

Martinez Creek: Perez St to W Huisache Ave

Pre-Proposal Meeting
September 25, 2018

Luis Rodarte, P.E.

Project Engineer, SAWS

David R. Gonzales, CPM

Manager – Construction and Inspections, SAWS

Stella Manzello

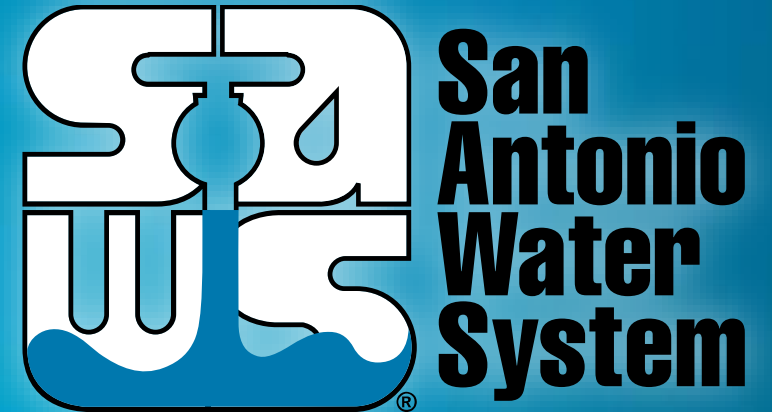
Contract Administrator, SAWS

Marisol V. Robles

SMWVB Program Manager, SAWS

Curt Raabe, P.E.

Project Engineer of Record, CDS Muery



MAKING SAN ANTONIO
WATERFUL



Meeting Agenda

- Project Overview
- Oral Statements
- Contract Requirements
 - Special Provisions
 - Special Specifications
 - Supplemental Conditions
 - Special Conditions
- Required Experience
- SMWB Goals
- Proposal Packet Preparation
- Additional Reminders
- Communication
- Key Dates
- Additional Project Information
- Project Details
- Questions

Project Overview

Martinez Creek, Perez to Huisache – Wastewater Main Replacement Project

- Approximately 4,600LF of 48” FRP, 4,400LF of 54” FRP Gravity Sewer Trunklines (Open-Cut and Bored), with 44 FRP T-Base Manholes.
- Approximately 4,000LF of 8” thru 24” PVC Gravity Side Sewers, with 61 Fiberglass Manholes and Laterals.
- Trunkline Bypass Pumping and Gravity Flow Diversion (w/ Temp. Structures), and Side Sewers Small Flow Pumping/Diversion.
- Traffic Detouring, Pavement Replacement.

Project Overview

Martinez Creek, Perez to Huisache – Wastewater Main Replacement Project

- Construction of large diameter (≥ 48 -inch) sanitary sewer
- Installation of large diameter sewer at depths ≥ 20 ft
- Narrow construction corridor, along Martinez Creek
- Existing utilities that must remain in service
- Class 2 – Special Waste Soils Management
- Coordination with CoSA, SARA, TXDOT, CPS Energy, and others

Project Overview

Martinez Creek, Perez to Huisache – WWTR Main Replacement Project

- Drainage and Site Facilities Repair
- Existing Sewer Pipe Abandonment (Abandon, Crush, Grout Fill, Remove & Backfill)
- CoSA Greenway Hike & Bike Trails Coordination
- Fiber Optics Cable Relocation (Contractor Assignment-Allowance)

Oral Statements

Oral statements or discussion during the pre-proposal meeting will not be binding, nor will it change or affect the terms or conditions within the Plans and Specifications for this Project. Changes, if any, will be addressed only via an Addendum.

Non-Mandatory Pre-Proposal Meeting

- Attendees should sign-in and sign-in sheet will be posted on SAWS website
- Key project information:
 - 900 calendar days
 - Construction estimate is approximately \$28.93M
 - Construction services being procured under Chapter 2269 of Texas Government Code as a Request for Competitive Sealed Proposals (RFCSP)
 - This is an EPA consent decree project, which requires additional reporting and retention of document (see Special Conditions)
 - *Geotechnical Data Report available on SAWS website, and may be accessed once a Disclaimer form is completed (see Special Conditions)

*Instructions will be revised via Addendum

Contract Requirements (Continued)

- Prevailing Wage Rate and Labor Standards – Section 2.10 of the General Conditions
 - Certified payroll to be submitted on weekly basis
 - Wage decisions are included within the specifications
 - Contractors to utilize LCP Tracker
 - Site visits are random and unannounced
 - Interviews will be conducted and will be private & confidential
 - Payroll records are subject to review
 - All apprenticeship programs will need to be approved by Department of Labor prior to starting
 - Contractors are responsible for sub-contractor payroll
 - Late payrolls delay contractor payments from SAWS

Contract Requirements (Continued)

- **Insurance** – Found in Section 5.7 of the General Conditions.
 - Special requirements for insurance include General Liability for Construction, Pollution Liability, Excess Liability and Installation Floater is required (Builder's Risk is waived).
 - Selected contractor must be compliant with all other contracts in order for SAWS to award the contract.
 - We will ask for insurance prior to Board award to expedite execution of the contract.
 - Insurance must be compliant prior to executing the contract.

Required Experience

- Installing large diameter (48-inch and larger) gravity sanitary sewer pipeline at depths > 20 ft. via open cut or trenchless
- Installing sewer pipelines in narrow corridors along creek ways
- Excavation, handling, & disposal of Class 2 special waste soils/materials
- Complex sequencing across multiples sites within the same project
- Managing bypass pumping of large flows (20 MGD or greater)

* See SIR for full details

RFCSP Evaluation Process

- Technical Evaluation Committee (TEC) will score the proposals based on the evaluation criteria in the Supplementary Instructions to Respondents
- Respondents to use Forms provided in SIR
- Price will be calculated and added to scores
- SMWVB will be added to scores
- Selection Evaluation Committee review scores and select contractor who can provide the best value to SAWS
- Negotiations
- Board Award

Evaluation Criteria

CRITERIA	MAX POINTS	SIR PAGES
Team Qualifications and Experience	20	SIR-2 to SIR-5
Quality, Reputation, and Ability to Deliver Projects on Schedule and within Budget	25	SIR-5 to SIR-7
Project Approach Including Delivery Schedule	15	SIR-7 to SIR-8
Price	30	SIR-9
Small, Minority, and Woman-Owned Business Participation (SMWB)	10	SIR-9 to SIR-12 and GFEP
TOTAL	100	

Evaluation Criteria

Evaluation Criteria Form

Evaluation Criteria Form

The intent of this document is to provide Respondents a structure for their responses. While there are page limits for this solicitation, there are no character limitations.

Respondents should provide answers to the questions below in the order and spaces provided to ensure continuity between Respondent's submissions.

When responding to the questions below, Respondents should use the space provided in this form, unless otherwise indicated.

If all fields are not completed, the proposal may be deemed non-responsive.

1. Team Qualifications and Experience (20 Points)

a. Organizational Structure and Key Information of the Prime Contractor (10 Points)

Prior to responding to this section, refer to the Supplementary Instructions to Respondents for definitions and other requirements.

- i. Provide current business organizational structure, type of business structure, and stability of organization.
■
- ii. Provide total number of employees and annual company revenues as of December 31, 2017.
■
- iii. Provide the Debarment history for the company for the last ten (10) years.
■
- iv. Provide any litigation, arbitration, and claims history for the last three (3) years and any litigation, arbitration, and claims history with SAWS regardless of the year they occurred.
■

Evaluation Criteria

Team Qualifications and Experience (20 points)

- Organizational Structure and Key Information on Prime Contractor

(10 points)

- Company information (structure, debarment history, # of employees, years of construction work, etc.)
- Organizational Chart with Key Personnel with percentage of availability, clear description of roles and responsibilities (Prime and Key Subs)
 - Team history or approach if no prior experience to ensure successful completion of project
- Availability of equipment and facilities
- Financial statement within the last 12 months by independent CPA

* Refer to SIR for full detail of Evaluation Criteria requirements

Evaluation Criteria

Team Qualifications and Experience (20 points)

- Qualifications and Experience of Key Personnel Proposed for Project

(10 points)

- Resumes of Key Personnel on 8 ½ x 11” one per person, not to exceed one (1) page as identified on the Org Chart
 - Professional experience, education, role, descriptions of capabilities, etc.
 - List of all other active projects team member assigned, percentage, date of completion of work
- ✓ Key Personnel include PM, Project Superintendent, Open Cut Superintendent, Tunneling/Boring Superintendent, Tunnel Boring Machine (TBM) Operator
- ✓ Key Subcontractor roles include tunneling, micro-tunneling, hand mining, large, diameter open cut, etc.

Evaluation Criteria

Quality, Reputation, and Ability to Deliver Projects on Schedule and within Budget (25 points)

- Prime Contractor On-Time Completion on Similar Projects in the past 10 years (15 points)
 - List and describe 5 completed projects of similar size, scope, and complexity within the last 10 years
 - Owner reference contact information should be valid and recently verified
 - If valid contact information is not provided, score or proposal may be negatively impacted
 - 2 of the 5 projects listed must have been performed by the proposed Key Personnel
 - If SAWS experience, 1 project of similar size, scope, and complexity should be included
 - List all current and/or completed SAWS projects within the last 5 years

* Refer to SIR for full detail of Evaluation Criteria requirements

Evaluation Criteria

Quality, Reputation, and Ability to Deliver Projects on Schedule and within Budget – Cont.

- Key Subcontractor(s) Performance on Similar Projects in the Last 10 years (10 points)
 - Provide list of 2 projects that Key Subcontractors Project Manager and/or Superintendent participated in of similar size, scope, and complexity
 - If Prime plans to self-perform and has no Key Subcontractors, provide a list of 2 additional projects
 - Key Personnel must have participated in at least 1 of the 2 projects

* Refer to SIR for full detail of Evaluation Criteria requirements

Evaluation Criteria

Project Approach including Delivery Schedule (15 points)

- Project Approach (10 points)
 - Narrative of Project Approach to complete project, including key milestones, critical path items, phases and/or sequencing, permits, etc.
 - Describe approach for coordination with key stakeholders
 - Provide innovative ideas for cost savings (due to method or duration)
 - Quality Management Plan including subcontractor oversight, QA/QC, etc.
- Project Schedule, procurement of long-lead items, unforeseen conditions (5 points)
 - Critical path method (CPM) schedule Primavera or Microsoft project
 - Assume NTP of January 2, 2019
 - Project approach to procure long-lead items
 - List and describe prior instances of unforeseen conditions
 - Approach for mitigating and managing unforeseen conditions on this project

* Refer to SIR for full detail of Evaluation Criteria requirements

Evaluation Criteria

Safety Information for Prime Contractor and Key Subcontractor(s) (Pass/Fail)

- Records showing Total Recordable Incident Rate (TRIR) past 5 years
- Provide records showing the company's Experience Modification Rate (EMR) past 3 years
- List fatalities in company's safety history for Prime Contractor and Key Subcontractor(s)

* Refer to SIR for full detail of Evaluation Criteria requirements

Evaluation Criteria

Price (30 points)

- Lowest total price will receive 30 points.
- Remaining proposals will receive a points based on comparison to the lowest price proposal.

* Refer to SIR for full detail of Evaluation Criteria requirements

SMWB Goal

Industry	SMWB Goal
Construction	20%

Accepted SMWVB Certification Agency

- **South Central Texas Regional Certification Agency**
(Includes the Texas Historically Underutilized Business “HUB” Program)

Minimum Qualifications for SMWVB recognition:

- SBE-Certified (even MBEs and WBEs)
- **Local office or local equipment yard**

Accepted SMWVB Certifications

- Minority Business Enterprise (MBE) (Includes AABE, ABE, HABE, and NABE)
- Small Business Enterprise (SBE)
- Woman-owned Business Enterprise (WBE)
- Veteran-owned Business Enterprise (Tracked, but not eligible for points)

Good Faith Effort Plan (GFEP) FAQs

- **Q: Is the 20% SMWB goal mandatory?**

A: No, but weighted in selection criteria, and SAWS asks prime contractors to do their best with good faith outreach efforts. If the goal is not met, proof of outreach efforts is required with the submittal.

- **Q: What if I am having trouble finding SMWB subconsultants?**

A: Please email the SMWVB Program Manager with the scopes of work you are seeking. You will receive lists of local SMWVB-certified firms to contact.

- **Q: What if my business is SMWB-certified? Do I need to find SMWB subs?**

A: If your firm is SMWVB-certified, you will most likely meet the goal. However, the GFEP is a required document, and a good faith outreach effort is still necessary.

- **Q: What if I have questions about the GFEP?**

A: Please contact the SMWVB Program Manager at 210-233-3420, or at marisol.robles@saws.org. GFEP questions can be asked at any time before the submittal is due.

Post Award: Subcontractor Payment & Utilization Reporting (S.P.U.R.) System & Subcontractor Changes

- <https://saws.smwbe.com>



The screenshot shows the homepage of the S.P.U.R. system. At the top left is the San Antonio Water System logo. To the right are links for "OUR MAIN SITE" and "CONTACT SUPPORT". The main heading reads "Subcontractor Payment & Utilization Reporting System" with a "Log In" button below it. The page is divided into three columns: "System Training" (with a "Training" button), "About the System" (with an "Information for Vendors" button), and "Account Access" (with "Account Lookup" and "Forgot Password" buttons). A footer at the bottom states: "The Subcontractor Payment & Utilization Reporting System is powered by B2Grow Software © Copyright 2018."

Subcontractor Change Request

Any changes in subcontractors or suppliers requires prior approval from SAWS:

http://www.saws.org/business_center/contractsol/forms.cfm or

http://www.saws.org/business_center/contractsol/forms/SMWBChangeForm.pdf



Name of Contractor: _____
 Project Name & Number: _____
 Submits the following approval request of the following addition(s) and/or deletion(s) on the Affirmed List of Subcontractors, as originally submitted as part of the BID/PROPOSAL/CONTRACT.

CHANGES

ADD	DELETE	NAME OF SUBCONTRACTOR	SBE, MBE, VBE, WBE	DESCRIPTION OF WORK TO BE PERFORMED	PERCENT & DOLLAR AMOUNT OF CONTRACT
<input type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>				
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<input type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>				

JUSTIFICATION

AFFIRMATION

THE ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF, I FUTHER UNDERSTAND AND AGREE THAT THIS DOCUMENT SHALL BE ATTACHED THERETO AND BECOME A BINDING PART OF THE CONTRACT.

Name & Title of Authorized Requestor: _____
 Signature of Authorized Requestor: _____ Date: _____

SMWVB PROGRAM MANAGER: _____	DATE APPROVED: _____
CONTRACTING DIRECTOR: _____	DATE APPROVED: _____

Office Use Only: _____ S.P.U.R. System _____ CPMS _____ Project Hand File _____



Proposal Packet Preparation

- Utilize and submit by using the Respondent's Proposal Checklist
- Submit 1 Original proposal with CD or thumb drive*
- 7 copies (information differs for copies)
- Thoroughly review plans and specs
- Respondent's projects and Key Personnel resumes should clearly show similar experience
- Thoroughly review Supplementary Instructions to Respondents

* Excluding financial statement and price proposal

Proposal Packet Preparation *(cont.)*

- Ensure all required documents are submitted and signed, (i.e. Respondent Questionnaire, GFEP, etc.)
- Entire proposal should create a clear picture of Project Team experience and capabilities (Org chart, projects, and resumes for Key Personnel from Primes and Subs)
 - Take into consideration current projects team members other commitments
- Double check extensions and mathematical calculations
 - Acknowledge Addendums on Price Proposal

Additional Reminders

- Please register through SAWS Vendor Registration Program on the SAWS website at www.saws.org to ensure access to the latest information.
- To receive updates on specific projects, registered vendors must ‘Subscribe’ to the project by selecting the project, and clicking ‘Subscribe’ under the “Notify Me” box.

contract solicitations
Invitation for Bid

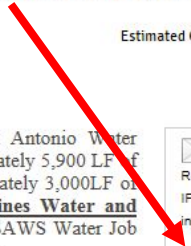
Solicitation No. **CO-00157-JP** Job No. **17-5137 & 17-5617**

2018 Pipelines Water and Sewer Construction Contract Pkg I

Due Date: 10:00 AM Monday, 2/5/18 Estimated Cost: \$2,000,000.00
Status: Currently Accepting Submissions

Sealed bids are requested by the San Antonio Water System for the construction of approximately 5,900 LF of 6 to 8-inch of water main and approximately 3,000LF of 8-inch sewer main for the **2018 Pipelines Water and Sewer Construction Contract Pkg I**. SAWS Water Job No. **17-5137** and Sewer Job No. **17-5617**.

Notify Me
Receive updates for this IFB sent straight to your inbox.



Communication Reminders

- There shall not be any communication with the following during the Proposal period:
 - ✓ Design Engineer (CDS Muery)
 - ✓ SAWS Project Manager or Project Engineer
 - ✓ Any other SAWS staff
 - ✓ City Council member or staff
 - ✓ SAWS Board of Trustees
- This includes phone calls, emails, letters, or any direct or indirect discussion of the Proposal

Key Dates

- Sept. 25, 2018 – 3:00 PM **Pre-Proposal Meeting**
- Sept. 27, 2018 by 4:00 PM **Questions Due**
- Oct. 4, 2018 by 10:00 AM **Addendum Posted to SAWS Website**
- Oct. 19, 2018 by 10:00 AM **Proposals Due**
- October 2018 **Proposals Evaluated**
- December 4, 2018 **SAWS Board Approval and Award**
- December 2018 **NTP Issued**

Proposal Submission Due Date

- Proposals are due no later than
10:00 AM CDT Friday, October 19, 2018
- Follow specific delivery instructions:
 - Deliver to 2800 U.S. Highway 281 North, Suite 171, Customer Service Building, Counter Services
 - Make arrangements if mailing a response to this solicitation
 - Late responses will not be accepted and will be returned unopened

Contract Background

- Traffic Control Plans are included in the Plan set, subject to final CoSA approval.
- A detailed Bypass Pumping Plan is required and will be the responsibility of contractor at no cost to SAWWS.
- Detailed Construction schedule must be part of the Proposal.
- Submittals can be submitted as soon as receiving notification of contract award after CPMS training (if necessary) has been completed.

Contract Background

- Prior to commencing work, contractor must submit and receive approval of the following:
 - Bypass plan
 - Traffic control plan
 - Construction Schedule
 - Pre-site video
 - Lease agreements
- There will be one pre-construction meeting
 - Remaining submittals will be required
- Contractor must submit a Work Progress Schedule within 10 days of NTP and monthly thereafter

Contract Background

- All RFIs, RFPs, submittals, and any other items related to construction must be uploaded and processed via CPMS.
- No work can be performed by the contractor unless the cost for that line item is on the Contract.
- All traffic control plans must be submitted and approved by CoSA
- Change orders, if any, will be based on negotiated prices not in the proposal.
 - Negotiated using RS Means

Contract Background

External Agency Permit Requirements (City of San Antonio, TxDOT, etc.)

- Contractor to follow requirements identified in CoSA Floodplain Development Permit and in any other agency permits (e.g., TxDOT).
- Changes in field that are cited by the Agency's Inspector will require concurrence and approval from the SAWWS Inspector first.
- If contractor wants to work weekends, notification is required 48 hours in advance to SAWWS Construction Inspections. Requests should be send to constworkreq@saws.org.

Contract Requirements

Special Provisions

- Item 100 – Mobilization: Establishes Intermediate Demobilization and Remobilization item if elected by SAWWS, including definition of related temporary bypass pumping activities during SAWWS-authorized demobilization.
- Item 530 – Barricades, Signs & Traffic Handling: Defines electronic traffic board requirements.
- Item 804 – Excavation, Trenching & Backfill: Defines ‘All Materials’
- Item 848 – Sanitary Sewers: Establishes line items for payment (Installation and Testing & Acceptance)

Contract Requirements

Special Provisions

- Item 850 – Sanitary Sewer Structures: Deletes Raven-405 epoxy.
- Item 862 – Abandonment of SS Mains & MHs: Defines four abandonment methods.
- Item 864 – Bypass Pumping, large/small Diameter Sanitary Sewers: Establishes extended Bypass Pumping equipment rental, fuel, and watch payment items if needed in association with SAWWS-approved intermediate demobilization. Requires pumped bypass of Peak Wet-Weather Flows.
- Other Special Provisions as described.

Contract Requirements

Special Specifications

- Item SP-553 – SWP3: Establishes storm water pollution prevention plan (SWPPP) requirements. Established Lump Sum payment.
- Item SP-1000 – Class 2 Special Waste: Defines soil management requirements, and establishes unit price payment (Ton).
- Item SP-1002 – Landscape Restoration (935 Leal St.): Establishes landscape restoration requirements, coordination with owner, and establishes Lump Sum payment for 935 Leal St. private property.

Contract Requirements

Special Specifications

- Item SP-1005 – Removal of Ex. Structures: Clarifies requirements and establishes Lump Sum payment.
- Item SP-1200 – Tee Base Manholes: Defines material requirements, testing and Unit Price payment (EA/VF) for FRP T-Base Manholes.
- Item SP-2000 – Allowance (Fiber Optics Relocation): Assigns fiber optics cable relocation and associated required coordination to Contractor under the allowance (\$200,000.00).

Contract Requirements

Supplemental Conditions

- Contractor shall perform the work with its own organization on at least 40% of the total original contract price.
- Liquidated damages will be assessed as follows for final completion extending beyond contract time:
 - \$1,607 per Day

Contract Background

Special Conditions

- Contractor shall meet requirements of U.S. EPA Consent Decree.
- Contractor shall meet CoSA Greenway construction, coordination, and restoration requirements.
- Geotechnical Data Report available upon request, subject to SAWS Waiver execution.

Project Details

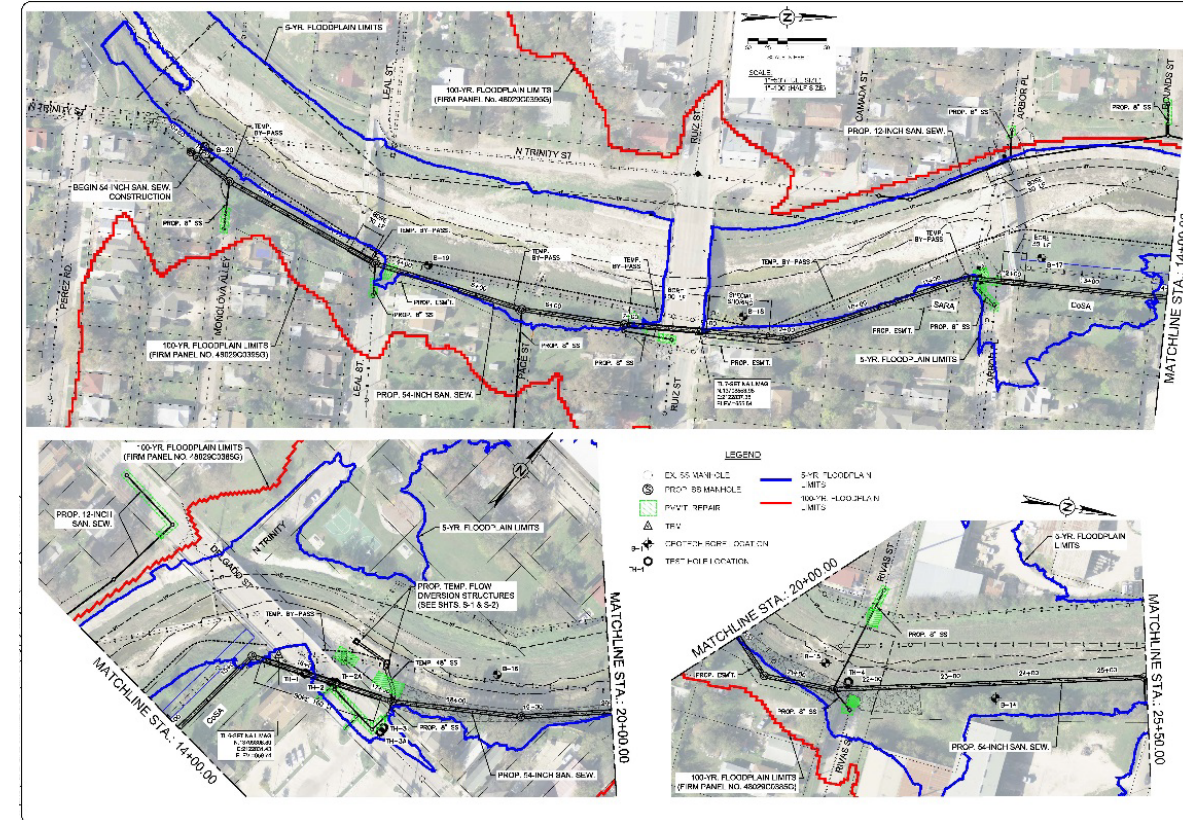
- Approximately 10,000LF 48”/54” new FRP gravity sewer main.
- Large flow by-pass pumping required downstream (Delgado to Perez), with two subsequent upstream flow diversions. Requires cast-in-place concrete temporary bypass structures.
- Approximately 4,000LF of 8” to 24” new PVC gravity side sewer reconnections to new FRP Main, with FRP manholes. May require small flow bypassing.
- Contractor may construct in two concurrent Work zones to facilitate schedule.

Project Details

- All FRP trunkline crossings below bridges are bored.
- Several side sewers require traffic control, detouring, and pavement repair.
- Contractor to arrange for off-site material storage/staging areas as needed (one Project Staging Area site provided near upstream end).
- Soils along new sewer route contain non-hazardous Class 2 metals, requiring special handling, transport, and disposal to an approved landfill. Upstream clean excavation spoils may be used for downstream secondary backfill to avoid backfill soil import.
- Work to be completed in accordance with CoSA Floodplain Development Permit.

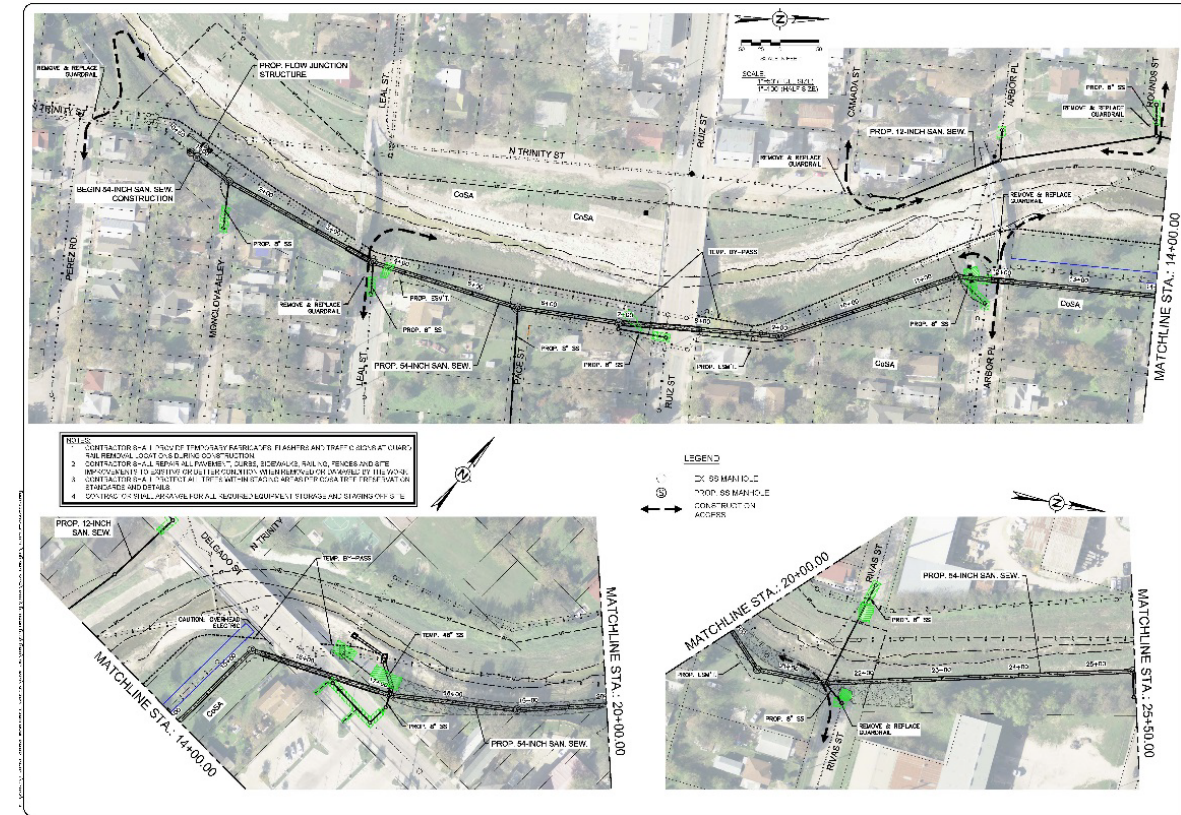
Floodway Construction

- Work is located primarily within 5-Yr Floodplain, subject to periodic flooding.
- Pipe trench must be backfilled/capped at completion of each day.
- Class 2 soils excavation must be coordinated with these restrictions.
- Downstream bypass pumping line to be secured along east creek bank.



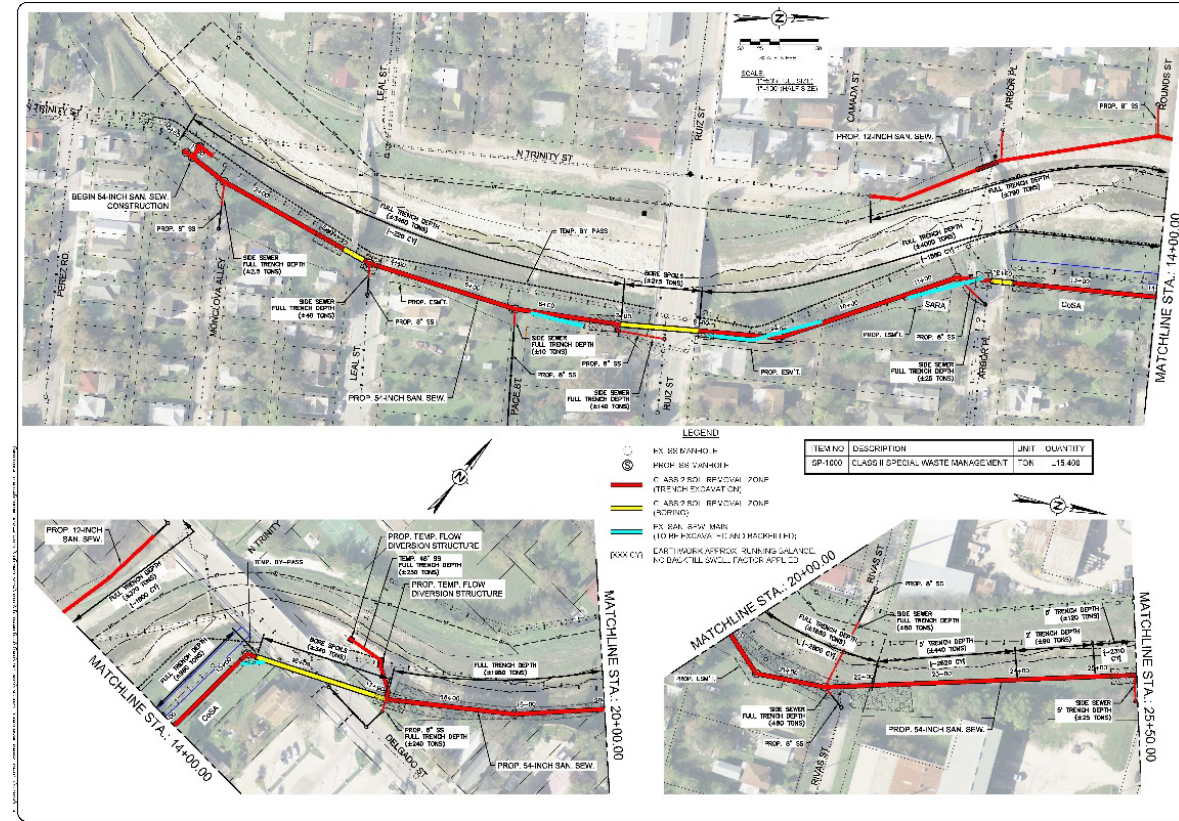
Contractor Access

- Access from adjoining street ROW.
- Must maintain local traffic access and safety (including temp signage and barricades).
- Prevent tracking of soil onto streets.
- Repair guard railing and pavement.
- Restore site upon completion.



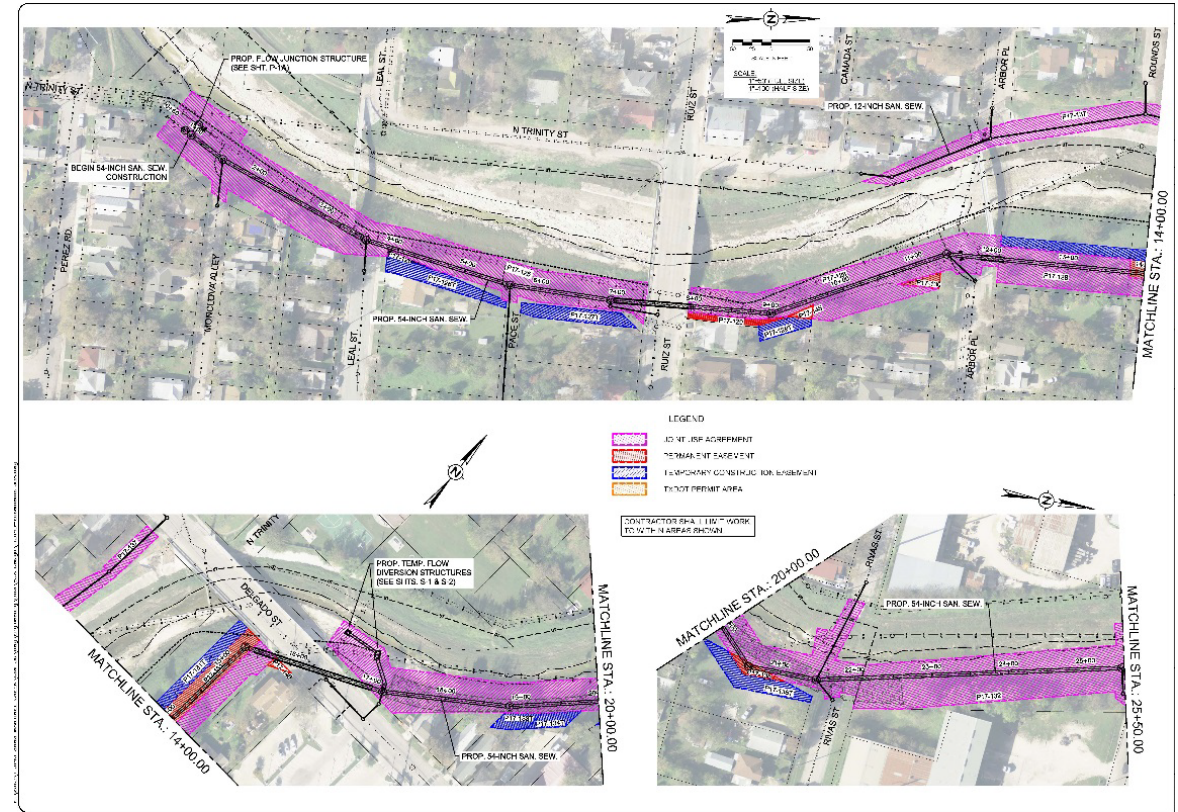
Class 2 – Special Waste

- SP-1000 defines technical requirements, measurement, and payment.
- Class 2 excavation depths shown on Plans.
- Approx. excavation weight shown on Plans ($\pm 3,460$ Tons). Payment based on landfill scale tickets.
- Approx. cut-fill running balance from downstream end shown on Plans, -220 CY.
- Backfill from upstream Work areas will avoid need for import (net excess).



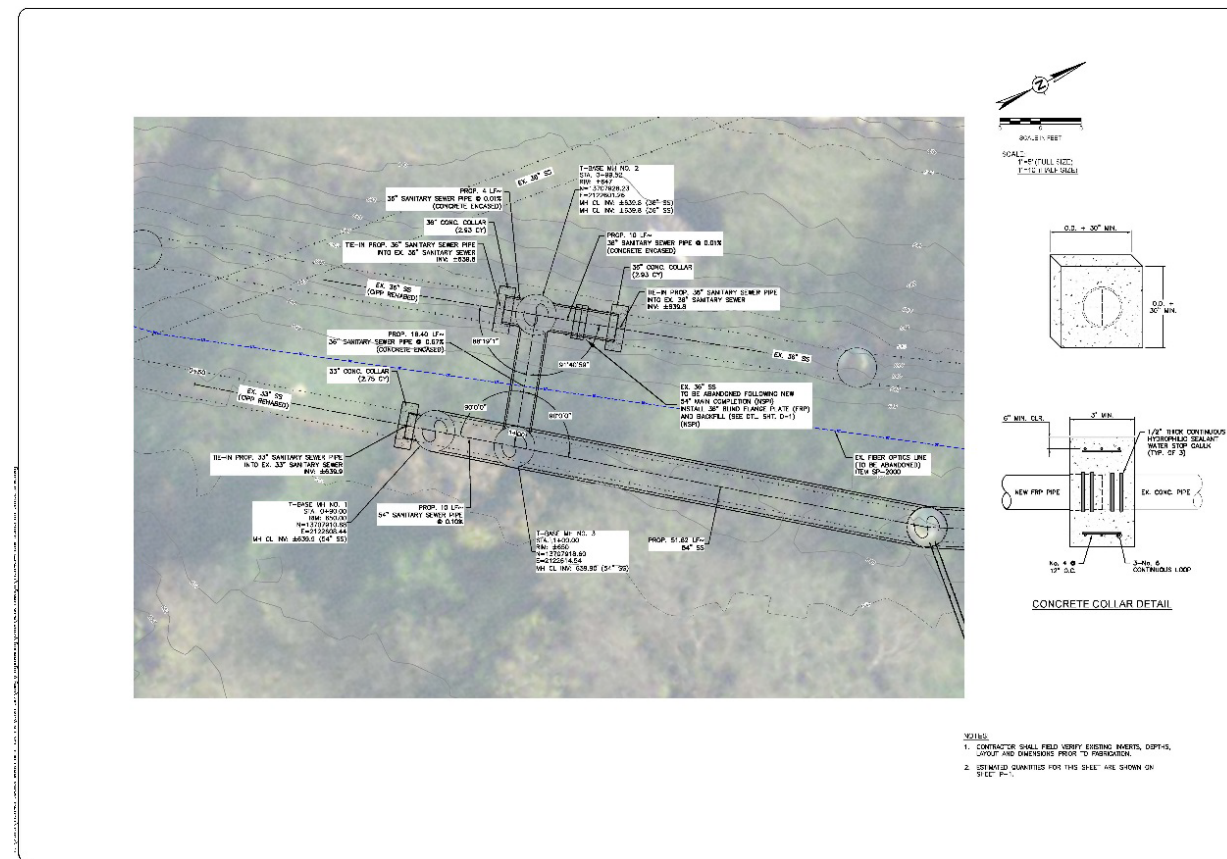
Work Area Limits

- Work limited to within CoSA JUAs, Easements, and TxDOT Permit areas as shown on Plans.
- Temporary access from adjoining CoSA streets is allowed.



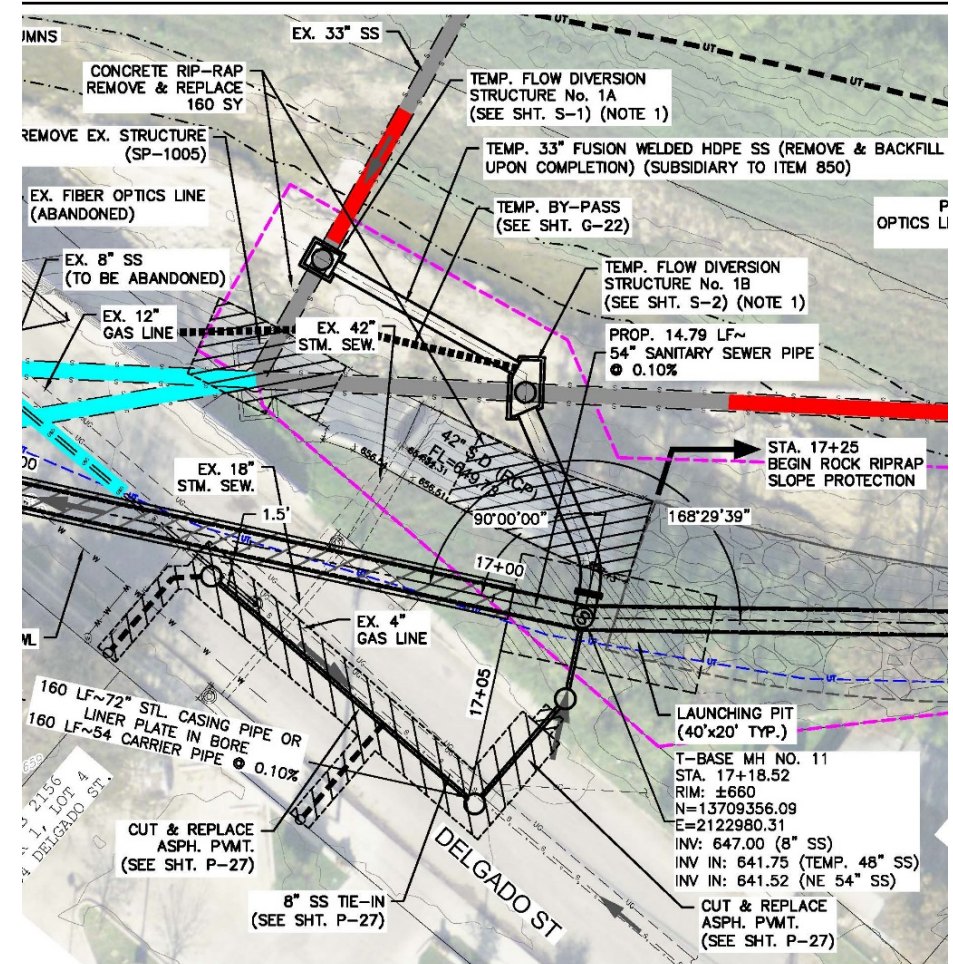
Downstream Flow Merger Structure

- Fabricated FRP plenum structure used to tie new 54" FRP main into existing two downstream RCP sewer lines at Perez.



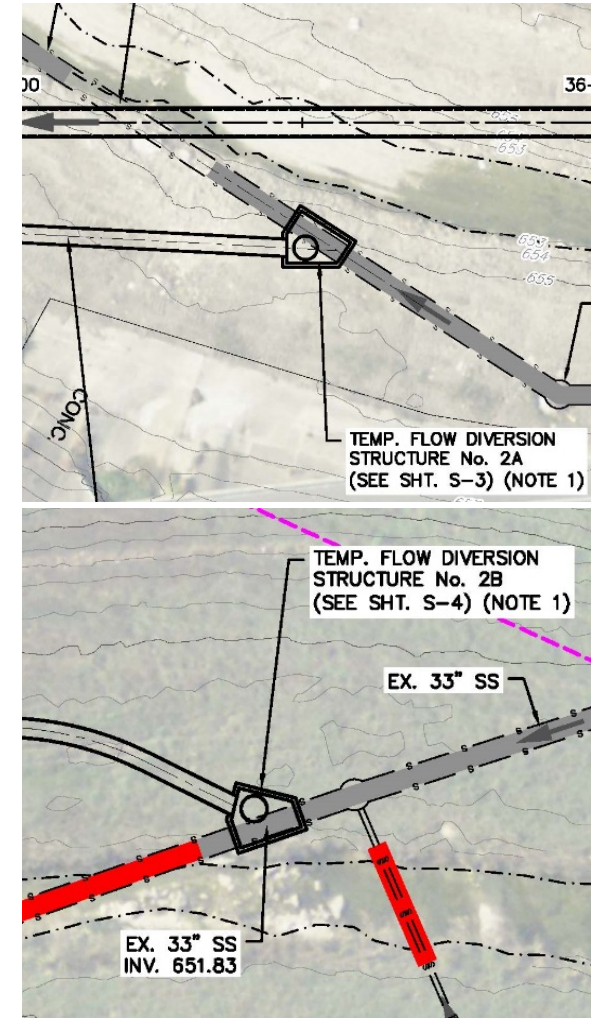
Downstream Flow Bypass Diversion

- Temporary cast-in-place diversion structures at Delgado allow existing 33" and 36" RCP sewers to be diverted for bypass pumping to downstream Perez St. flow box, allowing construction of new 54" FRP Main.
- Prior construction of new west-bank 12" PVC SS redirects western local flows.
- Gravity diversion to new 54" FRP main then allows completion of bypass pumping.
- Temporary structures to be demolished upon Work completion.



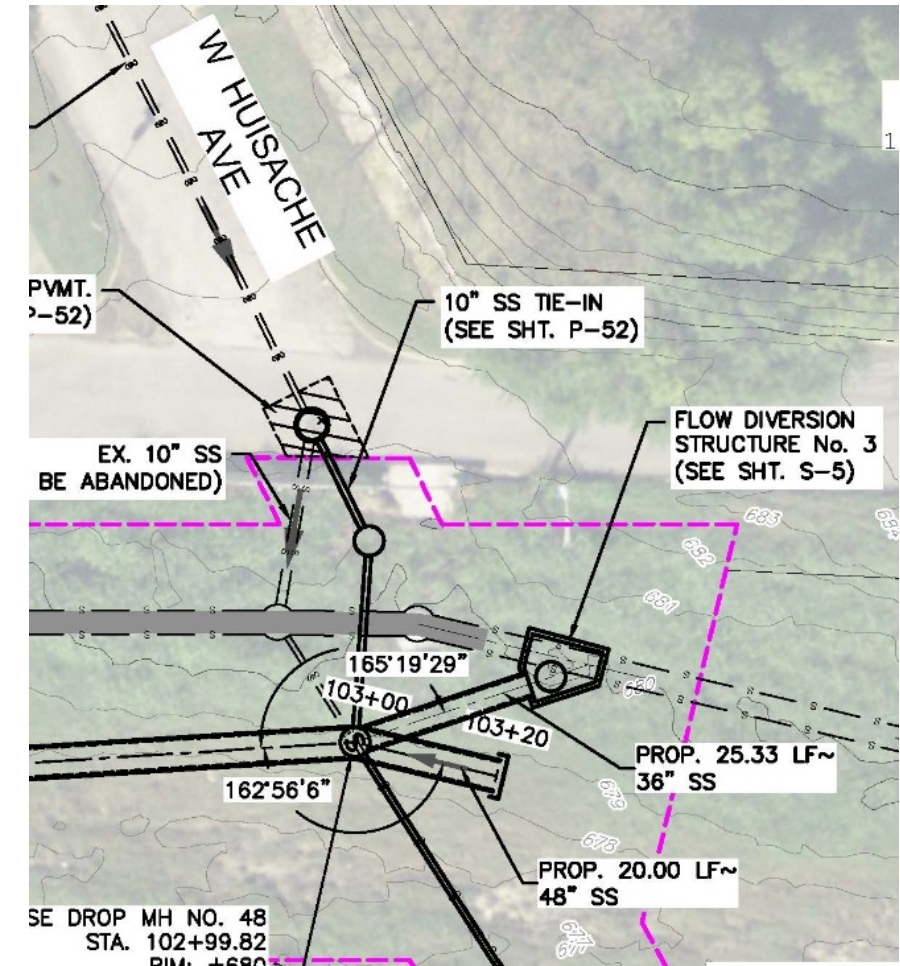
Temporary Flow Diversion Structures

- Temporary cast-in-place flow diversion structures at Lombrano and Culebra allow gravity diversion of flow from existing 33" RCP SS, allowing construction of new 54" FRP main.
- Side sewers to be connected to new FRP main as completed and tested, proceeding upstream, and allowing abandonment of existing RCP sewers.
- Temporary structures to be demolished upon Work completion.



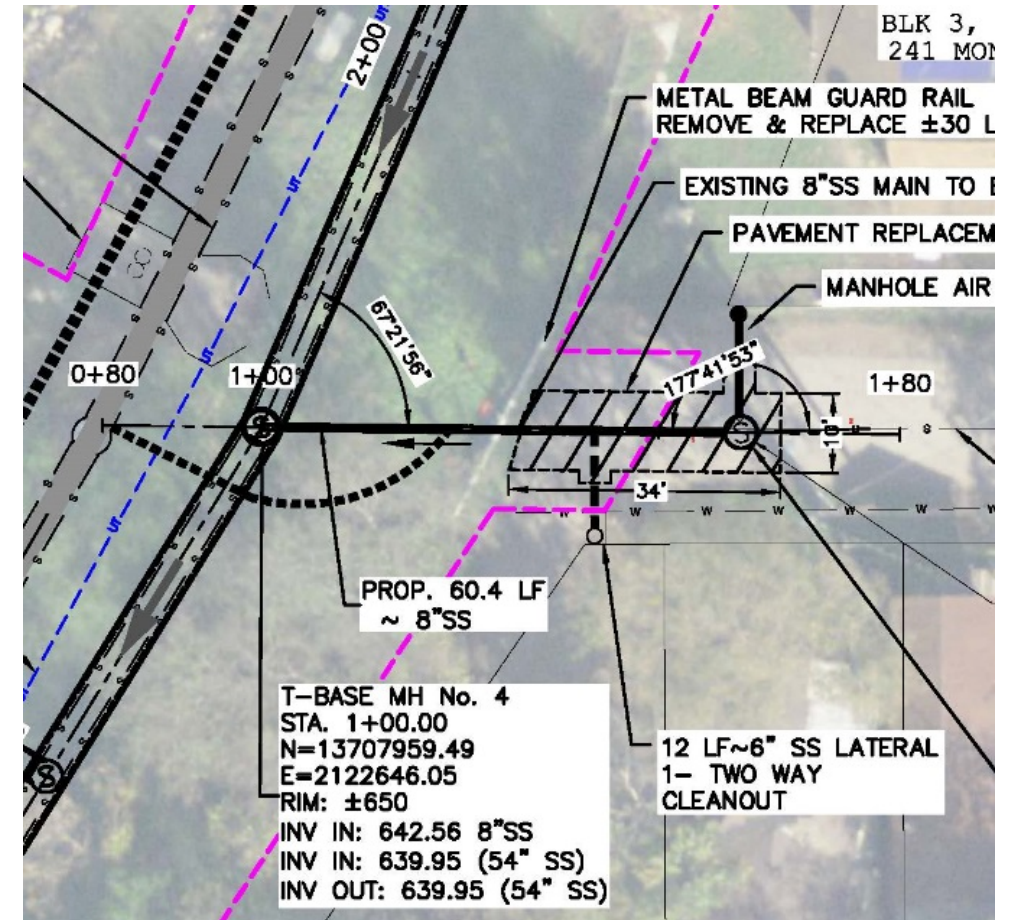
Upstream End of Construction

- Upstream cast-in-place structure connects existing 33" RCP SS to new 48" FRP main near W. Huisache Ave., allowing future upstream extension.
- Structure to receive interior coating protection for extended service life.



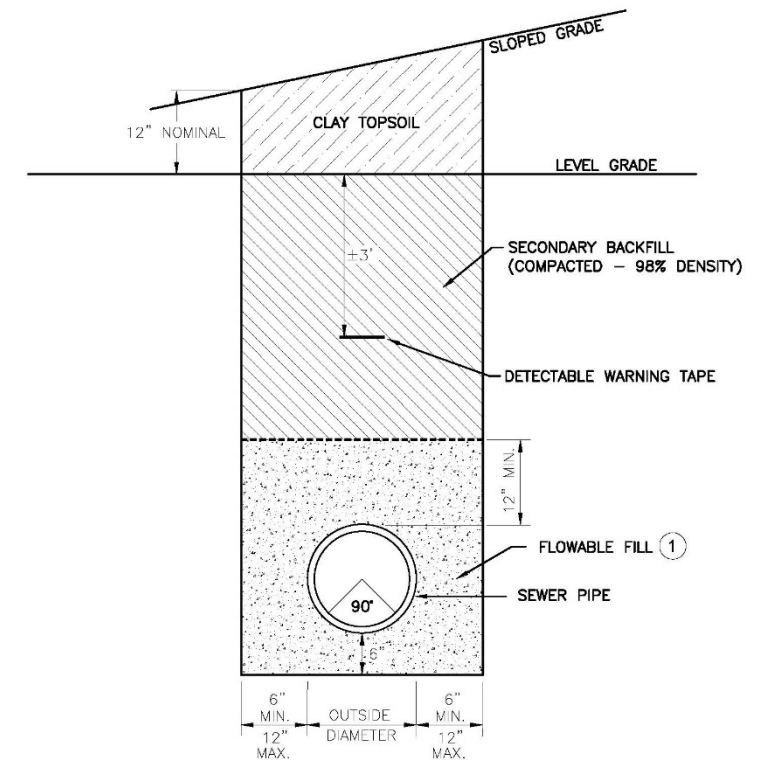
Side Sewers

- New side sewers are PVC, with FRP Manholes.
- Connection to existing sewers at MHs or with SAWS-approved adapters.
- Flowable fill encasement.
- Temporary small flow bypassing when needed for construction.
- SAWS standard testing and acceptance requirements.



Pipe Bedding and Backfill

- All FRP sewer mains and PVC side sewers are concrete encased (Flowable Fill – 2,000 psi).
- Compacted secondary backfill from 12” minimum above top-of-pipe.
- Special shoring areas require flowable fill to 12” below grade.

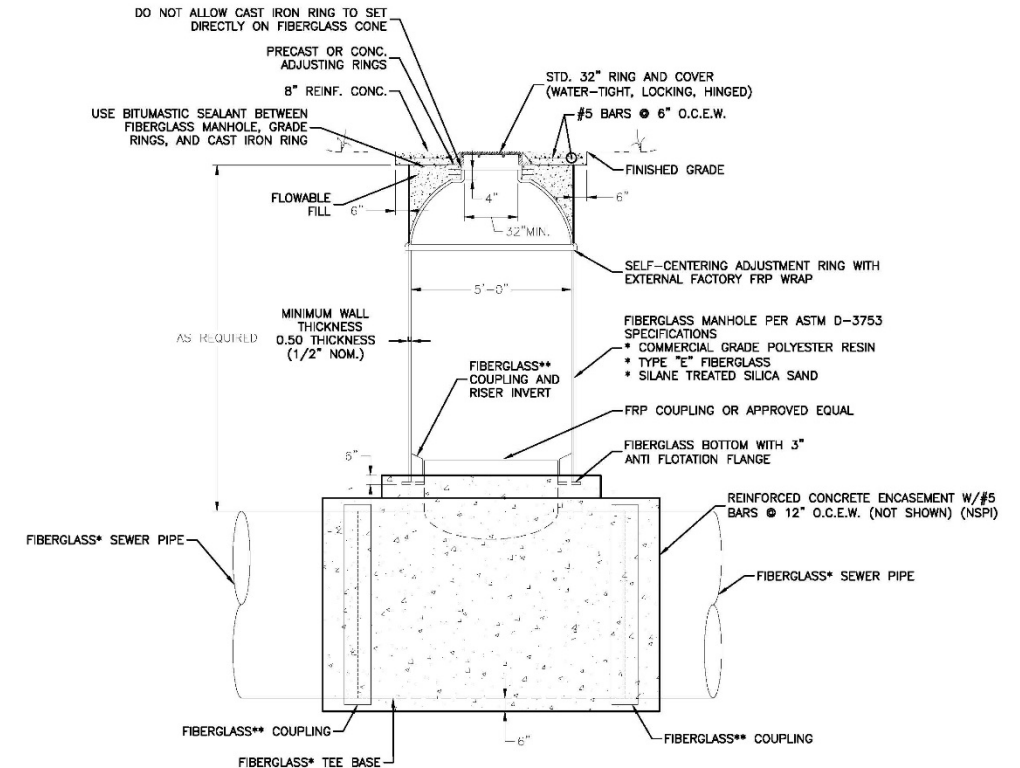


SANITARY SEWER NON-PAVEMENT ①
TRENCH DETAIL
 N.T.S.

① SECURE PIPE AGAINST BOUYANT UPLIFT DURING FLOWABLE FILL PLACEMENT

Fiberglass T-Base Manholes

- Standard Fiberglass T-Base Manhole details, matching adjoin FRP pipe stiffness (SN-72).
- 32-inch, water-tight, locking, hinged ring & covers.
- Concrete encased.
- No field cutting or alterations, except where approved by MH manufacturer and Engineer.



FIBERGLASS TEE BASE MANHOLE

N.T.S.

* FIBERGLASS (FRP) SEWER PIPE MEETING THE REQUIREMENTS OF ASTM D3262 FOR DIRECT BURY INSTALLATION.

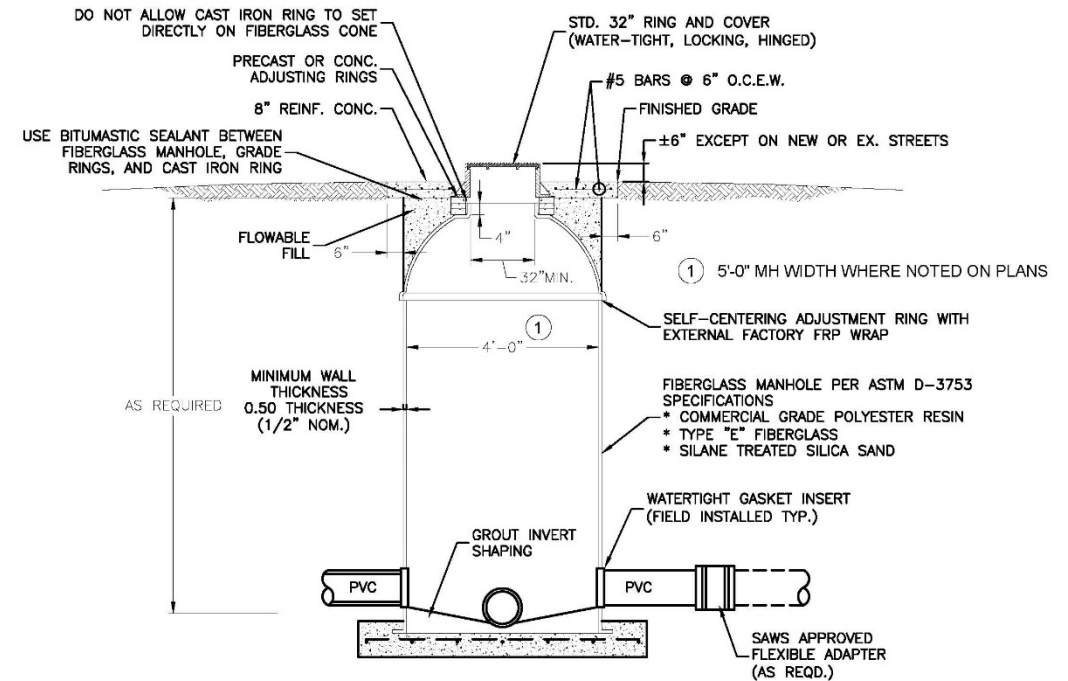
** FIBERGLASS (FRP) PIPE JOINTS USING FLEXIBLE ELASTOMERIC SEALS MEETING THE REQUIREMENTS OF ASTM D4161.

TEE BASE MANHOLE PAYMENT PER EACH, COMPLETE-IN-PLACE AS SHOWN

ALL TEE-BASE MANHOLES AND RISERS SHALL MEET OR EXCEED PIPE STIFFNESS OF ADJACENT FRP PIPE.

Fiberglass Standard Manholes

- Standard Fiberglass 4-ft D and 5-ft D Manhole details.
- 32-inch, water-tight, locking, hinged ring & covers.
- Water-tight gasket PVC pipe connections, with SAWS-approved flexible couplings.
- No field cutting or alterations, except where approved by MH manufacturer and Engineer.



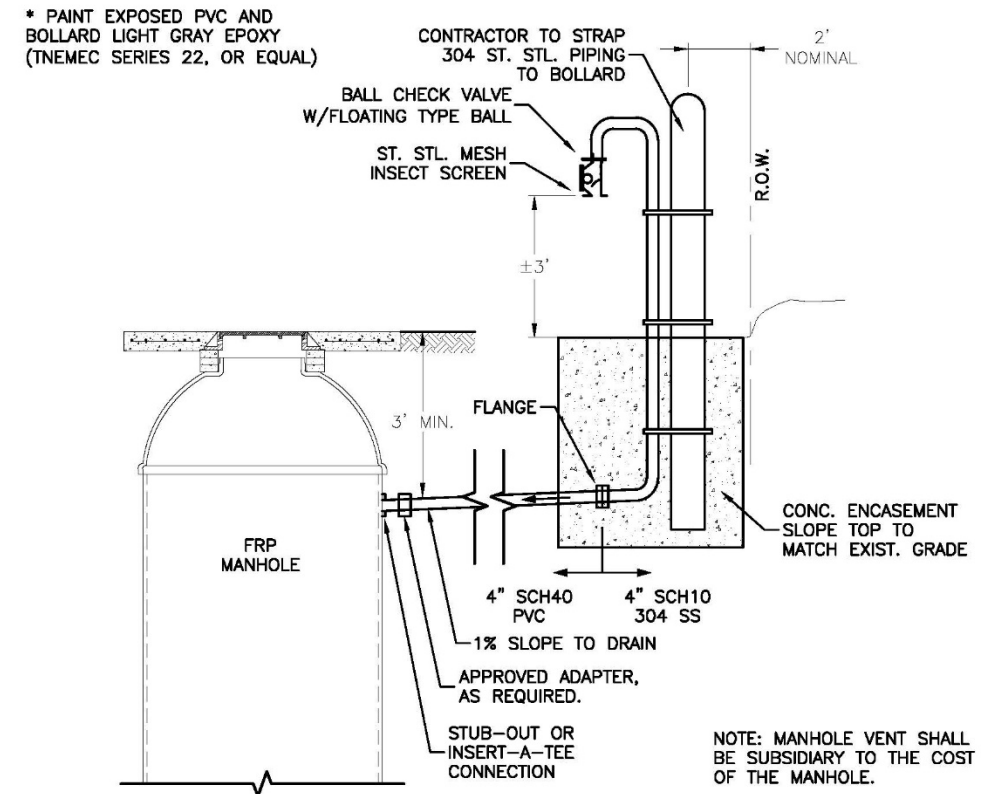
STANDARD FRP MANHOLE DETAIL

N.T.S.

- * FIBERGLASS (FRP) SEWER PIPE MEETING THE REQUIREMENTS OF ASTM D3262 FOR DIRECT BURY INSTALLATION.
 - ** FIBERGLASS (FRP) PIPE JOINTS USING FLEXIBLE ELASTOMERIC SEALS MEETING THE REQUIREMENTS OF ASTM D4161.
- FIBERGLASS MANHOLE PAYMENT PER EACH, COMPLETE-IN-PLACE AS SHOWN

Manhole Venting

- Manhole vent lines installed above floodway where shown (6).
- Connected to adjacent fiberglass standard manholes (stub-out or Insert-a-Tee).



MANHOLE VENT DETAIL

N.T.S.

Additional Project Details

- JUAs/Easements/Permits – Work limited to within areas shown on Plans, and as needed for access from adjoin side streets.
- CoSA Floodplain Development Permit. Work area subject to periodic inundation.
- CoSA Tree Permit – Pre-construction field meeting with COSA Arborist (downstream end).
- CoSA Greenway Trails protection and coordination.
- TxDOT Permit (Culebra Rd).

SMWVB Questions

Questions related to SMWVB may be directed to SAWS' SMWVB Program Manager until the bids are due. Her contact information is as follows:

Marisol V. Robles

Contract Administration Department

San Antonio Water System

Email Address: Marisol.Robles@saws.org

Telephone No.: 210-233-3420

Questions

- Should be submitted no later than September 27, 2018 at 4:00 PM CDT
- Must be submitted in writing:

Stella Manzello

Contract Administrator

Contract Administration Department

San Antonio Water System

Stella.Manzello@saws.org

Fax: (210) 233-4290

Martinez Creek: Perez St to W Huisache Ave

Pre-Proposal Meeting
September 25, 2018

Luis Rodarte, P.E.

Project Engineer, SAWS

David R. Gonzales, CPM

Manager – Construction and Inspections, SAWS

Stella Manzello

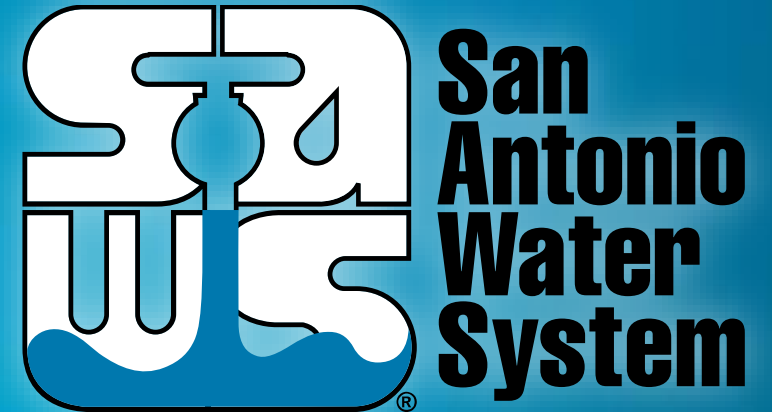
Contract Administrator, SAWS

Marisol V. Robles

SMWVB Program Manager, SAWS

Curt Raabe, P.E.

Project Engineer of Record, CDS Muery



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