



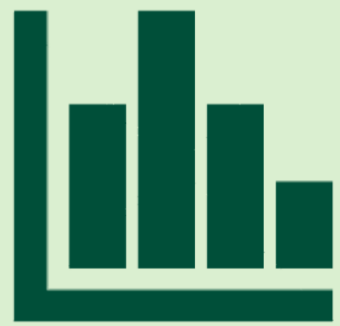
# Keyser Valley Stormwater & Flood Mitigation Design

Presented to: City of Scranton

December 6, 2023



# Agenda



Study Phase  
Report



Tropical Storm  
Ida



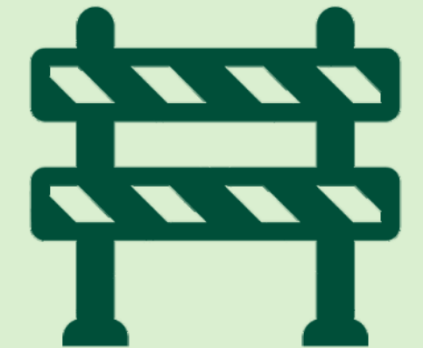
Drainage Area  
Effect from  
Lindy Creek



Proposed  
Improvements



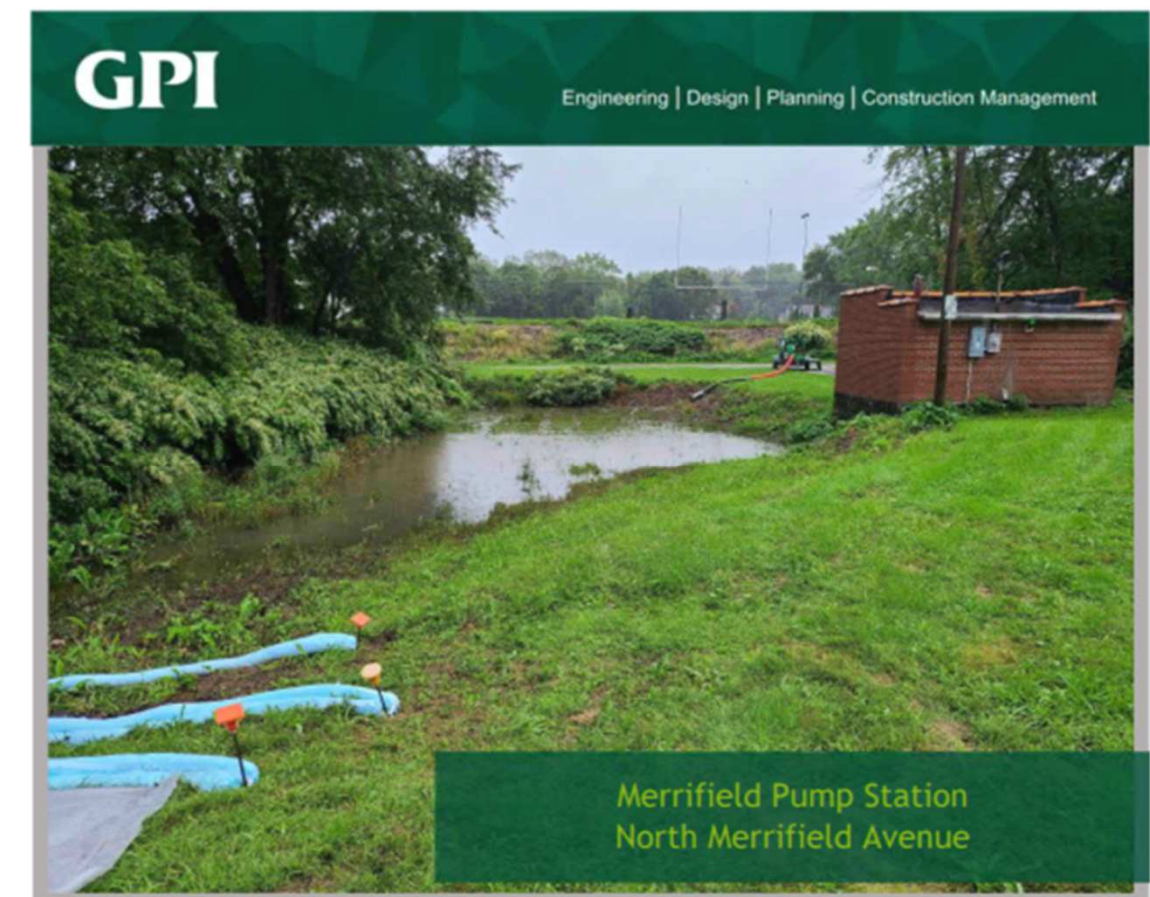
Design Phase



Immediate  
Action

# Study Phase Report

- **Report Dated September 24, 2021**
  - Data Collection & Existing Conditions
  - Pipe Investigation & Cleaning
  - Stormwater Modeling
  - Findings of Tropical Storm Ida
  - Proposed Improvements
  - Cost Estimate



## KEYSER VALLEY STORMWATER AND FLOOD MITIGATION STUDY

Prepared for:

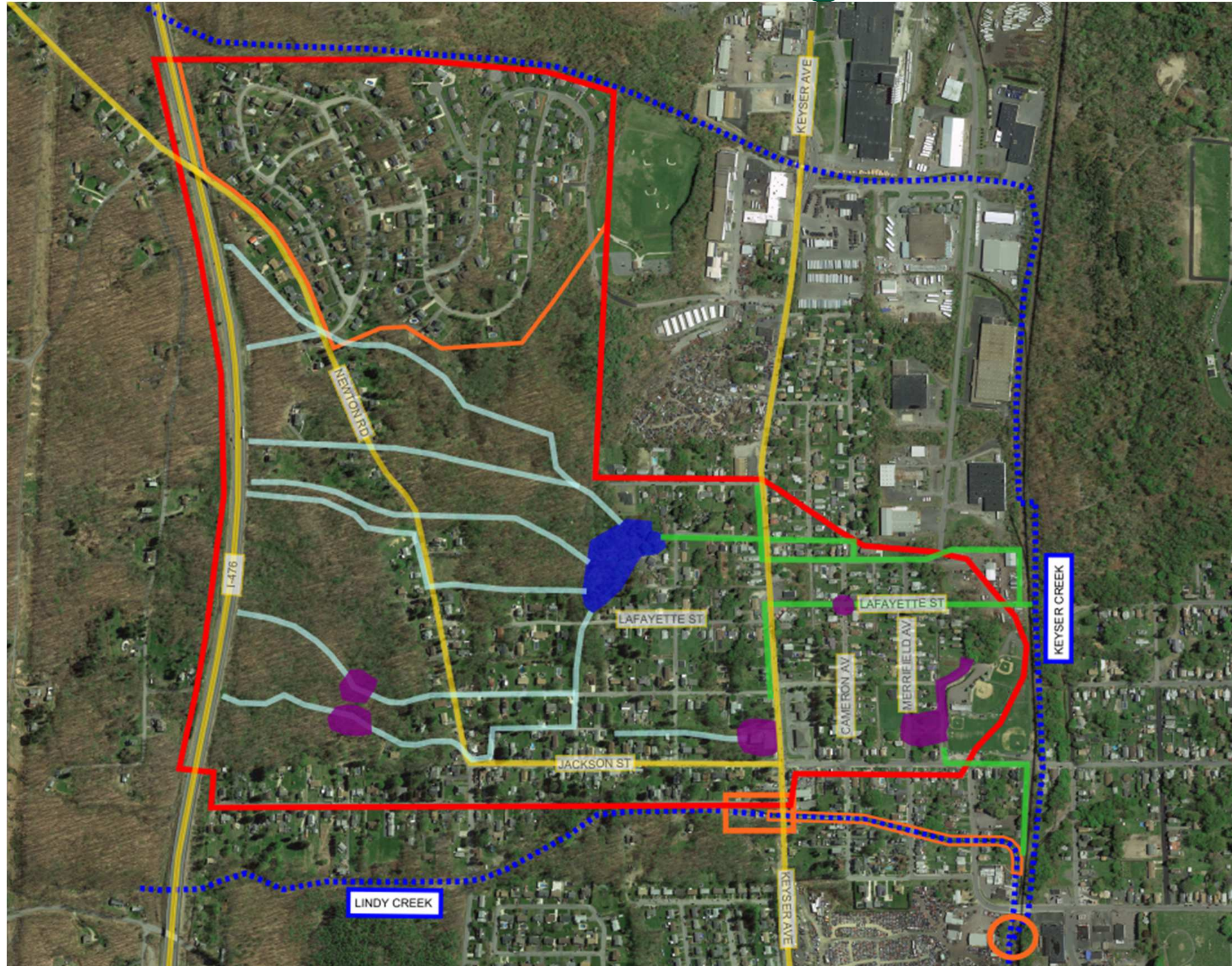


340 N. Washington Avenue  
Scranton, PA 18503

City of Scranton  
Lackawanna County

Date:  
Preliminary Submission: September 24, 2021

# Data Collection & Existing Conditions



- **Identify Study Area**
  - Fawnwood Development
  - Keyser Creek
  - Lindy Creek Confluence
  - Lindy Creek Debris Basin
  - Merrifield Pump Station
  - Dry Dam
- **Pipe Investigation & Cleaning**
- **Stormwater Modeling**
- **Tropical Storm Ida Observed Flooding**

# Tropical Storm Ida, September 1, 2021

Merrifield Pump Station, 2pm



Merrifield Pump Station, 8pm



# Tropical Storm Ida, September 1, 2021

Briggs St & Cameron Av, 2pm



Briggs St, 2pm



# Tropical Storm Ida, September 1, 2021

Price St & Dewey Av, 2pm



Price St & Dewey Av, 8pm



# Tropical Storm Ida, September 1, 2021

Lafayette St & Dewey Av, 2pm



Lafayette St & Dewey Av, 8pm





# Tropical Storm Ida, September 1, 2021

36" Outlet to Keyser Creek, 2pm



36" Outlet to Keyser Creek, 8pm



# Tropical Storm Ida, September 1, 2021

Newton Rd, 8pm



Newton Rd, 8pm



# Tropical Storm Ida, September 1, 2021

Lafayette St & Cameron Av, 8pm



Quay Av, 8pm



# Drainage Area Effect from Lindy Creek, September 2023



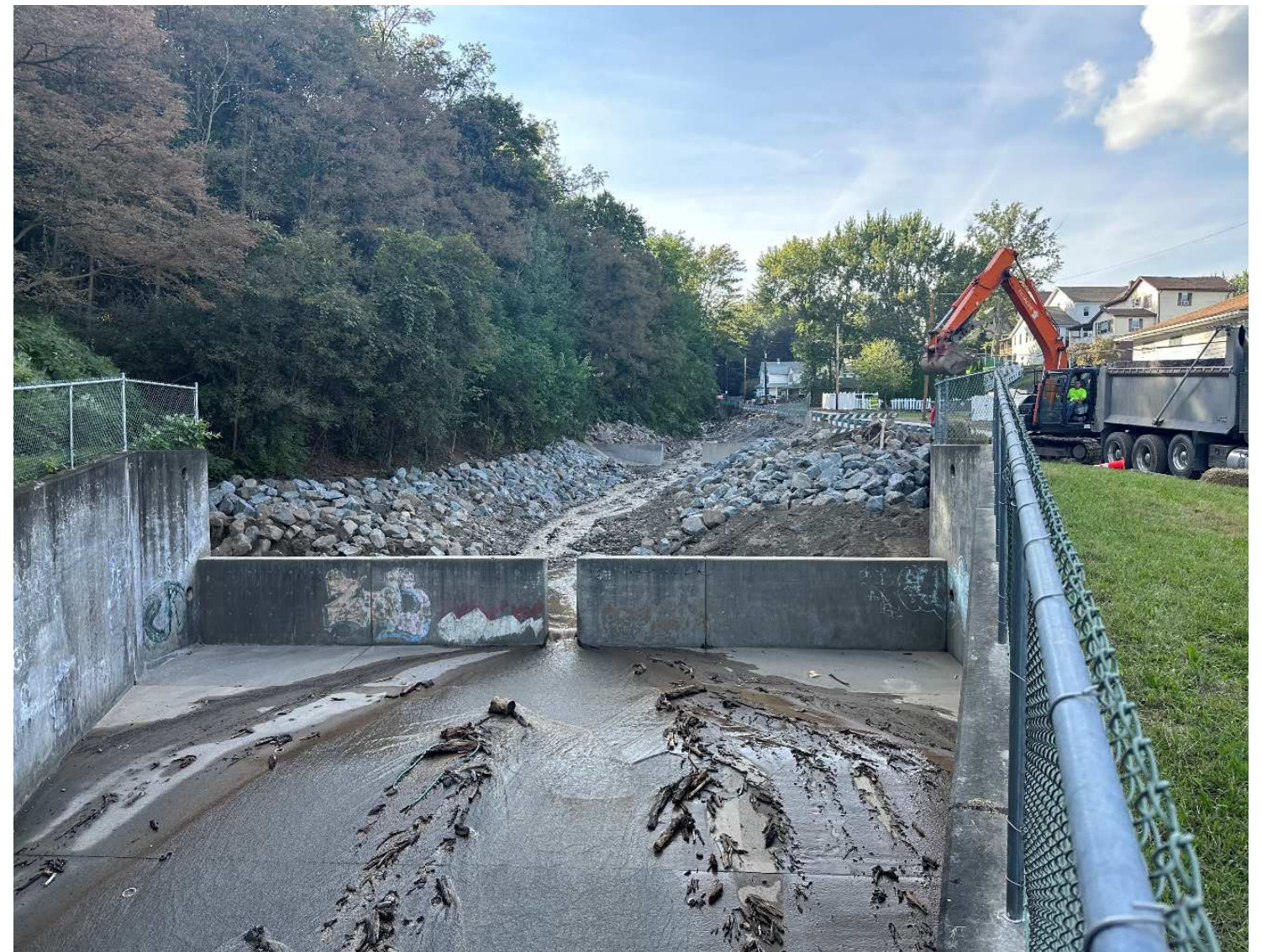
- Overtopping due to stream obstructions
- Overtopping flows drained to Merrifield Pump Station
- Lindy Creek Improvements will be completed separate by the City.

# Drainage Area Effect from Lindy Creek, September 2023

Lindy Creek, Looking Downstream



Lindy Creek, Looking Upstream  
from Debris Basin



# Drainage Area Effect from Lindy Creek, September 2023

September 1, 2021, without Lindy Creek Overtopping

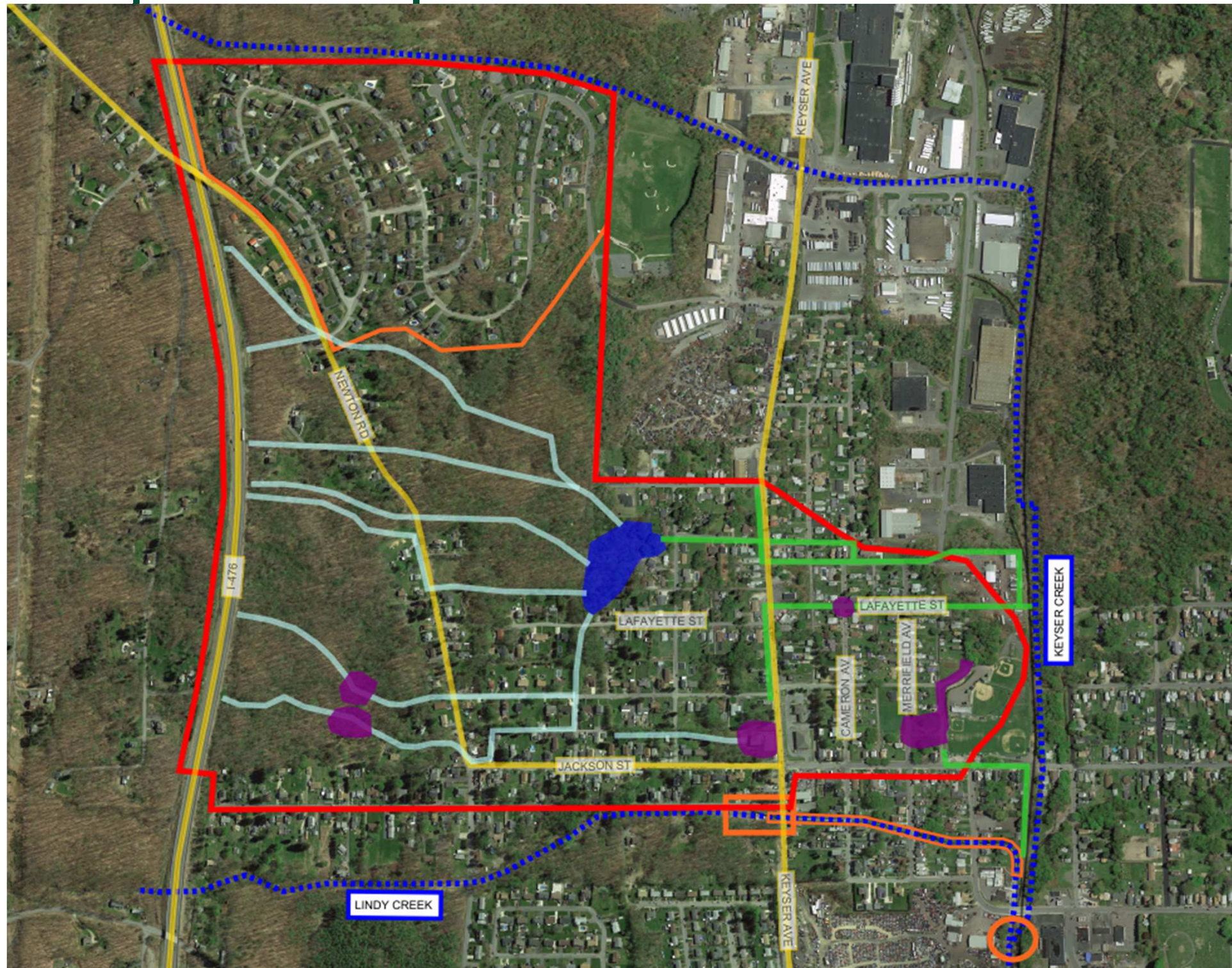


GPI

September 11, 2023, with Lindy Creek Overtopping



# Proposed Improvements

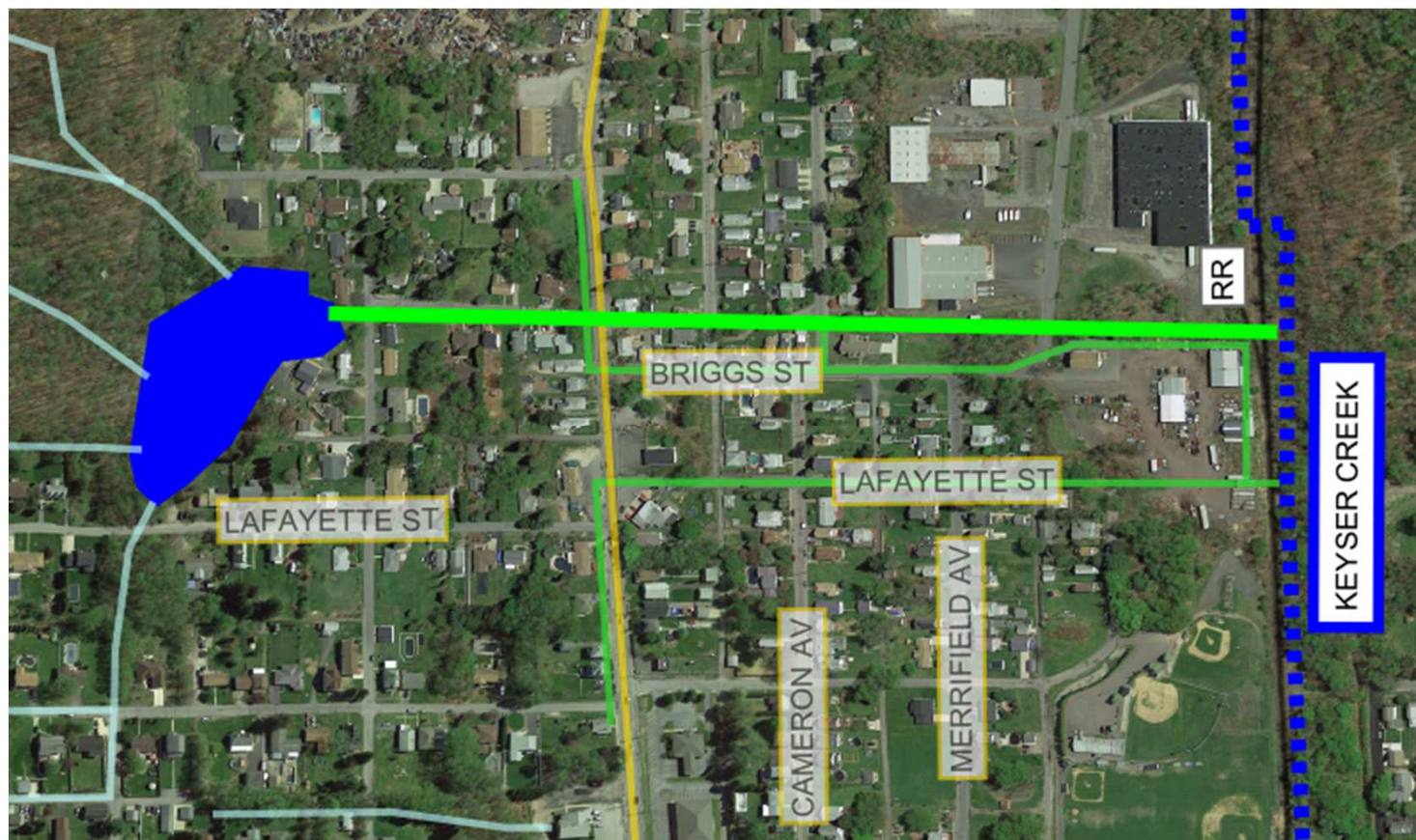


- **Additional Conveyance Outfall, Dry Dam to Keyser Creek**
- **Existing System Upgrades**
- **New Conveyance System**
- **Channel / Dry Dam Improvements**
- **Pump Station Improvements**
- **Fawnwood Heights Drainage**

# Design Phase

## Additional Conveyance Outfall, Dry Dam to Keyser Creek

Addresses: Surcharging Inlets from Flow in Upper Watershed



### Permitting

- PennDOT Highway Occupancy Permit
- PA DEP Waterway & Wetlands General Permit, GP-04



### Coordination

- Reading, Blue Mountain & Northern RR
- Utility Impacts / Subsurface Utility Engineering
- Wetlands / Threatened or Endangered Species



### Property Easements

- Potential Impacts of Approx. 10 Properties



### Schedule

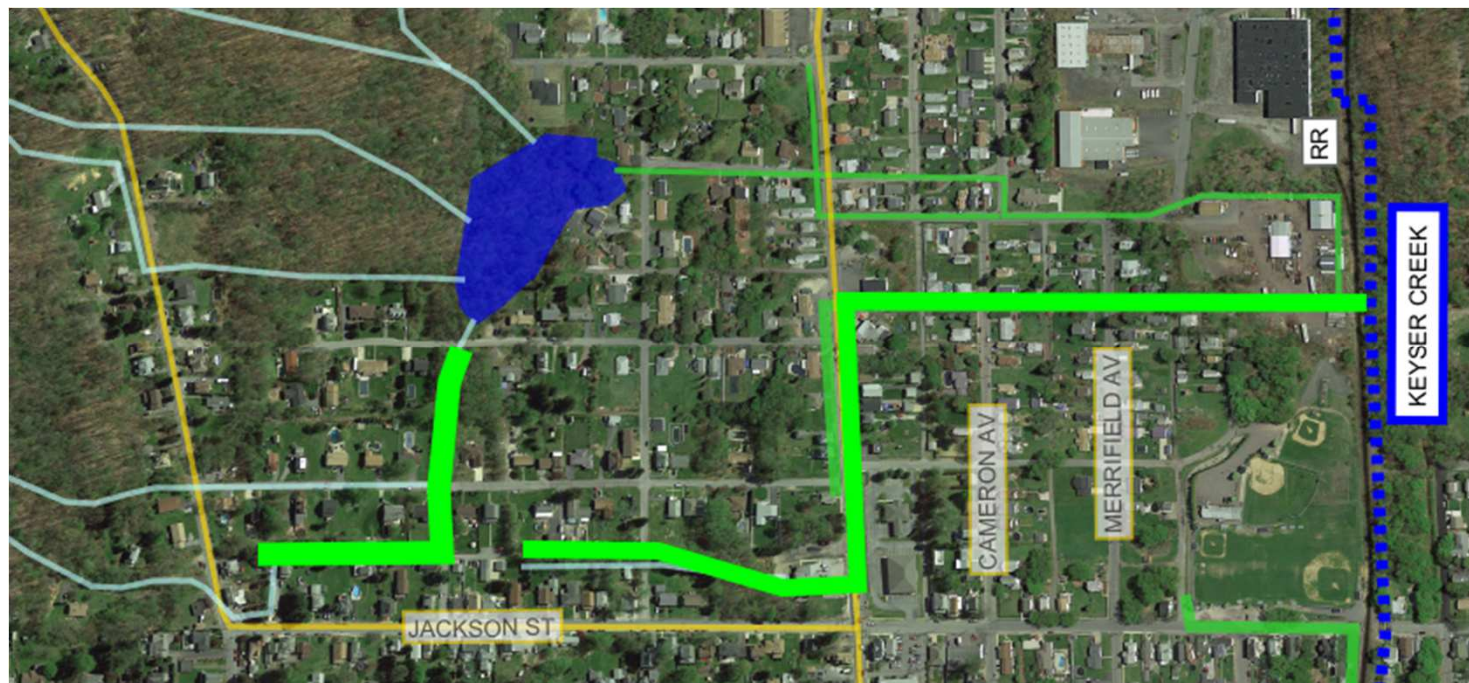
- Design: July 2024
- Permitting: February 2025
- Construction: December 2026



# Design Phase

## Existing System Upgrades

Addresses: Poor Drainage on Quay Av and Upslope of Community Center



### Permitting

- PennDOT Highway Occupancy Permit
- PA DEP Waterway & Wetlands General Permit, GP-04



### Coordination

- Reading, Blue Mountain & Northern RR
- Utility Impacts / Subsurface Utility Engineering
- Wetlands/Threatened/Endangered Species



### Property Easements

- Potential Impacts of Approx. 25 Properties



### Schedule

- Design: July 2024
- Permitting: February 2025
- Construction: December 2025

# Design Phase

## New Conveyance System

Addresses: Uncontrolled and Insufficient Drainage Upslope of Newton Road



### Permitting

- PennDOT Highway Occupancy Permit
- PA DEP Waterway & Wetlands General Permit, GP-04



### Coordination

- Reading, Blue Mountain & Northern RR
- Utility Impacts / Subsurface Utility Engineering
- Wetlands/Threatened/Endangered Species



### Property Easements

- Potential Impacts of Approx. 25 Properties



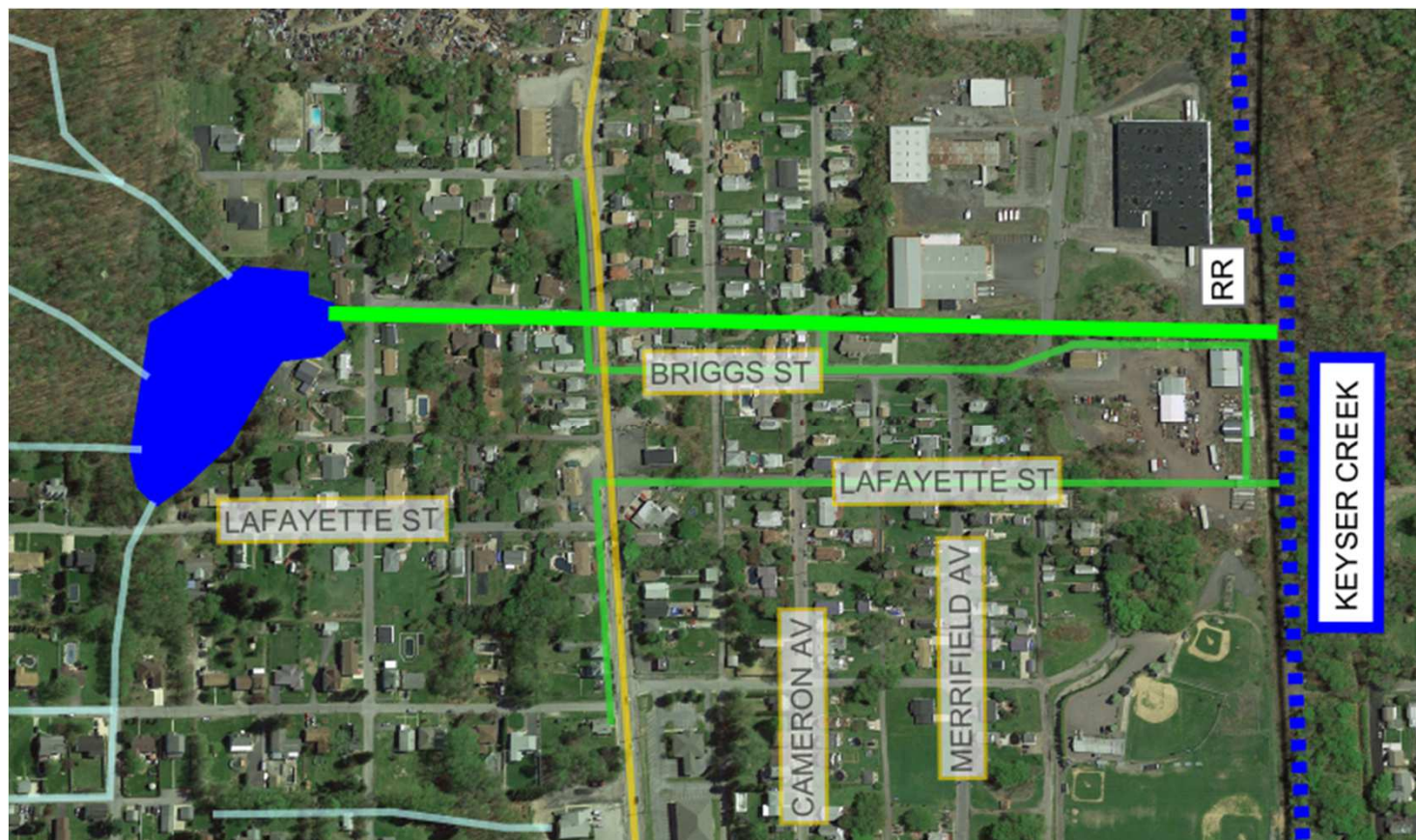
### Schedule

- Design: July 2024
- Permitting: February 2025
- Construction: December 2025

# Design Phase

## Dry Dam Improvements

Addresses: Deteriorated Condition of Upstream Reservoir to Manage Flows in the Upper Watershed



### Permitting

- PA DEP Chapter 105 Dam Permit
- PennDOT Highway Occupancy Permit
- PA DEP Waterway & Wetlands General Permit, GP-04



### Property Easements

- Potential Impact of Approx. 10 Properties



### Coordination

- Reading, Blue Mountain & Northern RR
- Utility Impacts / Subsurface Utility Engineering
- Wetlands / Threatened or Endangered Species



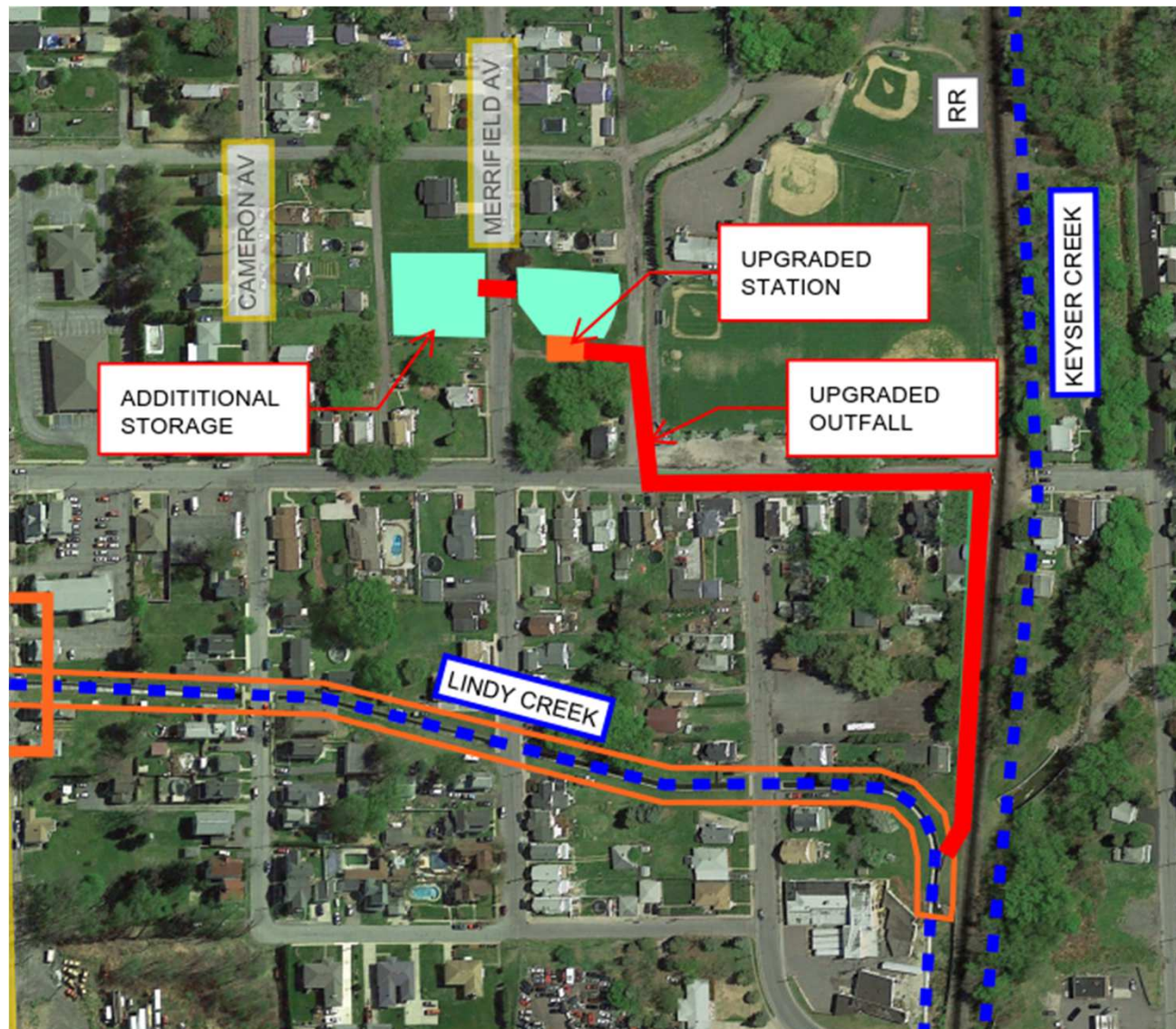
### Schedule

- Design: July 2024
- Permitting: July 2025
- Construction: December 2026

# Design Phase

## Pump Station Improvements

Addresses: Age and Operation of Existing Pump Station



GPI



### Permitting

- PA DEP Waterway & Wetlands General Permit, GP-04



### Coordination

- Reading, Blue Mountain & Northern RR
- Utility Impacts / Subsurface Utility Engineering



### Property Easements

- Potential Impact of Approx. 10 Properties



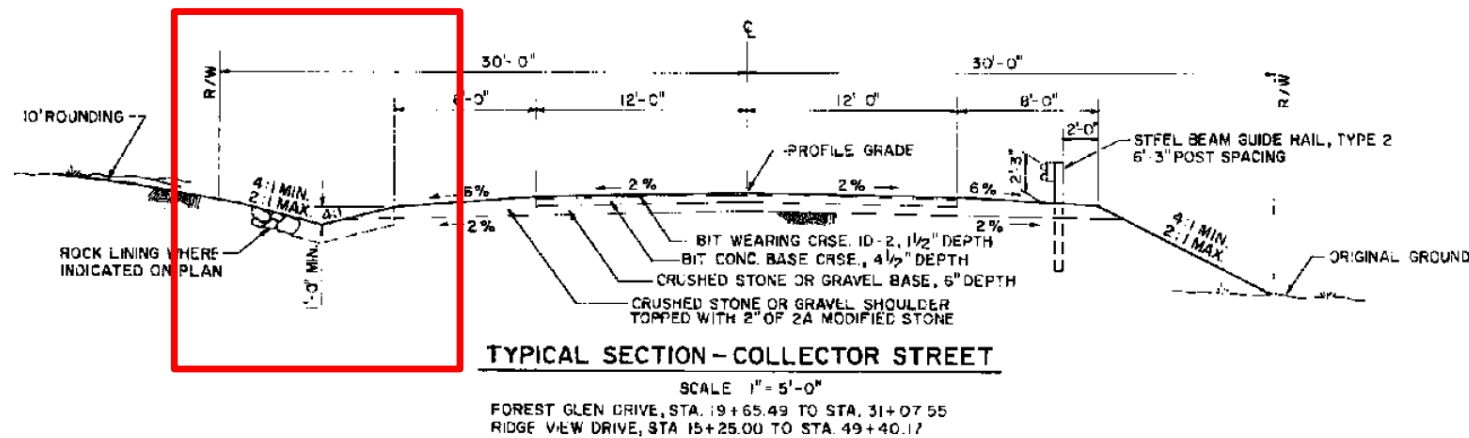
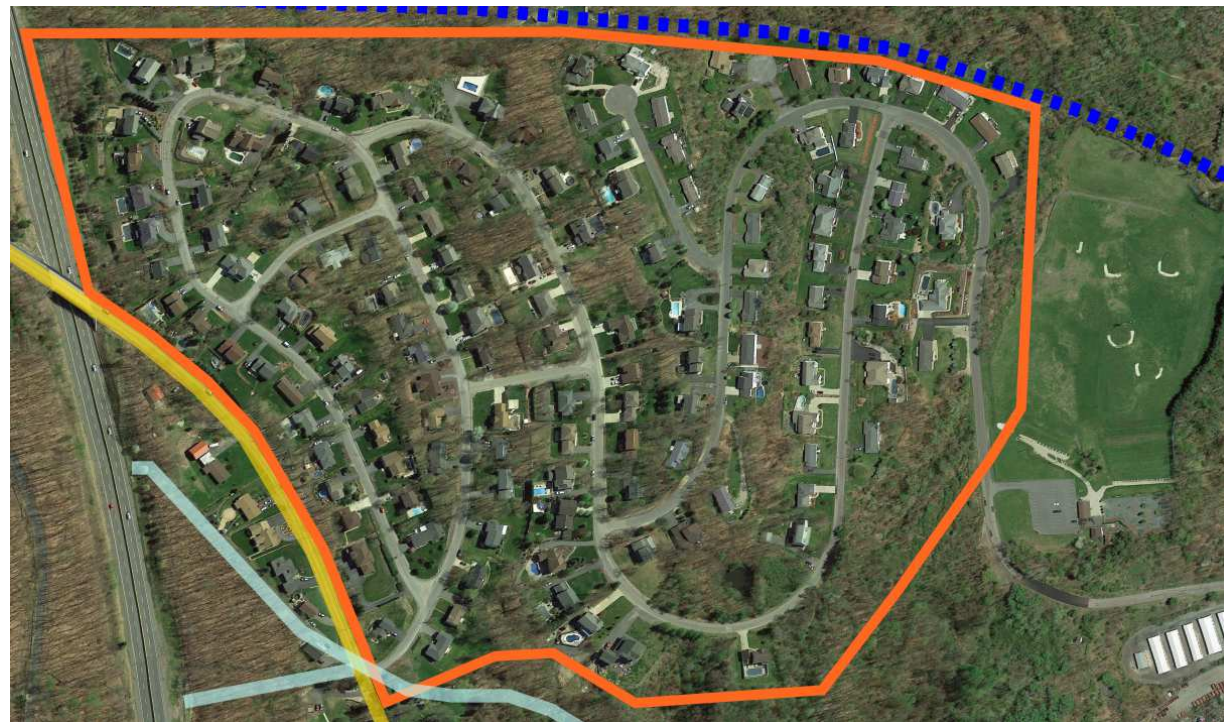
### Schedule

- Design: July 2024
- Permitting: March 2025
- Construction: July 2026

# Design Phase

## Fawnwood Heights Drainage

Addresses: Modifications of Conveyance System from Original Design



### Permitting

- No Permitting Required
- Maintenance Activity



### Coordination

- Utility Impacts / Subsurface Utility Engineering



### Property Acquisition

- All work within Right-of-way



### Schedule

- Design: 3 months
- Permitting: N/A
- Construction: December 2024

## Immediate Action



- **City currently Inspecting / Flushing Storm Lines.**
  - Maintenance will be ongoing through the design and construction periods.
- **City currently investigating potential to reestablish Field Court Storm Line to be used as a temporary outfall.**
- **Survey currently underway throughout the study area.**
- **Engineering Design for multiple projects currently underway.**
- **Coordination with PennDOT, PA DEP and Railroad will begin December 2023.**
- **Geotechnical Borings to begin early 2024.**

# QUESTIONS



## Contacts

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