COLLIN COUNTY TOLL ROAD AUTHORITY

CITY OF CELINA
COLLIN COUNTY, TEXAS

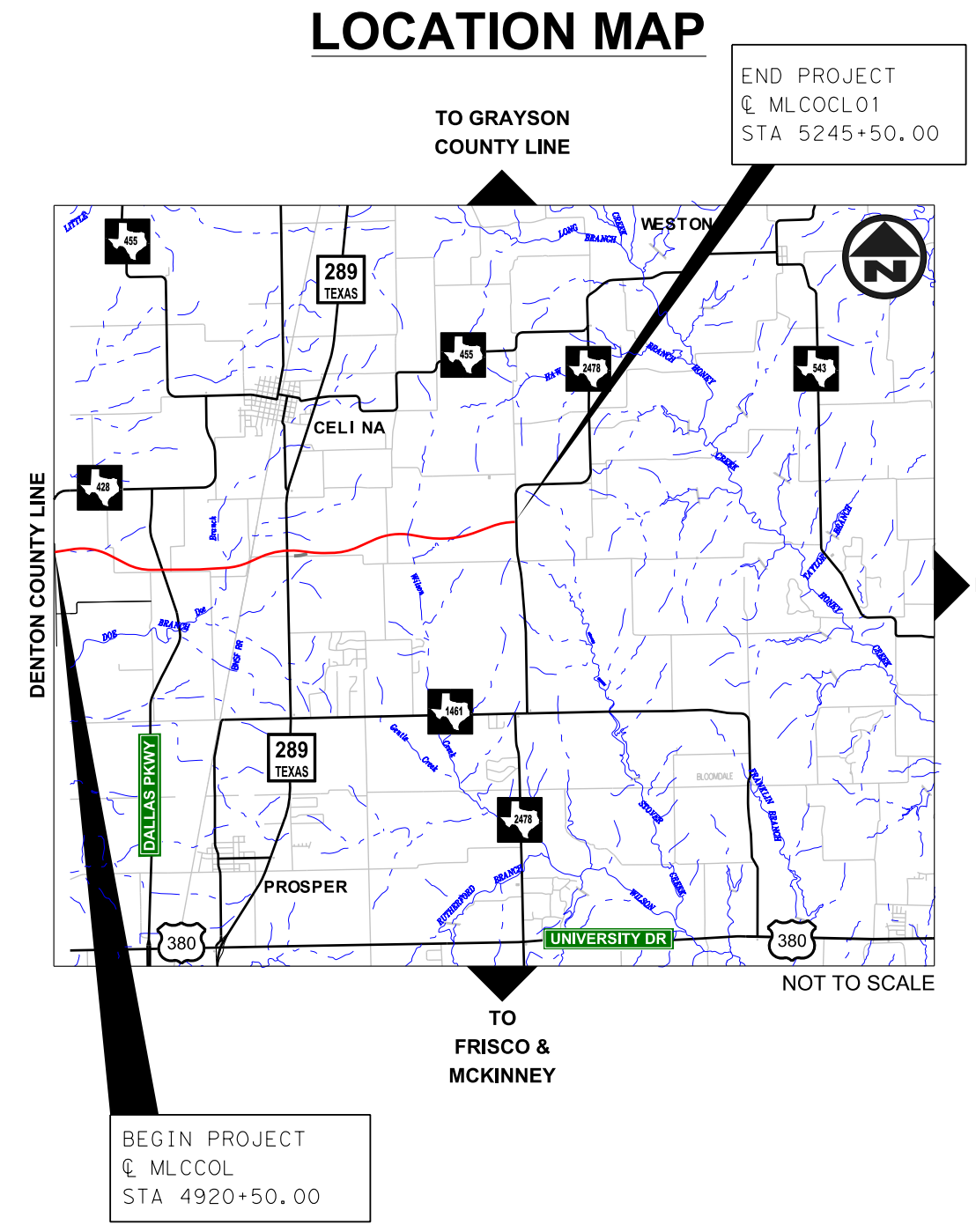
FROM: COLLIN/DENTON COUNTY LINE TO FM 2478
NET PROJECT LENGTH: 32918.73 FT = 6.234 MILES

CONSTRUCTION OF COLLIN COUNTY OUTER LOOP SEGMENT 3
COMPRISING OF TEN-LANE FREEWAY, FRONTAGE ROADS,
INTERCHANGES AND RAMPS

ROADWAY FUNCTIONAL CLASSIFICATION:	URBAN FREEWAY
ROADWAY CONSTRUCTION TYPE:	NEW FACILITY
DESIGN SPEED (MAINLANES):	70 MPH
DESIGN SPEED (FRONTAGE ROAD):	50 MPH
DESIGN SPEED (RAMPS):	50 MPH
DESIGN SPEED (CROSS STREETS):	45 MPH
SCHEMATIC SCALE:	HORIZ: 1"=100' VERT: 1"=10'
GOOGLE EARTH IMAGERY DATE:	2018

e max	(%)
OUTER LOOP ML	6
FRONTAGE ROADS	6
RAMPS	6

LOCATION MAP


END PROJECT
℄ MLCOCL01
STA 5245+50.00
TO GRAYSON COUNTY LINE
WESTON
289 TEXAS
CELINA
DENTON COUNTY LINE
TO MELISSA & ANNA
DALLAS PKWY
PROSPER
380
UNIVERSITY DR
NOT TO SCALE
TO FRISCO & MCKINNEY
BEGIN PROJECT
℄ MLCCOL
STA 4920+50.00

SCALE (IN FEET)
0 50 100 200
HORIZONTAL/PLAN
0 5 10 20
VERTICAL/PROFILE

LEGEND

▭	FUTURE MAINLANES
🟨	PROPOSED FRONTAGE ROADS
🟪	FUTURE IMPROVEMENTS (BY OTHERS)
🟩	RAMPS / DIRECT CONNECTORS
🟦	CONSTRUCTION (BY OTHERS)
🟧	BRIDGE
🟩	DIRECT CONNECTOR BRIDGE
🟥	DRIVEWAY
🟦	CURBED GORE
▨	CONCRETE RIPRAP
— - -	COUNTY DEMARCATION
——	EXISTING TOPOGRAPHIC FEATURES
——	PARCEL LINES
- - -	EXISTING RIGHT-OF-WAY
——	EXISTING EASEMENT
——	EXISTING RAILROAD RIGHT-OF-WAY
——	UTILITY EASEMENT
- - -	PROPOSED RIGHT-OF-WAY
- - -	PROPOSED RIGHT-OF-WAY (SEGMENT 3A)
- - -	FUTURE RIGHT-OF-WAY (BY OTHERS)
- - -	PROPOSED EASEMENT
▭	100-YR FEMA FLOODPLAIN
——	RETAINING WALL
——	RETAINING WALL (BY OTHERS)
——	GUARD FENCE
→	DIRECTION OF TRAVEL
(LEG EN RMP-2)	CURVE NUMBER

NOTES:

1. ADJACENT DEVELOPMENTS ARE PRELIMINARY, DESIGNED BY OTHERS AND SUBJECT TO CHANGE.
2. SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION NOVEMBER 1, 2014 SHALL GOVERN THIS PROJECT.
3. BASIS OF BEARING: TEXAS STATE PLANE COORDINATE SYSTEM, N.A.D. 83 (1993), NORTH CENTRAL ZONE (4202). ALL DISTANCES AND COORDINATES SHOWN HEREIN ARE SCALED FROM 0,0 USING A TXDOT SURFACE ADJUSTMENT FACTOR OF 1.00015271. COORDINATE VALUES DERIVED USING THE WESTERN DATA SYSTEM VRS NETWORK.
4. ALL FUTURE IMPROVEMENTS AND THEIR CORRESPONDING RIGHT-OF-WAY WIDTHS ARE BASED ON COLLIN COUNTY'S THOROUGHFARE PLAN, DATED JANUARY 2018, AND THE CITY OF CELINA'S THOROUGHFARE PLANS, DATED APRIL 2018, AND ARE SUBJECT TO CHANGE.
5. HORIZONTAL AND VERTICAL ALIGNMENTS FOR CROSS STREETS ARE PRELIMINARY AND SUBJECT TO CHANGE.
6. OUTER LOOP DESIGN SHOWN WEST OF COLLIN COUNTY LINE IS ESTIMATED AND DEPENDENT ON FUTURE DESIGN DEVELOPED BY OTHERS.
7. THE INTERCHANGES AT DALLAS NORTH TOLLWAY AND PRESTON ROAD ARE CONCEPTUAL DESIGNS. DALLAS NORTH TOLLWAY AND OUTER LOOP WERE CONSIDERED GRADE SEPARATED AT THE SECOND AND THIRD LEVELS RESPECTIVELY.
8. TRAFFIC DATA USED DURING DESIGN DEVELOPMENT IS PRELIMINARY.
9. DESIGN AT DOE BRANCH TRIBUTARY WAS BASED ON PRELIMINARY HYDRAULIC DATA AND SHALL REQUIRE FURTHER ANALYSIS IN THE NEXT DESIGN PHASE.
10. 100 YEAR FLOOD PLAIN LIMITS WERE OBTAINED FROM FEMA FLOOD MAPS AND NATIONAL FLOOD HAZARD LAYER VERSION 3.0.
11. FRONTAGE ROAD PROFILES ARE LOCATED IN ROLLS 7 AND 8.
12. CONTROL OF ACCESS TO BE DETERMINED THROUGH PERMIT PROCESS.
13. NEW EXIT AND ENTRANCE RAMPS ARE DESIGN TO MEET THE DESIRABLE SPACING BETWEEN RAMPS AND DRIVEWAYS, SIDE STREETS OR CROSS STREETS. WHEN THE DESIRABLE SPACING CAN NOT BE ACHIEVED, CHANNELIZATION METHODS WILL BE IMPLEMENTED IN FINAL DESIGN.

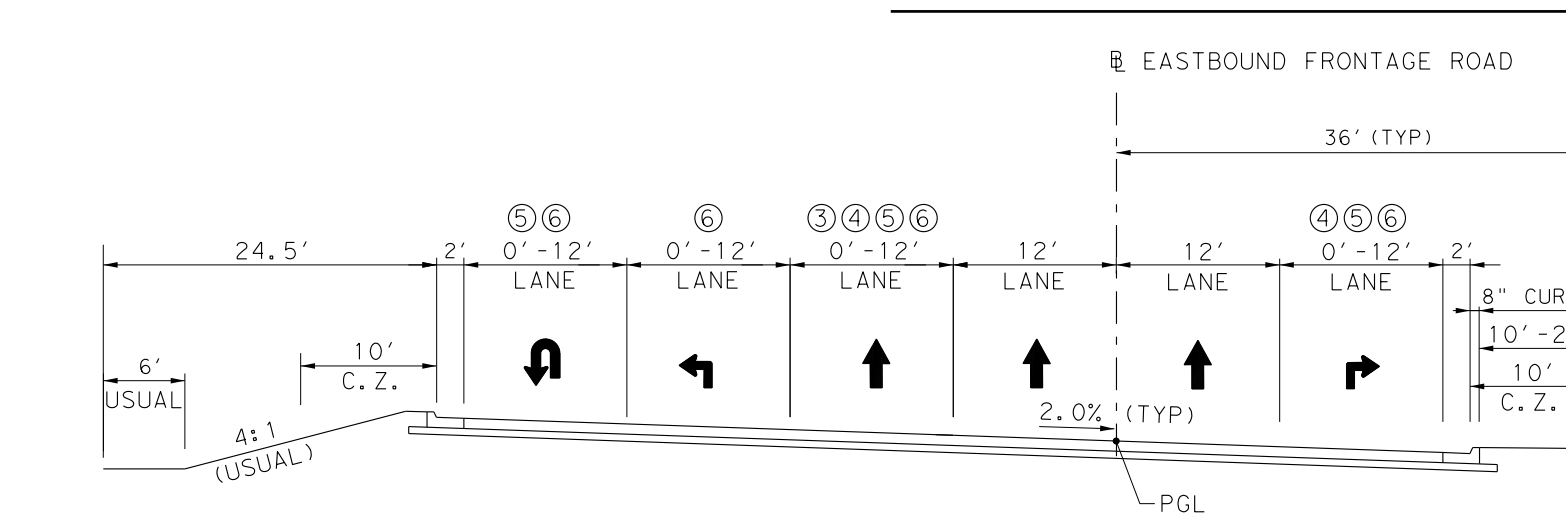
JACOBS

1999 BRYAN STREET, SUITE 1200
DALLAS, TEXAS 75201
P 214.638.0145 I F 214.638.0447
TBPE FIRM NO. F-2966

SCHEMATIC PREPARED BY:
JACOBS ENGINEERING GROUP INC
REGISTRATION NUMBER 2966
NOT FOR PERMITTING, BIDDING OR CONSTRUCTION.
Prepared by or under the Direct Supervision of:
JESUS GONZALEZ JR. 111427
NAME P.E. NUMBER
10/01/2019
DATE

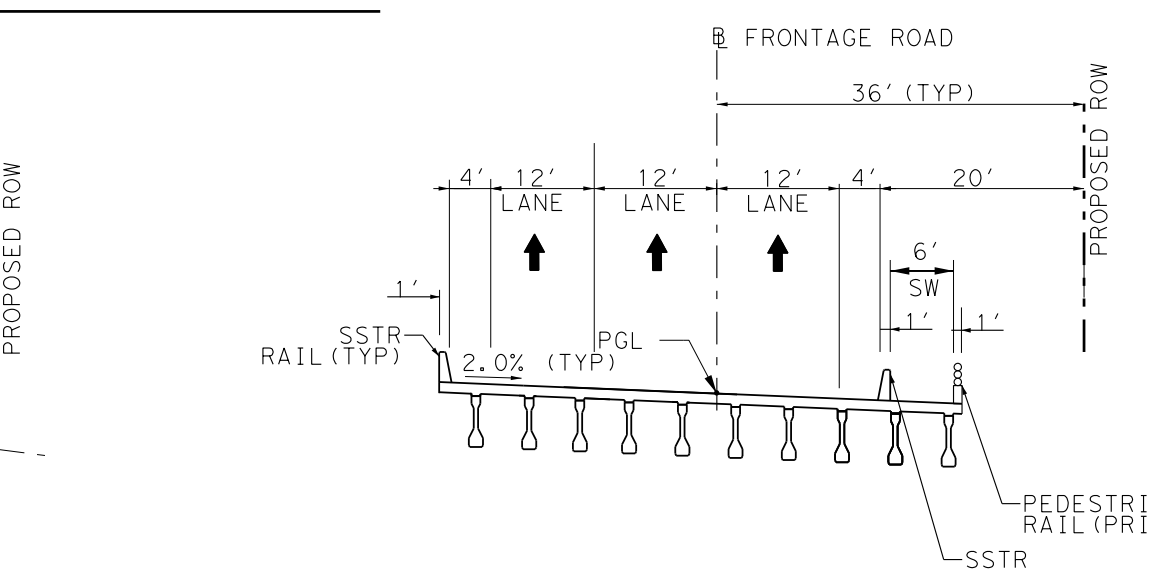
ROLL 6 OF 9

PROPOSED ULTIMATE TYPICAL SECTIONS


℄ EASTBOUND FRONTAGE ROAD
36' (TYP)
24.5'
2'
⑤⑥ 0'-12' LANE
⑥ 0'-12' LANE
③④⑤⑥ 0'-12' LANE
12' LANE
12' LANE
④⑤⑥ 0'-12' LANE
2'
8" CURB
10'-22'
10' C.Z.
PROPOSED ROW
6' USUAL
10' C.Z.
4:1 (USUAL)
2.0% (TYP)
PGL

PROPOSED TYPICAL SECTION EASTBOUND FRONTAGE RD

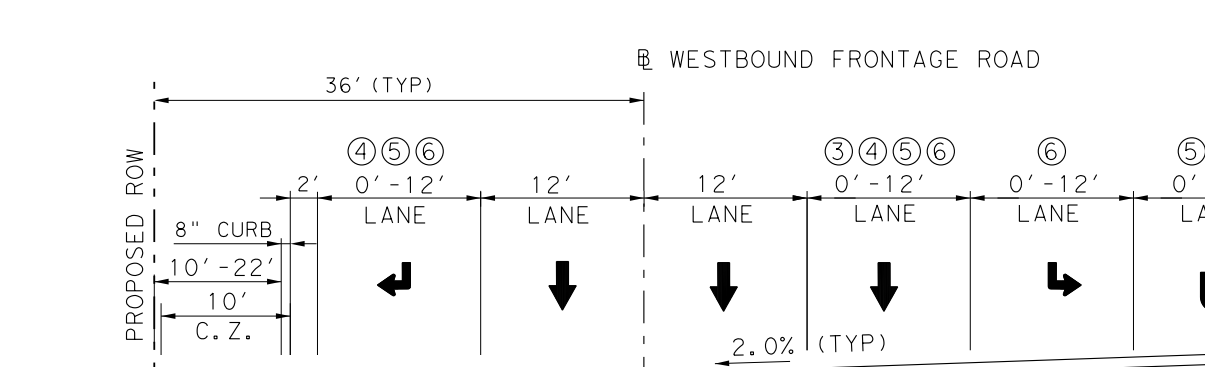
③ 3 LANES BEGIN STATION - STA 927+35.93
③ 3 LANES STA 929+75.03 - STA 971+19.46
④ 4 LANES STA 971+19.46 - STA 975+90.62
③ 3 LANES STA 975+90.62 - STA 992+25.39
⑥ 6 LANES STA 992+25.39 - STA 996+30.90
④ 4 LANES STA 996+30.90 - STA 999+70.02
③ 3 LANES STA 999+70.02 - STA 1022+46.71
⑤ 5 LANES STA 1022+46.71 - STA 1027+05.03
2 LANES STA 1027+05.03 - STA 1033+57.55
③ 3 LANES STA 1079+29.73 - STA 1085+27.12
④ 4 LANES STA 1085+27.12 - STA 1088+77.20
③ 3 LANES STA 1088+77.20 - STA 1091+99.00
③ 3 LANES STA 1091+99.00 - STA 1156+25.02
⑥ 6 LANES STA 1156+25.02 - STA 1160+67.47
③ 3 LANES STA 1160+67.47 - STA 1174+23.02
③ 3 LANES STA 1176+92.87 - STA 1213+59.80
⑤ 5 LANES STA 1213+59.80 - STA 1218+75.01
③ 3 LANES STA 1218+75.01 - STA 1247+90.47
⑥ 6 LANES STA 1247+90.47 - STA 1253+15.86
③ 3 LANES STA 1253+15.86 - END STATION


℄ FRONTAGE ROAD
36' (TYP)
PROPOSED ROW
4' 12' LANE
12' LANE
12' LANE
4'
20'
6' SW
1' 1'
1'
SSTR RAIL (TYP)
2.0% (TYP)
PGL
PEDESTRIAN RAIL (PR11)
SSTR RAIL (TYP)

PROPOSED TYPICAL SECTION
FRONTAGE ROAD BRIDGE

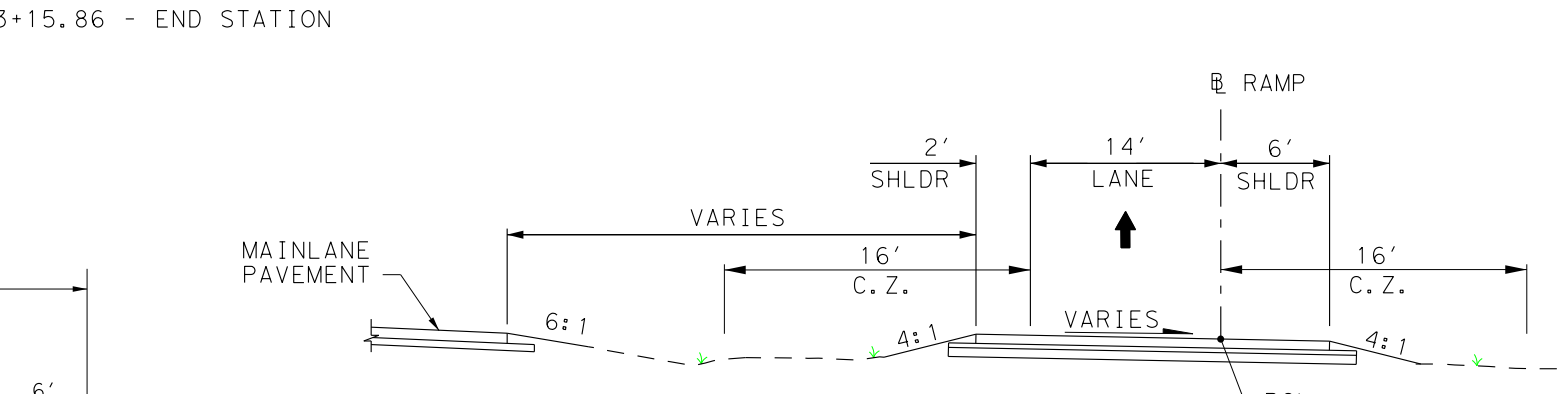
WESTBOUND FRONTAGE RD
STA 3929+37.40 - STA 3931+87.17
STA 4172+14.58 - STA 4174+84.74

EASTBOUND FRONTAGE RD
STA 927+35.93 - STA 929+75.03
STA 1174+23.02 - STA 1176+92.87

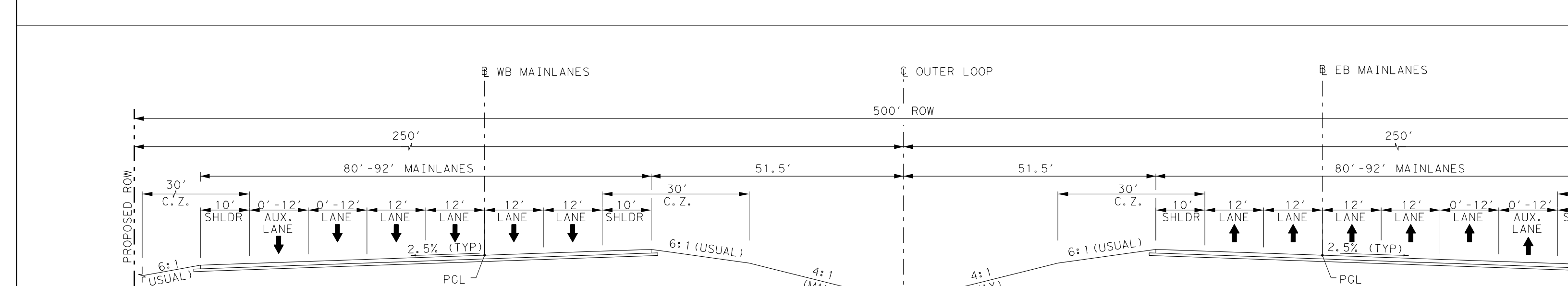

℄ WESTBOUND FRONTAGE ROAD
36' (TYP)
PROPOSED ROW
8" CURB
10'-22'
10' C.Z.
2'
④⑤⑥ 0'-12' LANE
12' LANE
12' LANE
③④⑤⑥ 0'-12' LANE
⑥ 0'-12' LANE
⑤⑥ 0'-12' LANE
2'
24.5'
10' C.Z.
6' USUAL
4:1 (USUAL)
2.0% (TYP)
PGL

PROPOSED TYPICAL SECTION WESTBOUND FRONTAGE RD

⑥ 6 LANES BEGIN STATION - STA 3927+70.13
③ 3 LANES STA 3927+70.13 - STA 3929+37.40
③ 3 LANES STA 3931+87.17 - STA 3978+30.29
④ 4 LANES STA 3978+30.29 - STA 3982+84.50
③ 3 LANES STA 3982+84.50 - STA 3996+19.97
④ 4 LANES STA 3996+19.97 - STA 3999+60.83
⑥ 6 LANES STA 3999+60.83 - STA 4004+90.97
③ 3 LANES STA 4004+90.97 - STA 4028+22.52
⑤ 5 LANES STA 4028+22.52 - STA 4032+12.41
③ 3 LANES STA 4032+12.41 - STA 4036+93.32
2 LANES STA 4078+22.81 - STA 4090+79.97
④ 4 LANES STA 4090+79.97 - STA 4095+13.75
③ 3 LANES STA 4095+13.75 - STA 4161+66.21
⑥ 6 LANES STA 4161+66.21 - STA 4166+68.37
③ 3 LANES STA 4166+68.37 - STA 4172+14.58
③ 3 LANES STA 4174+84.74 - STA 4219+05.89
⑤ 5 LANES STA 4219+05.89 - STA 4224+23.91
③ 3 LANES STA 4224+23.91 - END STATION


℄ RAMP
2' SHLDR
14' LANE
6' SHLDR
VARIES
MAINLANE PAVEMENT
16' C.Z.
16' C.Z.
6:1
4:1
VARIES
4:1
PGL

RAMP TYPICAL SECTION

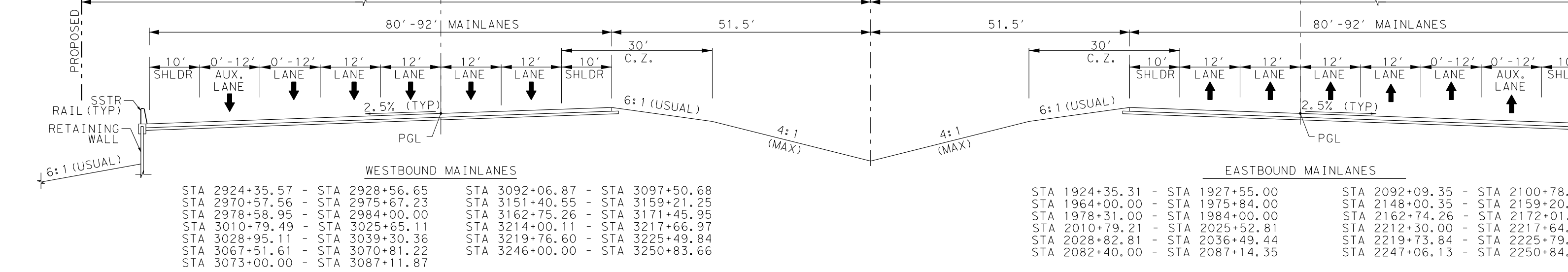

℄ WB MAINLANES
℄ OUTER LOOP
℄ EB MAINLANES
500' ROW
250'
250'
80'-92' MAINLANES
51.5'
51.5'
80'-92' MAINLANES
PROPOSED ROW
30' C.Z.
10' SHLDR
0'-12' AUX. LANE
0'-12' LANE
12' LANE
12' LANE
12' LANE
12' LANE
10' SHLDR
30' C.Z.
2.5% (TYP)
6:1 (USUAL)
4:1 (MAX)
PGL

WESTBOUND MAINLANES

STA 2920+39.36 - STA 2920+78.57
STA 2930+96.65 - STA 2970+57.56
STA 2975+67.23 - STA 2976+11.95
STA 3039+30.36 - STA 3042+09.51
STA 3050+39.00 - STA 3061+51.61
STA 3070+81.22 - STA 3073+00.00
STA 3097+50.68 - STA 3151+40.55
STA 3176+66.28 - STA 3214+00.11
STA 3225+49.84 - STA 3246+00.00
STA 3254+33.66 - STA 3254+49.57

EASTBOUND MAINLANES

STA 1920+61.43 - STA 1920+78.31
STA 1929+95.00 - STA 1964+00.00
STA 2036+49.44 - STA 2042+07.25
STA 2050+37.25 - STA 2061+49.87
STA 2067+34.87 - STA 2082+40.00
STA 2100+78.94 - STA 2148+00.35
STA 2177+21.66 - STA 2212+30.00
STA 2225+79.93 - STA 2247+06.13
STA 2254+34.33 - STA 2254+50.42

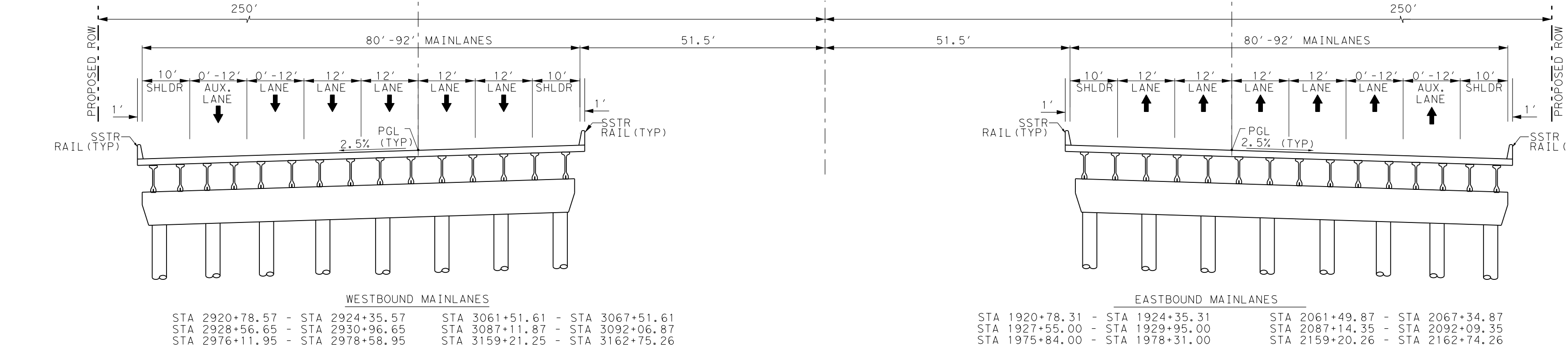

℄ WB MAINLANES
℄ OUTER LOOP
℄ EB MAINLANES
500' ROW
250'
250'
80'-92' MAINLANES
51.5'
51.5'
80'-92' MAINLANES
PROPOSED ROW
30' C.Z.
10' SHLDR
0'-12' AUX. LANE
0'-12' LANE
12' LANE
10' SHLDR
SSTR RAIL (TYP)
RETAINING WALL
6:1 (USUAL)
2.5% (TYP)
4:1 (MAX)
PGL

WESTBOUND MAINLANES

STA 2924+35.57 - STA 2928+56.65
STA 2970+57.56 - STA 2975+67.23
STA 2978+58.95 - STA 2984+00.00
STA 3010+79.49 - STA 3025+65.11
STA 3028+95.11 - STA 3039+30.36
STA 3067+51.61 - STA 3070+81.22
STA 3073+00.00 - STA 3087+11.87
STA 3092+06.87 - STA 3097+50.68
STA 3151+40.55 - STA 3159+21.25
STA 3162+75.26 - STA 3171+45.95
STA 3214+00.11 - STA 3217+66.97
STA 3219+76.60 - STA 3225+49.84
STA 3246+00.00 - STA 3250+83.66

EASTBOUND MAINLANES

STA 1924+35.31 - STA 1927+55.00
STA 1964+00.00 - STA 1975+84.00
STA 1978+31.00 - STA 1984+00.00
STA 2010+79.21 - STA 2025+52.81
STA 2028+82.81 - STA 2036+49.44
STA 2082+40.00 - STA 2087+14.35
STA 2092+09.35 - STA 2100+78.94
STA 2148+00.35 - STA 2159+20.26
STA 2162+74.26 - STA 2172+01.61
STA 2212+30.00 - STA 2217+64.12
STA 2219+73.84 - STA 2225+79.93
STA 2247+06.13 - STA 2250+84.33

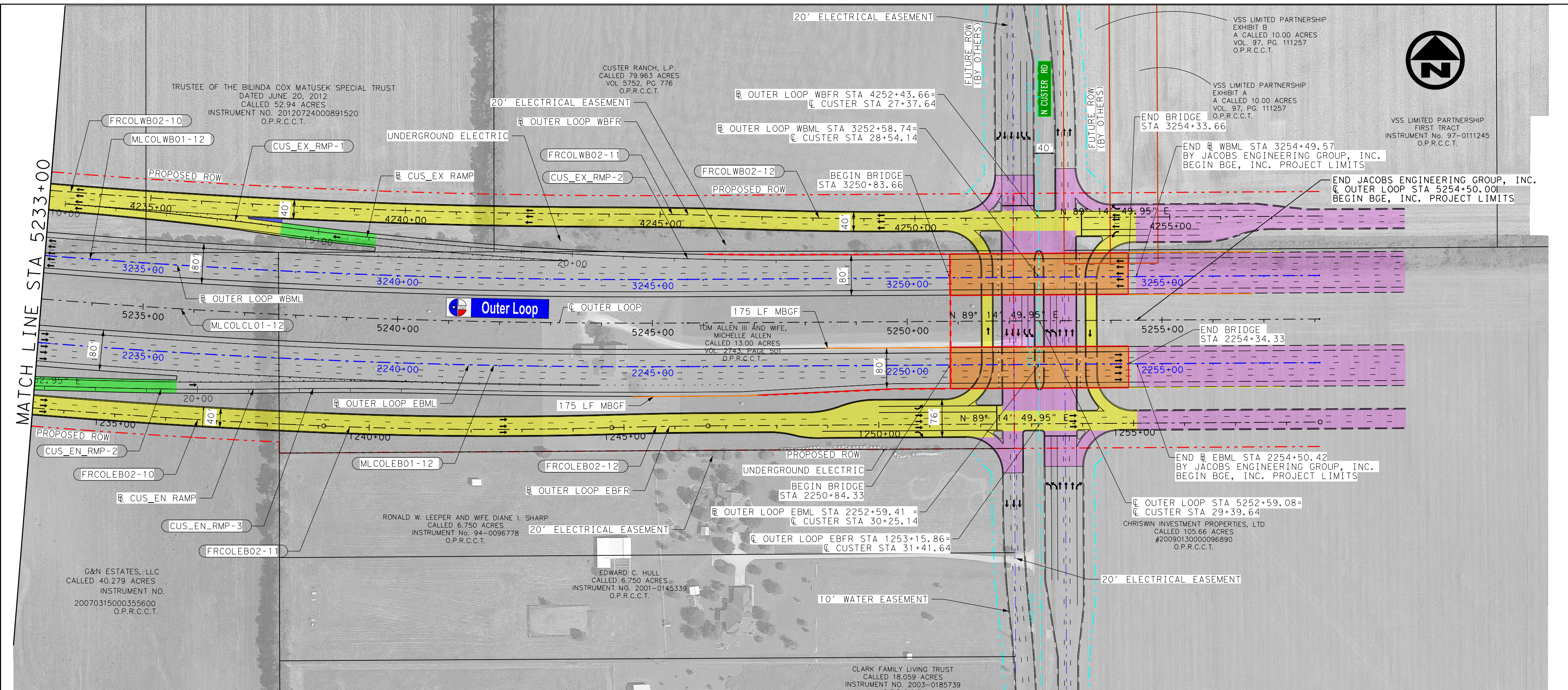

℄ WB MAINLANES
℄ OUTER LOOP
℄ EB MAINLANES
500' ROW
250'
250'
80'-92' MAINLANES
51.5'
51.5'
80'-92' MAINLANES
PROPOSED ROW
10' SHLDR
0'-12' AUX. LANE
0'-12' LANE
12' LANE
10' SHLDR
1'
SSTR RAIL (TYP)
PGL
2.5% (TYP)

WESTBOUND MAINLANES

STA 2920+78.57 - STA 2924+35.57
STA 2928+56.65 - STA 2930+96.65
STA 2976+11.95 - STA 2978+58.95
STA 2984+00.00 - STA 3010+79.49
STA 3025+65.11 - STA 3028+95.11
STA 3042+09.51 - STA 3050+39.00
STA 3061+51.61 - STA 3067+51.61
STA 3087+11.87 - STA 3092+06.87
STA 3159+21.25 - STA 3162+75.26
STA 3171+45.95 - STA 3176+66.28
STA 3217+66.97 - STA 3219+76.60
STA 3250+83.66 - STA 3254+33.66

EASTBOUND MAINLANES

STA 1920+78.31 - STA 1924+35.31
STA 1927+55.00 - STA 1929+95.00
STA 1975+84.00 - STA 1978+31.00
STA 1984+00.00 - STA 2010+78.78
STA 2025+52.81 - STA 2028+82.81
STA 2042+07.25 - STA 2050+37.25
STA 2061+49.87 - STA 2067+34.87
STA 2087+14.35 - STA 2092+09.35
STA 2159+20.26 - STA 2162+74.26
STA 2172+01.61 - STA 2177+21.66
STA 2217+64.12 - STA 2219+73.84
STA 2250+84.33 - STA 2254+34.33


MATCH LINE STA 5233+00
20' ELECTRICAL EASEMENT
FUTURE ROW (BY OTHERS)
N CUSTER RD
VSS LIMITED PARTNERSHIP EXHIBIT B A CALLED 10.00 ACRES VOL. 97, PG. 111257 O.P.R.C.C.T.
VSS LIMITED PARTNERSHIP EXHIBIT A A CALLED 10.00 ACRES VOL. 97, PG. 111257 O.P.R.C.C.T.
VSS LIMITED PARTNERSHIP FIRST TRACT INSTRUMENT No. 97-0111245 O.P.R.C.C.T.
CUSTER RANCH, L.P. CALLED 79.963 ACRES VOL 5752, PG 776 O.P.R.C.C.T.
TRUSTEE OF THE BILINDA COX MATUSEK SPECIAL TRUST DATED JUNE 20, 2012 CALLED 52.94 ACRES INSTRUMENT NO. 20120724000891520 O.P.R.C.C.T.
FRCOLWB02-10
MLCOLWB01-12
CUS_EX_RMP-1
UNDERGROUND ELECTRIC
℄ CUS_EX RAMP
℄ OUTER LOOP WBFR
FRCOLWB02-11
CUS_EX_RMP-2
FRCOLWB02-12
PROPOSED ROW
℄ OUTER LOOP WBFR STA 4252+43.66= ℄ CUSTER STA 27+37.64
℄ OUTER LOOP WBML STA 3252+58.74= ℄ CUSTER STA 28+54.14
BEGIN BRIDGE STA 3250+83.66
END BRIDGE STA 3254+33.66
END ℄ WBML STA 3254+49.57 BY JACOBS ENGINEERING GROUP, INC. BEGIN BGE, INC. PROJECT LIMITS
END JACOBS ENGINEERING GROUP, INC. ℄ OUTER LOOP STA 5254+50.00 BEGIN BGE, INC. PROJECT LIMITS
4235+00
4240+00
4245+00
4250+00
4255+00
3235+00
3240+00
3245+00
3250+00
3255+00
5235+00
5240+00
5245+00
5250+00
5255+00
2235+00
2240+00
2245+00
2250+00
2255+00
1235+00
1240+00
1245+00
1250+00
1255+00
15+00
20+00
N 89° 14' 49.95" E
℄ OUTER LOOP WBML
MLCOLCL01-12
Outer Loop
℄ OUTER LOOP
175 LF MBGF
TOM ALLEN III AND WIFE, MICHELLE ALLEN CALLED 13.00 ACRES VOL. 2743, PAGE 501 O.P.R.C.C.T.
END BRIDGE STA 2254+34.33
℄ OUTER LOOP EBML
175 LF MBGF
PROPOSED ROW
CUS_EN_RMP-2
FRCOLEB02-10
℄ CUS_EN RAMP
CUS_EN_RMP-3
FRCOLEB02-11
MLCOLEB01-12
FRCOLEB02-12
℄ OUTER LOOP EBFR
PROPOSED ROW
UNDERGROUND ELECTRIC
BEGIN BRIDGE STA 2250+84.33
℄ OUTER LOOP EBML STA 2252+59.41 = ℄ CUSTER STA 30+25.14
℄ OUTER LOOP EBFR STA 1253+15.86= ℄ CUSTER STA 31+41.64
END ℄ EBML STA 2254+50.42 BY JACOBS ENGINEERING GROUP, INC. BEGIN BGE, INC. PROJECT LIMITS
℄ OUTER LOOP STA 5252+59.08= ℄ CUSTER STA 29+39.64
CHRISWIN INVESTMENT PROPERTIES, LTD CALLED 105.66 ACRES #20090130000096890 O.P.R.C.C.T.
20' ELECTRICAL EASEMENT
20' ELECTRICAL EASEMENT
RONALD W. LEEPER AND WIFE DIANE I. SHARP CALLED 6.750 ACRES INSTRUMENT No. 94-0096778 O.P.R.C.C.T.
G&N ESTATES, LLC CALLED 40.279 ACRES INSTRUMENT NO. 20070315000355600 O.P.R.C.C.T.
EDWARD C. HULL CALLED 6.750 ACRES INSTRUMENT NO. 2001-0145339 O.P.R.C.C.T.
10' WATER EASEMENT
CLARK FAMILY LIVING TRUST CALLED 18.059 ACRES INSTRUMENT NO. 2003-0185739 O.P.R.C.C.T.
Aerial from Google Earth (c) 2018

CURVE TABLES

CL OUTER LOOP

CURVE NO.	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	DEGREE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
MLCOLCL01-12	5238+10.33	7,160,900.07	2,507,723.55	5° 58' 16.81" LT	14,585.50'	0° 23' 34.18"	760.74'	1,520.09'	S 87° 46' 01.65" E	1,519.41'	5230+49.60	5245+69.69	S 84° 46' 53.24" E	N 89° 14' 49.95" E

BL OUTER LOOP WBML

CURVE NO.	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	DEGREE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
MLCOLWB01-12	3238+14.35	7,160,985.62	2,507,726.89	5° 58' 16.81" LT	14,500.00'	0° 23' 42.52"	756.28'	1,511.18'	S 87° 46' 01.65" E	1,510.50'	3230+58.08	3245+69.26	S 84° 46' 53.24" E	N 89° 14' 49.95" E

BL OUTER LOOP EBML

CURVE NO.	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	DEGREE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
MLCOLEB01-12	2238+06.31	7,160,814.51	2,507,720.22	5° 58' 16.81" LT	14,671.00'	0° 23' 25.94"	765.19'	1,529.00'	S 87° 46' 01.65" E	1,528.31'	2230+41.11	2245+70.12	S 84° 46' 53.24" E	N 89° 14' 49.95" E

BL OUTER LOOP WBFR

CURVE NO.	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	DEGREE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
FRCOLWB02-10	4245+44.75	7,161,123.36	2,508,473.07	1° 49' 07.86" RT	8,000.00'	0° 42' 58.31"	126.99'	253.96'	S 89° 22' 35.86" E	253.95'	4244+17.76	4246+71.72	N 89° 42' 50.21" E	S 88° 28' 01.93" E
FRCOLWB02-11	4248+31.30	7,161,115.69	2,508,759.54	2° 17' 08.12" LT	8,000.00'	0° 42' 58.31"	159.59'	319.13'	S 89° 36' 35.99" E	319.11'	4246+71.72	4249+90.84	S 88° 28' 01.93" E	N 89° 14' 49.95" E
FRCOLWB02-12	4248+32.09	7,161,115.69	2,508,759.54	2° 17' 08.12" LT	8,000.00'	0° 42' 58.31"	159.59'	319.13'	S 89° 36' 35.99" E	319.11'	4246+72.51	4249+91.63	S 88° 28' 01.93" E	N 89° 14' 49.95" E

BL OUTER LOOP EBFR

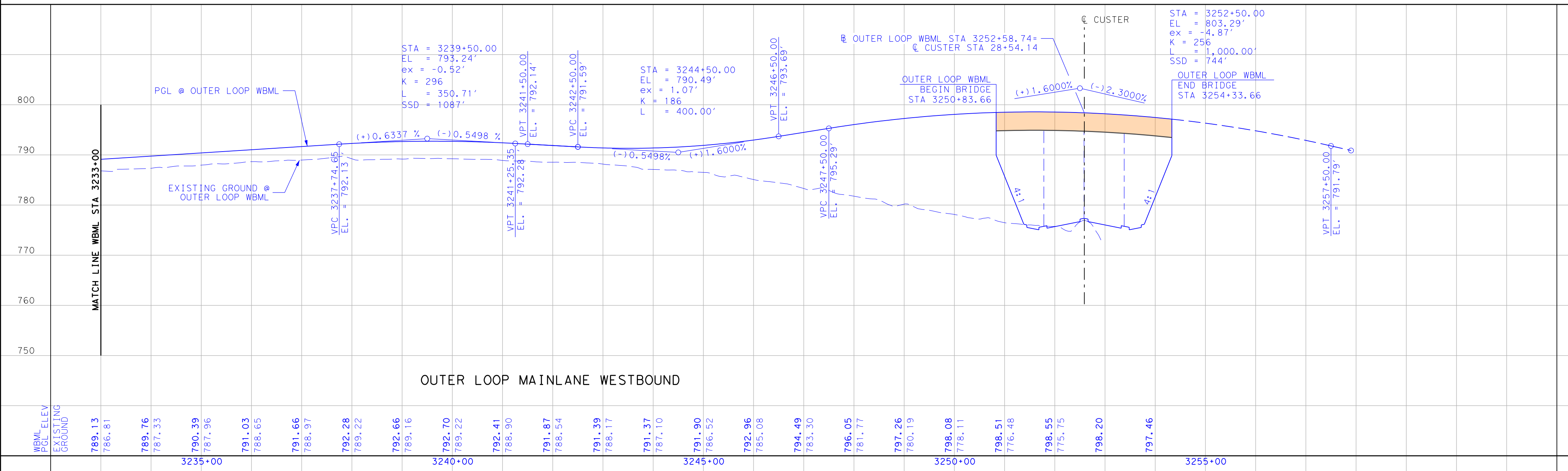
CURVE NO.	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	DEGREE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
FRCOLEB02-10	1241+93.83	7,160,693.49	2,508,054.02	4° 06' 56.03" LT	7,870.00'	0° 43' 40.90"	282.77'	565.30'	N 89° 57' 11.68" E	565.18'	1239+11.06	1244+76.36	S 87° 59' 20.30" E	N 87° 53' 43.67" E
FRCOLEB02-11	1245+70.73	7,160,707.34	2,508,430.91	1° 21' 06.28" RT	8,000.00'	0° 42' 58.31"	94.37'	188.74'	N 88° 34' 16.81" E	188.73'	1244+76.36	1246+65.10	N 87° 53' 43.67" E	N 89° 14' 49.95" E
FRCOLEB02-12	1245+70.74	7,160,707.34	2,508,430.91	1° 21' 06.28" RT	8,000.00'	0° 42' 58.31"	94.37'	188.74'	N 88° 34' 16.81" E	188.73'	1244+76.36	1246+65.10	N 87° 53' 43.67" E	N 89° 14' 49.95" E

BL CUS_EX_RAMP

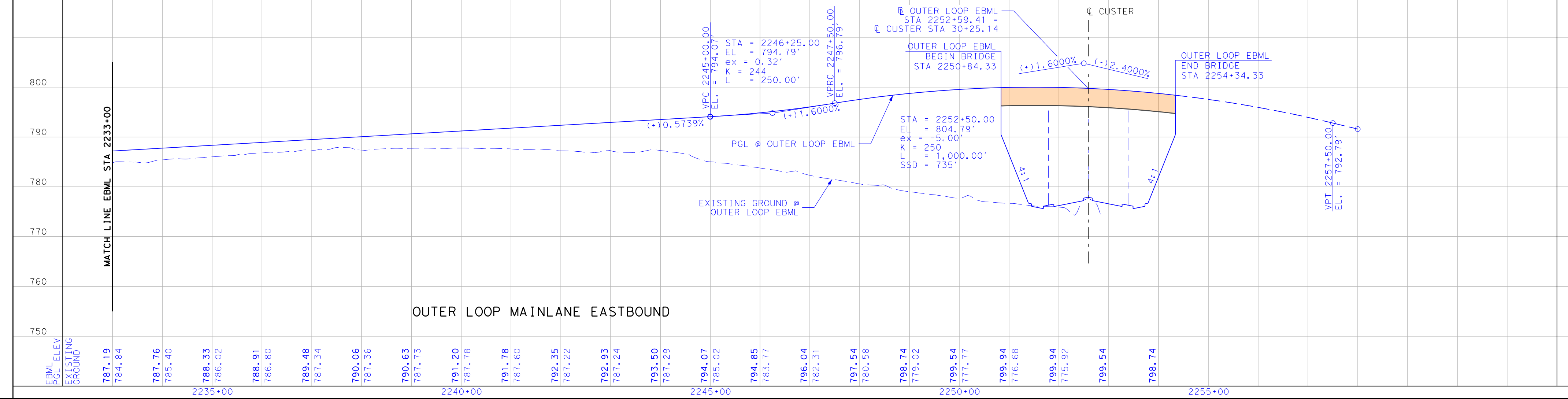
CURVE NO.	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	DEGREE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
CUS_EX_RMP-1	12+04.10	7,161,120.64	2,507,464.59	2° 58' 16.20" RT	7,870.00'	0° 43' 40.90"	204.10'	408.11'	S 84° 21' 03.90" E	408.07'	10+00.00	14+08.11	S 85° 50' 12.00" E	S 82° 51' 55.80" E
CUS_EX_RMP-2	19+50.66	7,161,027.91	2,508,205.46	7° 53' 14.25" LT	7,870.00'	0° 43' 40.90"	542.55'	1,083.38'	S 86° 48' 32.92" E	1,082.52'	14+08.11	24+91.49	S 82° 51' 55.80" E	N 89° 14' 49.95" E

BL CUS_EN_RAMP

CURVE NO.	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	DEGREE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
CUS_EN_RMP-2	19+94.11	7,160,771.80	2,507,516.97	2° 26' 25.19" LT	7,870.00'	0° 43' 40.90"	167.62'	335.20'	N 89° 56' 54.45" E	335.17'	18+26.49	21+61.69	S 88° 49' 52.95" E	N 88° 43' 41.86" E
CUS_EN_RMP-3	23+24.54	7,160,779.13	2,507,847.37	2° 22' 15.30" RT	7,870.00'	0° 43' 40.90"	162.85'	325.66'	N 89° 54' 49.51" E	325.64'	21+61.69	24+87.35	N 88° 43' 41.86" E	S 88° 54' 02.84" E

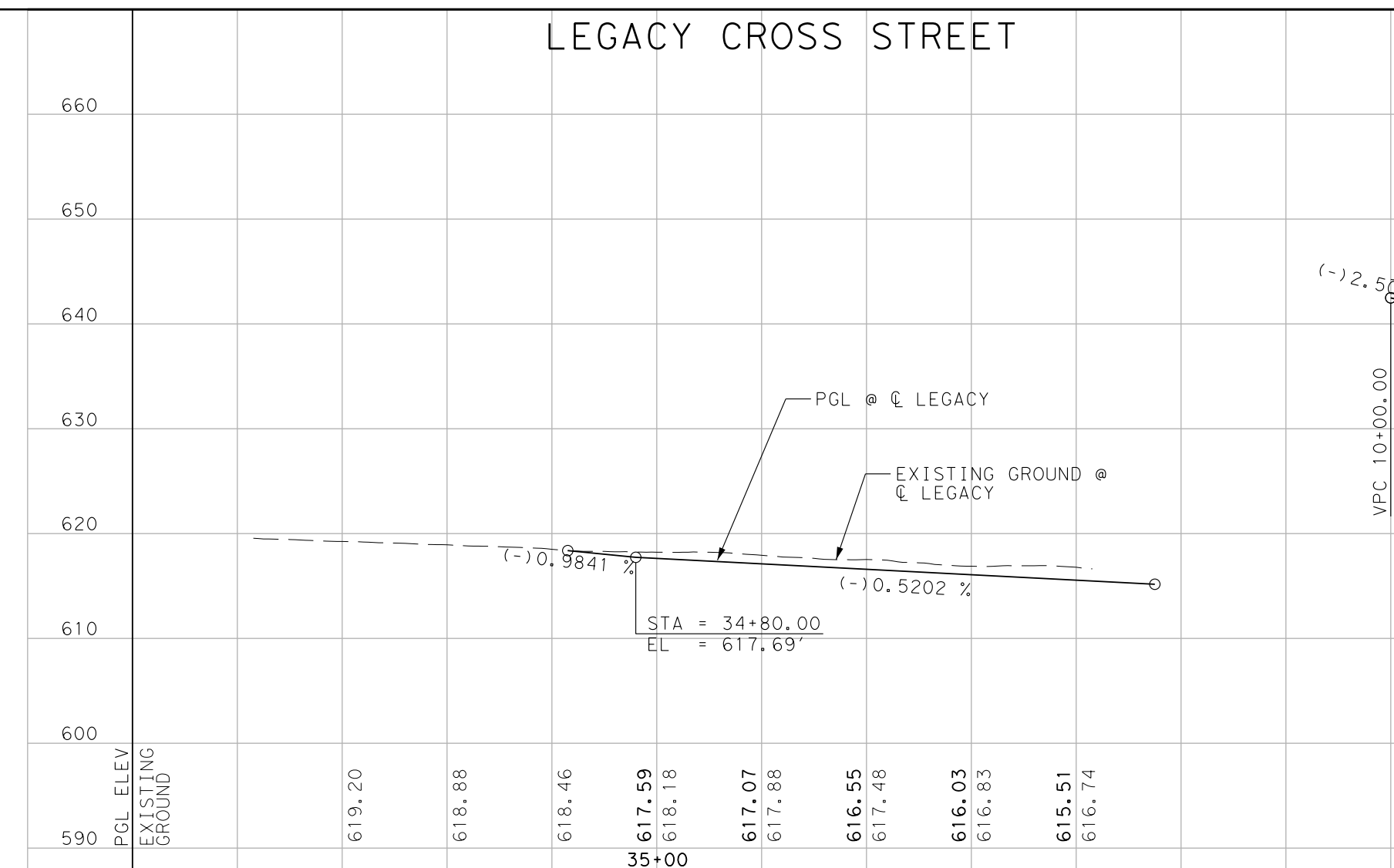

800
790
780
770
760
750
MATCH LINE WBML STA 3233+00
PGL @ OUTER LOOP WBML
EXISTING GROUND @ OUTER LOOP WBML
STA = 3239+50.00
EL = 793.24'
ex = -0.52'
K = 296
L = 350.71'
SSD = 1087'
(+)0.6337 %
(-)0.5498 %
VPC 3237+74.65 EL. = 792.13'
VPT 3241+25.35 EL. = 792.28
VPT 3241+50.00 EL. = 792.14'
VPC 3242+50.00 EL. = 791.59'
STA = 3244+50.00
EL = 790.49'
ex = 1.07'
K = 186
L = 400.00'
(-)0.5498%
(+)1.6000%
VPT 3246+50.00 EL. = 793.69'
VPC 3247+50.00 EL. = 795.29
℄ OUTER LOOP WBML STA 3252+58.74= ℄ CUSTER STA 28+54.14
OUTER LOOP WBML BEGIN BRIDGE STA 3250+83.66
℄ CUSTER
STA = 3252+50.00
EL = 803.29'
ex = -4.87'
K = 256
L = 1,000.00'
SSD = 744'
(+)1.6000%
(-)2.3000%
OUTER LOOP WBML END BRIDGE STA 3254+33.66
4:1
4:1
VPT 3257+50.00 EL. = 791.79'
WBML PGL ELEV
EXISTING GROUND
789.13 786.81
789.76 787.33
790.39 787.96
791.03 788.65
791.66 788.97
792.28 789.22
792.66 789.16
792.70 789.22
792.41 788.90
791.87 788.54
791.39 788.17
791.37 787.10
791.90 786.52
792.96 785.08
794.49 783.30
796.05 781.77
797.26 780.19
798.08 778.11
798.51 776.48
798.55 775.75
798.20
797.46
3235+00
3240+00
3245+00
3250+00
3255+00

OUTER LOOP MAINLANE WESTBOUND

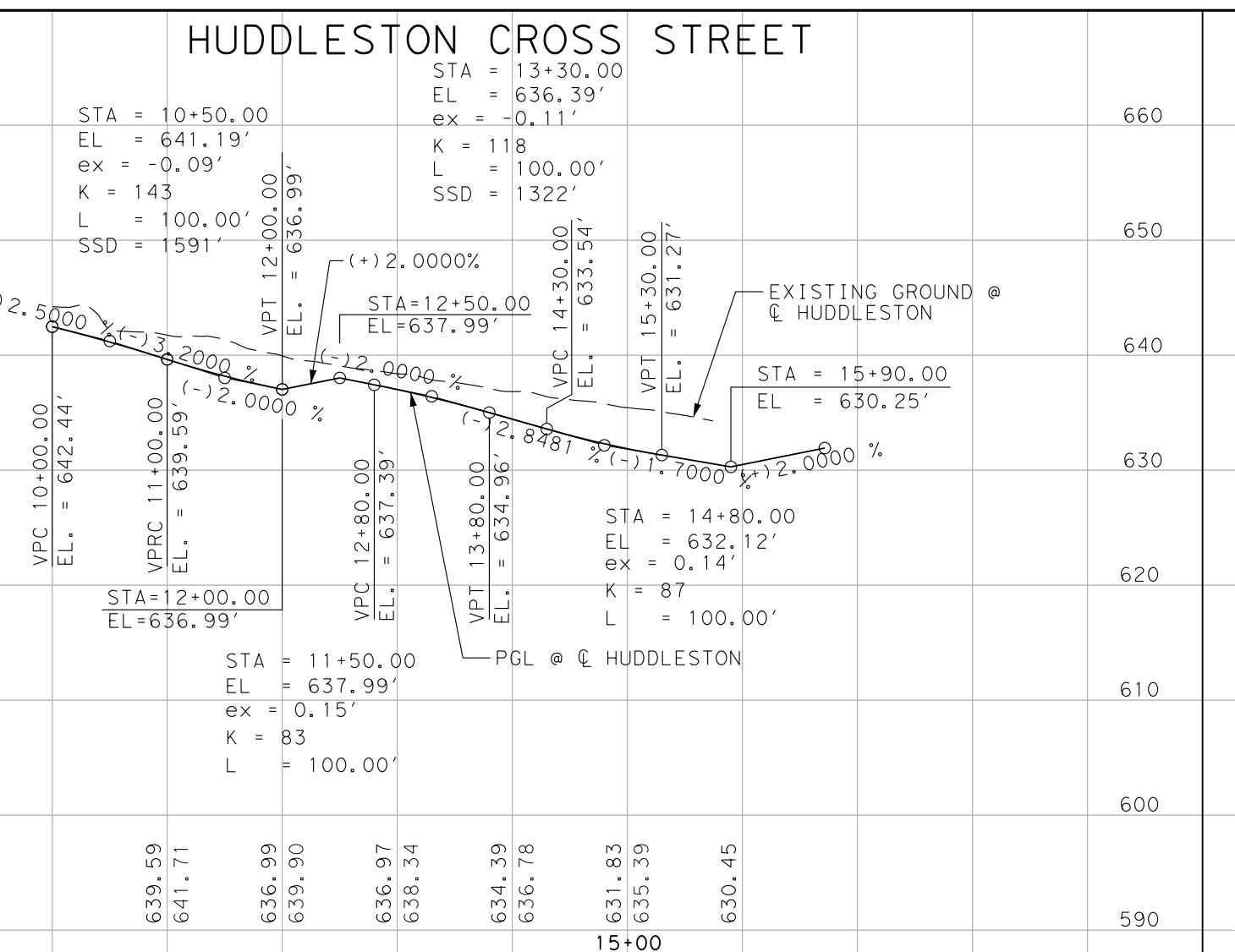

800
790
780
770
760
750
MATCH LINE EBML STA 2233+00
℄ OUTER LOOP EBML STA 2252+59.41 = ℄ CUSTER STA 30+25.14
℄ CUSTER
VPC 2245+00.00 EL. = 794.07'
STA = 2246+25.00
EL = 794.79'
ex = 0.32'
K = 244
L = 250.00'
VPRC 2247+50.00 EL. = 796.79'
(+)0.5739%
(+)1.6000%
OUTER LOOP EBML BEGIN BRIDGE STA 2250+84.33
(+)1.6000%
(-)2.4000%
OUTER LOOP EBML END BRIDGE STA 2254+34.33
PGL @ OUTER LOOP EBML
STA = 2252+50.00
EL = 804.79'
ex = -5.00'
K = 250
L = 1,000.00'
SSD = 735'
EXISTING GROUND @ OUTER LOOP EBML
4:1
4:1
VPT 2257+50.00 EL. = 792.79'
EBML PGL ELEV
EXISTING GROUND
787.19 784.84
787.76 785.40
788.33 786.02
788.91 786.80
789.48 787.34
790.06 787.36
790.63 787.73
791.20 787.78
791.78 787.60
792.35 787.22
792.93 787.24
793.50 787.29
794.07 785.02
794.85 783.77
796.04 782.31
797.54 780.58
798.74 779.02
799.54 777.77
799.94 776.68
799.94 775.92
799.54
798.74
2235+00
2240+00
2245+00
2250+00
2255+00

OUTER LOOP MAINLANE EASTBOUND

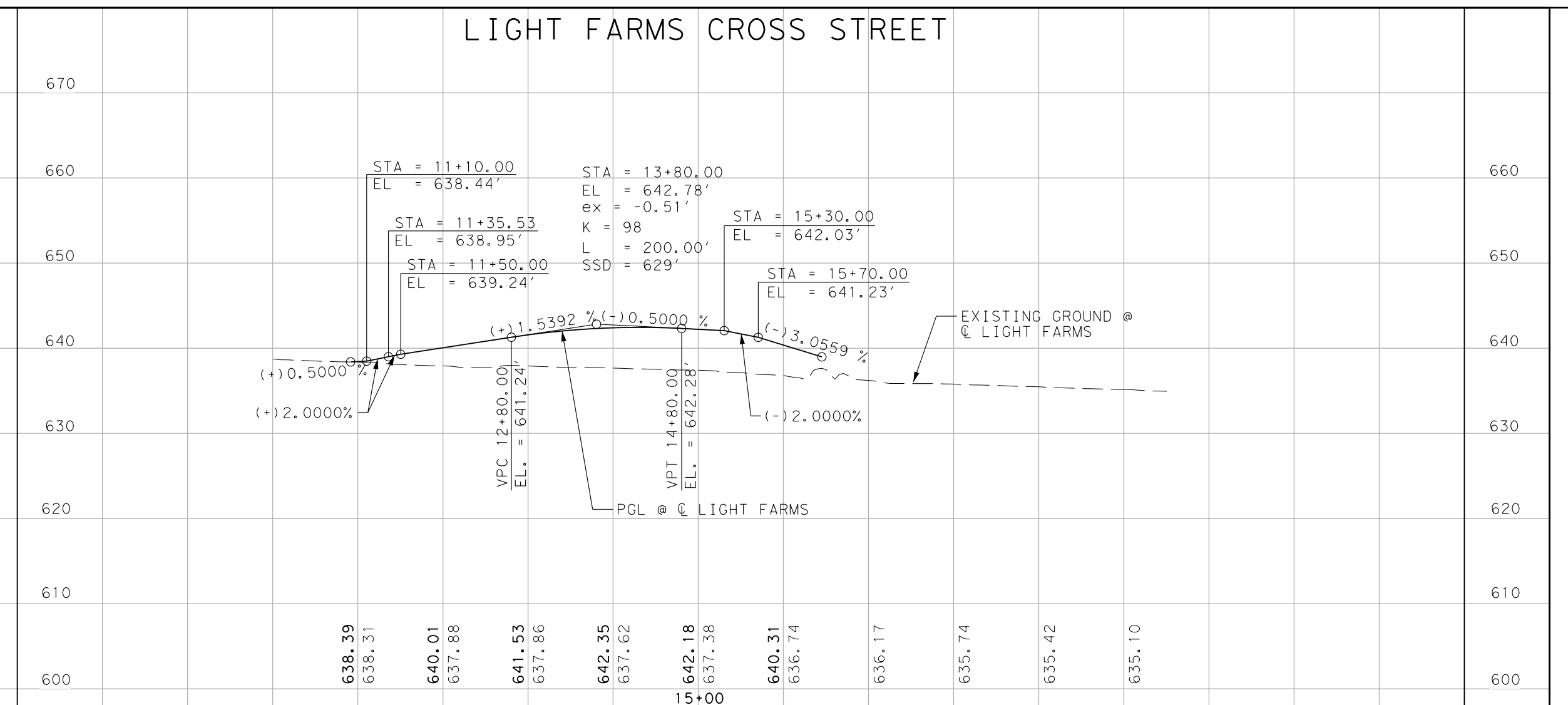
LEGACY CROSS STREET


660
650
640
630
620
610
600
590
PGL @ ℄ LEGACY
EXISTING GROUND @ ℄ LEGACY
(-)0.9841 %
(-)0.5202 %
STA = 34+80.00
EL = 617.69'
PGL ELEV
EXISTING GROUND
619.20
618.88
618.46
617.59 618.18
617.07 617.88
616.55 617.48
616.03 616.83
615.51 616.74
35+00

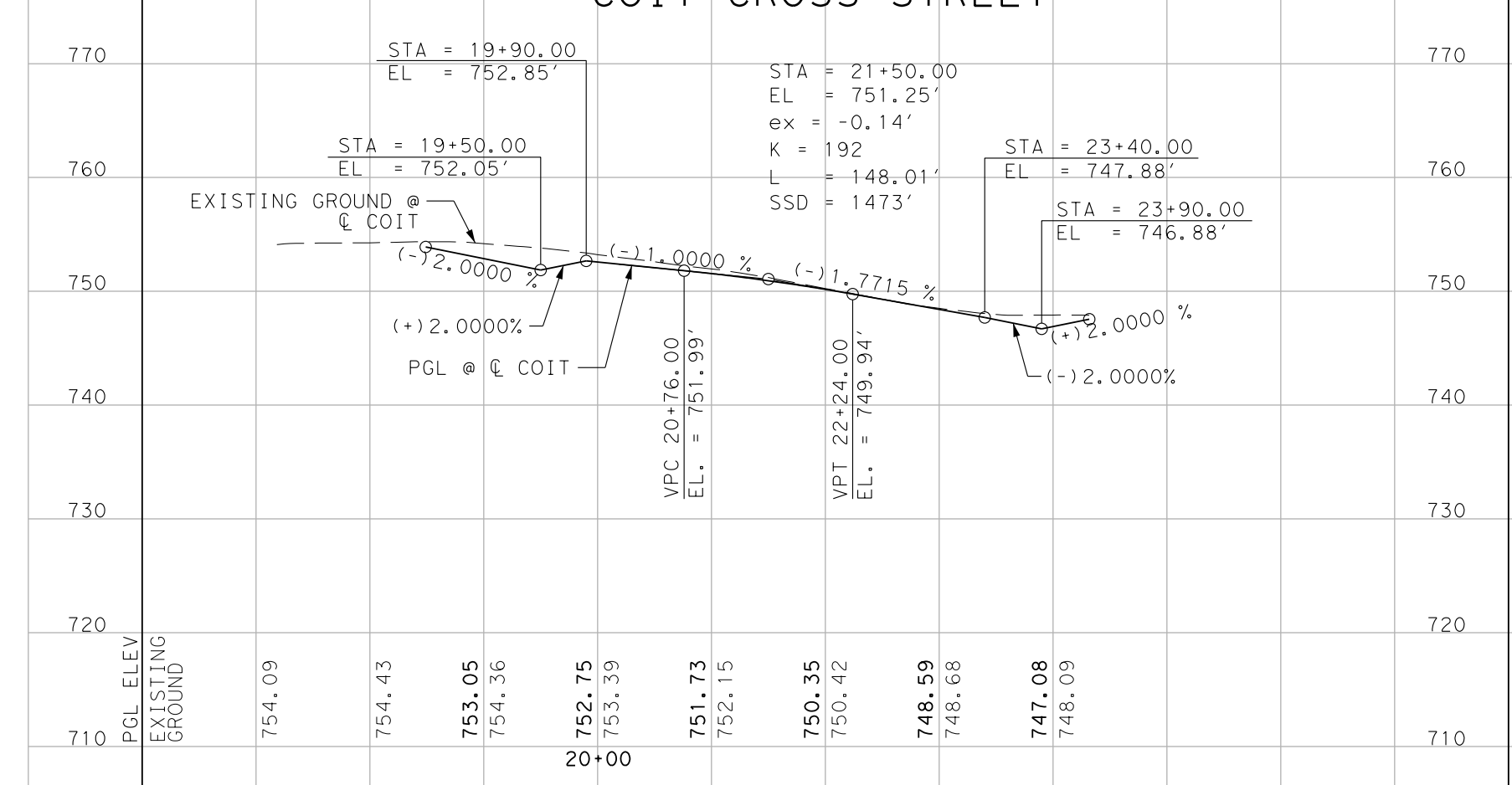
HUDDLESTON CROSS STREET


STA = 10+50.00
EL = 641.19'
ex = -0.09'
K = 143
L = 100.00'
SSD = 1591'
STA = 13+30.00
EL = 636.39'
ex = -0.11'
K = 118
L = 100.00'
SSD = 1322'
(-)2.5000 %
(-)3.2000 %
(-)2.0000 %
(+)2.0000%
(-)2.0000 %
(-)2.8481 %
(-)1.7000 %
(+)2.0000 %
STA=12+50.00
EL=637.99'
STA = 15+90.00
EL = 630.25'
EXISTING GROUND @ ℄ HUDDLESTON
VPC 10+00.00 EL. = 642.44'
VPRC 11+00.00 EL. = 639.59'
VPT 12+00.00 EL. = 636.99'
STA=12+00.00
EL=636.99'
VPC 12+80.00 EL. = 637.39'
VPT 13+80.00 EL. = 634.96
VPC 14+30.00 EL. = 633.54'
VPT 15+30.00 EL. = 631.27'
STA = 14+80.00
EL = 632.12'
ex = 0.14'
K = 87
L = 100.00'
STA = 11+50.00
EL = 637.99'
ex = 0.15'
K = 83
L = 100.00'
PGL @ ℄ HUDDLESTON
639.59 641.71
636.99 639.90
636.97 638.34
634.39 636.78
631.83 635.39
630.45
15+00

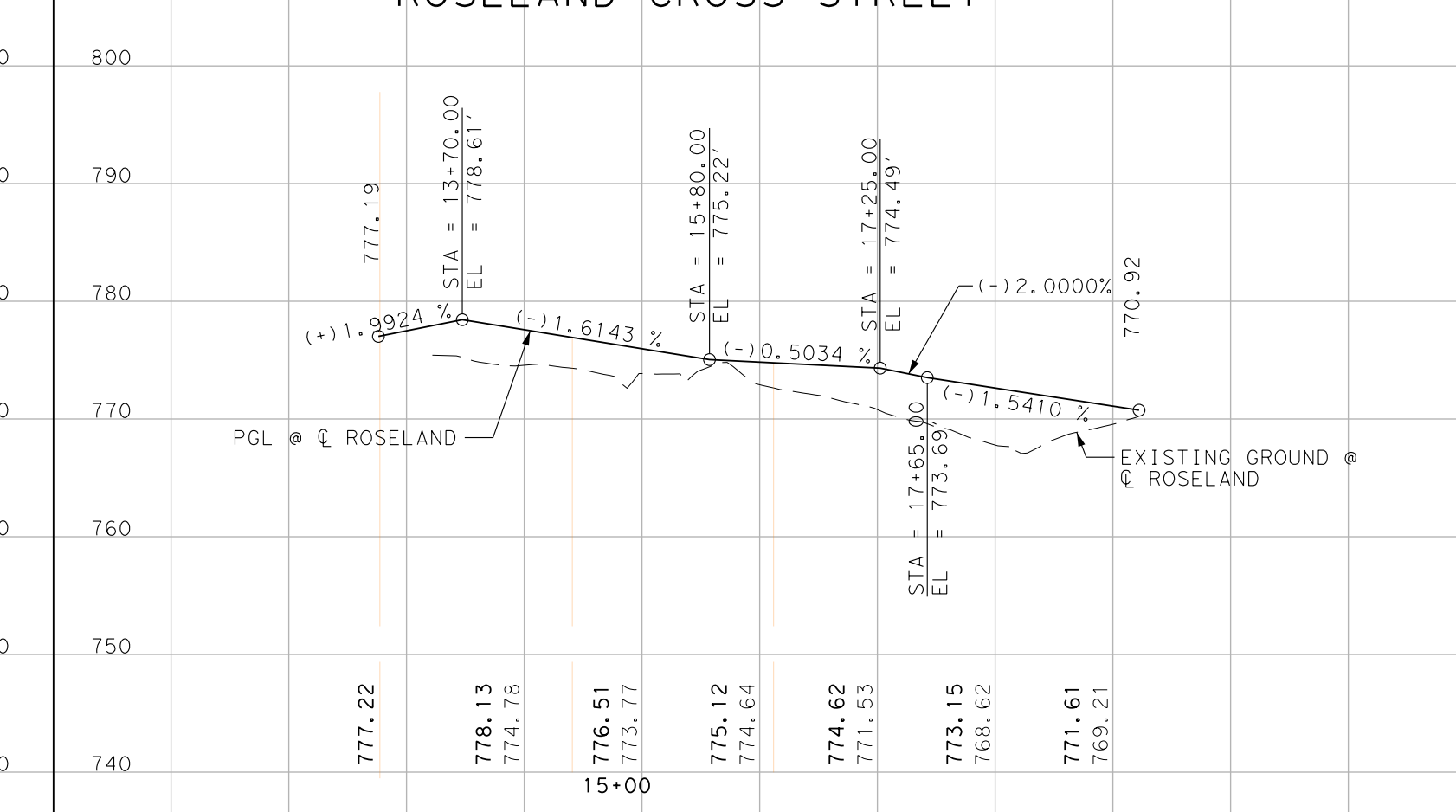
LIGHT FARMS CROSS STREET


670
660
650
640
630
620
610
600
STA = 11+10.00
EL = 638.44'
STA = 11+35.53
EL = 638.95'
STA = 11+50.00
EL = 639.24'
STA = 13+80.00
EL = 642.78'
ex = -0.51'
K = 98
L = 200.00'
SSD = 629'
STA = 15+30.00
EL = 642.03'
STA = 15+70.00
EL = 641.23'
EXISTING GROUND @ ℄ LIGHT FARMS
(+)0.5000 %
(+)2.0000%
(+)1.5392 %
(-)0.5000 %
(-)3.0559 %
(-)2.0000%
VPC 12+80.00 EL. = 641.24'
VPT 14+80.00 EL. = 642.28'
PGL @ ℄ LIGHT FARMS
638.39 638.31
640.01 637.88
641.53 637.86
642.35 637.62
642.18 637.38
640.31 636.74
636.17
635.74
635.42
635.10
15+00

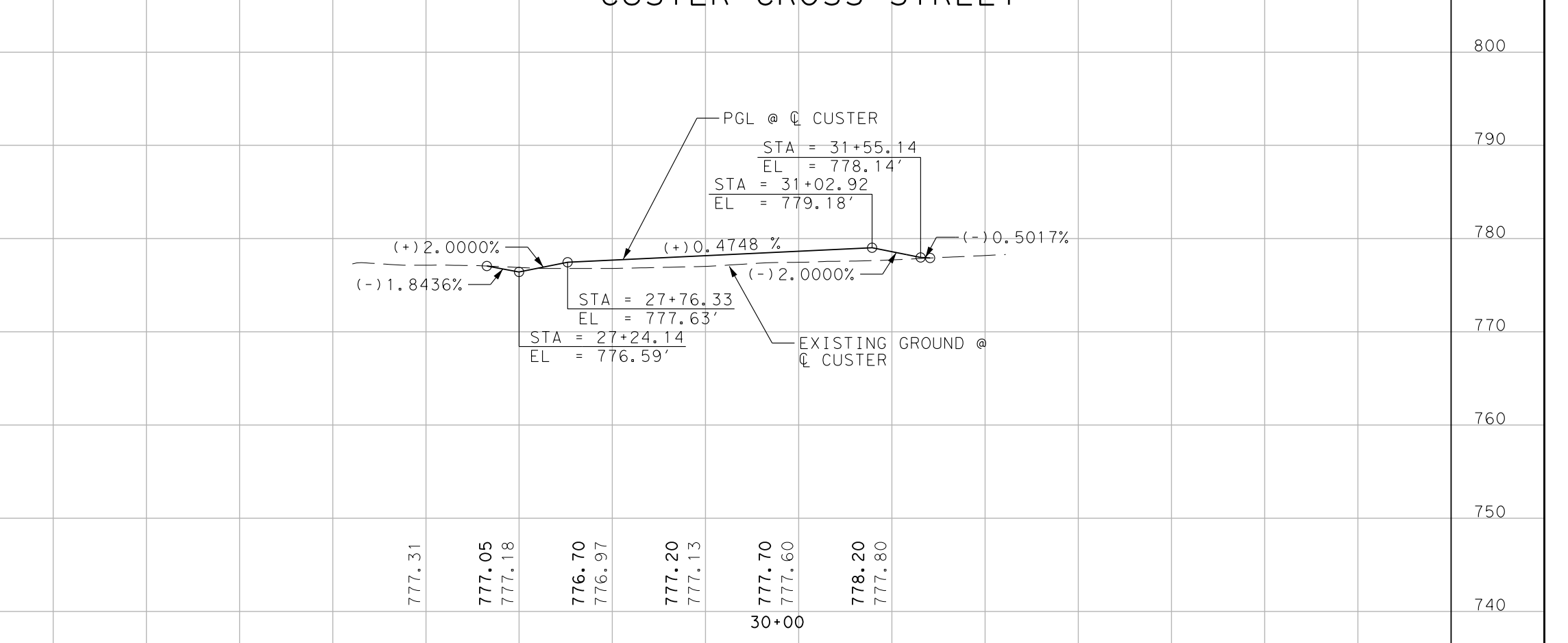
COIT CROSS STREET


770
760
750
740
730
720
710
STA = 19+90.00
EL = 752.85'
STA = 19+50.00
EL = 752.05'
STA = 21+50.00
EL = 751.25'
ex = -0.14'
K = 192
L = 148.01'
SSD = 1473'
STA = 23+40.00
EL = 747.88'
STA = 23+90.00
EL = 746.88'
EXISTING GROUND @ ℄ COIT
(-)2.0000 %
(-)1.0000 %
(-)1.7715 %
(+)2.0000 %
(+)2.0000%
(-)2.0000%
PGL @ ℄ COIT
VPC 20+76.00 EL. = 751.99'
VPT 22+24.00 EL. = 749.94'
PGL ELEV
EXISTING GROUND
754.09
754.43
753.05 754.36
752.75 753.39
751.73 752.15
750.35 750.42
748.59 748.68
747.08 748.09
20+00

ROSELAND CROSS STREET


800
790
780
770
760
750
740
STA = 13+70.00 EL = 778.61'
STA = 15+80.00 EL = 775.22'
STA = 17+25.00 EL = 774.49'
(+)1.9924 %
(-)1.6143 %
(-)0.5034 %
(-)1.5410 %
(-)2.0000%
PGL @ ℄ ROSELAND
EXISTING GROUND @ ℄ ROSELAND
STA = 17+65.00 EL = 773.69'
777.19
770.92
777.22
778.13 774.78
776.51 773.77
775.12 774.64
774.62 771.53
773.15 768.62
771.61 769.21
15+00

CUSTER CROSS STREET


PGL @ ℄ CUSTER
STA = 31+55.14
EL = 778.14'
STA = 31+02.92
EL = 779.18'
(+)2.0000%
(-)1.8436%
(+)0.4748 %
(-)2.0000%
(-)0.5017%
STA = 27+76.33
EL = 777.63'
STA = 27+24.14
EL = 776.59'
EXISTING GROUND @ ℄ CUSTER
777.31
777.05 777.18
776.70 776.97
777.20 777.13
777.70 777.60
778.20 777.80
30+00

CONCEPTUAL CROSS STREET PROFILES

COLLIN COUNTY TOLL ROAD AUTHORITY

CITY OF CELINA
COLLIN COUNTY, TEXAS

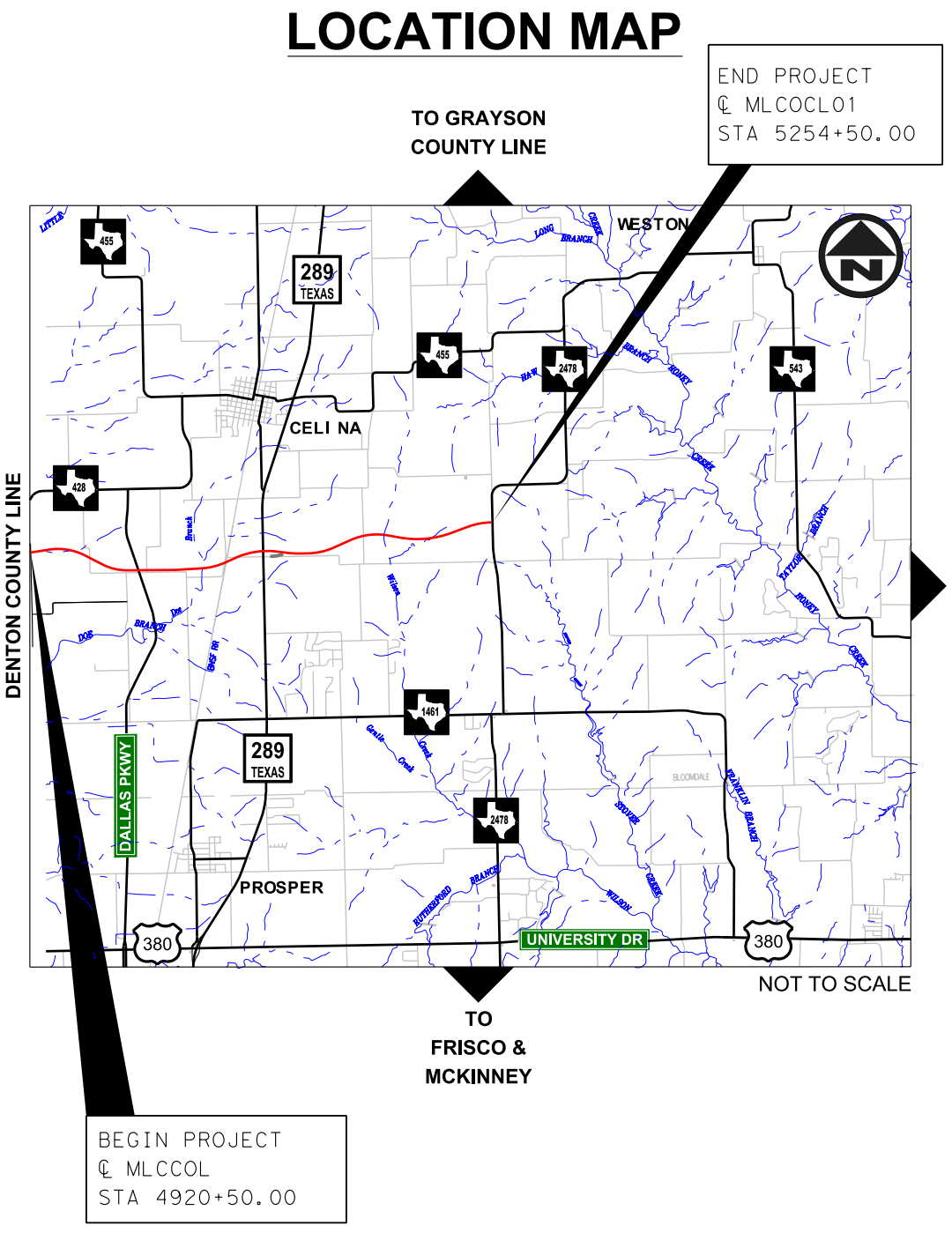
FROM: COLLIN/DENTON COUNTY LINE TO FM 2478
NET PROJECT LENGTH: 32918.73 FT = 6.234 MILES

CONSTRUCTION OF COLLIN COUNTY OUTER LOOP SEGMENT 3
COMPRISING OF TEN-LANE FREEWAY, FRONTAGE ROADS,
INTERCHANGES AND RAMPS

ROADWAY FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
ROADWAY CONSTRUCTION TYPE: NEW FACILITY
DESIGN SPEED (MAINLANES): 70 MPH
DESIGN SPEED (FRONTAGE ROAD): 50 MPH
DESIGN SPEED (RAMPS): 50 MPH
DESIGN SPEED (CROSS STREETS): 45 MPH
SCHEMATIC SCALE: HORIZ: 1"=100' VERT: 1"=10'
GOOGLE EARTH IMAGERY DATE: 2018

e max (%)
OUTER LOOP ML 6
FRONTAGE ROADS 6
RAMPS 6

LOCATION MAP


END PROJECT
℄ MLCOCL01
STA 5254+50.00
TO GRAYSON COUNTY LINE
WESTON
CELINA
DENTON COUNTY LINE
TO MELISSA & ANNA
DALLAS PKWY
PROSPER
UNIVERSITY DR
NOT TO SCALE
TO FRISCO & MCKINNEY
BEGIN PROJECT
℄ MLCCOL
STA 4920+50.00

SCALE (IN FEET)
0 50 100 200
HORIZONTAL/PLAN
0 5 10 20
VERTICAL/PROFILE

LEGEND
FUTURE MAINLANES
PROPOSED FRONTAGE ROADS
FUTURE IMPROVEMENTS (BY OTHERS)
RAMPS / DIRECT CONNECTORS
CONSTRUCTION (BY OTHERS)
BRIDGE
DIRECT CONNECTOR BRIDGE
DRIVEWAY
CURBED GORE
CONCRETE RIPRAP
COUNTY DEMARCATION
EXISTING TOPOGRAPHIC FEATURES
PARCEL LINES
EXISTING RIGHT-OF-WAY
EXISTING EASEMENT
EXISTING RAILROAD RIGHT-OF-WAY
UTILITY EASEMENT
PROPOSED RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY (SEGMENT 3A)
FUTURE RIGHT-OF-WAY (BY OTHERS)
PROPOSED EASEMENT
100-YR FEMA FLOODPLAIN
RETAINING WALL
RETAINING WALL (BY OTHERS)
GUARD FENCE
DIRECTION OF TRAVEL
CURVE NUMBER

NOTES:
1. ADJACENT DEVELOPMENTS ARE PRELIMINARY, DESIGNED BY OTHERS AND SUBJECT TO CHANGE.
2. SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION NOVEMBER 1, 2014 SHALL GOVERN THIS PROJECT.
3. BASIS OF BEARING: TEXAS STATE PLANE COORDINATE SYSTEM, N.A.D. 83 (1993), NORTH CENTRAL ZONE (4202). ALL DISTANCES AND COORDINATES SHOWN HEREIN ARE SCALED FROM 0,0 USING A TXDOT SURFACE ADJUSTMENT FACTOR OF 1.00015271. COORDINATE VALUES DERIVED USING THE WESTERN DATA SYSTEM VRS NETWORK.
4. ALL FUTURE IMPROVEMENTS AND THEIR CORRESPONDING RIGHT-OF-WAY WIDTHS ARE BASED ON COLLIN COUNTY'S THOROUGHFARE PLAN, DATED JANUARY 2018, AND THE CITY OF CELINA'S THOROUGHFARE PLANS, DATED APRIL 2018, AND ARE SUBJECT TO CHANGE.
5. HORIZONTAL AND VERTICAL ALIGNMENTS FOR CROSS STREETS ARE PRELIMINARY AND SUBJECT TO CHANGE.
6. OUTER LOOP DESIGN SHOWN WEST OF COLLIN COUNTY LINE IS ESTIMATED AND DEPENDENT ON FUTURE DESIGN DEVELOPED BY OTHERS.
7. THE INTERCHANGES AT DALLAS NORTH TOLLWAY AND PRESTON ROAD ARE CONCEPTUAL DESIGNS. DALLAS NORTH TOLLWAY AND OUTER LOOP WERE CONSIDERED GRADE SEPARATED AT THE SECOND AND THIRD LEVELS RESPECTIVELY.
8. TRAFFIC DATA USED DURING DESIGN DEVELOPMENT IS PRELIMINARY.
9. DESIGN AT DOE BRANCH TRIBUTARY WAS BASED ON PRELIMINARY HYDRAULIC DATA AND SHALL REQUIRE FURTHER ANALYSIS IN THE NEXT DESIGN PHASE.
10. 100 YEAR FLOOD PLAIN LIMITS WERE OBTAINED FROM FEMA FLOOD MAPS AND NATIONAL FLOOD HAZARD LAYER VERSION 3.0.
11. FRONTAGE ROAD PROFILES ARE LOCATED IN ROLLS 7 AND 8.
12. CONTROL OF ACCESS TO BE DETERMINED THROUGH PERMIT PROCESS.
13. NEW EXIT AND ENTRANCE RAMPS ARE DESIGN TO MEET THE DESIRABLE SPACING BETWEEN RAMPS AND DRIVEWAYS, SIDE STREETS OR CROSS STREETS. WHEN THE DESIRABLE SPACING CAN NOT BE ACHIEVED, CHANNELIZATION METHODS WILL BE IMPLEMENTED IN FINAL DESIGN.

JACOBS
1999 BRYAN STREET, SUITE 1200
DALLAS, TEXAS 75201
P 214.638.0145 I F 214.638.0447
TBPE FIRM NO. F-2966

SCHEMATIC PREPARED BY:
JACOBS ENGINEERING GROUP INC
REGISTRATION NUMBER 2966
NOT FOR PERMITTING, BIDDING OR CONSTRUCTION.
Prepared by or under the Direct Supervision of:
JESUS GONZALEZ JR. 111427
NAME P.E. NUMBER
10/01/2019
DATE

ROLL 6 OF 9