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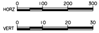
Texas Department of Transportation

DALLAS DISTRICT
WILLIAM HALE, P.E. DISTRICT ENGINEER
SH 121
COLLIN COUNTY
DESIGN SCHEMATIC
SEPTEMBER 2011

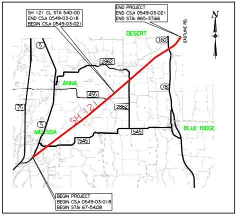
ROLL 1 of 11

FROM: SH 5 IN MELISSA TO: CR 635 (EAST LINE ROAD)
BRIDGE REPLACEMENT AND HIGHWAY RECONSTRUCTION
PROJECT LENGTH: 15.11 MILES (79784')
BRIDGE: 0.30 MILES (1560')
ROADWAY: 14.81 MILES (78224')

CSJ: 0549-03-018 (SH 5 to FM 455)
CSJ: 0549-03-021 (FM 455 to CR 635/FANNIN COUNTY LINE)


0
100
200
300
HORZ
0
10
20
30
VERT

GRAPHIC SCALE
(IN FEET)


SH 121 CL STA 540+00
END CSJ: 0549-03-018
BEGIN CSJ: 0549-03-021
END PROJECT
END CSJ: 0549-03-021
END STA: 865+37.66
EASTLINE RD.
N
DESERT
160
5
2862
ANNA
455
78
75
2862
SH 121
5
MELISSA
545
BLUE RIDGE
545
BEGIN PROJECT
BEGIN CSJ: 0549-03-018
BEGIN STA: 67+54.08

LOCATION MAP

LEGEND

— - - —	EXISTING R.O.W. (ACCESS BY PERMIT ONLY)
——	PROPERTY LINES
▬ ▪ ▪ ▬	PROPOSED R.O.W. (ACCESS BY PERMIT ONLY IN ACCORDANCE WITH TXDOT ACCESS CONTROL MANUAL)
· — · —	SH 121 CL
X X X X	OBLITERATE EXISTING ROADWAY
— —3"w— —	WATER UTILITY
- - - - -	CITY LIMIT
🟩	SH 121 PAVEMENT
🟦	CROSS STREETS
▭	BRIDGE
🟪	DRIVEWAYS
——	RETAINING WALL
▨	DISPLACED STRUCTURE

INDEX OF ROLLS

ROLL	DESCRIPTION
1	SH 121 STA 67+54.08 TO STA. 187+00
2	SH 121 STA 187+00 TO STA. 327+00
3	SH 121 STA 327+00 TO STA. 467+00
4	SH 121 STA 467+00 TO STA. 607+00
5	SH 121 STA 607+00 TO STA. 747+00
6	SH 121 STA 747+00 TO CR 635 (FANNIN COUNTY LINE)
7	SH 121 STA 747+00 TO FANNIN COUNTY LINE (TRANSITION)
8	SH 5 AND FANNIN ROAD
9	FM 455 AND CONNECTING RAMPS
10	FM 2862 AND CONNECTING RAMPS
11	SH 160 AND CONNECTING RAMPS

DESIGN ROADWAY	LIMITS		FUNCTIONAL CLASSIFICATION	ADT		DESIGN SPEED
	FROM	TO		2012	2032	
SH 121(SUBURBAN)	SH 5 STA 67+54.08	Outer Loop + STA 368+10.00	ARTERIAL	18800	29400	45
SH 121(RURAL)	Outer Loop + STA 368+10.00	CR 635 STA 865+37.66	ARTERIAL	13500	21000	70
SH 121 RAMPS	Outer Loop + STA 368+10.00	CR 635 STA 865+37.66	RAMP	NA	NA	35
FM 2933	AT SH 121		COLLECTOR	1000	1600	40
455 N	AT SH 121		ARTERIAL	1550	2250	40
455 S	AT SH 121		COLLECTOR	500	700	40
E. HOUSTON ST (FM 2862)	AT SH 121		COLLECTOR	1700	2700	50
SH 160	AT SH 121		ARTERIAL	4100	6600	50
N. McDonald Street (SH 5 SOUTH)	AT SH 121		ARTERIAL	7300	11,300	40
MC KINNEY ST (SH 5 NORTH)	AT SH 121		ARTERIAL	6400	9900	40
DENTON ST (FM 545)	AT SH 121		COLLECTOR	4200	6500	30
COUNTY ROADS						
CR 418	AT SH 121		LOCAL	600	900	30
LANDFILL ENTRANCE	AT SH 121		LOCAL	NA	NA	30
416	AT SH 121		LOCAL	NA	NA	30
419	AT SH 121		LOCAL	300	600	20 •
420	AT SH 121		LOCAL	NA	NA	20 •
475	AT SH 121		LOCAL	250	450	30
507(509)	AT SH 121		LOCAL	NA	NA	20 •
424 / 513	AT SH 121		LOCAL	NA	NA	30
526 / 527	AT SH 121		LOCAL	NA	NA	20 •
528 / 581	AT SH 121		LOCAL	NA	NA	20 •
582	AT SH 121		LOCAL	NA	NA	20 •
936	AT SH 121		LOCAL	NA	NA	20 •
1002	AT SH 121		LOCAL	NA	NA	20 •
COUNTY LINE RD	AT SH 121		LOCAL	250	250	20 •
EASTLINE RD	AT SH 121		LOCAL	200	350	30
CITY STREETS						
FANNIN RD	AT SH 121		COLLECTOR	NA	NA	30
BARTLETT RD	AT SH 121		LOCAL	NA	NA	30
CREEKSIDE RD	AT SH 121		LOCAL	NA	NA	30
BERRY RD	AT SH 121		LOCAL	2600	4000	30
EASTWOOD RD	AT SH 121		LOCAL	NA	NA	30
LILLIAN DR	AT SH 121		LOCAL	NA	NA	30
NUGENT ST	AT SH 121		LOCAL	NA	NA	30
LIBERTY WAY	AT SH 121		LOCAL	900	1400	30
REDWOOD BLVD	AT SH 121		LOCAL	NA	NA	30

• = UNPAVED COUNTY ROAD
+ = FUTURE OUTER LOOP, BY OTHERS

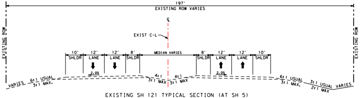
NOTES:

1. MEDIAN OPENINGS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL MEDIAN OPENING LOCATIONS TO BE DETERMINED DURING PS&E AND IN COORDINATION WITH THE CITIES OF MELISSA AND ANNA.
2. SOURCE OF TRAFFIC DATA: TEXAS DEPARTMENT OF TRANSPORTATION TRANSPORTATION, PROGRAMING AND PLANNING DIVISION MARCH 27, 2007
3. ALL URBAN SECTIONS WILL HAVE CONCRETE CURB AND GUTTER WITH BARRIER CURBS.

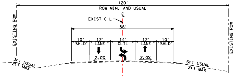
These documents are not intended for Construction, Bidding or Permit Purposes. They were prepared by, or under the supervision of:

NANCY D. MITCHELL, P.E. 79762 09/22/11
PROJECT MANAGER PE# DATE

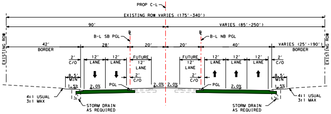
Lockwood, Andrews & Newnam, Inc.
T.B.P.E. Firm # 2614


197'
EXISTING ROW VARIES
EXISTING ROW
EXIST C-L
10' SHLDR
12' LANE
12' LANE
8' SHLDR
MEDIAN VARIES
8' SHLDR
12' LANE
12' LANE
10' SHLDR
2.0%
2.0%
VARIES
6:1 USUAL 3:1 MAX.
4:1 3:1 MAX
4:1 3:1 MAX
6:1 USUAL 3:1 MAX.
3:1 USUAL 2:1 MAX
VARIES
EXISTING ROW

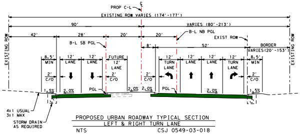
EXISTING SH 121 TYPICAL SECTION (AT SH 5)
NTS
STA. 67+54.08 TO STA. 123+00.00


120'
ROW MIN. AND USUAL
EXIST C-L
58'
EXISTING ROW
10' SHLD
12' LANE
14' CLTL
12' LANE
10' SHLD
2.0%
2.0%
3:1 USUAL 2:1 MAX
6:1 USUAL 2:1 MAX
EXISTING ROW

EXISTING TYPICAL SECTION (MELISSA)
NTS
STA. 123+00 TO STA. 187+00

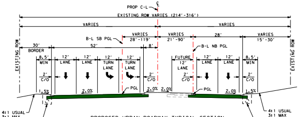

PROP C-L
EXISTING ROW VARIES (175'-340')
90'
VARIES (85'-250')
B-L SB PGL
B-L NB PGL
EXISTING ROW
42' BORDER
28'
20'
20'
40'
VARIES (25'-190') BORDER
EXISTING ROW
2' C/O
12' LANE
12' LANE
FUTURE 12' LANE
FUTURE 12' LANE
12' LANE
12' LANE
12' LANE
2' C/O
8.5' MIN
2' C/O
2' C/O
8.5' MIN
1.5%
2.0%
PGL
2.0%
2.0%
PGL
2.0%
1.5%
4:1 USUAL 3:1 MAX
STORM DRAIN AS REQUIRED
STORM DRAIN AS REQUIRED
4:1 USUAL 3:1 MAX

PROPOSED URBAN ROADWAY TYPICAL SECTION
NTS CSJ 0549-03-018
STA. 67+54.08 TO STA. 77+82


PROP C-L
EXISTING ROW VARIES (174'-177')
90'
VARIES (80'-213')
42'
28'
20'
20'
B-L NB PGL
EXIST ROW
B-L SB PGL
8'
52'
BORDER VARIES(20'-153')
EXISTING ROW
8.5' MIN
12' LANE
12' LANE
FUTURE 12' LANE
12' TURN LANE
12' LANE
12' LANE
12' TURN LANE
8.5' MIN
2' C/O
2' C/O
2' C/O
2' C/O
1.5%
2.0%
PGL
2.0%
2.0%
PGL
2.0%
1.5%
EXISTING ROW
4:1 USUAL 3:1 MAX
STORM DRAIN AS REQUIRED

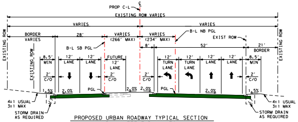
PROPOSED URBAN ROADWAY TYPICAL SECTION
LEFT & RIGHT TURN LANE
NTS CSJ 0549-03-018
STA. 77+82 TO STA. 84+62
* STA. 145+65 TO STA. 152+19
STA. 167+33 TO STA. 174+67

NOTE:
* NO RIGHT TURN LANE


PROP C-L
EXISTING ROW VARIES (214'-316')
VARIES
VARIES
B-L SB PGL
VARIES 28'-119'
VARIES 21'-90'
28'
VARIES 15'-30'
30' BORDER
52'
8'
B-L NB PGL
EXISTING ROW
8.5' MIN
12' LANE
12' LANE
12' TURN LANE
12' TURN LANE
FUTURE 12' LANE
12' LANE
12' LANE
8.5' MIN
2' C/O
2' C/O
2' C/O
2' C/O
1.5%
2.0%
PGL
2.0%
2.0%
PGL
2.0%
1.5%
EXISTING ROW
4:1 USUAL 3:1 MAX
STORM DRAIN AS REQUIRED
4:1 USUAL 3:1 MAX
STORM DRAIN AS REQUIRED

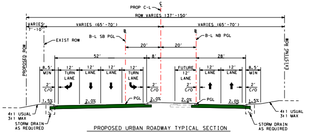
PROPOSED URBAN ROADWAY TYPICAL SECTION
DUAL LEFT TURN LANES
NTS CSJ 0549-03-018
STA. 84+62 TO STA. 91+35

PROPOSED ROW
PROP
120'
PROPOSED ROW
2' C/O
12' LANE
2.0% (MAX.)
2.0%
4:1 MAX
PROP
NTS


PROP C-L
EXISTING ROW VARIES
VARIES
VARIES
BORDER VARIES
28'
VARIES (266' MAX)
VARIES (234' MAX)
B-L NB PGL
EXIST ROW
B-L SB PGL
8'
52'
21' BORDER
EXISTING ROW
8.5' MIN
12' LANE
12' LANE
FUTURE 12' LANE
12' TURN LANE
12' TURN LANE
12' LANE
12' LANE
8.5' MIN
2' C/O
PGL
1.5%
2.0%
4:1 USUAL
3:1 MAX
STORM DRAIN AS REQUIRED

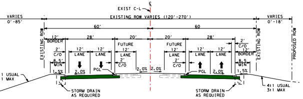
PROPOSED URBAN ROADWAY TYPICAL SECTION
DUAL LEFT TURN LANES
NTS CSJ 0549-03-018

STA. 100+13 TO STA. 109+00


PROP C-L
ROW VARIES 137'-150'
VARIES 7'-10'
VARIES (65'-70')
VARIES (65'-70')
B-L SB PGL
B-L NB PGL
EXIST ROW
20'
20'
52'
8'
28'
PROPOSED ROW
EXISTING ROW
8.5' MIN
12' TURN LANE
12' LANE
12' TURN LANE
FUTURE 12' LANE
2' C/O
PGL
1.5%
2.0%
4:1 USUAL
3:1 MAX
STORM DRAIN AS REQUIRED

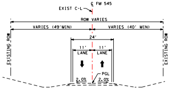
PROPOSED URBAN ROADWAY TYPICAL SECTION
LEFT & RIGHT TURN LANE
NTS CSJ 0549-03-018

STA. 109+00 TO STA. 115+14
STA. 152+19 TO STA. 158+74
STA. 174+67 TO STA. 180+38


EXIST C-L
EXISTING ROW VARIES (120'-270')
VARIES 0'-85'
VARIES 0'-18'
60'
60
12' BORDER
28'
20'
20'
28'
EXISTING ROW
PROPOSED ROW
12' LANE
FUTURE 12' LANE
2' C/O
8.5' MIN
PGL
1.5%
2.0%
1 USUAL
1 MAX
4:1 USUAL
3:1 MAX
STORM DRAIN AS REQUIRED

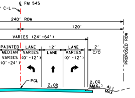
PROPOSED URBAN ROADWAY TYPICAL SECTION (MELISSA)
NTS CSJ 0549-03-018

STA. 115+14 TO STA. 123+43.10
STA. 126+43.10 TO STA. 145+65
STA. 158+74 TO STA. 167+33
STA. 180+38 TO STA. 187+00


EXIST C-L
FM 545
ROW VARIES
VARIES (49' MIN)
VARIES (40' MIN)
24'
11' LANE
11' LANE
EXISTING ROW
PGL
2.0%

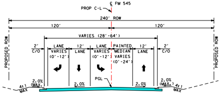
EXISTING FM 545 TYPICAL SECTION
NTS CSJ 0549-03-018

STA. 4+32 TO STA. 15+54


FM 545
C-L
240' ROW
120'
VARIES (24'-64')
PAINTED MEDIAN VARIES (0'-24')
LANE VARIES (0'-12')
12' LANE
LANE VARIES (0'-12')
2' C/O
PROPOSED ROW
PGL
2.0%
2.0% (MAX.)
4:1 MAX

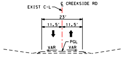
OSED FM 545 TYPICAL SECTION
CSJ 0549-03-018

TA. 4+32 TO STA. 10+00

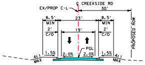

PROP C-L
FM 545
240' ROW
120'
120'
VARIES (28'-64')
2' C/O
LANE VARIES (0'-12')
12' LANE
LANE VARIES (0'-12')
PAINTED MEDIAN VARIES (0'-24')
12' LANE
PROPOSED ROW
PGL
2.0%
2.0% (MAX.)
4:1 MAX

PROPOSED FM 545 TYPICAL SECTION
NTS CSJ 0549-03-018

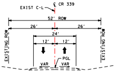
STA. 10+00 TO STA. 15+54


EXIST C-L
CREEKSIDE RD
23'
11.5'
11.5'
PGL
VAR

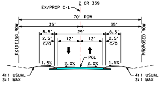
EXISTING CREEKSIDE RD TYPICAL SECTION
NTS CSJ 0549-03-018


EX/PROP C-L
CREEKSIDE RD
30'
8.5' MIN
23'
19'
2' C/O
PROPOSED ROW
PGL
1.5%
2.0%
4:1 MAX

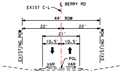
PROPOSED CREEKSIDE RD TYPICAL SECTION
NTS CSJ 0549-03-018


EXIST C-L
CR 339
52' ROW
26'
26'
24'
12'
12'
EXISTING ROW
PGL
VAR

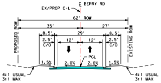
EXISTING CR 339 TYPICAL SECTION
NTS CSJ 0549-03-018


EX/PROP C-L
CR 339
70' ROW
35'
35'
8.5'
29'
8.5'
2.5' C/O
12'
12'
EXISTING ROW
PROPOSED ROW
PGL
1.5%
2.0%
4:1 USUAL
3:1 MAX

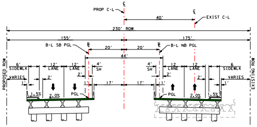
PROPOSED CR 339 TYPICAL SECTION
NTS CSJ 0549-03-018


EXIST C-L
BERRY RD
44' ROW
22'
22'
21'
10.5'
10.5'
EXISTING ROW
PGL
VAR

EXISTING BERRY RD TYPICAL SECTION
NTS CSJ 0549-03-018

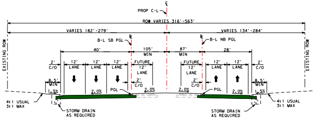

EX/PROP C-L
BERRY RD
62' ROW
35'
27'
8.5'
29'
8.5'
2.5' C/O
12'
12'
PROPOSED ROW
EXISTING ROW
PGL
1.5%
2.0%
4:1 USUAL
3:1 MAX

PROPOSED BERRY RD TYPICAL SECTION
NTS CSJ 0549-03-018


PROP C-L
EXIST C-L
40'
230' ROW
155'
175'
B-L SB PGL
B-L NB PGL
20'
20'
44'
6' SIDEWLK
VARIES
12' LANE
12' LANE
4' SH
17'
17'
2'
1'
PROPOSED ROW
EXISTING ROW
PGL
1.5%
2.0%

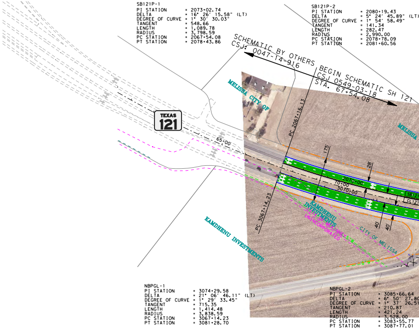
PROPOSED URBAN BRIDGE TYPICAL SECTION
AT DART R.R.
NTS CSJ 0549-03-018

123+43.10 TO STA. 126+43.10


PROP C-L
ROW VARIES 316'-563'
VARIES 182'-279'
VARIES 134'-284'
B-L SB PGL
B-L NB PGL
40'
105' MIN
87' MIN
28'
2' C/O
12' LANE
FUTURE 12' LANE
8.5' MIN
EXISTING ROW
PGL
1.5%
2.0%
4:1 USUAL
3:1 MAX
STORM DRAIN AS REQUIRED

PROPOSED URBAN ROADWAY TYPICAL SECTION
NTS CSJ 0549-03-018

STA. 91+35 TO STA. 100+13

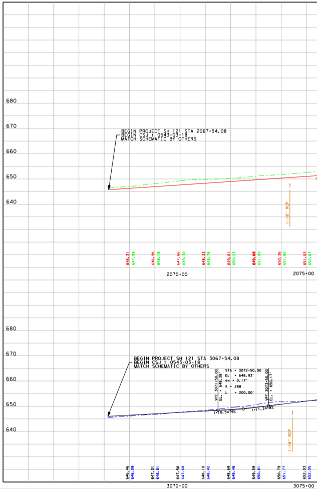

SCHEMATIC BY OTHERS
CSJ: 0047-14-916
BEGIN SCHEMATIC SH 121
CSJ 0549-03-18
STA. 67+54.08
TEXAS 121
MELISSA CITY OF
MELISSA
KAMDHENU INVESTMENTS
CITY OF MELISSA
PC 2067+16.13
PC 3067+14.23
65+00
70+00
2070+00
3070+00
175
28
40
40

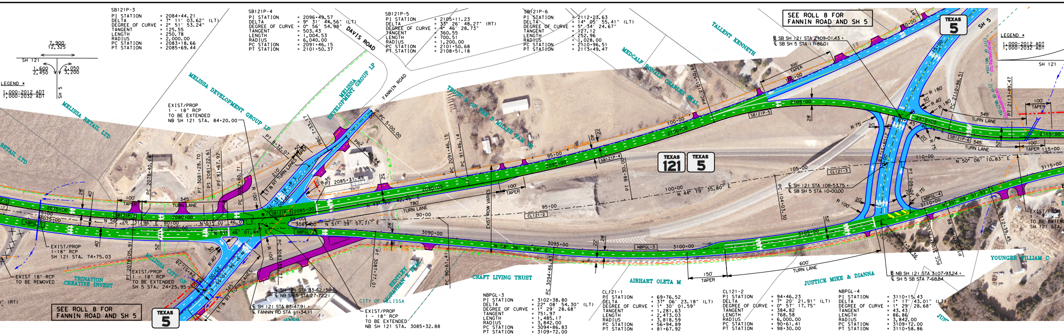
SB121P-1
PI STATION = 2073+02.74
DELTA = 16° 26' 15.58" (LT)
DEGREE OF CURVE = 1° 30' 30.03"
TANGENT = 548.66
LENGTH = 1,089.78
RADIUS = 3,798.59
PC STATION = 2067+54.08
PT STATION = 2078+43.86

SB121P-2
PI STATION = 2080+19.43
DELTA = 5° 24' 45.89" (LT
DEGREE OF CURVE = 1° 54' 58.49"
TANGENT = 141.34
LENGTH = 282.47
RADIUS = 2,990.00
PC STATION = 2078+78.09
PT STATION = 2081+60.56

NBPGL-1
PI STATION = 3074+29.58
DELTA = 21° 06' 46.11" (LT)
DEGREE OF CURVE = 1° 29' 33.45"
TANGENT = 715.35
LENGTH = 1,414.48
RADIUS = 3,838.59
PC STATION = 3067+14.23
PT STATION = 3081+28.70

NBPGL-2
PI STATION = 3085+66.64
DELTA = 6° 50' 27.80
DEGREE OF CURVE = 1° 37' 26.51
TANGENT = 210.87
LENGTH = 421.24
RADIUS = 3,528.00
PC STATION = 3083+55.77
PT STATION = 3087+77.01




SEE ROLL 8 FOR
FANNIN ROAD AND SH 5
TEXAS 5
TEXAS 121
LEGEND =
1,000-2012 ADT
1,000-2032 ADT
SH 121
SH 5
7,900
12,325
1,600
2,450
2,050
3,200
DAVIS ROAD
FANNIN ROAD
MELISSA RETAIL LTD
MELISSA DEVELOPMENT GROUP LP
TRUST B OF THE B MILLER FAM TR
MEDCALF RONALD CHARLES ETAL
TALLENT KENNETH
CITY OF MELISSA
TRINATION CREATIVE INVEST
BENTLEY MONTGOMERY & E V W
CRAFT LIVING TRUST
AIRHART OLETA M
JUSTICE MIKE & DIANNA
YOUNGER WILLIAM C
EXIST/PROP
1 - 18" RCP
TO BE EXTENDED
NB SH 121 STA. 84+20.00
EXIST/PROP
1-18" RCP
SH 121 STA. 74+75.03
EXIST 18" RCP
TO BE REMOVED
EXIST/PROP
1 - 18" RCP
TO BE EXTENDED
SH 5 STA. 24+25.95
EXIST/PROP
1 - 18" RCP
TO BE EXTENDED
NB SH 121 STA. 3085+32.88
℄ SH 121 STA 83+62.15 =
℄ NB SH 5 STA 27+72.21
℄ SH 121 STA 83+47.91 =
℄ FANNIN RD STA 11+34.11
℄ SB SH 121 STA 2109+01.43 =
℄ SB SH 5 STA 11+86.01
℄ SH 121 STA 108+53.75 =
℄ SB SH 5 STA 10+00.00
℄ NB SH 121 STA 3107+93.24 =
℄ SH 5 SB STA 7+68.84
N 56° 26' 31.98" E
N 51° 01' 46.00" E
N 51° 39' 57.71" E
N 44° 19' 35.80" E
N 58° 36' 29.24" E
N 50° 06' 10.83" E
SB121P-2
SB121P-3
SB121P-4
SB121P-5
SB121P-6
NBPGL-2
NBPGL-3
NBPGL-4
CL121-2
CL121-3
100' TAPER
345' TURN LANE
780' TURN LANE
300' TAPER
600' TURN LANE
150' TAPER
LT & RT TURN LANES
EXIST ROW VARIES
2075+00
2080+00
2085+00
2090+00
2095+00
2100+00
2105+00
3080+00
3085+00
3090+00
3095+00
3100+00
3110+00
3115+00
90+00
95+00
100+00
105+00
110+00
PC 2078+40.14
PT 2081+22.61
PT 3081+28.70
PC 3094+86.83
PC 2091+46.15
PC 90+61.41
PT 98+30.00
PC 104+03.30
PC 2110+96.51
PT 2113+49.47
R 40
R 75
R 100
R 180

SB121P-3
PI STATION = 2084+44.21
DELTA = 7° 11' 03.62" (LT)
DEGREE OF CURVE = 2° 51' 53.24"
TANGENT = 125.55
LENGTH = 250.78
RADIUS = 2,000.00
PC STATION = 2083+18.66
PT STATION = 2085+69.44

SB121P-4
PI STATION = 2096+49.57
DELTA = 9° 31' 44.56" (LT)
DEGREE OF CURVE = 0° 56' 54.98"
TANGENT = 503.43
LENGTH = 1,004.53
RADIUS = 6,040.00
PC STATION = 2091+46.15
PT STATION = 2101+50.37

SB121P-5
PI STATION = 2105+11.23
DELTA = 33° 26' 48.27" (RT)
DEGREE OF CURVE = 4° 46' 28.73"
TANGENT = 360.55
LENGTH = 700.51
RADIUS = 1,200.00
PC STATION = 2101+50.68
PT STATION = 2108+51.18

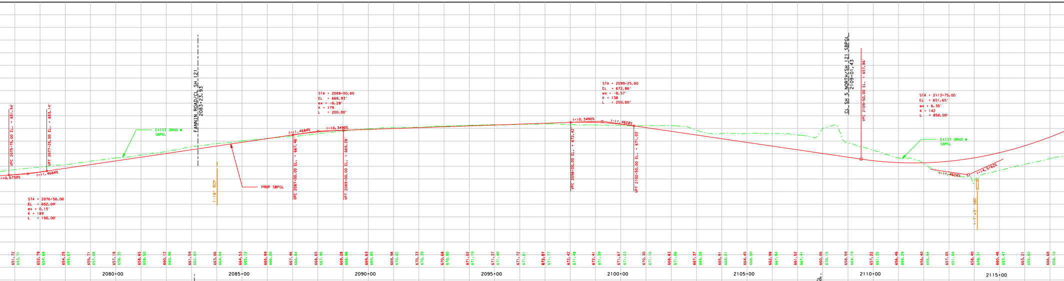
SB121P-6
PI STATION = 2112+23.63
DELTA = 14° 05' 55.41" (LT)
DEGREE OF CURVE = 5° 34' 24.67"
TANGENT = 127.12
LENGTH = 252.96
RADIUS = 1,028.00
PC STATION = 2110+96.51
PT STATION = 2113+49.47

NBPGL-3
PI STATION = 3102+38.80
DELTA = 22° 08' 54.30" (LT)
DEGREE OF CURVE = 1° 29' 28.68"
TANGENT = 751.97
LENGTH = 1,485.17
RADIUS = 3,842.00
PC STATION = 3094+86.83
PT STATION = 3109+72.00

CL121-1
PI STATION = 69+76.52
DELTA = 37° 06' 23.18" (LT)
DEGREE OF CURVE = 1° 30' 01.59"
TANGENT = 1,281.63
LENGTH = 2,473.03
RADIUS = 3,818.59
PC STATION = 56+94.89
PT STATION = 81+67.92

CL121-2
PI STATION = 94+46.23
DELTA = 7° 20' 21.91" (LT)
DEGREE OF CURVE = 0° 57' 17.75"
TANGENT = 384.82
LENGTH = 768.58
RADIUS = 6,000.00
PC STATION = 90+61.41
PT STATION = 98+30.00

NBPGL-4
PI STATION = 3110+15.43
DELTA = 1° 17' 43.01" (LT)
DEGREE OF CURVE = 1° 29' 28.68"
TANGENT = 43.43
LENGTH = 86.86
RADIUS = 3,842.00
PC STATION = 3109+72.00
PT STATION = 3110+58.86

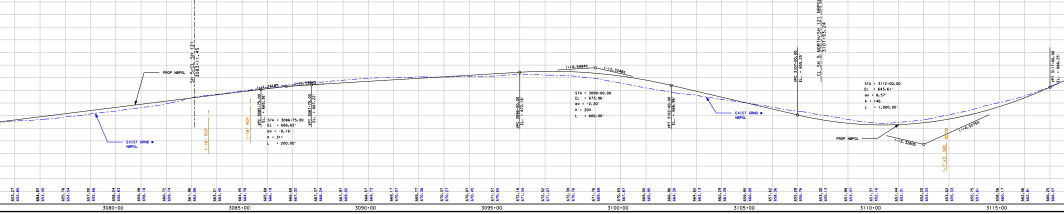


STA = 2076+50.00
EL = 652.04'
ex = 0.15'
K = 189
L = 150.00'

STA = 2088+00.00
EL = 668.93'
ex = -0.28'
K = 179
L = 200.00'

STA = 2099+25.00
EL = 672.86'
ex = -0.57'
K = 138
L = 250.00'

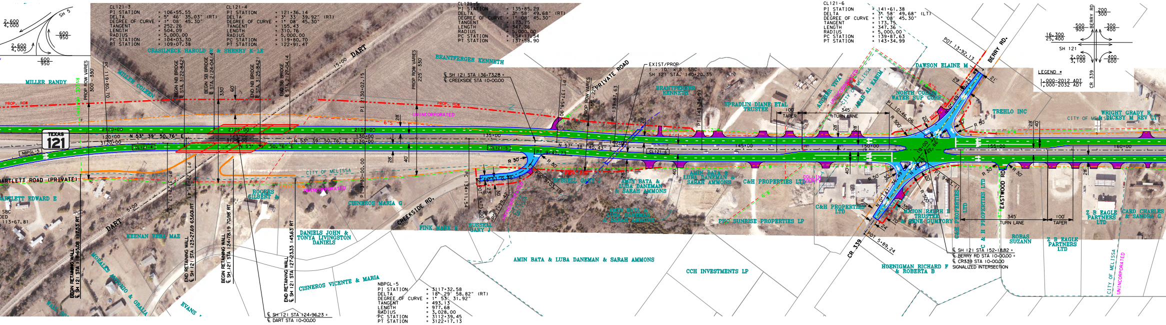
STA = 2113+75.00
EL = 651.65'
ex = 6.35'
K = 142
L = 850.00'



STA = 3086+75.00
EL = 666.62'
ex = -0.16'
K = 311
L = 200.00'

STA = 3099+00.00
EL = 673.96'
ex = -2.20'
K = 204
L = 600.00'

STA = 3112+00.00
EL = 643.61'
ex = 8.57'
K = 146
L = 1,000.00'



CL121-3
PI STATION = 106+55.55
DELTA = 5° 46' 35.03" (RT)
DEGREE OF CURVE = 1° 08' 45.30"
TANGENT = 252.26
LENGTH = 504.09
RADIUS = 5,000.00
PC STATION = 104+03.30
PT STATION = 109+07.38

CL121-4
PI STATION = 121+36.14
DELTA = 3° 33' 39.92" (RT)
DEGREE OF CURVE = 1° 08' 45.30"
TANGENT = 155.43
LENGTH = 310.76
RADIUS = 5,000.00
PC STATION = 119+80.70
PT STATION = 122+91.47

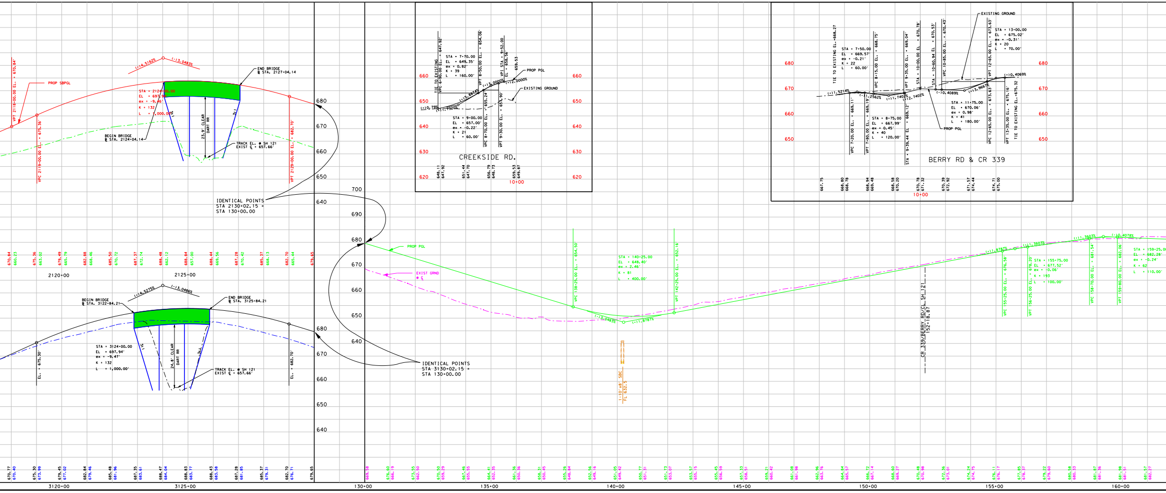
CL121-5
PI STATION = 135+85.29
DELTA = 3° 58' 49.68" (RT)
DEGREE OF CURVE = 1° 08' 45.30"
TANGENT = 173.75
LENGTH = 347.36
RADIUS = 5,000.00
PC STATION = 134+11.54
PT STATION = 137+58.90

CL121-6
PI STATION = 141+61.38
DELTA = 3° 58' 49.68" (LT)
DEGREE OF CURVE = 1° 08' 45.30"
TANGENT = 173.75
LENGTH = 347.36
RADIUS = 5,000.00
PC STATION = 139+87.63
PT STATION = 143+34.99

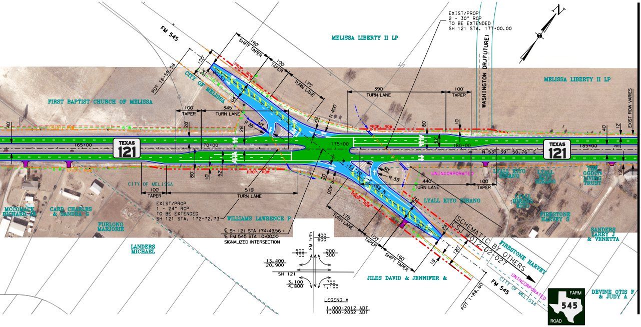
NBPGL-5
PI STATION = 3117+32.58
DELTA = 18° 29' 58.82" (RT)
DEGREE OF CURVE = 1° 53' 31.92"
TANGENT = 493.13
LENGTH = 977.68
RADIUS = 3,028.00
PC STATION = 3112+39.45
PT STATION = 3122+17.13

LEGEND =
1,000-2012 ADT
1,000-2032 ADT

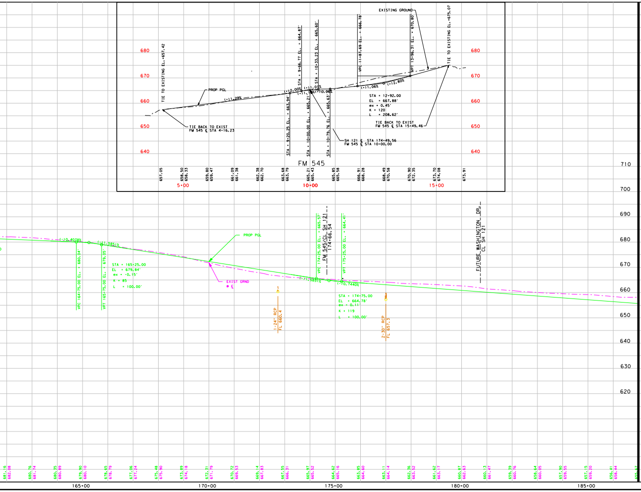
SH 5
2,600 / 4,000
600 / 950
MILLER RANDY
MILLER COLEEN
CRASILNECK HAROLD B & SHERRY K-LE
PROP ROW VARIES 300 - 330
PC 119+80.70
BEGIN NB BRIDGE ℄ STA. 3122+84.21
BEGIN SB BRIDGE ℄ STA. 2124+04.14
END NB BRIDGE ℄ STA. 3125+84.21
END SB BRIDGE ℄ STA. 2127+04.14
330
60
15+00 DART
PI 2130+02.15
PROP ROW VARIES 225 - 330
BRANTFERGER KENNETH
℄ SH 121 STA 136+73.28 = ℄ CREEKSIDE STA 10+00.00
PT 137+58.90
PROP ROW VARIES 155 - 225
PRIVATE ROAD
PC 139+87.63
EXIST/PROP 1 - 10' x 8' SBC SH 121 STA. 140+20.35
BRANTFERGER KENNETH
PT 143+34.99
SPRADLIN DIANE ETAL TRUSTEE
100 TAPER
345 TURN LANE
ARCHER VIVA
UNINCORPORATED
CITY OF MELISSA
ARAB AL KARIM
NORTH COLLIN WATER SUP CORP
DAWSON ELAINE M
POT 13+92.13
BERRY RD.
TREHLO INC
WRIGHT GRADY R & DICKSY M REV LT
CITY OF MELISSA
PROP. ROW
UNINCORPORATED
6"S
28
40
2120+00
2125+00
2130+00
120+00
125+00
130+00
135+00
140+00
145+00
150+00
155+00
160+00
3120+00
3125+00
N 53° 39' 50.76" E
N 53° 39' 50.76" E 3130+00
N 53° 39' 50.76" E
N 57° 38' 40.43" E
TEXAS 121
NBPGL-5
CL121-4
CL121-5
CL121-6
PT 9+47.73
R 30
PCC 9+03.19
BARTLETT ROAD (PRIVATE)
BARTLETT EDWARD E
SBC
113+67.81
PT 122+91.47
PT 3122+17.13
CITY OF MELISSA
EXIST. ROW
UNINCORPORATED
ROGERS GILBERT &
PI 3130+00.00
PC 134+11.54
POT 6+75.00
RUSSELL GARY J
AMIN BATA & LUBA DANEMAN & SARAH AMMONS
C&H PROPERTIES LTD
COLLIN COUNTY
PI 10+46.06
R 300
R 50
PI 9+63.11
POT 5+89.24
CR 339
EASTWOOD RD
345 TURN LANE
100 TAPER
KEENAN VERA MAE
DART
5+00
MORALES ANTONIO & ORALIA
EVANS
CISNEROS MARIA G
CREEKSIDE RD.
FINK MARK &
RUSSELL GARY J
DANIELS JOHN & TONYA LIVINGSTON DANIELS
CISNEROS VICENTE & MARIA
BEGIN RETAINING WALL ℄ SH 121 STA 118+65.08 117.53 RT
END RETAINING WALL ℄ SH 121 STA 123+27.69 63.60 RT
BEGIN RETAINING WALL ℄ SH 121 STA 124+78.19 70.98 RT
END RETAINING WALL ℄ SH 121 STA 127+23.33 145.63 RT
℄ SH 121 STA 124+96.23 = ℄ DART STA 10+00.00
AMIN BATA & LUBA DANEMAN & SARAH AMMONS
PHC SUNRISE PROPERTIES LP
C&H PROPERTIES LTD
MASON RALPH B TRUSTEE
JANE GUMFORY
CCH INVESTMENTS LP
HOENIGMAN RICHARD F & ROBERTA B
℄ SH 121 STA 152+18.82 = ℄ BERRY RD STA 10+00.00 = ℄ CR339 STA 10+00.00 SIGNALIZED INTERSECTION
ROBAS SUZANN
Z B EAGLE PARTNERS LTD
CARD CHARLES & SANDRA
CITY OF MELISSA
UNINCORPORATED
16,300 / 25,400
SH 121
500 / 900
200 / 300
300 / 400
2,000 / 3,100
400 / 600
BERRY RD
CR 339



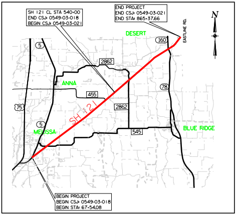
PROP SBPGL
(+)4.5162%
(-)3.0483%
END BRIDGE ℄ STA. 2127+04.14
BEGIN BRIDGE ℄ STA. 2124+04.14
STA = 2124+00.00
K = 132
L = 1,000.00'
23.9' CLEAR DART RR
TRACK EL. @ SH 121 EXIST ℄ = 657.66'
VPI 2118+00.00 EL. = 670.84
VPC 2119+00.00 EL. = 675.36'
VPT 2129+00.00 EL. = 682.70'
IDENTICAL POINTS STA 2130+02.15 = STA 130+00.00
2120+00
2125+00
BEGIN BRIDGE ℄ STA. 3122+84.21
END BRIDGE ℄ STA. 3125+84.21
(+)4.5275%
(-)3.0486%
STA = 3124+00.00
EL = 697.94'
ex = -9.47'
K = 132
L = 1,000.00'
24.8' CLEAR DART RR
TRACK EL. @ SH 121 EXIST ℄ = 657.66'
EL. = 675.30'
EL. = 682.70'
IDENTICAL POINTS STA 3130+02.15 = STA 130+00.00
CREEKSIDE RD.
STA = 7+70.00
EL = 649.35'
ex = 0.82'
K = 39
L = 160.00'
STA = 9+00.00
EL = 657.00'
ex = -0.22'
K = 21
L = 60.00'
PROP PGL
EXISTING GROUND
(+)2.0000%
TIE TO EXISTING
10+00
BERRY RD & CR 339
EXISTING GROUND
STA = 7+50.00
EL = 669.57'
ex = -0.21'
K = 22
L = 60.00'
STA = 8+75.00
EL = 667.99'
ex = 0.45'
K = 40
L = 120.00'
STA = 13+00.00
EL = 675.02'
ex = -0.31'
K = 20
L = 70.00'
STA = 11+75.00
EL = 670.06'
ex = 0.98'
K = 41
L = 180.00'
PROP PGL
(-)1.5214%
(+)0.4069%
(+)3.9667%
(-)0.4089%
(-)1.7402%
(+)2.7402%
TIE TO EXISTING EL.=668.27
10+00
PROP PGL
EXIST GRND @ ℄
STA = 140+25.00
EL = 648.40'
ex = 2.46'
K = 81
L = 400.00'
VPC 138+25.00 EL. = 654.50'
VPT 142+25.00 EL. = 652.16'
(+)1.8787%
STA = 155+75.00
EL = 677.52'
ex = -0.06'
K = 193
L = 100.00'
STA = 159+25.00
EL = 682.28'
ex = -0.24'
K = 62
L = 110.00'
CR 339/BERRY RD/℄ SH 121 152+18.87
1-10'x8' SBC FL 632.5
130+00
135+00
140+00
145+00
150+00
155+00
160+00
3120+00
3125+00
700
690
680
670
660
650
640


FM 545
MELISSA LIBERTY II LP
EXIST/PROP 2 - 30" RCP TO BE EXTENDED SH 121 STA. 177+00.00
WASHINGTON DR.(FUTURE)
160' SHIFT TAPER
100' TAPER
175' TURN LANE
390' TURN LANE
100' TAPER
POT 16+59.58
CITY OF MELISSA
FIRST BAPTIST CHURCH OF MELISSA
100' TAPER
345' TURN LANE
R 400'
R 35'
PROP. ROW
EXIST ROW VARIES
TEXAS 121
165+00
170+00
175+00
180+00
185+00
N 53° 39' 50.76" E
UNINCORPORATED
440' TURN LANE
100' TAPER
LYALL KIYO HIRANO
THE OGDON LIVING TRUST
CITY OF MELISSA
100' TAPER
519' TURN LANE
EXIST/PROP 1 - 24" RCP TO BE EXTENDED SH 121 STA. 172+72.73
WILLIAMS LAWRENCE P
MCCORMACK RICHARD W
CARR CHARLES & SANDRA G
FURLONG MARJORIE
LANDERS MICHAEL
℄ SH 121 STA 174+49.56
℄ FM 545 STA 10+00.00
SIGNALIZED INTERSECTION
175' TURN LANE
100' TAPER
160' SHIFT TAPER
SCHEMATIC BY OTHERS CSJ 1012-02-027
FIRESTONE HARVEY
FIRESTONE HARVEY S
SANDERS LARRY J & VENETTA
JILES DAVID & JENNIFER &
POT 1+88.60
DEVINE OTIS F & JUDY A
FARM 545 ROAD
400 600
200 300
500 700
13,400 20,900
SH 121
3,100 4,800
700 1,100
LEGEND =
1,000=2012 ADT
1,000=2032 ADT

MATCHLINE STA. 187+00
CSJ: 0549-03-018


EXISTING GROUND
TIE TO EXISTING EL.=657.42
PROP PGL
(+)1.29%
(+)2.00%
(+)1.02%
(-)0.06%
(+)1.06%
(+)2.80%
STA = 12+92.00
EL = 667.88'
ex = 0.45'
K = 120
L = 208.62'
TIE BACK TO EXIST FM 545 ℄ STA 15+49.46
TIE BACK TO EXIST FM 545 ℄ STA 4+16.23
SH 121 ℄ STA 174+49.56
FM 545 ℄ STA 10+00.00
TIE TO EXISTING EL.=675.07
FM 545
5+00
10+00
15+00
640
650
660
670
680
PROP PGL
EXIST GRND
STA = 165+25.00
EL = 679.84'
ex = -0.15'
K = 85
L = 100.00'
(-)0.467%
(-)1.585%
(-)0.744%
FM 545/CL SH 121 174+66.54
STA = 174+75.00
EL = 664.78'
ex = 0.11'
K = 119
L = 100.00'
1-24" RCP FL 660.4
2-30" RCP FL 657.3
FUTURE WASHINGTON DR. CL SH 121
165+00
170+00
175+00
180+00
185+00
620
630
640
650
660
670
680
690
700
710

MATCHLINE STA. 187+00
CSJ: 0549-03-018


SH 121 CL STA 540+00
END CSJ: 0549-03-018
BEGIN CSJ: 0549-03-021
END PROJECT
END CSJ: 0549-03-021
END STA: 865+37.66
EASTLINE RD.
N
DESERT
160
5
2862
ANNA
455
78
2862
75
SH 121
5
MELISSA
545
BLUE RIDGE
BEGIN PROJECT
BEGIN CSJ: 0549-03-018
BEGIN STA: 67+54.08

LOCATION MAP

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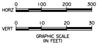
Texas Department of Transportation

DALLAS DISTRICT
WILLIAM HALE, P.E. DISTRICT ENGINEER
SH 121
COLLIN COUNTY
DESIGN SCHEMATIC
SEPTEMBER 2011

ROLL 1 of 11

FROM: SH 5 IN MELISSA TO: CR 635 (EAST LINE ROAD)
BRIDGE REPLACEMENT AND HIGHWAY RECONSTRUCTION
PROJECT LENGTH: 15.11 MILES (79784')
BRIDGE: 0.30 MILES (1560')
ROADWAY: 14.81 MILES (78224')

CSJ: 0549-03-018 (SH 5 to FM 455)
CSJ: 0549-03-021 (FM 455 to CR 635/FANNIN COUNTY LINE)


0
100
200
300
HORZ
0
10
20
30
VERT
GRAPHIC SCALE
(IN FEET)

LEGEND

– — - - —	EXISTING R.O.W. (ACCESS BY PERMIT ONLY)
—	PROPERTY LINES
▬ ▪ ▬ ▪ ▬	PROPOSED R.O.W. (ACCESS BY PERMIT ONLY IN ACCORDANCE WITH TXDOT ACCESS CONTROL MANUAL)
- — - —	SH 121 CL
X X X X	OBLITERATE EXISTING ROADWAY
– –3"w– –	WATER UTILITY
– – – – –	CITY LIMIT
🟩	SH 121 PAVEMENT
🟦	CROSS STREETS
🟥	BRIDGE
🟪	DRIVEWAYS
—	RETAINING WALL
▨	DISPLACED STRUCTURE

INDEX OF ROLLS

ROLL	DESCRIPTION
1	SH 121 STA 67+54.08 TO STA. 187+00
2	SH 121 STA 187+00 TO STA. 327+00
3	SH 121 STA 327+00 TO STA. 467+00
4	SH 121 STA 467+00 TO STA. 607+00
5	SH 121 STA 607+00 TO STA. 747+00
6	SH 121 STA 747+00 TO CR 635 (FANNIN COUNTY LINE)
7	SH 121 STA 747+00 TO FANNIN COUNTY LINE (TRANSITION)
8	SH 5 AND FANNIN ROAD
9	FM 455 AND CONNECTING RAMPS
10	FM 2862 AND CONNECTING RAMPS
11	SH 160 AND CONNECTING RAMPS

DESIGN ROADWAY	LIMITS		FUNCTIONAL CLASSIFICATION	ADT		DESIGN SPEED
	FROM	TO		2012	2032	
SH 121 (SUBURBAN)	SH 5 STA 67+54.08	Outer Loop + STA 368+10.00	ARTERIAL	18800	29400	45
SH 121 (RURAL)	Outer Loop + STA 368+10.00	CR 635 STA 865+37.66	ARTERIAL	13500	21000	70
SH 121 RAMPS	Outer Loop + STA 368+10.00	CR 635 STA 865+37.66	RAMP	NA	NA	35
FM 2933	AT SH 121		COLLECTOR	1000	1600	40
455 N	AT SH 121		ARTERIAL	1550	2250	40
455 S	AT SH 121		COLLECTOR	500	700	40
E. HOUSTON ST (FM 2862)	AT SH 121		COLLECTOR	1700	2700	50
SH 160	AT SH 121		ARTERIAL	4100	6600	50
N. McDonald Street (SH 5 SOUTH)	AT SH 121		ARTERIAL	7300	11,300	40
MC KINNEY ST (SH 5 NORTH)	AT SH 121		ARTERIAL	6400	9900	40
DENTON ST (FM 545)	AT SH 121		COLLECTOR	4200	6500	30
COUNTY ROADS						
CR 418	AT SH 121		LOCAL	600	900	30
LANDFILL ENTRANCE	AT SH 121		LOCAL	NA	NA	30
416	AT SH 121		LOCAL	NA	NA	30
419	AT SH 121		LOCAL	300	600	20 •
420	AT SH 121		LOCAL	NA	NA	20 •
475	AT SH 121		LOCAL	250	450	30
507(509)	AT SH 121		LOCAL	NA	NA	20 •
424 / 513	AT SH 121		LOCAL	NA	NA	30
526 / 527	AT SH 121		LOCAL	NA	NA	20 •
528 / 581	AT SH 121		LOCAL	NA	NA	20 •
582	AT SH 121		LOCAL	NA	NA	20 •
936	AT SH 121		LOCAL	NA	NA	20 •
1002	AT SH 121		LOCAL	NA	NA	20 •
COUNTY LINE RD	AT SH 121		LOCAL	250	250	20 •
EASTLINE RD	AT SH 121		LOCAL	200	350	30
CITY STREETS						
FANNIN RD	AT SH 121		COLLECTOR	NA	NA	30
BARTLETT RD	AT SH 121		LOCAL	NA	NA	30
CREEKSIDE RD	AT SH 121		LOCAL	NA	NA	30
BERRY RD	AT SH 121		LOCAL	2600	4000	30
EASTWOOD RD	AT SH 121		LOCAL	NA	NA	30
LILLIAN DR	AT SH 121		LOCAL	NA	NA	30
NUGENT ST	AT SH 121		LOCAL	NA	NA	30
LIBERTY WAY	AT SH 121		LOCAL	900	1400	30
REDWOOD BLVD	AT SH 121		LOCAL	NA	NA	30

• = UNPAVED COUNTY ROAD

+ = FUTURE OUTER LOOP, BY OTHERS

NOTES:

1. MEDIAN OPENINGS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL MEDIAN OPENING LOCATIONS TO BE DETERMINED DURING PS&E AND IN COORDINATION WITH THE CITIES OF MELISSA AND ANNA.
2. SOURCE OF TRAFFIC DATA: TEXAS DEPARTMENT OF TRANSPORTATION TRANSPORTATION, PROGRAMMING AND PLANNING DIVISION MARCH 27, 2007
3. ALL URBAN SECTIONS WILL HAVE CONCRETE CURB AND GUTTER WITH BARRIER CURBS.