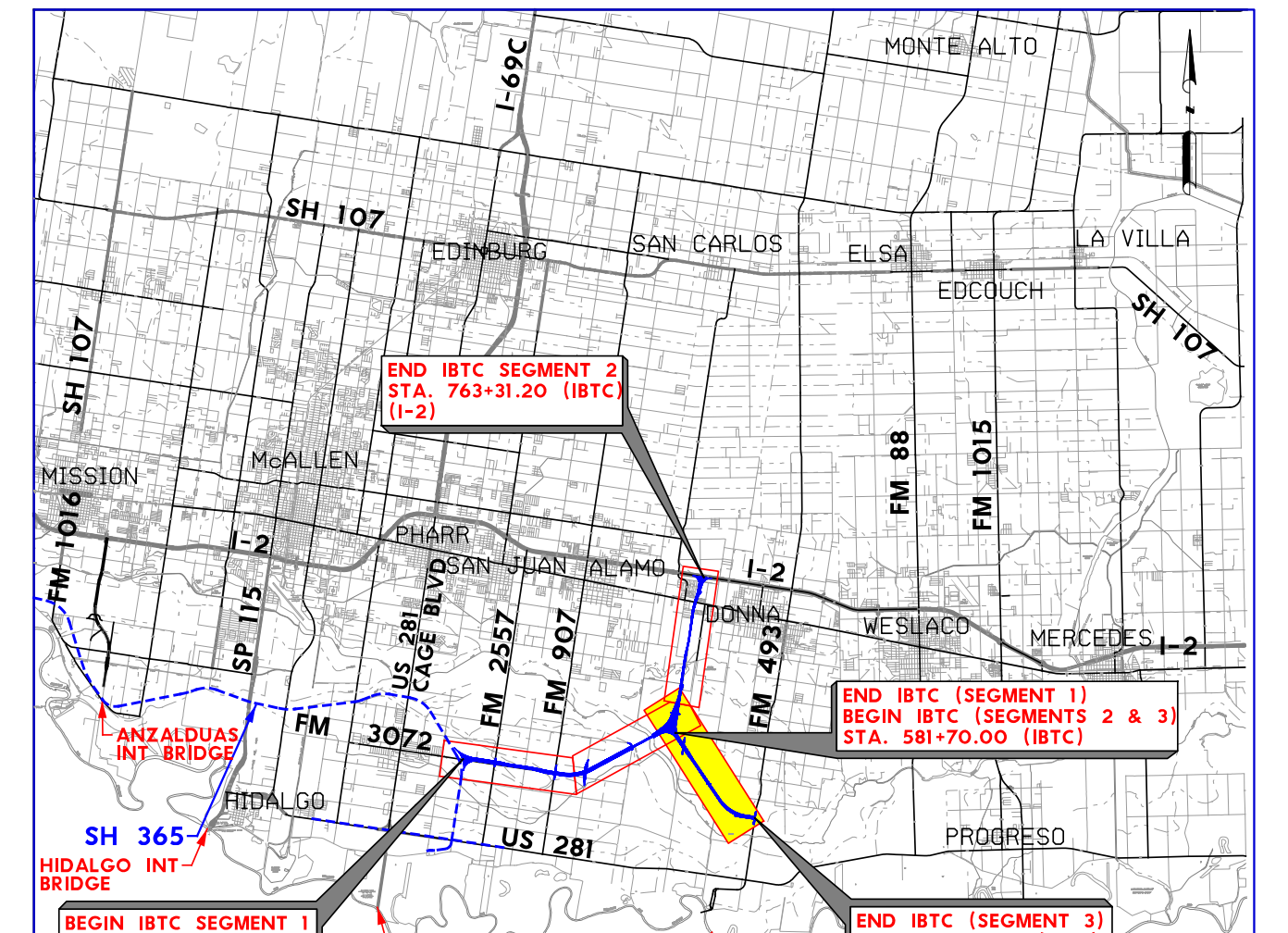

MONTE ALTO
I-69C
SH 107
EDINBURG
SAN CARLOS
ELSA
LA VILLA
EDCOUCH
SH 107
SH 107
MISSION
McALLEN
PHARR
SAN JUAN
ALAMO
I-2
DONNA
WESLACO
MERCEDES
FM 88
FM 1015
FM 1016
SP 115
US 281 CAGE BLVD
FM 2557
FM 907
FM 493
FM 3072
US 281
HIDALGO
PROGRESO
SH 365
ANZALDUAS INT. BRIDGE
HIDALGO INT. BRIDGE
PHARR INT. BRIDGE
DONNA INT. BRIDGE
END IBTC SEGMENT 2 STA. 763+31.20 (IBTC) (I-2)
END IBTC (SEGMENT 1) BEGIN IBTC (SEGMENTS 2 & 3) STA. 581+70.00 (IBTC)
BEGIN IBTC SEGMENT 1 STA. 255+81.10 (IBTC) (365 TOLL)
END IBTC (SEGMENT 3) STA. 726+20.22 (IBTC) (FM 493)

DESIGN DATA
INTERNATIONAL BRIDGE TRADE CORRIDOR (IBTC)

CSJ : **0921-02-142**

NET LENGTH : 12.35 MILES

SEGMENT 1 : FROM 365 TOLL/FM 3072 INTERCHANGE
: TO VALLEY VIEW INTERCHANGE (6.17 MILES)

SEGMENT 2 : FROM VALLEY VIEW INTERCHANGE, NORTH
: TO INTERSTATE 2 (3.44 MILES)

SEGMENT 3 : FROM VALLEY VIEW INTERCHANGE, EAST
: TO FM 493 (2.74 MILES)

FUNCTIONAL CLASSIFICATION : URBAN FREEWAY (PRINCIPAL ARTERIAL)

ADT (2024) : SEE IBTC TRAFFIC VOLUME DIAGRAM
(2044) : SEE IBTC TRAFFIC VOLUME DIAGRAM

e MAX : 6%

DESIGN CRITERIA : TxDOT ROADWAY DESIGN MANUAL
CHAPTER 3, SECTION 4 - (TWO-LANE RURAL HIGHWAYS)
CHAPTER 3, SECTION 5 - (MULTI-LANE RURAL HIGHWAYS)
CHAPTER 3, SECTION 6 - (FREEWAYS)

DESIGN SPEED TABLE

IBTC	DESIGN SPEED	FUNCTIONAL CLASSIFICATION
MAINLANES	70 MPH	URBAN FREEWAY (PRINCIPAL ARTERIAL)
RAMPS	50 MPH	URBAN FREEWAY (PRINCIPAL ARTERIAL)
FRONTAGE ROADS	50 MPH	URBAN FREEWAY (PRINCIPAL ARTERIAL)
CROSSROADS		
FM 3072 (DICKER RD.)	50 MPH	URBAN MAJOR COLLECTOR
FM 2557 (STEWART RD.)	50 MPH	URBAN MAJOR COLLECTOR
FM 907 (ALAMO RD.)	55 MPH	URBAN MAJOR COLLECTOR
TOWER RD.	35 MPH	URBAN MINOR COLLECTOR
BORDER/BALLI RD.	35 MPH	URBAN MINOR COLLECTOR
VALLEY VIEW RD.	35 MPH	URBAN MINOR COLLECTOR
COUNTY RD 1821	35 MPH	URBAN MINOR COLLECTOR
BUSINESS 83	50 MPH	URBAN MINOR ARTERIAL
INTERSTATE 2	70 MPH	URBAN PRINCIPAL ARTERIAL
COUNTY RD 1552	35 MPH	URBAN MINOR COLLECTOR
FM 493	55 MPH	URBAN MAJOR COLLECTOR

HCRMA
HIDALGO COUNTY REGIONAL MOBILITY AUTHORITY

© 2021 by Texas Department of Transportation; (956) 702-6101; all rights reserved

HDR Engineering Inc.
555 N. Carancahua , Suite 1600
Corpus Christi, TX 78401
Texas P.E. Firm Registration No. F-754

INTERNATIONAL BRIDGE TRADE CORRIDOR SEGMENT-3 PHASE-1
ROLL 4 OF 6

DRAWING:	FED. RD. DIV. NO.	STATE	PROJECT NO.			HIGHWAY NO.
CK:	6	TEXAS				IBTC
ENGINEER	STATE DIST. NO.	COUNTY	CONT	SECT	JOB	SHEET NO.
CK:						
REVIEW:	PHR	HIDALGO	0921	02	142	
CK:						

PLAN LEGEND

- CITY LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- EXISTING INTERNATIONAL LEVEE R.O.W.
- CONTROL OF ACCESS
- BEGIN/END R.O.W. TRANSITION
- PROPOSED RETAINING WALL
- PROPOSED TOE OF SLOPE
- PROPOSED GAS EASEMENT
- PROPOSED BRIDGE MAINLANES
- PROPOSED ROADWAY
- EXISTING ROADWAY TO REMAIN
- EXISTING DRAINAGE DITCH
- PROPOSED DRAINAGE DITCH
- PROPOSED DRAINAGE DITCH BY OTHERS
- PROPOSED IRRIGATION EASEMENT
- PROPOSED HIGH TENSION POWER ROW (BY ELECTRIC TRANSMISSION TEXAS)
- EXISTING IRRIGATION CANAL
- EXISTING USFWS CORRIDOR/TRACT
- EXISTING FLOODWAY / LAKES
- EXISTING FEMA FLOODPLAIN 100YR
- EXISTING CONSTRAINTS
- FUTURE PAVEMENT / ULTIMATE SECTION
- FUTURE PROJECT BY OTHERS, CSJ 0921-02-368 / LETTING DEC 2021
- FUTURE BRIDGE / ULTIMATE SECTION
- EXISTING ROAD TO BE OBLITERATED
- AREAS OF IMPACT
- PROPOSED R.O.W.
- EXISTING IRRIGATION STRUCTURE
- EXISTING DRAINAGE STRUCTURE
- PROPOSED IRRIGATION STRUCTURE
- PROPOSED DRAINAGE STRUCTURE
- PROPOSED IRRIGATION STRUCTURE BY OTHERS
- PROPOSED DRAINAGE STRUCTURE BY OTHERS
- PROPOSED TRAFFIC
- EXISTING TRAFFIC
- PROPOSED DRAINAGE FLOW
- EXISTING DRAINAGE FLOW

UTILITIES LEGEND

OHEC	EXIST. OVERHEAD POWER LINE WITH CABLE ATTACHED
OHET	EXIST. OVERHEAD POWER LINE WITH TELEPHONE LINE ATTACHED
OHE	EXIST. OVERHEAD POWER LINE
UE	EXIST. UNDERGROUND POWER LINE
●	EXISTING HIGH TENSION POWER LINES
●	PROPOSED HIGH TENSION POWER LINES (BY ELECTRIC TRANSMISSION TEXAS)
G	EXIST. GAS LINE
W	EXIST. WATER LINE
SS	EXIST. SANITARY SEWER LINE
FM	EXIST. SANITARY SEWER FORCEMAIN
UFO	EXIST. UNDERGROUND FIBER OPTIC
AFO	EXIST. AERIAL FIBER OPTIC
	EXIST. IRRIGATION LINES
☼	DRY HOLE
☼	GAS WELL
●	HORIZONTAL DRAIN HOLE
☼	OIL/GAS WELL
●	PERMITTED LOCATION
☼	PLUGGED GAS WELL
●	PLUGGED OIL WELL
☼	PLUGGED OIL/GAS WELL
☼	SHUT-IN WELL (GAS)
●	SIDETRACK WELL SURFACE LOCATION

SCALE 1" = 200'
IRRIGATION CANAL
COUNTY ROAD 1821
FM 1423 (VALLEY VIEW ROAD)
COUNTY ROAD 1822
COUNTY RD 1552
CR 1853 (MILE 4 ROAD)
S RIVER ROAD
VERTREES ROAD
MILE 3 ROAD
FM 493
NORTH FLOODWAY LEVEE
MAIN FLOODWAY
PILOT CHANNEL
HIDALGO COUNTY LIMITS
DONNA CITY LIMITS
N. FLOODWAY LEVEE
PROP. IBTC ℄
BEGIN INCIDENTAL CONSTRUCTION STA. 103+42.58
END INCIDENTAL CONSTRUCTION STA. 115+77.81
BEGIN IBTC-EAST WEST FRTG RD STA. 549+83.95 (S FRWB02)
BEGIN INCIDENTAL CONSTRUCTION STA. 35+68.24
END INCIDENTAL CONSTRUCTION STA. 13+58.89
FUTURE OVERPASS & SIGNALIZED INTERSECTION
FOR DETAILS FROM STA. 515+85.82 TO STA. 575+00.00 (REFER TO ROLL 2)
PHASE 1 2-WAY CONNECTOR (FUTURE EB FRONTAGE ROAD)
EXIST. AEP TOWER (TO REMAIN IN PLACE)
EXIST. 150' AEP EASEMENT
EXIST OUTFALL CHANNEL
PROP. IBTC ℄ DONNA EAST SEGMENT (S_FRWB03)
END INCIDENTAL CONSTRUCTION STA. 505+53.76
BEGIN INCIDENTAL CONSTRUCTION STA. 488+55.47
END IBTC SEGMENT 3 STA. 726+20.22(IBTC-EAST) STA. 725+04.56(WBFR) 158.0' (LT)
END IBTC-EAST EAST FRTG RD STA. 727+36.00 (S_FRWB03)
FUTURE SIGNALIZED INTERSECTION
TO DONNA INTERNATIONAL BRIDGE
PROP. DETENTION POND
PROP. IRRIGATION STRUCTURE
PROP. DRAINAGE STRUCTURE
PROP. OUTFALL DITCH BY OTHERS
PROP. R.O.W. LINE
S_FREB041
SFRWB035
SFRWB036
SFRWB037
VVIEW-1
VVIEW-2
VVIEW-3
VVIEW-4
FM493-1
FM493-2
FM493-3

CURVE DATA S_FREB041 (50MPH)
PI STATION = 585+98.04
DELTA = 60° 20' 15.57" (RT)
DEGREE OF CURVE = 4° 24' 26.52"
TANGENT = 755.67
LENGTH = 1,369.02
RADIUS = 1,300.00
PC STATION = 578+42.37
PT STATION = 592+11.39
e% = 5.4%

CURVE DATA S_FRWB035 (50MPH)
PI STATION = 601+68.19
DELTA = 5° 31' 23.87" (LT)
DEGREE OF CURVE = 0° 42' 58.31"
TANGENT = 385.90
LENGTH = 771.20
RADIUS = 8,000.00
PC STATION = 597+82.30
PT STATION = 605+53.49
e% = NC

CURVE DATA S_FRWB036 (50MPH)
PI STATION = 608+42.92
DELTA = 5° 31' 23.87" (RT)
DEGREE OF CURVE = 0° 57' 17.75"
TANGENT = 289.42
LENGTH = 578.40
RADIUS = 6,000.00
PC STATION = 605+53.49
PT STATION = 611+31.89
e% = NC

CURVE DATA V-VIEW-1 (45MPH) LOW SPEED
PI STATION = 14+81.77
DELTA = 9° 21' 59.68" (LT)
DEGREE OF CURVE = 3° 49' 10.99"
TANGENT = 122.88
LENGTH = 245.22
RADIUS = 1,500.00
PC STATION = 13+58.89
PT STATION = 16+04.11
e% = NC

CURVE DATA V-VIEW-2 (45MPH) LOW SPEED
PI STATION = 17+26.99
DELTA = 9° 21' 59.01" (RT)
DEGREE OF CURVE = 3° 49' 10.71"
TANGENT = 122.88
LENGTH = 245.22
RADIUS = 1,500.03
PC STATION = 16+04.11
PT STATION = 18+49.32
e% = NC

CURVE DATA V-VIEW-3 (45MPH) LOW SPEED
PI STATION = 32+00.69
DELTA = 9° 21' 59.01" (RT)
DEGREE OF CURVE = 3° 49' 10.99"
TANGENT = 122.88
LENGTH = 245.21
RADIUS = 1,500.00
PC STATION = 30+77.81
PT STATION = 33+23.02
e% = NC

CURVE DATA V-VIEW-4 (45MPH) LOW SPEED
PI STATION = 34+45.90
DELTA = 9° 21' 59.68" (LT)
DEGREE OF CURVE = 3° 49' 10.99"
TANGENT = 122.88
LENGTH = 245.22
RADIUS = 1,500.00
PC STATION = 33+23.02
PT STATION = 35+68.24
e% = NC

IBTC - FRONTAGE RD
STA = 580+00.00, EL = 81.56', L = 278.26', K = 247, ex = -0.39'
STA = 585+00.00, EL = 80.56'
STA = 591+00.00, EL = 82.06'
SCALE: VER = 1"=20', HOR 1" = 200'
LEGEND: EBFR PROP PGL; EXIST. N.G.

FRONTAGE ROADS
DESIGN SPEED 50 MPH
CREST K = 84
SAG K = 96
SSD = 425

IBTC - FRONTAGE RD
VPI STA = 518+94.00, EL = 79.00', L = 150.00', K = 187, ex = 0.15'
VPI STA = 523+31.90, EL = 79.89'
VPI STA = 533+50.00, EL = 81.93', L = 250.26', K = 157, ex = 0.50'
VPI STA = 539+00.00, EL = 91.79', L = 582.77', K = 151, ex = -2.81'
VPI STA = 543+50.00, EL = 82.50', L = 253.69', K = 136, ex = 0.59'

MATCHLINE STA. 552+00

CURVE DATA S_FRWB037 (50MPH)
PI STATION = 696+15.24
DELTA = 47° 19' 34.00" (LT)
DEGREE OF CURVE = 1° 08' 45.30"
TANGENT = 2,191.00
LENGTH = 4,129.98
RADIUS = 5,000.00
PC STATION = 674+24.24
PT STATION = 715+54.22
e% = 2.4%

CURVE DATA FM493-1 (55MPH)
PI STATION = 488+12.32
DELTA = 4° 10' 10.56" (RT)
DEGREE OF CURVE = 0° 40' 26.64"
TANGENT = 309.42
LENGTH = 618.57
RADIUS = 8,500.00
PC STATION = 485+02.90
PT STATION = 491+21.47
e% = BY OTHERS

CURVE DATA FM493-2 (55MPH)
PI STATION = 494+30.96
DELTA = 4° 10' 10.56" (LT)
DEGREE OF CURVE = 0° 40' 26.18"
TANGENT = 309.48
LENGTH = 618.69
RADIUS = 8,501.64
PC STATION = 491+21.47
PT STATION = 497+40.16
e% = BY OTHERS

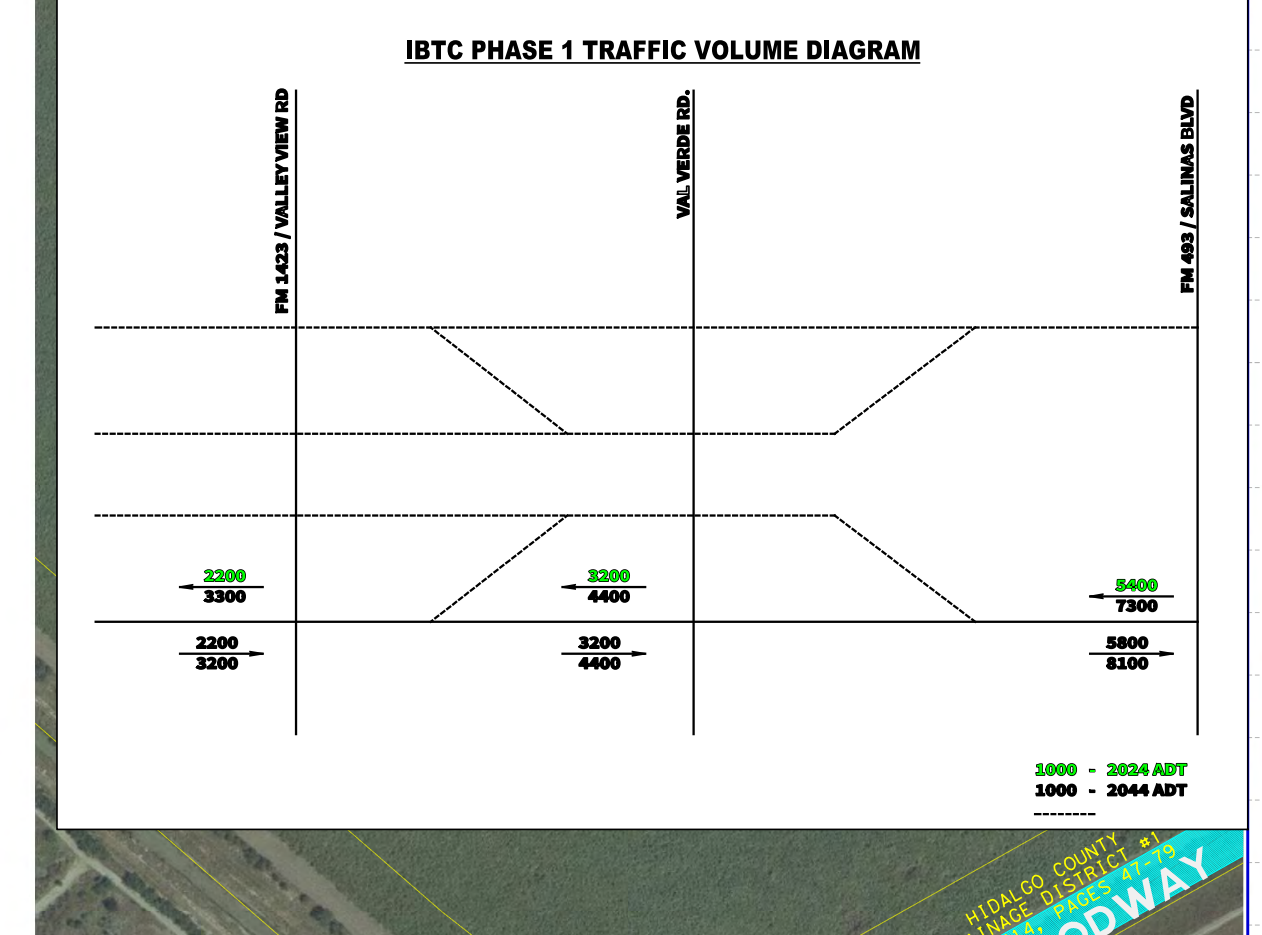
CURVE DATA FM493-3 (55MPH)
PI STATION = 512+05.36
DELTA = 7° 52' 40.59" (RT)
DEGREE OF CURVE = 0° 40' 26.64"
TANGENT = 585.28
LENGTH = 1,168.72
RADIUS = 8,500.00
PC STATION = 506+20.08
PT STATION = 517+88.80
e% = BY OTHERS

SUPERELEVATION TRANSITION CALCULATIONS

CHAIN	CURVE	LT/RT	RADIUS	DESIGN SPEED	NORMAL CROWN	e	CRITICAL WIDTH	TRANSITION IN		TRANSITION OUT	
			FT	MPH	%	%	FT	BEGIN	END	BEGIN	END
S*IBTCEAST	EAST-2	LT	4010	70	2.50	4.4	48	672+10	680+40	710+20	718+50

NOTE:
THE "INTERSECTIONS OF TRAVEL WAYS" FOR THE FRONTAGE ROAD/RAMP GORES IS A DEFINED AS THE POINT WHERE THE CENTERLINES OF THE 8" SOLID WHITE GORE STRIPES ARE EXACTLY 8" APART.

IBTC PHASE 1 TRAFFIC VOLUME DIAGRAM


FM 1423 / VALLEY VIEW RD
VAL VERDE RD
FM 493 / SALINAS BLVD
2200
3300
3300
4400
5400
7300
2200
3200
3200
4400
5800
8100
1000 - 2024 ADT
1000 - 2044 ADT

MATCHLINE STA. 552+00
EXIST 40' R.O.W.
VPI STA = 558+00.00 EL = 79.60' L = 200.00' K = 421 ex = 0.12'
VPI STA = 567+00.00 EL = 82.08' L = 297.65' K = 384 ex = -0.29'
VPI STA = 572+00.00 EL = 79.58' L = 161.70' K = 231 ex = 0.14'
VPI STA = 579+00.00 EL = 80.98' L = 172.80' K = 384 ex = -0.10'
VPI STA = 586+00.00 EL = 79.23' L = 150.00' K = 333 ex = 0.08'
VPI STA = 591+00.00 EL = 80.23' L = 172.80' K = 384 ex = -0.10'
VPI STA = 594+00.00 EL = 79.48'
VPI STA = 598+00.00 EL = 80.28'
VPI STA = 604+00.00 EL = 79.08'
VPI STA = 613+00.00 EL = 80.88'
VPI STA = 615+00.00 EL = 80.48'
VPI STA = 619+00.00 EL = 81.28' L = 192.00' K = 384 ex = -0.12'
VPI STA = 624+00.00 EL = 79.78' L = 115.50' K = 231 ex = 0.07'
VPI STA = 626+00.00 EL = 80.18'
VPI STA = 629+00.00 EL = 79.43'
VPI STA = 633+00.00 EL = 80.23'
VPI STA = 637+00.00 EL = 79.43'
VPI STA = 645+50.00 EL = 81.13'
VPI STA = 650+50.00 EL = 80.13'
VPI STA = 655+00.00 EL = 81.03'
VPI STA = 665+00.00 EL = 79.03'
VPI STA = 672+00.00 EL = 80.43'
VPI STA = 677+00.00 EL = 79.43'
VPI STA = 683+00.00 EL = 80.63'
VPI STA = 688+00.00 EL = 79.63'
VPI STA = 695+00.00 EL = 81.38'
VPI STA = 701+00.00 EL = 80.18'
STA = 706+00.00 EL = 81.18' L = 241.57' K = 384 ex = -0.19'
STA = 713+50.00 EL = 77.96' L = 145.32' K = 231 ex = 0.11'
H1 - 50 YR WSEL 79.88'
H1 - 100 YR WSEL 81.60'
J1 - 50 YR WSEL 77.34'
J1 - 100 YR WSEL 78.44'
J2 - 100 YR WSEL 77.75'
J2 - 50 YR WSEL 77.35'
K1 - 50 YR WSEL 78.88'
K1 - 100 YR WSEL 79.39'
L1 - 50 YR WSEL 78.55'
L1 - 100 YR WSEL 79.78'
M1 - 100 YR WSEL 77.20'
M1 - 50 YR WSEL 76.63'
N1 - 50 YR WSEL 77.81'
N1 - 100 YR WSEL 79.09'
PROP. IRRIGATION SIPHON STA. 595+10
PROP. IRRIGATION SIPHON STA. 610+10
PROP. IRRIGATION SIPHON STA. 613+95
PROP. DRAINAGE STRUCTURE STA. 669+10
PROP. IRRIGATION SIPHON STA. 670+10
PROP. DRAINAGE STRUCTURE STA. 671+00
PROP. IRRIGATION SIPHON STA. 680+10
PROP. DRAINAGE STRUCTURE STA. 712+54
PROP. PGL
EXIST. GL

IBTC - EASTBOUND CONNECTOR
ULTIMATE EASTBOUND FRONTAGE

LEGEND: ML PROP PGL; EBFR PROP PGL; EXIST. N.G.
SCALE: VER = 1"=20', HOR 1" = 200'

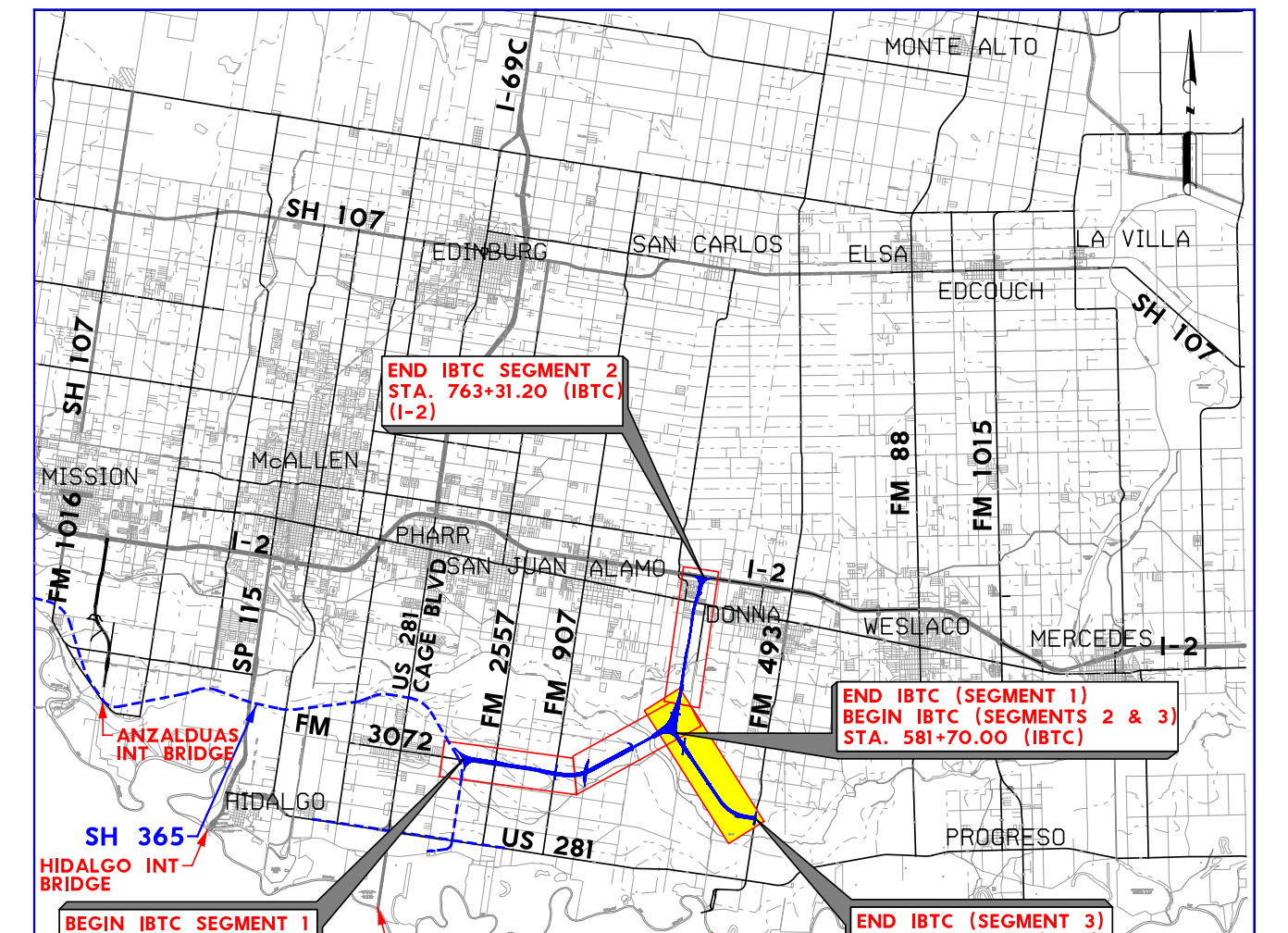
MAIN LANES	FRONTAGE ROADS
DESIGN SPEED 70 MPH	DESIGN SPEED 50 MPH
CREST K = 247	CREST K = 84
SAG K = 181	SAG K = 96
SSD = 730	SSD = 425

IBTC - MAINLANES & FRONTAGE ROADS

LEGEND: ML PROP PGL; WBFR PROP PGL; EXIST. N.G.
SCALE: VER = 1"=20', HOR 1" = 200'

MAIN LANES	FRONTAGE ROADS
DESIGN SPEED 70 MPH	DESIGN SPEED 50 MPH
CREST K = 247	CREST K = 84
SAG K = 181	SAG K = 96
SSD = 730	SSD = 425

PLAN LEGEND
UTILITIES LEGEND


END IBTC SEGMENT 2 STA. 763+31.20 (IBTC) (I-2)
END IBTC (SEGMENT 1) BEGIN IBTC (SEGMENTS 2 & 3) STA. 581+70.00 (IBTC)
BEGIN IBTC SEGMENT 1 STA. 255+81.10 (IBTC) (365 TOLL)
END IBTC (SEGMENT 3) STA. 726+20.22 (IBTC) (FM 493)

DESIGN DATA
INTERNATIONAL BRIDGE TRADE CORRIDOR (IBTC)

CSJ : 0921-02-142
NET LENGTH : 12.35 MILES
SEGMENT 1 : FROM 365 TOLL/FM 3072 INTERCHANGE : TO VALLEY VIEW INTERCHANGE (6.17 MILES)
SEGMENT 2 : FROM VALLEY VIEW INTERCHANGE, NORTH : TO INTERSTATE 2 (3.44 MILES)
SEGMENT 3 : FROM VALLEY VIEW INTERCHANGE, EAST : TO FM 493 (2.74 MILES)
FUNCTIONAL CLASSIFICATION : URBAN FREEWAY (PRINCIPAL ARTERIAL)

ADT (2013) : SEE IBTC TRAFFIC VOLUME DIAGRAM
(2033) : SEE IBTC TRAFFIC VOLUME DIAGRAM

e MAX : 6%
DESIGN CRITERIA : TxDOT ROADWAY DESIGN MANUAL CHAPTER 3, SECTION 4 - (TWO-LANE RURAL HIGHWAYS) CHAPTER 3, SECTION 5 - (MULTI-LANE RURAL HIGHWAYS) CHAPTER 3, SECTION 6 - (FREEWAYS)
DESIGN SPEED TABLE

STATE OF TEXAS
MARC H. SORIANO
128318
LICENSED PROFESSIONAL ENGINEER
Marc Soriano
04-08-2022

NOT A BIDDING DOCUMENT

HCRMA HIDALGO COUNTY REGIONAL MOBILITY AUTHORITY
© 2021 by Texas Department of Transportation; (956) 702-6101; all rights reserved
HDR Engineering Inc. 555 N. Carancahua , Suite 1600 Corpus Christi, TX 78401 Texas P.E. Firm Registration No. F-754
INTERNATIONAL BRIDGE TRADE CORRIDOR SEGMENT-3 PHASE-1 ROLL 4 OF 6
6 TEXAS IBTC PHR HIDALGO 0921 02 142