I-64 New Albany Emergency Pipe Repair
Introductions

- Chris Watts, Parsons
  - Project Manager
- Mike Wigger, Earth Exploration, Inc.
  - Geotechnical Engineering Lead
- Dan Miller, Parsons
  - Environmental Lead
- Bob Fisher, Parsons
  - Constructability Lead
Team Members:

• INDOT Seymour District
  ▪ Brandy Fischvogt, Greg Carlton, Brian Wathen, Ryan Cox, Rob Moran

• E & B Paving
  ▪ Jason Yeager, Spencer Coe, Kenny Spellman, Troy Ingle, Gary Mouser
Collapsed Pipe Causes Flooding

Homes in New Albany flooded this morning.
Area of Collapse

Existing 13’ Diameter Corrugated Metal Pipe

Area of Pipe Collapse
Original Construction – 1960’s

Valley View Creek Realigned Through 13’ Diameter Corrugated Metal Pipe
Landslide Correction – 1970’s

Extend 13’ Diameter Corrugated Metal Pipe

Existing 13’ Diameter Corrugated Metal Pipe
Emergency Excavation – E & B Paving
Existing Data Collection – Pipe Condition and Location
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Existing Data Collection – Pipe Condition and Location
Risk of Flooding
Geotechnical Issues – Understanding the History

Creek Alignment Pre-Interstate Construction

Interstate Alignment
Geotechnical Issues – Understanding the History

Creek Alignment Post Interstate Construction
Geotechnical Issues – Gathering Subsurface Information

• Review of original I-64 plans (1963) and slide correction plans (1975)
  ▪ Interstate on about 40 ft of fill. Slide plans limited.

• Exploratory work from the I-64 widening (2009)

• Exploratory work for emergency repair
  ▪ Confirmed fill depth
  ▪ Fill consisting of mix of fill and shot rock
  ▪ Depth to rock up to 60 ft
Geotechnical Issues – Sinkholes and Sloughing
Geotechnical Issues – Cobbles and Boulders, Fill

Tension Crack
Geotechnical Issues –
High Fill, Steep Backslopes, Loose Soil and Rock Fill

Good soil cut from CMP probably used for interstate embankment.
Fill over pipe mix of soil and rock

+30’ Fill over
Existing 13’ CMP
Environmental Challenges
Environmental Challenges
Environmental Challenges - Permitting
Environmental Challenges – Erosion & Sediment Control

1. Initial E&S Plan is to be revised as per INDOT Standard Specifications (SS) 186.04.

2. All proposed E&S measures shall be constructed, inspected, and maintained as per INDOT SS 205.04 and INDOT standard drawings. Refer to the INDOT Storm Water Management Field Guide for context and additional considerations.

3. All E&S measures in place at the start of construction must be maintained until modifying the measure is needed to accommodate the next phase of construction.

4. "Work Isolation Area" requires use of one of the following to isolate the work in the channel from exposure to the clean stream water. Temporary pump-around, clean tire and dewatering into one of the appropriately sized sediment basins, or filter bag on a stable outlet.

5. Minimize soil disturbance and temporary mulch areas that are going to remain inactive, or in advance of an expected storm.

6. Apply permanent seed as per INDOT SS as soon as work in an area has been finalized.

7. Slopes protected by plastic sheeting may be used in lieu of stabilized slope channel with geotextile.
Environmental Challenges – Erosion & Sediment Control
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Constructability - Design Plans

WEST SHEET WALL PROFILE

SCALE: 1"=40' (Horizontal)
       1"=10' (Vertical)
Constructability - Design Plans

Ex. 156" CMP, Leave In Place

Elev 415.3

See Section A-A on Sheet Wall Detail Sheet For Additional Detail

East Sheet Wall

West Sheet Wall
Constructability – Site Access
Constructability
Any Questions?