October 19, 2004 Matls. IM 442
Supersedes April 25, 2000

INSPECTION & ACCEPTANCE
PREFABRICATED PAVEMENT EDGE DRAINS (FIN DRAINS)

GENERAL

Pavement edge drains are prefabricated drains placed vertically adjacent to pavement to intercept and remove water from the subbase and subgrade. They consist of a polymer drainage core wrapped in a geotextile filter. They function like a longitudinal subdrain, in which a vertical column of porous backfill is placed above perforated collector pipe in a trench cut at edge of pavement. However, the prefabricated unit replaces both the filtering function of porous backfill and the water removal function of subdrain pipe. Pavement edge drain requires a trench for placement, and is backfilled with native material removed during trenching.

Pavement edge drains are used instead of regular longitudinal subdrain where:

1. Shallow limestone bedrock makes typical trenching depths impractical.
2. Silty loess soils will enter into and clog porous backfill and perforated pipe.
3. Other design conditions preclude longitudinal subdrain

Details of placement of pavement edge drain and trench backfill will be shown on the project plans.

ACCEPTANCE

Acceptance of pavement edge drains shall be based on manufacturer and brand name approval. Approved manufacturers and brand names are listed in Appendix A.

MANUFACTUER AND BRAND NAME APPROVAL

To obtain approval, the manufacturer shall submit the following information to the Office of Materials:

1. A product sample (three foot, full-width sample including the fabric)
2. Product identification
3. Technical information on use of the product
4. Independent lab results showing the following properties:

Property	Specification	Test Method
Core compressive Strength	40 psi minimum	ASTM D 1621
Core flow rate @ 1500 lb/ft^2 and 0.10 gradient	15 gal/min/ft	ASTM D 4716

The fin drain shall be wrapped in a fabric that is listed in IM 496.01 for subsurface drainage, and meets Specification 4196.01, Paragraph B.

The Soils Section of the IDOT Office of Design shall review the product sample, physical properties, and past performance for consideration of approval.

MONITOR SAMPLING AND TESTING

Samples may be secured from the project to verify a match with the product previously approved.