TEXAS DEPARTMENT OF TRANSPORTATION
PRELIMINARY DESIGN SCHEMATIC
BASTROP COUNTY

TUCKER FERGUSON, P.E. - DISTRICT ENGINEER
AUSTIN DISTRICT

CSJ: 0472-01-040

CURRENT ADT :	PROJECTED ADT:
XX,XXX (20XX)	XXX,XXX (20XX)

SH 21

WIDEN SUPER 2 HWY TO 4-LN DIVIDED HWY

(DRAFT) GEOMETRIC DESIGN SCHEMATIC
SCHEMATIC LIMITS

FROM FM 1441 TO CO RD 362
FROM STA 100+00 TO STA 463+40

NET LENGTH OF PROJECT: 36,340.00 FEET=6.883 MILES

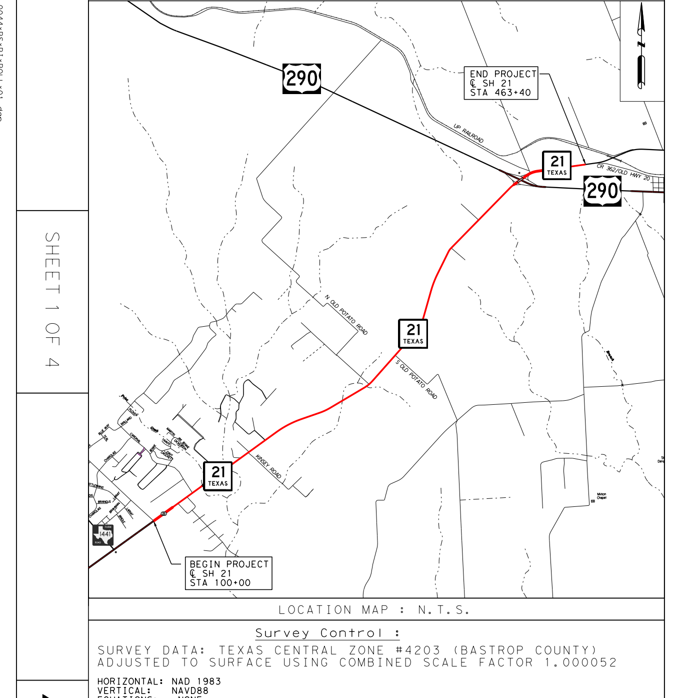
ROADWAY
35,600.80 FEET = 6.74 MILES
BRIDGE
739.20 FEET = 0.14 MILES

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
MAINLANES	RURAL MULTILANE HIGHWAY	60 MPH
RAMPS	RAMPS	30 MPH
SIDE STREETS	RURAL COLLECTORS	30 MPH

MAXIMUM SUPERELEVATION RATE (emax) = 6%

EXCEPTIONS: NONE

VARIANCE: NONE



LOCATION MAP : N.T.S.

Survey Control :

SURVEY DATA: TEXAS CENTRAL ZONE #4203 (BASTROP COUNTY)
ADJUSTED TO SURFACE USING COMBINED SCALE FACTOR 1.000052

HORIZONTAL: NAD 1983
VERTICAL: NAVD88
EQUATIONS: NONE

DESIGN STANDARDS USED

TXDOT ROADWAY DESIGN MANUAL: 2018
TXDOT HYDRAULIC DESIGN MANUAL: 2019
TRB HIGHWAY CAPACITY MANUAL: 6TH EDITION
TEXAS MANUAL OF UNIFORM CONTROL DEVICES: 2011

SUBMITTED FOR REVIEW	SUBMITTED FOR APPROVAL FOR FURTHER PROJECT DEVELOPMENT	
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING	RECOMMENDED BY	RECOMMENDED BY
Engineer: EDWARD GALICIA	ADVANCED PROJECT DEVELOPMENT DIRECTOR	DISTRICT DESIGN ENGINEER
DATE	RECOMMENDED BY	APPROVED BY
PROJECT MANAGER, P.E. P.E. #114275	AREA ENGINEER	DIRECTOR, TRANSPORTATION PLANNING & DEVELOPMENT

ATG ALLIANCE TRANSPORTATION GROUP
TEXAS REGISTERED ENGINEERING FIRM F-812

11701 STONEHOLLOW DR.
SUITE 100
AUSTIN, TX 78758

Plotted on: 3/21/2020
Scale: 1:100

DRAFT PRELIMINARY DESIGN SCHEMATIC
SH 21

SHEET 1 OF 4

Texas Department of Transportation
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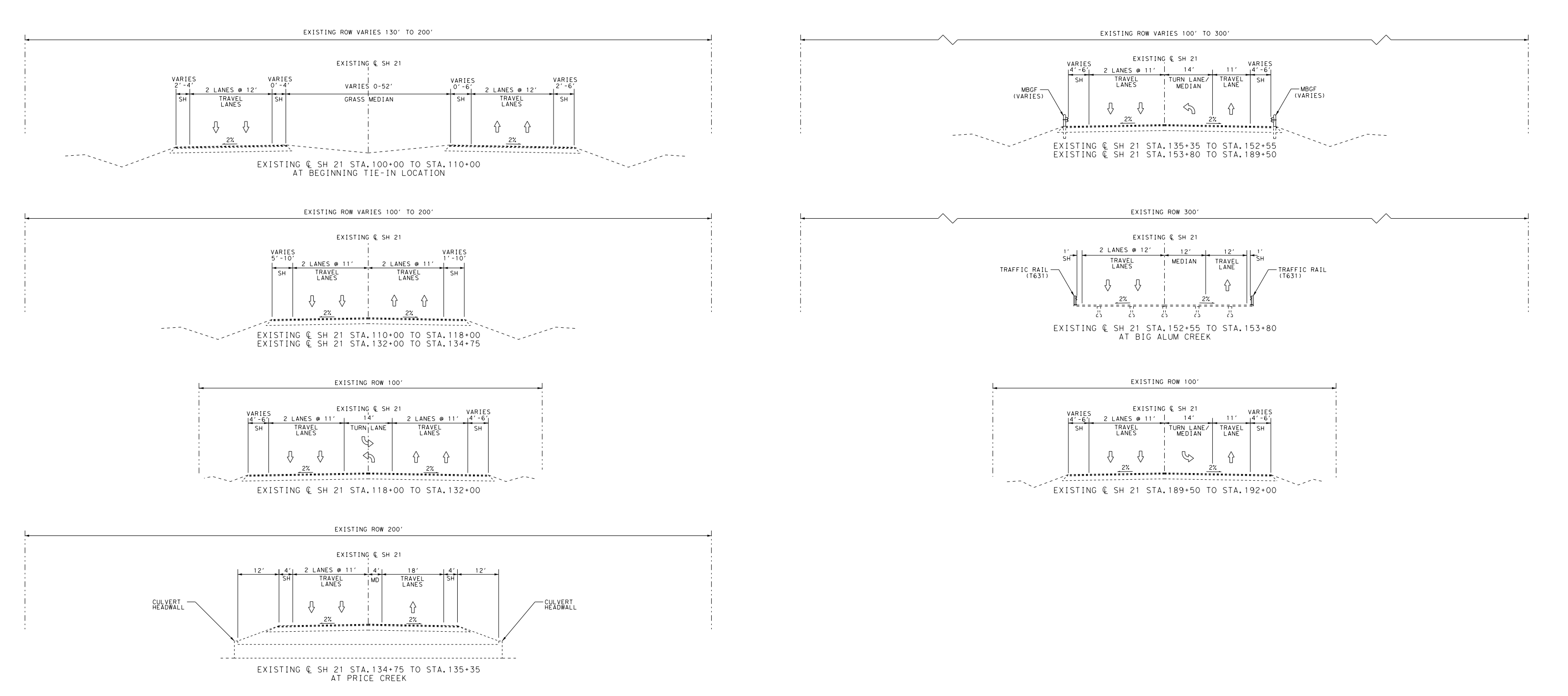
Design Filename: Z:\Engineering\EGDV-2019.0044 36-7\DP5099 WA1 SH 21\Tasks\CAD\SCHEMATIC\Public Involvement\2019.0044+RS+P1+ROLL+01.dgn
Pen Table: cvdspentable+cs.tbl

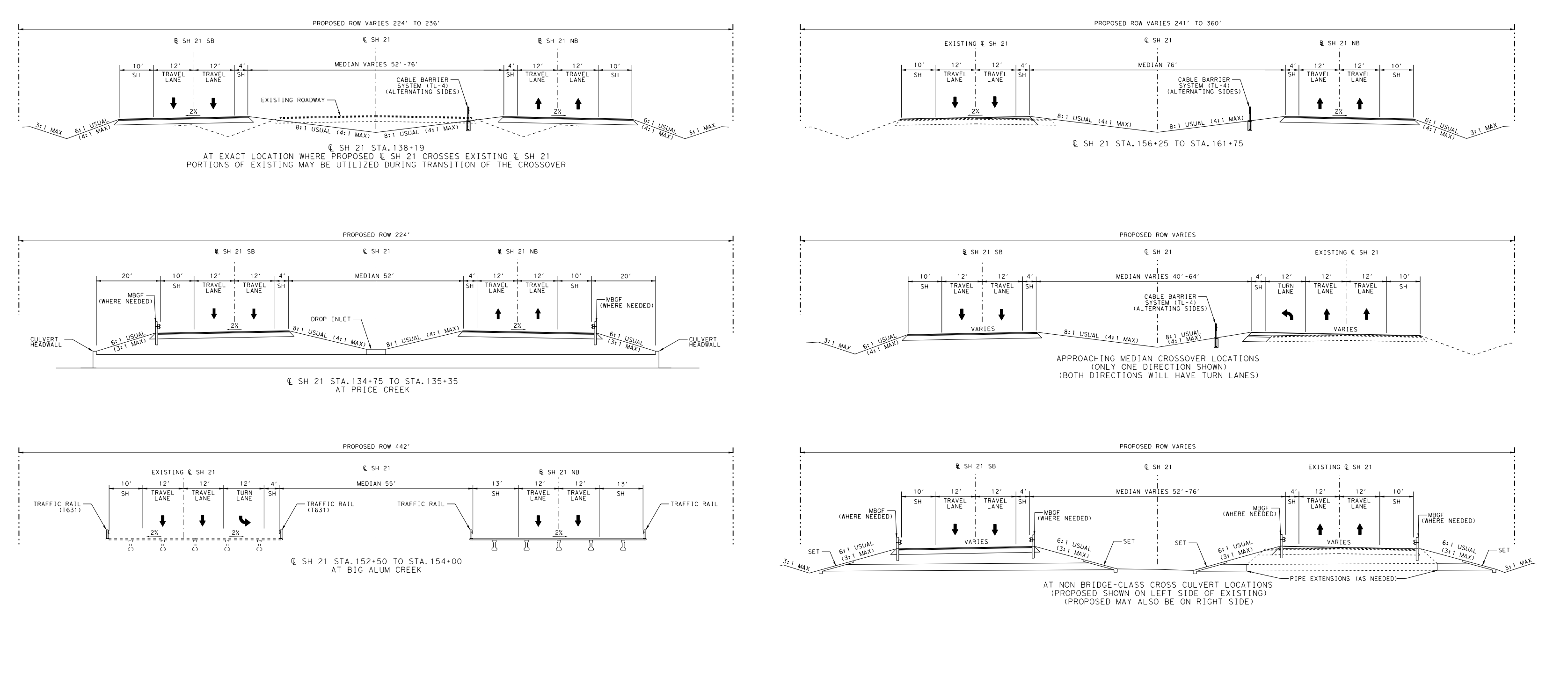
EXISTING TYPICAL SECTIONS

NOT TO SCALE



PROPOSED TYPICAL SECTIONS

NOT TO SCALE



PLAN VIEW LEGEND

PROPOSED CENTERLINE/BASELINE
EXISTING ROW
PROPOSED ROW
PARCEL LINE
EASEMENT LINE
PROPOSED PAVEMENT
PROPOSED MEDIAN
PROPOSED DRIVEWAY
PROPOSED BRIDGE
100-YEAR FLOODPLAIN (FEMA 2018)
PROPOSED DRAINAGE STRUCTURE
WATER FLOW DIRECTION
PROPOSED TRAFFIC FLOW
CURVE LABEL
OVERHEAD ELECTRIC
UG ELECTRIC (BLUEBONNET COOP B)
UG ELECTRIC (BLUEBONNET COOP D)
UG ELECTRIC (TXDOT B)
UG ELECTRIC (TXDOT D)
FIBER (AT&T B)
FIBER (CENTURYLINK B)
FIBER (CENTURYLINK D)
FIBER (ZAYO B)
FIBER (ZAYO D)
FIBER (FIBERLIGHT B)
FIBER (FIBERLIGHT D)
FIBER (FRONTIER B)
FIBER (FRONTIER D)
TELECOM (AT&T B)
TELECOM (AT&T D)
TELECOM (FRONTIER B)
TELECOM (FRONTIER D)
WATER (BASTROP)
WATER (LEE COUNTY)
POWER POLE
POWER POLE WITH RISER
LIGHT POLE
ELECTRIC BOX
TRAFFIC CONTROL BOX
TRAFFIC SIGNAL POLE
GUY ANCHOR
TELECOM MANHOLE
TELECOM CABINET
TELECOM PEDESTAL
UG SPLICE
FIBER HAND HOLE
UTILITY CONTINUATION
UTILITY END
WATER METER
WATER VALVE
FIRE HYDRANT

NOTES:

THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. ALL UTILITIES MUST BE FIELD VERIFIED PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.

CONTROL POINTS-SURFACE COORDINATES

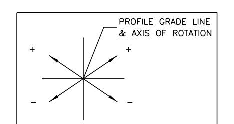
POINT NO.	NORTHING	EASTING	ELEVATION	STATION (℄ SH 21)	OFFSET (℄ SH 21)	DESCRIPTION/REMARKS
11-1021	10,033,152.14	3,278,740.84	503.35'	NA	NA	TXDOT ALUM DISK SET IN CONC
11-1022	10,034,105.40	3,280,077.69	494.15'	NA	NA	TXDOT ALUM DISK SET IN CONC

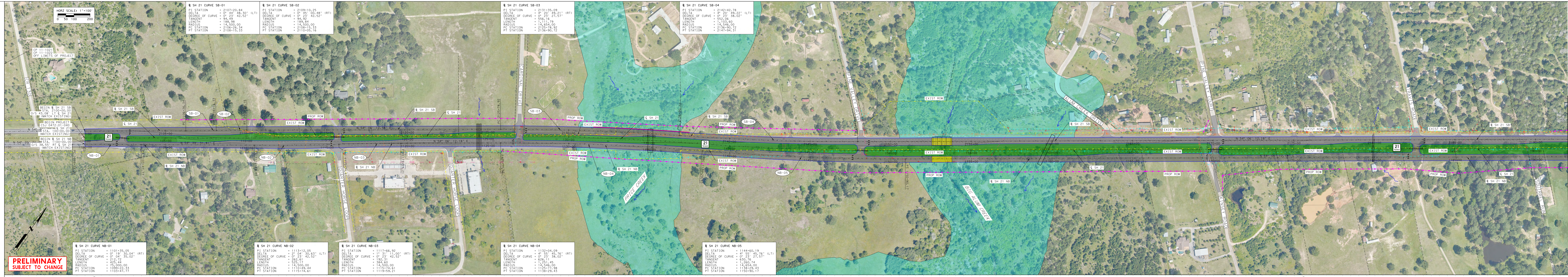
CONTROL POINTS-GRID COORDINATES

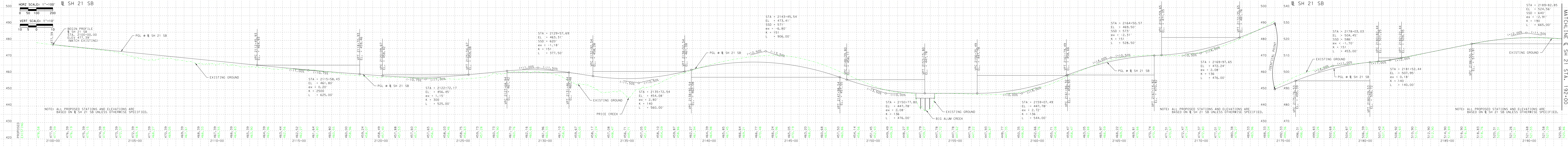
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION/REMARKS
11-1021	10,032,628.88	3,278,569.84	503.35'	TXDOT ALUM DISK SET IN CONC
11-1022	10,033,582.10	3,279,906.62	494.15'	TXDOT ALUM DISK SET IN CONC

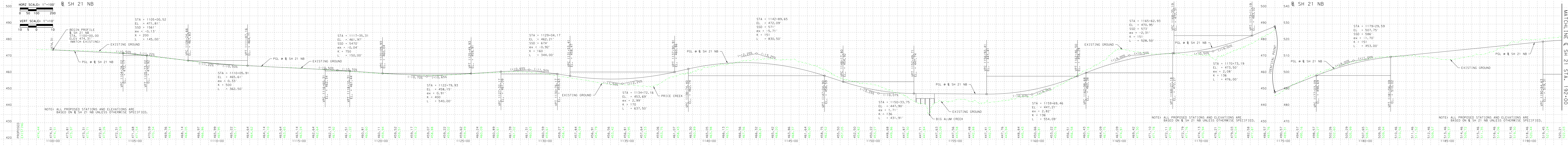
SUPERELEVATION TABLE

SH 21			
SH 21 SB (℄ SH 21 SB)			
CURVE SB-01			
STA	WIDTH	SLOPE	DESCRIPTION
2100+00	24'	-2.00%	LEFT SIDE
2106+30	24'	-2.00%	LEFT SIDE
2112+40	24'	-2.00%	LEFT SIDE
CURVE SB-02			
STA	WIDTH	SLOPE	DESCRIPTION
2112+40	24'	-2.00%	LEFT SIDE
2118+60	24'	-2.00%	LEFT SIDE
CURVE SB-03			
STA	WIDTH	SLOPE	DESCRIPTION
2125+80	24'	-2.00%	LEFT SIDE
2138+40	24'	-2.00%	LEFT SIDE
CURVE SB-04			
STA	WIDTH	SLOPE	DESCRIPTION
2138+40	24'	-2.00%	LEFT SIDE
2150+90	24'	-2.00%	LEFT SIDE
SH 21 NB (℄ SH 21 NB)			
CURVE NB-01			
STA	WIDTH	SLOPE	DESCRIPTION
1100+00	24'	-2.00%	RIGHT SIDE
1103+50	24'	-2.00%	RIGHT SIDE
CURVE NB-02			
STA	WIDTH	SLOPE	DESCRIPTION
1110+50	24'	-2.00%	RIGHT SIDE
1115+70	24'	-2.00%	RIGHT SIDE
CURVE NB-03			
STA	WIDTH	SLOPE	DESCRIPTION
1115+70	24'	-2.00%	RIGHT SIDE
1119+60	24'	-2.00%	RIGHT SIDE
CURVE NB-04			
STA	WIDTH	SLOPE	DESCRIPTION
1125+80	24'	-2.00%	RIGHT SIDE
1138+30	24'	-2.00%	RIGHT SIDE
CURVE NB-05			
STA	WIDTH	SLOPE	DESCRIPTION
1138+30	24'	-2.00%	RIGHT SIDE
1150+90	24'	-2.00%	RIGHT SIDE









PRELIMINARY
SUBJECT TO CHANGE