© 2022

Texas Department
of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC

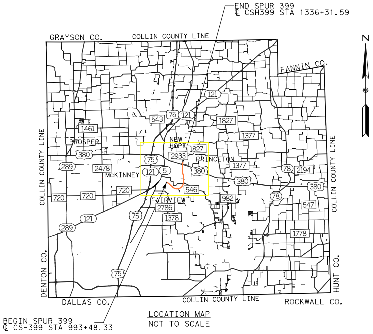
CEASON CLEMENS, P.E.
DALLAS DISTRICT ENGINEER

90% DESIGN SCHEMATIC
SPUR 399 EXTENSION

CSJ: 0364-04-051, 0047-05-058 & 0047-10-002
FROM: US 75
TO: US 380
COLLIN COUNTY
FUNCTIONAL CLASS: URBAN FREEWAY
ORANGE ALTERNATIVE LENGTH: 7.0 MILES

DESIGN SPEEDS

MAINLANES (FREEWAY):	70 MPH
GENERAL RAMPS (PRINCIPAL ARTERIAL):	40-50 MPH
FRONTAGE ROADS (COLLECTOR):	35-45 MPH
CROSS STREETS (MAJOR COLLECTOR):	30 MPH


END SPUR 399
℄ CSH399 STA 1336+31.59
GRAYSON CO.
COLLIN COUNTY LINE
FANNIN CO.
N
PROSPER
NEW HOPE
PRINCETON
MCKINNEY
FAIRVIEW
COLLIN COUNTY LINE
COLLIN COUNTY LINE
DENTON CO.
DALLAS CO.
COLLIN COUNTY LINE
ROCKWALL CO.
HUNT CO.
75
121
543
1827
1461
380
1377
2933
289
2478
5
78
2194
720
546
982
547
2786
1378
1778
BEGIN SPUR 399
℄ CSH399 STA 993+48.33

LOCATION MAP
NOT TO SCALE

SCALE: HORIZONTAL 1"=100'
SCALE: VERTICAL 1"=10'

0 100 200 300 400
HORIZ. SCALE IN FEET
0 10 20 30 40
VERT. SCALE IN FEET

© 2022 by Texas Department of Transportation all rights reserved

NOVEMBER 2022

PRELIMINARY
SUBJECT TO REVISIONS

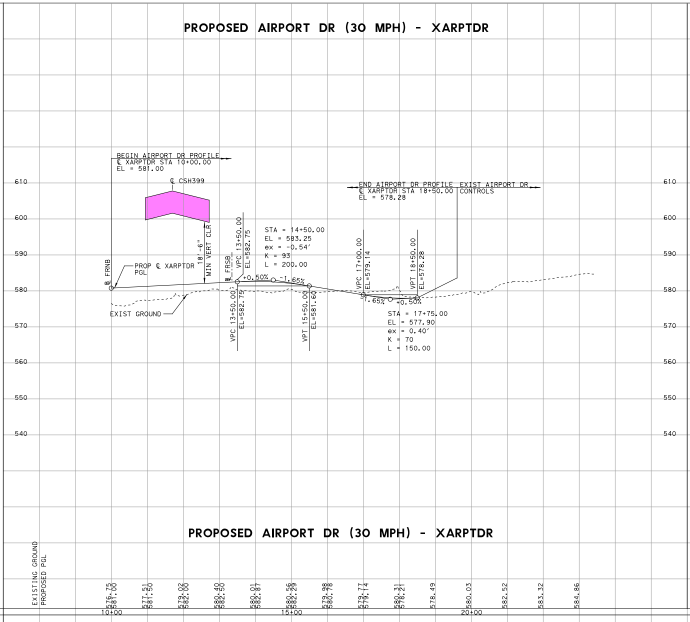
SCHEMATIC PREPARED BY:
DAVID SUTTON 120142
NAME P.E. NUMBER
NOVEMBER 2022
DATE

NOT INTENDED FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES

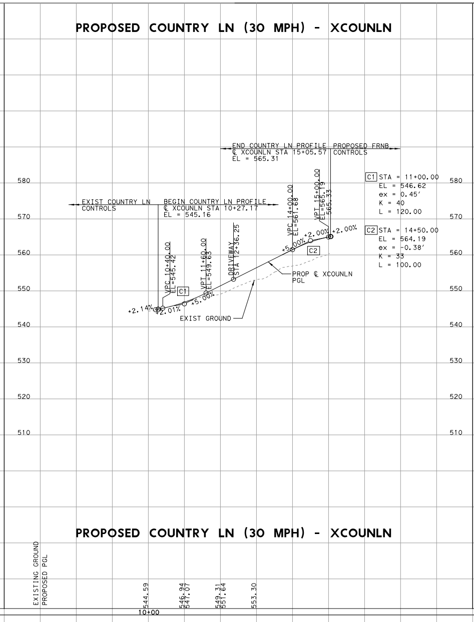
ROLL 8 OF 8

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248-1229
972.960.4400

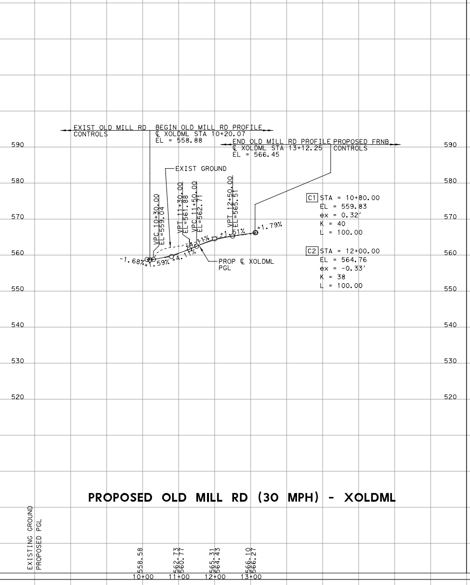
PROPOSED AIRPORT DR (30 MPH) - XARPTDR


610
600
590
580
570
560
550
540
BEGIN AIRPORT DR PROFILE
℄ XARPTDR STA 10+00.00
EL = 581.00
℄ CSH399
18'-6"
MIN VERT CLR
℄ FRNB
PROP ℄ XARPTDR
PGL
℄ FRSB
VPC 13+50.00
EL=582.75
STA = 14+50.00
EL = 583.25
ex = -0.54'
K = 93
L = 200.00
+0.50%
-1.65%
VPC 13+50.00
EL=582.75
VPT 15+50.00
EL=581.60
EXIST GROUND
END AIRPORT DR PROFILE
℄ XARPTDR STA 18+50.00
EL = 578.28
EXIST AIRPORT DR
CONTROLS
VPC 17+00.00
EL=579.14
VPT 18+50.00
EL=578.28
-1.65%
+0.50%
STA = 17+75.00
EL = 577.90
ex = 0.40'
K = 70
L = 150.00
PROPOSED AIRPORT DR (30 MPH) - XARPTDR
EXISTING GROUND
PROPOSED PGL
576.75
581.00
577.51
581.50
579.02
582.00
580.40
582.50
580.01
582.87
580.56
582.29
579.98
580.78
579.77
579.14
580.31
578.21
578.49
580.03
582.52
583.32
584.86
10+00
15+00
20+00

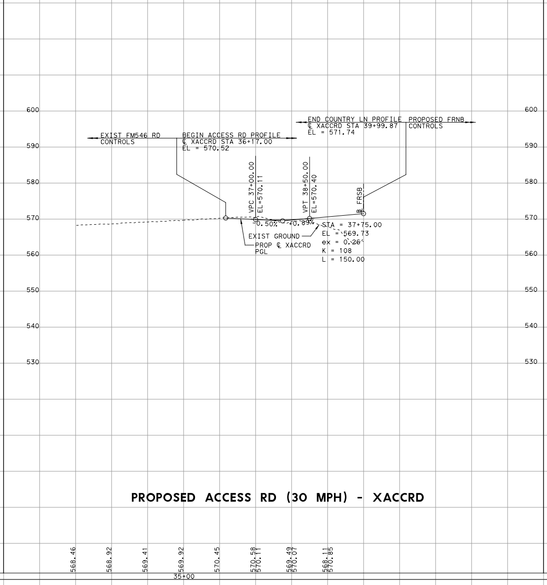
PROPOSED COUNTRY LN (30 MPH) - XCOUNLN


610
600
590
580
570
560
550
540
580
570
560
550
540
530
520
510
EXIST COUNTRY LN
CONTROLS
BEGIN COUNTRY LN PROFILE
℄ XCOUNLN STA 10+27.17
EL = 545.16
END COUNTRY LN PROFILE
℄ XCOUNLN STA 15+05.57
EL = 565.31
PROPOSED FRNB
CONTROLS
VPC 10+40.00
EL=545.42
C1
VPT 11+60.00
EL=549.63
DRIVEWAY
STA 12+36.25
VPC 14+00.00
EL=561.68
VPT 15+00.00
EL=565.19
565.33
+2.14%
+2.01%
+5.00%
+5.00%
+2.00%
+2.00%
C2
PROP ℄ XCOUNLN
PGL
EXIST GROUND
C1 STA = 11+00.00
EL = 546.62
ex = 0.45'
K = 40
L = 120.00
C2 STA = 14+50.00
EL = 564.19
ex = -0.38'
K = 33
L = 100.00
PROPOSED COUNTRY LN (30 MPH) - XCOUNLN
EXISTING GROUND
PROPOSED PGL
544.59
546.94
547.07
549.31
551.64
553.30
10+00

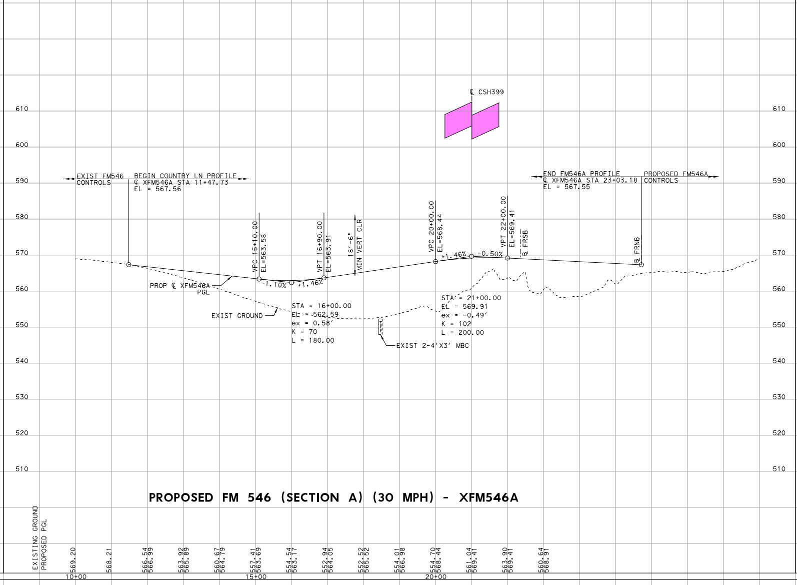
PROPOSED OLD MILL RD (30 MPH) - XOLDML


EXIST OLD MILL RD
CONTROLS
BEGIN OLD MILL RD PROFILE
℄ XOLDML STA 10+20.07
EL = 558.88
END OLD MILL RD PROFILE
℄ XOLDML STA 13+12.25
EL = 566.45
PROPOSED FRNB
CONTROLS
EXIST GROUND
VPC 10+30.00
EL=559.04
VPT 11+30.00
EL=561.88
VPC 11+50.00
EL=562.71
VPT 12+50.00
EL=565.51
-1.68%
+1.59%
+4.11%
+4.11%
+1.51%
+1.79%
PROP ℄ XOLDML
PGL
C1 STA = 10+80.00
EL = 559.83
ex = 0.32′
K = 40
L = 100.00
C2 STA = 12+00.00
EL = 564.76
ex = -0.33′
K = 38
L = 100.00
590
580
570
560
550
540
530
520
PROPOSED OLD MILL RD (30 MPH) - XOLDML
EXISTING GROUND
PROPOSED PGL
558.58
562.73
560.77
565.31
564.43
566.10
566.27
10+00
11+00
12+00
13+00

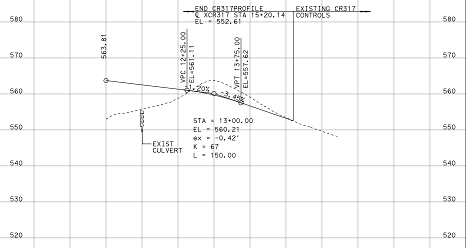
PROPOSED ACCESS RD (30 MPH) - XACCRD


EXIST FM546 RD
CONTROLS
BEGIN ACCESS RD PROFILE
℄ XACCRD STA 36+17.00
EL = 570.52
END COUNTRY LN PROFILE
℄ XACCRD STA 39+99.87
EL = 571.74
PROPOSED FRNB
CONTROLS
VPC 37+00.00
EL=570.11
VPT 38+50.00
EL=570.40
℄ FRSB
-0.50%
+0.89%
EXIST GROUND
PROP ℄ XACCRD
PGL
STA = 37+75.00
EL = 569.73
ex = 0.26′
K = 108
L = 150.00
600
590
580
570
560
550
540
530
PROPOSED ACCESS RD (30 MPH) - XACCRD
568.46
568.92
569.41
569.92
570.45
570.58
570.11
569.49
570.07
568.11
570.85
35+00

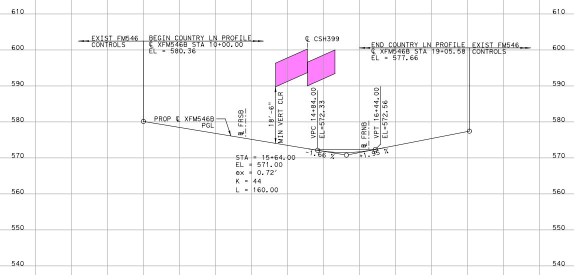
PROPOSED FM 546 (SECTION A) (30 MPH) - XFM546A


℄ CSH399
EXIST FM546
CONTROLS
BEGIN COUNTRY LN PROFILE
℄ XFM546A STA 11+47.73
EL = 567.56
END FM546A PROFILE
℄ XFM546A STA 23+03.18
EL = 567.55
PROPOSED FM546A
CONTROLS
VPC 15+10.00
EL=563.58
VPT 16+90.00
EL=563.91
18′-6″
MIN VERT CLR
VPC 20+00.00
EL=568.44
VPT 22+00.00
EL=569.41
℄ FRSB
℄ FRNB
-1.10%
+1.46%
+1.46%
-0.50%
PROP ℄ XFM546A
PGL
EXIST GROUND
STA = 16+00.00
EL = 562.59
ex = 0.58′
K = 70
L = 180.00
EXIST 2-4′X3′ MBC
STA = 21+00.00
EL = 569.91
ex = -0.49′
K = 102
L = 200.00
610
600
590
580
570
560
550
540
530
520
510
PROPOSED FM 546 (SECTION A) (30 MPH) - XFM546A
EXISTING GROUND
PROPOSED PGL
569.20
568.21
566.54
566.99
563.92
565.89
560.67
564.79
557.41
563.69
554.54
563.17
552.94
564.05
552.52
565.52
554.01
566.98
554.70
568.44
561.04
569.41
563.90
569.41
560.64
568.91
10+00
15+00
20+00

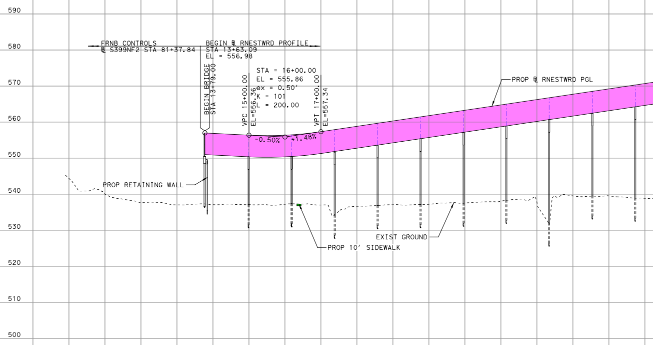
PROPOSED CR317 (30 MPH) - XCR317


580
570
560
550
540
530
520
563.81
END CR317PROFILE
℄ XCR317 STA 15+20.14
EL = 552.61
EXISTING CR317
CONTROLS
VPC 12+25.00
EL=561.11
VPT 13+75.00
EL=557.62
1.20%
-3.45%
STA = 13+00.00
EL = 560.21
ex = -0.42′
K = 67
L = 150.00
EXIST
CULVERT

PROPOSED FM 546 (SECTION B) (30 MPH) - XFM546B


610
600
590
580
570
560
550
540
EXIST FM546
CONTROLS
BEGIN COUNTRY LN PROFILE
℄ XFM546B STA 10+00.00
EL = 580.36
℄ CSH399
END COUNTRY LN PROFILE
℄ XFM546B STA 19+05.58
EL = 577.66
EXIST FM546
CONTROLS
PROP ℄ XFM546B
PGL
℄ FRSB
18′-6″
MIN VERT CLR
VPC 14+84.00
EL=572.33
℄ FRNB
VPT 16+44.00
EL=572.56
-1.66 %
+1.95 %
STA = 15+64.00
EL = 571.00
ex = 0.72′
K = 44
L = 160.00

RNESTWRD PROPOSED NORTHBOUND ENTRANCE RAMP FROM


590
580
570
560
550
540
530
520
510
500
FRNB CONTROLS
℄ S399NF2 STA 81+37.84
BEGIN ℄ RNESTWRD PROFILE
STA 13+63.09
EL = 556.98
BEGIN BRIDGE
STA 13+79.00
VPC 15+00.00
EL=556.36
STA = 16+00.00
EL = 555.86
ex = 0.50′
K = 101
L = 200.00
VPT 17+00.00
EL=557.34
-0.50%
+1.48%
PROP ℄ RNESTWRD PGL
PROP RETAINING WALL
EXIST GROUND
PROP 10′ SIDEWALK

PROPOSED CR 317 (30 MPH) - XCR317

	10+00					15+00	
EXISTING GROUND	553.11	555.94	558.84	563.80	559.24	553.44	549.67
PROPOSED PGL	563.81	562.61	561.41	559.78	556.75	553.30	

PROPOSED FM 546 (SECTION B) (30 MPH) - XFM546B

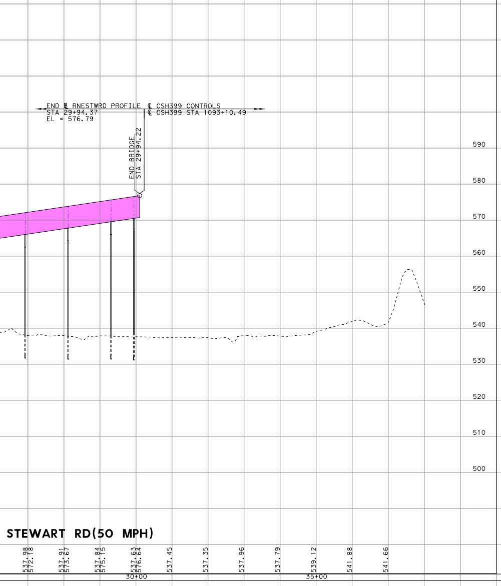
	10+00					15+00				
EXISTING GROUND	579.46	577.64	576.53	574.52	572.72	571.44	571.41	572.86	575.08	576.76
PROPOSED PGL	580.36	578.70	577.04	575.38	573.72	572.09	571.92	573.65	575.60	

RNESTWRD PROPOSED NORTHBOUND ENTRANCE RAMP FROM

	10+00					15+00			
EXISTING GROUND	544.37	539.99	537.63	537.03	537.07	537.07	537.21	536.99	536.62
PROPOSED PGL					556.87	556.36	556.36	557.34	558.83

		20+00					25+00	
EXISTING GROUND	537.19	537.19	537.55	538.04	537.77	539.52	539.51	538.84
PROPOSED PGL	560.31	561.80	563.28	564.76	566.25	567.73	569.22	570.70

STEWART RD (50 MPH)


END ℄ RNESTWRD PROFILE
STA 29+94.37
EL = 576.79
℄ CSH399 CONTROLS
℄ CSH399 STA 1093+10.49
END BRIDGE
STA 29+94.22
590
580
570
560
550
540
530
520
510
500
STEWART RD(50 MPH)
537.98
572.18
537.91
573.67
537.84
575.15
537.63
576.64
537.45
537.35
537.96
537.79
539.12
541.88
541.66
30+00
35+00

© 2022 Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC

CEASON CLEMENS, P.E.
DALLAS DISTRICT ENGINEER

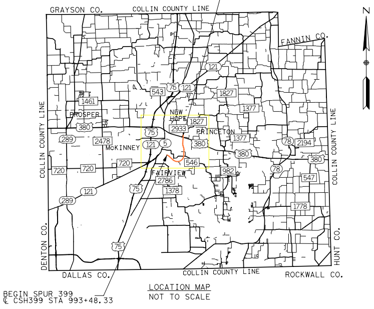
90% DESIGN SCHEMATIC
SPUR 399 EXTENSION

CSJ: 0364-04-051, 0047-05-058 & 0047-10-002
FROM: US 75
TO: US 380
COLLIN COUNTY
FUNCTIONAL CLASS: URBAN FREEWAY
ORANGE ALTERNATIVE LENGTH: 7.0 MILES

DESIGN SPEEDS

MAINLANES (FREEWAY):	70 MPH
GENERAL RAMPS (PRINCIPAL ARTERIAL):	40-50 MPH
FRONTAGE ROADS (COLLECTOR):	35-45 MPH
CROSS STREETS (MAJOR COLLECTOR):	30 MPH

END SPUR 399
℄ CSH399 STA 1336+31.59


GRAYSON CO.
COLLIN COUNTY LINE
FANNIN CO.
N
COLLIN COUNTY LINE
PROSPER
NEW HOPE
PRINCETON
MCKINNEY
FAIRVIEW
COLLIN COUNTY LINE
DENTON CO.
DALLAS CO.
COLLIN COUNTY LINE
ROCKWALL CO.
HUNT CO.
75
121
543
1461
1827
1377
380
289
2478
2933
5
720
546
982
78
2194
547
1778
1378
2786

BEGIN SPUR 399
℄ CSH399 STA 993+48.33

LOCATION MAP
NOT TO SCALE

SCALE: HORIZONTAL 1"=100'
SCALE: VERTICAL 1"=10'

0 100 200 300 400
HORIZ. SCALE IN FEET

0 10 20 30 40
VERT. SCALE IN FEET

© 2022 by Texas Department of Transportation all rights reserved

NOVEMBER 2022

PRELIMINARY
SUBJECT TO REVISIONS

SCHEMATIC PREPARED BY:
DAVID SUTTON — 120142
NAME — P.E. NUMBER
NOVEMBER 2022
DATE

NOT INTENDED FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES

ROLL 8 OF 8

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248-1229
972.960.4400