

## **15003 Construction Materials – Sewer Mains**

## Index

15003-1	Sewer Main Pipe – Gravity Flow	2
1.1	Reinforced Concrete Pipe	2
1.2	Polyvinyl Chloride (PVC) Type PSM, Sanitary and Storm Pipe and Fittin	gs
(150-675mm)		3
1.3	Polyvinyl Chloride (PVC) Open Profile Storm Sewer Pipe and Fittings	4
1.4	Polyvinyl Chloride (PVC) Dual Wall Corrugated Profile Storm Sewer Pip	е
and F	ittings	5
1.5	High Density Polyethylene (HDPE) Storm Sewer Gravity Flow Pipe	6
1.6	Polyvinyl Chloride (PVC C900 DR51) PR80, Storm Pipe (600-1200mm)	7
15003-2	Sewer Main Pressure Pipe	8
2.1	High Density Polyethylene (HDPE) Sewer Pressure Pipe	8
2.2	Polyvinyl Chloride (PVC) Sewer Pressure Pipe	9
15003-3	Concrete Manholes and Catch Basins	10
3.1	Reinforced Concrete Manhole Barrels and Catch Basins	10
3.2	Manhole Frames and Covers	11
3.3	Pipe to Manhole and Concrete Structure Connectors	12



Division 15 Section 15003 Page 2 of 12

#### 15003-1 <u>Sewer Main Pipe – Gravity Flow</u>

## 1.1 <u>Reinforced Concrete Pipe</u>

### Product Description:

- Reinforced Concrete Pipe
- Joints shall be the rubber gasket type
- Standard pipe lengths shall not be less than 1.8 m

## Conforming to:

- ASTM C76 Class 5 or for a specific D-load in ASTM C655
- Pipe joints ASTM C443 or ASTM C361
- Pipe joints installed at a buried depth of 6m or greater ASTM C361

## Product Use:

- Gravity Sewer construction
- Bell and Spigot grove type joints for buried depth of 6m or greater
- Beveled pipe and pipe lengths less than 1.8m as approved by City of Saskatoon Engineer on a project to project basis

## Standard Construction Specification Reference:

• 08002-3.2

## Approved products: Manufacturer - Model

- Inland Pipe
- Lafarge Canada Inc.



Division 15 Section 15003 Page 3 of 12

# 1.2 Polyvinyl Chloride (PVC) Type PSM, Sanitary and Storm Pipe and Fittings (150-675mm)

### Product Description:

- Polyvinyl Chloride Pipe, Bell and Spigot type with factory supplied rubber gasket.
- SDR not greater than 35 or SDR 28 at buried depth greater than 6m

### Conforming to:

• ASTM D3034 and CSA B182.2

### Product Use:

• Gravity Sanitary and Storm Sewer Main construction

## Standard Construction Specification Reference:

• 08002-3.1

## Approved products: Manufacturer – Model

- Ipex Inc. Ring Tite
- Northern Pipe Products Inc. Northern Pipe
- Westlake Pipe & Fittings Gasketed Integral Bell PVC Sewer Pipe
- Next Polymers Duraloc
- Galaxy Plastics Gasketed Sewer Fittings



Division 15 Section 15003 Page 4 of 12

#### 1.3 Polyvinyl Chloride (PVC) Open Profile Storm Sewer Pipe and Fittings

Profile PVC products are not approved for use as a catch basin lead.

#### Product Description:

- Polyvinyl Chloride Open Profile (OP) Pipe with concentric reinforcing ribs
- Bell and Spigot type with factory supplied rubber gasket

#### Conforming to:

• ASTM F794 and CSA B182.4

#### Product Use:

• Gravity flow Storm Sewer Main construction

#### Standard Construction Specification Reference:

• 08002-3.1.2

#### Approved products: Manufacturer - Model

• Ipex Inc. - Ultra Rib



Division 15 Section 15003 Page 5 of 12

# 1.4 <u>Polyvinyl Chloride (PVC) Dual Wall Corrugated Profile Storm Sewer</u> <u>Pipe and Fittings</u>

Profile PVC products are not approved for use as a catch basin lead.

### Product Description:

- Polyvinyl Chloride, Dual Wall Corrugated Profile (DWCP) pipe
- Bell and Spigot type with factory supplied rubber gasket

### Conforming to:

• ASTM F794 and CSA B182.4

## Product Use:

• Gravity flow storm sewer main construction

### Standard Construction Specification Reference:

• 08002-3.1.2

## Approved products: Manufacturer - Model

- Westlake Pipe & Fittings Kor-Flo (200mm 900mm)
- Ipex Inc. Ultra X2 (750mm & 900mm)



Division 15 Section 15003 Page 6 of 12

#### 1.5 High Density Polyethylene (HDPE) Storm Sewer Gravity Flow Pipe

#### Product Description:

• Polyethylene Sewer pipe

#### Conforming to:

• CGSB 41-GP-25M

### Product Use:

- Gravity & Low Pressure Applications
- As approved by City of Saskatoon Engineer on a project to project basis

### Standard Construction Specification Reference:

• 08010-7.5

## Approved products: Manufacturer – Model

- KWH Pipe Weholite
- Polytubes

## Approved products: Manufacturer - Model (with Conditions)

CSA B182.8 (Storm Sewer) with a minimum ring stiffness of 320KPa, only with CSA B182.8 Type 1 Joints (74KPa) (Boss Ultra Stab 75) is approved for use in storm watermain line applications up to a maximum bury to invert of six metres.

Not approved for use as a catch basin lead.

- Armtec Limited Boss 2000 320Kpa HDPE
- Hancor, Inc. HDPE
- Hancor, Inc. ADS N-12 WT 1B HDPE



Division 15 Section 15003 Page 7 of 12

### 1.6 Polyvinyl Chloride (PVC C900 DR51) PR80, Storm Pipe (600-1200mm)

#### Product Description:

- PVC C900 DR51 gasketed pressure pipe for storm sewer applications.
- Bell and Spigot type with factory supplied rubber gasket.
- DR51 with a depth of cover no greater than 6m

## Conforming to:

- CSA B137.3
- AWWA C900
- NSF-61
- ASTM D1784

## Product Use:

• Gravity Storm Sewer Main construction

## Standard Construction Specification Reference:

• 08002-3.1

## Approved products: Manufacturer – Model

- Ipex Centurion DR51 CIOD 80psi gasketed pressure pipe
- Westlake Pipe & Fittings AquaSpring C900 Gasketed Integral Bell PVC Pressure Pipe



Division 15 Section 15003 Page 8 of 12

#### 15003-2 <u>Sewer Main Pressure Pipe</u>

## 2.1 <u>High Density Polyethylene (HDPE) Sewer Pressure Pipe</u>

### Product Description:

• High Density Polyethylene Pipe

### Conforming to:

• CGSB 41-GP-25M

## Product Use:

- Force main construction
- As approved by City of Saskatoon Engineer on a project to project basis
- Joined by butt fusing the ends of the pipe

## Standard Construction Specification Reference:

• 08002-3.3

## Approved products: Manufacturer - Model

- KWH Pipe Sclairpipe
- Performance Pipe
- Polytubes



Division 15 Section 15003 Page 9 of 12

### 2.2 Polyvinyl Chloride (PVC) Sewer Pressure Pipe

#### Product Description:

- Polyvinyl Chloride DR41 Class 100 Pressure Pipe
- Bell and Spigot type with factory installed gasket

#### Conforming to:

• AWWA C900, CSA137.3

#### Product Use:

- Force main construction
- As approved by City of Saskatoon Engineer on a project to project basis

#### Standard Construction Specification Reference:

• N/A

#### Approved products: Manufacturer – Model

- lpex lnc.
- Westlake Pipe & Fittings AquaSpring



### 15003-3 Concrete Manholes and Catch Basins

### 3.1 Reinforced Concrete Manhole Barrels and Catch Basins

#### Product Description:

- Precast reinforced concrete barrels
- Joints shall be the rubber gasket type

#### Conforming to:

• ASTM C478

#### Product Use:

• Sewer main construction

#### Standard Construction Specification Reference:

 Section 08002, City of Saskatoon Standard Drawings for Catchbasins and Manholes

#### Approved products: Manufacturer - Model

- Inland Pipe
- Proform Precast Products Inc.
- Lafarge Canada Inc.
- Souris Valley Industries



Division 15 Section 15003 Page 11 of 12

#### 3.2 Manhole Frames and Covers

#### Product Description:

• Cast Iron Frame and Cover

#### Conforming to:

• ASTM A48M-00

#### Product Use:

• Sewer main construction

### Standard Construction Specification Reference:

 Section 08002, City of Saskatoon Standard Drawings for Catchbasins and Manholes

#### Approved products: Manufacturer - Model

- Titan Foundary Ltd.
- Westview Sales Ltd.



Division 15 Section 15003 Page 12 of 12

#### 3.3 Pipe to Manhole and Concrete Structure Connectors

#### Product Description:

 Resilient, watertight connection between concrete manholes, structures and pipes.

### Conforming to:

- ASTM C923
- ASTM C1478

### Product Use:

• Sewer main construction.

## Standard Construction Specification Reference:

• Section 08002-5

## Approved products: Manufacturer - Model

- Hamilton Kent HKT-CS
- Press–Seal Corporation
  - PSX: Direct Drive & 8QRS
  - o Econoseal
  - o Kwik Seal
  - WS Series Waterstop

All products must meet specification. This section is intended as a guide to products that comply. The Specifications take precedence over this section. Products included in this section must still be proven to comply by the supplier. To have a product added or approved, see Sections 08000, 08001, 08002.

# End of Specification 15003