

# Del Curto Storm Drain Improvements Project (SDI)

January 23, 2018





# Welcome

## Personnel:

Reem Zoun, PE – Supervising Engineer, WPD

Jose Guerrero, PE – Assistant Director, WPD

Scott Avery, EIT – Graduate Engineer, WPD

Stephanie Lott – Public Information Officer, WPD

Joanna Thompson – Office of the Real Estate Services, COA

Andrew Rooke, PE – CAS Consulting Services

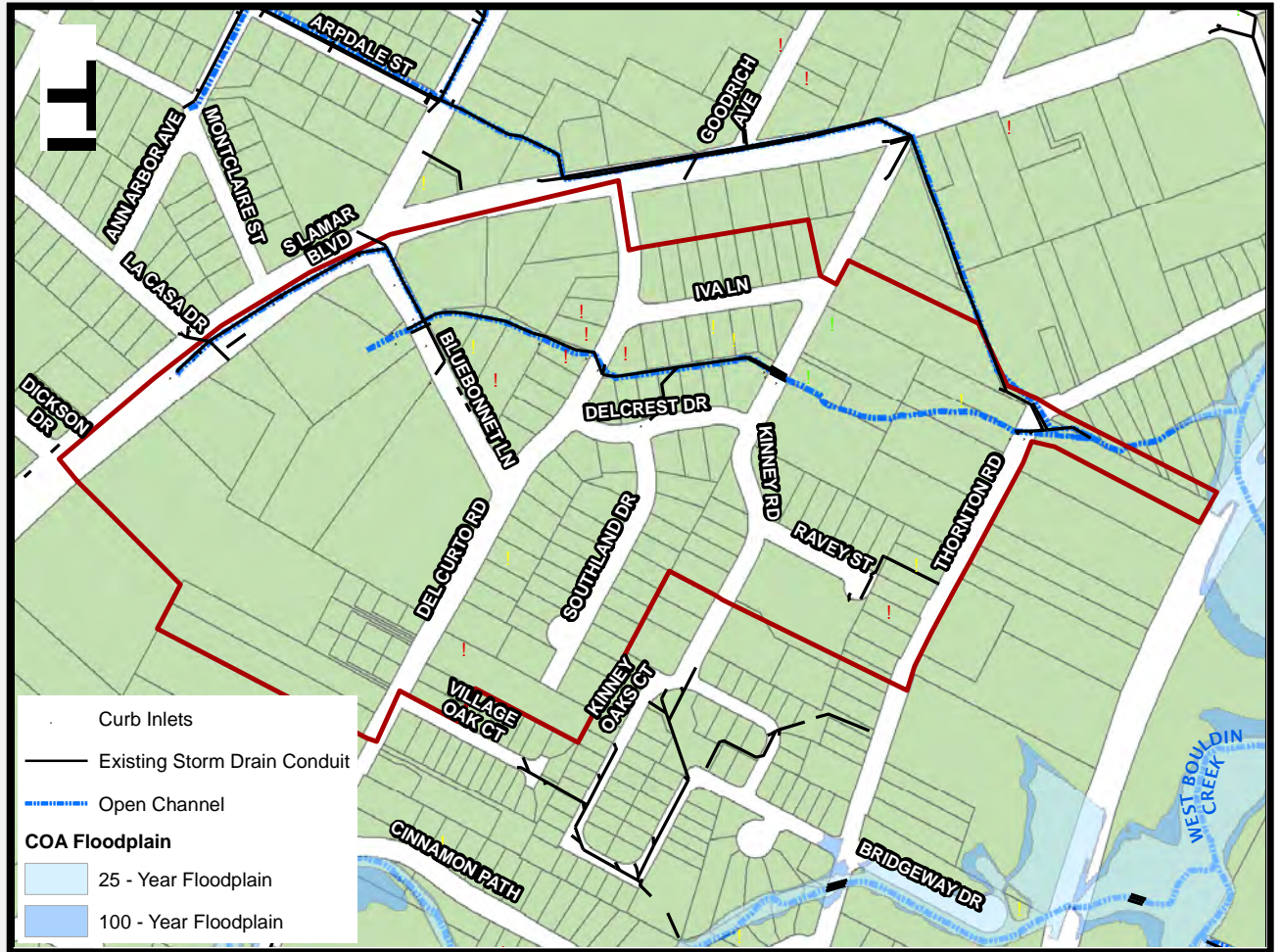




# Introduction

## Del Curto Storm Drain Improvements (SDI) Project

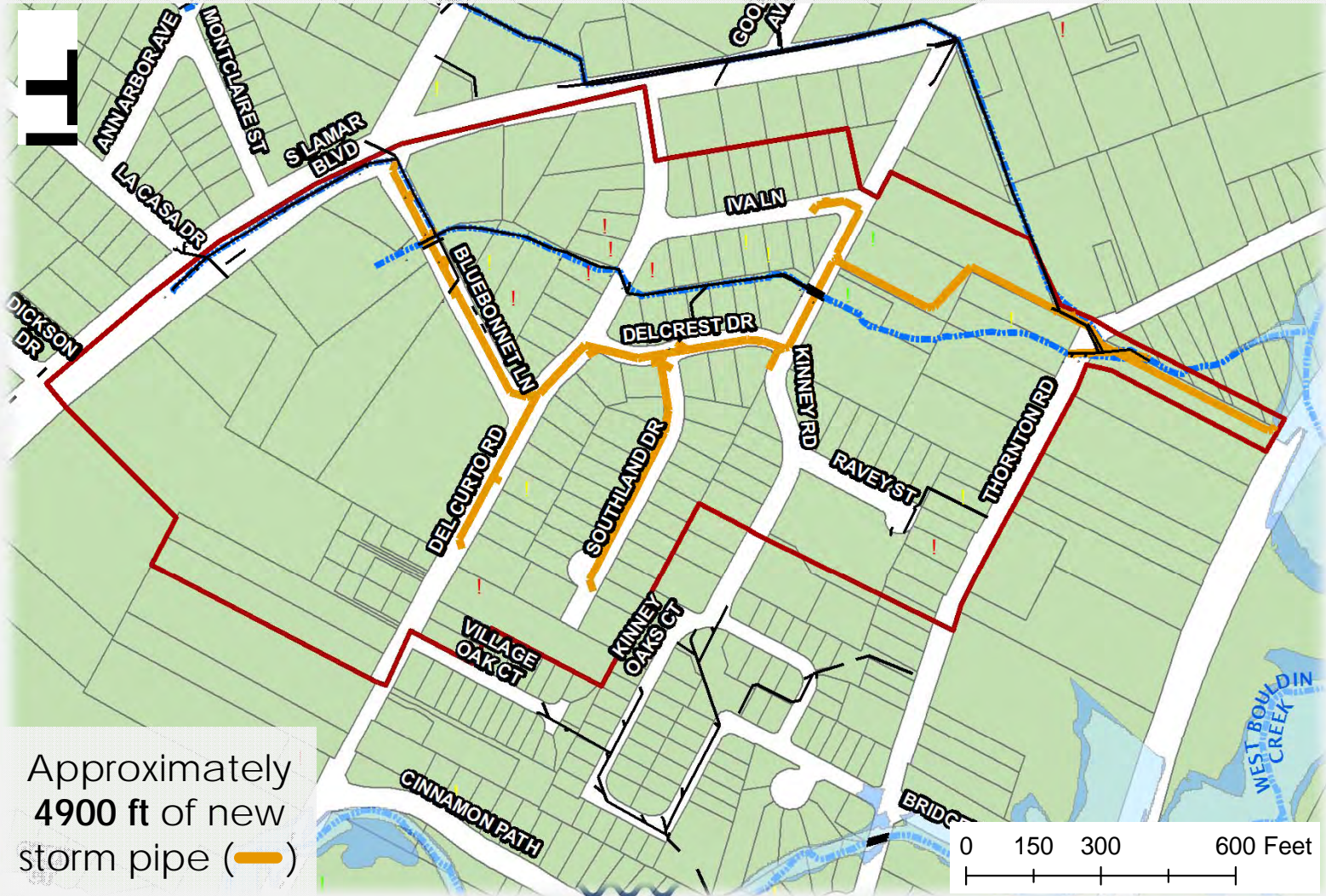
- Local Flood Risk Reduction Priority#3
- Flooding Complaints (15):
  - 7 Buildings
  - 6 Yard
  - 2 Street
- History
- Purpose of meeting





# Introduction

## Del Curto SDI - Proposed Storm Pipes



1/23/2018



# Del Curto Storm Drain Improvements

CITY OF AUSTIN



WATERSHED PROTECTION DEPARTMENT





# Del Curto Storm Drain Improvements



CITY OF AUSTIN

WATERSHED PROTECTION DEPARTMENT



# Two Types of Flooding

Flooding happens due to a combination of intense rainfall and inadequate capacity of our drainage system

- **Creek Flooding:** Occurs when a creek rises over its banks.
- **Localized Flooding:** Occurs away from creeks.







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



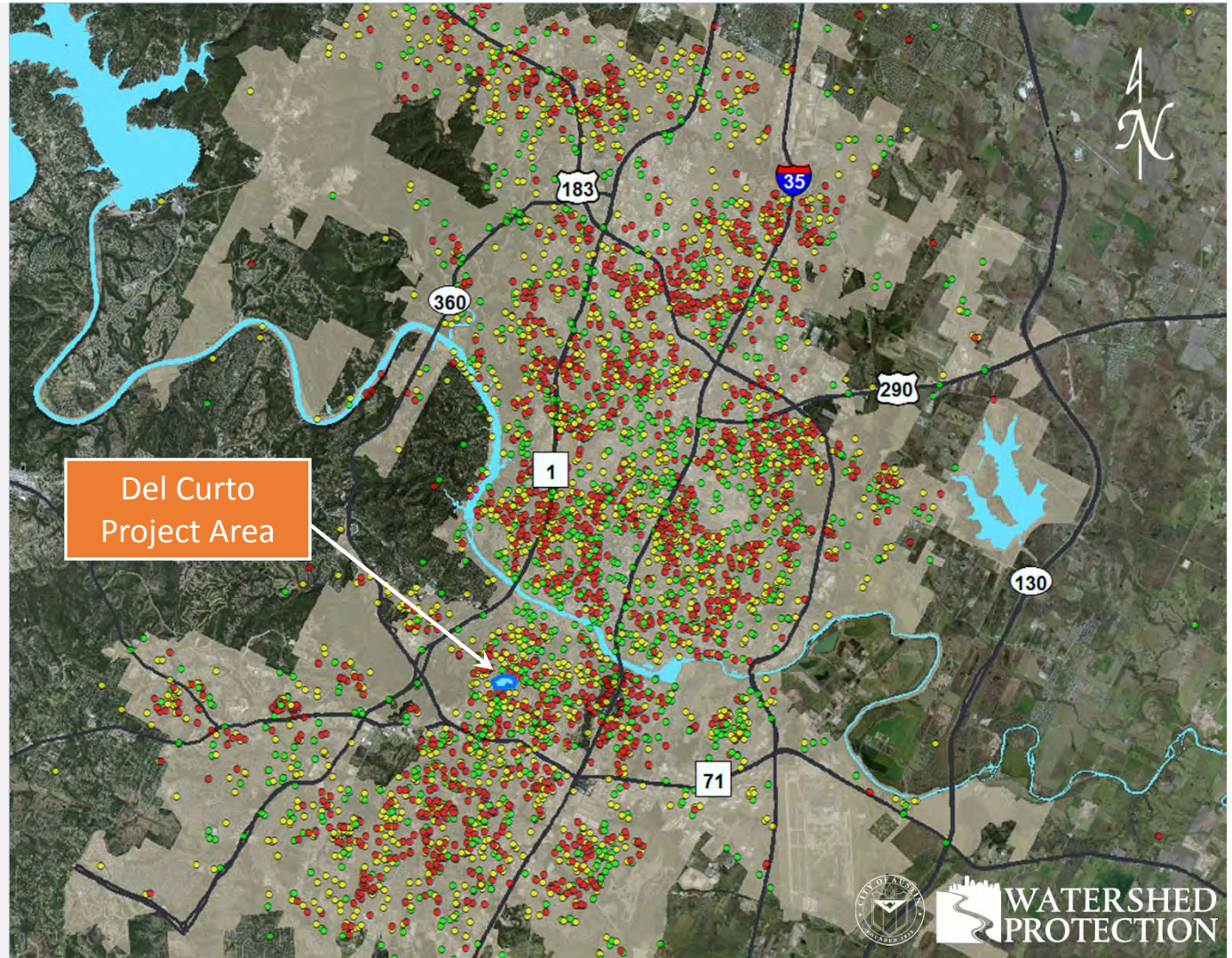
**Creek Flooding** →  
Occurs when a creek rises over its banks.





# Localized Flooding Citywide

- **5,884 Total Complaints**
  - 1,995 Buildings
  - 2,409 Yards
  - 1,480 Streets
- Neighborhoods built before the 1980s tend to have more drainage problems
- No quick or easy solution
- Del Curto SDI ranks **#3**





# 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 and curbs capture rain water.**



**2. Underground pipes carry the water.**

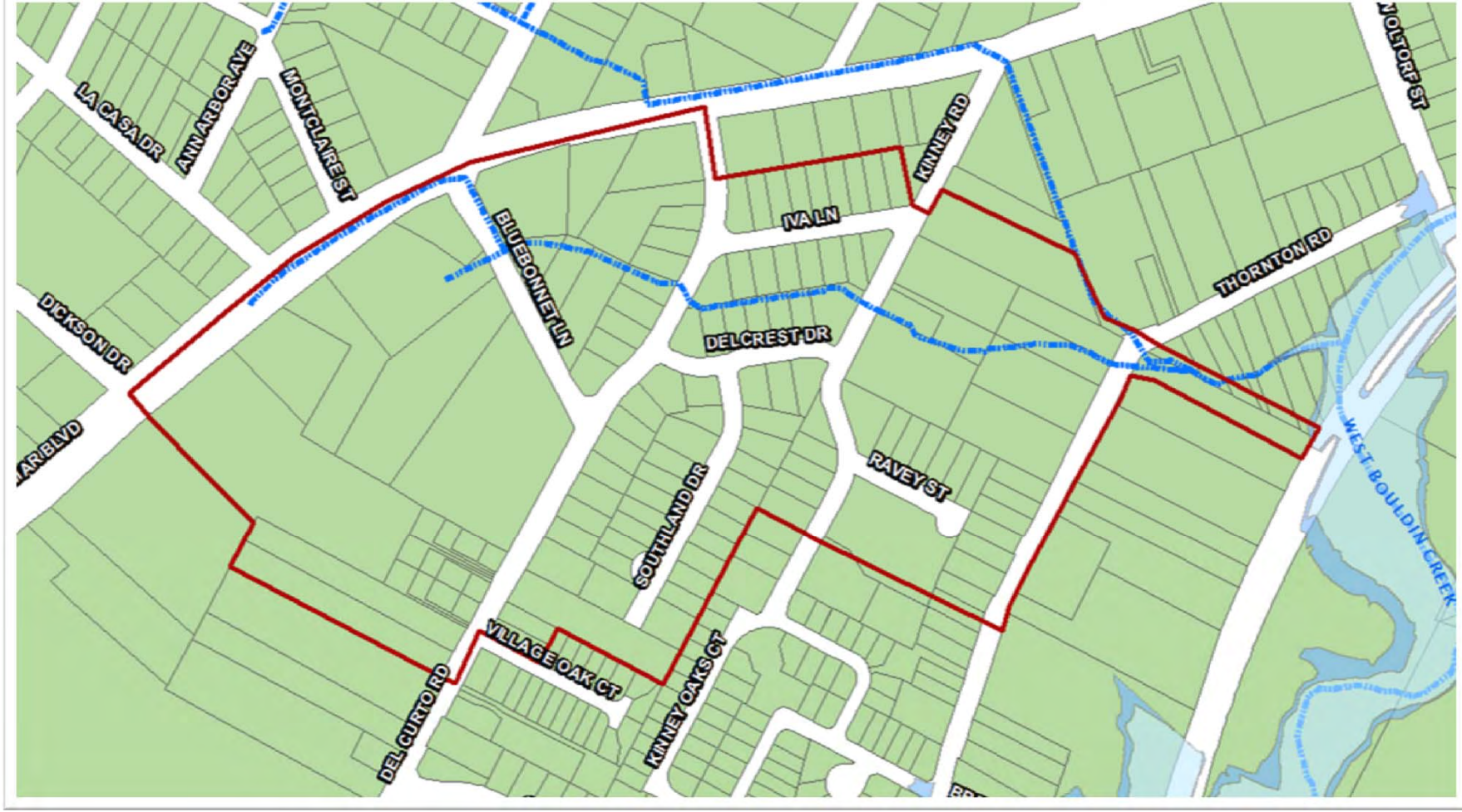


**3. Rain water is released into a creek at the outfall. Sometimes it goes to a water quality or detention pond first.**



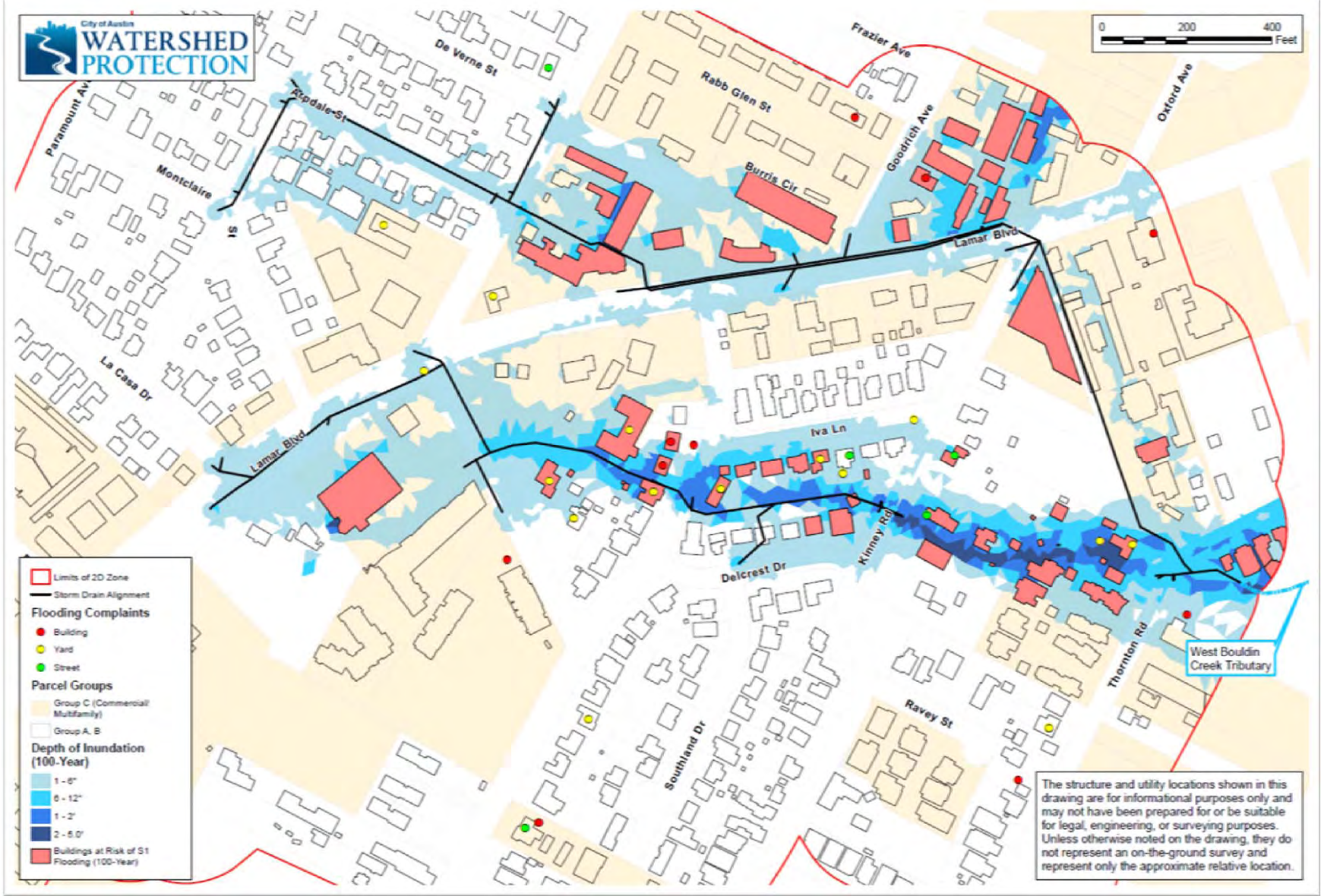


# Project Area Map





# 100-year Inundation





# Proposed Design





## Proposed Design:

- Existing pipes and channels to remain.
- Reduced environmental impact, existing natural character of streams will remain.
- Also reduces flooding at existing pipe outfall near Thornton.





A natural stream previously ran through this area

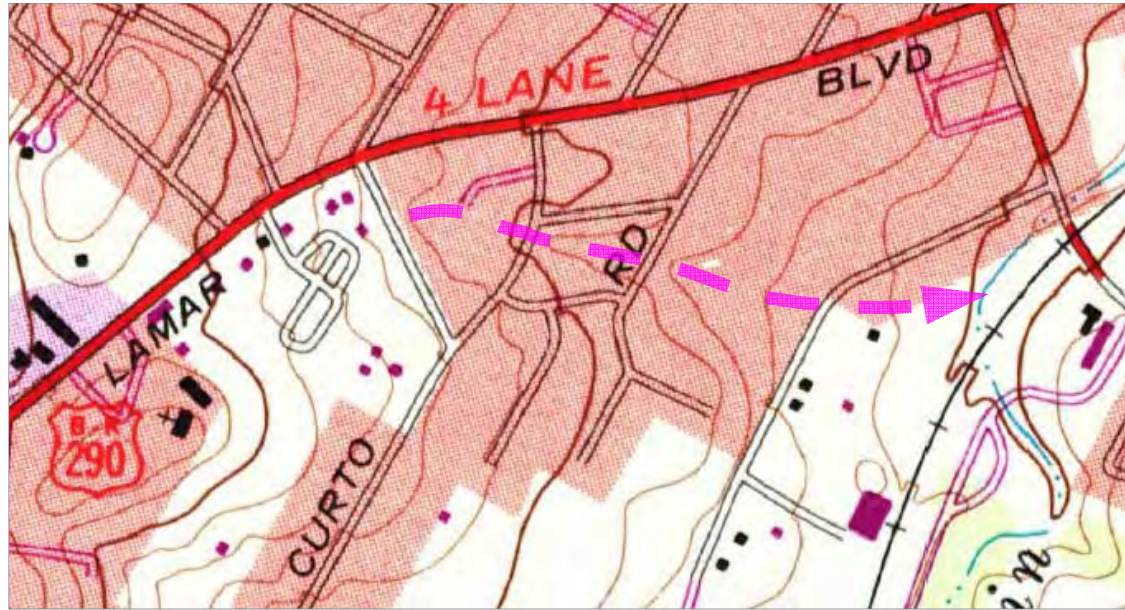


USGS Topo Map (1955)





The stream was moved underground when the neighborhood was constructed in the 1960s

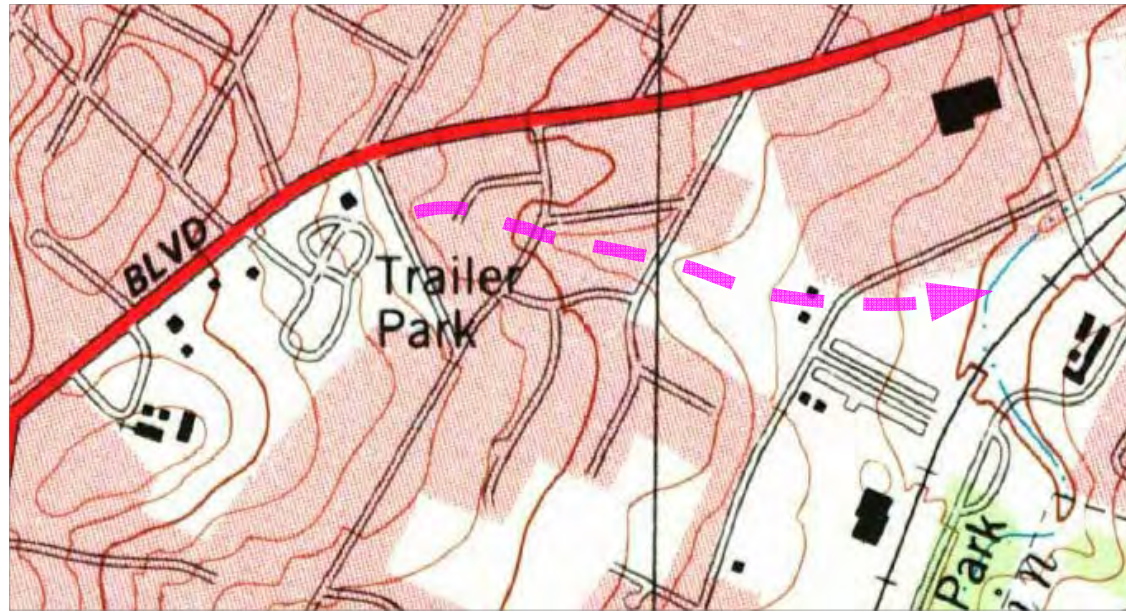


USGS Topo Map (1973)





The stream was moved underground when the neighborhood was constructed in the 1960s



USGS Topo Map (1988)





When the capacity of the old drainage pipes is exceeded, flooding follows the old natural stream path



USGS Topo Map (2016)



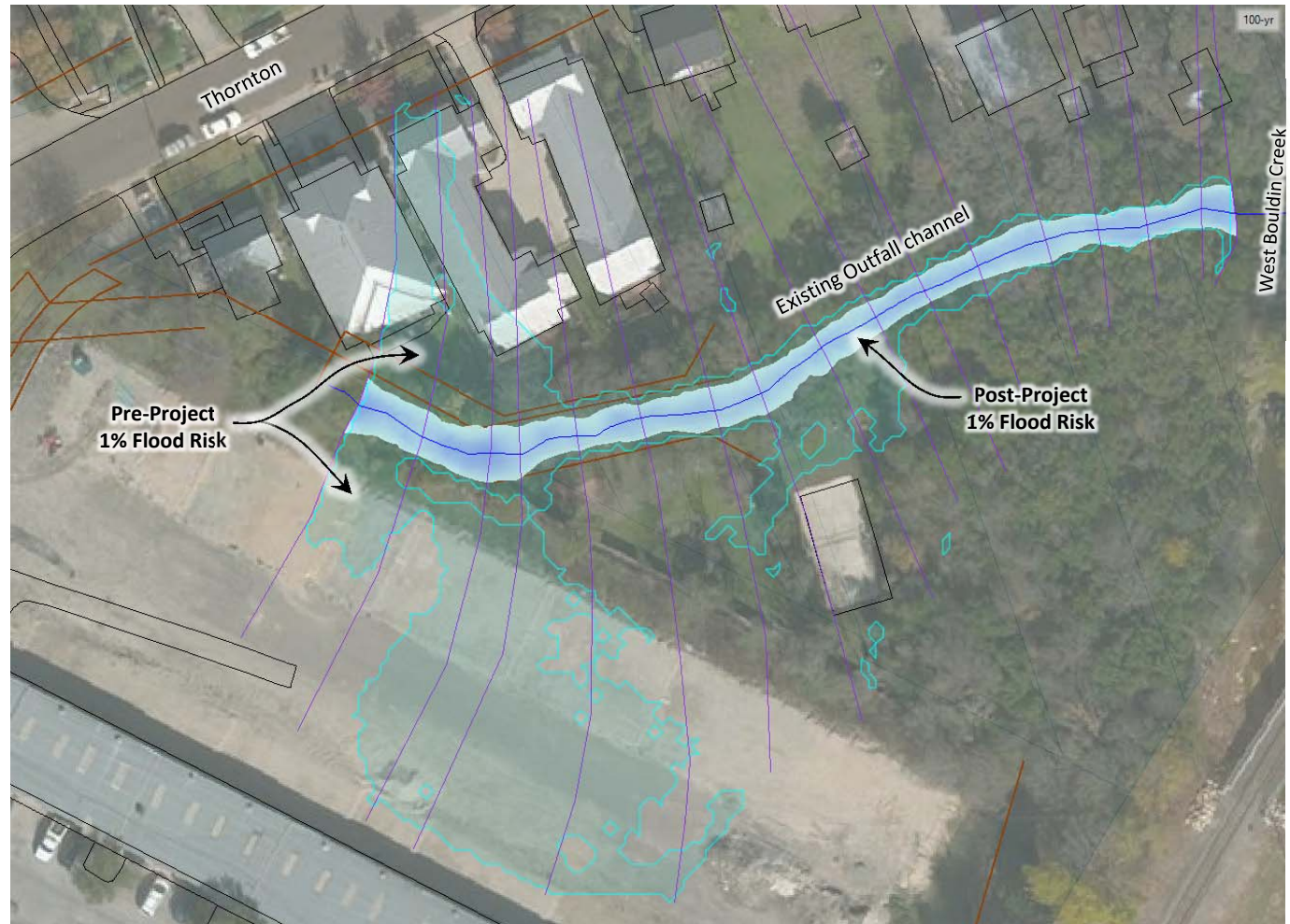


# Outfall Flood Risk

There is no regulatory floodplain for the existing outfall channel.

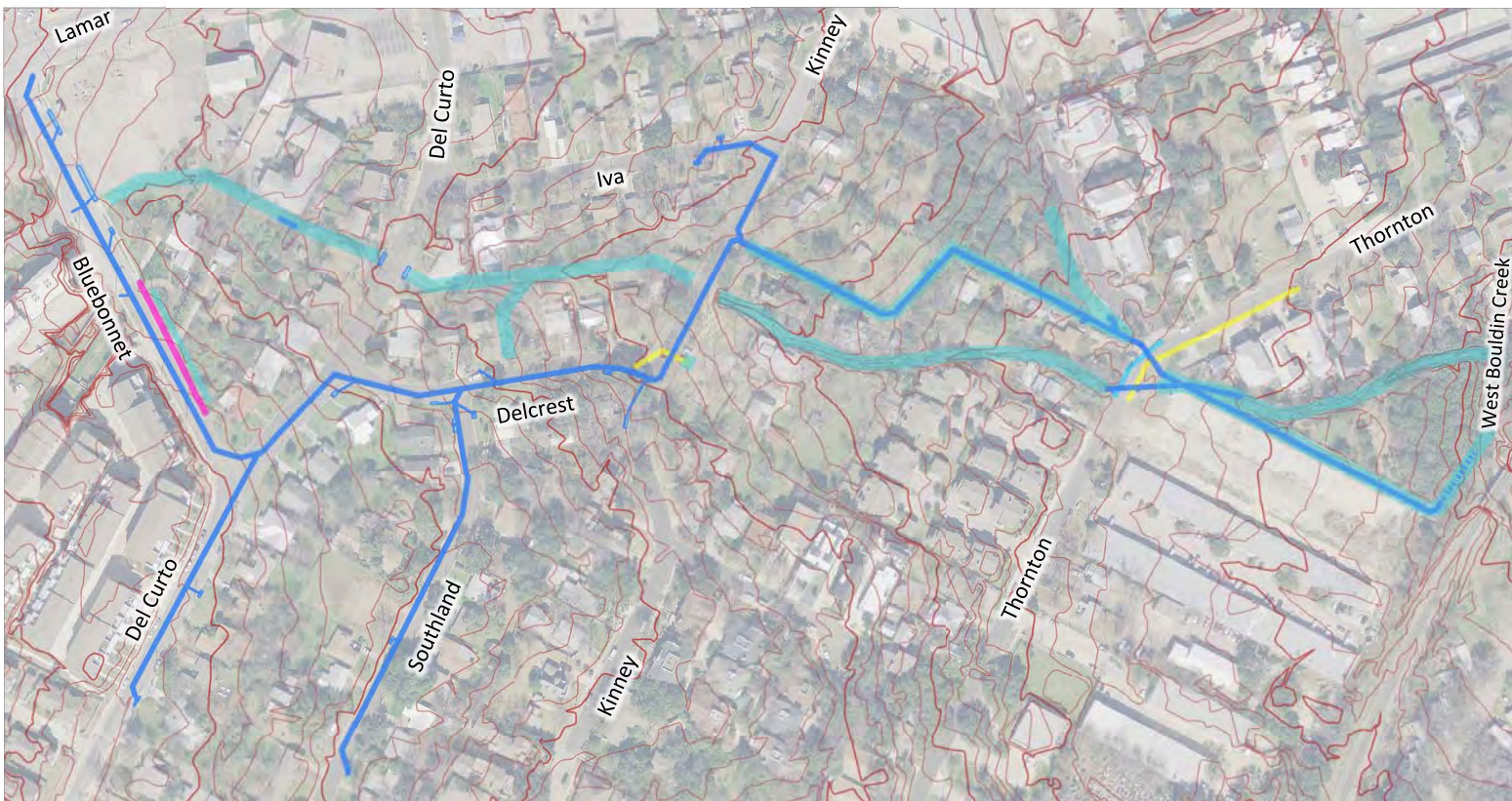
However, the actual 1% flood risk extends into several properties.

The bypass storm drain system will reduce the flood risk within the existing channel.



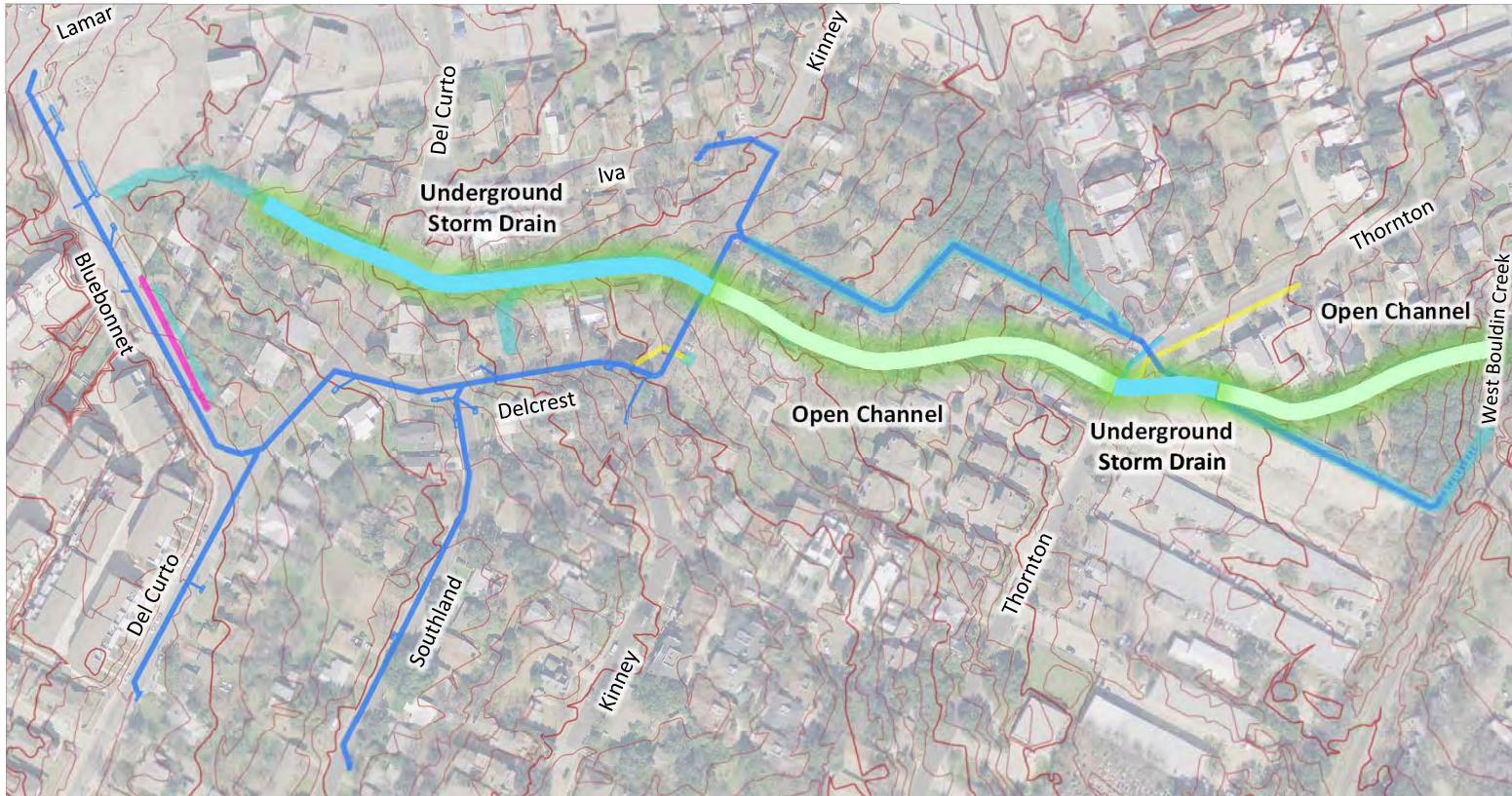


# Proposed Design



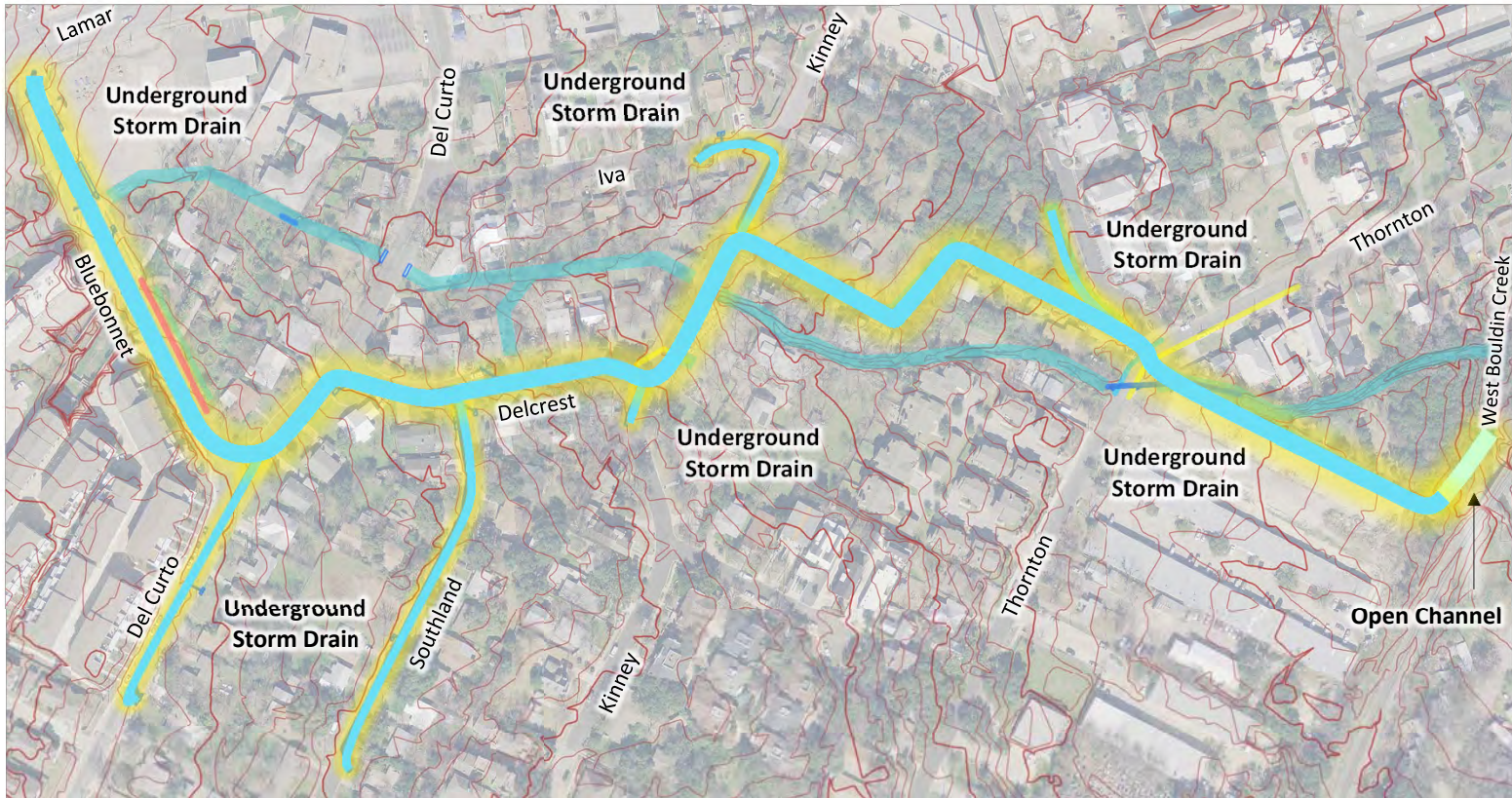


# Proposed Design: Keep Existing Drainage



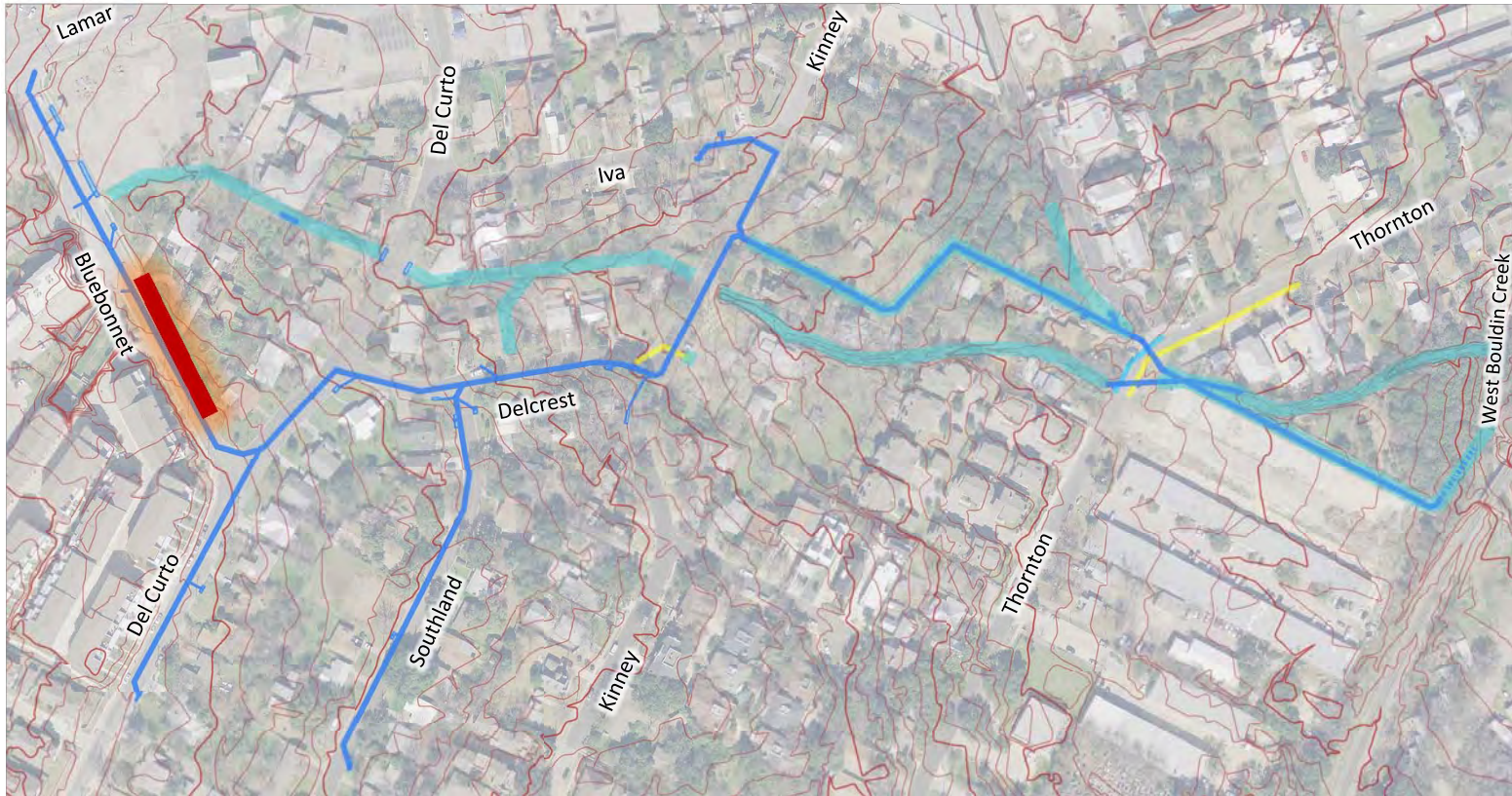


# Proposed Design: Add Bypass System



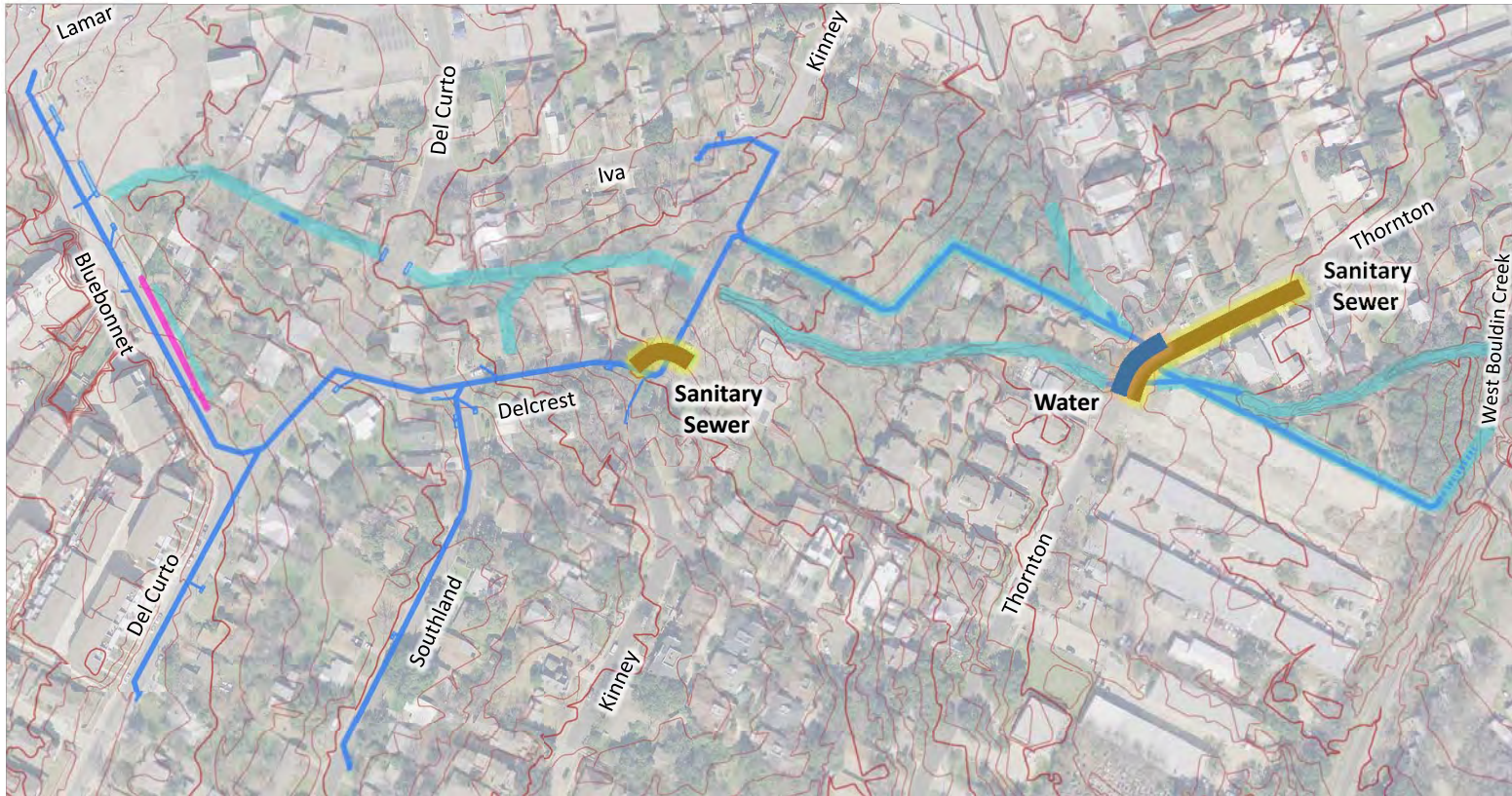


# Proposed Design: Add Curb & Gutter





# Proposed Design: Make Utility Adjustments





## Proposed Design: Temporary Local Impacts

- Road closures / Detours
- Noise
- Dust
- Access to driveways
- Street parking
- Work in yards for inlets and storm drains
- Possible disruption to water service





## Proposed Design: Long Term Benefits / Impacts

- **REDUCED FLOODING!**
- **Maintain natural character and base flows in existing channels**



# What is a Drainage Easement?

- A drainage easement is a part of a property where the City has limited rights of access and/or use.
- Purpose of a drainage easement
  - Needed for the flow of storm water. Example: ditches and creeks.
  - Needed to access drainage infrastructure.
- Homeowner should maintain easement as grass or flowers.

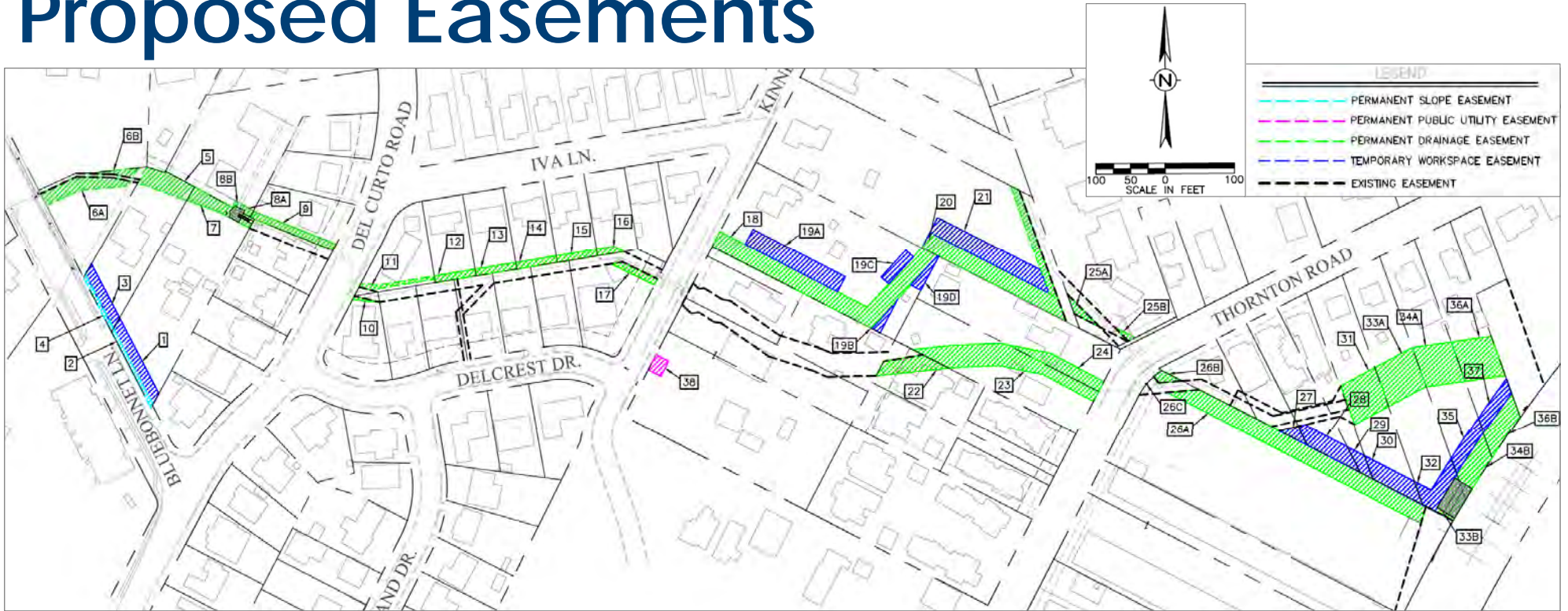




# Proposed Easements

CITY OF AUSTIN

WATERSHED PROTECTION DEPARTMENT



EASEMENT	ADDRESS
1	2505 BLUEBONNET LN TX 78704
2	2505 BLUEBONNET LN TX 78704
3	2507 BLUEBONNET LN TX 78704
4	2507 BLUEBONNET LN TX 78704
5	2507 BLUEBONNET LN TX 78704
6A	2421 BLUEBONNET LN TX 78704
6B	2421 BLUEBONNET LN TX 78704
7	2505 BLUEBONNET LN TX 78704
8A	2208 DEL CURTO RD TX 78704
8B	2208 DEL CURTO RD TX 78704
9	2300 DEL CURTO RD TX 78704
10	2305 DEL CURTO RD TX 78704

11	2301 DEL CURTO RD TX 78704
12	2215 IVA LN TX 78704
13	2213 IVA LN TX 78704
14	2211 IVA LN TX 78704
15	2209 IVA LN TX 78704
16	2207 IVA LN TX 78704
17	2200 DELCREST DR TX 78704
18	2303 KINNEY RD TX 78704
19A	2303 KINNEY RD TX 78704
19B	2303 KINNEY RD TX 78704
19C	2303 KINNEY RD TX 78704
19D	2303 KINNEY RD TX 78704
20	2211 KINNEY RD TX 78704

21	2211 KINNEY RD TX 78704
22	2314 THORNTON RD TX 78704
23	2304 THORNTON RD TX 78704
24	2300 THORNTON RD TX 78704
25A	2216 THORNTON RD TX 78704
25B	2216 THORNTON RD TX 78704
26A	2303 THORNTON RD TX 78704
26B	2303 THORNTON RD TX 78704
26C	2303 THORNTON RD TX 78704
27	2209 THORNTON RD TX 78704
28	2207 THORNTON RD TX 78704
29	2205 THORNTON RD TX 78704
30	2203 THORNTON RD TX 78704

31	2203 THORNTON RD TX 78704
32	2201 THORNTON RD TX 78704
33A	2201 THORNTON RD TX 78704
33B	2201 THORNTON RD TX 78704
34A	2113 THORNTON RD TX 78704
34B	2113 THORNTON RD TX 78704
35	2113 THORNTON RD TX 78704
36A	2111 THORNTON RD TX 78704
36B	2111 THORNTON RD TX 78704
37	2111 THORNTON RD TX 78704
38	2311 KINNEY RD TX 78704

1/23/2018



## Del Curto Storm Drain Improvements

# Schedule

- Currently in design
- Public Meeting
  - September 3, 2015
  - January 23, 2018
- Easement Acquisition
  - Spring 2018 to Summer 2019
- Construction Begin
  - Late 2019

[AustinTexas.gov/Stormdrains](http://AustinTexas.gov/Stormdrains)

Del Curto Storm Drain Improvements

1/23/2018

The screenshot shows the AustinTexas.gov website page for the Del Curto Storm Drain Improvements project. The page is titled "Watershed Protection Department" and "DEL CURTO STORM DRAIN IMPROVEMENTS". It includes a navigation menu on the left with links for Home, About, Services, Programs, Divisions, FAQ, Education, Projects, and Codes and Regulations. The main content area features a large image of a bridge over a river, followed by a section titled "DEL CURTO STORM DRAIN IMPROVEMENTS" with an "Overview" section. The overview describes the project's goal to improve drainage in the South Lamar neighborhood and help protect the area from flooding. It also mentions that the existing storm drain system is overwhelmed by heavy rainfall, leading to localized flooding. A "Project Area" section includes a map showing the project area with red, bolded lines indicating zones. Below the map is a "Public Meeting" section for January 23, 2018, at the Tien Oasis Library. There is also a "Drainage Easements" section. On the right side, there are sections for "TOP CONTENT", "UPCOMING EVENTS", "MORE EVENTS", and "CONTACT INFO". The contact information lists Reem Zoun as the Key Contact, Supervising Engineer, with a phone number of 512-974-3354. There are also several promotional banners for "FloodSmart.gov", "ATXfloods", "Road Closures due to Flooding", "Warn Central Texas", "Sign up for Flood Alerts", and "ATX Hydromet".





## Del Curto Storm Drain Improvements

# Available Resources

- Check [ATXfloods.com](http://ATXfloods.com) for road closures
- Sign up for [WarnCentralTexas.org](http://WarnCentralTexas.org) & [ATXfloods.com](http://ATXfloods.com)
- Report flooding and drainage concerns to 3-1-1
- Consider purchasing flood insurance
- Avoid building in drainage easements
- Email [floodpro@austintexas.gov](mailto:floodpro@austintexas.gov) for information about flood-proofing

1/23/2018



**ATXfloods** Sunny in Central Texas. | 02-03-2016 7:03:44 AM See all updates

Home Communities Twitter Contact Links Open Data Alerts Am I in a Floodplain?

Map Satellite **AUSTIN** Show Closures List

**Low Water Crossing Status**

- open
- closed

**Colton Rd @ Cottonmouth Creek**  
Travis County, TX  
Heavy road damage

**austin 3-1-1**

New Request Recent  
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LET'S MAKE AUSTIN BETTER  
**TOGETHER.**  
austin **3-1-1**

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# Questions

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