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SHEET NO. DESCRIPTION
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STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION



CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES

FORT SAM HOUSTON TRANSPORTATION PROJECTS
BEXAR COUNTY

HWY: HARRY WURZBACH HWY, CITY STREET BURR ROAD, CITY STREET WINANS ROAD, CITY STREET RITTIMAN ROAD

PROJECT NO: 40-00015

CONTROL NO: 915-12-471, ETC

LIMITS: IN SAN ANTONIO ON HARRY WURZBACH HWY FROM RAPHIAL DR. TO BYRNES DR

ROADWAY LENGTH:

BURR ROAD = 259.86 FT = 0.049 MI
HARRY WURZBACH HWY = 1200.00 FT = 0.227 MI
WINANS ROAD = 441.88 FT = 0.084 MI
HARRY WURZBACH HWY = 1575.00 FT = 0.298 MI
RITTIMAN ROAD = 719.48 FT = 0.136 MI
HARRY WURZBACH HWY = 1983.00 FT = 0.376 MI
TOTAL LENGTH = 6179.22 FT = 1.170 MI

THE TYPICAL QUALITY LEVEL OF THE UTILITY INFORMATION SHOWN ON THESE PLANS IS SHOWN IN THE TABLE BELOW. SPECIFIC NOTES ON THE PLANS INDICATE LOCATIONS WHERE THE UTILITY INFORMATION SHOWN IS KNOWN TO FALL SHORT OF OR EXCEED THE STATED TYPICAL QUALITY LEVEL.

SAWS WATER DISTRIBUTION MAINS	QL A
CPS NATURAL GAS MAIN	QL A
CPS OVERHEAD ELECTRIC LINES	QL C
AT&T UNDERGROUND TELECOMMUNICATION LINES	QL A

FED. AID DIST. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6		1
STATE	STATE DIST.	COUNTY
TEXAS	SAT	BEXAR
CONT.	SECT.	JOB
915	12	470
		HARRY WURZBACH

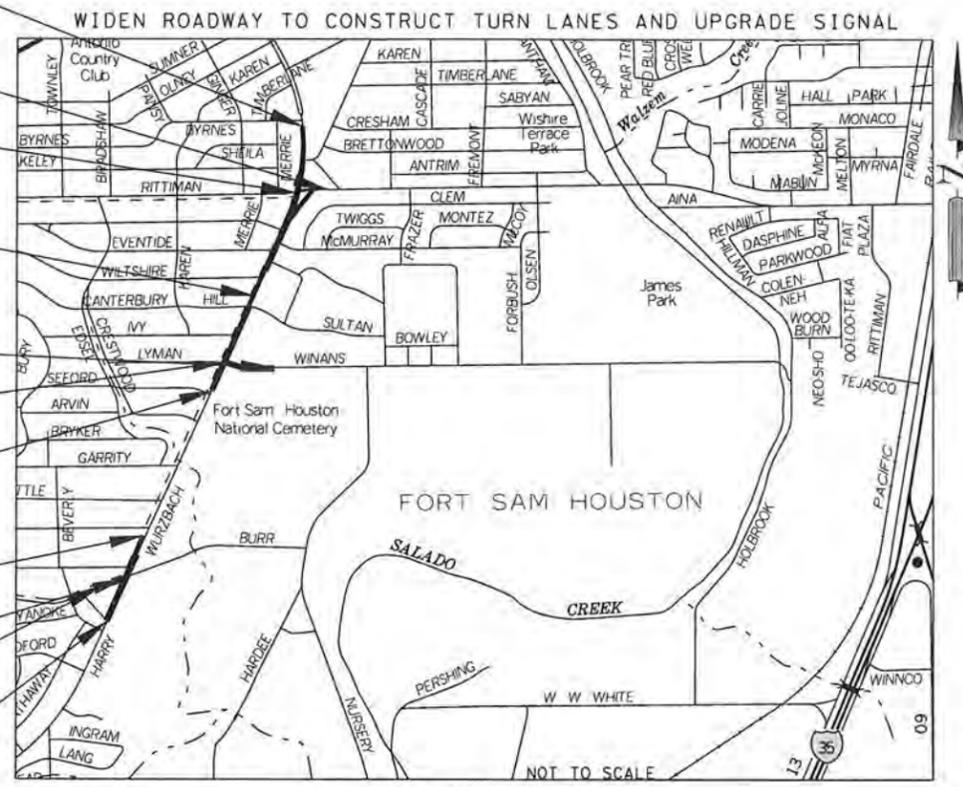
DESIGN SPEED = HARRY WURZBACH 45 MPH
RITTIMAN RD 45 MPH
BURR RD 30 MPH
WINANS RD 30 MPH

AREA OF DISTURBED SOIL = 14.22 Ac
FUNCTIONAL CLASSIFICATION= URBAN MAJOR COLLECTOR
TDLR INSPECTION NO.

ADT : 2007 = 10,388
2027 = 51,789

100% SUBMITTAL

- END PROJECT: 40-00015
CONTROL: 915-12-480
HARRY WURZBACH STA. 88+33.00
- END PROJECT: 40-00015
CONTROL: 915-12-480
RITTIMAN RD. STA. 21+50.00
- BEGIN PROJECT: 40-00015
CONTROL: 915-12-480
RITTIMAN RD. STA. 14+30.52
- BEGIN PROJECT: 40-00015
CONTROL: 915-12-480
END PROJECT: 40-00015
CONTROL: 915-12-470
HARRY WURZBACH STA. 68+50.00
- END PROJECT: 40-00015
CONTROL: 915-12-470
WINANS RD. STA. 14+80.00
- BEGIN PROJECT: 40-00015
CONTROL: 915-12-470
WINANS RD. STA. 10+38.12
- BEGIN PROJECT: 40-00015
CONTROL: 915-12-470
HARRY WURZBACH STA. 52+75.00
- END PROJECT: 40-00015
CONTROL: 915-12-471
HARRY WURZBACH STA. 28+00.00
- END PROJECT: 40-00015
CONTROL: 915-12-471
BURR RD. STA. 17+09.86
- BEGIN PROJECT: 40-00015
CONTROL: 915-12-471
BURR RD. STA. 14+50.00
- BEGIN PROJECT: 40-00015
CONTROL: 915-12-471
HARRY WURZBACH STA. 16+00.00



EXCEPTIONS: NONE
EQUATIONS: NONE
RR X-ING'S: NONE

FINAL PLANS STATEMENT:
THE CONSTRUCTION WORK WAS PERFORMED IN ACCORDANCE WITH THE PLANS AND CONTRACT.
P.E. _____ DATE _____
AREA ENGINEER

MIKE FRISBLE, P.E.
CIMS DIRECTOR/CITY ENGINEER
DATE _____

SUBMITTED FOR LETTING
DISTRICT DESIGN ENGINEER
RECOMMENDED FOR LETTING
DISTRICT ENGINEER

APPROVED FOR LETTING
DIRECTOR, TRAFFIC OPERATIONS DIVISION
APPROVED FOR LETTING
DIRECTOR, DESIGN DIVISION



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TBPE F-3924
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SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, JUNE 1, 2004 AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT: REQUIRED CONTRACT PROVISIONS FOR ALL FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273, MARCH, 1994).

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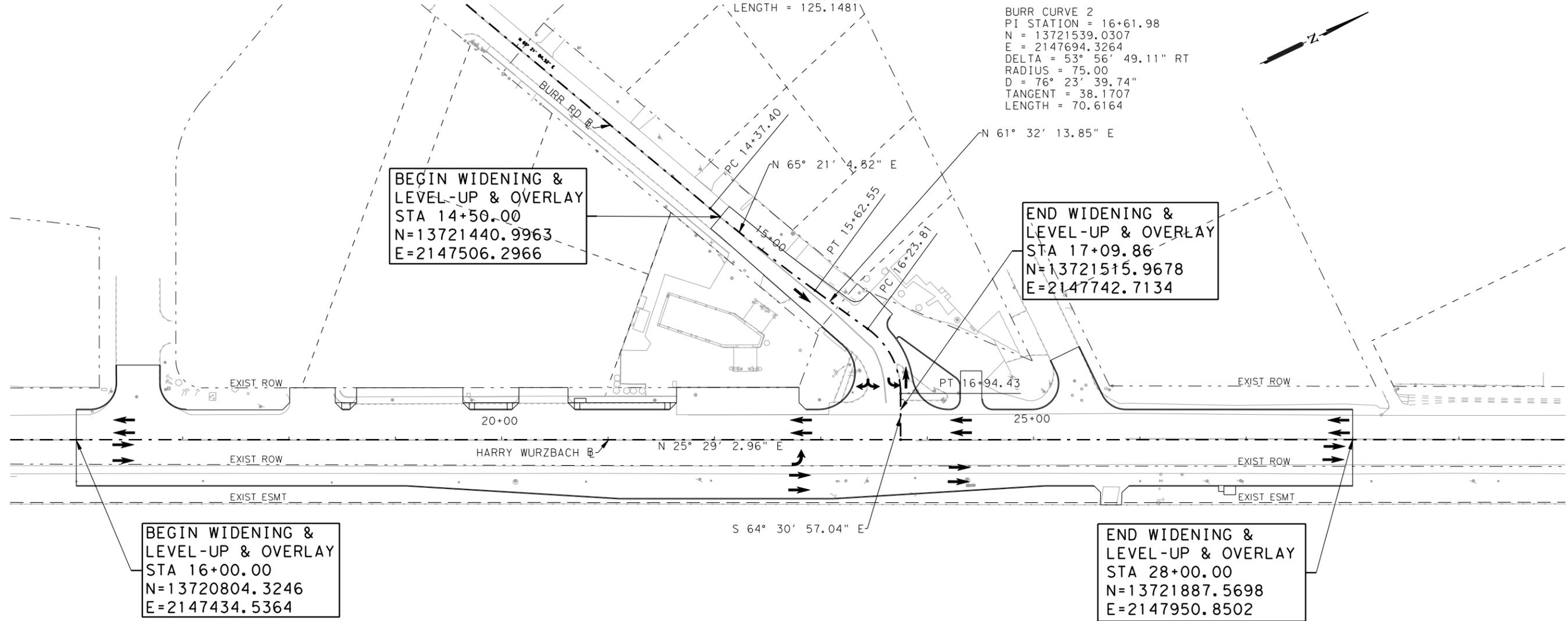


TETRA TECH		
TBPE F-3924 700 N. ST. MARY'S STREET SAN ANTONIO, TX 78205 TELEPHONE #: (210) 226-2922 FAX #: (210) 226-8497 WEBSITE: WWW.TETRATECH.COM		
 Texas Department of Transportation		
CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT FORT SAM HOUSTON TRANSPORTATION PROJECTS		
INDEX OF SHEETS		
FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc	DATE: 8/1/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 2

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BURR CURVE 1
 PI STATION = 15+00.00
 N = 13721461.8107
 E = 2147551.8843
 DELTA = 3° 48' 50.67" LT
 RADIUS = 1880.00
 D = 3° 02' 51.53"
 TANGENT = 62.5972
 LENGTH = 125.1481

BURR CURVE 2
 PI STATION = 16+61.98
 N = 13721539.0307
 E = 2147694.3264
 DELTA = 53° 56' 49.11" RT
 RADIUS = 75.00
 D = 76° 23' 39.74"
 TANGENT = 38.1707
 LENGTH = 70.6164

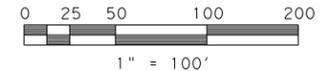


BEGIN WIDENING &
 LEVEL-UP & OVERLAY
 STA 14+50.00
 N=13721440.9963
 E=2147506.2966

END WIDENING &
 LEVEL-UP & OVERLAY
 STA 17+09.86
 N=13721515.9678
 E=2147742.7134

BEGIN WIDENING &
 LEVEL-UP & OVERLAY
 STA 16+00.00
 N=13720804.3246
 E=2147434.5364

END WIDENING &
 LEVEL-UP & OVERLAY
 STA 28+00.00
 N=13721887.5698
 E=2147950.8502



POINT	NORTHING	EASTING	STATION	OFFSET	LT/RT	LT/RT
COSA CTL 1	13728899.122	2149588.679	N/A	N/A	N/A	SET 1/2" IRON ROD WITH ALUMINUM CAP STAMPED "COSA CTL 1"
COSA CTL 2	13728548.879	2149787.670	100+28.63	7.27	LT	SET 1/2" IRON ROD WITH ALUMINUM CAP STAMPED "COSA CTL 2"
COSA CTL 3	13719638.649	2146886.212	N/A	N/A	N/A	SET 1/2" IRON ROD WITH ALUMINUM CAP STAMPED "COSA CTL 3"
COSA CTL 4	13720002.905	2147085.464	N/A	N/A	N/A	SET 1/2" IRON ROD WITH ALUMINUM CAP STAMPED "COSA CTL 4"



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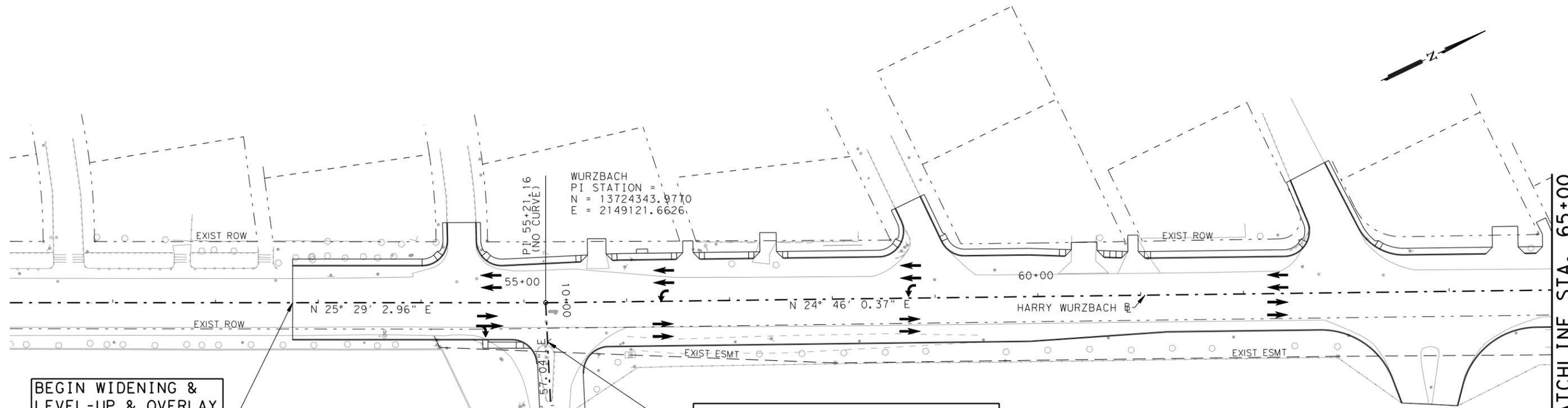
Texas Department of Transportation

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 FORT SAM HOUSTON TRANSPORTATION PROJECTS

PROJECT LAYOUT SHEET
 BURR RD. & HARRY WURZBACH INTERSECTION

FINAL SUBMITTAL PROJECT NO.: 915-12-470,etc DATE: 7/31/2011
 DRWN. BY: RPR DSGN. BY: JDH CHKD. BY: RE SHEET NO.: 3

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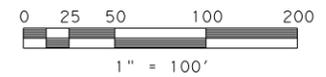
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LEVEL-UP & OVERLAY
STA 52+75.00
N=13724121.7629
E=2149015.7473

BEGIN FULL DEPTH CONSTRUCTION
STA 10+38.12
N=13724329.3128
E=2149156.8491

END FULL DEPTH CONSTRUCTION
STA 14+80.00
N=13724255.3663
E=2149585.2922

WINANS CURVE 1
PI STATION=12+33.87
N = 13724254.0106
E = 2149337.5358
DELTA = 22° 56' 15.96" LT
RADIUS = 300.00
D = 19° 05' 54.94"
TANGENT = 60.8660
LENGTH = 120.1019

WURZBACH
PI STATION =
N = 13724343.9770
E = 2149121.6626

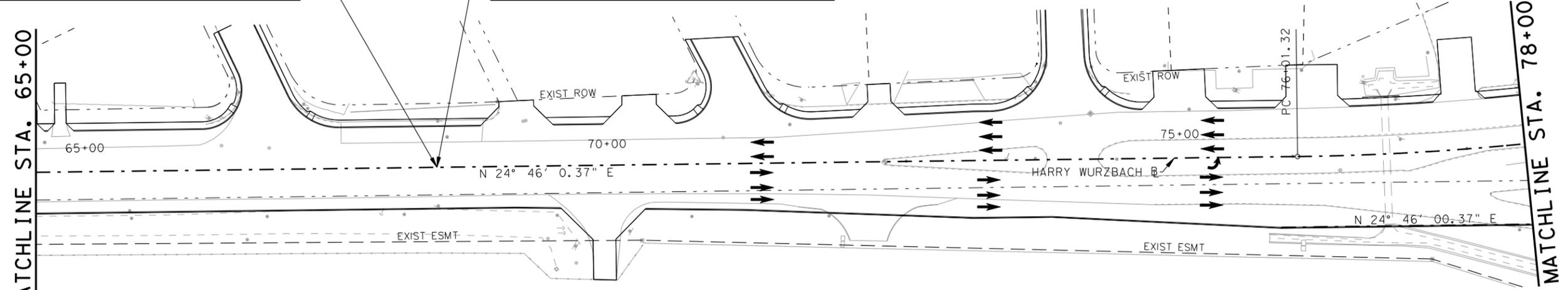


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 <i>Texas Department of Transportation</i>		
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PROJECT LAYOUT SHEET		
WINANS RD. & HARRY WURZBACH INTERSECTION		
FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc	DATE: 7/31/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 4

MATCHLINE STA. 65+00

END WIDENING & LEVEL-UP
& OVERLAY STA 68+50.00
N = 13725550.5867
E = 2149678.3456

BEGIN FULL DEPTH CONSTRUCTION
STA 68+50.00
N = 13725550.5867
E = 2149678.3456



ENVIRONMENTAL
AREA OF CONCERN

BEGIN FULL DEPTH CONSTRUCTION
STA 14+30.52
N = 1372.5362.3498
E = 2149809.0346

WURZBACH CURVE 1
PI STATION = 87+04.77
N = 13727234.7539
E = 2150455.3351
DELTA = 51° 25' 07.17"
RADIUS = 2291.8312
D = 2° 30' 00.00"
TANGENT = 1103.4435
LENGTH = 2056.7464

END FULL DEPTH CONSTRUCTION
STA 88+33.00
N = 13726124.9940
E = 2150275.7728

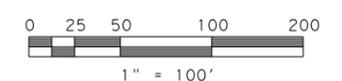
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PI STATION = 14+14.34
N = 13726569.7585
E = 2150216.2817
DELTA = 60° 45' 27.29" RT
R = 300.0000
D = 19° 05' 54.94"
T = 175.8597
L = 318.1259

RAMP 1 CURVE 1
PI STATION = 14+14.34
N = 13726569.7585
E = 2150216.2817
DELTA = 60° 45' 27.29" RT
RADIUS = 300.00
D = 19° 05' 54.94"
TANGENT = 175.8597
LENGTH = 318.1259

RITTIMAN CURVE 2
PI STATION = 18+46.56
N = 13726607.7335
E = 2150393.9013
DELTA = 7° 38' 53.04" RT
RADIUS = 900.00
D = 6° 21' 58.31"
TANGENT = 60.1571
LENGTH = 120.1355

RAMP 2 CURVE 1
PI STATION = 11+82.55
N = 13726649.9672
E = 2150190.5126
DELTA = 94° 40' 27.70" RT
RADIUS = 75.00
D = 76° 23' 39.74"
TANGENT = 81.3826
LENGTH = 123.9285

FIGURE 1 ENVIRONMENTAL
AREA OF CONCERN 1



END FULL DEPTH CONSTRUCTION
STA 21+50.00
N = 13726609.7789
E = 2150697.5137



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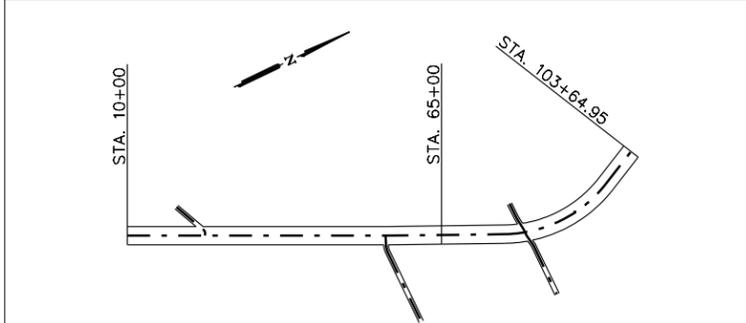
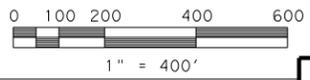
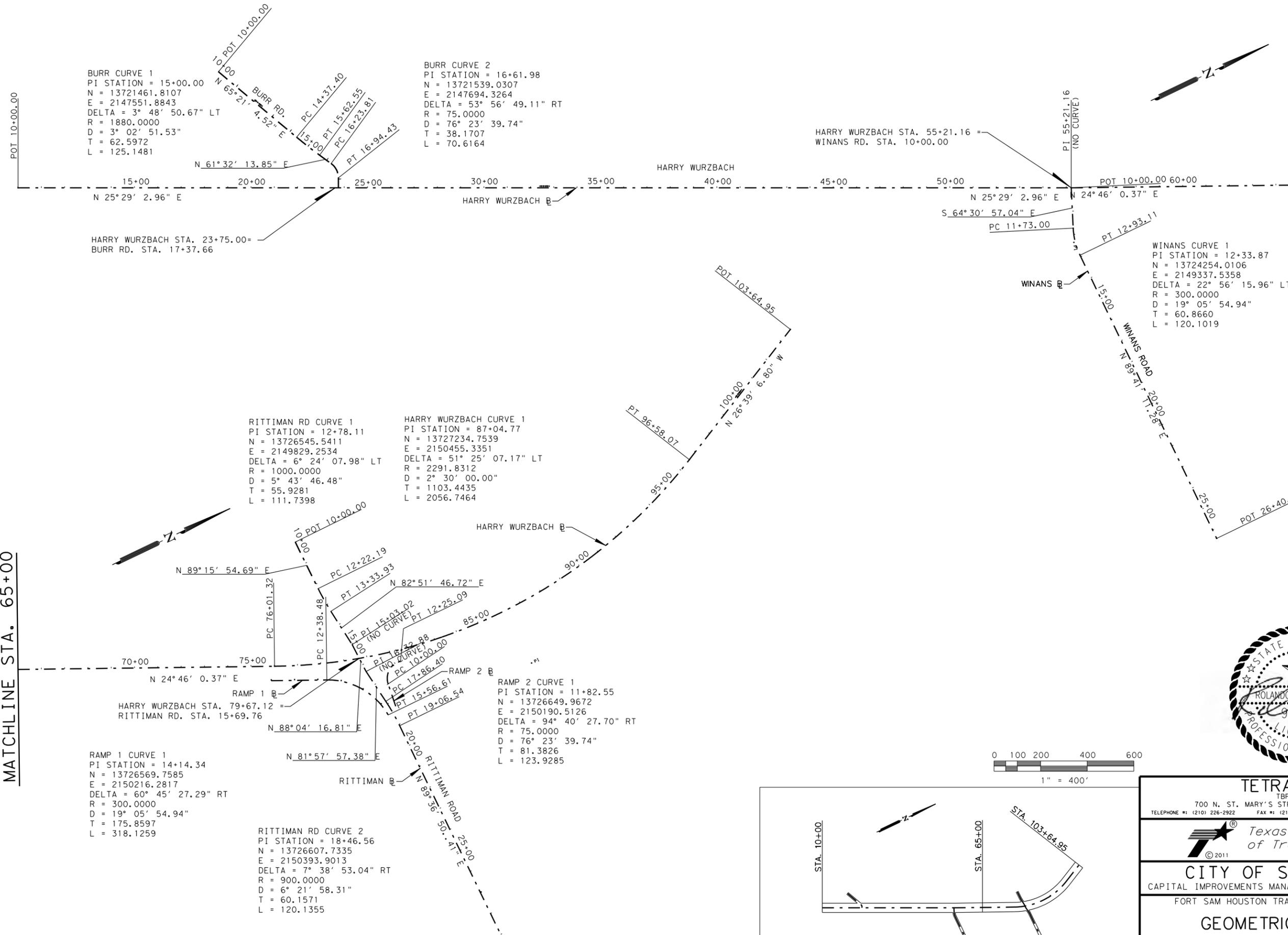
PROJECT LAYOUT SHEET
RITTIMAN RD. & HARRY WURZBACH INTERSECTION

FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc	DATE: 7/31/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 5

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MATCHLINE STA. 65+00



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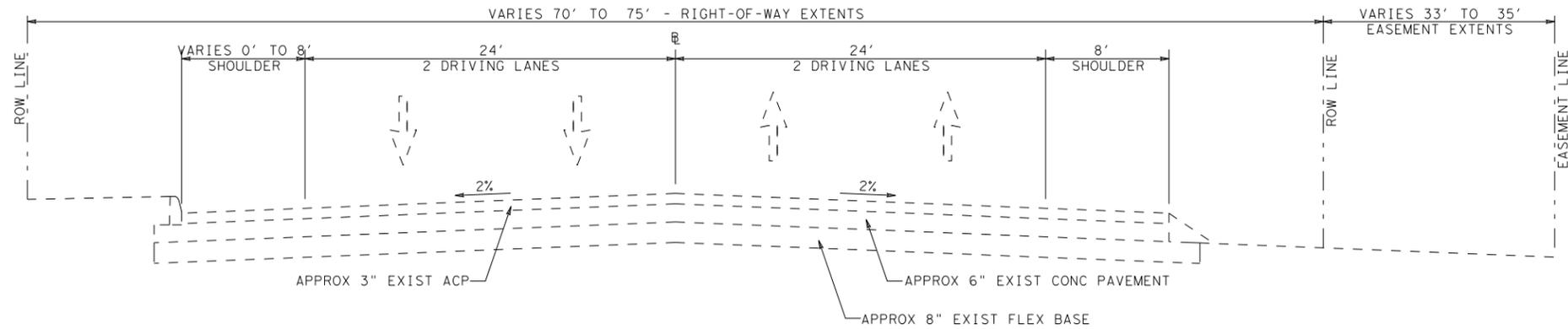
Texas Department of Transportation

CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 FORT SAM HOUSTON TRANSPORTATION PROJECTS

GEOMETRIC LAYOUT

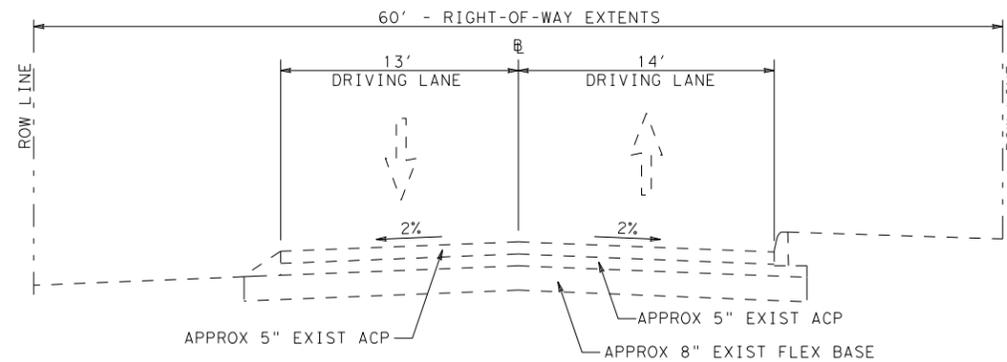
FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc	DATE: 7/31/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 6

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EXISTING TYPICAL (HARRY WURZBACH AT BURR RD. INTERSECTION)

STATION 16+00.00 TO STATION 28+00.00
 STATION 16+00.00 TO STATION 18+00.00 SHOULDER 0' LT. (WITHOUT CURB)
 STATION 18+00.00 TO STATION 24+19.31 SHOULDER 8' LT. (WITH CURB)
 STATION 24+19.31 TO STATION 28+00.00 SHOULDER 8' LT. (WITHOUT CURB)

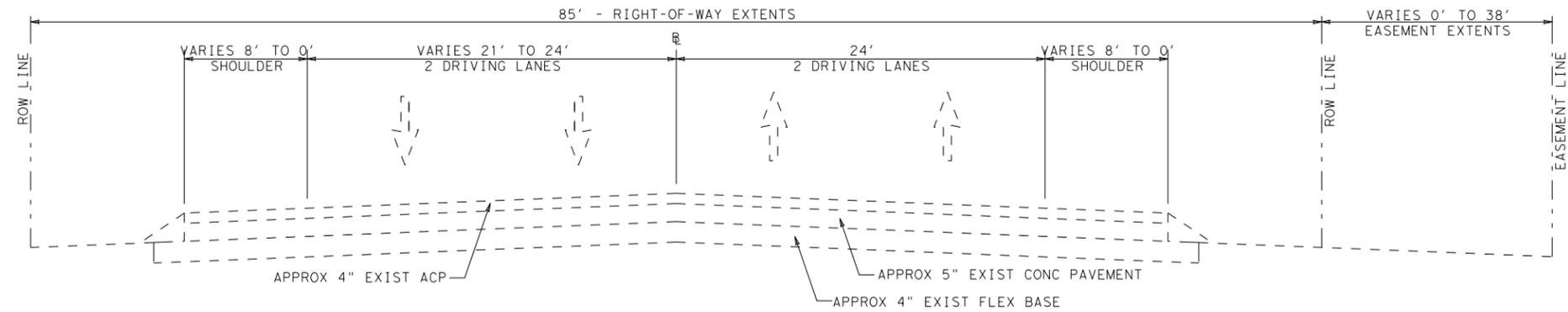


EXISTING TYPICAL (BURR ROAD)

STATION 14+50.00 TO STATION 17+09.86

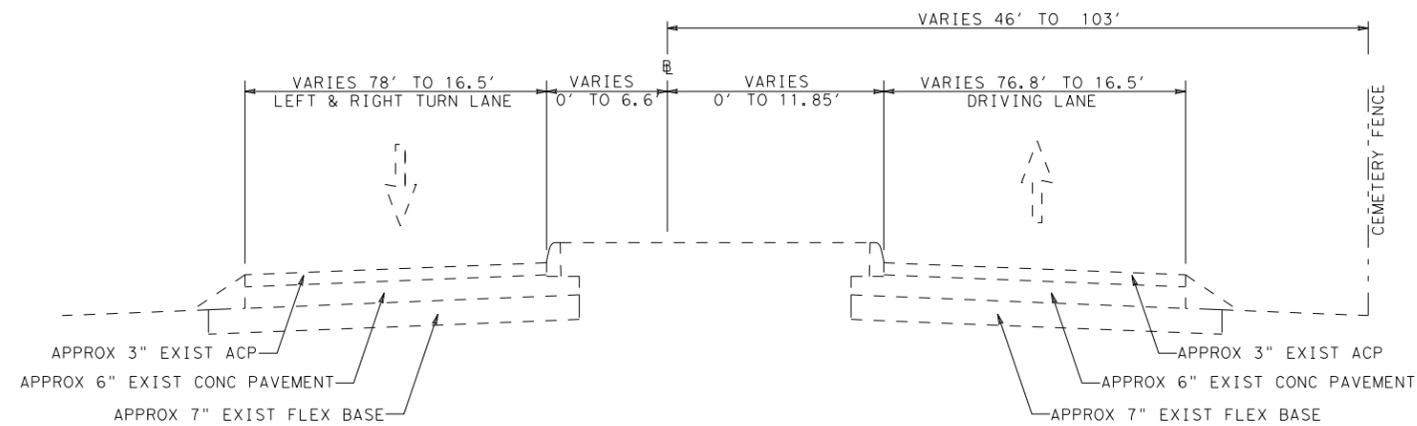


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TYPICAL SECTIONS HARRY WURZBACH & BURR RD. INTERSECTION (EXISTING)		
1 OF 8	FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		DATE: 7/31/2011
		SHEET NO.: 7



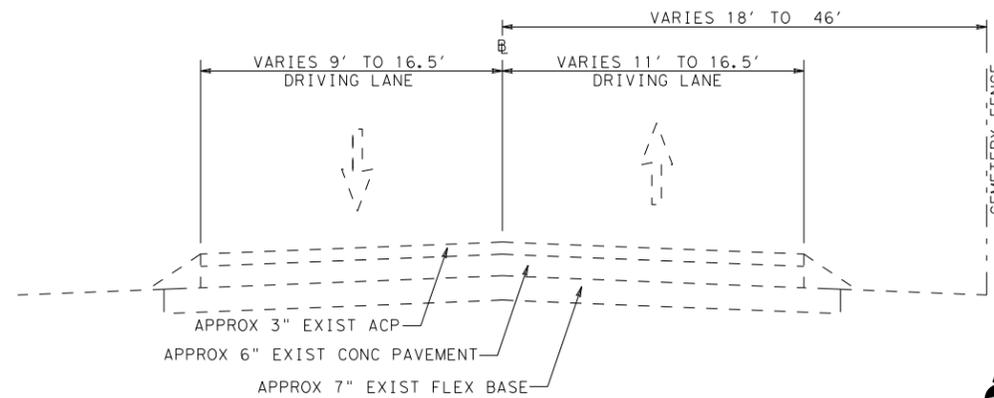
EXISTING TYPICAL (HARRY WURZBACH AT WINANS RD. INTERSECTION)

STATION 52+75.00 TO STATION 68+50.00
 STATION 50+79.37 TO STATION 55+48.64 SHOULDER 8' LT & RT, ROADWAY 24' LT & RT
 STATION 55+48.64 TO STATION 56+47.42 SHOULDER (VARIES) 8' TO 0' LT AND ROADWAY (VARIES) 24' TO 21' LT
 STATION 56+47.42 TO STATION 68+50.00 ROADWAY 21' LT & 24' RT



EXISTING TYPICAL (WINANS ROAD)

STATION 10+38.12 TO STATION 10+96.56

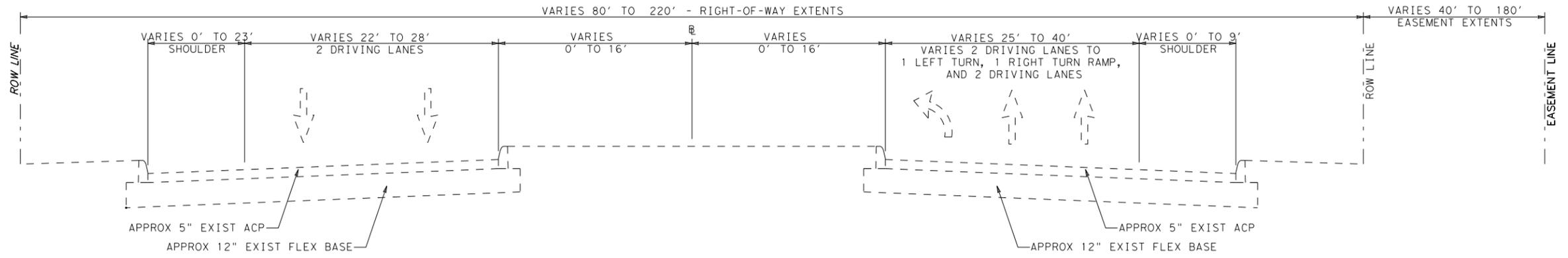


EXISTING TYPICAL (WINANS ROAD)

STATION 10+96.56 TO STATION 14+80.00

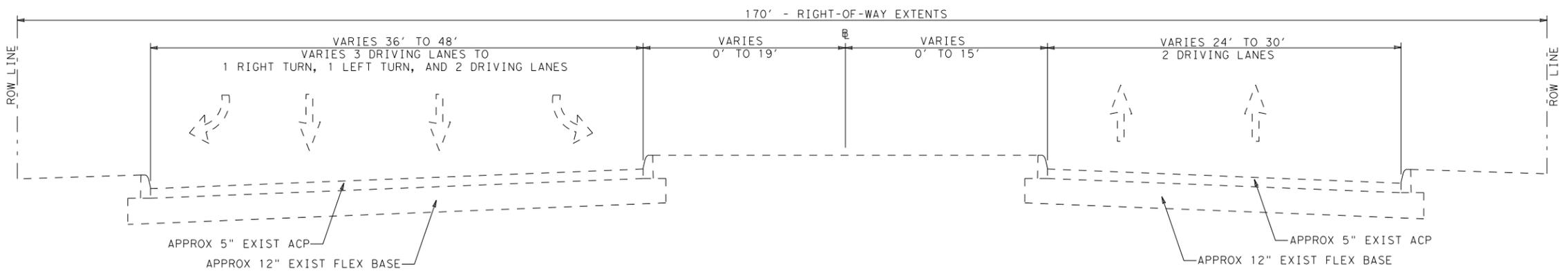


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<small>700 N. ST. MARY'S STREET SAN ANTONIO, TX 78205</small>		
<small>TELEPHONE #: (210) 226-2922</small>	<small>FAX #: (210) 226-8497</small>	<small>WEBSITE: WWW.TETRA TECH.COM</small>
 Texas Department of Transportation		
CITY OF SAN ANTONIO		
<small>CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT</small>		
<small>FORT SAM HOUSTON TRANSPORTATION PROJECTS</small>		
TYPICAL SECTIONS		
<small>HARRY WURZBACH & WINANS RD. INTERSECTION (EXISTING)</small>		
<small>2 OF 8</small>	<small>FINAL SUBMITTAL</small>	<small>PROJECT NO.: 915-12-470,etc</small>
<small>DRWN. BY: RPR</small>	<small>DSGN. BY: JDH</small>	<small>CHKD. BY: RE</small>
		<small>DATE: 7/31/2011</small>
		<small>SHEET NO.: 8</small>



EXISTING TYPICAL (HARRY WURZBACH AT RITTIMAN RD. INTERSECTION)

STATION 68+50.00 TO STATION 79+30.10
 STATION 68+50.00 TO STATION 79+30.10 CURB LT.
 STATION 68+50.00 TO STATION 77+19.90 SHOULDER (VARIABLE) 0' TO 23' LT.
 STATION 70+34.93 TO STATION 73+03.80 SHOULDER (VARIABLE) 0' TO 9' RT.
 STATION 72+40.70 TO STATION 73+83.08 CURB MEDIAN
 STATION 74+26.82 TO STATION 79+30.10 CURB MEDIAN
 STATION 74+75.48 TO STATION 79+30.10 CURB RT.



EXISTING TYPICAL (HARRY WURZBACH AT RITTIMAN RD. INTERSECTION)

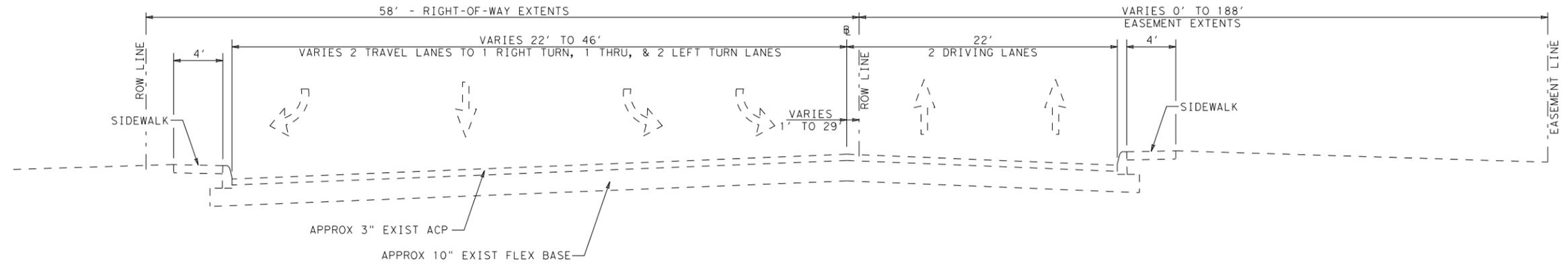
STATION 80+21.93 TO STATION 88+33.00
 STATION 80+21.93 TO STATION 88+33.00 CURB LT.
 STATION 80+21.93 TO STATION 83+53.88 CURB MEDIAN
 STATION 80+21.93 TO STATION 85+50.20 CURB RT.
 STATION 83+86.64 TO STATION 88+33.00 CURB MEDIAN

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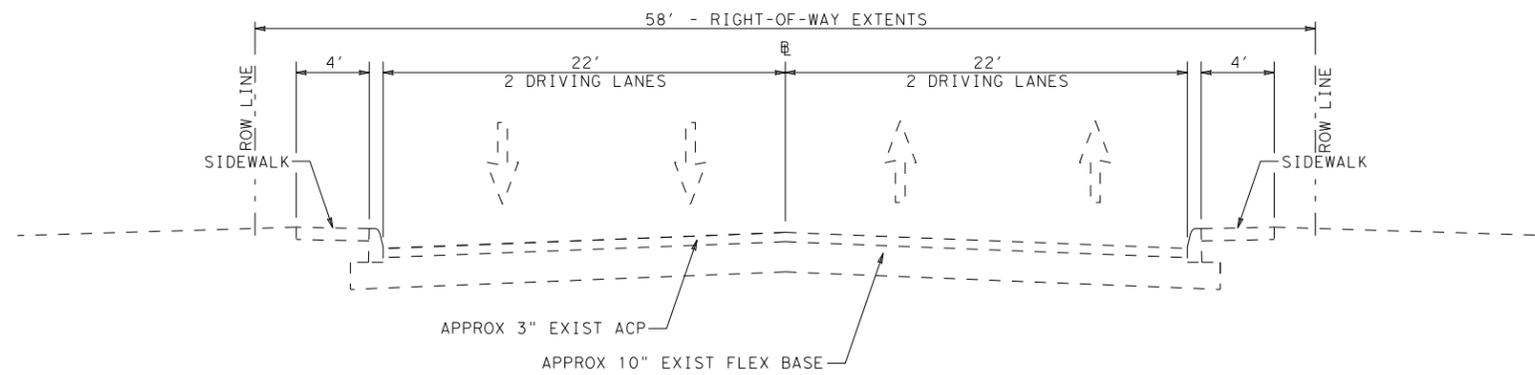
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TYPICAL SECTIONS		
HARRY WURZBACH & RITTIMAN RD. INTERSECTION (EXISTING)		
3 OF 8	FINAL SUBMITTAL PROJECT NO.: 915-12-470,etc	DATE: 7/31/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 9

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EXISTING TYPICAL (RITTIMAN ROAD)

STATION 16+32.88 TO STATION 19+06.54
STATION 18+56.55 TO 19+06.54 SIDEWALK LT.
STATION 19+03.00 TO 19+06.54 SIDEWALK RT.



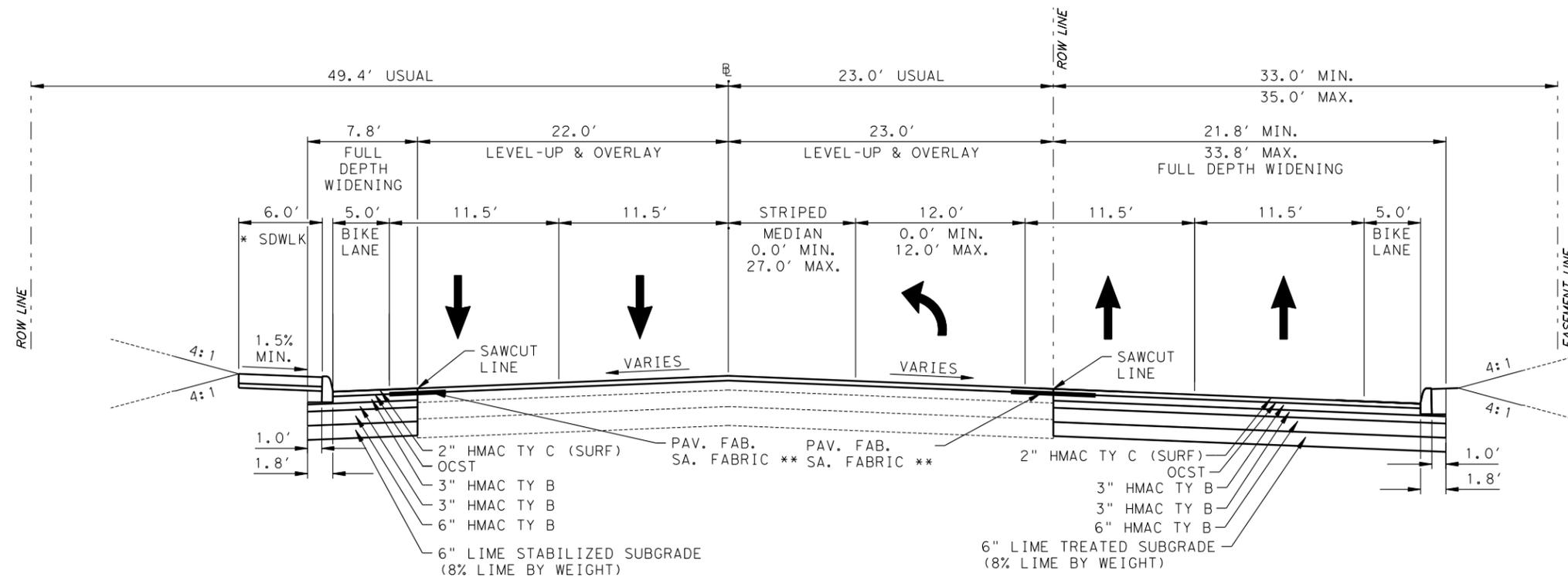
EXISTING TYPICAL (RITTIMAN ROAD)

STATION 19+06.54 TO STATION 21+50.00



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TYPICAL SECTIONS HARRY WURZBACH & RITTIMAN RD. INTERSECTION (EXISTING)		
4 OF 8	FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		DATE: 7/31/2011
		SHEET NO.: 10

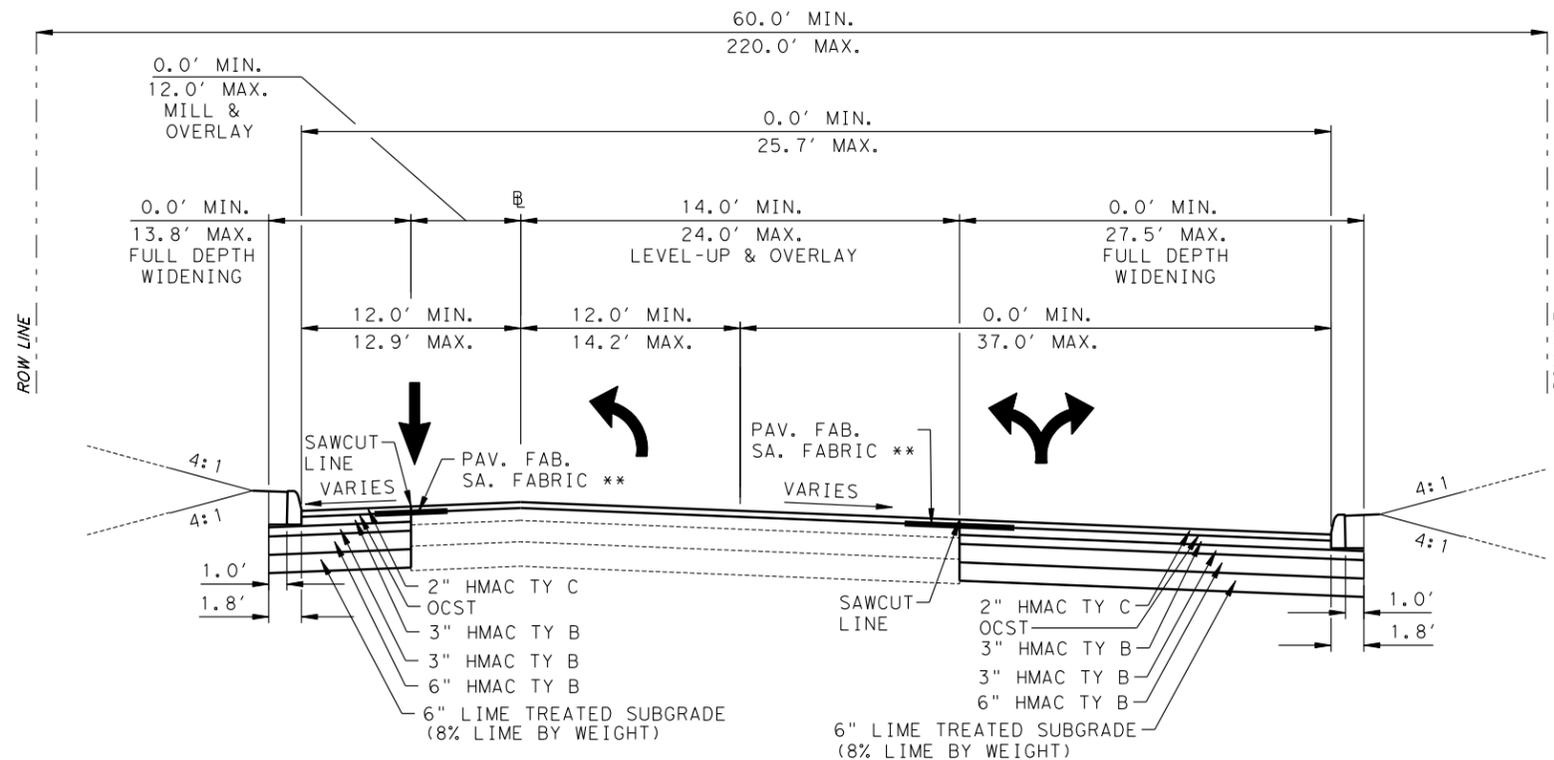
NOTE: PLACE 6" HMAC TY B IN LOU OF 6" LIME STABILIZED SUBGRADE AT AREAS DESIGNATED AS OFF PEAK HOURS SHOWN ON THE TCP LAYOUT SHEETS



PROPOSED TYPICAL (HARRY WURZBACH AT BURR RD. INTERSECTION)

STATION 16+00.00 TO STATION 28+00.00

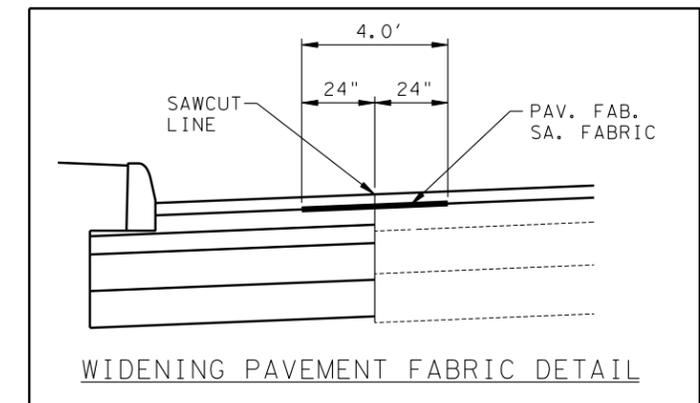
* SIDEWALK FROM STATION 18+43 TO STATION 21+64



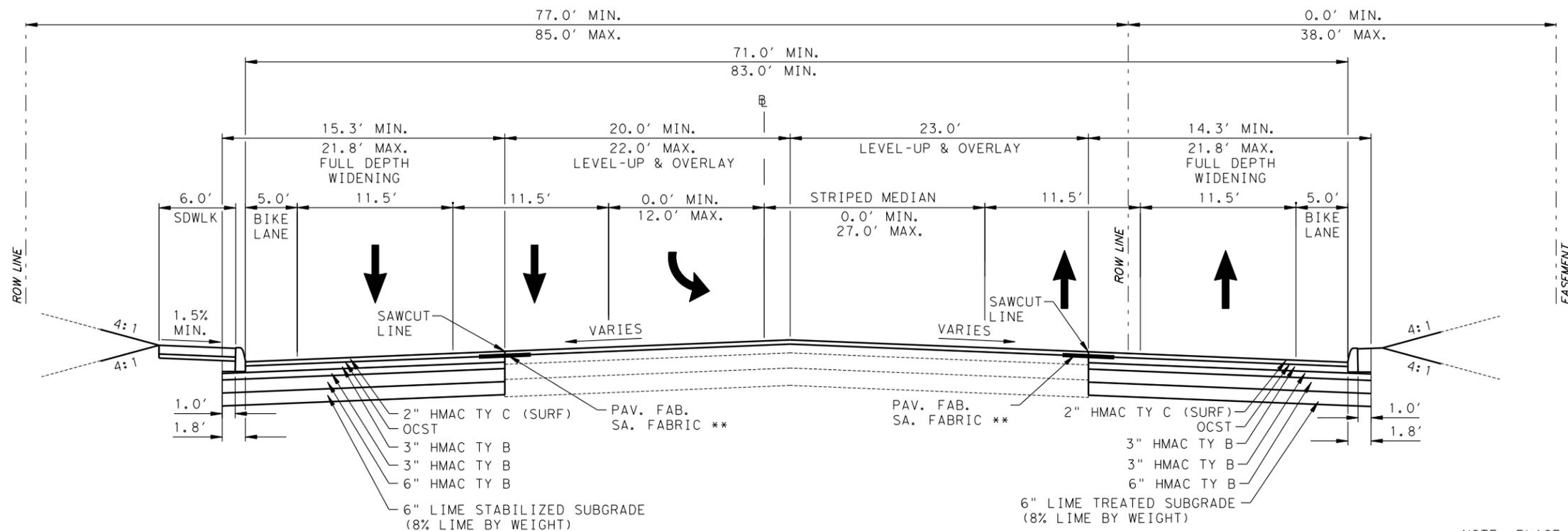
PROPOSED TYPICAL (BURR ROAD)

STATION 14+50.00 TO STATION 17+09.86

** Note: SEE PAVEPREP SA SCHEMATIC PLAN SHEET 169

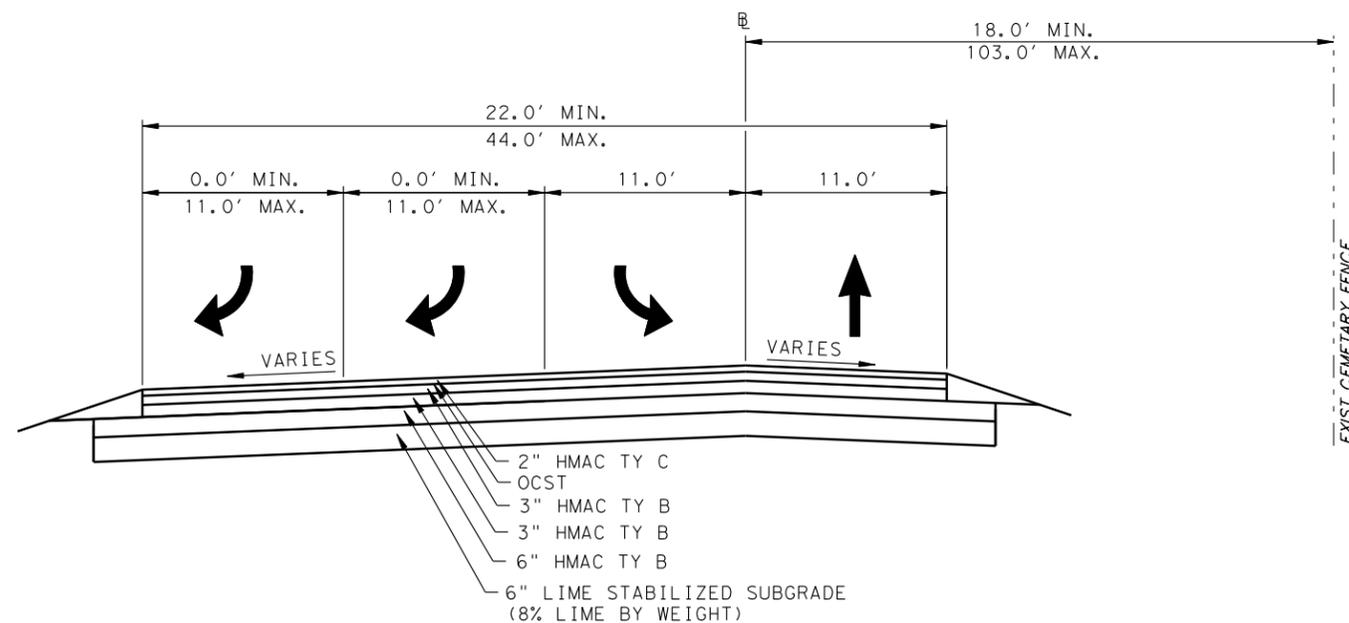


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<small>TBPE F-3924 700 N. ST. MARY'S STREET SAN ANTONIO, TX 78205 TELEPHONE #: (210) 226-2922 FAX #: (210) 226-8497 WEBSITE: WWW.TETRATECH.COM</small>		
 Texas Department of Transportation		
CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT FORT SAM HOUSTON TRANSPORTATION PROJECTS		
TYPICAL SECTIONS HARRY WURZBACH & BURR RD. INTERSECTION (PROPOSED)		
5 OF 8	FINAL SUBMITTAL PROJECT NO.: 915-12-470,etc	DATE: 7/31/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 11



PROPOSED TYPICAL (HARRY WURZBACH AT WINANS ROAD INTERSECTION)
 STATION 52+75.00 TO STATION 68+50.00
 ** SEE DETAIL ON TYPICAL SHEET 5 OF 8

NOTE: PLACE 6" HMAC TY B IN LOU OF 6" LIME STABILIZED SUBGRADE AT AREAS DESIGNATED AS OFF PEAK HOURS SHOWN ON THE TCP LAYOUT SHEETS

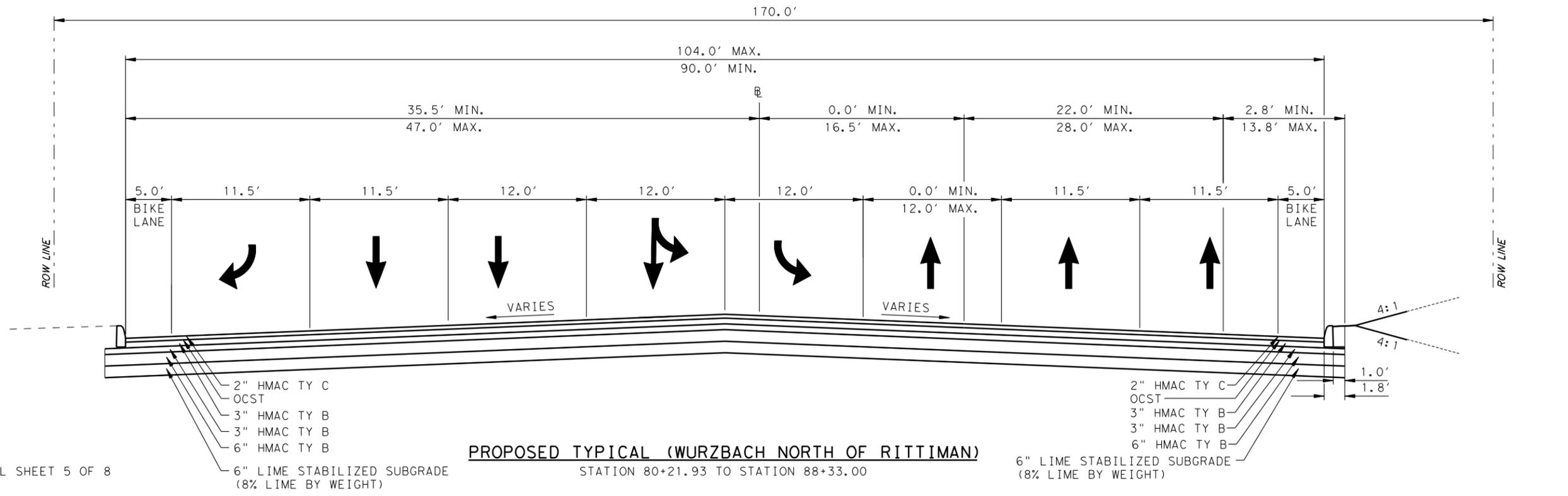


PROPOSED TYPICAL (WINANS ROAD)
 STATION 10+38.12 TO STATION 14+80.00

** Note: SEE PAVEPREP SA SCHEMATIC PLAN SHEET 169

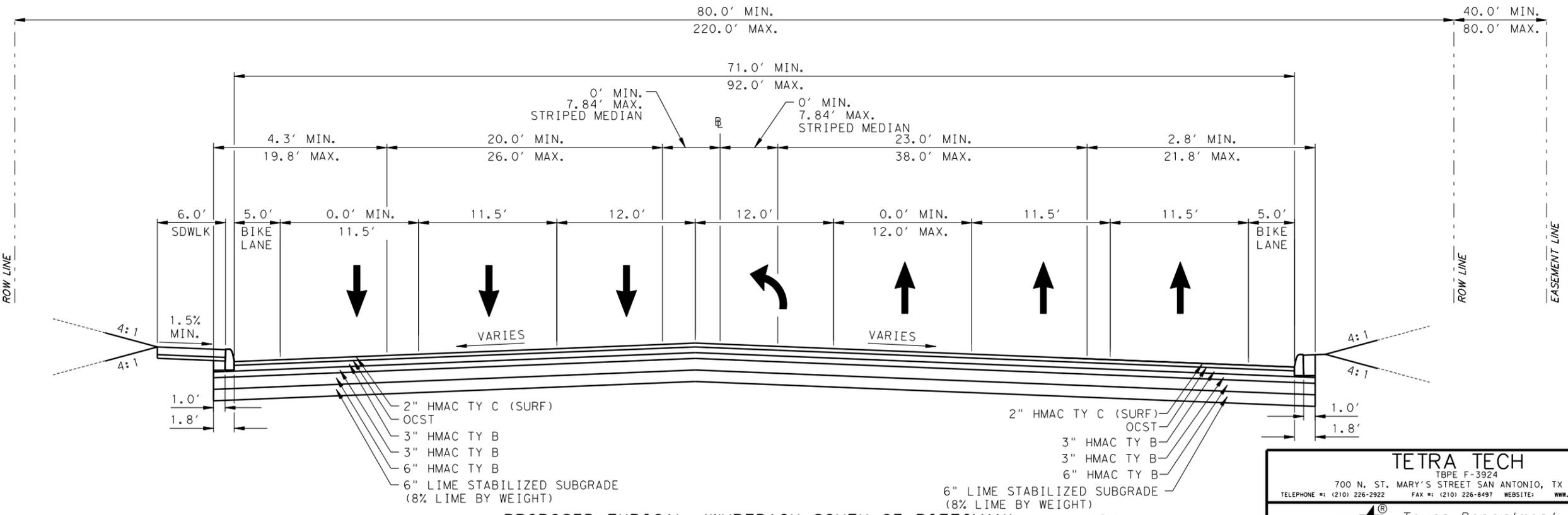


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TYPICAL SECTIONS HARRY WURZBACH & WINANS RD. INTERSECTION (PROPOSED)		
6 OF 8	FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		DATE: 7/31/2011
		SHEET NO.: 12



PROPOSED TYPICAL (WURZBACH NORTH OF RITTIMAN)
STATION 80+21.93 TO STATION 88+33.00

** SEE TYPICAL SHEET 5 OF 8



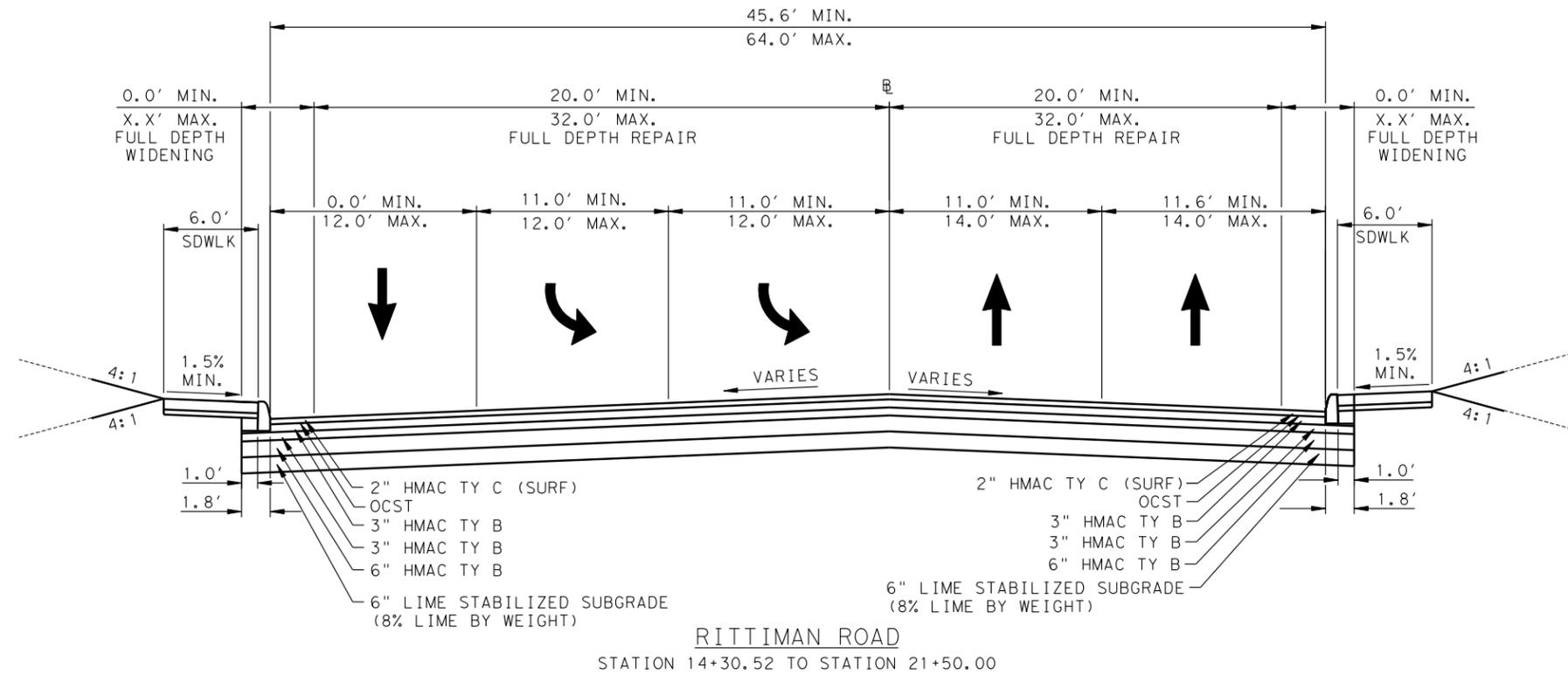
PROPOSED TYPICAL (WURZBACH SOUTH OF RITTIMAN)
STATION 68+50.00 TO STATION 79+30.10

NOTE: PLACE 6" HMAC TY B IN LOU OF 6" LIME STABILIZED SUBGRADE AT AREAS DESIGNATED AS OFF PEAK HOURS SHOWN ON THE TCP LAYOUT SHEETS



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CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT FORT SAM HOUSTON TRANSPORTATION PROJECTS		
TYPICAL SECTIONS HARRY WURZBACH & RITTIMAN RD. INTERSECTION (PROPOSED)		
7 OF 8	FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		DATE: 7/31/2011
		SHEET NO.: 13

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NOTE: PLACE 6" HMAC TY B IN LOU OF 6" LIME STABILIZED SUBGRADE AT AREAS DESIGNATED AS OFF PEAK HOURS SHOWN ON THE TCP LAYOUT SHEETS

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TYPICAL SECTIONS HARRY WURZBACH & RITTIMAN RD. INTERSECTION (PROPOSED)		
8 OF 8	FINAL SUBMITTAL PROJECT NO.: 915-12-470,etc	DATE: 7/31/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE SHEET NO.: 14

*****GENERAL NOTES*****

2004 Specification Book (Revised January 5, 2011)

===== Basis of Estimate =====

- The Following Is For Information Only - Non Pay-

Item Unit	Description	Rate/Area	Quant-
204	Sprink (Emb)	60 Gal/SY Rate	
213	Roll (Surf)	1 Hr/3000 SY/Crse Rate	

===== Asphalt Concrete Pavement =====

Type	Location	Depth	Rate/Area	Quant-Tons
HMAC TY B PG 64-22	Main Rdwy	9 in.	1320 lbs/40447 sy	26695
HMAC TY C PG 64-22	Main Rdwy	2 in	220 lbs/53,984 sy	5,938

===== Surface Treatment Data =====

Description	1st Course	2nd Course
Area	53,984 sy	N/A

-----See Bid Item-----

Asphalt—Type	AC-5 or 10, CRS/HFRS-2, RS/CRS-1P	N/A
Asphalt—Rate (gal/sy)	0.3/1 = 16,195 gal	N/A
Aggregate—Type /Gr	PE Grade 4	N/A
Aggregate—Rate (cy/sy)	1/100 = 940 cy	N/A

The following State, District, Local and/or Utility Standards have been modified: N/A

Steel Wrapped or Asbestos Utility Lines:

Existing steel wrapped natural gas and/or asbestos cement (AC) water lines that will no longer be in service are usually abandoned in place (AIP). However, if any of these lines have to be removed for whatever reason (in the way of other construction, to make tie-ins, etc.) comply with all federal, state and local laws, ordinances and regulations regarding the management of these materials. At a minimum:

1. Contact the Engineer.
2. Remove the minimum amount of pipe needed to perform the proposed work.
3. Cover and secure the ends of the pipe with a double layer of 6 mil plastic. If the pipe is damaged, cover the entire pipe.

4. Move the pipe to an approved temporary site within the project.

5. The Engineer will determine the owner (utility company) of the pipe and will coordinate removal from the project. The contractor will load the pipe onto the removal vehicles but will NOT be responsible for removing the pipe from the project.

6. Removal of the pipe from the trench is subsidiary to the work that created the need for the removal (excavation for structures, roadway, a new line, tie-ins, etc.). The work performed in handling the pipe after it has been removed from the trench (covering with plastic, hauling to the temporary site and later loading on to the disposal vehicles will be paid for through the Force Account procedure.

Contact the Engineer or the City when construction operations are within 400 feet of a signalized intersection to determine/verify the location of loop detectors, conduit, ground-boxes, etc. Repair or replace any signal equipment damaged by construction operations. The method of repair or replacement shall be pre-approved and inspected. Depending on the type and extent of the damage, the Engineer reserves the right to perform the repair or replacement work and the Contractor will be billed for this work.

Remove existing raised pavement markings as the work progresses or as approved. This work is subsidiary to the various bid items. Properly dispose materials removed.

To better fit field conditions, the cross sections may be varied when approved.

If there are waste areas or material source areas, follow the Texas Aggregate Quarry and Pit Safety Act requirements.

Any materials removed and not reused and determined to be salvageable shall be stored within the project limits at an approved location or delivered undamaged to the storage yard as directed. Properly dispose unsalvageable materials in accordance with local, state, and federal regulations. Deface traffic signs so that they will not reappear in public as signs.

Any sign panels that are adjusted or removed and replaced, shall be done the same workday unless otherwise approved.

Notify the Engineer at least two weeks prior to a proposed traffic pattern change(s) that will require a revision to traffic signals.

Hurricane Evacuation

Hurricane Season is from June 1 thru November 30. As the closest metropolitan city inland from the Texas Coast, the City of San Antonio is a major shelter destination during mandatory hurricane evacuations. As such, planned work zone lane or road closures may be restricted and/or suspended during mandatory hurricane evacuation operations. The District will coordinate these restrictions at a minimum H-120 from any projected impact to the Texas Coast.

No time charges will be made if the Engineer determines that work on the project was impacted by the hurricane.

The Engineer may order changes in the Traffic Control Plan to accommodate evacuation traffic, and may suspend the work, all or in part, to ensure timely completion of this work. All work to implement changes in the Traffic Control Plan will be paid through existing bid prices or through Item 9.5, Force Account. However, the Department will not entertain any request for delay damages, loss of efficiency that may be attributed to the restriction or suspension of road or lane closures, or to changes in the Traffic Control Plan.

--Item 5--

Reference all existing striping and other pavement markings to allow these markings to be re-established. Ensure the markings (lane lines, edge lines, ramp gores, etc.) are in line with signs, TMS arrows, etc. located on overhead sign supports.

Taper ACP placed at curb inlets, traffic inlets and slotted drains.

Prior to letting, bidders may obtain a free computer diskette or a computerized transfer of files (from the Engineer's office) that contains the earthwork information. If copies of the cross-sections in addition to, or instead of, the CD are requested, they will be available at the Engineer's office for borrowing by copying companies at the bidder's expense.

When working near aerial electrical lines or utility poles, comply with Federal, State and local regulations. For electrical lines and poles shown in the plans, if the lines need to be de-energized or if poles need to be braced, contact the electrical company. Work pertaining to de-energizing lines, bracing poles and other protective measures will not be paid by City.

Considering location of existing overhead lines for construction and design purposes. Sleeving of overhead primary lines will be a cost to the contractor. The shielding/sleeving of lines is for reference, not for protection from electrical shock.

The General contractor accepts full responsibility to protect the integrity of CPS Energy poles, Overhead Primary and all associated facilities of the CPS Energy electric system, when working around CPS Energy Overhead facilities during the duration of the Civic Improvement project.

Prevention of Migratory Bird Nesting

It is anticipated that migratory birds, a protected group of species, may try to nest on bridges, culverts, vegetation, or gravel substrate, at any time of the year. The preferred nesting season for migratory birds is from February 15 through October 1. When practicable, schedule construction operations outside of the preferred nesting season. Otherwise, nests containing migratory birds must be avoided and no work will be performed in the nesting areas until the young birds have fledged.

Structures

Bridge and culvert construction operations can not begin until swallow nesting prevention is implemented, until after October 1 if it's determined that swallow nesting is actively occurring, or until it's determined swallow nests have been abandoned. If the State installed nesting deterrent on the bridges and culverts, maintain the existing nesting deterrent to prevent swallow nesting until October 1 or completion of the bridge and culvert work, whichever occurs earlier. If new nests are built and occupied after the beginning of the work, do not perform work that

can interfere with or discourage swallows from returning to their nests. Prevention of swallow nesting can be performed by one of the following methods:

1. By February 15 begin the removal of any existing mud nests and all other mud placed by swallows for the construction of nests on any portion of the bridge and culverts. The Engineer will inspect the bridges and culverts for nest building activity. If swallows begin nest building, scrape or wash down all nest sites. Perform these activities daily unless the Engineer determines the need to do this work more frequently. Remove nests and mud through October 1 or until bridge and culvert construction operations are completed.

2. By February 15 place a nesting deterrent (which prevents access to the bridge and culvert by swallows) on the entire bridge (except deck and railing) and culverts.

No extension of time or compensation payment will be granted for a delay or suspension of work caused by nesting swallows. This work is subsidiary to the various bid items.

Provide a non-intrusive back-up alarm system on all heavy equipment used in close proximity to if residential areas. This item is subsidiary to various bid items.

--Item 6--

Show the stockpile lot and/or sub lot numbers on all tickets for all materials.

--Item 7--

The project's total disturbed area is 14.22 AC (68,865 SY). The disturbed area in all project locations and Contractor project specific locations (PSL's), within 1/4 mile of the project limits, will further establish the authorization requirements for storm water discharges. The department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. Obtain any required authorization from the TCEQ for any PSL's on or off the ROW. When the total area disturbed on the project and PSL's within 1/4 mile of the project exceeds 5 acres, provide a copy of the Contractor NOI for PSL's to the Engineer (to the appropriate MS4 operator when the project is on an off-state system route).

Notify the Engineer of the disturbed acreage within one (1) mile of the project limits. Obtain authorization from the TCEQ for Contractor PSL's for construction support activities on or off ROW.

--Item 8--

Working days will be computed and charged in accordance with Article 8.3.A. Five (5)-Day work week.

Locate and reference with station and offset all manholes and valves within the construction area. Each manhole and valve shall be identified by its owner (SAWS, CPS, etc.). No roadwork will begin until this list has been submitted. Gas valves have to be accessible at all times, therefore; temp. CTB, material stock piles, etc. can not be placed over these valves.

Construct all manholes and valves to final pavement elevations prior to the final mat of ACP. If, between the final elevation adjustment and the final mat of ACP, the manholes and valves are going to be exposed to traffic, place temporary asphalt around the manhole and valve to provide a +/- 50:1 taper. The cost of elevation adjustment will be part of the manhole and valve work, and asphalt tapers are part of the ACP work.

--Item 9--

When approved, provide uniformed, off-duty law enforcement officers with marked vehicles during work that requires a lane closure. The officer in marked vehicles shall be located as approved to monitor or direct traffic during the closure. The method used to direct traffic at signalized intersections shall be as approved. Additional officers and vehicles may be provided when approved or directed.

Complete the daily tracking form provided by the department and submit invoices that agree with the tracking form for payment at the end of each month approved services were provided.

Minimums, scheduling fees, etc. will not be paid; City will consider paying cancellation fees on a case by case basis.

--Item 100--

Begin clearing operations after trees and other areas of vegetation to be protected have been identified and approved. Install fencing around features to be protected as shown in the plans or directed. Coordinate all right of way clearing operations with the SW3P.

Trim and remove brush and trees as needed for construction operations. Obtain approval for proposed method of tree and brush trimming and removal. Vertical flailing equipment is not allowed. Treat damaged or cut branches, roots and/or stumps of all oak trees with a commercial tree wound dressing. Disinfect all pruning tools with a solution of 70% alcohol before moving from one tree to another. Unless otherwise approved remove all resulting vegetative debris from the ROW within 24 hours. The Engineer can stop all construction operations if the dressing, cut and removal requirements are not followed.

Remove and reset existing steel pipe railing at sta. 77+00.00 LT to complete proposed construction. This work is subsidiary

--Item 110--

Where excavation extends beyond a right of way fence, remove and replace the fence to a comparable condition.

--Item 160--

Approximately 264 CY of existing topsoil may be windrowed or stockpiled (as approved) for later use under this Item. Place erosion control measures for the stockpile and/or windrow.

--Item 162--

Furnish and place Bermuda grass sod.

In drought conditions do not place sod as vegetation unless directed by the Engineer.

--Item 166--

Use a fertilizer with an analysis of 13-13-13 (50% of the total N must be sulfur coated urea) to apply 60 lbs of actual N per acre. This requires 460 lbs of 13-13-13 per acre or .095 lbs per SY of area.

--Item 168--

Apply vegetative watering as needed to supplement natural rainfall during the vegetation establishment period. Plan quantity of irrigation water is based on the application of a total of

1.3 gal of water each week for each sq. yd. of area that is sodded or seeded. Establishment time is estimated to be 12 weeks for both sod and permanent seed mixes. Temporary seeding will require less time for establishment. Provide a schedule and coordinate watering cycles and rates per cycle with the Engineer. Obtain approval if the quantity of water to be applied is expected to exceed the plan quantity. Adjust the amount of water applied with each cycle and the number of cycles each wk. according to actual site conditions. Drought or other conditions, as determined by the Engineer, may require the application of supplemental irrigation during hours other than normal working hours.

--Item 169--

Do not use soil retention blankets made from carpet backing material.

--Item 247--

There is no minimum PI requirement for this project.

--Item 260 & 263--

Lime trucks may be randomly selected to be re-weighed at public scales. If the weight of the trucks varies by more than 2%, payment will be as determined by the public scales.

--Item 300--

The asphalt binder used in the manufacture of all types of hot mix asphalt concrete, shall be PG 64-22.

--Item 302--

Previously tested aggregates found to contain excessive quantities of dust (more than 0.5 percent passing the No. 40 sieve) during precoating, stockpiling or hauling operations, may be rejected. Use Test Method Tex-200-F, Part I for testing.

Precoated Aggregate Type PE shall consist of crushed slag, crushed stone or natural limestone rock asphalt.

The Engineer will utilize the Ignition Oven Method (Tex 236-F) for aggregate gradation, with the option of utilizing belt or vacuum extraction gradation in the event the ignition oven malfunctions.

--Item 305--

All reclaimable asphalt pavement (RAP) material will be retained by the Contractor.

--Item 314--

Use emulsified asphalt in the final flexible base finishing process. The amount used shall be as approved, but not less than 2 percent of the total mixture.

--Item 316--

When using latex asphalt, avoid drifting of asphalt onto traffic and adjacent properties.

Asphalt season will be year around, but meet sections 316.4.D.1 through 3.

Ensure that the asphalt for precoating the aggregate and the asphalt used for the surface treatment will not result in a reaction that may adversely affect the bonding of the aggregate and asphalt during the surface treatment operation.

Do not add bag house fines in the production of pre-coated material.

Clean all concrete curbs, islands, medians, etc. that get coated with asphalt.

--Item 320--

Construct all longitudinal ACP joints adjacent to a travel lane with a joint maker device that will create a 3:1 to 6:1 taper. For placement of 2 inches or more, the device shall provide a maximum 1/2 inch vertical edge. Taper outside edges (next to the grass) or backfill (shoulder-up) the same day.

Provide a material transfer device capable of providing a continuous flow of material to the paver. The material transfer device will consist of a windrow elevator or better.

--Item 330--

The asphalt plant shall have truck scales as defined in Item 520. Give three weight tickets bearing the date, the truck number, and the gross, net & tare weights to the truck driver, for the State inspector at the spreading and finishing operation. Trucks may be required to weigh on public scales or portable platform scales to verify the weight of the ticket.

Use trap rock or crushed slag as the special aggregate for LRA.

If LRA is stockpiled where it might get contaminated with foreign materials, the bottom of the stockpile can not be used. A set of standard truck scales will be used to determine the quantity of contaminated material that will be deducted. Unless approved, do not stockpile LRA more than 10 days prior to lay-down operations.

The fluxing material shall be either an emulsified combination of asphalt and softening agent added individually (the softening agent may also be an emulsion), or a material meeting the requirements of Item "Asphalt's, Oils and Emulsions". The material(s) selected shall be approved.

--Item 340, 341 Or 344--

Table 6, in Item 340, Table 8 in Item 341 and Table 8 in Item 344, Hamburg Wheel Test Requirements tested in accordance with Tex-242-F are changed for PG 64-22 or lower and PG 70-22. Minimum number of passes at 1/2" Rut Depth, Tested at 122 degrees F will be 5,000 and 10,000 respectively.

Design all mixture types using a target laboratory-molded density of 96.5%.

The asphalt plant shall have truck scales as defined in Item 520. Give three weight tickets bearing the date, the truck number, the gross, net & tare weights to the truck driver for the State inspector at the spreading and finishing operation. Trucks may be required to weigh on public scales or portable platform scales to verify the weight of the ticket.

Submit a copy of the Tex 233-F production charts on a weekly basis. At the end of the ACP work, provide all originals.

Crushing of aggregate for hot mix and immediate use for production of the mix is not allowed. Stockpile the aggregate until enough material is available for five days of production unless prior approval is provided. Hold a pre-placement meeting one month prior to the placement of the hot mix.

The main purpose of hot mix cores taken by the State are for payment calculations. If (for quality control purposes) the core information is needed sooner, take additional cores.

Do not use diesel or solvents as asphalt release agents in production, transportation, or construction. A list of approved asphalt release agents is available from the District Laboratory.

No more than one hot mix lot will be open for any specific type of hot mix, unless authorized. After a lot is open and the Contractor gets approval to change plants, the previous lot will be closed and a new lot will be opened. The numbering for the lots produced at the new plant will start with No. 1. If allowed to switch back to the original or previous plant, the next lot from that plant will resume numbering sequentially from the last lot produced by that plant.

Schedule lay-down placement where uneven travel lanes are minimized and eliminated weekly.

If asphalt material is obtained from other than a commercial source presently inspected by City, furnish a Type D structure for the asphalt mix control laboratory for the Engineer's use. Provide a minimum height of 8 feet and a minimum of 400 square feet of gross floor area for permanently located asphalt plants or 200 square feet for a temporary plant. The floor area will be partitioned into a minimum of two rooms, with a minimum of two windows per room. The floor shall have an impervious cover and sufficient strength to support the testing equipment. Portable structures shall be support blocked for stability and shall be tied down.

Minimum Roadway Placement Temperature

--Item 340, 342, 344, 346, 3127 & 3142--

Place mixture when the roadway surface temperature is equal to or higher than listed in Table 1 unless otherwise approved or shown on the plans. Measure the roadway surface temperature with a handheld infrared thermometer. Placement may be allowed to begin prior to the roadway surface reaching the required temperature if conditions are such that the roadway surface will reach the required temperature within 2 hrs. of beginning placement operations. Place mixtures only when weather and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

Table 1
 Minimum Pavement Surface Temperatures

Specification Item Number	High Temperature Binder Grade	Minimum Pavement Surface Temperatures in Degrees Fahrenheit *	
		Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
Items 340 & 344	PG 64	45	50
	PG 70	55	60

	PG 76	60	60
Items 342 and 346 SS 3127 & SS 3142	PG 76	65	70
	Asphalt Rubber (A-R)	65	70

* Except for PG 64, may pave at temperatures 10° F lower than the values shown in Table 1 when utilizing a paving process or equipment that eliminates thermal segregation. In these cases, use either an infrared bar attached to the paver, or a hand held thermal camera, or a hand held infrared thermometer operated in accordance with Text Method 244-F to demonstrate that the uncompacted mat has no more than 10° F of thermal segregation.

--Item 354--

Retain planed material.

--Item 401--

A shrinkage compensator is not required for when used for backfilling pipes. Strength of the Flowable Backfill will be verified by the District Laboratory. Field testing is not required, unless deemed necessary.

--Item 420--

Mass concrete will be measured in place.

--Item 421--

Poly-fiber reinforced concrete may be used as an option, with the approval by the Engineer, for riprap, sidewalk, curb/gutter, and mow strip. Use a City approved manufacturer or producer for the poly-fiber. The poly-fibers shall be combined with the concrete in proportions as recommended by the manufacturer. A concrete mix design must be approved by the Engineer.

--Item 432--

In all riprap slopes, provide 3 inch diameter weep holes at 10 foot maximum spacing and backed with loose graded gravel or crushed stone and galvanized hardware cloth.

Match the slope of the Riprap (Mow Strip) to the slope of the adjacent roadway.

--Item 462--

Use concrete aggregate with two sacks of Portland cement per cubic yard for fill between pre-cast boxes.

The following structures shall be pre-cast:
 All Structures are considered to be cast in place unless otherwise approved by engineer.

--Item 465--

Concrete Class B invert shaping is required at all inlets, manholes and junction boxes in order to insure positive flow. The material and work performed for the placement of the inverts shall be considered subsidiary to this item.

Provide for the safety and health of employees and abide by all OSHA Standards and Regulations. All costs incurred for proper management, shall be subsidiary to this Item.

--Item 500--

"Materials on Hand" payments will not be considered in determining percentages for mobilization payments.

--Item 502--

Place standard markings no later than 14 days after surface treatment operations are completed.

When advanced warning flashing arrow panels and/or changeable message sign is specified, have one standby unit in good condition at the job site.

Treat the pavement drop-offs as shown in the TCP.

After written notification, the time frame to provide properly maintained signs and barricades before considered in non-compliance is 48 hours from receipt of the notification.

There are traffic signals at the intersection of Burr Rd./Harry Wurzbach, Winans Dr./Harry Wurzbach, and Rittiman Rd./Harry Wurzbach. Keep the signals in operation except when necessary for specific installation operations.

Moving an existing sign to a temporary location is subsidiary to this Item. Installations with permanent supports at permanent locations will be paid for under the applicable bid item (s).

Mount temporary mailboxes on plastic drum in accordance with Compliant Work Zone Traffic Control Devices, Section K. Mounting and moving the mailbox as needed for the various construction phases is subsidiary to this Item.

Notify the Engineer 5 business days in advance of any temporary or permanent lane, ramp, etc. closures/detours, restrictions to lane widths, alterations to vertical clearances, or modifications to radii. Any other modifications to the roadway that may adversely affect the mobility of oversized/overweight trucks also require 5 business days advance notice to the Engineer. Unless shown in the TCP, no lane, ramp, etc. closures are allowed during special events. At least one lane has to remain open at all times. For all lane closures, provide written closure information by 1:00PM on the business day prior to the closure. For closures on a Monday or following a Holiday, furnish the information the workday prior to the closure. Lane closures will not be allowed if this reporting requirement is not met.

For closures not listed in the TCP; the lane closures are limited to Weekend hours between 10 PM Friday through 5 AM Monday and at least one lane has to remain open at all times.

Avoid placing stockpiles within the roadway's horizontal clear zone. If a stockpile is placed within the clear zone, address in accordance with the TMUTCD.

Do not place barricades, signs, or any other traffic control devices where they interfere with sight distance at driveways or side streets.

In addition to providing a Contractor's Responsible Person and a phone number for emergency contact, have an employee available to respond on the project for emergencies and for taking

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corrective measures within 2 hours or within a reasonable time frame as specified by the Engineer.

--Item 529--

Class "C" concrete is required for machine extruded curb.

Curb inlets and extensions are based on an exposed curb height of 7 inches. The roadway curb height and shape will be transitioned to the inlet's curb with a 40: 1 taper.

--Item 531--

The curb ramp locations shown in the plans have taken into account the geometric features of the intersection, traffic signals, and the pavement markings. If anything changes during construction, the location of curb ramps must be adjusted to ensure they meet TAS requirements.

The contractor shall stop all construction related activities to prevent noise from interfering with funeral services at the fort Sam Houston cemetery as determined by the engineer. Adequate vehicular access to the cemetery facility especially during funeral processions will be provided at all times. Contractor shall coordinate with ft Sam Houston cemetery representatives throughout the construction phasing.

--Item 585--

Ride quality requirements are waived.

--Item 618--

It might be necessary to cut concrete for placement of conduit. Saw cut existing concrete, remove the concrete from the steel reinforcement (bars or fabric) and bend the steel to install the conduit. After the conduit has been placed, bend the steel back to its original position and back-fill the trench with an approved concrete. This work is subsidiary to this Item.

The conduit depth for illumination under the City of San Antonio streets is 36 inches.

Do not use cast iron junction boxes in single slope traffic barriers.

Use materials from Material Producers list as shown on the Construction Division's (CST) web site. Category is "Roadway Illumination and Electrical Supplies."

The polymer concrete barrier box will not be paid for separately, but will be considered subsidiary to ITEM 618, "CONDUIT".

--Item 624--

Legibly imprint the ground box cover with the words "Danger High Voltage" as required by the "Electrical Details" State Standard Sheet(s). In addition, imprint "Traffic Signal", "TMS", "Illumination", or whatever other system will be housed in the ground box. The ground box locations shown on the plans are approximate and can be adjusted to better fit field conditions when approved.

--Item 628--

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Make all arrangements for electrical service, and compliance with local standards and practices for proper installations.

--Item 644--

The wedge anchor system shown on State Standard Sheet SMD (TWT) are not allowed.

--Item 647--

Note: Contractor to provide engineering drawings and calculations for design of large sign and foundation relocation. Complete cost including labor, materials, equipment and professional engineering drawings (signed and sealed by professional engineer) will be included in the cost of this item. Refer to Signing and Pavement Marking Sheet 215 for location of existing signs. The Engineer shall provide the new location of the sign.

--Item 658--

CTB reflectors will not be paid for directly but will be considered subsidiary to the barrier.

--Item 666 & 8251--

If TY II material is used (vs. an acrylic or epoxy) as the sealer for the TY I markings, place the TY II a minimum of 14 calendar days (to provide adequate curing) before placing the TY I markings.

--Item 672--

Place all adhesive material directly from the heated dispenser to the pavement. Do not use portable or non-heated containers. Use adhesive of sufficient thickness so that when the marker is pressed into the adhesive, 1/8" or more adhesive will remain under 100% of the marker. The adhesive should extend not less than 1/2" but not more than 1 1/2" beyond the perimeter of the marker.

--Item 677--

Obtain approval before using the mechanical method for the elimination of existing thermoplastic pavement markings.

--Item 680--

Furnish and install all required materials and equipment necessary for the complete and operating traffic signal installation at the following intersections:
Burr Rd./Harry Wurzbach, Winans Dr./Harry Wurzbach, and Rittiman Rd./Harry Wurzbach.

The locations shown on the plans for signal pole foundations, controller foundations, conduit and other items may be adjusted to better fit field conditions as approved.

Provide lamps from the pre-qualified Materials Producers List- Roadway Illumination and Electrical Supplies located at TxDOT website-Business with TxDOT-Materials Information.

Demonstrate that the field wiring is properly installed, install the controller assembly, connect the wiring and turn on the controller.

--Item 682--

Provide all signal heads from the same manufacturer. Pedestrian signals may be by a different manufacturer than the vehicle signal heads.

Cover all signal faces until placed in operation.

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All pedestrian signal faces shall be single section LED Type. Die cast polycarbonate is acceptable in lieu of die cast aluminum. All mounting attachments shall be constructed of steel pipe and mounted as shown on the plans.

For all proposed mast arm pole assemblies, use mounting bracket assembly Option "C" as shown on the State Standard Sheet(s) "Single Mast Arm Assemblies".

--Item 684—

Provide all signal heads from the same manufacturer. Pedestrian signals may be by a different manufacturer than the vehicle signal heads.

Cover all signal faces until placed in operation.

All pedestrian signal faces shall be single section LED Type. Die cast polycarbonate is acceptable in lieu of die cast aluminum. All mounting attachments shall be constructed of steel pipe and mounted as shown on the plans.

For all proposed mast arm pole assemblies, use mounting bracket assemble Option "C" as shown on the State Standard Sheet(s) "Single Mast Arm Assemblies".

--Item 684--

Provide an extra 10' for each cable terminating in the controller cabinet. All cables shall be continuous without splices from terminal point to terminal point. All proposed signal cable shall be #12 AWG stranded copper.

--Item 686 & 687—

Provide all signal poles from the same manufacturer. Pedestrian poles may be from a different manufacturer.

--Item 688—

The sealant used must be approved.

The pedestrian push button shall be raised or flush and a minimum of 2 inches in the smallest dimension. The force to activate the control shall be no greater than 5 lb/f. the button placement has to be coordinated with the concrete pad to access the button. The concrete pad (if required) shall be paid separately.

The pedestrian push button shall be wired with a 2/C#14 lop detector cable in lieu of a #12 A.W. G. XHHW wire.

--Item 730—

Spot mow and hand trim the right of way, including newly seeded or sodded areas, when vegetation reaches a height of 16" or when directed. Removal of brush sprouts growing within guardrail, concrete barriers or at other locations where mowing or hand trimming is done within the limits of construction is required and subsidiary to this item. Mowing may be required more often in newly sodded or seeded areas than in other parts of the project because of the supplemental irrigation these areas receive and the resulting weed growth. Coordinate mowing to avoid rutting or compaction of the soil when mowing where supplemental irrigation is being used. Use mowing equipment that will not adversely affect soil retention blankets or mulches that have been applied. Work performed under this item does not replace the mowing required

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when placing permanent seeding in an area that has established temporary seeding as described in Article 164-3, Construction.

--Item 6007—

All existing signal equipment with the exception of the signal controller and equipment become the property of the Contractor and disposed of in accordance with the specifications. Deliver the controller and related equipment to the Signal Shop, located at 233 S. Cherry Street, San Antonio, Texas or to the Area Office as directed.

1.) TREE PERMIT (REQUIRED)

2.) TREE PRESERVATION PLAN/MITIGATION PLAN (IF REQUIRED). PRESERVATION PLAN TO INCLUDE BUT NOT LIMITED TO: TREE SURVEY, TREE INVENTORY, TREE PROTECTION NOTES, TREE PROTECTION DETAILS, PRUNING DETAIL, ALTERNATIVE CONSTRUCTION METHODS INCLUDING SIDEWALKS, AND TREATMENT MEASURES WHERE APPLICABLE, I.E., FERTILIZATION, MULCH, SOIL DECOMPACTION, ETC.

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 THE 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 (TELEPHONE NO. 532-2860).
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 207-8048
 - 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 THE 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 THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN 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 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.I.M.S. 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.I.M.S. APPROVAL.
 - THE CONTRACTOR MUST STOP THE EXCAVATION IMMEDIATELY AND CONTACT THE C.I.M.S. 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.

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. (207-8053)
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 NE 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.

MAY 2009

CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT		
CITY OF SAN ANTONIO GENERAL NOTES		
FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc	DATE: 8/14/2009
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 22

THE FOLLOWING CHANGES ARE MADE TO THE CITY OF SAN ANTONIO'S GENERAL NOTES:

ADDITIONAL NOTES:

1. THE 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. THE CONTRACTOR WILL BE LIABLE FOR ANY DAMAGES TO VIA FACILITIES NOT REMOVED BY VIA. THE CONTRACTOR IS REQUIRED TO REPLACE ALL FLAT WORK 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.
2. THE CONTRACTOR SHALL CONTACT TxDOT A MINIMUM OF 72 HOURS PRIOR TO STARTING ANY WORK ON TxDOT RIGHT-OF-WAY.
3. THE CONTRACTOR SHALL SUBMIT TO TxDOT A TRAFFIC CONTROL PLAN TO PROVIDE DETOURS, BARRICADES, WARNING SIGNALS, FLARES, FLASHING LIGHTS, SIGNALS OR FLAGMEN, AS DEEMED NECESSARY BUT TxDOT PER THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR IS RESPONSIBLE TO DIRECT AND PROTECT VEHICULAR AND PEDESTRIAN TRAFFIC DURING CONSTRUCTION OR RELATED ACTIVITIES.
4. ALL COORDINATION OF TRAFFIC CONTROL AND INSPECTION OF TRAFFIC CONTROL DEVICES FOR WORK ON TxDOT RIGHT-OF-WAY ARE THE SOLE RESPONSIBILITY OF TxDOT.

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CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT			
CITY OF SAN ANTONIO SUPPLEMENTAL GENERAL NOTES			
FINAL SUBMITTAL	PROJECT NO.: 915-12-470.etc	DATE: 7/31/2011	
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE	SHEET NO.: 23

BURR RD/ WURZBACH INTERSECTION (CSJ 915-12-471)		WINANS RD/ WURZBACH INTERSECTION (CSJ 915-12-470)		RITTIMAN RD/ WURZBACH INTERSECTION (CSJ 915-12-480)		SAWS (WATER)		SAWS (SANITARY SEWER)		CPS		ITEM - CODE			DESCRIPTION	UNIT	TOTAL	
EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	ITEM NO	DESC CODE	SP NO			EST.	FINAL
14.60		20.85		32.90								100	2002	002	PREPARING ROW	STA	68.35	
2,060.00		3,457.00		0.00								104	2001		REMOVING CONC (PAV)	SY	5,517.00	
1,742.00		2,285.00		864.00								104	2017		REMOVING CONC (DRIVEWAYS)	SY	4,891.00	
524.00		863.00		6,213.00								104	2029		REMOVING CONC (CURB OR CURB & GUTTER)	LF	7,600.00	
0.00		0.00		789.00								104	2031		REMOVING CONC (HEADWALL)	CY	789.00	
112.00		0.00		199.00								104	2036		REMOVING CONC (SIDEWALK OR RAMP)	SY	311.00	
2,554.00		8,495.00		15,935.00								105	2011		REMOVING STAB BASE AND ASPH PAV (2"-6")	SY	26,984.00	
2,349.00		1,107.00		2,295.00								110	2001		EXCAVATION (ROADWAY)	CY	5,751.00	
14.60		15.75		0.00								112	2001		SUBGRADE WIDENING (ORD COMP)	STA	30.35	
5,081.90		8,745.22		24,105.78								132	2001		EMBANKMENT (FINAL)(ORD COMP)(TY A)	CY	37,932.90	
2,376.11		5,957.22		7,033.89								162	2002		BLOCK SODDING	SY	15,367.22	
37.07		104.33		109.73								168	2001		VEGETATIVE WATERING	MG	251.13	
224.78		379.85		1,014.68								260	2001	002	LIME (HYDRATED LIME (DRY))	TON	1,619.31	
5,978.34		10,102.22		26,987.22								260	2006	002	LIME TRT (EXST MATL) (6")	SY	43,067.78	
3,610.29		5,012.67		7,572.33								316	2028	016	ASPH(AC-5 OR 10,CRS/HFRS-2,RS/CRS-1P)	GAL	16,195.29	
120.34		167.09		252.40								316	2582	016	AGGR (TY-PB GR-4)	CY	539.83	
330.00		419.00		0.00								340	2236	003	D-GR HMA(METH) TY-B PG64-22 (LEVEL UP)	TON	749.00	
3,770.13		6,405.62		16,519.56								341	2011	024	D-GR HMA(QCQA) TY-B PG64-22	TON	26,695.31	
1,323.77		1,837.98		2,776.53								341	2034	024	D-GR HMA(QCQA) TY-C PG64-22	TON	5,938.28	
6,000.00		7,619.00		0.00								354	2045		PLANE ASPH CONC PAV (2")	SY	13,619.00	
2,400.00		3,150.00		0.00								356	2024		PAV JT UNDERSEAL (48")	LF	5,550.00	
				420.00								401	2001		FLOWABLE BACKFILL	CY	420.00	
				3,900.00								402	2001		TRENCH EXCAVATION PROTECTION	LF	3,900.00	
159.08		159.07		238.34								420	2120	002	CL C CONC (BUS STOP)	CY	556.49	
0.00		0.00		22.37								432	2001		RIPRAP (CONC)(4 IN)	CY	22.37	
				126.00								462	2006		CONC BOX CULV (5 FT X 2 FT)	LF	126.00	
				785.00								462	2019	011	CONC BOX CULV (8 FT X 4 FT)	LF	785.00	
				398.00								464	2005	003	RC PIPE (CL III)(24 IN)	LF	398.00	
				44.00								464	2007	003	RC PIPE (CL III)(30 IN)	LF	44.00	
				492.00								464	2009	003	RC PIPE (CL III)(36 IN)	LF	492.00	
				1,110.00								464	2011	003	RC PIPE (CL III)(48 IN)	LF	1,110.00	
				193.00								464	2013	003	RC PIPE (CL III)(60 IN)	LF	193.00	
				14.00								465	2014	001	MANH (COMPL)(JUNCT BOX)	EA	14.00	
				17.00								465	2020	001	INLET (COMPL)(CURB)(TY II)	EA	17.00	
				2.00								465	2077	001	INLET (COMPL)(DROP)(TY 1)	EA	2.00	
				7.00								465	2211	001	JUNCTION BOX (SPL)	EA	7.00	
				1.00								465	2215	001	INLET (COMPL)(TY H)(SPL)	EA	1.00	
				1.00								465	2405	001	INLET (COMPL)(CURB)(TY C)	EA	1.00	
				31.00								465	2473	001	INLET EXT (TY II-E)	EA	31.00	
				2.00								465	2474	001	INLET EXT (TY C-E)	EA	2.00	
				1.00								465	xxxx	001	INLET (COMPL)(DROP)(TY 1A)	EA	1.00	
		1.00										500	2001	005	MOBILIZATION	LS	1.00	
		10.00										502	2001	033	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	10.00	
0.00		0.00		288.00								502	2047	033	OFF-DUTY POLICE OFFICER	HR	288.00	
156.00		0.00		78.00								506	2016	013	CONSTRUCTION EXITS (INSTALL) (TY 1)	SY	234.00	
78.00		0.00		78.00								506	2019	013	CONSTRUCTION EXITS (REMOVE)	SY	156.00	
0.00		450.00		249.00								506	2032	013	SANDBAGS FOR EROSION CONTROL (18")	LF	699.00	
90.00		54.00		0.00								506	2034	013	TEMPORARY SEDIMENT CONTROL FENCE	LF	144.00	
0.00		3,421.00		4,663.00								508	2002		CONSTRUCTING DETOURS	SY	8,084.00	
1,000.00		340.00		2,040.00								512	2008	002	PORT CTB (FUR & INST)(LOW PROF)(TY 1)	LF	3,380.00	
40.00		60.00		140.00								512	2009	002	PORT CTB (FUR & INST)(LOW PROF)(TY 2)	LF	240.00	
0.00		1,500.00		4,080.00								512	2026	002	PORT CTB (MOVE)(LOW PROF)(TY 1)	LF	5,580.00	
0.00		140.00		260.00								512	2027	002	PORT CTB (MOVE)(LOW PROF)(TY 2)	LF	400.00	
120.00		1,500.00		1,760.00								512	2044	002	PORT CTB (REMOVE)(LOW PROF)(TY 1)	LF	3,380.00	
20.00		140.00		80.00								512	2045	002	PORT CTB (REMOVE)(LOW PROF)(TY 2)	LF	240.00	

ESTIMATE AND QUANTITY SHEET

BURR RD/ WURZBACH INTERSECTION (CSJ 915-12-471)		WINANS RD/ WURZBACH INTERSECTION (CSJ 915-12-470)		RITTIMAN RD/ WURZBACH INTERSECTION (CSJ 915-12-480)		SAWS (WATER)		SAWS (SANITARY SEWER)		CPS		ITEM - CODE			DESCRIPTION	UNIT	TOTAL	
EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	ITEM NO	DESC CODE	SP NO			EST.	FINAL
2,494.00		3,568.00		6,034.00								529	2001		CONC CURB (TY I)	LF	12,096.00	
907.00		1,330.00		1,943.00								530	2010		DRIVEWAYS (CONC)	SY	4,180.00	
104.00		1,106.00		1,951.53								531	2015		CONC SIDEWALK (4")	SY	3,161.53	
0.00		0.00		14.00								531	2034		CONC SIDEWALK (DRAIN)	LF	14.00	
0.00		8.00		5.00								531	2008		CURB RAMPS (TY 4)	EA	13.00	
0.00		0.00		3.00								531	2040		CURB RAMPS (TY 5)	EA	3.00	
0.00		0.00		718.00								536	2004		CONC DIRECTIONAL ISLAND	SY	718.00	
47.00		95.00		111.00								618	2018		CONDT (PVC) (SCHD 40) (2")	LF	253.00	
538.00		299.00		650.00								618	2022		CONDT (PVC) (SCHD 40) (3")	LF	1,487.00	
11.00		12.00		8.00								620	2009	001	ELEC CONDR (NO. 6) BARE	LF	31.00	
10.00		24.00		16.00								620	2010	001	ELEC CONDR (NO. 6) INSULATED	LF	50.00	
297.00		449.00		753.00								620	2011	001	ELEC CONDR (NO. 8) BARE	LF	1,499.00	
4.00		3.00		4.00								624	2014	014	GROUND BOX TY D (162922) W/APRON	EA	11.00	
1.00		1.00		1.00								628	2148	003	ELC SRV TY T 120/240 000 (NS)GS(N)SP(U)	EA	3.00	
10.00		10.00		10.00								636	2001	014	ALUMINUM SIGNS (TY A)	SF	30.00	
12.00		19.00		12.00								644	XXX1		INS SM RD SN SUP&AM COSA TY U MOUNT (POST TY 1)	EA	43.00	
1.00		0.00		1.00								644	XXX2		INS SM RD SN SUP&AM COSA TY U MOUNT (POST TY 2)	EA	2.00	
5.00		13.00		0.00								644	2060		REMOVE SM RD SN SUP & AM	EA	18.00	
0.00		0.00		2.00								647	2002		RELOCATE LRSA	EA	2.00	
1,480.00		2,260.00		2,530.00								662	2001		WK ZN PAV MRK NON-REMOV (W) 4" (BRK)	LF	6,270.00	
6,883.00		12,000.00		11,927.00								662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD)	LF	30,810.00	
0.00		28.00		380.00								662	2011		WK ZN PAV MRK NON-REMOV (W) 8" (LNDR)	LF	408.00	
0.00		130.00		275.00								662	2012		WK ZN PAV MRK NON-REMOV (W) 8" (SLD)	LF	405.00	
130.00		144.00		178.00								662	2016		WK ZN PAV MRK NON-REMOV (W) 24" (SLD)	LF	452.00	
6,570.00		10,968.00		7,912.00								662	2032		WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)	LF	25,450.00	
560.00		1,600.00		1,480.00								666	2003		REFL PAV MRK TY I (W) 4" (BRK)(100MIL)	LF	3,640.00	
1,990.00		1,625.00		5,007.00								666	2012		REFL PAV MRK TY I (W) 4" (SLD)(100MIL)	LF	8,622.00	
34.00		84.00		0.00								666	2015		REFL PAV MRK TY I (W) 6" (BRK)(100MIL)	LF	118.00	
0.00		185.00		20.00								666	2033		REFL PAV MRK TY I (W) 8" (LNDR)(100MIL)	LF	205.00	
1,620.00		5,267.00		2,770.00								666	2036		REFL PAV MRK TY I (W) 8" (SLD)(100MIL)	LF	9,657.00	
580.00		1,008.00		197.00								666	2048		REFL PAV MRK TY I (W) 24"(SLD)(100MIL)	LF	1,785.00	
2.00		9.00		25.00								666	2054		REFL PAV MRK TY I (W) (ARROW) (100MIL)	EA	36.00	
5.00		10.00		3.00								666	2057		REFL PAV MRK TY I (W)(BIKE ARW)(100MIL)	EA	18.00	
5.00		10.00		3.00								666	2063		REFL PAV MRK TY I(W)(BIKE SYML)(100MIL)	EA	18.00	
0.00		1.00		2.00								666	2072		REFL PAV MRK TY I(W)(ENTR GORE)(100MIL)	EA	3.00	
0.00		0.00		2.00								666	2075		REFL PAV MRK TY I(W)(EXT GORE)(100MIL)	EA	2.00	
1.00		3.00		6.00								666	2096		REFL PAV MRK TY I (W) (WORD) (100MIL)	EA	10.00	
0.00		0.00		2.00								666	2099		REF PAV MRK TY I(W)18"(YLD TRI)(100MIL)	EA	2.00	
4,436.00		7,810.00		6,306.00								666	2111		REFL PAV MRK TY I (Y) 4" (SLD)(100MIL)	LF	18,552.00	
752.00		1,649.00		138.00								666	2132		REFL PAV MRK TY I (Y) 24"(SLD)(100MIL)	LF	2,539.00	
2.00		10.00		0.00								666	2141		REFL PAV MRK TY I (Y)(MED NOSE)(100MIL)	EA	12.00	
6,986.00		11,035.00		12,793.00								666	2189		PAVEMENT SEALER 4"	LF	30,814.00	
1,620.00		5,452.00		2,550.00								666	2191		PAVEMENT SEALER 8"	LF	9,622.00	
1,332.00		2,657.00		335.00								666	2195		PAVEMENT SEALER 24"	LF	4,324.00	
112.00		211.00		242.00								672	2012	034	REFL PAV MRKR TY I-C	EA	565.00	
125.00		291.00		170.00								672	2015	034	REFL PAV MRKR TY II-A-A	EA	586.00	
14,933.00		25,228.00		22,369.00								677	2001		ELIM EXT PAV MRK & MRKS (4")	LF	62,530.00	
0.00		158.00		655.00								677	2003		ELIM EXT PAV MRK & MRKS (8")	LF	813.00	
130.00		144.00		178.00								677	2007		ELIM EXT PAV MRK & MRKS (24")	LF	452.00	
1.00		1.00		1.00								680	2003		INSTALL HWY TRF SIG (SYSTEM)	EA	3.00	
1.00		1.00		1.00								681	2001		TEMP TRAF SIGNALS	EA	3.00	
5.00		7.00		15.00								682	2001	002	BACK PLATE (12 IN) (3 SEC)	EA	27.00	
2.00		1.00		0.00								682	2002	002	BACK PLATE (12 IN) (4 SEC)	EA	3.00	
2.00		4.00		5.00								682	2022	002	VEH SIG SEC (12 IN) LED (GRN ARW)	EA	11.00	
6.00		4.00		10.00								682	2023	002	VEH SIG SEC (12 IN) LED (GRN)	EA	20.00	
1.00		5.00		5.00								682	2024	002	VEH SIG SEC (12 IN) LED (YEL ARW)	EA	11.00	

ESTIMATE AND QUANTITY SHEET

BURR RD/ WURZBACH INTERSECTION (CSJ 915-12-471)		WINANS RD/ WURZBACH INTERSECTION (CSJ 915-12-470)		RITTIMAN RD/ WURZBACH INTERSECTION (CSJ 915-12-480)		SAWS (WATER)		SAWS (SANITARY SEWER)		CPS		ITEM - CODE			DESCRIPTION	UNIT	TOTAL	
EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	ITEM NO	DESC CODE	SP NO			EST.	FINAL
6.00		4.00		10.00								682	2025	002	VEH SIG SEC (12 IN) LED (YEL)	EA	20.00	
0.00		2.00		5.00								682	2026	002	VEH SIG SEC (12 IN) LED (RED ARW)	EA	7.00	
6.00		6.00		10.00								682	2027	002	VEH SIG SEC (12 IN) LED (RED)	EA	22.00	
0.00		-		8.00								682	2044	002	PED SIG SEC (12IN)(2 INDICAT IN 1 SEC)	EA	8.00	
500.00		472.00		668.00								621	2002		TRAY CABLE (3 CONDR) (12 AWG)	LF	1,640.00	
506.00		438.00		646.00								684	2012		TRF SIG CBL (TY A) (12 AWG) (7 CONDR)	LF	1,590.00	
0.00		0.00		1,003.00								684	2035		TRF SIG CBL (TY A) (14 AWG) (9 CONDR)	LF	1,003.00	
0.00		1.00		0.00								686	2031		INS TRF SIG PL AM(S) 1 ARM (32')	EA	1.00	
2.00		0.00		0.00								686	2035		INS TRF SIG PL AM(S) 1 ARM (36')	EA	2.00	
0.00		0.00		2.00								686	2039		INS TRF SIG PL AM(S) 1 ARM (40')	EA	2.00	
1.00		2.00		0.00								686	2047		INS TRF SIG PL AM(S) 1 ARM (48')	EA	3.00	
0.00		0.00		1.00								686	2059		INS TRF SIG PL AM(S) 1 ARM (60')	EA	1.00	
0.00		0.00		1.00								686	2063		INS TRF SIG PL AM(S) 1 ARM (65')	EA	1.00	
0.00		0.00		8.00								688	2001		PED DETECT (2 INCH PUSH BTN)	EA	8.00	
0.00		12.00		0.00								416	2031		DRILL SHAFT (TRF SIG POLE) (30 IN)	LF	12.00	
40.00		27.00		27.00								416	2032		DRILL SHAFT (TRF SIG POLE) (36 IN)	LF	94.00	
0.00		0.00		44.00								416	2034		DRILL SHAFT (TRF SIG POLE) (48 IN)	LF	44.00	
0.00		0.00		4.00								687	2001		PED POLE ASSEMBLY	EA	4.00	
3.00		3.00		4.00								6041	XXXX		ILSN (LED)(8 D)	EA	10.00	
2.00		2.00		2.00								6044	2001		VIVDS PROCESSOR SYSTEM	EA	6.00	
6.00		6.00		9.00								6044	2002		VIVDS CAMERA ASSEMBLY	EA	21.00	
1.00		1.00		1.00								6044	2003		VIVDS SET-UP SYSTEM	EA	3.00	
753.00		664.00		1,196.00								6044	2005		VIVDS COMMUNICATION CABLE (COAXIAL)	LF	2,613.00	
0.00		4.00		8.00								8260	2001		LED COUNTDOWN PEDESTRIAN MODULE	EA	12.00	
1.00		1.00		1.00								8261	2001		BATTERY BACKUP SYSTEM FOR TRAFFIC SIGNAL	EA	3.00	
1.00		1.00		1.00								6525	XXXX		EMERGENCY PREEMPTION PHASE SELECTOR	EA	3.00	
3.00		3.00		4.00								6525	XXXX		EMERGENCY PREEMPTION DETECTOR	EA	10.00	
434.00		438.00		646.00								6525	XXXX		EMERGENCY PREEMPTION DETECTOR CABLE	LF	1,518.00	
0.00		0.00		29.00								6834	2001		PORTABLE CHANGEABLE MESSAGE SIGN	DAY	29.00	
1.00		1.00		1.00								8245	XXXX		MODEL 2070 CONTROLLER UNIT	EA	3.00	
1.00		1.00		1.00								8643	XXXX		TYPE 2070 CONTROLLER CABINET ASSEMBLY	EA	3.00	
							1.00					9501	XX01		MOBILIZATION (10%)	LS	1.00	
							1.00					9501	XX02		PREPARE ROW (5%)	LS	1.00	
							5,500.00					9501	XX03		TRENCH EXCAVATION PROTECTION	LF	5,500.00	
							545.00					9501	XX04		8" PVC WATER MAIN (RESTRAINED)	LF	545.00	
							4,230.00					9501	XX05		12" PVC WATER MAIN	LF	4,230.00	
							585.00					9501	XX06		16" PVC WATER MAIN	LF	585.00	
							140.00					9501	XX07		20" DI WATER MAIN	LF	140.00	
							8.00					9501	XX08		VALVE BOX ADJUSTMENT	EA	8.00	
							6.00					9501	XX09		8" GATE VALVE	EA	6.00	
							13.00					9501	XX10		12" GATE VALVE	EA	13.00	
							2.00					9501	XX11		16" GATE VALVE	EA	2.00	
							1.00					9501	XX12		20" BUTTERFLY VALVE	EA	1.00	
							7.00					9501	XX13		8" TIE-IN	EA	7.00	
							7.00					9501	XX14		12" TIE IN	EA	7.00	
							1.00					9501	XX15		16" TIE-IN	EA	1.00	
							1.00					9501	XX16		20" TIE-IN	EA	1.00	
							7.00					9501	XX17		FIRE HYDRANT ASSEMBLY	EA	7.00	
							5.00					9501	XX18		RELAY 3/4" SHORT SERVICE	EA	5.00	
							1.00					9501	XX19		RELAY 1" SHORT SERVICE	EA	1.00	
							1.00					9501	XX20		RELAY 1" LONG SERVICE	EA	1.00	
							2.00					9501	XX21		RELAY 2" SHORT SERVICE	EA	2.00	
							15.00					9501	XX22		PIPE FITTINGS	TON	15.00	
							55.00					9501	XX23		CASING OR LINER, 24"	LF	55.00	

ESTIMATE AND QUANTITY SHEET

BURR RD/ WURZBACH INTERSECTION (CSJ 915-12-471)		WINANS RD/ WURZBACH INTERSECTION (CSJ 915-12-470)		RITTIMAN RD/ WURZBACH INTERSECTION (CSJ 915-12-480)		SAWS (WATER)		SAWS (SANITARY SEWER)		CPS		ITEM - CODE			DESCRIPTION	UNIT	TOTAL	
EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	ITEM NO	DESC CODE	SP NO			EST.	FINAL
						5.00						9501	XX24		HYDROSTATIC TESTING	EA	5.00	
						14.00						9501	XX25		2" BLOWOFF TEMPORARY	EA	14.00	
						1.00						9501	XX26		4" BLOWOFF TEMPORARY	EA	1.00	
						1.00						9501	XX27		2" BLOWOFF PERMANENT	EA	1.00	
						313.00						9501	XX28		TRENCH COMPLETION TYPE "A"	SY	313.00	
						2,115.00						9501	XX29		TRENCH COMPLETION TYPE "B"	SY	2,115.00	
						1.00						9501	XX30		AC PIPE REMOVAL	LS	1.00	
						1.00						9501	XX31		AC PIPE REMOVAL PLAN	LS	1.00	
						3.00						9501	XX32		RECYCLED WATER VAULT RECONSTRUCTION	EA	3.00	
						1.00						9501	XX33		RECYCLED WATER HYDRANT RELOCATION	EA	1.00	
						122.00						9501	XX34		FLOWABLE BACKFILL	CY	122.00	
						18.00						9501	XX35		CONCRETE ENCASEMENT, CRADLES, SADDLES & COLLARS	CY	18.00	
								1.00				9500	XX01		MOBILIZATION (10%)	LS	1.00	
								1.00				9500	XX02		PREP ROW (5%)	LS	1.00	
								16.00				9500	XX03		ADJUST EXISTING MANHOLE	EA	16.00	
								65.00				9500	XX04		8" PVC SANITARY SEWER LINE (10' - 14')	LF	65.00	
								1,043.00				9500	XX05		SEWER MAIN TELEVISION INSPECTION	LF	1,043.00	
								2.00				9500	XX06		SANITARY SEWER DROP MANHOLE (0' - 6')	EA	2.00	
								11.00				9500	XX07		EXTRA DEPTH MANHOLE (>6')	VF	11.00	
								78.00				9500	XX08		8" PVC SANITARY SEWER LINE (6' - 10')	LF	78.00	
								4.00				9500	XX09		SANITARY SEWER MANHOLE (0'-6')	EA	4.00	
								180.00				9500	XX10		SANITARY SEWER LATERAL	LF	180.00	
								6.00				9500	XX11		SANITARY SEWER CLEANOUT	EA	6.00	
								1.00				9500	XX12		BYPASS PUMPING	LS	1.00	
								93.00				9500	XX13		TRENCH COMPLETION CONDITION "B"	SY	93.00	
								20.00				9500	XX14		TRENCH COMPLETION CONDITION "C"	SY	20.00	
										1.00		9503	9001		NGP (SHORT SERV)(NEW MAIN TO PROP)	FT	1.00	
										4.00		9503	9003		NGP (SHORT SERV)(NEW MAIN TO METER)	FT	4.00	
										1.00		9503	9004		NGP (LONG SERV)(NEW MAIN TO METER)	FT	1.00	
										1.00		9503	9005		NGP (EXTEND)(PUMP TEST AND TIE TO METER)	FT	1.00	
										1,000.00		9503	9006		NGP (MAIN)(PLASTIC W/ TRACER)(2 IN)	FT	1,000.00	
										2,771.00		9503	9007		NGP (MAIN)(PLASTIC W/ TRACER)(6 IN)	FT	2,771.00	
										46.00		9503	9008		NGP (MAIN)(PLASTIC W/ TRACER)(8 IN)	FT	46.00	
										142.00		9503	9009		NGP (MAIN)(STEEL)(8 IN)	FT	142.00	
										1,104.00		9503	9010		NGP (MAIN)(STEEL)(16 IN)	FT	1,104.00	
										340.00		9503	9011		NGP (MAIN)(STEEL)(16 IN) AND PLASTIC (6 IN)	FT	340.00	
										59.00		9503	9012		NGP (MAIN)(PLASTIC W/ TRACER)(2 IN)	FT	59.00	
										385.00		9503	9013		NGP (MAIN)(PLASTIC W/ TRACER)(6 IN)	FT	385.00	
										100.00		9503	9014		NGP (MAIN)(STEEL)(16 IN)	FT	100.00	
										5,403.00		9503	9015		TRENCH EXCAVATION PROTECTION	FT	5,403.00	
										3.00		9503	9016		NGP (STOPPLE) (16IN)(TWD SERVICE)	EA	3.00	
										390.00		9503	9017		FLOWABLE BACKFILL	CY	390.00	
										460.00		9503	9018		ASPHALT	CY	460.00	
										1.00		9503	9019		MOBILIZATION	LS	1.00	

ESTIMATE AND QUANTITY SHEET

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SUMMARY OF REMOVAL ITEMS								
SHEET NO.	LOCATION	104	104	104	104	104	104	105
		2001	2017	2029	2033	2031	2036	2011
		REMOVING CONC (PAV)	REMOVING CONC (DRIVEWAYS)	REMOVING CONC (CURB OR CURB & GUTTER)	REMOVING CONC (DRAIN)	REMOVING CONC (HEADWALL)	REMOVING CONC (SIDEWALK OR RAMP)	REMOVING STAB BASE AND ASPH PAV (2'-6")
		SY	SY	LF	SY	CY	SY	SY
BURR RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-471)								
128	STA. 16+00 TO STA. 22+00 (WURZBACH)	757.00	690.00	75.00	0.00	0.00	112.00	1021.00
129	STA. 22+00 TO STA. 30+00 (WURZBACH)	1303.00	1052.00	449.00	0.00	0.00	0.00	1520.00
130	STA. 26+00 TO STA. 28+00 (BURR)	0.00	0.00	0.00	0.00	0.00	0.00	13.00
	SUBTOTAL	2060.00	1742.00	524.00	0.00	0.00	112.00	2554.00
WINANS RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-470)								
131	STA. 52+75.00 TO STA. 57+00 (WURZBACH)	318.00	62.00	50.00	0.00	0.00	0.00	681.00
132	STA. 57+00.00 TO STA. 65+00 (WURZBACH)	1336.00	1091.00	110.00	0.00	0.00	0.00	1336.00
133	STA. 65+00.00 TO STA. 73+00 (WURZBACH)	1690.00	252.00	128.00	0.00	0.00	0.00	1690.00
134	STA. 10+50.00 TO STA. 14+80 (WINANS)	113.00	880.00	575.00	0.00	0.00	0.00	4788.00
	SUBTOTAL	3457.00	2285.00	863.00	0.00	0.00	0.00	8495.00
RITTIMAN RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-480)								
135	STA. 73+00.00 TO STA. 81+00 (WURZBACH)	0.00	441.00	2714.00	60.00	1.33	0.00	6889.00
136	STA. 81+00.00 TO STA. 88+33 (WURZBACH)	0.00	317.00	2437.00	0.00	0.00	0.00	5752.00
137	STA. 14+00.00 TO STA. 21+50 (RITTIMAN)	0.00	106.00	418.00	0.00	2.85	199.00	2603.00
138	STA. 18+00.00 TO STA. 21+50 (RAMP1)	0.00	0.00	644.00	729.00	1.68	0.00	691.00
	SUBTOTAL	0.00	864.00	6213.00	789.00	5.86	199.00	15935.00
	PROJECT TOTALS	5517.00	4891.00	7600.00	789.00	5.86	311.00	26984.00

TETRA TECH		
<small>TBPE F-3924</small>		
<small>700 N. ST. MARY'S STREET SAN ANTONIO, TX 78205</small>		
<small>TELEPHONE #:</small> (210) 226-2922	<small>FAX #:</small> (210) 226-8497	<small>WEBSITE:</small> WWW.TETRA TECH.COM
 Texas Department of Transportation <small>© 2011</small>		
CITY OF SAN ANTONIO		
<small>CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT</small>		
<small>FORT SAM HOUSTON TRANSPORTATION PROJECTS</small>		
REMOVAL SUMMARY		
<small>FINAL SUBMITTAL</small>	<small>PROJECT NO.:</small> 915-12-470,etc	<small>DATE:</small> 7/31/2011
<small>DRWN. BY:</small> RPR	<small>DSGN. BY:</small> JDH	<small>CHKD. BY:</small> RE
		<small>SHEET NO.:</small> 27

SUMMARY OF GRADING

SHEET NO.	LOCATION	100	110	112	132	260	260	316	316	340	341	341	354	356	420	432	529	530	531	531	536	
		2002	2001	2001	2001	2001	2006	2028	2582	2236	2011	2034	2021	2024	2120	2001	2001	2010	2008	2040	2015	2004
		PREPARING ROW	EXCAVATION (ROADWAY)	SUBGRADE WIDENING (ORD COMP)	EMBANKMENT (FINAL)(ORD COMP)(TY A)	LIME (HYDRATED LIME (DRY))	LIME TRT (EXST MATL) (6')	ASPH(AC-5 OR 10,CRS/HFRS-2,RS/CRS-1P)	AGGR (TY-PB GR-4)	D-GR HMA(METH) TY-B PG64-22 (LEVEL UP)	D-GR HMA(QCOA) TY-B PG64-22	D-GR HMA(QCOA) TY-C PG64-22	PLANE ASPH CONC PAV(0' TO 2')	PAV JT UNDERSEAL (48')	CL C CONC (BUS STOP)	RIPRAP (CONC)(4 IN)	CONC CURB (TY I)	DRIVEWAYS (CONC)	CURB RAMPS (TY 4)	CURB RAMPS (TY 5)	CONC SIDEWALK (4')	CONC DIRECTIONAL ISLAND
	STA	CY	STA	CY	TON	SY	GAL	CY	TON	TON	TON	SY	LF	CY	CY	LF	SY	EA	EA	SY	SY	
BURR RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-471)																						
140	STA. 16+00.00 TO STA. 18+00.00 (WURZBACH)	2.00	153.00	2.00	901.67	33.90	901.67	538.53	17.95	55.00	572.51	197.46	1,000.00	400.00	0.00	0.00	414.00	0.00	0.00	0.00	0.00	
141	STA. 18+00.00 TO STA. 22+00.00 (WURZBACH)	4.00	411.00	4.00	1,622.89	61.02	1,622.89	1,022.43	34.08	110.00	1,019.19	374.89	2,000.00	800.00	79.26	0.00	800.00	444.00	0.00	0.00	104.00	
142	STA. 22+00.00 TO STA. 26+00.00 (WURZBACH)	4.00	519.00	4.00	1,732.78	65.15	1,732.78	1,058.47	35.28	110.00	1,095.45	388.10	2,000.00	597.00	39.91	0.00	501.00	318.00	0.00	0.00	0.00	
143	STA. 26+00.00 TO STA. 28+00.00 (WURZBACH)	2.00	1,177.00	2.00	679.56	25.55	679.56	473.33	15.78	55.00	426.21	173.56	1,000.00	400.00	39.91	0.00	400.00	0.00	0.00	0.00	0.00	
154	STA. 14+50.00 TO STA. 17+09.86 (BURR)	2.60	89.00	2.60	145.00	39.16	1,041.44	517.53	17.25	0.00	656.77	189.76	0.00	203.00	0.00	0.00	379.00	145.00	0.00	0.00	0.00	
	SUBTOTAL	14.60	2349.00	14.60	5081.90	224.78	5978.34	3610.29	120.34	330.00	3770.13	1323.77	6000.00	2400.00	159.08	0.00	2494.00	907.00	0.00	0.00	104.00	
WINANS RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-470)																						
144	STA. 52+75.00 TO STA. 53+00.00 (WURZBACH)	0.25	171.00	0.25	85.44	3.21	85.44	62.57	2.09	7.00	53.20	22.94	125.00	50.00	10.39	0.00	50.00	0.00	0.00	0.00	17.00	
145	STA. 53+00.00 TO STA. 57+00.00 (WURZBACH)	4.00	235.00	4.00	1,609.22	60.51	1,609.22	999.70	33.32	108.00	1,004.01	366.56	1,966.00	706.00	108.77	0.00	835.00	74.00	2.00	0.00	288.00	
146	STA. 57+00.00 TO STA. 61+00.00 (WURZBACH)	4.00	278.00	4.00	2,154.56	81.01	2,154.56	1,151.07	38.37	105.00	1,368.69	422.06	1,911.00	800.00	39.91	0.00	855.00	125.00	2.00	0.00	235.00	
147	STA. 61+00.00 TO STA. 65+00.00 (WURZBACH)	4.00	171.00	4.00	1,942.44	73.04	1,942.44	1,085.53	36.18	105.00	1,227.45	398.03	1,917.00	800.00	0.00	0.00	924.00	934.00	2.00	0.00	293.00	
148	STA. 65+00.00 TO STA. 69+00.00 (WURZBACH)	4.00	199.00	3.50	2,052.56	77.18	2,052.56	1,056.70	35.22	94.00	1,304.53	387.46	1,700.00	700.00	0.00	0.00	832.00	52.00	2.00	0.00	273.00	
155	STA. 10+38.12 TO STA. 13+00.00 (WINANS)	2.80	46.00	0.00	699.00	58.78	1,563.22	465.80	15.53	0.00	1,009.32	170.79	0.00	94.00	0.00	0.00	72.00	145.00	0.00	0.00	0.00	
156	STA. 13+00.00 TO STA. 14+80.00 (WINANS)	1.80	7.00	0.00	202.00	26.12	694.78	191.30	6.38	0.00	438.42	70.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	SUBTOTAL	20.85	1107.00	15.75	8745.22	379.85	10102.22	5012.67	167.09	419.00	6405.62	1837.98	7619.00	3150.00	159.07	0.00	3568.00	1330.00	8.00	0.00	1106.00	
RITTIMAN RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-480)																						
149	STA. 69+00.00 TO STA. 73+00.00 (WURZBACH)	4.00	160.00	0.00	4,054.89	152.46	4,054.89	1,149.27	38.31	0.00	2,630.32	421.40	0.00	0.00	47.78	0.00	879.00	524.00	2.00	0.00	189.00	
150	STA. 73+00.00 TO STA. 77+00.00 (WURZBACH)	4.00	517.00	0.00	5,052.89	189.99	5,052.89	1,389.70	46.32	0.00	3,288.49	509.56	0.00	0.00	32.04	2.47	904.00	379.00	2.00	0.00	241.53	
151	STA. 77+00.00 TO STA. 81+00.00 (WURZBACH)	4.00	594.00	0.00	4,854.89	182.54	4,854.89	1,405.77	48.86	0.00	3,142.85	515.45	0.00	0.00	79.26	2.07	539.00	258.00	1.00	3.00	287.00	
152	STA. 81+00.00 TO STA. 85+00.00 (WURZBACH)	4.00	170.00	0.00	4,939.67	185.73	4,939.67	1,420.80	47.36	0.00	3,215.67	520.96	0.00	0.00	79.26	0.00	685.00	305.00	0.00	0.00	493.00	
153	STA. 85+00.00 TO STA. 88+33.00 (WURZBACH)	3.32	61.00	0.00	3,464.44	130.26	3,464.44	961.10	32.04	0.00	2,245.49	352.40	0.00	0.00	0.00	0.00	1,014.00	366.00	0.00	0.00	292.00	
157	STA. 14+30.52 TO STA. 18+00.00(RITTIMAN)	2.26	572.00	0.00	1,061.00	54.81	1,458.78	422.23	14.07	0.00	0.00	154.82	0.00	0.00	0.00	0.00	276.00	0.00	0.00	0.00	139.00	
158	STA. 18+00.00 TO STA. 21+50.00(RITTIMAN)	3.50	221.00	0.00	678.00	72.41	1,925.67	523.63	17.45	0.00	1,230.68	192.00	0.00	0.00	0.00	0.00	700.00	113.00	0.00	0.00	310.00	
159	STA. 10+00.00 TO STA 13+00.00 (RAMP 1)	3.00	0.00	0.00	0.00	17.50	465.44	120.13	4.00	0.00	292.82	44.05	0.00	0.00	0.00	2.07	355.00	0.00	0.00	0.00	88.00	
160	STA. 13+00.00 TO STA 15+56.61 (RAMP 1)	2.57	0.00	0.00	0.00	15.47	411.33	95.90	3.20	0.00	252.57	35.16	0.00	0.00	0.00	3.76	387.00	0.00	0.00	0.00	422.00	
161	STA. 10+00.00 TO STA 12+25.09 (RAMP 2)	2.25	0.00	0.00	0.00	13.51	359.22	83.80	2.79	0.00	220.67	30.73	0.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00	208.00	
	SUBTOTAL	32.90	2,295.00	0.00	24,105.78	1,014.68	26,987.22	7,572.33	252.40	0.00	16,519.56	2,776.53	0.00	0.00	238.34	10.37	6,034.00	1,943.00	5.00	3.00	1,951.53	
	PROJECT TOTALS	68.35	5751.00	30.35	37932.9	1619.31	43067.78	16195.29	539.83	749.00	26695.31	5938.28	13619.00	5550.00	556.49	10.37	12096.00	4180.00	13.00	3.00	3161.53	

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TETRA TECH TBPE F-3924 700 N. ST. MARY'S STREET SAN ANTONIO, TX 78205 TELEPHONE #: (210) 226-2922 FAX #: (210) 226-8497 WEBSITE: WWW.TETRA TECH.COM		
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CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT FORT SAM HOUSTON TRANSPORTATION PROJECTS		
GRADING SUMMARY		
FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc	DATE: 7/31/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 28

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EARTHWORK SUMMARY			
SHEET NO.	LOCATION	110	132
		2001	2001
		EXCAVATION (ROADWAY)	EMBANKMENT (FINAL)(ORD COMP)(TY A)
		CY	CY
BURR RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-471)			
140	STA. 16+00.00 TO STA. 18+00.00 (WURZBACH)	153.00	901.67
141	STA. 18+00.00 TO STA. 22+00.00 (WURZBACH)	411.00	1,622.89
142	STA. 22+00.00 TO STA. 26+00.00 (WURZBACH)	519.00	1,732.78
143	STA. 26+00.00 TO STA. 28+00.00 (WURZBACH)	1,177.00	679.56
154	STA. 14+50.00 TO STA. 17+09.86 (BURR)	89.00	145.00
	SUBTOTAL	2,349.00	5,081.90
WINANS RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-470)			
144	STA. 52+75.00 TO STA. 53+00.00 (WURZBACH)	171.00	85.44
145	STA. 53+00.00 TO STA. 57+00.00 (WURZBACH)	235.00	1,609.22
146	STA. 57+00.00 TO STA. 61+00.00 (WURZBACH)	278.00	2,154.56
147	STA. 61+00.00 TO STA. 65+00.00 (WURZBACH)	171.00	1,942.44
148	STA. 65+00.00 TO STA. 69+00.00 (WURZBACH)	199.00	2,052.56
155	STA. 10+38.12 TO STA. 13+00.00 (WINANS)	46.00	699.00
156	STA. 13+00.00 TO STA. 14+80.00 (WINANS)	7.00	202.00
	SUBTOTAL	1,107.00	8,745.22
RITTIMAN RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-480)			
149	STA. 69+00.00 TO STA. 73+00.00 (WURZBACH)	160.00	4,054.89
150	STA. 73+00.00 TO STA. 77+00.00 (WURZBACH)	517.00	5,052.89
151	STA. 77+00.00 TO STA. 81+00.00 (WURZBACH)	594.00	4,854.89
152	STA. 81+00.00 TO STA. 85+00.00 (WURZBACH)	170.00	4,939.67
153	STA. 85+00.00 TO STA. 88+33.00 (WURZBACH)	61.00	3,464.44
157	STA. 14+30.52 TO STA. 18+00.00(RITTIMAN)	572.00	1,061.00
158	STA. 18+00.00 TO STA. 21+50.00(RITTIMAN)	221.00	678.00
159	STA. 10+00.00 TO STA 13+00.00 (RAMP 1)		
160	STA. 13+00.00 TO STA 15+56.61 (RAMP 1)		
161	STA. 10+00.00 TO STA 12+25.09 (RAMP 2)		
	SUBTOTAL	2,295.00	24,105.78
	PROJECT TOTALS	5,751.00	37,932.90

TETRA TECH		
<small>TBPE F-3924</small>		
<small>700 N. ST. MARY'S STREET SAN ANTONIO, TX 78205</small>		
<small>TELEPHONE #:</small> (210) 226-2922	<small>FAX #:</small> (210) 226-8497	<small>WEBSITE:</small> WWW.TETRA TECH.COM
 Texas Department of Transportation <small>© 2011</small>		
CITY OF SAN ANTONIO		
<small>CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT</small>		
<small>FORT SAM HOUSTON TRANSPORTATION PROJECTS</small>		
EARTHWORK SUMMARY		
<small>FINAL SUBMITTAL</small>	<small>PROJECT NO.:</small> 915-12-470,etc	<small>DATE:</small> 7/31/2011
<small>DRWN. BY:</small> RPR	<small>DSGN. BY:</small> JDH	<small>CHKD. BY:</small> RE
		<small>SHEET NO.:</small> 29

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TCP & SW3P SUMMARY													
SHEET NO.	LOCATION	162	168	506	506	506	506	508	512	512	512	512	512
		2002	2001	2016	2019	2032	2034	2002	2008	2009	2026	2027	2044
		BLOCK SODDING	VEGETATIVE WATERING	CONSTRUCTION EXITS (INSTALL) (TY 1)	CONSTRUCTION EXITS (REMOVE)	SANDBAGS FOR EROSION CONTROL (18')	TEMPORARY SEDIMENT CONTROL FENCE	CONSTRUCTION DETOURS	PORT CTB (FUR & INST)(LOW PROF)(TY 1)	PORT CTB (FUR & INST)(LOW PROF)(TY 2)	PORT CTB (MOVE)(LOW PROF)(TY 1)	PORT CTB (MOVE)(LOW PROF)(TY 2)	PORT CTB (REMOVE)(LOW PROF)(TY 1)
		SY	MG	SY	SY	LF	LF	SY	LF	LF	LF	LF	LF
BURR RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-471)													
PHASE 1 STAGE 1													
57	STA. 15+32.50 TO STA. 22+00.00 (WURZBACH)	0.00	0.00	78.00	0.00	0.00	34.00	0.00	660.00	20.00	0.00	0.00	0.00
58	STA. 22+00.00 TO STA. 28+67.50 (WURZBACH)	0.00	0.00	78.00	0.00	0.00	56.00	0.00	340.00	20.00	0.00	0.00	0.00
PHASE 2 STAGE 1													
71	STA. 14+00.00 TO STA. 22+00.00 (WURZBACH)	820.00	12.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	120.00
72	STA. 22+00.00 TO STA. 30+00.00 (WURZBACH)	1013.00	15.80	0.00	78.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	STA. 14+50.00 TO STA. 17+50.00 (BURR)	543.11	8.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHASE 2 STAGE 2													
84	STA. 14+50.00 TO STA. 17+09.86 (BURR)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL		2376.11	37.07	156.00	78.00	0.00	90.00	0.00	1000.00	40.00	0.00	0.00	120.00
WINANS RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-470)													
PHASE 1 STAGE 1													
59	STA. 16+00.00 TO STA. 57+00.00 (WURZBACH)	0.00	0.00	0.00	0.00	0.00	54.00	23.00	0.00	0.00	0.00	0.00	0.00
60	STA. 65+00.00 TO STA. 73+00.00 (WURZBACH)	0.00	0.00	0.00	0.00	135.00	0.00	622.00	0.00	0.00	0.00	0.00	0.00
61	STA. 65+00.00 TO STA. 73+00.00 (WURZBACH)	0.00	0.00	0.00	0.00	315.00	0.00	2557.00	340.00	60.00	0.00	0.00	0.00
PHASE 2 STAGE 1													
74	STA. 49+00.00 TO STA. 57+00.00 (WURZBACH)	599.22	9.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	280.00	60.00	280.00
75	STA. 57+00.00 TO STA. 65+00.00 (WURZBACH)	1488.22	23.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	540.00	20.00	540.00
76	STA. 10+38.12 TO STA. 15+97.15 (WINANS)	1750.00	38.70	0.00	0.00	0.00	0.00	219.00	0.00	0.00	0.00	0.00	0.00
77	STA. 65+00.00 TO STA. 73+00.00 (WURZBACH)	2119.78	33.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	680.00	60.00	680.00
PHASE 2 STAGE 2													
85	STA. 10+38.12 TO STA. 16+00.00 (WINANS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL		5957.22	104.33	0.00	0.00	450.00	54.00	3421.00	340.00	60.00	1500.00	140.00	1500.00
RITTIMAN RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-480)													
PHASE 1 STAGE 1													
62	STA. 73+00.00 TO STA. 81+00.00 (WURZBACH)	0.00	0.00	0.00	0.00	203.00	0.00	1218.00	660.00	60.00	0.00	0.00	0.00
63	STA. 81+00.00 TO STA. 89+00.00 (WURZBACH)	0.00	0.00	0.00	0.00	46.00	0.00	1900.00	740.00	20.00	0.00	0.00	0.00
64	STA. 89+00.00 TO STA. 97+25.00 (WURZBACH)	0.00	0.00	0.00	0.00	0.00	0.00	1281.00	0.00	0.00	0.00	0.00	0.00
65	STA. 10+88.00 TO STA. 18+00.00 (RITTIMAN)	0.00	0.00	0.00	0.00	0.00	0.00	26.00	280.00	40.00	0.00	0.00	0.00
66	STA. 18+00.00 TO STA. 26+00.00 (RITTIMAN)	0.00	0.00	78.00	0.00	0.00	0.00	238.00	360.00	20.00	0.00	0.00	0.00
PHASE 1 STAGE 2													
65	STA. 15+32.50 TO STA. 22+00.00 (RITTIMAN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	20.00	0.00
PHASE 1 STAGE 3													
66	STA. 15+32.50 TO STA. 22+00.00 (RITTIMAN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	180.00	20.00	0.00
INTERPHASE													
67	STA. 73+00.00 TO STA. 81+00.00 (WURZBACH)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	660.00	60.00	0.00
68	STA. 81+00.00 TO STA. 89+00.00 (WURZBACH)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	740.00	20.00	0.00
69	STA. 11+00.00 TO STA. 18+00.00 (RITTIMAN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	280.00	40.00	0.00
70	STA. 18+00.00 TO STA. 26+00.00 (RITTIMAN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	360.00	20.00	0.00
PHASE 2 STAGE 1													
78	STA. 73+00.00 TO STA. 81+00.00 (WURZBACH)	1174.67	18.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	660.00	0.00	660.00
79	STA. 81+00.00 TO STA. 89+00.00 (WURZBACH)	3411.33	53.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	580.00	60.00	580.00
80	STA. 89+00.00 TO STA. 97+00.00 (WURZBACH)	1891.22	29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	STA. 11+86.02 TO STA. 18+00.00 (RITTIMAN)	336.67	5.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	200.00	0.00	200.00
82	STA. 18+00.00 TO STA. 26+00.00 (RITTIMAN)	0.00	0.00	0.00	78.00	0.00	0.00	0.00	0.00	0.00	320.00	20.00	320.00
83	STA. 26+00.00 TO STA. 29+60.00 (RITTIMAN)	220.00	3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL		7033.89	109.73	78.00	78.00	249.00	0.00	4663.00	2040.00	140.00	4080.00	260.00	1760.00
PROJECT TOTALS		15367.22	251.13	234.00	156.00	699.00	144.00	8084.00	3380.00	240.00	5580.00	400.00	3380.00

TETRA TECH
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 700 N. ST. MARY'S STREET SAN ANTONIO, TX 78205
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 *Texas Department of Transportation*
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CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 FORT SAM HOUSTON TRANSPORTATION PROJECTS

TRAFFIC CONTROL & SW3P SUMMARY

FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc	DATE: 7/31/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 30

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TCP & SW3P SUMMARY														
SHEET NO.	LOCATION	512	662	662	662	662	662	662	677	677	677	502	681	6834
		2045	2001	2004	2011	2012	2016	2032	2001	2003	2007	2047	2001	2001
		PORT CTB (REMOVE)(LOW PROF)(TY 2)	WK ZN PAV MRK NON-REMOV (W) 4" (BRK)	WK ZN PAV MRK NON-REMOV (W) 4" (SLD)	WK ZN PAV MRK NON-REMOV (W) 8" (LNDP)	WK ZN PAV MRK NON-REMOV (W) 8" (SLD)	WK ZN PAV MRK NON-REMOV (W) 24" (SLD)	WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)	ELIM EXT PAV MRK & MRKS (4')	ELIM EXT PAV MRK & MRKS (8')	ELIM EXT PAV MRK & MRKS (24')	OFF-DUTY POLICE OFFICER	TEMP TRAF SIGNALS	PORTABLE CHANGEABLE MESSAGE SIGN
	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	HR SP-REQUIRED	EA	DAY	
BURR RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-471)														
PHASE 1 STAGE 1														
57	STA. 15+32.50 TO STA. 22+00.00 (WURZBACH)	0.00	360.00	1334.00	0.00	0.00	0.00	1334.00	3028.00	0.00	0.00	0.00	0.00	0.00
58	STA. 22+00.00 TO STA. 28+67.50 (WURZBACH)	0.00	340.00	1336.00	0.00	0.00	0.00	1200.00	2876.00	0.00	0.00	0.00	1.00	0.00
PHASE 2 STAGE 1														
71	STA. 14+00.00 TO STA. 22+00.00 (WURZBACH)	20.00	380.00	1620.00	0.00	0.00	10.00	1520.00	3520.00	0.00	10.00	0.00	0.00	0.00
72	STA. 22+00.00 TO STA. 30+00.00 (WURZBACH)	0.00	400.00	1465.00	0.00	0.00	60.00	1456.00	3321.00	0.00	60.00	0.00	0.00	0.00
73	STA. 14+50.00 TO STA. 17+50.00 (BURR)	0.00	0.00	546.00	0.00	0.00	50.00	520.00	1066.00	0.00	50.00	0.00	0.00	0.00
PHASE 2 STAGE 2														
84	STA. 14+50.00 TO STA. 17+09.86 (BURR)	0.00	0.00	582.00	0.00	0.00	10.00	540.00	1122.00	0.00	10.00	0.00	0.00	0.00
SUBTOTAL		20.00	1480.00	6883.00	0.00	0.00	130.00	6570.00	14933.00	0.00	130.00	0.00	1.00	0.00
WINANS RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-470)														
PHASE 1 STAGE 1														
59	STA. 16+00.00 TO STA. 57+00.00 (WURZBACH)	0.00	360.00	1500.00	0.00	0.00	44.00	755.00	2615.00	0.00	44.00	0.00	1.00	0.00
60	STA. 65+00.00 TO STA. 73+00.00 (WURZBACH)	0.00	400.00	1600.00	0.00	0.00	0.00	1382.00	3382.00	0.00	0.00	0.00	0.00	0.00
61	STA. 65+00.00 TO STA. 73+00.00 (WURZBACH)	0.00	400.00	1600.00	0.00	0.00	0.00	1382.00	3382.00	0.00	0.00	0.00	0.00	0.00
PHASE 2 STAGE 1														
74	STA. 49+00.00 TO STA. 57+00.00 (WURZBACH)	60.00	280.00	1560.00	28.00	130.00	15.00	1649.00	3489.00	158.00	15.00	0.00	0.00	0.00
75	STA. 57+00.00 TO STA. 65+00.00 (WURZBACH)	20.00	540.00	1415.00	0.00	0.00	0.00	1350.00	3305.00	0.00	0.00	0.00	0.00	0.00
76	STA. 10+38.12 TO STA. 15+97.15 (WINANS)	0.00	0.00	1792.00	0.00	0.00	13.00	1792.00	3584.00	0.00	13.00	0.00	0.00	0.00
77	STA. 65+00.00 TO STA. 73+00.00 (WURZBACH)	60.00	280.00	1383.00	0.00	0.00	50.00	1510.00	3173.00	0.00	50.00	0.00	0.00	0.00
PHASE 2 STAGE 2														
85	STA. 10+38.12 TO STA. 16+00.00 (WINANS)	0.00	0.00	1150.00	0.00	0.00	22.00	1148.00	2298.00	0.00	22.00	0.00	0.00	0.00
SUBTOTAL		140.00	2260.00	12000.00	28.00	130.00	144.00	10968.00	25228.00	158.00	144.00	0.00	1.00	0.00
RITTIMAN RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-480)														
PHASE 1 STAGE 1														
62	STA. 73+00.00 TO STA. 81+00.00 (WURZBACH)	0.00	380.00	1480.00	0.00	0.00	0.00	0.00	1860.00	0.00	0.00	0.00	0.00	0.00
63	STA. 81+00.00 TO STA. 89+00.00 (WURZBACH)	0.00	400.00	1600.00	0.00	0.00	0.00	1600.00	3600.00	0.00	0.00	0.00	0.00	0.00
64	STA. 89+00.00 TO STA. 97+25.00 (WURZBACH)	0.00	150.00	342.00	0.00	0.00	70.00	948.00	1440.00	0.00	70.00	0.00	0.00	0.00
65	STA. 10+88.00 TO STA. 18+00.00 (RITTIMAN)	0.00	0.00	1079.00	54.00	165.00	0.00	570.00	1649.00	219.00	0.00	0.00	0.00	0.00
66	STA. 18+00.00 TO STA. 26+00.00 (RITTIMAN)	0.00	0.00	1600.00	0.00	0.00	0.00	1420.00	3020.00	0.00	0.00	0.00	0.00	0.00
PHASE 1 STAGE 2														
65	STA. 15+32.50 TO STA. 22+00.00 (RITTIMAN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHASE 1 STAGE 3														
66	STA. 15+32.50 TO STA. 22+00.00 (RITTIMAN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INTERPHASE														
67	STA. 73+00.00 TO STA. 81+00.00 (WURZBACH)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68	STA. 81+00.00 TO STA. 89+00.00 (WURZBACH)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69	STA. 11+00.00 TO STA. 18+00.00 (RITTIMAN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	STA. 18+00.00 TO STA. 26+00.00 (RITTIMAN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHASE 2 STAGE 1														
78	STA. 73+00.00 TO STA. 81+00.00 (WURZBACH)	0.00	340.00	966.00	0.00	0.00	108.00	108.00	1414.00	0.00	108.00	0.00	1.00	0.00
79	STA. 81+00.00 TO STA. 89+00.00 (WURZBACH)	60.00	360.00	1410.00	326.00	0.00	0.00	1502.00	3272.00	326.00	0.00	0.00	0.00	0.00
80	STA. 89+00.00 TO STA. 97+00.00 (WURZBACH)	0.00	180.00	765.00	0.00	0.00	0.00	690.00	1635.00	0.00	0.00	0.00	0.00	0.00
81	STA. 11+86.02 TO STA. 18+00.00 (RITTIMAN)	0.00	0.00	1085.00	0.00	110.00	0.00	570.00	1655.00	110.00	0.00	0.00	0.00	0.00
82	STA. 18+00.00 TO STA. 26+00.00 (RITTIMAN)	20.00	0.00	1600.00	0.00	0.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00
83	STA. 26+00.00 TO STA. 29+60.00 (RITTIMAN)	0.00	720.00	0.00	0.00	0.00	0.00	504.00	1224.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL		80.00	2530.00	11927.00	380.00	275.00	178.00	7912.00	22369.00	655.00	178.00	288.00	1.00	29.00
PROJECT TOTALS		240.00	6270.00	30810.00	408.00	405.00	452.00	25450.00	62530.00	813.00	452.00	288.00	3.00	29.00

TETRA TECH
TBPE F-3924
 700 N. ST. MARY'S STREET SAN ANTONIO, TX 78205
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CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 FORT SAM HOUSTON TRANSPORTATION PROJECTS

TRAFFIC CONTROL & SW3P SUMMARY

FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc	DATE: 8/1/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 30A

DRIVEWAY SUMMARY									
SHEET NO.	DRIVEWAY	STATION	SIDE	LENGTH L	WIDTH W	LENGTH L ₁	RADIUS R ₁	(2) DRIVEWAY PENETRATIONS (CONC) SY	530
									2010
									DRIVEWAYS (CONC) SY
									FT
BURR RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-471)									
141	1	18+22.09 (WURZBACH ALIGN)	LT	21.00	43.00	6.75			105.00
141	2	19+13.47 (WURZBACH ALIGN)	LT	20.00	100.00	6.75			227.00
141	3	20+39.21 (WURZBACH ALIGN)	LT	21.00	46.00	6.75			112.00
142	4	22+21.98 (WURZBACH ALIGN)	LT	21.00	115.00	6.75			273.00
142	5	25+73.39 (WURZBACH ALIGN)	RT	17.00	20.00	8.00			45.00
154	34	16+17.28 (BURR ALIGN)	LT	23.00	21.00		10.00		58.00
154	35	24+41.34 (WURZBACH ALIGN)	LT	37.00	20.00		10.00		87.00
SUBTOTAL									907.00
WINANS RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-470)									
145	6	55+71.44 (WURZBACH ALIGN)	LT	22.00	18.00	6.75			49.00
145	7	56+80.11 (WURZBACH ALIGN)	LT	18.00	10.00	6.75			25.00
146	8	57+38.17 (WURZBACH ALIGN)	LT	25.00	16.00	6.75			50.00
146	9	60+45.59 (WURZBACH ALIGN)	LT	14.50	25.00	6.75			45.00
146	10	60+93.09 (WURZBACH ALIGN)	LT	22.50	10.00	6.75			30.00
147	11	63+79.23 (WURZBACH ALIGN)	RT	74.00	55.00		75.00		698.00
147	12	64+36.11 (WURZBACH ALIGN)	LT	26.75	63.00	6.75			192.00
147	13	64+96.30 (WURZBACH ALIGN)	LT	34.75	10.00	6.75			44.00
155	36	12+05.41 (WINANS ALIGN)	LT	40.75	26.00		25.00		145.00
SUBTOTAL									1278.00
RITTIMAN RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-480)									
148	14	65+21.86 (WURZBACH ALIGN)	LT	42.00	10.00	6.75			52.00
149	15	69+20.15 (WURZBACH ALIGN)	LT	21.75	30.00	16.75			104.00
149	16	69+94.63 (WURZBACH ALIGN)	RT	63.00	20.00	28.00			227.00
149	17	70+27.12 (WURZBACH ALIGN)	LT	25.00	30.00	17.00			115.00
149	18	72+36.09 (WURZBACH ALIGN)	LT	28.00	20.00	12.00			78.00
150	19	74+91.62 (WURZBACH ALIGN)	LT	34.00	45.00	10.75			183.00
150	20	76+07.02 (WURZBACH ALIGN)	LT	37.00	45.00	10.00			196.00
151	21	77+45.43 (WURZBACH ALIGN)	LT	54.25	30.00	8.00			188.00
151	22	80+98.09 (WURZBACH ALIGN)	LT	19.50	30.00	5.00			68.00
152	23	81+68.77 (WURZBACH ALIGN)	LT	20.00	27.25	5.00			63.00
152	24	82+61.55 (WURZBACH ALIGN)	LT	21.00	24.00	5.00			59.00
152	25	83+12.33 (WURZBACH ALIGN)	LT	21.00	25.00	5.00			61.00
152	26	84+47.55 (WURZBACH ALIGN)	RT	20.00	25.00	7.00			61.00
152	27	84+96.51 (WURZBACH ALIGN)	RT	20.00	25.00	7.00			61.00
153	28	85+75.77 (WURZBACH ALIGN)	RT	20.00	25.00	7.00			61.00
153	29	85+89.56 (WURZBACH ALIGN)	LT	20.00	25.00	7.00			61.00
153	30	86+29.63 (WURZBACH ALIGN)	LT	20.00	25.00	7.00			61.00
153	31	87+67.20 (WURZBACH ALIGN)	LT	20.00	25.00	7.00			61.00
153	32	87+71.70 (WURZBACH ALIGN)	LT	20.00	25.00	7.00			61.00
153	33	88+11.48 (WURZBACH ALIGN)	LT	20.00	25.00	7.00			61.00
158	37	18+48.57 (RITTIMAN ALIGN)	LT	8.00	30.00	8.00			34.00
158	38	19+51.44 (RITTIMAN ALIGN)	LT	7.00	46.00	7.00			41.00
158	39	20+84.90 (RITTIMAN ALIGN)	LT	7.00	42.00	7.00			38.00
SUBTOTAL									1995.00
PROJECT TOTALS									4180.00

(1) TO BE PROVIDED BY THE CITY FOLLOWING THE 70% PLAN SUBMITTAL. AREAS SHOWN ARE BASED ON CURRENT DRIVEWAY WIDTHS.

(2) DRIVEWAY PENETRATIONS SHALL BE INCLUDED IN THE COST OF ITEM 530 - 2010.

TETRA TECH		
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CITY OF SAN ANTONIO		
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT		
FORT SAM HOUSTON TRANSPORTATION PROJECTS		
DRIVEWAY SUMMARY		
FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc	DATE: 7/31/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 31

DRAINAGE SUMMARY

	401.2001	402.2001	432.2001	462.2006	462.2019	464.2005	464.2007	464.2009	464.2011	464.2013	465.2020
	FLOWABLE BACKFILL	TRENCH EXCAVATION PROTECTION	RIPRAP (CONC)(4 IN)	CONC BOX CULV (5 FT X 2 FT)	CONC BOX CULV (8FTX4FT)	RC PIPE (CL III) (24 IN)	RC PIPE (CL III) (30 IN)	RC PIPE (CL III) (36 IN)	RC PIPE (CL III) (48 IN)	RC PIPE (CL III) (60 IN)	INLET (COMPL) (CURB) (TY II)
	CY	LF	CY	LF	LF	LF	LF	LF	LF	LF	EA
RITTIMAN RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-480)											
PROJECT TOTALS	420	3,900	12	126	785	398	44	492	1,110	193	17

	465.2077	465.X00X	465.2014	465.2014	465.2014	465.2211	465.2215	465.2405	465.2473	465.2474	531.2034
	INLET (COMPL) (DROP) (TY 1)	INLET (COMPL) (DROP) (TY 1A)	MANH (COMPL) (JUNCT BOX) (TY 1)	MANH (COMPL) (JUNCT BOX) (TY 2)	MANH (COMPL) (JUNCT BOX) (TY 3)	JUNCTION BOX (SPL)	MANH (COMPL) (JCT BX) (W/GRATE INLET) (SPL)	INLET (COMPL) (CURB) (TY C)	INLET (EXT) (TY II-E)	INLET (EXT) (TY C-E)	CONCRETE SIDEWALK (DRAIN)
	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	LF
RITTIMAN RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-480)											
PROJECT TOTALS	2	1	6	6	2	7	1	1	31	2	14

**GONZALEZ + DE LA GARZA
& ASSOCIATES, L.L.C.**

115 E. Travis St. Suite 640
San Antonio, TX 78205
TBPE Firm # 10015

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F: 210.208.9401

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

FORT SAM HOUSTON TRANSPORTATION PROJECTS

DRAINAGE SUMMARY
WINANS RD. & HARRY WURZBACH INTERSECTION

100% SUBMITTAL	PROJECT NO.: 40-00015	DATE: 3/10/2011
DRWN. BY: JS	DSGN. BY: ED	CHKD. BY: ED
		SHEET NO.: 32

p:\25774\131-25774-09052\cod\sheetfiles\015-01G_PAVE_MARK.dgn 7/31/2011 2:30:59 PM

PERMANENT PAVEMENT MARKING SUMMARY

SHEET NO.	LOCATION	644	644	644	666	666	666	666	666	666	666	666	666	666
		XXX1	XXX2	2060	2003	2012	2015	2033	2036	2048	2054	2057	2063	2072
		INS SM RD SN SUP&AM COSA TY U MOUNT (POST TY 1)	INS SM RD SN SUP&AM COSA TY U MOUNT (POST TY 2)	REMOVE SM RD SN SUP & AM	REFL PAV MRK TY I (W) 4" (BRK)(100MIL)	REFL PAV MRK TY I (W) 4" (SLD)(100MIL)	REFL PAV MRK TY I (W) 6" (BRK)(100MIL)	REFL PAV MRK TY I (W) 8" (LNDP)(100MIL)	REFL PAV MRK TY I (W) 8" (SLD)(100MIL)	REFL PAV MRK TY I (W) 24"(SLD)(100MIL)	REFL PAV MRK TY I (W)(ARROW) (100MIL)	REFL PAV MRK TY I (W)(BIKE ARW)(100MIL)	REFL PAV MRK TY I (W)(BIKE SYML)(100MIL)	REFL PAV MRK TY I (W)(ENTR GORE)(100MIL)
EA	EA	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA		
BURR RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-471)														
209	STA. 16+00 TO STA. 22+00 (WURZBACH)	6.00	0.00	4.00	300.00	1150.00	0.00	0.00	720.00	250.00	0.00	2.00	2.00	0.00
210	STA. 22+00 TO STA. 26+00 (WURZBACH)	3.00	1.00	1.00	160.00	200.00	34.00	0.00	700.00	130.00	2.00	2.00	2.00	0.00
211	STA. 26+00 TO STA. 28+00 (WURZBACH)	3.00	0.00	0.00	100.00	640.00	0.00	0.00	200.00	200.00	0.00	1.00	1.00	0.00
	SUBTOTAL	12.00	1.00	5.00	560.00	1990.00	34.00	0.00	1620.00	580.00	2.00	5.00	5.00	0.00
WINANS RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-470)														
212	STA. 52+75.00 TO STA. 57+00 (WURZBACH)	5.00	0.00	4.00	140.00	450.00	18.00	0.00	340.00	96.00	1.00	2.00	2.00	0.00
213	STA. 57+00.00 TO STA. 65+00 (WURZBACH)	6.00	0.00	4.00	380.00	0.00	0.00	0.00	1585.00	48.00	2.00	2.00	2.00	0.00
214	STA. 65+00.00 TO STA. 73+00 (WURZBACH)	4.00	0.00	2.00	370.00	0.00	0.00	85.00	1362.00	60.00	0.00	2.00	2.00	0.00
215	STA. 10+50.00 TO STA. 14+80 (WINANS)	4.00	0.00	3.00	710.00	1175.00	66.00	100.00	1980.00	804.00	6.00	4.00	4.00	1.00
	SUBTOTAL	19.00	0.00	13.00	1600.00	1625.00	84.00	185.00	5267.00	1008.00	9.00	10.00	10.00	1.00
RITTIMAN RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-480)														
216	STA. 73+00.00 TO STA. 81+00 (WURZBACH)	5.00	0.00	0.00	680.00	0.00	0.00	0.00	2080.00	0.00	5.00	3.00	3.00	0.00
217	STA. 81+00.00 TO STA. 88+33 (WURZBACH)	5.00	0.00	0.00	0.00	470.00	0.00	0.00	470.00	37.00	9.00	0.00	0.00	0.00
218	STA. 10+00.00 TO STA. 14+00 (RITTIMAN)	0.00	0.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
219	STA. 14+00.00 TO STA. 18+00 (RITTIMAN)	2.00	0.00	0.00	60.00	1337.00	0.00	20.00	220.00	160.00	6.00	0.00	0.00	0.00
220	STA. 18+00.00 TO STA. 22+00 (RITTIMAN)	0.00	1.00	0.00	200.00	800.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00	2.00
221	STA. 22+00.00 TO STA. 24+00 (RITTIMAN)	0.00	0.00	0.00	200.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
222	STA. 24+00.00 TO STA. 33+00 (RITTIMAN)	0.00	0.00	0.00	340.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL	12.00	1.00	0.00	1480.00	5007.00	0.00	20.00	2770.00	197.00	25.00	3.00	3.00	2.00
	PROJECT TOTALS	43.00	2.00	18.00	3640.00	8622.00	118.00	205.00	9657.00	1785.00	36.00	18.00	18.00	3.00

PERMANENT PAVEMENT MARKING SUMMARY

SHEET NO.	LOCATION	666	666	666	666	666	666	666	666	666	672	672	647
		2075	2096	2099	2111	2132	2141	2189	2191	2195	2012	2015	2002
		REFL PAV MRK TY I(W)(EXIT GORE)(100MIL)	REFL PAV MRK TY I(W)(WORD) (100MIL)	REF PAV MRK TY I(W)18"(YLD TR)(100MIL)	REFL PAV MRK TY I(Y) 4" (SLD)(100MIL)	REFL PAV MRK TY I(Y) 24"(SLD)(100MIL)	REFL PAV MRK TY I(Y)(MED NOSE)(100MIL)	PAVEMENT SEALER 4"	PAVEMENT SEALER 8"	PAVEMENT SEALER 24"	REFL PAV MRKR TY I-C	REFL PAV MRKR TY II-A-A	RELOCATE LRSA
EA	EA	EA	LF	LF	EA	LF	LF	LF	EA	EA	EA		
BURR RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-471)													
209	STA. 16+00 TO STA. 22+00 (WURZBACH)	0.00	0.00	0.00	2296.00	515.00	0.00	3746.00	720.00	765.00	57.00	50.00	0.00
210	STA. 22+00 TO STA. 26+00 (WURZBACH)	0.00	1.00	0.00	1600.00	237.00	2.00	1960.00	700.00	367.00	26.00	65.00	0.00
211	STA. 26+00 TO STA. 28+00 (WURZBACH)	0.00	0.00	0.00	540.00	0.00	0.00	1280.00	200.00	200.00	29.00	10.00	0.00
	SUBTOTAL	0.00	1.00	0.00	4436.00	752.00	2.00	6986.00	1620.00	1332.00	112.00	125.00	0.00
WINANS RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-470)													
212	STA. 52+75.00 TO STA. 57+00 (WURZBACH)	0.00	1.00	0.00	1080.00	251.00	2.00	1670.00	340.00	347.00	42.00	56.00	0.00
213	STA. 57+00.00 TO STA. 65+00 (WURZBACH)	0.00	1.00	0.00	2890.00	839.00	2.00	3270.00	1585.00	887.00	37.00	94.00	0.00
214	STA. 65+00.00 TO STA. 73+00 (WURZBACH)	0.00	0.00	0.00	2360.00	519.00	4.00	2730.00	1447.00	579.00	38.00	94.00	0.00
215	STA. 10+50.00 TO STA. 14+80 (WINANS)	0.00	1.00	0.00	1480.00	40.00	2.00	3365.00	2080.00	844.00	94.00	47.00	0.00
	SUBTOTAL	0.00	3.00	0.00	7810.00	1649.00	10.00	11035.00	5452.00	2657.00	211.00	291.00	0.00
RITTIMAN RD. & HARRY WURZBACH INTERSECTION (CSJ 915-12-480)													
216	STA. 73+00.00 TO STA. 81+00 (WURZBACH)	0.00	3.00	0.00	1816.00	20.00	0.00	2496.00	2080.00	20.00	100.00	22.00	2.00
217	STA. 81+00.00 TO STA. 88+33 (WURZBACH)	0.00	3.00	0.00	850.00	0.00	0.00	1320.00	470.00	37.00	24.00	22.00	0.00
218	STA. 10+00.00 TO STA. 14+00 (RITTIMAN)	0.00	0.00	0.00	800.00	0.00	0.00	1600.00	0.00	0.00	0.00	20.00	0.00
219	STA. 14+00.00 TO STA. 18+00 (RITTIMAN)	0.00	0.00	2.00	440.00	118.00	0.00	1837.00	0.00	278.00	15.00	26.00	0.00
220	STA. 18+00.00 TO STA. 22+00 (RITTIMAN)	2.00	0.00	0.00	800.00	0.00	0.00	1800.00	0.00	0.00	51.00	26.00	0.00
221	STA. 22+00.00 TO STA. 24+00 (RITTIMAN)	0.00	0.00	0.00	800.00	0.00	0.00	1800.00	0.00	0.00	20.00	20.00	0.00
222	STA. 24+00.00 TO STA. 33+00 (RITTIMAN)	0.00	0.00	0.00	800.00	0.00	0.00	1940.00	0.00	0.00	32.00	34.00	0.00
	SUBTOTAL	2.00	6.00	2.00	6306.00	138.00	0.00	12793.00	2550.00	335.00	242.00	170.00	2.00
	PROJECT TOTALS	2.00	10.00	2.00	18552.00	2539.00	12.00	30814.00	9622.00	4324.00	565.00	586.00	2.00

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CITY OF SAN ANTONIO
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
 FORT SAM HOUSTON TRANSPORTATION PROJECTS

PAVEMENT MARKING SUMMARY

FINAL SUBMITTAL	PROJECT NO.: 915-12-470,etc	DATE: 7/31/2011
DRWN. BY: RPR	DSGN. BY: JDH	CHKD. BY: RE
		SHEET NO.: 33

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DATE:
FILE:

SUMMARY OF SMALL SIGNS

SM RD SGN ASSM TY XXXXX(X)XX(X-XXXX)

PLAN SHEET NO.	STGN NO. NOMENCLATURE	STGN TEXT	DIMENSIONS	ALUMINUM TYPE A	ALUMINUM TYPE G	Posts (1 or 2)
1	D3	RAPHAÏL DR	36" x9"			1
	D3	HARRY WURZBACH	54" x9"			
	R1-1	STOP	30" x30"			
2	R3-17	BIKE LANE	30" x24"			1
	R3-17b	ENDS	30" x12"			
3	R2-1	SPEED LIMIT 40	24" x30"			1
4	R3-17	BIKE LANE	30" x24"			1
	R3-17a	AHEAD	30" x12"			
5	R8-3a	NO PARKING	24" x30"			1
6	R3-17	BIKE LANE	30" x24"			1
	R3-17b	ENDS	30" x12"			
7	R3-2	NO LEFT TURN	24" x24"			1
8	D3	TERREL RD	36" x9"			1
	D3	HARRY WURZBACH	54" x9"			
	R1-1	STOP	30" x30"			
9	R2-1	SPEED LIMIT 45	24" x30"			1
10	R3-17	BIKE LANE	30" x24"			1
	R3-17a	AHEAD	30" x12"			
4	R3-2	NO LEFT TURN	24" x24"			1
12	D3	LYMAN RD	36" x9"			1
	D3	HARRY WURZBACH	54" x9"			
	R1-1	STOP	30" x30"			
13	R3-17	BIKE LANE	30" x24"			1
	R3-17b	ENDS	30" x12"			
14	R3-17	BIKE LANE	30" x24"			1
	R3-17a	AHEAD	30" x12"			
5	R3-2	NO LEFT TURN	24" x24"			1
16	D3	IVY LANE	36" x9"			1
	D3	HARRY WURZBACH	54" x9"			
	R1-1	STOP	30" x30"			
17	R3-17	BIKE LANE	30" x24"			1
18	R3-8 LSS		48" x30"			2
19	D3	CANTERBURY HILL	54" x9"			1
	D3	HARRY WURZBACH	54" x9"			
	R1-1	STOP	30" x30"			
20	R3-17	BIKE LANE	30" x24"			1
6	R3-17	BIKE LANE	30" x24"			1
22	D3	WILTSHIRE AVE	54" x9"			1
	D3	HARRY WURZBACH	54" x9"			
	R1-1	STOP	30" x30"			
23	R3-17	BIKE LANE	30" x24"			1
24	D3	EVENTIDE DR	54" x9"			1
	D3	HARRY WURZBACH	54" x9"			
	R1-1	STOP	30" x30"			
7	R3-17	BIKE LANE	30" x24"			1
26	R3-8 VAR		60" x30"			2
27	D3	MORNINGSIDE DR	54" x9"			1
	D3	HARRY WURZBACH	54" x9"			
	R1-1	STOP	30" x30"			
28	R4-4		36" x30"			1

ALUMINUM SIGN BLANKS (TYPE A)
Square Ft. Min. Thickness
Less than 7.5 0.080"
7.5 to 15 0.100"
Greater than 15 0.125"

Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.

SUMMARY OF SMALL SIGNS SOSS

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CONT	SECT	JOB	HIGHWAY
DIST	COUNTY	SHEET NO.	
SAT	BEXAR	34	
DN.-TxDOT	11-93	REVISIONS	7-02
CK.-TxDOT	8-95		2-07
DN.-TxDOT	1-02		9-08
CK.-TxDOT			

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DATE:
FILE:

SUMMARY OF SMALL SIGNS

SM RD SGN ASSM TY XXXXX(X)XX(X-XXXX)

PLAN SHEET NO.	STGN NO. NOMENCLATURE	SIGN TEXT	DIMENSIONS	ALUMINUM TYPE A	ALUMINUM TYPE G	Posts (1 or 2)
7	29 R3-7R		30"x30"			1
8	30 D3 D3 R1-1	CORINNE DR HARRY WURZBACH STOP	36"x9" 54"x9" 30"x30"			1
31	R3-8 VAR		60"x30"			2
32	R4-7		24"x30"			1
33	R3-17 R3-17a	BIKE LANE AHEAD	30"x24" 30"x12"			1
34	R3-17 R3-17b	BIKE LANE ENDS	30"x24" 30"x12"			1
35	R3-8 VAR		48"x30"			2
36	R3-8 VAR		48"x30"			2
37	R1-2	YIELD	36"x36"			1
38	R1-2	YIELD	36"x36"			1
39	R3-8 VAR		54"x30"			2

ALUMINUM SIGN BLANKS (TYPE A)

Square Ft.	Min. Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.

SUMMARY OF SMALL SIGNS

SOSS

© TxDOT May 1987		REVISIONS	
ENR-TxDOT	11-93	7-02	
CK-TxDOT	8-95	2-07	
ENR-TxDOT	1-02	9-08	
CK-TxDOT			
CONT	SECT	JOB	HIGHWAY
DIST	COUNTY		SHEET NO.
SAT	BEXAR		35

18

TRAFFIC SIGNAL SUMMARY

SHEET NO.	INTERSECTION	416-2031	416-2032	416-2034	618-2018	618-2022	620-2009	620-2010	620-2011	621-2002	624-2014	628-2148	636-2001	680-2003	682-2001	682-2002
		INS OF TRF SIG PL FND (30" DRIL SHFT)	INS OF TRF SIG PL FND (36" DRIL SHFT)	INS OF TRF SIG PL FND (48" DRIL SHFT)	CONDT (PVC) (SCHD 40)(2")	CONDT (PVC) (SCHD 40)(3")	ELEC CONDR (NO. 6) BARE	ELEC CONDR (NO. 6) INSULATED	ELEC CONDR (NO. 8) BARE	TRAY CABLE (TY A) (12 AWG) (3 CONDR)	GROUND BOX TY D (162922) W/ APRON	ELEC SRV TY T 120 / 240 000 (N5) G5 (N) SP (U)	ALUMINUM SIGNS (TY A)	INSTAL HWY TRF SIG (SYSTEM)	BACK PLATE (12 IN) (3 SEC)	BACK PLATE (12 IN) (4 SEC)
		LF	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	SF	EA	EA	EA
	HARRY WURZBACH ROAD / RITTIMAN ROAD (CSJ 915-12-480)	0	27	44	111	650	8	16	753	668	4	1	10	1	15	0
	HARRY WURZBACH ROAD / WINANS ROAD (CSJ 915-12-470)	12	27	0	95	299	12	24	449	472	3	1	10	1	7	1
	HARRY WURZBACH ROAD / BURR ROAD (CSJ 915-12-471)	0	40	0	47	538	11	10	297	500	4	1	10	1	5	2
	PROJECT TOTAL	12	94	44	253	1487	31	50	1499	1640	11	3	30	3	27	3

SHEET NO.	INTERSECTION	682-2022	682-2023	682-2024	682-2025	682-2026	682-2027	682-2044	684-2012	621-2002	684-2035	686-2031	686-2035	686-2039	686-2047	686-2059
		VEH SIG SEC (12 IN) LED (GRN ARW)	VEH SIG SEC (12 IN) LED (GRN)	VEH SIG SEC (12 IN) LED (YEL ARW)	VEH SIG SEC (12 IN) LED (YEL)	VEH SIG SEC (12 IN) LED (RED ARW)	VEH SIG SEC (12 IN) LED (RED)	PED SIG SEC (12 IN) LED (2 INDICAT IN 1 SEC)	TRF SIG CBL (TY A) (12 AWG) (7 CONDR)	TRAY CABLE (TY A) (12 AWG) (3 CONDR)	TRF SIG CBL (TY A) (14 AWG) (9 CONDR)	INS TRF SIG PL AM (S) 1 ARM (32')	INS TRF SIG PL AM (S) 1 ARM (36')	INS TRF SIG PL AM (S) 1 ARM (40')	INS TRF SIG PL AM (S) 1 ARM (48')	INS TRF SIG PL AM (S) 1 ARM (60')
		EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	EA	EA	EA	EA	EA
	HARRY WURZBACH ROAD / RITTIMAN ROAD (CSJ 915-12-480)	5	10	5	10	5	10	8	646	642	1003	0	0	2	0	1
	HARRY WURZBACH ROAD / WINANS ROAD (CSJ 915-12-470)	4	4	5	4	2	6	0	438	495	0	1	0	0	2	0
	HARRY WURZBACH ROAD / BURR ROAD (CSJ 915-12-471)	2	6	1	6	0	6	0	506	518	0	0	2	0	1	0
	PROJECT TOTAL	11	20	11	20	7	22	8	1590	1655	1003	1	2	2	3	1

SHEET NO.	INTERSECTION	686-2063	687-2001	688-2001	6041-XXXX	6044-2001	6044-2002	6044-2003	6044-2005	8260-2001	8261-2001	6525-XXXX	6525-XXXX	6525-XXXX	8245-XXXX	8643-XXXX
		INS TRF SIG PL AM (S) 1 ARM (65')	INSTL PED POLE ASSEMBLY	PED DETECT (2 INCH PUSH BTN)	ILSN (LED) (8 D)	VIVDS PROCESSOR SYSTEM	VIVDS CAMERA ASSEMBLY	VIVDS SET-UP SYSTEM	VIVDS COMMUNICATION CABLE (COAXIAL)	LED COUNTDOWN PEDESTRIAN MODULE	BATTERY BACKUP SYSTEM FOR TRAFFIC SIGNAL	EMERGENCY PREEMPTION PHASE SELECTOR	EMERGENCY PREEMPTION DETECTOR	EMERGENCY PREEMPTION DETECTOR CABLE	MODEL 2070 CONTROLLER UNIT	TYPE 2070 CONTROLLER CABINET ASSEMBLY
		EA	EA	EA	EA	EA	EA	EA	LF	EA	EA	EA	EA	LF	EA	EA
	HARRY WURZBACH ROAD / RITTIMAN ROAD (CSJ 915-12-480)	1	4	8	4	2	9	1	1196	8	1	1	4	646	1	1
	HARRY WURZBACH ROAD / WINANS ROAD (CSJ 915-12-470)	0	0	0	3	2	6	1	664	4	1	1	3	438	1	1
	HARRY WURZBACH ROAD / BURR ROAD (CSJ 915-12-471)	0	0	0	3	2	6	1	753	0	1	1	3	434	1	1
	PROJECT TOTAL	1	4	8	10	6	21	3	2613	12	3	3	10	1518	3	3



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Texas Department
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CITY OF SAN ANTONIO

CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

FORT SAM HOUSTON TRANSPORTATION PROJECTS

TRAFFIC SIGNAL SUMMARY

100% SUBMITTAL	PROJECT NO.: 40-00015	DATE: 7/14/2011
DRWN. BY: JS	DSGN. BY: ED	CHKD. BY: AG
		SHEET NO.: 3/6