CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

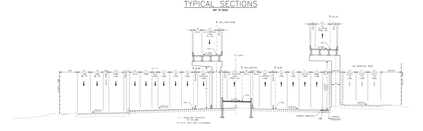
DESIGN SCHEMATIC (DRAFT)
183 NORTH MOBILITY PROJECT

US 183 FROM SH 45N / RM 620
TO LOOP 1 (MOPAC)

TRAVIS & WILLIAMSON COUNTIES
CSJ 0151-01-180, ETC (US 183)
CSJ 3136-01-185, ETC (LOOP 1)
7/15/2019

LOCATION MAP

TYPICAL SECTIONS



RAMP SOUTHBOUND 01

ALIGNMENT (SSL):

SUPER-ELEVATION	
STA 10+00.00	1.5%
STA 10+00.00 TO STA 11+00.00	1.5% TO 2.0%
STA 11+00.00 TO STA 11+17.25-BK	2.0% TO 2.0%
STA 11+17.25-AH TO STA 11+25.00	2.0% TO 1.5%
STA 11+25.00 TO STA 12+00.00	1.5% TO 1.5%
STA 12+00.00 TO STA 13+00.00	1.5% TO 1.5%
STA 13+00.00 TO STA 14+00.00	1.5% TO 1.5%
STA 14+00.00 TO STA

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

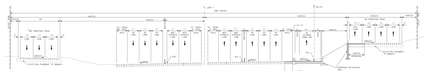
DESIGN SCHEMATIC (DRAFT)
183 NORTH MOBILITY PROJECT

US 183 FROM SH 45N / RM 620
TO LOOP 1 (MOPAC)

TRAVIS & WILLIAMSON COUNTIES
CSJ 0151-03-195, ETC (US 183)
CSJ 3136-01-001, ETC (LOOP 1)
7/16/2019

LOCATION MAP

TYPICAL SECTIONS



PROPOSED TYPICAL SECTION

PROPOSED RAMP TYPICAL SECTION

RAMP SOUTHBOUND 03	RAMP SOUTHBOUND 04
ALIGNMENT DATA:	ALIGNMENT DATA:
CURVE DATA:	CURVE DATA:
PI1 STATION = 1+24.96	PI1 STATION = 1+24.96
PI1 ELEVATION = 1+24.96	PI1 ELEVATION = 1+24.96
PI1 DELTA = 1+24.96	PI1 DELTA = 1+24.96
PI1 DIRECTION = 1+24.96	PI1 DIRECTION = 1+24.96
DEGREE OF CURVATURE = 1°49'46.31"	DEGREE OF CURVATURE = 1°49'46.31"
RADIUS = 1+24.96	RADIUS = 1+24.96
LENGTH = 1+24.96	LENGTH = 1+24.96
TANGENT = 1+24.96	TANGENT = 1+24.96
CURVE DATA:	CURVE DATA:
PI2 STATION = 1+24.96	PI2 STATION = 1+24.96
PI2 ELEVATION = 1+24.96	PI2 ELEVATION = 1+24.96
PI2 DELTA = 1+24.96	PI2 DELTA = 1+24.96
PI2 DIRECTION = 1+24.96	PI2 DIRECTION = 1+24.96
DEGREE OF CURVATURE = 1°49'46.31"	DEGREE OF CURVATURE = 1°49'46.31"
RADIUS = 1+24.96	RADIUS = 1+24.96
LENGTH = 1+24.96	LENGTH = 1+24.96
TANGENT = 1+24.96	TANGENT = 1+24.96
CURVE DATA:	CURVE DATA:
PI3 STATION = 1+24.96	PI3 STATION = 1+24.96
PI3 ELEVATION = 1+24.96	PI3 ELEVATION = 1+24.96
PI3 DELTA = 1+24.96	PI3 DELTA = 1+24.96
PI3 DIRECTION = 1+24.96	PI3 DIRECTION = 1+24.96
DEGREE OF CURVATURE = 1°49'46.31"	DEGREE OF CURVATURE = 1°49'46.31"
RADIUS = 1+24.96	RADIUS = 1+24.96
LENGTH = 1+24.96	LENGTH = 1+24.96
TANGENT = 1+24.96	TANGENT = 1+24.96
CURVE DATA:	CURVE DATA:
PI4 STATION = 1+24.96	PI4 STATION = 1+24.96
PI4 ELEVATION = 1+24.96	PI4 ELEVATION = 1+24.96
PI4 DELTA = 1+24.96	PI4 DELTA = 1+24.96
PI4 DIRECTION = 1+24.96	PI4 DIRECTION = 1+24.96
DEGREE OF CURVATURE = 1°49'46.31"	DEGREE OF CURVATURE = 1°49'46.31"
RADIUS = 1+24.96	RADIUS = 1+24.96
LENGTH = 1+24.96	LENGTH = 1+24.96
TANGENT = 1+24.96	TANGENT = 1+24.96
CURVE DATA:	CURVE DATA:
PI5 STATION = 1+24.96	PI5 STATION = 1+24.96
PI5 ELEVATION = 1+24.96	PI5 ELEVATION = 1+24.96
PI5 DELTA = 1+24.96	PI5 DELTA = 1+24.96
PI5 DIRECTION = 1+24.96	PI5 DIRECTION = 1+24.96
DEGREE OF CURVATURE = 1°49'46.31"	DEGREE OF CURVATURE = 1°49'46.31"
RADIUS = 1+24.96	RADIUS = 1+24.96
LENGTH = 1+24.96	LENGTH = 1+24.96
TANGENT = 1+24.96	TANGENT = 1+24.96

183 NORTH OPTION RAMP TERMINI STATION			
STA	WESTBOUND	EASTBOUND	
1+24.96	03	04	RAMP SOUTHBOUND
1+24.96	01	02	RAMP NORTHBOUND
1+24.96	07	08	RAMP SOUTHBOUND
1+24.96	05	06	RAMP NORTHBOUND
1+24.96	11	12	RAMP SOUTHBOUND
1+24.96	09	10	RAMP NORTHBOUND
1+24.96	15	16	RAMP SOUTHBOUND
1+24.96	13	14	RAMP NORTHBOUND
1+24.96	19	20	RAMP SOUTHBOUND
1+24.96	17	18	RAMP NORTHBOUND

GRID NORTH
GRID NORTH

FUNCTIONAL CLASS
MAINLANES: URBAN FREEWAY
FRONTAGE ROADS: URBAN COLLECTOR
FAIR WEST BOULEVARD: URBAN COLLECTOR
RM 2222: URBAN PRINCIPAL ARTERIAL

DESIGN SPEED
MAINLANES: 40 MPH (emax=0.06)
FRONTAGE ROADS: 40 MPH
RAMPS: 40 MPH
DIRECT CONNECTORS: 40 MPH
CROSS STREETS: 30 MPH
COLLECTOR DISTRIBUTOR: 40 MPH

DESIGN STANDARDS USED
TXDOT ROADWAY DESIGN MANUAL 2018
TXDOT SIGN PLACEMENT MANUAL 2018
TRB HIGHWAY CAPACITY MANUAL 2010
TEXAS MANUAL OF UNIFORM CONTROL DEVICES 2011

NOTE: DESIGN DEVIATIONS ON THE TYPICAL SCHEMATIC OF LOOP 1 FOR THE DIRECT CONNECTORS AT LOOP 1 ARE ON FILE WITH TXDOT. THE DESIGN DEVIATIONS FOR THE LOOP 1 DIRECT CONNECTORS ARE NOT SHOWN ON THE TYPICAL SCHEMATIC.

EQUATIONS:
(1) US 183 ML EQUATION: 999+58.07 (BK) = 0+00.00 (AH)
EXCEPTIONS: LANE WIDTH, INSIDE & OUTSIDE SHOULDER WIDTHS
RAILROAD CROSSINGS: UPRR AT US 183 STA 245+55.61

SURVEY DATA: ALL COORDINATES ARE BASED ON TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83 TEXAS CENTRAL ZONE. NAD 83 (NON-HARN). ALL COORDINATES ARE ADJUSTED TO SURFACE BY COMBINED SCALE FACTOR OF 1.00017. SCALE FACTOR OF 1.00017. PROJECT CONTROL DERIVED: TEXAS DATA CONTROL ESTABLISHED BY MCGRAY & MCGRAY, 2019. UNITS: U.S. SURVEY FEET.

HORZ. SCALE: 1"=100'
0 50 100 200

VERT. SCALE: 1"=10'
0 5 10 20

PRELIMINARY
SUBMITTED FOR REVIEW
NAME: MICHAEL J. CONTARINO
P.E. No.: 112208 DATE: 7/16/2019
Signature
NOT FOR CONSTRUCTION, BIDDING OR PERMITTING

NOT A BIDDING DOCUMENT

FIRST LAST NAME, P.E. DATE
PROJECT MANAGER

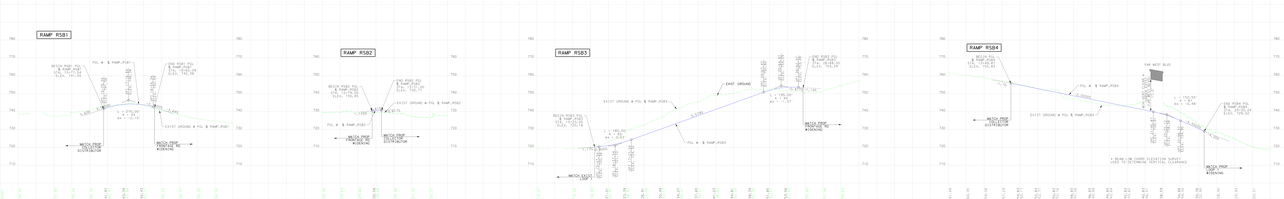
SUBMITTED FOR APPROVAL FOR FURTHER PROJECT DEVELOPMENT

RECOMMENDED BY: RECOMMENDED BY:
ADVANCED PROJECT DEVELOPMENT DIRECTOR DISTRICT DESIGN ENGINEER

RECOMMENDED BY: APPROVED BY:
AREA ENGINEER DIRECTOR, TRANSPORTATION PLANNING & DEVELOPMENT

PLAN VIEW LEGEND

- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- CONTROL OF ACCESS
- RETAINING WALL
- NUMBER OF LANES
- FINAL SCHEMATIC DESIGN
- GENERAL PURPOSE LANES
- COLLECTOR-DISTRIBUTOR BRIDGE
- COLLECTOR-DISTRIBUTOR ROAD
- EXPRESS AUXILARY LANES
- ENTRANCE / EXIT RAMP
- FRONTAGE ROAD
- PAVEMENT / BRIDGE WIDENING
- REMOVAL
- BRIDGE LIMITS



183 NORTH MOBILITY PROJECT
COLLECTOR DISTRIBUTOR DESIGN SCHEMATIC
INTERCHANGE AT (US 183 TO LOOP 1)

ROLL 2 OF 2

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CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
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www.mobilityauthority.com