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CITY OF SAN ANTONIO

DEPARTMENT OF

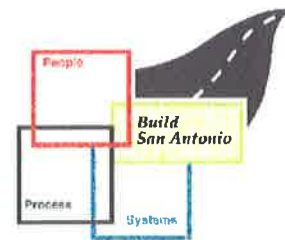
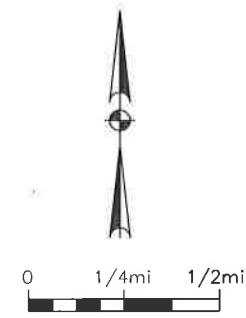
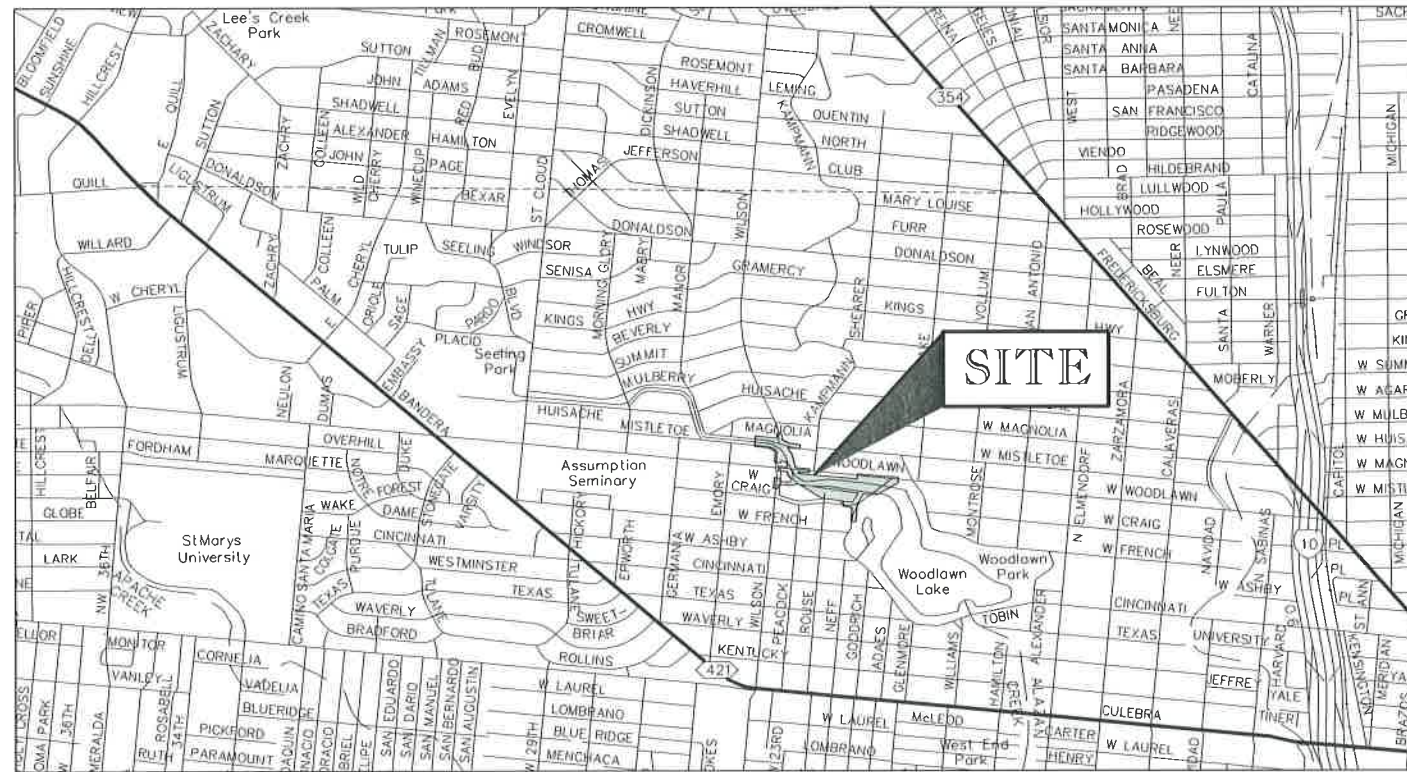
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES

SEELING CHANNEL IMPROVEMENTS (PHASE I)

PROJECT LIMITS:

- SEELING CHANNEL:
WILSON BLVD – S. JOSEPHINE-TOBIN DR.
- S. JOSEPHINE-TOBIN DR – 25 MPH DESIGN SPEED
W. WOODLAWN AVE – W. CRAIG PL
A.D.T. (NB) 1558 (2011)
 - W. CRAIG PL – 30 MPH DESIGN SPEED
S. JOSEPHINE-TOBIN DR WEST 150'
 - W. MISTLETOE AVE. (NE) – 30 MPH DESIGN SPEED
WILSON BLVD – EAST 310'
A.D.T. – 220 (2006)
 - W. MISTLETOE AVE. (NW) – 30 MPH DESIGN SPEED
WILSON BLVD – WEST 320'
A.D.T. – 220 (2006)
 - W. MISTLETOE AVE. (SW) – 30 MPH DESIGN SPEED
WILSON BLVD – WEST 330'
A.D.T. – 220 (2006)
 - W. WOODLAWN AVE. – 45 MPH DESIGN SPEED
WILSON BLVD – S. JOSEPHINE-TOBIN DR.
A.D.T. – 7086 (2011)
 - WILSON BLVD – 35 MPH DESIGN SPEED
W. WOODLAWN AVE. – W. MISTLETOE AVE. (N)
A.D.T. – 3820 (2002)

LOCATION MAP



OUR MISSION: TOGETHER, DEDICATED TO OUR COMMUNITY... BUILDING A GREAT SAN ANTONIO

AECOM TECHNICAL SERVICES, INC.
TBPE REG. NO F-3580

GENERAL

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Stephanie D Blew

7-27-2012

NO	DATE	DESCRIPTION	DWGCHK
		REVISIONS	

AECOM TECHNICAL SERVICES, INC.
 6800 PARK TEN BLVD., SUITE 180 SOUTH
 SAN ANTONIO, TEXAS 78213
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

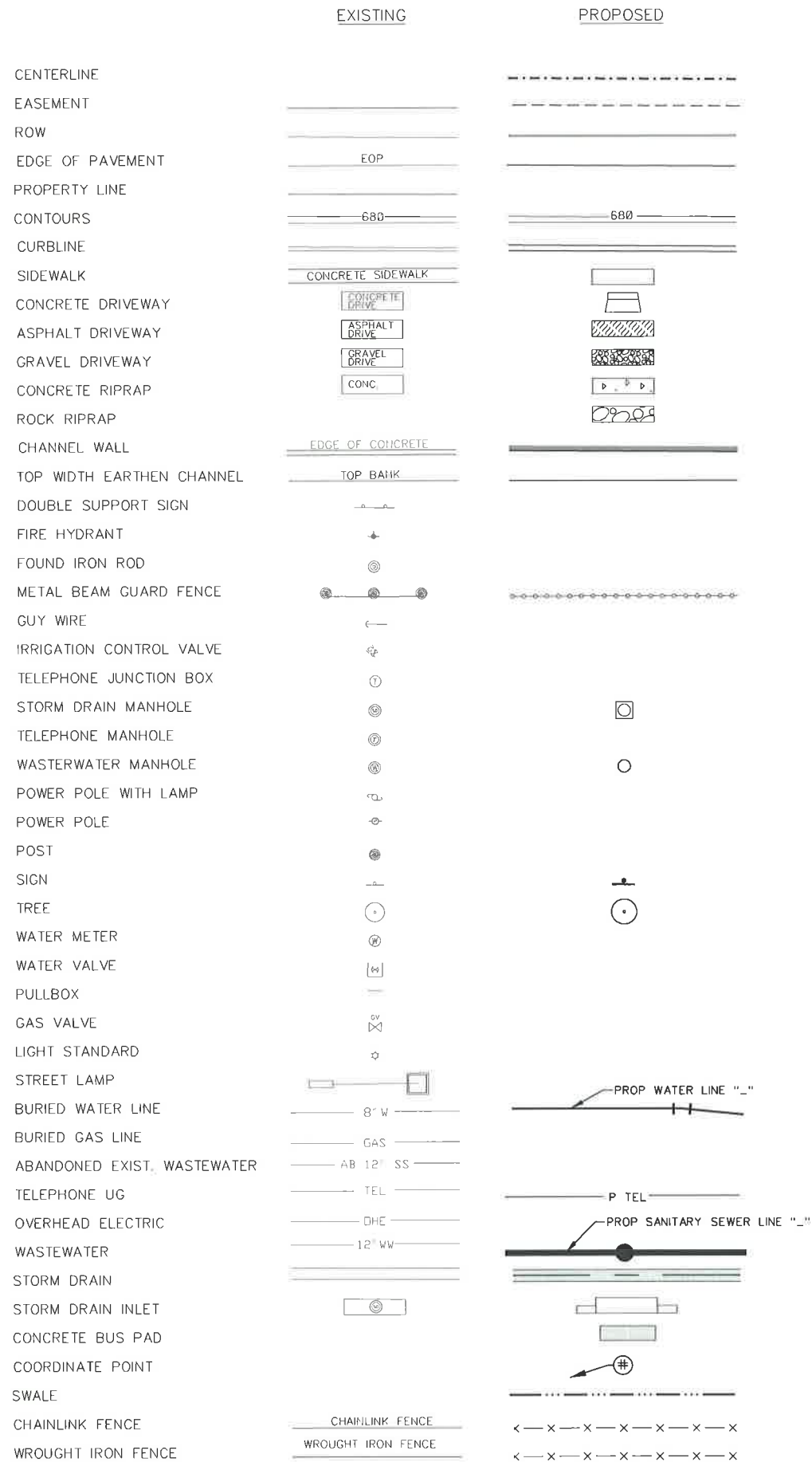
CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE I
SHEET INDEX

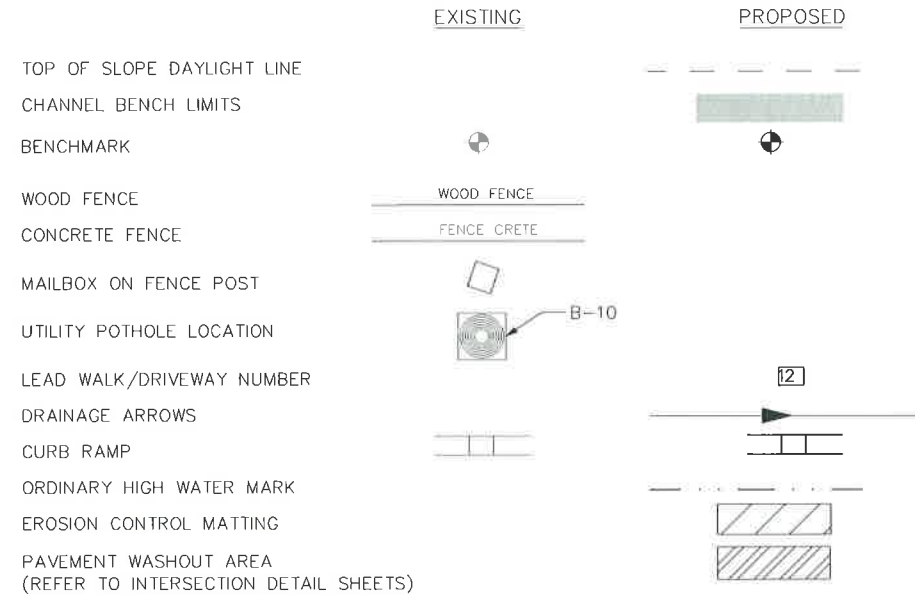
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PLAN VIEW



PLAN VIEW CONT.



PROFILE VIEW



Stephanie D. Blew
7.20.2012

NO	DATE	DESCRIPTION REVISIONS	DWGCHK

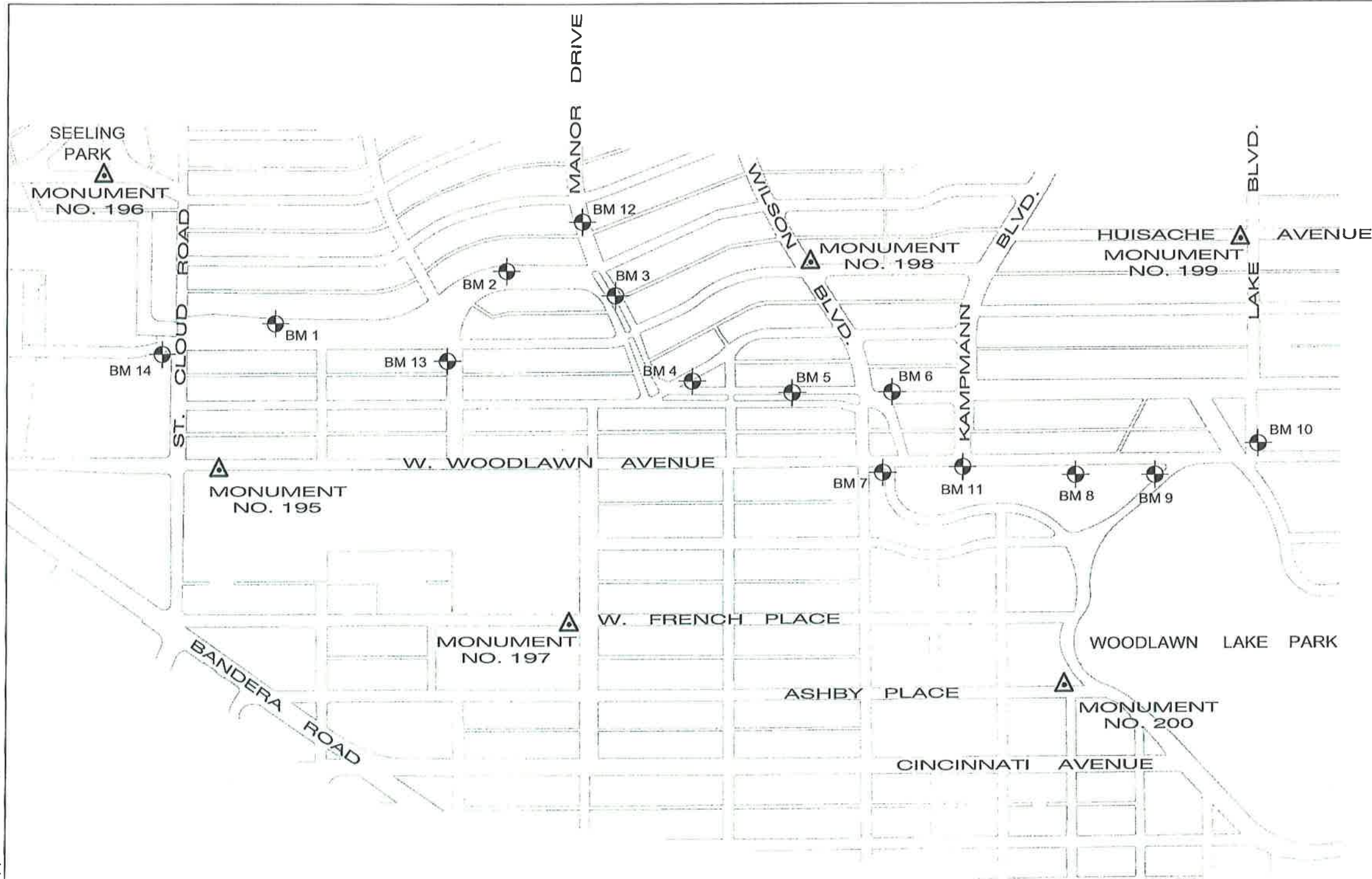
AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
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CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE I

PROJECT LEGEND

PROJECT NO:	60184822	DATE:	JULY 2012
DRWN BY:	BM	DSGN BY:	MJP
CHKD BY:	SDB	SHEET NO.:	3

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1. HORIZONTAL DATUM
 * BEARINGS ARE BASED ON NAD83(CORS), TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204). COORDINATES AND DISTANCES ARE IN U.S. SURVEY FEET. DISPLAYED COORDINATE VALUES ARE SURFACE VALUES DERIVED BY MULTIPLYING GRID COORDINATES BY 1.00017 (SAF: 1.00017).

*THE HORIZONTAL CONTROL COORDINATE VALUES WERE OBTAINED BY GPS OBSERVATIONS TO THE FOLLOWING CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS).

CORS ID: TXAN
 DESCRIPTION: SAN ANTONIO RRP2 CORS ARP
 PID: DF4371

CORS ID: TXPL
 DESCRIPTION: PLEASANTON CORS ARP
 PID DJ7868:

CORS ID: SGI1
 DESCRIPTION: SHULTZ GROUP COOP CORS ARP
 PID DE6248:

2. VERTICAL DATUM
 BASED ON NAVD88.



SCALE: N.T.S.

DATE: FEBRUARY 15, 2010

NO	DATE	DESCRIPTION REVISIONS	DWG/CHK



5835 CALLAGHAN RD. SUITE 200
 SAN ANTONIO, TEXAS, 78228
 (210) 349-3273 (210) 349-4395 (FAX) <http://www.pcam.com/>

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

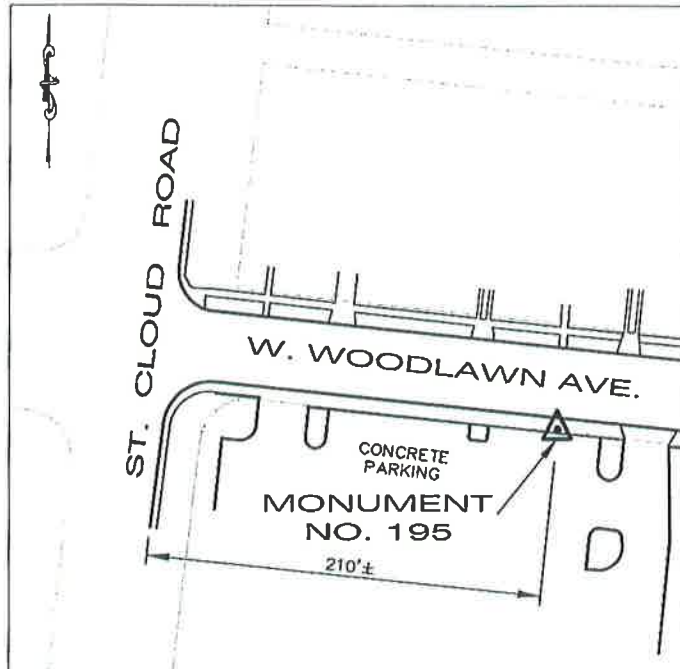
SEELING CHANNEL PHASE 1
 WOODLAWN LAKE TO ST. CLOUD
 PROJECT NO. 40-00213
 HORIZONTAL
 AND VERTICAL CONTROL



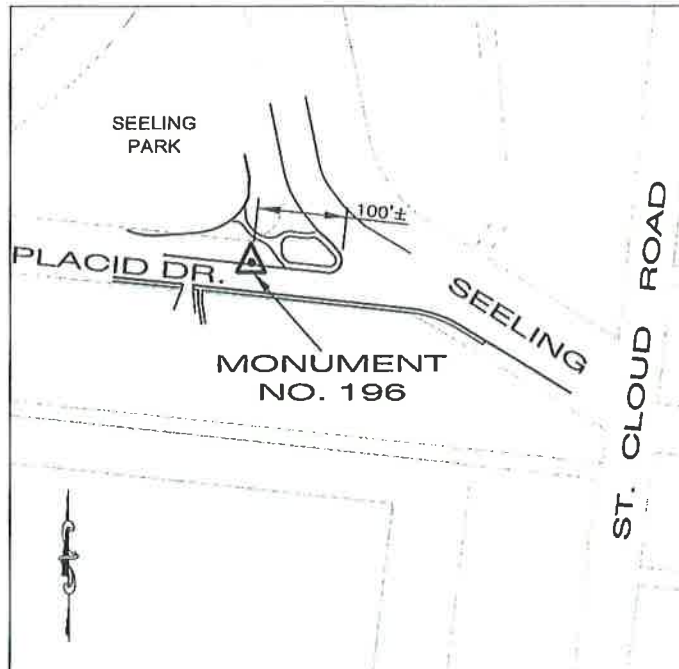
Adalberto Camarillo

ADALBERTO CAMARILLO, R.P.L.S. NO. 3929

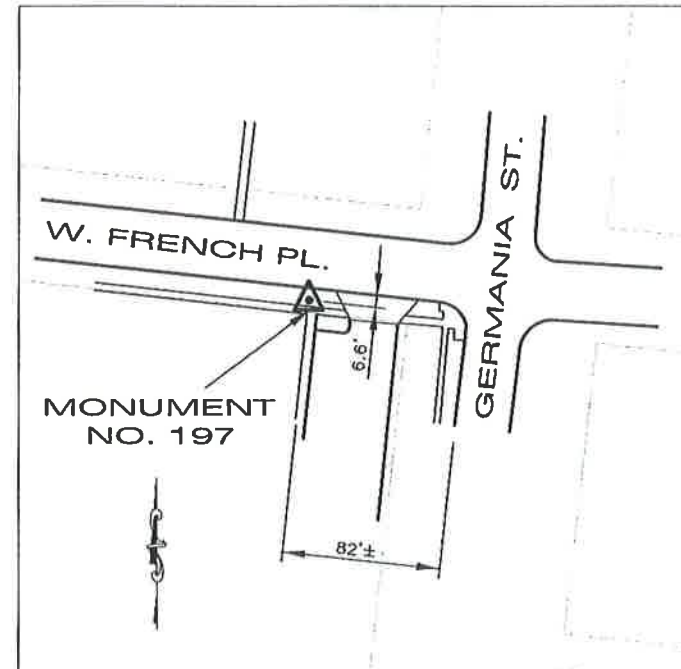
PROJECT NO: 09018-00	DATE: 02-15-2010
DRAWN BY: C.ROD.	DESIGN BY: C.ROD.
CHKD. BY: JG	SHEET NO. 1 OF 3



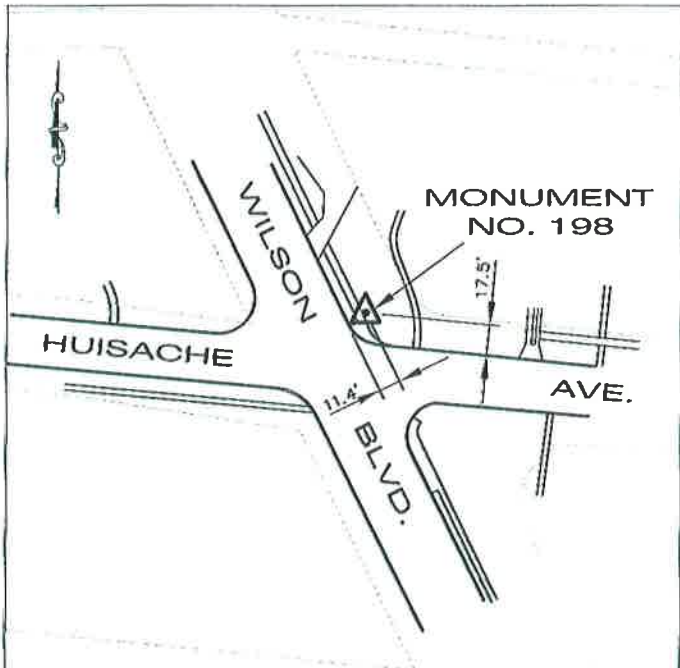
Northing=13716026.0247 Easting=2112167.1131
 Elevation = 712.25
 Control Monument: 195
 C.O.S.A. Aluminum Cap Monument set in concrete walk on South side of Woodlawn Ave., 210'± East of St. Cloud Rd.



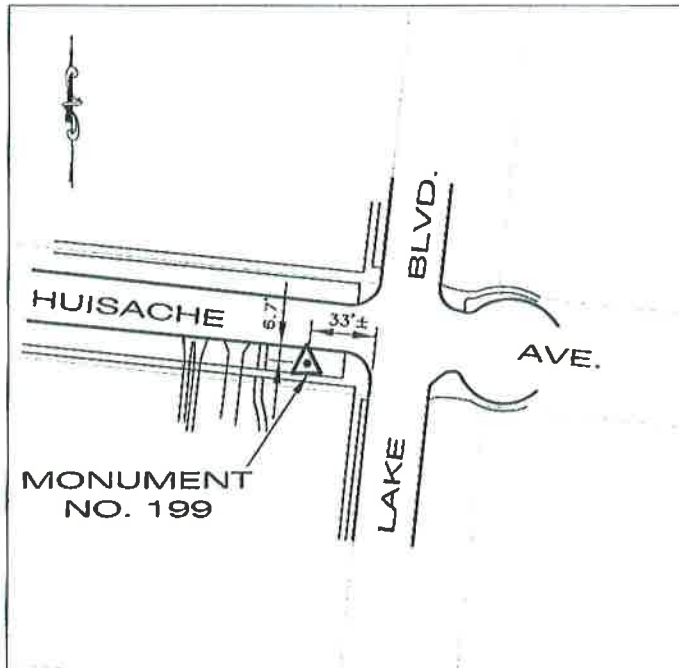
Northing=13717611.4598 Easting=2111726.1272
 Elevation = 703.76
 Control Monument: 196
 C.O.S.A. Aluminum Cap Monument set in curb on the North side of Placid Dr., 100'± West of Seeling Blvd.



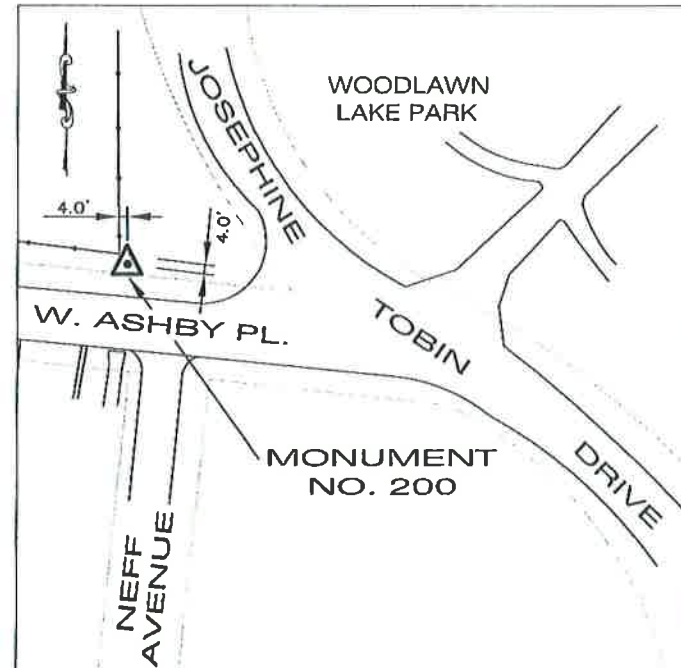
Northing=13715033.1963 Easting=2113896.0496
 Elevation = 706.28
 Control Monument: 197
 C.O.S.A. Aluminum Cap set in concrete @ the Southwest corner of French Pl. & Germania Ave., 82'± West of Germania St.



Northing=13716749.9011 Easting=2115323.9990
 Elevation = 688.41
 Control Monument: 198
 C.O.S.A. Aluminum Cap Monument set in concrete @ the Northeast corner of Wilson Blvd. & Huisache Ave.



Northing=13716637.8616 Easting=2117568.3031
 Elevation = 704.08
 Control Monument: 199
 C.O.S.A. Aluminum Cap Monument set @ the Southwest corner of the intersection of Lake Blvd. & Huisache Ave., 33'± West of Lake Ave.



Northing=13714437.9382 Easting=2116409.0254
 Elevation = 682.89
 Control Monument: 200
 C.O.S.A. Aluminum Cap Monument set in concrete @ the Northwest corner of Josephine Tobin Dr. & Ashby Pl., 4' South & 4' East of a chainlink fence corner.

1. HORIZONTAL DATUM
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 DESCRIPTION: SAN ANTONIO RRP2 CORS ARP
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CORS ID: TXPL
 DESCRIPTION: PLEASANTON CORS ARP
 PID: DJ7868:

CORS ID: CG1
 DESCRIPTION: SCHULTZ GROUP COOP CORS ARP
 PID: DE6248:

2. VERTICAL DATUM
 BASED ON NAVD88.



Adalberto Camarillo

ADALBERTO CAMARILLO, R.P.L.S. NO. 3929

DATE: FEBRUARY 15, 2010

NO	DATE	DESCRIPTION REVISIONS	DWG/CHK



5833 CALLAGHAN RD. SUITE 200
 SAN ANTONIO, TEXAS, 78228
 (210) 349-3273 (210) 349-4395 (FAX)

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE 1
 WOODLAWN LAKE TO ST. CLOUD
 PROJECT NO. 40-00213
 HORIZONTAL
 AND VERTICAL CONTROL

PROJECT NO: 09018-00 DATE: 02-15-2010
 DRAWN BY: C.R.O. DESIGN BY: C.R.O. CHECK BY: J.O. SHEET NO. 2 OF 3

TEMPORARY BENCHMARKS

BM	DESCRIPTION	ELEVATION
1	Top of railroad spike in 18" oak tree opposite side of street at 2639 W. Mulberry Avenue	696.47'
2	Top of railroad spike in power pole at 2527 & 2531 W. Mulberry Avenue	693.28'
3	Top of railroad spike in power pole on the east side of Manor Drive @ southwest corner of 2450 W. Mulberry Avenue	690.10'
4	Scribed "□" on south curb, opposite side of street at 2447 W. Magnolia Avenue	687.39'
5	Scribed "□" on north curb at 2431 W. Mistletoe Avenue	685.93'
6	Scribed "□" on north curb at 2323 W. Mistletoe Avenue	682.97'
7	Top of railroad spike in power pole at the northeast corner at 822 & 824 W. Woodlawn Avenue	685.01'
8	Scribed "□" on headwall on south side of street, opposite 2203 W. Woodlawn Avenue	680.93'
9	Aluminum TxDot disk on headwall at the northwest corner of the S. Josephine Tobin Drive bridge at Alazan Creek, 115'± southwest of W. Woodlawn Avenue	681.27'
10	C.O.S.A. aluminum disk on retaining wall on east side of Lake Boulevard, 40'± north of W. Woodlawn Avenue	685.07'
11	C.O.S.A. aluminum disk on south curb of W. Woodlawn Avenue at the intersection of the centerline of Kampmann Blvd.	680.67'
12	C.O.S.A. aluminum disk on east curb of Manor Drive, north of driveway at 2454 W. Summit Avenue	691.52'
13	C.O.S.A. aluminum disk on west curb of Morning Glory Drive, 75'± south of Hulsache Avenue	693.55'
14	C.O.S.A. aluminum disk on south curb of W. Hulsache Avenue, 65'± west of St. Cloud Road	703.34'

1. HORIZONTAL DATUM
 * BEARINGS ARE BASED ON NAD83(CORS), TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204). COORDINATES AND DISTANCES ARE IN U.S. SURVEY FEET. DISPLAYED COORDINATE VALUES ARE SURFACE VALUES DERIVED BY MULTIPLYING GRID COORDINATES BY 1.00017 (SAF: 1.00017).

*THE HORIZONTAL CONTROL COORDINATE VALUES WERE OBTAINED BY GPS OBSERVATIONS TO THE FOLLOWING CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS).

CORS ID: TXAN
 DESCRIPTION: SAN ANTONIO RRP2 CORS ARP
 PID: DF4371

CORS ID: TXPL
 DESCRIPTION: PLEASANTON CORS ARP
 PID DJ7868:

CORS ID: CGH
 DESCRIPTION: SCHULTZ GROUP COOP CORS ARP
 PID DE6248:

2. VERTICAL DATUM
 BASED ON NAVD88.

H:\Jobs\09\018\Techprod\Survey\LOD\09018_S(2).dwg\09018_CntrlSheets.dwg 1/7/2011 9:23:26 AM CST



Adalberto Camarillo
 ADALBERTO CAMARILLO, R.P.L.S. NO. 3929

DATE: FEBRUARY 15, 2010

NO	DATE	DESCRIPTION REVISIONS	DWG	CHK
1	01/07/2011	REVISED ELEVATION FOR TBM #5	VT	JG



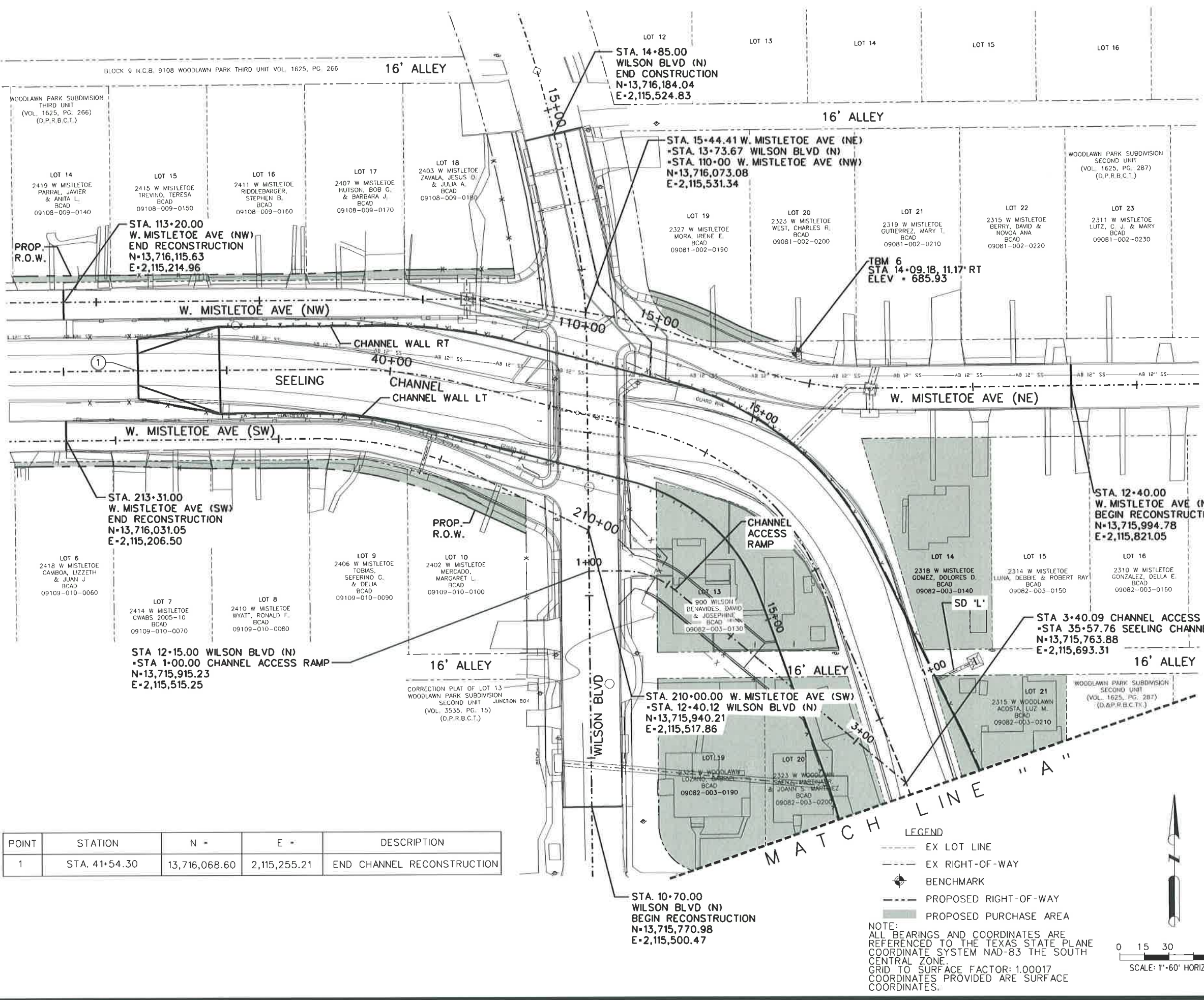
5835 CALLAGHAN RD, SUITE 200
 SAN ANTONIO, TEXAS, 78228
 (210) 348-3273 (210) 348-4395 (FAX) <http://www.pcam.com/>

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE 1
 WOODLAWN LAKE TO ST. CLOUD
 PROJECT NO. 40-00213
 HORIZONTAL
 AND VERTICAL CONTROL

PROJECT NO:	09018-00	DATE:	02-15-2010
DRAWN BY:	C.ROD.	CHECKED BY:	JG
SHEET NO.	3	OF	3

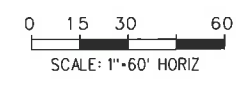
BENCHMARKS	
TMB 5 (NOT SHOWN APPROX. 180' WEST OF PROJECT ON W. MISTLETOE AVE)	ELEV = 685.93 N = 13,716,142.65 E = 2,115,036.11
TBM 6 CHISELED SQUARE ON TOP OF NORTH CURB ON W. MISTLETOE AVE.	ELEV = 682.97 N = 13,716,016.42 E = 2,115,667.97



POINT	STATION	N *	E *	DESCRIPTION
1	STA. 41+54.30	13,716,068.60	2,115,255.21	END CHANNEL RECONSTRUCTION

- LEGEND**
- EX LOT LINE
 - EX RIGHT-OF-WAY
 - ⊙ BENCHMARK
 - PROPOSED RIGHT-OF-WAY
 - PROPOSED PURCHASE AREA

NOTE: ALL BEARINGS AND COORDINATES ARE REFERENCED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NAD-83 THE SOUTH CENTRAL ZONE. GRID TO SURFACE FACTOR: 1.00017. COORDINATES PROVIDED ARE SURFACE COORDINATES.



Stephanie D. Blew
7.20.2012

NO	DATE	DESCRIPTION REVISIONS	DWGCHK

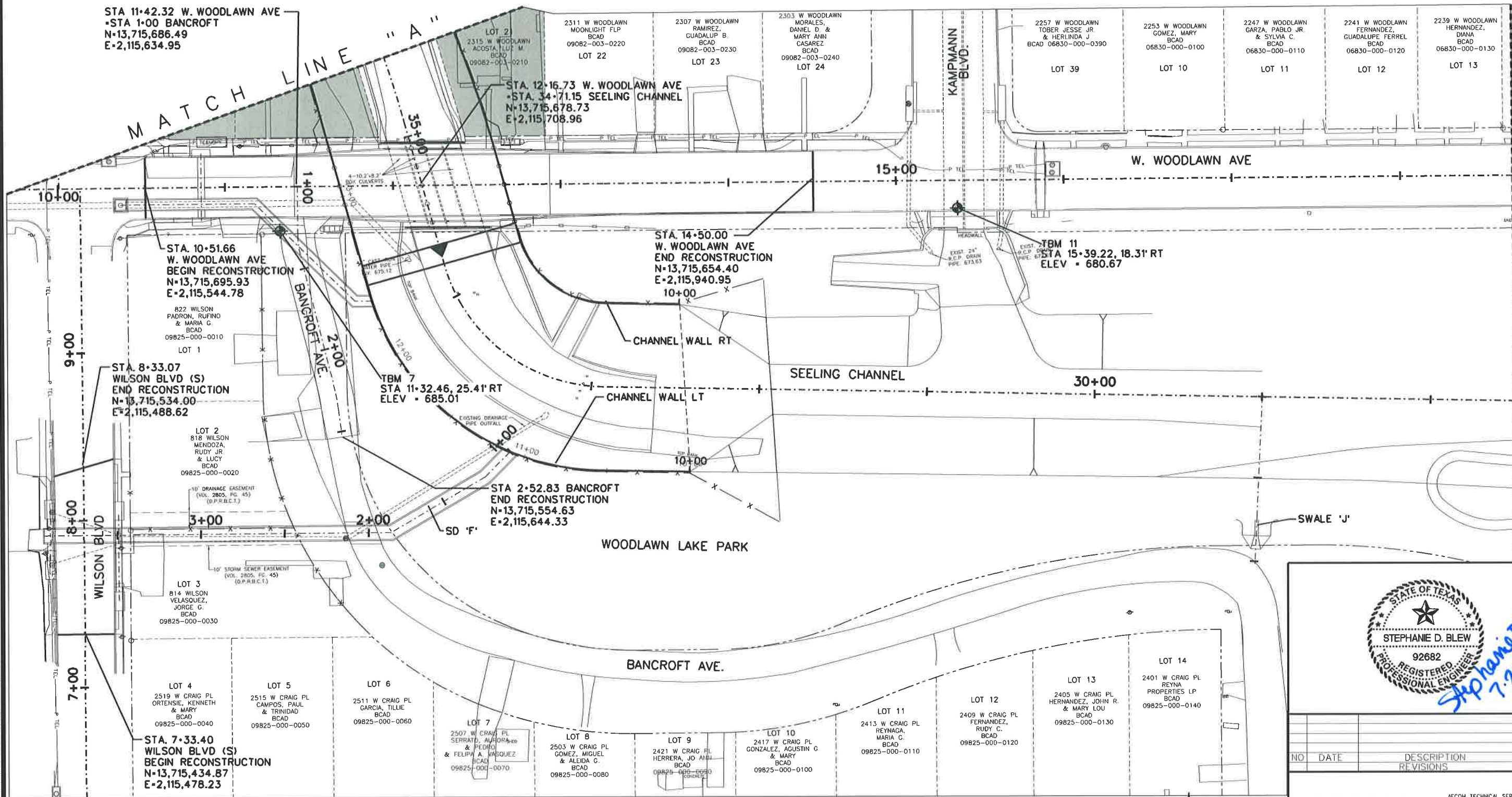
AECOM
AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78215
WWW.AECOM.COM

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE I
OVERALL PROJECT CONTROL LAYOUT

PROJECT NO. 60184822	DATE JULY 2012
DRWN BY: MG	DSGN BY: SDB
CHKD BY: SDB	SHEET NO. 7

Design File Name: P:\60145866 Seeling Channel\Mapress\ADMIN\000_CAD\CAD\City\Project Layout\Drawn\Sheet1.dwg

Design: P:\60165866 - Seeling Channel (Midcrest)\ADMIN\000_CAD\C\CS\Project Layout Ctrl Sh12.dgn



STA 11+42.32 W. WOODLAWN AVE
 +STA 1+00 BANCROFT
 N=13,715,686.49
 E=2,115,634.95

STA. 10+51.66
 W. WOODLAWN AVE
 BEGIN RECONSTRUCTION
 N=13,715,695.93
 E=2,115,544.78

STA. 8+33.07
 WILSON BLVD (S)
 END RECONSTRUCTION
 N=13,715,534.00
 E=2,115,488.62

STA. 7+33.40
 WILSON BLVD (S)
 BEGIN RECONSTRUCTION
 N=13,715,434.87
 E=2,115,478.23

STA. 12+16.73 W. WOODLAWN AVE
 +STA. 34+71.15 SEELING CHANNEL
 N=13,715,678.73
 E=2,115,708.96

STA. 14+50.00
 W. WOODLAWN AVE
 END RECONSTRUCTION
 N=13,715,654.40
 E=2,115,940.95

TBM 7
 STA 11+32.46, 25.41' RT
 ELEV = 685.01

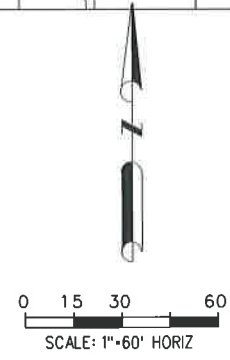
STA 2+52.83 BANCROFT
 END RECONSTRUCTION
 N=13,715,554.63
 E=2,115,644.33

TBM 11
 STA 15+39.22, 18.31' RT
 ELEV = 680.67

BENCHMARKS (THIS SHEET)	
TBM 7 TOP OF RAILROAD SPIKE IN POWER POLE ON W. WOODLAWN AVE	ELEV- 685.01 N= 13,715,662.26 E= 2,115,622.50
TBM 11 COSA ALUM DISK ON TOP OF SOUTH CURB ON W. WOODLAWN AVE	ELEV- 680.67 N= 13,715,626.92 E= 2,116,027.83

- LEGEND**
- EX LOT LINE
 - EX RIGHT-OF-WAY
 - BENCHMARK
 - - - PROPOSED RIGHT-OF-WAY
 - PROPOSED PURCHASE AREA

NOTE:
 ALL BEARINGS AND COORDINATES ARE REFERENCED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NAD-83 THE SOUTH CENTRAL ZONE.
 GRID TO SURFACE FACTOR: 1.00017
 COORDINATES PROVIDED ARE SURFACE COORDINATES.



Stephanie D. Blew
7-20-2012

NO	DATE	DESCRIPTION	DWGCHK

AECOM TECHNICAL SERVICES, INC.
 6800 PARK TEN BLVD, SUITE 180 SOUTH
 SAN ANTONIO, TEXAS 78213
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE I

OVERALL PROJECT CONTROL LAYOUT

2 OF 4

PROJECT NO: 60184822	DATE: JULY 2011
DRWN BY: M.G.	DESIGN BY: SDB
CHKD BY: SDB	SHEET NO: 8

MATCH LINE "C"

STA. 1+00.00 S. JOSEPHINE-TOBIN DR
 -STA. 23+28.45 W. WOODLAWN AVE
 N=13,715,562.76
 E=2,116,814.62

STA. 27+18.00 W. WOODLAWN AVE
 END RECONSTRUCTION
 N=13,715,522.19
 E=2,117,202.03

STA. 21+51.44 W. WOODLAWN AVE
 BEGIN RECONSTRUCTION
 N=13,715,581.23
 E=2,116,638.57

TBM 8
 STA 23+14.81, 30.51' RT
 ELEV = 680.93

TBM 9
 STA 25+41.38, 90' RT
 ELEV = 681.27

STA 2+60.31 S. JOSEPHINE-TOBIN DR
 -STA 23+49.54 SEELING CHANNEL
 N=13,715,425.09
 E=2,116,738.73

STA. 2+00.00 WOODLAWN
 LAKE PARK TRAIL
 BEGIN CONSTRUCTION
 N=13,715,484.27
 E=2,117,228.03

MATCH LINE "B"

MATCH LINE "D"

BENCHMARKS	
TBM 8 CHISELED SQUARE ON CONC HEADWALL ON WOODLAWN AVE	ELEV= 680.93 N= 13,715,533.85 E= 2,116,797.87
TBM 9 TXDOT ALUM DISK ON CONC HEADWALL ON S. JOSEPHINE-TOBIN DR. BRIDGE	ELEV= 681.27 N= 13,715,451.05 E= 2,117,016.99

- LEGEND
- EX LOT LINE
 - EX RIGHT-OF-WAY
 - ⊙ BENCHMARK
 - PROPOSED RIGHT-OF-WAY
 - █ PROPOSED PURCHASED AREA

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 GRID TO SURFACE FACTOR: 1.00017
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Stephanie DBlew
 7-20-2012

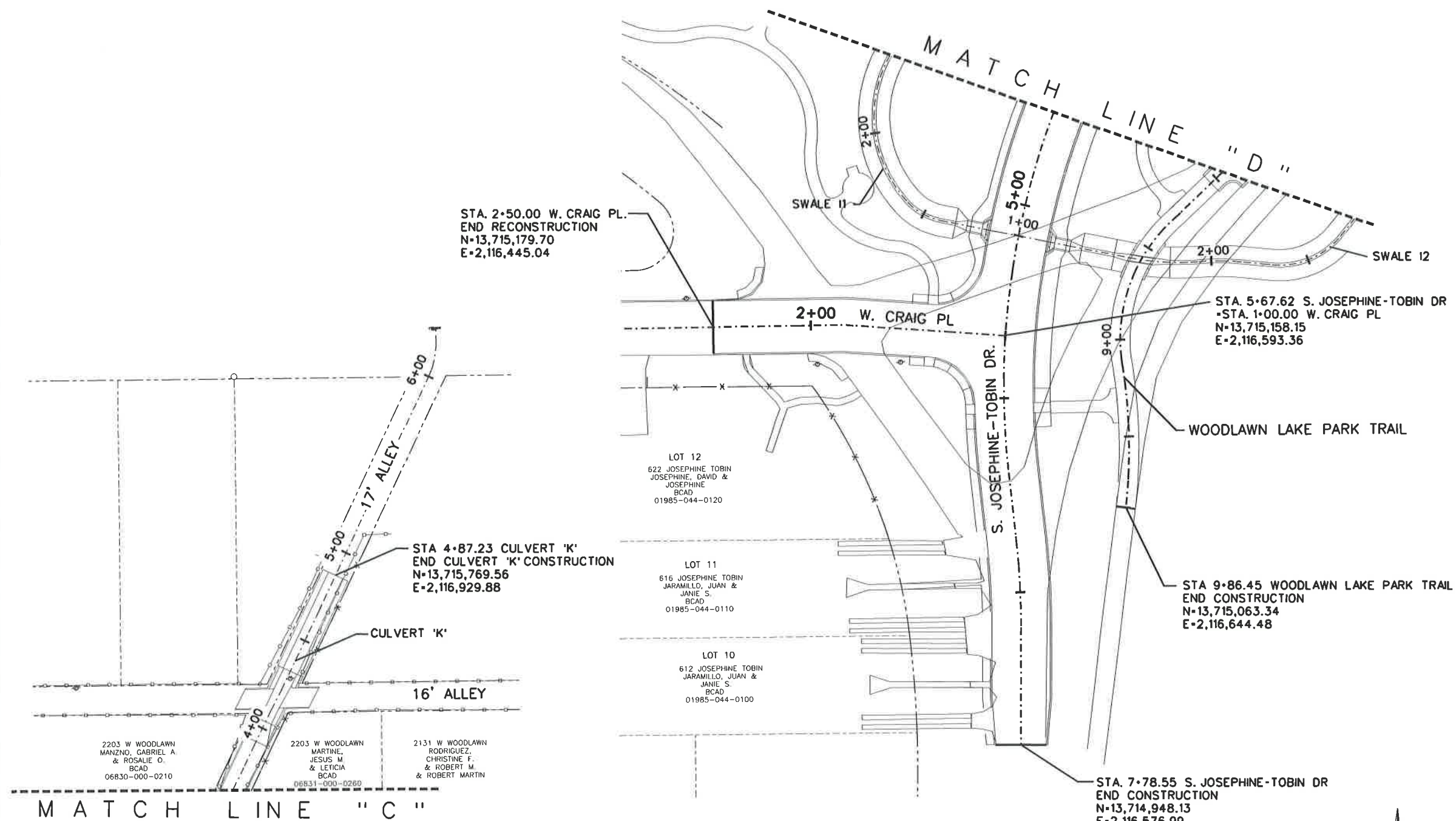
NO	DATE	DESCRIPTION REVISIONS	DWGCHK

AECOM
 AECOM TECHNICAL SERVICES, INC.
 6800 PARK TEN BLVD., SUITE 180 SOUTH
 SAN ANTONIO, TEXAS 78213
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 SEELING CHANNEL PHASE I
OVERALL PROJECT CONTROL LAYOUT
 3 OF 4
 PROJECT NO: 60184822 DATE: JULY 2012
 DRWN BY: MG DSGN BY: SDB CHKD BY: SDB SHEET NO: 9

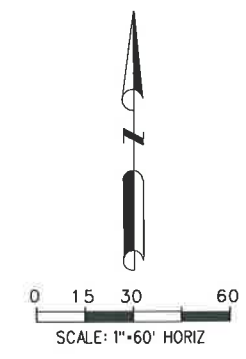
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- LEGEND**
- EX LOT LINE
 - EX RIGHT-OF-WAY
 - ⊕ BENCHMARK
 - PROPOSED RIGHT-OF-WAY
 - █ PROPOSED PURCHASE AREA

NOTE:
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GRID TO SURFACE FACTOR: 1.00017
COORDINATES PROVIDED ARE SURFACE COORDINATES.



NO.	DATE	DESCRIPTION	DWGCHK
		REVISIONS	

AECOM

AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD, SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
TQPE REG. NO. F-3580

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEALING CHANNEL PHASE I
OVERALL PROJECT CONTROL LAYOUT

DRWN BY: MG	DSGN BY: SDB	CHKD BY: SDB	SHEET NO. 10
PROJECT NO.: 60184822	DATE: JULY 2012	4 OF 4	

S. JOSEPHINE - TOBIN DR.

Beginning chain JTOBIN description

Point JT01 N 13,715,562.7628 E 2,116,814.6157 Sta 1+00.00

Course from JT01 to PC JT02 S 5° 56' 41.20" W Dist 18.9519

Curve Data

Curve JT02
 P.I. Station 1+39.11 N 13,715,523.8679 E 2,116,810.5656
 Delta 30° 04' 52.85" (RT)
 Degree 76° 23' 39.74"
 Tangent 20.1533
 Length 39.3764
 Radius 75.0000
 External 2.6605
 Long Chord 38.9257
 Mid. Ord. 2.5694
 P.C. Station 1+18.95 N 13,715,543.9128 E 2,116,812.6529
 P.T. Station 1+58.33 N 13,715,507.5690 E 2,116,798.7124
 C.C. N 13,715,551.6806 E 2,116,738.0562
 Back S 5° 56' 41.20" W
 Ahead S 36° 01' 34.05" W
 Chord Bear S 20° 59' 07.62" W

Course from PT JT02 to PC JT03 S 36° 01' 34.05" W Dist 230.1838

Curve Data

Curve JT03
 P.I. Station 5+17.54 N 13,715,217.0561 E 2,116,587.4399
 Delta 35° 45' 23.59" (LT)
 Degree 14° 19' 26.20"
 Tangent 129.0290
 Length 249.6278
 Radius 400.0000
 External 20.2957
 Long Chord 245.5966
 Mid. Ord. 19.3157
 P.C. Station 3+88.51 N 13,715,321.4081 E 2,116,663.3289
 P.T. Station 6+38.14 N 13,715,088.0285 E 2,116,586.8329
 C.C. N 13,715,086.1465 E 2,116,986.8284
 Back S 36° 01' 34.05" W
 Ahead S 0° 16' 10.46" W
 Chord Bear S 18° 08' 52.25" W

Course from PT JT03 to PC JT04 S 0° 16' 10.46" W Dist 35.4294

Curve Data

Curve JT04
 P.I. Station 6+95.82 N 13,715,030.3452 E 2,116,586.5615
 Delta 6° 22' 07.93" (RT)
 Degree 14° 19' 26.20"
 Tangent 22.2545
 Length 44.4631
 Radius 400.0000
 External 0.6186
 Long Chord 44.4402
 Mid. Ord. 0.6176
 P.C. Station 6+73.57 N 13,715,052.5995 E 2,116,586.6662
 P.T. Station 7+18.03 N 13,715,008.2400 E 2,116,583.9888
 C.C. N 13,715,054.4814 E 2,116,186.6706
 Back S 0° 16' 10.46" W
 Ahead S 6° 38' 18.39" W
 Chord Bear S 3° 27' 14.43" W

Course from PT JT04 to JT05 S 6° 38' 18.39" W Dist 60.5190

Point JT05 N 13,714,948.1267 E 2,116,576.9925 Sta 7+78.55

Ending chain JTOBIN description

**WILSON BLVD
 SOUTH OF W. WOODLAWN AVE.**

Beginning chain WIL-SOUTH description

Point 1003 N 13,715,401.6547 E 2,115,474.7106 Sta 7+00.00

Course from 1003 to 1004 N 5° 59' 37.26" E Dist 300.0013

Point 1004 N 13,715,700.0160 E 2,115,506.0364 Sta 10+00.00

Ending chain WIL-SOUTH description

**WILSON BLVD
 NORTH OF W. WOODLAWN AVE.**

Beginning chain WIL description

Point WIL01 N 13,715,701.3404 E 2,115,493.4094 Sta 10+00.00

Course from WIL01 to WIL02 N 5° 47' 18.65" E Dist 164.8553

Point WIL02 N 13,715,865.3551 E 2,115,510.0362 Sta 11+64.86

Course from WIL02 to PC WIL03 N 5° 57' 53.64" E Dist 190.8997

Curve Data

Curve WIL03
 P.I. Station 13+98.34 N 13,716,097.5727 E 2,115,534.2994
 Delta 12° 09' 11.08" (LT)
 Degree 14° 19' 26.20"
 Tangent 42.5820
 Length 84.8445
 Radius 400.0000
 External 2.2601
 Long Chord 84.6855
 Mid. Ord. 2.2475
 P.C. Station 13+55.76 N 13,716,055.2212 E 2,115,529.8744
 P.T. Station 14+40.60 N 13,716,139.9066 E 2,115,529.7094
 C.C. N 13,716,096.7889 E 2,115,132.0401
 Back N 5° 57' 53.64" E
 Ahead N 6° 11' 17.44" W
 Chord Bear N 0° 05' 41.90" W

Course from PT WIL03 to PC WIL04 N 6° 11' 17.44" W Dist 32.0230

Curve Data

Curve WIL04
 P.I. Station 16+17.89 N 13,716,316.1686 E 2,115,510.5980
 Delta 21° 06' 01.73" (LT)
 Degree 7° 20' 44.21"
 Tangent 145.2720
 Length 287.2528
 Radius 780.0000
 External 13.4129
 Long Chord 285.6323
 Mid. Ord. 13.1861
 P.C. Station 14+72.62 N 13,716,171.7430 E 2,115,526.2575
 P.T. Station 17+59.88 N 13,716,445.2730 E 2,115,443.9946
 C.C. N 13,716,087.6635 E 2,114,750.8023
 Back N 6° 11' 17.44" W
 Ahead N 27° 17' 19.17" W
 Chord Bear N 16° 44' 18.31" W

Point WIL05 N 13,716,445.2730 E 2,115,443.9946 Sta 17+59.88

Ending chain WIL description

W. CRAIG PL

Beginning chain CRAIGS description

Point 190 N 13,715,158.1515 E 2,116,593.3627 Sta 1+00.00

Course from 190 to 191 N 79° 37' 46.23" W Dist 78.0822

Point 191 N 13,715,172.2073 E 2,116,516.5560 Sta 1+78.08

Curve Data

Curve CRAIG1
 P.I. Station 1+82.15 N 13,715,172.9388 E 2,116,512.5586
 Delta 4° 39' 15.02" (LT)
 Degree 57° 17' 44.74"
 Tangent 4.0638
 Length 8.1231
 Radius 100.0000
 External 0.0825
 Long Chord 8.1208
 Mid. Ord. 0.0825
 P.C. Station 1+78.08 N 13,715,172.2073 E 2,116,516.5560
 P.T. Station 1+86.21 N 13,715,173.3436 E 2,116,508.5151
 C.C. N 13,715,073.8408 E 2,116,498.5548
 Back N 79° 37' 46.24" W
 Ahead N 84° 17' 01.25" W
 Chord Bear N 81° 57' 23.74" W

Point 193 N 13,715,173.3436 E 2,116,508.5151 Sta 1+86.21

Course from 193 to 194 N 84° 17' 01.26" W Dist 122.8136

Point 194 N 13,715,185.5762 E 2,116,386.3122 Sta 3+09.02

Ending chain CRAIGS description

W. WOODLAWN AVE.

Beginning chain WOOD description

Point 117 N 13,715,701.3404 E 2,115,493.4094 Sta 10+00.00

Course from 117 to 118 S 84° 00' 44.29" E Dist 1,836.6453

Point 118 N 13,715,509.7509 E 2,117,320.0346 Sta 28+36.65

Ending chain WOOD description

CHANNEL ACCESS RAMP

Beginning chain RAMP description

Point RAMP01 N 13,715,915.2283 E 2,115,515.2472 Sta 1+00.00

Course from RAMP01 to PC RAMP02 S 84° 02' 06.36" E Dist 20.2627

Curve Data

Curve RAMP02
 P.I. Station 1+38.75 N 13,715,911.2009 E 2,115,553.7923
 Delta 40° 35' 35.20" (RT)
 Degree 114° 35' 29.61"
 Tangent 18.4921
 Length 35.4242
 Radius 50.0000
 External 3.3100
 Long Chord 34.6879
 Mid. Ord. 3.1045
 P.C. Station 1+20.26 N 13,715,913.1226 E 2,115,535.4002
 P.T. Station 1+55.69 N 13,715,897.7743 E 2,115,566.5078
 C.C. N 13,715,863.3933 E 2,115,530.2043
 Back S 84° 02' 06.36" E
 Ahead S 43° 26' 31.16" E
 Chord Bear S 63° 44' 18.76" E

Course from PT RAMP02 to RAMP03 S 43° 26' 31.16" E Dist 184.4052

Point RAMP03 N 13,715,763.8830 E 2,115,693.3085 Sta 3+40.09

Ending chain RAMP description



*Stephane D. Blew
 7-20-2012*



CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 SEELING CHANNEL PHASE I
PROJECT CONTROL

Plotted on: 7/18/2012 6:10:33 PM
 Design Filename: P:\60184822 Seeling Channel (Midcrest)\ADMIN\000_CAD\CAD\C\Geopak Project Layout Cntrl\Strt1.dgn

WOODLAWN LAKE PARK TRAIL

Beginning chain PED-BRIDGE description

Point 1020 N 13,715,484.2693 E 2,117,228.0344 Sta 2+00.00
 Course from 1020 to PC PED03 N 82° 42' 45.82" W Dist 65.4969

Curve Data

Curve PED03
 P.I. Station 3+20.88 N 13,715,499.6028 E 2,117,108.1264
 Delta 43° 10' 11.91" (LT)
 Degree 40° 55' 32.00"
 Tangent 55.3875
 Length 105.4841
 Radius 140.0000
 External 2.1503
 Long Chord 67.7480
 Mid. Ord. 2.1333
 P.C. Station 9+13.19 N 13,715,136.0797 E 2,116,651.1198
 P.T. Station 9+81.11 N 13,715,068.5588 E 2,116,645.5779
 C.C. N 13,715,124.2312 E 2,116,381.3799
 Back = S 2° 30' 54.50" E
 Ahead = S 11° 53' 57.88" W
 Chord Bear = S 4° 41' 31.69" W
 Course from PT PED07 to 1026 S 11° 53' 57.87" W Dist 5.3347
 Point 1026 N 13,715,063.3387 E 2,116,644.4779 Sta 9+86.45
 Ending chain PED-BRIDGE description

Course from PT PED03 to PC PED04 S 54° 07' 02.27" W Dist 249.1855

Curve Data

Curve PED04
 P.I. Station 6+41.82 N 13,715,308.3906 E 2,116,843.8091
 Delta 17° 35' 12.20" (RT)
 Degree 40° 55' 32.00"
 Tangent 21.6565
 Length 42.9725
 Radius 140.0000
 External 1.6651
 Long Chord 42.8040
 Mid. Ord. 1.6455
 P.C. Station 6+20.17 N 13,715,321.0841 E 2,116,861.3557
 P.T. Station 6+63.14 N 13,715,301.5921 E 2,116,823.2474
 C.C. N 13,715,434.5147 E 2,116,779.2978
 Back = S 54° 07' 02.27" W
 Ahead = S 71° 42' 14.48" W
 Chord Bear = S 62° 54' 38.38" W

Curve Data

Curve PED05
 P.I. Station 6+85.40 N 13,715,294.6032 E 2,116,802.1099
 Delta 18° 04' 16.09" (LT)
 Degree 40° 55' 31.99"
 Tangent 22.2629
 Length 44.1561
 Radius 140.0000
 External 1.7591
 Long Chord 43.9733
 Mid. Ord. 1.7373
 P.C. Station 6+63.14 N 13,715,301.5921 E 2,116,823.2474
 P.T. Station 7+07.30 N 13,715,281.4022 E 2,116,784.1831
 C.C. N 13,715,168.6694 E 2,116,867.1970
 Back = S 71° 42' 14.47" W
 Ahead = S 53° 37' 58.39" W
 Chord Bear = S 62° 40' 06.43" W

Course from PT PED05 to P11023 S 53° 37' 58.39" W Dist 75.3115

Point P11023 N 13,715,236.7457 E 2,116,723.5397 Sta 7+82.61

Course from P11023 to PC PED06 S 52° 24' 24.68" W Dist 44.8141

Curve Data

Curve PED06
 P.I. Station 8+74.46 N 13,715,183.0723 E 2,116,649.0556
 Delta 58° 28' 08.77" (LT)
 Degree 68° 10' 20.78"
 Tangent 47.0379
 Length 85.7665
 Radius 84.0454
 External 12.2676
 Long Chord 82.0932
 Mid. Ord. 10.7051
 P.C. Station 8+27.42 N 13,715,209.4069 E 2,116,688.0306
 P.T. Station 9+13.19 N 13,715,136.0797 E 2,116,651.1198
 C.C. N 13,715,139.7679 E 2,116,735.0842
 Back = S 55° 57' 14.27" W
 Ahead = S 2° 30' 54.50" E
 Chord Bear = S 26° 43' 09.88" W

Curve Data

Curve PED07
 P.I. Station 9+47.33 N 13,715,101.9688 E 2,116,652.6181
 Delta 14° 24' 52.38" (RT)
 Degree 21° 13' 14.37"
 Tangent 34.1438
 Length 67.9270
 Radius 270.0000
 External 2.1503
 Long Chord 67.7480
 Mid. Ord. 2.1333
 P.C. Station 9+13.19 N 13,715,136.0797 E 2,116,651.1198
 P.T. Station 9+81.11 N 13,715,068.5588 E 2,116,645.5779
 C.C. N 13,715,124.2312 E 2,116,381.3799
 Back = S 2° 30' 54.50" E
 Ahead = S 11° 53' 57.88" W
 Chord Bear = S 4° 41' 31.69" W

Course from PT PED07 to 1026 S 11° 53' 57.87" W Dist 5.3347

Point 1026 N 13,715,063.3387 E 2,116,644.4779 Sta 9+86.45

Ending chain PED-BRIDGE description

W. MISTLETOE AVE (SW)

Beginning chain MIS_SW description

Point 1000 N 13,715,940.2109 E 2,115,517.8575 Sta 210+00.00
 Course from 1000 to PC MIS_SWC1 N 57° 17' 36.53" W Dist 78.2804

Curve Data

Curve MIS_SWC1
 P.I. Station 211+27.98 N 13,716,009.3622 E 2,115,410.1702
 Delta 26° 37' 44.21" (LT)
 Degree 27° 17' 01.34"
 Tangent 49.6979
 Length 97.6002
 Radius 210.0000
 External 5.8006
 Long Chord 96.7241
 Mid. Ord. 5.6446
 P.C. Station 210+78.28 N 13,715,982.5086 E 2,115,451.9885
 P.T. Station 211+75.88 N 13,716,014.6239 E 2,115,360.7517
 C.C. N 13,715,805.8043 E 2,115,338.5179
 Back = N 57° 17' 36.53" W
 Ahead = N 83° 55' 20.74" W
 Chord Bear = N 70° 36' 28.63" W

Course from PT MIS_SWC1 to 1002 N 83° 55' 20.74" W Dist 155.1198

End Construction N 13,716,031.0472 E 2,115,206.5037 Sta 213+31.00

Ending chain MIS_SW description

W. MISTLETOE AVE (NW)

Beginning chain MISNW description

Point MISNW01 N 13,716,073.0779 E 2,115,531.3367 Sta 110+00.00
 Course from MISNW01 to PC MISNW02 N 74° 02' 06.36" W Dist 34.0301

Curve Data

Curve MISNW02
 P.I. Station 110+51.33 N 13,716,087.1961 E 2,115,481.9868
 Delta 9° 53' 14.38" (LT)
 Degree 28° 38' 52.40"
 Tangent 17.2996
 Length 34.5133
 Radius 200.0000
 External 0.7468
 Long Chord 34.4705
 Mid. Ord. 0.7440
 P.C. Station 110+34.03 N 13,716,082.4379 E 2,115,498.6192
 P.T. Station 110+68.54 N 13,716,089.0277 E 2,115,464.7844
 C.C. N 13,715,890.1518 E 2,115,443.6095
 Back = N 74° 02' 06.36" W
 Ahead = N 83° 55' 20.74" W
 Chord Bear = N 78° 58' 43.55" W

Course from PT MISNW02 to end N 83° 55' 20.74" W Dist 331.4600

End Construction N 13,716,124.1206 E 2,115,135.1907 Sta 113+20.00

Ending chain MISNW description

W. MISTLETOE AVE (NE)

Beginning chain MISNE description

Point MISNE01 N 13,715,970.7166 E 2,116,059.8421 Sta 10+00.00
 Course from MISNE01 to PC MISNE02 N 84° 14' 47.19" W Dist 362.9504

Curve Data

Curve MISNE02
 P.I. Station 14+11.67 N 13,716,011.9865 E 2,115,650.2462
 Delta 27° 22' 51.03" (RT)
 Degree 28° 38' 52.40"
 Tangent 48.7193
 Length 95.5772
 Radius 200.0000
 External 5.8484
 Long Chord 94.6703
 Mid. Ord. 5.6823
 P.C. Station 13+62.95 N 13,716,007.1023 E 2,115,698.7201
 P.T. Station 14+58.53 N 13,716,038.6167 E 2,115,609.4491
 C.C. N 13,716,206.0948 E 2,115,718.7701
 Back = N 84° 14' 47.19" W
 Ahead = N 56° 51' 56.16" W
 Chord Bear = N 70° 33' 21.68" W

Course from PT MISNE02 to PC MISNE03 N 56° 51' 56.16" W Dist 9.2634

Curve Data

Curve MISNE03
 P.I. Station 14+97.98 N 13,716,060.1836 E 2,115,576.4090
 Delta 17° 10' 10.20" (LT)
 Degree 28° 38' 52.40"
 Tangent 30.1927
 Length 59.9329
 Radius 200.0000
 External 2.2662
 Long Chord 59.7089
 Mid. Ord. 2.2408
 P.C. Station 14+67.79 N 13,716,043.6801 E 2,115,601.6921
 P.T. Station 15+27.72 N 13,716,068.4880 E 2,115,547.3808
 C.C. N 13,715,876.2019 E 2,115,492.3711
 Back = N 56° 51' 56.16" W
 Ahead = N 74° 02' 06.36" W
 Chord Bear = N 65° 27' 01.26" W

Course from PT MISNE03 to MISNE04 N 74° 02' 06.36" W Dist 16.6877

Point MISNE04 N 13,716,073.0779 E 2,115,531.3367 Sta 15+44.41

Ending chain MISNE description



NO	DATE	DESCRIPTION REVISIONS	DWGCHK

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 TBPE REG. NO. F-3580

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 SEELING CHANNEL PHASE I

PROJECT CONTROL

PROJECT NO:	60184822	DATE:	JULY 2012
DRWN BY:	JDB	DSGN BY:	MJP
CHKD BY:	SDB	SHEET NO:	12

Plotted on: 7/18/2012 6:12:57 PM

Design Filename: P:\60145866 Seeling Channel (Midcrest)\ADMIN\000_CAD\CVC5\Geopak Project Layout Cntrl Sht2.dgn

SEELING CHANNEL

CHANNEL WALL LT

BANCROFT

Beginning chain CHNL description

Point CHNL1 N 13,715,369.7066 E 2,117,083.8526 Sta 20+00.00
 Course from CHNL1 to CHNL01 N 80° 52' 57.73" W Dist 349.5362
 Point CHNL01 N 13,715,425.0927 E 2,116,738.7324 Sta 23+49.54
 Course from CHNL01 to PC CHNL02 N 82° 36' 20.16" W Dist 943.8812

Curve Data

Curve CHNL02
 P.I. Station 33+68.02 N 13,715,556.1698 E 2,115,728.7218
 Delta 73° 26' 43.43" (RT)
 Degree 57° 17' 44.81"
 Tangent 74.5993
 Length 128.1864
 Radius 100.0000
 External 24.7600
 Long Chord 119.5885
 Mid. Ord. 19.8461
 P.C. Station 32+93.42 N 13,715,546.5690 E 2,115,802.7008
 P.T. Station 34+21.60 N 13,715,629.8178 E 2,115,716.8460
 C.C. N 13,715,645.7374 E 2,115,815.5707
 Back = N 82° 36' 20.16" W
 Ahead = N 9° 09' 36.73" W
 Chord Bear = N 45° 52' 58.45" W

Course from PT CHNL02 to PC CHNL03 N 9° 09' 36.73" W Dist 92.6150

Curve Data

Curve CHNL03
 P.I. Station 35+46.92 N 13,715,753.5401 E 2,115,696.8955
 Delta 7° 29' 05.54" (LT)
 Degree 11° 27' 32.96"
 Tangent 32.7054
 Length 65.3178
 Radius 500.0000
 External 1.0685
 Long Chord 65.2714
 Mid. Ord. 1.0662
 P.C. Station 35+14.22 N 13,715,721.2517 E 2,115,702.1021
 P.T. Station 35+79.54 N 13,715,784.8751 E 2,115,687.5273
 C.C. N 13,715,641.6540 E 2,115,208.4785
 Back = N 9° 09' 36.73" W
 Ahead = N 16° 38' 42.27" W
 Chord Bear = N 12° 54' 09.50" W

Course from PT CHNL03 to PC CHNL04 N 16° 38' 42.27" W Dist 118.4630

Curve Data

Curve CHNL04
 P.I. Station 37+71.79 N 13,715,969.0750 E 2,115,632.4571
 Delta 52° 23' 24.09" (LT)
 Degree 38° 11' 49.87"
 Tangent 73.7929
 Length 137.1568
 Radius 150.0000
 External 17.1688
 Long Chord 132.4283
 Mid. Ord. 15.4055
 P.C. Station 36+98.00 N 13,715,898.3741 E 2,115,653.5945
 P.T. Station 38+35.16 N 13,715,995.4778 E 2,115,563.5493
 C.C. N 13,715,855.4078 E 2,115,509.8799
 Back = N 16° 38' 42.27" W
 Ahead = N 69° 02' 06.36" W
 Chord Bear = N 42° 50' 24.31" W

Course from PT CHNL04 to PC CHNL05 N 69° 02' 06.36" W Dist 116.7576

Curve Data

Curve CHNL05
 P.I. Station 39+91.11 N 13,716,051.2773 E 2,115,417.9201
 Delta 14° 53' 14.38" (LT)
 Degree 19° 05' 54.94"
 Tangent 39.1957
 Length 77.9499
 Radius 300.0000
 External 2.5497
 Long Chord 77.7308
 Mid. Ord. 2.5282
 P.C. Station 39+51.91 N 13,716,037.2532 E 2,115,454.5210
 P.T. Station 40+29.86 N 13,716,055.4271 E 2,115,378.9447
 C.C. N 13,715,757.1133 E 2,115,347.1822
 Back = N 69° 02' 06.36" W
 Ahead = N 83° 55' 20.74" W
 Chord Bear = N 76° 28' 43.55" W

Course from PT CHNL05 to end N 83° 55' 20.74" W Dist 270.1400

End Construction 43+00.00 N 13,716,084.0277 E 2,115,110.3268

Ending chain CHNL description

Beginning chain LTWALL description

Point LTWALL01 N 13,715,490.2495 E 2,115,848.2930 Sta 10+00.00
 Course from LTWALL01 to PC LTWALL02C N 82° 36' 20.16" W Dist 53.6838

Curve Data

Curve LTWALL02C
 P.I. Station 11+61.96 N 13,715,511.0935 E 2,115,687.6798
 Delta 73° 29' 59.48" (RT)
 Degree 39° 30' 51.59"
 Tangent 108.2763
 Length 186.0081
 Radius 145.0000
 External 35.9662
 Long Chord 173.5138
 Mid. Ord. 28.8181
 P.C. Station 10+53.68 N 13,715,497.1585 E 2,115,795.0557
 P.T. Station 12+39.69 N 13,715,618.0054 E 2,115,670.5443
 C.C. N 13,715,640.9526 E 2,115,813.7170
 Back = N 82° 36' 20.16" W
 Ahead = N 9° 06' 20.68" W
 Chord Bear = N 45° 51' 20.42" W

Course from PT LTWALL02C to PC LTWALL03 N 9° 06' 20.68" W Dist 125.0145

Curve Data

Curve LTWALL03
 P.I. Station 13+81.84 N 13,715,758.3597 E 2,115,648.0487
 Delta 4° 20' 10.48" (LT)
 Degree 12° 39' 43.38"
 Tangent 17.1312
 Length 34.2460
 Radius 452.5000
 External 0.3242
 Long Chord 34.2378
 Mid. Ord. 0.3239
 P.C. Station 13+64.71 N 13,715,741.4445 E 2,115,650.7599
 P.T. Station 13+98.95 N 13,715,775.0216 E 2,115,644.0664
 C.C. N 13,715,669.8331 E 2,115,203.9623
 Back = N 9° 06' 20.68" W
 Ahead = N 13° 26' 31.16" W
 Chord Bear = N 11° 16' 25.92" W

Course from PT LTWALL03 to PC LTWALL04 N 13° 26' 31.16" W Dist 115.9005

Curve Data

Curve LTWALL04
 P.I. Station 15+74.16 N 13,715,945.4283 E 2,115,603.3378
 Delta 55° 35' 35.20" (LT)
 Degree 50° 55' 46.49"
 Tangent 59.3059
 Length 109.1568
 Radius 112.5000
 External 14.6748
 Long Chord 104.9250
 Mid. Ord. 12.9815
 P.C. Station 15+14.85 N 13,715,887.7471 E 2,115,617.1241
 P.T. Station 16+24.01 N 13,715,966.6477 E 2,115,547.9580
 C.C. N 13,715,861.5952 E 2,115,507.7059
 Back = N 13° 26' 31.16" W
 Ahead = N 69° 02' 06.36" W
 Chord Bear = N 41° 14' 18.76" W

Course from PT LTWALL04 to PC LTWALL05 N 69° 02' 06.36" W Dist 135.8675

Curve Data

Curve LTWALL05
 P.I. Station 17+94.83 N 13,716,027.7653 E 2,115,388.4491
 Delta 14° 53' 14.38" (LT)
 Degree 21° 25' 08.34"
 Tangent 34.9495
 Length 69.5053
 Radius 267.5000
 External 2.2735
 Long Chord 69.3099
 Mid. Ord. 2.2543
 P.C. Station 17+59.88 N 13,716,015.2606 E 2,115,421.0850
 P.T. Station 18+29.38 N 13,716,031.4656 E 2,115,353.6961
 C.C. N 13,715,765.4691 E 2,115,325.3746
 Back = N 69° 02' 06.36" W
 Ahead = N 83° 55' 20.74" W
 Chord Bear = N 76° 28' 43.55" W

Course from PT LTWALL05 to end N 83° 55' 20.74" W Dist 51.56

End Construction 18+80.94 N 13,716,036.9244 E 2,115,302.4267

Ending chain LTWALL description

Beginning chain BAN-DRIVEWAY description

Point 1013 N 13,715,686.4940 E 2,115,634.9540 Sta 1+00.00
 Course from 1013 to PC BAN_C1 S 5° 59' 15.71" W Dist 29.0436

Curve Data

Curve BAN_C1
 P.I. Station 1+35.02 N 13,715,651.6643 E 2,115,631.3008
 Delta 13° 38' 02.83" (LT)
 Degree 114° 35' 29.61"
 Tangent 5.9772
 Length 11.8980
 Radius 50.0000
 External 0.3560
 Long Chord 11.8700
 Mid. Ord. 0.3535
 P.C. Station 1+29.04 N 13,715,657.6089 E 2,115,631.9244
 P.T. Station 1+40.94 N 13,715,645.7402 E 2,115,632.0962
 C.C. N 13,715,652.3931 E 2,115,681.6516
 Back = S 5° 59' 15.71" W
 Ahead = S 7° 38' 47.12" E
 Chord Bear = S 0° 49' 45.70" E

Course from PT BAN_C1 to 1015 S 7° 38' 47.12" E Dist 84.1740

Point 1015 N 13,715,562.3146 E 2,115,643.2963 Sta 2+25.12

Course from 1015 to 1016 S 4° 35' 31.40" E Dist 5.3248

Point 1016 N 13,715,557.0069 E 2,115,643.7226 Sta 2+30.44

Course from 1016 to 1017 S 1° 32' 33.41" E Dist 22.3867

Point 1017 N 13,715,534.6283 E 2,115,644.3253 Sta 2+52.83

Ending chain BAN-DRIVEWAY description



Stephane D. Blew
 7-20-2012

NO	DATE	DESCRIPTION	DWGCHK
		REVISIONS	

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 SAN ANTONIO, TEXAS 78213
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 TBPE REG. NO. F-3580

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE I

PROJECT CONTROL

PROJECT NO:	60184822	DATE:	JULY 2012
DRWN BY:	JDB	OSGN BY:	MJP
CHKD BY:	SDB	SHEET NO:	13

Plotted on: 7/18/2012 6:13:42 PM

Design Filename: P:\60145866 Seeling Channel (Midcrest)\ADMIN\000_CAD\C\CS\Geopak Project Layout Cntrl\Sh3.dgn

CHANNEL WALL RT

Beginning chain RTWALL description

Point RTWALL01 N 13,715,590.3839 E 2,115,853.5911 Sta 10+00.00

Course from RTWALL01 to PC RTWALL02C N 82° 36' 20.16" W Dist 43.7932

Curve Data

Curve RTWALL02C
 P.I. Station 10+84.86 N 13,715,601.3057 E 2,115,769.4333
 Delta 73° 29' 59.48" (RT)
 Degree 104° 10' 26.92"
 Tangent 41.0703
 Length 70.5548
 Radius 55.0000
 External 13.6424
 Long Chord 65.8156
 Mid. Ord. 10.9310
 P.C. Station 10+43.79 N 13,715,596.0200 E 2,115,810.1621
 P.T. Station 11+14.35 N 13,715,641.8585 E 2,115,762.9337
 C.C. N 13,715,650.5626 E 2,115,817.2406
 Back = N 82° 36' 20.16" W
 Ahead = N 9° 06' 20.68" W
 Chord Bear = N 45° 51' 20.42" W

Course from PT RTWALL02C to PC RTWALL03 N 9° 06' 20.68" W Dist 58.5282

Curve Data

Curve RTWALL03
 P.I. Station 12+22.11 N 13,715,748.2598 E 2,115,745.8800
 Delta 10° 16' 35.11" (LT)
 Degree 10° 27' 53.94"
 Tangent 49.2311
 Length 98.1981
 Radius 547.5000
 External 2.2090
 Long Chord 98.0666
 Mid. Ord. 2.2001
 P.C. Station 11+72.88 N 13,715,699.6491 E 2,115,753.6712
 P.T. Station 12+71.07 N 13,715,794.7008 E 2,115,729.5418
 C.C. N 13,715,613.0033 E 2,115,213.0708
 Back = N 9° 06' 20.68" W
 Ahead = N 19° 22' 55.79" W
 Chord Bear = N 14° 14' 38.24" W

Course from PT RTWALL03 to PC RTWALL04 N 19° 22' 55.79" W Dist 123.9733

Curve Data

Curve RTWALL04
 P.I. Station 14+81.79 N 13,715,993.4742 E 2,115,659.6121
 Delta 49° 39' 10.57" (LT)
 Degree 30° 33' 27.90"
 Tangent 86.7423
 Length 162.4889
 Radius 187.5000
 External 19.0925
 Long Chord 157.4518
 Mid. Ord. 17.3281
 P.C. Station 13+95.05 N 13,715,911.6480 E 2,115,688.3991
 P.T. Station 15+57.54 N 13,716,024.5103 E 2,115,578.6122
 C.C. N 13,715,849.4228 E 2,115,511.5255
 Back = N 19° 22' 55.79" W
 Ahead = N 69° 02' 06.36" W
 Chord Bear = N 44° 12' 31.08" W

Course from PT RTWALL04 to PC RTWALL05 N 69° 02' 06.36" W Dist 97.0821

Curve Data

Curve RTWALL05
 P.I. Station 16+98.06 N 13,716,074.7892 E 2,115,447.3910
 Delta 14° 53' 14.38" (LT)
 Degree 17° 13' 54.53"
 Tangent 43.4419
 Length 86.3944
 Radius 332.5000
 External 2.8259
 Long Chord 86.1516
 Mid. Ord. 2.8021
 P.C. Station 16+54.62 N 13,716,059.2458 E 2,115,487.9570
 P.T. Station 17+41.01 N 13,716,079.3886 E 2,115,404.1932
 C.C. N 13,715,748.7574 E 2,115,368.9898
 Back = N 69° 02' 06.36" W
 Ahead = N 83° 55' 20.74" W
 Chord Bear = N 76° 28' 43.55" W

Course from PT RTWALL05 to end N 83° 55' 20.74" W Dist 97.3000

End Construction Sta 18+38.31 N 13,716,089.6900 E 2,115,307.4420

Ending chain RTWALL description

SD 'F'

Beginning chain SD_F description

Point 10005 N 13,715,514.4458 E 2,115,742.8578 Sta 1+00.00

Course from 10005 to 10006 S 51° 00' 49.61" W Dist 21.3627

Point 10006 N 13,715,501.0058 E 2,115,726.2526 Sta 1+21.36

Course from 10006 to 10007 S 66° 00' 49.61" W Dist 65.1706

Point 10007 N 13,715,474.5129 E 2,115,666.7100 Sta 1+86.53

Course from 10007 to 10008 N 83° 59' 15.23" W Dist 207.1757

Point 10008 N 13,715,496.2134 E 2,115,460.6739 Sta 3+93.71

Ending chain SD_F description

SWALE J

Beginning chain SWALE-J description

Point 1018 N 13,715,496.0105 E 2,116,192.2774 Sta 1+00.00

Course from 1018 to 1019 S 9° 00' 34.71" W Dist 140.0000

Point 1019 N 13,715,357.7379 E 2,116,170.3533 Sta 2+40.00

Ending chain SWALE-J description

CULVERT 'K'

Beginning chain CULVERT-K description

Point CULVERTK01 N 13,715,415.1414 E 2,116,800.7408 Sta 1+00.00

Course from CULVERTK01 to CULVERTK02 N 5° 47' 28.03" E Dist 177.2129

Point CULVERTK02 N 13,715,591.4498 E 2,116,818.6219 Sta 2+77.21

Course from CULVERTK02 to CULVERTK03 N 31° 54' 14.07" E Dist 133.1366

Point CULVERTK03 N 13,715,704.4742 E 2,116,888.9841 Sta 4+10.35

Course from CULVERTK03 to CULVERTK04 N 34° 06' 31.04" E Dist 11.0208

Point CULVERTK04 N 13,715,713.5992 E 2,116,895.1642 Sta 4+21.37

Course from CULVERTK04 to PC CULVERTK05 N 31° 48' 50.65" E Dist 178.3723

Curve Data

Curve CULVERTK05
 P.I. Station 6+08.99 N 13,715,873.0342 E 2,116,994.0723
 Delta 26° 02' 34.27" (LT)
 Degree 143° 14' 22.02"
 Tangent 9.2505
 Length 18.1813
 Radius 40.0000
 External 1.0557
 Long Chord 18.0252
 Mid. Ord. 1.0286
 P.C. Station 5+99.74 N 13,715,865.1734 E 2,116,989.1958
 P.T. Station 6+17.92 N 13,715,882.2378 E 2,116,995.0025
 C.C. N 13,715,886.2600 E 2,116,955.2052
 Back = N 31° 48' 50.65" E
 Ahead = N 5° 46' 16.38" E
 Chord Bear = N 18° 47' 33.51" E

Course from PT CULVERTK05 to CULVERTK06 N 5° 46' 16.38" E Dist 7.4894

Point CULVERTK06 N 13,715,889.6892 E 2,116,995.7556 Sta 6+25.41

Ending chain CULVERT-K description

SD 'M'

Beginning chain SD-M description

Point YY009 N 13,715,587.8369 E 2,116,814.7376 Sta 1+00.00

Course from YY009 to YY010 N 84° 00' 44.29" W Dist 107.3766

Point YY010 N 13,715,599.0379 E 2,116,707.9468 Sta 2+07.38

Ending chain SD-M description

SD 'N'

Beginning chain SD-N description

Point YY011 N 13,715,587.1067 E 2,116,821.6994 Sta 1+00.00


Course from YY011 to YY012 S 84° 00' 44.29" E Dist 315.8987

Point YY012 N 13,715,554.1538 E 2,117,135.8747 Sta 4+15.90

Ending chain SD-N description

Plotted on: 7/18/2012 6:15:24 PM

Design Filename: P:\60145866 Sealing Channel (Midwest)\ADMIN\000_CAD\C\CS\Geopak Project Layout Cntrl SH14.dgn



Stephane D. Blew
7-20-2012

NO	DATE	DESCRIPTION	DWGCHK
REVISIONS			

AECOM AECOM TECHNICAL SERVICES, INC.
 6800 PARK TEN BLVD., SUITE 180 SOUTH
 SAN ANTONIO, TEXAS 78213
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 SEALING CHANNEL PHASE I

PROJECT CONTROL

4 OF 5

PROJECT NO.: 60184822	DATE: JULY 2012
DRWN BY: JDB	DSGN BY: MJP
CHKD BY: SDB	SHEET NO. 14

SWALE 11

Beginning chain SWALE-11 description

Point SWALEWEST01 N 13,715,208.3241 E 2,116,605.9444 Sta 1+00.00
 Course from SWALEWEST01 to PC SWALEWEST02 N 72° 12' 54.43" W Dist 40.6920

Curve Data

Curve SWALEWEST02
 P.I. Station 1+50.83 N 13,715,223.8501 E 2,116,557.5427
 Delta 36° 13' 18.90" (RT)
 Degree 184° 49' 30.34"
 Tangent 10.1389
 Length 19.5979
 Radius 31.0000
 External 1.6159
 Long Chord 19.2732
 Mid. Ord. 1.5359
 P.C. Station 1+40.69 N 13,715,220.7533 E 2,116,567.1971
 P.T. Station 1+60.29 N 13,715,232.0534 E 2,116,551.5842
 C.C. N 13,715,250.2718 E 2,116,576.6658
 Back = N 72° 12' 54.43" W
 Ahead = N 35° 59' 35.53" W
 Chord Bear = N 54° 06' 14.98" W

Curve Data

Curve SWALEWEST03
 P.I. Station 2+16.70 N 13,715,277.6929 E 2,116,518.4334
 Delta 81° 54' 16.58" (RT)
 Degree 88° 08' 50.47"
 Tangent 56.4087
 Length 92.9178
 Radius 65.0000
 External 21.0636
 Long Chord 85.2060
 Mid. Ord. 15.9084
 P.C. Station 1+60.29 N 13,715,232.0534 E 2,116,551.5842
 P.T. Station 2+53.21 N 13,715,316.9404 E 2,116,558.9498
 C.C. N 13,715,270.2532 E 2,116,604.1748
 Back = N 35° 59' 35.53" W
 Ahead = N 45° 54' 41.05" E
 Chord Bear = N 4° 57' 32.76" E

Curve Data

Curve SWALEWEST04
 P.I. Station 2+92.27 N 13,715,344.1221 E 2,116,587.0103
 Delta 88° 38' 52.92" (LT)
 Degree 143° 14' 22.02"
 Tangent 39.0671
 Length 61.8880
 Radius 40.0000
 External 15.9128
 Long Chord 55.8972
 Mid. Ord. 11.3840
 P.C. Station 2+53.21 N 13,715,316.9404 E 2,116,558.9498
 P.T. Station 3+15.10 N 13,715,345.6710 E 2,116,560.4982
 C.C. N 13,715,345.6710 E 2,116,531.1190
 Back = N 45° 54' 41.05" E
 Ahead = N 42° 44' 11.87" W
 Chord Bear = N 1° 35' 14.59" E

Curve Data

Curve SWALEWEST05
 P.I. Station 3+19.77 N 13,715,376.2513 E 2,116,557.3242
 Delta 50° 07' 51.71" (RT)
 Degree 572° 57' 28.06"
 Tangent 4.6770
 Length 8.7495
 Radius 10.0000
 External 1.0397
 Long Chord 8.4731
 Mid. Ord. 0.9418
 P.C. Station 3+15.10 N 13,715,372.8162 E 2,116,560.4982
 P.T. Station 3+23.85 N 13,715,380.8895 E 2,116,557.9262
 C.C. N 13,715,379.6025 E 2,116,567.8430
 Back = N 42° 44' 11.87" W
 Ahead = N 7° 23' 39.84" E
 Chord Bear = N 17° 40' 16.02" W

Course from PT SWALEWEST05 to SWALEWEST06 N 7° 23' 39.84" E Dist 67.1052

Point SWALEWEST06 N 13,715,447.4366 E 2,116,566.5625 Sta 3+90.95

Ending chain SWALE-11 description

SD 'L'

Beginning chain SD_L description

Point 1011 N 13,715,824.8171 E 2,115,718.9467 Sta 1+00.00

Course from 1011 to 1012 N 70° 37' 04.21" E Dist 26.2202

Point 1012 N 13,715,833.5187 E 2,115,743.6809 Sta 1+26.22

Ending chain SD_L description

SWALE 12

Beginning chain SWALE-12 description

Point YY001 N 13,715,208.3241 E 2,116,605.9444 Sta 1+00.00
 Course from YY001 to PC SWALEEAST02 S 72° 12' 54.42" E Dist 57.7672

Curve Data

Curve SWALEEAST02
 P.I. Station 1+75.77 N 13,715,185.1796 E 2,116,678.0964
 Delta 15° 46' 17.31" (LT)
 Degree 44° 04' 25.25"
 Tangent 18.0060
 Length 35.7843
 Radius 130.0000
 External 1.2411
 Long Chord 35.6715
 Mid. Ord. 1.2293
 P.C. Station 1+57.77 N 13,715,190.6795 E 2,116,660.9509
 P.T. Station 1+93.55 N 13,715,184.5470 E 2,116,696.0913
 C.C. N 13,715,314.4668 E 2,116,700.6587
 Back = S 72° 12' 54.43" E
 Ahead = S 87° 59' 11.74" E
 Chord Bear = S 80° 06' 03.08" E

Curve Data

Curve SWALEEAST03
 P.I. Station 2+05.03 N 13,715,184.1438 E 2,116,707.5612
 Delta 10° 05' 25.70" (RT)
 Degree 44° 04' 25.14"
 Tangent 11.4770
 Length 22.8946
 Radius 130.0001
 External 0.5056
 Long Chord 22.8650
 Mid. Ord. 0.5037
 P.C. Station 1+93.55 N 13,715,184.5470 E 2,116,696.0913
 P.T. Station 2+16.45 N 13,715,181.7373 E 2,116,718.7830
 C.C. N 13,715,054.6272 E 2,116,691.5240
 Back = S 87° 59' 11.72" E
 Ahead = S 77° 53' 46.02" E
 Chord Bear = S 82° 56' 28.87" E

Course from PT SWALEEAST03 to PC SWALEEAST04 S 77° 53' 46.01" E Dist 14.7085

Curve Data

Curve SWALEEAST04
 P.I. Station 2+52.71 N 13,715,174.1343 E 2,116,754.2361
 Delta 56° 37' 42.76" (LT)
 Degree 143° 14' 21.99"
 Tangent 21.5506
 Length 39.5342
 Radius 40.0000
 External 5.4360
 Long Chord 37.9446
 Mid. Ord. 4.7856
 P.C. Station 2+31.15 N 13,715,178.6531 E 2,116,733.1646
 P.T. Station 2+70.69 N 13,715,189.2459 E 2,116,769.6006
 C.C. N 13,715,217.7639 E 2,116,741.5520
 Back = S 77° 53' 46.02" E
 Ahead = N 45° 28' 31.22" E
 Chord Bear = N 73° 47' 22.60" E

Course from PT SWALEEAST04 to PC SWALEEAST05 N 45° 28' 31.22" E Dist 63.5155

Curve Data

Curve SWALEEAST05
 P.I. Station 3+67.79 N 13,715,257.3323 E 2,116,838.8262
 Delta 19° 03' 47.77" (RT)
 Degree 28° 38' 52.40"
 Tangent 33.5821
 Length 66.5434
 Radius 200.0000
 External 2.7998
 Long Chord 66.2369
 Mid. Ord. 2.7611
 P.C. Station 3+34.20 N 13,715,233.7840 E 2,116,814.8839
 P.T. Station 4+00.75 N 13,715,271.7693 E 2,116,869.1466
 C.C. N 13,715,091.1943 E 2,116,955.1272
 Back = N 45° 28' 31.22" E
 Ahead = N 64° 32' 18.99" E
 Chord Bear = N 55° 00' 25.10" E

Curve Data

Curve SWALEEAST06
 P.I. Station 4+54.34 N 13,715,294.8088 E 2,116,917.5338
 Delta 17° 24' 40.04" (RT)
 Degree 16° 22' 12.80"
 Tangent 53.5923
 Length 106.3585
 Radius 350.0000
 External 4.0793
 Long Chord 105.9497
 Mid. Ord. 4.0323
 P.C. Station 4+00.75 N 13,715,271.7693 E 2,116,869.1466
 P.T. Station 5+07.11 N 13,715,302.3140 E 2,116,970.5979
 C.C. N 13,714,955.7630 E 2,117,019.6126
 Back = N 64° 32' 18.99" E
 Ahead = N 81° 56' 59.03" E
 Chord Bear = N 73° 14' 39.01" E

Curve Data

Curve SWALEEAST07
 P.I. Station 5+29.24 N 13,715,305.4132 E 2,116,992.5109
 Delta 72° 49' 56.76" (LT)
 Degree 190° 59' 09.35"
 Tangent 22.1310
 Length 38.1350
 Radius 30.0000
 External 7.2798
 Long Chord 35.6188
 Mid. Ord. 5.8582
 P.C. Station 5+07.11 N 13,715,302.3140 E 2,116,970.5979
 P.T. Station 5+45.24 N 13,715,327.2646 E 2,116,996.0177
 C.C. N 13,715,332.0183 E 2,116,966.3967
 Back = N 81° 56' 59.03" E
 Ahead = N 9° 07' 02.27" E
 Chord Bear = N 45° 32' 00.65" E

Course from PT SWALEEAST07 to YY008 N 9° 07' 02.27" E Dist 55.8237

Point YY008 N 13,715,382.3831 E 2,117,004.8633 Sta 6+01.06

Ending chain SWALE-12 description



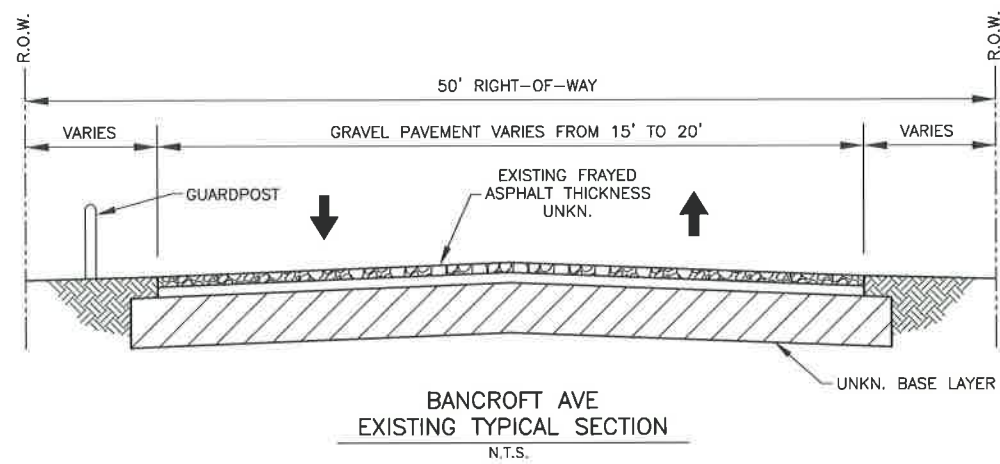
Stephanie D. Blew
 7-20-2012

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 SAN ANTONIO, TEXAS 78213
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

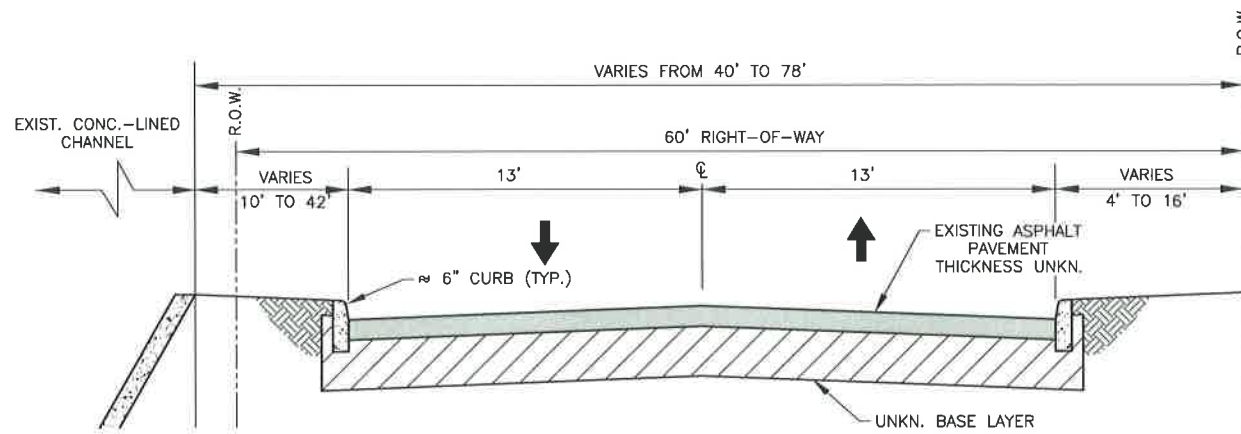
CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 SEELING CHANNEL PHASE I

PROJECT CONTROL

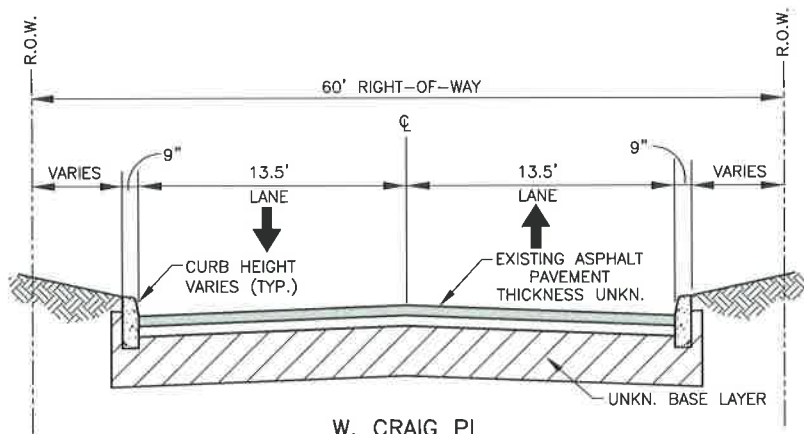
5 OF 5
 PROJECT NO.: 60184822 DATE: JULY 2012
 DRWN BY: JDB DSGN BY: MJP CHKD BY: SDB SHEET NO. 15



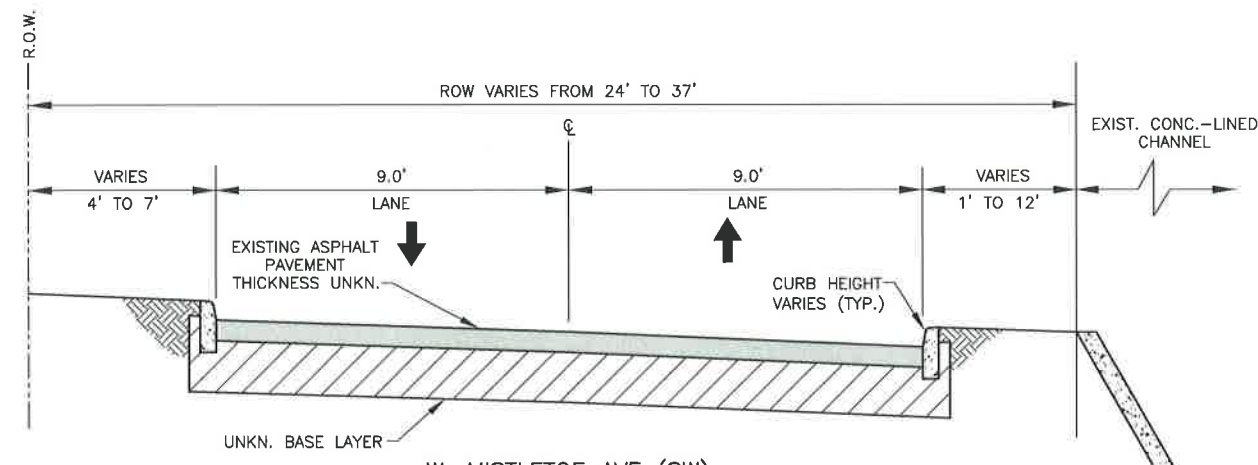
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 N.T.S.



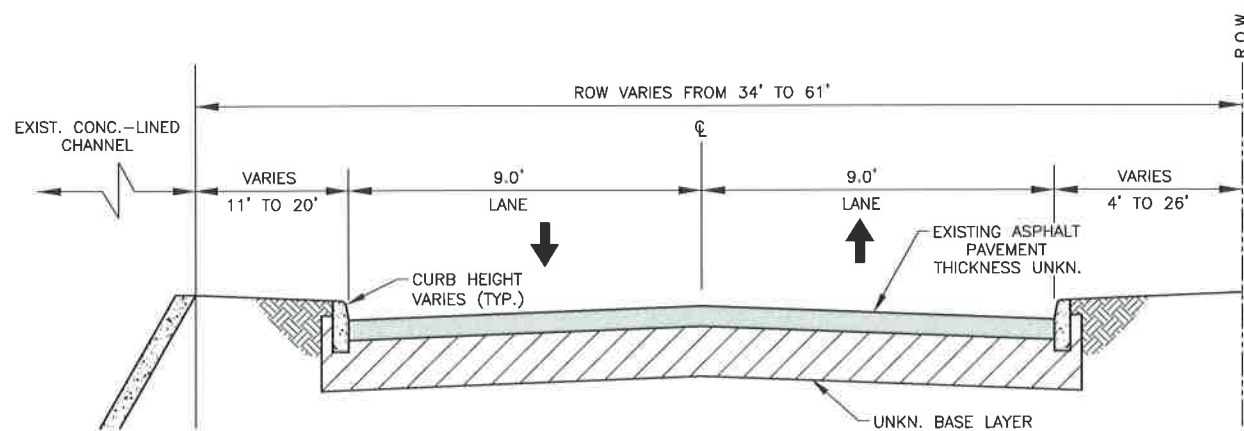
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 EXISTING TYPICAL SECTION
 N.T.S.



W. CRAIG PL
 EXISTING TYPICAL SECTION
 N.T.S.



W. MISTLETOE AVE (SW)
 EXISTING TYPICAL SECTION
 N.T.S.



W. MISTLETOE AVE (NW)
 EXISTING TYPICAL SECTION
 N.T.S.



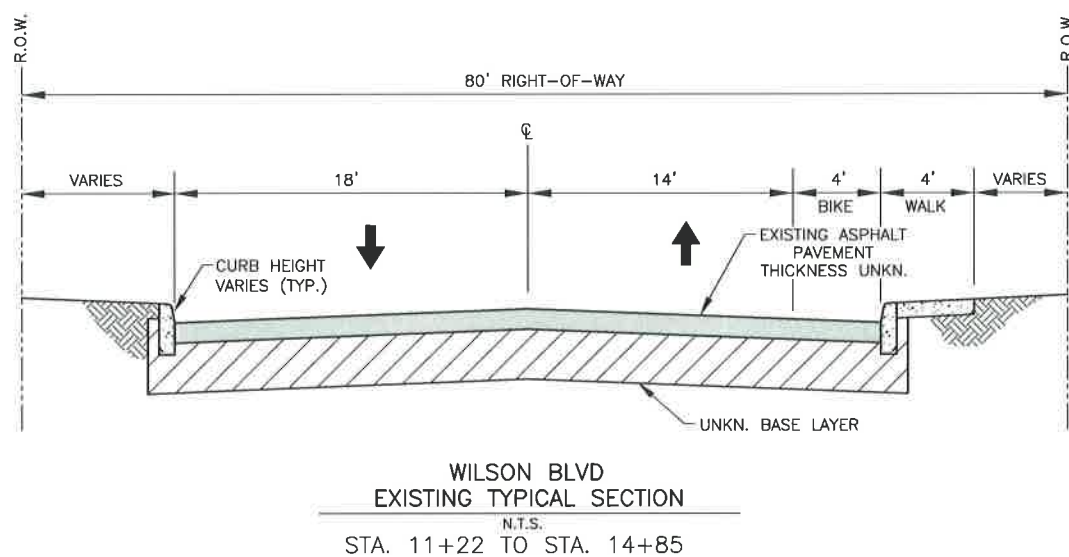
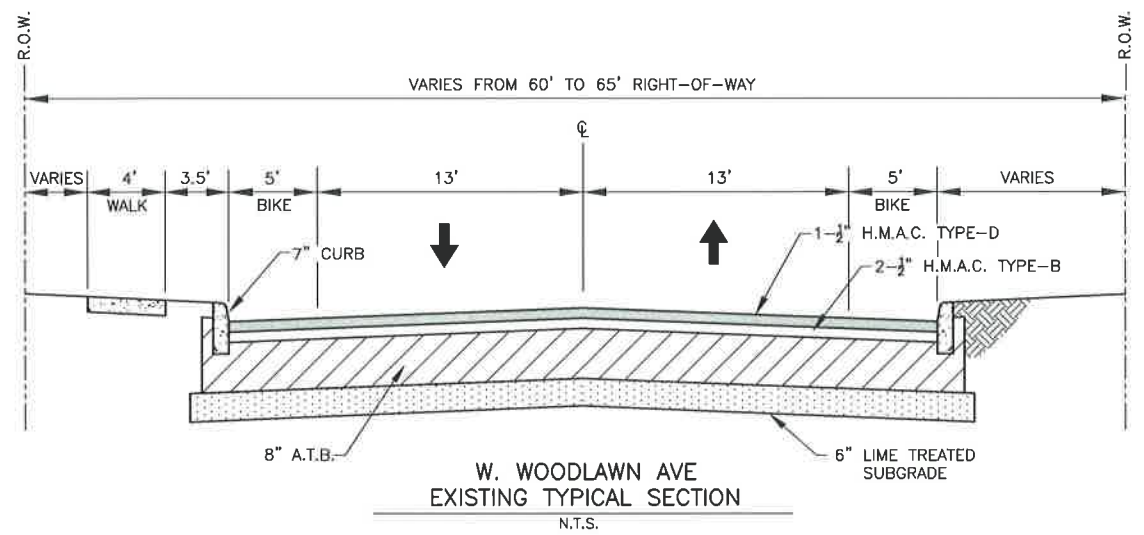
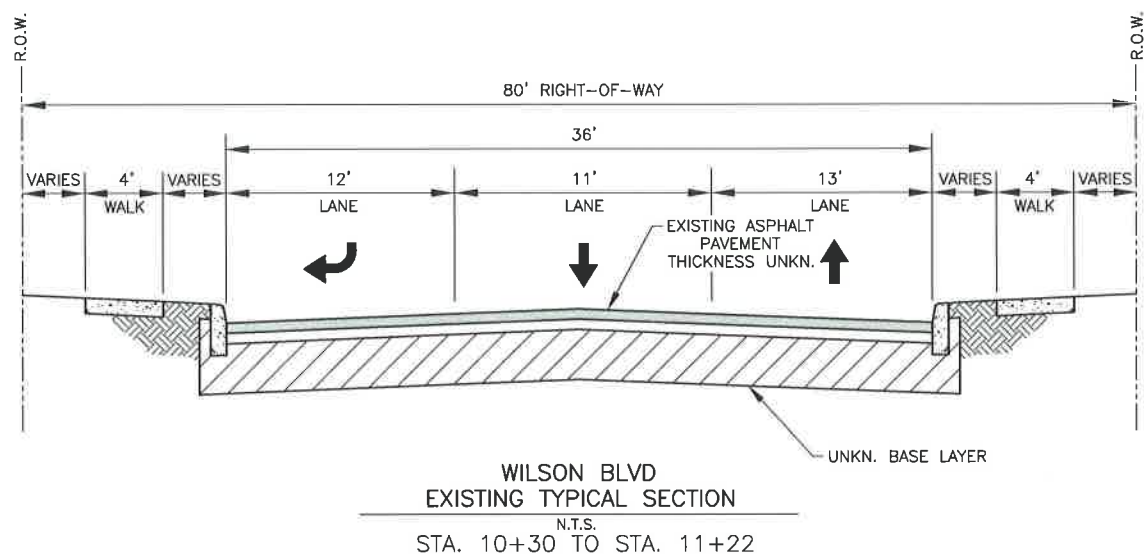
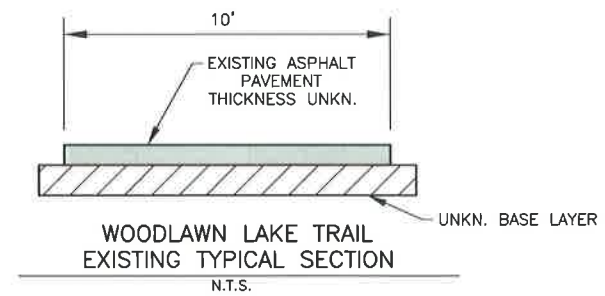
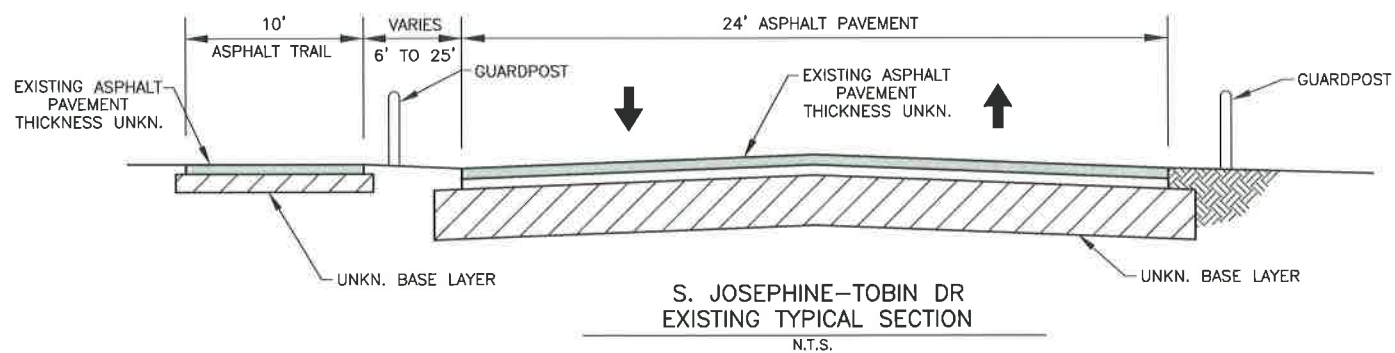
NO	DATE	DESCRIPTION REVISIONS	DWGCHK

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CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 SEALING CHANNEL PHASE I
 EXISTING ROADWAY
 TYPICAL SECTIONS I

PROJECT NO.: 60184822 DATE: JULY 2012
 DRWN. BY: M.G. DSGN. BY: SDB CHD. BY: SDB SHEET NO. 16

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Stephanie D. Blew
7-20-2012

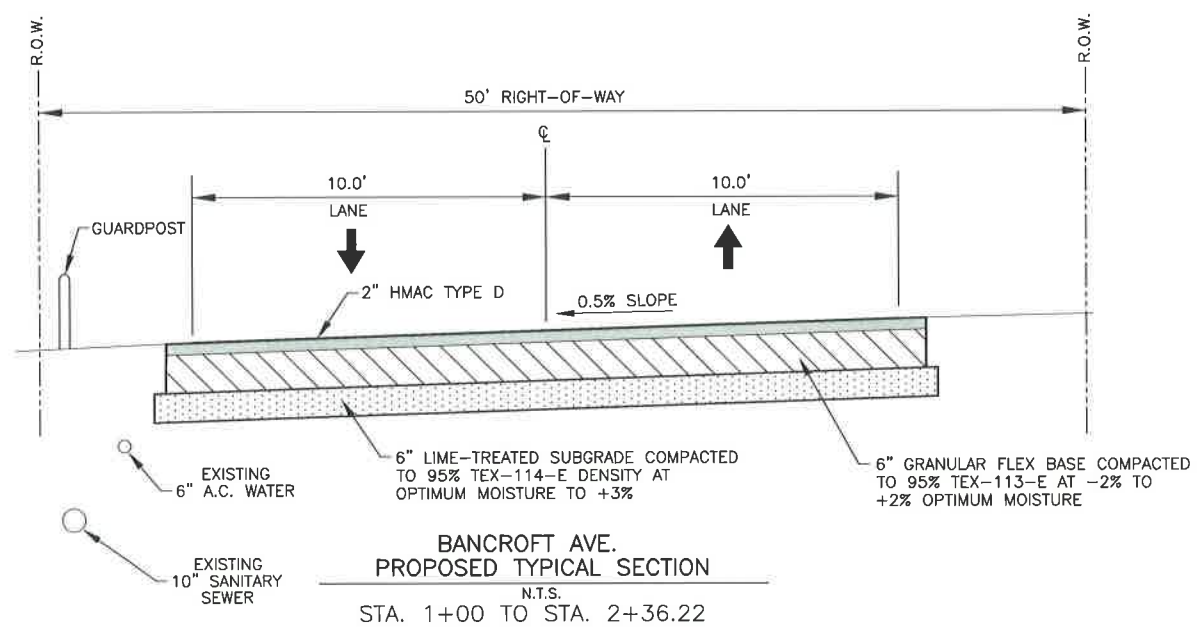
NO	DATE	DESCRIPTION REVISIONS	DWGCHK

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AECOM TECHNICAL SERVICES, INC.
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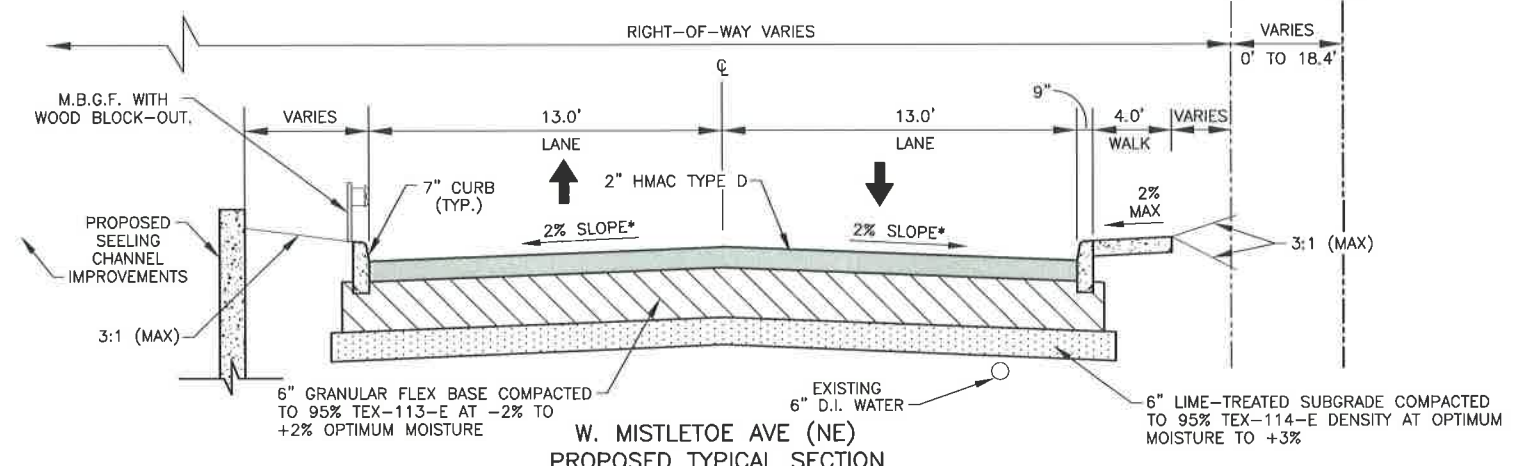
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE I
EXISTING ROADWAY
TYPICAL SECTIONS II

PROJECT NO.:	60184822	DATE:	JULY 2012
DRWN. BY:	M.G.	DSGN. BY:	SDB
CHKD. BY:	SDB	SHEET NO.:	17

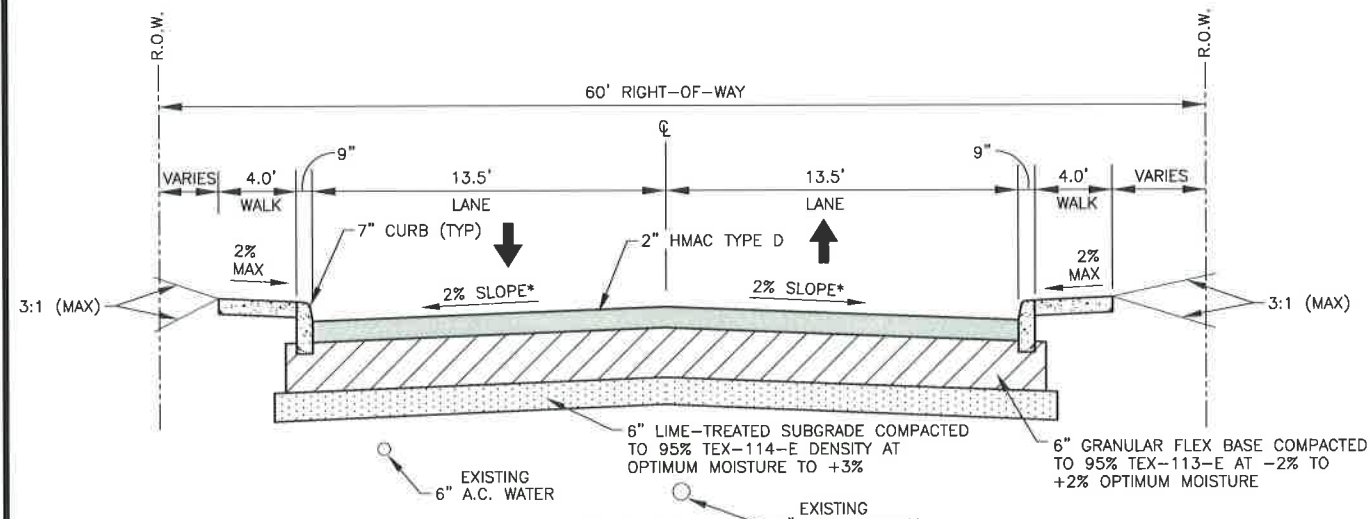
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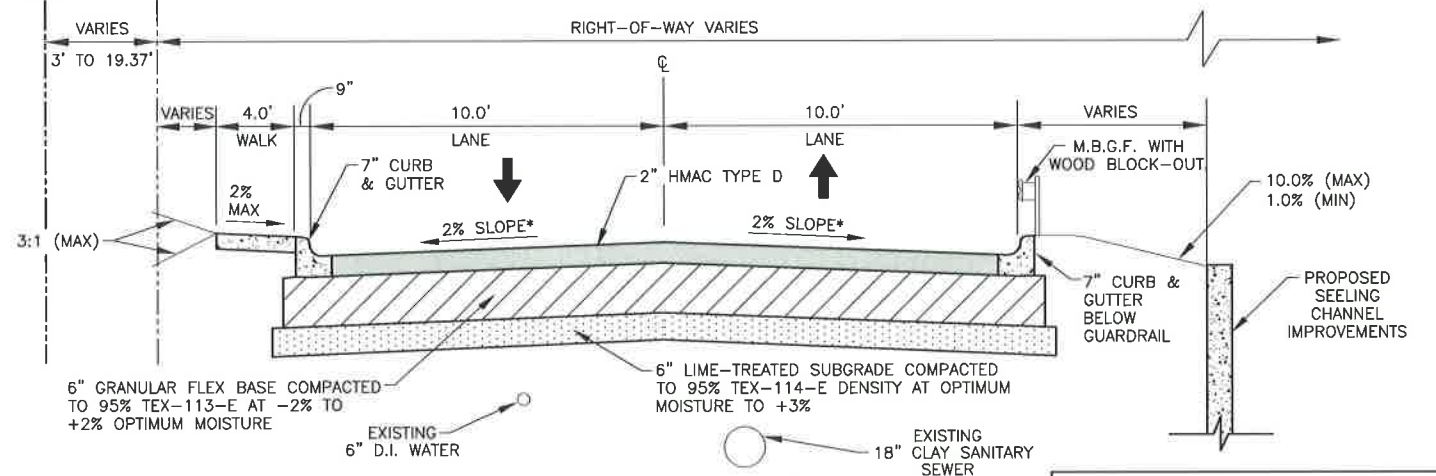
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 STA. 1+00 TO STA. 2+36.22



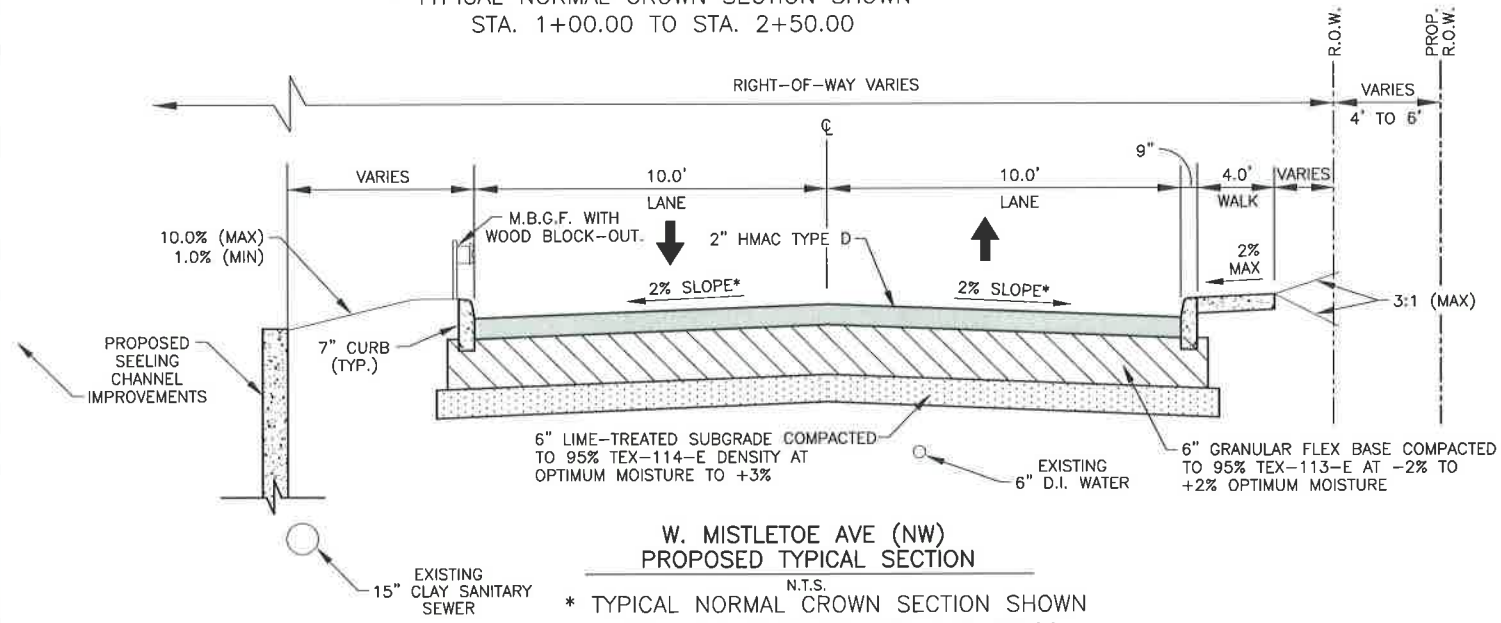
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 * TYPICAL NORMAL CROWN SECTION SHOWN
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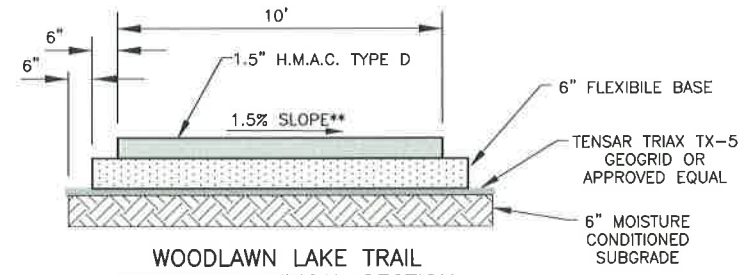
W. CRAIG PL
PROPOSED TYPICAL SECTION
 N.T.S.
 * TYPICAL NORMAL CROWN SECTION SHOWN
 STA. 1+00.00 TO STA. 2+50.00



W. MISTLETOE AVE (SW)
PROPOSED TYPICAL SECTION
 N.T.S.
 * TYPICAL NORMAL CROWN SECTION SHOWN
 STA. 210+00.00 TO STA. 213+31.00



W. MISTLETOE AVE (NW)
PROPOSED TYPICAL SECTION
 N.T.S.
 * TYPICAL NORMAL CROWN SECTION SHOWN
 STA. 110+00.00 TO STA. 113+20.00



WOODLAWN LAKE TRAIL
PROPOSED TYPICAL SECTION
 N.T.S.
 STA. 2+00 TO STA. 9+86.45
 ** MAXIMUM ALLOWABLE CROSS SLOPE



NO	DATE	DESCRIPTION REVISIONS	DWGCHK

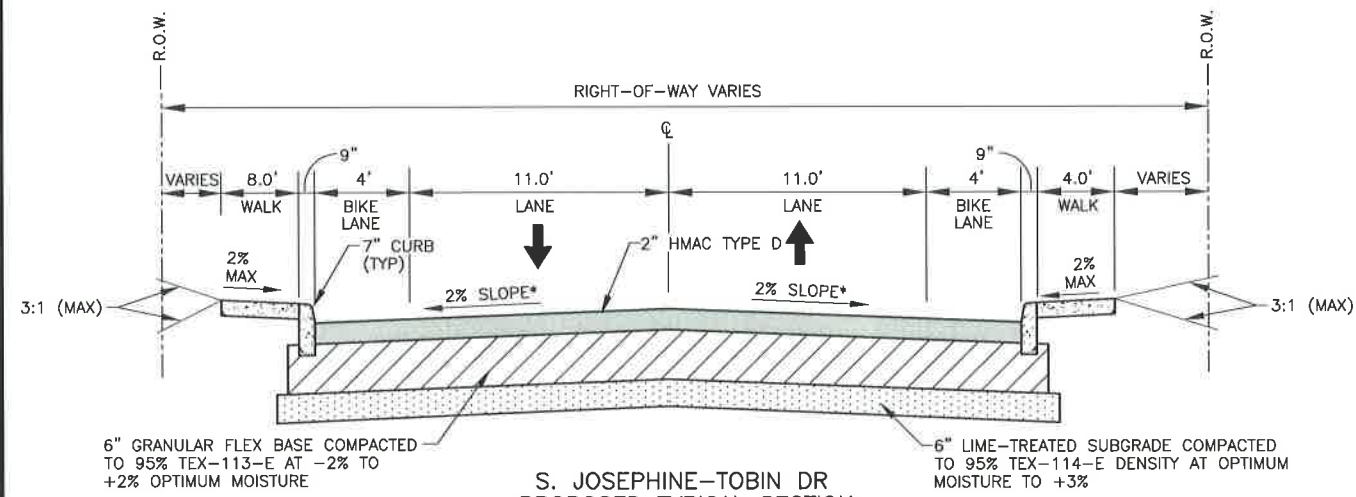
AECOM
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 SAN ANTONIO, TEXAS 78213
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CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 SEALING CHANNEL PHASE I
PROPOSED ROADWAY
TYPICAL SECTIONS I

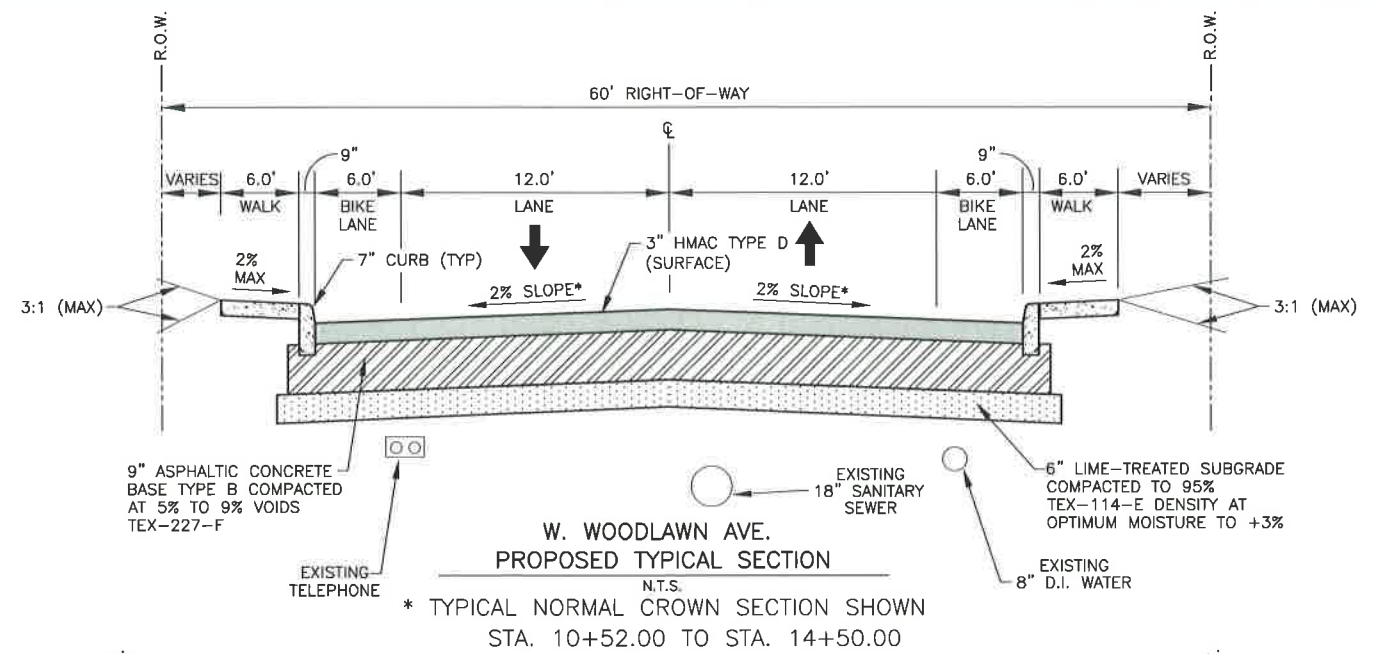
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DRWN. BY:	M.G.	DESIGN BY:	SDB
CHKD. BY:	SDB	SHEET NO.	18

NOTE: PAVEMENT SECTIONS SHOWN ARE PROVIDED BY RABA KISTNER CONSULTANTS INC. IN THE GEOTECHNICAL ENGINEERING STUDIES FOR SEALING CHANNEL IMPROVEMENTS, PHASE I SAN ANTONIO, TX DATED AUGUST 9,2011.

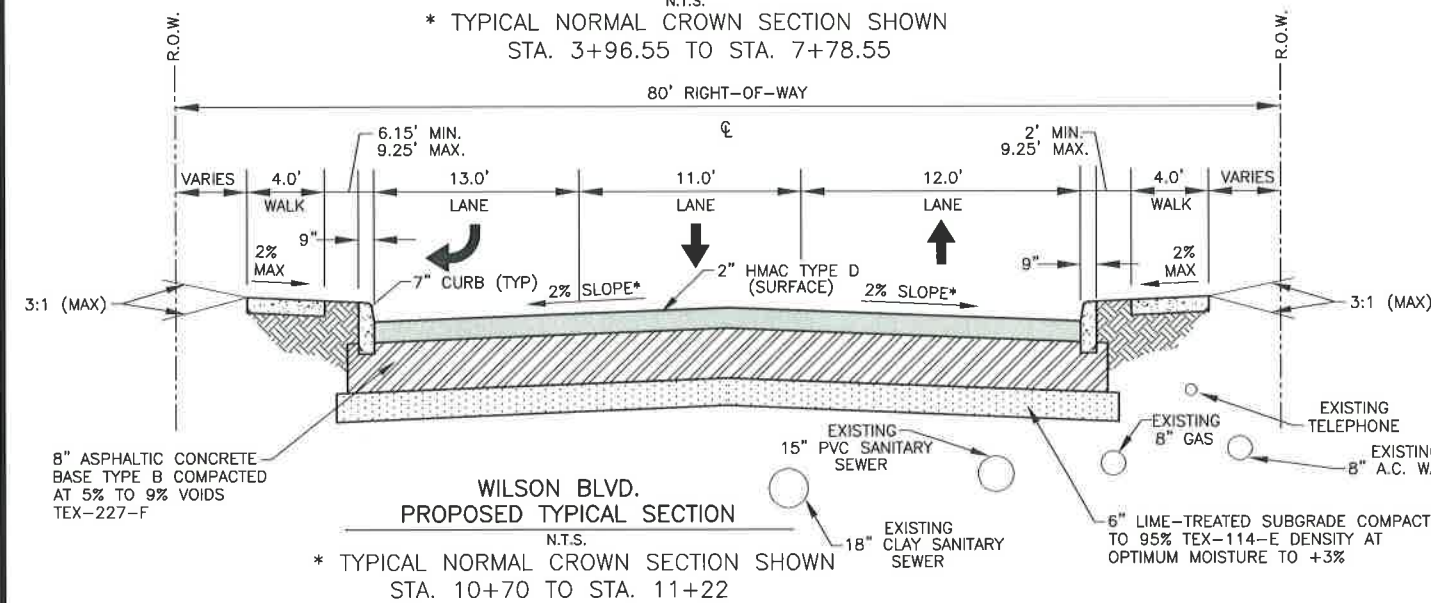
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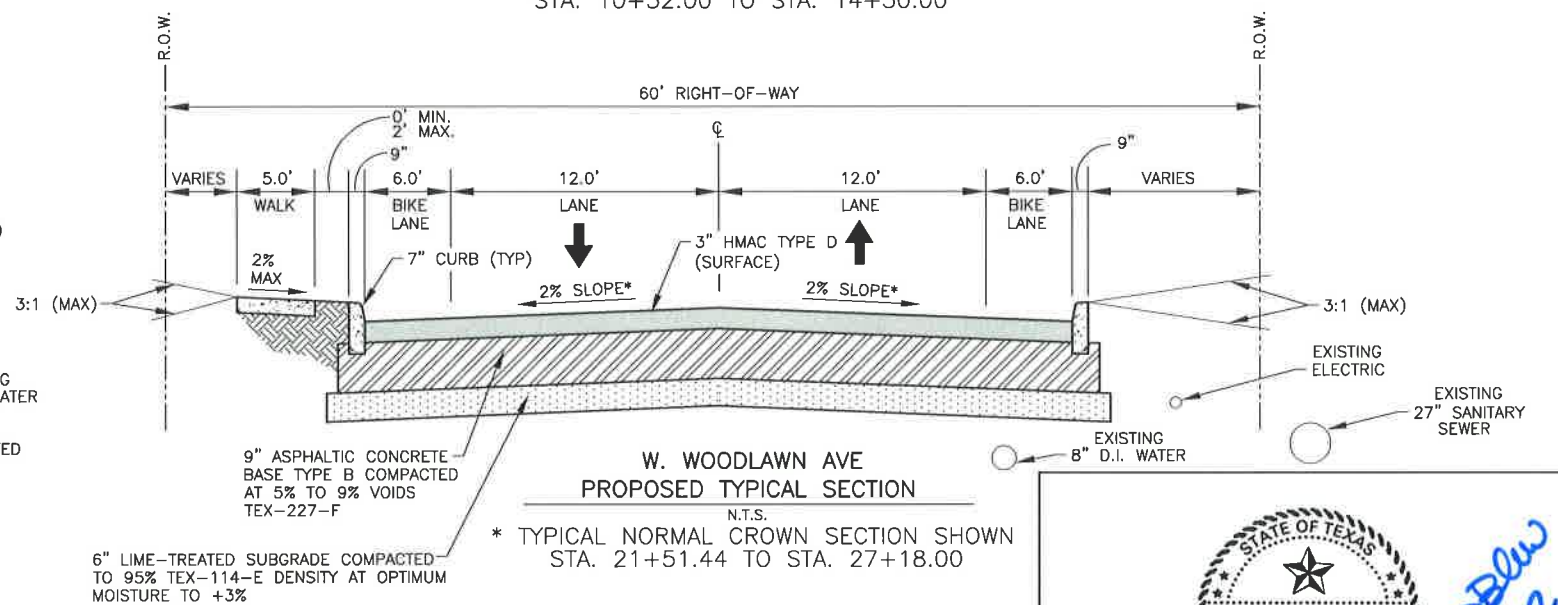
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STA. 3+96.55 TO STA. 7+78.55



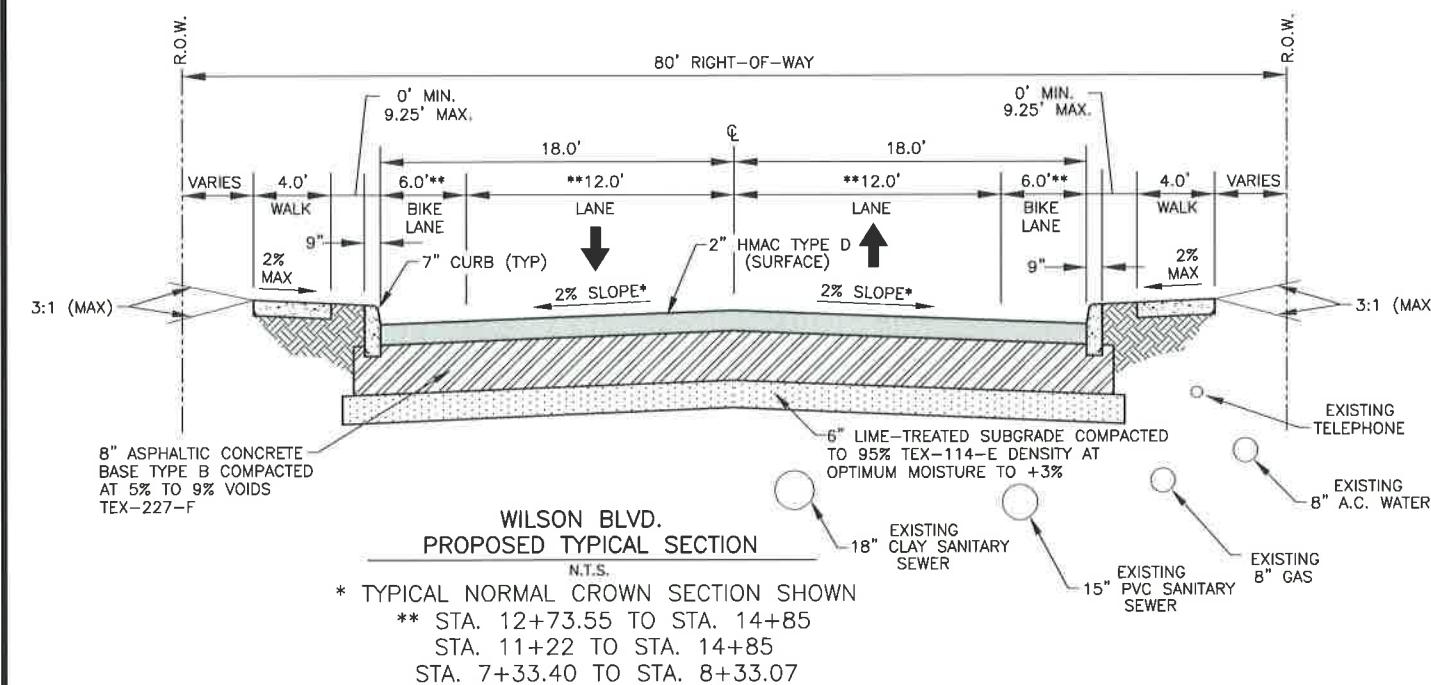
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N.T.S.
* TYPICAL NORMAL CROWN SECTION SHOWN
STA. 10+52.00 TO STA. 14+50.00



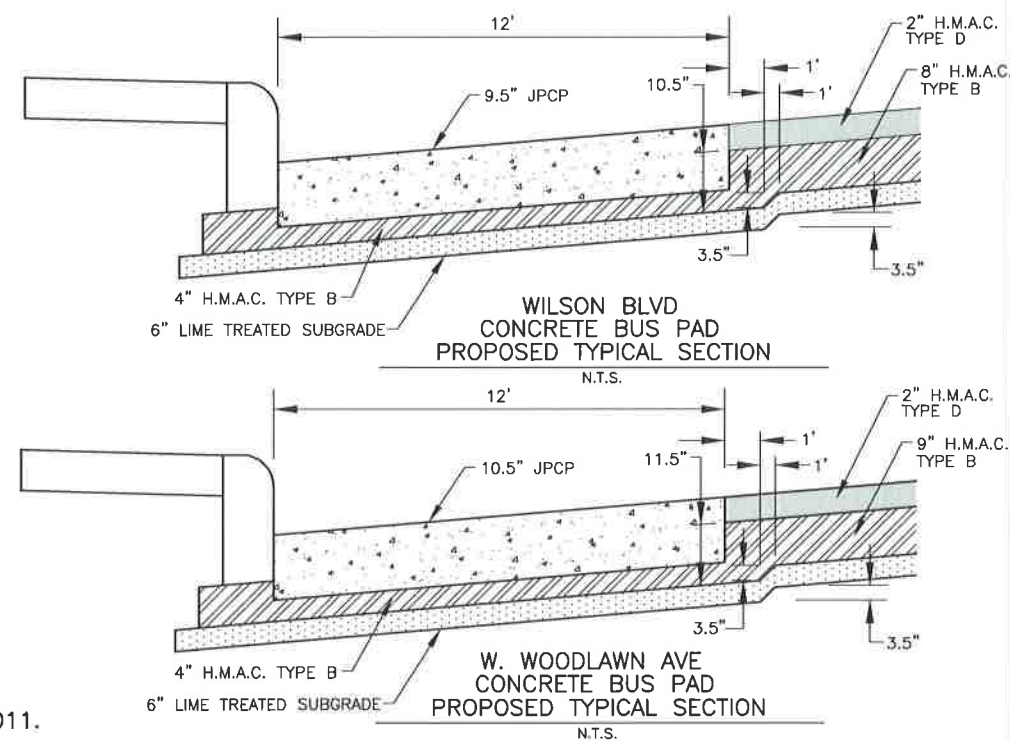
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N.T.S.
* TYPICAL NORMAL CROWN SECTION SHOWN
STA. 10+70 TO STA. 11+22



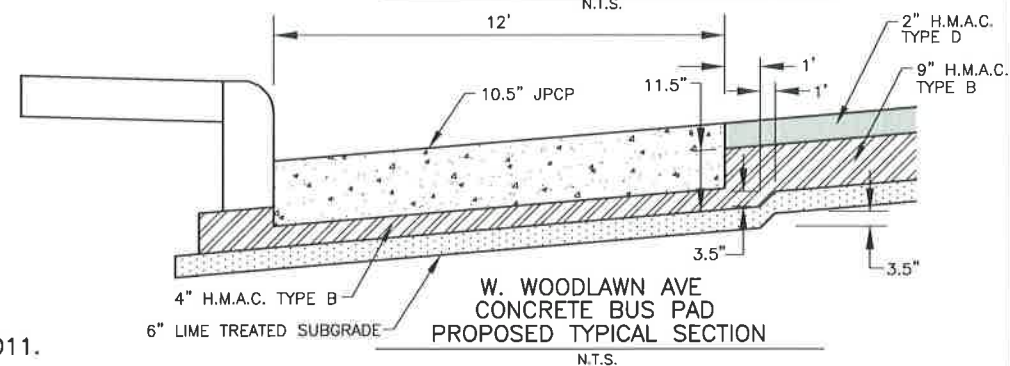
**W. WOODLAWN AVE
PROPOSED TYPICAL SECTION**
N.T.S.
* TYPICAL NORMAL CROWN SECTION SHOWN
STA. 21+51.44 TO STA. 27+18.00



**WILSON BLVD.
PROPOSED TYPICAL SECTION**
N.T.S.
* TYPICAL NORMAL CROWN SECTION SHOWN
** STA. 12+73.55 TO STA. 14+85
STA. 11+22 TO STA. 14+85
STA. 7+33.40 TO STA. 8+33.07



**WILSON BLVD
CONCRETE BUS PAD
PROPOSED TYPICAL SECTION**
N.T.S.



**W. WOODLAWN AVE
CONCRETE BUS PAD
PROPOSED TYPICAL SECTION**
N.T.S.



Stephanie D. Blew
7.20.2012

NO	DATE	DESCRIPTION	REVISIONS	DWGCHK



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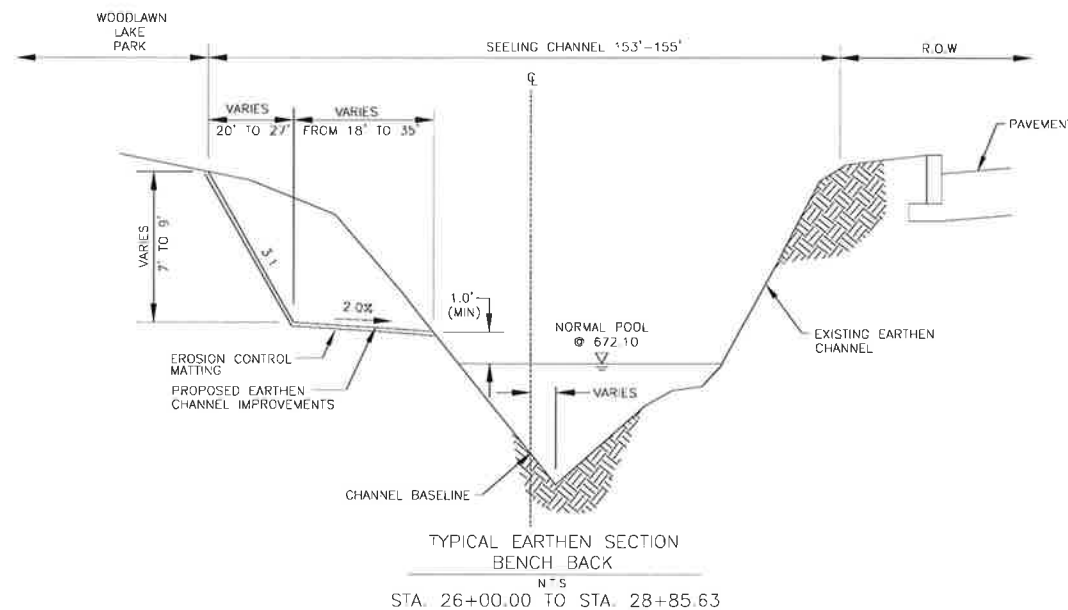
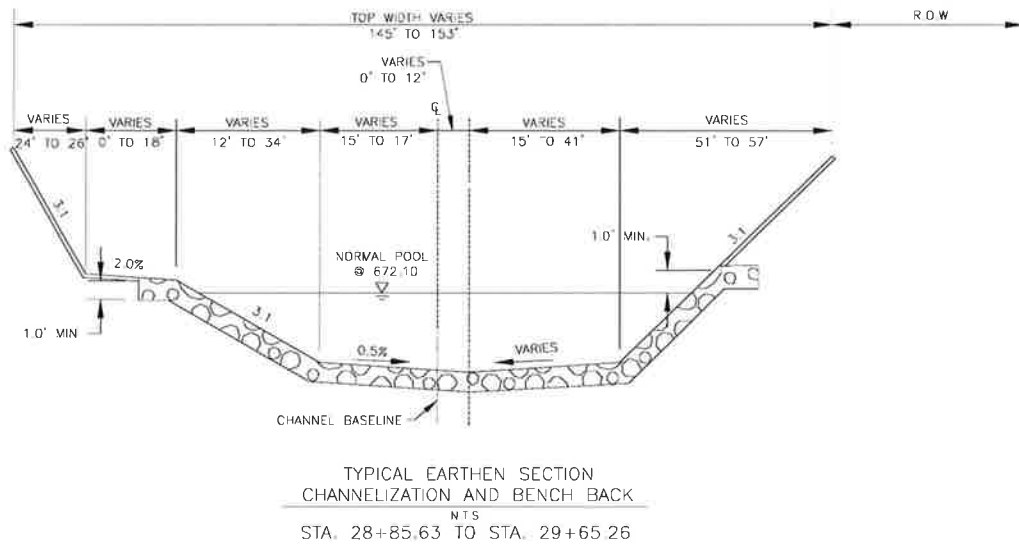
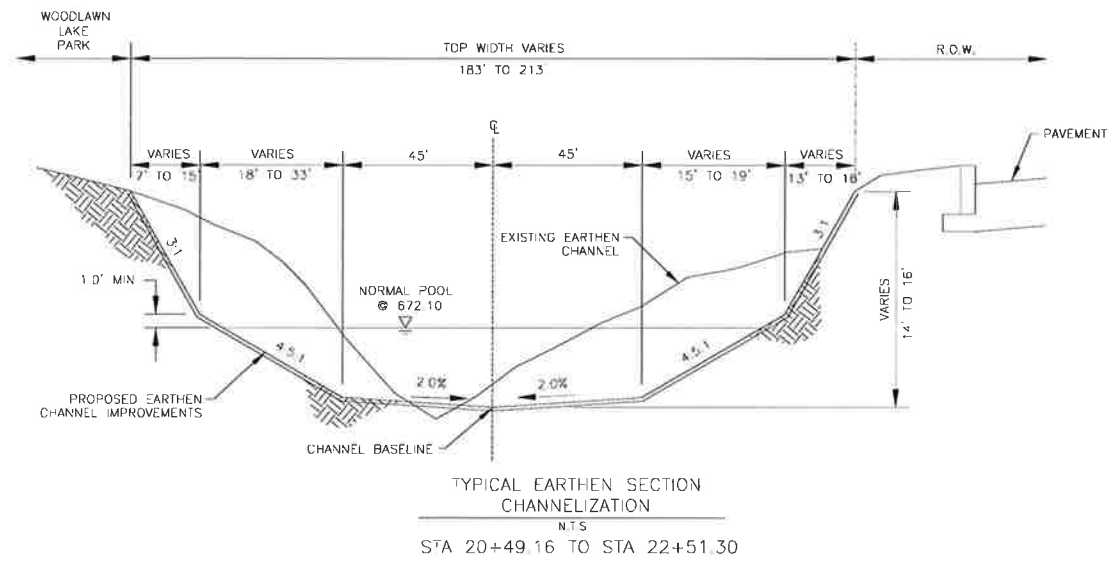
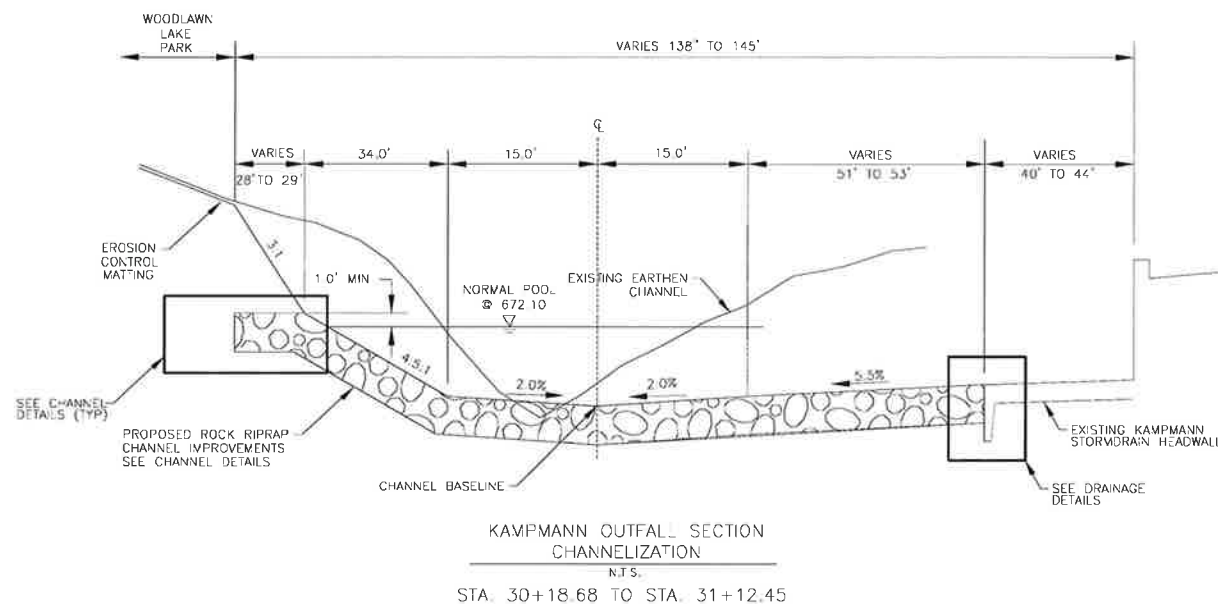
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE I
**PROPOSED ROADWAY
TYPICAL SECTIONS II**

PROJECT NO.:	60184822	DATE:	JULY 2012
DRWN. BY:	M.G.	DSGN. BY:	SDB
CHKD. BY:	SDB	SHEET NO.:	19

NOTE: PAVEMENT SECTIONS SHOWN ARE PROVIDED BY RABA KISTNER CONSULTANTS INC. IN THE GEOTECHNICAL ENGINEERING STUDIES FOR SEELING CHANNEL IMPROVEMENTS, PHASE I SAN ANTONIO, TX DATED AUGUST 9, 2011.

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NOTE:
1. EROSION CONTROL MATTING SHALL BE PROPEX LANDLOK® 300 WITH DUCKBILL ANCHORS OR APPROVED EQUAL.



Stephanie D. Blew 8-28-2012

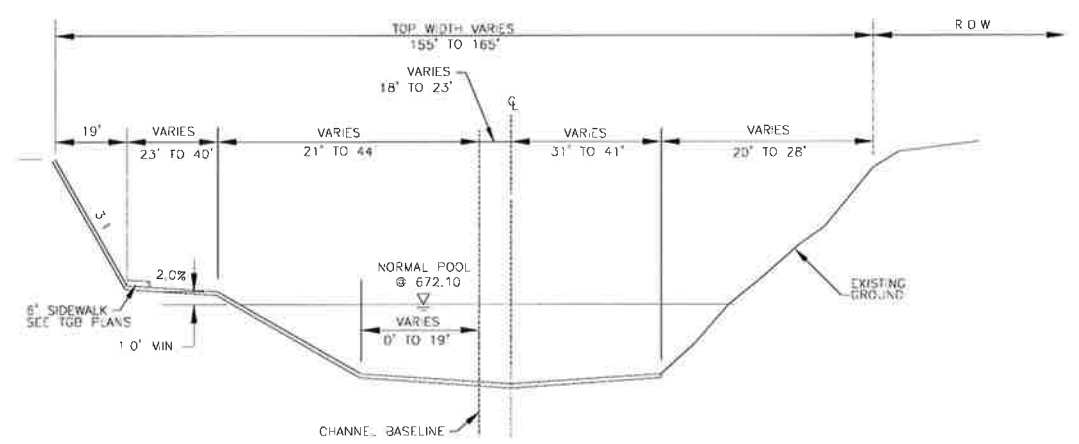
NO.	DATE	ADDENDUM #4	DESCRIPTION	REVISIONS	SDB	DWGCHK
1	8/28/2012					

AECOM AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
18PE REG. NO. F-3580

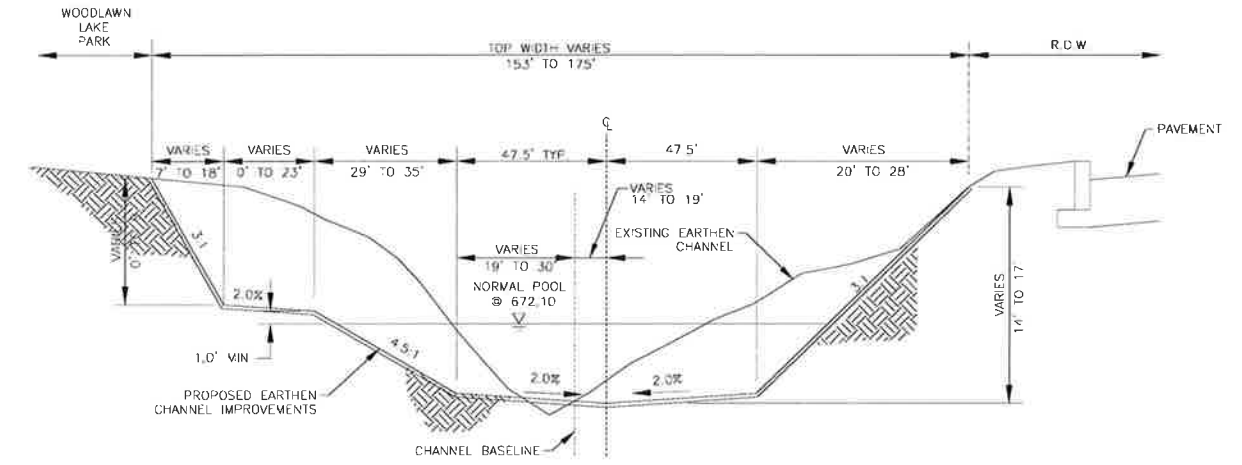
CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT SEALING CHANNEL PHASE I			
TYPICAL CHANNEL SECTIONS II			
2 OF 3			
PROJECT NO.	60154822	DATE	JULY 2012
DRWN BY	BM	DSGN BY	MJP
CHKD BY	SDB	SHEET NO.	21

Plotted on 8/28/2012 5:07:55 PM

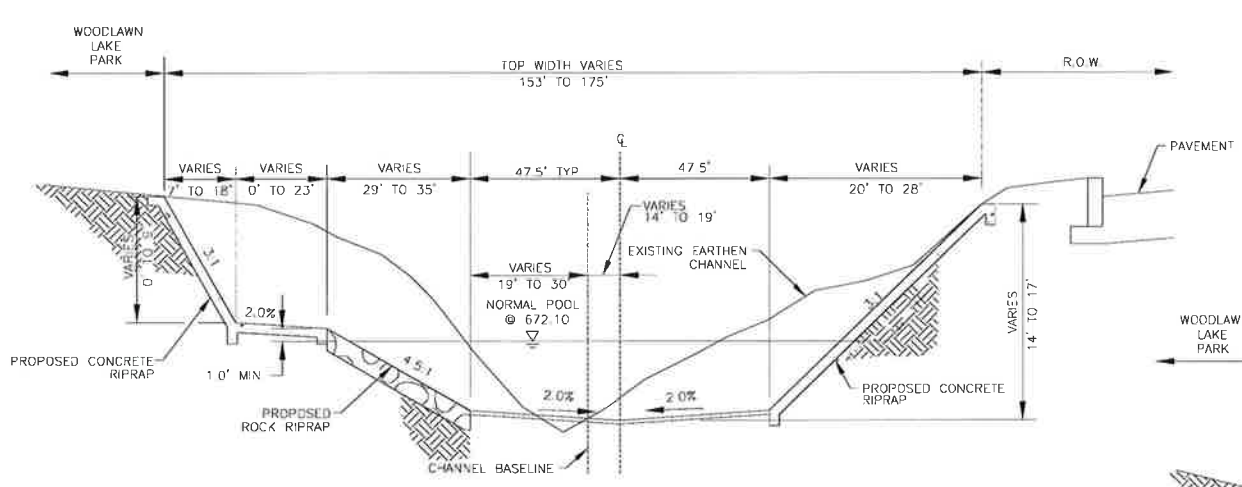
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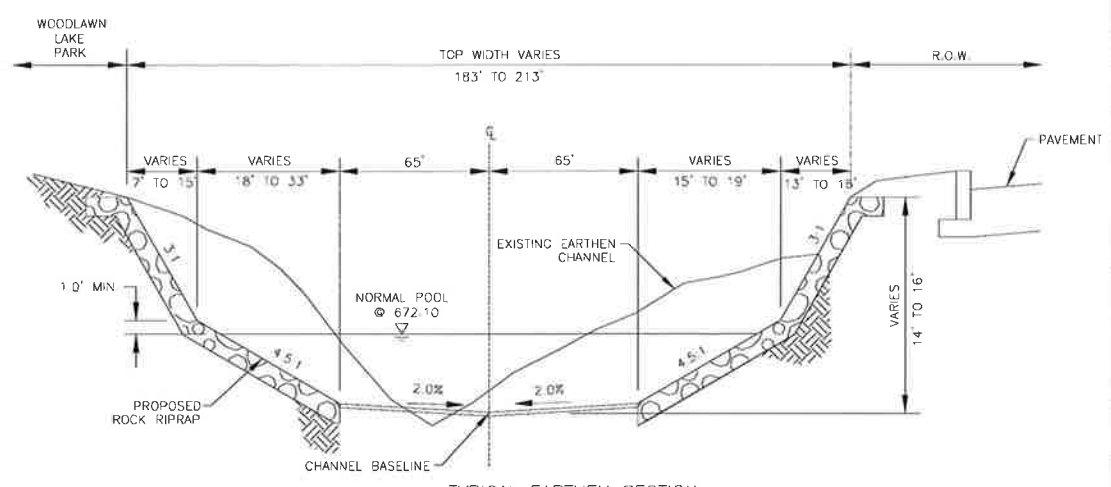
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CHANNELIZATION AND BENCH BACK
N.T.S.
STA. 23+58.00 TO STA. 26+00.00



TYPICAL EARTHEN SECTION
CHANNELIZATION AND BENCH BACK
N.T.S.
STA. 22+51.30 TO STA. 23+58.00



TYPICAL EARTHEN SECTION
CHANNELIZATION AND BENCH BACK
N.T.S.
STA. 23+03.50 TO STA. 23+81.50



TYPICAL EARTHEN SECTION
CHANNELIZATION
N.T.S.
STA. 21+13.16 TO STA. 21+44.27

NOTE:
1. EROSION CONTROL MATTING SHALL BE PROPEX LANDLOK® 300 WITH DUCKBILL ANCHORS OR APPROVED EQUAL.



Stephanie D Blew 8.28.2012

NO.	DATE	ADDENDUM #4	DESCRIPTION	SDS
			REVISIONS	DWCCHK

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AECOM TECHNICAL SERVICES, INC.
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SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
TBPE REG. NO. F-3580

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEALING CHANNEL PHASE I

TYPICAL CHANNEL SECTIONS III

PROJECT NO.	60184822	DATE	JULY 2012
DRAWN BY	RM	DESIGN BY	MJP
CHECK BY	SDB	SHEET NO.	22

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION JUNE 2008, OR LATEST.
2. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS, BUT NOT INCLUDED IN THE BID PROPOSAL. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED IN THE PAY ITEM TO WHICH IT RELATES.
3. THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING FENCES, CONCRETE ISLANDS, STREET PAVING, CURBS, SHRUBS, BUSHES OR DRIVEWAYS. (NO SEPARATE PAY ITEM).
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL SIGNS AND BARRICADES ARE PROPERLY INSTALLED AND MAINTAINED. ALL LOCATIONS AND DISTANCES WILL BE DECIDED UPON IN THE FIELD BY THE CONTRACTOR, USING THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THE CITY'S CONSTRUCTION INSPECTOR AND TRAFFIC ENGINEERING REPRESENTATIVE WILL ONLY BE RESPONSIBLE TO INSPECT BARRICADES AND SIGNS. IF, IN THE OPINION OF THE TRAFFIC ENGINEERING REPRESENTATIVE AND THE CONSTRUCTION INSPECTOR, THE BARRICADES AND SIGNS DO NOT CONFORM TO ESTABLISHED STANDARDS OR ARE INCORRECTLY PLACED OR ARE INSUFFICIENT IN QUANTITY TO PROTECT THE GENERAL PUBLIC, THE CONSTRUCTION INSPECTOR SHALL HAVE THE OPTION TO STOP OPERATIONS UNTIL SUCH TIME AS THE CONDITIONS ARE CORRECTED.
6. IF THE NEED ARISES, ADDITIONAL BARRICADES AND DIRECTIONAL DEVICES MAY BE ORDERED BY THE TRAFFIC ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
7. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.171 C.P.S. MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
8. CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR TWENTY FOUR (24) HOURS PRIOR TO BACKFILL OF ANY UTILITY TRENCHES TO SCHEDULE FOR DENSITY TEST AS REQUIRED.
9. CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES, MARKS, ETC. IF ANY ARE DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO EXCAVATION OPERATION:

SAN ANTONIO WATER SYSTEM (SAWS)	233-2010
BEXAR METROPOLITAN WATER DISTRICT (BEXAR MET)	354-6538 / 357-5741
COSA DRAINAGE	207-8052
COSA SIGNAL OPERATIONS	207-7720 / 207-7765
TEXAS STATE WIDE ONE CALL LOCATOR	1-800-344-8377

 - CITY PUBLIC SERVICE ENERGY
 - TIME WARNER
 - AT&T
 - MCI
11. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM AVAILABLE RECORDS AND ARE NOT GUARANTEED, BUT SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR THE MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND HE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION.
12. ALL WASTE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE HIS SOLE RESPONSIBILITY TO DISPOSE OF THIS MATERIAL OFF THE LIMITS OF THE PROJECT. NO WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING ARTIFICIAL OR NATURAL DRAINAGE.
13. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN OR STORE MATERIALS OVERNIGHT WITHIN THE DESIGNATED 100-YEAR FLOODPLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOODPLAIN DEVELOPMENT PERMIT.
14. THE CONTRACTOR SHALL MAINTAIN ALL ADJOINING STREETS AND TRAVELED ROUTES FREE FROM SPILLED AND / OR TRACKED CONSTRUCTION MATERIALS AND / OR DEBRIS.
15. IF THE CONTRACTOR ENCOUNTERS ANY ARCHAEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR MUST STOP EXCAVATION IMMEDIATELY, CONTACT THE CITY INSPECTOR, AND CALL THE CITY HISTORIC PRESERVATION OFFICE AT 207-7306 OR 207-3327 FOR AN ARCHAEOLOGICAL INVESTIGATION. THE CONTRACTOR CANNOT BEGIN EXCAVATION AGAIN WITHOUT WRITTEN PERMISSION FROM THE CITY.
 - IF MORE THAN THREE (3) DAYS ARE REQUIRED FOR INVESTIGATION (NOT INCLUDING HOLIDAY AND WEEKENDS) AND IF THE CONTRACTOR IS UNABLE TO WORK IN OTHER AREAS, THEN THE CONTRACTOR WILL BE ALLOWED TO NEGOTIATE FOR ADDITIONAL CONSTRUCTION TIME UPON WRITTEN REQUEST WITHIN TEN (10) DAYS AFTER THE FIRST NOTICE TO THE CITY OF ARCHAEOLOGICAL INVESTIGATION FOR EACH EVENT.
 - IF THE TIME REQUIRED FOR INVESTIGATION IS LESS THAN OR EQUAL TO THREE (3) DAYS FOR EACH EVENT, CONTRACT DURATION WILL NOT BE EXTENDED.
16. IF SUSPECTED CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION OPERATIONS, C.O.S.A. SHALL BE NOTIFIED IMMEDIATELY WHEN CONTAMINATED SOILS AND / OR GROUNDWATER ARE ENCOUNTERED AT LOCATIONS NOT IDENTIFIED IN THE PLANS. THE NOTIFICATION SHOULD INCLUDE THE STATION NUMBER, TYPE OF CONTAMINATED MEDIA, EVIDENCE OF CONTAMINATION AND MEASURES TAKEN TO CONTAIN THE CONTAMINATED MEDIA AND PREVENT PUBLIC ACCESS. THE CONTAMINATED SOIL AND / OR GROUNDWATER SHALL NOT BE REMOVED FROM THE LOCATION WITHOUT PRIOR C.O.S.A. APPROVAL.
 - THE CONTRACTOR MUST STOP THE EXCAVATION IMMEDIATELY AND CONTACT THE C.O.S.A. INSPECTOR. THE CONTRACTOR CANNOT BEGIN EXCAVATION ACTIVITIES WITHOUT WRITTEN PERMISSION FROM THE CITY.
17. CONTRACTOR IS TO INCLUDE A MAILBOX POST BLOCKOUT FOR VACANT LOTS AND ALL RESIDENCES WHICH DO NOT HAVE MAILBOXES AT THE CURB. BLOCKOUTS ARE PROVIDED FOR FUTURE USE BY THE POST OFFICE.

18. CONTRACTOR SHALL NOT REMOVE OR ADJUST ANY VIA FACILITIES. THE CONTRACTOR MUST CONTACT VIA FOURTEEN DAYS PRIOR, FOR THE REMOVAL OF BENCHES, STOP POLES OR ANY OTHER VIA FACILITIES THAT MAY BE PRESENT. PLEASE PROVIDE THIRTY DAYS PRIOR NOTICE FOR SHELTER REMOVAL (TELEPHONE NOS: (210) 362-2155 OR (210) 362-2096). THE CONTRACTOR WILL BE LIABLE FOR ANY DAMAGES TO VIA FACILITIES NOT REMOVED BY VIA. THE CONTRACTOR IS REQUIRED TO REPLACE ALL FLATWORK REMOVED OR DAMAGED IN THE COURSE OF EXECUTING THE CONTRACT UNLESS OTHERWISE NOTED BY VIA. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING VIA FACILITIES IF ADJACENT TO WORK AREA.

TREE PROTECTION AND PRESERVATION GENERAL NOTES

1. NO UTILITY OR STREET EXCAVATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
2. TREE PROTECTION FENCING SHALL BE REQUIRED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING SITE CONSTRUCTION. DURING CONSTRUCTION ACTIVITY, AT LEAST A SIX-INCH LAYER OF COARSE MULCH SHALL BE PLACED AND MAINTAINED OVER THE ROOT PROTECTION ZONE (NO SEPARATE PAY ITEM).
3. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN THE VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR FOR GUIDANCE.
4. ROOTS WILL BE CUT WITH A ROCK SAW OR BY HAND, NOT BY AN EXCAVATOR OR OTHER ROAD CONSTRUCTION EQUIPMENT.
5. ALL CURB AND SIDEWALK WORK SHALL USE ALTERNATIVE CONSTRUCTION METHODS TO MINIMIZE EXTENSIVE ROOT DAMAGE TO TREES (REFER TO DETAILS).
6. EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH, OR WET BURLAP.
7. NO EQUIPMENT, VEHICLES OR MATERIALS SHALL OPERATE OR BE STORED WITHIN THE ROOT PROTECTION ZONE OF ANY TREE NEAR THE PROJECT. ROOT PROTECTION ZONE IS 1 FOOT OF RADIUS PER INCH OF TREE'S DIAMETER. A 10-INCH DIAMETER TREE WOULD HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE AROUND THE TREE. ROOTS OR BRANCHES IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. OAK WOUNDS SHALL BE PAINTED OVER WITHIN 30 MINUTES TO PREVENT OAK WILT.
8. SAPLINGS, SHRUBS OR BUSHES TO BE CLEARED FROM THE PROTECTED ROOT ZONE AREA OF A LARGE TREE SHALL BE REMOVED BY HAND AS DESIGNATED BY THE INSPECTOR.
9. NO WIRES, NAILS OR OTHER MATERIAL MAY BE ATTACHED TO PROTECTED TREES.
10. TREES, TREE LIMBS, BUSHES AND SHRUBS LOCATED IN THE CITY STREET OR ALLEY RIGHT-OF-WAY OR PERMANENT EASEMENTS WHICH INTERFERE WITH PROPOSED CONSTRUCTION ACTIVITIES SHALL BE PROPERLY PRUNED FOLLOWING THE ANSI A-300 STANDARDS FOR PRUNING. ALL TREE PRUNING SHALL BE COMPLETED BY A CITY OF SAN ANTONIO TREE MAINTENANCE LICENSED CONTRACTOR (ARTICLE 21-171, CITY CODE) ONLY AFTER APPROVAL FROM THE CAPITAL PROJECTS MANAGEMENT THROUGH THE INSPECTOR.
11. NO EXCESSIVE TREE TRIMMING WILL BE PERMITTED.
12. ALL DEBRIS GENERATED BY THE PRUNING AND TRIMMING OF THE TREES AND / OR BUSHES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY (NO SEPARATE PAY ITEM).
13. TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE, BUT NOT LIMITED TO: WATERING THE ROOT PROTECTION ZONE, WASHING FOLIAGE, FERTILIZATION, PRUNING, ADDITIONAL MULCH APPLICATIONS AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT.
14. ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST. (207-0278)
15. TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.
16. TREE PLANTING FOR MITIGATION OR ENHANCEMENT: ALL PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATION, FERTILIZING, PRUNING AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT. TREES THAT DIE WITHIN TWELVE (12) MONTHS SHALL BE REPLACED WITH A TREE OF EQUAL SIZE AND SPECIES.

ACCESSIBILITY REQUIREMENTS

1. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN VEHICULAR AND PEDESTRIAN ACCESS AT ALL TIMES TO LOCAL RESIDENCES AND BUSINESSES.
2. WHEN THE WORK REQUIRES THE EXCAVATION OF THE STREET AND THE REMOVAL OF THE EXISTING DRIVEWAY APPROACHES AND SIDEWALKS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY ALL-WEATHER ACCESS TO THE BUSINESSES AND RESIDENCES. THE TEMPORARY DRIVEWAY APPROACHES SHALL BE CONSTRUCTED WITH FLEXIBLE BASE OR GRAVEL MATERIAL AT NO SEPARATE COST TO THE CITY.
3. PRIOR TO INITIATING THE CONSTRUCTION OF NEW DRIVEWAY APPROACHES, THE CONTRACTOR SHALL GIVE ADVANCE WARNING IN PERSON, OR IN WRITING, OF AT LEAST 48 HOURS TO EACH RESIDENCE THAT WILL BE IMMEDIATELY AFFECTED, SO THAT ALTERNATE PLANS MAY BE MADE BY THE RESIDENTS.
4. FOR BUSINESSES WITH MORE THAN ONE DRIVEWAY, AT LEAST ONE DRIVEWAY SHALL REMAIN OPEN WHILE THE OTHER NEW DRIVEWAY APPROACHES ARE CONSTRUCTED. FOR BUSINESSES WITH ONLY ONE DRIVEWAY, THE NEW DRIVEWAY APPROACH SHALL BE CONSTRUCTED IN HALF WIDTHS, UNLESS A TEMPORARY ASPHALT DRIVEWAY IS FIRST INSTALLED AT NO SEPARATE COST TO THE CITY.

DECEMBER 2009

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

CITY OF SAN ANTONIO
GENERAL NOTES

1 OF 2

% SUBMITTAL	PROJECT NO.: SEELING CHANNEL PHASE I	DATE: JULY 2012	
DRWN. BY: M.G.	DSGN. BY: S.D.B.	CHKD. BY:	SHEET NO.: 23

Plotted on: 7/19/2012 5:14:44 PM

Design Filename: P:\B0145866 Sealing_Channel\Microst\ADMIN\000_CAD\CAD\C\CS\germcol\east.dwg

SWE NOTES

1. THE CONTRACTOR SHALL NOTIFY STORM WATER ENGINEERING AT LEAST 24 HOURS PRIOR TO THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A FLOODPLAIN, DRAINAGE EASEMENT OR STREET RIGHT-OF-WAY NOT INDICATED ON THE CONSTRUCTION PLANS. ANY DAMAGE TO EXISTING DRAINAGE SYSTEMS, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AT HIS EXPENSE. THE CONTRACTOR SHALL NOTIFY STORM WATER ENGINEERING AT 210-207-8052 AS SOON AS CONFLICTS WITH UTILITIES ARE ENCOUNTERED OR ANY DRAINAGE SYSTEM IS DAMAGED DURING CONSTRUCTION.
2. CONSTRUCTION SPOILS WILL NOT BE ALLOWED TO BE DEPOSITED ANYWHERE WITHIN A DRAINAGE EASEMENT, RIGHT-OF-WAY, OR FLOODPLAIN WITHIN THE LIMITS OF THE PROJECT AND SHALL BE DISPOSED OFFSITE IN COMPLIANCE WITH CURRENT APPLICABLE REGULATIONS.
3. NO STRUCTURE, FENCES, WALLS, LANDSCAPING, OR OTHER OBSTRUCTIONS THAT IMPEDE DRAINAGE SHALL BE PLACED WITHIN THE LIMITS OF THE DRAINAGE EASEMENTS SHOWN ON THE CONSTRUCTION DOCUMENTS.
4. EIGHTY-FIVE PERCENT OF THE EARTHEN CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CHANNEL FOR MAINTENANCE.

ENGINEER'S NOTES

1. ALL STORM DRAIN PIPE SHALL BE RCP CLASS III WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C361 OR C443 UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL PRECAST BOX CULVERTS SHALL BE ASTM C1433 WITH RUBBER GASKETS FOR SEALING THE JOINTS.
2. ALL TRENCH EXCAVATION SHALL BE IN ACCORDANCE WITH THE U.S. DEPARTMENT OF OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION. THE CONTRACTOR IS REMINDED OF HIS RESPONSIBILITY TO PROVIDE A TRENCH SAFETY PROTECTION PLAN PRIOR TO THE START OF CONSTRUCTION. THIS DOCUMENT SHALL BE SUBMITTED TO THE CITY AT THE PRECONSTRUCTION CONFERENCE.
3. LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF STORM DRAIN CONSTRUCTION SHALL BE UNCOVERED TO DETERMINE EXACT LOCATIONS PRIOR TO THE START OF CONSTRUCTION. THIS SHALL BE A NO SEPARATE PAY ITEM.
4. ALL JOINTS, SEALS, CONNECTIONS, AND MODIFICATIONS NECESSARY FOR PROPER INSTALLATION OF STORM DRAINAGE SYSTEMS SHALL BE SUBSIDIARY TO CMP, RCP AND BOX CULVERT BID ITEMS.
5. ENERGY DISSIPATION BLOCKS SHALL BE INCLUDED IN THE PRICE BID FOR CONCRETE RIPRAP AND ARE A NON SEPARATE PAY ITEM.
6. CONTROL POINTS FOR MANHOLES AND JUNCTION BOXES SHALL BE THE CENTER OF THE STRUCTURE BASE.
7. CONTROL POINTS FOR CURB INLETS SHALL BE THE MIDPOINT OF THE FACE OF CURB FOR CURB INLET ONLY (EXCLUDING INLET EXTENSIONS). TOP OF CURB INLET ELEVATIONS SHALL MATCH THE PROPOSED TOP OF CURB ELEVATIONS.
8. ALL RCP STORM DRAINAGE PIPE SHALL BE INSTALLED WITH A CLASS 'C' EMBEDMENT UNLESS OTHERWISE SHOWN ON THE DRAWINGS. ALL BACKFILL AND EMBEDMENT SHALL BE SUBSIDIARY TO COSA BID ITEM 401.
9. MANHOLE RISERS ARE SUBSIDIARY TO JUNCTION BOX, MANHOLE AND INLET, BID ITEMS. ALL MANHOLE COVERS SHALL BE BOLTED.
10. ALL HORIZONTAL BENDS AND PIPE TO PIPE ANGLED CONNECTIONS IN RCP PIPE SHALL BE CONSTRUCTED USING PRE-FABRICATED BENDS AND FITTINGS.
11. THE LOCATIONS OF DRIVEWAYS, STEPS, ETC., AS SHOWN ON THESE PLANS ARE APPROXIMATE. ACCURATE LOCATIONS SHALL BE DETERMINED AT THE TIME OF CONSTRUCTION AFTER CONSULTATION WITH THE PROPERTY OWNERS.
12. ALL REINFORCING STEEL AND DOWEL BARS IN PAVEMENT SHALL BE SUPPORTED AND MAINTAINED AT THE CORRECT CLEARANCES BY THE USE OF BAR CHAIRS OR OTHER APPROVED SUPPORT.
13. CONTRACTOR SHALL REPLACE ALL BENCHMARKS REMOVED OR MODIFIED BY CONSTRUCTION.
14. CONTRACTOR SHALL RECONSTRUCT ALL EXISTING DRIVEWAYS TO THE LIMITS SHOWN OR TO THE NEAREST CONSTRUCTION JOINT IN THE EXISTING DRIVEWAYS AS DIRECTED BY THE ENGINEER.
15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND MAINTAIN ALL EROSION CONTROL FACILITIES BEFORE, DURING, AND AFTER ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
16. FLEXIBLE BASE SHALL BE TYPE D GRADE 1.
17. FOR PEDESTRIAN SAFETY, THE CONTRACTOR SHALL INSTALL ORANGE PLASTIC CONSTRUCTION FENCING (4 FEET TALL MINIMUM) AROUND ALL OPEN EXCAVATIONS OR AS DIRECTED BY THE ENGINEER. SUCH FENCING SHALL NOT OBSTRUCT SIGHT LINES OF THE TRAVELING PUBLIC. THIS SHALL BE A NO SEPARATE PAY ITEM.
18. THE CONTRACTOR SHALL COVER OR TEMPORARILY REMOVE EXISTING SIGNS THAT CONFLICT WITH THE SUGGESTED TRAFFIC CONTROL PLANS OR THE INTENT THEREOF BUT DO NOT REQUIRE RELOCATION DUE TO PHYSICAL CONFLICTS. SAID SIGNS SHALL NOT BE RELOCATED UNTIL TEMPORARY SIGN SUPPORTS HAVE BEEN INSTALLED TO ALLOW FOR THE IMMEDIATE RELOCATION OF ANY SUCH SIGNS. THIS SHALL BE A NO SEPARATE PAY ITEM.
19. THE PROJECT IS LOCATED WITHIN THE FEMA 100 YEAR FLOODPLAIN, AND IS SUBJECT TO PERIODIC INUNDATION. CONTRACTOR SHALL NOT STOCKPILE ANY CONSTRUCTION MATERIALS WITHIN THE 100 YEAR FLOODPLAIN, AND SHALL BE RESPONSIBLE FOR CLEARING ANY CONSTRUCTION MATERIALS FROM ADJACENT WATERWAYS AFTER A FLOOD EVENT. REPAIR OF ANY DAMAGES TO DRAINAGE STRUCTURES IN THE PROJECT AREA, OR DOWNSTREAM CAUSED BY CONSTRUCTION DEBRIS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
20. ALL BEARINGS AND COORDINATES ARE REFERENCED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NAD-83 THE SOUTH CENTRAL ZONE. GRID TO SURFACE FACTOR: 1.000169. COORDINATES PROVIDED ARE SURFACE COORDINATES.

21. CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING & PROTECTION OF UTILITY POLES DURING ALL PHASES OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY A MINIMUM OF 72 HOURS IN ADVANCE OF CONSTRUCTION IN THE VICINITY OF THEIR POLES SO THEY CAN VERIFY THE POLES ARE BEING PROPERLY BRACED, PROTECTED, AT NO DIRECT PAYMENT.
22. PREPARATION OF ROW SHALL INCLUDE ALL ROW AREAS WITHIN THE PROJECT, WHOLE LOT PURCHASE AREAS, DRIVEWAY AND LEAD WALK PENETRATION AREAS, SEALING CHANNEL, AND WOODLAWN LAKE PARK AREA WITHIN THE DAYLIGHT AND PROJECT LIMITS. PREPARATION OF ROW SHALL INCLUDE REMOVAL OF EXISTING CONCRETE, RETAINING WALLS, CONCRETE COLUMNS, BRIDGE CLASS CULVERTS, THE S. JOSEPHINE-TOBIN DR. BRIDGE, SLOPE PAVING, FLUMES, GUARDRAILS, AND STORM DRAIN CONDUIT, EXISTING PARK TRAIL, REMOVAL & SALVAGE OF WOODEN BOLLARS AND OTHER AREAS AS REQUIRED FOR THE DIVERSION AND CARE OF WATER.
23. ALL COORDINATES ARE TAKEN AT EDGE OF PAVEMENT OR BACK OF VERTICAL CURBS UNLESS NOTED OTHERWISE.
24. ALL RADII DIMENSIONS ARE TO FACE OF CURB.
25. CONTRACTOR SHALL PROTECT ALL EXISTING FENCE AND GATES ALONG ROW LINES UNLESS OTHERWISE NOTED ON PLANS
26. FILL MATERIAL SHALL BE FREE OF VEGETATION AND DEBRIS, AND SHALL BE UNIFORMLY COMPACTED TO A MINIMUM 95% TEX-113-E AT -2% TO +2% PERCENTAGE POINTS ABOVE THE SOILS' OPTIMUM MOISTURE CONTENT UNTIL FINAL COMPACTION, DETERMINED BY THAT TEST. FILL MATERIAL SHALL BE SPREAD IN LOOSE LIFTS NOT EXCEEDING 8 INCHES THICK, ON-SITE SOILS, FREE OF ANY UNUITABLE MATERIAL, ROCK OR CONCRETE GREATER THAN 4 INCHES IN ANY DIRECTION, MAYBE USED AS GENERAL SITE FILL.
27. FENCE AND GATE ITEMS SHALL INCLUDE CONNECTIONS TO EXISTING FENCING NOT IMPACTED BY THE PROJECT AND INCLUDE REPLACEMENT OF MOW STRIPS IF PRESENT ALONG THE EXISTING FENCELINE. ADDITIONAL CORNER POSTS MAY BE REQUIRED FOR CONNECTION, AND ARE A NO SEPARATE PAY ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF EXISTING FENCING AND MATERIAL NOT SUITABLE FOR REUSE OR IN EXCESS OF WHAT IS REQUIRED FOR RELOCATION. THIS SHALL BE A NO SEPARATE PAY ITEM.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING IRRIGATION SYSTEMS IN THE PROJECT AREA. ADJUSTMENTS TO EXISTING IRRIGATION SYSTEMS IMPACTED BY THE PROJECT SHALL BE NO SEPARATE PAY ITEM.
29. CONTRACTOR SHALL SALVAGE EXISTING LANDSCAPING PLANTS AND MATERIALS ON PRIVATE PROPERTY TO THE MAXIMUM EXTENT PRACTICABLE.
30. TREE LESS THAN 6" IN DIAMETER ARE NOT SHOWN ON PLANS.
31. THE REPAIR AND MAINTENANCE OF THE DIVERSION AND CARE OF WATER SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE A NO SEPARATE PAY ITEM.
32. THE CONTRACTOR IS ENCOURAGED TO REUSE ON-SITE EXCAVATED SOILS TO THE MAXIMUM EXTENT PRACTICABLE.
33. EROSION CONTROL MATTING SHALL BE PROPEX LANDLOK 300 WITH DUCKBILL ANCHORS OR APPROVED EQUAL.
34. LIME STABILIZED SUBGRADE SHALL CONTAIN 3% HYDRATED LIME BY WEIGHT. IF DRY PLACEMENT OF LIME IS USED DURING CONSTRUCTION, AN ADDITIONAL 1% OF LIME SHOULD BE ADDED.
35. CONTRACTOR SHALL ENSURE FENCES DISTURBED BY CONSTRUCTION ARE CLOSED AT THE END OF EACH WORKING DAY WITH TEMPORARY CONSTRUCTION FENCING AT A MINIMUM. THIS SHALL BE A NON-SEPARATE PAY ITEM.
36. CONTRACTOR SHALL REFER TO THE DIVERSION AND CARE OF WATER SPECIFICATION FOR ADDITIONAL REQUIREMENTS RELATED TO THE MANAGEMENT OF STORMWATER DURING CONSTRUCTION.
37. IN ACCORDANCE WITH THE SPECIAL ENVIRONMENTAL SPECIFICATIONS, CONTRACTOR IS ENCOURAGED TO REUSE SOILS EXCAVATED FROM THE AREA OF CONCERN TO FORM THE PROPOSED LANDSCAPE BERMS SHOWN ON THE OVERALL LANDSCAPE GRADING PLAN, PROVIDED THE FILL MATERIAL IS PLACED NO CLOSER THAN 10 FEET FROM PROPOSED PAVEMENT AND SIDEWALK.
38. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE APPEARANCE OF ALL CONCRETE STRUCTURES UNTIL FINAL ACCEPTANCE OF THE PROJECT.

UTILITY LEVEL OF QUALITY TABLE

Utility	Level Quality	
	Horizontal Designation	Vertical Designation
Storm Drain Mains	C	A
Wastewater Mains	A	A
Water Distribution Mains*	C	C
Natural Gas Mains*	B	C
Overhead Electrical Lines	C	n/a
Underground Electrical Lines	B	D
Overhead Telecommunication Lines	C	n/a
Underground Telecommunication Line	B	C
Water Service Lines	C	C
Wastewater Service Lines	C	C
Gas Service Lines	D	D

*Water distribution mains and natural gas mains are at level A quality in point elevations near channel crossings locations only.



Stephanie D. Blew

8-29-2012

NO	DATE	ADDENDUM #4	DESCRIPTION	REVISIONS	SDB	DWGCHK
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AECOM AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
TBPE REG. NO. F-3580

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE I

GENERAL NOTES

2 OF 2

PROJECT NO.:	60184822	DATE:	JULY 2012
DRWN. BY:	BM	DSGN. BY:	MJP
CHKD. BY:	SDB	SHEET NO.:	24

Design Filename: P:\60145866 Seeling Channel (Midcrest)\ADMIN\000_CAD\C\CS\gennotes\of21.dgn Plotted on: 8/29/2012 8:01:56 AM

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SUMMARY OF SWPPP QUANTITIES

SHT NO.	540.01.1 ROCK FILTER DAMS (INSTALL/REMOVE) (TYPE 1)	540.06 CONSTRUCTION EXITS (INSTALL/REMOVE)	540.09 TEMPORARY SEDIMENT CONTROL FENCE	540.1 CURB INLET GRAVEL FILTERS
	LF	SY	LF	LF
99	20	---	886	40
100	30	---	878	40
101	---	---	120	40
102	---	200	1066	70
103	---	200	668	---
105	20	---	555	130
106	---	200	988	230
107	---	200	660	92
109	---	---	890	375
110	---	---	400	170
TOTAL	70	800	7111	1187

SUMMARY OF ENVIRONMENTAL QUANTITIES

SHEET	110.2.1 TRANSPORTATION OF IMPACTED SOILS	110.2.2 DISPOSAL OF IMPACTED SOILS	110.4.1 REMOVAL, STORAGE, & TREATMENT OF IMPACTED GROUNDWATER	110.5.1 HEALTH & SAFETY PLAN	110.5.2 WASTE MANAGEMENT PLAN
	CY	CY	GAL	LS	LS
N/A	71	71	500	1	1
TOTAL	71	71	500	1	1

SUMMARY OF ROADWAY QUANTITIES

SHT. NO.	100.1 MOBILIZATION	100.2 INSURANCE & BOND	101.1 PREP RIGHT OF WAY	104.1 STREET EXCAVATION	107.1 EMBANKMENT (FINAL)(DENS CONT)(TY C)	108.1 LIME TREAT. SUBGRADE (6" COMPACTED DEPTH)	108.2 LIME	200.1 FLEXIBLE BASE (6" COMPACTED DEPTH)	202.1 PRIME COAT	203.1 TACK COAT	205.2a HOT MIX ASPHALTIC PAVEMENT, TYPE B (4" COMP. DEPTH)	205.2b HOT MIX ASPHALTIC PAVEMENT, TYPE B (8" COMP. DEPTH)	205.2c HOT MIX ASPHALTIC PAVEMENT, TYPE B (9" COMP. DEPTH)	205.3b HOT MIX ASPHALTIC PAVEMENT, TYPE C (2" COMP. DEPTH)	205.4b HOT MIX ASPHALTIC PAVEMENT, TYPE D (2" COMP. DEPTH)	205.4c HOT MIX ASPHALTIC PAVEMENT, TYPE D (3" COMP. DEPTH)	500.1 CONCRETE CURBING	500.4 CONCRETE CURB & GUTTER	502.1 CONCRETE SIDEWALKS	503.1 PORTLAND CEMENT CONCRETE DRIVEWAY	503.2 PORTLAND CEMENT CONCRETE DRIVEWAY-CO MMERCIAL	503.5 GRAVEL DRIVEWAY
	LS	LS	LS	CY	CY	SY	TON	SY	GAL	GAL	SY	SY	SY	SY	SY	SY	LF	LF	SY	SY	SY	SY
116	1	1	1	15	356	313	2	253	51	---	---	---	---	---	231	---	229	---	123	---	---	---
117	---	---	---	479	280	1772	13	1532	306	---	---	---	---	---	1382	---	753	---	366	169	---	---
118	---	---	---	156	30	633	5	541	108	---	---	---	---	---	474	---	327	---	41	---	---	---
119	---	---	---	332	104	1225	9	1048	210	---	---	---	---	---	919	---	647	---	147	86	---	---
120	---	---	---	458	17	1059	8	892	178	---	---	---	---	---	757	---	685	---	140	104	---	---
121	---	---	---	395	25	9584	72	896	179	---	---	---	---	---	758	---	---	698	148	83	---	15
122	---	---	---	---	---	462	3	---	85	---	---	457	---	808	440	---	66	---	77	40	24	---
123	---	---	---	213	95	1301	10	---	239	230	---	1149	---	---	1066	---	326	89	177	73	75	---
124	---	---	---	93	34	477	4	---	87	83	---	414	---	72	374	---	161	---	44	53	---	---
125	---	---	---	367.5	337	1220	9	---	224	212	---	153	---	1058	823	---	967	---	253	70	37	---
126	---	---	---	121.5	718	2185	16	---	401	382	---	---	---	1912	406	---	1754	877	---	232	146	---
127	---	---	---	198	197	935	7	---	171	56	---	---	---	282	262	---	274	---	74	76	---	---
Total	1	1	1	2826	2192	21164	159	5161	2238	963	686	2020	3252	2370	6401	2994	5100	787	1822	900	136	15

CONT. SUMMARY OF ROADWAY QUANTITIES

SHT. NO.	506.1 CONCRETE RETAINING WALLS - COMB TY	508.1 RELOCATING WIRE FENCE	513.1 REMOVING AND RELOCATING MAIL BOXES	515.1 TOPSOIL (6")	516.1 BERMUDA SODDING	516.2 ST. AUGUSTINE SODDING	520.1 HYDROMULCH	522.1 SIDEWALK PIPE RAILING	523.1 ADJUST CHAIN LINK VEHICULAR GATE	523.3 ADJUST CHAIN LINK PEDESTRIAN GATE	523.4 ADJUST WROUGHT IRON VEHICULAR GATE	523.6 ADJUST WROUGHT IRON PEDESTRIAN GATE	524.1 CONCRETE STEPS	SP. 4 REMOVE & RESET WROUGHT IRON FENCE	354 2002 PLANE & TEXT ASPH CONC PAV (0" - 2")	360 2015 CONC PVMT (JOINTED - CPCD) (9.5")	360 2016 CONC PVMT (JOINTED - CPCD) (10.5")	420 2006 CL C CONC (RAIL FOUNDATION)	450 2166 RAIL (TY C223)	450 2203 RAIL (TY T221)(MOD)
	CY	LF	EA	CY	SY	SY	SY	LF	EA	EA	EA	EA	CY	LF	SY	SY	SY	CY	LF	LF
116	---	---	---	86	129	129	257	---	---	---	---	---	---	---	---	---	---	7	---	44
117	---	---	---	227	340	340	680	---	---	---	---	---	---	88	---	---	---	---	---	---
118	---	---	---	122	183	183	366	---	---	---	---	---	---	90	---	---	---	---	---	---
119	---	---	---	132	197	197	394	---	---	---	---	---	---	---	---	---	---	---	---	---
120	---	60	---	64	95	95	190	---	1	1	---	1	0	65	---	---	---	---	---	---
121	0.5	---	1	72	108	108	216	---	---	---	---	1	0	39	---	---	---	---	---	---
122	2.2	395	---	11	16	16	32	---	---	---	---	---	---	---	808	---	---	---	---	---
123	---	53	---	103	154	154	308	---	---	---	---	---	---	---	---	155	---	6	39	---
124	---	---	---	53	79	79	158	---	---	---	---	---	---	86	72	---	---	---	---	---
125	---	---	---	81	121	121	243	---	---	---	---	---	0	---	823	---	132	---	---	---
126	26.4	---	---	87	130	130	261	---	---	---	---	---	1	---	406	---	---	---	---	---
127	7.2	---	---	35	53	53	106	22	---	---	---	---	1	---	262	---	465	---	---	---
Total	36.4	508	1	1073	1606	1606	3212	273	1	1	2	2	2	368	2370	155	597	13	39	44

NO	DATE	DESCRIPTION	DWGCHK
		REVISIONS	

AECOM AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
TBPE REG. NO. F-3580

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE I

SUMMARY OF BID ITEMS

Design Filename: P:\60145866 Seeling Channel (Midcrest)\ADMIN\000_CAD\C\S\Summary of Bid Items.dgn

SUMMARY OF CHANNEL QUANTITIES

SHT. NO.	104.1	105.1	107.1	108.1	108.2	200.1	205.4b	306.1	307.1	503.1	505.12	507.2	507.4	507.5	515.1	516.1	516.2	520.1	554.1	432 2021	SP. 2	
	STREET EXCAVATION	CHANNEL EXCAVATION	EMBANKMENT (FINAL) DENS CONT.(TY C)	LIME TREAT. SUBGRADE (6" COMPACTED DEPTH)	LIME	FLEXIBLE BASE (6" COMPACTED DEPTH)	HOT MIX ASPHALTIC PAVEMENT, TYPE D (2" COMPACTED DEPTH)	STRUCTURAL EXCAVATION	CONCRETE STRUCTURE (RETAINING WALLS)	PORTLAND CEMENT CONCRETE DRIVEWAY	CONCRETE RIPRAP (8" THICK)	CHAINLINK WIRE FENCE (6' HIGH)	GATE- PEDESTRIAN	GATE- VEHICULAR (20 FEET)	TOPSOIL (6")	BERMUDA SODDING	ST. AUGUSTINE SODDING	HYDROMULCH	EROSION CONTROL MATTING **	RIPRAP (STONE PROTECTI ON)(18 IN)	SOLDIER PILE & LAGGING	
	CY	CY	CY	SY	TON	SY	SY	CY	CY	SY	SY	LF	EA	OPENING	CY	SY	SY	SY	SY	CY	SF	
146	---	---	---	---	---	---	---	5962	1446	---	---	710	---	---	---	---	---	---	---	---	---	9318
147	---	---	---	---	---	---	---	9319	1485	---	---	610	---	---	---	---	---	---	---	---	---	585
148	---	2674	7	---	---	---	---	8940	1473	---	1228	511	---	---	---	---	---	---	574	352	---	
149	---	4798	---	---	---	---	---	---	---	---	116	---	---	---	---	---	---	---	2818	513	---	
150	4461	7204	1365	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3774	140	---	
151	---	4108	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	764	150	---	
174	441	---	211	---	---	---	---	618	---	---	---	---	4	1	---	---	---	---	---	---	---	
175	555	---	203	341	3	305	305	---	---	72	---	---	---	---	471	705	705	1410	---	---	---	
176	78	---	158	---	---	---	---	---	---	---	---	---	---	---	514	769	769	1538	---	---	---	
Total	5535	18783	1944	341	3	305	305	24839	4404	72	1344	1831	4	1	985	1474	1474	2948	7930	1155	9903	

QUANTITIES INCLUDE PROPOSED GRADING WITHIN WOODLAWN LAKE PARK AREAS. ** 3,755 SY OF FILTER FABRIC INCLUDED WITH THIS ITEM FOR CONTRACTORS INFORMATION.

SUMMARY OF DRAINAGE QUANTITIES

SHT. NO.	306	307.1	307.1b	401.1a	401.1b	401.1c	401.1d	401.1e	401.1f	403.7a	403.7b	403.9	407.1	410.2	412.1	413.1	505.1	505.11	505.12	508.1	511.1	515.1
	STRUCTURAL EXCAVATION	CONCRETE STRUCTURE (RETAINING WALL)	CONCRETE STRUCTURE (ELEVATED SIDEWALKS)	REINFORCED CONCRETE PIPE (CLASS III)(24" DIA)	REINFORCED CONCRETE PIPE (CLASS III)(36" DIA)	REINFORCED CONCRETE PIPE (CLASS III)(42" DIA)	REINFORCED CONCRETE PIPE (CLASS III)(48" DIA)	REINFORCED CONCRETE PIPE (CLASS III)(60" DIA)	REINFORCED CONCRETE PIPE (CLASS III)(66" DIA)	INLET TYPE I (COMPLETE)(10FT)	INLET TYPE II (COMPLETE)(10FT)	INLET EXTENSIONS (10 FT)	CONCRETE ENCASEMENT	GRAVEL SUBGRADE FILLER	CEMENT STABILIZED SAND	FLOWABLE BACKFILL (LOW STRENGTH)	CONCRETE RIPRAP (4" THICK)	CONCRETE RIPRAP (6" THICK)	CONCRETE RIPRAP (8" THICK)	RELOCATING WIRE FENCE	FLEXIBLE PAVEMENT STRUCTURE REPAIR	TOPSOIL (6")
	CY	CY	CY	LF	LF	LF	LF	LF	EA	EA	EA	CY	CY	CY	CY	SY	SY	SY	LF	SY	CY	
182	---	---	---	31	3	---	---	---	3	---	4	11	252	34	23	---	---	---	---	---	---	
183	---	---	---	---	---	14	---	---	87	2	---	3	65	9	6	---	---	---	---	---	---	
184	---	---	---	---	8	164	22	59	---	3	1	6	6	148	20	14	---	---	---	---	---	
185	---	---	---	22	---	---	---	---	---	1	---	---	17	3	2	---	---	---	---	---	---	
186	---	---	---	---	---	32	---	---	2	---	4	6	131	18	12	---	---	---	---	---	---	
187	---	---	---	---	---	37	16	---	---	4	6	3	63	8	6	---	---	---	---	---	27	37
188	---	---	---	205	---	---	---	---	---	4	---	---	6	132	18	13	---	---	---	---	---	---
189	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6	---	3	---	---	---
190	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	5	---	---	---
191	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	---	5	---	---	---
192	---	---	7.7	---	---	---	---	---	---	---	---	---	---	---	---	---	22	9	---	---	---	---
193	---	---	7.7	---	---	---	---	---	---	---	---	---	---	---	---	---	22	9	---	---	---	---
194	24	50.4	---	---	---	---	---	---	---	---	---	---	16	2	2	---	---	49	11	240	---	34
197	---	---	---	25	---	---	---	---	---	---	---	---	16	2	2	---	---	---	---	---	---	---
Total	24	50.4	15.4	283	11	215	70	59	87	15	5	24	36	840	114	80	70	67	24	240	27	71

CONT. SUMMARY OF DRAINAGE QUANTITIES

SHT. NO.	516.1	516.2	520.1	522.1	550.1	551.1	432 2021	459 2015	462 2001
	BERMUDA SODDING	ST. AUGUSTINE SODDING	HYDROMULCH	SIDEWALK PIPE RAILING	TRENCH EXCAVATION SAFETY PROTECTION	TEMPORARY SPECIAL SHORING	RIPRAP (STONE PROTECTION)(18 IN)	GABIONS (PVC)(GALV)(3 FT X 3 FT)	CONC BOX CULV (3 FT X 2 FT)
	SY	SY	SY	LF	LF	SF	CY	CY	LF
182	---	---	---	---	230	3672	---	---	---
183	---	---	---	---	161	---	---	---	---
184	---	---	---	---	363	---	---	---	---
185	---	---	---	---	35	---	---	---	---
186	---	---	---	---	264	---	---	---	---
187	56	56	111	---	347	---	---	---	---
188	---	---	---	---	222	---	---	---	---
189	---	---	---	---	84	---	---	---	---
190	---	---	---	---	46	---	---	---	---
191	---	---	---	---	138	---	---	---	---
192	---	---	---	14	---	---	4.5	---	---
193	---	---	---	14	---	---	12	---	13
194	77	77	48	---	27	950	---	37	---
197	---	---	---	---	27	---	---	---	---
Total	133	133	159	28	1944	4622	16.5	37	13

CONT. SUMMARY OF DRAINAGE QUANTITIES

462 2012	462 2016	462 2021	462 2026	465 2001	465 2474	465 2090	465 2093	465 2736	466 2048	466 2053	474 2005	474 2006
CONC BOX CULV (6 FT X 5 FT)	CONC BOX CULV (7 FT X 5 FT)	CONC BOX CULV (8 FT X 6 FT)	CONC BOX CULV (9 FT X 7 FT)	INLET (COMPL) TY C	INLET EXT (TY C-E)	MANH (COMPL)(JUNCT BOX)(TY 2)	MANH (COMPL)(TY 1-C)	INLET (COMPL)(TY H WITH GRATE)	WINGWALL (PW)(HW-4 FT)	WINGWALL (PW)(HW-9 FT)	SLOT DRAIN (GAL STL)(18 IN)	SLOT DRAIN OUTFALL (GAL STL)(18 IN)
LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	LF	LF
---	---	---	328	---	---	---	1	---	---	---	---	---
---	---	---	---	---	---	1	1	---	---	---	---	---
---	---	---	---	1	1	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---
173	---	---	---	---	---	1	1	---	---	---	---	---
---	---	294	---	---	---	---	1	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	26	58
---	---	---	---	---	---	---	---	---	---	---	46	104
---	---	---	---	---	---	---	---	---	---	---	48	90
---	---	---	---	---	---	---	---	---	---	---	---	---
---	113	---	---	---	---	---	---	---	1	---	---	---
---	---	---	---	---	---	---	---	1	---	---	---	---
173	113	294	328	1	1	3	5	1	2	1	120	252

8/28/2012		ADDENDUM #4	
NO	DATE	DESCRIPTION	DWGCHK
		REVISIONS	
AECOM		AECOM TECHNICAL SERVICES, INC. 6800 PARK TEN BLVD., SUITE 180, SOUTH SAN ANTONIO, TEXAS 78213 WWW.AECOM.COM TBPE REG. NO. F-3580	
CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT SEELING CHANNEL PHASE I			
SUMMARY OF BID ITEMS			
2 OF 4			
PROJECT NO.:	60184822	DATE:	JULY 2012
DRWN. BY:	BM	DSGN. BY:	MJP
CHKD. BY:	SDB	SHEET NO.:	26

Plotted on: 8/28/2012 5:05:05 PM
 Design Filename: P: 60145866 Seeling Channel (Midcrest) ADMIN 000 CAD C CS Summary of Bid Items.dgn

Design Filename: P: 60145866 Sealing Channel (Midcrest) ADMIN 000 CAD C CS Summary of Bid Items.dgn
 Plotted on: 8/28/2012 5:04:25 PM

SUMMARY OF BRIDGE QUANTITIES

SHT. NO.	400 2001	400 2005	400 2020	416 2002	416 2003	420 2003	420 2004	420 2029	420 2033	420 2034	420	425 2014	425 2016	425 2017	428 2001	432 2001	432 2021	450 2203	450 2166	454 2001	459 2015	459 2017	496 2010	SP. 3
	STRUCT EXCAV	CEM STABIL BKFL	CEMENT STABILIZED SAND	DRILLED SHAFT (24")	DRILLED SHAFT (30")	CL C CONC (ABUT)	CL C CONC (BENT)	CL S CONC (SLAB)	CL S CONC (APPR SLAB)	CL S CONC (BRIDGE SDWLK)	CL C CONC (MONUMENT)	PRESTR CONC SLAB BEAM (4SB12)	PRESTR CONC SLAB BEAM (4SB15)	PRESTR CONC SLAB BEAM (5SB15)	CONC SURF TREATMENT (CLASS I)	RIPRAP (CONC) (4IN)	RIPRAP (STONE PROTECTION)(18IN)	RAIL (TY T22)(MOD)	RAIL (TY C223)	SEALED EXPANSION JOINT (4 IN)(SEJ-A)	GABIONS (PVC)(GALV)(3FTX3FT)	GABIONS (PVC)(GALV)(.5FT)	REMOV STR (BRIDGE)	CONTECH PEDESTRIAN BRIDGE
240	---	---	35.8	---	260	49.0	19.7	49.8	38.4	23.1	---	808	---	---	558.7	---	---	---	184	100	---	---	---	---
247	---	---	38.6	---	400	52.4	22.7	79.1	109	50.2	---	---	1279	---	949.66	---	---	---	217	110	---	---	---	---
224a	---	89	---	1308	---	47.3	74.0	268.4	136	93.3	10.3	---	192	2112	1525	46.7	80	392.3	---	140	114	18	---	---
236a	50	50	---	334	---	21.8	13.6	44.4	0	0	12	---	---	---	---	---	---	---	---	---	80	17	1	1
TOTAL	50	139	74.4	1642	660	170.5	130.0	441.7	283.4	166.6	22.3	808	1471	2112	3033.36	46.7	80	392.3	401	350	194	35	1	1

SUMMARY OF SIGNING & PAVEMENT MARKINGS QUANTITIES

SHT. NO.	509.1	531.03	531.06	531.13	531.14	531.44	531.51	531.57	531.62	531.68	531.69	531.7	531.71	531.86	531.87	531.88	531.89	535.1	535.4	535.7	535.8	535.9
	METAL BEAM GUARD RAIL	R1-1 STOP (30")(HIGH DENSITY)	R2-1 SPEED LIMIT (24"x30")(HIGH DENSITY)	R3-7 LEFT LANE MUST TURN LEFT OR RIGHT LANE MUST TURN RIGHT	R3-8 LANE-USE CONTROL (30"x30")(HIGH DENSITY)	W16-7 DIAGONAL ARROW SIGN	W11-2 PED CROSSING	9 INCH [229mm] STREET NAME, BLOCK NUMBER (VARIES x9")(HIGH DENSITY)	W16-9 AHEAD	R3-17 BIKE LANE	R3-17aP AHEAD PLAQUE	R3-17bP END PLAQUE	R4-4 BEGIN RIGHT TURN YIELD TO BIKES	R8-3a No PARKING	R7-20P TOW AWAY ZONE PLAQUE	W8-20 WATCH FOR WATER ON ROAD	RS-031 BUS STOP	4 INCH WIDE YELLOW LINE	8 INCH WIDE WHITE LINE	24 INCH WIDE WHITE LINE	RIGHT WHITE ARROW	LEFT WHITE ARROW
269	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	306	36	226	1	---
270	725	3	1	---	1	---	---	6	---	1	---	---	---	1	1	---	---	893	424	---	---	---
271	114	1	1	---	---	---	---	2	---	1	---	---	---	2	2	1	1	1064	1080	212	---	---
272	---	---	2	---	---	1	3	---	2	3	---	---	---	1	1	1	2	1463	1290	142	---	---
273	76	2	2	1	---	---	---	4	---	3	2	1	1	4	4	---	---	1394	1080	---	1	1
Total	915	6	6	1	1	1	3	12	2	8	2	1	1	8	8	2	3	5119	3910	579	2	1

CONT. SUMMARY OF SIGNING & PAVEMENT MARKINGS QUANTITIES

SHT. NO.	535.12	535.16	535.17	535.18	537.8	544 2001	545 2028	658 2238	658 2259	658 2267	658 2315	658 2316	658 2339	658 2383
	WORD "ONLY"	STRAIGHT WHITE ARROW BICYCLE FACILITY	BICYCLE RIDER SYMBOL	SHARROW SYMBOL (BICYCLE AND CHEVRON)	TRAFFIC BUTTON (TYPE II A-A)	GUARDRAIL END TREATMENT (INSTALL)	CRASH CUSH ATTEN (INSTL)(QUAD)(N)	INSTL DEL ASSM (D-SW)SZ (1FLX)SRF(B)	INSTL DEL ASSM (D-SW)SZ (TYC)CTB(B)	INSTL DEL ASSM (D-SY)SZ (1FLX)SRF	INSTL OM ASSM (OM-2Y)(WC) GND	INSTL OM ASSM (OM-2Z)(FLX)GND	INSTL OM ASSM (OM-2Y)(WC) GND (B)	INSTL OM ASSM (OM-3R)(WC) GND
269	---	---	---	---	6	---	---	---	---	4	---	---	---	---
270	1	7	7	---	13	1	---	32	6	---	2	2	1	
271	---	6	6	---	15	---	2	6	6	---	2	2	---	
272	---	7	7	---	21	---	---	---	20	---	---	6	---	
273	2	8	8	3	20	1	---	5	8	1	---	4	---	
Total	3	28	28	3	76	2	2	43	20	21	4	4	14	1

SUMMARY OF TRAFFIC SIGNAL QUANTITIES

SHT. NO.	618.1	618.1	620.1	680.2	682.4	684.1	688.2	694.1	694.2	694.4	694.6
	CONDUIT TRENCHED 1-1/2 INCH PVC	CONDUIT ON POLE 1-1/2 INCH RMC	ELECTRICAL CONDUCTORS (NO 6) (BARE)	INSTALLATION OF HIGHWAY TRAFFIC SIGNALS (SYSTEM)	INSTALL PEDESTRIAN SIGNAL SECTION (12 INCH) LED (2IND)	TRAFFIC SIGNAL CABLES (TYPE A) (14 AWG) (9-CONDUCTOR)	PEDESTRIAN DETECTORS (2 INCH PUSH-BUTTON)	VIVDS PROCESSOR UNIT	VIVDS CAMERA ASSEMBLY	VIVDS SET-UP SYSTEM	VIVDS COMMUNICATIONS CABLE (COAXIAL)
275	30	150	120	1	8	550	8	4	4	1	380
Total	1	1	1	2826	2192	21164	159	5730	2238	963	686

8/28/2012	ADDENDUM #4	SDB
NO	DATE	DESCRIPTION
		REVISIONS

AECOM
 AECOM TECHNICAL SERVICES, INC.
 6800 PARK TEN BLVD., SUITE 180 SOUTH
 SAN ANTONIO, TEXAS 78213
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 SEALING CHANNEL PHASE I

SUMMARY OF BID ITEMS

PROJECT NO.:	60184822	DATE:	JULY 2012
DRWN. BY:	BM	DSGN. BY:	MJP
CHKD. BY:	SDB	SHEET NO.:	27

SUMMARY OF LANDSCAPING QUANTITIES

NEW PEDESTRIAN BRIDGE								
ITEM	PB.1	PB.2	PB.3	PB.4	PB.5	PB.6	PB.7	PB.8
DESC.	Asphalt Jogging Trail (Includes Concrete Ribbon Curb and Drainage Gaps)	Concrete Banding on Pedestrian Bridge	Concrete Walk for Pedestrian Bridge	Pedestrian Bridge Bega Lights Complete	Removable Bollard Complete	Relocation of Existing Bega Pole Lighting Complete	Entry Column Complete (Pedestrian Bridge)	Ornamental Steel Railing on Culvert Complete
UNIT	SF	SF	SF	EA	EA	EA	EA	LF
QTY	4,572	852	1,789	22	6	4	4	44

NEW VEHICULAR BRIDGE & MONUMENT												
ITEM	VB.1	VB.2	VB.3	VB.4	VB.5	VB.6	VB.7	VB.8	VB.9	VB.10	VB.11	VB.12
DESC.	Limestone Stone Veneer	Cast Stone Cap	Aluminum Light House Enclosure and Entry Monument Tower Light	Entry Tower Monument & Entry Wall w/ Foundation Complete	Aluminum Letters on Entry Wall w/ Steel Backing	Ornamental Steel Railing on Walls Complete	Vehicular Bridge Arch. Columns Complete	Entry Column Complete (Monument Walls)	LED Light In Letters	Bega Pole Light Mounted on Vehicular Bridge Arch. Column Complete	Entry Landscape Beds w/ Main Entry Plants	Irrigation System Complete
UNIT	FF	LF	EA	EA	EA	LF	EA	EA	EA	EA	LS	LS
QTY	9,944	1,988	1	1	16	1,907	8	2	16	4	1	1

LANDSCAPE MITIGATION													
ITEM	LM.1	LM.2	LM.3	LM.4	LM.5	LM.6	LM.7	LM.8	LM.9	LM.10	LM.11	LM.12	LM.13
DESC.	Fertilizer	Landscape Planting - 2" Trees	Landscape Planting - 4" Trees	Landscape Planting - 6" Trees	Channel Plants	New Planting Watering / Gator Bags / Water Truck	Plant and Turf Maintenance (90 Days)	Bermuda Sod - w/ 2" Composted Topdressing	Bermuda Hydromulch - w/ 2" Composted Top dressing	Hydromulch- Drainfield Mix 2" Composted Top dressing	Existing Tree Protection	Existing Tree Fertilization and Pruning	Existing Cypress Tree Milling
UNIT	LS	EA	EA	EA	LS	LS	LS	SF	SF	SF	LF	EA	EA
QTY	1.00	102	36	48	1	1	1	6,355	215,675	61,054	1,579	2	5

ALTERNATE #1 - PEDESTRIAN BRIDGE UPGRADES					
ITEM	PB.9	PB.10	PB.11	PB.12	PB.13
DESC.	Pedestrian Bridge Safety Railing Upgrade to Horizontal Cables	Pedestrian Bridge Steel Inset	Pedestrian Bridge Steel Tube	Pedestrian Bridge Steel Frame	Glass Lithocrete Banding
UNIT	LS	LF	LF	LF	SF
QTY	1	480	480	480	852

ALTERNATE #2 - CONCRETE PARK TRAIL		
ITEM	PI.1	PI.2
DESC.	Concrete Trail	Retaining Wall Complete (concrete, cap, french drain, NDS pipe & stone veneer)
UNIT	SF	LF
QTY	8,486	87

ALTERNATE #3 - PARK TRAIL LIGHTING		
ITEM	PI.3	PI.4
DESC.	Under Vehicular Bridge Light	New Bega Pole Lights
UNIT	EA	EA
QTY	1	5

ALTERNATE #4 - PARK SHADE STRUCTURE AND PICNIC AREAS						
ITEM	PI.5	PI.6	PI.7	PI.8	PI.9	PI.10
DESC.	Pavilion- (Prefabricated)	BBQ Grill	ADA Picnic Tables	Trash or Recyclable Receptacles - CoSA Parks & Recreation Standard	Pedestal Drinking Fountain (w/ Pet Fountain)	Pavilion Lights
UNIT	EA	EA	EA	EA	EA	EA
QTY	1	4	4	3	1	2

SUMMARY OF LANDSCAPING-ELECTRICAL QUANTITIES

NEW PEDESTRIAN BRIDGE								
ITEM	PBE.1	PBE.2	PBE.3	PBE.4	PBE.5	PBE.6	PBE.7	PBE.8
DESC.	*8 THHN WIRE, CONDUIT & JUNCTION BOXES	TRENCHING & BACKFILL	DEMOLITION	*10 THHN WIRE, CONDUIT & JUNCTION BOXES	RISER DIAGRAM	LIGHTING INSTALLED	PANEL TERMINATIONS	GENERAL CONDITIONS
UNIT	LF	LF	HR	LF	LS	EA	LS	LS
QTY	1576	282	24	788	1	11	1	1

NEW VEHICULAR BRIDGE & MONUMENT					
ITEM	VBE.1	VBE.2	VBE.3	VBE.4	VBE.5
DESC.	*8 THHN WIRE, CONDUIT & JUNCTION BOXES	TRENCHING & BACKFILL	*10 THHN WIRE, CONDUIT & JUNCTION BOXES	LIGHTING INSTALLED	GENERAL CONDITIONS
UNIT	LF	LF	LF	EA	LS
QTY	2682	282	1,341	21	1

ALTERNATE #3 - PARK TRAIL LIGHTING					
ITEM	TE.1	TE.2	TE.3	TE.4	TE.5
DESC.	*8 THHN WIRE, CONDUIT & JUNCTION BOXES	TRENCHING & BACKFILL	*10 THHN WIRE, CONDUIT & JUNCTION BOXES	LIGHTING INSTALLED	GENERAL CONDITIONS
UNIT	LF	LF	LF	EA	LS
QTY	150	75	75	6	1

ALTERNATE #4 - PARK SHADE STRUCTURE AND PICNIC AREAS					
ITEM	PE.1	PE.2	PE.3	PE.4	PE.5
DESC.	*8 THHN WIRE, CONDUIT & JUNCTION BOXES	TRENCHING & BACKFILL	*10 THHN WIRE, CONDUIT & JUNCTION BOXES	LIGHTING INSTALLED	GENERAL CONDITIONS
UNIT	LF	LF	LF	EA	LS
QTY	86	43	43	2	1

NO	DATE	DESCRIPTION	DWGCHK
8/28/2012		ADDENDUM #4	SDB
8/14/2012		REVISED QUANTITIES	
		REVISIONS	

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6800 PARK TEN BLVD., SUITE 180, SOUTH SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
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CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE I

SUMMARY OF BID ITEMS

4 OF 4

PROJECT NO.: 60184822 DATE: JULY 2012
DRWN. BY: BM DSGN. BY: MJP CHKD. BY: SDB SHEET NO. 27a

SUMMARY OF TRAFFIC CONTROL PLAN QUANTITIES

COSA Standard Specifications


230.1	525.1	530.1
FLEXIBLE PAVEMENT STRUCTURE REPAIR (6" HMAC TY B)	CONCRETE TRAFFIC BARRIER (PORTABLE) (LOW PROFILE)	BARRICADES, SIGNS & TRAFFIC HANDLING
SY	LF	LS
112	740	1

TxDOT Standard Specifications


508-2002	512-200A	512-202Z	512-204D	545-2001	545-2002	545-2003
CONSTRUCTING DETOURS	PORT CTB (FUR & INST) (SINGL SLP OR F-SHAPE) (TYPE 1)	PORT CTB (MOVE) (SINGL SLP OR F-SHAPE) (TYPE 1)	PORT CTB (REMOVE) (SINGL SLP OR F-SHAPE) (TYPE 1)	CRASH CUSH ATTEN (VIA SFPM) (INSTL) (WORK ZONE)	CRASH CUSH ATTEN (VIA SFPM) (MOVE & RESET) (WORK ZONE)	CRASH CUSH ATTEN (VIA SFPM) (REMOVE) (WORK ZONE)
SY	LF	LF	LF	EA	EA	EA
242	120	120	120	2	2	2

NOTE: QUANTITY SHOWN FOR FURNISHING LOW PROFILE CONCRETE
BARRIER INCLUDES 620 LF OF TYPE 1 AND 120 LF OF TYPE 2.

NO	DATE	DESCRIPTION REVISIONS	DWG CHK



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6000 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
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**ROZNECKI
&
CAMARILLO**
TBPB REG. NO. F-483

5835 CALLAGHAN RD, SUITE 200
SAN ANTONIO, TEXAS, 78228
(210) 349-3273 (210) 349-4395 (FAX) <http://www.rozcm.com>

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SEELING CHANNEL PHASE I

SUMMARY OF BID ITEMS

SHEET 1 OF 1

PROJECT NO. 1	60184822	DATE	7/19/2012
DSGN. BY: RJJ	DSGN. BY: RJJ	CHGD. BY: FC	SHEET NO. 28

Plotted on: 7/26/2012 1:58:42 PM

Design Filename: P:\60145866_Seeing_Channel(Widcrest)\ADMIN\000_CAD\COS\SPEC_LIST.dgn

COSA SPECIFICATIONS LIST

ITEM NO.	DESCRIPTION
100	MOBILIZATION
101	PREPARING RIGHT-OF-WAY
104	STREET EXCAVATION
105	CHANNEL EXCAVATION
107	EMBANKMENT
108	LIME TREATED SUBGRADE
200	FLEXIBLE BASE
202	PRIME COAT
203	TACK COAT
205	HOT MIX ASPHALTIC CONCRETE PAVEMENT
210	ROLLING
230	BASE AND PAVEMENT REPLACEMENT
300	CONCRETE
301	REINFORCING STEEL
306	STRUCTURAL EXCAVATION
307	CONCRETE STRUCTURES
311	CONCRETE SURFACE FINISH
400	EXCAVATION, TRENCHING AND BACKFILLING
401	REINFORCED CONCRETE PIPE
403	STORM SEWER JUNCTION BOXES AND INLETS
407	CONCRETE ENCASEMENT, CRADLES, SADDLES AND COLLARS
409	CAST IRON CASTINGS
410	SUBGRADE FILLER
412	CEMENT STABILIZED SAND
413	FLOWABLE FILL
414	FLEXIBLE PIPE-TO-MANHOLE CONNECTOR
500	CONCRETE CURB, GUTTER AND CONCRETE CURB & GUTTER
502	CONCRETE SIDEWALKS
503	ASPHALTIC CONCRETE, PORTLAND CEMENT CONCRETE, AND GRAVEL DRIVEWAYS
505	CONCRETE RIPRAP
506	CONCRETE RETAINING WALLS- COMBINATION TYPE
507	CHAIN LINK WIRE FENCE
508	RELOCATING WIRE FENCE
509	METAL BEAM GUARD RAIL
510	TIMBER GUARD POSTS
511	CUTTING AND REPLACING PAVEMENTS (TRENCH REPAIR)
513	REMOVING AND RELOCATING MAIL BOXES
514	PAINT AND PAINTING
515	TOPSOIL
516	SODDING
520	HYDROMULCHING
522	SIDEWALK PIPE RAILING
523	ADJUSTING OF VEHICULAR AND PEDESTRIAN GATES
524	CONCRETE STEPS
525	CONCRETE TRAFFIC BARRIERS (PORTABLE)
526	FIELD OFFICE
530	BARRICADES, SIGNS & TRAFFIC HANDLING
531	SIGNS
533	CLEANING AND REMOVAL OF PAVEMENT MARKINGS AND MARKERS
535	HOT APPLIED THERMOPLASTIC PAVEMENT MARKINGS
537	RAISED PAVEMENT MARKINGS
540	TEMPORARY EROSION, SEDIMENTATION AND WATER POLLUTION PREVENTION AND
550	TRENCH EXCAVATION SAFETY PROTECTION
551	TEMPORARY SPECIAL SHORING
552	REMOVING AND RELOCATING IRRIGATION SYSTEMS
554	EROSION CONTROL MATTING
600	TRAFFIC SIGNAL GENERAL CONDITIONS
618	CONDUIT
620	ELECTRICAL CONDUCTORS
625	ZINC-COATED STEEL WIRE STRAND
627	TREATED TIMBER POLES
680	INSTALLATION OF HIGHWAY TRAFFIC SIGNALS
682	VEHICLE AND PEDESTRIAN SIGNAL HEADS
683	LED COUNTDOWN PEDESTRIAN SIGNAL MODULE
684	TRAFFIC SIGNAL CABLES
688	PEDESTRIAN DETECTORS AND VEHICLE LOOP DETECTORS
694	VIDEO IMAGING VEHICLE DETECTION SYSTEM
700	PROJECT SCHEDULING & DATA MANAGEMENT
1000	WEB PORTAL

TXDOT SPECIFICATIONS LIST

ITEM NO.	DESCRIPTION
354	PLANING AND TEXTURING PAVEMENT
360	CONCRETE PAVEMENT
400	EXCAVATION AND BACKFILL FOR STRUCTURES
416	DRILLED SHAFT FOUNDATIONS
420	CONCRETE STRUCTURES
422	REINFORCED CONCRETE SLAB
425	PRECAST PRESTRESSED CONCRETE STRUCTURAL MEMBERS
428	CONCRETE SURFACE TREATMENT
432	RIPRAP
450	RAILING
454	BRIDGE EXPANSION JOINTS
459	GABIONS AND GABION MATTRESSES
462	CONCRETE BOX CULVERTS AND STORM DRAINS
465	MANHOLES AND INLETS
466	HEADWALLS AND WINGWALLS
474	SLOTTED DRAIN
496	REMOVING STRUCTURES
508	CONSTRUCTING DETOURS
512	PORTABLE CONCRETE TRAFFIC BARRIER
540	METAL BEAM GUARD FENCE
544	GUARDRAIL END TREATMENTS
545	CRASH CUSHION ATTENUATORS
658	DELINEATOR AND OBJECT MARKER ASSEMBLIES

SPECIAL SPECIFICATIONS LIST

ITEM NO.	DESCRIPTION
110	SPECIAL ENVIRONMENTAL SPECIFICATIONS
SP.1	DIVERSION AND CARE OF WATER
SP.2	SOLDIER PILE & LAGGING
SP.3	CONTECH PEDESTRIAN BRIDGE

SAWS SPECIFICATIONS LIST

ITEM NO.	DESCRIPTION
100	MOBILIZATION
101	PREPARATION OF RIGHT-OF-WAY
200	FLEXIBLE BASE
300	CONCRETE (NATURAL AGGREGATE)
301	REINFORCING STEEL
307	CONCRETE STRUCTURES
550	TRENCH SAFETY EXCAVATION PROTECTION
804	EXCAVATION, TRENCHING AND BACKFILL
812	WATER MAIN INSTALLATION
816	STEEL PIPE INSTALLATION
818	PVC (C-900) PIPE INSTALLATION
824	SERVICE SUPPLY LINES (WATER)
828	GATE VALVES
833	METER AND METER BOX INSTALLATION
834	FIRE HYDRANTS
836	GREY-IRON AND DUCTILE IRON FITTINGS
839	ANCHORAGE AND THRUST BLOCKING
840	WATER TIE-INS
841	HYDROSTATIC TESTING OPERATIONS
844	BLOWOFF ASSEMBLIES
846	AIR RELEASE ASSEMBLIES
847	DISINFECTION
848	SANITARY SEWERS
849	AIR AND DEFLECTION TESTING (SANITARY SEWER)
850	SANITARY SEWER STRUCTURES
851	ADJUSTING EXISTING MANHOLES
852	SANITARY SEWER MANHOLES
854	SANITARY SEWER LATERALS
855	RECONSTRUCTION OF EXISTING MANHOLES
856	JACKING, BORING OR TUNNELING PIPE
858	CONCRETE ENCASEMENT, CRADLES, SADDLES AND COLLARS
860	VERTICAL STACKS
862	ABANDONMENT OF SEWER MAINS AND MANHOLES
864	BYPASS PUMPING
866	SEWER MAIN TELEVISION INSPECTION
868	SEWER MAIN CLEANING
3000	SPECIFICATIONS FOR HANDLING ASBESTOS CEMENT PIPE

LANDSCAPING SPECIFICATIONS LIST

ITEM NO.	DESCRIPTION
02810	IRRIGATION SYSTEM
02871	SITE AND STREET FURNISHINGS
02900	LANDSCAPE PLANTING
02935	LANDSCAPE MAINTENANCE
02940	TREATMENT OF EXISTING TREES
04810	UNIT MASONRY ASSEMBLIES
05500	METAL FABRICATIONS
07900	JOINT SEALERS
09900	PAINTS AND COATINGS
321316.15.4	LITHOCRETE
260000	GENERAL REQUIREMENT FOR ELECTRICAL WORK
260500	BASIC MATERIALS AND METHODS
260514	WIRE AND CABLE (600 VOLT AND LESS)

NOTES:

1. WHEN USING A MIXTURE OF STANDARD SPECIFICATION SOURCES (COSA AND TXDOT) NUMBERING CONFLICTS BETWEEN THE SOURCES BECOME APPARENT. THE INTENT OF THIS SPECIFICATION LIST IS TO PROVIDE THE CONTRACTOR WITH A REFERENCE TO THE PREDOMINANT SPECIFICATION FROM EACH SOURCE.
2. REFERENCES TO TECHNICAL SPECIFICATIONS WITHIN TECHNICAL SPECIFICATION FURTHER COMPLICATES THE NUMBERING CONFLICTS. THE CONTRACTOR SHALL UNDERSTAND REFERENCES WITHIN A TXDOT SPECIFICATION LEAD BACK TO OTHER TXDOT SPECIFICATIONS, AND REFERENCES WITHIN A COSA SPECIFICATION LEAD BACK TO A COSA SPECIFICATION.
3. IT IS THE INTENT OF THIS PLAN SET TO DISTINGUISH THE GOVERNING SPECIFICATION (COSA vs. TXDOT) BY THE BID ITEM USED.



Stephanie D Blew

NO	DATE	DESCRIPTION REVISIONS	DWGCHK

AECOM AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
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SEEING CHANNEL PHASE I

SPECIFICATIONS LIST

PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: BM	DGN. BY: MJP
CHKD. BY: SDB	SHEET NO. 29