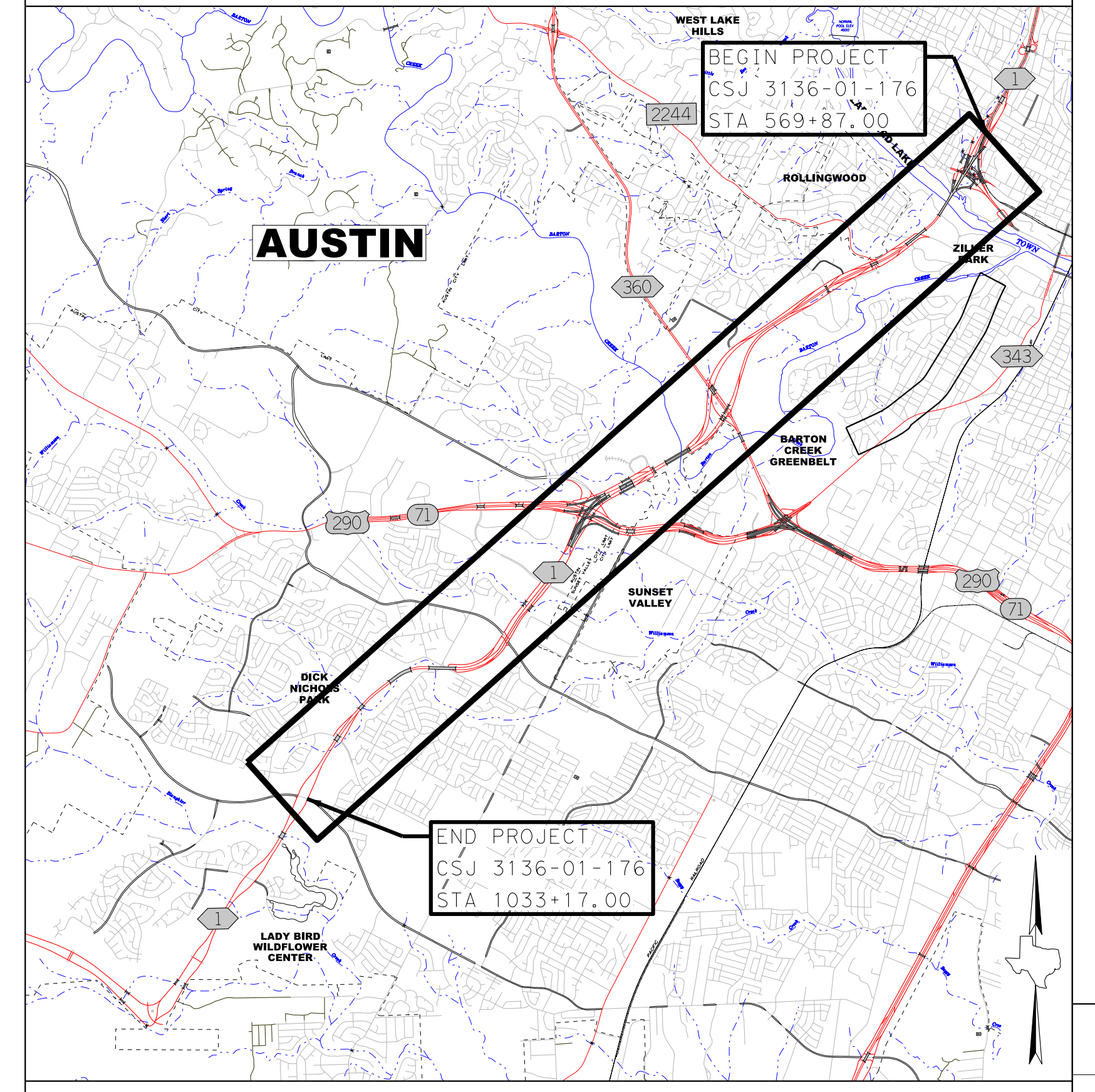
PRELIMINARY DESIGN SCHEMATIC OF MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.
SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.
TRAVIS COUNTY
LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE
SHEET 1 OF 9



AUSTIN
WEST LAKE HILLS
ROLLINGWOOD
ZILKER PARK
BARTON CREEK GREENBELT
SUNSET VALLEY
DICK NICHOLS PARK
LADY BIRD WILDFLOWER CENTER
BEGIN PROJECT
CSJ 3136-01-176
STA 569+87.00
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
2244
360
343
290
71
1

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

SCALE: 1:100 H
1:10 V

MOPAC SOUTH
ENVIRONMENTAL STUDY

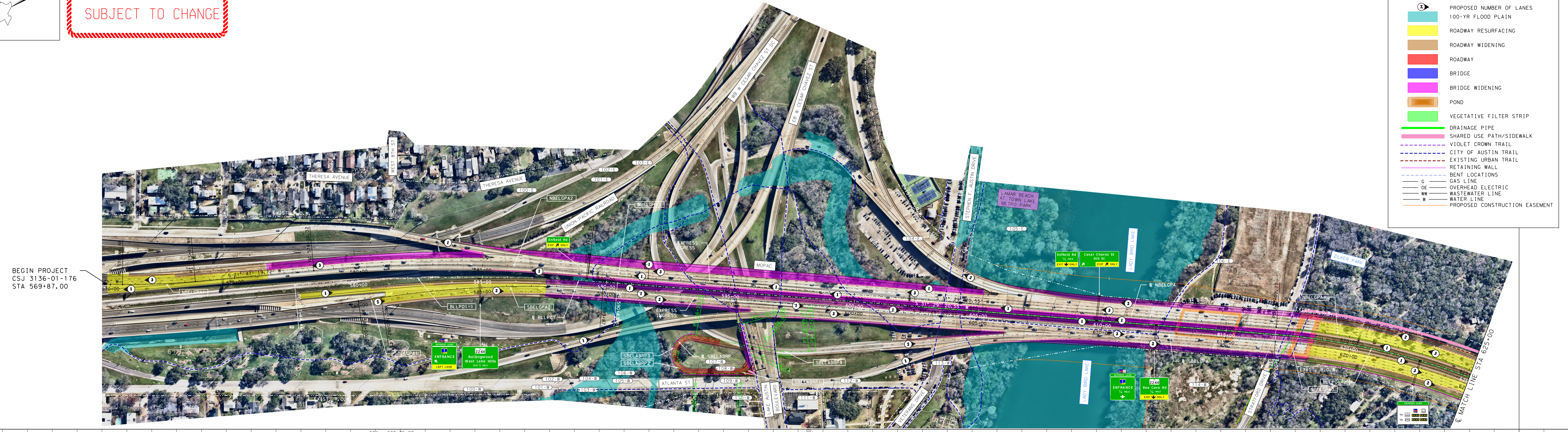
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation

AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474

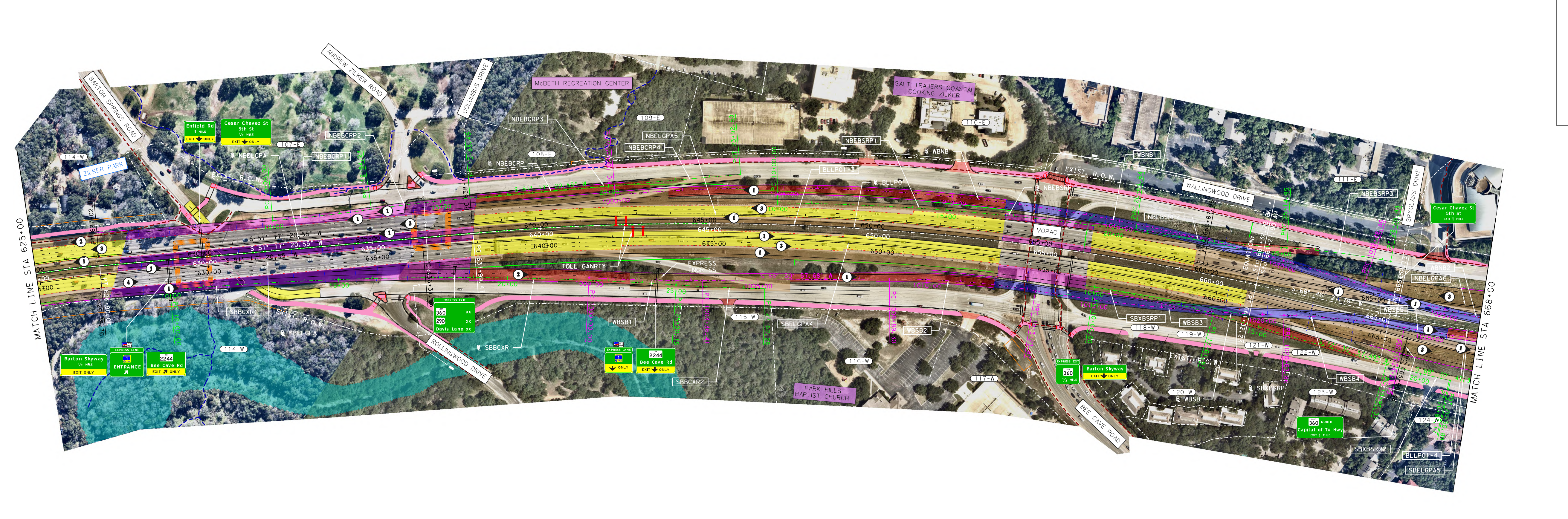
PRELIMINARY
SUBJECT TO CHANGE

LEGEND

▬	EXISTING RIGHT-OF-WAY
▬	EXISTING PARCEL LIMITS
➊	PROPOSED NUMBER OF LANES
🟦	100-YR FLOOD PLAIN
🟨	ROADWAY RESURFACING
🟫	ROADWAY WIDENING
🟥	ROADWAY
🟦	BRIDGE
🟪	BRIDGE WIDENING
🟧	POND
🟩	VEGETATIVE FILTER STRIP
—	DRAINAGE PIPE
—	SHARED USE PATH/SIDEWALK
- - -	VIOLET CROWN TRAIL
- - -	CITY OF AUSTIN TRAIL
- - -	EXISTING URBAN TRAIL
—	RETAINING WALL
- - -	BENT LOCATIONS
— G —	GAS LINE
— OE —	OVERHEAD ELECTRIC
— WW —	WASTEWATER LINE
— W —	WATER LINE
—	PROPOSED CONSTRUCTION EASEMENT



BEGIN PROJECT
CSJ 3136-01-176
STA 569+87.00
THERESA AVENUE
WEST 8TH ST
UNION PACIFIC RAILROAD
WB W CESAR CHAVEZ ST DC
EB W CESAR CHAVEZ ST
STEPHEN F. AUSTIN DRIVE
LAMAR BEACH AT TOWN LAKE METRO PARK
LADY BIRD LAKE
ZILKER PARK
LAKE AUSTIN BOULEVARD
ATLANTA ST
VETERANS DRIVE
STRATFORD DRIVE
MOPAC
EXPRESS EGRESS
EXPRESS INGRESS
NBELGPA1
NBELGPA2
NBELGPA3
NBELGPA4
SBELGPA1
SBELGPA2
SBELABRP
SBELABRP1
SBELABRP2
SBELABRP3
SBELABRP4
BLLP01-1
BLLP01-2
℄ BLLP01
℄ NBELGPA
℄ SBELGPA
EXIST. R.O.W.
Enfield Rd EXIT ONLY
Cesar Chavez St 5th St EXIT ONLY
ENTRANCE LEFT LANE
2244 Rollingwood West Lake Hills EXIT 1 MILE
ENTRANCE ½ MILE
2244 Bee Cave Rd ½ MILE EXIT ONLY
℄ MATCH LINE STA 625+00



MATCH LINE STA 625+00
BARTON SPRINGS ROAD
ANDREW ZILKER ROAD
COLUMBUS DRIVE
ZILKER PARK
McBETH RECREATION CENTER
SALT TRADERS COASTAL COOKING ZILKER
PARK HILLS BAPTIST CHURCH
ROLLINGWOOD DRIVE
WALLINGWOOD DRIVE
SPYGLASS DRIVE
BEE CAVE ROAD
TOLL GANTRY
EXPRESS INGRESS
MOPAC
NBEBCRP
SBBCXR
SBBCXR2
NBELGPA5
NBEBSRP1
NBEBSRP3
SBXBSRP1
SBXBSRP2
SBELGPA4
SBELGPA5
BLLP01-4
WBNB
WBSB
Enfield Rd 1 MILE EXIT ONLY
Cesar Chavez St 5th St ½ MILE EXIT ONLY
Barton Skyway ½ MILE EXIT ONLY
ENTRANCE
2244 Bee Cave Rd EXIT ONLY
360 290 Davis Lane
360 ½ MILE
360 NORTH Capital of Tx Hwy EXIT 1 MILE
MATCH LINE STA 668+00

Describe Chain BLLP01

BLLP01-1
PI STATION = 583+95.54
DELTA = 9° 41′ 29.21" (RT)
DEGREE OF CURVE = 0° 44′ 45.74"
TANGENT = 651.08
LENGTH = 1,299.05
RADIUS = 7,680.00
PC STATION = 577+44.46
PT STATION = 590+43.51

BLLP01-2
PI STATION = 621+99.99
DELTA = 19° 48′ 00.00" (RT)
DEGREE OF CURVE = 2° 00′ 00.00"
TANGENT = 499.99
LENGTH = 990.00
RADIUS = 2,864.79
PC STATION = 617+00.00
PT STATION = 626+90.00

BLLP01-3
PI STATION = 649+74.98
DELTA = 17° 29′ 01.24" (RT)
DEGREE OF CURVE = 0° 44′ 58.14"
TANGENT = 1,175.52
LENGTH = 2,332.76
RADIUS = 7,644.69
PC STATION = 637+99.47
PT STATION = 661+32.23

BLLP01-4
PI STATION = 669+70.46
DELTA = 12° 30′ 00.00" (LT)
DEGREE OF CURVE = 1° 30′ 00.00"
TANGENT = 418.33
LENGTH = 833.33
RADIUS = 3,819.72
PC STATION = 665+52.13
PT STATION = 673+85.46

Describe Chain NBELGPA

NBELGPA1
PI STATION = 571+95.30
DELTA = 5° 36′ 13.49" (LT)
DEGREE OF CURVE = 1° 54′ 35.49"
TANGENT = 146.82
LENGTH = 293.41
RADIUS = 3,000.00
PC STATION = 570+48.48
PT STATION = 573+41.89

NBELGPA2
PI STATION = 583+75.68
DELTA = 11° 23′ 45.63" (RT)
DEGREE OF CURVE = 1° 01′ 45.80"
TANGENT = 555.36
LENGTH = 1,107.07
RADIUS = 5,566.00
PC STATION = 578+20.32
PT STATION = 589+27.38

NBELGPA3
PI STATION = 590+47.76
DELTA = 1° 41′ 44.80" (LT)
DEGREE OF CURVE = 0° 42′ 15.83"
TANGENT = 120.38
LENGTH = 240.74
RADIUS = 8,134.00
PC STATION = 589+27.38
PT STATION = 591+68.12

NBELGPA4
PI STATION = 622+07.82
DELTA = 19° 48′ 00.00" (RT)
DEGREE OF CURVE = 1° 58′ 47.85"
TANGENT = 505.05
LENGTH = 1,000.02
RADIUS = 2,893.79
PC STATION = 617+02.77
PT STATION = 627+02.80

NBELGPA5
PI STATION = 649+07.46
DELTA = 16° 14′ 41.69" (RT)
DEGREE OF CURVE = 0° 44′ 47.95"
TANGENT = 1,095.20
LENGTH = 2,175.70
RADIUS = 7,673.69
PC STATION = 638+12.26
PT STATION = 659+87.96

Describe Chain SBELGPA

SBELGPA1
PI STATION = 580+46.07
DELTA = 0° 31′ 40.55" (LT)
DEGREE OF CURVE = 0° 34′ 22.65"
TANGENT = 46.07
LENGTH = 92.14
RADIUS = 10,000.00
PC STATION = 580+00.00
PT STATION = 580+92.14

SBELGPA2
PI STATION = 585+41.82
DELTA = 13° 20′ 39.79" (RT)
DEGREE OF CURVE = 1° 29′ 25.89"
TANGENT = 449.67
LENGTH = 895.28
RADIUS = 3,844.00
PC STATION = 580+92.14
PT STATION = 589+87.42

SBELGPA3
PI STATION = 621+94.70
DELTA = 19° 48′ 00.00" (RT)
DEGREE OF CURVE = 2° 01′ 13.63"
TANGENT = 494.92
LENGTH = 979.98
RADIUS = 2,835.79
PC STATION = 616+99.78
PT STATION = 626+79.76

SBELGPA4
PI STATION = 651+25.03
DELTA = 20° 34′ 05.04" (RT)
DEGREE OF CURVE = 0° 41′ 56.04"
TANGENT = 1,487.47
LENGTH = 2,942.92
RADIUS = 8,198.00
PC STATION = 636+37.56
PT STATION = 665+80.48

SBELGPA5
PI STATION = 670+60.49
DELTA = 20° 16′ 44.67" (LT)
DEGREE OF CURVE = 2° 08′ 04.98"
TANGENT = 480.00
LENGTH = 949.97
RADIUS = 2,684.00
PC STATION = 665+80.48
PT STATION = 675+30.45

Describe Chain NBEBCRP

NBEBCRP1
PI STATION = 11+47.16
DELTA = 3° 06′ 58.64" (LT)
DEGREE OF CURVE = 1° 03′ 32.71"
TANGENT = 147.16
LENGTH = 294.24
RADIUS = 5,410.00
PC STATION = 10+00.00
PT STATION = 12+94.24

NBEBCRP2
PI STATION = 14+41.40
DELTA = 3° 06′ 58.64" (RT)
DEGREE OF CURVE = 1° 03′ 32.71"
TANGENT = 147.16
LENGTH = 294.24
RADIUS = 5,410.00
PC STATION = 12+94.24
PT STATION = 15+88.49

NBEBCRP3
PI STATION = 20+02.13
DELTA = 1° 58′ 55.25" (LT)
DEGREE OF CURVE = 1° 54′ 35.49"
TANGENT = 51.89
LENGTH = 103.78
RADIUS = 3,000.00
PC STATION = 19+50.23
PT STATION = 20+54.01

NBEBCRP4
PI STATION = 22+58.28
DELTA = 5° 06′ 17.83" (RT)
DEGREE OF CURVE = 3° 58′ 43.94"
TANGENT = 64.19
LENGTH = 128.30
RADIUS = 1,440.00
PC STATION = 21+94.08
PT STATION = 23+22.39

Describe Chain SBBCXR

SBBCXR1
PI STATION = 17+51.57
DELTA = 8° 50′ 34.08" (RT)
DEGREE OF CURVE = 0° 35′ 22.07"
TANGENT = 751.57
LENGTH = 1,500.15
RADIUS = 9,720.00
PC STATION = 10+00.00
PT STATION = 25+00.15

SBBCXR2
PI STATION = 26+31.24
DELTA = 2° 46′ 34.41" (LT)
DEGREE OF CURVE = 1° 03′ 32.66"
TANGENT = 131.09
LENGTH = 262.14
RADIUS = 5,410.00
PC STATION = 25+00.15
PT STATION = 27+62.28

Describe Chain NBEBSRP

NBEBSRP1
PI STATION = 15+33.17
DELTA = 7° 54′ 10.17" (RT)
DEGREE OF CURVE = 0° 44′ 32.28"
TANGENT = 533.17
LENGTH = 1,064.64
RADIUS = 7,718.68
PC STATION = 10+00.00
PT STATION = 20+64.64

NBEBSRP2
PI STATION = 22+89.92
DELTA = 4° 46′ 08.79" (LT)
DEGREE OF CURVE = 1° 03′ 32.66"
TANGENT = 225.29
LENGTH = 450.31
RADIUS = 5,410.00
PC STATION = 20+64.64
PT STATION = 25+14.95

NBEBSRP3
PI STATION = 26+70.41
DELTA = 7° 26′ 35.55" (RT)
DEGREE OF CURVE = 2° 23′ 50.33"
TANGENT = 155.46
LENGTH = 310.48
RADIUS = 2,390.00
PC STATION = 25+14.95
PT STATION = 28+25.43

Describe Chain SBXBSRP

SBXBSRP1
PI STATION = 11+81.09
DELTA = 7° 14′ 01.72" (RT)
DEGREE OF CURVE = 2° 00′ 00.36"
TANGENT = 181.09
LENGTH = 361.67
RADIUS = 2,864.79
PC STATION = 10+00.00
PT STATION = 13+61.67

SBXBSRP2
PI STATION = 19+91.31
DELTA = 3° 50′ 10.19" (LT)
DEGREE OF CURVE = 2° 00′ 00.36"
TANGENT = 95.94
LENGTH = 191.80
RADIUS = 2,864.79
PC STATION = 18+95.37
PT STATION = 20+87.17

Describe Chain WBNB

WBNB1
PI STATION = 1011+40.92
DELTA = 23° 49′ 02.44" (RT)
DEGREE OF CURVE = 1° 03′ 32.71"
TANGENT = 1,140.92
LENGTH = 2,248.86
RADIUS = 5,410.00
PC STATION = 1000+00.00
PT STATION = 1022+48.86

WBNB2
PI STATION = 1027+39.78
DELTA = 18° 50′ 01.20" (LT)
DEGREE OF CURVE = 1° 56′ 08.74"
TANGENT = 490.92
LENGTH = 972.93
RADIUS = 2,960.00
PC STATION = 1022+48.86
PT STATION = 1032+21.79

Describe Chain WBSB

WBSB1
PI STATION = 1001+68.26
DELTA = 3° 33′ 12.88" (LT)
DEGREE OF CURVE = 1° 03′ 22.82"
TANGENT = 168.26
LENGTH = 336.41
RADIUS = 5,424.00
PC STATION = 1000+00.00
PT STATION = 1003+36.41

WBSB2
PI STATION = 1011+07.13
DELTA = 9° 58′ 32.20" (RT)
DEGREE OF CURVE = 2° 17′ 43.81"
TANGENT = 217.84
LENGTH = 434.57
RADIUS = 2,496.00
PC STATION = 1008+89.30
PT STATION = 1013+23.87

WBSB3
PI STATION = 1016+94.44
DELTA = 7° 49′ 00.74" (LT)
DEGREE OF CURVE = 1° 03′ 22.82"
TANGENT = 370.57
LENGTH = 740.00
RADIUS = 5,424.00
PC STATION = 1013+23.87
PT STATION = 1020+63.86

WBSB4
PI STATION = 1022+43.11
DELTA = 8° 12′ 54.76" (RT)
DEGREE OF CURVE = 2° 17′ 43.81"
TANGENT = 179.25
LENGTH = 357.88
RADIUS = 2,496.00
PC STATION = 1020+63.86
PT STATION = 1024+21.75

WBSB5
PI STATION = 1028+93.93
DELTA = 9° 57′ 02.10" (LT)
DEGREE OF CURVE = 1° 03′ 22.82"
TANGENT = 472.18
LENGTH = 941.99
RADIUS = 5,424.00
PC STATION = 1024+21.75
PT STATION = 1033+63.74

Describe Chain SBELABRP

SBELABRP1
PI STATION = 12+07.13
DELTA = 104° 26′ 16.94" (RT)
DEGREE OF CURVE = 112° 53′ 07.37"
TANGENT = 77.40
LENGTH = 92.52
RADIUS = 60.00
PC STATION = 11+29.73
PT STATION = 12+22.25

SBELABRP2
PI STATION = 14+88.55
DELTA = 95° 36′ 20.42" (RT)
DEGREE OF CURVE = 80° 59′ 07.16"
TANGENT = 84.93
LENGTH = 118.05
RADIUS = 77.00
PC STATION = 14+03.63
PT STATION = 15+21.68

SBELABRP3
PI STATION = 16+06.61
DELTA = 95° 36′ 20.42" (RT)
DEGREE OF CURVE = 80° 59′ 07.16"
TANGENT = 84.93
LENGTH = 118.05
RADIUS = 77.00
PC STATION = 15+21.68
PT STATION = 16+39.73

SBELABRP4
PI STATION = 20+03.53
DELTA = 14° 26′ 02.90" (LT)
DEGREE OF CURVE = 7° 30′ 29.58"
TANGENT = 96.70
LENGTH = 192.24
RADIUS = 763.65
PC STATION = 19+06.83
PT STATION = 20+99.07

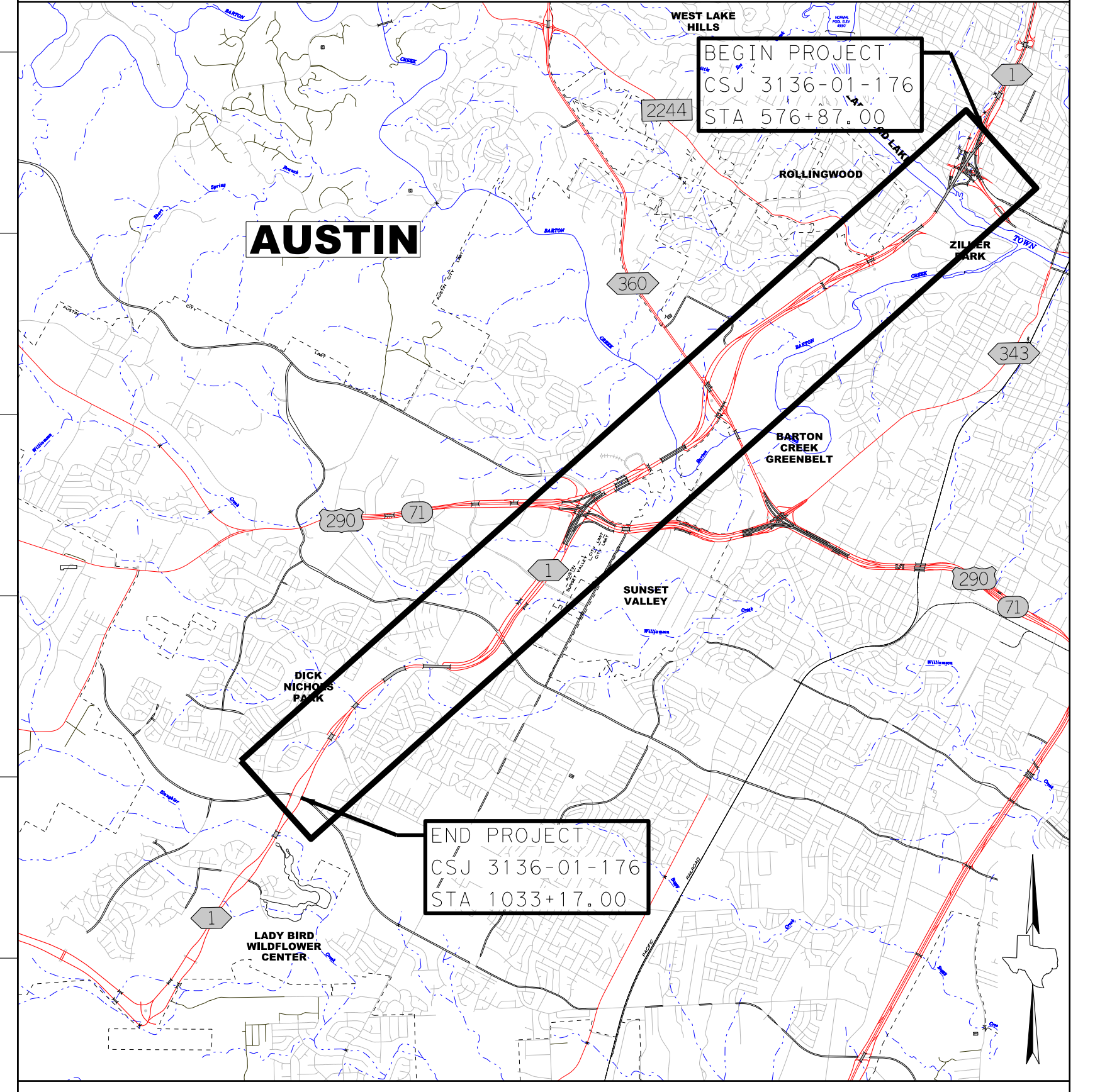
TABLE OF CROSS SLOPES (%)
NORTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
	569+87	-2.5	+2.5	NORMAL CROWN
	570+00	-2.5	+2.5	TRANSITION
NBELGPA1	570+58	-3.7	+3.7	FULL SUPERELEVATION
	573+30	-3.7	+3.7	TRANSITION
	574+11	-2	+2.0	NORMAL CROWN
	576+48	-2	+2.0	TRANSITION
NBELGPA2	578+51	+2.2	-2.2	FULL SUPERELEVATION
	588+97	+2.2	-2.2	TRANSITION
	591+00	-2.0	+2.0	NORMAL CROWN
	614+65	-2.0	+2.0	TRANSITION
NBELGPA4	617+45	+3.8	-3.8	FULL SUPERELEVATION
	626+61	+3.8	-3.8	TRANSITION
	629+41	-2.0	+2.0	NORMAL CROWN

TABLE OF CROSS SLOPES (%)
SOUTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
	580+60	-2.0	+2.0	NORMAL CROWN
SBELGPA2	581+00	-3.0	+3.0	TRANSITION
	589+80	-3.0	+3.0	FULL SUPERELEVATION
	590+20	-2.0	+2.0	TRANSITION
	616+45	-2.0	+2.0	NORMAL CROWN
SBELGPA3	617+15	-3.9	+3.9	TRANSITION
	626+65	-3.9	+3.9	FULL SUPERELEVATION
	627+70	-2.0	+2.0	TRANSITION
	663+30	-2.0	+2.0	NORMAL CROWN
SBELGPA5	666+25	+4.1	-4.1	TRANSITION
				FULL SUPERELEVATION

PRELIMINARY DESIGN SCHEMATIC OF MOPAC SOUTH ENVIRONMENTAL STUDY
CSJ: 3136-01-176
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.
SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.
TRAVIS COUNTY
LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE
SHEET 1 OF 9



AUSTIN
BEGIN PROJECT
CSJ 3136-01-176
STA 576+87.00
END PROJECT
CSJ 3136-01-176
STA 1033+17.00

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD
PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING
BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.
SCALE: 1:100 H
1:10 V
MOPAC SOUTH
ENVIRONMENTAL STUDY
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation
AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474

PRELIMINARY DESIGN SCHEMATIC OF
MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176

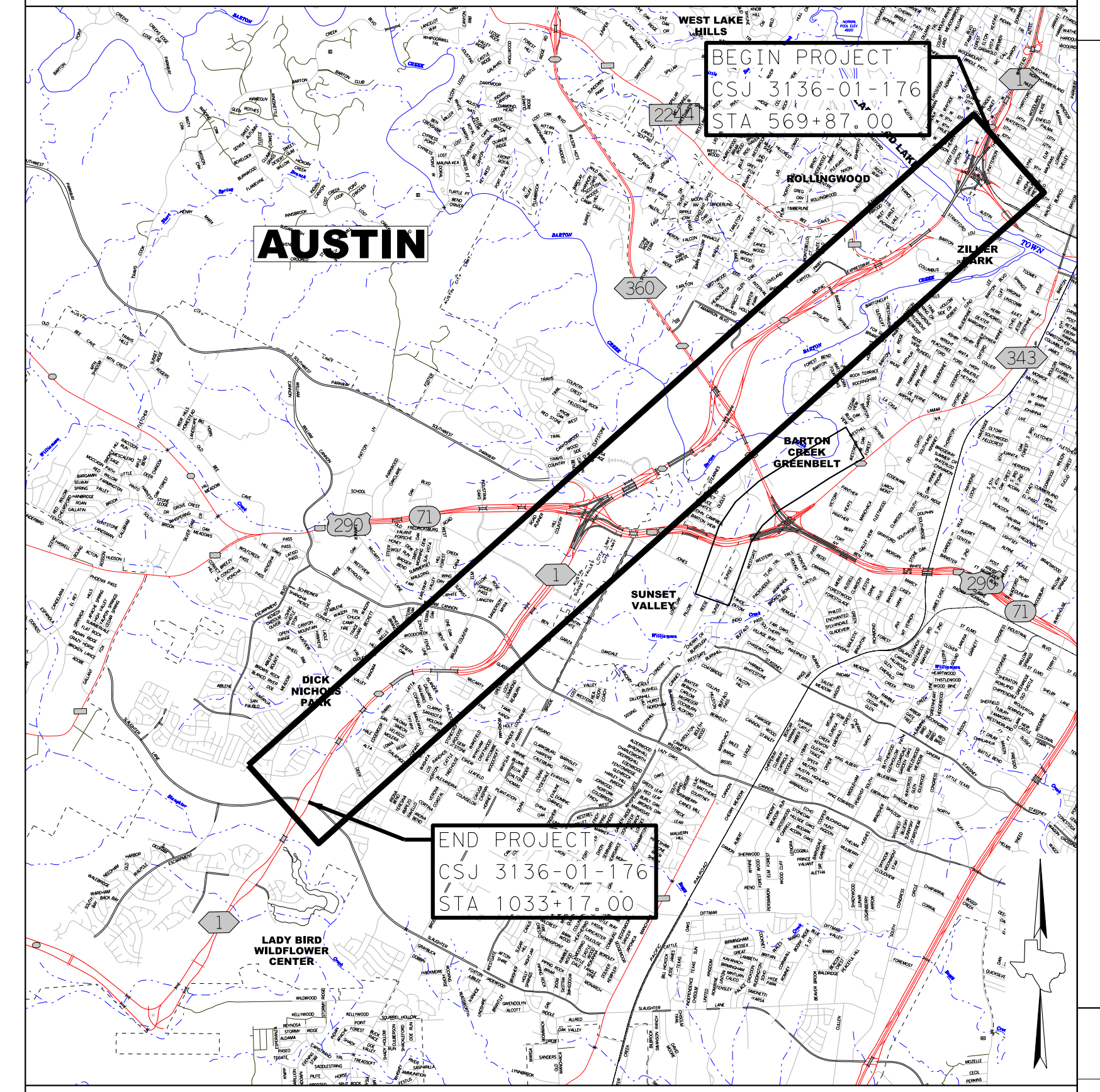
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.

SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.

TRAVIS COUNTY

LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE

SHEET 2 OF 9


WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 569+87.00
ROLLINGWOOD
AUSTIN
ZILKER PARK
BARTON CREEK GREENBELT
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER
2244
360
343
290
71
1

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH

FUNCTIONAL CLASSIFICATION: URBAN FREEWAY

TERRAIN: ROLLING

EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH

COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH

DIRECT CONNECTOR DESIGN SPEED: 40 MPH

RAMP DESIGN SPEED: 40 MPH

MAX SUPERELEVATION: 8%

EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD

PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

SCALE: 1:100 H
1:10 V

MOPAC SOUTH
ENVIRONMENTAL STUDY

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

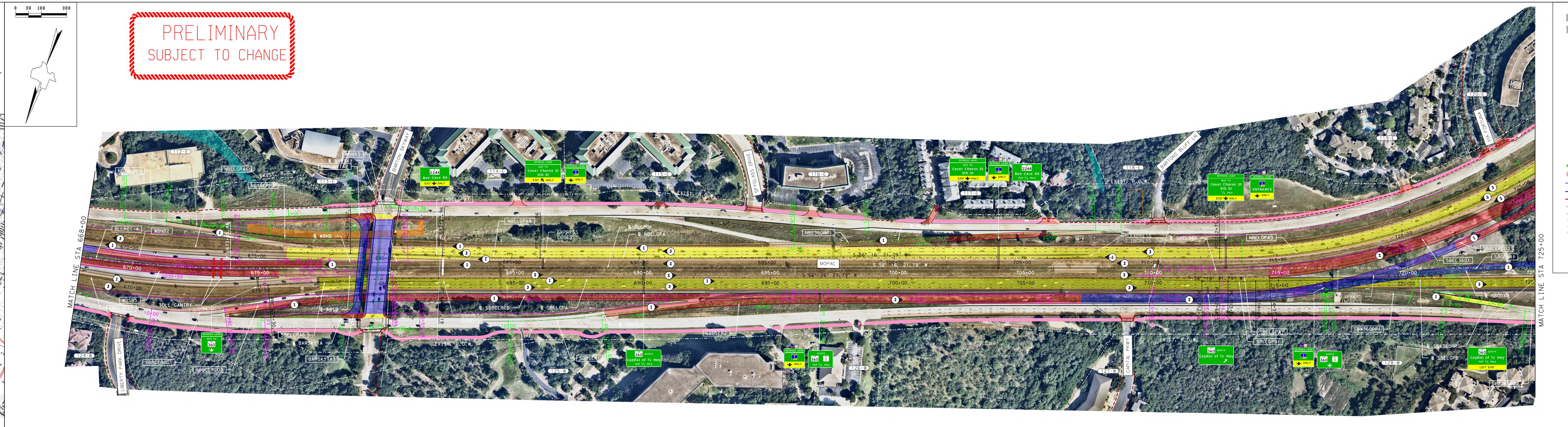
Texas Department of Transportation

AtkinsRéalis

ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474

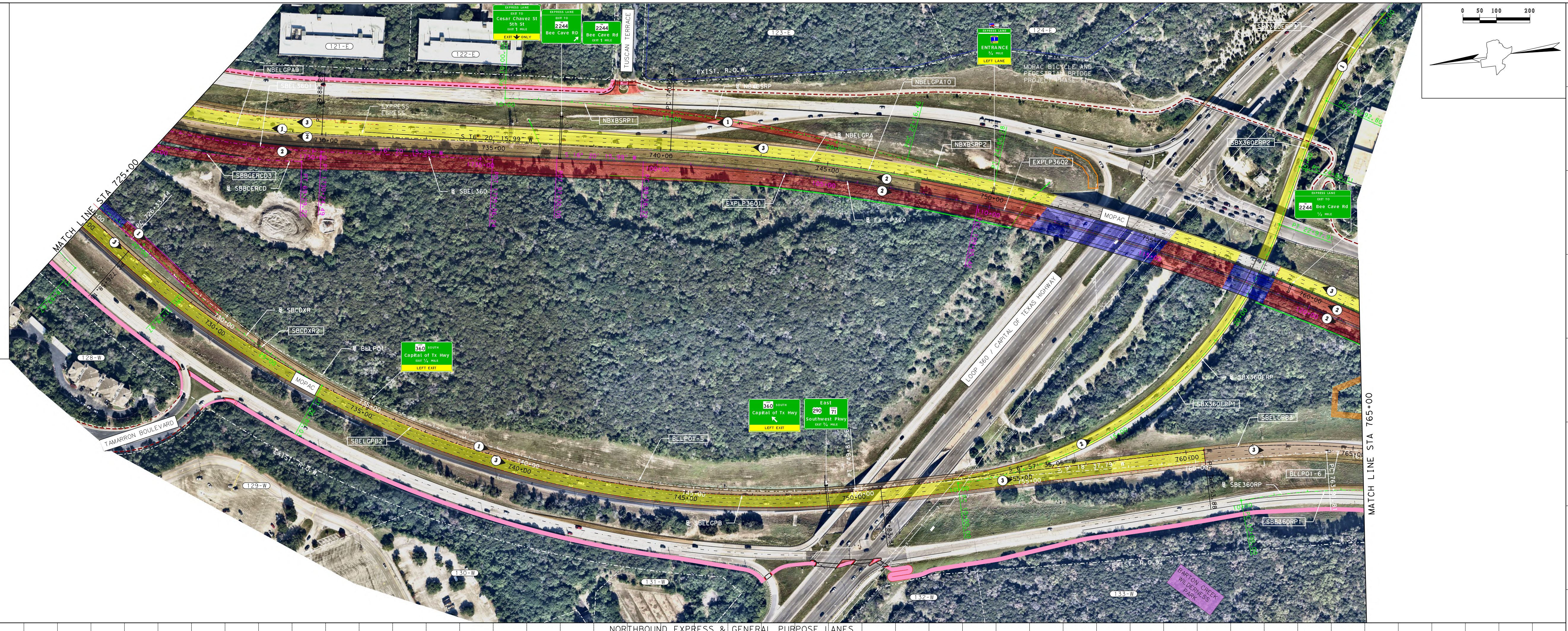
MSPSCHM0102.dgn

PRELIMINARY
SUBJECT TO CHANGE


0 50 100 200
MATCH LINE STA 668+00
LIBERTY PARK DRIVE
BARTON SKYWAY
SKYWAY DRIVE
CAPITAL PKWY
BARTONS BLUFF LN
VIA FORTUNA
MATCH LINE STA 725+00
EXIST. R.O.W.
NBXBCRP1
NBELGPA6
NBXBCRP2
WBNB3
BARSKYTA2
NBELGPA7
NBELGPA8
NBE360RP1
NBELGPA9
BLLP01-4
WBNB2
WBSB5
TOLL GANTRY
SBBCERCD1
SBBCERCD2
SBELGPA6
BARSKYTA1
SBELGPA5
SBBSER1
SBBSER2
SBELGPA7
SBEL3601
SBCDXR1
SBX360RP1
SBELGPB1
SBX360RP2
SBBCERCD3
℄ WBNB
℄ WBSB
℄ BLLP01
℄ NBELGPA
℄ SBELGPA
℄ SBBCERCD
℄ SBEL360
℄ SBCDXR
℄ SBELGPB
℄ SBX360RP
℄ BARSKYTA
℄ MOPAC
EXPRESS EGRESS
EXPRESS INGRESS
MOPAC
S 56° 16' 21.79" W
670+00
675+00
680+00
685+00
690+00
695+00
700+00
705+00
710+00
715+00
720+00
725+00
2244 Bee Cave Rd EXIT ONLY
EXPRESS LANE EXIT TO Cesar Chavez St 5th St EXIT ONLY
EXPRESS LANE ONLY
2244 Bee Cave Rd EXIT ½ MILE
EXPRESS LANE ENTRANCE ONLY
EXPRESS LANE EXIT TO 360
360 NORTH Capital of Tx Hwy EXIT ½ MILE
360 SOUTH Capital of Tx Hwy LEFT EXIT
360 SOUTH 1

LEGEND

- ▬ EXISTING RIGHT-OF-WAY
- ▬ EXISTING PARCEL LIMITS
- ➤ PROPOSED NUMBER OF LANES
- 🟦 100-YR FLOOD PLAIN
- 🟨 ROADWAY RESURFACING
- 🟫 ROADWAY WIDENING
- 🟥 ROADWAY
- 🟦 BRIDGE
- 🟪 BRIDGE WIDENING
- 🟧 POND
- 🟩 VEGETATIVE FILTER STRIP
- ━ DRAINAGE PIPE
- ━ SHARED USE PATH/SIDEWALK
- - - VIOLET CROWN TRAIL
- - - CITY OF AUSTIN TRAIL
- - - EXISTING URBAN TRAIL
- ━ RETAINING WALL
- - - BENT LOCATIONS
- G GAS LINE
- OE OVERHEAD ELECTRIC
- WW WASTEWATER LINE
- W WATER LINE
- ━ PROPOSED CONSTRUCTION EASEMENT


MATCH LINE STA 725+00
TOSCAN TERRACE
TAMARRON BOULEVARD
LOOP 360 / CAPITAL OF TEXAS HIGHWAY
MOPAC
MOPAC BICYCLE AND PEDESTRIAN BRIDGE PROJECT PHASE II
BARTON CREEK WILDERNESS PARK
MATCH LINE STA 765+00
EXIST. R.O.W.
NBELGPA9
NBELGPA10
NBXBSRP1
NBXBSRP2
EXPLP3601
EXPLP3602
SBBCERCD3
SBX360ERP
SBX360ERP1
SBELGPB2
SBELGPB3
SBCDXR2
BLLP01-5
BLLP01-6
SBB360RP1
SBX360ERP2
℄ NBELGPA
℄ SBBCERCD
℄ SBEL360
℄ SBCDXR
℄ BLLP01
℄ EXPLP360
℄ SBELGPB
℄ SBE360RP
EXPRESS EGRESS
S 16° 20' 15.39"
730+00
735+00
740+00
745+00
750+00
755+00
760+00
765+00
EXPRESS LANE EXIT TO Cesar Chavez St 5th St EXIT ½ MILE
EXPRESS LANE EXIT TO 2244 Bee Cave Rd EXIT 1 MILE
2244 Bee Cave Rd EXIT 1 MILE
EXPRESS LANE ENTRANCE ½ MILE LEFT LANE
360 SOUTH Capital of Tx Hwy EXIT ½ MILE LEFT EXIT
360 SOUTH Capital of Tx Hwy LEFT EXIT
East 290 71 Southwest Pkwy EXIT ½ MILE
EXPRESS LANE EXIT TO 2244 Bee Cave Rd ½ MILE

Describe Chain BLLP01

BLLP01-4
PI STATION = 669+70.46
DELTA = 12° 30' 00.00" (LT)
DEGREE OF CURVE = 1° 30' 00.00"
TANGENT = 418.33
LENGTH = 833.33
RADIUS = 3,819.72
PC STATION = 665+52.13
PT STATION = 673+85.46

BLLP01-5
PI STATION = 738+77.97
DELTA = 46° 57' 44.00" (LT)
DEGREE OF CURVE = 2° 00' 00.00"
TANGENT = 1,244.52
LENGTH = 2,348.11
RADIUS = 2,864.79
PC STATION = 726+33.44
PT STATION = 749+81.56

BLLP01-6
PI STATION = 772+78.69
DELTA = 49° 49' 02.58" (RT)
DEGREE OF CURVE = 3° 00' 00.00"
TANGENT = 886.88
LENGTH = 1,660.58
RADIUS = 1,909.86
PC STATION = 763+91.81
PT STATION = 780+52.39

Describe Chain WBNB

WBNB2
PI STATION = 1027+39.78
DELTA = 18° 50' 01.20" (LT)
DEGREE OF CURVE = 1° 56' 08.74"
TANGENT = 490.92
LENGTH = 972.93
RADIUS = 2,960.00
PC STATION = 1022+48.86
PT STATION = 1032+21.79

WBNB3
PI STATION = 1038+06.01
DELTA = 1° 05' 59.13" (LT)
DEGREE OF CURVE = 0° 42' 15.23"
TANGENT = 78.09
LENGTH = 156.16
RADIUS = 8,136.00
PC STATION = 1037+27.92
PT STATION = 1038+84.09

Describe Chain NBELGPA

NBELGPA6
PI STATION = 669+30.46
DELTA = 11° 05' 41.65" (LT)
DEGREE OF CURVE = 0° 35' 25.56"
TANGENT = 942.50
LENGTH = 1,879.11
RADIUS = 9,704.00
PC STATION = 659+87.96
PT STATION = 678+67.07

NBELGPA7
PI STATION = 680+47.54
DELTA = 2° 31' 55.90" (RT)
DEGREE OF CURVE = 0° 42' 05.90"
TANGENT = 180.48
LENGTH = 360.90
RADIUS = 8,166.00
PC STATION = 678+67.07
PT STATION = 682+27.96

NBELGPA8
PI STATION = 684+19.55
DELTA = 2° 41' 54.70" (LT)
DEGREE OF CURVE = 0° 42' 15.83"
TANGENT = 191.58
LENGTH = 383.10
RADIUS = 8,134.00
PC STATION = 682+27.96
PT STATION = 686+11.06

NBELGPA9
PI STATION = 721+68.09
DELTA = 39° 56' 05.81" (LT)
DEGREE OF CURVE = 2° 19' 51.57"
TANGENT = 893.06
LENGTH = 1,713.22
RADIUS = 2,458.00
PC STATION = 712+75.03
PT STATION = 729+88.25

NBELGPA10
PI STATION = 755+33.04
DELTA = 29° 25' 08.04" (RT)
DEGREE OF CURVE = 1° 00' 01.25"
TANGENT = 1,503.61
LENGTH = 2,940.87
RADIUS = 5,727.59
PC STATION = 740+29.42
PT STATION = 769+70.29

Describe Chain SBELGPA

SBELGPA5
PI STATION = 670+60.49
DELTA = 20° 16' 44.67" (LT)
DEGREE OF CURVE = 2° 08' 04.98"
TANGENT = 480.00
LENGTH = 949.97
RADIUS = 2,684.00
PC STATION = 665+80.48
PT STATION = 675+30.45

SBELGPA6
PI STATION = 678+66.01
DELTA = 4° 41' 40.87" (RT)
DEGREE OF CURVE = 0° 41' 59.73"
TANGENT = 335.56
LENGTH = 670.74
RADIUS = 8,186.00
PC STATION = 675+30.45
PT STATION = 682+01.19

SBELGPA7
PI STATION = 713+58.69
DELTA = 4° 22' 59.80" (LT)
DEGREE OF CURVE = 2° 15' 27.06"
TANGENT = 97.13
LENGTH = 194.16
RADIUS = 2,538.00
PC STATION = 712+61.57
PT STATION = 714+55.73

Describe Chain NBXBCRP

NBXBCRP1
PI STATION = 10+81.76
DELTA = 5° 05' 18.43" (RT)
DEGREE OF CURVE = 3° 06' 50.04"
TANGENT = 81.76
LENGTH = 163.41
RADIUS = 1,840.00
PC STATION = 10+00.00
PT STATION = 11+63.41

NBXBCRP2
PI STATION = 16+90.72
DELTA = 7° 20' 43.87" (LT)
DEGREE OF CURVE = 3° 08' 53.23"
TANGENT = 116.83
LENGTH = 233.33
RADIUS = 1,820.00
PC STATION = 15+73.89
PT STATION = 18+07.22

Describe Chain SBELGPB

SBELGPB1
PI STATION = 713+55.82
DELTA = 0° 45' 32.33" (LT)
DEGREE OF CURVE = 0° 42' 10.86"
TANGENT = 53.98
LENGTH = 107.96
RADIUS = 8,150.00
PC STATION = 713+01.84
PT STATION = 714+09.80

SBELGPB2
PI STATION = 739+48.91
DELTA = 48° 33' 14.40" (LT)
DEGREE OF CURVE = 2° 00' 07.55"
TANGENT = 1,290.77
LENGTH = 2,425.16
RADIUS = 2,861.79
PC STATION = 726+58.15
PT STATION = 750+83.31

SBELGPB3
PI STATION = 771+11.31
DELTA = 52° 10' 05.31" (RT)
DEGREE OF CURVE = 2° 39' 09.30"
TANGENT = 1,057.43
LENGTH = 1,966.69
RADIUS = 2,160.00
PC STATION = 760+53.88
PT STATION = 780+20.57

Describe Chain NBE360RP

NBE360RP1
PI STATION = 11+46.73
DELTA = 2° 06' 05.71" (LT)
DEGREE OF CURVE = 0° 42' 58.33"
TANGENT = 146.73
LENGTH = 293.43
RADIUS = 8,000.00
PC STATION = 10+00.00
PT STATION = 12+93.43

Describe Chain EXPLP360

EXPLP3601
PI STATION = 104+62.95
DELTA = 9° 21' 11.50" (RT)
DEGREE OF CURVE = 0° 55' 43.06"
TANGENT = 504.73
LENGTH = 1,007.20
RADIUS = 6,170.00
PC STATION = 99+58.22
PT STATION = 109+65.42

EXPLP3602
PI STATION = 117+70.58
DELTA = 16° 07' 59.20" (RT)
DEGREE OF CURVE = 1° 00' 30.78"
TANGENT = 805.16
LENGTH = 1,599.64
RADIUS = 5,681.08
PC STATION = 109+65.42
PT STATION = 125+65.06

Describe Chain SBEL360

SBEL3601
PI STATION = 1721+86.98
DELTA = 39° 56' 05.81" (LT)
DEGREE OF CURVE = 2° 16' 57.72"
TANGENT = 911.95
LENGTH = 1,749.46
RADIUS = 2,510.00
PC STATION = 1712+75.03
PT STATION = 1730+24.49

Describe Chain SBBCERCD

SBBCERCD1
PI STATION = 11+44.21
DELTA = 16° 38' 32.10" (LT)
DEGREE OF CURVE = 5° 48' 39.35"
TANGENT = 144.21
LENGTH = 286.40
RADIUS = 986.00
PC STATION = 10+00.00
PT STATION = 12+86.40

SBBCERCD2
PI STATION = 16+71.36
DELTA = 8° 08' 25.72" (RT)
DEGREE OF CURVE = 1° 03' 32.66"
TANGENT = 384.97
LENGTH = 768.64
RADIUS = 5,410.00
PC STATION = 12+86.40
PT STATION = 20+55.04

SBBCERCD3
PI STATION = 60+69.84
DELTA = 41° 05' 25.77" (LT)
DEGREE OF CURVE = 2° 16' 57.72"
TANGENT = 940.71
LENGTH = 1,800.08
RADIUS = 2,510.00
PC STATION = 51+29.13
PT STATION = 69+29.22

Describe Chain SBCDXR

SBCDXR1
PI STATION = 15+91.83
DELTA = 12° 29' 10.03" (RT)
DEGREE OF CURVE = 1° 03' 32.66"
TANGENT = 591.83
LENGTH = 1,178.97
RADIUS = 5,410.00
PC STATION = 10+00.00
PT STATION = 21+78.97

SBCDXR2
PI STATION = 24+30.94
DELTA = 14° 59' 57.71" (LT)
DEGREE OF CURVE = 2° 59' 36.64"
TANGENT = 251.97
LENGTH = 501.06
RADIUS = 1,914.00
PC STATION = 21+78.97
PT STATION = 26+80.03

Describe Chain SBX360ERP

SBX360ERP1
PI STATION = 17+26.36
DELTA = 64° 06' 27.26" (LT)
DEGREE OF CURVE = 4° 56' 21.45"
TANGENT = 726.36
LENGTH = 1,297.91
RADIUS = 1,160.00
PC STATION = 10+00.00
PT STATION = 22+97.91

SBX360ERP2
PI STATION = 25+86.66
DELTA = 6° 05' 14.52" (RT)
DEGREE OF CURVE = 2° 51' 53.24"
TANGENT = 106.34
LENGTH = 212.49
RADIUS = 2,000.00
PC STATION = 24+80.31
PT STATION = 26+92.80

SBX360ERP3
PI STATION = 29+41.17
DELTA = 24° 10' 12.41" (RT)
DEGREE OF CURVE = 4° 56' 21.45"
TANGENT = 248.37
LENGTH = 489.34
RADIUS = 1,160.00
PC STATION = 26+92.80
PT STATION = 31+82.14

Describe Chain SBX360RP

SBX360RP1
PI STATION = 12+32.14
DELTA = 9° 15' 55.58" (RT)
DEGREE OF CURVE = 2° 00' 00.00"
TANGENT = 232.14
LENGTH = 463.27
RADIUS = 2,864.79
PC STATION = 10+00.00
PT STATION = 14+63.27

SBX360RP2
PI STATION = 18+39.63
DELTA = 8° 39' 45.74" (LT)
DEGREE OF CURVE = 7° 59' 59.89"
TANGENT = 54.25
LENGTH = 108.28
RADIUS = 716.20
PC STATION = 17+85.39
PT STATION = 18+93.67

Describe Chain NBXBSRP

NBXBSRP1
PI STATION = 16+10.82
DELTA = 12° 53' 00.19" (RT)
DEGREE OF CURVE = 1° 03' 32.71"
TANGENT = 610.82
LENGTH = 1,216.46
RADIUS = 5,410.00
PC STATION = 10+00.00
PT STATION = 22+16.46

NBXBSRP2
PI STATION = 23+50.90
DELTA = 2° 50' 49.36" (LT)
DEGREE OF CURVE = 1° 03' 32.71"
TANGENT = 134.44
LENGTH = 268.82
RADIUS = 5,410.00
PC STATION = 22+16.46
PT STATION = 24+85.28

Describe Chain SBBSER

SBBSER1
PI STATION = 11+83.56
DELTA = 7° 19' 56.59" (LT)
DEGREE OF CURVE = 2° 00' 00.00"
TANGENT = 183.56
LENGTH = 366.62
RADIUS = 2,864.79
PC STATION = 10+00.00
PT STATION = 13+66.62

SBBSER2
PI STATION = 17+96.62
DELTA = 7° 19' 59.97" (RT)
DEGREE OF CURVE = 0° 51' 13.97"
TANGENT = 430.00
LENGTH = 858.82
RADIUS = 6,710.06
PC STATION = 13+66.62
PT STATION = 22+25.44

Describe Chain WBSB

WBSB5
PI STATION = 1028+93.93
DELTA = 9° 57' 02.10" (LT)
DEGREE OF CURVE = 1° 03' 22.82"
TANGENT = 472.18
LENGTH = 941.99
RADIUS = 5,424.00
PC STATION = 1024+21.75
PT STATION = 1033+63.74

Describe Chain SBE360RP

SBE360RP1
PI STATION = 19+82.19
DELTA = 55° 55' 44.75" (RT)
DEGREE OF CURVE = 3° 05' 49.45"
TANGENT = 982.19
LENGTH = 1,805.87
RADIUS = 1,850.00
PC STATION = 10+00.00
PT STATION = 28+05.87

Describe Chain BARSKYTA

BARSKYTA1
PI STATION = 13+80.48
DELTA = 84° 08' 33.63" (LT)
DEGREE OF CURVE = 100° 34' 11.01"
TANGENT = 58.67
LENGTH = 83.67
RADIUS = 65.00
PC STATION = 13+21.80
PT STATION = 14+05.47

BARSKYTA2
PI STATION = 17+60.01
DELTA = 97° 52' 42.12" (LT)
DEGREE OF CURVE = 100° 34' 11.01"
TANGENT = 74.61
LENGTH = 97.32
RADIUS = 65.00
PC STATION = 16+85.40
PT STATION = 17+82.72

TABLE OF CROSS SLOPES (%)

NORTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
	711+79	-2.0	+2.0	NORMAL CROWN TRANSITION
NBELGPA9	712+92	-4.3	+4.3	FULL SUPERELEVATION
	729+71	-4.3	+4.3	TRANSITION
	730+84	-2.0	+2.0	NORMAL CROWN
	738+57	-2.0	+2.0	TRANSITION
NBELGPA10	740+60	+2.2	-2.2	FULL SUPERELEVATION

TABLE OF CROSS SLOPES (%)

SOUTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
SBELGPA5	674+85	+4.1	-4.1	FULL SUPERELEVATION TRANSITION
	677+80	-2.0	+2.0	NORMAL CROWN
	711+92	-2.1	+2.1	

TABLE OF CROSS SLOPES (%)

SOUTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
	712+00	-2.0	+2.0	NORMAL CROWN
	724+15	-2.0	+2.0	TRANSITION
SBELGPB2	727+00	+3.9	-3.9	FULL SUPERELEVATION
	750+40	+3.9	-3.9	TRANSITION
	753+25	-2.0	+2.0	NORMAL CROWN
	759+40	-2.0	+2.0	TRANSITION
SBELGPB3	760+75	-4.8	+4.8	FULL SUPERELEVATION

TABLE OF CROSS SLOPES (%)

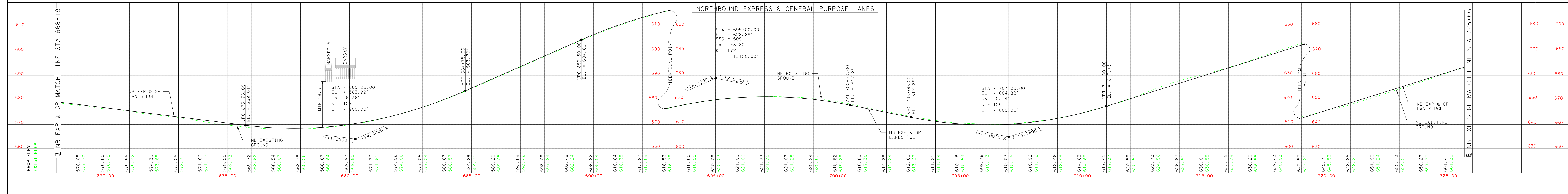
SOUTHBOUND EXPRESS LANES

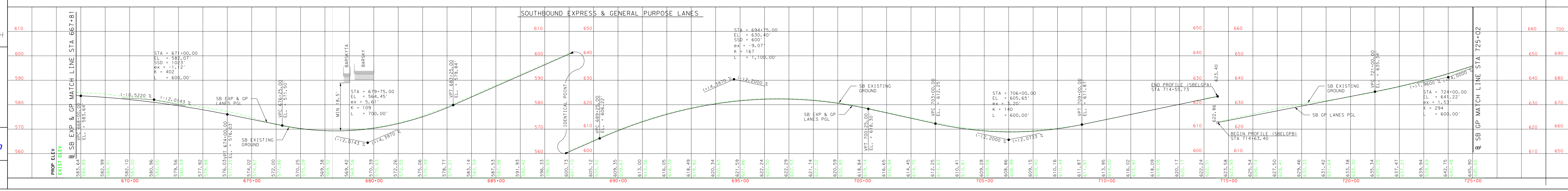
CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
	1709+85	-2.0	+2.0	NORMAL CROWN TRANSITION
SBEL3601	1713+26	+4.3	-4.3	FULL SUPERELEVATION
	1729+75	+4.3	-4.3	TRANSITION
	1733+15	-2.0	+2.0	NORMAL CROWN

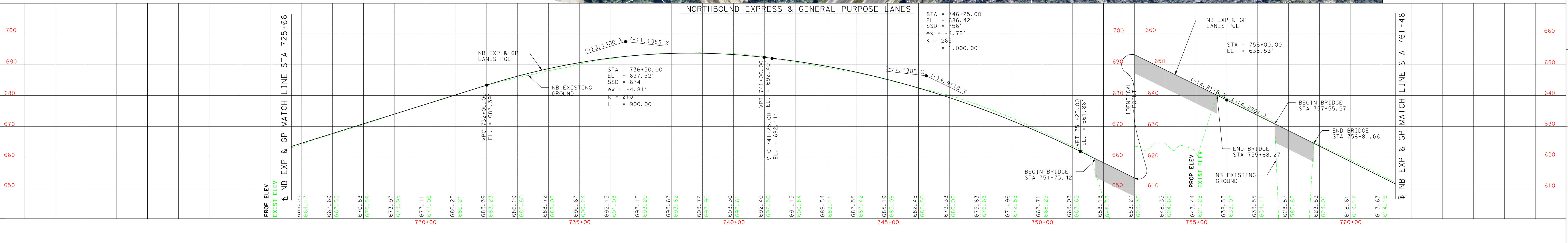
TABLE OF CROSS SLOPES (%)

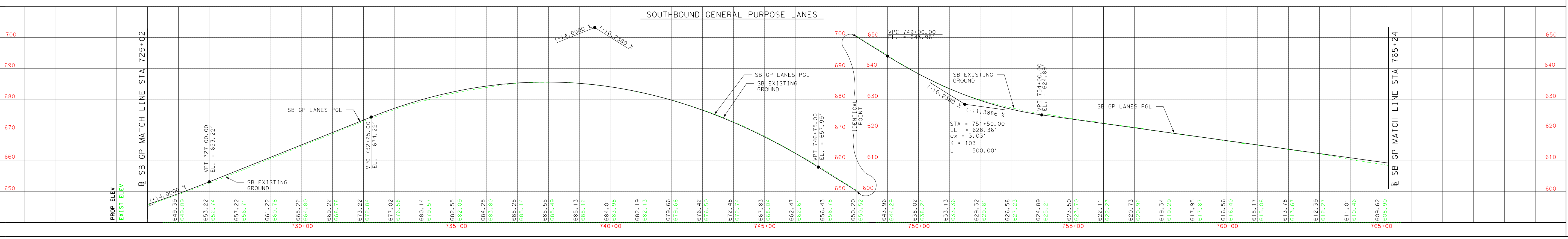
NORTHBOUND AND SOUTHBOUND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
	100+00	-2.0	+2.0	NORMAL CROWN TRANSITION
EXPLP3601 EXPLP3602 EXPLP3603	100+10	-2.2	+2.2	FULL SUPERELEVATION
	126+85	-2.2	+2.2	

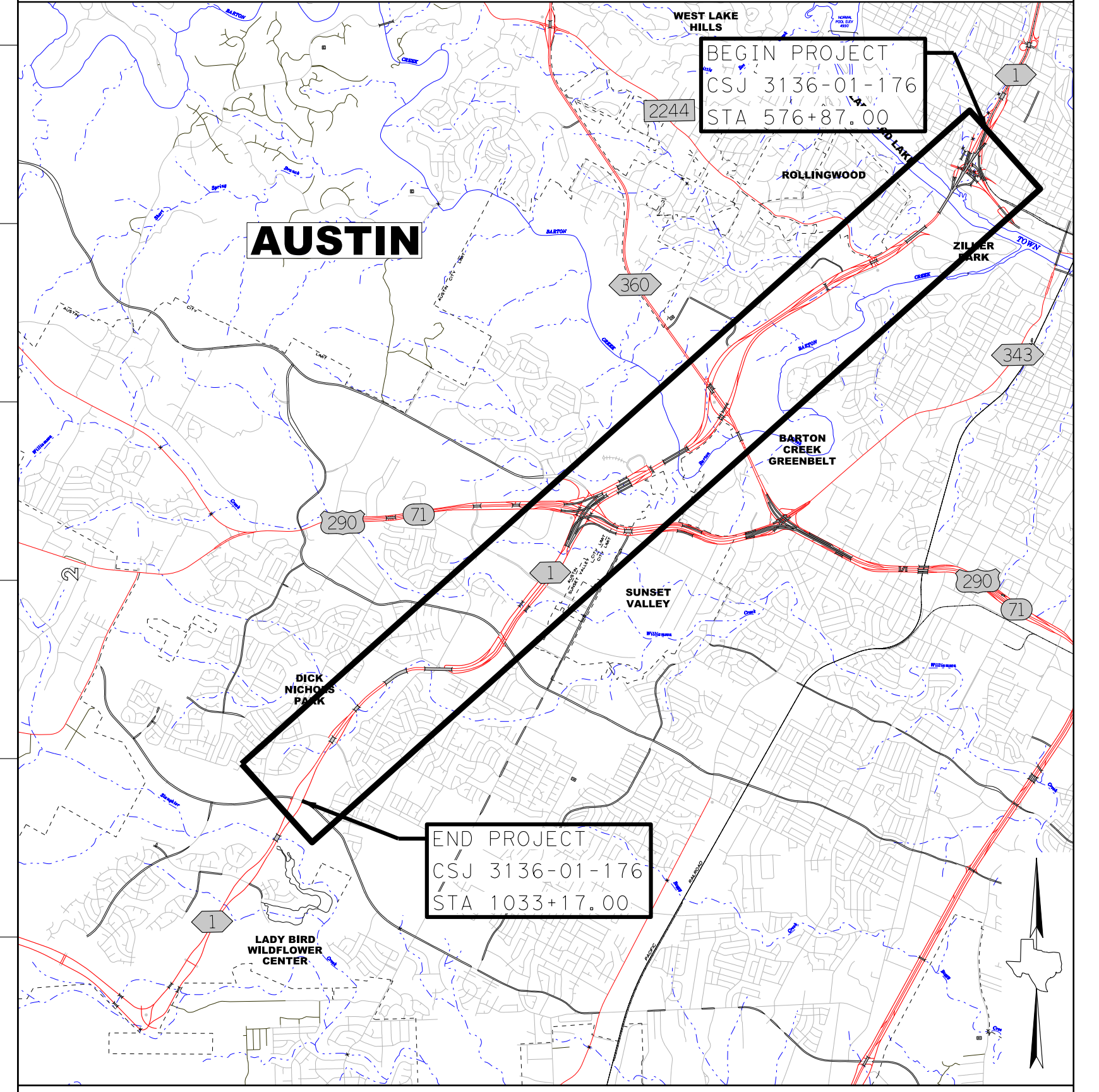

NORTHBOUND EXPRESS & GENERAL PURPOSE LANES
℄ NB EXP & GP MATCH LINE STA 668+19
PROP ELEV
EXIST ELEV
NB EXP & GP LANES PGL
VPC 675+75.00 EL. = 569.61'
NB EXISTING GROUND
BARSKYTA
BARSKY
MIN 18.5'
STA = 680+25.00
EL = 563.99'
ex = 6.36'
K = 159
L = 900.00'
(-)1.2500 %
(+)4.4000 %
VPT 684+75.00 EL. = 583.79'
VPC 689+50.00 EL. = 604.69'
IDENTICAL POINT
STA = 695+00.00
EL = 628.89'
SSD = 609'
ex = -8.80'
K = 172
L = 1,100.00'
(+)4.4000 %
(-)2.0000 %
NB EXISTING GROUND
VPT 700+50.00 EL. = 617.89'
VPC 703+00.00 EL. = 612.89'
NB EXP & GP LANES PGL
STA = 707+00.00
EL = 604.89'
ex = 5.14'
K = 156
L = 800.00'
(-)2.0000 %
(+)3.1400 %
VPT 711+00.00 EL. = 617.45'
IDENTICAL POINT
NB EXP & GP LANES PGL
NB EXISTING GROUND
℄ NB EXP & GP MATCH LINE STA 725+66
670+00
675+00
680+00
685+00
690+00
695+00
700+00
705+00
710+00
715+00
720+00
725+00


SOUTHBOUND EXPRESS & GENERAL PURPOSE LANES
℄ SB EXP & GP MATCH LINE STA 667+81
PROP ELEV
EXIST ELEV
VPC 668+00.00 EL. = 583.64'
STA = 671+00.00
EL = 582.07'
SSD = 1023'
ex = -1.12'
K = 402
L = 600.00'
(-)0.5220 %
(-)2.0143 %
SB EXP & GP LANES PGL
VPT 674+00.00 EL. = 576.03'
VPC 676+25.00 EL. = 571.50'
SB EXISTING GROUND
BARSKYTA
BARSKY
MIN 18.5'
STA = 679+75.00
EL = 564.45'
ex = 5.61'
K = 109
L = 700.00'
(-)2.0143 %
(+)4.3970 %
VPT 683+25.00 EL. = 579.84'
IDENTICAL POINT
VPC 689+25.00 EL. = 606.22'
STA = 694+75.00
EL = 630.40'
SSD = 600'
ex = -9.07'
K = 167
L = 1,100.00'
(+)4.3970 %
(-)2.2000 %
SB EXISTING GROUND
SB EXP & GP LANES PGL
VPT 700+25.00 EL. = 618.30'
VPC 703+00.00 EL. = 612.25'
STA = 706+00.00
EL = 605.65'
ex = 3.20'
K = 140
L = 600.00'
(-)2.2000 %
(+)2.0733 %
VPT 709+00.00 EL. = 611.87'
END PROFILE (SBELGPA) STA 714+55.73
623.40
622.86
BEGIN PROFILE (SBELGPB) STA 714+63.40
SB EXISTING GROUND
SB GP LANES PGL
VPT 721+00.00 EL. = 635.34'
(+)1.8600 %
(+)4.0000 %
STA = 724+00.00
EL = 641.22'
ex = 1.53'
K = 294
L = 600.00'
℄ SB GP MATCH LINE STA 725+02
670+00
675+00
680+00
685+00
690+00
695+00
700+00
705+00
710+00
715+00
720+00
725+00


NORTHBOUND EXPRESS & GENERAL PURPOSE LANES
℄ NB EXP & GP MATCH LINE STA 725+66
PROP ELEV
EXIST ELEV
NB EXP & GP LANES PGL
NB EXISTING GROUND
VPC 732+00.00 EL. = 683.39'
(+)3.1400 %
(-)1.1385 %
STA = 736+50.00
EL = 697.52'
SSD = 674'
ex = -4.81'
K = 210
L = 900.00'
VPT 741+00.00 EL. = 692.40'
VPC 741+25.00 EL. = 692.11'
STA = 746+25.00
EL = 686.42'
SSD = 756'
ex = -4.72'
K = 265
L = 1,000.00'
(-)1.1385 %
(-)4.9118 %
VPT 751+25.00 EL. = 661.86'
BEGIN BRIDGE STA 751+73.42
IDENTICAL POINT
(-)4.9118 %
(-)4.9801 %
STA = 756+00.00
EL = 638.53'
END BRIDGE STA 755+68.27
BEGIN BRIDGE STA 757+55.27
END BRIDGE STA 758+81.66
NB EXISTING GROUND
℄ NB EXP & GP MATCH LINE STA 761+48
730+00
735+00
740+00
745+00
750+00
755+00
760+00


SOUTHBOUND GENERAL PURPOSE LANES
℄ SB GP MATCH LINE STA 725+02
PROP ELEV
EXIST ELEV
(+)4.0000 %
VPT 727+00.00 EL. = 653.22'
SB EXISTING GROUND
SB GP LANES PGL
VPC 733+25.00 EL. = 674.22'
(+)4.0000 %
(-)6.2380 %
SB GP LANES PGL
SB EXISTING GROUND
VPT 746+75.00 EL. = 657.99'
IDENTICAL POINT
VPC 749+00.00 EL. = 645.96'
(-)6.2380 %
(-)1.3886 %
SB EXISTING GROUND
STA = 751+50.00
EL = 628.36'
ex = 3.03'
K = 103
L = 500.00'
VPT 754+00.00 EL. = 624.89'
SB GP LANES PGL
℄ SB GP MATCH LINE STA 765+24
730+00
735+00
740+00
745+00
750+00
755+00
760+00
765+00

PRELIMINARY DESIGN SCHEMATIC OF
MOPAC SOUTH ENVIRONMENTAL STUDY
CSJ: 3136-01-176
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.
SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.
TRAVIS COUNTY
LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE
SHEET 2 OF 9


WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 576+87.00
ROLLINGWOOD
AUSTIN
ZILKER PARK
BARTON CREEK GREENBELT
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER
2244
360
343
290
71
1

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD
PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING
BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.
SCALE: 1:100 H
1:10 V
MOPAC SOUTH
ENVIRONMENTAL STUDY
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation
AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474

11/11/2024
2:20:32 PM

PRELIMINARY DESIGN SCHEMATIC OF
MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176

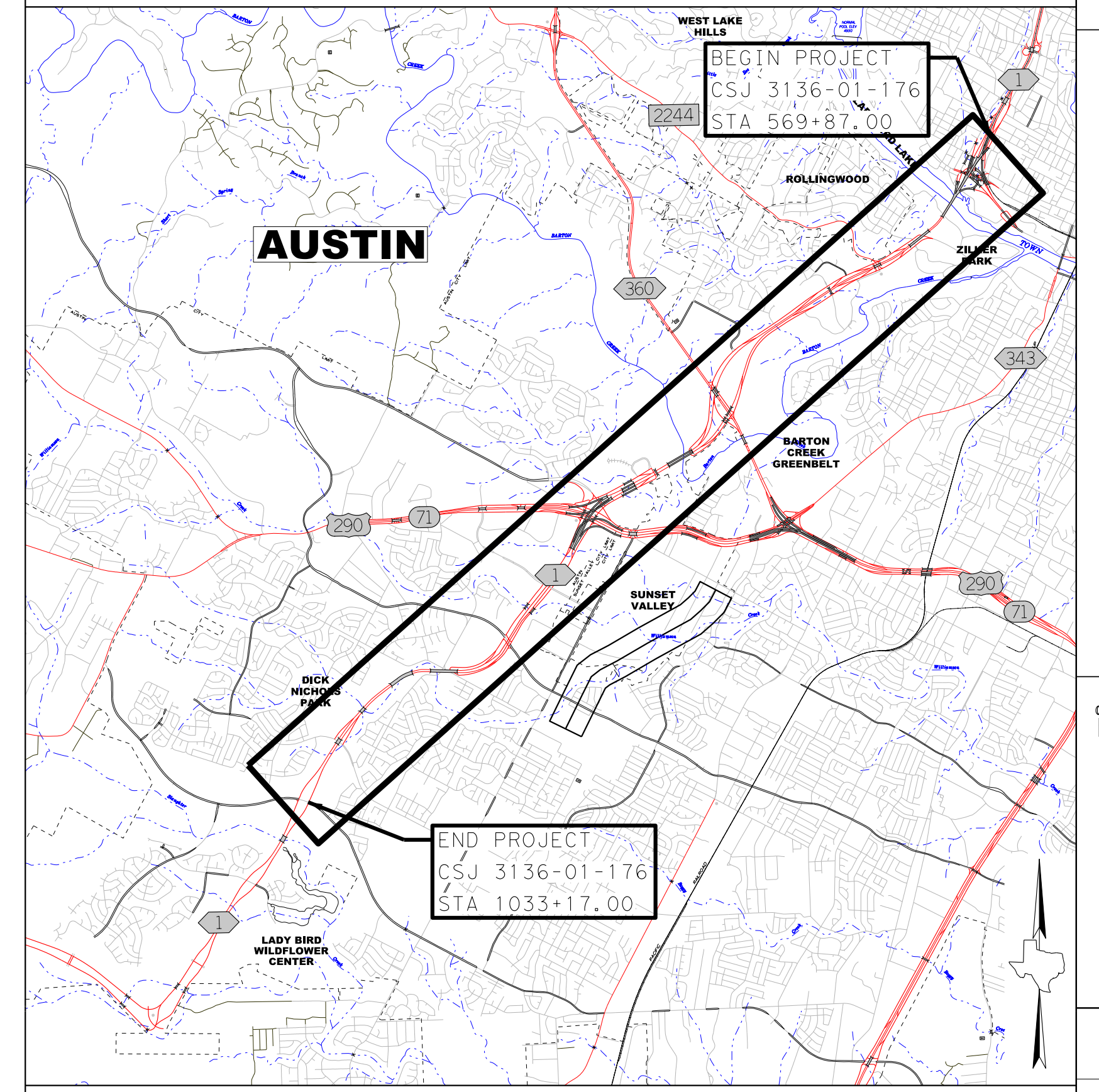
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.

SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.

TRAVIS COUNTY

LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE

SHEET 3 OF 9


WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 569+87.00
2244
ROLLINGWOOD
AUSTIN
360
ZILKER PARK
343
BARTON CREEK GREENBELT
290
71
1
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH

FUNCTIONAL CLASSIFICATION: URBAN FREEWAY

TERRAIN: ROLLING

EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH

COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH

DIRECT CONNECTOR DESIGN SPEED: 40 MPH

RAMP DESIGN SPEED: 40 MPH

MAX SUPERELEVATION: 8%

EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD

PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

SCALE: 1:100 H
1:10 V

MoPAC SOUTH
ENVIRONMENTAL STUDY

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

Texas Department of Transportation

AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474

PRELIMINARY
SUBJECT TO CHANGE

0 50 100 200
MATCH LINE INSET "A"
US 290
INSET "A"
AT HOME
HOMEGOODS
PAY BY MAIL
OAK HILL MINI'S
OAK HILL GOLF RANGE
ENTRANCE
ONLY
EXPRESS INGRESS
2244 Bee Caves Rd
Cesar Chavez St
5th St
US290DC
END CONSTRUCTION STA 264+65.00
MONTEREY OAKS BLVD
Cesar Chavez St
Windsor Rd
EXPRESS LANE
ENTRANCE 1 MILE LEFT LANE
360 NORTH Capital of Tx Hwy EXIT ONLY
NBELGPA11
NBX360RP2
NBX360RP1
NBX360RP
NBELA2
NBELA1
NBELGPA10
EXPLP3603
EXPLP360
TOLL GANTRY
BLLP01-6
SBELGPB3
SBE360RP1
SBELA1
SBELA2
MATCH LINE STA 765+00
BARTON CREEK GREENBELT
BLLP01
NBELA
NBELGPA
SBELGPB
SBXSPRP
SBELA
S 59° 07' 40.37" W
785+00
790+00
795+00
MOPAC
EXIST. R.O.W.
290 EXIT ONLY
East 290 71 Southwest Pkwy
West 290
William Cannon EXIT 1 MILE
BARTON CREEK WILDERNESS PARK
AMERICAN CONTRACTORS INC
CSGCT
CSGCT-1
CSGCT-2
CSGCT-5
CSGCT-7
US290NBERDC
US290NBERDC1
US290NBERDC2
US290NBERDC3
US290SBERDC
NBESPRP
NBESPRP1
NBESPRP2
NBELGPB1
NBELGPB2
NBELA3
NBELA4
SBELGPB4
SBELA3
SBXSPRP1
SBXSPRP2
GAINES RANCH LOOP
GAINES CREEK
GAINES CREEK GREENBELT
HERITAGE AT GAINES RANCH
LA QUINTA INN & SUITES
DCEN
NBELA6
NBELGPB3
SOUTHWEST PARKWAY
SBELGPB5
SBELA4
US290DC
SBELGPB
US290DC
MATCH LINE INSET "A"
NBELGPB4
NBELA8
SBELA5
SBELGPB6
SBELXRCD2
EXPRESS EGRESS
DCWS
SBWCXR
SBWCXR1
SBELXRCD1
William Cannon Dr
EXPRESS LANE 1 William Cannon Dr
MATCH LINE STA 847+00
BURGER KING
800+00
805+00
810+00
815+00
820+00
825+00
830+00
835+00

LEGEND
- ▭ EXISTING RIGHT-OF-WAY
- ▭ EXISTING PARCEL LIMITS
- Ⓧ PROPOSED NUMBER OF LANES
- 🟦 100-YR FLOOD PLAIN
- 🟨 ROADWAY RESURFACING
- 🟫 ROADWAY WIDENING
- 🟥 ROADWAY
- 🟦 BRIDGE
- 🟪 BRIDGE WIDENING
- 🟧 POND
- 🟩 VEGETATIVE FILTER STRIP
- ━ DRAINAGE PIPE
- ━ SHARED USE PATH/SIDEWALK
- - - VIOLET CROWN TRAIL
- - - CITY OF AUSTIN TRAIL
- - - EXISTING URBAN TRAIL
- ━ RETAINING WALL
- - - BENT LOCATIONS
- — G — GAS LINE
- — OE — OVERHEAD ELECTRIC
- — WW — WASTEWATER LINE
- — W — WATER LINE
- ━ PROPOSED CONSTRUCTION EASEMENT

NORTHBOUND EXPRESS & GENERAL PURPOSE LANES
℄ NB EXP & GP MATCH LINE STA 761+48
PROP ELEV
EXIST ELEV
VPC 764+00.00 EL. = 598.69'
STA = 768+50.00 EL = 576.28' ex = 9.28' K = 109 L = 900.00'
NB GP LANES PGL
VPT 773+00.00 EL. = 591.00'
BEGIN BRIDGE STA 778+74.29
NB EXISTING GROUND
IDENTICAL POINT
END BRIDGE STA 790+91.01
STA = 807+00.00 EL = 702.10' SSD = 770' ex = -0.95' K = 211 L = 400.00'
BEGIN BRIDGE STA 808+86.02
END BRIDGE STA 815+30.54
STA = 816+50.00 EL = 715.20' ex = 1.17' K = 170 L = 400.00'
STA = 825+00.00 EL = 746.86' SSD = 660' ex = -2.62' K = 202 L = 650.00'
BEGIN BRIDGE STA 823+55.00
STA = 832+00.00 EL = 750.36' SSD = 1106' ex = -0.34' K = 227 L = 250.00'
MIN 16.5'
EX. 290 DC WS
STA = 836+18.00 EL = 747.85' SSD = 921' ex = -0.53' K = 214 L = 300.00'
END BRIDGE STA 836+30.00
℄ NB GP MATCH LINE STA 845+84
SOUTHBOUND EXPRESS & GENERAL PURPOSE LANES
℄ SB GP MATCH LINE STA 765+24
SB EXISTING GROUND
SB GP LANES PGL
VPC 772+05.00 EL. = 599.83'
STA = 774+55.00 EL = 596.36' ex = 2.74' K = 114 L = 500.00'
VPT 777+05.00 EL. = 603.86'
BEGIN BRIDGE STA 779+29.87
END BRIDGE STA 793+24.90
STA = 797+00.00 EL = 663.75'
MIN 16.5' CSGCT
STA = 807+00.00 EL = 696.47' SSD = 853' ex = -1.66' K = 318 L = 650.00'
BEGIN BRIDGE STA 810+30.15
STA = 813+50.00 EL = 704.45' ex = 0.66' K = 169 L = 300.00'
END BRIDGE STA 816+73.15
STA = 820+00.00 EL = 723.95' ex = 0.26' K = 193 L = 200.00'
STA = 824+70.00 EL = 742.92' SSD = 680' ex = -0.46' K = 108 L = 200.00'
BEGIN BRIDGE STA 826+56.00
STA = 829+85.00 EL = 754.13' SSD = 553' ex = -1.00' K = 112 L = 300.00'
EX. 290 DC EN
END BRIDGE STA 841+10.00
STA = 841+50.00 EL = 748.30' SSD = 470' ex = -1.27' K = 89 L = 300.00'
STA = 847+00.00 EL = 727.00' ex = 1.17' K = 96 L = 300.00'
℄ SB GP MATCH LINE STA 849+23

Describe Chain BLLP01

BLLP01-6
PI STATION = 772+78.69
DELTA = 49° 49′ 02.58" (RT)
DEGREE OF CURVE = 3° 00′ 00.00"
TANGENT = 886.88
LENGTH = 1,660.58
RADIUS = 1,909.86
PC STATION = 763+91.81
PT STATION = 780+52.39

BLLP01-7
PI STATION = 811+64.99
DELTA = 4° 20′ 00.44" (RT)
DEGREE OF CURVE = 1° 00′ 00.00"
TANGENT = 216.78
LENGTH = 433.35
RADIUS = 5,729.58
PC STATION = 809+48.22
PT STATION = 813+81.56

BLLP01-8
PI STATION = 830+23.83
DELTA = 37° 55′ 29.76" (LT)
DEGREE OF CURVE = 2° 59′ 52.76"
TANGENT = 656.66
LENGTH = 1,265.01
RADIUS = 1,911.14
PC STATION = 823+67.17
PT STATION = 836+32.18

Describe Chain SBELGPB

SBELGPB3
PI STATION = 771+11.31
DELTA = 52° 10′ 05.31" (RT)
DEGREE OF CURVE = 2° 39′ 09.30"
TANGENT = 1,057.43
LENGTH = 1,966.69
RADIUS = 2,160.00
PC STATION = 760+53.88
PT STATION = 780+20.57

SBELGPB4
PI STATION = 802+55.32
DELTA = 2° 01′ 29.34" (RT)
DEGREE OF CURVE = 0° 28′ 38.87"
TANGENT = 212.06
LENGTH = 424.08
RADIUS = 12,000.00
PC STATION = 800+43.26
PT STATION = 804+67.34

SBELGPB5
PI STATION = 825+58.05
DELTA = 5° 53′ 04.01" (LT)
DEGREE OF CURVE = 0° 42′ 10.86"
TANGENT = 418.88
LENGTH = 837.03
RADIUS = 8,150.00
PC STATION = 821+39.16
PT STATION = 829+76.19

SBELGPB6
PI STATION = 834+22.11
DELTA = 33° 06′ 43.22" (LT)
DEGREE OF CURVE = 3° 49′ 10.99"
TANGENT = 445.92
LENGTH = 866.87
RADIUS = 1,500.00
PC STATION = 829+76.19
PT STATION = 838+43.06

Describe Chain SBELA

SBELA1
PI STATION = 1765+34.80
DELTA = 0° 42′ 20.65" (RT)
DEGREE OF CURVE = 1° 00′ 50.00"
TANGENT = 34.80
LENGTH = 69.61
RADIUS = 5,651.09
PC STATION = 1765+00.00
PT STATION = 1765+69.61

SBELA2
PI STATION = 1771+42.86
DELTA = 17° 18′ 13.69" (RT)
DEGREE OF CURVE = 1° 31′ 15.01"
TANGENT = 573.26
LENGTH = 1,137.78
RADIUS = 3,767.39
PC STATION = 1765+69.61
PT STATION = 1777+07.39

SBELA3
PI STATION = 1800+56.24
DELTA = 1° 50′ 25.61" (RT)
DEGREE OF CURVE = 0° 28′ 38.87"
TANGENT = 192.75
LENGTH = 385.46
RADIUS = 12,000.00
PC STATION = 1798+63.49
PT STATION = 1802+48.95

SBELA4
PI STATION = 1828+71.76
DELTA = 35° 25′ 54.93" (LT)
DEGREE OF CURVE = 2° 55′ 17.59"
TANGENT = 626.48
LENGTH = 1,212.78
RADIUS = 1,961.14
PC STATION = 1822+45.28
PT STATION = 1834+58.06

SBELA5
PI STATION = 1842+25.65
DELTA = 1° 57′ 25.77" (LT)
DEGREE OF CURVE = 0° 28′ 35.44"
TANGENT = 205.38
LENGTH = 410.73
RADIUS = 12,024.00
PC STATION = 1840+20.26
PT STATION = 1844+30.99

SBELA6
PI STATION = 1846+35.54
DELTA = 1° 57′ 25.77" (RT)
DEGREE OF CURVE = 0° 28′ 42.46"
TANGENT = 204.55
LENGTH = 409.05
RADIUS = 11,975.00
PC STATION = 1844+30.99
PT STATION = 1848+40.04

Describe Chain EXPLP360

EXPLP3603
PI STATION = 118+49.11
DELTA = 16° 58′ 58.65" (RT)
DEGREE OF CURVE = 1° 00′ 30.73"
TANGENT = 848.18
LENGTH = 1,683.92
RADIUS = 5,681.08
PC STATION = 110+00.93
PT STATION = 126+84.85

Describe Chain NBELA

NBELA1
PI STATION = 1767+24.57
DELTA = 4° 32′ 47.69" (RT)
DEGREE OF CURVE = 1° 00′ 11.70"
TANGENT = 226.71
LENGTH = 453.18
RADIUS = 5,711.09
PC STATION = 1764+97.86
PT STATION = 1769+51.04

NBELA2
PI STATION = 1774+05.43
DELTA = 13° 35′ 49.67" (RT)
DEGREE OF CURVE = 1° 30′ 11.96"
TANGENT = 454.38
LENGTH = 904.47
RADIUS = 3,811.39
PC STATION = 1769+51.04
PT STATION = 1778+55.52

NBELA3
PI STATION = 1800+77.66
DELTA = 4° 26′ 17.90" (LT)
DEGREE OF CURVE = 0° 42′ 10.87"
TANGENT = 315.82
LENGTH = 631.32
RADIUS = 8,150.00
PC STATION = 1797+61.84
PT STATION = 1803+93.16

NBELA4
PI STATION = 1807+37.67
DELTA = 8° 46′ 44.02" (RT)
DEGREE OF CURVE = 1° 16′ 36.01"
TANGENT = 344.50
LENGTH = 687.64
RADIUS = 4,488.00
PC STATION = 1803+93.16
PT STATION = 1810+80.80

NBELA5
PI STATION = 1819+99.17
DELTA = 0° 32′ 00.54" (LT)
DEGREE OF CURVE = 0° 07′ 09.72"
TANGENT = 223.47
LENGTH = 446.93
RADIUS = 48,000.00
PC STATION = 1817+75.71
PT STATION = 1822+22.64

NBELA6
PI STATION = 1828+52.55
DELTA = 37° 23′ 49.88" (LT)
DEGREE OF CURVE = 3° 04′ 44.04"
TANGENT = 629.91
LENGTH = 1,214.63
RADIUS = 1,861.14
PC STATION = 1822+22.64
PT STATION = 1834+37.26

NBELA7
PI STATION = 1841+57.38
DELTA = 1° 58′ 46.55" (RT)
DEGREE OF CURVE = 0° 28′ 35.45"
TANGENT = 207.74
LENGTH = 415.43
RADIUS = 12,024.00
PC STATION = 1839+49.65
PT STATION = 1843+65.08

NBELA8
PI STATION = 1845+62.63
DELTA = 1° 58′ 46.55" (LT)
DEGREE OF CURVE = 0° 30′ 03.96"
TANGENT = 197.55
LENGTH = 395.05
RADIUS = 11,434.07
PC STATION = 1843+65.08
PT STATION = 1847+60.13

Describe Chain NBELGPA

NBELGPA10
PI STATION = 755+33.04
DELTA = 29° 25′ 08.04" (RT)
DEGREE OF CURVE = 1° 00′ 01.25"
TANGENT = 1,503.61
LENGTH = 2,940.87
RADIUS = 5,727.59
PC STATION = 740+29.42
PT STATION = 769+70.29

NBELGPA11
PI STATION = 774+17.88
DELTA = 13° 22′ 16.34" (RT)
DEGREE OF CURVE = 1° 30′ 01.88"
TANGENT = 447.59
LENGTH = 891.10
RADIUS = 3,818.39
PC STATION = 769+70.29
PT STATION = 778+61.39

Describe Chain NBELGPB

NBELGPB1
PI STATION = 800+52.45
DELTA = 4° 28′ 11.47" (LT)
DEGREE OF CURVE = 0° 42′ 03.44"
TANGENT = 319.00
LENGTH = 637.68
RADIUS = 8,174.00
PC STATION = 797+33.44
PT STATION = 803+71.12

NBELGPB2
PI STATION = 809+62.30
DELTA = 8° 19′ 19.50" (RT)
DEGREE OF CURVE = 0° 42′ 18.35"
TANGENT = 591.18
LENGTH = 1,180.28
RADIUS = 8,126.00
PC STATION = 803+71.12
PT STATION = 815+51.40

NBELGPB3
PI STATION = 828+13.01
DELTA = 34° 01′ 11.02" (LT)
DEGREE OF CURVE = 1° 23′ 21.69"
TANGENT = 1,261.61
LENGTH = 2,448.59
RADIUS = 4,124.00
PC STATION = 815+51.40
PT STATION = 839+99.99

NBELGPB4
PI STATION = 845+49.02
DELTA = 5° 30′ 14.20" (LT)
DEGREE OF CURVE = 0° 30′ 05.86"
TANGENT = 549.03
LENGTH = 1,097.22
RADIUS = 11,422.00
PC STATION = 839+99.99
PT STATION = 850+97.20

Describe Chain SBE360RP

SBE360RP1
PI STATION = 19+82.19
DELTA = 55° 55′ 44.75" (RT)
DEGREE OF CURVE = 3° 05′ 49.45"
TANGENT = 982.19
LENGTH = 1,805.87
RADIUS = 1,850.00
PC STATION = 10+00.00
PT STATION = 28+05.87

Describe Chain NBX360RP

NBX360RP1
PI STATION = 11+49.39
DELTA = 17° 20′ 04.60" (RT)
DEGREE OF CURVE = 5° 50′ 47.43"
TANGENT = 149.39
LENGTH = 296.50
RADIUS = 980.00
PC STATION = 10+00.00
PT STATION = 12+96.50

NBX360RP2
PI STATION = 19+72.04
DELTA = 2° 14′ 40.90" (LT)
DEGREE OF CURVE = 2° 00′ 00.00"
TANGENT = 56.12
LENGTH = 112.23
RADIUS = 2,864.79
PC STATION = 19+15.92
PT STATION = 20+28.15

Describe Chain SBXSPRP

SBXSPRP1
PI STATION = 12+96.84
DELTA = 5° 03′ 57.67" (RT)
DEGREE OF CURVE = 0° 51′ 14.02"
TANGENT = 296.84
LENGTH = 593.28
RADIUS = 6,710.00
PC STATION = 10+00.00
PT STATION = 15+93.28

SBXSPRP2
PI STATION = 23+72.30
DELTA = 5° 24′ 53.97" (LT)
DEGREE OF CURVE = 1° 25′ 56.75"
TANGENT = 189.16
LENGTH = 378.03
RADIUS = 4,000.00
PC STATION = 21+83.14
PT STATION = 25+61.16

Describe Chain NBESPRP

NBESPRP1
PI STATION = 12+55.63
DELTA = 7° 18′ 48.16" (LT)
DEGREE OF CURVE = 1° 25′ 56.75"
TANGENT = 255.63
LENGTH = 510.56
RADIUS = 4,000.00
PC STATION = 10+00.00
PT STATION = 15+10.56

NBESPRP2
PI STATION = 19+36.68
DELTA = 8° 40′ 49.81" (RT)
DEGREE OF CURVE = 1° 54′ 35.81"
TANGENT = 227.69
LENGTH = 454.49
RADIUS = 3,000.00
PC STATION = 17+08.99
PT STATION = 21+63.48

Describe Chain CSGCT

CSGCT1
PI STATION = 11+72.86
DELTA = 3° 56′ 04.17" (RT)
DEGREE OF CURVE = 1° 16′ 23.76"
TANGENT = 154.57
LENGTH = 309.01
RADIUS = 4,500.00
PC STATION = 10+18.30
PT STATION = 13+27.30

CSGCT2
PI STATION = 15+68.30
DELTA = 1° 20′ 32.84" (RT)
DEGREE OF CURVE = 0° 42′ 58.33"
TANGENT = 93.73
LENGTH = 187.44
RADIUS = 8,000.00
PC STATION = 14+74.57
PT STATION = 16+62.01

CSGCT3
PI STATION = 17+44.51
DELTA = 1° 10′ 53.97" (LT)
DEGREE OF CURVE = 0° 42′ 58.33"
TANGENT = 82.50
LENGTH = 164.99
RADIUS = 8,000.00
PC STATION = 16+62.01
PT STATION = 18+27.00

CSGCT4
PI STATION = 21+50.59
DELTA = 94° 01′ 28.55" (LT)
DEGREE OF CURVE = 100° 34′ 11.01"
TANGENT = 69.73
LENGTH = 93.49
RADIUS = 65.00
PC STATION = 20+80.85
PT STATION = 21+74.35

CSGCT5
PI STATION = 26+06.98
DELTA = 90° 22′ 56.05" (LT)
DEGREE OF CURVE = 100° 34′ 11.01"
TANGENT = 65.44
LENGTH = 89.87
RADIUS = 65.00
PC STATION = 25+41.55
PT STATION = 26+31.42

CSGCT6
PI STATION = 28+01.56
DELTA = 0° 54′ 21.37" (RT)
DEGREE OF CURVE = 0° 57′ 17.79"
TANGENT = 47.44
LENGTH = 94.87
RADIUS = 6,000.00
PC STATION = 27+54.13
PT STATION = 28+49.00

CSGCT7
PI STATION = 28+96.43
DELTA = 0° 54′ 21.36" (LT)
DEGREE OF CURVE = 0° 57′ 17.79"
TANGENT = 47.44
LENGTH = 94.87
RADIUS = 6,000.00
PC STATION = 28+49.00
PT STATION = 29+43.86

Describe Chain US290NBERDC

US290NBERDC1
PI STATION = 101+56.09
DELTA = 3° 18′ 19.34" (RT)
DEGREE OF CURVE = 1° 03′ 32.71"
TANGENT = 156.09
LENGTH = 312.10
RADIUS = 5,410.00
PC STATION = 100+00.00
PT STATION = 103+12.10

US290NBERDC2
PI STATION = 104+68.19
DELTA = 3° 18′ 19.34" (LT)
DEGREE OF CURVE = 1° 03′ 32.71"
TANGENT = 156.09
LENGTH = 312.10
RADIUS = 5,410.00
PC STATION = 103+12.10
PT STATION = 106+24.19

US290NBERDC3
PI STATION = 110+28.85
DELTA = 2° 12′ 49.47" (RT)
DEGREE OF CURVE = 1° 03′ 32.71"
TANGENT = 104.53
LENGTH = 209.02
RADIUS = 5,410.00
PC STATION = 109+24.32
PT STATION = 111+33.34

Describe Chain US290DC

US290DC1
PI STATION = 213+71.27
DELTA = 37° 03′ 21.22" (RT)
DEGREE OF CURVE = 3° 15′ 47.88"
TANGENT = 588.50
LENGTH = 1,135.53
RADIUS = 1,756.00
PC STATION = 207+82.77
PT STATION = 219+18.30

US290DC2
PI STATION = 223+62.67
DELTA = 9° 23′ 28.50" (LT)
DEGREE OF CURVE = 1° 03′ 32.71"
TANGENT = 444.37
LENGTH = 886.73
RADIUS = 5,410.00
PC STATION = 219+18.30
PT STATION = 228+05.03

Describe Chain US290SBERDC

US290SBERDC1
PI STATION = 107+14.44
DELTA = 2° 12′ 49.47" (RT)
DEGREE OF CURVE = 1° 03′ 32.71"
TANGENT = 104.53
LENGTH = 209.02
RADIUS = 5,410.00
PC STATION = 106+09.91
PT STATION = 108+18.93

Describe Chain DCEN

DCEN1
PI STATION = 52+52.75
DELTA = 8° 07′ 29.95" (LT)
DEGREE OF CURVE = 2° 00′ 00.37"
TANGENT = 203.47
LENGTH = 406.23
RADIUS = 2,864.79
PC STATION = 50+49.29
PT STATION = 54+55.52

Describe Chain SBWCXR

SBWCXR1
PI STATION = 12+05.25
DELTA = 4° 20′ 43.54" (RT)
DEGREE OF CURVE = 1° 03′ 32.66"
TANGENT = 205.25
LENGTH = 410.31
RADIUS = 5,410.00
PC STATION = 10+00.00
PT STATION = 14+10.31

Describe Chain SBELXRCD

SBELXRCD1
PI STATION = 11+73.23
DELTA = 1° 39′ 14.81" (RT)
DEGREE OF CURVE = 0° 28′ 38.87"
TANGENT = 173.23
LENGTH = 346.44
RADIUS = 12,000.00
PC STATION = 10+00.00
PT STATION = 13+46.44

SBELXRCD2
PI STATION = 15+19.64
DELTA = 1° 39′ 14.81" (LT)
DEGREE OF CURVE = 0° 28′ 39.16"
TANGENT = 173.20
LENGTH = 346.38
RADIUS = 11,998.00
PC STATION = 13+46.44
PT STATION = 16+92.82

TABLE OF CROSS SLOPES (%)
NORTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
NBELGPA10	769+50	+2.2	-2.2	FULL SUPERELEVATION
				TRANSITION
NBELGPA11	769+90	+3.0	-3.0	FULL SUPERELEVATION
	778+25	+3.0	-3.0	
				TRANSITION
	780+66	-2.0	+2.0	NORMAL CROWN
	793+34	-2.0	+2.0	

TABLE OF CROSS SLOPES (%)
NORTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
	793+34	-2.0	+2.0	NORMAL CROWN
	815+30	-2.0	+2.0	
				TRANSITION
NBELGPB3	815+60	-2.8	+2.8	FULL SUPERELEVATION
	839+95	-2.8	+2.8	
				TRANSITION
	840+25	-2.0	+2.0	NORMAL CROWN

TABLE OF CROSS SLOPES (%)
NORTHBOUND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
NBELA1	1764+98	+2.2	-2.2	FULL SUPERELEVATION
	1768+90	+2.2	-2.2	
				TRANSITION
NBELA2	1769+65	+3.0	-3.0	FULL SUPERELEVATION
	1777+85	+3.0	-3.0	
				TRANSITION
	1782+40	-2.0	+2.0	NORMAL CROWN
	1800+40	-2.0	+2.0	
				TRANSITION
NBELA4	1804+55	+2.6	-2.6	FULL SUPERELEVATION
	1810+20	+2.6	-2.6	
				TRANSITION
	1814+35	-2.0	+2.0	NORMAL CROWN
	1819+67	-2.0	+2.0	
				TRANSITION
NBELA6	1822+68	-5.5	+5.5	FULL SUPERELEVATION
	1824+97	-5.5	+5.5	MATCH EXISTING BRIDGE CROSS SLOPE
	1836+93	-2.0	+2.0	NORMAL CROWN

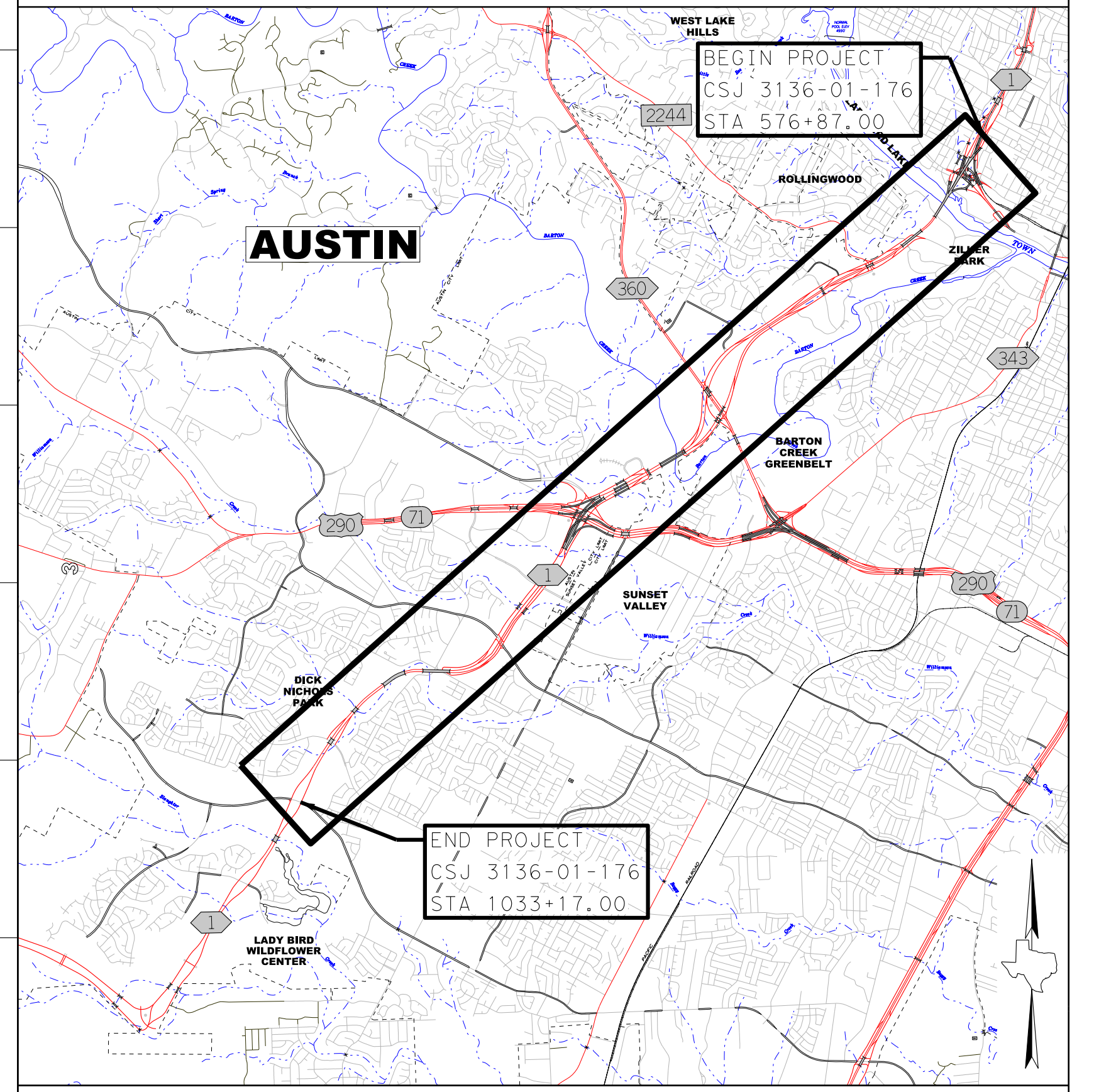
TABLE OF CROSS SLOPES (%)
SOUTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
SBELGPB3	780+00	-4.8	+4.8	FULL SUPERELEVATION
				TRANSITION
	781+35	-2.0	+2.0	NORMAL CROWN
	827+40	-2.0	+2.0	
				TRANSITION
SBELGPB6	830+35	+6.2	-6.2	FULL SUPERELEVATION
	837+80	+6.2	-6.2	
				TRANSITION
	840+80	-2.0	+2.0	NORMAL CROWN

TABLE OF CROSS SLOPES (%)
SOUTHBOUND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
SBELA1	1765+00	-2.2	+2.2	FULL SUPERELEVATION
	1765+15	-2.2	+2.2	
				TRANSITION
SBELA2	1765+80	-3.1	+3.1	FULL SUPERELEVATION
	1776+95	-3.1	+3.1	
				TRANSITION
	1777+75	-2.0	+2.0	NORMAL CROWN
	1817+85	-2.0	+2.0	
				TRANSITION
SBELA4	1823+25	+5.5	-5.5	FULL SUPERELEVATION
	1824+67	+5.5	-5.5	MATCH EXISTING BRIDGE CROSS SLOPE
	1837+25	+0.3	-0.3	
				TRANSITION
	1839+20	-2.0	+2.0	NORMAL CROWN

PRELIMINARY DESIGN SCHEMATIC OF
MOPAC SOUTH ENVIRONMENTAL STUDY
CSJ: 3136-01-176
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.
SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.
TRAVIS COUNTY
LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE
SHEET 3 OF 9
BEGIN PROJECT CSJ 3136-01-176 STA 576+87.00
END PROJECT CSJ 3136-01-176 STA 1033+17.00
EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD
PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING
BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.
SCALE: 1:100 H
1:10 V
MoPAC SOUTH
ENVIRONMENTAL STUDY
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation
AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474



PRELIMINARY DESIGN SCHEMATIC OF MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176

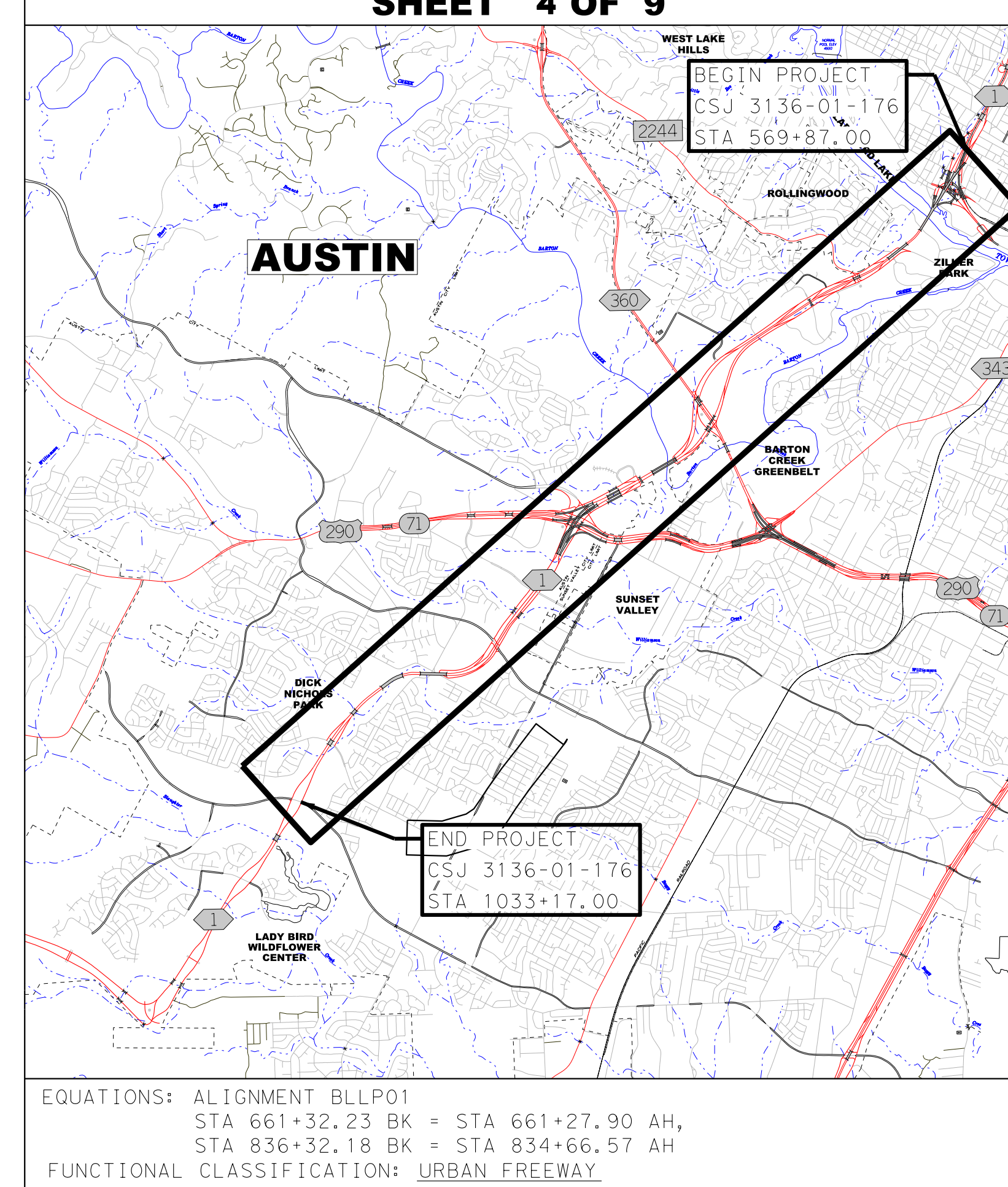
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.

SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.

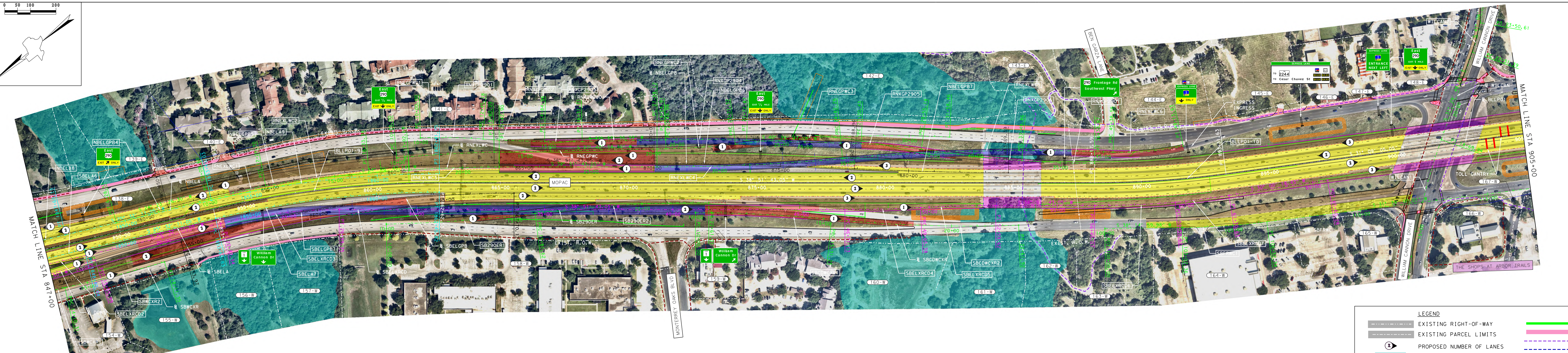
TRAVIS COUNTY

LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE

SHEET 4 OF 9



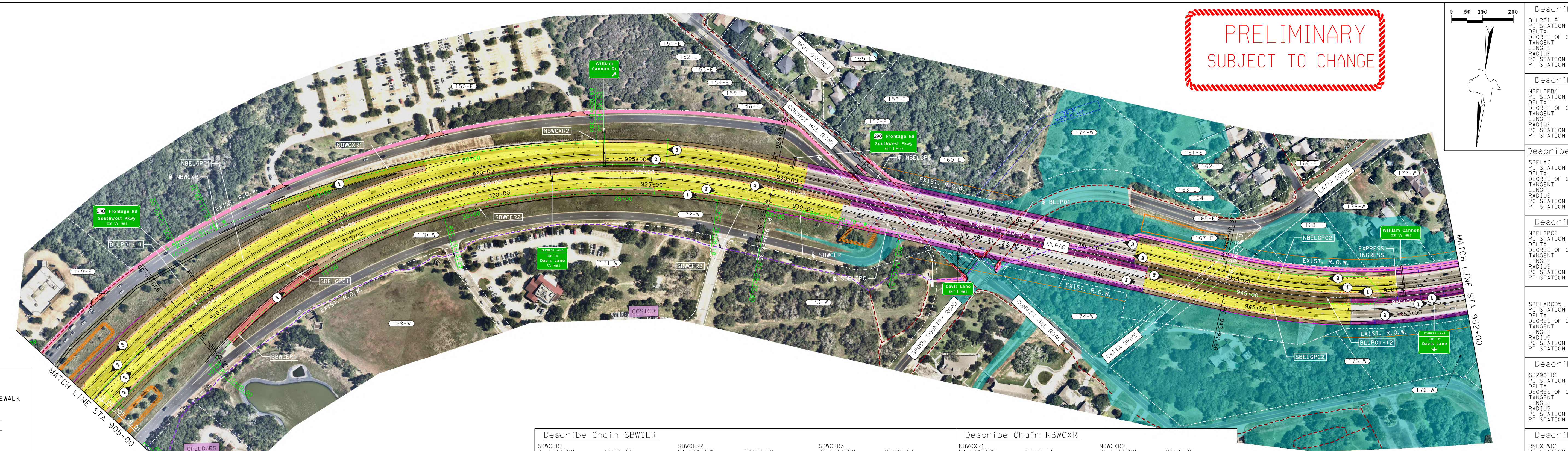
AUSTIN
WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 569+87.00
ROLLINGWOOD
ZILKER PARK
BARTON CREEK GREENBELT
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER
2244
360
343
290
71
1



0 50 100 200
MATCH LINE STA 847+00
MATCH LINE STA 905+00
MOPAC
EXIST. R.O.W.
MONTEREY OAKS BLVD
BEN GARZA LANE
WILLIAM CANNON DRIVE
TOLL GANTRY
THE SHOPS AT ARBOR TRAILS
NBELGPB4
NBELGPB5
NBELGPB6
NBELGPB7
SBELA6
SBELA7
NBELA8
NBELA9
RNEXLWC1
RNEXLWC2
RNEXLWC3
RNEXLWC4
RNEXLWC5
RNEXLWC6
RNEGPWC1
RNEGPWC2
RNEGPWC3
RNXGP2901
RNXGP2904
RNXGP2905
RNXGP2906
BLLP01-9
BLLP01-10
SBELGPB7
SB290ER1
SB290ER2
SBELXRCD2
SBELXRCD3
SBELXRCD4
SBELXRCD5
SBELXRCD6
SBELXRCD7
SBWCXR2
SBCDWCXR2
SBFRWC
East 290 EXIT ONLY
William Cannon Dr
290 Frontage Rd Southwest Pkwy
EXPRESS LANE ENTRANCE NEXT LEFT
EXPRESS INGRESS

LEGEND

▬	EXISTING RIGHT-OF-WAY	▬	DRAINAGE PIPE
▬	EXISTING PARCEL LIMITS	▬	SHARED USE PATH/SIDEWALK
ⓧ	PROPOSED NUMBER OF LANES	- - -	VIOLET CROWN TRAIL
🟦	100-YR FLOOD PLAIN	- - -	CITY OF AUSTIN TRAIL
🟨	ROADWAY RESURFACING	- - -	EXISTING URBAN TRAIL
🟫	ROADWAY WIDENING	▬	RETAINING WALL
🟥	ROADWAY	- - -	BENT LOCATIONS
🟦	BRIDGE	— G —	GAS LINE
🟪	BRIDGE WIDENING	— OE —	OVERHEAD ELECTRIC
🟧	POND	— WW —	WASTEWATER LINE
🟩	VEGETATIVE FILTER STRIP	— W —	WATER LINE
		▬	PROPOSED CONSTRUCTION EASEMENT
		▬	POTENTIAL CONSTRUCTION EASEMENT



MATCH LINE STA 905+00
MATCH LINE STA 952+00
MOPAC
EXIST. R.O.W.
CONVICT HILL ROAD
BRUSH COUNTRY ROAD
LATTA DRIVE
COSTCO
CHEDDARS
NBWCXR1
NBWCXR2
NBELGPC1
NBELGPC2
SBWCER
SBWCER2
SBWCER3
SBELGPC1
SBELGPC2
BLLP01-11
BLLP01-12
William Cannon Dr
290 Frontage Rd Southwest Pkwy
Davis Lane
EXPRESS LANE EXIT TO Davis Lane
EXPRESS INGRESS

PRELIMINARY
SUBJECT TO CHANGE

Describe Chain BLLP01

	BLLP01-9	BLLP01-10	BLLP01-11	BLLP01-12
PI STATION	858+20.38	890+75.00	918+46.43	950+98.35
DELTA	13° 19' 32.00" (RT)	7° 42' 38.00" (LT)	60° 09' 31.00" (RT)	38° 40' 51.00" (LT)
DEGREE OF CURVE	1° 30' 00.00"	1° 30' 00.00"	2° 30' 00.00"	3° 00' 00.00"
TANGENT	446.20	257.41	1,327.42	670.34
LENGTH	888.37	514.04	2,406.34	1,289.36
RADIUS	3,819.72	3,819.72	2,291.83	1,909.86
PC STATION	853+74.18	888+17.59	905+19.01	944+28.01
PT STATION	862+62.55	893+31.63	929+25.35	957+17.37

Describe Chain SBELGPB

	SBELGPB7
PI STATION	861+16.75
DELTA	16° 42' 20.56" (RT)
DEGREE OF CURVE	1° 16' 09.45"
TANGENT	662.77
LENGTH	1,316.15
RADIUS	4,514.00
PC STATION	854+53.97
PT STATION	867+70.12

Describe Chain NBELGPB

	NBELGPB4	NBELGPB5	NBELGPB6	NBELGPB7
PI STATION	845+49.02	857+44.26	873+98.22	880+89.25
DELTA	5° 30' 14.20" (LT)	15° 24' 19.87" (RT)	2° 59' 07.84" (RT)	2° 59' 07.84" (LT)
DEGREE OF CURVE	0° 30' 05.86"	1° 11' 51.63"	0° 22' 55.01"	0° 29' 50.03"
TANGENT	549.03	647.06	390.92	300.28
LENGTH	1,097.22	1,286.28	781.66	600.43
RADIUS	11,422.00	4,784.00	15,001.00	11,523.00
PC STATION	839+99.99	850+97.20	870+07.31	877+88.96
PT STATION	850+97.20	863+83.49	877+88.96	883+89.39

Describe Chain SBELA

	SBELA6
PI STATION	1846+35.54
DELTA	1° 57' 25.77" (RT)
DEGREE OF CURVE	0° 28' 42.46"
TANGENT	204.55
LENGTH	409.05
RADIUS	11,975.00
PC STATION	1844+30.99
PT STATION	1848+40.04

Describe Chain SBELA Cont.

	SBELA7
PI STATION	1858+07.82
DELTA	13° 19' 32.00" (RT)
DEGREE OF CURVE	1° 30' 51.38"
TANGENT	441.99
LENGTH	880.00
RADIUS	3,783.72
PC STATION	1853+65.83
PT STATION	1862+45.82

Describe Chain NBELA

	NBELA8	NBELA9
PI STATION	1845+62.63	1857+95.44
DELTA	1° 58' 46.55" (LT)	13° 19' 32.00" (RT)
DEGREE OF CURVE	0° 30' 03.96"	1° 29' 09.73"
TANGENT	197.55	450.40
LENGTH	395.05	896.72
RADIUS	11,434.07	3,855.72
PC STATION	1843+65.08	1853+45.03
PT STATION	1847+60.13	1862+41.75

Describe Chain SBELGPC

	SBELGPC1	SBELGPC2
PI STATION	919+65.25	950+77.04
DELTA	50° 38' 01.63" (RT)	38° 40' 51.00" (LT)
DEGREE OF CURVE	2° 32' 39.87"	2° 56' 18.44"
TANGENT	1,065.25	684.58
LENGTH	1,990.00	1,316.37
RADIUS	2,251.83	1,949.86
PC STATION	909+00.00	943+92.66
PT STATION	928+90.00	957+09.03

Describe Chain NBELGPC

	NBELGPC1	NBELGPC2
PI STATION	920+03.09	951+38.70
DELTA	50° 38' 01.63" (RT)	38° 40' 51.00" (LT)
DEGREE OF CURVE	2° 27' 26.30"	2° 54' 47.39"
TANGENT	1,103.09	690.39
LENGTH	2,060.54	1,327.79
RADIUS	2,331.83	1,967.00
PC STATION	909+00.00	944+48.31
PT STATION	929+60.54	957+76.10

Describe Chain SBELXRCD

	SBELXRCD2	SBELXRCD3	SBELXRCD4	SBELXRCD5	SBELXRCD6	SBELXRCD7
PI STATION	15+19.64	24+66.90	48+18.29	51+12.53	58+02.43	60+65.15
DELTA	1° 39' 14.81" (LT)	13° 19' 32.00" (RT)	3° 06' 58.64" (LT)	3° 06' 58.64" (RT)	4° 36' 43.41" (LT)	3° 06' 41.13" (LT)
DEGREE OF CURVE	0° 28' 39.16"	2° 51' 12.15"	1° 03' 32.66"	1° 03' 32.66"	1° 27' 58.39"	1° 28' 28.37"
TANGENT	173.20	234.56	147.16	147.16	157.36	105.53
LENGTH	346.38	467.01	294.25	294.25	314.55	211.01
RADIUS	11,998.00	2,008.00	5,410.00	5,410.00	3,907.72	3,885.65
PC STATION	13+46.44	22+32.34	46+71.13	49+65.38	56+45.07	59+59.62
PT STATION	16+92.82	26+99.35	49+65.38	52+59.62	59+59.62	61+70.63

Describe Chain SBWCXR

	SBWCXR1	SBWCXR2
PI STATION	12+05.25	16+10.92
DELTA	4° 20' 43.54" (RT)	4° 14' 50.44" (LT)
DEGREE OF CURVE	1° 03' 32.66"	1° 03' 32.66"
TANGENT	205.25	200.61
LENGTH	410.31	401.04
RADIUS	5,410.00	5,410.00
PC STATION	10+00.00	14+10.31
PT STATION	14+10.31	18+11.35

Describe Chain SB290ER

	SB290ER1	SB290ER2
PI STATION	12+91.09	19+21.76
DELTA	6° 09' 35.04" (LT)	7° 11' 43.09" (RT)
DEGREE OF CURVE	1° 03' 32.66"	1° 03' 32.66"
TANGENT	291.09	340.15
LENGTH	581.62	679.40
RADIUS	5,410.00	5,410.00
PC STATION	10+00.00	15+81.62
PT STATION	15+81.62	22+61.01

Describe Chain RNEGPWC

	RNEGPWC1	RNEGPWC2	RNEGPWC3
PI STATION	11+90.15	21+85.75	27+40.73
DELTA	4° 30' 48.95" (RT)	5° 10' 57.03" (LT)	8° 50' 35.13" (RT)
DEGREE OF CURVE	1° 11' 14.99"	1° 54' 35.81"	1° 03' 22.87"
TANGENT	190.15	135.77	419.41
LENGTH	380.09	271.34	837.13
RADIUS	4,825.00	3,000.00	5,424.00
PC STATION	10+00.00	20+49.98	23+21.32
PT STATION	13+80.09	23+21.32	31+58.46

Describe Chain RNEXLWC

	RNEXLWC1	RNEXLWC2	RNEXLWC3	RNEXLWC4	RNEXLWC5	RNEXLWC6
PI STATION	11+19.18	14+31.23	19+67.87	31+20.43	40+11.16	46+76.91
DELTA	3° 14' 55.82" (RT)	5° 59' 42.26" (RT)	4° 04' 59.91" (RT)	5° 05' 27.26" (LT)	7° 25' 33.55" (RT)	14° 43' 25.93" (LT)
DEGREE OF CURVE	1° 28' 58.27"	1° 28' 53.13"	1° 09' 57.37"	0° 42' 10.87"	0° 42' 10.87"	5° 21' 10.36"
TANGENT	109.58	202.53	175.19	362.31	528.89	138.34
LENGTH	219.09	404.68	350.22	724.15	1,056.30	275.06
RADIUS	3,864.00	3,867.72	4,914.23	8,150.00	8,150.00	1,070.76
PC STATION	10+09.60	12+28.70	17+92.69	27+58.12	34+82.26	45+38.56
PT STATION	12+28.70	16+33.38	21+42.90	34+82.26	45+38.56	48+13.63

Describe Chain SBCDWCXR

	SBCDWCXR1	SBCDWCXR2
PI STATION	12+65.84	18+97.14
DELTA	5° 37' 34.88" (RT)	7° 44' 17.95" (LT)
DEGREE OF CURVE	1° 03' 32.66"	1° 03' 32.66"
TANGENT	265.84	365.89
LENGTH	531.25	730.67
RADIUS	5,410.00	5,410.00
PC STATION	10+00.00	15+31.25
PT STATION	15+31.25	22+61.92

Describe Chain WILCAN

	WILCAN1	WILCAN2
PI STATION	14+39.43	22+91.19
DELTA	19° 54' 25.18" (RT)	9° 36' 53.86" (LT)
DEGREE OF CURVE	2° 17' 17.96"	8° 03' 54.49"
TANGENT	439.43	59.80
LENGTH	869.94	119.22
RADIUS	2,504.00	711.00
PC STATION	10+00.00	22+31.39
PT STATION	18+69.94	23+50.61

Describe Chain SBWCER

	SBWCER1	SBWCER2	SBWCER3
PI STATION	14+71.68	23+67.02	28+90.53
DELTA	35° 13' 13.54" (RT)	23° 16' 03.06" (RT)	4° 16' 40.92" (RT)
DEGREE OF CURVE	3° 51' 23.16"	2° 36' 00.18"	2° 35' 55.22"
TANGENT	471.68	453.73	82.36
LENGTH	913.29	894.89	164.62
RADIUS	1,486.00	2,203.83	2,205.00
PC STATION	10+00.00	19+13.29	28+08.18
PT STATION	19+13.29	28+08.18	29+72.80

Describe Chain NBWCXR

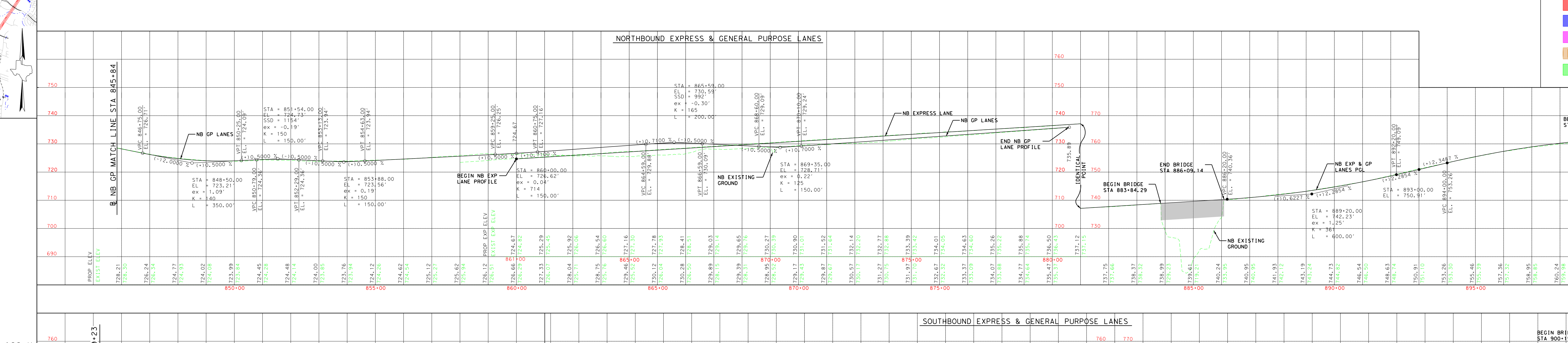
	NBWCXR1	NBWCXR2
PI STATION	17+83.85	24+22.86
DELTA	23° 51' 52.96" (RT)	0° 16' 44.22" (LT)
DEGREE OF CURVE	1° 52' 42.78"	1° 03' 32.66"
TANGENT	644.53	13.17
LENGTH	1,270.38	26.34
RADIUS	3,050.00	5,410.00
PC STATION	11+39.31	24+09.69
PT STATION	24+09.69	24+36.03

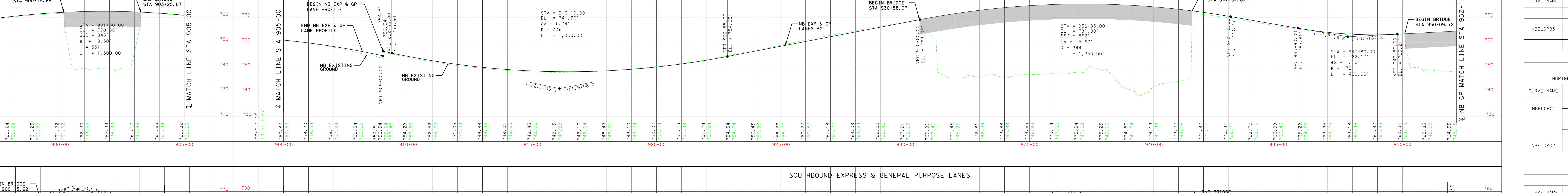
Describe Chain SBFRWC

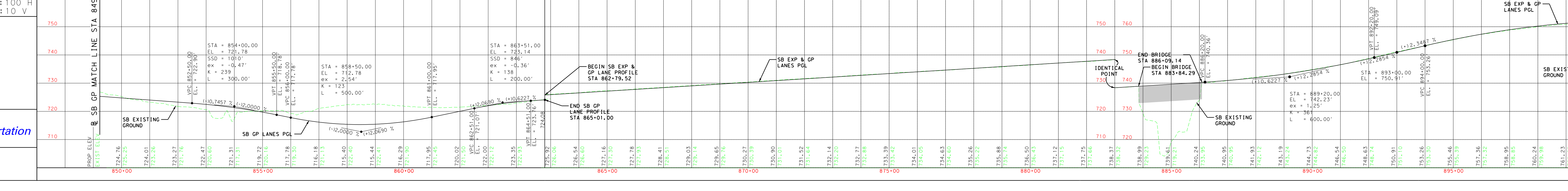
	SBFRWC1
PI STATION	104+67.54
DELTA	6° 35' 59.97" (LT)
DEGREE OF CURVE	2° 00' 00.37"
TANGENT	165.18
LENGTH	329.98
RADIUS	2,864.79
PC STATION	103+02.36
PT STATION	106+32.34

Describe Chain RNXGP290

	RNXGP2901	RNXGP2902	RNXGP2903	RNXGP2904	RNXGP2905	RNXGP2906	RNXGP2907
PI STATION	11+22.67	13+65.09	15+58.35	21+13.93	28+37.95	31+52.61	34+91.94
DELTA	4° 56' 30.71" (RT)	2° 32' 22.00" (LT)	2° 24' 08.71" (LT)	3° 02' 10.81" (RT)	6° 43' 32.02" (RT)	4° 10' 48.33" (LT)	4° 20' 47.84" (LT)
DEGREE OF CURVE	2° 00' 56.09"	1° 03' 32.71"	1° 38' 13.48"	0° 57' 17.79"	2° 51' 54.31"	1° 03' 32.71"	1° 31' 49.79"
TANGENT	122.67	119.91	73.39	159.02	117.52	197.43	142.07
LENGTH	245.18	239.78	146.75	317.96	234.74	394.69	284.00
RADIUS	2,842.79	5,410.00	3,500.00	6,000.00	2,000.00	5,410.00	3,743.72
PC STATION	10+00.00	12+45.18	14+84.96	19+54.91	27+20.43	29+55.18	33+49.86
PT STATION	12+45.18	14+84.96	16+31.71	22+72.87	29+55.18	33+49.86	36+33.87







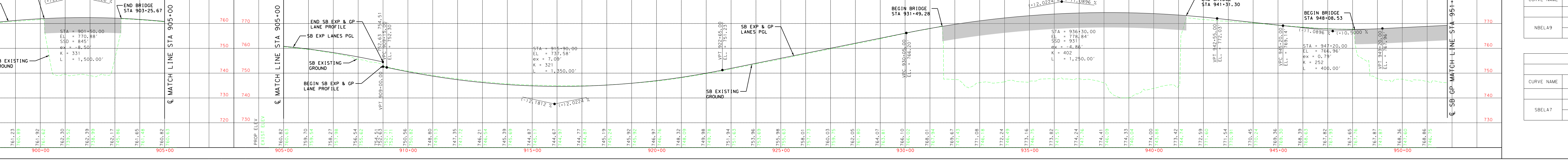


TABLE OF CROSS SLOPES (%)

NORTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
NBELGPB5	849+14	-2.0	+2.0	NORMAL CROWN TRANSITION
	851+29	+2.5	-2.5	FULL SUPERELEVATION
	863+51	+2.5	-2.5	TRANSITION
	865+66	-2.0	+2.0	NORMAL CROWN

TABLE OF CROSS SLOPES (%)

NORTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
NBELGPC1	909+00	+4.6	-4.6	FULL SUPERELEVATION
	929+10	+4.6	-4.6	TRANSITION
	932+35	-2.0	+2.0	NORMAL CROWN
	943+20	-2.0	+2.0	TRANSITION
NBELGPC2	944+70	-5.1	+5.1	FULL SUPERELEVATION

TABLE OF CROSS SLOPES (%)

NORTHBOUND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
NBELA9	1849+64	-2.0	+2.0	NORMAL CROWN TRANSITION
	1854+12	+3.0	-3.0	FULL SUPERELEVATION
	1860+78	+3.0	-3.0	

TABLE OF CROSS SLOPES (%)

SOUTHBOUND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
SBELA7	1853+00	-2.0	+2.0	NORMAL CROWN TRANSITION
	1853+75	-3.0	+3.0	FULL SUPERELEVATION
	1860+85	-3.0	+3.0	

TABLE OF CROSS SLOPES (%)

GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	NB OUTSIDE EDGE	SB OUTSIDE EDGE	NOTES
BLLP01-9	861+00	+3.0	-3.0	FULL SUPERELEVATION
	862+20	+3.0	-3.0	TRANSITION
	864+90	-2.0	-2.0	NORMAL CROWN
BLLP01-10	885+90	-2.0	-2.0	TRANSITION
	888+60	-3.0	+3.0	FULL SUPERELEVATION
	892+90	-3.0	+3.0	TRANSITION
	895+60	-2.0	-2.0	NORMAL CROWN
BLLP01-11	902+50	-2.0	-2.0	TRANSITION
	905+70	+4.6	-4.6	FULL SUPERELEVATION
	909+00	+4.6	-4.6	

TABLE OF CROSS SLOPES (%)

SOUTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
SBELGPB7	854+35	-2.0	+2.0	NORMAL CROWN TRANSITION
	854+60	-2.6	+2.6	FULL SUPERELEVATION
	867+65	-2.6	+2.6	TRANSITION
	867+90	-2.0	+2.0	NORMAL CROWN

TABLE OF CROSS SLOPES (%)

SOUTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
SBELGPC1	909+00	-4.6	+4.6	FULL SUPERELEVATION
	928+70	-4.6	+4.6	TRANSITION
	930+00	-2.0	+2.0	NORMAL CROWN
	941+00	-2.0	+2.0	TRANSITION
SBELGPC2	944+50	+5.2	-5.2	FULL SUPERELEVATION

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH

FUNCTIONAL CLASSIFICATION: URBAN FREEWAY

TERRAIN: ROLLING

EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH

COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH

DIRECT CONNECTOR DESIGN SPEED: 40 MPH

RAMP DESIGN SPEED: 40 MPH

MAX SUPERELEVATION: 8%

EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD

PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

SCALE: 1:100 H
1:10 V

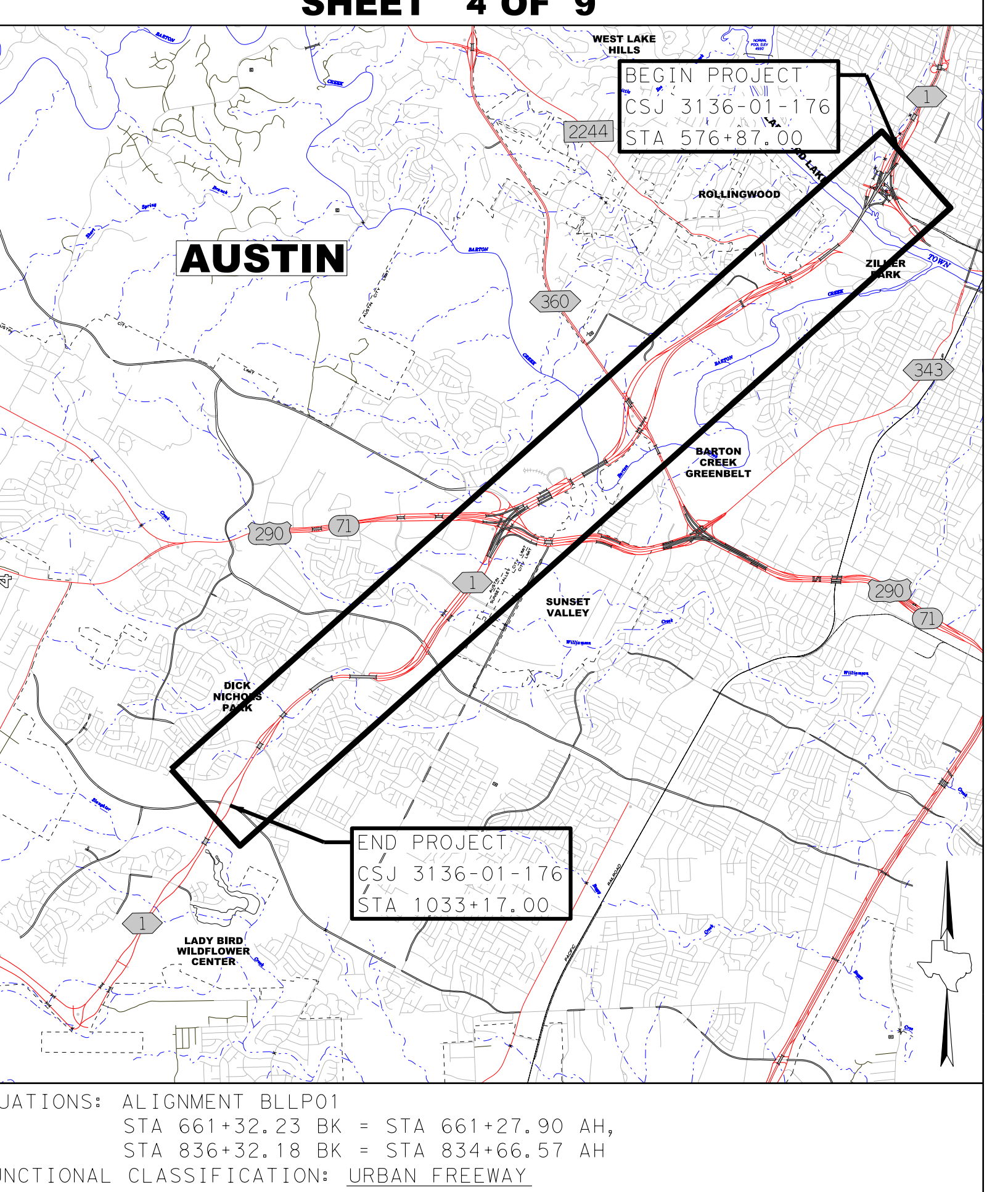
MoPac South
ENVIRONMENTAL STUDY

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

Texas Department of Transportation

AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758 TBPE REG. F-474

PRELIMINARY DESIGN SCHEMATIC OF MOPAC SOUTH ENVIRONMENTAL STUDY
CSJ: 3136-01-176
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.
SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.
TRAVIS COUNTY
LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE
SHEET 4 OF 9



AUSTIN
WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 576+87.00
ROLLINGWOOD
ZILKER PARK
BARTON CREEK GREENBELT
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD
PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING
BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.
SCALE: 1:100 H
1:10 V
MoPac South
ENVIRONMENTAL STUDY
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation
AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758 TBPE REG. F-474

PRELIMINARY DESIGN SCHEMATIC OF
MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176

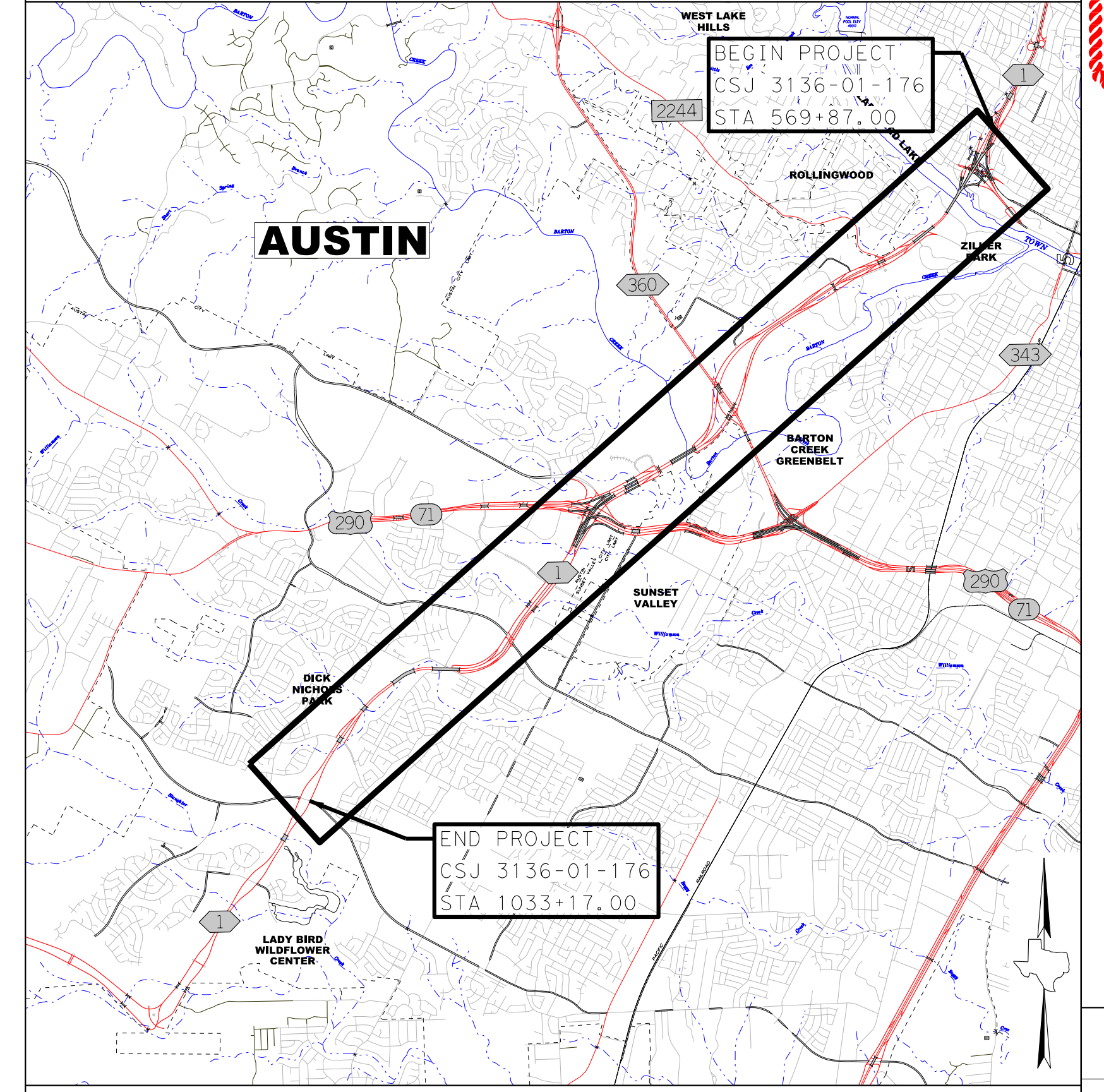
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.

SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.

TRAVIS COUNTY

LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE

SHEET 5 OF 9


WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 569+87.00
2244
1
ROLLINGWOOD
AUSTIN
360
ZILKER PARK
343
BARTON CREEK GREENBELT
290
71
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

SCALE: 1:100 H
1:10 V

MoPac South
ENVIRONMENTAL STUDY

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

Texas Department of Transportation

AtkinsRéalis

ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758 TBPE REG. F-474

MSPSCHM0105.dgn

0 50 100 200

PRELIMINARY
SUBJECT TO CHANGE

LEGEND

▬	EXISTING RIGHT-OF-WAY
▬	EXISTING PARCEL LIMITS
Ⓧ	PROPOSED NUMBER OF LANES
🟦	100-YR FLOOD PLAIN
🟨	ROADWAY RESURFACING
🟫	ROADWAY WIDENING
🟥	ROADWAY
🟦	BRIDGE
🟪	BRIDGE WIDENING
⬜	ROADWAY BY OTHERS
🟧	POND
🟩	VEGETATIVE FILTER STRIP
▬	DRAINAGE PIPE
▬	SHARED USE PATH/SIDEWALK
- - -	VIOLET CROWN TRAIL
- - -	CITY OF AUSTIN TRAIL
- - -	EXISTING URBAN TRAIL
―	RETAINING WALL
- - -	BENT LOCATIONS
― G ―	GAS LINE
― OE ―	OVERHEAD ELECTRIC
― WW ―	WASTEWATER LINE
― W ―	WATER LINE
―	PROPOSED CONSTRUCTION EASEMENT

MATCH LINE STA 952+00
EXPRESS INGRESS
EXPRESS EGRESS
CONVICT HILL ROAD
TOLL GANTRY
NICHOLS PARK APARTMENT HOMES
ENTRANCE LEFT LANE
Slaughter Ln EXIT 1 MILE
Davis Lane 1/2 MILE EXIT ONLY
2244 Bee Cave Rd 5th St Cesar Chavez St
William Cannon EXIT 1 MILE
EXIST. RO.W.
NBELGPC2
NBELGPC3
NBELGPC4
NBELGPC5
NBELGPC6
NBELGPC7
NBELGPC8
NBELGPC9
SBELGPC2
SBELGPC3
SBELGPC5
SBELGPC6
SBELGPC7
SBELGPC8
NBDLER1
NBDLER2
NBDLER3
NBDLER4
NBDLER5
SBDLXR1
SBDLXR2
BLLP01-12
BLLP01-14
BLLP01-15
BLLP01-16
NBDLER
SBDLXR
EXPRESS LANE ENDS 1/2 MILE
DAVIS LANE
MOPAC
SLAUGHTER LANE
EXPRESS INGRESS
EXPRESS EGRESS
EXPRESS LANE ENDS
END PROJECT CSJ 3136-01-176 STA 1033+17.00
UNITED HERITAGE CREDIT UNION
ALAMO DRAFTHOUSE CINEMA
2244 Bee Cave Rd 5th St Cesar Chavez St

NORTHBOUND EXPRESS & GENERAL PURPOSE LANES
℄ NB MATCH LINE STA 952+19
END BRIDGE STA 960+43.95
STA = 958+10.00
EL = 767.51'
SSD = 898'
ex = -1.19'
K = 318
L = 550.00'
(+)0.5184 %
(-)1.2127 %
STA = 963+60.00
EL = 760.84'
ex = 1.38'
K = 226
L = 500.00'
(+)1.0027 %
NB EXP & GP LANES PGL
BEGIN BRIDGE STA 977+41.38
END BRIDGE STA 979+27.55
(+)2.8215 %
STA = 982+05.00
EL = 779.34'
ex = 1.02'
K = 247
L = 450.00'
IDENTICAL POINT
STA = 991+74.00
EL = 806.68'
SSD = 815'
ex = -2.03'
K = 302
L = 700.00'
(+)0.5000 %
END NB PROFILE
CSJ: 3136-01-176
STA 995+70.00
BEGIN NB PROFILE (BY OTHERS)
CSJ: 3136-01-015
STA 995+70.00
BEGIN BRIDGE STA 995+73.62
END BRIDGE STA 997+68.18
NB EXISTING GROUND
END NB CONSTRUCTION
CSJ: 3136-01-176
STA 1027+90.18
PROP ELEV
EXIST ELEV
955+00
960+00
965+00
970+00
975+00
980+00
985+00
990+00
995+00
1000+00
1005+00
1010+00
1015+00
1020+00
1025+00
1030+00
1035+00

SOUTHBOUND EXPRESS & GENERAL PURPOSE LANES
℄ SB MATCH LINE STA 951+81
(+)0.5000 %
(-)1.5000 %
STA = 957+14.00
EL = 771.93'
SSD = 814'
ex = -1.38'
K = 275
L = 550.00'
END BRIDGE STA 958+72.89
STA = 963+40.00
EL = 762.54'
ex = 1.72'
K = 220
L = 550.00'
(+)0.9946 %
SB EXP & GP LANES PGL
SB EXISTING GROUND
BEGIN BRIDGE STA 977+13.70
END BRIDGE STA 979+10.05
(+)2.6648 %
STA = 982+00.00
EL = 781.04'
ex = 0.94'
K = 269
L = 450.00'
IDENTICAL POINT
STA = 991+55.00
EL = 806.49'
SSD = 848'
ex = -1.89'
K = 323
L = 700.00'
END SB PROFILE
CSJ: 3136-01-176
STA 995+60.00
BEGIN SB PROFILE (BY OTHERS)
CSJ: 3136-01-015
STA 995+60.00
BEGIN BRIDGE STA 995+77.45
END BRIDGE STA 997+71.80
SB EXISTING GROUND
END SB CONSTRUCTION
CSJ: 3136-01-176
STA 1033+17.00
PROP ELEV
EXIST ELEV

0 50 100 200

Describe Chain BLLP01

BLLP01-12
PI STATION = 950+98.35
DELTA = 38° 40′ 51.00" (LT)
DEGREE OF CURVE = 3° 00′ 00.00"
TANGENT = 670.34
LENGTH = 1,289.36
RADIUS = 1,909.86
PC STATION = 944+28.01
PT STATION = 957+17.37

BLLP01-13
PI STATION = 972+49.25
DELTA = 10° 36′ 26.03" (LT)
DEGREE OF CURVE = 1° 00′ 00.00"
TANGENT = 531.88
LENGTH = 1,060.72
RADIUS = 5,729.58
PC STATION = 967+17.37
PT STATION = 977+78.09

BLLP01-14
PI STATION = 984+75.06
DELTA = 6° 57′ 40.15" (LT)
DEGREE OF CURVE = 0° 30′ 00.00"
TANGENT = 696.97
LENGTH = 1,392.23
RADIUS = 11,459.16
PC STATION = 977+78.09
PT STATION = 991+70.32

BLLP01-15
PI STATION = 1005+79.58
DELTA = 7° 02′ 14.82" (LT)
DEGREE OF CURVE = 0° 15′ 00.00"
TANGENT = 1,409.26
LENGTH = 2,814.98
RADIUS = 22,918.31
PC STATION = 991+70.32
PT STATION = 1019+85.30

BLLP01-16
PI STATION = 1055+19.03
DELTA = 12° 10′ 33.00" (RT)
DEGREE OF CURVE = 1° 00′ 00.00"
TANGENT = 611.09
LENGTH = 1,217.58
RADIUS = 5,729.58
PC STATION = 1049+07.94
PT STATION = 1061+25.52

Describe Chain SBELGPC

SBELGPC2
PI STATION = 950+77.04
DELTA = 38° 40′ 51.00" (LT)
DEGREE OF CURVE = 2° 56′ 18.44"
TANGENT = 684.38
LENGTH = 1,316.37
RADIUS = 1,949.86
PC STATION = 943+92.66
PT STATION = 957+09.03

SBELGPC3
PI STATION = 972+44.62
DELTA = 10° 36′ 26.03" (LT)
DEGREE OF CURVE = 0° 59′ 35.04"
TANGENT = 535.59
LENGTH = 1,068.13
RADIUS = 5,769.58
PC STATION = 967+09.02
PT STATION = 977+77.15

SBELGPC4
PI STATION = 983+42.78
DELTA = 5° 37′ 55.58" (LT)
DEGREE OF CURVE = 0° 29′ 53.74"
TANGENT = 565.63
LENGTH = 1,130.35
RADIUS = 11,499.16
PC STATION = 977+77.15
PT STATION = 989+07.50

SBELGPC5
PI STATION = 990+55.34
DELTA = 2° 04′ 42.32" (LT)
DEGREE OF CURVE = 0° 42′ 10.86"
TANGENT = 147.84
LENGTH = 295.64
RADIUS = 8,150.00
PC STATION = 989+07.50
PT STATION = 992+03.15

SBELGPC6
PI STATION = 992+38.69
DELTA = 0° 29′ 59.24" (RT)
DEGREE OF CURVE = 0° 42′ 10.86"
TANGENT = 35.55
LENGTH = 71.09
RADIUS = 8,150.00
PC STATION = 992+03.15
PT STATION = 992+74.24

SBELGPC7
PI STATION = 1003+00.61
DELTA = 5° 07′ 11.81" (LT)
DEGREE OF CURVE = 0° 14′ 58.51"
TANGENT = 1,026.37
LENGTH = 2,051.37
RADIUS = 22,956.31
PC STATION = 992+74.24
PT STATION = 1013+25.61

SBELGPC8
PI STATION = 1014+33.71
DELTA = 1° 31′ 02.97" (RT)
DEGREE OF CURVE = 0° 42′ 07.14"
TANGENT = 108.09
LENGTH = 216.17
RADIUS = 8,162.00
PC STATION = 1013+25.61
PT STATION = 1015+41.79

SBELGPC9
PI STATION = 1017+68.06
DELTA = 3° 11′ 07.47" (LT)
DEGREE OF CURVE = 0° 42′ 14.59"
TANGENT = 226.28
LENGTH = 452.44
RADIUS = 8,138.00
PC STATION = 1015+41.79
PT STATION = 1019+94.23

Describe Chain NBELGPC

NBELGPC2
PI STATION = 951+38.70
DELTA = 38° 40′ 51.00" (LT)
DEGREE OF CURVE = 2° 54′ 47.39"
TANGENT = 690.39
LENGTH = 1,327.79
RADIUS = 1,967.00
PC STATION = 944+48.31
PT STATION = 957+76.10

NBELGPC3
PI STATION = 972+56.29
DELTA = 10° 36′ 26.03" (LT)
DEGREE OF CURVE = 1° 00′ 17.72"
TANGENT = 529.28
LENGTH = 1,055.53
RADIUS = 5,701.58
PC STATION = 967+27.01
PT STATION = 977+82.54

NBELGPC4
PI STATION = 983+52.56
DELTA = 5° 42′ 34.19" (LT)
DEGREE OF CURVE = 0° 30′ 04.41"
TANGENT = 570.03
LENGTH = 1,139.11
RADIUS = 11,431.16
PC STATION = 977+82.54
PT STATION = 989+21.64

NBELGPC5
PI STATION = 991+37.96
DELTA = 1° 42′ 33.75" (LT)
DEGREE OF CURVE = 0° 23′ 42.52"
TANGENT = 216.31
LENGTH = 432.60
RADIUS = 14,500.00
PC STATION = 989+21.64
PT STATION = 993+54.24

NBELGPC6
PI STATION = 996+54.33
DELTA = 1° 30′ 07.64" (LT)
DEGREE OF CURVE = 0° 15′ 01.06"
TANGENT = 300.09
LENGTH = 600.14
RADIUS = 22,891.31
PC STATION = 993+54.24
PT STATION = 999+54.38

NBELGPC7
PI STATION = 1003+76.05
DELTA = 3° 19′ 53.26" (LT)
DEGREE OF CURVE = 0° 23′ 42.52"
TANGENT = 421.67
LENGTH = 843.10
RADIUS = 14,500.00
PC STATION = 999+54.38
PT STATION = 1007+97.48

NBELGPC8
PI STATION = 1008+92.06
DELTA = 0° 44′ 50.86" (RT)
DEGREE OF CURVE = 0° 23′ 42.52"
TANGENT = 94.58
LENGTH = 189.16
RADIUS = 14,500.00
PC STATION = 1007+97.48
PT STATION = 1009+86.64

NBELGPC9
PI STATION = 1014+84.62
DELTA = 2° 29′ 36.99" (LT)
DEGREE OF CURVE = 0° 15′ 01.50"
TANGENT = 497.97
LENGTH = 995.79
RADIUS = 22,880.31
PC STATION = 1009+86.64
PT STATION = 1019+82.43

Describe Chain NBDLER

NBDLER1
PI STATION = 13+00.66
DELTA = 6° 04′ 53.09" (LT)
DEGREE OF CURVE = 1° 00′ 44.30"
TANGENT = 300.66
LENGTH = 600.75
RADIUS = 5,660.00
PC STATION = 10+00.00
PT STATION = 16+00.75

NBDLER2
PI STATION = 16+90.20
DELTA = 1° 48′ 46.87" (LT)
DEGREE OF CURVE = 1° 00′ 48.44"
TANGENT = 89.46
LENGTH = 178.89
RADIUS = 5,653.58
PC STATION = 16+00.75
PT STATION = 17+79.64

NBDLER3
PI STATION = 18+10.62
DELTA = 0° 18′ 42.45" (LT)
DEGREE OF CURVE = 0° 30′ 12.02"
TANGENT = 30.97
LENGTH = 61.94
RADIUS = 11,383.16
PC STATION = 17+79.64
PT STATION = 18+41.59

NBDLER4
PI STATION = 22+50.66
DELTA = 13° 43′ 15.65" (LT)
DEGREE OF CURVE = 1° 41′ 06.83"
TANGENT = 409.07
LENGTH = 814.19
RADIUS = 3,400.00
PC STATION = 18+41.59
PT STATION = 26+55.78

NBDLER5
PI STATION = 33+25.46
DELTA = 5° 01′ 21.83" (RT)
DEGREE OF CURVE = 1° 17′ 56.25"
TANGENT = 193.47
LENGTH = 386.67
RADIUS = 4,411.00
PC STATION = 31+32.00
PT STATION = 35+18.67

Describe Chain SBDLXR

SBDLXR1
PI STATION = 11+45.85
DELTA = 5° 34′ 00.05" (RT)
DEGREE OF CURVE = 1° 54′ 35.81"
TANGENT = 145.85
LENGTH = 291.46
RADIUS = 3,000.00
PC STATION = 10+00.00
PT STATION = 12+91.46

SBDLXR2
PI STATION = 21+29.36
DELTA = 13° 51′ 11.85" (LT)
DEGREE OF CURVE = 2° 58′ 42.62"
TANGENT = 233.72
LENGTH = 465.11
RADIUS = 1,923.86
PC STATION = 18+95.64
PT STATION = 23+60.75

TABLE OF CROSS SLOPES (%)

NORTHBOUND GENERAL PURPOSE AND EXPRESS LANES

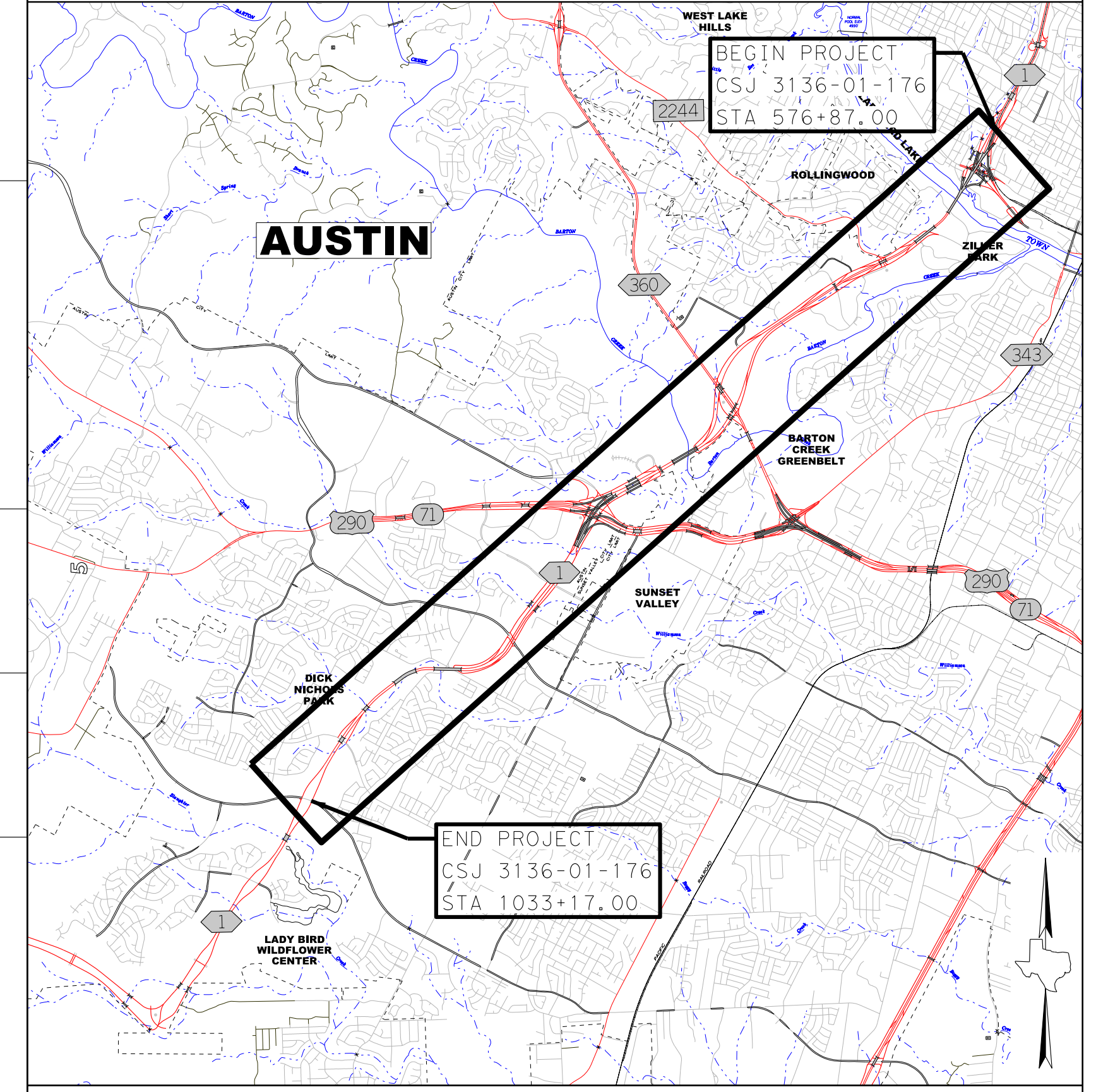
CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
NBELGPC2	957+55	-5.1	+5.1	FULL SUPERELEVATION
	959+05	-2.0	+2.0	TRANSITION
	967+20	-2.0	+2.0	NORMAL CROWN
NBELGPC3	967+30	-2.2	+2.2	TRANSITION
	977+80	-2.2	+2.2	FULL SUPERELEVATION
	977+90	-2.0	+2.0	TRANSITION
	1026+90	-2.0	+2.0	NORMAL CROWN

TABLE OF CROSS SLOPES (%)

SOUTHBOUND GENERAL PURPOSE AND EXPRESS LANES

CURVE NAME	STATION	OUTSIDE EDGE	INSIDE EDGE	NOTES
SBELGPC2	956+50	+5.2	-5.2	FULL SUPERELEVATION
	960+00	-2.0	+2.0	TRANSITION
	965+35	-2.0	+2.0	NORMAL CROWN
SBELGPC3	967+40	+2.2	-2.2	TRANSITION
	977+45	+2.2	-2.2	FULL SUPERELEVATION
	979+50	-2.0	+2.0	TRANSITION
	1033+26	-2.0	+2.0	NORMAL CROWN

PRELIMINARY DESIGN SCHEMATIC OF
MOPAC SOUTH ENVIRONMENTAL STUDY
CSJ: 3136-01-176
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.
SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.
TRAVIS COUNTY
LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE
SHEET 5 OF 9


WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 576+87.00
2244
1
ROLLINGWOOD
AUSTIN
360
ZILKER PARK
343
BARTON CREEK GREENBELT
290
71
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD
PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING
BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.
SCALE: 1:100 H
1:10 V
MoPac South
ENVIRONMENTAL STUDY
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation
AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758 TBPE REG. F-474

11/11/2024
2:23:48 PM

PRELIMINARY DESIGN SCHEMATIC OF MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176

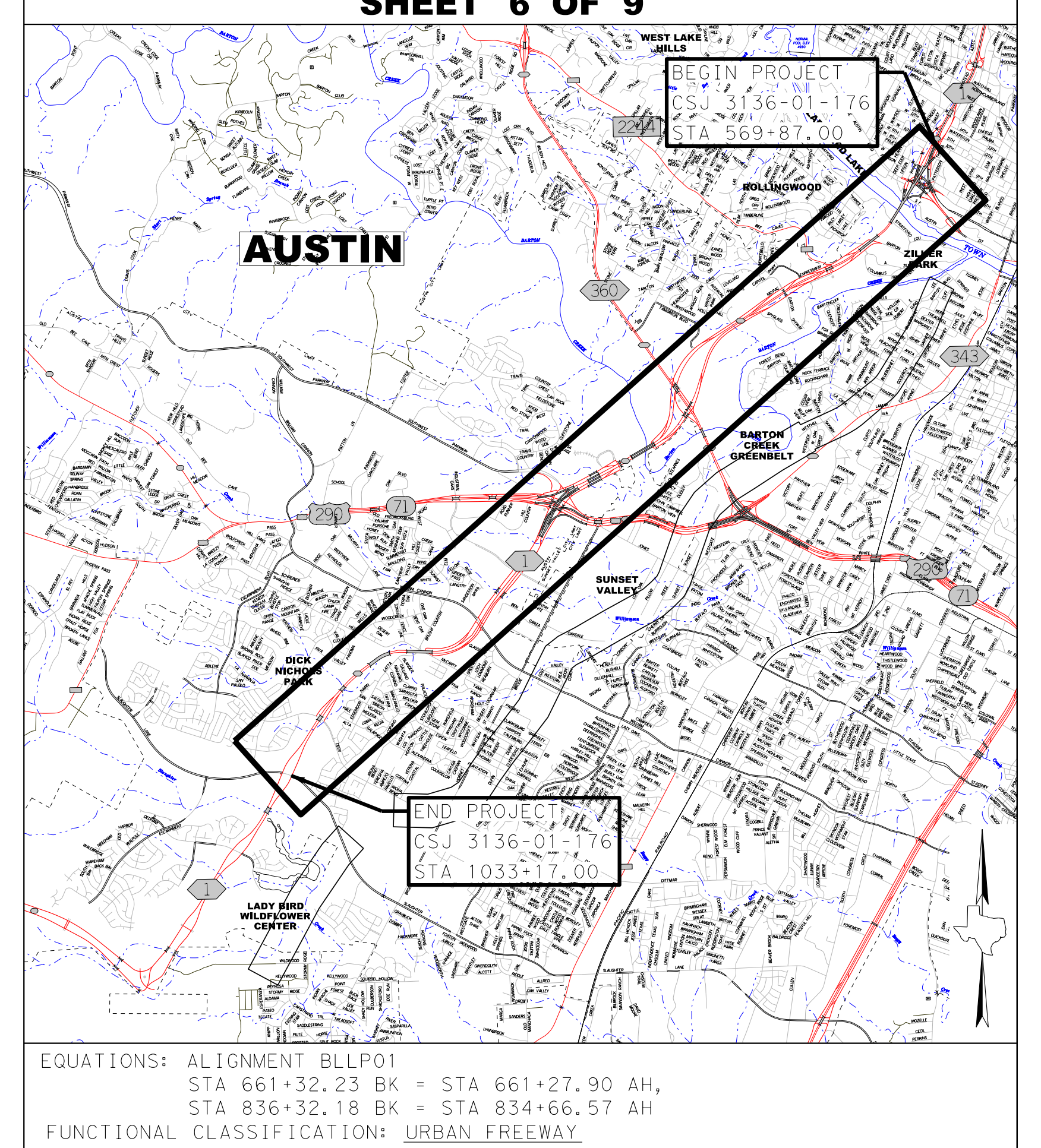
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.

SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.

TRAVIS COUNTY

LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE

SHEET 6 OF 9



EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

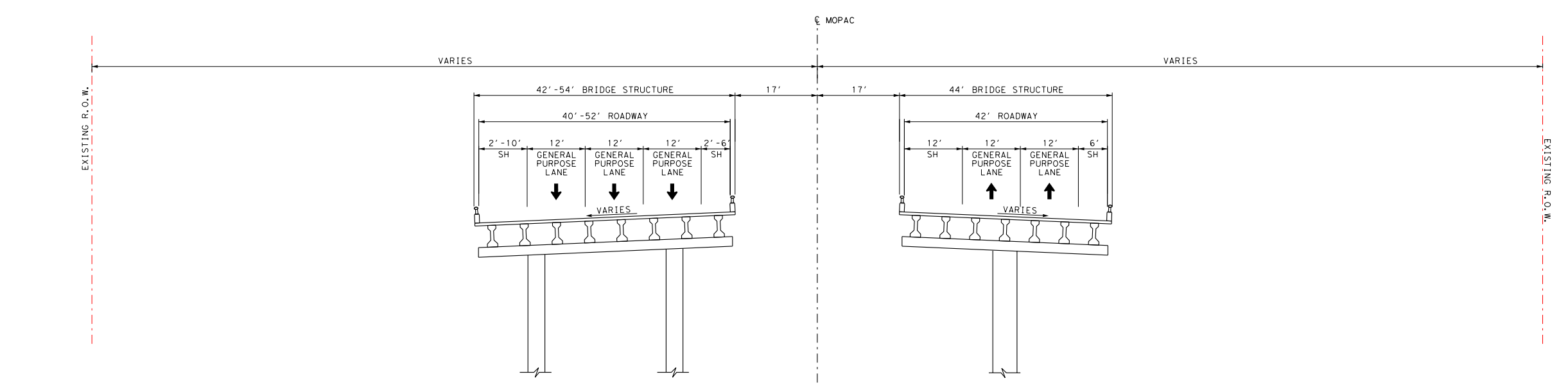
SCALE: 1:100 H
1:10 V

MOPAC SOUTH
ENVIRONMENTAL STUDY

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

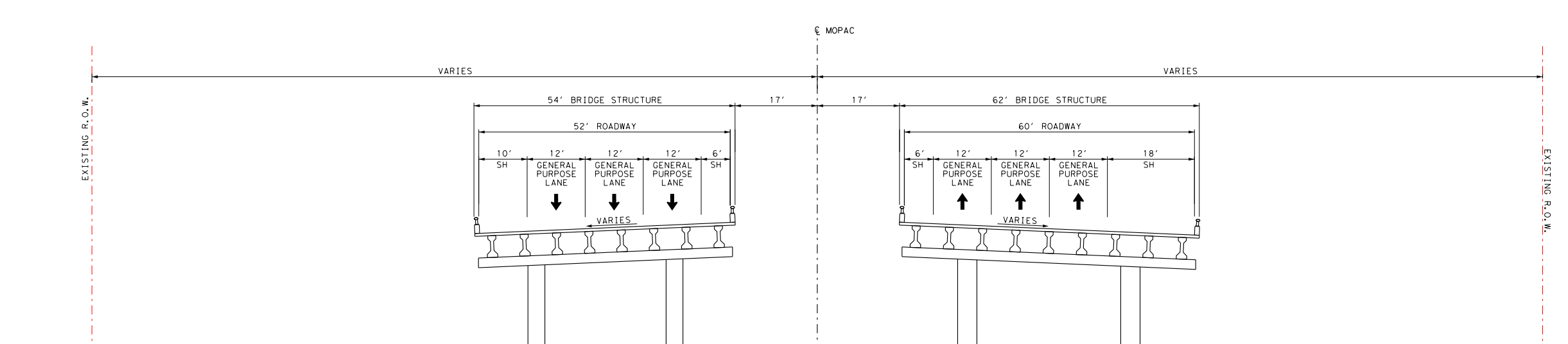
Texas Department of Transportation

AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474



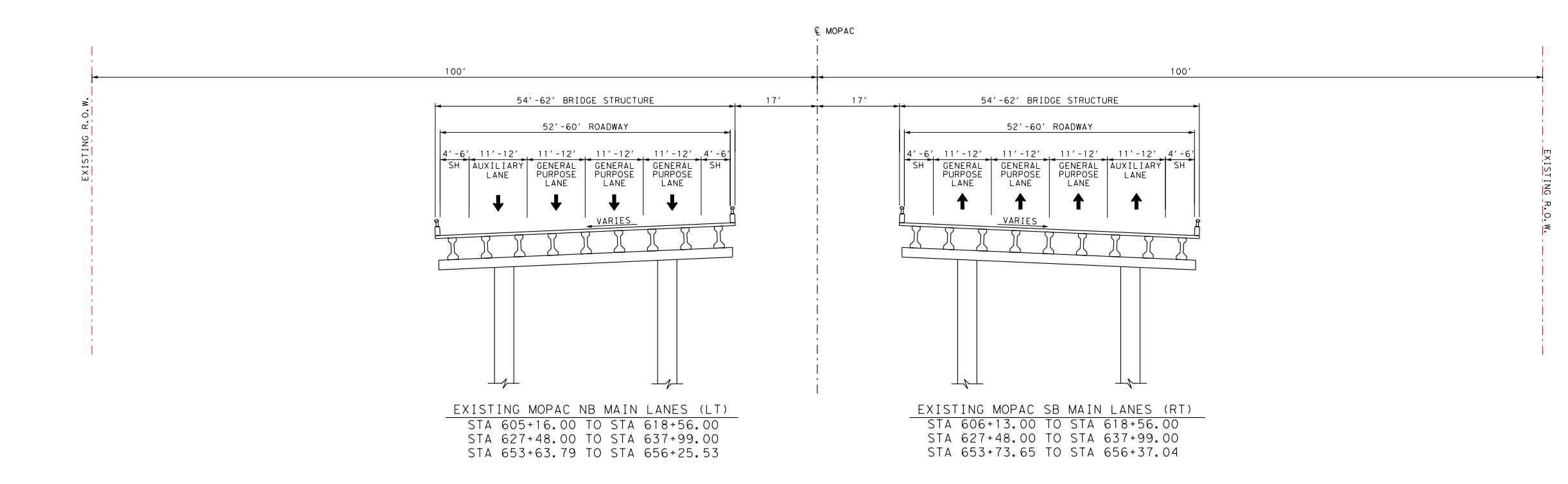
EXISTING MOPAC NB MAIN LANES (LT)
STA 576+34.00 TO STA 595+85.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 587+58.00 TO STA 595+85.00



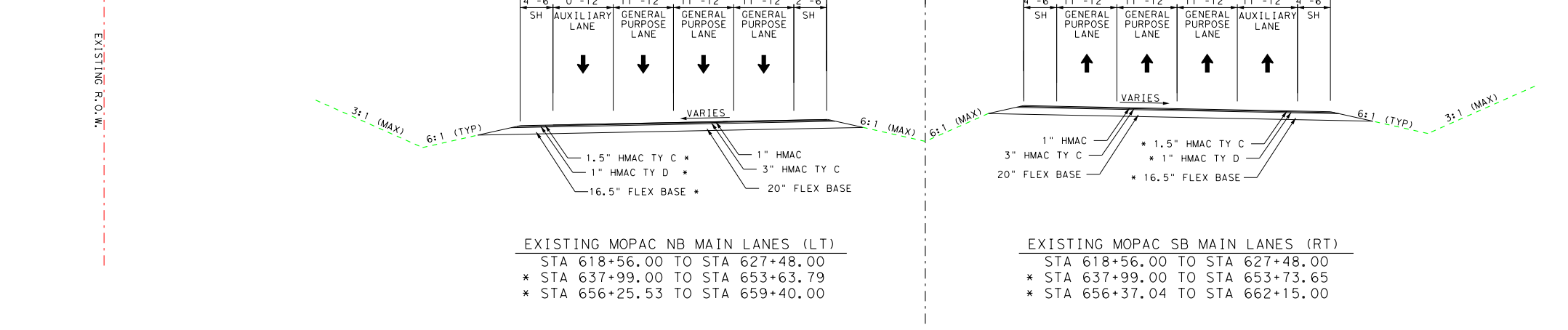
EXISTING MOPAC NB MAIN LANES (LT)
STA 595+85.00 TO STA 605+16.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 595+85.00 TO STA 606+13.00



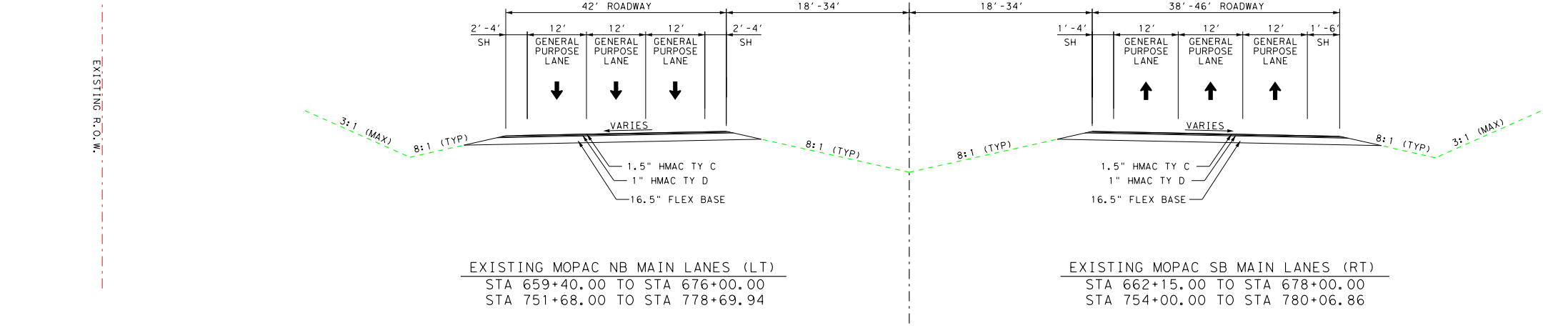
EXISTING MOPAC NB MAIN LANES (LT)
STA 605+16.00 TO STA 618+56.00
STA 627+48.00 TO STA 637+99.00
STA 653+63.79 TO STA 656+25.53

EXISTING MOPAC SB MAIN LANES (RT)
STA 606+13.00 TO STA 618+56.00
STA 627+48.00 TO STA 637+99.00
STA 653+73.65 TO STA 656+37.04



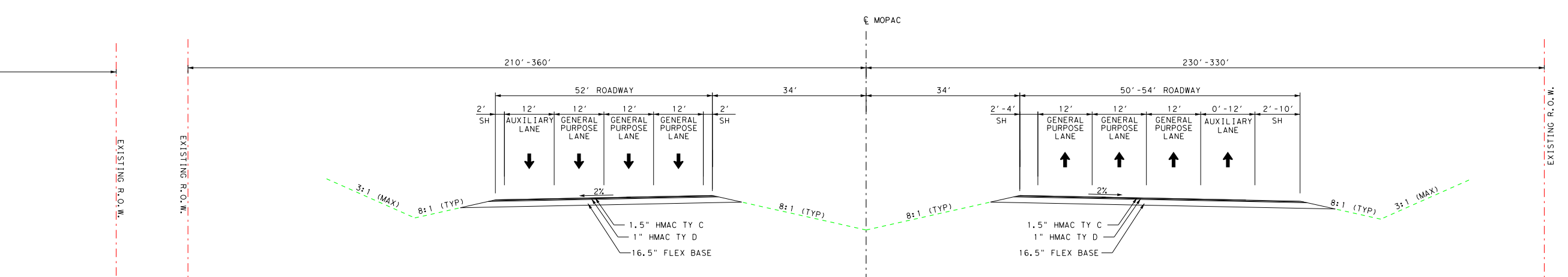
EXISTING MOPAC NB MAIN LANES (LT)
STA 618+56.00 TO STA 627+48.00
• STA 637+99.00 TO STA 653+63.79
• STA 656+25.53 TO STA 659+40.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 618+56.00 TO STA 627+48.00
• STA 637+99.00 TO STA 653+73.65
• STA 656+37.04 TO STA 662+15.00



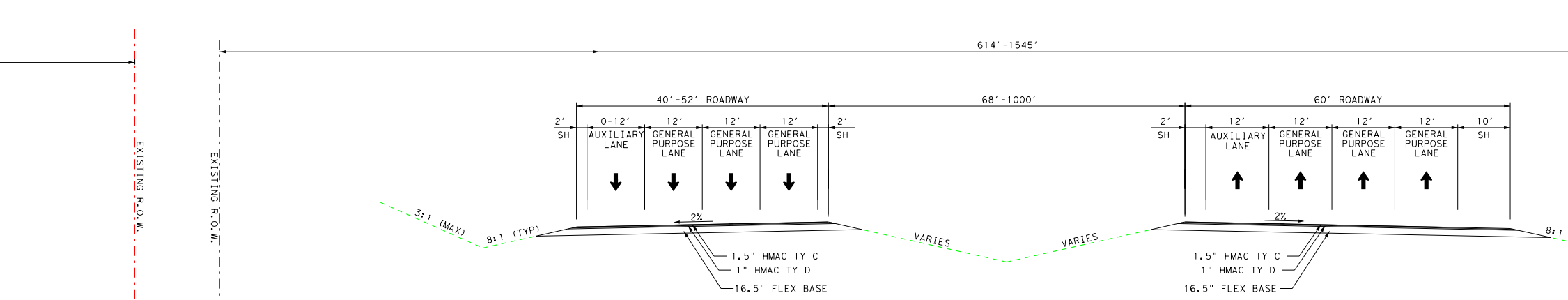
EXISTING MOPAC NB MAIN LANES (LT)
STA 659+40.00 TO STA 676+00.00
STA 751+68.00 TO STA 778+69.94

EXISTING MOPAC SB MAIN LANES (RT)
STA 662+15.00 TO STA 678+00.00
STA 754+00.00 TO STA 780+06.86



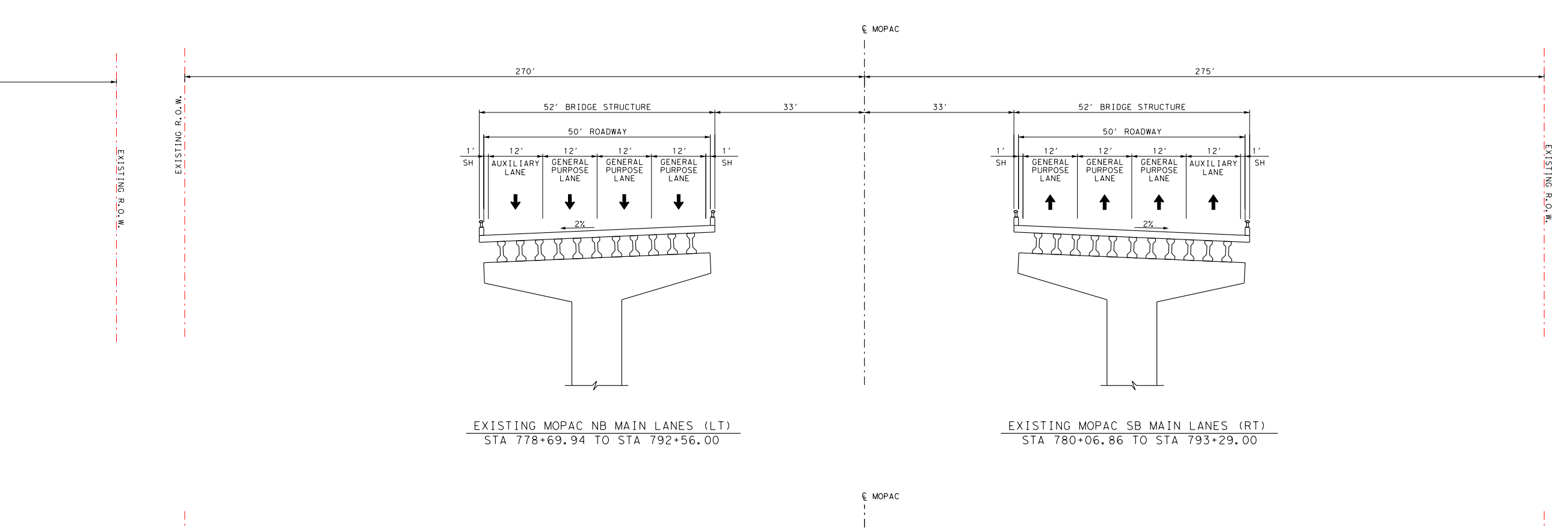
EXISTING MOPAC NB MAIN LANES (LT)
STA 676+00.00 TO STA 713+19.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 678+00.00 TO STA 713+19.00



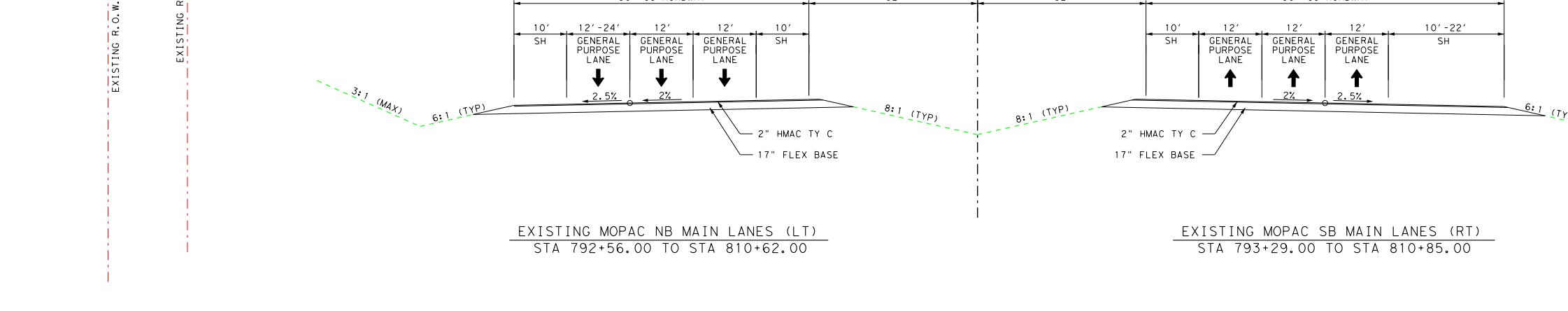
EXISTING MOPAC NB MAIN LANES (LT)
STA 713+19.00 TO STA 751+68.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 713+19.00 TO STA 754+00.00



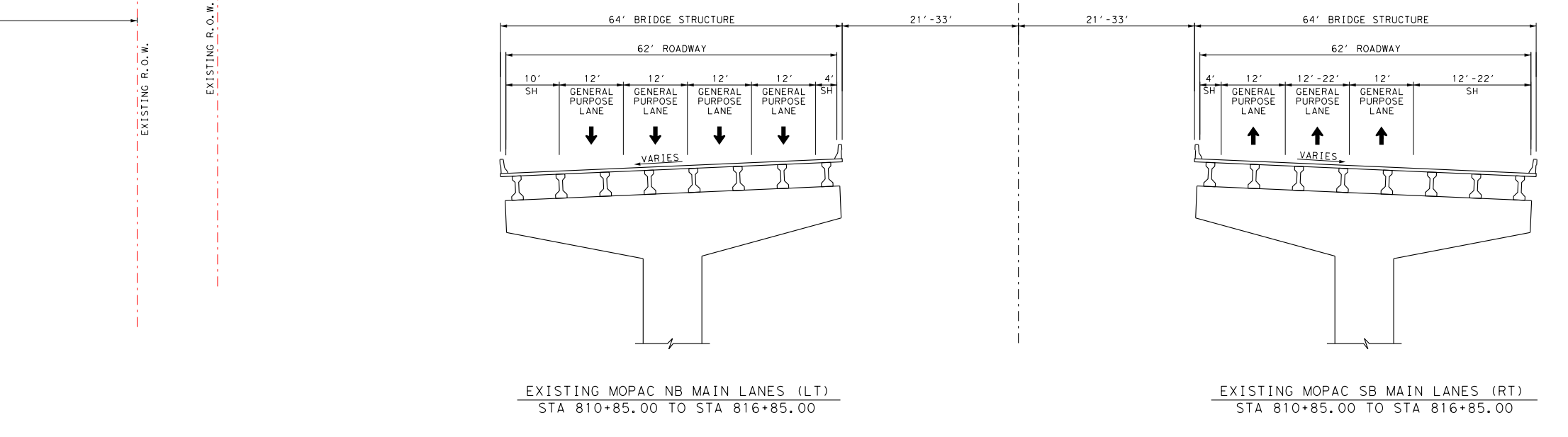
EXISTING MOPAC NB MAIN LANES (LT)
STA 778+69.94 TO STA 792+56.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 780+06.86 TO STA 793+29.00



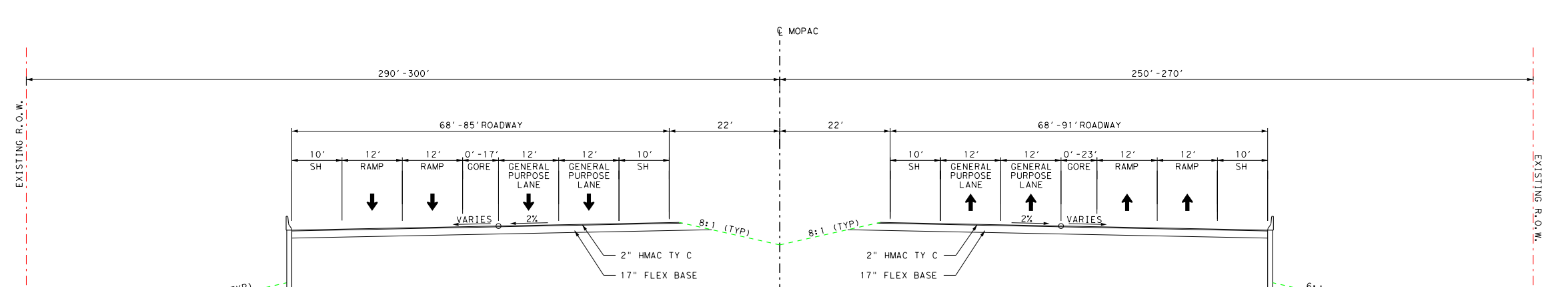
EXISTING MOPAC NB MAIN LANES (LT)
STA 792+56.00 TO STA 810+62.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 793+29.00 TO STA 810+85.00



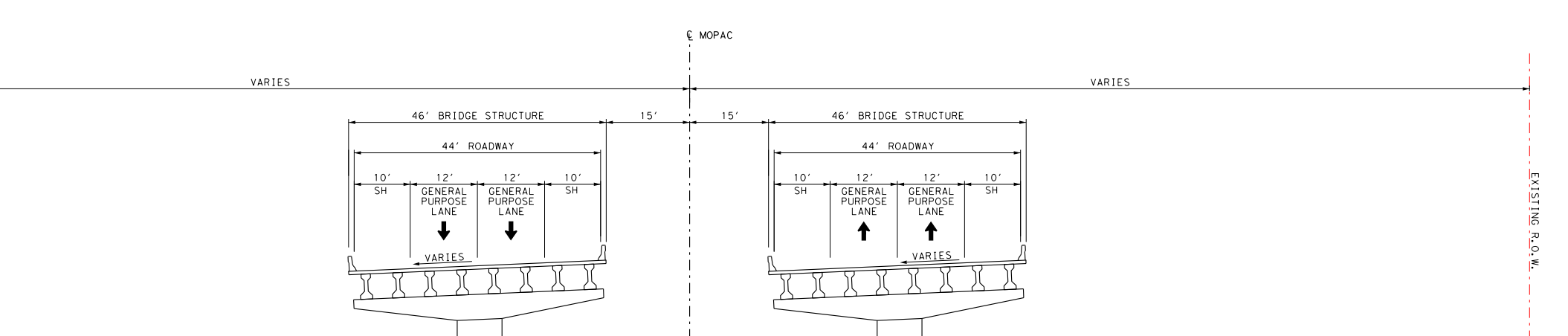
EXISTING MOPAC NB MAIN LANES (LT)
STA 810+85.00 TO STA 816+85.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 810+85.00 TO STA 816+85.00



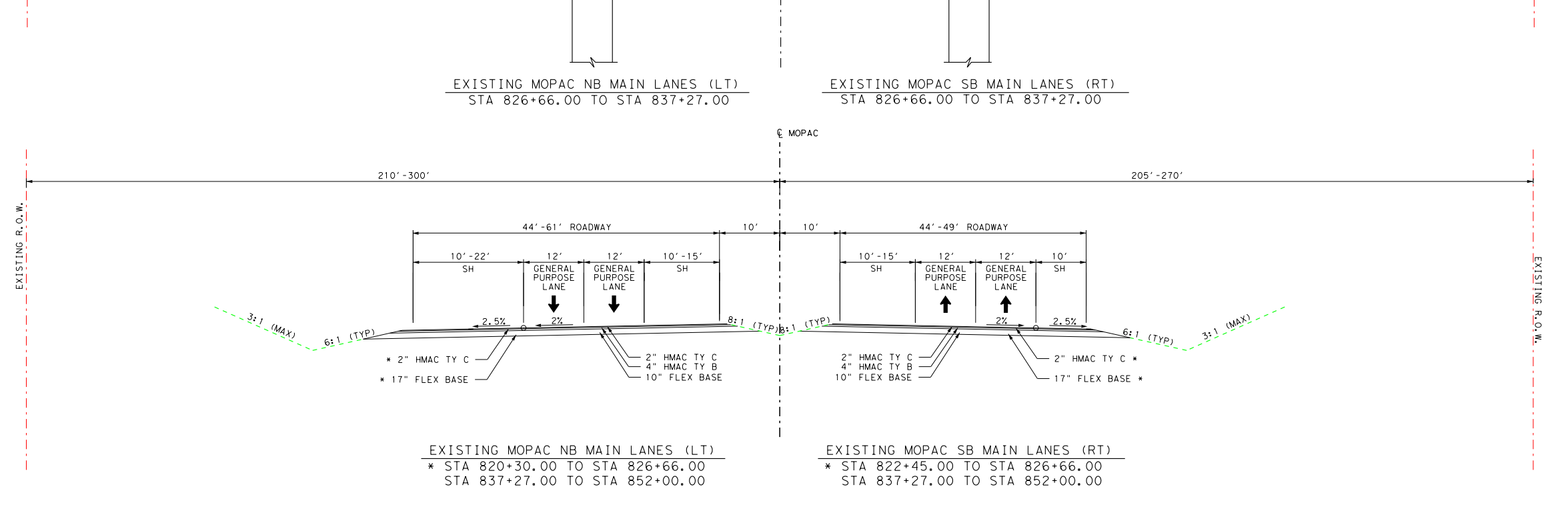
EXISTING MOPAC NB MAIN LANES (LT)
STA 816+85.00 TO STA 820+30.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 816+95.00 TO STA 822+45.00



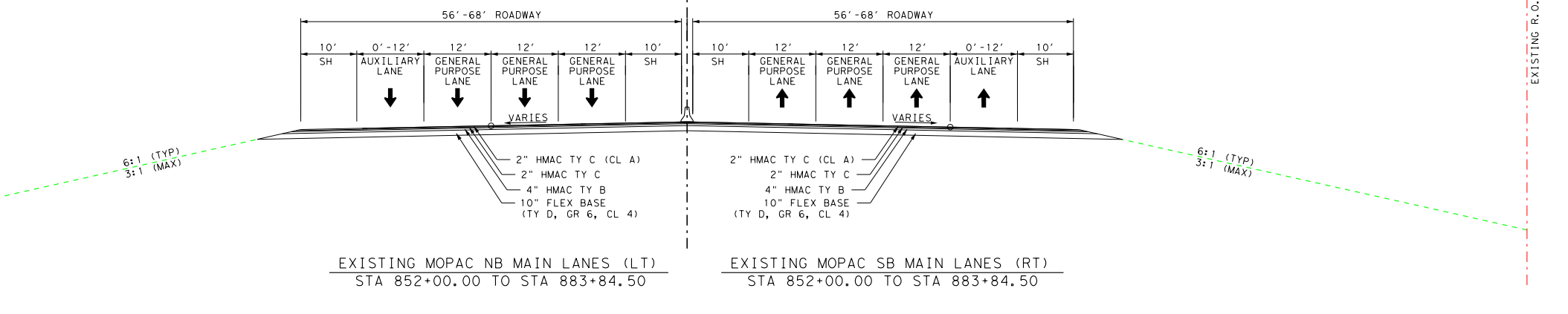
EXISTING MOPAC NB MAIN LANES (LT)
STA 826+66.00 TO STA 837+27.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 826+66.00 TO STA 837+27.00



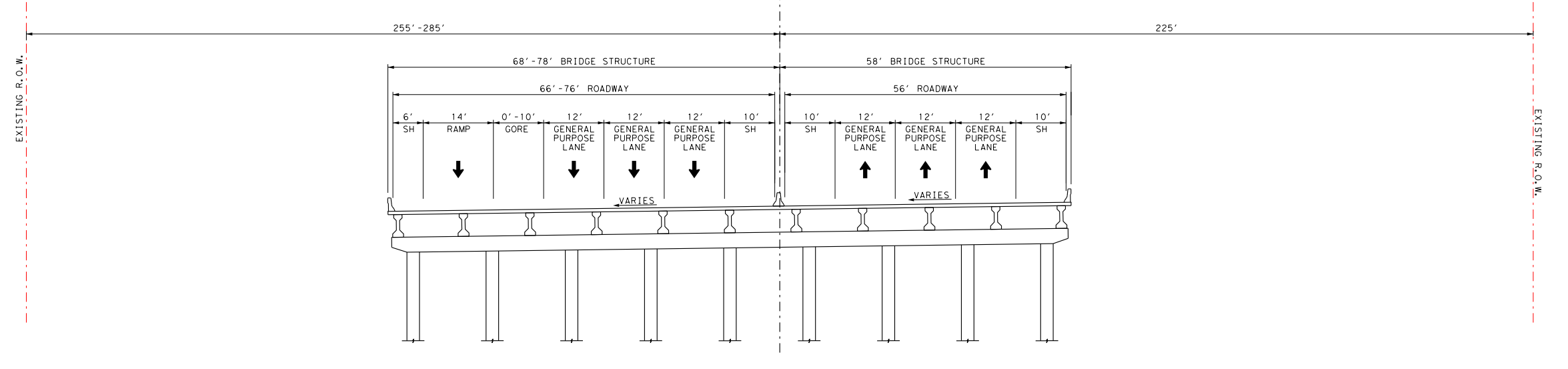
EXISTING MOPAC NB MAIN LANES (LT)
* STA 820+30.00 TO STA 826+66.00
STA 837+27.00 TO STA 852+00.00

EXISTING MOPAC SB MAIN LANES (RT)
* STA 822+45.00 TO STA 826+66.00
STA 837+27.00 TO STA 852+00.00



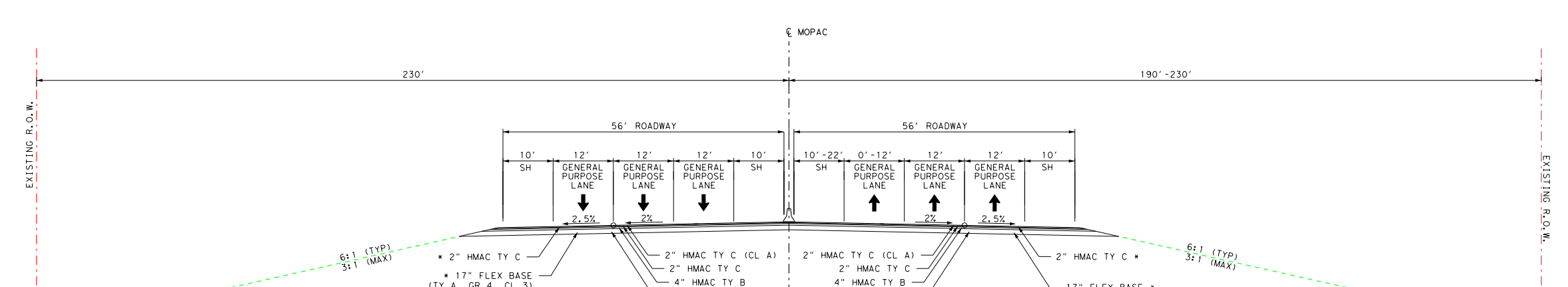
EXISTING MOPAC NB MAIN LANES (LT)
STA 852+00.00 TO STA 883+84.50

EXISTING MOPAC SB MAIN LANES (RT)
STA 852+00.00 TO STA 883+84.50



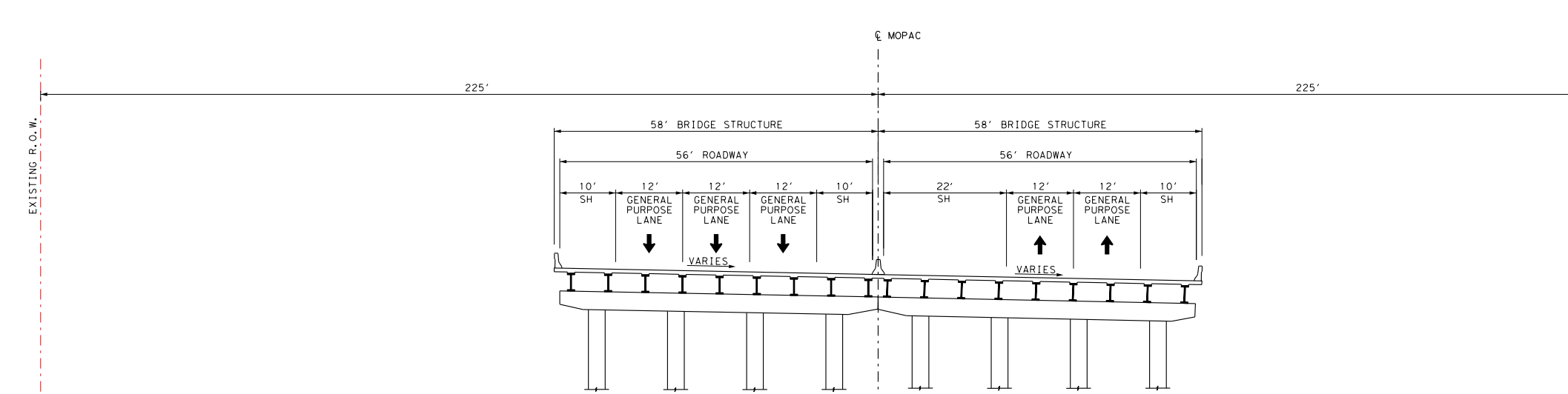
EXISTING MOPAC NB MAIN LANES (LT)
STA 883+84.50 TO STA 886+09.50

EXISTING MOPAC SB MAIN LANES (RT)
STA 883+84.50 TO STA 886+09.50



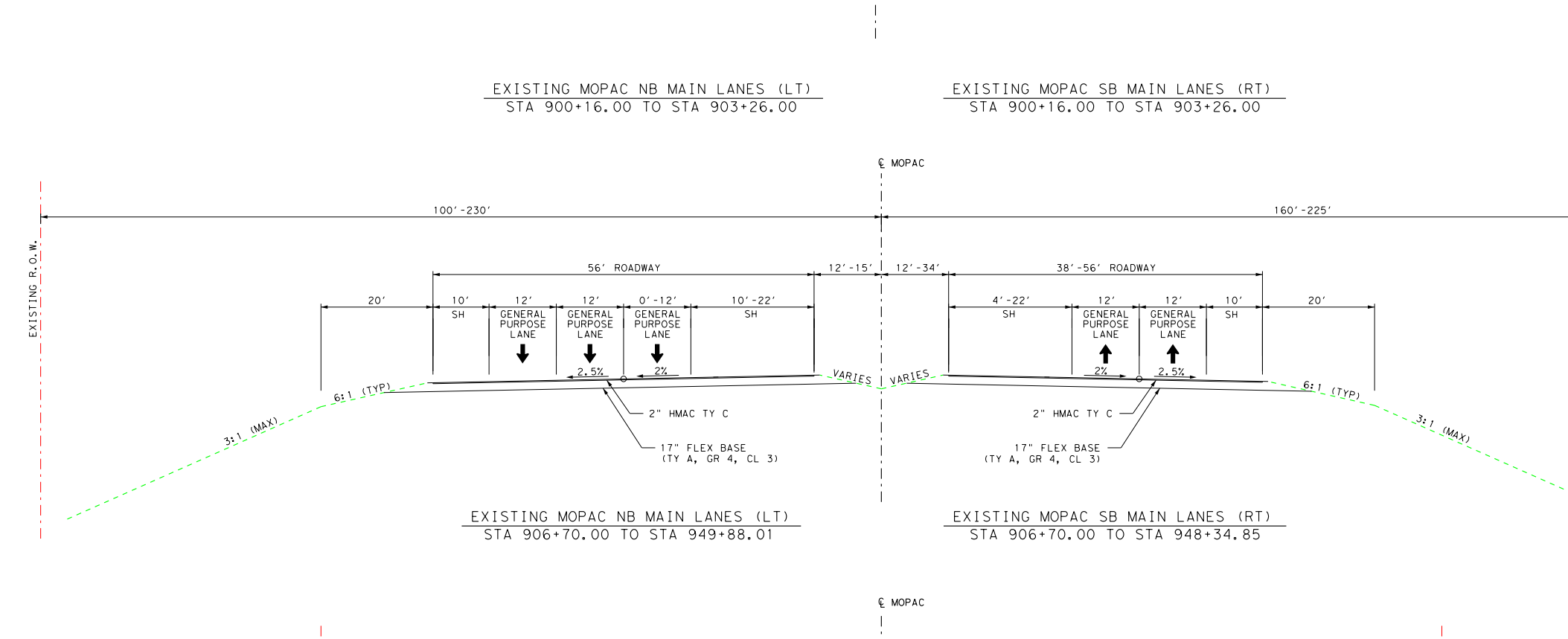
EXISTING MOPAC NB MAIN LANES (LT)
STA 886+09.50 TO STA 900+16.00
* STA 903+26.00 TO STA 906+70.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 886+09.50 TO STA 900+16.00
* STA 903+26.00 TO STA 906+70.00



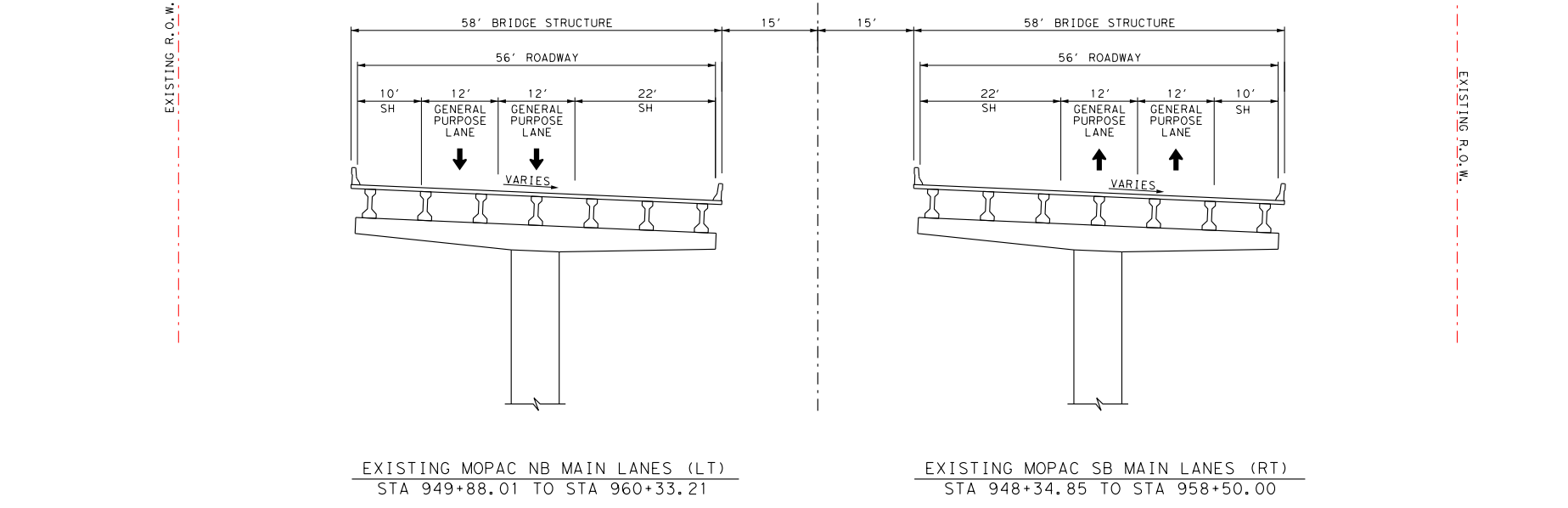
EXISTING MOPAC NB MAIN LANES (LT)
STA 900+16.00 TO STA 903+26.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 900+16.00 TO STA 903+26.00



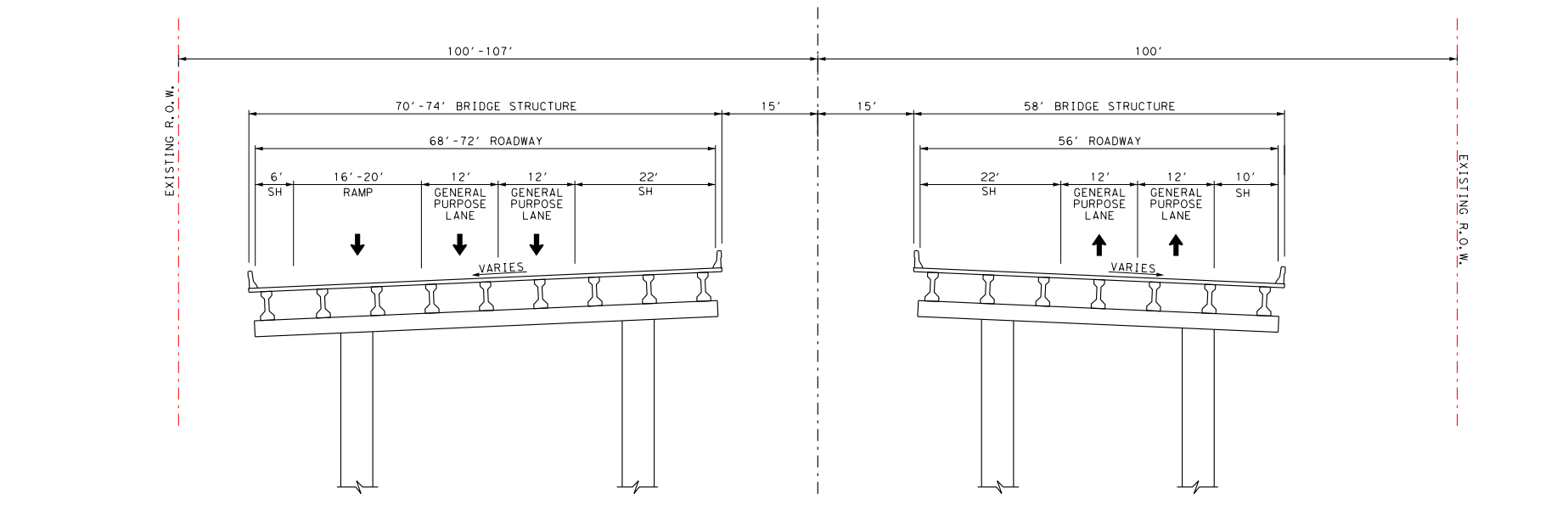
EXISTING MOPAC NB MAIN LANES (LT)
STA 906+70.00 TO STA 949+88.01

EXISTING MOPAC SB MAIN LANES (RT)
STA 906+70.00 TO STA 948+34.85



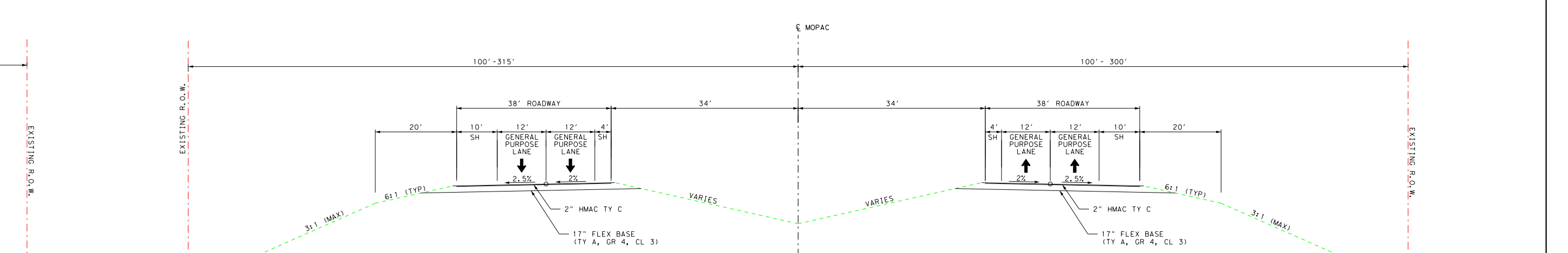
EXISTING MOPAC NB MAIN LANES (LT)
STA 949+88.01 TO STA 960+33.21

EXISTING MOPAC SB MAIN LANES (RT)
STA 948+34.85 TO STA 958+50.00



EXISTING MOPAC NB MAIN LANES (LT)
STA 977+33.00 TO STA 979+18.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 977+33.00 TO STA 979+18.00

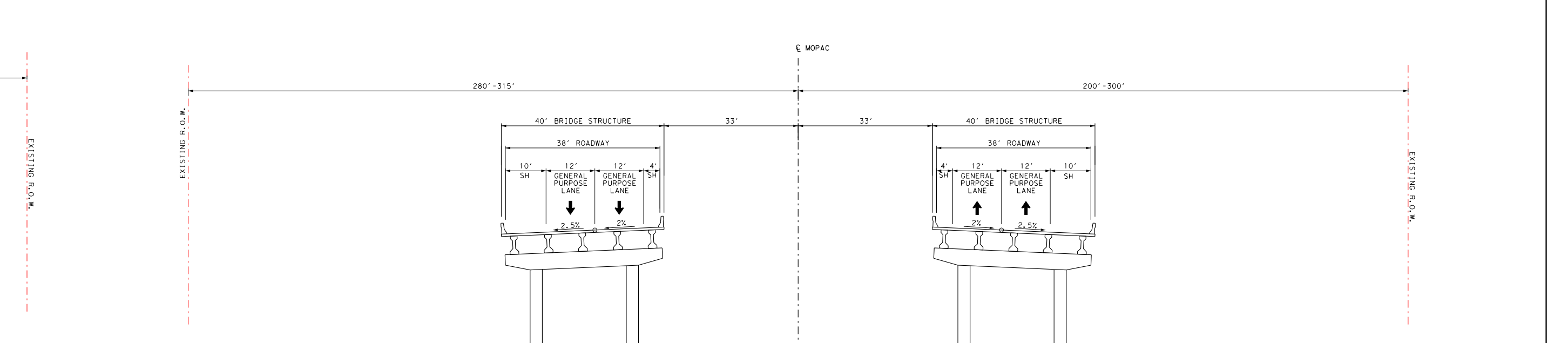


EXISTING MOPAC NB MAIN LANES (LT)
STA 960+33.21 TO STA 977+33.00
STA 979+18.00 TO STA 995+73.00
STA 997+67.00 TO STA 1013+74.69

NOTE:
LOOP 1 STA 1013+74.69 = RPNB1 STA 23+69.10

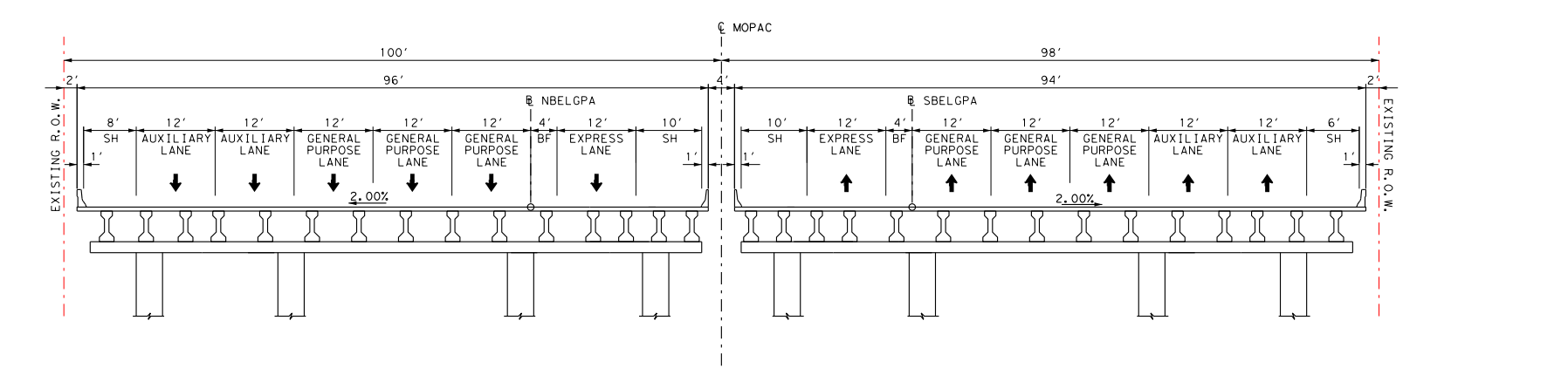
EXISTING MOPAC SB MAIN LANES (RT)
STA 958+50.00 TO STA 977+33.00
STA 979+18.00 TO STA 995+73.00
STA 997+67.00 TO STA 1013+76.00

NOTE:
LOOP 1 STA 1013+76.00 = RPSB1 STA 15+26.95



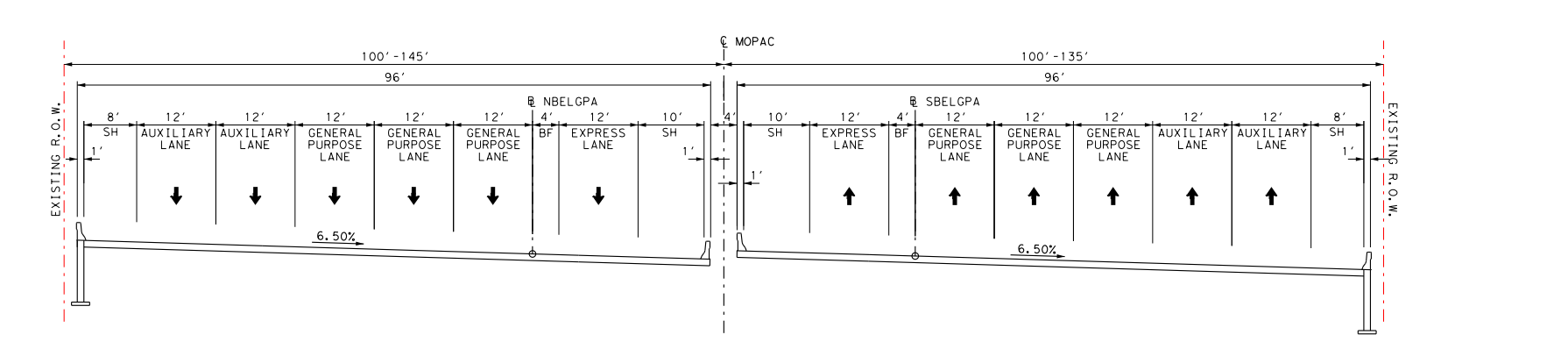
EXISTING MOPAC NB MAIN LANES (LT)
STA 995+73.00 TO STA 997+67.00

EXISTING MOPAC SB MAIN LANES (RT)
STA 995+73.00 TO STA 997+67.00



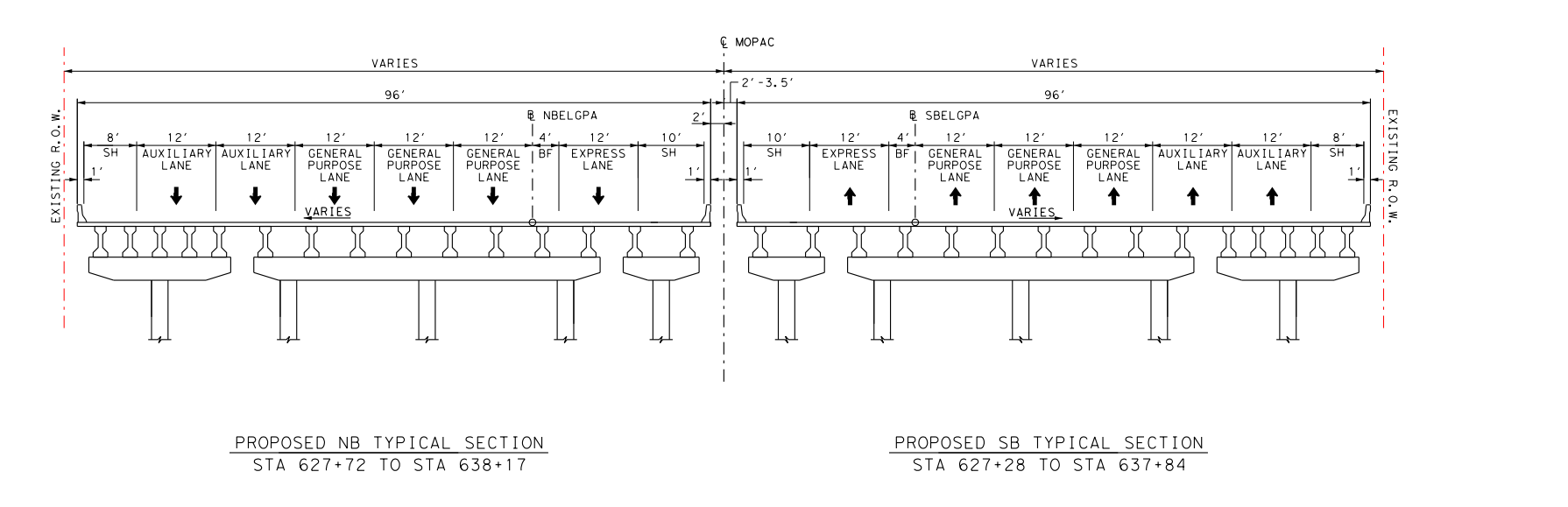
PROPOSED NB TYPICAL SECTION
STA 605+20 TO STA 618+67

PROPOSED SB TYPICAL SECTION
STA 605+14 TO STA 618+49



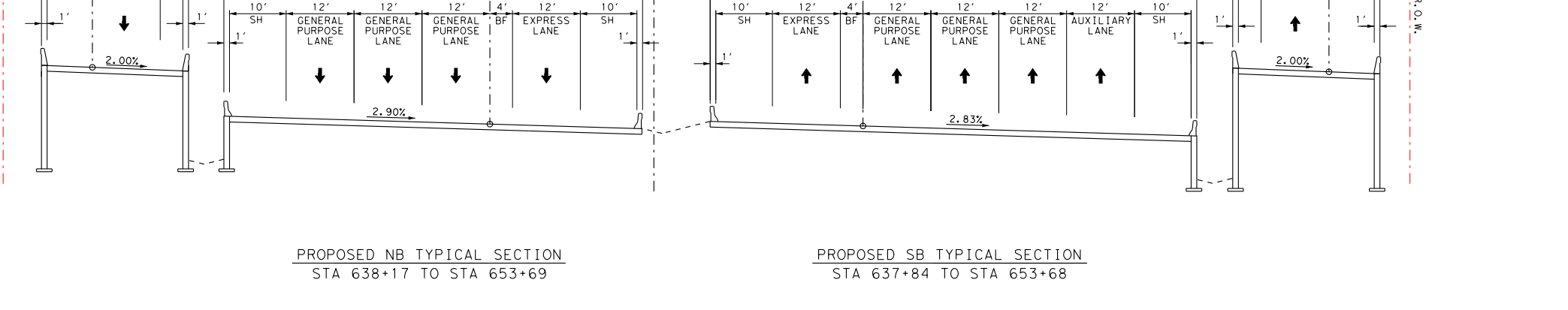
PROPOSED NB TYPICAL SECTION
STA 618+67 TO STA 627+72

PROPOSED SB TYPICAL SECTION
STA 618+49 TO STA 627+28



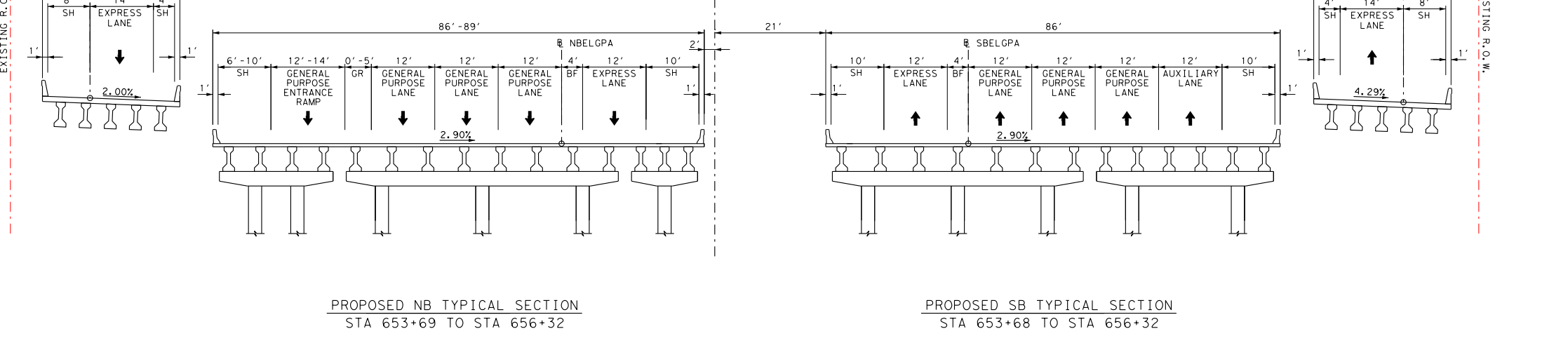
PROPOSED NB TYPICAL SECTION
STA 627+72 TO STA 638+17

PROPOSED SB TYPICAL SECTION
STA 627+28 TO STA 637+84



PROPOSED NB TYPICAL SECTION
STA 638+17 TO STA 653+69

PROPOSED SB TYPICAL SECTION
STA 637+84 TO STA 653+68



PROPOSED NB TYPICAL SECTION
STA 653+69 TO STA 656+32

PROPOSED SB TYPICAL SECTION
STA 653+68 TO STA 656+32

PRELIMINARY DESIGN SCHEMATIC OF MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176

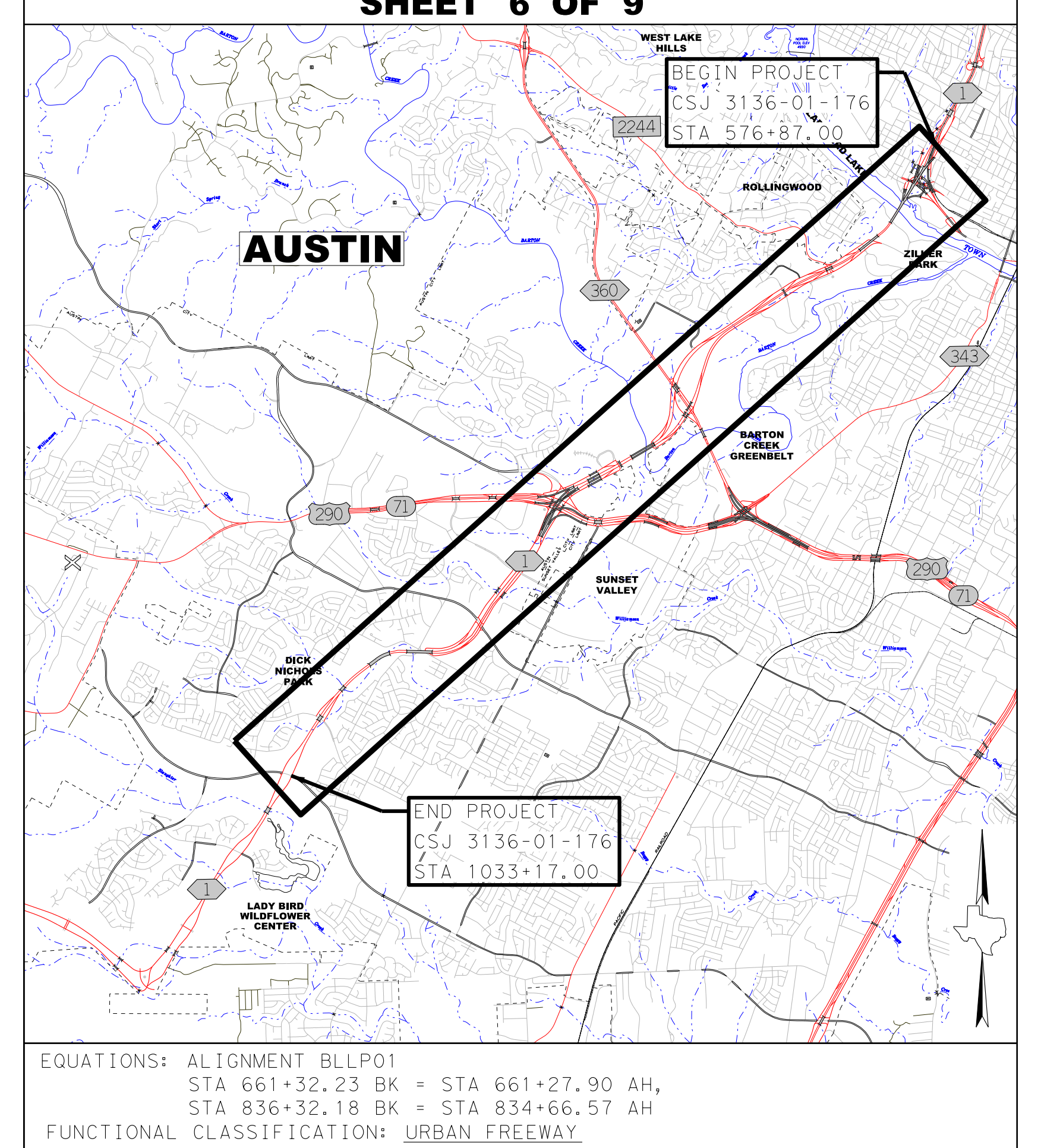
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.

SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.

TRAVIS COUNTY

LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE

SHEET 6 OF 9



EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

SCALE: 1:100 H
1:10 V

MOPAC SOUTH
ENVIRONMENTAL STUDY

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

Texas Department of Transportation

AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474

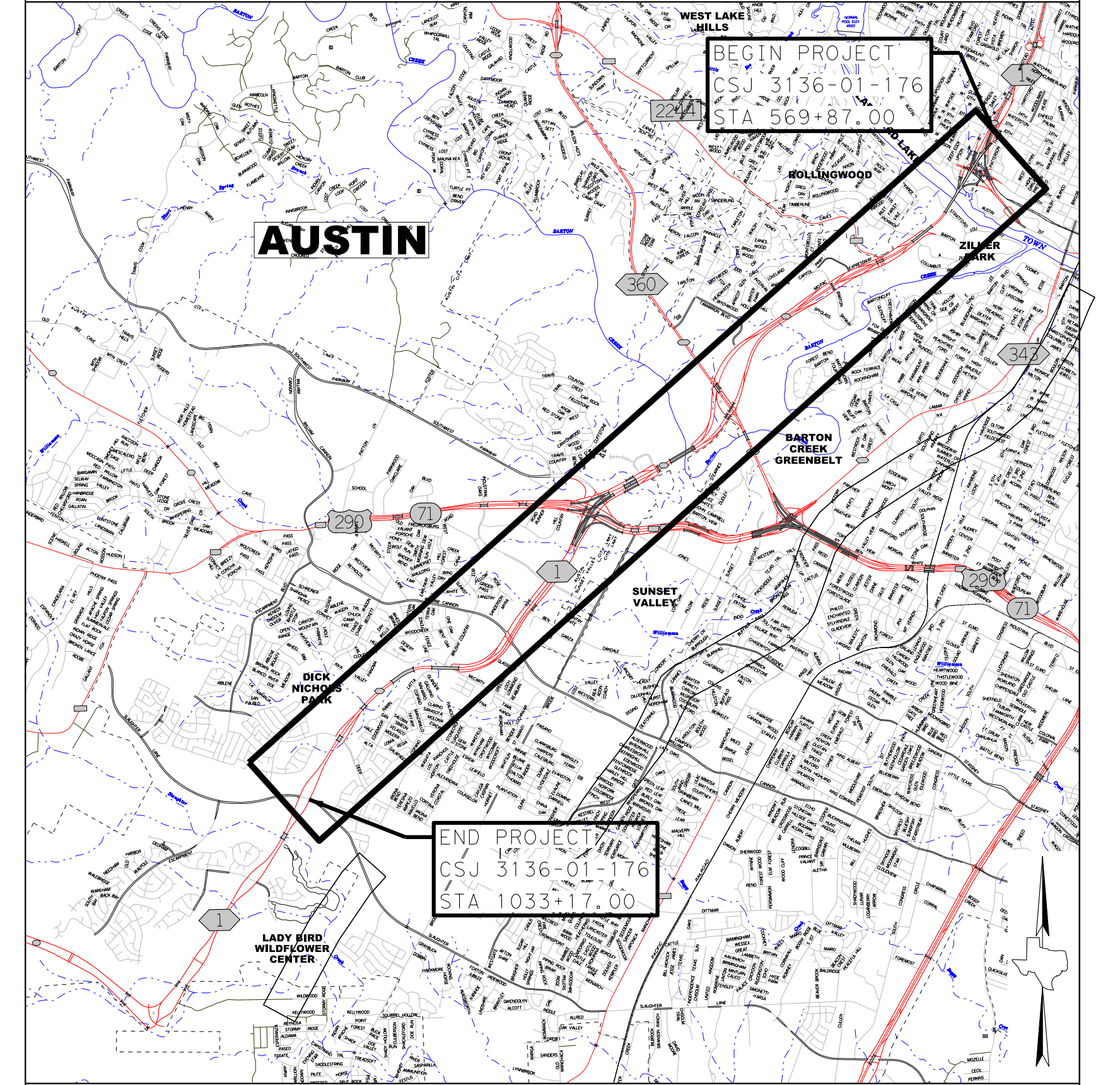
MSPSCHM0106.dgn

11/11/2024
2:24:42 PM

PRELIMINARY DESIGN SCHEMATIC OF MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.
SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.
TRAVIS COUNTY
LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE

SHEET 7 OF 9



EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

SCALE: 1:100 H
1:10 V

MoPac South
ENVIRONMENTAL STUDY

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation
AtkinsRéalis

MSPSCHM0107.dgn

EXISTING R.O.W.
℄ MOPAC
℄ NBELGPA
℄ SBELGPA
SH
GENERAL PURPOSE LANE
EXPRESS LANE
AUXILIARY LANE
TRANSFER LANE
ENTRANCE RAMP
CONNECTOR LANE
RAMP
BF
VARIES
EXISTING TO REMAIN
WIDENING

PROPOSED NB TYPICAL SECTION
STA 656+51 TO STA 669+07

PROPOSED SB TYPICAL SECTION
STA 656+32 TO STA 666+96

PROPOSED NB TYPICAL SECTION
STA 669+07 TO STA 677+44

PROPOSED SB TYPICAL SECTION
STA 666+96 TO STA 675+75

PROPOSED NB TYPICAL SECTION
STA 677+44 TO STA 699+09

PROPOSED SB TYPICAL SECTION
STA 675+75 TO STA 699+60

PROPOSED NB TYPICAL SECTION
STA 699+09 TO STA 714+68

PROPOSED SB TYPICAL SECTION
STA 699+60 TO STA 714+55

PROPOSED NB TYPICAL SECTION
STA 714+68 TO STA 741+73

PROPOSED SB TYPICAL SECTION
STA 714+55 TO STA 729+87

PROPOSED NB TYPICAL SECTION
STA 741+73 TO STA 764+00

PROPOSED SB TYPICAL SECTION
STA 729+87 TO STA 755+59

PROPOSED NB GENERAL PURPOSE LANE TYPICAL SECTION
STA 764+00 TO STA 780+10

PROPOSED NB EXPRESS LANE TYPICAL SECTION
STA 1765+00 TO STA 1778+43

PROPOSED SB EXPRESS LANE TYPICAL SECTION
STA 1765+00 TO STA 1777+95

PROPOSED SB GENERAL PURPOSE LANE TYPICAL SECTION
STA 755+59 TO STA 779+42

PROPOSED NB GENERAL PURPOSE LANE TYPICAL SECTION
STA 780+10 TO STA 792+83

PROPOSED NB EXPRESS LANE TYPICAL SECTION
STA 1778+43 TO STA 1791+18

PROPOSED SB EXPRESS LANE TYPICAL SECTION
STA 1777+95 TO STA 1791+23

PROPOSED SB GENERAL PURPOSE LANE TYPICAL SECTION
STA 779+42 TO STA 793+43

PROPOSED NB GENERAL PURPOSE LANE TYPICAL SECTION
STA 792+83 TO STA 810+50

PROPOSED NB EXPRESS LANE TYPICAL SECTION
STA 1791+18 TO STA 1808+87

PROPOSED SB EXPRESS LANE TYPICAL SECTION
STA 1791+23 TO STA 1808+48

PROPOSED SB GENERAL PURPOSE LANE TYPICAL SECTION
STA 793+43 TO STA 810+50

PROPOSED NB GENERAL PURPOSE LANE TYPICAL SECTION
STA 810+50 TO STA 815+31

PROPOSED NB EXPRESS LANE TYPICAL SECTION
STA 1808+87 TO STA 1815+32

PROPOSED SB EXPRESS LANE TYPICAL SECTION
STA 1808+48 TO STA 1814+91

PROPOSED SB GENERAL PURPOSE LANE TYPICAL SECTION
STA 810+50 TO STA 816+73

PROPOSED NB GENERAL PURPOSE LANE TYPICAL SECTION
STA 815+31 TO STA 823+55

PROPOSED NB EXPRESS LANE TYPICAL SECTION
STA 1815+32 TO STA 1824+98

PROPOSED SB EXPRESS LANE TYPICAL SECTION
STA 1814+91 TO STA 1824+68

PROPOSED SB GENERAL PURPOSE LANE TYPICAL SECTION
STA 816+73 TO STA 826+56

PROPOSED NB GENERAL PURPOSE LANE TYPICAL SECTION
STA 823+55 TO STA 836+30

PROPOSED NB EXPRESS LANE TYPICAL SECTION
STA 1824+98 TO STA 1836+93

PROPOSED SB EXPRESS LANE TYPICAL SECTION
STA 1824+68 TO STA 1837+25

PROPOSED SB GENERAL PURPOSE LANE TYPICAL SECTION
STA 826+56 TO STA 841+10

PROPOSED NB GENERAL PURPOSE LANE TYPICAL SECTION
STA 836+30 TO STA 844+76

PROPOSED NB EXPRESS LANE TYPICAL SECTION
STA 1836+93 TO STA 1845+55

PROPOSED SB EXPRESS LANE TYPICAL SECTION
STA 1837+25 TO STA 1848+40

PROPOSED SB GENERAL PURPOSE LANE TYPICAL SECTION
STA 841+10 TO STA 852+45

PROPOSED NB GENERAL PURPOSE LANE TYPICAL SECTION
STA 844+76 TO STA 864+02

PROPOSED NB EXPRESS LANE TYPICAL SECTION
STA 1845+55 TO STA 1862+42

PROPOSED SB EXPRESS LANE TYPICAL SECTION
STA 1848+40 TO STA 1862+46

PROPOSED SB C-D LANE TYPICAL SECTION
STA 16+93 TO STA 22+50

PROPOSED SB GENERAL PURPOSE LANE TYPICAL SECTION
STA 852+45 TO STA 867+70

PROPOSED NB GENERAL PURPOSE LANE TYPICAL SECTION
STA 864+02 TO STA 872+05

PROPOSED TYPICAL SECTION
STA 864+95 TO STA 873+30

PROPOSED SB C-D LANE TYPICAL SECTION
STA 22+50 TO STA 40+00

PROPOSED NB GENERAL PURPOSE LANE TYPICAL SECTION
STA 872+05 TO STA 878+10

PROPOSED TYPICAL SECTION
STA 873+30 TO STA 879+08

PROPOSED SB C-D LANE TYPICAL SECTION
STA 40+00 TO STA 45+00

PROPOSED TYPICAL SECTION
STA 879+08 TO STA 897+21

PROPOSED TYPICAL SECTION
STA 897+21 TO STA 909+00

PROPOSED NB TYPICAL SECTION
STA 909+00 TO STA 930+23

PROPOSED SB TYPICAL SECTION
STA 909+00 TO STA 931+60

PROPOSED NB TYPICAL SECTION
STA 930+23 TO STA 941+20

PROPOSED SB TYPICAL SECTION
STA 931+60 TO STA 941+67

PROPOSED NB TYPICAL SECTION
STA 941+20 TO STA 949+88

PROPOSED SB TYPICAL SECTION
STA 941+67 TO STA 948+08

PROPOSED NB TYPICAL SECTION
STA 949+88 TO STA 960+33

PROPOSED SB TYPICAL SECTION
STA 948+08 TO STA 958+81

PROPOSED NB TYPICAL SECTION
STA 960+33 TO STA 977+25

PROPOSED SB TYPICAL SECTION
STA 958+81 TO STA 977+25

PROPOSED NB TYPICAL SECTION
STA 977+25 TO STA 979+18

PROPOSED SB TYPICAL SECTION
STA 977+25 TO STA 979+18

PROPOSED NB TYPICAL SECTION
STA 979+18 TO STA 995+73

PROPOSED SB TYPICAL SECTION
STA 979+18 TO STA 995+73

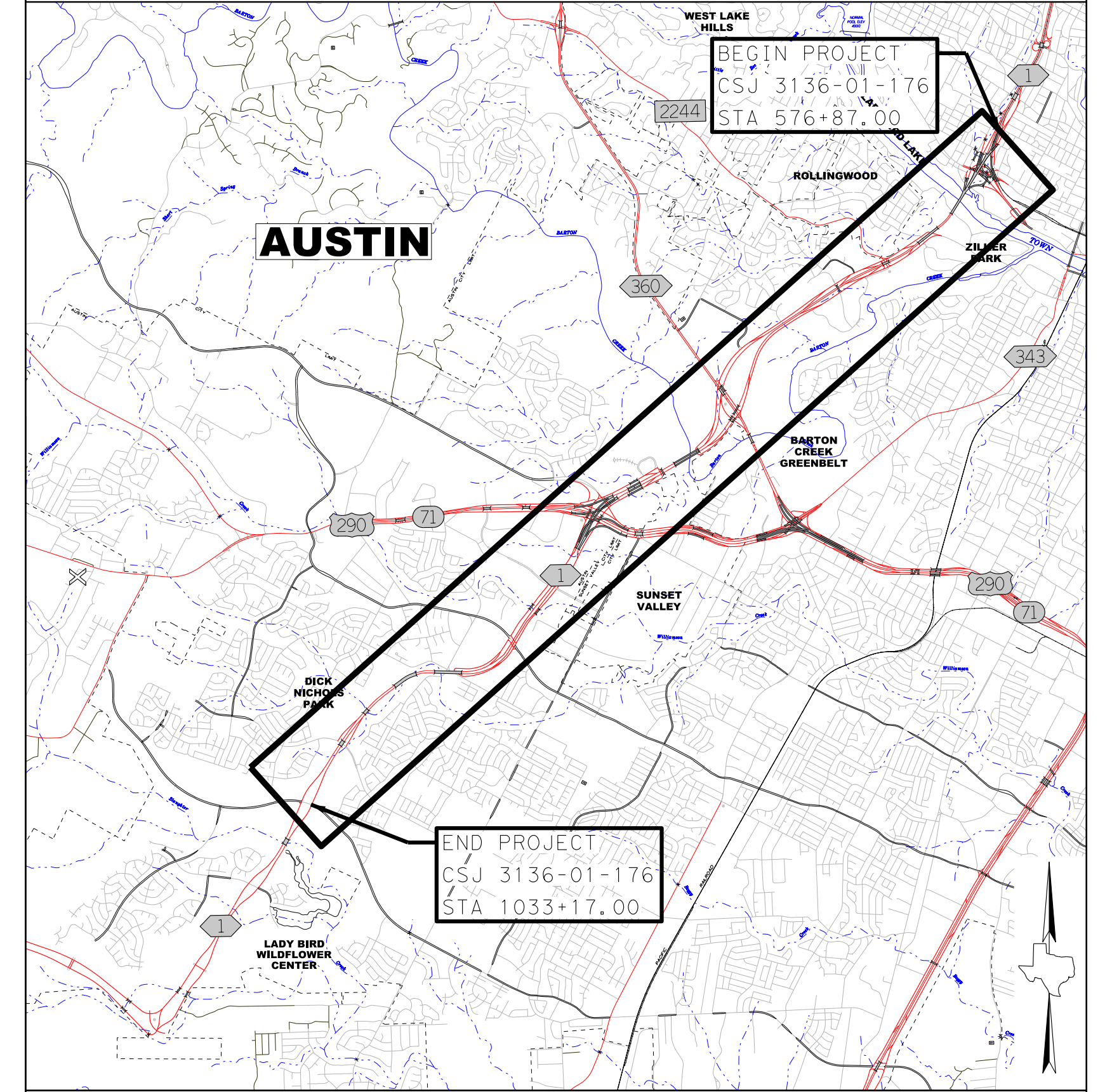
PROPOSED NB TYPICAL SECTION
STA 995+73 TO STA 997+67

PROPOSED SB TYPICAL SECTION
STA 995+73 TO STA 997+67

PROPOSED NB TYPICAL SECTION
STA 997+67 TO STA 1040+28

PROPOSED SB TYPICAL SECTION
STA 997+67 TO STA 1039+48

PRELIMINARY DESIGN SCHEMATIC OF MOPAC SOUTH ENVIRONMENTAL STUDY
CSJ: 3136-01-176
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.
SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.
TRAVIS COUNTY
LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE
SHEET 7 OF 9



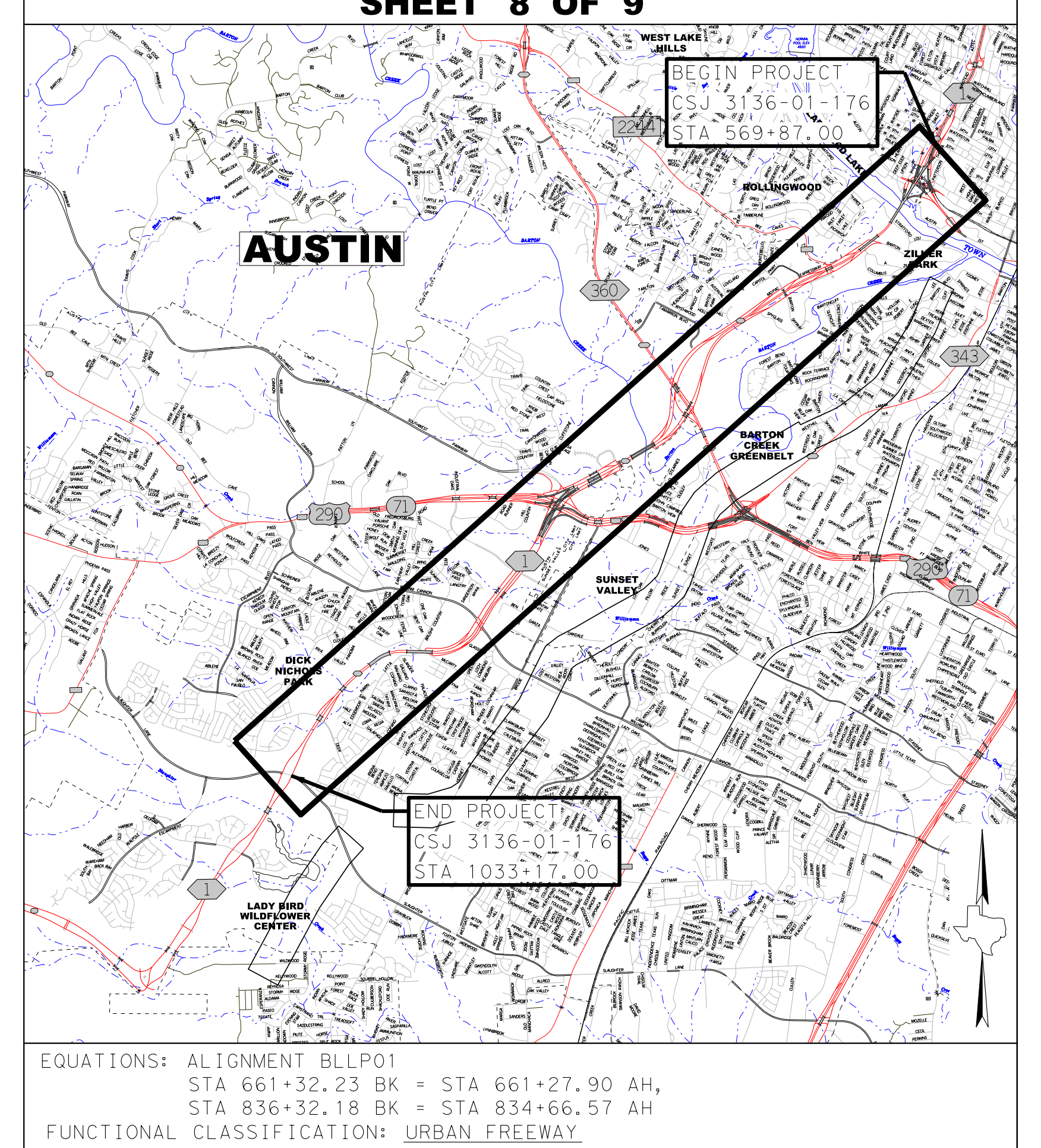
EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD
BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.
SCALE: 1:100 H
1:10 V
MoPac South
ENVIRONMENTAL STUDY
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation
AtkinsRéalis

11/11/2024
2:24:48 PM

PRELIMINARY DESIGN SCHEMATIC OF
MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.
SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.
TRAVIS COUNTY
LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE

SHEET 8 OF 9



WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 569+87.00
2244
ROLLINGWOOD
AUSTIN
ZILKER PARK
360
343
BARTON CREEK GREENBELT
290
71
1
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

SCALE: 1:100 H
1:10 V

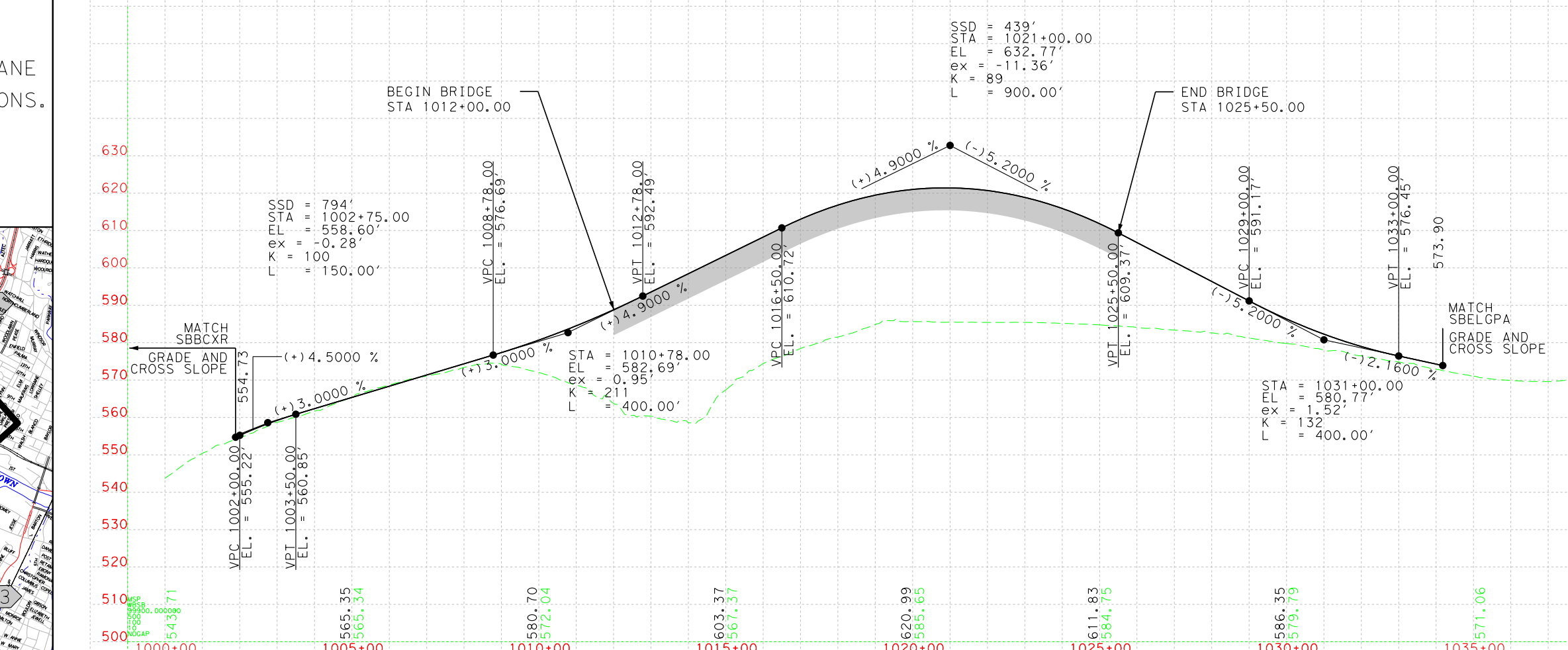
MoPac South
ENVIRONMENTAL STUDY

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation

AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474

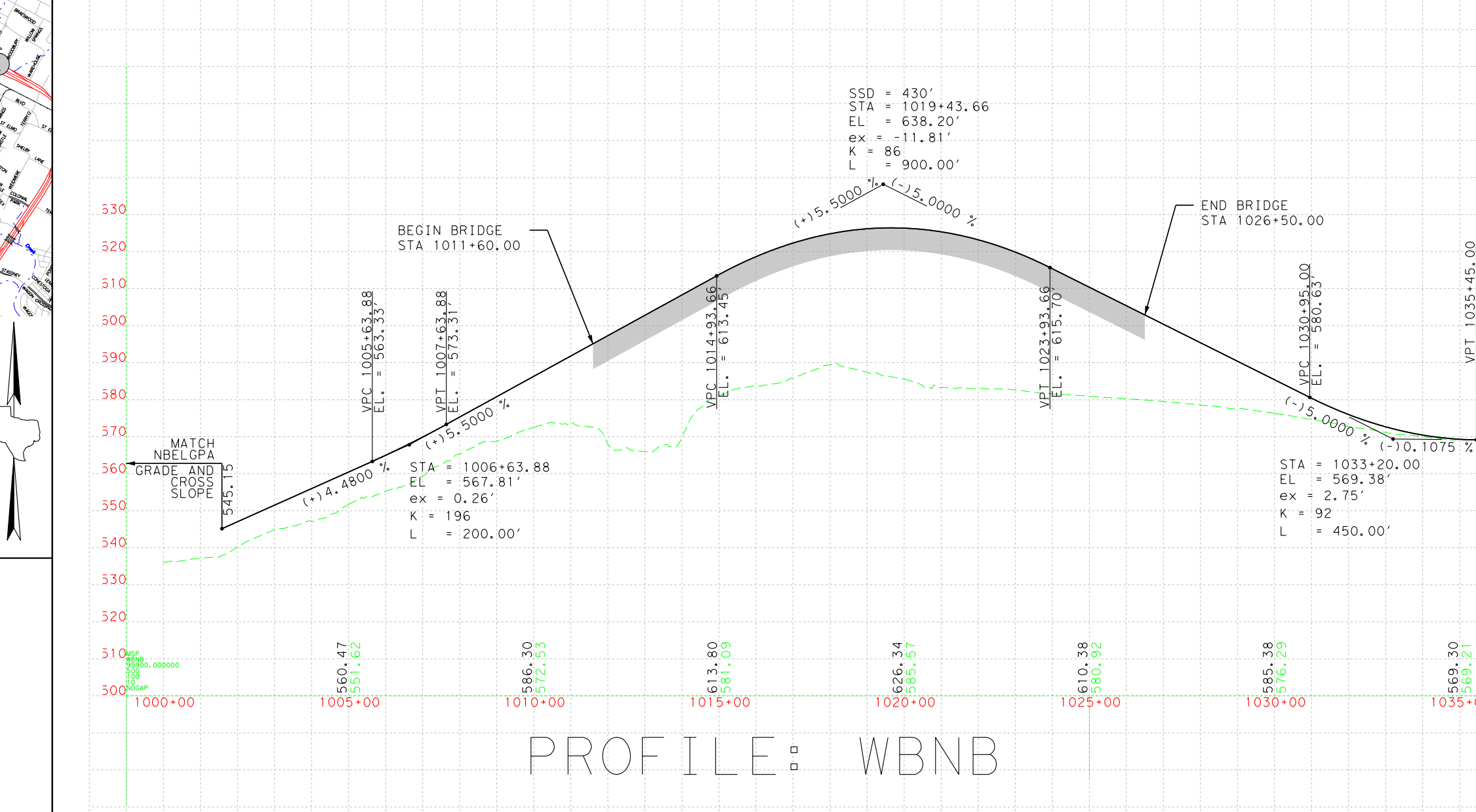
MSPSCHM0108.dgn

WISHBONE RAMPS



SSD = 439'
STA = 1021+00.00
EL = 632.77'
ex = -11.36'
K = 89
L = 900.00'
BEGIN BRIDGE
STA 1012+00.00
END BRIDGE
STA 1025+50.00
SSD = 794'
STA = 1002+75.00
EL = 558.60'
ex = -0.28'
K = 100
L = 150.00'
MATCH SBBCXR
GRADE AND CROSS SLOPE
(+)4.5000 %
(+)3.0000 %
(+)5.0000 %
(+)14.9000 %
(-)15.2000 %
(-)15.2000 %
(-)12.1600 %
STA = 1010+78.00
EL = 582.69'
ex = 0.95'
K = 211
L = 400.00'
STA = 1031+00.00
EL = 580.77'
ex = 1.52'
K = 132
L = 400.00'
MATCH SBELGPA
GRADE AND CROSS SLOPE
VPC 1002+00.00 EL. = 555.22
VPT 1003+50.00 EL. = 560.85
554.73
VPC 1008+78.00 EL. = 576.69
VPT 1012+78.00 EL. = 592.49
VPC 1016+50.00 EL. = 610.12
VPC 1025+50.00 EL. = 609.37
VPC 1029+00.00 EL. = 591.17
VPT 1033+00.00 EL. = 576.45
573.90
1000+00
1005+00
1010+00
1015+00
1020+00
1025+00
1030+00
1035+00

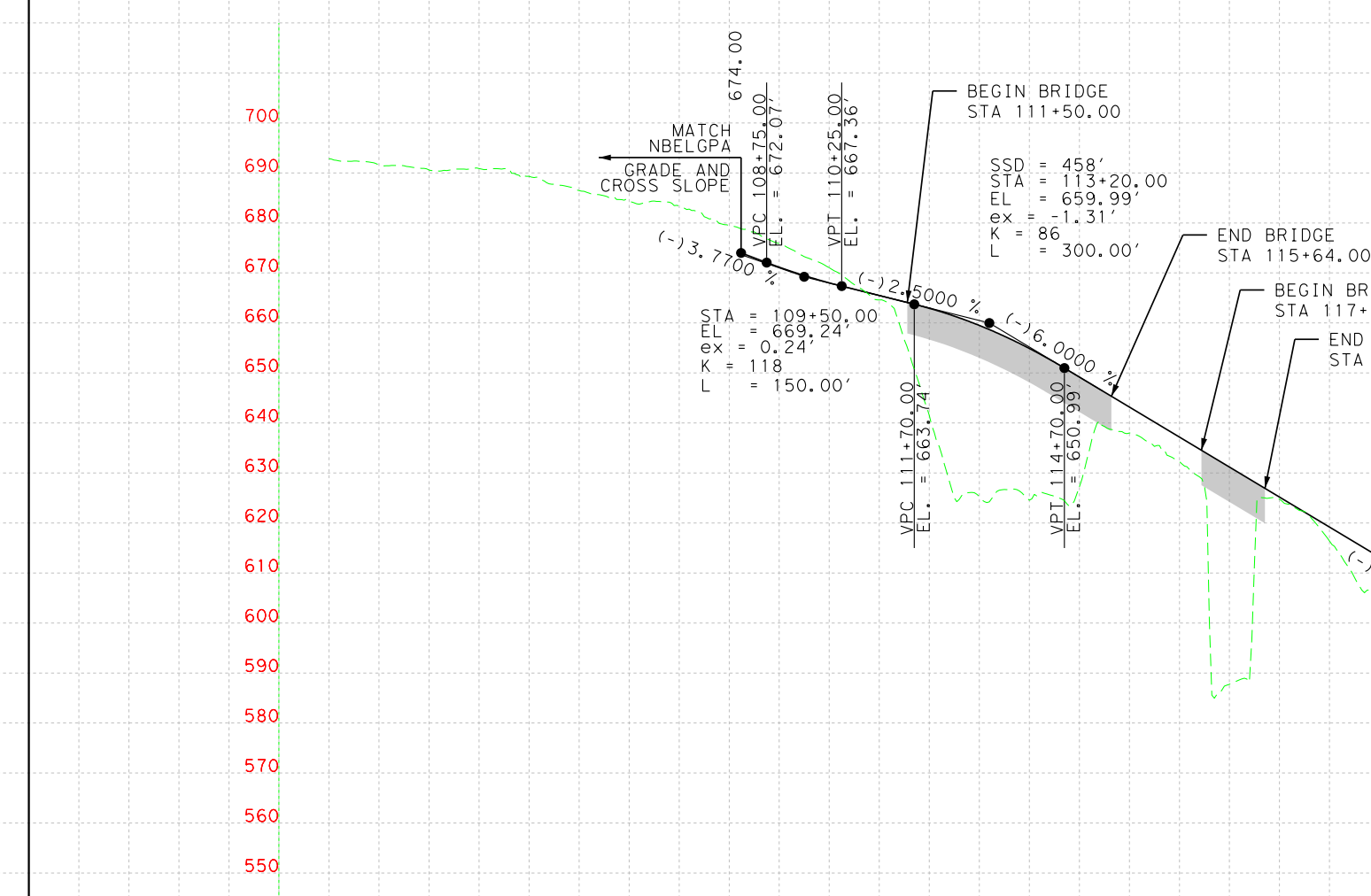
PROFILE: WBSB



SSD = 430'
STA = 1019+43.66
EL = 638.20'
ex = -11.81'
K = 86
L = 900.00'
BEGIN BRIDGE
STA 1011+60.00
END BRIDGE
STA 1026+50.00
(+)15.5000 %
(-)15.0000 %
(+)15.0000 %
(+)4.4800 %
(-)15.0000 %
(-)10.1075 %
MATCH NBELGPA
GRADE AND CROSS SLOPE
STA = 1006+63.88
EL = 567.81'
ex = 0.26'
K = 196
L = 200.00'
STA = 1033+20.00
EL = 569.38'
ex = 2.75'
K = 92
L = 450.00'
VPC 1005+63.88 EL. = 563.33
VPT 1007+63.88 EL. = 573.31
VPC 1014+93.66 EL. = 613.45
VPT 1023+93.66 EL. = 615.70
VPC 1030+95.00 EL. = 580.63
VPT 1035+45.00 EL. = 569.14
545.15
569.14
1000+00
1005+00
1010+00
1015+00
1020+00
1025+00
1030+00
1035+00

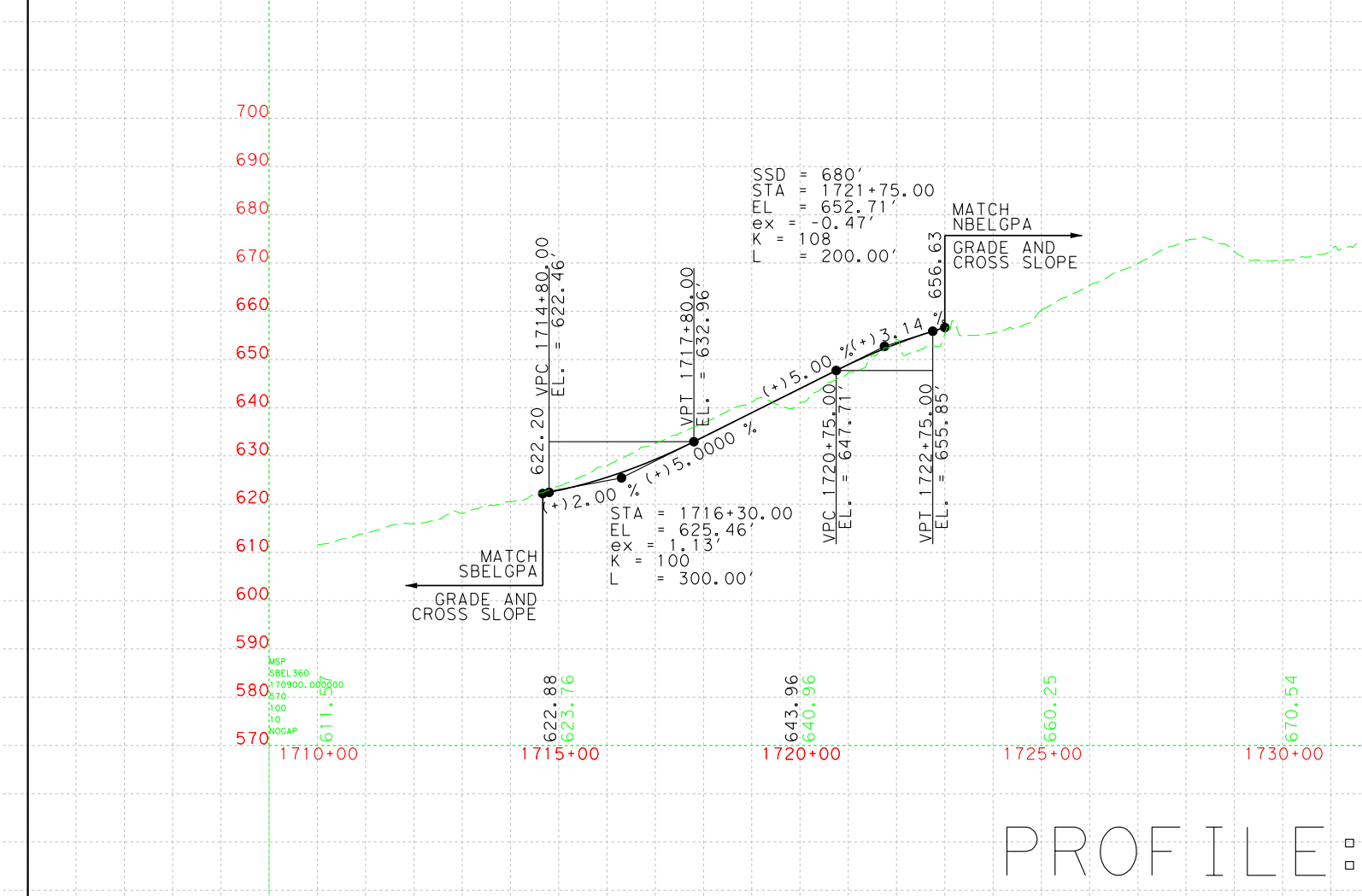
PROFILE: WBNB

360 INTERCHANGE



BEGIN BRIDGE
STA 111+50.00
MATCH NBELGPA
GRADE AND CROSS SLOPE
SSD = 458'
STA = 113+20.00
EL = 659.99'
ex = -1.31'
K = 86
L = 300.00'
END BRIDGE
STA 115+64.00
BEGIN BRIDGE
STA 117+44.00
END BRIDGE
STA 118+71.00
(-)3.7700 %
(-)12.5000 %
(-)16.0000 %
(-)16.0000 %
(-)4.0000 %
STA = 109+50.00
EL = 669.24'
ex = 0.24'
K = 118
L = 150.00'
STA = 123+25.00
EL = 599.69'
ex = 0.50'
K = 100
L = 200.00'
MATCH SBELA
GRADE AND CROSS SLOPE
674.00
VPC 108+75.00 EL. = 672.07
VPT 110+25.00 EL. = 667.36
VPC 111+70.00 EL. = 663.74
VPT 114+70.00
VPC 122+25.00 EL. = 605.69
VPT 124+25.00 EL. = 595.69
592.69
100+00
105+00
110+00
115+00
120+00
125+00

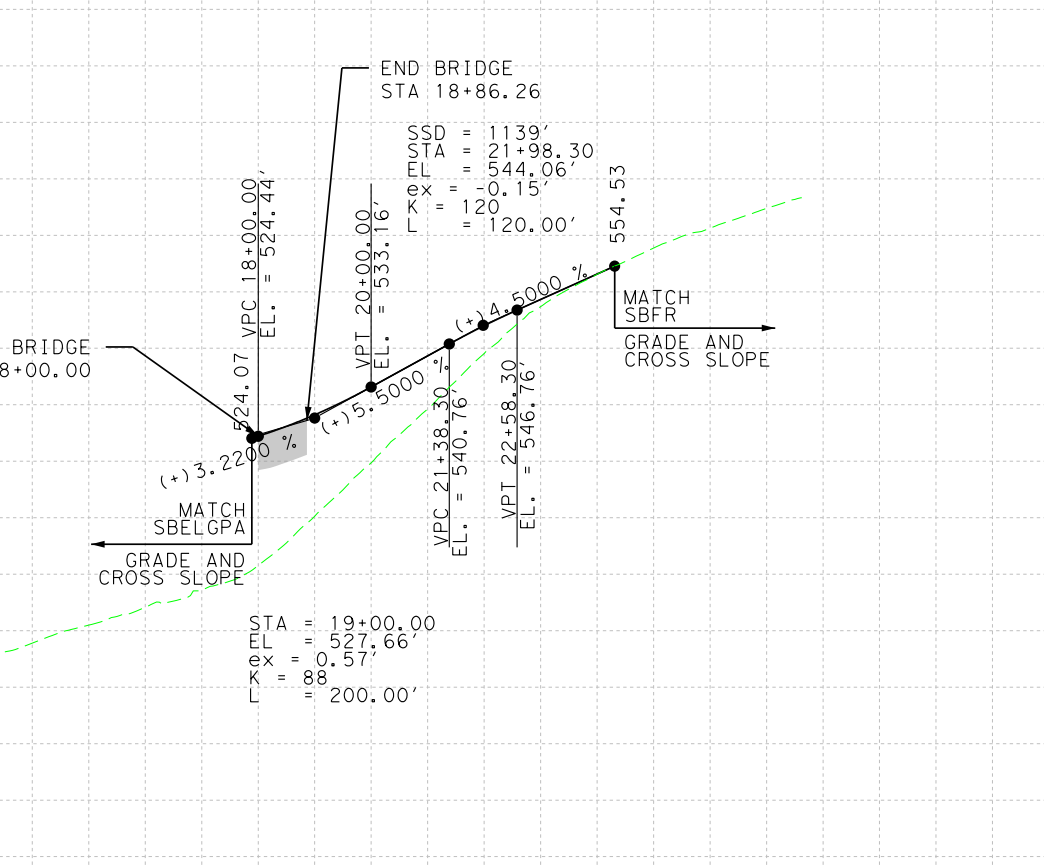
PROFILE: EXPLP360



SSD = 680'
STA = 1721+75.00
EL = 652.71'
ex = -0.47'
K = 108
L = 200.00'
MATCH NBELGPA
GRADE AND CROSS SLOPE
(+)2.00 %
(+)15.0000 %
(+)5.00 %
(+)3.14 %
STA = 1716+30.00
EL = 625.46'
ex = 1.13'
K = 100
L = 300.00'
MATCH SBELGPA
GRADE AND CROSS SLOPE
622.20
VPC 1714+80.00 EL. = 622.46
VPT 1717+80.00 EL. = 632.96
VPC 1720+75.00 EL. = 647.71
VPT 1722+75.00 EL. = 653.85
656.63
1710+00
1715+00
1720+00
1725+00
1730+00
1735+00

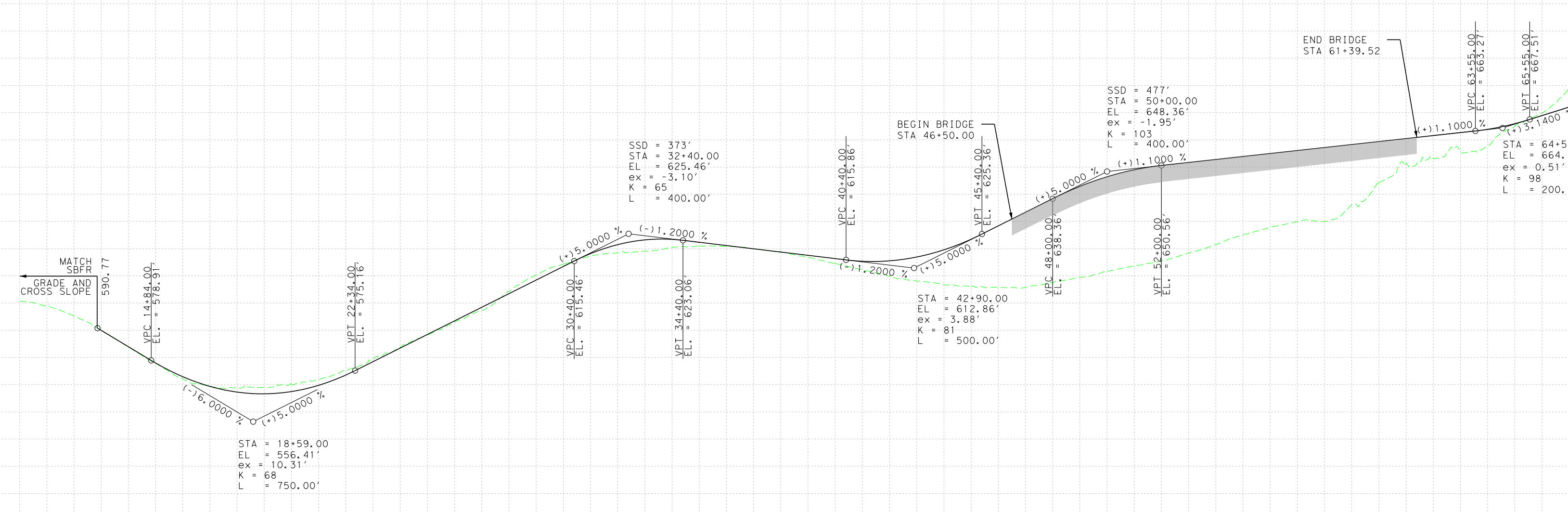
PROFILE: SBEL360

SOUTHBOUND RAMPS



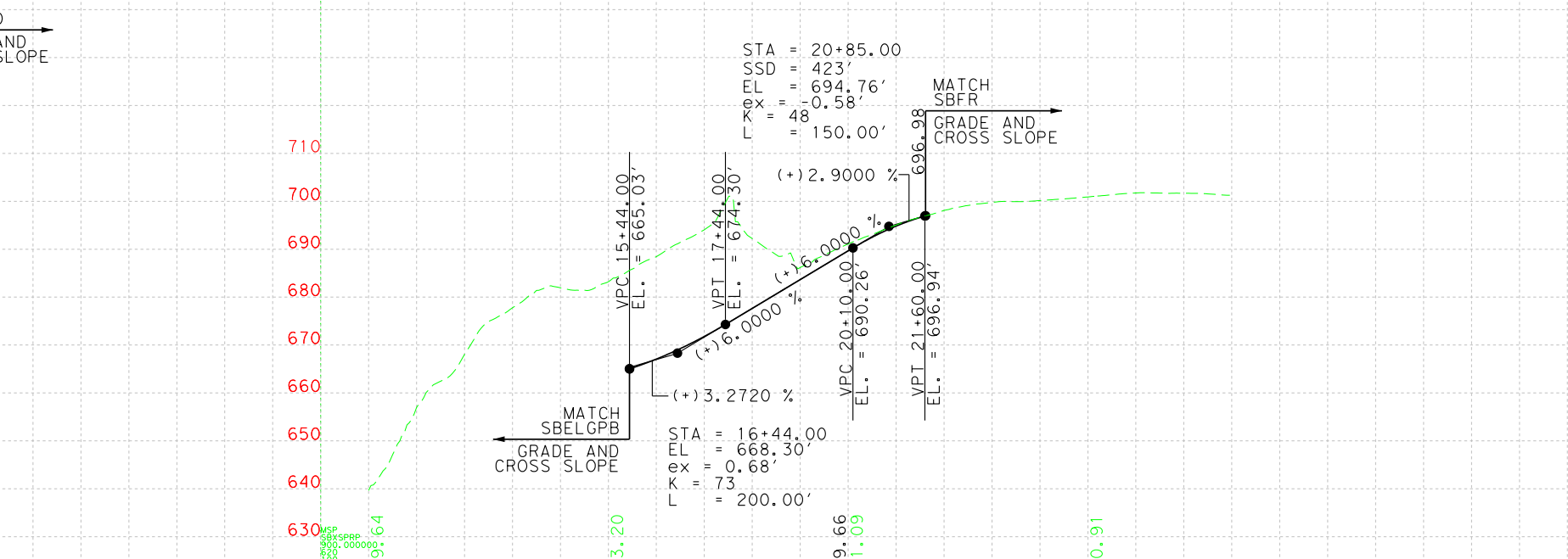
END BRIDGE
STA 18+86.26
SSD = 1139'
STA = 21+98.30
EL = 544.06'
ex = -0.15'
K = 120
L = 120.00'
BEGIN BRIDGE
STA 18+00.00
(+)3.2200 %
(+)5.5000 %
(+)4.5000 %
MATCH SBELGPA
GRADE AND CROSS SLOPE
MATCH SBFR
GRADE AND CROSS SLOPE
STA = 19+00.00
EL = 527.66'
ex = 0.57'
K = 88
L = 200.00'
524.07
VPC 18+00.00 EL. = 524.44
VPT 20+00.00 EL. = 533.16
VPC 21+38.30 EL. = 540.76
VPT 22+58.30 EL. = 546.76
554.53
10+00
15+00
20+00
25+00

PROFILE: SBBCXR



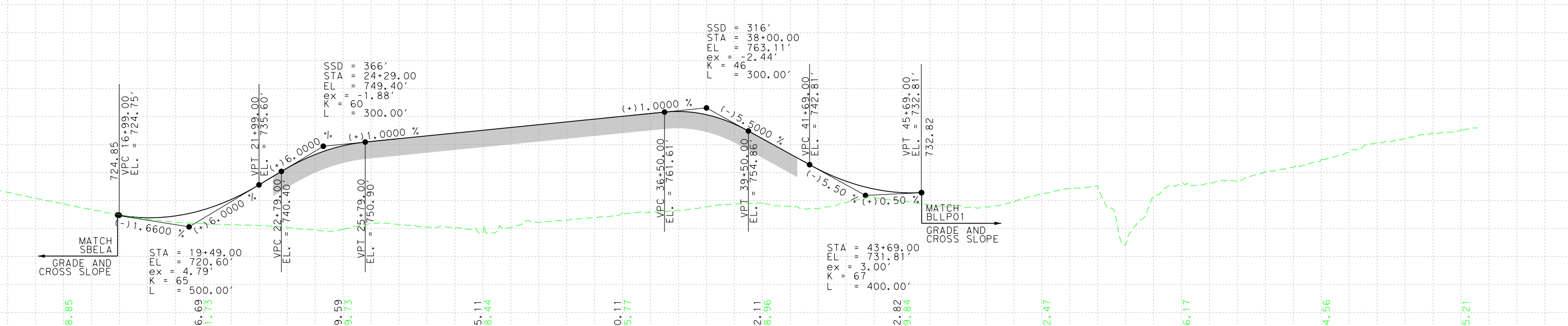
END BRIDGE
STA 61+39.52
MATCH SBEL360
GRADE AND CROSS SLOPE
SSD = 477'
STA = 50+00.00
EL = 648.36'
ex = -1.95'
K = 103
L = 400.00'
SSD = 373'
STA = 32+40.00
EL = 625.46'
ex = -3.10'
K = 65
L = 400.00'
BEGIN BRIDGE
STA 46+50.00
MATCH SBFR
GRADE AND CROSS SLOPE
(-)16.0000 %
(+)15.0000 %
(+)5.0000 %
(-)1.2000 %
(-)1.2000 %
(+)5.0000 %
(+)1.1000 %
(+)13.1400 %
STA = 18+59.00
EL = 556.41'
ex = 10.31'
K = 68
L = 750.00'
STA = 42+90.00
EL = 612.86'
ex = 3.88'
K = 81
L = 500.00'
STA = 64+55.00
EL = 664.37'
ex = 0.51'
K = 98
L = 200.00'
590.77
VPC 14+84.00 EL. = 578.91
VPT 22+34.00 EL. = 575.16
VPC 30+40.00 EL. = 615.46
VPT 34+40.00 EL. = 623.06
VPC 40+40.00 EL. = 614.06
VPT 45+40.00 EL. = 625.36
VPC 48+00.00 EL. = 638.16
VPT 52+00.00 EL. = 650.56
VPC 63+55.00 EL. = 663.27
VPT 65+55.00 EL. = 667.51
673.86
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00
50+00
55+00
60+00
65+00

PROFILE: SBBCERCD



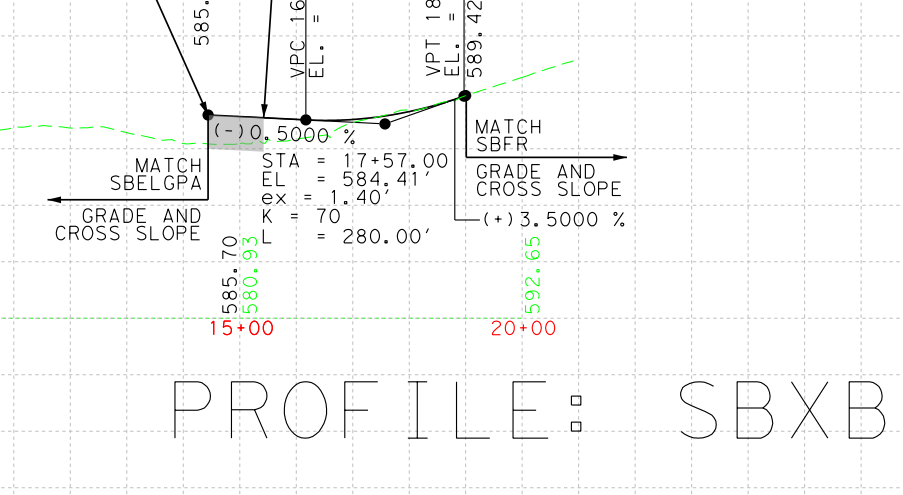
STA = 20+85.00
SSD = 423'
EL = 694.76'
ex = -0.58'
K = 48
L = 150.00'
MATCH SBFR
GRADE AND CROSS SLOPE
(+)2.9000 %
(+)16.0000 %
(+)16.0000 %
(+)3.2720 %
MATCH SBELGPB
GRADE AND CROSS SLOPE
STA = 16+44.00
EL = 668.30'
ex = 0.68'
K = 73
L = 200.00'
VPC 15+44.00 EL. = 665.03
VPT 17+44.00 EL. = 674.30
VPC 20+10.00 EL. = 690.26
VPT 21+60.00 EL. = 696.94
696.98
10+00
15+00
20+00
25+00

PROFILE: SBXSPRP



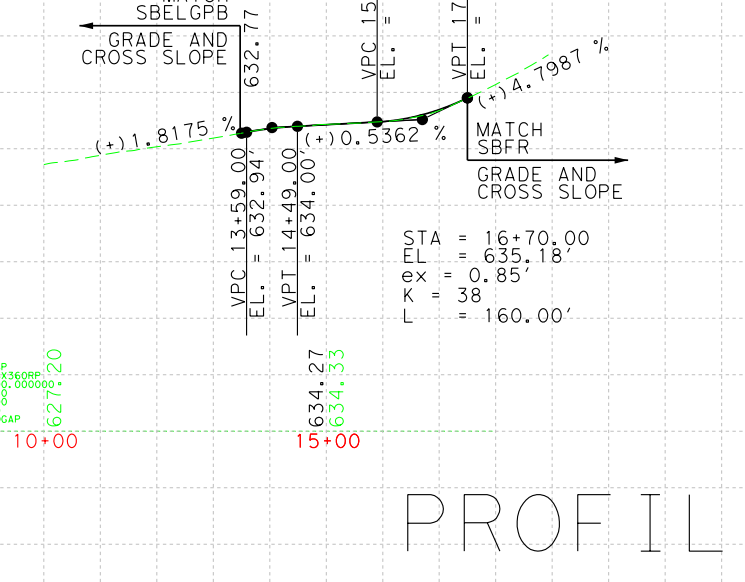
SSD = 316'
STA = 38+00.00
EL = 763.11'
ex = -2.44'
K = 46
L = 300.00'
SSD = 366'
STA = 24+29.00
EL = 749.40'
ex = -1.88'
K = 60
L = 300.00'
(+)1.0000 %
(+)1.0000 %
(+)16.0000 %
(+)6.0000 %
(-)1.6600 %
(-)15.6000 %
(-)15.50 %
(+)0.50 %
MATCH SBELA
GRADE AND CROSS SLOPE
STA = 19+49.00
EL = 720.60'
ex = 4.79'
K = 65
L = 500.00'
STA = 43+69.00
EL = 731.81'
ex = 3.00'
K = 67
L = 400.00'
MATCH BLLP01
GRADE AND CROSS SLOPE
724.85
VPC 16+99.00 EL. = 724.75
VPT 21+99.00 EL. = 735.60
VPC 22+79.00 EL. = 740.49
VPT 25+79.00 EL. = 750.90
VPC 36+50.00 EL. = 761.61
VPT 39+50.00 EL. = 754.86
VPC 41+69.00 EL. = 742.81
VPT 45+69.00 EL. = 732.81
732.82
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00
50+00
55+00
60+00
65+00

PROFILE: SBELXRCD



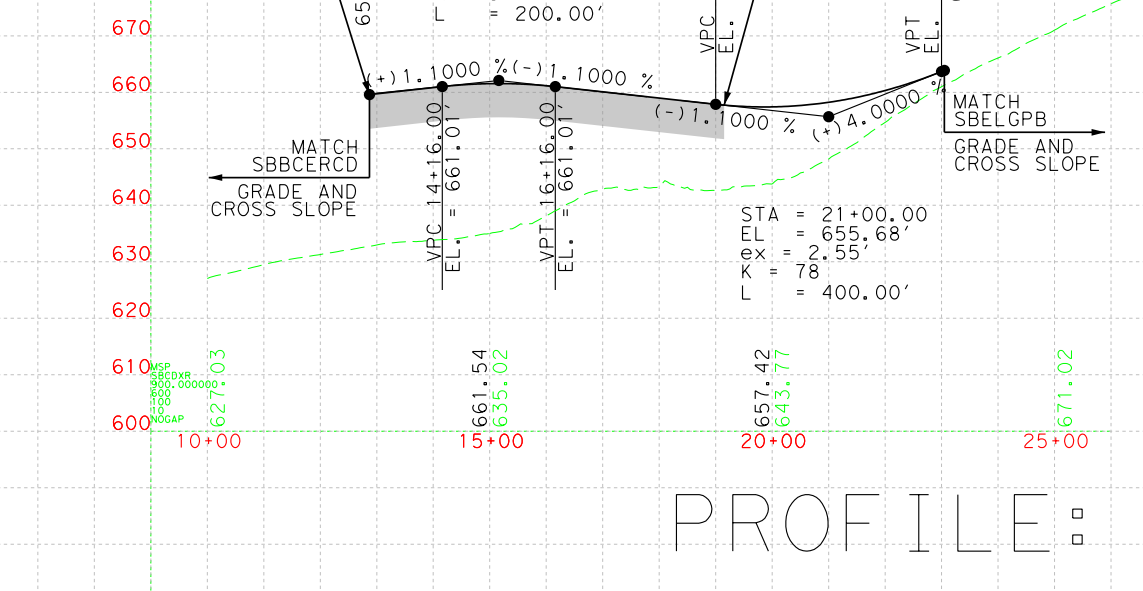
END BRIDGE
STA 15+42.16
BEGIN BRIDGE
STA 15+00.00
(-)0.5000 %
(+)3.5000 %
MATCH SBELGPA
GRADE AND CROSS SLOPE
MATCH SBFR
GRADE AND CROSS SLOPE
STA = 17+57.00
EL = 584.41'
ex = 1.40'
K = 70
L = 280.00'
585.98
VPC 16+17.00 EL. = 585.11
VPT 18+97.00 EL. = 589.31
589.42
10+00
15+00
20+00

PROFILE: SBXBSRP



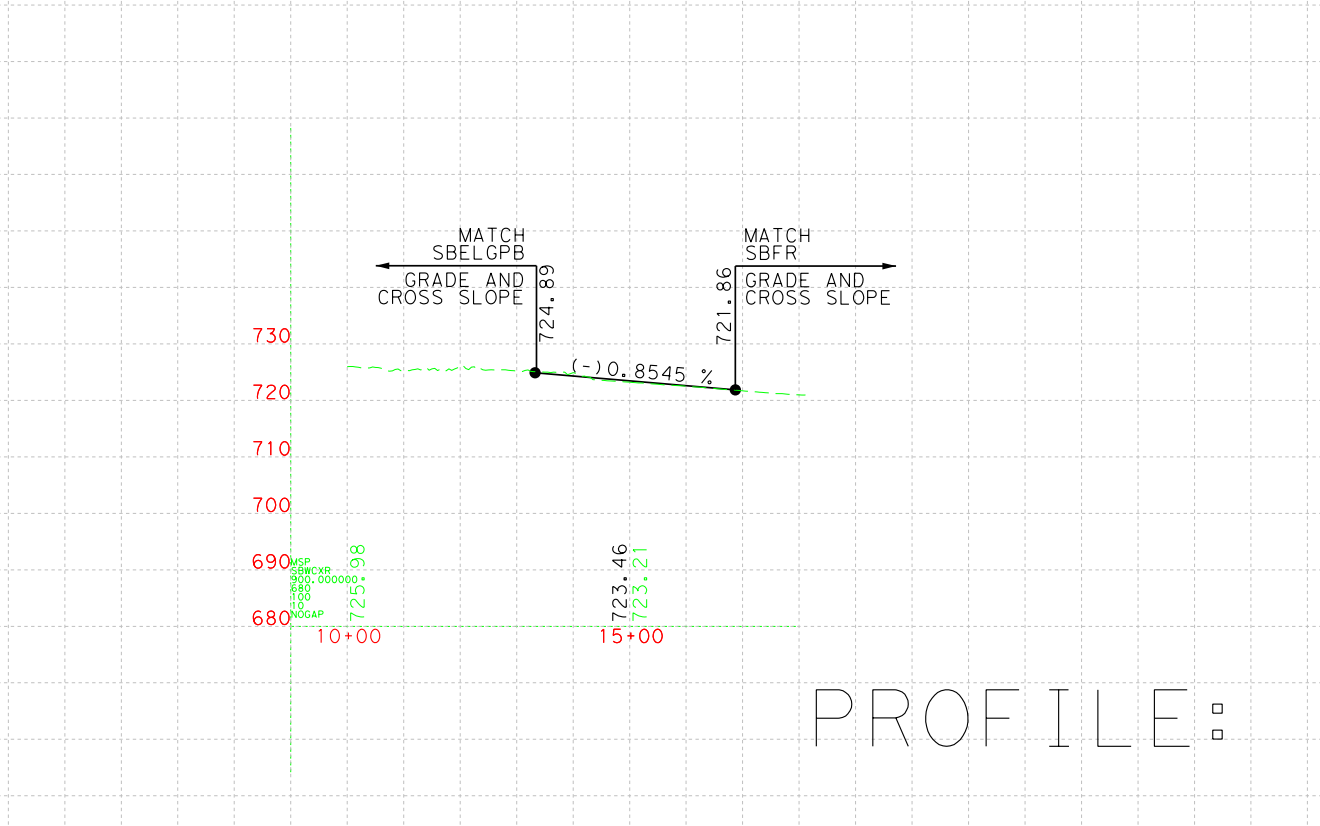
STA = 14+04.00
SSD = 887'
EL = 633.75'
ex = -0.14'
K = 70
L = 90.00'
MATCH SBELGPB
GRADE AND CROSS SLOPE
(+)1.8175 %
(-)0.5362 %
(+)4.7987 %
MATCH SBFR
GRADE AND CROSS SLOPE
STA = 16+70.00
EL = 635.18'
ex = 0.85'
K = 38
L = 160.00'
632.77
VPC 13+59.00 EL. = 632.94
VPT 14+49.00 EL. = 634.00
VPC 15+90.00 EL. = 634.75
VPT 17+50.00 EL. = 639.02
10+00
15+00

PROFILE: SBX360RP



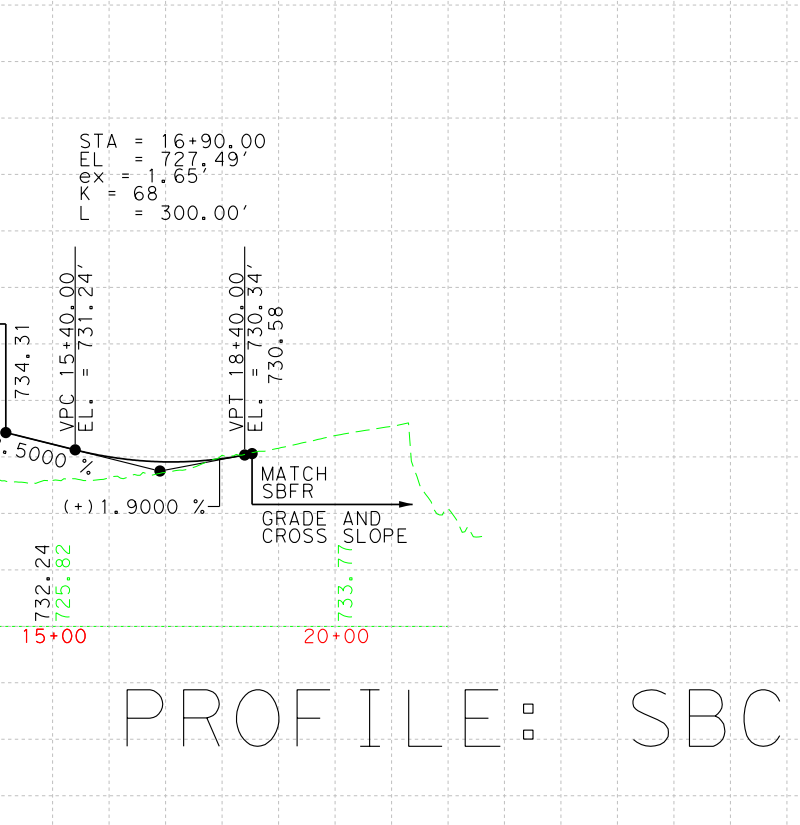
BEGIN BRIDGE
STA 12+87.00
SSD = 590'
STA = 15+16.00
EL = 662.11'
ex = -0.55'
K = 91
L = 200.00'
END BRIDGE
STA 19+15.05
(+)1.1000 %
(-)1.1000 %
(-)1.1000 %
(+)4.0000 %
MATCH SBBCERCD
GRADE AND CROSS SLOPE
MATCH SBELGPB
GRADE AND CROSS SLOPE
STA = 21+00.00
EL = 655.68'
ex = 2.55'
K = 78
L = 400.00'
659.59
VPC 14+16.00 EL. = 661.01
VPT 16+16.00 EL. = 661.01
VPC 19+00.00 EL. = 657.88
VPT 23+00.00 EL. = 663.68
10+00
15+00
20+00
25+00

PROFILE: SBCDXR



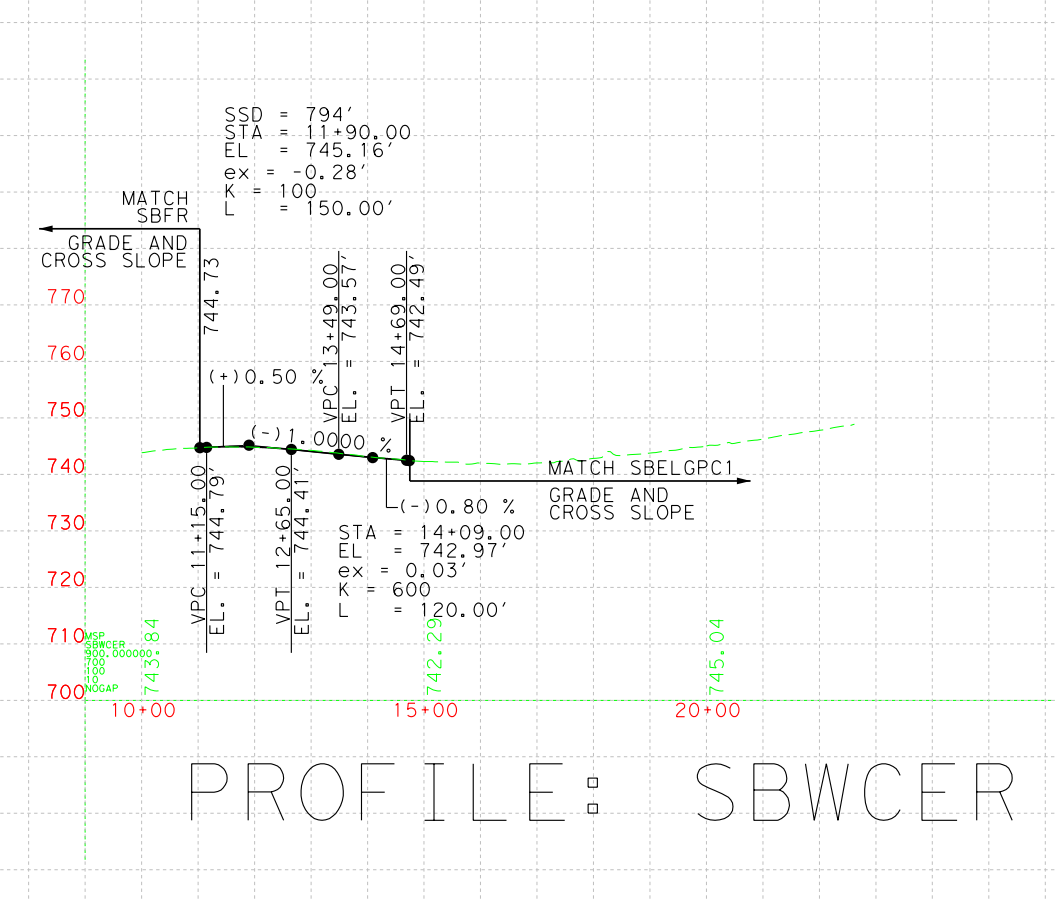
MATCH SBELGPB
GRADE AND CROSS SLOPE
MATCH SBFR
GRADE AND CROSS SLOPE
(-)0.8545 %
724.89
721.86
10+00
15+00

PROFILE: SBWCXR



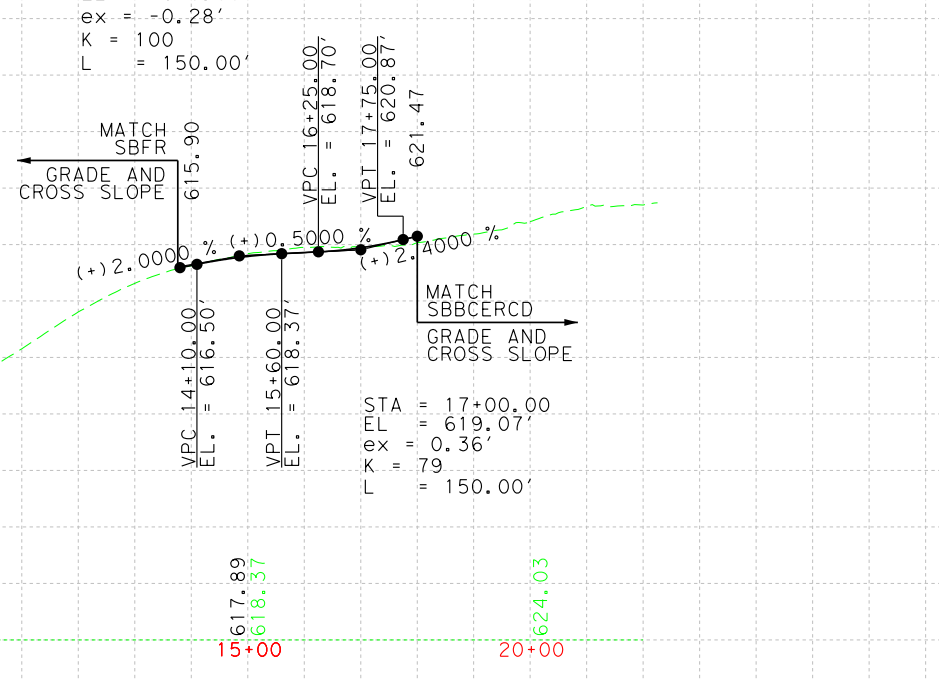
STA = 16+90.00
EL = 727.49'
ex = 1.65'
K = 68
L = 300.00'
MATCH SBFR
GRADE AND CROSS SLOPE
(-)2.5000 %
(+)1.9000 %
MATCH SBFR
GRADE AND CROSS SLOPE
734.31
VPC 15+40.00 EL. = 731.24
VPT 18+40.00 EL. = 730.34
730.58
10+00
15+00
20+00

PROFILE: SBCDWCXR



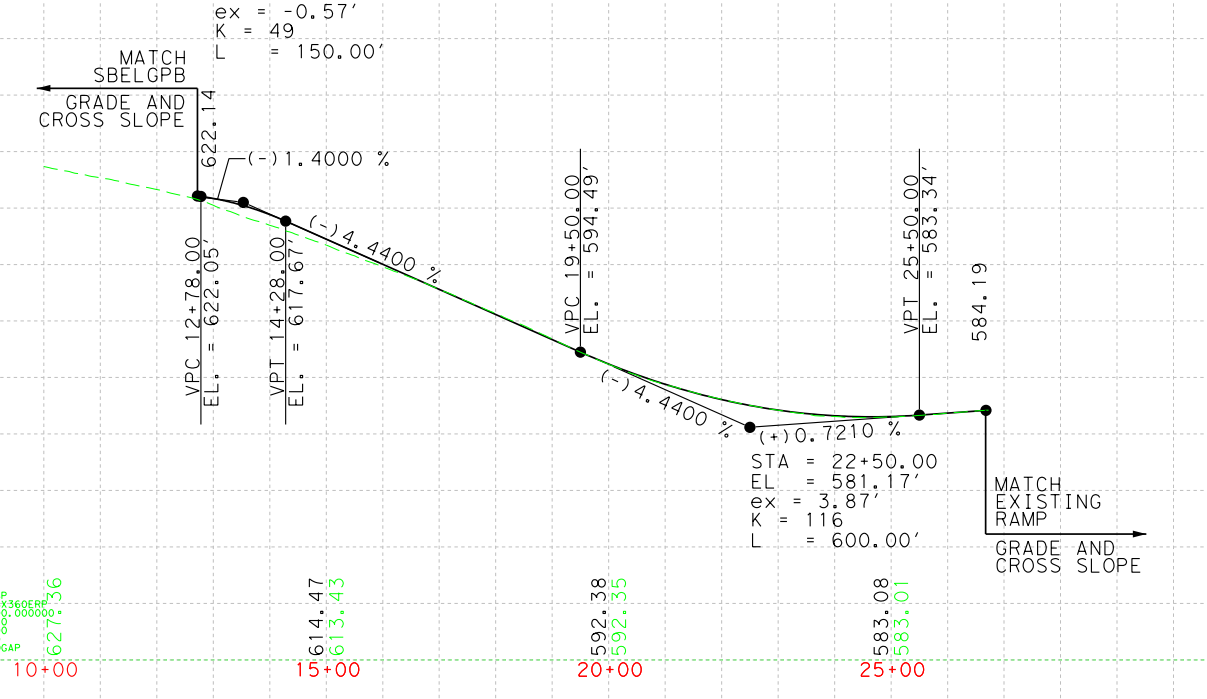
SSD = 794'
STA = 11+90.00
EL = 745.16'
ex = -0.28'
K = 100
L = 150.00'
MATCH SBFR
GRADE AND CROSS SLOPE
(+)0.50 %
(-)1.0000 %
(-)0.80 %
MATCH SBELGPC1
GRADE AND CROSS SLOPE
STA = 14+09.00
EL = 742.97'
ex = 0.03'
K = 600
L = 120.00'
744.73
VPC 11+15.00 EL. = 744.79
VPT 12+65.00 EL. = 744.41
VPC 13+49.00 EL. = 743.57
VPT 14+69.00 EL. = 742.49
10+00
15+00
20+00

PROFILE: SBWCER



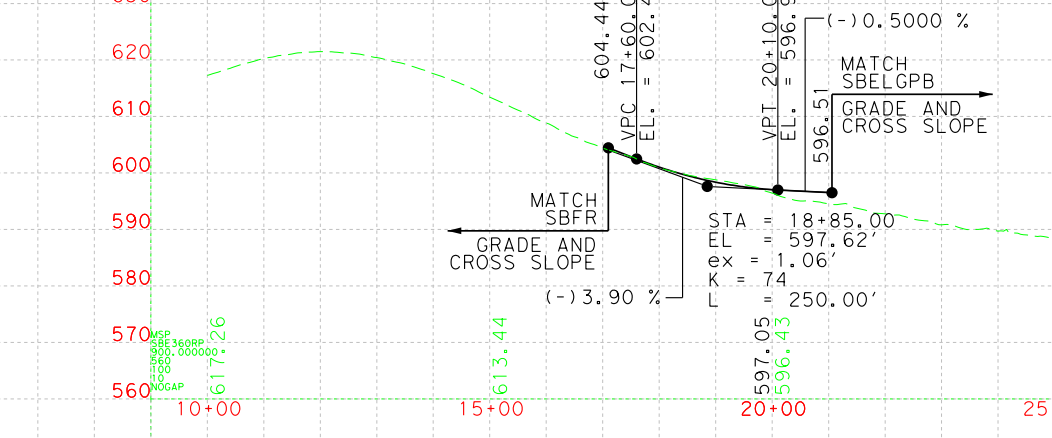
SSD = 794'
STA = 14+85.00
EL = 618.00'
ex = -0.28'
K = 100
L = 150.00'
MATCH SBFR
GRADE AND CROSS SLOPE
(+)2.0000 %
(+)0.5000 %
(+)2.4000 %
MATCH SBBCERCD
GRADE AND CROSS SLOPE
STA = 17+00.00
EL = 619.07'
ex = 0.36'
K = 79
L = 150.00'
615.90
VPC 14+10.00 EL. = 616.50
VPT 15+60.00 EL. = 618.37
VPC 16+25.00 EL. = 618.70
VPT 17+75.00 EL. = 620.87
621.47
10+00
15+00
20+00

PROFILE: SBBSER



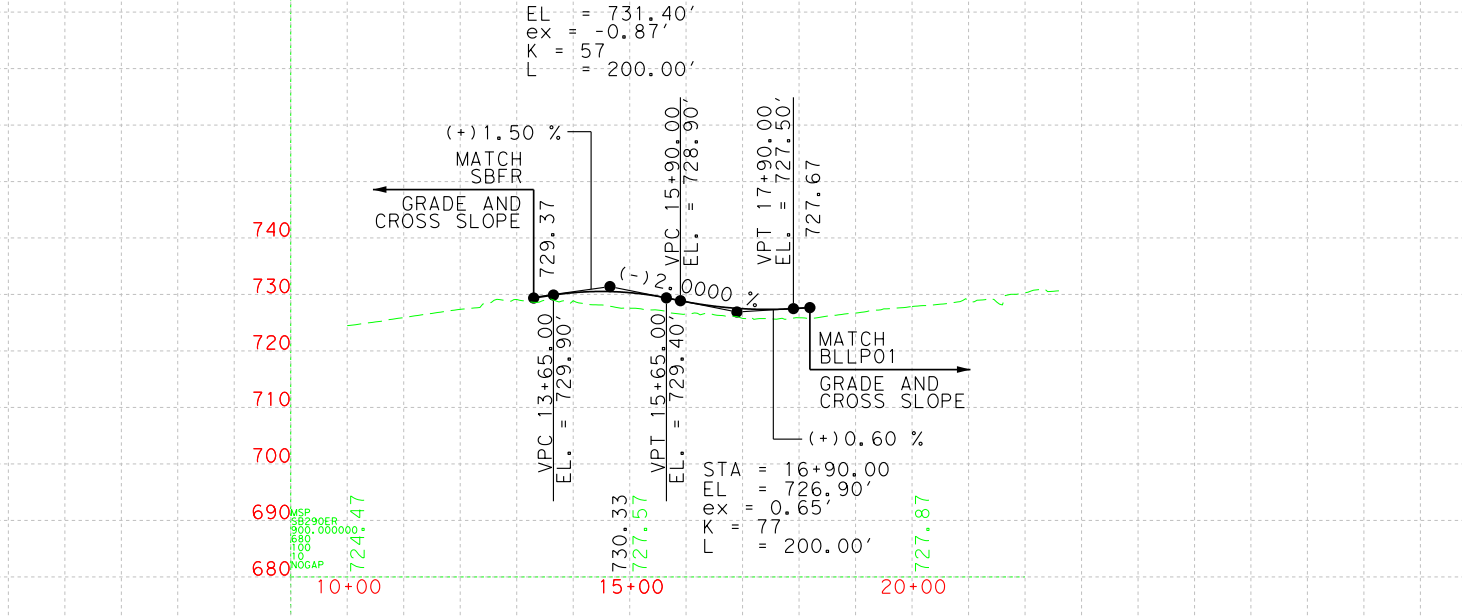
SSD = 430'
STA = 13+53.00
EL = 621.00'
ex = -0.57'
K = 49
L = 150.00'
MATCH SBELGPB
GRADE AND CROSS SLOPE
(-)1.4000 %
(-)14.4400 %
(-)14.4400 %
(+)0.7210 %
STA = 22+50.00
EL = 581.17'
ex = 3.87'
K = 116
L = 600.00'
MATCH EXISTING RAMP
GRADE AND CROSS SLOPE
622.14
VPC 12+78.00 EL. = 622.05
VPT 14+28.00 EL. = 617.67
VPC 19+50.00 EL. = 594.49
VPT 25+50.00 EL. = 583.34
584.19
10+00
15+00
20+00
25+00

PROFILE: SBX360ERP



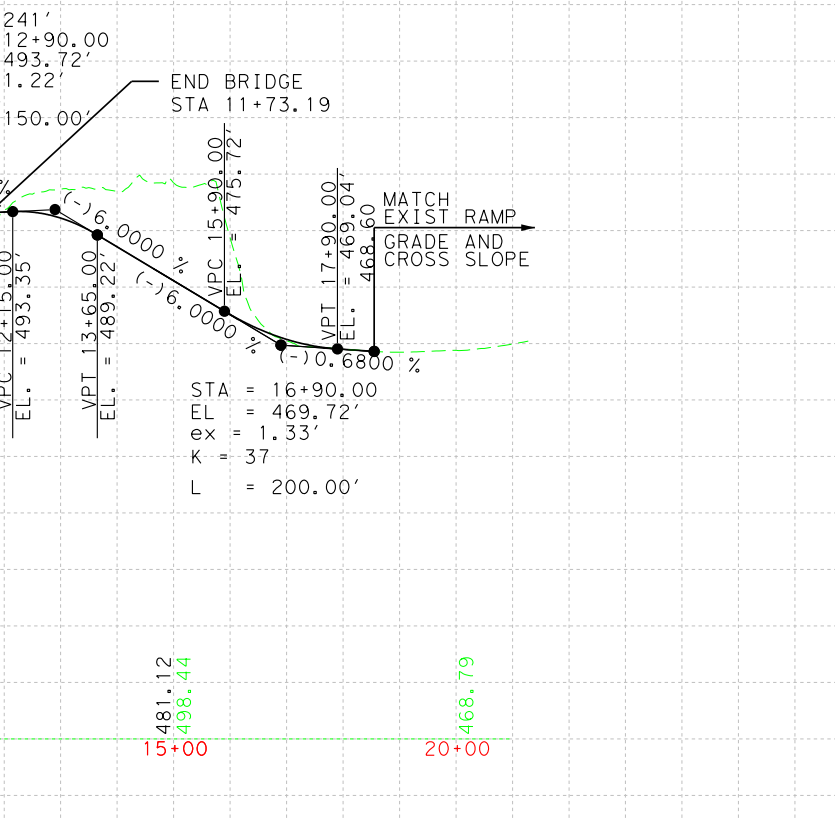
(-)10.5000 %
MATCH SBELGPB
GRADE AND CROSS SLOPE
MATCH SBFR
GRADE AND CROSS SLOPE
(-)3.90 %
STA = 18+85.00
EL = 597.62'
ex = 1.06'
K = 74
L = 250.00'
604.44
VPC 17+60.00 EL. = 602.49
VPT 20+10.00 EL. = 598.99
596.51
10+00
15+00
20+00
25+00

PROFILE: SBE360RP



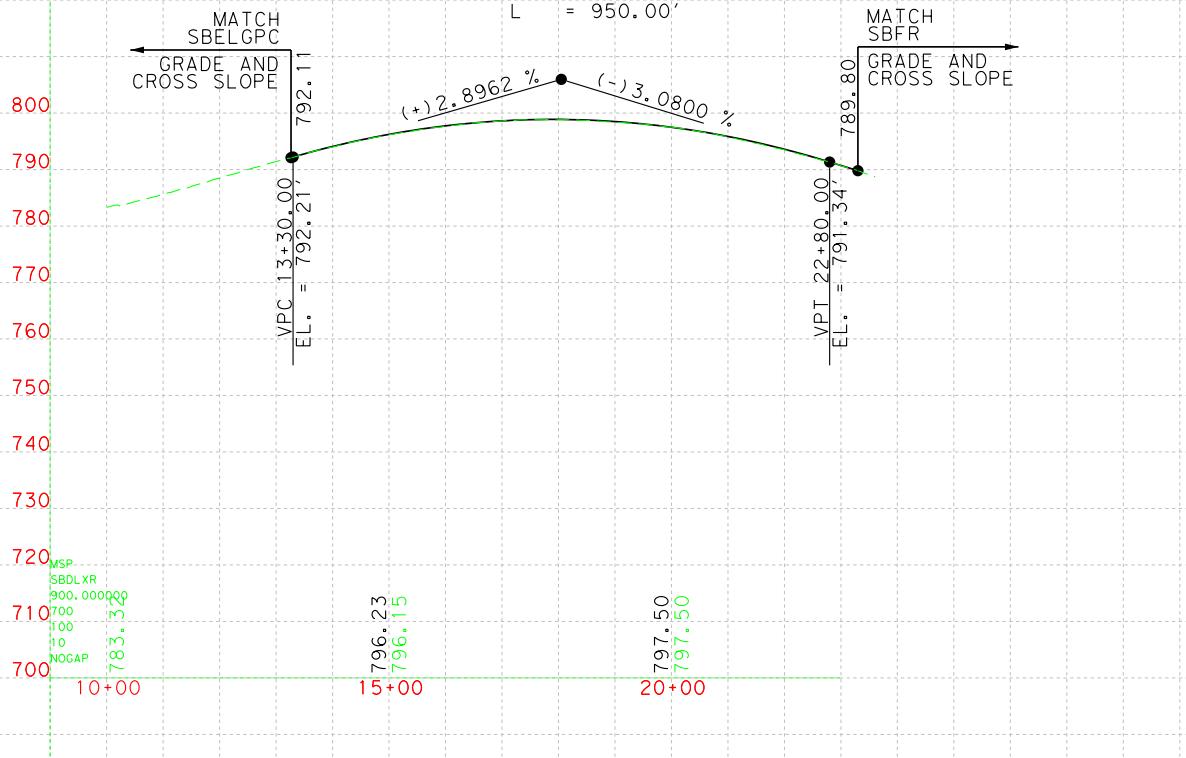
STA = 14+65.00
SSD = 408'
EL = 731.40'
ex = -0.87'
K = 57
L = 200.00'
(+)1.50 %
MATCH SBFR
GRADE AND CROSS SLOPE
(-)2.0000 %
MATCH BLLP01
GRADE AND CROSS SLOPE
(+)0.60 %
STA = 16+90.00
EL = 726.90'
ex = 0.65'
K = 77
L = 200.00'
729.37
VPC 13+65.00 EL. = 729.90
VPT 15+65.00 EL. = 729.40
VPC 15+90.00 EL. = 728.90
VPT 17+90.00 EL. = 727.50
727.67
15+00
20+00

PROFILE: SB290ER



BEGIN BRIDGE
STA 10+00.00
SSD = 241'
STA = 12+90.00
EL = 493.72'
ex = -1.22'
K = 23
L = 150.00'
END BRIDGE
STA 11+73.19
MATCH AUSTIN BLVD
GRADE AND CROSS SLOPE
(+)0.50 %
(-)16.0000 %
(-)16.0000 %
(-)0.6800 %
MATCH EXIST RAMP
GRADE AND CROSS SLOPE
STA = 16+90.00
EL = 469.72'
ex = 1.33'
K = 37
L = 200.00'
492.27
VPC 12+15.00 EL. = 493.35
VPT 13+65.00 EL. = 481.25
VPC 15+90.00 EL. = 475.72
VPT 17+90.00 EL. = 469.04
468.40
10+00
15+00
20+00

PROFILE: SBELABRP

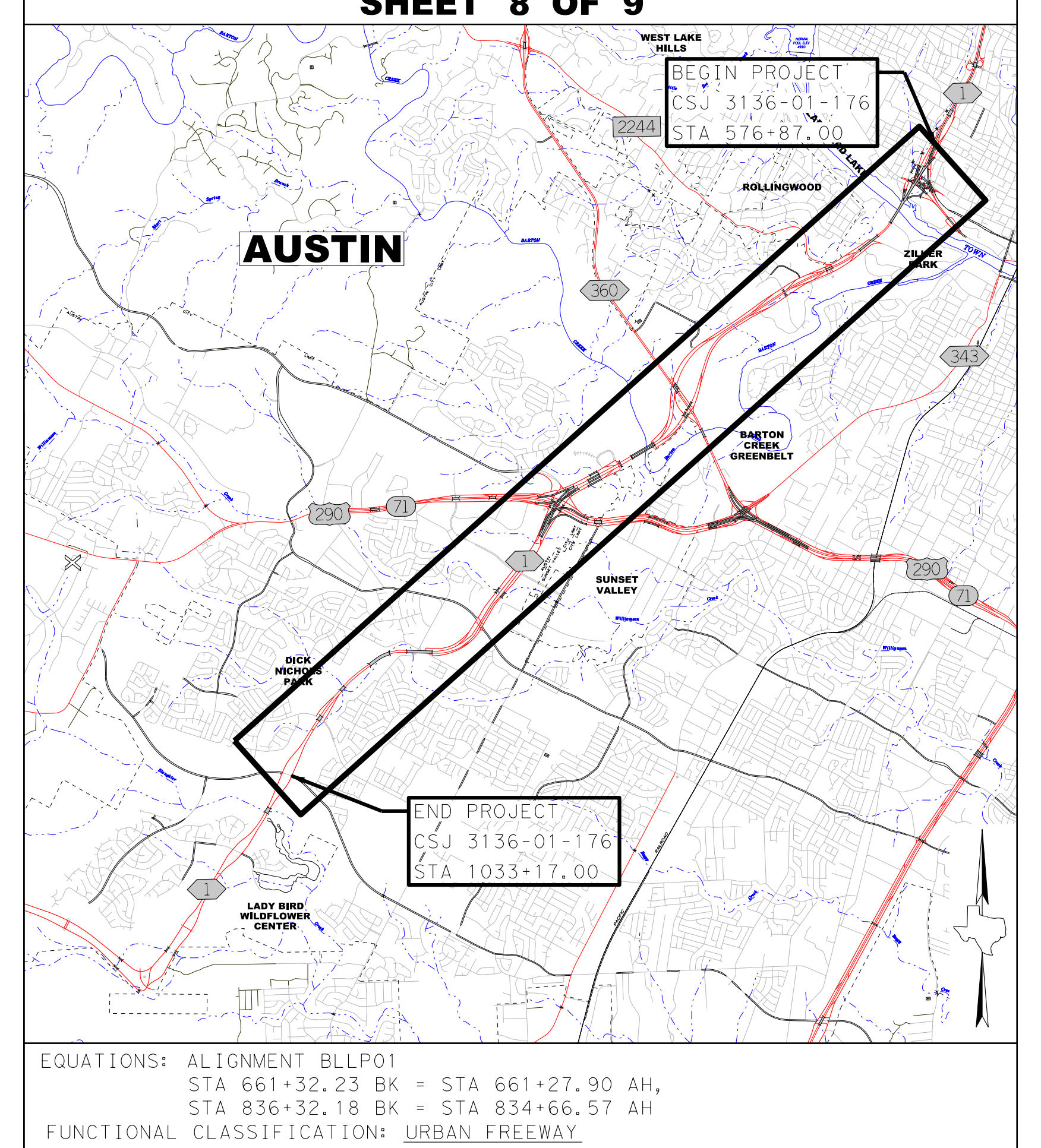


SSD = 586'
STA = 18+05.00
EL = 805.97'
ex = -7.10'
K = 159
L = 950.00'
MATCH SBELGPC
GRADE AND CROSS SLOPE
MATCH SBFR
GRADE AND CROSS SLOPE
(+)2.8962 %
(-)3.0800 %
792.11
VPC 13+30.00 EL. = 792.21
VPT 22+80.00 EL. = 791.34
789.80
10+00
15+00
20+00

PROFILE: SBDLXR

PRELIMINARY
SUBJECT TO CHANGE

PRELIMINARY DESIGN SCHEMATIC OF
MOPAC SOUTH ENVIRONMENTAL STUDY
CSJ: 3136-01-176
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.
SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.
TRAVIS COUNTY
LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE
SHEET 8 OF 9



WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 576+87.00
2244
ROLLINGWOOD
AUSTIN
ZILKER PARK
360
343
BARTON CREEK GREENBELT
290
71
1
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH
COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH
DIRECT CONNECTOR DESIGN SPEED: 40 MPH
RAMP DESIGN SPEED: 40 MPH
MAX SUPERELEVATION: 8%
EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD
PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD
PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING
BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.
SCALE: 1:100 H
1:10 V
MoPac South
ENVIRONMENTAL STUDY
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation
AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474

11/11/2024
2:24:55 PM

PRELIMINARY DESIGN SCHEMATIC OF MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176

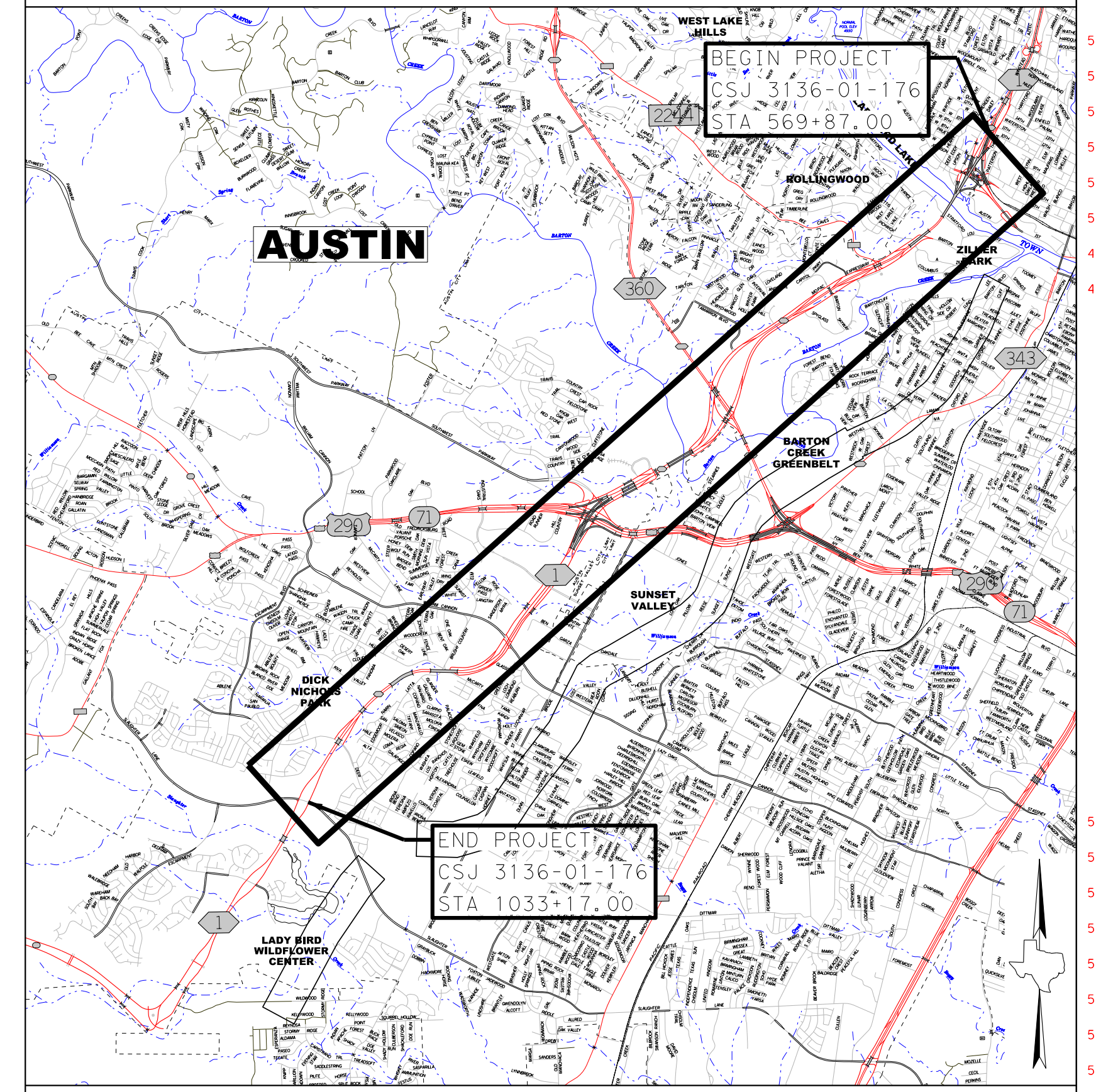
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.

SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.

TRAVIS COUNTY

LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE

SHEET 9 OF 9



WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 569+87.00
2244
ROLLINGWOOD
AUSTIN
ZILKER PARK
360
343
BARTON CREEK GREENBELT
290
71
1
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH

FUNCTIONAL CLASSIFICATION: URBAN FREEWAY

TERRAIN: ROLLING

EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH

COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH

DIRECT CONNECTOR DESIGN SPEED: 40 MPH

RAMP DESIGN SPEED: 40 MPH

MAX SUPERELEVATION: 8%

EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD

PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

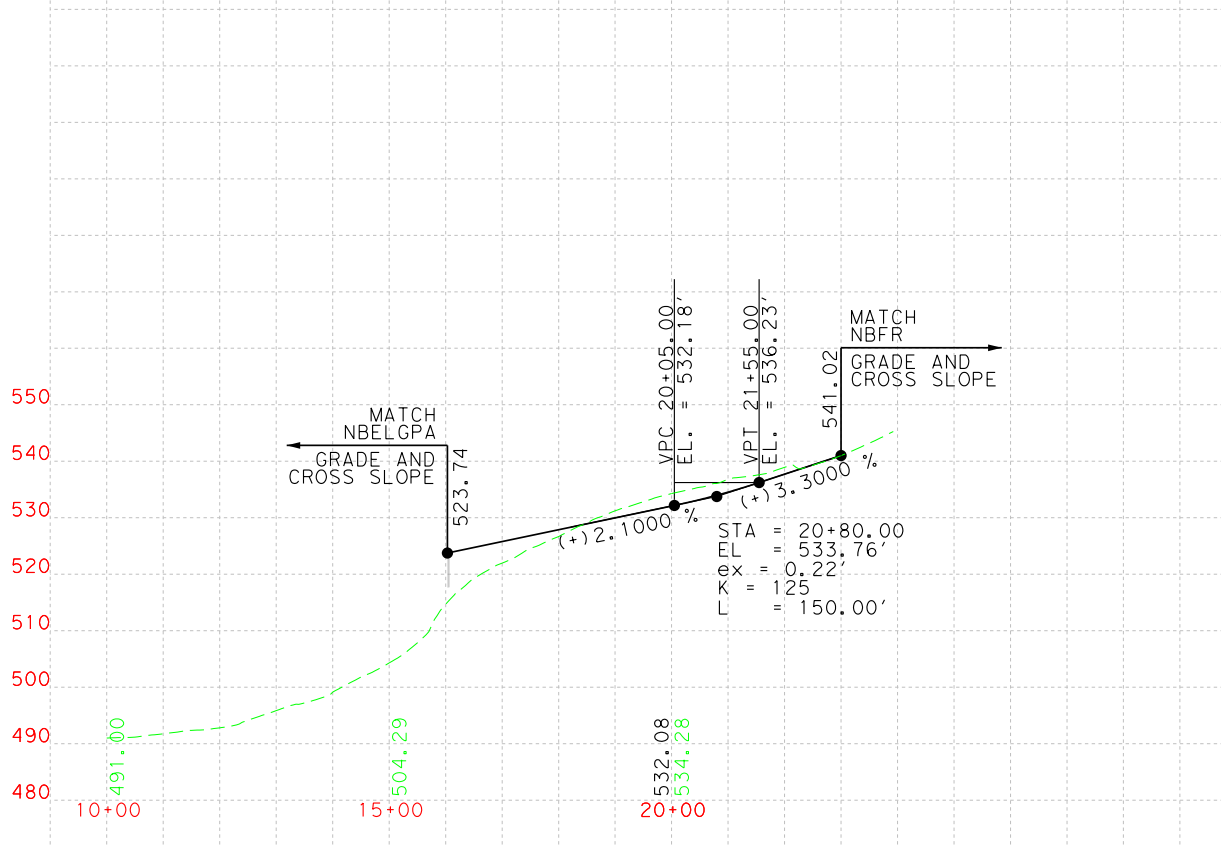
SCALE: 1:100 H
1:10 V

MOPAC SOUTH
ENVIRONMENTAL STUDY

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation

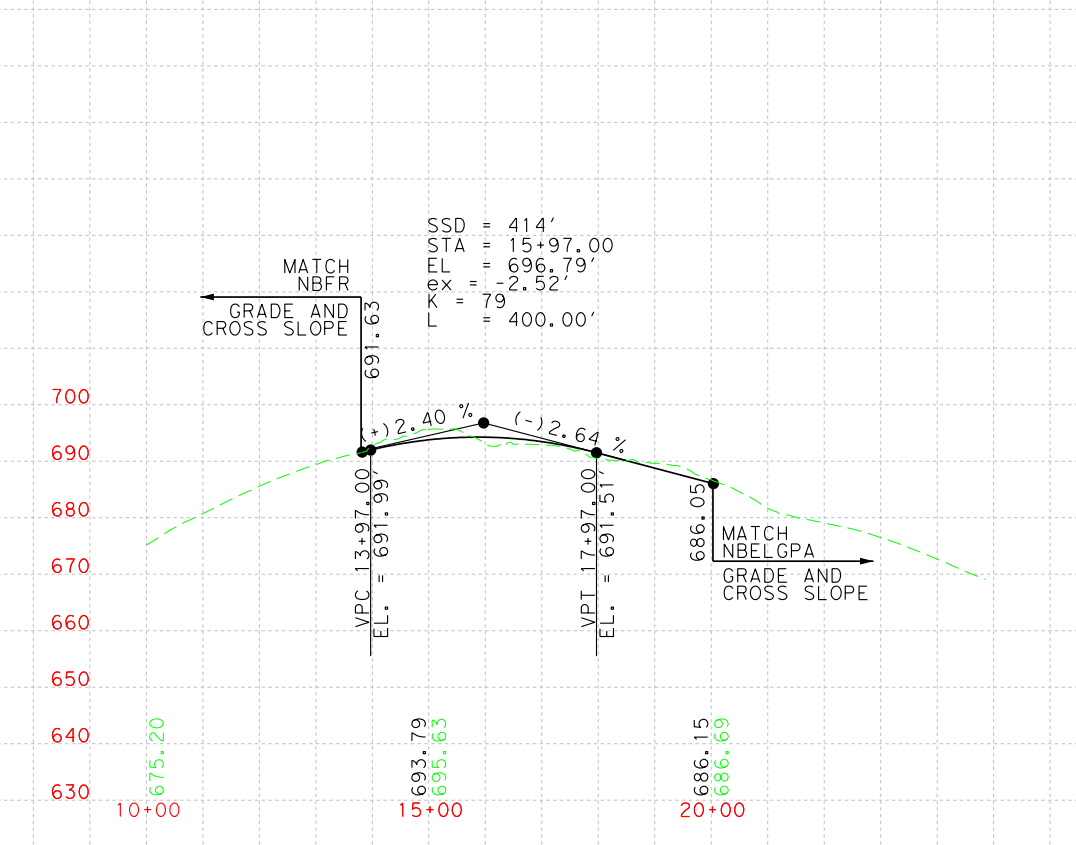
AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474

NORTHBOUND RAMPS



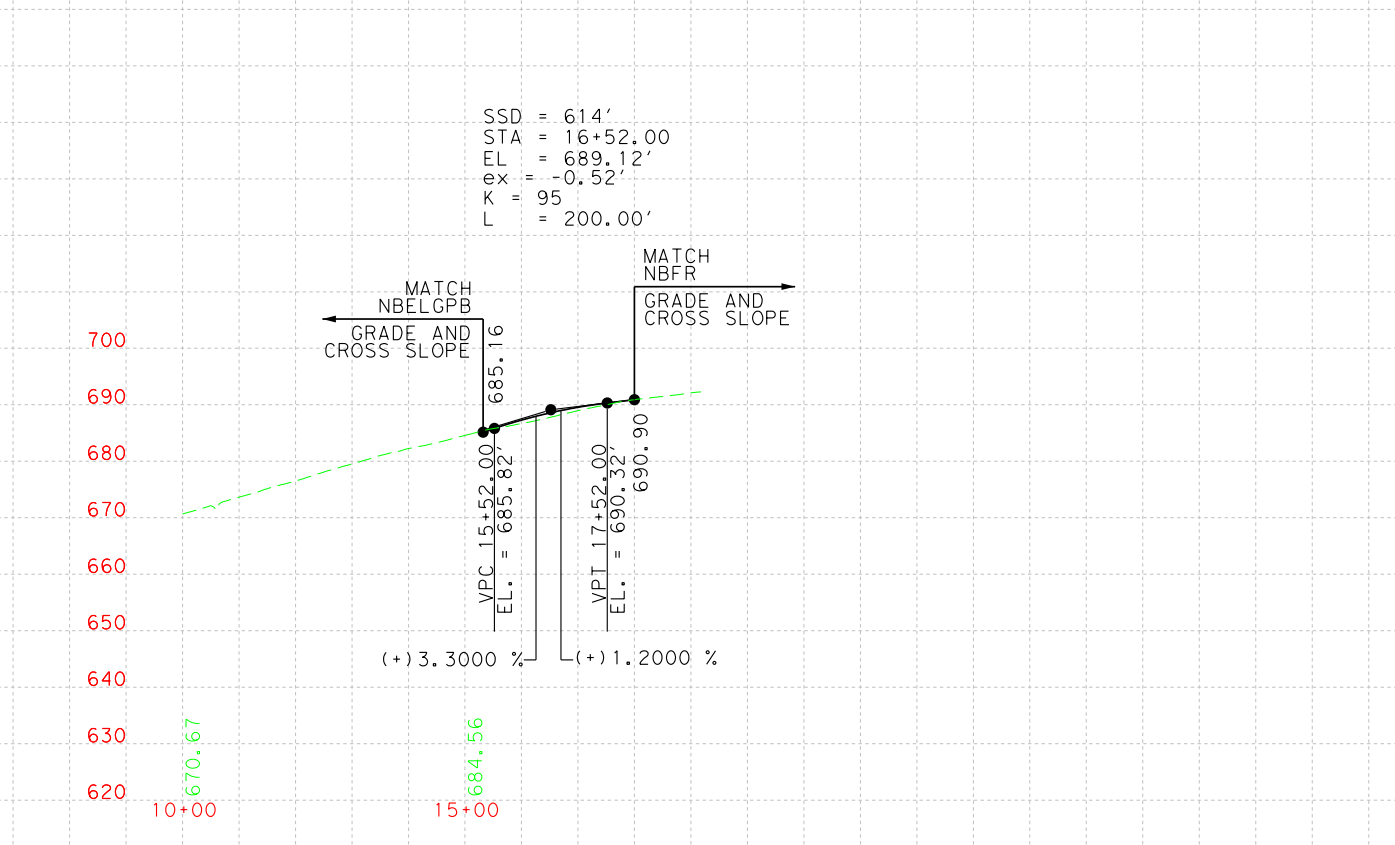
MATCH NBELGPA GRADE AND CROSS SLOPE
(+)2.1000 %
(+)3.3000 %
VPC 20+05.00 EL. = 532.18
VPT 21+55.00 EL. = 536.23
MATCH NBFR GRADE AND CROSS SLOPE
STA = 20+80.00
EL = 533.76'
ex = 0.22'
K = 125
L = 150.00'
10+00
15+00
20+00

PROFILE: NBEBCRP



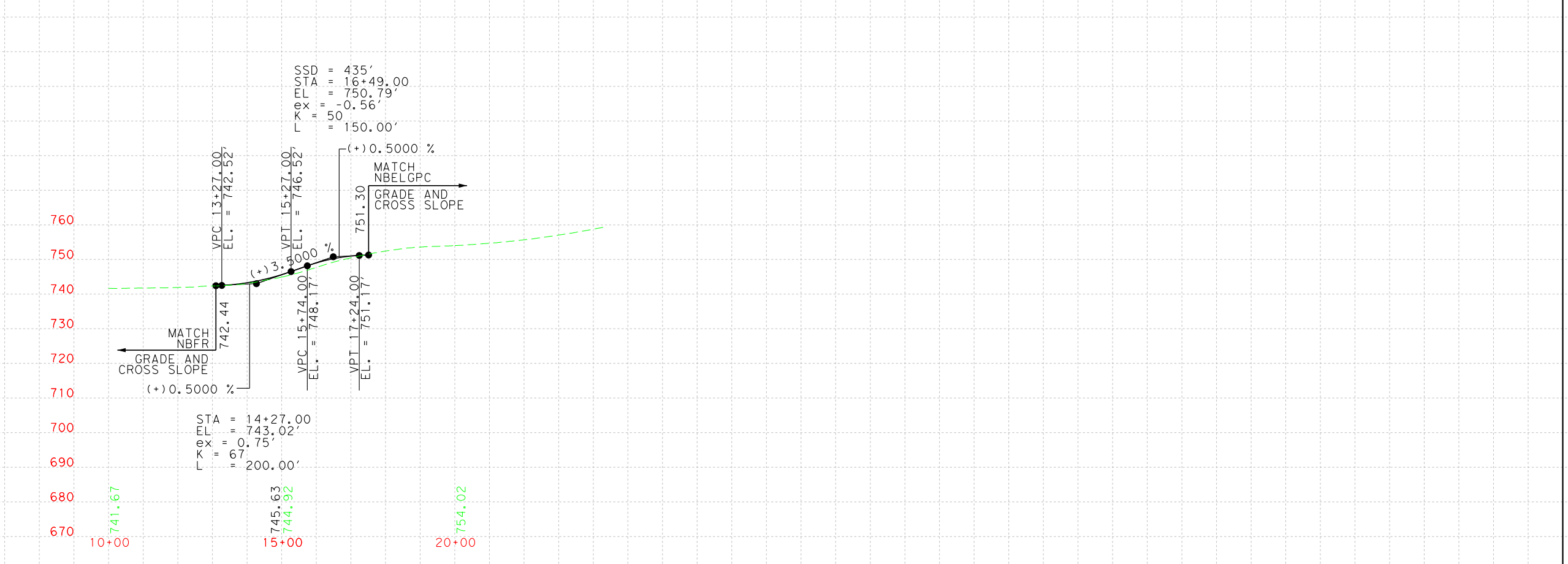
SSD = 414'
STA = 15+97.00
EL = 696.79'
ex = -2.52'
K = 79
L = 400.00'
MATCH NBFR GRADE AND CROSS SLOPE
(+)2.40 %
(-)2.64 %
MATCH NBELGPA GRADE AND CROSS SLOPE
10+00
15+00
20+00

PROFILE: NBXBSRP



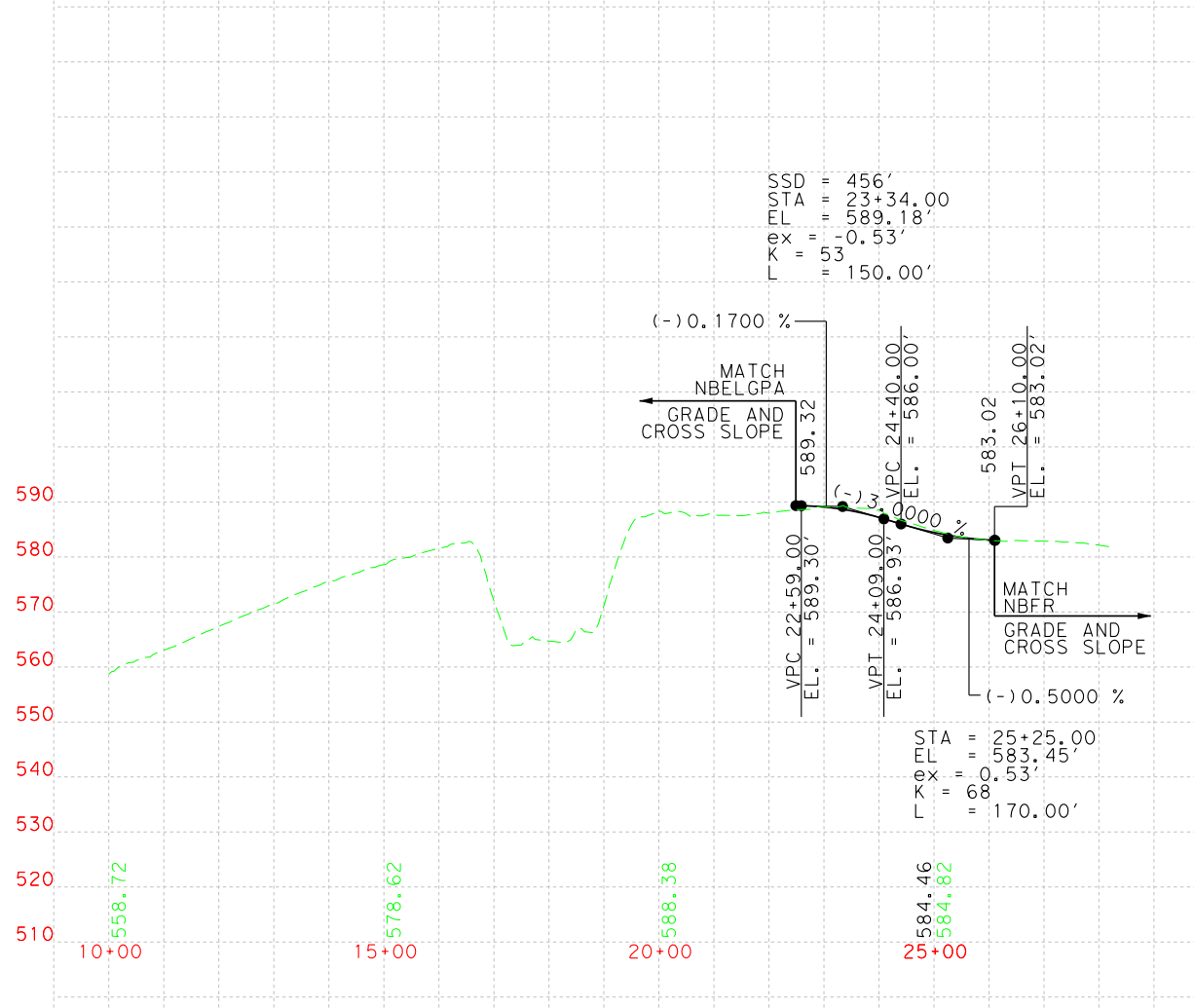
SSD = 614'
STA = 16+52.00
EL = 689.12'
ex = -0.52'
K = 95
L = 200.00'
MATCH NBELGPB GRADE AND CROSS SLOPE
MATCH NBFR GRADE AND CROSS SLOPE
(+)3.3000 %
(+)1.2000 %
10+00
15+00

PROFILE: NBESPRP



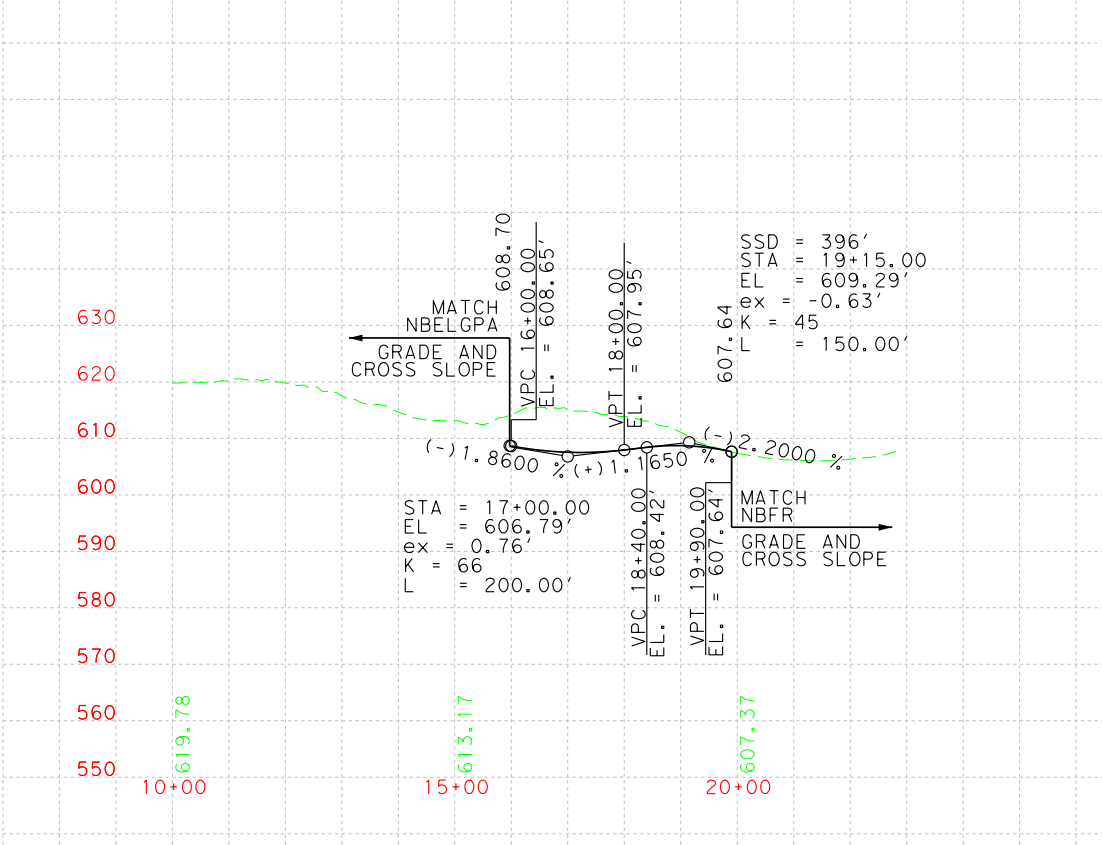
SSD = 435'
STA = 16+49.00
EL = 750.79'
ex = -0.56'
K = 50
L = 150.00'
(+)0.5000 %
MATCH NBELGPC GRADE AND CROSS SLOPE
(+)13.4000 %
MATCH NBFR GRADE AND CROSS SLOPE
(-)0.5000 %
STA = 14+27.00
EL = 743.02'
ex = 0.75'
K = 67
L = 200.00'
10+00
15+00
20+00

PROFILE: NBWCXR



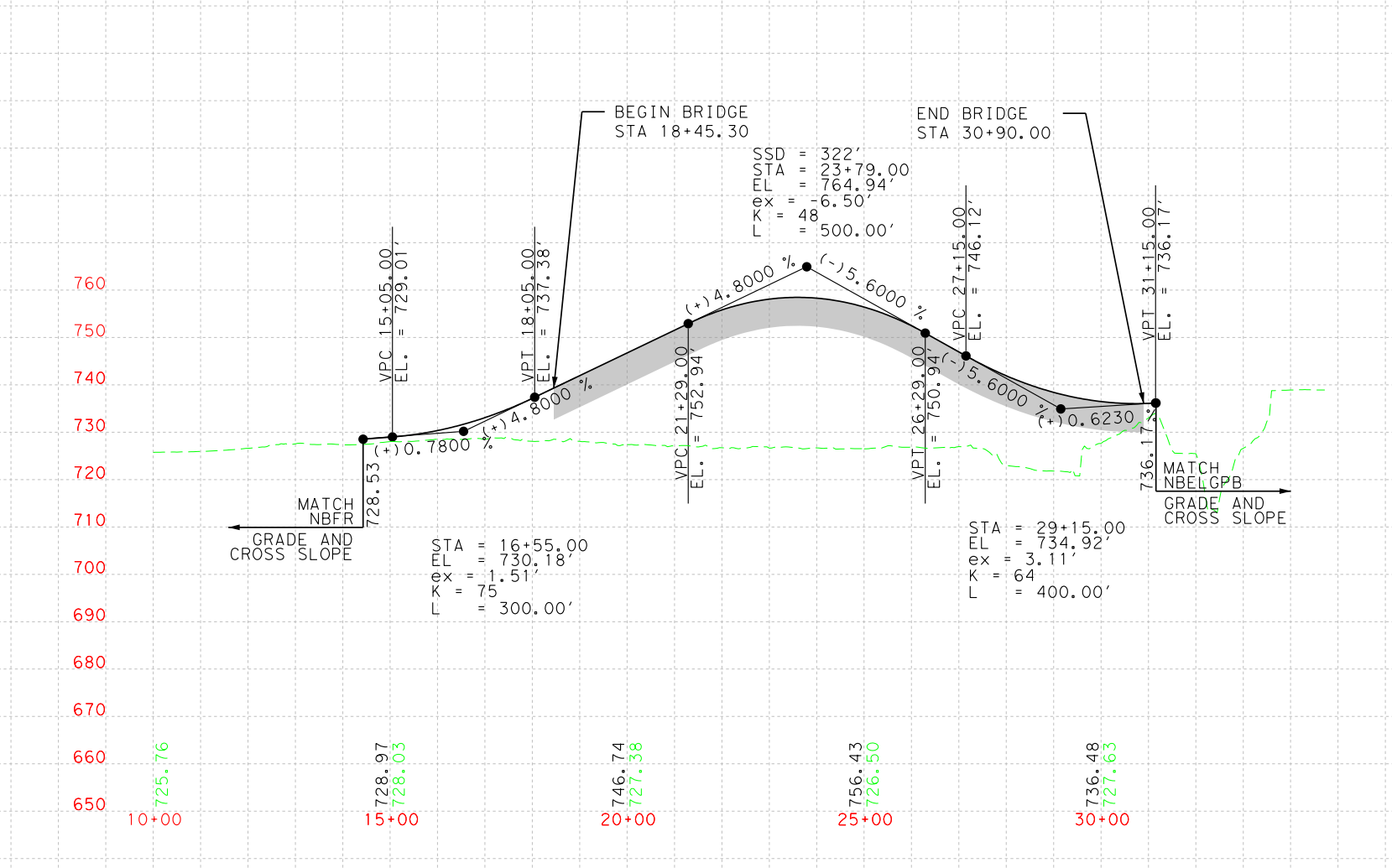
SSD = 456'
STA = 23+34.00
EL = 589.18'
ex = -0.53'
K = 53
L = 150.00'
(-)0.1700 %
MATCH NBELGPA GRADE AND CROSS SLOPE
MATCH NBFR GRADE AND CROSS SLOPE
(-)0.5000 %
STA = 25+25.00
EL = 583.45'
ex = 0.53'
K = 68
L = 170.00'
10+00
15+00
20+00
25+00

PROFILE: NBEBSRP



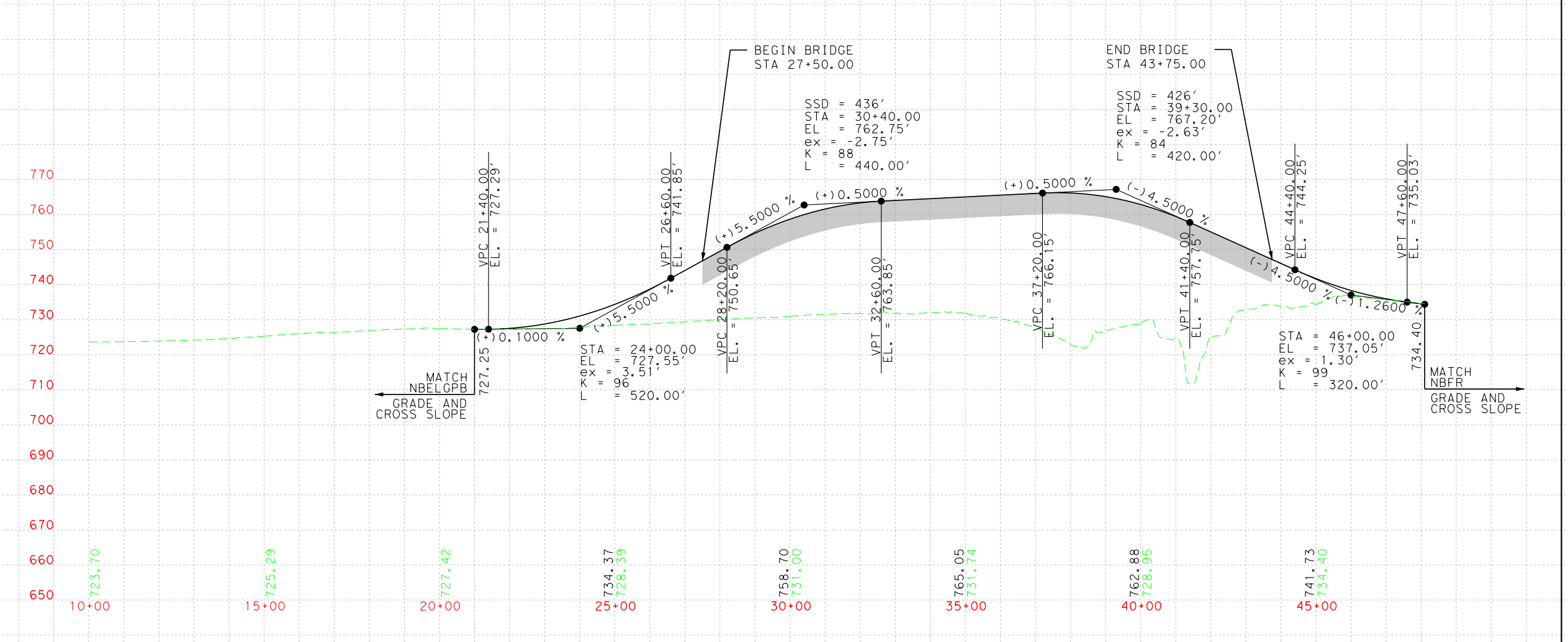
SSD = 396'
STA = 19+15.00
EL = 609.29'
ex = -0.63'
K = 45
L = 150.00'
MATCH NBELGPA GRADE AND CROSS SLOPE
MATCH NBFR GRADE AND CROSS SLOPE
STA = 17+00.00
EL = 606.79'
ex = 0.76'
K = 66
L = 200.00'
10+00
15+00
20+00

PROFILE: NBE360RP



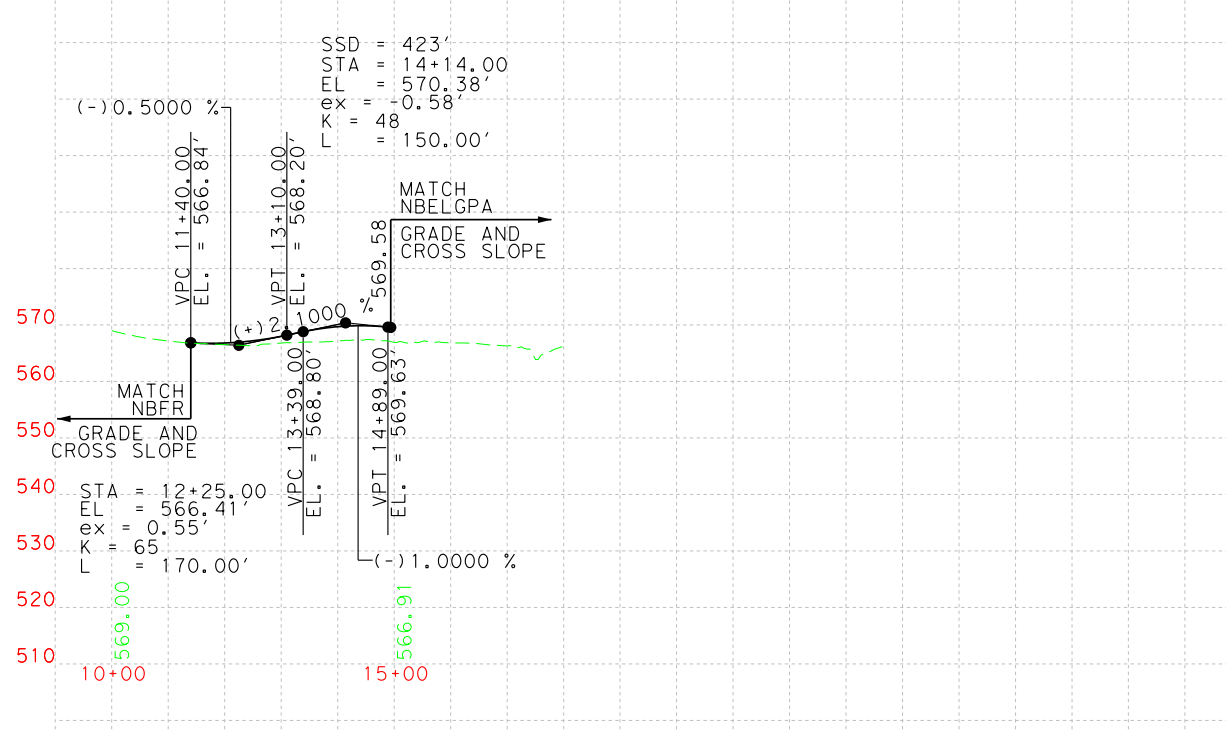
BEGIN BRIDGE STA 18+45.30
END BRIDGE STA 30+90.00
SSD = 322'
STA = 23+79.00
EL = 764.94'
ex = -6.50'
K = 48
L = 500.00'
(+)4.8000 %
(-)5.6000 %
(-)0.6230 %
(-)0.7800 %
MATCH NBFR GRADE AND CROSS SLOPE
MATCH NBELGPB GRADE AND CROSS SLOPE
STA = 16+55.00
EL = 730.18'
ex = 1.51'
K = 75
L = 300.00'
STA = 29+15.00
EL = 734.92'
ex = 3.11'
K = 64
L = 400.00'
10+00
15+00
20+00
25+00
30+00

PROFILE: RNXGP290



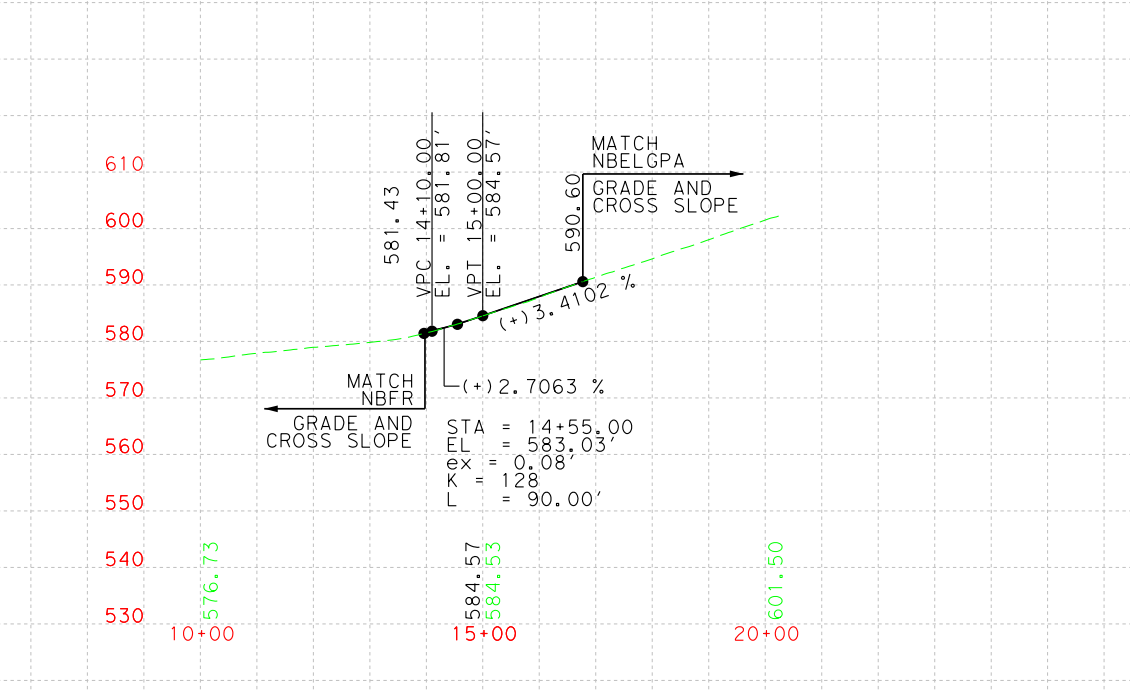
BEGIN BRIDGE STA 27+50.00
END BRIDGE STA 43+75.00
SSD = 436'
STA = 30+40.00
EL = 762.75'
ex = -2.75'
K = 88
L = 440.00'
SSD = 426'
STA = 39+30.00
EL = 761.20'
ex = -2.63'
K = 84
L = 420.00'
(+)0.1000 %
(+)5.5000 %
(+)0.5000 %
(-)4.5000 %
(-)1.2600 %
MATCH NBELGPB GRADE AND CROSS SLOPE
STA = 24+00.00
EL = 727.55'
ex = 3.51'
K = 96
L = 520.00'
STA = 46+00.00
EL = 737.05'
ex = 1.30'
K = 99
L = 320.00'
MATCH NBFR GRADE AND CROSS SLOPE
15+00
20+00
25+00
30+00
35+00
40+00
45+00

PROFILE: RNEXLWC



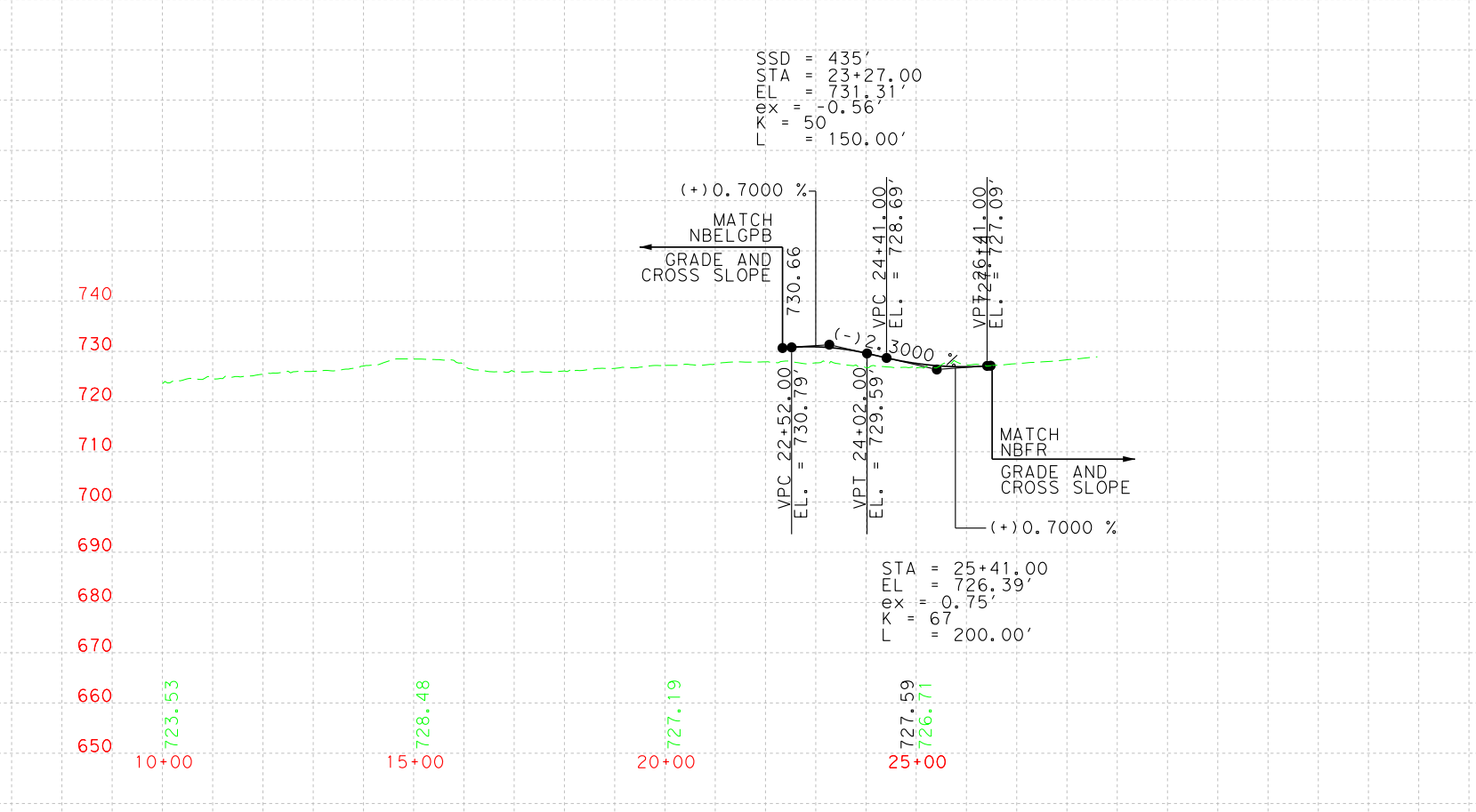
SSD = 423'
STA = 14+14.00
EL = 570.38'
ex = -0.58'
K = 48
L = 150.00'
(-)0.5000 %
MATCH NBELGPA GRADE AND CROSS SLOPE
MATCH NBFR GRADE AND CROSS SLOPE
STA = 12+25.00
EL = 566.41'
ex = 0.55'
K = 65
L = 170.00'
(-)1.0000 %
10+00
15+00

PROFILE: NBXBCRP



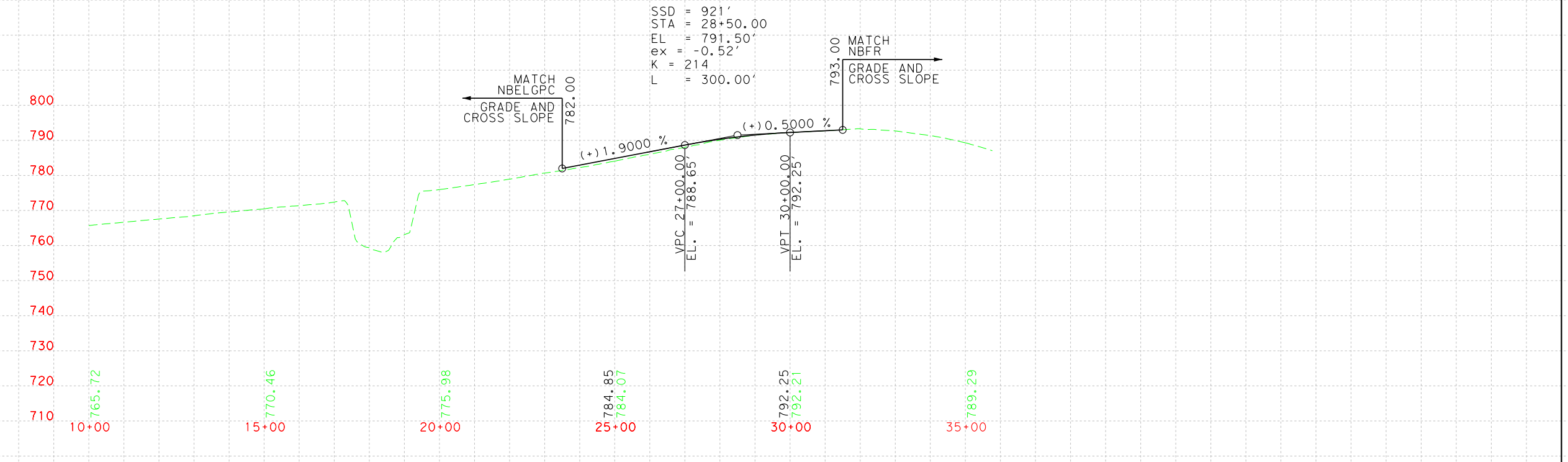
MATCH NBELGPA GRADE AND CROSS SLOPE
(+)3.4102 %
(+)2.7063 %
MATCH NBFR GRADE AND CROSS SLOPE
STA = 14+55.00
EL = 583.03'
ex = 0.08'
K = 128
L = 90.00'
10+00
15+00
20+00

PROFILE: NBX360RP



SSD = 435'
STA = 23+27.00
EL = 731.31'
ex = -0.56'
K = 50
L = 150.00'
(+)0.7000 %
MATCH NBELGPB GRADE AND CROSS SLOPE
MATCH NBFR GRADE AND CROSS SLOPE
(-)0.7000 %
STA = 25+41.00
EL = 726.39'
ex = 0.75'
K = 67
L = 200.00'
10+00
15+00
20+00
25+00

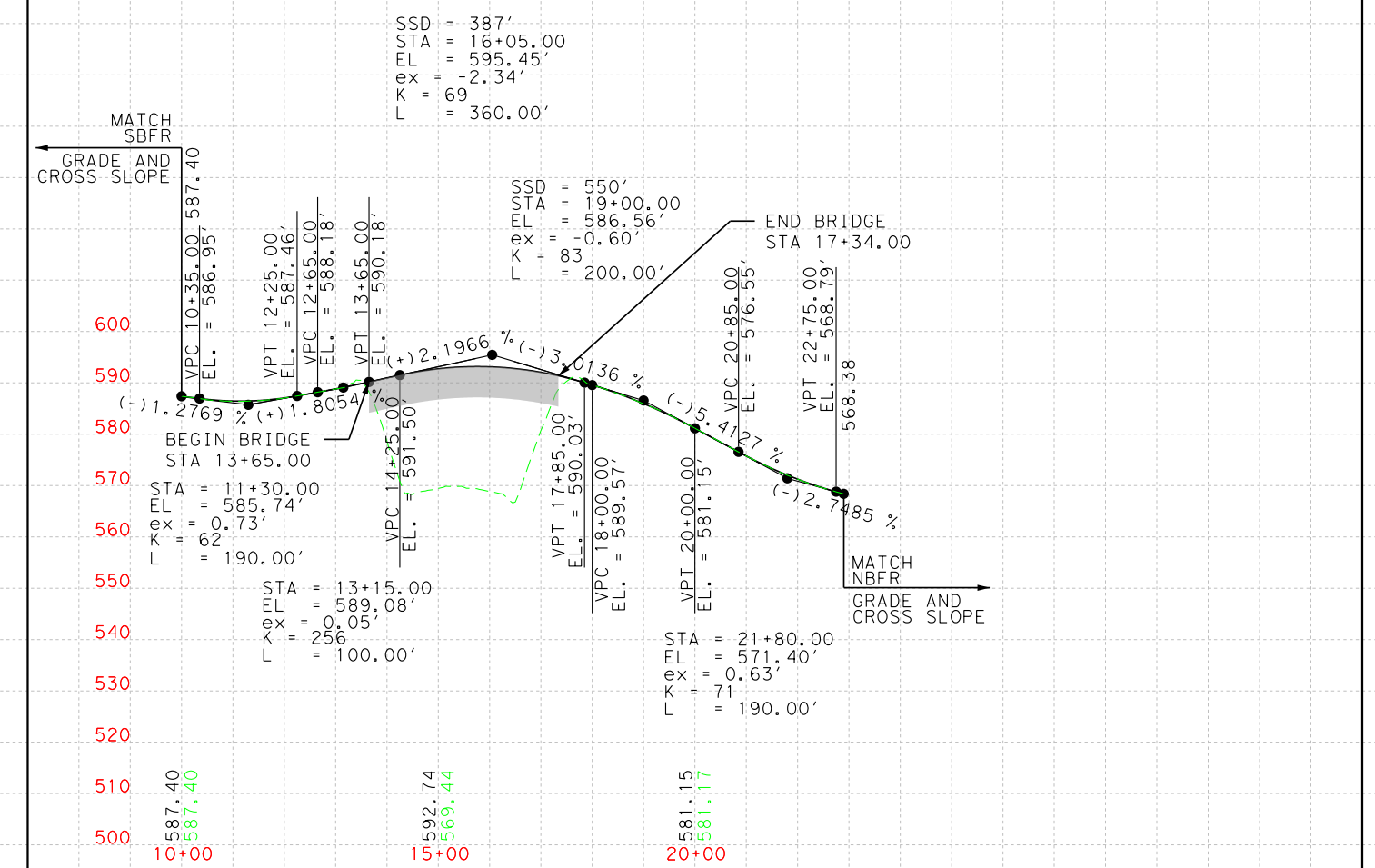
PROFILE: RNEGPWC



SSD = 921'
STA = 28+50.00
EL = 791.50'
ex = -0.52'
K = 214
L = 300.00'
MATCH NBELGPC GRADE AND CROSS SLOPE
(+)1.9000 %
(+)0.5000 %
MATCH NBFR GRADE AND CROSS SLOPE
15+00
20+00
25+00
30+00
35+00

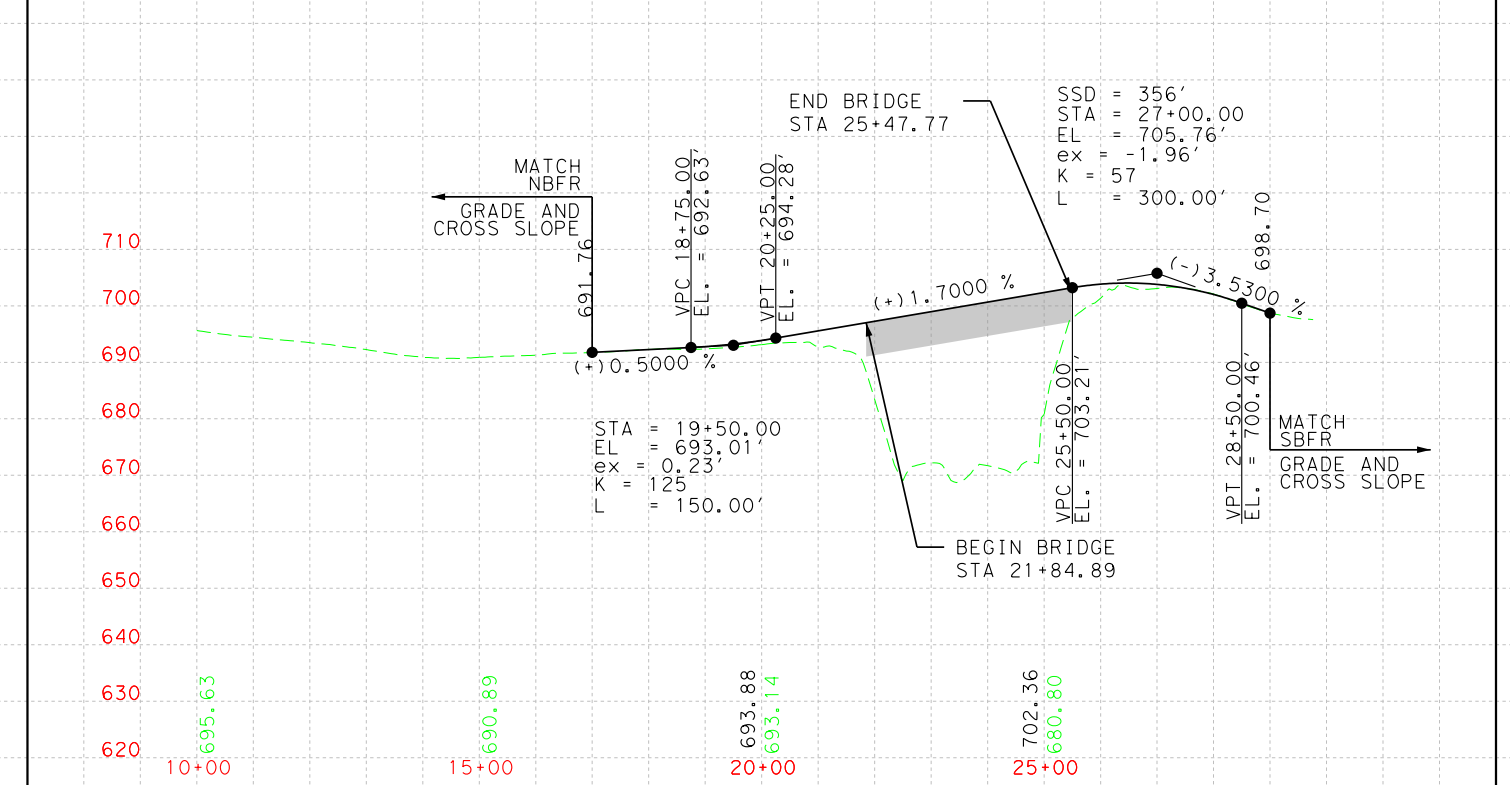
PROFILE: NBDLER

U-TURNS & CROSS STREETS



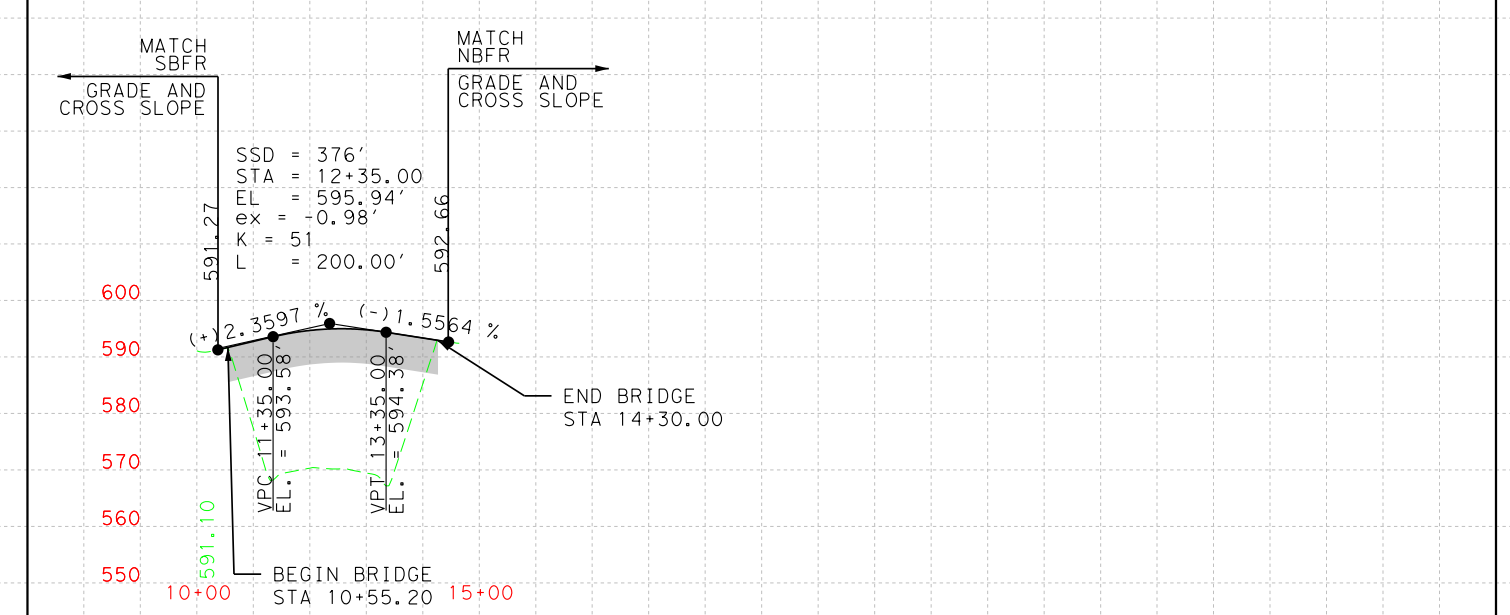
SSD = 387'
STA = 16+05.00
EL = 595.45'
ex = -2.34'
K = 69
L = 360.00'
MATCH SBFR GRADE AND CROSS SLOPE
SSD = 550'
STA = 19+00.00
EL = 586.56'
ex = -0.60'
K = 83
L = 200.00'
END BRIDGE STA 17+34.00
BEGIN BRIDGE STA 13+65.00
STA = 11+30.00
EL = 585.74'
ex = 0.73'
K = 62
L = 190.00'
STA = 13+15.00
EL = 589.08'
ex = 0.05'
K = 256
L = 100.00'
MATCH NBFR GRADE AND CROSS SLOPE
STA = 21+80.00
EL = 571.40'
ex = 0.63'
K = 71
L = 190.00'
10+00
15+00
20+00

PROFILE: BARSKYTA



END BRIDGE STA 25+47.77
SSD = 356'
STA = 27+00.00
EL = 705.76'
ex = -1.96'
K = 57
L = 300.00'
MATCH NBFR GRADE AND CROSS SLOPE
(+)1.7000 %
(-)3.5300 %
(+)0.5000 %
STA = 19+50.00
EL = 695.01'
ex = 0.23'
K = 125
L = 150.00'
BEGIN BRIDGE STA 21+84.89
MATCH SBFR GRADE AND CROSS SLOPE
10+00
15+00
20+00
25+00

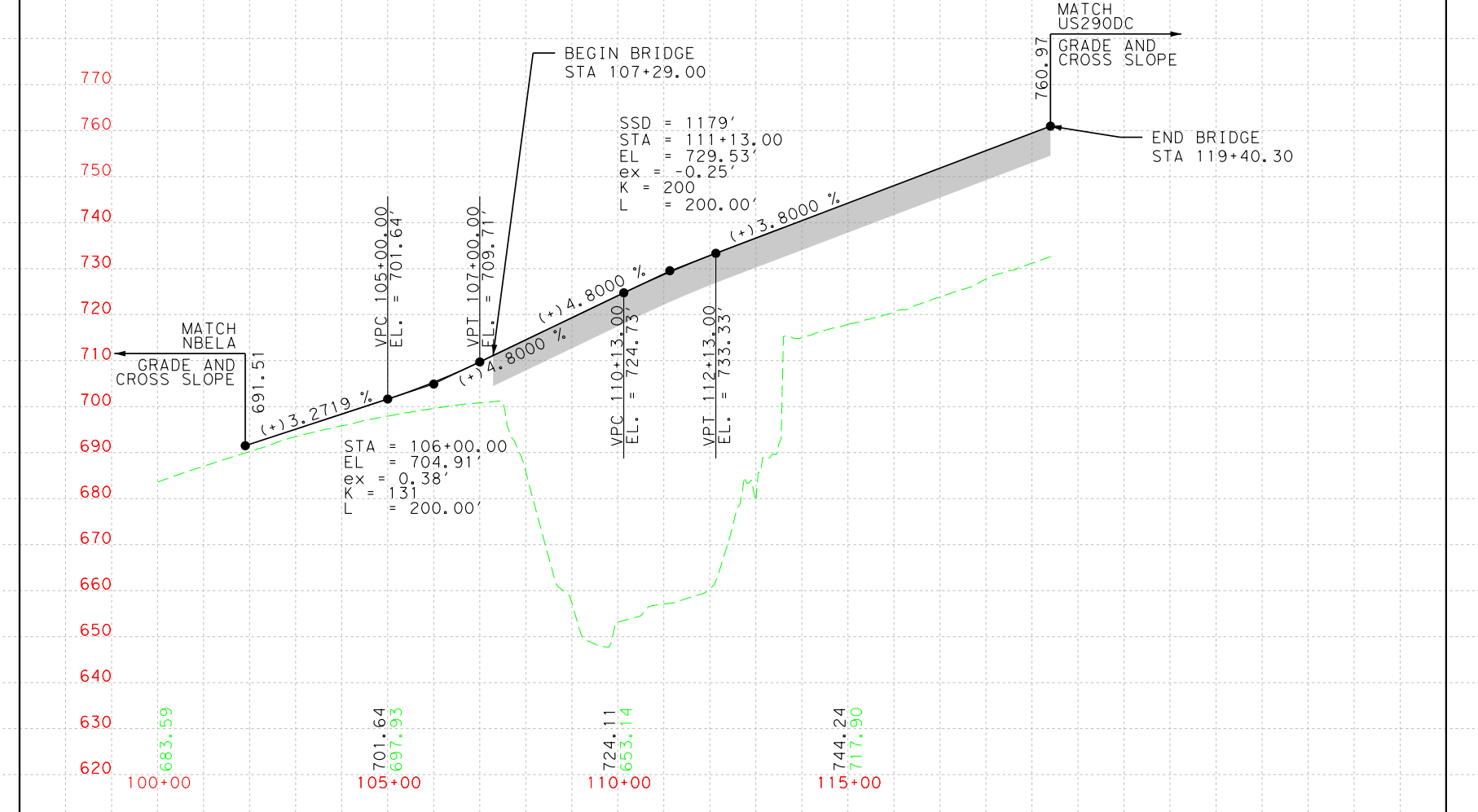
PROFILE: CSGCT



MATCH SBFR GRADE AND CROSS SLOPE
MATCH NBFR GRADE AND CROSS SLOPE
SSD = 376'
STA = 12+35.00
EL = 595.94'
ex = -0.98'
K = 51
L = 200.00'
(+)2.3597 %
(-)1.5564 %
END BRIDGE STA 14+30.00
BEGIN BRIDGE STA 10+55.20
10+00
15+00

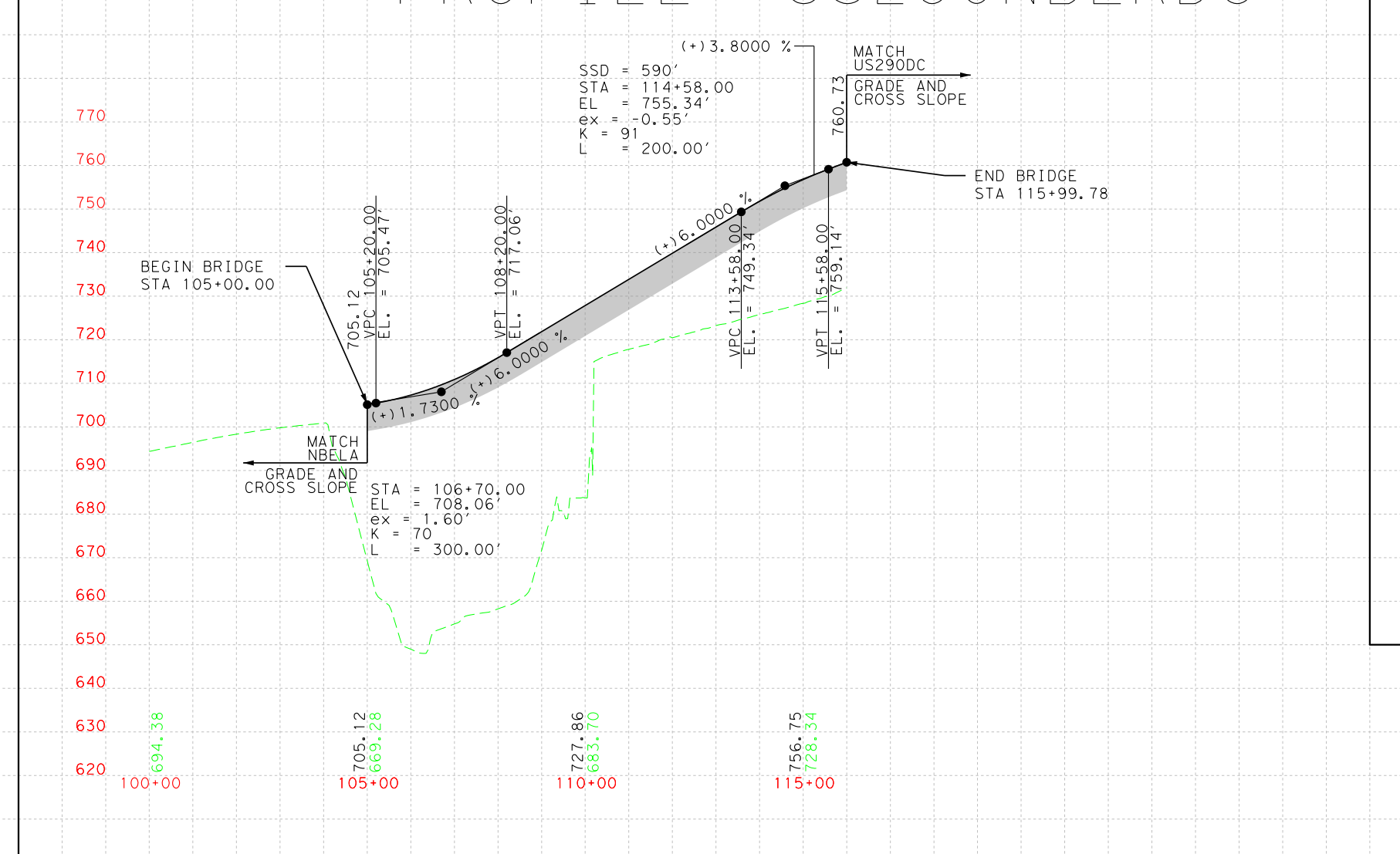
PROFILE: BARSKY

290 DIRECT CONNECTOR



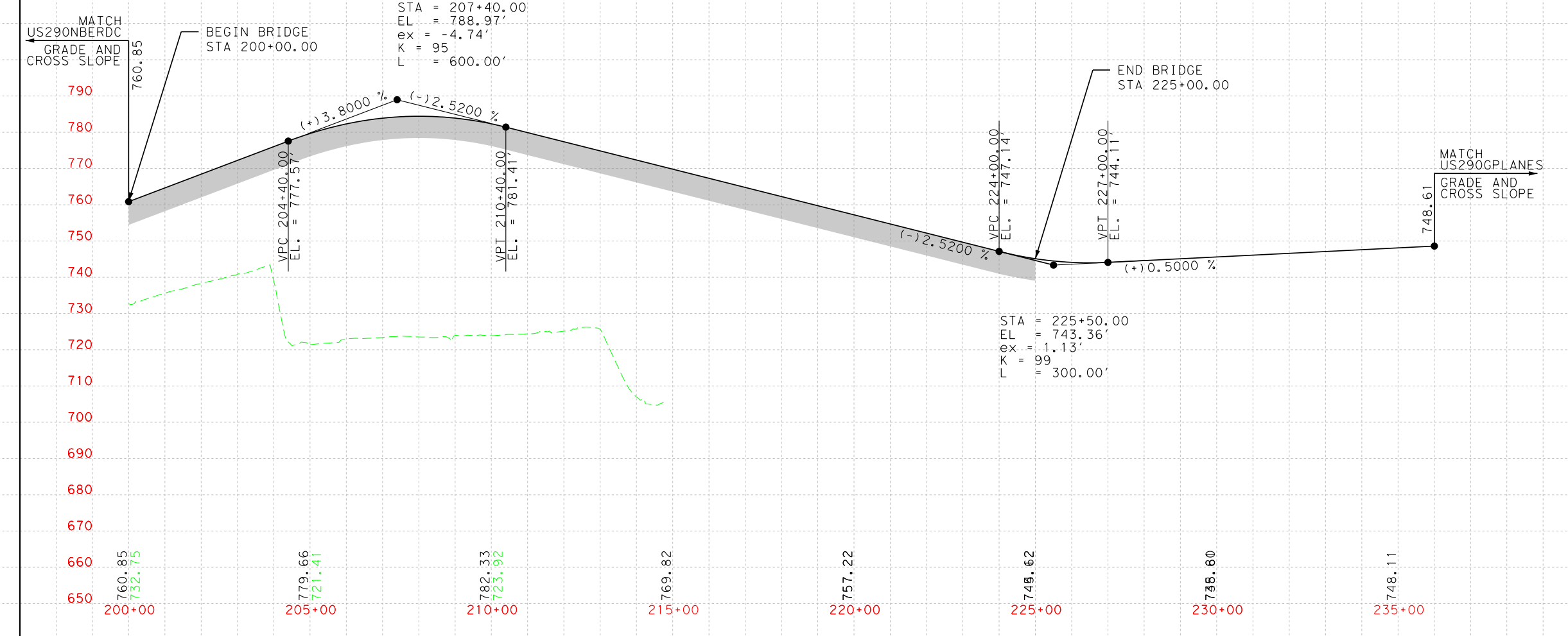
BEGIN BRIDGE STA 107+29.00
MATCH US290DC GRADE AND CROSS SLOPE
END BRIDGE STA 119+40.30
SSD = 1179'
STA = 111+13.00
EL = 729.53'
ex = -0.25'
K = 200
L = 200.00'
(+)3.8000 %
(+)4.8000 %
MATCH NBELA GRADE AND CROSS SLOPE
(+)3.2719 %
STA = 106+00.00
EL = 704.91'
ex = 0.38'
K = 131
L = 200.00'
100+00
105+00
110+00
115+00

PROFILE: US290NBERDC



(+)3.8000 %
SSD = 590'
STA = 114+58.00
EL = 755.34'
ex = -0.55'
K = 91
L = 200.00'
MATCH US290DC GRADE AND CROSS SLOPE
END BRIDGE STA 115+99.78
BEGIN BRIDGE STA 105+00.00
(+)6.0000 %
(+)1.7300 %
MATCH NBELA GRADE AND CROSS SLOPE
STA = 106+70.00
EL = 708.06'
ex = 1.60'
K = 70
L = 300.00'
100+00
105+00
110+00
115+00

PROFILE: US290SBERDC

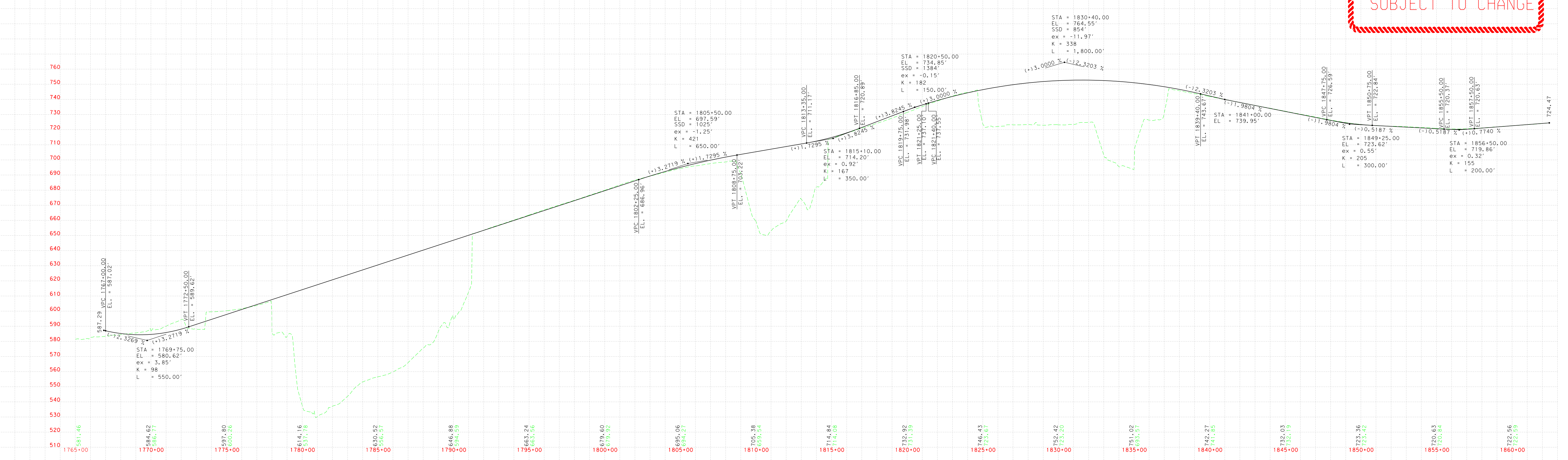


MATCH US290NBERDC GRADE AND CROSS SLOPE
BEGIN BRIDGE STA 200+00.00
SSD = 453'
STA = 207+40.00
EL = 788.97'
ex = -4.74'
K = 95
L = 600.00'
(+)3.8000 %
(-)2.5200 %
END BRIDGE STA 225+00.00
MATCH US290GPLANES GRADE AND CROSS SLOPE
(-)2.5200 %
(+)0.5000 %
STA = 225+50.00
EL = 743.36'
ex = 1.13'
K = 99
L = 300.00'
200+00
205+00
210+00
215+00
220+00
225+00
230+00
235+00

PROFILE: US290DC

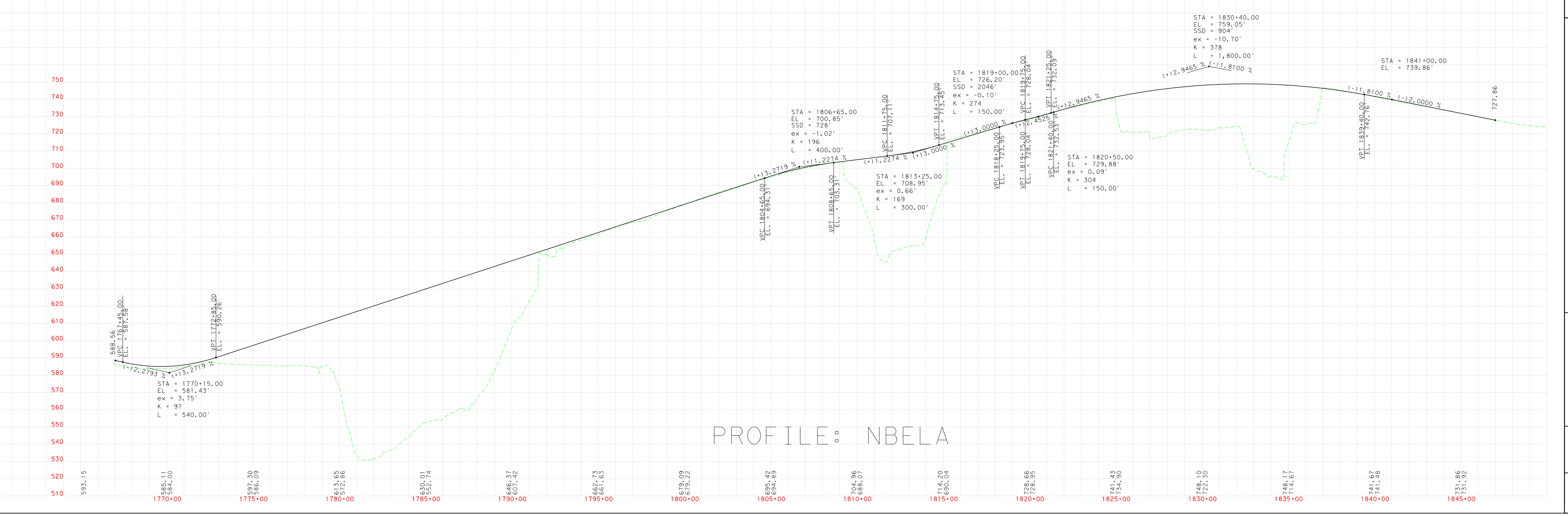
290 INTERCHANGE

PRELIMINARY
SUBJECT TO CHANGE



STA = 1769+75.00
EL = 580.62'
ex = 3.85'
K = 98
L = 550.00'
(-)2.3269 %
(+)3.2719 %
STA = 1805+50.00
EL = 697.59'
SSD = 1025'
ex = -1.25'
K = 421
L = 650.00'
(+)1.7295 %
STA = 1815+10.00
EL = 714.20'
ex = 0.92'
K = 167
L = 350.00'
(+)3.8245 %
STA = 1820+50.00
EL = 734.85'
SSD = 1384'
ex = -0.15'
K = 182
L = 150.00'
(+)3.0000 %
STA = 1830+40.00
EL = 764.55'
SSD = 854'
ex = -11.97'
K = 338
L = 1,800.00'
(-)2.3203 %
(-)1.9804 %
STA = 1841+00.00
EL = 739.95'
STA = 1849+25.00
EL = 723.62'
ex = 0.55'
K = 205
L = 300.00'
(-)0.5187 %
(+)0.7740 %
STA = 1856+50.00
EL = 719.86'
ex = 0.32'
K = 155
L = 200.00'
1765+00
1770+00
1775+00
1780+00
1785+00
1790+00
1795+00
1800+00
1805+00
1810+00
1815+00
1820+00
1825+00
1830+00
1835+00
1840+00
1845+00
1850+00
1855+00
1860+00

PROFILE: SBELA



(-)2.2793 %
(+)3.2719 %
STA = 1770+15.00
EL = 581.43'
ex = 3.75'
K = 97
L = 540.00'
STA = 1806+65.00
EL = 700.85'
SSD = 728'
ex = -1.02'
K = 196
L = 400.00'
(+)1.2274 %
STA = 1813+25.00
EL = 708.95'
ex = 0.66'
K = 169
L = 300.00'
(+)3.0000 %
STA = 1819+00.00
EL = 726.20'
SSD = 2046'
ex = -0.10'
K = 274
L = 150.00'
(+)2.4525 %
STA = 1820+50.00
EL = 729.88'
ex = 0.09'
K = 304
L = 150.00'
(+)2.9465 %
STA = 1830+40.00
EL = 759.05'
SSD = 904'
ex = -10.70'
K = 378
L = 1,800.00'
(-)1.8100 %
STA = 1841+00.00
EL = 739.86'
(-)2.0000 %
1765+00
1770+00
1775+00
1780+00
1785+00
1790+00
1795+00
1800+00
1805+00
1810+00
1815+00
1820+00
1825+00
1830+00
1835+00
1840+00
1845+00

PROFILE: NBELA

PRELIMINARY DESIGN SCHEMATIC OF MOPAC SOUTH ENVIRONMENTAL STUDY

CSJ: 3136-01-176

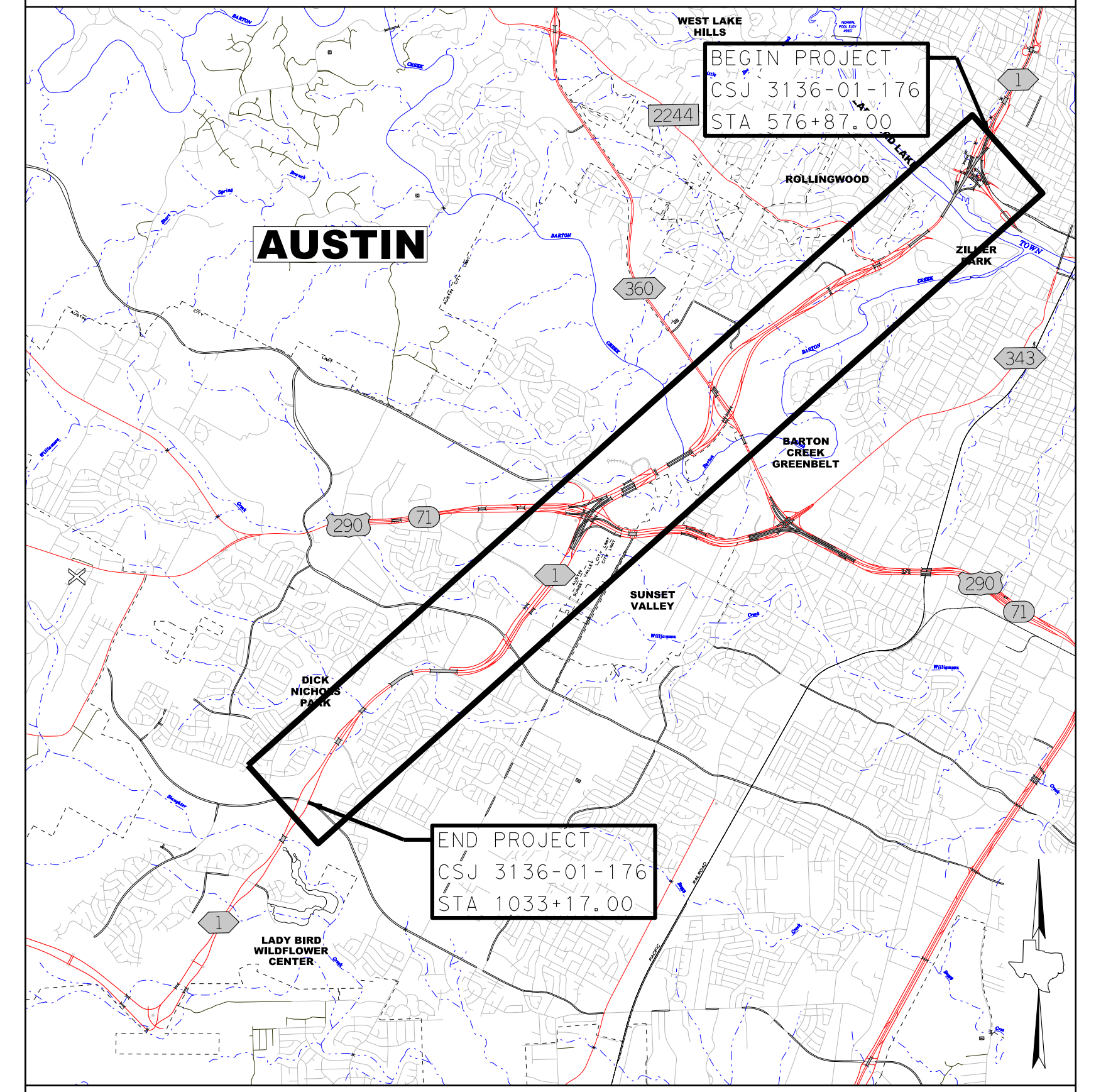
NET LENGTH OF PROJECT = 46,330 FT = 8.77 MI.

SCOPE OF WORK: ADDITION OF EXPRESS LANES IN THE MEDIAN, GENERAL PURPOSE LANE OPERATIONAL IMPROVEMENTS, AND ASSOCIATED RAMPS AND INTERCHANGE MODIFICATIONS.

TRAVIS COUNTY

LIMITS: CESAR CHAVEZ STREET TO SLAUGHTER LANE

SHEET 9 OF 9



WEST LAKE HILLS
BEGIN PROJECT
CSJ 3136-01-176
STA 576+87.00
2244
ROLLINGWOOD
AUSTIN
ZILKER PARK
360
343
BARTON CREEK GREENBELT
290
71
1
SUNSET VALLEY
DICK NICHOLS PARK
END PROJECT
CSJ 3136-01-176
STA 1033+17.00
LADY BIRD WILDFLOWER CENTER

EQUATIONS: ALIGNMENT BLLP01
STA 661+32.23 BK = STA 661+27.90 AH,
STA 836+32.18 BK = STA 834+66.57 AH

FUNCTIONAL CLASSIFICATION: URBAN FREEWAY

TERRAIN: ROLLING

EXPRESS/GENERAL PURPOSE LANE DESIGN SPEED: 50 MPH

COLLECTOR - DISTRIBUTOR ROAD DESIGN SPEED: 40 MH

DIRECT CONNECTOR DESIGN SPEED: 40 MPH

RAMP DESIGN SPEED: 40 MPH

MAX SUPERELEVATION: 8%

EXISTING ADT (2018): CESAR CHAVEZ ST TO US 290 - 161,300 VPD
US 290 TO SLAUGHTER LANE - 94,500 VPD

PROJECTED ADT (2046): CESAR CHAVEZ ST TO US 290 - 221,000 VPD
US 290 TO SLAUGHTER LANE - 120,800 VPD

PRELIMINARY
SUBMITTED FOR REVIEW
BY ZANE S. REID P.E. #129854
DATE 11/11/2024
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

BEARING BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE AND ADJUSTED TO SURFACE USING PROJECT SURFACE ADJUSTMENT FACTOR 1.00011.

SCALE: 1:100 H
1:10 V

MOPAC SOUTH
ENVIRONMENTAL STUDY

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
Texas Department of Transportation

AtkinsRéalis
ATKINSREALIS USA, INC.
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TX 78758
TBPE REG. F-474

11/11/2024
2:25:02 PM