ADDENDUM NO. 1

Date: **27 January 2012**

San Antonio Water System

Project Name: **Olmos Basin Central Watershed Sewer Relief Line (C-3), Reaches 1 to 4**

Project No.: **08-2512**

Solicitation No.: **B-12-010-CM**

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

A. Bidding and Contract Requirement Revisions:

Item 1: Bid Proposal

a) DELETE Section "Bid Proposal" in its entirety (12 pages) and REPLACE with the attached Bid Proposal, Pages BP-1 to BP-12, Addendum No. 1 (1/27/2011). The following changes were made:
   - Revised to match current SAWS format.
   - Quantities revised on items 46 and 47.

Item 2: Good Faith Effort Plan for Construction Sub-Contracts

a) DELETE Section "Good Faith Effort Plan for Construction Sub-Contracts" in its entirety (5 pages) and REPLACE with the attached "EXHIBIT "B" Good Faith Effort Plan for Construction SUBCONTRACTS", revised 9/28/11 (5 Pages).

B. Drawing Revisions:

Item 1: Sheet G-003 (3 of 123) – Remove and replace Sheet G-003 with the revised Sheet G-003 attached to this addendum. Revisions are indicated on drawing.

Item 2: Sheet R/A-101 (10 of 123) – Remove and replace Sheet R/A-101 with the revised Sheet R/A-101 attached to this addendum. Revisions are indicated on drawing.

Item 3: Sheet R/A-201 (11 of 123) – Remove and replace Sheet R/A-201 with the revised Sheet R/A-201 attached to this addendum. Revisions are indicated on drawing.

Item 4: Sheet R/A-301 (12 of 123) – Remove and replace Sheet R/A-301 with the revised Sheet R/A-301 attached to this addendum. Revisions are indicated on drawing.

Item 5: Sheet R/A-401 (13 of 123) – Remove and replace Sheet R/A-401 with the revised Sheet R/A-401 attached to this addendum. Revisions are indicated on drawing.

Item 6: Sheet C-107 (20 of 123) – Remove and replace Sheet C-107 with the revised Sheet C-107 attached to this addendum. Revisions are indicated on drawing.

Item 7: Sheet C-304 (29 of 123) – Remove and replace Sheet C-304 with the revised Sheet C-304 attached to this addendum. Revisions are indicated on drawing.

Item 8: Sheet C-305 (30 of 123) – Remove and replace Sheet C-305 with the revised Sheet C-305 attached to this addendum. Revisions are indicated on drawing.

Item 9: **Sheet C-306 (31 of 123)** – Remove and replace Sheet C-306 with the revised Sheet C-306 attached to this addendum. Revisions are indicated on drawing.

Item 10: **Sheet C-307 (32 of 123)** – Remove and replace Sheet C-307 with the revised Sheet C-307 attached to this addendum. Revisions are indicated on drawing.

C. Questions Received During Q&A Period:

Q1: **We are currently performing the takeoff on the above project and I can not find any specifications pertaining to irrigation. Can you please tell me if there are any we should be following and if so where I could locate those? Please respond by using the above link, or email. I look forward to hearing from you.**

Work related to the existing irrigation system shall conform to the City of San Antonio Standard Specifications for Construction Item 552, Removing and Relocating Irrigation Systems and the Special Provisions to Item 552 included as part of the Contract Documents. Note that the irrigation work must be performed under the supervision of a person possessing an irrigator's license issued by the TCEQ. Contractor shall provide documentation of this license.

Q2: **I'm working on the estimation for the Saws Olmos, TX job but I had some details I wanted to confirm with you. There are 54x60" slide gates found in manholes MH-204 and MH-205 with a non-rising stem configuration. These non-rising gates need self-contained frames as shown in the drawings, but the top of yokes come very close to the manhole ceiling. This would be ok if they were small gates, but their large size means we must also include a gearbox. The gearbox is positioned right on top of the yoke, and would not clear the manhole ceilings.**

In manhole MH-204, there is a 2.3" clearance overlap, which means we would have to limit the travel by 2.3 inches. So in MH-204 the total gate travel would have to be reduced to 57.7".

In manhole MH-205, there is an 11.55" clearance overlap, so we would again have to limit the travel by 11.55" for a total gate travel of 48.45".

Is it ok if we limit the travel on these gates (and if so could we limit them all to 48.45"?)? It's not clear what the water level would be in these manholes as well, but if the gearboxes are placed above the yokes, should I quote our submersible gearboxes or just our standard?

The reductions listed are ok for manholes #204 and #205. Reducing them all would be undesirable, and not acceptable. The gear boxes need to be made of corrosion resistant materials, and need to be submersible.

Q3: **Could you tell me what the estimate is for this project?**

The estimated cost for this project is $13,400,000.00.

Q4: **Pertaining to bid Items 31 & 37, after reviewing the quantities we believe Manhole #403 has been included both Bid Item No. 31 & 37. Should Bid Item No. 37 contain only a count of Six (6) - 4' dia. Manholes, with Manhole #403 being stand alone in Bid Item No. 31? If so, would this also change the total quantity of vertical feet of in Bid Item No. 38?**

MH #403 has not been included in bid item 37. Bid item 37 quantity of seven (7) is correct (MH# 404, 110A, 111A, 112A, MH on Sheet C-103 at Sta. 10+35.00 approximately, 28A, and 309)

Q5: **Would the Owner be willing to include a Bid Item 71A, allowing Bidders to make a lump sum add or deduct adjustment caused by last minute subcontractor or vendor price adjustments?**

Owner will not consider this request.

Q6: Plan Sheets R/A 101, 201 and 301 call for the relocation of utility services. There is no Bid Item for relocating water and gas services to businesses and residences along Ave. B and the Plan Sheets do not identify the location of these services. Can the Owner provide Bidders with the location, quantity, size and type of material for the water and gas services that will be relocated? Will the Owner add Bid Items for water and gas service relocations?

No. Contractor is responsible for utility location adjustments. Payment for utility location adjustments will not be measured or paid for directly, but shall be considered subsidiary to the related bid items of the contract requiring the adjustment.

Q7: On Plan Sheet C-102, a Note states; "Caution!!! Water Line Contractor shall coordinate abandonment of existing water lines and services with SAWS prior to construction." We are assuming the water lines at Station 4+45 and 4+95 and any water services between Josephine St. and Mill Race along Ave. B will be abandoned and SAWS or others will perform all the work required to connect these two water lines and services to an existing water main on the Broadway Ave. side of the properties. Is this correct?

Existing service connections shall be confirmed by Contractor (number, location, size, material, elevations). Contractor will be responsible for water line abandonment and replacing/rerouting water services.

Q8: The Plan Sheets indicate that some existing electrical / light poles will be in conflict with the planned location of the new sewer piping and structures. We are assuming the Owner or affected utility company will pay all costs associated with the support or relocation of these poles and overhead wires. Is this correct?

No. Contractor is responsible paying all costs associated with the support or relocation of these poles and overhead wires. This cost shall be considered subsidiary to the related bid items of the contract requiring this work.

Q9: We are assuming the Owner or affected utility company will pay all costs associated with the removal and relocation of existing underground utilities in conflict with new sewer piping and structures. Is this correct?

No. Contractor is responsible for utility location adjustments. Payment for utility location adjustments will not be measured or paid for directly, but shall be considered subsidiary to the related bid items of the contract requiring the adjustment. Refer to Sheet C-104 for notes regarding the existing 12" gas line which will be partially abandoned prior to construction.

Q10: We are assuming the leak testing of pipe joints, manholes and junction structures for this project will be performed by the Owner or an independent laboratory retained by the Owner. Is this correct?

No. Contractor is responsible for paying for and arranging for testing by an approved independent testing laboratory to perform quality control inspection and testing services identified in the individual Specification sections. Payment for testing laboratory services will not be measured or paid for directly, but shall be considered subsidiary to the related bid items of the contract requiring the testing.

Q11: Will the deflection testing of sewer piping be performed by the Contractor or Owner?

Contractor is responsible for deflection testing. Refer to San Antonio Water System Standard Specifications for Construction, Item No. 849, Air And Deflection Testing (Sanitary Sewer).

Q12: On Plan Sheet C-101, Sta. 0+12, Contractor is cautioned concerning the relocation and rerouting of an existing 6" potable water service line. The existing 6" potable water line heading west from this location will be removed per Bid Items No. 69 and 70. We are assuming the 6" water line material at Sta. 0+12 is 6" asbestos cement. Is this correct?

Record drawings indicate the existing water line on Avenue B at this location is asbestos cement pipe. Existing service connections shall be confirmed by Contractor (number, location, size, material, elevations).

Q13: On Plan Sheet C-104, Sta. 15+32, Contractor is to locate and connect an existing 8" Waste Water Service at the property line. We're assuming the 8" sewer line material is PVC SDR 35 and only serves the Brackenridge Golf Course Club House. Is this correct?

Records indicate that the existing service line is 8" PVC and provides wastewater service to the golf course club house.

Q14: On Plan Sheet C-104, Sta. 15+32, Contractor is to locate and connect an existing Waste Water service line for Lots 56 – 58. We are assuming this is a single service line and is 4" PVC SDR 35. Is this correct?

Existing service connections shall be confirmed by Contractor (number, location, size, material, elevations). Refer to San Antonio Water System Standard Specifications for Construction, Item No. 854, Sanitary Sewer Laterals and Item No. 1109, Sanitary Sewer Service, Stubs or Reconnections.

Q15: On Plan Sheet C-107, Sta. 26+10, we are assuming the existing 4" pipe material for the WW Service line is PVC SDR 35. We are also assuming this is a gravity line. Is this correct?

Existing service connections shall be confirmed by Contractor (number, location, size, material, elevations). Refer to San Antonio Water System Standard Specifications for Construction, Item No. 854, Sanitary Sewer Laterals and Item No. 1109, Sanitary Sewer Service, Stubs or Reconnections. The existing service line at MH# 166-588/018-01 is a gravity sewer lateral.

Q16: On Plan Sheet C-107, Sta. 26+73, Contractor is to relocate an existing 6" potable water line. We are assuming the 6" pipe material is asbestos cement. Is this correct?

Existing service connections shall be confirmed by Contractor (number, location, size, material, elevations).

Q17: On Plan Sheets C-304 thru C-307, Sta. 58+00 – 70+50, Contractor is instructed to protect and support an existing 6" potable water line during trenching and construction of the 54" Sanitary Sewer Main. What is the working pressure class of this existing 6" Ductile Iron Pipe? What type of aggregate material is the 6" pipe bedded in and what are the dimensions of its bedding envelope?

Working pressure class may be obtained from the as-built records. Contractors may obtain SAWS as-builts from SAWS Counter Services. Bedding materials and dimensions will need to be field verified by Contractor.

Q18: What is the pipe material type for the existing 12", 24", 54" and 60" sanitary sewer lines?

60"- Reinforced Concrete Pipe

54"- Reinforced Concrete Pipe

24"- Cast Iron Pipe, Concrete Pipe, Reinforced Concrete Pipe

12" - Vitrified Clay Pipe (VCP) and Polyvinyl Chloride (PVC)

Q19: On Page BP-11 of the Bid Proposal, it states the Contractor will complete the project with seven hundred thirty (730) calendar days. Is this for final or substantial completion? If for final, is there a substantial completion date for this project?

The specified seven hundred thirty (730) days is the final Contract Time. There is no "substantial completion date" for this project.

Q20: Concerning material and trench compaction testing, is the Owner or Contractor required to hire and pay for the services of an independent testing laboratory for this project?

Contractor is responsible for paying for and arranging for testing by an approved independent testing laboratory to perform quality control inspection and testing services identified in the individual Specification sections. Payment for testing laboratory services will not be measured or paid for directly, but shall be considered subsidiary to the related bid items of the contract requiring the testing. Refer to Paragraph 804.8 and 804.9 of the San Antonio Water System Standard Specifications for Construction, Item No. 804, Excavation, Trenching and Backfill.

Q21: Liner Plate is mentioned in the specifications, but no information is provided concerning allowable products. Is Liner Plate allowed in lieu of the steel casing? If yes, what is the required thickness (gauge) of liner plate for this project?

Liner plates are for micro tunneling. SAWS normally does not allow micro tunneling unless there is no other choice. Please use steel casing with Jack & Bore.

Q22: On Plan Sheet No. C-104, there is a note stating; "Soil and/or groundwater encountered during construction may contain or have or the potential to contain petroleum hydrocarbons." Is this note only for Plan Sheet No. C-104? We are also assuming that SAWS will be the Generator of petroleum hydrocarbons encountered during construction of this project. Is this correct?

This location is the only known area of concern. SAWS will be the generator.

Q23: Concerning Bid Item 56, we are assuming there is no maximum allowable trench width for the payment of Trench Repair. Is this correct?

This question is answered in reference to Bid Item 58 of current bid. Refer to Detail D-1 on Sheet D-1 for Pay Limits for trench pavement replacement and clarification notes regarding temporary pavement for trench repair.

Q24: Concerning Bid Item 57, the quantity of 136 CY appears to be light for amount of pavement that will be removed on this project. If there is only 136 CY of salvaged, hauled and reclaimable asphaltic pavement, where on project will this material be removed from?

This question is not applicable to the current bid proposal.

Q25: Concerning Bid Item 58, does the quantity of 3" curb to curb asphalt overlay also include the cost of 3" curb to curb roto-milling of in place existing asphalt, or is the 3" curb to curb pavement removal paid for in Bid Item 57?

This question is answered in reference to Bid Items 59 and 60 of current bid. Milling is included in Bid Item No. 205, "Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement." Removal of the temporary trench repair pavement shall be subsidiary to the trench repair bid proposal item.

Q26: Concerning Bid Item 58, does the 16,297 SY quantity include removing and replacing the 3" asphalt Trench Repair pavement placed and paid for in Bid Item 56?

This question is answered in reference to Bid Item 60 of current bid. No. Reference Detail D-1, Sheet D-1 and SAWS Standard specification 804.4.2.d for notes regarding temporary pavement for trench repair. Removal of the temporary trench repair pavement shall be subsidiary to the trench repair bid proposal item.

Q27: Areas of existing asphaltic pavement along the project alignment include parking lots, radii at cross streets and edges of asphaltic pavement without adjoining curb and gutter. Can SAWS please identify the specific locations and surface dimensions for the 3" asphaltic pavement that will be paid for in Bid Item 58?

This question is answered in reference to Bid Item 60 of current bid. Pavement restoration shall include overlay of the existing paved areas of Avenue B with limits measured for payment not to extend beyond 20 feet from outside edge of installed improvements. Contractor is responsible for repairing, to pre-existing or better conditions, any areas outside the payment limits at no additional cost to SAWS.

Q28: Plan Sheets R/A 101 and 201 identify the abandonment of Manhole No. 166-588-044, Manhole No. 202 and Manhole 166-588-026. We are unable to locate these manholes on the Plan Sheets. Can the Owner provide Bidders with the location of these three manholes?

Refer to revised sheets included as part of this addendum. MH 166-588-044 is the siphon box on at intersection of Avenue B and Brackenridge and MH 202 is the siphon inlet box on the golf course on the existing 60" S.S. line. MH 166-588-026 is on 24" sewer located on the Lions Field Adult Center, approx. 250 ft south of Mulberry.

Q29: Plan Sheet R/A 201 identifies the removal of Manhole No. 168-588-832. We are unable to locate this manhole on the Plan Sheets. Can the Owner provide Bidders with the location of this manhole?

Item "168-588/832" should not be listed as manhole to be abandoned.

Q30: On Plan Sheet R/A 301, we are unable to locate Manhole No. 168-590-050 on the Plan Sheets. We are assuming this manhole is to be reconstructed. Is this correct and can the Owner please provide Bidders with the location of this manhole?

Refer to revised sheets included as part of this addendum. This manhole is on Avenue B on the 24" S.S. line. This manhole will need to be removed.

Q31: Bid Item No. 40 has a quantity of 2 Ea. for Manhole Reconstruction (MH's 166-588-108 & 166-588-48). Sheet R/A 301 and Sheet R/a 401 also calls for the reconstruction of MH 168-590-050 and MH 168-592-025. It appears there are a total of five manholes to be reconstructed. Is this correct and will Bid Item No. 40 quantity be increased to 5 Ea.?

MH 168-590-050 will be removed (refer to Question 30) and MH 168-592-025 will be abandoned in place. Bid item No. 40 quantity to remain as 2 Ea. for the 2 manhole listed in the bid proposal item description. These 2 manholes included in bid item 40 will need to be reconstructed and rehabilitated to accommodate rerouted connections. Refer to referenced sheets C-107 and R/A-201, note 5 and also to revised sheets included as part of this addendum.

Q32: Are restrained joints required for the FRMP carrier pipe going through trenchless casings?

Refer to specification 02504 Fiberglass Reinforced Polymer Mortar Pipe of the contract documents

Q33: Manhole Rehabilitation Section 910.11.1.1-3 identifies that one out five rehabilitated manholes will be randomly tested. Bid Item No. 40 has a quantity of 2 Ea. We are assuming there will be no testing of rehabilitated manholes. Is this correct?

Testing of rehabilitated manholes will be required as per Section 910. Manhole rehabilitation (coating with structural high sulfate approved product) shall be paid under Bid Item 39, with quantity of 200 vertical feet. The bid item no. 39 quantity includes rehabilitation of existing manholes at locations in which the proposed improvements will connect to and manholes and junction manholes on the existing 60" and 54" parallel sewer that will remain in service. This includes rehabilitation coating of the 2 manholes listed in bid item 40 (reconstructed manholes for service reroutes).

Q34: On Plan Sheet R/A 401, we are unable to locate MH 168-592-026. We are assuming this manhole will not be abandoned. Is this correct?

This manhole has been recently abandoned by others.

Q35: Manhole #306 at station 56+46 does not contain a Rim elevation. Could you please provide Bidders with this information?

RIM Elevation = 673.42

Q36:* Manhole #307 at station 56+66 is a "Fiberglass Full Barrel Manhole". Which Bid Item should be used *for this manhole?

Bid item 35.

Q37: Good Morning, I have a question in regards to the DBE requirements for the above mentioned project. What is the percentage of DBE owned business that you would like to see receive contracts?

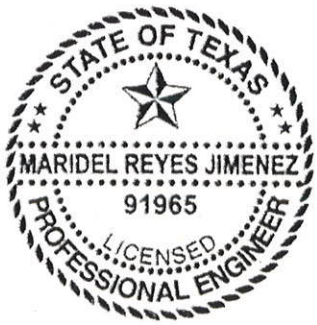
An outdated/incorrect version of the Good Faith Effort Document was inadvertently loaded at the time that the solicitation was posted. The current Good Faith Effort version will be provided per the addendum. The three SMWB certification types that SAWS recognizes are as follows: Small Business Enterprise (SBE), Minority Business Enterprise (MBE), and Woman-owned Business Enterprise (WBE). We do not have a DBE program, because our projects do not receive transportation funding. Regarding SBEs, MBEs, and WBEs, it is not so much that we mandate a percentage of those SMWB-certified businesses to receive contracts, but that we want SMWBs to participate in a percentage of the Olmos Basin Project.

This Addendum, including these **8** pages, is **35** pages with attachments in its entirety.

Attachments:

Bid Proposal (12 pages)
Good Faith Effort Plan for Construction Sub-Contracts (5 pages)
Sheet G-003 (1 page)
Sheet R/A-101 (1 page)
Sheet R/A-201 (1 page)
Sheet R/A-301 (1 page)
Sheet R/A-401 (1 page)
Sheet C-107 (1 page)
Sheet C-304 (1 page)
Sheet C-305 (1 page)
Sheet C-306 (1 page)
Sheet C-307 (1 page)

Each bidder is requested to acknowledge receipt of this Addendum No. 1 by his/her signature affixed hereto and to file same with and attached to his/her bid.



Maridel R Jimenez 1-27-12

Approved by ENGINEER
WESTON SOLUTIONS, INC., TEXAS REGISTERED ENGINEERING FIRM F-3123

The undersigned acknowledges receipt of this Addendum No. 1 and the bid submitted herewith is in accordance with the information and stipulations set forth.

_____ _____

Date Signature of Bidder

END OF ADDENDUM

BID PROPOSAL

PROPOSAL OF _____ , a corporation

a partnership consisting of _____

an individual doing business as _____

THE SAN ANTONIO WATER SYSTEM:
Pursuant to Instructions and Invitations to Bidders, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the construction of pipelines and appurtenances, San Antonio Water System Job Number 08-2512 in accordance with the Plans and Specifications for the following prices to wit:

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
1	550	Trench Excavation Safety Protection (All Depths) _____ Dollars and _____ Cents	LF	8,013	_____	_____
2	848	**Line A, Reach 1 (Josephine to Mill Race)**, MH# 101 to MH# 107 [excludes Siphon 1 from MH# 104 to MH# 105] - 66" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, dewatering, and testing. _____ Dollars and _____ Cents	LF	1,220	_____	_____
3	848	**Line A, Siphon 1 on Reach 1**, MH# 104 to MH# 105, 2-Barrel, 54" and 54" FRPM ASTM D-3262, SN 72 Inverted Siphon and 24" HDPE Air Bypass Pipe & Concrete Slab. Inclusive of Jacking, Boring, or Tunneling, Bore Pits, Steel Encasement Pipe & Casing Spacers, Excavation, Bedding, Backfill, Dewatering, and Testing. Complete and In-Place. _____ Dollars and _____ Cents	LF	251	_____	_____
4	848	**Line A, Reach 1 (Mill Race to Brackenridge Ave/ Lions Field Park)**, MH# 107 to MH# 115 [excludes Segment from MH# 111 to MH# 113] - 66" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, dewatering, and testing. _____ Dollars and _____ Cents	LF	885	_____	_____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
5	848	**Line A, In Place Replacement on Reach-1, MH #111 to MH #113** -66" Gravity Sewer, FRPM ASTM D-3262, SN 72. Complete and In Place. Inclusive of Excavation, bedding, backfill, and dewatering, removal/cutting & plugging and disposal of existing 60" sewer, and testing. _____ Dollars and _____ Cents	LF	401	_____	_____
6	01540	Flow Management and Bypass Pumping on Reach 1 _____ Dollars and _____ Cents	LS	1	_____	_____
7	848	**Line A, Reach 2 (Lions Field Park to E. Mulberry Ave)**, MH# 115 to MH# 208 [excludes Siphon 2 from MH# 204 to MH# 205 and Trenchless Construction from Sta. 41+94.80 to Sta. 43+27.07] - 66" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, and dewatering, and testing. _____ Dollars and _____ Cents	LF	1,263	_____	_____
8	848	**Line A, Siphon 2 on Reach 2**, MH# 204 to MH# 205 - 2-Barrel, 48" and 48" FRPM ASTM D-3262, SN 72, Inverted Siphon and 24" HDPE Air Bypass Pipe and Concrete Slab. Complete and In-Place. Inclusive of Jacking, Boring, or Tunneling, Bore Pits, Steel Encasement Pipe & Casing Spacers, Excavation, Bedding, Backfill, and Dewatering, and testing. _____ Dollars and _____ Cents	LF	158	_____	_____
9	848	**Line A, Trenchless Crossing at Mulberry on Reach 2**, from Sta. 41+94.80 to Sta. 43+27.07 - 66" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Jacking, Boring, or Tunneling, Bore Pits, Steel Encasement Pipe & Casing Spacers, Excavation, bedding, backfill, dewatering and testing. _____ Dollars and _____ Cents	LF	133	_____	_____
10	01540	Flow Management and Bypass Pumping on Reach 2 _____ Dollars and _____ Cents	LS	1	_____	_____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
11	848	**Line A, Reach 3 (E. Mulberry Ave to Parfun Way)**, MH# 208 to MH# 305 - 60" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, and dewatering, and testing. _____ Dollars and _____ Cents	LF	1,162	_____	_____
12	848	**Line A, Siphon 3 on Reach 3 (Trenchless Crossing at Sta 55+00 to 56+36.97)**, MH# 305 to MH# 306 - 60" FRPM ASTM D-3262, SN 72, Complete and In-Place. Inclusive of Jacking, Boring, or Tunneling, Bore Pits, Steel Encasement Pipe & Casing Spacers, Excavation, bedding, backfill, dewatering, and testing. _____ Dollars and _____ Cents	LF	180	_____	_____
13	848	**Line A, Reach 3 (Parfun Way to Tuleta)**, MH# 306 to MH# 311 - 54" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, and dewatering, and testing. _____ Dollars and _____ Cents	LF	1,592	_____	_____
14	01540	Flow Management and Bypass Pumping on Reach 3 _____ Dollars and _____ Cents	LS	1	_____	_____
15	848	**Line A, Reach 4 (at Tuleta and at North Witte Parking Lot)**, MH# 311 to MH# 401 and MH#402 to MH# 403 - 54" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, and dewatering, and testing. _____ Dollars and _____ Cents	LF	160	_____	_____
16	848	**Line A, Trenchless Construction at Witte on Reach 4, MH# 401 to MH# 402** - 54" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Jacking, Boring, or Tunneling, Bore Pits, Steel Encasement Pipe & Casing Spacers, Excavation, bedding, backfill, and dewatering, and testing. _____ Dollars and _____ Cents	LF	679	_____	_____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
17	848	**24" Gravity Sewer Pipe, Reach 3** (at MH# 309), PVC ASTM F-679, Complete In-Place. Inclusive of excavation, bedding, backfill, dewatering and testing. _____ Dollars and _____ Cents	LF	30	_____	_____
18	848	**24" Gravity Sewer Pipe, Reach 4** (at North Witte Parking Lot), MH# 403 to MH# 404- PVC ASTM F-679, Complete In-Place. Inclusive of excavation, bedding, backfill, dewatering and testing. _____ Dollars and _____ Cents	LF	156	_____	_____
19	01540	Flow Management and Bypass Pumping on Reach 4 _____ Dollars and _____ Cents	LS	1	_____	_____
20	848	PVC ASTM D-3034, Gravity Sewer Pipe, 12-inch Diameter (all depths), Complete In-Place. Inclusive of excavation, bedding, backfill, dewatering and testing. _____ Dollars and _____ Cents	LF	75	_____	_____
21	848	PVC ASTM D-3034, Gravity Sewer Pipe, 8-inch Diameter (all depths), Complete In-Place. Inclusive of excavation, bedding, backfill, dewatering and testing. _____ Dollars and _____ Cents	LF	767	_____	_____
22	551	Temporary Special Shoring. _____ Dollars and _____ Cents	LS	1	_____	_____
23	850	Junction Structure MH# 101 (Ave B at Josephine). Inclusive of Connection of Existing 60" Sanitary Sewer Line, 66" Stubout with Cap, Fiberglass Barrier Insert, Complete and In-Place. _____ Dollars and _____ Cents	LS	1	_____	_____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
24	850	Junction Structure MH# 104 (Siphon 1 Downstream Siphon Structure). Complete and In-Place. _____ Dollars and _____ Cents	LS	1	_____	_____
25	850	Junction Structure MH# 105 (Siphon 1 Upstream Siphon Structure). Complete and In-Place. _____ Dollars and _____ Cents	LS	1	_____	_____
26	850	Junction Structure MH# 111 (Ave. B.) Inclusive of Connection of Existing 60" and Proposed 8" Sanitary Sewer Line, Cutting and Plugging of Existing 60" Sewer. _____ Dollars and _____ Cents	LS	1	_____	_____
27	850	Junction Structure MH# 204 (Siphon 2 Downstream Siphon Structure). Inclusive of Connection of Existing 12" Sanitary Sewer Line. Complete and In-Place. _____ Dollars and _____ Cents	LS	1	_____	_____
28	850	Junction Structure MH# 205 (Siphon 2 Upstream Siphon Structure). Complete and In-Place. _____ Dollars and _____ Cents	LS	1	_____	_____
29	850	Junction Structure MH# 208 (Mulberry Junction Box). Inclusive of Connection of Existing 60" Sanitary Sewer Line, Cutting and Plugging or Existing 60" Sewer. _____ Dollars and _____ Cents	LS	1	_____	_____
30	850	Junction Structure MH# 310 (Ave B at Tuleta). Inclusive of Connection of Existing 54" Sanitary Sewer Line, Cutting and Plugging of 54" Sewer. Complete and In-Place. _____ Dollars and _____ Cents	LS	1	_____	_____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
31	850	Junction Structure MH# 403 (Upstream Structure at North Witte Parking lot). Inclusive of Connection of Existing 54" Sanitary Sewer Line, Cutting and Plugging of 54" Sewer. _____ Dollars and _____ Cents	LS	1	_____	_____
32	853	Tee Base Fiberglass Manhole, on 66" Pipe with 60" Riser _____ Dollars and _____ Cents	EA	16	_____	_____
33	853	Tee Base Fiberglass Manhole, on 60" Pipe with 60" Riser _____ Dollars and _____ Cents	EA	5	_____	_____
34	853	Tee Base Fiberglass Manhole, on 54" Pipe with 60" Riser _____ Dollars and _____ Cents	EA	5	_____	_____
35	853	Tee Base Fiberglass Manhole, with 54” Drop Connection, on 54" Pipe _____ Dollars and _____ Cents	EA	1	_____	_____
36	853	Tee Base MH 60" Riser Extra Depth _____ Dollars and _____ Cents	VF	395	_____	_____
37	852/ 853	Sanitary Sewer Manhole, 4’ Dia., Complete and In-Place, Inclusive of connections to existing and proposed sewers. _____ Dollars and _____ Cents	EA	7	_____	_____
38	853	Standard 4' Manhole Extra Depth (>6') _____ Dollars and _____ Cents	VF	13	_____	_____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
39	855/ 910	Manhole Rehabilitation – Structural High Sulfate Lining. _____ Dollars and _____ Cents	VF	200	_____	_____
40	855	Reconstruction of Existing Manhole for Reroute of Service Connection (Sheet C-107 MH#166-588/018) and Lions Field Adult Center (Sheet R/A-201 MH#166-588/48), Inclusive of Coating with Structural High Sulfate Lining per Item 910. _____ Dollars and _____ Cents	EA	2	_____	_____
41	2003	Odor Control Setup and Removal _____ Dollars and _____ Cents	LS	1	_____	_____
42	2003	Odor Control Equipment Rental _____ Dollars and _____ Cents	LS	1	_____	_____
43	2003	Odor Control Biochemical Solution _____ Dollars and _____ Cents	LS	1	_____	_____
44	858	Concrete Encasement _____ Dollars and _____ Cents	CY	869	_____	_____
45	862	Abandon existing siphon structure _____ Dollars and _____ Cents	EA	4	_____	_____
46	862	Abandon WW Manhole _____ Dollars and _____ Cents	EA	31	_____	_____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
47	862	Remove WW Manhole _____ Dollars and _____ Cents	EA	14	_____	_____
48	862	Abandonment of Sanitary Sewer Main (8"-12"). Cut and Plug with 10' of Grout. Complete and In-Place. _____ Dollars and _____ Cents	EA	28	_____	_____
49	862	Abandonment of Sanitary Sewer Main (18"-24"). Cut and Plug with 10' of Grout. Complete and In-Place. _____ Dollars and _____ Cents	EA	18	_____	_____
50	862	Abandonment of Sanitary Sewer Main (30" and Larger). Cut and Plug with 10' of Grout. Complete and In-Place. _____ Dollars and _____ Cents	EA	28	_____	_____
51	854	6" Sanitary Sewer Service PVC SDR 26, ASTM D-3034, 115 psi (Relay for Lions Field Center and Golf Course), Complete and In-Place. Inclusive of coordination with sewer service customer, locating existing building service stubout/clean-out, all fittings, clean-outs, and restoration to pre-construction conditions. _____ Dollars and _____ Cents	LF	1,460	_____	_____
52	1109/ 854	Reconnection of Sanitary Sewer Service _____ Dollars and _____ Cents	EA	10	_____	_____
53	1501	Storm Water Pollution Prevention Plan (SWPPP) and Execution _____ Dollars and _____ Cents	LS	1	_____	_____
54	500	Concrete Curb _____ Dollars and _____ Cents	LF	300	_____	_____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
55	502	Concrete Sidewalks _____ Dollars and _____ Cents	SY	255	_____	_____
56	503	Asphaltic Concrete, Portland Cement Concrete and Gravel Driveway _____ Dollars and _____ Cents	SY	100	_____	_____
57	504	Concrete Median _____ Dollars and _____ Cents	SY	267	_____	_____
58	511/ 804	Cutting and Replacing with Flexible Base and Temporary All Weather Surface to Allow For Traffic Until the Final Asphalt/Concrete Paving is Complete. (Trench Repair). Complete and In-Place. _____ Dollars and _____ Cents	SY	5,400	_____	_____
59	208	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement. _____ Dollars and _____ Cents	CY	1,360	_____	_____
60	205	Hot Mix Asphaltic Pavement Type D – 3 inches pavement thickness (Edge of Pavement to Edge of Pavement Overlay). Complete and In-Place. _____ Dollars and _____ Cents	SY	16,297	_____	_____
61	804	Hydromulching _____ Dollars and _____ Cents	SY	1,500	_____	_____
62	804	Sodding _____ Dollars and _____ Cents	SY	15,445	_____	_____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
63	530	Barricades, Signs and Traffic Handling _____ Dollars and _____ Cents	LS	1	_____	_____
64	540	Inlet Protection _____ Dollars and _____ Cents	EA	4	_____	_____
65	542	Temporary Sediment Control Fence (Silt Fence) _____ Dollars and _____ Cents	LF	8,013	_____	_____
66	540	Construction Exits (Install/Remove) _____ Dollars and _____ Cents	SY	311	_____	_____
67	544	Rock Filter Dams (Type 1 - 5) _____ Dollars and _____ Cents	LF	100	_____	_____
68	801	Tree Protection _____ Dollars and _____ Cents	LS	1	_____	_____
69	3000	Asbestos Removal, Transportation, and Disposal _____ Dollars and _____ Cents	LS	1	_____	_____
70	3000	Asbestos Abatement Work Plan _____ Dollars and _____ Cents	LS	1	_____	_____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
71	401	Storm Sewer Adjustment to Include Up to 100 Linear Feet of 42" Dia. RCP Storm Pipe Joined to Existing RCP Pipe with Concrete Collars at Both Ends within The Lions Field Park. Complete and In-Place. _____ Dollars and _____ Cents	LS	1	_____	_____

SUBTOTAL SAWS JOB NO. 08-2504 (SEWER): $ _____

LINE ITEM "A"

SUBTOTAL BASE BID (SEWER) $ _____

No.	Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
72	100	MOBILIZATION Percent of the Line Item "A" Sub total Base Bid written in words _____ Percent (Maximum of 10% of the Line Item "A" Sub-total Base Bid amount)	LS	1	_____	_____
73	101	PREPARING R.O.W. Percent of the Line Item "A" Subtotal Base Bid written in words _____ Percent (Maximum of 5% of the Line Item "A" Sub-total Base Bid amount)	LS	1	_____	_____

MOBILIZATION, AND PREPARING RIGHT OF WAY SUBTOTAL $ _____

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

TOTAL BID AMOUNT (Line Item "A", Mobilization, & Preparing Right of Way) $_____

_____**DOLLARS AND**

_____ **CENTS**

_____
BIDDER'S SIGNATURE & TITLE

_____
FIRM'S NAME (TYPE OR PRINT)

_____
FIRM'S ADDRESS

_____
FIRM'S PHONE NO. /FAX NO.

_____
FIRM'S EMAIL ADDRESS

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 **seven-hundred and thirty (730) calendar days** after the start date, as set forth in the Authorization to Proceed. **The bidder understands and accepts the provisions of the contract Documents relating to liquidated damages of the project if not completed on time.**

Complete the additional requirements of the Proposal which are included on the following pages.

EXHIBIT "B"

Good Faith Effort Plan for
Construction SUBCONTRACTS
for

NAME OF PROJECT: _____

SECTION A - CONTRACTOR INFORMATION:

Name of Firm: _____

Address: _____

City: _____ **State:** _____ **Zip:** _____

Contact Person: _____ **Telephone:** _____

Email Address: _____ **Fax:** _____

Is your firm Certified: **Yes** _____ **No:** _____ **Certification Agency that granted SMWB certificate/s:** _____

Type of Certification: _____ **SBE** _____ **WBE** _____ **MBE**

1. List ALL SUBCONTRACTORS/SUPPLIERS that will be utilized on this project/contract.

Name & Address of Company	Scope of Work/Supplies to be Performed/Provided by Firm	Estimated Contract (dollar) Amount on this Project	Certification Type & Certification Agency
1.			
2.			
3.			
4.			
5.			

SECTION B. – SMWB COMMITMENTS

The SMWB goal on this project is 17 %

1. The undersigned proposer has satisfied the requirements of the BID specification in the following manner (please check the appropriate space):

   _____ The proposer is committed to a minimum of 17 % SMWB utilization on this contract.

   _____ The proposer, (if unable to meet the SMWB goal of 17%), is committed to a minimum of _____% SMWB utilization on this contract. *(If contractor is unable to meet the goal, please fill out Section C and submit documentation demonstrating good faith efforts).*

2. Name and phone number of person appointed to coordinate and administer the SMWB requirements on this project.

   Name: _____

   Title: _____

   Phone Number: _____

IF THE SMWB GOAL WAS MET, PROCEED TO AFFIRMATION AND SIGN THE GFEP. IF GOAL WAS NOT MET, PROCEED TO SECTION C.

SECTION C – GOOD FAITH EFFORTS (Fill out only if the SMWB goal was not achieved).

1. List all firms you contacted with subcontracting/supply opportunities for this project that will not be utilized for the contract by choice of the proposer, subcontractor, or supplier. Written notices to firms contacted by the proposer for specific scopes of work identified for subcontracting/supply opportunities must be provided to subcontractor/supplier **not less than five (5) business days prior to bid/proposal due date**. The following information is required for all firms that were contacted of subcontracting/supply opportunities.

Name & Address of Company	Scope of Work/Supplies to be Performed/Provided by Firm	Is Firm SMWB Certified?	Date Written Notice was Sent & Method (Fax, Letter, E-Mail, etc.)	Reason Agreement was not reached?
1.				
2.				
3.				
4.				
5.				
6.				
7.				

(Use additional sheets as needed)

In order to verify a proposer's good faith efforts, please provide to SAWS copies of the written notices to all firms contacted by the proposer for specific scopes of work identified in relation to the subcontracting/supply opportunities in the above named project. Copies of said notices must be provided to the SMWB Program Manager within five (5) business days after the response is due. Such notices shall include information on the plans, specifications, and scope of work.

2. Did you attend the pre-bid conference scheduled for this project? ____ Yes ____ No

3. List all SMWB listings or directories, contractor associations, and/or any other associations utilized to solicit SMWB Subcontractors/suppliers.

   _____

   _____

4. Discuss efforts made to define additional elements of the work proposed to be performed by SMWBs in order to increase the likelihood of achieving the goal:

   _____

   _____

5. Indicate advertisement mediums used for soliciting bids from SMWBs. (Please attach a copy of the advertisement(s):

   _____

   _____

AFFIRMATION

I hereby affirm that the above information is true and complete to the best of my knowledge. I further understand and agree that, this document shall be attached thereto and become a binding part of the contract.

Name and Title of Authorized Official:

Name: _____

Title: _____

Signature:_____Date:_____

NOTE:

This Good Faith Effort Plan is reviewed by SAWS Contracting Department. For questions and/or clarifications, please contact Marisol V. Robles, SMWB Manager, at 210-233-3420.

DEFINITIONS:

Prime Consultant/Contractor: Any person, firm partnership, corporation, association or joint venture which has been awarded a San Antonio Water System contract.

Subconsultants/contractor: Any named person, firm partnership, corporation, association or joint venture identified as providing work, labor, services, supplies, equipment, materials or any combination of the foregoing under contract with a prime consultant/contractor on a San Antonio Water System contract.

Small, Minority and Woman Business (SMWB): All business structures Certified by the Small Business Administration, Texas State Comptroller's Office, or the South Central Texas Regional Certification Agency that are 51% owned, operated, and controlled by a Small Business Enterprise, a Minority Business Enterprise, or a Woman-owned Business Enterprise.

Small Business Enterprise (SBE): A business structure that is Certified by the Small Business Administration, Texas State Comptroller's Office or the South Central Texas Regional Certification Agency as being 51% owned, operated and controlled by someone who is legally residing in or a citizen of the United States, and the business structure meets the U.S. Small Business Administration's (SBA) size standard for a small business within the appropriate industry category

Minority Business Enterprise (MBE): A business structure that is Certified by the Small Business Administration, Texas State Comptroller's Office or the South Central Texas Regional Certification Agency as being 51% owned, operated, and controlled by an ethnic minority group member(s) who is legally residing in or a citizen of the United States. For purposes of the SMWB program, the following are recognized as minority groups:

a. **African American –** Persons having origins in any of the black racial groups of Africa as well as those identified as Jamaican, Trinidadian or West Indian.

b. **Hispanic American –** Persons of Mexican, Puerto Rican, Cuban, Spanish or Central or South American origin.

c. Asian-Pacific American – Persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands.

d. Asian-Indian American – Persons whose origins are from India, Pakistan, Bangladesh or Sri Lanka.

e. American Indian/Native American – Persons having no less than 1/16 percentage origin in any of the American Indian Tribes, as recognized by the U.S. Department of the Interior's Bureau of Indian Affairs and as demonstrated by possession of personal tribal role documents.

Women Business Enterprise (WBE): A business structure that is Certified by the Small Business Administration, Texas State Comptroller's Office or the South Central Texas Regional Certification Agency as being 51% owned, operated and controlled by a woman or women who are legally residing in or citizens of the United States.

African American Business Enterprise (AABE): A business structure that is Certified by the Small Business Administration, Texas State Comptroller's Office or the South Central Texas Regional Certification Agency as being 51% owned, operated and controlled by African American minority group member(s) who are legally residing in or are citizens of the United States.

Joint Venture: A limited association of two or more persons to carry out a single business enterprise for profit, for which purpose they combine their property, money, efforts, skills and knowledge.

Contractor's Payment to Sub-Contractors:
The contractor will be required to report the actual payments to all subcontractors, utilizing the Sub-contracting Payment and Utilization Reporting (S.P.U.R.) System, in the time intervals and format prescribed by SAWS. This information will be utilized for SMWB participation tracking purposes. Any unjustified failure to comply with the committed SWMB levels may be considered breach of contract.

Web Submittal of Subcontractor Payment Reports:
The Contractor is required to electronically submit monthly subcontractor payment information utilizing the Sub-contracting Payment and Utilization Reporting (S.P.U.R.) System, beginning with the first SAWS payment for services under the contract, and with every payment thereafter (for the duration of the contract). Electronic submittal of monthly subcontractor payment information will be accessed through a link on SAWS' "Business Center" web page.

The Contractor and all subcontractors will be provided a unique log-in credential and password to access the SAWS subcontractor payment reporting system. The link may also be accessed through the following internet address: https://saws.smwbe.com/

GENERAL TESTING

1. MATERIALS TESTING FOR THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PAYMENT FOR TESTING WILL NOT BE PAID SEPARATELY BUT SHALL BE INCORPORATED INTO THE ITEMS TO WHICH IT PERTAINS.
2. MATERIALS TESTING SHALL COMPLY WITH APPLICABLE REQUIREMENTS PER SAWS SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION, COSA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, TxDOT STANDARD SPECIFICATIONS, AND THE CONTRACT DOCUMENTS.
3. TESTING SHALL BE SUCCESSFULLY DEMONSTRATED PRIOR TO PLACEMENT OF FINAL SURFACES.
4. CONTRACTOR SHALL COORDINATE TESTING WITH INSPECTOR AND WITH SAWS MAINTENANCE PERSONNEL.
5. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION INSPECTION DIVISION.
6. CONTRACTOR IS RESPONSIBLE IN NEW CONSTRUCTION FOR CORRECTING ALL ABNORMALITIES INCLUDING SIGNIFICANT DEFLECTIONS, CRACKED OR BROKEN PIPE, SEPARATED OR MISALIGNED JOINTS.

PIPE MATERIAL

1. SANITARY SEWER PIPE SIZE, MATERIAL, AND CLASSIFICATION SHALL BE AS INDICATED ON THE PLANS AND IN THE SPECIFICATIONS.
2. CONTRACTOR MUST MAINTAIN THE SAME PIPE MATERIAL BETWEEN MANHOLES.
3. PLASTIC PIPE SHALL BE INSTALLED WITH A TRACER WIRE PER THE SPECIFICATION.
4. PIPE MATERIAL SUPPLIED FOR THE PROJECT SHALL BE CERTIFIED BY THE MANUFACTURER AS TO THE STRUCTURAL INTEGRITY OF THE PIPE BASED ON THE INSTALLATION REQUIREMENTS AND INSTALLATION DEPTHS DESCRIBED AND SHOWN HEREIN. PIPE SUPPORT CALCULATIONS SHALL BE PROVIDED BY THE CONTRACTOR/MANUFACTURER INCORPORATING TRENCH CONDITION, BACKFILL MATERIAL AND COMPACTION, TRENCH SHAPE, AND INSTALLATION DEPTH. CALCULATIONS SHALL INCLUDE A 15 FOOT FLOODWATER SURCHARGE IN ADDITION TO TYPICAL DEAD AND LIVE LOAD FORCES.
5. TRENCHING, BEDDING AND BACKFILL MUST CONFORM WITH 30 TAC §217.54. THE BEDDING AND BACKFILL FOR FLEXIBLE PIPE MUST COMPLY WITH THE STANDARDS OF ASTM D-2321, CLASSES IA, IB, II OR III. RIGID PIPE BEDDING MUST COMPLY WITH THE REQUIREMENTS OF ASTM C 12 (ANSI A 106.2) CLASSES A, B OR C.
6. SEWER PIPE CONNECTIONS TO PRE-CAST MANHOLES WILL BE COMPRESSION JOINTS AS APPROVED BY SAWS. MECHANICAL JOINT "BOOT TYPE" CONNECTIONS ALONE WILL NOT BE ALLOWED. "BOOT TYPE" JOINTS MAY BE USED IN CONJUNCTION WITH COMPRESSION JOINTS AS APPROVED BY SAWS. SEWER PIPE CONNECTIONS TO MONOLITHIC MANHOLES WILL BE AS SHOWN ON THE STANDARD DETAIL SHEET. SAWS MUST APPROVE ANY CHANGES FROM THESE METHODS.
7. CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENT AS INDICATED ON THE DRAWINGS.

PIPE TESTING

1. SEWER LINES MUST BE TESTED FROM MANHOLE TO MANHOLE. WHEN A NEW SEWER LINE IS CONNECTED TO AN EXISTING STUB OR CLEAN-OUT, IT MUST BE TESTED FROM EXISTING MANHOLE TO NEW MANHOLE. IF A STUB OR CLEAN-OUT IS USED AT THE END OF THE PROPOSED SEWER LINE, NO PRIVATE SERVICE ATTACHMENTS MAY BE CONNECTED BETWEEN THE LAST MANHOLE AND THE CLEANOUT.
2. GRAVITY SEWER MAINS SHALL BE AIR AND DEFLECTION TESTED PER SAWS STANDARD SPECIFICATION 849. WHEN OPERATIONS PREVENT AIR AND DEFLECTION TESTING, CONTRACTOR SHALL SUBSTITUTE VIDEO INSPECTION PER SAWS STANDARD SPECIFICATION 866. THERE IS NO ADDITIONAL PAY FOR BYPASS PUMPING OR LINE CLEANING REQUIRED WHEN VIDEO TESTING IS SUBSTITUTED FOR OTHER TESTS.
3. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH 30 TAC §217.57. THE CONTRACTOR MUST SUBMIT COPIES OF ALL TEST RESULTS. THE ENGINEER/SAWS MUST CERTIFY IN WRITING THAT ALL WASTEWATER LINES HAVE PASSED ALL REQUIRED TESTING WITHIN 30 DAYS OF TEST COMPLETION AND PRIOR TO USE OF THE NEW COLLECTION SYSTEM.

MANHOLES/STRUCTURES

1. ALL MANHOLE/STRUCTURES SHALL BE SAWS STANDARD SANITARY SEWER STRUCTURES, ASTM C-478 PRECAST REINFORCED CONCRETE MANHOLE, MONOLITHICALLY POURED CONCRETE MANHOLE, OR GLASS-FIBER REINFORCED POLYESTER MANHOLE UNLESS INDICATED OTHERWISE ON THE DRAWINGS. ALL MANHOLE/STRUCTURES SHALL MEET THE REQUIREMENTS OUTLINED IN SAWS STANDARD SPECIFICATION ITEM 850, 852, AND 853.
2. ALL MANHOLES CONSTRUCTED OR REHABILITATED ON THIS PROJECT MUST HAVE WATERTIGHT SIZE ON SIZE RESILIENT CONNECTORS ALLOWING FOR DIFFERENTIAL SETTLEMENT. IF MANHOLES ARE CONSTRUCTED WITHIN THE 100-YEAR FLOODPLAIN, THE COVER MUST HAVE A GASKET AND BE BOLTED TO THE RING. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE OR FOR MORE THAN 1500 FEET, ALTERNATE MEANS OF VENTING WILL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE.

   THE DIAMETER OF THE MANHOLES MUST BE A MINIMUM OF FOUR FEET AND THE MANHOLE FOR ENTRY MUST HAVE A MINIMUM CLEAR OPENING DIAMETER OF 30 INCHES. THESE DIMENSIONS AND OTHER DETAILS CONCERNING MANHOLES AND SEWER LINE/MANHOLE INVERTS DESCRIBED IN 30 TAC §217.55 ARE INCLUDED ON PLAN SHEET D-2 AND D-3.

   IT IS SUGGESTED THAT ENTRANCE INTO MANHOLES IN EXCESS OF FOUR FEET DEEP BE ACCOMPLISHED BY MEANS OF A PORTABLE LADDER. THE INCLUSION OF STEPS IN A MANHOLE IS PROHIBITED.
3. ALL MANHOLES/STRUCTURES SHALL HAVE WATERTIGHT RING AND COVERS IN ACCORDANCE WITH THE MOST CURRENT SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION.
4. ALL MANHOLE/STRUCTURE DESIGN AND INSTALLATION SHALL INSURE THAT FLOATATION OF THE MANHOLE/STRUCTURE WILL NOT OCCUR DURING FLOODING OR GROUNDWATER SOIL SATURATION.
5. ALL MANHOLES/STRUCTURES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE RING IS AT LEAST SIX (6) INCHES ABOVE THE FINISHED GRADE OF THE SURROUNDING GROUND EXCEPT WHEN LOCATED IN PAVED AREAS. IN PAVED AREAS, THE MANHOLE RING SHALL BE FLUSH WITH PAVEMENT.
6. DESIGNATED MANHOLE/STRUCTURES SHALL HAVE INSIDE SURFACE SEALED WITH EPOXY COATING. SEE PLAN FOR SPECIFIC MANHOLE/STRUCTURE.
7. ON ANY MANHOLES TO BE ABANDONED, THE RINGS AND COVER SHALL BE SALVAGED IN ACCORDANCE WITH THE MOST CURRENT SAWS STANDARD SPECIFICATION FOR CONSTRUCTION, ITEM 101: PREPARATION OF RIGHT-OF-WAY. THE HOLE SHOULD BE BACKFILLED ACCORDING TO THESE PLANS.
8. TEE BASE MANHOLES SHALL BE MANUFACTURED OF FRP PIPE AND FITTINGS MEETING THE PROJECT SPECIFICATIONS. THE CONCRETE ENCASEMENT SHALL EXTEND THE FULL WIDTH OF TRENCH AND A MINIMUM HEIGHT OF SIX INCHES (6") ABOVE THE FIBERGLASS BASE SECTION, SEE DETAIL. THE ACCESS RING & COVER SHALL BE CAST IRON WITH A 32 INCH MINIMUM THROAT OPENING.
9. CAST-IN-PLACE REINFORCED CONCRETE STRUCTURES SHALL BE CONSTRUCTED ACCORDING TO THE STRUCTURAL DETAILS MEETING ALL APPLICABLE ACI, CRSI, AISC, AISI AND ASTM STANDARDS AND RECOMMENDATIONS. THE CONCRETE MIX DESIGN SHALL INCORPORATE TYPE IP OR TYPE II CEMENT AND ACHIEVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI. THE INSIDE OF ALL STRUCTURES SHALL BE COATED WITH AN EPOXY BASED, SPRAY ON LINER FOR CORROSION PROTECTION, SEE SPECIFICATIONS.

MANHOLE/STRUCTURE TESTING

1. ALL MANHOLES MUST PASS A HYDROSTATIC AND VACUUM TESTS AS PER SAWS STANDARD SPECIFICATION 852 PRIOR TO ACCEPTANCE BY SAWS AND MUST MEET OR EXCEED THE REQUIREMENTS OF 30 TAC §217.58.
2. TEE BASE MANHOLES AND CONCRETE STRUCTURES SHALL BE HYDROSTATICALLY TESTED BY FILLING THE MANHOLE/STRUCTURE TO THE TOP OF CONCRETE WITH WATER AND MEASURING OBSERVABLE LOSS AS OUTLINED IN THE SAWS STANDARD SPECIFICATION OF SANITARY SEWER STRUCTURES, ITEM 850. OBSERVABLE LEAKAGE SHALL REQUIRE REMEDIAL MEASURES. ENGINEER / INSPECTOR SHALL BE PRESENT FOR ALL TESTS.

PROCEDURES-SEQUENCING REQUIREMENTS/CONDITIONS

THE CONTRACTOR WILL BE ALLOWED TO DEVELOP DETAILED PROCEDURES AND A SEQUENCING PLAN AND SCHEDULE TO BE APPROVED BY SAWS. THE PLAN AND SCHEDULE SHALL INCORPORATE THE FOLLOWING REQUIREMENTS AND CONDITIONS:

1. THE CONTRACTOR IS RESPONSIBLE FOR STAGING AND STORAGE AREA. CONTRACTOR SHALL NOT USE STREET RIGHT-OF-WAYS OR SEWER EASEMENTS FOR THESE PURPOSES.
2. THE PROJECT SHALL PROGRESS FROM DOWNSTREAM TO UPSTREAM MAINTAINING SERVICE IN THE EXISTING LINES AT ALL TIMES. STORM EVENTS MAY PRODUCE FLOWS IN EXCESS OF SYSTEM CAPACITY. CONTRACTOR TO CONSIDER OVERFLOW CONTINGENCIES WHEN DEVELOPING THE SEQUENCING PLAN.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY PLUGGING AND FLOW DIVERSIONS TO ACCOMPLISH THE WORK INCLUDING TEMPORARY STRUCTURES, PIPING MATERIALS, ENVIRONMENTAL, PROTECTION FROM WASTEWATER AND HIGH LEVELS OF HYDROGEN SULFIDE GAS, AND OTHER ASSOCIATED SPECIAL EQUIPMENT. THE COST OF WHICH SHALL BE INCLUDED IN THE PAY ITEMS PRESENTED IN THE PROPOSAL. THERE WILL BE NO SEPARATE PAY ITEM ASSOCIATED WITH THESE ACTIVITIES.
4. CONSTRUCTION NEAR THE WITTE MUSEUM AND WITTE MUSEUM PARKING GARAGE AREA (REACH 4 AND THE UPPER END OF REACH 3) WILL NOT BE ALLOWED DURING THE MONTH OF MARCH. CONTRACTOR SHALL SCHEDULE WORK ACCORDINGLY AND COORDINATE WITH WITTE REPRESENTATIVES AS NECESSARY.

ESTIMATED QUANTITIES

Item No.	Pay Item No.	Description	Estimated Quantity	Unit
1	550	Trench Excavation Safety Protection (All Depths)	8,013	L.F.
2	848	Line A, Reach 1 (Josephine to Mill Race), MH# 101 to MH# 107 [excludes Siphon 1 from MH# 104 to MH# 105] - 66" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, dewatering, and testing.	1,220	L.F.
3	848	Line A, Siphon 1 on Reach 1, MH# 104 to MH# 105, 2-Barrel, 54" and 54" FRPM ASTM D-3262, SN 72 Inverted Siphon and 24" HDPE Air Bypass Pipe & Concrete Slab. Inclusive of Jacking, Boring, or Tunneling, Bore Pits, Steel Encasement Pipe & Casing Spacers, Excavation, Bedding, Backfill, Dewatering, and Testing. Complete and In-Place.	251	L.F.
4	848	Line A, Reach 1 (Mill Race to Brackenridge Ave/ Lions Field Park), MH# 107 to MH# 115 [excludes Segment from MH# 111 to MH# 113] - 66" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, dewatering, and testing.	885	L.F.
5	848	Line A, In Place Replacement on Reach-1, MH #111 to MH #113 -66" Gravity Sewer, FRPM ASTM D-3262, SN 72. Complete and In Place. Inclusive of Excavation, bedding, backfill, and dewatering, removal/cutting & plugging and disposal of existing 60" sewer, and testing.	401	L.F.
6	01540	Flow Management and Bypass Pumping on Reach 1	1	L.S.
7	848	Line A, Reach 2 (Lions Field Park to E. Mulberry Ave), MH# 115 to MH# 208 [excludes Siphon 2 from MH# 204 to MH# 205 and Trenchless Construction from Sta. 41+94.80 to Sta. 43+27.07] - 66" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, and dewatering, and testing.	1,263	L.F.
8	848	Line A, Siphon 2 on Reach 2, MH# 204 to MH# 205 - 2-Barrel, 48" and 48" FRPM ASTM D-3262, SN 72, Inverted Siphon and 24" HDPE Air Bypass Pipe and Concrete Slab. Complete and In-Place. Inclusive of Jacking, Boring, or Tunneling, Bore Pits, Steel Encasement Pipe & Casing Spacers, Excavation, Bedding, Backfill, and Dewatering, and testing.	158	L.F.
9	848	Line A, Trenchless Crossing at Mulberry on Reach 2, from Sta. 41+94.80 to Sta. 43+27.07 - 66" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Jacking, Boring, or Tunneling, Bore Pits, Steel Encasement Pipe & Casing Spacers, Excavation, bedding, backfill, dewatering and testing.	133	L.F.
10	01540	Flow Management and Bypass Pumping on Reach 2	1	L.S.
11	848	Line A, Reach 3 (E. Mulberry Ave to Parfun Way), MH# 208 to MH# 305 - 60" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, and dewatering, and testing.	1,162	L.F.
12	848	Line A, Siphon 3 on Reach 3 (Trenchless Crossing at Sta 55+00 to 56+36.97), MH# 305 to MH# 306 - 60" FRPM ASTM D-3262, SN 72, Complete and In-Place. Inclusive of Jacking, Boring, or Tunneling, Bore Pits, Steel Encasement Pipe & Casing Spacers, Excavation, bedding, backfill, dewatering, and testing.	180	L.F.
13	848	Line A, Reach 3 (Parfun Way to Tuleta), MH# 306 to MH# 311 - 54" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, and dewatering, and testing.	1,592	L.F.
14	01540	Flow Management and Bypass Pumping on Reach 3	1	L.S.
15	848	Line A, Reach 4 (at Tuleta and at North Witte Parking Lot), MH# 311 to MH# 401 and MH#402 to MH# 403 - 54" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Excavation, bedding, backfill, and dewatering, and testing.	160	L.F.
16	848	Line A, Trenchless Construction at Witte on Reach 4, MH# 401 to MH# 402 - 54" Gravity Sewer. FRPM ASTM D-3262, SN 72. Complete and In-Place. Inclusive of Jacking, Boring, or Tunneling, Bore Pits, Steel Encasement Pipe & Casing Spacers, Excavation, bedding, backfill, and dewatering, and testing.	679	L.F.
17	848	24" Gravity Sewer Pipe, Reach 3 (at MH# 309). PVC ASTM F-679, Complete In-Place. Inclusive of excavation, bedding, backfill, dewatering and testing.	30	L.F.
18	848	24" Gravity Sewer Pipe, Reach 4 (at North Witte Parking Lot), MH# 403 to MH# 404- PVC ASTM F-679, Complete In-Place. Inclusive of excavation, bedding, backfill, dewatering and testing.	156	L.F.
19	01540	Flow Management and Bypass Pumping on Reach 4	1	L.S.
20	848	PVC ASTM D-3034, Gravity Sewer Pipe, 12-inch Diameter (all depths), Complete In-Place. Inclusive of excavation, bedding, backfill, dewatering and testing.	75	L.F.
21	848	PVC ASTM D-3034, Gravity Sewer Pipe, 8-inch Diameter (all depths), Complete In-Place. Inclusive of excavation, bedding, backfill, dewatering and testing.	767	L.F.
22	551	Temporary Special Shoring.	1	L.S.
23	850	Junction Structure MH# 101 (Ave B at Josephine). Inclusive of Connection of Existing 60" Sanitary Sewer Line, 66" Stubout with Cap, Fiberglass Barrier Insert, Complete and In-Place.	1	L.S.
24	850	Junction Structure MH# 104 (Siphon 1 Downstream Siphon Structure). Complete and In-Place.	1	L.S.
25	850	Junction Structure MH# 105 (Siphon 1 Upstream Siphon Structure). Complete and In-Place.	1	L.S.
26	850	Junction Structure MH# 111 (Ave. B.) Inclusive of Connection of Existing 60" and Proposed 8" Sanitary Sewer Line, Cutting and Plugging of Existing 60" Sewer.	1	L.S.
27	850	Junction Structure MH# 204 (Siphon 2 Downstream Siphon Structure). Inclusive of Connection of Existing 12" Sanitary Sewer Line. Complete and In-Place.	1	L.S.
28	850	Junction Structure MH# 205 (Siphon 2 Upstream Siphon Structure). Complete and In-Place.	1	L.S.
29	850	Junction Structure MH# 208 (Mulberry Junction Box). Inclusive of Connection of Existing 60" Sanitary Sewer Line, Cutting and Plugging or Existing 60" Sewer.	1	L.S.
30	850	Junction Structure MH# 310 (Ave B at Tuleta). Inclusive of Connection of Existing 54" Sanitary Sewer Line, Cutting and Plugging of 54" Sewer. Complete and In-Place.	1	L.S.
31	850	Junction Structure MH# 403 (Upstream Structure at North Witte Parking lot). Inclusive of Connection of Existing 54" Sanitary Sewer Line, Cutting and Plugging of 54" Sewer.	1	L.S.
32	853	Tee Base Fiberglass Manhole, on 66" Pipe with 60" Riser	16	E.A.
33	853	Tee Base Fiberglass Manhole, on 60" Pipe with 60" Riser	5	E.A.
34	853	Tee Base Fiberglass Manhole, on 54" Pipe with 60" Riser	5	E.A.
35	853	Tee Base Fiberglass Manhole, with 54" Drop Connection, on 54" Pipe	1	E.A.
36	853	Tee Base MH 60" Riser Extra Depth	395	V.F.
37	852/853	Sanitary Sewer Manhole, 4' Dia., Complete and In-Place, Inclusive of connections to existing and proposed sewers.	7	E.A.
38	853	Standard 4' Manhole Extra Depth (>6')	13	V.F.
39	855/910	Manhole Rehabilitation - Structural High Sulfate Lining.	200	V.F.
40	855	Reconstruction of Existing Manhole for Reroute of Service Connection (Sheet C-107 MH#166-588/018) and Lions Field Adult Center (Sheet R/A-201 MH#166-588/48), Inclusive of Cooling with Structural High Sulfate Lining per Item 910.	2	E.A.
41	2003	Odor Control Setup and Removal	1	L.S.
42	2003	Odor Control Equipment Rental	1	L.S.
43	2003	Odor Control Biochemical Solution	1	L.S.
44	858	Concrete Encasement	869	C.Y.
45	862	Abandon existing siphon structure	4	E.A.
46	862	Abandon WW Manhole	(29, 31)	E.A.
47	862	Remove WW Manhole	(13, 14)	E.A.
48	862	Abandonment of Sanitary Sewer Main (8"-12"). Cut and Plug with 10' of Grout. Complete and In-Place.	28	E.A.
49	862	Abandonment of Sanitary Sewer Main (18"-24") Cut and Plug with 10' of Grout. Complete and In-Place.	18	E.A.
50	862	Abandonment of Sanitary Sewer Main (30" and Larger) Cut and Plug with 10' of Grout. Complete and In-Place.	28	E.A.
51	854	6" Sanitary Sewer Service PVC SDR 26, ASTM D-3034, 115 psi (Relay for Lions Field Center and Golf Course), Complete and In-Place. Inclusive of coordination with sewer service customer, locating existing building service stubout/clean-out, all fittings, clean-outs, and restoration to pre-construction conditions.	1,460	L.F.
52	1109/854	Reconnection of Sanitary Sewer Service	10	E.A.
53	1501	Storm Water Pollution Prevention Plan (SWPPP) and Execution	1	L.S.
54	500	Concrete Curb	300	L.F.
55	502	Concrete Sidewalks	225	S.Y.
56	503	Asphaltic Concrete, Portland Cement Concrete and Gravel Driveway	100	S.Y.
57	504	Concrete Median	267	S.Y.
58	511/ 804	Cutting and Replacing with Flexible Base and Temporary All Weather Surface to Allow For Traffic Until the Final Asphalt/Concrete Paving is Complete. (Trench Repair).Complete and In-Place.	5,400	S.Y.
59	208	Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement.	1,360	C.Y.
60	205	Hot Mix Asphaltic Pavement Type D - 3 inches pavement thickness (Edge of Pavement to Edge of Pavement Overlay). Complete and In-Place.	16,297	S.Y.
61	804	Hydromulching	1,500	S.Y.
62	804	Sodding	15,445	S.Y.
63	530	Barricades, Signs and Traffic Handling	1	L.S.
64	540	Inlet Protection	4	E.A.
65	542	Temporary Sediment Control Fence (Silt Fence)	8,013	L.F.
66	540	Construction Exits (Install/Remove)	311	S.Y.
67	544	Rock Filter Dams (Type 1 - 5)	100	L.F.
68	801	Tree Protection	1	L.S.
69	3000	Removal, Transportation, and Disposal	1	L.S.
70	3000	Asbestos Abatement Work Plan	1	L.S.
71	401	Storm Sewer Adjustment to Include Up to 100 Linear Feet of 42" Dia. RCP Storm Pipe Joined to Existing RCP Pipe with Concrete Collars at Both Ends within The Lions Field Park. Complete and In-Place.	1	L.S.

REV. BY	DATE	REVISION DESCRIPTION
1 MRJ	01-27-12	Addendum 1
2 MRJ	01-27-12	Addendum 1

WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
SAN ANTONIO, TEXAS 78216-5842
TEXAS REGISTERED ENGINEERING FIRM F-3123

MARIDEL REYES JIMENEZ 91965 LICENSED PROFESSIONAL ENGINEER
ABDEL-QADER J. HAMED 94279 LICENSED PROFESSIONAL ENGINEER
1-27-12

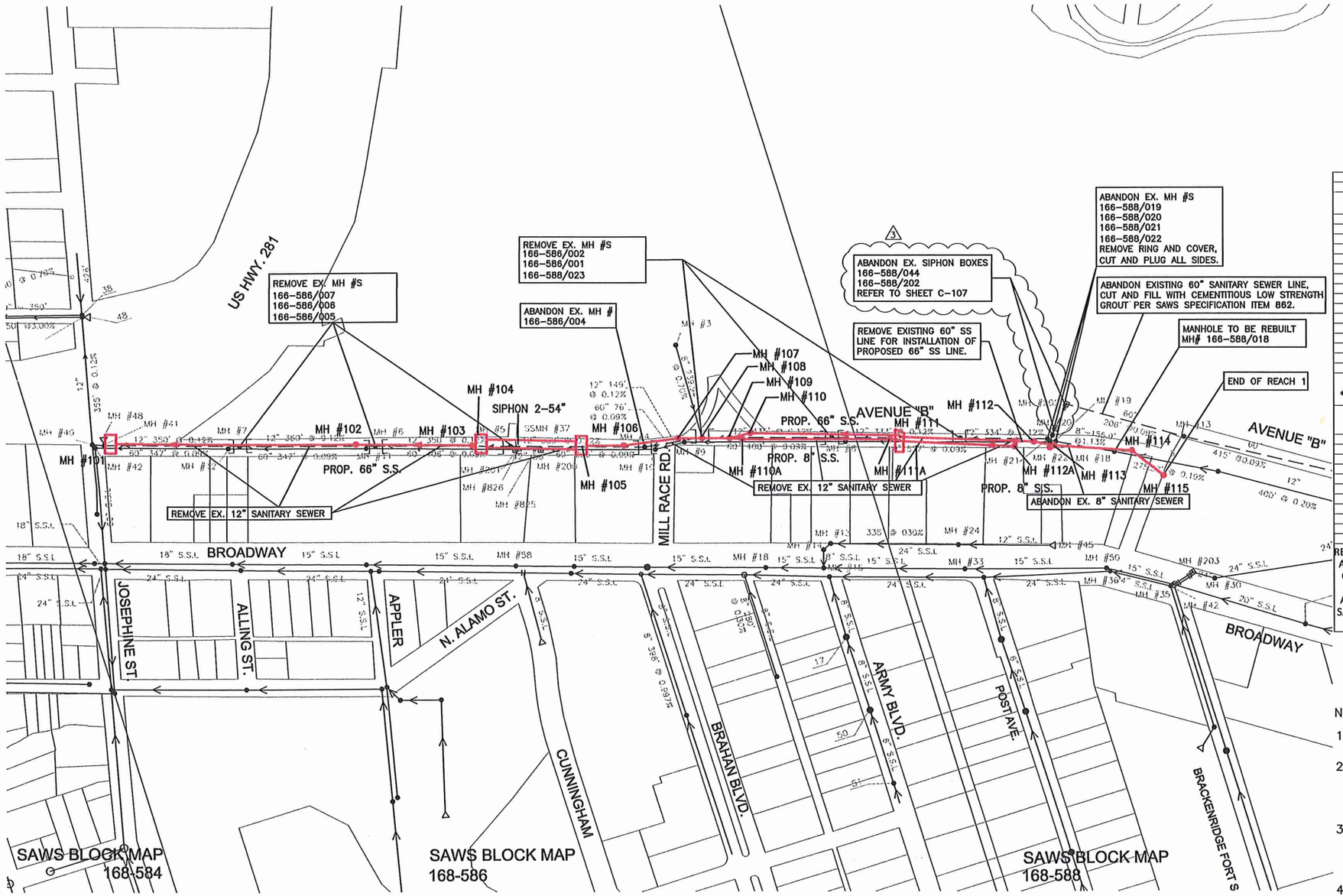
SAWS OLMOS BASIN CENTRAL WATERSHED
SEWER RELIEF LINE (C-3) REACHES 1-4

GENERAL NOTES-2

San Antonio Water System

NOTES	INITIALS	DATE
DESIGNED BY	AH	01/27/12
REVIEWED BY	MRJ	01/27/12
SCALE:	AS SHOWN	

SHEET NO. G-003
3 OF 123



REHABILITATION AND ABANDONMENT PLAN FOR EXISTING SEWER SYSTEM

SCALE: 1"=150'-0"

REACH-1
WASTEWATER LINE TO BE ABANDONED

FROM MH#	TO MH #	SIZE OF PIPE	LENGTH OF PIPE (LF)
166-586/040	166/586/041	12"	30
166-586/041	166-586/007	12"	350
166-586/007	166-586/006	*12"	350
166-586/006	166-586/005	*12"	350
166-586/005	166-586/004	*12"	350
166-586/004	166-586/002	*12"	149
166-586/002	166-586/001	*12"	335
166-586/001	166-588/023	*12"	333
166-588/023	166-588/021	*12"	334
166-588/021	166-588/019	12"	55
166-588/019	166-588/018	8"	155.9
166-586/008	166-588/022	60"	537
166-588/022	166-588/020	60"	17
166-588/020	166-588/044	60"	17
166-588/044	166-588/202	60"	74
166-588/202	166-588/013	60"	206

TO BE ABANDONED PER SAWS SPECIFICATION ITEM NO. 862.
* REMOVE COMPLETELY FOR INSTALLATION OF PROPOSED 66" SS LINE.

MH TO BE ABANDONED	MH TO BE REMOVED	MH TO BE REHAB/ADJUSTED RECONSTRUCTION (1)
166-586/041	166-586/007	166-588/018
166-586/004	166-586/006	
166-586/001	166-586/005	
166-588/023	166-586/002	
166-588/021		
166-588/022		
166-588/020		
166-588/019		
166-588/044		
166-588/202		
166-588/013		
REMOVE RING, COVER AND CONE SECTION. CUT AND PLUG ALL SIDES IN ACCORDANCE WITH SAWS SPECIFICATION NO. 862	TO BE REMOVED COMPLETELY FOR INSTALLATION OF PROPOSED SS LINE	~~REFER TO SHEET C-107 ADJUST MANHOLE IN ACCORDANCE WITH SAWS SPECIFICATION NO. 851~~ (2)

NOTES:

1. CONTRACTOR SHALL MAINTAIN EXISTING FLOWS DURING CONSTRUCTION.
2. CONTRACTOR SHALL SUBMIT FLOW MANAGEMENT AND BY-PASS PUMPING IN ACCORDANCE WITH ITEM 01540 "FLOW MANAGEMENT AND BY-PASS PUMPING" AND ITEM 01300 "SUBMITTALS" OF THE PROJECT SPECIFICATIONS.
3. LINES INDICATED AS 'ABANDON' SHALL BE CUT AND PLUGGED WITH CEMENTITIOUS LOW STRENGTH GROUT FOR 10 L.F. GROUT SHALL CONFORM TO SAWS SPECIFICATION ITEM NO. 862.
4. MANHOLES SHOWN PROPOSED FOR ABANDONMENT SHALL BE REMOVED TO MIN. OF 2 FEET BELOW GRADE IN ACCORDANCE WITH SPECIFICATION NO. 862.
5. CONTRACTOR SHALL LOCATE AND RELAY SERVICE LATERALS FROM THE PROPERTY ALONG AVENUE B BETWEEN (E. JOSEPHINE STREET AND BRACKENBRIDGE PARK) AND CONNECT TO PROPOSED 8"/66" SANITARY SEWER. SUBMIT PROPOSED PLAN FOR SEWER RELOCATIONS.

Legend

- EXISTING SANITARY SEWER LINE
- EXISTING SANITARY SEWER LINE TO BE ABANDONED
- PROPOSED SANITARY SEWER LINE

REV. NO.	BY	DATE	REVISION DESCRIPTION
1	MRJ	01-27-12	Addendum 1
2	MRJ	01-27-12	Addendum 1
3	MRJ	01-27-12	Addendum 1

WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
SAN ANTONIO, TEXAS 78216-5842
TEXAS REGISTERED ENGINEERING FIRM F-3123

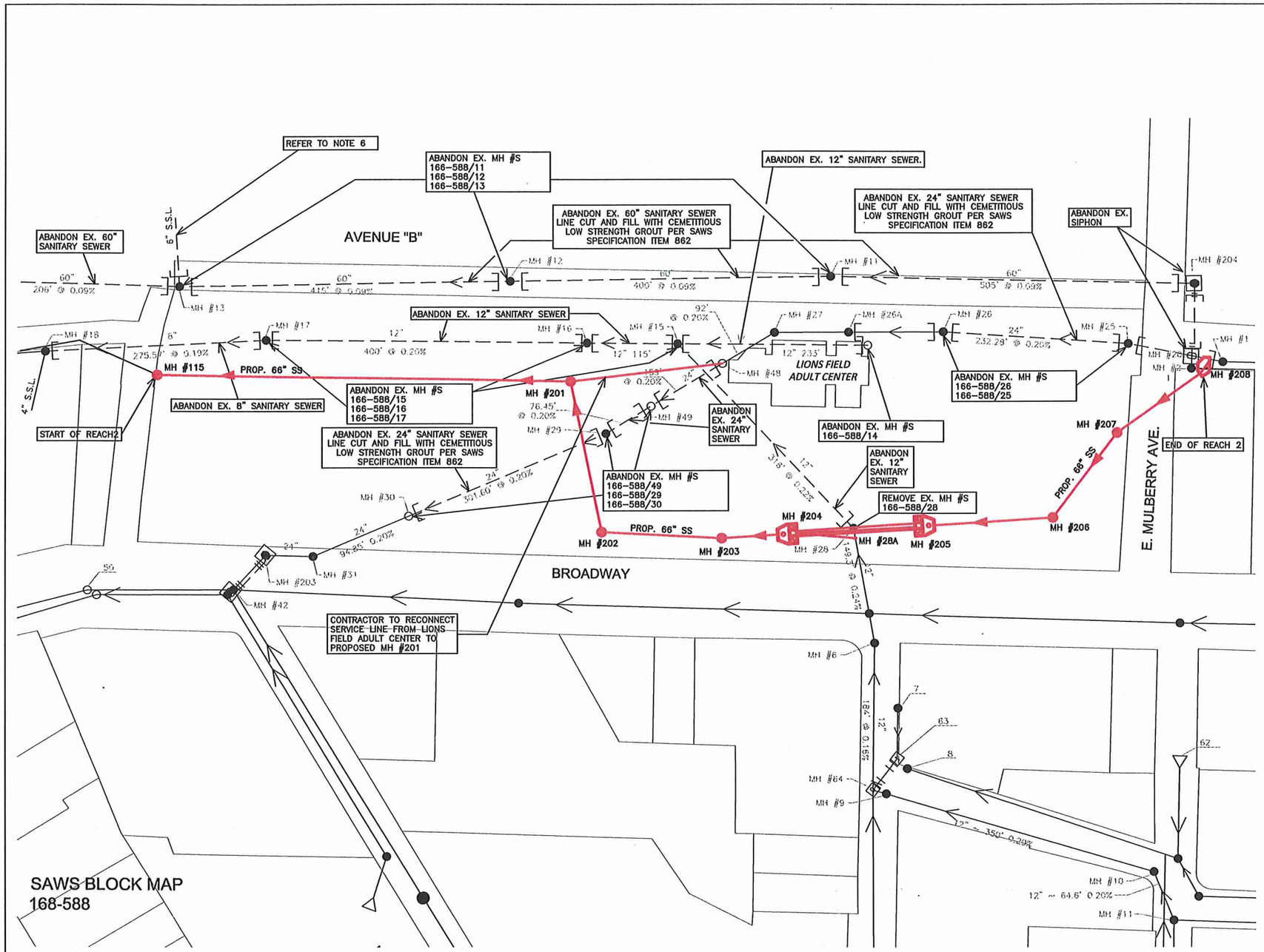
SAWS OLMOS BASIN CENTRAL WATERSHED
SEWER RELIEF LINE (C-3) REACHES 1 - 4
REHABILITATION AND ABANDONMENT
PLAN FOR EXISTING SEWER SYSTEM REACH-1

MARISOL REYES JIMENEZ 91965 LICENSED PROFESSIONAL ENGINEER
ABDEL-QADER J. HAMED 94279 LICENSED PROFESSIONAL ENGINEER
1-27-12

San Antonio Water System

NOTES	INITIALS	DATE
DESIGNED BY	AH	01/27/12
REVIEWED BY	MRJ	01/27/12
SCALE:	AS SHOWN	

SHEET NO. R/A-101
10 OF 123



REHABILITATION AND ABANDONMENT PLAN FOR EXISTING SEWER SYSTEM

SCALE: 1"=70'-0"

REACH-2
WASTEWATER LINE TO BE ABANDONED

FROM MH#	TO MH #	SIZE OF PIPE	LENGTH OF PIPE (LF)
166-588/013	166-588/012	60"	415
166-588/012	166-588/011	60"	400
166-588/011	166-588/204	60"	505
166-588/204	168-588/200	60"	80
168-588/200	168-588/002	60"	30
166-588/018	166-588/017	12"	275.57
166-588/017	166-588/016	12"	400
166-588/016	166-588/015	12"	115
166-588/015	166-588/014	12"	233
166-588/015	166/588/028	12"	316
166-588/042	166-588/203	21" & 15"	59.19
166-588/203	166-588/031	24"	59.36
166-588/031	166-588/030	24"	94.85
166-588/030	166-588/029	24"	301.6
166-588/029	166-588/049	24"	76.45
166-588/049	166-588/048	24"	159
166-588/048	168-588/832	24"	119.57

TO BE ABANDONED PER SAWS SPECIFICATION ITEM NO. 862.

* REMOVE COMPLETELY FOR INSTALLATION OF PROPOSED 66" SS LINE.

MH TO BE ABANDONED	MH TO BE REMOVED	~~MH TO BE REHAB/ADJUSTED~~ RECONSTRUCTION
166-588/012	166/588/028	166-588/048 (2)
166-588/011	168-588/002	
166-588/204	~~168-588/832~~ (1)	
168-588/200		
166-588/017		
166-588/016		
166-588/015		
166-588/014		
166-588/203		
166-588/031		
166-588/030		
166-588/029		
166-588/049		
166-588/025		
REMOVE RING, COVER AND CONE SECTION. CUT AND PLUG ALL SIDES IN ACCORDANCE WITH SAWS SPECIFICATION NO. 862	TO BE REMOVED COMPLETELY FOR INSTALLATION OF PROPOSED 66" SS LINE	~~REFER TO NOTE #5 ADJUST MANHOLE IN ACCORDANCE WITH SAWS SPECIFICATION NO. 851~~ (3)

NOTES:

1. CONTRACTOR SHALL MAINTAIN EXISTING FLOWS DURING CONSTRUCTION.
2. CONTRACTOR SHALL SUBMIT FLOW MANAGEMENT AND BY-PASS PUMPING IN ACCORDANCE WITH ITEM 01540 "FLOW MANAGEMENT AND BY-PASS PUMPING" AND ITEM 01300 "SUBMITTALS" OF THE PROJECT SPECIFICATIONS.
3. LINES INDICATED AS 'ABANDON' SHALL BE CUT AND PLUGGED WITH CEMENTITIOUS LOW STRENGTH GROUT FOR 10 L.F. GROUT SHALL CONFORM TO SAWS SPECIFICATION ITEM NO. 862.
4. MANHOLES SHOWN PROPOSED FOR ABANDONMENT SHALL BE REMOVED TO MIN. OF 2 FEET BELOW GRADE IN ACCORDANCE WITH SPECIFICATION NO. 862.
5. CONTRACTOR SHALL LOCATE AND RELAY SERVICE LATERALS FROM THE LIONS FIELD BUILDING AND CONNECT SERVICES TO EX 24" SANITARY SEWER. KEEP 24" SEWER LINE IN SERVICE FROM MH #166-588/26A TO 166-588/48. CONNECT MH #166-588/48 TO PROPOSED MH #201. SUBMIT PROPOSED PLAN FOR SEWER RELOCATION.
6. CONTRACTOR SHALL RELOCATE EXISTING 6" SS GOLF COURSE SERVICE LINE AND CONNECT TO GOLF COURSE CLUB HOUSE SERVICE (REFER TO SHEET C-110).

Legend

- EXISTING SANITARY SEWER LINE
- EXISTING SANITARY SEWER LINE TO BE ABANDONED
- PROPOSED SANITARY SEWER LINE

REVISION DESCRIPTION	DATE	BY
1 Addendum 1	01-27-12	MRJ
2 Addendum 1	01-27-12	MRJ
3 Addendum 1	01-27-12	MRJ

MARIBEL REYES JIMENEZ 91965 LICENSED PROFESSIONAL ENGINEER
ABDEL-QADER J. HAMED 94279 LICENSED PROFESSIONAL ENGINEER
1-27-12

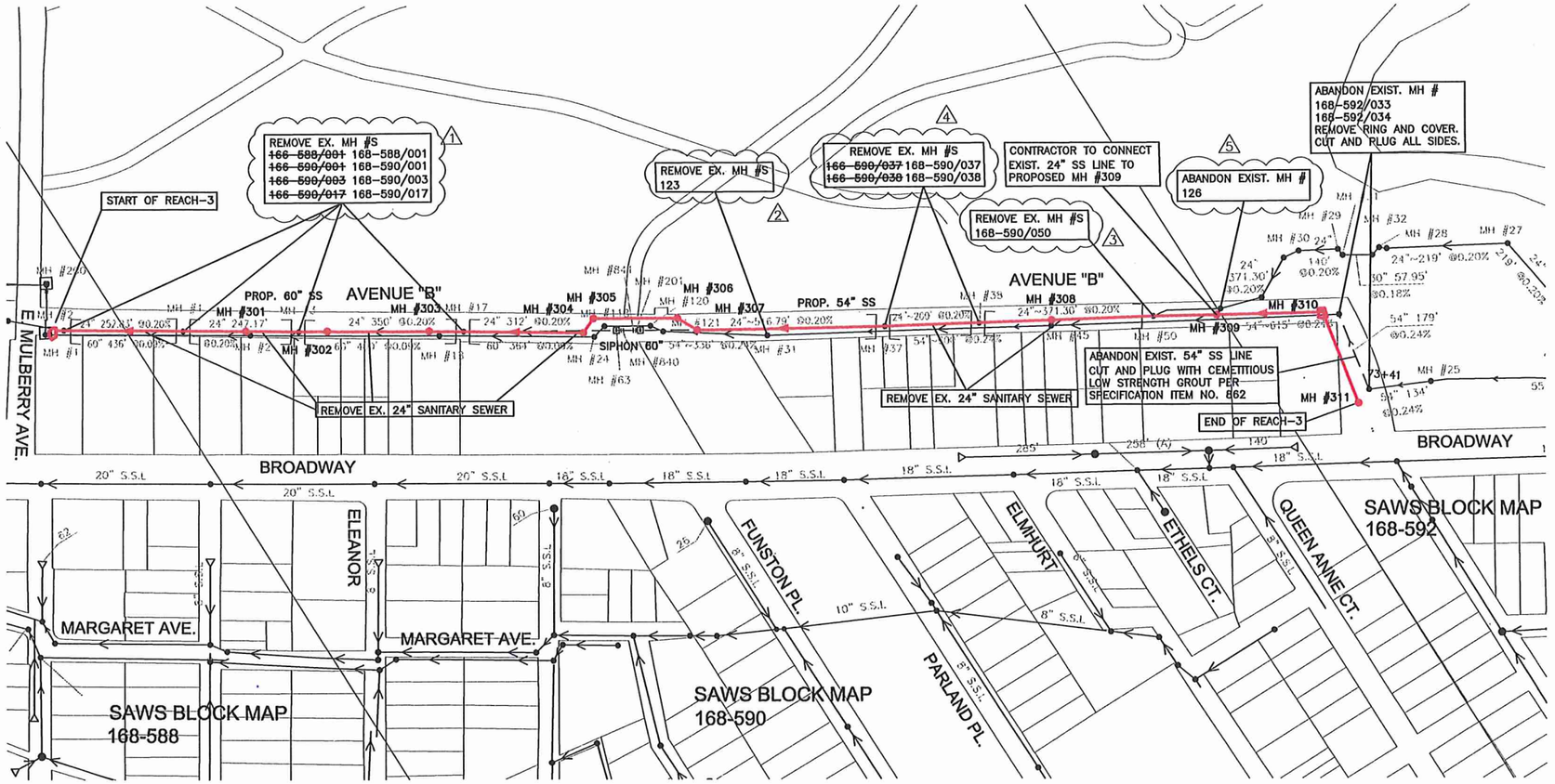
WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
SAN ANTONIO, TEXAS 78216-5842
TEXAS REGISTERED ENGINEERING FIRM F-3123

SAWS OLMOS BASIN CENTRAL WATERSHED
SEWER RELIEF LINE (C-3) REACHES 1 - 4
REHABILITATION AND ABANDONMENT
PLAN FOR EXISTING SEWER SYSTEM REACH-2

San Antonio Water System

NOTES	INITIALS	DATE
DESIGNED BY	AH	01/27/12
REVIEWED BY	MRJ	01/27/12
SCALE:	AS SHOWN	

SHEET NO. R/A-201
11 OF 123



REHABILITATION AND ABANDONMENT PLAN FOR EXISTING SEWER SYSTEM

SCALE: 1"=150'-0"

REACH-3
WASTEWATER LINE TO BE ABANDONED

FROM MH#	TO MH #	SIZE OF PIPE	LENGTH OF PIPE (LF)
168588/832	168-588/001	*24"	119.57
168-588/001	168-590/001	*24"	252.83
168-590/001	168-590-003	*24"	247.17
168-590-003	168-590/017	*24"	350
168-590/017	168-590/037	*24"	899.79
168-590/037	168-590/038	*24"	200.8
168-590/038	168-590/050	*24"	371.3
168-590/033	168-592/034	54"	179

TO BE ABANDONED PER SAWS SPECIFICATION ITEM NO. 862.
* REMOVE COMPLETELY FOR INSTALLATION OF PROPOSED 60"/ 54" SS LINE.

MH TO BE ABANDONED	MH TO BE REMOVED	MH TO BE REHAB/ADJUSTED
168-592/033	168-588/001	~~168-590/050~~ (7)
168-592/034	168-590/001	
(126) (6)	168-590-003	
	168-590/017	
	168-590/037	
	~~168-590/038~~	
	~~168-590/050~~ 123	(8)
REMOVE RING, COVER AND CONE SECTION. CUT AND PLUG ALL SIDES IN ACCORDANCE WITH SAWS SPECIFICATION NO. 862	TO BE REMOVED COMPLETELY FOR INSTALLATION OF PROPOSED 60"/ 54" SS LINE	ADJUST MANHOLE IN ACCORDANCE WITH SAWS SPECIFICATION NO. 851

NOTES:

1. CONTRACTOR SHALL MAINTAIN EXISTING FLOWS DURING CONSTRUCTION.
2. CONTRACTOR SHALL SUBMIT FLOW MANAGEMENT AND BY-PASS PUMPING IN ACCORDANCE WITH ITEM 01540 "FLOW MANAGEMENT AND BY-PASS PUMPING" AND ITEM 01300 "SUBMITTALS" OF THE PROJECT SPECIFICATIONS.
3. LINES INDICATED AS 'ABANDON' SHALL BE CUT AND PLUGGED WITH CEMENTITIOUS LOW STRENGTH GROUT FOR 10 L.F. GROUT SHALL CONFORM TO SAWS SPECIFICATION ITEM NO. 862.
4. MANHOLES SHOWN PROPOSED FOR ABANDONMENT SHALL BE REMOVED TO MIN. OF 2 FEET BELOW GRADE IN ACCORDANCE WITH SPECIFICATION NO. 862.
5. CONTRACTOR SHALL LOCATE AND RELAY SERVICE LATERALS FROM THE PROPERTY ALONG AVENUE B BETWEEN (E, MULBERRY AVE AND TULETA) AND CONNECT TO PROPOSED 54"/60" SANITARY SEWER. SUBMIT PROPOSED PLAN FOR SEWER RELOCATION.

Legend

- EXISTING SANITARY SEWER LINE
- EXISTING SANITARY SEWER LINE TO BE ABANDONED
- PROPOSED SANITARY SEWER

REV. NO.	BY	DATE	REVISION DESCRIPTION
1	MRJ	01-27-12	Addendum 1
2	MRJ	01-27-12	Addendum 1
3	MRJ	01-27-12	Addendum 1
4	MRJ	01-27-12	Addendum 1
5	MRJ	01-27-12	Addendum 1
6	MRJ	01-27-12	Addendum 1
7	MRJ	01-27-12	Addendum 1
8	MRJ	01-27-12	Addendum 1

WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
SAN ANTONIO, TEXAS 78216-5842
TEXAS REGISTERED ENGINEERING FIRM F-3123

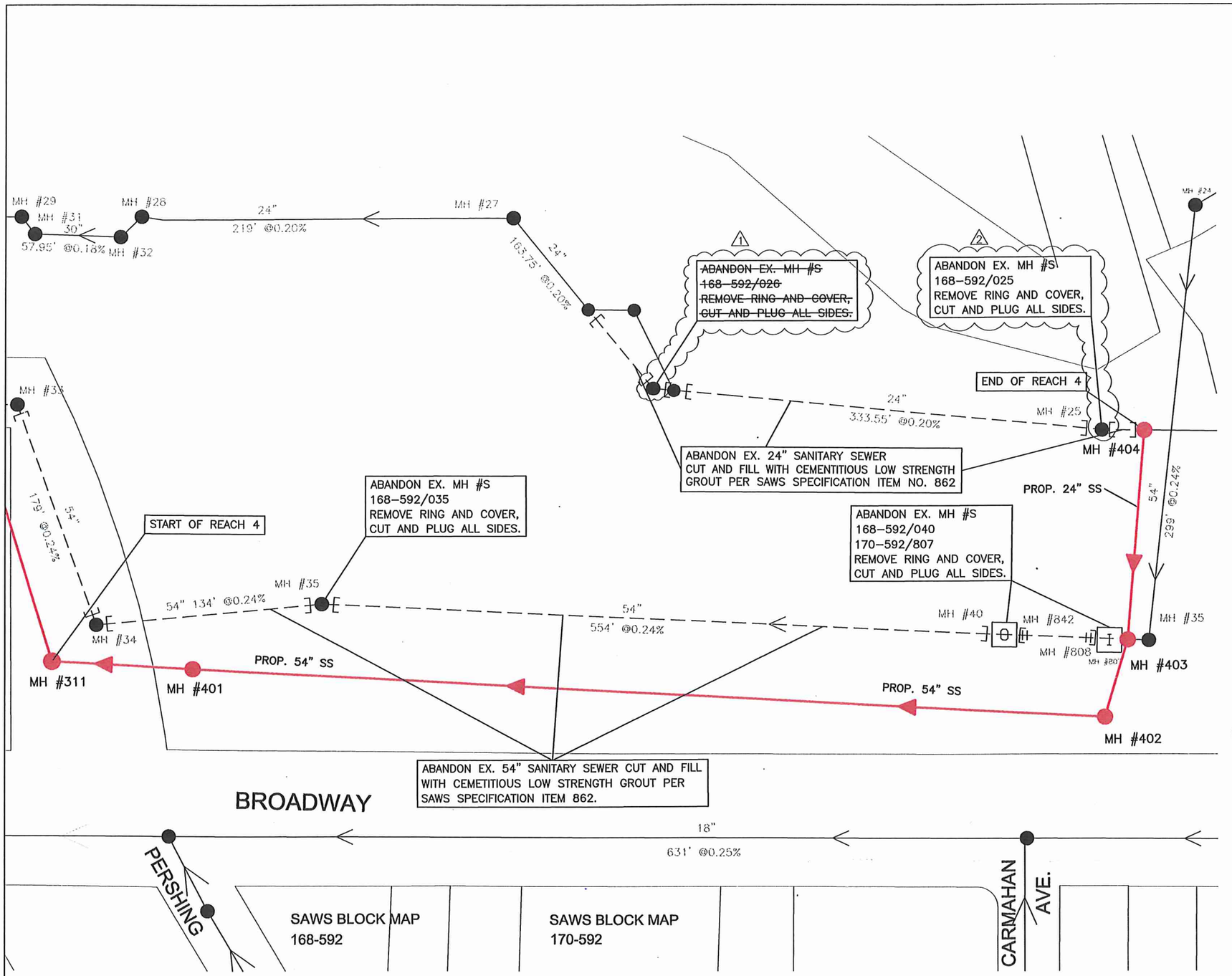
SAWS OLMOS BASIN CENTRAL WATERSHED
SEWER RELIEF LINE (C-3) REACHES 1 - 4
REHABILITATION AND ABANDONMENT
PLAN FOR EXISTING SEWER SYSTEM REACH-3

ABDEL-QADER J. HAMED 94279 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS
MARIDEL REYES JIMENEZ 91965 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS
1-27-12

San Antonio Water System

NOTES	INITIALS	DATE
DESIGNED BY	AH	01/27/12
REVIEWED BY	MRJ	01/27/12
SCALE:	AS SHOWN	

SHEET NO. R/A-301
12 OF 123



REHABILITATION AND ABANDONMENT PLAN FOR EXISTING SEWER SYSTEM

SCALE: 1"=40'-0"

REACH-4 WASTEWATER LINE TO BE ABANDONED			
FROM MH#	TO MH #	SIZE OF PIPE	LENGTH OF PIPE (LF)
168-592/034	168-592/035	54"	134
168-592/035	168-592/040	54"	554
168-592/040	170-592/807	54"	164
170-592/807	170-592/035	54"	20
TO BE ABANDONED PER SAWS SPECIFICATION ITEM NO. 862. * REMOVE COMPLETELY FOR INSTALLATION OF PROPOSED 54" SS LINE.			

MH TO BE ABANDONED	MH TO BE REMOVED	MH TO BE REHAB/ADJUSTED
168-592/035 168-592/040 170-592/807 ~~170-592/025~~ 3 ~~168-592/025~~ 3		~~168-592/025~~ 4
REMOVE RING, COVER AND CONE SECTION. CUT AND PLUG ALL SIDES IN ACCORDANCE WITH SAWS SPECIFICATION NO. 862	TO BE REMOVED COMPLETELY FOR INSTALLATION OF PROPOSED 54" SS LINE	ADJUST MANHOLE IN ACCORDANCE WITH SAWS SPECIFICATION NO. 851

NOTES:

1. CONTRACTOR SHALL MAINTAIN EXISTING FLOWS DURING CONSTRUCTION.
2. CONTRACTOR SHALL SUBMIT FLOW MANAGEMENT AND BY-PASS PUMPING IN ACCORDANCE WITH ITEM 01540 "FLOW MANAGEMENT AND BY-PASS PUMPING" AND ITEM 01300 "SUBMITTALS" OF THE PROJECT SPECIFICATIONS.
3. LINES INDICATED AS 'ABANDON' SHALL BE CUT AND PLUGGED WITH CEMENTITIOUS LOW STRENGTH GROUT FOR 10 L.F. GROUT SHALL CONFORM TO SAWS SPECIFICATION ITEM NO. 862.
4. MANHOLES SHOWN PROPOSED FOR ABANDONMENT SHALL BE REMOVED TO MIN. OF 2 FEET BELOW GRADE IN ACCORDANCE WITH SPECIFICATION NO. 862.

Legend

- EXISTING SANITARY SEWER LINE
- EXISTING SANITARY SEWER LINE TO BE ABANDONED
- PROPOSED SANITARY SEWER LINE

REV NO.	BY	DATE	REVISION DESCRIPTION
1	MRJ	01-27-12	Addendum 1
2	MRJ	01-27-12	Addendum 1
3	MRJ	01-27-12	Addendum 1
4	MRJ	01-27-12	Addendum 1

STATE OF TEXAS — MARIBEL REYES JIMENEZ — 91965 — LICENSED PROFESSIONAL ENGINEER — 1-27-12

STATE OF TEXAS — ABDEL-QADER J. HAMED — 94279 — LICENSED PROFESSIONAL ENGINEER — 01/27/2012

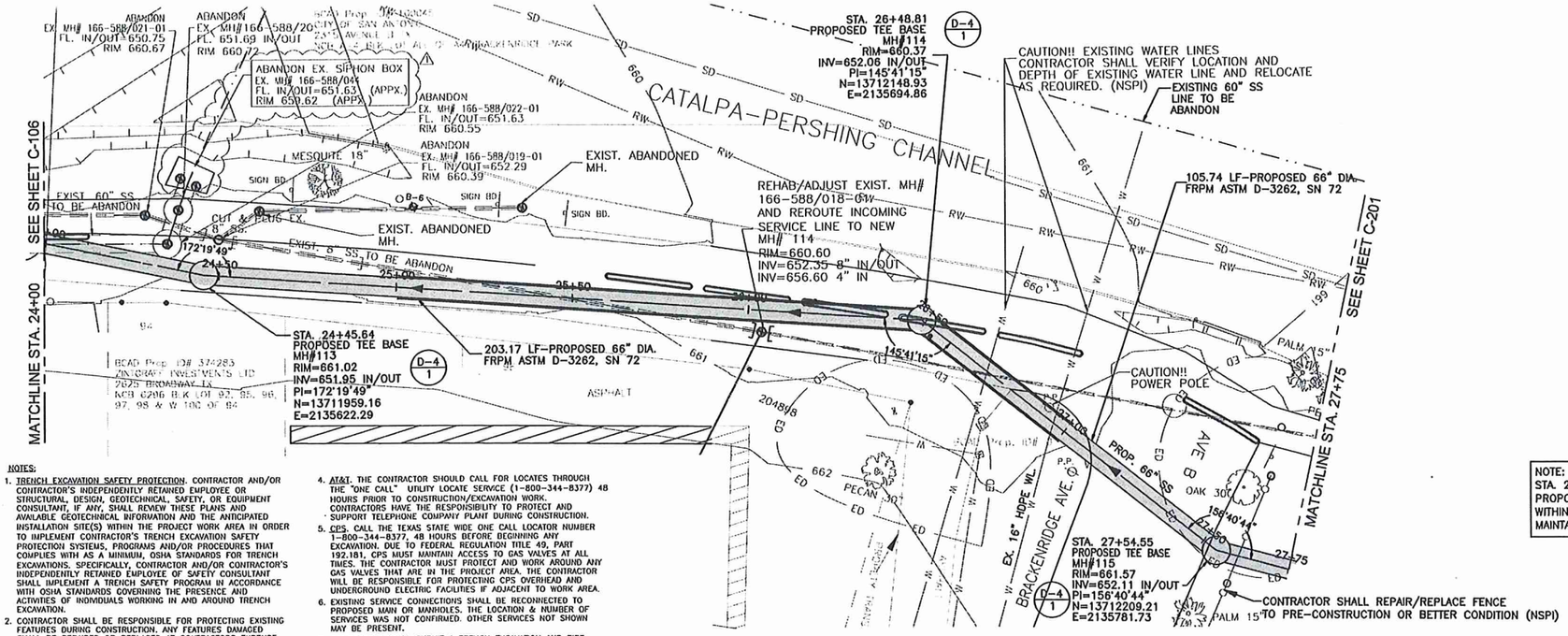
WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
SAN ANTONIO, TEXAS 78216-5842
TEXAS REGISTERED ENGINEERING FIRM F-3123

SAWS OLMOS BASIN CENTRAL WATERSHED
SEWER RELIEF LINE (C-3) REACHES 1-4
REHABILITATION AND ABANDONMENT
PLAN FOR EXISTING SEWER SYSTEM REACH-4

San Antonio Water System

NOTES	INITIALS	DATE
DESIGNED BY	AH	01/27/12
REVIEWED BY	MRJ	01/27/12
SCALE:	AS SHOWN	

SHEET NO. R/A-401
13 OF 123



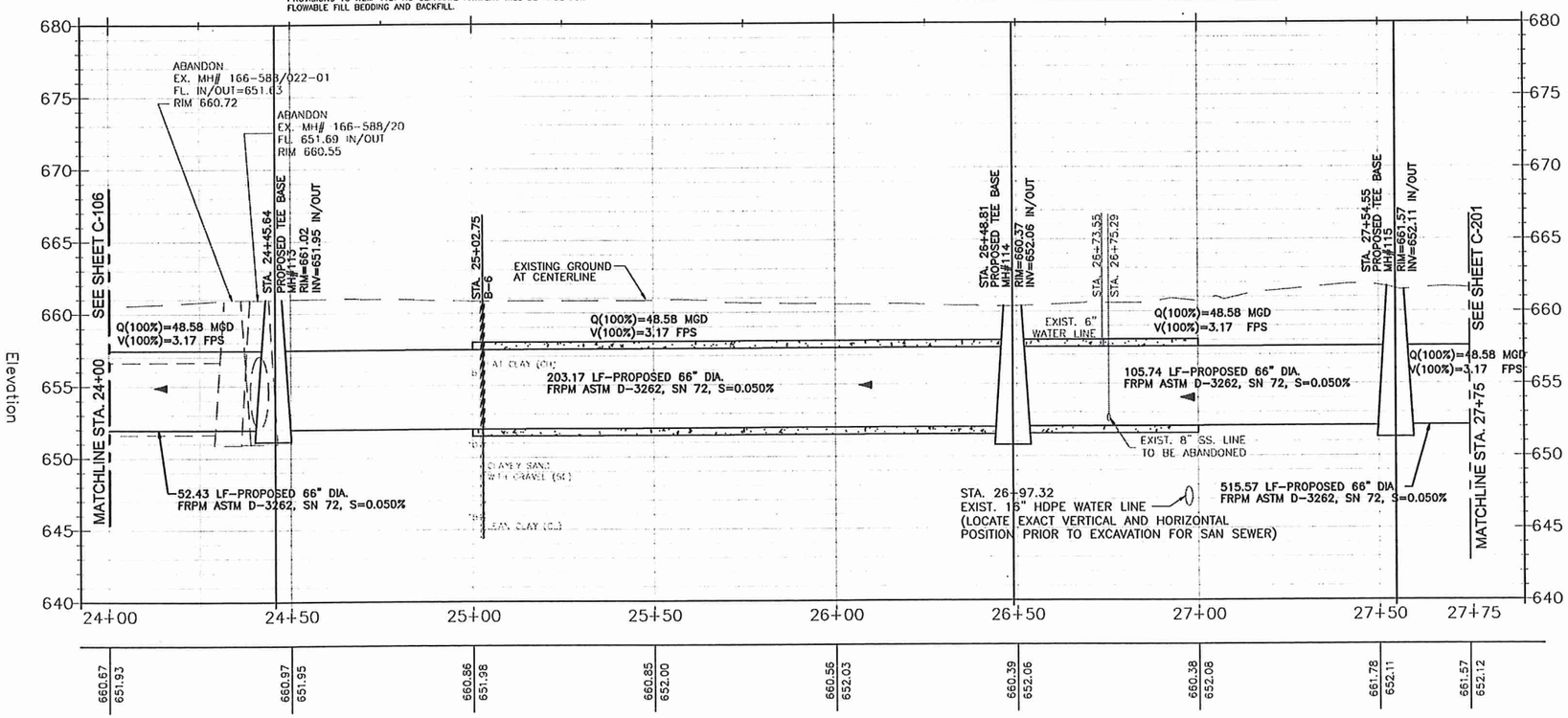
PLAN VIEW

NOTES:

1. TRENCH EXCAVATION SAFETY PROTECTION. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL, DESIGN, GEOTECHNICAL, SAFETY, OR 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 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.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING FEATURES DURING CONSTRUCTION. ANY FEATURES DAMAGED SHALL BE REPAIRED OR REPLACED AT CONTRACTORS EXPENSE.
3. UTILITIES SUCH AS WATER, ELECTRIC, GAS, FIBER OPTICS, AND TELECOMMUNICATIONS MAY EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. THE CONTRACTOR IS REPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES SHOWN AND NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO UTILITIES CAUSED BY CONTRACTORS OPERATIONS.
4. AT&T. THE CONTRACTOR SHOULD CALL FOR LOCATES THROUGH THE "ONE CALL" UTILITY LOCATE SERVICE (1-800-344-8377) 48 HOURS PRIOR TO CONSTRUCTION/EXCAVATION WORK. CONTRACTORS HAVE THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION.
5. CPS. CALL THE TEXAS STATE WIDE ONE CALL LOCATOR NUMBER 1-800-344-8377, 48 HOURS BEFORE BEGINNING ANY EXCAVATION. 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. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING CPS OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES IF ADJACENT TO WORK AREA.
6. EXISTING SERVICE CONNECTIONS SHALL BE RECONNECTED TO PROPOSED MAIN OR MANHOLES. THE LOCATION & NUMBER OF SERVICES WAS NOT CONFIRMED. OTHER SERVICES NOT SHOWN MAY BE PRESENT.
7. CONTRACTOR SHALL SUBMIT A TRENCH EXCAVATION AND PIPE LINE PROTECTION PLAN PRIOR TO CONSTRUCTION.
8. USE OF FLOWABLE BACKFILL FOR PIPELINE BEDDING AND BACKFILL WILL BE NECESSARY IN SOME AREAS WHERE COMPACTION IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION ITEM 804 CANNOT BE ACCOMPLISHED. CONTRACTOR SHALL IDENTIFY THESE AREAS WHERE FLOWABLE FILL IS NECESSARY. FLOWABLE FILL SHALL CONFORM TO COSA STANDARD SPECIFICATION ITEM 413 AND SPECIAL PROVISIONS TO ITEM 413. NO SEPARATE PAYMENT WILL BE MADE FOR FLOWABLE FILL BEDDING AND BACKFILL.

NOTE: CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENT FOR ALL SEWER PIPES HAVING COVER LESS THAN 3 FT TO SUBGRADE. (FROM STA 25+00 to STA 27+00 APPX.). REFER TO DETAIL 3 ON SHEET D-1.

NOTE:
STA. 21+00 (APPROX.) TO 24+25 (APPROX.):
PROPOSED SEWER IS GENERALLY PROPOSED FOR INSTALLATION WITHIN TRENCH OF EXISTING 60" SEWER. CONTRACTOR TO MAINTAIN WW SERVICE DURING SEWER LINE REPLACEMENT.



PROFILE VIEW

LEGEND

- EXISTING SS LINE
- ABANDONED SS LINE
- PROPOSED SS LINE
- E — EXISTING ELECTRICAL LINE
- G — EXISTING GAS LINE
- W — EXISTING WATER LINE
- 660 — EXISTING CONTOURS
- O — O — EXISTING FENCE
- SD — STORM LINE
- ED — EXIST. DRIP LINE
- RW — REC. WATER
- P.P. POWER POLE
- L.P. LIGHT POLE
- WV WATER VALVE
- WM WATER METER
- GV GAS VALVE

REV. NO.	BY	DATE	REVISION DESCRIPTION
1	MRJ	01-27-12	Addendum 1

WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
SOLUTIONS SAN ANTONIO, TEXAS 78216-5842
TEXAS REGISTERED ENGINEERING FIRM F-3123

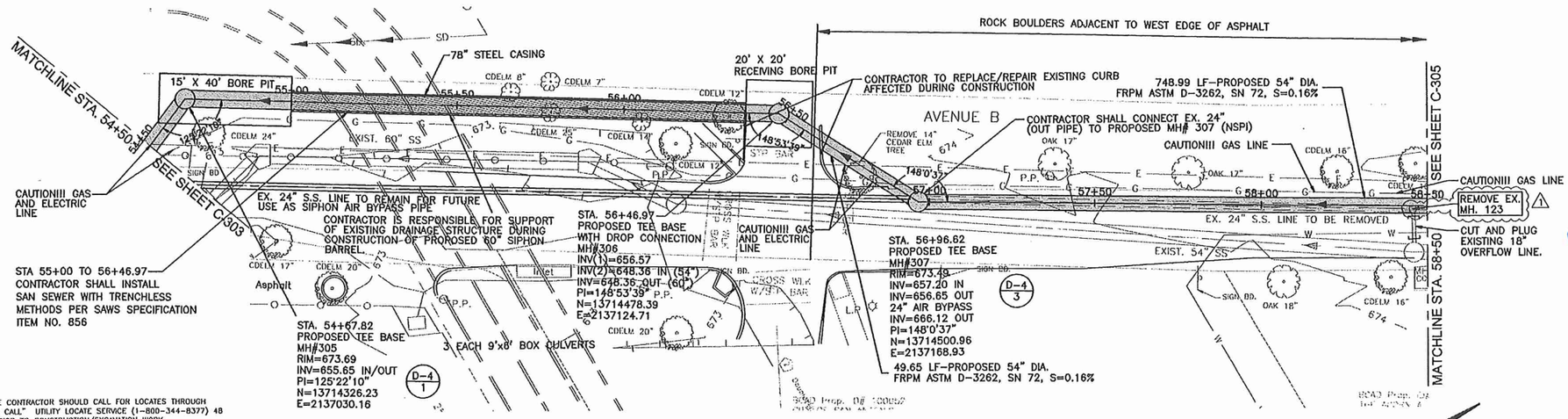
SAWS OLMOS BASIN CENTRAL WATERSHED
SEWER RELIEF LINE (C-3) REACHES 1-4
PLAN AND PROFILE
STA 24+00 TO 27+75

ABDEL-QADER J. HAMED 94279 LICENSED PROFESSIONAL ENGINEER 1-27-12
MARIBEL REYES JIMENEZ 91965 LICENSED PROFESSIONAL ENGINEER 01/27/2012

San Antonio Water System

NOTES	INITIALS	DATE
DESIGNED BY	AH	01/27/12
REVIEWED BY	MRJ	01/27/12
SCALE:	AS SHOWN	

SHEET NO. C-107
20 OF 123



PLAN VIEW

NOTES:

1. TRENCH EXCAVATION SAFETY PROTECTION. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL, DESIGN, GEOTECHNICAL, SAFETY, OR 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 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.
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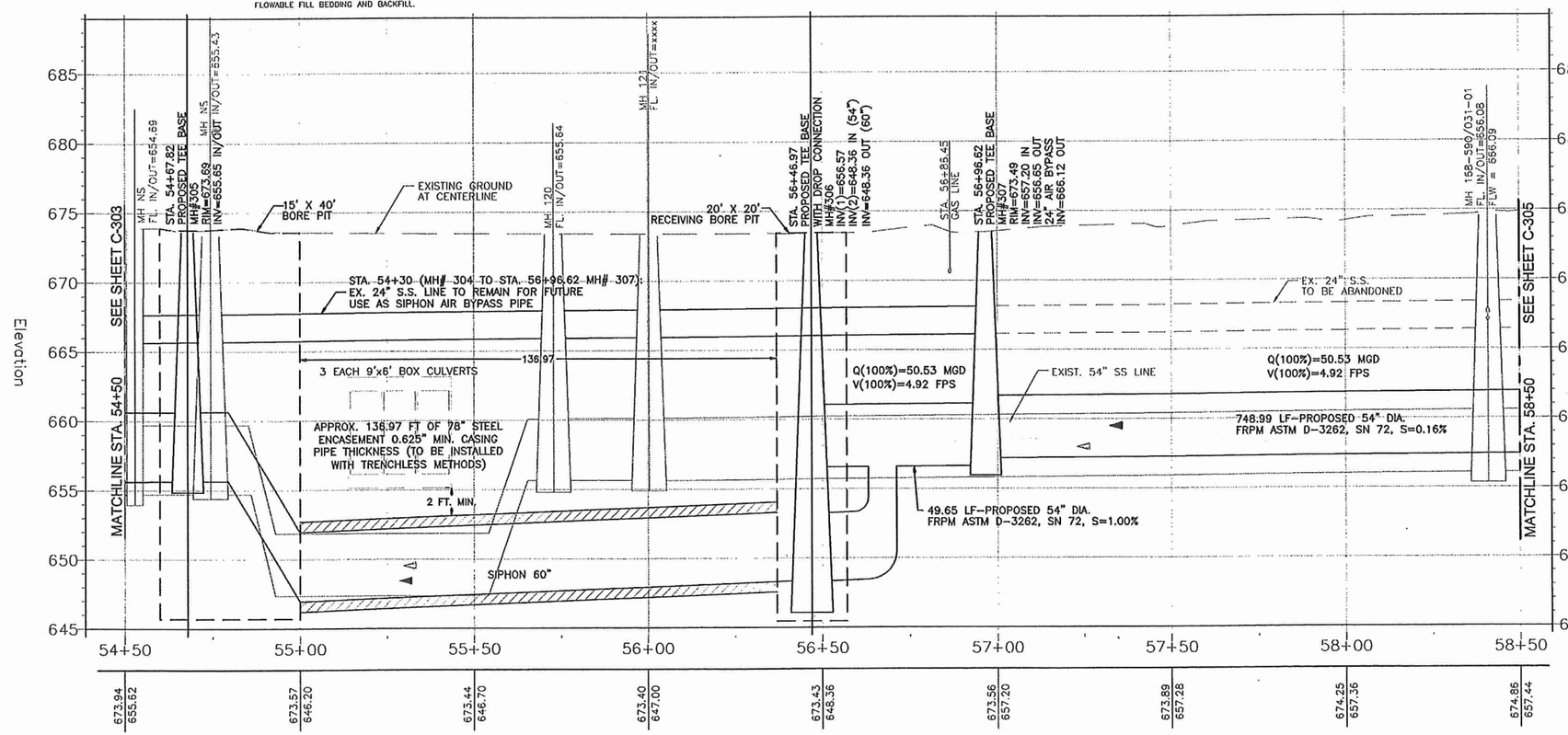
9. CONTRACTOR SHALL RELOCATE AND REPLACE ROCK BOULDERS (NSPI).



PROFILE VIEW

STA. 43+00 TO 54+30 AND STA. 56+96 TO 67+00:
INSTALL PROPOSED SEWER WITHIN TRENCH OF EXISTING/REMOVED 24" SEWER LINE. CONTRACTOR TO MAINTAIN WW SERVICE DURING SEWER LINE REPLACEMENT.

STA. 54+30 TO 56+96:
EXISTING 24" SEWER LINE PIPE TO REMAIN FOR USE AS AIR BYPASS PIPE LINE FOR SHIPHON.

*STA. 48+00 TO 70+50:
CONTRACTOR SHALL LOCATE 2" GAS LINE AND COORDINATE WITH CPS FOR PROTECTION AND/OR TEMPORARY SHUTOFFS DURING CONSTRUCTION.

STA. 58+00 TO 70+50:
CONTRACTOR SHALL PROTECT AND SUPPORT EX. 6" WATER LINE NECESSARY FOR PROPOSED SEWER LINE CONSTRUCTION.

LEGEND

- EXISTING SS LINE
- ABANDONED SS LINE
- PROPOSED SS LINE
- E — EXISTING ELECTRICAL LINE
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- L.P. — LIGHT POLE
- WV — WATER VALVE
- WM — WATER METER
- GV — GAS VALVE
- RPZ — RPZ — ROOT PROTECTION ZONE

SCALE: 1"=20' HORIZ.
1"=5' VERT.

REV. NO.	BY	DATE	REVISION DESCRIPTION
1	MRJ	01-27-12	Addendum 1

MARIBEL REYES JIMENEZ 91965 LICENSED PROFESSIONAL ENGINEER
ABDEL-QADER J. HAMED 94279 LICENSED PROFESSIONAL ENGINEER
1-27-12

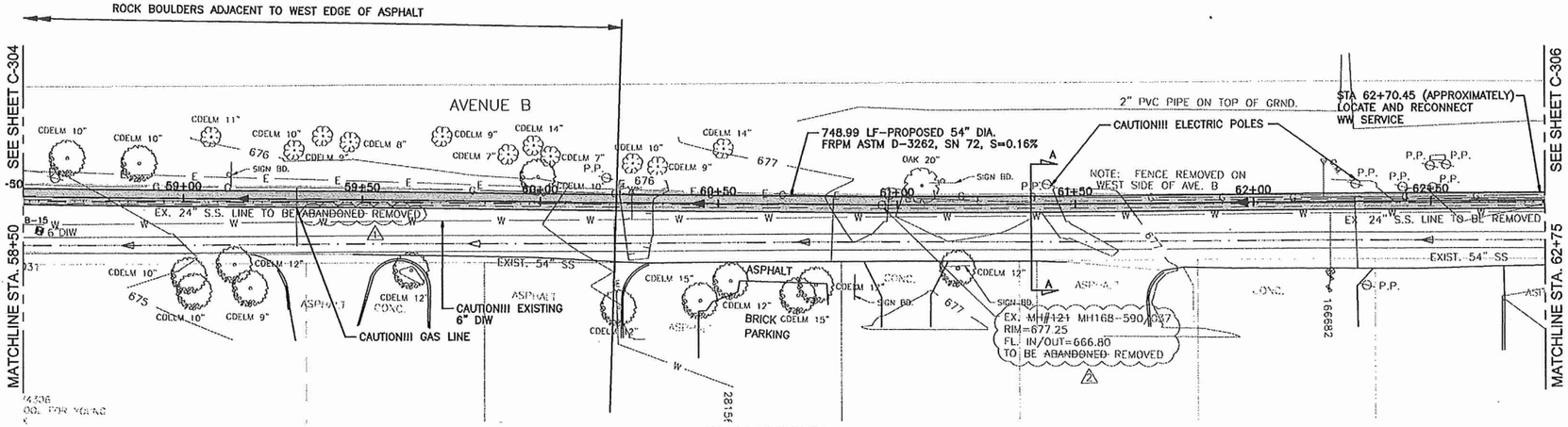
WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
SAN ANTONIO, TEXAS 78216-5842
TEXAS REGISTERED ENGINEERING FIRM F-3123

SAWS OLMOS BASIN CENTRAL WATERSHED
SEWER RELIEF LINE (C-3) REACHES 1 - 4
PLAN AND PROFILE
STA 54+50 TO 58+50

San Antonio Water System

NOTES	INITIALS	DATE
DESIGNED BY	AH	01/27/12
REVIEWED BY	MRJ	01/27/12
SCALE:	AS SHOWN	

SHEET NO. C-304
29 OF 123



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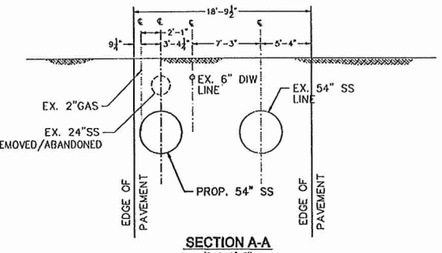
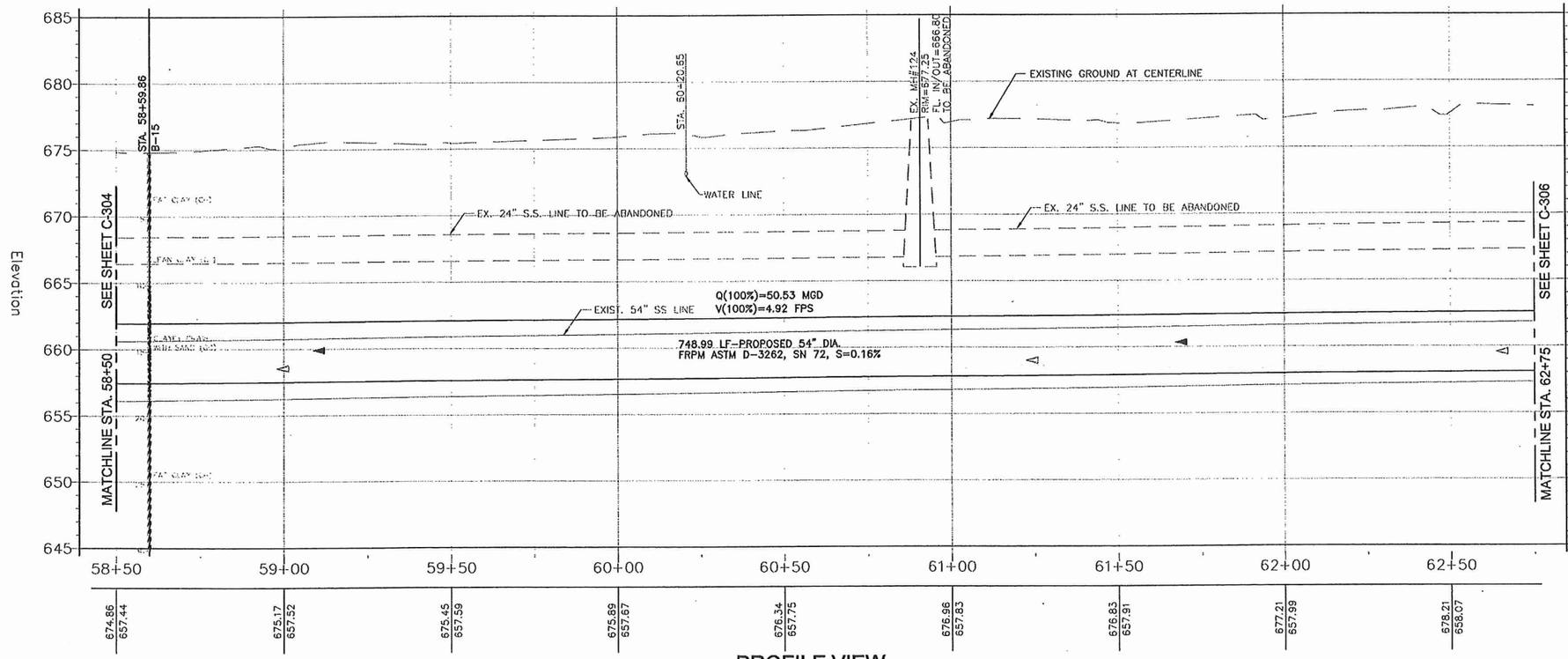


SECTION A-A
(Scale 1"=8')

STA. 43+00 TO 54+30 AND STA. 56+96 TO 67+00: INSTALL PROPOSED SEWER WITHIN TRENCH OF EXISTING/REMOVED 24" SEWER LINE. CONTRACTOR TO MAINTAIN WW SERVICE DURING SEWER LINE REPLACEMENT.

*STA. 48+00 TO 70+50: CONTRACTOR SHALL LOCATE 2" GAS LINE AND COORDINATE WITH CPS FOR PROTECTION AND/OR TEMPORARY SHUTOFFS DURING CONSTRUCTION.

STA. 58+00 TO 70+50: CONTRACTOR SHALL PROTECT AND SUPPORT EX. 6" WATER LINE NECESSARY FOR PROPOSED SEWER LINE CONSTRUCTION.



PROFILE VIEW

LEGEND

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- ABANDONED SS LINE
- PROPOSED SS LINE
- E — EXISTING ELECTRICAL LINE
- G — EXISTING GAS LINE
- W — EXISTING WATER LINE
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- EXISTING FENCE
- SD — STORM LINE
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- WV — WATER VALVE
- WM — WATER METER
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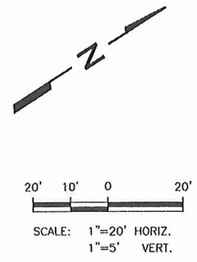

NO.	BY	DATE	REVISION DESCRIPTION
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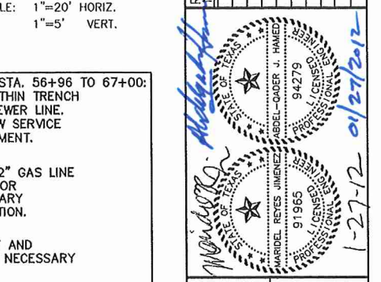


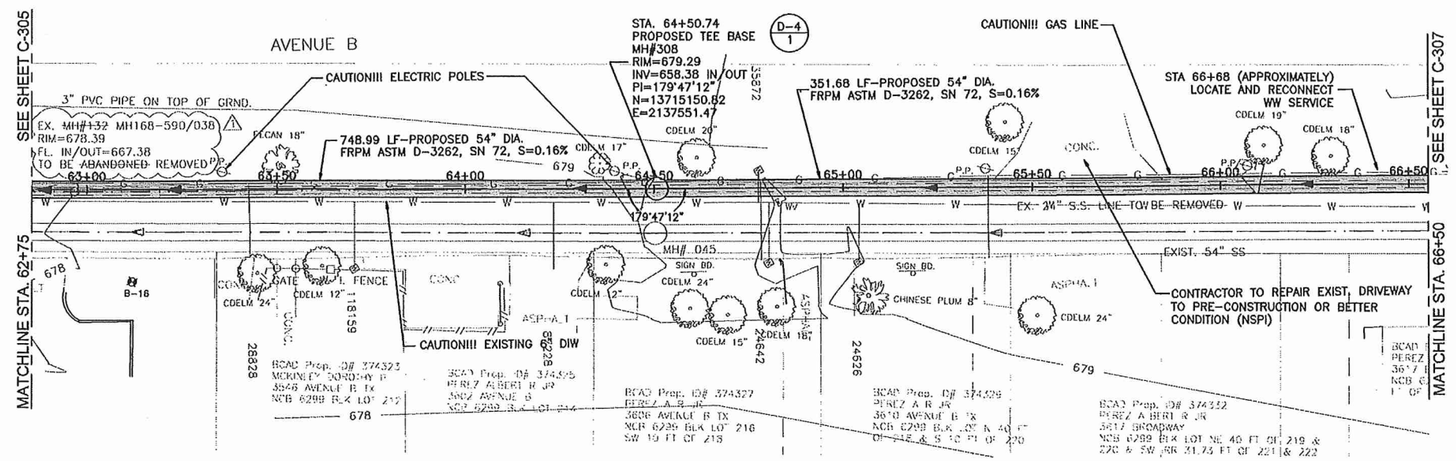
WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
SAN ANTONIO, TEXAS 78216-5842
TEXAS REGISTERED ENGINEERING FIRM F-3123

SAWS OLMOS BASIN CENTRAL WATERSHED
SEWER RELIEF LINE (C-3) REACHES 1-4
PLAN AND PROFILE
STA 58+50 TO 62+75

San Antonio Water System

NOTES	INITIALS	DATE
DESIGNED BY	AH	01/27/12
REVIEWED BY	MRJ	01/27/12
SCALE:	AS SHOWN	

SHEET NO. C-305
30 OF 123



PLAN VIEW

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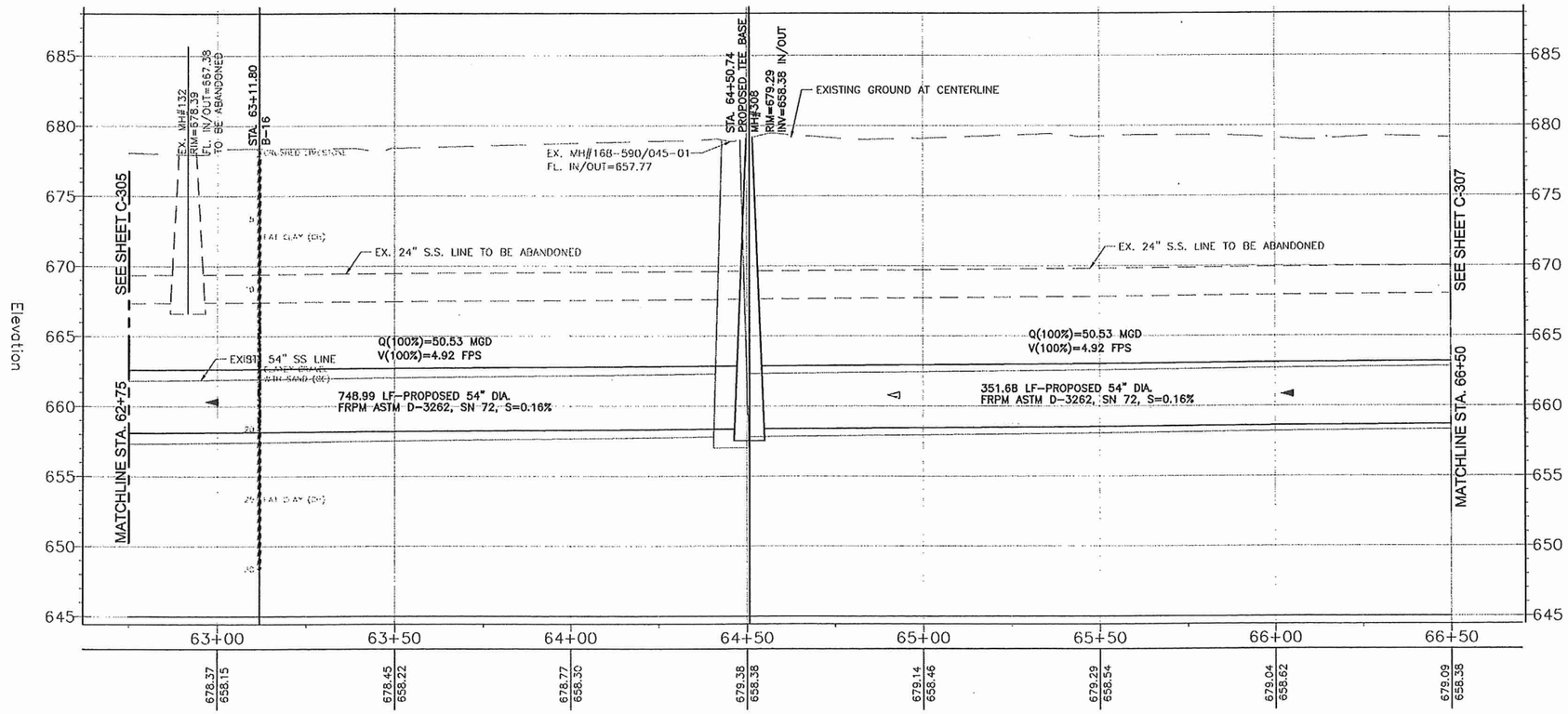

PROFILE VIEW

STA. 43+00 TO 54+30 AND STA. 56+96 TO 67+00:
INSTALL PROPOSED SEWER WITHIN TRENCH OF EXISTING/REMOVED 24" SEWER LINE. CONTRACTOR TO MAINTAIN WW SERVICE DURING SEWER LINE REPLACEMENT.

*STA. 48+00 TO 70+50:
CONTRACTOR SHALL LOCATE 2" GAS LINE AND COORDINATE WITH CPS FOR PROTECTION AND/OR TEMPORARY SHUTOFFS DURING CONSTRUCTION.

STA. 58+00 TO 70+50:
CONTRACTOR SHALL PROTECT AND SUPPORT EX. 6" WATER LINE NECESSARY FOR PROPOSED SEWER LINE CONSTRUCTION.

20' 10' 0 20'

SCALE: 1"=20' HORIZ.
1"=5' VERT.

LEGEND

- EXISTING SS LINE
- ABANDONED SS LINE
- PROPOSED SS LINE
- E — EXISTING ELECTRICAL LINE
- G — EXISTING GAS LINE
- W — EXISTING WATER LINE
- 660 — EXISTING CONTOURS
- EXISTING FENCE
- SD — STORM LINE
- ED — EXIST. DRIP LINE
- RW — REC. WATER
- ⌀ P.P. — POWER POLE
- ☼ L.P. — LIGHT POLE
- WV — WATER VALVE
- WM — WATER METER
- GV — GAS VALVE
- RPZ — RPZ — ROOT PROTECTION ZONE

REV NO	BY	DATE	REVISION DESCRIPTION
1	MRJ	01-27-12	Addendum 1

MARIBEL REYES JIMENEZ 91965 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS
MARIBEL ISABEL-DADER J. HAMED 94279 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS
01/27/2012

WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
SAN ANTONIO, TEXAS 78216-5842
TEXAS REGISTERED ENGINEERING FIRM F-3125

SAWS OLMOS BASIN CENTRAL WATERSHED
SEWER RELIEF LINE (C-3) REACHES 1 - 4
PLAN AND PROFILE
STA 62+75 TO 66+50

San Antonio Water System

NOTES	INITIALS	DATE
DESIGNED BY	AH	01/27/12
REVIEWED BY	MRJ	01/27/12
SCALE:	AS SHOWN	

SHEET NO. C-306
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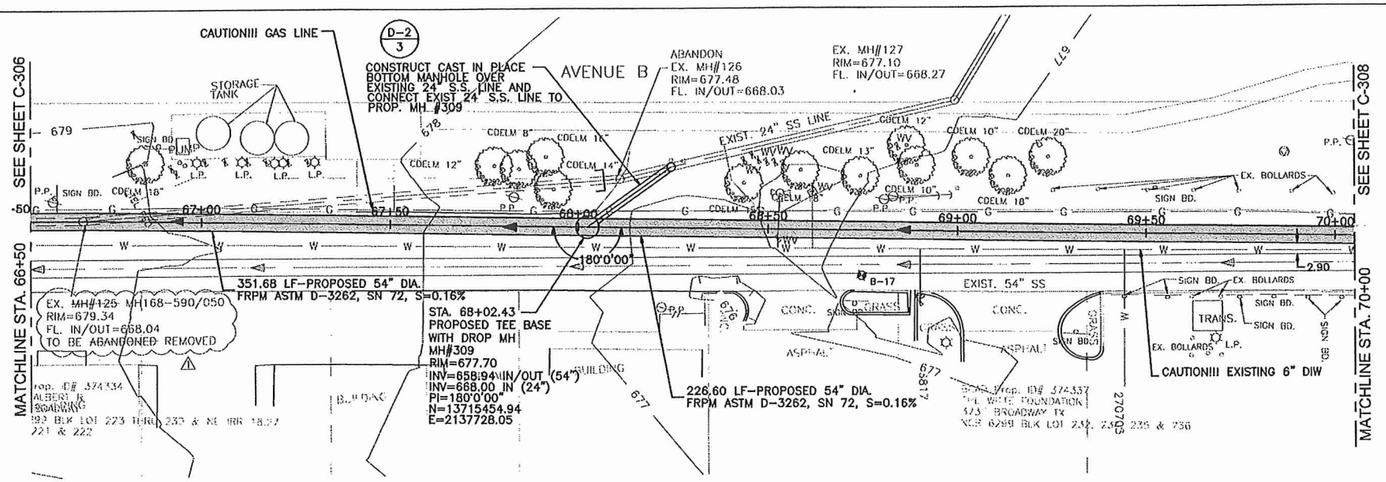
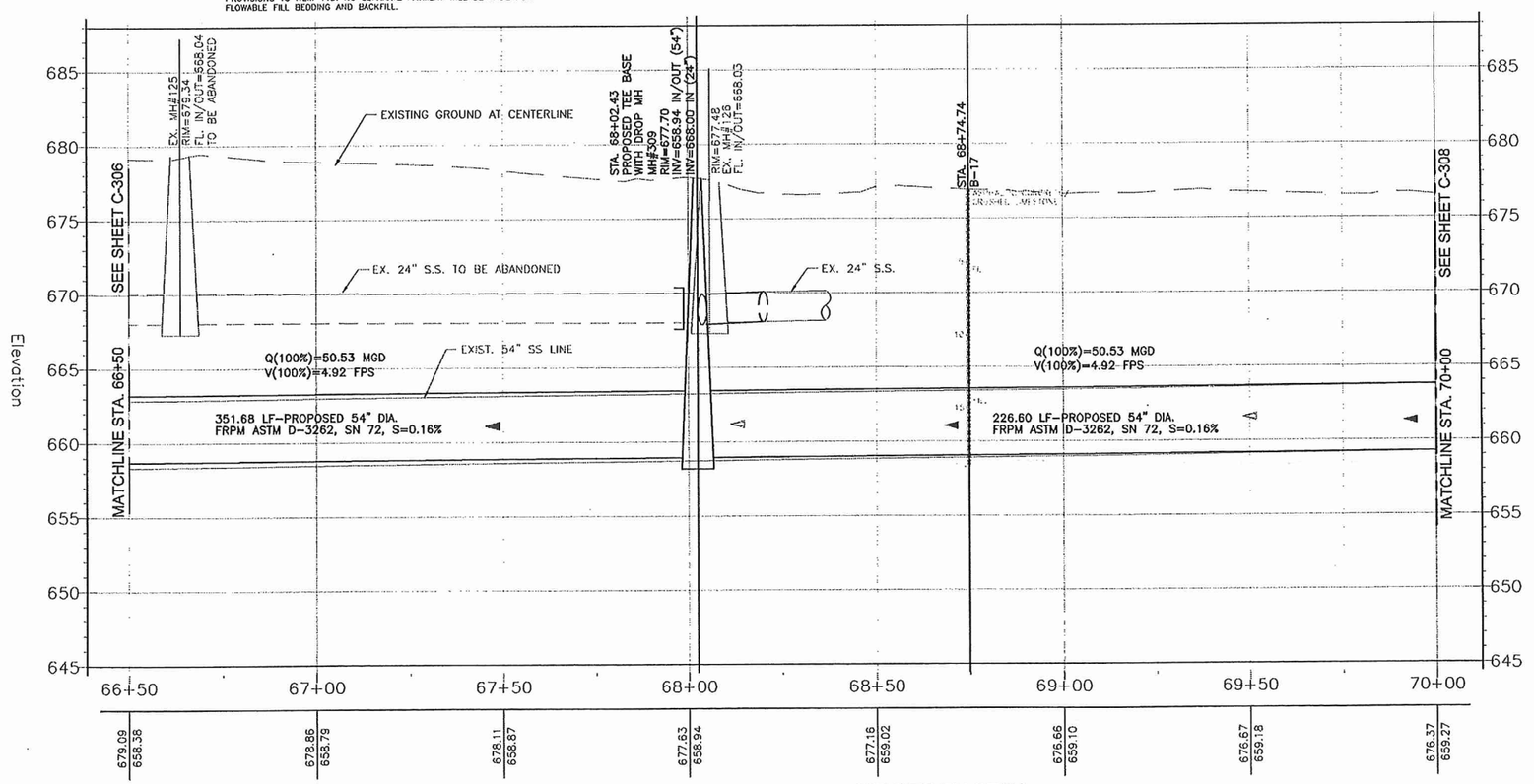


PLAN VIEW

NOTES:

1. TRENCH EXCAVATION SAFETY PROTECTION. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL, DESIGN, GEOTECHNICAL, SAFETY, OR 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 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.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING FEATURES DURING CONSTRUCTION. ANY FEATURES DAMAGED SHALL BE REPAIRED OR REPLACED AT CONTRACTORS EXPENSE.
3. UTILITIES SUCH AS WATER, ELECTRIC, GAS, FIBER OPTICS, AND TELECOMMUNICATIONS MAY EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. THE CONTRACTOR IS REPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES SHOWN AND NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO UTILITIES CAUSED BY CONTRACTORS OPERATIONS.
4. AT&T. THE CONTRACTOR SHOULD CALL FOR LOCATES THROUGH THE "ONE CALL" UTILITY LOCATE SERVICE (1-800-344-8377) 48 HOURS PRIOR TO CONSTRUCTION/EXCAVATION WORK. CONTRACTORS HAVE THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION.
5. CPS. CALL THE TEXAS STATE WIDE ONE CALL LOCATOR NUMBER 1-800-344-8377, 48 HOURS BEFORE BEGINNING ANY EXCAVATION. 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. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING CPS OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES IF ADJACENT TO WORK AREA.
6. EXISTING SERVICE CONNECTIONS SHALL BE RECONNECTED TO PROPOSED MAIN OR MANHOLES. THE LOCATION & NUMBER OF SERVICES WAS NOT CONFIRMED. OTHER SERVICES NOT SHOWN MAY BE PRESENT.
7. CONTRACTOR SHALL SUBMIT A TRENCH EXCAVATION AND PIPE LINE PROTECTION PLAN PRIOR TO CONSTRUCTION.
8. USE OF FLOWABLE BACKFILL FOR PIPELINE BEDDING AND BACKFILL WILL BE NECESSARY IN SOME AREAS WHERE COMPACTION IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION ITEM 804 CANNOT BE ACCOMPLISHED. CONTRACTOR SHALL IDENTIFY THESE AREAS WHERE FLOWABLE FILL IS NECESSARY. FLOWABLE FILL SHALL CONFORM TO COSA STANDARD SPECIFICATION ITEM 413 AND SPECIAL PROVISIONS TO ITEM 413. NO SEPARATE PAYMENT WILL BE MADE FOR FLOWABLE FILL BEDDING AND BACKFILL.



PROFILE VIEW

STA. 43+00 TO 54+30 AND STA. 56+96 TO 67+00:
INSTALL PROPOSED SEWER WITHIN TRENCH OF EXISTING/REMOVED 24" SEWER LINE. CONTRACTOR TO MAINTAIN WW SERVICE DURING SEWER LINE REPLACEMENT.

*STA. 48+00 TO 70+50:
CONTRACTOR SHALL LOCATE 2" GAS LINE AND COORDINATE WITH CPS FOR PROTECTION AND/OR TEMPORARY SHUTOFFS DURING CONSTRUCTION.

STA. 58+00 TO 70+50:
CONTRACTOR SHALL PROTECT AND SUPPORT EX. 6" WATER LINE NECESSARY FOR PROPOSED SEWER LINE CONSTRUCTION.

20' 10' 0 20'

SCALE: 1"=20' HORIZ.
1"=5' VERT.

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STATE OF TEXAS — MARIDEL REYES JIMENEZ — 91965 — LICENSED PROFESSIONAL ENGINEER — 01/27/2012
STATE OF TEXAS — ABDEL-QADER J. HAMED — 94279 — LICENSED PROFESSIONAL ENGINEER — 01/27/2012

WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
SAN ANTONIO, TEXAS 78216-5842
TEXAS REGISTERED ENGINEERING FIRM F-3123

SAWS OLMOS BASIN CENTRAL WATERSHED
SEWER RELIEF LINE (C-3) REACHES 1-4
PLAN AND PROFILE
STA 66+50 TO 70+00

San Antonio Water System

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REVIEWED BY	MRJ	01/27/12
SCALE:	AS SHOWN	

SHEET NO. C-307
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