



MULTIPLE SEWERSHED PACKAGE 10B – OPEN CUT
Solicitation Number: CO-00285-SM
Job No.: 18-4542

ADDENDUM 1
08/23/19

To Bidder of Record:

This addendum, applicable to work referenced above, is an amendment to the bid proposal, plans and specifications 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 on the space provided in submitted copies of the bid proposal.

RESPONSES TO QUESTIONS

- 1. We have laid many sewer projects for SAWS, but all were replaced in place. Will SAWS remove the “including abandonments of main” requirement from A-3? The total cost for 405 LF of abandonment will be less than 1% of the total project?**
A-3 in the Statement of Bidder’s Experience has been revised. See Changes to the Specifications Item 2.
- 2. A-3 The abandonment of main requirement is normally sub-contracted out. Will SAWS change the terminology to allow the abandonment of main to be a separate contract from the open cut construction and constructed by a sub-contractor will be acceptable?**
A-3 in the Statement of Bidder’s Experience has been revised. See Changes to the Specifications Item 2.
- 3. Bid Item 16 - Adjust Existing Manhole (3 EA). Will the contractor need to install the interior coating on these existing manholes? If yes, will a bid item be added to cover this expense, or will this be covered by Bid Item 27 - Manholes Rehabilitation (32 VF)?**
Yes, the interior of manholes that are to be adjusted will require coating. Correct, this will be covered via the bid item for Manhole Rehabilitation.
- 4. Is the intent of the Concrete Bid Items 8, 9, 10 & 11 to be paid where the sewer lateral cross the existing concrete?**
Correct, we anticipate some flatwork restoration will be necessary within the ROW to complete the proposed laterals and cleanouts.

CHANGES TO THE SPECIFICATIONS

- 1. Remove the “General Wage Decision for Building Type: Number TX190231 01/18/2019 TX231” in its entirety and replace with the revised version “General Wage Decision for Building Type: Number TX20190231 08/02/2019” attached to this addendum.**
- 2. Remove the Statement of Bidder’s Experience in its entirety and replace with the attached Statement of Bidder’s Experience. This revised version should be used by Bidder’s when submitting a bid for this project.**

A-3 has been revised.

- 3. Remove the Special Conditions in its entirety and replace with the attached Special Conditions.**

Section SC-1.4 PERMITS has been added.

4. Remove the **Bid Proposal** in its entirety and replace with the attached **Bid Proposal**. This revised version of the bid proposal should be used by Bidders submitting a bid for this project.

Calendar days have been updated and Item 804 has been added.

5. Remove the **Proposal Certification** in its entirety and replace with the attached **Proposal Certification**.

Calendar days have been updated.

6. Add the **Tree Permit** in its entirety to the end of the Contract Documents as an Appendix.

CHANGES TO THE PLANS

1. DELETE **Sheet 2 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 2 of 28**, dated 8/21/19. Sheet 2 has been revised to add Item 804 COSA Tree Protection to the quantity summary.
2. DELETE **Sheet 4 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 4 of 28**, dated 8/21/19. Sheet 4 has been revised to show SUE test holes and updated 2" gas line location.
3. DELETE **Sheet 5 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 5 of 28**, dated 8/21/19. Sheet 5 has been revised to show updated 2" gas line location.
4. DELETE **Sheet 6 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 6 of 28**, dated 8/21/19. Sheet 6 has been revised to show updated 2" gas line location.
5. DELETE **Sheet 7 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 7 of 28**, dated 8/21/19. Sheet 7 has been revised to show updated 2" gas line location.
6. DELETE **Sheet 8 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 8 of 28**, dated 8/21/19. Sheet 8 has been revised to show updated tree species and/or location.
7. DELETE **Sheet 9 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 9 of 28**, dated 8/21/19. Sheet 9 has been revised to show updated tree species and/or location.
8. DELETE **Sheet 10 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 10 of 28**, dated 8/21/19. Sheet 10 has been revised to show updated tree species and/or location.
9. DELETE **Sheet 11 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 11 of 28**, dated 8/21/19. Sheet 11 has been revised to show updated tree species and/or location.
10. DELETE **Sheet 13 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 13 of 28**, dated 8/21/19. Sheet 13 has been revised to show updated tree protection table.
11. DELETE **Sheet 14 of 28** of the SEWER PLANS in its entirety and REPLACE with the attached **Sheet 14 of 28**, dated 8/21/19. Sheet 13 has been revised to show updated tree protection table.

END OF ADDENDUM

This Addendum is thirty-six (36) pages in its entirety.

Attachments: General Wage Decision – Building
 Statement of Bidder’s Experience
 Special Conditions
 Bid Proposal
 Proposal Certification
 Tree Permit
 Plan Sheets 2, 4-11, 13-14

Steven H. Thai, PE
BGE, Inc.
TBPE Registration No. F-1046



8/22/19

"General Decision Number: TX20190231 08/02/2019

Superseded General Decision Number: TX20180280

State: Texas

Construction Type: Building

County: Bexar County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the

Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019
1	01/18/2019
2	08/02/2019

ASBE0087-014 01/01/2018

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (Duct, Pipe and Mechanical System Insulation)....	\$ 22.72	10.02

BOIL0074-003 01/01/2017

	Rates	Fringes
BOILERMAKER.....	\$ 28.00	22.35

* ELEC0060-003 06/01/2019

	Rates	Fringes
ELECTRICIAN (Communication Technician Only).....	\$ 22.55	9%+5.45

* ELEC0060-004 07/01/2019

	Rates	Fringes
ELECTRICIAN (Excludes Low		

Voltage Wiring).....\$ 28.60 20%+5.45

ELEV0081-001 01/01/2019

 Rates Fringes

ELEVATOR MECHANIC.....\$ 40.57 33.705

FOOTNOTES:

A. 6% under 5 years based on regular hourly rate for all hours worked. 8% over 5 years based on regular hourly rate for all hours worked.

B. Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Friday after Thanksgiving Day; Christmas Day; and Veterans Day.

ENGI0450-002 04/01/2014

 Rates Fringes

POWER EQUIPMENT OPERATOR

 Cranes.....\$ 34.85 9.85

IRON0066-013 09/01/2018

 Rates Fringes

IRONWORKER, STRUCTURAL.....\$ 22.05 6.73

IRON0084-011 06/01/2018

 Rates Fringes

IRONWORKER, ORNAMENTAL.....\$ 23.77 7.12

* PLUM0142-009 07/01/2017

	Rates	Fringes
HVAC MECHANIC (HVAC Electrical Temperature Control Installation Only).....	\$ 30.25	13.36
HVAC MECHANIC (HVAC Unit Installation Only).....	\$ 30.25	13.36
PIPEFITTER (Including HVAC Pipe Installation).....	\$ 30.25	13.36
PLUMBER (Excludes HVAC Pipe Installation).....	\$ 30.25	13.36

SFTX0669-002 04/01/2017

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 29.03	15.84

* SHEE0067-004 06/01/2019

	Rates	Fringes
Sheet metal worker Excludes HVAC Duct Installation.....	\$ 26.81	16.80
HVAC Duct Installation Only.	\$ 26.81	16.80

SUTX2014-006 07/21/2014

	Rates	Fringes
BRICKLAYER.....	\$ 22.15	0.00

CARPENTER (Acoustical Ceiling

Installation Only).....\$ 17.83	0.00
CARPENTER (Form Work Only).....\$ 13.63	0.00
CARPENTER, Excludes Acoustical Ceiling Installation, Drywall Hanging, Form Work, and Metal Stud Installation.....\$ 16.86	4.17
CAULKER.....\$ 15.00	0.00
CEMENT MASON/CONCRETE FINISHER...\$ 22.27	5.30
DRYWALL FINISHER/TAPER.....\$ 13.81	0.00
DRYWALL HANGER AND METAL STUD INSTALLER.....\$ 15.18	0.00
ELECTRICIAN (Low Voltage Wiring Only).....\$ 20.39	3.04
IRONWORKER, REINFORCING.....\$ 12.27	0.00
LABORER: Common or General.....\$ 10.75	0.00
LABORER: Mason Tender - Brick...\$ 11.88	0.00
LABORER: Mason Tender - Cement/Concrete.....\$ 12.00	0.00
LABORER: Pipelayer.....\$ 11.00	0.00
LABORER: Roof Tearoff.....\$ 11.28	0.00
LABORER: Landscape and Irrigation.....\$ 8.00	0.00

OPERATOR:		
Backhoe/Excavator/Trackhoe.....	\$ 15.98	0.00
OPERATOR: Bobcat/Skid		
Steer/Skid Loader.....	\$ 14.00	0.00
OPERATOR: Bulldozer.....	\$ 14.00	0.00
OPERATOR: Drill.....	\$ 14.50	0.00
OPERATOR: Forklift.....	\$ 12.50	0.00
OPERATOR: Grader/Blade.....	\$ 23.00	5.07
OPERATOR: Loader.....	\$ 12.79	0.00
OPERATOR: Mechanic.....	\$ 18.75	5.12
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 16.03	0.00
OPERATOR: Roller.....	\$ 12.00	0.00
PAINTER (Brush, Roller and Spray), Excludes Drywall Finishing/Taping.....	\$ 13.07	0.00
ROOFER.....	\$ 12.00	0.00
TILE FINISHER.....	\$ 11.32	0.00
TILE SETTER.....	\$ 14.94	0.00
TRUCK DRIVER: Dump Truck.....	\$ 12.39	1.18
TRUCK DRIVER: Flatbed Truck.....	\$ 19.65	8.57

TRUCK DRIVER: Semi-Trailer

Truck.....\$ 12.50 0.00

TRUCK DRIVER: Water Truck.....\$ 12.00 4.11

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that

classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

STATEMENT OF BIDDER'S EXPERIENCE

**Multiple Sewershed Package 10B - Open Cut
SAWS Job No. 18-4542
SAWS Solicitation No. CO-00285**

A. Please complete **all** the fields below.

If all fields are not completed, the Bid may be at risk for being rejected due to non-responsiveness. It is not acceptable to indicate "See attached".

Project A-1 is to have been completed by the Bidder.

- Project A-1 demonstrates construction of a minimum of 1,000 LF by Open Cut construction for sanitary sewer mains 8-inches and greater.
- Project A-1 demonstrates replacement of mains in urban locations.
- Project A-1 was completed between 2014 and 2019.

Project A-1 Description

Name of Project: _____ Location: _____

Scope of Work: _____

Pipe Sizes: _____ Pipe Lengths: _____

Owner Name: _____ Owner Title: _____

Owner Phone Number: _____ Bid Amount: _____

Final Contract Amount: _____

Project Start Date: _____ Project End Date: _____

Additional Information: _____

If all fields are not completed, the Bid may be rejected due to non-responsiveness.

It is not acceptable to indicate "See at tached".

Project A-2 is to have been completed by the Bidder.

- Project A-2 demonstrates construction of a minimum of 1,000 LF by Open Cut construction for sanitary sewer mains 8-inches and greater.
- Project A-2 demonstrates replacement of mains in urban locations.
- Project A-2 was completed between 2014 and 2019.

Project A-2 Description

Name of Project: _____ Location: _____

Scope of Work: _____

Pipe Sizes: _____ Pipe Lengths: _____

Owner Name: _____ Owner Title: _____

Owner Phone Number: _____ Bid Amount: _____

Final Contract Amount: _____

Project Start Date: _____ Project End Date: _____

Additional Information: _____

If all fields are not completed, the Bid may be rejected due to non-responsiveness.
It is not acceptable to indicate "See at tached".

Project A-3 is to have been completed by the Bidder.

- Project A-3 demonstrates construction of a minimum of 1,000 LF by Open Cut construction for sanitary sewer mains 8-inches and greater.
- Project A-3 demonstrates replacement of mains in urban locations.
- Project A-3 was completed between 2014 and 2019.

Project A-3 Description

Name of Project: _____ Location: _____

Scope of Work: _____

Pipe Sizes: _____ Pipe Lengths: _____

Owner Name: _____ Owner Title: _____

Owner Phone Number: _____ Bid Amount: _____

Final Contract Amount: _____

Project Start Date: _____ Project End Date: _____

Additional Information: _____

Special Conditions

SC 1.0 - PROJECT REQUIREMENTS

Contractor shall submit a completion report to SAWS when construction is completed. The completion report shall include but not limited to the following:

Pre and post MPEG-1 format and written to CD/DVD video and video logs.

Any test and/or submittals specified in this contract documents such as density tests, structural properties, etc. that are required.

SC 1.1 - PERFORMANCE TIME

PROJECT LOCATION: There are two (2) Project Locations as part of this construction package. Leigh St. (Labor St. to Mount Zion Walk) and Devine St. (Labor St. to Dead End) are each identified as a "Project Location".

- I. Multiple project locations shall be under construction concurrently. Final completion of all project locations shall be achieved in **225** calendar days. Project locations may be completed in any order at Contractor's discretion. Order of construction shall be reflected in project detailed baseline schedule.
- II. After substantial completion has been achieved for a project location, final completion must be completed within 20 days. The Contractor is required to provide the SAWS Inspector and the Engineer final redlines before the project locations can qualify for final completion. Substantial completion is when all work has been completed, tested, and the water and sewer system has been accepted for service. Final completion is declared when the final punch list is approved by SAWS, all infrastructure is in the ground, and final pavement and surface restoration is completed.

SC 1.2 - SPECIFICATIONS

All work performed shall be in accordance with the current Contract Documents and San Antonio Water System Specifications for Water and Sanitary Sewer Construction dated April 2014 and updated 2017 Specifications, these Special Conditions, the current Texas Department of Transportation Standard Specification for Construction of Highways, Streets, and Bridges, the current City of San Antonio Standard Specifications for Public Work Construction, City of San Antonio Utility Excavation Criteria Manual, or Standard Specifications of any other governing jurisdiction that may apply, and any requirements or specifications specified or referenced therein.

SC 1.3 - PAYMENT

- I. As specified in the Contract Documents unit price cost for the items bid shall include all the necessary and incidental work as subsidiary to the bid item, unless specifically called out in the plans or approved by SAWS. Pay items indicating no separate or additional pay for incidental, related, associated or other work will take precedence if in conflict with other pay provisions. If no pay item is included for any stipulated item, it will be considered as subsidiary to other pay items.

- II. It is the Contractor's responsibility for the preparation, research, submittal and layout of the site specific submittals, including the Storm Water Pollution Prevention Plan, Traffic Control Plan, the Bypass Pumping Plan, and its approvals at no cost to SAWS. If no pay item is included for any stipulated item, it will be considered as subsidiary to other pay items. There will be no measurement or payment for the Storm Water Pollution Prevention Plan or Tree Preservation Protection Permit or work.
- III. There will be no measurement or payment for insurance; bonding; and permitting costs on this contract. There will be no separate payment for temporary or permanent fencing, with all related costs included in the item to which it pertains. Clearing and grubbing or tree pruning will be paid under Item 101 – Preparing Right-of-Way.

SC-1.4 PERMITS

- I. A TxDOT Permit will be required for the project location located within TxDOT Right-of-Way (ROW). Contractor may not proceed with work within TxDOT ROW until a TxDOT permit has been obtained.
- II. Contractor shall provide SAWS with a minimum of 45 days advanced notice of when work is to commence on the TxDOT ROW Worksite. This will allow time for SAWS to secure required TxDOT permits for the Worksite.
- III. The Contractor shall meet with the SAWS Inspector, City Inspector and assigned TxDOT inspector two weeks prior to commencing construction on each project location requiring a TxDOT or City permit.

CONSENT DECREE NOTICE PROVISION

The San Antonio Water System (“SAWS”), the United States of America and the State of Texas have entered into a Consent Decree in Civil Action No. 5:13-cv-00666- DAE, United States of America and State of Texas v. San Antonio Water System, in the United States District Court for the Western District of Texas, San Antonio Division (the “Consent Decree”). A copy of the Consent Decree is available at

<http://www.saws.org/Infrastructure/EPA/download.cfm>

Work performed pursuant to this contract is work that SAWS is required to perform pursuant to the terms of the Consent Decree. In the event of any conflict between the terms and provisions of this Consent Decree Notice Provision and any other terms and provisions of this Contract or the Contract Documents, the terms and provisions of this Consent Decree Notice Provision shall prevail.

A. Retention of documents.

Contractor shall retain and preserve all non-identical copies of all documents, reports, research, analytical or other data, records or other information of any kind or character (including documents, records, or other information in electronic form including, but not limited to e-mails) in its or its sub-contractors' or agents' possession or control, or that come into its or its sub-contractors' or agents' possession or control, and that relate in any manner to this contract, or the

performance of any work described in this contract (the “Information”). This retention requirement shall apply regardless of any contrary corporate or institutional policy or procedure or legal requirement. Contractor, Contractor’s sub-contractors and agents shall retain and shall not destroy any of the Information until such time as Contractor has received written approval from the General Counsel of SAWS that the Information or any part of the Information may be destroyed. Contractor shall, within 30 days after receipt of a written request by SAWS, deliver the Information to SAWS. Contractor shall instruct and require its agents and sub-contractors performing any part of the work described in this contract to comply with the requirements of this paragraph.

B. Notification of events that may cause delay.

If any event occurs that may delay performance by Contractor, or Contractor’s agents or sub-contractors of any work or obligation of any kind under this contract, Contractor shall provide notice in accordance with the Notice Provisions of this contract to SAWS within two (2) business days of the date Contractor or Contractor’s agents or sub-contractors first knew that the event might cause a delay. Contractor shall provide a written explanation and description of the reasons for the delay, the anticipated duration of the delay, all actions taken or to be taken to prevent or minimize the delay, and a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay. **TIME IS OF THE ESSENCE** in the performance of the requirements of this paragraph and of any work to be performed by the Contractor in this contract.

C. Liability for stipulated penalties.

The Consent Decree provides that the United States of America, the United States Environmental Protection Agency and the State of Texas may assess stipulated penalties against SAWS upon the occurrence of certain events. To the extent that Contractor or Contractor’s agents or sub-contractors cause or contribute to, in whole or in part, the assessment of any stipulated penalty against SAWS, Contractor agrees that it shall pay to SAWS the full amount of any stipulated penalty assessed against and paid by SAWS that is caused or contributed to in whole or in part by any action, failure to act, or failure to act within the time required by any provision of this contract. Contractor shall also pay to SAWS all costs, attorney fees, expert witness fees and all other fees and expenses incurred by SAWS in connection with the assessment or payment of any such stipulated penalties, or in contesting the assessment or payment of any such stipulated penalties. In addition to any and all other remedies to which SAWS may be entitled at law or in equity, Contractor expressly authorizes SAWS to withhold all amounts assessed and paid as stipulated penalties, and all associated costs, fees, or expenses from any amount unpaid to Contractor under the terms of this contract, or from any retainage provided in the contract.

BID PROPOSAL

PROPOSAL OF _____, a corporation
a partnership consisting of _____
an individual doing business as _____

THE SAN ANTONIO WATER SYSTEM:

Pursuant to Instructions and Invitation to Bidders, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the project as specified, in accordance with the Plans and Specifications for the following prices in the bid proposal to wit:

PLEASE SEE ATTACHED LIST OF BID ITEMS.

BIDDER'S SIGNATURE & TITLE

FIRM'S NAME (TYPE OR PRINT)

FIRM'S ADDRESS

FIRM'S PHONE NO. /FAX NO.

FIRM'S EMAIL ADDRESS

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 **225** 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 Bid Proposal which are included on the following pages.

BID PROPOSAL LINE ITEMS

Item No.	Spec. No.	Description	Unit	Quantity	Unit Price	Total Price
1	103.1	REMOVE CONCRETE CURB	LF	258	\$	\$
2	103.3	REMOVE SIDEWALKS, DRIVEWAYS, AND RETAINING WALLS	SF	1551	\$	\$
3	203.1	TACK COAT	GAL	954	\$	\$
4	205.2	HOT MIX ASPHALTIC PAVEMENT, TYPE B (10" COMPACTED DEPTH)	SY	1162	\$	\$
5	205.4	HOT MIX ASPHALTIC PAVEMENT, TYPE D (2" COMPACTED DEPTH)	SY	9545	\$	\$
6	208.1	SALVAGING, HAULING, AND STOCKPILING RECLAIMABLE ASPHALTIC PAVEMENT (2")	SY	9545	\$	\$
7	413	FLOWABLE FILL	CY	195	\$	\$
8	500.1	CONCRETE CURB	LF	258	\$	\$
9	502.1	CONCRETE SIDEWALK	SY	129	\$	\$
10	503.1	PORTLAND CEMENT CONCRETE DRIVEWAY	SY	40	\$	\$
11	506.1	CONCRETE RETAINING WALLS	CY	1.50	\$	\$
12	550	TRENCH EXCAVATION SAFETY PROTECTION	LF	2632	\$	\$
13	804	COSA TREE PROTECTION	LS	1	\$	\$
14	SP-818	WATER LINE ADJUSTMENTS	LS	1	\$	\$
15	848	8" PVC GRAVITY SANITARY SEWER PIPE (SDR 26-2241, 160 PSI) (ALL DEPTHS)	LF	5	\$	\$
16	848	12" PVC GRAVITY SANITARY SEWER PIPE (SDR 26-2241, 160 PSI) (ALL DEPTHS)	LF	2627	\$	\$
17	851	ADJUSTING EXISTING MANHOLE (W/ NEW RING AND COVER)	EA	3	\$	\$
18	852	SANITARY SEWER MANHOLES (0'-6' DEPTH)	EA	8	\$	\$
19	852	EXTRA DEPTH MANHOLES (GREATER THAN 6')	VF	9	\$	\$
20	854	SANITARY SEWER LATERALS, (SDR 26, ASTM 2241, 160 PSI)	LF	1270	\$	\$
21	854	TWO-WAY SANITARY SEWER CLEAN-OUT	EA	60	\$	\$
22	858	CONCRETE ENCASEMENT, CRADLES, SADDLES AND COLLARS	CY	29.75	\$	\$
23	860	VERTICAL STACKS	VF	9	\$	\$
24	862	ABANDONMENT OF SANITARY SEWER MAINS (8")	LF	405	\$	\$
25	862	SEWER MAIN REMOVAL (8")	LF	274	\$	\$

Item No.	Spec. No.	Description	Unit	Quantity	Unit Price	Total Price
26	866	PRE SEWER MAIN TELEVISION INSPECTION (8"-15")	LF	2632	\$	\$
27	866	POST SEWER MAIN TELEVISION INSPECTION (8"-15")	LF	2632	\$	\$
28	910.1	MANHOLE REHABILITATION	VF	32	\$	\$
29	SS3300	SANITARY SEWER PRIVATE LATERAL (4"-6") (INCLUDING COSA PERMIT AND LICENSED PLUMBER)	LF	20	\$	\$
30	530.1	BARRICADES, SIGNS, AND TRAFFIC HANDLING	EA	1	\$	\$
31	864-S1	BYPASS PUMPING (SMALL DIAMETER)	LS	1	\$	\$
SUBTOTAL (ITEMS 1 - 31)					\$	

100	MOBILIZATION AND DEMOBILIZATION, MAX 10% OF LINE ITEMS 1 - 31		LS	1	\$	\$
101	PREPARATION OF RIGHT-OF-WAY, MAX 5% OF LINE ITEMS 1 - 31		LS	1	\$	\$

Mobilization and Prep of ROW shall be limited to the maximum percentage shown. **If the percentage 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 PRICE					\$	
(TO INCLUDE LINE ITEMS 1 - 31 AND 100 - 101)						

PROPOSAL CERTIFICATION

Accompanying this proposal is a Bid Bond or Certified or Cashier's Check payable to the Order of the San Antonio Water System for _____ dollars (\$_____), which amount represents five percent (5%) of the total bid price. Said bond or check is to be returned to the bidder unless the proposal is accepted and the bidder fails to execute and file a contract within **10** calendar days after the award of the Contract, in which case the check shall become the property of said San Antonio Water System, and shall be considered as payment for damages due to delay and other inconveniences suffered by said San Antonio Water System due to the failure of the bidder to execute the contract. The San Antonio Water System reserves the right to reject any and all bids.

It is anticipated that the Owner will act on this proposal within **60** calendar days after the bid opening. Upon acceptance and award of the contract to the undersigned by the Owner, the undersigned shall execute standard San Antonio Water System Contract Documents and make Performance and Payment Bonds for the full amount of the contract within **10** calendar days after the award of the Contract to secure proper compliance with the terms and provisions of the contract, to insure and guarantee the work until final completion and acceptance, and the guarantee period stipulated, and to guarantee payment of all lawful claims for labor performed and materials furnished in the fulfillment of the contract.

It is anticipated that the Owner will provide written Authorization to Proceed within **30** days after the award of the contract.

The work called for in this Contract shall commence on the date indicated in the SAWS written Authorization to Proceed. Under no circumstances shall the work commence prior to the date provided for in the SAWS issued, written Authorization to Proceed. Work shall be completed in full within **225** consecutive calendar days.

The undersigned further acknowledges compliance with "Wage and Labor Standard Provisions" of this contract and the use of the Blue Book rental rates for establishment of equipment rental rates whether owned or leased during the course of this Contract.

In completing the work contained in this proposal the undersigned certifies that bidder's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin and that the bidder will affirmatively cooperate in the implementation of these policies and practices.

Signed: _____
Company Representative

Company Name

Address

Please return bidder's check to:

Company Name

Address

Report Date 08/13/2019 08:19 AM

Submitted By

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A/P # 2508954

Application Information

Stages

	Date / Time	By		Date / Time	By
Processed	08/02/2019 09:56	138742	Temp COO		
Issued	08/13/2019 08:13	138742	COO		
Final			Expires		

Associated Information

Type of Work	NEW	NEW	# Plans	0
Dept of Commerce	COMMER COMMERCIAL CONSTRUCTION		# Pages	0
Priority		Auto Reviews	Bill Group	
Square Footage	0.00	Name	CIP SAWS MULTI SEWERSHED 10B	

Valuation

Declared Valuation	0.00
Calculated Valuation	0.00
Actual Valuation	0.00

Description of Work

AP #2508954 // SAWS Multiple Sewershed 10B // A2 // ICL // 7/16/2019 // CGJ

TREE SURVEY PERMIT

// AP #2508954 // SAWS Multiple Sewershed Package 10B // A2 // ICL // 8/13/2019 / CGJ

STATUS: APPROVED

THIS PERMIT IS FOR TREE REMOVAL ONLY

//PLEASE SEE COMMENTS BELOW

Prior to commencement of any activities requiring a tree permit, the applicant shall schedule a pre-construction meeting with the City Arborist to review procedures for protection and management of all significant, heritage or mitigation trees (Can be scheduled with tree fencing inspection).

Call 210-207-1111 to schedule an in-field pre-construction & fencing inspection (per Section 35-477 of the UDC, subsection tree permits (5)(C). Failure to schedule a fencing inspection prior to the start of work may result in a Stop Work Order, a penalty of \$2000.00, or both. Referenced the AP# associated with the approved permit. It shall be the responsibility of the permit holder to maintain a copy of the approved tree plans, approved tree permit and the conditions of approval imposed by the city arborist readily available at the site at all times during which authorized work is in progress.

Failure to schedule a fencing inspection prior to start of work may result in a stop work order or a penalty of \$1000.00 or both. (section 35-523 of the udc, subsection (k)(2) the barrier shall be in place before any site work is initiated and maintained throughout the construction process)

35-477 (h) Amendments. Notification and approval of the city arborist are required if changes need to be made to an approved tree preservation plan. Approval of the changes must be received from the city arborist, in writing, before commencement of any work that is the subject of the change or field adjustment. Failure to comply with this requirement may result in a Stop Work Order, a penalty of \$2000.00, or both.

// GENERAL NOTES, TERMS, AND CONDITONS:

Approval valid for 180 days (per UDC Chapter 35-477 (i) (2) (note: for A-3's & site work permits for tree removal only)

Contractor is responsible for providing a licensed Tree Maintenance Professional throughout the project per City of San Antonio Ordinance Article VIII Sec. 21-171. Staging, Parking, Storage, Employee Parking, etc.,:

- 1)All construction access and staging areas will need to be surveyed and associated tree impacts will need to be accounted for in the preservation plan.
- 2)Staging, parking, and material storage areas and project limits of clearance must be discussed and approved with the inspector during the pre-construction/fencing inspection.
- 3)35-523 (k) (5) All offsite staging, storage, project trailers, employee parking, etc. are required to obtain and comply with a Temporary Uses Certificate of Occupancy.
- 4)No equipment, vehicles or materials shall operate or be stored within the root protection zone of any tree near the project.

35-477 (j) It shall be the responsibility of the permit holder to maintain a copy of the tree permit, the data and drawings required by this section, and the conditions of approval imposed by the City Arborist readily available at the site at all times during which the authorized work is in progress.

35-523 (k) (4) All broken branches & exposed roots 2" in diameter or greater of Significant, Heritage or mitigation trees shall be cut cleanly. For oak species, in order to prevent oak wilt infection, wounds must be painted within 30 min.

21-170 (b) All wounds to the trunk, limbs, and root system of oak trees in the city that expose sapwood shall be painted within 30 min. of the wound with asphaltic, exterior oil or latex based paint.

35-511 (e) A protective barrier, beginning at the outside of the dripline of the tree, to protect the root protection zone shall be erected and maintained until construction is completed.

Report Date 08/13/2019 08:19 AM

Submitted By

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35-523 (k) (2) The barrier shall be in place before any site work is initiated and maintained throughout the construction process.

35-477 (5) (c) A pre-construction meeting is required to review procedures for protection and management of all significant, heritage or mitigation trees. This can be scheduled with the Fencing Inspection, 210-207-1111. Reference AP # provided above.

35-523 (j) (1) Root Protection Zone:

- 1) A root protection zone must be established around the trunk of each tree preserved or mitigation tree. The root protection zone shall be an area defined by an average radius extending outward from the trunk of the tree a distance of one (1) linear foot for each inch (DBH).
- 2) The root protection zone area shall be preserved at natural grade, with natural groundcover.
- 3) No cutting, filling, trenching, root disturbance, soil disturbance, or construction impacts shall occur closer to the trunk than one-half (?) the root protection zone radius except in parking areas where approved alternative materials and methods are used, construction may be as close as five (5) feet from the root flares on one (1) side of the tree. The impervious cover may encroach within the root protection zone if said encroachment is approved by the city arborist.
- 4) Filling shall be allowed to accomplish water conservation goals established by the City of San Antonio or by a public utility.

Please forward a copy to the contractor on site with a copy of the plat or plan (if applicable) for posting on site. A copy of the approved permit and plan must be on site during site work.

// IF YOU HAVE ANY QUESTIONS, PLEASE FEEL FREE TO CONTACT ME AT CHARLES.JOHNSON2@SANANTONIO.GOV OR (210) 207-0170.

Parent A/P #	Project #	Project/Phase Name	Phase #
Size/Area	Size Description		

Fees	Status	Paid Date	Amount
TREE CANOPY - COMMERCIAL	P	07/30/2019 11:08	25.00
AFFIDAVIT FEE COMMERCIAL TREE PRESERV	P	07/30/2019 11:08	175.00
REVIEW FEE COMMERCIAL TREE PRESERVATION	P	07/30/2019 11:08	100.00
Total Unpaid		0.00	Total Paid 300.00

Check Conditions	Approval	Approved By	Approved Date	Applied By	Applied Date	Assigned
Condition	Supervisor Required	Comments				

No Conditions

Employee	Last	First	MI	Comments
Employee ID				

No Employee Entries

Log	Description	Entered By	Start	Stop	Hours
Action	Comments				

No Log Entries

SAWS GENERAL CONSTRUCTION NOTES

GENERAL SECTION

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:

- A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290.
- B. CURRENT TxDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE."
- C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION."
- D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR CONSTRUCTION."
- E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).

2. THE CONTRACTOR SHALL OBTAIN SAWS STANDARD DETAILS FROM SAWS WEBSITE, [HTTP://WWW.SAWS.ORG/BUSINESS_CENTER/SPECS](http://www.saws.org/business_center/specs). UNLESS OTHERWISE NOTED WITHIN DESIGN PLANS.

3. THE CONTRACTOR IS TO NOTIFY AND MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT 210-233-3500, AND PROVIDE NOTIFICATION PROCEDURES THE CONTRACTOR WILL USE TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS 72 HOURS PRIOR TO EXCAVATION.

4. LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.

5. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:

SAN ANTONIO WATER SYSTEM:
SAWS UTILITY LOCATES: [HTTP://WWW.SAWS.ORG/SERVICE/LOCATES](http://www.saws.org/service/locates)

COSA DRAINAGE 210-206-8433
COSA TRAFFIC SIGNAL OPERATIONS 210-207-7720
TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION AS A RESULT OF DAMAGES DONE BY THE PROJECT'S CONSTRUCTION.

7. ALL WORK IN TEXAS HIGHWAY DEPARTMENT AND BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT.

8. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.

9. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.

10. ANY WORK COMPLETED WITHOUT PRIOR WRITTEN AUTHORIZATION WHICH IS NOT INCLUDED IN THESE PLANS AND SPECIFICATIONS WILL NOT BE COMPENSATED BY THE SAN ANTONIO WATER SYSTEM.

11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.

WEEKEND WORK: CONTRACTORS ARE REQUIRED TO NOTIFY THE SAWS INSPECTION CONSTRUCTION DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST WEEKEND WORK. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.

ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT HOLIDAY/WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION.

12. PRE CON SITE VIDEO: BEFORE THE START OF ANY CONSTRUCTION. THE SITE MUST BE VIDEO RECORDED BY THE CONTRACTOR WITH ONE COPY SUBMITTED TO SAWS INSPECTIONS. A PRE-SITE VIDEO WILL PROVIDE ACCURATE DOCUMENTATION OF THE EXISTING CONDITIONS (NSPI).

13. POWER POLE BRACING: CONTRACTORS SHOULD BE ADVISED THAT THERE ARE EXISTING OVERHEAD UTILITY POLES ALONG THE PROJECT CORRIDOR. CONTRACTORS SHOULD FURTHER BE ADVISED THAT IF THE DISTANCE FROM THE OUTSIDE FACE OF A UTILITY TRENCH TO THE FACE OF A UTILITY POLE IS LESS THAN 5 FEET, SAID UTILITY POLE IS SUBJECT TO BRACING, BASED ON A DETERMINATION MADE BY UTILITY POLE OWNER. COSTS INCURRED BY CONTRACTOR FOR BRACING OF THESE UTILITY POLES IS SUBSIDIARY TO THAT RESPECTIVE UTILITY COMPANY'S WORK. IT IS ADVISABLE FOR THE CONTRACTOR TO REVIEW THE CONSTRUCTION DOCUMENTS, AND VISIT THE CONSTRUCTION SITE TO DETERMINE POTENTIAL IMPACTS.

14. CONSTRUCTION SEQUENCING: IT IS THE CONTRACTOR SOLE RESPONSIBILITY TO SCHEDULE SEQUENCING FOR REMOVAL AND INSTALLATION OF EXISTING AND PROPOSED SAWS UTILITIES IN CONJUNCTION WITH GENERAL PROJECT CONSTRUCTION. SEQUENCE OF CONSTRUCTION ACTIVITIES SHALL BE CONSIDERED IN ORDER TO MINIMIZE THE EXTENT AND DURATION OF DISTURBANCES.

SEWER SECTION:

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THEIR WORK. ALL CONTRACTOR PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND CONTROL SHALL BE TRAINED ON PROPER RESPONSE. SHOULD AN SSO OCCUR, THE CONTRACTOR SHALL:

- A. IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER (EOC) IMMEDIATELY AT 210-704-SAWS (210-704-7297). PROVIDE THE ADDRESS OF THE SPILL AND AN ESTIMATED VOLUME OR FLOW.
- B. ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO.
- C. CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE CONTAMINATION OF WATERWAYS.
- D. CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE COLLECTION SYSTEM IF POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS.
- E. CLEAN THE AFFECTED SEWER MAINS AND REMOVE ANY DEBRIS.
- F. MEET ALL POST-SSO REQUIREMENTS AS PER THE EPA CONSENT DECREE, INCLUDING LINE CLEANING AND TELEVISIONING THE AFFECTED SEWER MAINS (AT SAWS DIRECTION) WITHIN 24 HOURS.

SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA.

NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TCEQ AND SAWS.

2. THE CONTRACTOR SHALL PROVIDE BYPASS PUMPING OF SEWAGE AROUND EACH SEGMENT OF PIPE TO BE REPLACED, IN ACCORDANCE WITH SAWS SPECIAL SPECIFICATION ITEM NO. 864-S1, "BYPASS PUMPING SMALL DIAMETER SANITARY SEWERS" AND ITEM NO. 864-S2, "BYPASS PUMPING LARGE DIAMETER SANITARY SEWERS". PAYMENT FOR SUCH WORK WILL BE MADE UNDER THE BID ITEM "SANITARY SEWER (BYPASS PUMPING)" (LUMP SUM) AS PER SAWS SPECIAL SPECIFICATION.

3. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT 210-233-3500 AND/OR SAWS PRODUCTION GROUPS AT LEAST ONE WEEK OR MORE IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.

4. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ALLOWANCES AND ADJUSTMENTS FOR TOP OF MANHOLES TO MATCH THE FINISHED GRADE OF THE PROJECT'S IMPROVEMENTS (NSPI).

5. SMART MANHOLE COVERS: THE CONTRACTOR SHALL NOTIFY JUAN C. RAMIREZ AT 210-233-3558 AND SAWS EOC AT 210-704-SAWS (210-233-7297) A MINIMUM OF 72 HOURS, NOT COUNTING WEEKENDS OR SAWS HOLIDAYS, BEFORE WORKING ON THE PIPE OR MANHOLE, IN ORDER TO HAVE SAWS REMOVE THE SMART COVER. ANY DAMAGE DONE TO THE SMART COVER WILL BE CHARGED TO THE CONTRACTOR THROUGH A CHANGE ORDER.

CPS ENERGY NOTES:

1. DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

2. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING CPS OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES IF ADJACENT TO WORK AREA.

3. THE CONTRACTOR IS RESPONSIBLE FOR EXPOSING ALL GAS CROSSINGS PRIOR TO EXCAVATIONS (NSPI).

NOTES:

1. TRENCH EXCAVATION SAFETY PROTECTION SHALL BE ACCOMPLISHED AS REQUIRED BY THE MOST RECENT PROVISIONS OF PART 1926, SUBPART P-EXCAVATIONS, TRENCHING AND SHORING OF THE OSHA STANDARDS AND INTERPRETATIONS, AS MAY BE AMENDED.

2. MAINTAIN MINIMUM VERTICAL CLEARANCE OF 2 FT WHERE SEWER MAIN CROSSES EXISTING AND PROPOSED UTILITIES, UNLESS OTHERWISE SHOWN ON PLANS. PROVIDE TEMPORARY SUPPORT OF EXISTING UTILITY AS REQUIRED. WHEN SEWER MAIN PARALLELS WATER MAIN, MAINTAIN MINIMUM 4 FT HORIZONTAL CLEARANCE.

3. SEPARATION DISTANCE BETWEEN PARALLEL WATER MAIN AND SEWER MAINS ARE IN ACCORDANCE WITH SAWS VARIANCES TO SECTIONS OF TCEQ RULES.

4. FLOWABLE FILL TO FOLLOW SAWS STD DD-858-01 DETAIL.

5. ALL TREE WORK SHALL BE PERFORMED BY AN ISA CERTIFIED ARBORIST.

6. CONTRACTOR SHALL INDICATE TO THE CITY OF SAN ANTONIO DSD PROPOSED LIMITS OF CLEARANCE WITH TREES DURING PRE-CONSTRUCTION MEETING AND WITH PROJECT SUBMITTALS.

7. CONTRACTOR SHALL MAINTAIN FLOWS IN EXISTING SEWER MAIN.

8. CONTRACTOR SHALL REMOVE AND REPLACE PAVEMENT, DRIVEWAYS, SIDEWALKS, CURB, FENCES, LANDSCAPING, IRRIGATION SYSTEMS AND OTHER SURFACE FEATURES DAMAGED BY CONSTRUCTION ACTIVITIES TO PRE-EXISTING CONDITIONS OR NEW MATERIAL. SURFACE RESTORATION SHALL BE INCIDENTAL TO SANITARY SEWER LATERALS (NSPI).

9. CONTRACTOR TO FIELD VERIFY FOR CAPPED SANITARY SEWER LATERALS AND CONNECT ACTIVE SERVICE.

10. CONTRACTOR TO PROTECT, SUPPORT, MAINTAIN, AND COORDINATE IN ADVANCE WITH SAWS OPERATIONS AS NEEDED TO SHUT OFF THE WATER MAIN DURING CONSTRUCTION; CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF WATER MAIN IF DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO SAWS.

CITY OF SAN ANTONIO NOTES:

1. ALL LIMITS FOR CURB, SIDEWALK, AND TREE PREP BEYOND WHAT IS CONSIDERED INCIDENTAL TO NORMAL UTILITY CONSTRUCTION WILL BE ADDRESSED BY THE SAWS INSPECTOR. ALL COMMUNICATION FROM THE CITY WILL BE COORDINATED THROUGH THE SAWS INSPECTOR. SAWS INSPECTOR WILL ALSO DETERMINE IF ADDITIONAL COMPENSATION IS WARRANTED IF LIMITS EXCEED INCIDENTALS.

2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN ALL REQUIRED STORM WATER PERMITS, FEES, AND APPROVALS. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PERMITS REQUIRED FOR CONSTRUCTION IN DRAINAGE EASEMENTS, RIGHT-OF-WAYS, AND FLOODPLAINS.

3. THE CONTRACTOR SHALL NOTIFY STORM WATER ENGINEERING AT LEAST 24 HOURS PRIOR TO THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET RIGHT-OF-WAY NOT INDICATED ON THE CONSTRUCTION PLANS.

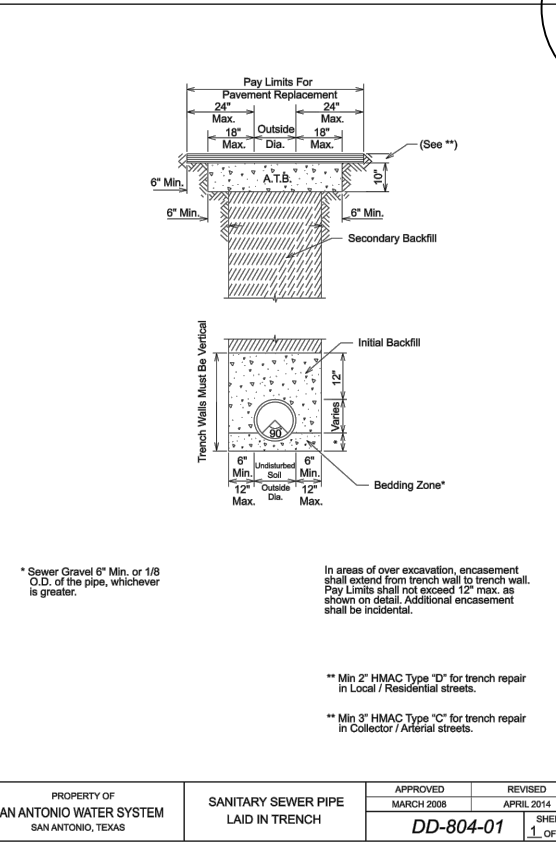
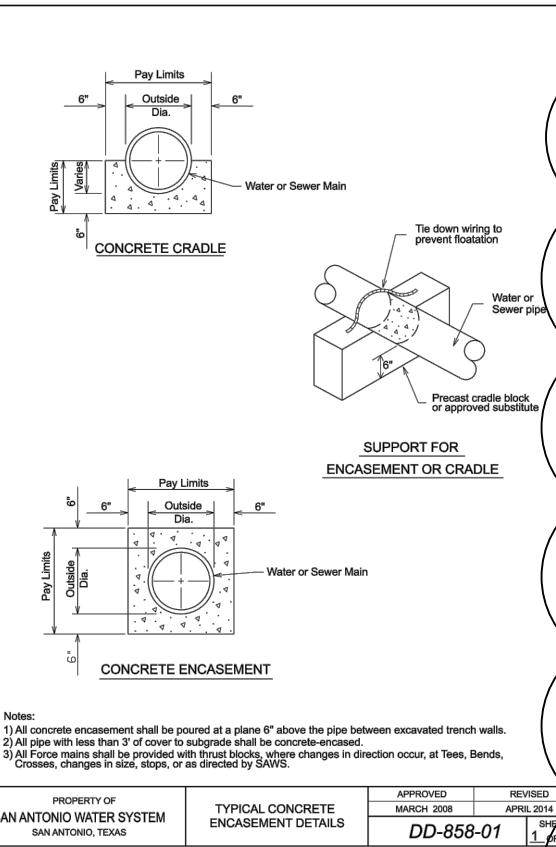
4. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING DRAINAGE FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING DRAINAGE SYSTEMS, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AT HIS EXPENSE. THE CONTRACTOR SHALL NOTIFY STORM WATER ENGINEERING AT 210-206-8433 AS SOON AS CONFLICTS WITH UTILITIES ARE ENCOUNTERED OR ANY DRAINAGE SYSTEM IS DAMAGED DURING CONSTRUCTION.

5. CONSTRUCTION SPOILS WILL NOT BE ALLOWED TO BE DEPOSITED ANYWHERE WITHIN A DRAINAGE EASEMENT, RIGHT-OF-WAY, OR FLOODPLAIN WITHIN THE LIMITS OF THE PROJECT AND SHALL BE DISPOSED OFFSITE IN COMPLIANCE WITH CURRENT APPLICABLE REGULATIONS.

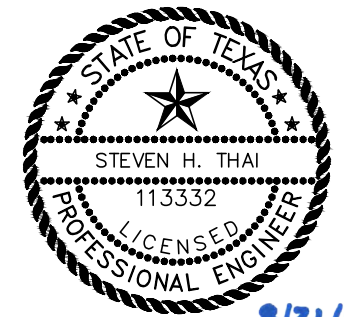
6. NO STRUCTURE, FENCES, WALLS, LANDSCAPING, OR OTHER OBSTRUCTIONS THAT IMPEDE DRAINAGE SHALL BE PLACED WITHIN THE LIMITS OF THE DRAINAGE EASEMENTS SHOWN ON THE CONSTRUCTION DOCUMENTS.

7. UPON COMPLETION OF TRENCHING, THE AREA WILL BE BACKFILLED AND COMPACTED TO ITS ORIGINAL CONDITION. TRENCHES/BORE PITS TO BE OPEN AND UNATTENDED LONGER THAN 24 HOURS SHALL BE PROTECTED TO WITHSTAND ALL HYDRODYNAMIC AND HYDROSTATIC FORCES AND PREVENT DOWNSTREAM IMPACTS. TRENCHES/BORE PITS TO BE OPEN LONGER THAN 30 DAYS AFTER STARTING EXCAVATION SHALL BE BACKFILLED WITH A SEMI-PERMANENT REPAIR BACKFILL.

8. IMPROVED SECTIONS OF EARTHEN CHANNELS AND/OR WATERWAYS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CHANNEL FOR MAINTENANCE.



SPEC NO.	UNIT DESCRIPTION	UNIT	QUANTITY
100	Mobilization (10% Max)	LS	1
101	Preparation of Right-of-Way (5% Max)	LS	1
103.1	Remove Concrete Curb	LF	258
103.3	Remove Sidewalks, Driveways, and Retaining Walls	SF	1551
203.1	Tack Coat	GAL	954
205.2	Hot Mix Asphaltic Pavement, Type B (10" Compacted Depth)	SY	1162
205.4	Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth)	SY	9545
208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2")	SY	9545
413	Flowable Fill	CY	195
500.1	Concrete Curb	LF	258
502.1	Concrete Sidewalk	SY	129
503.1	Portland Cement Concrete Driveway	SY	40
506.1	Concrete Retaining Walls	CY	1.50
530.1	Barricades, Signs, and Traffic Handling	EA	1
550	Trench Excavation Safety Protection	LF	2632
804	COSA Tree Protection	LS	1
SP-818	Water Line Adjustments	LS	1
848	8" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	5
848	12" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	2627
851	Adjusting Existing Manhole (w/ new ring and cover)	EA	3
852	Sanitary Sewer Manholes (0'-6" Depth)	EA	8
852	Extra Depth Manholes (Greater than 6')	VF	9
854	Sanitary Sewer Laterals, (SDR 26, ASTM 2241, 160 psi)	LF	1270
854	Two-Way Sanitary Sewer Clean-out	EA	60
858	Concrete Encasement, Cradles, Saddles and Collars	CY	29.75
860	Vertical Stacks	VF	9
862	Abandonment of Sanitary Sewer Mains (8")	LF	405
862	Sewer Main Removal (8")	LF	274
864-S1	Bypass Pumping (Small Diameter)	LS	1
866	Pre Sewer Main Television Inspection (8"-15")	LF	2632
866	Post Sewer Main Television Inspection (8"-15")	LF	2632
910.1	Manhole Rehabilitation	VF	32
SS3300	Sanitary Sewer Private Lateral (4"-6") (Including CoSA Permit and Licensed Plumber)	LF	20



8/21/19

BGE BGE, Inc.
7330 San Pedro, Suite 202 San Antonio, Tx 78216
Tel: 210-581-3600 • www.bgeinc.com
TBPE Registration No. F-1046

No.	Revision	Drawn	Approved	Date
1	QUANTITY TABLE UPDATE	A.J.C.	S.H.T.	8/21/19

REVISIONS

MULTIPLE SEWERSHED PACKAGE 10B-OPEN CUT

GENERAL CONSTRUCTION NOTES AND QUANTITY SUMMARY

DEVELOPER: _____

CONT. BUDGET PROJ.

SUBMITTED _____

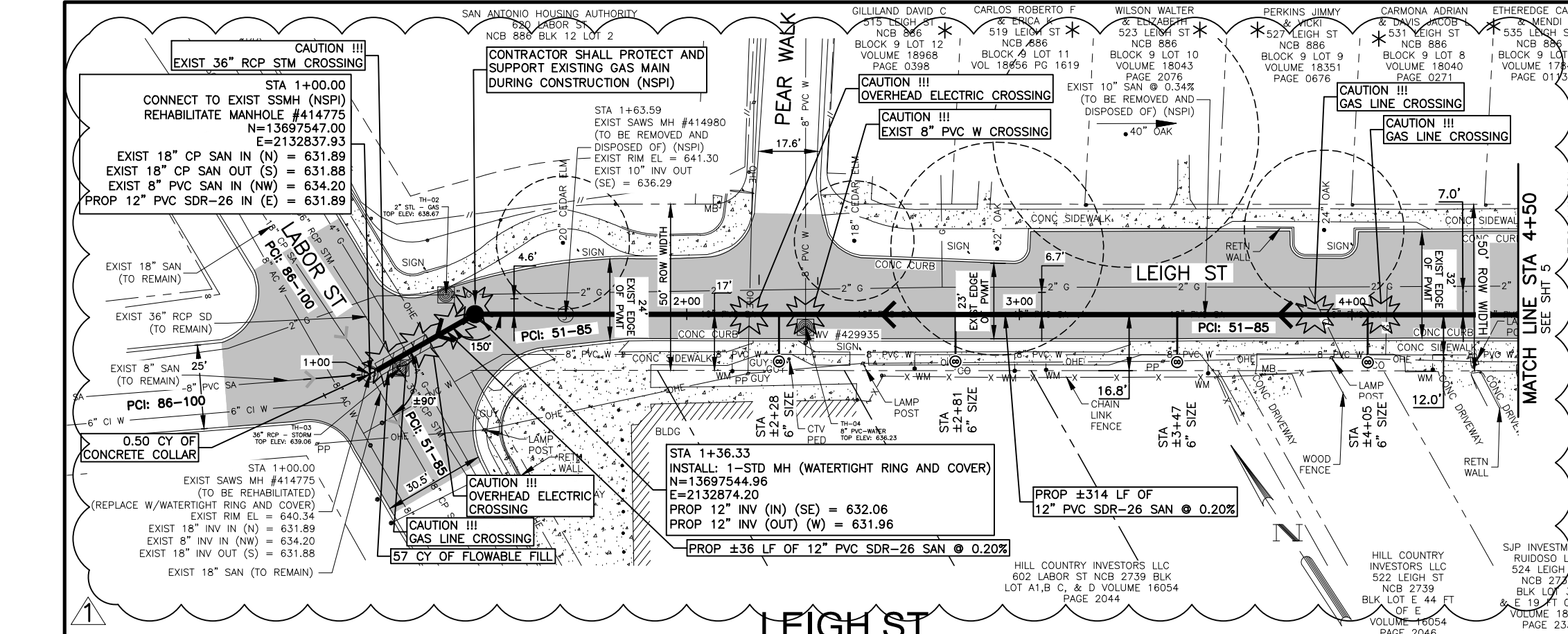
APPROVED _____

MAP No. 164572 SHEET 2

SECT. No. _____ OF 28

DR. CK. JOB No. 18-4542

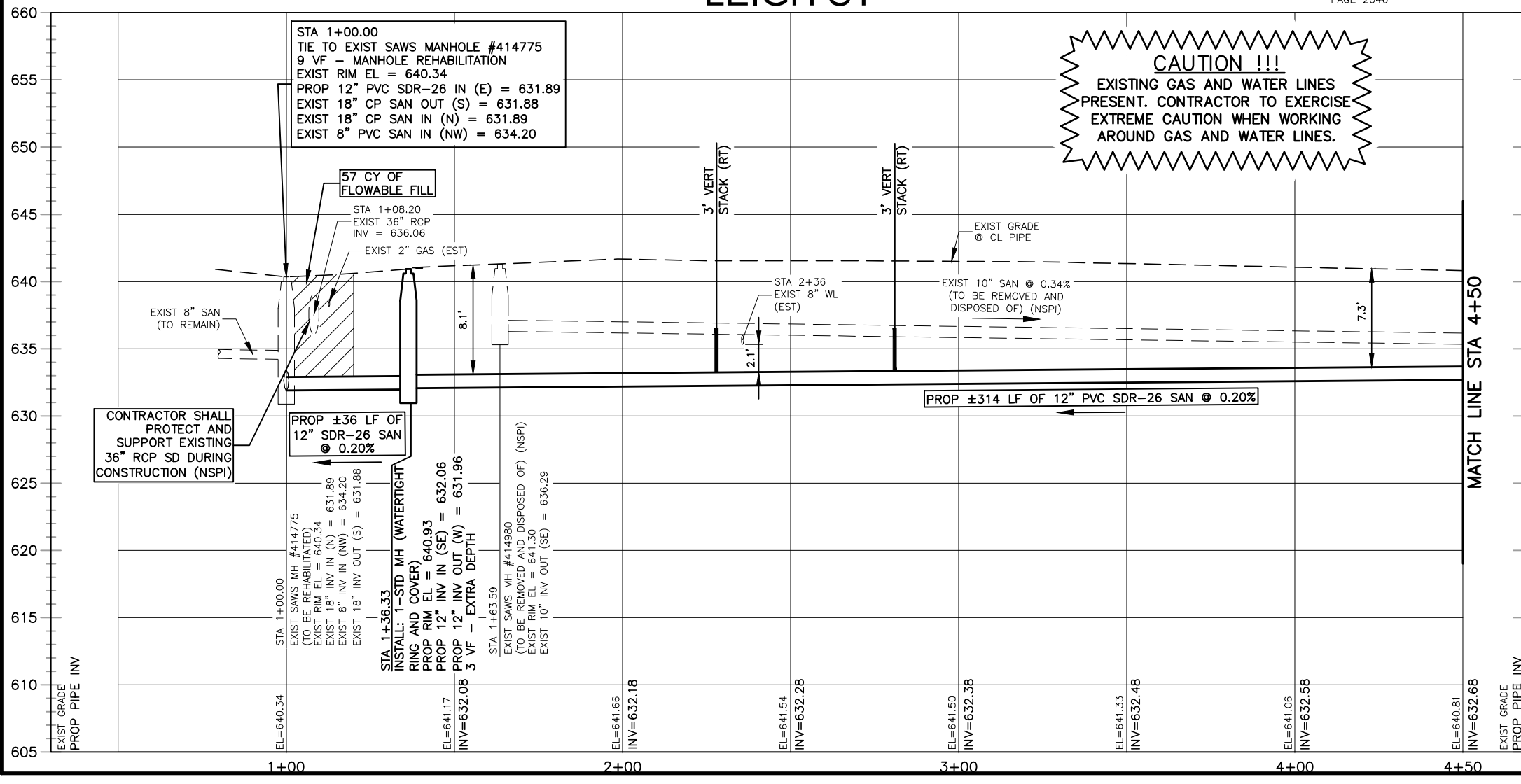
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- ETHEREDGE CALEB NOTES:**
- LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.
 - CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING MAIL BOXES TO ORIGINAL OR BETTER CONDITION IF DAMAGED DURING CONSTRUCTION (NSPI).
 - CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING SEWERLINE AS REQUIRED FOR THE INSTALLATION OF PROPOSED SEWERLINE AND MANHOLES (NSPI).
 - DIMENSIONS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL DIMENSIONS MUST BE FIELD VERIFIED BY THE CONTRACTOR. (NSPI)
 - FLOWABLE FILL ENCASMENT WILL BE REQUIRED ON THE WATER MAIN IF THE SEPARATION BETWEEN THE SEWER LATERAL AND WATER MAIN CROSSING IS LESS THAN ONE (1) FOOT.

TRENCH EXCAVATION SAFETY PROTECTION:
 CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURE/DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OF SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

SPEC NO.	UNIT DESCRIPTION	UNIT	QUANTITY
103.1	Remove Concrete Curb	LF	18
103.3	Remove Sidewalks, Driveways, and Retaining Walls	SF	81
203.1	Tack Coat	GAL	146
205.2	Hot Mix Asphaltic Pavement, Type B (10" Compacted Depth)	SY	156
205.4	Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth)	SY	1460
208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2")	SY	1460
413	Flowable Fill	CY	57
500.1	Concrete Curb	LF	18
502.1	Concrete Sidewalk	SY	9
530.1	Barricades, Signs, and Traffic Handling	EA	1
550	Trench Excavation Safety Protection	LF	350
848	12" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	350
851	Adjusting Existing Manhole (w/ new ring and cover)	EA	1
852	Sanitary Sewer Manholes (0'-6' Depth)	EA	1
852	Extra Depth Manholes (Greater than 6')	VF	3
854	Sanitary Sewer Laterals, (SDR 26, ASTM 2241, 160 psi)	LF	64
854	Two-Way Sanitary Sewer Clean-out	EA	4
858	Concrete Encasement, Cradles, Saddles and Collars	CY	0.5
860	Vertical Stacks	VF	6
864-S1	Bypass Pumping (Small Diameter)	LS	1
866	Pre Sewer Main Television Inspection (8"-15")	LF	350
866	Post Sewer Main Television Inspection (8"-15")	LF	350
910.1	Manhole Rehabilitation	VF	9



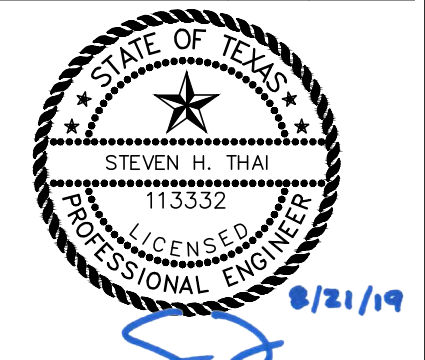
CAUTION !!!
 EXISTING GAS AND WATER LINES PRESENT. CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING AROUND GAS AND WATER LINES.

LEGEND

- 2" MILL AND
- 2" TYPE D ASPHALT
- FLOWABLE FILL
- * PROPERTIES SERVICED ON ADJACENT STREET

0 10' 20' 30' 40'
 SCALE: 1" = 40' HORIZ

0 5' 10'
 SCALE: 1" = 10' VERT



LEGEND

- PROP. WATER MAIN
- PROP. SAN SERVICE CLEANOUT
- EXIST. WATER MAIN
- GAS MAIN
- SANITARY SEWER
- STORM SEWER
- UTILITY POLE LINE
- ELECTRIC CABLE
- TELEPHONE CABLE
- DUAL BRANCH SERV.
- NEW UNMETERED SERVICE:
- 3/4" SINGLE
- 1" DUAL
- SERVICE RECONNECT:
- 3/4"
- 1" OR LARGER
- SERVICE RELAY:
- 3/4"
- 1" OR LARGER
- SERVICE RELOCATE:
- 3/4"
- 1" OR LARGER
- RELOCATE METER
- NEW SERVICE:
- 3/4"
- 1" OR LARGER
- BORE TEST HOLE LOCATION
- UTILITY CROSSING

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ADD #1:	TEST HOLES/2" G UPDATE	A.J.C.	S.H.T.	8/14/19

REVISIONS

MULTIPLE SEWERSHED PACKAGE 10B-OPEN CUT

LEIGH SANITARY IMPROVEMENTS STA 1+00 TO STA 4+50

DEVELOPER:
 CONT. BUDGET PROJ.

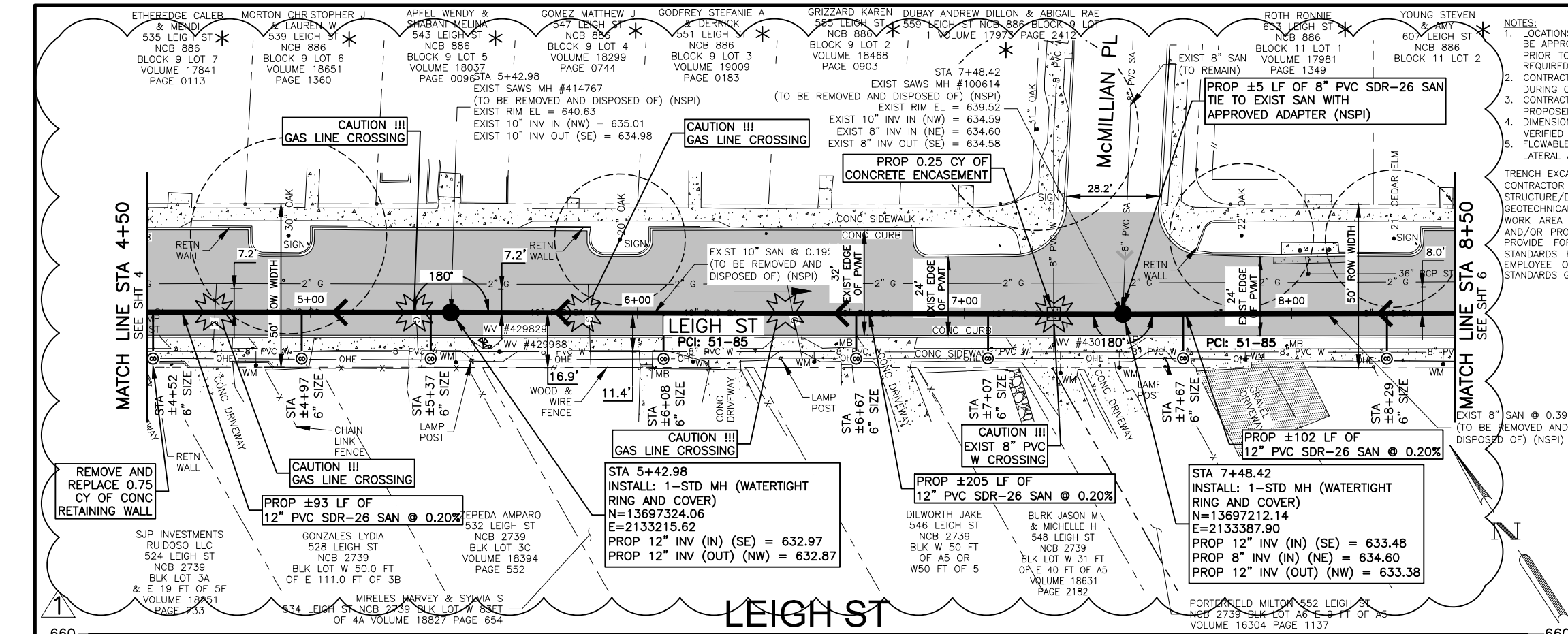
SUBMITTED

APPROVED

MAP No. 164572
 SECT. No.
 DR. CK. JOB No. 18-4542

SHEET 4 OF 28

BGE, INC. C:\Users\jts\Documents\Projects\10B03_CADD\01_Site\B3701_Site\B3701_Leigh SAN PNP.dwg Aug 21, 2019 3:22pm acaditern

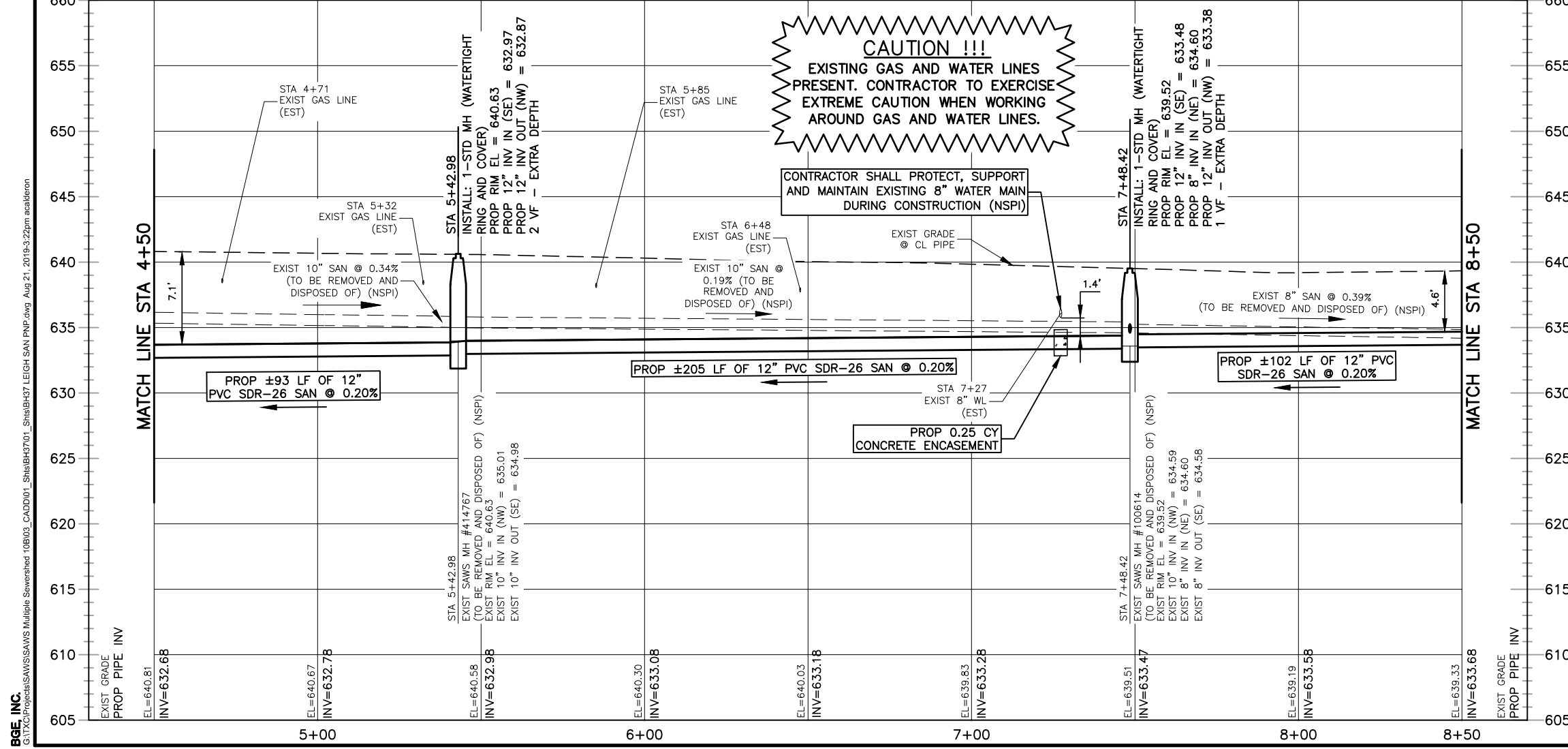


NOTES:

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SPEC NO.	UNIT DESCRIPTION	UNIT	QUANTITY
103.1	Remove Concrete Curb	LF	24
103.3	Remove Sidewalks, Driveways, and Retaining Walls	SF	120
203.1	Tack Coat	GAL	131
205.2	Hot Mix Asphaltic Pavement, Type B (10" Compacted Depth)	SY	180
205.4	Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth)	SY	1310
208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2")	SY	1310
500.1	Concrete Curb	LF	24
502.1	Concrete Sidewalk	SY	12
506.1	Concrete Retaining Walls	CY	0.75
550	Trench Excavation Safety Protection	LF	405
848	8" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	5
848	12" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	400
852	Sanitary Sewer Manholes (0'-6" Depth)	EA	2
852	Extra Depth Manholes (Greater than 6')	VF	3
854	Sanitary Sewer Laterals, (SDR 26, ASTM 2241, 160 psi)	LF	126
854	Two-Way Sanitary Sewer Clean-out	EA	8
858	Concrete Encasement, Cradles, Saddles and Collars	CY	0.25
866	Pre Sewer Main Television Inspection (8"-15")	LF	405
866	Post Sewer Main Television Inspection (8"-15")	LF	405



LEGEND

- 2" MILL AND 2" TYPE D ASPHALT
- FLOWABLE FILL
- PROPERTIES SERVICED ON ADJACENT STREET

0 10' 20' 30' 40'
SCALE: 1" = 40' HORIZ

0 5' 10'
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LEGEND

- PROP. WATER MAIN
- PROP. SAN SERVICE CLEANOUT
- EXIST. WATER MAIN
- GAS MAIN
- SANITARY SEWER
- STORM SEWER
- UTILITY POLE LINE
- ELECTRIC CABLE
- TELEPHONE CABLE
- DUAL BRANCH SERV.
- NEW UNMETERED SERVICE:
- 3/4" SINGLE
- 1" DUAL
- SERVICE RECONNECT:
- 3/4"
- 1" OR LARGER
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- BORE TEST HOLE LOCATION
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8/21/19

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ADD #1:	TEST HOLES/2" G UPDATE	A.J.C.	S.H.T.	8/14/19

REVISIONS

MULTIPLE SEWERSHED PACKAGE 10B-OPEN CUT

LEIGH SANITARY IMPROVEMENTS STA 4+50 TO STA 8+50

DEVELOPER: [Signature]

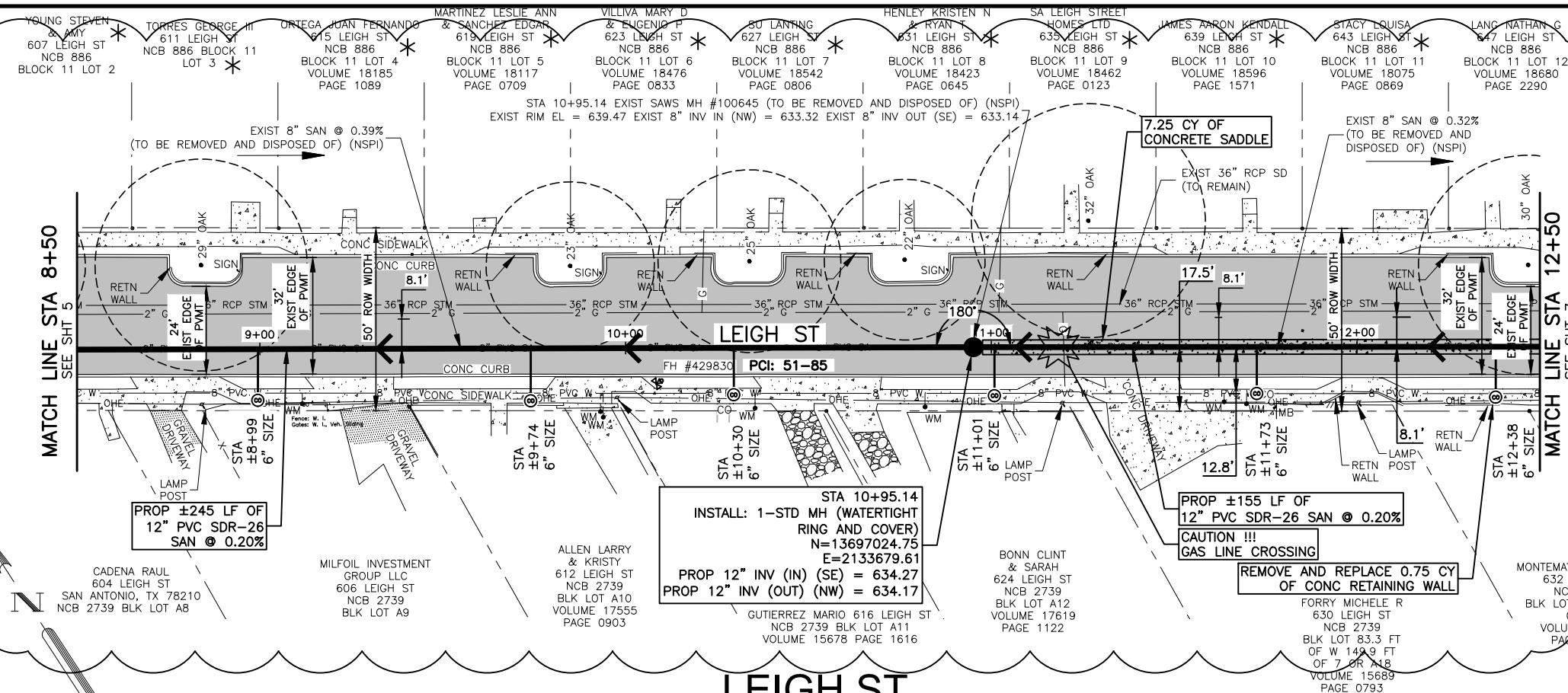
CONT.: BUDGET PROJ.

SUBMITTED: [Signature]

APPROVED: [Signature]

MAP No. 164572
 SECT. No. 5
 DR. CK. JOB No. 18-4542 OF 28

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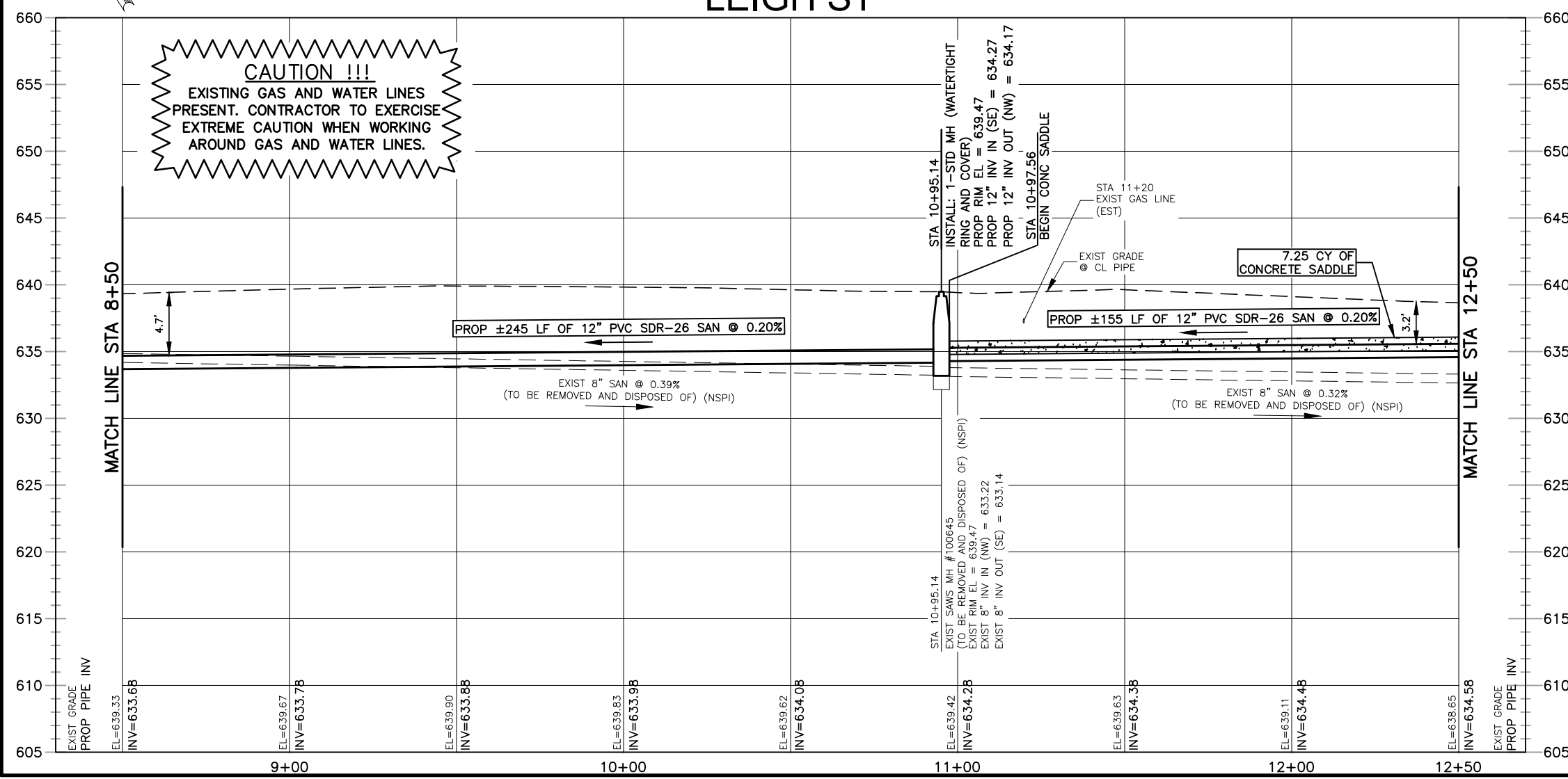


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103.1	Remove Concrete Curb	LF	24
103.3	Remove Sidewalks, Driveways, and Retaining Walls	SF	126
203.1	Tack Coat	GAL	134
205.2	Hot Mix Asphaltic Pavement, Type B (10" Compacted Depth)	SY	178
205.4	Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth)	SY	1341
208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2")	SY	1341
500.1	Concrete Curb	LF	24
502.1	Concrete Sidewalk	SY	12
506.1	Concrete Retaining Walls	CY	0.75
550	Trench Excavation Safety Protection	LF	400
848	12" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	400
852	Sanitary Sewer Manholes (0'-6" Depth)	EA	1
854	Sanitary Sewer Laterals, (SDR 26, ASTM 2241, 160 psi)	LF	94
854	Two-Way Sanitary Sewer Clean-out	EA	6
858	Concrete Encasement, Cradles, Saddles and Collars	CY	7.25
866	Pre Sewer Main Television Inspection (8"-15")	LF	400
866	Post Sewer Main Television Inspection (8"-15")	LF	400

LEIGH ST

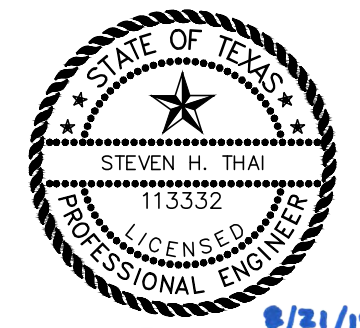


CAUTION !!!
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- EXIST. WATER MAIN
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MULTIPLE SEWERSHED PACKAGE 10B-OPEN CUT

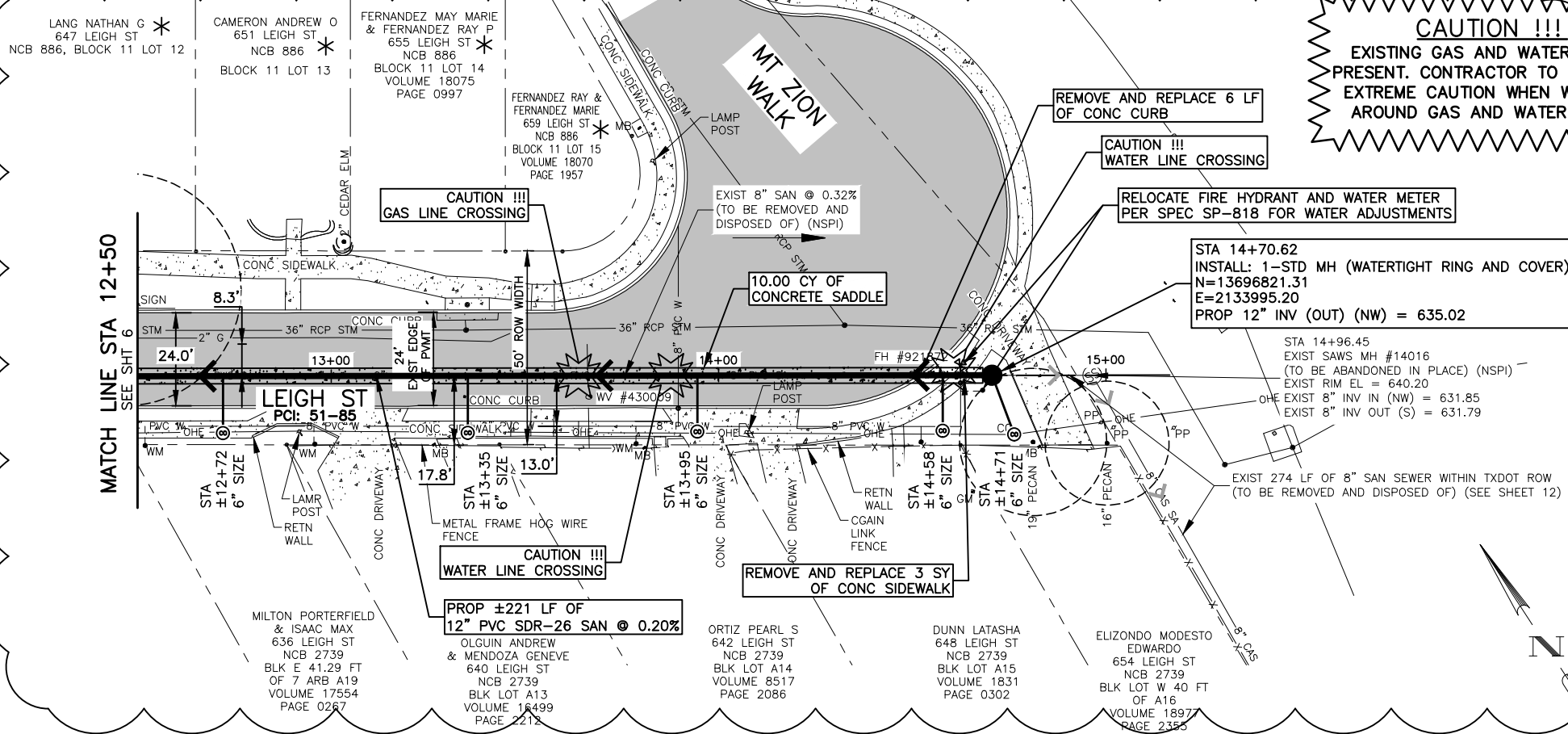
LEIGH SANITARY IMPROVEMENTS STA 8+50 TO STA 12+50

DEVELOPER: _____
 CONT. BUDGET PROJ. _____

SUBMITTED _____
 APPROVED _____

MAP No. 164572
 SECT. No. 6
 DR. CK. JOB No. 18-4542 SHEET 6 OF 28

BGE, INC. S:\TX\Projects\SAWS\Multiple Sewershed 10B03_CADD\01_Sht\BHD37\LEIGH SAN PNP.dwg Aug 21, 2019 9:23pm acaldren

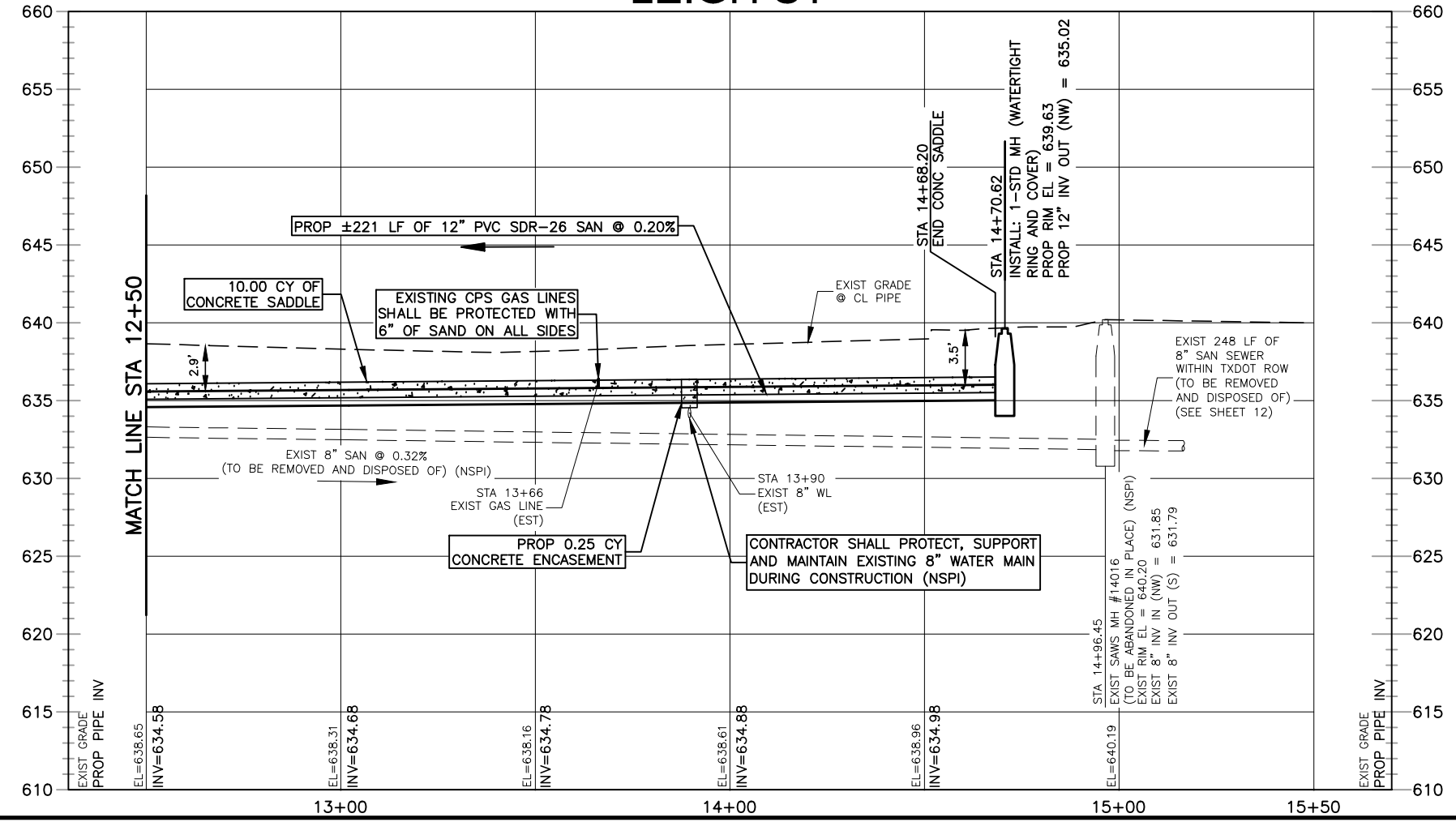


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 - CONTRACTOR IS TO BE AWARE THERE ARE EXISTING STORM DRAINS IN THE AREA AND MAY BE NEAR THE SEWER MAINS THAT ARE TO BE REMOVED.
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205.4	Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth)	SY	1258
208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2")	SY	1258
500.1	Concrete Curb	LF	18
502.1	Concrete Sidewalk	SY	9
550	Trench Excavation Safety Protection	LF	221
SP-818	Water Line Adjustments	LS	1
848	12" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	221
852	Sanitary Sewer Manholes (0'-6' Depth)	EA	1
854	Sanitary Sewer Laterals, (SDR 26, ASTM 2241, 160 psi)	LF	83
854	Two-Way Sanitary Sewer Clean-out	EA	5
858	Concrete Encasement, Cradles, Saddles and Collars	CY	10.25
866	Pre Sewer Main Television Inspection (8"-15")	LF	221
866	Post Sewer Main Television Inspection (8"-15")	LF	221
SS3300	Sanitary Sewer Private Lateral (4"-6") (Including CoSA Permit and Licensed Plumber)	LF	20

LEIGH ST



LEGEND

- 2" MILL AND 2" TYPE D ASPHALT
- FLOWABLE FILL
- PROPERTIES SERVICED ON ADJACENT STREET

0 10' 20' 30' 40'
 SCALE: 1" = 40' HORIZ

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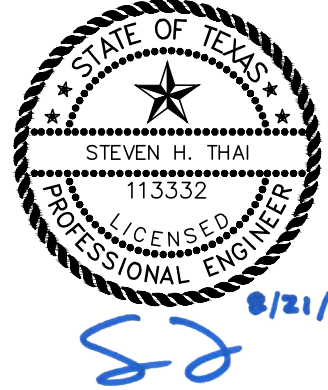
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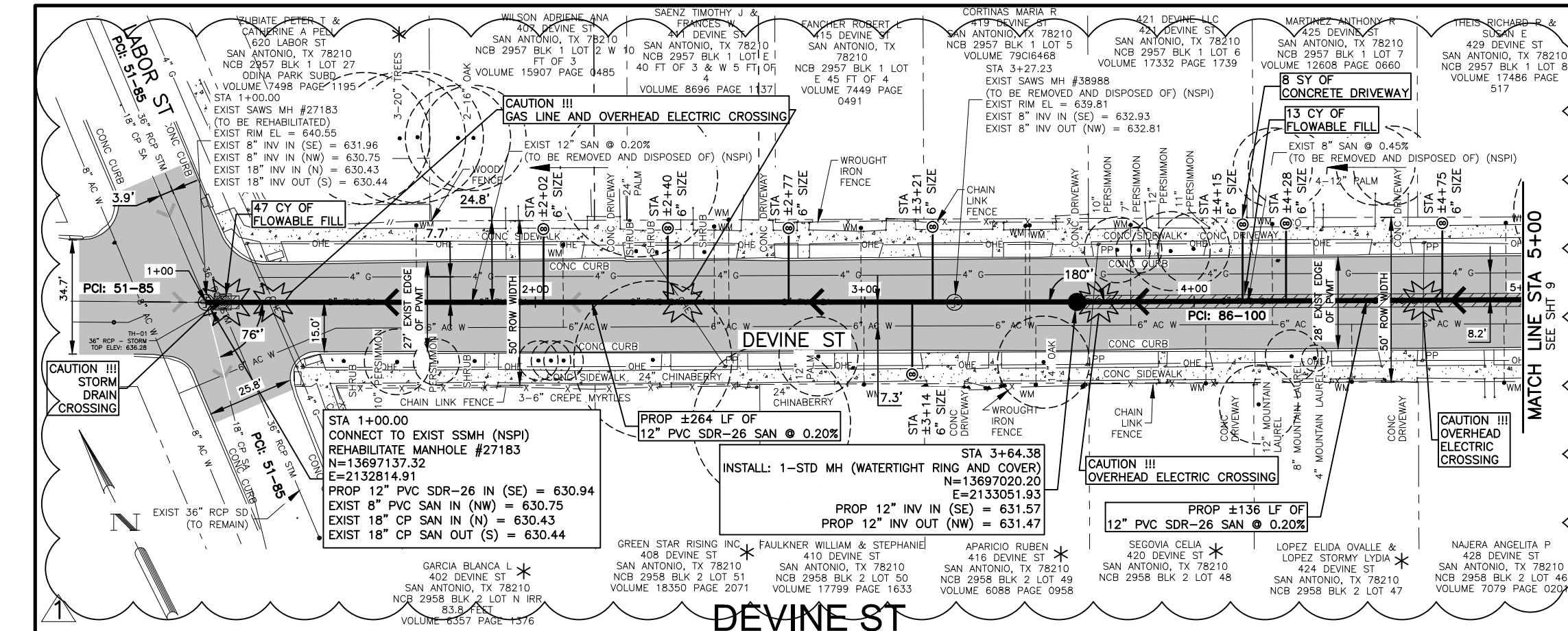
LEIGH SANITARY IMPROVEMENTS STA 12+50 TO STA 14+96

DEVELOPER: _____
 CONT. BUDGET PROJ.
 SUBMITTED _____
 APPROVED _____

MAP No. 164572
 SECT. No. 7
 DR. CK. JOB No. 18-4542 SHEET 7 OF 28



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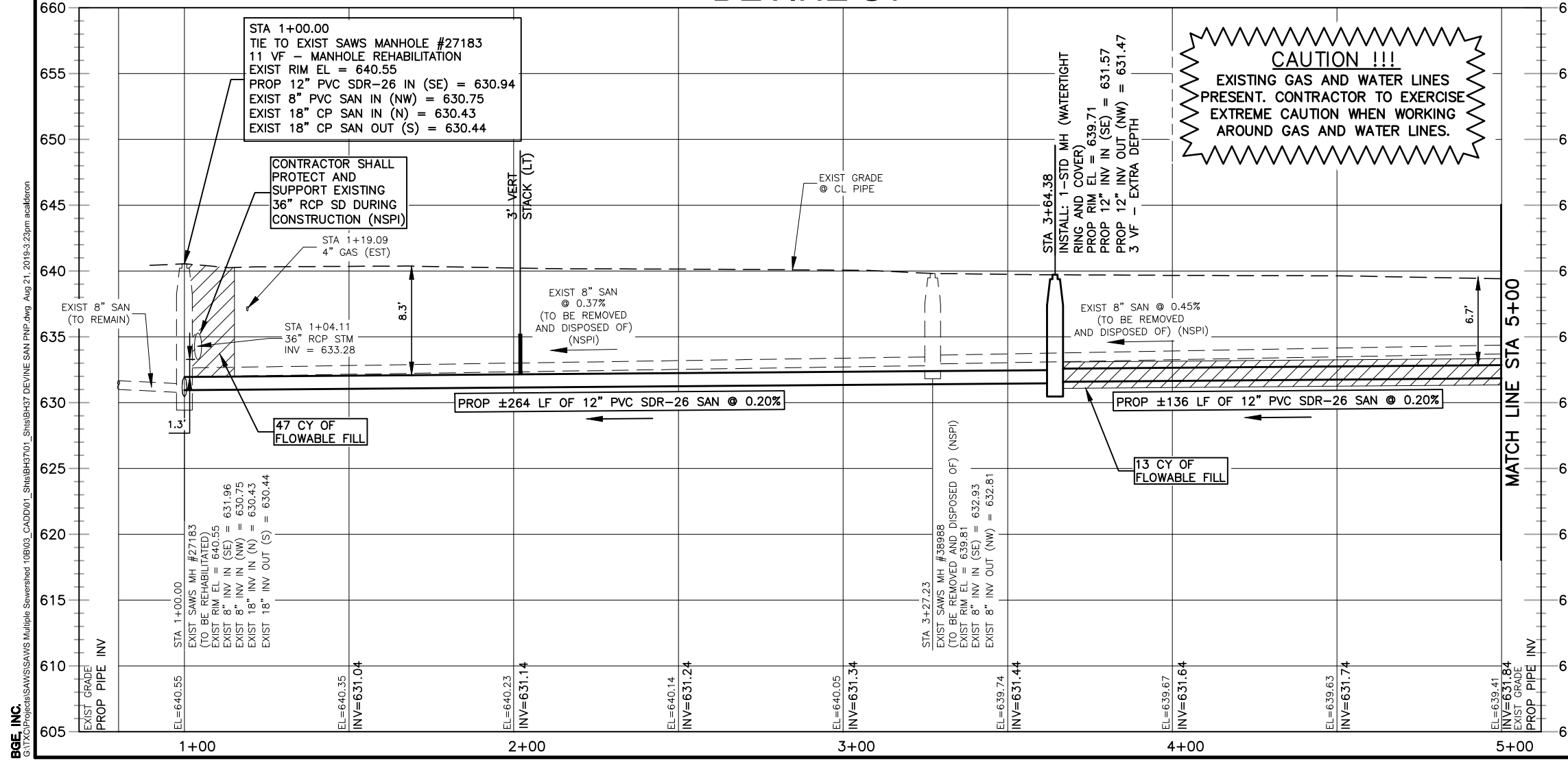


NOTES:

- LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.
- CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING MAIL BOXES TO ORIGINAL OR BETTER CONDITION IF DAMAGED DURING CONSTRUCTION (NSPI).
- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING SEWERLINE AS REQUIRED FOR THE INSTALLATION OF PROPOSED SEWERLINE AND MANHOLES (NSPI).
- DIMENSIONS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL DIMENSIONS MUST BE FIELD VERIFIED BY THE CONTRACTOR. (NSPI)
- FLOWABLE FILL ENCASUREMENT WILL BE REQUIRED ON THE WATER MAIN IF THE SEPARATION BETWEEN THE SEWER LATERAL AND WATER MAIN CROSSING IS LESS THAN ONE (1) FOOT.

TRENCH EXCAVATION SAFETY PROTECTION:
 CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR CONTRACTOR AND/OR STRUCTURE/DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OF SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

SPEC NO.	UNIT DESCRIPTION	UNIT	QUANTITY
103.1	Remove Concrete Curb	LF	36
103.3	Remove Sidewalks, Driveways, and Retaining Walls	SF	234
203.1	Tack Coat	GAL	150
205.2	Hot Mix Asphaltic Pavement, Type B (10" Compacted Depth)	SY	178
205.4	Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth)	SY	1496
208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2")	SY	1496
413	Flowable Fill	CY	60
500.1	Concrete Curb	LF	36
502.1	Concrete Sidewalk	SY	18
503.1	Portland Cement Concrete Driveway	SY	8
550	Trench Excavation Safety Protection	LF	400
848	12" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	400
851	Adjusting Existing Manhole (w/ new ring and cover)	EA	1
852	Sanitary Sewer Manholes (0'-6" Depth)	EA	1
852	Extra Depth Manholes (Greater than 6')	VF	3
854	Sanitary Sewer Laterals, (SDR 26, ASTM 2241, 160 psi)	LF	200
854	Two-Way Sanitary Sewer Clean-out	EA	8
860	Vertical Stacks	VF	3
866	Pre Sewer Main Television Inspection (8"-15")	LF	400
866	Post Sewer Main Television Inspection (8"-15")	LF	400
910.1	Manhole Rehabilitation	VF	11

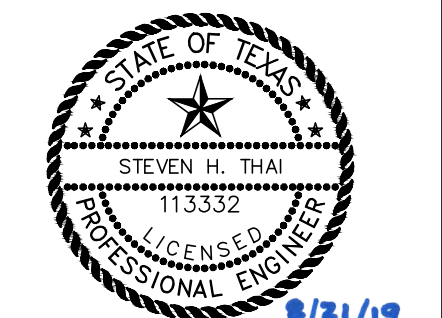


LEGEND

- 2" MILL AND 2" TYPE D ASPHALT
- FLOWABLE FILL
- * PROPERTIES SERVICED ON ADJACENT STREET

0 10' 20' 30' 40'
 SCALE: 1" = 40' HORIZ

0 5' 10'
 SCALE: 1" = 10' VERT



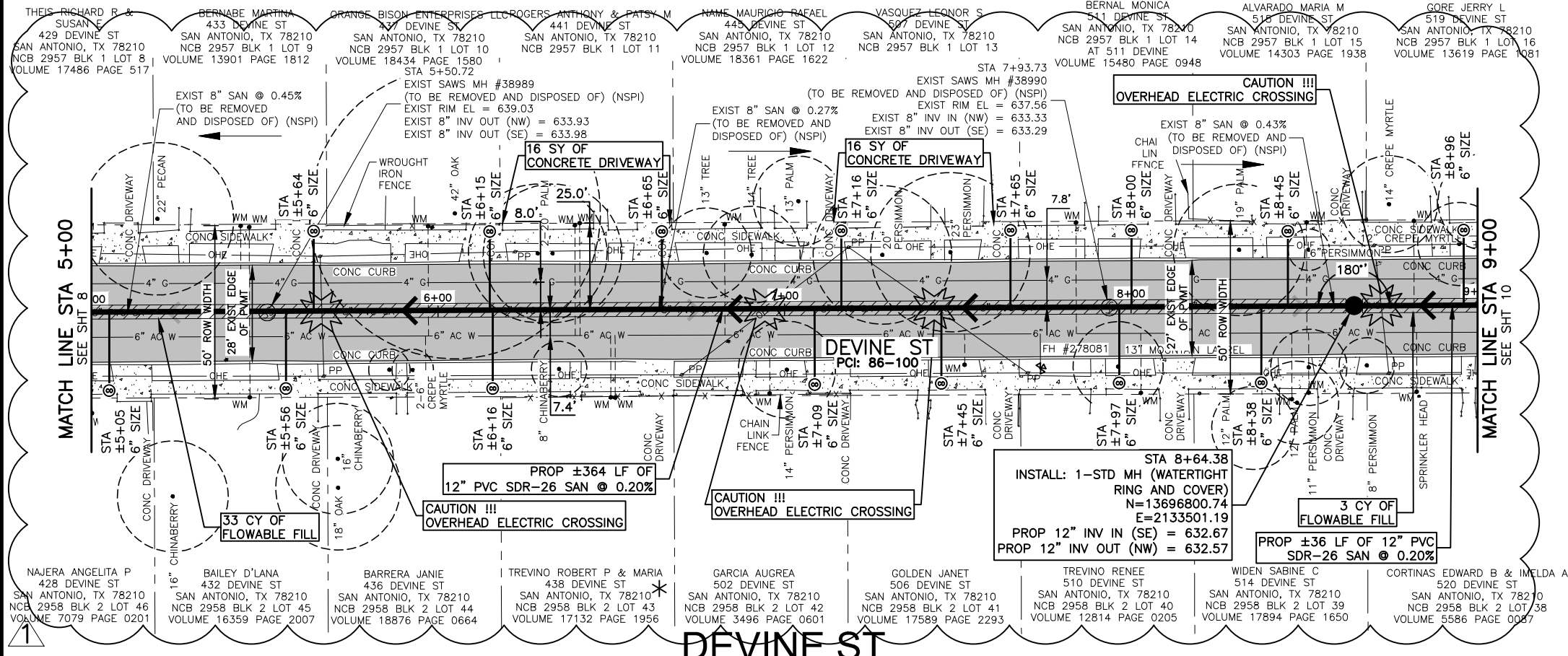
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 Tel: 210-581-3600 • www.bgeinc.com
 TBPE Registration No. F-1046

No.	Revision	Drawn	Approved	Date
REVISIONS				
MULTIPLE SEWERSHED PACKAGE 10B-OPEN CUT				
DEVINE SANITARY IMPROVEMENTS STA 1+00 TO STA 5+00				
DEVELOPER:				
CONT.		BUDGET PROJ.		
SUBMITTED				
APPROVED				
MAP No. 164572		SHEET 8		
SECT. No.		DR. CK. JOB No. 18-4542 OF 28		

LEGEND

- PROP. WATER MAIN
- PROP. SAN SERVICE CLEANOUT
- EXIST. WATER MAIN
- GAS MAIN
- SANITARY SEWER
- STORM SEWER
- UTILITY POLE LINE
- ELECTRIC CABLE
- TELEPHONE CABLE
- DUAL BRANCH SERV.
- NEW UNMETERED SERVICE:
- 3/4" SINGLE
- 1" DUAL
- SERVICE RECONNECT:
- 3/4"
- 1" OR LARGER
- SERVICE RELAY:
- 3/4"
- 1" OR LARGER
- SERVICE RELOCATE:
- 3/4"
- 1" OR LARGER
- RELOCATE METER
- NEW SERVICE:
- 3/4"
- 1" OR LARGER
- BORE TEST HOLE LOCATION
- UTILITY CROSSING

BGE, INC. STA 1+00.00 TO STA 5+00.00 DEVINE SAN PIP. DWG. AUG 21, 2019 3:23pm cealderon

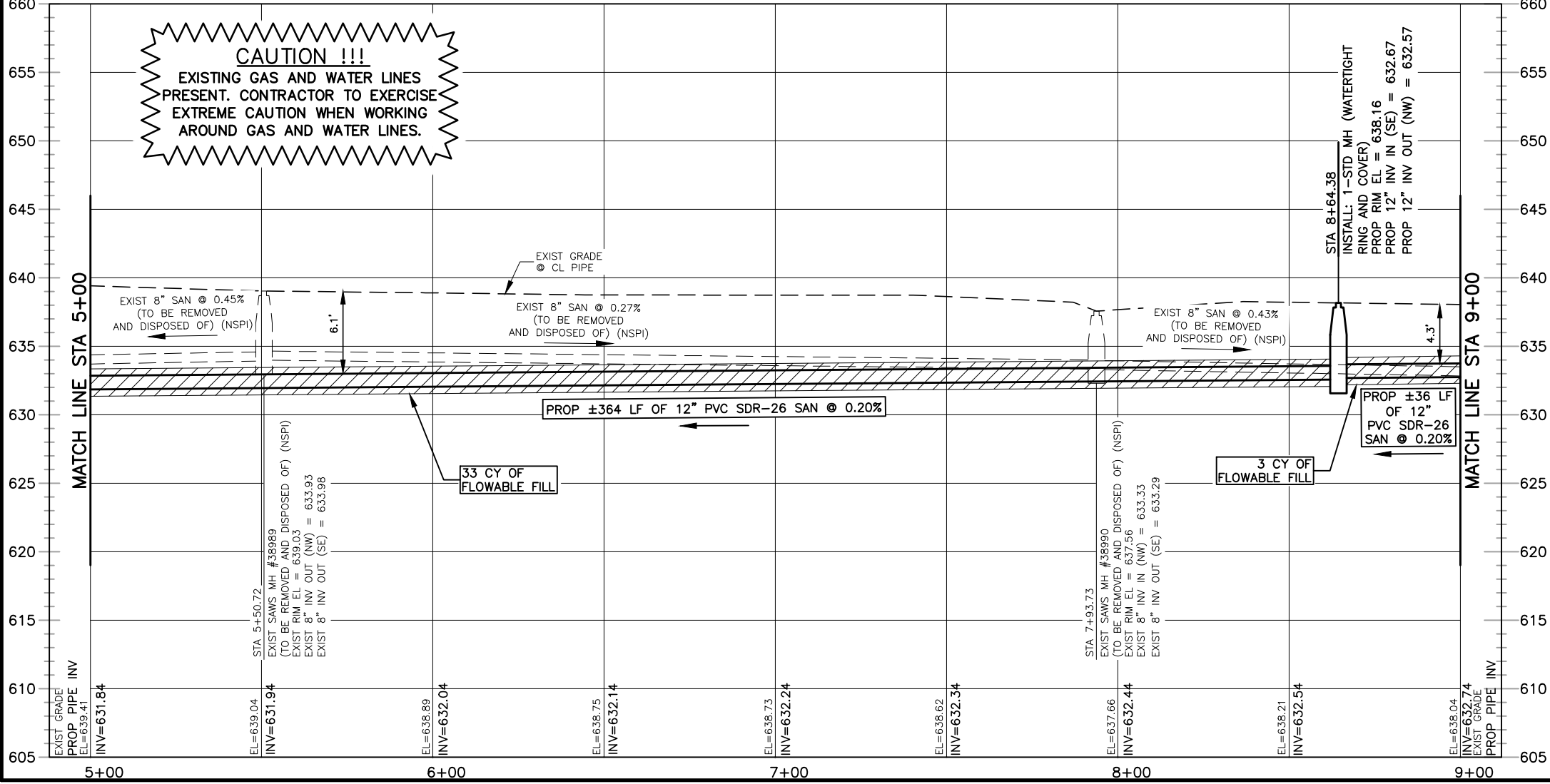


- NOTES:**
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SPEC NO.	UNIT DESCRIPTION	UNIT	QUANTITY
103.1	Remove Concrete Curb	LF	72
103.3	Remove Sidewalks, Driveways, and Retaining Walls	SF	612
203.1	Tack Coat	GAL	122
205.2	Hot Mix Asphaltic Pavement, Type B (10" Compacted Depth)	SY	178
205.4	Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth)	SY	1223
208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2")	SY	1223
413	Flowable Fill	CY	36
500.1	Concrete Curb	LF	72
502.1	Concrete Sidewalk	SY	36
503.1	Portland Cement Concrete Driveway	SY	32
550	Trench Excavation Safety Protection	LF	400
848	12" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	400
852	Sanitary Sewer Manholes (0'-6" Depth)	EA	1
854	Sanitary Sewer Laterals, (SDR 26, ASTM 2241, 160 psi)	LF	365
854	Two-Way Sanitary Sewer Clean-out	EA	15
866	Pre Sewer Main Television Inspection (8"-15")	LF	400
866	Post Sewer Main Television Inspection (8"-15")	LF	400

DEVINE ST

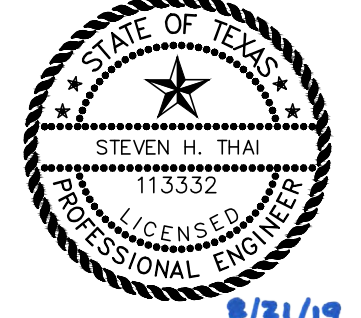


CAUTION !!!
 EXISTING GAS AND WATER LINES PRESENT. CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING AROUND GAS AND WATER LINES.

LEGEND

- 2" MILL AND 2" TYPE D ASPHALT
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- PROPERTIES SERVICED ON ADJACENT STREET

SCALE: 1" = 40' HORIZ
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- PROP. SAN SERVICE CLEANOUT
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- GAS MAIN
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- STORM SEWER
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- TELEPHONE CABLE
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- SERVICE RECONNECT:
- 3/4"
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- 3/4"
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- UTILITY CROSSING

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No.	Revision	Drawn	Approved	Date
REVISIONS				

MULTIPLE SEWERSHED PACKAGE 10B-OPEN CUT

DEVINE SANITARY IMPROVEMENTS STA 5+00 TO STA 9+00

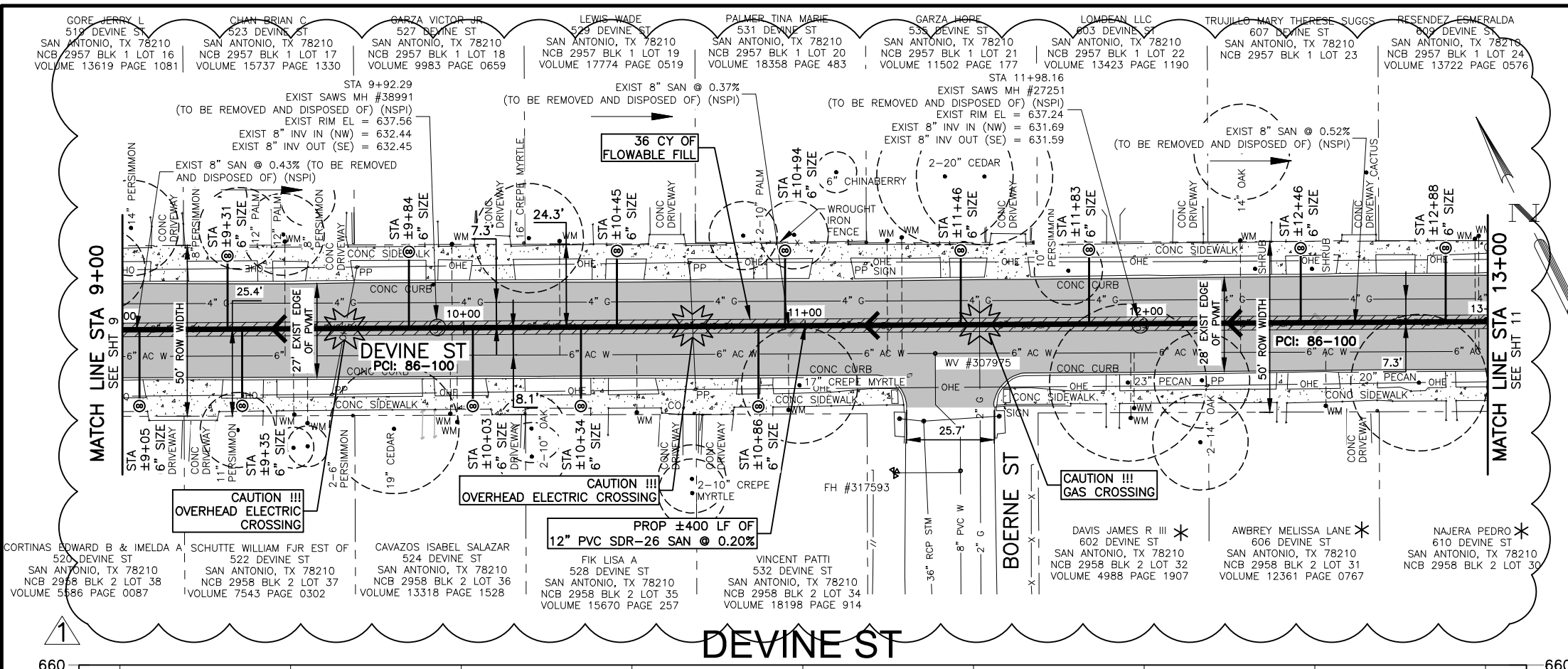
DEVELOPER: _____
 CONT. BUDGET PROJ.
 SUBMITTED _____
 APPROVED _____

MAP No. 164572
 SECT. No. _____
 DR. CK. JOB No. 18-4542

SHEET 9 OF 28

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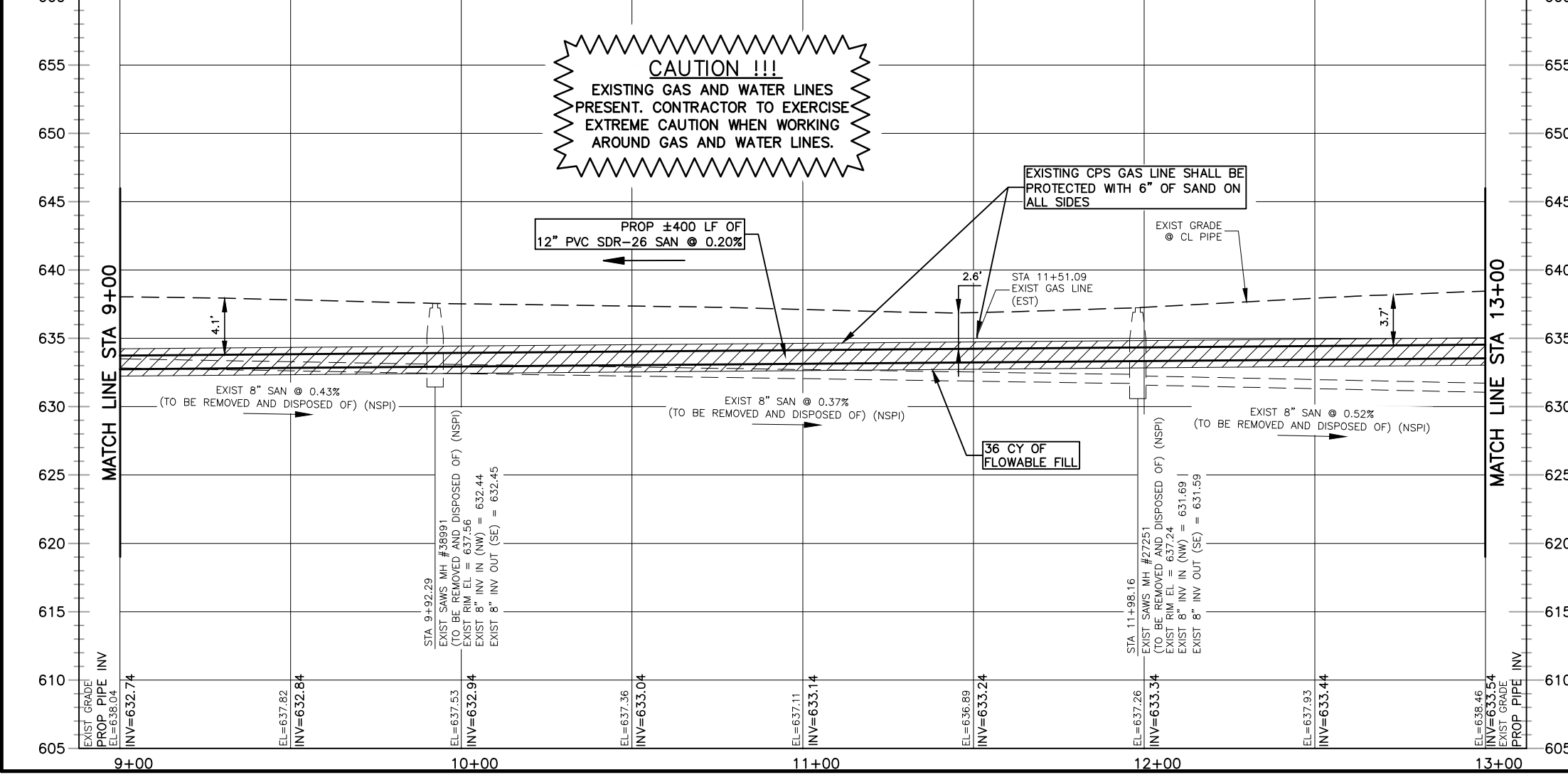
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SPEC NO.	UNIT DESCRIPTION	UNIT	QUANTITY
103.1	Remove Concrete Curb	LF	60
103.3	Remove Sidewalks, Driveways, and Retaining Walls	SF	270
203.1	Tack Coat	GAL	125
205.2	Hot Mix Asphaltic Pavement, Type B (10" Compacted Depth)	SY	178
205.4	Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth)	SY	1254
208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2")	SY	1254
413	Flowable Fill	CY	36
500.1	Concrete Curb	LF	60
502.1	Concrete Sidewalk	SY	30
550	Trench Excavation Safety Protection	LF	400
848	12" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	400
854	Sanitary Sewer Laterals, (SDR 26, ASTM 2241, 160 psi)	LF	314
854	Two-Way Sanitary Sewer Clean-out	EA	13
858	Concrete Encasement, Cradles, Saddles and Collars	CY	11.50
866	Pre Sewer Main Television Inspection (8"-15")	LF	400
866	Post Sewer Main Television Inspection (8"-15")	LF	400

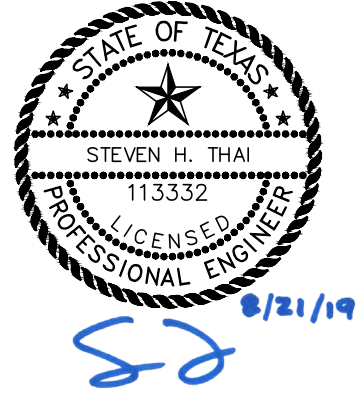


LEGEND

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- FLOWABLE FILL
- * PROPERTIES SERVICED ON ADJACENT STREET

0 10' 20' 30' 40'
 SCALE: 1" = 40' HORIZ

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- UTILITY POLE LINE
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No.	Revision	Drawn	Approved	Date

REVISIONS

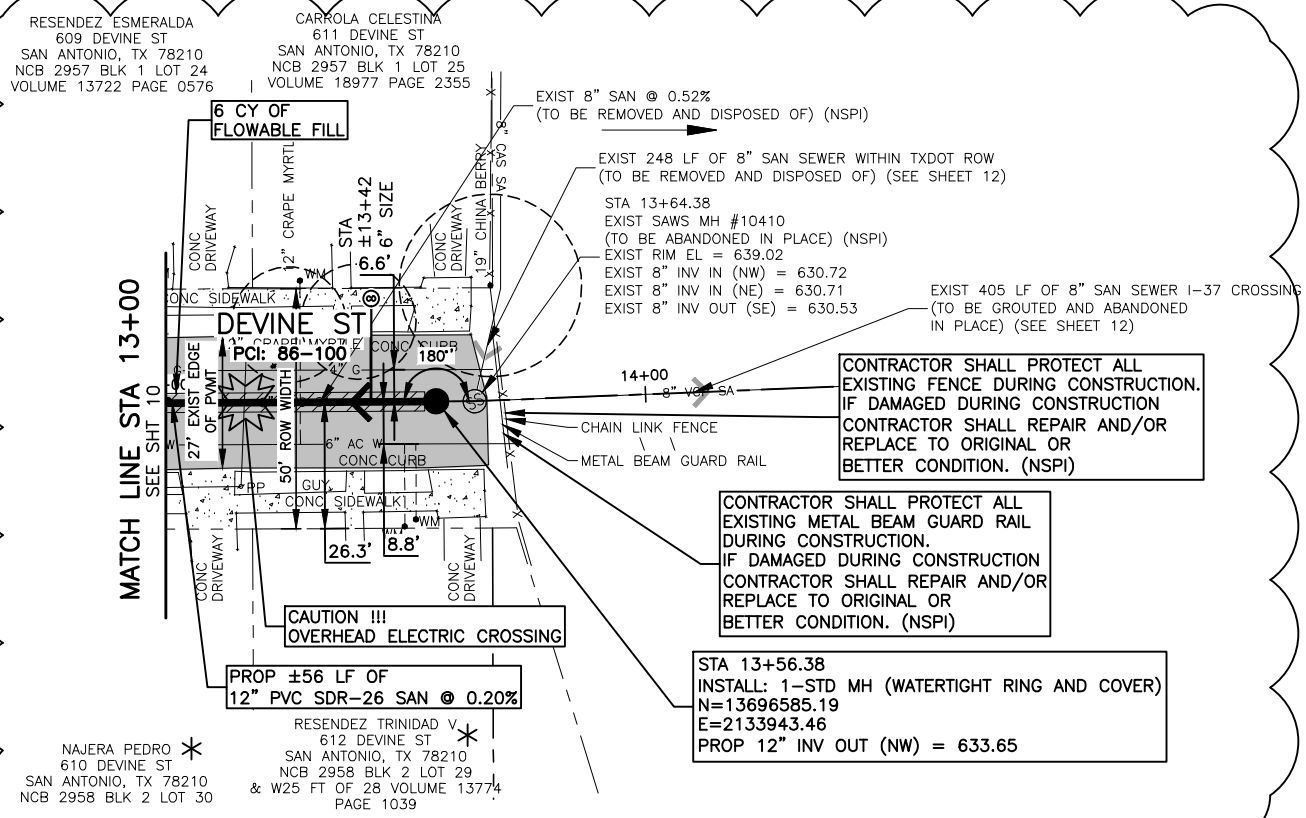
MULTIPLE SEWERSHED PACKAGE 10B-OPEN CUT

DEVINE SANITARY IMPROVEMENTS STA 9+00 TO STA 13+00

DEVELOPER: _____
 CONT. BUDGET PROJ. _____

SUBMITTED _____
 APPROVED _____

MAP No. 164572
 SECT. No. 10
 DR. CK. JOB No. 18-4542 OF 28

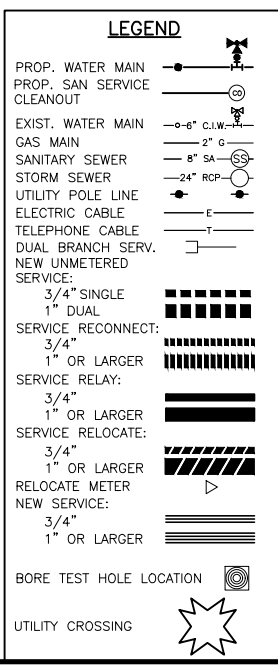
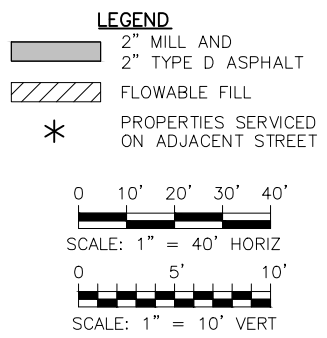
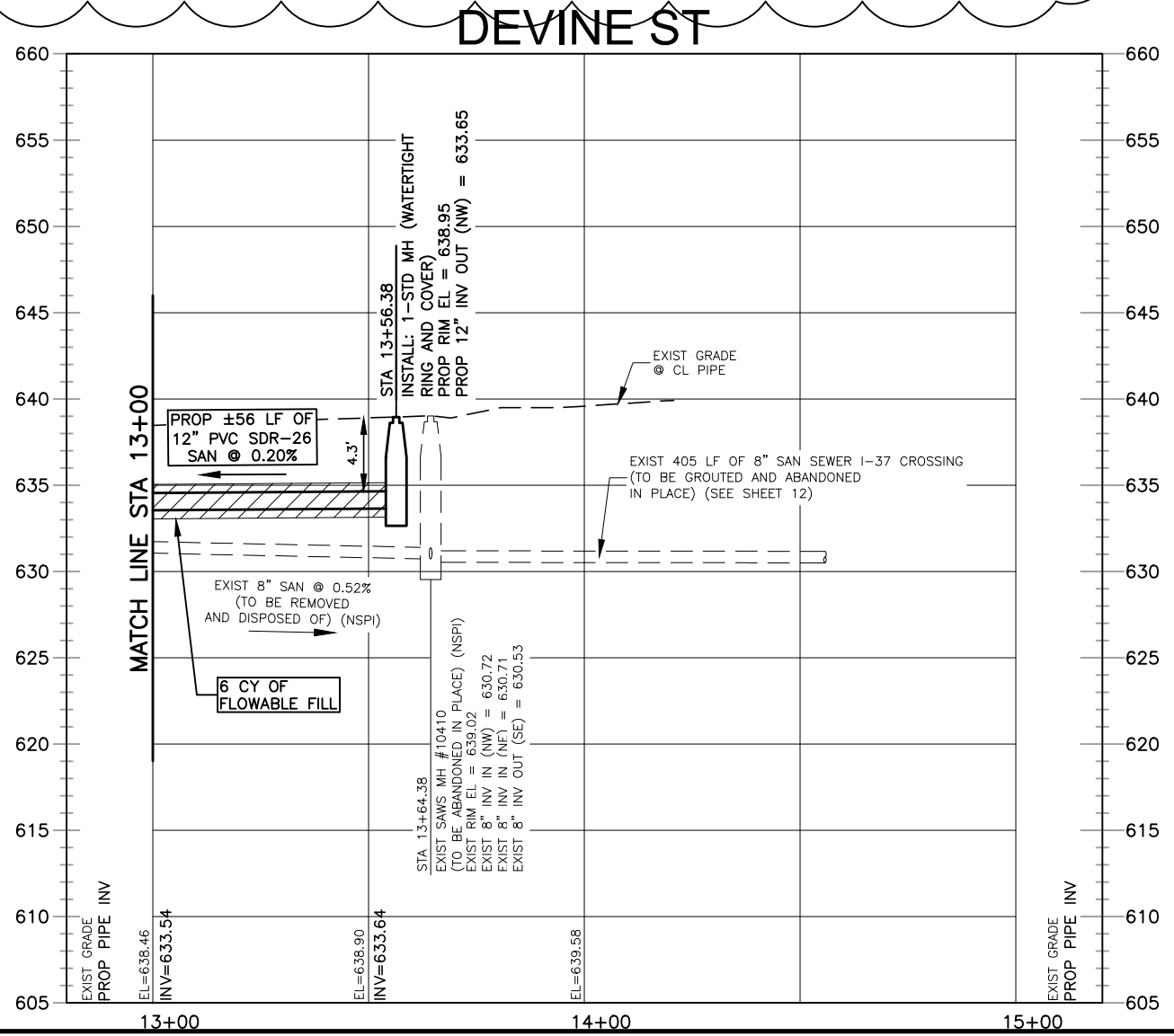


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 - CONTRACTOR IS TO BE AWARE THERE ARE EXISTING STORM DRAINS IN THE AREA AND MAY BE NEAR THE SEWER MAINS THAT ARE TO BE REMOVED.
 - FLOWABLE FILL ENCASEMENT WILL BE REQUIRED ON THE WATER MAIN IF THE SEPARATION BETWEEN THE SEWER LATERAL AND WATER MAIN CROSSING IS LESS THAN ONE (1) FOOT.

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103.1	Remove Concrete Curb	LF	6
103.3	Remove Sidewalks, Driveways, and Retaining Walls	SF	27
203.1	Tack Coat	GAL	20
205.2	Hot Mix Asphaltic Pavement, Type B (10" Compacted Depth)	SY	25
205.4	Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth)	SY	203
208.1	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2")	SY	203
413	Flowable Fill	CY	6
500.1	Concrete Curb	LF	6
502.1	Concrete Sidewalk	SY	3
550	Trench Excavation Safety Protection	LF	56
848	12" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths)	LF	56
852	Sanitary Sewer Manholes (0'-6" Depth)	EA	1
854	Sanitary Sewer Laterals, (SDR 26, ASTM 2241, 160 psi)	LF	24
854	Two-Way Sanitary Sewer Clean-out	EA	1
866	Pre Sewer Main Television Inspection (8"-15")	LF	56
866	Post Sewer Main Television Inspection (8"-15")	LF	56



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No.	Revision	Drawn	Approved	Date
ADD #1:	TREES	E.B.	S.H.T.	8/14/19

REVISIONS

MULTIPLE SEWERSHED PACKAGE 10B-OPEN CUT

DEVINE SANITARY IMPROVEMENTS STA 13+00 TO STA 13+64

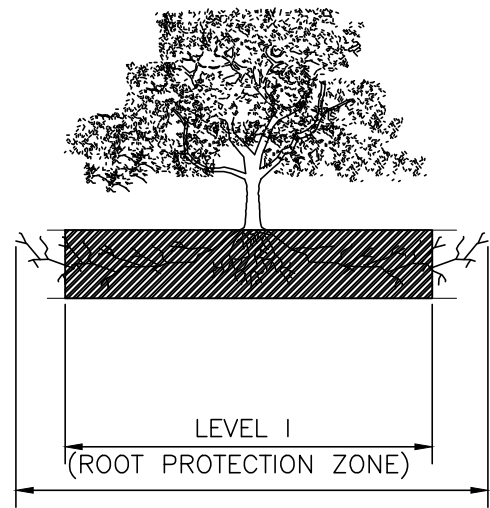
DEVELOPER: _____
CONT. BUDGET PROJ. _____

SUBMITTED _____
APPROVED _____

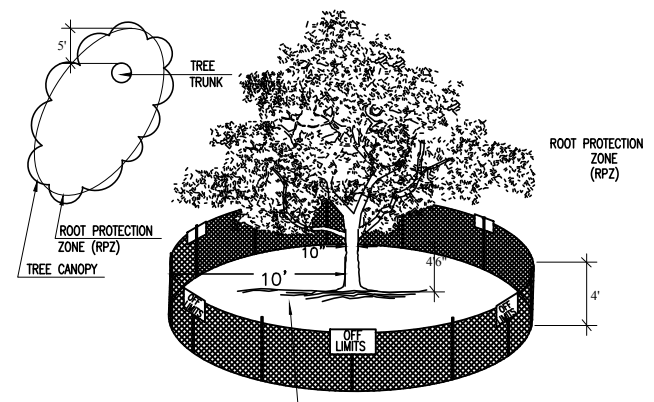
MAP No. 164572
SECT. No. _____
DR. CK. JOB No. 18-4542

SHEET 11 OF 28

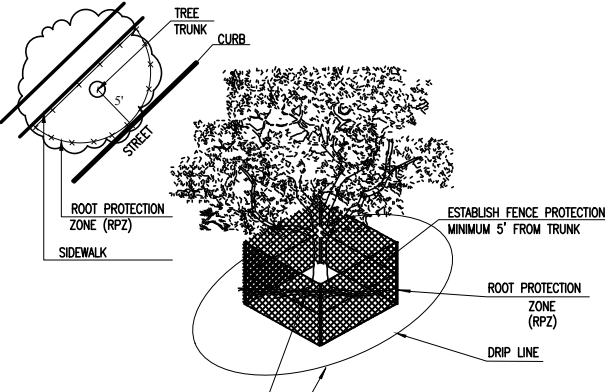
BGE, INC. S:\TX\Projects\SAWS\SAWS Multiple Sewershed 10B03_CADD\01_Site\BH3701_Site\BH37 DEVINE SAN PIP.dwg Aug 21, 2019 3:23pm seallderon



1.1.1 ELEVATION
N. T. S.
ROOT PROTECTION ZONE—THE ROOT PROTECTION ZONE IS A CIRCULAR AREA AROUND A TREE THAT IS BASED ON THE DIAMETER OF THE TREE. EACH 1 INCH DIAMETER OF THE TREE EQUALS 1 FOOT RADIUS FOR ROOT PROTECTION ZONE.



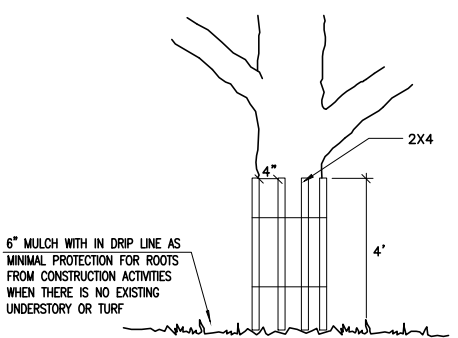
1.1.2 LEVEL I & FENCE PROTECTION
N. T. S.
NOTE:
1. THE FENCING SHOWN ABOVE IS DIAGRAMMATIC ONLY AND WILL CONFORM TO THE DRIP LINE AND LIMITED TO PROJECT BOUNDARY.
2. FOR ACCEPTABLE FENCING MATERIALS SEE SPECIFICATIONS.



1.1.3 LEVEL II A FENCE PROTECTION
N. T. S.
NOTE:
1. OPTION USED FOR TIGHT CONSTRUCTION AREAS OR WHEN CONSTRUCTION OCCURS IN ROOT PROTECTION ZONE.
2. FOR ACCEPTABLE FENCING MATERIALS SEE SPECIFICATIONS.

- GENERAL NOTES:**
- ALL PROTECTED SIZE TREES AFFECTED BY CONSTRUCTION SHALL HAVE THE LIMBS AND ROOTS TRIMMED AND PRUNED ACCORDING TO ITEM No. 802. (TREE PRUNING, SOIL AMENDING AND FERTILIZATION), UNLESS SPECIFIED TREES SHALL RECEIVE LEVEL 1 PROTECTION AS PER ITEM No. 801. (TREE AND LANDSCAPE PROTECTION) AND AS DETAILED IN 1.1.2.
 - ALL TREES SHALL REMAIN UNLESS NOTED ON THE CITY APPROVED PLANS.
 - NO SITE PREPARATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND PROTECTION MEASURES HAVE NOT BEEN COMPLETED AND APPROVED BY THE CITY ARBORIST OFFICE.
 - TREE PROTECTION FENCING SHALL BE MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING SITE CONSTRUCTION.
 - THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN THREE INCHES (3") IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN THE VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR IF ROOTS LARGER THAN THREE INCHES (3") WITHIN THE FIVE FOOT (5') ROOT PROTECTION ZONE NEED TO BE PRUNED.
 - THE ROOT PROTECTION ZONE IS THAT AREA SURROUNDING A TREE, AS MEASURED BY A RADIUS FROM THE TREE TRUNK, IN WHICH NO EQUIPMENT, VEHICLES OR MATERIALS MAY OPERATE OR BE STORED. THE REQUIRED RADIUS LENGTH IS ONE FOOT (1') PER DIAMETER INCH OF THE TREE. FOR EXAMPLE, A TEN INCH (10") DIAMETER TREE WOULD HAVE A TEN FOOT (10') RADIUS ROOT PROTECTION ZONE AROUND THE TREE. ROOTS OR BRANCHES THAT ARE IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. ALL OAK WOUNDS SHALL BE PAINTED OVER, WITHIN TWENTY (20) MINUTES TO PREVENT OAK WILT.
 - NO DISTURBANCE SHALL OCCUR CLOSER TO THE TRUNK THAN HALF THE ROOT PROTECTION ZONE AREA.
 - TREES, SHRUBS OR BUSHES TO BE CLEARED FROM PROTECTED ROOT ZONE AREAS SHALL BE REMOVED BY HAND.
 - TREES DAMAGED OR LOST DUE TO CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED.
 - EXPOSED ROOTS SHALL BE COVERED AT THE END OF EACH DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH OR WET BURLAP.
 - ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST OFFICE PRIOR TO ITS REMOVAL.
 - TREE PLANTING AND MAINTENANCE: ALL PRESERVED AND PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATING, FERTILIZING, PRUNING, AND OTHER MAINTENANCE AS NEEDED. TREES THAT DIE WITHIN TWELVE MONTHS SHALL BE REPLACED WITH A TREE OF COMPARABLE SIZE AND SPECIES. REGARDING REPLACEMENT OF PRESERVED TREES, SIGNIFICANT TREES SHALL BE REPLACED AT A 1:1 RATIO (OR INCH-FOR-INCH) AND HERITAGE TREES SHALL BE REPLACED AT A 3:1 RATIO (OR THREE-TO-ONE INCHES).

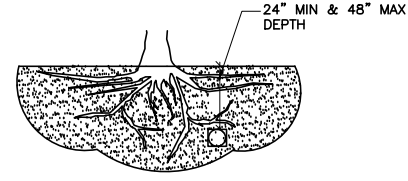
1.3 GENERAL NOTES



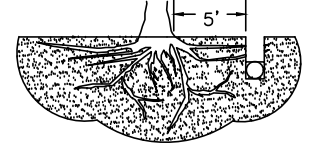
1.1.4 LEVEL II B FENCE PROTECTION
N. T. S.
NOTE:
WRAP TREE TRUNK WITH 2"x4" STUDS AND ROPE OR BAND IN PLACE AS NEEDED TO PROTECT TREES IN WORK AREAS.

TREES THAT ARE MARKED TO BE PRESERVED ON A SITE PLAN AND FOR WHICH UTILITIES MUST PASS THROUGH THEIR ROOT PROTECTION ZONES MAY REQUIRE BORING AS OPPOSED TO OPEN TRENCHES. THE DECISION TO BORE WILL BE DETERMINED ON A CASE BY CASE BASIS BY THE CITY.

BORES SHALL BE DUG THROUGH THE ROOT PROTECTION ZONE IN ORDER TO MINIMIZE ROOT DAMAGE.

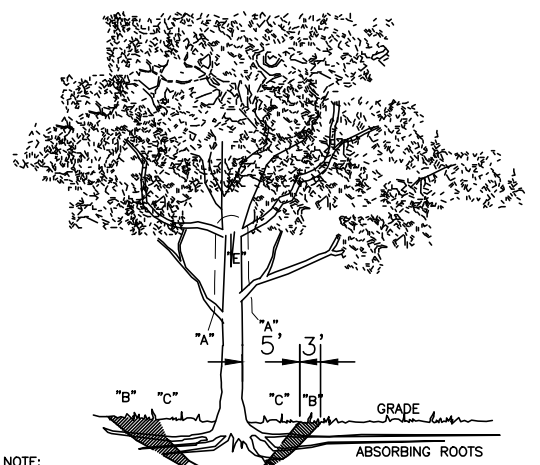


BORE TO MINIMIZE ROOT DAMAGE (TOP) AS OPPOSED TO SURFACE-DUG TRENCHES IN ROOT PROTECTION ZONE WHEN THE 5" MINIMUM DISTANCE FROM TRUNK CAN NOT BE ACHIEVED.



OPEN TRENCHING MAY BE USED IF EXPOSED TREE ROOTS DO NOT EXCEED 3" OR ROOTS CAN BE BENT BACK.

1.2 BORING THRU TREE ROOT ZONE
N. T. S.



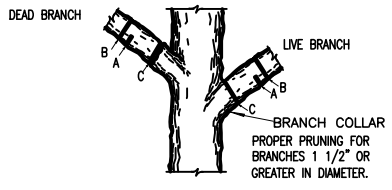
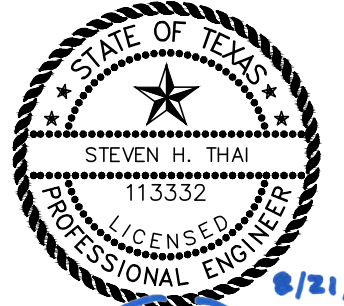
NOTE:
"A" REMOVE BULKY TREE PARTS "SHRED" AND/OR HAUL SEPARATELY.
"B" BEGIN EXCAVATION APPROX. 8' FROM THE TRUNK - CUT THRU ANCHOR ROOTS AT AN ANGLE - 3' TO 4' DEEP
"C" USING TREE TRUNK AS A LEVER PUSH AT POINT "E" TO REMOVE TREE BOLE AND LARGE FEEDER ROOTS (4" TO 10" IN DIAM.)
"D" BACKFILL HOLE AND CLEAN UP.

1.3 TREE REMOVAL DIAGRAM
N. T. S.

SEE SHEET 14 FOR TREE PROTECTION TABLE

1.3 TREE PROTECTION TABLE

SEE SHEET 14 FOR TREE INVENTORY SUMMARY. UNDERSIZED TREES LESS THAN 8" IN DIAMETER ARE NOT INCLUDED IN TABLE.



A. FIRST CUT - TO PREVENT THE BARK FROM BEING PEELLED WHEN THE BRANCH FALLS.
B. SECOND CUT - TO REDUCE THE WEIGHT OF BRANCH.
C. FINAL CUT - ALLOW FOR HEALING COLLAR BUT NO STUBS

FOR OAKS ONLY: PAINT ALL WOUNDS OR CUTS WITH PRUNING PAINT WITHIN 20 MIN TO PREVENT THE SPREAD OF OAK WILT.

1.4 BRANCH PRUNING DETAIL
N. T. S.

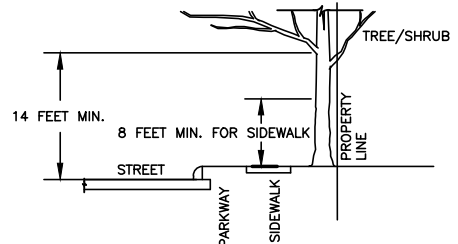
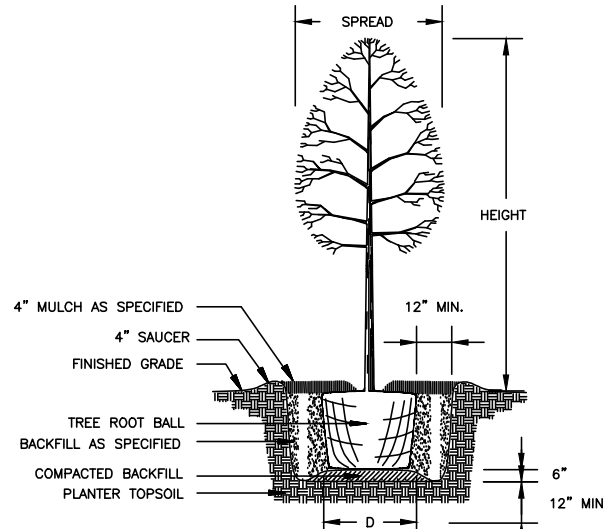


FIGURE No.2:
A MINIMUM BRANCH CLEARANCE OF 14 FEET ABOVE STREET ELEVATION MUST BE MAINTAINED FROM THE PROPERTY LINE TO THE CURB LINE AS PRESCRIBED BY PROJECT MANAGER.

1.5 BRANCH CLEARANCE DETAIL
N. T. S.



1.6 NEW TREE PLANTING DETAIL
N. T. S.



1.3 TREE INVENTORY SUMMARY

BGE, Inc.
7330 San Pedro, Suite 202 San Antonio, Tx 78216
Tel: 210-581-3600 • www.bgeinc.com
TBPE Registration No. F-1046

No.	Revision	Drawn	Approved	Date
1				8/14/19

DEVELOPER:
CONT. BUDGET PROJ.

SUBMITTED _____

APPROVED _____

MAP No. 164572 SHEET 13 OF 28

SECT. No. 13

DR. CK. JOB No. 18-4542

TREE PROTECTION TABLE

TREE SHEET #	TREE/CALIPER	STATION OR NUMBER	LOCATION	ITEM 801	PROTECTION MEASURE	
					ITEM 802 MAINTENANCE/TREATMENTS/PROTECTION	REMOVAL SEE GENERAL NOTE No. 2
4	CEDAR ELM/20"	BH37 LEIGH 1+62	WITHIN ROW	PROTECTED	II A	
4	CEDAR ELM/18"	BH37 LEIGH 2+48	WITHIN ROW			
4	OAK/32"	BH37 LEIGH 2+91	WITHIN ROW	PROTECTED	II A	
4	OAK/40"	BH37 LEIGH 3+30	OUTSIDE ROW			
4	OAK/24"	BH37 LEIGH 3+90	WITHIN ROW	PROTECTED	II A	
5	OAK/30"	BH37 LEIGH 4+91	WITHIN ROW	PROTECTED	II A	
5	OAK/20"	BH37 LEIGH 5+92	WITHIN ROW	PROTECTED	II A	
5	OAK/31"	BH37 LEIGH 7+20	WITHIN ROW			
5	OAK/22"	BH37 LEIGH 7+83	WITHIN ROW	PROTECTED	II A	
5	CEDAR ELM/21"	BH37 LEIGH 8+29	WITHIN ROW	PROTECTED	II A	
6	OAK/29"	BH37 LEIGH 8+82	WITHIN ROW	PROTECTED	II A	
6	OAK/23"	BH37 LEIGH 9+83	WITHIN ROW	PROTECTED	II A	
6	OAK/25"	BH37 LEIGH 10+32	WITHIN ROW	PROTECTED	II A	
6	OAK/22"	BH37 LEIGH 10+74	WITHIN ROW	PROTECTED	II A	
6	OAK/32"	BH37 LEIGH 11+24	WITHIN ROW	PROTECTED	II A	
6	OAK/30"	BH37 LEIGH 12+45	WITHIN ROW	PROTECTED	II A	
7	CEDAR ELM/2"	BH37 LEIGH 13+01	WITHIN ROW			
7	PECAN/19"	BH37 LEIGH 14+79	WITHIN ROW	PROTECTED	II A	
7	PECAN/16"	BH37 LEIGH 14+98	WITHIN ROW	PROTECTED	II A	
8	TREE/20"	BH37 DEVINE 1+48	OUTSIDE ROW			
8	PERSIMMON/10"	BH37 DEVINE 1+58	WITHIN ROW			
8	TREE/20"	BH37 DEVINE 1+59	OUTSIDE ROW			
8	TREE/20"	BH37 DEVINE 1+64	OUTSIDE ROW			
8	PERSIMMON/7"	BH37 DEVINE 1+70	WITHIN ROW			
8	OAK/16"	BH37 DEVINE 1+76	OUTSIDE ROW			
8	OAK/16"	BH37 DEVINE 1+81	OUTSIDE ROW			
8	PALM/24"	BH37 DEVINE 2+31	OUTSIDE ROW	PROTECTED	II A	
8	CHINABERRY/24"	BH37 DEVINE 2+36	WITHIN ROW	PROTECTED	II A	
8	CHINABERRY/24"	BH37 DEVINE 2+72	OUTSIDE ROW			
8	PALM/12"	BH37 DEVINE 2+86	WITHIN ROW			
8	OAK/14"	BH37 DEVINE 3+54	WITHIN ROW			
8	PERSIMMON/10"	BH37 DEVINE 3+77	WITHIN ROW			
8	PERSIMMON/7"	BH37 DEVINE 3+83	WITHIN ROW			
8	PERSIMMON/12"	BH37 DEVINE 3+93	WITHIN ROW			
8	PERSIMMON/11"	BH37 DEVINE 4+00	WITHIN ROW			
8	MT LAUREL/12"	BH37 DEVINE 4+20	OUTSIDE ROW			
8	PALM/12"	BH37 DEVINE 4+24	OUTSIDE ROW			
8	PALM/12"	BH37 DEVINE 4+29	OUTSIDE ROW			
8	MT LAUREL/8"	BH37 DEVINE 4+30	WITHIN ROW			
8	MT LAUREL/4"	BH37 DEVINE 4+37	WITHIN ROW			
8	PALM/12"	BH37 DEVINE 4+55	OUTSIDE ROW			
8	PALM/12"	BH37 DEVINE 4+55	OUTSIDE ROW			
8	PALM/12"	BH37 DEVINE 4+60	OUTSIDE ROW			
9	PECAN/22"	BH37 DEVINE 5+19	OUTSIDE ROW			
9	CHINABERRY/16"	BH37 DEVINE 5+23	OUTSIDE ROW			
9	CHINABERRY/16"	BH37 DEVINE 5+71	OUTSIDE ROW			

TREE SHEET #	TREE/CALIPER	STATION OR NUMBER	LOCATION	ITEM 801	PROTECTION MEASURE	
					ITEM 802 MAINTENANCE/TREATMENTS/PROTECTION	REMOVAL SEE GENERAL NOTE No. 2
9	OAK/18"	BH37 DEVINE 5+71	OUTSIDE ROW			
9	OAK/42"	BH37 DEVINE 6+05	OUTSIDE ROW	PROTECTED	II A	
9	PALM/20"	BH37 DEVINE 6+29	WITHIN ROW	PROTECTED	II A	
9	PALM/20"	BH37 DEVINE 6+33	WITHIN ROW	PROTECTED	II A	
9	CHINABERRY/8"	BH37 DEVINE 6+35	WITHIN ROW			
9	TREE/13"	BH37 DEVINE 6+78	WITHIN ROW			
9	TREE/14"	BH37 DEVINE 6+91	WITHIN ROW	PROTECTED	II A	
9	PERSIMMON/14"	BH37 DEVINE 7+01	WITHIN ROW	PROTECTED	II A	
9	PALM/13"	BH37 DEVINE 7+04	OUTSIDE ROW			
9	PERSIMMON/20"	BH37 DEVINE 7+28	WITHIN ROW	PROTECTED	II A	
9	PERSIMMON/23"	BH37 DEVINE 7+48	WITHIN ROW	PROTECTED	II A	
9	MT LAUREL/13"	BH37 DEVINE 7+96	WITHIN ROW			
9	PALM/19"	BH37 DEVINE 8+31	WITHIN ROW	PROTECTED	II A	
9	PALM/12"	BH37 DEVINE 8+35	OUTSIDE ROW			
9	PALM/12"	BH37 DEVINE 8+48	WITHIN ROW			
9	PERSIMMON/11"	BH37 DEVINE 8+51	WITHIN ROW			
9	PERSIMMON/8"	BH37 DEVINE 8+68	WITHIN ROW			
9	CREPE MYRTLE/14"	BH37 DEVINE 8+75	OUTSIDE ROW			
9	CREPE MYRTLE/12"	BH37 DEVINE 8+95	WITHIN ROW			
10	PERSIMMON/14"	BH37 DEVINE 9+03	OUTSIDE ROW	PROTECTED	II A	
10	PERSIMMON/8"	BH37 DEVINE 9+29	OUTSIDE ROW	PROTECTED	II A	
10	PERSIMMON/11"	BH37 DEVINE 9+34	OUTSIDE ROW			
10	PALM/12"	BH37 DEVINE 9+35	OUTSIDE ROW			
10	PALM/12"	BH37 DEVINE 9+47	OUTSIDE ROW			
10	PERSIMMON/8"	BH37 DEVINE 9+55	OUTSIDE ROW			
10	CEDAR/19"	BH37 DEVINE 9+79	OUTSIDE ROW			
10	CREPE MYRTLE/16"	BH37 DEVINE 10+19	OUTSIDE ROW			
10	OAK/10"	BH37 DEVINE 10+20	OUTSIDE ROW			
10	OAK/10"	BH37 DEVINE 10+20	OUTSIDE ROW			
10	CREPE MYRTLE/10"	BH37 DEVINE 10+67	OUTSIDE ROW			
10	CREPE MYRTLE/10"	BH37 DEVINE 10+67	OUTSIDE ROW			
10	PALM/10"	BH37 DEVINE 10+82	OUTSIDE ROW			
10	PALM/10"	BH37 DEVINE 10+97	OUTSIDE ROW	PROTECTED	II A	
10	CREPE MYRTLE/17"	BH37 DEVINE 10+98	WITHIN ROW	PROTECTED	II A	
10	CEDAR/20"	BH37 DEVINE 11+41	OUTSIDE ROW			
10	CEDAR/20"	BH37 DEVINE 11+53	OUTSIDE ROW			
10	PERSIMMON/10"	BH37 DEVINE 11+77	INSIDE ROW	PROTECTED	II A	
10	PECAN/23"	BH37 DEVINE 11+94	WITHIN ROW	PROTECTED	II A	
10	OAK/14"	BH37 DEVINE 12+16	OUTSIDE ROW			
10	OAK/14"	BH37 DEVINE 12+16	INSIDE ROW			
10	OAK/14"	BH37 DEVINE 12+28	INSIDE ROW			
10	PECAN/20"	BH37 DEVINE 12+80	WITHIN ROW	PROTECTED	II A	
11	CREPE MYRTLE/12"	BH37 DEVINE 13+26	WITHIN ROW			
11	CREPE MYRTLE/12"	BH37 DEVINE 13+40	WITHIN ROW			
11	CREPE MYRTLE/19"	BH37 DEVINE 13+69	WITHIN ROW			
11	CREPE MYRTLE/19"	BH37 DEVINE 13+69	WITHIN ROW			

1.3 TREE PROTECTION TABLE

TREE INVENTORY SUMMARY

(8" DIAMETER AND LARGER)

TOTAL DIAMETER INCHES, R.O.W. 1470

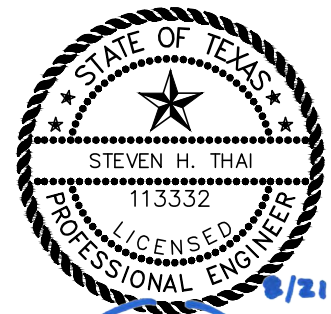
TOTAL DIAMETER INCHES REMOVED 0

TOTAL DIAMETER INCHES PRESERVED 1470

TOTAL PERCENTAGE INCHES PRESERVED 100%

TOTAL INCHES TO BE MITIGATED 0

1.3 TREE INVENTORY SUMMARY



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TBPE Registration No. F-1046

No.	Revision	Drawn	Approved	Date
ADD #1:	TREES	E.B.	S.H.T.	8/14/19

REVISIONS
MULTIPLE SEWERSHED PACKAGE 10B-OPEN CUT
TREE PRESERVATION PLAN SHEET 2 OF 2

DEVELOPER: _____
CONT. BUDGET PROJ.

SUBMITTED _____
APPROVED _____

MAP No. 164572 SHEET 14
SECT. No. 14
DR. CK. JOB No. 18-4542 OF 28