

JAY MARTIN  
CHAIRMAN, COUNCILPERSON

MANDI WILLIAMS  
COUNCILPERSON



CHUCK ENGELKEN  
COUNCILPERSON  
MAYOR PRO TEM  
BILL BENTLEY  
ALTERNATE, COUNCILPERSON

## **CITY OF LA PORTE DRAINAGE AND FLOODING COMMITTEE MEETING AGENDA**

Notice is hereby given of a meeting of the Drainage and Flooding Committee of the City Council of the City of La Porte, to be held July 10, 2023, in the City Hall Council Chamber, 604 West Fairmont Parkway, La Porte, Texas, beginning at 5:00 pm to consider the following items of business.

Remote participation is available. Attend via a screen using the link

<https://us02web.zoom.us/j/83612181770?pwd=Y0JZOU54YzdUTFh4SEYvNVQvS1ZDUT09>.

Join by phone at 877-853-5257 or 888-475-4499. The meeting ID is 836 1218 1770 and the passcode is 642021.

1. **CALL TO ORDER**
2. **CITIZEN COMMENT** *(Generally limited to five minutes per person; in accordance with state law, the time may be reduced if there is a high number of speakers or other considerations.)*
3. **STATUTORY AGENDA**
  - (a) Presentation, discussion, and possible action to approve the minutes of the Drainage and Flooding Committee meeting held on June 12, 2023. [Councilperson Jay Martin, Chair]
  - (b) Presentation, discussion and possible action regarding the Preliminary Engineering Report for Brookglen Subdivision Storm Sewer Improvements. [Ray Mayo, Director of Public Works]
  - (c) Presentation, discussion, and possible action regarding status of 100-acre-foot detention pond project near the Pasadena Convention Center and Brookglen Subdivision, as established in amended interlocal agreement between the City of La Porte and the City of Pasadena. [Ray Mayo, Director of Public Works]
  - (d) Presentation, discussion, and possible action regarding the Harris County Flood Control District's (HCFCD) and Harris County Precinct 2's current and future plans related to flooding in the City of La Porte. [Ray Mayo, Director of Public Works]
  - (e) Presentation, discussion, and possible action regarding the status of current drainage projects. [Ray Mayo, Director of Public Works]
  - (f) Presentation, discussion, and possible action to provide administrative staff of the City with direction, if necessary, regarding additional drainage concerns. [Ray Mayo, Director of Public Works]
4. **SET NEXT MEETING**
5. **COMMITTEE COMMENT** *Hear announcements concerning matters appearing on the agenda; items of community interest; and/or inquiries of staff regarding specific factual information or existing policy from the Committee members and City staff, for which no formal action will be discussed or taken.*

## 6. ADJOURN

If, during the course of the meeting and discussion of any items covered by this notice, the Drainage and Flooding Committee determines that a Closed or Executive Session of the Committee is required, then such closed meeting will be held as authorized by Texas Government Code, Chapter 551, Section 551.071 - consultation with counsel on legal matters; Section 551.072 - deliberation regarding purchase, exchange, lease or value of real property; Section 551.073 - deliberation regarding a prospective gift; Section 551.074 - personnel matters regarding the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee; Section 551.076 - implementation of security personnel or devices; Section 551.087 - deliberation regarding economic development negotiation; Section 551.089 - deliberation regarding security devices or security audits, and/or other matters as authorized under the Texas Government Code. If a Closed or Executive Session is held in accordance with the Texas Government Code as set out above, the Drainage and Flooding Committee will reconvene in Open Session in order to take action, if necessary, on the items addressed during Executive Session.

**Persons with disabilities who plan to attend this meeting and who may need auxiliary aids or services are requested to contact the City Secretary's office (281-470-5019), two working days prior to the meeting for appropriate arrangements.**

Pursuant to Texas Government Code Sec. 551.127, on a regular, non-emergency basis, members may attend and participate in the meeting remotely by video conference. Should that occur, a quorum of the members will be physically present at the location noted above on this agenda.

**Councilmembers may attend in numbers constituting a quorum. This is a Drainage and Flooding Committee Meeting at which there will be no deliberation or formal action taken by City Council as a governmental body.**

### CERTIFICATE

I, Lee Woodward, City Secretary, do hereby certify that a copy of the July 10, 2023, Drainage and Flooding Committee agenda was posted on the City Hall bulletin board, a place convenient and readily accessible to the general public at all times, and to the City's website, [www.LaPorteTX.gov](http://www.LaPorteTX.gov), in compliance with Chapter 551, Texas Government Code.

DATE OF

POSTING

TIME OF

POSTING

TAKEN DOWN

\_\_\_\_\_

*Lee Woodward*

\_\_\_\_\_

Lee Woodward, City Secretary

JAY MARTIN, CHAIRMAN  
COUNCILPERSON

MANDI WILLIAMS  
COUNCILPERSON



CHUCK ENGELKEN  
MAYOR PRO TEM

BILL BENTLEY, ALTERNATE  
COUNCILPERSON

## MINUTES OF THE DRAINAGE AND FLOODING COMMITTEE MEETING JUNE 12, 2023

The Drainage and Flooding Committee of the City of La Porte met on Monday, June 12, 2023, at the City Hall Council Chambers, 604 West Fairmont Parkway, La Porte, Texas, at 5:00 p.m. to consider the following items of business:

**Committee Members present:** Jay Martin, Chuck Engelken, Mandi Williams

**Committee Members attending remotely:** None

**Committee Members absent:** Bill Bentley (alternate)

**Council-appointed officers present:** Corby Alexander, City Manager; Lee Woodward, City Secretary; Clark T. Askins, Asst. City Attorney

**CALL TO ORDER** – Chair Martin called the meeting to order at 5:00 p.m.

- 2. CITIZEN COMMENT** *(Generally limited to five minutes per person, in accordance with state law, the time may be reduced if there is a high number of speakers or other considerations.)*

There were no comments.

### **3. STATUTORY AGENDA**

- a. Presentation, discussion, and possible action to approve the minutes of the Drainage and Flooding Committee meeting held on May 8, 2023. [Councilperson Jay Martin, Chair]**

Member Williams moved to approve the minutes; the motion was seconded by Member Engelken; the motion was adopted, 3-0.

- b. Presentation, discussion, and possible action on proposed updates to fill dirt permitting regulations contained in Chapter 86 'Development Regulations' of the La Porte Code of Ordinances. [Teresa Evans, Planning and Development Director]**

Director Evans noted the items and actions staff has taken following the last consideration of the item. Member Engelken moved to approve the changes to proposed Ordinance 2023-3923 regarding fill dirt permitting regulations for Chapter 86 'Development Regulations' of the La Porte Code of Ordinances; the motion was seconded by Member Williams; the motion was adopted 3-0.

- c. Presentation, discussion, and possible action regarding status of 100-acre-foot detention pond project near the Pasadena Convention Center and Brookglenn Subdivision, as established in amended interlocal agreement between the City of La Porte and the City of Pasadena. [Ray Mayo, Director of Public Works]**

Mr. Mayo indicated that IDS, the consultant for the City of Pasadena, notified City staff that the USACE made a determination on the detention site. The determination is that certain wetlands on the west side of the pipeline will be considered non-jurisdictional. With this information, Pasadena has indicated that they wish to expand the detention site to



150 acre-feet. Mr. Mayo said the engineer has been authorized to begin topographic survey on the expanded detention area, and noting there would be a presentation at the next Committee meeting.

**d. Presentation, discussion, and possible action regarding the Harris County Flood Control District's (HCFCD) and Harris County Precinct 2's current and future plans related to flooding in the City of La Porte. [Ray Mayo, Director of Public Works]**

Mr. Mayo said the consultant had provided an updated F216 report, which is under review.

Harris County Flood Control District's Jonathan St. Romain said the environmental assessment has not been completed on the Brookglen north detention basin, which is necessary for federal funding, but he expected the project to be bid in early August and construction to begin on the north basin then. He also confirmed potential street closures would come before the Committee separately for each of the north and south basins and that HCFCD would not be pursuing the closure on Gladwyne. Member Engelken expressed concern about the poor quality of the mowing of the lots purchased by Harris County and his appreciation that Mr. St. Romain came out to the meeting. On F212, the channel from Broadway along Main to East B, Mr. St. Romain said they were in final design for that project.

**e. Presentation, discussion, and possible action regarding the status of current drainage projects. [Ray Mayo, Director of Public Works]**

Mr. Mayo note the preliminary engineering report was complete on the City's project in Brookglen and a summary would be presented at the next Committee meeting. He also noted engineers were looking at the issues for Sens at H Street and drainage on an undeveloped area adjacent to Battlevue St.

**f. Presentation, discussion, and possible action to provide administrative staff of the City with direction, if necessary, regarding additional drainage concerns. [Ray Mayo, Director of Public Works]**

Member Williams shared her concern about the diversion of funds from the Valley View Project. Mr. Mayo noted the County evaluated the bridge and found it was not the drainage issue, thereby freeing up that money, and that HCFCD was also funding from a bond and other financial resources, so that they could possibly pay for up to 80% of the project.

**4. SET NEXT MEETING**

The next meeting was set for July 10, 2023.

**5. COMMITTEE COMMENT** – *Hear announcements concerning matters appearing on the agenda; items of community interest; and/or inquiries of staff regarding specific factual information or existing policy from the Committee members and City staff, for which no formal action will be discussed or taken.*

The Committee thanked Mr. Mayo and his staff for cleaning up the bar ditches along South Broadway.

**ADJOURN** – The meeting was adjourned without objection at 5:40 p.m.



Lee Woodward, City Secretary



## REQUEST FOR DRAINAGE & FLOODING COMMITTEE AGENDA ITEM

Agenda Date Requested: July 10, 2023

Requested By: Ray Mayo, Director

Department: Public Works

☒ Report   ☐ Resolution   ☐ Ordinance

**Exhibits:** Preliminary Engineering Report Brookglen  
Drainage Improvements Presentation

### Appropriation

Source of Funds: N/A

Account Number: N/A

Amount Budgeted: N/A

Amount Requested: N/A

Budgeted Item:   ☐ Yes   ☐ No

### SUMMARY & RECOMMENDATION

The Brookglen subdivision is located within the Armand Bayou Watershed (HCFCD Unit No. B100-00-00). The Brookglen sub-division had significant FEMA flood insurance claims during a June 1981 storm, Tropical Storm Alison, and Hurricane Harvey, with over 100 structures inundated during each event. Post Tropical Storm Alison, the Harris County Flood Control District (HCFCD) began buying out structures within the neighborhood, to prevent future losses. The 2009 City-wide Drainage Study identifies the Brookglen subdivision as an area with significant drainage/flooding problems, attributed to a mixture of inadequate sewerage and insufficient channel capacity within the B112-00-00 Channel.

The combination of various improvements recommended within the City-wide Drainage Study are aimed at reducing the flood risk within the Brookglen area. Several of the recommended improvements within the various studies have been constructed, each providing incremental flood risk reduction within the Brookglen subdivision. In continuation of the phased approach to mitigating the flood risks within the Brookglen subdivision, a number of additional drainage improvements are proposed to further reduce the flood risks within the area. Proposed projects include but are not limited to: two additional detention ponds on existing buyout lots; increased capacity within the local storm sewer system; and a 100-acre detention pond.

### ACTION REQUIRED BY DRAINAGE AND FLOODING COMMITTEE

**Receive and analyze the report to provide Staff with direction, as necessary.**

**Approved for Drainage Committee Agenda**

\_\_\_\_\_  
Corby D. Alexander, City Manager

\_\_\_\_\_  
Date





La Porte, Texas

# Brookglen Subdivision

Storm Sewer Improvements

July 10, 2023

# AGENDA

- Project Background
- Previous Studies
- Current Projects
- Existing Conditions
- Proposed Alternatives
- Recommendations





# PROJECT SCOPE

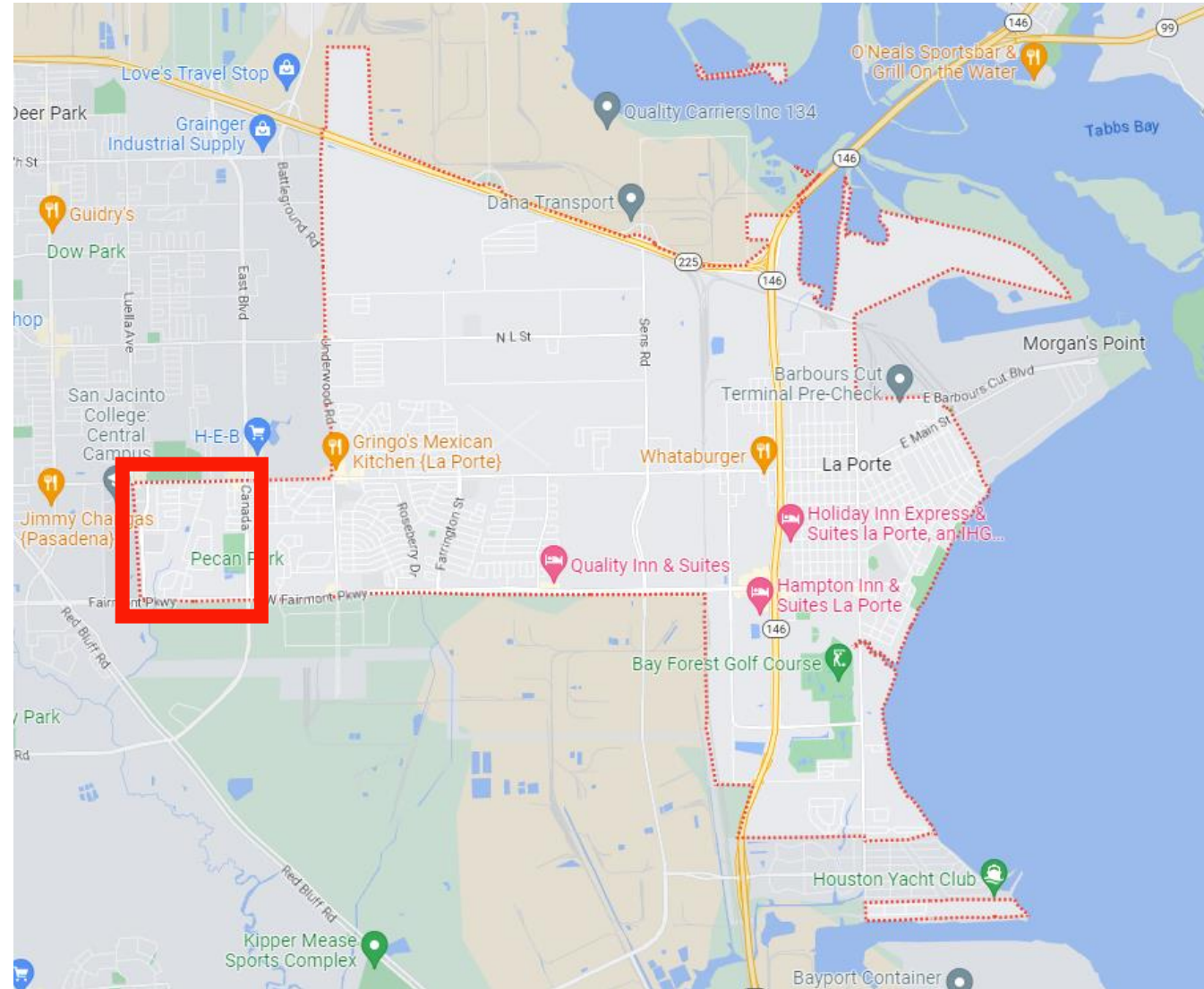
- Evaluate existing system capacity and deficiencies utilizing InfoWorks 1D/2D model
- Develop improvement alternatives to reduce ponding within the neighborhood
- Develop Opinion of Probable Cost
- Prepare Impact Analysis Report





# BACKGROUND

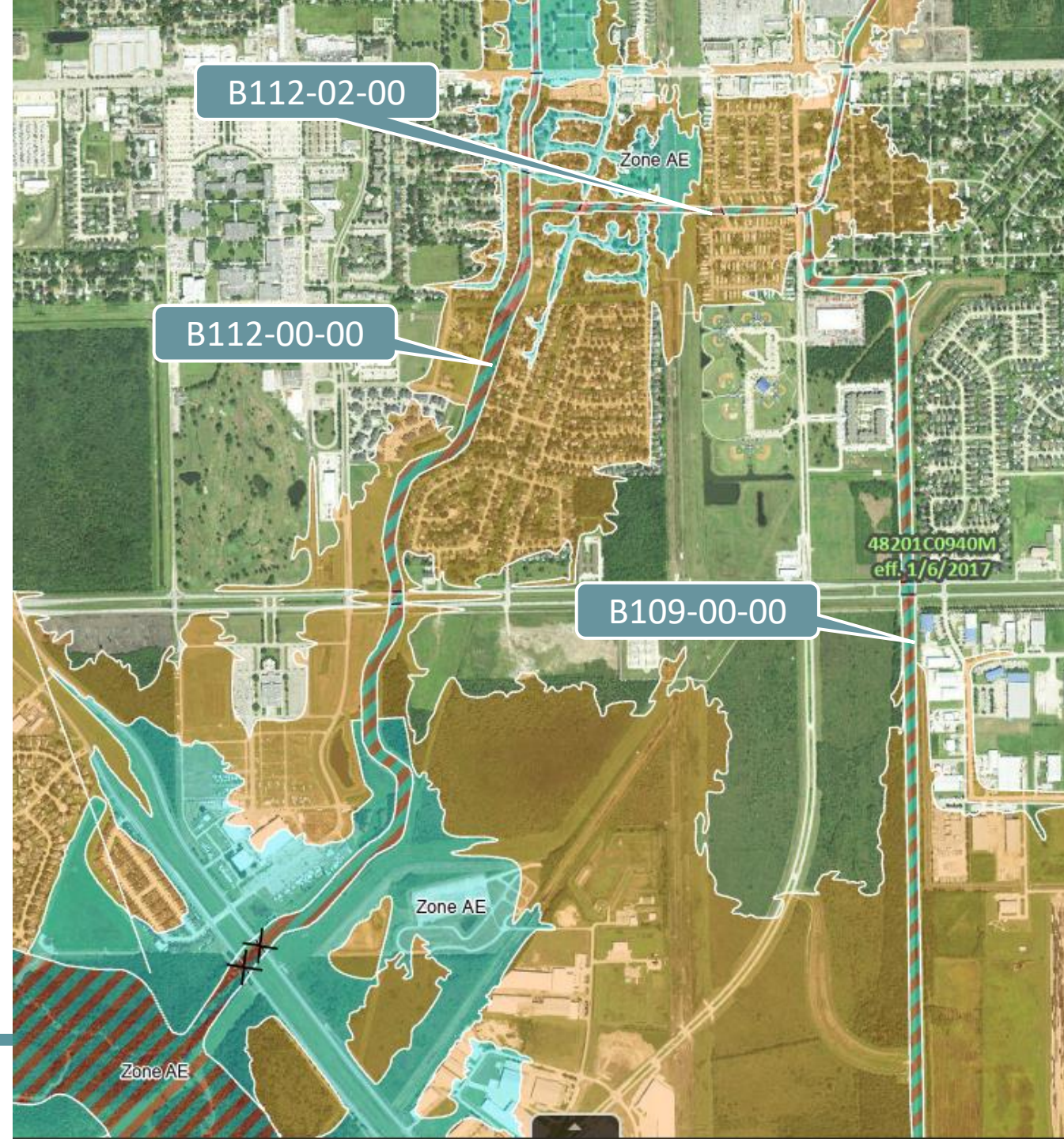
- West side of City of La Porte
- Mostly residential neighborhood
- Bounded by Fairmont Parkway and Canada St.





# BACKGROUND

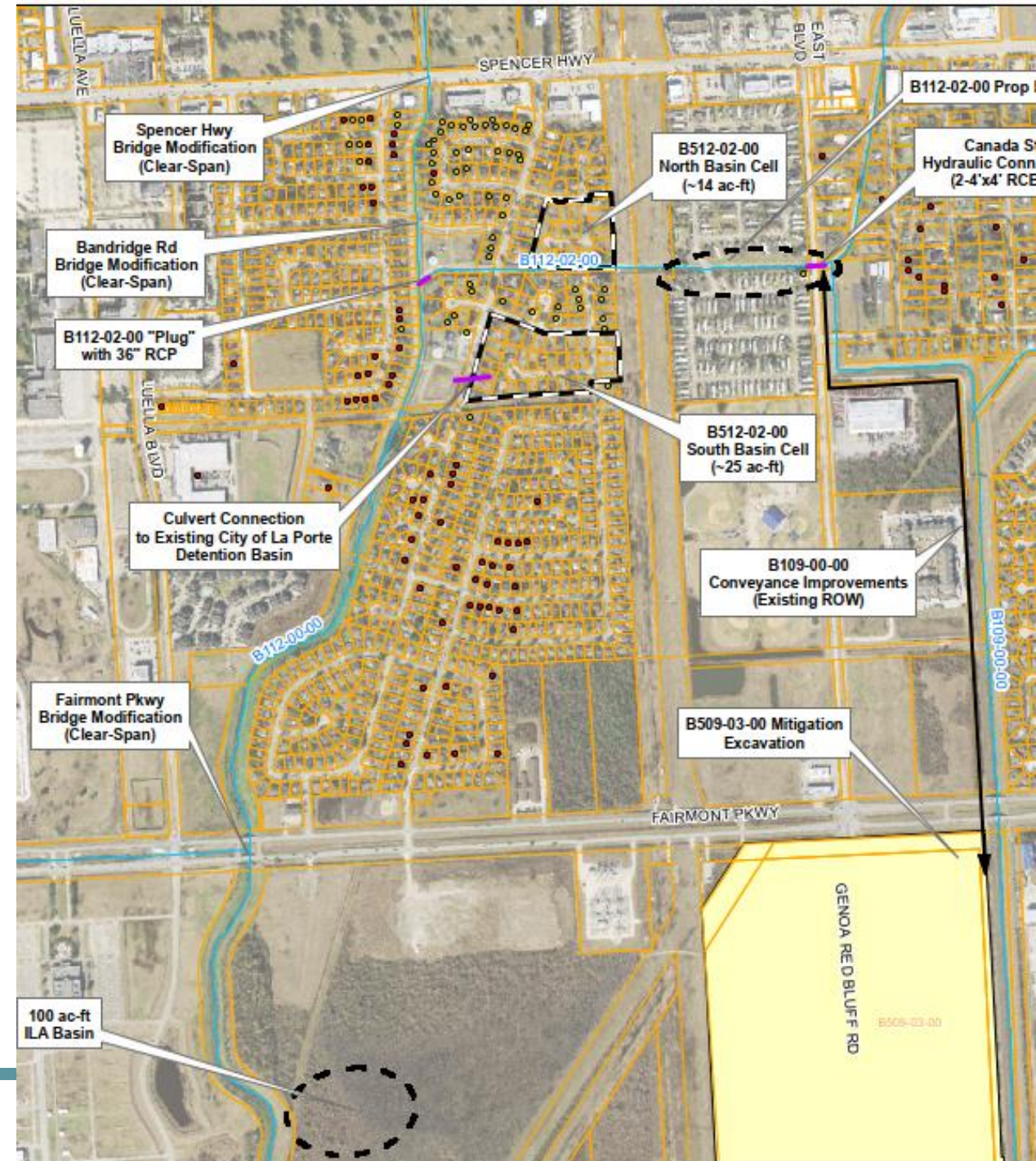
- HCFCF Channels B112-00-00 (west) and B109-00-00 (east)
- Majority of area in the effective 500-year (0.2% AEP) floodplain
- Local storm sewer that outfalls into B112-00-00





# PREVIOUS STUDIES

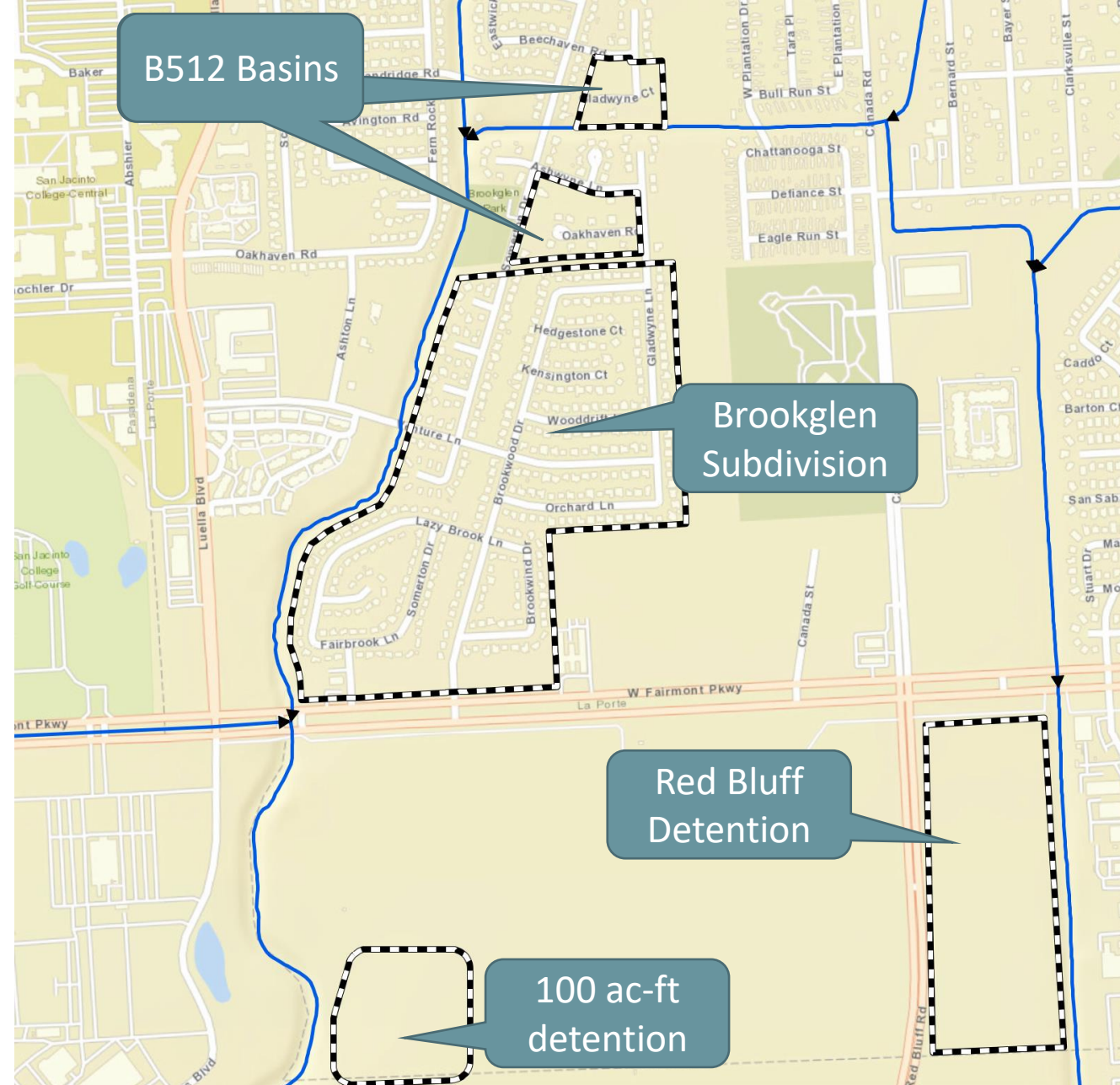
- 2021 Watershed Study identified projects throughout Armand Bayou for improvement drainage
- Figure shows the recommendations from the study





# ONGOING PROJECTS

- B512 Basins will reduce flows in B112-00-00 by providing mitigation storage
- Brookglen subdivision drainage improvements will provide additional storm sewer capacity for reduction in local ponding
- Genoa Red Bluff Detention provides mitigation capacity for reduced floodplain downstream of Brookglen on B109-00-00
- 100-acre foot detention pond reduces elevations in B112-00-00 at Fairmont and may mitigate Brookglen improvements





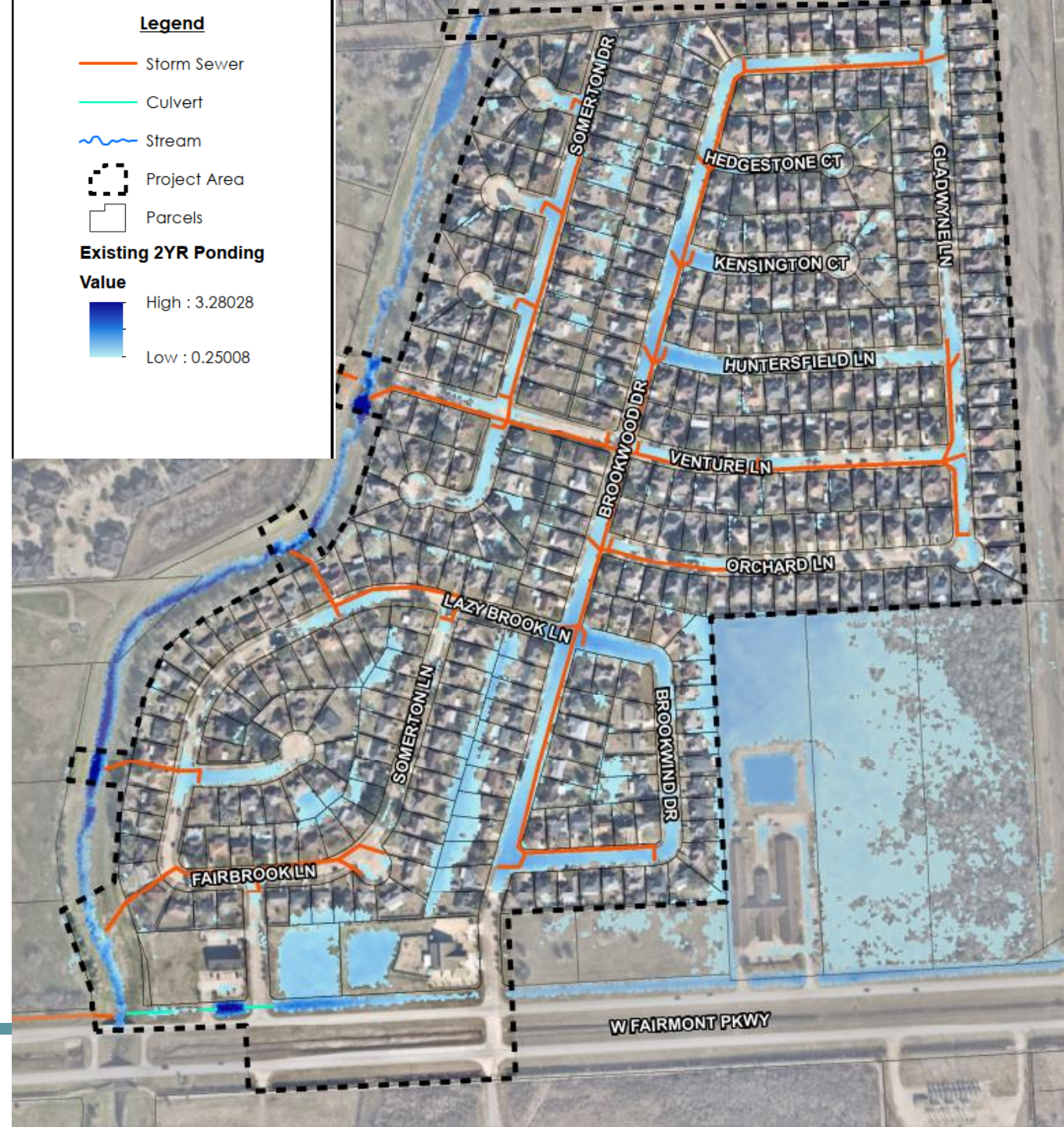


# EXISTING CONDITIONS

## 2-YEAR RESULTS

- B112-00-00 is high but contained within the channel
- Ponding mostly caused by insufficient storm sewer capacity
- Ponding depths up to 1.4' near or at intersections
- Flooding is mostly contained within the ROW

A 2-year storm event correlates to approximately 5.3 inches within 24-hours





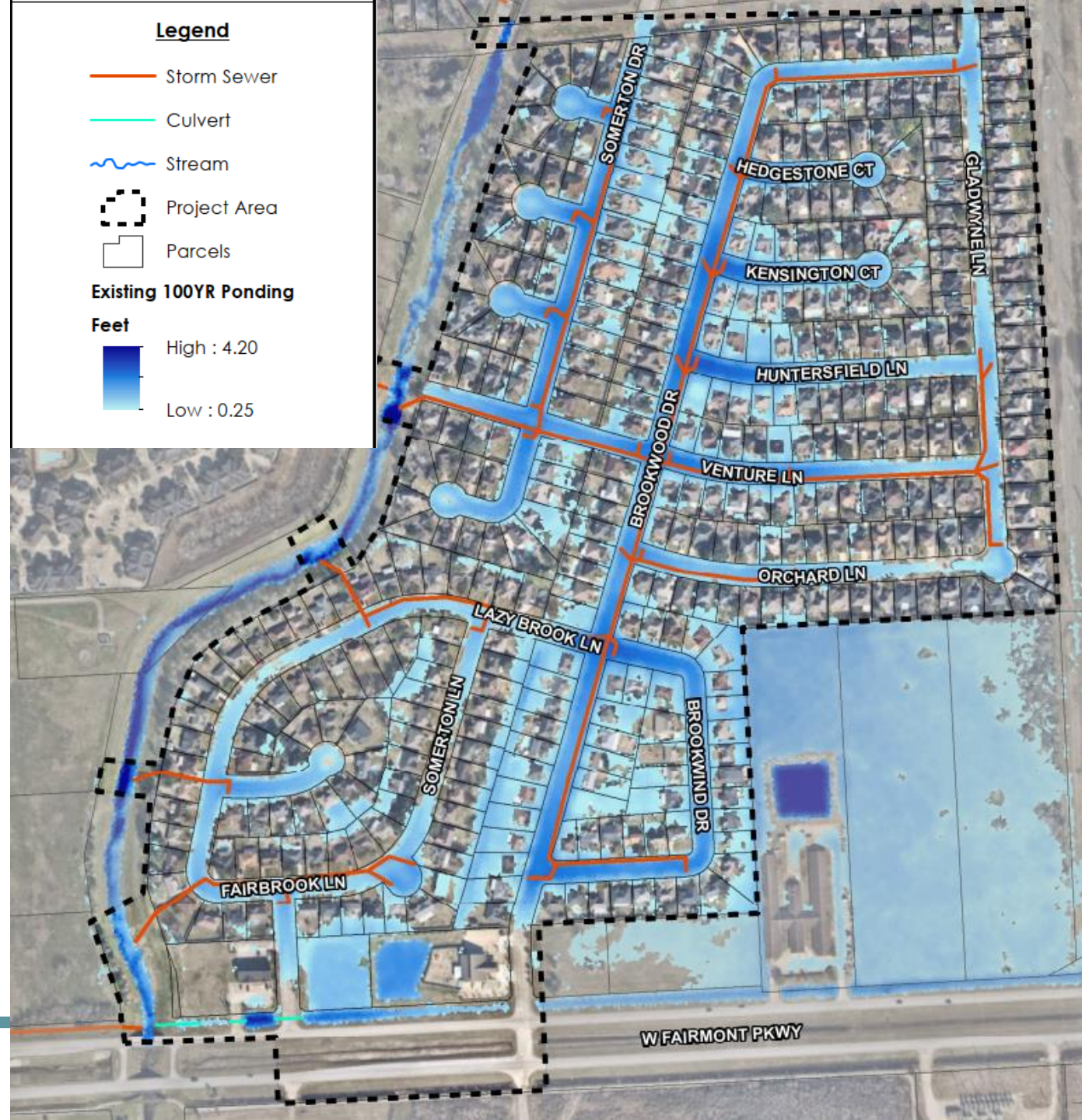


# EXISTING CONDITIONS

## 100-YEAR RESULTS

- B112-00-00 is near bank full
- Ponding caused by **insufficient storm sewer** capacity in addition to the **high channel tailwater**
- Ponding depths up to 2.5' near or at intersections
- Flooding outside of ROW

A 100-year storm event correlates to approximately 18 inches within 24-hours

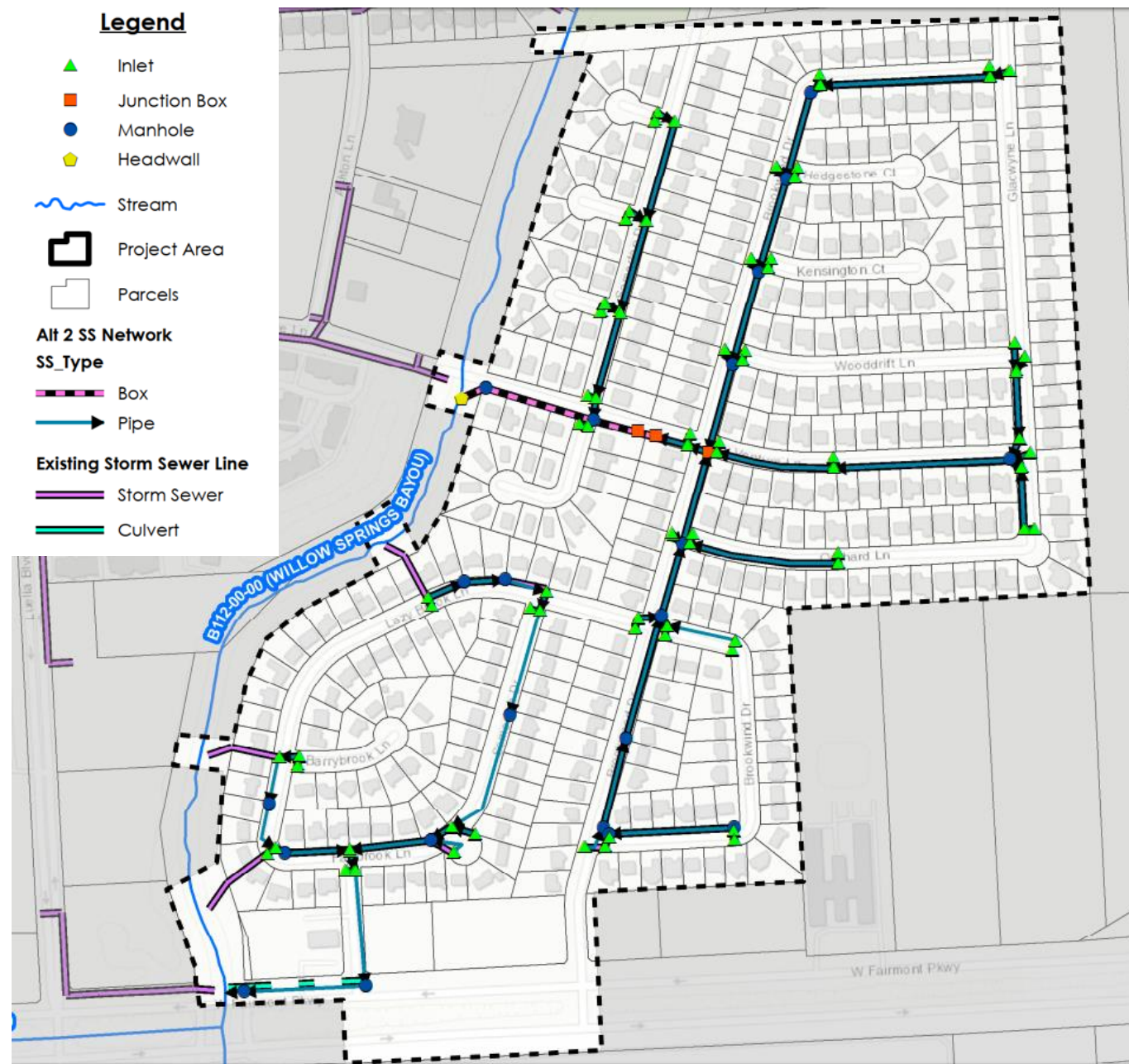






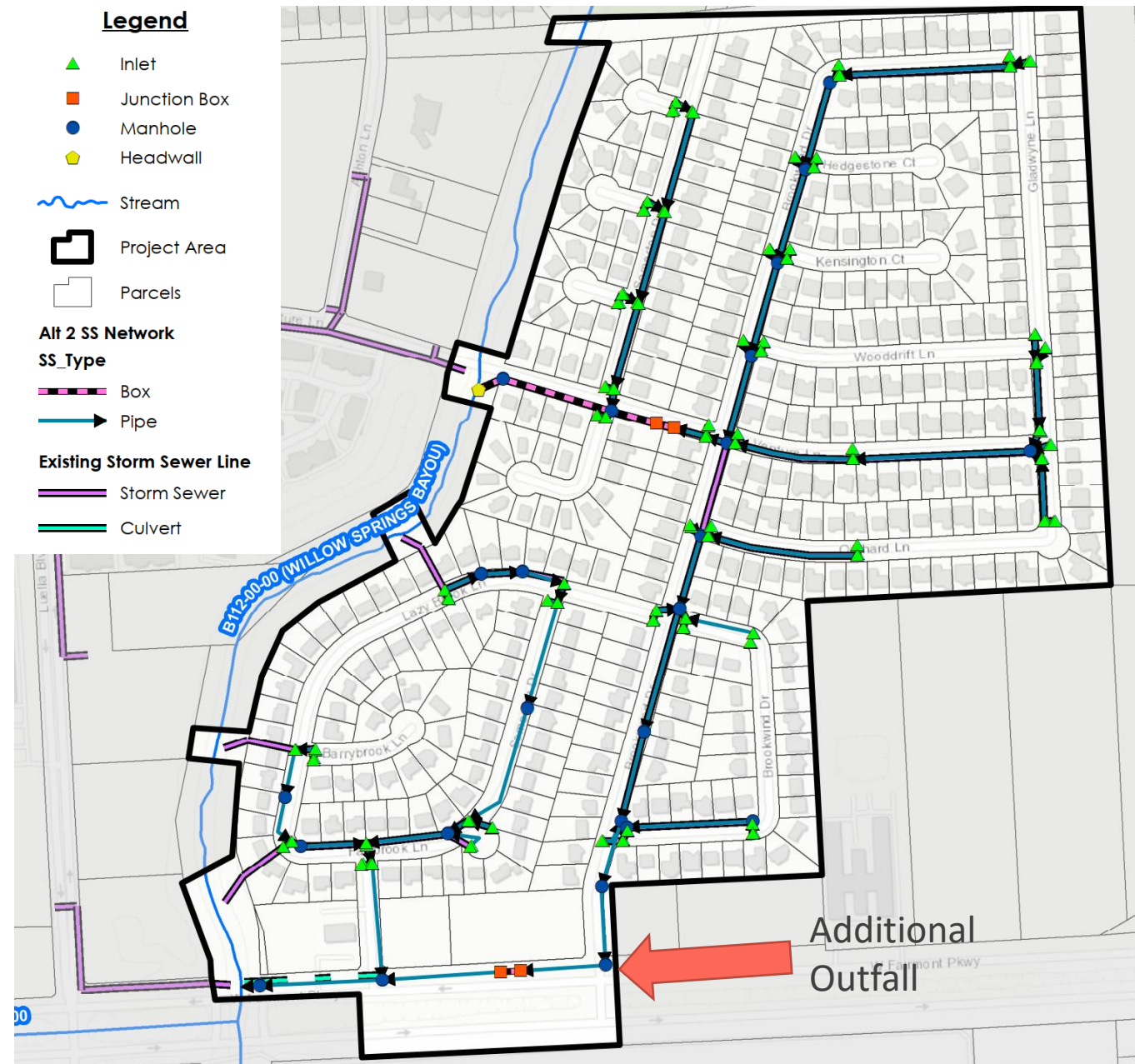
# ALTERNATIVE 1 LAYOUT

- Upsized system to provide twice the capacity
- Outfalls abandoned along Lazy Brook Lane and replaced with an outfall at Fairmont Parkway
- Pipeline crossing conflict along Venture Lane
- 80 acre-feet of detention required
- \$15.7M O&P Cost (Polypropylene)
- \$17.2M O&P Cost (RCP)



# ALTERNATIVE 2 LAYOUT

- Upsized system to provide twice the capacity
- Outfalls abandoned along Lazy Brook Lane and replaced with an outfall at Fairmont Parkway
- Pipeline crossing along Venture Lane & Fairmont Parkway
- 80 acre-feet of detention required
- \$17.2M O&P Cost (Polypropylene)
- \$18.6M O&P Cost (RCP)



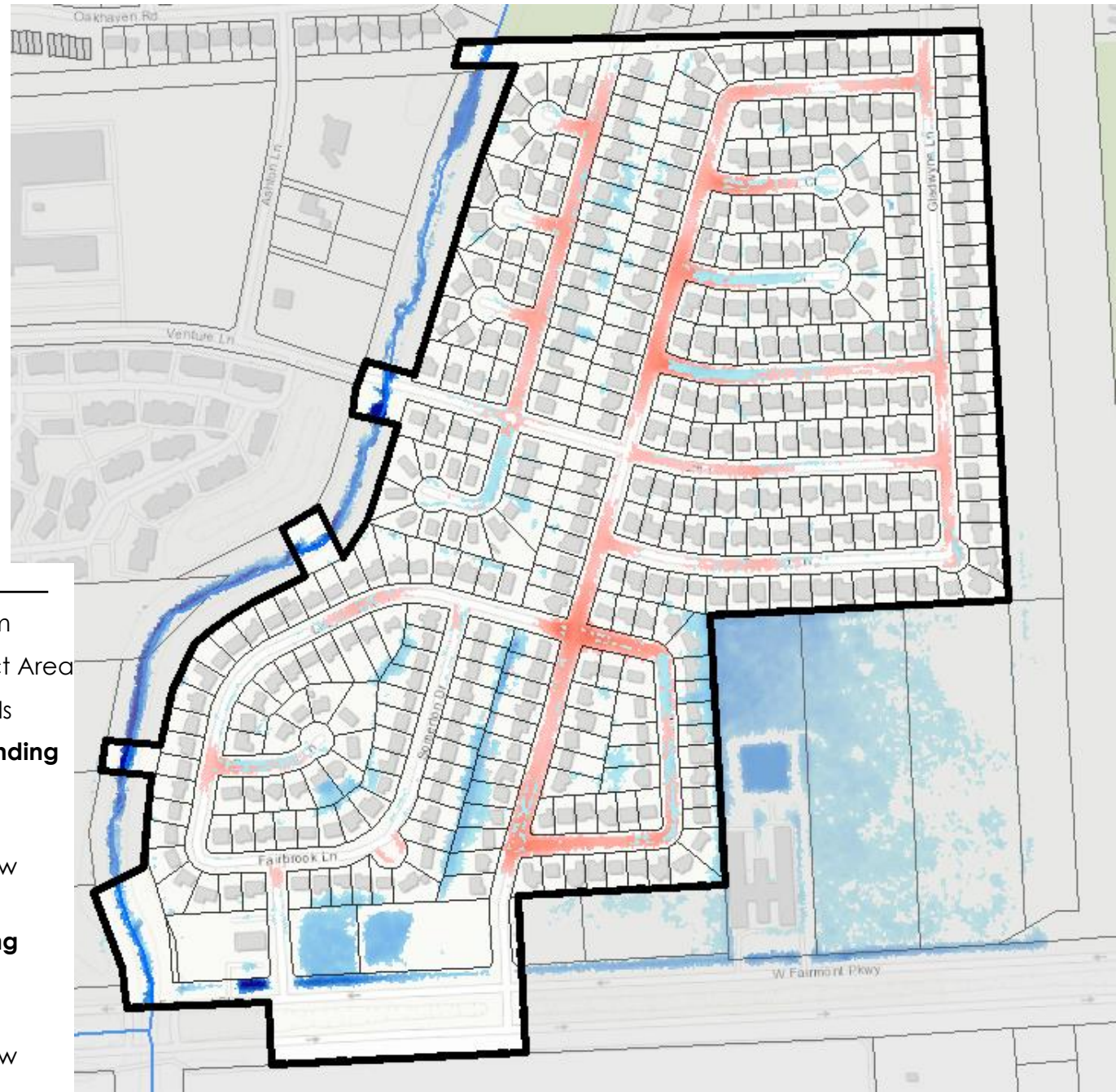
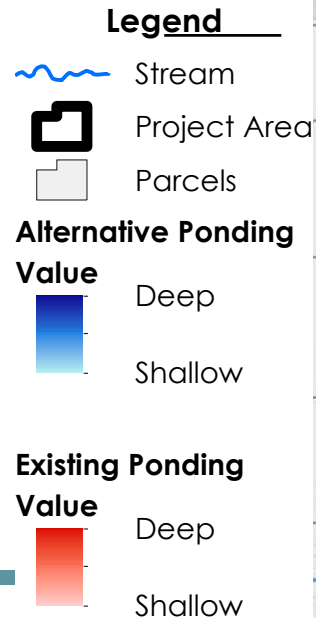




# ALTERNATIVE 1

## 2-YEAR RESULTS

- Significant ponding reduction throughout the entire neighborhood
- Depth reduction up to 1.4' at major intersections
- 10.7-mile reduction of road inundation
- Ponding contained in City ROW
- Achieves 2-YR Level Of Service



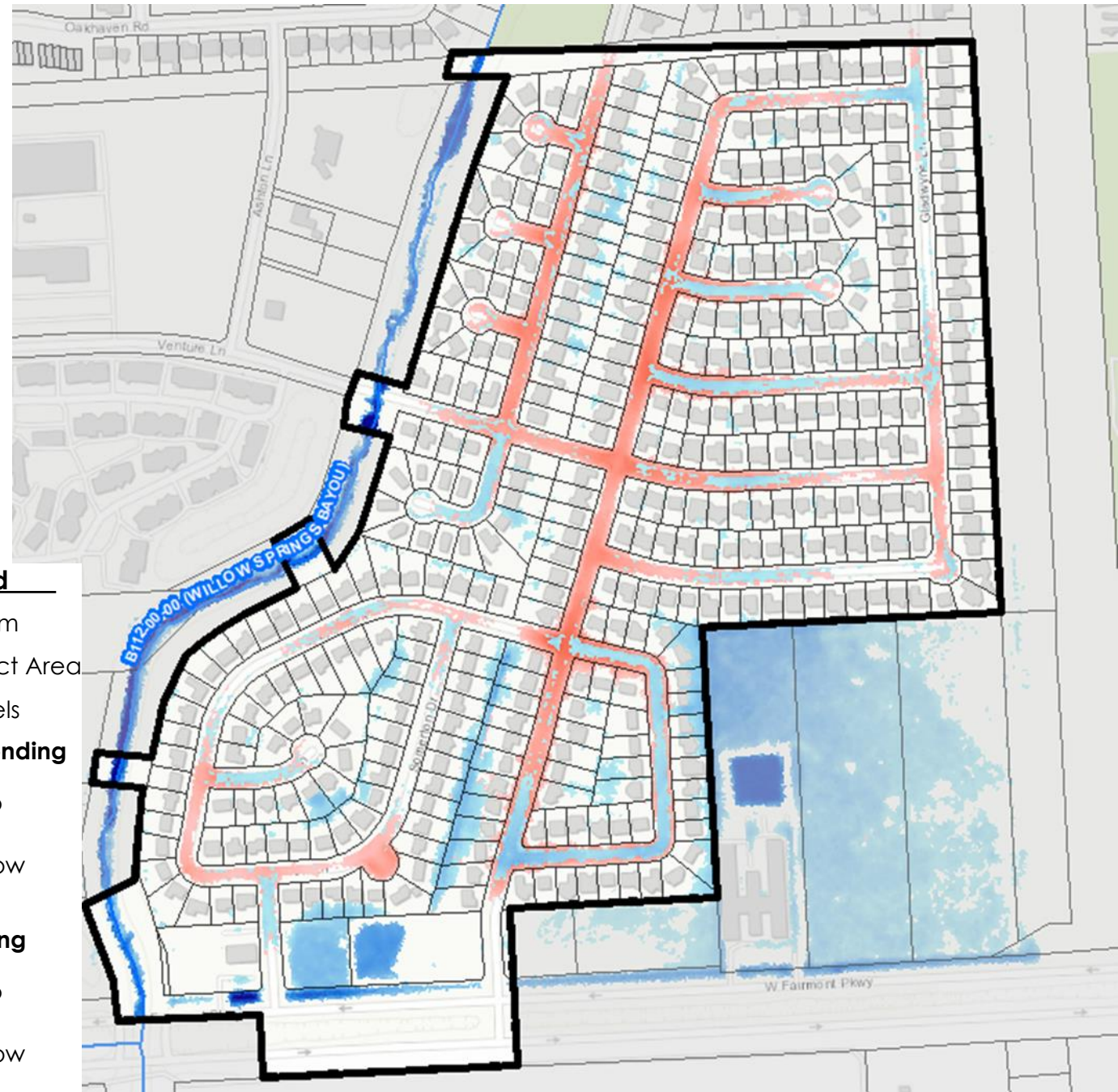
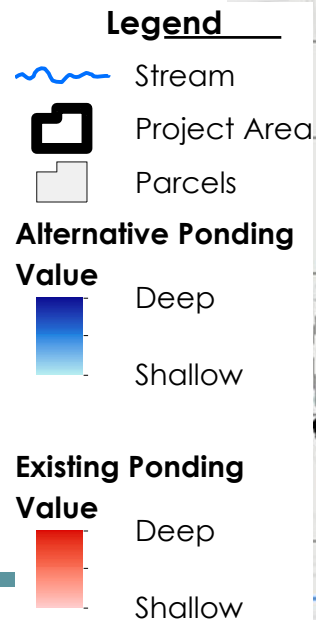


# ALTERNATIVE 1

## 10-YEAR RESULTS

- Significant ponding reduction throughout the entire neighborhood
- Depth reduction up to 1.7' at major intersections
- 10.4-mile reduction of road inundation
- Ponding contained in City ROW
- Achieves 10-YR Level Of Service
- Ponding persists behind the backlots of the homes along Brookwood (South)

DRAFT





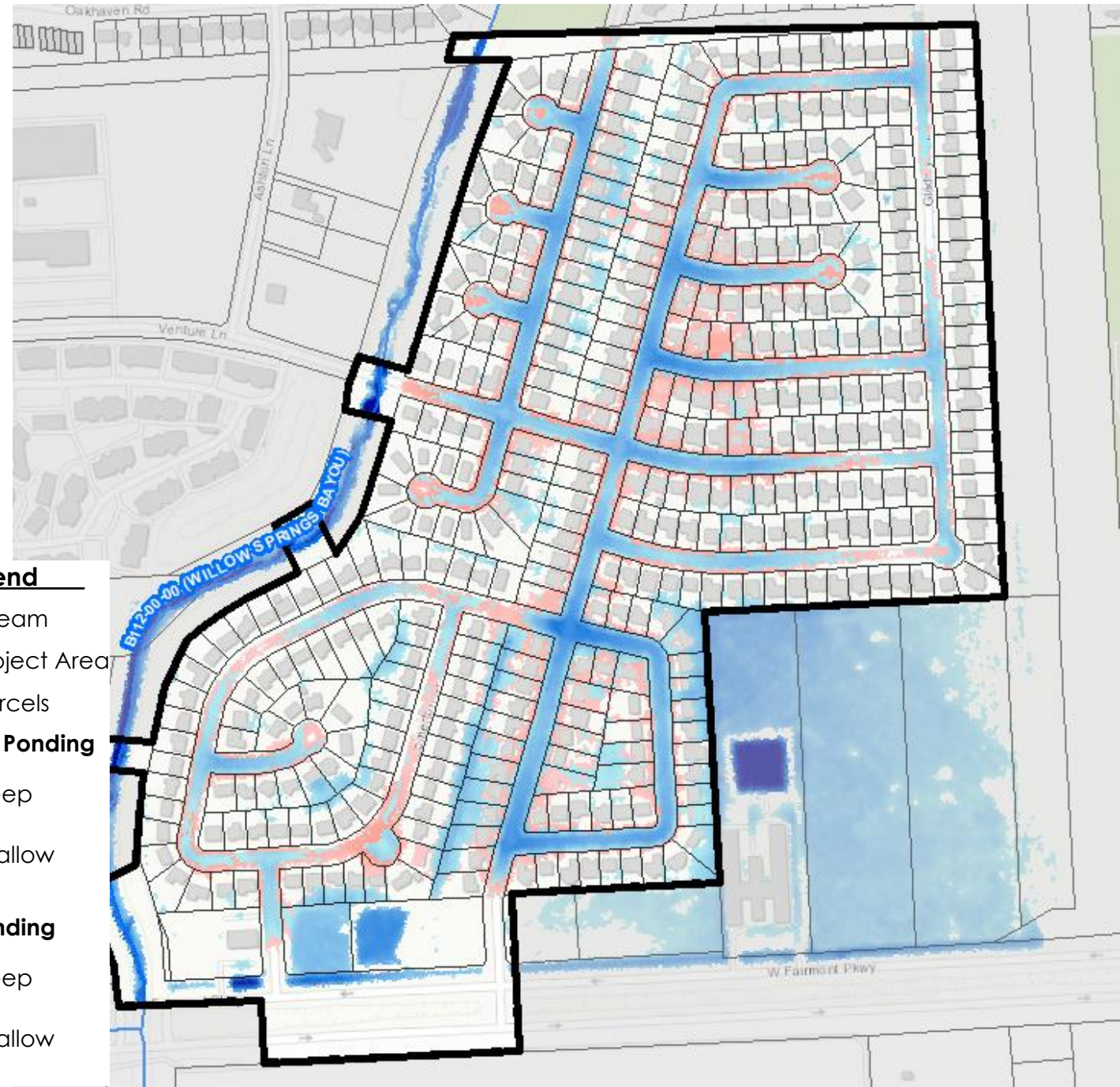
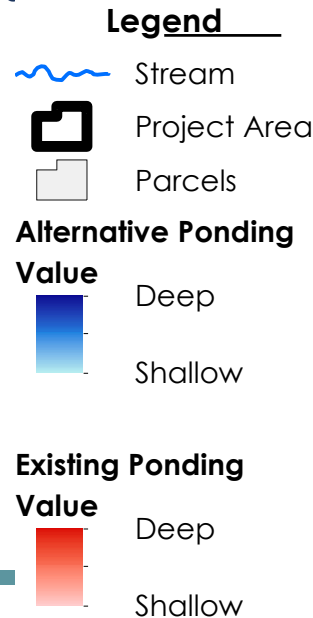


# ALTERNATIVE 1

## 100-YEAR RESULTS

- Significant ponding persist throughout the entire neighborhood
- Depth reduction up to 0.7' at major intersections
- 1.5-mile reduction of road inundation
- Does not achieve a 100-YR Level Of Service
- Improvements to B112-00-00 are recommended to provide additional reduction in ponding throughout the neighborhood

DRAFT





# MITIGATION

- Mitigation provided by La Porte Interlocal Detention Pond
- 100 acre-feet of available detention capacity
- 80 acre-feet of detention required

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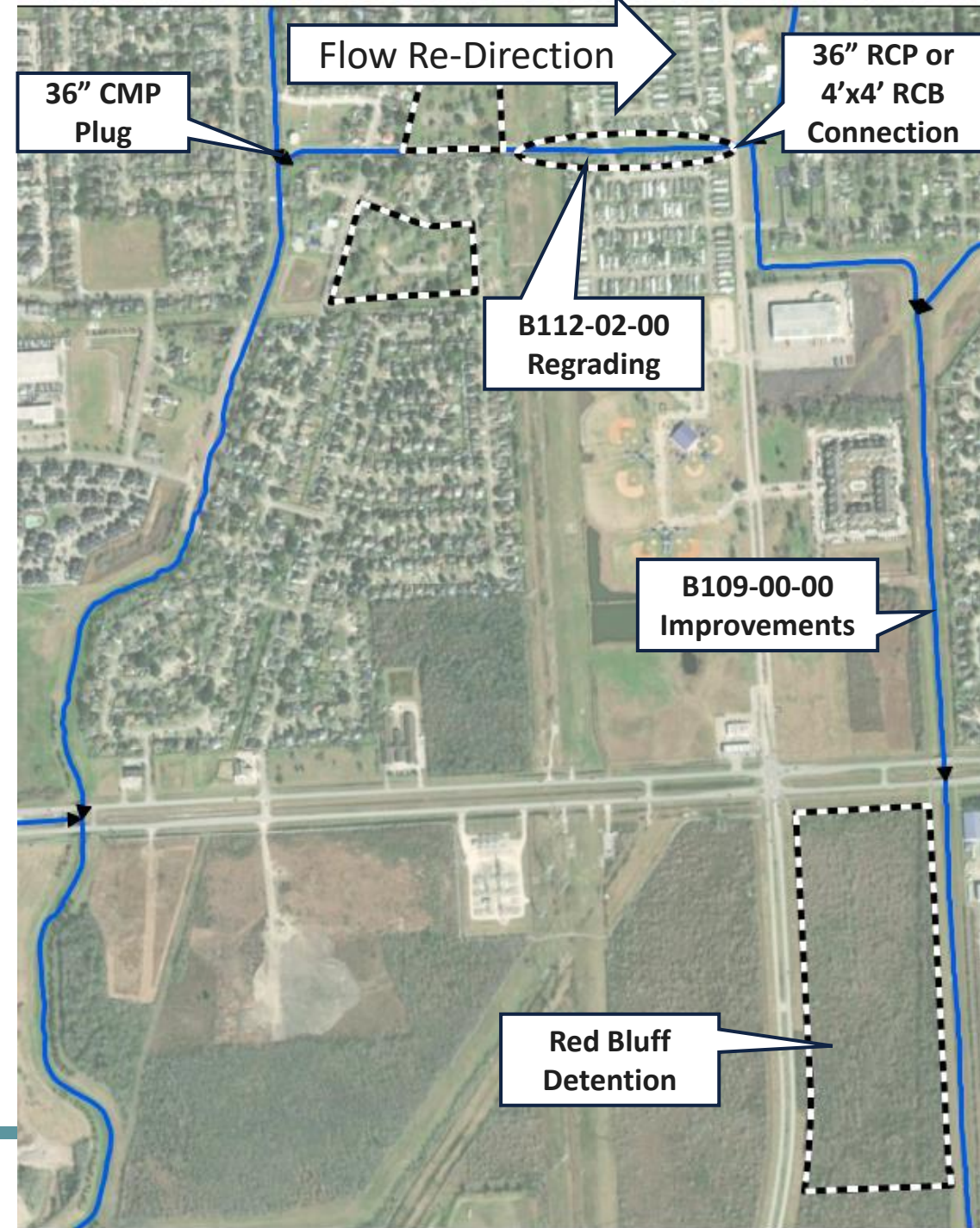




# CANADA ST CONNECTION

- Redirecting flow along B112-02-00 (Willow Springs Tributary) to B109-00-00
- Proposed improvements include:
  - Plugging the confluence of B112-00-00 and B112-02-00 with a 36-inch CMP
  - Re-grading B112-02-00 to flow east to B109-00-00
  - Connecting B112-02-00 to B109-00-00 along Canada St.
  - Detention south of Genoa Red Bluff

DRAFT



# CANADA ST CONNECTION RESULTS

- 36-inch RCP Culvert connection
  - Reduces water surface elevations along B112-00-00 by 0.04'
  - Impacts elevations along B109-00-00 by 0.21'
  - 400 acre-feet of detention required to mitigate increases along B109-00-00
- 4-foot by 4-foot RCB connection
  - Reduces water surface elevations along B112-00-00 by 0.5'
  - Impacts elevations along B109-00-00 by 0.21'
  - 370 acre-feet of detention required to mitigate increases along B109-00-00
  - Channel Improvements are also required

Channel	Crossing	36" Culvert	4'x4' Culvert
B112-00-00	Bandridge	-0.02'	-0.47'
B112-00-00	Fairmont	-0.03'	-0.56'
B109-00-00	Canada	-0.11'	-0.93'
B109-00-00	Fairmont	-0.32'	-0.11'

DRAFT



# RECOMMENDATIONS

- **Alternative 1** is recommended for implementation within two phases
- Phase 1 includes majority of storm sewer and roadways
  - \$10.6 Million
- Phase 2 (hatched) includes Lazy Brook & Gladwyne Ln
  - \$5.1 Million
- Implementation of channel and mitigation improvements so the Canada Street connection can be constructed

DRAFT



# Q&A



## REQUEST FOR DRAINAGE & FLOODING COMMITTEE AGENDA ITEM

Agenda Date Requested: July 10, 2023

Requested By: Ray Mayo, Director

Department: Public Works

☒ Report   ☐ Resolution   ☐ Ordinance

**Exhibits:** Proposed Pond Configuration

### Appropriation

Source of Funds: N/A

Account Number: N/A

Amount Budgeted: N/A

Amount Requested: N/A

Budgeted Item:   ☐ Yes   ☐ No

### SUMMARY & RECOMMENDATION

The City of Pasadena prepared a wetlands delineation report and submitted it to the USACE as part of an Approved Jurisdictional Determination (AJD) request on October 5, 2022. The USACE's response was received, and it was determined that the forested wetlands on the west side of the pipeline corridor will not be jurisdictional. This allows for construction of a variation of Option 4 proposed by Hallf, which could increase the pond capacity to 150 acre-feet. A re-start meeting was conducted on June 9<sup>th</sup>, 2023, to authorize Hallf to proceed with design for the revised Option 4 configuration.

### ACTION REQUIRED BY DRAINAGE AND FLOODING COMMITTEE

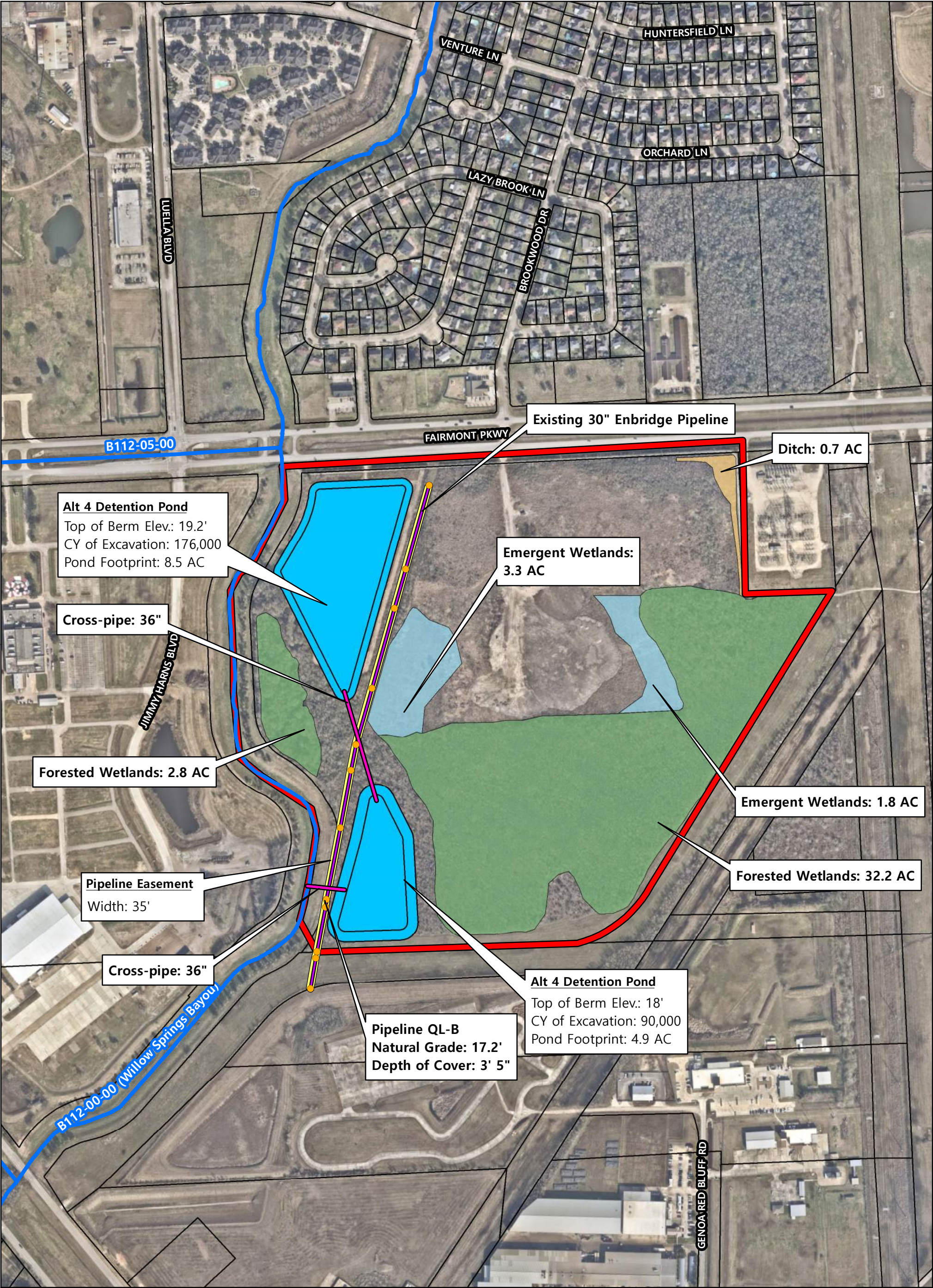
**Receive report, and provide staff with direction, as necessary.**

**Approved for Drainage Committee Agenda**

\_\_\_\_\_  
Corby D. Alexander, City Manager

\_\_\_\_\_  
Date








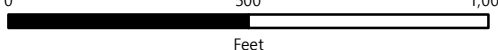

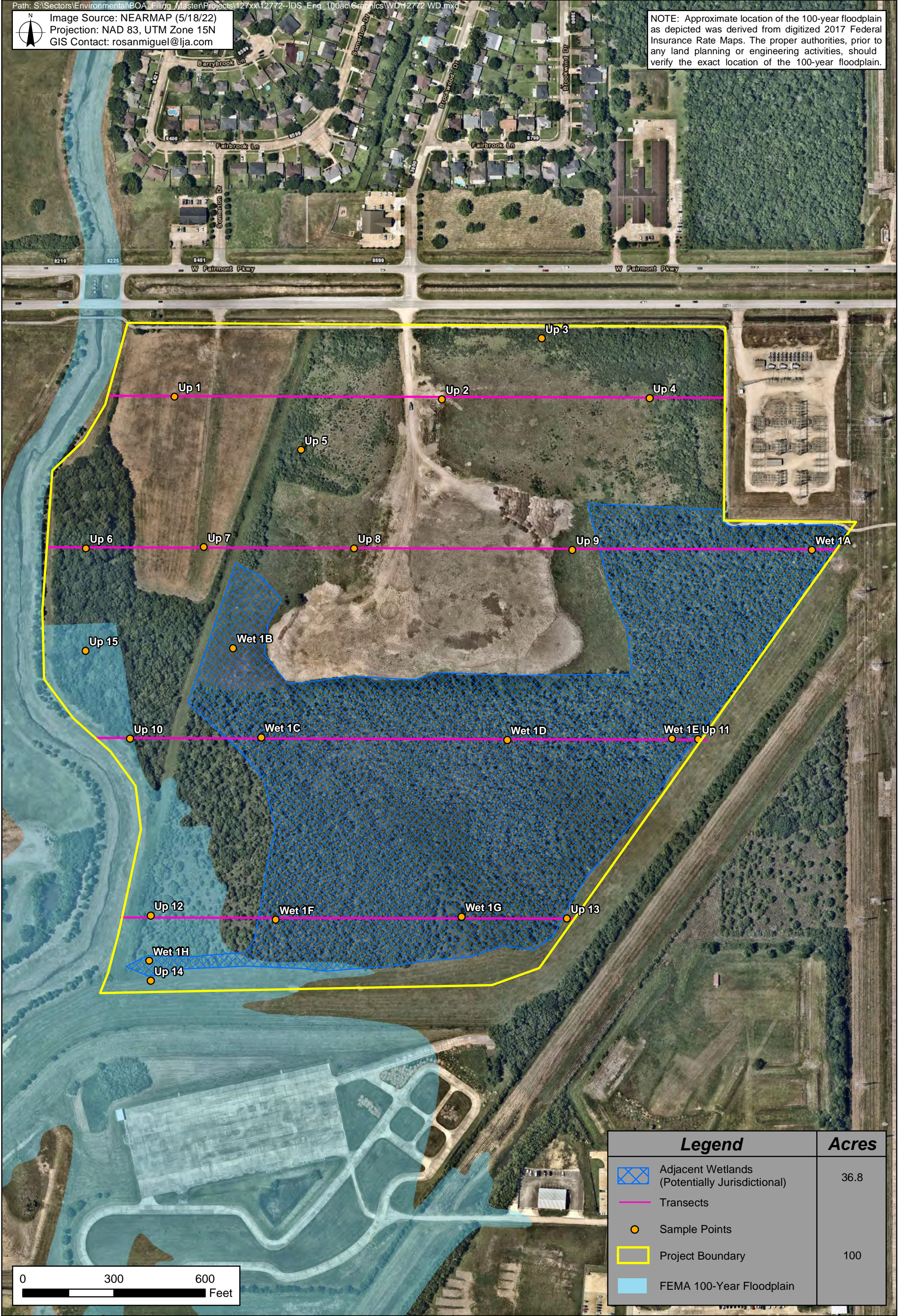
<p><b>LEGEND</b></p> <ul style="list-style-type: none"><li>Pipeline Points</li><li>HCFC D Channels</li><li>Pond Outfall</li><li>Pipeline</li><li>Pond Location</li><li>Ditch</li><li>Emergent Wetland</li><li>Forested Wetland</li><li>Pipeline Easement</li><li>Project Area</li></ul>	<p><b>Notes:</b></p> <ol style="list-style-type: none"><li>NearMap 2022</li><li>Ponds footprint based on design with 100 ac-ft volume, 4:1 slopes, 30" berms and 1' of freeboard, utilizing 2018 HGAC LIDAR.</li><li>Wetland delineation is preliminary and subject USACE jurisdiction.</li></ol>	<div><div></div><div></div></div>	<p><b>100 Acre-Foot Interlocal Detention Pond</b></p> <p><b>Pond Alternative #4</b></p>	<p><b>Exhibit</b></p> <p><b>4</b></p>
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Image Source: NEARMAP (5/18/22)  
Projection: NAD 83, UTM Zone 15N  
GIS Contact: rosanmiguel@lja.com

NOTE: Approximate location of the 100-year floodplain as depicted was derived from digitized 2017 Federal Insurance Rate Maps. The proper authorities, prior to any land planning or engineering activities, should verify the exact location of the 100-year floodplain.



Legend		Acres
	Adjacent Wetlands (Potentially Jurisdictional)	36.8
	Transects	
	Sample Points	
	Project Boundary	100
	FEMA 100-Year Floodplain	

WETLAND DETERMINATION AND CLASSIFICATION

Project #: BOA076-12772N.WD  
For: IDS Engineering  
Location: Near Fairmont Pky & Jimmy Harris Blvd  
Harris County, Texas

Disclaimer: Potential features depicted have been classified based upon Berg Oliver Associates, Inc.'s professional opinion. The Corps of Engineers is the final authority on jurisdictional features.

EVALUTATION
DATE: 9/21/2022
REVISIONS

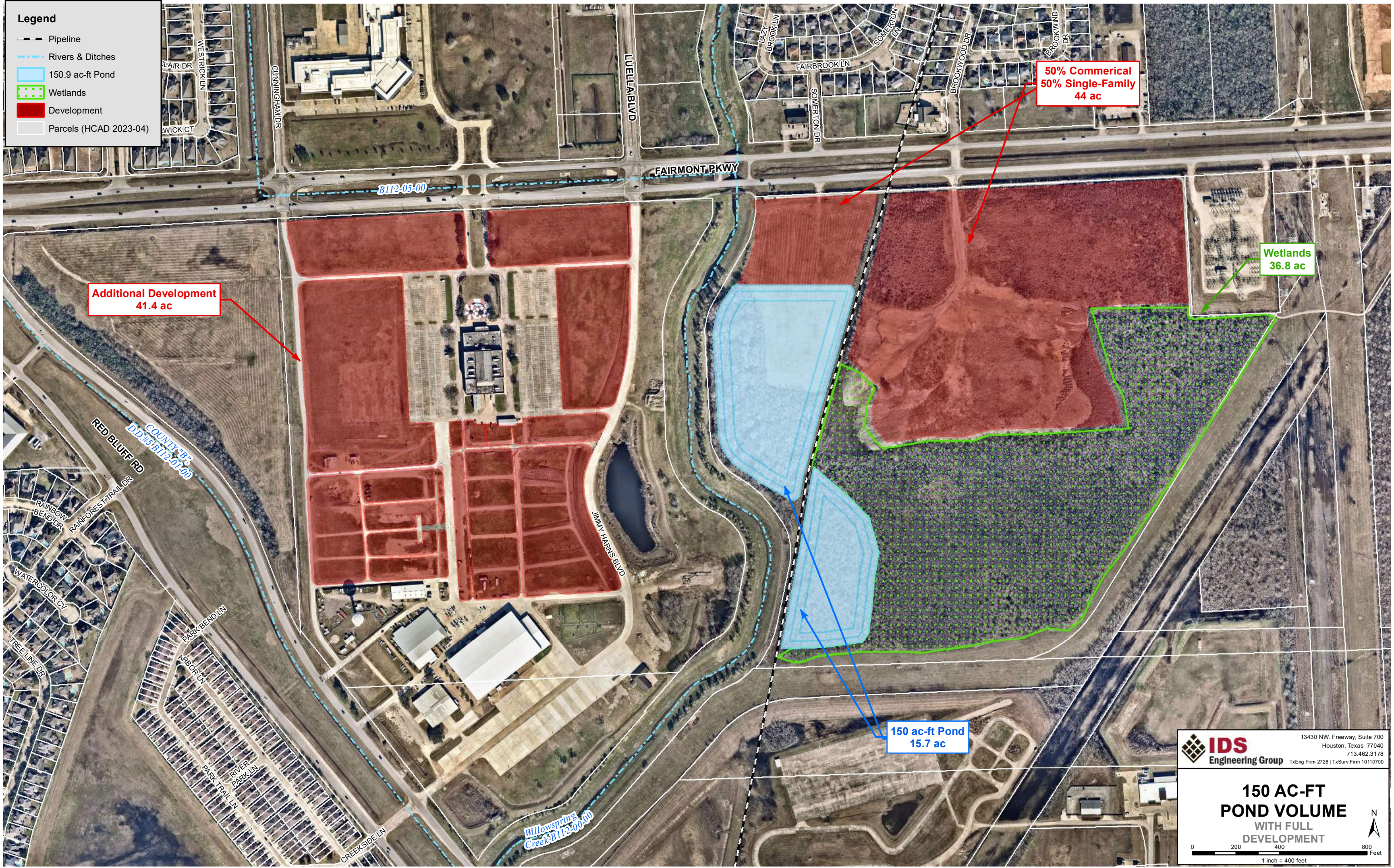
**BERG ♦ OLIVER ASSOCIATES, INC.**  
ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS  
14701 ST. MARY'S LANE, SUITE 400  
HOUSTON, TEXAS 77079  
(281)589-0898 <http://www.bergoliver.com>





**Legend**

- Pipeline
- Rivers & Ditches
- 150.9 ac-ft Pond
- Wetlands
- Development
- Parcels (HCAD 2023-04)



13430 NW. Freeway, Suite 700  
Houston, Texas 77040  
713.462.3178  
TxEng Firm 2726 | TxSurv Firm 1010700

**150 AC-FT  
POND VOLUME  
WITH FULL  
DEVELOPMENT**

0 200 400 800 Feet

1 inch = 400 feet

N

IDS Engineering Group \\houvgsdb\1\Projects\2000\2007-007-00\_Pasadena\_Drainage\Scenario5\_11X17.mxd Plotted: 5/22/2023 at 1:55:40 PM by virevino





## REQUEST FOR DRAINAGE & FLOODING COMMITTEE AGENDA ITEM

Agenda Date Requested: July 10, 2023

Requested By: Ray Mayo, Director

Department: Public Works

☒ Report    ☐ Resolution    ☐ Ordinance

**Exhibits:**

### Appropriation

Source of Funds: N/A

Account Number: N/A

Amount Budgeted: N/A

Amount Requested: N/A

Budgeted Item:    ☐ Yes    ☐ No

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### SUMMARY & RECOMMENDATION

Receive report regarding Harris County Flood Control District's (HCFCD) and Harris County Precinct 2's current and future plans related to flooding in the City of La Porte.

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### ACTION REQUIRED BY DRAINAGE AND FLOODING COMMITTEE

Receive report, and provide Staff with direction, as necessary.

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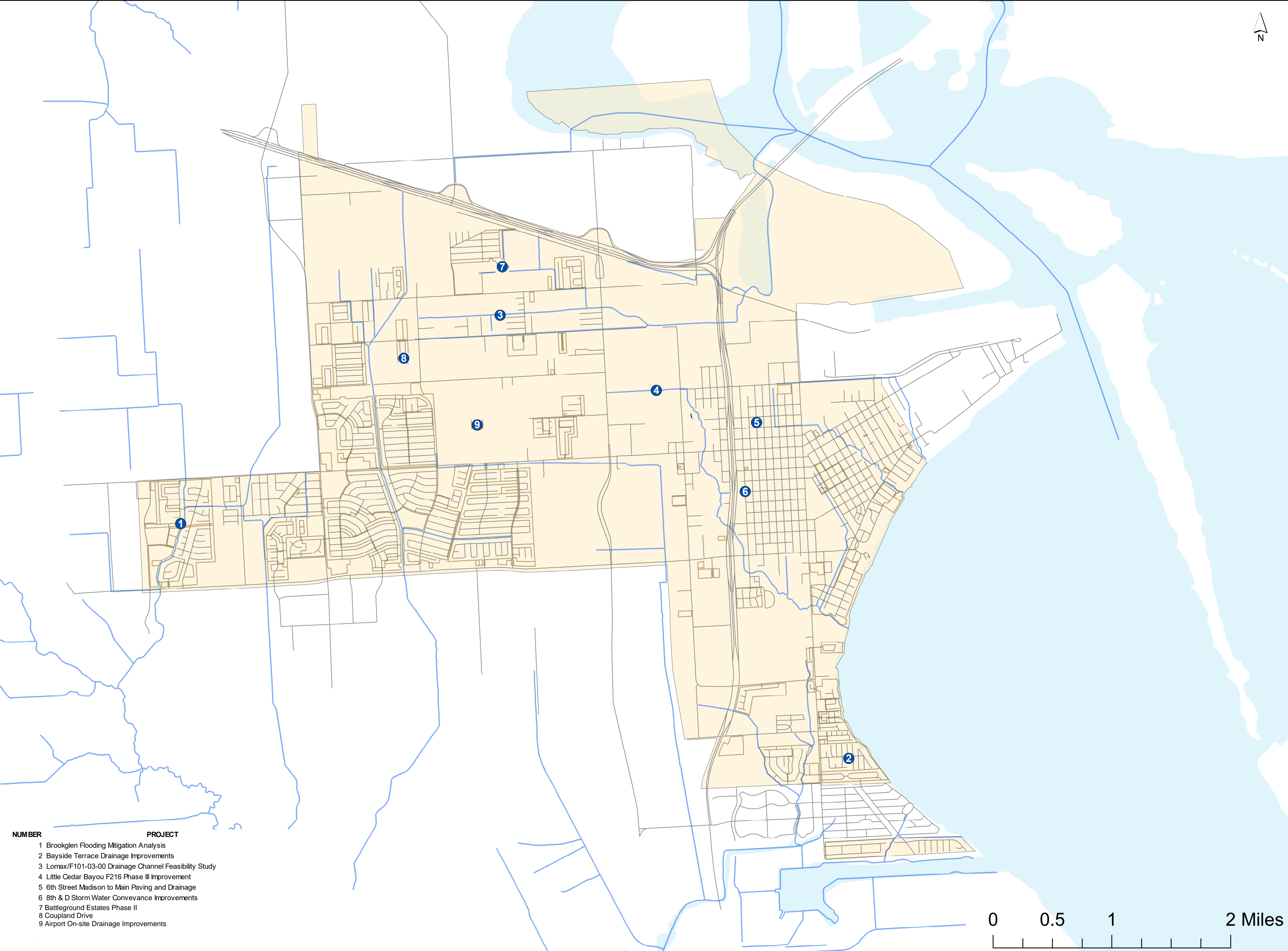
**Approved for Drainage Committee Agenda**

\_\_\_\_\_  
Corby D. Alexander, City Manager

\_\_\_\_\_  
Date



# The City of La Porte Drainage Projects 2019



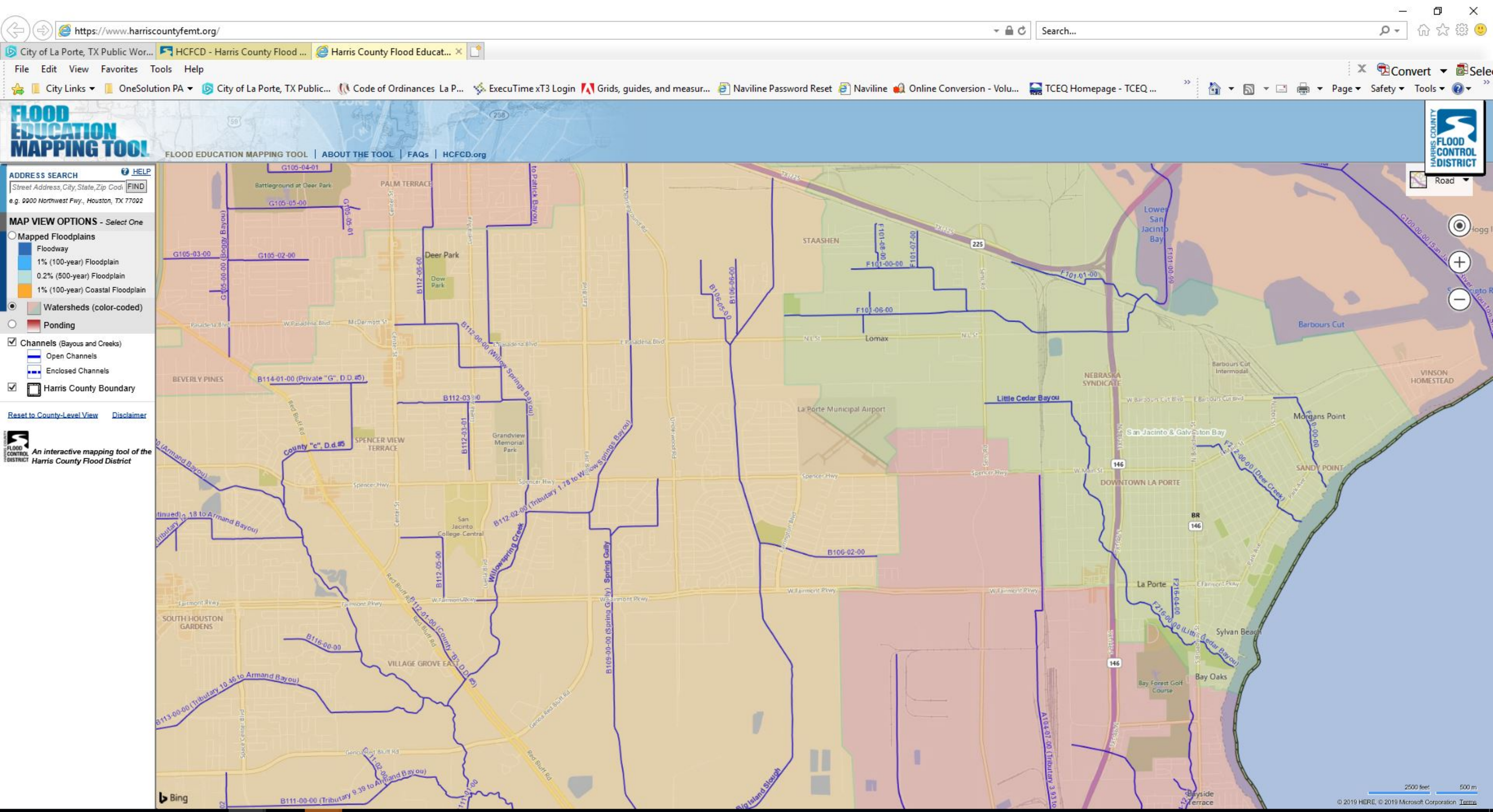
# DRAINAGE PROJECTS

\*Estimated completion date references total project completion.

\*\*% complete references percent completion of current project phase.

NO.	PROJECT	PROJECT MANAGER	DESCRIPTION	PROJECT PHASE (Feasibility/Preliminary Design/Final Design/Bidding/Construction)	Status	Anticipated Construction Cost	Potential Grant Funding	Potential COLP Cost Share	COLP Budgeted Amount	Estimated Completion Date	% Complete (Phase)	On Schedule
1	Brookglen Flooding Mitigation Analysis	HCFCF / Public Works	The 2009 City-wide Drainage Study identifies the Brook glen subdivision as an area with significant drainage-related problems, attributed to inadequate sewerage and insufficient channel capacity within the B112-00-00 Channel. Compounded improvements recommended within the City-wide Drainage Study could reduce the flood risk within the Brook glen area. This analysis would expand upon the recommendations provided within 2009 study.	HCFCF (NCRS) - Final Design; COLP - Feasibility/Preliminary Engineering	The existing conditions drainage model is being developed utilizing field data and record drawings. preliminary modeling results indicate that the existing storm sewer is undersized for current rainfall conditions. Staff is currently reviewing the initial drafter of the PER, received on April 24th. Final design is expected to begin upon completion of preliminary engineering, with a target construction start date of March 4, 2024. The project is expected to be completed by June 30, 2025.	\$11,400,010.00	GL0 - \$4,000,000; Pct. 2 Partnership - \$2,900,023.28; ARPA - TBD;	Harris County - 24%; GL0 - 33%; COLP - 42;	COLP - \$4,275,000	NCRS - TBD; Bond - TBD; COLP - TBD	NCRS - 35%; COLP - 0%	NCRS - Yes Bond - No COLP - TBD
2	Bayside Terrace Drainage Improvements	Public Works	Approximately 800 linear feet of RCP pipe, ranging in size from 15" to 24", exists within the Bayside Terrace Subdivision, which has not been properly maintained due to access issues attributed to limited access to infrastructure, provided within a five foot utility easement. Portions of Hamilton Street and Fondren Street utilize this system to convey stormwater to its outfall point of Galveston Bay. The system fails to function properly, causing flooding within the adjacent portion(s) of the subdivision. A proposed drainage study would discuss feasibility of rerouting this flows from the 800 feet of RCP, towards Bayside Dr. and utilizing the existing system within Bayside Dr. to convey the storm water within the existing system.	Bidding	Bid advertisements were published on April 6th and April 13th. A pre-bid conference was held on April 16, 2023. Bids are due on May 3rd.	\$8,821,834.36	Pct. 2 Partnership - \$2,982,496	Harris County - \$2,982,496; COLP - \$4,356,041	\$5,405,000.00	TBD	75%	Yes
3	Lomax/F101-03-00 Drainage Channel Improvements	HCFCF	Harris County Flood Control District's (HCFCF) F101-06-00 Channel system conveys storm water runoff from the Lomax area and ultimately outfalls into Lower San Jacinto Bay. The downstream section of the channel has been improved to ultimate capacity. An existing pipeline corridor, containing several pipelines located at depths ranging from approximately 2' to 18', cross the channel, limiting the depth of potential channel improvements. Moderate/heavy rain events, compounded with backwater conditions from this section of the channel, contributes to wide-spread flooding within the Lomax Area.	Feasibility	HCFCF extended the limits of the initial drainage study to include the area from Valleyview to Lomax School Road. New project limits are currently being evaluated by HCFCF to determine additional project options.	\$3,400,000.00	HCFCF Bond; ARPA - TBD	50/50	\$950,000.00	TBD	75%	No
4	Little Cedar Bayou F216 Phase III Improvements	HCFCF / Public Works	Phase I and Phase II Improvements to Little Cedar Bayou, from Hwy 146 to Madison, have either been completed or are currently awarded for construction. Phase I and Phase II improvements include, but are not limited to, excavating and disposing off-site soil as required for the new channel alignment, clearing and grubbing, demolition of existing structures, erosion control, and site restoration for approximately 5,533 LF of channel. Approximately 4,680 LF of channel remains unimproved upstream, with those improvements slated to be included within this project, to be considered Phase III. Survey data has been collected on this most upstream section. Routine maintenance of clearing overgrowth, trees, and obstructions; minor erosion control and slope stabilization; and destilling is planned to maintain existing conveyance capacity. Those maintenance operations are projected to begin late 4th quarter 2018 or early 1st quarter 2019 (calendar year). The following Phase III mitigation action is proposed, as recommended within the Hydraulic Analysis for Little Cedar Bayou Watershed HCFCF Unit F216-00-00: lowering the low line of the Bayou 1' - 2' feet, from W. Madison to Sens Rd. Current channel side slopes would be modified to achieve 3:1 side slopes from W Madison St. to Sens Rd. An estimated 200,000 cubic yards are to be excavated from the channel. Over excavation is provided to yield sufficient storage volume in the pond after siltation and build-up in the pond bottom.	Feasibility	The feasibility of several project options are being evaluated. The consultant is evaluating an additional project alternative that was not previously considered. The draft of the preliminary engineering report will be delayed, to allow for the new alternative to be evaluated. Staff, consultant, and HCFCF, participate in bi-weekly project status meeting to discuss project progression.	TBD	HCFCF Bond - \$8,000,000; ARPA - TBD	\$2,000,000.00	\$3,055,232.00	TBD	60%	No
5	6th Street Madison to Main Paving and Drainage	Public Works	The segment of 6th St from W. Madison St to W. Main St is considered part of Old La Porte, which was generally noted in the City-Wide Drainage Study as not having sufficient storm sewer capacity due to undersized storm sewer, undersized storm inlets, or not enough storm inlets. RPS-Klotz provided an analysis of the existing storm sewer system and identified problem areas within the project limits. Additional analysis is required to determine most efficient improvement alternative.	Phase 2 - Final Design	Drainage Impact Analysis has been approved by HCFCF. Staff is coordinating with HCFCF for mitigation credits. USACE has acknowledged receipt of pre-construction notice. The project solicitation packet has been prepared, but the advertisement is on hold, pending USACE approval.	Phase 2 - \$3,400,000	Phase 2 - \$3,472,757	\$125,000.00	\$1,140,000.00	Phase 2 - TBD	Phase 2 - 90%	Phase 2 - Yes
6	8th & D Storm-Water Conveyance Improvements	Public Works	The area generally bounded by 8th Street to the west, Main Street to the north, 5th Street to the east, and D Street to the south experiences flooding during heavy rain events due to undersized culverts within the area increasing culvert sizes within the area will provide additional conveyance capacity within the existing open ditch system.	Completed	This project has been incorporated into the 8th Street Rehabilitation Project. Construction activity began on September 13, 2021. Storm sewer-related infrastructure is 100% complete.	\$4,800,000.00	N/A	N/A	\$4,867,000.00	February 2023	100%	Yes
7	Battleground Estates Phase II	Public Works	A proposed conditions hydraulic model was developed during the preliminary design for the N P Street Culvert Improvement Project, which recommended replacing the upstream portion of the existing composite structure at N P Street, with structures matching the downstream portion of the composite structure. That project allows for full utilization of the structure's capacity, as well as protect the channel during rainfall events that produce higher amounts of runoff. Per the recommendations of the Phase I report, a more detailed Phase 2 engineering analysis of segments F101-00-00 and F101-08-00, that are upstream of N P Street, as well as an evaluation of the roadside ditch drainage conduits within Battleground Estates should be performed to identify necessary improvements to address structural flooding within the area. The more detailed study would evaluate the impacts of culverts located upstream of N P Street, along F101-00-00 resulting from the 10-, 50-, and 100-year rain event. Channel improvements, and increasing culvert sizes to provide sufficient capacity within culverts along the roadside ditches are the anticipated mitigation efforts.	Feasibility	Staff is re-considering utilization of ARPA funding on this project, as ARPA funding may be reallocated to higher priority projects.	TBD	ARPA - TBD	50/50	\$215,000.00	August 2023	0%	No
8	Coupland Drive	Public Works	The proposed storm sewer improvements include re-aligning Coupland Drive to drain towards inlets located throughout the subdivision. The inlets will drain into proposed storm sewer ranging in size from 24" to 30" RCP. This storm sewer will then flow underneath the existing roadside ditch along L Street to a combined outfall with the existing roadside ditch to Big Island Slough. The proposed storm sewer underneath the existing ditch on L Street will be 42" RCP and the combined outfall will need to be a 60" RCP. These improvements will result in no net fill within the Big Island Slough 100-year floodplain. The proposed storm sewer was sized for the 2 year storm event, per the City of La Porte drainage criteria.	Bidding	The bid solicitation advertised on September 15th, as part of the Lomax Lift Station Consolidation Project. Bid were received in December 2023, but exceeded the budgeted amount. The bid was reject by Council at the January 9th meeting. Staff is working with the Texas Water Development Board (TXWDB) to determine the most appropriate approach to proceed with the Lomax Lift Station Consolidation Project. Future advertisement of the Coupland Drive project will be contingent upon direction received from the TXWDB.	\$1,550,000.00	N/A	N/A	\$1,310,000.00	TBD	50%	Yes







## REQUEST FOR DRAINAGE & FLOODING COMMITTEE AGENDA ITEM

Agenda Date Requested: July 10, 2023

Requested By: Ray Mayo, Director

Department: Public Works

☒ Report    ☐ Resolution    ☐ Ordinance

**Exhibits:** Project map; Project update chart and Harris County Drainage Network Map

### Appropriation

Source of Funds: N/A

Account Number: N/A

Amount Budgeted: N/A

Amount Requested: N/A

Budgeted Item:    ☐ Yes    ☐ No

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### SUMMARY & RECOMMENDATION

Refer to attached exhibit(s) for updates on various drainage projects throughout the City.

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### ACTION REQUIRED BY DRAINAGE AND FLOODING COMMITTEE

**Receive report, and provide staff with direction, as necessary.**

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**Approved for Drainage Committee Agenda**

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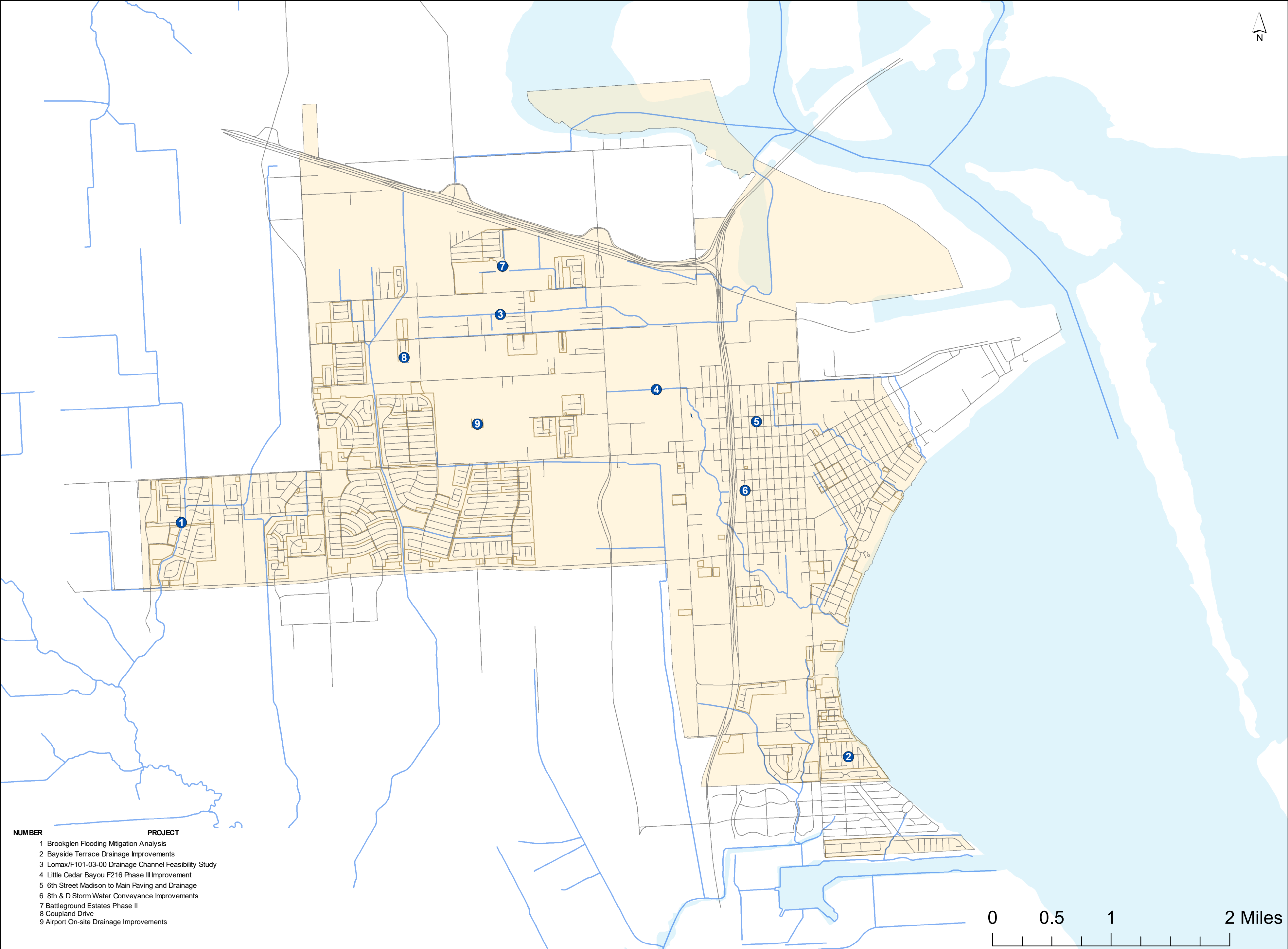
**Corby D. Alexander, City Manager**

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**Date**



# The City of La Porte Drainage Projects 2019



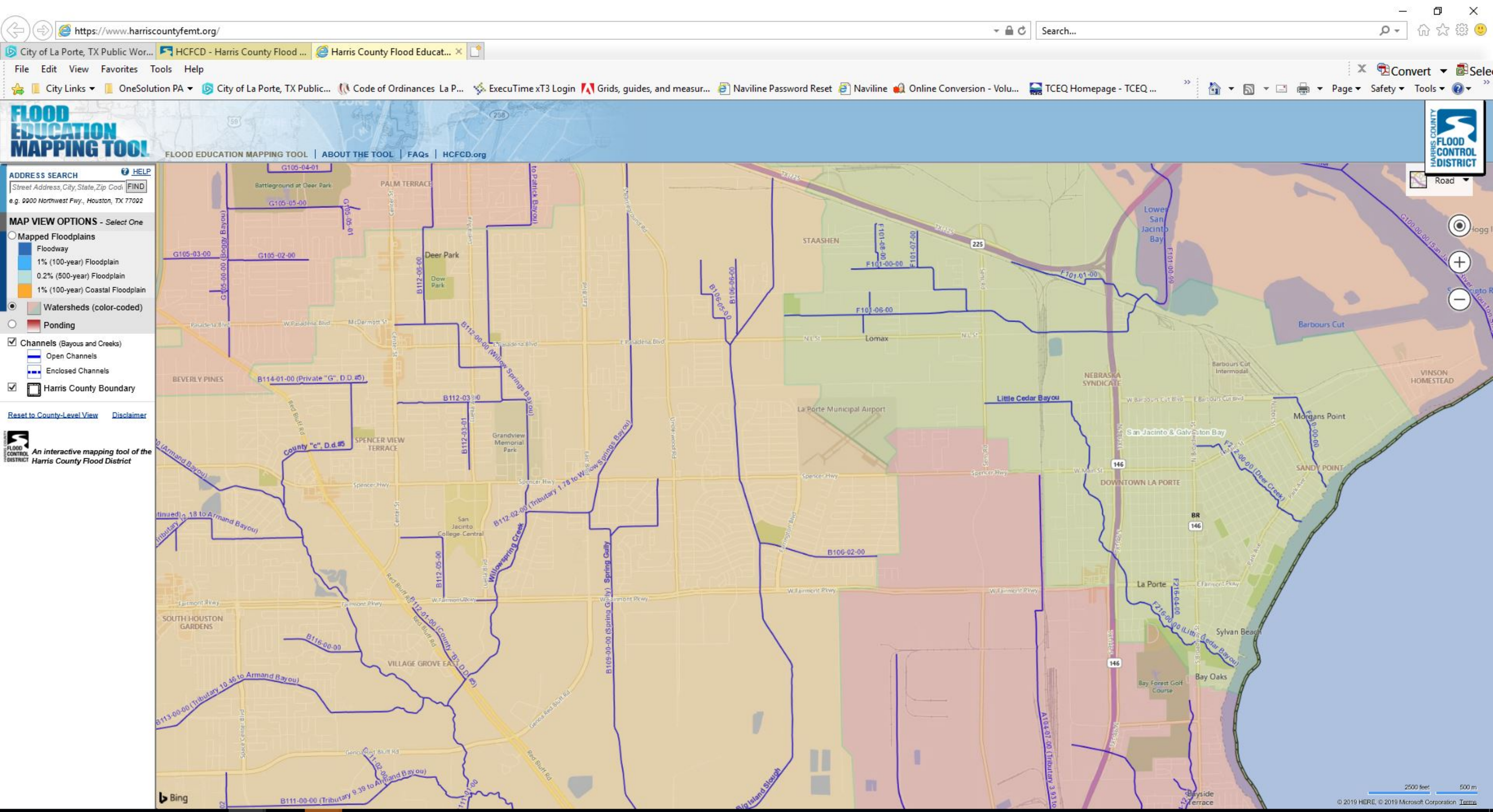
# DRAINAGE PROJECTS

\*Estimated completion date references total project completion.

\*\*% complete references percent completion of current project phase.

NO.	PROJECT	PROJECT MANAGER	DESCRIPTION	PROJECT PHASE (Feasibility/Preliminary Design/Final Design/Bidding/Construction)	Status	Anticipated Construction Cost	Potential Grant Funding	Potential COLP Cost Share	COLP Budgeted Amount	Estimated Completion Date	% Complete (Phase)	On Schedule
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Requested By: Ray Mayo, Director

Department: Public Works

☒ Report    ☐ Resolution    ☐ Ordinance

### Appropriation

Source of Funds: N/A

Account Number: N/A

Amount Budgeted: N/A

Amount Requested: N/A

Budgeted Item:    ☐ Yes    ☐ No

**Exhibits:**

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### SUMMARY & RECOMMENDATION

Opportunity to discuss any drainage concerns not covered by previous items.

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### ACTION REQUIRED BY DRAINAGE AND FLOODING COMMITTEE

**Receive report, and provide staff with direction, as necessary.**

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**Approved for Drainage Committee Agenda**

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**Corby D. Alexander, City Manager**

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**Date**