipe certification letter	
Concrete Manhole	Component part cut sheet for precast structures	
Water Pipe	Pipe certification letter	
Silt Fence	Catalogue cut sheet	
Inlet Filters	Catalogue cut sheet	
Aggregates	Each gradation for drainage system (3 different material certifications)	
Porous Paver Blocks	Catalogue cut sheet and sample	
Perforated Pipe	Catalogue cut sheet	
Underdrain	Catalogue cut sheet	
Plant materials	Seed source certification	
LAST UPDATED: 07/16/2008 AL		