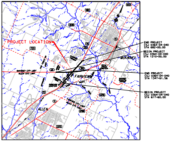
PROJECT LOCATION
END PROJECT
CSJ 0364-04-040
STA 682+00.00
BEGIN PROJECT
CSJ 0364-04-040
STA 1210+00.00
END PROJECT
CSJ 0364-04-040
STA 1347+61.56
BEGIN PROJECT
CSJ 0364-04-040
STA 617+60.00
McKINNEY
FAIRVIEW
ALLEN
McKINNEY CITY LIMIT
ALLEN CITY LIMIT
FAIRVIEW CITY LIMIT
ALLEN CITY LIMIT
5
75
121
380
720

VICINITY MAP

NTS

DESIGN SCHEMATIC

© 2005
Texas Department of Transportation

SH 121 & US 75
INTERCHANGE
US 75
CSJ 0364-04-040
FUNCTIONAL CLASS - URBAN FREEWAY
PROJECT LENGTH - 2.83 MILES

DALLAS DISTRICT
WILLIAM L. HALE, PE
DISTRICT ENGINEER

COLLIN COUNTY
SHEET 2 OF 4

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NOT A BIDDING DOCUMENT

JAMSHID JAHANGIRI, PE
56390
TEXAS REGISTRATION NUMBER
06-03-2005
DATE

REVISION

REVISION NO	REVISION DATE	DESCRIPTION	APPROVAL DATE

LEGEND

CONTROL OF ACCESS	■-·-■-·-■
PROPOSED ROW	-·-·-·-
EXISTING ROW	-·-·-·-
EXISTING LANE DIRECTIONAL INDICATOR	→
PROPOSED LANE DIRECTIONAL INDICATOR	→
RETAINING WALL	▲
MAINLANES	🟥
ACCESS ROADS	🟩
RAMPS	🟪
DIRECT CONNECTORS	▨
BRIDGES AND STRUCTURES	▨
DRAINAGE STRUCTURES	🟦
HOV	🟨

0 100 200
SCALE: 1" = 200' H

US 75
FROM RIDGEVIEW ROAD TO SH 121
GEOMETRIC DESIGN CRITERA

DESIGN ELEMENTS	PROPOSED			
	MAINLANES	FRONTAGE	RAMPS	CONNECTORS
DESIGN SPEED	70 MPH	50 MPH	50 MPH	50 MPH
MINIMUM CENTERLINE CURVE RADIUS	3405 FT	1055 FT	1055 FT	835 FT
MAXIMUM GRADE	3.0%	7.0%	7.0%	7.0%
MINIMUM GRADE	0.5%	0.5%	0.5%	0.5%
K (SAG)	181	96	96	96
K (CREST)	247	84	84	84
TRAVEL LANES NUMBER/WIDTH	8-12 FT	3-12 FT	1-14 FT	2-12 FT OR 1-14 FT
HORIZONTAL CLEARANCE	30 FT	30 FT	16 FT	16 FT
PAVEMENT CROSS SLOPE	2%	2%	2%	2%
SHOULDER WIDTH	10 FT	2 FT	4 FT-INSIDE	4 FT(DES), 2 FT(MIN)-INSIDE
			8 FT-OUTSIDE	8 FT(DES), 6 FT(MIN)-OUTSIDE
MAXIMUM SUPERELEVATION RATE	6.0%	6.0%	6.0%	6.0%

℄ US 75

DESCRIPTION		STATION	BEARING	NORTHING	EASTING	DEGREE	RADIUS	LENGTH	TANGENT	DELTA
	POT	617+60.00		7,105,120.2050	2,534,835.5560					
			N 15° 06' 54" E							
75CL-1	PC	626+06.77		7,105,937.6810	2,535,056.3560	0° 15' 00"	22,918.3118'	594.7531'	297.3933'	1° 29' 13" RT
	PI	629+04.16		7,106,224.7859	2,535,133.9030					
	PT	632+01.52		7,106,509.7819	2,535,218.8737					
			N 16° 36' 06" E							
	POT	682+00.00		7,111,299.8900	2,536,647.0310					

℄ US 75 SBFR

DESCRIPTION		STATION	BEARING	NORTHING	EASTING	DEGREE	RADIUS	LENGTH	TANGENT	DELTA
	POT	619+59.41		7,105,349.6200	2,534,790.6120					
			N 15° 10' 04" E							
75SBFR-1	PC	619+27.55		7,105,318.8288	2,534,782.4396	1° 54' 35"	3,000.0000'	249.1309'	124.6371'	4° 45' 29" LT
	PI	620+52.19		7,105,439.1239	2,534,815.0506					
	PT	621+76.68		7,105,561.7096	2,534,837.5709					
			N 10° 24' 35" E							
75SBFR-2	PC	623+60.64		7,105,742.6464	2,534,870.8110	1° 08' 45"	5,000.0000'	538.9969'	269.7597'	6° 10' 35" RT
	PI	626+30.40		7,106,007.9660	2,534,919.5531					
	PT	628+99.64		7,106,266.5014	2,534,996.5582					
			N 16° 35' 10" E							
75SBFR-3	PC	647+10.70		7,108,002.2045	2,535,513.5398	0° 57' 18"	6,000.0000'	616.9557'	308.7500'	5° 53' 29" LT
	PI	650+19.45		7,108,298.1077	2,535,601.6750					
	PT	653+27.66		7,108,601.4947	2,535,658.9717					
			N 10° 41' 41" E							
75SBFR-4	PC	656+67.27		7,108,935.2064	2,535,721.9955	1° 25' 57"	4,000.0000'	410.6110'	205.4860'	5° 52' 54" RT
	PI	658+72.75		7,109,137.1231	2,535,760.1289					
	PT	660+77.88		7,109,334.0692	2,535,818.7524					
			N 16° 34' 35" E							
75SBFR-5	PC	677+08.70		7,110,897.1125	2,536,284.0123	1° 54' 35"	3,000.0000'	325.6985'	163.0094'	6° 13' 13" RT
	PI	678+71.71		7,111,053.3473	2,536,330.5176					
	PT	680+34.40		7,111,203.6233	2,536,393.6777					
			N 22° 47' 48" E							
	POT	682+00.00		7,111,357.4545	2,536,455.0775					

℄ US 75 NBFR

DESCRIPTION		STATION	BEARING	NORTHING	EASTING	DEGREE	RADIUS	LENGTH	TANGENT	DELTA
	POT	620+30.55		7,105,354.7530	2,535,004.7230					
			N 15° 06' 54" E							
75NBFR-1	PC	620+00.81		7,105,325.3007	2,534,996.6069	1° 54' 35"	3,000.0000'	264.8803'	132.5262'	5° 03' 32" RT
	PI	621+33.34		7,105,453.2422	2,535,031.1641					
	PT	622+65.69		7,105,577.6380	2,535,076.8684					
			N 20° 10' 26" E							
75NBFR-2	PC	625+13.52		7,105,810.2659	2,535,162.3381	1° 54' 35"	3,000.0000'	188.3439'	94.2029'	3° 35' 50" LT
	PI	626+07.73		7,105,898.6895	2,535,194.8258					
	PT	627+01.87		7,105,988.9772	2,535,221.7018					
			N 16° 34' 36" E							
75NBFR-3	PC	645+32.28		7,107,743.3189	2,535,743.9180	1° 25' 57"	4,000.0000'	196.9283'	98.4841'	2° 49' 15" RT
	PI	646+30.77		7,107,837.7098	2,535,772.0154					
	PT	647+29.21		7,107,930.6037	2,535,804.7240					
			N 19° 23' 51" E							
75NBFR-4	PC	657+30.13		7,108,874.7101	2,536,137.1504	0° 57' 18"	6,000.0000'	284.1428'	142.0980'	2° 42' 48" LT
	PI	658+72.23		7,109,008.7422	2,536,184.3440					
	PT	660+14.28		7,109,144.8581	2,536,225.1397					
			N 16° 41' 03" E							
75NBFR-5	PC	682+67.58		7,111,303.3022	2,536,872.0534	0° 57' 18"	6,000.0000'	536.6203'	268.4891'	5° 07' 28" LT
	PI	685+36.07		7,111,560.4884	2,536,949.1354					
	PT	688+04.20		7,111,823.5316	2,537,002.9381					
			N 11° 33' 35" E							
	POT	682+00.00		7,111,238.5660	2,536,852.6510					

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℄ US 75 ENTRANCE RAMP E1

DESCRIPTION		STATION	BEARING	NORTHING	EASTING	DEGREE	RADIUS	LENGTH	TANGENT	DELTA
	POT	624+82.00		7,105,780.6757	2,535,151.4664					
			N 13° 15' 19" E							
	PC	630+10.71		7,106,295.3031	2,535,272.6951					
75ERE1-1	PI	630+52.83		7,106,336.3025	2,535,282.3531	1° 54' 35"	3,000.0000'	84.2376'	42.1216'	1° 36' 32" RT
	PT	630+94.95		7,106,377.0145	2,535,293.1584					
			N 14° 51' 51" E							
	PC	632+58.38		7,106,534.9765	2,535,335.0829					
75ERE1-2	PI	633+00.28		7,106,575.4746	2,535,345.8314	1° 54' 35"	3,000.0000'	83.7949'	41.9002'	1° 36' 01" LT
	PT	633+42.18		7,106,616.2570	2,535,355.4447					
			N 13° 15' 49" E							
	PC	635+37.38		7,106,806.2497	2,535,400.2301					
75ERE1-3	PI	636+24.79		7,106,891.3330	2,535,420.2861	1° 54' 35"	3,000.0000'	174.7810'	87.4152'	3° 20' 17" RT
	PT	637+12.16		7,106,975.1042	2,535,445.2622					
			N 16° 36' 06" E							

℄ US 75 EXIT RAMP W2

DESCRIPTION		STATION	BEARING	NORTHING	EASTING	DEGREE	RADIUS	LENGTH	TANGENT	DELTA
	POT	638+90.00		7,107,193.5585	2,535,335.0858					
			S 16° 36' 06" W							
	PC	639+91.18		7,107,096.5938	2,535,306.1760					
75XRW2-1	PI	641+21.84		7,106,971.3857	2,535,268.8456	1° 54' 35"	3,000.0000'	261.1443'	130.6546'	4° 59' 15" RT
	PRC	642+52.33		7,106,849.8971	2,535,220.7711					
			S 21° 35' 21" W							
	PRC	642+52.33		7,106,849.8971	2,535,220.7711					
75XRW2-2	PI	643+99.42		7,106,713.1209	2,535,166.6472	1° 54' 35"	3,000.0027'	293.9559'	147.0956'	5° 36' 51" LT
	PT	645+46.28		7,106,571.7059	2,535,126.1635					
			S 15° 58' 31" W							
	PC	646+47.00		7,106,474.8782	2,535,098.4440					
75XRW2-3	PI	647+39.49		7,106,385.9590	2,535,072.9886	1° 54' 35"	3,000.0000'	184.9235'	92.4910'	3° 31' 54" RT
	PT	648+31.92		7,106,298.7769	2,535,042.1039					
			S 19° 30' 25" W							
	PC	650+23.43		7,106,118.2668	2,534,978.1574					
75XRW2-4	PI	652+61.93		7,105,893.4521	2,534,898.5157	1° 54' 40"	2,998.0000'	476.0067'	238.5046'	9° 05' 50" LT
	PT	654+99.43		7,105,658.8731	2,534,855.4210					
			S 10° 24' 35" W							

℄ NE CONNECTOR

DESCRIPTION		STATION	BEARING	NORTHING	EASTING
	POT	644+00.00		7,107,634.2981	2,535,641.7990
			N 16° 36' 06" E		
	PC	644+59.79		7,107,691.5911	2,535,658.8807
NECON 4-1	PI	646+09.42		7,107,834.9870	2,535,701.6338
	PT	647+58.80		7,107,973.4168	2,535,758.4437
			N 22° 18' 45" E		
	PC	650+91.69		7,108,281.3757	2,535,884.8261
NECON 4-2	PI	652+10.80		7,108,391.5730	2,535,930.0497
	PT	653+29.64		7,108,506.3365	2,535,961.9549
			N 15° 32' 11" E		
	PC	661+58.75		7,109,305.1490	2,536,184.0319
NECON 4-3	PI	666+40.26		7,109,769.0622	2,536,313.0039
	PT	670+90.59		7,110,071.2336	2,536,687.8927
			N 51° 07' 49" E		
	PC	678+85.42		7,110,570.0285	2,537,306.7222
NECON 4-4	PI	679+71.48		7,110,624.0386	2,537,373.7298
	PT	680+57.50		7,110,674.1184	2,537,443.7235
			N 54° 25' 00" E		
	POT	682+20.94		7,110,769.2216	2,537,576.6441

℄ NW CONNECTOR

DESCRIPTION		STATION	BEARING	NORTHING	EASTING
	POT	644+00.00		7,107,637.7266	2,535,630.2992
			N 16° 36' 06" E		
	PC	644+59.79		7,107,695.0197	2,535,647.3810
NWCON 4-1	PI	646+10.02		7,107,838.9892	2,535,690.3050
	PT	647+60.00		7,107,977.9728	2,535,747.3421
			N 22° 18' 45" E		
	PC	650+92.88		7,108,285.9304	2,535,873.7241
NWCON 4-2	PI	652+11.29		7,108,395.4704	2,535,918.6779
	PT	653+29.42		7,108,509.5495	2,535,950.3929
			N 15° 32' 11" E		
	PC	653+58.28		7,108,537.3586	2,535,958.1241
NWCON 4-3	PI	672+20.51		7,110,331.5458	2,536,456.9240
	PT	673+00.70		7,109,532.8935	2,534,774.6447
			S 64° 36' 15" W		
	PC	681+33.69		7,109,175.6514	2,534,022.1507
NWCON 4-4	PI	682+20.50		7,109,138.4208	2,533,943.7282
	PT	683+07.20		7,109,094.4959	2,533,868.8496
			S 59° 36' 13" W		
	PC	685+57.01		7,108,968.0968	2,533,653.3775
NWCON 4-5	PI	686+88.53		7,108,901.5481	2,533,539.9323
	PT	688+19.89		7,108,845.1414	2,533,421.1181
			S 64° 36' 15" W		
	POT	689+48.43		7,108,790.0163	2,533,305.0031

℄ SW CONNECTOR

DESCRIPTION		STATION	BEARING	NORTHING	EASTING
	POT	340+00.00		7,111,909.1960	2,536,741.0380
			S 16° 36' 06" W		
	PC	340+60.51		7,111,851.2109	2,536,723.7499
SWCON 4-1	PI	341+65.18		7,111,750.9006	2,536,693.8428
	PT	342+69.77		7,111,652.9187	2,536,657.0170
			S 20° 35' 54" W		
	PC	347+04.97		7,111,245.5411	2,536,503.9072
SWCON 4-2	PI	347+57.31		7,111,196.5508	2,536,485.4945
	PT	348+09.60		7,111,146.3964	2,536,470.5411
			S 16° 36' 06" W		
	PC	353+30.84		7,110,646.8897	2,536,321.6147
SWCON 4-3	PI	357+76.09		7,110,220.1964	2,536,194.3973
	PT	361+68.64		7,110,029.2410	2,535,792.1693
			S 64° 36' 15" W		
	PC	381+33.69		7,109,186.4918	2,534,017.0042
SWCON 4-4	PI	382+21.03		7,109,149.0365	2,533,938.1084
	PT	383+08.25		7,109,104.8464	2,533,862.7778
			S 59° 36' 13" W		
	PC	385+58.08		7,108,978.4367	2,533,647.2878
SWCON 4-5	PI	386+89.08		7,108,912.1532	2,533,534.2945
	PT	388+19.91		7,108,855.9713	2,533,415.9537
			S 64° 36' 15" W		
	POT	389+48.43		7,108,800.8550	2,533,299.8574

SUPERELEVATION TABLE

NE CONNECTOR

STATION	SLOPE	DESCRIPTION
648+50.00	+2.00	MATCH US 75 SUPER
649+72.88	+2.00	BEGIN TRANSITION
651+52.88	-4.30	BEGIN SUPER
652+79.42	-4.30	END SUPER
654+08.28	-6.00	MATCH NB SUPER
655+50.00	-6.00	MATCH NW SUPER
660+58.75	+2.00	BEGIN TRANSITION
662+08.75	+5.05	BEGIN SUPER
671+40.59	+5.05	END SUPER
671+90.59	+2.00	END TRANSITION
677+15.00	+2.00	MATCH SH 121 SUPER

75 SBFR

618+00.00	2.00	
619+04.44	2.00	BEGIN TRANSITION
619+77.54	3.40	BEGIN FULL SUPER
620+64.61	3.40	END FULL SUPER
623+62.43	-2.20	BEGIN FULL SUPER
628+49.64	-2.20	END FULL SUPER
631+36.00	2.00	END TRANSITION
654+56.15	2.00	BEGIN TRANSITION
657+17.26	-2.70	BEGIN FULL SUPER
660+27.87	-2.70	END FULL SUPER
662+88.98	2.00	END TRANSITION
675+20.46	2.00	BEGIN TRANSITION
677+58.69	-3.40	BEGIN FULL SUPER
679+35.94	-3.40	END FULL SUPER
682+35.94	2.20	BEGIN FULL SUPER
687+48.16	2.20	END FULL SUPER
687+61.79	2.00	END TRANSITION
750+00.00	2.00	

75 XRE3

618+00.00	2.00	
619+04.44	2.00	BEGIN TRANSITION
619+77.54	3.40	BEGIN FULL SUPER
620+64.61	3.40	END FULL SUPER
623+62.43	-2.20	BEGIN FULL SUPER
628+49.64	-2.20	END FULL SUPER
631+36.00	2.00	END TRANSITION
654+56.15	2.00	BEGIN TRANSITION
657+17.26	-2.70	BEGIN FULL SUPER
660+27.87	-2.70	END FULL SUPER
662+88.98	2.00	END TRANSITION
675+20.46	2.00	BEGIN TRANSITION
677+58.69	-3.40	BEGIN FULL SUPER
679+35.94	-3.40	END FULL SUPER
682+35.94	2.20	BEGIN FULL SUPER
687+48.16	2.20	END FULL SUPER
687+61.79	2.00	END TRANSITION
750+00.00	2.00	

NW CONNECTOR

STATION	SLOPE	DESCRIPTION
648+50.00	+2.00	MATCH MAINLANE SUPER
649+72.88	+2.00	BEGIN TRANSITION
651+52.88	-4.30	BEGIN SUPER
652+79.42	-4.30	END SUPER
654+29.42	-2.00	END TRANSITION
652+58.28	-2.00	BEGIN TRANSITION
654+08.28	-6.00	BEGIN SUPER
672+50.70	-6.00	END SUPER
674+00.70	-2.00	END TRANSITION
680+33.69	-2.00	BEGIN TRANSITION
681+83.69	-4.30	BEGIN SUPER
682+57.20	-4.30	END SUPER
684+50.00	+2.00	MATCH MAINLANE SUPER

75 NBFR

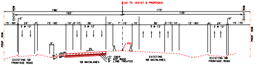
618+00.00	2.00	
619+89.04	2.00	BEGIN TRANSITION
620+50.81	3.40	BEGIN FULL SUPER
622+39.60	3.40	END FULL SUPER
625+39.60	-3.40	BEGIN FULL SUPER
626+51.86	-3.40	END FULL SUPER
628+90.10	2.00	END TRANSITION
645+43.39	2.00	BEGIN TRANSITION
645+82.28	2.70	BEGIN FULL SUPER
646+79.21	2.70	END FULL SUPER
647+18.10	2.00	END TRANSITION
750+00.00	2.00	

SW CONNECTOR

STATION	SLOPE	DESCRIPTION
346+10.00	+2.00	MATCH MAINLANE SUPER
345+72.97	+2.00	BEGIN TRANSITION
347+70.97	-5.05	BEGIN SUPER
361+02.64	-5.05	END SUPER
363+00.64	+2.00	END TRANSITION
352+30.84	+2.00	BEGIN TRANSITION
353+80.84	+5.90	BEGIN SUPER
361+18.64	+5.90	END SUPER
362+18.64	+2.00	END TRANSITION
369+00.00	-2.00	BEGIN TRANS TO MATCH NB SUPER
371+00.00	-6.00	MATCH NB SUPER
372+50.70	-6.00	MATCH NB SUPER
374+00.70	-2.00	MATCH NB SUPER
380+33.69	-2.00	MATCH NB SUPER
381+83.69	-4.30	MATCH NB SUPER
382+57.20	-4.30	MATCH NB SUPER
384+50.00	+2.00	MATCH MAINLANE SUPER

75 XRW2

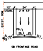
618+00.00	2.00	
619+89.04	2.00	BEGIN TRANSITION
620+50.81	3.40	BEGIN FULL SUPER
622+39.60	3.40	END FULL SUPER
625+39.60	-3.40	BEGIN FULL SUPER
626+51.86	-3.40	END FULL SUPER
628+90.10	2.00	END TRANSITION
645+43.39	2.00	BEGIN TRANSITION
645+82.28	2.70	BEGIN FULL SUPER
646+79.21	2.70	END FULL SUPER
647+18.10	2.00	END TRANSITION
750+00.00	2.00	

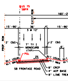

℄ US 75 (EXIST & PROPOSED)
196'
165'
173'
135'
EXIST ROW
PROP ROW
2"
15'-90'
24'
4'
15'-90'
10'
0-12'
36'
10'
7'-10'
10'
36'
0-12'
10'
12'-60'
4'
24'
15'-70'
2 @ 12'
3 @ 12'
3 @ 12'
2 @ 12'
6'
2%
PGL
6:1 USUAL
4:1 MAX
13" CRCP
6" ACP BASE
8" LIME TREATED
EXISTING SB FRONTAGE ROAD
SB MAINLANES
EXISTING NB MAINLANES
EXISTING NB FRONTAGE ROAD

PROPOSED TYPICAL SECTION

NTS

FROM STA. 617+60.00 TO STA. 620+00.00

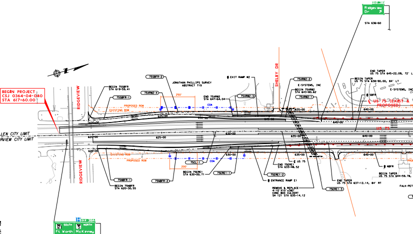

12'
4'
24'
4'
USUAL
2 @ 12'
EXIST. ROW
PGL
2%
2%
SB FRONTAGE ROAD

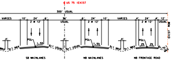

℄ US 75 SBFR
EXIST ROW
PROP ROW
160'-2
15'-90'
36'
4'
15'-90'
3 @ 12'
2" C&G
7" TY I MONOCURB (TYP)
2" C&G
6'
PGL
2%
6:1 USUAL
4:1 MAX
SB FRONTAGE ROAD
8" CRCP
4" ACP BASE
8" LIME TREA

DEGREE	RADIUS	LENGTH	TANGENT	DELTA
1° 54' 35"	3,000.0000'	299.0193'	149.6335'	5° 42' 39" RT
2° 50' 52"	2,012.0000'	237.9542'	119.1160'	6° 46' 34" LT
3° 49' 11"	1,500.0000'	931.8424'	481.5072'	35° 35' 38" RT
1° 54' 35"	3,000.0000'	172.0819'	86.0646'	3° 17' 11" RT

DEGREE	RADIUS	LENGTH	TANGENT	DELTA
1° 54' 08"	3,012.0000'	300.2154'	150.2321'	5° 42' 39" RT
2° 51' 53"	2,000.0000'	236.5350'	118.4055'	6° 46' 34" LT
6° 44' 26"	850.0000'	1,942.4177'	1,862.2323'	130° 55' 56" LT
2° 52' 55"	1,988.0000'	173.5123'	86.8113'	5° 00' 03" LT
1° 54' 08"	3,012.0000'	262.8808'	131.5239'	5° 00' 02" RT

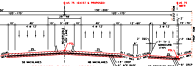
DEGREE	RADIUS	LENGTH	TANGENT	DELTA
1° 54' 35"	3,000.0000'	209.2626'	104.6738'	3° 59' 48" RT
3° 49' 11"	1,500.0000'	104.6298'	52.3361'	3° 59' 48" LT
5° 43' 46"	1,000.0000'	837.8008'	445.2543'	48° 00' 09" RT
2° 51' 53"	2,000.0000'	174.5597'	87.3353'	5° 00' 03" LT
1° 54' 35"	3,000.0000'	261.8335'	130.9999'	5° 00' 02" RT


BEGIN PROJECT
CSJ 0364-04-040
STA 617+60.00
ALLEN CITY LIMIT
FAIRVIEW CITY LIMIT
RIDGEVIEW
RIDGEVIEW
SHELBY DR
BEGIN 75SBFR
STA 619+59.41
75SBFR-1
75SBFR-2
75XRB2-4
75XRB2-3
75XRB2-2
75XRB2-1
JONATHAN PHILLIPS SURVEY
ABSTRACT 719
250'
200'
PROPOSED ROW
EXISTING ROW
COA
END 75XRB2
STA 647+64.04
℄ EXIT RAMP #2
E-SYSTEMS, INC
BEGIN 75XRB2
STA 643+80.62
END TAPER
US 75 STA 645+22.09, 72' LT
BEGIN TAPER
US 75 STA 638+90.00, 84' LT
℄ SBFR
℄ US 75 (EXIST & PROPOSED)
US 75
620+00
625+00
630+00
635+00
640+00
75CL-1
BEGIN 75ERE1
STA 630+00.71
75NBFR-1
75NBFR-2
BEGIN 75NBFR
STA 620+30.55
75ERE1-1
75ERE1-2
75ERE1-3
℄ ENTRANCE RAMP E1
REMOVE & REPLACE
4-10'X10'x382'
CONC BOX CULVERT
SH 121 STA 635+14.12
END 75ERE1
STA 633+48.52
℄ US 75
END TAPER
US 75 STA 637+12.14, 84' RT
℄ NBFR
BEGIN TAPER
US 75 STA 644+59.78,
FALK-PET
Ridgeview Dr
STA 636+60
SOUTH
NORTH
Ft Worth
McKinney
STA 618+10


℄ US 75 (EXIST
300' USUAL
VARIES
10'
24'
6'
36'
USUAL
2 @ 12'
4'
12'
PGL
1.5%
2%
6:1 USUAL
3:1 MAX
EXIST ROW
SB MAINLANES
NB MAINLANES
NB FRONTAGE ROAD

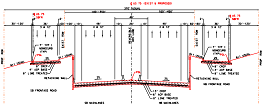
EXISTING TYPICAL SECTION

NTS
FROM STA 617+60.00 TO STA 682+00.00


℄ US 75 (EXIST & PROPOSED)
℄ US 75
NBFR
130'-200'
120'-170'
29'-48'
10'
48'
9'-28'
12'-60'
4'
36'
2'
15'-70'
4 @ 12'
3 @ 12'
REVERSIBLE
HOV LANE
PGL
2%
2' C&G
7" TY I
MONOCURB
(TYP)
6'
6:1 USUAL
4:1 MAX
EXIST ROW
PROP ROW
SB MAINLANES
NB MAINLANES
NB FRONTAGE ROAD
13" CRCP
6" ACP BASE
8" LIME TREATED
8" CRCP
4" ACP BASE
8" LIME TREATED

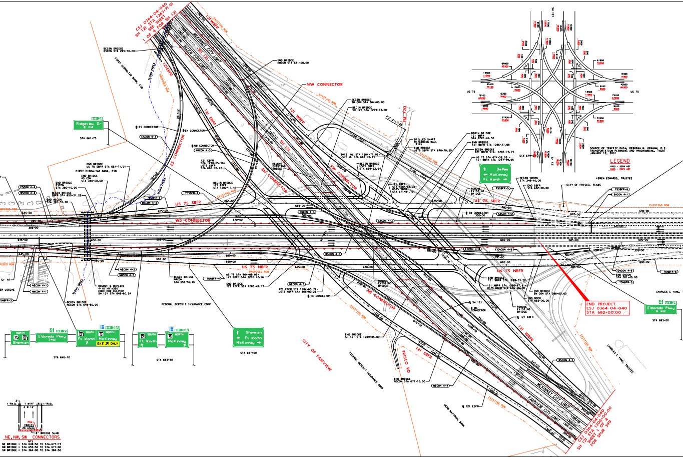
PROPOSED TYPICAL SECTION

NTS
FROM STA. 620+00.00 TO STA. 655+00.00


℄ US 75 (EXIST & PROPOSED)
370' USUAL
140'-350'
160'-450'
48'
℄ US 75
SBFR
℄ US 75
NBFR
30'-120'
36'
3 @ 12'
2'
60'-100'
10'
48'
4 @ 12'
28'
60'-80'
REVERSIBLE
HOV LANE
EXIST ROW
PROP ROW
7" TYP I
MONOCURB
(TYP)
PGL
2%
6:1 USUAL
8" CRCP
4" ACP BASE
8" LIME TREATED
RETAINING WALL
13" CRCP
6" ACP BASE
8" LIME TREATED
SB FRONTAGE ROAD
NB FRONTAGE ROAD
SB MAINLANES
NB MAINLANES

PROPOSED TYPICAL SECTION AT RETAINING WALL

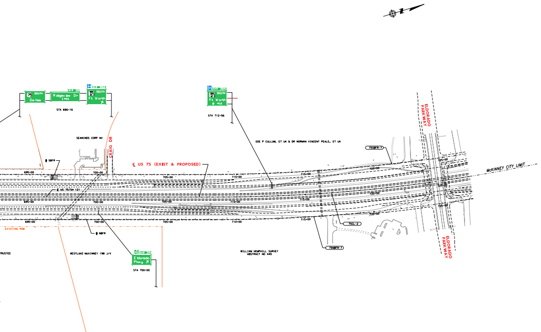
NTS
FROM STA. 655+00.00 TO STA. 682+00.00

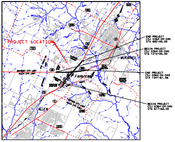

CSJ 0364-04-040
SH 121 STA 1263+71.91
SEE SHEET 1 OF 4 FOR SH 121
121 WBFR
EXISTING ROW
MCKINNEY CITY LIMIT
SH 121
ALLEN CITY LIMIT
BEGIN BRIDGE
ESCON STA 265+50.00
FIRST GIBRALTAR BANK, FSB
SLOAN CREEK
121 EBFR
PROPOSED ROW
Ridgeview Dr
STA 661+75
ES CONNECTOR
EN CONNECTOR
ESCON 4-3
NB CONNECTOR
NWCON 4-3
121 EBFR
STA 1278+65.56=
US75 SBFR
STA 662+78.42
END BRIDGE
US 75 SBFR STA 651+71.01
FIRST GIBRALTAR BANK, FSB
END BRIDGE
WS CON
STA 380+00.00
END BRIDGE
ESCON
STA 280+10.00
BEGIN BRIDGE
SBFR STA 650+31.22
END WSCON
STA 381+55.00
ESCON 4-4
WSCON 4-4
75SBFR-3
WSCON 4-3
75SBFR-4
BEGIN BRIDGE
121 EBFR
STA 1280+17.47
US 75 SBFR
WS CONNECTOR
END BRIDGE
NWCON STA 671+00.00
NW CONNECTOR
BEGIN BRIDGE
SW CON STA 364+00.00
BEGIN BRIDGE
SH 121 STA 1279+93.00
121 WBFR
FM 720
POT 2+11.28
DRILLED SHAFT
RETAINING WALL
(TYP)
END BRIDGE
US75 SBFR STA 670+70.20
SH121 ML STA 1284+77.95=
US75 ML STA 669+78.15
BEGIN BRIDGE
US75 SBFR
STA 669+62.64
REMOVE
EXISTING
BRIDGE
SW CONNECTOR
EN CONNECTOR
121 WBFR
STA 1284+58.35=
US75 SBFR
STA 671+81.73
ENCON 4-3
SBCON 4-3
SW CONNECTOR
350+00
BEGIN BRIDGE
121 WBFR
STA 1285+46.50
END BRIDGE
121 WBFR STA 1286+27.08
BEGIN BRIDGE
121 WBFR STA. 1286+77.75
US 75 STA 674+32.05 =
121 WBFR STA 1287+99.05
Dallas
McKinney
Ft Worth
REMOVE
EXISTING
BRIDGE
75SBFR-5
US 75 SBFR
SBCON 4-2
BEGIN SBCON
STA 346+10.00
END SBFR
STA 682+00.00
CITY OF FRISCO, TEXAS
75SBFR-6
SBCON 4-1
EXISTING ROW
SH 121
US 75
STA 679+00
SOURCE OF TRAFFIC DATA: DEBORAH B. GRAHAM, P.E.
TRANSPORTATION PLANNING AND PROGRAMMING, TXDOT
JANUARY 12, 2001
LEGEND
1000 - 2005 ADT
1000 - 2025 ADT
KEREN EDWARDS, TRUSTEE
61800
55300
13300
11900
47400
70100
10000
14800
75100
67200
37400
43500
64300
6100
9000
NECON 4-1
NWCON 4-1
NECON 4-2
NWCON 4-2
REMOVE & REPLACE
4-10'X9'x350'
CONC BOX CULVERT
SH 121 STA 649+60.24
BEGIN BRIDGE
NECON STA 648+50.00
BEGIN BRIDGE
NWCON
STA 655+50.00
FEDERAL DEPOSIT INSURANCE CORP
75NBFR-4
NORTH
75
121
Sherman
Eldorado Pkwy
1 MILE
SOUTH
121
Ft Worth
NORTH
5
McKinney
EXIT ONLY
STA 646+10
SOUTH
121
Ft Worth
NORTH
5
McKinney
STA 653+50
Sherman
Ft Worth
McKinney
STA 657+00
US 75 NBFR
PROPOSED ROW
US 75 STA 664+89.03=
121 EBFR STA 1281+77.96
END BRIDGE
121 EBFR STA 1283+41.77
NECON 4-3
121 EBFR STA 1284+63.74=
US75 NBFR STA 666+80.26
NE CONNECTOR
WSCON 4-2
REMOVE
EXISTING
BRIDGE
NE CONNECTOR
CITY OF FAIRVIEW
FEDERAL DEPOSIT INSURANCE CORP
END BRIDGE
SH 121 STA 1289+85.00
FRISCO RD
121 EBFR
END BRIDGE
NECON STA 677+15.00
NECON 4-4
NCNB NATIONAL BANK
121 EBFR
SH 121
WS
CONNECTOR
ENCON 4-4
ENCON 4-5
US 75 NBFR
END BRIDGE
121 WBFR STA 1289+33.52
121 WBFR STA 1290+87.81=
US75 NBFR STA 676+26.20
END BRIDGE
EN CON STA 298+00.00
END NBFR
STA 682+00.00
REMOVE
EXISTING
BRIDGE
121 WBFR
WSCON 4-1
MCKINNEY CITY LIMIT
FAIRVIEW CITY LIMIT
EXISTING ROW
END PROJECT
CSJ 0364-04-040
STA 682+00.00
ENCON 4-6
END ENCON
STA 301+40.00
75NBFR-5
75NBFR-6
CHARLES C YANG, TRUSTEE
Eldorado Pkwy
STA 683+00
CSJ 0364-04-040
SH 121 STA 1306+00.00
SHEET 1 OF 4
FOR SPUR 399
1' RAIL
2'
1 @ 14'
6'
1' RAIL
2 @ 12'
PGL
VARIES
2% USUAL
8" BRIDGE SLAB

NE, NW, SW CONNECTORS

NTS

NE BRIDGE : STA 648+50 TO STA.677+15
NW BRIDGE : STA 655+50 TO STA 671+00
SW BRIDGE : STA 364+00 TO STA 384+50


75 SOUTH Dallas
EXIT 38 Ridgeview Dr 1 MILE
EXIT 38A 121 SOUTH Ft Worth
STA 686+16
EXIT 38A 121 SOUTH Ft Worth ½ MILE
STA 712+56
SEAWINDS CORP NV
CRAIG DR
℄ SBFR
℄ US 75 (EXIST & PROPOSED)
℄ US 75/SH 121
GOE P CULLUM, ET UX & DR NORMAN VINCENT PEALE, ET UX
75SBFR-7
ELDORADO PARKWAY
McKINNEY CITY LIMIT
695+00
700+00
705+00
710+00
715+00
720+00
725+00
75CL-2
75NBFR-7
EXISTING ROW
℄ NBFR
TRUSTEE
WESTLAKE-McKINNEY 198 J/V
4 EXIT 38 Eldorado Pkwy
STA 700+00
WILLIAM HEMPHILL SURVEY
ABSTRACT NO 449


PROJECT LOCATION
McKINNEY
FAIRVIEW
ALLEN
McKINNEY CITY LIMIT
ALLEN CITY LIMIT
FAIRVIEW CITY LIMIT
ALLEN CITY LIMIT
END PROJECT
CSJ 0364-04-040
STA 682+00.00
BEGIN PROJECT
CSJ 0364-04-040
STA 1210+00.00
END PROJECT
CSJ 0364-04-040
STA 1347+61.56
BEGIN PROJECT
CSJ 0364-04-040
STA 617+60.00

VICINITY MAP
NTS

DESIGN SCHEMATIC

SH 121 & US 75
INTERCHANGE
US 75
CSJ 0364-04-040

FUNCTIONAL CLASS - URBAN FREEWAY
PROJECT LENGTH - 2.83 MILES

© 2005
Texas Department of Transportation

DALLAS DISTRICT
WILLIAM L. HALE, PE
DISTRICT ENGINEER

COLLIN COUNTY
SHEET 2 OF 4

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NOT A BIDDING DOCUMENT

JAMSHID JAHANGIRI, PE
56390
TEXAS REGISTRATION NUMBER
06-03-2005
DATE

REVISION

REVISION NO	REVISION DATE	DESCRIPTION	APPROVAL DATE

LEGEND

CONTROL OF ACCESS
PROPOSED ROW
EXISTING ROW
EXISTING LANE DIRECTIONAL INDICATOR
PROPOSED LANE DIRECTIONAL INDICATOR
RETAINING WALL

MAINLANES	🟥
ACCESS ROADS	🟩
RAMPS	🟪
DIRECT CONNECTORS	🟥
BRIDGES AND STRUCTURES	🟦
DRAINAGE STRUCTURES	🟦
HOV	🟨

0 100 200
SCALE: 1" = 200' H

US 75
FROM RIDGEVIEW ROAD TO SH 121
GEOMETRIC DESIGN CRITERA

DESIGN ELEMENTS	PROPOSED			
	MAINLANES	FRONTAGE	RAMPS	CONNECTORS
DESIGN SPEED	70 MPH	50 MPH	50 MPH	50 MPH
MINIMUM CENTERLINE CURVE RADIUS	3405 FT	1055 FT	1055 FT	835 FT
MAXIMUM GRADE	3.0%	7.0%	7.0%	7.0%
MINIMUM GRADE	0.5%	0.5%	0.5%	0.5%
K (SAG)	181	96	96	96
K (CREST)	247	84	84	84
TRAVEL LANES NUMBER/WIDTH	8-12 FT	3-12 FT	1-14 FT	2-12 FT OR 1-14 FT
HORIZONTAL CLEARANCE	30 FT	30 FT	16 FT	16FT
PAVEMENT CROSS SLOPE	2%	2%	2%	2%
SHOULDER WIDTH	10 FT	2 FT	4 FT-INSIDE 8 FT-OUTSIDE	4 FT(DES), 2 FT(MIN)-INSIDE 8 FT(DES), 6 FT(MIN)-OUTSIDE
MAXIMUM SUPERELEVATION RATE	6.0%	6.0%	6.0%	6.0%

8:12:00 AM 5/19/2005