Sherman Drive Park Drainage Improvements
100% Design Public Meeting

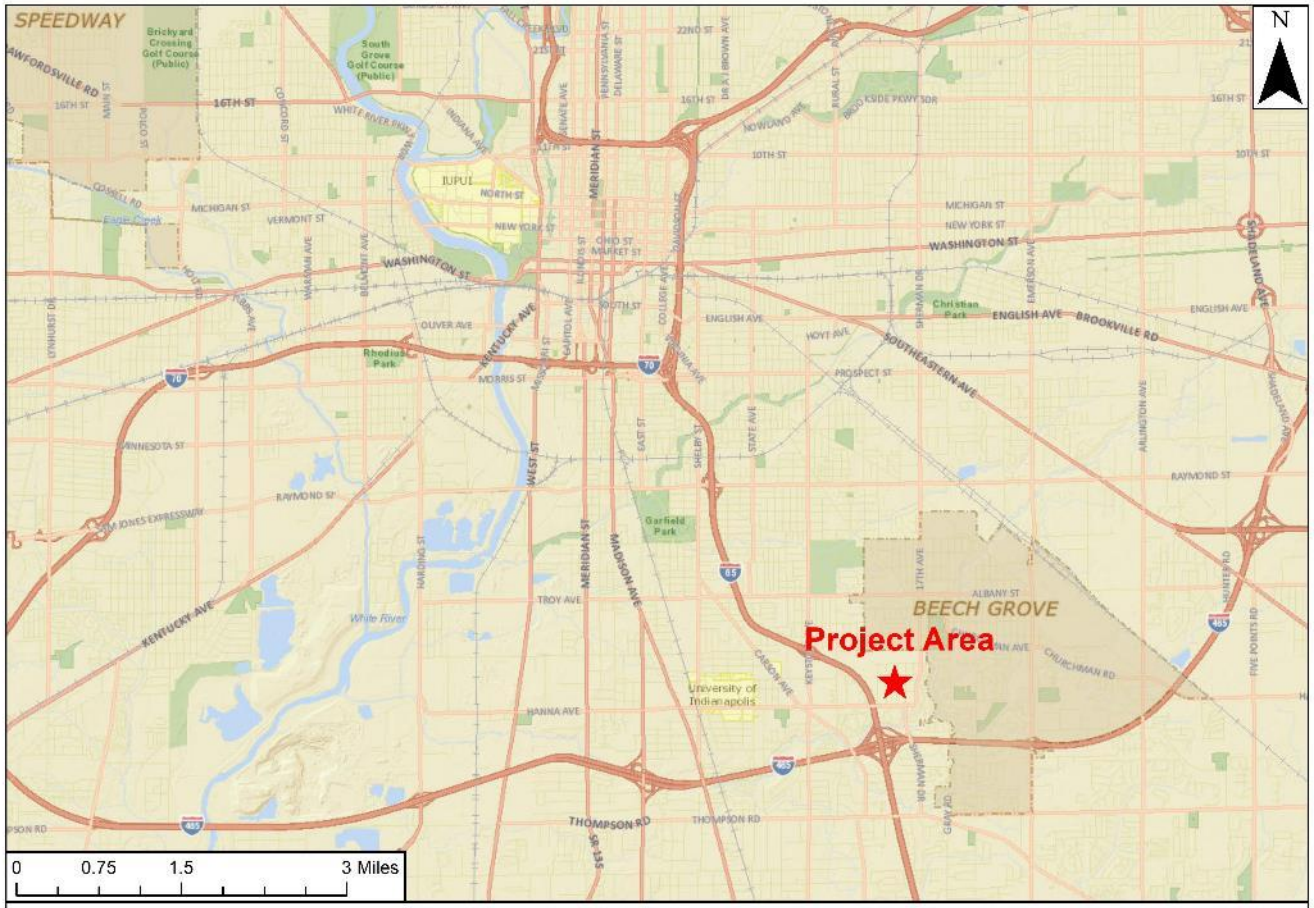
Presented by: Jay Gibson, PE

Date: August 5, 2021

Project Team

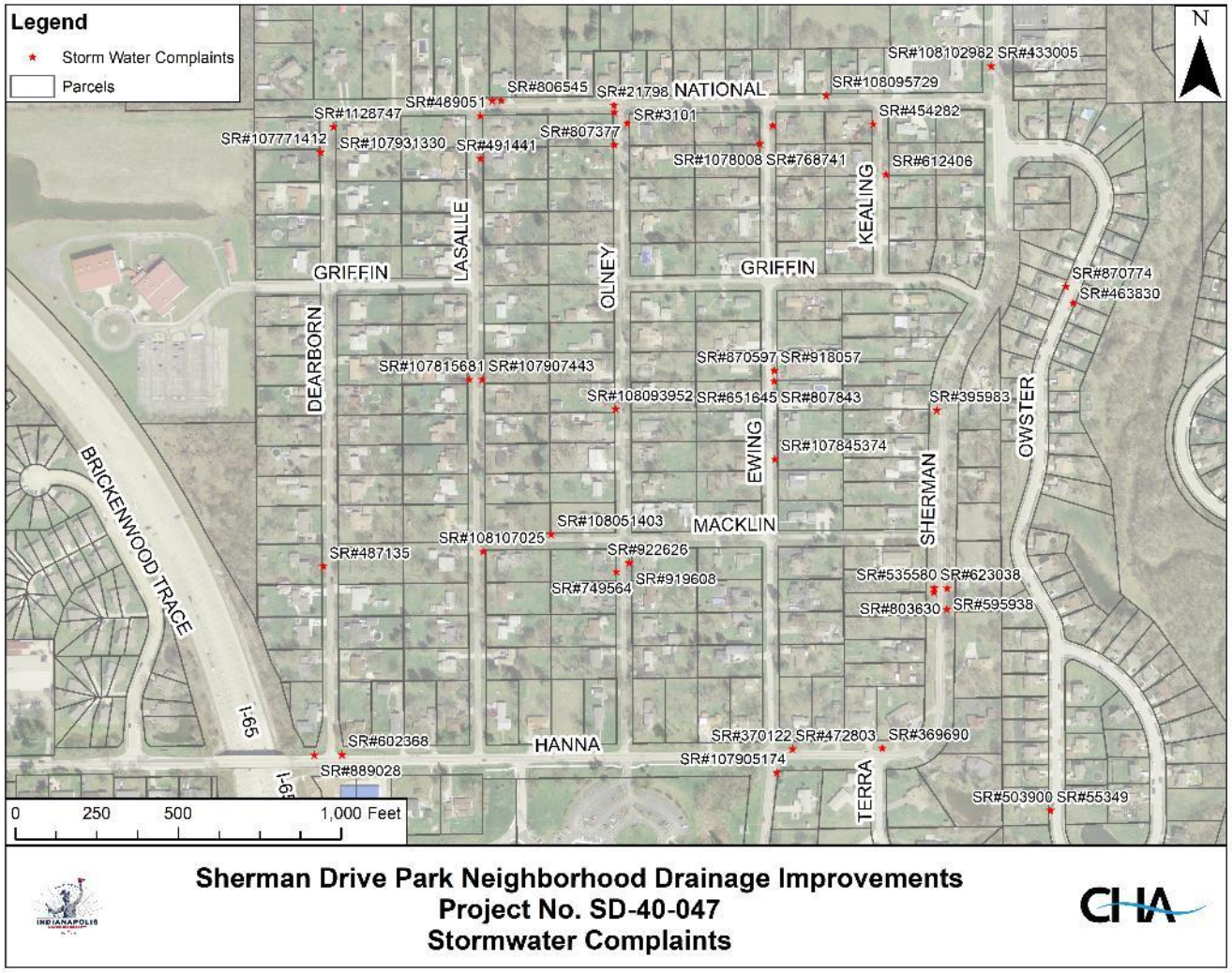
- Owner: City of Indianapolis
  Department of Public Works (DPW)
- DPW Project Manager: Gavin Merriman
- Public Information Officer: Jenelle Bunton
  - Email: Jenelle.Bunton@indy.gov
  - Phone: (317) 327-2311
- Design Engineering Firm: CHA Consulting, Inc.
- Design Engineer: Jay Gibson, PE

Project Location



Sherman Drive Park Drainage Improvements
Project No. SD-40-047
Project Location

Locations of Stormwater Complaints



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Drainage Problems

3879 and 3890 S. Ewing Street

S. LaSalle Street

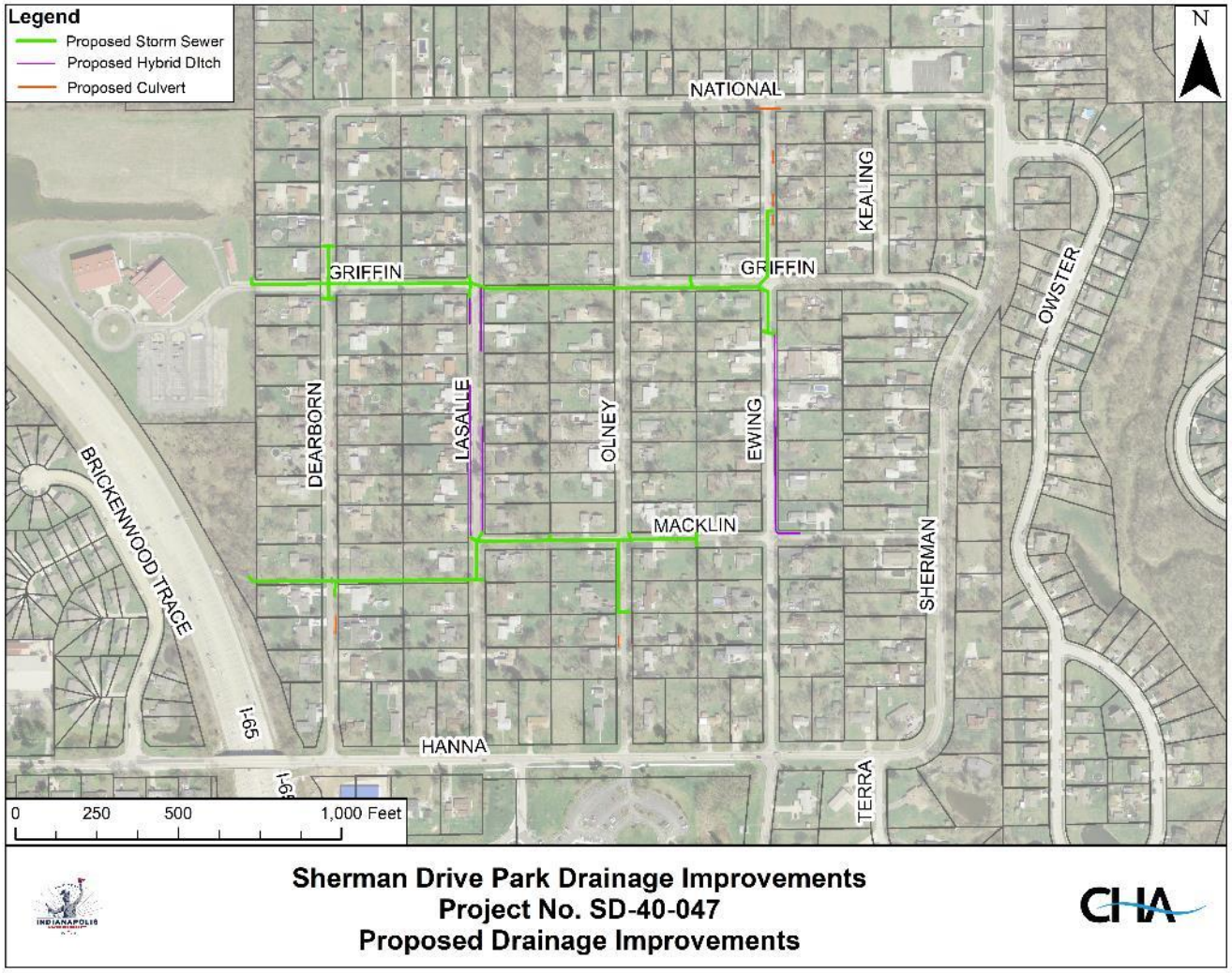
- Existing Drainage Problems
  - Property flooding
  - Standing water
  - Clogged/failing culverts*
  - Culverts lacking proper slope/capacity
  - Ditches need regrading

*Culverts are private infrastructure, but the City will replace them as a component of larger area-wide capital projects

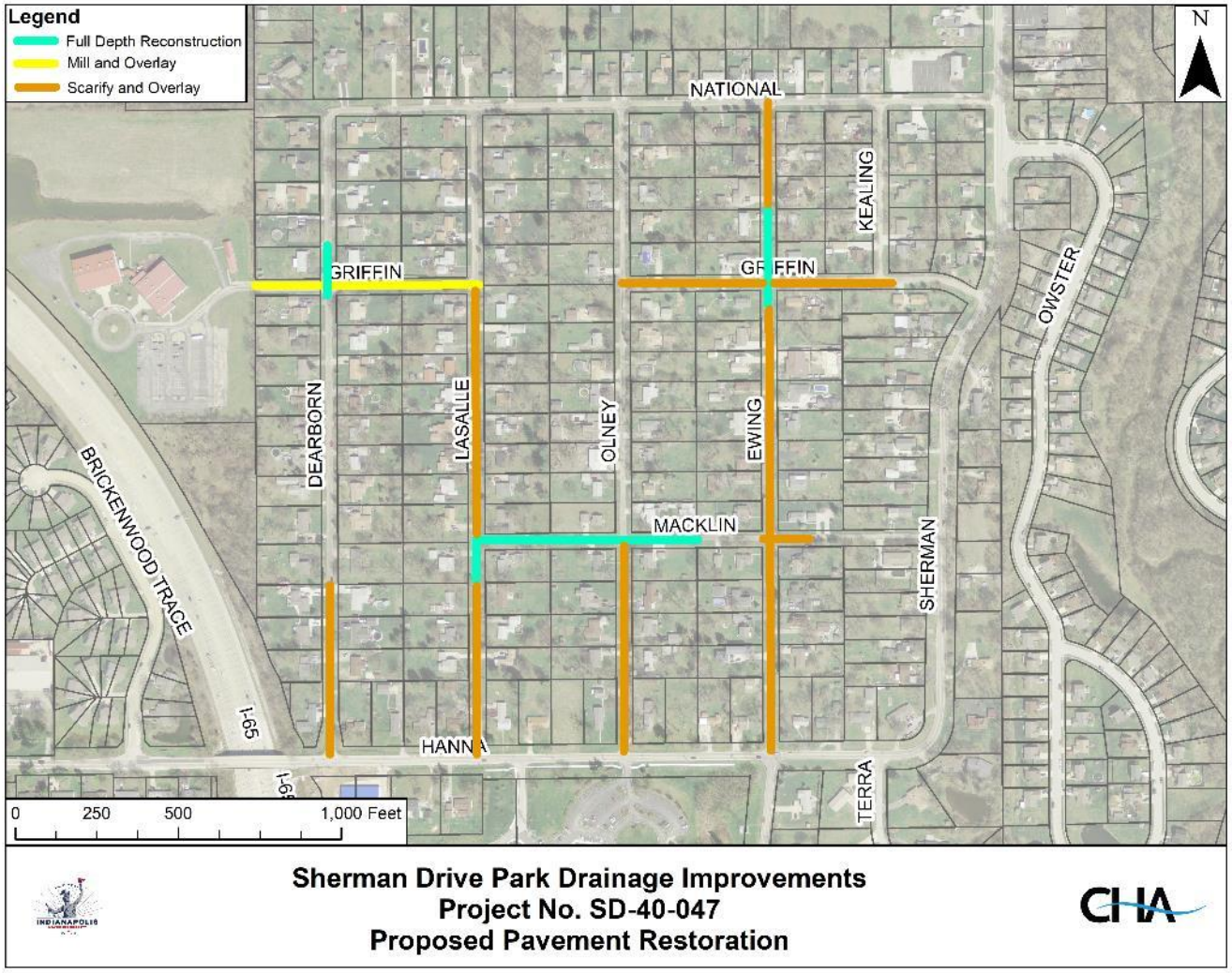
Proposed Improvements

- Entire Project – Estimated $2.1M – Local project funded by Indianapolis Stormwater Service Fees
- Drainage Improvements – Estimated $1.7M
  - Storm Sewer
  - Hybrid Ditches
  - Culverts
  - Ditch Grading
- Pavement Restoration – Estimated $400K
  - Full Width
  - Full Depth Reconstruction
  - Mill and Overlay
  - Scarify and Overlay

Proposed Drainage Improvements



Proposed Pavement Restoration



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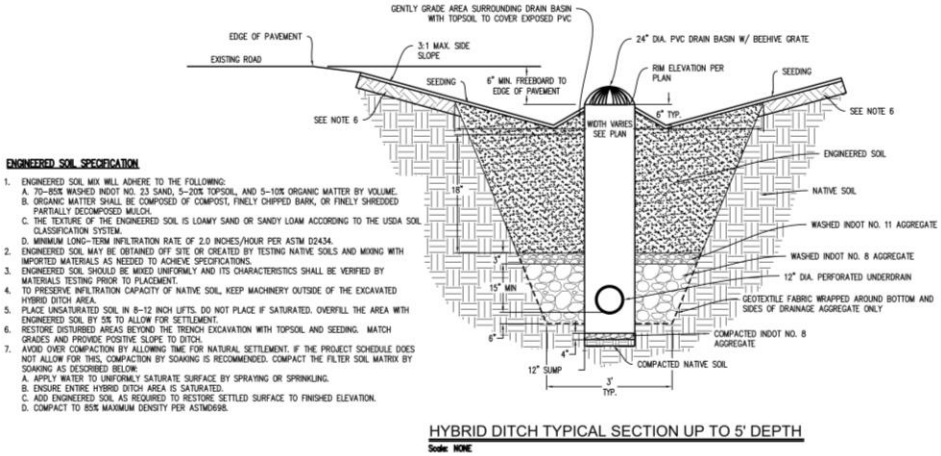
Storm Sewer

Storm Sewer Structure

Storm Sewer Pipe

Hybrid Ditch

Hybrid Ditch Details



ENGINEERED SOIL SPECIFICATION

1. ENGINEERED SOIL MIX WILL ADHERE TO THE FOLLOWING:
   A. 70–85% WASHED INDOT NO. 23 SAND, 5–20% TOPSOIL, AND 5–10% ORGANIC MATTER BY VOLUME.
   B. ORGANIC MATTER SHALL BE COMPOSED OF COMPOST, FINELY CHIPPED BARK, OR FINELY SHREDDED PARTIALLY DECOMPOSED MULCH.
   C. THE TEXTURE OF THE ENGINEERED SOIL IS LOAMY SAND OR SANDY LOAM ACCORDING TO THE USDA SOIL CLASSIFICATION SYSTEM.
   D. MINIMUM LONG-TERM INFILTRATION RATE OF 2.0 INCHES/HOUR PER ASTM D2434.
2. ENGINEERED SOIL MAY BE OBTAINED OFF SITE OR CREATED BY TESTING NATIVE SOILS AND MIXING WITH IMPORTED MATERIALS AS NEEDED TO ACHIEVE SPECIFICATIONS.
3. ENGINEERED SOIL SHOULD BE MIXED UNIFORMLY AND ITS CHARACTERISTICS SHALL BE VERIFIED BY MATERIALS TESTING PRIOR TO PLACEMENT.
4. TO PRESERVE INFILTRATION CAPACITY OF NATIVE SOIL, KEEP MACHINERY OUTSIDE OF THE EXCAVATED HYBRID DITCH AREA.
5. PLACE UNSATURATED SOIL IN 8–12 INCH LIFTS. DO NOT PLACE IF SATURATED. OVERFILL THE AREA WITH ENGINEERED SOIL BY 5% TO ALLOW FOR SETTLEMENT.
6. RESTORE DISTURBED AREAS BEYOND THE TRENCH EXCAVATION WITH TOPSOIL AND SEEDING. MATCH GRADES AND PROVIDE POSITIVE SLOPE TO DITCH.
7. AVOID OVER COMPACTION BY ALLOWING TIME FOR NATURAL SETTLEMENT. IF THE PROJECT SCHEDULE DOES NOT ALLOW FOR THIS, COMPACTION BY SOAKING IS RECOMMENDED. COMPACT THE FILTER SOIL MATRIX BY SOAKING AS DESCRIBED BELOW.
   A. APPLY WATER TO UNIFORMLY SATURATE SURFACE BY SPRAYING OR SPRINKLING.
   B. ENSURE ENTIRE HYBRID DITCH AREA IS SATURATED.
   C. ADD ENGINEERED SOIL AS REQUIRED TO RESTORE SETTLED SURFACE TO FINISHED ELEVATION.
   D. COMPACT TO 85% MAXIMUM DENSITY PER ASTMD698.

HYBRID DITCH TYPICAL SECTION UP TO 5' DEPTH
Scale: NONE

Hybrid Ditch After Rain Event and under normal conditions

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Culverts/Ditches

Culverts in Wet Weather –

existing condition, prior to improvements

Graded/Protected Ditch –

ditch grades/side slopes limited by available Right-Of-Way

Project Schedule*

*Land acquisition and utility coordination to eliminate conflicts are ongoing and could delay this project schedule.

Task	Date
Design Complete	End of August, 2021
Bid Opening Date	October 14, 2021
Construction Start Date	January 3, 2022
Final Completion Date	November 14, 2022

Questions?

- DPW Contact Information
  - Contact: Jenelle Bunton
  - Email: Jenelle.Bunton@indy.gov
  - Phone: (317) 327-2311