TEXAS DEPARTMENT OF TRANSPORTATION
PRELIMINARY DESIGN SCHEMATIC
BASTROP COUNTY

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

CSJ: 0472-01-040

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

SH 21

WIDEN SUPER 2 HWY TO 4-LN DIVIDED HWY

(DRAFT) GEOMETRIC DESIGN SCHEMATIC

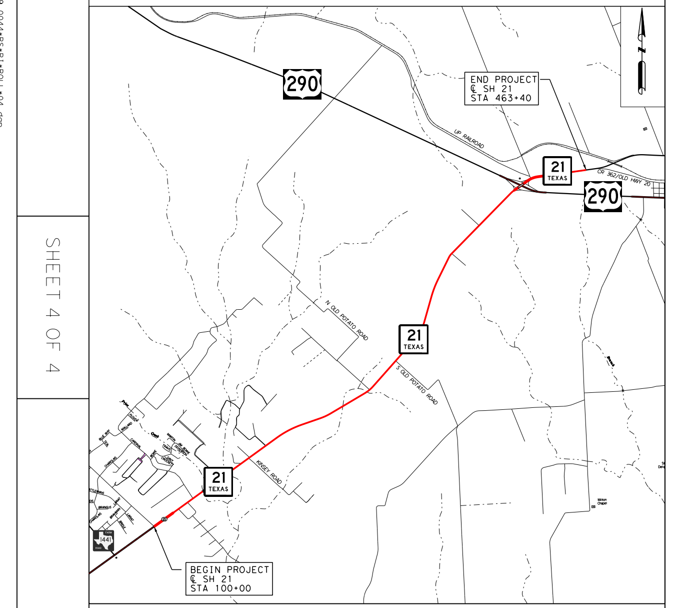
SCHEMATIC LIMITS

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
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING
Engineer: EDWARD GALICIA
DATE
PROJECT MANAGER, P.E.
P.E. #114275

SUBMITTED FOR APPROVAL FOR FURTHER PROJECT DEVELOPMENT
RECOMMENDED BY
RECOMMENDED BY
ADVANCED PROJECT DEVELOPMENT DIRECTOR
DISTRICT DESIGN ENGINEER
RECOMMENDED BY
APPROVED BY
AREA ENGINEER
DIRECTOR, TRANSPORTATION PLANNING & DEVELOPMENT

ATG ALLIANCE TRANSPORTATION GROUP
TEXAS REGISTERED ENGINEERING FIRM F-812
11701 STONEHOLLOW DR. SUITE 100
AUSTIN, TX 78758

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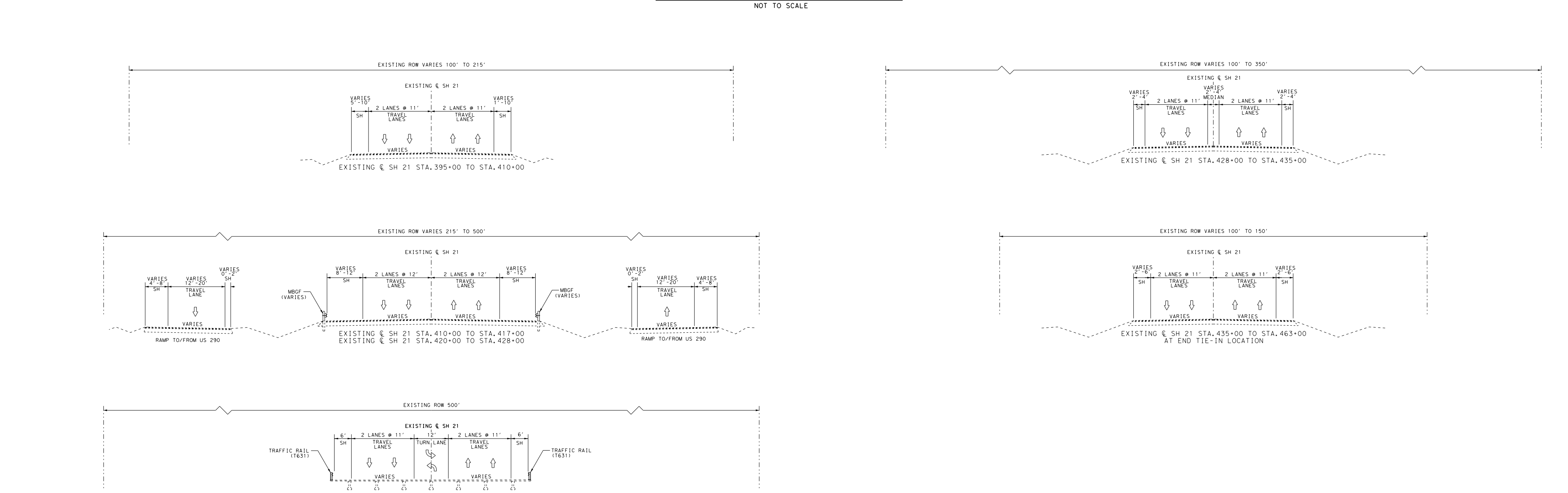
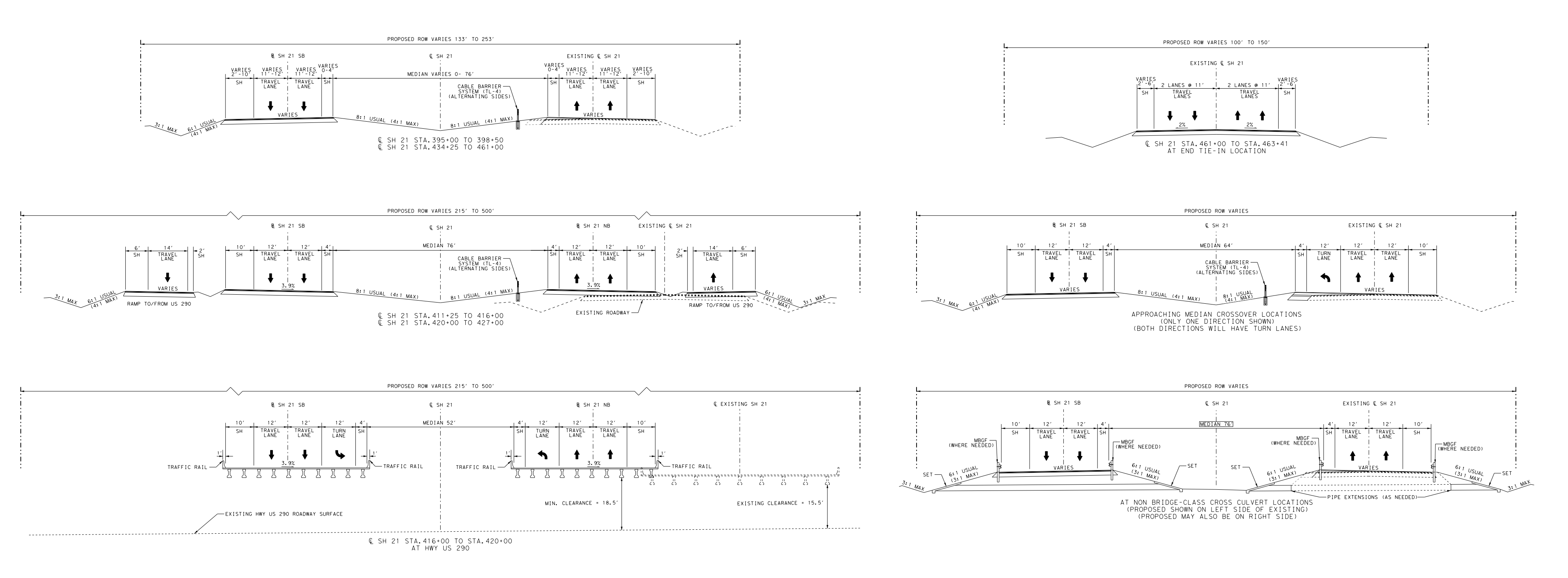
EXISTING TYPICAL SECTIONS

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
11-1026	10,055,648.61	3,303,677.03	598.21'	410+42.58	125.38' RT	TXDOT ALUM DISK SET IN CONC
11-1029	10,057,925.58	3,311,196.88	549.12'	NA	NA	TXDOT ALUM DISK SET IN CONC
11-1030	10,058,931.91	3,317,072.23	526.39'	NA	NA	TXDOT ALUM DISK SET IN CONC

CONTROL POINTS-GRID COORDINATES

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION/REMARKS
11-1026	10,055,124.19	3,303,504.74	598.21'	TXDOT ALUM DISK SET IN CONC
11-1029	10,057,401.04	3,311,024.19	549.12'	TXDOT ALUM DISK SET IN CONC
11-1030	10,058,407.31	3,316,899.23	526.39'	TXDOT ALUM DISK SET IN CONC

SUPERELEVATION TABLE

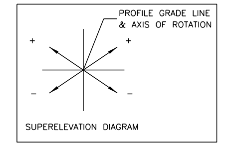
SH 21

SH 21 SB (℄ SH 21 SB)

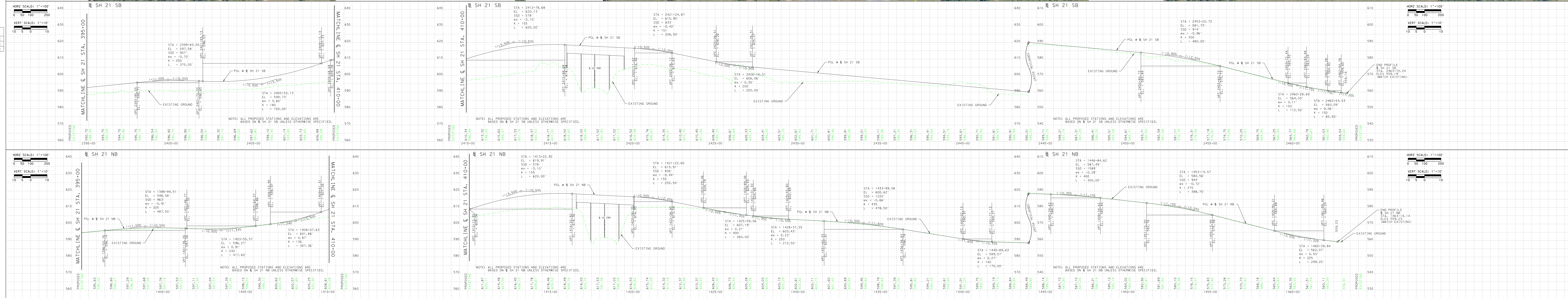
STA	WIDTH	SLOPE	DESCRIPTION
CURVE SB-13			
2408+90	24'	-2.00%	LEFT SIDE
2412+10	24'	3.87%	LEFT SIDE
2434+20	24'	3.87%	LEFT SIDE
2437+40	24'	-2.00%	LEFT SIDE
CURVE SB-14			
2438+80	24'	-2.00%	LEFT SIDE
2451+80	24'	-2.00%	LEFT SIDE
CURVE SB-15			
2451+80	24'	-2.00%	LEFT SIDE
2459+60	24'	-2.00%	LEFT SIDE
2463+70	24'	-2.00%	LEFT SIDE

SH 21 NB (℄ SH 21 NB)

STA	WIDTH	SLOPE	DESCRIPTION
CURVE NB-14			
1410+30	24'	-2.00%	RIGHT SIDE
1412+10	24'	-3.96%	RIGHT SIDE
1434+00	24'	-3.96%	RIGHT SIDE
1435+80	24'	-2.00%	RIGHT SIDE
CURVE NB-15			
1448+70	24'	-2.00%	RIGHT SIDE
1457+40	24'	-2.00%	RIGHT SIDE
1463+14	24'	-2.00%	RIGHT SIDE



SUPERELEVATION DIAGRAM



DRAFT PRELIMINARY DESIGN SCHEMATIC SH 21

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