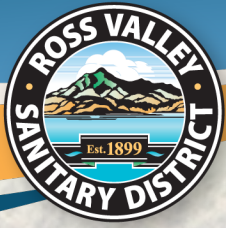


Proposed Standards Updates
Wednesday, June 4, 2025

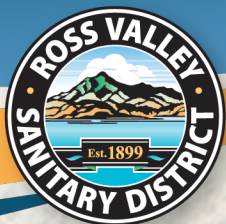
Ross Valley Sanitary District

Presented by: Phil Benedetti



RVSD Standards

- RVSD is updating our standards!
- Current Documents:
 - Standard Specifications & Drawings
 - Approved Materials List
 - Overview of Side Sewer Requirements



Approved Materials

MAIN SEWER PIPING SCHEDULE

Main sewer piping shall be the following, unless otherwise approved, specified, or directed by the District:

Gravity Sewer Mains			
Installation Method and Conditions	Pipe Material	Joint type	Spec Section
Open Trench. Typical, unless otherwise required below	PVC Solid Wall C900/C905, DR 18 or thicker, Or High Density Polyethylene	Bell and Spigot, Or Butt-Fusion Welded, de-beaded	Section 15064, POLYVINYL CHLORIDE (PVC) PIPE , Or Section 15066, HIGH DENSITY POLYETHYLENE (HDPE) PIPE
Open Trench <3 ft cover w/o pipe protection, or at utility crossings	Ductile Iron Pipe, Min Class 53	Push-On	Section 15061, DUCTILE IRON PIPE (DIP)
Open Trench Repairs to Existing VCP	Vitrified Clay Pipe	Bell and Spigot	Section 15055, VITRIFIED CLAY PIPE (VCP)
Pipe Bursting, Reaming, and/or HDD (Min 3 ft cover in ROW)	High Density Polyethylene SDR 17 or thicker	Butt-Fusion Welded, de-beaded	Section 15066, HIGH DENSITY POLYETHYLENE (HDPE) PIPE

Force Mains

Installation Method and Conditions	Pipe Material	Joint Type (Restrained Where Indicated)	Spec Section
Open Trench, Buried	PVC Solid Wall C900/C905, DR 18 or thicker,	Bell and Spigot,	Section 15064, POLYVINYL CHLORIDE (PVC) PIPE ,
	Or	Or	Or
	Ductile Iron Pipe, Min Class 53,	Push-On with Field Lok Gasket, or Mechanical,	Section 15061, DUCTILE IRON PIPE (DIP) ,
	Or	Or	Or
	High Density Polyethylene, SDR 17 or thicker ¹¹	Butt-Fusion Welded, de-beaded	Section 15066, HIGH DENSITY POLYETHYLENE (HDPE) PIPE
Exposed Piping	Ductile Iron Pipe	Flanged or Grooved End	Section 15061, DUCTILE IRON PIPE (DIP)
	Or,	Or,	Or
	UV Rated HDPE	Butt-Fusion Welded, de-beaded	Section 15066, HIGH DENSITY POLYETHYLENE (HDPE) PIPE
Pipe Bursting, Reaming, and/or HDD (Min 3 ft cover in ROW)	High Density Polyethylene, SDR 17 or thicker ¹¹	Butt-Fusion Welded, de-beaded	Section 15066, HIGH DENSITY POLYETHYLENE (HDPE) PIPE



SIDE SEWER PIPING SCHEDULE

Side sewer piping shall be the following, unless otherwise approved, specified, or directed by the District:

Gravity Side Sewers			
Installation Method and Conditions	Pipe Material	Joint type	Spec Section
Open Trench. Typical, unless otherwise required below	PVC C900/C905, DR 18 or thicker, Or High Density Polyethylene, DR17	Bell and Spigot, Or Butt-Fusion Welded, de-beaded	Section 15064, POLYVINYL CHLORIDE (PVC) PIPE , Or Section 15066, HIGH DENSITY POLYETHYLENE (HDPE) PIPE
Open Trench. w/ District Approval	PVC Schedule 80	Solvent-Welded, Threaded as required	Section 15064, POLYVINYL CHLORIDE (PVC) PIPE
Open Trench. <3 ft cover in ROW w/o pipe protection, or at utility crossings	Ductile Iron Pipe, Min Class 53	Push-On	Section 15061, DUCTILE IRON PIPE (DIP)
Pipe Bursting, Reaming, and/or HDD (min 3 ft cover in ROW)	High Density Polyethylene	Butt-Fusion Welded, de-beaded	Section 15066, HIGH DENSITY POLYETHYLENE (HDPE) PIPE
Exposed Piping	Ductile Iron Pipe, or Cast Iron Pipe, Or, UV Rated HDPE, DR17	Push-on/bell & Spigot, or stainless steel shear banded coupling* Or, Butt-Fusion Welded, de-beaded	Section 15061, DUCTILE IRON PIPE Cast Iron Pipe per ASTM A74, Or Section 15066, HIGH DENSITY POLYETHYLENE (HDPE) PIPE

*Exposed SS shear band is acceptable, and shall be approved by the District in the rare cases where burial is not possible, i.e., in laterals suspended on the side of or under bridges.



**Pressure Side Sewers
(Discharge from Individual Lot Pump Stations)**

Installation Method and Conditions	Pipe Material	Joint type	Spec Section
Open Trench. Typical	PVC Schedule 80,	Solvent Welded, Threaded as required,	Section 15064, POLYVINYL CHLORIDE (PVC) PIPE
	Or High Density Polyethylene, DR17 11	Or Butt-Fusion Welded, de-beaded	Section 15066, HIGH DENSITY POLYETHYLENE (HDPE) PIPE
Pipe Bursting, Reaming, and/or HDD (min 3 ft cover in ROW)	High Density Polyethylene, DR17 11	Butt-Fusion Welded, de-beaded	Section 15066, HIGH DENSITY POLYETHYLENE (HDPE) PIPE



DUCTILE IRON PIPE (DIP) PRODUCTS

AWWA C150 and AWWA C151, Class 53 wall thickness

Ductile Iron Pipe

Manufactured in the USA, by one of the following, or approved equal:

1. U.S. Pipe and Foundry Co.
2. American
3. McWane Ductile

Ductile Iron Fittings

Manufactured in the USA, by one of the following, or approved equal:

1. Tyler Union
2. Mueller Company
3. American

Protective Lining

Interior surfaces of all ductile iron pipe and fittings shall be lined with one of the following:

1. Protecto 401 Ceramic Epoxy,
2. Tnemec 431 Perma-Shield, or approved equal.

The dry film thickness shall be no less than 40 mils.

Protective Coating

Buried DIP: asphaltic coating with polyethylene encasement (polywrap)

Exposed DIP: Coat per Standard Spec Section 09800, Protective Coatings

Exposed DIP in Wet Wells: one of the following:

1. Tnemec 141, at min dry film thickness of 16 mils
2. US Pipe Ceramawrap, at min Dry film thickness 20 mils

Polywrap

~~For all buried ductile iron pipe. Polywrap shall be manufactured by, or approved equal:~~

- ~~1. T. Christy Enterprises.~~

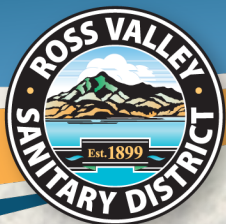
~~General purpose adhesive tape to connect plastic film shall be two inches wide by 10 mils thick. Adhesive tape shall be manufactured by, or equal:~~

- ~~1. Scotchwrap No. 50~~
- ~~2. Polyken No. 900~~
- ~~3. Tapcoat CT~~



DIP: Asphaltic-coated with Polywrap





Ejector Pumps

NEEDED WHERE TOPOGRAPHY DOES NOT ALLOW GRAVITY FLOW

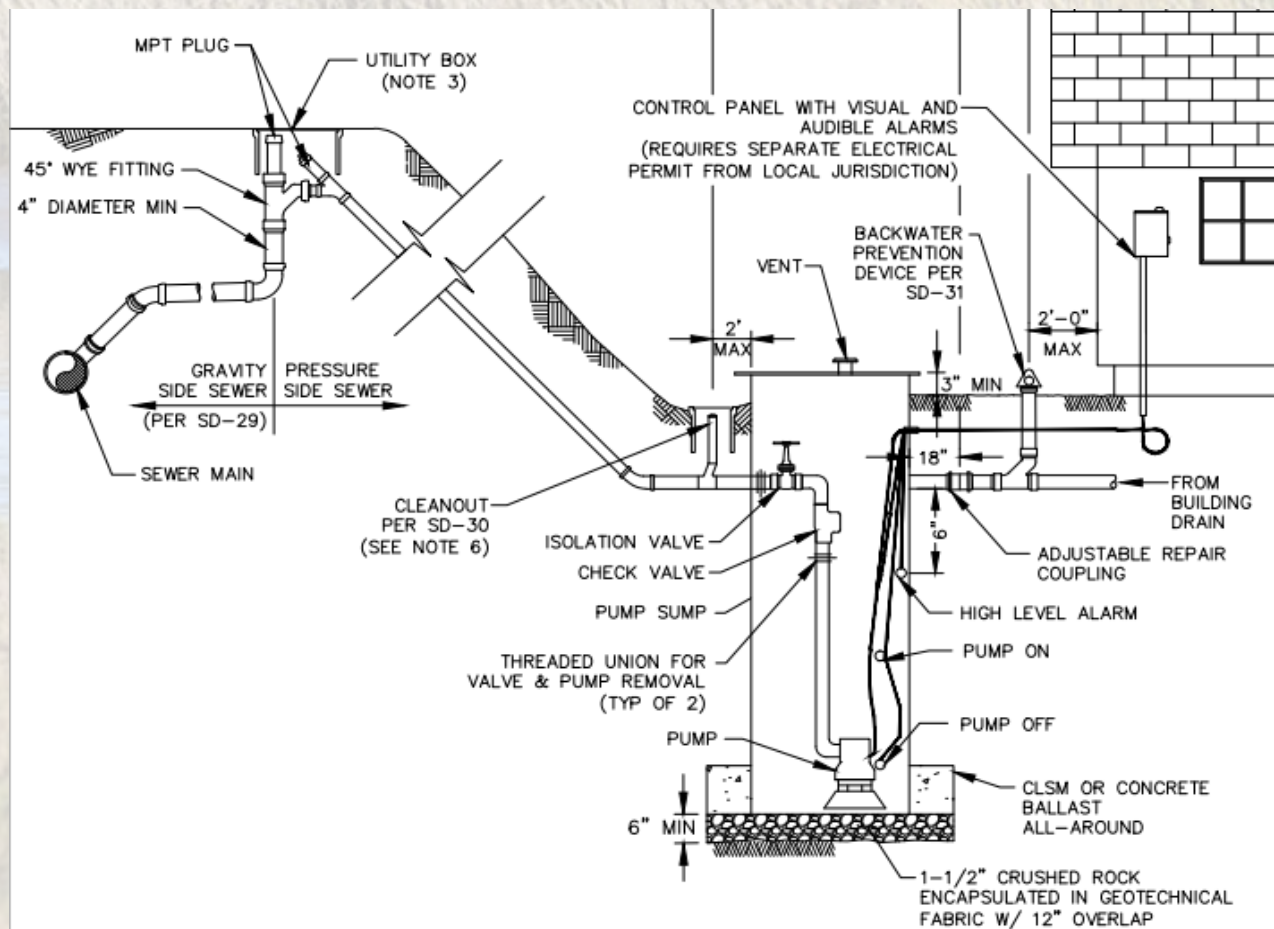
BACKUP POWER SOURCE - GENERATOR
HIGHLY RECOMMENDED

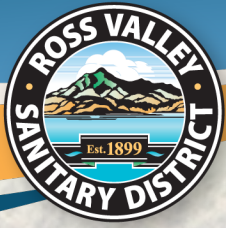
PROPOSED UPDATES:

NO 90° BENDS

SCH40 PRESSURE PIPING & FITTINGS IS PERMITTED W/IN PRE-APPROVED PACKAGES
150% OF DESIGN PRESSURE (NO LONGER @50 PSI)

HYDROSTATIC WATER TESTING (NO AIR TESTING)





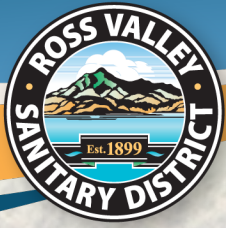
Other Proposed Changes

- **2" Diameter piping allowed on outdoor kitchen sinks. Must be approved material. No C/O or BPD needed.**
- **On Capital Improvement Projects:**

Replace Item 3.03 G with the following:

The Contractor shall install the pipe utilizing pneumatic pipe bursting methods. The winch used shall have a minimum pulling capacity of 40,000 lbs. The use of static pulling equipment must be approved by the District. The void created by the bursting device shall be sufficient in size to accommodate the pipe which shall be installed immediately after the void has been formed.

- **Approved Materials List to become Appendix of Standards & Specs**



Other Proposed Changes Contd.

- **Shallow Pipe Protection:** Minimum depth of cover for laterals at back of R/W is 1.5'. Existing sewer mains minimum 2.5'
- **New installations:** 3' minimum depth of cover
- **Electrofusion couplings** required in high groundwater areas
- **Check valves** now require written approval from District Engineer

Feedback?



Thank You!

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