BEGIN PROJECT
STA 281+13.78

END PROJECT
STA 547+34.03

Texas Department of Transportation
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Binkley & Barfield
DCCM
Binkley & Barfield, Inc. | Kimley-Horn
1770 Bunker Hill, Houston, TX 77043
TBPE FIRM NO. F-10096 | TBPLS FIRM NO. 10194

TEXAS DEPARTMENT OF TRANSPORTATION
PRELIMINARY PLAN & SCHEMATIC
FM 521
FORT BEND COUNTY

LIMITS: FROM: LA PORTE ST.
TO: FM 521 (MAIN ST)
LENGTH: 4.6 MILES

OFFICE OF DISTRICT ENGINEER
HOUSTON DISTRICT

DESIGN SPEED: 45 MPH

Functional Classification: Urban Arterial

Chapter 5, Section 3 Multi-Lane Rural Highways

Superelevation Rate: Trans + 6%

9/27/2022

AVERAGE DAILY TRAFFIC VOLUMES

2044 2011-03-044

FM 521

2022	2042	2044
21,000	27,000	28,000

SCHEMATIC LAYOUT
PRELIMINARY - SUBJECT TO CHANGE

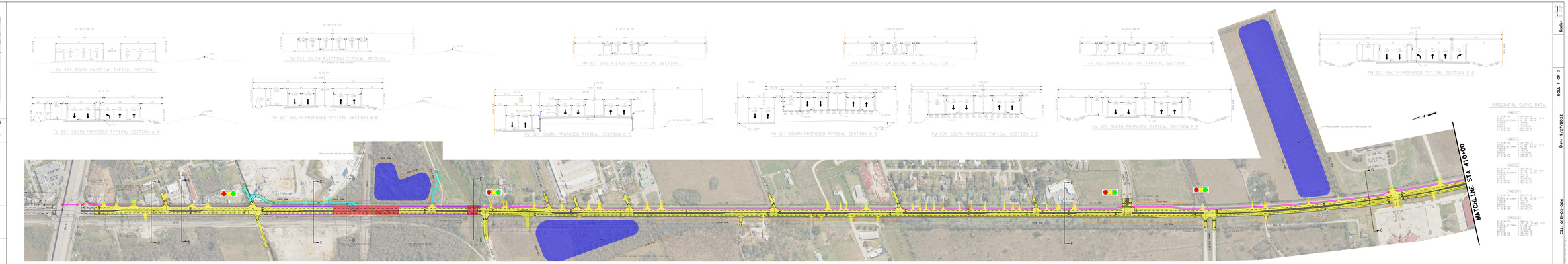
These documents are not intended for construction, bidding, or permit purposes. They were prepared by, or under the supervision of:

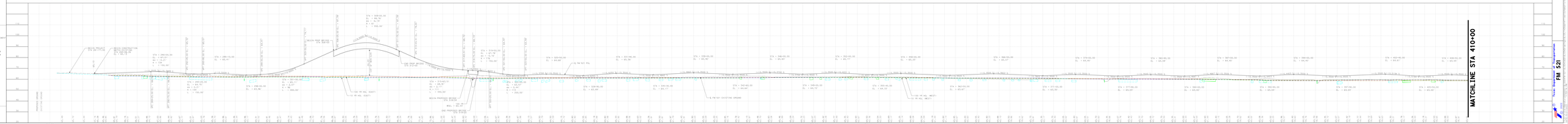
Benjamin Hart, PE — PE #120774 — 9/27/2022 Date

LEGEND

CLEO
MAIN LANE CONCRETE PAVEMENT
ACCESS ROAD CONCRETE PAVEMENT
ASPHALT PAVEMENT
BRIDGE
RAILROAD CROSSING
CONCRETE PAVEMENT
CURB RAMP
DETENTION POND
FACE OF CURB/PERIMETER OF CURB
PROPOSED ROW
EXISTING ROW
MISCELLANEOUS
EXISTING GROUND
EXCAVATION
EXCAVATION
EXISTING GROUND @ POL
100 YEAR HYDRAULIC GRADE LINE (WEST)
10 YEAR HYDRAULIC GRADE LINE (WEST)
100 YEAR HYDRAULIC GRADE LINE (EAST)
10 YEAR HYDRAULIC GRADE LINE (EAST)
EXISTING CULVERTS (WEST)
EXISTING CULVERTS (EAST)
TEMPORARY CONSTRUCTION EASEMENT
RETAINING WALL
SIGN
TRAFFIC SIGNAL
PROPOSED TRAFFIC FLOW ARROW
EXISTING TRAFFIC FLOW ARROW

NOTES:
1. ALL DIMENSIONS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD 83 (2011) ADJUSTMENT, UNITED STATES FEET, GRID DISTANCE, SURFACE DISTANCE, COMBINED SCALE FACTOR OF 0.9999613.





FM 521

Texas Department of Transportation

Date: 9/27/2022

ROLL 1 OF 3

CSJ: 0011-03-044

Scale:

SHEET 2 OF 3

Scale:

Date: 9/27/2022

CSJ: 0011-03-064

BEGIN PROJECT
STA 281+13.78

END PROJECT
STA 547+54.03

Texas Department of Transportation

Binkley & Barfield

DCCM

Binkley & Barfield, Inc. | Texas Registered Firm F-10962
1770 Bunker Hill, Houston, TX 77043
713-935-9511 www.binkleybarfield.com

TEXAS DEPARTMENT OF TRANSPORTATION
PRELIMINARY PLAN VIEW SCHEMATIC
FM 521
FORT BEND COUNTY

LIMITS: FROM 1.0 MI TO FM 1092

CSJ No. 0011-03-064
FM 521 FROM 1.0 MI TO FM 1092
LENGTH: 4.8 MILE

OFFICE OF DISTRICT ENGINEER
HOUSTON DISTRICT

DESIGN SPEED: 45 MPH

Functional Classification: Minor Arterial

Chapter 5, Section 3 Multi-Lane Rural Highways

Superelevation Rate: Tangent = 0%

9/27/2022

AVERAGE DAILY TRAFFIC VOLUMES

Year 2011-03-064
FM 521

YEAR	ADT	DHV	%TRUCKS
2019	27,000	2,700	4%
2045	47,000	4,700	4%

SCHEMATIC LAYOUT
PRELIMINARY - SUBJECT TO CHANGE

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Benjamin Hart, PE — PE #120774 — 9/27/2022 Date

LEGEND

CLEAR
- MAIN LINE CONCRETE PAVEMENT
- ACCESS ROAD CONCRETE PAVEMENT
- MAIN LINE TRANSITION
- BRIDGE
- RAILROAD CROSSING
- CONCRETE DRIVE
- CLEAR ZONE
- RETENTION POND
- TOP OF BANK/TOE OF SLOPE
- PROPOSED ROW
- EXISTING ROW

VEGETATION
- EXISTING TREE
- EXIST GROUND @ PGL
- 100 YEAR HYDRAULIC GRADE LINE (WEST)
- 50 YEAR HYDRAULIC GRADE LINE (WEST)
- 10 YEAR HYDRAULIC GRADE LINE (WEST)
- 10 YEAR HYDRAULIC GRADE LINE (EAST)
- EXISTING CULVERTS (WEST)
- EXISTING CULVERTS (EAST)

- TEMPORARY CONSTRUCTION EASEMENT
- RETAINING WALL
- TRAFFIC SIGN
- TRAFFIC SIGNAL
- PROPOSED TRAFFIC FLOW ARROW
- EXISTING TRAFFIC FLOW ARROW

NOTES:
1. ALL DIMENSIONS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD 83 (2011) (EPOCH 2010) UNITED STATES FEET, ADJUSTMENT REALIZATION OF TCORS(11).
2. ALL DIMENSIONS ARE HORIZONTAL.

FM 521

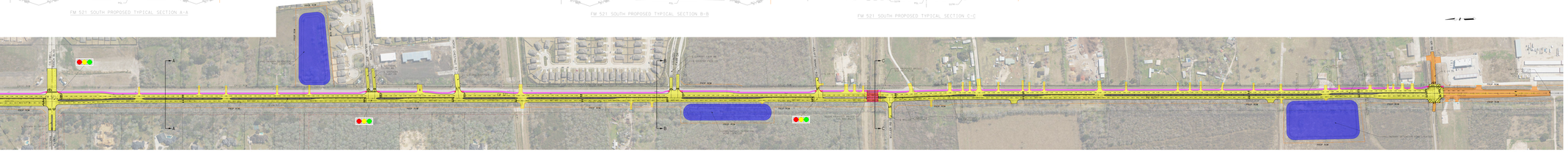
HORIZONTAL CURVE DATA

CURVE #1
PI STATION = 287+58.34
DELTA = 0°-18'-16.83" (LT)
DEGREE OF CURVE = 0°-30'-00"
PT STATION = 289+56.79
DC LENGTH = 197.46 ft
DC STATION = 287+60.61

CURVE #2
PI STATION = 293+96.74
DELTA = 0°-18'-16.83" (RT)
DEGREE OF CURVE = 0°-30'-00"
PT STATION = 295+94.19
DC LENGTH = 197.46 ft
DC STATION = 293+98.01

CURVE #3
PI STATION = 299+35.14
DELTA = 0°-18'-16.83" (RT)
DEGREE OF CURVE = 0°-30'-00"
PT STATION = 301+32.59
DC LENGTH = 197.46 ft
DC STATION = 299+36.41

CURVE #4
PI STATION = 304+73.54
DELTA = 0°-18'-16.83" (RT)
DEGREE OF CURVE = 0°-30'-00"
PT STATION = 306+70.99
DC LENGTH = 197.46 ft
DC STATION = 304+74.81

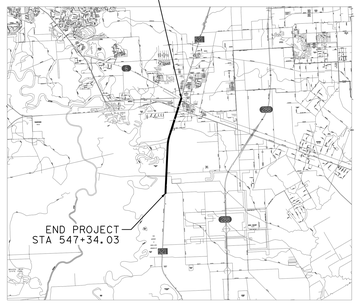

FM 521 SOUTH EXISTING TYPICAL SECTION
FM 521 SOUTH EXISTING TYPICAL SECTION
FM 521 SOUTH EXISTING TYPICAL SECTION
FM 521 SOUTH PROPOSED TYPICAL SECTION A-A
FM 521 SOUTH PROPOSED TYPICAL SECTION B-B
FM 521 SOUTH PROPOSED TYPICAL SECTION C-C
MATCHLINE STA 410+00
FM 521
FM ROW
PROP ROW
PROP ROW
PROP

ROLL 3 OF 3

Scale: 0"=5'-10"

Date: 9/27/2022

CSJ: 0111-03-064



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Binkley & Barfield
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1710 Seamist Dr. Houston, TX 77008
713.869.3433 | BinkleyBarfield.com

TEXAS DEPARTMENT OF TRANSPORTATION
PRELIMINARY DESIGN SCHEMATIC
FM 521
FORT BEND COUNTY

LIMITS: FROM CR 56 TO SH 6

C-S-J-: 0111-03-064
FED. AID PROJECT NO.:
LENGTH: 4.8 MILES

OFFICE OF DISTRICT ENGINEER
HOUSTON DISTRICT

DESIGN SPEED: 45 MPH

Functional Classification: Urban Arterial

Superelevation Rate e_{max} = 6%

Chapter 3, Section 5 Multi-Lane Rural Highways

9/27/2022

AVERAGE DAILY TRAFFIC VOLUMES

CSJ: 0111-03-064

FM 521

EXIST	OPENING	DESIGN
2020	2024	2044
19,215	23,356	48,785

SCHEMATIC LAYOUT
PRELIMINARY - SUBJECT TO CHANGE

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Benjamin Hart, PE **PE #107376** **9/27/2022 Date**

LEGEND

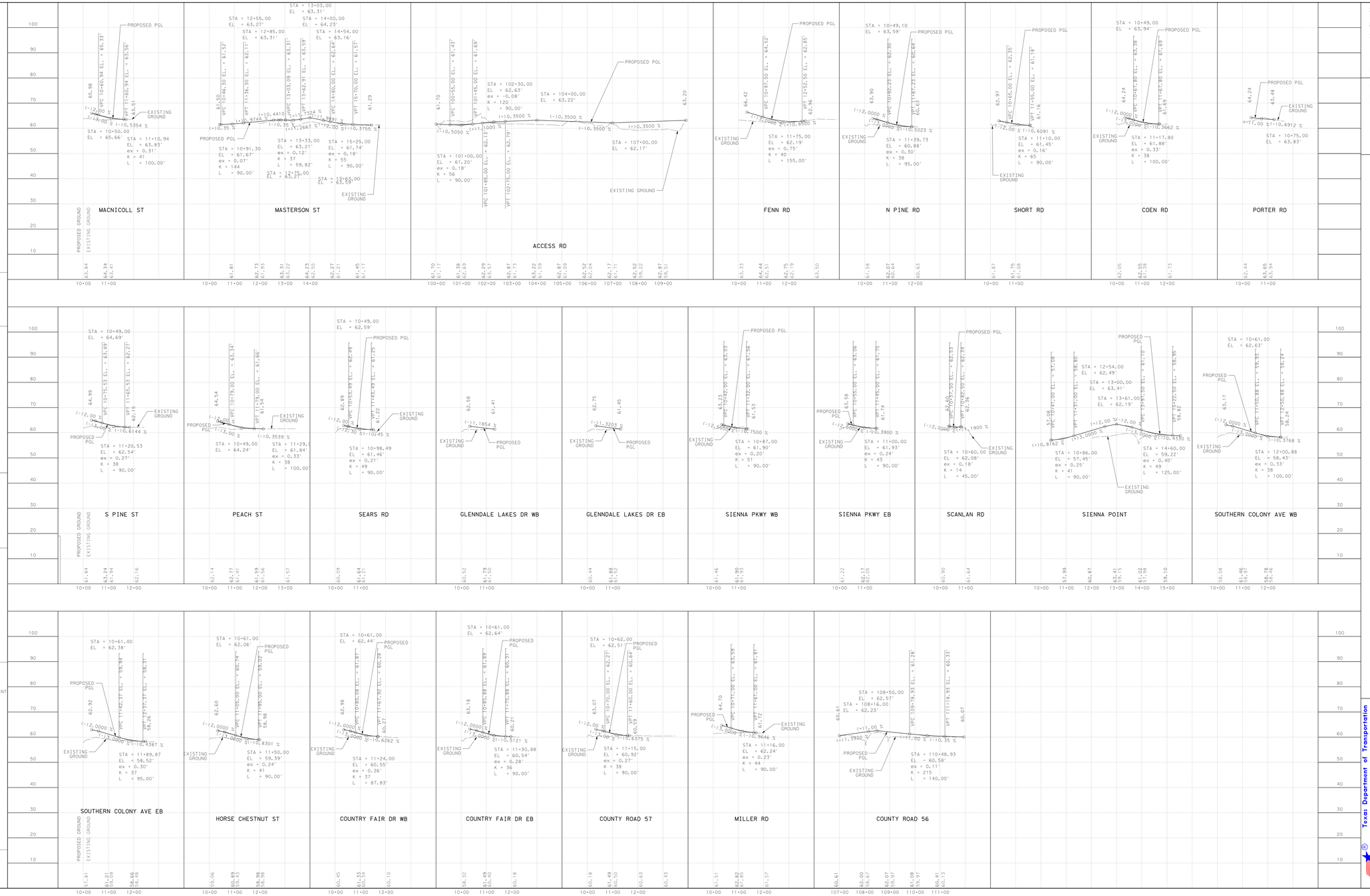
PLAN

- MAIN LANE CONCRETE PAVEMENT
- ACCESS ROAD CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- BRIDGE
- RAILROAD CROSSING
- RAISED MEDIAN
- SIDE PATH
- DETENTION POND
- EDGE OF PAVEMENT/FACE OF CURB
- PROPOSED ROW
- EXISTING ROW
- TEMPORARY CONSTRUCTION EASEMENT
- RETAINING WALL
- BARRIER
- TRAFFIC SIGNAL
- PROPOSED TRAFFIC FLOW ARROW
- EXISTING TRAFFIC FLOW ARROW

PROFILE

- MAINLANE PGL
- EXIST GROUND @ PGL
- 100 YEAR HYDRAULIC GRADE LINE (WEST)
- 100 YEAR HYDRAULIC GRADE LINE (EAST)
- 10 YEAR HYDRAULIC GRADE LINE (WEST)
- 10 YEAR HYDRAULIC GRADE LINE (EAST)
- EXISTING CULVERTS (WEST)
- EXISTING CULVERTS (EAST)

NOTES:
1. ALL BEARINGS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, FIPS 4204 AND ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.00013. UNITS ARE US SURVEY FEET.



Texas Department of Transportation
FM 521
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