



Guadalupe Street Storm Drain Improvements Project

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Guadalupe Street Storm Drain Improvements Project

- Background
 - High priority local flood risk reduction area
 - Flooding Complaints
 - 16 Buildings
 - 14 Yards
 - 13 Streets
- Recent Rainfall Events
 - July 18, 2014
 - Memorial Day 2015
 - June 17, 2015
 - Halloween 2015
- Purpose of the Meeting



Existing Storm Drain Conduit

Avenue A (May 2015)



Avenue A (May 2015)





← **Localized Flooding**
Occurs away from creeks.

Creek Flooding →

Occurs when a creek rises over its banks.





What is a Storm Drain System?

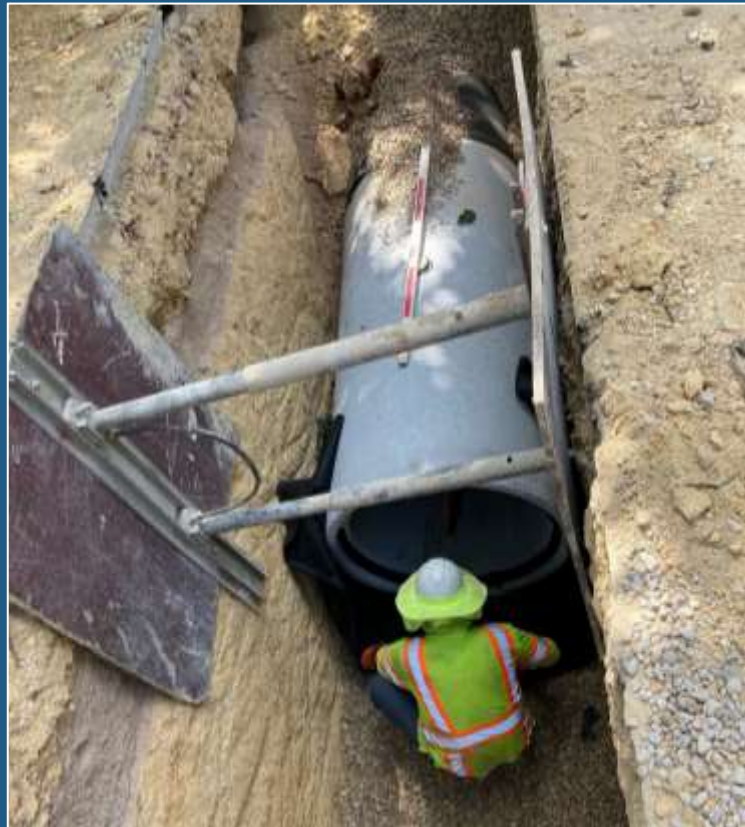
- System of streets, ditches, pipes and culverts
- Drains rainfall from streets to nearby creek
- Inlets are placed along curb to catch rainfall
- Streets should drain in most storms.

Components of a Storm Drain System

1. Inlets, curbs and gutters capture rain water.



2. Underground pipes carry the water.

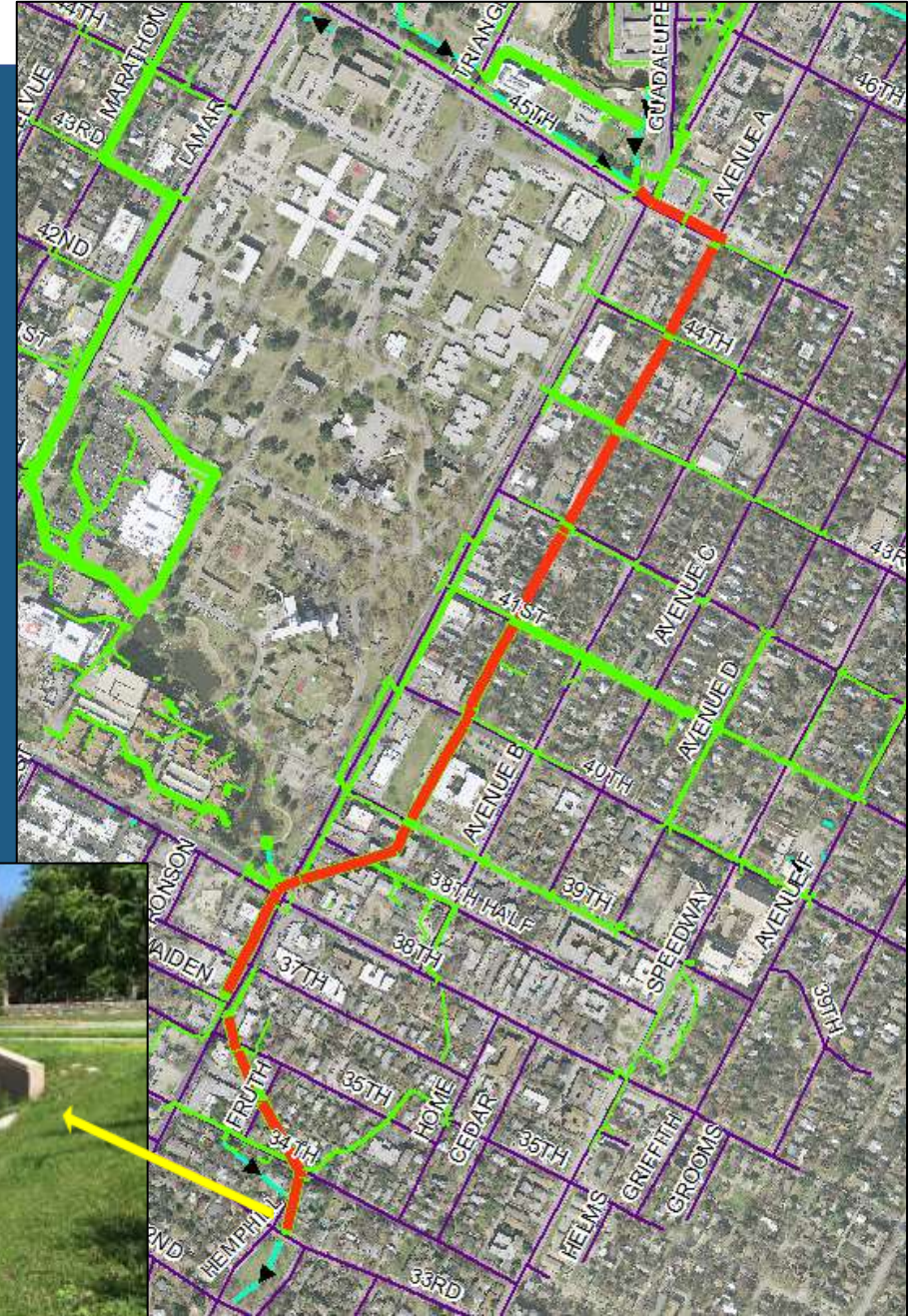


3. Rain water is released into a creek at the outfall. Sometimes it goes to a water quality or detention pond first.



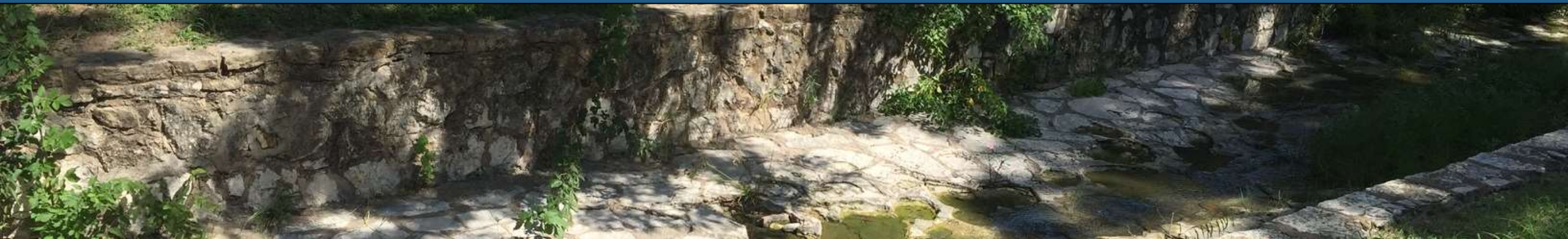
Existing Storm Drain

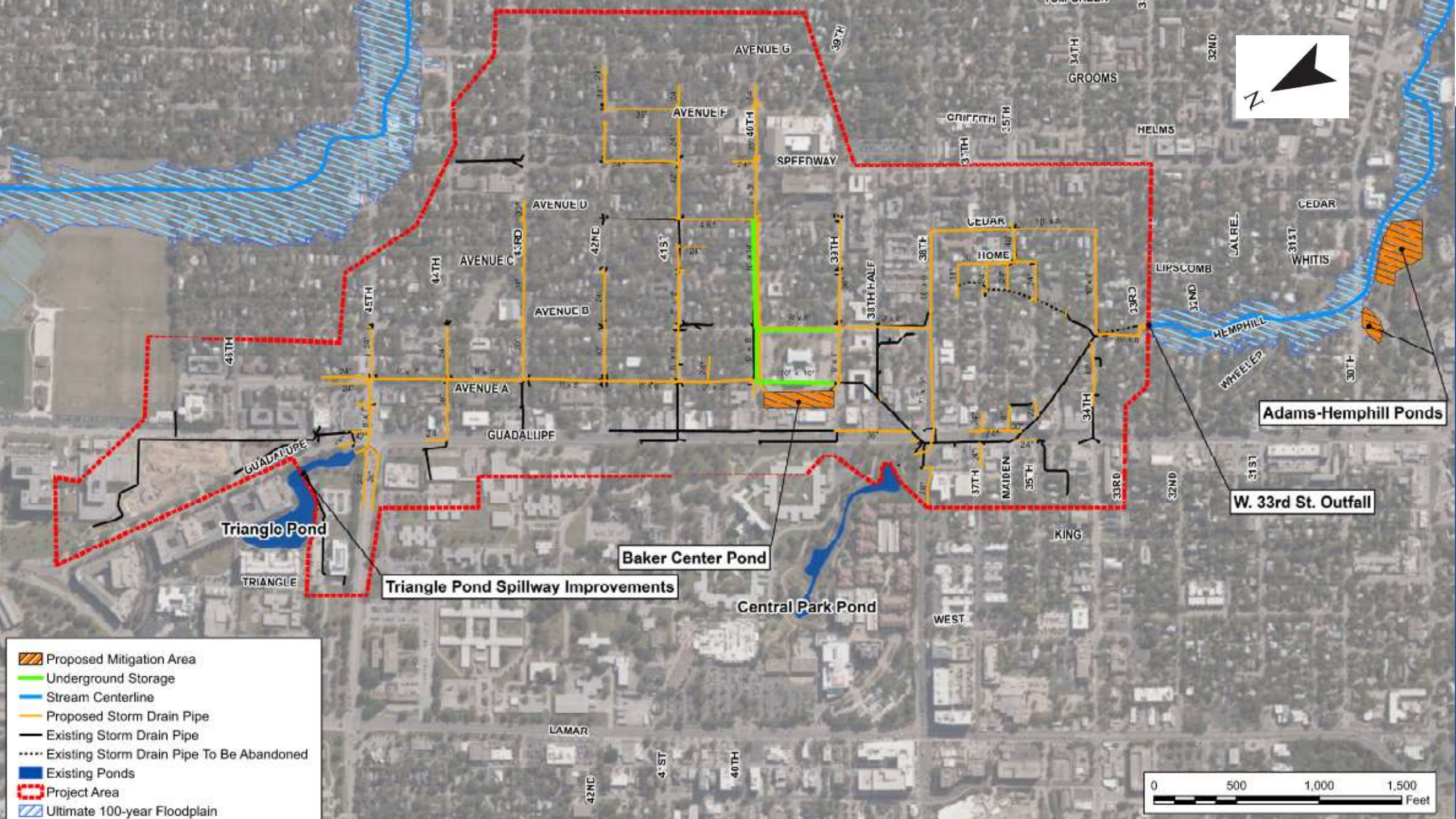
- Main storm system built in 1928
- Generally follows Avenue A to Hemphill Branch (W 33rd St)
- Size varies from 42 inch pipe to 9-ft x 5.5-ft box
- Laterals flow to trunkline
- Central Park Pond designed in 1993
- Triangle Pond designed in 2004



Design

- ~28,000 ft of upgraded and new Storm Drains
- Triangle Pond and Central Park Pond outfall improvements
- Baker Center Detention pond
- Underground Detention in Right of Way
- Upgraded Storm Drain Outfall at 33rd Street
- Adams Hemphill Park Detention pond





Adams-Hemphill Ponds










W. 33rd St. Outfall

Baker Center Pond

Triangle Pond Spillway Improvements

Central Park Pond

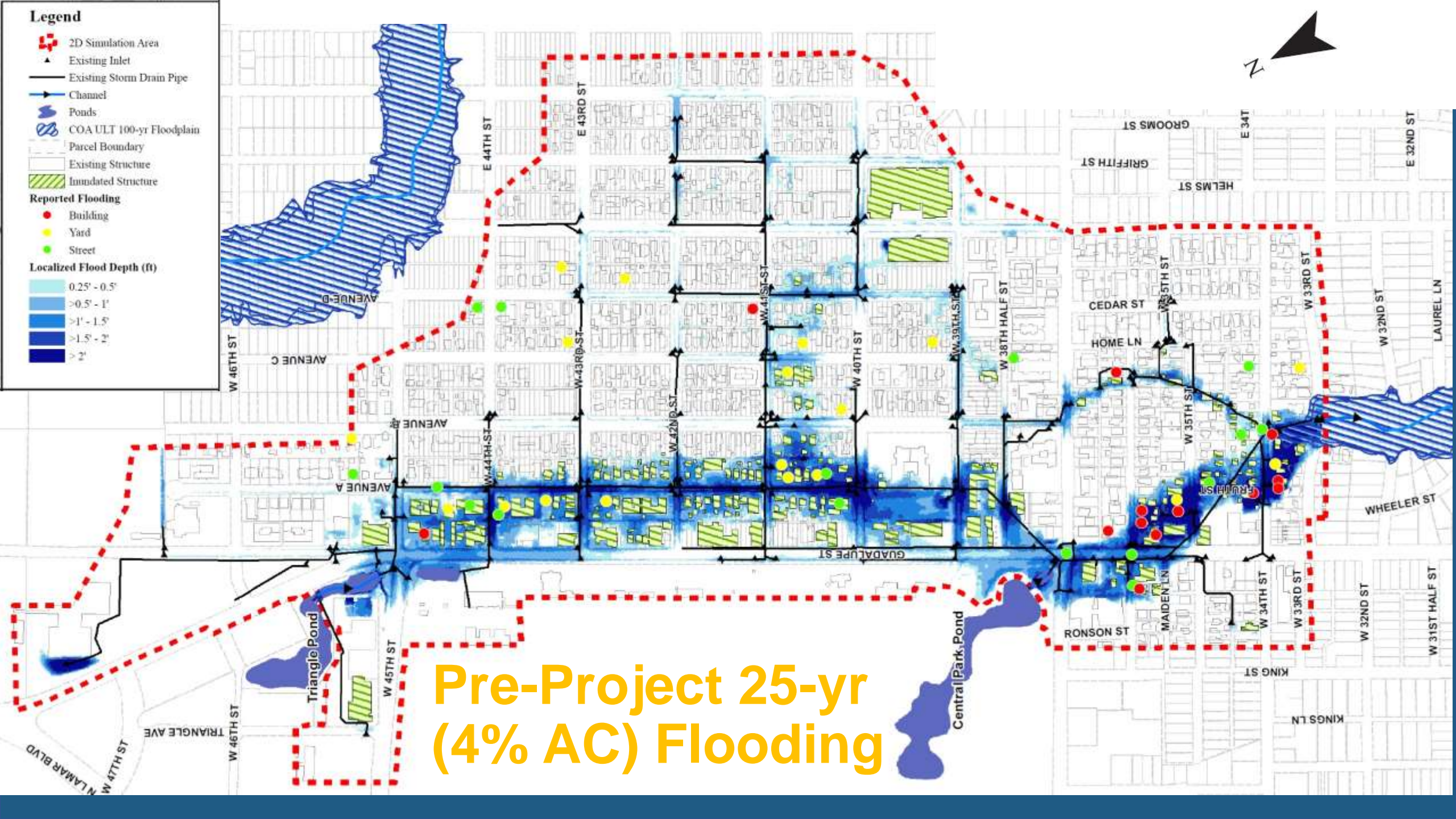
Triangle Pond

-  Proposed Mitigation Area
-  Underground Storage
-  Stream Centerline
-  Proposed Storm Drain Pipe
-  Existing Storm Drain Pipe
-  Existing Storm Drain Pipe To Be Abandoned
-  Existing Ponds
-  Project Area
-  Ultimate 100-year Floodplain



Legend

- 2D Simulation Area
 - Existing Inlet
 - Existing Storm Drain Pipe
 - Channel
 - Ponds
 - COA ULT 100-yr Floodplain
 - Parcel Boundary
 - Existing Structure
 - Inundated Structure
- Reported Flooding**
- Building
 - Yard
 - Street
- Localized Flood Depth (ft)**
- 0.25' - 0.5'
 - >0.5' - 1'
 - >1' - 1.5'
 - >1.5' - 2'
 - >2'



**Pre-Project 25-yr
(4% AC) Flooding**

Legend

- 2D Simulation Area
- Existing Inlet
- Existing Storm Drain Pipe
- Proposed Inlet
- Proposed Storm Drain Pipe
- Channel
- Ponds
- Underground Detention
- COA ULT 100-yr Floodplain
- Parcel Boundary
- Existing Structure
- Pre-Project Intundated Structure
- Post-Project Intundated Structure

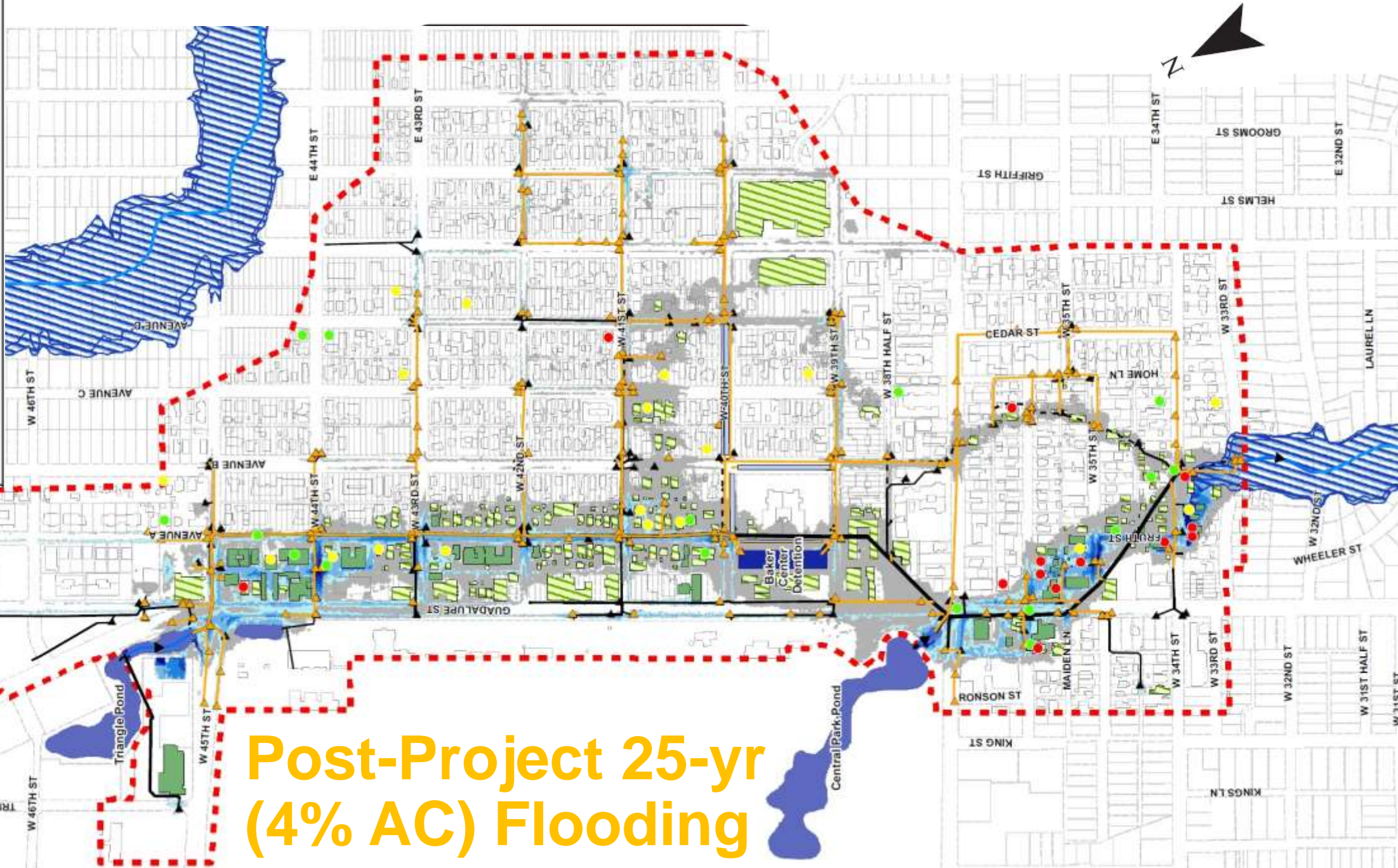
Reported Flooding

- Building
- Yard
- Street

Pre-Project 25-yr Imundation

Localized Flood Depth (ft)

- 0.25' - 0.5'
- >0.5' - 1'
- >1' - 1.5'
- >1.5' - 2'
- >2'



Post-Project 25-yr (4% AC) Flooding

Baker Center Detention Pond

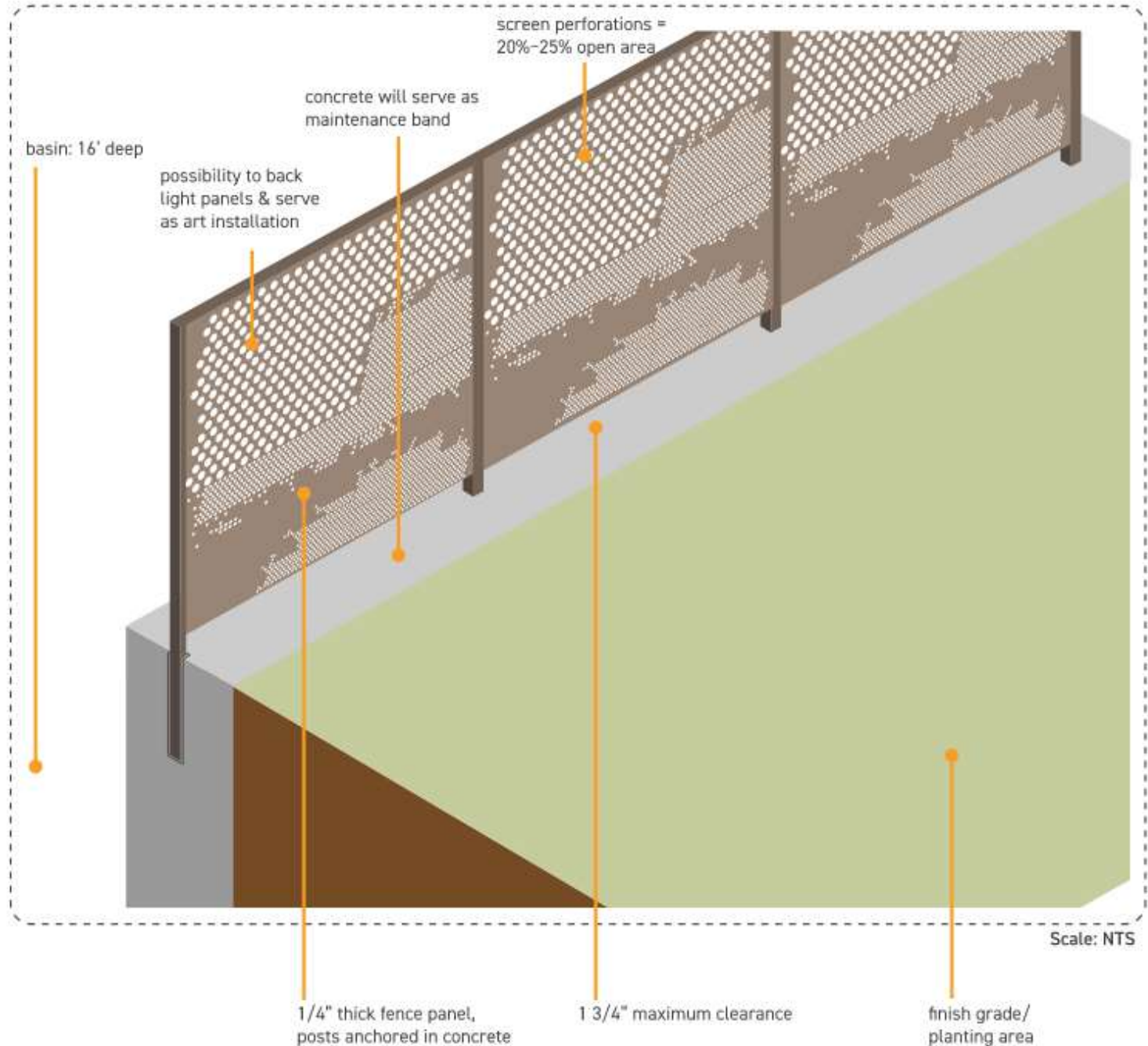


OPTION 1:

NATURAL PROCESS CONCEPT

This concept draws inspiration from the soil profile and movement of water, natural layers in the earth being abstracted into varying perforations.

This concept would be constructed of perforated steel panels.



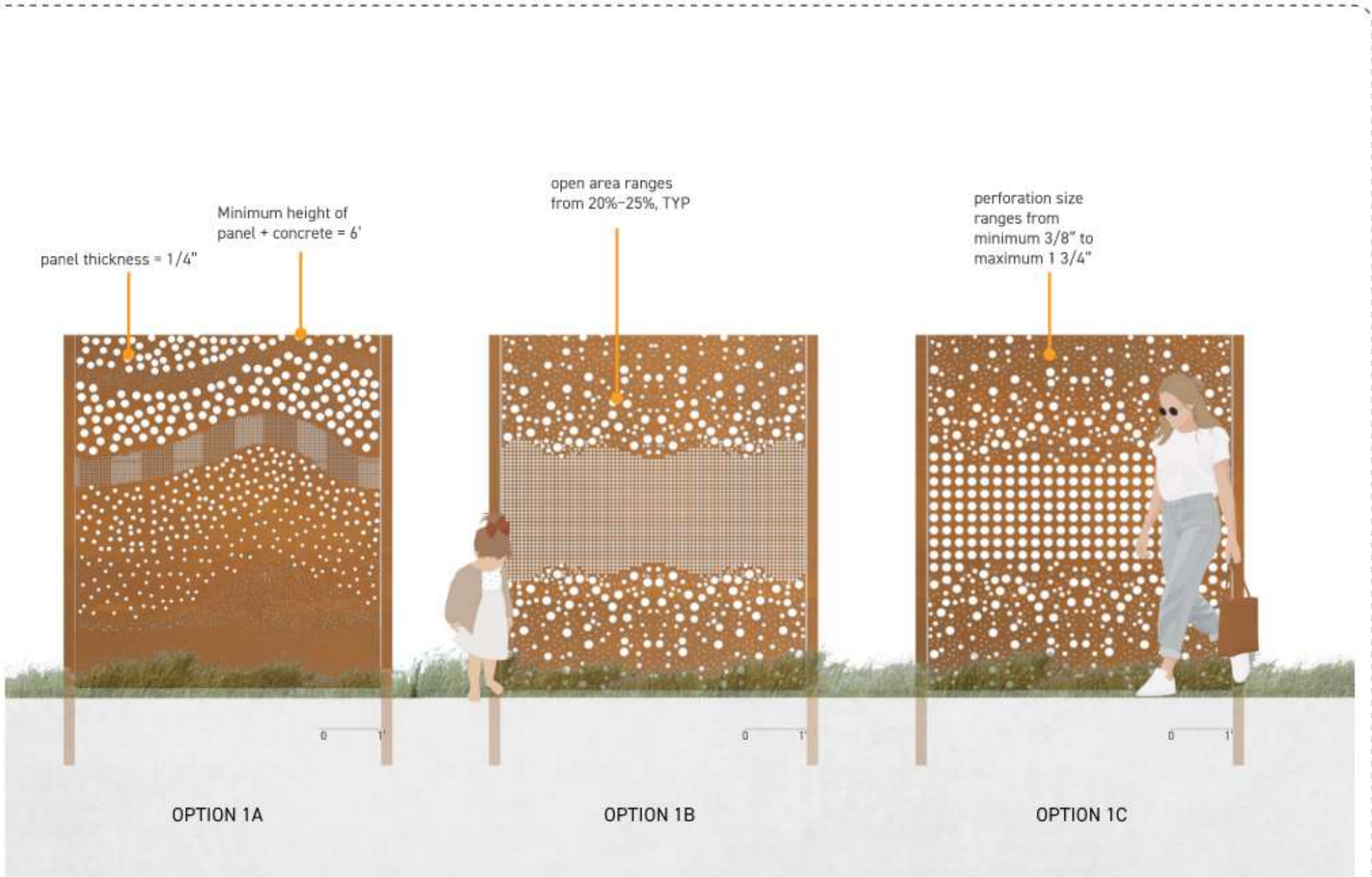
OPTION 1:

NATURAL PROCESS CONCEPT

This concept draws inspiration from the soil profile and movement of water, natural layers in the earth being abstracted into varying perforations.

NOTE: 3 separate panel options are shown here to illustrate perforation options, but the finalized design will consist of continuous panels without gaps to ensure public safety.

PANEL ELEVATION OPTIONS



OPTION 2:

HYDE PARK REFERENCE CONCEPT

This concept draws inspiration from the Hyde Park Neighborhood and its architecture. Residential picket fences and art deco forms lend the basis for this design.

This concept would be constructed of weathering steel posts or reinforced concrete posts.

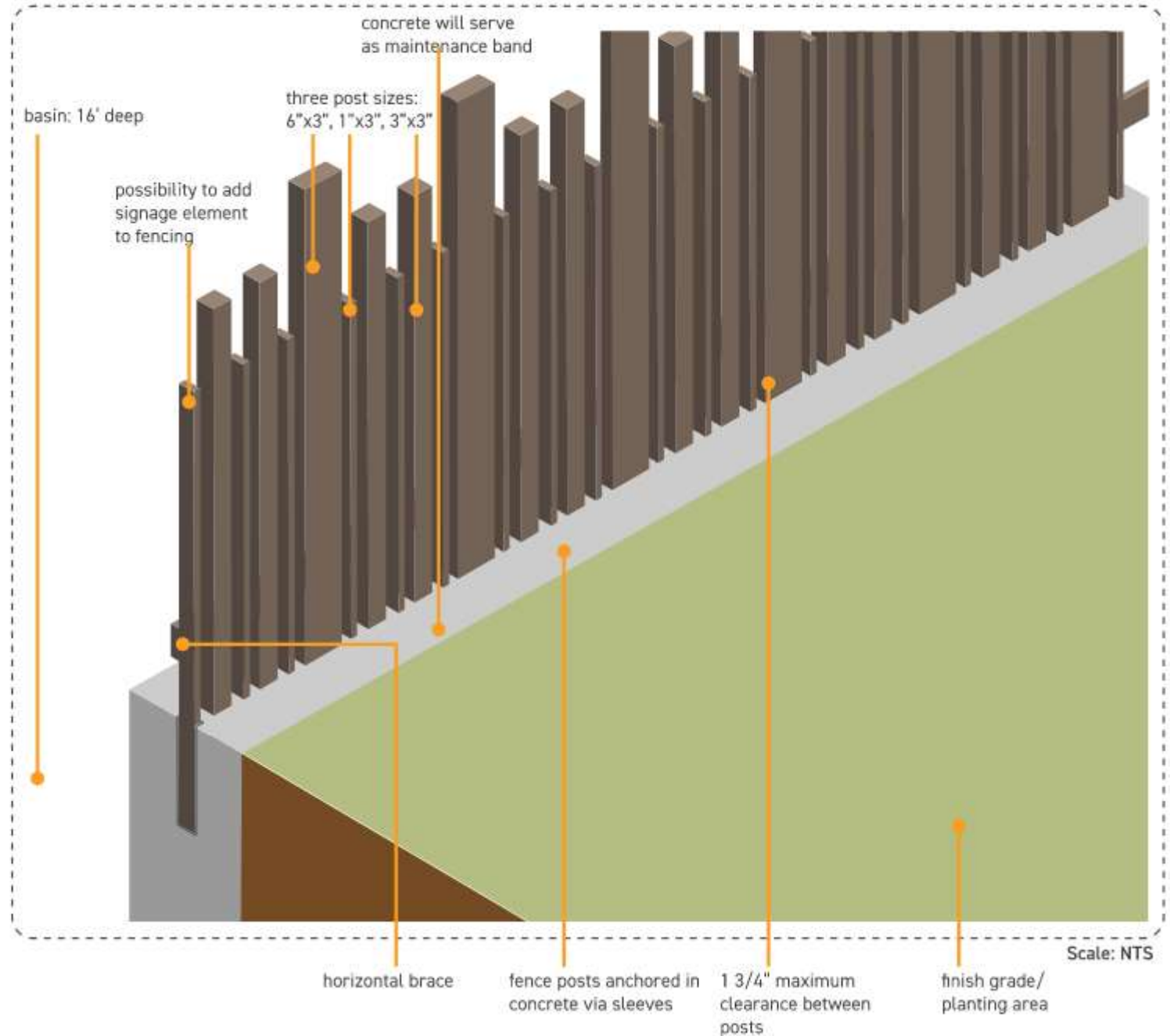


Hyde Park street



Baker Center architecture

Baker Center Detention Pond



OPTION 3:

STANDARD METAL FENCE

A standard metal fence such as Ameristar Wireworks fence or an approved equal would utilize a pre-fabricated metal fence that would meet safety requirements at a lower cost than the previous custom fencing options.



Ameristar Wireworks Fence

anti-climb welded
wire mesh

powder-coated finish



Ameristar Wireworks Fence

minimum 6' height

PANELS, AUSTIN, TX



Landscape Panels, The Domain, Austin, TX

CLADDING, CENTRAL TX



Perforated Metal Cladding, Austin Central Library



Perforated Metal Cladding, Pflugerville, TX



Bird Blind, Phil Hardberger Park, San Antonio, TX

OUTSIDE OF TEXAS

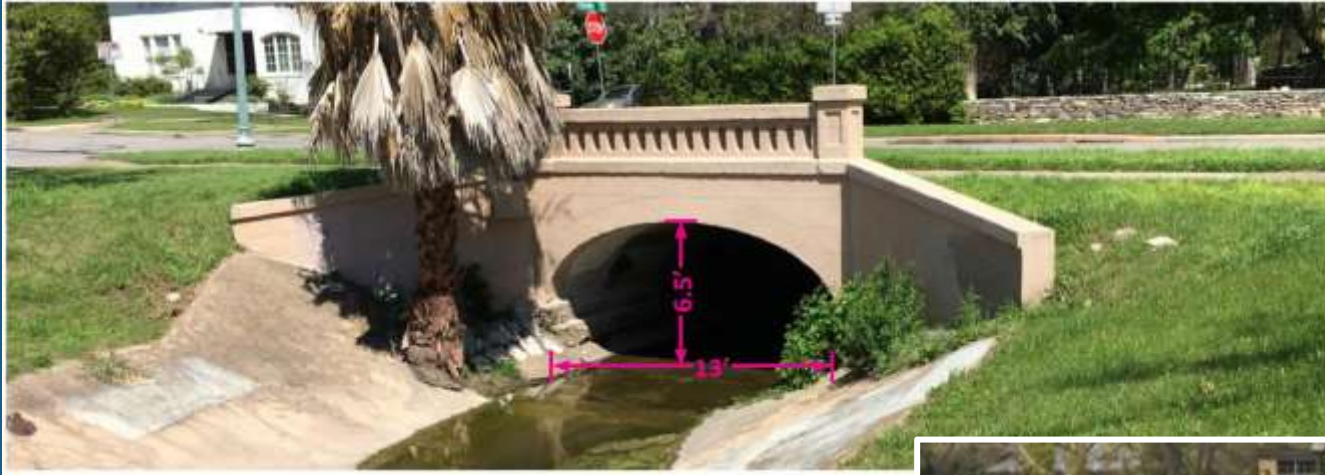


Perforated Metal Cladding



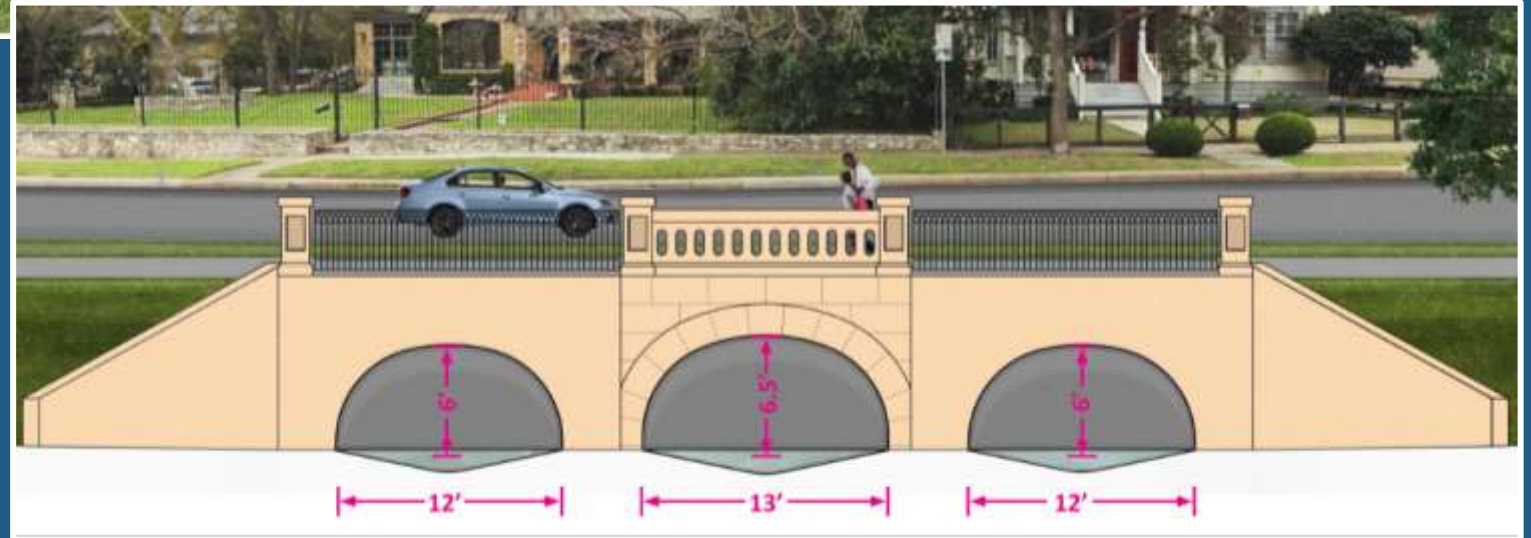
Perforated Metal Structure, Pier 26, New York

Outfall at W. 33rd Street

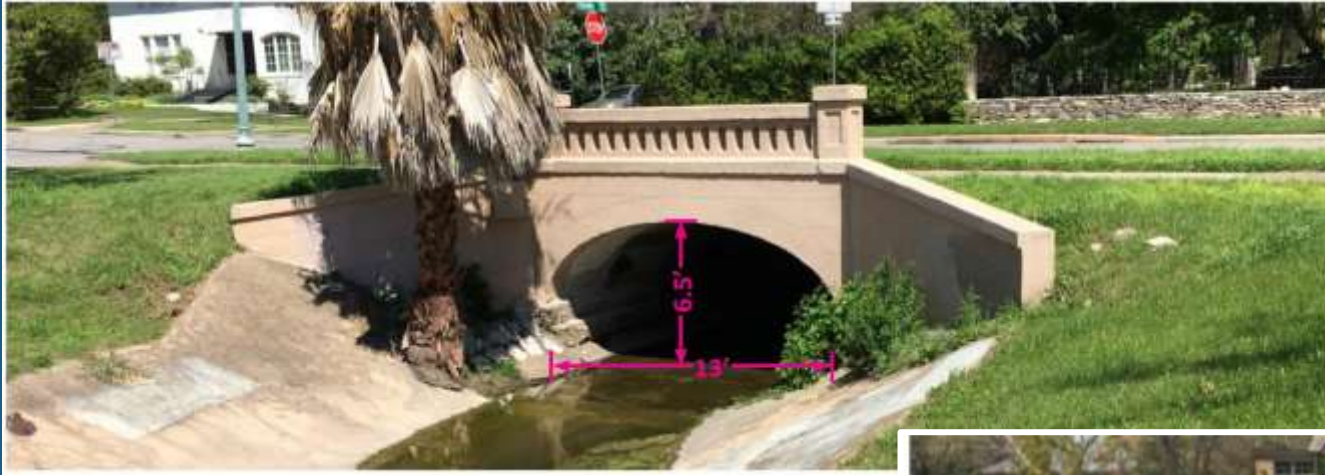


Option A

Coordinating with the Historic Landmark Commission, Historic Preservation Office, PARD, Aldridge Place Local Historic District, and others on design

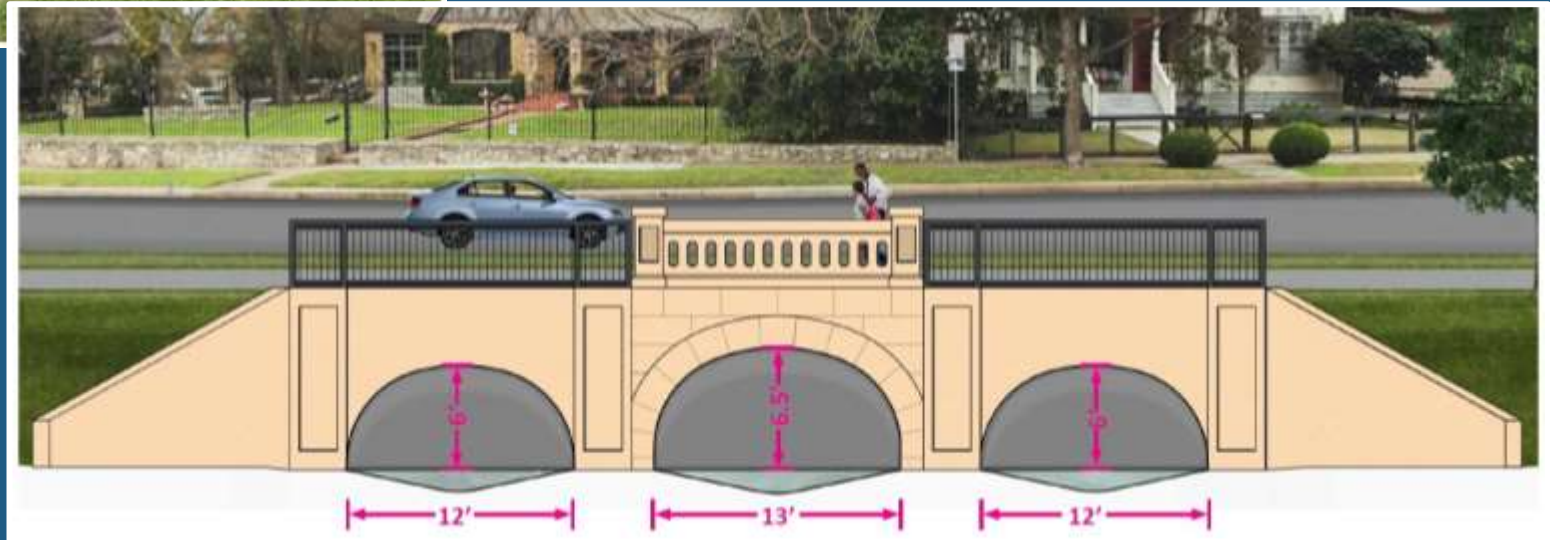


Outfall at W. 33rd Street

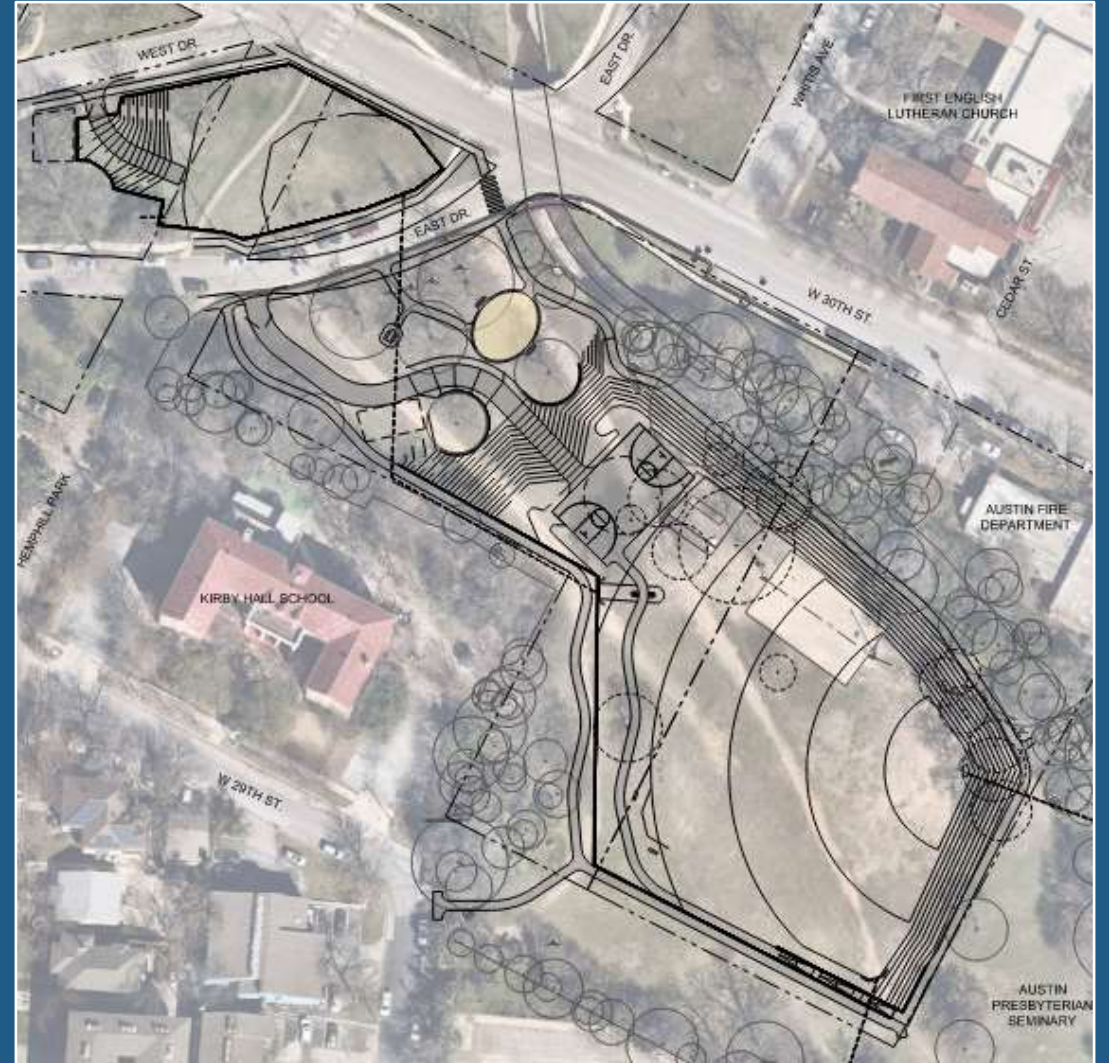
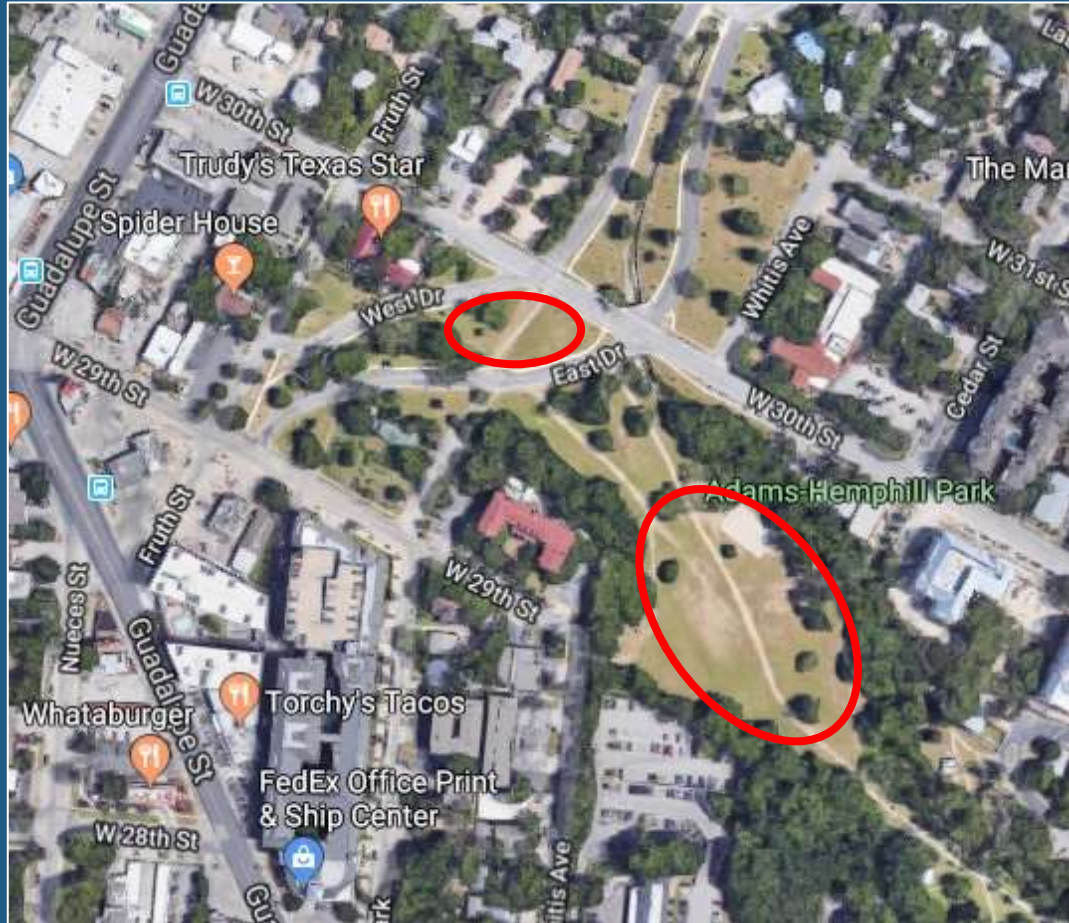


Option B

Coordinating with the Historic Landmark Commission, Historic Preservation Office, PARD, Aldridge Place Local Historic District, and others on design



Adams Hemphill Park Detention Pond



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Watershed Protection Department


GUADALUPE STREET FLOOD RISK REDUCTION

We are studying flooding near Avenue A in the Hyde Park neighborhood. The study will result in a preliminary engineering report that evaluates ways to reduce flooding due to an undersized storm drain system in the project area.


Overview

The type of flooding that is occurring in the project area is known as local flooding. It generally occurs away from creeks in areas where the manmade drainage system of pipes and ditches are overwhelmed by heavy rainfall. In this case, when the neighborhood was developed, we suspect that an entire creek or small tributary was diverted into the storm drain system and roads and possibly structures were built where the water once flowed.

Please see the project map below. Click on the map to download a larger PDF.



Call 311
To Report Flooding



Local Flooding

TOP CONTENT

- ★ Grow Green
- ★ Flood Safety
- ★ Floodplain Management and Regulations
- ★ Scoop the Poop
- ★ Rain Gardens Keeping Water on the Land

UPCOMING EVENTS

Presentation about Guadalupe Street Flood Risk Reduction Project
Nov. 05, 2018

MORE EVENTS

CONTACT INFO

Key Contact: Rebeka McKay
Position: Engineer C
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Email:

FloodSmart.gov

Considering flood insurance? Call your insurance agent to sign up or click on "FloodSmart.gov" above to find out more about risks and costs.

ATXfloods

Road Closures due to Flooding

Warn Central Texas

Sign up for Flood Alerts

ATX Hydromet

Rainfall and Creek Level Data

Schedule

- Currently in Design
- Design and Permitting
 - Present – Winter 2023
- Easement Acquisition
 - 2022 - 2023
- Construction Begins
 - ~ 2024
- Public Meetings
 - Oct 4 2021
 - Spring 2022
 - Construction Kickoff - 2024

[AustinTexas.gov/stormdrains](https://www.austintexas.gov/stormdrains)

Guadalupe Street Storm Drain Improvements

Available Resources

- Consider purchasing flood insurance
- Report flooding and drainage concerns to 3-1-1
- Avoid building in drainage easements
- Email floodpro@austintexas.gov for information about flood-proofing
- Check ATXfloodsafety.com for additional resources

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Questions?

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