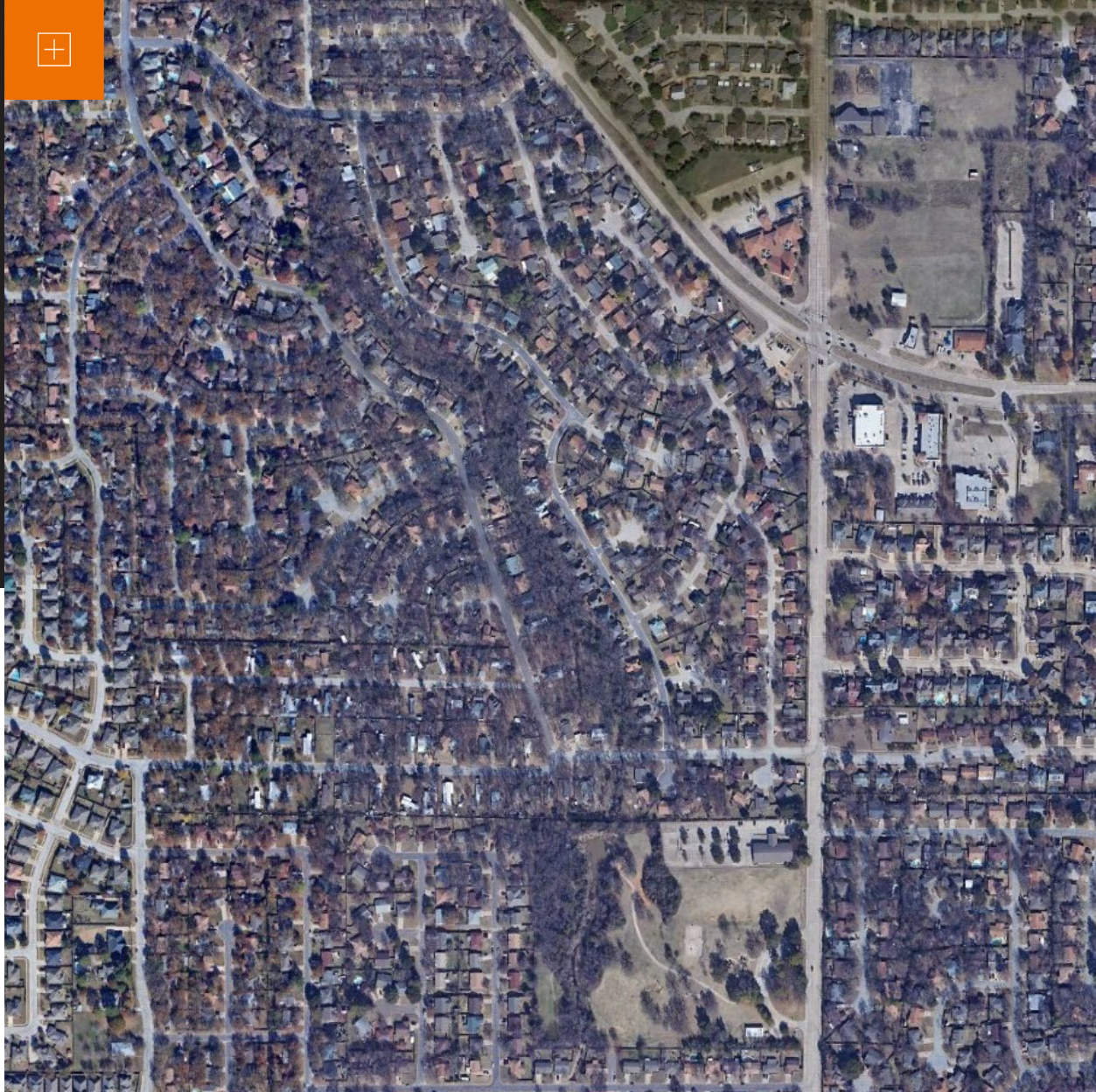




Exploring New Frontiers: Introducing Urban Communities to Stream Restoration

Stephanie Coffman, PG & Amy Cannon, PE, CFM

**Urban Riparian Symposium, Grapevine, TX
2/28/2019**



Safety Moment

*Knowing your Project
Site
Where to Park?*





?

?

?

?







©2018 Google



SCHOOL

20
MPH



TRUCKS
AND
TRAILERS
ONLY





Deaver Park

Arlington Parks and Recreation Department

5800 Kelly Elliott Rd.



PARK HOURS
9 A.M. TO 5 P.M.

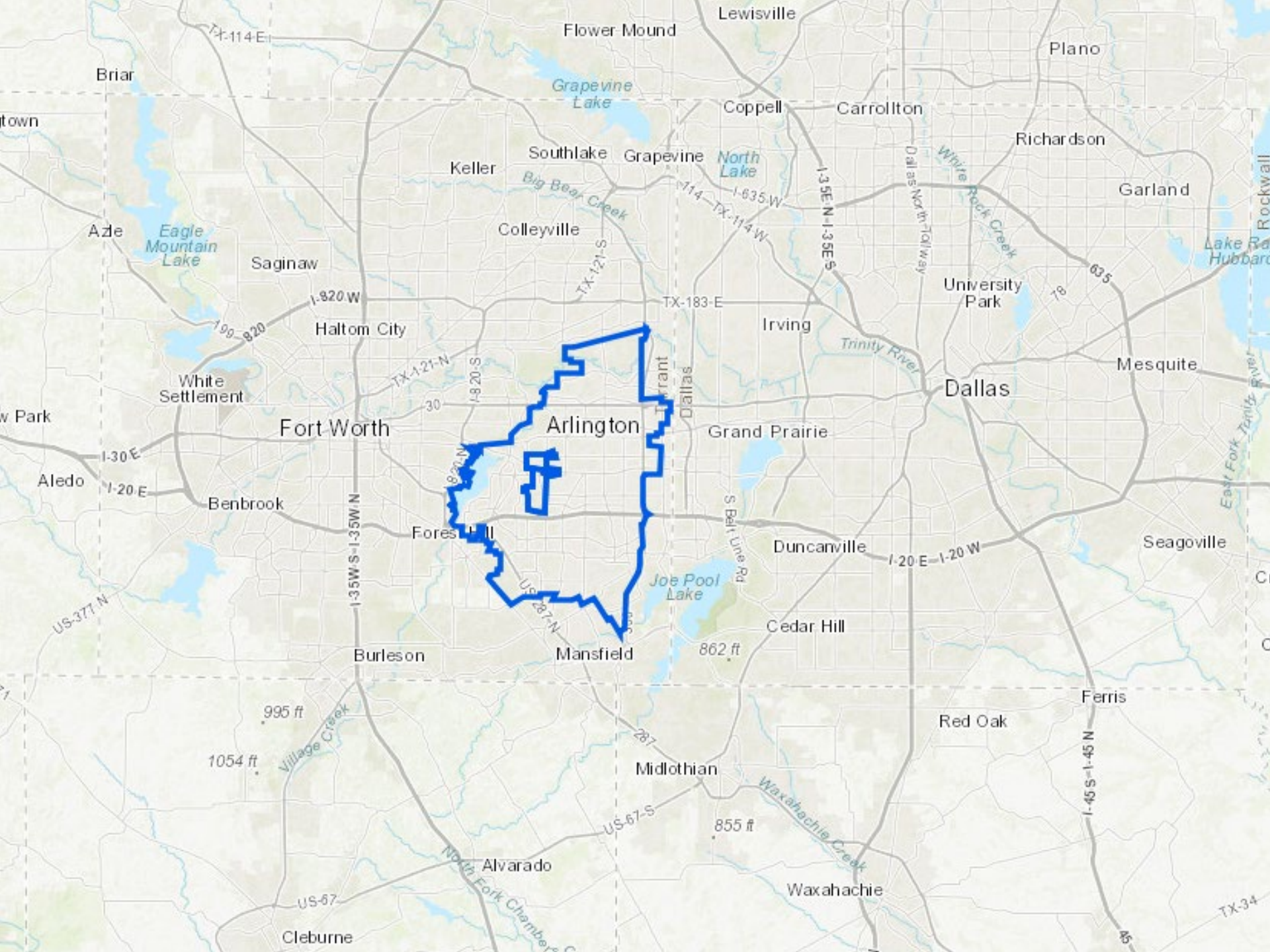




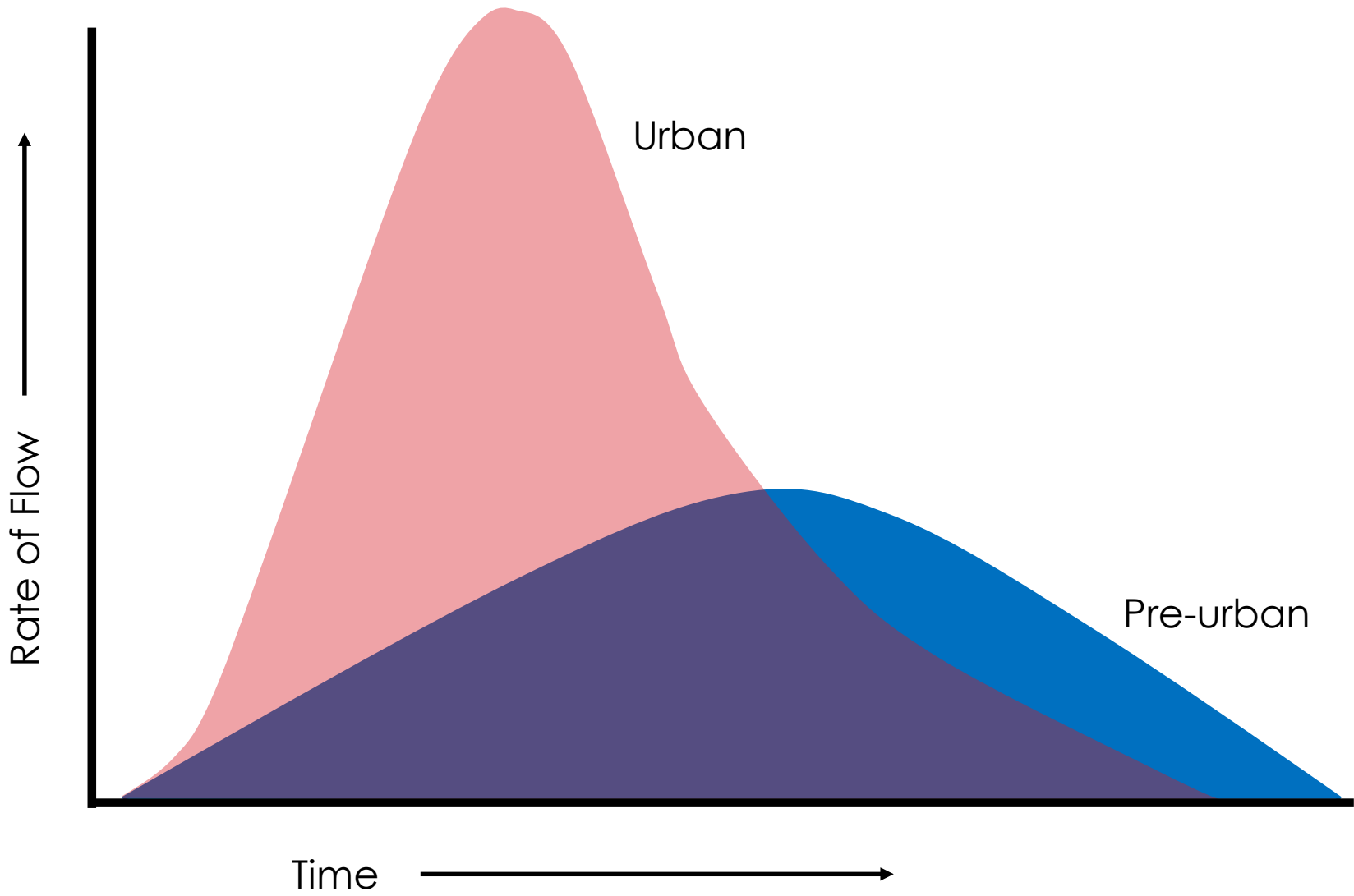
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ANDALUSIA TR

KELLY ELLIOTT RD

SW GREEN OAKS BLV

BRADLEY LN



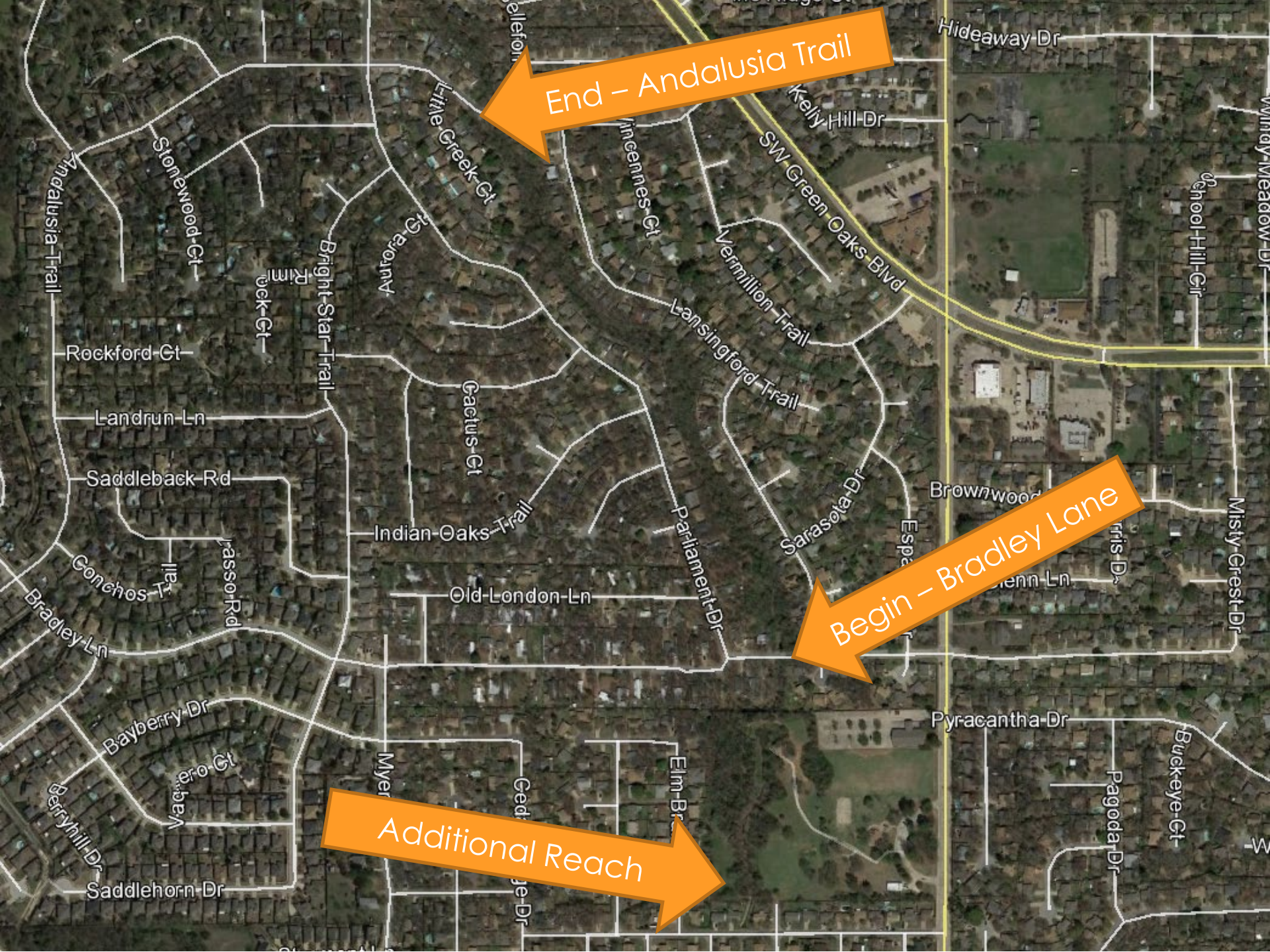






End - Andalusia Trail

Begin - Bradley Lane



End – Andalusia Trail

Begin – Bradley Lane

Additional Reach









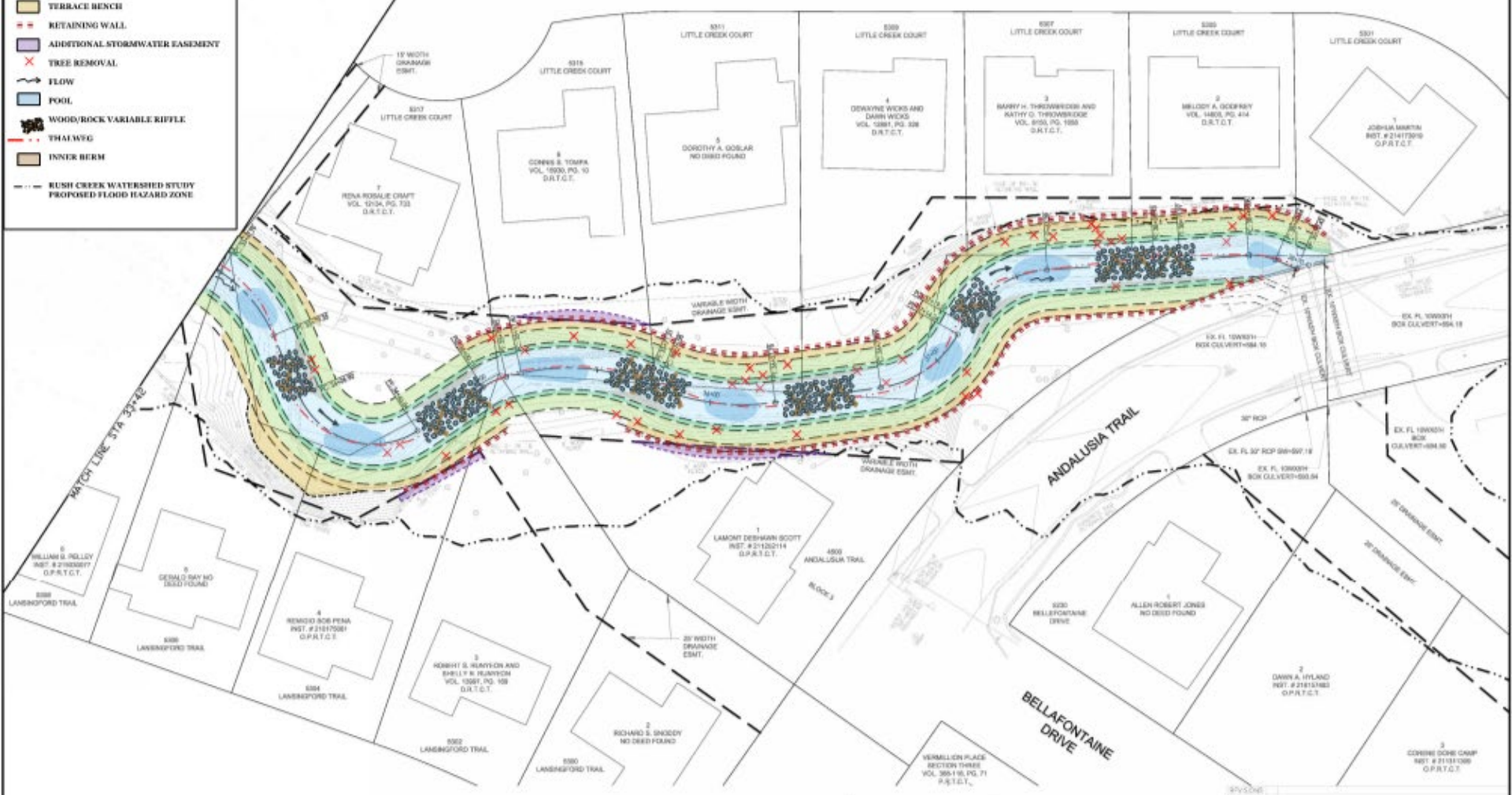




LEGEND

- BANKFULL CHANNEL
- FLOODPLAIN BENCH
- TERRACE SLOPE (3H:1V)
- TERRACE BENCH
- RETAINING WALL
- ADDITIONAL STORMWATER EASEMENT
- TREE REMOVAL
- FLOW
- POOL
- WOOD/ROCK VARIABLE RIPPLE
- THAI WEG
- INNER BERM
- RUSH CREEK WATERSHED STUDY PROPOSED FLOOD HAZARD ZONE

LITTLE CREEK CT



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 12024 Central Expressway, Suite 1146
 Dallas, Texas 75241-2811
 www.stantec.com

The Contractor and user are responsible for distribution of this plan and the accuracy of any work or construction shown is intended to be done without liability. Participation in all legal proceedings and compliance of all laws, regulations and codes shall be the responsibility of the user.

PLAN VIEW
 STA. 33+42 STA. 36+70.43
 SIDEWALK IDENTIFICATION
 C 105

<p>CITY OF ARLINGTON, TEXAS STANTEC PROJ. NO. 224720000 KEE BRANCH TRIBUT. #4 BRADLEY LANE TO ANDALUSIA TRAIL</p>		
DATE: 12/17	DRAWN BY: SS	CHECKED BY: SS
DESIGNED BY: SS	DRAWN BY: SS	CHECKED BY: SS

KEE BRANCH TRIBUTARY 4 BRADLEY TO ANDALUSIA - STREAM RESTORATION



Kee Branch Tributary 4 Project

The project is part of the City of Arlington's stream restoration pilot program, which will improve stream stability and function by using sustainable approach based on naturally stable stream systems.

Kee Branch Tributary 4 is degraded and unstable in many locations. Stream channel erosion between Bradley Lane and Andalusia Trail has caused lowering of the channel bed, widening of the channel bottom, bank slope failure, tree loss, and habitat impairment. The goals of this project are to stabilize streambanks, reduce erosion, and improve water quality and habitat.

What is Stream Restoration?

Stream restoration is improving the health of the stream by actively restoring, through construction, natural stream shape and function to reduce erosion, manage flooding, and improve water quality and habitat.

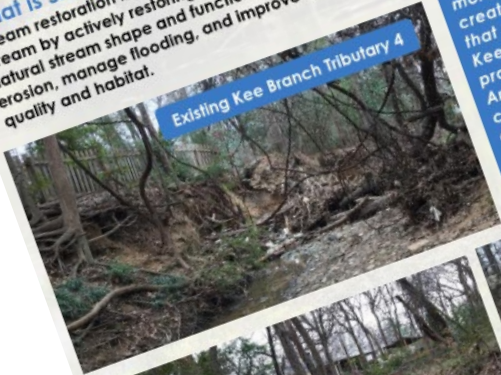


End - Andalusia Trail

Begin - Bradley Lane

"Stream restoration projects provide more than just erosion repair; they create self-sustaining natural systems that will last for years to come. The Kee Branch Tributary 4 project provides an opportunity for the City of Arlington to address erosion, enhance creek habitat, and improve the quality of life for adjacent residents."

-City of Arlington



Existing Kee Branch Tributary 4



After Construction



After One Year

What are the issues in Kee Branch Tributary 4?

The stream is located in a residential neighborhood along 73 properties. As the surrounding land developed, the stream changed because of increases in runoff. The additional runoff over the years has degraded the stream causing streambank erosion, fallen trees, and loss of "useable" property owners.

The Benefits of this Project?

The project is to incorporate natural channel design into the solution. That means a stream. This is NOT a "channelize and concrete-line the stream" project. The streambed will be reshaped to reduce erosion and flooding concerns. Native vegetation on the streambanks and in the floodplain. Vegetation is key to keeping streambanks acting as a filter to improve water quality as well as provides habitat. In addition, younger trees will extend the life cycle of the stream vegetation.

How to Get Involved in the Process?

What you can do is Get Involved. Share your thoughts and suggestions. If you have any questions, please contact: streamrestoration@arlingtontx.gov

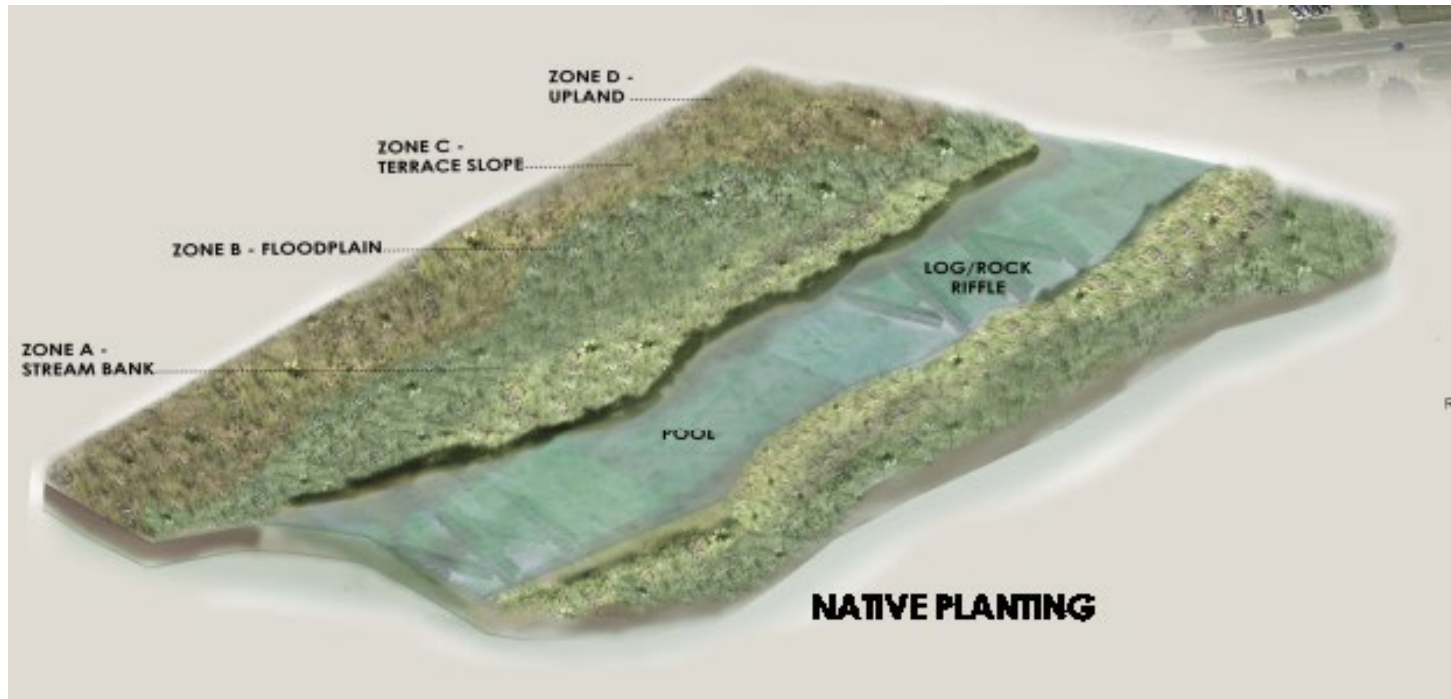
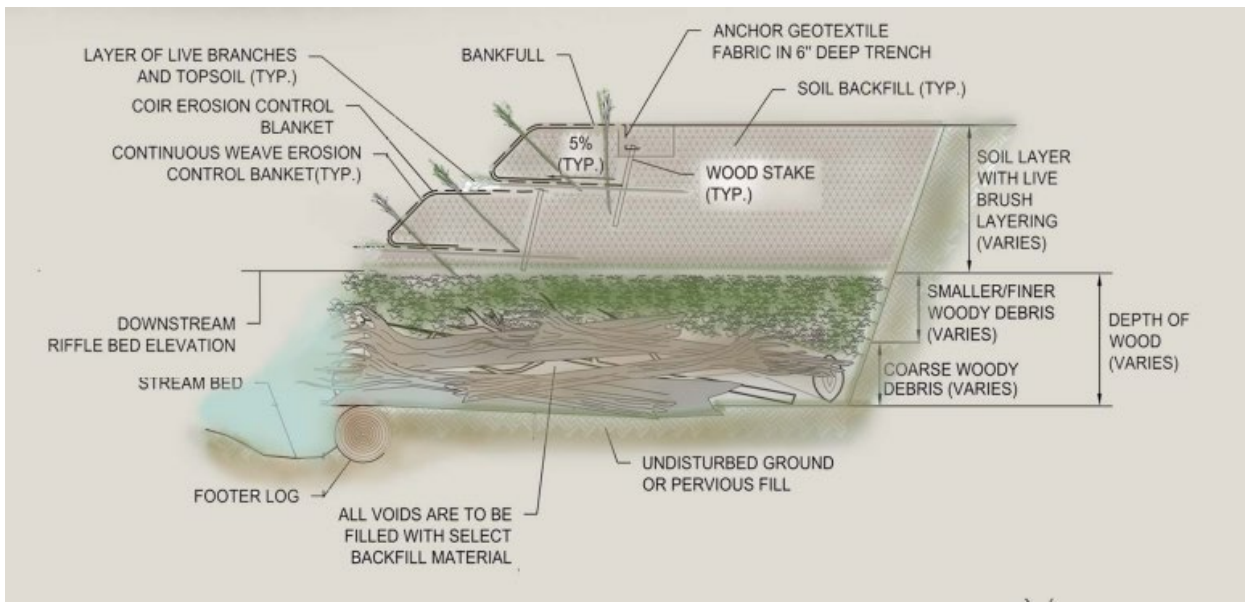
Project Highlights

- Proposed 2900 linear feet of Stream Restoration
- Instream structures use wood and rock
- Retaining walls (as needed)
- Recycled material to stabilize
- Revegetation plan includes:
 - trees (600+)
 - containerized shrubs (1800+)
 - live cuttings (2000- 3000)
 - native grasses, flowers, and aquatic plants



Restored Creek Rendering

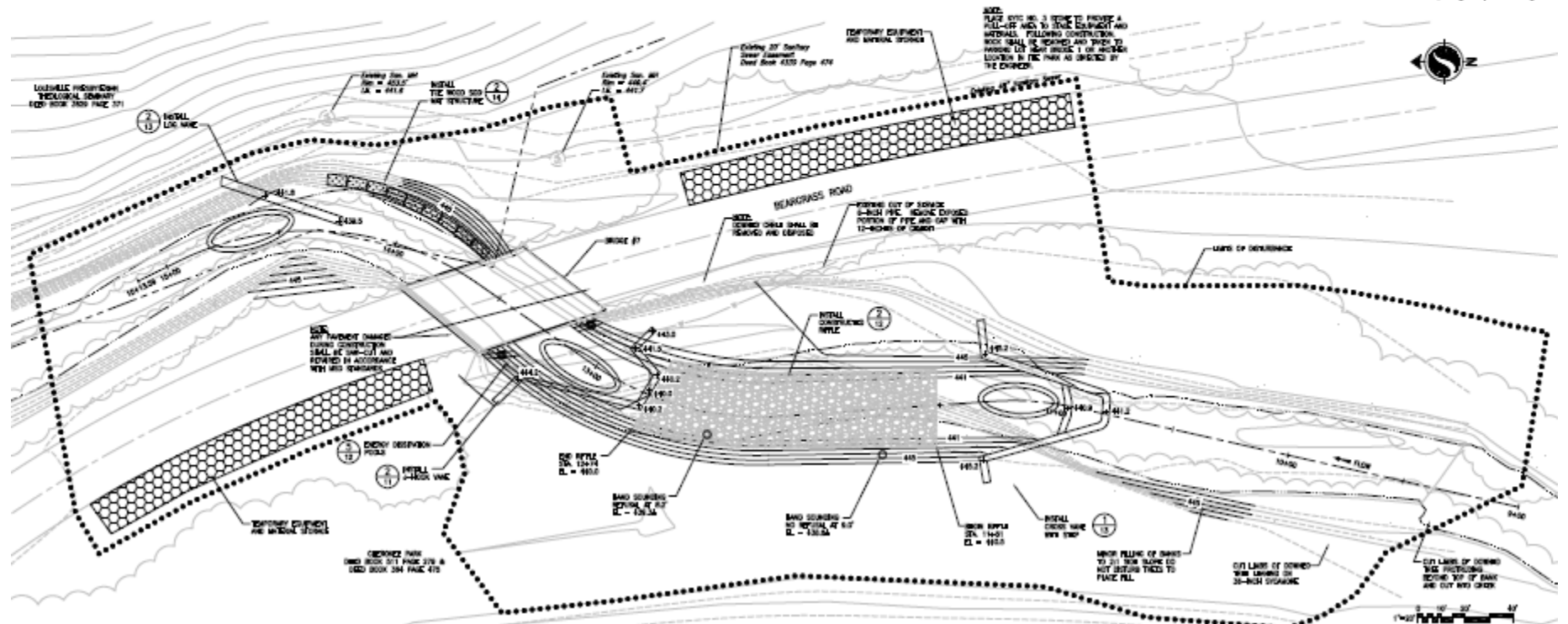
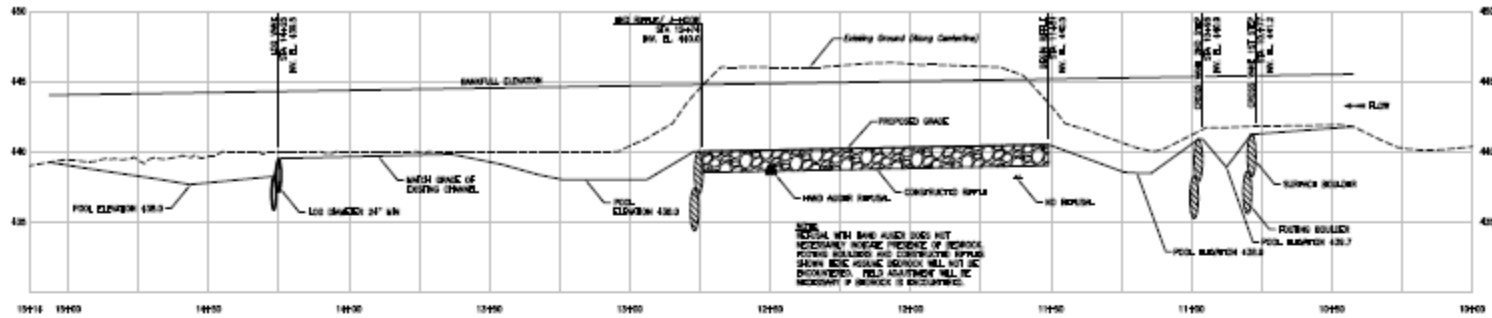
Stream Restoration Project After One Year











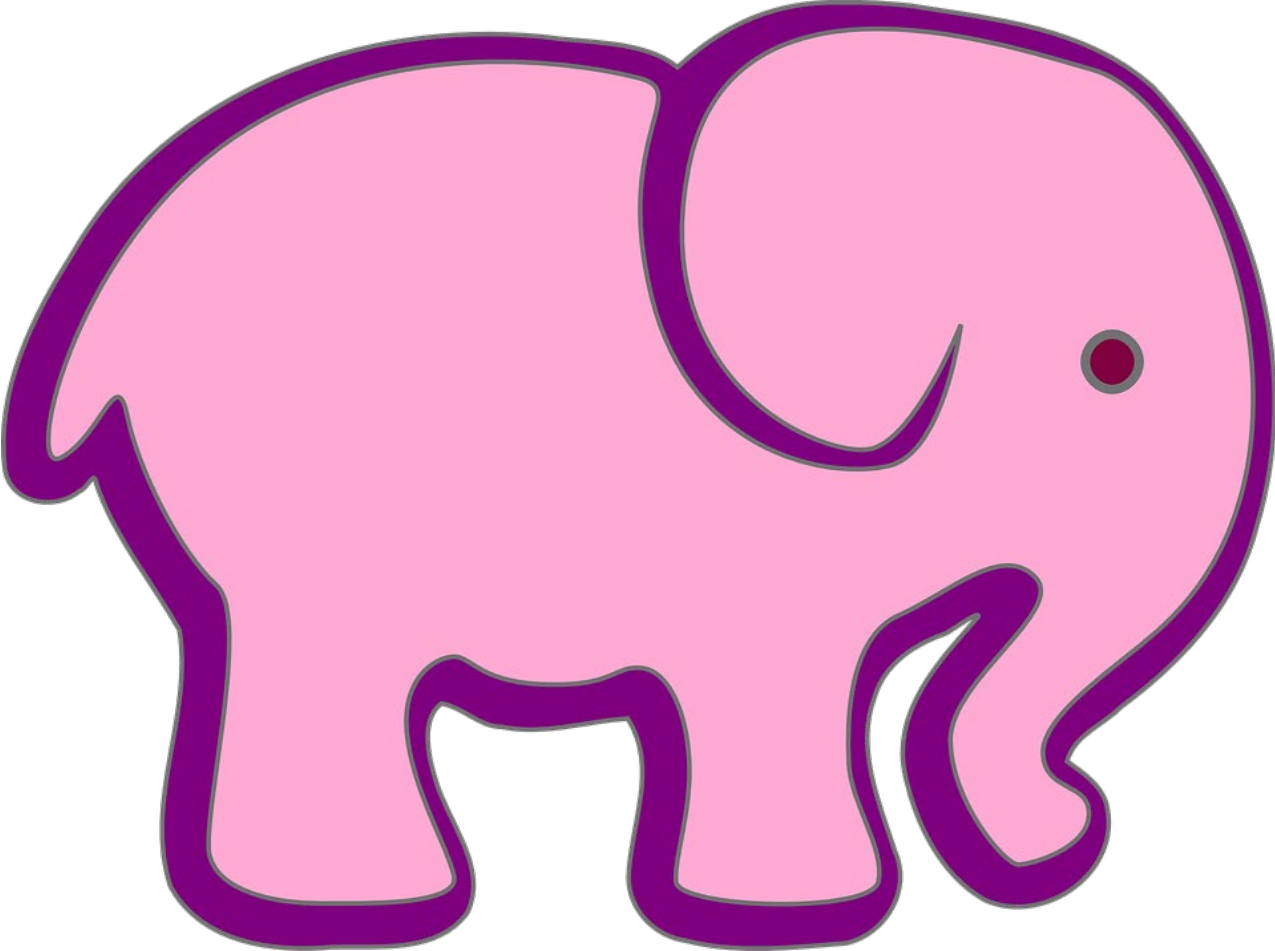














Questions/Comments

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