Oregon
DEPARTMENT OF TRANSPORTATION
Construction Section
800 Airport Road SE
Salem, OR 97301-4798
503/986-3059

Standard Guidelines for Product Review

Trench Drain; Section 00446.00

March 31, 2009

00446.00 – Trench Drain.
ODOT maintains a list of longitudinal drain products that are suitable for draining water from high speed, paved areas of the highway. We utilize two types: **Traveled Way** and **Non-Traveled Way**, and both require substantial load bearing ratings. The project specs will specify flow, slope, and loading requirements. If approved, you will need to provide Americans with Disabilities Act certification for grates placed in designated pedestrian paths of travel.
[Note: "traveled way" is defined in section 00445 of the Specifications]

☐ **Type 1 – Traveled Way –** Test Requirements:

Test	Test Method	Requirement
- Load Rating	AASHTO M306	H25
- Flow (cubic feet/sec)		3.0 (minimum)

- There must be a secure cleanout for easy maintenance.
- Must be galvanized, ductile iron, or some other non-corrosive product.
- Must be resistant to de-icing chemicals.
- Frames and grates shall be one piece.

Products made from polymer concrete (aggregate and resin) must meet the following:

- Tensile Strength (psi)	ASTM C307	1,500 (minimum)
- Compressive Strength (psi)	ASTM C579	12,000 (minimum)
- Bending Strength (psi)	ASTM C580	2,900 (minimum)
- Moisture Absorption (%)	ASTM C140	0.5 (maximum)
- Chemical Resistance	ASTM C267	Pass
- Freeze Thaw (Cycles)	ASTM C666	1,600 (minimum number of cycles without weight loss)

☐ **Type 2 – Non-Traveled Way –** Test Requirements:

Test	Test Method	Requirement
- Load Rating	AASHTO M306	H20
- Flow (cubic feet/sec)		3.0 (minimum)

- There must be a secure cleanout for easy maintenance.
- The grates must be firmly affixed to the base and be bike friendly.
- Must be galvanized, ductile iron, or some other non-corrosive product.
- Must be resistant to de-icing chemicals.
- Frames and grates for Type 2 Drains can be either one piece or removable. Removable grates require a tamper resistant locking device.

Products made from polymer concrete (aggregate and resin) must meet the following:

- Tensile Strength (psi)	ASTM C307	1,500 (minimum)
- Compressive Strength (psi)	ASTM C579	12,000 (minimum)
- Bending Strength (psi)	ASTM C580	2,900 (minimum)
- Moisture Absorption (%)	ASTM C140	0.5 (maximum)
- Chemical Resistance	ASTM C267	Pass
- Freeze Thaw (Cycles)	ASTM C666	1,600 (minimum number of cycles without weight loss)

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To apply for inclusion on the QPL, submit the following:

- Preliminary information for Product Evaluation Form.
- Specify which list you are submitting for: Type 1 or Type 2
- Results for each of the test methods listed above.
- Current, legible copy of the MSDS.
- Spec data sheet, including the basic ingredients of the material.
- Detailed installation instructions and list of limitations and precautions.

Submit documentation to: **Please send no samples at this time.**

Oregon DOT
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http://www.oregon.gov/ODOT/HWY/CONSTRUCTION/QPL/QPIndex.shtml