



2009 PE/PS Workshop

Guardrail

- Impact Attenuators (Crash Cushion Safety Devices) – INDOT Specifications 601.08 requires all installer's of attenuators (safety devices) to be trained and certified by the unit's manufacturer
- INDOT Impact Attenuator Installer Certification Program was started back in 1992
- All safety device units shall be placed in accordance with the manufacturer's recommendations

Guardrail (Con't)

- A copy of the installer's certificate shall be provided to the Engineer prior to the start of work
- Installer certification cards are good for a two (2) year period
- A Contractor must pass a written test to be certified

Guardrail (Con't)

- Training (Guardrail & Attenuator Installer School) is held every two (2) years
- Next Training & Certification Workshop is scheduled for March 24 thru 26, 2009 at the INDOT Traffic Management Center (TMC).
- See INDOT Website for additional information
- Copy of FHWA approval letter (with certified crash test level results) for each type device is required for the project files

INDOT Website

site sample location

SEARCH IN.gov INDOT

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Contractors

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New! Application Support. See Below

General Information

- List of Approved Wetlands Professionals List of ATSSA Approved Equal Certifications E-mail List Server (INDOT/Contracts Notification List) INDOT Contacts INDOT District Information and Maps Certified Technician Program Instructions Oversize and/or Overweight Superload Permits Handbook Memo to Attenuator and Guardrail Installers (01/05/2009) Attenuator Training Registration Form Standards and Specifications Standards Committee Design Policy, Design Manual and More... Standard Specifications with Supplemental Specifications Standard Drawings Special Provisions

Guardrail Attenuator Certification Summary

- This installer certification program helps keep our roadway safe for all motorists
- Helps the Department to defend and/or eliminate costly potential lawsuits.
- Safety is one of our highest priorities

Questions ?

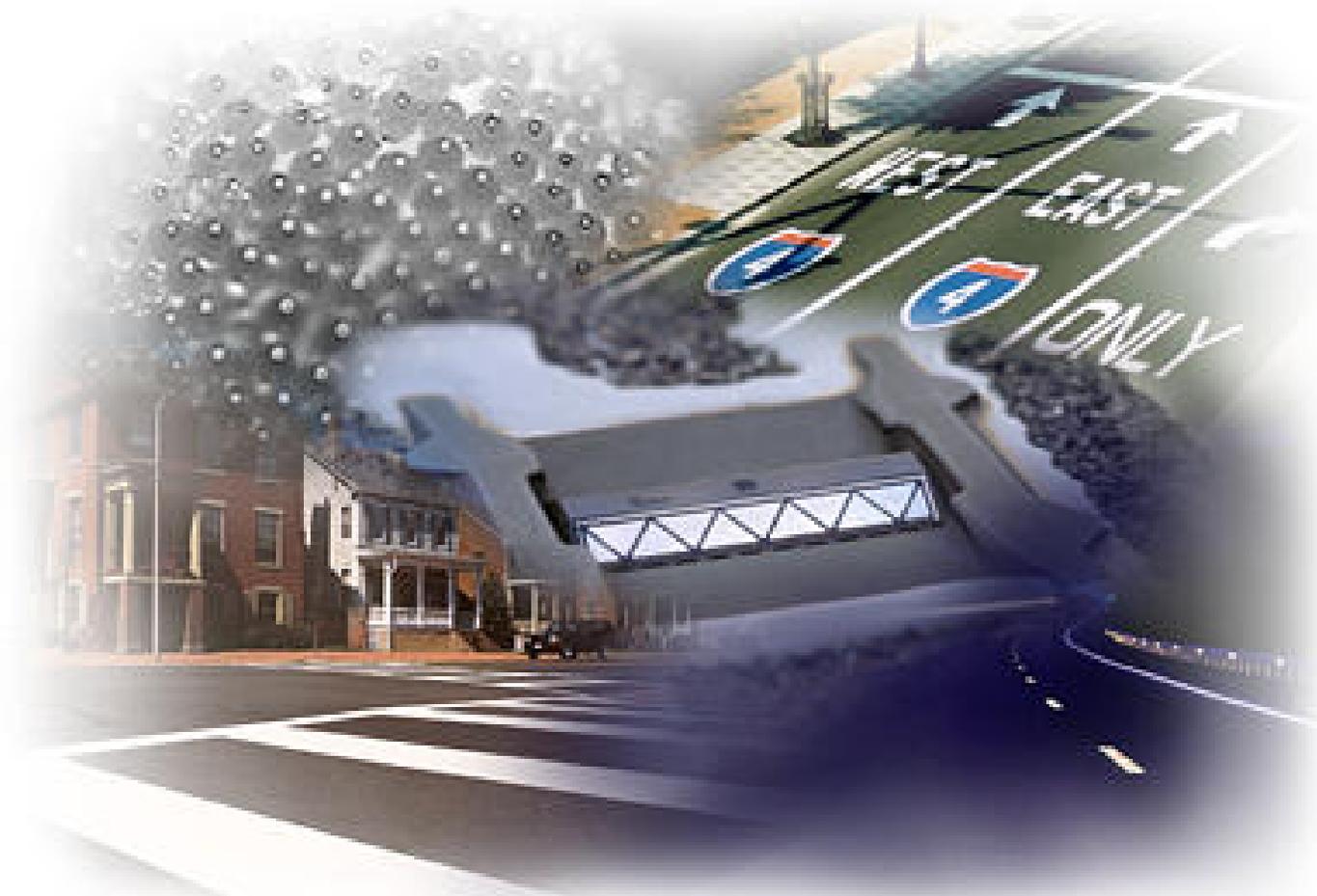


Pavement Markings
PE/PS Workshop 2009
Joe Novak

Pavement Markings PE/PS Workshop 2009 Joe Novak



Pavement Markings



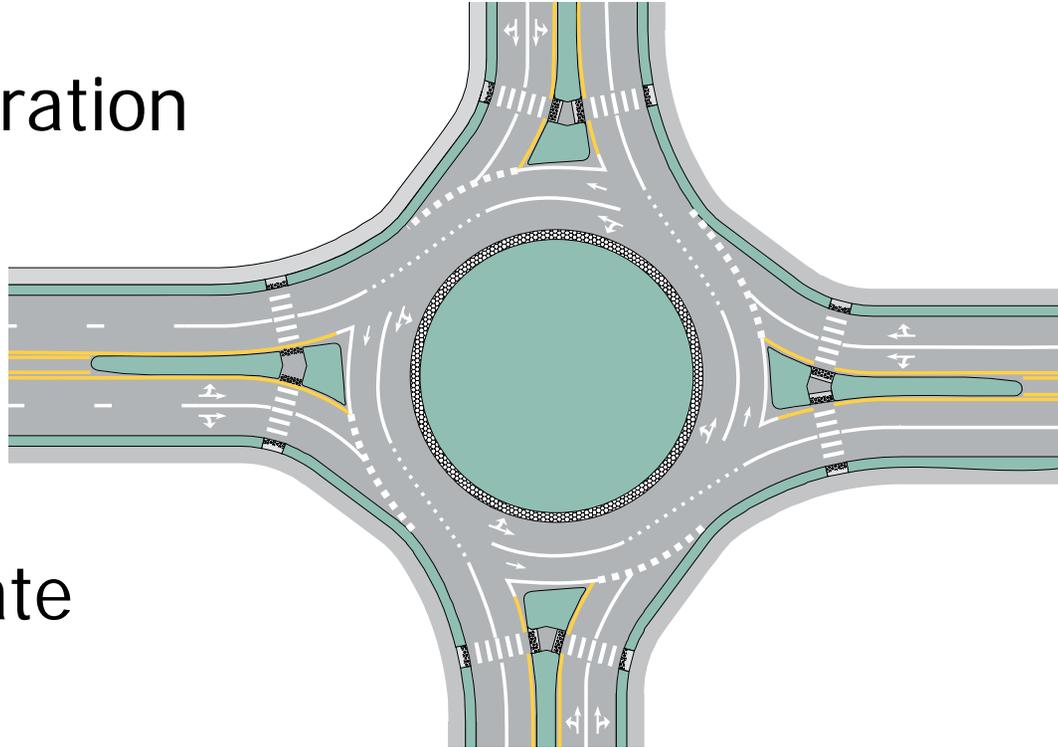
Pavement Markings - Materials

- Traffic paint or durable
- Basis for use (Frequency Manual)
 - Paint & beads – M Number
 - Performance Paint – Environmental Cert
 - Thermo & Preformed Plastic – Type C Cert
 - Epoxy Paint – Type A Cert



Pavement Markings - Placement

- Surface Preparation
- Dimensions
 - Layout
 - Alignment
 - Line width
- Application Rate
- Conditions
 - Temperature - Ambient, Pavement, Material
 - Moisture



Pavement Markings - Removal

Marking Removal



- Acceptable methods (SS 808.10)



Pavement Markings - Removal



Pavement Markings - Warranty



Pavement Markings - Warranty

- SS 808.09: All durable markings regardless of contract funding effective 10/2007
- 180 days after substantial completion or Nov 1st, whichever is later



Pavement Markings – Resurface Projects

- Obtain complete and accurate record of existing markings
 - Typically performed by Contractor as per SP
 - Video inspection usually not adequate – need distances, stationing, etc.
- Engineer advise District Traffic Engineer of schedule of placement of new markings
 - DTE will compare site record with NPZ log
 - DTE will make changes if necessary
- Engineer provide final direction to the Contractor
- Engineer notify DTE when complete

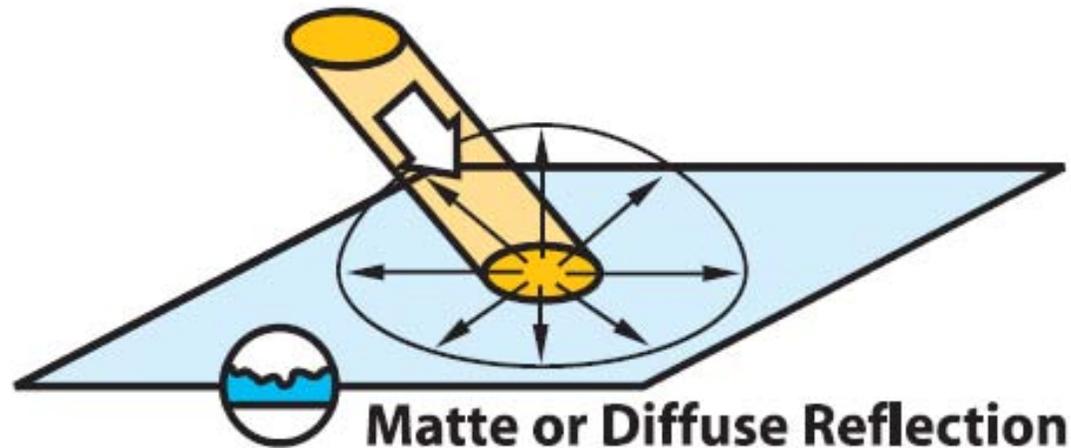


Performance Based Markings

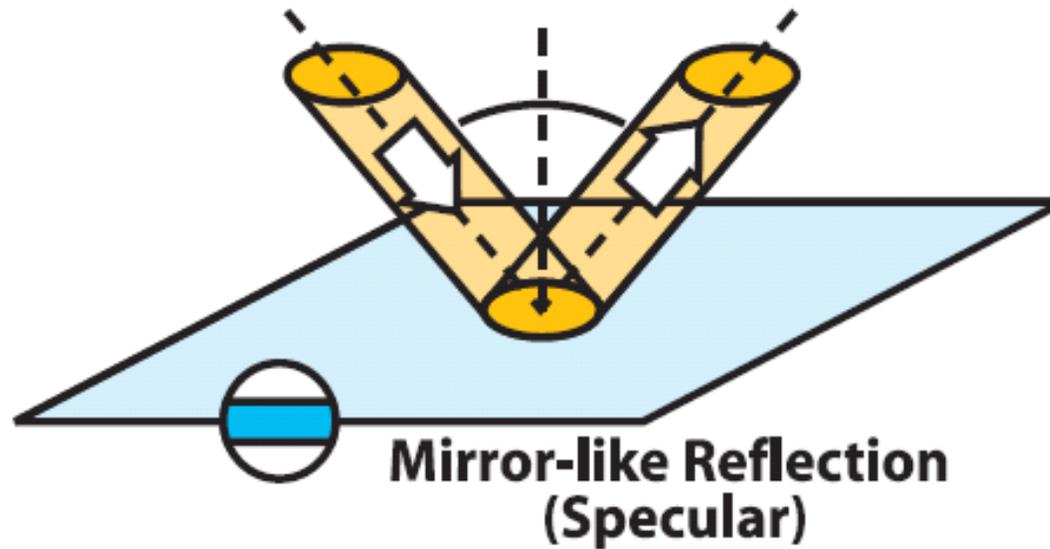
- Take advantage of new and varied products
- Currently by SP only for paint
- Performance criteria for durability, color, and retro-reflectivity
- Longitudinal Line only even though ITM 931 provides instruction for measuring transverse lines as well as letters and symbols
- Manufacturer's recommendations can be requested by the Engineer prior to the work



Diffuse Reflection = Most Typical
OK for high ambient light levels or very short
distances



Mirror-like = some materials



Retro-reflection = Back to the Source
Optical properties of beads (glass or ceramic spheres, sign sheeting)

