

**CITY OF WILSON, NC**  
**PRE-APPROVED MATERIAL/PRODUCT LIST**

Revision: **R7**

Last Revision: **October 29, 2019**

Effective Date: **September 1, 2019**

Contract Number: \_\_\_\_\_

**LINKS TO SPECIFIC SEWER PRODUCTS**

<a href="#"><u>Aluminum Hatches</u></a>	<a href="#"><u>Manhole Boots</u></a>	<a href="#"><u>PVC Pipe Force Mains – Mat'l</u></a>
<a href="#"><u>Ductile Iron Pipe (Gravity of FM's)</u></a>	<a href="#"><u>Manholes - Butyl Sealant</u></a>	<a href="#"><u>PVC Gravity Pipe &amp; Fittings</u></a>
<a href="#"><u>Cleanout Boxes</u></a>	<a href="#"><u>Manhole Iron Castings</u></a>	<a href="#"><u>Saddle</u></a>
<a href="#"><u>Coupling – Sewer Lines</u></a>	<a href="#"><u>Manholes, Precast</u></a>	<a href="#"><u>Small Gate Valves (SS)</u></a>
<a href="#"><u>Gate Valve - 2" NRS Wedge</u></a>	<a href="#"><u>Manhole Sealant - Interior</u></a>	<a href="#"><u>Steel Encasement Pipe &amp;</u></a>
		<a href="#"><u>Spiders</u></a>
<a href="#"><u>Grade Ring – Cast Iron</u></a>	<a href="#"><u>Manhole Sealant - Exterior</u></a>	<a href="#"><u>Vacuum &amp; Air Release Valves</u></a>
<a href="#"><u>Grade Rings - Concrete</u></a>	<a href="#"><u>Manhole Step</u></a>	<a href="#"><u>Wyes</u></a>
<a href="#"><u>HDPE Gravity Sewer Pipe</u></a>	<a href="#"><u>Pump Stations</u></a>	<a href="#"><u>Yard Hydrant</u></a>

**LINKS TO SPECIFIC WATER PRODUCTS**

<a href="#"><u>Blow Off Hydrant</u></a>	<a href="#"><u>Flanged Coupling Adapters</u></a>	<a href="#"><u>Stainless Steel Tapping Sleeve</u></a>
<a href="#"><u>Brass Pipe</u></a>	<a href="#"><u>Flushing Device - Automatic</u></a>	<a href="#"><u>Tapping Service Saddles</u></a>
<a href="#"><u>Cast Couplings</u></a>	<a href="#"><u>HDPE Pipe (Directional Boring)</u></a>	<a href="#"><u>Tracer Wire - Copper</u></a>
<a href="#"><u>Copper Tubing</u></a>	<a href="#"><u>Meter Setters - 1 ½" &amp; 2"</u></a>	<a href="#"><u>Valves - Air Release</u></a>
<a href="#"><u>Corporation Stops</u></a>	<a href="#"><u>Meter Boxes</u></a>	<a href="#"><u>Valves - Angle Ball Valve</u></a>
<a href="#"><u>DIP-Push-On Joints</u></a>	<a href="#"><u>Meters; Large - Ultrasonic</u></a>	<a href="#"><u>Valve Box</u></a>
<a href="#"><u>DIP TR Flex Restrained Joint</u></a>	<a href="#"><u>Meters; Small - Ultrasonic</u></a>	<a href="#"><u>Valves - ¼ Turn SS Ball Valves</u></a>
<a href="#"><u>DIP</u></a>		
<a href="#"><u>Ductile Iron Fittings</u></a>	<a href="#"><u>Pipe Locator Balls</u></a>	<a href="#"><u>Valves - Curb</u></a>
<a href="#"><u>EndoTrace Traceable Tubing</u></a>	<a href="#"><u>Pipe Saddle Support Stand</u></a>	<a href="#"><u>Valves –Large</u></a>
<a href="#"><u>Fire Hydrants</u></a>	<a href="#"><u>PVC Water Pipe</u></a>	<a href="#"><u>Warning Tape – Magnetic</u></a>

**Sanitary Sewer**  
PRE-APPROVED MATERIAL/PRODUCT LIST  
City of Wilson

**PVC - Gravity Pipe**  
(Green)



**Specification Section:** 2530, paragraph 2.1.2.A

**Standard Details:** N/A

**Standard:**

- **Mains:** ASTM D3034 (8 inches – 15 inches); SDR 35; ASTM F679 (Large-Diameter Plastic Gravity Sewer Pipe and Fittings, 18- and 21-inch)
- **Services:** ASTM D1785, Sch 40, solid wall (4-inch and 6-inch)

Approved Manufacturer/Product	Supplemental Information	Type	Size
<input type="checkbox"/> Charlotte Pipe & Foundry Co.		<input type="checkbox"/> Service	4-inch through 6-inch
<input type="checkbox"/> Diamond Plastic Corporation		<input type="checkbox"/> Main	8-inch through 15-inch
<input type="checkbox"/> Harvel		<input type="checkbox"/> Main	8-inch through 15-inch
<input type="checkbox"/> National Pipe & Plastics, Inc.		<input type="checkbox"/> Main	8-inch through 15-inch
<input type="checkbox"/> North American Pipe Corp		<input type="checkbox"/> Main	8-inch through 15-inch
<input type="checkbox"/> Sanderson Pipe Corporation		<input type="checkbox"/> Main	8-inch through 15-inch
		<input type="checkbox"/> Service	4-inch through 6-inch
<input type="checkbox"/> Vulcan Plastics		<input type="checkbox"/> Main	8-inch through 15-, 18- & 21-inch pipe

**LINKS TO MANUFACTURERS:**

- Charlotte Pipe & Foundry Co.: [http://www.charlottepipe.com/pl\\_abs\\_pvc\\_dvw.aspx](http://www.charlottepipe.com/pl_abs_pvc_dvw.aspx)
- Diamond Plastic Corporation: <http://www.dpccpipe.com/Product/Sani-21-SDR>
- JM Eagle: <http://www.jmeagle.com/watersewer/gravity-sewer-pipe>
- National Pipe & Plastics, Inc.: <http://www.nationalpipe.com/products/sewer-5.html>
- North American Pipe Corp: <https://napcopipe.com/en/product/pipe/astm-d3034sw-pvc-gravity-sewer-pipe#technical-resources>
- Sanderson Pipe Corp:
  - Main: <http://sandersonpipe.com/wp-content/uploads/2018/08/sewer-071718.pdf>
  - Service: <http://sandersonpipe.com/wp-content/uploads/2018/08/sch40-dvw-pipe-071718.pdf>
- Vulcan Plastics (a Division of Consolidated Pipe & Supply): <http://www.consolidatedpipe.com/divisions/vulcan-plastics/>



**HDPE - Gravity Pipe**  
 (4 single green stripe[s] to identify IPS Sewer)



**(Not for New Construction)**

**Specification Section:** 2530, paragraph 2.1.4

**Standard Details:** N/A

**Standard:**

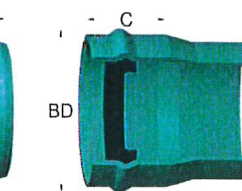
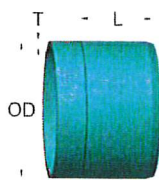
- **Mains:** AWWA C906, ASTM D3035, PE 4710 resin, sized and marked in accordance with ASTM F714, IPS, DR17 (ASTM C906, 125 psi), 8 through 24 inches (must be up-sized 1-inch if diameter is > 12 inches), Gray w/ 4 single green stripes – IPS gravity sewer only. Minimum depth of cover = 3 ft/Maximum depth of cover is 25 ft (DR 21 or less).

Approved Manufacturer/Product	Supplemental Information	Type	Size
<input type="checkbox"/> CP Chemical/Performance Pipe	Driscoplex 4600 Series	<input type="checkbox"/> Main	8-inch through 24-inch
<input type="checkbox"/> JM Eagle	PE Pipe	<input type="checkbox"/> Main	8-inch through 24-inch
<input type="checkbox"/>		<input type="checkbox"/> Main	8-inch through 24-inch

**LINKS TO MANUFACTURERS:**

- CP Chemical/Performance Pipe: <http://www.performancepipe.com/en-us/ww/Pages/default.aspx>
- JM Eagle: <http://www.jmeagle.com/watersewer/hdpe-water-sewer>

**PVC/HDPE Pressure Pipe - Force  
Mains (or Pipe Bursting)**  
(Green = Wastewater)



**C900**  
(Green)



**C906 HDPE**  
(Green stripes [force main sewer])

**Specification Section:** 2530, paragraphs 2.1.2. B, C & D; 2.1.3

**Standard Details:** N/A

**Standard: Mains:**

AWWA C900-16, Pressure Class 165, DR 25 (4-inches – 24 inches); cell classification 12454B;

This spec also applies to fusible C900 pipe as well except 235-psi operating pressure, DR18, DIP size, square cut plain ends (with no bevel).

AWWA C901 and C906 HDPE, DR9, 200 psi

ASTM D2241, SDR 21 (PR200), solid wall (2- or 3-inch)

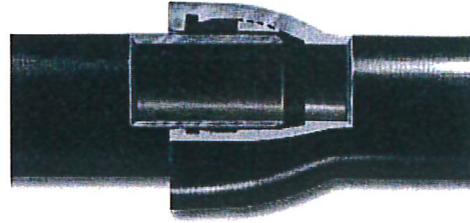
Approved Manufacturer/Product	Supplemental Information	Type	Size
<input type="checkbox"/> Charter Plastics		<input type="checkbox"/> Main <input type="checkbox"/> Small	- 2-inch
<input type="checkbox"/> Diamond Plastic Corporation		<input type="checkbox"/> Main	4-inch through 12-inch
<input type="checkbox"/> Northern American Pipe Products		<input type="checkbox"/> Main	4-inch through 24-inch
<input type="checkbox"/> Northern Pipe Products		<input type="checkbox"/> Main	4-inch through 12-inch
<input type="checkbox"/> Sanderson Pipe Corporation		<input type="checkbox"/> Main <input type="checkbox"/> Small	4-inch through 12-inch 2-inch and 3-inch
<input type="checkbox"/> Vulcan Plastics		<input type="checkbox"/> Main <input type="checkbox"/> Small	4-inch through 12-inch 2-inch and 3-inch

**LINKS TO MANUFACTURERS:**

- Charter Plastics:
  - Main: -
  - 2-inch: <http://www.charterplastics.com/pipe/municipal-service-tubing/pe-4710-cts-sewer-tubing/>
- Diamond Plastic Corporation:
  - Main: <http://www.dpcpipe.com/Product/C900>
  - Small: [http://www.dpcpipe.com/assets/pdf/prod/prod\\_ips\\_spec.pdf](http://www.dpcpipe.com/assets/pdf/prod/prod_ips_spec.pdf)
- North American Pipe Products: <https://napcopipe.com/en/products/municipal/C900?type%5B32%5D=32>
- Northern Pipe Products: <http://www.northernpipe.com/pvcProducts/c900c905.html>
- Sanderson Pipe Corp:
  - Main: <http://sandersonpipe.com/wp-content/uploads/2018/08/c900-082918.pdf>
  - Small: <http://www.sandersonpipe.com/PDF/SPC007.pdf>
- Vulcan Plastics (a Division of Consolidated Pipe & Supply):
  - Main and Small: <http://www.consolidatedpipe.com/wp-content/uploads/2018/11/Vulcan-Plastics.pdf>

### Ductile Iron Pipe – Gravity or Force Main

**Interior Linings:** Themec Series 431 Perma-Shield PL Ceramic Epoxy Lining, SewperCoat®, or Protecto 401™



**Specification Section:** 2530, paragraph 2.1.1

**Standard Details:** N/A

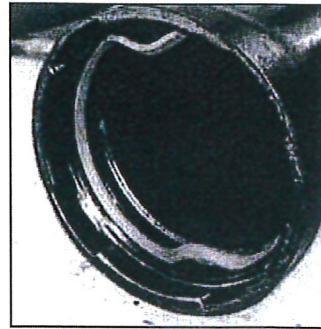
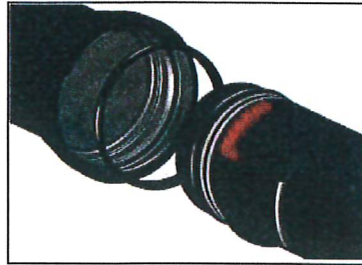
**Standard:** AWWA C111/A21.11, C151/A21.51, AWWA C111/ANSI A21.11, Pressure Class Eighteen or twenty-foot standard joint lengths.

Approved Manufacturer/Product		Class
<input type="checkbox"/> American Cast Iron Pipe	<input type="checkbox"/>	Class 50 or greater
<input type="checkbox"/> McWane Ductile	<input type="checkbox"/>	Class 50 or greater
<input type="checkbox"/> U.S. Pipe and Foundry Co.	<input type="checkbox"/>	Class 50 or greater

**LINKS TO MANUFACTURERS:**

- American Cast Iron Pipe: <http://www.american-usa.com/products>
- McWane Ductile: <http://mcwaneductile.com/resources/specifications>
- US Pipe and Foundry Co: <http://www.uspipe.com/products/ductile-iron-pipe/ty>

### Ductile Iron Pipe Mains / TR FLEX Restrained Push-On Joint Pipe



**Interior Linings:** Tnemec Series 431 Perma-Shield PL Ceramic Epoxy Lining, SewperCoat®, or Protecto 401™

**Specification Section:** 2530, paragraph 2.1.1

**Standard Details:** N/A

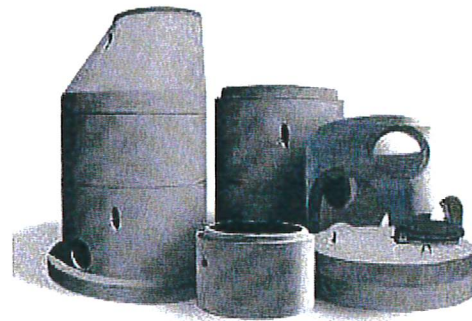
**Standard:** Ductile Iron locking segments, inserted through a slot (or slots) in the bell face, to provide a positive axial lock between the bell interior surface and a retainer weldment on the spigot end of the pipe; used with standard size Tyton gasket. AWWA C104/A21.4, C111/A21.11, C150/A21.50, C151/A21.51, ASTM A746 *Standard Specification for Ductile Iron Gravity Pipe*, NSF/ANSI 61, NSF/ANSI 372 certified lead free. Eighteen or twenty-foot standard joint lengths. Interior linings to comply with Specification Section 02530 paragraph 2.1.1.

Approved Manufacturer/Product	Size	Thickness/Press Class	Joint Type
<input type="checkbox"/> American Cast Iron Pipe	6-inch to 36-inch	Min Class 50 up to 16" Dia, Press CI 300 18" Dia and up	Flex-Ring Restrained Push-On Joints
<input type="checkbox"/> McWane, Inc.	6-inch to 36-inch	Min Class 50 up to 16" Dia, Press CI 300 18" Dia and up	TR FLEX Restrained Push-On Joints
<input type="checkbox"/> U.S. Pipe and Foundry Co.	6-inch to 36-inch	Min Class 50 up to 16" Dia, Press CI 300 18" Dia and up	TR FLEX Restrained Push-On Joints
<input type="checkbox"/>			

**LINKS TO MANUFACTURERS:**

- American Cast Iron Pipe: <http://www.american-usa.com/products/ductile-iron-pipe-and-fittings/restrained-joint-pipe/flex-ring-joint-pipe>
- McWane, Inc.: <https://www.mcwaneductile.com/products/catalog/>
- US Pipe and Foundry Co: <https://www.uspipe.com/products/fittings/tr-flex-restrained-joint-fittings>

**Precast Concrete Manholes**



**Specification Section:** 2530, paragraph 2.2.14

**Standard Details:** 516.01, 732.01, 732.02, 732.03, 732.04, 732.05, 732.06, 734.01, 734.08

**Standard:** ASTM C478, Type II Cement, AASHTO M199

Approved Manufacturer/Product	Detail	Size	Other
<input type="checkbox"/> Mack Industries			
<input type="checkbox"/> Concrete Pipe and Precast (formerly Carolina Precast)			
<input type="checkbox"/> Cape Fear Precast			
<input type="checkbox"/>			

**LINKS TO MANUFACTURERS:**

- Mack Industries: <https://www.mackconcrete.com/>
- Concrete Pipe and Precast (formerly Carolina Precast): <http://www.concretepipeandprecast.com>
- Cape Fear Precast: <http://capefearprecast.com/products.html>

**Concrete Grade Rings**



**Specification Section:** 2530, paragraph 3.3

**Standard Details:** C06.03

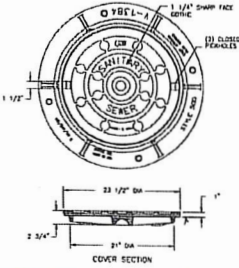
**Standard:** ASTM C478, Type II Cement. Thickness: Max. 6"; Min. 2". The top grade ring should be 2"; total height not to exceed 18"

Approved Manufacturer/Product	Thickness
<input type="checkbox"/> Carolina Precast	
<input type="checkbox"/> Mack Industries	
<input type="checkbox"/> Cape Fear Precast	
<input type="checkbox"/>	

**LINKS TO MANUFACTURERS:**

- Concrete Pipe and Precast (formerly Carolina Precast): <http://www.concretepipeandprecast.com>
- Mack Industries: <https://www.mackconcrete.com/>
- Cape Fear Precast: <http://capefearprecast.com/products.html>

### Manhole Frame and Cover




**Specification Section:** 2530 paragraph 2.2.9  
**Standard Details:** C06.01, 633.03, 735.01  
**Standard:** ASTM A48, Grade 35B, AASHTO M105 & M 306, uncoated, domestic made, Heavy Duty

Approved Manufacturer/Product	Use	
	Standard	Watertight
<input type="checkbox"/> Capitol Foundry of Virginia, Inc.	MH 2001-SS-O	2001-WT
<input type="checkbox"/> East Jordan	V1384 (Product ONC413800044)	V2384 (Product 42384021W01)
<input type="checkbox"/> Tricast Masonry Supply	MH-2001-SS*O	MH-2001-WT*O
<input type="checkbox"/> US Foundry	669KL	-

**LINKS TO MANUFACTURERS/SUPPLIERS:**

- Capital Foundry of Virginia, Inc.: <http://www.capitolfoundry.net/manholes>
- EJCO: <https://www.ejco.com/am/en/product/details?productid=308116>
- Tricast Masonry Supply: <https://www.tricastnc.com/municipal-castings>
- US Foundry: <http://www.usfoundry.com/usfoundry-products/catalog/ringsandcovers/productdetails/669>

### Manhole & Valve Cast Iron Riser Rings



**Specification Section:** 2510 paragraph 2.3.5.B; 2530 paragraph 2.2.9.C  
**Standard Details:** C06.04 (manholes), C06.05 (valve boxes)  
**Standard:** ASTM A48, Grad 35B, AASHTO M 306, uncoated, domestic made, locking devices or set screws required.

Approved Manufacturer/Product	Use			
	Manhole Riser Rings w/ Set Screws or locking devices		Valve Box Riser Rings	
	Height	Item No.	Height	Item No.
<input type="checkbox"/> East Jordan	<input type="checkbox"/> 1-inch	M7235010102R	<input type="checkbox"/> 1-inch	85008011
	<input type="checkbox"/> 1 ½-inch	M1235010152R	<input type="checkbox"/> 2-inch	85008016
	<input type="checkbox"/> 2-inch	M123501202R	<input type="checkbox"/> 3-inch	85008021
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	

**LINKS TO MANUFACTURERS:**

- EJCO: <https://www.ejco.com/am/en/products/> (Log in and type in item number in search box for the various items listed above)



### Manhole Boots (pipe-to-manhole connectors)



**Specification Section:** 2530, paragraph 2.2.14.D

**Standard Details:** 732.01, 732.03, 732.04, 732.06,

**Standard:** ASTM C923, double-clamped

Approved Manufacturer/Product	Supplemental Information
<input type="checkbox"/> A-Lok Products, Inc.	<input type="checkbox"/> Quik-Lok
<input type="checkbox"/> NPC, Inc.	<input type="checkbox"/> Kor-N-Seal® Series I & II
<input type="checkbox"/> Press-Seal Gasket Corp	<input type="checkbox"/> CAST-A-SEAL 12-08

**LINKS TO MANUFACTURERS:**

- A-Lok Products, Inc.: <http://a-lok.com/bootconnectors.html>
- NPC, Inc. (Trelleborg): <http://www.trelleborg.com/en/pipe-seals/products--and--solutions/connector--sealing--systems>
- Press-Seal Gasket Corp:
- <http://www.press-seal.com/products-and-services/underground-products/cast-in-connectors/>

### Sewer Connection to Existing Sewer Mains (Repair Coupling, GXG, No Pipe Stop)

(Main Line Repair Coupling Used on PVC  
Pipe when inserting an In-Line Wye)



**Specification Section:** 2530, paragraph 3.7E

**Standard Details:** 733.02

**Standard:** In-line wye with schedule 40 connection (gasketed main or glued service) w/GPK Repair Coupling SDR 35 GXG

Approved Manufacturer/Product	Size	Type of Pipe	Part/Catalog#	L (inches)
<input type="checkbox"/> GPK Products, Inc. Repair Coupling	<input type="checkbox"/> 8"	PVC	106-0008	9.25
	<input type="checkbox"/> 10"	PVC	106-0010	13.00
	<input type="checkbox"/> 12"	PVC	106-0012	14.00
	<input type="checkbox"/> 15"	PVC	106-0015	16.50
<input type="checkbox"/> Multi Fitting	<input type="checkbox"/> 8"	PVC	063627	9.625
	<input type="checkbox"/> 10"	PVC	063630	10.00
	<input type="checkbox"/> 12"	PVC	043631	12.00
	<input type="checkbox"/> 15"	PVC	043637	13.50

LINKS TO MANUFACTURERS:

- GPK Products, Inc.: <http://www.gpk-fargo.com/products/index.php> (type in catalog # into search box to locate)
- Multi Fitting.: <http://www.multifittings.com/Content/LayLength/Library.aspx>



### Sewer Saddle



**Specification Section:** 2530 paragraph 3.7.E

**Standard Details:** 733.02

**Standard:** ASTM A536, Ductile Iron Gland, Grade 65-45-12, coated, Buna-N (NBR) gasket (or approved equal) per ASTM D2000, 304 stainless steel wide strap/band and bolts

Approved Manufacturer/Product	Model	Sizes
<input type="checkbox"/> The Ford Meter Box Company, Inc.	Ford Sewer Saddle, FSS series	4 or 6 inch branch outlets
<input type="checkbox"/> Romac	CB Sewer Saddle	4 or 6 inch branch outlets
<input type="checkbox"/>		

LINKS TO MANUFACTURERS:

- The Ford Meter Box Company, Inc.: [http://www.fordmeterbox.com/documents/flyers/FFSEWS\\_Sewer\\_Saddle.pdf](http://www.fordmeterbox.com/documents/flyers/FFSEWS_Sewer_Saddle.pdf)
- Romac: <http://romac.com/cb-sewer>

**Cleanout Boxes**

**Specification Section:** 2530, paragraph 2.2.10, 3.7.1

**Standard Details:** 733.01

**Standard:** ASTM A48, Class 35B, domestic made, stamped "sewer"

Approved Manufacturer/Product	Number	Size	Configurations
<input type="checkbox"/> Capital Foundry	MBX-1	4-inch and 6-inch services	Lid to read "sewer"
<input type="checkbox"/> Star Pipe Products	MB-0017 (MBX-1)	4-inch and 6-inch services	Lid to read "sewer"
<input type="checkbox"/> SIP Industries	6408-6413 (MBX-1)	4-inch and 6-inch services	Lid to read "sewer"

**LINKS TO MANUFACTURERS:**

- Capital Foundry of Virginia, Inc.: <http://www.capitolfoundry.net/meter-boxes>
- Star Pipe Products: [http://www.starpipeproducts.com/pdf/castings/catalog/USA/mb\\_usa-1.pdf](http://www.starpipeproducts.com/pdf/castings/catalog/USA/mb_usa-1.pdf)
- SIP Industries: <http://sipindustries.com/dwlpdf/MeterBoxes.pdf>

**(Soil Tight) Butyl Rubber Sealant**

**Specification Section(s):** 2510, paragraph 2.3.8; 2530 paragraph 2.2.14.B

**Standard Details:** 516.01, 732.02, 732.03, 732.04, 732.05, 732.06, 734.01, and 734.08


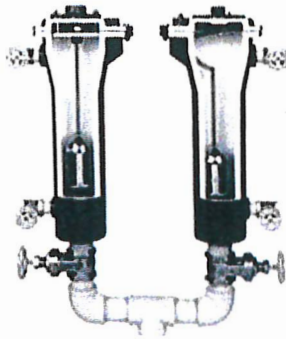
**Standard:** FS SS-S-00210 (210-A), ASTM C990, Type 1, Rope Form, 3/4" diameter (min.)

Approved Manufacturer/Product	Supplemental Information
<input type="checkbox"/> ConSeal Concrete Sealants, Inc.	<input type="checkbox"/> CS-102 (only)
<input type="checkbox"/> Henry Company, Sealants Division	<input type="checkbox"/> RN103 – Ram-Nek Joint Sealant (Coils) <input type="checkbox"/> RN101 – Ram-Nek Joint Sealant (Strips)

**LINKS TO MANUFACTURERS:**

- ConSeal Concrete Sealants, Inc.: <http://conseal.com/concrete-sealant-products/cs-102-butyl-rubber-sealant.html>
- Henry Company, Sealants Division.: <http://us.henry.com/performance-additives/concrete-joint-sealants/>

<b>Bore and Jack Operations</b>		
<b>Specification Section:</b> 2510, paragraph 2.1.6.A; 2530 paragraph 2.1.6		
<b>Standard Details:</b> C07.03		
<b>Standard:</b> ASTM A139, grade B steel pipe casing, ASTM A283, uncoated		
Approved Vendors	Casing Spacers/Spiders	End Seals
<input type="checkbox"/> Advance Products and Systems	<input type="checkbox"/> SSI w/ EPDM Skids	<input type="checkbox"/> Brick & Mortar (see detail)
<input type="checkbox"/> Spider Manufacturing	<input type="checkbox"/>	
<b>Steel Pipe</b>		
<input type="checkbox"/> Southland Pipe Corporation	<input type="checkbox"/>	
<input type="checkbox"/> Spiralco, Inc.	<input type="checkbox"/>	
<b>LINKS TO MANUFACTURERS:</b>		
<ul style="list-style-type: none"> <li>• Advance Products and Systems: <a href="http://www.apsonline.com/casing.html">http://www.apsonline.com/casing.html</a></li> <li>• Spider Manufacturing: <a href="http://www.spiderpipesupports.com/polymerskids.htm">http://www.spiderpipesupports.com/polymerskids.htm</a></li> <li>• Southland Pipe Corporation: <a href="http://www.southlandpipe.com/products.htm#sthash.cLJmiMZv.dpbs">http://www.southlandpipe.com/products.htm#sthash.cLJmiMZv.dpbs</a></li> <li>• Spiralco, Inc.: <a href="http://www.spiralco.com/English/Produits/Produits.htm">http://www.spiralco.com/English/Produits/Produits.htm</a></li> </ul>		

	<p><b>Sewage Combination Air Release/Vacuum Valves</b> (A.R.I. at left; Crispin at right)</p>	
<b>Specification Section:</b> 2530, paragraph 2.2.4		
<b>Standard Details:</b> 734.01		
<b>Standard:</b>		
<b>Iron Body:</b> ASTM A48, Class 35, ANSI/AWWA C512, dual body with back flushing attachment and quick disconnect couplings, NPT Inlet Body, 150 working pressure		
<b>Composite:</b> Conical-shaped Reinforced Nylon/Stainless Steel Body and Flange, NPT Inlet Body, 150 psi working pressure		
Manufacturer & Product - Composite	Model	
<input type="checkbox"/> A.R.I USA, Inc.	<input type="checkbox"/> D-025	
<input type="checkbox"/>	<input type="checkbox"/>	
Manufacturer & Product - Iron Body	Model	
<input type="checkbox"/> Crispin	<input type="checkbox"/> Crispin S/SL	
<input type="checkbox"/> GA Industries	<input type="checkbox"/> Fig. 955	
<input type="checkbox"/> Val-Matic	<input type="checkbox"/> 48A/301A - 49A/302A Dual Body	
<b>LINKS TO MANUFACTURERS:</b>		
<ul style="list-style-type: none"> <li>• A.R.I.: <a href="http://www.ariusa.com/products/wastewater/item/d-025-combination-air-valve-for-wastewater-short-version">http://www.ariusa.com/products/wastewater/item/d-025-combination-air-valve-for-wastewater-short-version</a></li> <li>• Crispin: <a href="https://crispinvalve.com/air-release-valves/air-release-valve-waste/pressure-air-release/">https://crispinvalve.com/air-release-valves/air-release-valve-waste/pressure-air-release/</a></li> <li>• GA Industries: <a href="http://www.environmental-expert.com/companies/ga-industries-inc-7996/products/family-distributor-automatic-air-vacuum-valves-244856#distributor-automatic-air-vacuum-valves">http://www.environmental-expert.com/companies/ga-industries-inc-7996/products/family-distributor-automatic-air-vacuum-valves-244856#distributor-automatic-air-vacuum-valves</a></li> <li>• Val-Matic: <a href="http://www.valmatic.com/combinationalairVWV.html">http://www.valmatic.com/combinationalairVWV.html</a></li> </ul>		

**Manhole Flexible Exterior Joint Sealant**



**Specification Section:** 2530, paragraph 2.2.11

**Standard Details:** 732.02, 732.03, 732.04, 732.05, 732.06, 732.10, 732.11

**Standard:** ASTM C877, C990, and E1745

Manufacturer & Product	Model
<input type="checkbox"/> Conseal Concrete Sealants, Inc.	CS-212
<input type="checkbox"/> Sealing Systems, Inc.	Infi-Shield External Sealing System, Infil-Shield Uni-Band

**LINKS TO MANUFACTURERS:**

- Conseal Concrete Sealants, Inc.: <http://conseal.com/concrete-sealant-products/cs-212-polyolefin-backed-exterior-joint-wrap.html>
- Sealing Systems, Inc.: <http://www.ssisealingsystems.com/gator-wrap.html>

**Aluminum Hatches (No Vaults Permitted!)**

**Specification Section:** 02530

**Standard Details:** N/A

**Standard:** N/A

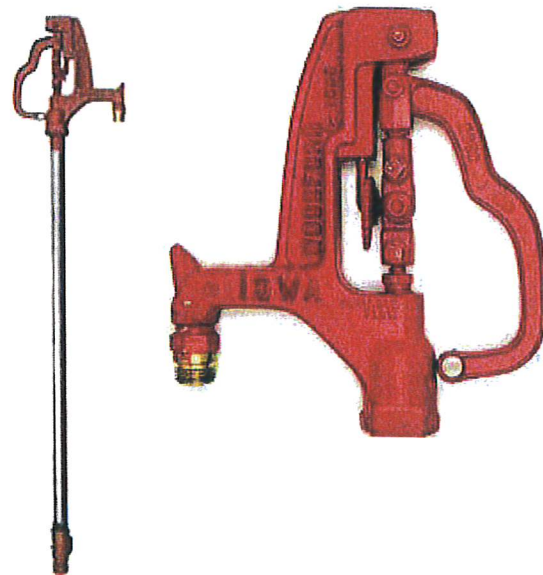
Manufacturer & Product	Valve Vault (36"x36" Min)	Wetwell
<input type="checkbox"/> The Bilco Company	<input type="checkbox"/> J-4AL	<input type="checkbox"/> JD-2AL (4'x4' min)
<input type="checkbox"/> Halliday Products, Inc.	<input type="checkbox"/> S1R	<input type="checkbox"/> W2S4848 min
<input type="checkbox"/> US Foundry & Manufacturing Corp.	<input type="checkbox"/> APS 36x36 w/OP	<input type="checkbox"/> THD 48x48 w/OP min

**LINKS TO MANUFACTURERS:**

- Bilco: [https://www.bilco.com/category1324/Aluminum\\_Construction](https://www.bilco.com/category1324/Aluminum_Construction)
- Halliday Products, Inc.: <http://www.hallidayproducts.com/accesscovers.html>
- US Foundry & Manufacturing Corp.: [http://www.usffab.com/usffab-products/catalog/sub\\_categories/1](http://www.usffab.com/usffab-products/catalog/sub_categories/1)

**Freezeless Yard Hydrants**

(RPZ required prior to connection or use USC approved model Yard Hydrant)



**Specification Section:** 2530, paragraph 2.2.17

**Standard Details:** 739.01

**Standard:** 125-psi maximum working pressure

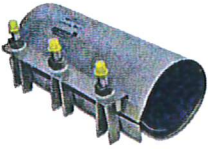
Manufacturer & Product	¾-inch	1-inch
<input type="checkbox"/> Clayton	<input type="checkbox"/> Mark #5451, ¾" NPT inlet at base of valve body, ¾" male hose thread	-
<input type="checkbox"/> Merrill	-	<input type="checkbox"/> C-1000 Series, Hi-Capacity, 1" NPT inlet at base of valve body, ¾" male hose thread
<input type="checkbox"/> Woodford Freezeless IOWA	<input type="checkbox"/> Model Y34: ¾" NPT inlet at base of valve body, ¾" male hose thread	<input type="checkbox"/> Model Y1: 1" NPT inlet at base of valve body, ¾" male hose thread

**LINKS TO MANUFACTURERS:**

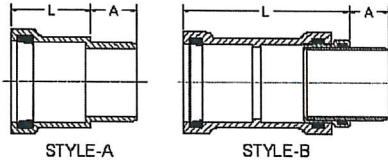
- Clayton: <http://claytonmarkmfg.com>
- Merrill: <https://www.merrillmfg.com/shop/frost-proof-hydrants/c-1000>
- Woodford Freezeless IOWA: [http://www.woodfordmfg.com/woodford/Yard\\_Hydrant\\_Pages/Model-y34.html](http://www.woodfordmfg.com/woodford/Yard_Hydrant_Pages/Model-y34.html)

### In-Line Transition Coupling


**Romac LSS1  
VCP to DIP**



**Harrington Corp C900 x SDR-35 BxB  
PVC to DIP**



**GPK Products SDR 35 GxG  
PVC to PVC**



**Romac 501 Coupling**

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**Specification Section:** 2530, paragraph 2.2.15

**Standard Details:** 733.03

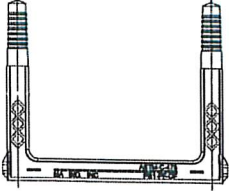
**Standard:** Fittings that conform to pipe meeting either AWWA C900, ASTM A746, or ASTM D3034

Transition	Manufacturer	Product
<input type="checkbox"/> PVC/PVC	<input type="checkbox"/> GPK Products, Inc.	SDR35 GxG
<input type="checkbox"/> PVC/DIP	<input type="checkbox"/> Harrington Corporation	C900 x SDR-35 BxB
<input type="checkbox"/> VCP/DIP	<input type="checkbox"/> Romac Industries	LSS1 with 6-inch transition bushing
<input type="checkbox"/> HDPE/Clay	<input type="checkbox"/> Romac Industries	Style RC501 Reducing Coupling
<input type="checkbox"/> HDPE/PVC	<input type="checkbox"/> Romac Industries	Style "501"

**LINKS TO MANUFACTURERS:**

- GPK Products, Inc: <https://www.gpk-fargo.com/products/?category=SDR35%20Gasketed%20Fittings&subCategory=Repair%20Coupling%20GxG>
- Harrington Corporation: <http://www.harcofittings.com/Products/PVC/C900>
- Romac Industries: <http://romac.com/lss1?rq=lss1>
- Romac Industries (Transition & Reducing Couplings): <http://www.romac.com/couplings/>

### Manhole Steps



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**Specification Section:** 2530, paragraph 2.2.14.C

**Standard Details:** C06.06, 732.03, 732.04, 732.05, 732.06

**Standard:** ASTM C478 and D4101, AASHTO M-199.