

(38) PIPE REHABILITATION SYSTEMS FOR METHOD D (FLEXIBLE PIPE LINER) – (Soils Lab)

VDOT's Drainage Manual Chapter 8 and VDOT's Special Provision for Pipe Rehabilitation list Methods A through E for pipe rehabilitation.

This Approved List 38 is for Method D (Flexible pipe liner) systems only. Method D is divided into 4 categories of products as shown below:

- Category A – Cured in Place Pipe (CIPP)
- Category B – Fold and form flexible liners
- Category C – HDPE, PVC, or Polypropylene (PE) slip liners
- Category D – Spray-on liners

Flexible pipe liner products falling in any of these 4 categories shall be on this Approved List in order to be used on VDOT projects. (Other types of pipe liners, Methods A, B, C, and E, are allowed also, such as corrugated metal, concrete, or solid-walled metal pipe, but are approved by other means.) Products covered by the VDOT Road & Bridge Specifications or the VDOT Special Provision for Pipe Rehabilitation are included on this Approved List, products not so covered shall be placed on the Special Products Evaluation List (SPEL). Approved products by category are listed below.

Product requirements for all Method D pipe rehabilitation systems are listed below:

- Shall list host pipe diameter ranges for which the product is applicable.
- Shall list any moisture limitations (e.g. installation in the dry, humidity restrictions, etc.).
- Shall list environmental controls to prevent discharge/impact to soils and water.
- Shall indicate corrosion potential/acid reaction potential.
- Shall require manufacturer's/supplier's representative on-site during installation or use certified contractor if certification exists.
- Shall show VDOT interest, and at 5-year resubmittal periods, must show use by VDOT in last 5 years. Otherwise, product will be removed from list. Product may also be removed from list for documented failure to perform properly in the field; or as a result of changes in materials or manufacture or installation processes unless a revised submittal to the VDOT Materials Division Soils Lab is made. (VDOT interest is typically indicated by providing, on the product submittal, the name of the VDOT person or office or project who is expressing a desire to try the product.)
- Shall describe training/certification for installers.
- Shall provide hydraulic data (initial surface roughness) of liners in place.

Further required evaluation criteria specific to each Category can be obtained from the VDOT Materials Division Soils Lab.

All entries below are required to resubmit every five (5) years starting from January 2013.

Category A – Cured in Place Pipe (CIPP)

Product	Vendor/Installer
RS MaxPatch (3"-48")	Capital City Services Company Wayne Norman-President capitalcityservices@yahoo.com Office: 804-746-9665 5404 Sandy Valley Rd. Mechanicsville, VA 23111

Category B – Fold and form flexible liner

Product	Vendor/Installer
Dyna-Liner Warrior Thermoform (4"-36")	Capital City Services Tom Arezzi, Director of Business Development t.arezzi@capitalcityservices.com 804.746.9665 5404 Sandy Valley Road Mechanicsville, VA 23111 www.capitalcityservices.com

Category C – HDPE, PVC, Polypropylene (PP), or Fiberglass slip liners

Product	Vendor/Installer
Link-Pipe SST-316 sleeves (4" – 48", joint and point repair)	Capital City Services Tom Arezzi, Director of Business Development t.arezzi@capitalcityservices.com 804.746.9665 5404 Sandy Valley Road Mechanicsville, VA 23111 www.capitalcityservices.com
Link-Pipe PVC Sleeves (36" – 120")	Capital City Services Tom Arezzi, Director of Business Development t.arezzi@capitalcityservices.com 804.746.9665 5404 Sandy Valley Road Mechanicsville, VA 23111 www.capitalcityservices.com
Quick Lock (6" – 32", joint and point repair)	Capital City Services Tom Arezzi, Director of Business Development t.arezzi@capitalcityservices.com 804.746.9665 5404 Sandy Valley Road Mechanicsville, VA 23111 www.capitalcityservices.com

Category D – Spray-on liners

Product	Vendor/Installer
Mountain Grout MGP 25	Capital City Services Tom Arezzi t.arezzi@capitalcityservices.com 804.746.9665 5404 Sandy Valley Road Mechanicsville, VA 23111 www.capitalcityservices.com

CIPP Products

Effluent from the curing process (i.e. process water/condensate and rinse water) shall only be discharged directly to a Publicly Owned Treatment Works (POTW) or pumped to above-ground containers for subsequent direct discharge to a POTW ; no effluent shall be released exterior to the rehabilitated pipe or containers. For any discharge to a POTW, the Contractor shall ensure the discharge conforms with the Industrial Pretreatment Program requirements of that POTW. In the absence of an Industrial Pretreatment Program, the Contractor shall notify, and obtain approval from, the POTW

prior to any discharges and comply with all the requirements of the POTW receiving the discharge. If the POTW does not allow the discharge or the Contractor cannot meet the pre-treatment requirements, the Contractor shall collect the process water/condensate and rinse water at the construction site and dispose of it at a private industrial wastewater treatment facility. Irrespective of disposal method, the Contractor shall provide documentation of the POTW discharge approval or waste disposal documentation to the VDOT Engineer.

Virginia Department of Transportation Materials Division’s Special Products Evaluation List
 Revised – December 8, 2016

MOUNTAIN GROUT FLEXIBLE PENDING	GREEN MOUNTAIN INTERNATIONAL WAYNESVILLE, NC	Polyurethane injection grout for use in soil void filling and concrete crack repair. Product use must also have environmental field testing done per the Spray-On Liner requirements of the VDOT Pipe Rehabilitation Special Provision, including draft environmental requirements as of 9/12/16
MOUNTAIN GROUT FLEXIBLE PENDING	GREEN MOUNTAIN INTERNATIONAL WAYNESVILLE, NC	Polyurethane injection grout for use in soil void filling and concrete crack repair. Product use must also have environmental field testing done per the Spray-On Liner requirements of the VDOT Pipe Rehabilitation Special Provision, including draft environmental requirements as of 9/12/16

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