



**2019 SMP PACKAGE I
(AVENIDA PRIMA, LA AVENTURA, & LA BAHIA)
Solicitation Number: CO-00201
Job No.: 18-5008 and 18-5508**

**ADDENDUM NO. 1
August 14, 2018**

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. The sewer laterals will need Hot Mix Asphaltic Pavement B&D as part of the pavement restoration. Will this be paid for under the appropriate bid items 206 & 205.4?**
Per Item 854.6, pavement restoration of the sewer laterals is inclusive to Specification Item 854.

- 2. Proposal items 12w,13W & 14W call for PVC Waterline "Restrained". Are ALL joints to be restrained, or only as tagged(RL=X)?**
Joints are to be restrained per RL restraint lengths noted on the plans and in accordance with SAWS Standard Specification 839.

CHANGES TO THE SPECIFICATIONS

- 1. Due to an update in the General Wage Decision for Building Construction Type, remove the building wage decision document from the solicitation in entirety and replace with the revised version attached (rev. 08/03/2018, General Decision Number TX180280). This version should be utilized by the awarded contractor for the project.**

CHANGES TO THE PLANS

- 1. DELETE Sheet 8 of 14 of the SEWER PLANS in its entirety and REPLACE with the attached Sheet 8 of 14, dated 7/27/18. Sheet 8 has been revised to show updated tree species and/or location.**
- 2. DELETE Sheet 9 of 14 of the SEWER PLANS in its entirety and REPLACE with the attached Sheet 9 of 14, dated 7/27/18. Sheet 9 has been revised to show updated tree protection table and tree general note 13.**
- 3. DELETE Sheet 14 of 14 of the SEWER PLANS in its entirety and REPLACE with the attached Sheet 14 of 14, dated 7/27/18. Sheet 14 has been revised to show updated tree protection table and tree general note 13.**
- 4. DELETE Sheet 9 of 29 of the WATER PLANS in its entirety and REPLACE with the attached Sheet 9 of 29, dated 7/27/18. Sheet 9 has been revised to show updated tree species and/or location.**
- 5. DELETE Sheet 10 of 29 of the WATER PLANS in its entirety and REPLACE with the attached Sheet 10 of 29, dated 7/27/18. Sheet 10 has been revised to show updated tree protection table and tree general note 13.**
- 6. DELETE Sheet 14 of 29 of the WATER PLANS in its entirety and REPLACE with the attached Sheet 14 of 29, dated 7/27/18. Sheet 14 has been revised to show updated tree species and/or location.**
- 7. DELETE Sheet 15 of 29 of the WATER PLANS in its entirety and REPLACE with the attached Sheet 15 of 29, dated 7/27/18. Sheet 15 has been revised to show updated tree species and/or location.**
- 8. DELETE Sheet 19 of 29 of the WATER PLANS in its entirety and REPLACE with the attached Sheet 19 of 29, dated 7/27/18. Sheet 19 has been revised to show updated tree species and/or location.**

9. DELETE **Sheet 22 of 29** of the WATER PLANS in its entirety and REPLACE with the attached **Sheet 22 of 29**, dated 7/27/18. Sheet 22 has been revised to show updated tree protection table and tree general note 13.
10. DELETE **Sheet 26 of 29** of the WATER PLANS in its entirety and REPLACE with the attached **Sheet 26 of 29**, dated 7/27/18. Sheet 26 has been revised to show updated tree species and/or location.
11. DELETE **Sheet 28 of 29** of the WATER PLANS in its entirety and REPLACE with the attached **Sheet 28 of 29**, dated 7/27/18. Sheet 28 has been revised to show updated tree protection table and tree general note 13.

END OF ADDENDUM

This Addendum is twenty (20) page(s) in its entirety.

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



General Decision Number: TX180280 08/03/2018 TX280

Superseded General Decision Number: TX20170280

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 \$10.35 for calendar year 2018 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 \$10.35 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 2018. 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 | 01/05/2018 |
| 1 | 01/12/2018 |
| 2 | 03/23/2018 |
| 3 | 04/20/2018 |
| 4 | 07/06/2018 |
| 5 | 08/03/2018 |

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 06/01/2016

Rates Fringes

| | | |
|---|----------|---------|
| ELECTRICIAN (Communication Technician Only)..... | \$ 21.57 | 9%+4.65 |
|---|----------|---------|

ELEC0060-004 06/01/2018

| | Rates | Fringes |
|---|----------|----------|
| ELECTRICIAN (Excludes Low Voltage Wiring)..... | \$ 28.30 | 13%+5.05 |

ELEV0081-001 01/01/2018

| | Rates | Fringes |
|------------------------|----------|------------|
| ELEVATOR MECHANIC..... | \$ 39.32 | 32.645+a+b |

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 06/01/2017

| | Rates | Fringes |
|-----------------------------|----------|---------|
| IRONWORKER, STRUCTURAL..... | \$ 21.55 | 6.73 |

IRON0084-011 06/01/2017

| | Rates | Fringes |
|-----------------------------|----------|---------|
| IRONWORKER, ORNAMENTAL..... | \$ 23.27 | 7.12 |

PLUM0142-009 07/01/2017

| | Rates | Fringes |
|--|----------|---------|
| HVAC MECHANIC (HVAC Electrical Temperature Control Installation Only)..... | \$ 30.25 | 11.80 |
| HVAC MECHANIC (HVAC Unit Installation Only)..... | \$ 30.25 | 11.80 |
| PIPEFITTER (Including HVAC Pipe Installation)..... | \$ 30.25 | 11.80 |

| | | |
|---|----------|-------|
| PLUMBER (Excludes HVAC Pipe Installation)..... | \$ 30.25 | 11.80 |
|---|----------|-------|

SFTX0669-002 04/01/2017

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

* SHEE0067-004 04/01/2018

| | Rates | Fringes |
|---|----------|---------|
| Sheet metal worker Excludes HVAC Duct Installation..... | \$ 26.35 | 15.29 |
| HVAC Duct Installation Only. | \$ 26.10 | 15.25 |

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

PROP ID:546756
4919 LA POSADA ST
GONZALEZ GABINO &
NCB 14230 BLK 9 LOT 16

PROP ID:546755
4930 EL GUSTO ST
ERP GLEN D & MARGERY E
NCB 14230 BLK 9 LOT 15

PROP ID:546607
4931 EL GUSTO ST
BURKHARDT SUSAN M
NCB 14223 BLK 2 LOT 25

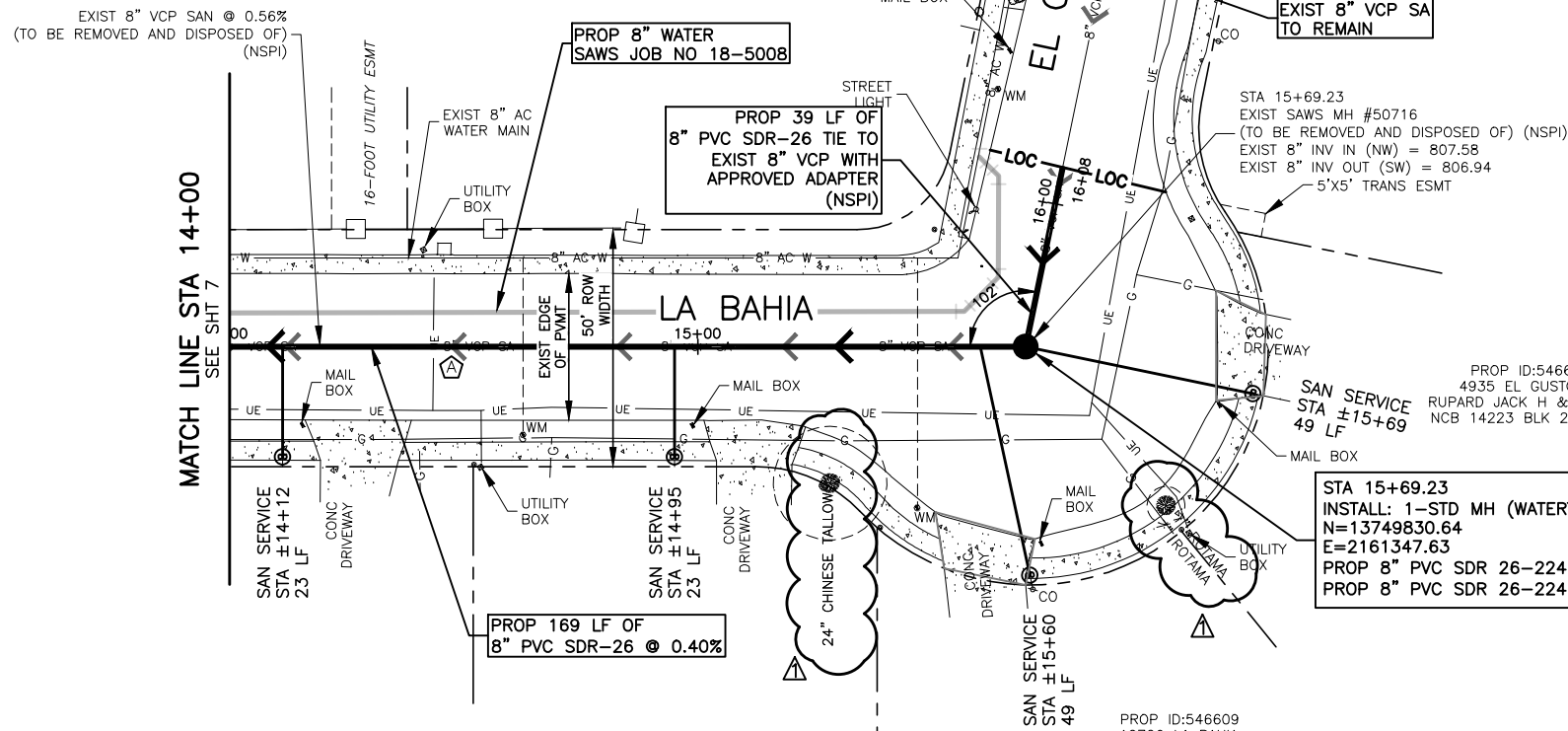
PROP ID:546608
4935 EL GUSTO ST
RUPARD JACK H & MARY A
NCB 14223 BLK 2 LOT 26

PROP ID:546609
12726 LA BAHIA
TOWNSEND MICHELLE RAE
NCB 14223 BLK 2 LOT 27

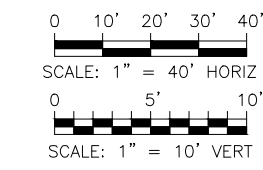
PROP ID:546611
12718 LA BAHIA
MURPHY MICHAEL P
NCB 14223 BLK 2 LOT 29

PROP ID:546610
12722 LA BAHIA
DANFORD WILLIAM H & ELVIRA
NCB 14223 BLK 2 LOT 28

LA BAHIA SANITARY



CAUTION !!!
EXISTING
UNDERGROUND GAS AND
UNDERGROUND ELECTRIC LINES.



NOTES:

1. 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.
2. CONTRACTOR SHALL RESTORE IRRIGATION SYSTEM TO ORIGINAL OR BETTER CONDITION IF DAMAGED DURING CONSTRUCTION (NSPI).
3. CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING MAIL BOXES TO ORIGINAL OR BETTER CONDITION IF DAMAGED DURING CONSTRUCTION (NSPI).
4. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING SEWERLINE AS REQUIRED FOR THE INSTALLATION OF PROPOSED SEWERLINE AND MANHOLES (NSPI).

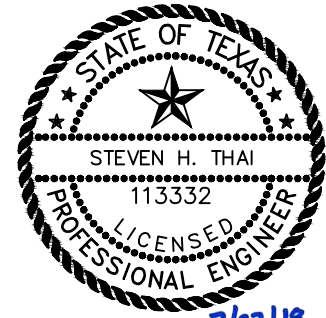
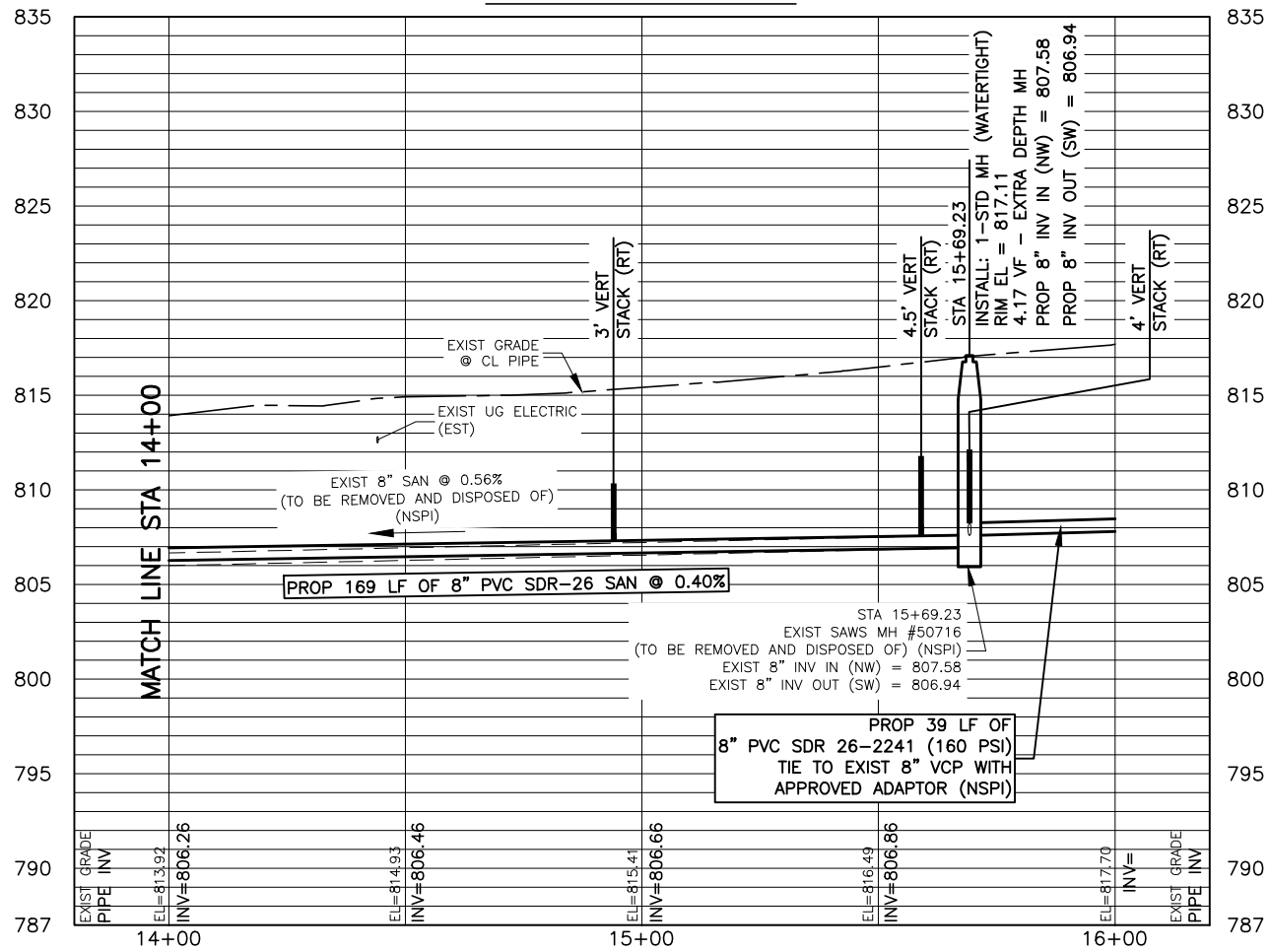
TRENCH EXCAVATION SAFETY PROTECTION:

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.

TREE PROTECTION NOTE:

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.

| SPEC NO. | UNIT DESCRIPTION | UNIT | QUANTITY |
|----------|--|------|----------|
| 103 | Remove Concrete Curb | LF | 18 |
| 103 | Remove Sidewalks and Driveways | SF | 522 |
| 205 | Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth) | SY | 108 |
| 205 | Hot Mix Asphaltic Pavement, Type B (10" Compacted Depth) | SY | 85 |
| 500 | Concrete Curb | LF | 18 |
| 502 | Concrete Sidewalks and Driveways | SY | 58 |
| 550 | Trench Protection | LF | 208 |
| 848 | 8" PVC Gravity Sanitary Sewer Pipe (SDR 26-2241, 160 psi) (All Depths) | LF | 208 |
| 852 | Sanitary Sewer Manhole (0'-6') | EA | 1 |
| 852 | Extra Depth Manholes (greater than 6') | VF | 4 |
| 854 | Sanitary Sewer Laterals, (SDR 26, ASTM 2241, 160 psi) | LF | 144 |
| 854 | Two-Way Sanitary Sewer Clean-out | EA | 4 |
| 860 | Vertical Stacks | VF | 11.5 |
| 866 | Pre Sewer Main Television Inspection (6"-12") | LF | 208 |
| 866 | Post Sewer Main Television Inspection (8"-12") | LF | 208 |



Signature
7/27/18
Brown & Gay Engineers, Inc.
F-1046

LEGEND

- CAUTION !!! UNDERGROUND ELECTRIC CROSSING
- CAUTION !!! UNDERGROUND GAS CROSSING
- 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

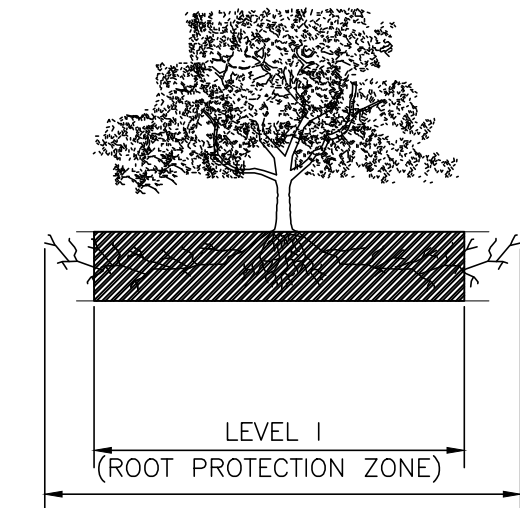
BGE, Inc.
7330 San Pedro, Suite 202 El San Antonio, Tx 78216
Tel: 210-581-3600 • www.bgeinc.com
TBPE Registration No. F-1046

| | | | | | |
|-----------|-----|----------|-------|----------|------|
| REVISIONS | No. | Revision | Drawn | Approved | Date |
| | | | | | |

2019 SMP
LA BAHIA FROM
RISADA TO EL GUSTO
LA BAHIA SANITARY
IMPROVEMENTS STA 14+00
TO STA 15+69

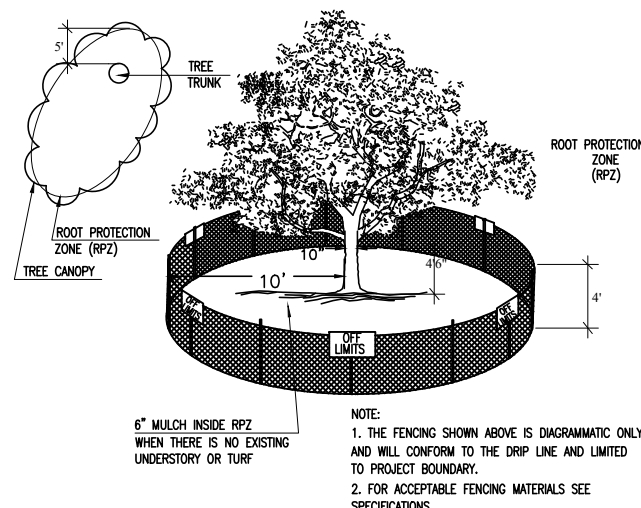
| | |
|---------------------------|--------------|
| DEVELOPER: | BUDGET PROJ. |
| SUBMITTED | |
| APPROVED | |
| MAP No. 192624 AND 192626 | SHEET 8 |
| SECT. No. | 8 |
| DR. CK. JOB No. 18-5508 | Of 14 |

BGE, INC. S:\TX\Projects\SANISAVS - 2019 Pipelines, Water and Sewer Pkg 103_CADD\01_Sheets\La Bahia\01_Sheets\La Bahia Sanitary.dwg Jul 27, 2018 3:02pm gsanchez



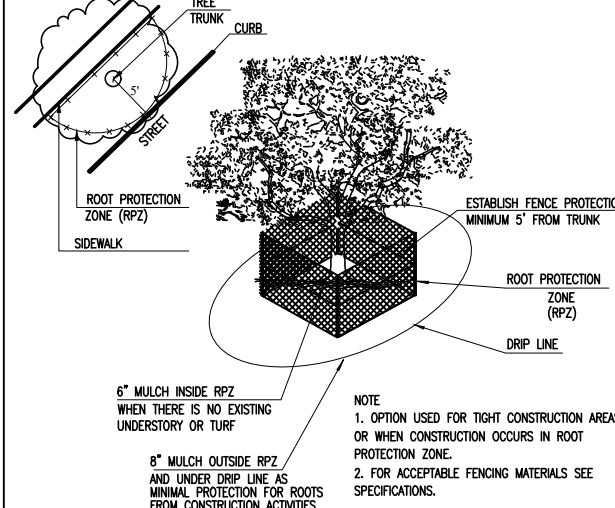
1.1.1 ELEVATION
N. T. S.

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

TREE PROTECTION TABLE

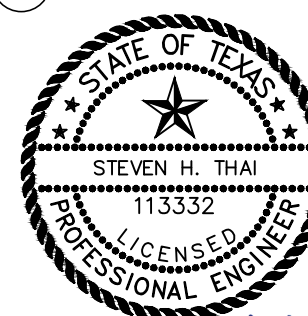
| TREE SHEET # | TREE/CALIPER | STATION OR NUMBER | LOCATION | PROTECTION MEASURE | |
|--------------|--------------------|-------------------|------------|--------------------|--|
| | | | | ITEM 801 | ITEM 802 MAINTENANCE/TREATMENTS/PROTECTION |
| 4 | PALM/6" | 0+00 | WITHIN ROW | | |
| 5 | PALM/6" | 4+11 | WITHIN ROW | | |
| 6 | SHRUB/2" | 9+33 | WITHIN ROW | | |
| 7 | PINE/3" | 13+65 | WITHIN ROW | | |
| 8 | CHINESE TALLOW/24" | 15+28 | WITHIN ROW | | |
| 8 | ROTAMA/7" | 15+68 | WITHIN ROW | | |

1.3 TREE PROTECTION TABLE

TREE INVENTORY SUMMARY

| | |
|-----------------------------------|------|
| (8" DIAMETER AND LARGER) | 32 |
| TOTAL DIAMETER INCHES, R.O.W | 0 |
| TOTAL DIAMETER INCHES REMOVED | 0 |
| TOTAL DIAMETER INCHES PRESERVED | 32 |
| TOTAL PERCENTAGE INCHES PRESERVED | 100% |
| TOTAL INCHES TO BE MITIGATED | 0 |

1.3 TREE INVENTORY SUMMARY



Brown & Gay Engineers, Inc.
F-1046

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

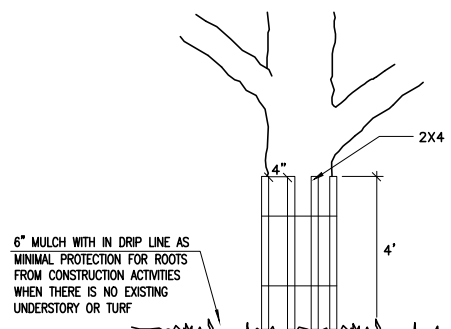
| REVISION #1 | GS | ST | JULY 2018 |
|-------------|-------|----------|-----------|
| Revision | Drawn | Approved | Date |

2019 SMP LA BAHIA FROM RISADA TO EL GUSTO LA BAHIA TREE PRESERVATION PLAN

DEVELOPER:
CONT. BUDGET PROJ.

SUBMITTED
APPROVED

MAP No. 192624 AND 192626 SHEET 9 OF 14
SECT. No.
DR. CK. JOB No. 18-5508

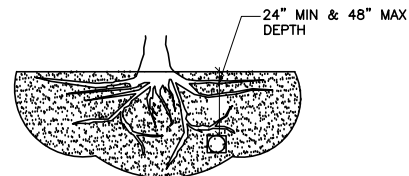


1.1.4 LEVEL II B FENCE PROTECTION
N. T. S.

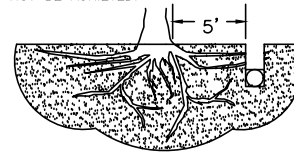
NOTE: WRAP TREE TRUNK WITH 2"x4" STUDS AND ROPE OR BAND IN PLACE AS NEEDED TO PROTECT TREES IN WORK AREAS.

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.

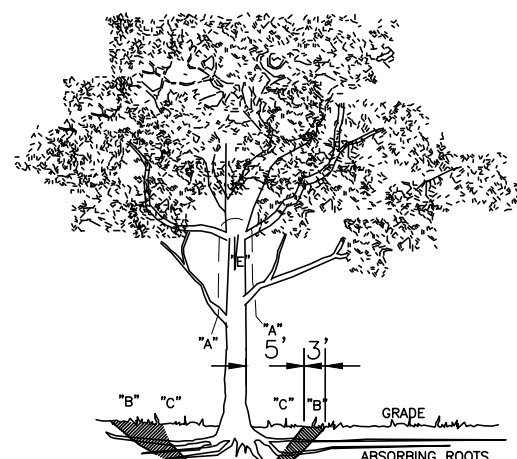


BORE TO MINIMIZE ROOT DAMAGE (TOP) AS OPPOSED TO SURFACE-DUG TRENCHES IN ROOT PROTECTION ZONE WHEN THE 5" MINIMUM DISTANCE FROM TRUNK CAN NOT BE ACHIEVED.



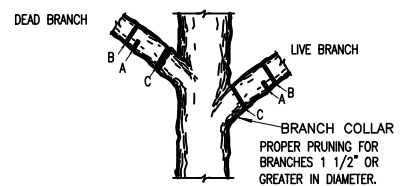
OPEN TRENCHING MAY BE USED IF EXPOSED TREE ROOTS DO NOT EXCEED 3" OR ROOTS CAN BE BENT BACK.

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.



- FIRST CUT - TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.
- SECOND CUT - TO REDUCE THE WEIGHT OF BRANCH.
- 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.

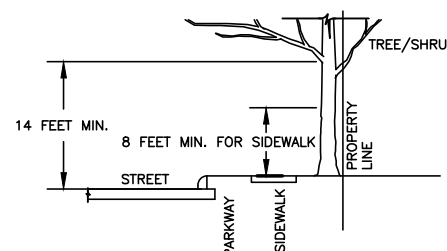
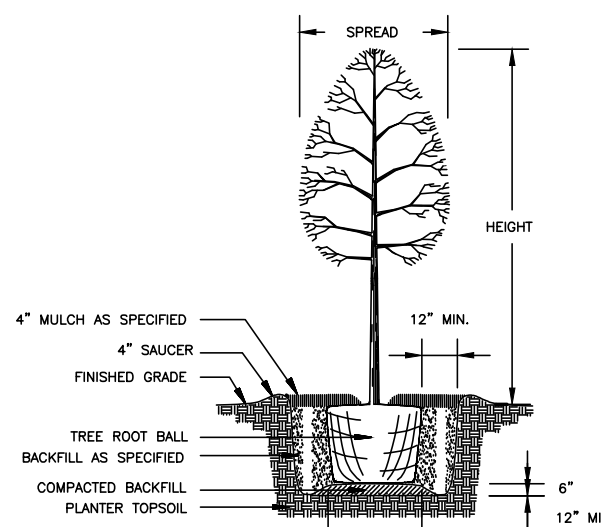
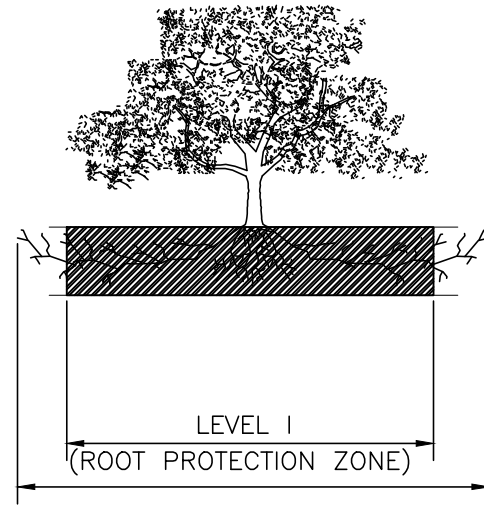


FIGURE No.2:
A MINIMUM BRANCH CLEARANCE OF 14 FEET ABOVE STREET ELEVATION MUST BE MAINTAINED FROM THE PROPERTY LINE TO THE CURB LINE AS PRESCRIBED BY PROJECT MANAGER.

1.5 BRANCH CLEARANCE DETAIL
N. T. S.

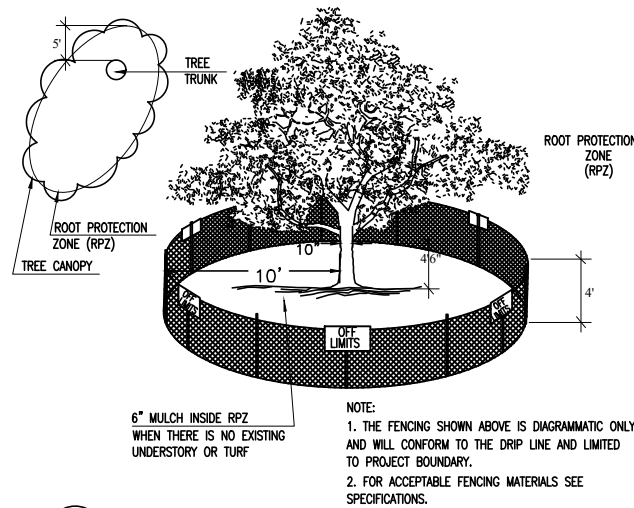


1.6 NEW TREE PLANTING DETAIL
N. T. S.



1.1.1 ELEVATION
N. T. S.

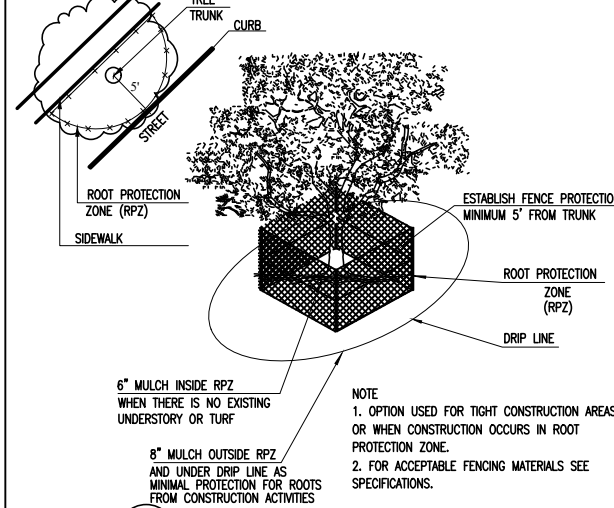
ROOT PROTECTION ZONE—THE ROOT PROTECTION ZONE IS A CIRCULAR AREA AROUND A TREE THAT IS BASED ON THE DIAMETER OF THE TREE. EACH 1 INCH DIAMETER OF THE TREE EQUALS 1 FOOT RADIUS FOR ROOT PROTECTION ZONE.



1.1.2 LEVEL I & FENCE PROTECTION
N. T. S.

6" MULCH INSIDE RPZ WHEN THERE IS NO EXISTING UNDERSTORY OR TURF

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.

6" MULCH INSIDE RPZ WHEN THERE IS NO EXISTING UNDERSTORY OR TURF

8" MULCH OUTSIDE RPZ AND UNDER DRIP LINE AS MINIMAL PROTECTION FOR ROOTS FROM CONSTRUCTION ACTIVITIES

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

TREE PROTECTION TABLE

| TREE SHEET # | TREE/CALIPER | STATION OR NUMBER | LOCATION | PROTECTION MEASURE | | REMOVAL SEE GENERAL NOTE No. 2 |
|--------------|------------------|-------------------|-------------|--------------------|--|--------------------------------|
| | | | | ITEM 801 | ITEM 802 MAINTENANCE/TREATMENTS/PROTECTION | |
| 13 | CREPE MYRTLE/12" | 5+34 | WITHIN ROW | | | |
| 13 | OAK/25" | 6+42 | OUTSIDE ROW | | | |
| 13 | OAK/18" | 7+70 | OUTSIDE ROW | | | |
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1.3 TREE PROTECTION TABLE

TREE INVENTORY SUMMARY
(8" DIAMETER AND LARGER)

| | |
|-----------------------------------|------|
| TOTAL DIAMETER INCHES, R.O.W | 56 |
| TOTAL DIAMETER INCHES REMOVED | 0 |
| TOTAL DIAMETER INCHES PRESERVED | 56 |
| TOTAL PERCENTAGE INCHES PRESERVED | 100% |
| TOTAL INCHES TO BE MITIGATED | 0 |

1.3 TREE INVENTORY SUMMARY



Brown & Gay Engineers, Inc.
F-1046

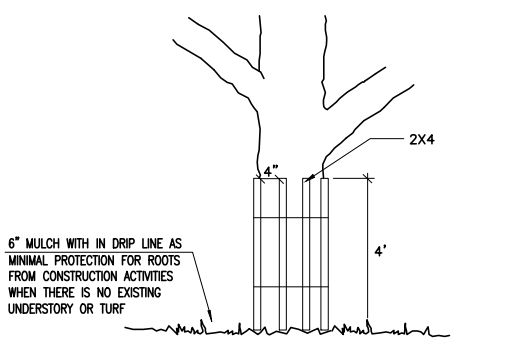
BGE, Inc.
7330 San Pedro, Suite 202 San Antonio, TX 78216
Tel: 210-581-3600 • www.bgeinc.com
TBPE Registration No. F-1046

| Revised By | Drawn | Approved | Date |
|-------------|-------|----------|-----------|
| ADDENDUM #1 | GS | ST | JULY 2018 |

2019 SMP-LA AVENTURA FROM EL PRESIDIO TO CUL-DE-SAC
LA AVENTURA TREE PRESERVATION PLAN

DEVELOPER: _____
CONT. _____ BUDGET PROJ. _____

| | |
|---------------------------|-----------------|
| SUBMITTED _____ | SHEET 14 |
| APPROVED _____ | |
| MAP No. 190624 AND 192624 | JOB No. 18-5508 |
| SECT. No. _____ | |
| DR. _____ | Of 14 |



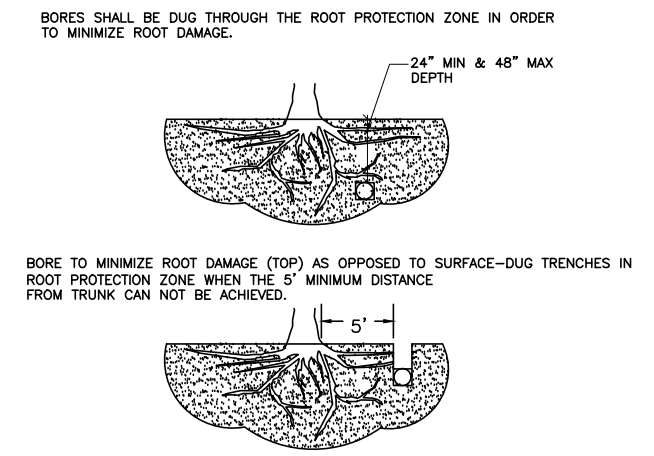
1.1.4 LEVEL II B FENCE PROTECTION
N. T. S.

6" MULCH WITH IN DRIP LINE AS MINIMAL PROTECTION FOR ROOTS FROM CONSTRUCTION ACTIVITIES WHEN THERE IS NO EXISTING UNDERSTORY OR TURF

NOTE:
WRAP TREE TRUNK WITH 2"x4" STUDS AND ROPE OR BAND IN PLACE AS NEEDED TO PROTECT TREES IN WORK AREAS.

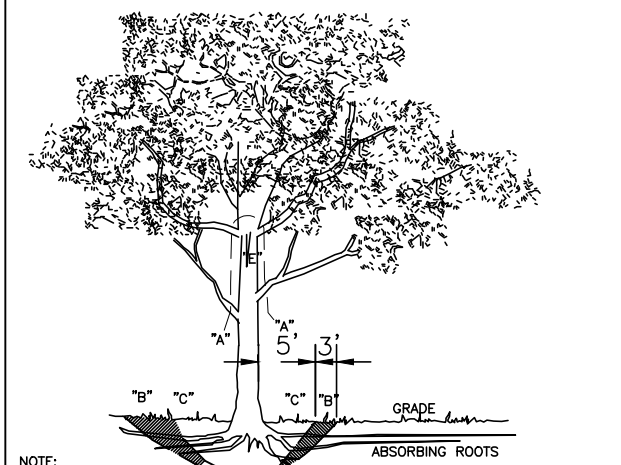
TREES THAT ARE MARKED TO BE PRESERVED ON A SITE PLAN AND FOR WHICH UTILITIES MUST PASS THROUGH THEIR ROOT PROTECTION ZONES MAY REQUIRE BORING AS OPPOSED TO OPEN TRENCHES. THE DECISION TO BORE WILL BE DETERMINED ON A CASE BY CASE BASIS BY THE CITY.

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



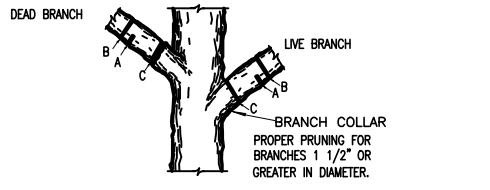
1.2 BORING THRU TREE ROOT ZONE
N. T. S.

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



1.3 TREE REMOVAL DIAGRAM
N. T. S.

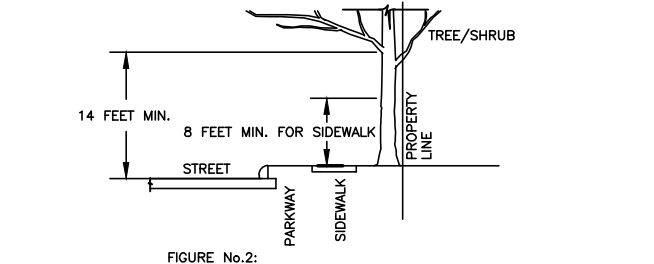
NOTE:
"A" REMOVE BULKY TREE PARTS "SHRED" AND/OR HAUL SEPARATELY.
"B" BEGIN EXCAVATION APPROX. 8' FROM THE TRUNK - CUT THRU ANCHOR ROOTS AT AN ANGLE - 3' TO 4' DEEP
"C" USING TREE TRUNK AS A LEVER PUSH AT POINT "E" TO REMOVE TREE BOLE AND LARGE FEEDER ROOTS (4" TO 10" IN DIAM.)
"D" BACKFILL HOLE AND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



1.4 BRANCH PRUNING DETAIL
N. T. S.

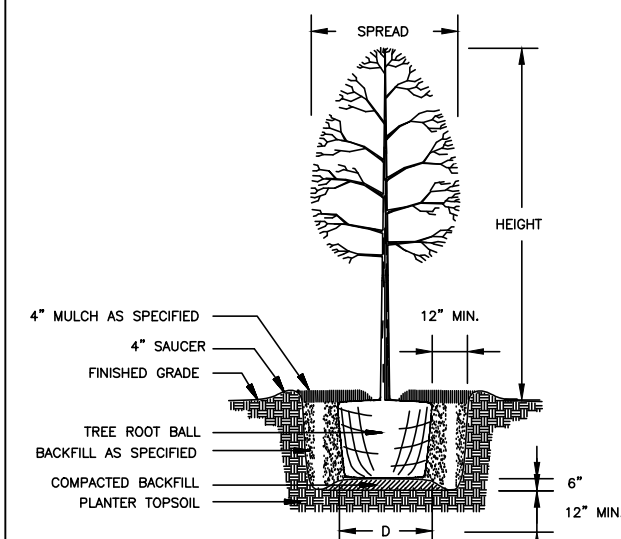
A. FIRST CUT - TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.
B. SECOND CUT - TO REDUCE THE WEIGHT OF BRANCH.
C. FINAL CUT - ALLOW FOR HEALING COLLAR BUT NO STUBS

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



1.5 BRANCH CLEARANCE 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.



1.6 NEW TREE PLANTING DETAIL
N. T. S.

PROP ID:546790
4918 LA POSADA ST
ABERNATHY ALAN J R
NCB 14232 BLK 11 LOT 9

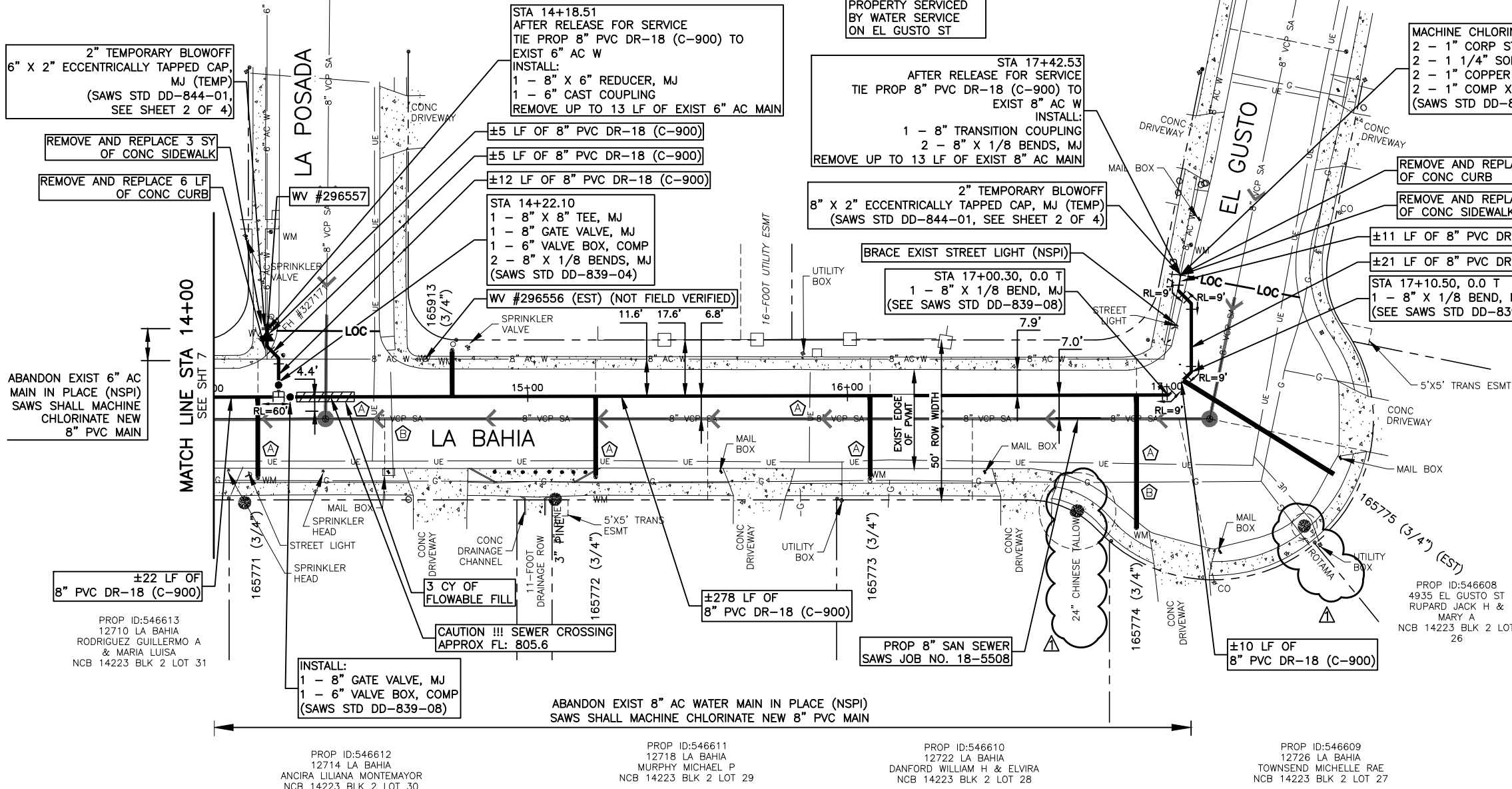
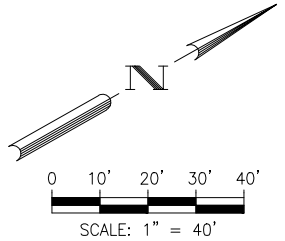
WATER SHUT OFF
VALVE APPROX 640 LF
WV #296517

PROP ID:546756
4919 LA POSADA ST
GONZALEZ GABINO &
NCB 14230 BLK 9 LOT 16

PROP ID:546755
4930 EL GUSTO ST
ERP GLEN D & MARGERY E
NCB 14230 BLK 9 LOT 15

WATER SHUT OFF
VALVE APPROX 650 LF
WV #296547

CAUTION !!!
EXISTING
UNDERGROUND GAS AND
UNDERGROUND ELECTRIC LINES.



MACHINE CHLORINATION:
2 - 1" CORP STOP, CC X IP
2 - 1 1/4" SOLID CAPS, THR
2 - 1" COPPER TUBING, CUT AS REQUIRED
2 - 1" COMP X 1 1/4" COUPLING, CURB STOP
(SAWS STD DD-844-01)

| SPEC NO. | UNIT DESCRIPTION | UNIT | QUANTITY |
|----------|--|------|----------|
| 103 | Remove Concrete Curb | LF | 36 |
| 103 | Remove Sidewalks and Driveways | SF | 162 |
| 205 | Hot Mix Asphaltic Pavement - Type D (2" Compacted Depth) | SY | 189 |
| 205 | Hot Mix Asphaltic Pavement - Type B (10" Compacted Depth) | SY | 149 |
| 413 | Flowable Fill | CY | 3 |
| 500 | Concrete Curb | LF | 36 |
| 502 | Concrete Sidewalks | SY | 18 |
| 550 | Trench Protection | LF | 364 |
| 818 | 8" PVC Waterline (Restrained) | LF | 364 |
| 824 | Relay 3/4" Long Service | EA | 5 |
| 824 | Relay 3/4" Short Service | EA | 1 |
| 824.5 | Customer Shut-off Valve | EA | 6 |
| 828 | 8" Gate Valve | EA | 2 |
| 833 | New Meter Box | EA | 6 |
| 836 | Pipe Fittings, All Sizes & Types | TN | 0.7 |
| 840 | 6" Water Tie-Ins | EA | 1 |
| 840 | 8" Water Tie-Ins | EA | 1 |
| 844 | 2" Blow-off, Temporary | EA | 2 |
| 3000 | Removal, Transportation and Disposal of various sizes of A.C. Pipe | LF | 26 |

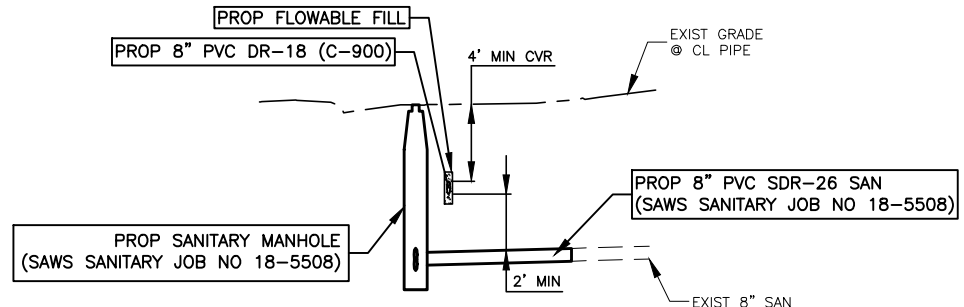
NOTES:

- 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 RESTORE IRRIGATION SYSTEM TO ORIGINAL OR BETTER CONDITION IF DAMAGED DURING CONSTRUCTION (NSPI).
- CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING MAIL BOXES TO ORIGINAL OR BETTER CONDITION IF DAMAGED DURING CONSTRUCTION (NSPI).
- CONTRACTOR SHALL ADD OR REPLACE CUSTOMER SHUT OFF VALVES FOR EVERY SERVICE.

ASBESTOS CEMENT (AC) PIPE:
ASBESTOS CEMENT PIPE, ALSO KNOWN AS TRANSITE PIPE, AND WHICH IS KNOWN TO CONTAIN ASBESTOS CONTAINING MATERIAL (ACM) IS LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THE PIPE OCCUR. PAYMENT FOR SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000. (SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE)

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.

TREE PROTECTION NOTE:
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.



WATER MAIN CROSSING DETAIL
N.T.S.



Brown & Gay Engineers, Inc.
F-1046

LEGEND

- CAUTION !!! UNDERGROUND ELECTRIC CROSSING
- CAUTION !!! UNDERGROUND GAS CROSSING
- 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

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

| | | | |
|-------------|----|----|------|
| REVISION BY | GS | ST | JULY |
| ADDENDUM #1 | | | 2018 |

REVISIONS

2019 SMP
LA BAHIA FROM
RISADA TO EL GUSTO
LA BAHIA WATER
IMPROVEMENTS STA 14+00
TO STA 17+27

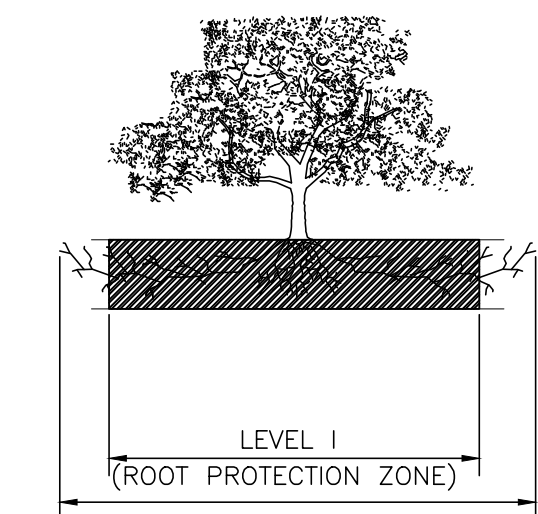
DEVELOPER: _____
CONT. BUDGET PROJ.

SUBMITTED _____

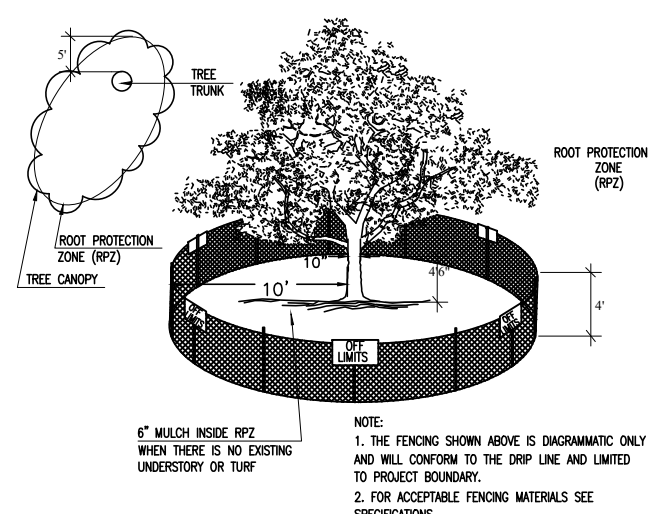
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MAP No. 192624 AND 192626
SECT. No. _____
DR. CK. JOB No. 18-5008 SHEET 9 OF 29

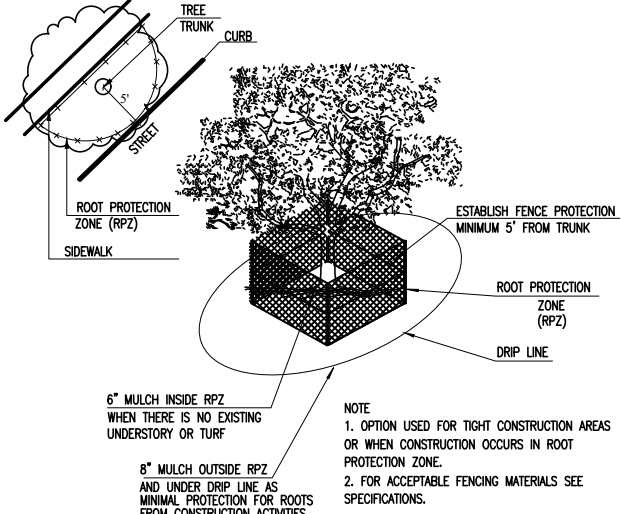
BGE, INC. C:\Projects\18-5008\18-5008.dwg 7/27/18 10:30:00 AM gsean@bge.com



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

TREE PROTECTION TABLE

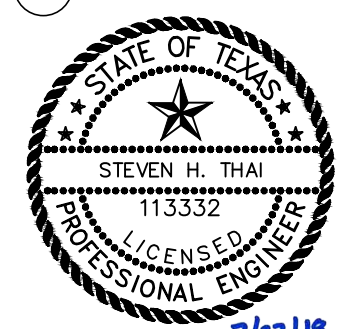
| TREE SHEET # | TREE/CALIPER | STATION OR NUMBER | LOCATION | ITEM 801 | PROTECTION MEASURE | ITEM 802 MAINTENANCE/TREATMENTS/PROTECTION | REMOVAL SEE GENERAL NOTE No. 2 |
|--------------|--------------------|-------------------|------------|----------|--------------------|--|--------------------------------|
| 4 | PALM/6" | 0+00 | WITHIN ROW | | | | |
| 5 | PALM/6" | 5+37 | WITHIN ROW | | | | |
| 6 | SHRUB/2" | 10+73 | WITHIN ROW | | | | |
| 9 | PINE/3" | 15+09 | WITHIN ROW | | | | |
| 9 | CHINESE TALLOW/24" | 16+72 | WITHIN ROW | | | | |
| 9 | ROTAMA/7" | 17+02 | WITHIN ROW | | | | |

1.3 TREE PROTECTION TABLE

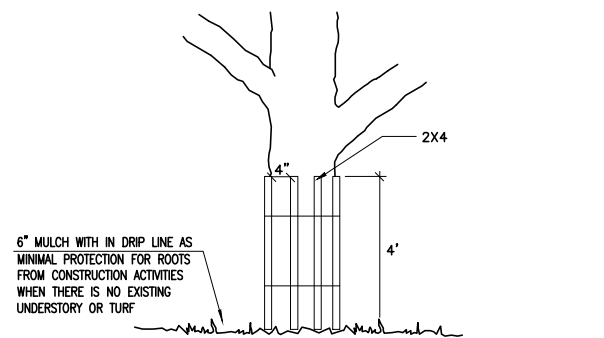
TREE INVENTORY SUMMARY
(6" DIAMETER AND LARGER)

| | |
|-----------------------------------|------|
| TOTAL DIAMETER INCHES, R.O.W | 32 |
| TOTAL DIAMETER INCHES REMOVED | 0 |
| TOTAL DIAMETER INCHES PRESERVED | 32 |
| TOTAL PERCENTAGE INCHES PRESERVED | 100% |
| TOTAL INCHES TO BE MITIGATED | 0 |

1.3 TREE INVENTORY SUMMARY



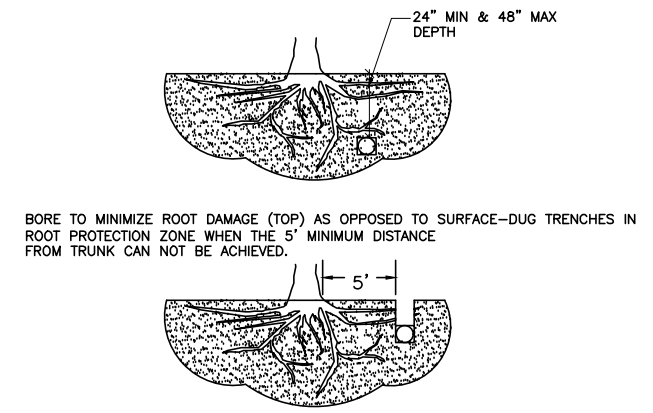
Brown & Gay Engineers, Inc.
F-1046



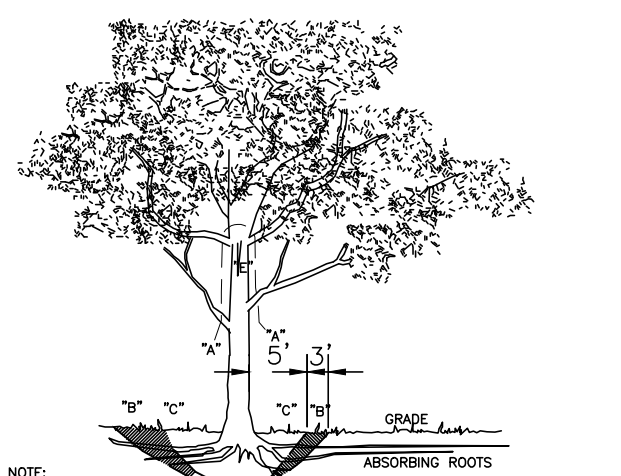
1.1.4 LEVEL II B FENCE PROTECTION
N. T. S.
NOTE:
WRAP TREE TRUNK WITH 2"x4" STUDS AND ROPE OR BAND IN PLACE AS NEEDED TO PROTECT TREES IN WORK AREAS.

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.

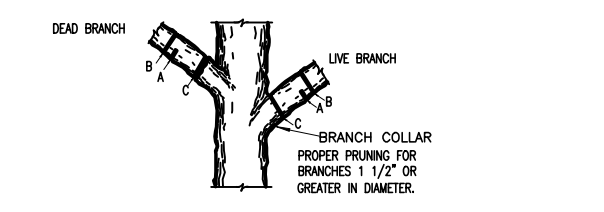
BORES SHALL BE DUG THROUGH THE ROOT PROTECTION ZONE IN ORDER TO MINIMIZE ROOT DAMAGE.



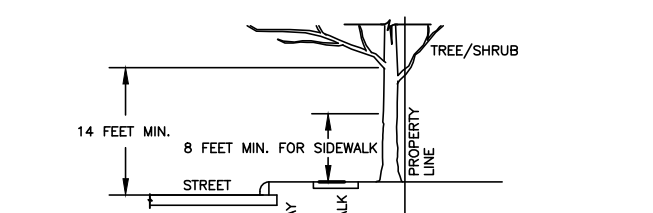
1.2 BORING THRU TREE ROOT ZONE
N. T. S.
OPEN TRENCHING MAY BE USED IF EXPOSED TREE ROOTS DO NOT EXCEED 3" OR ROOTS CAN BE BENT BACK.



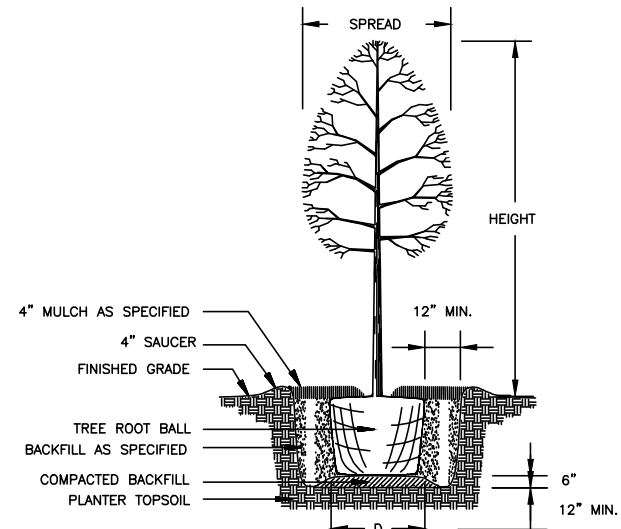
1.3 TREE REMOVAL DIAGRAM
N. T. S.
NOTE:
"A" REMOVE BULKY TREE PARTS "SHRED" AND/OR HAUL SEPARATELY.
"B" BEGIN EXCAVATION APPROX. 8' FROM THE TRUNK - CUT THRU ANCHOR ROOTS AT AN ANGLE - 3' TO 4' DEEP
"C" USING TREE TRUNK AS A LEVER PUSH AT POINT "E" TO REMOVE TREE BOLE AND LARGE FEEDER ROOTS (4" TO 10" IN DIAM.)
"D" BACKFILL HOLE AND CLEAN UP.



1.4 BRANCH PRUNING DETAIL
N. T. S.
FOR OAKS ONLY: PAINT ALL WOUNDS OR CUTS WITH PRUNING PAINT WITHIN 20 MIN TO PREVENT THE SPREAD OF OAK WILT.



1.5 BRANCH CLEARANCE 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.



1.6 NEW TREE PLANTING DETAIL
N. T. S.

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

| | | | | |
|----------|-------------|-------|----------|-----------|
| REVISION | ADDENDUM #1 | GS | ST | JULY 2018 |
| No. | Revision | Drawn | Approved | Date |

2019 SMP
LA BAHIA FROM RISADA TO EL GUSTO
LA BAHIA TREE PRESERVATION PLAN

DEVELOPER:
CONT. BUDGET PROJ.

SUBMITTED _____
APPROVED _____

MAP No. 192624 AND 192626 SHEET 10
SECT. No. _____ OF 29
DR. CK. JOB No. 18-5008

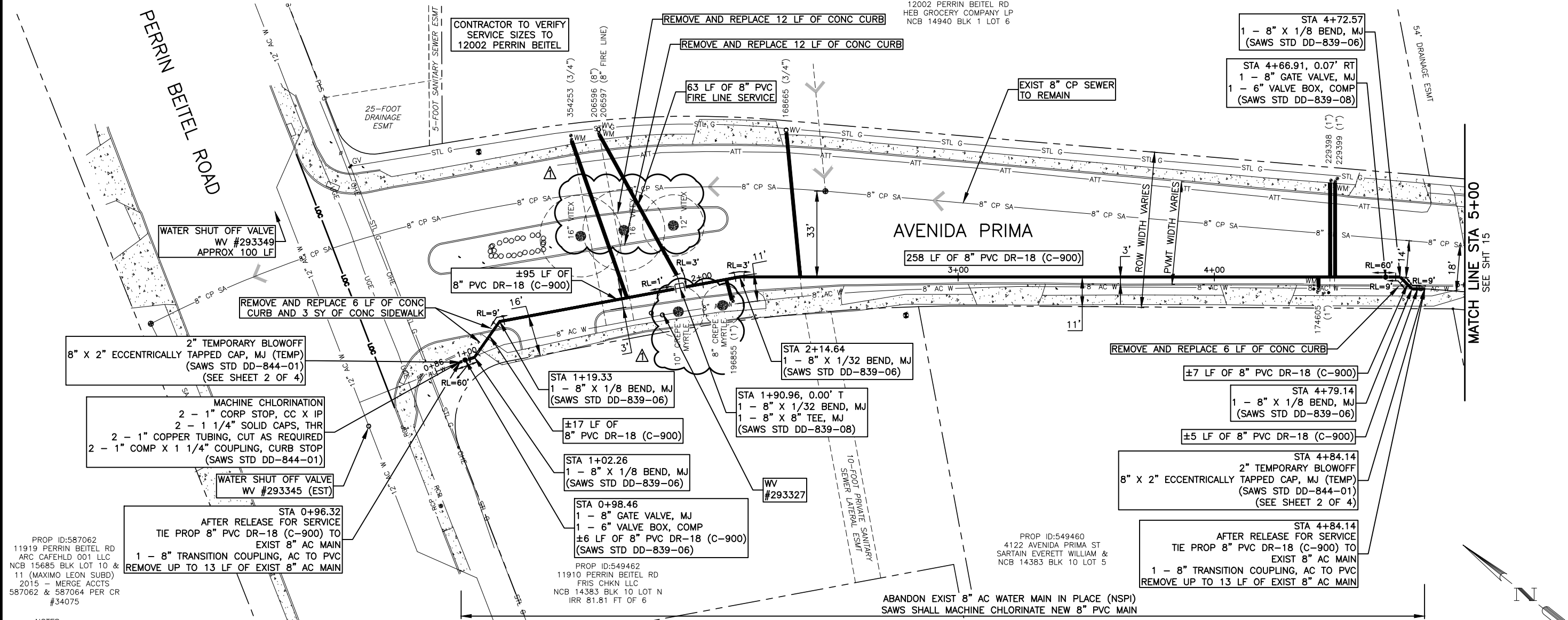
BGE, INC. C:\Projects\2019 Pipelines Water and Sewer\103_CADD\01_Sheets\La Bahia\01_Sheets\06 TREE PRESERVATION PLAN.dwg Jul 27, 2018 9:26pm gsmchbz

PROP ID:564098
 12002 PERRIN BEITEL RD
 HEB GROCERY COMPANY LP
 NCB 14940 BLK 1 LOT 6

PERRIN BEITEL ROAD

AVENIDA PRIMA

MATCH LINE STA 5+00
 SEE SHT 15



PROP ID:587062
 11919 PERRIN BEITEL RD
 ARC CAFEHLD 001 LLC
 NCB 15685 BLK LOT 10 & 11 (MAXIMO LEON SUBD)
 2015 - MERGE ACCTS
 587062 & 587064 PER CR #34075

PROP ID:549462
 11910 PERRIN BEITEL RD
 FRIS CHKN LLC
 NCB 14383 BLK 10 LOT N
 IRR 81.81 FT OF 6

PROP ID:549460
 4122 AVENIDA PRIMA ST
 SARTAIN EVERETT WILLIAM &
 NCB 14383 BLK 10 LOT 5

- 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 RESTORE IRRIGATION SYSTEM TO ORIGINAL OR BETTER CONDITION IF DAMAGED DURING CONSTRUCTION (NSPI).
 - CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING MAIL BOXES TO ORIGINAL OR BETTER CONDITION IF DAMAGED DURING CONSTRUCTION (NSPI).
 - CONTRACTOR SHALL ADD OR REPLACE CUSTOMER SHUT OFF VALVES FOR EVERY SERVICE.

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 CONTRACTORS 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.

TREE PROTECTION NOTE:

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.

ASBESTOS CEMENT (AC) PIPE:

ASBESTOS CEMENT PIPE, ALSO KNOWN AS TRANSITE PIPE, AND WHICH IS KNOWN TO CONTAIN ASBESTOS CONTAINING MATERIAL (ACM) IS LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THE PIPE OCCUR. PAYMENT FOR SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000. (SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE)

| SPEC NO. | UNIT DESCRIPTION | UNIT | QUANTITY |
|----------|--|------|----------|
| 103 | Remove Concrete Curb | LF | 24 |
| 103 | Remove Sidewalks and Driveways | SF | 81 |
| 205 | Hot Mix Asphaltic Pavement - Type D (2" Compacted Depth) | SY | 202 |
| 205 | Hot Mix Asphaltic Pavement - Type B (10" Compacted Depth) | SY | 159 |
| 500 | Concrete Curb | LF | 24 |
| 502 | Concrete Sidewalks | SY | 9 |
| 550 | Trench Protection | LF | 388 |
| 813 | Water Service for Fireline | LF | 63 |
| 818 | 8" PVC Waterline (Restrained) | LF | 388 |
| 824 | Relay 3/4" Long Service | EA | 2 |
| 824 | Relay 1" Long Service | EA | 2 |
| 824 | Relay 1" Short Service | EA | 2 |
| 824.5 | Customer Shut-off Valve | EA | 6 |
| 828 | 8" Gate Valve | EA | 2 |
| 833 | New Meter Box | EA | 6 |
| 836 | Pipe Fittings, All Sizes & Types | TN | 0.5 |
| 840 | 8" Water Tie-Ins | EA | 2 |
| 841 | Hydrostatic Testing | EA | 1 |
| 844 | 2" Blow-off, Temporary | EA | 2 |
| 1020 | 8" Water Main Break/Leak Repairs, all types | EA | 1 |
| 3000 | Removal, Transportation and Disposal of various sizes of A.C. Pipe | LF | 26 |

CAUTION !!!
 EXISTING UNDERGROUND GAS, ELECTRIC AND TELEPHONE LINES



7/27/18
 Brown & Gay Engineers, Inc.
 F-1046

LEGEND

CAUTION !!! UNDERGROUND TELEPHONE CROSSING

CAUTION !!! UNDERGROUND GAS CROSSING

CAUTION !!! UNDERGROUND ELECTRIC CROSSING

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"

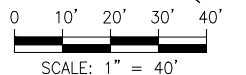
1" OR LARGER

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

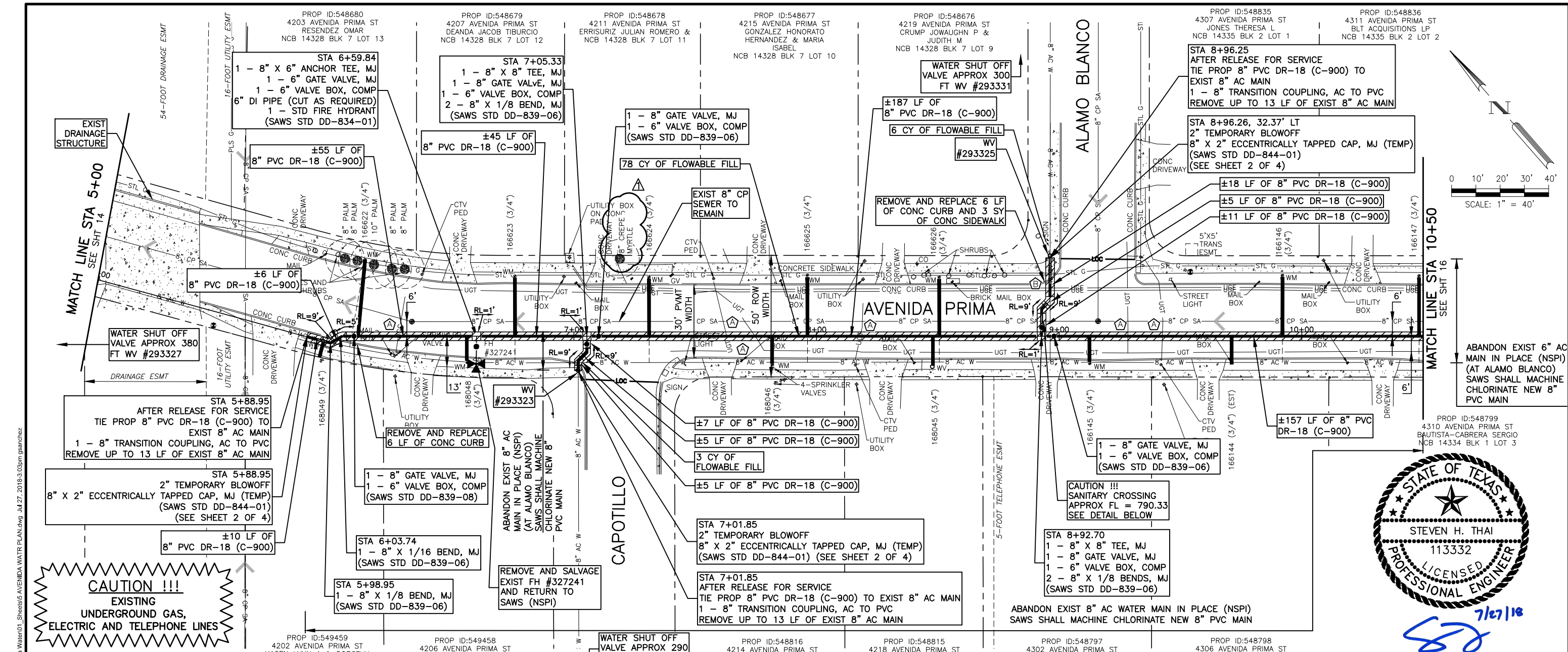
| No. | Revision | Drawn | Approved | Date |
|-----|----------|-------|----------|-----------|
| 1 | GS | ST | | JULY 2018 |

2019 SMP-AVENIDA PRIMA FROM PERRIN BEITEL TO SCHERTZ RD AVENIDA PRIMA WATER IMPROVEMENTS STA 1+00 TO STA 5+00

DEVELOPER: []
 CONT. [] BUDGET PROJ.
 SUBMITTED []
 APPROVED []
 MAP No. 188622 AND 190620 SHEET 14
 SECT. No. [] OF 29
 DR. [] CK. [] JOB No. 18-5008



BGE, INC. S:\Projects\2019 Pipelines Water and Sewer\103_CADD\01_Sheets\Avenida Prima Water\01_Sheets\Avenida Prima Water.dwg Jul 27, 2018 3:03pm gschmiche



CAUTION !!!
EXISTING
UNDERGROUND GAS,
ELECTRIC AND TELEPHONE LINES

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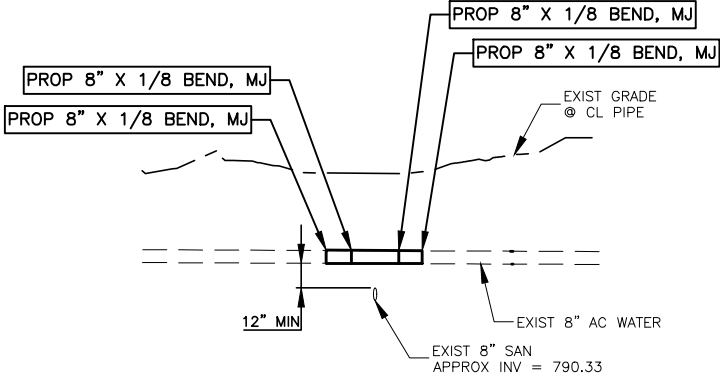
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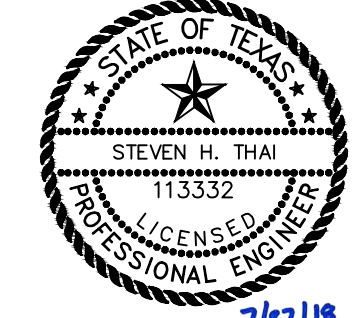


ALAMO BLANCO WATER MAIN CROSSING DETAIL

| SPEC. NO. | UNIT DESCRIPTION | UNIT | QUANTITY |
|-----------|--|------|----------|
| 103 | Remove Concrete Curb | LF | 30 |
| 103 | Remove Sidewalks and Driveways | SF | 108 |
| 205 | Hot Mix Asphaltic Pavement - Type D (2" Compacted Depth) | SY | 265 |
| 205 | Hot Mix Asphaltic Pavement - Type B (10" Compacted Depth) | SY | 209 |
| 413 | Flowable Fill | CY | 87 |
| 500 | Concrete Curb | LF | 30 |
| 502 | Concrete Sidewalks | SY | 12 |
| 550 | Trench Protection | LF | 511 |
| 818 | 8" PVC Waterline (Restrained) | LF | 511 |
| 824 | Relay 3/4" Long Service | EA | 7 |
| 824 | Relay 3/4" Short Service | EA | 6 |
| 824.5 | Customer Shut-off Valve | EA | 13 |
| 828 | 8" Gate Valve | EA | 5 |
| 833 | New Meter Box | EA | 13 |
| 834 | Fire Hydrant | EA | 1 |
| 836 | Pipe Fittings, All Sizes & Types | TN | 1.0 |
| 840 | 8" Water Tie-Ins | EA | 3 |
| 841 | Hydrostatic Testing | EA | 1 |
| 844 | 2" Blow-off, Temporary | EA | 3 |
| 3000 | Removal, Transportation and Disposal of various sizes of A.C. Pipe | LF | 39 |

LEGEND

- CAUTION !!! UNDERGROUND TELEPHONE CROSSING
- CAUTION !!! UNDERGROUND GAS CROSSING
- CAUTION !!! UNDERGROUND ELECTRIC CROSSING
- PROP. WATER MAIN
- PROP. SAN SERVICE CLEANOUT
- EXIST. WATER 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



Brown & Gay Engineers, Inc.
F-1046

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

| | | | |
|-------------|----|----|------|
| REVISION BY | GS | ST | JULY |
| ADDENDUM #1 | | | 2018 |

REVISIONS

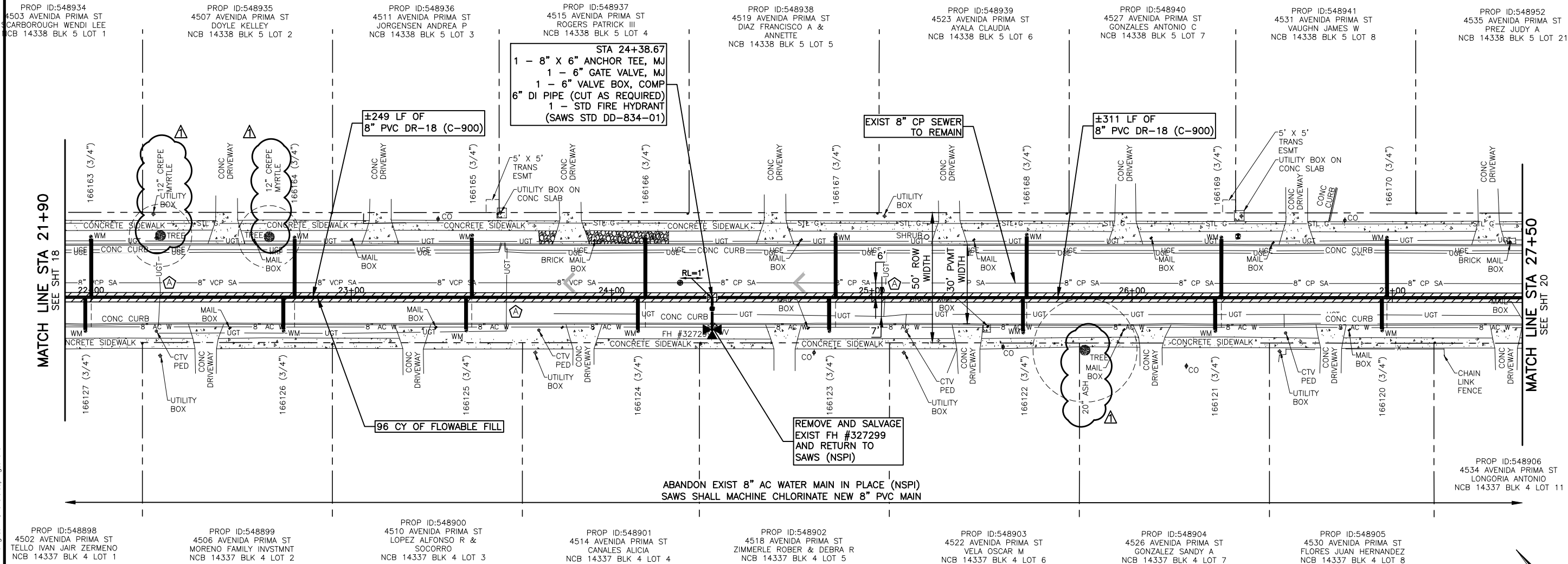
DEVELOPER: 2019 SMP-AVENIDA PRIMA FROM PERRIN BEITEL TO SCHERTZ RD AVENIDA PRIMA WATER IMPROVEMENTS STA 5+00 TO STA 10+50

CONT. BUDGET PROJ.

SUBMITTED

APPROVED

| | | | |
|-----------|-------------------|-------|-------|
| MAP No. | 188622 AND 190620 | SHEET | 15 |
| SECT. No. | | DR. | CK. |
| JOB No. | 18-5008 | DATE | OF 29 |



BGE, INC. 51742\Projects\SAWS-2019\Pipelines, Water and Sewer\Plg 103_CADD\01_Sheets\Avenida Prima\Water\01_Sheets\Avenida Prima Water\01_Sheets\Avenida Prima Water PLAN.dwg, Jul 27, 2018 3:03pm gschmeh

- 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 RESTORE IRRIGATION SYSTEM TO ORIGINAL OR BETTER CONDITION IF DAMAGED DURING CONSTRUCTION (NSPI).
 - CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING MAIL BOXES TO ORIGINAL OR BETTER CONDITION IF DAMAGED DURING CONSTRUCTION (NSPI).
 - CONTRACTOR SHALL ADD OR REPLACE CUSTOMER SHUT OFF VALVES FOR EVERY SERVICE.

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 CONTRACTORS 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.

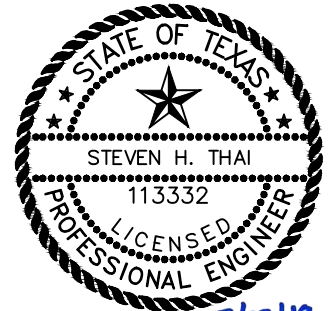
TREE PROTECTION NOTE:

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.

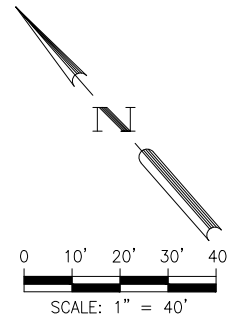
ASBESTOS CEMENT (AC) PIPE:

ASBESTOS CEMENT PIPE, ALSO KNOWN AS TRANSITE PIPE, AND WHICH IS KNOWN TO CONTAIN ASBESTOS CONTAINING MATERIAL (ACM) IS LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THE PIPE OCCUR. PAYMENT FOR SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000. (SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE)

| SPEC NO. | UNIT DESCRIPTION | UNIT | QUANTITY |
|----------|---|------|----------|
| 103 | Remove Concrete Curb | LF | 24 |
| 103 | Remove Sidewalks and Driveways | SF | 108 |
| 205 | Hot Mix Asphaltic Pavement - Type D (2" Compacted Depth) | SY | 291 |
| 205 | Hot Mix Asphaltic Pavement - Type B (10" Compacted Depth) | SY | 229 |
| 413 | Flowable Fill | CY | 96 |
| 500 | Concrete Curb | LF | 24 |
| 502 | Concrete Sidewalks | SY | 12 |
| 550 | Trench Protection | LF | 560 |
| 818 | 8" PVC Waterline (Restrained) | LF | 560 |
| 824 | Relay 3/4" Long Service | EA | 8 |
| 824 | Relay 3/4" Short Service | EA | 8 |
| 824.5 | Customer Shut-off Valve | EA | 16 |
| 833 | New Meter Box | EA | 16 |
| 834 | Fire Hydrant | EA | 1 |



Brown & Gay Engineers, Inc.
F-1046



LEGEND

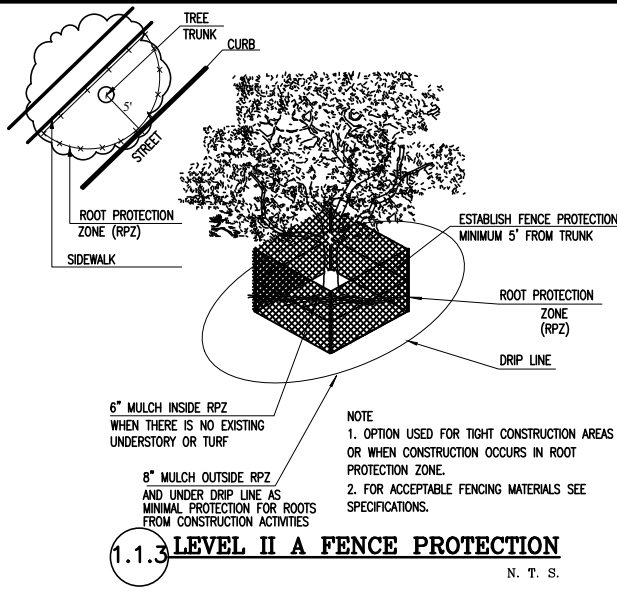
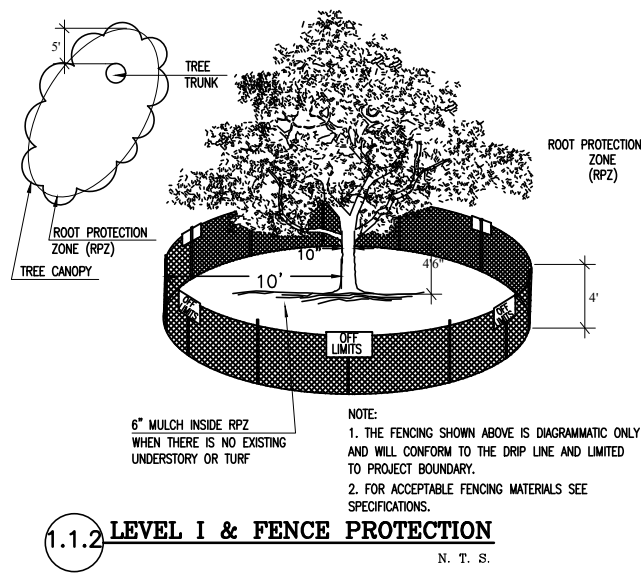
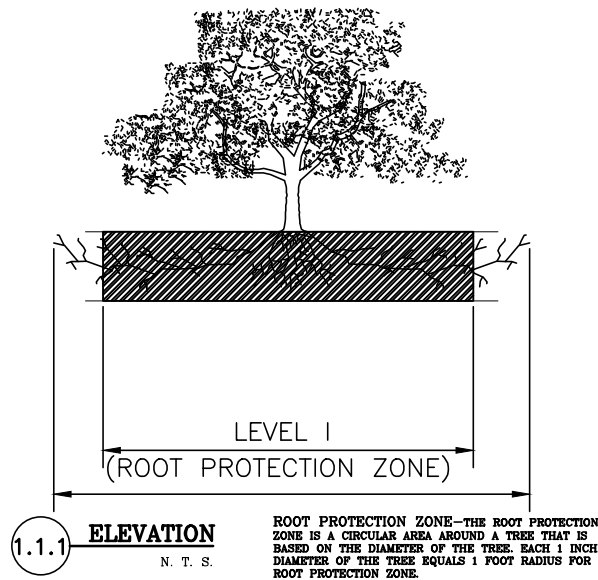
- CAUTION !!! UNDERGROUND TELEPHONE CROSSING (Symbol A)
- CAUTION !!! UNDERGROUND GAS CROSSING (Symbol B)
- CAUTION !!! UNDERGROUND ELECTRIC CROSSING (Symbol C)
- PROP. WATER MAIN (Symbol D)
- PROP. SAN SERVICE CLEANOUT (Symbol E)
- EXIST. WATER MAIN (Symbol F)
- SANITARY SEWER (Symbol G)
- STORM SEWER (Symbol H)
- UTILITY POLE LINE (Symbol I)
- ELECTRIC CABLE (Symbol J)
- TELEPHONE CABLE (Symbol K)
- DUAL BRANCH SERV. (Symbol L)
- NEW UNMETERED SERVICE:
 - 3/4" SINGLE (Symbol M)
 - 1" DUAL (Symbol N)
- SERVICE RECONNECT:
 - 1" OR LARGER (Symbol O)
 - 3/4" (Symbol P)
- SERVICE RELAY:
 - 1" OR LARGER (Symbol Q)
 - 3/4" (Symbol R)
- SERVICE RELOCATE:
 - 1" OR LARGER (Symbol S)
 - 3/4" (Symbol T)
- RELOCATE METER (Symbol U)
- NEW SERVICE:
 - 3/4" (Symbol V)
 - 1" OR LARGER (Symbol W)

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

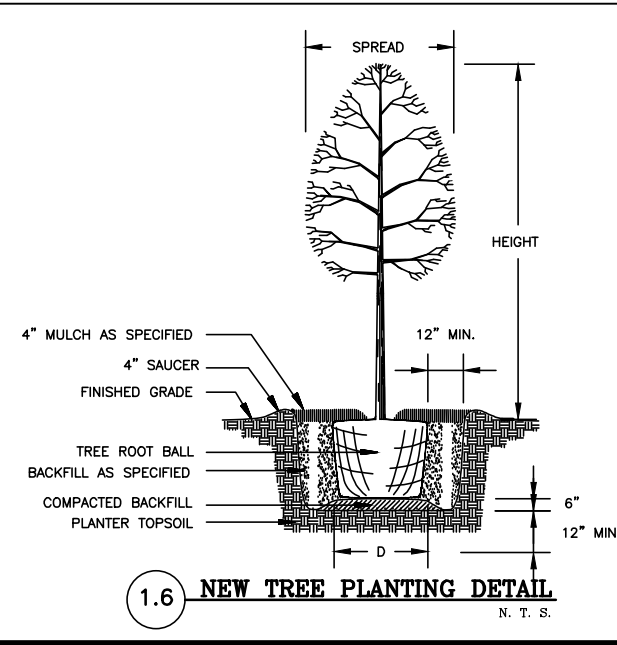
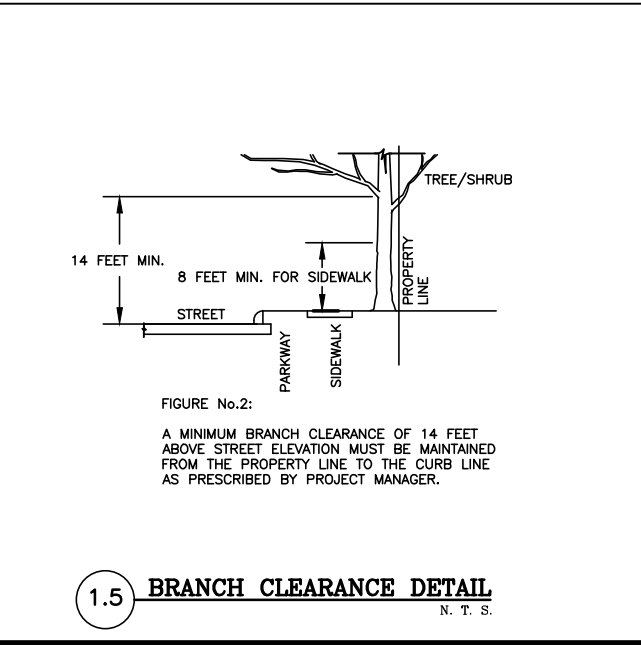
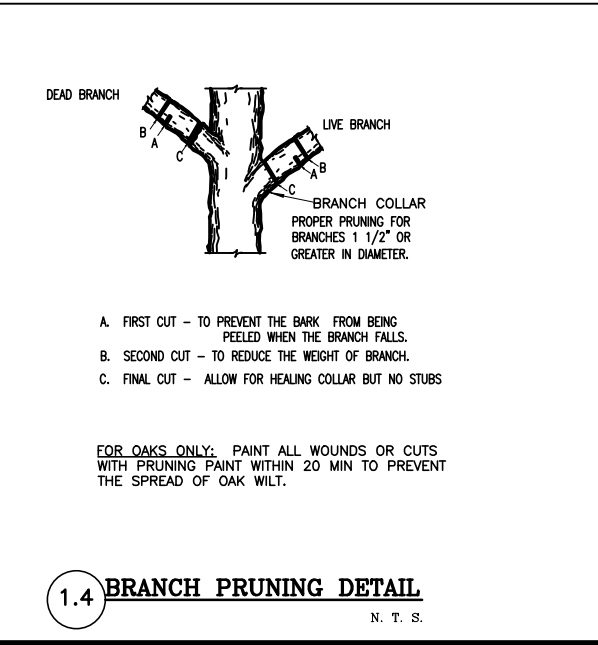
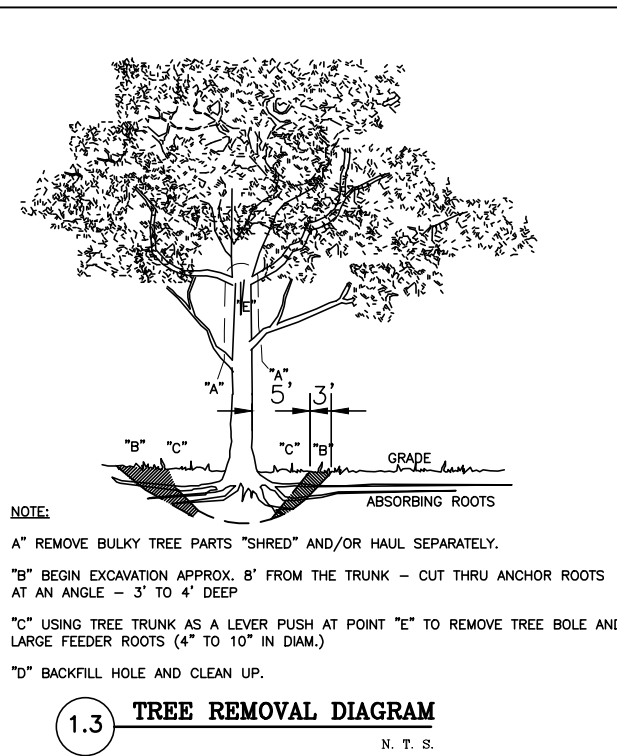
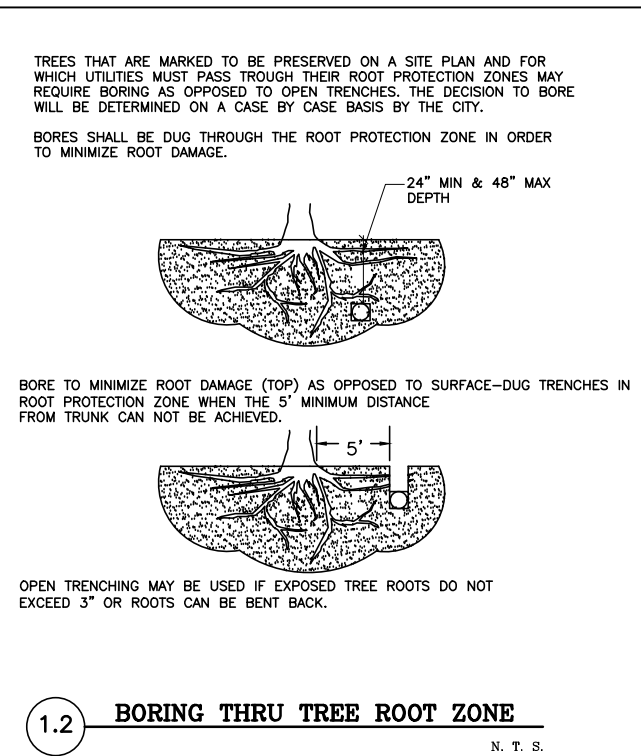
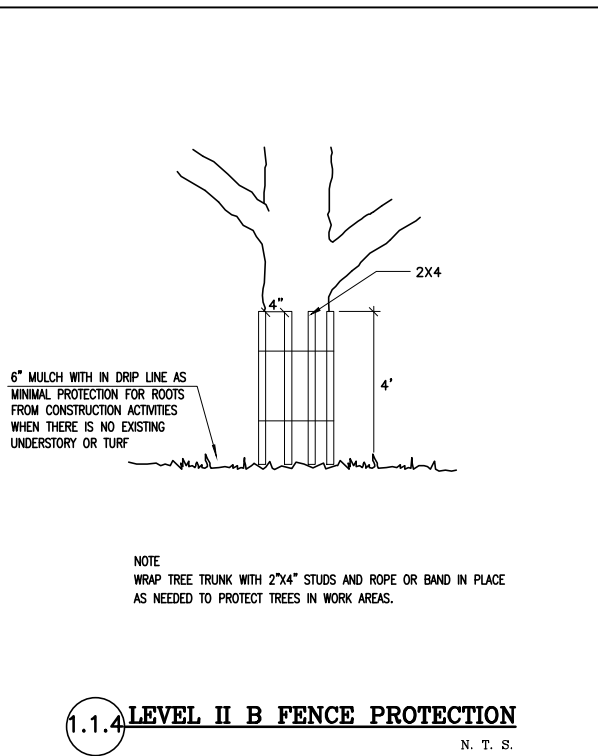
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|-----------|-----|-------------|-------|----------|-----------|
| REVISIONS | NO. | REVISION | DRAWN | APPROVED | DATE |
| | 1 | ADDENDUM #1 | GS | ST | JULY 2018 |

2019 SMP-- AVENIDA PRIMA FROM PERRIN BEITEL TO SCHERTZ RD AVENIDA PRIMA WATER IMPROVEMENTS STA 21+90 TO STA 27+50

| | |
|---------------------------|-----------------|
| DEVELOPER: | BUDGET PROJ. |
| SUBMITTED: | |
| APPROVED: | |
| MAP No. 188622 AND 190620 | SHEET 19 |
| SECT. No. | Of 29 |
| DR. CK. | JOB No. 18-5008 |



- 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

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 |
|--------------|------------------|-------------------|-------------|-----------|--------------------|--|--------------------------------|
| 14 | VITEX/16" | 1+57 | WITHIN ROW | PROTECTED | | II A | |
| 14 | VITEX/16" | 1+74 | WITHIN ROW | PROTECTED | | II A | |
| 14 | CREPE MYRTLE/10" | 1+89 | WITHIN ROW | PROTECTED | | II A | |
| 14 | VITEX/12" | 1+93 | WITHIN ROW | PROTECTED | | II A | |
| 14 | CREPE MYRTLE/8" | 2+06 | WITHIN ROW | PROTECTED | | II A | |
| 15 | PALM/8" | 6+06 | WITHIN ROW | PROTECTED | | II A | |
| 15 | PALM/8" | 6+11 | WITHIN ROW | PROTECTED | | II A | |
| 15 | PALM/10" | 6+18 | WITHIN ROW | PROTECTED | | II A | |
| 15 | PALM/8" | 6+25 | WITHIN ROW | PROTECTED | | II A | |
| 15 | PALM/8" | 6+30 | WITHIN ROW | PROTECTED | | II A | |
| 15 | CREPE MYRTLE/8" | 7+19 | WITHIN ROW | PROTECTED | | II A | |
| 16 | PALM/10" | 12+59 | WITHIN ROW | | | | |
| 19 | CREPE MYRTLE/12" | 22+27 | WITHIN ROW | | | | |
| 19 | CREPE MYRTLE/12" | 22+68 | WITHIN ROW | PROTECTED | | II A | |
| 19 | ASH/20" | 25+82 | OUTSIDE ROW | PROTECTED | | II A | |
| 20 | CRAPE MYRTLE/3" | 27+98 | WITHIN ROW | | | | |
| 20 | CRAPE MYRTLE/12" | 28+02 | WITHIN ROW | | | | |
| 20 | CRAPE MYRTLE/4" | 28+09 | WITHIN ROW | | | | |
| 20 | UNKNOWN/UNK" | 32+93 | WITHIN ROW | | | | |
| 21 | UNKNOWN/UNK" | 33+01 | WITHIN ROW | | | | |

1.3 TREE INVENTORY SUMMARY

(6" DIAMETER AND LARGER)

| | |
|-----------------------------------|------|
| TOTAL DIAMETER INCHES, R.O.W. | 186 |
| TOTAL DIAMETER INCHES REMOVED | 0 |
| TOTAL DIAMETER INCHES PRESERVED | 186 |
| TOTAL PERCENTAGE INCHES PRESERVED | 100% |
| TOTAL INCHES TO BE MITIGATED | 0 |

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

REVISOR: STEVEN H. THAI
113332
LICENSED PROFESSIONAL ENGINEER
7/27/18

REVISOR: GS, ST, JULY 2018

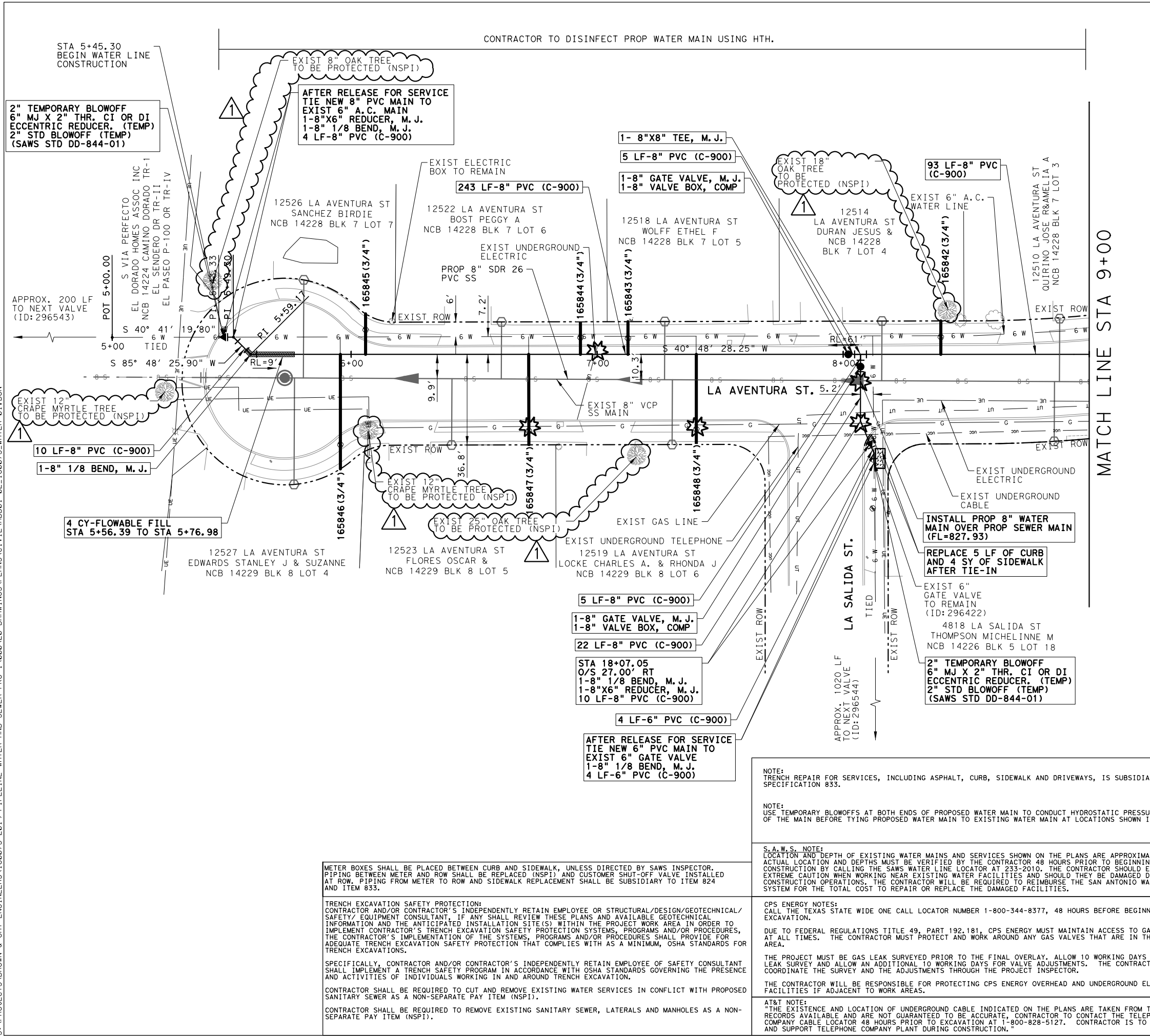
2019 SMP--AVENIDA PRIMA FROM PERRIN BEITEL TO SCHERTZ RD
AVENIDA PRIMA TREE PRESERVATION PLAN

DEVELOPER: BUDGET PROJ.

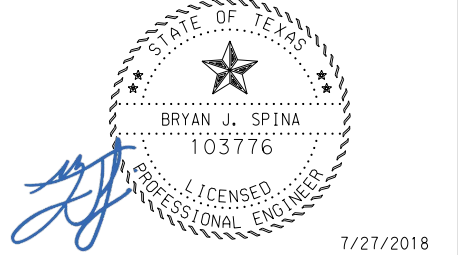
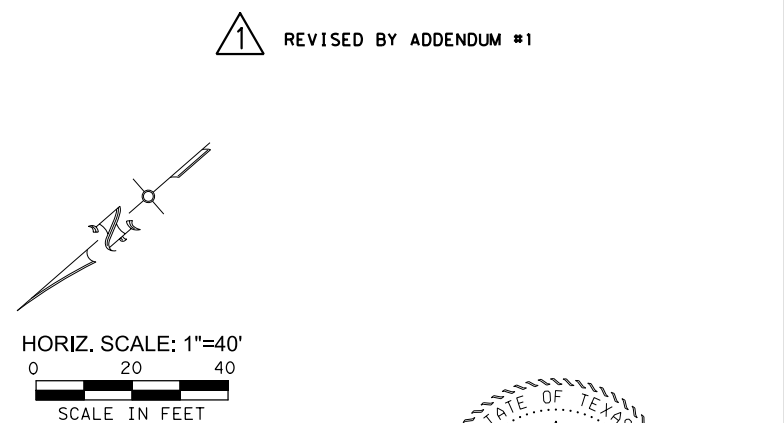
MAP No. 188622 AND 190620 SHEET 22
SECT. No. OF 29
DR. CK. JOB No. 18-5008

Brown & Gay Engineers, Inc.
F-1046

PLOTTED BY: JINOCENCIO 7/27/2018 5:17 PM PROJECTS\BROWN & GAY ENGINEERS\180075 2019 PIPELINE WATER AND SEWER PKG 1\2000\20-DRAWINGS\PLANS\CIVIL\ADD001-02_180075-WATER 01.DGN



| ITEM | DESCRIPTION | UNIT | QUANTITY |
|------|--|------|----------|
| 103 | REMOVE CONCRETE CURB | LF | 5 |
| 103 | REMOVE CONCRETE SIDEWALKS & DRIVEWAYS | SF | 32 |
| 205 | HOT MIX ASPHALTIC PAVEMENT, TYPE B (10" COMP. DEPTH) | SY | 163 |
| 205 | HOT MIX ASPHALTIC PAVEMENT, TYPE D (2" COMP. DEPTH) | SY | 208 |
| 413 | FLOWABLE FILL | CY | 4 |
| 500 | CONCRETE CURB & GUTTER | LF | 5 |
| 502 | CONCRETE SIDEWALKS | SY | 4 |
| 550 | TRENCH EXCAVATION SAFETY PROTECTION | LF | 400 |
| 818 | 6" PVC (C-900) WATERLINE | LF | 8 |
| 818 | 8" PVC (C-900) WATERLINE | LF | 392 |
| 824 | RELAY 3/4" SHORT SERVICE | EA | 4 |
| 824 | RELAY 3/4" LONG SERVICE | EA | 3 |
| 824 | CUSTOMER SHUT-OFF VALVE | EA | 7 |
| 828 | 8" GATE VALVE | EA | 2 |
| 833 | EXISTING METER AND NEW METER BOX RELOCATION | EA | 7 |
| 833 | METER BOX | EA | 7 |
| 836 | PIPE FITTINGS, ALL SIZES AND TYPES | TON | 0.35 |
| 840 | 6" WATER TIE-IN | EA | 2 |
| 844 | 2" BLOWOFF, TEMPORARY | EA | 2 |
| 3000 | REMOVAL, TRANSP AND DISPOSAL OF AC PIPE | LF | 20 |



LNV engineers | architects | surveyors
 8918 TESORO DR., SUITE 401 SAN ANTONIO, TX 78217
 PH. (210) 822-2232 FAX (210) 822-4032
 WWW.LNVINC.COM

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 |
|-----|----------|-------|----------|------|
| | | | | |

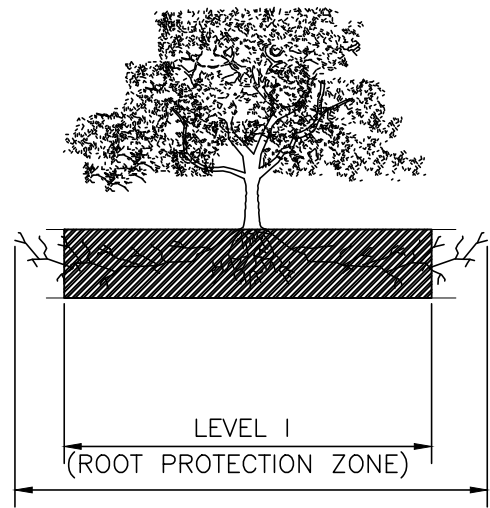
REVISIONS

2019 SMP
LA AVENTURA
 PROPOSED WATER LINE
 IMPROVEMENTS
 SHEET 1 OF 2

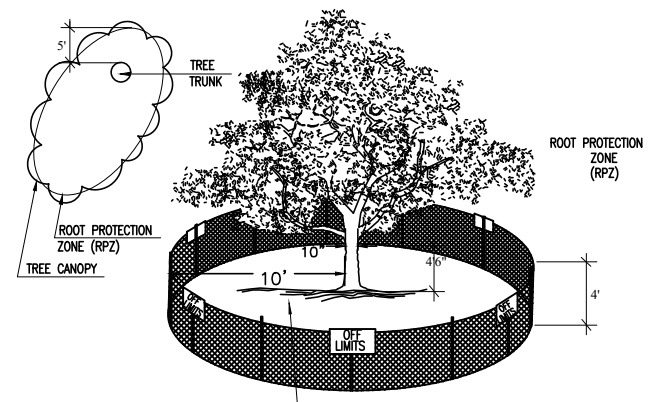
DEVELOPER: [Signature]
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 SUBMITTED [Signature]
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 MAP No. [Signature]
 SECT. No. [Signature]
 DR. [Signature] CK. [Signature] JOB No. [Signature]

SHEET 26 OF 29

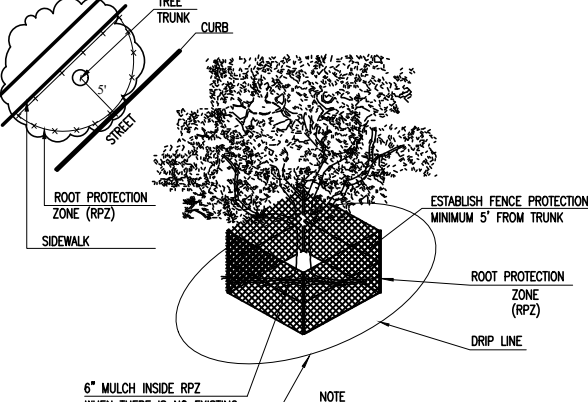
BGE, INC. 51742\Projects\SANISAVANS - 2019 Pipelines Water and Sewer Pkg 103_CADD\01_Sheets\LA Aventura Water\TREE PRESERVATION PLAN.dwg Jul 27, 2018 3:28pm gsaarshaz



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:**
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1.3 GENERAL NOTES

TREE PROTECTION TABLE

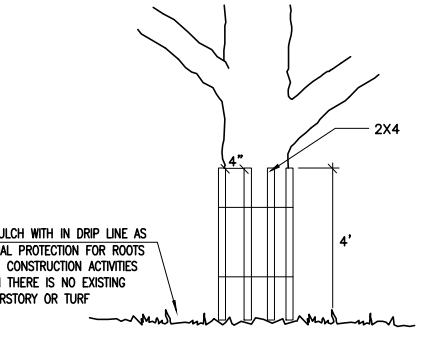
| TREE SHEET # | TREE/CALIPER | STATION OR NUMBER | LOCATION | PROTECTION MEASURE | |
|--------------|------------------|-------------------|-------------|--------------------|--|
| | | | | ITEM 801 | ITEM 802 MAINTENANCE/TREATMENTS/PROTECTION |
| 26 | LIVE OAK/8" | 5+42 | OUTSIDE ROW | PROTECTED | II A |
| 26 | CREPE MYRTLE/12" | 5+25 | WITHIN ROW | PROTECTED | II A |
| 26 | CREPE MYRTLE/12" | 6+07 | WITHIN ROW | PROTECTED | II A |
| 26 | OAK/25" | 7+16 | OUTSIDE ROW | PROTECTED | II A |
| 26 | OAK/18" | 8+43 | OUTSIDE ROW | PROTECTED | II A |
| 27 | CHINABERRY/13" | 10+79 | OUTSIDE ROW | | |
| 27 | ELM/12" | 10+81 | OUTSIDE ROW | | |

1.3 TREE PROTECTION TABLE

TREE INVENTORY SUMMARY
(8" DIAMETER AND LARGER)

| | |
|-----------------------------------|------|
| TOTAL DIAMETER INCHES, R.O.W | 101 |
| TOTAL DIAMETER INCHES REMOVED | 0 |
| TOTAL DIAMETER INCHES PRESERVED | 101 |
| TOTAL PERCENTAGE INCHES PRESERVED | 100% |
| TOTAL INCHES TO BE MITIGATED | 0 |

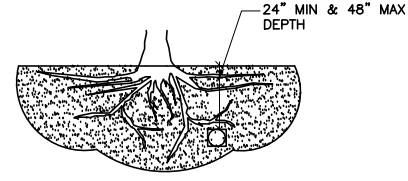
1.3 TREE INVENTORY SUMMARY



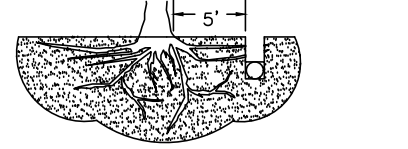
1.1.4 LEVEL II B FENCE PROTECTION
N. T. S.
NOTE:
WRAP TREE TRUNK WITH 2"x4" STUDS AND ROPE OR BAND IN PLACE AS NEEDED TO PROTECT TREES IN WORK AREAS.

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.

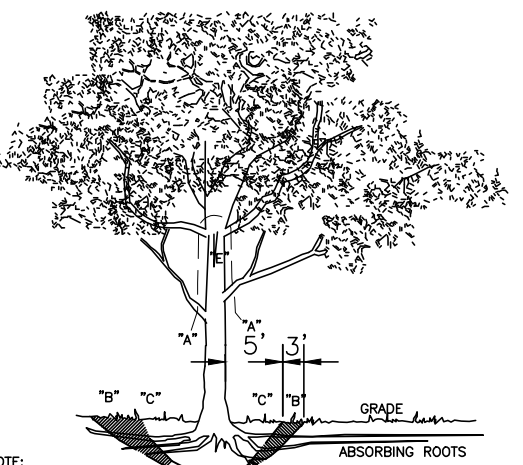


BORE TO MINIMIZE ROOT DAMAGE (TOP) AS OPPOSED TO SURFACE-DUG TRENCHES IN ROOT PROTECTION ZONE WHEN THE 5" MINIMUM DISTANCE FROM TRUNK CAN NOT BE ACHIEVED.



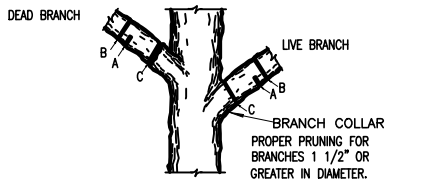
OPEN TRENCHING MAY BE USED IF EXPOSED TREE ROOTS DO NOT EXCEED 3" OR ROOTS CAN BE BENT BACK.

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.



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.

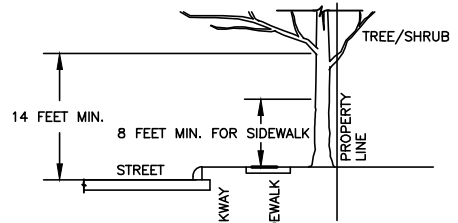
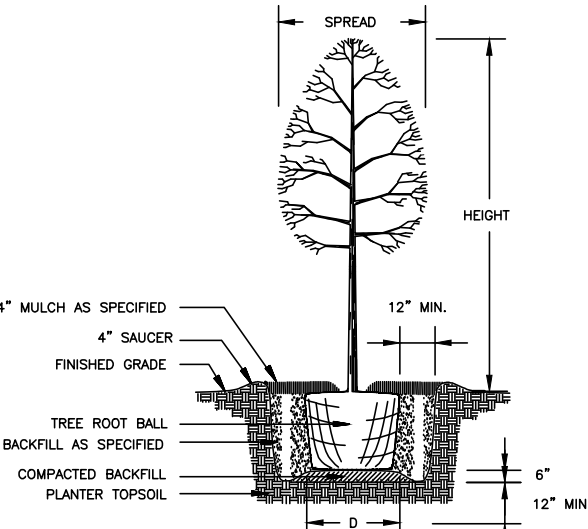
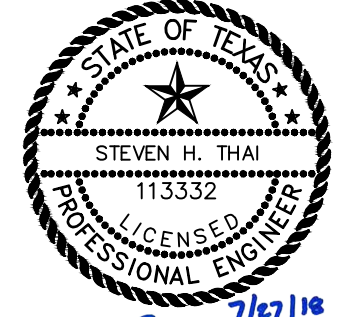


FIGURE No.2:
A MINIMUM BRANCH CLEARANCE OF 14 FEET ABOVE STREET ELEVATION MUST BE MAINTAINED FROM THE PROPERTY LINE TO THE CURB LINE AS PRESCRIBED BY PROJECT MANAGER.

1.5 BRANCH CLEARANCE DETAIL
N. T. S.



1.6 NEW TREE PLANTING DETAIL
N. T. S.



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| REVISION #1 | GS | ST | JULY 2018 |
|-------------|----------|-------|-----------|
| No. | Revision | Drawn | Approved |

2019 SMP-LA AVENTURA FROM EL PRESIDIO TO CUL-DE-SAC
LA AVENTURA TREE PRESERVATION PLAN

| | |
|---------------------------|--------------|
| DEVELOPER: | BUDGET PROJ. |
| SUBMITTED | |
| APPROVED | |
| MAP No. 190624 AND 192624 | SHEET 28 |
| SECT. No. | DR. CK. |
| JOB No. 18-5008 | OF 29 |