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Texas Department
of Transportation

DALLAS DISTRICT DESIGN SCHEMATIC

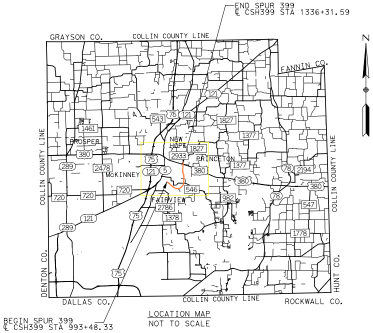
CEASON CLEMENS, P.E.
DALLAS DISTRICT ENGINEER

PUBLIC HEARING SCHEMATIC

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
DENTON CO.
HUNT CO.
DALLAS CO.
ROCKWALL CO.
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

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NOVEMBER 2022

PRELIMINARY
SUBJECT TO REVISIONS

SCHEMATIC PREPARED BY:

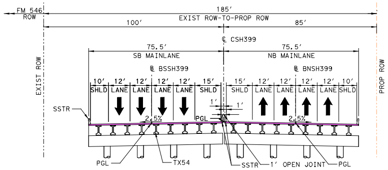
DAVID SUTTON	120142
NAME	P.E. NUMBER
NOVEMBER 2022	
DATE	

NOT INTENDED FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES

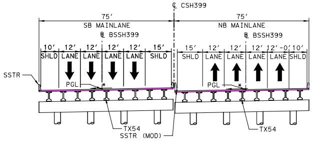
ROLL 2 OF 8

HDR
Firm Registration No. F-754

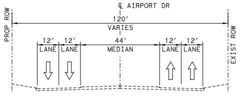
17111 Preston Road, Suite 300
Dallas, Texas 75248-1229
972.960.4400


FM 546 ROW
185'
EXIST ROW-TO-PROP ROW
100'
85'
℄ CSH399
75.5'
SB MAINLANE
℄ BSSH399
75.5'
NB MAINLANE
℄ BNSH399
10' 12' 12' 12' 12' 15'
SHLD LANE LANE LANE LANE SHLD
15' 12' 12' 12' 12' 10'
SHLD LANE LANE LANE LANE SHLD
EXIST ROW
PROP ROW
SSTR
2.5%
PGL
1'
PGL
TX54
SSTR
1' OPEN JOINT
PGL

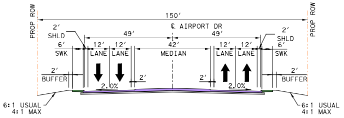
PROPOSED SPUR 399 EXTENSION
BRIDGED 8 LN ML
FROM STA 1117+50.00 TO STA 1127+49.88
FROM STA 1156+82.47 TO STA 1160+02.47
* SEE SUPERELEVATION TABLE FOR SUPERELEVATION DESIGN


℄ CSH399
75'
SB MAINLANE
℄ BSSH399
75'
NB MAINLANE
℄ BSSH399
10' 12' 12' 12' 12' 15'
SHLD LANE LANE LANE LANE SHLD
15' 12' 12' 12' 12' -0' 10'
SHLD LANE LANE LANE LANE SHLD
SSTR
PGL
PGL
TX54
SSTR (MOD)
TX54

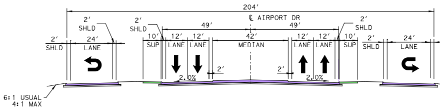
PROPOSED SPUR 399 EXTENSION - MAINLANES
FULL SUPER BRIDGE SECTION
* SEE SUPERELEVATION TABLE FOR SUPERELEVATION DESIGN


PROP ROW
℄ AIRPORT DR
120'
VARIES
12' 12'
LANE LANE
44'
MEDIAN
12' 12'
LANE LANE
EXIST ROW

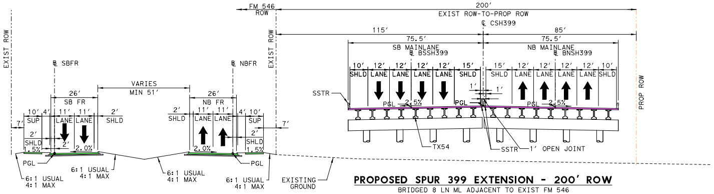
EXISTING TYPICAL SECTION
AIRPORT DR


PROP ROW
150'
℄ AIRPORT DR
2' SHLD
6' SWK
49'
49'
12' 12'
LANE LANE
42'
MEDIAN
12' 12'
LANE LANE
2' SHLD
6' SWK
2' BUFFER
2'
2'
2.0%
2.0%
2' BUFFER
6:1 USUAL
4:1 MAX
6:1 USUAL
4:1 MAX
PROP ROW

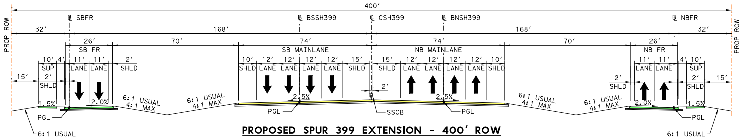
PROPOSED TYPICAL SECTION
AIRPORT DR APPROACH


204'
℄ AIRPORT DR
2' SHLD
2' SHLD
24' LANE
10' SUP
2' SHLD
49'
12' 12'
LANE LANE
42'
MEDIAN
49'
12' 12'
LANE LANE
10' SUP
2' SHLD
2' SHLD
24' LANE
2.0%
2'
2'
2.0%
6:1 USUAL
4:1 MAX

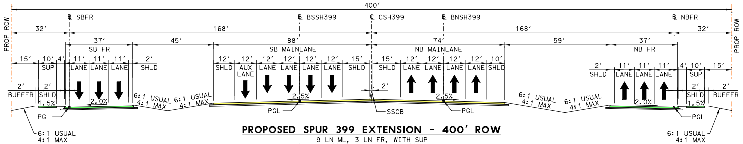
PROPOSED TYPICAL SECTION
AIRPORT DR APPROACH


EXIST ROW
℄ SBFR
26'
SB FR
10' 4' 11' 11' 2'
SUP LANE LANE SHLD
2' SHLD
1.5%
2'
2.0%
7'
PGL
6:1 USUAL
4:1 MAX
VARIES
MIN 51'
6:1 USUAL
4:1 MAX
℄ NBFR
26'
NB FR
2' 11' 11' 4' 10'
SHLD LANE LANE SUP
2' SHLD
2.0%
1.5%
7'
PGL
6:1 USUAL
4:1 MAX
EXISTING GROUND
FM 546 ROW
200'
EXIST ROW-TO-PROP ROW
℄ CSH399
EXIST ROW
115'
85'
75.5'
SB MAINLANE
℄ BSSH399
75.5'
NB MAINLANE
℄ BNSH399
10' 12' 12' 12' 12' 15'
SHLD LANE LANE LANE LANE SHLD
15' 12' 12' 12' 12' 10'
SHLD LANE LANE LANE LANE SHLD
SSTR
PGL
2.5%
1'
PGL
PGL
2.5%
TX54
SSTR
1' OPEN JOINT
PROP ROW

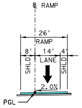
PROPOSED SPUR 399 EXTENSION - 200' ROW
BRIDGED 8 LN ML ADJACENT TO EXIST FM 546
FROM STA 1127+49.88 TO STA 1137+71.97
* SEE SUPERELEVATION TABLE FOR SUPERELEVATION DESIGN


400'
PROP ROW
32'
℄ SBFR
168'
℄ BSSH399
℄ CSH399
℄ BNSH399
168'
℄ NBFR
32'
PROP ROW
26'
SB FR
70'
74'
SB MAINLANE
74'
NB MAINLANE
70'
26'
NB FR
15' 10' 4' 11' 11' 2'
SUP LANE LANE SHLD
2' SHLD
1.5%
2'
2.0%
PGL
6:1 USUAL
4:1 MAX
10' 12' 12' 12' 12' 15'
SHLD LANE LANE LANE LANE SHLD
15' 12' 12' 12' 12' 10'
SHLD LANE LANE LANE LANE SHLD
2'
2.5%
2.5%
PGL
SSCB
PGL
2' 11' 11' 4' 10' 15'
SHLD LANE LANE SUP
2' SHLD
2.0%
1.5%
PGL
6:1 USUAL
4:1 MAX

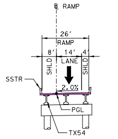
PROPOSED SPUR 399 EXTENSION - 400' ROW
8 LN ML, 3 LN FR, WITH SUP
FROM STA 1137+71.97 TO STA 1154+94.43


400'
PROP ROW
32'
℄ SBFR
168'
℄ BSSH399
℄ CSH399
℄ BNSH399
168'
℄ NBFR
32'
PROP ROW
37'
SB FR
45'
88'
SB MAINLANE
74'
NB MAINLANE
59'
37'
NB FR
15' 10' 4' 11' 11' 11' 2'
SUP LANE LANE LANE SHLD
2' BUFFER
2' SHLD
1.5%
2.0%
PGL
6:1 USUAL
4:1 MAX
12' 12' 12' 12' 12' 12' 15'
SHLD AUX LANE LANE LANE LANE LANE SHLD
15' 12' 12' 12' 12' 10'
SHLD LANE LANE LANE LANE SHLD
2'
2.5%
2.5%
PGL
SSCB
PGL
2' 11' 11' 11' 4' 10' 15'
SHLD LANE LANE LANE SUP
2' SHLD
2' BUFFER
2.0%
1.5%
PGL
6:1 USUAL
4:1 MAX

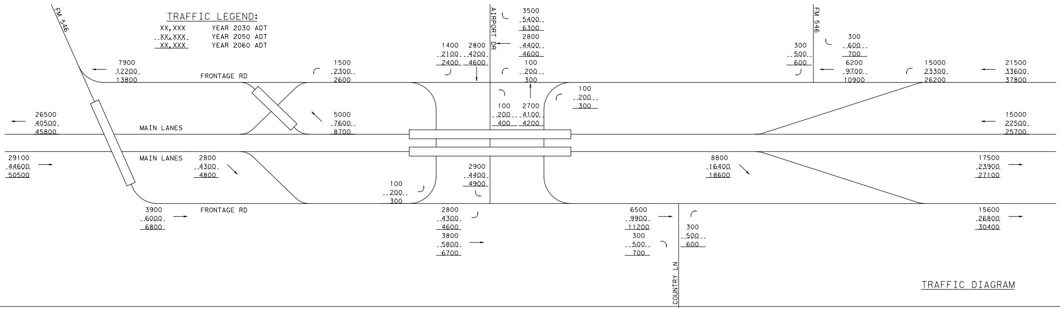
PROPOSED SPUR 399 EXTENSION - 400' ROW
9 LN ML, 3 LN FR, WITH SUP
FROM STA 1154+94.43 TO STA 1156+82.47
FROM STA 1160+02.47 TO STA 1194+00.00


℄ RAMP
26'
RAMP
8' 14' 4'
SHLD LANE SHLD
2.0%
PGL

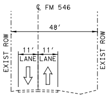
PROPOSED SPUR 399 EXTENSION
1 LN SB RAMP
℄ RSXE546 FROM STA 13+43.15 TO STA 24+98.63
℄ RSXE546 FROM STA 32+42.76 TO STA 36+12.18
℄ RSEARPDR FROM STA 14+97.55 TO STA 21+17.25


℄ RAMP
26'
RAMP
8' 14' 4'
SHLD LANE SHLD
SSTR
2.0%
PGL
TX54

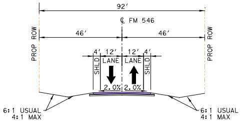
PROPOSED SPUR 399 EXTEN
BRIDGED 1 LN SB RAMP
℄ RSXE546 FROM STA 24+98.63 TO STA 3


FM 546
TRAFFIC LEGEND:
XX,XXX YEAR 2030 ADT
XX,XXX YEAR 2050 ADT
XX,XXX YEAR 2060 ADT
7900 12200 13800
FRONTAGE RD
1500 2300 2600
26500 40500 45800
MAIN LANES
5000 7600 8700
29100 44600 50500
MAIN LANES
2800 4300 4800
3900 6000 6800
FRONTAGE RD
AIRPORT DR
1400 2100 2400
2800 4200 4600
3500 5400 6300
2800 4400 4600
100 200 300
100 200 400
2700 4100 4200
100 200 300
2900 4400 4900
100 200 300
2800 4300 4600
3800 5800 6700
6500 9900 11200
300 500 700
COUNTRY LN
300 500 600
FM 546
300 500 600
300 600 700
6200 9700 10900
15000 23300 26200
21500 33600 37800
15000 22500 25700
8800 16400 18600
17500 23900 27100
15600 26800 30400

TRAFFIC DIAGRAM

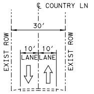

℄ FM 546
48'
EXIST ROW
EXIST ROW
11'
11'
LANE
LANE

EXISTING TYPICAL SECTION
FM 546

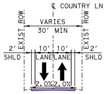

92'
℄ FM 546
46'
46'
PROP ROW
PROP ROW
4'
12'
12'
4'
SHLD
LANE
LANE
SHLD
2.0%
2.0%
6:1 USUAL
4:1 MAX
6:1 USUAL
4:1 MAX

PROPOSED TYPICAL SECTION
FM 546

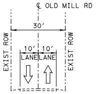
FROM STA 11+11.68 TO STA 17+48.70
FROM STA 36+16.99 TO STA 39+99.87


℄ COUNTRY LN
30'
EXIST ROW
EXIST ROW
10'
10'
LANE
LANE

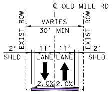
EXISTING TYPICAL SECTION
COUNTRY LN


℄ COUNTRY LN
EXIST ROW
EXIST ROW
VARIES
30' MIN
2'
SHLD
10'
10'
LANE
LANE
2'
SHLD
2.0%
2.0%

PROPOSED TYPICAL SECTION
COUNTRY LN


℄ OLD MILL RD
30'
EXIST ROW
EXIST ROW
10'
10'
LANE
LANE

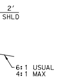
EXISTING TYPICAL SECTION
OLD MILL RD


℄ OLD MILL RD
EXIST ROW
EXIST ROW
VARIES
30' MIN
2'
SHLD
11'
11'
LANE
LANE
2'
SHLD
2.0%
2.0%

PROPOSED TYPICAL SECTION
OLD MILL RD

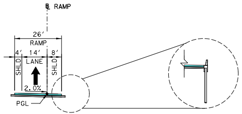
GEOMETRIC CURVE DATA

ROADWAY	CURVE NAME	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	PC STATION	PT STATION	PI STATION	PI NORTHING (Y)	PI EASTING (X)
CSH399	CSH399-5	61° 04' 46.96"	02° 12' 13.26"	1,533.95'	2,771.71'	2,600.00'	1071+30.00	1099+01.71	1086+63.95	7116340.34	2543765.06
	CSH399-11	24° 28' 50.74"	01° 41' 06.61"	737.61'	1,452.72'	3,400.00'	1124+27.52	1138+80.24	1131+65.14	7114884.55	2548336.23
	CSH399-12	130° 52' 43.23"	01° 30' 28.02"	8,315.00'	8,680.20'	3,800.00'	1171+49.11	1258+29.31	1254+64.11	7106616.57	2557471.84
BNSH399	BNSH399-9	24° 28' 50.74"	01° 42' 18.83"	728.94'	1,435.63'	3,360.00'	1123+90.57	1138+26.20	1131+19.51	7114849.07	2548315.82
	BNSH399-10	130° 52' 43.23"	01° 29' 31.48"	8,402.52'	8,771.57'	3,840.00'	1170+95.07	1258+66.65	1254+97.60	7106528.18	2557509.90
FRNB	FRNB-8	50° 38' 53.26"	07° 09' 43.10"	378.57'	707.18'	800.00'	5126+93.51	5134+00.70	5130+72.08	7115007.31	2548359.39
	FRNB-9	26° 10' 02.52"	05° 27' 24.27"	244.03'	479.54'	1,050.00'	5134+00.70	5138+80.24	5136+44.72	7114428.78	2548589.46
	FRNB-10	130° 52' 43.23"	01° 26' 38.21"	8,682.61'	9,063.96'	3,968.00'	5171+49.11	5262+13.07	5258+31.72	7106245.33	2557631.67
RNX546	RNX546-1	14° 55' 51.49"	02° 30' 07.20"	300.08'	596.76'	2,290.00'	14+19.72	20+16.48	17+19.80	7111665.66	2551797.53
	RNX546-2	01° 27' 43.20"	01° 27' 43.20"	50.00'	100.00'	3,919.00'	20+16.48	21+16.48	20+66.48	7111505.55	2552108.86
	RNX546-3	09° 14' 45.89"	03° 29' 37.12"	132.62'	264.65'	1,640.00'	24+87.48	27+52.13	26+20.10	7111265.01	2552607.49
RNXAPRDR	RNXARPDR-1	15° 41' 52.95"	03° 40' 22.10"	215.05'	427.41'	1,560.00'	10+00.00	14+27.41	12+15.05	7114687.00	2548386.62
	RNXARPDR-2	05° 54' 01.32"	01° 54' 35.49"	154.61'	308.94'	3,000.00'	15+04.64	18+13.58	16+59.24	7114354.57	2548763.70
	RNXARPDR-3	05° 33' 27.14"	01° 13' 27.37"	227.15'	453.95'	4,680.00'	21+47.34	26+01.29	23+74.49	7113911.88	2549229.15
	RNXARPDR-4	05° 33' 27.14"	05° 23' 05.79"	51.64'	103.21'	1,064.00'	26+01.29	27+04.49	26+52.93	7113591.44	2549550.44
BSSH399	BSSH399-9	24° 28' 50.74"	01° 39' 56.07"	746.29'	1,469.81'	3,440.00'	1124+61.89	1139+31.70	1132+08.18	7114920.03	2548356.63
	BSSH399-10	130° 52' 43.23"	10° 31' 25.77"	8,227.47'	8,588.83'	3,760.00'	1172+00.57	1257+89.40	1254+28.04	7106704.96	2557433.79
FRSB	FRSB-8	29° 57' 47.18"	04° 48' 25.26"	318.96'	623.32'	1,191.92'	3129+16.76	3135+40.08	3132+35.72	7115032.73	2548582.75
	FRSB-9	05° 28' 56.45"	02° 17' 30.59"	119.70'	239.21'	2,500.00'	3142+24.39	3144+63.60	3143+44.09	7114203.09	2549339.56
	FRSB-10	130° 52' 43.23"	01° 34' 39.10"	7,947.39'	8,296.45'	3,632.00'	3171+49.21	3254+45.65	3250+96.60	7106987.81	2557312.01
RSE546A	RSE546A-1	13° 20' 53.92"	02° 30' 07.20"	267.97'	533.51'	2,290.00'	9+93.69	15+27.20	12+61.66	7111861.05	2551856.28
	RSE546A-2	03° 31' 02.44"	01° 27' 55.32"	120.05'	240.03'	3,910.00'	18+47.45	20+87.48	19+67.50	7111582.44	2552507.46
	RSE546A-3	12° 48' 10.89"	02° 30' 07.20"	256.93'	511.71'	2,290.00'	20+87.48	25+99.19	23+44.41	7111455.69	2552862.49
RSEAPRDR	RSEARPDR-1	04° 35' 36.59"	01° 14' 44.02"	184.49'	368.79'	4,600.00'	10+00.00	13+68.79	11+84.49	7114242.13	2549159.32
	RSEARPDR-2	02° 35' 36.59"	00° 43' 40.90"	178.15'	356.24'	7,870.00'	13+68.79	17+25.03	15+46.94	7114021.11	2549446.82
	RSEARPDR-3	04° 16' 50.65"	01° 13' 27.37"	174.91'	349.66'	4,680.00'	19+00.23	22+49.89	20+75.14	7113680.52	2549850.63
	RSEARPDR-4	06° 16' 50.65"	05° 23' 05.79"	58.38'	116.64'	1,064.00'	22+49.89	23+66.52	23+08.26	7113543.84	2550039.68
RSXE546	RSXE546-1	28° 27' 46.10"	05° 27' 24.27"	266.30'	521.61'	1,050.00'	10+00.00	15+21.61	12+66.30	7115045.46	2548480.17
	RSXE546-2	03° 58' 55.36"	01° 00' 18.68"	198.15'	396.15'	5,700.00'	27+11.63	31+07.78	29+09.79	7113852.76	2549626.81
	RSXE546-3	03° 37' 43.20"	00° 43' 40.90"	249.30'	498.42'	7,870.00'	36+12.18	41+10.61	38+61.48	7113214.04	2550332.55
	RSXE546-4	03° 37' 43.20"	01° 14' 44.02"	145.71'	291.33'	4,600.00'	41+10.61	44+01.94	42+56.32	7112930.98	2550608.06
XARPTDR	XARPTDR-1	40° 21' 44.05"	11° 14' 04.08"	187.45'	359.27'	510.00'	13+77.09	17+36.36	15+64.54	7113361.83	2550606.71
XCOUNLN	XCOUNLN-1	41° 51' 28.97"	11° 27' 32.96"	191.22'	365.28'	500.00'	10+37.69	14+02.97	12+28.91	7112260.59	2550545.31
XFM546	XFM546-1	45° 56' 25.53"	04° 48' 49.53"	504.50'	954.36'	1,190.25'	12+44.15	21+98.50	17+48.65	7113431.18	2551354.3
	XFM546-2	03° 55' 55.13"	03° 49' 10.99"	51.49'	102.94'	1,500.00'	26+44.99	27+47.93	26+96.48	7112640.72	2551970.84
	XFM546-3	60° 43' 45.38"	19° 5' 54.94"	175.76'	317.98'	300.00'	36+16.99	39+34.97	37+92.75	7111824.53	2552702.79


2'
SHLD
6:1 USUAL
4:1 MAX

PROPERTY OWNER DATA

ID	OWNER'S NAME	ADDRESS
E17	MCKINNEY ECONOMIC DEVELOPMENT CORPORATION	5900 S LAKE FOREST DR STE 110
E18	MCKINNEY CITY OF	PO BOX 517
E19	MCKINNEY CITY OF	PO BOX 517
E20	MCKINNEY NATIONAL INDUSTRIAL PARK LLC	20475 STATE HIGHWAY 249 STE 100
E21	MCKINNEY NATIONAL INDUSTRIAL PARK LLC	20475 STATE HIGHWAY 249 STE 100
E22	MCKINNEY ISD	1 DUVALL ST
E23	MCKINNEY NATIONAL INDUSTRIAL PARK LLC	20475 STATE HIGHWAY 249 STE 100
E24	MCKINNEY NATIONAL INDUSTRIAL PARK LLC	20475 STATE HIGHWAY 249 STE 100
E25	TROIANI FAMILY INVESTMENTS LTD	1910 N COLLEGE ST
E26	RUDD PAULA F	15076 COUNTY ROAD 614
E28	MOTSENBOCKER DARYL R	661 OAKMONT CT
E101	IESI TX CORP	3903 BELLAIRE BLVD
E102	MONTGOMERY JIMMY R & SUSAN K	1229 OLD MILL RD
E103	MONTGOMERY JIMMY RAY & SUSAN KAY	1229 OLD MILL RD
E104	SFG MAC LLC	3280 PEACHTREE RD NE STE 2770
E105	EGAN ROBERT G & SUSAN K	2742 FM 546
E106	REAMY SHEREE RENEE	1271 OLD MILL RD
E107	SIMPSON MANUFACTURING CO INC	5956 W LAS POSITAS BLVD
E108	SHIRLEY ROBERT HAROLD & CHRISTINA JO	1322 OLD MILL RD
E109	PERKINS R B	1332 OLD MILL RD
E110	CHRISTIE ANDREW WINSTON &	& KATRINA ABIGAIL ANN CHRISTIE
E111	FAIRVIEW CITY OF	PO BOX 551
E112	POWELL JOHN W SR	1392 OLD MILL RD
W16	MCKINNEY NATIONAL INDUSTRIAL PARK LLC	20475 STATE HIGHWAY 249 STE 100
W101	IESI TX CORP	3903 BELLAIRE BLVD
W102	MO & ASSOCIATE LLC	3941 LEGACY DR STE 204 B101
W103	MCCRACKEN ELDON	2152 S AIRPORT DR
W104	HENRY JOHNNY L	PO BOX 177
W105	MCKINNEY CITY OF	PO BOX 517
W106	GREATER TEXAS LAND RESOURCES LP & CRAIG CURRY &	10950 RESEARCH RD
W107	MCKINNEY CITY OF	PO BOX 517
W108	MCKINNEY CITY OF	PO BOX 517


℄ RAMP
26'
RAMP
4'
14'
8'
SHLD
LANE
SHLD
2.0%
PGL

RETAINING WALL
℄ RNXARPDR FROM STA 14+79.37 TO STA 22+40.17

NSION

2+42.76

PROPOSED SPUR 399 EXTENSION

1 LN NB RAMP
℄ RNXARPDR FROM STA 14+79.37 TO STA 24+20.17

TYPICAL SECTIONS LEGEND:

→	DIRECTION OF TRAVEL
🟪	PROPOSED BRIDGE
🟨	PROPOSED MAINLANES
🟦	PROPOSED RAMPS
🟩	PROPOSED FRONTAGE ROADS
🟪	PROPOSED CROSS STREETS
🟩	PROPOSED SHARED USE PATH (SUP)
🟫	PROPOSED TRANSITION
🟧	PROJECT BY OTHERS

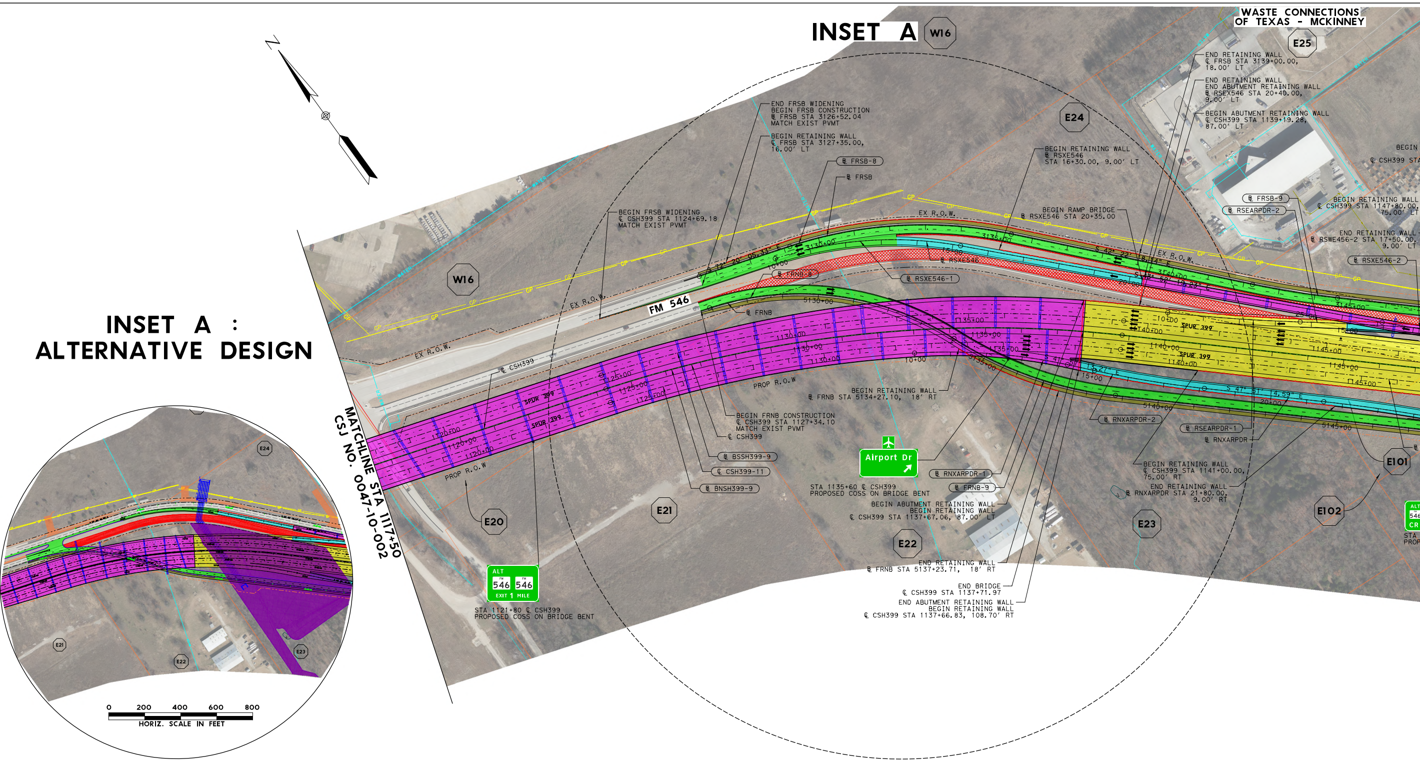
MAINLANE SUPERELEVATION

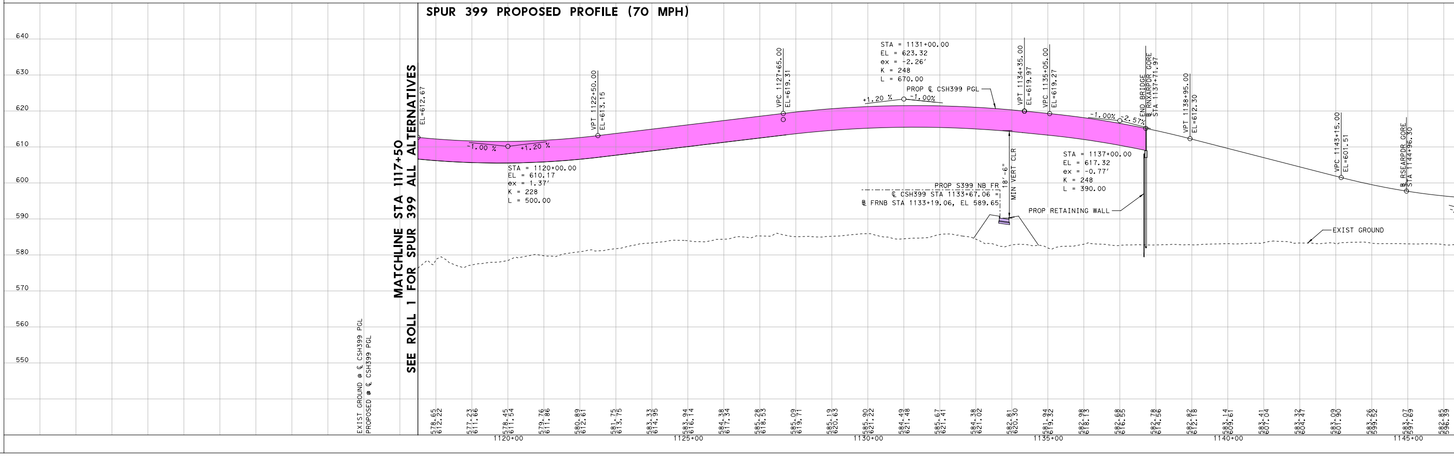
CHAIN NAME	STATION	CROSS SLOPE
℄ S399	1121+82.00	-2.50%
	1124+71.00	-4.90%
	1138+26.00	-4.90%
	1141+87.00	-2.50%
	1162+43.00	-2.50%
	1173+09.00	4.60%

PROPOSED TAPERS

LOCATION	TYPE	BASELINE	BEGIN	END	TAPER RATE
1	AUX LANE MERGE	SE1-CSH399	1127+88.78 64.00 LT	1133+77.70 76.00 LT	50;1
2	FRONTAGE ROAD MERGE	SE1-CSH399	1176+58.53 135.00 RT	1181+40.03 146.00 RT	45:1

EXISTING ROW
EXISTING PROPERTY LINES
EXISTING STREAMS
EXISTING WETLANDS
EXISTING 100-YR FLOODPLAIN
EXISTING FLOODWAY
EXISTING DRAINAGE (BY OTHERS)
FUTURE ADDITIONS (BY OTHERS)
PROPOSED IMPROVEMENTS (BY OTHERS)
PROPOSED CENTERLINE/BASELINE
PROPOSED ROW
PROPOSED ROW (BY OTHERS)
PROPOSED EASEMENT (BY OTHERS)
PROPOSED TRAFFIC BARRIER
PROPOSED BRIDGE BENTS/ABUTMENTS
PROPOSED RETAINING WALL
PROPOSED DRAINAGE
DIRECTION OF TRAVEL
DIRECTION OF FLOW
SIGNALIZED INTERSECTION
PROPOSED BRIDGE
PROPOSED MAINLANES
PROPOSED RAMPS
PROPOSED FRONTAGE ROADS
PROPOSED CROSS STREETS/DRIVEWAYS
PROPOSED SHARED USE PATH (SUP)
PROPOSED TRANSITION
PROJECT BY OTHERS
BUILDING DISPLACEMENT
POND DISPLACEMENT
ROADWAY REMOVAL
CURVE NUMBER
EXISTING WATER
EXISTING SANITARY SEWER
EXISTING GAS
EXISTING ELECTRIC
EXISTING TELEPHONE


INSET A : ALTERNATIVE DESIGN
INSET A
W16
WASTE CONNECTIONS OF TEXAS - MCKINNEY
N
0 200 400 600 800
HORIZ. SCALE IN FEET
MATCHLINE STA 1117+50
CSJ NO. 0047-10-002
FM 546
EX R.O.W.
PROP R.O.W
SPUR 399
Airport Dr
ALT 546 546 EXIT 1 MILE
E20
E21
E22
E23
E24
E25
E101
E102
END FRSB WIDENING
BEGIN FRSB CONSTRUCTION
℄ FRSB STA 3126+52.04
MATCH EXIST PVMT
BEGIN RETAINING WALL
℄ FRSB STA 3127+35.00, 16.00' LT
BEGIN FRSB WIDENING
℄ CSH399 STA 1124+69.18
MATCH EXIST PVMT
BEGIN RETAINING WALL
℄ RSXE546
STA 16+30.00, 9.00' LT
BEGIN RAMP BRIDGE
℄ RSXE546 STA 20+35.00
END RETAINING WALL
℄ FRSB STA 3139+00.00, 18.00' LT
END RETAINING WALL
END ABUTMENT RETAINING WALL
℄ RSEX546 STA 20+40.00, 9.00' LT
BEGIN ABUTMENT RETAINING WALL
℄ CSH399 STA 1139+19.28, 87.00' LT
BEGIN RETAINING WALL
℄ CSH399 STA 1147+80.00, 75.00' LT
END RETAINING WALL
℄ RSWE456-2 STA 17+50.00, 9.00' LT
BEGIN RETAINING WALL
℄ FRNB STA 5134+27.10, 18' RT
BEGIN FRNB CONSTRUCTION
℄ CSH399 STA 1127+34.10
MATCH EXIST PVMT
STA 1135+60 ℄ CSH399
PROPOSED COSS ON BRIDGE BENT
BEGIN ABUTMENT RETAINING WALL
BEGIN RETAINING WALL
℄ CSH399 STA 1137+67.06, 87.00' LT
END RETAINING WALL
℄ FRNB STA 5137+23.71, 18' RT
END BRIDGE
℄ CSH399 STA 1137+71.97
END ABUTMENT RETAINING WALL
BEGIN RETAINING WALL
℄ CSH399 STA 1137+66.83, 108.70' RT
BEGIN RETAINING WALL
℄ CSH399 STA 1141+00.00, 75.00' RT
END RETAINING WALL
℄ RNXARPDR STA 21+80.00, 9.00' RT
STA 1121+80 ℄ CSH399
PROPOSED COSS ON BRIDGE BENT
℄ FRSB-8
℄ FRSB
℄ FRSB-9
℄ RSEARPDR-2
℄ RSXE546-1
℄ RSXE546-2
℄ FRNB
℄ CSH399
℄ BSSH399-9
℄ CSH399-11
℄ BNSH399-9
℄ RNXARPDR-1
℄ RNXARPDR-2
℄ FRNB-9
℄ RSEARPDR-1
℄ RNXARPDR



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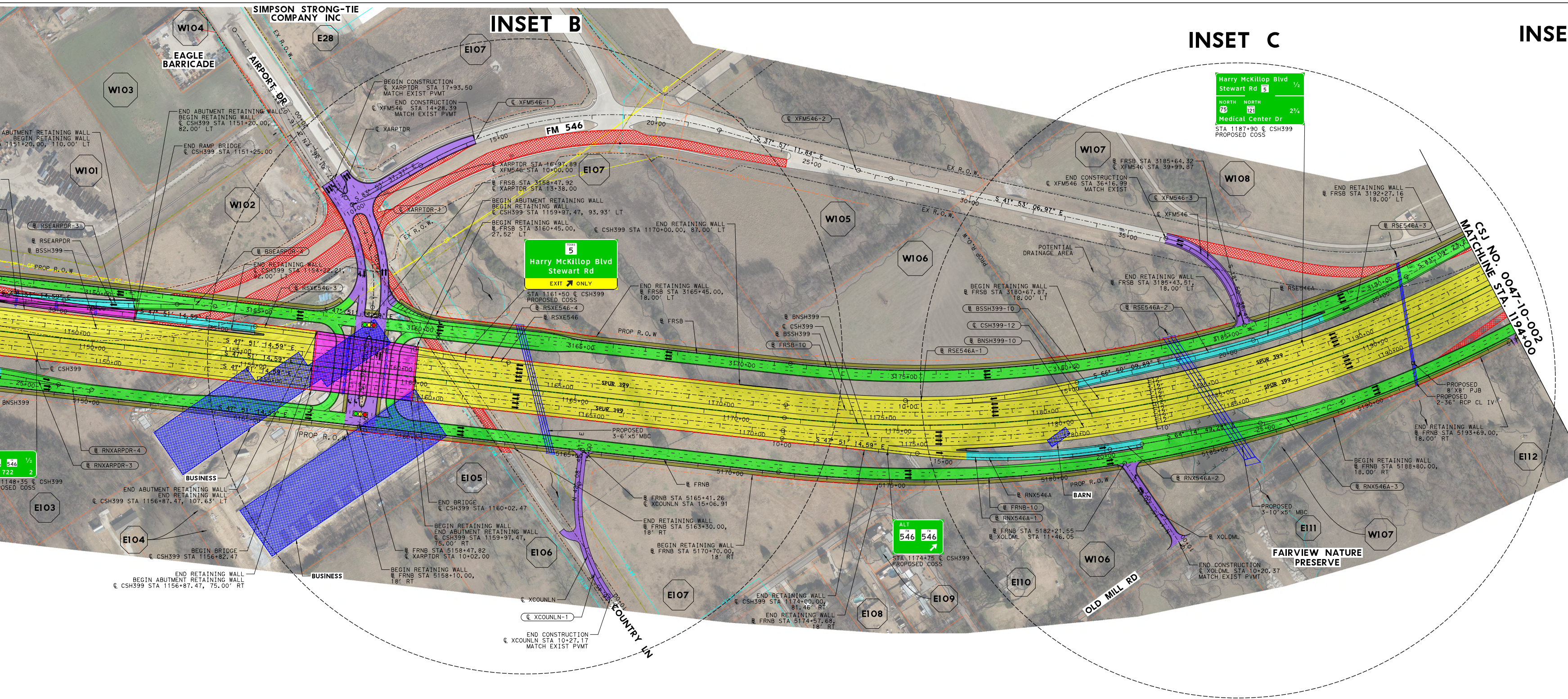
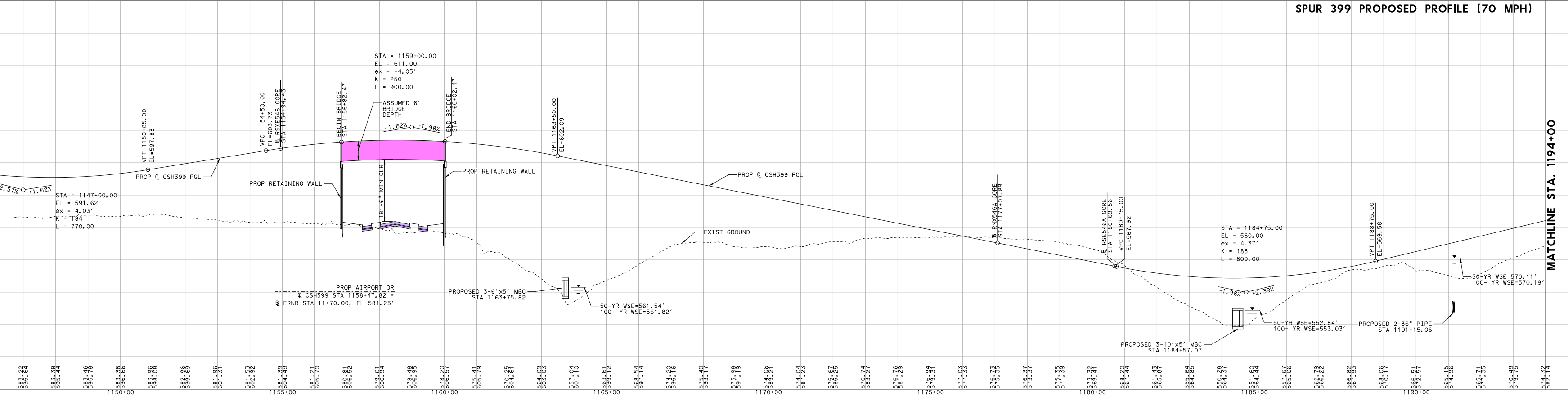
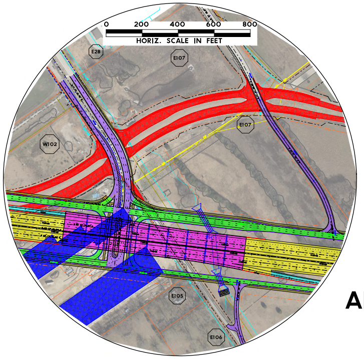
15. SCHEMATICS SHOW CULVERT INFORMATION ONLY. DETAILED DRAINAGE TO BE INCLUDED IN THE PS&E PHASE.
16. ALL PROPOSED BRIDGES UTILIZE TX-54 BEAMS, UNLESS NOTED OTHERWISE.


INSET B
INSET C
SIMPSON STRONG-TIE COMPANY INC
EAGLE BARRICADE
AIRPORT DR
FM 546
COUNTRY LN
OLD MILL RD
FAIRVIEW NATURE PRESERVE
BUSINESS
BARN
POTENTIAL DRAINAGE AREA
SPUR 399
CSJ NO. 0047-10-002
MATCHLINE STA. 1194+00
W104
W103
W101
W102
W105
W106
W107
W108
E28
E107
E105
E103
E104
E106
E108
E109
E110
E111
E112
Harry McKillop Blvd
Stewart Rd
EXIT ONLY
STA 1161+50 ℄ CSH399 PROPOSED COSS
STA 1187+90 ℄ CSH399 PROPOSED COSS
Medical Center Dr
STA 1174+75 ℄ CSH399 PROPOSED COSS
ALT 546 546
BEGIN CONSTRUCTION ℄ XARPTDR STA 17+93.50 MATCH EXIST PVMT
END CONSTRUCTION ℄ XFM546 STA 14+28.39 MATCH EXIST PVMT
END ABUTMENT RETAINING WALL BEGIN RETAINING WALL ℄ CSH399 STA 1151+20.00, 82.00' LT
END RAMP BRIDGE ℄ CSH399 STA 1151+25.00
℄ XARPTDR STA 16+97.89 ℄ XFM546 STA 10+00.00
℄ FRSB STA 3158+47.92 ℄ XARPTDR STA 13+38.00
BEGIN ABUTMENT RETAINING WALL BEGIN RETAINING WALL ℄ CSH399 STA 1159+97.47, 93.93' LT
BEGIN RETAINING WALL ℄ FRSB STA 3160+45.00, 27.52' LT
END RETAINING WALL ℄ CSH399 STA 1170+00.00, 87.00' LT
END RETAINING WALL ℄ CSH399 STA 1154+22.21, 82.00' LT
END RETAINING WALL ℄ FRSB STA 3165+45.00, 18.00' LT
END CONSTRUCTION ℄ XFM546 STA 36+16.99 MATCH EXIST
℄ FRSB STA 3185+64.32 ℄ XFM546 STA 39+99.87
END RETAINING WALL ℄ FRSB STA 3192+27.16 18.00' LT
BEGIN RETAINING WALL ℄ FRSB STA 3180+67.87, 18.00' LT
END RETAINING WALL ℄ FRSB STA 3185+43.51, 18.00' LT
PROPOSED 8'X8' PJB
PROPOSED 2-36" RCP CL IV
END RETAINING WALL ℄ FRNB STA 5193+69.00, 18.00' RT
BEGIN RETAINING WALL ℄ FRNB STA 5188+80.00, 18.00' RT
PROPOSED 3-10'x5' MBC
PROPOSED 3-6'x5' MBC
END CONSTRUCTION ℄ XOLDML STA 10+20.37 MATCH EXIST PVMT
℄ FRNB STA 5182+21.55 ℄ XOLDML STA 11+46.05
END RETAINING WALL ℄ CSH399 STA 1174+00.00, 81.46' RT
END RETAINING WALL ℄ FRNB STA 5174+57.68, 18' RT
BEGIN RETAINING WALL ℄ FRNB STA 5170+70.00, 18' RT
END RETAINING WALL ℄ FRNB STA 5163+30.00, 18' RT
℄ FRNB STA 5165+41.26 ℄ XCOUNLN STA 15+06.91
END CONSTRUCTION ℄ XCOUNLN STA 10+27.17 MATCH EXIST PVMT
BEGIN RETAINING WALL ℄ FRNB STA 5158+10.00, 18' RT
℄ FRNB STA 5158+47.82 ℄ XARPTDR STA 10+02.00
BEGIN RETAINING WALL END ABUTMENT RETAINING WALL ℄ CSH399 STA 1159+97.47, 75.00' RT
END BRIDGE ℄ CSH399 STA 1160+02.47
BEGIN BRIDGE ℄ CSH399 STA 1156+82.47
END RETAINING WALL BEGIN ABUTMENT RETAINING WALL ℄ CSH399 STA 1156+87.47, 75.00' RT
END ABUTMENT RETAINING WALL END RETAINING WALL ℄ CSH399 STA 1156+87.47, 107.63' LT
S 47° 51' 14.59" E
S 37° 57' 11.84" E
S 41° 53' 06.97" E
S 66° 50' 09.89" E
S 64° 14' 49.28" E
PROP R.O.W
EX R.O.W.

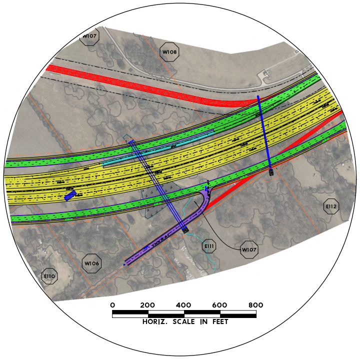
SPUR 399 PROPOSED PROFILE (70 MPH)

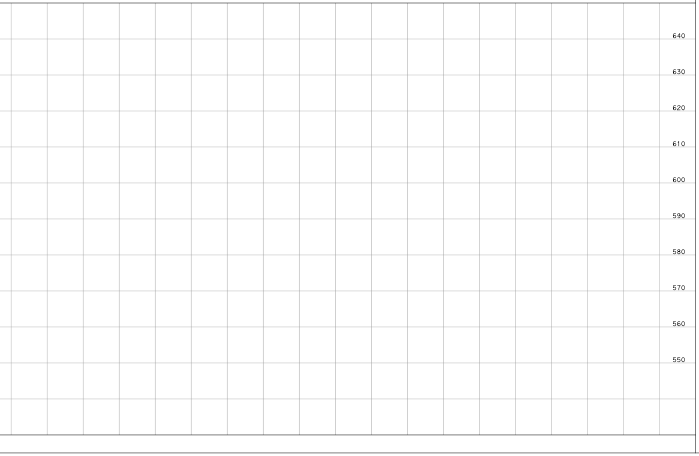

STA = 1159+00.00
EL = 611.00
ex = -4.05'
K = 250
L = 900.00
STA = 1147+00.00
EL = 591.62
ex = 4.03'
K = 184
L = 770.00
STA = 1184+75.00
EL = 560.00
ex = 4.37'
K = 183
L = 800.00
+1.62%
-1.98%
+2.39%
ASSUMED 6' BRIDGE DEPTH
18'-6" MIN CLR
PROP RETAINING WALL
PROP ℄ CSH399 PGL
EXIST GROUND
VPT 1150+85.00 EL=597.83
VPC 1154+50.00 EL=603.73
BEGIN BRIDGE STA 1156+82.47
END BRIDGE STA 1160+02.47
VPT 1163+50.00 EL=602.09
VPC 1180+75.00 EL=567.92
VPT 1188+75.00 EL=569.58
PROP AIRPORT DR ℄ CSH399 STA 1158+47.82 = ℄ FRNB STA 11+70.00, EL 581.25'
PROPOSED 3-6'x5' MBC STA 1163+75.82
50-YR WSE=561.54' 100-YR WSE=561.82'
PROPOSED 3-10'x5' MBC STA 1184+57.07
50-YR WSE=552.84' 100-YR WSE=553.03'
PROPOSED 2-36" PIPE STA 1191+15.06
50-YR WSE=570.11' 100-YR WSE=570.19'
MATCHLINE STA. 1194+00
1150+00
1155+00
1160+00
1165+00
1170+00
1175+00
1180+00
1185+00
1190+00

T B : ALTERNATIVE DESIGN


0
200
400
600
800
HORIZ. SCALE IN FEET
E28
E107
W102
E107
E105
E106

INSET C : ALTERNATIVE DESIGN


W107
W108
E112
E111
W107
W106
E110
0
200
400
600
800
HORIZ. SCALE IN FEET


640
630
620
610
600
590
580
570
560
550

-·-·-·	EXISTING ROW
—	EXISTING PROPERTY LINES
—	EXISTING STREAMS
⊻ ⊻	EXISTING WETLANDS
▭	EXISTING 100-YR FLOODPLAIN
▨	EXISTING FLOODWAY
- - - -	EXISTING DRAINAGE (BY OTHERS)
- - - -	FUTURE ADDITIONS (BY OTHERS)
- - - -	PROPOSED IMPROVEMENTS (BY OTHERS)
-·-·-·	PROPOSED CENTERLINE/BASELINE
-·-·-·	PROPOSED ROW
-·-·-·	PROPOSED ROW (BY OTHERS)
— — —	PROPOSED EASEMENT (BY OTHERS)
—	PROPOSED TRAFFIC BARRIER
═	PROPOSED BRIDGE BENTS/ABUTMENTS
—	PROPOSED RETAINING WALL
—	PROPOSED DRAINAGE
➡	DIRECTION OF TRAVEL
⁓	DIRECTION OF FLOW
🔴🟡🟢	SIGNALIZED INTERSECTION
🟪	PROPOSED BRIDGE
🟨	PROPOSED MAINLANES
🟦	PROPOSED RAMPS
🟩	PROPOSED FRONTAGE ROADS
🟪	PROPOSED CROSS STREETS/DRIVEWAYS
🟫	PROPOSED SHARED USE PATH (SUP)
🟫	PROPOSED TRANSITION
🟧	PROJECT BY OTHERS
▩	BUILDING DISPLACEMENT
▩	POND DISPLACMENT
▩	ROADWAY REMOVAL
XX-X	CURVE NUMBER
WATER	EXISTING WATER
SWL	EXISTING SANITARY SEWER
GP	EXISTING GAS
ELEC	EXISTING ELECTRIC
TELE	EXISTING TELEPHONE

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Texas Department
of Transportation ®

DALLAS DISTRICT
DESIGN SCHEMATIC

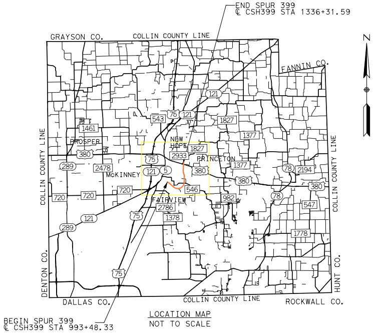
CEASON CLEMENS, P.E.
DALLAS DISTRICT ENGINEER

PUBLIC HEARING SCHEMATIC

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

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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 2 OF 8

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