Texas Department of Transportation

DALLAS DISTRICT
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

COLLIN COUNTY

DESIGN SCHEMATIC

US 75
FROM TELEPHONE ROAD (CR 275) TO COUNTY LINE ROAD (CR 375) GRAYSON COUNTY LINE
PROJECT LENGTH = 10.29 MILES

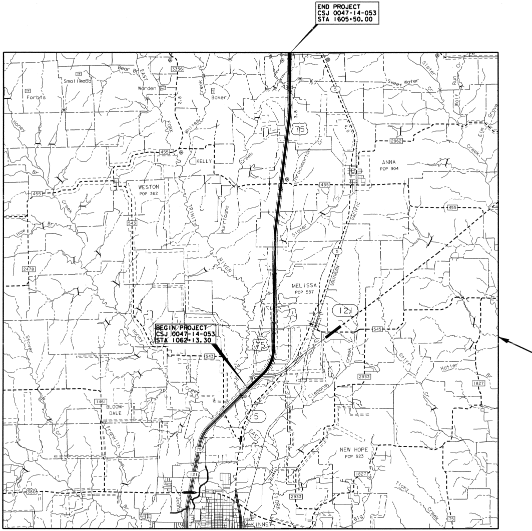
CSJ # 0047-14-053
STA 1062+13.30 TO STA 1605+50.00

DESIGN SPEED: 70 MPH MAIN LANES
50 MPH RAMPS
50 MPH FRONTAGE ROADS
45 MPH SH 121
30 MPH COLLECTOR ROADS

FUNCTIONAL CLASS: RURAL FREEWAY
ROLL 3 OF 9

SCALE 1"=200'H, 1"=20'V

JUNE 2008


END PROJECT
CSJ 0047-14-053
STA 1605+50.00
BEGIN PROJECT
CSJ 0047-14-053
STA 1062+13.30
Forbis
Smallwood
Warden
Baker
KELLY
WESTON
POP 362
ANNA
POP 904
MELISSA
POP 557
NEW HOPE
POP 523
BLOOM-DALE
McKINNEY
75
121
5
455
543
545
1461
2478
2862
2933
1827
3356
380
TRINITY
RIVER
EAST FORK
Hurricane
Throckmorton Cr
Sister Cr
Honey Cr
Franklin
Clemons
Stiff Cr
Hatler
Ticky Creek
Wolf Run Cr
Elm Grove
Sweet Water
SOUTHERN PACIFIC
Bear Br
Stover
Big Br
Whites Creek

VICINITY MAP
NTS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Dallas
3131 McKinney Avenue, Suite 600
Dallas, Texas 75204-2489

THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED BY
DAVID ALAN NUFER, P.E. 68818

DAVID ALAN NUFER
68818
6-18-08

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SXTOPO, 078901JATR1.DGN, 2-4,10,11,17-19,25,33
ROW, 078901TRWR1.DGN, 1,6,10,34,35,40-42,45,47,60
PROF, 078901PROF.DGN, 1-43,45-63
ALIGN, 078901THAR1.DGN, 1,2,4,5,7,8,21-25,29-31,37,38,40-43
PVRI, 078901TPVRI.DGN, 1-61,63

BORDER, 078901BDR2.DGN, 1-5,12,13,21,23,63
CR370-S, 078901PROF.DGN, 1-43,45-62
N-FM455, 078901PROF.DGN, 1-43,45-62
FM455-S, 078901PROF.DGN, 1-43,45-62
N-CR370, 078901PROF.DGN, 1-43,45-62

PRF ROTATION=0.000000
F:\TBL\HWY5000.TBL

I:\proj\03078901\dgn\078901TDT03.DGN
Tue Aug 19 13:05:34 2008
\\HZDALLAS2\DISK0\PLOTTING\400B-18\078901tdt03.prf
ugarte
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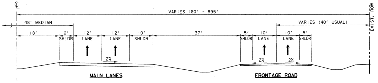
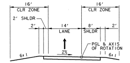
	MAIN ROAD
DESIGN SPEED FUNCTIONAL CLASS	70 MPH PRINCIPAL ARTERIAL
DESIGN SPEED FUNCTIONAL CLASS	50 MPH FRONTAGE ROAD
DESIGN SPEED FUNCTIONAL CLASS	30 MPH COLLECTOR ROAD
AVERAGE DAILY TRAFFIC PRESENT (2008) DESIGN (2030)	 51,100 78,300

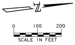
TRAFFIC DATA SOURCE:
TEXAS DEPARTMENT OF TRANSPORTATION,
TRANSPORTATION, PLANNING AND
PROGRAMMING DIVISION.

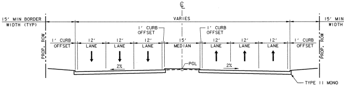

℄
VARIES 160' - 895'
EXIST. ROW
48' MEDIAN
VARIES (40' USUAL)
18'
6' SHLDR
12' LANE
12' LANE
10' SHLDR
37'
5' SHLDR
10' LANE
10' LANE
5' SHLDR
2%
2%
2%
MAIN LANES
FRONTAGE ROAD

EXISTING US 75 TYPICAL HALF SECTION


16' CLR ZONE
16' CLR ZONE
2' SHLDR
2'
14' LANE
8' SHLDR
2'
2%
PGL & AXIS OF ROTATION
6:1
6:1

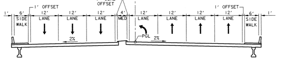
PROP RAMP TYPICAL SECTION


N
0
100
200
SCALE IN FEET


℄
VARIES
15' MIN BORDER WIDTH (TYP)
15' MIN BORDER WIDTH (TYP)
PROP. ROW
PROP. ROW
1' CURB OFFSET
12' LANE
12' LANE
12' LANE
1' CURB OFFSET
15' MEDIAN
1' CURB OFFSET
12' LANE
12' LANE
12' LANE
1' CURB OFFSET
2%
PGL
2%
TYPE II MONO CURB (TYP)

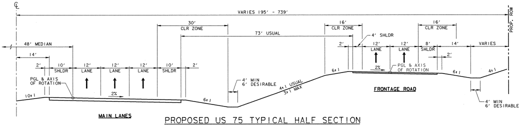
PROPOSED CROSS STREET TYPICAL SECTION

FM 455 STA 94+26.50 - 97+46.74 AND 102+53.42 - 105+71
CR 370 STA 93+94 - 97+46.74 AND STA 102+53.42 - 106+00


℄
1' CURB OFFSET
1' OFFSET
1' OFFSET
1'
6' SIDE WALK
12' LANE
12' LANE
12' LANE
4' MED
12' LANE
12' LANE
12' LANE
12' LANE
6' SIDE WALK
1'
2%
PGL
2%

PROPOSED CROSS STREET BRIDGE TURN LANE TYPICAL SECTION

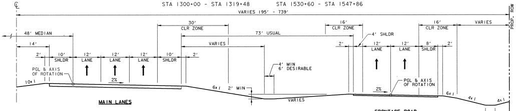
FM 544 STA 97+46.74 - STA 102+53.42
CR 370 STA 97+46.74 - STA 102+53.42


℄
VARIES 195' - 739'
PROP. ROW
30' CLR ZONE
73' USUAL
16' CLR ZONE
16' CLR ZONE
4' SHLDR
48' MEDIAN
14'
2'
10' SHLDR
12' LANE
12' LANE
12' LANE
10' SHLDR
2'
2'
12' LANE
12' LANE
8' SHLDR
14'
2'
VARIES
PGL & AXIS OF ROTATION
10:1
2%
6:1
4' MIN 6' DESIRABLE
4:1 USUAL 3:1 MAX
6:1
2%
PGL & AXIS OF ROTATION
6:1
4:1
FRONTAGE ROAD
4' MIN 6' DESIRABLE
MAIN LANES

PROPOSED US 75 TYPICAL HALF SECTION

FRONTAGE ROAD HIGHER THAN MAINLANES

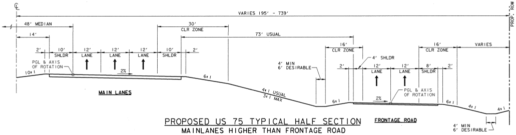
STA 1080+00 - STA 1155+52
STA 1169+31 - STA 1229+65
STA 1267+78 - STA 1285+55
STA 1300+00 - STA 1319+48
STA 1397+53 - STA 1415+58
STA 1465+55 - STA 1487+25
STA 1510+44 - STA 1522+23
STA 1530+60 - STA 1547+86


℄
VARIES 195' - 739'
PROP. ROW
30' CLR ZONE
73' USUAL
16' CLR ZONE
16' CLR ZONE
VARIES
4' SHLDR
48' MEDIAN
14'
VARIES
2'
10' SHLDR
12' LANE
12' LANE
12' LANE
10' SHLDR
2'
2'
12' LANE
12' LANE
8' SHLDR
2'
PGL & AXIS OF ROTATION
10:1
2%
4' MIN 6' DESIRABLE
6:1
2' MIN
VARIES
2%
PGL & AXIS OF ROTATION
6:1
4:1
4:1
MAIN LANES
FRONTAGE ROAD
4' MIN 6' DESIRABLE

PROPOSED US 75 TYPICAL HALF SECTION

AT GRADE

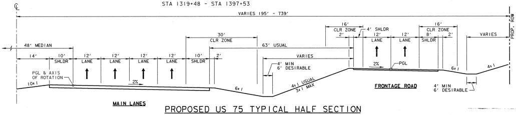
STA 1547+86 - END


℄
VARIES 195' - 739'
PROP. ROW
48' MEDIAN
30' CLR ZONE
14'
73' USUAL
16' CLR ZONE
16' CLR ZONE
VARIES
2'
10' SHLDR
12' LANE
12' LANE
12' LANE
10' SHLDR
2'
4' MIN 6' DESIRABLE
4' SHLDR
2'
12' LANE
12' LANE
8' SHLDR
2'
PGL & AXIS OF ROTATION
10:1
2%
6:1
4:1 USUAL 3:1 MAX
6:1
2%
PGL & AXIS OF ROTATION
6:1
4:1
4:1
MAIN LANES
FRONTAGE ROAD
4' MIN 6' DESIRABLE

PROPOSED US 75 TYPICAL HALF SECTION

MAINLANES HIGHER THAN FRONTAGE ROAD

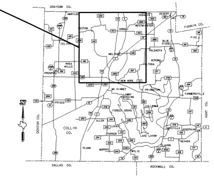
STA 1155+52 - STA 1169+31
STA 1229+65 - STA 1267+78
STA 1285+55 - STA 1300+00
STA 1319+48 - STA 1397+53
STA 1415+58 - STA 1465+55
STA 1487+25 - STA 1510+44
STA 1522+23 - STA 1530+60


℄
VARIES 195' - 739'
PROP. ROW
16' CLR ZONE
2'
4' SHLDR
12' LANE
12' LANE
16' CLR ZONE
8' SHLDR
2'
VARIES
30' CLR ZONE
63' USUAL
48' MEDIAN
VARIES
14'
10' SHLDR
12' LANE
12' LANE
12' LANE
12' LANE
10' SHLDR
2'
4' MIN 6' DESIRABLE
PGL & AXIS OF ROTATION
10:1
2%
6:1
4:1 USUAL 3:1 MAX
2%
PGL
6:1
4:1
FRONTAGE ROAD
4' MIN 6' DESIRABLE
MAIN LANES

PROPOSED US 75 TYPICAL HALF SECTION

WITH AUXILIARY LANE

BEGIN STA 1080+00


GRAYSON CO.
MARILEE
WESTON
ANNA
SEDALIA
DESERT
WESTMINSTER
FANNIN CO.
PIKE
CELINA
BLUE RIDGE
MELISSA
ALDASTA
VERONA
RHEA MILLS
SALTOGA
PROSPER
NEW HOPE
MC KINNEY
PRINCETON
FARMERSVILLE
FRISCO
LOWRY CROSSING
CULLEOKA
FOREST GROVE
ALLEN
LUCAS
HUNT CO.
DENTON CO.
COLLIN CO.
PARKER
COPEVILLE
JOSEPHINE
LAKE LAVON
NEVADA
PLANO
MURPHY
WYLIE
LAVON
DALLAS CO.
ROCKWALL CO.
N

LEGEND	
PLAN	
─── ─ ───	CENTERLINE - ℄
─── ─ ─ ───	EXIST. ROW
━━━ ━ ━ ━━━	PROPOSED ROW
─‖‖───‖‖─	CONTROL OF ACCESS
▨	IMPACTED BUILDING
- - - - - - -	PROPOSED EASEMENT
━━ ━━ ━━	PROPOSED RETAINING WALL

NOTE

EXISTING DRIVEWAYS WILL REMAIN UNLESS IT IS DETERMINED DURING DETAILED DESIGN AND COORDINATION WITH THE CITIES THE DRIVEWAY WILL BE A SAFETY ISSUE AND/ OR VIOLATES THE CURRENT CONTROLLED ACCESS REQUIREMENTS.

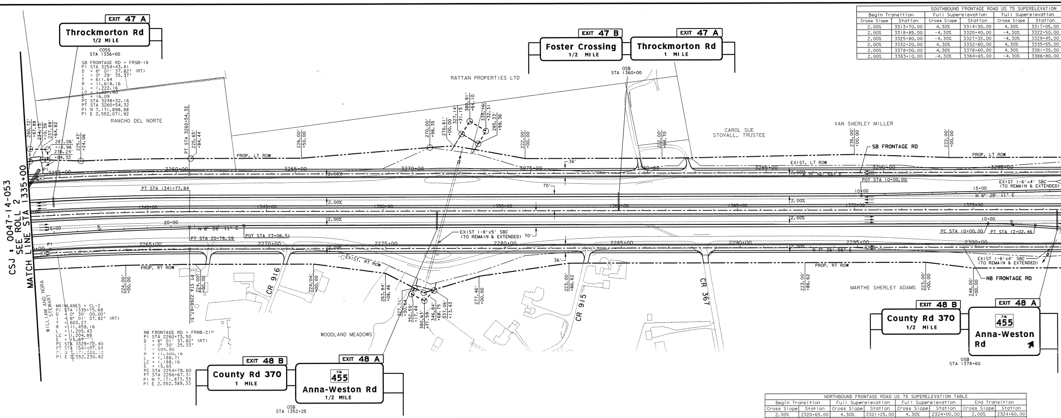
NOTE:

ALL ROW STATIONS AN
BASED ON THE US 75

PROFILE SCALE:
H: =1"=200'
V: =1"=20'

750
740
730
720
710
700
690
680
670
660
650
640

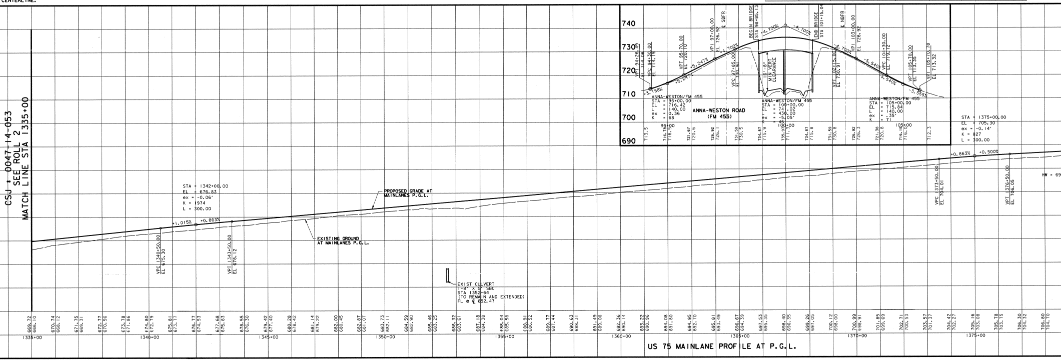
SOUTHBOUND FRONTAGE ROAD US 75 SUPERELEVATION					
Begin Transition		Full Superelevation		Full Superelevation	
Cross Slope	Station	Cross Slope	Station	Cross Slope	Station
2.00%	3313+70.00	4.30%	3314+30.00	4.30%	3317+05.00
2.00%	3318+85.00	-4.30%	3320+40.00	-4.30%	3322+50.00
2.00%	3325+80.00	-4.30%	3327+35.00	-4.30%	3329+45.00
2.00%	3332+20.00	4.30%	3332+80.00	4.30%	3335+55.00
2.00%	3378+00.00	4.30%	3378+60.00	4.30%	3381+35.00
2.00%	3383+10.00	-4.30%	3384+65.00	-4.30%	3386+80.00


EXIT 47 A
Throckmorton Rd
1/2 MILE
COSS
STA 1336+00
SB FRONTAGE RD = FRSB-19
PI STA 3254+43.81
D = 6° 01' 37.82" (RT)
I = 0° 29' 35.37"
T = 611.64
R = 11,618.16
L = 1,222.16
LC = 1,221.80
E = 16.09
PC STA 3248+32.16
PT STA 3260+54.32
PI N 7,171,898.88
PI E 2,552,071.92
RANCHO DEL NORTE
PT STA 3260+54.32
EXIT 47 B
Foster Crossing
1/2 MILE
EXIT 47 A
Throckmorton Rd
1 MILE
OSB
STA 1360+00
RATTAN PROPERTIES LTD
CAROL SUE
STOVALL, TRUSTEE
VAN SHERLEY MILLER
SB FRONTAGE RD
PROP. LT ROW
EXIST. LT ROW
PT STA 1341+77.84
POT STA 10+00.00
EXIST 1-6'x4' SBC
(TO REMAIN & EXTENDED)
N 6° 28' 11" E
EXIST 1-8'x5' SBC
(TO REMAIN & EXTENDED)
PT STA 20+78.59
POT STA 23+06.51
N 8° 28' 11" E
PC STA 10+00.00
PT STA 12+02.46
EXIST. RT ROW
PROP. RT ROW
N 7° 36' 56" E
EXIST 1-6'x4' SBC
(TO REMAIN & EXTENDED)
NB FRONTAGE RD
CSJ : 0047-14-053
SEE ROLL 2
MATCH LINE STA 1335+00
WILLIAM AND NORA
STEWART
MAINLANES = CL-2
PI STA 1335+75.68
D = 0° 30' 00.00"
I = 6° 01' 37.82" (RT)
T = 603.27
R = 11,459.16
L = 1,205.43
LC = 1,204.88
E = 15.87
PC STA 1329+72.40
PT STA 1341+77.84
PI N 7,171,886.10
PI E 2,552,230.62
PT STA 2266+67.31
CR 916
WOODLAND MEADOWS
CR 915
CR 367
MARTHE SHERLEY ADAMS
NB FRONTAGE RD = FRNB-21
PI STA 2260+73.50
D = 6° 01' 37.82" (RT)
I = 0° 30' 25.33"
T = 594.90
R = 11,300.16
L = 1,188.71
LC = 1,188.16
E = 15.65
PC STA 2254+78.60
PT STA 2266+67.31
PI N 7,171,873.33
PI E 2,552,389.33
EXIT 48 B
County Rd 370
1 MILE
EXIT 48 A
455
Anna-Weston Rd
1/2 MILE
OSB
STA 1352+25
EXIT 48 B
County Rd 370
1/2 MILE
EXIT 48 A
455
Anna-Weston
Rd
OSB
STA 1378+60

NORTHBOUND FRONTAGE ROAD US 75 SUPERELEVATION TABLE							
Begin Transition		Full Superelevation		Full Superelevation		End Transition	
Cross Slope	Station	Cross Slope	Station	Cross Slope	Station	Cross Slope	Station
2.00%	2320+65.00	4.30%	2321+25.00	4.30%	2324+00.00	2.00%	2324+60.00
2.00%	2325+80.00	-4.30%	2327+35.00	-4.30%	2329+45.00	2.00%	2331+00.00
2.00%	2332+75.00	-4.30%	2334+30.00	-4.30%	2336+40.00	2.00%	2337+95.00
2.00%	2339+15.00	4.30%	2339+75.00	4.30%	2342+50.00	2.00%	2343+10.00
2.00%	2384+85.00	4.30%	2385+45.00	4.30%	2388+20.00	2.00%	2388+80.00
2.00%	2389+95.00	-4.30%	2391+50.00	-4.30%	2393+65.00	2.00%	2395+20.00

FOSTER CROSSING RAMP CURVE DATA										
RAMP/CURVE NAME	PI STA	DELTA	DEGREE	TANGENT	RADIUS	LENGTH	CHORD	EXTERNAL	PC STA	PT STA
FOSTER CROSSING ON-RAMP-N CURVE-1	1+01.27	4° 00' 00.00" LT	1° 58' 32.58"	101.27'	2,900.00'	202.46'	202.42'	1.77'	0+00.00	2+02.46
FOSTER CROSSING ON-RAMP-N CURVE-2	11+79.39	4° 59' 31.68" RT	1° 58' 32.58"	126.42'	2,900.00'	252.67'	252.59'	2.75'	10+52.98	13+05.65
FOSTER CROSSING ON-RAMP-N CURVE-3	16+92.27	3° 53' 24.66" RT	0° 30' 11.86"	386.62'	11,384.13'	772.94'	772.79'	6.56'	13+05.65	20+78.59

ND OFFSETS ARE
CENTERLINE.


740
730
720
710
700
690
ANNA-WESTON ROAD
(FM 455)
BEGIN BRIDGE
STA 98+85.13
END BRIDGE
STA 101+15.04
℄ SBFR
℄ NBFR
MIN VERT CLEARANCE
ANNA-WESTON/FM 455
STA = 95+00.00
EL = 716.42
L = 140.00
ex = 0.36
K = 68
ANNA-WESTON/FM 455
STA = 100+00.00
EL = 741.02
L = 430.00
ex = -5.05'
K = 46
ANNA-WESTON/FM 455
STA = 105+00.00
EL = 715.84
L = 140.00
ex = .35'
K = 71
4.700%
-4.700%
5.247%
-5.540%
-3.188%
-3.355%
CSJ : 0047-14-053
SEE ROLL 2
MATCH LINE STA 1335+00
STA = 1342+00.00
EL = 676.83
ex = -0.06'
K = 1974
L = 300.00
+1.015%
+0.863%
VPC 1340+50.00
EL 675.30
VPT 1343+50.00
EL 678.12
PROPOSED GRADE AT MAINLANES P.G.L.
EXISTING GROUND AT MAINLANES P.G.L.
EXIST CULVERT
1-8' X 5' SBC
STA 1352+64
(TO REMAIN AND EXTENDED)
FL @ ℄ 652.47
STA = 1375+00.00
EL = 705.30
ex = -0.14'
K = 827
L = 300.00
+0.863%
+0.500%
VPC 1373+50.00
EL 704.01
VPT 1376+50.00
EL 706.05
1335+00
1340+00
1345+00
1350+00
1355+00
1360+00
1365+00
1370+00
1375+00

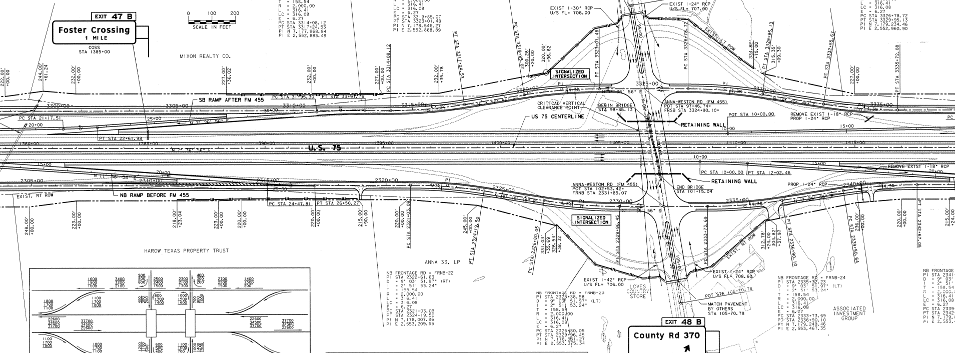
US 75 MAINLANE PROFILE AT P.G.L.

End Transition	
Cross Slope	Station
2.00%	3317+65.00
2.00%	3324+05.00
2.00%	3331+00.00
2.00%	3336+15.00
2.00%	3381+95.00
2.00%	3388+35.00

SOUTHBOUND RAMP AFTER FM 455 SUPERELEVATION TABLE

Begin Transition		Full Superelevation		Full Superelevation		End Transition	
Cross Slope	Station	Cross Slope	Station	Cross Slope	Station	Cross Slope	Station
2.00%	23+50.60					2.00%	28+09.16

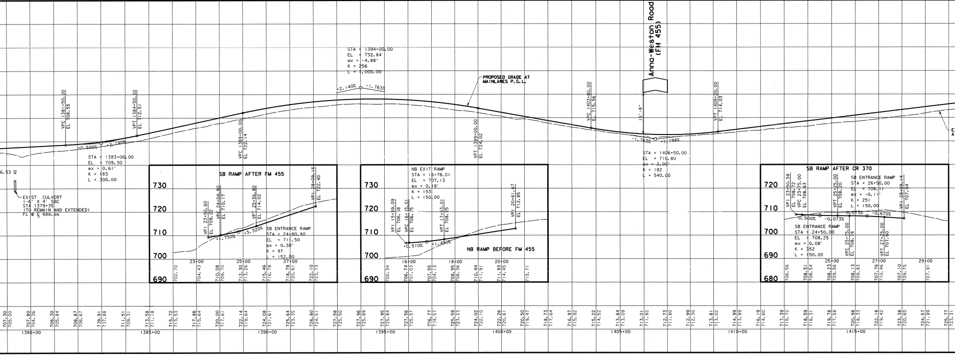
1. THE SIGN CONVENTION FOR THE CROSS SLOPE IS "+" TO THE OUTSIDE AND "-" TO THE INSIDE.
2. SUPERELEVATION IN TRANSITION AREA IS CONTROLLED BY MAINLANE OR FRONTAGE ROAD CROSS SLOPE.


EXIT 47 B
Foster Crossing
1 MILE
COSS
STA 1385+00
0 100 200
SCALE IN FEET
SB FRONTAGE RD = FRSB-20
PI STA 3315+66.66
D = 9° 03' 51.97" (LT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 3314+08.12
PT STA 3317+24.53
PI N 7,177,968.84
PI E 2,552,883.49
AFFI INTERNATIONAL, INC.
SB FRONTAGE RD = FRSB-21
PI STA 3321+43.61
D = 9° 03' 51.97" (RT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 3319+85.07
PT STA 3323+01.48
PI N 7,178,546.27
PI E 2,552,868.89
AFFI INTERNATIONAL, INC.
MATCH PAVEMENT BY OTHERS STA 94+26.49
Anna-Weston Road (FM 455)
CENTRAL EXPRESSWAY 196 JOINT VENTURE
SB FRONTAGE RD = FRSB-22
PI STA 3328+37.26
D = 9° 03' 51.97" (RT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 3326+78.72
PT STA 3329+95.13
PI N 7,179,234.46
PI E 2,552,960.90
MIXON REALTY CO.
POT STA 93+87.04
EXIST 1-24" RCP U/S FL= 707.00
EXIST 1-30" RCP U/S FL= 706.00
EXIST. LT ROW
SIGNALIZED INTERSECTION
SB RAMP AFTER FM 455
CRITICAL VERTICAL CLEARANCE POINT
US 75 CENTERLINE
BEGIN BRIDGE STA 98+85.13
ANNA-WESTON RD (FM 455) POT STA 97+46.74= FRSB STA 3324+90.10=
POT STA 10+00.00
RETAINING WALL
REMOVE EXIST 1-18" RCP PROP 1-24" RCP
PC STA 21+17.51
PT STA 22+61.98
PC STA 31+95.30
PT STA 33+97.76
U.S. 75
N 7° 36' 56" E
NB RAMP BEFORE FM 455
EXIST. RT ROW
PC STA 24+47.81
PT STA 26+50.27
ANNA-WESTON RD (FM 455) POT STA 102+53.42= FRNB STA 2331+85.07
END BRIDGE STA 101+15.04
PC STA 10+00.00
PT STA 12+02.46
RETAINING WALL
PROP 1-24" RCP
REMOVE EXIST 1-18" RCP
SIGNALIZED INTERSECTION
HAROW TEXAS PROPERTY TRUST
ANNA 33, LP
NB FRONTAGE RD = FRNB-22
PI STA 2322+61.63
D = 9° 03' 51.97" (RT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 2321+03.09
PT STA 2324+19.50
PI N 7,178,007.96
PI E 2,553,209.55
EXIST 1-42" RCP U/S FL= 706.00
NB FRONTAGE RD = FRNB-23
PI STA 2328+38.58
D = 9° 03' 51.97" (LT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 2326+80.05
PT STA 2329+96.45
PI N 7,178,561.27
PI E 2,553,375.34
LOVES COUNTRY STORE
EXIST 1-24" RCP U/S FL= 708.60
EXIST. RT ROW
POT STA 106+70.78
MATCH PAVEMENT BY OTHERS STA 105+70.78
EXIT 48 B
County Rd 370
COSS
STA 1406+00
NB FRONTAGE RD = FRNB-24
PI STA 2335+32.23
D = 9° 03' 51.97" (LT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 2333+73.69
PT STA 2336+90.10
PI N 7,179,249.46
PI E 2,553,467.35
ASSOCIATED INVESTMENT GROUP
LEGEND
1000 - 2008 ADT
1000 - 2030 ADT
1000 - 2040 ADT
ANNA-WESTON ROAD (FM 455)
TRAFFIC DATA SOURCE: TRANSPORTATION PLANNING AND PROGRAMMING DIVISION JUNE 26, 2001

NORTHBOUND RAMP BEFORE FM 455 SUPERELEVATION TABLE

Begin Transition		Full Superelevation		Full Superelevation		End Transition	
Cross Slope	Station	Cross Slope	Station	Cross Slope	Station	Cross Slope	Station
2.00%	5+88.46					2.00%	9+57.31

1. THE SIGN CONVENTION FOR THE CROSS SLOPE IS "+" TO THE OUTSIDE AND "-" TO THE INSIDE.
2. SUPERELEVATION IN TRANSITION AREA IS CONTROLLED BY MAINLANE OR FRONTAGE ROAD CROSS SLOPE.



SOUTHBOUND RAMP AFTER CR 370 SUPERELEVATION TABLE							
Begin Transition		Full Superelevation		Full Superelevation		End Transition	
Cross Slope	Station	Cross Slope	Station	Cross Slope	Station	Cross Slope	Station
2.00%	23+50.60					2.00%	28+09.16

1. THE SIGN CONVENTION FOR THE CROSS SLOPE IS "+" TO THE OUTSIDE AND "-" TO THE INSIDE.
2. SUPERELEVATION IN TRANSITION AREA IS CONTROLLED BY MAINLANE OR FRONTAGE ROAD CROSS SLOPE.

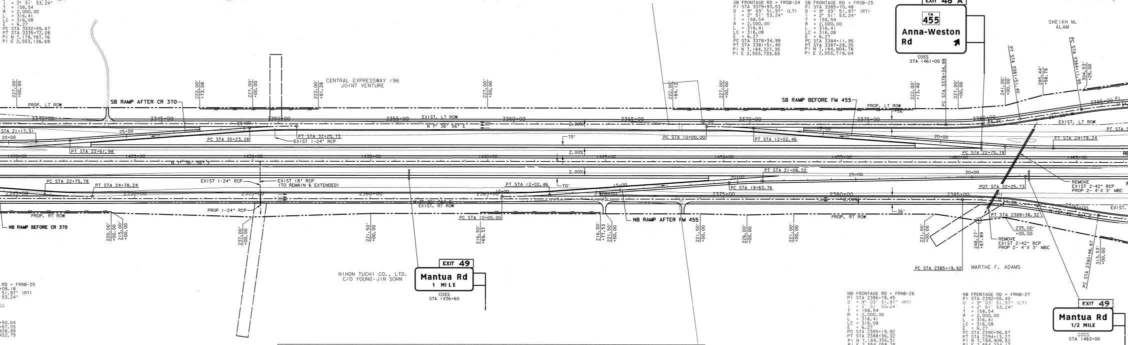
SOUTHBOUND RAMP BEFORE FM 455 SUPERELEVATION TABLE						
Begin Transition		Full Superelevation		Full Superelevation		End
Cross Slope	Station	Cross Slope	Station	Cross Slope	Station	Cross Slo
2.00%	14+16.57					2.00%

1. THE SIGN CONVENTION FOR THE CROSS SLOPE IS "+" TO THE OUTSIDE AND "-" TO T
2. SUPERELEVATION IN TRANSITION AREA IS CONTROLLED BY MAINLANE OR FRONTAGE ROA

SB FRONTAGE RD = FRSB-23
PI STA 3334+14.21
D = 9° 03' 51.97" (LT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 3332+55.67
PT STA 3335+72.08
PI N 7,179,787.76
PI E 2,553,126.69

SB FRONTAGE RD = FRSB-24
PI STA 3379+93.53
D = 9° 03' 51.97" (LT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 3378+34.99
PT STA 3381+51.40
PI N 7,184,327.35
PI E 2,553,733.65

SB FRONTAGE RD = FRSB-25
PI STA 3385+70.48
D = 9° 03' 51.97" (RT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 3384+11.95
PT STA 3387+28.35
PI N 7,184,904.78
PI E 2,553,719.04


EXIT 48 A
F.M. 455
Anna-Weston Rd
COSS STA 1461+00
SHEIKH M. ALAM
CENTRAL EXPRESSWAY 196 JOINT VENTURE
SB RAMP AFTER CR 370
SB RAMP BEFORE FM 455
PROP. LT ROW
EXIST. LT ROW
N 7° 36' 56" E
PT STA 32+25.73
EXIST 1-24" RCP
PC STA 30+23.28
PT STA 22+61.98
PC STA 10+00.00
PT STA 12+02.46
PT STA 24+78.24
PC STA 22+75.78
PT STA 3381+51.40
PC STA 3384+11.95
PC STA 3378+34.99
2.00%
70'
EXIST 1-24" RCP
EXIST 18" RCP (TO REMAIN & EXTENDED)
PROP 1-24" RCP
PC STA 22+75.78
PT STA 24+78.24
PT STA 12+02.46
PT STA 21+08.22
PC STA 19+63.76
POT STA 32+25.73
REMOVE EXIST 2-42" RCP PROP 2- 4'X 3' MBC
NB RAMP BEFORE CR 370
NB RAMP AFTER FM 455
PROP. RT ROW
EXIST. RT ROW
36'
PT STA 2388+36.32
235.00' +00.00
PC STA 2385+19.92
PC STA 2390+96.87
MARTHE F. ADAMS
EXIT 49
Mantua Rd
1 MILE
COSS STA 1436+60
NIHON TUCHI CO., LTD. C/O YOUNG-JIN SOHN
EXIT 49
Mantua Rd
1/2 MILE
COSS STA 1463+00

RD = FRNB-25
+09.18
51.97" (RT)
53.24"
+50.64
+67.05
326.88
452.75

NB FRONTAGE RD = FRNB-26
PI STA 2386+78.45
D = 9° 03' 51.97" (RT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 2385+19.92
PT STA 2388+36.32
PI N 7,184,356.51
PI E 2,554,058.38

NB FRONTAGE RD = FRNB-27
PI STA 2392+55.40
D = 9° 03' 51.97" (LT)
I = 2° 51' 53.24"
T = 158.54
R = 2,000.00
L = 316.41
LC = 316.08
E = 6.27
PC STA 2390+96.87
PT STA 2394+13.27
PI N 7,184,909.82
PI E 2,554,224.17

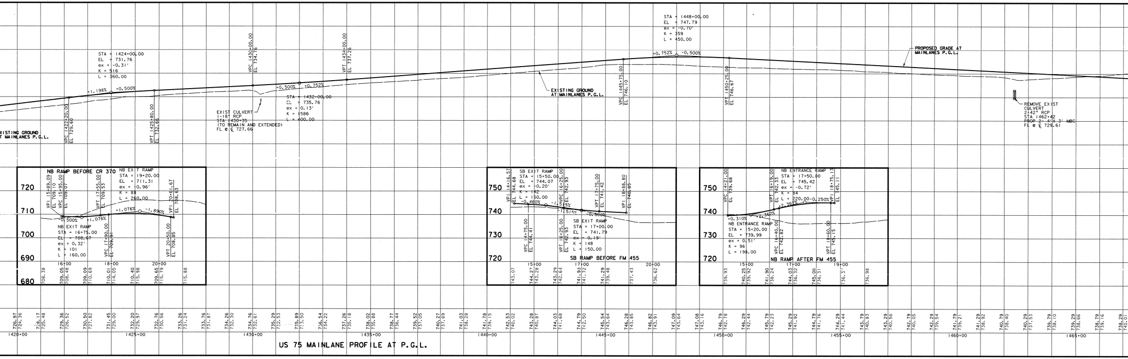
FM 455 RAMP CURVE DATA											
RAMP/CURVE NAME	PI STA	DELTA	DEGREE	TANGENT	RADIUS	LENGTH	CHORD	EXTERNAL	PC STA	PT STA	BEARING
FM455 OFF-RAMP-N CURVE-1	11+01.27	4° 00' 00.00" RT	1° 58' 32.58"	101.27'	2,900.00'	202.46'	202.42'	1.77'	10+00.00	12+02.46	N 3° 36' 55.77"E
FM455 OFF-RAMP-N CURVE-2	25+49.08	4° 00' 00.00" LT	1° 58' 32.58"	101.27'	2,900.00'	202.46'	202.42'	1.77'	24+47.81	26+50.27	N 6° 28' 11.03"E
FM455 ON-RAMP-S CURVE-1	21+89.76	2° 51' 15.25" LT	1° 58' 32.58"	72.25'	2,900.00'	144.47'	144.45'	0.90'	21+17.51	22+61.98	N 3° 36' 55.77"E
FM455 ON-RAMP-S CURVE-2	32+96.57	4° 00' 00.00" RT	1° 58' 32.58"	101.27'	2,900.00'	202.46'	202.42'	1.77'	31+95.30	33+97.76	N 7° 36' 55.77"E
FM455 ON-RAMP-N CURVE-1	11+01.27	4° 00' 00.00" LT	1° 58' 32.58"	101.27'	2,900.00'	202.46'	202.42'	1.77'	10+00.00	12+02.46	N 11° 36' 55.77"E
FM455 ON-RAMP-N CURVE-2	20+36.01	2° 51' 15.25" RT	1° 58' 32.58"	72.25'	2,900.00'	144.47'	144.45'	0.90'	19+63.76	21+08.22	N 7° 36' 55.77"E
FM455 OFF-RAMP-S CURVE-1	11+01.27	4° 00' 00.00" RT	1° 58' 32.58"	101.27'	2,900.00'	202.46'	202.42'	1.77'	10+00.00	12+02.46	N 11° 36' 55.81"E
FM455 OFF-RAMP-S CURVE-2	23+77.05	4° 00' 00.04" LT	1° 58' 32.58"	101.27'	2,900.00'	202.46'	202.42'	1.77'	22+75.78	24+78.24	N 7° 36' 55.77"E

NORTHBOUND RAMP BEFORE CR 370 SUPERELEVATION TABLE							
Begin Transition		Full Superelevation		Full Superelevation		End Transition	
Cross Slope	Station	Cross Slope	Station	Cross Slope	Station	Cross Slope	Station
2.00%	15+89.09	2.00%	20+11.67	2.31%	20+61.67	2.00%	20+61.67

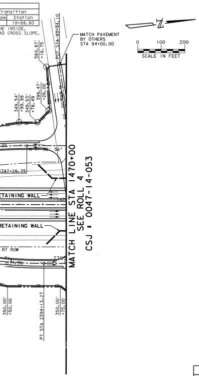
1. THE SIGN CONVENTION FOR THE CROSS SLOPE IS "+" TO THE OUTSIDE AND "-" TO THE INSIDE.
2. SUPERELEVATION IN TRANSITION AREA IS CONTROLLED BY MAINLANE OR FRONTAGE ROAD CROSS SLOPE.

NORTHBOUND RAMP AFTER FM 455 SUPERELEVATION TABLE							
Begin Transition		Full Superelevation		Full Superelevation		End Transition	
Cross Slope	Station	Cross Slope	Station	Cross Slope	Station	Cross Slope	Station
2.00%	14+16.57					2.00%	18+75.13

1. THE SIGN CONVENTION FOR THE CROSS SLOPE IS "+" TO THE OUTSIDE AND "-" TO THE INSIDE.
2. SUPERELEVATION IN TRANSITION AREA IS CONTROLLED BY MAINLANE OR FRONTAGE ROAD CROSS SLOPE.

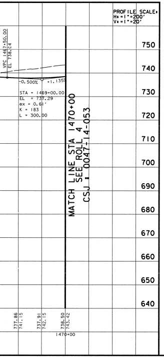


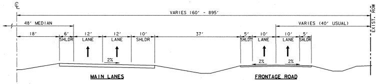
US 75 MAINLANE PROFILE AT P.G.L.


Transition
Slope
Station
18+88.80
HE INSIDE.
AD CROSS SLOPE.
MATCH PAVEMENT BY OTHERS STA 94+00.00
0
100
200
SCALE IN FEET
584.87'
+16.75
POT STA 93+94.10
349.54'
+99.99
349.53'
+78.49
399.47'
+26.00
387+28.35
RETAINING WALL
RETAINING WALL
RT ROW
350.00'
+50.00
PT STA 2394+13.27
350.00'
+75.00
MATCH LINE STA 1470+00
SEE ROLL 4
CSJ : 0047-14-053

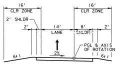
NOTE:

ALL ROW STATIONS AND OFFSETS ARE BASED ON THE US 75 CENTERLINE.

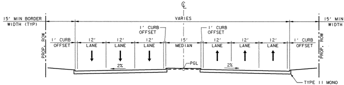



VARIES 160' - 895'
48' MEDIAN
VARIES (40' USUAL)
18'
6'
12'
12'
10'
37'
5'
10'
10'
5'
SHLDR
LANE
LANE
SHLDR
SHLDR
LANE
LANE
SHLDR
2%
2%
2%
EXIST. ROW
MAIN LANES
FRONTAGE ROAD

EXISTING US 75 TYPICAL HALF SECTION

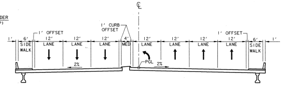

16'
CLR ZONE
16'
CLR ZONE
2' SHLDR
2'
14'
8'
2'
LANE
SHLDR
2%
PGL & AXIS OF ROTATION
6:1
6:1

PROP RAMP TYPICAL SECTION


15' MIN BORDER WIDTH (TYP)
VARIES
15' MIN BORDER WIDTH (TYP)
1' CURB OFFSET
1' CURB OFFSET
1' CURB OFFSET
1' CURB OFFSET
12'
12'
12'
15'
12'
12'
12'
LANE
LANE
LANE
MEDIAN
LANE
LANE
LANE
PROP. ROW
PROP. ROW
PGL
2%
2%
TYPE II MONO CURB (TYP)

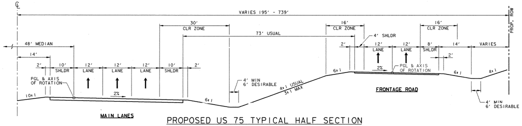
PROPOSED CROSS STREET TYPICAL SECTION

FM 455 STA 94+26.50 - 97+46.74 AND 102+53.42 - 105+71
CR 370 STA 93+94 - 97+46.74 AND STA 102+53.42 - 106+00


1' OFFSET
1' CURB OFFSET
1' OFFSET
1'
6'
12'
12'
12'
4'
12'
12'
12'
12'
6'
1'
SIDE WALK
LANE
LANE
LANE
MED
LANE
LANE
LANE
LANE
SIDE WALK
PGL
2%
2%

PROPOSED CROSS STREET BRIDGE TURN LANE TYPICAL SECTION

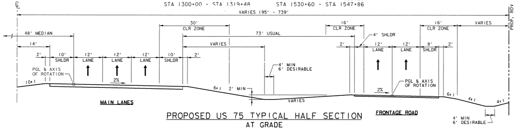
FM 544 STA 97+46.74 - STA 102+53.42
CR 370 STA 97+46.74 - STA 102+53.42


VARIES 195' - 739'
PROP. ROW
30'
CLR ZONE
73' USUAL
16'
CLR ZONE
16'
CLR ZONE
48' MEDIAN
14'
2'
10'
12'
12'
12'
10'
2'
SHLDR
LANE
LANE
LANE
SHLDR
4' SHLDR
2'
12'
12'
8'
14'
VARIES
LANE
LANE
SHLDR
2'
PGL & AXIS OF ROTATION
PGL & AXIS OF ROTATION
2%
2%
10:1
6:1
4' MIN
6' DESIRABLE
4:1 USUAL
3:1 MAX
6:1
6:1
4:1
4' MIN
6' DESIRABLE
MAIN LANES
FRONTAGE ROAD

PROPOSED US 75 TYPICAL HALF SECTION

FRONTAGE ROAD HIGHER THAN MAINLANES

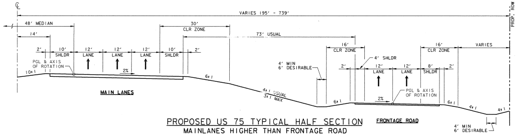
STA 1080+00 - STA 1155+52
STA 1169+31 - STA 1229+65
STA 1267+78 - STA 1285+55
STA 1300+00 - STA 1319+48
STA 1397+53 - STA 1415+58
STA 1465+55 - STA 1487+25
STA 1510+44 - STA 1522+23
STA 1530+60 - STA 1547+86


VARIES 195' - 739'
PROP. ROW
30'
CLR ZONE
73' USUAL
VARIES
16'
CLR ZONE
16'
CLR ZONE
VARIES
48' MEDIAN
14'
2'
10'
12'
12'
12'
10'
2'
SHLDR
LANE
LANE
LANE
SHLDR
4' SHLDR
2'
12'
12'
8'
2'
LANE
LANE
SHLDR
PGL & AXIS OF ROTATION
PGL & AXIS OF ROTATION
2%
2%
10:1
4' MIN
6' DESIRABLE
6:1
2' MIN
VARIES
6:1
4:1
4:1
4' MIN
6' DESIRABLE
MAIN LANES
FRONTAGE ROAD

PROPOSED US 75 TYPICAL HALF SECTION

AT GRADE

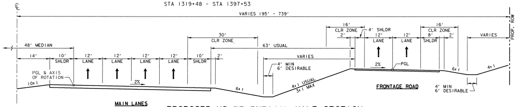
STA 1547+86 - END


VARIES 195' - 739'
PROP. ROW
30'
CLR ZONE
73' USUAL
16'
CLR ZONE
16'
CLR ZONE
VARIES
48' MEDIAN
14'
2'
10'
12'
12'
12'
10'
2'
SHLDR
LANE
LANE
LANE
SHLDR
4' SHLDR
2'
12'
12'
8'
2'
LANE
LANE
SHLDR
PGL & AXIS OF ROTATION
PGL & AXIS OF ROTATION
2%
2%
10:1
6:1
4:1 USUAL
3:1 MAX
4' MIN
6' DESIRABLE
6:1
4:1
4:1
4' MIN
6' DESIRABLE
MAIN LANES
FRONTAGE ROAD

PROPOSED US 75 TYPICAL HALF SECTION

MAINLANES HIGHER THAN FRONTAGE ROAD

STA 1155+52 - STA 1169+31
STA 1229+65 - STA 1267+78
STA 1285+55 - STA 1300+00
STA 1319+48 - STA 1397+53
STA 1415+58 - STA 1465+55
STA 1487+25 - STA 1510+44
STA 1522+23 - STA 1530+60


VARIES 195' - 739'
PROP. ROW
30'
CLR ZONE
63' USUAL
VARIES
16'
CLR ZONE
16'
CLR ZONE
VARIES
48' MEDIAN
14'
10'
12'
12'
12'
12'
10'
2'
SHLDR
LANE
LANE
LANE
LANE
SHLDR
4' SHLDR
2'
12'
12'
8'
2'
LANE
LANE
SHLDR
PGL & AXIS OF ROTATION
PGL
2%
2%
10:1
4' MIN
6' DESIRABLE
6:1
4:1 USUAL
3:1 MAX
6:1
4:1
4' MIN
6' DESIRABLE
MAIN LANES
FRONTAGE ROAD

PROPOSED US 75 TYPICAL HALF SECTION

WITH AUXILIARY LANE

BEGIN STA 1080+00

LEGEND	
PLAN	
— - —	CENTERLINE - ℄
— - - —	EXIST. ROW
━ - - ━	PROPOSED ROW
—ııı——ııı—	CONTROL OF ACCESS
▨	IMPACTED BUILDING
- - - - - - -	PROPOSED EASEMENT
━ ━ ━	PROPOSED RETAINING WALL

NOTE

EXISTING DRIVEWAYS WILL REMAIN UNLESS IT IS DETERMINED DURING DETAILED DESIGN AND COORDINATION WITH THE CITIES THE DRIVEWAY WILL BE A SAFETY ISSUE AND/ OR VIOLATES THE CURRENT CONTROLLED ACCESS REQUIREMENTS.

Texas Department of Transportation

DALLAS DISTRICT
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

COLLIN COUNTY

DESIGN SCHEMATIC

US 75
FROM TELEPHONE ROAD (CR 275) TO
COUNTY LINE ROAD (CR 375) GRAYSON COUNTY LINE
PROJECT LENGTH = 10.29 MILES

CSJ # 0047-14-053
STA 1062+13.30 TO STA 1605+50.00

DESIGN SPEED: 70 MPH MAIN LANES
50 MPH RAMPS
50 MPH FRONTAGE ROADS
45 MPH SH 121
30 MPH COLLECTOR ROADS

FUNCTIONAL CLASS: RURAL FREEWAY
ROLL 3 OF 9

SCALE 1"=200'H, 1"=20'V

JUNE 2008

HUITT-ZOLLARS
Huitt-Zollars, Inc. Dallas
3131 McKinney Avenue, Suite 600
Dallas, Texas 75204-2489

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DAVID ALAN NUFER
68818
6-18-08