NTTA®
NORTH TEXAS TOLLWAY AUTHORITY
5900W. Plano Pkwy, Plano, Texas 75093
Jorge Figueredo, Executive Director

DALLAS NORTH TOLLWAY EXTENSION

SECTION 4A
FROM US380 TO FM428
DESIGN SCHEMATIC

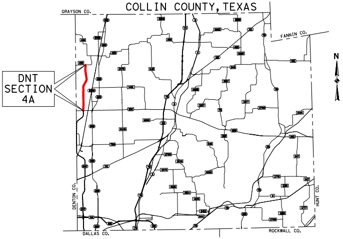
DESIGN SPEED

FUNCTIONAL CLASS: URBAN TOLLWAY (FREEWAY)
DESIGN SPEED: 70 mph (TOLLWAY MAINLANES)
50 mph (RAMPS)
45 mph (SERVICE ROADS)
45 mph (CROSS STREETS)
* UNLESS OTHERWISE NOTED ON PLANS

AVERAGE DAILY TRAFFIC

31,200 (2012)
80,800 (2030)

COLLIN COUNTY, TEXAS


GRAYSON CO.
FANNIN CO.
DNT SECTION 4A
N
DENTON CO.
HUNT CO.
DALLAS CO.
ROCKWALL CO.

PROJECT LENGTH = 6.07 MILES

JUNE 23, 2008

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

Matthew G. Craig	69910	06-23-2008
Type or Print Name	PE#	Date

HALFF
1201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081-2275
TEL (214) 346-6200
FAX (214) 739-0095

DATE APPROVED

DESIGN SCHEMATIC NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

DATE SUBMITTED

PRELIMINARY
DRAFT SUBJECT TO CHANGE

ROLL 3 OF 6

SCALE: 1"=200'
0 100 200 300 400 600

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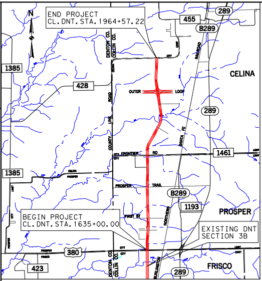
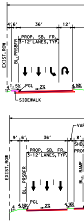
ROLL 3 OF 6 STA. 1850+00 TO STA. 1965+00


N
END PROJECT
CL. DNT. STA. 1964+57.22
455
289
B289
1385
428
DENTON CO.
COLLIN CO.
OUTER LOOP
CELINA
289
FRONTIER RD
1461
1385
PROSPER TRAIL
B289
1193
PROSPER
BEGIN PROJECT
CL. DNT. STA. 1635+00.00
EXISTING DNT SECTION 3B
380
423
BURLINGTON
289
FRISCO

LOCATION MAP
N.T.S.

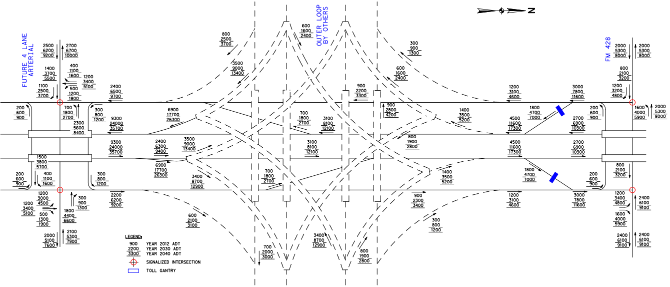
LEGEND:

——— – –	EXIST. ROW
━━━ ━ ━	PROPOSED R.O.W.
——— ———	PROPERTY LINE
– – – – –	PROPOSED DRAINAGE EASEMENT
65	PROPERTY PARCEL #
———	100 YEAR FLOODPLAIN
═══	EXISTING STORM DRAINAGE
═══	PROPOSED STORM DRAINAGE
▭	STORM INLET
→	DIRECTION OF TRAFFIC
●	EXISTING POWER POLE
T	GANTRY SYMBOL
– – – – –	EXISTING CONTOURS
———	PAVEMENT EDGE
▨	PAVEMENT TO BE REMOVED
—— – ——	PROPOSED DNT 4A CENTERLINE
———	PROPOSED RETAINING WALL
—— ——	PROPOSED NOISE WALL
≡	PROPOSED TWO WAY TRAFFIC BARRIER
═══	PROPOSED ONE WAY TRAFFIC BARRIER
——|||——	CONTROL OF ACCESS LINE
— — — —	PROPOSED PROJECT (BY OTHERS)
🟫	PROPOSED BRIDGE
🟨	PROPOSED DNT 4A MAIN LANES
🟦	PROPOSED RAMP / DIRECT CONNECTOR
🟩	PROPOSED FRONTAGE ROAD AND CROSS STREETS
⬛	EXISTING FRONTAGE ROAD
⬜	EXISTING CROSS & LOCAL STREET
🟧	POTENTIAL DISPLACEMENTS
🟦	PROPOSED TOLL GANTRY
🟨	ADDITIONAL RIGHT-OF-WAY REQUIREMENTS
🟪	FUTURE BRAIDED RAMP BRIDGE
🟦	FUTURE BRAIDED RAMP PAVEMENT


4' 6'
36'
12'
EXIST. ROW
BL. PRSBFR
PROP. SB. FR.
3-12' LANES, TYP.
4
1.5%
PGL
2%
4.16%
SIDEWALK
VAR
9' 6'
36'
8'
SHD
PROP
EXIST. ROW
BL. PRSBFR
PROP. SB. FR.
3-12' LANES, TYP.
RAMP
BL.
4
4.16%
PGL
2%
4.16%

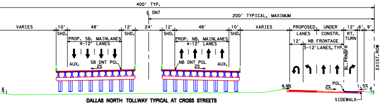
NOTES:

1.) EXISTING FEATURES WERE NOT FIELD SURVEYED. SCHEMATIC LAYOUTS ARE AERIAL SURVEY, SUPPLEMENTAL FIELD SURVEYS AND RECORD PLANS ONLY.
2.) DIMENSIONS ARE FACE OF CURB OR TO EDGE OF UNCURBED PAVEMENT UNLES NOTED OTHERWISE.
3.) TYPICAL CROSS STREET TURNOUT RADIUS EQUALS 75' TYPICAL, 50' MIN.
4.) EXISTING DRIVEWAYS WILL REMAIN UNLESS IT IS DETERMINED DURING DETAILED DESIGN AND COORDINATION WITH THE CITIES: THE DRIVEWAY WILL BE A SAFETY ISSUE AND/OR VIOLATES THE NEW CONTROLLED ACCESS REQUIREMENTS.
5.) TRAFFIC VOLUMES SHOWN HEREIN ARE BASED ON PROJECTIONS PROVIDED BY WILBUR SMITH ASSOCIATES ON APRIL 9, 2008.
6.) ALL SUPER ELEVATION AXIS OF ROTATION IS ABOUT THE PGL.
7.) APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD RATE MAPS, NUMBERS 48085C0125 G AND 48085C0255 G
8.) METAL BEAM GUARD FENCE AND CONCRETE TRAFFIC BARRIER (CTB) LOCATIC DETERMINED IN PS&E. CTB MAY ALTERNATE FROM NB TO SB SHOULDER DEPE MAINTENANCE ACCESS NEEDS AND PS&E REFINEMENT.

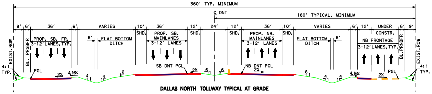

FUTURE 4 LANE ARTERIAL
OUTER LOOP BY OTHERS
FM 428
LEGEND:
900 YEAR 2012 ADT
2200 YEAR 2030 ADT
3300 YEAR 2040 ADT
SIGNALIZED INTERSECTION
TOLL GANTRY

TRAFFIC VOLUME DIAGRAM

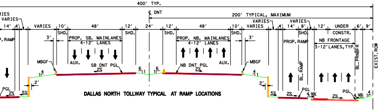
N.T.S.


400' TYP.
℄ DNT
200' TYPICAL, MAXIMUM
PROP. SB. MAINLANES 4-12' LANES
PROP. NB. MAINLANES 4-12' LANES
PROPOSED LANES
UNDER CONSTR.
NB FRONTAGE 3-12' LANES, TYP.
SB DNT PGL
NB DNT PGL
SIDEWALK
EXIST. ROW

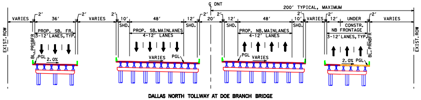
DALLAS NORTH TOLLWAY TYPICAL AT CROSS STREETS


360' TYP. MINIMUM
℄ DNT
180' TYPICAL, MINIMUM
PROP. SB. FR. 3-12' LANES, TYP.
FLAT BOTTOM DITCH
PROP. SB. MAINLANES 3-12' LANES
PROP. NB. MAINLANES 3-12' LANES
NB FRONTAGE 3-12' LANES, TYP.
EXIST. ROW

DALLAS NORTH TOLLWAY TYPICAL AT GRADE


400' TYP.
℄ DNT
200' TYPICAL, MAXIMUM
PROP. SB. MAINLANES 4-12' LANES
PROP. NB. MAINLANES 4-12' LANES
PROP. RAMP
NB FRONTAGE 3-12' LANES, TYP.
MBGF
EXIST. ROW

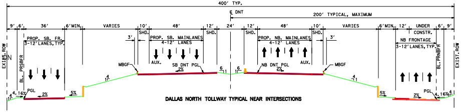
DALLAS NORTH TOLLWAY TYPICAL AT RAMP LOCATIONS


℄ DNT
200' TYPICAL, MAXIMUM
PROP. SB. FR. 3-12' LANES, TYP.
PROP. SB. MAINLANES 4-12' LANES
PROP. NB. MAINLANES 4-12' LANES
NB FRONTAGE 3-12' LANES, TYP.
EXIST. ROW

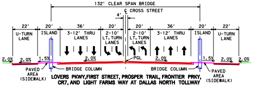
DALLAS NORTH TOLLWAY AT DOE BRANCH BRIDGE

BASED ON

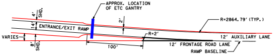
S


400' TYP.
℄ DNT
200' TYPICAL, MAXIMUM
PROP. SB. FR. 3-12' LANES, TYP.
PROP. SB. MAINLANES 4-12' LANES
PROP. NB. MAINLANES 4-12' LANES
NB FRONTAGE 3-12' LANES, TYP.
MBGF
EXIST. ROW

DALLAS NORTH TOLLWAY TYPICAL NEAR INTERSECTIONS


132' CLEAR SPAN BRIDGE
℄ CROSS STREET
U-TURN LANE
ISLAND
3-12' THRU LANES
2-10' LT. TURN LANES
BRIDGE COLUMN
PAVED AREA (SIDEWALK)

LOVERS PKWY, FIRST STREET, PROSPER TRAIL, FRONTIER PRKY, CR7, AND LIGHT FARMS WAY AT DALLAS NORTH TOLLWAY


APPROX. LOCATION OF ETC GANTRY
ENTRANCE/EXIT RAMP
R=2864.79' (TYP.)
R=2'
12' AUXILIARY LANE
12' FRONTAGE ROAD LANE
RAMP BASELINE
100'
VARIES

TYPICAL RAMP FRONTAGE ROAD GORE

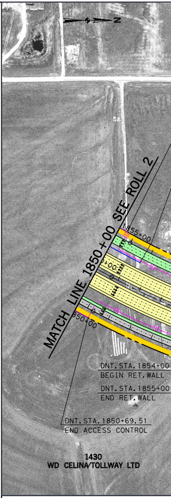
PROPOSED TYPICAL SECTIONS

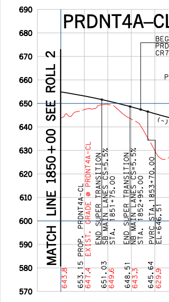
N.T.S.

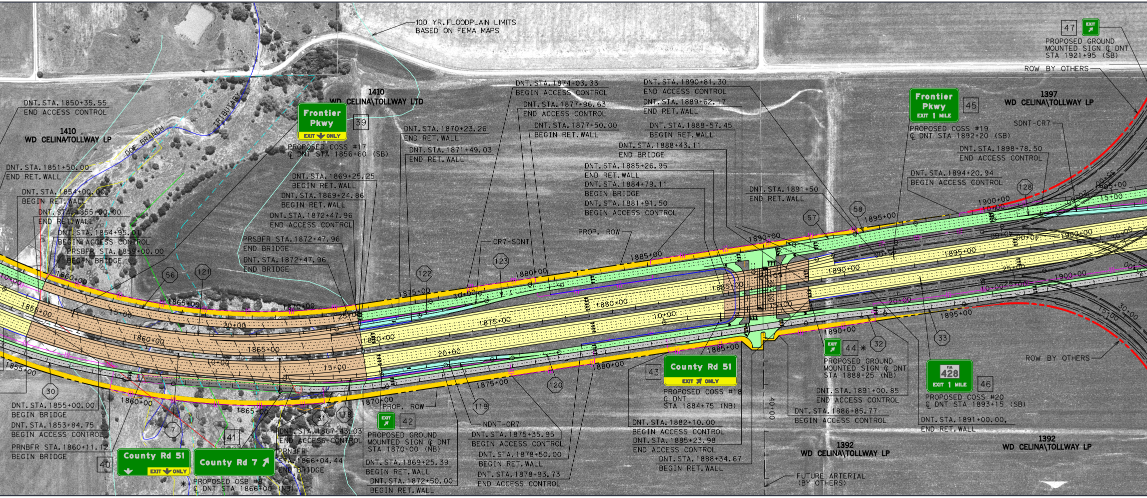
INSURANCE

ONS TO BE

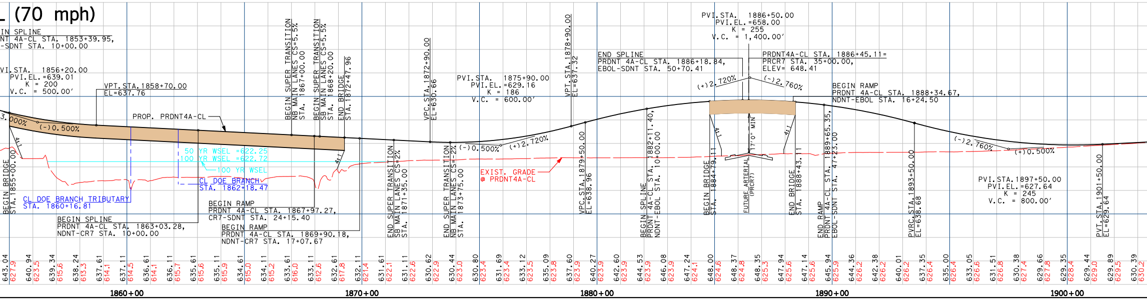
ENDING ON

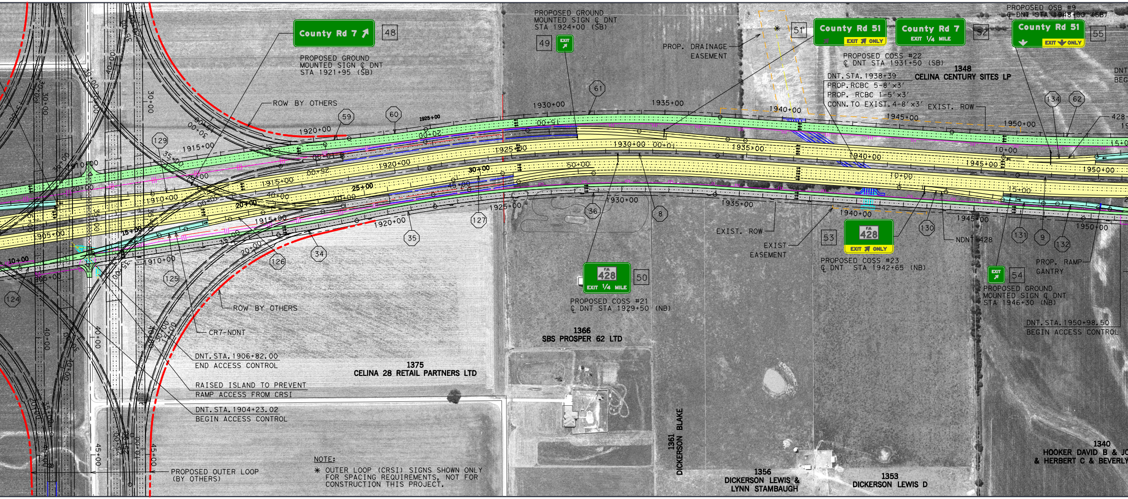

N
MATCH LINE 1850+00 SEE ROLL 2
DNT. STA. 1854+00 BEGIN RET. WALL
DNT. STA. 1855+00 END RET. WALL
DNT. STA. 1850+69.51 END ACCESS CONTROL
1430
WD CELINA/TOLLWAY LTD



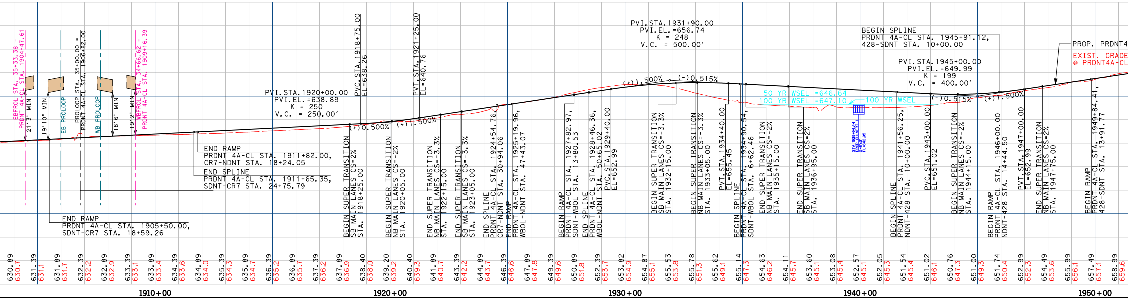

100 YR. FLOODPLAIN LIMITS BASED ON FEMA MAPS
47
PROPOSED GROUND MOUNTED SIGN ℄ DNT STA 1921+95 (SB)
ROW BY OTHERS
DNT. STA. 1850+35.55 END ACCESS CONTROL
1410 WD CELINA\TOLLWAY LP
1410 WD CELINA\TOLLWAY LTD
DOE BRANCH
TRIBUTARY
Frontier Pkwy EXIT ONLY
39
PROPOSED COSS #17 ℄ DNT STA 1856+60 (SB)
DNT. STA. 1851+50.00 END RET. WALL
DNT. STA. 1854+00.00 BEGIN RET. WALL
DNT. STA. 1855+00.00 END RET. WALL
DNT. STA. 1854+95.01 BEGIN ACCESS CONTROL
PRSBFR STA. 1859+00.00 BEGIN BRIDGE
DNT. STA. 1874+03.33 BEGIN ACCESS CONTROL
DNT. STA. 1877+96.63 END ACCESS CONTROL
DNT. STA. 1877+50.00 BEGIN RET. WALL
DNT. STA. 1870+23.26 END RET. WALL
DNT. STA. 1871+49.03 END RET. WALL
DNT. STA. 1869+25.25 BEGIN RET. WALL
DNT. STA. 1869+24.86 BEGIN RET. WALL
DNT. STA. 1872+47.96 END ACCESS CONTROL
PRSBFR STA. 1872+47.96 END BRIDGE
DNT. STA. 1872+47.96 END BRIDGE
DNT. STA. 1890+81.30 END ACCESS CONTROL
DNT. STA. 1889+62.17 END RET. WALL
DNT. STA. 1888+57.45 BEGIN RET. WALL
DNT. STA. 1888+43.11 END BRIDGE
DNT. STA. 1885+26.95 END RET. WALL
DNT. STA. 1884+79.11 BEGIN BRIDGE
DNT. STA. 1881+91.50 BEGIN ACCESS CONTROL
PROP. ROW
DNT. STA. 1891+50 END RET. WALL
Frontier Pkwy EXIT 1 MILE
45
PROPOSED COSS #19 ℄ DNT STA 1892+20 (SB)
1397 WD CELINA\TOLLWAY LP
SDNT-CR7
DNT. STA. 1898+78.50 END ACCESS CONTROL
DNT. STA. 1894+20.94 BEGIN ACCESS CONTROL
CR7-SDNT
56 121 122 123 57 58 128 30 7 31 118 41 119 120 32 33
1855+00 1860+00 1865+00 1870+00 1875+00 1880+00 1885+00 1890+00 1895+00 1900+00 1905+00
10+00 15+00 20+00 25+00 30+00 40+00
DNT. STA. 1855+00.00 BEGIN BRIDGE
DNT. STA. 1853+84.75 BEGIN ACCESS CONTROL
PRNBFR STA. 1860+11.12 BEGIN BRIDGE
40
County Rd 51 EXIT ONLY
County Rd 7
PROPOSED OSB #8 ℄ DNT STA 1866+00 (NB)
DNT. STA. 1867+43.03 END ACCESS CONTROL
PRNBFR STA. 1866+04.44 END BRIDGE
PROP. ROW
42
PROPOSED GROUND MOUNTED SIGN ℄ DNT STA 1870+00 (NB)
DNT. STA. 1869+25.39 BEGIN RET. WALL
DNT. STA. 1872+50.00 BEGIN RET. WALL
NDNT-CR7
DNT. STA. 1875+35.95 BEGIN ACCESS CONTROL
DNT. STA. 1878+50.00 BEGIN RET. WALL
DNT. STA. 1878+93.73 END ACCESS CONTROL
43
County Rd 51 EXIT ONLY
PROPOSED COSS #18 ℄ DNT STA 1884+75 (NB)
DNT. STA. 1882+10.00 BEGIN ACCESS CONTROL
DNT. STA. 1885+23.98 END ACCESS CONTROL
DNT. STA. 1888+34.67 BEGIN RET. WALL
44
PROPOSED GROUND MOUNTED SIGN ℄ DNT STA 1888+25 (NB)
DNT. STA. 1891+00.85 END ACCESS CONTROL
DNT. STA. 1886+85.77 BEGIN ACCESS CONTROL
1392 WD CELINA\TOLLWAY LP
FUTURE ARTERIAL (BY OTHERS)
FM 428 EXIT 1 MILE
46
PROPOSED COSS #20 ℄ DNT STA 1893+15 (SB)
DNT. STA. 1891+00.00, END RET. WALL
1392 WD CELINA\TOLLWAY LP
ROW BY OTHERS

L (70 mph)


IN SPLINE
NT 4A-CL STA. 1853+39.95,
-SDNT STA. 10+00.00
VI. STA. 1856+20.00
PVI. EL. =639.01
K = 200
V.C. = 500.00'
VPT. STA. 1858+70.00
EL=637.76
3.000%
(-)0.500%
PROP. PRDNT4A-CL
BEGIN SUPER TRANSITION NB MAIN LANES CS=5.5% STA. 1867+00.00
BEGIN SUPER TRANSITION SB MAIN LANES CS=5.5% STA. 1868+20.00
END BRIDGE STA. 1872+47.96
VPC. STA. 1872+90.00 EL=630.66
PVI. STA. 1875+90.00
PVI. EL. =629.16
K = 186
V.C. = 600.00'
VPT. STA. 1878+90.00 EL=637.32
50 YR WSEL =622.25
100 YR WSEL =622.72
100 YR WSEL
CL DOE BRANCH STA. 1862+18.47
CL DOE BRANCH TRIBUTARY STA. 1860+16.81
BEGIN BRIDGE STA. 1855+00.00
BEGIN SPLINE PRDNT 4A-CL STA. 1863+03.28, NDNT-CR7 STA. 10+00.00
BEGIN RAMP PRDNT 4A-CL STA. 1867+97.27, CR7-SDNT STA. 24+15.40
BEGIN RAMP PRDNT 4A-CL STA. 1869+90.18, NDNT-CR7 STA. 17+07.67
END SUPER TRANSITION SB MAIN LANES CS=2% STA. 1871+35.00
END SUPER TRANSITION NB MAIN LANES CS=-2% STA. 1873+75.00
(-)0.500%
(+)2.720%
EXIST. GRADE @ PRDNT4A-CL
VPC. STA. 1879+50.00 EL=638.96
END SPLINE PRDNT 4A-CL STA. 1886+18.84, EBOL-SDNT STA. 50+70.41
PVI. STA. 1886+50.00
PVI. EL. =658.00
K = 255
V.C. = 1,400.00'
PRDNT4A-CL STA. 1886+45.11= PRCR7 STA. 35+00.00, ELEV= 648.41
(+)2.720%
(-)2.760%
4:1
17'-0" MIN
BEGIN SPLINE PRDNT 4A-CL STA. 1882+11.40, NDNT-EBOL STA. 10+00.00
BEGIN BRIDGE STA. 1884+79.11
FUTURE ARTERIAL (PRCR7)
END BRIDGE STA. 1888+43.11
BEGIN RAMP PRDNT 4A-CL STA. 1888+34.67, NDNT-EBOL STA. 16+24.50
END RAMP PRDNT 4A-CL STA. 1889+65.35, EBOL-SDNT STA. 47+23.00
PVRC. STA. 1893+50.00 EL=638.68
(-)2.760%
(+)0.500%
PVI. STA. 1897+50.00
PVI. EL. =627.64
K = 245
V.C. = 800.00'
PVT. STA. 1901+50.00 EL=629.64
643.04 627.9
640.94 623.5
639.34 615.6
638.24 613.3
637.61 614.1
637.11 614.5
636.61 614.1
636.11 615.7
635.61 615.6
635.11 615.9
634.61 615.0
634.11 615.2
633.61 616.0
633.11 612.6
632.61 617.8
632.11 621.4
631.61 622.1
631.11 622.6
630.62 622.9
630.44 623.0
630.80 623.4
631.69 623.4
633.12 623.5
635.09 623.8
637.60 623.9
640.27 623.9
642.60 623.9
644.53 623.9
646.08 623.9
647.24 624.1
648.00 624.6
648.37 624.8
648.35 625.3
647.94 625.6
647.14 625.6
645.94 625.9
644.36 626.2
642.38 626.2
640.01 626.2
637.35 626.4
635.00 626.4
633.05 626.6
631.51 626.8
630.38 627.4
629.66 627.8
629.35 628.4
629.44 629.0
629.89 629.5
630.39 630.2
1860+00
1870+00
1880+00
1890+00
1900+00


County Rd 7
48
PROPOSED GROUND MOUNTED SIGN ℄ DNT STA 1921+95 (SB)
PROPOSED GROUND MOUNTED SIGN ℄ DNT STA 1924+00 (SB)
49
EXIT
PROP. DRAINAGE EASEMENT
51
County Rd 51
EXIT ONLY
County Rd 7
EXIT 1/4 MILE
52
County Rd 51
EXIT ONLY
55
PROPOSED OSB #9 ℄ DNT STA 1948+00 (SB)
PROPOSED COSS #22 ℄ DNT STA 1931+50 (SB)
1348
CELINA CENTURY SITES LP
DNT. STA. 1938+39
PROP. RCBC 5-8'x3'
PROP. RCBC 1-5'x3'
CONN. TO EXIST. 4-8'x3'
EXIST. ROW
DNT
BEG
428
ROW BY OTHERS
59
60
61
129
134
62
1925+00
1930+00
1935+00
1940+00
1945+00
1950+00
1920+00
1915+00
1910+00
1905+00
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00
50+00
127
36
8
35
34
126
125
124
130
131
9
132
EXIST. ROW
EXIST EASEMENT
53
428
EXIT ONLY
PROPOSED COSS #23 ℄ DNT STA 1942+65 (NB)
NDNT-428
PROP. RAMP GANTRY
EXIT
54
PROPOSED GROUND MOUNTED SIGN ℄ DNT STA 1946+30 (NB)
DNT. STA. 1950+98.50
BEGIN ACCESS CONTROL
428
EXIT 1/4 MILE
50
PROPOSED COSS #21 ℄ DNT STA 1929+50 (NB)
ROW BY OTHERS
CR7-NDNT
DNT. STA. 1906+82.00
END ACCESS CONTROL
RAISED ISLAND TO PREVENT RAMP ACCESS FROM CRSI
DNT. STA. 1904+23.02
BEGIN ACCESS CONTROL
1366
SBS PROSPER 62 LTD
1375
CELINA 28 RETAIL PARTNERS LTD
1361
DICKERSON BLAKE
1356
DICKERSON LEWIS & LYNN STAMBAUGH
1353
DICKERSON LEWIS D
1340
HOOKER DAVID B & JO
& HERBERT C & BEVERLY
PROPOSED OUTER LOOP (BY OTHERS)

NOTE:
∗ OUTER LOOP (CRSI) SIGNS SHOWN ONLY FOR SPACING REQUIREMENTS, NOT FOR CONSTRUCTION THIS PROJECT.


EBFROL STA. 35+33.38 = PRDNT 4A-CL STA. 1904+47.61
21'3" MIN
19'10" MIN
EB PROLOOP
PROLOOP STA. 35+00.00 = PRDNT 4A-CL STA. 1906+82.00
WB PROLOOP
18'6" MIN
19'2" MIN
WBFROL STA. 34+66.62 = PRDNT 4A-CL STA. 1909+16.39
END RAMP
PRDNT 4A-CL STA. 1905+50.00,
SDNT-CR7 STA. 18+59.26
END RAMP
PRDNT 4A-CL STA. 1911+82.00,
CR7-NDNT STA. 18+24.05
END SPLINE
PRDNT 4A-CL STA. 1911+65.35,
SDNT-CR7 STA. 24+75.79
PVI. STA. 1920+00.00
PVI. EL. =638.89
K = 250
V.C. = 250.00'
PVC. STA. 1918+75.00
EL=638.26
PVT. STA. 1921+25.00
EL=640.76
(+)0.500%
(+)1.500%
BEGIN SUPER TRANSITION SB MAIN LANES CS=2% STA. 1918+25.00
BEGIN SUPER TRANSITION NB MAIN LANES CS=-2% STA. 1920+05.00
END SUPER TRANSITION NB MAIN LANES CS=-3.3% STA. 1922+15.00
END SUPER TRANSITION SB MAIN LANES CS=-3.3% STA. 1923+05.00
BEGIN SPLINE PRDNT 4A-CL STA. 1924+54.76, CR7-NDNT STA. 30+94.06
END RAMP PRDNT 4A-CL STA. 1925+19.96, WBOL-NDNT STA. 47+43.07
BEGIN RAMP PRDNT 4A-CL STA. 1927+82.97, SDNT-WBOL STA. 13+80.53
END SPLINE PRDNT 4A-CL STA. 1928+46.36, WBOL-NDNT STA. 50+65.02
PVC. STA. 1929+40.00
EL=652.99
PVI. STA. 1931+90.00
PVI. EL. =656.74
K = 248
V.C. = 500.00'
(+)1.500%
(-)0.515%
BEGIN SUPER TRANSITION SB MAIN LANES CS=-3.3% STA. 1932+15.00
BEGIN SUPER TRANSITION NB MAIN LANES CS=-3.3% STA. 1933+05.00
PVT. STA. 1934+40.00
EL=655.45
BEGIN SPLINE PRDNT 4A-CL STA. 1934+90.54, SDNT-WBOL STA. 6+62.46
END SUPER TRANSITION NB MAIN LANES CS=-2% STA. 1935+15.00
END SUPER TRANSITION SB MAIN LANES CS=-2% STA. 1936+95.00
50 YR WSEL =646.64
100 YR WSEL =647.10
100 YR WSEL
BEGIN SPLINE
PRDNT 4A-CL STA. 1945+91.12,
428-SDNT STA. 10+00.00
PVI. STA. 1945+00.00
PVI. EL. =649.99
K = 199
V.C. = 400.00'
(-)0.515%
(+)1.500%
BEGIN SPLINE PRDNT 4A-CL STA. 1941+56.25, NDNT-428 STA. 10+00.00
PVC. STA. 1943+00.00
EL=651.02
BEGIN SUPER TRANSITION NB MAIN LANES CS=-2% STA. 1944+15.00
BEGIN RAMP PRDNT 4A-CL STA. 1946+00.00, NDNT-428 STA. 14+44.50
PVT. STA. 1947+00.00
EL=652.99
END SUPER TRANSITION SB MAIN LANES CS=2% STA. 1947+75.00
BEGIN RAMP PRDNT 4A-CL STA. 1949+84.41, 428-SDNT STA. 13+91.77
PROP. PRDNT4
EXIST. GRADE
@ PRDNT4A-CL
630.89
630.7
631.39
631.1
631.89
631.7
632.39
632.2
632.89
632.9
633.39
633.1
633.89
633.4
634.39
633.6
634.89
634.0
635.39
634.3
635.89
634.7
636.39
635.2
636.89
635.7
637.39
636.2
637.89
636.9
638.40
638.0
639.20
639.2
640.40
639.3
641.89
640.7
643.39
642.2
644.89
643.7
646.39
646.6
647.89
647.8
649.39
649.6
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652.39
653.7
653.82
654.9
654.87
655.1
655.53
653.8
655.78
651.3
655.62
649.1
655.14
647.3
654.63
646.2
654.11
645.7
653.60
645.1
653.08
645.4
652.57
645.1
652.05
645.3
651.54
645.4
651.02
646.1
650.76
647.3
651.00
649.3
651.74
650.4
652.99
652.3
654.49
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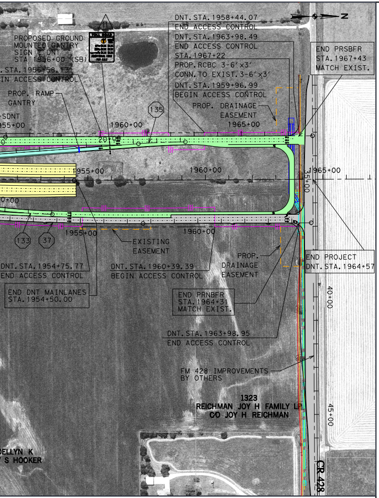
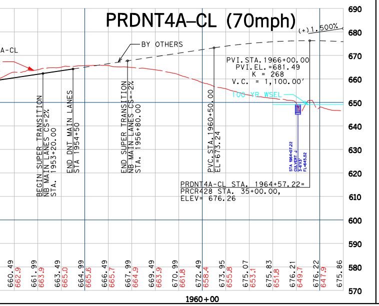
659.6
1910+00
1920+00
1930+00
1940+00
1950+00


DNT. STA. 1958+44.07
END ACCESS CONTROL
DNT. STA. 1963+98.49
END ACCESS CONTROL
STA. 1967+22
PROP. RCBC 3-6′x3′
CONN. TO EXIST. 3-6′x3′
DNT. STA. 1959+96.99
BEGIN ACCESS CONTROL
PROP. DRAINAGE EASEMENT
N
END PRSBFR
STA. 1967+43
MATCH EXIST.
PROPOSED GROUND MOUNTED GANTRY SIGN ℄ DNT STA 1956+00 (SB)
11
.STA. 1955+58.13
IN ACCESS CONTROL
PROP. RAMP GANTRY
-SDNT
55+00
135
1960+00
1965+00
20+00
1955+00
1960+00
1965+00
35+00
0+00
133
37
1955+00
1960+00
EXISTING EASEMENT
PROP. DRAINAGE EASEMENT
END PROJECT
DNT. STA. 1964+57
DNT. STA. 1954+75.77
END ACCESS CONTROL
DNT. STA. 1960+39.39
BEGIN ACCESS CONTROL
END DNT MAINLANES
STA. 1954+50.00
END PRNBFR
STA. 1964+31
MATCH EXIST.
DNT. STA. 1963+98.95
END ACCESS CONTROL
40+00
45+00
FM 428 IMPROVEMENTS BY OTHERS
1323
REICHMAN JOY H FAMILY LP
C/O JOY H REICHMAN
DELLYN K
S HOOKER
CR 428



PROPOSED CURVE DATA

DNT 4A MAINLANE CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
7	PRDNT4A-CL-7	1860+31.30	37° 07′ 00.00"	2864.79	961.79	1855.83	N 9° 57′ 04.44" E	1823.55	1850+69.51	1869+25.35
8	PRDNT4A-CL-8	1927+63.56	12° 18′ 12.59"	5729.58	617.55	1230.35	N 2° 27′ 19.26" W	1227.99	1921+46.01	1933+76.36
9	PRDNT4A-CL-9	1950+49.26	3° 55′ 48.64"	11459.16	393.17	786.04	N 1° 43′ 52.71" E	785.88	1946+56.09	1954+42.12

NORTHBOUND FRONTAGE ROAD CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
31	PRNBFR-22	1868+33.34	12° 26′ 29.14"	2100.00	228.90	456.00	N 2° 23′ 10.99" W	455.11	1866+04.44	1870+60.44
32	PRNBFR-23	1890+31.58	3° 23′ 08.27"	5729.58	169.33	338.56	N 6° 54′ 51.43" W	338.51	1888+62.25	1892+00.81
33	PRNBFR-24	1893+70.14	3° 23′ 08.27"	5729.59	169.33	338.56	N 6° 54′ 51.43" W	338.51	1892+00.81	1895+39.38
34	PRNBFR-25	1916+94.42	3° 23′ 08.27"	5729.58	169.33	338.56	N 10° 17′ 59.69" W	338.51	1915+25.09	1918+63.66
35	PRNBFR-26	1920+32.99	3° 23′ 08.27"	5729.58	169.33	338.56	N 10° 17′ 59.69" W	338.51	1918+63.66	1922+02.22
36	PRNBFR-27	1928+01.99	12° 18′ 12.60"	5564.58	599.77	1194.92	N 2° 27′ 19.26" W	1192.62	1922+02.22	1933+97.14
37	PRNBFR-28	1953+67.50	3° 55′ 48.65"	11649.16	399.69	799.07	N 1° 43′ 52.71" E	798.91	1949+67.80	1957+66.87

SOUTHBOUND FRONTAGE ROAD CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
56	PRSBFR-18	1864+05.41	37° 07′ 00.00"	2699.79	906.39	1748.95	N 9° 57′ 04.44" E	1718.52	1854+99.01	1872+47.96
57	PRSBFR-19	1876+71.01	2° 08′ 27.86"	5729.58	107.07	214.11	N 9° 40′ 39.49" W	214.09	1875+63.94	1877+78.05
58	PRSBFR-20	1878+85.11	2° 08′ 27.86"	5729.58	107.07	214.11	N 9° 40′ 39.49" W	214.09	1877+78.05	1879+92.16
59	PRSBFR-21	1892+60.49	2° 37′ 20.44"	5729.58	131.14	262.23	N 9° 55′ 05.78" W	262.21	1891+29.35	1893+91.59
60	PRSBFR-22	1895+22.73	2° 37′ 20.44"	5729.58	131.14	262.23	N 9° 55′ 05.78" W	262.21	1893+91.59	1896+53.82
61	PRSBFR-23	1919+81.84	3° 23′ 17.09"	5729.58	169.45	338.81	N 6° 54′ 47.02" W	338.76	1918+12.38	1921+51.19
62	PRSBFR-24	1923+15.55	3° 17′ 10.62"	5729.58	164.36	328.63	N 6° 51′ 43.79" W	328.58	1921+51.19	1924+79.82

NORTHBOUND DNT TO COUNTY ROAD 7 CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
118	NDNTCR7-1	15+01.14	12° 26′ 29.14"	1909.86	208.18	414.71	N 2° 23′ 10.99" W	413.90	12+92.96	17+07.67
119	NDNTCR7-2	20+81.97	4° 00′ 00.00"	2864.79	100.04	200.00	N 6° 36′ 25.56" W	199.96	19+81.93	21+81.93
120	NDNTCR7-3	23+68.60	4° 00′ 00.00"	2864.79	100.04	200.00	N 6° 36′ 25.56" W	199.96	22+68.56	24+68.56

COUNTY ROAD 7 TO SOUTHBOUND DNT CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
121	CR7SDNT-1	17+41.13	32° 27′ 16.07"	2546.48	741.13	1442.42	N 6° 52′ 24.94" E	1423.21	10+00.00	24+42.42
122	CR7SDNT-2	29+45.83	5° 49′ 16.27"	2864.79	145.66	291.06	N 12° 15′ 51.23" W	290.93	28+00.17	30+91.23
123	CR7SDNT-3	32+55.60	6° 34′ 03.80"	2864.79	164.37	328.39	N 11° 53′ 27.46" W	328.21	30+91.23	34+19.62

COUNTY ROAD 7 TO NORTHBOUND DNT CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
124	CR7NDNT-1	11+57.96	6° 18′ 43.30"	2864.79	157.96	315.60	N 11° 45′ 47.21" W	315.44	10+00.00	13+15.60
125	CR7NDNT-2	16+67.23	2° 18′ 43.30"	2864.79	57.81	115.60	N 13° 45′ 47.21" W	115.59	16+09.42	17+25.02
126	CR7NDNT-3	19+89.37	2° 51′ 15.25"	2864.79	71.37	142.71	N 11° 10′ 47.93" W	142.70	19+18.00	20+60.71
127	CR7NDNT-4	29+88.27	4° 13′ 59.75"	2864.79	105.88	211.66	N 7° 38′ 10.43" W	211.62	28+82.39	30+94.06

SOUTHBOUND DNT TO COUNTY ROAD 7 CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
128	SDNTCR7-1	11+00.04	4° 00′ 00.00"	2864.79	100.04	200	N 6° 36′ 25.56" W	199.96	10+00.00	12+00.00
129	SDNTCR7-2	24+04.50	4° 00′ 00.00"	2864.79	100.04	200	N 6° 36′ 25.56" W	199.96	23+04.46	25+04.46

NORTHBOUND DNT TO FM 428 CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
130	NDNT428-1	11+00.04	4° 00′ 00.00"	2864.79	100.04	200.00	N 5° 41′ 47.03" E	199.96	10+00.00	12+00.00
131	NDNT428-2	15+30.80	5° 13′ 58.50"	1909.86	87.28	174.43	N 5° 04′ 47.78" E	174.37	14+43.52	16+17.96
132	NDNT428-3	17+64.98	5° 13′ 58.50"	1909.86	87.28	174.43	N 5° 04′ 47.78" E	174.37	16+77.71	18+52.14
133	NDNT428-4	20+52.35	6° 01′ 36.94"	2864.79	150.81	301.35	N 4° 40′ 58.56" E	301.21	19+01.54	22+02.89

FM 428 TO SOUTHBOUND DNT CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
134	428SDNT-1	11+98.57	7° 55′ 48.64"	2864.79	198.57	396.51	N 0° 16′ 07.29" W	396.19	10+00.00	13+96.51
135	428SDNT-2	22+21.19	3° 59′ 59.99"	2864.79	100.04	200.00	N 2° 14′ 01.61" W	199.96	21+21.15	23+21.15

SUPERELEVATION DATA

PRDNT4A-CL-7

E	5.50%		W	36	
CS(NB)	-2.00%		G	0.4	
CS(SB)	2.00%		"CS(NB)	7.5	
LT(MIN)	207		"CS(SB)	3.5	
LT(NB)	675		LT(SB)	315	
LT(NB) Inside Curve	225	STA. 1852+95.00 , 1867+00.00	LT(SB) Inside Curve	105	STA. 1851+75.00 , 1868+20.00
LT(NB) Outside Curve	450	STA. 1846+20.00 , 1873+75.00	LT(SB) Outside Curve	210	STA. 1848+60.00 , 1871+35.00

PRDNT4A-CL-8

E	-3.30%		W	36	
CS(NB)	-2.00%		G	0.4	
CS(SB)	2.00%		"CS(NB)	1.3	
LT(MIN)	207		"CS(SB)	5.3	
LT(NB)	207		LT(SB)	477	
LT(NB) Inside Curve	69	STA. 1922+15.00 , 1933+05.00	LT(SB) Inside Curve	159	STA. 1923+05.00 , 1932+15.00
LT(NB) Outside Curve	138	STA. 1920+05.00 , 1935+15.00	LT(SB) Outside Curve	318	STA. 1918+25.00 , 1936+95.00

PRDNT4A-CL-9

E	2.00%		W	36	
CS(NB)	-2.00%		G	0.4	
CS(SB)			"CS(NB)	4.0	
LT(MIN)	207		"CS(SB)		
LT(NB)	360				
LT(NB) Inside Curve	120	STA. 1947+75.00 , 1953+20.00			
LT(NB) Outside Curve	240	STA. 1944+15.00 , 1956+80.00			

NTTA®
NORTH TEXAS TOLLWAY AUTHORITY
5900W. Plano Pkwy, Plano, Texas 75093
Jorge Figueredo, Executive Director

DALLAS NORTH TOLLWAY EXTENSION

SECTION 4A
FROM US380 TO FM428
DESIGN SCHEMATIC

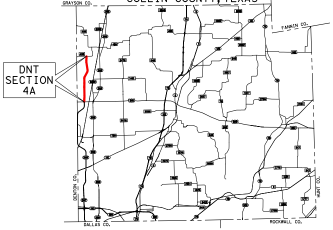
DESIGN SPEED

FUNCTIONAL CLASS: URBAN TOLLWAY (FREEWAY)
DESIGN SPEED: 70 mph (TOLLWAY MAINLANES)
50 mph (RAMPS)
45 mph (SERVICE ROADS)
45 mph (CROSS STREETS)
* UNLESS OTHERWISE NOTED ON PLANS

AVERAGE DAILY TRAFFIC

31,200 (2012)
80,800 (2030)

COLLIN COUNTY, TEXAS


GRAYSON CO.
FANNIN CO.
DENTON CO.
HUNT CO.
DALLAS CO.
ROCKWALL CO.
DNT SECTION 4A
N

PROJECT LENGTH = 6.07 MILES

JUNE 23, 2008

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

Type or Print Name	PE#	Date
Matthew G. Craig	69910	06-23-2008

HALFF
1201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081-2275
TEL (214) 346-6200
FAX (214) 739-0095

DATE APPROVED

DESIGN SCHEMATIC NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

DATE SUBMITTED

PRELIMINARY
DRAFT SUBJECT TO CHANGE

ROLL 3 OF 6

SCALE: 1"=200′
0 100 200 300 400 600

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ROLL 3 OF 6 STA. 1850+00 TO STA. 1965+00