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

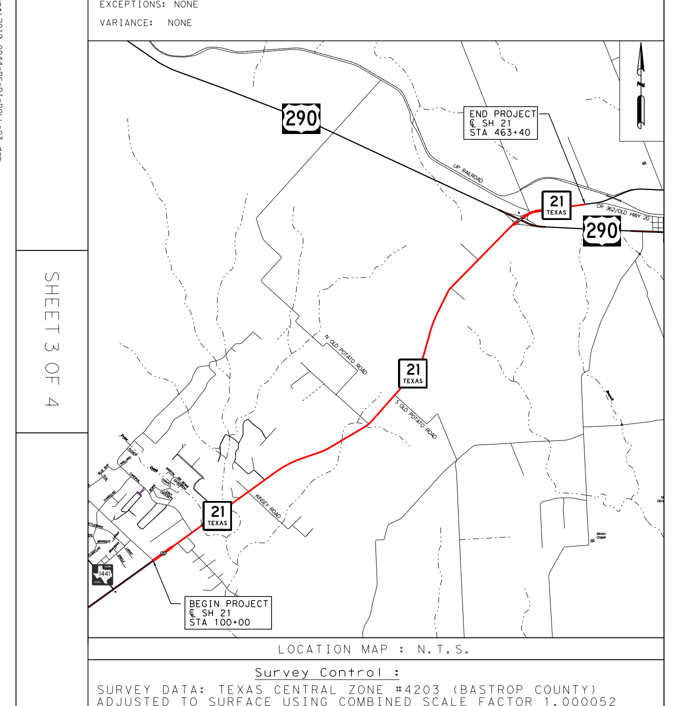
ROADWAY 35,600.80 FEET = 6.74 MILES
BRIDGE 739.20 FEET = 0.14 MILES

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

Texas Department of Transportation
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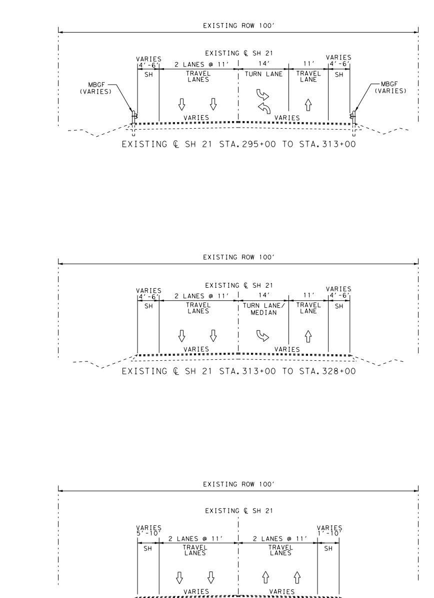
Design Filename: Z:\Engineering\EGDV-2019.0044 36-7IDP5099 WA1 SH 21\Tasks\CAD\SCHEMATIC\Public Involvement\2019.0044+RSPI+ROLL+03.dgn
Pen Table: cvd+pentable+co.tbl
Plotted on: 3/21/2020
Scale: 1:100

DRAFT PRELIMINARY DESIGN SCHEMATIC SH 21

SHEET 3 OF 4

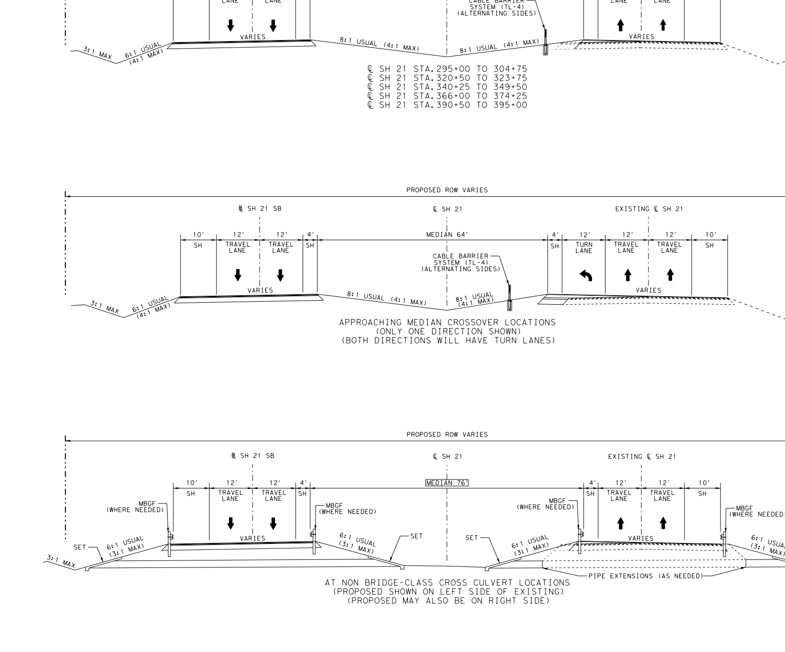
EXISTING TYPICAL SECTIONS

NOT TO SCALE



PROPOSED TYPICAL SECTIONS

NOT TO SCALE



PLAN VIEW LEGEND

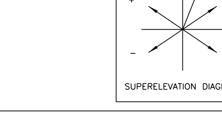
- PROPOSED CENTERLINE/BASELINE
- EXISTING ROW
- PROPOSED ROW
- PARCEL LINE
- EASEMENT LINE
- PROPOSED PAVEMENT
- PROPOSED MEDIAN
- PROPOSED DRIVEWAY
- PROPOSED BRIDGE
- 100-YEAR FLOODPLAIN (FEMA 2018)
- PROPOSED DRAINAGE STRUCTURE
- WATER FLOW DIRECTION
- PROPOSED TRAFFIC FLOW
- XX-XX CURVE LABEL
- OHE OVERHEAD ELECTRIC
- E(B) UG ELECTRIC (BLUEBONNET COOP B)
- E(D) UG ELECTRIC (BLUEBONNET COOP D)
- E1(B) UG ELECTRIC (TXDOT B)
- E1(D) UG ELECTRIC (TXDOT D)
- FOC(B) FIBER (AT&T B)
- FOC1(B) FIBER (CENTURYLINK B)
- FOC1(D) FIBER (CENTURYLINK D)
- FOC2(B) FIBER (ZAYO B)
- FOC2(D) FIBER (ZAYO D)
- FOC3(B) FIBER (FIBERLIGHT B)
- FOC3(D) FIBER (FIBERLIGHT D)
- FOC4(B) FIBER (FRONTIER B)
- FOC4(D) FIBER (FRONTIER D)
- T(B) TELECOM (AT&T B)
- T(D) TELECOM (AT&T D)
- T1(B) TELECOM (FRONTIER B)
- T1(D) TELECOM (FRONTIER D)
- W(D) WATER (BASTROP)
- W1(D) 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

CONTROL POINTS-SURFACE COORDINATES

POINT NO.	NORTHING	EASTING	ELEVATION	STATION (℄ SH 21)	OFFSET (℄ SH 21)	DESCRIPTION/REMARKS
11-1025	10,054,213.20	3,302,122.26	586.36'	389+29.55	11.97' RT	TXDOT ALUM DISK SET IN CONC

CONTROL POINTS-GRID COORDINATES

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION/REMARKS
11-1025	10,053,688.85	3,301,950.05	586.36'	TXDOT ALUM DISK SET IN CONC

SUPERELEVATION TABLE

SH 21			
SH 21 SB (℄ SH 21 SB)			
CURVE SB-08			
STA	WIDTH	SLOPE	DESCRIPTION
2297+60	24'	-2.00%	LEFT SIDE
2299+40	24'	-4.59%	LEFT SIDE
2310+40	24'	-4.59%	LEFT SIDE
2312+20	24'	-2.00%	LEFT SIDE
CURVE SB-09			
STA	WIDTH	SLOPE	DESCRIPTION
2319+60	24'	-2.00%	LEFT SIDE
2323+30	24'	-2.00%	LEFT SIDE
CURVE SB-10			
STA	WIDTH	SLOPE	DESCRIPTION
2327+20	24'	-2.00%	LEFT SIDE
2330+50	24'	4.15%	LEFT SIDE
2335+80	24'	4.15%	LEFT SIDE
2339+10	24'	-2.00%	LEFT SIDE
CURVE SB-11			
STA	WIDTH	SLOPE	DESCRIPTION
2348+80	24'	-2.00%	LEFT SIDE
2352+30	24'	4.39%	LEFT SIDE
2360+20	24'	4.39%	LEFT SIDE
2363+70	24'	-2.00%	LEFT SIDE
CURVE SB-12			
STA	WIDTH	SLOPE	DESCRIPTION
2376+60	24'	-2.00%	LEFT SIDE
2381+10	24'	-2.00%	LEFT SIDE
SH 21 NB (℄ SH 21 NB)			
CURVE NB-09			
STA	WIDTH	SLOPE	DESCRIPTION
1296+50	24'	-2.00%	RIGHT SIDE
1300+00	24'	4.49%	RIGHT SIDE
1310+70	24'	4.49%	RIGHT SIDE
1314+20	24'	-2.00%	RIGHT SIDE
CURVE NB-10			
STA	WIDTH	SLOPE	DESCRIPTION
1318+50	24'	-2.00%	RIGHT SIDE
1320+70	24'	2.00%	RIGHT SIDE
1323+60	24'	2.00%	RIGHT SIDE
1325+80	24'	-2.00%	RIGHT SIDE
CURVE NB-11			
STA	WIDTH	SLOPE	DESCRIPTION
1329+10	24'	-2.00%	RIGHT SIDE
1330+90	24'	-4.24%	RIGHT SIDE
1336+60	24'	-4.24%	RIGHT SIDE
1338+40	24'	-2.00%	RIGHT SIDE
CURVE NB-12			
STA	WIDTH	SLOPE	DESCRIPTION
1350+60	24'	-2.00%	RIGHT SIDE
1352+40	24'	-4.49%	RIGHT SIDE
1360+80	24'	-4.49%	RIGHT SIDE
1362+60	24'	-2.00%	RIGHT SIDE
CURVE NB-13			
STA	WIDTH	SLOPE	DESCRIPTION
1376+80	24'	-2.00%	RIGHT SIDE
1381+20	24'	-2.00%	RIGHT SIDE