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Texas Department of Transportation

DALLAS DISTRICT

Design Schematic

Jay R. Nelson, P.E.
District Engineer

U.S. 75
From Spur 399
To S.H. 121

McKinney, Texas
Collin County

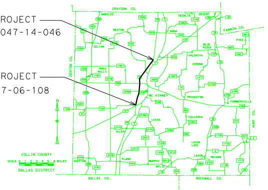
CSJ: 0047-06-108
0047-14-046

Functional Class.2: Urban Freeway

Project Length = 7.52 miles

Design Speed:

Mainlanes 70 mph
Ramps 50 mph
Frontage Rds 40 mph


GRAYSON CO.
DENTON CO.
FANNIN CO.
HUNT CO.
DALLAS CO.
ROCKWALL CO.
MC KINNEY
PRINCETON
FARMERSVILLE
LUCAS
WYLIE
MURPHY
PLANO
ALLEN
CELINA
BLUE RIDGE
COLLIN COUNTY
SCALE MILES
DALLAS DISTRICT

END PROJECT
CSJ:0047-14-046

BEGIN PROJECT
CSJ:0047-06-108

Scale:
Horizontal 1:200
Vertical 1:20

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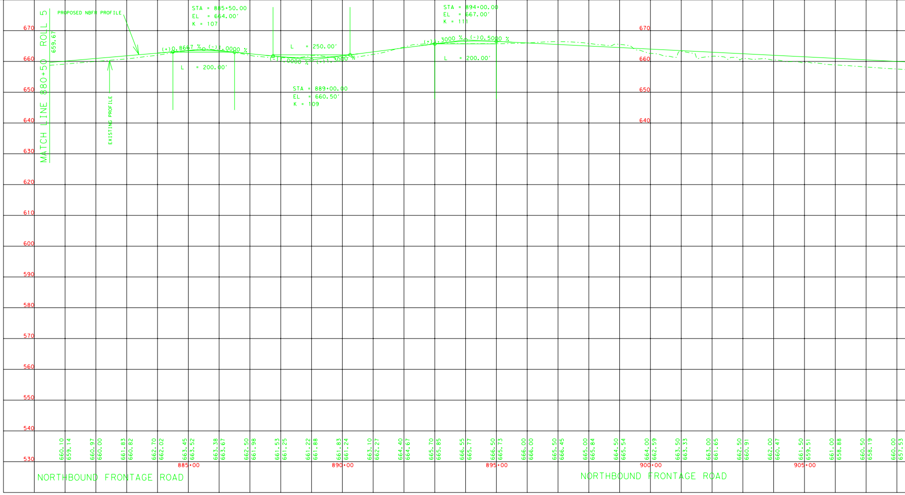
October 2003

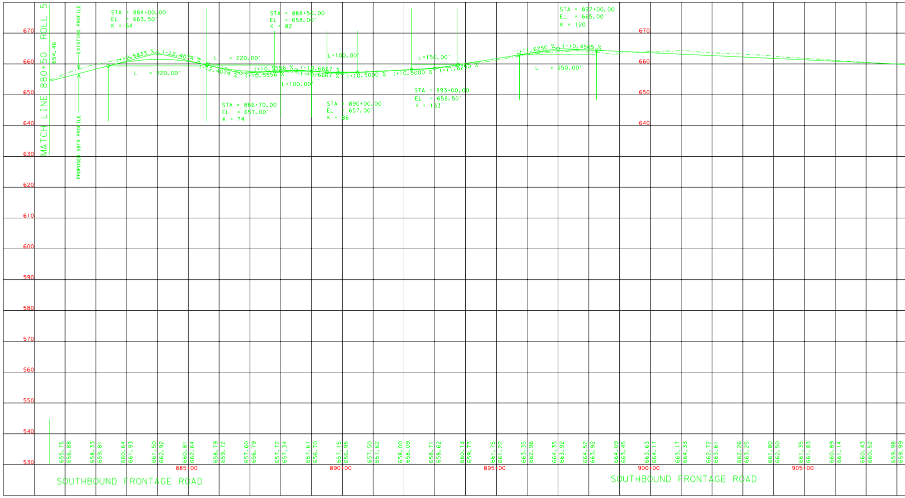
SCHEMATIC PREPARED BY:
TxDOT DALLAS DISTRICT

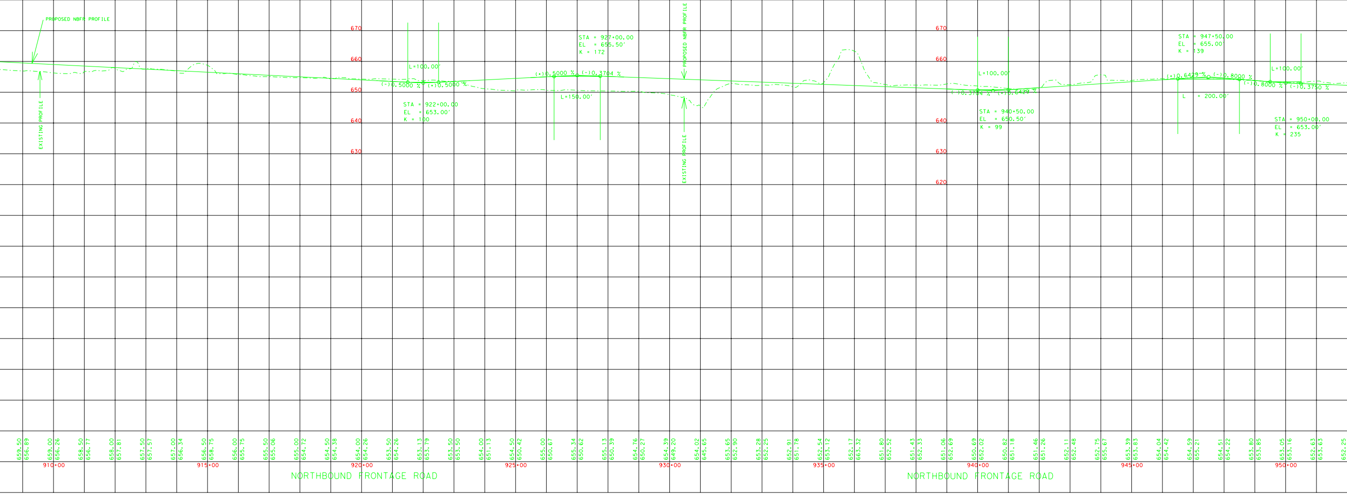
MICHAEL A. RENFROW, P.E.
PROJECT MANAGER

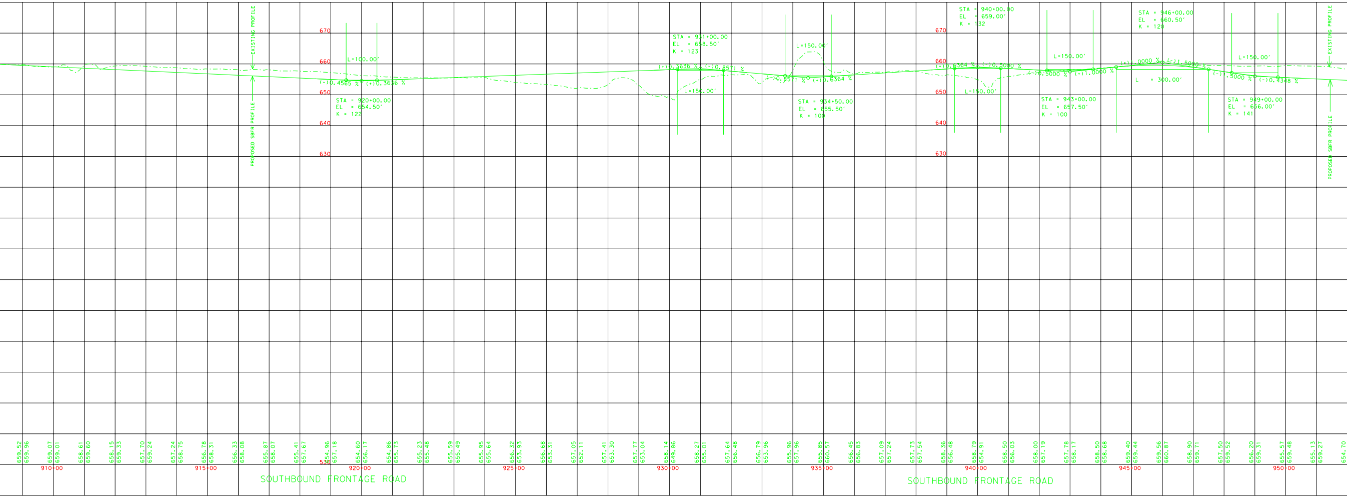
75050	OCTOBER 2003
P.E. NUMBER	DATE

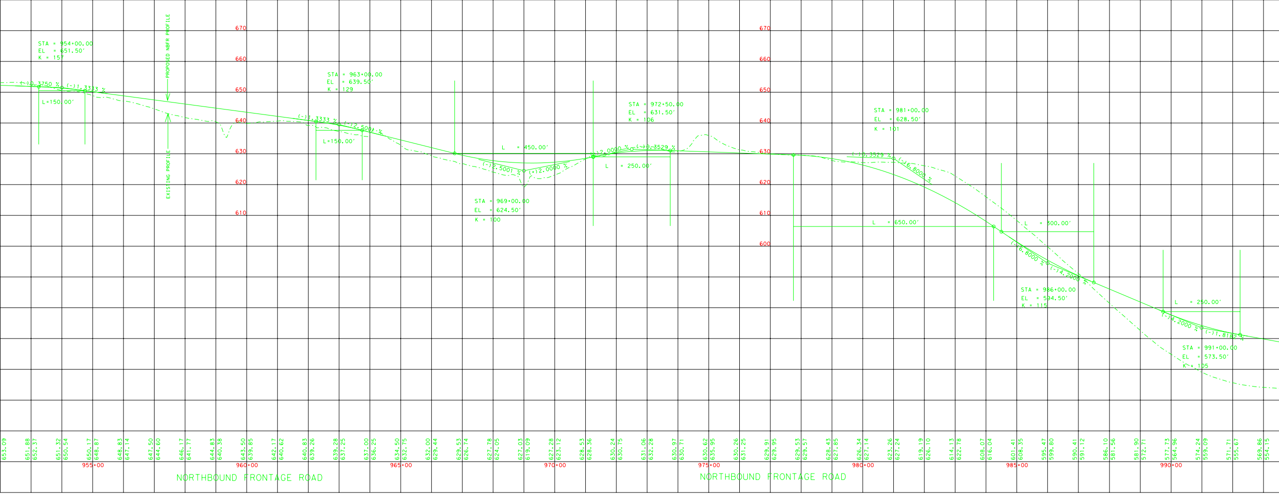
Roll 6 of 6


MATCH LINE 880+50 ROLL 5
659.67
PROPOSED NBFR PROFILE
EXISTING PROFILE
STA = 885+50.00
EL = 664.00'
K = 107
(+)0.8667 %
(-)1.0000 %
L = 200.00'
L = 250.00'
(-)1.0000 %
(+)1.3000 %
STA = 889+00.00
EL = 660.50'
K = 109
STA = 894+00.00
EL = 667.00'
K = 111
(+)1.3000 %
(-)0.5000 %
L = 200.00'
670
660
650
640
630
620
610
600
590
580
570
560
550
540
530
660.10 659.14
660.97 660.00
661.83 660.82
662.70 662.02
663.45 663.52
663.38 663.67
662.50 661.98
661.53 661.25
661.22 661.88
661.83 661.24
663.10 662.27
664.40 664.67
665.70 665.85
666.55 665.77
666.50 665.73
666.00 666.00
665.50 666.45
665.00 665.84
664.50 665.54
664.00 662.59
663.50 663.33
663.00 661.65
662.50 660.91
662.00 660.47
661.50 659.51
661.00 658.88
660.50 658.19
660.00 657.53
885+00
890+00
895+00
900+00
905+00
NORTHBOUND FRONTAGE ROAD
NORTHBOUND FRONTAGE ROAD

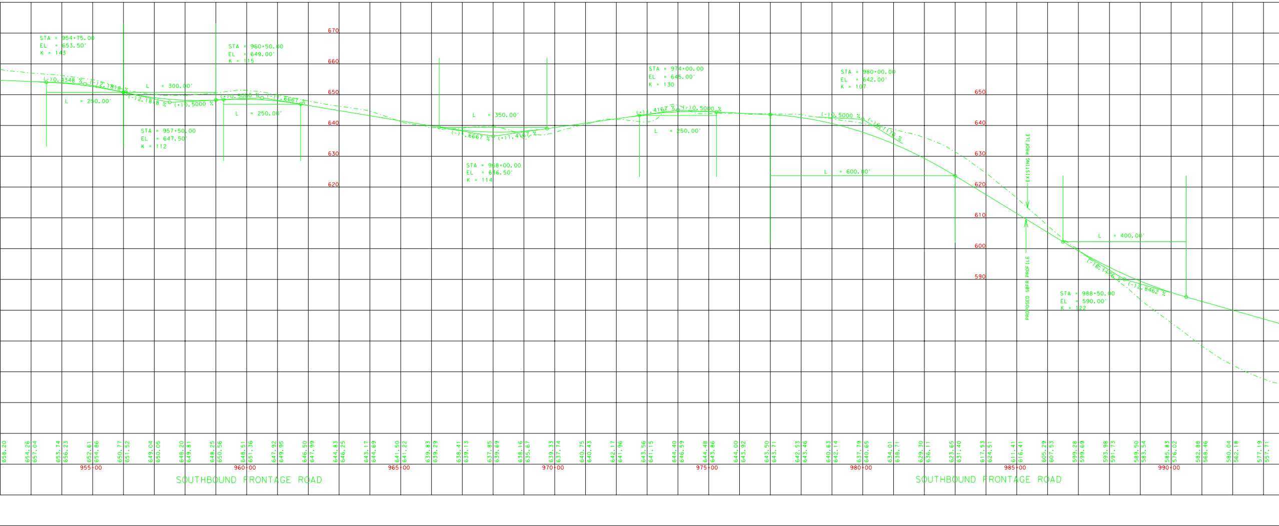

MATCH LINE 880+50 ROLL 5
654.46
EXISTING PROFILE
PROPOSED SBFR PROFILE
STA = 884+00.00
EL = 663.50'
K = 64
(+)2.5833 %
(-)2.4074 %
L = 320.00'
L = 220.00'
(-)2.4074 %
(+)0.5556 %
STA = 886+70.00
EL = 657.00'
K = 74
STA = 888+50.00
EL = 658.00'
K = 82
(+)0.5556 %
(-)0.6667 %
L=100.00'
L=100.00'
(-)0.6667 %
(+)0.5000 %
STA = 890+00.00
EL = 657.00'
K = 86
L=150.00'
(+)0.5000 %
(+)1.6250 %
STA = 893+00.00
EL = 658.50'
K = 133
STA = 897+00.00
EL = 665.00'
K = 120
(+)1.6250 %
(-)0.4565 %
L = 250.00'
670
660
650
640
630
620
610
600
590
580
570
560
550
540
530
655.75 656.88
658.33 659.81
660.64 661.93
661.50 662.92
660.81 662.64
658.79 659.72
657.60 656.79
657.72 657.34
657.67 656.70
657.15 656.95
657.50 657.62
658.00 658.09
658.71 658.62
660.13 659.73
661.75 661.22
663.35 662.96
664.35 663.92
664.52 663.92
664.09 663.45
663.63 664.17
663.17 664.33
662.72 663.61
662.26 663.25
661.80 662.50
661.35 661.83
660.89 661.14
660.43 660.52
659.98 659.99
885+00
890+00
895+00
900+00
905+00
SOUTHBOUND FRONTAGE ROAD
SOUTHBOUND FRONTAGE ROAD


PROPOSED NBFR PROFILE
EXISTING PROFILE
670
660
650
640
630
620
L=100.00'
(-)0.5000 %
(+)0.5000 %
STA = 922+00.00
EL = 653.00'
K = 100
STA = 927+00.00
EL = 655.50'
K = 172
(+)0.5000 %
(-)0.3704 %
L=150.00'
PROPOSED NBFR PROFILE
EXISTING PROFILE
L=100.00'
(-)0.3704 %
(+)0.6429 %
STA = 940+50.00
EL = 650.50'
K = 99
STA = 947+50.00
EL = 655.00'
K = 139
(+)0.6429 %
(-)0.8000 %
L = 200.00'
L=100.00'
(-)0.8000 %
(-)0.3750 %
STA = 950+00.00
EL = 653.00'
K = 235
659.50 656.89
659.00 656.26
658.50 656.77
658.00 657.81
657.50 657.57
657.00 656.34
656.50 658.75
656.00 655.75
655.50 655.06
655.00 654.72
654.50 654.38
654.00 654.26
653.50 654.26
653.13 653.79
653.50 653.50
654.00 651.13
654.50 650.42
655.00 650.67
655.34 650.62
655.13 650.39
654.76 650.27
654.39 649.20
654.02 645.65
653.65 652.90
653.28 652.25
652.91 651.78
652.54 653.12
652.17 663.32
651.80 652.52
651.43 652.33
651.06 652.69
650.69 652.02
650.82 651.18
651.46 651.26
652.11 652.48
652.75 655.67
653.39 653.83
654.04 654.42
654.59 655.21
654.51 654.22
653.80 653.85
653.05 653.16
652.63 653.63
652.25
910+00
915+00
920+00
925+00
930+00
935+00
940+00
945+00
950+00
NORTHBOUND FRONTAGE ROAD
NORTHBOUND FRONTAGE ROAD

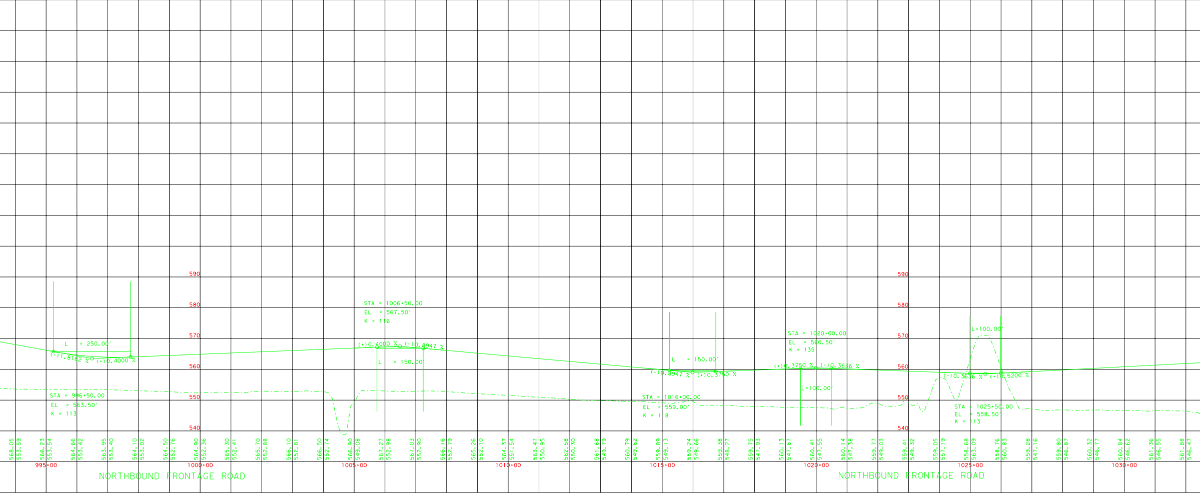

EXISTING PROFILE
PROPOSED SBFR PROFILE
670
660
650
640
630
L=100.00'
(-)0.4565 %
(+)0.3636 %
STA = 920+00.00
EL = 654.50'
K = 122
STA = 931+00.00
EL = 658.50'
K = 123
(+)0.3636 %
(-)0.8571 %
L=150.00'
L=150.00'
(-)0.8571 %
(+)0.6364 %
STA = 934+50.00
EL = 655.50'
K = 100
STA = 940+00.00
EL = 659.00'
K = 132
(+)0.6364 %
(-)0.5000 %
L=150.00'
L=150.00'
(-)0.5000 %
(+)1.0000 %
STA = 943+00.00
EL = 657.50'
K = 100
STA = 946+00.00
EL = 660.50'
K = 120
(+)1.0000 %
(-)1.5000 %
L = 300.00'
L=150.00'
(-)1.5000 %
(-)0.4348 %
STA = 949+00.00
EL = 656.00'
K = 141
EXISTING PROFILE
PROPOSED SBFR PROFILE
659.52 659.96
659.07 659.01
658.61 659.60
658.15 659.33
657.70 659.24
657.24 658.75
656.78 658.31
656.33 658.08
655.87 658.07
655.41 657.67
654.96 657.18
530
654.60 656.17
654.86 655.73
655.23 655.48
655.59 655.49
655.95 655.64
656.32 653.93
656.68 653.31
657.05 652.11
657.41 653.30
657.77 653.04
658.14 649.86
658.27 655.01
657.64 656.48
656.79 653.96
655.96 657.96
655.85 660.57
656.45 656.83
657.09 657.24
657.73 657.54
658.36 656.48
658.79 654.91
658.50 656.03
658.00 657.19
657.78 658.17
658.50 658.68
659.40 659.44
659.56 660.87
658.90 659.71
657.50 659.52
656.20 659.31
655.57 659.48
655.13 659.27
654.70
910+00
915+00
920+00
925+00
930+00
935+00
940+00
945+00
950+00
SOUTHBOUND FRONTAGE ROAD
SOUTHBOUND FRONTAGE ROAD

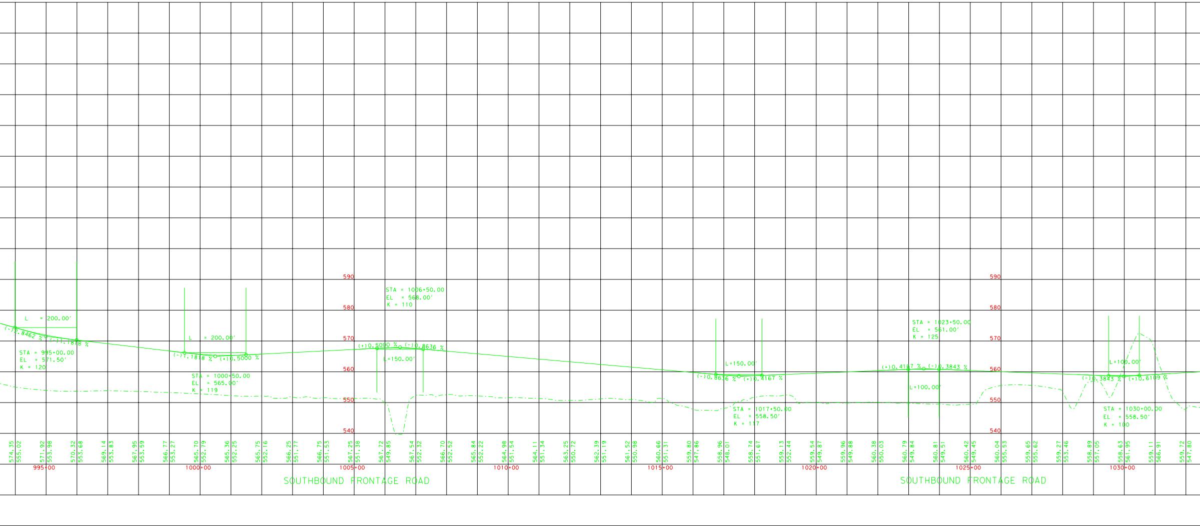


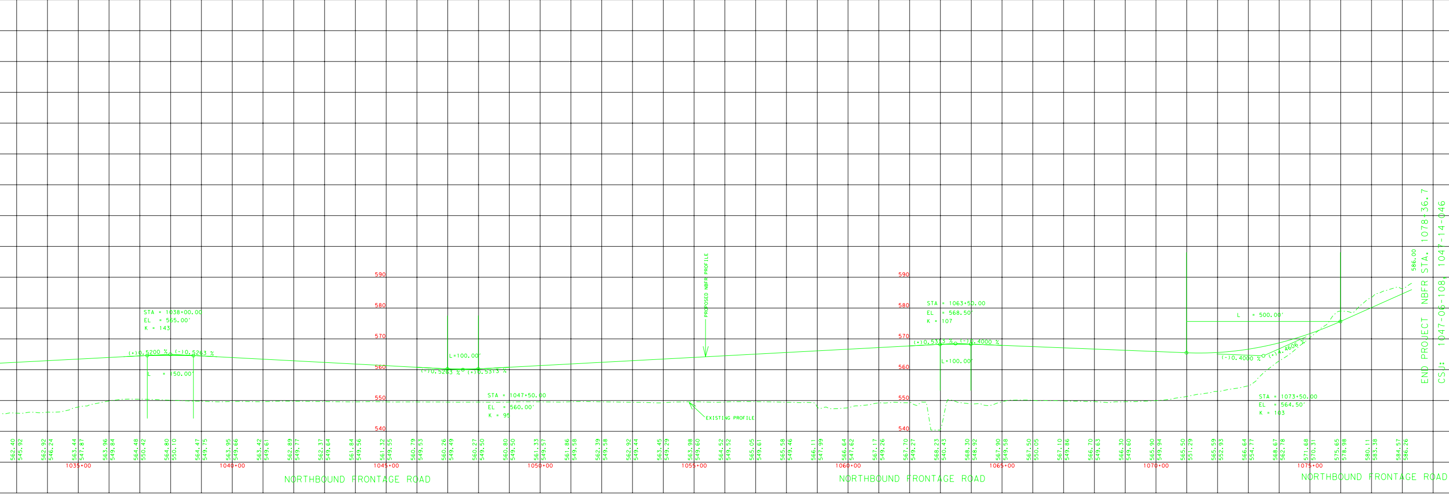
STA = 954+00.00
EL = 651.50'
K = 157
(-)0.3750 %
(-)1.3333 %
L=150.00'
PROPOSED NBFR PROFILE
EXISTING PROFILE
STA = 963+00.00
EL = 639.50'
K = 129
(-)1.3333 %
(-)2.5001 %
L=150.00'
L = 450.00'
(-)2.5001 %
(+)2.0000 %
STA = 969+00.00
EL = 624.50'
K = 100
STA = 972+50.00
EL = 631.50'
K = 106
(+)2.0000 %
(-)0.3529 %
L = 250.00'
STA = 981+00.00
EL = 628.50'
K = 101
(-)0.3529 %
(-)6.8000 %
L = 650.00'
L = 300.00'
(-)6.8000 %
(-)4.2000 %
STA = 986+00.00
EL = 594.50'
K = 115
L = 250.00'
(-)4.2000 %
(-)1.8182 %
STA = 991+00.00
EL = 573.50'
K = 105
670
660
650
640
630
620
610
600
653.09
651.88 652.37
651.32 650.54
650.17 648.87
648.83 647.14
647.50 644.60
646.17 641.77
644.83 640.38
643.50 639.85
642.17 640.62
640.83 639.26
639.28 637.25
637.00 636.25
634.50 632.75
632.00 629.44
629.53 626.74
627.78 624.05
627.03 619.09
627.28 623.12
628.53 628.36
630.24 630.75
631.06 632.28
630.97 630.71
630.62 635.95
630.26 631.25
629.91 629.95
629.53 629.57
628.43 627.85
626.34 627.14
623.26 627.24
619.19 626.10
614.13 622.78
608.07 616.04
601.41 608.35
595.47 599.80
590.41 591.12
586.10 581.56
581.90 572.71
577.73 564.96
574.24 559.09
571.71 555.67
569.86 554.15
955+00
960+00
965+00
970+00
975+00
980+00
985+00
990+00
NORTHBOUND FRONTAGE ROAD
NORTHBOUND FRONTAGE ROAD

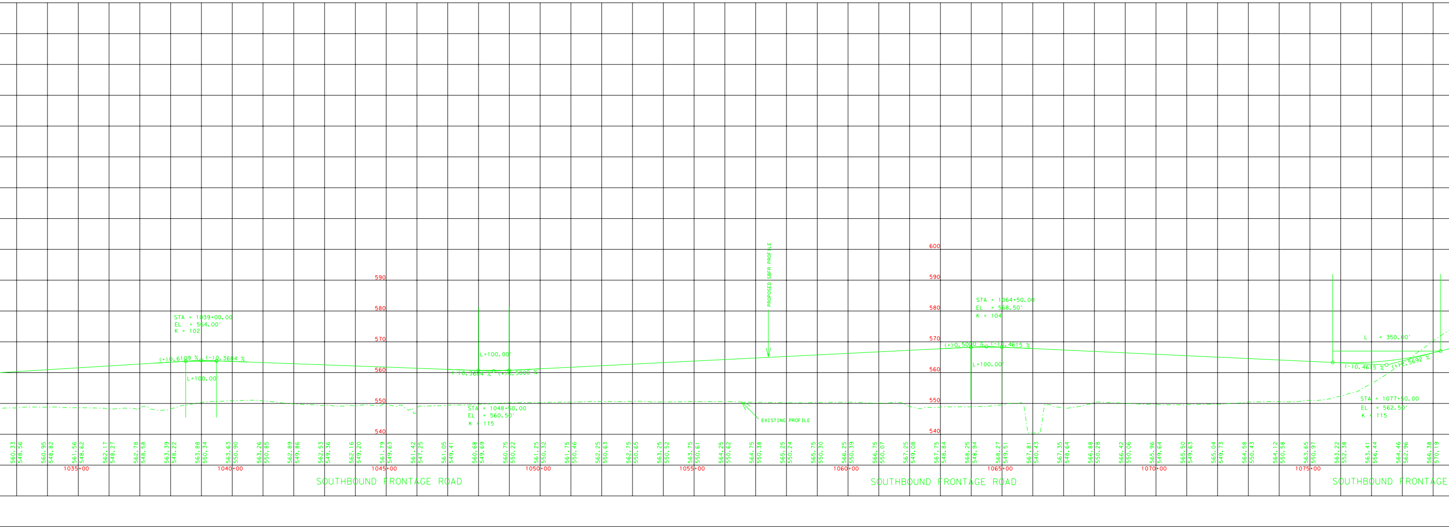


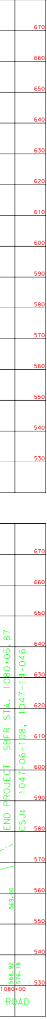
STA = 954+75.00
EL = 653.50'
K = 143
(-)0.4348 %
(-)2.1818 %
L = 300.00'
L = 250.00'
(-)2.1818 %
(+)0.5000 %
STA = 957+50.00
EL = 647.50'
K = 112
STA = 960+50.00
EL = 649.00'
K = 115
(+)0.5000 %
(-)1.6667 %
L = 250.00'
670
660
650
640
630
620
L = 350.00'
(-)1.6667 %
(+)1.4167 %
STA = 968+00.00
EL = 636.50'
K = 114
STA = 974+00.00
EL = 645.00'
K = 130
(+)1.4167 %
(-)0.5000 %
L = 250.00'
STA = 980+00.00
EL = 642.00'
K = 107
(-)0.5000 %
(-)6.1176 %
L = 600.00'
650
640
630
620
610
600
590
EXISTING PROFILE
PROPOSED SBFR PROFILE
L = 400.00'
(-)6.1176 %
(-)2.8462 %
STA = 988+50.00
EL = 590.00'
K = 122
658.20
654.26 657.04
653.74 656.23
652.61 654.86
650.77 651.52
649.04 650.05
648.20 649.81
648.25 650.56
648.51 651.36
647.92 649.95
646.50 647.99
644.83 646.25
643.17 644.69
641.50 641.22
639.83 639.29
638.41 639.13
637.85 639.69
638.16 635.67
639.33 637.74
640.75 640.43
642.17 641.96
643.56 641.15
644.40 646.59
644.48 643.86
644.00 643.92
643.50 643.71
642.53 643.46
640.63 642.14
637.79 640.65
634.01 638.71
629.30 636.11
623.65 631.40
617.53 624.51
611.41 616.41
605.29 607.53
599.28 599.69
593.98 591.73
589.50 583.54
585.83 576.02
582.88 568.46
580.04 562.18
577.19 557.71
955+00
960+00
965+00
970+00
975+00
980+00
985+00
990+00
SOUTHBOUND FRONTAGE ROAD
SOUTHBOUND FRONTAGE ROAD


L = 250.00'
(-)1.8182 %
(+)0.4000 %
STA = 996+50.00
EL = 563.50'
K = 113
590
580
570
560
550
540
STA = 1006+50.00
EL = 567.50'
K = 116
(+)0.4000 %
(-)0.8947 %
L = 150.00'
L = 150.00'
(-)0.8947 %
(+)0.3750 %
STA = 1016+00.00
EL = 559.00'
K = 118
STA = 1020+00.00
EL = 560.50'
K = 135
(+)0.3750 %
(-)0.3636 %
L=100.00'
590
580
570
560
550
540
L=100.00'
(-)0.3636 %
(+)0.5200 %
STA = 1025+50.00
EL = 558.50'
K = 113
568.05 553.59
566.23 553.54
564.66 553.42
563.95 553.40
564.10 553.02
564.50 552.76
564.90 552.36
565.30 552.41
565.70 552.88
566.10 552.81
566.50 552.74
566.90 549.08
567.27 552.98
567.03 552.90
566.16 552.79
565.26 552.10
564.37 551.54
563.47 550.95
562.58 550.30
561.68 549.79
560.79 549.62
559.89 549.13
559.24 549.66
559.38 548.27
559.75 547.93
560.13 547.67
560.41 547.55
560.14 547.38
559.77 549.03
559.41 549.32
559.05 557.19
558.68 563.09
558.76 560.83
559.28 547.16
559.80 546.87
560.32 546.77
560.84 546.62
561.36 546.55
561.88 546.47
995+00
1000+00
1005+00
1010+00
1015+00
1020+00
1025+00
1030+00
NORTHBOUND FRONTAGE ROAD
NORTHBOUND FRONTAGE ROAD


L = 200.00'
(-)2.8462 %
(-)1.1818 %
STA = 995+00.00
EL = 571.50'
K = 120
L = 200.00'
(-)1.1818 %
(+)0.5000 %
STA = 1000+50.00
EL = 565.00'
K = 119
590
580
570
560
550
540
STA = 1006+50.00
EL = 568.00'
K = 110
(+)0.5000 %
(-)0.8636 %
L=150.00'
L=150.00'
(-)0.8636 %
(+)0.4167 %
STA = 1017+50.00
EL = 558.50'
K = 117
STA = 1023+50.00
EL = 561.00'
K = 125
(+)0.4167 %
(-)0.3843 %
L=100.00'
590
580
570
560
550
540
L=100.00'
(-)0.3843 %
(+)0.6109 %
STA = 1030+00.00
EL = 558.50'
K = 100
574.35 555.02
571.92 553.98
570.32 553.68
569.14 553.83
567.95 553.59
566.77 553.27
565.70 552.79
565.36 552.25
565.75 552.16
566.25 551.77
566.75 551.53
567.25 551.38
567.72 549.85
567.54 552.32
566.70 552.52
565.84 552.22
564.98 551.54
564.11 551.34
563.25 550.72
562.39 551.19
561.52 550.98
560.66 551.31
559.80 547.86
558.96 548.01
558.74 551.67
559.13 552.44
559.54 549.87
559.96 549.88
560.38 550.03
560.79 549.84
560.81 549.51
560.42 549.45
560.04 555.53
559.65 555.62
559.27 553.46
558.89 557.05
558.63 561.95
559.11 566.91
559.72 547.80
995+00
1000+00
1005+00
1010+00
1015+00
1020+00
1025+00
1030+00
SOUTHBOUND FRONTAGE ROAD
SOUTHBOUND FRONTAGE ROAD


STA = 1038+00.00
EL = 565.00'
K = 143
(+)0.5200 %
(-)0.5263 %
L = 150.00'
L=100.00'
(-)0.5263 %
(+)0.5313 %
STA = 1047+50.00
EL = 560.00'
K = 95
PROPOSED NBFR PROFILE
EXISTING PROFILE
STA = 1063+50.00
EL = 568.50'
K = 107
(+)0.5313 %
(-)0.4000 %
L=100.00'
L = 500.00'
(-)0.4000 %
(+)4.4606 %
STA = 1073+50.00
EL = 564.50'
K = 103
586.00
END PROJECT NBFR STA. 1078+36.7
CSJ: 1047-06-108, 1047-14-046
590
580
570
560
550
540
562.40 545.92
562.92 546.24
563.44 547.87
563.96 549.84
564.48 550.42
564.80 550.10
564.47 549.75
563.95 549.66
563.42 549.61
562.89 549.77
562.37 549.64
561.84 549.56
561.32 549.55
560.79 549.53
560.26 549.49
560.27 549.50
560.80 549.50
561.33 549.57
561.86 549.58
562.39 549.58
562.92 549.44
563.45 549.29
563.98 549.60
564.52 549.52
565.05 549.61
565.58 549.46
566.11 547.99
566.64 547.62
567.17 549.26
567.70 549.27
568.23 540.43
568.30 548.92
567.90 549.58
567.50 550.05
567.10 549.86
566.70 549.63
566.30 549.60
565.90 549.94
565.50 551.29
565.59 552.93
566.64 554.77
568.67 562.78
571.68 570.31
575.65 578.98
580.11 583.38
584.57 586.26
1035+00
1040+00
1045+00
1050+00
1055+00
1060+00
1065+00
1070+00
1075+00
NORTHBOUND FRONTAGE ROAD
NORTHBOUND FRONTAGE ROAD
NORTHBOUND FRONTAGE ROAD


STA = 1039+00.00
EL = 564.00'
K = 102
(+)0.6109 %
(-)0.3684 %
L=100.00'
L=100.00'
(-)0.3684 %
(+)0.5000 %
STA = 1048+50.00
EL = 560.50'
K = 115
PROPOSED SBFR PROFILE
EXISTING PROFILE
STA = 1064+50.00
EL = 568.50'
K = 104
(+)0.5000 %
(-)0.4615 %
L=100.00'
L = 350.00'
(-)0.4615 %
(+)2.5692 %
STA = 1077+50.00
EL = 562.50'
K = 115
600
590
580
570
560
550
540
560.33 548.56
560.95 548.82
561.56 548.62
562.17 548.27
562.78 548.58
563.39 548.22
563.88 550.34
563.63 550.90
563.26 550.85
562.89 549.86
562.53 549.36
562.16 549.20
561.79 549.63
561.42 547.25
561.05 549.41
560.68 549.69
560.75 550.22
561.25 550.32
561.75 550.46
562.25 550.63
562.75 550.65
563.25 550.52
563.75 550.61
564.25 550.62
564.75 550.38
565.25 550.24
565.75 550.30
566.25 550.39
566.75 550.07
567.25 549.08
567.75 548.84
568.25 548.94
568.27 549.51
567.81 540.43
567.35 548.64
566.88 550.28
566.42 550.06
565.96 549.64
565.50 549.63
565.04 549.73
564.58 550.43
564.12 550.58
563.65 550.97
563.22 552.38
563.41 556.44
564.46 562.96
566.38 570.19
1035+00
1040+00
1045+00
1050+00
1055+00
1060+00
1065+00
1070+00
1075+00
SOUTHBOUND FRONTAGE ROAD
SOUTHBOUND FRONTAGE ROAD
SOUTHBOUND FRONTAGE


670
660
650
640
630
620
610
600
590
580
570
560
550
540
530
END PROJECT SBFR STA. 1080+05.87
CSJ: 1047-06-108, 1047-14-046
569.00
568.92
576.18
1080+00
ROAD

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Texas Department
of Transportation

DALLAS DISTRICT

Design Schematic

Jay R. Nelson, P.E.
District Engineer

U.S. 75
From Spur 399
To S.H. 121

McKinney, Texas
Collin County

CSJ: 0047-06-108
0047-14-046

Functional Class.2: Urban Freeway

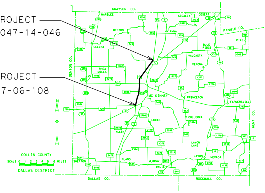
Project Length = 7.52 miles

Design Speed:

Mainlanes 70 mph
Ramps 50 mph
Frontage Rds 40 mph

END PROJECT
CSJ:0047-14-046

BEGIN PROJECT
CSJ:0047-06-108


GRAYSON CO.
MARILEE
WESTON
SEDALIA
DESERT
ANNA
FANNIN CO.
PIKE
CELINA
BLUE RIDGE
VALDASTA
VERONA
DENTON CO.
RHEA MILLS
MC KINNEY
PRINCETON
FARMERSVILLE
N
CULLEOKA
LUCAS
ALLEN
HUNT CO.
LAVON LAKE
COLLIN COUNTY
SCALE 0 1 2 3 4 5 6 MILES
DALLAS DISTRICT
SHEPTON
PLANO
MURPHY
WYLIE
LAVON
NEVADA
DALLAS CO.
ROCKWALL CO.

Scale:

Horizontal 1:200

Vertical 1:20

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October 2003

SCHEMATIC PREPARED BY:	
TxDOT DALLAS DISTRICT	
MICHAEL A. RENFROW, P.E. PROJECT MANAGER	
75050 P.E. NUMBER	OCTOBER 2003 DATE

Roll 6 of 6