BICENTENNIAL EXTENSION PROJECT
BOND 2013 STREET IMPROVEMENTS
McAllen, Texas

HALFF
5000 WEST MILITARY, SUITE 100
McALLEN, TEXAS 78503
TEL (956) 664-0286
FAX (956) 664-0282
TBPE FIRM #F-312

ROBERT L. SAENZ
82072

NOT A BIDDING DOCUMENT

SCHEMATIC

FOR INTERIM REVIEW ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW PURPOSES ONLY AND NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMITTING. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

ROBERT L. SAENZ, P.E. 82072, 05/03/18
TBPE FIRM #F-312

Project No.:	30469
Issued:	MAY 2018
Drawn By:	B.L.
Checked By:	R.S.
Scale:	AS NOTED

Sheet Title
BICENTENNIAL SCHEMATIC

ROLL 1 OF 2
Sheet Number

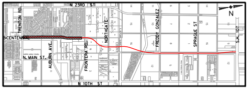
DESIGN DATA
BICENTENNIAL BOULEVARD

PROJECT LIMITS	:	FROM TRENTON ROAD TO SH0107
CSJ	:	0921-02-252
NET LENGTH	:	2.86 MILES
FUNCTIONAL CLASSIFICATION	:	MINOR ARTERIAL (56' B-B)
TRAFFIC DATA	:	ADT (2016) PENDING TRAFFIC STUDY ADT (2036) PENDING TRAFFIC STUDY
DESIGN SPEED	:	50 MPH
e MAX	:	"NC"
DESIGN CRITERIA	:	TxDOT ROADWAY DESIGN MANUAL CHAPTER 3, SECTION 2

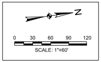
CROSSROADS POSTED SPEED TABLE	
TRENTON ROAD	45 MPH
AUBURN AVENUE	30 MPH
FRONTERA ROAD	30 MPH
NORTHGATE LANE	30 MPH
FREDDY GONZALEZ DRIVE	25 MPH
SPRAGUE ROAD	30 MPH
SH0107	55 MPH

LEGEND

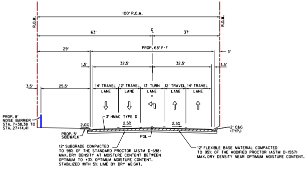
PROPOSED	EXISTING	
▬	▭	INLET
●	○	MANHOLE
	⊕	GATE VALVE & BOX
	✲	FIRE HYDRANT
— 12"SS —	— — SS — —	SAN. SEWER
— 12"W —	- - - W - - -	WATER
▬	— — SD — —	STORM SEWER
▬	- - - - - - -	IRRIGATION PIPE
— NB —		NOISE BARRIER
— MBGF —		METAL BEAM GUARD FENCE
	🟩	IRRIG. CANAL
	🟪	DRAINAGE DITCH
- - - ——	- - - ——	R.O.W.
	⟿	DRAINAGE FLOW
■	——	ASPHALT PAVEMENT
▨	▨	CONCRETE PAVEMENT
▨	☐	CONCRETE SIDEWALK
	⊙	TREE


N 23RD ST
TRENTON RD
BICENTENNIAL
N. MAIN ST.
AUBURN AVE.
FRONTERA RD.
NORTHGATE
FREDDY GONZALEZ
SPRAGUE ST
S.H. 107
N 10TH ST
N

VICINITY MAP
NTS


N
0
30
60
90
120

SCALE: 1"=60'

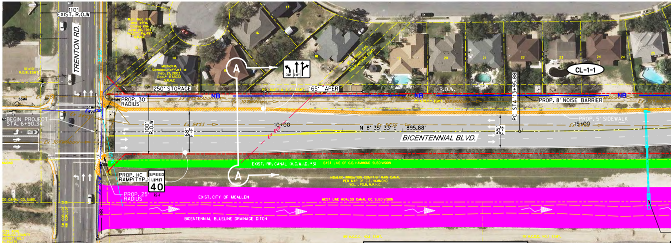

100' R.O.W.
R.O.W.
R.O.W.
63'
℄
37'
29'
PROP. 68' F-F
3'
1.5'
32.5'
32.5'
1.5'
3.5'
25.5'
14' TRAVEL LANE
12' TRAVEL LANE
13' TURN LANE
12' TRAVEL LANE
14' TRAVEL LANE
PROP. 8' NOISE BARRIER STA. 7+38.38 TO STA. 27+14.41
3" HMAC TYPE D
2.0%
2.5%
2.5%
2' C&G (TYP.)
PROP. 5' SIDEWALK
PGL

12" SUBGRADE COMPACTED TO 98% OF THE STANDARD PROCTOR (ASTM D-698) MAX. DRY DENSITY AT MOISTURE CONTENT BETWEEN OPTIMUM TO +3% OPTIMUM MOISTURE CONTENT. STABILIZED WITH 5% LIME BY DRY WEIGHT.

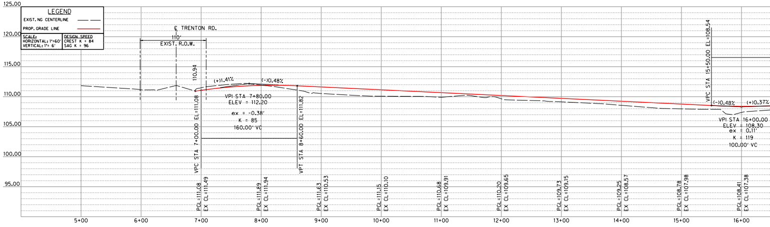
12" FLEXIBLE BASE MATERIAL COMPACTED TO 95% OF THE MODIFIED PROCTOR (ASTM D-1557) MAX. DRY DENSITY NEAR OPTIMUM MOISTURE CONTENT.

SECTION A-A

PROPOSED TYPICAL SECTION (68' F-F) FROM STA 7+20.93 TO STA 11+36.00

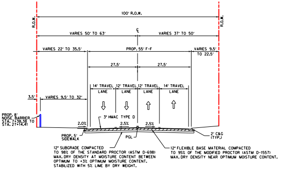

110'
EXIST. R.O.W.
TRENTON RD.
10'x10' R.O.W. ESMT.
SSMH
250' STORAGE
165' TAPER
PROP. 30' RADIUS
BEGIN PROJECT STA. 6+90.34
100' R.O.W.
68' F-F
10+00
N 8° 35' 33" E 895.88'
BICENTENNIAL BLVD.
55' F-F
PC STA 13+95.88
15+00
A
A
CL-1-1
R.O.W.
PROP. 8' NOISE BARRIER
PROP. 5' SIDEWALK
NB
ONLY
ONLY
EXIST. IRR. CANAL (H.C.W.I.D. #3)
PROP. HC RAMP (TYP.)
SPEED LIMIT 40
PROP. 25' RADIUS
EXIST. CITY OF McALLEN
BICENTENNIAL BLUELINE DRAINAGE DITCH
10' UTILITY ESMT.
TRENTON PECANS SUBDIVISION PHASE I

CURVE DATA CL-1-1 (50MPH)		
PI STATION	=	15+35.91
DELTA	=	2° 39' 38" (LT)
TANGENT	=	140.03'
LENGTH	=	280.01'
RADIUS	=	6,030.00'
CHORD	=	N 7° 15' 44" E 279.98'
PC STATION	=	13+95.88
PT STATION	=	16+75.89



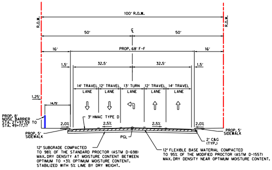
LEGEND
EXIST. NG CENTERLINE — —
PROP. GRADE LINE ——

SCALE:	DESIGN SPEED
HORIZONTAL: 1"=60'	CREST K = 84
VERTICAL: 1"= 6'	SAG K = 96


100' R.O.W.
R.O.W.
R.O.W.
℄
VARIES 50' TO 63'
VARIES 37' TO 50'
VARIES 22' TO 35.5'
PROP. 55' F-F
VARIES 9.5' TO 22.5'
27.5'
27.5'
14' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
14' TRAVEL LANE
3.5'
VARIES 9.5' TO 32'
PROP. 8' NOISE BARRIER STA. 7+38.38 TO STA. 27+14.41
3" HMAC TYPE D
2.0%
2.5%
2.5%
PROP. 5' SIDEWALK
PGL
2' C&G (TYP.)
12" SUBGRADE COMPACTED TO 98% OF THE STANDARD PROCTOR (ASTM D-698) MAX. DRY DENSITY AT MOISTURE CONTENT BETWEEN OPTIMUM TO +3% OPTIMUM MOISTURE CONTENT. STABILIZED WITH 5% LIME BY DRY WEIGHT.
12" FLEXIBLE BASE MATERIAL COMPACTED TO 95% OF THE MODIFIED PROCTOR (ASTM D-1557) MAX. DRY DENSITY NEAR OPTIMUM MOISTURE CONTENT.

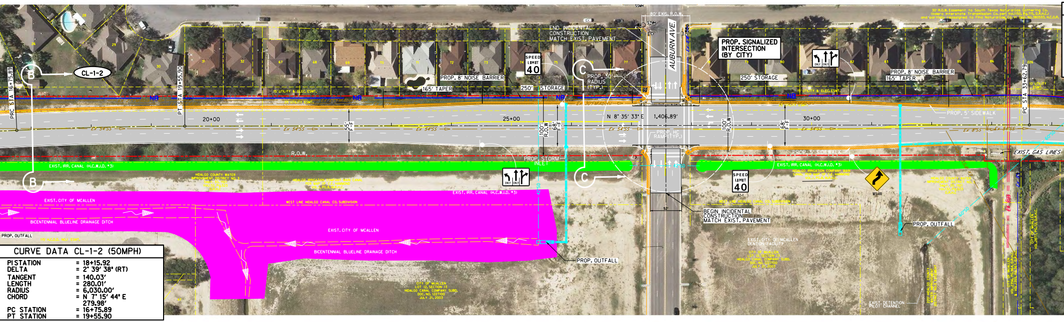
SECTION B-B

PROPOSED TYPICAL SECTION (55' F-F) FROM STA 11+36.00 TO STA 22+86.65

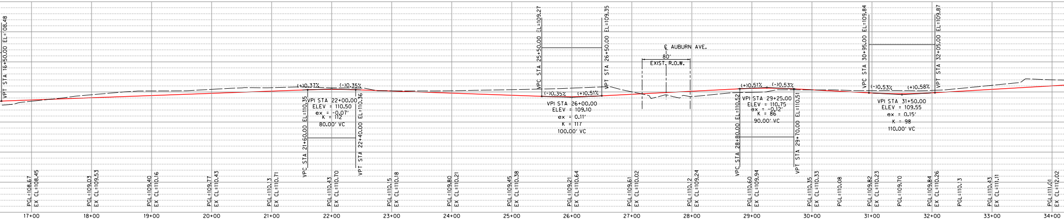

100' R.O.W.
R.O.W.
R.O.W.
℄
50'
50'
16'
PROP. 68' F-F
16'
1.5'
32.5'
32.5'
1.5'
14' TRAVEL LANE
12' TRAVEL LANE
13' TURN LANE
12' TRAVEL LANE
14' TRAVEL LANE
1.25'
14.75'
PROP. 8' NOISE BARRIER STA. 27+97.59 TO STA. 49+17.17
3" HMAC TYPE D
2.0%
2.5%
2.5%
2.0%
PROP. 5' SIDEWALK
PROP. 5' SIDEWALK
PGL
2' C&G (TYP.)
12" SUBGRADE COMPACTED TO 98% OF THE STANDARD PROCTOR (ASTM D-698) MAX. DRY DENSITY AT MOISTURE CONTENT BETWEEN OPTIMUM TO +3% OPTIMUM MOISTURE CONTENT. STABILIZED WITH 5% LIME BY DRY WEIGHT.
12" FLEXIBLE BASE MATERIAL COMPACTED TO 95% OF THE MODIFIED PROCTOR (ASTM D-1557) MAX. DRY DENSITY NEAR OPTIMUM MOISTURE CONTENT.

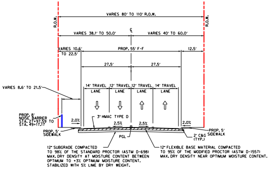
SECTION C-C

PROPOSED TYPICAL SECTION (68' F-F) FROM STA 22+86.65 TO STA 30+62.62


B
CL-1-2
PRC STA 16+75.89
PT STA 19+55.90
B
20+00
25+00
30+00
N 8° 35' 33" E
1,406.89'
55' F-F
100' R.O.W.
68' F-F
100' R.O.W.
68' F-F
NB
NB
NB
NB
R.O.W.
Ex 54"SS
15' UTILITY & ELEC. ESMT.
10' UTILITY ESMT.
END INCIDENTAL CONSTRUCTION MATCH EXIST. PAVEMENT
SPEED LIMIT 40
PROP. 8' NOISE BARRIER
165' TAPER
250' STORAGE
C
PROP. 30' RADIUS (TYP.)
80' EXIS. R.O.W.
AUBURN AVE
SSMH
PROP. SIGNALIZED INTERSECTION (BY CITY)
ONLY ONLY
250' STORAGE
PROP. 8' NOISE BARRIER
165' TAPER
PROP. HC RAMP (TYP.)
PROP. 5' SIDEWALK
PROP. 5' SIDEWALK
PROP. STORM INLET
C
EXIST. IRR. CANAL (H.C.W.I.D. #3)
EXIST. GAS LINES
SPEED LIMIT 40
R2-1
W1-4R
BEGIN INCIDENTAL CONSTRUCTION MATCH EXIST. PAVEMENT
52'
EXIST. CITY OF MCALLEN
BICENTENNIAL BLUELINE DRAINAGE DITCH
WEST LINE HIDALGO CANAL CO. SUBDIVISION
EXIST. IRR. CANAL (H.C.W.I.D. #3)
PROP. OUTFALL
PROP. OUTFALL
PROP. OUTFALL
115' H.C.D.D. NO.1 ESMT.
EXIST. CITY OF MCALLEN DETENTION FACILITY
CITY OF MCALLEN LOT 12, SECTION 13 HIDALGO CANAL COMPANY SUBD. DOC. NO. 1227100 JULY 21, 2003
EXIST. DETENTION PILOT CHANNEL
PC STA 33+62.79
30' R.O.W. Easement to South Texas Natural Gas Gathering Co.

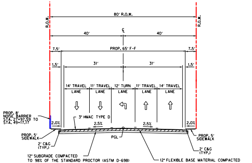
CURVE DATA CL-1-2 (50MPH)	
PI STATION	= 18+15.92
DELTA	= 2° 39' 38" (RT)
TANGENT	= 140.03'
LENGTH	= 280.01'
RADIUS	= 6,030.00'
CHORD	= N 7° 15' 44" E 279.98'
PC STATION	= 16+75.89
PT STATION	= 19+55.90




VARIES 80' TO 110' R.O.W.
R.O.W.
R.O.W.
℄
VARIES 38.1' TO 50.0'
VARIES 40' TO 60.0'
VARIES 10.6' TO 22.5'
PROP. 55' F-F
12.5'
27.5'
27.5'
VARIES 8.6' TO 21.5'
14' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
14' TRAVEL LANE
PROP. 8' NOISE BARRIER STA. 27+97.59 TO STA. 49+17.17
3" HMAC TYPE D
2.0%
2.5%
2.5%
2.0%
PROP. 5' SIDEWALK
PGL
PROP. 5' SIDEWALK
2' C&G (TYP.)
12" SUBGRADE COMPACTED TO 98% OF THE STANDARD PROCTOR (ASTM D-698) MAX. DRY DENSITY AT MOISTURE CONTENT BETWEEN OPTIMUM TO +3% OPTIMUM MOISTURE CONTENT. STABILIZED WITH 5% LIME BY DRY WEIGHT.
12" FLEXIBLE BASE MATERIAL COMPACTED TO 95% OF THE MODIFIED PROCTOR (ASTM D-1557) MAX. DRY DENSITY NEAR OPTIMUM MOISTURE CONTENT.

SECTION D-D

PROPOSED TYPICAL SECTION (55' F-F) FROM STA 30+62.62 TO STA 46+80.81


80' R.O.W.
R.O.W.
R.O.W.
℄
40'
40'
7.5'
PROP. 65' F-F
7.5'
1.5'
31'
31'
1.5'
14' TRAVEL LANE
11' TRAVEL LANE
12' TURN LANE
11' TRAVEL LANE
14' TRAVEL LANE
PROP. 8' NOISE BARRIER STA. 27+97.59 TO STA. 49+17.17
3" HMAC TYPE D
2.0%
2.5%
2.5%
2.0%
PROP. 5' SIDEWALK
2' C&G (TYP.)
PGL
PROP. 5' SIDEWALK
2' C&G (TYP.)
12" SUBGRADE COMPACTED TO 98% OF THE STANDARD PROCTOR (ASTM D-698) MAX. DRY DENSITY AT MOISTURE CONTENT BETWEEN OPTIMUM TO +3% OPTIMUM MOISTURE CONTENT. STABILIZED WITH 5% LIME BY DRY WEIGHT.
12" FLEXIBLE BASE MATERIAL COMPACTED TO 95% OF THE MODIFIED PROCTOR (ASTM D-1557) MAX. DRY DENSITY NEAR OPTIMUM MOISTURE CONTENT.

SECTION E-E

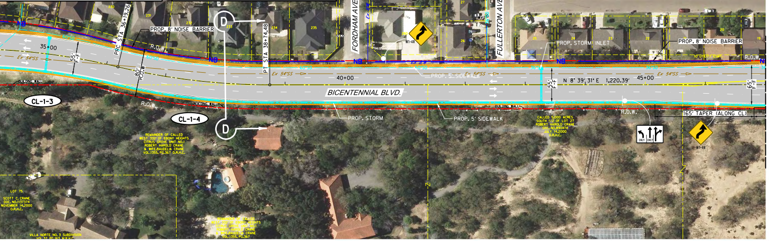
PROPOSED TYPICAL SECTION (65' F-F) FROM STA 46+80.81 TO STA 52+99.37

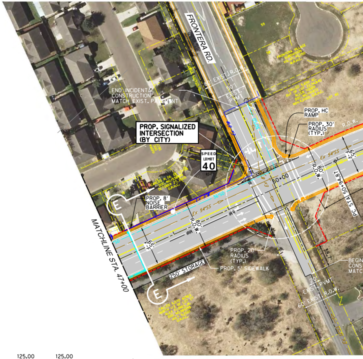
CURVE DATA CL-1-3 (40MPH)

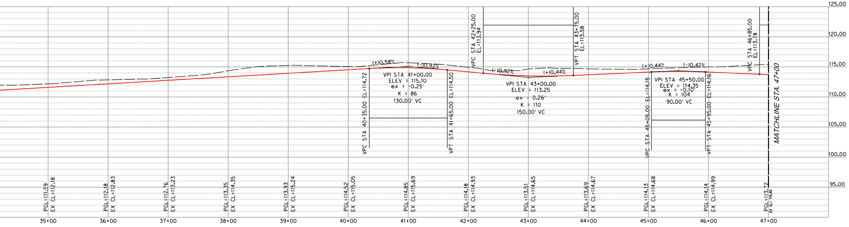
PI STATION = 34+91.63
DELTA = 13° 36' 22" (RT)
TANGENT = 128.84'
LENGTH = 256.47'
RADIUS = 1,080.00'
CHORD = N 15° 23' 44" E
255.87'
PC STATION = 33+62.79
PT STATION = 36+19.26

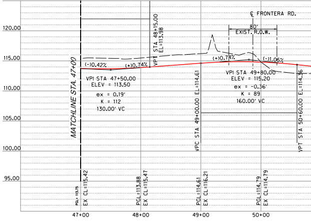
CURVE DATA CL-1-4 (40MPH)

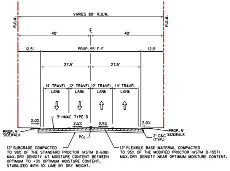
PI STATION = 37+47.47
DELTA = 13° 32' 24" (LT)
TANGENT = 128.21'
LENGTH = 255.22'
RADIUS = 1,080.00'
CHORD = N 15° 25' 43" E
254.63'
PC STATION = 36+19.26
PT STATION = 38+74.48


PRC STA 36+19.26
PROP. 8' NOISE BARRIER
PT STA 38+74.48
FORDHAM AVE.
FULLERTON AVE.
HACKBERRY CREEK UNIT 1
PROP. STORM INLET
PROP. 8' NOISE BARRIER
35+00
40+00
45+00
55' F-F
55' F-F
65' F-F
80' R.O.W.
R.O.W.
N 8° 39' 31" E 1,220.39'
BICENTENNIAL BLVD.
PROP. 5' SIDEWALK
PROP. STORM
PROP. 5' SIDEWALK
BUILDING WALL
CL-1-3
CL-1-4
D
D
165' TAPER (ALONG CL)
W1-4R
ONLY
ONLY
LOT 75 SCOTT C. CRANE
VILLA NORTE NO. 3 SUBDIVISION
REMAINDER OF CALLED WEST 332' OF EBONY HEIGHTS CITRUS GROVE UNIT NO.1 ROBERT HAROLD CRANE & WIFE, BAUDELIA CRANE VOL.1355, PG.367 O.R.H.C.
CALLED 5.000 ACRES SOUTH 1/2 OF LOT 27 ROBERT HAROLD CRANE DOC. NO.893474 JULY 14,2000 O.R.H.C.
MATCHLINE STA. 47+00


FRONTERA RD.
80' EXIST. R.O.W.
END INCIDENTAL CONSTRUCTION MATCH EXIST. PAVEMENT
PROP. SIGNALIZED INTERSECTION (BY CITY)
SPEED LIMIT 40
PROP. HC RAMP
PROP. 30' RADIUS (TYP.)
R.O.W.
PROP. 8' NOISE BARRIER
E
E
50+00
80' R.O.W.
PC STA 50+94.87
PROP. 20' RADIUS (TYP.)
PROP. 5' SIDEWALK
250' STORAGE
65' F-F
MATCHLINE STA. 47+00
20' EXIST. PVMT.
60' EXIST. R.O.W.
BEGIN CONS MATC

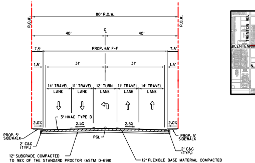





R.O.W.
VARIES 80' R.O.W.
R.O.W.
40'
℄
40'
12.5'
PROP. 55' F-F
12.5'
27.5'
27.5'
14' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
14' TRAVEL LANE
3" HMAC TYPE D
2.0%
2.5%
2.5%
2.0%
PROP. 5' SIDEWALK
PGL
2' C&G (TYP.)
PROP. 5' SIDEWALK
12" SUBGRADE COMPACTED TO 98% OF THE STANDARD PROCTOR (ASTM D-698) MAX. DRY DENSITY AT MOISTURE CONTENT BETWEEN OPTIMUM TO +3% OPTIMUM MOISTURE CONTENT. STABILIZED WITH 5% LIME BY DRY WEIGHT.
12" FLEXIBLE BASE MATERIAL COMPACTED TO 95% OF THE MODIFIED PROCTOR (ASTM D-1557) MAX. DRY DENSITY NEAR OPTIMUM MOISTURE CONTENT.

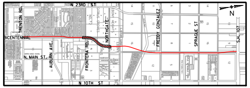
SECTION F-F

PROPOSED TYPICAL SECTION (55' F-F)FROM STA 52+99.37 TO STA 63+36.98


R.O.W.
80' R.O.W.
R.O.W.
40'
℄
40'
7.5'
PROP. 65' F-F
7.5'
1.5'
31'
31'
1.5'
14' TRAVEL LANE
11' TRAVEL LANE
12' TURN LANE
11' TRAVEL LANE
14' TRAVEL LANE
3" HMAC TYPE D
2.0%
2.5%
2.5%
2.0%
PROP. 5' SIDEWALK
2' C&G (TYP.)
PGL
PROP. 5' SIDEWALK
2' C&G (TYP.)
12" SUBGRADE COMPACTED TO 98% OF THE STANDARD PROCTOR (ASTM D-698) MAX. DRY DENSITY AT MOISTURE CONTENT BETWEEN OPTIMUM TO +3% OPTIMUM MOISTURE CONTENT. STABILIZED WITH 5% LIME BY DRY WEIGHT.
12" FLEXIBLE BASE MATERIAL COMPACTED TO 95% OF THE MODIFIED PROCTOR (ASTM D-1557) MAX. DRY DENSITY NEAR OPTIMUM MOISTURE CONTENT.

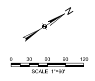
SECTION G-G

PROPOSED TYPICAL SECTION (65' F-F) FROM STA 63+36.98 TO STA 71+20.85


N. 23RD ST
TRENTON RD.
BICENTENNIAL
N. MAIN ST.
AUBURN AVE.
FRONTERA RD.
NORTHGATE
FREDDY GONZALEZ
SPRAGUE ST
SH. 107
N. 10TH ST
N

VICINITY MAP

NTS


N
0
30
60
90
120

SCALE: 1"=60'

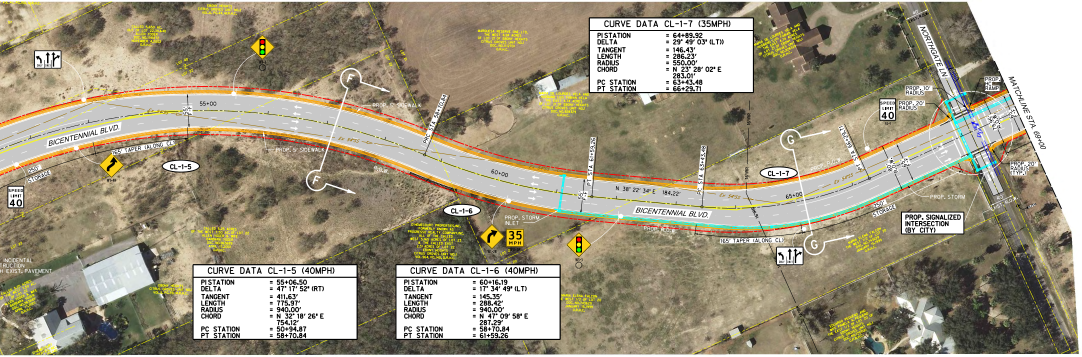
DESIGN DATA
BICENTENNIAL BOULEVARD

PROJECT LIMITS : FROM TRENTON ROAD TO SH0107
CSJ : 0921-02-252
NET LENGTH : 2.86 MILES
FUNCTIONAL CLASSIFICATION : MINOR ARTERIAL (56' B-B)
TRAFFIC DATA : ADT (2016) PENDING TRAFFIC STUDY
ADT (2036) PENDING TRAFFIC STUDY
DESIGN SPEED : 50 MPH
e MAX : "NC"
DESIGN CRITERIA : TxDOT ROADWAY DESIGN MANUAL CHAPTER 3, SECTION 2

CROSSROADS POSTED SPEED TABLE	
TRENTON ROAD	45 MPH
AUBURN AVENUE	30 MPH
FRONTERA ROAD	30 MPH
NORTHGATE LANE	30 MPH
FREDDY GONZALEZ DRIVE	25 MPH
SPRAGUE ROAD	30 MPH
SH0107	55 MPH

LEGEND

PROPOSED	EXISTING	
■	▭	INLET
●	○	MANHOLE
	⊕	GATE VALVE & BOX
		FIRE HYDRANT
— 12"SS —	— — SS — —	SAN. SEWER
— 12"W —	- - - ■ - - -	WATER
	— — SD — —	STORM SEWER
	- - - - - - -	IRRIGATION PIPE
— NB —		NOISE BARRIER
— MBGF —		METAL BEAM GUARD FENCE
	🟩	IRRIG. CANAL
	🟪	DRAINAGE DITCH
- - —	- - —	R.O.W.
		DRAINAGE FLOW
■		ASPHALT PAVEMENT
▨	▨	CONCRETE PAVEMENT
▨	▭	CONCRETE SIDEWALK
	⊙	TREE

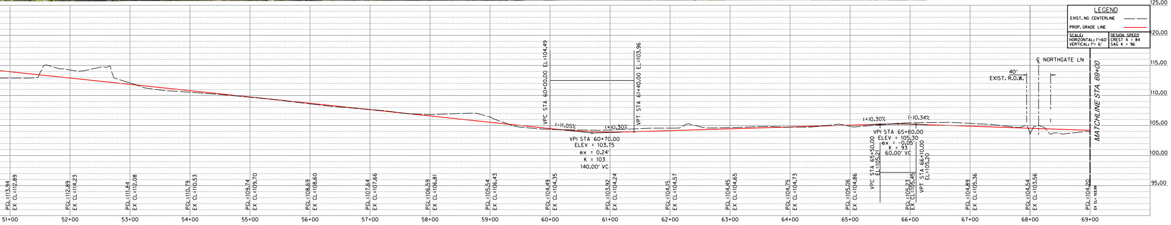

BICENTENNIAL BLVD.
BICENTENNIAL BLVD.
55+00
60+00
65+00
PROP. 5' SIDEWALK
PROP. 5' SIDEWALK
PRC STA 58+70.84
PT STA 61+59.26
PC STA 63+43.48
PT STA 66+29.71
N 38° 22' 34" E 184.22'
CL-1-5
CL-1-6
CL-1-7
165' TAPER (ALONG CL)
165' TAPER (ALONG CL)
250' STORAGE
250' STORAGE
SPEED LIMIT 40
SPEED LIMIT 40
35 MPH
W1-2R
W3-3
PROP. STORM INLET
PROP. STORM
PROP. R.O.W.
R.O.W.
PROP. 10' RADIUS
PROP. 20' RADIUS
PROP. 20' RADIUS (TYP.)
PROP. HC RAMP
NORTHGATE LN.
MATCHLINE STA. 69+00
16"IRR
EBONY HEIGHTS CITRUS GROVES UNIT NO.2 VOL.6, PG.44, M.R.H.C.
CALLED 5.25 ACRES OF THE WEST 7.50 AC. OF LOT 22 ALLEN YODER & WIFE BARBARA YODER DOC. NO.963689 APRIL 17,2001 O.R.H.C.
D'HEMECOURT PROPERTIES,INC. FORMERLY KNOWN AS PROGRESSO REALTY COMPANY,INC. ALL OF THE CALLED WEST 5.165 ACRES OF LOT 23 & THE CALLED EAST 2.31 ACRES OF LOT 22 EBONY HEIGHTS CITRUS GROVES UNIT NO.1 VOL.964, PG.140, D.R.H.C.
MARIA ELENA FALCON
INCIDENTAL CONSTRUCTION EXIST. PAVEMENT

CURVE DATA CL-1-7 (35MPH)	
PI STATION	= 64+89.92
DELTA	= 29° 49' 03" (LT))
TANGENT	= 146.43'
LENGTH	= 286.23'
RADIUS	= 550.00'
CHORD	= N 23° 28' 02" E 283.01'
PC STATION	= 63+43.48
PT STATION	= 66+29.71

PROP. SIGNALIZED INTERSECTION (BY CITY)

CURVE DATA CL-1-5 (40MPH)	
PI STATION	= 55+06.50
DELTA	= 47° 17' 52" (RT)
TANGENT	= 411.63'
LENGTH	= 775.97'
RADIUS	= 940.00'
CHORD	= N 32° 18' 26" E 754.12'
PC STATION	= 50+94.87
PT STATION	= 58+70.84

CURVE DATA CL-1-6 (40MPH)	
PI STATION	= 60+16.19
DELTA	= 17° 34' 49" (LT)
TANGENT	= 145.35'
LENGTH	= 288.42'
RADIUS	= 940.00'
CHORD	= N 47° 09' 58" E 287.29'
PC STATION	= 58+70.84
PT STATION	= 61+59.26



LEGEND	
EXIST. NG CENTERLINE	— —
PROP. GRADE LINE	—

SCALE:
HORIZONTAL: 1"=60'
VERTICAL: 1"= 6'

DESIGN SPEED
CREST K = 84
SAG K = 96

BICENTENNIAL EXTENSION PROJECT
BOND 2013 STREET IMPROVEMENTS

McAllen, Texas

CITY OF McALLEN

HALFF
5000 WEST MILITARY, SUITE 100
McALLEN, TEXAS 78503
TEL (956) 664-0286
FAX (956) 664-0282
TBPE FIRM #F-312

STATE OF TEXAS
ROBERT L. SAENZ
82072
REGISTERED PROFESSIONAL ENGINEER

NOT A BIDDING DOCUMENT

SCHEMATIC

FOR INTERIM REVIEW ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW PURPOSES ONLY AND NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMITTING. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

ROBERT L. SAENZ, P.E. 82072, 05/03/18
TBPE FIRM #F-312

Project No.:	30469
Issued:	MAY 2018
Drawn By:	B.L.
Checked By:	R.S.
Scale:	AS NOTED

Sheet Title
BICENTENNIAL SCHEMATIC

ROLL 1 OF 2
Sheet Number