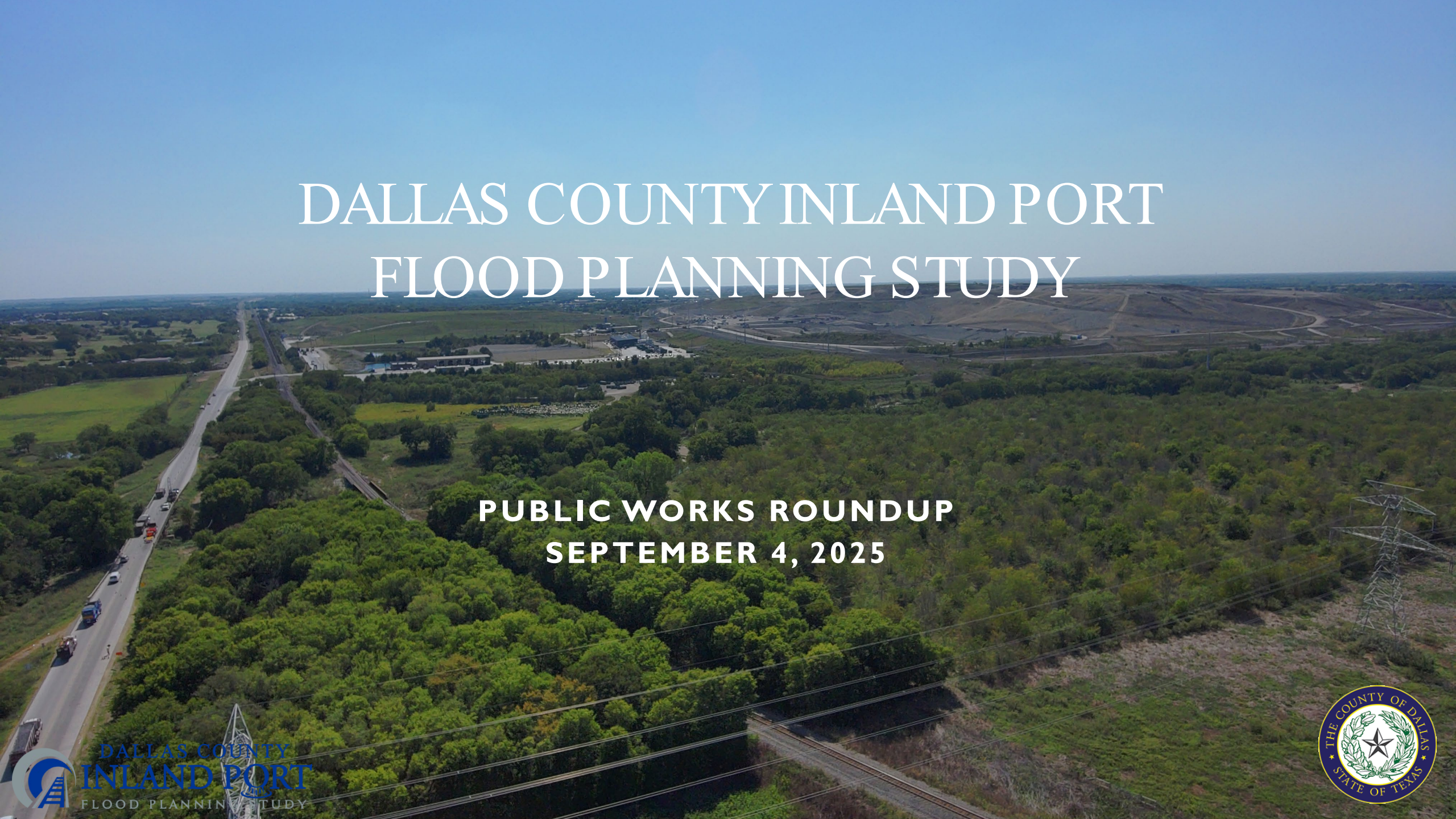


DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

PUBLIC WORKS ROUNDUP
SEPTEMBER 4, 2025

DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

THE COUNTY OF DALLAS STATE OF TEXAS

AGENDA

- Welcome
- Flood Infrastructure Fund
- Dallas County Inland Port- Background
- Stakeholders
- Purpose
- Scope
- The Study
- Curated Projects
- Challenges

Lissa Shepard, PE, CFM

Sr. Bridge Engineer & Flood Plain Manager

Dallas County, Texas

Ronald L. O'Connell, PE

Vice President

APM & Associates, Inc.

Principles – TRUST, COMMITMENT, SHARED VISION

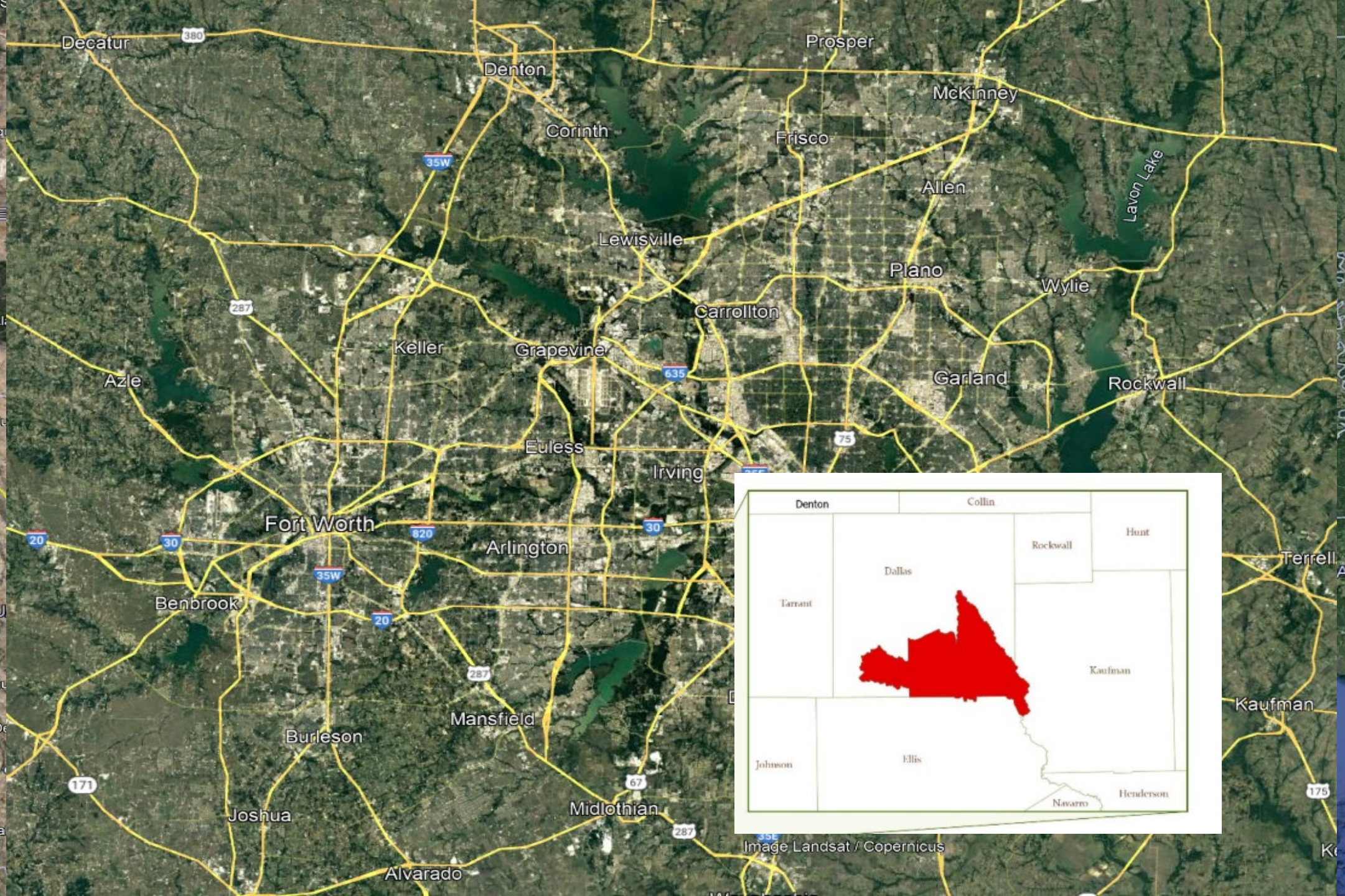
- Partnering is voluntarily setting up working relationships that assure an environment that facilitates a "team" approach to conducting business and solving problems

- Effectively partnering through the life of the project will:
  - Improve team problem solving and mutual respect
  - Assure open communications and prompt resolution of issues
  - Help avoid unnecessary time "writing letters" and other adversarial pursuits.
  - Provide job satisfaction and pride in accomplishment

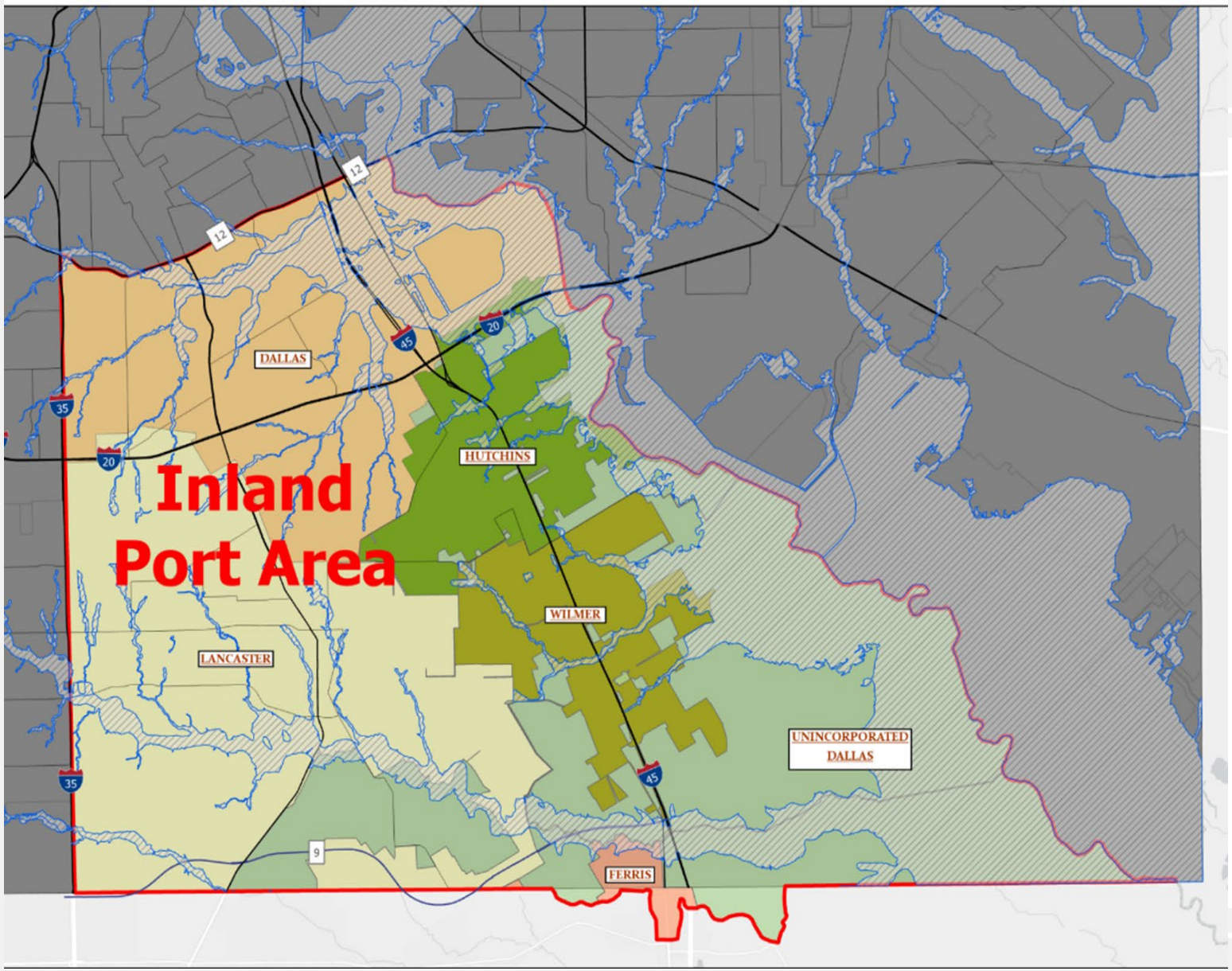
John Wiley Price
Dallas County
Commissioner
District 3

Alberta Blair, P.E.
Director of
Public Works

DALLAS COUNTY
INLAND PORT
FLOOD PLANNING STUDY


Decatur
Denton
Prosper
McKinney
Corinth
Frisco
Allen
Lavon Lake
Lewisville
Plano
Wylie
Carrollton
Keller
Grapevine
Azle
Garland
Rockwall
Euless
Irving
Fort Worth
Arlington
Benbrook
Mansfield
Burleson
Joshua
Midlothian
Alvarado
Terrell
Kaufman
Denton
Collin
Rockwall
Hunt
Dallas
Tarrant
Kaufman
Johnson
Ellis
Navarro
Henderson
Image Landsat / Copernicus

DALLAS COUNTY INLAND PORT

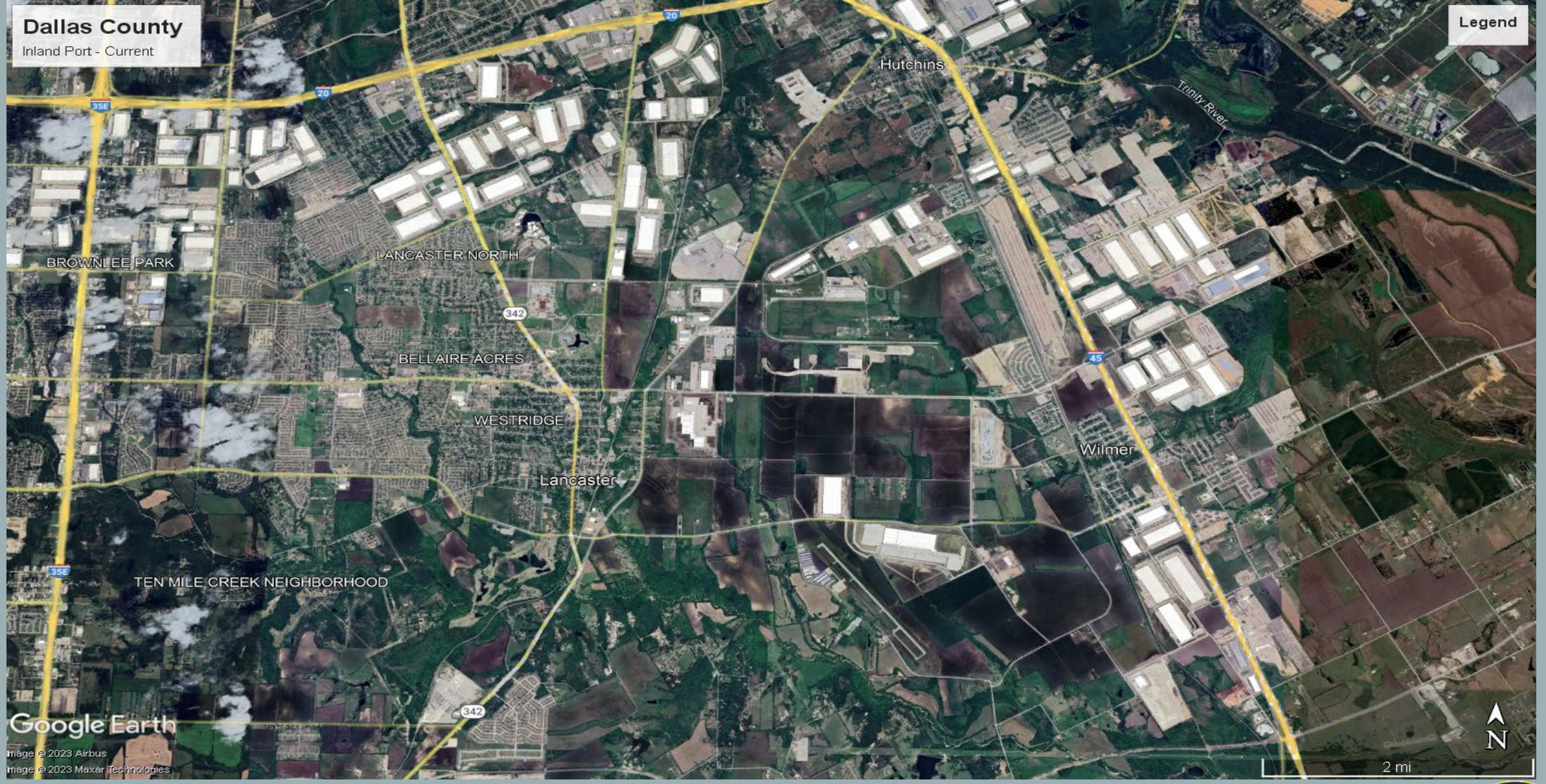


ABOUT THE INLAND PORT

- 78,000 Acre area
- Includes Union Pacific's $100 million intermodal facility.
- No formal boundaries.
- Located in several cities and in Dallas County's unincorporated area.
- Privately-owned and developed; no special governmental entity or port authority involved.
- Receive goods from the West Coast, the East Coast, and the Gulf of Mexico.
- 2,000,000 people live within 30 minutes.
- Proximity to intersection of major east-west and north-south interstate highways.
- Access to major markets and points of entry.
- Centralized U.S. location w/ Proximity to major airports.
- Inland Port Transportation Management Association

DALLAS COUNTY
INLAND PORT
FLOOD PLANNING STUDY

THE COUNTY OF DALLAS
STATE OF TEXAS

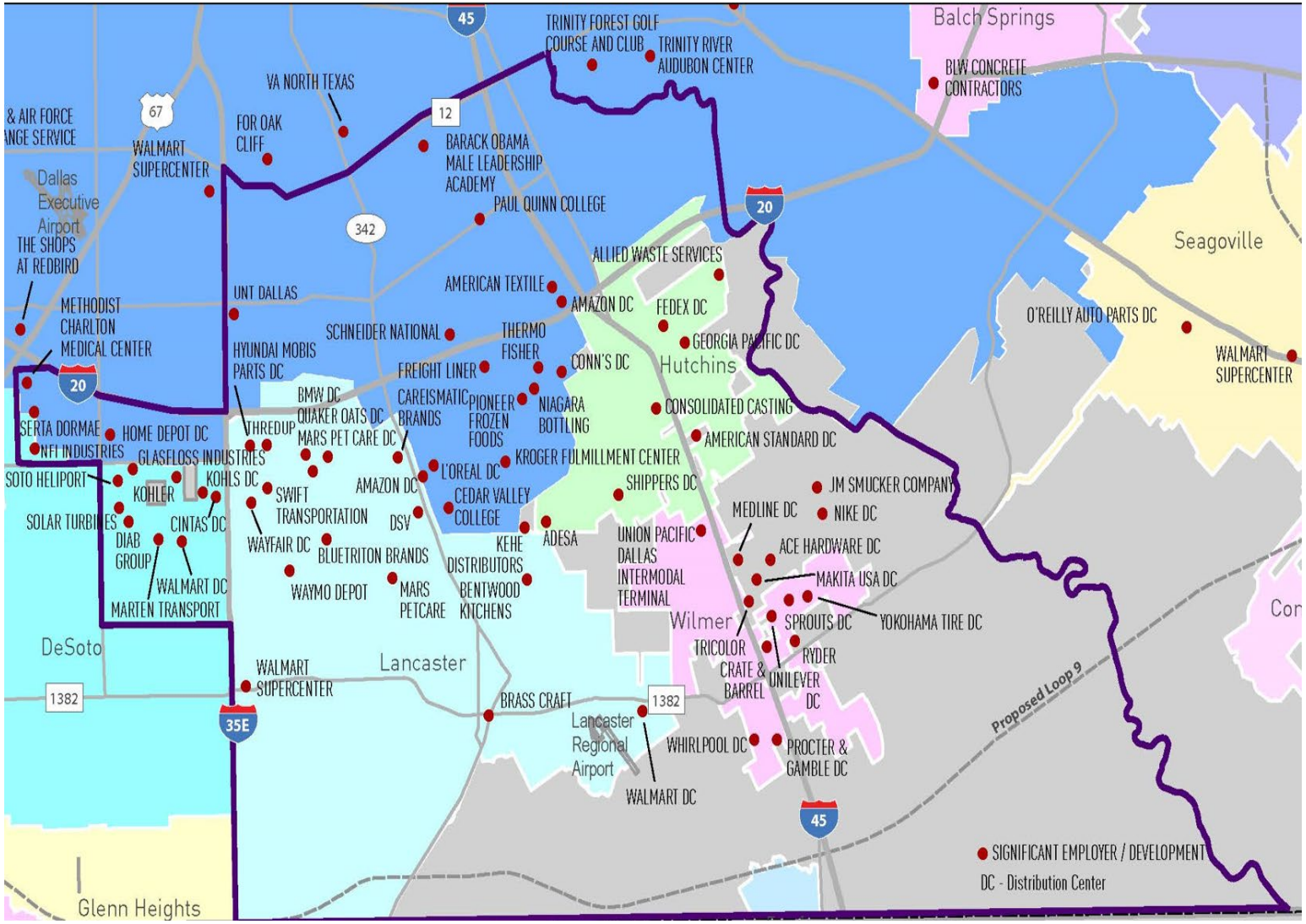


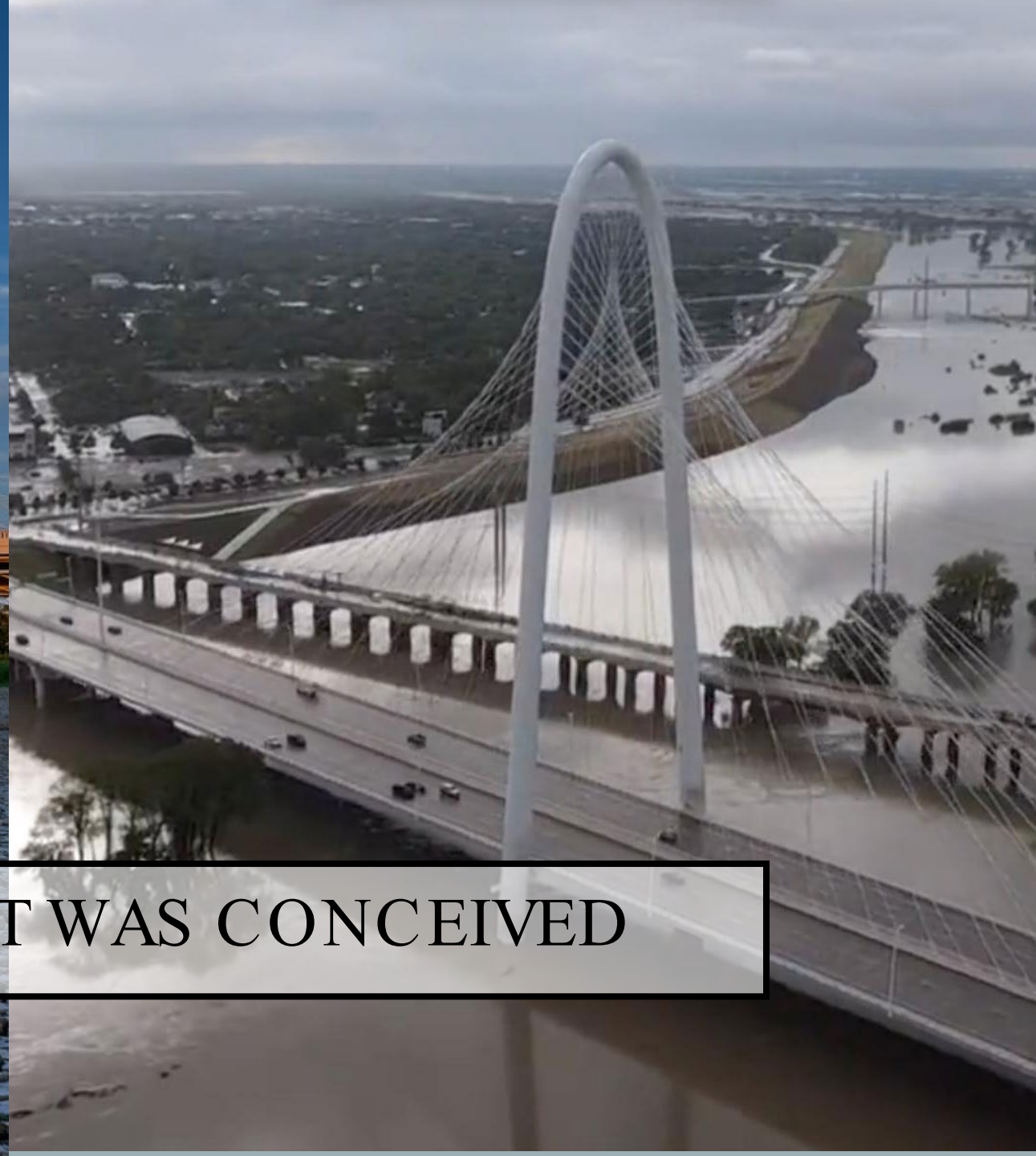
INLAND PORT GROWTH

DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

THE COUNTY OF DALLAS STATE OF TEXAS

BUSINESSES IN THE SOUTHERN DALLAS COUNTY INLAND PORT





HOW THE PROJECT WAS CONCEIVED

TEXAS WATER DEVELOPMENT BOARD (TWDB)
FLOOD INFRASTRUCTURE FUND (FIF)

- Passed by the Legislature and approved by Texas voters through a constitutional amendment in 2019, the FIF program provides financial assistance in the form of loans and grants for flood control, flood mitigation and drainage projects and the State Flood Plan.
- In 2020, TWDB had received approximately $800 Million to provide grants to communities for Flood Mitigation and Prevention

- Dallas County received funding for the Dallas County Inland Port Flood Planning Study using Category 1 Funding from the TWDB

DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

DALLAS COUNTY
INLAND PORT
FLOOD PLANNING STUDY

STAKEHOLDERS

DALLAS COUNTY
Texas
Est. 1846

KAUFMAN COUNTY
TEXAS

THE CITY OF
BALCH SPRINGS
GROWING COMMUNITY

CEDAR HILL
WHERE OPPORTUNITIES GROW NATURALLY

City of Combine

City of Dallas

DESOTO
TEXAS

CITY OF FERRIS
ELLIS COUNTY
FERRIS
TEXAS
Distinct By Design

Hutchins
THE NEW FRONTIER

Lancaster
The Shining Star of Texas

MESQUITE
TEXAS
Real. Texas. Flavor.

Duncanville
City of Champions

SEAGOVILLE TX
- The City of Opportunity -

City of Wilmer
Serving Our Community

DALLAS COUNTY
INLAND PORT
FLOOD PLANNING STUDY

STAKEHOLDERS

dallas water utilities
city of dallas

FEMA

NORTH TEXAS MUNICIPAL WATER DISTRICT

Natural Resource Conservation Service

ROCKETT SPECIAL UTILITY DISTRICT

Texas Department of Transportation

Texas Water Development Board

tra

USDA

North Central Texas Council of Governments

US Army Corps of Engineers®

UNION PACIFIC

BNSF RAILWAY

DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

inlandport.org FIND YOUR RIDE

THE COUNTY OF DALLAS STATE OF TEXAS

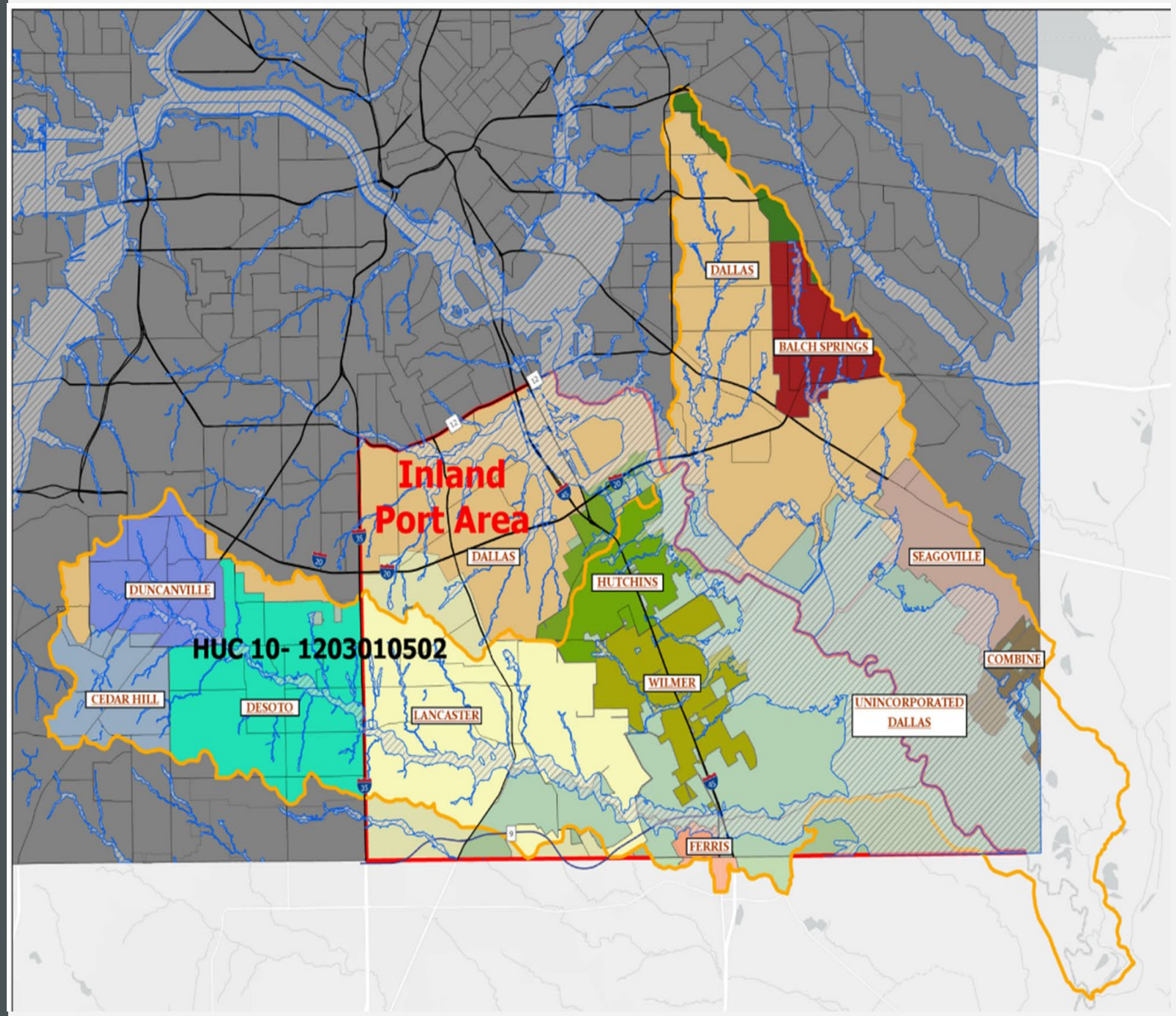
WHY THIS PROJECT IS IMPORTANT

PURPOSE OF THE STUDY

- Minimize Loss of Life
- Minimize Loss of Property
- Determine Approach to Minimize Flooding
- Submit Projects to the State for Funding
- August 22, 2022 Flooding - 2nd most rain in 24 hours in Dallas County since records kept

PROJECT LOCATION

- Hydraulic Unit Code (HUC-10) 1203010502
- Dallas County Inland Port
- Approx. 230 sq. miles
- Major Tributaries
  - Trinity River
  - Ten Mile Creek



CONSULTANT TEAM

HALFF

APM ENGINEERING • PLANNING • CM SERVICES EST. 1989

Kimley»Horn

NDM NATHAN D. MAIER CONSULTING ENGINEERS, INC.

JBJ MANAGEMENT Delivering Strategic Solutions

rjngroup

AZ&B

BDS Technologies Engineers, Surveyors & Construction Managers

DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

THE COUNTY OF DALLAS STATE OF TEXAS

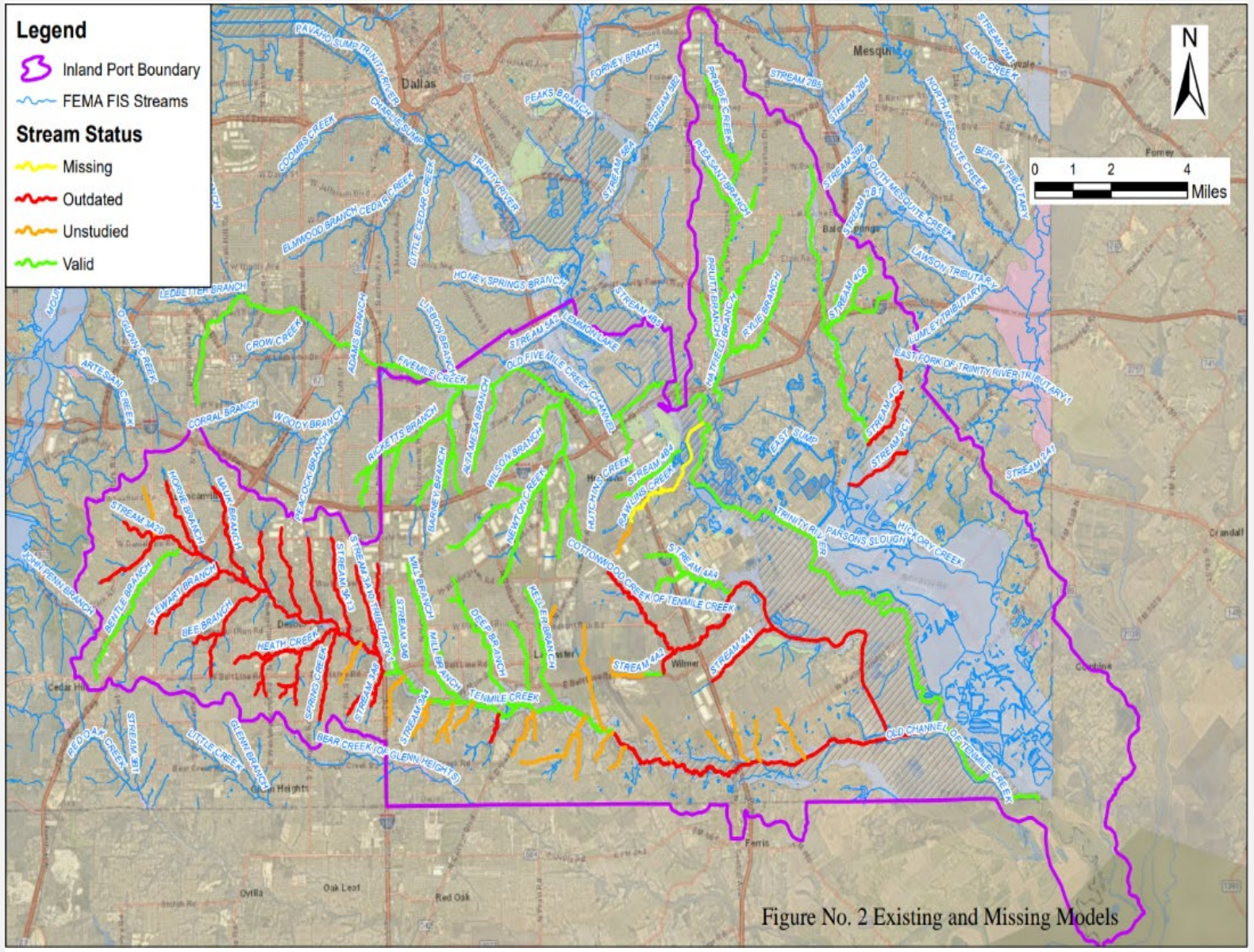
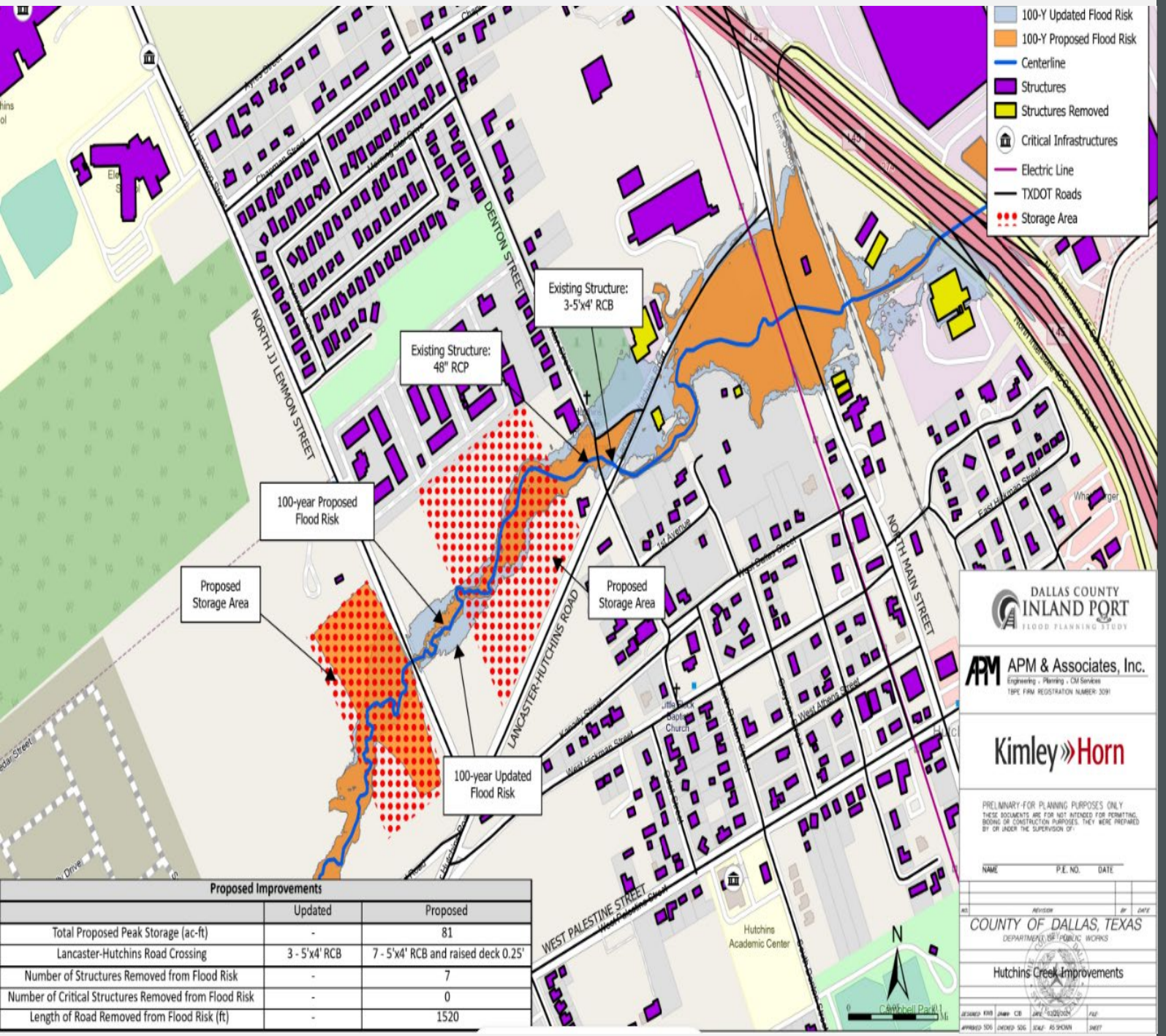


Figure No. 2 Existing and Missing Models

PROJECT SCOPE

- **H&H study of the overall HUC-10 area including:**
- Ten Mile Creek,
- Cottonwood Creek,
- Rawlins Creek
- **Hydraulic (stormwater) study of the Inland Port area –Trunk Lines**
  - Tasks:
  - Floodrisk Mapping
  - Review of design criteria
  - Identify Potential projects



Proposed Improvements		
	Updated	Proposed
Total Proposed Peak Storage (ac-ft)	-	81
Lancaster-Hutchins Road Crossing	3 - 5'x4' RCB	7 - 5'x4' RCB and raised deck 0.25'
Number of Structures Removed from Flood Risk	-	7
Number of Critical Structures Removed from Flood Risk	-	0
Length of Road Removed from Flood Risk (ft)	-	1520

PROJECT EVALUATIONS

Develop Mapping of modeling

- Effective Model Floodplain
- Floodplain with Improvements

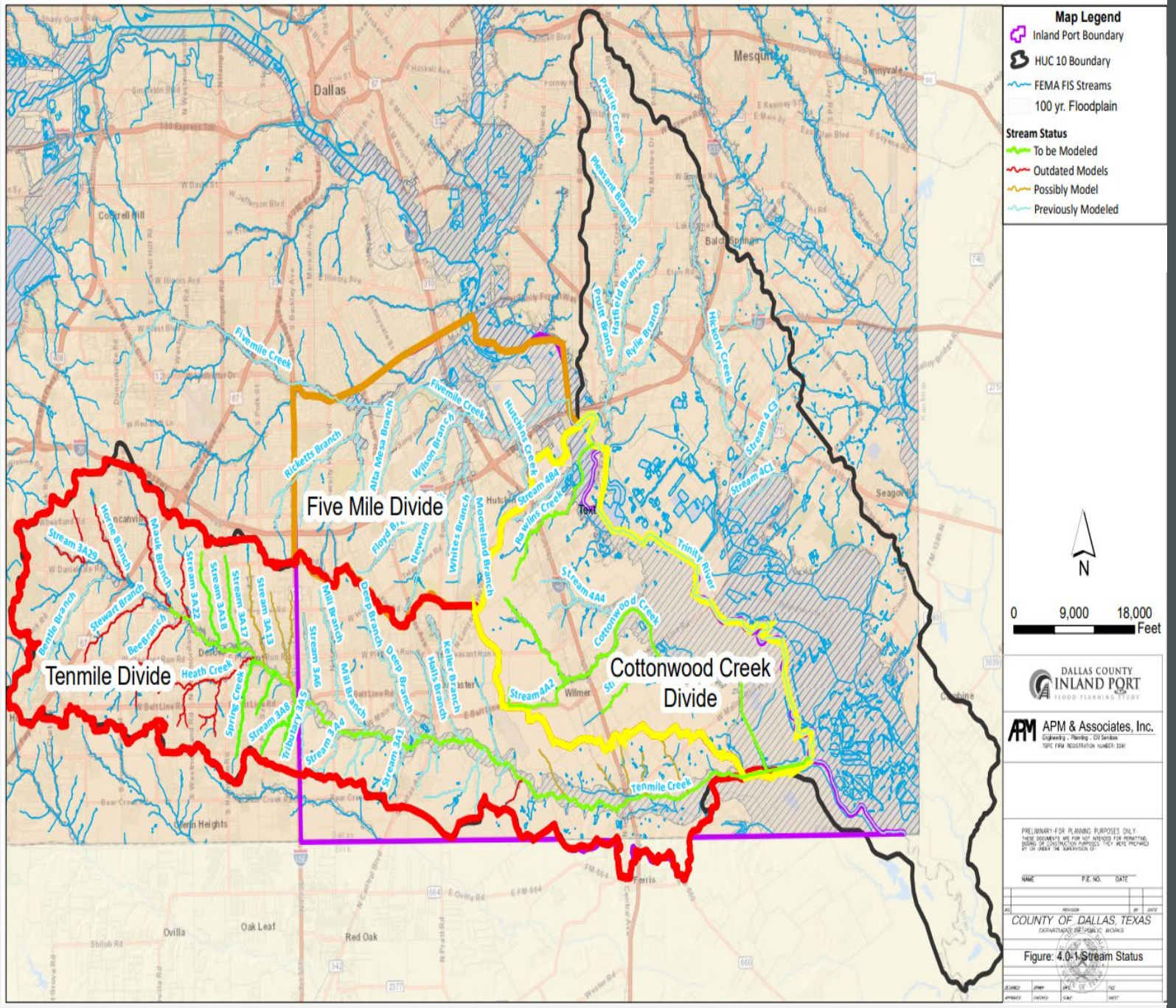
Calculate Flood data

- Acres Removed
- Structures Removed
- Critical Facilities Removed
- Roadway Removed
- Others

No Impact Analysis

- No Increase in velocity
- No loss of valley storage
- No change in WS elevation

DRAINAGE BASINS



- Five Mile Creek
- Ten Mile Creek
- Cottonwood Creek
  - Rawlins Creek
  - Hutchins Creek
  - Creek 4B4

FIVE MILE CREEK DIVIDE

- Length approximately 17.3 miles

Includes:

5 Cities

17 Tributaries

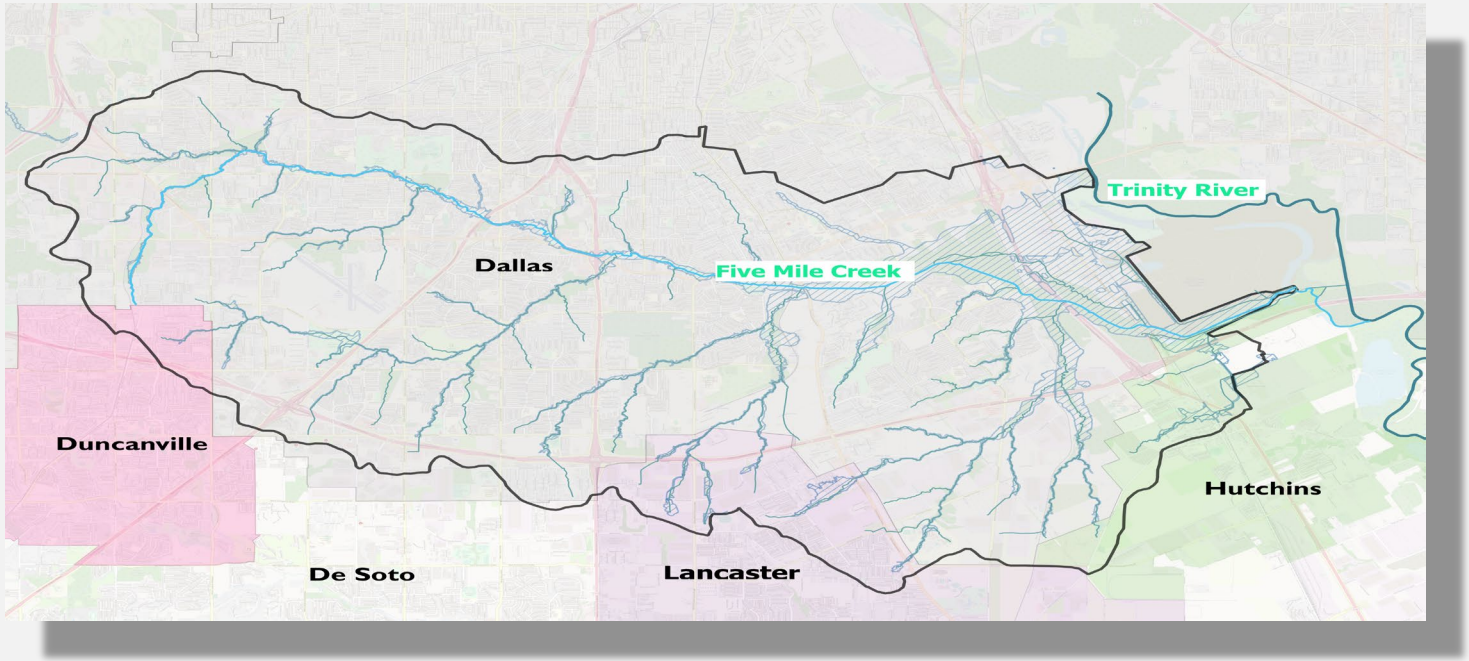
5 Culvert Crossings

40 Bridge Crossings

60.8 Square Mile Watershed

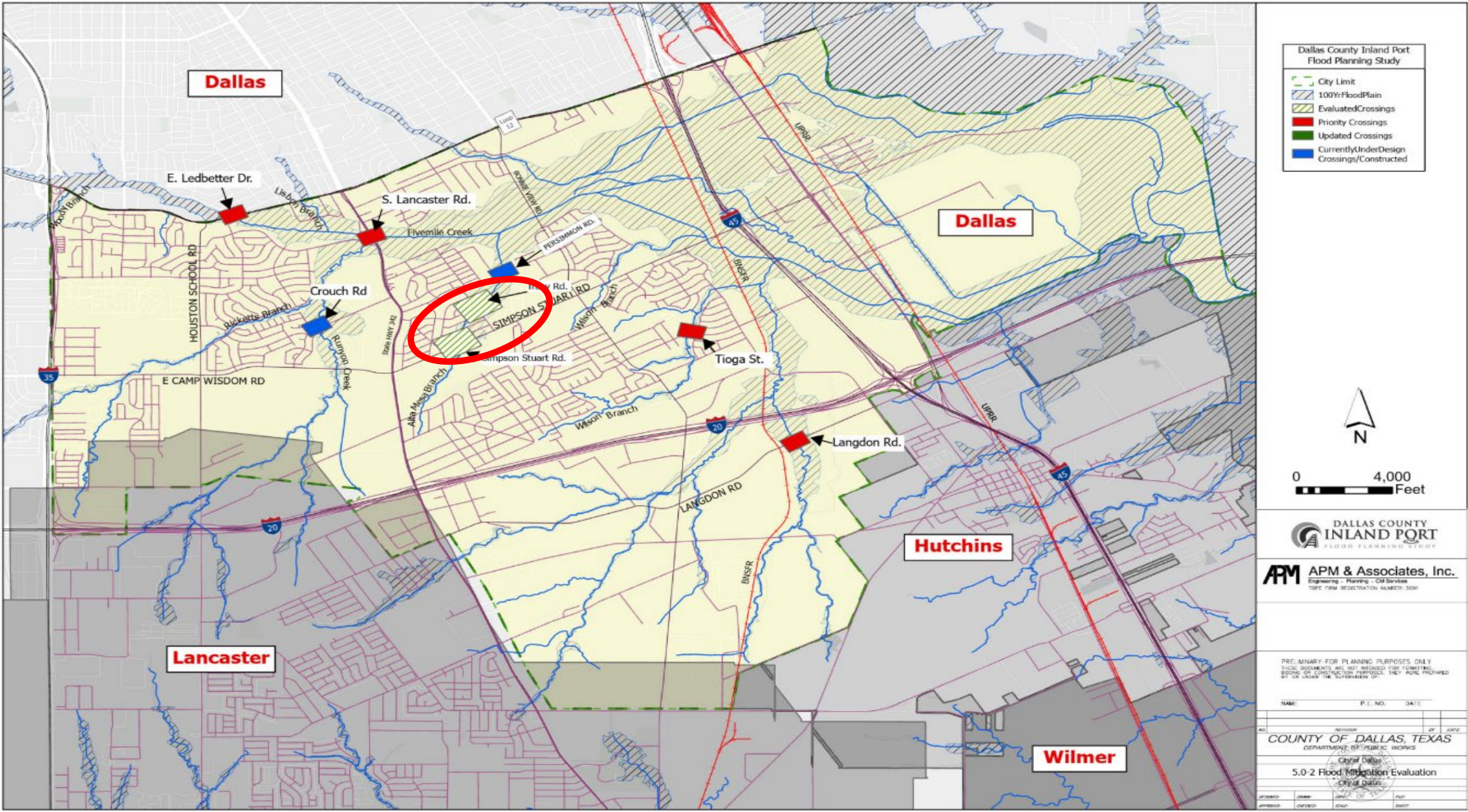
5.6 Square Miles of Flood Risk

Creek Names	Length of Creek (Miles)	Drainage Area (sq Mile)
Fivemile Creek	17.3	60.8
Alta Mesa Creek	2.1	1.1
Newton Creek	6.4	12.7
Ricketts Branch	5.4	8.5
Wilson Branch	2.6	1.6
Runyon Spring	2.9	1.9
Whites Branch	3	1.6



DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

THE COUNTY OF DALLAS STATE OF TEXAS


Dallas County Inland Port Flood Planning Study
City Limit
100YrFloodPlain
EvaluatedCrossings
Priority Crossings
Updated Crossings
CurrentlyUnderDesign Crossings/Constructed
Dallas
Dallas
Hutchins
Lancaster
Wilmer
E. Ledbetter Dr.
S. Lancaster Rd.
Crouch Rd
Simpson Stuart Rd.
Tioga St.
Langdon Rd.
Flivemile Creek
Rickett's Branch
Rumyon Creek
Alita Mesa Branch
Wilson Branch
Lisbon Branch
Woody Branch
HOUSTON SCHOOL RD
E CAMP WISDOM RD
LANGDON RD
PERSIMMON RD.
UPRR
BNSFR
N
0
4,000
Feet
DALLAS COUNTY INLAND PORT
FLOOD PLANNING STUDY
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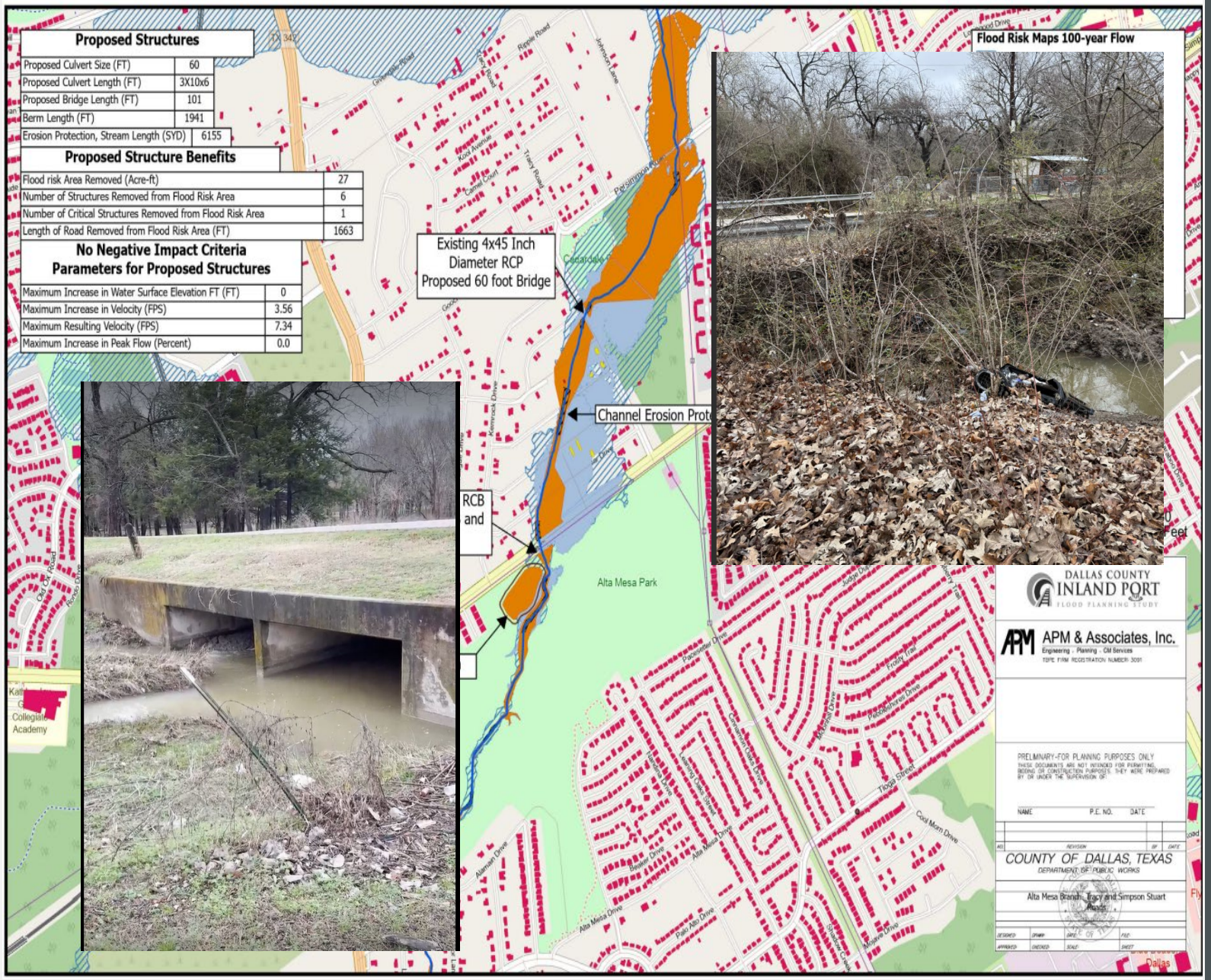
COUNTY OF DALLAS, TEXAS
DEPARTMENT OF PUBLIC WORKS
City of Dallas
5.0-2 Flood Mitigation Evaluation
City of Dallas

PROJECT EVALUATIONS



Alta Mesa Creek Analysis

- Tracy Road
- Simpson Stewart Road

Improvements

Tracy Rd.

- Proposed 60- foot Bridge

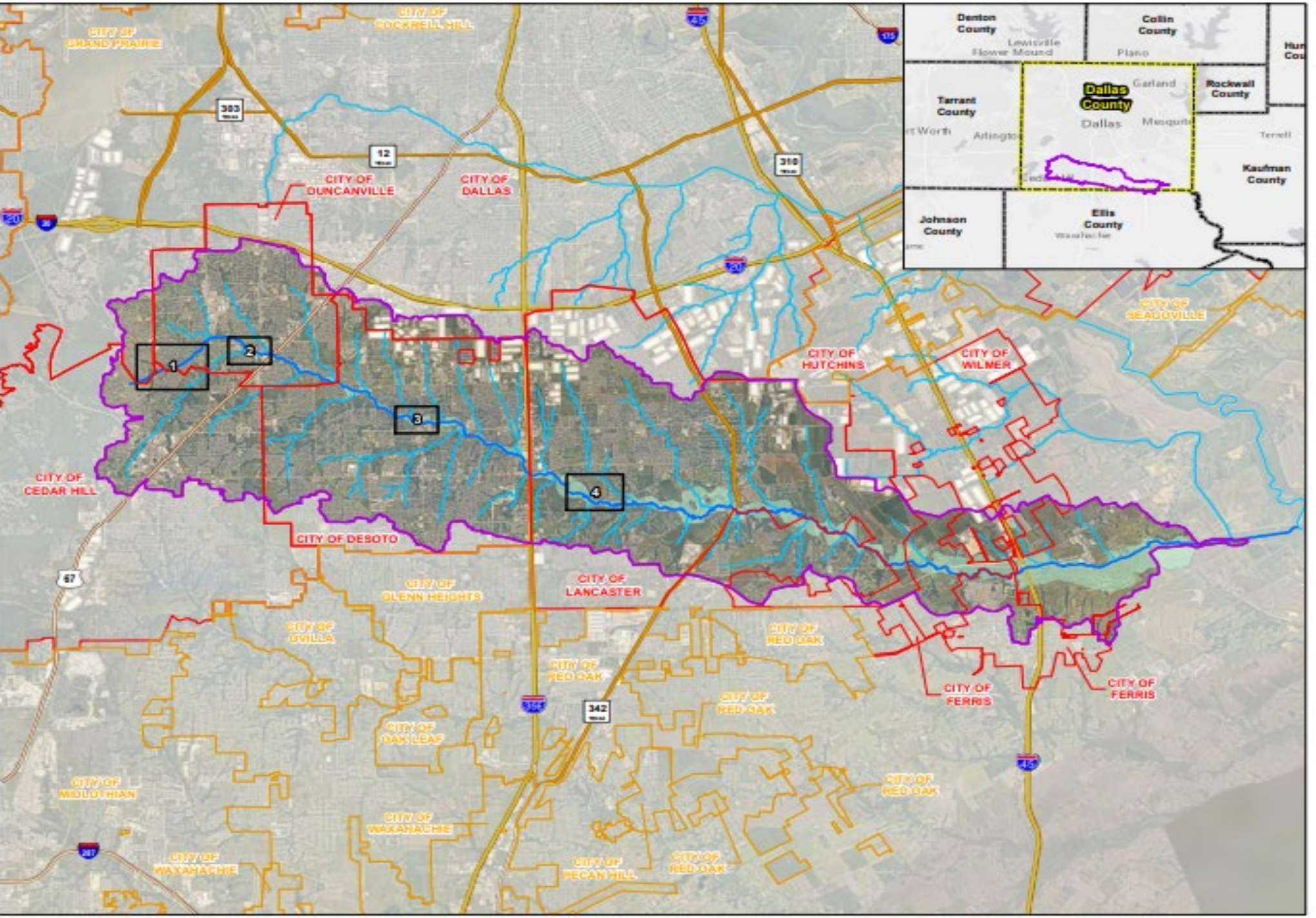
Simpson Stewart Road

- Proposed 10x6 RCB

Impact

- Floodplain Removed - 27 Acs
- Roadway Removed – 1663 LF
- Structures Removed – 6 (1 critical)

- Cost $18.5 Million Dollars



Flood Mitigation Project Workmap Overview

Figure 6.1-7

AVO 42666

DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

APM & Associates, Inc.
Engineering - Planning - GIS Services
TBPE FIRM REGISTRATION NUMBER 3091

halff

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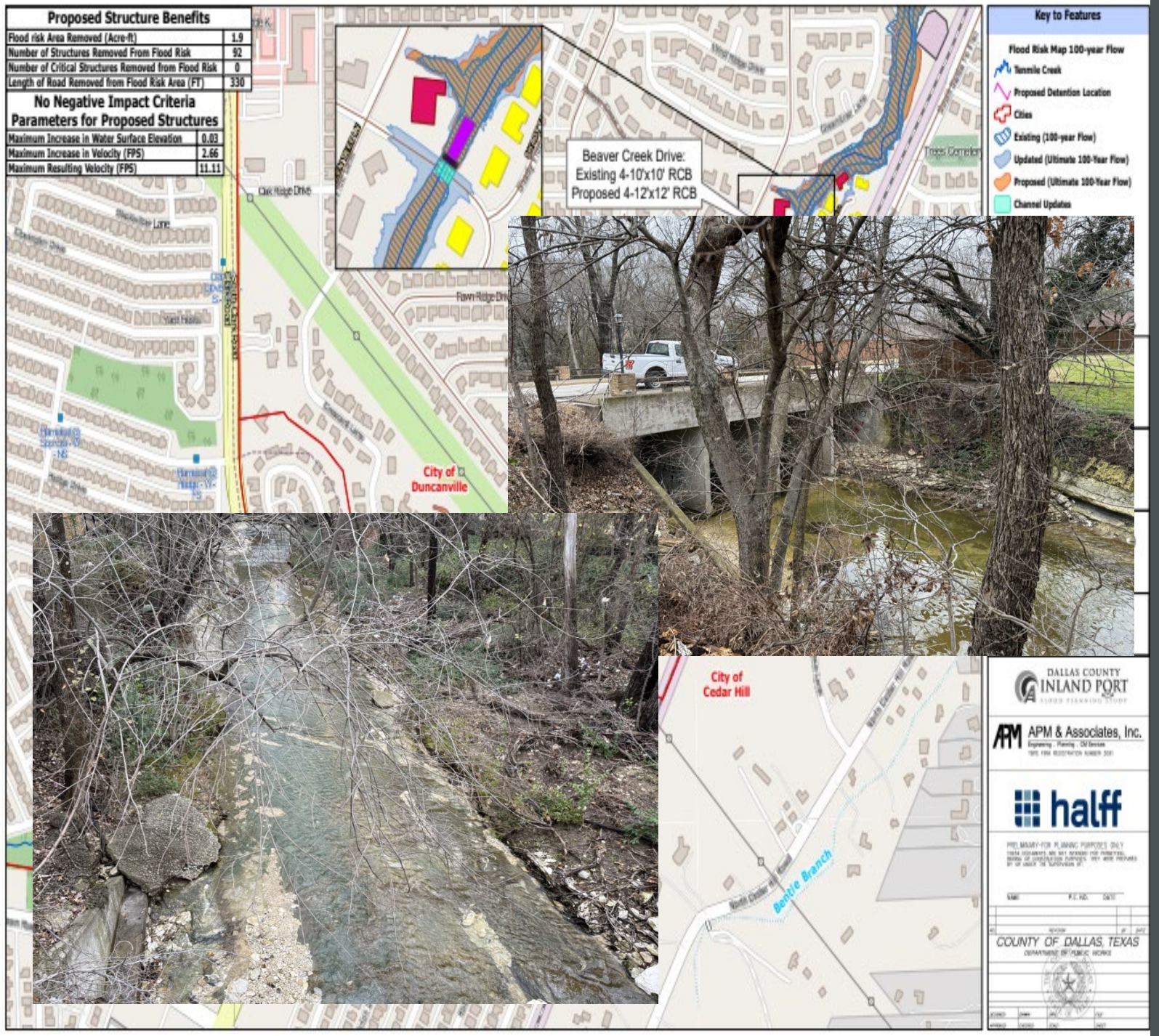
COUNTY OF DALLAS, TEXAS
DEPARTMENT OF PUBLIC WORKS

PROJECT EVALUATIONS



Ten Mile Creek – Project 1

- Bear Creek Drive

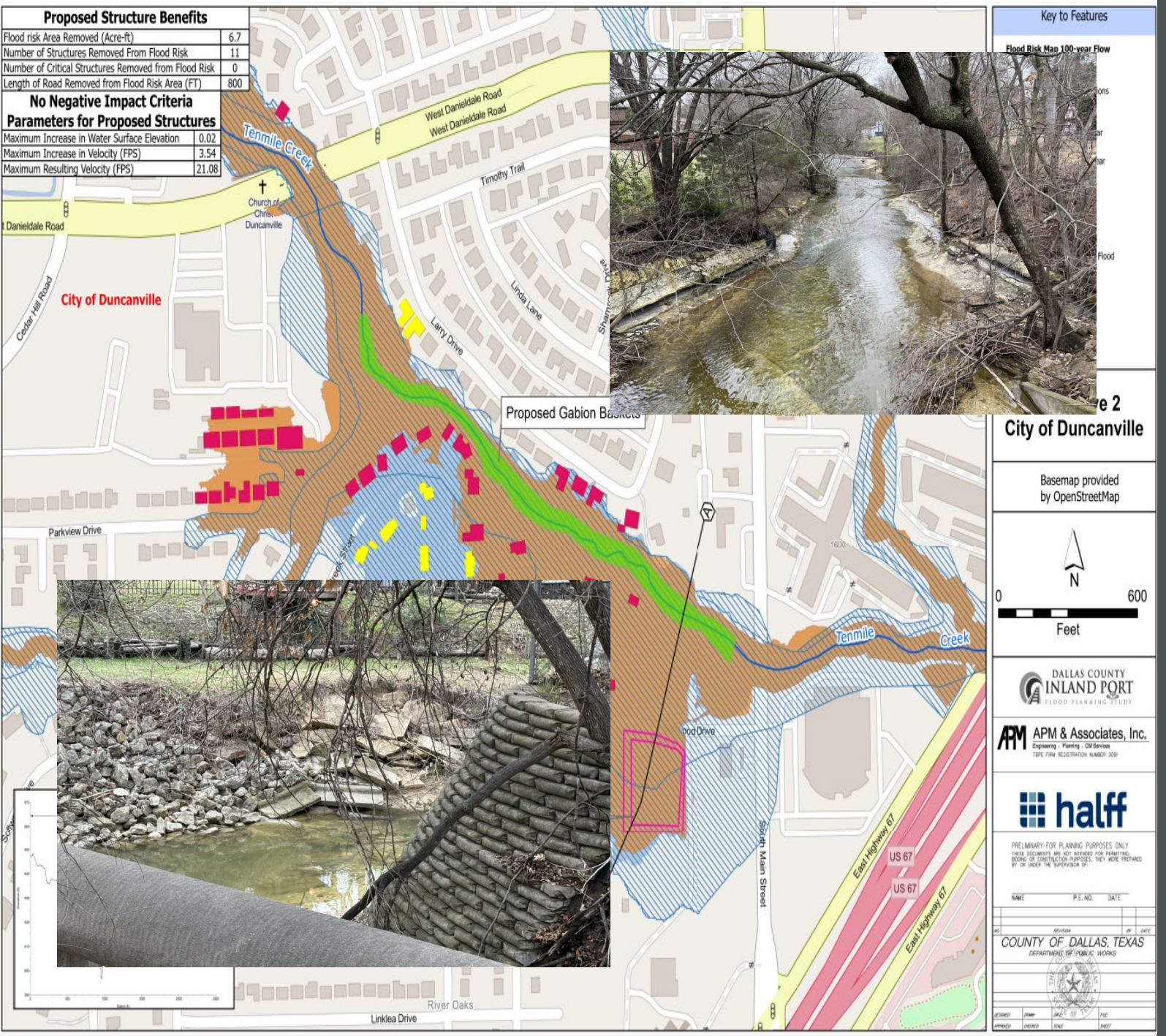
Improvements

- Proposed 4-12'x 12' RCB

Impact

- Floodplain Removed - 1.9 Acs
- Roadway Removed – 330 LF
- Structures Removed – 92

- Cost $11 Million Dollars



PROJECT EVALUATIONS

Ten Mile Creek – Project 2

- City of Duncanville

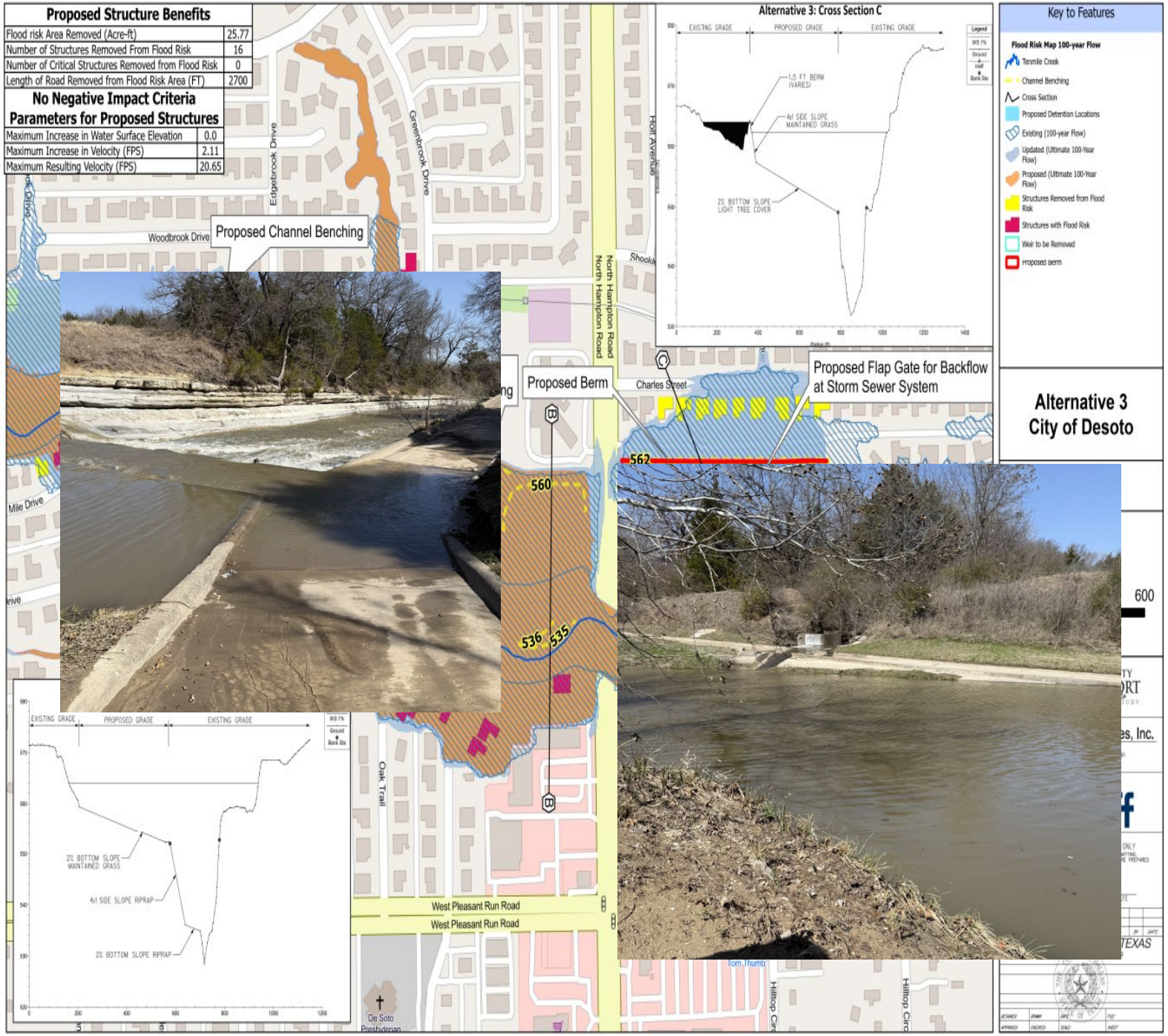
Improvements

- Proposed Gabions/Detention

Impact

- Floodplain Removed - 6.7 Acs
- Roadway Removed – 800 LF
- Structures Removed – 11

- Cost $ 7.6 Million Dollars



PROJECT EVALUATIONS

Ten Mile Creek – Project 3

- Channel Improvements
- City of Desoto

Improvements

- Channel Benching
- Proposed Berm

Impact

- Floodplain Removed - 25.8 Acs
- Roadway Removed – 2700 LF
- Structures Removed – 16

- Cost $ 9.8 Million Dollars

PROJECT EVALUATIONS

Ten Mile Creek – Project 4

- West main Street
- City of Lancaster

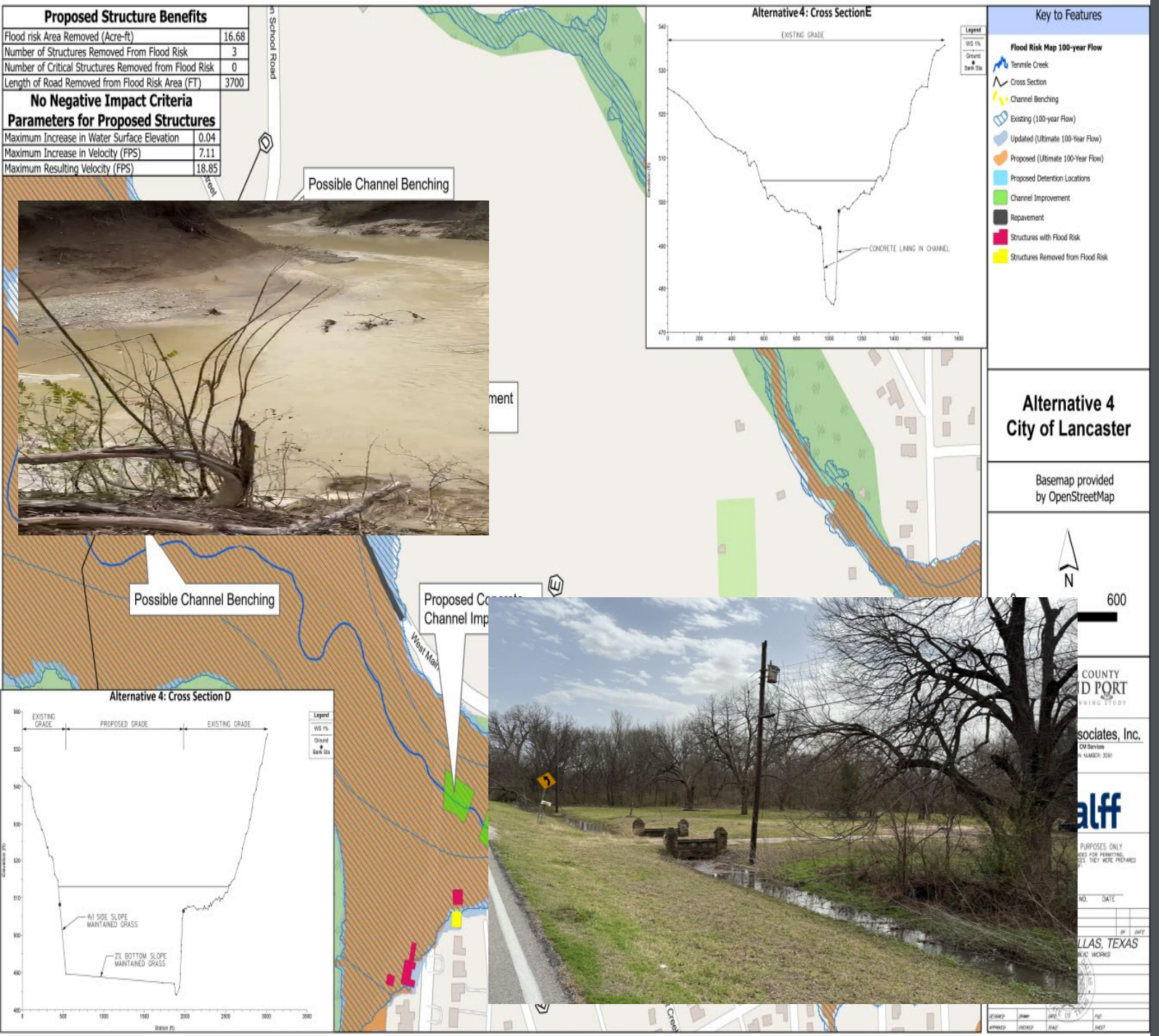
Improvements

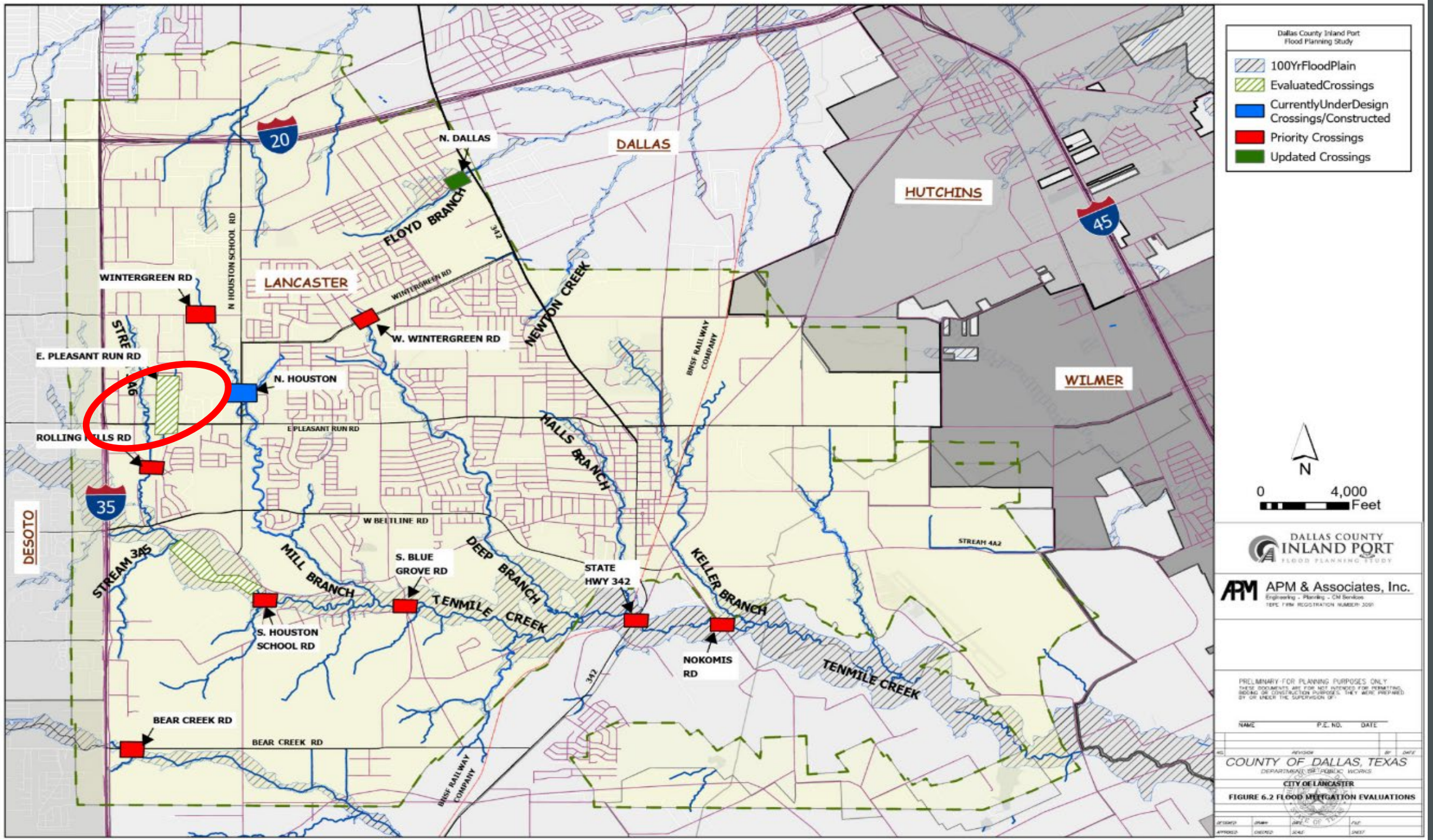
- Channel Improvements
- Road Improvements

Impact

- Floodplain Removed - 16.7 Acs
- Roadway Removed – 3700 LF
- Structures Removed – 3

- Cost $35 Million Dollars




Dallas County Inland Port
Flood Planning Study
100YrFloodPlain
EvaluatedCrossings
CurrentlyUnderDesign
Crossings/Constructed
Priority Crossings
Updated Crossings
DALLAS
HUTCHINS
WILMER
LANCASTER
DESOTO
N. DALLAS
WINTERGREEN RD
W. WINTERGREEN RD
E. PLEASANT RUN RD
N. HOUSTON
ROLLING HILLS RD
W BELTLINE RD
S. BLUE GROVE RD
S. HOUSTON SCHOOL RD
STATE HWY 342
NOKOMIS RD
BEAR CREEK RD
N HOUSTON SCHOOL RD
FLOYD BRANCH
NEWTON CREEK
HALLS BRANCH
MILL BRANCH
DEEP BRANCH
TENMILE CREEK
KELLER BRANCH
STREAM 4A2
STREAM 3A5
BNSF RAILWAY COMPANY
20
35
45
342
N
0
4,000
Feet
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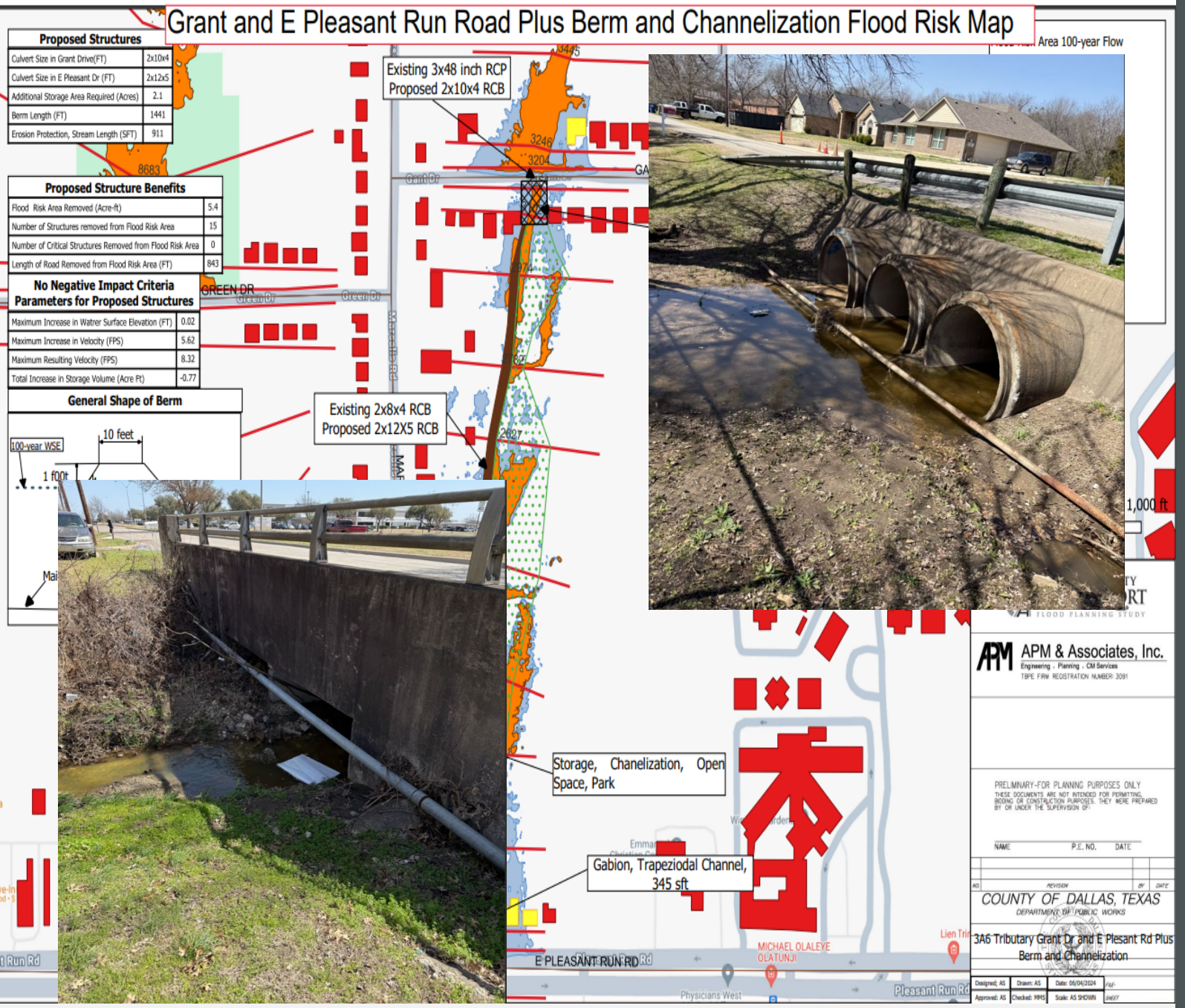
COUNTY OF DALLAS, TEXAS
DEPARTMENT OF PUBLIC WORKS
CITY OF LANCASTER
FIGURE 6.2 FLOOD MITIGATION EVALUATIONS



PROJECT EVALUATIONS

Tributary to Creek 3A6

- Gant Drive
- E. Pleasant Run Road

Improvements

Gant Drive

- Proposed 2-10'x4' RCB

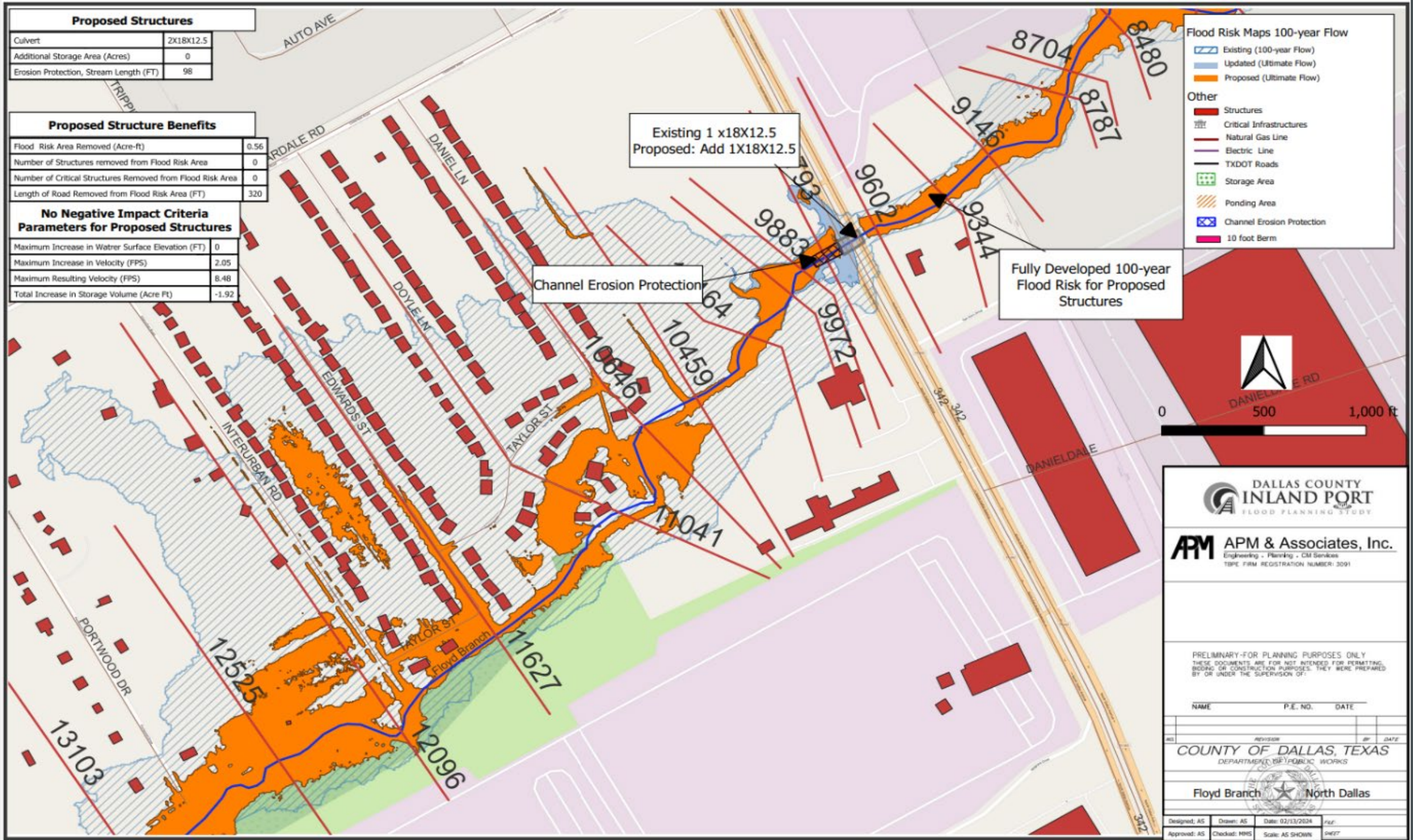
Simpson Stewart Road

- Proposed 2-12'x5' RCB

Impact

- Floodplain Removed - 5.4 Acs
- Roadway Removed – 850 LF
- Structures Removed – 15

- Cost $7 Million Dollars


Proposed Structures
Culvert 2X18X12.5
Additional Storage Area (Acres) 0
Erosion Protection, Stream Length (FT) 98
Proposed Structure Benefits
Flood Risk Area Removed (Acre-ft) 0.56
Number of Structures removed from Flood Risk Area 0
Number of Critical Structures Removed from Flood Risk Area 0
Length of Road Removed from Flood Risk Area (FT) 320
No Negative Impact Criteria Parameters for Proposed Structures
Maximum Increase in Watrer Surface Elevation (FT) 0
Maximum Increase in Velocity (FPS) 2.05
Maximum Resulting Velocity (FPS) 8.48
Total Increase in Storage Volume (Acre Ft) -1.92
Existing 1 x18X12.5
Proposed: Add 1X18X12.5
Channel Erosion Protection
Fully Developed 100-year Flood Risk for Proposed Structures
Flood Risk Maps 100-year Flow
Existing (100-year Flow)
Updated (Ultimate Flow)
Proposed (Ultimate Flow)
Other
Structures
Critical Infrastructures
Natural Gas Line
Electric Line
TXDOT Roads
Storage Area
Ponding Area
Channel Erosion Protection
10 foot Berm
AUTO AVE
DANIEL LN
DOYLE LN
EDWARDS ST
TAYLOR ST
INTERURBAN RD
PORTWOOD DR
Floyd Branch
DANIELDALE
0
500
1,000 ft
DALLAS COUNTY INLAND PORT
FLOOD PLANNING STUDY
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COUNTY OF DALLAS, TEXAS
DEPARTMENT OF PUBLIC WORKS
Floyd Branch North Dallas
Designed: AS Drawn: AS Date: 02/13/2024
Approved: AS Checked: MMS Scale: AS SHOWN
SHEET

Cottonwood Creek Divide

- Approximately 33.5 square miles

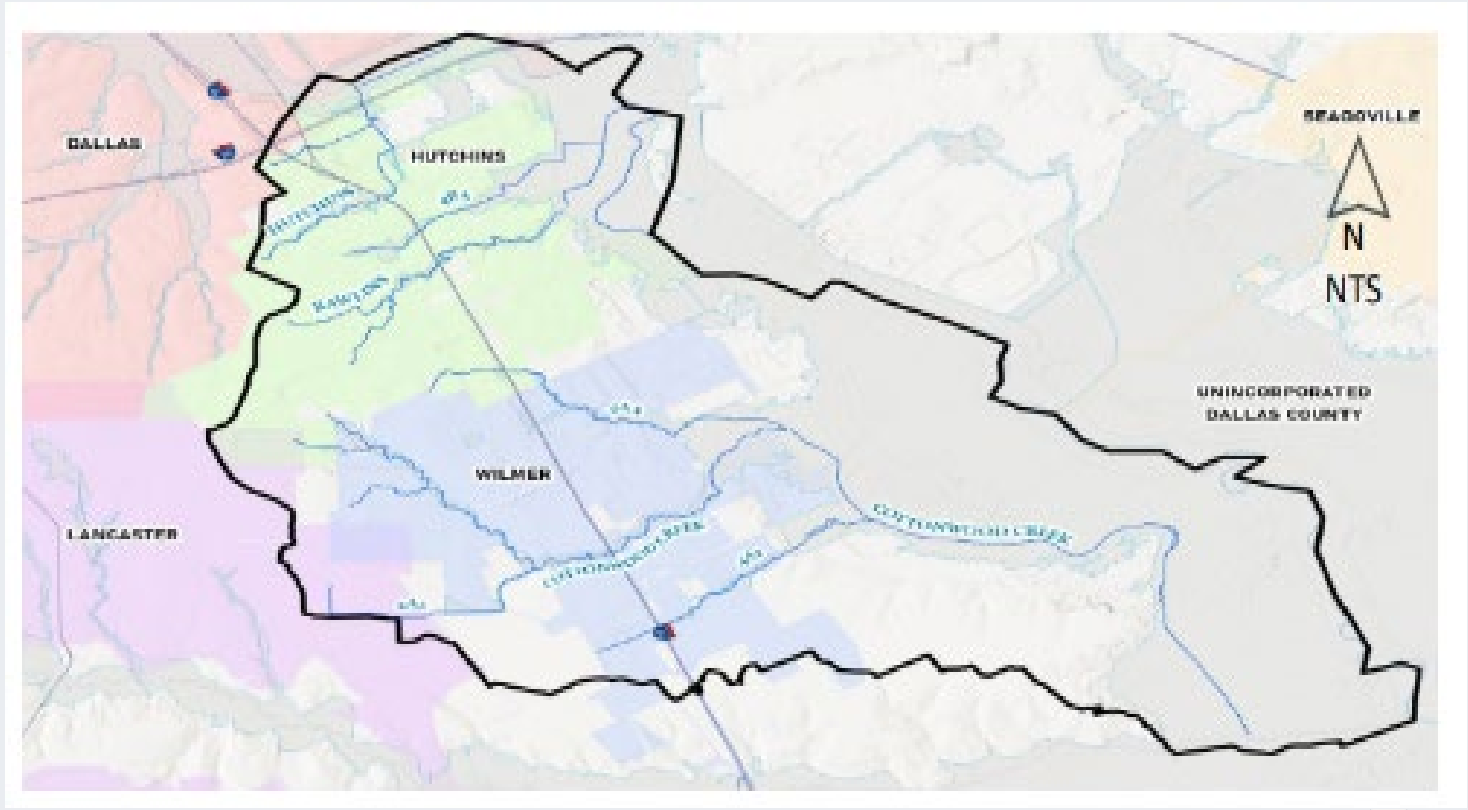
Cottonwood Creek
Area: 23.94 square miles
Length: 44.3 miles

Rawlins Creek
Area: 2.14 square miles
Length : 6.2 miles

Hutchins Creek
Area: 2.3 square miles
Length : 2.7 miles

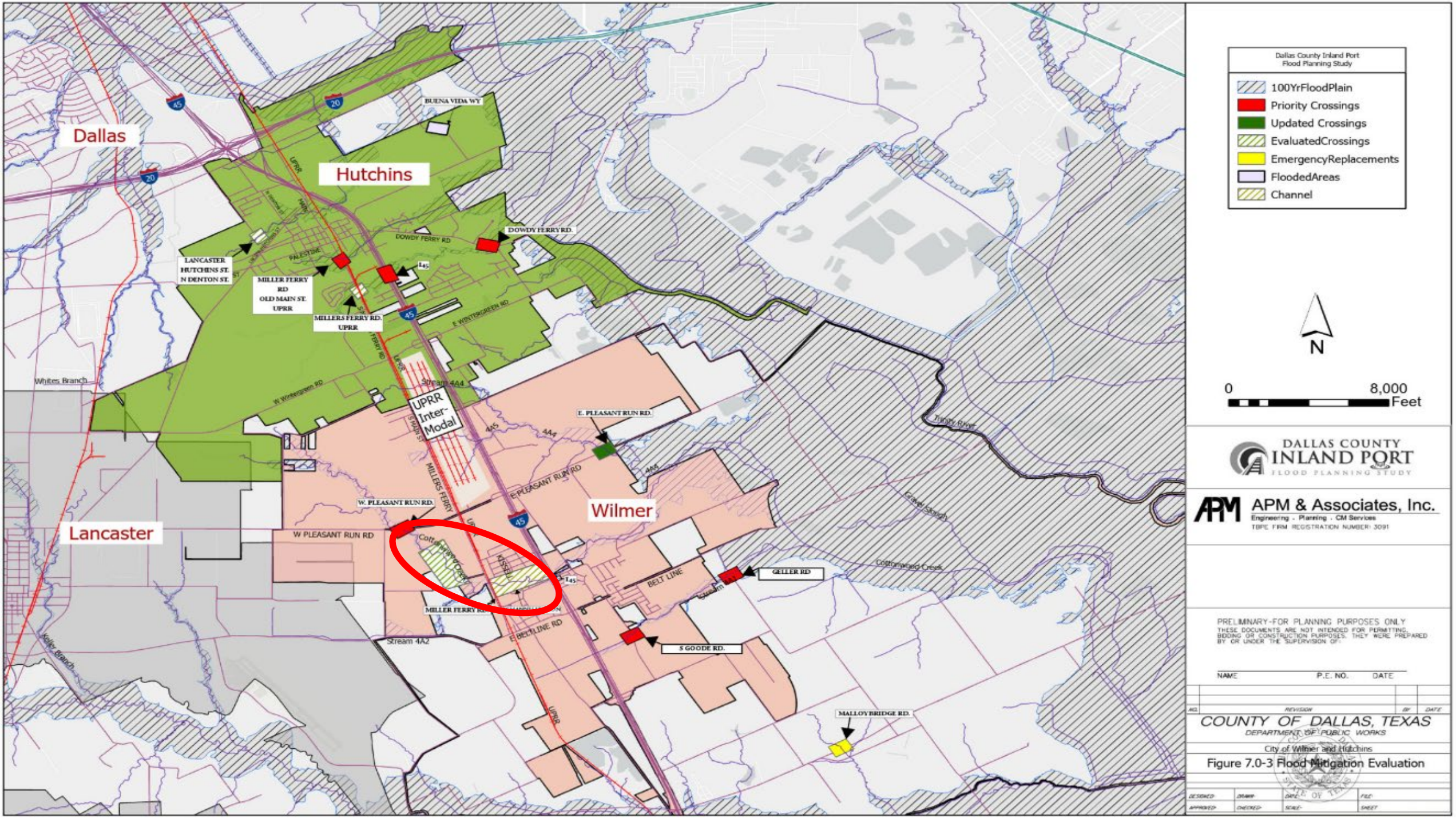
4-B-4 Creek
Area: 0.8 square miles
Length : 1.5 miles

	Cottonwood Creek	
Creek Names	**Length of Creek (Miles)**	**Drainage Area (sqMile)**
Cottonwood Creek	13.3	23.94
Rawlins Creek	6.2	2.14
Stream 4B4	1.5	0.8
Hutchins Creek	2.7	2.3
stream 4A1	2.5	2.8
Stream 4A2	2.3	1.4



DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

THE COUNTY OF DALLAS STATE OF TEXAS


Dallas County Inland Port
Flood Planning Study
100YrFloodPlain
Priority Crossings
Updated Crossings
EvaluatedCrossings
EmergencyReplacements
FloodedAreas
Channel
Dallas
Hutchins
Lancaster
Wilmer
BUENA VIDA WY
DOWDY FERRY RD.
LANCASTER HUTCHINS ST. N DENTON ST.
MILLER FERRY RD OLD MAIN ST. UPRR
MILLERS FERRY RD. UPRR
E. WINTERGREEN RD
W Wintergreen Rd
Whites Branch
Stream 4A4
UPRR Inter-Modal
E. PLEASANT RUN RD.
E PLEASANT RUN RD
W. PLEASANT RUN RD.
W PLEASANT RUN RD
Cottonwood Creek
Stream 4A2
Walker Branch
Trinity River
Gravel Slough
BELT LINE
GELLER RD
S GOODE RD.
E BELTLINE RD
MALLOY BRIDGE RD.
N
0
8,000
Feet
DALLAS COUNTY INLAND PORT
FLOOD PLANNING STUDY
APM & Associates, Inc.
Engineering . Planning . CM Services
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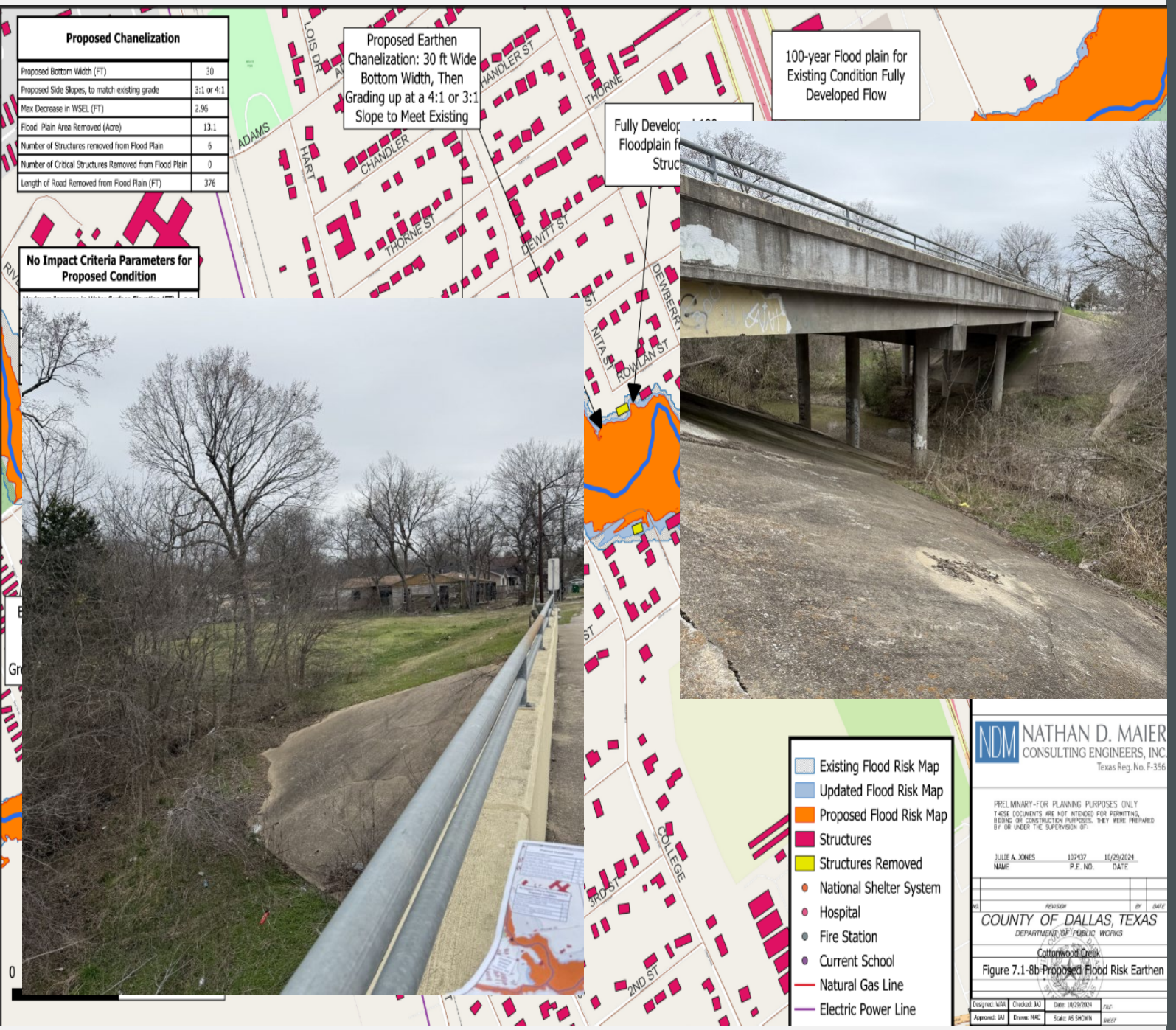
REVISION
BY
DATE
COUNTY OF DALLAS, TEXAS
DEPARTMENT OF PUBLIC WORKS
City of Wilmer and Hutchins
Figure 7.0-3 Flood Mitigation Evaluation
DESIGNED
DRAWN
DATE
FILE
APPROVED
CHECKED
SCALE
SHEET

COTTONWOOD CREEK



Cottonwood Creek Analysis

- Channel between
  - UPRR
  - IH45

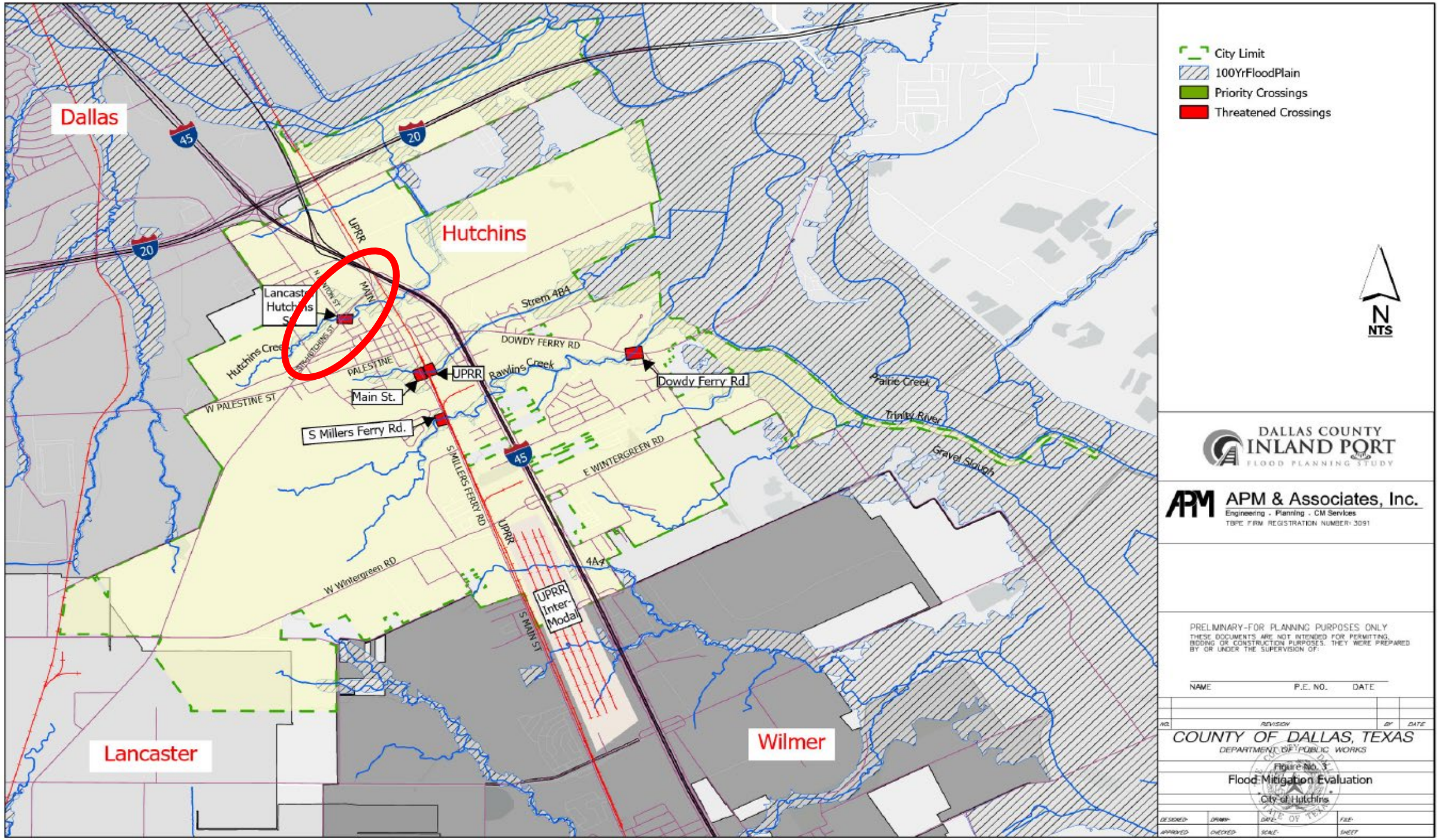
Improvements

30' Wide channel

Impact

- Floodplain Removed - 13.3 Acs
- Roadway Removed – 400 LF
- Structures Removed – 6

Cost $ 18.5 Million Dollars


Dallas
Hutchins
Lancaster
Wilmer
45
20
UPRR
MAIN
Strem 484
DOWDY FERRY RD
PALESTINE
Main St.
UPRR
Rawlins Creek
Dowdy Ferry Rd.
W PALESTINE ST
S Millers Ferry Rd.
S MILLERS FERRY RD
E WINTERGREEN RD
Prairie Creek
Trinity River
Gravel Slough
W Wintergreen RD
UPRR Inter-Modal
S MAIN ST
City Limit
100YrFloodPlain
Priority Crossings
Threatened Crossings
N
NTS
DALLAS COUNTY
INLAND PORT
FLOOD PLANNING STUDY
APM & Associates, Inc.
Engineering . Planning . CM Services
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NAME
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NO.
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BY
DATE
COUNTY OF DALLAS, TEXAS
DEPARTMENT OF PUBLIC WORKS
Figure No. 3
Flood Mitigation Evaluation
City of Hutchins
DESIGNED
DRAWN
DATE
FILE
APPROVED
CHECKED
SCALE
SHEET

HUTCHINS CREEK

Hutchins Creek Analysis

- Denton Road
- Lancaster-Hutchins Road

Improvements

Denton Road

- 75’ Bridge

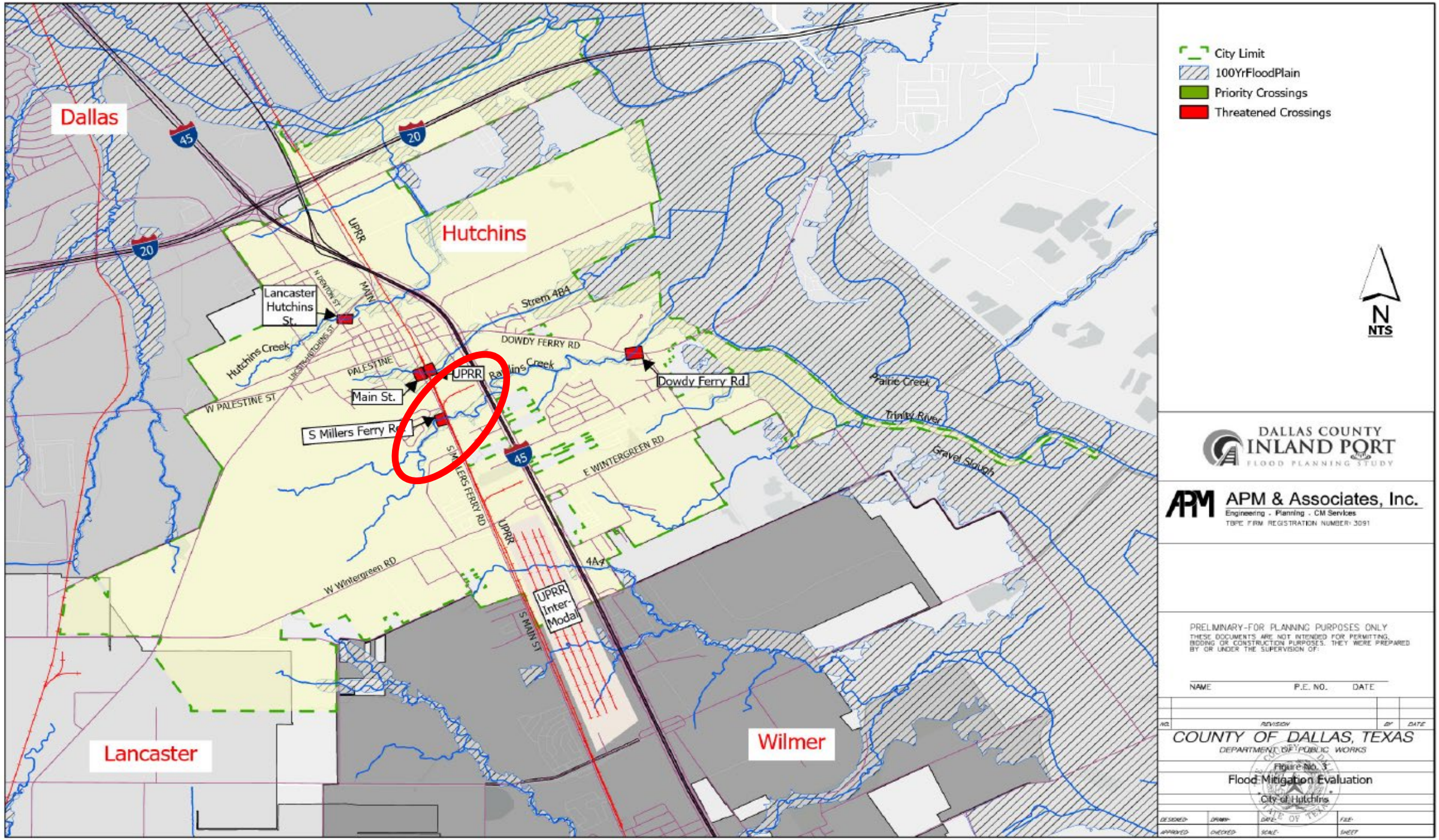
Lancaster-Hutchins Rd

- 57’ Bridge

Impact

- Floodplain Removed - 23.5 Acs
- Roadway Removed – 2100 LF
- Structures Removed – 9

Cost $7 Million Dollars


City Limit
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Gravel Slough
DOWDY FERRY RD
PALESTINE
W PALESTINE ST
E WINTERGREEN RD
W Wintergreen RD
S MILLERS FERRY RD
S MAIN ST
MAIN
N DENTON ST
LINCOLN/HUTCHINS ST
45
20
4A7
DALLAS COUNTY
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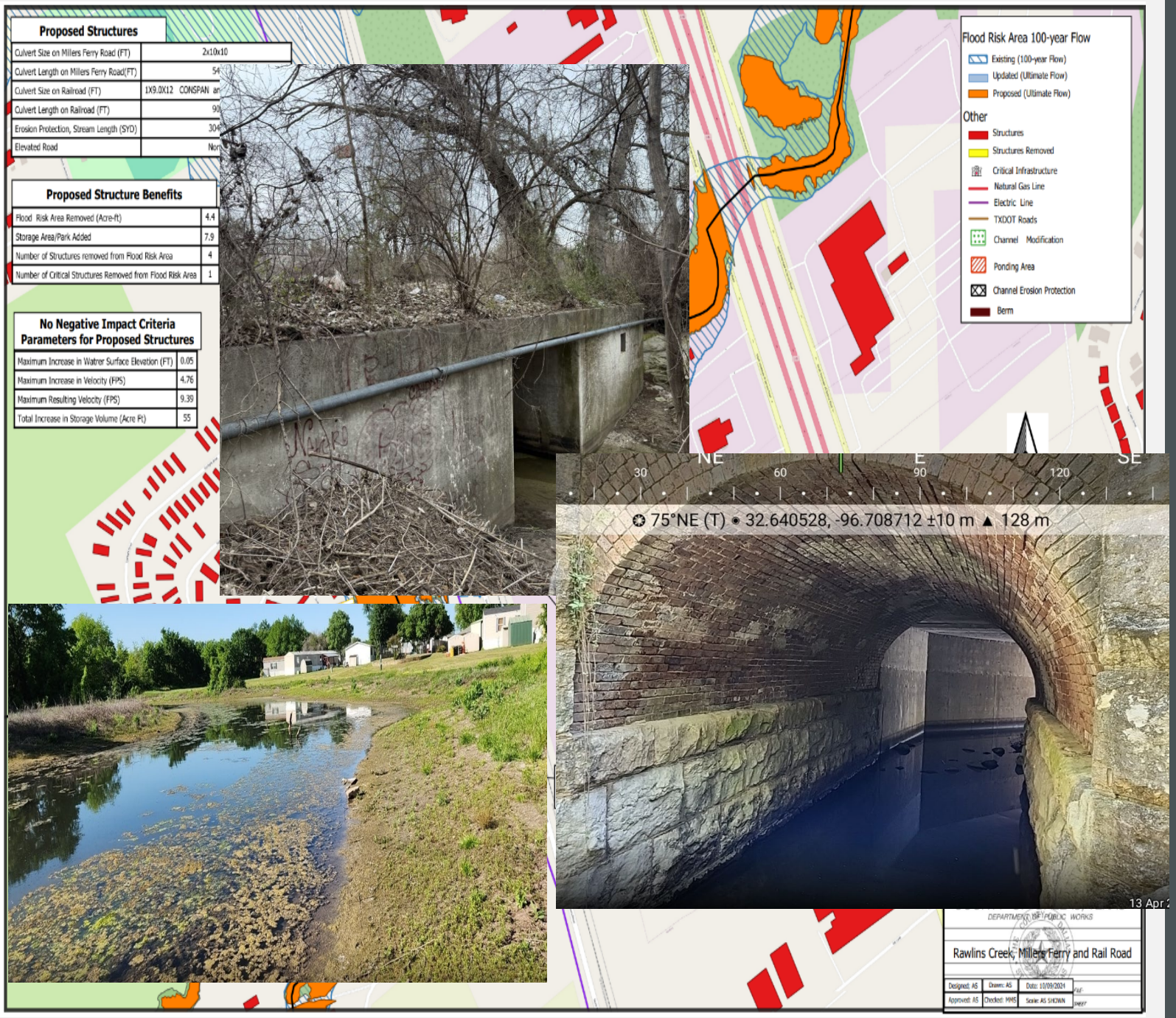
RAWLINS CREEK



Rawlins Creek Analysis

- Millers Ferry Road
- Union Pacific Railroad

Improvements

Millers Ferry Road

- Proposed 2-10'x10' RCB

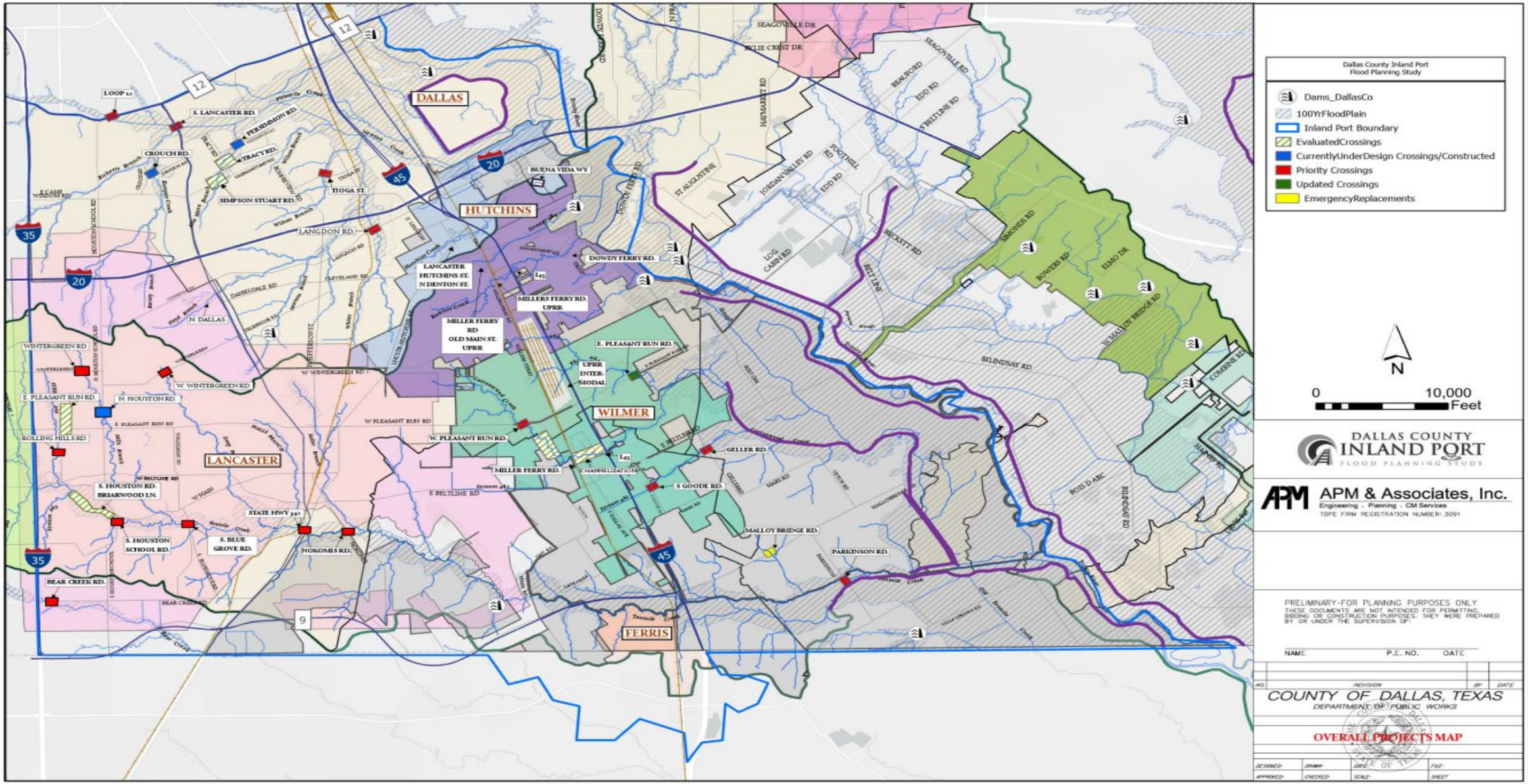
Union Pacific Railroad

- 72" Steel Pipe

Impact

- Floodplain Removed - 4.4 Acs
- Roadway Removed – 800 LF
- Structures Removed – 4- 1 critical

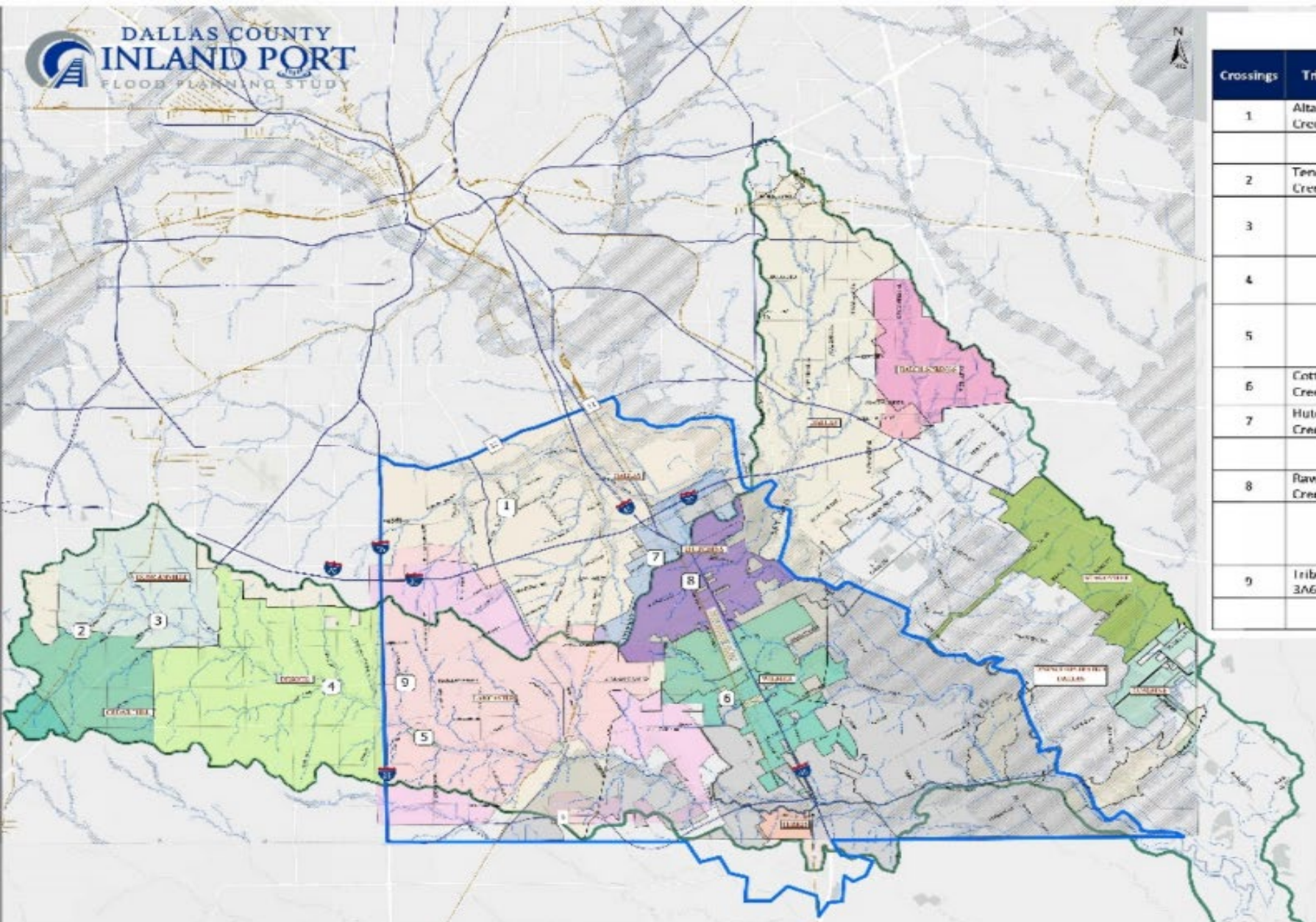
Cost $8 Million Dollars



DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

THE COUNTY OF DALLAS STATE OF TEXAS

DALLAS COUNTY
INLAND PORT
FLOOD PLANNING STUDY



Texas Water Development Board

Table – Crossings Evaluated for FMP

Crossings	Tributary	City	Location/Crossing	Exist. System	Proposed Improvements	OPCC
1	Alta Mesa Creek	Dallas	Tracy Road	4- 45" RCP	60' Bridge	$18.1M
			Simpson Stuart Road	2 10'x6' RCB	Add 1 10'x6' RCB	
2	Tenmile Creek	Cedar Hill	Beaver Creek Drive	4-10'x10' RCB	4-12'x12' RCB	$9.7M
3		Duncanville	Channel Improvements Cedar Creek Drive	Existing Earthen Channel	Detention & Erosion Control	$6.8M
4		Desoto	Linie Roberts Park	Weir, Earthen Channel	Remove Weir, Benching, Berm	$9.1M
5		Lancaster	Main Street	Earthen Channel	Benching, Road, Concrete Channel	$34.5M
6	Cottonwood Creek	Wilmer	Creek Channelization	Concrete Channel	Widen Creek (30')	$10.0M
7	Hutchins Creek	Hutchins	Lancaster-Hutchins Street	3-5'x4' RCB	57' Bridge	$7.1M
			N. Denton Drive	1 48" RCP	75' Bridge	
8	Rawlins Creek	Hutchins	S. Millers Ferry Road	1- 10'x6' RCBs	Add 1- 10'x6' RCB	$8.2M
			Union Pacific Railroad	9'x12' Arched Brick Structure	Add 1-72" Steel Pipe	
9	Tributary 3A6	Lancaster	E. Pleasant Run Road	2-8'x4' RCB	Add 1-8'x4' RCB	$7M
			Gant Drive	3-48" RCP	Replace with 2-10'x4' RCB	

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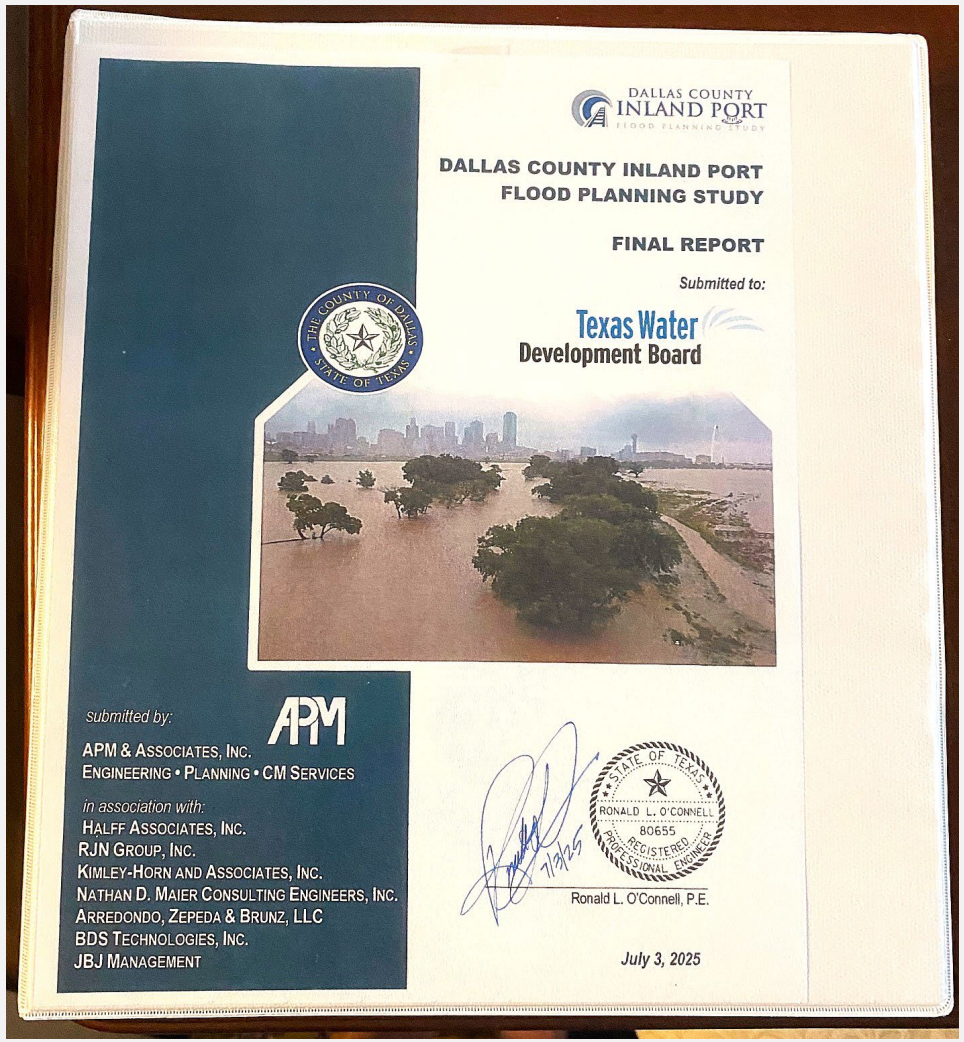
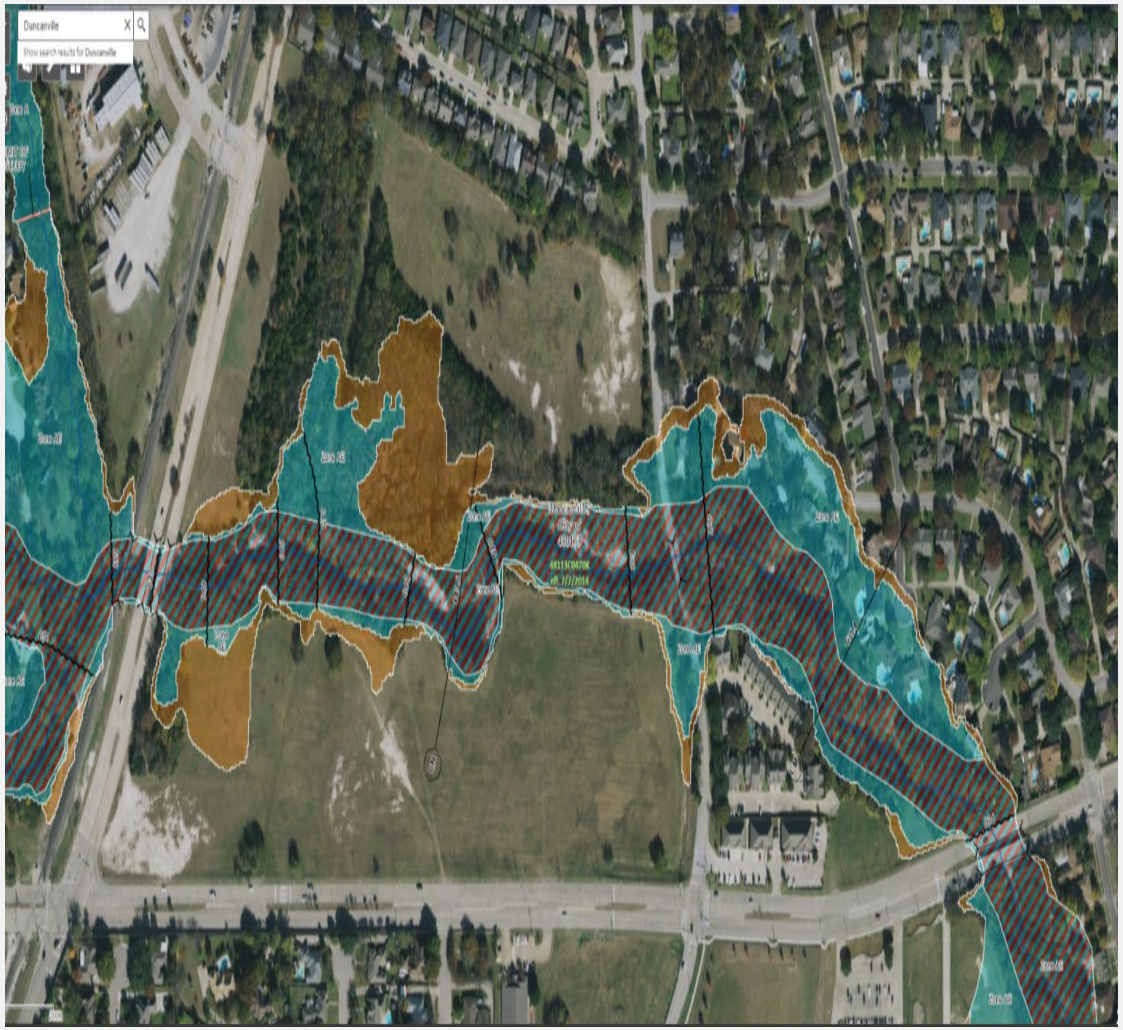
PROJECT CHALLENGES



Rocks in the Road:

1. Fast Paced Growth
2. Local Regulations vs. County/State
3. A System that is overwhelmed
4. Antiquated Infrastructure
5. Competing Objectives
6. Storm Water Detention
7. Managing Stakeholder Expectations
8. No Impact Requirements
9. Benefit Cost Ratio

DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY



SUSTAINABLE SOLUTIONS

Possible Approaches:

1. Storm Water Detention
2. Eco-Friendly Erosion Protection
3. Construct Grass Berms
4. Use of Planting for Channel Improvements
5. Wet Lands

Hutchins Creek

The following assumptions were made in the Benefit Cost Analysis:

- *Project Useful Life:* The project useful life was 30 years, which is consistent with the standard design life for a municipal roadway.
- *Initial Project Cost:* The total estimated project cost is $7,100,000.
- *Annual Maintenance Cost:* Maintenance of the roadway embankments and culverts were estimated to be 5% of the project cost in existing conditions and 1% of the project cost in proposed conditions.
- *Total Mitigation Project Cost:* The initial project cost and present value of 30 years of annual maintenance costs results in a total mitigation project cost of $4,100,000.
- *Flood Hazard Data:* The 100-year water surface elevations were taken from the RASMapper depth results to determine the length of roadway flooded more than 6 inches. The duration was found by evaluating the capacity of the existing crossings and using the hydrograph produced by HEC-HMS to determine the length of time with flows greater than the capacity. The duration for the 100-year event was 4.92 hours.
- *Daily Traffic:* The TXDOT 2023 Traffic Count for Lancaster-Hutchins Street is an Annual Average Daily Traffic of 2563 vehicles.
- *Length of Detour:* When the crossing is closed traffic must detour around to I-45, a distance of 0.8 miles that takes roughly 8 minutes.
- *Emergency Medical Services Impact:* EMS response time in existing conditions is estimated 7 minutes. In proposed conditions, this would decrease to 2 minutes. There are 501 households and 7 commercial structures impacted by EMS delay.
- *Residential Structures:* Baseline flood depth was calculated from the difference in the effective 100-year water surface elevation and the ground elevation near the building.
- *Commercial Structures:* Structure value was obtained from 2024 Dallas Central Appraisal District improvement value. Baseline flood depth was calculated from the difference in the effective 100-year water surface elevation and the ground elevation near the building.
- *Before-Mitigation Damage:* TWDB's BCA Input spreadsheet was used to calculate event damages of $1,349,173 for the 100-year event.
- *After-Mitigation Damage:* TWDB's BCA Input spreadsheet was used to calculate event damages of $15,276 for the 100-year event.
- *Total Standard Mitigation Benefits:* FEMA's BCA Tool Version 6.0 was used to calculate a total Standard Mitigation Benefit of $257,735.
- *Standard Benefit Cost Ratio:* 0.13 (actual BC Ratio is higher due to other storm events)

BENEFIT COST ANALYSIS

Extensive:

1. TWDB Provided Software
2. FEMA BCA Tool Version 6.0
3. Items needed
    1. Traffic Counts
    2. Emergency Response times w/wo improvements
    3. Cost of Flooded infrastructure
    4. Maintenance (both Pre/Post)
4. Land Acquisition Costs!
5. Was Difficult to get a (1).

JUST THE FACTS

- 3 Counties (Dallas, Ellis. Kaufman)
- 12 Cities & Unincorporated Dallas County
- 240 Sq. Miles
- 30 Creeks Modeled
- 35 Crossings Evaluated
- 4 Hydraulic Firms working for 3 years =
- About 10 years' worth of work completed
- 9 Curated Projects in State Flood Plan
- Over $100 Million worth of Work

DALLAS COUNTY
INLAND PORT
FLOOD PLANNING STUDY

THE COUNTY OF DALLAS
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THANKS FOR YOUR TIME!

DALLAS COUNTY INLAND PORT FLOOD PLANNING STUDY

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