ROLL 5 OF 14 STA. 2365+00 TO STA. 2445+00

NORTH TEXAS TOLLWAY AUTHORITY
5900 W. Plano Pkwy, Plano, Texas 75093
Allen Clemson, Executive Director, NTTA

DALLAS NORTH TOLLWAY EXTENSION

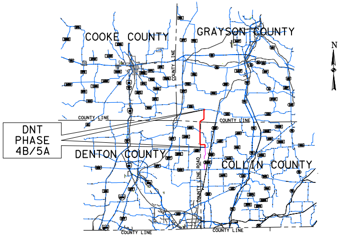
PHASE 4B / 5A
FROM FM 428 TO FM 121
DESIGN SCHEMATIC

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

TBD (2012)
TBD (2030)


COOKE COUNTY
GRAYSON COUNTY
DENTON COUNTY
COLLIN COUNTY
COUNTY LINE
COUNTY LINE
COUNTY LINE ROAD
DNT PHASE 4B/5A
N

PROJECT LENGTH = 11.84 MILES

MARCH 18, 2011

PRE-FINAL SUBMITTAL

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

Matthew G. Craig	69910	3-18-2011
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

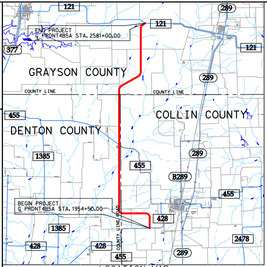
PRELIMINARY
DRAFT SUBJECT TO CHANGE

ROLL 5 OF 14

SCALE: 1"=200'

0 100 200 300 400 600

© 2011 by North Texas Tollway Authority, Plano, Texas


121
289
377
END PROJECT
℄ PRDNT4B5A STA. 2581+00.00
GRAYSON COUNTY
COUNTY LINE
COUNTY LINE
455
DENTON COUNTY
COLLIN COUNTY
1385
289
B289
BEGIN PROJECT
℄ PRDNT4B5A STA. 1954+50.00
428
1385
2478
COUNTY LINE ROAD

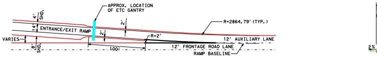
LOCATION MAP
N.T.S.

LEGEND:

——— — —	EXIST.ROW
━━━ ━ ━	PROPOSED R.O.W.
——— ———	PROPERTY LINE
— — — —	PROPOSED DRAINAGE EASEMENT
65	PROPERTY PARCEL #
———	100 YEAR FLOODPLAIN
═══	EXISTING STORM DRAINAGE
═══	PROPOSED STORM DRAINAGE
═══	PROPOSED DRAINAGE CHANNEL
→	DIRECTION OF TRAFFIC
T	GANTRY SYMBOL
——— ———	EXISTING CONTOURS
———	PAVEMENT EDGE
▨	PAVEMENT TO BE REMOVED
——— – ———	PROPOSED DNT 4B/5A 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 MAINLANE BRIDGE
🟨	PROPOSED CROSS STREET BRIDGES
🟨	PROPOSED DNT 4B/5A MAIN LANES
🟩	PROPOSED RAMP / DIRECT CONNECTOR
🟩	PROPOSED FRONTAGE ROAD AND CROSS STREETS
🟥	CROSS STREET ISLANDS
🟪	PROPOSED TEMPORARY PAVEMENT
⬜	EXISTING CROSS & LOCAL STREET
🟧	POTENTIAL DISPLACEMENTS
🟦	PROPOSED TOLL GANTRY
🟨	ADDITIONAL RIGHT-OF-WAY REQUIREMENTS

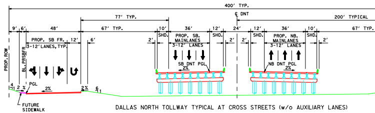
NOTES:

1.) EXISTING FEATURES WERE NOT FIELD SURVEYED. SCHEMATIC LAYOUTS ARE BASED ON AERIAL SURVEY, SUPPLEMENTAL FIELD SURVEYS AND RECORD PLANS ONLY.
2.) DIMENSIONS ARE FACE OF CURB OR TO EDGE OF UNCURBED PAVEMENT UNLESS 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 THAT THE DRIVEWAY WILL BE A SAFETY ISSUE AND/OR VIOLATES THE NTTA CONTROLLED ACCESS REQUIREMENTS.
5.) TRAFFIC VOLUMES SHOWN HEREIN ARE BASED ON PROJECTIONS PROVIDED BY WILBUR SMITH ASSOCIATES ON NOVEMBER 17, 2010.
6.) ALL SUPER ELEVATION AXIS OF ROTATION IS ABOUT THE PGL.
7.) APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE RATE MAPS, NUMBERS 48085C0125 G AND 48085C0255 G
8.) METAL BEAM GUARD FENCE AND CONCRETE TRAFFIC BARRIER (CTB) LOCATIONS TO BE DETERMINED IN PS&E. CTB MAY ALTERNATE FROM NB TO SB SHOULDER DEPENDING ON MAINTENANCE ACCESS NEEDS AND PS&E REFINEMENT.
9.) CROSS STREET ALIGNMENTS ARE PRELIMINARY ONLY, FINAL LOCATION WILL BE DETERMINED AT THE PS&E LEVEL.
10.) FINAL DETERMINATION OF CONTROL OF ACCESS WILL BE DETERMINED BY THE COUNTIES OR MUNICIPALITIES AT A FUTURE DATE.

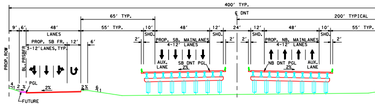

APPROX. LOCATION OF ETC GANTRY
4' SHD.
14'
ENTRANCE/EXIT RAMP
2'
2'
R=2864.79' (TYP.)
R=2'
VARIES
8' SHD.
100'
12' AUXILIARY LANE
12' FRONTAGE ROAD LANE
RAMP BASELINE
2%

TYPICAL RAMP FRONTAGE ROAD GORE

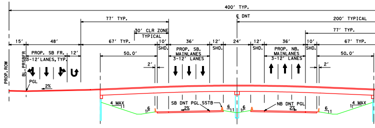
DALLAS NORTH TOLL


400' TYP.
℄ DNT
77' TYP.
200' TYPICAL
9'
6'
48'
67' TYP.
10'
36'
12'
24'
12'
36'
10'
67' TYP.
PROP. ROW
BL. PRSBFR
PROP. SB FR. 3-12'LANES, TYP.
12'
6'
2'
SHD.
PROP. SB. MAINLANES 3-12' LANES
SHD.
2'
2'
SHD.
PROP. NB. MAINLANES 3-12' LANES
SHD.
2'
SB DNT PGL
NB DNT PGL
2%
PGL
2%
2%
FUTURE SIDEWALK

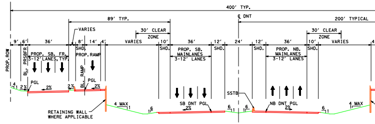
DALLAS NORTH TOLLWAY TYPICAL AT CROSS STREETS (w/o AUXILIARY LANES)


400' TYP.
℄ DNT
65' TYP.
200' TYPICAL
9'
6'
48'
55' TYP.
10'
48'
12'
24'
12'
48'
10'
55' TYP.
PROP. ROW
BL. PRSBFR
LANES
PROP. SB FR. 3-12'LANES, TYP.
12'
6'
2'
SHD.
PROP. SB. MAINLANES 4-12' LANES
SHD.
2'
2'
SHD.
PROP. NB. MAINLANES 4-12' LANES
SHD.
2'
AUX. LANE
SB DNT PGL
NB DNT PGL
AUX. LANE
2%
PGL
2%
FUTURE SIDEWALK

DALLAS NORTH TOLLWAY TYPICAL AT CROSS STREETS (w/ AUXILIARY LANES)

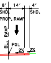

400' TYP.
℄ DNT
77' TYP.
200' TYPICAL
30' CLR ZONE TYPICAL
77' TYP.
15'
48'
67' TYP.
10'
36'
12'
24'
12'
36'
10'
67' TYP.
50.0'
50.0'
PROP. ROW
BL. PRSBFR
PROP. SB FR. 3-12'LANES, TYP.
12'
SHD.
PROP. SB. MAINLANES 3-12' LANES
SHD.
SHD.
PROP. NB. MAINLANES 3-12' LANES
SHD.
2'
2'
PGL
2%
4 MAX
SB DNT PGL
SSTB
NB DNT PGL
2%
4 MAX

DALLAS NORTH TOLLWAY TYPICAL UNDERPASS SECTION AT CROSS STREET LOCATIONS

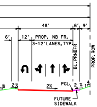

400' TYP.
℄ DNT
89' TYP.
200' TYPICAL
VARIES
30' CLEAR ZONE
30' CLEAR ZONE
9'
6'
36'
8'
14'
4'
VARIES
10'
36'
12'
24'
12'
36'
10'
VARIES
PROP. ROW
BL. PRSBFR
PROP. SB. FR. 3-12'LANES, TYP.
SHD.
PROP. RAMP
BL. RAMP
SHD.
PROP. SB. MAINLANES 3-12' LANES
SHD.
SHD.
PROP. NB. MAINLANES 3-12' LANES
SHD.
PGL
2%
PGL
2%
RETAINING WALL WHERE APPLICABLE
4 MAX
SB DNT PGL
SSTB
NB DNT PGL
4 MAX

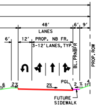
DALLAS NORTH TOLLWAY TYPICAL DEPRESSED SECTION

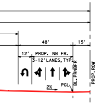
PROPOSED TYPICAL SECTIONS
N.T.S.

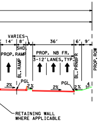

8'
14'
4'
SHD.
SHD.
PROP. RAMP
BL. RAMP
PGL
2%
2%

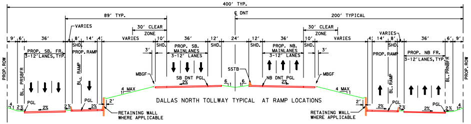
LWAY TYPICAL RAMP SECTION


48'
6'
9'
6'
12'
PROP. NB FR.
3-12' LANES, TYP.
BL. PRNBFR
PROP. ROW
PGL
2%
2%
4
FUTURE SIDEWALK

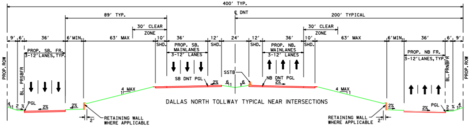

48'
LANES
6'
9'
6'
12'
PROP. NB FR.
3-12' LANES, TYP.
BL. PRNBFR
PROP. ROW
PGL
2%
2%
4
FUTURE SIDEWALK


48'
15'
12'
PROP. NB FR.
3-12' LANES, TYP.
BL. PRNBFR
PROP. ROW
PGL
2%

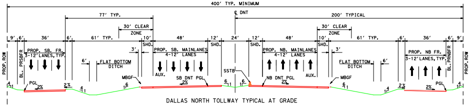

VARIES
14'
8'
36'
6'
9'
SHD.
PROP. RAMP
PROP. NB FR.
3-12' LANES, TYP.
BL. RAMP
BL. PRNBFR
PROP. ROW
PGL
PGL
2%
4
RETAINING WALL WHERE APPLICABLE


400' TYP.
89' TYP.
℄ DNT
200' TYPICAL
VARIES
30' CLEAR ZONE
9'
6'
36'
8'
14'
4'
VARIES
10'
36'
12'
24'
12'
36'
10'
VARIES
4'
14'
8'
36'
6'
9'
SHD.
PROP. RAMP
PROP. SB. FR.
3-12' LANES, TYP.
PROP. SB. MAINLANES
3-12' LANES
PROP. NB. MAINLANES
3-12' LANES
PROP. NB FR.
3-12' LANES, TYP.
PROP. ROW
BL. PRSBFR
BL. RAMP
BL. PRNBFR
3'
MBGF
SSTB
SB DNT PGL
NB DNT PGL
PGL
2%
4 MAX
2'
RETAINING WALL WHERE APPLICABLE

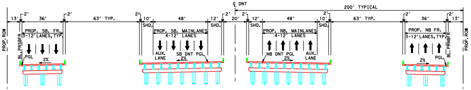
DALLAS NORTH TOLLWAY TYPICAL AT RAMP LOCATIONS


400' TYP.
89' TYP.
℄ DNT
200' TYPICAL
30' CLEAR ZONE
9'
6'
36'
6' MIN.
63' MAX
10'
36'
12'
24'
12'
36'
10'
63' MAX
6' MIN.
36'
6'
9'
SHD.
PROP. SB. FR.
3-12' LANES, TYP.
PROP. SB. MAINLANES
3-12' LANES
PROP. NB. MAINLANES
3-12' LANES
PROP. NB FR.
3-12' LANES, TYP.
PROP. ROW
BL. PRSBFR
BL. PRNBFR
SSTB
SB DNT PGL
NB DNT PGL
PGL
2%
4 MAX
2'
RETAINING WALL WHERE APPLICABLE

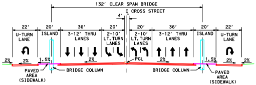
DALLAS NORTH TOLLWAY TYPICAL NEAR INTERSECTIONS


400' TYP. MINIMUM
77' TYP.
℄ DNT
200' TYPICAL
30' CLEAR ZONE
9'
6'
36'
6'
61' TYP.
10'
48'
12'
24'
12'
48'
10'
61' TYP.
6'
36'
6'
9'
SHD.
PROP. SB. FR.
3-12' LANES, TYP.
PROP. SB. MAINLANES
4-12' LANES
PROP. NB. MAINLANES
4-12' LANES
PROP. NB FR.
3-12' LANES, TYP.
FLAT BOTTOM DITCH
AUX.
MBGF
SSTB
SB DNT PGL
NB DNT PGL
PGL
PROP. ROW
BL. PRSBFR
BL. PRNBFR
2%
3'
6'
4

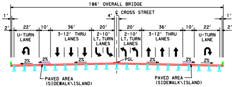
DALLAS NORTH TOLLWAY TYPICAL AT GRADE


℄ DNT
200' TYPICAL
13'
2'
36'
63' TYP.
10'
48'
12'
20'
12'
48'
10'
63' TYP.
36'
13'
SHD.
PROP. SB. FR.
3-12' LANES, TYP.
PROP. SB. MAINLANES
4-12' LANES
PROP. NB. MAINLANES
4-12' LANES
PROP. NB FR.
3-12' LANES, TYP.
AUX. LANE
SB DNT PGL
NB DNT PGL
PGL
2%
PROP. ROW
BL. PRSBFR
BL. PRNBFR

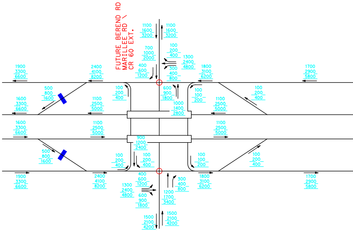
DALLAS NORTH TOLLWAY AT WATER CROSSINGS


132' CLEAR SPAN BRIDGE
4'
℄ CROSS STREET
22'
20'
36'
20'
20'
36'
20'
22'
U-TURN LANE
ISLAND
3-12' THRU LANES
2-10' LT. TURN LANES
2-10' LT. TURN LANES
3-12' THRU LANES
ISLAND
U-TURN LANE
PGL
2%
1.5%
PAVED AREA (SIDEWALK)
BRIDGE COLUMN
BRIDGE COLUMN
PAVED AREA (SIDEWALK)

CROSS STREET AT GRADE - TYPICAL 6 LANE SECTION

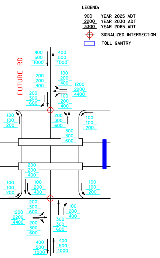

186' OVERALL BRIDGE
1'
4'
℄ CROSS STREET
1'
2'
22'
10'
36'
20'
20'
36'
10'
22'
2'
U-TURN LANE
3-12' THRU LANES
2-10' LT. TURN LANES
2-10' LT. TURN LANES
3-12' THRU LANES
U-TURN LANE
PGL
2%
PAVED AREA (SIDEWALK\ISLAND)
PAVED AREA (SIDEWALK\ISLAND)

CROSS STREET AT OVERPASS - TYPICAL 6 LANE SECTION


FUTURE BEREND RD
MARILLEE RD \
CR 60 EXT.
1100 1600 3200
1100 1600 3200
700 1000 2000
100 200 400
1300 2400 4800
400 600 1200
300 400 800
1900 3300 6600
2400 4100 8200
1800 3100 6200
1700 2900 5800
500 800 1600
100 200 400
600 900 1800
100 100 200
100 200 400
1600 3300 6600
1100 2500 5000
1000 1400 2800
1100 2500 5000
1600 3300 6600
1100 2500 5000
900 1200 2400
1100 2500 5000
500 800 1600
100 200 400
100 200 400
100 100 200
100 200 400
1900 3300 6600
2400 4100 8200
400 600 1200
300 400 800
1800 3100 6200
1700 2900 5800
1300 2400 4800
600 900 1800
1200 1700 3400
1500 2100 4200
1500 2100 4200

TRAFFIC VOLUME DIAGRAM

N.T.S.


LEGEND:
900 YEAR 2025 ADT
2200 YEAR 2030 ADT
3300 YEAR 2065 ADT
SIGNALIZED INTERSECTION
TOLL GANTRY
FUTURE RD
400 500 1000
400 500 1000
200 200 400
100 200 400
1200 2200 4400
200 300 600
100 200 400
100 100 200
200 300 600
100 100 200
300 300 600
200 200 400
100 100 200
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1200 2200 4400
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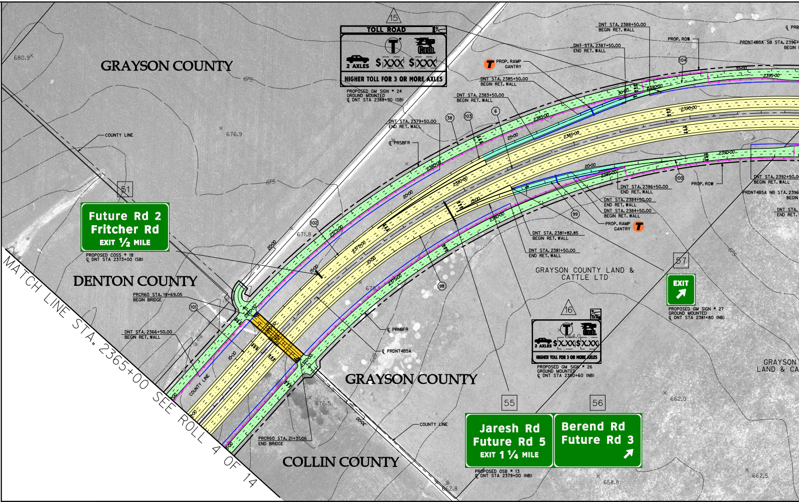
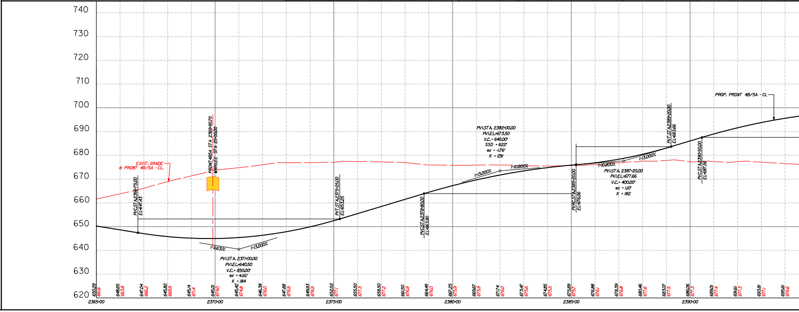
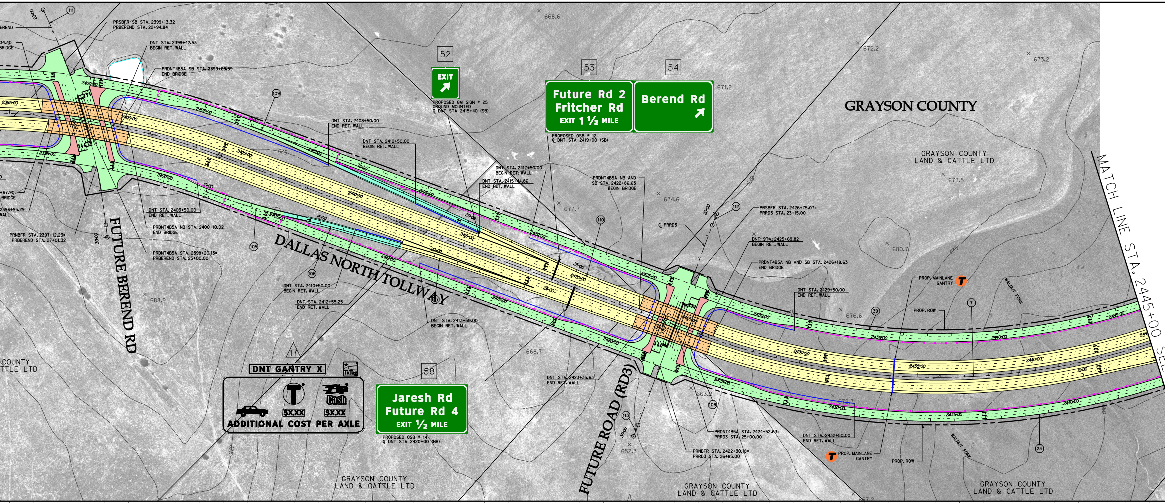
100 200 400
300 300 600
400 500 1000
400 500 1000


GRAYSON COUNTY
15
TOLL ROAD
2 AXLES $XXX $XXX
HIGHER TOLL FOR 3 OR MORE AXLES
PROPOSED GM SIGN # 24
GROUND MOUNTED
℄ DNT STA 2388+90 (SB)
PROP. RAMP GANTRY
DNT STA. 2388+50.00 BEGIN RET. WALL
DNT STA. 2387+50.00 END RET. WALL
PROP. ROW
PRDNT4B5A SB STA. 2396+ BEGIN
DNT STA. 2385+50.00 BEGIN RET. WALL
DNT STA. 2383+50.00 BEGIN RET. WALL
DNT STA. 2379+50.00 END RET. WALL
℄ PRSBFR
COUNTY LINE
680.9
676.9
675
671.8
51
Future Rd 2
Fritcher Rd
EXIT ½ MILE
PROPOSED COSS # 18
℄ DNT STA 2373+00 (SB)
DENTON COUNTY
PRCR60 STA. 18+69.05 BEGIN BRIDGE
DNT STA. 2366+50.00 BEGIN RET. WALL
MATCH LINE STA. 2365+00 SEE ROLL 4 OF 14
COUNTY LINE
38
103
6
104
102
101
100
99
98
2380+00
2385+00
2390+00
2395+00
2375+00
2370+00
DNT STA. 2386+50.00 END RET. WALL
DNT STA. 2384+50.00 END RET. WALL
DNT STA. 2384+50.00 BEGIN RET. WALL
PROP. RAMP GANTRY
DNT STA. 2381+82.85 BEGIN RET. WALL
DNT STA. 2381+50.00 END RET. WALL
DNT STA. 2392+50.00 BEGIN RET. WALL
PRDNT4B5A NB STA. 2396 BEGIN
DNT STA. END RET.
GRAYSON COUNTY LAND & CATTLE LTD
57
EXIT
PROPOSED GM SIGN # 27
GROUND MOUNTED
℄ DNT STA 2381+80 (NB)
16
2 AXLES $X.XX $X.XX
HIGHER TOLL FOR 3 OR MORE AXLES
PROPOSED GM SIGN # 26
GROUND MOUNTED
℄ DNT STA 2380+60 (NB)
664.0
℄ PRNBFR
℄ PRDNT4B5A
GRAYSON COUNTY
676.5
COUNTY LINE
PRCR60 STA. 21+31.06 END BRIDGE
COLLIN COUNTY
662.8
55
56
Jaresh Rd
Future Rd 5
EXIT 1 ¼ MILE
Berend Rd
Future Rd 3
PROPOSED OSB # 13
℄ DNT STA 2379+00 (NB)
658.8
662.0
662.5
GRAYSON LAND & CA




DALLAS NORTH TOLLWAY
FUTURE BEREND RD
FUTURE ROAD (RD3)
GRAYSON COUNTY
GRAYSON COUNTY LAND & CATTLE LTD
MATCH LINE STA. 2445+00
PRSBFR SB STA. 2399+13.32 PRBEREND STA. 22+94.84
DNT STA. 2399+42.53 BEGIN RET. WALL
PRDNT4B5A SB STA. 2399+68.89 END BRIDGE
DNT STA. 2403+50.00 END RET. WALL
PRDNT4B5A NB STA. 2400+10.02 END BRIDGE
PRDNT4B5A STA. 2398+20.13= PRBEREND STA. 25+00.00
PRNBFR STA. 2397+12.23= PRBEREND STA. 27+01.32
DNT STA. 2408+50.00 END RET. WALL
DNT STA. 2412+50.00 BEGIN RET. WALL
DNT STA. 2410+50.00 BEGIN RET. WALL
DNT STA. 2412+55.25 END RET. WALL
DNT STA. 2413+50.00 BEGIN RET. WALL
DNT STA. 2417+50.00 BEGIN RET. WALL
DNT STA. 2415+44.86 END RET. WALL
PRDNT4B5A NB AND SB STA. 2422+86.63 BEGIN BRIDGE
℄ PRRD3
PRSBFR STA. 2426+75.07= PRRD3 STA. 23+15.00
DNT STA. 2425+69.82 BEGIN RET. WALL
PRDNT4B5A NB AND SB STA. 2426+18.63 END BRIDGE
DNT STA. 2429+50.00 END RET. WALL
DNT STA. 2423+35.63 END RET. WALL
PRDNT4B5A STA. 2424+52.63= PRRD3 STA. 25+00.00
PRNBFR STA. 2422+30.18= PRRD3 STA. 26+85.00
DNT STA. 2432+50.00 END RET. WALL
PROP. MAINLANE GANTRY
PROP. ROW
WALNUT FORK
52
EXIT
PROPOSED GM SIGN # 25 GROUND MOUNTED ℄ DNT STA 2415+40 (SB)
53
54
Future Rd 2 Fritcher Rd EXIT 1 ½ MILE
Berend Rd
PROPOSED OSB # 12 ℄ DNT STA 2419+00 (SB)
17
DNT GANTRY X
TxTag
Zip Cash
$X.XX
$X.XX
ADDITIONAL COST PER AXLE
58
Jaresh Rd Future Rd 4 EXIT ½ MILE
PROPOSED OSB # 14 ℄ DNT STA 2420+00 (NB)
105
106
107
108
109
110
111
112
113
39
7
23
668.6
672.2
673.2
671.2
677.5
674.6
677.7
680.7
676.6
688.9
668.7
663.2
652.3
672.7
2395+00
2400+00
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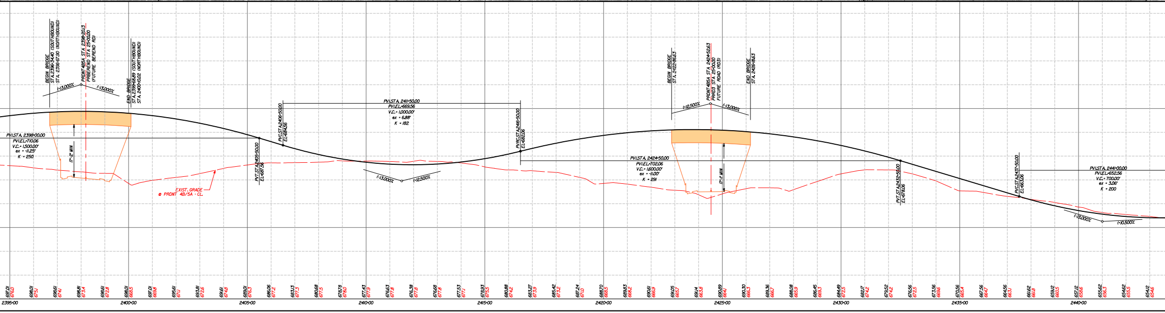
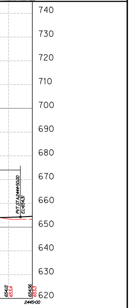
2440+00
2445+00


BEGIN BRIDGE STA. 2396+34.40 (SOUTHBOUND) STA. 2396+67.90 (NORTHBOUND)
PRDNT4B5A STA 2398+20.13 PRBEREND STA 25+00.00 (FUTURE BEREND RD)
END BRIDGE STA. 2399+68.89 (SOUTHBOUND) STA. 2400+10.02 (NORTHBOUND)
(+)3.000%
(-)3.000%
PVI.STA. 2398+00.00 PVI.EL.=710.06 V.C.= 1,500.00' ex = -11.25' K = 250
17'-2" MIN
EXIST. GRADE @ PRDNT 4B/5A - CL.
PVT.STA.2405+50.00 EL=687.56
PVC.STA.2406+50.00 EL=684.56
PVI.STA. 2411+50.00 PVI.EL.=669.56 V.C.= 1,000.00' ex = 6.88' K = 182
(-)3.000%
(+)2.500%
PVT.STA.2416+50.00 EL=682.06
BEGIN BRIDGE STA. 2422+86.63
PRDNT4B5A STA 2424+52.63 PRRD3 STA 25+00.00 FUTURE ROAD (RD3)
END BRIDGE STA. 2426+18.63
(+)2.500%
(-)3.000%
PVI.STA. 2424+50.00 PVI.EL.=702.06 V.C.= 1,600.00' ex = -11.00' K = 291
17'-1" MIN
PVT.STA.2432+50.00 EL=678.06
PVC.STA.2437+50.00 EL=663.06
PVI.STA. 2441+00.00 PVI.EL.=652.56 V.C.= 700.00' ex = 3.06' K = 200
(-)3.000%
(+)0.500%
2395+00
2400+00
2405+00
2410+00
2415+00
2420+00
2425+00
2430+00
2435+00
2440+00

N
EE ROLL 6 OF 14
643.4



CURVE DATA

DNT 4B/5A BASELINE CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
6	PRDNT4B5A-6	2389+34.33	68° 18′ 37.30″ (RT)	2,864.79	1,943.63	3,415.52	N 34° 30′ 09.82″ E	3,216.79	2369+90.70	2404+06.22
7	PRDNT4B5A-7	2445+34.59	68° 55′ 48.44″ (LT)	2,864.79	1,966.34	3,446.51	N 34° 11′ 34.25″ E	3,242.39	2425+68.24	2460+14.75

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
22	PRNBFR-14	2388+06.94	68° 18′ 37.30″ (RT)	2,679.79	1,818.12	3,194.95	N 34° 30′ 09.82″ E	3,009.06	2369+88.82	2401+83.77
23	PRNBFR-15	2444+39.12	68° 55′ 48.44″ (LT)	3,049.79	2,093.32	3,669.07	N 34° 11′ 34.25″ E	3,451.77	2423+45.80	2460+14.87

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
38	PRSBFR-14	2390+61.73	68° 18′ 37.30″ (RT)	3,049.79	2,069.15	3,636.08	N 34° 30′ 09.82″ E	3,424.52	2369+92.58	2406+28.66
39	PRSBFR-15	2446+30.05	68° 55′ 48.44″ (LT)	2,679.79	1,839.36	3,223.94	N 34° 11′ 34.25″ E	3,033.00	2427+90.69	2460+14.63

NORTHBOUND DNT TO BEREND/MARILEE ROAD CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
98	NDNT-BER-1	13+07.31	18° 16′ 53.87″ (RT)	1,909.86	307.31	609.39	N 19° 48′ 23.00″ E	606.81	10+00.00	16+09.39
99	NDNT-BER-2	19+59.07	13° 55′ 06.49″ (RT)	2,864.79	349.68	695.92	N 35° 54′ 23.18″ E	694.21	16+09.39	23+05.31
100	NDNT-BER-3	23+56.75	3° 03′ 47.77″ (LT)	1,923.86	51.44	102.86	N 41° 20′ 02.54″ E	102.85	23+05.31	24+08.17

BEREND/MARILEE ROAD 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
101	BER-SDNT-1	10+28.65	1° 08′ 44.75″ (LT)	2,864.79	28.65	57.29	N 0° 13′ 31.20″ W	57.29	10+00.00	10+57.29
102	BER-SDNT-2	16+47.54	17° 39′ 45.23″ (RT)	3,274.04	508.68	1,009.29	N 8° 01′ 59.04″ E	1,005.30	11+38.86	21+48.15
103	BER-SDNT-3	23+41.73	8° 55′ 52.99″ (RT)	1,909.86	149.16	297.71	N 21° 19′ 48.15″ E	297.41	21+92.57	24+90.29
104	BER-SDNT-4	32+07.73	19° 57′ 10.73″ (RT)	1,909.86	335.95	665.10	N 35° 46′ 20.01″ E	661.74	28+71.78	35+36.88

BEREND/MARILEE ROAD 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
105	BER-NDNT-1	11+94.59	7° 46′ 17.38″ (LT)	2,864.79	194.59	388.57	N 64° 47′ 28.42″ E	388.28	10+00.00	13+88.57
106	BER-NDNT-2	15+24.78	3° 29′ 39.79″ (RT)	2,864.79	87.39	174.72	N 62° 39′ 09.63″ E	174.69	14+37.39	16+12.11
107	BER-NDNT-3	20+07.26	3° 06′ 44.21″ (RT)	2,864.79	77.83	155.61	N 65° 57′ 21.62″ E	155.59	19+29.44	20+85.05
108	BER-NDNT-4	31+38.23	1° 08′ 44.75″ (RT)	2,864.79	28.65	57.29	N 68° 05′ 06.10″ E	57.29	31+09.58	31+66.87

SOUTHBOUND DNT TO BEREND/MARILEE ROAD CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
109	SDNT-BER-1	11+00.53	4° 00′ 00.00″ (RT)	2,878.79	100.53	200.98	N 70° 39′ 28.47″ E	200.94	10+00.00	12+00.98
110	SDNT-BER-2	25+77.01	4° 00′ 00.00″ (LT)	2,864.79	100.04	200.00	N 70° 39′ 28.47″ E	199.96	24+76.97	26+76.97

BEREND/MARILEE ROAD CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
111	PRBEREND-1	20+13.13	38° 57′ 07.54″ (RT)	2,864.79	1,013.13	1,947.60	S 67° 59′ 45.31″ E	1,910.31	10+00.00	29+47.60

FUTURE ROAD CURVE DATA

CURVE NO.	CURVE	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
112	PRRD3-1	15+50.70	42° 03′ 34.42″ (LT)	1,432.39	550.70	1,051.49	S 0° 18′ 44.32″ E	1,028.04	10+00.00	20+51.49
113	PRRD3-2	34+99.21	42° 03′ 34.42″ (RT)	1,432.39	550.70	1,051.49	S 0° 18′ 44.32″ E	1,028.04	29+48.51	40+00.00

NTTA®

NORTH TEXAS TOLLWAY AUTHORITY

5900 W. Plano Pkwy, Plano, Texas 75093
Allen Clemson, Executive Director, NTTA

DALLAS NORTH TOLLWAY EXTENSION

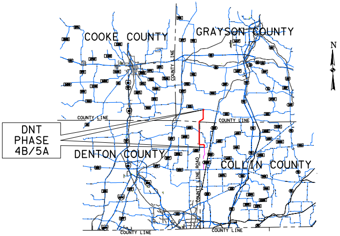
PHASE 4B / 5A
FROM FM 428 TO FM 121
DESIGN SCHEMATIC

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

TBD (2012)
TBD (2030)


COOKE COUNTY
GRAYSON COUNTY
COUNTY LINE
N
COUNTY LINE
COUNTY LINE
DNT PHASE 4B/5A
DENTON COUNTY
COLLIN COUNTY
COUNTY LINE ROAD
COUNTY LINE
COUNTY LINE
COUNTY LINE

PROJECT LENGTH = 11.84 MILES

MARCH 18, 2011

PRE-FINAL SUBMITTAL

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

Matthew G. Craig	69910	3-18-2011
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 5 OF 14

SCALE: 1"=200′

0 100 200 300 400 600

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ROLL 5 OF 14 STA. 2365+00 TO STA. 2445+00