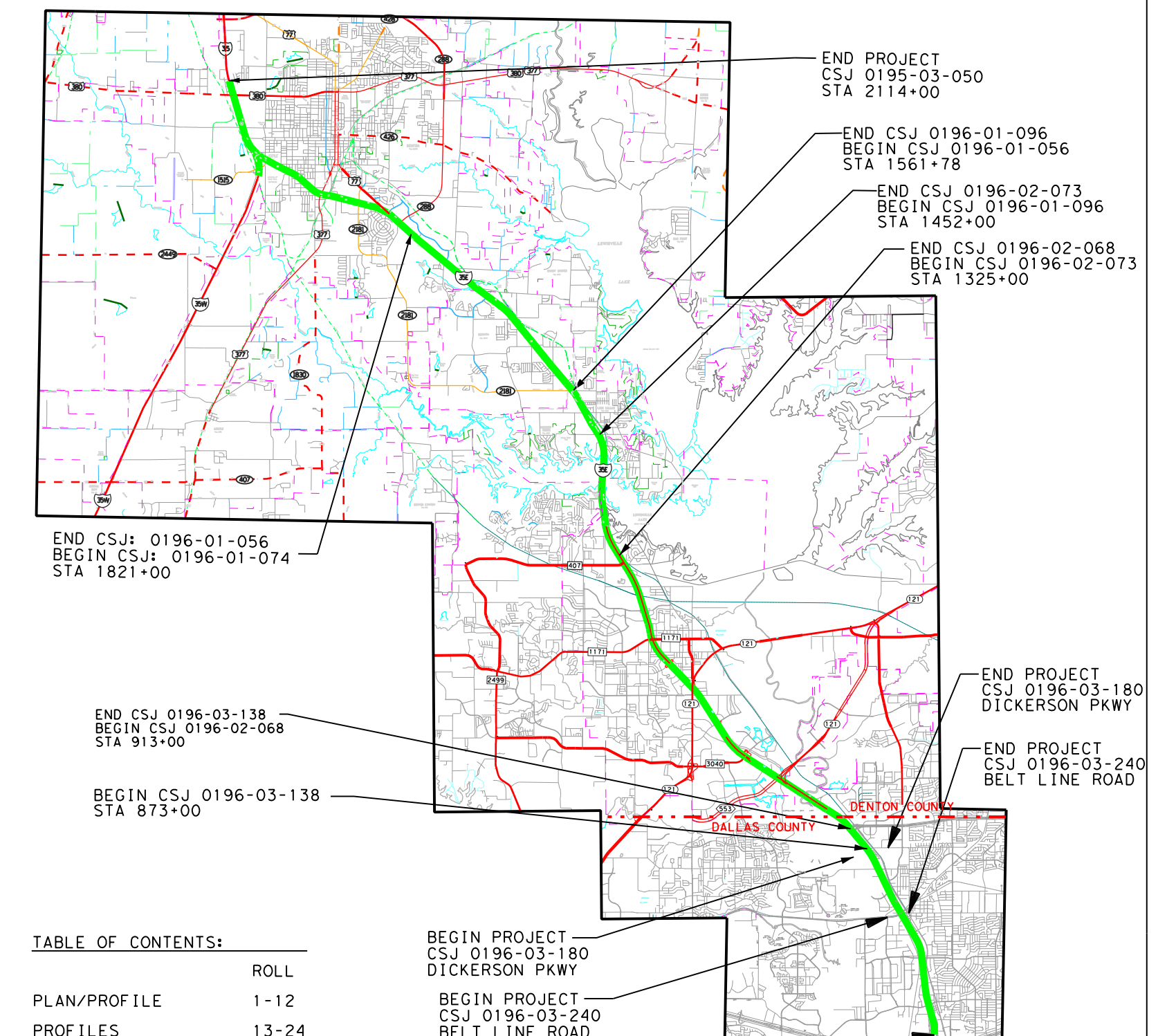
Texas Department of Transportation
DALLAS DISTRICT
DRAFT INTERIM SCHEMATIC
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

IH 35E
FROM: IH 635
TO: US 380

DALLAS & DENTON COUNTY
FUNCTIONAL CLASS: URBAN FREEWAY
PROJECT LENGTH: 28.25 MILES

CSJ's: 0196-03-138
0196-03-240
0196-03-180
0196-03-245
0196-02-068
0196-02-073
0196-01-096
0196-01-056
0196-01-074
0195-03-050
0195-03-071

DESIGN SPEEDS:
MAINLANES 70 MPH
MANAGED LANES 70 MPH
RAMPS 40 MPH
TURNAROUND RAMPS 20 MPH
FRONTAGE ROADS 40 MPH
CROSS STREETS 30 MPH
COLLECTOR DISTRIBUTOR 50 MPH
DIRECT CONNECTORS 50 MPH
INTERSECTIONS 30 MPH



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SCALE:
HORIZONTAL 1"=200'
VERTICAL 1"=20'

1/11/2013

ROLL 25 OF 30

SCHEMATIC PREPARED BY:
FOR INTERIM REVIEW ONLY
NOT FOR PERMITTING, BIDDING
OR CONSTRUCTION.
Prepared by or under the
Direct Supervision of:
SHAWN BRENT STOVER 109251
NAME P.E. NUMBER
1/11/2013
DATE

Plotted on: 10:18:06 AM

"PRELIMINARY SUBJECT TO CHANGE"
BASED ON FURTHER DEVELOPMENTS RESULTING
FROM PUBLIC INPUT AND TECHNICAL REVIEWS

MANAGED LANES

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Beginning chain ML35CL1 description
Description: Managed Lane A
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Point 142            X   2,460,530.53 Y   7,014,175.61 Sta   540+00.00

Course from 142 to PC A-1 N 0°37' 22" W Dist 6,132.33

                         Curve Data
                        *----------*
Curve A-1
P.I.  Station        609+07.43  X   2,460,455.44  Y   7,021,082.63
Delta       =      15°24' 26" (LT)
Degree      =       1°00' 00"
Tangent     =          775.09
Length      =        1,540.83
Radius      =        5,730.00
External    =           52.19
Long Chord  =        1,536.19
Mid. Ord.   =           51.71
P.C.  Station        601+32.33  X   2,460,463.87  Y   7,020,307.58
P.T.  Station        616+73.17  X   2,460,241.41  Y   7,021,827.58
C.C.                            X   2,454,734.21  Y   7,020,245.29
Back        = N   0°37' 22" W
Ahead       = N  16°01' 48" W
Chord Bear  = N   8°19' 35" W

                         Curve Data
                        *----------*
Curve A-2
P.I.  Station        617+27.95  X   2,460,226.28  Y   7,021,880.24
Delta       =       0°31' 14" (RT)
Degree      =       0°28' 31"
Tangent     =           54.78
Length      =          109.57
Radius      =       12,057.00
External    =            0.12
Long Chord  =          109.57
Mid. Ord.   =            0.12
P.C.  Station        616+73.17  X   2,460,241.41  Y   7,021,827.58
P.T.  Station        617+82.73  X   2,460,211.63  Y   7,021,933.03
C.C.                            X   2,471,829.60  Y   7,025,157.02
Back        = N  16°01' 48" W
Ahead       = N  15°30' 34" W
Chord Bear  = N  15°46' 11" W

Course from PT A-2 to PC A-3 N 15°30' 34" W Dist 1,741.11

                         Curve Data
                        *----------*
Curve A-3
P.I.  Station        643+91.82  X   2,459,513.97  Y   7,024,447.11
Delta       =       8°15' 59" (RT)
Degree      =       0°28' 37"
Tangent     =          867.98
Length      =        1,732.95
Radius      =       12,011.42
External    =           31.32
Long Chord  =        1,731.45
Mid. Ord.   =           31.24
P.C.  Station        635+23.84  X   2,459,746.07  Y   7,023,610.73
P.T.  Station        652+56.79  X   2,459,404.54  Y   7,025,308.17
C.C.                            X   2,471,320.12  Y   7,026,822.54
Back        = N  15°30' 34" W
Ahead       = N   7°14' 35" W
Chord Bear  = N  11°22' 34" W

Course from PT A-3 to PC A-4 N 7°14' 35" W Dist 4,230.77

                         Curve Data
                        *----------*
Curve A-4
P.I.  Station        707+27.19  X   2,458,714.85  Y   7,030,734.91
Delta       =      24°45' 01" (LT)
Degree      =       1°00' 51"
Tangent     =        1,239.63
Length      =        2,440.58
Radius      =        5,649.83
External    =          134.39
Long Chord  =        2,421.65
Mid. Ord.   =          131.27
P.C.  Station        694+87.56  X   2,458,871.14  Y   7,029,505.18
P.T.  Station        719+28.15  X   2,458,058.07  Y   7,031,786.26
C.C.                            X   2,453,266.39  Y   7,028,792.86
Back        = N   7°14' 35" W
Ahead       = N  31°59' 36" W
Chord Bear  = N  19°37' 05" W

Course from PT A-4 to PC A-5 N 31°59' 36" W Dist 761.05

                         Curve Data
                        *----------*
Curve A-5
P.I.  Station        729+13.19  X   2,457,536.17  Y   7,032,621.68
Delta       =       4°16' 33" (LT)
Degree      =       0°57' 18"
Tangent     =          223.99
Length      =          447.77
Radius      =        6,000.00
External    =            4.18
Long Chord  =          447.67
Mid. Ord.   =            4.18
P.C.  Station        726+89.20  X   2,457,654.85  Y   7,032,431.71
P.T.  Station        731+36.97  X   2,457,403.66  Y   7,032,802.27
C.C.                            X   2,452,566.19  Y   7,029,252.79
Back        = N  31°59' 36" W
Ahead       = N  36°16' 09" W
Chord Bear  = N  34°07' 53" W

                         Curve Data
                        *----------*
Curve A-6
P.I.  Station        736+13.62  X   2,457,121.69  Y   7,033,186.57
Delta       =       6°49' 10" (RT)
Degree      =       0°42' 58"
Tangent     =          476.65
Length      =          952.18
Radius      =        8,000.00
External    =           14.19
Long Chord  =          951.61
Mid. Ord.   =           14.16
P.C.  Station        731+36.97  X   2,457,403.66  Y   7,032,802.27
P.T.  Station        740+89.14  X   2,456,887.34  Y   7,033,601.63
C.C.                            X   2,463,853.64  Y   7,037,534.91
Back        = N  36°16' 09" W
Ahead       = N  29°26' 59" W
Chord Bear  = N  32°51' 34" W

                         Curve Data
                        *----------*
Curve A-7
P.I.  Station        741+44.62  X   2,456,860.06  Y   7,033,649.94
Delta       =       0°14' 08" (RT)
Degree      =       0°12' 44"
Tangent     =           55.48
Length      =          110.96
Radius      =       27,000.00
External    =            0.06
Long Chord  =          110.96
Mid. Ord.   =            0.06
P.C.  Station        740+89.14  X   2,456,887.34  Y   7,033,601.63
P.T.  Station        742+00.10  X   2,456,832.98  Y   7,033,698.36
C.C.                            X   2,480,398.59  Y   7,046,876.45
Back        = N  29°26' 59" W
Ahead       = N  29°12' 51" W
Chord Bear  = N  29°19' 55" W

Course from PT A-7 to PC A-8 N 29°12' 51" W Dist 354.40
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MANAGED LANES (CONT)

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                         Curve Data
                        *----------*
Curve A-8
P.I.  Station        749+88.80  X   2,456,448.04  Y   7,034,386.74
Delta       =       3°49' 37" (LT)
Degree      =       0°26' 27"
Tangent     =          434.30
Length      =          868.27
Radius      =       13,000.00
External    =            7.25
Long Chord  =          868.11
Mid. Ord.   =            7.25
P.C.  Station        745+54.50  X   2,456,660.01  Y   7,034,007.68
P.T.  Station        754+22.78  X   2,456,211.24  Y   7,034,750.80
C.C.                            X   2,445,313.60  Y   7,027,662.68
Back        = N  29°12' 51" W
Ahead       = N  33°02' 28" W
Chord Bear  = N  31°07' 40" W

Course from PT A-8 to PC A-9 N 33°02' 28" W Dist 306.33

                         Curve Data
                        *----------*
Curve A-9
P.I.  Station        764+62.35  X   2,455,644.42  Y   7,035,622.25
Delta       =       6°59' 36" (RT)
Degree      =       0°28' 39"
Tangent     =          733.24
Length      =        1,464.67
Radius      =       12,000.00
External    =           22.38
Long Chord  =        1,463.76
Mid. Ord.   =           22.34
P.C.  Station        757+29.10  X   2,456,044.22  Y   7,035,007.59
P.T.  Station        771+93.77  X   2,455,322.44  Y   7,036,281.02
C.C.                            X   2,466,103.57  Y   7,041,550.47
Back        = N  33°02' 28" W
Ahead       = N  26°02' 52" W
Chord Bear  = N  29°32' 40" W

Course from PT A-9 to PC A-10 N 26°02' 52" W Dist 2,817.18

                         Curve Data
                        *----------*
Curve A-10
P.I.  Station        802+98.99  X   2,453,958.87  Y   7,039,070.83
Delta       =       2°12' 01" (RT)
Degree      =       0°22' 55"
Tangent     =          288.04
Length      =          576.00
Radius      =       15,000.00
External    =            2.77
Long Chord  =          575.96
Mid. Ord.   =            2.76
P.C.  Station        800+10.95  X   2,454,085.36  Y   7,038,812.06
P.T.  Station        805+86.95  X   2,453,842.42  Y   7,039,334.28
C.C.                            X   2,467,561.77  Y   7,045,398.87
Back        = N  26°02' 52" W
Ahead       = N  23°50' 52" W
Chord Bear  = N  24°56' 52" W

                         Curve Data
                        *----------*
Curve A-11
P.I.  Station        808+55.89  X   2,453,733.69  Y   7,039,580.25
Delta       =       2°03' 15" (LT)
Degree      =       0°22' 55"
Tangent     =          268.93
Length      =          537.81
Radius      =       15,000.00
External    =            2.41
Long Chord  =          537.78
Mid. Ord.   =            2.41
P.C.  Station        805+86.95  X   2,453,842.42  Y   7,039,334.28
P.T.  Station        811+24.77  X   2,453,616.21  Y   7,039,822.17
C.C.                            X   2,440,123.06  Y   7,033,269.68
Back        = N  23°50' 52" W
Ahead       = N  25°54' 07" W
Chord Bear  = N  24°52' 29" W

Course from PT A-11 to PC A-12 N 25°54' 07" W Dist 1,741.32

                         Curve Data
                        *----------*
Curve A-12
P.I.  Station        834+78.99  X   2,452,587.80  Y   7,041,939.90
Delta       =      12°29' 32" (LT)
Degree      =       1°01' 23"
Tangent     =          612.91
Length      =        1,220.96
Radius      =        5,600.00
External    =           33.44
Long Chord  =        1,218.54
Mid. Ord.   =           33.24
P.C.  Station        828+66.08  X   2,452,855.54  Y   7,041,388.56
P.T.  Station        840+87.05  X   2,452,207.14  Y   7,042,420.27
C.C.                            X   2,447,818.10  Y   7,038,942.30
Back        = N  25°54' 07" W
Ahead       = N  38°23' 39" W
Chord Bear  = N  32°08' 53" W

                         Curve Data
                        *----------*
Curve A-13
P.I.  Station        846+08.07  X   2,451,883.55  Y   7,042,828.63
Delta       =       2°59' 05" (LT)
Degree      =       0°17' 11"
Tangent     =          521.03
Length      =        1,041.82
Radius      =       20,000.00
External    =            6.79
Long Chord  =        1,041.70
Mid. Ord.   =            6.78
P.C.  Station        840+87.05  X   2,452,207.14  Y   7,042,420.27
P.T.  Station        851+28.87  X   2,451,539.14  Y   7,043,219.59
C.C.                            X   2,436,531.99  Y   7,029,998.93
Back        = N  38°23' 39" W
Ahead       = N  41°22' 43" W
Chord Bear  = N  39°53' 11" W

Course from PT A-13 to PC A-14 N 41°22' 43" W Dist 800.00

                         Curve Data
                        *----------*
Curve A-14
P.I.  Station        861+50.75  X   2,450,863.63  Y   7,043,986.37
Delta       =       1°16' 17" (RT)
Degree      =       0°17' 11"
Tangent     =          221.89
Length      =          443.76
Radius      =       20,000.00
External    =            1.23
Long Chord  =          443.75
Mid. Ord.   =            1.23
P.C.  Station        859+28.87  X   2,451,010.31  Y   7,043,819.88
P.T.  Station        863+72.62  X   2,450,720.69  Y   7,044,156.08
C.C.                            X   2,466,017.45  Y   7,057,040.53
Back        = N  41°22' 43" W
Ahead       = N  40°06' 27" W
Chord Bear  = N  40°44' 35" W

Course from PT A-14 to PC A-15 N 40°06' 27" W Dist 1,686.19

                         Curve Data
                        *----------*
Curve A-15
P.I.  Station        889+67.34  X   2,449,049.12  Y   7,046,140.62
Delta       =      17°13' 15" (LT)
Degree      =       0°57' 18"
Tangent     =          908.52
Length      =        1,803.35
Radius      =        6,000.00
External    =           68.39
Long Chord  =        1,796.57
Mid. Ord.   =           67.62
P.C.  Station        880+58.81  X   2,449,634.41  Y   7,045,445.74
P.T.  Station        898+62.16  X   2,448,284.34  Y   7,046,631.06
C.C.                            X   2,445,045.38  Y   7,041,580.41
Back        = N  40°06' 27" W
Ahead       = N  57°19' 41" W
Chord Bear  = N  48°43' 04" W

Course from PT A-15 to PC A-16 N 57°19' 41" W Dist 1,370.00
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MANAGED LANES (CONT)

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                         Curve Data
                        *----------*
Curve A-16
P.I.  Station        913+94.72  X   2,446,994.27  Y   7,047,458.38
Delta       =       2°19' 42" (RT)
Degree      =       0°42' 58"
Tangent     =          162.56
Length      =          325.08
Radius      =        8,000.00
External    =            1.65
Long Chord  =          325.06
Mid. Ord.   =            1.65
P.C.  Station        912+32.16  X   2,447,131.11  Y   7,047,370.62
P.T.  Station        915+57.24  X   2,446,861.11  Y   7,047,551.62
C.C.                            X   2,451,449.73  Y   7,054,104.83
Back        = N  57°19' 41" W
Ahead       = N  55°00' 00" W
Chord Bear  = N  56°09' 50" W

Course from PT A-16 to PC A-17 N 55°00' 00" W Dist 282.85

                         Curve Data
                        *----------*
Curve A-17
P.I.  Station        920+83.93  X   2,446,429.67  Y   7,047,853.72
Delta       =       2°19' 42" (LT)
Degree      =       0°28' 39"
Tangent     =          243.84
Length      =          487.62
Radius      =       12,000.00
External    =            2.48
Long Chord  =          487.58
Mid. Ord.   =            2.48
P.C.  Station        918+40.09  X   2,446,629.41  Y   7,047,713.86
P.T.  Station        923+27.71  X   2,446,224.40  Y   7,047,985.35
C.C.                            X   2,439,746.48  Y   7,037,884.04
Back        = N  55°00' 00" W
Ahead       = N  57°19' 41" W
Chord Bear  = N  56°09' 50" W

Course from PT A-17 to PC A-18 N 57°19' 41" W Dist 4,684.44

                         Curve Data
                        *----------*
Curve A-18
P.I.  Station        972+81.96  X   2,442,054.03  Y   7,050,659.80
Delta       =       2°34' 34" (LT)
Degree      =       0°28' 39"
Tangent     =          269.81
Length      =          539.53
Radius      =       12,000.00
External    =            3.03
Long Chord  =          539.49
Mid. Ord.   =            3.03
P.C.  Station        970+12.15  X   2,442,281.15  Y   7,050,514.14
P.T.  Station        975+51.69  X   2,441,820.59  Y   7,050,795.09
C.C.                            X   2,435,803.23  Y   7,040,412.83
Back        = N  57°19' 41" W
Ahead       = N  59°54' 15" W
Chord Bear  = N  58°36' 58" W

Course from PT A-18 to PC A-19 N 59°54' 15" W Dist 201.82

                         Curve Data
                        *----------*
Curve A-19
P.I.  Station        979+31.78  X   2,441,491.74  Y   7,050,985.69
Delta       =       2°33' 11" (RT)
Degree      =       0°42' 58"
Tangent     =          178.27
Length      =          356.48
Radius      =        8,000.00
External    =            1.99
Long Chord  =          356.45
Mid. Ord.   =            1.99
P.C.  Station        977+53.51  X   2,441,645.98  Y   7,050,896.29
P.T.  Station        981+09.98  X   2,441,341.64  Y   7,051,081.86
C.C.                            X   2,445,657.56  Y   7,057,817.80
Back        = N  59°54' 15" W
Ahead       = N  57°21' 04" W
Chord Bear  = N  58°37' 40" W

Course from PT A-19 to PC A-20 N 57°21' 04" W Dist 806.32

                         Curve Data
                        *----------*
Curve A-20
P.I.  Station        990+91.08  X   2,440,515.57  Y   7,051,611.15
Delta       =       1°00' 05" (RT)
Degree      =       0°17' 11"
Tangent     =          174.77
Length      =          349.54
Radius      =       20,000.00
External    =            0.76
Long Chord  =          349.54
Mid. Ord.   =            0.76
P.C.  Station        989+16.31  X   2,440,662.73  Y   7,051,516.86
P.T.  Station        992+65.85  X   2,440,370.08  Y   7,051,708.00
C.C.                            X   2,451,452.51  Y   7,068,356.71
Back        = N  57°21' 04" W
Ahead       = N  56°20' 59" W
Chord Bear  = N  56°51' 02" W

                         Curve Data
                        *----------*
Curve A-21
P.I.  Station        994+45.56  X   2,440,220.48  Y   7,051,807.58
Delta       =       1°01' 47" (LT)
Degree      =       0°17' 11"
Tangent     =          179.71
Length      =          359.42
Radius      =       20,000.00
External    =            0.81
Long Chord  =          359.41
Mid. Ord.   =            0.81
P.C.  Station        992+65.85  X   2,440,370.08  Y   7,051,708.00
P.T.  Station        996+25.26  X   2,440,069.11  Y   7,051,904.46
C.C.                            X   2,429,287.65  Y   7,035,059.28
Back        = N  56°20' 59" W
Ahead       = N  57°22' 46" W
Chord Bear  = N  56°51' 53" W

Course from PT A-21 to PC A-22 N 57°22' 46" W Dist 1,230.14

                         Curve Data
                        *----------*
Curve A-22
P.I.  Station       1012+06.35  X   2,438,737.43  Y   7,052,756.78
Delta       =       2°00' 38" (RT)
Degree      =       0°17' 11"
Tangent     =          350.95
Length      =          701.83
Radius      =       20,000.00
External    =            3.08
Long Chord  =          701.79
Mid. Ord.   =            3.08
P.C.  Station       1008+55.40  X   2,439,033.02  Y   7,052,567.60
P.T.  Station       1015+57.23  X   2,438,448.66  Y   7,052,956.22
C.C.                            X   2,449,814.49  Y   7,069,412.77
Back        = N  57°22' 46" W
Ahead       = N  55°22' 08" W
Chord Bear  = N  56°22' 27" W

                         Curve Data
                        *----------*
Curve A-23
P.I.  Station       1019+04.73  X   2,438,162.73  Y   7,053,153.70
Delta       =       1°59' 27" (LT)
Degree      =       0°17' 11"
Tangent     =          347.50
Length      =          694.93
Radius      =       20,000.00
External    =            3.02
Long Chord  =          694.89
Mid. Ord.   =            3.02
P.C.  Station       1015+57.23  X   2,438,448.66  Y   7,052,956.22
P.T.  Station       1022+52.16  X   2,437,870.11  Y   7,053,341.13
C.C.                            X   2,427,082.83  Y   7,036,499.68
Back        = N  55°22' 08" W
Ahead       = N  57°21' 35" W
Chord Bear  = N  56°21' 51" W

Course from PT A-23 to PC A-24 N 57°21' 35" W Dist 1,030.31
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MANAGED LANES (CONT)

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                         Curve Data
                        *----------*
Curve A-24
P.I.  Station       1047+53.64  X   2,435,763.68  Y   7,054,690.34
Delta       =      24°21' 28" (RT)
Degree      =       0°50' 26"
Tangent     =        1,471.18
Length      =        2,897.91
Radius      =        6,816.65
External    =          156.95
Long Chord  =        2,876.13
Mid. Ord.   =          153.42
P.C.  Station       1032+82.46  X   2,437,002.51  Y   7,053,896.84
P.T.  Station       1061+80.37  X   2,434,962.37  Y   7,055,924.15
C.C.                            X   2,440,679.17  Y   7,059,636.96
Back        = N  57°21' 35" W
Ahead       = N  33°00' 07" W
Chord Bear  = N  45°10' 51" W

Course from PT A-24 to PC A-25 N 33°00' 07" W Dist 720.60

                         Curve Data
                        *----------*
Curve A-25
P.I.  Station       1071+17.95  X   2,434,451.70  Y   7,056,710.45
Delta       =       2°04' 19" (RT)
Degree      =       0°28' 39"
Tangent     =          216.98
Length      =          433.92
Radius      =       12,000.00
External    =            1.96
Long Chord  =          433.90
Mid. Ord.   =            1.96
P.C.  Station       1069+00.96  X   2,434,569.89  Y   7,056,528.48
P.T.  Station       1073+34.88  X   2,434,340.18  Y   7,056,896.58
C.C.                            X   2,444,633.71  Y   7,063,064.49
Back        = N  33°00' 07" W
Ahead       = N  30°55' 49" W
Chord Bear  = N  31°57' 58" W

                         Curve Data
                        *----------*
Curve A-26
P.I.  Station       1076+71.27  X   2,434,167.28  Y   7,057,185.13
Delta       =       1°55' 38" (LT)
Degree      =       0°17' 11"
Tangent     =          336.39
Length      =          672.71
Radius      =       20,000.00
External    =            2.83
Long Chord  =          672.68
Mid. Ord.   =            2.83
P.C.  Station       1073+34.88  X   2,434,340.18  Y   7,056,896.58
P.T.  Station       1080+07.59  X   2,433,984.77  Y   7,057,467.70
C.C.                            X   2,417,184.29  Y   7,046,616.72
Back        = N  30°55' 49" W
Ahead       = N  32°51' 26" W
Chord Bear  = N  31°53' 37" W

Course from PT A-26 to PC A-27 N 32°51' 26" W Dist 600.00

                         Curve Data
                        *----------*
Curve A-27
P.I.  Station       1090+66.39  X   2,433,410.32  Y   7,058,357.11
Delta       =       2°37' 42" (LT)
Degree      =       0°17' 11"
Tangent     =          458.79
Length      =          917.43
Radius      =       20,000.00
External    =            5.26
Long Chord  =          917.35
Mid. Ord.   =            5.26
P.C.  Station       1086+07.59  X   2,433,659.24  Y   7,057,971.71
P.T.  Station       1095+25.02  X   2,433,143.99  Y   7,058,730.69
C.C.                            X   2,416,858.76  Y   7,047,120.74
Back        = N  32°51' 26" W
Ahead       = N  35°29' 08" W
Chord Bear  = N  34°10' 17" W

                         Curve Data
                        *----------*
Curve A-28
P.I.  Station       1096+91.71  X   2,433,047.23  Y   7,058,866.42
Delta       =       2°25' 20" (RT)
Degree      =       0°43' 36"
Tangent     =          166.69
Length      =          333.34
Radius      =        7,885.00
External    =            1.76
Long Chord  =          333.31
Mid. Ord.   =            1.76
P.C.  Station       1095+25.02  X   2,433,143.99  Y   7,058,730.69
P.T.  Station       1098+58.36  X   2,432,956.29  Y   7,059,006.12
C.C.                            X   2,439,564.45  Y   7,063,307.92
Back        = N  35°29' 08" W
Ahead       = N  33°03' 48" W
Chord Bear  = N  34°16' 28" W

Course from PT A-28 to PC A-29 N 33°03' 48" W Dist 2,173.58

                         Curve Data
                        *----------*
Curve A-29
P.I.  Station       1125+91.50  X   2,431,465.17  Y   7,061,296.68
Delta       =      11°00' 31" (LT)
Degree      =       0°59' 12"
Tangent     =          559.57
Length      =        1,115.70
Radius      =        5,806.82
External    =           26.90
Long Chord  =        1,113.98
Mid. Ord.   =           26.78
P.C.  Station       1120+31.93  X   2,431,770.46  Y   7,060,827.73
P.T.  Station       1131+47.63  X   2,431,075.96  Y   7,061,698.72
C.C.                            X   2,426,903.95  Y   7,057,659.72
Back        = N  33°03' 48" W
Ahead       = N  44°04' 19" W
Chord Bear  = N  38°34' 04" W

Course from PT A-29 to PC A-30 N 44°04' 19" W Dist 5,711.69

                         Curve Data
                        *----------*
Curve A-30
P.I.  Station       1198+43.78  X   2,426,418.38  Y   7,066,509.68
Delta       =      19°01' 21" (RT)
Degree      =       0°58' 30"
Tangent     =          984.46
Length      =        1,950.79
Radius      =        5,875.78
External    =           81.90
Long Chord  =        1,941.85
Mid. Ord.   =           80.77
P.C.  Station       1188+59.32  X   2,427,103.13  Y   7,065,802.38
P.T.  Station       1208+10.12  X   2,426,001.56  Y   7,067,401.54
C.C.                            X   2,431,324.68  Y   7,069,889.34
Back        = N  44°04' 19" W
Ahead       = N  25°02' 58" W
Chord Bear  = N  34°33' 38" W

                         Curve Data
                        *----------*
Curve A-31
P.I.  Station       1212+50.62  X   2,425,815.05  Y   7,067,800.61
Delta       =      12°24' 53" (RT)
Degree      =       1°24' 53"
Tangent     =          440.50
Length      =          877.55
Radius      =        4,050.00
External    =           23.89
Long Chord  =          875.84
Mid. Ord.   =           23.75
P.C.  Station       1208+10.12  X   2,426,001.56  Y   7,067,401.54
P.T.  Station       1216+87.67  X   2,425,718.70  Y   7,068,230.44
C.C.                            X   2,429,670.63  Y   7,069,116.31
Back        = N  25°02' 58" W
Ahead       = N  12°38' 04" W
Chord Bear  = N  18°50' 31" W

Course from PT A-31 to PC A-32 N 12°38' 04" W Dist 988.77
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MANAGED LANES (CONT)

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                         Curve Data
                        *----------*
Curve A-32
P.I.  Station       1231+89.21  X   2,425,390.26  Y   7,069,695.63
Delta       =       4°57' 26" (LT)
Degree      =       0°29' 01"
Tangent     =          512.77
Length      =        1,024.90
Radius      =       11,845.56
External    =           11.09
Long Chord  =        1,024.58
Mid. Ord.   =           11.08
P.C.  Station       1226+76.44  X   2,425,502.42  Y   7,069,195.27
P.T.  Station       1237+01.34  X   2,425,235.28  Y   7,070,184.42
C.C.                            X   2,413,943.70  Y   7,066,604.27
Back        = N  12°38' 04" W
Ahead       = N  17°35' 31" W
Chord Bear  = N  15°06' 48" W

Course from PT A-32 to PC A-33 N 17°35' 31" W Dist 378.05

                         Curve Data
                        *----------*
Curve A-33
P.I.  Station       1242+08.01  X   2,425,082.15  Y   7,070,667.39
Delta       =       2°27' 21" (RT)
Degree      =       0°57' 18"
Tangent     =          128.61
Length      =          257.18
Radius      =        6,000.00
External    =            1.38
Long Chord  =          257.16
Mid. Ord.   =            1.38
P.C.  Station       1240+79.40  X   2,425,121.02  Y   7,070,544.79
P.T.  Station       1243+36.58  X   2,425,048.57  Y   7,070,791.54
C.C.                            X   2,430,840.42  Y   7,072,358.20
Back        = N  17°35' 31" W
Ahead       = N  15°08' 10" W
Chord Bear  = N  16°21' 50" W

Course from PT A-33 to PC A-34 N 15°08' 10" W Dist 236.65

                         Curve Data
                        *----------*
Curve A-34
P.I.  Station       1247+44.72  X   2,424,942.00  Y   7,071,185.51
Delta       =       2°27' 21" (LT)
Degree      =       0°42' 58"
Tangent     =          171.48
Length      =          342.91
Radius      =        8,000.00
External    =            1.84
Long Chord  =          342.89
Mid. Ord.   =            1.84
P.C.  Station       1245+73.23  X   2,424,986.78  Y   7,071,019.98
P.T.  Station       1249+16.14  X   2,424,890.17  Y   7,071,348.98
C.C.                            X   2,417,264.31  Y   7,068,931.09
Back        = N  15°08' 10" W
Ahead       = N  17°35' 31" W
Chord Bear  = N  16°21' 50" W

Course from PT A-34 to PC A-35 N 17°35' 31" W Dist 116.86

                         Curve Data
                        *----------*
Curve A-35
P.I.  Station       1252+04.48  X   2,424,803.03  Y   7,071,623.83
Delta       =       2°27' 21" (LT)
Degree      =       0°42' 58"
Tangent     =          171.48
Length      =          342.91
Radius      =        8,000.00
External    =            1.84
Long Chord  =          342.89
Mid. Ord.   =            1.84
P.C.  Station       1250+33.00  X   2,424,854.85  Y   7,071,460.37
P.T.  Station       1253+75.91  X   2,424,744.24  Y   7,071,784.92
C.C.                            X   2,417,228.99  Y   7,069,042.48
Back        = N  17°35' 31" W
Ahead       = N  20°02' 52" W
Chord Bear  = N  18°49' 12" W

Course from PT A-35 to PC A-36 N 20°02' 52" W Dist 465.83

                         Curve Data
                        *----------*
Curve A-36
P.I.  Station       1263+34.75  X   2,424,415.55  Y   7,072,685.66
Delta       =       2°27' 21" (RT)
Degree      =       0°14' 57"
Tangent     =          493.01
Length      =          985.87
Radius      =       23,000.00
External    =            5.28
Long Chord  =          985.80
Mid. Ord.   =            5.28
P.C.  Station       1258+41.74  X   2,424,584.55  Y   7,072,222.52
P.T.  Station       1268+27.61  X   2,424,266.54  Y   7,073,155.62
C.C.                            X   2,446,190.91  Y   7,080,107.03
Back        = N  20°02' 52" W
Ahead       = N  17°35' 31" W
Chord Bear  = N  18°49' 12" W

Course from PT A-36 to PC A-37 N 17°35' 31" W Dist 785.56

                         Curve Data
                        *----------*
Curve A-37
P.I.  Station       1284+88.71  X   2,423,764.50  Y   7,074,739.03
Delta       =      15°20' 34" (LT)
Degree      =       0°52' 53"
Tangent     =          875.53
Length      =        1,740.59
Radius      =        6,500.00
External    =           58.70
Long Chord  =        1,735.39
Mid. Ord.   =           58.18
P.C.  Station       1276+13.18  X   2,424,029.12  Y   7,073,904.44
P.T.  Station       1293+53.77  X   2,423,288.49  Y   7,075,473.85
C.C.                            X   2,417,833.10  Y   7,071,939.91
Back        = N  17°35' 31" W
Ahead       = N  32°56' 05" W
Chord Bear  = N  25°15' 48" W

Course from PT A-37 to PC A-38 N 32°56' 05" W Dist 3,956.56

                         Curve Data
                        *----------*
Curve A-38
P.I.  Station       1352+05.52  X   2,420,106.99  Y   7,080,385.17
Delta       =      23°49' 36" (RT)
Degree      =       0°38' 16"
Tangent     =        1,895.19
Length      =        3,735.60
Radius      =        8,983.00
External    =          197.74
Long Chord  =        3,708.74
Mid. Ord.   =          193.48
P.C.  Station       1333+10.33  X   2,421,137.37  Y   7,078,794.56
P.T.  Station       1370+45.93  X   2,419,806.98  Y   7,082,256.47
C.C.                            X   2,428,676.71  Y   7,083,678.47
Back        = N  32°56' 05" W
Ahead       = N   9°06' 29" W
Chord Bear  = N  21°01' 17" W

Course from PT A-38 to PC A-39 N 9°06' 29" W Dist 1,796.44

                         Curve Data
                        *----------*
Curve A-39
P.I.  Station       1402+08.53  X   2,419,306.34  Y   7,085,379.19
Delta       =      13°23' 46" (RT)
Degree      =       0°29' 33"
Tangent     =        1,366.16
Length      =        2,719.86
Radius      =       11,633.00
External    =           79.95
Long Chord  =        2,713.67
Mid. Ord.   =           79.40
P.C.  Station       1388+42.37  X   2,419,522.60  Y   7,084,030.26
P.T.  Station       1415+62.23  X   2,419,408.49  Y   7,086,741.53
C.C.                            X   2,431,008.93  Y   7,085,871.75
Back        = N   9°06' 29" W
Ahead       = N   4°17' 16" E
Chord Bear  = N   2°24' 37" W

Course from PT A-39 to PC A-40 N 4°17' 16" E Dist 3,268.40
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MANAGED LANES (CONT)

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                         Curve Data
                        *----------*
Curve A-40
P.I.  Station       1463+07.68  X   2,419,763.29  Y   7,091,473.70
Delta       =      33°18' 47" (LT)
Degree      =       1°09' 38"
Tangent     =        1,477.05
Length      =        2,870.41
Radius      =        4,936.87
External    =          216.22
Long Chord  =        2,830.15
Mid. Ord.   =          207.15
P.C.  Station       1448+30.63  X   2,419,652.86  Y   7,090,000.78
P.T.  Station       1477+01.04  X   2,419,046.64  Y   7,092,765.24
C.C.                            X   2,414,729.81  Y   7,090,369.90
Back        = N   4°17' 16" E
Ahead       = N  29°01' 31" W
Chord Bear  = N  12°22' 07" W

Course from PT A-40 to PC A-41 N 29°01' 31" W Dist 1,584.74

                         Curve Data
                        *----------*
Curve A-41
P.I.  Station       1495+29.24  X   2,418,159.61  Y   7,094,363.83
Delta       =       2°19' 28" (LT)
Degree      =       0°28' 39"
Tangent     =          243.46
Length      =          486.85
Radius      =       12,000.00
External    =            2.47
Long Chord  =          486.81
Mid. Ord.   =            2.47
P.C.  Station       1492+85.78  X   2,418,277.73  Y   7,094,150.95
P.T.  Station       1497+72.63  X   2,418,032.95  Y   7,094,571.74
C.C.                            X   2,407,784.85  Y   7,088,328.62
Back        = N  29°01' 31" W
Ahead       = N  31°20' 59" W
Chord Bear  = N  30°11' 15" W

                         Curve Data
                        *----------*
Curve A-42
P.I.  Station       1500+36.54  X   2,417,895.65  Y   7,094,797.12
Delta       =       2°31' 11" (RT)
Degree      =       0°28' 39"
Tangent     =          263.91
Length      =          527.73
Radius      =       12,000.00
External    =            2.90
Long Chord  =          527.69
Mid. Ord.   =            2.90
P.C.  Station       1497+72.63  X   2,418,032.95  Y   7,094,571.74
P.T.  Station       1503+00.36  X   2,417,768.39  Y   7,095,028.32
C.C.                            X   2,428,281.04  Y   7,100,814.86
Back        = N  31°20' 59" W
Ahead       = N  28°49' 48" W
Chord Bear  = N  30°05' 23" W

Course from PT A-42 to PC A-43 N 28°49' 48" W Dist 1,099.66

                         Curve Data
                        *----------*
Curve A-43
P.I.  Station       1516+46.67  X   2,417,119.18  Y   7,096,207.76
Delta       =       2°21' 18" (RT)
Degree      =       0°28' 39"
Tangent     =          246.64
Length      =          493.23
Radius      =       12,000.00
External    =            2.53
Long Chord  =          493.19
Mid. Ord.   =            2.53
P.C.  Station       1514+00.02  X   2,417,238.11  Y   7,095,991.69
P.T.  Station       1518+93.24  X   2,417,009.22  Y   7,096,428.54
C.C.                            X   2,427,750.77  Y   7,101,778.23
Back        = N  28°49' 48" W
Ahead       = N  26°28' 30" W
Chord Bear  = N  27°39' 09" W

                         Curve Data
                        *----------*
Curve A-44
P.I.  Station       1523+21.35  X   2,416,818.37  Y   7,096,811.75
Delta       =       4°05' 11" (LT)
Degree      =       0°28' 39"
Tangent     =          428.11
Length      =          855.85
Radius      =       12,000.00
External    =            7.63
Long Chord  =          855.67
Mid. Ord.   =            7.63
P.C.  Station       1518+93.24  X   2,417,009.22  Y   7,096,428.54
P.T.  Station       1527+49.09  X   2,416,600.70  Y   7,097,180.39
C.C.                            X   2,406,267.68  Y   7,091,078.85
Back        = N  26°28' 30" W
Ahead       = N  30°33' 41" W
Chord Bear  = N  28°31' 06" W

Course from PT A-44 to PC A-45 N 30°33' 41" W Dist 222.62

                         Curve Data
                        *----------*
Curve A-45
P.I.  Station       1535+91.88  X   2,416,172.17  Y   7,097,906.10
Delta       =      10°07' 49" (LT)
Degree      =       0°49' 08"
Tangent     =          620.17
Length      =        1,237.11
Radius      =        6,996.96
External    =           27.43
Long Chord  =        1,235.50
Mid. Ord.   =           27.32
P.C.  Station       1529+71.71  X   2,416,487.50  Y   7,097,372.08
P.T.  Station       1542+08.82  X   2,415,767.83  Y   7,098,376.33
C.C.                            X   2,410,462.52  Y   7,093,814.40
Back        = N  30°33' 41" W
Ahead       = N  40°41' 30" W
Chord Bear  = N  35°37' 35" W

Course from PT A-45 to PC A-46 N 40°41' 30" W Dist 3,968.80

                         Curve Data
                        *----------*
Curve A-46
P.I.  Station       1584+00.99  X   2,413,034.58  Y   7,101,554.96
Delta       =       1°16' 47" (RT)
Degree      =       0°17' 11"
Tangent     =          223.37
Length      =          446.72
Radius      =       20,000.00
External    =            1.25
Long Chord  =          446.71
Mid. Ord.   =            1.25
P.C.  Station       1581+77.63  X   2,413,180.21  Y   7,101,385.60
P.T.  Station       1586+24.34  X   2,412,892.77  Y   7,101,727.53
C.C.                            X   2,428,344.80  Y   7,114,425.35
Back        = N  40°41' 30" W
Ahead       = N  39°24' 43" W
Chord Bear  = N  40°03' 06" W

Course from PT A-46 to PC A-47 N 39°24' 43" W Dist 3,763.61

                         Curve Data
                        *----------*
Curve A-47
P.I.  Station       1625+80.75  X   2,410,380.88  Y   7,104,784.26
Delta       =       1°50' 27" (LT)
Degree      =       0°28' 39"
Tangent     =          192.80
Length      =          385.56
Radius      =       12,000.00
External    =            1.55
Long Chord  =          385.54
Mid. Ord.   =            1.55
P.C.  Station       1623+87.95  X   2,410,503.28  Y   7,104,635.31
P.T.  Station       1627+73.51  X   2,410,253.75  Y   7,104,929.21
C.C.                            X   2,401,232.06  Y   7,097,016.61
Back        = N  39°24' 43" W
Ahead       = N  41°15' 10" W
Chord Bear  = N  40°19' 56" W
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MANAGED LANES (CONT)

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                         Curve Data
                        *----------*
Curve A-48
P.I.  Station       1630+61.98  X   2,410,063.54  Y   7,105,146.08
Delta       =       2°45' 15" (RT)
Degree      =       0°28' 39"
Tangent     =          288.46
Length      =          576.82
Radius      =       12,000.00
External    =            3.47
Long Chord  =          576.76
Mid. Ord.   =            3.47
P.C.  Station       1627+73.51  X   2,410,253.75  Y   7,104,929.21
P.T.  Station       1633+50.33  X   2,409,883.98  Y   7,105,371.84
C.C.                            X   2,419,275.44  Y   7,112,841.80
Back        = N  41°15' 10" W
Ahead       = N  38°29' 55" W
Chord Bear  = N  39°52' 33" W

Course from PT A-48 to PC A-49 N 38°29' 55" W Dist 2,504.73

                         Curve Data
                        *----------*
Curve A-49
P.I.  Station       1665+83.00  X   2,407,871.65  Y   7,107,901.79
Delta       =      15°04' 44" (LT)
Degree      =       1°02' 30"
Tangent     =          727.94
Length      =        1,447.47
Radius      =        5,500.00
External    =           47.96
Long Chord  =        1,443.29
Mid. Ord.   =           47.55
P.C.  Station       1658+55.06  X   2,408,324.79  Y   7,107,332.09
P.T.  Station       1673+02.53  X   2,407,285.91  Y   7,108,334.00
C.C.                            X   2,404,020.37  Y   7,103,908.36
Back        = N  38°29' 55" W
Ahead       = N  53°34' 39" W
Chord Bear  = N  46°02' 17" W

Course from PT A-49 to PC A-50 N 53°34' 39" W Dist 612.24

                         Curve Data
                        *----------*
Curve A-50
P.I.  Station       1681+56.68  X   2,406,598.60  Y   7,108,841.14
Delta       =       2°18' 35" (LT)
Degree      =       0°28' 39"
Tangent     =          241.91
Length      =          483.76
Radius      =       12,000.00
External    =            2.44
Long Chord  =          483.73
Mid. Ord.   =            2.44
P.C.  Station       1679+14.77  X   2,406,793.26  Y   7,108,697.50
P.T.  Station       1683+98.53  X   2,406,398.31  Y   7,108,976.81
C.C.                            X   2,399,668.45  Y   7,099,041.57
Back        = N  53°34' 39" W
Ahead       = N  55°53' 15" W
Chord Bear  = N  54°43' 57" W

                         Curve Data
                        *----------*
Curve A-51
P.I.  Station       1688+01.71  X   2,406,064.50  Y   7,109,202.92
Delta       =       2°18' 35" (RT)
Degree      =       0°17' 11"
Tangent     =          403.18
Length      =          806.25
Radius      =       20,000.00
External    =            4.06
Long Chord  =          806.20
Mid. Ord.   =            4.06
P.C.  Station       1683+98.53  X   2,406,398.31  Y   7,108,976.81
P.T.  Station       1692+04.78  X   2,405,740.08  Y   7,109,442.30
C.C.                            X   2,417,614.74  Y   7,125,535.54
Back        = N  55°53' 15" W
Ahead       = N  53°34' 39" W
Chord Bear  = N  54°43' 57" W

Course from PT A-51 to PC A-52 N 53°34' 39" W Dist 1,379.10

                         Curve Data
                        *----------*
Curve A-52
P.I.  Station       1711+37.68  X   2,404,184.75  Y   7,110,589.93
Delta       =       3°10' 20" (RT)
Degree      =       0°17' 11"
Tangent     =          553.80
Length      =        1,107.32
Radius      =       20,000.00
External    =            7.67
Long Chord  =        1,107.18
Mid. Ord.   =            7.66
P.C.  Station       1705+83.88  X   2,404,630.37  Y   7,110,261.12
P.T.  Station       1716+91.20  X   2,403,758.00  Y   7,110,942.89
C.C.                            X   2,416,505.03  Y   7,126,354.36
Back        = N  53°34' 39" W
Ahead       = N  50°24' 19" W
Chord Bear  = N  51°59' 29" W

Course from PT A-52 to PC A-53 N 50°24' 19" W Dist 7,042.60

                         Curve Data
                        *----------*
Curve A-53
P.I.  Station       1788+98.00  X   2,398,204.64  Y   7,115,536.16
Delta       =       0°56' 27" (LT)
Degree      =       0°17' 11"
Tangent     =          164.20
Length      =          328.40
Radius      =       20,000.00
External    =            0.67
Long Chord  =          328.40
Mid. Ord.   =            0.67
P.C.  Station       1787+33.79  X   2,398,331.17  Y   7,115,431.50
P.T.  Station       1790+62.19  X   2,398,076.40  Y   7,115,638.72
C.C.                            X   2,385,584.14  Y   7,100,020.04
Back        = N  50°24' 19" W
Ahead       = N  51°20' 46" W
Chord Bear  = N  50°52' 33" W

Course from PT A-53 to PC A-54 N 51°20' 46" W Dist 2,283.34

                         Curve Data
                        *----------*
Curve A-54
P.I.  Station       1814+98.00  X   2,396,174.20  Y   7,117,160.16
Delta       =       3°29' 35" (RT)
Degree      =       1°08' 45"
Tangent     =          152.46
Length      =          304.83
Radius      =        5,000.00
External    =            2.32
Long Chord  =          304.78
Mid. Ord.   =            2.32
P.C.  Station       1813+45.54  X   2,396,293.26  Y   7,117,064.93
P.T.  Station       1816+50.37  X   2,396,061.16  Y   7,117,262.46
C.C.                            X   2,399,416.33  Y   7,120,969.60
Back        = N  51°20' 46" W
Ahead       = N  47°51' 11" W
Chord Bear  = N  49°35' 59" W

Course from PT A-54 to PC A-55 N 47°51' 11" W Dist 3,372.81

                         Curve Data
                        *----------*
Curve A-55
P.I.  Station       1862+06.82  X   2,392,682.88  Y   7,120,320.00
Delta       =      29°28' 25" (LT)
Degree      =       1°16' 24"
Tangent     =        1,183.64
Length      =        2,314.85
Radius      =        4,500.00
External    =          153.06
Long Chord  =        2,289.41
Mid. Ord.   =          148.03
P.C.  Station       1850+23.18  X   2,393,560.47  Y   7,119,525.74
P.T.  Station       1873+38.03  X   2,391,528.08  Y   7,120,579.68
C.C.                            X   2,390,540.81  Y   7,116,189.31
Back        = N  47°51' 11" W
Ahead       = N  77°19' 36" W
Chord Bear  = N  62°35' 24" W

Course from PT A-55 to PC A-56 N 77°19' 36" W Dist 1,518.60
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MANAGED LANES (CONT)

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                         Curve Data
                        *----------*
Curve A-56
P.I.  Station       1889+56.12  X   2,389,949.41  Y   7,120,934.68
Delta       =       1°25' 30" (RT)
Degree      =       0°42' 58"
Tangent     =           99.48
Length      =          198.96
Radius      =        8,000.00
External    =            0.62
Long Chord  =          198.95
Mid. Ord.   =            0.62
P.C.  Station       1888+56.63  X   2,390,046.47  Y   7,120,912.85
P.T.  Station       1890+55.59  X   2,389,852.93  Y   7,120,958.91
C.C.                            X   2,391,801.60  Y   7,128,717.94
Back        = N  77°19' 36" W
Ahead       = N  75°54' 06" W
Chord Bear  = N  76°36' 51" W

Course from PT A-56 to PC A-57 N 75°54' 06" W Dist 3,067.68

                         Curve Data
                        *----------*
Curve A-57
P.I.  Station       1924+14.59  X   2,386,595.10  Y   7,121,777.11
Delta       =       6°40' 08" (LT)
Degree      =       1°08' 45"
Tangent     =          291.32
Length      =          581.97
Radius      =        5,000.00
External    =            8.48
Long Chord  =          581.65
Mid. Ord.   =            8.46
P.C.  Station       1921+23.27  X   2,386,877.64  Y   7,121,706.15
P.T.  Station       1927+05.25  X   2,386,306.23  Y   7,121,814.78
C.C.                            X   2,385,659.72  Y   7,116,856.75
Back        = N  75°54' 06" W
Ahead       = N  82°34' 15" W
Chord Bear  = N  79°14' 11" W

Course from PT A-57 to PC A-58 N 82°34' 15" W Dist 722.20

                         Curve Data
                        *----------*
Curve A-58
P.I.  Station       1943+97.62  X   2,384,628.07  Y   7,122,033.60
Delta       =      34°41' 05" (RT)
Degree      =       1°50' 39"
Tangent     =          970.17
Length      =        1,880.72
Radius      =        3,106.77
External    =          147.96
Long Chord  =        1,852.14
Mid. Ord.   =          141.23
P.C.  Station       1934+27.45  X   2,385,590.09  Y   7,121,908.16
P.T.  Station       1953+08.17  X   2,383,908.38  Y   7,122,684.21
C.C.                            X   2,385,991.80  Y   7,124,988.85
Back        = N  82°34' 15" W
Ahead       = N  47°53' 10" W
Chord Bear  = N  65°13' 42" W

Course from PT A-58 to PC A-59 N 47°53' 10" W Dist 1,322.86

                         Curve Data
                        *----------*
Curve A-59
P.I.  Station       1978+09.08  X   2,382,053.18  Y   7,124,361.34
Delta       =      17°17' 11" (LT)
Degree      =       0°44' 21"
Tangent     =        1,178.05
Length      =        2,338.20
Radius      =        7,750.00
External    =           89.02
Long Chord  =        2,329.34
Mid. Ord.   =           88.01
P.C.  Station       1966+31.03  X   2,382,927.07  Y   7,123,571.33
P.T.  Station       1989+69.23  X   2,380,984.01  Y   7,124,855.99
C.C.                            X   2,377,729.85  Y   7,117,822.29
Back        = N  47°53' 10" W
Ahead       = N  65°10' 20" W
Chord Bear  = N  56°31' 45" W

Course from PT A-59 to PC A-60 N 65°10' 20" W Dist 701.92

                         Curve Data
                        *----------*
Curve A-60
P.I.  Station       2001+08.36  X   2,379,950.16  Y   7,125,334.30
Delta       =       3°45' 05" (RT)
Degree      =       0°25' 45"
Tangent     =          437.21
Length      =          874.11
Radius      =       13,350.30
External    =            7.16
Long Chord  =          873.96
Mid. Ord.   =            7.15
P.C.  Station       1996+71.15  X   2,380,346.96  Y   7,125,150.72
P.T.  Station       2005+45.26  X   2,379,566.22  Y   7,125,543.45
C.C.                            X   2,385,952.64  Y   7,137,267.11
Back        = N  65°10' 20" W
Ahead       = N  61°25' 15" W
Chord Bear  = N  63°17' 48" W

Course from PT A-60 to PC A-61 N 61°25' 15" W Dist 1,878.29

                         Curve Data
                        *----------*
Curve A-61
P.I.  Station       2032+55.72  X   2,377,186.02  Y   7,126,840.06
Delta       =      21°37' 25" (RT)
Degree      =       1°18' 54"
Tangent     =          832.17
Length      =        1,644.53
Radius      =        4,357.52
External    =           78.75
Long Chord  =        1,634.79
Mid. Ord.   =           77.35
P.C.  Station       2024+23.55  X   2,377,916.79  Y   7,126,441.97
P.T.  Station       2040+68.08  X   2,376,653.37  Y   7,127,479.43
C.C.                            X   2,380,001.31  Y   7,130,268.57
Back        = N  61°25' 15" W
Ahead       = N  39°47' 50" W
Chord Bear  = N  50°36' 33" W

                         Curve Data
                        *----------*
Curve A-62
P.I.  Station       2050+81.79  X   2,376,004.52  Y   7,128,258.27
Delta       =      23°23' 59" (RT)
Degree      =       1°10' 14"
Tangent     =        1,013.71
Length      =        1,999.16
Radius      =        4,895.11
External    =          103.86
Long Chord  =        1,985.30
Mid. Ord.   =          101.70
P.C.  Station       2040+68.08  X   2,376,653.37  Y   7,127,479.43
P.T.  Station       2060+67.24  X   2,375,718.34  Y   7,129,230.75
C.C.                            X   2,380,414.34  Y   7,130,612.66
Back        = N  39°47' 50" W
Ahead       = N  16°23' 52" W
Chord Bear  = N  28°05' 51" W

Course from PT A-62 to PC A-63 N 16°23' 52" W Dist 4,531.82

                         Curve Data
                        *----------*
Curve A-63
P.I.  Station       2106+00.56  X   2,374,438.57  Y   7,133,579.67
Delta       =       0°01' 02" (RT)
Degree      =       0°34' 23"
Tangent     =            1.49
Length      =            2.99
Radius      =       10,000.00
External    =            0.00
Long Chord  =            2.99
Mid. Ord.   =            0.00
P.C.  Station       2105+99.07  X   2,374,438.99  Y   7,133,578.24
P.T.  Station       2106+02.05  X   2,374,438.15  Y   7,133,581.11
C.C.                            X   2,384,032.24  Y   7,136,401.28
Back        = N  16°23' 52" W
Ahead       = N  16°22' 50" W
Chord Bear  = N  16°23' 21" W

Course from PT A-63 to 143 N 16°22' 50" W Dist 1,398.51

Point 143            X   2,374,043.75 Y   7,134,922.85 Sta  2120+00.56

==========================================================================
Ending chain ML35CL1 description
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GENERAL PURPOSE LANES
NB GENERAL PURPOSE LANES 1

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Beginning chain GP35NB1 description
Description: General Purpose AAA
==========================================================================

Point 74             X   2,393,803.05 Y   7,119,323.72 Sta  1847+08.02

Course from 74 to PC AAA-1 N 47°51' 11" W Dist 791.01

                         Curve Data
                        *----------*
Curve AAA-1
P.I.  Station       1863+96.58  X   2,392,551.11  Y   7,120,456.79
Delta       =      33°25' 42" (LT)
Degree      =       1°55' 01"
Tangent     =          897.55
Length      =        1,743.88
Radius      =        2,989.00
External    =          131.85
Long Chord  =        1,719.25
Mid. Ord.   =          126.28
P.C.  Station       1854+99.03  X   2,393,216.58  Y   7,119,854.51
P.T.  Station       1872+42.91  X   2,391,663.94  Y   7,120,592.85
C.C.                            X   2,391,210.86  Y   7,117,638.39
Back        = N  47°51' 11" W
Ahead       = N  81°16' 53" W
Chord Bear  = N  64°34' 02" W

                         Curve Data
                        *----------*
Curve AAA-2
P.I.  Station       1876+02.83  X   2,391,308.17  Y   7,120,647.40
Delta       =       3°25' 36" (RT)
Degree      =       0°28' 34"
Tangent     =          359.92
Length      =          719.62
Radius      =       12,033.00
External    =            5.38
Long Chord  =          719.52
Mid. Ord.   =            5.38
P.C.  Station       1872+42.91  X   2,391,663.94  Y   7,120,592.85
P.T.  Station       1879+62.53  X   2,390,956.31  Y   7,120,723.13
C.C.                            X   2,393,487.93  Y   7,132,486.80
Back        = N  81°16' 53" W
Ahead       = N  77°51' 17" W
Chord Bear  = N  79°34' 05" W

Course from PT AAA-2 to 75 N 77°51' 17" W Dist 380.93

Point 75             X   2,390,583.91 Y   7,120,803.27 Sta  1883+43.46

==========================================================================
Ending chain GP35NB1 description
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NB GENERAL PURPOSE LANES 2

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Beginning chain GP35NB2 description
Description: General Purpose AAB
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                         Curve Data
                        *----------*
Curve AAB-1
P.I.  Station       1256+36.26  X   2,424,677.54  Y   7,072,037.72
Delta       =       0°42' 25" (RT)
Degree      =       0°57' 32"
Tangent     =           36.87
Length      =           73.75
Radius      =        5,976.00
External    =            0.11
Long Chord  =           73.75
Mid. Ord.   =            0.11
P.C.  Station       1255+99.39  X   2,424,690.18  Y   7,072,003.08
P.T.  Station       1256+73.14  X   2,424,665.33  Y   7,072,072.51
C.C.                            X   2,430,304.08  Y   7,074,051.68
Back        = N  20°02' 52" W
Ahead       = N  19°20' 27" W
Chord Bear  = N  19°41' 40" W

Course from PT AAB-1 to PC AAB-2 N 19°20' 27" W Dist 444.53

                         Curve Data
                        *----------*
Curve AAB-2
P.I.  Station       1262+40.88  X   2,424,477.30  Y   7,072,608.22
Delta       =       1°24' 43" (RT)
Degree      =       0°34' 23"
Tangent     =          123.21
Length      =          246.41
Radius      =       10,000.00
External    =            0.76
Long Chord  =          246.41
Mid. Ord.   =            0.76
P.C.  Station       1261+17.67  X   2,424,518.10  Y   7,072,491.96
P.T.  Station       1263+64.08  X   2,424,439.37  Y   7,072,725.45
C.C.                            X   2,433,953.76  Y   7,075,803.82
Back        = N  19°20' 27" W
Ahead       = N  17°55' 44" W
Chord Bear  = N  18°38' 05" W

Course from PT AAB-2 to PC AAB-3 N 17°55' 44" W Dist 1,274.78

                         Curve Data
                        *----------*
Curve AAB-3
P.I.  Station       1284+47.51  X   2,423,798.01  Y   7,074,707.70
Delta       =      14°07' 53" (LT)
Degree      =       0°52' 42"
Tangent     =          808.65
Length      =        1,609.09
Radius      =        6,524.00
External    =           49.92
Long Chord  =        1,605.01
Mid. Ord.   =           49.55
P.C.  Station       1276+38.86  X   2,424,046.95  Y   7,073,938.32
P.T.  Station       1292+47.95  X   2,423,368.77  Y   7,075,393.02
C.C.                            X   2,417,839.76  Y   7,071,929.99
Back        = N  17°55' 44" W
Ahead       = N  32°03' 37" W
Chord Bear  = N  24°59' 41" W

                         Curve Data
                        *----------*
Curve AAB-4
P.I.  Station       1295+53.74  X   2,423,206.46  Y   7,075,652.17
Delta       =       2°54' 32" (RT)
Degree      =       0°28' 33"
Tangent     =          305.79
Length      =          611.45
Radius      =       12,044.00
External    =            3.88
Long Chord  =          611.38
Mid. Ord.   =            3.88
P.C.  Station       1292+47.95  X   2,423,368.77  Y   7,075,393.02
P.T.  Station       1298+59.39  X   2,423,057.50  Y   7,075,919.23
C.C.                            X   2,433,575.93  Y   7,081,786.13
Back        = N  32°03' 37" W
Ahead       = N  29°09' 06" W
Chord Bear  = N  30°36' 22" W

                         Curve Data
                        *----------*
Curve AAB-5
P.I.  Station       1300+44.78  X   2,422,967.20  Y   7,076,081.13
Delta       =       1°03' 52" (LT)
Degree      =       0°17' 14"
Tangent     =          185.38
Length      =          370.76
Radius      =       19,956.00
External    =            0.86
Long Chord  =          370.75
Mid. Ord.   =            0.86
P.C.  Station       1298+59.39  X   2,423,057.50  Y   7,075,919.23
P.T.  Station       1302+30.15  X   2,422,873.90  Y   7,076,241.33
C.C.                            X   2,405,629.26  Y   7,066,198.21
Back        = N  29°09' 06" W
Ahead       = N  30°12' 58" W
Chord Bear  = N  29°41' 02" W

Course from PT AAB-5 to PC AAB-6 N 30°12' 58" W Dist 226.52
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NB GENERAL PURPOSE LANES 2 (CONT)

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                         Curve Data
                        *----------*
Curve AAB-6
P.I.  Station       1306+45.46  X   2,422,664.89  Y   7,076,600.21
Delta       =       2°43' 07" (LT)
Degree      =       0°43' 13"
Tangent     =          188.79
Length      =          377.50
Radius      =        7,956.00
External    =            2.24
Long Chord  =          377.47
Mid. Ord.   =            2.24
P.C.  Station       1304+56.67  X   2,422,759.90  Y   7,076,437.07
P.T.  Station       1308+34.18  X   2,422,562.25  Y   7,076,758.66
C.C.                            X   2,415,884.85  Y   7,072,433.11
Back        = N  30°12' 58" W
Ahead       = N  32°56' 05" W
Chord Bear  = N  31°34' 32" W

Course from PT AAB-6 to PC AAB-7 N 32°56' 05" W Dist 1,256.80

                         Curve Data
                        *----------*
Curve AAB-7
P.I.  Station       1323+98.30  X   2,421,711.86  Y   7,078,071.41
Delta       =       1°45' 36" (RT)
Degree      =       0°17' 11"
Tangent     =          307.32
Length      =          614.60
Radius      =       20,008.00
External    =            2.36
Long Chord  =          614.57
Mid. Ord.   =            2.36
P.C.  Station       1320+90.98  X   2,421,878.95  Y   7,077,813.48
P.T.  Station       1327+05.58  X   2,421,552.77  Y   7,078,334.35
C.C.                            X   2,438,671.47  Y   7,088,691.50
Back        = N  32°56' 05" W
Ahead       = N  31°10' 29" W
Chord Bear  = N  32°03' 17" W

Course from PT AAB-7 to PC AAB-8 N 31°10' 29" W Dist 1,168.22

                         Curve Data
                        *----------*
Curve AAB-8
P.I.  Station       1346+82.22  X   2,420,529.56  Y   7,080,025.55
Delta       =      13°24' 33" (RT)
Degree      =       0°49' 59"
Tangent     =          808.42
Length      =        1,609.45
Radius      =        6,877.00
External    =           47.35
Long Chord  =        1,605.78
Mid. Ord.   =           47.03
P.C.  Station       1338+73.80  X   2,420,948.04  Y   7,079,333.88
P.T.  Station       1354+83.25  X   2,420,282.90  Y   7,080,795.42
C.C.                            X   2,426,831.95  Y   7,082,893.76
Back        = N  31°10' 29" W
Ahead       = N  17°45' 56" W
Chord Bear  = N  24°28' 13" W

                         Curve Data
                        *----------*
Curve AAB-9
P.I.  Station       1356+23.63  X   2,420,240.06  Y   7,080,929.10
Delta       =       2°28' 53" (RT)
Degree      =       0°53' 02"
Tangent     =          140.38
Length      =          280.71
Radius      =        6,482.00
External    =            1.52
Long Chord  =          280.69
Mid. Ord.   =            1.52
P.C.  Station       1354+83.25  X   2,420,282.90  Y   7,080,795.42
P.T.  Station       1357+63.96  X   2,420,203.06  Y   7,081,064.52
C.C.                            X   2,426,455.79  Y   7,082,773.23
Back        = N  17°45' 56" W
Ahead       = N  15°17' 04" W
Chord Bear  = N  16°31' 30" W

Course from PT AAB-9 to PC AAB-10 N 15°17' 04" W Dist 287.76

                         Curve Data
                        *----------*
Curve AAB-10
P.I.  Station       1365+83.90  X   2,419,986.92  Y   7,081,855.45
Delta       =       6°52' 20" (RT)
Degree      =       0°38' 47"
Tangent     =          532.18
Length      =        1,063.07
Radius      =        8,863.00
External    =           15.96
Long Chord  =        1,062.44
Mid. Ord.   =           15.93
P.C.  Station       1360+51.72  X   2,420,127.20  Y   7,081,342.10
P.T.  Station       1371+14.80  X   2,419,909.06  Y   7,082,381.90
C.C.                            X   2,428,676.71  Y   7,083,678.47
Back        = N  15°17' 04" W
Ahead       = N   8°24' 43" W
Chord Bear  = N  11°50' 53" W

                         Curve Data
                        *----------*
Curve AAB-11
P.I.  Station       1372+05.21  X   2,419,895.84  Y   7,082,471.34
Delta       =       0°51' 50" (LT)
Degree      =       0°28' 40"
Tangent     =           90.41
Length      =          180.83
Radius      =       11,992.00
External    =            0.34
Long Chord  =          180.82
Mid. Ord.   =            0.34
P.C.  Station       1371+14.80  X   2,419,909.06  Y   7,082,381.90
P.T.  Station       1372+95.62  X   2,419,881.26  Y   7,082,560.57
C.C.                            X   2,408,046.08  Y   7,080,627.59
Back        = N   8°24' 43" W
Ahead       = N   9°16' 33" W
Chord Bear  = N   8°50' 38" W

Course from PT AAB-11 to PC AAB-12 N 9°16' 33" W Dist 1,575.57

                         Curve Data
                        *----------*
Curve AAB-12
P.I.  Station       1401+82.66  X   2,419,415.90  Y   7,085,409.86
Delta       =      13°25' 26" (RT)
Degree      =       0°30' 51"
Tangent     =        1,311.47
Length      =        2,610.92
Radius      =       11,144.00
External    =           76.90
Long Chord  =        2,604.96
Mid. Ord.   =           76.38
P.C.  Station       1388+71.19  X   2,419,627.30  Y   7,084,115.54
P.T.  Station       1414+82.12  X   2,419,510.76  Y   7,086,717.89
C.C.                            X   2,430,625.57  Y   7,085,911.84
Back        = N   9°16' 33" W
Ahead       = N   4°08' 52" E
Chord Bear  = N   2°33' 51" W

Course from PT AAB-12 to PC AAB-13 N 4°08' 52" E Dist 1,087.18

                         Curve Data
                        *----------*
Curve AAB-13
P.I.  Station       1425+96.94  X   2,419,591.40  Y   7,087,829.79
Delta       =       0°09' 29" (RT)
Degree      =       0°17' 09"
Tangent     =           27.64
Length      =           55.27
Radius      =       20,044.00
External    =            0.02
Long Chord  =           55.27
Mid. Ord.   =            0.02
P.C.  Station       1425+69.30  X   2,419,589.40  Y   7,087,802.23
P.T.  Station       1426+24.57  X   2,419,593.47  Y   7,087,857.35
C.C.                            X   2,439,580.90  Y   7,086,352.43
Back        = N   4°08' 52" E
Ahead       = N   4°18' 21" E
Chord Bear  = N   4°13' 37" E

Course from PT AAB-13 to PC AAB-14 N 4°18' 21" E Dist 1,096.63
```

NB GENERAL PURPOSE LANES 2 (CONT)

```
                         Curve Data
                        *----------*
Curve AAB-14
P.I.  Station       1438+30.41  X   2,419,684.01  Y   7,089,059.78
Delta       =       0°37' 37" (LT)
Degree      =       0°17' 14"
Tangent     =          109.20
Length      =          218.40
Radius      =       19,956.00
External    =            0.30
Long Chord  =          218.40
Mid. Ord.   =            0.30
P.C.  Station       1437+21.21  X   2,419,675.81  Y   7,088,950.89
P.T.  Station       1439+39.61  X   2,419,691.02  Y   7,089,168.76
C.C.                            X   2,399,776.14  Y   7,090,449.20
Back        = N   4°18' 21" E
Ahead       = N   3°40' 44" E
Chord Bear  = N   3°59' 32" E

Course from PT AAB-14 to PC AAB-15 N 3°40' 44" E Dist 1,088.43

                         Curve Data
                        *----------*
Curve AAB-15
P.I.  Station       1458+71.48  X   2,419,814.97  Y   7,091,096.65
Delta       =      23°51' 37" (LT)
Degree      =       1°26' 07"
Tangent     =          843.44
Length      =        1,662.43
Radius      =        3,992.00
External    =           88.13
Long Chord  =        1,650.44
Mid. Ord.   =           86.23
P.C.  Station       1450+28.04  X   2,419,760.85  Y   7,090,254.95
P.T.  Station       1466+90.47  X   2,419,523.99  Y   7,091,888.30
C.C.                            X   2,415,777.08  Y   7,090,511.09
Back        = N   3°40' 44" E
Ahead       = N  20°10' 53" W
Chord Bear  = N   8°15' 05" W

Course from PT AAB-15 to PC AAB-16 N 20°10' 53" W Dist 393.71

                         Curve Data
                        *----------*
Curve AAB-16
P.I.  Station       1475+91.77  X   2,419,213.04  Y   7,092,734.27
Delta       =      13°17' 35" (LT)
Degree      =       1°18' 55"
Tangent     =          507.59
Length      =        1,010.63
Radius      =        4,356.00
External    =           29.47
Long Chord  =        1,008.36
Mid. Ord.   =           29.28
P.C.  Station       1470+84.18  X   2,419,388.16  Y   7,092,257.84
P.T.  Station       1480+94.81  X   2,418,933.07  Y   7,093,157.67
C.C.                            X   2,415,299.60  Y   7,090,755.05
Back        = N  20°10' 53" W
Ahead       = N  33°28' 28" W
Chord Bear  = N  26°49' 41" W

Course from PT AAB-16 to PC AAB-17 N 33°28' 28" W Dist 403.06

                         Curve Data
                        *----------*
Curve AAB-17
P.I.  Station       1488+47.84  X   2,418,517.72  Y   7,093,785.80
Delta       =       3°19' 44" (RT)
Degree      =       0°28' 33"
Tangent     =          349.97
Length      =          699.75
Radius      =       12,044.00
External    =            5.08
Long Chord  =          699.65
Mid. Ord.   =            5.08
P.C.  Station       1484+97.87  X   2,418,710.76  Y   7,093,493.88
P.T.  Station       1491+97.62  X   2,418,341.97  Y   7,094,088.44
C.C.                            X   2,428,757.03  Y   7,100,136.95
Back        = N  33°28' 28" W
Ahead       = N  30°08' 45" W
Chord Bear  = N  31°48' 37" W

Course from PT AAB-17 to 76 N 30°08' 45" W Dist 1,100.27

Point 76             X   2,417,789.41 Y   7,095,039.90 Sta  1502+97.89

==========================================================================
Ending chain GP35NB2 description
```

NB GENERAL PURPOSE LANES 3

```
Beginning chain GP35NB3 description
Description: General Purpose AAC
==========================================================================

                         Curve Data
                        *----------*
Curve AAC-1
P.I.  Station        860+57.20  X   2,450,943.49  Y   7,043,932.03
Delta       =       1°55' 04" (RT)
Degree      =       0°19' 03"
Tangent     =          302.00
Length      =          603.93
Radius      =       18,044.00
External    =            2.53
Long Chord  =          603.91
Mid. Ord.   =            2.53
P.C.  Station        857+55.20  X   2,451,143.12  Y   7,043,705.43
P.T.  Station        863+59.13  X   2,450,751.55  Y   7,044,165.19
C.C.                            X   2,464,682.56  Y   7,055,633.10
Back        = N  41°22' 43" W
Ahead       = N  39°27' 40" W
Chord Bear  = N  40°25' 11" W

Course from PT AAC-1 to PC AAC-2 N 39°27' 40" W Dist 642.89

                         Curve Data
                        *----------*
Curve AAC-2
P.I.  Station        871+14.60  X   2,450,271.42  Y   7,044,748.45
Delta       =       0°38' 47" (LT)
Degree      =       0°17' 14"
Tangent     =          112.58
Length      =          225.15
Radius      =       19,956.00
External    =            0.32
Long Chord  =          225.15
Mid. Ord.   =            0.32
P.C.  Station        870+02.02  X   2,450,342.97  Y   7,044,661.54
P.T.  Station        872+27.17  X   2,450,198.90  Y   7,044,834.55
C.C.                            X   2,434,935.79  Y   7,031,978.45
Back        = N  39°27' 40" W
Ahead       = N  40°06' 27" W
Chord Bear  = N  39°47' 03" W

Course from PT AAC-2 to PC AAC-3 N 40°06' 27" W Dist 341.18

                         Curve Data
                        *----------*
Curve AAC-3
P.I.  Station        879+11.85  X   2,449,757.81  Y   7,045,358.22
Delta       =       1°58' 20" (LT)
Degree      =       0°17' 14"
Tangent     =          343.51
Length      =          686.95
Radius      =       19,956.00
External    =            2.96
Long Chord  =          686.91
Mid. Ord.   =            2.96
P.C.  Station        875+68.34  X   2,449,979.10  Y   7,045,095.50
P.T.  Station        882+55.29  X   2,449,527.60  Y   7,045,613.18
C.C.                            X   2,434,715.99  Y   7,032,239.39
Back        = N  40°06' 27" W
Ahead       = N  42°04' 47" W
Chord Bear  = N  41°05' 37" W
```

NB GENERAL PURPOSE LANES 2 (CONT)

```
                         Curve Data
                        *----------*
Curve AAC-4
P.I.  Station        890+52.55  X   2,448,993.30  Y   7,046,204.92
Delta       =      15°14' 54" (LT)
Degree      =       0°57' 43"
Tangent     =          797.26
Length      =        1,585.10
Radius      =        5,956.00
External    =           53.12
Long Chord  =        1,580.43
Mid. Ord.   =           52.65
P.C.  Station        882+55.29  X   2,449,527.60  Y   7,045,613.18
P.T.  Station        898+40.39  X   2,448,322.19  Y   7,046,635.30
C.C.                            X   2,445,106.98  Y   7,041,621.68
Back        = N  42°04' 47" W
Ahead       = N  57°19' 41" W
Chord Bear  = N  49°42' 14" W

Course from PT AAC-4 to 77 N 57°19' 41" W Dist 29.57

Point 77             X   2,448,297.30 Y   7,046,651.26 Sta   898+69.96

==========================================================================
Ending chain GP35NB3 description
```

SB GENERAL PURPOSE LANES 1

```
Beginning chain GP35SB1 description
==========================================================================

                         Curve Data
                        *----------*
Curve AAD-1
P.I.  Station       1851+43.55  X   2,393,462.69  Y   7,119,596.70
Delta       =      10° 38''15" (LT)
Degree      =       1° 08''09"
Tangent     =          469.58
Length      =          936.47
Radius      =        5,044.00
External    =           21.81
Long Chord  =          935.13
Mid. Ord.   =           21.72
P.C.  Station       1846+73.97  X   2,393,810.85  Y   7,119,281.59
P.T.  Station       1856+10.44  X   2,393,062.34  Y   7,119,842.12
C.C.                            X   2,390,426.16  Y   7,115,541.83
Back        = N  47° 51''11" W
Ahead       = N  58° 29''26" W
Chord Bear  = N  53° 10''19" W

Course from PT AAD-1 to 1000001 N 58° 29''26" W Dist 188.04

Point 1000001        X   2,392,902.03 Y   7,119,940.39 Sta  1857+98.48

----- Shift: 11.00 (LT) at station 1857+98.48

Point 78             X   2,392,896.28 Y   7,119,931.02 Sta  1857+98.48

Course from 78 to PC AAD-2 N 58° 29''26" W Dist 266.53

                         Curve Data
                        *----------*
Curve AAD-2
P.I.  Station       1867+94.85  X   2,392,046.82  Y   7,120,451.76
Delta       =      18° 50''10" (LT)
Degree      =       1° 18''08"
Tangent     =          729.84
Length      =        1,446.51
Radius      =        4,400.00
External    =           60.12
Long Chord  =        1,440.00
Mid. Ord.   =           59.31
P.C.  Station       1860+65.01  X   2,392,669.05  Y   7,120,070.32
P.T.  Station       1875+11.51  X   2,391,334.77  Y   7,120,611.88
C.C.                            X   2,390,369.44  Y   7,116,319.07
Back        = N  58° 29''26" W
Ahead       = N  77° 19''36" W
Chord Bear  = N  67° 54''31" W

==========================================================================
Ending chain GP35SB1 description
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SB GENERAL PURPOSE LANES 2

```
Beginning chain GP35SB2 description
Description: General Purpose AAE
==========================================================================

                         Curve Data
                        *----------*
Curve AAE-1
P.I.  Station       1257+69.24  X   2,424,586.86  Y   7,072,146.18
Delta       =       3°16' 40" (LT)
Degree      =       0°42' 59"
Tangent     =          228.80
Length      =          457.47
Radius      =        7,997.00
External    =            3.27
Long Chord  =          457.41
Mid. Ord.   =            3.27
P.C.  Station       1255+40.44  X   2,424,665.30  Y   7,071,931.25
P.T.  Station       1259+97.91  X   2,424,496.27  Y   7,072,356.28
C.C.                            X   2,417,152.86  Y   7,069,189.84
Back        = N  20°02' 52" W
Ahead       = N  23°19' 32" W
Chord Bear  = N  21°41' 12" W

                         Curve Data
                        *----------*
Curve AAE-2
P.I.  Station       1263+98.68  X   2,424,337.59  Y   7,072,724.29
Delta       =       5°44' 01" (RT)
Degree      =       0°42' 57"
Tangent     =          400.76
Length      =          800.86
Radius      =        8,003.00
External    =           10.03
Long Chord  =          800.52
Mid. Ord.   =           10.02
P.C.  Station       1259+97.91  X   2,424,496.27  Y   7,072,356.28
P.T.  Station       1267+98.77  X   2,424,216.46  Y   7,073,106.31
C.C.                            X   2,431,845.19  Y   7,075,525.10
Back        = N  23°19' 32" W
Ahead       = N  17°35' 31" W
Chord Bear  = N  20°27' 31" W

Course from PT AAE-2 to PC AAE-3 N 17°35' 31" W Dist 404.69

                         Curve Data
                        *----------*
Curve AAE-3
P.I.  Station       1273+66.69  X   2,424,044.82  Y   7,073,647.67
Delta       =       2°20' 13" (RT)
Degree      =       0°42' 57"
Tangent     =          163.23
Length      =          326.41
Radius      =        8,003.00
External    =            1.66
Long Chord  =          326.39
Mid. Ord.   =            1.66
P.C.  Station       1272+03.46  X   2,424,094.15  Y   7,073,492.08
P.T.  Station       1275+29.87  X   2,424,001.87  Y   7,073,805.15
C.C.                            X   2,431,722.87  Y   7,075,910.87
Back        = N  17°35' 31" W
Ahead       = N  15°15' 18" W
Chord Bear  = N  16°25' 25" W

                         Curve Data
                        *----------*
Curve AAE-4
P.I.  Station       1283+52.78  X   2,423,785.35  Y   7,074,599.06
Delta       =      15°37' 36" (LT)
Degree      =       0°57' 19"
Tangent     =          822.90
Length      =        1,635.59
Radius      =        5,997.00
External    =           56.20
Long Chord  =        1,630.53
Mid. Ord.   =           55.67
P.C.  Station       1275+29.87  X   2,424,001.87  Y   7,073,805.15
P.T.  Station       1291+65.47  X   2,423,362.98  Y   7,075,305.30
C.C.                            X   2,418,216.18  Y   7,072,227.24
Back        = N  15°15' 18" W
Ahead       = N  30°52' 54" W
Chord Bear  = N  23°04' 06" W
```

SB GENERAL PURPOSE LANES 2 (CONT)

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                         Curve Data
                        *----------*
Curve AAE-5
P.I.  Station       1293+08.39  X   2,423,289.62  Y   7,075,427.96
Delta       =       2°03' 11" (LT)
Degree      =       0°43' 06"
Tangent     =          142.92
Length      =          285.81
Radius      =        7,976.00
External    =            1.28
Long Chord  =          285.80
Mid. Ord.   =            1.28
P.C.  Station       1291+65.47  X   2,423,362.98  Y   7,075,305.30
P.T.  Station       1294+51.28  X   2,423,211.92  Y   7,075,547.91
C.C.                            X   2,416,517.74  Y   7,071,211.49
Back        = N  30°52' 54" W
Ahead       = N  32°56' 05" W
Chord Bear  = N  31°54' 29" W

==========================================================================
Ending chain GP35SB2 description
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SB GENERAL PURPOSE LANES 3

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Beginning chain GP35SB3 description
Description: General Purpose AAF
==========================================================================

Point 90             X   2,451,080.38 Y   7,043,697.98 Sta   857+91.08

Course from 90 to PC AAF-1 N 41° 22''43" W Dist 372.60

                         Curve Data
                        *----------*
Curve AAF-1
P.I.  Station        863+96.63  X   2,450,680.09  Y   7,044,152.35
Delta       =       1° 20''05" (RT)
Degree      =       0° 17''11"
Tangent     =          232.95
Length      =          465.87
Radius      =       20,000.00
External    =            1.36
Long Chord  =          465.86
Mid. Ord.   =            1.36
P.C.  Station        861+63.68  X   2,450,834.08  Y   7,043,977.56
P.T.  Station        866+29.55  X   2,450,530.22  Y   7,044,330.69
C.C.                            X   2,465,841.22  Y   7,057,198.22
Back        = N  41° 22''43" W
Ahead       = N  40° 02''39" W
Chord Bear  = N  40° 42''41" W

Course from PT AAF-1 to PC AAF-2 N 40° 02''39" W Dist 1,448.72

                         Curve Data
                        *----------*
Curve AAF-2
P.I.  Station        889+85.63  X   2,449,014.38  Y   7,046,134.38
Delta       =      17° 17''03" (LT)
Degree      =       0° 57''35"
Tangent     =          907.36
Length      =        1,800.93
Radius      =        5,970.00
External    =           68.56
Long Chord  =        1,794.11
Mid. Ord.   =           67.78
P.C.  Station        880+78.27  X   2,449,598.15  Y   7,045,439.75
P.T.  Station        898+79.21  X   2,448,250.58  Y   7,046,624.20
C.C.                            X   2,445,027.82  Y   7,041,598.80
Back        = N  40° 02''39" W
Ahead       = N  57° 19''41" W
Chord Bear  = N  48° 41''10" W

==========================================================================
Ending chain GP35SB3 description
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FRONTAGE ROADS
NB FRONTAGE ROAD 1

```
Beginning chain FRTG35NB1 description
Description: Frontage Road FA
==========================================================================

Point 14             X   2,380,817.66 Y   7,125,088.02 Sta 11992+17.89

Course from 14 to PC FA-1 N 66°23' 03" W Dist 488.62

                         Curve Data
                        *----------*
Curve FA-1
P.I.  Station      11997+98.26  X   2,380,285.89  Y   7,125,320.52
Delta       =       2°37' 41" (RT)
Degree      =       1°25' 57"
Tangent     =           91.75
Length      =          183.48
Radius      =        4,000.00
External    =            1.05
Long Chord  =          183.46
Mid. Ord.   =            1.05
P.C.  Station      11997+06.51  X   2,380,369.96  Y   7,125,283.76
P.T.  Station      11998+89.98  X   2,380,203.60  Y   7,125,361.09
C.C.                            X   2,381,972.38  Y   7,128,948.77
Back        = N  66°23' 03" W
Ahead       = N  63°45' 21" W
Chord Bear  = N  65°04' 12" W

                         Curve Data
                        *----------*
Curve FA-2
P.I.  Station      11999+14.99  X   2,380,181.16  Y   7,125,372.15
Delta       =       0°42' 59" (RT)
Degree      =       1°25' 57"
Tangent     =           25.01
Length      =           50.02
Radius      =        4,000.00
External    =            0.08
Long Chord  =           50.02
Mid. Ord.   =            0.08
P.C.  Station      11998+89.98  X   2,380,203.60  Y   7,125,361.09
P.T.  Station      11999+40.00  X   2,380,158.87  Y   7,125,383.49
C.C.                            X   2,381,972.38  Y   7,128,948.77
Back        = N  63°45' 21" W
Ahead       = N  63°02' 22" W
Chord Bear  = N  63°23' 52" W

Course from PT FA-2 to 15 N 63°02' 22" W Dist 741.71

Point 15             X   2,379,497.77 Y   7,125,719.77 Sta 12006+81.71

==========================================================================
Ending chain FRTG35NB1 description
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NB FRONTAGE ROAD 2

```
Beginning chain FRTG35NB2 description
Description: Frontage Road FB
==========================================================================

                         Curve Data
                        *----------*
Curve FB-1
P.I.  Station      11975+36.67  X   2,382,273.20  Y   7,124,210.67
Delta       =       0°49' 55" (LT)
Degree      =       0°50' 16"
Tangent     =           49.66
Length      =           99.31
Radius      =        6,840.00
External    =            0.18
Long Chord  =           99.31
Mid. Ord.   =            0.18
P.C.  Station      11974+87.01  X   2,382,313.43  Y   7,124,181.56
P.T.  Station      11975+86.32  X   2,382,232.55  Y   7,124,239.19
C.C.                            X   2,378,303.76  Y   7,118,640.07
Back        = N  54°06' 41" W
Ahead       = N  54°56' 36" W
Chord Bear  = N  54°31' 39" W
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NB FRONTAGE ROAD 2 (CONT)

```
                         Curve Data
                        *----------*
Curve FB-2
P.I.  Station      11976+63.74  X   2,382,169.18  Y   7,124,283.66
Delta       =      16°15' 29" (RT)
Degree      =      10°34' 16"
Tangent     =           77.42
Length      =          153.79
Radius      =          542.00
External    =            5.50
Long Chord  =          153.28
Mid. Ord.   =            5.45
P.C.  Station      11975+86.32  X   2,382,232.55  Y   7,124,239.19
P.T.  Station      11977+40.12  X   2,382,120.79  Y   7,124,344.09
C.C.                            X   2,382,543.87  Y   7,124,682.86
Back        = N  54°56' 36" W
Ahead       = N  38°41' 08" W
Chord Bear  = N  46°48' 52" W

Course from PT FB-2 to PC FB-3 N 38°41' 08" W Dist 62.01

                         Curve Data
                        *----------*
Curve FB-3
P.I.  Station      11978+83.97  X   2,382,030.88  Y   7,124,456.38
Delta       =      17°29' 25" (LT)
Degree      =      10°46' 12"
Tangent     =           81.84
Length      =          162.40
Radius      =          532.00
External    =            6.26
Long Chord  =          161.77
Mid. Ord.   =            6.18
P.C.  Station      11978+02.13  X   2,382,082.03  Y   7,124,392.49
P.T.  Station      11979+64.53  X   2,381,962.89  Y   7,124,501.93
C.C.                            X   2,381,666.76  Y   7,124,059.97
Back        = N  38°41' 08" W
Ahead       = N  56°10' 33" W
Chord Bear  = N  47°25' 50" W

                         Curve Data
                        *----------*
Curve FB-4
P.I.  Station      11982+49.88  X   2,381,725.84  Y   7,124,660.77
Delta       =       8°09' 39" (LT)
Degree      =       1°25' 57"
Tangent     =          285.35
Length      =          569.74
Radius      =        4,000.00
External    =           10.17
Long Chord  =          569.25
Mid. Ord.   =           10.14
P.C.  Station      11979+64.53  X   2,381,962.89  Y   7,124,501.93
P.T.  Station      11985+34.27  X   2,381,468.64  Y   7,124,784.35
C.C.                            X   2,379,736.30  Y   7,121,178.93
Back        = N  56°10' 33" W
Ahead       = N  64°20' 12" W
Chord Bear  = N  60°15' 22" W

Course from PT FB-4 to PC FB-5 N 64°20' 12" W Dist 417.10

                         Curve Data
                        *----------*
Curve FB-5
P.I.  Station      11990+22.84  X   2,381,028.26  Y   7,124,995.94
Delta       =       2°02' 51" (LT)
Degree      =       1°25' 57"
Tangent     =           71.48
Length      =          142.94
Radius      =        4,000.00
External    =            0.64
Long Chord  =          142.93
Mid. Ord.   =            0.64
P.C.  Station      11989+51.36  X   2,381,092.69  Y   7,124,964.99
P.T.  Station      11990+94.30  X   2,380,962.77  Y   7,125,024.58
C.C.                            X   2,379,360.35  Y   7,121,359.57
Back        = N  64°20' 12" W
Ahead       = N  66°23' 03" W
Chord Bear  = N  65°21' 37" W

Course from PT FB-5 to 16 N 66°23' 03" W Dist 158.37

Point 16             X   2,380,817.66 Y   7,125,088.02 Sta 11992+52.68

==========================================================================
Ending chain FRTG35NB2 description
```

NB FRONTAGE ROAD 3

```
Beginning chain FRTG35NB3 description
Description: Frontage Road FC
==========================================================================

Point 17             X   2,405,516.64 Y   7,109,853.24 Sta 11696+28.82

Course from 17 to PC FC-1 N 53°34' 39" W Dist 157.94

                         Curve Data
                        *----------*
Curve FC-1
P.I.  Station      11698+86.96  X   2,405,308.92  Y   7,110,006.50
Delta       =       5°43' 50" (LT)
Degree      =       2°51' 43"
Tangent     =          100.20
Length      =          200.23
Radius      =        2,002.00
External    =            2.51
Long Chord  =          200.15
Mid. Ord.   =            2.50
P.C.  Station      11697+86.76  X   2,405,389.55  Y   7,109,947.01
P.T.  Station      11699+87.00  X   2,405,222.76  Y   7,110,057.65
C.C.                            X   2,404,200.90  Y   7,108,336.08
Back        = N  53°34' 39" W
Ahead       = N  59°18' 29" W
Chord Bear  = N  56°26' 34" W

Course from PT FC-1 to 18 N 59°18' 29" W Dist 74.08

Point 18             X   2,405,159.06 Y   7,110,095.46 Sta 11700+61.07

==========================================================================
Ending chain FRTG35NB3 description
```

NB FRONTAGE ROAD 4

```
Beginning chain FRTG35NB4 description
Description: Frontage Road FD
==========================================================================

                         Curve Data
                        *----------*
Curve FD-1
P.I.  Station      11693+11.60  X   2,405,773.03  Y   7,109,664.06
Delta       =       9° 18''10" (LT)
Degree      =       2° 50''57"
Tangent     =          163.62
Length      =          326.51
Radius      =        2,011.00
External    =            6.64
Long Chord  =          326.16
Mid. Ord.   =            6.62
P.C.  Station      11691+47.98  X   2,405,887.25  Y   7,109,546.91
P.T.  Station      11694+74.49  X   2,405,641.37  Y   7,109,761.20
C.C.                            X   2,404,447.37  Y   7,108,143.03
Back        = N  44° 16''30" W
Ahead       = N  53° 34''39" W
Chord Bear  = N  48° 55''34" W

Course from PT FD-1 to 183 N 53° 34''39" W Dist 155.01

Point 183            X   2,405,516.64 Y   7,109,853.24 Sta 11696+29.50

==========================================================================
Ending chain FRTG35NB4 description
```

Texas Department of Transportation
DALLAS DISTRICT
DRAFT INTERIM SCHEMATIC
WILLIAM L. HALE, P.E., DISTRICT ENGINEER
IH 35E
FROM: IH 635
TO: US 380
DALLAS & DENTON COUNTY
FUNCTIONAL CLASS: URBAN FREEWAY
PROJECT LENGTH: 28.25 MILES
CSJ's: 0196-03-138 0196-03-240 0196-03-180 0196-03-245 0196-02-068 0196-02-073 0196-01-096 0196-01-056 0196-01-074 0195-03-050 0195-03-071
DESIGN SPEEDS: MAINLANES 70 MPH MANAGED LANES 70 MPH RAMPS 40 MPH TURNAROUND RAMPS 20 MPH FRONTAGE ROADS 40 MPH CROSS STREETS 30 MPH COLLECTOR DISTRIBUTOR 50 MPH DIRECT CONNECTORS 50 MPH INTERSECTIONS 30 MPH

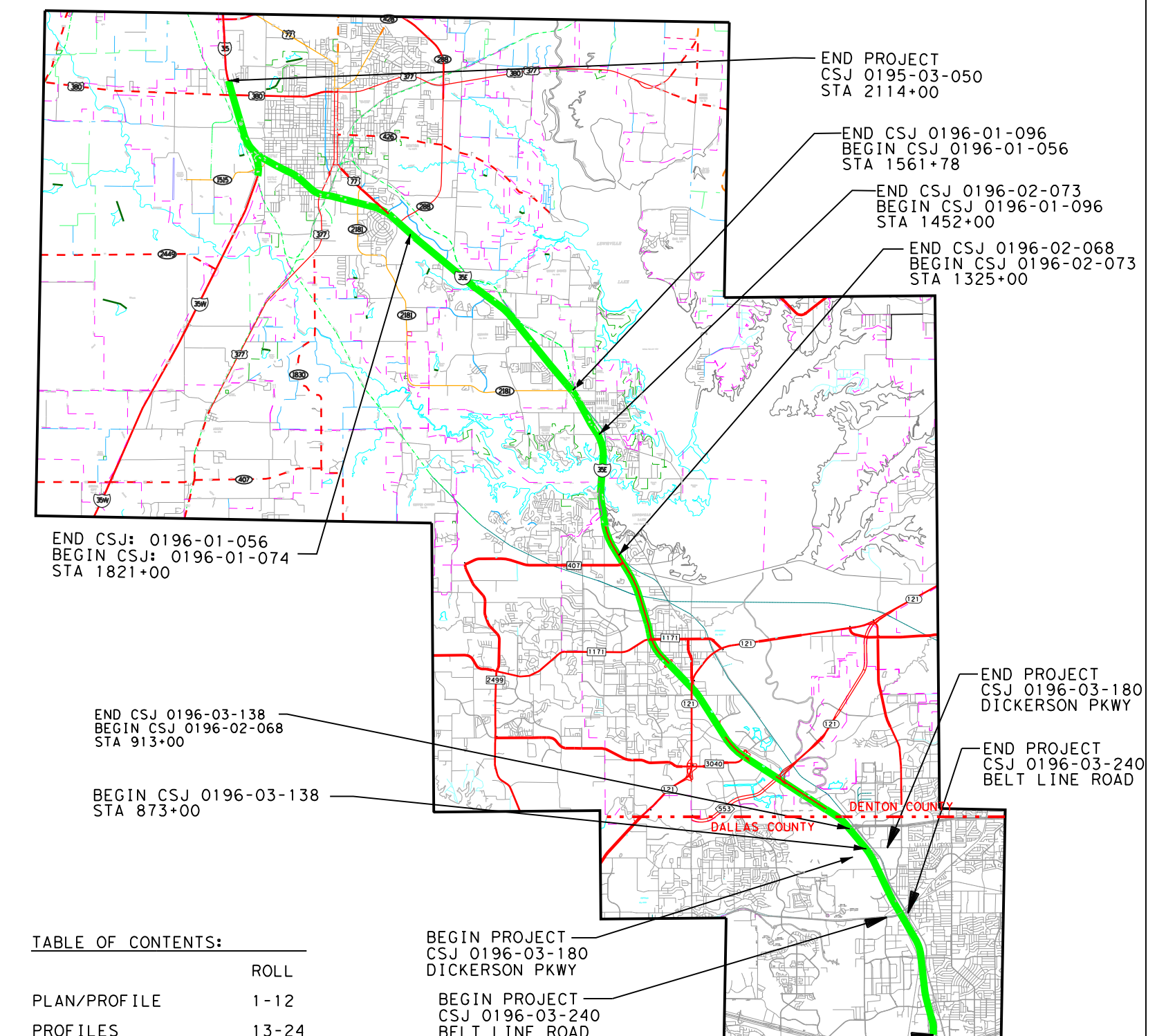

TABLE OF CONTENTS: ROLL PLAN/PROFILE 1-12 PROFILES 13-24 HORIZONTAL CONTROL 25-30
SCALE: HORIZONTAL 1"=200' VERTICAL 1"=20'
1/11/2013
ROLL 25 OF 30
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Texas Department of Transportation

DALLAS DISTRICT

DRAFT INTERIM SCHEMATIC

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

INTERSTATE TEXAS 35E

IH 35E
FROM: IH 635
TO: US 380

DALLAS & DENTON COUNTY

FUNCTIONAL CLASS: URBAN FREEWAY
PROJECT LENGTH: 28.25 MILES

CSJ's: 0196-03-138
0196-03-240
0196-03-180
0196-03-245
0196-02-068
0196-02-073
0196-01-096
0196-01-056
0196-01-074
0195-03-050
0195-03-071

DESIGN SPEEDS:
MAINLANES 70 MPH
MANAGED LANES 70 MPH
RAMPS 40 MPH
TURNAROUND RAMPS 20 MPH
FRONTAGE ROADS 40 MPH
CROSS STREETS 30 MPH
COLLECTOR DISTRIBUTOR 50 MPH
DIRECT CONNECTORS 50 MPH
INTERSECTIONS 30 MPH

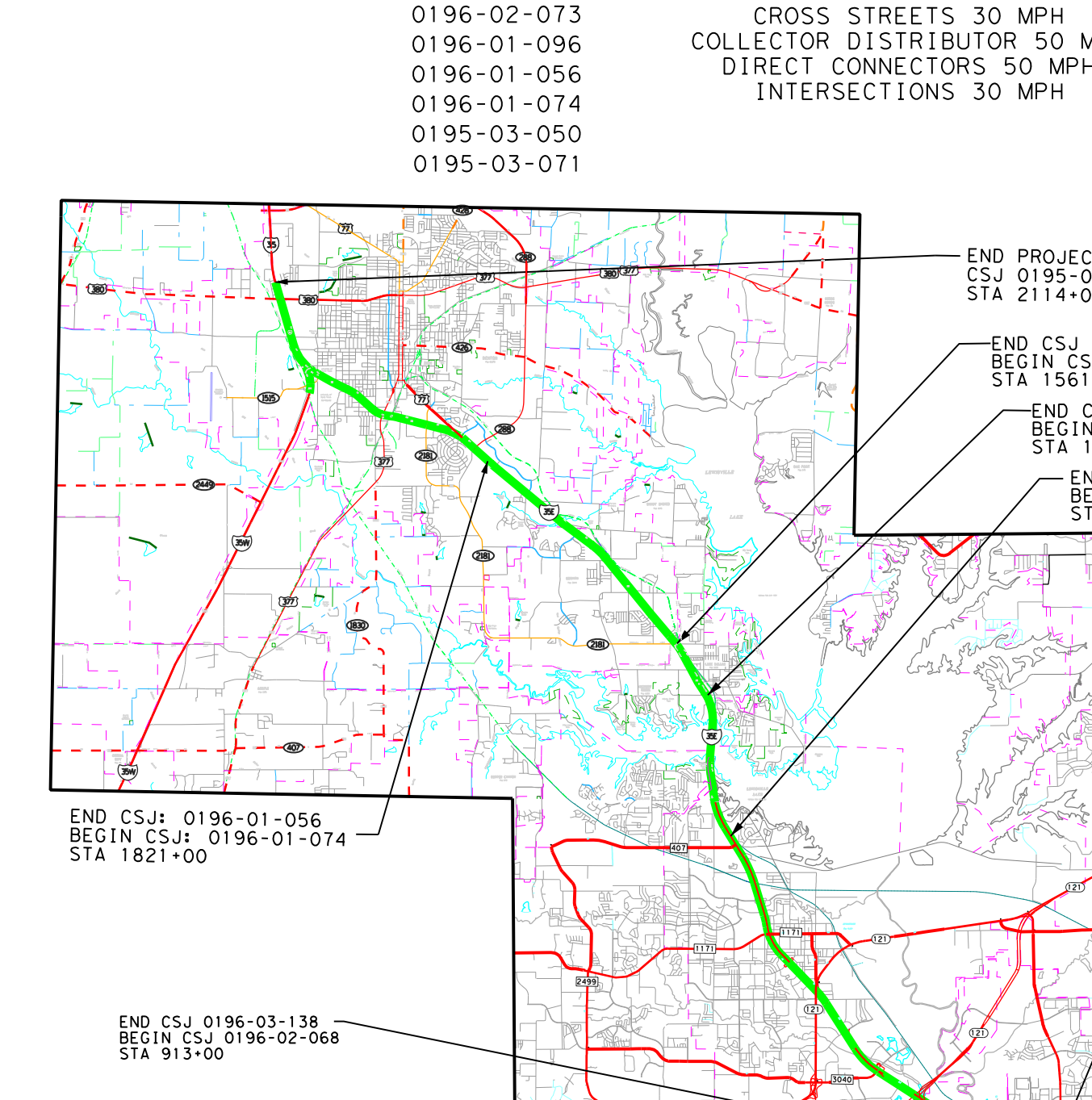

TABLE OF CONTENTS:	ROLL
PLAN/PROFILE	1-12
PROFILES	13-24
HORIZONTAL CONTROL	25-30

SCALE:
HORIZONTAL 1"=200'
VERTICAL 1"=20'

1/11/2013

ROLL 26 OF 30

SCHEMATIC PREPARED BY:
FOR INTERIM REVIEW ONLY
NOT FOR PERMITTING, BIDDING
OR CONSTRUCTION.
Prepared by or under the
Direct Supervision of:
SHAWN BRENT STOVER 109251
NAME P.E. NUMBER
1/11/2013
DATE

Plotted on:10:18:15 AM

NB FRONTAGE ROAD 16 (CONT)

```
                        Curve Data
                        *----------*
Curve FP-2
P.I.  Station            1921+95.95  X     2,446,427.02  Y     7,048,045.11
Delta       =              3° 08''52" (LT)
Degree      =              1° 08''18"
Tangent     =                  138.29
Length      =                  276.52
Radius      =                5,033.00
External    =                    1.90
Long Chord  =                  276.48
Mid. Ord.   =                    1.90
P.C.  Station            1920+57.65  X     2,446,539.16  Y     7,047,964.18
P.T.  Station            1923+34.17  X     2,446,310.61  Y     7,048,119.77
C.C.                                 X     2,443,593.65  Y     7,043,883.11
Back        = N  54° 10''49" W
Ahead       = N  57° 19''41" W
Chord Bear  = N  55° 45''15" W

Course from PT FP-2 to PC FP-3 N 57° 19''41" W Dist 411.02

                        Curve Data
                        *----------*
Curve FP-3
P.I.  Station            1928+25.87  X     2,445,896.71  Y     7,048,385.20
Delta       =              2° 18''39" (RT)
Degree      =              1° 25''57"
Tangent     =                   80.67
Length      =                  161.32
Radius      =                4,000.00
External    =                    0.81
Long Chord  =                  161.31
Mid. Ord.   =                    0.81
P.C.  Station            1927+45.19  X     2,445,964.61  Y     7,048,341.65
P.T.  Station            1929+06.52  X     2,445,830.61  Y     7,048,431.45
C.C.                                 X     2,448,123.92  Y     7,051,708.75
Back        = N  57° 19''41" W
Ahead       = N  55° 01''02" W
Chord Bear  = N  56° 10''22" W

                        Curve Data
                        *----------*
Curve FP-4
P.I.  Station            1930+07.36  X     2,445,747.99  Y     7,048,489.27
Delta       =              2° 18''39" (LT)
Degree      =              1° 08''45"
Tangent     =                  100.84
Length      =                  201.65
Radius      =                5,000.00
External    =                    1.02
Long Chord  =                  201.64
Mid. Ord.   =                    1.02
P.C.  Station            1929+06.52  X     2,445,830.61  Y     7,048,431.45
P.T.  Station            1931+08.17  X     2,445,663.10  Y     7,048,543.70
C.C.                                 X     2,442,963.97  Y     7,044,334.82
Back        = N  55° 01''02" W
Ahead       = N  57° 19''41" W
Chord Bear  = N  56° 10''22" W

Course from PT FP-4 to PC FP-5 N 57° 19''41" W Dist 200.00

                        Curve Data
                        *----------*
Curve FP-5
P.I.  Station            1934+00.06  X     2,445,417.39  Y     7,048,701.27
Delta       =              2° 06''21" (LT)
Degree      =              1° 08''45"
Tangent     =                   91.89
Length      =                  183.77
Radius      =                5,000.00
External    =                    0.84
Long Chord  =                  183.75
Mid. Ord.   =                    0.84
P.C.  Station            1933+08.17  X     2,445,494.75  Y     7,048,651.67
P.T.  Station            1934+91.94  X     2,445,338.27  Y     7,048,748.01
C.C.                                 X     2,442,795.61  Y     7,044,442.79
Back        = N  57° 19''41" W
Ahead       = N  59° 26''02" W
Chord Bear  = N  58° 22''52" W

                        Curve Data
                        *----------*
Curve FP-6
P.I.  Station            1935+85.50  X     2,445,257.70  Y     7,048,795.59
Delta       =              1° 47''13" (RT)
Degree      =              0° 57''18"
Tangent     =                   93.57
Length      =                  187.12
Radius      =                6,000.00
External    =                    0.73
Long Chord  =                  187.11
Mid. Ord.   =                    0.73
P.C.  Station            1934+91.94  X     2,445,338.27  Y     7,048,748.01
P.T.  Station            1936+79.06  X     2,445,178.66  Y     7,048,845.66
C.C.                                 X     2,448,389.46  Y     7,053,914.26
Back        = N  59° 26''02" W
Ahead       = N  57° 38''49" W
Chord Bear  = N  58° 32''26" W

                        Curve Data
                        *----------*
Curve FP-7
P.I.  Station            1938+37.76  X     2,445,044.59  Y     7,048,930.59
Delta       =              1° 30''56" (RT)
Degree      =              0° 28''39"
Tangent     =                  158.70
Length      =                  317.39
Radius      =               12,000.00
External    =                    1.05
Long Chord  =                  317.38
Mid. Ord.   =                    1.05
P.C.  Station            1936+79.06  X     2,445,178.66  Y     7,048,845.66
P.T.  Station            1939+96.45  X     2,444,912.82  Y     7,049,019.03
C.C.                                 X     2,451,600.26  Y     7,058,982.87
Back        = N  57° 38''49" W
Ahead       = N  56° 07''54" W
Chord Bear  = N  56° 53''22" W

                        Curve Data
                        *----------*
Curve FP-8
P.I.  Station            1940+59.10  X     2,444,860.80  Y     7,049,053.94
Delta       =              1° 11''47" (LT)
Degree      =              0° 57''18"
Tangent     =                   62.65
Length      =                  125.30
Radius      =                6,000.00
External    =                    0.33
Long Chord  =                  125.29
Mid. Ord.   =                    0.33
P.C.  Station            1939+96.45  X     2,444,912.82  Y     7,049,019.03
P.T.  Station            1941+21.74  X     2,444,808.06  Y     7,049,087.77
C.C.                                 X     2,441,569.10  Y     7,044,037.11
Back        = N  56° 07''54" W
Ahead       = N  57° 19''41" W
Chord Bear  = N  56° 43''48" W

Course from PT FP-8 to 31 N 57° 19''41" W Dist 44.86

Point 31            X      2,444,770.30 Y      7,049,111.98 Sta      1941+66.61

Course from 31 to PC FP-9 N 57° 19''41" W Dist 1,404.14

                        Curve Data
                        *----------*
Curve FP-9
P.I.  Station            1956+41.61  X     2,443,528.67  Y     7,049,908.23
Delta       =              4° 03''30" (RT)
Degree      =              2° 51''53"
Tangent     =                   70.86
Length      =                  141.66
Radius      =                2,000.00
External    =                    1.25
Long Chord  =                  141.63
Mid. Ord.   =                    1.25
P.C.  Station            1955+70.75  X     2,443,588.32  Y     7,049,869.98
P.T.  Station            1957+12.41  X     2,443,471.88  Y     7,049,950.61
C.C.                                 X     2,444,667.98  Y     7,051,553.53
Back        = N  57° 19''41" W
Ahead       = N  53° 16''12" W
Chord Bear  = N  55° 17''56" W

Course from PT FP-9 to 32 N 53° 16''12" W Dist 618.21

Point 32            X      2,442,976.41 Y      7,050,320.33 Sta      1963+30.62

==============================================================================
Ending chain FRTG35NB16 description
```

"PRELIMINARY SUBJECT TO CHANGE"
BASED ON FURTHER DEVELOPMENTS RESULTING
FROM PUBLIC INPUT AND TECHNICAL REVIEWS

NB FRONTAGE ROAD 17

```
Beginning chain FRTG35NB17 description
Description: Frontage Road FQ
==============================================================================

Point 33            X      2,455,304.99 Y      7,036,661.08 Sta       775+42.89

Course from 33 to PC FQ-1 N 26°49' 23" W Dist 258.88

                        Curve Data
                        *----------*
Curve FQ-1
P.I.  Station             778+33.02  X     2,455,174.07  Y     7,036,919.99
Delta       =              0°53' 43" (RT)
Degree      =              1°25' 57"
Tangent     =                   31.25
Length      =                   62.50
Radius      =                4,000.00
External    =                    0.12
Long Chord  =                   62.50
Mid. Ord.   =                    0.12
P.C.  Station             778+01.77  X     2,455,188.17  Y     7,036,892.11
P.T.  Station             778+64.27  X     2,455,160.41  Y     7,036,948.10
C.C.                                 X     2,458,757.79  Y     7,038,697.05
Back        = N  26°49' 23" W
Ahead       = N  25°55' 40" W
Chord Bear  = N  26°22' 31" W

Course from PT FQ-1 to 34 N 25°55' 40" W Dist 2,140.27

Point 34            X      2,454,224.60 Y      7,038,872.94 Sta       800+04.54

==============================================================================
Ending chain FRTG35NB17 description
```

NB FRONTAGE ROAD 18

```
Beginning chain FRTG35NB18 description
Description: Frontage Road FR
==============================================================================

Point 35            X      2,456,477.15 Y      7,034,660.01 Sta       752+38.56

Course from 35 to PC FR-1 N 34° 22''11" W Dist 34.43

                        Curve Data
                        *----------*
Curve FR-1
P.I.  Station             755+01.39  X     2,456,328.78  Y     7,034,876.95
Delta       =              5° 26''54" (RT)
Degree      =              1° 11''37"
Tangent     =                  228.40
Length      =                  456.45
Radius      =                4,800.00
External    =                    5.43
Long Chord  =                  456.28
Mid. Ord.   =                    5.42
P.C.  Station             752+72.99  X     2,456,457.71  Y     7,034,688.43
P.T.  Station             757+29.44  X     2,456,218.32  Y     7,035,076.86
C.C.                                 X     2,460,419.69  Y     7,037,398.17
Back        = N  34° 22''11" W
Ahead       = N  28° 55''16" W
Chord Bear  = N  31° 38''44" W

Course from PT FR-1 to PC FR-2 N 28° 55''16" W Dist 112.97

                        Curve Data
                        *----------*
Curve FR-2
P.I.  Station             758+81.18  X     2,456,144.94  Y     7,035,209.68
Delta       =              1° 28''43" (RT)
Degree      =              1° 54''24"
Tangent     =                   38.78
Length      =                   77.55
Radius      =                3,005.00
External    =                    0.25
Long Chord  =                   77.55
Mid. Ord.   =                    0.25
P.C.  Station             758+42.40  X     2,456,163.69  Y     7,035,175.74
P.T.  Station             759+19.96  X     2,456,127.07  Y     7,035,244.10
C.C.                                 X     2,458,793.93  Y     7,036,628.98
Back        = N  28° 55''16" W
Ahead       = N  27° 26''33" W
Chord Bear  = N  28° 10''55" W

Course from PT FR-2 to PC FR-3 N 27° 26''33" W Dist 154.93

                        Curve Data
                        *----------*
Curve FR-3
P.I.  Station             761+81.23  X     2,456,006.66  Y     7,035,475.97
Delta       =              4° 04''01" (LT)
Degree      =              1° 54''47"
Tangent     =                  106.34
Length      =                  212.59
Radius      =                2,995.00
External    =                    1.89
Long Chord  =                  212.55
Mid. Ord.   =                    1.89
P.C.  Station             760+74.89  X     2,456,055.67  Y     7,035,381.60
P.T.  Station             762+87.48  X     2,455,951.08  Y     7,035,566.63
C.C.                                 X     2,453,397.68  Y     7,034,001.32
Back        = N  27° 26''33" W
Ahead       = N  31° 30''34" W
Chord Bear  = N  29° 28''34" W

==============================================================================
Ending chain FRTG35NB18 description
```

NB FRONTAGE ROAD 19

```
Beginning chain FRTG35NB19 description
Description: Frontage Road FS
==============================================================================

                        Curve Data
                        *----------*
Curve FS-1
P.I.  Station             739+18.85  X     2,457,134.95  Y     7,033,554.94
Delta       =              1°27' 45" (RT)
Degree      =              0°26' 49"
Tangent     =                  163.60
Length      =                  327.18
Radius      =               12,818.00
External    =                    1.04
Long Chord  =                  327.17
Mid. Ord.   =                    1.04
P.C.  Station             737+55.25  X     2,457,216.64  Y     7,033,413.20
P.T.  Station             740+82.43  X     2,457,056.90  Y     7,033,698.73
C.C.                                 X     2,468,322.26  Y     7,039,813.70
Back        = N  29°57' 22" W
Ahead       = N  28°29' 37" W
Chord Bear  = N  29°13' 30" W

Course from PT FS-1 to PC FS-2 N 28°29' 37" W Dist 35.56

                        Curve Data
                        *----------*
Curve FS-2
P.I.  Station             741+66.93  X     2,457,016.59  Y     7,033,772.99
Delta       =              2°46' 22" (LT)
Degree      =              2°50' 01"
Tangent     =                   48.94
Length      =                   97.86
Radius      =                2,022.00
External    =                    0.59
Long Chord  =                   97.85
Mid. Ord.   =                    0.59
P.C.  Station             741+18.00  X     2,457,039.94  Y     7,033,729.98
P.T.  Station             742+15.85  X     2,456,991.19  Y     7,033,814.82
C.C.                                 X     2,455,262.86  Y     7,032,765.36
Back        = N  28°29' 37" W
Ahead       = N  31°16' 00" W
Chord Bear  = N  29°52' 48" W

Course from PT FS-2 to PC FS-3 N 31°16' 00" W Dist 199.16

                        Curve Data
                        *----------*
Curve FS-3
P.I.  Station             744+39.48  X     2,456,875.12  Y     7,034,005.97
Delta       =              1°24' 06" (RT)
Degree      =              2°51' 53"
Tangent     =                   24.47
Length      =                   48.93
Radius      =                2,000.00
External    =                    0.15
Long Chord  =                   48.93
Mid. Ord.   =                    0.15
P.C.  Station             744+15.01  X     2,456,887.82  Y     7,033,985.06
P.T.  Station             744+63.94  X     2,456,862.94  Y     7,034,027.19
C.C.                                 X     2,458,597.35  Y     7,035,023.10
Back        = N  31°16' 00" W
Ahead       = N  29°51' 53" W
Chord Bear  = N  30°33' 56" W

                        Curve Data
                        *----------*
Curve FS-4
P.I.  Station             748+51.64  X     2,456,669.88  Y     7,034,363.40
Delta       =              3°22' 19" (LT)
Degree      =              0°26' 06"
Tangent     =                  387.70
Length      =                  775.17
Radius      =               13,172.00
External    =                    5.70
Long Chord  =                  775.06
Mid. Ord.   =                    5.70
P.C.  Station             744+63.94  X     2,456,862.94  Y     7,034,027.19
P.T.  Station             752+39.12  X     2,456,457.39  Y     7,034,687.68
C.C.                                 X     2,445,440.14  Y     7,027,468.13
Back        = N  29°51' 53" W
Ahead       = N  33°14' 12" W
Chord Bear  = N  31°33' 02" W

==============================================================================
Ending chain FRTG35NB19 description
```

NB FRONTAGE ROAD 20

```
Beginning chain FRTG35NB20 description
Description: Frontage Road FT
==============================================================================

Point 35            X      2,383,359.37 Y      7,123,298.94 Sta     11961+27.94

Course from 35 to PC FT-1 N 47°52' 38" W Dist 227.02

                        Curve Data
                        *----------*
Curve FT-1
P.I.  Station           11964+02.47  X     2,383,155.74  Y     7,123,483.08
Delta       =              3°58' 06" (RT)
Degree      =              4°10' 39"
Tangent     =                   47.52
Length      =                   94.99
Radius      =                1,371.54
External    =                    0.82
Long Chord  =                   94.97
Mid. Ord.   =                    0.82
P.C.  Station           11963+54.96  X     2,383,190.98  Y     7,123,451.21
P.T.  Station           11964+49.95  X     2,383,122.79  Y     7,123,517.31
C.C.                                 X     2,384,110.90  Y     7,124,468.49
Back        = N  47°52' 38" W
Ahead       = N  43°54' 32" W
Chord Bear  = N  45°53' 35" W

Course from PT FT-1 to 36 N 43°54' 32" W Dist 158.76

Point 36            X      2,383,012.69 Y      7,123,631.69 Sta     11966+08.71

==============================================================================
Ending chain FRTG35NB20 description
```

NB FRONTAGE ROAD 21

```
Beginning chain FRTG35NB21 description
Description: Frontage Road FU
==============================================================================

Point 37            X      2,425,560.92 Y      7,069,734.38 Sta     11231+81.92

Course from 37 to PC FU-1 N 23°52' 43" W Dist 315.05

                        Curve Data
                        *----------*
Curve FU-1
P.I.  Station           11236+17.67  X     2,425,384.53  Y     7,070,132.83
Delta       =              6°53' 24" (RT)
Degree      =              2°51' 28"
Tangent     =                  120.70
Length      =                  241.11
Radius      =                2,005.00
External    =                    3.63
Long Chord  =                  240.96
Mid. Ord.   =                    3.62
P.C.  Station           11234+96.97  X     2,425,433.39  Y     7,070,022.46
P.T.  Station           11237+38.08  X     2,425,349.26  Y     7,070,248.26
C.C.                                 X     2,427,266.77  Y     7,070,834.09
Back        = N  23°52' 43" W
Ahead       = N  16°59' 19" W
Chord Bear  = N  20°26' 01" W

Course from PT FU-1 to PC FU-2 N 16°59' 19" W Dist 773.26

                        Curve Data
                        *----------*
Curve FU-2
P.I.  Station           11245+99.79  X     2,425,097.48  Y     7,071,072.37
Delta       =              2°32' 01" (RT)
Degree      =              1°25' 57"
Tangent     =                   88.46
Length      =                  176.89
Radius      =                4,000.00
External    =                    0.98
Long Chord  =                  176.87
Mid. Ord.   =                    0.98
P.C.  Station           11245+11.34  X     2,425,123.33  Y     7,070,987.78
P.T.  Station           11246+88.22  X     2,425,075.40  Y     7,071,158.03
C.C.                                 X     2,428,948.78  Y     7,072,156.51
Back        = N  16°59' 19" W
Ahead       = N  14°27' 18" W
Chord Bear  = N  15°43' 19" W

Course from PT FU-2 to PC FU-3 N 14°27' 18" W Dist 119.69

                        Curve Data
                        *----------*
Curve FU-3
P.I.  Station           11249+73.68  X     2,425,004.14  Y     7,071,434.45
Delta       =              9°28' 35" (LT)
Degree      =              2°51' 53"
Tangent     =                  165.77
Length      =                  330.79
Radius      =                2,000.00
External    =                    6.86
Long Chord  =                  330.41
Mid. Ord.   =                    6.84
P.C.  Station           11248+07.91  X     2,425,045.52  Y     7,071,273.93
P.T.  Station           11251+38.70  X     2,424,936.90  Y     7,071,585.98
C.C.                                 X     2,423,108.84  Y     7,070,774.69
Back        = N  14°27' 18" W
Ahead       = N  23°55' 53" W
Chord Bear  = N  19°11' 36" W

==============================================================================
Ending chain FRTG35NB21 description
```

NB FRONTAGE ROAD 22

```
Beginning chain FRTG35NB22 description
Description: Frontage Road FV
==============================================================================

                        Curve Data
                        *----------*
Curve FV-1
P.I.  Station              7003+80.52  X     2,452,086.06  Y     7,042,764.68
Delta       =              1° 57''56" (LT)
Degree      =              0° 17''05"
Tangent     =                  345.13
Length      =                  690.20
Radius      =               20,119.00
External    =                    2.96
Long Chord  =                  690.16
Mid. Ord.   =                    2.96
P.C.  Station              7000+35.39  X     2,452,300.41  Y     7,042,494.18
P.T.  Station              7007+25.59  X     2,451,862.56  Y     7,043,027.67
C.C.                                   X     2,436,531.99  Y     7,029,998.93
Back        = N  38° 23''39" W
Ahead       = N  40° 21''35" W
Chord Bear  = N  39° 22''37" W

                        Curve Data
                        *----------*
Curve FV-2
P.I.  Station              7008+83.77  X     2,451,760.12  Y     7,043,148.21
Delta       =              3° 38''59" (RT)
Degree      =              1° 09''14"
Tangent     =                  158.19
Length      =                  316.26
Radius      =                4,965.00
External    =                    2.52
Long Chord  =                  316.21
Mid. Ord.   =                    2.52
P.C.  Station              7007+25.59  X     2,451,862.56  Y     7,043,027.67
P.T.  Station              7010+41.85  X     2,451,665.56  Y     7,043,275.02
C.C.                                   X     2,455,645.86  Y     7,046,242.92
Back        = N  40° 21''35" W
Ahead       = N  36° 42''36" W
Chord Bear  = N  38° 32''05" W

==============================================================================
Ending chain FRTG35NB22 description
```

NB FRONTAGE ROAD N107

```
Beginning chain FRTG35NBN107 description
Description: Frontage Road YK
==============================================================================

Point 3             X      2,406,940.79 Y      7,108,736.80 Sta     11678+19.38

Course from 3 to 4 N 53° 37''55" W Dist 881.21

Point 4             X      2,406,231.22 Y      7,109,259.33 Sta     11687+00.59

==============================================================================
Ending chain FRTG35NBN107 description
```

NB FRONTAGE ROAD N109

```
Beginning chain FRTG35NBN109 description
Description: Frontage Road YA
==============================================================================

                        Curve Data
                        *----------*
Curve YA-1
P.I.  Station            1745+01.32  X     2,401,651.09  Y     7,112,804.76
Delta       =              7° 18' 13" (RT)
Degree      =              2° 51' 53"
Tangent     =                  127.64
Length      =                  254.94
Radius      =                2,000.00
External    =                    4.07
Long Chord  =                  254.77
Mid. Ord.   =                    4.06
P.C.  Station            1743+73.68  X     2,401,749.93  Y     7,112,723.99
P.T.  Station            1746+28.62  X     2,401,563.32  Y     7,112,897.44
C.C.                                 X     2,403,015.49  Y     7,114,272.65
Back        = N  50° 44' 41" W
Ahead       = N  43° 26' 28" W
Chord Bear  = N  47° 05' 34" W
```

NB FRONTAGE ROAD N109 (CONT)

```
                        Curve Data
                        *----------*
Curve YA-2
P.I.  Station            1747+47.56  X     2,401,481.54  Y     7,112,983.80
Delta       =              6° 48' 25" (LT)
Degree      =              2° 51' 53"
Tangent     =                  118.94
Length      =                  237.60
Radius      =                2,000.00
External    =                    3.53
Long Chord  =                  237.46
Mid. Ord.   =                    3.53
P.C.  Station            1746+28.62  X     2,401,563.32  Y     7,112,897.44
P.T.  Station            1748+66.23  X     2,401,390.10  Y     7,113,059.86
C.C.                                 X     2,400,111.16  Y     7,111,522.22
Back        = N  43° 26' 28" W
Ahead       = N  50° 14' 52" W
Chord Bear  = N  46° 50' 40" W

==============================================================================
Ending chain FRTG35NBN109 description
```

NB FRONTAGE ROAD N111

```
Beginning chain FRTG35NBN111 description
Description: Frontage Road YB
==============================================================================

Point 5             X      2,396,736.53 Y      7,116,830.34 Sta      1808+52.85

Course from 5 to PC YB-1 N 50° 30' 35" W Dist 199.85

                        Curve Data
                        *----------*
Curve YB-1
P.I.  Station            1811+77.02  X     2,396,486.35  Y     7,117,036.49
Delta       =              4° 44' 47" (RT)
Degree      =              1° 54' 35"
Tangent     =                  124.33
Length      =                  248.52
Radius      =                3,000.00
External    =                    2.58
Long Chord  =                  248.44
Mid. Ord.   =                    2.57
P.C.  Station            1810+52.70  X     2,396,582.30  Y     7,116,957.43
P.T.  Station            1813+01.21  X     2,396,397.28  Y     7,117,123.23
C.C.                                 X     2,398,490.15  Y     7,119,272.62
Back        = N  50° 30' 35" W
Ahead       = N  45° 45' 48" W
Chord Bear  = N  48° 08' 11" W

Course from PT YB-1 to PC YB-2 N 45° 45' 48" W Dist 89.99

                        Curve Data
                        *----------*
Curve YB-2
P.I.  Station            1814+82.73  X     2,396,267.23  Y     7,117,249.86
Delta       =              2° 36' 52" (LT)
Degree      =              1° 25' 42"
Tangent     =                   91.53
Length      =                  183.03
Radius      =                4,011.00
External    =                    1.04
Long Chord  =                  183.01
Mid. Ord.   =                    1.04
P.C.  Station            1813+91.20  X     2,396,332.80  Y     7,117,186.01
P.T.  Station            1815+74.23  X     2,396,198.80  Y     7,117,310.65
C.C.                                 X     2,393,534.64  Y     7,114,312.27
Back        = N  45° 45' 48" W
Ahead       = N  48° 22' 40" W
Chord Bear  = N  47° 04' 14" W

Course from PT YB-2 to 6 N 48° 22' 40" W Dist 314.67

Point 6             X      2,395,963.58 Y      7,117,519.66 Sta      1818+88.89

==============================================================================
Ending chain FRTG35NBN111 description
```

NB FRONTAGE ROAD X101

```
Beginning chain FRTG35NBX101 description
Description: Frontage Road YC
==============================================================================

Point 7             X      2,419,823.18 Y      7,089,560.30 Sta     11444+04.11

Course from 7 to PC YC-1 N 4° 17''18" E Dist 630.90

                        Curve Data
                        *----------*
Curve YC-1
P.I.  Station           11452+75.21  X     2,419,888.32  Y     7,090,428.96
Delta       =              6° 52''23" (LT)
Degree      =              1° 25''57"
Tangent     =                  240.21
Length      =                  479.84
Radius      =                4,000.00
External    =                    7.21
Long Chord  =                  479.55
Mid. Ord.   =                    7.19
P.C.  Station           11450+35.01  X     2,419,870.36  Y     7,090,189.43
P.T.  Station           11455+14.84  X     2,419,877.49  Y     7,090,668.92
C.C.                                 X     2,415,881.56  Y     7,090,488.53
Back        = N  4° 17''18" E
Ahead       = N  2° 35''05" W
Chord Bear  = N  0° 51''06" E

==============================================================================
Ending chain FRTG35NBX101 description
```

NB FRONTAGE ROAD X106

```
Beginning chain FRTG35NBX106 description
Description: Frontage Road YD
==============================================================================

Point 8             X      2,408,489.45 Y      7,107,319.46 Sta     11657+42.67

Course from 8 to PC YD-1 N 38° 29''55" W Dist 240.00

                        Curve Data
                        *----------*
Curve YD-1
P.I.  Station           11664+71.27  X     2,408,035.90  Y     7,107,889.68
Delta       =             12° 40''23" (LT)
Degree      =              1° 18''08"
Tangent     =                  488.60
Length      =                  973.21
Radius      =                4,400.00
External    =                   27.05
Long Chord  =                  971.23
Mid. Ord.   =                   26.88
P.C.  Station           11659+82.67  X     2,408,340.05  Y     7,107,507.29
P.T.  Station           11669+55.88  X     2,407,655.26  Y     7,108,196.02
C.C.                                 X     2,404,896.51  Y     7,104,768.30
Back        = N  38° 29''55" W
Ahead       = N  51° 10''18" W
Chord Bear  = N  44° 50''07" W

==============================================================================
Ending chain FRTG35NBX106 description
```

NB FRONTAGE ROAD X108

```
Beginning chain FRTG35NBX108 description
Description: Frontage Road YE
==============================================================================

Point 9             X      2,403,544.61 Y      7,111,278.75 Sta      1720+69.70

Course from 9 to PC YE-1 N 50° 30''59" W Dist 501.16

                        Curve Data
                        *----------*
Curve YE-1
P.I.  Station            1727+22.80  X     2,403,040.54  Y     7,111,694.04
Delta       =              5° 47''56" (LT)
Degree      =              1° 54''35"
Tangent     =                  151.95
Length      =                  303.63
Radius      =                3,000.00
External    =                    3.85
Long Chord  =                  303.50
Mid. Ord.   =                    3.84
P.C.  Station            1725+70.86  X     2,403,157.81  Y     7,111,597.42
P.T.  Station            1728+74.49  X     2,402,914.10  Y     7,111,778.31
C.C.                                 X     2,401,250.24  Y     7,109,282.00
Back        = N  50° 30''59" W
Ahead       = N  56° 18''55" W
Chord Bear  = N  53° 24''57" W

==============================================================================
Ending chain FRTG35NBX108 description
```

NB FRONTAGE ROAD X110

```
Beginning chain FRTG35NBX110 description
Description: Frontage Road YF
==============================================================================

                        Curve Data
                        *----------*
Curve YF-1
P.I.  Station           11774+10.36  X     2,399,430.37  Y     7,114,681.04
Delta       =              7° 45' 51" (RT)
Degree      =              1° 54' 35"
Tangent     =                  203.58
Length      =                  406.54
Radius      =                3,000.00
External    =                    6.90
Long Chord  =                  406.22
Mid. Ord.   =                    6.88
P.C.  Station           11772+06.78  X     2,399,603.41  Y     7,114,573.79
P.T.  Station           11776+13.32  X     2,399,273.40  Y     7,114,810.68
C.C.                                 X     2,401,183.81  Y     7,117,123.75
Back        = N  58° 12' 37" W
Ahead       = N  50° 26' 46" W
Chord Bear  = N  54° 19' 41" W

Course from PT YF-1 to PC YF-2 N 50° 26' 46" W Dist 408.87

                        Curve Data
                        *----------*
Curve YF-2
P.I.  Station           11781+40.68  X     2,398,866.79  Y     7,115,146.51
Delta       =              4° 29' 44" (LT)
Degree      =              1° 53' 52"
Tangent     =                  118.50
Length      =                  236.88
Radius      =                3,019.00
External    =                    2.32
Long Chord  =                  236.82
Mid. Ord.   =                    2.32
P.C.  Station           11780+22.18  X     2,398,958.15  Y     7,115,071.05
P.T.  Station           11782+59.06  X     2,398,769.79  Y     7,115,214.58
C.C.                                 X     2,397,035.64  Y     7,112,743.32
Back        = N  50° 26' 46" W
Ahead       = N  54° 56' 30" W
Chord Bear  = N  52° 41' 38" W

                        Curve Data
                        *----------*
Curve YF-3
P.I.  Station           11783+78.02  X     2,398,672.41  Y     7,115,282.91
Delta       =              4° 32' 29" (RT)
Degree      =              1° 54' 35"
Tangent     =                  118.96
Length      =                  237.79
Radius      =                3,000.00
External    =                    2.36
Long Chord  =                  237.73
Mid. Ord.   =                    2.36
P.C.  Station           11782+59.06  X     2,398,769.79  Y     7,115,214.58
P.T.  Station           11784+96.85  X     2,398,580.75  Y     7,115,358.73
C.C.                                 X     2,400,493.02  Y     7,117,670.28
Back        = N  54° 56' 30" W
Ahead       = N  50° 24' 00" W
Chord Bear  = N  52° 40' 15" W

Course from PT YF-3 to PC YF-4 N 50° 24' 01" W Dist 0.17

                        Curve Data
                        *----------*
Curve YF-4
P.I.  Station           11785+54.55  X     2,398,536.29  Y     7,115,395.51
Delta       =              0° 32' 58" (LT)
Degree      =              0° 28' 39"
Tangent     =                   57.52
Length      =                  115.05
Radius      =               12,000.00
External    =                    0.14
Long Chord  =                  115.05
Mid. Ord.   =                    0.14
P.C.  Station           11784+97.03  X     2,398,580.62  Y     7,115,358.84
P.T.  Station           11786+12.08  X     2,398,491.62  Y     7,115,431.75
C.C.                                 X     2,390,931.55  Y     7,106,112.67
Back        = N  50° 24' 00" W
Ahead       = N  50° 56' 58" W
Chord Bear  = N  50° 40' 29" W

Course from PT YF-4 to 10 N 50° 56' 58" W Dist 514.30

Point 10            X      2,398,092.22 Y      7,115,755.77 Sta     11791+26.38

==============================================================================
Ending chain FRTG35NBX110 description
```

NB FRONTAGE ROAD 201

```
Beginning chain FRTG35NB201 description
Description: Frontage Road FW
==============================================================================

Point 39            X      2,422,519.61 Y      7,077,063.58 Sta     11311+06.03

Course from 39 to PC YK-1 N 32° 56''05" W Dist 702.18

                        Curve Data
                        *----------*
Curve YK-1
P.I.  Station           11318+92.78  X     2,422,091.87  Y     7,077,723.89
Delta       =              2° 25''20" (LT)
Degree      =              1° 25''57"
Tangent     =                   84.56
Length      =                  169.10
Radius      =                4,000.00
External    =                    0.89
Long Chord  =                  169.09
Mid. Ord.   =                    0.89
P.C.  Station           11318+08.21  X     2,422,137.85  Y     7,077,652.92
P.T.  Station           11319+77.32  X     2,422,042.94  Y     7,077,792.86
C.C.                                 X     2,418,780.69  Y     7,075,478.18
Back        = N  32° 56''05" W
Ahead       = N  35° 21''25" W
Chord Bear  = N  34° 08''45" W

                        Curve Data
                        *----------*
Curve YK-2
P.I.  Station           11321+35.88  X     2,421,951.18  Y     7,077,922.18
Delta       =              3° 01''40" (RT)
Degree      =              0° 57''18"
Tangent     =                  158.56
Length      =                  317.05
Radius      =                6,000.00
External    =                    2.09
Long Chord  =                  317.02
Mid. Ord.   =                    2.09
P.C.  Station           11319+77.32  X     2,422,042.94  Y     7,077,792.86
P.T.  Station           11322+94.37  X     2,421,866.38  Y     7,078,056.16
C.C.                                 X     2,426,936.31  Y     7,081,264.87
Back        = N  35° 21''25" W
Ahead       = N  32° 19''46" W
Chord Bear  = N  33° 50''35" W

==============================================================================
Ending chain FRTG35NB201 description
```

SB FRONTAGE ROAD 1

```
Beginning chain FRTG35SB1 description
Description: Frontage Road EA
==============================================================================

Point 38            X      2,380,669.33 Y      7,124,831.64 Sta     11992+44.76

Course from 38 to PC EA-1 N 65° 43' 51" W Dist 756.03

                        Curve Data
                        *----------*
Curve EA-1
P.I.  Station           12000+93.56  X     2,379,895.53  Y     7,125,180.51
Delta       =             16° 58' 01" (RT)
Degree      =              9° 12' 42"
Tangent     =                   92.78
Length      =                  184.19
Radius      =                  622.00
External    =                    6.88
Long Chord  =                  183.52
Mid. Ord.   =                    6.81
P.C.  Station           12000+00.79  X     2,379,980.11  Y     7,125,142.38
P.T.  Station           12001+84.98  X     2,379,825.77  Y     7,125,241.67
C.C.                                 X     2,380,235.77  Y     7,125,709.41
Back        = N  65° 43' 51" W
Ahead       = N  48° 45' 50" W
Chord Bear  = N  57° 14' 51" W

                        Curve Data
                        *----------*
Curve EA-2
P.I.  Station           12002+51.02  X     2,379,776.11  Y     7,125,285.20
Delta       =             12° 33' 41" (LT)
Degree      =              9° 32' 57"
Tangent     =                   66.04
Length      =                  131.54
Radius      =                  600.00
External    =                    3.62
Long Chord  =                  131.28
Mid. Ord.   =                    3.60
P.C.  Station           12001+84.98  X     2,379,825.77  Y     7,125,241.67
P.T.  Station           12003+16.52  X     2,379,718.17  Y     7,125,316.88
C.C.                                 X     2,379,430.27  Y     7,124,790.47
Back        = N  48° 45' 50" W
Ahead       = N  61° 19' 31" W
Chord Bear  = N  55° 02' 41" W

Course from PT EA-2 to 39 N 61° 19' 31" W Dist 100.00

Point 39            X      2,379,630.44 Y      7,125,364.87 Sta     12004+16.52

==============================================================================
Ending chain FRTG35SB1 description
```

SB FRONTAGE ROAD 2

```
Beginning chain FRTG35SB2 description
Description: Frontage Road EB
==============================================================================

                        Curve Data
                        *----------*
Curve EB-1
P.I.  Station           11978+30.98  X     2,382,228.30  Y     7,124,026.68
Delta       =             23°04''57" (LT)
Degree      =             11°14''04"
Tangent     =                  104.14
Length      =                  205.46
Radius      =                  510.00
External    =                   10.52
Long Chord  =                  204.07
Mid. Ord.   =                   10.31
P.C.  Station           11977+26.84  X     2,382,311.43  Y     7,123,963.95
P.T.  Station           11979+32.30  X     2,382,127.23  Y     7,124,051.80
C.C.                                 X     2,382,004.24  Y     7,123,556.85
Back        = N  52°57''46" W
Ahead       = N  76°02''42" W
Chord Bear  = N  64°30''14" W

                        Curve Data
                        *----------*
Curve EB-2
P.I.  Station           11980+17.11  X     2,382,044.92  Y     7,124,072.25
Delta       =             18°52''56" (RT)
Degree      =             11°14''04"
Tangent     =                   84.81
Length      =                  168.07
Radius      =                  510.00
External    =                    7.00
Long Chord  =                  167.31
Mid. Ord.   =                    6.91
P.C.  Station           11979+32.30  X     2,382,127.23  Y     7,124,051.80
P.T.  Station           11981+00.37  X     2,381,973.67  Y     7,124,118.23
C.C.                                 X     2,382,250.22  Y     7,124,546.74
Back        = N  76°02''42" W
Ahead       = N  57°09''47" W
Chord Bear  = N  66°36''15" W

                        Curve Data
                        *----------*
Curve EB-3
P.I.  Station           11981+42.67  X     2,381,938.13  Y     7,124,141.17
Delta       =              1°12''39" (LT)
Degree      =              1°25''54"
Tangent     =                   42.29
Length      =                   84.58
Radius      =                4,002.00
External    =                    0.22
Long Chord  =                   84.58
Mid. Ord.   =                    0.22
P.C.  Station           11981+00.37  X     2,381,973.67  Y     7,124,118.23
P.T.  Station           11981+84.96  X     2,381,902.12  Y     7,124,163.34
C.C.                                 X     2,379,803.58  Y     7,120,755.69
Back        = N  57°09''47" W
Ahead       = N  58°22''26" W
Chord Bear  = N  57°46''06" W

Course from PT EB-3 to 40 N 58°22''26" W Dist 64.32

Point 40            X      2,381,847.36 Y      7,124,197.07 Sta     11982+49.27

Course from 40 to PC EB-4 N 58°22''26" W Dist 414.76

                        Curve Data
                        *----------*
Curve EB-4
P.I.  Station           11988+09.70  X     2,381,370.16  Y     7,124,490.94
Delta       =              4°10''09" (LT)
Degree      =              1°25''54"
Tangent     =                  145.67
Length      =                  291.21
Radius      =                4,002.00
External    =                    2.65
Long Chord  =                  291.15
Mid. Ord.   =                    2.65
P.C.  Station           11986+64.03  X     2,381,494.20  Y     7,124,414.56
P.T.  Station           11989+55.24  X     2,381,240.90  Y     7,124,558.11
C.C.                                 X     2,379,395.65  Y     7,121,006.90
Back        = N  58°22''26" W
Ahead       = N  62°32''35" W
Chord Bear  = N  60°27''31" W

                        Curve Data
                        *----------*
Curve EB-5
P.I.  Station           11990+59.64  X     2,381,148.26  Y     7,124,606.25
Delta       =              1°35''17" (LT)
Degree      =              0°45''38"
Tangent     =                  104.40
Length      =                  208.79
Radius      =                7,533.00
External    =                    0.72
Long Chord  =                  208.78
Mid. Ord.   =                    0.72
P.C.  Station           11989+55.24  X     2,381,240.90  Y     7,124,558.11
P.T.  Station           11991+64.03  X     2,381,054.32  Y     7,124,651.80
C.C.                                 X     2,377,767.58  Y     7,117,873.64
Back        = N  62°32''35" W
Ahead       = N  64°07''52" W
Chord Bear  = N  63°20''14" W

Course from PT EB-5 to PC EB-6 N 64°07''52" W Dist 148.46

                        Curve Data
                        *----------*
Curve EB-6
P.I.  Station           11993+68.33  X     2,380,870.49  Y     7,124,740.94
Delta       =              1°35''59" (LT)
Degree      =              1°25''57"
Tangent     =                   55.84
Length      =                  111.68
Radius      =                4,000.00
External    =                    0.39
Long Chord  =                  111.68
Mid. Ord.   =                    0.39
P.C.  Station           11993+12.48  X     2,380,920.74  Y     7,124,716.57
P.T.  Station           11994+24.16  X     2,380,819.58  Y     7,124,763.89
C.C.                                 X     2,379,175.49  Y     7,121,117.39
Back        = N  64°07''52" W
Ahead       = N  65°43''51" W
Chord Bear  = N  64°55''52" W

Course from PT EB-6 to 41 N 65°43''51" W Dist 164.82

Point 41            X      2,380,669.33 Y      7,124,831.64 Sta     11995+88.99

==============================================================================
Ending chain FRTG35SB2 description
```

SB FRONTAGE ROAD 5

```
Beginning chain FRTG35SB5 description
Description: Frontage Road EE
==============================================================================

                        Curve Data
                        *----------*
Curve EE-1
P.I.  Station           11703+57.84  X     2,404,747.44  Y     7,110,038.17
Delta       =              7° 55' 46" (LT)
Degree      =              7° 09' 43"
Tangent     =                   55.45
Length      =                  110.72
Radius      =                  800.00
External    =                    1.92
Long Chord  =                  110.63
Mid. Ord.   =                    1.91
P.C.  Station           11703+02.39  X     2,404,787.10  Y     7,109,999.43
P.T.  Station           11704+13.11  X     2,404,702.80  Y     7,110,071.07
C.C.                                 X     2,404,228.13  Y     7,109,427.11
Back        = N  45° 40' 33" W
Ahead       = N  53° 36' 19" W
Chord Bear  = N  49° 38' 26" W

Course from PT EE-1 to PC EE-2 N 53° 36' 19" W Dist 847.13

                        Curve Data
                        *----------*
Curve EE-2
P.I.  Station           11714+62.23  X     2,403,858.31  Y     7,110,693.56
Delta       =              5° 46' 55" (RT)
Degree      =              1° 25' 57"
Tangent     =                  202.00
Length      =                  403.66
Radius      =                4,000.00
External    =                    5.10
Long Chord  =                  403.49
Mid. Ord.   =                    5.09
P.C.  Station           11712+60.23  X     2,404,020.91  Y     7,110,573.71
P.T.  Station           11716+63.89  X     2,403,708.61  Y     7,110,829.19
C.C.                                 X     2,406,394.29  Y     7,113,793.50
Back        = N  53° 36' 19" W
Ahead       = N  47° 49' 24" W
Chord Bear  = N  50° 42' 52" W

                        Curve Data
                        *----------*
Curve EE-3
P.I.  Station           11718+58.47  X     2,403,564.42  Y     7,110,959.83
Delta       =              5° 34' 11" (LT)
Degree      =              1° 25' 57"
Tangent     =                  194.58
Length      =                  388.84
Radius      =                4,000.00
External    =                    4.73
Long Chord  =                  388.69
Mid. Ord.   =                    4.72
P.C.  Station           11716+63.89  X     2,403,708.61  Y     7,110,829.19
P.T.  Station           11720+52.74  X     2,403,408.22  Y     7,111,075.86
C.C.                                 X     2,401,022.94  Y     7,107,864.88
Back        = N  47° 49' 24" W
Ahead       = N  53° 23' 35" W
Chord Bear  = N  50° 36' 30" W

==============================================================================
Ending chain FRTG35SB5 description
```

SB FRONTAGE ROAD 6

```
Beginning chain FRTG35SB6 description
Description: Frontage Road EF
==============================================================================

Point 46            X      2,405,272.27 Y      7,109,584.92 Sta     11696+66.15

Course from 46 to PC EF-1 N 53°34' 39" W Dist 190.80

                        Curve Data
                        *----------*
Curve EF-1
P.I.  Station           11699+31.15  X     2,405,059.03  Y     7,109,742.26
Delta       =              8°05' 04" (RT)
Degree      =              5°27' 24"
Tangent     =                   74.20
Length      =                  148.15
Radius      =                1,050.00
External    =                    2.62
Long Chord  =                  148.03
Mid. Ord.   =                    2.61
P.C.  Station           11698+56.95  X     2,405,118.73  Y     7,109,698.20
P.T.  Station           11700+05.11  X     2,405,006.11  Y     7,109,794.27
C.C.                                 X     2,405,742.15  Y     7,110,543.10
Back        = N  53°34' 39" W
Ahead       = N  45°29' 36" W
Chord Bear  = N  49°32' 08" W

Course from PT EF-1 to 47 N 45°29' 36" W Dist 219.85

Point 47            X      2,404,849.32 Y      7,109,948.39 Sta     11702+24.96

==============================================================================
Ending chain FRTG35SB6 description
```

SB FRONTAGE ROAD 7

```
Beginning chain FRTG35SB7 description
Description: Frontage Road EG
==============================================================================

                        Curve Data
                        *----------*
Curve EG-1
P.I.  Station           11693+62.65  X     2,405,524.28  Y     7,109,412.63
Delta       =              7° 29''25" (RT)
Degree      =              1° 54''35"
Tangent     =                  196.37
Length      =                  392.19
Radius      =                3,000.00
External    =                    6.42
Long Chord  =                  391.91
Mid. Ord.   =                    6.41
P.C.  Station           11691+66.27  X     2,405,696.14  Y     7,109,317.63
P.T.  Station           11695+58.46  X     2,405,366.26  Y     7,109,529.23
C.C.                                 X     2,407,147.46  Y     7,111,943.21
Back        = N  61° 04''04" W
Ahead       = N  53° 34''39" W
Chord Bear  = N  57° 19''22" W

Course from PT EG-1 to 57 N 53° 34''39" W Dist 108.70

Point 57            X      2,405,278.80 Y      7,109,593.77 Sta     11696+67.16

==============================================================================
Ending chain FRTG35SB7 description
```

SB FRONTAGE ROAD 8

```
Beginning chain FRTG35SB8 description
Description: Frontage Road EH
==============================================================================

Point 11            X      2,409,366.22 Y      7,105,738.67 Sta     11640+62.85

Course from 11 to PC EH-1 N 38° 39''13" W Dist 105.47

                        Curve Data
                        *----------*
Curve EH-1
P.I.  Station           11642+35.67  X     2,409,258.27  Y     7,105,873.63
Delta       =              2° 34''20" (RT)
Degree      =              1° 54''35"
Tangent     =                   67.35
Length      =                  134.68
Radius      =                3,000.00
External    =                    0.76
Long Chord  =                  134.67
Mid. Ord.   =                    0.76
P.C.  Station           11641+68.32  X     2,409,300.34  Y     7,105,821.03
P.T.  Station           11643+03.00  X     2,409,218.60  Y     7,105,928.07
C.C.                                 X     2,411,643.15  Y     7,107,694.86
Back        = N  38° 39''13" W
Ahead       = N  36° 04''53" W
Chord Bear  = N  37° 22''03" W

                        Curve Data
                        *----------*
Curve EH-2
P.I.  Station           11643+77.71  X     2,409,174.61  Y     7,105,988.44
Delta       =              5° 42''09" (RT)
Degree      =              3° 49''11"
Tangent     =                   74.71
Length      =                  149.29
Radius      =                1,500.00
External    =                    1.86
Long Chord  =                  149.23
Mid. Ord.   =                    1.86
P.C.  Station           11643+03.00  X     2,409,218.60  Y     7,105,928.07
P.T.  Station           11644+52.29  X     2,409,136.83  Y     7,106,052.89
C.C.                                 X     2,410,430.88  Y     7,106,811.46
Back        = N  36° 04''53" W
Ahead       = N  30° 22''44" W
Chord Bear  = N  33° 13''48" W

                        Curve Data
                        *----------*
Curve EH-3
P.I.  Station           11646+54.00  X     2,409,034.82  Y     7,106,226.91
Delta       =              7° 41''35" (LT)
Degree      =              1° 54''35"
Tangent     =                  201.71
Length      =                  402.81
Radius      =                3,000.00
External    =                    6.77
Long Chord  =                  402.51
Mid. Ord.   =                    6.76
P.C.  Station           11644+52.29  X     2,409,136.83  Y     7,106,052.89
P.T.  Station           11648+55.10  X     2,408,910.44  Y     7,106,385.70
C.C.                                 X     2,406,548.72  Y     7,104,535.74
Back        = N  30° 22''44" W
Ahead       = N  38° 04''19" W
Chord Bear  = N  34° 13''31" W

Course from PT EH-3 to PC EH-4 N 38° 04''19" W Dist 1,050.90

                        Curve Data
                        *----------*
Curve EH-4
P.I.  Station           11660+07.36  X     2,408,199.89  Y     7,107,292.80
Delta       =              2° 19''22" (LT)
Degree      =              1° 08''45"
Tangent     =                  101.37
Length      =                  202.71
Radius      =                5,000.00
External    =                    1.03
Long Chord  =                  202.70
Mid. Ord.   =                    1.03
P.C.  Station           11659+05.99  X     2,408,262.40  Y     7,107,213.00
P.T.  Station           11661+08.71  X     2,408,134.20  Y     7,107,370.01
C.C.                                 X     2,404,326.21  Y     7,104,129.75
Back        = N  38° 04''19" W
Ahead       = N  40° 23''41" W
Chord Bear  = N  39° 14''00" W

==============================================================================
Ending chain FRTG35SB8 description
```

SB FRONTAGE ROAD 9

```
Beginning chain FRTG35SB9 description
Description: Frontage Road EI
==============================================================================

Point 12            X      2,410,586.56 Y      7,104,343.41 Sta     11621+09.56

Course from 12 to PC EI-1 N 39° 26' 01" W Dist 189.20

                        Curve Data
                        *----------*
Curve EI-1
P.I.  Station           11623+91.26  X     2,410,407.63  Y     7,104,560.98
Delta       =              3° 31' 55" (LT)
Degree      =              1° 54' 35"
Tangent     =                   92.49
Length      =                  184.93
Radius      =                3,000.00
External    =                    1.43
Long Chord  =                  184.90
Mid. Ord.   =                    1.42
P.C.  Station           11622+98.76  X     2,410,466.38  Y     7,104,489.54
P.T.  Station           11624+83.69  X     2,410,344.59  Y     7,104,628.66
C.C.                                 X     2,408,149.29  Y     7,102,583.99
Back        = N  39° 26' 01" W
Ahead       = N  42° 57' 56" W
Chord Bear  = N  41° 11' 58" W
```

SB FRONTAGE ROAD 9 (CONT)

```
                        Curve Data
                        *----------*
Curve EI-2
P.I.  Station           11626+06.67  X     2,410,260.77  Y     7,104,718.65
Delta       =              3° 31' 19" (RT)
Degree      =              1° 25' 57"
Tangent     =                  122.98
Length      =                  245.88
Radius      =                4,000.00
External    =                    1.89
Long Chord  =                  245.84
Mid. Ord.   =                    1.89
P.C.  Station           11624+83.69  X     2,410,344.59  Y     7,104,628.66
P.T.  Station           11627+29.57  X     2,410,182.64  Y     7,104,813.62
C.C.                                 X     2,413,271.65  Y     7,107,354.89
Back        = N  42° 57' 56" W
Ahead       = N  39° 26' 36" W
Chord Bear  = N  41° 12' 16" W

Course from PT EI-2 to PC EI-3 N 39° 26' 36" W Dist 718.56

                        Curve Data
                        *----------*
Curve EI-3
P.I.  Station           11635+32.74  X     2,409,672.37  Y     7,105,433.88
Delta       =             12° 00' 03" (LT)
Degree      =              7° 07' 03"
Tangent     =                   84.61
Length      =                  168.61
Radius      =                  805.00
External    =                    4.43
Long Chord  =                  168.30
Mid. Ord.   =                    4.41
P.C.  Station           11634+48.13  X     2,409,726.13  Y     7,105,368.53
P.T.  Station           11636+16.74  X     2,409,606.20  Y     7,105,486.62
C.C.                                 X     2,409,104.47  Y     7,104,857.10
Back        = N  39° 26' 36" W
Ahead       = N  51° 26' 39" W
Chord Bear  = N  45° 26' 38" W

Course from PT EI-3 to PC EI-4 N 51° 26' 39" W Dist 2.50

                        Curve Data
                        *----------*
Curve EI-4
P.I.  Station           11637+55.38  X     2,409,497.79  Y     7,105,573.03
Delta       =             12° 56' 44" (RT)
Degree      =              4° 46' 29"
Tangent     =                  136.14
Length      =                  271.13
Radius      =                1,200.00
External    =                    7.70
Long Chord  =                  270.55
Mid. Ord.   =                    7.65
P.C.  Station           11636+19.23  X     2,409,604.25  Y     7,105,488.17
P.T.  Station           11638+90.36  X     2,409,413.04  Y     7,105,679.58
C.C.                                 X     2,410,352.18  Y     7,106,426.57
Back        = N  51° 26' 39" W
Ahead       = N  38° 29' 55" W
Chord Bear  = N  44° 58' 17" W

Course from PT EI-4 to 13 N 38° 29' 55" W Dist 75.39

Point 13            X      2,409,366.11 Y      7,105,738.58 Sta     11639+65.76

==============================================================================
Ending chain FRTG35SB9 description
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SB FRONTAGE ROAD 10

```
Beginning chain FRTG35SB10 description
Description: Frontage Road EJ
==============================================================================

                        Curve Data
                        *----------*
Curve EJ-1
P.I.  Station           11595+71.92  X     2,412,195.13  Y     7,102,380.13
Delta       =              2? 47' 06" (LT)
Degree      =              1? 25' 50"
Tangent     =                   97.36
Length      =                  194.68
Radius      =                4,005.00
External    =                    1.18
Long Chord  =                  194.66
Mid. Ord.   =                    1.18
P.C.  Station           11594+74.56  X     2,412,256.26  Y     7,102,304.36
P.T.  Station           11596+69.24  X     2,412,130.38  Y     7,102,452.85
C.C.                                 X     2,409,139.13  Y     7,099,789.68
Back        = N  38? 53' 39" W
Ahead       = N  41? 40' 45" W
Chord Bear  = N  40? 17' 12" W

                        Curve Data
                        *----------*
Curve EJ-2
P.I.  Station           11597+85.95  X     2,412,052.78  Y     7,102,540.02
Delta       =              2? 13' 50" (RT)
Degree      =              0? 57' 21"
Tangent     =                  116.71
Length      =                  233.39
Radius      =                5,995.00
External    =                    1.14
Long Chord  =                  233.38
Mid. Ord.   =                    1.14
P.C.  Station           11596+69.24  X     2,412,130.38  Y     7,102,452.85
P.T.  Station           11599+02.63  X     2,411,978.62  Y     7,102,630.14
C.C.                                 X     2,416,607.92  Y     7,106,439.28
Back        = N  41? 40' 45" W
Ahead       = N  39? 26' 55" W
Chord Bear  = N  40? 33' 50" W

Course from PT EJ-2 to PC EJ-3 N 39? 26' 55" W Dist 284.80

                        Curve Data
                        *----------*
Curve EJ-3
P.I.  Station           11603+12.69  X     2,411,718.08  Y     7,102,946.78
Delta       =              2? 23' 38" (RT)
Degree      =              0? 57' 21"
Tangent     =                  125.26
Length      =                  250.48
Radius      =                5,995.00
External    =                    1.31
Long Chord  =                  250.46
Mid. Ord.   =                    1.31
P.C.  Station           11601+87.43  X     2,411,797.66  Y     7,102,850.06
P.T.  Station           11604+37.91  X     2,411,642.60  Y     7,103,046.75
C.C.                                 X     2,416,426.97  Y     7,106,659.20
Back        = N  39? 26' 55" W
Ahead       = N  37? 03' 17" W
Chord Bear  = N  38? 15' 06" W

                        Curve Data
                        *----------*
Curve EJ-4
P.I.  Station           11605+43.49  X     2,411,578.98  Y     7,103,131.00
Delta       =              3? 01' 12" (LT)
Degree      =              1? 25' 50"
Tangent     =                  105.57
Length      =                  211.10
Radius      =                4,005.00
External    =                    1.39
Long Chord  =                  211.07
Mid. Ord.   =                    1.39
P.C.  Station           11604+37.91  X     2,411,642.60  Y     7,103,046.75
P.T.  Station           11606+49.01  X     2,411,511.02  Y     7,103,211.79
C.C.                                 X     2,408,446.37  Y     7,100,633.42
Back        = N  37? 03' 17" W
Ahead       = N  40? 04' 29" W
Chord Bear  = N  38? 33' 53" W

==============================================================================
Ending chain FRTG35SB10 description
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SB FRONTAGE ROAD 11

```
Beginning chain FRTG35SB11 description
Description: Frontage Road EK
==============================================================================

                        Curve Data
                        *----------*
Curve EK-1
P.I.  Station           11574+24.22  X     2,413,575.82  Y     7,100,731.55
Delta       =              1°57' 25" (LT)
Degree      =              1°25' 50"
Tangent     =                   68.40
Length      =                  136.79
Radius      =                4,005.00
External    =                    0.58
Long Chord  =                  136.78
Mid. Ord.   =                    0.58
P.C.  Station           11573+55.82  X     2,413,620.36  Y     7,100,679.63
P.T.  Station           11574+92.61  X     2,413,529.54  Y     7,100,781.91
C.C.                                 X     2,410,580.73  Y     7,098,071.83
Back        = N  40°37' 39" W
Ahead       = N  42°35' 03" W
Chord Bear  = N  41°36' 21" W

                        Curve Data
                        *----------*
Curve EK-2
P.I.  Station           11575+91.63  X     2,413,462.53  Y     7,100,854.82
Delta       =              1°53' 34" (RT)
Degree      =              0°57' 21"
Tangent     =                   99.03
Length      =                  198.03
Radius      =                5,995.00
External    =                    0.82
Long Chord  =                  198.02
Mid. Ord.   =                    0.82
P.C.  Station           11574+92.61  X     2,413,529.54  Y     7,100,781.91
P.T.  Station           11576+90.64  X     2,413,397.97  Y     7,100,929.90
C.C.                                 X     2,417,943.55  Y     7,104,838.57
Back        = N  42°35' 03" W
Ahead       = N  40°41' 30" W
Chord Bear  = N  41°38' 17" W

Course from PT EK-2 to PC EK-3 N 40°41' 30" W Dist 554.85
```

SB FRONTAGE ROAD 11 (CONT)

```
                        Curve Data
                        *----------*
Curve EK-3
P.I.  Station           11584+06.33  X     2,412,931.34  Y     7,101,472.56
Delta       =              3°04' 25" (RT)
Degree      =              0°57' 21"
Tangent     =                  160.84
Length      =                  321.60
Radius      =                5,995.00
External    =                    2.16
Long Chord  =                  321.56
Mid. Ord.   =                    2.16
P.C.  Station           11582+45.50  X     2,413,036.21  Y     7,101,350.61
P.T.  Station           11585+67.09  X     2,412,833.17  Y     7,101,599.96
C.C.                                 X     2,417,581.79  Y     7,105,259.28
Back        = N  40°41' 30" W
Ahead       = N  37°37' 05" W
Chord Bear  = N  39°09' 17" W

                        Curve Data
                        *----------*
Curve EK-4
P.I.  Station           11586+30.81  X     2,412,794.28  Y     7,101,650.43
Delta       =              1°49' 22" (LT)
Degree      =              1°25' 50"
Tangent     =                   63.71
Length      =                  127.42
Radius      =                4,005.00
External    =                    0.51
Long Chord  =                  127.41
Mid. Ord.   =                    0.51
P.C.  Station           11585+67.09  X     2,412,833.17  Y     7,101,599.96
P.T.  Station           11586+94.51  X     2,412,753.80  Y     7,101,699.63
C.C.                                 X     2,409,660.82  Y     7,099,155.33
Back        = N  37°37' 05" W
Ahead       = N  39°26' 27" W
Chord Bear  = N  38°31' 46" W

Course from PT EK-4 to 54 N 39°26' 27" W Dist 111.83

Point 54            X      2,412,682.76 Y      7,101,786.00 Sta     11588+06.34

==============================================================================
Ending chain FRTG35SB11 description
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SB FRONTAGE ROAD 12

```
Beginning chain FRTG35SB12 description
Description: Frontage Road EL
==============================================================================

                        Curve Data
                        *----------*
Curve EL-1
P.I.  Station           11553+64.14  X     2,414,921.82  Y     7,099,172.57
Delta       =              2° 51' 45" (LT)
Degree      =              1° 25' 57"
Tangent     =                   99.95
Length      =                  199.85
Radius      =                4,000.00
External    =                    1.25
Long Chord  =                  199.83
Mid. Ord.   =                    1.25
P.C.  Station           11552+64.19  X     2,414,987.08  Y     7,099,096.87
P.T.  Station           11554+64.04  X     2,414,852.86  Y     7,099,244.91
C.C.                                 X     2,411,957.50  Y     7,096,485.04
Back        = N  40° 45' 54" W
Ahead       = N  43° 37' 39" W
Chord Bear  = N  42° 11' 47" W

Course from PT EL-1 to PC EL-2 N 43° 37' 39" W Dist 1.15

                        Curve Data
                        *----------*
Curve EL-2
P.I.  Station           11557+83.06  X     2,414,632.74  Y     7,099,475.83
Delta       =              6° 03' 55" (RT)
Degree      =              0° 57' 18"
Tangent     =                  317.88
Length      =                  635.16
Radius      =                6,000.00
External    =                    8.41
Long Chord  =                  634.86
Mid. Ord.   =                    8.40
P.C.  Station           11554+65.18  X     2,414,852.07  Y     7,099,245.74
P.T.  Station           11561+00.34  X     2,414,438.96  Y     7,099,727.81
C.C.                                 X     2,419,195.10  Y     7,103,385.55
Back        = N  43° 37' 39" W
Ahead       = N  37° 33' 44" W
Chord Bear  = N  40° 35' 42" W
                        Curve Data
                        *----------*
Curve EL-3
P.I.  Station           11561+84.60  X     2,414,387.59  Y     7,099,794.60
Delta       =              3° 13' 03" (LT)
Degree      =              1° 54' 35"
Tangent     =                   84.26
Length      =                  168.47
Radius      =                3,000.00
External    =                    1.18
Long Chord  =                  168.45
Mid. Ord.   =                    1.18
P.C.  Station           11561+00.34  X     2,414,438.96  Y     7,099,727.81
P.T.  Station           11562+68.81  X     2,414,332.56  Y     7,099,858.40
C.C.                                 X     2,412,060.88  Y     7,097,898.94
Back        = N  37° 33' 44" W
Ahead       = N  40° 46' 47" W
Chord Bear  = N  39° 10' 16" W

==============================================================================
Ending chain FRTG35SB12 description
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SB FRONTAGE ROAD 14

```
Beginning chain FRTG35SB14 description
Description: Frontage Road EN
==============================================================================

                        Curve Data
                        *----------*
Curve EN-1
P.I.  Station           11491+34.69  X     2,419,139.30  Y     7,092,257.48
Delta       =              8° 03' 05" (LT)
Degree      =              1° 08' 45"
Tangent     =                  351.89
Length      =                  702.62
Radius      =                5,000.00
External    =                   12.37
Long Chord  =                  702.04
Mid. Ord.   =                   12.34
P.C.  Station           11487+82.80  X     2,419,251.55  Y     7,091,923.97
P.T.  Station           11494+85.42  X     2,418,981.44  Y     7,092,571.97
C.C.                                 X     2,414,512.75  Y     7,090,329.03
Back        = N  18° 36' 06" W
Ahead       = N  26° 39' 11" W
Chord Bear  = N  22° 37' 39" W

Course from PT EN-1 to PC EN-2 N 26° 39' 11" W Dist 856.22
                        Curve Data
                        *----------*
Curve EN-2
P.I.  Station           11504+79.91  X     2,418,535.33  Y     7,093,460.79
Delta       =              2° 38' 25" (LT)
Degree      =              0° 57' 18"
Tangent     =                  138.27
Length      =                  276.50
Radius      =                6,000.00
External    =                    1.59
Long Chord  =                  276.47
Mid. Ord.   =                    1.59
P.C.  Station           11503+41.64  X     2,418,597.35  Y     7,093,337.21
P.T.  Station           11506+18.14  X     2,418,467.67  Y     7,093,581.38
C.C.                                 X     2,413,234.92  Y     7,090,645.68
Back        = N  26° 39' 11" W
Ahead       = N  29° 17' 37" W
Chord Bear  = N  27° 58' 24" W

Course from PT EN-2 to PC EN-3 N 29° 17' 37" W Dist 959.12
                        Curve Data
                        *----------*
Curve EN-3
P.I.  Station           11516+68.05  X     2,417,953.97  Y     7,094,497.03
Delta       =              1° 44' 02" (LT)
Degree      =              0° 57' 18"
Tangent     =                   90.80
Length      =                  181.58
Radius      =                6,000.00
External    =                    0.69
Long Chord  =                  181.57
Mid. Ord.   =                    0.69
P.C.  Station           11515+77.25  X     2,417,998.39  Y     7,094,417.85
P.T.  Station           11517+58.83  X     2,417,907.16  Y     7,094,574.84
C.C.                                 X     2,412,765.64  Y     7,091,482.15
Back        = N  29° 17' 37" W
Ahead       = N  31° 01' 39" W
Chord Bear  = N  30° 09' 38" W

Course from PT EN-3 to PC EN-4 N 31° 01' 39" W Dist 2.03
                        Curve Data
                        *----------*
Curve EN-4
P.I.  Station           11519+91.02  X     2,417,787.49  Y     7,094,773.80
Delta       =              2° 11' 51" (RT)
Degree      =              0° 28' 39"
Tangent     =                  230.15
Length      =                  460.24
Radius      =               12,000.00
External    =                    2.21
Long Chord  =                  460.22
Mid. Ord.   =                    2.21
P.C.  Station           11517+60.87  X     2,417,906.12  Y     7,094,576.58
P.T.  Station           11522+21.11  X     2,417,676.50  Y     7,094,975.43
C.C.                                 X     2,428,189.16  Y     7,100,761.97
Back        = N  31° 01' 39" W
Ahead       = N  28° 49' 48" W
Chord Bear  = N  29° 55' 43" W

Course from PT EN-4 to PC EN-5 N 28° 49' 48" W Dist 1,479.21
```

SB FRONTAGE ROAD 14 (CONT)

```
                        Curve Data
                        *----------*
Curve EN-5
P.I.  Station           11537+71.74  X     2,416,928.77  Y     7,096,333.86
Delta       =              2° 02' 45" (LT)
Degree      =              1° 25' 57"
Tangent     =                   71.42
Length      =                  142.82
Radius      =                4,000.00
External    =                    0.64
Long Chord  =                  142.82
Mid. Ord.   =                    0.64
P.C.  Station           11537+00.32  X     2,416,963.21  Y     7,096,271.29
P.T.  Station           11538+43.14  X     2,416,892.12  Y     7,096,395.16
C.C.                                 X     2,413,458.99  Y     7,094,342.45
Back        = N  28° 49' 48" W
Ahead       = N  30° 52' 33" W
Chord Bear  = N  29° 51' 10" W
                        Curve Data
                        *----------*
Curve EN-6
P.I.  Station           11539+54.29  X     2,416,835.09  Y     7,096,490.55
Delta       =              2° 07' 21" (RT)
Degree      =              0° 57' 18"
Tangent     =                  111.15
Length      =                  222.27
Radius      =                6,000.00
External    =                    1.03
Long Chord  =                  222.25
Mid. Ord.   =                    1.03
P.C.  Station           11538+43.14  X     2,416,892.12  Y     7,096,395.16
P.T.  Station           11540+65.41  X     2,416,781.62  Y     7,096,588.00
C.C.                                 X     2,422,041.82  Y     7,099,474.23
Back        = N  30° 52' 33" W
Ahead       = N  28° 45' 12" W
Chord Bear  = N  29° 48' 52" W

Course from PT EN-6 to PC EN-7 N 28° 45' 12" W Dist 393.94
                        Curve Data
                        *----------*
Curve EN-7
P.I.  Station           11545+54.03  X     2,416,546.57  Y     7,097,016.37
Delta       =              1° 48' 29" (LT)
Degree      =              0° 57' 18"
Tangent     =                   94.68
Length      =                  189.35
Radius      =                6,000.00
External    =                    0.75
Long Chord  =                  189.34
Mid. Ord.   =                    0.75
P.C.  Station           11544+59.35  X     2,416,592.12  Y     7,096,933.36
P.T.  Station           11546+48.70  X     2,416,498.43  Y     7,097,097.90
C.C.                                 X     2,411,331.92  Y     7,094,047.13
Back        = N  28° 45' 12" W
Ahead       = N  30° 33' 41" W
Chord Bear  = N  29° 39' 26" W

Course from PT EN-7 to PC EN-8 N 30° 33' 41" W Dist 240.29
                        Curve Data
                        *----------*
Curve EN-8
P.I.  Station           11549+74.55  X     2,416,332.75  Y     7,097,378.48
Delta       =              1° 38' 02" (RT)
Degree      =              0° 57' 18"
Tangent     =                   85.56
Length      =                  171.11
Radius      =                6,000.00
External    =                    0.61
Long Chord  =                  171.11
Mid. Ord.   =                    0.61
P.C.  Station           11548+88.99  X     2,416,376.25  Y     7,097,304.81
P.T.  Station           11550+60.10  X     2,416,291.36  Y     7,097,453.37
C.C.                                 X     2,421,542.76  Y     7,100,355.58
Back        = N  30° 33' 41" W
Ahead       = N  28° 55' 39" W
Chord Bear  = N  29° 44' 40" W

                        Curve Data
                        *----------*
Curve EN-9
P.I.  Station           11553+65.24  X     2,416,143.77  Y     7,097,720.44
Delta       =              8° 43' 29" (LT)
Degree      =              1° 25' 57"
Tangent     =                  305.14
Length      =                  609.10
Radius      =                4,000.00
External    =                   11.62
Long Chord  =                  608.51
Mid. Ord.   =                   11.59
P.C.  Station           11550+60.10  X     2,416,291.36  Y     7,097,453.37
P.T.  Station           11556+69.20  X     2,415,957.37  Y     7,097,962.03
C.C.                                 X     2,412,790.43  Y     7,095,518.57
Back        = N  28° 55' 39" W
Ahead       = N  37° 39' 08" W
Chord Bear  = N  33° 17' 23" W

==============================================================================
Ending chain FRTG35SB14 description
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SB FRONTAGE ROAD 15

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Beginning chain FRTG35SB15 description
Description: Frontage Road EO
==============================================================================

                        Curve Data
                        *----------*
Curve EO-1
P.I.  Station           11364+70.86  X     2,419,771.27  Y     7,081,657.95
Delta       =              0? 32''35" (RT)
Degree      =              1? 02''30"
Tangent     =                   26.07
Length      =                   52.14
Radius      =                5,500.00
External    =                    0.06
Long Chord  =                   52.14
Mid. Ord.   =                    0.06
P.C.  Station           11364+44.79  X     2,419,775.64  Y     7,081,632.25
P.T.  Station           11364+96.93  X     2,419,767.15  Y     7,081,683.69
C.C.                                 X     2,425,197.80  Y     7,082,554.34
Back        = N  9? 39''05" W
Ahead       = N  9? 06''29" W
Chord Bear  = N  9? 22''47" W

Course from PT EO-1 to PC EO-2 N 9? 06''29" W Dist 2,659.46

                        Curve Data
                        *----------*
Curve EO-2
P.I.  Station           11393+14.40  X     2,419,321.14  Y     7,084,465.64
Delta       =              3? 01''02" (RT)
Degree      =              0? 57''18"
Tangent     =                  158.02
Length      =                  315.96
Radius      =                6,000.00
External    =                    2.08
Long Chord  =                  315.93
Mid. Ord.   =                    2.08
P.C.  Station           11391+56.38  X     2,419,346.16  Y     7,084,309.61
P.T.  Station           11394+72.34  X     2,419,304.38  Y     7,084,622.76
C.C.                                 X     2,425,270.50  Y     7,085,259.41
Back        = N  9? 06''29" W
Ahead       = N  6? 05''27" W
Chord Bear  = N  7? 35''58" W

                        Curve Data
                        *----------*
Curve EO-3
P.I.  Station           11400+97.28  X     2,419,238.07  Y     7,085,244.17
Delta       =              6? 04''41" (RT)
Degree      =              0? 29''12"
Tangent     =                  624.93
Length      =                1,248.69
Radius      =               11,771.00
External    =                   16.58
Long Chord  =                1,248.10
Mid. Ord.   =                   16.55
P.C.  Station           11394+72.34  X     2,419,304.38  Y     7,084,622.76
P.T.  Station           11407+21.03  X     2,419,237.93  Y     7,085,869.10
C.C.                                 X     2,431,008.93  Y     7,085,871.75
Back        = N  6? 05''27" W
Ahead       = N  0? 00''47" W
Chord Bear  = N  3? 03''07" W

                        Curve Data
                        *----------*
Curve EO-4
P.I.  Station           11409+51.48  X     2,419,237.87  Y     7,086,099.55
Delta       =              5? 51''47" (RT)
Degree      =              1? 16''24"
Tangent     =                  230.45
Length      =                  460.49
Radius      =                4,500.00
External    =                    5.90
Long Chord  =                  460.29
Mid. Ord.   =                    5.89
P.C.  Station           11407+21.03  X     2,419,237.93  Y     7,085,869.10
P.T.  Station           11411+81.53  X     2,419,261.36  Y     7,086,328.79
C.C.                                 X     2,423,737.93  Y     7,085,870.11
Back        = N  0? 00''47" W
Ahead       = N  5? 51''01" E
Chord Bear  = N  2? 55''07" E

Course from PT EO-4 to PC EO-5 N 5? 51''01" E Dist 300.00

                        Curve Data
                        *----------*
Curve EO-5
P.I.  Station           11415+42.88  X     2,419,298.20  Y     7,086,688.27
Delta       =              1? 33''45" (LT)
Degree      =              1? 16''24"
Tangent     =                   61.36
Length      =                  122.71
Radius      =                4,500.00
External    =                    0.42
Long Chord  =                  122.70
Mid. Ord.   =                    0.42
P.C.  Station           11414+81.53  X     2,419,291.94  Y     7,086,627.23
P.T.  Station           11416+04.23  X     2,419,302.78  Y     7,086,749.45
C.C.                                 X     2,414,815.38  Y     7,087,085.91
Back        = N  5? 51''01" E
Ahead       = N  4? 17''16" E
Chord Bear  = N  5? 04''09" E
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SB FRONTAGE ROAD 15 (CONT)

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Course from PT EO-5 to PC EO-6 N 4? 17''16" E Dist 2,181.34

                        Curve Data
                        *----------*
Curve EO-6
P.I.  Station           11438+97.95  X     2,419,474.28  Y     7,089,036.75
Delta       =              2? 51''40" (LT)
Degree      =              1? 16''24"
Tangent     =                  112.38
Length      =                  224.72
Radius      =                4,500.00
External    =                    1.40
Long Chord  =                  224.69
Mid. Ord.   =                    1.40
P.C.  Station           11437+85.57  X     2,419,465.88  Y     7,088,924.69
P.T.  Station           11440+10.29  X     2,419,477.08  Y     7,089,149.10
C.C.                                 X     2,414,978.47  Y     7,089,261.14
Back        = N  4? 17''16" E
Ahead       = N  1? 25''36" E
Chord Bear  = N  2? 51''26" E

Course from PT EO-6 to PC EO-7 N 1? 25''36" E Dist 300.00

                        Curve Data
                        *----------*
Curve EO-7
P.I.  Station           11443+90.40  X     2,419,486.54  Y     7,089,529.09
Delta       =              2? 02''23" (RT)
Degree      =              1? 16''24"
Tangent     =                   80.11
Length      =                  160.21
Radius      =                4,500.00
External    =                    0.71
Long Chord  =                  160.20
Mid. Ord.   =                    0.71
P.C.  Station           11443+10.29  X     2,419,484.55  Y     7,089,449.01
P.T.  Station           11444+70.50  X     2,419,491.39  Y     7,089,609.06
C.C.                                 X     2,423,983.15  Y     7,089,336.97
Back        = N  1? 25''36" E
Ahead       = N  3? 27''59" E
Chord Bear  = N  2? 26''48" E

Course from PT EO-7 to PC EO-8 N 3? 27''59" E Dist 471.66

                        Curve Data
                        *----------*
Curve EO-8
P.I.  Station           11452+91.41  X     2,419,541.02  Y     7,090,428.48
Delta       =              8? 19''30" (LT)
Degree      =              1? 11''38"
Tangent     =                  349.26
Length      =                  697.29
Radius      =                4,799.00
External    =                   12.69
Long Chord  =                  696.67
Mid. Ord.   =                   12.66
P.C.  Station           11449+42.16  X     2,419,519.91  Y     7,090,079.86
P.T.  Station           11456+39.44  X     2,419,511.44  Y     7,090,776.48
C.C.                                 X     2,414,729.69  Y     7,090,370.03
Back        = N  3? 27''59" E
Ahead       = N  4? 51''30" W
Chord Bear  = N  0? 41''45" W

                        Curve Data
                        *----------*
Curve EO-9
P.I.  Station           11460+74.60  X     2,419,474.59  Y     7,091,210.07
Delta       =             12? 25''03" (LT)
Degree      =              1? 25''57"
Tangent     =                  435.16
Length      =                  866.90
Radius      =                4,000.00
External    =                   23.60
Long Chord  =                  865.21
Mid. Ord.   =                   23.46
P.C.  Station           11456+39.44  X     2,419,511.44  Y     7,090,776.48
P.T.  Station           11465+06.35  X     2,419,345.36  Y     7,091,625.60
C.C.                                 X     2,415,525.82  Y     7,090,437.70
Back        = N  4? 51''30" W
Ahead       = N  17? 16''33" W
Chord Bear  = N  11? 04''02" W

Course from PT EO-9 to 63 N 17? 16''33" W Dist 314.93

Point 63            X      2,419,251.83 Y      7,091,926.32 Sta     11468+21.28

==============================================================================
Ending chain FRTG35SB15 description
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SB FRONTAGE ROAD 16

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Beginning chain FRTG35SB16 description
Description: Frontage Road EP
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Point 57            X      2,422,113.26 Y      7,077,006.66 Sta     11312+79.83

Course from 57 to PC EP-1 N 32°56' 05" W Dist 1,180.99

                        Curve Data
                        *----------*
Curve EP-1
P.I.  Station           11325+33.97  X     2,421,431.40  Y     7,078,059.24
Delta       =              4°08' 52" (RT)
Degree      =              2°50' 11"
Tangent     =                   73.15
Length      =                  146.23
Radius      =                2,020.00
External    =                    1.32
Long Chord  =                  146.20
Mid. Ord.   =                    1.32
P.C.  Station           11324+60.82  X     2,421,471.17  Y     7,077,997.85
P.T.  Station           11326+07.05  X     2,421,396.18  Y     7,078,123.35
C.C.                                 X     2,423,166.54  Y     7,079,096.09
Back        = N  32°56' 05" W
Ahead       = N  28°47' 13" W
Chord Bear  = N  30°51' 39" W

Course from PT EP-1 to PC EP-2 N 28°47' 13" W Dist 200.00

                        Curve Data
                        *----------*
Curve EP-2
P.I.  Station           11328+79.55  X     2,421,264.95  Y     7,078,362.17
Delta       =              4°08' 52" (LT)
Degree      =              2°51' 43"
Tangent     =                   72.50
Length      =                  144.93
Radius      =                2,002.00
External    =                    1.31
Long Chord  =                  144.90
Mid. Ord.   =                    1.31
P.C.  Station           11328+07.05  X     2,421,299.87  Y     7,078,298.64
P.T.  Station           11329+51.98  X     2,421,225.54  Y     7,078,423.02
C.C.                                 X     2,419,545.28  Y     7,077,334.56
Back        = N  28°47' 13" W
Ahead       = N  32°56' 05" W
Chord Bear  = N  30°51' 39" W

Course from PT EP-2 to PC EP-3 N 32°56' 05" W Dist 913.10

                        Curve Data
                        *----------*
Curve EP-3
P.I.  Station           11340+00.62  X     2,420,655.41  Y     7,079,303.13
Delta       =              5°10' 26" (RT)
Degree      =              1°54' 35"
Tangent     =                  135.54
Length      =                  270.90
Radius      =                3,000.00
External    =                    3.06
Long Chord  =                  270.81
Mid. Ord.   =                    3.06
P.C.  Station           11338+65.08  X     2,420,729.10  Y     7,079,189.37
P.T.  Station           11341+35.98  X     2,420,592.28  Y     7,079,423.07
C.C.                                 X     2,423,246.97  Y     7,080,820.42
Back        = N  32°56' 05" W
Ahead       = N  27°45' 39" W
Chord Bear  = N  30°20' 52" W

                        Curve Data
                        *----------*
Curve EP-4
P.I.  Station           11344+43.38  X     2,420,449.10  Y     7,079,695.09
Delta       =              3°51' 15" (RT)
Degree      =              0°37' 38"
Tangent     =                  307.39
Length      =                  614.56
Radius      =                9,136.00
External    =                    5.17
Long Chord  =                  614.44
Mid. Ord.   =                    5.17
P.C.  Station           11341+35.98  X     2,420,592.28  Y     7,079,423.07
P.T.  Station           11347+50.54  X     2,420,324.53  Y     7,079,976.11
C.C.                                 X     2,428,676.71  Y     7,083,678.47
Back        = N  27°45' 39" W
Ahead       = N  23°54' 24" W
Chord Bear  = N  25°50' 02" W

Course from PT EP-4 to PC EP-5 N 23°54' 24" W Dist 382.14
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SB FRONTAGE ROAD 17

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Beginning chain FRTG35SB17 description
Description: Frontage Road EQ
==============================================================================

Point 58            X      2,424,499.91 Y      7,072,043.29 Sta     11257+02.39

Course from 58 to PC EQ-1 N 18°10''44" W Dist 143.99

                        Curve Data
                        *----------*
Curve EQ-1
P.I.  Station           11259+64.46  X     2,424,418.14  Y     7,072,292.28
Delta       =              4°30''28" (LT)
Degree      =              1°54''35"
Tangent     =                  118.08
Length      =                  236.03
Radius      =                3,000.00
External    =                    2.32
Long Chord  =                  235.97
Mid. Ord.   =                    2.32
P.C.  Station           11258+46.38  X     2,424,454.98  Y     7,072,180.10
P.T.  Station           11260+82.42  X     2,424,372.60  Y     7,072,401.22
C.C.                                 X     2,421,604.72  Y     7,071,244.13
Back        = N  18°10''44" W
Ahead       = N  22°41''13" W
Chord Bear  = N  20°25''59" W

                        Curve Data
                        *----------*
Curve EQ-2
P.I.  Station           11264+42.80  X     2,424,233.60  Y     7,072,733.72
Delta       =              5°05''42" (RT)
Degree      =              0°42''26"
Tangent     =                  360.38
Length      =                  720.29
Radius      =                8,100.00
External    =                    8.01
Long Chord  =                  720.05
Mid. Ord.   =                    8.01
P.C.  Station           11260+82.42  X     2,424,372.60  Y     7,072,401.22
P.T.  Station           11268+02.71  X     2,424,124.68  Y     7,073,077.25
C.C.                                 X     2,431,845.87  Y     7,075,525.35
Back        = N  22°41''13" W
Ahead       = N  17°35''31" W
Chord Bear  = N  20°08''22" W

Course from PT EQ-2 to PC EQ-3 N 17°35''31" W Dist 1,109.53

                        Curve Data
                        *----------*
Curve EQ-3
P.I.  Station           11284+79.96  X     2,423,617.76  Y     7,074,676.06
Delta       =             16°09''22" (LT)
Degree      =              1°25''57"
Tangent     =                  567.72
Length      =                1,127.92
Radius      =                4,000.00
External    =                   40.09
Long Chord  =                1,124.18
Mid. Ord.   =                   39.69
P.C.  Station           11279+12.24  X     2,423,789.34  Y     7,074,134.89
P.T.  Station           11290+40.15  X     2,423,302.36  Y     7,075,148.12
C.C.                                 X     2,419,976.41  Y     7,072,925.95
Back        = N  17°35''31" W
Ahead       = N  33°44''53" W
Chord Bear  = N  25°40''12" W

                        Curve Data
                        *----------*
Curve EQ-4
P.I.  Station           11296+25.34  X     2,422,977.27  Y     7,075,634.69
Delta       =              3°21''10" (RT)
Degree      =              0°17''12"
Tangent     =                  585.19
Length      =                1,170.04
Radius      =               19,995.00
External    =                    8.56
Long Chord  =                1,169.87
Mid. Ord.   =                    8.56
P.C.  Station           11290+40.15  X     2,423,302.36  Y     7,075,148.12
P.T.  Station           11302+10.19  X     2,422,681.18  Y     7,076,139.45
C.C.                                 X     2,439,927.96  Y     7,086,256.20
Back        = N  33°44''53" W
Ahead       = N  30°23''43" W
Chord Bear  = N  32°04''18" W
                        Curve Data
                        *----------*
Curve EQ-5
P.I.  Station           11304+41.21  X     2,422,564.29  Y     7,076,338.72
Delta       =              6°35''41" (LT)
Degree      =              1°25''44"
Tangent     =                  231.03
Length      =                  461.54
Radius      =                4,010.00
External    =                    6.65
Long Chord  =                  461.29
Mid. Ord.   =                    6.64
P.C.  Station           11302+10.19  X     2,422,681.18  Y     7,076,139.45
P.T.  Station           11306+71.73  X     2,422,425.29  Y     7,076,523.25
C.C.                                 X     2,419,222.34  Y     7,074,110.53
Back        = N  30°23''43" W
Ahead       = N  36°59''24" W
Chord Bear  = N  33°41''34" W

                        Curve Data
                        *----------*
Curve EQ-6
P.I.  Station           11308+14.09  X     2,422,339.64  Y     7,076,636.96
Delta       =              4°03''19" (RT)
Degree      =              1°25''30"
Tangent     =                  142.36
Length      =                  284.60
Radius      =                4,021.00
External    =                    2.52
Long Chord  =                  284.54
Mid. Ord.   =                    2.52
P.C.  Station           11306+71.73  X     2,422,425.29  Y     7,076,523.25
P.T.  Station           11309+56.33  X     2,422,262.24  Y     7,076,756.44
C.C.                                 X     2,425,637.03  Y     7,078,942.59
Back        = N  36°59''24" W
Ahead       = N  32°56''05" W
Chord Bear  = N  34°57''45" W

Course from PT EQ-6 to 59 N 32°56''05" W Dist 291.82

Point 59            X      2,422,103.58 Y      7,077,001.36 Sta     11312+48.15

==============================================================================
Ending chain FRTG35SB17 description
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SB FRONTAGE ROAD 18

```
Beginning chain FRTG35SB18 description
Description: Frontage Road ER
==============================================================================

                        Curve Data
                        *----------*
Curve ER-1
P.I.  Station           11172+62.38  X     2,428,120.69  Y     7,064,564.78
Delta       =              5°37' 19" (RT)
Degree      =              3°41' 49"
Tangent     =                   76.09
Length      =                  152.06
Radius      =                1,549.76
External    =                    1.87
Long Chord  =                  152.00
Mid. Ord.   =                    1.86
P.C.  Station           11171+86.29  X     2,428,174.62  Y     7,064,511.10
P.T.  Station           11173+38.35  X     2,428,072.28  Y     7,064,623.48
C.C.                                 X     2,429,267.94  Y     7,065,609.46
Back        = N  45°07' 56" W
Ahead       = N  39°30' 37" W
Chord Bear  = N  42°19' 17" W

                        Curve Data
                        *----------*
Curve ER-2
P.I.  Station           11174+97.87  X     2,427,970.80  Y     7,064,746.55
Delta       =              4°33' 42" (LT)
Degree      =              1°25' 50"
Tangent     =                  159.52
Length      =                  318.86
Radius      =                4,005.00
External    =                    3.18
Long Chord  =                  318.78
Mid. Ord.   =                    3.17
P.C.  Station           11173+38.35  X     2,428,072.28  Y     7,064,623.48
P.T.  Station           11176+57.21  X     2,427,859.84  Y     7,064,861.16
C.C.                                 X     2,424,982.38  Y     7,062,075.43
Back        = N  39°30' 37" W
Ahead       = N  44°04' 19" W
Chord Bear  = N  41°47' 28" W

Course from PT ER-2 to PC ER-3 N 44°04' 19" W Dist 167.94

                        Curve Data
                        *----------*
Curve ER-3
P.I.  Station           11179+84.56  X     2,427,632.15  Y     7,065,096.35
Delta       =              4°33' 31" (LT)
Degree      =              1°25' 50"
Tangent     =                  159.41
Length      =                  318.65
Radius      =                4,005.00
External    =                    3.17
Long Chord  =                  318.56
Mid. Ord.   =                    3.17
P.C.  Station           11178+25.16  X     2,427,743.03  Y     7,064,981.82
P.T.  Station           11181+43.80  X     2,427,512.52  Y     7,065,201.70
C.C.                                 X     2,424,865.57  Y     7,062,196.09
Back        = N  44°04' 19" W
Ahead       = N  48°37' 50" W
Chord Bear  = N  46°21' 05" W
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SB FRONTAGE ROAD 18 (CONT)

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                        Curve Data
                        *----------*
Curve ER-4
P.I.  Station           11181+93.17  X     2,427,475.48  Y     7,065,234.33
Delta       =              4°32' 43" (RT)
Degree      =              4°36' 22"
Tangent     =                   49.37
Length      =                   98.68
Radius      =                1,243.91
External    =                    0.98
Long Chord  =                   98.66
Mid. Ord.   =                    0.98
P.C.  Station           11181+43.80  X     2,427,512.52  Y     7,065,201.70
P.T.  Station           11182+42.48  X     2,427,441.13  Y     7,065,269.79
C.C.                                 X     2,428,334.64  Y     7,066,135.21
Back        = N  48°37' 50" W
Ahead       = N  44°05' 07" W
Chord Bear  = N  46°21' 28" W

Course from PT ER-4 to PC ER-5 N 44°05' 07" W Dist 689.02

                        Curve Data
                        *----------*
Curve ER-5
P.I.  Station           11196+77.91  X     2,426,442.47  Y     7,066,300.86
Delta       =             15°25' 44" (RT)
Degree      =              1°02' 23"
Tangent     =                  746.40
Length      =                1,483.77
Radius      =                5,510.00
External    =                   50.32
Long Chord  =                1,479.29
Mid. Ord.   =                   49.87
P.C.  Station           11189+31.51  X     2,426,961.76  Y     7,065,764.72
P.T.  Station           11204+15.27  X     2,426,084.53  Y     7,066,955.83
C.C.                                 X     2,430,919.62  Y     7,069,598.18
Back        = N  44°05' 07" W
Ahead       = N  28°39' 23" W
Chord Bear  = N  36°22' 15" W

==============================================================================
Ending chain FRTG35SB18 description
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SB FRONTAGE ROAD 19

```
Beginning chain FRTG35SB19 description
Description:  Frontage Road ES
==============================================================================

Point 60            X      2,440,518.54 Y      7,051,373.32 Sta      1989+59.84

Course from 60 to PC ES-1 N 57°19' 41" W Dist 1,602.83

                        Curve Data
                        *----------*
Curve ES-1
P.I.  Station            2006+23.33  X     2,439,118.25  Y     7,052,271.32
Delta       =              3°24' 01" (RT)
Degree      =              2°48' 11"
Tangent     =                   60.67
Length      =                  121.30
Radius      =                2,044.00
External    =                    0.90
Long Chord  =                  121.28
Mid. Ord.   =                    0.90
P.C.  Station            2005+62.67  X     2,439,169.32  Y     7,052,238.57
P.T.  Station            2006+83.96  X     2,439,069.22  Y     7,052,307.04
C.C.                                 X     2,440,272.73  Y     7,053,959.16
Back        = N  57°19' 41" W
Ahead       = N  53°55' 41" W
Chord Bear  = N  55°37' 41" W

Course from PT ES-1 to PC ES-2 N 53°55' 41" W Dist 298.60
                        Curve Data
                        *----------*
Curve ES-2
P.I.  Station            2011+90.82  X     2,438,659.54  Y     7,052,605.47
Delta       =              7°55' 44" (LT)
Degree      =              1°54' 24"
Tangent     =                  208.25
Length      =                  415.84
Radius      =                3,005.00
External    =                    7.21
Long Chord  =                  415.51
Mid. Ord.   =                    7.19
P.C.  Station            2009+82.56  X     2,438,827.87  Y     7,052,482.85
P.T.  Station            2013+98.40  X     2,438,475.91  Y     7,052,703.70
C.C.                                 X     2,437,058.52  Y     7,050,053.98
Back        = N  53°55' 41" W
Ahead       = N  61°51' 24" W
Chord Bear  = N  57°53' 32" W

                        Curve Data
                        *----------*
Curve ES-3
P.I.  Station            2015+07.59  X     2,438,379.63  Y     7,052,755.20
Delta       =              4°27' 58" (RT)
Degree      =              2°02' 47"
Tangent     =                  109.18
Length      =                  218.26
Radius      =                2,800.00
External    =                    2.13
Long Chord  =                  218.20
Mid. Ord.   =                    2.13
P.C.  Station            2013+98.40  X     2,438,475.91  Y     7,052,703.70
P.T.  Station            2016+16.66  X     2,438,287.66  Y     7,052,814.04
C.C.                                 X     2,439,796.61  Y     7,055,172.66
Back        = N  61°51' 24" W
Ahead       = N  57°23' 26" W
Chord Bear  = N  59°37' 25" W

==============================================================================
Ending chain FRTG35SB19 description
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SB FRONTAGE ROAD 20

SB FRONTAGE ROAD 21

```
Beginning chain FRTG35SB21 description
Description:  Frontage Road EU
==============================================================================

Point 62            X      2,453,259.78 Y      7,040,252.56 Sta       816+67.62

Course from 62 to PC EU-1 N 25°55' 18" W Dist 60.14

                        Curve Data
                        *----------*
Curve EU-1
P.I.  Station             818+45.97  X     2,453,181.82  Y     7,040,412.97
Delta       =              2°15' 26" (LT)
Degree      =              0°57' 18"
Tangent     =                  118.21
Length      =                  236.38
Radius      =                6,000.00
External    =                    1.16
Long Chord  =                  236.37
Mid. Ord.   =                    1.16
P.C.  Station             817+27.76  X     2,453,233.49  Y     7,040,306.65
P.T.  Station             819+64.14  X     2,453,125.99  Y     7,040,517.16
C.C.                                 X     2,447,837.13  Y     7,037,683.80
Back        = N  25°55' 18" W
Ahead       = N  28°10' 44" W
Chord Bear  = N  27°03' 01" W

                        Curve Data
                        *----------*
Curve EU-2
P.I.  Station             821+33.91  X     2,453,045.83  Y     7,040,666.81
Delta       =              2°25' 53" (RT)
Degree      =              0°42' 58"
Tangent     =                  169.76
Length      =                  339.48
Radius      =                8,000.00
External    =                    1.80
Long Chord  =                  339.45
Mid. Ord.   =                    1.80
P.C.  Station             819+64.14  X     2,453,125.99  Y     7,040,517.16
P.T.  Station             823+03.62  X     2,452,972.08  Y     7,040,819.72
C.C.                                 X     2,460,177.81  Y     7,044,294.98
Back        = N  28°10' 44" W
Ahead       = N  25°44' 51" W
Chord Bear  = N  26°57' 48" W
                        Curve Data
                        *----------*
Curve EU-3
P.I.  Station             823+81.54  X     2,452,938.23  Y     7,040,889.90
Delta       =              2°13' 56" (RT)
Degree      =              1°25' 57"
Tangent     =                   77.92
Length      =                  155.83
Radius      =                4,000.00
External    =                    0.76
Long Chord  =                  155.82
Mid. Ord.   =                    0.76
P.C.  Station             823+03.62  X     2,452,972.08  Y     7,040,819.72
P.T.  Station             824+59.45  X     2,452,907.14  Y     7,040,961.36
C.C.                                 X     2,456,574.95  Y     7,042,557.35
Back        = N  25°44' 51" W
Ahead       = N  23°30' 56" W
Chord Bear  = N  24°37' 54" W

Course from PT EU-3 to PC EU-4 N 23°30' 56" W Dist 179.13
                        Curve Data
                        *----------*
Curve EU-4
P.I.  Station             829+88.73  X     2,452,695.96  Y     7,041,446.68
Delta       =              7°19' 21" (LT)
Degree      =              1°02' 49"
Tangent     =                  350.14
Length      =                  699.33
Radius      =                5,472.00
External    =                   11.19
Long Chord  =                  698.86
Mid. Ord.   =                   11.17
P.C.  Station             826+38.58  X     2,452,835.66  Y     7,041,125.61
P.T.  Station             833+37.91  X     2,452,516.47  Y     7,041,747.32
C.C.                                 X     2,447,818.10  Y     7,038,942.30
Back        = N  23°30' 56" W
Ahead       = N  30°50' 17" W
Chord Bear  = N  27°10' 36" W

==============================================================================
Ending chain FRTG35SB21 description
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SB FRONTAGE ROAD 22

```
Beginning chain FRTG35SB22 description
Description:  Frontage Road EV
==============================================================================

Point 63            X      2,453,993.34 Y      7,038,744.14 Sta       799+89.40

Course from 63 to 64 N 25°56' 27" W Dist 1,189.34

Point 64            X      2,453,473.07 Y      7,039,813.65 Sta       811+78.74

==============================================================================
Ending chain FRTG35SB22 description
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SB FRONTAGE ROAD 23

```
Beginning chain FRTG35SB23 description
Description:  Frontage Road EW
==============================================================================

Point 65            X      2,456,253.80 Y      7,034,362.58 Sta       750+69.44

Course from 65 to PC EW-1 N 33°02' 28" W Dist 1,268.30

                        Curve Data
                        *----------*
Curve EW-1
P.I.  Station             768+42.26  X     2,455,287.19  Y     7,035,848.69
Delta       =             14°15' 40" (RT)
Degree      =              1°25' 14"
Tangent     =                  504.52
Length      =                1,003.82
Radius      =                4,033.00
External    =                   31.43
Long Chord  =                1,001.23
Mid. Ord.   =                   31.19
P.C.  Station             763+37.74  X     2,455,562.27  Y     7,035,425.77
P.T.  Station             773+41.56  X     2,455,124.76  Y     7,036,326.35
C.C.                                 X     2,458,943.05  Y     7,037,624.72
Back        = N  33°02' 28" W
Ahead       = N  18°46' 48" W
Chord Bear  = N  25°54' 38" W

Course from PT EW-1 to PC EW-2 N 18°46' 48" W Dist 186.20

                        Curve Data
                        *----------*
Curve EW-2
P.I.  Station             776+53.58  X     2,455,024.31  Y     7,036,621.76
Delta       =              7°10' 53" (LT)
Degree      =              2°51' 28"
Tangent     =                  125.82
Length      =                  251.30
Radius      =                2,005.00
External    =                    3.94
Long Chord  =                  251.14
Mid. Ord.   =                    3.94
P.C.  Station             775+27.76  X     2,455,064.82  Y     7,036,502.64
P.T.  Station             777+79.06  X     2,454,969.23  Y     7,036,734.88
C.C.                                 X     2,453,166.56  Y     7,035,857.16
Back        = N  18°46' 48" W
Ahead       = N  25°57' 41" W
Chord Bear  = N  22°22' 15" W

==============================================================================
Ending chain FRTG35SB23 description
```

SB FRONTAGE ROAD 24

```
Beginning chain FRTG35SB24 description
Description:  Frontage Road EX
==============================================================================

                        Curve Data
                        *----------*
Curve EX-1
P.I.  Station             713+29.74  X     2,458,231.33  Y     7,031,208.39
Delta       =              1° 35' 10" (LT)
Degree      =              0° 59' 09"
Tangent     =                   80.45
Length      =                  160.89
Radius      =                5,812.10
External    =                    0.56
Long Chord  =                  160.89
Mid. Ord.   =                    0.56
P.C.  Station             712+49.29  X     2,458,265.54  Y     7,031,135.58
P.T.  Station             714+10.18  X     2,458,195.11  Y     7,031,280.23
C.C.                                 X     2,453,005.28  Y     7,028,663.72
Back        = N  25° 10' 10" W
Ahead       = N  26° 45' 20" W
Chord Bear  = N  25° 57' 45" W
```

SB FRONTAGE ROAD 24 (CONT)

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                        Curve Data
                        *----------*
Curve EX-2
P.I.  Station             715+00.84  X     2,458,154.30  Y     7,031,361.18
Delta       =              3° 27' 43" (LT)
Degree      =              1° 54' 35"
Tangent     =                   90.66
Length      =                  181.26
Radius      =                3,000.00
External    =                    1.37
Long Chord  =                  181.24
Mid. Ord.   =                    1.37
P.C.  Station             714+10.18  X     2,458,195.11  Y     7,031,280.23
P.T.  Station             715+91.44  X     2,458,108.67  Y     7,031,439.52
C.C.                                 X     2,455,516.30  Y     7,029,929.68
Back        = N  26° 45' 20" W
Ahead       = N  30° 13' 02" W
Chord Bear  = N  28° 29' 11" W
                        Curve Data
                        *----------*
Curve EX-3
P.I.  Station             716+11.65  X     2,458,098.50  Y     7,031,456.98
Delta       =              1° 08' 18" (RT)
Degree      =              2° 49' 01"
Tangent     =                   20.21
Length      =                   40.41
Radius      =                2,034.00
External    =                    0.10
Long Chord  =                   40.41
Mid. Ord.   =                    0.10
P.C.  Station             715+91.44  X     2,458,108.67  Y     7,031,439.52
P.T.  Station             716+31.85  X     2,458,088.68  Y     7,031,474.64
C.C.                                 X     2,459,866.29  Y     7,032,463.20
Back        = N  30° 13' 02" W
Ahead       = N  29° 04' 45" W
Chord Bear  = N  29° 38' 54" W
                        Curve Data
                        *----------*
Curve EX-4
P.I.  Station             717+53.05  X     2,458,029.78  Y     7,031,580.56
Delta       =              2° 30' 59" (LT)
Degree      =              1° 02' 18"
Tangent     =                  121.19
Length      =                  242.35
Radius      =                5,518.00
External    =                    1.33
Long Chord  =                  242.33
Mid. Ord.   =                    1.33
P.C.  Station             716+31.85  X     2,458,088.68  Y     7,031,474.64
P.T.  Station             718+74.20  X     2,457,966.28  Y     7,031,683.79
C.C.                                 X     2,453,266.22  Y     7,028,792.80
Back        = N  29° 04' 45" W
Ahead       = N  31° 35' 44" W
Chord Bear  = N  30° 20' 14" W

                        Curve Data
                        *----------*
Curve EX-5
P.I.  Station             719+60.11  X     2,457,921.27  Y     7,031,756.96
Delta       =              1° 38' 26" (RT)
Degree      =              0° 57' 18"
Tangent     =                   85.91
Length      =                  171.80
Radius      =                6,000.00
External    =                    0.61
Long Chord  =                  171.79
Mid. Ord.   =                    0.61
P.C.  Station             718+74.20  X     2,457,966.28  Y     7,031,683.79
P.T.  Station             720+46.00  X     2,457,878.38  Y     7,031,831.39
C.C.                                 X     2,463,076.89  Y     7,034,827.30
Back        = N  31° 35' 44" W
Ahead       = N  29° 57' 18" W
Chord Bear  = N  30° 46' 31" W

                        Curve Data
                        *----------*
Curve EX-6
P.I.  Station             721+04.06  X     2,457,849.39  Y     7,031,881.69
Delta       =              1° 39' 47" (LT)
Degree      =              1° 25' 57"
Tangent     =                   58.06
Length      =                  116.11
Radius      =                4,000.00
External    =                    0.42
Long Chord  =                  116.10
Mid. Ord.   =                    0.42
P.C.  Station             720+46.00  X     2,457,878.38  Y     7,031,831.39
P.T.  Station             721+62.11  X     2,457,818.95  Y     7,031,931.13
C.C.                                 X     2,454,412.71  Y     7,029,834.12
Back        = N  29° 57' 18" W
Ahead       = N  31° 37' 05" W
Chord Bear  = N  30° 47' 11" W

Course from PT EX-6 to PC EX-7 N 31° 37' 05" W Dist 536.51
                        Curve Data
                        *----------*
Curve EX-7
P.I.  Station             728+21.63  X     2,457,473.20  Y     7,032,492.76
Delta       =              8° 54' 54" (LT)
Degree      =              3° 37' 51"
Tangent     =                  123.02
Length      =                  245.53
Radius      =                1,578.00
External    =                    4.79
Long Chord  =                  245.29
Mid. Ord.   =                    4.77
P.C.  Station             726+98.62  X     2,457,537.69  Y     7,032,388.00
P.T.  Station             729+44.15  X     2,457,393.25  Y     7,032,586.25
C.C.                                 X     2,456,193.92  Y     7,031,560.73
Back        = N  31° 37' 05" W
Ahead       = N  40° 31' 59" W
Chord Bear  = N  36° 04' 32" W

                        Curve Data
                        *----------*
Curve EX-8
P.I.  Station             735+28.86  X     2,457,013.25  Y     7,033,030.65
Delta       =             11° 05' 30" (RT)
Degree      =              0° 57' 05"
Tangent     =                  584.71
Length      =                1,165.77
Radius      =                6,022.00
External    =                   28.32
Long Chord  =                1,163.95
Mid. Ord.   =                   28.19
P.C.  Station             729+44.15  X     2,457,393.25  Y     7,032,586.25
P.T.  Station             741+09.92  X     2,456,725.85  Y     7,033,539.85
C.C.                                 X     2,461,970.15  Y     7,036,499.88
Back        = N  40° 31' 59" W
Ahead       = N  29° 26' 30" W
Chord Bear  = N  34° 59' 14" W

                        Curve Data
                        *----------*
Curve EX-9
P.I.  Station             742+26.38  X     2,456,668.61  Y     7,033,641.27
Delta       =              0° 35' 07" (RT)
Degree      =              0° 15' 05"
Tangent     =                  116.46
Length      =                  232.91
Radius      =               22,800.00
External    =                    0.30
Long Chord  =                  232.91
Mid. Ord.   =                    0.30
P.C.  Station             741+09.92  X     2,456,725.85  Y     7,033,539.85
P.T.  Station             743+42.83  X     2,456,612.40  Y     7,033,743.26
C.C.                                 X     2,476,581.40  Y     7,044,746.86
Back        = N  29° 26' 30" W
Ahead       = N  28° 51' 22" W
Chord Bear  = N  29° 08' 56" W

                        Curve Data
                        *----------*
Curve EX-10
P.I.  Station             743+69.07  X     2,456,599.74  Y     7,033,766.24
Delta       =              0° 09' 01" (LT)
Degree      =              0° 17' 11"
Tangent     =                   26.24
Length      =                   52.48
Radius      =               20,000.00
External    =                    0.02
Long Chord  =                   52.48
Mid. Ord.   =                    0.02
P.C.  Station             743+42.83  X     2,456,612.40  Y     7,033,743.26
P.T.  Station             743+95.31  X     2,456,587.02  Y     7,033,789.19
C.C.                                 X     2,439,095.73  Y     7,024,090.99
Back        = N  28° 51' 22" W
Ahead       = N  29° 00' 24" W
Chord Bear  = N  28° 55' 53" W

                        Curve Data
                        *----------*
Curve EX-11
P.I.  Station             747+26.89  X     2,456,426.23  Y     7,034,079.18
Delta       =              4° 13' 12" (LT)
Degree      =              0° 38' 12"
Tangent     =                  331.58
Length      =                  662.87
Radius      =                9,000.00
External    =                    6.11
Long Chord  =                  662.72
Mid. Ord.   =                    6.10
P.C.  Station             743+95.31  X     2,456,587.02  Y     7,033,789.19
P.T.  Station             750+58.17  X     2,456,244.54  Y     7,034,356.55
C.C.                                 X     2,448,715.94  Y     7,029,425.00
Back        = N  29° 00' 24" W
Ahead       = N  33° 13' 35" W
Chord Bear  = N  31° 07' 00" W

Course from PT EX-11 to 73 N 33° 13' 35" W Dist 183.38

Point 73            X      2,456,144.05 Y      7,034,509.95 Sta       752+41.55

==============================================================================
Ending chain FRTG35SB24 description
```

SB FRONTAGE ROAD 25

```
Beginning chain FRTG35SB25 description
Description:  Frontage Road EY
==============================================================================

Point 66            X      2,458,777.59 Y      7,029,198.34 Sta       691+94.97

Course from 66 to PC EY-1 N 7°06' 43" W Dist 276.42

                        Curve Data
                        *----------*
Curve EY-1
P.I.  Station             697+75.32  X     2,458,705.74  Y     7,029,774.22
Delta       =              6°21' 06" (LT)
Degree      =              1°02' 46"
Tangent     =                  303.92
Length      =                  607.23
Radius      =                5,477.62
External    =                    8.43
Long Chord  =                  606.92
Mid. Ord.   =                    8.41
P.C.  Station             694+71.39  X     2,458,743.37  Y     7,029,472.63
P.T.  Station             700+78.62  X     2,458,634.98  Y     7,030,069.79
C.C.                                 X     2,453,307.89  Y     7,028,794.46
Back        = N   7°06' 43" W
Ahead       = N  13°27' 49" W
Chord Bear  = N  10°17' 16" W

==============================================================================
Ending chain FRTG35SB25 description
```

SB FRONTAGE ROAD 26

```
Beginning chain FRTG35SB26 description
Description:  Frontage Road EZ
==============================================================================

Point 67            X      2,458,929.70 Y      7,027,961.64 Sta       679+49.06

Course from 67 to 68 N 7°15' 36" W Dist 794.12

Point 68            X      2,458,829.35 Y      7,028,749.40 Sta       687+43.18

==============================================================================
Ending chain FRTG35SB26 description
```

SB FRONTAGE ROAD 27

```
Beginning chain FRTG35SB27 description
Description:  Frontage Road EZA
==============================================================================

Point 69            X      2,383,210.22 Y      7,123,195.48 Sta     11961+69.20

Course from 69 to 70 N 47°47' 32" W Dist 377.23

Point 70            X      2,382,930.80 Y      7,123,448.91 Sta     11965+46.43

==============================================================================
Ending chain FRTG35SB27 description
```

SB FRONTAGE ROAD 28

```
Beginning chain FRTG35SB28 description
Description:  Frontage Road EZB
==============================================================================

Point 71            X      2,431,895.79 Y      7,060,403.44 Sta     11116+07.98

Course from 71 to 72 N 33°25' 46" W Dist 608.19

Point 72            X      2,431,560.73 Y      7,060,911.01 Sta     11122+16.17

==============================================================================
Ending chain FRTG35SB28 description
```

SB FRONTAGE ROAD 29

```
Beginning chain FRTG35SB29 description
Description:  Frontage Road EZC
==============================================================================

                        Curve Data
                        *----------*
Curve EZC-1
P.I.  Station           11205+95.07  X     2,425,979.55  Y     7,067,141.32
Delta       =              3° 18''28" (RT)
Degree      =              0° 34''23"
Tangent     =                  288.74
Length      =                  577.32
Radius      =               10,000.00
External    =                    4.17
Long Chord  =                  577.24
Mid. Ord.   =                    4.17
P.C.  Station           11203+06.33  X     2,426,120.59  Y     7,066,889.37
P.T.  Station           11208+83.65  X     2,425,853.27  Y     7,067,400.99
C.C.                                 X     2,434,846.35  Y     7,071,774.15
Back        = N  29° 14''26" W
Ahead       = N  25° 55''58" W
Chord Bear  = N  27° 35''12" W

Course from PT EZC-1 to 182 N 25° 55''58" W Dist 87.30

Point 182           X      2,425,815.10 Y      7,067,479.50 Sta     11209+70.96

==============================================================================
Ending chain FRTG35SB29 description
```

SB FRONTAGE ROAD N120

```
Beginning chain FRTG35SBN120 description
Description: Frontage Road YG
==============================================================================

                        Curve Data
                        *----------*
Curve YG-1
P.I.  Station           11774+61.93  X     2,399,759.45  Y     7,114,032.84
Delta       =              9° 05''55" (RT)
Degree      =              2° 51''53"
Tangent     =                  159.13
Length      =                  317.60
Radius      =                2,000.00
External    =                    6.32
Long Chord  =                  317.27
Mid. Ord.   =                    6.30
P.C.  Station           11773+02.80  X     2,399,882.13  Y     7,113,931.49
P.T.  Station           11776+20.40  X     2,399,654.34  Y     7,114,152.32
C.C.                                 X     2,401,155.96  Y     7,115,473.35
Back        = N  50° 26''16" W
Ahead       = N  41° 20''21" W
Chord Bear  = N  45° 53''19" W

                        Curve Data
                        *----------*
Curve YG-2
P.I.  Station           11777+03.60  X     2,399,599.38  Y     7,114,214.79
Delta       =              8° 39''03" (LT)
Degree      =              5° 12''31"
Tangent     =                   83.20
Length      =                  166.08
Radius      =                1,100.00
External    =                    3.14
Long Chord  =                  165.92
Mid. Ord.   =                    3.13
P.C.  Station           11776+20.40  X     2,399,654.34  Y     7,114,152.32
P.T.  Station           11777+86.48  X     2,399,535.66  Y     7,114,268.28
C.C.                                 X     2,398,828.45  Y     7,113,425.75
Back        = N  41° 20''21" W
Ahead       = N  49° 59''24" W
Chord Bear  = N  45° 39''53" W

Course from PT YG-2 to 17 N 49° 59''24" W Dist 672.97

Point 17            X      2,399,020.21 Y      7,114,700.94 Sta     11784+59.45

==============================================================================
Ending chain FRTG35SBN120 description
```

SB FRONTAGE ROAD X117

```
Beginning chain FRTG35SBX117 description
Description: Frontage Road YL
==============================================================================

Point 18            X      2,407,278.73 Y      7,108,181.50 Sta     11672+16.43

Course from 18 to 19 N 53° 35''41" W Dist 1,017.37

Point 19            X      2,406,459.92 Y      7,108,785.30 Sta     11682+33.80

==============================================================================
Ending chain FRTG35SBX117 description
```

SB FRONTAGE ROAD X119

```
Beginning chain FRTG35SBX119 description
Description: Frontage Road YH
==============================================================================

Point 20            X      2,402,820.03 Y      7,111,578.99 Sta     11728+19.39

Course from 20 to PC YH-1 N 44° 51''57" W Dist 55.12

                        Curve Data
                        *----------*
Curve YH-1
P.I.  Station           11729+71.27  X     2,402,712.89  Y     7,111,686.63
Delta       =              5° 32''22" (LT)
Degree      =              2° 51''53"
Tangent     =                   96.76
Length      =                  193.37
Radius      =                2,000.00
External    =                    2.34
Long Chord  =                  193.29
Mid. Ord.   =                    2.34
P.C.  Station           11728+74.51  X     2,402,781.15  Y     7,111,618.05
P.T.  Station           11730+67.88  X     2,402,638.33  Y     7,111,748.30
C.C.                                 X     2,401,363.62  Y     7,110,207.16
Back        = N  44° 51''57" W
Ahead       = N  50° 24''19" W
Chord Bear  = N  47° 38''08" W

Course from PT YH-1 to PC YH-2 N 50° 24''19" W Dist 1,025.64
                        Curve Data
                        *----------*
Curve YH-2
P.I.  Station           11742+13.98  X     2,401,755.17  Y     7,112,478.77
Delta       =              6° 53''37" (LT)
Degree      =              2° 51''53"
Tangent     =                  120.46
Length      =                  240.63
Radius      =                2,000.00
External    =                    3.62
Long Chord  =                  240.48
Mid. Ord.   =                    3.62
P.C.  Station           11740+93.52  X     2,401,847.99  Y     7,112,402.00
P.T.  Station           11743+34.15  X     2,401,653.80  Y     7,112,543.85
C.C.                                 X     2,400,573.29  Y     7,110,860.85
Back        = N  50° 24''19" W
Ahead       = N  57° 17''56" W
Chord Bear  = N  53° 51''08" W

                        Curve Data
                        *----------*
Curve YH-3
P.I.  Station           11744+56.00  X     2,401,551.27  Y     7,112,609.68
Delta       =              6° 58''22" (RT)
Degree      =              2° 51''53"
Tangent     =                  121.85
Length      =                  243.40
Radius      =                2,000.00
External    =                    3.71
Long Chord  =                  243.25
Mid. Ord.   =                    3.70
P.C.  Station           11743+34.15  X     2,401,653.80  Y     7,112,543.85
P.T.  Station           11745+77.55  X     2,401,457.48  Y     7,112,687.47
C.C.                                 X     2,402,734.32  Y     7,114,226.85
Back        = N  57° 17''56" W
Ahead       = N  50° 19''34" W
Chord Bear  = N  53° 48''45" W

Course from PT YH-3 to 21 N 50° 19''34" W Dist 505.87

Point 21            X      2,401,068.12 Y      7,113,010.43 Sta     11750+83.42

==============================================================================
Ending chain FRTG35SBX119 description
```

SB FRONTAGE ROAD X121

```
Beginning chain FRTG35SBX121 description
Description: Frontage Road YI
==============================================================================

                        Curve Data
                        *----------*
Curve YI-1
P.I.  Station           11817+01.88  X     2,395,941.09  Y     7,117,203.10
Delta       =              5° 05''07" (RT)
Degree      =              1° 54''35"
Tangent     =                  133.22
Length      =                  266.26
Radius      =                3,000.00
External    =                    2.96
Long Chord  =                  266.18
Mid. Ord.   =                    2.95
P.C.  Station           11815+68.66  X     2,396,046.99  Y     7,117,122.28
P.T.  Station           11818+34.92  X     2,395,842.77  Y     7,117,293.00
C.C.                                 X     2,397,867.09  Y     7,119,507.08
Back        = N  52° 38''56" W
Ahead       = N  47° 33''49" W
Chord Bear  = N  50° 06''22" W

Course from PT YI-1 to PC YI-2 N 47° 33''49" W Dist 693.08
                        Curve Data
                        *----------*
Curve YI-2
P.I.  Station           11827+49.87  X     2,395,167.52  Y     7,117,910.38
Delta       =              8° 27''33" (LT)
Degree      =              1° 54''35"
Tangent     =                  221.86
Length      =                  442.92
Radius      =                3,000.00
External    =                    8.19
Long Chord  =                  442.52
Mid. Ord.   =                    8.17
P.C.  Station           11825+28.01  X     2,395,331.26  Y     7,117,760.67
P.T.  Station           11829+70.92  X     2,394,983.54  Y     7,118,034.37
C.C.                                 X     2,393,306.94  Y     7,115,546.59
Back        = N  47° 33''49" W
Ahead       = N  56° 01''22" W
Chord Bear  = N  51° 47''35" W

==============================================================================
Ending chain FRTG35SBX121 description
```

SB FRONTAGE ROAD X122

```
Beginning chain FRTG35SBX122 description
Description: Frontage Road YJ
==============================================================================

Point 22            X      2,393,823.23 Y      7,119,123.31 Sta     11845+58.32

Course from 22 to PC YJ-1 N 50° 13''00" W Dist 185.80

                        Curve Data
                        *----------*
Curve YJ-1
P.I.  Station           11850+30.73  X     2,393,460.20  Y     7,119,425.60
Delta       =              5° 49''43" (LT)
Degree      =              1° 01''04"
Tangent     =                  286.61
Length      =                  572.73
Radius      =                5,630.00
External    =                    7.29
Long Chord  =                  572.48
Mid. Ord.   =                    7.28
P.C.  Station           11847+44.12  X     2,393,680.45  Y     7,119,242.20
P.T.  Station           11853+16.85  X     2,393,222.46  Y     7,119,585.68
C.C.                                 X     2,390,077.89  Y     7,114,915.72
Back        = N  50° 13''00" W
Ahead       = N  56° 02''43" W
Chord Bear  = N  53° 07''51" W

==============================================================================
Ending chain FRTG35SBX122 description
```

Texas Department of Transportation

DALLAS DISTRICT

DRAFT INTERIM SCHEMATIC

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

IH 35E
FROM: IH 635
TO: US 380

DALLAS & DENTON COUNTY

FUNCTIONAL CLASS: URBAN FREEWAY
PROJECT LENGTH: 28.25 MILES

CSJ's: 0196-03-138
0196-03-240
0196-03-180
0196-03-245
0196-02-068
0196-02-073
0196-01-096
0196-01-056
0196-01-074
0195-03-050
0195-03-071

DESIGN SPEEDS:
MAINLANES 70 MPH
MANAGED LANES 70 MPH
RAMPS 40 MPH
TURNAROUND RAMPS 20 MPH
FRONTAGE ROADS 40 MPH
CROSS STREETS 30 MPH
COLLECTOR DISTRIBUTOR 50 MPH
DIRECT CONNECTORS 50 MPH
INTERSECTIONS 30 MPH

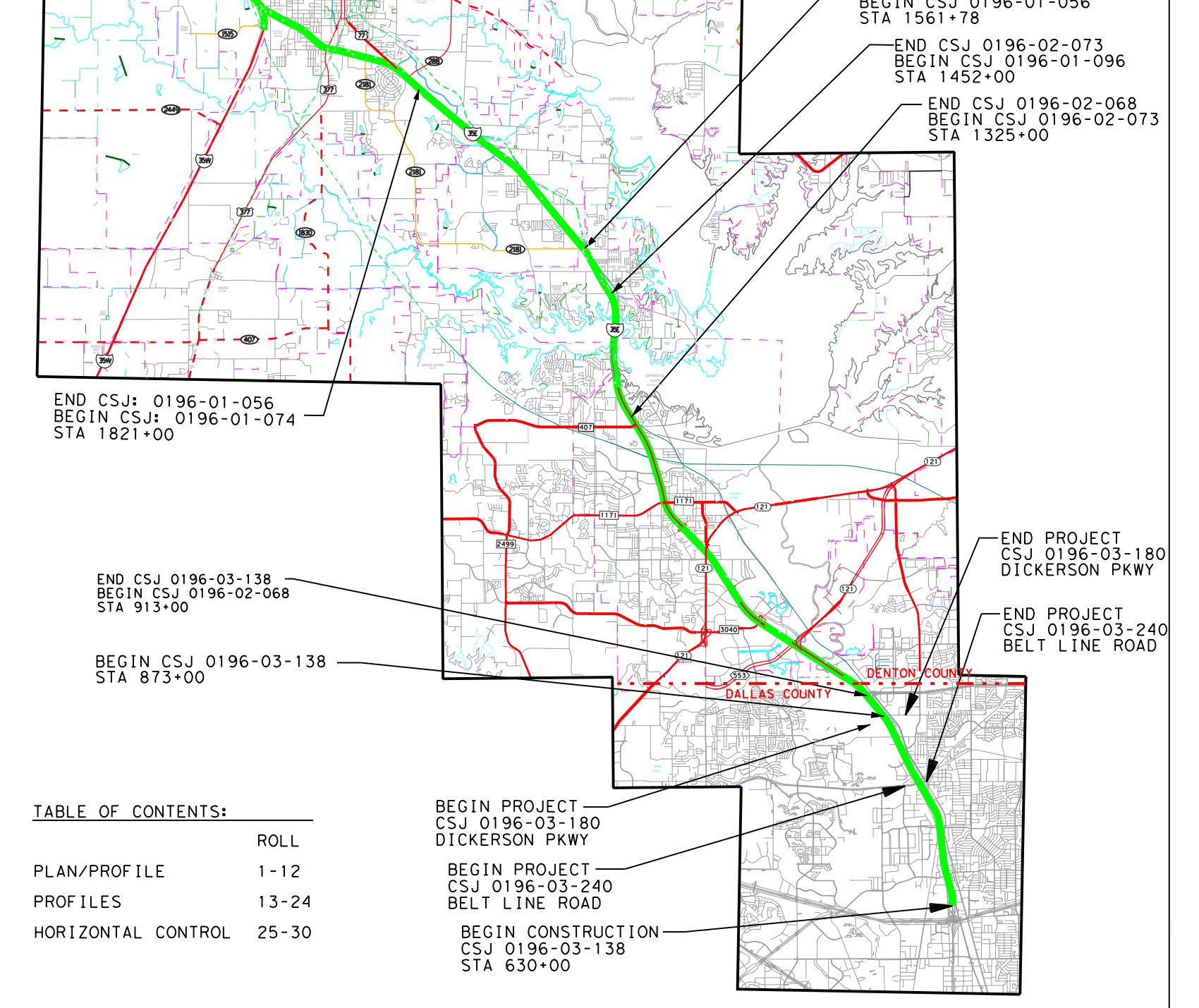

END PROJECT
CSJ 0195-03-050
STA 2114+00
END CSJ 0196-01-096
BEGIN CSJ 0196-01-056
STA 1561+78
END CSJ 0196-02-073
BEGIN CSJ 0196-01-096
STA 1452+00
END CSJ 0196-02-068
BEGIN CSJ 0196-02-073
STA 1325+00
END CSJ: 0196-01-056
BEGIN CSJ: 0196-01-074
STA 1821+00
END CSJ 0196-03-138
BEGIN CSJ 0196-02-068
STA 913+00
BEGIN CSJ 0196-03-138
STA 873+00
END PROJECT
CSJ 0196-03-180
DICKERSON PKWY
END PROJECT
CSJ 0196-03-240
BELT LINE ROAD
DENTON COUNTY
DALLAS COUNTY
BEGIN PROJECT
CSJ 0196-03-180
DICKERSON PKWY
BEGIN PROJECT
CSJ 0196-03-240
BELT LINE ROAD
BEGIN CONSTRUCTION
CSJ 0196-03-138
STA 630+00

TABLE OF CONTENTS:

	ROLL
PLAN/PROFILE	1-12
PROFILES	13-24
HORIZONTAL CONTROL	25-30

SCALE:
HORIZONTAL 1"=200'
VERTICAL 1"=20'

1/11/2013

ROLL 27 OF 30

SCHEMATIC PREPARED BY:

FOR INTERIM REVIEW ONLY
NOT FOR PERMITTING, BIDDING
OR CONSTRUCTION.
Prepared by or under the
Direct Supervision of:

SHAWN BRENT STOVER	109251
NAME	P.E. NUMBER

1/11/2013
DATE

Plotted on: 10:18:42 AM

DIRECT CONNECTORS

DIRECT CONNECTOR 1

```
Beginning chain DC01SB1 description
Description: Direct Connector HA
================================================================================

Point 5               X     2,460,418.62 Y     7,015,087.62 Sta    1000+00.00

Course from 5 to PC HA-1 N 0°15' 24" E Dist 23.48

                                 Curve Data
                                *----------*
Curve HA-1
P.I.  Station           1001+21.70  X        2,460,419.16  Y         7,015,209.32
Delta         =         3°43' 59" (RT)
Degree        =         1°54' 04"
Tangent       =              98.22
Length        =             196.37
Radius        =           3,014.00
External      =               1.60
Long Chord    =             196.34
Mid. Ord.     =               1.60
P.C.  Station           1000+23.48  X        2,460,418.72  Y         7,015,111.10
P.T.  Station           1002+19.86  X        2,460,426.00  Y         7,015,307.30
C.C.                                X        2,463,432.69  Y         7,015,097.60
Back          = N   0°15' 24" E
Ahead         = N   3°59' 23" E
Chord Bear    = N   2°07' 24" E

                                 Curve Data
                                *----------*
Curve HA-2
P.I.  Station           1004+66.37  X        2,460,443.15  Y         7,015,553.22
Delta         =         7°03' 11" (LT)
Degree        =         1°25' 57"
Tangent       =             246.51
Length        =             492.40
Radius        =           4,000.00
External      =               7.59
Long Chord    =             492.09
Mid. Ord.     =               7.57
P.C.  Station           1002+19.86  X        2,460,426.00  Y         7,015,307.30
P.T.  Station           1007+12.25  X        2,460,429.97  Y         7,015,799.37
C.C.                                X        2,456,435.69  Y         7,015,585.61
Back          = N   3°59' 23" E
Ahead         = N   3°03' 48" W
Chord Bear    = N   0°27' 48" E

                                 Curve Data
                                *----------*
Curve HA-3
P.I.  Station           1008+12.25  X        2,460,424.63  Y         7,015,899.23
Delta         =         0°25' 24" (LT)
Degree        =         0°12' 42"
Tangent       =             100.00
Length        =             200.00
Radius        =          27,062.00
External      =               0.18
Long Chord    =             200.00
Mid. Ord.     =               0.18
P.C.  Station           1007+12.25  X        2,460,429.97  Y         7,015,799.37
P.T.  Station           1009+12.25  X        2,460,418.55  Y         7,015,999.05
C.C.                                X        2,433,406.64  Y         7,014,353.19
Back          = N   3°03' 48" W
Ahead         = N   3°29' 12" W
Chord Bear    = N   3°16' 30" W

                                 Curve Data
                                *----------*
Curve HA-4
P.I.  Station           1011+01.45  X        2,460,407.04  Y         7,016,187.89
Delta         =        25°32' 01" (RT)
Degree        =         6°51' 42"
Tangent       =             189.20
Length        =             372.11
Radius        =             835.00
External      =              21.17
Long Chord    =             369.04
Mid. Ord.     =              20.64
P.C.  Station           1009+12.25  X        2,460,418.55  Y         7,015,999.05
P.T.  Station           1012+84.37  X        2,460,478.06  Y         7,016,363.26
C.C.                                X        2,461,252.00  Y         7,016,049.83
Back          = N   3°29' 12" W
Ahead         = N  22°02' 49" E
Chord Bear    = N   9°16' 48" E

Course from PT HA-4 to PC HA-5 N 22°02' 49" E Dist 100.71

                                 Curve Data
                                *----------*
Curve HA-5
P.I.  Station           1014+97.22  X        2,460,557.96  Y         7,016,560.55
Delta         =        15°17' 56" (LT)
Degree        =         6°51' 42"
Tangent       =             112.15
Length        =             222.96
Radius        =             835.00
External      =               7.50
Long Chord    =             222.30
Mid. Ord.     =               7.43
P.C.  Station           1013+85.07  X        2,460,515.86  Y         7,016,456.60
P.T.  Station           1016+08.03  X        2,460,571.13  Y         7,016,671.92
C.C.                                X        2,459,741.92  Y         7,016,770.03
Back          = N  22°02' 49" E
Ahead         = N   6°44' 52" E
Chord Bear    = N  14°23' 50" E

================================================================================
Ending chain DC01SB1 description
```

DIRECT CONNECTOR 2

```
Beginning chain DC02NB1 description
Description: Direct Connector HB
================================================================================

                                 Curve Data
                                *----------*
Curve HB-1
P.I.  Station           1001+09.85  X        2,460,651.67  Y         7,014,774.10
Delta         =         1°28''46" (RT)
Degree        =         0°40''24"
Tangent       =             109.85
Length        =             219.69
Radius        =           8,508.00
External      =               0.71
Long Chord    =             219.69
Mid. Ord.     =               0.71
P.C.  Station           1000+00.00  X        2,460,652.87  Y         7,014,664.25
P.T.  Station           1002+19.69  X        2,460,653.30  Y         7,014,883.94
C.C.                                X        2,469,160.36  Y         7,014,757.50
Back          = N   0°37''41" W
Ahead         = N   0°51''05" E
Chord Bear    = N   0°06''42" E

                                 Curve Data
                                *----------*
Curve HB-2
P.I.  Station           1003+99.58  X        2,460,655.97  Y         7,015,063.81
Delta         =         6°51''47" (LT)
Degree        =         1°54''35"
Tangent       =             179.89
Length        =             359.35
Radius        =           3,000.00
External      =               5.39
Long Chord    =             359.13
Mid. Ord.     =               5.38
P.C.  Station           1002+19.69  X        2,460,653.30  Y         7,014,883.94
P.T.  Station           1005+79.04  X        2,460,637.13  Y         7,015,242.71
C.C.                                X        2,457,653.63  Y         7,014,928.52
Back          = N   0°51''05" E
Ahead         = N   6°00''41" W
Chord Bear    = N   2°34''48" W

                                 Curve Data
                                *----------*
Curve HB-3
P.I.  Station           1008+19.01  X        2,460,612.00  Y         7,015,481.36
Delta         =         6°51''59" (RT)
Degree        =         1°25''57"
Tangent       =             239.97
Length        =             479.36
Radius        =           4,000.00
External      =               7.19
Long Chord    =             479.07
Mid. Ord.     =               7.18
P.C.  Station           1005+79.04  X        2,460,637.13  Y         7,015,242.71
P.T.  Station           1010+58.40  X        2,460,615.58  Y         7,015,721.29
C.C.                                X        2,464,615.14  Y         7,015,661.62
Back          = N   6°00''41" W
Ahead         = N   0°51''17" E
Chord Bear    = N   2°34''42" W

Course from PT HB-3 to PC HB-4 N 0°51''17" E Dist 446.24
```

"PRELIMINARY SUBJECT TO CHANGE"
BASED ON FURTHER DEVELOPMENTS RESULTING
FROM PUBLIC INPUT AND TECHNICAL REVIEWS

Texas Department of Transportation

DALLAS DISTRICT
DRAFT INTERIM SCHEMATIC
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

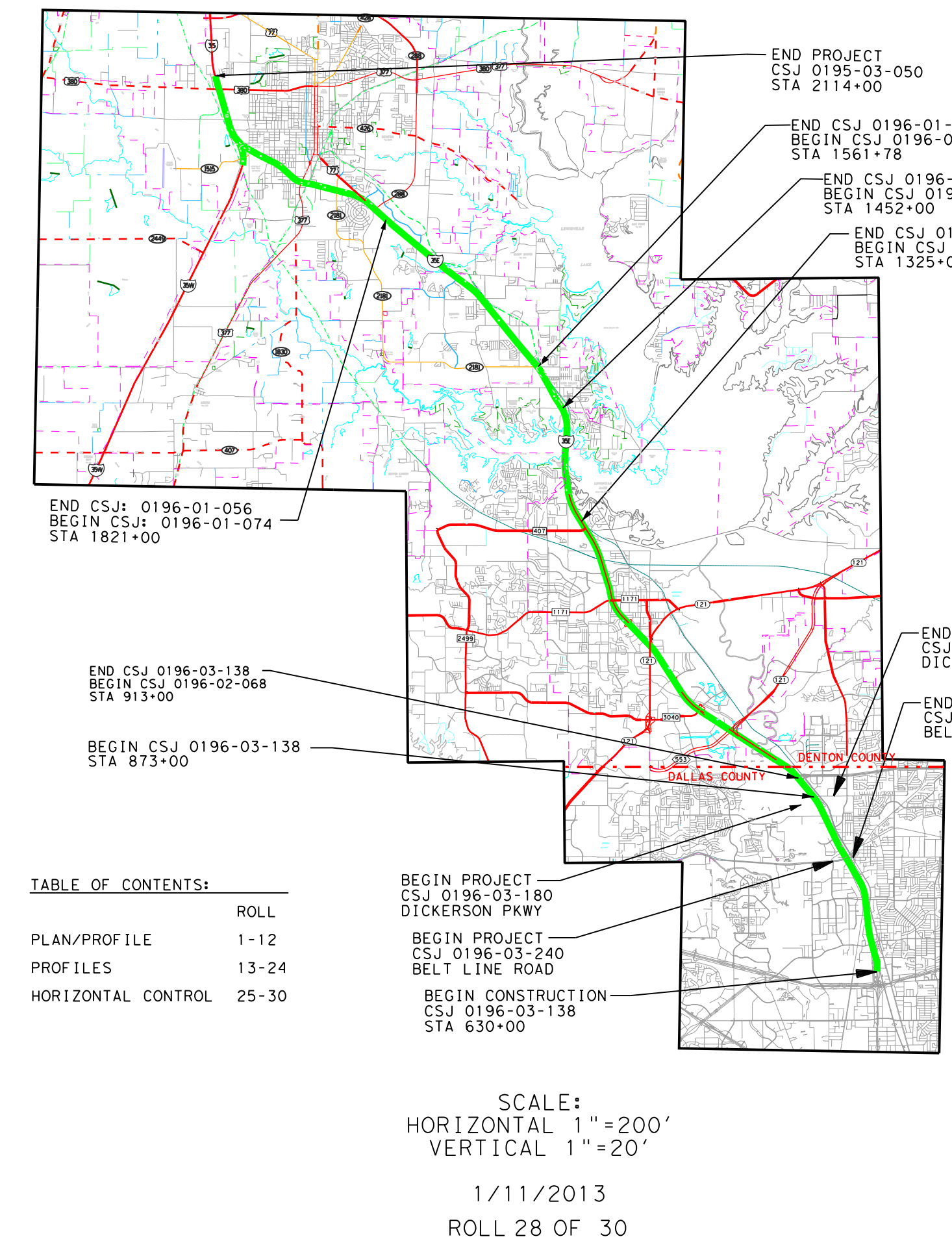
IH 35E
FROM: IH 635
TO: US 380

DALLAS & DENTON COUNTY

FUNCTIONAL CLASS: URBAN FREEWAY
PROJECT LENGTH: 28.25 MILES

CSJ's: 0196-03-138
0196-03-240
0196-03-180
0196-03-245
0196-02-068
0196-02-073
0196-01-096
0196-01-056
0196-01-074
0195-03-050
0195-03-071

DESIGN SPEEDS:
MAINLANES 70 MPH
MANAGED LANES 70 MPH
RAMPS 40 MPH
TURNAROUND RAMPS 20 MPH
FRONTAGE ROADS 40 MPH
CROSS STREETS 30 MPH
COLLECTOR DISTRIBUTOR 50 MPH
DIRECT CONNECTORS 50 MPH
INTERSECTIONS 30 MPH



SCALE:
HORIZONTAL 1"=200'
VERTICAL 1"=20'

1/11/2013

ROLL 28 OF 30

PRELIMINARY SUBJECT TO CHANGE

NB EXIT RAMP 9

```
Beginning chain RMP35NBX9 description
Description: Ramp AT
==========================================================================

                          Curve Data
                          *----------*
Curve AT-1
P.I.  Station          11+18.50  X       2,442,744.91  Y       7,050,310.59
Delta        =       4°31' 27" (RT)
Degree       =       1°54' 35"
Tangent      =          118.50
Length       =          236.88
Radius       =        3,000.00
External     =            2.34
Long Chord   =          236.82
Mid. Ord.    =            2.34
P.C.  Station          10+00.00  X       2,442,844.66  Y       7,050,246.62
P.T.  Station          12+36.88  X       2,442,650.51  Y       7,050,382.23
C.C.                             X       2,444,464.14  Y       7,052,771.95
Back         = N  57°19' 41" W
Ahead        = N  52°48' 15" W
Chord Bear   = N  55°03' 58" W

Course from PT AT-1 to NBXJ02 N 52°48' 15" W Dist 260.33

Point NBXJ02          X     2,442,443.14 Y     7,050,539.61 Sta      14+97.21

==========================================================================
Ending chain RMP35NBX9 description
```

NB EXIT RAMP 10

```
Beginning chain RMP35NBX10 description
Description: Ramp AU
==========================================================================

                          Curve Data
                          *----------*
Curve AU-1
P.I.  Station          12+73.44  X       2,434,583.35  Y       7,056,632.60
Delta        =      10°24' 57" (RT)
Degree       =       1°54' 35"
Tangent      =          273.44
Length       =          545.37
Radius       =        3,000.00
External     =           12.44
Long Chord   =          544.62
Mid. Ord.    =           12.38
P.C.  Station          10+00.00  X       2,434,732.28  Y       7,056,403.28
P.T.  Station          15+45.37
C.C.
Back         = N  33°00' 07" W
Ahead        = N  22°35' 10" W
Chord Bear   = N  27°47' 39" W

==========================================================================
Ending chain RMP35NBX10 description
```

NB EXIT RAMP 12 (CONT)

```
                          Curve Data
                          *----------*
Curve AW-4
P.I.  Station          17+80.15  X       2,428,223.71  Y       7,064,811.24
Delta        =      11°55' 12" (LT)
Degree       =       5°21' 35"
Tangent      =          111.60
Length       =          222.40
Radius       =        1,069.00
External     =            5.81
Long Chord   =          222.00
Mid. Ord.    =            5.78
P.C.  Station          16+68.55  X       2,428,292.45  Y       7,064,723.32
P.T.  Station          18+90.95  X       2,428,138.30  Y       7,064,883.07
C.C.                             X       2,427,450.28  Y       7,064,064.91
Back         = N  38°01' 07" W
Ahead        = N  49°56' 19" W
Chord Bear   = N  43°58' 43" W

                          Curve Data
                          *----------*
Curve AW-5
P.I.  Station          19+42.08  X       2,428,099.16  Y       7,064,915.98
Delta        =       7°41' 56" (RT)
Degree       =       7°32' 20"
Tangent      =           51.14
Length       =          102.12
Radius       =          760.00
External     =            1.72
Long Chord   =          102.04
Mid. Ord.    =            1.71
P.C.  Station          18+90.95  X       2,428,138.30  Y       7,064,883.07
P.T.  Station          19+93.07  X       2,428,064.78  Y       7,064,953.84
C.C.                             X       2,428,627.44  Y       7,065,464.74
Back         = N  49°56' 19" W
Ahead        = N  42°14' 23" W
Chord Bear   = N  46°05' 21" W

==========================================================================
Ending chain RMP35NBX12 description
```

NB EXIT RAMP 13

```
Beginning chain RMP35NBX13 description
Description: Ramp AX
==========================================================================

                          Curve Data
                          *----------*
Curve AX-1
P.I.  Station          11+64.56  X       2,427,603.78  Y       7,065,383.00
```

NB EXIT RAMP 14 (CONT)

```
                          Curve Data
                          *----------*
Curve AY-3
P.I.  Station          17+36.45  X       2,425,499.02  Y       7,069,664.61
Delta        =       1°55''11" (LT)
Degree       =       0°57''18"
Tangent      =          100.52
Length       =          201.02
Radius       =        6,000.00
External     =            0.84
Long Chord   =          201.01
Mid. Ord.    =            0.84
P.C.  Station          16+35.93  X       2,425,522.25  Y       7,069,566.81
P.T.  Station          18+36.95  X       2,425,472.53  Y       7,069,761.58
C.C.                             X       2,419,684.64  Y       7,068,180.34
Back         = N  13°21''38" W
Ahead        = N  15°16''49" W
Chord Bear   = N  14°19''13" W

                          Curve Data
                          *----------*
Curve AY-4
P.I.  Station          20+15.13  X       2,425,425.57  Y       7,069,933.46
Delta        =       1°42''31" (LT)
Degree       =       0°28''46"
Tangent      =          178.18
Length       =          356.34
Radius       =       11,950.00
External     =            1.33
Long Chord   =          356.33
Mid. Ord.    =            1.33
P.C.  Station          18+36.95  X       2,425,472.53  Y       7,069,761.58
P.T.  Station          21+93.29  X       2,425,373.51  Y       7,070,103.87
C.C.                             X       2,413,944.98  Y       7,066,612.28
Back         = N  15°16''49" W
Ahead        = N  16°59''19" W
Chord Bear   = N  16°08''04" W

Course from PT AY-4 to 154 N 16°59''19" W Dist 244.44

Point 154             X     2,425,302.09 Y     7,070,337.65 Sta      24+37.73

==========================================================================
Ending chain RMP35NBX14 description
```

NB EXIT RAMP 15

```
Beginning chain RMP35NBX15 description
Description: Ramp AZ
==========================================================================

                          Curve Data
                          *----------*
Curve AZ-1
P.I.  Station          10+94.30  X       2,424,327.18  Y       7,073,215.13
Delta        =       3°36' 02" (RT)
Degree       =       1°54' 35"
Tangent      =           94.30
Length       =          188.53
Radius       =        3,000.00
External     =            1.48
Long Chord   =          188.50
Mid. Ord.    =            1.48
P.C.  Station          10+00.00  X       2,424,356.21  Y       7,073,125.41
P.T.  Station          11+88.53  X       2,424,303.84  Y       7,073,306.49
C.C.                             X       2,427,210.52  Y       7,074,048.92
Back         = N  17°55' 44" W
Ahead        = N  14°19' 42" W
Chord Bear   = N  16°07' 43" W

                          Curve Data
                          *----------*
Curve AZ-2
P.I.  Station          14+79.93  X       2,424,231.73  Y       7,073,588.83
Delta        =       2°07' 31" (LT)
Degree       =       0°21' 53"
Tangent      =          291.40
Length       =          582.73
Radius       =       15,710.00
External     =            2.70
Long Chord   =          582.70
Mid. Ord.    =            2.70
P.C.  Station          11+88.53  X       2,424,303.84  Y       7,073,306.49
P.T.  Station          17+71.26  X       2,424,149.19  Y       7,073,868.29
C.C.                             X       2,409,082.52  Y       7,069,418.62
Back         = N  14°19' 42" W
Ahead        = N  16°27' 13" W
Chord Bear   = N  15°23' 27" W

                          Curve Data
                          *----------*
Curve AZ-3
P.I.  Station          18+22.62  X       2,424,134.65  Y       7,073,917.55
Delta        =       1°28' 17" (RT)
Degree       =       1°25' 57"
Tangent      =           51.36
Length       =          102.72
Radius       =        4,000.00
External     =            0.33
```

NB EXIT RAMP 19

```
Beginning chain RMP35NBX19 description
Description: Ramp BD
==========================================================================

                          Curve Data
                          *----------*
Curve BD-1
P.I.  Station          11+10.09  X       2,410,319.95  Y       7,104,954.08
Delta        =       8° 45''33" (RT)
Degree       =       1° 54''35"
Tangent      =          229.76
Length       =          458.62
Radius       =        3,000.00
External     =            8.79
Long Chord   =          458.18
Mid. Ord.    =            8.76
P.C.  Station           8+80.33  X       2,410,472.43  Y       7,104,782.21
P.T.  Station          13+38.95  X       2,410,195.42  Y       7,105,147.17
C.C.                             X       2,412,716.59  Y       7,106,773.12
Back         = N  41° 34''40" W
Ahead        = N  32° 49''08" W
Chord Bear   = N  37° 11''54" W

                          Curve Data
                          *----------*
Curve BD-2
P.I.  Station          14+63.24  X       2,410,128.06  Y       7,105,251.62
Delta        =       4° 44''41" (LT)
Degree       =       1° 54''35"
Tangent      =          124.29
Length       =          248.43
Radius       =        3,000.00
External     =            2.57
Long Chord   =          248.36
Mid. Ord.    =            2.57
P.C.  Station          13+38.95  X       2,410,195.42  Y       7,105,147.17
P.T.  Station          15+87.38  X       2,410,052.29  Y       7,105,350.14
C.C.                             X       2,407,674.26  Y       7,103,521.22
Back         = N  32° 49''08" W
Ahead        = N  37° 33''49" W
Chord Bear   = N  35° 11''28" W

==========================================================================
Ending chain RMP35NBX19 description
```

NB EXIT RAMP 23

```
Beginning chain RMP35NBX23 description
Description: Ramp BJ
==========================================================================

                          Curve Data
                          *----------*
Curve BJ-1
P.I.  Station          10+95.76  X       2,390,508.74  Y       7,120,845.80
Delta        =       4° 34''12" (RT)
Degree       =       2° 23''14"
Tangent      =           95.76
Length       =          191.43
Radius       =        2,400.00
External     =            1.91
Long Chord   =          191.37
Mid. Ord.    =            1.91
P.C.  Station          10+00.00  X       2,390,602.17  Y       7,120,824.79
P.T.  Station          11+91.43  X       2,390,417.28  Y       7,120,874.18
C.C.                             X       2,391,128.71  Y       7,123,166.32
Back         = N  77° 19''36" W
Ahead        = N  72° 45''24" W
Chord Bear   = N  75° 02''30" W

                          Curve Data
                          *----------*
Curve BJ-2
P.I.  Station          12+76.70  X       2,390,335.84  Y       7,120,899.46
Delta        =      12° 58''24" (RT)
Degree       =       7° 38''22"
Tangent      =           85.27
Length       =          169.82
Radius       =          750.00
External     =            4.83
Long Chord   =          169.46
Mid. Ord.    =            4.80
P.C.  Station          11+91.43  X       2,390,417.28  Y       7,120,874.18
P.T.  Station          13+61.25  X       2,390,262.15  Y       7,120,942.38
C.C.                             X       2,390,639.60  Y       7,121,590.48
Back         = N  72° 45''24" W
Ahead        = N  59° 47''01" W
Chord Bear   = N  66° 16''12" W

                          Curve Data
                          *----------*
Curve BJ-3
P.I.  Station          14+63.54  X       2,390,173.76  Y       7,120,993.86
Delta        =       9° 44' 42" (LT)
```

NB EXIT RAMP 25 (CONT)

```
                          Curve Data
                          *----------*
Curve BM-2
P.I.  Station          13+84.44  X       2,383,121.08  Y       7,123,491.69
Delta        =       2°14''36" (LT)
Degree       =       1°54''35"
Tangent      =           58.74
Length       =          117.46
Radius       =        3,000.00
External     =            0.57
Long Chord   =          117.46
Mid. Ord.    =            0.57
P.C.  Station          13+25.70  X       2,383,160.13  Y       7,123,447.81
P.T.  Station          14+43.16  X       2,383,080.34  Y       7,123,534.01
C.C.                             X       2,380,919.01  Y       7,121,453.46
Back         = N  41°39''56" W
Ahead        = N  43°54''32" W
Chord Bear   = N  42°47''14" W

==========================================================================
Ending chain RMP35NBX25 description
```

NB EXIT RAMP 27

```
Beginning chain RMP35NBX27 description
Description: Ramp BP
==========================================================================

                          Curve Data
                          *----------*
Curve BP-1
P.I.  Station          11+65.07  X       2,379,379.60  Y       7,125,698.64
Delta        =       6°17' 56" (RT)
Degree       =       1°54' 35"
Tangent      =          165.07
Length       =          329.81
Radius       =        3,000.00
External     =            4.54
Long Chord   =          329.64
Mid. Ord.    =            4.53
P.C.  Station          10+00.00  X       2,379,524.56  Y       7,125,619.67
P.T.  Station          13+29.81  X       2,379,244.18  Y       7,125,793.03
C.C.                             X       2,380,959.67  Y       7,128,254.14
Back         = N  61°25' 15" W
Ahead        = N  55°07' 19" W
Chord Bear   = N  58°16' 17" W

                          Curve Data
                          *----------*
Curve BP-2
P.I.  Station          14+88.63  X       2,379,113.89  Y       7,125,883.85
Delta        =       6°03' 39" (LT)
Degree       =       1°54' 35"
Tangent      =          158.82
Length       =          317.34
Radius       =        3,000.00
External     =            4.20
Long Chord   =          317.19
Mid. Ord.    =            4.20
P.C.  Station          13+29.81  X       2,379,244.18  Y       7,125,793.03
P.T.  Station          16+47.15  X       2,378,974.74  Y       7,125,960.40
C.C.                             X       2,377,528.68  Y       7,123,331.92
Back         = N  55°07' 19" W
Ahead        = N  61°10' 58" W
Chord Bear   = N  58°09' 08" W

==========================================================================
Ending chain RMP35NBX27 description
```

NB EXIT RAMP 28

```
Beginning chain RMP35NBX28 description
Description: Ramp BQ
==========================================================================

                          Curve Data
                          *----------*
Curve BQ-1
P.I.  Station          11+67.67  X       2,374,657.74  Y       7,133,001.37
Delta        =      15°54' 31" (RT)
Degree       =       4°46' 29"
Tangent      =          167.67
Length       =          333.19
Radius       =        1,200.00
External     =           11.66
Long Chord   =          332.12
Mid. Ord.    =           11.55
P.C.  Station          10+00.00  X       2,374,705.08  Y       7,132,840.52
P.T.  Station          13+33.19  X       2,374,656.31  Y       7,133,169.04
C.C.                             X       2,375,856.27  Y       7,133,179.29
Back         = N  16°23' 52" W
Ahead        = N   0°29' 20" W
```

NB EXIT RAMP 30 (CONT)

NB EXIT RAMP 31

NB EXIT RAMP 101

NB EXIT RAMP 24

NB EXIT RAMP 25

NB EXIT RAMP 30

NB EXIT RAMP 102 (CONT)

NB EXIT RAMP 104

NB EXIT RAMP 106

NB EXIT RAMP 108

NB EXIT RAMP 108 (CONT)

NB EXIT RAMP 110

NB EXIT RAMP 201

NB EXIT RAMP 201 (CONT)

NB EXIT RAMP 203

NB EXIT RAMP 208

SB ENTRANCE RAMPS

SB ENTRANCE RAMP 2

SB ENTRANCE RAMP 2 (CONT)

SB ENTRANCE RAMP 3

SB ENTRANCE RAMP 5

SB ENTRANCE RAMP 7

SB ENTRANCE RAMP 8

SB ENTRANCE RAMP 9

SB ENTRANCE RAMP 10

SB ENTRANCE RAMP 11

SB ENTRANCE RAMP 12

SB ENTRANCE RAMP 13

SB ENTRANCE RAMP 13 (CONT)

SB ENTRANCE RAMP 14

SB ENTRANCE RAMP 16

SB ENTRANCE RAMP 16 (CONT)

SB ENTRANCE RAMP 21

SB ENTRANCE RAMP 22

SB ENTRANCE RAMP 23

SB ENTRANCE RAMP 24

SB ENTRANCE RAMP 25

SB ENTRANCE RAMP 26

SB ENTRANCE RAMP 27

SB ENTRANCE RAMP 28

SB ENTRANCE RAMP 29

SB ENTRANCE RAMP 112

SB ENTRANCE RAMP 112 (CONT)

SB ENTRANCE RAMP 114

SB ENTRANCE RAMP 116

SB ENTRANCE RAMP 118

SB ENTRANCE RAMP 118 (CONT)

SB ENTRANCE RAMP 120

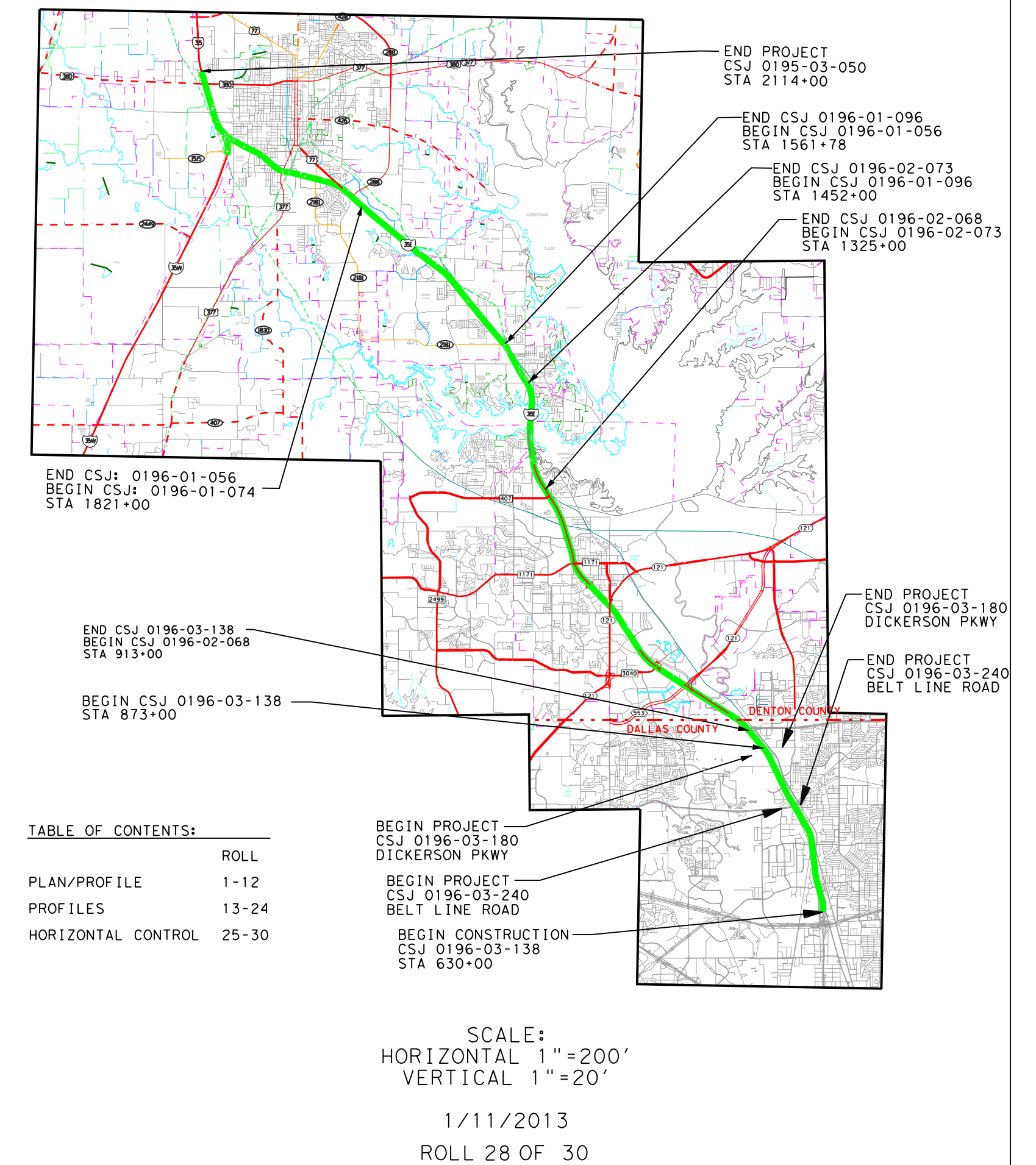
SB ENTRANCE RAMP 205

SB ENTRANCE RAMP 206

SB ENTRANCE RAMP 207

SB ENTRANCE RAMP 211

Texas Department of Transportation
DALLAS DISTRICT
DRAFT INTERIM SCHEMATIC
WILLIAM L. HALE, P.E., DISTRICT ENGINEER
IH 35E
FROM: IH 635
TO: US 380
DALLAS & DENTON COUNTY
FUNCTIONAL CLASS: URBAN FREEWAY
PROJECT LENGTH: 28.25 MILES



SCALE:
HORIZONTAL 1"=200'
VERTICAL 1"=20'
1/11/2013
ROLL 28 OF 30

Texas Department of Transportation

DALLAS DISTRICT
DRAFT INTERIM SCHEMATIC
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

IH 35E
FROM: IH 635
TO: US 380

DALLAS & DENTON COUNTY

FUNCTIONAL CLASS: URBAN FREEWAY
PROJECT LENGTH: 28.25 MILES

CSJ's: 0196-03-138
0196-03-240
0196-03-180
0196-03-245
0196-02-068
0196-02-073
0196-01-096
0196-01-056
0196-01-074
0195-03-050
0195-03-071

DESIGN SPEEDS:
MAINLANES 70 MPH
MANAGED LANES 70 MPH
RAMPS 40 MPH
TURNAROUND RAMPS 20 MPH
FRONTAGE ROADS 40 MPH
CROSS STREETS 30 MPH
COLLECTOR DISTRIBUTOR 50 MPH
DIRECT CONNECTORS 50 MPH
INTERSECTIONS 30 MPH

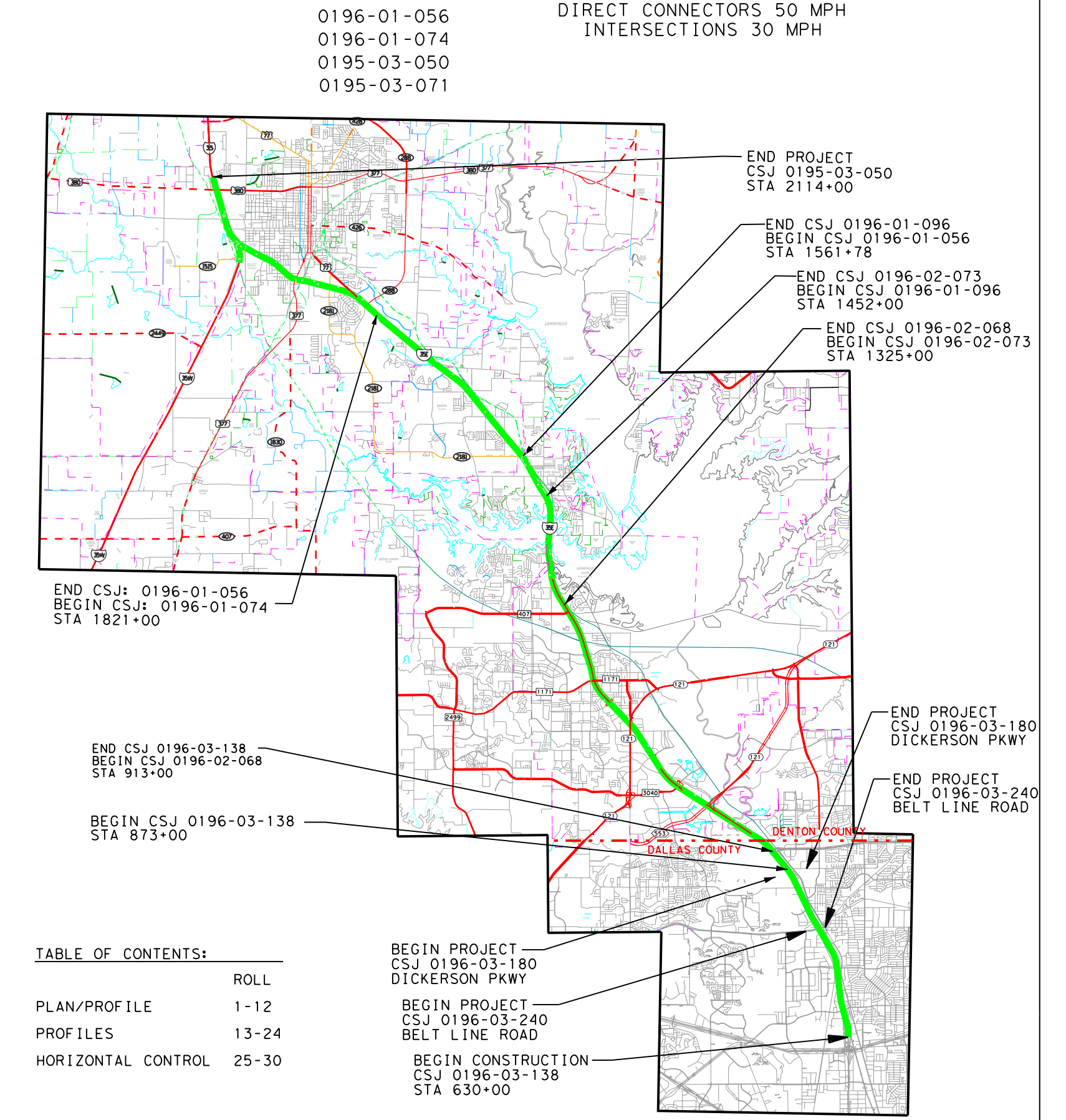


TABLE OF CONTENTS:

	ROLL
PLAN/PROFILE	1-12
PROFILES	13-24
HORIZONTAL CONTROL	25-30

SCALE:
HORIZONTAL 1"=200'
VERTICAL 1"=20'

1/11/2013

ROLL 29 OF 30

SCHEMATIC PREPARED BY:
FOR INTERIM REVIEW ONLY
NOT FOR PERMITTING, BIDDING
OR CONSTRUCTION.
Prepared by or under the
Direct Supervision of:
SHAWN BRENT STOVER 109251
NAME P.E. NUMBER
1/11/2013
DATE

Plotted on: 10:19:37 AM

SB ENTRANCE RAMP 211 (CONT)

```
Course from PT XK-2 to PC XK-3 N 40? 03''07" W Dist 120.00

                              Curve Data
                             *----------*
Curve XK-3
P.I.  Station          21+93.51  X      2,451,227.09  Y       7,043,250.63
Delta        =       7? 36''45"  (LT)
Degree       =       1? 38''13"
Tangent      =           232.86
Length       =           465.03
Radius       =         3,500.00
External     =             7.74
Long Chord   =           464.69
Mid. Ord.    =             7.72
P.C.  Station          19+60.65  X      2,451,376.93  Y       7,043,072.39
P.T.  Station          24+25.68  X      2,451,054.96  Y       7,043,407.45
C.C.                             X      2,448,697.81  Y       7,040,820.21
Back         = N  40? 03''07" W
Ahead        = N  47? 39''52" W
Chord Bear   = N  43? 51''29" W

Course from PT XK-3 to 190 N 47? 39''52" W Dist 115.43

Point 190          X     2,450,969.63 Y     7,043,485.19 Sta       25+41.11

==========================================================================
Ending chain RMP35SBN211 description
```

SB EXIT RAMPS

SB EXIT RAMP 3

```
Beginning chain RMP35SBX3 description
Description: Ramp CU
==========================================================================

                              Curve Data
                             *----------*
Curve CU-1
P.I.  Station          10+77.62  X      2,458,731.45  Y       7,029,691.05
Delta        =       2°57''51"  (RT)
Degree       =       1°54''35"
Tangent      =            77.62
Length       =           155.21
Radius       =         3,000.00
External     =             1.00
Long Chord   =           155.19
Mid. Ord.    =             1.00
P.C.  Station          10+00.00  X      2,458,743.03  Y       7,029,614.30
P.T.  Station          11+55.21  X      2,458,723.86  Y       7,029,768.30
C.C.                             X      2,461,709.47  Y       7,030,061.76
Back         = N   8°34''40" W
Ahead        = N   5°36''49" W
Chord Bear   = N   7°05''45" W

                              Curve Data
                             *----------*
Curve CU-2
P.I.  Station          14+17.77  X      2,458,698.17  Y       7,030,029.60
```

SB EXIT RAMP 4

SB EXIT RAMP 5

SB EXIT RAMP 6

```
Beginning chain RMP35SBX6 description
Description: Ramp CX
==========================================================================

                              Curve Data
                             *----------*
Curve CX-1
P.I.  Station          12+77.19  X      2,445,078.50  Y       7,048,527.00
Delta        =     10° 33''28"  (RT)
Degree       =      1° 54''35"
Tangent      =           277.19
Length       =           552.81
Radius       =         3,000.00
External     =            12.78
Long Chord   =           552.02
Mid. Ord.    =            12.72
P.C.  Station          10+00.00  X      2,445,311.82  Y       7,048,377.35
P.T.  Station          15+52.81  X      2,444,876.55  Y       7,048,716.87
C.C.                             X      2,446,931.50  Y       7,050,902.56
Back         = N  57° 19''25" W
Ahead        = N  46° 45''57" W
Chord Bear   = N  52° 02''41" W

                              Curve Data
                             *----------*
Curve CX-2
P.I.  Station          18+30.11  X      2,444,674.52  Y       7,048,906.82
Delta        =     10° 33''44"  (LT)
Degree       =      1° 54''35"
Tangent      =           277.30
Length       =           553.04
Radius       =         3,000.00
External     =            12.79
Long Chord   =           552.25
Mid. Ord.    =            12.73
P.C.  Station          15+52.81  X      2,444,876.55  Y       7,048,716.87
P.T.  Station          21+05.84  X      2,444,441.09  Y       7,049,056.52
C.C.                             X      2,442,821.61  Y       7,046,531.19
Back         = N  46° 45''57" W
Ahead        = N  57° 19''41" W
Chord Bear   = N  52° 02''49" W

==========================================================================
Ending chain RMP35SBX6 description
```

SB EXIT RAMP 7

```
Beginning chain RMP35SBX7 description
Description: Ramp CY
==========================================================================

                              Curve Data
                             *----------*
Curve CY-1
```

SB EXIT RAMP 8

"PRELIMINARY SUBJECT TO CHANGE"
BASED ON FURTHER DEVELOPMENTS RESULTING FROM PUBLIC INPUT AND TECHNICAL REVIEWS

SB EXIT RAMP 9

```
Beginning chain RMP35SBX9 description
Description: Ramp DA
```

SB EXIT RAMP 10

```
Beginning chain RMP35SBX10 description
Description: Ramp DB
```

SB EXIT RAMP 11

SB EXIT RAMP 12

SB EXIT RAMP 12 (CONT)

SB EXIT RAMP 13

SB EXIT RAMP 14

SB EXIT RAMP 14 (CONT)

SB EXIT RAMP 15

SB EXIT RAMP 15 (CONT)

SB EXIT RAMP 24

SB EXIT RAMP 25

SB EXIT RAMP 27

SB EXIT RAMP 28

SB EXIT RAMP 29

SB EXIT RAMP 30

SB EXIT RAMP 33

SB EXIT RAMP 113

SB EXIT RAMP 115

SB EXIT RAMP 117

SB EXIT RAMP 119

SB EXIT RAMP 121

SB EXIT RAMP 121 (CONT)

SB EXIT RAMP 122

SB EXIT RAMP 212

INTERSECTIONS

4TH STREET

MAIN STREET WEST

BELT LINE ROAD

BROADWAY STREET

DICKERSON PARKWAY

DICKERSON PARKWAY (CONT)

SANDY LAKE DRIVE

SANDY LAKE DRIVE (CONT)

SH 121

FM 3040

CORPORATE DRIVE

BUSINESS 121

FOX AVENUE

MAIN STREET

VALLEY RIDGE BOULEVARD

FM 407

GARDEN RIDGE BOULEVARD

HIGHLAND VILLAGE

COUNTRY LANE

COPPERAS BRANCH

(THIS INTERSECTION IS BEING ELIMINATED)

TURBEVILLE ROAD

FM 2181

CORINTH PARKWAY

POST OAK

MAY HILL ROAD/STATE SCHOOL ROAD

LOOP 288

TEASLEY LANE (FM 2181)

```
Beginning chain ISCTTEASLEYCL1 description
Description: Intersection KC
==========================================================================

Point 135          X     2,389,761.18 Y     7,121,604.34 Sta       10+00.00

Course from 135 to PC KC-1 S 2°33' 46" E Dist 254.59

                              Curve Data
                             *----------*
Curve KC-1
P.I.  Station          12+98.12  X      2,389,774.51  Y       7,121,306.51
Delta        =      9°57' 04"  (RT)
Degree       =     11°27' 33"
Tangent      =            43.53
Length       =            86.84
Radius       =           500.00
External     =             1.89
Long Chord   =            86.73
Mid. Ord.    =             1.88
P.C.  Station          12+54.59  X      2,389,772.56  Y       7,121,350.00
P.T.  Station          13+41.43  X      2,389,768.91  Y       7,121,263.34
C.C.                             X      2,389,273.06  Y       7,121,327.64
Back         = S   2°33' 46" E
Ahead        = S   7°23' 18" W
Chord Bear   = S   2°24' 46" W

Course from PT KC-1 to PC KC-2 S 7°23' 18" W Dist 702.41

                              Curve Data
                             *----------*
Curve KC-2
P.I.  Station          20+50.96  X      2,389,677.67  Y       7,120,559.71
Delta        =      1°37' 51"  (LT)
Degree       =     11°27' 33"
Tangent      =             7.12
Length       =            14.23
Radius       =           500.00
External     =             0.05
Long Chord   =            14.23
Mid. Ord.    =             0.05
P.C.  Station          20+43.85  X      2,389,678.59  Y       7,120,566.76
P.T.  Station          20+58.08  X      2,389,676.96  Y       7,120,552.62
C.C.                             X      2,390,174.44  Y       7,120,502.47
Back         = S   7°23' 18" W
Ahead        = S   5°45' 26" W
Chord Bear   = S   6°34' 22" W

Course from PT KC-2 to 136 S 5°45' 26" W Dist 178.98

Point 136          X     2,389,659.00 Y     7,120,374.55 Sta       22+37.06

==========================================================================
Ending chain ISCTTEASLEYCL1 description
```

FORT WORTH DRIVE

```
Beginning chain ISCTFTWORTHCL1 description
Description: Intersection KD
==========================================================================

Point 109          X     2,385,231.71 Y     7,122,434.45 Sta       10+00.00

Course from 109 to PC KD-1 S 24°44''38" W Dist 66.85

                              Curve Data
                             *----------*
Curve KD-1
P.I.  Station          10+76.23  X      2,385,199.81  Y       7,122,365.22
Delta        =      0°32''15"  (RT)
Degree       =      2°51''53"
Tangent      =             9.38
Length       =            18.76
Radius       =         2,000.00
External     =             0.02
Long Chord   =            18.76
Mid. Ord.    =             0.02
P.C.  Station          10+66.85  X      2,385,203.73  Y       7,122,373.74
P.T.  Station          10+85.61  X      2,385,195.80  Y       7,122,356.74
C.C.                             X      2,383,387.36  Y       7,123,210.87
Back         = S  24°44''38" W
Ahead        = S  25°16''53" W
Chord Bear   = S  25°00''46" W

Course from PT KD-1 to PC KD-2 S 25°16''53" W Dist 364.11

                              Curve Data
                             *----------*
Curve KD-2
P.I.  Station          17+01.04  X      2,384,932.97  Y       7,121,800.26
Delta        =     11°02''32"  (LT)
Degree       =      2°12''13"
Tangent      =           251.32
Length       =           501.08
Radius       =         2,600.00
External     =            12.12
Long Chord   =           500.31
Mid. Ord.    =            12.06
P.C.  Station          14+49.72  X      2,385,040.30  Y       7,122,027.51
P.T.  Station          19+50.80  X      2,384,871.16  Y       7,121,556.66
C.C.                             X      2,387,391.28  Y       7,120,917.14
Back         = S  25°16''53" W
Ahead        = S  14°14''21" W
Chord Bear   = S  19°45''37" W

==========================================================================
Ending chain ISCTFTWORTHCL1 description
```

TURBEVILLE JUG HANDLE

```
Chain ISCTTURBJH contains:
 151 CUR KS-1 152

Beginning chain ISCTTURBJH description
Description: Intersection Turbeville Jug Handle KS
==========================================================================

Point 151          X     2,416,992.81 Y     7,095,547.52 Sta       10+00.00

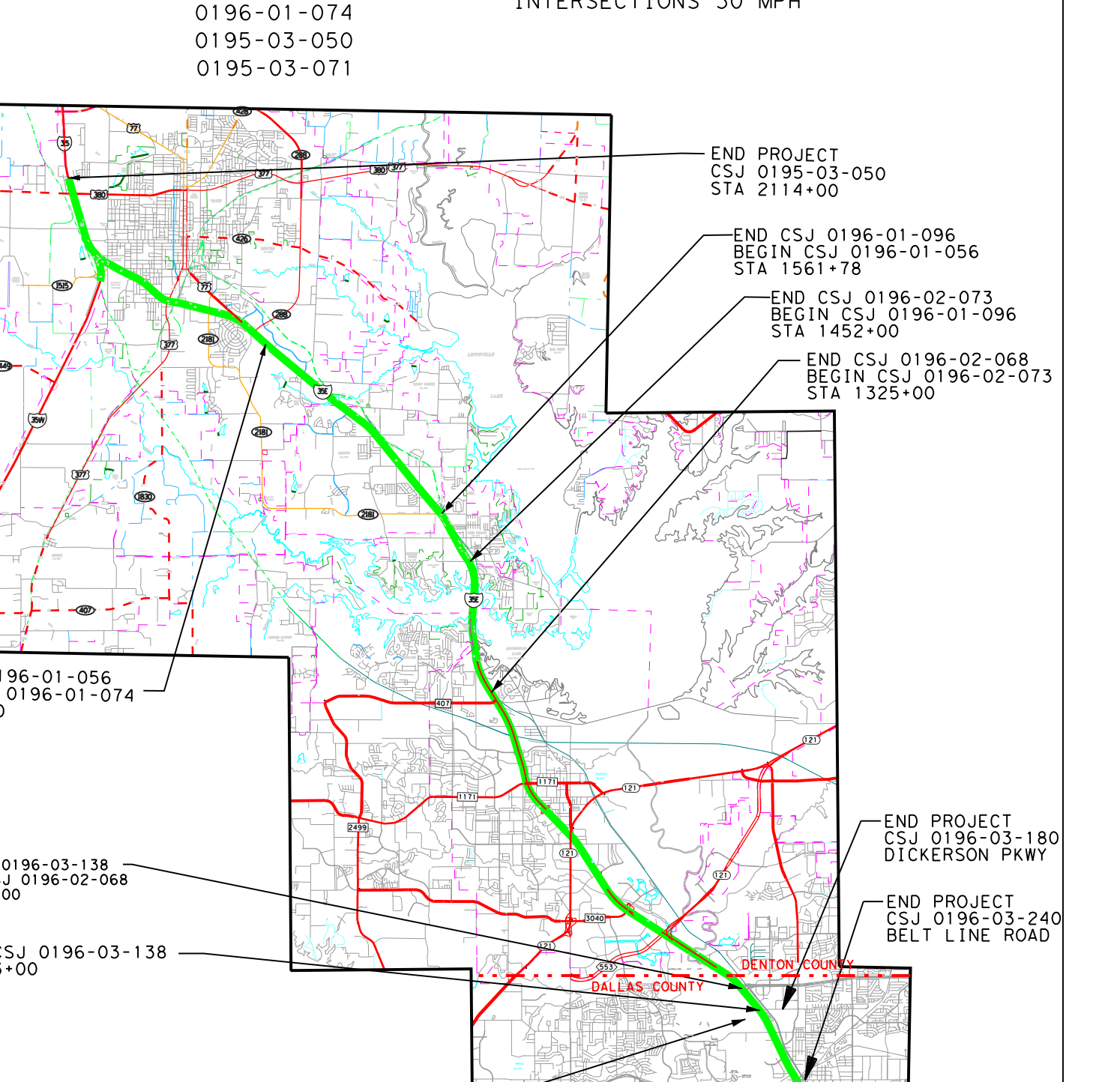
Course from 151 to PC KS-1 S 0° 56' 49" W Dist 209.71

                              Curve Data
                             *----------*
Curve KS-1
P.I.  Station          17+27.00  X      2,416,980.79  Y       7,094,820.62
Delta        =    119° 46' 37"  (LT)
Degree       =     19° 05' 55"
Tangent      =           517.29
Length       =           627.15
Radius       =           300.00
External     =           297.98
Long Chord   =           519.03
Mid. Ord.    =           149.49
P.C.  Station          12+09.71  X      2,416,989.34  Y       7,095,337.84
P.T.  Station          18+36.86  X      2,417,433.96  Y       7,095,070.07
C.C.                             X      2,417,289.30  Y       7,095,332.88
Back         = S   0° 56' 49" W
Ahead        = N  61° 10' 12" E
Chord Bear   = S  58° 56' 30" E

Course from PT KS-1 to 152 N 61° 10' 12" E Dist 166.84

Point 152          X     2,417,580.13 Y     7,095,150.52 Sta       20+03.71

==========================================================================
Ending chain ISCTTURBJH description
```



Texas Department of Transportation
DALLAS DISTRICT
DRAFT INTERIM SCHEMATIC
WILLIAM L. HALE, P.E., DISTRICT ENGINEER
IH 35E
FROM: IH 635
TO: US 380
DALLAS & DENTON COUNTY
FUNCTIONAL CLASS: URBAN FREEWAY
PROJECT LENGTH: 28.25 MILES
CSJ's: 0196-03-138 0196-03-240 0196-03-180 0196-03-245 0196-02-068 0196-02-073 0196-01-096 0196-01-056 0196-01-074 0195-03-050 0195-03-071
DESIGN SPEEDS: MAINLANES 70 MPH MANAGED LANES 70 MPH RAMPS 40 MPH TURNAROUND RAMPS 20 MPH FRONTAGE ROADS 40 MPH CROSS STREETS 30 MPH COLLECTOR DISTRIBUTOR 50 MPH DIRECT CONNECTORS 50 MPH INTERSECTIONS 30 MPH
TABLE OF CONTENTS: ROLL PLAN/PROFILE 1-12 PROFILES 13-24 HORIZONTAL CONTROL 25-30
SCALE: HORIZONTAL 1"=200' VERTICAL 1"=20'
1/11/2013
ROLL 29 OF 30
SCHEMATIC PREPARED BY: FOR INTERIM REVIEW ONLY NOT FOR PERMITTING, BIDDING OR CONSTRUCTION. Prepared by or under the Direct Supervision of: SHAWN BRENT STOVER 109251 NAME P.E. NUMBER 1/11/2013 DATE
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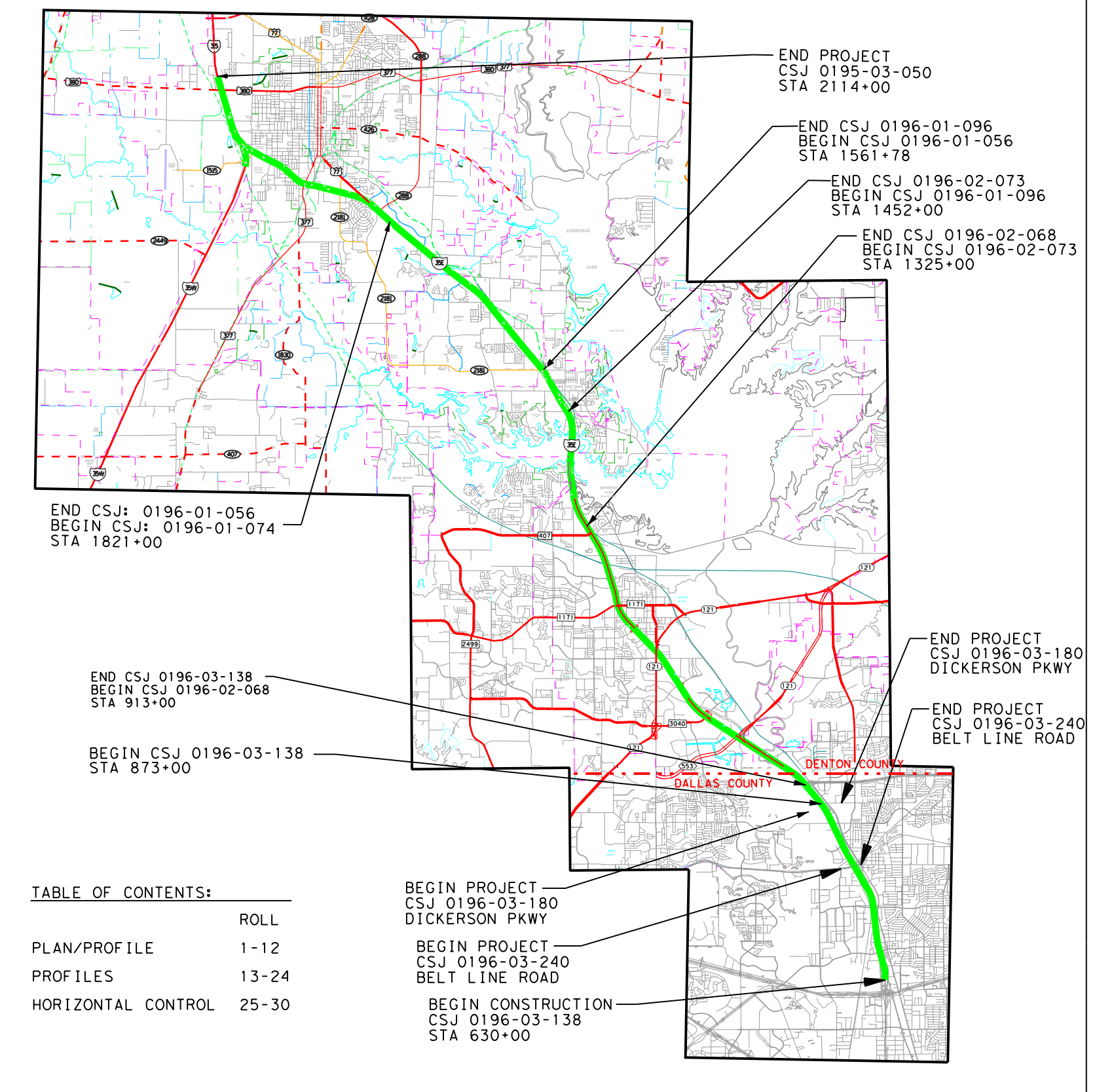
Texas Department of Transportation
DALLAS DISTRICT
DRAFT INTERIM SCHEMATIC
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

IH 35E
FROM: IH 635
TO: US 380

DALLAS & DENTON COUNTY
FUNCTIONAL CLASS: URBAN FREEWAY
PROJECT LENGTH: 28.25 MILES

CSJ's: 0196-03-138
0196-03-240
0196-03-180
0196-03-245
0196-02-068
0196-02-073
0196-01-096
0196-01-056
0196-01-074
0195-03-050
0195-03-071

DESIGN SPEEDS:
MAINLANES 70 MPH
MANAGED LANES 70 MPH
RAMPS 40 MPH
TURNAROUND RAMPS 20 MPH
FRONTAGE ROADS 40 MPH
CROSS STREETS 30 MPH
COLLECTOR DISTRIBUTOR 50 MPH
DIRECT CONNECTORS 50 MPH
INTERSECTIONS 30 MPH



END PROJECT
CSJ 0195-03-050
STA 2114+00

END CSJ 0196-01-096
BEGIN CSJ 0196-01-056
STA 1561+78

END CSJ 0196-02-073
BEGIN CSJ 0196-01-096
STA 1452+00

END CSJ 0196-02-068
BEGIN CSJ 0196-02-073
STA 1325+00

END CSJ: 0196-01-056
BEGIN CSJ: 0196-01-074
STA 1821+00

END PROJECT
CSJ 0196-03-180
DICKERSON PKWY

END PROJECT
CSJ 0196-03-240
BELT LINE ROAD

END CSJ 0196-03-138
BEGIN CSJ 0196-02-068
STA 913+00

BEGIN CSJ 0196-03-138
STA 873+00

BEGIN PROJECT
CSJ 0196-03-180
DICKERSON PKWY

BEGIN PROJECT
CSJ 0196-03-240
BELT LINE ROAD

BEGIN CONSTRUCTION
CSJ 0196-03-138
STA 630+00

TABLE OF CONTENTS:

	ROLL
PLAN/PROFILE	1-12
PROFILES	13-24
HORIZONTAL CONTROL	25-30

SCALE:
HORIZONTAL 1"=200'
VERTICAL 1"=20'

1/11/2013

ROLL 30 OF 30

SCHEMATIC PREPARED BY:
FOR INTERIM REVIEW ONLY
NOT FOR PERMITTING, BIDDING
OR CONSTRUCTION.
Prepared by or under the
Direct Supervision of:
SHAWN BRENT STOVER 109251
NAME P.E. NUMBER
1/11/2013
DATE

Plotted on: 10:20:04 AM

MCCORMICK

```
Beginning chain ISCTMCCORMICK07 description
Description: Intersection KE
===============================================================================

Point 122            X     2,382,878.39 Y     7,124,435.01 Sta      10+00.00

Course from 122 to PC KE-1 S 55°32' 23" W Dist 193.17

                              Curve Data
                             *----------*
Curve KE-1
P.I.  Station            13+54.46  X        2,382,586.13  Y        7,124,234.44
Delta        =         56°31' 41" (LT)
Degree       =         19°05' 55"
Tangent      =              161.29
Length       =              295.98
Radius       =              300.00
External     =               40.61
Long Chord   =              284.12
Mid. Ord.    =               35.77
P.C.  Station            11+93.17  X        2,382,719.11  Y        7,124,325.70
P.T.  Station            14+89.15  X        2,382,588.91  Y        7,124,073.17
C.C.                               X        2,382,888.86  Y        7,124,078.35
Back         = S  55°32' 23" W
Ahead        = S   0°59' 18" E
Chord Bear   = S  27°16' 32" W

Course from PT KE-1 to PC KE-2 S 0°59' 18" E Dist 657.41

                              Curve Data
                             *----------*
Curve KE-2
P.I.  Station            21+78.69  X        2,382,600.80  Y        7,123,383.74
Delta        =          7°21' 17" (RT)
Degree       =         11°27' 33"
Tangent      =               32.13
Length       =               64.18
Radius       =              500.00
External     =                1.03
Long Chord   =               64.14
Mid. Ord.    =                1.03
P.C.  Station            21+46.56  X        2,382,600.25  Y        7,123,415.87
P.T.  Station            22+10.74  X        2,382,597.24  Y        7,123,351.80
C.C.                               X        2,382,100.32  Y        7,123,407.24
Back         = S   0°59' 18" E
Ahead        = S   6°21' 59" W
Chord Bear   = S   2°41' 20" W

                              Curve Data
                             *----------*
Curve KE-3
P.I.  Station            22+33.88  X        2,382,594.67  Y        7,123,328.80
Delta        =          5°18' 01" (LT)
Degree       =         11°27' 33"
Tangent      =               23.14
Length       =               46.25
Radius       =              500.00
External     =                0.54
Long Chord   =               46.24
Mid. Ord.    =                0.53
P.C.  Station            22+10.74  X        2,382,597.24  Y        7,123,351.80
P.T.  Station            22+56.99  X        2,382,594.24  Y        7,123,305.66
C.C.                               X        2,383,094.16  Y        7,123,296.36
Back         = S   6°21' 59" W
Ahead        = S   1°03' 58" W
Chord Bear   = S   3°42' 58" W

Course from PT KE-3 to 123 S 1°03' 58" W Dist 302.81

Point 123            X     2,382,588.61 Y     7,123,002.90 Sta      25+59.80

===============================================================================
Ending chain ISCTMCCORMICK07 description
```

NORTH TEXAS BOULEVARD

```
Beginning chain ISCTNTEXASCL1 description
Description: Intersection KF
===============================================================================

Point 126            X     2,380,582.12 Y     7,125,612.20 Sta      10+00.00

Course from 126 to PC KF-1 S 55°27' 53" E Dist 133.92

                              Curve Data
                             *----------*
Curve KF-1
P.I.  Station            14+29.13  X        2,380,935.63  Y        7,125,368.92
Delta        =         80°17' 32" (RT)
Degree       =         16°22' 13"
Tangent      =              295.21
Length       =              490.48
Radius       =              350.00
External     =              107.87
Long Chord   =              451.32
Mid. Ord.    =               82.46
P.C.  Station            11+33.92  X        2,380,692.44  Y        7,125,536.28
P.T.  Station            16+24.40  X        2,380,811.67  Y        7,125,101.00
C.C.                               X        2,380,494.02  Y        7,125,247.96
Back         = S  55°27' 53" E
Ahead        = S  24°49' 40" W
Chord Bear   = S  15°19' 06" E

Course from PT KF-1 to PC KF-2 S 24°49' 40" W Dist 259.83

                              Curve Data
                             *----------*
Curve KF-2
P.I.  Station            20+90.11  X        2,380,616.12  Y        7,124,678.33
Delta        =         68°55' 19" (RT)
Degree       =         19°05' 55"
Tangent      =              205.88
Length       =              360.88
Radius       =              300.00
External     =               63.85
Long Chord   =              339.51
Mid. Ord.    =               52.65
P.C.  Station            18+84.23  X        2,380,702.57  Y        7,124,865.18
P.T.  Station            22+45.10  X        2,380,410.68  Y        7,124,691.79
C.C.                               X        2,380,430.30  Y        7,124,991.15
Back         = S  24°49' 40" W
Ahead        = N  86°15' 01" W
Chord Bear   = S  59°17' 20" W

Course from PT KF-2 to 127 N 86°15' 01" W Dist 197.59

Point 127            X     2,380,213.51 Y     7,124,704.72 Sta      24+42.70

===============================================================================
Ending chain ISCTNTEXASCL1 description
```

"PRELIMINARY SUBJECT TO CHANGE"
BASED ON FURTHER DEVELOPMENTS RESULTING
FROM PUBLIC INPUT AND TECHNICAL REVIEWS

BONNIE BRAE STREET

```
Beginning chain ISCTBONNIEBRA01 description
Description: Intersection KH
===============================================================================

Point 83             X     2,378,225.45 Y     7,126,998.99 Sta      10+00.00

Course from 83 to PC KH-1 S 0°06' 29" W Dist 1,191.46

                              Curve Data
                             *----------*
Curve KH-1
P.I.  Station            24+92.12  X        2,378,222.64  Y        7,125,506.87
Delta        =         67°29' 48" (RT)
Degree       =         12°43' 57"
Tangent      =              300.66
Length       =              530.12
Radius       =              450.00
External     =               91.20
Long Chord   =              499.99
Mid. Ord.    =               75.83
P.C.  Station            21+91.46  X        2,378,223.21  Y        7,125,807.53
P.T.  Station            27+21.58  X        2,377,944.66  Y        7,125,392.32
C.C.                               X        2,377,773.21  Y        7,125,808.38
Back         = S   0°06' 29" W
Ahead        = S  67°36' 17" W
Chord Bear   = S  33°51' 23" W

Course from PT KH-1 to 84 S 67°36' 17" W Dist 922.77

Point 84             X     2,377,091.48 Y     7,125,040.75 Sta      36+44.35

===============================================================================
Ending chain ISCTBONNIEBRA01 description
```

OAK STREET

```
Beginning chain ISCTOAKCL1 description
Description: Intersection KK
===============================================================================

Point 128            X     2,375,257.88 Y     7,128,492.73 Sta      10+00.00

Course from 128 to PC KK-1 N 67°45' 13" E Dist 755.57

                              Curve Data
                             *----------*
Curve KK-1
P.I.  Station            18+81.08  X        2,376,073.37  Y        7,128,826.30
Delta        =         23°37' 46" (RT)
Degree       =          9°32' 57"
Tangent      =              125.51
Length       =              247.45
Radius       =              600.00
External     =               12.99
Long Chord   =              245.70
Mid. Ord.    =               12.71
P.C.  Station            17+55.57  X        2,375,957.20  Y        7,128,778.78
P.T.  Station            20+03.02  X        2,376,198.84  Y        7,128,823.27
C.C.                               X        2,376,184.36  Y        7,128,223.45
Back         = N  67°45' 13" E
Ahead        = S  88°37' 01" E
Chord Bear   = N  79°34' 06" E

Course from PT KK-1 to 129 S 88°37' 01" E Dist 626.41

Point 129            X     2,376,825.07 Y     7,128,808.15 Sta      26+29.43

===============================================================================
Ending chain ISCTOAKCL1 description
```

US 380

```
Beginning chain ISCTUS380CL1 description
Description: Intersection KM
===============================================================================

Point 139            X     2,375,292.04 Y     7,134,039.30 Sta      10+00.00

Course from 139 to PC KM-1 N 88°56''43" W Dist 1,208.56

                              Curve Data
                             *----------*
Curve KM-1
P.I.  Station            22+59.71  X        2,374,032.55  Y        7,134,062.49
Delta        =          4°18''28" (RT)
Degree       =          4°12''47"
Tangent      =               51.15
Length       =              102.25
Radius       =            1,360.00
External     =                0.96
Long Chord   =              102.22
Mid. Ord.    =                0.96
P.C.  Station            22+08.56  X        2,374,083.69  Y        7,134,061.55
P.T.  Station            23+10.81  X        2,373,981.62  Y        7,134,067.27
C.C.                               X        2,374,108.72  Y        7,135,421.31
Back         = N  88°56''43" W
Ahead        = N  84°38''15" W
Chord Bear   = N  86°47''29" W

                              Curve Data
                             *----------*
Curve KM-2
P.I.  Station            23+60.30  X        2,373,932.35  Y        7,134,071.89
Delta        =          4°21''37" (LT)
Degree       =          4°24''27"
Tangent      =               49.49
Length       =               98.93
Radius       =            1,300.00
External     =                0.94
Long Chord   =               98.91
Mid. Ord.    =                0.94
P.C.  Station            23+10.81  X        2,373,981.62  Y        7,134,067.27
P.T.  Station            24+09.74  X        2,373,882.87  Y        7,134,072.76
C.C.                               X        2,373,860.13  Y        7,132,772.96
Back         = N  84°38''15" W
Ahead        = N  88°59''52" W
Chord Bear   = N  86°49''04" W

Course from PT KM-2 to 140 N 88°59''52" W Dist 490.26

Point 140            X     2,373,392.68 Y     7,134,081.33 Sta      29+00.00

===============================================================================
Ending chain ISCTUS380CL1 description
```

CROSBY

```
Beginning chain ISCTCROSBYCL1 description
Description: Intersection KN
===============================================================================

                              Curve Data
                             *----------*
Curve KN-1
P.I.  Station           100+97.96  X        2,457,476.03  Y        7,032,040.53
Delta        =        31° 16''25" (LT)
Degree       =        16° 22''13"
Tangent      =               97.96
Length       =              191.04
Radius       =              350.00
External     =               13.45
Long Chord   =              188.68
Mid. Ord.    =               12.95
P.C.  Station           100+00.00  X        2,457,378.07  Y        7,032,040.27
P.T.  Station           101+91.04  X        2,457,559.62  Y        7,032,091.61
C.C.                               X        2,457,377.14  Y        7,032,390.27
Back         = N  89° 50''54" E
Ahead        = N  58° 34''29" E
Chord Bear   = N  74° 12''41" E

Course from PT KN-1 to 94 N 58° 34''29" E Dist 703.95

Point 94             X     2,458,160.32 Y     7,032,458.64 Sta     108+94.99

===============================================================================
Ending chain ISCTCROSBYCL1 description
```

NEW STREET

```
Beginning chain ISCTNEWCL1 description
Description: Intersection KQ
===============================================================================

Point 124            X     2,455,624.78 Y     7,035,102.72 Sta     100+00.00

Course from 124 to PC KQ-1 N 59° 38' 13" E Dist 505.06

                              Curve Data
                             *----------*
Curve KQ-1
P.I.  Station           105+33.10  X        2,456,084.76  Y        7,035,372.19
Delta        =          7° 07' 50" (LT)
Degree       =         12° 43' 57"
Tangent      =               28.04
Length       =               56.00
Radius       =              450.00
External     =                0.87
Long Chord   =               55.97
Mid. Ord.    =                0.87
P.C.  Station           105+05.06  X        2,456,060.57  Y        7,035,358.02
P.T.  Station           105+61.07  X        2,456,107.00  Y        7,035,389.26
C.C.                               X        2,455,833.10  Y        7,035,746.30
Back         = N  59° 38' 13" E
Ahead        = N  52° 30' 23" E
Chord Bear   = N  56° 04' 18" E

Course from PT KQ-1 to 125 N 52° 30' 23" E Dist 61.39

Point 125            X     2,456,155.72 Y     7,035,426.63 Sta     106+22.46

===============================================================================
Ending chain ISCTNEWCL1 description
```

DENTON DRIVE EAST

```
Beginning chain ISCTDENTONEAS03 description
Description: Intersection KR
===============================================================================

Point 95             X     2,418,010.44 Y     7,095,550.82 Sta      10+00.00

Course from 95 to PC KR-1 N 37° 53' 06" W Dist 742.81

                              Curve Data
                             *----------*
Curve KR-1
P.I.  Station            18+27.90  X        2,417,502.05  Y        7,096,204.23
Delta        =         50° 36' 10" (LT)
Degree       =         31° 49' 52"
Tangent      =               85.09
Length       =              158.97
Radius       =              180.00
External     =               19.10
Long Chord   =              153.86
Mid. Ord.    =               17.27
P.C.  Station            17+42.81  X        2,417,554.30  Y        7,096,137.08
P.T.  Station            19+01.78  X        2,417,416.99  Y        7,096,206.48
C.C.                               X        2,417,412.24  Y        7,096,026.54
Back         = N  37° 53' 06" W
Ahead        = N  88° 29' 16" W
Chord Bear   = N  63° 11' 11" W

                              Curve Data
                             *----------*
Curve KR-2
P.I.  Station            19+36.04  X        2,417,382.74  Y        7,096,207.38
Delta        =         37° 49' 18" (LT)
Degree       =         57° 17' 45"
Tangent      =               34.26
Length       =               66.01
Radius       =              100.00
External     =                5.71
Long Chord   =               64.82
Mid. Ord.    =                5.40
P.C.  Station            19+01.78  X        2,417,416.99  Y        7,096,206.48
P.T.  Station            19+67.79  X        2,417,355.13  Y        7,096,187.10
C.C.                               X        2,417,414.35  Y        7,096,106.51
Back         = N  88° 29' 16" W
Ahead        = S  53° 41' 26" W
Chord Bear   = S  72° 36' 05" W

Course from PT KR-2 to 96 S 53° 41' 26" W Dist 42.59

Point 96             X     2,417,320.81 Y     7,096,161.88 Sta      20+10.38

===============================================================================
Ending chain ISCTDENTONEAS03 description
```

RAILROADS

BNSF RAILROAD

```
Beginning chain RRBNSF description
Description: Railroad RA
===============================================================================

                              Curve Data
                             *----------*
Curve RA-1
P.I.  Station           491+15.57  X        2,458,513.94  Y        7,029,656.57
Delta        =        21° 34''15" (LT)
Degree       =         0° 59''52"
Tangent      =            1,093.84
Length       =            2,161.79
Radius       =            5,742.05
External     =              103.26
Long Chord   =            2,149.04
Mid. Ord.    =              101.43
P.C.  Station           480+21.73  X        2,458,595.15  Y        7,028,565.75
P.T.  Station           501+83.51  X        2,458,037.38  Y        7,030,641.14
C.C.                               X        2,452,868.95  Y        7,028,139.46
Back         = N   4° 15''27" W
Ahead        = N  25° 49''42" W
Chord Bear   = N  15° 02''35" W

Course from PT RA-1 to PC RA-2 N 25° 49''42" W Dist 1,853.57

                              Curve Data
                             *----------*
Curve RA-2
P.I.  Station           521+38.44  X        2,457,185.65  Y        7,032,400.78
Delta        =         2° 19''22" (LT)
Degree       =         1° 08''45"
Tangent      =              101.36
Length       =              202.69
Radius       =            5,000.00
External     =                1.03
Long Chord   =              202.68
Mid. Ord.    =                1.03
P.C.  Station           520+37.08  X        2,457,229.81  Y        7,032,309.55
P.T.  Station           522+39.77  X        2,457,137.83  Y        7,032,490.15
C.C.                               X        2,452,729.30  Y        7,030,131.16
Back         = N  25° 49''42" W
Ahead        = N  28° 09''04" W
Chord Bear   = N  26° 59''23" W

Course from PT RA-2 to PC RA-3 N 28° 09''04" W Dist 1,058.34

                              Curve Data
                             *----------*
Curve RA-3
P.I.  Station           537+62.62  X        2,456,419.35  Y        7,033,832.86
Delta        =        44° 07''08" (RT)
Degree       =         4° 59''54"
Tangent      =              464.51
Length       =              882.66
Radius       =            1,146.28
External     =               90.54
Long Chord   =              861.01
Mid. Ord.    =               83.91
P.C.  Station           532+98.11  X        2,456,638.51  Y        7,033,423.30
P.T.  Station           541+80.77  X        2,456,547.14  Y        7,034,279.45
C.C.                               X        2,457,649.19  Y        7,033,964.11
Back         = N  28° 09''04" W
Ahead        = N  15° 58''04" E
Chord Bear   = N   6° 05''30" W

Course from PT RA-3 to PC RA-4 N 15° 58''04" E Dist 576.14

                              Curve Data
                             *----------*
Curve RA-4
P.I.  Station           549+62.12  X        2,456,762.09  Y        7,035,030.65
Delta        =        20° 18''00" (RT)
Degree       =         4° 59''54"
Tangent      =              205.21
Length       =              406.13
Radius       =            1,146.28
External     =               18.22
Long Chord   =              404.01
Mid. Ord.    =               17.94
P.C.  Station           547+56.91  X        2,456,705.63  Y        7,034,833.36
P.T.  Station           551+63.04  X        2,456,883.48  Y        7,035,196.11
C.C.                               X        2,457,807.68  Y        7,034,518.02
Back         = N  15° 58''04" E
Ahead        = N  36° 16''03" E
Chord Bear   = N  26° 07''03" E

Course from PT RA-4 to 200 N 36° 16''03" E Dist 260.53

Point 200            X     2,457,037.60 Y     7,035,406.16 Sta     554+23.56

===============================================================================
Ending chain RRBNSF description
```

COTTONBELT RAILROAD

```
Beginning chain RRCOTTON description
Description: Railroad RB
===============================================================================

Point 201            X     2,457,732.44 Y     7,035,977.44 Sta     6518+00.00

Course from 201 to PC RB-1 S 57° 42' 19" W Dist 282.26

                              Curve Data
                             *----------*
Curve RB-1
P.I.  Station          6523+60.24  X        2,457,258.86  Y        7,035,678.12
Delta        =        18° 34' 24" (LT)
Degree       =         3° 22' 13"
Tangent      =              277.98
Length       =              551.08
Radius       =            1,700.00
External     =               22.58
Long Chord   =              548.67
Mid. Ord.    =               22.28
P.C.  Station          6520+82.26  X        2,457,493.84  Y        7,035,826.63
P.T.  Station          6526+33.35  X        2,457,083.42  Y        7,035,462.49
C.C.                               X        2,458,402.11  Y        7,034,389.61
Back         = S  57° 42' 19" W
Ahead        = S  39° 07' 54" W
Chord Bear   = S  48° 25' 06" W

Course from PT RB-1 to PC RB-2 S 39° 07' 54" W Dist 609.30

                              Curve Data
                             *----------*
Curve RB-2
P.I.  Station          6535+86.13  X        2,456,482.12  Y        7,034,723.42
Delta        =        26° 57' 50" (RT)
Degree       =         3° 59' 57"
Tangent      =              343.48
Length       =              674.23
Radius       =            1,432.69
External     =               40.60
Long Chord   =              668.03
Mid. Ord.    =               39.48
P.C.  Station          6532+42.65  X        2,456,698.89  Y        7,034,989.86
P.T.  Station          6539+16.88  X        2,456,168.10  Y        7,034,584.24
C.C.                               X        2,455,587.56  Y        7,035,894.03
Back         = S  39° 07' 54" W
Ahead        = S  66° 05' 44" W
Chord Bear   = S  52° 36' 49" W

Course from PT RB-2 to PC RB-3 S 66° 05' 44" W Dist 166.07

                              Curve Data
                             *----------*
Curve RB-3
P.I.  Station          6545+83.69  X        2,455,558.49  Y        7,034,314.04
Delta        =        19° 35' 36" (RT)
Degree       =         1° 58' 33"
Tangent      =              500.74
Length       =              991.71
Radius       =            2,900.00
External     =               42.91
Long Chord   =              986.88
Mid. Ord.    =               42.29
P.C.  Station          6540+82.95  X        2,456,016.28  Y        7,034,516.94
P.T.  Station          6550+74.66  X        2,455,059.16  Y        7,034,276.40
C.C.                               X        2,454,841.16  Y        7,037,168.19
Back         = S  66° 05' 44" W
Ahead        = S  85° 41' 20" W
Chord Bear   = S  75° 53' 32" W

Course from PT RB-3 to 202 S 85° 41' 20" W Dist 4,537.38

Point 202            X     2,450,534.61 Y     7,033,935.32 Sta     6596+12.04

===============================================================================
Ending chain RRCOTTON description
```

DGNO RAILROAD

```
Beginning chain RRDGNO description
Description: Railroad RC
===============================================================================

Point 203            X     2,459,098.76 Y     7,031,316.15 Sta       8+00.00

Course from 203 to PC RC-1 N 7° 23' 02" W Dist 202.46

                              Curve Data
                             *----------*
Curve RC-1                        (Chord Definition)
P.I.  Station            11+10.83  X        2,459,058.82  Y        7,031,624.40
Delta        =        24° 27' 27" (LT)
Degree       =        11° 28' 42"
Tangent      =              108.37
Length       =              213.08
Radius       =              500.00
External     =               11.61
Long Chord   =              211.82
Mid. Ord.    =               11.35
P.C.  Station            10+02.46  X        2,459,072.74  Y        7,031,516.93
P.T.  Station            12+15.54  X        2,459,001.65  Y        7,031,716.46
C.C.                               X        2,458,576.89  Y        7,031,452.67
Back         = N   7° 23' 02" W
Ahead        = N  31° 50' 29" W
Chord Bear   = N  19° 36' 45" W

Course from PT RC-1 to 204 N 31° 50' 29" W Dist 3,300.36

Point 204            X     2,457,260.48 Y     7,034,520.15 Sta      45+15.90

Course from 204 to PC RC-2 N 31° 50' 29" W Dist 160.59

                              Curve Data
                             *----------*
Curve RC-2
P.I.  Station            47+56.97  X        2,457,133.30  Y        7,034,724.95
Delta        =         4° 51' 05" (RT)
Degree       =         3° 00' 56"
Tangent      =               80.49
Length       =              160.88
Radius       =            1,900.00
External     =                1.70
Long Chord   =              160.83
Mid. Ord.    =                1.70
P.C.  Station            46+76.48  X        2,457,175.76  Y        7,034,656.57
P.T.  Station            48+37.36  X        2,457,096.77  Y        7,034,796.67
C.C.                               X        2,458,789.83  Y        7,035,658.95
Back         = N  31° 50' 29" W
Ahead        = N  26° 59' 24" W
Chord Bear   = N  29° 24' 56" W

Course from PT RC-2 to PC RC-3 N 26° 59' 24" W Dist 174.57

                              Curve Data
                             *----------*
Curve RC-3
P.I.  Station            50+92.41  X        2,456,981.02  Y        7,035,023.94
Delta        =         4° 51' 04" (LT)
Degree       =         3° 00' 56"
Tangent      =               80.48
Length       =              160.87
Radius       =            1,900.00
External     =                1.70
Long Chord   =              160.82
Mid. Ord.    =                1.70
P.C.  Station            50+11.93  X        2,457,017.54  Y        7,034,952.22
P.T.  Station            51+72.80  X        2,456,938.56  Y        7,035,092.31
C.C.                               X        2,455,324.48  Y        7,034,089.94
Back         = N  26° 59' 24" W
Ahead        = N  31° 50' 28" W
Chord Bear   = N  29° 24' 56" W

Course from PT RC-3 to PC RC-4 N 31° 50' 28" W Dist 2,953.46

                              Curve Data
                             *----------*
Curve RC-4
P.I.  Station            88+12.71  X        2,455,018.27  Y        7,038,184.47
Delta        =        13° 58' 18" (RT)
Degree       =         1° 01' 22"
Tangent      =              686.45
Length       =            1,366.09
Radius       =            5,602.19
External     =               41.90
Long Chord   =            1,362.71
Mid. Ord.    =               41.59
P.C.  Station            81+26.26  X        2,455,380.42  Y        7,037,601.32
P.T.  Station            94+92.35  X        2,454,807.63  Y        7,038,837.80
C.C.                               X        2,460,139.56  Y        7,040,556.84
Back         = N  31° 50' 28" W
Ahead        = N  17° 52' 10" W
Chord Bear   = N  24° 51' 19" W

===============================================================================
Ending chain RRDGNO description
```

KCS RAILROAD

```
Beginning chain RRKCS description
Description: Railroad RE
===============================================================================

Point 205            X     2,426,220.59 Y     7,072,896.48 Sta       3+60.00

Course from 205 to PC RE-1 N 79° 59' 42" W Dist 99.19

                              Curve Data
                             *----------*
Curve RE-1
P.I.  Station             5+87.12  X        2,425,996.92  Y        7,072,935.93
Delta        =         2° 33' 29" (LT)
Degree       =         1° 00' 00"
Tangent      =              127.93
Length       =              255.81
Radius       =            5,729.58
External     =                1.43
Long Chord   =              255.79
Mid. Ord.    =                1.43
P.C.  Station             4+59.19  X        2,426,122.90  Y        7,072,913.71
P.T.  Station             7+15.00  X        2,425,870.07  Y        7,072,952.51
C.C.                               X        2,425,127.48  Y        7,067,271.26
Back         = N  79° 59' 42" W
Ahead        = N  82° 33' 11" W
Chord Bear   = N  81° 16' 27" W

Course from PT RE-1 to PC RE-2 N 82° 33' 11" W Dist 519.99

                              Curve Data
                             *----------*
Curve RE-2
P.I.  Station            15+18.37  X        2,425,073.48  Y        7,073,056.64
Delta        =         5° 39' 47" (RT)
Degree       =         1° 00' 00"
Tangent      =              283.38
Length       =              566.30
Radius       =            5,729.58
External     =                7.00
Long Chord   =              566.07
Mid. Ord.    =                7.00
P.C.  Station            12+35.00  X        2,425,354.47  Y        7,073,019.91
P.T.  Station            18+01.29  X        2,424,797.48  Y        7,073,120.91
C.C.                               X        2,426,097.06  Y        7,078,701.16
Back         = N  82° 33' 11" W
Ahead        = N  76° 53' 25" W
Chord Bear   = N  79° 43' 18" W

Course from PT RE-2 to PC RE-3 N 76° 53' 25" W Dist 1,034.85

                              Curve Data
                             *----------*
Curve RE-3
P.I.  Station            32+94.45  X        2,423,343.25  Y        7,073,459.59
Delta        =         9° 08' 48" (RT)
Degree       =         1° 00' 00"
Tangent      =              458.30
Length       =              914.66
Radius       =            5,729.58
External     =               18.30
Long Chord   =              913.69
Mid. Ord.    =               18.24
P.C.  Station            28+36.14  X        2,423,789.60  Y        7,073,355.63
P.T.  Station            37+50.80  X        2,422,919.09  Y        7,073,633.17
C.C.                               X        2,425,089.17  Y        7,078,935.88
Back         = N  76° 53' 25" W
Ahead        = N  67° 44' 37" W
Chord Bear   = N  72° 19' 01" W

Course from PT RE-3 to PC RE-4 N 67° 44' 37" W Dist 527.99

                              Curve Data
                             *----------*
Curve RE-4
P.I.  Station            43+46.07  X        2,422,368.17  Y        7,073,858.63
Delta        =         1° 20' 44" (LT)
Degree       =         1° 00' 00"
Tangent      =               67.28
Length       =              134.56
Radius       =            5,729.58
External     =                0.40
Long Chord   =              134.55
Mid. Ord.    =                0.39
P.C.  Station            42+78.79  X        2,422,430.44  Y        7,073,833.14
P.T.  Station            44+13.34  X        2,422,305.32  Y        7,073,882.64
C.C.                               X        2,420,260.35  Y        7,068,530.43
Back         = N  67° 44' 37" W
Ahead        = N  69° 05' 21" W
Chord Bear   = N  68° 24' 59" W

===============================================================================
Ending chain RRKCS description
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UNION PACIFIC RAILROAD

```
Beginning chain RRUPRR description
Description: Railroad RD
===============================================================================

Point 206            X     2,385,612.09 Y     7,121,174.51 Sta      10+00.00

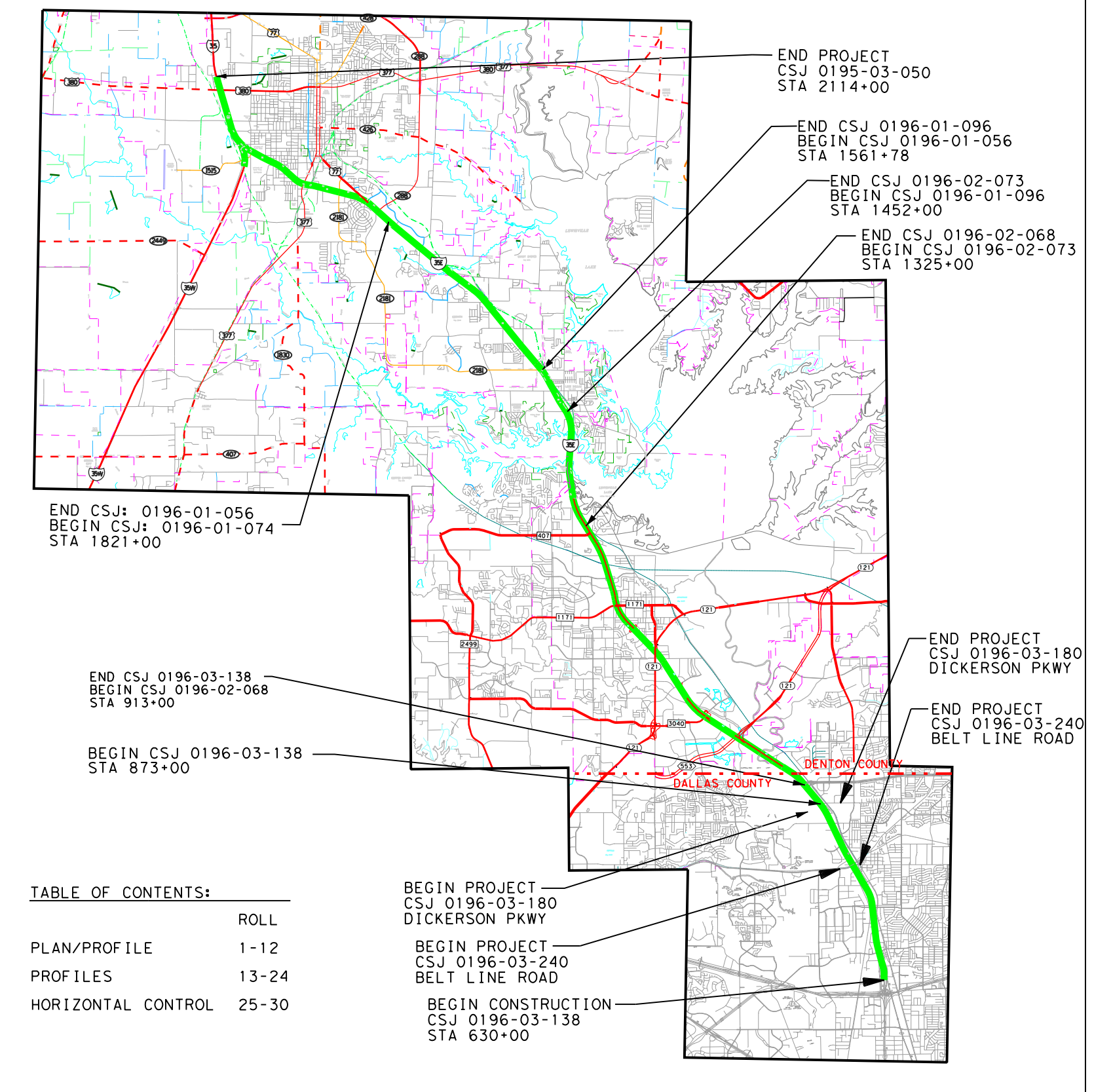
Course from 206 to PC RD-1 N 27° 37' 51" E Dist 943.32

                              Curve Data
                             *----------*
Curve RD-1
P.I.  Station            21+93.22  X        2,386,165.47  Y        7,122,231.65
Delta        =         8° 10' 04" (LT)
Degree       =         1° 38' 13"
Tangent      =              249.90
Length       =              498.94
Radius       =            3,500.00
External     =                8.91
Long Chord   =              498.52
Mid. Ord.    =                8.89
P.C.  Station            19+43.32  X        2,386,049.57  Y        7,122,010.25
P.T.  Station            24+42.26  X        2,386,248.73  Y        7,122,467.26
C.C.                               X        2,382,948.74  Y        7,123,633.46
Back         = N  27° 37' 51" E
Ahead        = N  19° 27' 47" E
Chord Bear   = N  23° 32' 49" E

Course from PT RD-1 to 207 N 19° 27' 47" E Dist 298.35

Point 207            X     2,386,348.14 Y     7,122,748.57 Sta      27+40.62

===============================================================================
Ending chain RRUPRR description
```



Texas Department of Transportation
DALLAS DISTRICT
DRAFT INTERIM SCHEMATIC
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

IH 35E
FROM: IH 635
TO: US 380

DALLAS & DENTON COUNTY
FUNCTIONAL CLASS: URBAN FREEWAY
PROJECT LENGTH: 28.25 MILES

CSJ's: 0196-03-138
0196-03-240
0196-03-180
0196-03-245
0196-02-068
0196-02-073
0196-01-096
0196-01-056
0196-01-074
0195-03-050
0195-03-071

DESIGN SPEEDS:
MAINLANES 70 MPH
MANAGED LANES 70 MPH
RAMPS 40 MPH
TURNAROUND RAMPS 20 MPH
FRONTAGE ROADS 40 MPH
CROSS STREETS 30 MPH
COLLECTOR DISTRIBUTOR 50 MPH
DIRECT CONNECTORS 50 MPH
INTERSECTIONS 30 MPH

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ROLL
PLAN/PROFILE 1-12
PROFILES 13-24
HORIZONTAL CONTROL 25-30

SCALE:
HORIZONTAL 1"=200'
VERTICAL 1"=20'

1/11/2013

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