Texas Department of Transportation
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AECOM
13355 NOEL ROAD
SUITE 400
DALLAS, TEXAS 75240
214-741-7777
TBPE NO. F-3580

TEXAS DEPARTMENT OF TRANSPORTATION
DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES K. SELMAN, P.E., DISTRICT ENGINEER
COLLIN COUNTY

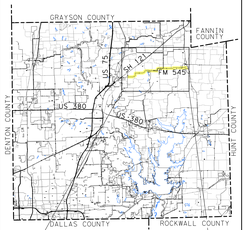
FM 545
PROJECT LIMIT: FM 2933 TO BS-78D
CONTROL: 1012-02-030
PROJECT LENGTH = 9.09 MI. (48,001.08 FT)
EXCEPTION = 1.69 MI. (8,939.97 FT)

CROSS STREETS
ROLL 1 OF 8: FM 2933 & CR 415
ROLL 2 OF 8: CR 416
ROLL 3 OF 8: CR 472 & CR 1095
ROLL 4 OF 8: CR 475
ROLL 5 OF 8: FM 2862
ROLL 6 OF 8: CR 575 & FM 1377

FUNCTIONAL CLASS
FM 545:RURAL MAJOR COLLECTOR
FM CROSS STREETS:COLLECTOR MINOR
CR CROSS STREETS: LOCAL

CONSTR LENGTH = 7.4 MI. (39,061.11 FT)

DESIGN SPEED
FM 545: 50 MPH
FM 545: 45 MPH (STA 136+58 TO STA 159+89)
FM CROSS STREETS: 40 MPH
CR CROSS STREETS: 30 MPH




LOCATION MAP (NTS)

PREPARED BY AECOM TECHNICAL SERVICES INC. TBPE NUMBER 7580
FOR INTERIM REVIEW ONLY, NOT FOR PERMITTING, BIDDING OR CONSTRUCTION.
Prepared by or under the Direct Supervision of:

SRIKRISHNA PEAPULLY — 84772 — BRAD HERNANDEZ — 120078
NAME — P.E. NUMBER — NAME — P.E. NUMBER

SCALE IN FEET

APPROVED APRIL 30, 2018

ROLL 4 OF 8

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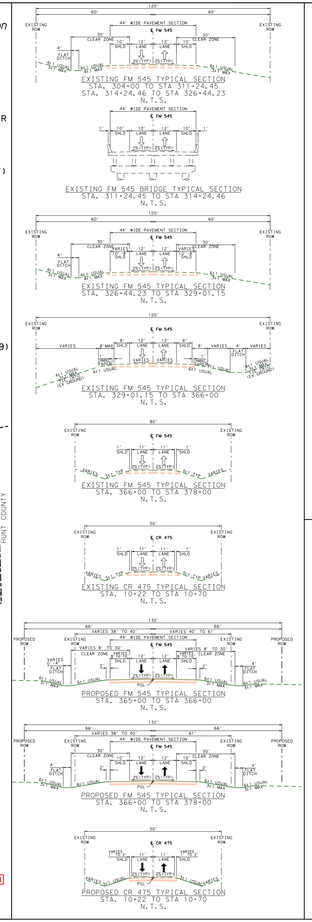
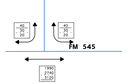



LEGEND:

- PROPOSED ROW
- EXISTING FM 545 ROW
- EXISTING CROSS STREETS ROW
- DRAINAGE EASEMENT
- NTMWD MITIGATION BOUNDARY
- PROPERTY LINE
- PARCEL IDENTIFICATION NUMBER
- DIRECTION OF TRAFFIC
- FLOW LINES FOR STREAM/CREEK
- FEMA FLOOD PLAIN
- PAVEMENT EDGE
- METAL BEAM GUARD FENCE
- EXISTING DRAINAGE STRUCTURES
- PROPOSED DRAINAGE STRUCTURES
- PROPOSED TRAVEL LANES
- PROPOSED SHOULDERS
- PROPOSED OVERLAY
- PROPOSED CROSS STREETS
- PROPOSED DRIVEWAYS
- BUILDING DISPLACEMENT
- ROADWAY PAVEMENT TO BE REMOVED

NOTES:

1. SCHEMATICS ARE BASED ON AERIAL AND DESIGN SURVEYS DATED DECEMBER 01, 2015 AND RECORD PLANS.
2. DIMENSIONS ARE TO THE EDGE OF PAVEMENT OR RAIL UNLESS OTHERWISE NOTED.
3. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE RATE MAPS (FEDERICTION, REDESIGNED, REDESIGNED).
4. OWNERSHIP AND PROPERTY LINE INFORMATION SHOWN ON SCHEMATIC OBTAINED FROM COLLIN CENTRAL APPRAISAL DISTRICT (CAD) ON MAY 11, 2017). PROPERTY LINE ARE SHOWN FOR INFORMATIONAL USE ONLY.
5. EXISTING CSJ VERT LOCATIONS, SIZE, AND ELEVATIONS OBTAINED FROM RECORD PLANS AND RECORD DOCUMENTS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
6. EXISTING DRIVEWAYS WILL REMAIN UNLESS IT IS DETERMINED DURING DESIGN FIELD REVIEW AND COORDINATION WITH THE LOCAL GOVERNMENT THAT THE DRIVEWAY IS A SAFETY ISSUE.
7. BUILDING DISPLACEMENTS ESTIMATED BASED ON PLACEMENT OF THE PROPOSED ROW AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
8. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE FINE PHASE OF THE PROJECT.
9. RESIDENTIAL DRIVEWAY RADII ARE 10 FT; CROSS STREET DRIVEWAY RADII ARE 30 FT AND COMMERCIAL DRIVEWAY RADII ARE 40 FT, UNLESS OTHERWISE NOTED.
10. PIPE CROSSING UNDERNEATH DRIVEWAYS IS NOT SHOWN FOR CLARITY.
11. THE NORTH TEXAS MUNICIPAL WATER DISTRICT MITIGATION AREAS WERE DELINEATED IN 2006 AND 2007 AND ARE SHOWN FOR INFORMATIONAL USE ONLY. THE MITIGATION AREAS SHOWN ARE APPROXIMATE AND FOR INFORMATIONAL USE ONLY.
12. THE EXISTING RIGHT-OF-WAY SHOWN ON SCHEMATIC PROVIDED BY OTHERS. EXISTING CROSS STREETS RIGHT-OF-WAY DERIVATION SHOWN TAKEN FROM COLLIN COUNTY APPRAISAL DISTRICT. ALL EXISTING RIGHT-OF-WAY TO BE FIELD VERIFIED DURING PS&E.




TRAFFIC DIAGRAM
N. T. S.

LEGEND:
XXXX - 2018 AVERAGE DAILY TRAFFIC VOLUME
XXXX - 2038 AVERAGE DAILY TRAFFIC VOLUME
XXXX - 2048 AVERAGE DAILY TRAFFIC VOLUME
ROAD

SOURCE:
TEXAS DEPARTMENT OF TRANSPORTATION,
TRANSPORTATION PLANNING AND PLANNING DIVISION MEMORANDUM,
DATED FEBRUARY 6, 2018

K-FACTOR = 0.10
DIRECTIONAL DISTRIBUTION PERCENTAGE = 62/38
PEAKING FACTOR, DHV = K x DHV = 0.5

CURVE DATA

FM 545 - PROPOSED CENTERLINE

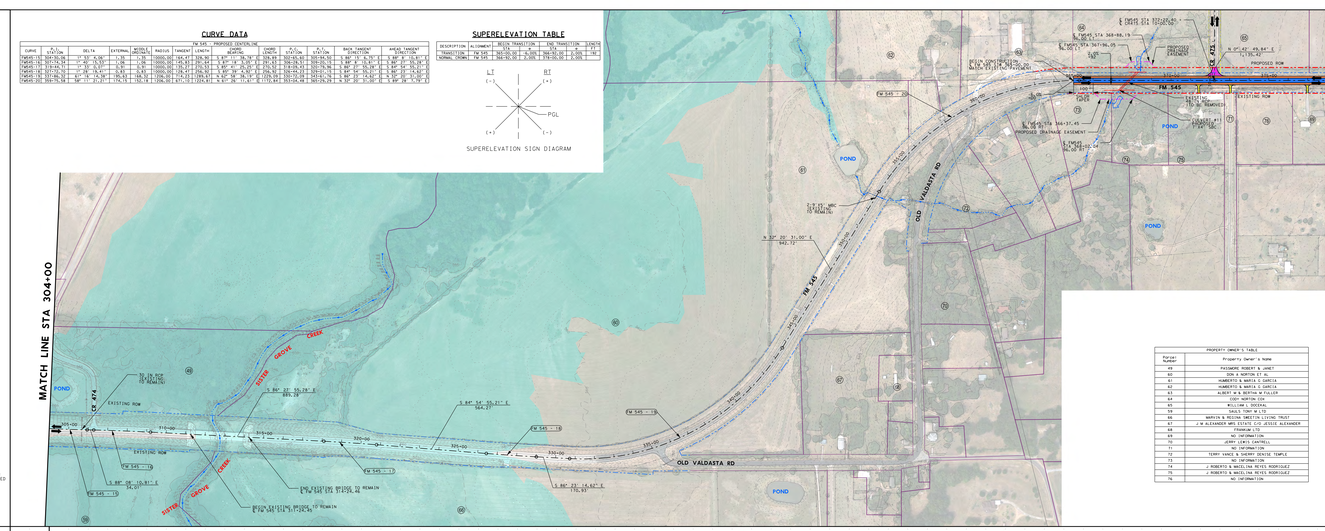
| CURVE | PI STATION | DELTA | EXTERNAL | MIDDLE ORDINATE | RADIUS | TANGENT | LENGTH | CHORD LENGTH | BEGIN STATION | END STATION | BACK TANGENT DIRECTION | AHEAD TANGENT DIRECTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CURVE1 | 307+70.08 | 1° 57' 4.76" | 1.35 | 1.35 | 10000.00 | 194.47 | 388.90 | 388.87 | 305+56.55 | 309+45.46 | S 89° 1' 6.75" E | S 89° 8' 13.51" E |
| CURVE2 | 313+07.46 | 1° 57' 4.76" | 1.35 | 1.35 | 10000.00 | 194.47 | 388.90 | 388.87 | 311+93.00 | 315+81.90 | S 89° 1' 6.75" E | S 89° 8' 13.51" E |
| CURVE3 | 321+70.11 | 2° 33' 13.51" | 2.93 | 2.92 | 7500.00 | 170.53 | 341.01 | 341.00 | 320+29.58 | 323+70.59 | S 89° 8' 13.51" E | S 86° 25' 0.00" E |
| CURVE4 | 331+70.11 | 2° 33' 13.51" | 2.93 | 2.92 | 7500.00 | 170.53 | 341.01 | 341.00 | 330+29.58 | 333+70.59 | S 89° 8' 13.51" E | S 86° 25' 0.00" E |
| CURVE5 | 341+70.11 | 2° 33' 13.51" | 2.93 | 2.92 | 7500.00 | 170.53 | 341.01 | 341.00 | 340+29.58 | 343+70.59 | S 89° 8' 13.51" E | S 86° 25' 0.00" E |
| CURVE6 | 351+70.11 | 2° 33' 13.51" | 2.93 | 2.92 | 7500.00 | 170.53 | 341.01 | 341.00 | 350+29.58 | 353+70.59 | S 89° 8' 13.51" E | S 86° 25' 0.00" E |
| CURVE7 | 361+70.11 | 2° 33' 13.51" | 2.93 | 2.92 | 7500.00 | 170.53 | 341.01 | 341.00 | 360+29.58 | 363+70.59 | S 89° 8' 13.51" E | S 86° 25' 0.00" E |

SUPERELEVATION TABLE

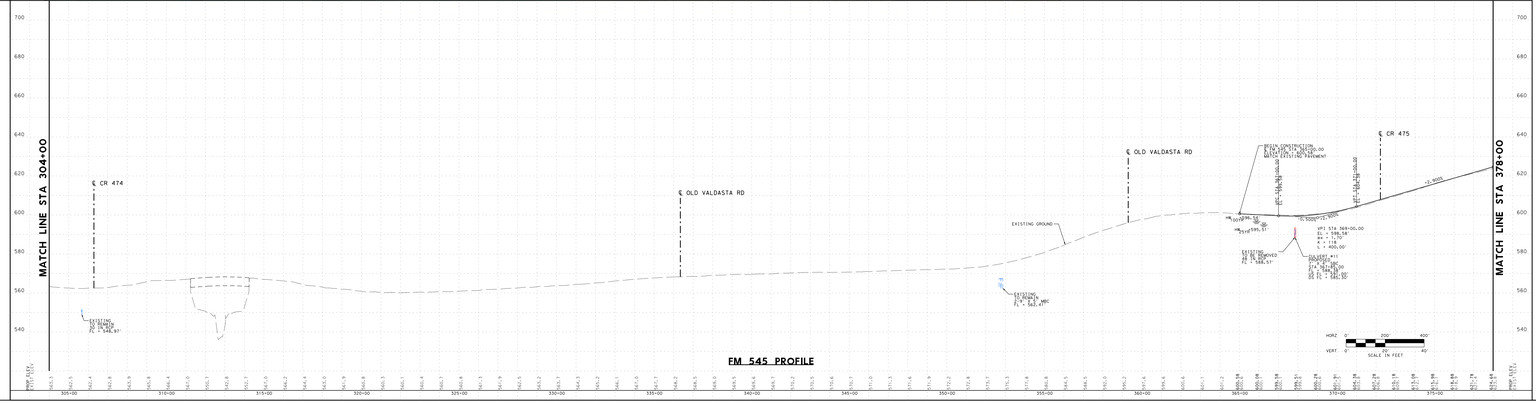
| DESCRIPTION | ALIGNMENT | BEGIN TRANSITION | END TRANSITION | LENGTH |
|---|---|---|---|---|
| TRANSITION | FM 545 | 360+00.00 E 360+00.00 | 361+70.11 E 361+70.11 | 170.11 |
| NORMAL CROWN | FM 545 | 360+00.00 E 360+00.00 | 378+00.00 E 378+00.00 | 1700.00 |




SUPERELEVATION SIGN DIAGRAM




| PROPERTY OWNER'S TABLE | |
|---|---|
| Parcel Number | Property Owner's Name |
| 49 | PASSMORE ROBERT N JANET |
| 60 | DON A NORTON ET AL |
| 61 | HUMBERTO & MARIA C GARCIA |
| 62 | HUMBERTO & MARIA C GARCIA |
| 63 | ALBERT W & BERTHA M FALLER |
| 64 | NO INFORMATION |
| 65 | MULLINS L JOSEPHS |
| 59 | SAAS TONY M LTD |
| 66 | MARVIN & REGINA SIMSTEN LIVING TRUST |
| 67 | J W ALEXANDER MRS ESTATE C/O JESSIE ALEXANDER |
| 68 | FRANKLIN LTD |
| 69 | NO INFORMATION |
| 70 | JERRY LEWIS CANTRELL |
| 71 | NO INFORMATION |
| 72 | TERRY DANIEL & SHERRY DENISE TEMPLE |
| 73 | NO INFORMATION |
| 74 | J ROBERTO & MECELINA REYES RODRIGUEZ |
| 75 | J ROBERTO & MECELINA REYES RODRIGUEZ |
| 76 | NO INFORMATION |

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