

**U.S. 202
(EAST DEKALB PIKE)
SINKHOLE REMEDIATION**

PROJECT BRIEFING

UPPER MERION TOWNSHIP

BOARD OF SUPERVISORS WORKSHOP – 6/6/2024

PURPOSE AND AGENDA

- Purpose: provide Upper Merion Township with an update on the SR 202 Sinkhole Remediation Project
- Agenda:
 - Overview
 - Proposed Improvements
 - During Construction
 - Project Schedule
 - Questions



Photo source: NBC10 Philadelphia



PROJECT LOCATION

APPROXIMATE
SINKHOLE
TREATMENT
AREA

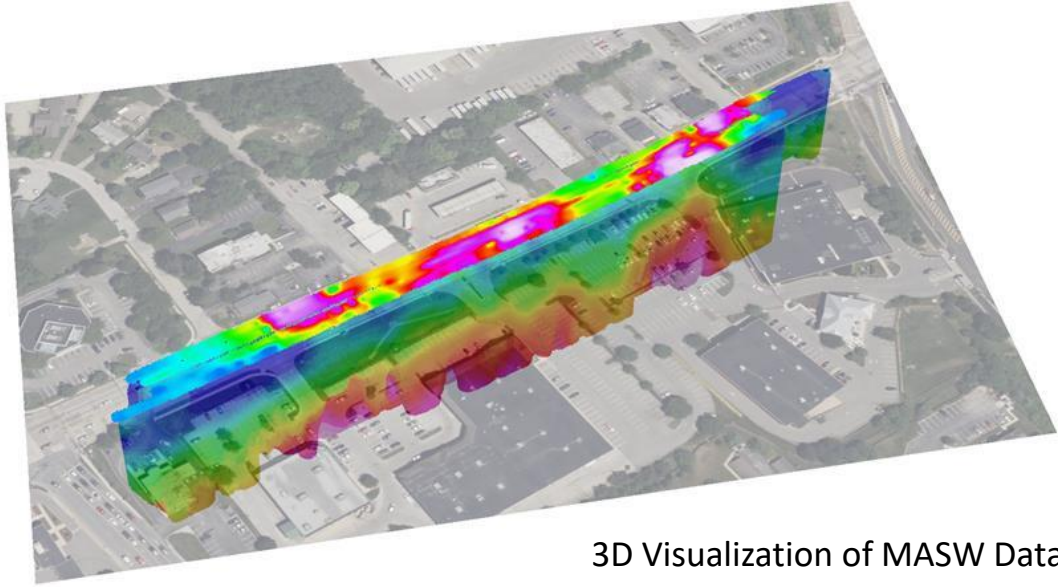


SINKHOLE HISTORY

- Repeated sinkholes:
 - Summer 2023
 - Winter 2023
 - Spring 2024 (additional pavement settlement)

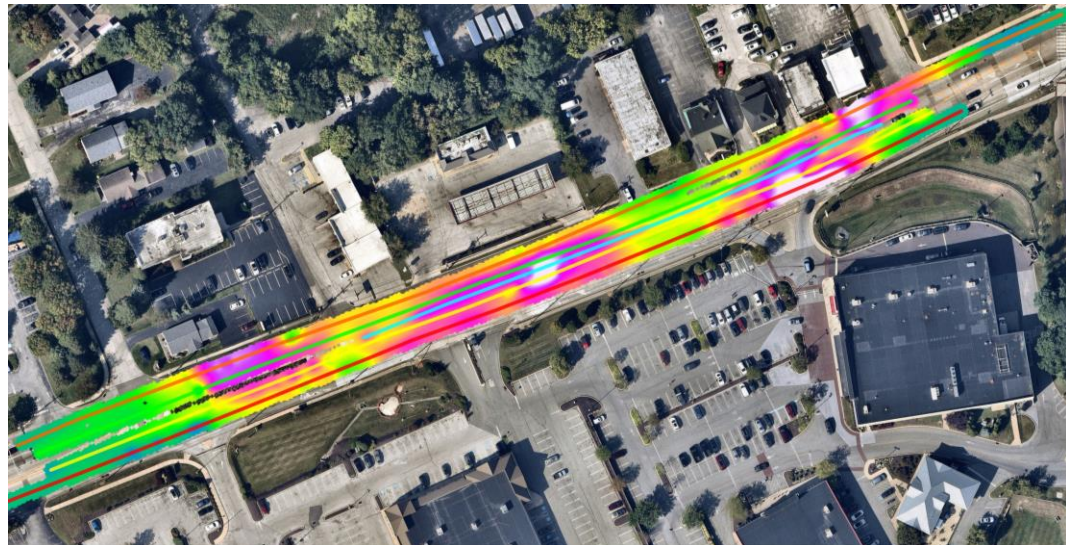


SITE INVESTIGATION

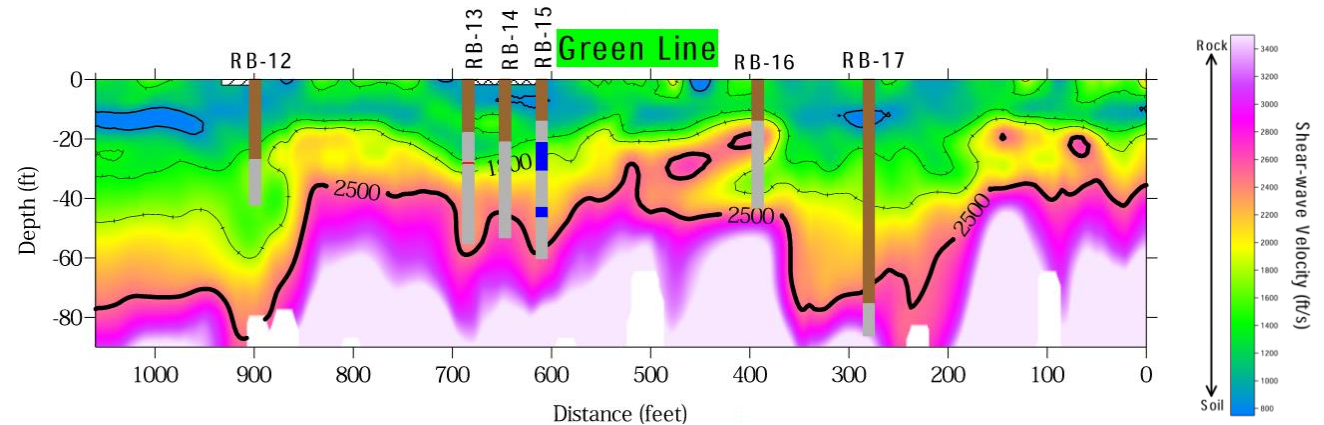


3D Visualization of MASW Data

- 2024 Geotechnical Investigation
 - Multichannel Analysis of Surface Waves (MASW)
 - Electrical Resistivity Imaging (ERI)
 - Ground Penetrating Radar (GPR)
 - Test Borings
 - Video of Storm/Sewer Lines



2D Visualization of MASW Data



Cross Section of MASW Green Line and Test Boring Correlation



PROPOSED IMPROVEMENTS

- Limited mobility grouting (LMG) program
- Shallow sinkhole repairs
- Drainage improvements
 - Pipe lining / pipe replacement
- New concrete pavement construction
- Relocation of water main (American Water)



Photo source: NBC10
Philadelphia



PROPOSED IMPROVEMENTS

Limited Mobility Grouting Program – Typical Layout

Typical LMG Equipment:

1. Drill Rig
2. Grout Pump
3. Grout Hose(s)
4. Air Compressor
5. Air Compressor Hose(s)
6. Skid-Steer
7. Grout Material
 - a) Concrete trucks
 - b) Batch Plant with Sand/Cement Staging Area

Other Equipment / Site Materials:

1. Water Truck or Water-Main Connection
2. Temporary Casing
3. Waste Grout



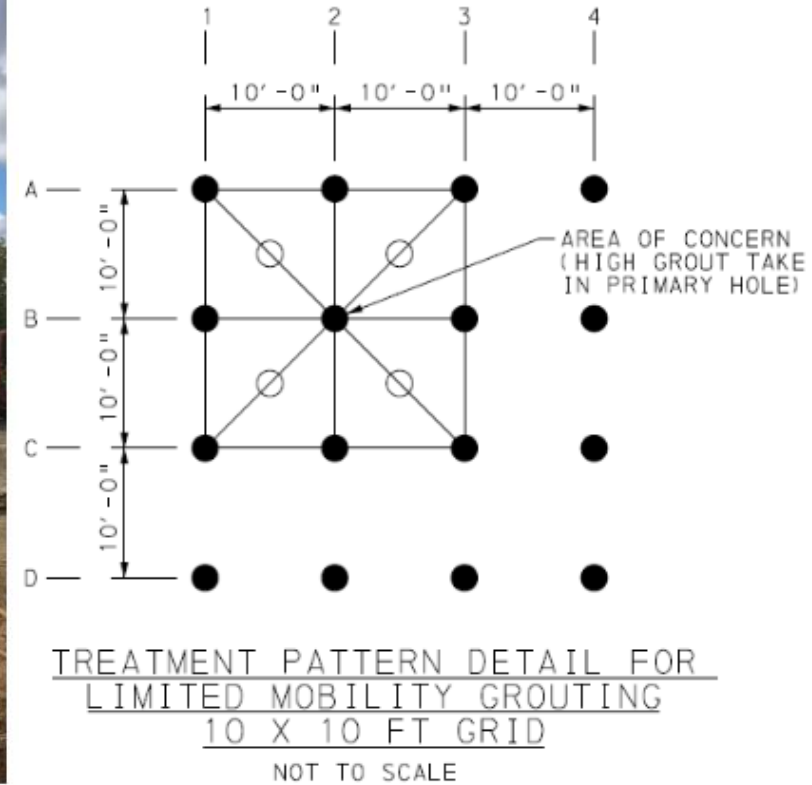
PROPOSED IMPROVEMENTS



Battered grout hole drilling near overhead utilities



Vertical grout hole drilling



PENNDOT CONSTRUCTION

- Proposed Traffic Control Plan
 - Stage 1 – Maintain 2 southbound lanes along 202.
 - Detour northbound traffic along Henderson Road to Saulin Boulevard.
 - Stage 2 – Maintain 2 northbound lanes along SR 202.
 - Detour southbound traffic along Saulin Boulevard to Henderson Road.
- Maintain access to all adjacent properties and businesses.



STAGE 1 DETOUR

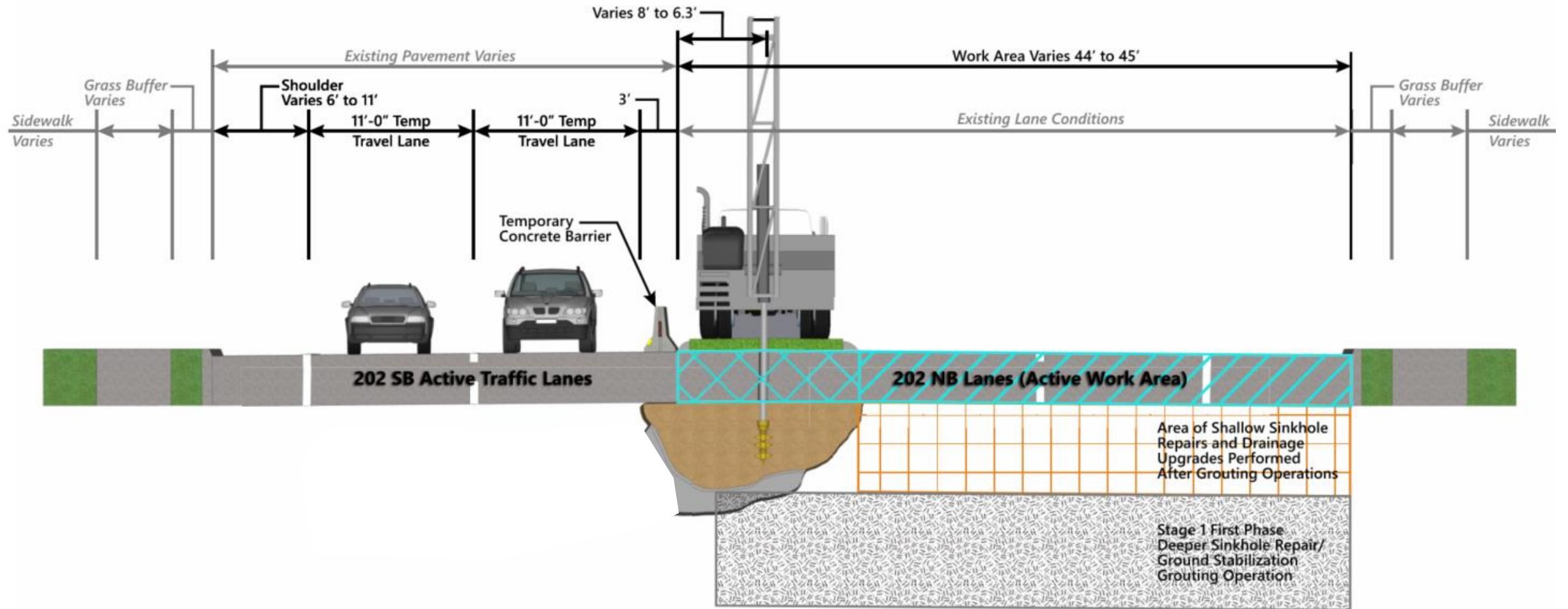


STAGE 2 DETOUR

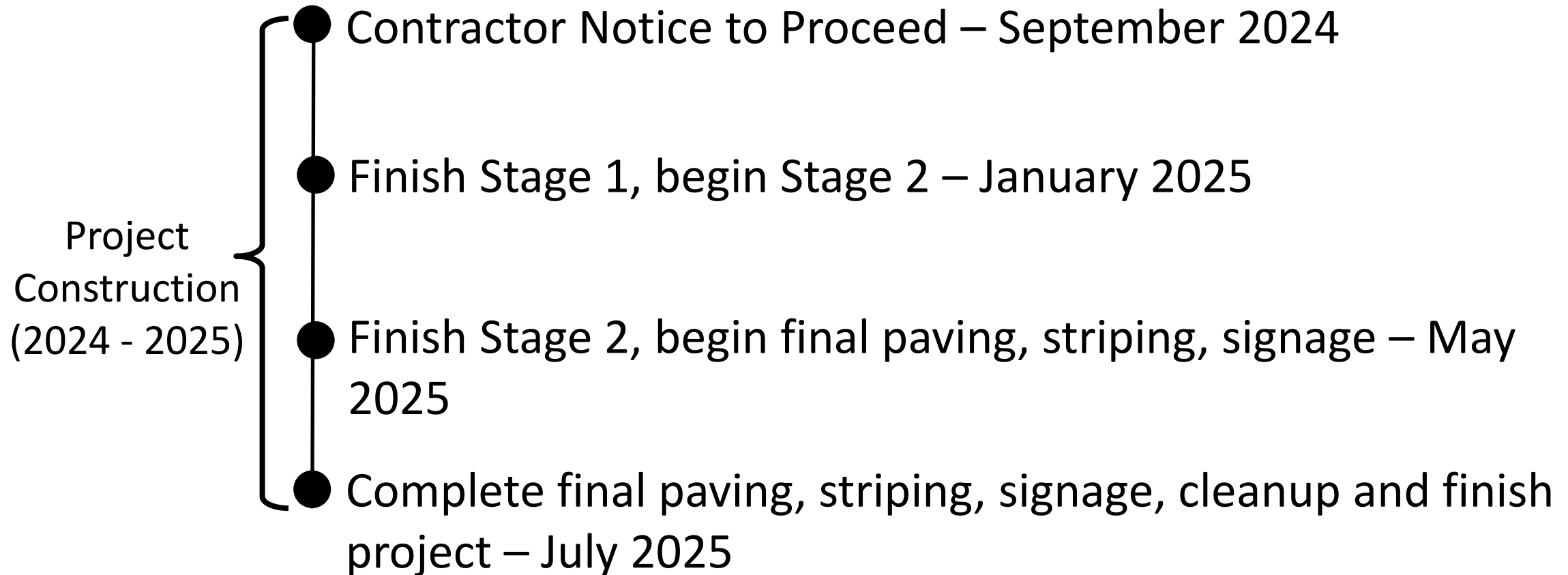


CROSS SECTION

US 202 Construction Work Zone Typical



PLANNED PROJECT SCHEDULE



Questions?

Project Website:

[U.S. 202 \(DeKalb Pike\) Sinkhole Remediation Project \(pa.gov\)](#)

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