CONSTRUCTION PROBLEMS

- Project sold for $9,931,409.14 to Shelly and Sands
- Preconstruction meeting held 11-24-15
- Railroad delays due to soil nail wall acceptance
- Several meetings and submittals until Railroad approval on 1-9-2017
- Retaining wall construction started early 2017
SOLDIER PILE AND LAGGING WALL

90 piles with 130 ground anchors
SOLDIER PILE AND LAGGING WALL
SOLDIER PILE AND LAGGING WALL
Emergency Action Plan items in place
EAP beam delivered and stored on site
RAILROAD BRIDGE ABUTMENT DETAILS
SOIL NAIL WALL

- Used 5" cased drilling method.
- Five attempts to drill verification nail #1 due to obstructions. Passed.
- Drilled first row of nails.
- Proof tested #45 in middle of row. Failed.
- Re-drilled #45. Failed again.
- Allowed contractor to proceed to verification nail #2 with railroad approval. Failed.
SOIL NAIL WALL

- Changes made to drilling operation. Increased bore diameter to 8" instead of 5" and extended soil nails from 35 ft to 45 ft.
- Re-drilled verification nail #2. Did not pass, but made significant improvement so continued to proceed.
- Took soil samples from drilling operations at 3 ft, 23 ft, and 40 ft.
- Drilled second row of nails.
- Proof tested soil nail #32 on second row. Passed!
16 piles were discovered. Left in place from the railroad when constructing bridge in the early 1960's
TANGENT WALL CONSTRUCTION

- Removed piles interfering with tangent wall with pile extractor.
- Some were over 60 ft long.

ftp://ftp.dot.state.oh.us/pub/districts/d11/otec/IMG_0559.MOV
ftp://ftp.dot.state.oh.us/pub/districts/d11/otec/IMG_0568.MOV
EMERGENCY ACTION PLAN

- Heavy rain and pile extraction caused tiltmeter alarm.
- Site prep for cranes.
- Worked continuously for 72 hours until beam in place.
- Tiltmeters stabilized.
- Proceeded with tangent wall.
TANGENT WALL CONSTRUCTION
TANGENT WALL CONSTRUCTION
TANGENT WALL CONSTRUCTION
WALL CONSTRUCTION COMPLETED
THANK YOU!

- Zachary Evick, PE. ODOT District 11

QUESTIONS?