

SAN ANTONIO WATER SYSTEM
W6: Western Watershed Sewer Relief Line – Project 2
SAWS Job No. 13-2501
Solicitation No. B-13-005-DD

ADDENDUM NO. 3
June 19, 2013

To Bidder of Record:

This addendum, applicable to work referenced above, is an amendment to the bidding documents and as such will be a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the addendum number and issue date in the space provided in submitted copies of the proposal.

A. MANDATORY PRE-BID CONFERENCE MEETING – FRIDAY, JUNE 14, 2013

1. **Pre-Bid Meeting Sign-In Sheet:** A copy of the Mandatory Pre-Bid Meeting Sign-In Sheet is attached.
2. **Pre-Bid Meeting Minutes:** A copy of the Mandatory Pre-Bid Meeting Minutes held on Friday, June 14, 2013 is attached (for reference only).

B. QUESTIONS & ANSWERS

Q: There is a note on sheet C-3 above the profile view “24” SN 72 FRP see Sheet C-12 for continuation” Is there supposed to be a sheet C-12? The set goes to Sheet C-8.

A: *Sheet callout C-12 has been changed to C-7, revised sheet attached.*

Q: There is a note on sheet C-7 on the lower left side “Abandon and grout fill 54” WW RCP and 60” WW RCP see sheet D-5” Is there supposed to be a sheet D-5? The set goes to sheet D-3.

A: *Sheet callout D-5 has been changed to D-3, revised sheet attached.*

Q: Bid item 1001a Flow management, 66” greater than 1,000 linear feet, per lineal foot. I don’t see any flow management requirement or note for 66” pipe flow management. Provide missing information.

A: *Bid Item 1001a has been revised to show flow management for 60”.*

Q: Bid item 104: This quantity appears to be in error. The quantity shown is 5288.8 CY. When I use the total square yards of asphalt demolition shown on sheets D-1, D-2, the thickness appears to be around 20”. Is the asphalt paving 20” thick?

A: *Item 104 has been deleted from the project.*

Q. Where is the casing wall thickness specified in the contract documents.

A. *Wall thickness shall be a minimum of 0.625 inches and casing pipe shall not be spiral welded.*

Q. On the previous project, W6: Western Watershed Sewer Relief Line-Project 1, Addendum # 1 stated for the 96” Fiberglass Reinforced Pipe (FRP), “**The actual inside pipe diameter shall not be less than 95”**”. Please confirm the same holds true for this project.

A. *Yes, the actual inside pipe diameter shall not be less than 95 inches.*

C. BIDDING & CONTRACT REQUIREMENTS

CONSTRUCTION SPECIFICATIONS:

1. **INVITATION TO BIDDERS:** Proposals will not be accepted from any company not represented at the mandatory pre-bid meeting held June 14, 2013 at 10:00 a.m. The following list is a record of the represented firms:
 - Garney Companies, Inc.
 - Pesado Construction
 - BRH Garver Construction
 - Texas Sterling Construction
 - Santa Clara Construction
 - Flowtite Pipe
 - Capitol Aggregates
 - Sunbelt Rentals
 - Oscar Renda Construction
 - Lewis Contractors
 - Mountain Cascade
 - Boring and Tunneling Company of America, Inc.
 - Wright Construction
 - National Trench Safety (NTS)
 - Hobas Pipe USA
 - S.J. Louis Construction
2. **BID PROPOSAL:** The Bid Proposal will be deleted and replaced in its entirety with the attached Bid Proposal.
3. **SUPPLEMENTAL CONDITIONS:**

Page SPC 1 that reads

“3. Article VII - Contract Payments

Section 8.6 of the General Conditions shall be supplemented as follows:

For the purpose of this contract, liquidated damages are set at \$1,000.00 per day.”

Is amended to read:

“3. Article VIII - Contract Completion Time

Section 8.6 of the General Conditions shall be supplemented as follows:

For the purpose of this contract, liquidated damages are set at \$1,000.00 per day.”

CONSTRUCTION PLANS:

1. **Construction Plans - Sheet G-0:** The cover will be deleted in its entirety and replaced. (**SEE ATTACHED SHEET G-0, 11x17 sheet**).
2. **Construction Plans - Sheet G-4:** Quantities Summary will be deleted in its entirety and replaced. (**SEE ATTACHED SHEET G-4, 11x17 sheet**).

3. **Construction Plans - Sheet D-1:** Pavement Removal Plan I will be deleted in its entirety and replaced. (SEE ATTACHED SHEET D-1, 11x17 sheet).
4. **Construction Plans - Sheet D-2:** Pavement Removal Plan II will be deleted in its entirety and replaced. (SEE ATTACHED SHEET D-2, 11x17 sheet).
5. **Construction Plans - Sheet C-2:** Plan and Profile STA 65+78.32 to STA 77+00 will be deleted in its entirety and replaced. (SEE ATTACHED SHEET C-2, 11x17 sheet)
6. **Construction Plans - Sheet C-3:** Plan and Profile STA 77+00 to STA 88+00 New Laredo Crossing Siphon No. 3 will be deleted in its entirety and replaced. (SEE ATTACHED SHEET C-3, 11x17 sheet).
7. **Construction Plans - Sheet C-7:** Partial Plan Service Line Connection New Laredo Hwy. Crossing will be deleted in its entirety and replaced. (SEE ATTACHED SHEET C-7, 11x17 sheet).
8. **Construction Plans - Sheet CZ-1:** Civil Details I will be deleted in its entirety and replaced. (SEE ATTACHED SHEET CZ-1, 11x17 sheet).
9. **Construction Plans - Sheet CZ-2:** Civil Details II will be deleted in its entirety and replaced. (SEE ATTACHED SHEET CZ-2, 11x17 sheet)
10. **Construction Plans - Sheet CZ-5:** Civil Details V will be deleted in its entirety and replaced. (SEE ATTACHED SHEET CZ-5, 11x17 sheet).
11. **Construction Plans - Sheet CZ-7:** Suggested 30" WW Flow Management Detail will be added in its entirety. (SEE ATTACHED SHEET CZ-7, 11x17 sheet).
12. **Construction Plans - Sheet SZ-1:** Structural Typical Details I will be deleted in its entirety and replaced. (SEE ATTACHED SHEET SZ-1, 11x17 sheet).

This Addendum, including this page, is thirty-nine (39) pages in its entirety.

Each bidder is requested to acknowledge receipt of this Addendum No. 3 by his/her signature affixed hereto and to file same as an attachment to his/her bid.

Damien J. Herrera PE 6/19/13

 Damien J. Herrera, P.E.
 Project Manager
 CDM Smith Inc.
 TBPE Registration No. F-3043



The Undersigned acknowledges receipt of this Addendum No. 3 and the bid submitted herewith is in accordance with the information and stipulation set forth.

Date

Signature of Bidder

SAN ANTONIO WATER SYSTEM

MANDATORY PRE-BID CONFERENCE

W6 Western Watershed Sewer Relief Line Project 2 Sign In Sheet

SAWS Job No. 13-2501

Solicitation No. B-13-005-DD

June 14, 2013

SIGN-IN

No.	NAME	COMPANY	Email	PHONE NUMBER
1	Julie A Simko, P.E.	SAWS		
2	Roland Menchaca	SAWS		
3	Diana Dwyer	SAWS	ddwyer@saws.org	(210)-233-3372
4	Damien Herrera, P.E.	CDM Smith		
5	Kahle Loveless	Gorney Companies, Inc.	KLOVELESS@GARNEY.COM CSHARBOND@GARNEY.COM	(816)584-7314
6	MIKE COX	PESADO CONST.	MCOX@PESADOCONSTRUCTION.CO.COM	210 651 4452
7	KURT ROEDEL	BRH GARVER CONST.	Phil Reed@BRHGARVER.COM	713-921-2929
8	ROLANDO B. NAVEJAS, P.E.	TEXAS STERLING CONSTRUCTION	rolandj@texassterling.com	210 340 2133
9	ZACH FORTH	SANTA CLARA CONSTR.	z.forth@sbcglobal.net	512 845 6411
10	BOBBY LYS	Flawtile Pipe	blys@Flawtilepipe.com	979-229-3315
11	Robert Muff	Capitol Aggregates	rob@capass.com	210-744-3055
12	Adam Haworth	Sinbell Rentals	Adam.Haworth@sinbellrentals.com	210-620-2317
13	Tom Sunk	Oscar Renda Cont	janice@oscarrenda.com	817-491-2703
14	Matt Lewis	Lewis Contractors	Matt@lewiscontractors.com	512-260-9900
15	David McMullen	mountain cascade	Dmcmullen@mountaincascade.com	512 581 8544
16	Dale Kornegay	Bortun Co	dkornegay@bortun.com	213-907-7715
17	Sandra Gwos	SAWS	srios@saws.org	3385
18	Michael AHO	WRIGHT CONST.	shugdah@wrightconst.com	817-329 7095
19	Brad Warrusa	NTS	bradwarrusa@ntsafety.com	383-1503
20	Greg St. Cyr	NTS		383-002

No.	NAME	COMPANY	Email	PHONE NUMBER
21	Victor Rivera	HOBAS PIPE USA	vrivera@hobaspipe.com	713-907-
22	DERRICK GAGE	S.J. LOUIS	DERRICK@SLOUIS.COM	4406 214-340-9998
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MANDATORY PRE-BID MEETING MINUTES

PROJECT: W6 Western Watershed Sewer Relief Project 2
SAWS Job No. 13-2501 SAWS Sol No. B-13-005-DD

MEETING DATE: June 14, 2013 @ 10:00 a.m.

LOCATION: San Antonio Water System's Customer Service Building
CR-145, 2800 U.S. Hwy 281 North, San Antonio, Texas

SAWS : Julie Simko, P.E., Project Engineer
Sandra Rios, Compliance Specialist
Diana Dwyer, Contract Administration
David Gonzales, Contract Administration – Manager

CDM Smith: Damien J. Herrera, P.E., Senior Project Manager

Proposals will not be accepted from any company not represented at the mandatory pre-bid meeting held June 14, 2013 at 10:00 a.m. The following list is a record of the represented firms:

- Garney Companies, Inc.
- Texas Sterling Construction
- Capitol Aggregates
- Lewis Contractors
- Wright Construction
- S.J. Louis Construction
- Pesado Construction
- Santa Clara Construction
- Sunbelt Rentals
- Mountain Cascade
- National Trench Safety
- BRH Garver Construction
- Flowtite Pipe
- Oscar Renda Construction
- Boring & Tunneling Company of America, Inc.
- Hobas Pipe USA

1. SAWS DISCUSSION:

a. Sandra Rios, SAWS:

- 1) Wage requirements are in the specifications.
- 2) Interviews will be random.
- 3) LCP Tracker is to be used for Payroll.
- 4) Prime GC is responsible for subcontractor payroll, 7 days.
- 5) SAWS will meet with the Awarded Contractor Payroll Personnel.



b. Diana Dwyer, SAWS:

1) Bidding Process:

- Addendum No. 1 was issued Wednesday, June 12, 2013 replacing the sealed title sheet, adding the Special Conditions section to the specifications, and adding Article IV to the Supplemental Conditions.

2) Bidding Requirements:

- Blue Book rental rates for Proposals.
- Liquidated Damages - \$1,000/day.
- Special / Incidental
- Contractor's Project Experience
- 5.7 not required Builders Good Faith Effort Plan
- SPUR – Report payment of subcontractors.

3) Bidding Key Dates:

- Questions may be submitted until 4:00 p.m. Monday, June 17, 2013.
- Final Addendum posting is Thursday, June 20, 2013.
- Bid Opening is 2:00 p.m. on Friday, June 28, 2013.
- Dates are subject to change; watch the website for project updates

4) Bidding Key Information:

- To be considered a potential bidder on this project attendees must sign in.
- There shall be absolutely no contact with the Project Engineer or the Design Consultant
- This meeting is not to change the Plans and Specifications, but to clarify questions. If any changes are made to the Bid Documents prior to the bid opening date, they will be done in writing by addendum.
- The Water subtotal and Wastewater subtotal are to be totaled on the Bid Proposal.
- Financial statements, Information on Company, and Record of Performance will be reviewed on the day of the Bid Opening.
- Special care should be taken to assure all documents are placed in the bid packages as per the Instructions to Bidders.
- Engineer's estimate is approximately \$6.2M. The Contract duration is three hundred and fifty-five (355) consecutive calendar days.



- Bids will be open at **2:00 p.m. on Friday, June 28, 2013** at the Contract Administration Division, 2800 U.S. Hwy 281 North, Customer Center Building, Conference Room 169, San Antonio, Texas 78212. Contract award is anticipated at the SAWS November Board Meeting.
- Award will follow the SAWS Board Meeting on Tuesday, August 6, 2013.
- All questions are to be directed to Diana Dwyer, via email at ddwyer@saws.org or Fax: 210-233-5218.

5) Questions:

- Sheet CZ-7 Flow Management Detail was not included in the package. Include in sheet in Final Addenda.
- Quantities on Sheet G-4 to be verified and adjusted if necessary after all questions have been received and Final Addenda prepared.
- Question raised on where Item 107.1 Embankment was located or how it was calculated.
- Question raised on thickness of steel casing per SAWS standard material not listed in table.
- Addendum to be issued to change deadline for written question submission to 4 pm, Tuesday, June 18, 2013. Release date of Final Addenda will not change.

c. **Julie Simko, SAWS:**

- 1) All warranties are two years.
- 2) There is no staging area available to the CONTRACTOR within the construction limits. The CONTRACTOR shall have to acquire his/her own staging and storage areas near the site at his/her own expense.
- 3) Staking must be requested in writing 7 calendar days in advance.
- 4) Bidders should make themselves aware of the Special Conditions and notes on the plan drawings.
- 5) Contractors shall give notice to residents and businesses prior to construction.
- 6) Contractor must be responsive to resident's complaints. Communication with the resident and the City, SAWS, and TxDOT will be extremely important to minimize complaints. Notification letters / door hangers will be required to be distributed by the successful low bidder.
- 7) Data on soil borings along project alignment is available on the SAWS website. The Contractor may perform additional investigations as he deems necessary at his expense.
- 8) Contractor shall coordinate with all entities when working in close proximity to their facilities or right-of-way and meet their requirements.



- 9) Contractor is responsible for coordinating his work with other Contractors near project limits.
 - 10) All questions must be submitted to the Contracting Officer in writing by Monday 6/17/13 by 4 pm
 - 11) **REEMPHASIZE:** *There shall be absolutely no contact with the Project Engineer or the Design Consultant*
 - 12) Any answers or discussion are not considered a final answer until posted by addendum on the SAWS website (proposed posting of final addendum is 6/20/13)
- d. **Damien J. Herrera, P.E., CDM Smith:**
- 1) Work shall primarily consist of the construction of approximately: 4,000 linear feet of 96-inch FRP open cut sanitary sewer, two (2) 78-inch bores under New Laredo Highway (LP 353), one (1) siphon system across Leon Creek (54-inch and 60-inch FRP sanitary sewer with 30-inch air by-pass line), manholes and appurtenances, reinforced concrete junction boxes, existing sewer system abandonment and demolition, flow management, pavement demolition and replacement, tree protection, fencing removal and replacement, revegetation, and erosion controls as more full described in the Drawings for the W6: Western Watershed Sewer Relief Line, Project 2, SAWS Job No. 13-2501.
 - 2) Special Considerations for Construction:
 - Open Cut installation in same trench of existing 54"
 - (1) four barreled siphons w/air jumper crossing Leon Creek
 - Provision for dewatering wells for bore pits optional bid item as needed (well pointing)
 - Construction phasing with particular attention to:
 - 30" DI waterline adjustment; limited down time; night work to execute adjustment (Southern ROW New Laredo Hwy) (must be done first!)
 - Coordination with other contractor's on other half of Lower Segments
 - Coordination with owner of soccer fields
 - TxDOT Crossings, Leon Creek, and ROW:
 - New Laredo Hwy (bored installation) (TxDOT Utility Permit required for 3 bores (2-78" and 1-24"))
 - Plummear, (COSA ROW permit required for complete street closure. Need to allow access to local residents and emergency traffic.)
 - Quintana Rd. (COSA ROW permit required for complete street closure)
 - A USACoE NWP has been issued for this project.



- Flow management and Qmin and contractor responsibilities. Contractor may refer to special specification:
 - Contractor shall pay close attention to flow management and the use of the existing mains as much as possible to minimize bypass pumping.
 - Contractor shall be cautioned that the existing structural integrity of the existing mains is not guaranteed and thereby assumes all risk of using existing mains for flow management.
- All easements (permanent and temporary) have been successfully acquired by SAWS.
- Tree permit required by CoSA Arborist. Field meeting with Arborist is required prior to clearing.

e. David Gonzales, SAWS:

- 1) All potential bidders are encouraged to again read and thoroughly familiarize themselves with the General Conditions.
- 2) The protection of the trees must be maintained.
- 3) SAWS providing Geotechnical information, review intent

END OF MEETING MINUTES

BID PROPOSAL

PROPOSAL OF _____, a corporation

a partnership consisting of

an individual doing business as

THE SAN ANTONIO WATER SYSTEM:

Pursuant to Instructions and Invitations to Bidders, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the construction of pipelines and appurtenances, San Antonio Water System Job Number 13-2501 in accordance with the Plans and Specifications for the following prices to wit:

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
202	Prime Coat, per Gallon, the sum of _____ Dollars and _____ Cents	GAL	1,820.5	\$ _____	\$ _____
203	Tack Coat, per Gallon, the sum of _____ Dollars and _____ Cents	GAL	842.2	\$ _____	\$ _____
205	Hot Mix Asphaltic Concrete Pavement, Type D, 2" pavement thickness, per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	8,473.0	\$ _____	\$ _____
206	Asphaltic treated base, Type B, 10" compacted depth, per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	3,131.1	\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
208.1	Salvaging, Hauling and Stockpiling reclaimable asphaltic pavement (2 inch depth), per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	8,473.0		
				\$ _____	\$ _____
508-BW4	Remove & Replace Barbed Wire Fence (4-Strand), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	260.0		
				\$ _____	\$ _____
508-M/W	Remove and Reinstall 3" Pipe Fence, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	115.0		
				\$ _____	\$ _____
508	Temporary Fencing (Install and Remove), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	375.0		
				\$ _____	\$ _____
515	Topsoil (3"), per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	41,046.0		
				\$ _____	\$ _____
520	Hydromulching, per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	41,046.0		
				\$ _____	\$ _____
530	Barricades, Signs & Traffic Handling, per Lump Sum, the sum of _____ Dollars and _____ Cents	L.S.	1		
				\$ <u>XXXXXX</u>	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
540-a	Construction Exit (Install & Remove), per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y	388.9	\$ _____	\$ _____
540-b	Temporary Sediment Control Fence (Install & Remove), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	8,755.5	\$ _____	\$ _____
550	Trench Excavation Safety Protection, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	5,486.0	\$ _____	\$ _____
553	Storm Water Pollution Prevention Plan, per Lump Sum, the sum of _____ Dollars and _____ Cents	L.S.	1	\$ <u>XXXXXX</u>	\$ _____
554-a	Erosion Control Mats (TXDOT Item 169, ECB, Type A), per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	312.0	\$ _____	\$ _____
554-b	Erosion Control Mats (TXDOT Item 169, ECB, Type C), per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	908.0	\$ _____	\$ _____
848-10a	10" PVC SDR 26 (ASTM 2241), (0'-10') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	39.0	\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
848-12a	12" PVC SDR 26 (ASTM 2241), (0'-10') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	89.2	\$ _____	\$ _____
848-18a	18" PVC SDR 26 (ASTM 2241), (0'-10') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	22.0	\$ _____	\$ _____
848-24a	24" FRP Gravity Line, (0'-10') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	423.9	\$ _____	\$ _____
848-24b	24" FRP Gravity Line, (10'-15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	21.1	\$ _____	\$ _____
848-48	48" PVC C-905 (Temp Diversion), (10'-15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	15.0	\$ _____	\$ _____
848-54a	54" Diameter SN 72 FRP Siphon Line, (0'-10') Open Cut Siphon, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	61.4	\$ _____	\$ _____
848-54b	54" FRP Siphon Line, (10'-15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	50.7	\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
848-54c	54" FRP Siphon Line, (>15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	77.4		
				\$ _____	\$ _____
848-60a	60" FRP Siphon Line, (0'-10') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	122.8		
				\$ _____	\$ _____
848-60b	60" FRP Siphon Line, (10'-15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	101.3		
				\$ _____	\$ _____
848-60c	60" FRP Siphon Line, (>15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	154.8		
				\$ _____	\$ _____
848-66a	66" FRP Gravity Line, (10'-15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	10.15		
				\$ _____	\$ _____
848-66b	66" FRP Gravity Line, (>15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	191.99		
				\$ _____	\$ _____
848-96a	96" FRP Gravity Line, (10'-15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	1,956.0		
				\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
848-96b	96" FRP Gravity Line, (>15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	1,942.1	\$ _____	\$ _____
850-1a	Siphon Box 3A Outlet Structure, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
850-1b	Siphon Box 3B Inlet Structure, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
850-2	Junction Box 4 Structure, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
852.2	Manhole 48" Precast (0'-6' depth), per Each, the sum of _____ Dollars and _____ Cents	EA.	7	\$ _____	\$ _____
852.3	Extra Depth Manholes 48" (> 6' Depth), per Vertical Foot, the sum of _____ Dollars and _____ Cents	V.F.	38.5	\$ _____	\$ _____
853-a	72" FRP MH on 96" x 96" x 60" – T-Base with Watertight MH, per Each, the sum of _____ Dollars and _____ Cents	EA.	5	\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
853-b	72" FRP MH on 96" x 96" x 60" – T Base with Watertight and Vented MH, per Each, the sum of _____ Dollars and _____ Cents	EA.	3	\$ _____	\$ _____
853-c	72" FRP MH on 66" x 66" x 60" – T Base with Watertight MH, complete-in-place as shown on the drawings, per Each, the sum of _____ Dollars and _____ Cents	EA.	2	\$ _____	\$ _____
853-d	72" FRP MH on 96" x 96" x 60' with 30" Side Outlet – T Base with Watertight MH, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
853-e	72" FRP MH on 96" x 96" x 60" with 66" Side Outlet and 96" x 66" Reducer – T Base with Watertight and Vented MH (MH-17B), per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
853-f	72" FRP MH on 96" x 96" x 60" with 24" Side Outlet, – T Base with Watertight and Vented MH, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
853-g	72" FRP MH on 30" x 30" x 60"– T Base Air By-Pass MH, the sum of _____ Dollars and _____ Cents	EA.	2		
				\$ _____	\$ _____
853-h	Abandon Existing Siphon Boxes, per Each, the sum of _____ Dollars and _____ Cents	EA.	2		
				\$ _____	\$ _____
856-12	12" PVC SDR 26 Carrier Gravity Line, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	117.0		
				\$ _____	\$ _____
856-24	24" Steel Casing Pipe (Jacking, Boring or Tunnel), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	117.0		
				\$ _____	\$ _____
856-66	66" FRP Carrier Gravity Line, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	409.9		
				\$ _____	\$ _____
856-78	78" Diameter Steel Casing Pipe (Jacking/Boring or Tunneling), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	244.0		
				\$ _____	\$ _____
856-78a	78" Steel Casing Pipe (Open Cut), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	165.9		
				\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
858	Concrete Encasement Cradles, Saddles & Collars, per Cubic Yard, the sum of _____ Dollars and _____ Cents	C.Y.	491.4	\$ _____	\$ _____
862-48a	Abandon Existing 48" CSC Sewer Siphons (fill with Flowable Fill), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	269.0	\$ _____	\$ _____
862-54a	Remove Existing 54" RCP Sewer Mains, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	3,430.0	\$ _____	\$ _____
862-54b	Abandon Existing 54" RCP/CSC Sewer Mains/Siphons (fill with Flowable Fill), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	1,170.0	\$ _____	\$ _____
862-54c	Remove Existing Manholes in place on 54" RCP sewer mains, per Each, the sum of _____ Dollars and _____ Cents	EA.	2	\$ _____	\$ _____
862-54d	Abandon Existing Manholes on 54" RCP Sewer Lines, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
862-54e	Abandon Existing Manholes on 54" RCP Sewer Lines, per Each, the sum of _____ Dollars and _____ Cents	EA	1	\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
862-60a	Remove Existing 60" RCP Sewer Mains, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	356.0	\$ _____	\$ _____
862-60b	Abandon Existing 60" RCP Sewer Mains, (fill with Flowable Fill), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	296.0	\$ _____	\$ _____
862-60c	Remove Existing Manholes in Place on 60" RCP Sewer Main, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
862-60d	Abandon Existing Sewer Manholes on 60" RCP sewer line (fill with Crushed Rock), per Each, the sum of _____ Dollars and _____ Cents	EA.	6	\$ _____	\$ _____
866-a	Sewer Main Television Inspection (Proposed Sewer Main Piping >30per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	5,378.0	\$ _____	\$ _____
866-b	Sewer Main Pre-Television Inspection Existing 54", 60", and 66" Sewer Mains, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	9,046.5	\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
868-48	48" Sewer Main Cleaning, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	269.0		
				\$ _____	\$ _____
868-54	54" Sewer Main Cleaning, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	1,170.0		
				\$ _____	\$ _____
868-60	60" Sewer Main Cleaning, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	296.0		
				\$ _____	\$ _____
1001	Flow Management, 60" up to 1,000 Linear Feet, per Lump Sum, the sum of _____ Dollars and _____ Cents	L.S.	1		
				<u>XXXXXXXX</u>	\$ _____
1001.a	Flow Management, 60" greater than 1,000 Linear Feet, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	1,600.0		
				\$ _____	\$ _____
1001.b	Flow Management, 30"WW at STA 76+66.63, per Lump Sum, the sum of _____ Dollars and _____ Cents	L.S.	1		
				<u>XXXXXXXX</u>	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
1103-54	Point Repairs and Obstruction Removal 54" RCP (6' to 10' depth), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	100.0		
				\$ _____	\$ _____
1103-54a	Extra Length Point Repairs and Obstruction Removal 54" RCP (6' to 10" depth), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	100.0		
				\$ _____	\$ _____
1103-60	Point Repairs and Obstruction Removal 60" RCP (6' to 10' depth), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	100.0		
				\$ _____	\$ _____
1103-60a	Extra Length Point Repair and Obstruction Removal 60" RCP (6' to 10' depth), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	100.0		
				\$ _____	\$ _____
2140	Well Pointing (Siphon and Air Bypass Trench Dewatering), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	758.0		
				\$ _____	\$ _____
2623-24	Air Bypass Hydrant, 24" HDPE Riser on 30" HDPE, per Each, the sum of _____ Dollars and _____ Cents	EA.	1		
				\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
2623-30a	Pipe, 30" Diameter DR17 HDPE Line (0' to 10') Open Cut Air Bypass, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	77.4		
2623-30b	30" DHPE DR17 (10' to 15') Open Cut Air Bypass, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	50.7		
2623-30c	30" HDPE DR17 (>15') Open Cut Air Bypass, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	77.4		

LINE ITEM "A"

SUBTOTAL BASE BID – (SEWER): \$ _____

D.S.P. WATERMAIN

The undersigned proposes to furnish all labor and materials as specified.

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
413	Flowable Fill, per Cubic Yard, the sum of _____ Dollars and _____ Cents	CYD	203.0		

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
550	Trench Excavation Safety Protection, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	61	\$ _____	\$ _____
814	30" Ductile Iron Pipe – C151/A21 51 91 (10'-15') (Restrained per SAWS Std. Open Cut Spec), per Each, the sum of _____ Dollars and _____ Cents	L.F.	61	\$ _____	\$ _____
836	Pipe Fittings, All Sizes, All Types, per Ton, the sum of _____ Dollars and _____ Cents	TON	3.4	\$ _____	\$ _____
840	30" Tie In, per Each, the sum of _____ Dollars and _____ Cents	EA.	2	\$ _____	\$ _____
841	Hydrostatic Testing, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
844	4" Temporary Blowoff, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
846	3" Combination Air/Vacuum Valve, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
862-30	Remove Existing 30" DI Water Line, per Linear Foot, the Sum of _____ Dollars and _____ Cents	L.F.	59.0		
				\$ _____	\$ _____
1020	Main Break/Leak Repair, 30" Main, per Lump Sum, the sum of _____ Dollars and _____ Cents	L.S.	1		
				\$ <u>XXXXXXX</u>	\$ _____
LINE ITEM "B"					
SUBTOTAL BASE BID – (WATER) \$ _____					
SUBTOTAL LINE ITEM "A" AND LINE ITEM "B" \$ _____					

MOBILIZATION AND PREPARING RIGHT-OF-WAY

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
100	MOBILIZATION Percent of the Sum of Line Items "A and B" Subtotal Base Bid Written in Words _____ Percent <i>(Maximum of 10% of the Sum of Line Items "A and B" Subtotal Base Bid Amount)</i>	LUMP SUM	1	\$ <u>XXXXXXX</u>	\$ _____

BID PROPOSAL

Item No	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
101	PREPARING R.O.W. Percent of the Sum of Line Items "A and B" Subtotal Base Bid <i>Written in Words</i> _____ Percent (<i>Maximum of 5% of the Sum of Line Items "A and B" Subtotal Base Bid Amount</i>)	LUMP SUM	1	\$ XXXXXX	\$ _____
MOBILIZATION AND PREPARING ROW SUBTOTAL					\$ _____

Mobilization lump sum bid shall be limited to a maximum 10% of the Sum of Line Item "A and B" Subtotal Base Bid amount. Preparing Right-of-Way lump sum bid shall be limited to a maximum of 5% of the Sum of Line Item "A and B" Subtotal Base Bid amount. The Line Item "A" and Line Item "B" Subtotal base bid is defined as all bid items **EXCLUDING** Item 100, Mobilization and Item 101, Preparing Right-of-Way. **In the event of a discrepancy between the written percentage and dollar amount shown for Mobilization and Preparation of ROW bid items the written percentage will govern. If the percentage written exceeds the allowable maximum stated for mobilization and or preparation of ROW, SAWS reserves the right to cap the amount at the percentages shown and adjust the extensions of the bid items accordingly.**

TOTAL BID AMOUNT (Sum of Line Item "A and B", Mobilization & Preparing R.O.W.) \$ _____

_____ DOLLARS

AND _____ CENTS

 BIDDER'S SIGNATURE & TITLE

 FIRM'S NAME (TYPE OR PRINT)

 FIRM'S ADDRESS

 FIRM'S PHONE NO. /FAX NO.

 FIRM'S EMAIL ADDRESS

BID PROPOSAL

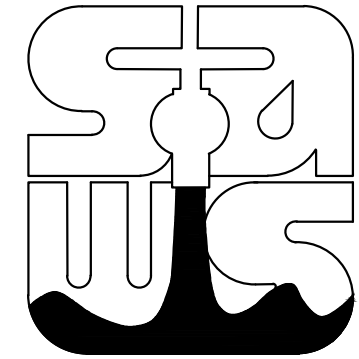
THE CONTRACTOR HEREIN ACKNOWLEDGES RECEIPT OF THE FOLLOWING:

Addendum Nos. _____.

OWNER RESERVES THE RIGHT TO ACCEPT THE OVERALL MOST RESPONSIBLE BID.

The bidder offers to construct the Project in accordance with the Contract Documents for the contract price, and to complete the Project within **Three Hundred Fifty-Five (355)** Calendar Days after the start date, as set forth in the Authorization to Proceed. **The bidder understands and accepts the provisions of the contract Documents relating to liquidated damages of the project if not completed on time.** Complete the additional requirements of the proposal which are included on the following pages.

SAN ANTONIO WATER SYSTEM



W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 2

GENERAL

- G-0 COVER SHEET / SHEET INDEX
- G-1 GENERAL NOTES
- G-2 GENERAL / CIVIL LEGEND
- G-3 SEQUENCE OF CONSTRUCTION
- G-4 QUANTITIES SUMMARY
- G-5 SURVEY CONTROL PLAN - OVERALL
- G-6 SURVEY CONTROL PLAN - TEMPORARY BENCHMARK DETAILS

DEMOLITION

- D-1 PAVEMENT REMOVAL PLAN I
- D-2 PAVEMENT REMOVAL PLAN II
- D-3 SIPHON DEMOLITION AND ABANDONMENT PLAN

CIVIL

- C-1 OVERALL PROJECT KEY PLAN
- C-2 PLAN AND PROFILE - STA 65+78.32 TO STA 77+00
- C-3 PLAN AND PROFILE - STA 77+00 TO STA 88+00
- C-4 PLAN AND PROFILE - STA 88+00 TO STA 99+00
- C-5 PLAN AND PROFILE - STA 99+00 TO END
- C-6 PLAN AND PROFILE SERVICE LINE CONNECTION NEW LAREDO HWY. CROSSING
- C-7 PARTIAL PLAN SERVICE LINE CONNECTION NEW LAREDO HWY. CROSSING
- C-8 PLAN AND PROFILE - 30" WATERLINE RELOCATION

- CZ-1 CIVIL DETAILS I
- CZ-2 CIVIL DETAILS II
- CZ-3 CIVIL DETAILS III
- CZ-4 CIVIL DETAILS IV
- CZ-5 CIVIL DETAILS V
- CZ-6 CIVIL DETAILS VI
- CZ-7 SUGGESTED 30" WW FLOW MANAGEMENT DETAIL

STRUCTURAL

- S-1 SIPHON No 3A OUTLET BOX - STRUCTURAL PLANS
- S-2 SIPHON No 3A OUTLET BOX - STRUCTURAL SECTIONS
- S-3 SIPHON No 3B INLET BOX - STRUCTURAL PLANS AND SECTIONS
- S-4 JUNCTION BOX No 4 - STRUCTURAL PLANS AND SECTION

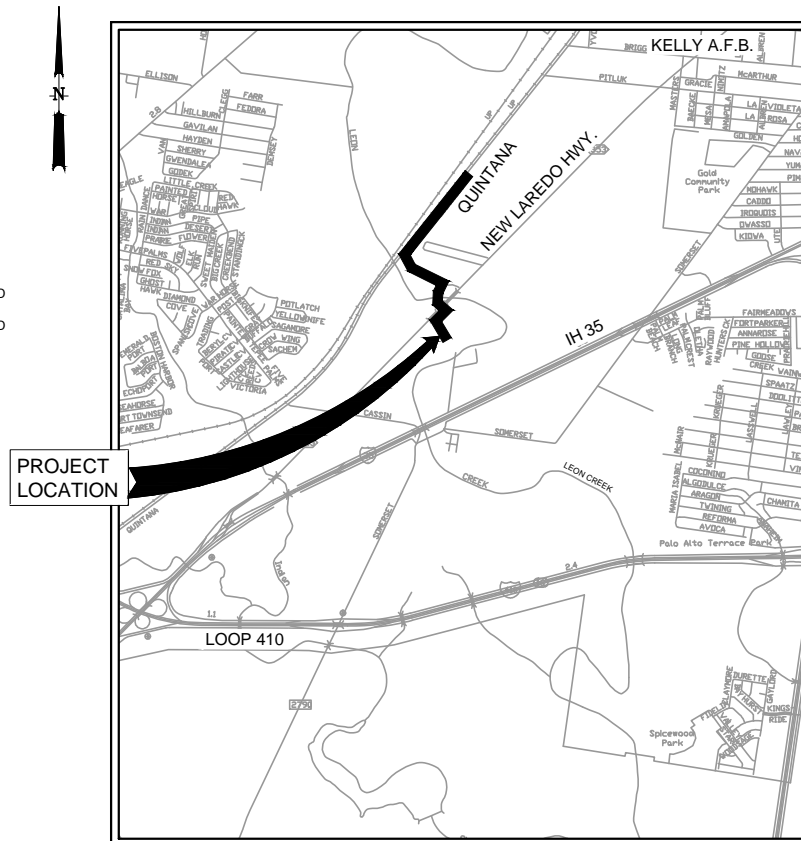
- SZ-1 STRUCTURAL TYPICAL DETAILS I
- SZ-2 STRUCTURAL TYPICAL DETAILS II

STORM WATER PREVENTION, PROTECTION AND TREE PRESERVATION

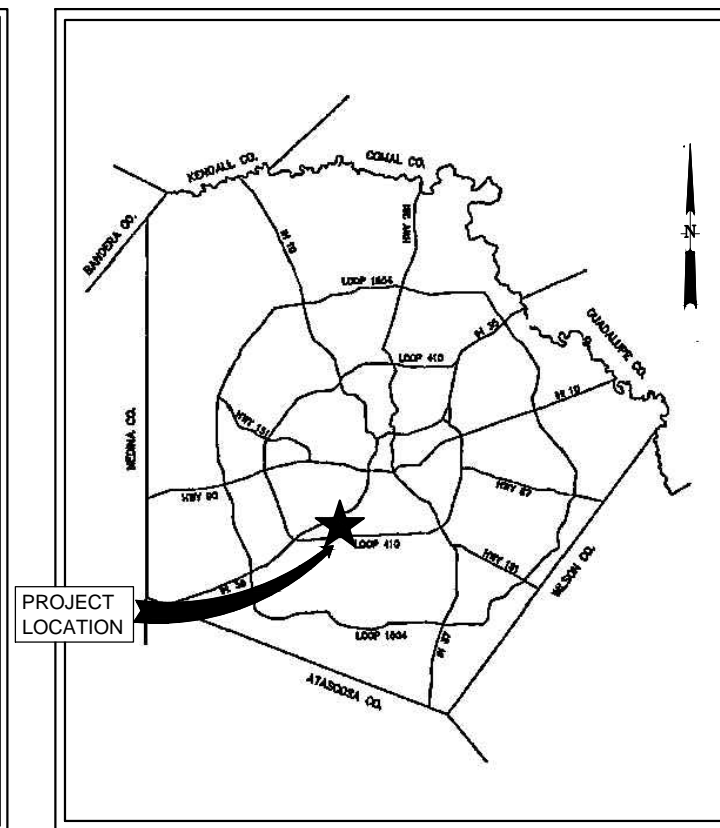
- TP-1 STORMWATER POLLUTION PREVENTION PLAN - SWPPP NARRATIVE
- TP-2 STORMWATER POLLUTION PREVENTION PLAN - TREE SUMMARY SHEET
- TP-3 STORMWATER POLLUTION PREVENTION PLAN - STA 60+00 TO 87+00
- TP-4 STORMWATER POLLUTION PREVENTION PLAN - STA 87+00 TO END
- TP-5 STORMWATER POLLUTION PREVENTION PLAN - CoSA TREE PROTECTION DETAILS 1 OF 4
- TP-6 STORMWATER POLLUTION PREVENTION PLAN - CoSA TREE PROTECTION DETAILS 2 OF 4
- TP-7 STORMWATER POLLUTION PREVENTION PLAN - CoSA TREE PROTECTION DETAILS 3 OF 4
- TP-8 STORMWATER POLLUTION PREVENTION PLAN - CoSA TREE PROTECTION DETAILS 4 OF 4
- TP-9 STORMWATER POLLUTION PREVENTION PLAN - CoSA TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL DETAILS 1 OF 2
- TP-10 STORMWATER POLLUTION PREVENTION PLAN - CoSA TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL DETAILS 2 OF 2

TRAFFIC CONTROL

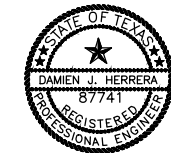
- TC-1 TRAFFIC CONTROL PLAN



LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.



SUBMITTED BY :

Damen J. Herrera

DAMIEN J. HERRERA, P.E.
LICENSED PROFESSIONAL ENGINEER NO. 87741
PH. (210) 826-3200

JUNE 19, 2012

DATE

JUNE 2013

SAWS JOB NO. 13-2501
SAWS SOLICITATION NO. B-13-005-DD



1777 NE Loop 410, Suite 500
San Antonio, Texas 78217
Tel: (210) 826-3200
Texas Registration Number F-3043



ENGINEERING * SURVEYING * PLANNING
10927 WYE DRIVE, SUITE 104, SAN ANTONIO, TEXAS 78217, (210) 590-4777
www.fordengineering.com TBPE No. F-1162

ISSUE No	DATE	CHKD	REMARKS
A	06/19/13	DH	ADDENDUM No 3

QUANTITIES SUMMARY:

PROJECT II

Table with columns: ITEM NO., ITEM, UNIT, TOTAL QUANT., SHEET D-1, D-2, D-3, C-2, C-3, C-4, C-5, C-6, C-7, C-8, TP-3, TP-4, TP-5. Lists various construction items like mobilization, paving, trenching, and manholes.

BASE BID ITEMS

Table with columns: ITEM NO., ITEM, UNIT, TOTAL QUANT., SHEET D-1, D-2, D-3, C-2, C-3, C-4, C-5, C-6, C-7, C-8, TP-3, TP-4, TP-5. Lists items like concrete encasement, siphon removal, and waterline relocation.

Table with columns: ISSUE No., DATE, CHKD, REMARKS. Includes addendum information dated 06/19/13.

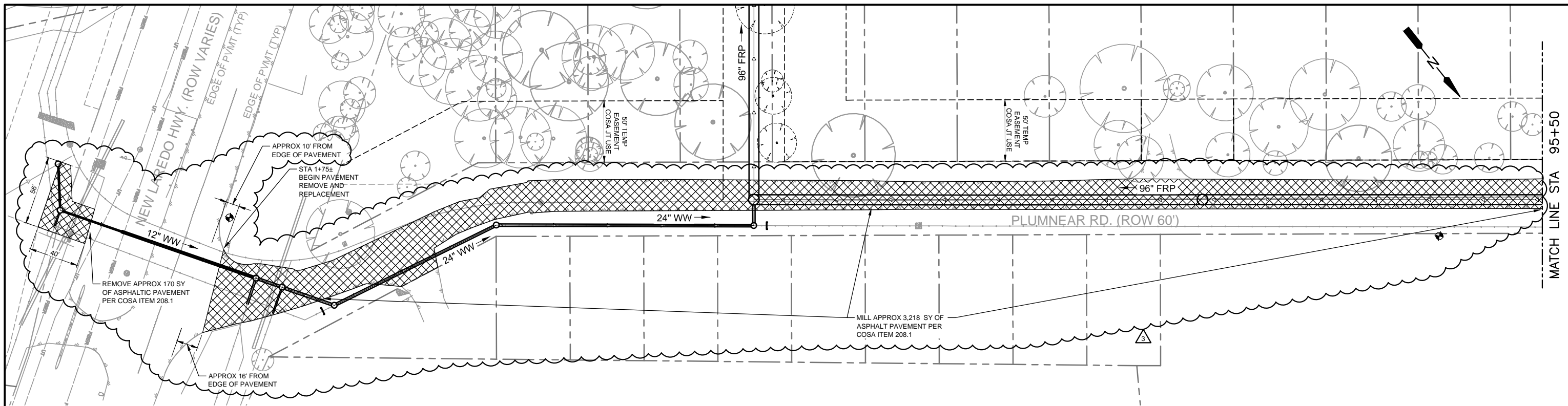
DESIGNED BY: STEPHENS, DRAWN BY: SANDEFUR, SHEET CHK'D BY: STEPHENS, CROSS CHK'D BY: HERRERA, APPROVED BY: [Signature], DATE: JUNE 2013. Includes CDM Smith logo and contact information.

Professional Engineer Seal for DAMIEN J. HERRERA, Registered Professional Engineer, No. 87741, State of Texas, dated JUNE 19, 2013.

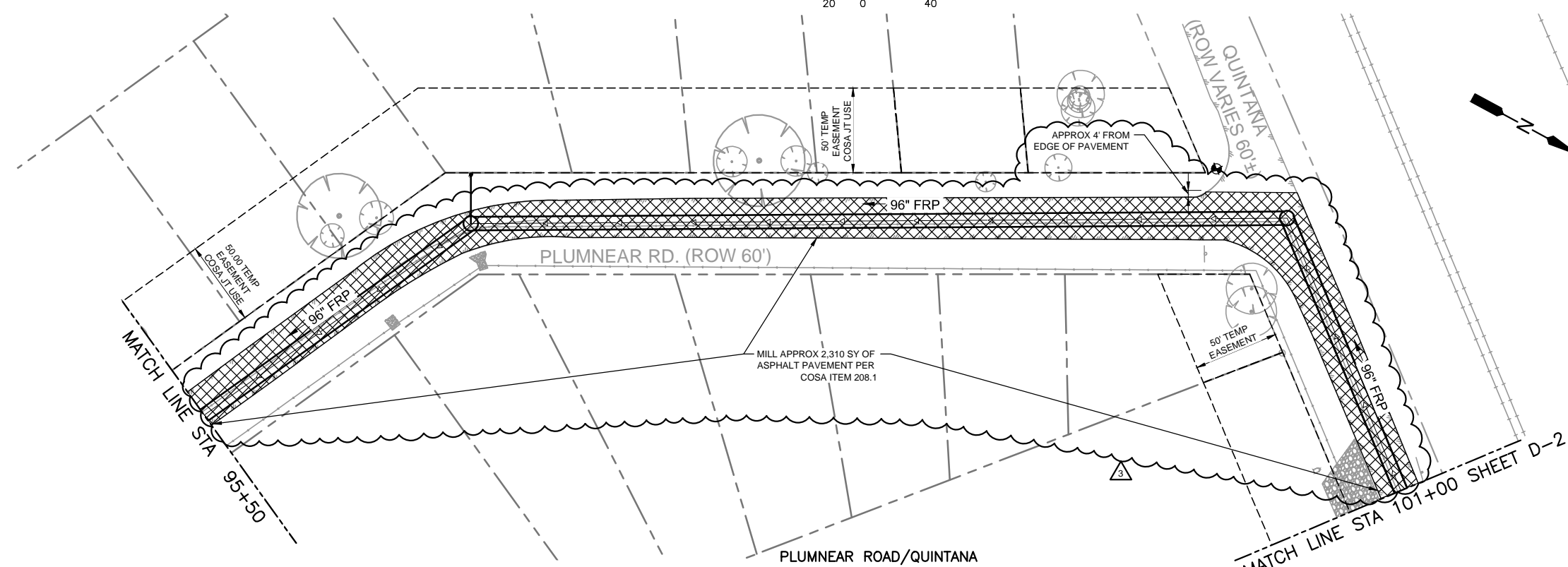
SAN ANTONIO WATER SYSTEM logo and project details: W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 2, PROJECT No: 13-2501, SOLICITATION No: B-13-005-DD.

QUANTITIES SUMMARY, SHEET No G-4, SAWS PROJECT # 13-2501, FILE NAME: G-4_QUANTITIES-2

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 XREFS: XT=EXPL01, XC=Road_Signs-2, C=PLPFD1-2, XC=Entrance Box, XS=PLBBOX, XC=DH-NI



PLUMNEAR ROAD
 PLAN
 1" = 40'
 20 0 40

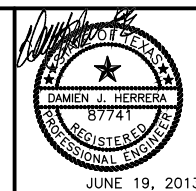


PLUMNEAR ROAD/QUINTANA
 PLAN
 1" = 40'
 20 0 40

ISSUE No	DATE	CHKD	REMARKS
	06/19/13	DH	ADDENDUM No 3

DESIGNED BY: STEPHENS
 DRAWN BY: SANDEFUR
 SHEET CHK'D BY: STEPHENS
 CROSS CHK'D BY: HERRERA
 APPROVED BY: _____
 DATE: JUNE 2013

CDM Smith
 1777 NE Loop 410, Suite 500
 San Antonio, Texas 78217
 Tel: (210) 826-3200
 Texas Registration Number F-3043



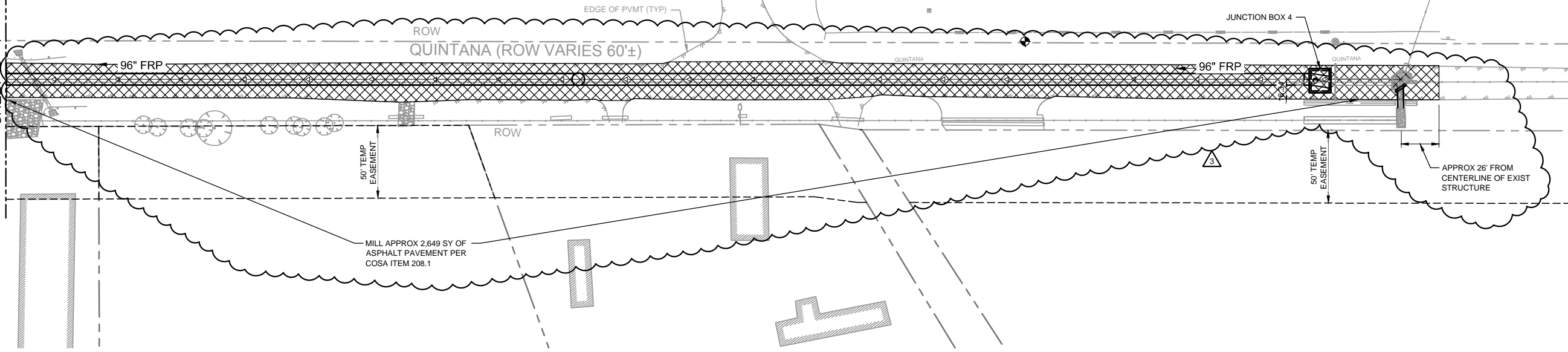
SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED
 SEWER RELIEF LINE - PROJECT 2
 PROJECT No: 13-2501
 SOLICITATION No: B-13-005-DD

PAVEMENT REMOVAL
 PLAN I

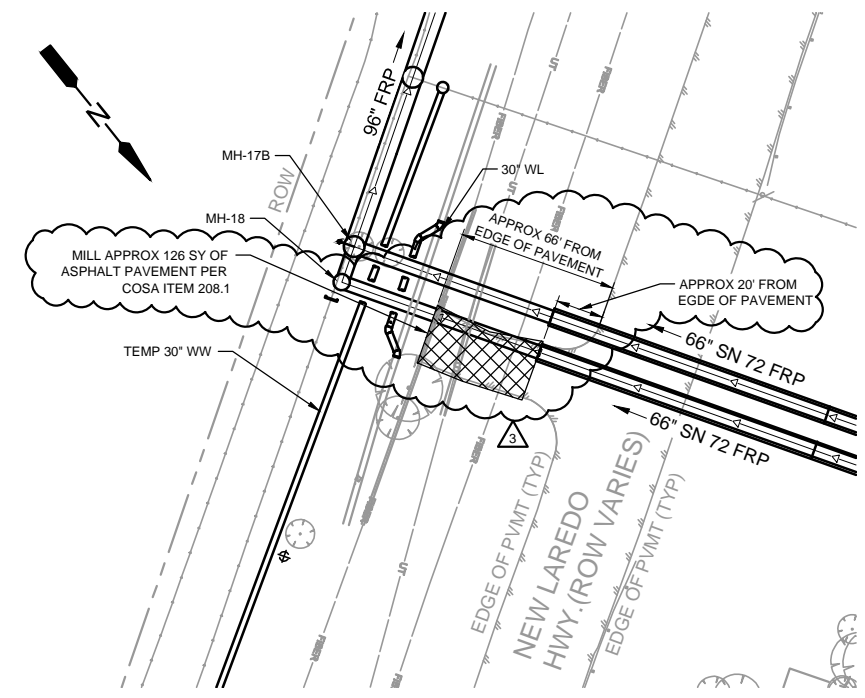
SAWS PROJECT # 13-2501
 FILE NAME: D1-D2-PL-PVMT
 SHEET No
 D-1

Plotted - 6/19/2013 10:43:17 AM SAWS - W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 2 PROJECT No: 13-2501

MATCH LINE STA 101+00
 SHEET D-1



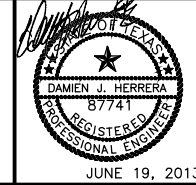
QUINTANA
 PLAN
 1" = 40'
 20 0 40



NEW LAREDO HWY.
 PLAN
 1" = 40'
 20 0 40

ISSUE No	DATE	CHKD	REMARKS
	06/19/13	DH	ADDENDUM No 3

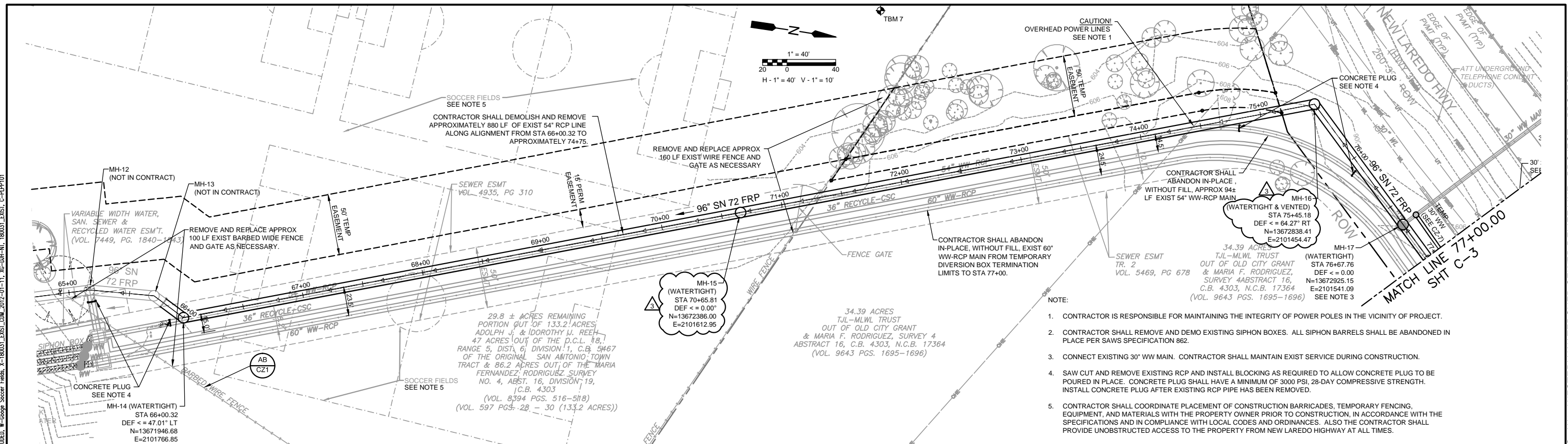
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 DRAWN BY: SANDEFUR
 SHEET CHK'D BY: STEPHENS
 CROSS CHK'D BY: HERRERA
 APPROVED BY: [Signature]
 DATE: JUNE 2013



SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED
 SEWER RELIEF LINE - PROJECT 2
 PROJECT No: 13-2501
 SOLICITATION No: B-13-005-DD

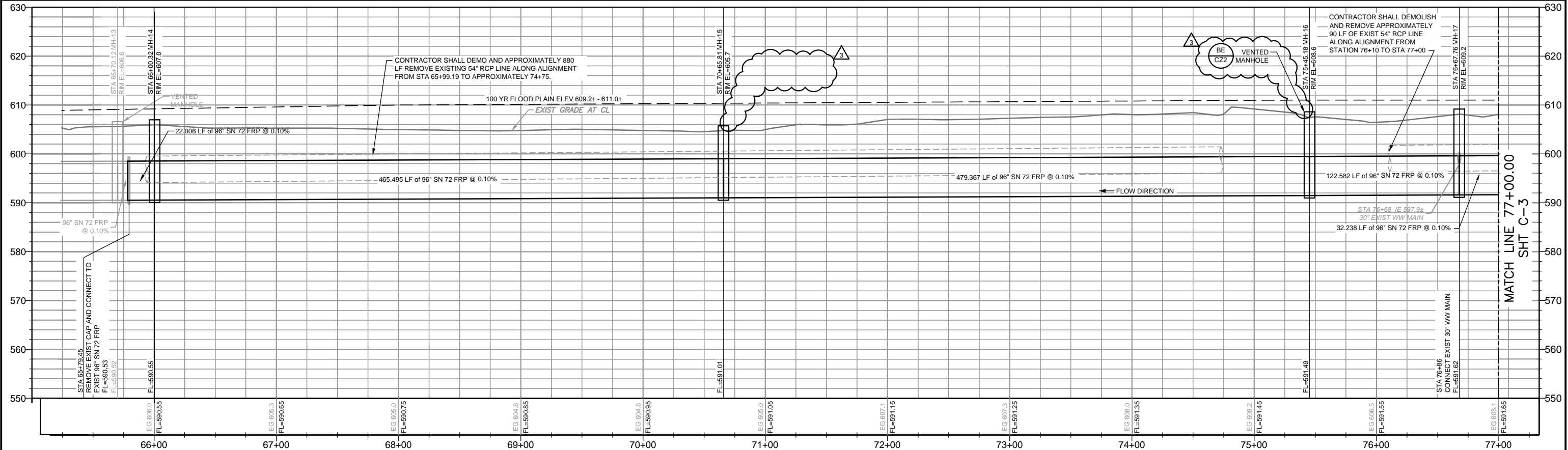
PAVEMENT REMOVAL
 PLAN II

SAWS PROJECT # 13-2501
 FILE NAME: D1-D2-PL-PVMT
 SHEET No
 D-2



- NOTE:
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF POWER POLES IN THE VICINITY OF PROJECT.
 - CONTRACTOR SHALL REMOVE AND DEMO EXISTING SIPHON BOXES. ALL SIPHON BARRELS SHALL BE ABANDONED IN PLACE PER SAWS SPECIFICATION 862.
 - CONNECT EXISTING 30" WW MAIN. CONTRACTOR SHALL MAINTAIN EXIST SERVICE DURING CONSTRUCTION.
 - SAW CUT AND REMOVE EXISTING RCP AND INSTALL BLOCKING AS REQUIRED TO ALLOW CONCRETE PLUG TO BE POURED IN PLACE. CONCRETE PLUG SHALL HAVE A MINIMUM OF 3000 PSI, 28-DAY COMPRESSIVE STRENGTH. INSTALL CONCRETE PLUG AFTER EXISTING RCP PIPE HAS BEEN REMOVED.
 - CONTRACTOR SHALL COORDINATE PLACEMENT OF CONSTRUCTION BARRICADES, TEMPORARY FENCING, EQUIPMENT, AND MATERIALS WITH THE PROPERTY OWNER PRIOR TO CONSTRUCTION, IN ACCORDANCE WITH THE SPECIFICATIONS AND IN COMPLIANCE WITH LOCAL CODES AND ORDINANCES. ALSO THE CONTRACTOR SHALL PROVIDE UNOBSTRUCTED ACCESS TO THE PROPERTY FROM NEW LAREDO HIGHWAY AT ALL TIMES.

-SEE LOCATOR NOTES ON SHEET G-1. -SEE TRENCH EXCAVATION SAFETY PROTECTION NOTE ON SHEET G-1. -SEE CITY PUBLIC SERVICE NOTES ON SHEET G-1. -SEE AT&T NOTE ON SHEET G-1. -SEE TIME WARNER NOTE ON SHEET G-1.



ISSUE No	DATE	CHKD	REMARKS
1	06/19/13	DH	ADDENDUM No 3

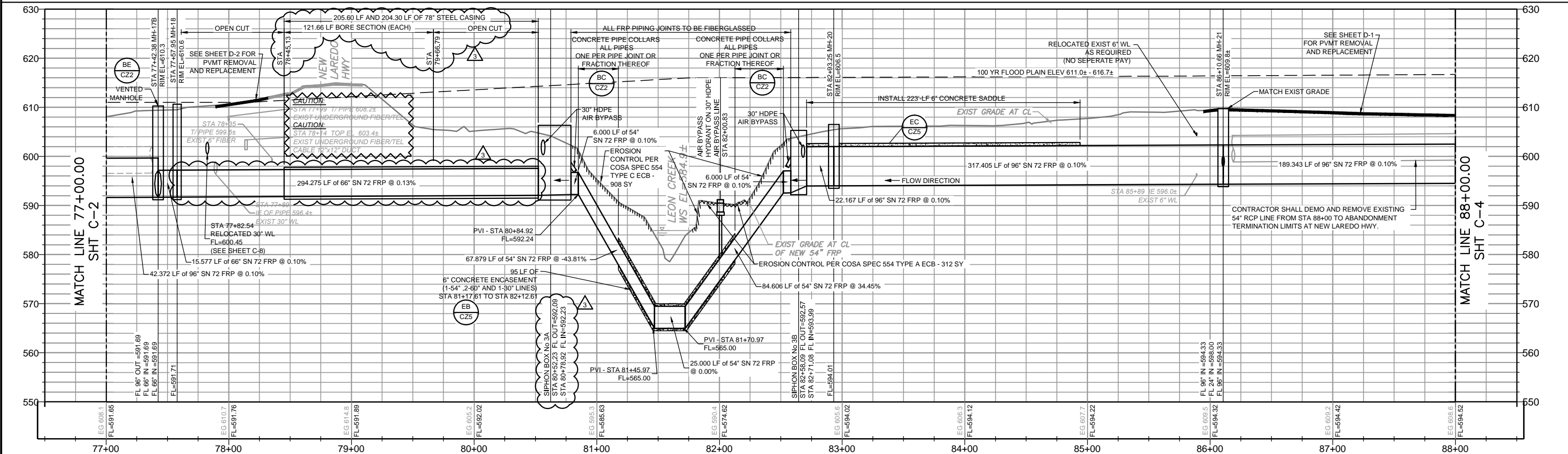
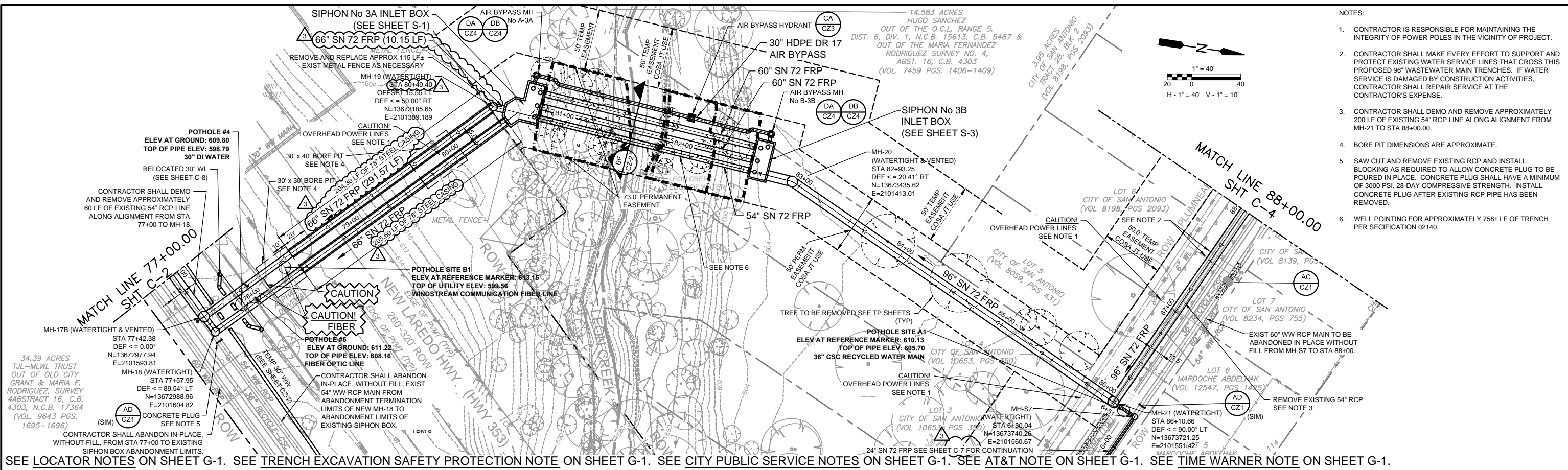
DESIGNED BY: STEPHENS
 DRAWN BY: SANDEFUR
 SHEET CHK'D BY: STEPHENS
 CROSS CHK'D BY: HERRERA
 APPROVED BY: HERRERA
 DATE: JUNE 2013

CDM Smith
 1777 NE Loop 410, Suite 500
 San Antonio, Texas 78217
 Tel: (210) 826-3200
 Texas Registration Number F-3043

DAMIEN J. HERRERA
 87741
 REGISTERED PROFESSIONAL ENGINEER
 JUNE 19, 2013

SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED
 SEWER RELIEF LINE - PROJECT 2
 PROJECT No: 13-2501
 SOLICITATION No: B-13-005-DD

SAWS PROJECT # 13-2501
 FILE NAME: C-PLPP101-2
 SHEET No
 C-2



ISSUE No	DATE	CHKD	REMARKS
1	06/19/13	DH	ADDENDUM No 3

DESIGNED BY: STEPHENS
 DRAWN BY: SANDEFUR
 SHEET CHK'D BY: STEPHENS
 CROSS CHK'D BY: HERRERA
 APPROVED BY: [Signature]
 DATE: JUNE 2013

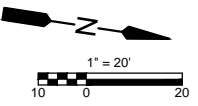
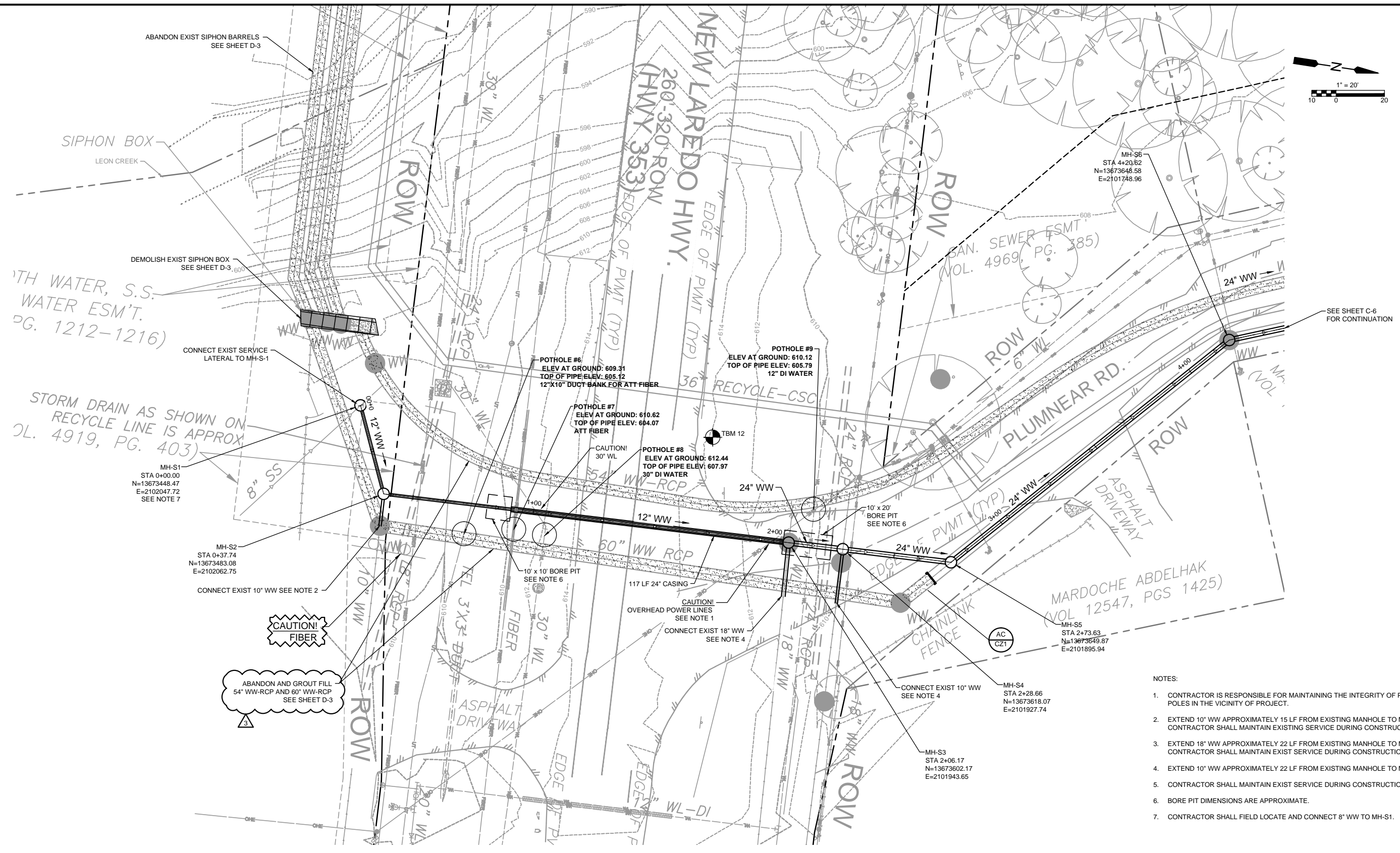
CDM Smith
 1777 NE Loop 410, Suite 500
 San Antonio, Texas 78217
 Tel: (210) 826-3200
 Texas Registration Number F-3043

STATE OF TEXAS
 DAMIEN J. HERRERA
 87741
 REGISTERED PROFESSIONAL ENGINEER
 JUNE 19, 2013

SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 2
 PROJECT No: 13-2501
 SOLICITATION No: B-13-005-DD

PLAN AND PROFILE
 STA 77+00 TO STA 88+00
 NEW LAREDO CROSSING
 SIPHON No 3

SAN ANTONIO WATER SYSTEM
 PROJECT # 13-2501
 FILE NAME: C-PLPP101-2
 SHEET No
C-3



- NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF POWER POLES IN THE VICINITY OF PROJECT.
 2. EXTEND 10" WW APPROXIMATELY 15 LF FROM EXISTING MANHOLE TO MH-S2. CONTRACTOR SHALL MAINTAIN EXISTING SERVICE DURING CONSTRUCTION.
 3. EXTEND 18" WW APPROXIMATELY 22 LF FROM EXISTING MANHOLE TO MH-S3. CONTRACTOR SHALL MAINTAIN EXIST SERVICE DURING CONSTRUCTION.
 4. EXTEND 10" WW APPROXIMATELY 22 LF FROM EXISTING MANHOLE TO MH-S4.
 5. CONTRACTOR SHALL MAINTAIN EXIST SERVICE DURING CONSTRUCTION.
 6. BORE PIT DIMENSIONS ARE APPROXIMATE.
 7. CONTRACTOR SHALL FIELD LOCATE AND CONNECT 8" WW TO MH-S1.

SEE LOCATOR NOTES ON SHEET G-1. SEE TRENCH EXCAVATION SAFETY PROTECTION NOTE ON SHEET G-1. SEE CITY PUBLIC SERVICE NOTES ON SHEET G-1. SEE AT&T NOTE ON SHEET G-1. SEE TIME WARNER NOTE ON SHEET G-1.

ISSUE No	DATE	CHKD	REMARKS
	06/19/13	DH	ADDENDUM No 3

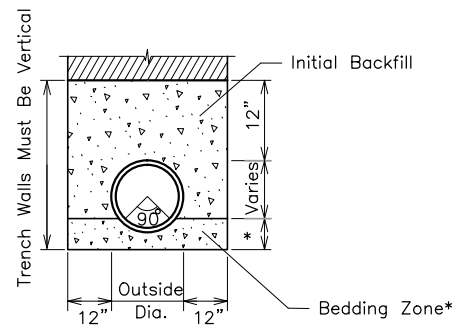
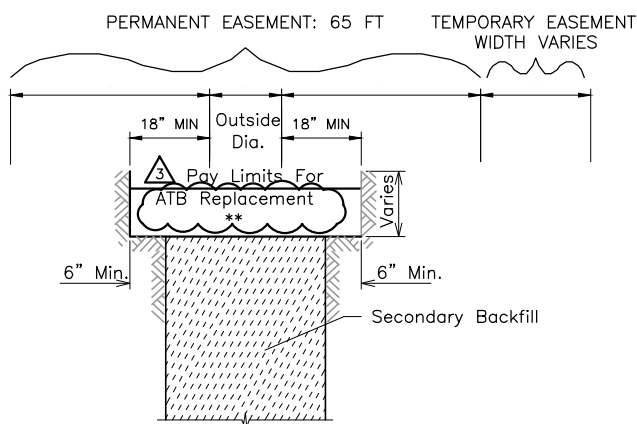
DESIGNED BY: STEPHENS
 DRAWN BY: SANDEFUR
 SHEET CHK'D BY: STEPHENS
 CROSS CHK'D BY: HERRERA
 APPROVED BY: _____
 DATE: JUNE 2013

1777 NE Loop 410, Suite 500
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 Tel: (210) 826-3200
 Texas Registration Number F-3043

SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 2
 PROJECT No: 13-2501
 SOLICITATION No: B-13-005-DD

PARTIAL PLAN
 SERVICE LINE CONNECTION
 NEW LAREDO HWY. CROSSING

SAWS PROJECT # 13-2501
 FILE NAME: C-PLPP101-2
 SHEET No
 C-7



* Sewer Gravel 6" Min. or 1/8 O.D. of the pipe, whichever is greater as directed by the Inspector

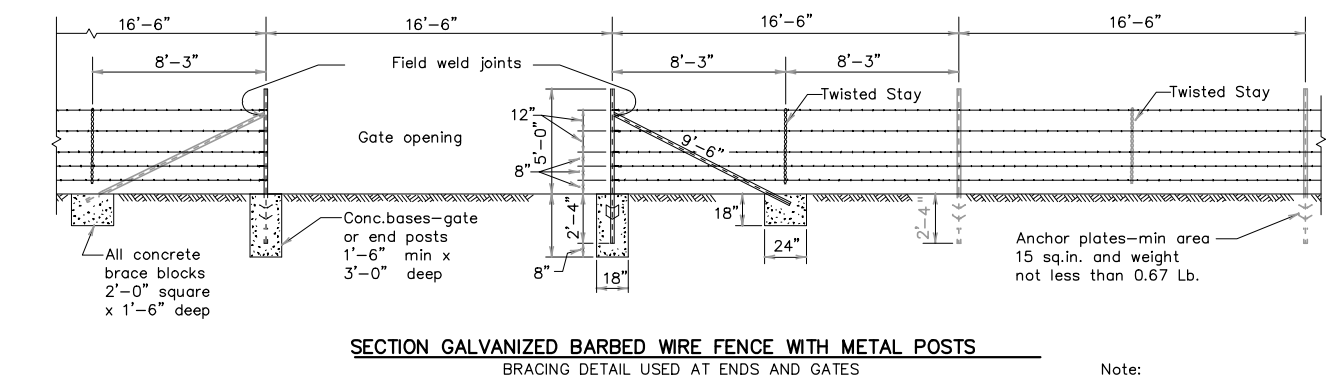
** Asphalt Treated Base (ATB) replacement shall be per Detail ED on Sheet CZ-5 per COSA Item 205.

- 1) RIGID PIPE - UNSTABLE OR UNACCEPTABLE CONDITIONS
- FLEXIBLE PIPE - ALL CONDITIONS

TOPSOIL & HYDROMULCH QUANTITIES				
BEGIN STA	END STA	TOTAL EASEMENT WIDTH (FT)	TOPSOIL AND HYDROMULCH QUANTITY (SY)	SHEET
2-66 INCH MAINS				
77+41.31	78+30.70	100	993.22	C-3
79+65.70	80+51.10	100	948.89	C-3
96 - INCH MAIN				
65+90.56	77+00.00	115	14176.18	C-2
77+00.00	77+41.31	115	527.85	C-3
82+69.95	85+93.52	100	3595.22	C-3
86+09.52	88+00.00	86	1820.14	C-3
88+00.00	99+00.00	86	10511.11	C-4
99+25.93	110+63.00	40	5053.64	C-5
24 - INCH MAIN				
0+00.00	0+46.80	50	260.00	C-6
2+36.35	6+51.70	17	784.55	C-6
SIPHON AREA				
80+51.10	81+42.00	115	1161.50	C-3
81+75.00	82+69.95	115	1213.25	C-3

SANITARY SEWER PIPE LAID IN TRENCH

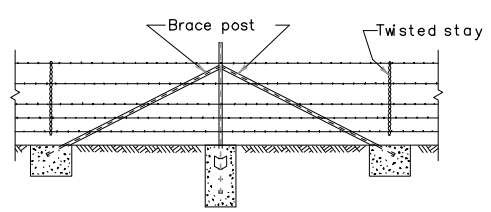
DETAIL AA
NTS



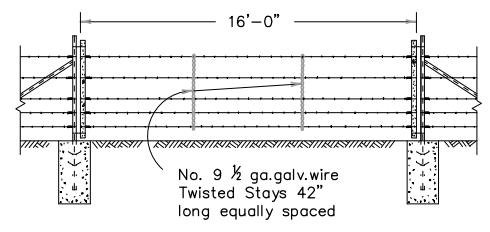
SECTION GALVANIZED BARBED WIRE FENCE WITH METAL POSTS
BRACING DETAIL USED AT ENDS AND GATES

TYPE "C" FENCE
(See General Note 6)

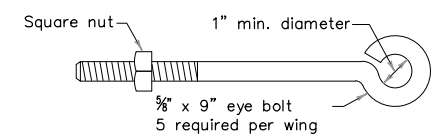
Note:
For Steel pipe and T-Post requirements.
(See General Notes 6 & 7)



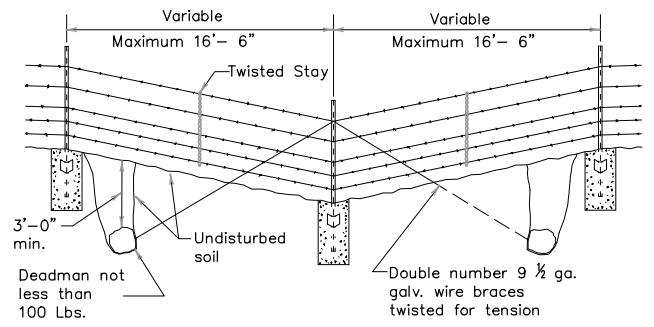
CORNER OR PULL POST ASSEMBLY



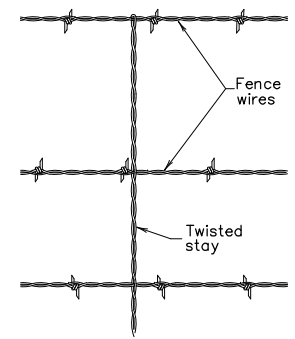
DETAIL TYPE 3 GATE



DETAIL OF EYE BOLT



DETAIL OF FENCE SAG

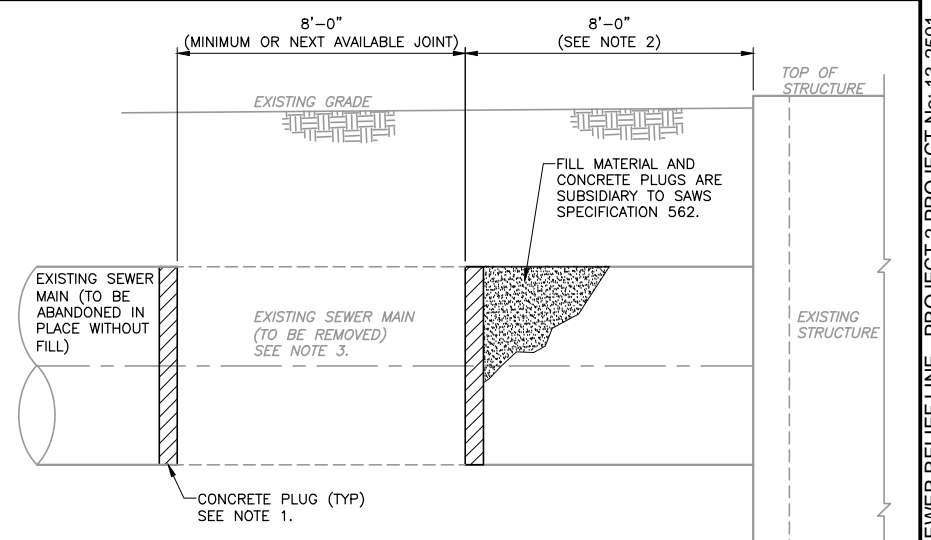


DETAIL OF STAY

BARBED WIRE AND WOVEN WIRE FENCE

DETAIL AB
NTS

- Any high point which interferes with the placing of wire mesh shall be excavated to provide a 2 inch clearance.
- Concrete shall be of the design and consistency approved by the Engineer and shall contain not less than 4 sacks of cement per cubic yard. Concrete footings are to be crowned at the top to shed water.
- Steel anchor plates shall be of a design and thickness sufficient enough to prevent turning of the post in firm soil.
- Steel pipe end posts, corner and pull posts shall be a minimum of 2" Std. pipe (2.375" O.D., 0.154" wall thickness) with a 1 1/4" Std. pipe brace (1.660" O.D., 0.140" wall thickness), with a 2"x2"x1/4" angle, or other as approved by the Engineer. Fasteners for securing barbed wire or woven wire fence to metal posts shall be a minimum of 11 gauge galvanized steel wire. Tubular posts shall be fitted with water malleable iron caps.
- If Steel pipe is used for posts and braces, use standard pipe in accordance with ASTM A 53, Class B or A 501. For T-Posts use steel that meets ASTM A 702. Metal line posts shall not be less than 6'-6" in length and shall weigh not less than (1.33 lbs/1 lin ft.). These items shall be in accordance with Item 552, "Wire Fence."
- Barbed Wire shall be in accordance with ASTM A 121, Class 1 Design designation 12-2-4-1 4R or 12-2-5-1 4R, or as approved by the Engineer.
- The location of gates and corner posts will be as indicated elsewhere in these plans.

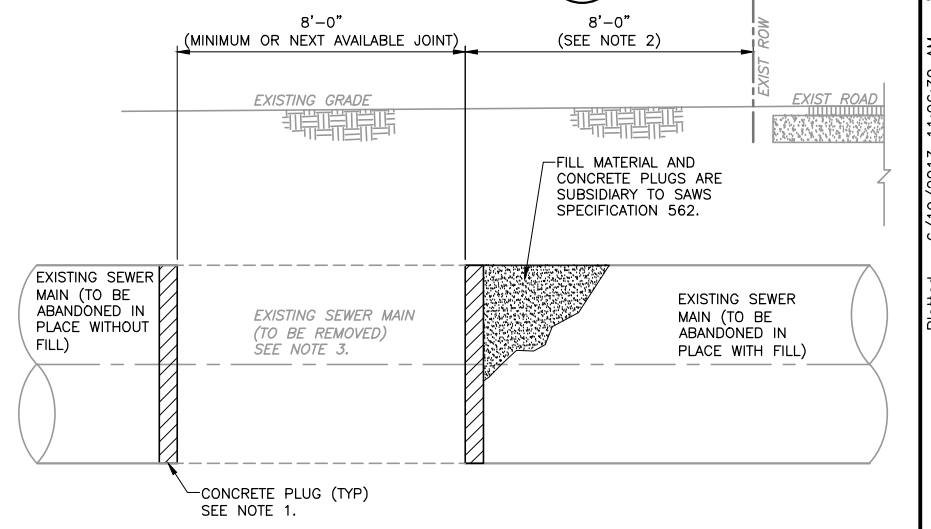


NOTES:

- SAW CUT AND REMOVE EXISTING RCP AND INSTALL BLOCKING AS REQUIRED TO ALLOW CONCRETE PLUG TO BE POURED IN PLACE. CONCRETE PLUG SHALL HAVE A MINIMUM OF 3000 PSI, 28-DAY COMPRESSIVE STRENGTH. INSTALL CONCRETE PLUG AFTER EXISTING RCP PIPE HAS BEEN REMOVED.
- CONTRACTOR SHALL INSTALL CONCRETE PLUG A MINIMUM OF 8 FEET FROM EXISTING STRUCTURE OR TO THE NEXT AVAILABLE PIPE JOINT.
- EXISTING SEWER MAIN PIPE REMOVAL AND CONCRETE PLUGS ARE SUBSIDIARY TO ABANDONMENT OF EXISTING SEWER MAIN UNDER ITEM 862.

54"/60"/66" PIPE ABANDONMENT TERMINATION NEAR STRUCTURES

DETAIL AC
NTS



NOTES:

- SAW CUT AND REMOVE EXISTING RCP AND INSTALL BLOCKING AS REQUIRED TO ALLOW CONCRETE PLUG TO BE POURED IN PLACE. CONCRETE PLUG SHALL HAVE A MINIMUM OF 3000 PSI, 28-DAY COMPRESSIVE STRENGTH. INSTALL CONCRETE PLUG AFTER EXISTING RCP PIPE HAS BEEN REMOVED.
- CONTRACTOR SHALL INSTALL PLUG A MINIMUM OF 8 FEET FROM EXISTING ROW OR TO THE NEXT AVAILABLE PIPE JOINT.
- EXISTING SEWER MAIN PIPE REMOVAL AND CONCRETE PLUGS ARE SUBSIDIARY TO ABANDONMENT OF EXISTING SEWER MAIN UNDER ITEM 862.
- FILL MATERIAL SHALL MEET REQUIREMENTS OF COSA SPECIFICATION 410.

54"/60"/66" PIPE ABANDONMENT TERMINATION UNDER ROADWAYS

DETAIL AD
NTS

ISSUE No	DATE	CHKD	REMARKS
06/19/13	DH		ADDENDUM No 3

DESIGNED BY: STEPHENS
 DRAWN BY: SANDEFUR
 SHEET CHK'D BY: STEPHENS
 CROSS CHK'D BY: HERRERA
 APPROVED BY: _____
 DATE: JUNE 2013

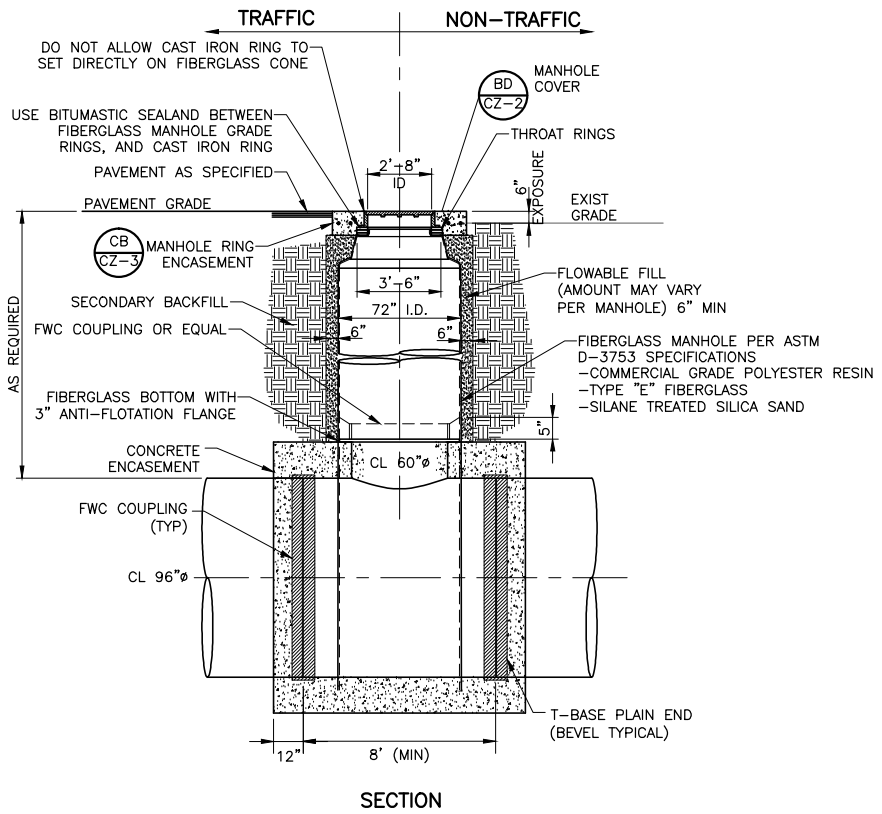
CDM Smith
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 Tel: (210) 826-3200
 Texas Registration Number F-3043

REGISTERED PROFESSIONAL ENGINEER
 DAMIEN J. HERRERA
 87741
 JUNE 19, 2013

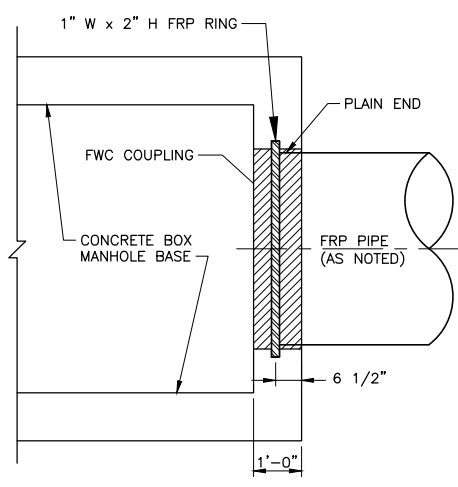
SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 2
 PROJECT No: 13-2501
 SOLICITATION No: B-13-005-DD

CIVIL DETAILS I
 SHEET No
CZ-1

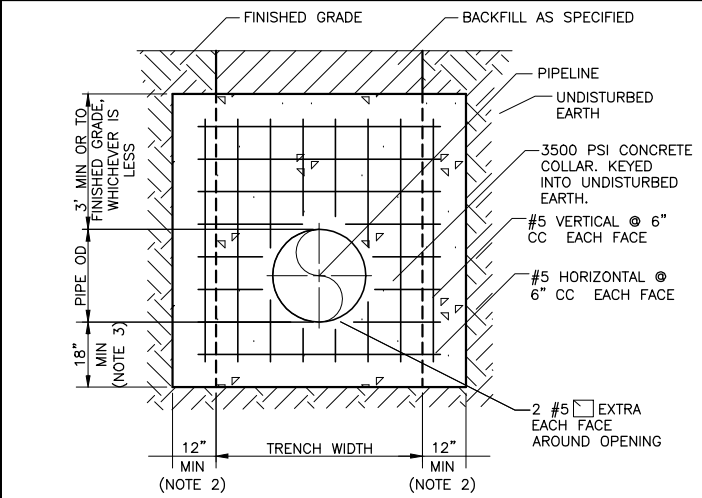
SAWS PROJECT # 13-2501
 FILE NAME: CZ-1-2
 SHEET No
CZ-1



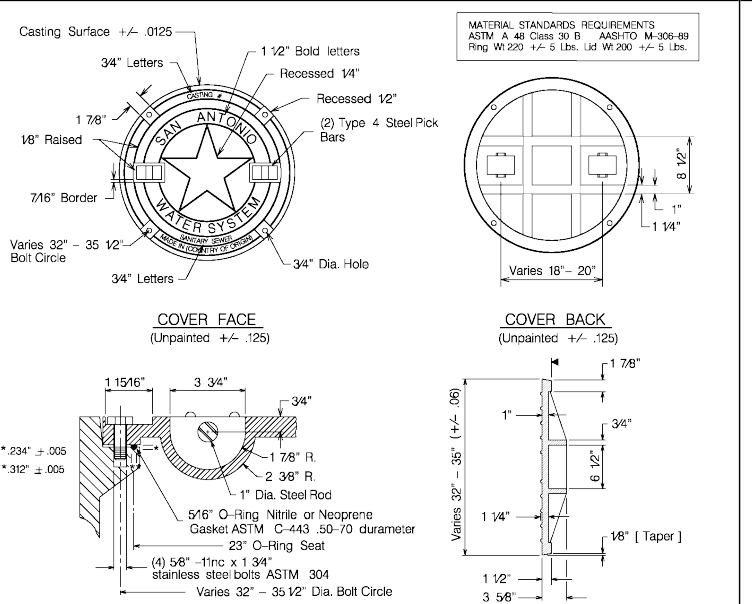
SECTION
96" x 60" T-BASE 72" DIAMETER FRP MANHOLE
DETAIL BA
NTS



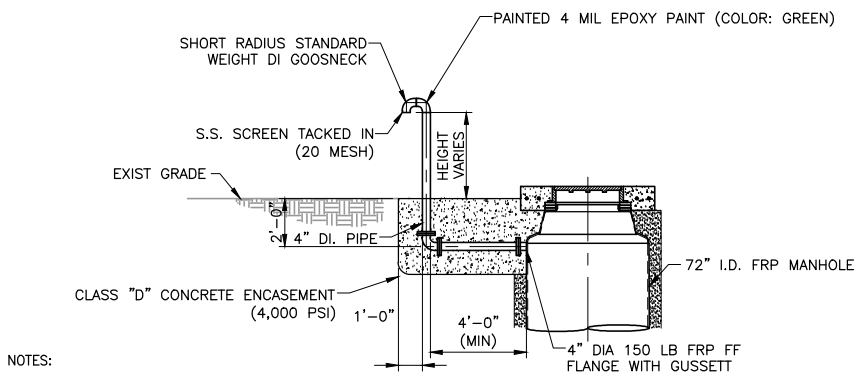
WALL FITTING CONNECTION
DETAIL BB
NTS



CONCRETE PIPE COLLAR
DETAIL BC
NTS



MANHOLE RING AND COVER
DETAIL BD
NTS

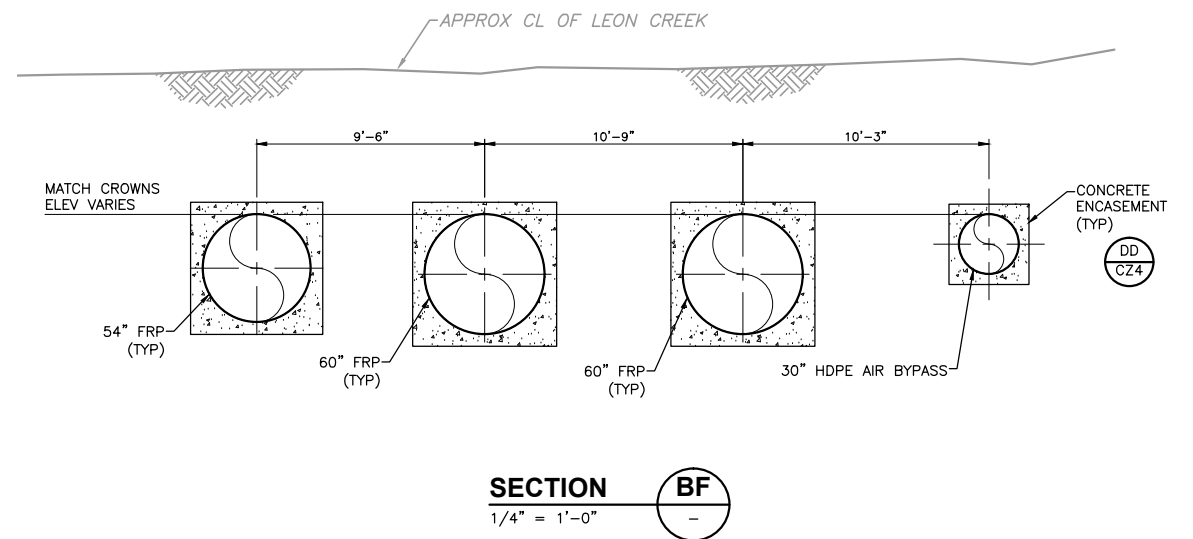


- NOTES:
- SEE STANDARD MANHOLE DETAIL BA/CZ-2 FOR ADDITIONAL REQUIREMENTS.
 - VENT OPENING SHALL BE MIN. 4' ABOVE FINISHED GRADE OR MIN. 1' ABOVE 100 YEAR FLOOD ELEVATION.
 - ALL IRON PIPE AND FITTINGS BELOW GRADE TO BE WRAPPED WITH AT LEAST 8 MIL POLYETHYLENE WRAP IN ACCORDANCE WITH PROCEDURES SET FORTH IN AWWA C105.
 - ALL ENCASED CONNECTIONS WHERE DUCTILE IRON PIPE CONNECTS TO ALL WALL PIPE SHALL USE EPOXY COATED NUTS AND BOLTS UNLESS OTHERWISE NOTED ON PLANS.

VENTED RISER
DETAIL BE
NTS

Vent height is calculated from top of manhole/junction box to 1 ft above 100 flood plain.
STANDARD VENT HEIGHT ABOVE FINISHED GRADE = 4'-0"

STA	STRUCTURE	VENT HEIGHT	OFFSET FROM MH
75+46	MH-16	STD HT+ 3.0 FT	0 FT
77+41	MH-17B	STD HT+ 0.0 FT	0 FT
82+92	MH-20	STD HT+ 6.3 FT	0 FT
94+44	MH-23	STD HT+ 5.9 FT	30 FT WEST
110+00	JUNCTION BOX 4	STD HT+ 3.0 FT	16 FT NORTHWEST



SECTION
1/4" = 1'-0"
BF
NTS

DESIGNED BY:	STEPHENS
DRAWN BY:	SANDEFUR
SHEET CHK'D BY:	STEPHENS
CROSS CHK'D BY:	HERRERA
APPROVED BY:	
DATE:	JUNE 2013

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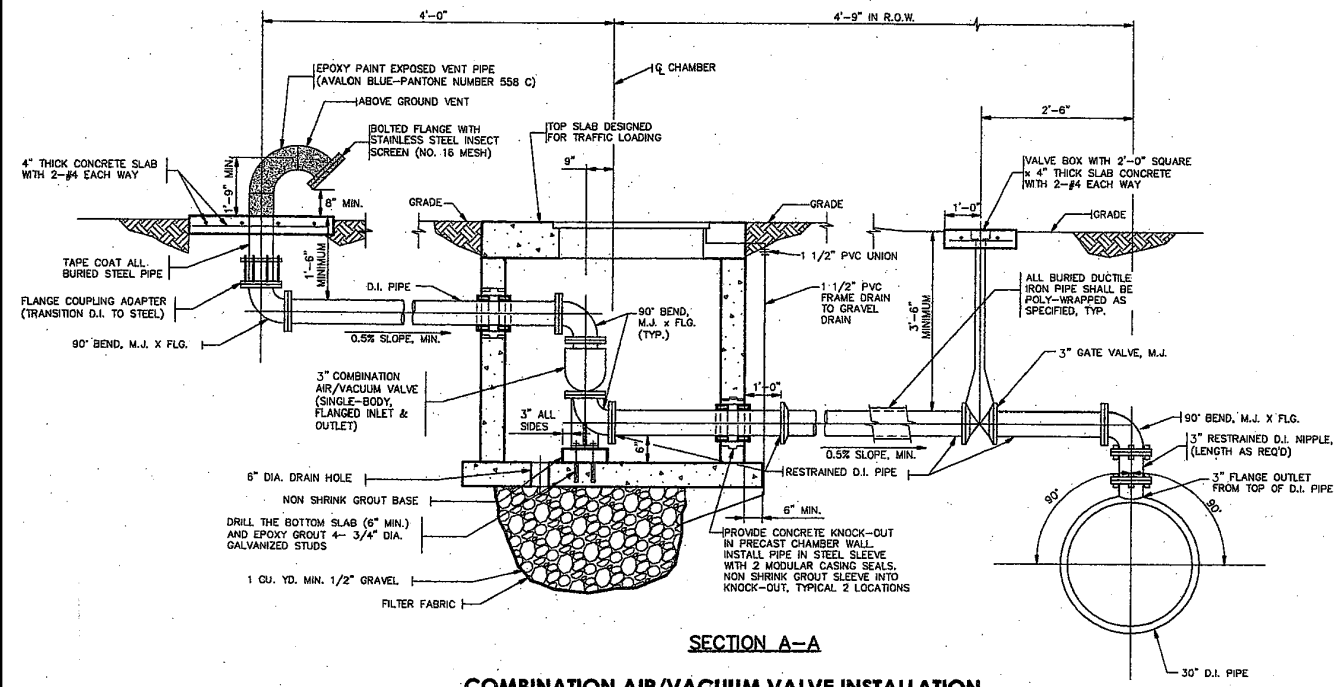
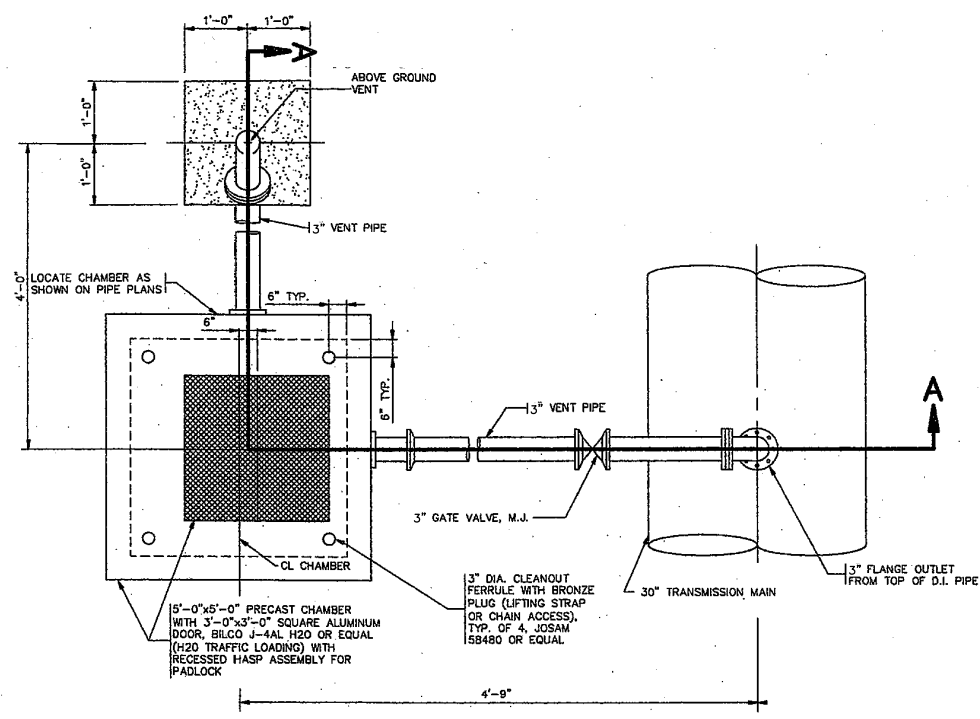
DAMIEN J. HERRERA
REGISTERED PROFESSIONAL ENGINEER
87741
JUNE 19, 2013



SAN ANTONIO WATER SYSTEM
W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 2
PROJECT No: 13-2501
SOLICITATION No: B-13-005-DD

CIVIL DETAILS II

SAN ANTONIO WATER SYSTEM	
MANHOLE RING AND COVER DETAIL	
APPROVED March 2008	REVISED June 2009
DD-852-07	
SHEET 1 of 1	

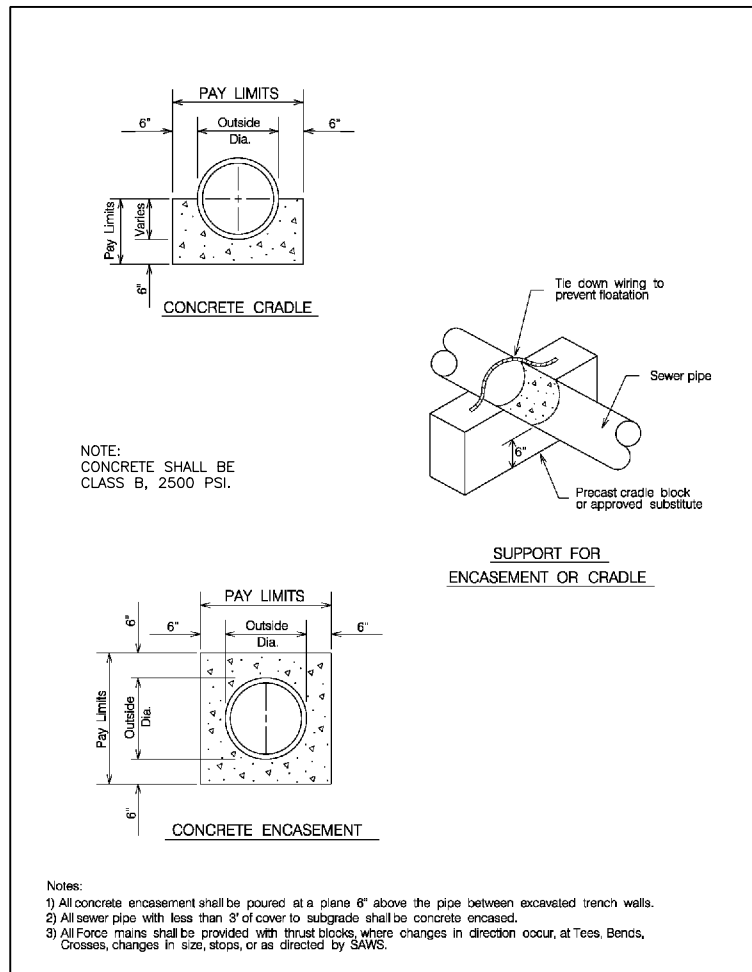


COMBINATION AIR/VACUUM VALVE INSTALLATION
SCALE: N.T.S.

- NOTES:
 1. ALL VENT PIPE AND FITTINGS SHALL BE DUCTILE IRON CLASS 350 UNLESS OTHERWISE NOTED.
 2. COMBINATION AIR/VACUUM VALVE SHALL BE SINGLE-BODY WITH FLANGED INLET AND OUTLET AND HAVE A WORKING PRESSURE OF 150 P.S.I.
 3. ALL D.I. PIPE BETWEEN TRANSMISSION MAIN AND COMBINATION AIR/VACUUM VALVE SHALL BE RESTRAINED

3" COMBINATION AIR/VACUUM RELIEF VALVE

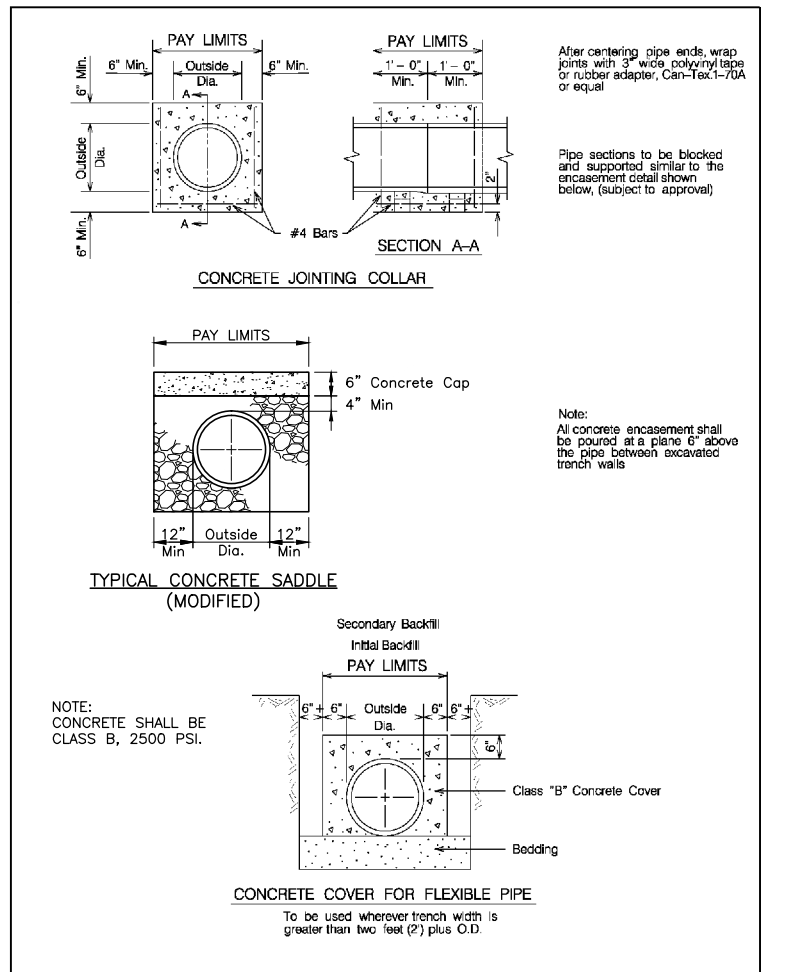
DETAIL EA
NTS



PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	TYPICAL CONCRETE ENCASEMENT DETAILS	APPROVED March 2008 DD-858-01	REVISED
		SHEET 1 OF 1	

TYPICAL CONCRETE ENCASEMENT DETAILS

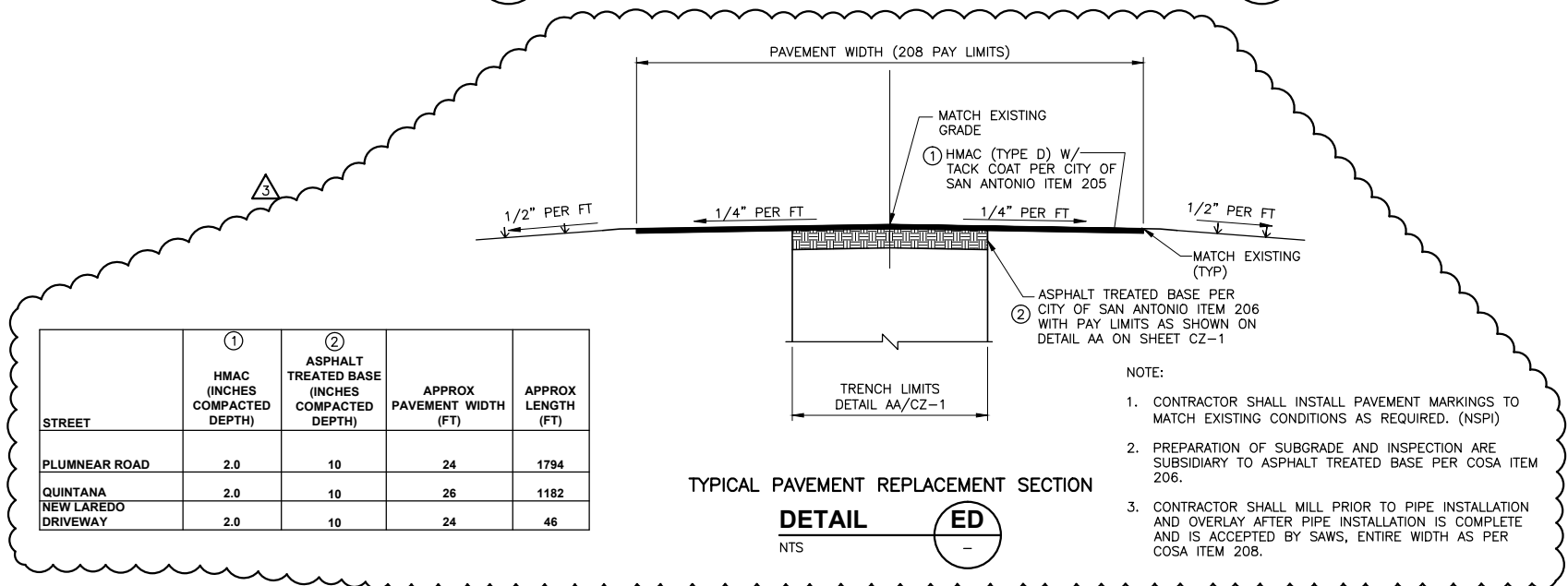
DETAIL EB
3/4" = 1'-0"



PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	TYPICAL CONCRETE DETAILS	APPROVED March 2008 DD-858-02	REVISED
		SHEET 1 OF 1	

TYPICAL CONCRETE DETAILS

DETAIL EC
3/4" = 1'-0"



STREET	① HMAC (INCHES COMPACTED DEPTH)	② ASPHALT TREATED BASE (INCHES COMPACTED DEPTH)	APPROX PAVEMENT WIDTH (FT)	APPROX LENGTH (FT)
PLUMNEAR ROAD	2.0	10	24	1794
QUINTANA NEW LAREDO DRIVEWAY	2.0	10	26	1182
	2.0	10	24	46

TYPICAL PAVEMENT REPLACEMENT SECTION

DETAIL ED
NTS

- NOTE:
 1. CONTRACTOR SHALL INSTALL PAVEMENT MARKINGS TO MATCH EXISTING CONDITIONS AS REQUIRED. (NSP)
 2. PREPARATION OF SUBGRADE AND INSPECTION ARE SUBSIDIARY TO ASPHALT TREATED BASE PER COSA ITEM 206.
 3. CONTRACTOR SHALL MILL PRIOR TO PIPE INSTALLATION AND OVERLAY AFTER PIPE INSTALLATION IS COMPLETE AND IS ACCEPTED BY SAWS, ENTIRE WIDTH AS PER COSA ITEM 208.

ISSUE No	DATE	CHKD	REMARKS
06/19/13	DH		ADDENDUM No 3

DESIGNED BY: STEPHENS
 DRAWN BY: SANDEFUR
 SHEET CHK'D BY: STEPHENS
 CROSS CHK'D BY: HERRERA
 APPROVED BY: [Signature]
 DATE: JUNE 2013

CDM Smith
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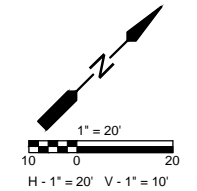
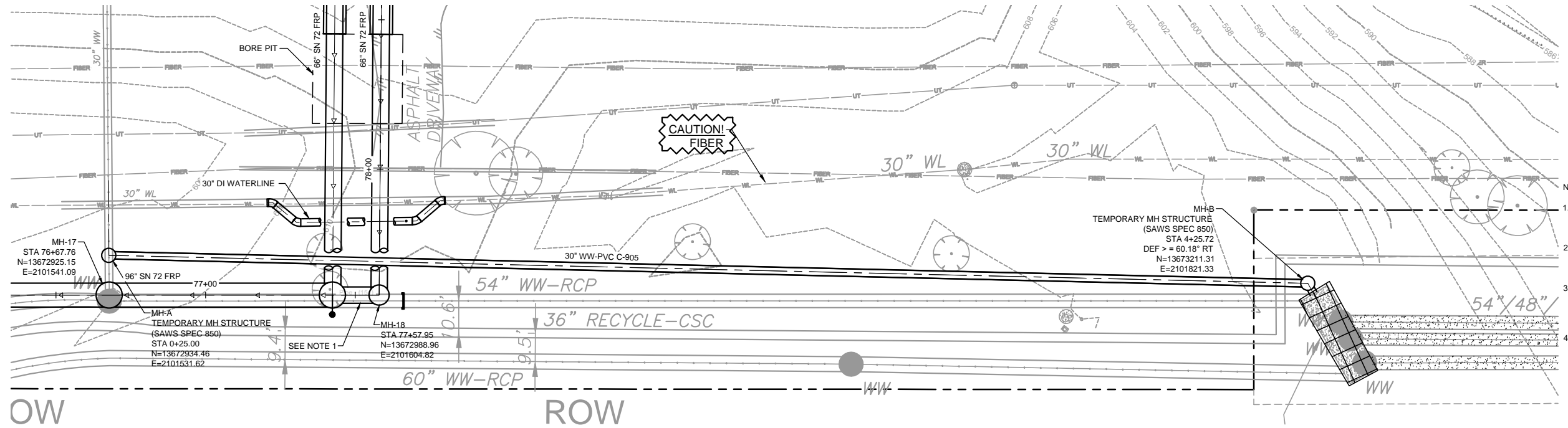
REGISTERED PROFESSIONAL ENGINEER
 DAMIEN J. HERRERA
 87741
 JUNE 19, 2013

SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED
 SEWER RELIEF LINE - PROJECT 2
 PROJECT No: 13-2501
 SOLICITATION No: B-13-005-DD

CIVIL DETAILS V

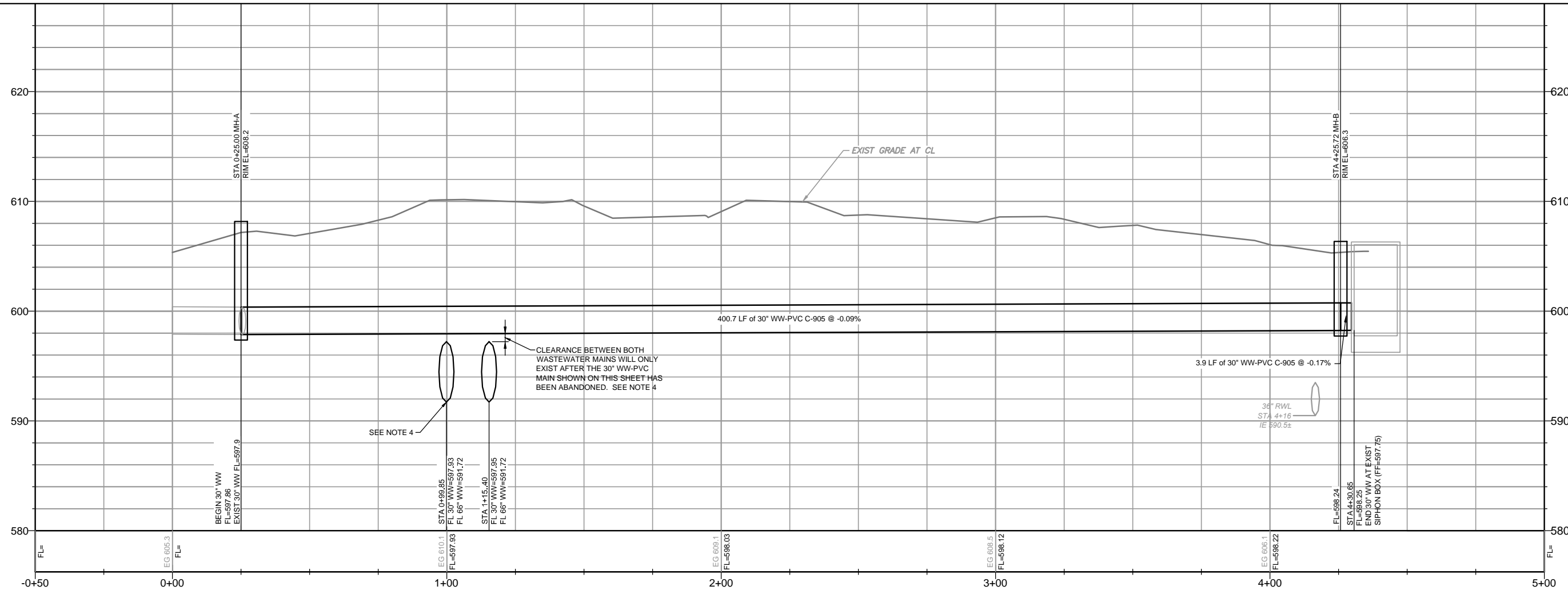
SHEET No
CZ-5

SAWS PROJECT # 13-2501
 FILE NAME: CZ-5-2



- NOTES:
- REFER TO CONSTRUCTION SEQUENCING FOR TEMPORARY LINE PLACEMENT AND REMOVAL.
 - THIS IS A SUGGESTED ALTERNATE TO PROVIDE FLOW MANAGEMENT IN LIEU OF FULL BYPASS PUMPING.
 - THE CONTRACTOR SHALL EMPLOY THE NECESSARY MEANS AND METHODS TO MAINTAIN CONTINUOUS FLOW IN THE EXISTING 30" WW MAIN AT ALL TIMES.
 - THE DUAL 66" FRP SHALL BE INSTALLED IN SEQUENCE AFTER THE 30" WW HAS BEEN SUCCESSFULLY TIED INTO THE NEW 96" WW-FRP AND THE 30" WW-PVC MAIN SHOWN ON THIS SHEET HAS BEEN ABANDONED. SEE CONSTRUCTION SEQUENCING NOTES FOR DETAIL.

-SEE LOCATOR NOTES ON SHEET G-1. -SEE TRENCH EXCAVATION SAFETY PROTECTION NOTE ON SHEET G-1. -SEE CITY PUBLIC SERVICE NOTES ON SHEET G-1. -SEE AT&T NOTE ON SHEET G-1. -SEE TIME WARNER NOTE ON SHEET G-1.



ENTIRE SHEET ADDED

ISSUE No	DATE	CHKD	REMARKS
	06/19/13	DH	ADDENDUM No 3

DESIGNED BY: STEPHENS
DRAWN BY: SANDEFUR
SHEET CHK'D BY: STEPHENS
CROSS CHK'D BY: HERRERA
APPROVED BY:
DATE: JUNE 2013

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REGISTERED PROFESSIONAL ENGINEER
DAMIEN J. HERRERA
87741
JUNE 19, 2013

SAN ANTONIO WATER SYSTEM
W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 2
PROJECT No: 13-2501
SOLICITATION No: B-13-005-DD

SUGGESTED 30" WW FLOW MANAGEMENT DETAIL

SAWS PROJECT # 13-2501
FILE NAME: C-PLPP101-2
SHEET No
CZ-7

DESIGN CRITERIA
CODES:
 - 2006 INTERNATIONAL BUILDING CODE
 - ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
 - ACI 530 "BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES"
 - ACI 350R "ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES"
 - AISC MANUAL OF STEEL CONSTRUCTION, NINTH EDITION

DESIGN LIVE LOADS:
 - JUNCTION BOX & SIPHONS 300 PSF

WINDLOADS
 - BASIC WIND SPEED 90 MPH
 - USE FACTOR 1.15

CONCRETE 28-DAY STRENGTH
 - PIPE ENCASEMENT 2500 PSI
 - SIDEWALKS, PAVEMENTS 3000 PSI
 - COLUMNS, BEAMS, SLABS, WALLS, FOOTINGS 4000 PSI

REINFORCING STEEL
 - ALL BARS ASTM A615, GRADE 60
 - WELDED WIRE FABRIC ASTM A185 60,000 PSI

STRUCTURAL STEEL
 - ALL STRUCTURAL AND MISC. STEEL UNLESS NOTED: A572
 - SHOP AND FIELD WELD: E70XX ELECTRODES

CONCRETE

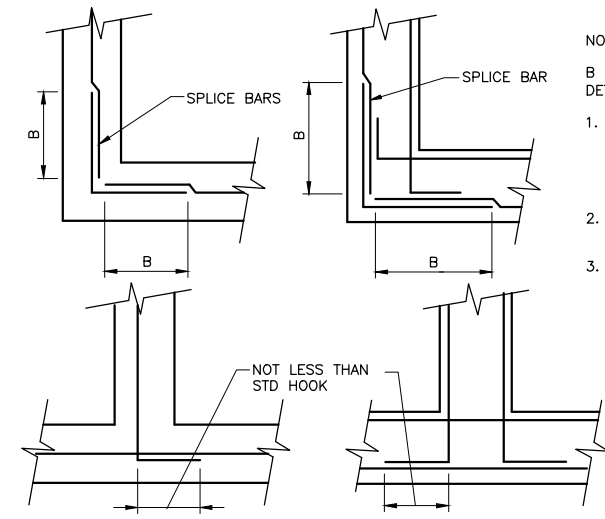
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318 REQUIREMENTS.
- ALL CAST-IN-PLACE STRUCTURAL CONCRETE SHALL BE AIR-ENTRAINED WITH 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
- WATER REDUCING AGENT SHALL BE IN ACCORDANCE WITH ASTM C494.
- ALL CONCRETE SURFACES EXPOSED TO AIR, UNLESS OTHERWISE NOTED IN SPECIFICATIONS, SHALL BE TREATED WITH AN APPROPRIATE CURING COMPOUND AS SOON AS CEMENT FINISHING IS COMPLETED OR FORMS ARE REMOVED.
- ALL EXPOSED CORNERS OF CONCRETE SHALL HAVE A MINIMUM CHAMFER OF 3/4" UNLESS OTHERWISE NOTED.
- PLACEMENT OF CONCRETE GROUT SHALL BE COORDINATED WITH ALL DISCIPLINES.
- THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL FOR THE LOCATION OF CONSTRUCTION JOINTS THAT ARE NOT SHOWN ON THE DRAWINGS.

REINFORCING STEEL

- REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60 REQUIREMENTS.
- ALL ACCESSORIES SHALL BE IN CONFORMANCE WITH ACI 315 REQUIREMENTS. REINFORCING STEEL SHALL HAVE THE FOLLOWING CLEAR COVER UNLESS OTHERWISE NOTED:
 - CONCRETE CAST AGAINST EARTH 3"
 - FORMED SURFACES IN CONTACT WITH SOIL, SEWAGE, WATER OR EXPOSED TO WEATHER 2"
 - FORMED SURFACES NOT EXPOSED TO WEATHER OR IN CONTACT WITH SOIL:
 - SLABS AND WALLS 2"
 - BEAMS AND COLUMNS 1 1/2"
- LAP SPLICES SHALL BE AS SHOWN ON THE DRAWINGS. FOR LAP SPLICES NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL OBTAIN ENGINEERS APPROVAL.
- THE CONTRACTOR SHALL PREPARE PLACING DRAWINGS AND SCHEDULES IN CONFORMANCE WITH ACI 315 REQUIREMENTS.

GENERAL CONDITIONS

- ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE CIVIL, ELECTRICAL, AND SHOP DRAWINGS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL REVIEW AND VERIFY DIMENSIONS SHOWN IN ALL PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT THE INSTALLATION OF THE FACILITY. SHOULD DISCREPANCIES APPEAR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING TO OBTAIN ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH THE WORK.
- ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.
- CONTRACTOR SHALL PROVIDE IN-PLACE DENSITY TEST REPORTS FOR SUBGRADE BENEATH ALL CONCRETE STRUCTURES TWO HOURS PRIOR TO CONCRETE PLACEMENT OF CONCRETE SLAB(S).
- CONTRACTOR SHALL NOTIFY THE ENGINEER TO REQUEST REBAR INSPECTION A MINIMUM OF 48-HOURS PRIOR TO ALL CONCRETE PLACEMENT.
- CONTRACTOR SHALL NOT BE ALLOWED TO POUR ANY SLAB ON GRADE AFTER A 1/2-INCH RAINFALL EVENT OR LARGER UNTIL HE PROVIDES IN-PLACE DENSITY REPORTS TO THE ENGINEER FOR APPROVAL.



NOTES:
 B = TENSION LAP SPLICE AS PER DETAIL AA/-

- SPLICE BARS TO BE SAME SIZE AND SPACING AS LARGER OF BARS BEING SPLICED, UON SPLICE BARS SHALL BE LAPPED WITH TYPICAL WALL REINFORCEMENT.
- EXTEND BAR HOOKED ENDS TO FAR FACE OF WALL.
- REINFORCING STEEL LAYOUT FOR WALLS WITH SINGLE MAT OF REINFORCEMENT SIMILAR TO ABOVE PATTERN FOR EXTERIOR MAT OF REINFORCEMENT.

CORNER REINFORCEMENT PLANS
DETAIL AA
 NTS

TENSION LAP SPLICE LENGTHS IN WALLS AND SLABS (INCHES)

BAR SIZE	f'c=4000 psi		f'c=3000 psi	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
3	18	16	21	16
4	24	19	28	22
5	30	23	36	27
6	36	28	42	32
7	43	33	51	39
8	81	63	94	72
8*	48	37	56	43

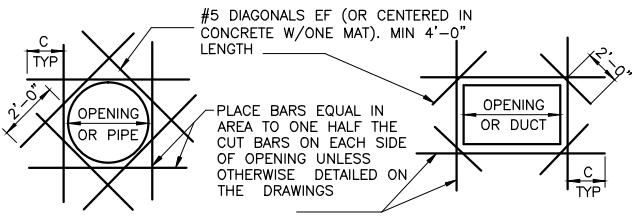
TENSION DEVELOPMENT LENGTHS IN WALLS AND SLABS (INCHES)

BAR SIZE	f'c=4000 psi		f'c=3000 psi	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
3	14	12	16	13
4	19	15	22	17
5	23	18	27	21
6	28	22	32	25
7	33	26	39	30
8	63	48	72	56
8*	37	29	43	33

LAP SPLICE AND DEVELOPMENT LENGTHS
DETAIL AB
 NTS

NOTES

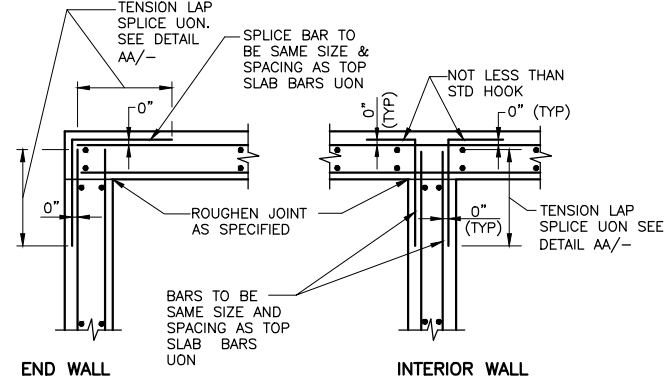
- MINIMUM BAR SPACING = 6" OC.
- MINIMUM CONCRETE COVER = 1", EXCEPT AS NOTED.
- A TOP BAR IS A HORIZONTAL BAR WHERE MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST DIRECTLY BELOW THE BAR. WHERE HORIZONTAL WALL REINFORCEMENT IS UNIFORMLY SPACED IN A VERTICAL PLANE AT 12 INCH MAXIMUM SPACING, LENGTHS MAY BE AS FOR "OTHER BARS".
- * WHERE 2 INCH MINIMUM CONCRETE COVER IS PROVIDED FOR #8 BARS, THE REDUCED LENGTHS SHOWN MAY BE USED.
- LENGTHS FOR BEAMS AND COLUMNS SHALL BE AS SHOWN ON THE DRAWINGS.



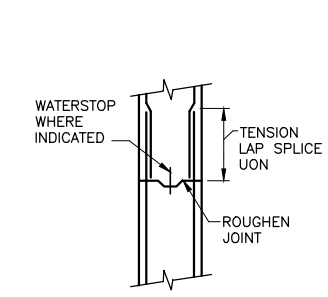
NOTES:

- C = TENSION DEVELOPMENT LENGTH; PROVIDE STD HOOK IF FULL DEVELOPMENT LENGTH IS NOT POSSIBLE.
- REINFORCING STEEL IS TO BE CARRIED ACROSS ALL CONSTRUCTION JOINTS.
- DETAIL IS TYP FOR ALL OPENINGS GREATER THAN 10 INCHES IN CONCRETE WALLS AND SLABS UNLESS OTHERWISE NOTED.
- EXTRA BARS ARE NOT REQUIRED AT AN OPENING EDGE PARALLEL TO AND WITHIN 6 INCHES OF A WALL OR BEAM.

EXTRA REINFORCEMENT AT OPENINGS
DETAIL AC
 NTS



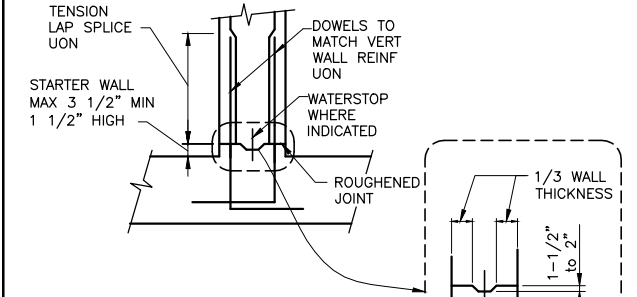
TOP OF WALL AT SLAB
DETAIL AD
 NTS



NOTE:

- DETAIL SHOWN FOR WALLS; SLABS SIMILAR.

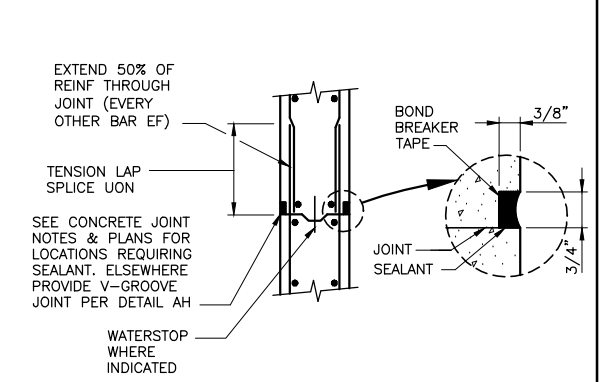
CONSTRUCTION JOINT
DETAIL AE
 NTS



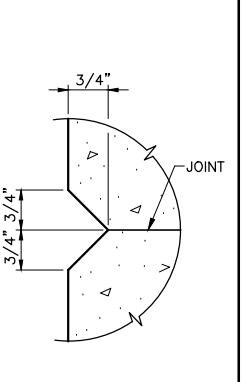
NOTE:

- STARTER WALL MAY BE ELIMINATED AT JOINTS WITHOUT WATERSTOP AT CONTRACTOR'S OPTION.

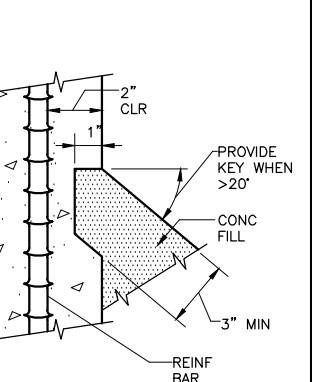
WALL CONSTRUCTION JOINT AT SLAB
DETAIL AF
 NTS



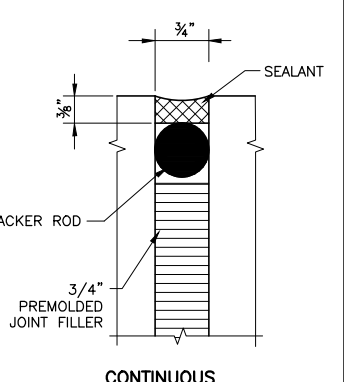
CONTROL JOINT AND SEALANT
DETAIL AG
 NTS



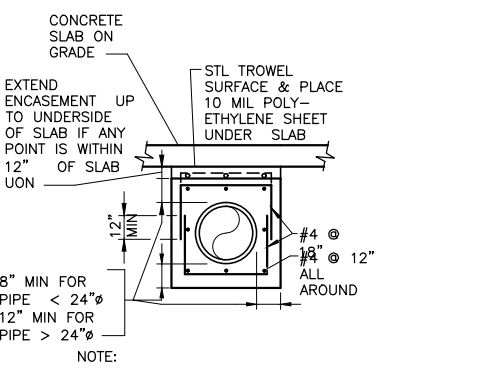
V-GROOVE JOINT
DETAIL AH
 NTS



KEY AT CONCRETE FILL
DETAIL AI
 NTS



CONTINUOUS WATERPROOF SEALANT W/ BACKER ROD
DETAIL AJ
 NTS



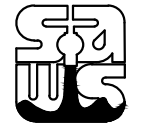
CONCRETE SLAB ON GRADE
DETAIL AK
 NTS

ISSUE No	DATE	CHKD	REMARKS
06/19/13	DH		ADDENDUM No 3

DESIGNED BY: MITSCHKE
 DRAWN BY: SANDEFUR
 SHEET CHK'D BY: STEPHENS
 CROSS CHK'D BY: HERRERA
 APPROVED BY: [Signature]
 DATE: JUNE 2013

CDM Smith
 1777 NE Loop 410, Suite 500
 San Antonio, Texas 78217
 Tel: (210) 826-3200
 Texas Registration Number F-3043

REGISTERED PROFESSIONAL ENGINEER
 HARVEY EUGENE MITSCHKE
 37148
 JUNE 19, 2013



SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 2
 PROJECT No: 13-2501
 SOLICITATION No: B-13-005-DD

STRUCTURAL TYPICAL DETAILS I

SAWS PROJECT # 13-2501
 FILE NAME: SZ1-DT101-2
 SHEET No
SZ-1