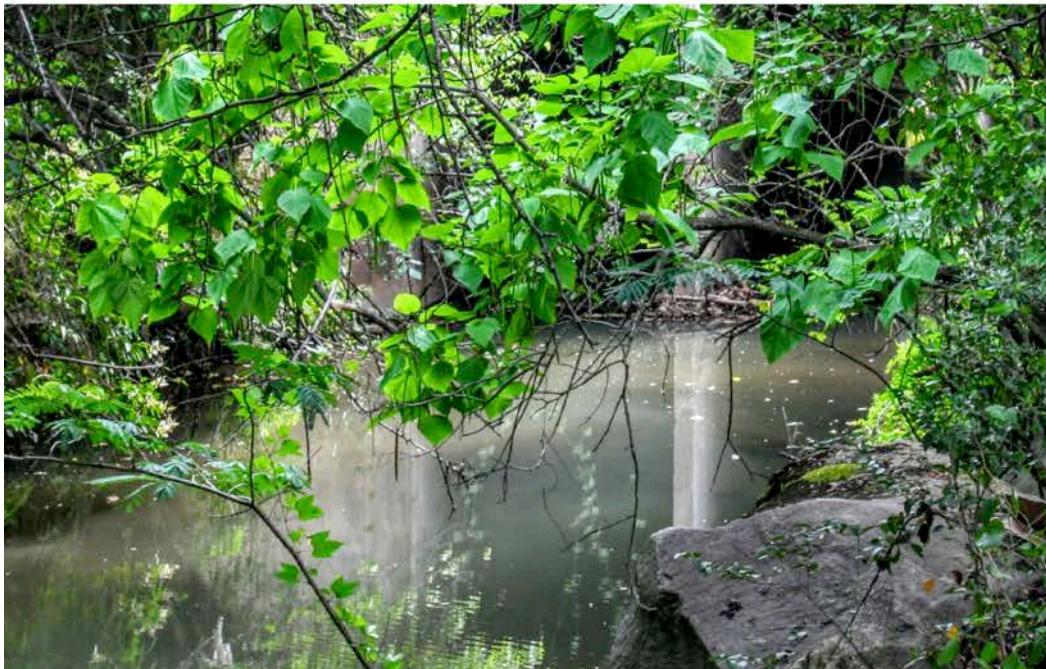


City of Raleigh
Engineering
Services
Department



Stormwater Management



Swann Street
Public Meeting

April 27, 2017

Introductions



City of Raleigh Staff

- David Kiker, PE, Engineering Services
- Veronica High, PE, Engineering Services
- Sarah Beth Gentry, Real Estate
- Kristin Freeman, Engineering Services

WK Dickson Staff

- Scott Sigmon, PE
- Marc Horstman, PE

Overview



- ✓ Project Goals
- ✓ Recommended Drainage Improvements
- ✓ Permitting
- ✓ Construction Expectations and Challenges
- ✓ Proposed Schedule
- ✓ Easement Acquisition Process
- ✓ Questions & Answers
- ✓ Break Out Sessions

Project Goals



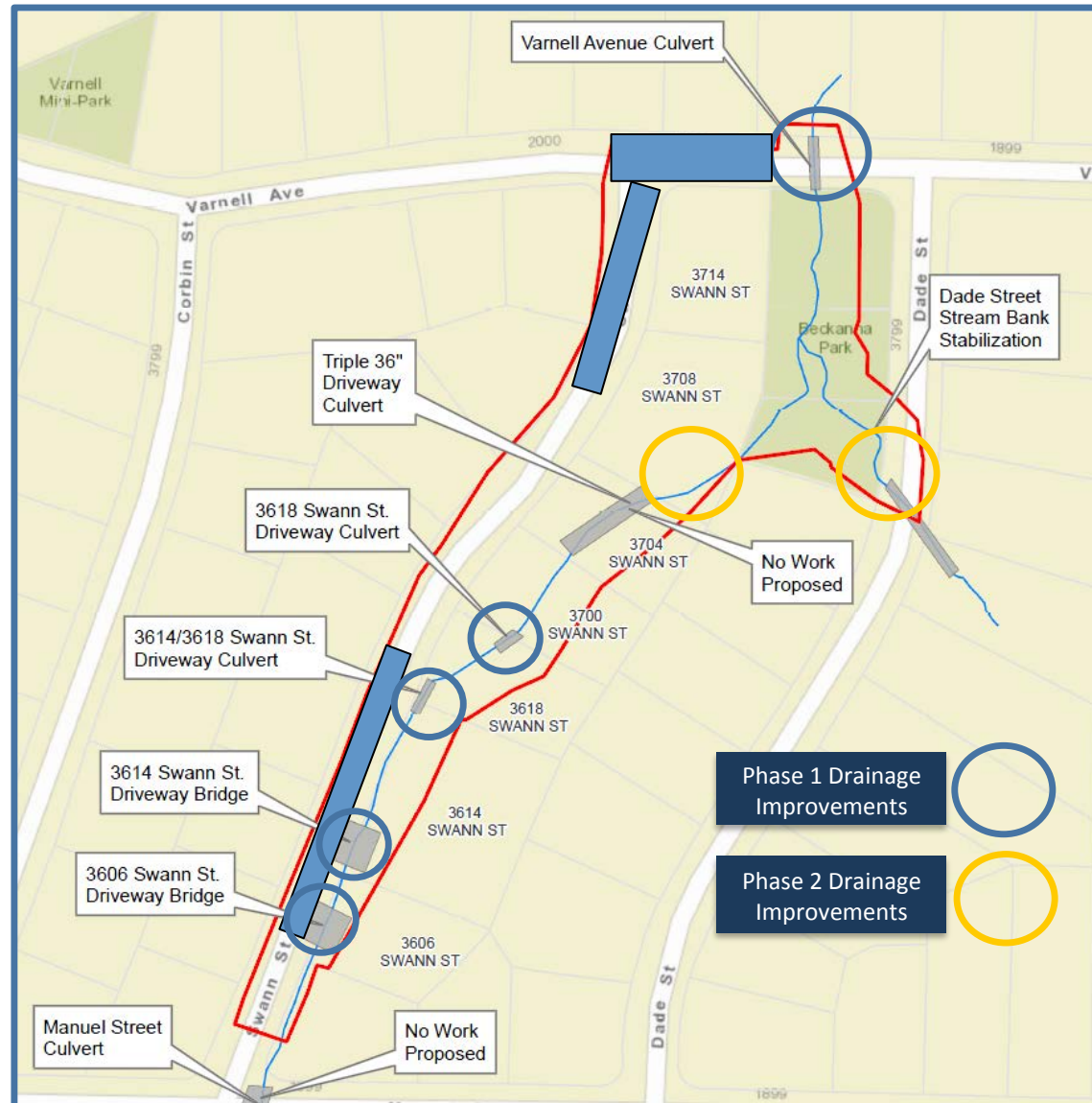
Eliminate roadway flooding

Minimize crawl space & first floor flooding of homes

Improve access to homes

Stabilize banks of main channel

Recommended Improvements



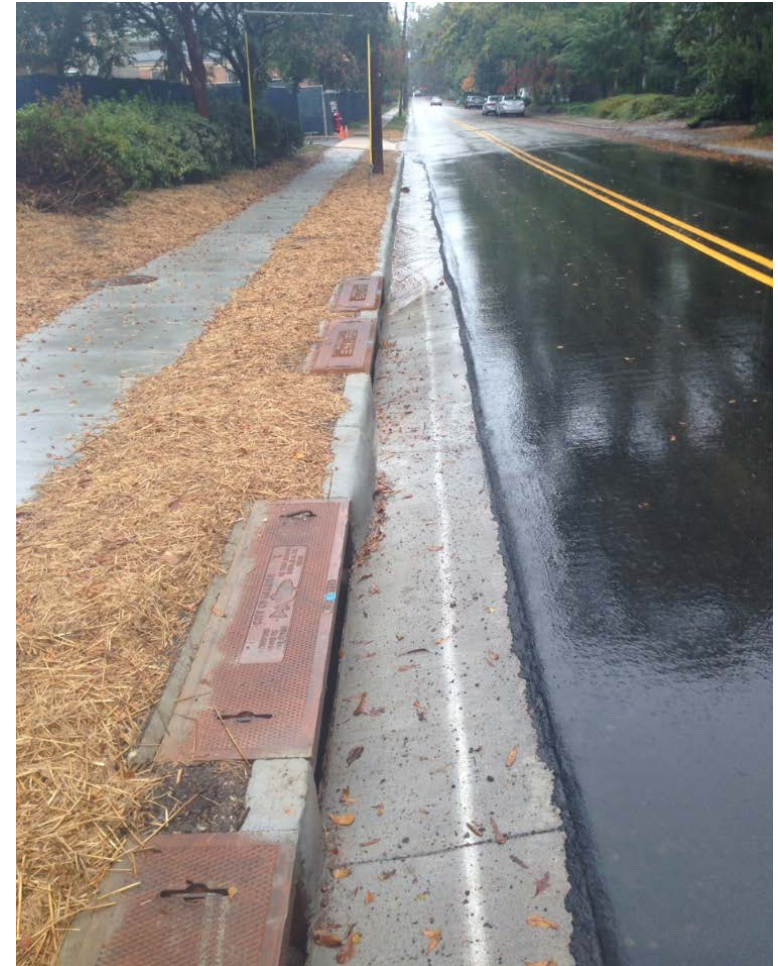
Recommended Improvements



Optimized Inlet Installation



Before



After



Recommended Improvements



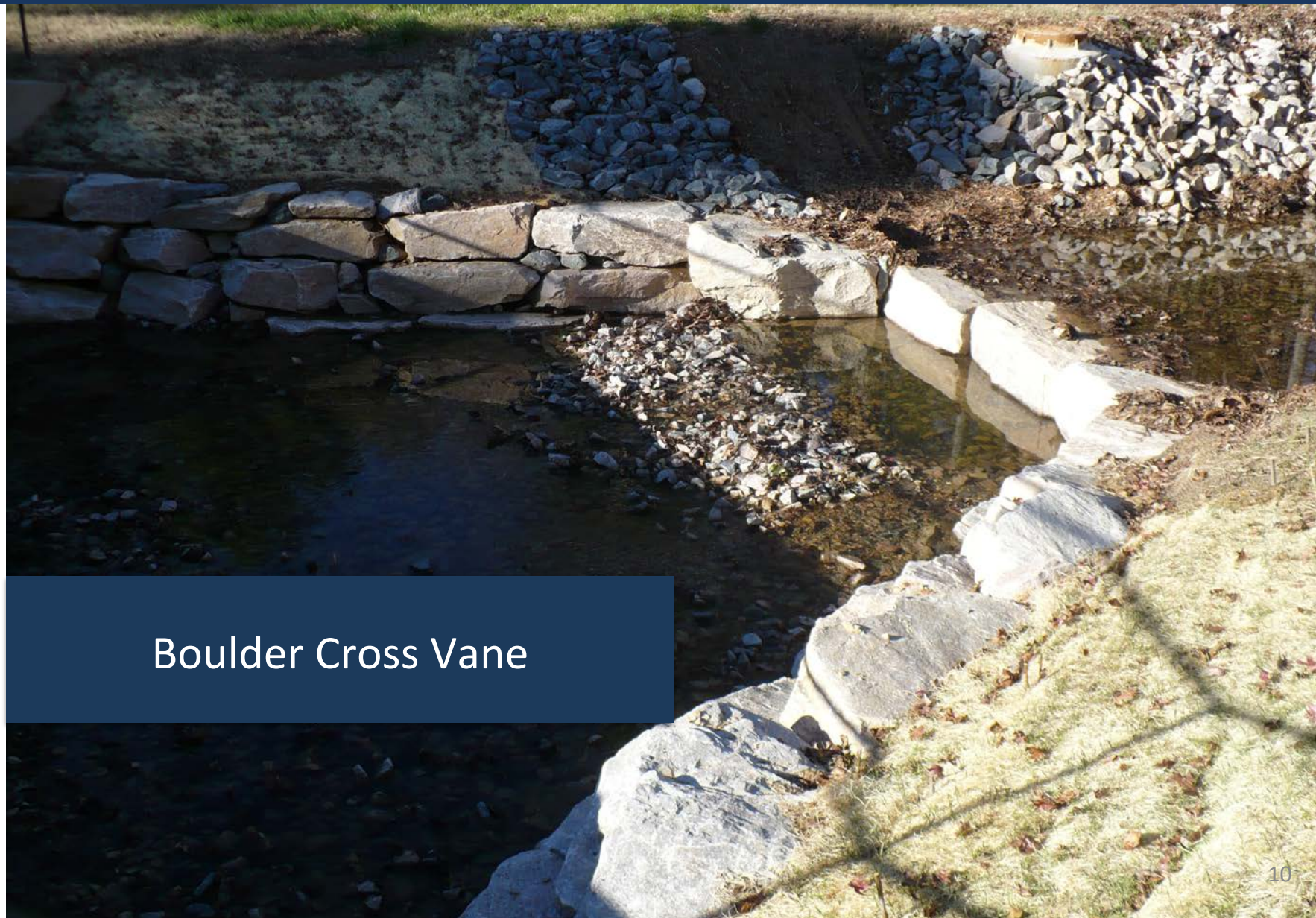
Concrete Culvert and Headwall

Recommended Improvements



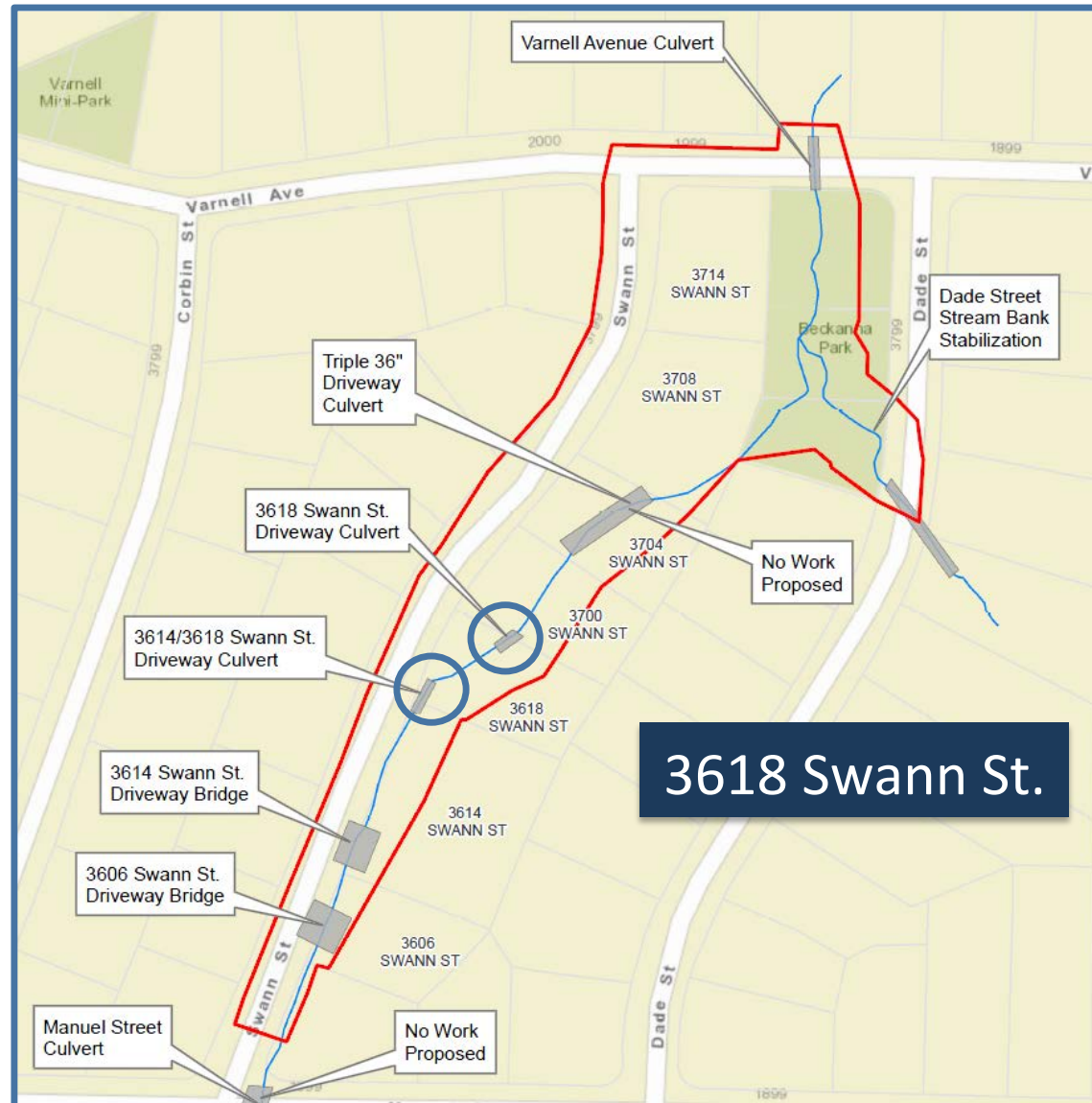
Double Catch Basins

Recommended Improvements

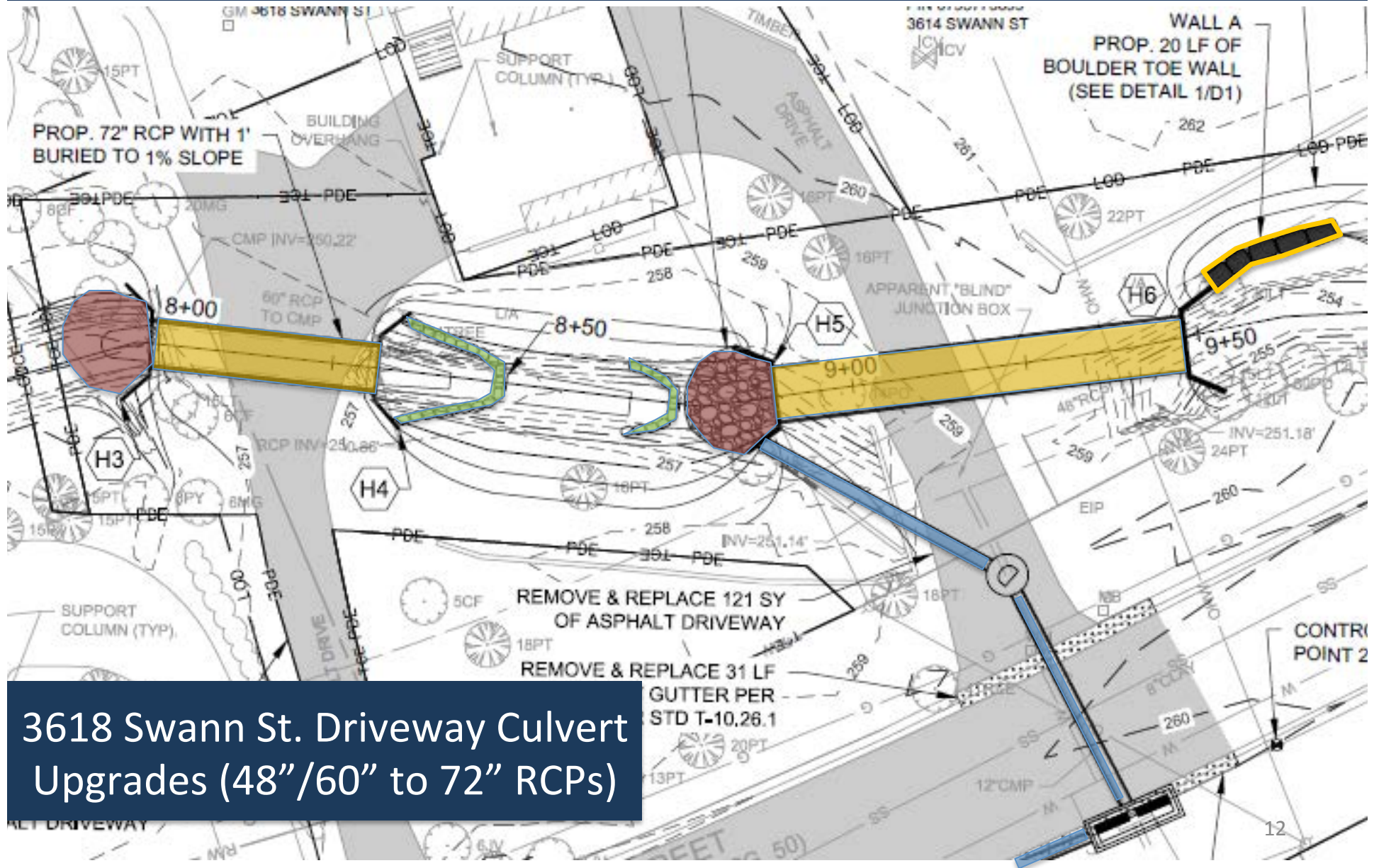


Boulder Cross Vane

Recommended Improvements

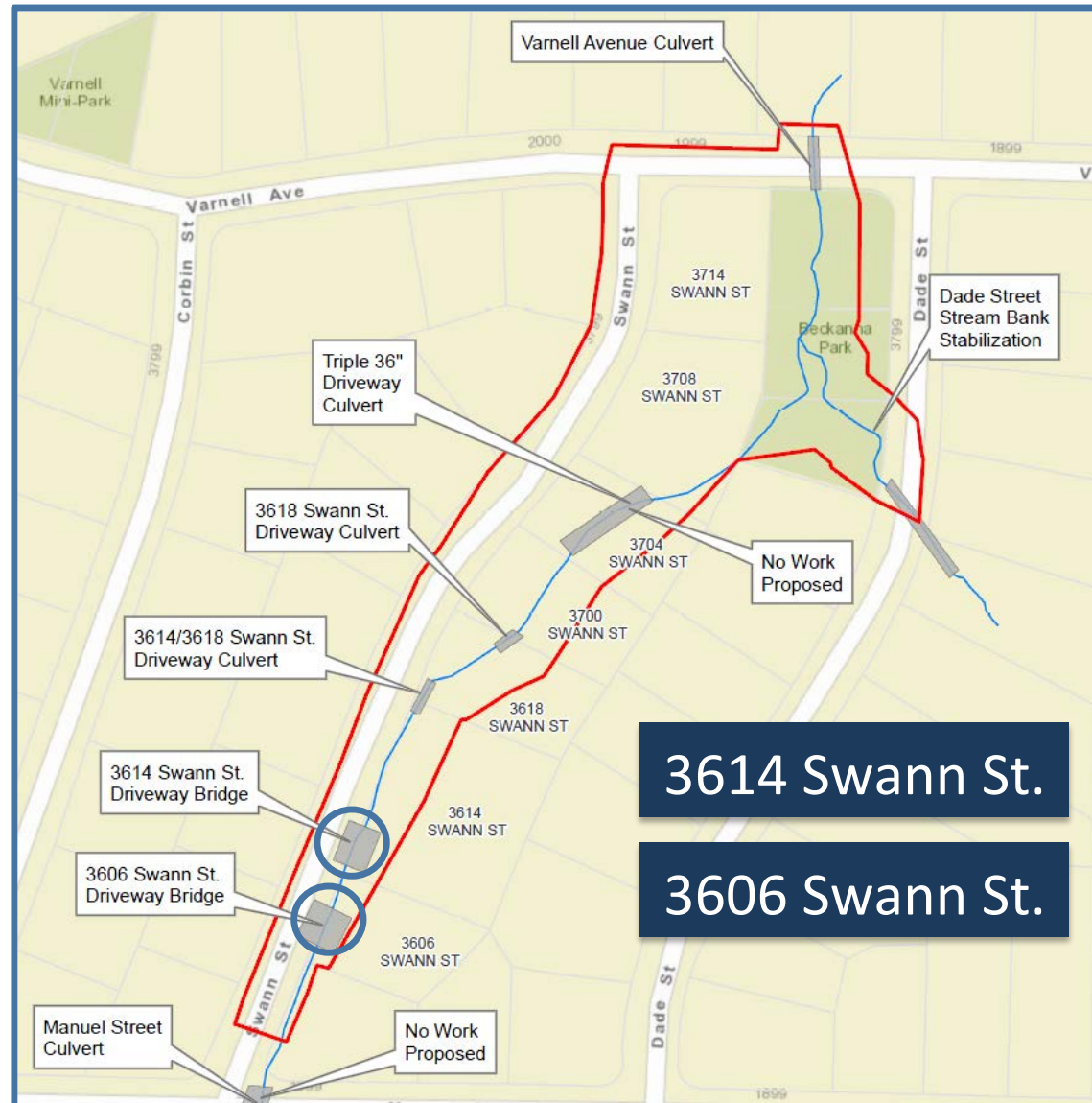


Recommended Improvements

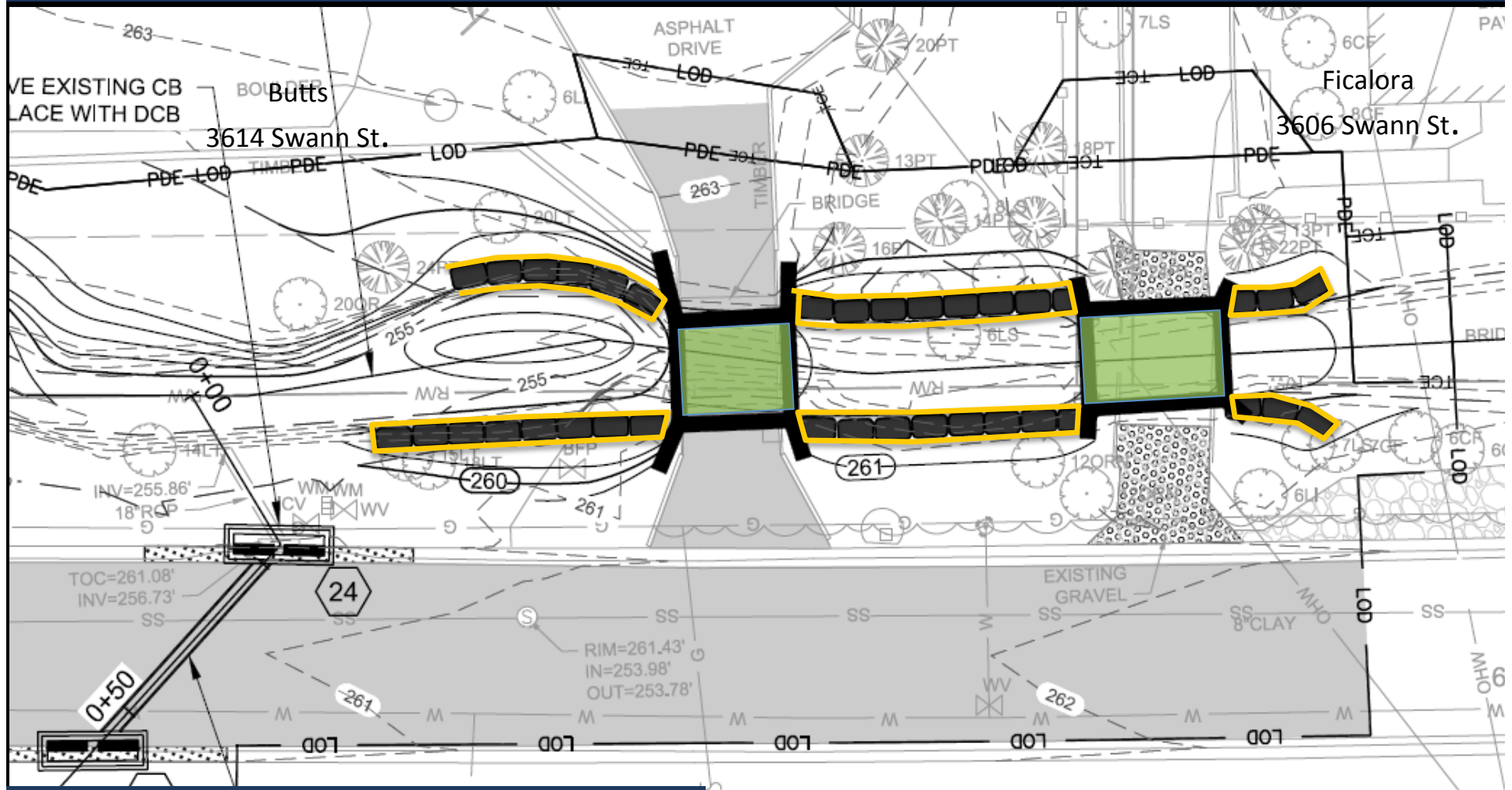


3618 Swann St. Driveway Culvert Upgrades (48"/60" to 72" RCPs)

Recommended Improvements



Recommended Improvements



3614 Swann St. Driveway Bridge Replacement and Boulder Walls

3606 Swann St. Driveway Bridge Replacement and Boulder Walls

Recommended Improvements



3-Sided Bridge

Recommended Improvements



Boulder Wall

Recommended Improvements



Coir Fiber Liner & Live Stakes

Construction Examples



Prior to Culvert Installation

Construction Examples



Culvert Installation

Construction Examples

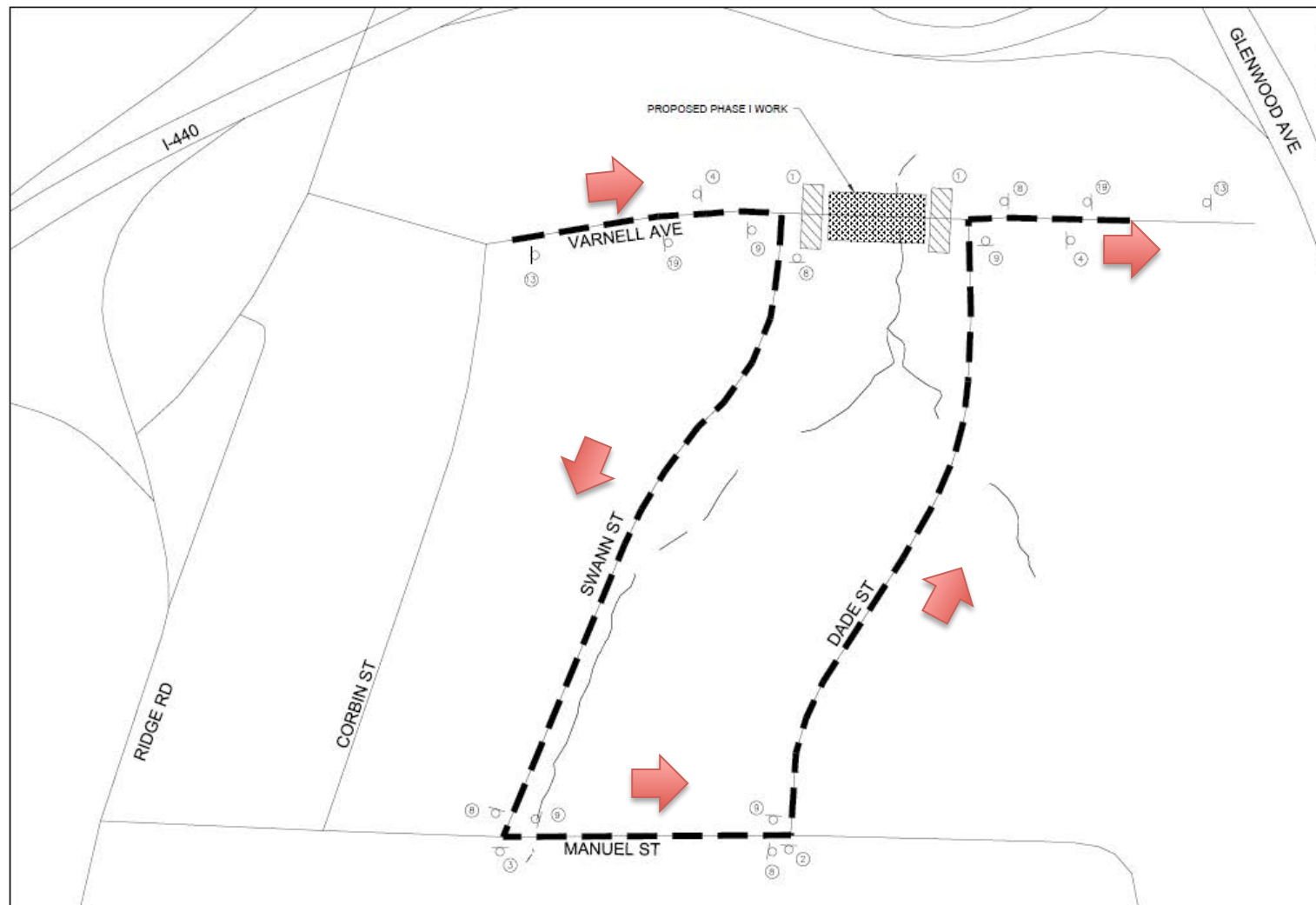


Road Closed

Varnell Road (Phase I) Closure



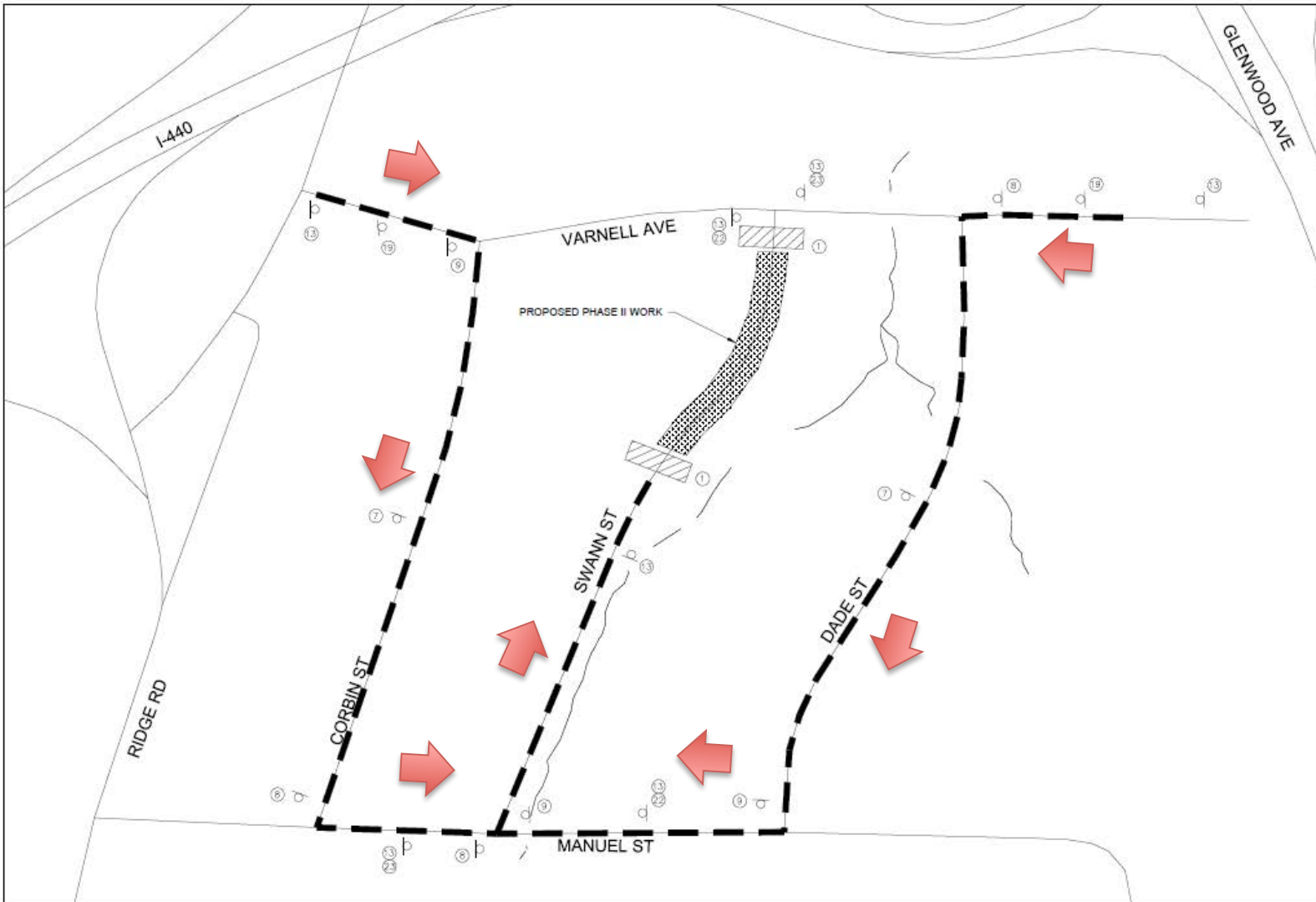
PHASE I VARNELL AVENUE CLOSURE



Swann Street (Phase II) Closure



PHASE II SWANN STREET CLOSURE



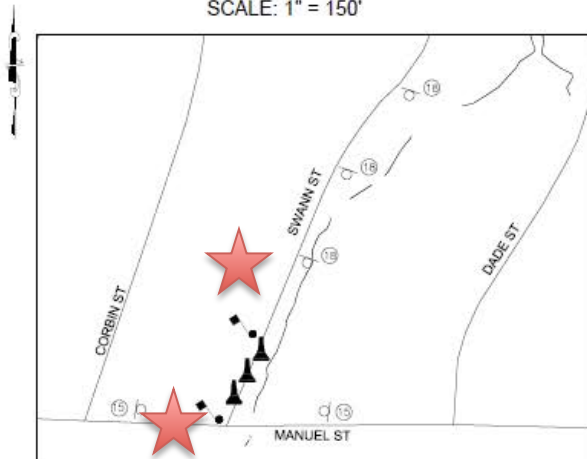
Swann Street (Phase III) Lane Closure



SOUTH SWANN STREET LANE CLOSURE

PHASE III A

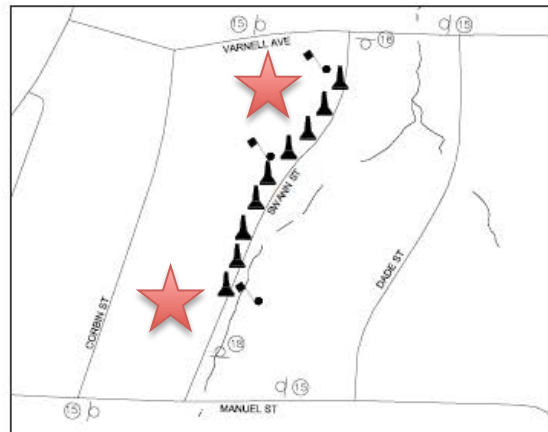
SCALE: 1" = 150'



SWANN STREET NORTH-BOUND LANE CLOSURE

PHASE III B

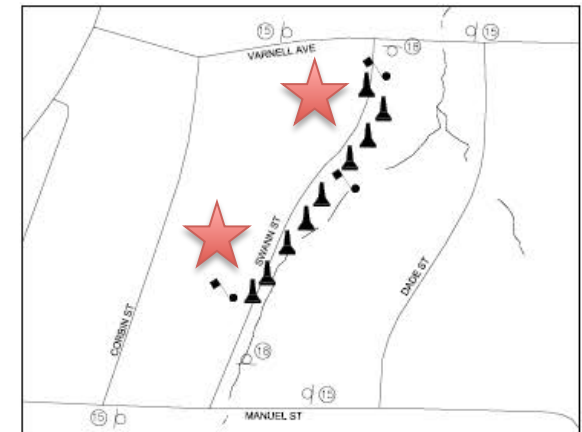
SCALE: 1" = 200'



SWANN STREET SOUTH-BOUND LANE CLOSURE

PHASE III C

SCALE: 1" = 200'



Schedule



Task	Date
Complete 70% Design Plans	February 2017
Acquire Easements	April – June 2017
Secure Environmental Permits	June 2017
Finalize Design Plans	October 2017
Relocate Private Utilities	Nov 2017 – April 2018
Prepare Project For Bid	December 2017
Council Approval of Bid	July 2018
Begin Construction	August 2018

Easement Acquisition Process



- Easement Definition:
 - Right granted from a property owner to another for a specific use of a portion of the owner's land.
 - Utility operators (gas, electric, sewer, etc.) often have easements for the purpose of installing and maintaining the utility lines and structures.
 - As with most utility easements, storm drainage easements are permanent and run with the land (i.e. survive any sale of the property).
 - Generally requires the property owner to give up certain rights, such as building permanent structures within the easement to allow for proper function of the system and maintenance access.
 - Allows projects to be cost effective and maximizes flood reduction benefits.

Questions?



David Kiker, PE

City of Raleigh Stormwater Management Division

Main Phone: 919-996-3940

Direct Line: 919-996-4074

E-mail: David.Kiker@raleighnc.gov

Raleighnc.gov

Search: "Swann Street Drainage Improvements"