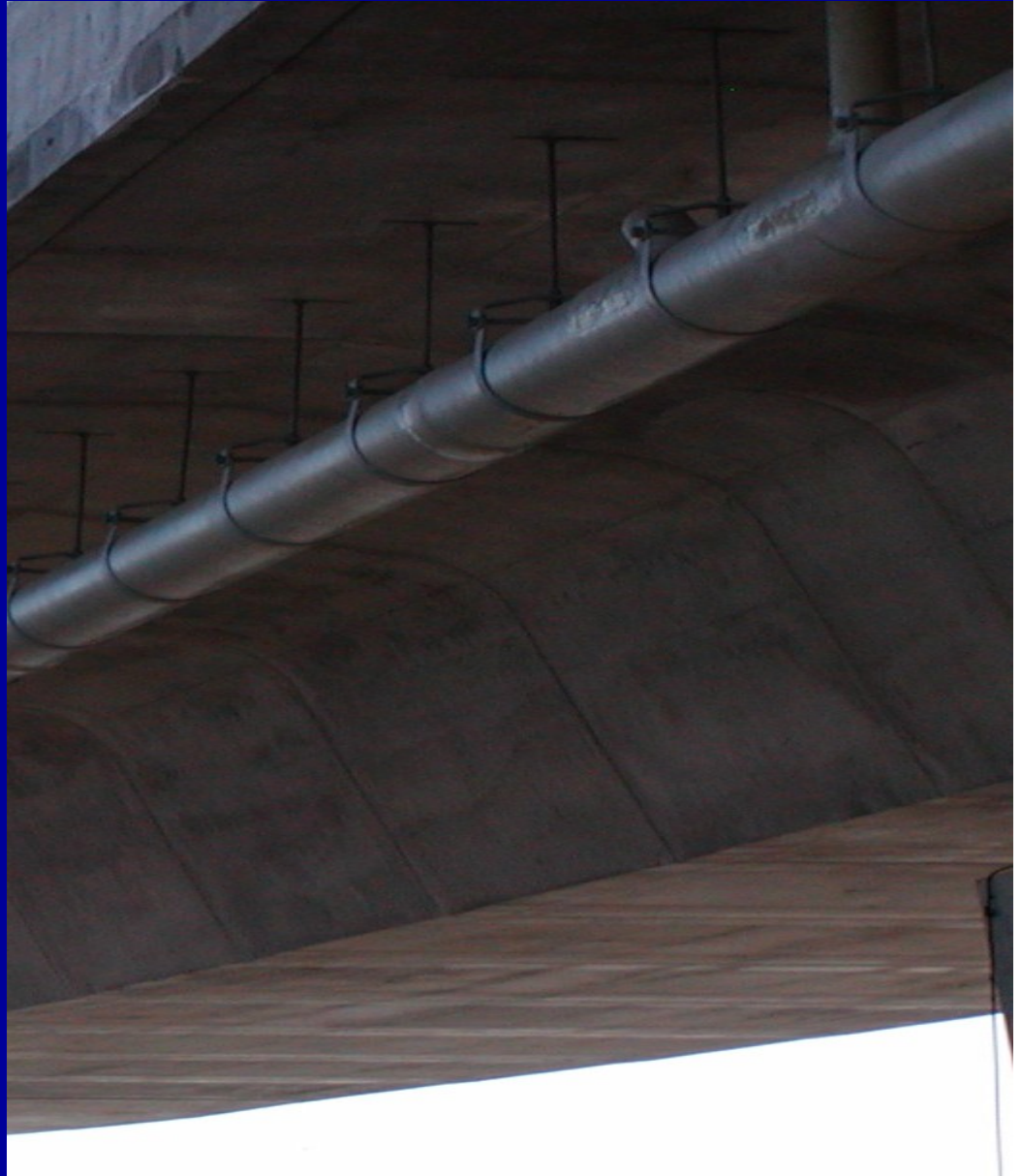




CONLEY COMPOSITES

Fiberglass Bridge Drain Piping Systems ASTM D2996



- **Corrosion Resistant**
- **Lightweight**
- **Easy to Install**
- **Nexus® Cover to Inhibit Ultra Violet Degradation**
- **No Special Tools Required**

CONLEY COMPOSITES

Phone: 918-299-5051

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E-mail: sales@conleyfrp.com



PIPE ASTM D2996

FIBERGLASS PIPE:

All materials are manufactured using a Premium Epoxy Thermosetting Resin and continuous strand E-Glass for structural strength. Inquire for availability of larger sizes .

JOINING METHOD:

All Conley Pipe utilizes a bonded—straight socket for joining. **NO SPECIAL TOOLS** are required.

No exposed Fiber-glass makes Conley Systems VERY user friendly.

FITTINGS:

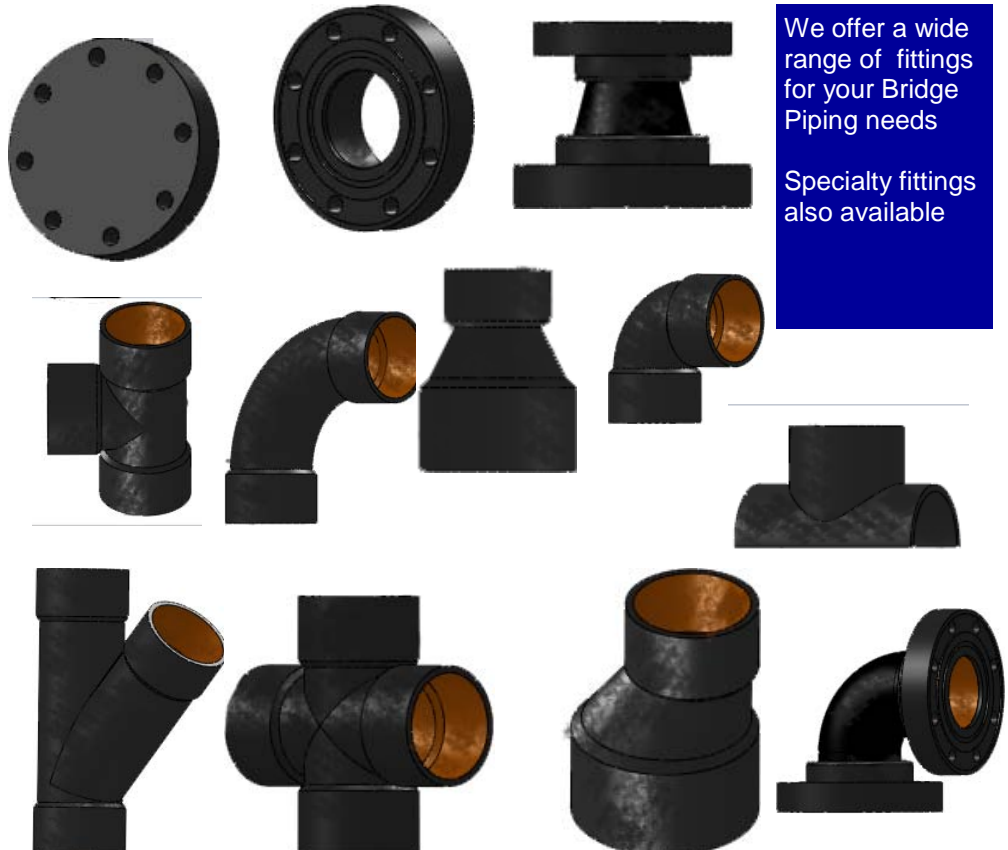
All Conley fittings are manufactured using the filament winding process. Please consult the factory if you require special fittings. Inquire for availability of larger sizes.

SUPERIOR UV PROTECTION

Nexus® synthetic veil for superior resistance to UV degradation.

| ID (IN) | OD (IN) | TOTAL THK (IN) | SUPPORT SPACING (FT) | WT/FT (LBS) |
|---------|---------|----------------|----------------------|-------------|
| 3.00 | 3.26 | 0.130 | 14.60 | 1.03 |
| 4.00 | 4.26 | 0.130 | 16.80 | 1.36 |
| 6.00 | 6.26 | 0.130 | 19.00 | 2.01 |
| 8.00 | 8.26 | 0.130 | 20.70 | 2.67 |
| 10.00 | 10.26 | 0.130 | 21.70 | 3.33 |
| 12.25 | 12.66 | 0.205 | 22.90 | 6.45 |
| 14.25 | 14.66 | 0.205 | 23.70 | 7.48 |
| 16.25 | 16.66 | 0.205 | 24.60 | 8.52 |
| 18.25 | 18.77 | 0.260 | 25.10 | 12.16 |
| 20.25 | 20.77 | 0.260 | 26.40 | 13.47 |

Standard Fittings Filament Wound



Conley Bridge Piping Specification

1.0 SCOPE

- 1.1 This piping specification covers the requirements for machine made reinforced thermosetting resin pipe and fittings, 3" - 20", manufactured according to ASTM D2996, the standard specification for filament wound pipe.

Both Pipe and Fittings (Tees, Elbows, Laterals, Reducers, and Crosses) shall be manufactured with a Nexus® (synthetic veil) reinforced Epoxy internal corrosion barrier, an Epoxy filament wound fiberglass reinforced cage, and a standard Nexus® reinforced external corrosion barrier for superior resistance to UV degradation.

2.0 MATERIAL

- 2.1 Raw materials will meet or exceed specifications for Epoxy resin system and fiberglass materials.

3.0 PIPE CONSTRUCTION

- 3.1 The pipe shall consist of three specific layers; the Nexus® synthetic veil reinforced **internal corrosion barrier**, the filament wound reinforcement or **cage**, and the synthetic veil reinforced **external corrosion** / UV inhibitor. This material shall then be post cured to form an integral structure and provide optimum cross-linking density.
- 3.1a The **internal corrosion barrier** (inner liner) shall consist of Nexus® synthetic veil saturated with aromatic amine cured premium Epoxy resin. This layer shall be a maximum of 90% resin and 10% reinforcement to increase impact and chemical resistance.
- 3.1b The glass reinforcement, or cage, shall be continuous glass roving wound at an angle of 54 3/4 degrees to the longitudinal axis of the pipe, using aromatic amine cured premium Epoxy resin, and shall be not less than 65% glass for maximum strength and flexibility.
- 3.1c The external corrosion barrier will be Nexus® synthetic veil reinforced for corrosion resistance and UV resistance.

4.0 FITTINGS

- 4.1 All fittings such as elbows, laterals, tees and reducers shall be equal or superior in strength to the adjacent pipe section and shall have the same internal diameter as the pipe. **Fittings shall be filament wound or mitered, and have the same construction as the pipe, i.e., Nexus® synthetic veil reinforced internal corrosion resistant barrier, filament wound and glass reinforced structural cage, and a Nexus® synthetic veil reinforced external corrosion barrier for superior resistance to UV degradation.**
- 4.2 Elbows Manufactured in standard configuration.
- 4.3 Reducers Designed as concentric or eccentric gradual changes in diameter to minimally affect the fluid flow.

5.0 CONNECTIONS

- 5.1 Prefabrication When requested by the customer, the manufacturer shall prefabricate into shippable sub-assemblies to minimize the use of field fabricated connections.
- 5.2 Straight Cement Socket Joints shall be used with both pipe to fitting connections as well as pipe to pipe connections. Tapering or machining of the pipe shall not be allowed.

6.0 STRAIGHT SOCKET CEMENT JOINTS

- 6.1 This type of joint shall be the only means of joining pipe to pipe and fittings. Tapering or machining of the pipe shall not be allowed, nor shall butt wrap joints. Pipe to pipe connections shall be made with straight socket cement couplings.

7.0 RECOMMENDED INSTALLATION PRACTICE

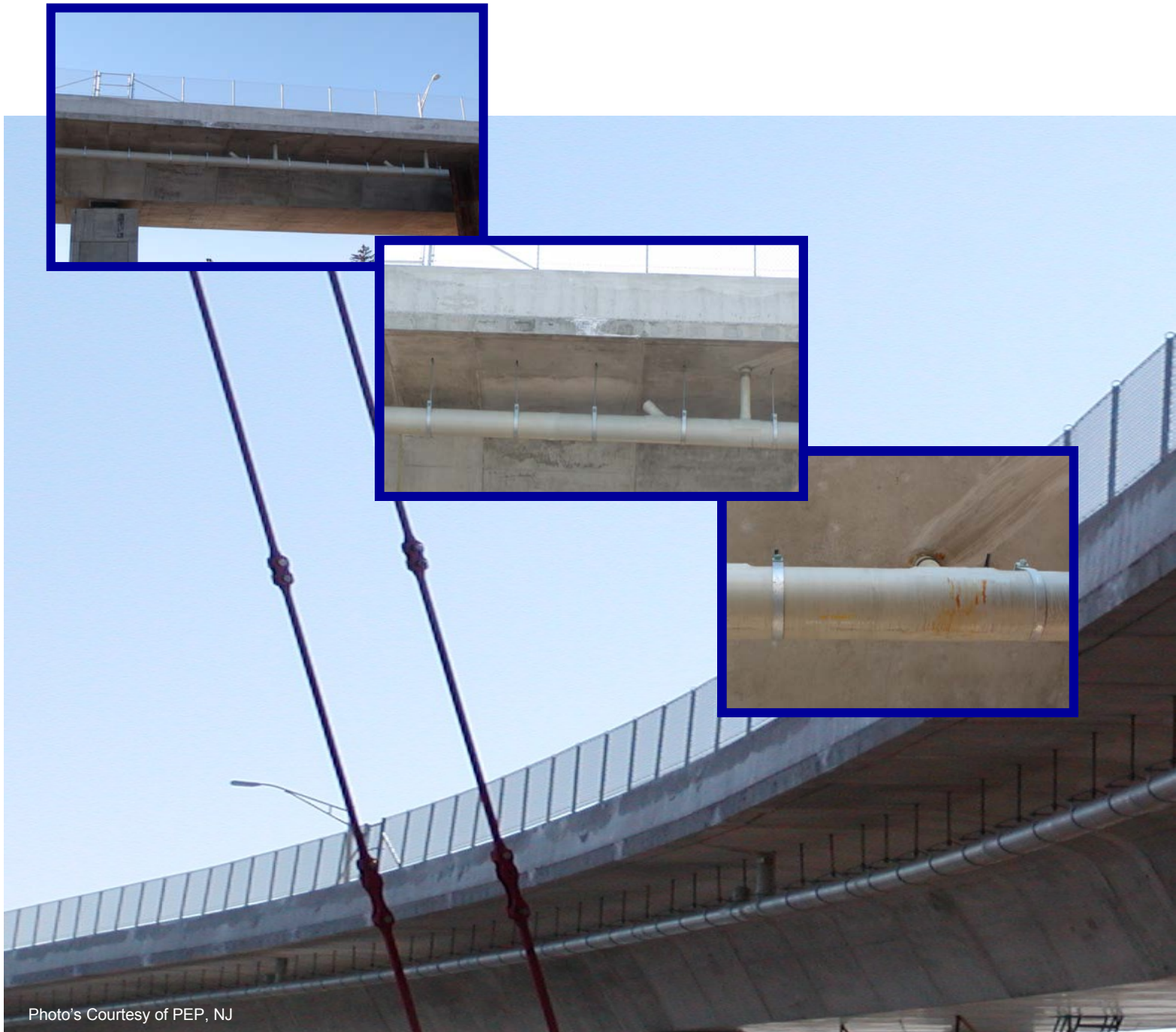
- 7.1 Pipe hangers and spacing - Hangers shall be band type hangers contacting a minimum of 120 degrees of the pipe surface, and with a minimum width of 1" or pipe diameter divided by 6, whichever is greater.
- 7.2 Fabrication - Fabrication procedures and certification of fabricators shall be in accordance with the **Conley Installation & Fabrication Manual**.
- 7.3 Connections to roadway drain scuppers must not be rigid. The use of a reducing fitting as a collector is acceptable for a loose connection to scuppers.

8.0 QUALITY ASSURANCE AND INSPECTION

- 8.1 Conley's Quality Assurance program is in compliance with ISO 9001:2008. Pipe and fittings shall be inspected and measured at each stage of manufacture, i.e. liner, reinforcement and external corrosion barrier. For optimum strength and corrosion resistance, all pipe and fittings shall be post cured.



CONLEY COMPOSITES



Photo's Courtesy of PEP, NJ

Fiberglass Bridge Drain Piping Systems ASTM D2996

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