



**C-18 McCullough Avenue Sewer Replacement Project**  
**Solicitation Number: CO-00390-SM**  
**Job No.: 17-4555**

**ADDENDUM 2**  
**December 17, 2020**

To Bidder of Record:

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

**RESPONSES TO QUESTIONS**

1. Is there a Geotech report for this project?  
*Response: Geotechnical report is available and will be uploaded to SAWS bid page for the project.*
2. Do all the bores require annular grouting inside the casing and carrier pipe?  
*Response: All bores require annular grouting the space between the carrier pipe and casing for the entire length of the casing per SAWS Specification 856. The annular spacing between the casing pipe and limits of borehole excavation shall be grouted for the entire length of the casing. All grouting is subsidiary to the casing installed. No separate pay item for grouting.*
3. Can an item for Flowable fill be added.  
*Response: Flowable fill backfill shall be subsidiary to the pipe installation. No separate pay item. Flowable backfill is only applicable to Plan sheet C-09 from Sta. 4+18 to Sta. 6+00. See additional clarifications under changes to specifications and plans relating to cement stabilized sand to be utilized for water line crossings as per TCEQ Code 217.53(d)(7)(D)(i).*
4. Is backfill for all the pipe to be flowable fill as shown on sheet C-09 flowable detail or can you let us know the limits of flowable fill  
*Response: See response to question 3 on backfill flowable fill limits.*
5. Can the bid opening be moved to the end of the week, since many of the suppliers/subs will be in Vacation the previous week?  
*Response: Bid Date will remain the same.*

**CHANGES TO THE SPECIFICATIONS**

1. Bid proposal line item 61. "Pay Item. 858 Concrete encasement, saddles, cradles and collars" is removed in its entirety. Concrete encasement, saddles, cradles and collars *shall be subsidiary to pipe installed. No separate pay item.* Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and *shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.*

2. Bid proposal Form: (BP-1): The bid proposal form is replaced in its entirety. **THE PROSPECTIVE BIDDER SHALL UTILIZE THE NEW BID PROPOSAL FORM AND THE NEW BID PROPOSAL LINE ITEMS FORM INCLUDED IN THIS ADDENDUM.**
3. Special Conditions section II.A Working Hours: the following statement “Working hours will be coordinated with the City of San Antonio and will be limited to 8:30 AM to 4:30 PM on McCullough Ave.” is revised as follows:  
Working hours will be coordinated with the City of San Antonio and will be limited to 8:00 AM to 5:00 PM for the project.

<b>CHANGES TO THE PLANS</b>
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1. The plan quantities under line item “858 concrete encasement, cradles, saddles” is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
2. Plan Sheet G-04: Line item “858 concrete encasement, cradles, saddles” is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
3. Plan Sheet C-10: Line item “858 concrete encasement, cradles, saddles” is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
4. Plan Sheet C-11: Line item “858 concrete encasement, cradles, saddles” is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
5. Plan Sheet C-12: Line item “858 concrete encasement, cradles, saddles” is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
6. Plan Sheet C-13: Line item “858 concrete encasement, cradles, saddles” is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
7. Plan Sheet C-14: Line item “858 concrete encasement, cradles, saddles” is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
8. Plan Sheet C16: Line item “858 concrete encasement, cradles, saddles” is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
9. Plan Sheet C-17: Line item “858 concrete encasement, cradles, saddles” is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
10. Plan Sheet C-18: Line item “858 concrete encasement, cradles, saddles” is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.

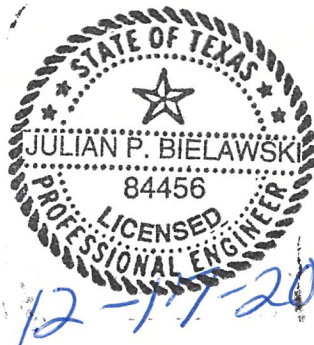
11. Plan Sheet C-19: Line item "858 concrete encasement, cradles, saddles" is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i)) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
12. Plan Sheet C-20: Line item "858 concrete encasement, cradles, saddles" is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i)) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.
13. Plan Sheet C-29: Line item "858 concrete encasement, cradles, saddles" is removed in its entirety. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i)) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.

**CLARIFICATIONS**

1. Line item "858 concrete encasement, cradles, saddles" is removed in its entirety from plan quantities. Concrete encasement, saddles, cradles and collars shall be subsidiary to pipe installed. No separate pay item. Cement Stabilized Sand shall be in compliance with TCEQ Code 217.53(d)(7)(D)(i)) and shall be subsidiary to pipe installed. No separate pay item for cement stabilized sand.

**END OF ADDENDUM**

This Addendum, including these three (3) pages, is eighteen (18) pages with attachments in its entirety.



  
Julian Bielawski  
Weston Solutions, Inc.

BID PROPOSAL

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

THE SAN ANTONIO WATER SYSTEM:

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

**PLEASE SEE ATTACHED LIST OF BID ITEMS.**

\_\_\_\_\_  
BIDDER'S SIGNATURE & TITLE

\_\_\_\_\_  
FIRM'S NAME (TYPE OR PRINT)

\_\_\_\_\_  
FIRM'S ADDRESS

\_\_\_\_\_  
FIRM'S PHONE NO. /FAX NO.

\_\_\_\_\_  
FIRM'S EMAIL ADDRESS

The Contractor herein acknowledges receipt of the following:  
Addendum Nos. \_\_\_\_\_

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

The bidder offers to construct the Project in accordance with the Contract Documents for the contract price, and to complete the Project within **454** calendar days after the start date, as set forth in the Authorization to Proceed. **The bidder understands and accepts the provisions of the contract Documents relating to liquidated damages of the project if not completed on time.**

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

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

**Statement on President's Executive Orders**

Has your firm previously performed work subject to the President's Executive Orders Numbers 11246 and 11375 or any preceding similar executive orders (Numbers 10925 and 11114)?

Yes  No



**C-18 McCullough Avenue Sewer Replacement Project**  
**SAWS Job No. 17-4555**  
**Bid Proposal Line Items**  
**December 2020**

ITEM	PAY ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE	SUBTOTAL
1	103.1	Remove Concrete Curb (COSA Spec)	LF	702	\$	\$
2	103.3	Remove Concrete Sidewalks and Driveways (COSA Spec)	SF	2736	\$	\$
3	203.1	Tack Coat (COSA Spec)	GA	1145	\$	\$
4	205.4	Hot Mix Asphaltic Concrete Pavement Type D (2" Compacted Depth) (COSA Spec)	SY	6121	\$	\$
5	205.4	Hot Mix Asphaltic Concrete Pavement Type D (3" Compacted Depth) (COSA Spec)	SY	5324	\$	\$
6	206.1	Asphalt Treated Base (ATB) (10" Compacted Depth)(COSA Spec)	SY	2067	\$	\$
7	208.1	Salvaging Hauling & Stockpiling Reclaimable Asphaltic Pavement (2" Depth) (COSA Spec)	SY	4359	\$	\$
8	208.1	Salvaging Hauling & Stockpiling Reclaimable Asphaltic Pavement (3" Depth) (COSA Spec)	SY	4201	\$	\$
9	500.1	Concrete Curb (COSA SPEC)	LF	864	\$	\$
10	502.1	Concrete Sidewalks (COSA Spec)	SY	241.7	\$	\$
11	503.1	Portland Cement Concrete Driveway	SY	54	\$	\$
12	503.5	Gravel Driveway	SY	11	\$	\$
13	507.1	Residential Chain Link Fence (4 ft. High)	LF	30	\$	\$
14	516.1	Bermuda Sodding	SY	618	\$	\$
15	530.7	Barricades, Signs, And Traffic Handling - (COSA Specs)	LS	1	\$	\$
16	535.1	4-Inch Wide Double Yellow Solid Yellow Line	LF	1306	\$	\$
17	535.1	4-Inch Wide Double Yellow Broken Yellow Line	LF	128	\$	\$
18	535.2	8-Inch Wide White Line	LF	431	\$	\$
19	535.2	4-Inch Wide Broken White Line	LF	1661	\$	\$
20	535.7	24 Inch Wide White Line (COSA Spec)	LF	96	\$	\$
21	540	Storm Water Pollution Prevention Plan	LS	1	\$	\$
22	550	Trench Excavation Safety Protection	LF	5681.0	\$	\$
23	848	8" HDPE (I.P.S.) Pipe (125 PSI) (10' - 15' DEPTH)	LF	69.8	\$	\$
24	848	8" PVC Sanitary Sewer Line (6'-10') (SDR - 26)	LF	35.7	\$	\$
25	848	8" PVC Sanitary Sewer Line (10'- 15') (SDR - 26)	LF	809	\$	\$
26	848	8" PVC Sanitary Sewer Line (150 PSI) (10'- 15') (SDR - 26)	LF	67.3	\$	\$
27	848	12" PVC Sanitary Sewer Line (6'- 10') (SDR - 26)	LF	48	\$	\$
28	848	15" PVC Sanitary Sewer Line (10'- 15') (ASTM F679)	LF	12	\$	\$
29	848	21" PVC Sanitary Sewer Line (10'- 15') (ASTM F679)	LF	2994.0	\$	\$
30	848	27" PVC Sanitary Sewer Line (10'- 15') (ASTM F679)	LF	504	\$	\$
31	848	27" PVC Sanitary Sewer Line (15'- 18') (ASTM F679)	LF	280	\$	\$
32	848	27" PVC Sanitary Sewer Line (18'- 22') (ASTM F679)	LF	390	\$	\$
33	848	30" HDPE Pipe DR 13.5 (160 PSI)	LF	33	\$	\$
34	848	Sanitary Sewer Pipe Testing & Acceptance	LF	5681.0	\$	\$
35	850	Sanitary Sewer Structure (0-6') 5' ID	EA	3	\$	\$
36	850	Sanitary Sewer Drop Structure (0-6') 5' ID	EA	3	\$	\$
37	850	Sanitary Sewer Structure (0-6') 6' ID	EA	2	\$	\$
38	850	Sanitary Sewer Drop Structure (0-6') 6' ID	EA	2	\$	\$
39	850	Sanitary Sewer Dog House Manhole Structure (0-6') 8' ID	EA	1	\$	\$
40	850	Extra Depth Structure (>6') (5' ID)	VF	9	\$	\$
41	850	Extra Depth Drop Structure (>6') (5' ID)	VF	27	\$	\$
42	850	Extra Depth Structure (>6') (6' ID)	VF	17	\$	\$
43	850	Extra Depth Drop Structure (>6') (6' ID)	VF	24	\$	\$
44	850	Extra Depth Dog House Manhole Structure (>6') (8' ID)	VF	14	\$	\$
45	851	Existing Manhole Adjustment	EA	12.0	\$	\$
46	852	Sanitary Sewer Manhole (0-6') 4' ID	EA	16	\$	\$
47	852	Sanitary Sewer Manhole (0-6') 6' ID	EA	1	\$	\$
48	852	Sanitary Sewer Drop Manhole (0-6') 4' ID	EA	11	\$	\$
49	852	Extra Depth Manholes(>6') (4' ID)	VF	77	\$	\$
50	852	Extra Depth Manholes(>6') (6' ID)	VF	4	\$	\$
51	852	Extra Depth Drop Manholes(>6') (4' ID)	VF	60	\$	\$
52	854	Sanitary Sewer Laterals (SDR26 ASTM 2241, 160 psi)	LF	338.0	\$	\$
53	854.1	Two-Way Sanitary Sewer Clean-Out	EA	18.0	\$	\$
54	856.1	Jacking, Boring, Tunneling Pipe - 36" Casing	LF	231	\$	\$
55	856.2	8" HDPE (I.P.S.) Carrier Pipe (125 PSI) (10' - 15' DEPTH)	LF	243	\$	\$
56	856.2	21" PVC Carrier Pipe ASTM F679 115 PSI	LF	231	\$	\$
57	856.2	27" PVC Carrier Pipe ASTM F679 115 PSI	LF	10	\$	\$
58	856.3	18" Steel Casing Pipe (0.375" Thickness, Min. Yield Strength 35,000 PSI)	LF	243	\$	\$
59	856.3	36" Steel Casing Pipe (0.438" Thickness, Min. Yield Strength 35,000 PSI)	LF	231	\$	\$
60	856.3	42" Steel Casing Pipe (0.05" Thickness, Min. Yield Strength 35,000 PSI)	LF	10	\$	\$
61	860	Vertical Stacks	VF	202.0	\$	\$
62	862	Abandonment of Sanitary Sewer Mains	LF	50	\$	\$
63	862	Abandonment of Sanitary Manholes	EA	5.0	\$	\$



**C-18 McCullough Avenue Sewer Replacement Project**  
**SAWS Job No. 17-4555**  
**Bid Proposal Line Items**  
**December 2020**

ITEM	PAY ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE	SUBTOTAL
64	865	Bypass Pumping (Small Diameter Sanitary Sewer)	LS	1	\$	\$
65	866	Existing Sewer Main Television Inspection	LF	3538.0	\$	\$
66	866	Post Sewer Main Television Inspection (8" - 15")	LF	1284.7	\$	\$
67	866	Post Sewer Main Television Inspection (18" - 24")	LF	3221	\$	\$
68	866	Post Sewer Main Television Inspection (27" and Larger)	LF	1216	\$	\$
69	901	CIPP 12" Sanitary Sewer Pipe, all depths	LF	704	\$	\$
70	910	Manhole Rehab	VF	98.5	\$	\$
71	1103.1	Point Repairs	EA	3	\$	\$
72	1103.2	Extra Length Point Repairs	LF	50	\$	\$
73	1109	Sanitary Sewer Lateral Stub Outs or Reconnections	EA	10	\$	\$
74	1109	Service Reconnection (W/Remote Control Cut Device)	EA	8	\$	\$
75	1109	Service Reconnection (W/ Open Cut Excavation)	EA	3	\$	\$
76	2400	Trenchless Crossing By Guided Boring or Microtunneling 18"	LF	243	\$	\$
77	100	Intermediate Demobilization Bypass Pumping Equipment Rental	MD	20	\$	\$
78	100	Intermediate Demobilization Bypass Pumping Fuel	MD	20	\$	\$
79	100	Intermediate Demobilization Bypass Pumping Watch	MD	20	\$	\$
80	SP100A	Intermediate Demobilization and Remobilization (Open Cut)	EA	1	\$	\$
81	SP100B	Intermediate Demobilization and Remobilization (Trenchless Construction)	EA	1	\$	\$
82	SC	CPS Energy Allowance	ALW	1	\$ 15,000.00	\$ 15,000.00
Subtotal (Items 1-82)						
83	100.1	Mobilization (Max 10%)	LS	1		\$
84	101.1	Preparing Right-of-Way (Max 5%)	LS	1		\$
Mobilization and Prep ROW shall be limited to the maximum percentage shown. If the percentage exceeds the allowable maximum stated for the mobilization and/or preparation of ROW, SAWS reserves the right to cap the amount at the percentages shown and adjust the extension of the bid items accordingly.						
<b>TOTAL BID PRICE (TO INCLUDE LINE ITEMS 1-82 AND 83-84)</b>						<b>\$</b>

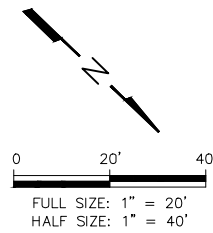
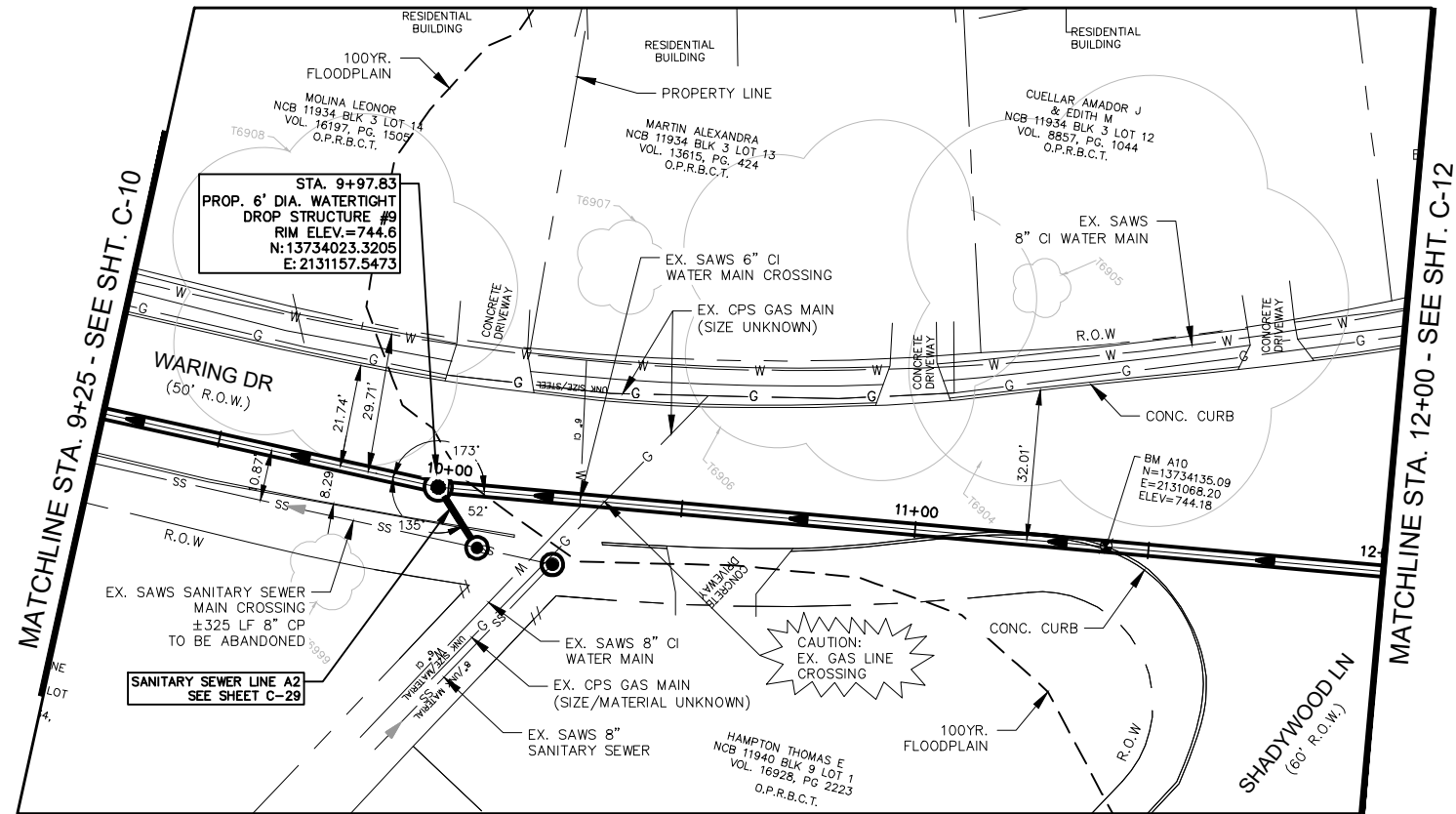
Note: Addendum No-2: Previous Line Item 61. Pay Item 858: Concrete Encasement, Cradles, Saddles and Collars is removed in its entirety.











QUANTITIES TABLE			
ITEM	DESCRIPTION	UNIT	QUANTITY
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	275
848	27" PVC SANITARY SEWER (18"-22" DEPTH) (ASTM F679)	LF	275
850	6' DIA. SANITARY SEWER STRUCTURE (DROP)	EA	1
850	EXTRA DEPTH (DROP) STRUCTURE (>6' DEPTH) (6' ID)	VF	13
866	POST SEWER TELEVISION INSPECTION (27" AND LARGER)	LF	275

**NOTES**

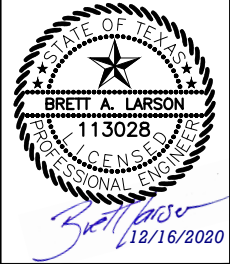
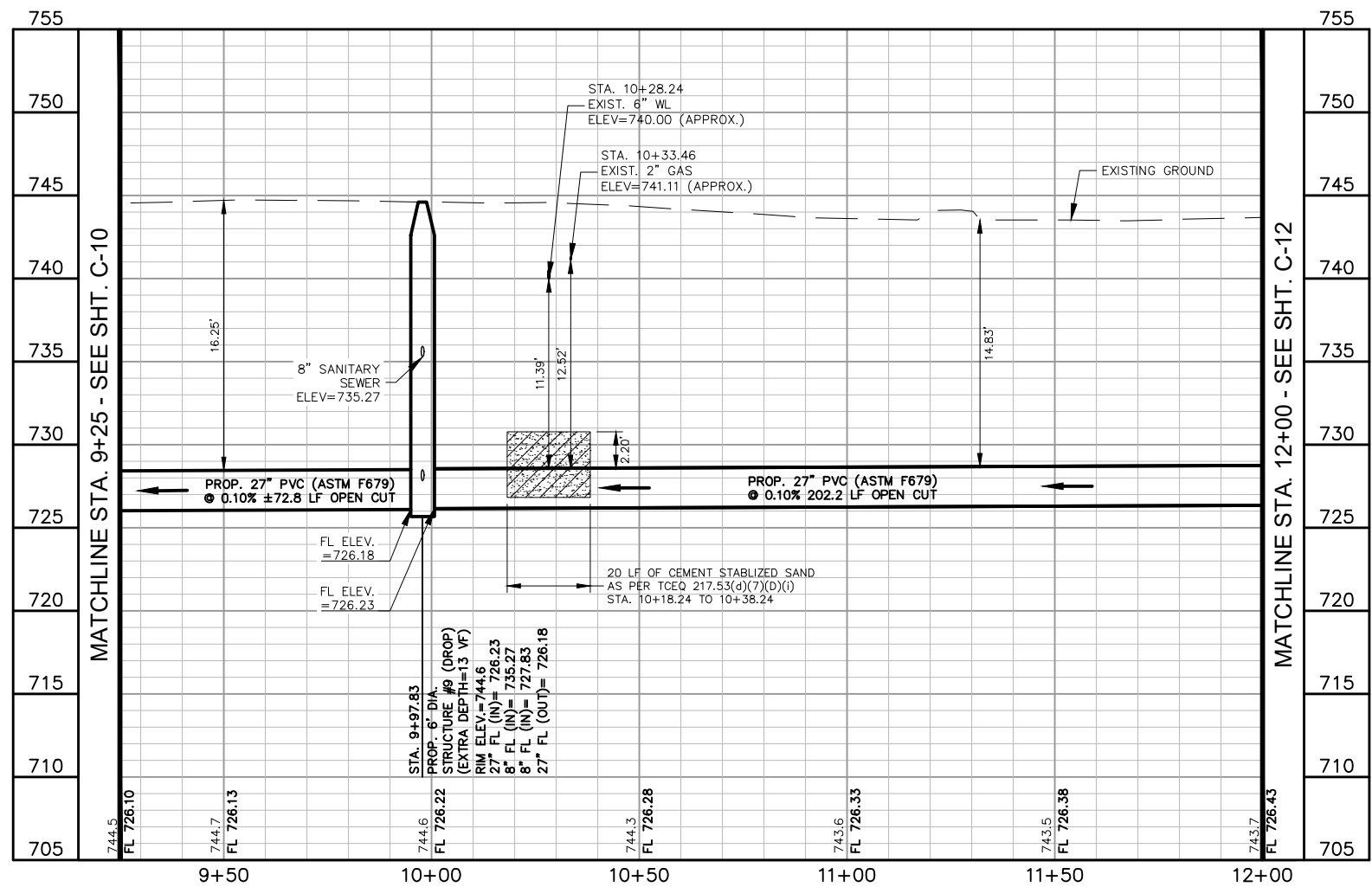
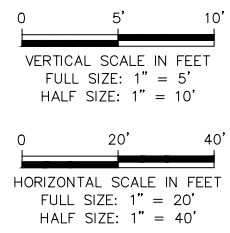
- BEFORE COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CROSSING ELEVATIONS AND LOCATIONS. ANY UTILITY DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE DESIGN ENGINEER.
- SANITARY SEWER CROSSINGS SHALL ADHERE TO TITLE 30 OF THE TEXAS ADMINISTRATIVE CODE, CHAPTER 217, SUBCHAPTER C, RULE 217.53(d). SEPARATION DISTANCE BETWEEN THE EXISTING WATER MAIN AND THE PROPOSED SANITARY SEWER LINES WILL BE A MINIMUM OF 9 FEET AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
- INLET PROTECTION SHALL BE INSTALLED AT ALL STORMWATER INLETS AND BE PROPERLY MAINTAINED DURING CONSTRUCTION.
- DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CENTERPOINT ENERGY 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.
- CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING ALL UTILITY CROSSINGS FOR OPEN CUT CONSTRUCTION.
- FLOWABLE FILL BACKFILL SHALL BE SUBSIDIARY TO THE INSTALLATION OF PIPE.
- SEE PAVEMENT PLANS FOR PAVEMENT REPLACEMENT LIMITS AND DETAILS.

**LEGEND**

- PROPERTY LINE
- W --- EX. WATER LINE
- SS --- EX. SANITARY SEWER LINE
- SS --- ABANDONED SANITARY SEWER LINE
- SD --- EX. STORM DRAIN LINE
- G --- EX. GAS LINE
- G --- ABANDONED GAS LINE
- OHE --- EX. OVERHEAD POWER LINE
- --- UTILITY POLE AND GUY WIRE
- EX. CHAIN LINK FENCE
- EX. WOODEN FENCE
- MH --- EX. MANHOLE
- WV --- WATER VALVE
- PP --- POWER POLE
- BH --- BORE HOLE
- S --- SIGN
- T --- TREE
- FH --- FIRE HYDRANT
- GV --- GAS VALVE
- EX. SANITARY SEWER LINE TO BE ABANDONED
- PROP. SANITARY SEWER LINE
- --- PROP. MANHOLE

**ABBREVIATIONS**

- |        |                         |
|--------|-------------------------|
| APPROX | APPROXIMATE             |
| BOT    | BOTTOM                  |
| COSA   | CITY OF SAN ANTONIO     |
| DIA    | DIAMETER                |
| EA     | EACH                    |
| ELEV   | ELEVATION               |
| EX     | EXISTING                |
| FL     | FLOW LINE               |
| FOC    | FIBER OPTIC CABLE       |
| GA     | GALLON                  |
| ID     | INSIDE DIAMETER         |
| LF     | LINEAR FEET             |
| MH     | MANHOLE                 |
| NSPI   | NO SEPARATE PAY ITEM    |
| PROP   | PROPOSED                |
| PVC    | POLYVINYL CHLORIDE PIPE |
| SPEC   | SPECIFICATION           |
| SS     | SANITARY SEWER          |
| STA    | STATION                 |
| STL    | STEEL                   |
| SY     | SQUARE YARDS            |
| TH     | TEST HOLE               |
| UNK    | UNKNOWN                 |
| VF     | VERTICAL FEET           |
| WW     | WASTEWATER              |
| WWMH   | WASTEWATER MANHOLE      |



100 NE Loop 410, Suite 1090  
San Antonio, Texas 78216  
TBPE #F-14629



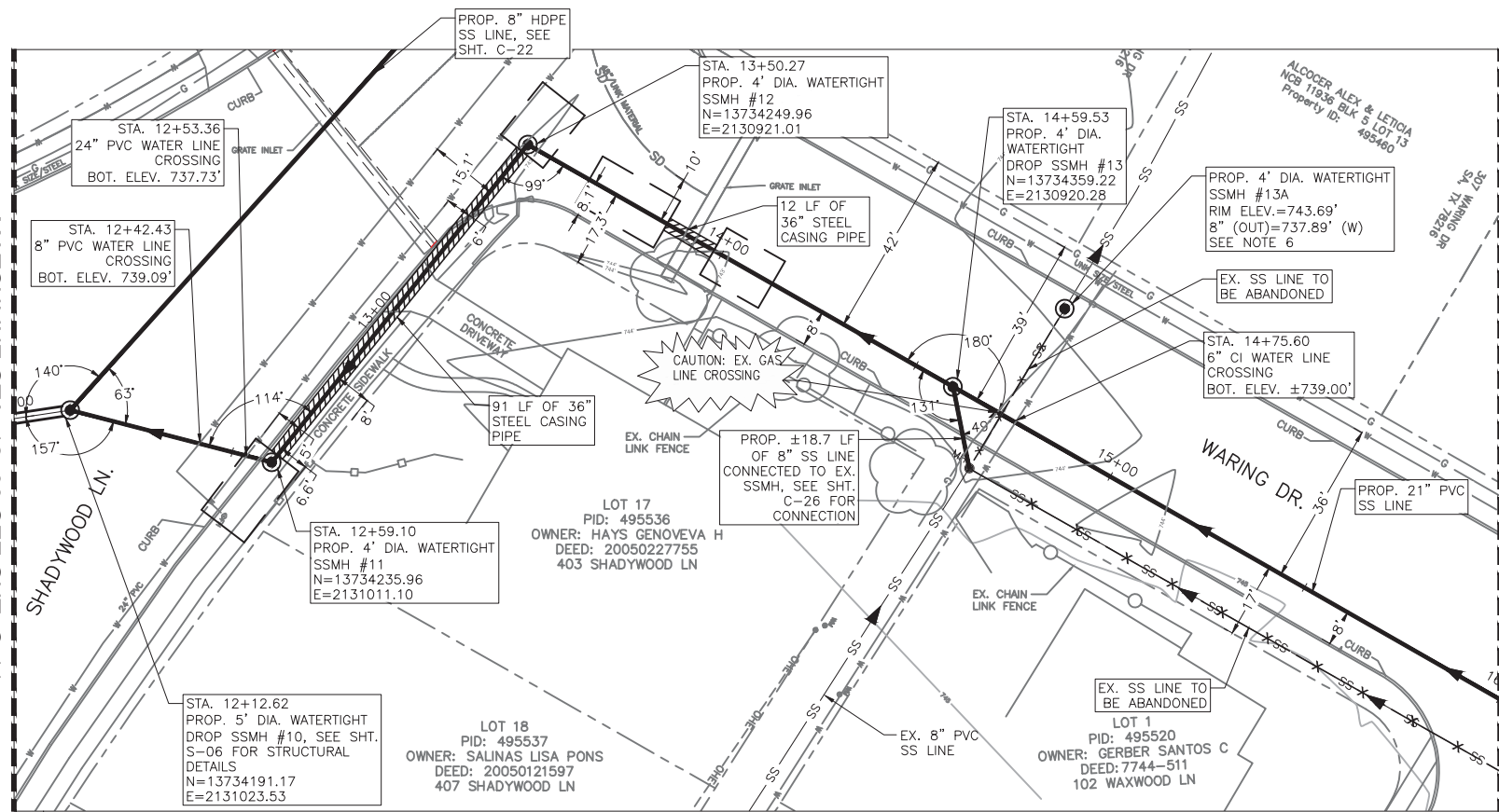
C-18 McCULLOUGH AVENUE SEWER REPLACEMENT  
SANITARY SEWER LINE A  
PLAN & PROFILE - STA. 9+25 TO 12+00



NOTES	INITIALS	DATE
DESIGNED BY	BAL	09/20
REVIEWED BY	KF	09/20
SCALE:	AS SHOWN	
SHEET NO.	C-11 29 OF 74	

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MATCHLINE STA. 12+00 SEE SHT. C-11



MATCHLINE STA. 16+00 SEE SHT. C-13

QUANTITIES TABLE			
ITEM	DESCRIPTION	UNIT	QUANTITY
103.1	REMOVE CONCRETE CURB (COSA SPEC)	LF	94
103.3	REMOVE CONCRETE SIDEWALKS AND DRIVEWAYS (COSA SPEC)	SF	440
500.1	CONCRETE CURB (COSA SPEC)	LF	94
502.1	CONCRETE SIDEWALKS (COSA SPEC)	SY	38
503.1	PORTLAND CEMENT CONCRETE DRIVEWAY	SY	11
516.1	BERMUDA SODDING (<2,000 SY)	SY	47
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	297
848	21" PVC SANITARY SEWER LINE (10'-15')	LF	284
848	27" PVC SANITARY SEWER LINE (10'-15')	LF	13
850	SANITARY SEWER DROP STRUCTURE (0-6') 5' ID	EA	1
850	EXTRA DEPTH DROP STRUCTURE (>6' DEPTH) 5' ID	VF	11
852	SANITARY SEWER DROP MANHOLE (0-6') 4' ID	EA	1
852	EXTRA DEPTH DROP MANHOLE (>6' DEPTH) 4' ID	VF	4
852	SANITARY SEWER MANHOLE (0'-6') 4' ID	EA	3
852	EXTRA DEPTH MANHOLE (>6' DEPTH) 4' ID	VF	11
856.1	JACKING, BORING OR 36" TUNNELING PIPE	LF	103
856.2	21" PVC CARRIER PIPE	LF	103
856.3	36" STEEL CASING PIPE (0.0438" THICKNESS MIN. YIELD STRENGTH 35,000 PSI)	LF	103
866	EXISTING TELEVISION INSPECTION	LF	120
866	POST SEWER TELEVISION INSPECTION (18"-24")	LF	387
866	POST SEWER TELEVISION INSPECTION (27"-AND LARGER)	LF	13

**NOTES**

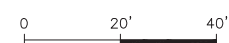
- BEFORE COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CROSSING ELEVATIONS AND LOCATIONS. ANY UTILITY DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE DESIGN ENGINEER.
- WASTEWATER CROSSINGS SHALL ADHERE TO TITLE 30 OF THE TEXAS ADMINISTRATIVE CODE, CHAPTER 290, SUBCHAPTER D, RULE TAC 217.53(d). SEPARATION DISTANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING WASTEWATER LINES WILL BE A MINIMUM OF 9 FEET AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
- INLET PROTECTION SHALL BE INSTALLED AT ALL STORMWATER INLETS AND BE PROPERLY MAINTAINED DURING CONSTRUCTION.
- DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS ENERGY 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.
- CONTRACTOR TO FIELD VERIFY THE GAS LINE LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITY.
- CONTRACTOR TO FIELD VERIFY INVERTS BEFORE CONSTRUCTION.

**ABBREVIATIONS**

- APPROX APPROXIMATE
- BOT BOTTOM
- COSA CITY OF SAN ANTONIO CITY PUBLIC SERVICE
- CPS CITY PUBLIC SERVICE
- DIA DIAMETER
- EA EACH
- ELEV ELEVATION
- EX EXISTING
- FL FLOW LINE
- FOC FIBER OPTIC CABLE
- GA GALLON
- HDPE HIGH DENSITY POLYETHYLENE
- ID INSIDE DIAMETER
- LF LINEAR FEET
- MH MANHOLE
- NSPI NO SEPARATE PAY ITEM
- PROP PROPOSED
- PVC POLYVINYL CHLORIDE PIPE
- SPEC SPECIFICATION
- SS SANITARY SEWER
- STA STATION
- STL STEEL
- SY SQUARE YARDS
- TH TEST HOLE
- UNK UNKNOWN
- VF VERTICAL FEET
- WW WASTEWATER

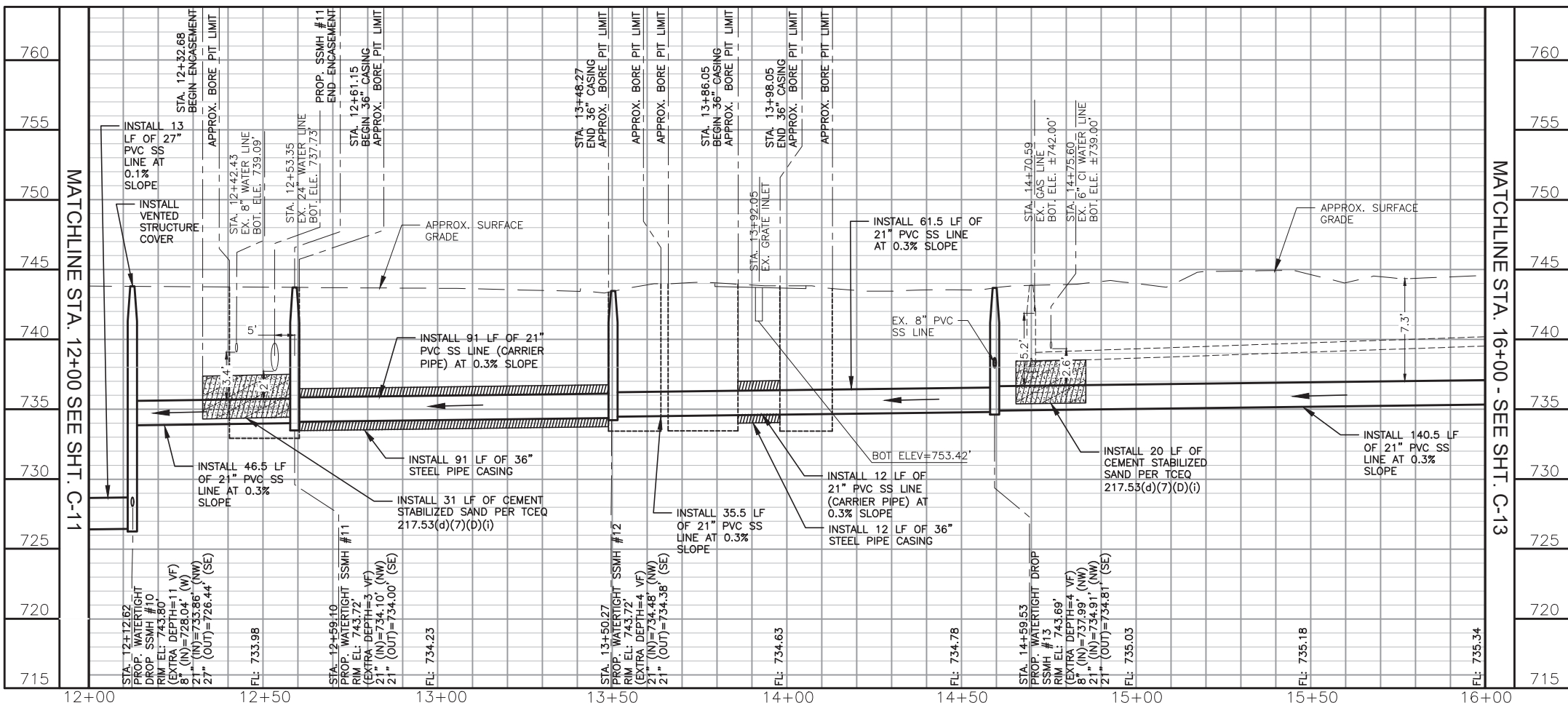
**LEGEND**

- PROPERTY LINE
- EX. WATER LINE
- SS EX. SANITARY SEWER LINE
- SD EX. STORM DRAIN LINE
- G EX. GAS LINE
- OHE EX. OVERHEAD POWER LINE
- UPGW UTILITY POLE AND GUY WIRE
- EX. CHAIN LINK FENCE
- EX. WOODEN FENCE
- EX. MANHOLE
- WATER VALVE
- POWER POLE
- BORE HOLE
- SIGN
- TREE
- FIRE HYDRANT
- GAS VALVE
- EX. SANITARY SEWER LINE TO BE ABANDONED
- PROP. SANITARY SEWER LINE
- PROP. MANHOLE
- PROP. CASING PIPE



MATCHLINE STA. 12+00 SEE SHT. C-11

MATCHLINE STA. 16+00 - SEE SHT. C-13



REV. NO.	DATE	REVISION DESCRIPTION
1	12/16/20	ADDENDUM 2

WESTON SOLUTIONS, INC.  
 70 NE LOOP 410, SUITE 600  
 SAN ANTONIO, TEXAS 78216-5842  
 C-18 McCULLOUGH AVENUE SEWER REPLACEMENT

**San Antonio Water System**  
 JOB NO. 17-4555

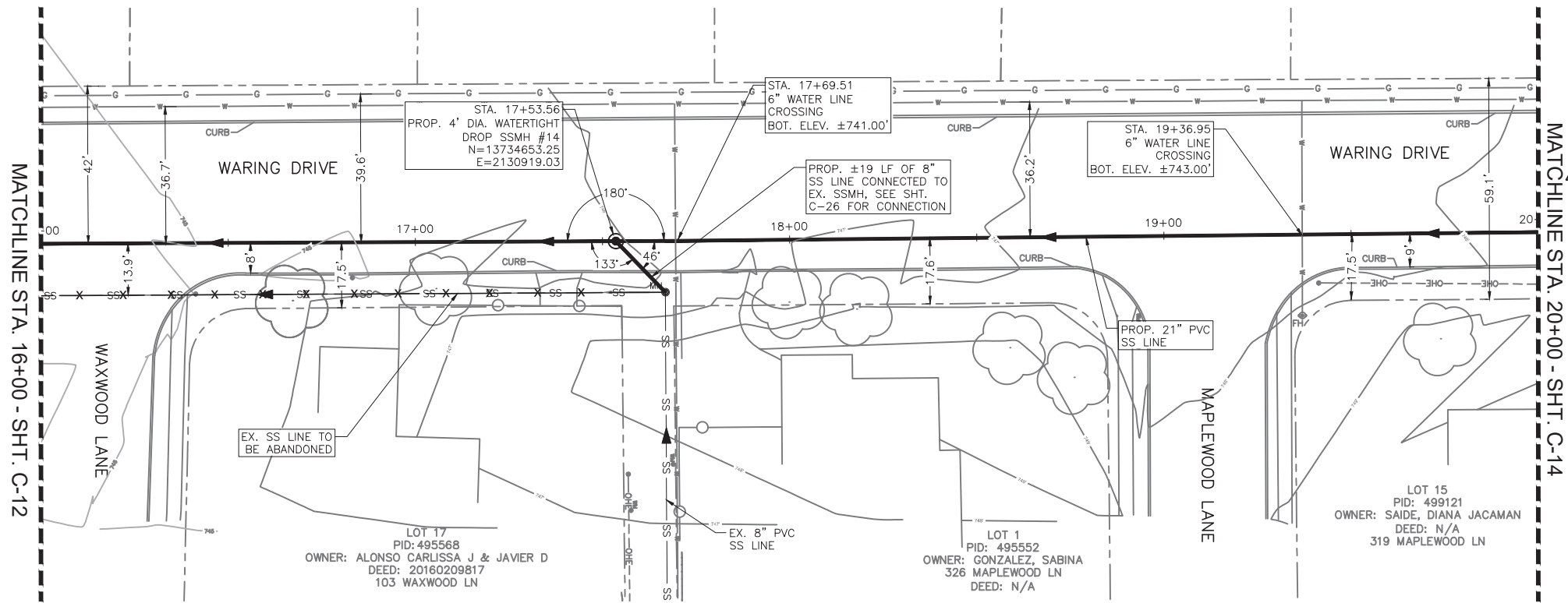
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DESIGNED BY	JB	11/20
REVIEWED BY	SI	11/20

SCALE: AS SHOWN

SHEET NO. **C-12**  
 30 OF 74

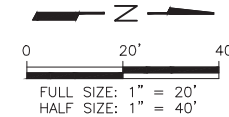


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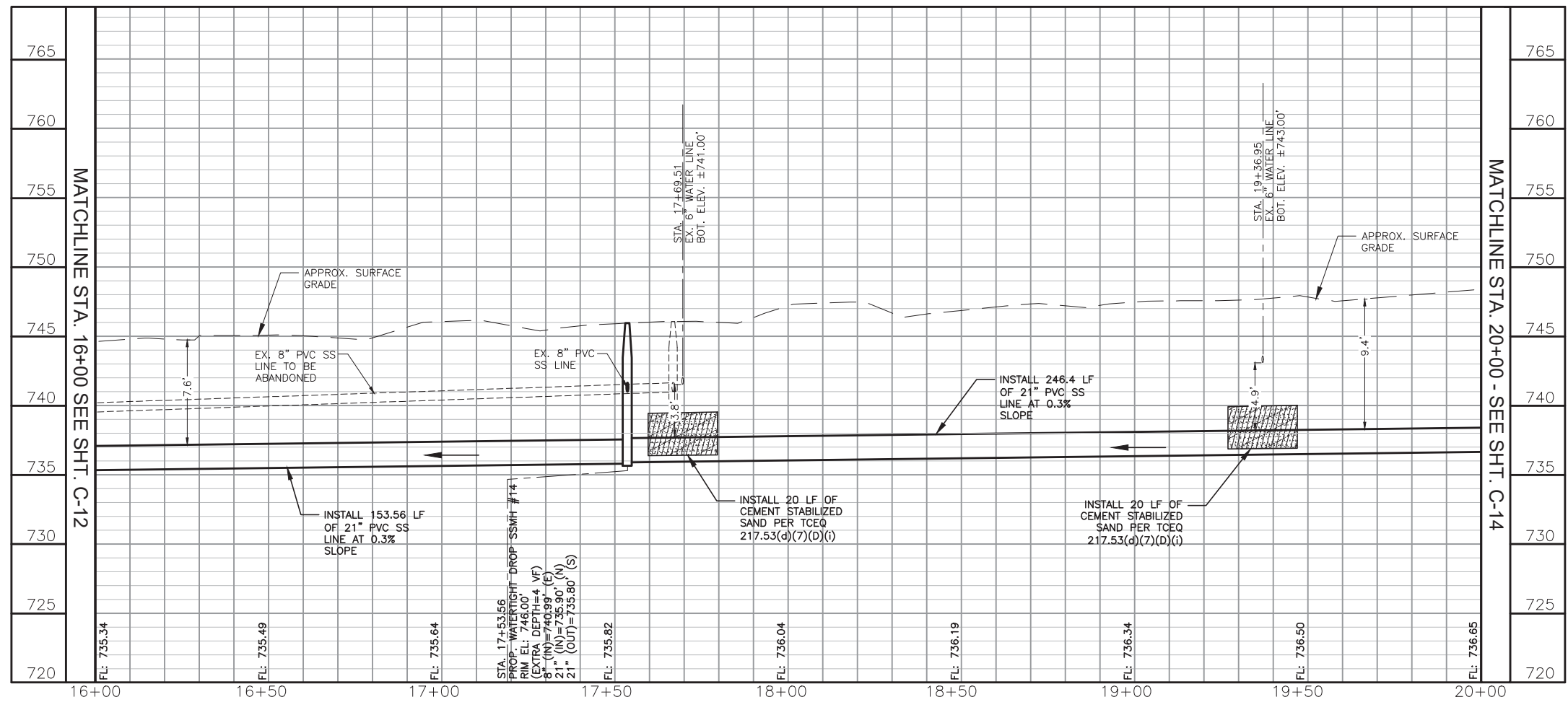
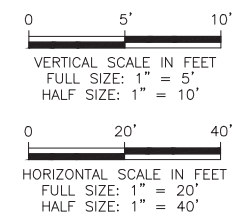
QUANTITIES TABLE			
ITEM	DESCRIPTION	UNIT	QUANTITY
516.1	BERMUDA SODDING (<2,000 SY)	SY	17
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	400
848	21" PVC SANITARY SEWER LINE (10'-15')	LF	400
852	SANITARY SEWER DROP MANHOLE (0'-6') 4' ID	EA	1
852	EXTRA DEPTH DROP MANHOLE (>6' DEPTH) 4' ID	VF	4
866	EXISTING TELEVISION INSPECTION	LF	200
866	POST SEWER TELEVISION INSPECTION (18"-24")	LF	400

- NOTES**
- BEFORE COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CROSSING ELEVATIONS AND LOCATIONS. ANY UTILITY DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE DESIGN ENGINEER.
  - WASTEWATER CROSSINGS SHALL ADHERE TO TITLE 30 OF THE TEXAS ADMINISTRATIVE CODE, CHAPTER 290, SUBCHAPTER D, RULE TAC 217.53(d). SEPARATION DISTANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING WASTEWATER LINES WILL BE A MINIMUM OF 9 FEET AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
  - INLET PROTECTION SHALL BE INSTALLED AT ALL STORMWATER INLETS AND BE PROPERLY MAINTAINED DURING CONSTRUCTION.
  - DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS ENERGY 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.



- LEGEND**
- PROPERTY LINE
  - EX. WATER LINE
  - SS --- EX. SANITARY SEWER LINE
  - SD --- EX. STORM DRAIN LINE
  - G --- EX. GAS LINE
  - OHE --- EX. OVERHEAD POWER LINE
  - UTILITY POLE AND GUY WIRE
  - EX. CHAIN LINK FENCE
  - EX. WOODEN FENCE
  - MH --- EX. MANHOLE
  - WATER VALVE
  - PP --- POWER POLE
  - BORE HOLE
  - SIGN
  - TREE
  - FIRE HYDRANT
  - GAS VALVE
  - EX. SANITARY SEWER LINE TO BE ABANDONED
  - PROP. SANITARY SEWER LINE
  - PROP. MANHOLE
  - PROP. CASING PIPE

- ABBREVIATIONS**
- APPROX APPROXIMATE
  - BOT BOTTOM
  - COSA CITY OF SAN ANTONIO
  - CPS CITY PUBLIC SERVICE
  - DIA DIAMETER
  - EA EACH
  - ELEV ELEVATION
  - EX EXISTING
  - FL FLOW LINE
  - FOC FIBER OPTIC CABLE
  - GA GALLON
  - HDPE HIGH DENSITY POLYETHYLENE
  - ID INSIDE DIAMETER
  - LF LINEAR FEET
  - MH MANHOLE
  - NSPI NO SEPARATE PAY ITEM
  - PROP PROPOSED
  - PVC POLYVINYL CHLORIDE PIPE
  - SPEC SPECIFICATION
  - SS SANITARY SEWER
  - STA STATION
  - STL STEEL
  - SY SQUARE YARDS
  - TH TEST HOLE
  - UNK UNKNOWN
  - VF VERTICAL FEET
  - WW WASTEWATER



REV. NO.	DATE	REVISION DESCRIPTION
1	12/16/20	ADDENDUM 2

WESTON SOLUTIONS, INC.  
 70 NE LOOP 410, SUITE 600  
 SAN ANTONIO, TEXAS 78216-5842  
 C-18 McCULLOUGH AVENUE SEWER REPLACEMENT

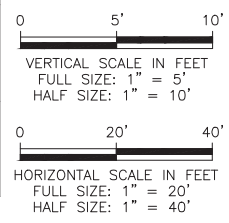
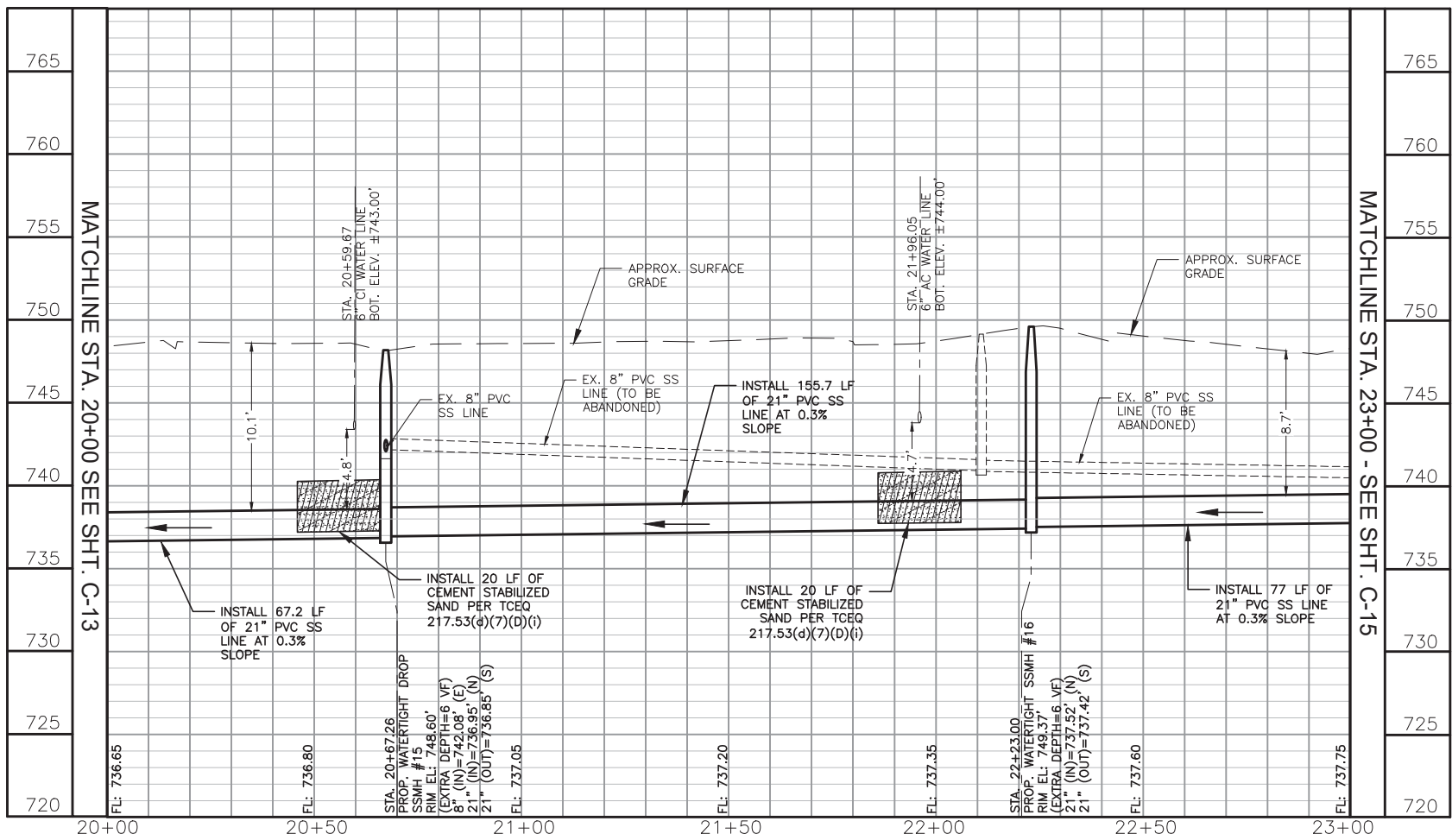
**San Antonio Water System**  
 JOB NO. 17-4555

NOTES	INITIALS	DATE
DESIGNED BY	JB	11/20
REVIEWED BY	SI	11/20

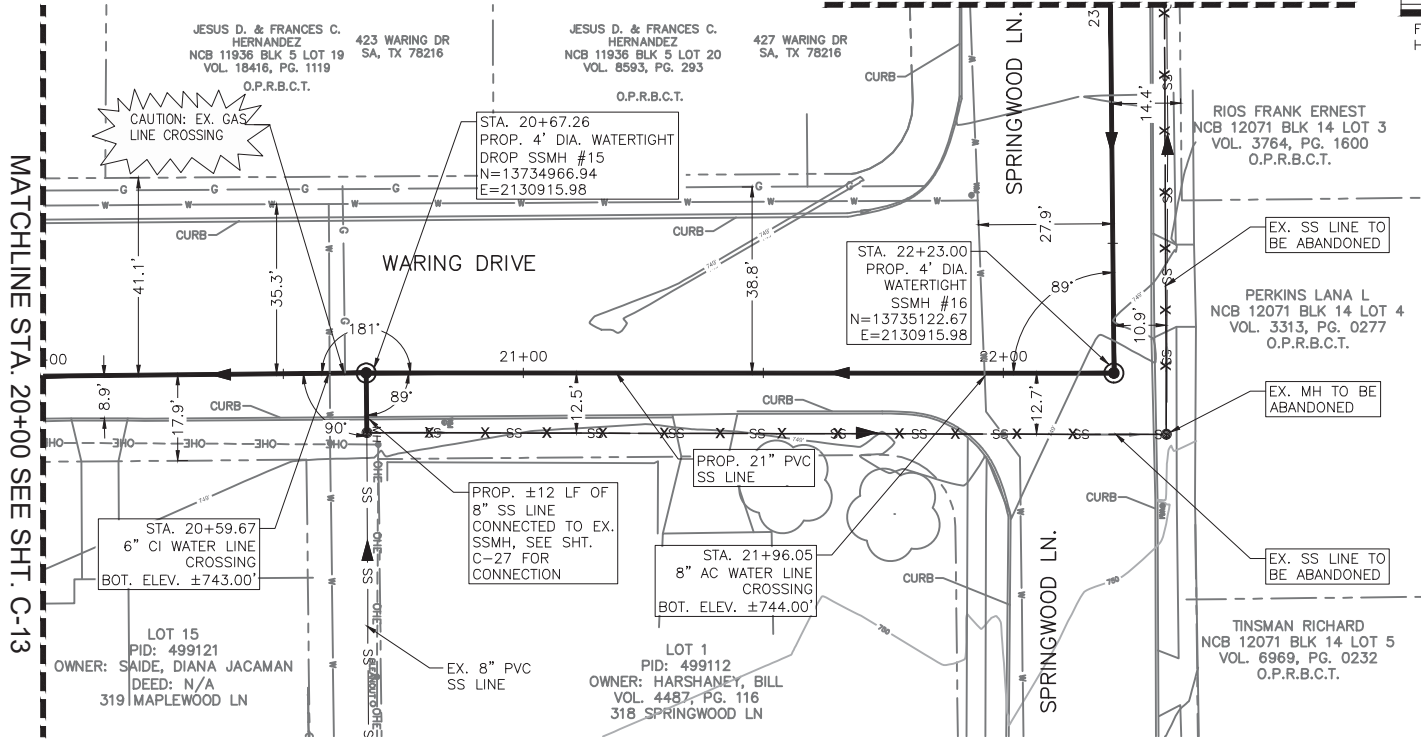
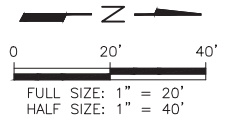
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SHEET NO. **C-13**  
 31 OF 74

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MATCHLINE STA. 23+00 SEE SHT. C-15



QUANTITIES TABLE			
ITEM	DESCRIPTION	UNIT	QUANTITY
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	300
848	21" PVC SANITARY SEWER LINE (10'-15')	LF	300
852	SANITARY SEWER MANHOLE (0'-6") 4' ID	EA	1
852	EXTRA DEPTH MANHOLE (>6" DEPTH) 4' ID	VF	6
852	SANITARY SEWER DROP MANHOLE (0'-6") 4' ID	VF	1
852	EXTRA DROP DEPTH MANHOLE (>6" DEPTH) 4' ID	VF	6
862	ABANDONMENT OF SANITARY SEWER MANHOLE	EA	1
866	EXISTING TELEVISION INSPECTION	LF	233
866	POST SEWER TELEVISION INSPECTION (18"-24")	LF	300

- NOTES
- BEFORE COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CROSSING ELEVATIONS AND LOCATIONS. ANY UTILITY DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE DESIGN ENGINEER.
  - WASTEWATER CROSSINGS SHALL ADHERE TO TITLE 30 OF THE TEXAS ADMINISTRATIVE CODE, CHAPTER 290, SUBCHAPTER D, RULE TAC 217.53(d). SEPARATION DISTANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING WASTEWATER LINES WILL BE A MINIMUM OF 9 FEET AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
  - INLET PROTECTION SHALL BE INSTALLED AT ALL STORMWATER INLETS AND BE PROPERLY MAINTAINED DURING CONSTRUCTION.
  - DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS ENERGY 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.
  - CONTRACTOR TO FIELD VERIFY THE GAS LINE LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITY.

**LEGEND**

- PROPERTY LINE
- EX. WATER LINE
- SS --- EX. SANITARY SEWER LINE
- SD --- EX. STORM DRAIN LINE
- G --- EX. GAS LINE
- OHE --- EX. OVERHEAD POWER LINE
- UTILITY POLE AND GUY WIRE
- EX. CHAIN LINK FENCE
- EX. WOODEN FENCE
- ⊙ MH --- EX. MANHOLE
- ⊙ --- WATER VALVE
- ⊙ --- POWER POLE
- ⊙ --- BORE HOLE
- ⊙ --- SIGN
- ⊙ --- TREE
- ⊙ --- FIRE HYDRANT
- ⊙ --- GAS VALVE
- EX. SANITARY SEWER LINE TO BE ABANDONED
- PROP. SANITARY SEWER LINE
- ⊙ --- PROP. MANHOLE
- ▨ --- PROP. CASING PIPE

**ABBREVIATIONS**

- APPROX --- APPROXIMATE
- BOT --- BOTTOM
- COSA --- CITY OF SAN ANTONIO
- CPS --- CITY PUBLIC SERVICE
- DIA --- DIAMETER
- EACH --- EACH
- ELEV --- ELEVATION
- EX --- EXISTING
- FL --- FLOW LINE
- FOC --- FIBER OPTIC CABLE
- GA --- GALLON
- HDPE --- HIGH DENSITY POLYETHYLENE
- ID --- INSIDE DIAMETER
- LF --- LINEAR FEET
- MH --- MANHOLE
- NSPI --- NO SEPARATE PAY ITEM
- PROP --- PROPOSED
- PVC --- POLYVINYL CHLORIDE PIPE
- SPEC --- SPECIFICATION
- SS --- SANITARY SEWER
- STA --- STATION
- STL --- STEEL
- SY --- SQUARE YARDS
- TH --- TEST HOLE
- UNK --- UNKNOWN
- VF --- VERTICAL FEET
- WW --- WASTEWATER

REV. NO.	DATE	REVISION DESCRIPTION
1	12/16/20	ADDENDUM 2

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

McCULLOUGH AVE. SANITARY SEWER LINE  
 PLAN AND PROFILE STA. 20+00 TO 23+00

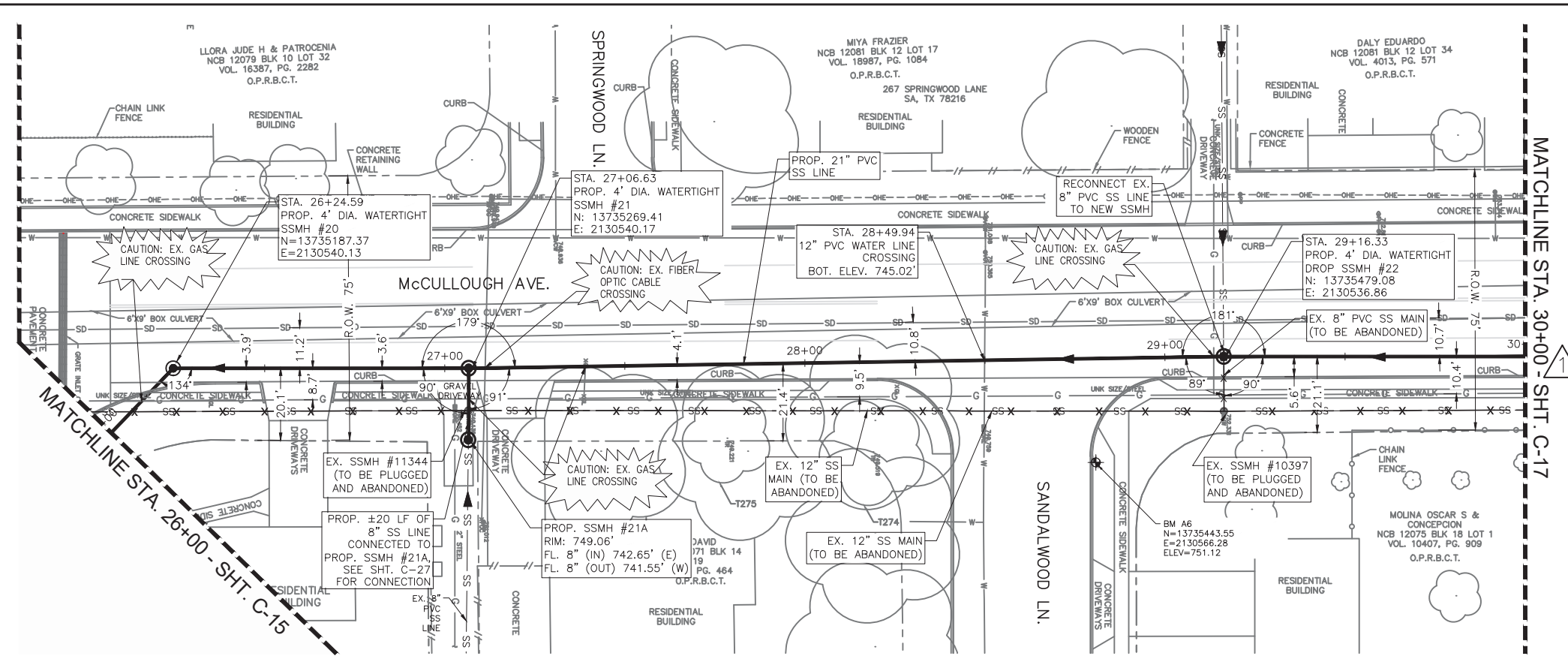
**San Antonio Water System**  
 JOB NO. 17-4555

NOTES	INITIALS	DATE
DESIGNED BY	JB	11/20
REVIEWED BY	SI	11/20

SCALE: AS SHOWN

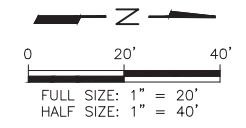
SHEET NO. **C-14**  
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QUANTITIES TABLE			
ITEM	DESCRIPTION	UNIT	QUANTITY
103.1	REMOVE CONCRETE CURB (COSA SPEC)	LF	25
103.3	REMOVE CONCRETE SIDEWALKS AND DRIVEWAYS (COSA SPEC)	SF	25
500.1	CONCRETE CURB (COSA SPEC)	LF	25
502.1	CONCRETE SIDEWALKS (COSA SPEC)	SY	3
516.1	BERMUDA SODDING (<2000 SY)	SY	11
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	400
848	21" PVC SANITARY SEWER LINE (10'-15')	LF	400
852	SANITARY SEWER MANHOLE (0'-6") 4' ID	EA	2
852	EXTRA DEPTH MANHOLES (>6' DEPTH) 4' ID	VF	8
852	SANITARY SEWER DROP MANHOLE (0'-6") 4' ID	EA	1
852	EXTRA DEPTH DROP MANHOLES (>6' DEPTH) 4' ID	VF	7
866	EXISTING TELEVISION INSPECTION	LF	400
866	POST SEWER MAIN TELEVISION INSPECTION (18"-24")	LF	400

- NOTES
- BEFORE COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CROSSING ELEVATIONS AND LOCATIONS. ANY UTILITY DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE DESIGN ENGINEER.
  - WASTEWATER CROSSINGS SHALL ADHERE TO TITLE 30 OF THE TEXAS ADMINISTRATIVE CODE, CHAPTER 290, SUBCHAPTER D, RULE TAC 217.53(d). SEPARATION DISTANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING WASTEWATER LINES WILL BE A MINIMUM OF 9 FEET AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
  - INLET PROTECTION SHALL BE INSTALLED AT ALL STORMWATER INLETS AND BE PROPERLY MAINTAINED DURING CONSTRUCTION.
  - DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS ENERGY 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.
  - CONTRACTOR SHALL FIELD VERIFY GAS MAIN ALIGNMENT AT STA. 29+13.53 PRIOR TO ANY CONSTRUCTION ACTIVITY.

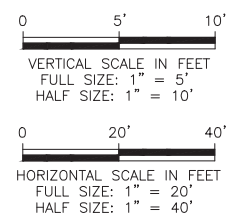
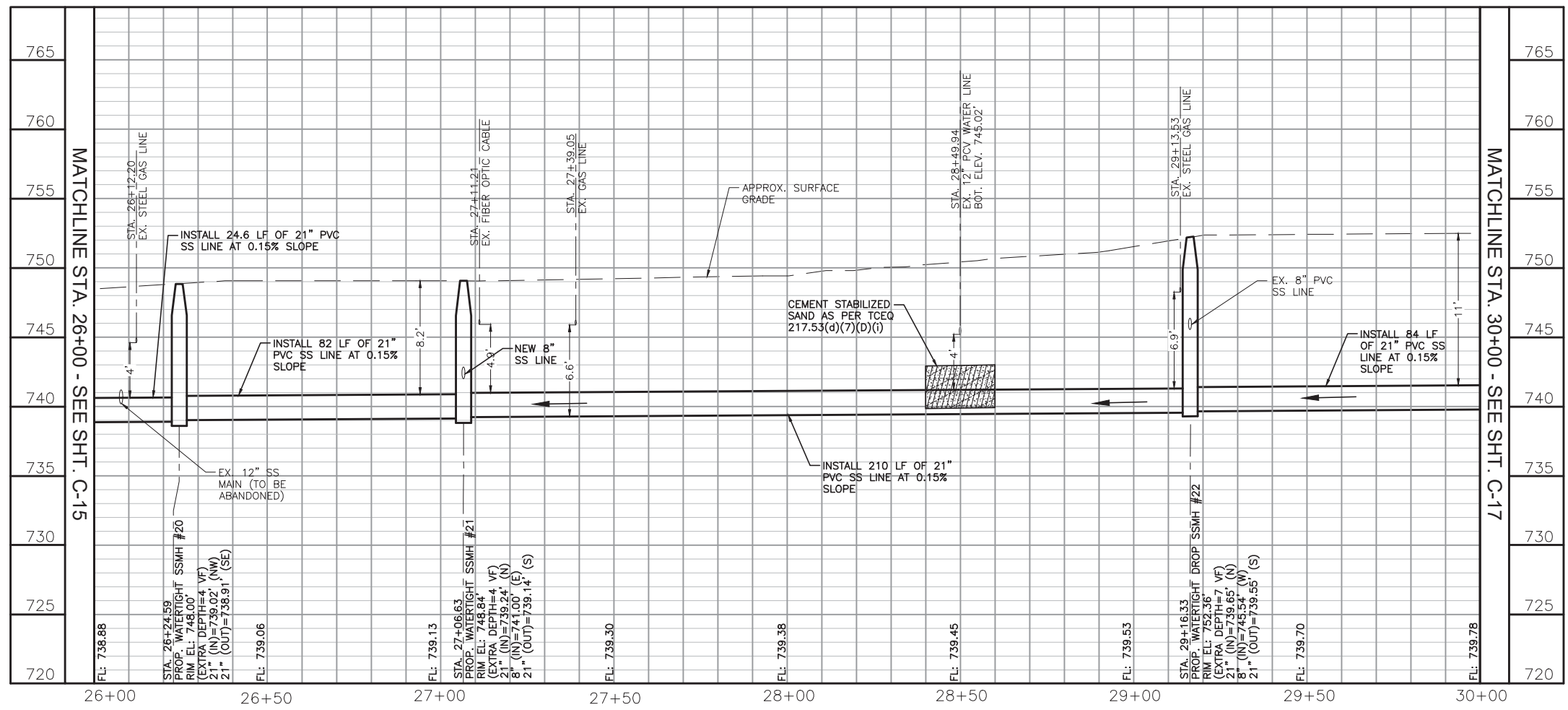


LEGEND

---	PROPERTY LINE
—W—	EX. WATER LINE
—SS—	EX. SANITARY SEWER LINE
—SD—	EX. STORM DRAIN LINE
—G—	EX. GAS LINE
—O—	EX. OVERHEAD POWER LINE
●	UTILITY POLE AND GUY WIRE
—	EX. CHAIN LINK FENCE
—	EX. WOODEN FENCE
⊙	EX. MANHOLE
⊙	WATER VALVE
⊙	POWER POLE
⊙	BORE HOLE
⊙	SIGN
⊙	TREE
⊙	FIRE HYDRANT
⊙	GAS VALVE
—X—	EX. SANITARY SEWER LINE TO BE ABANDONED
—●—	PROP. SANITARY SEWER LINE
⊙	PROP. MANHOLE
⊙	PROP. CASING PIPE

ABBREVIATIONS

APPROX	APPROXIMATE
BOT	BOTTOM
COSA	CITY OF SAN ANTONIO
CPS	CITY PUBLIC SERVICE
DIA	DIAMETER
EA	EACH
ELEV	ELEVATION
EX	EXISTING
FL	FLOW LINE
FOC	FIBER OPTIC CABLE
GA	GALLON
HDPE	HIGH DENSITY POLYETHYLENE
ID	INSIDE DIAMETER
LF	LINEAR FEET
MH	MANHOLE
NSPI	NO SEPARATE PAY ITEM
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE PIPE
SPEC	SPECIFICATION
SS	SANITARY SEWER
STA	STATION
STL	STEEL
SY	SQUARE YARDS
TH	TEST HOLE
UNK	UNKNOWN
VF	VERTICAL FEET
WW	WASTEWATER



REV. NO.	DATE	REVISION DESCRIPTION
1	12/16/20	ADDENDUM 2

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

McCULLOUGH AVE. SANITARY SEWER LINE  
 PLAN AND PROFILE STA. 26+00 TO 30+00

San Antonio Water System  
 JOB NO. 17-4555

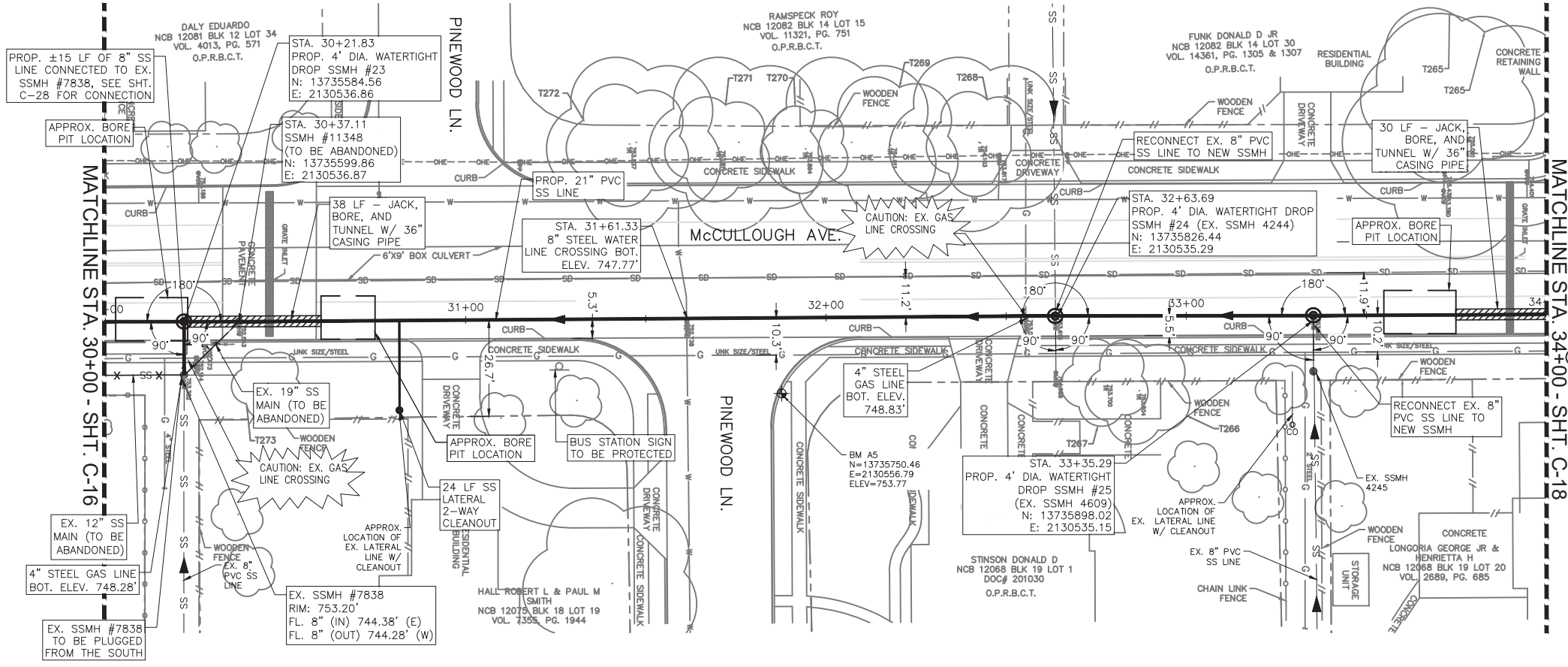
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DESIGNED BY	JB	11/20
REVIEWED BY	SI	11/20

SCALE: AS SHOWN

SHEET NO. C-16  
 34 OF 74



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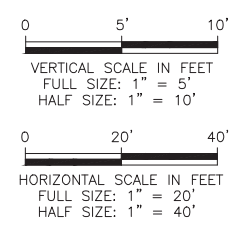
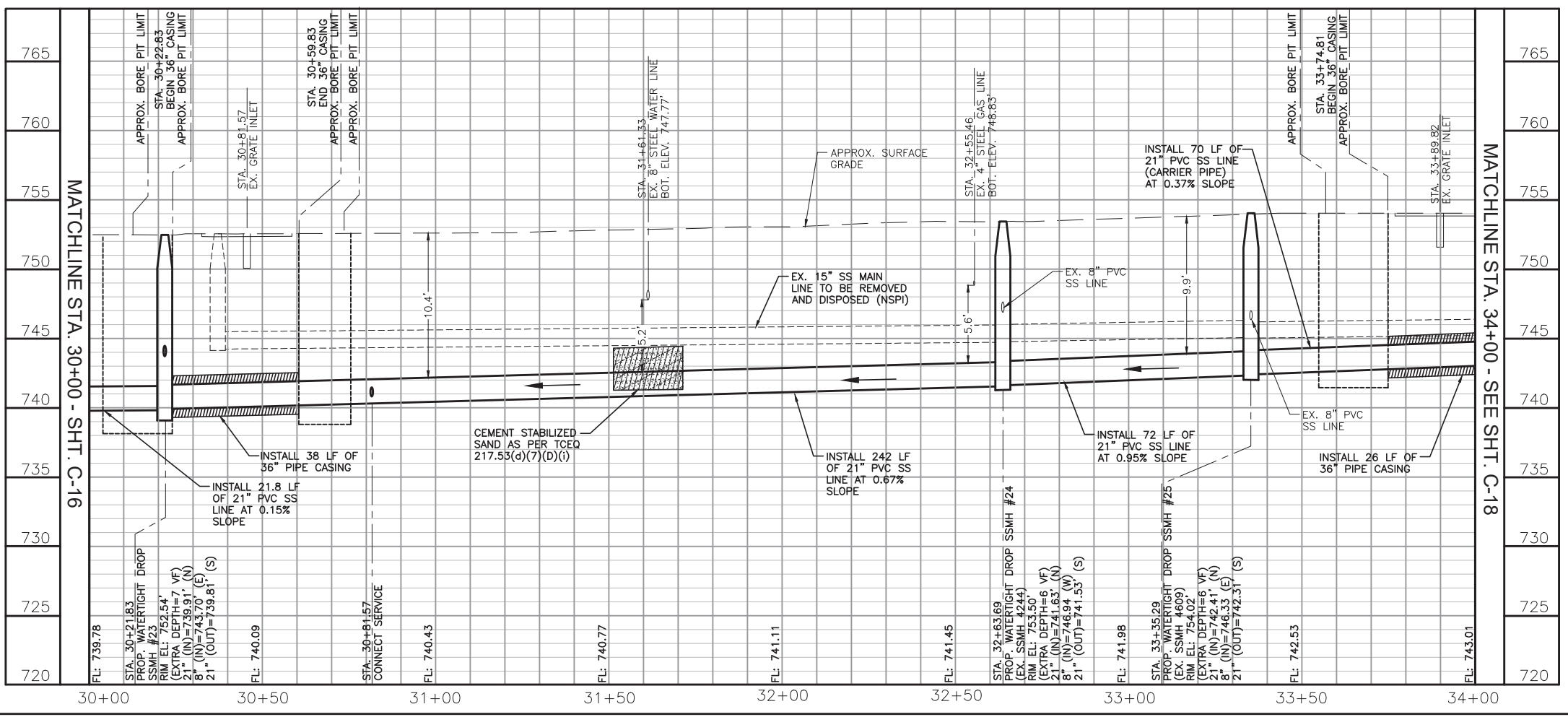
QUANTITIES TABLE			
ITEM	DESCRIPTION	UNIT	QUANTITY
103.1	REMOVE CONCRETE CURB (COSA SPEC)	LF	55
103.3	REMOVE CONCRETE SIDEWALKS AND DRIVEWAYS (COSA SPEC)	SF	396
500.1	CONCRETE CURB (COSA SPEC)	LF	55
502.1	CONCRETE SIDEWALKS (COSA SPEC)	SY	44
516.1	BERMUDA SODDING (<2000 SY)	SY	46
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	336
848	21" PVC SANITARY SEWER LINE (10'-15')	LF	336
852	SANITARY SEWER DROP MANHOLE (0'-6") 4' ID	EA	3
854	EXTRA DEPTH DROP MANHOLE (>6' DEPTH) 4' ID	VF	19
854	SANITARY SEWER LATERALS	LF	48
854.1	TWO-WAY SANITARY SEWER CLEANOUT	EA	2
856.1	JACKING, BORING OR 36" TUNNELING PIPE	LF	64
856.2	21" CARRIER PIPE (ASTM F679 115 PSI)	LF	64
856.3	36" STEEL CASING PIPE	LF	64
860	VERTICAL STACKS	VF	18
866	POST SEWER MAIN TELEVISION INSPECTION (18"-24")	LF	400

- NOTES**
- BEFORE COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CROSSING ELEVATIONS AND LOCATIONS. ANY UTILITY DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE DESIGN ENGINEER.
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- LEGEND**
- PROPERTY LINE
  - EX. WATER LINE
  - EX. SANITARY SEWER LINE
  - EX. STORM DRAIN LINE
  - EX. GAS LINE
  - EX. OVERHEAD POWER LINE
  - UTILITY POLE AND GUY WIRE
  - EX. CHAIN LINK FENCE
  - EX. WOODEN FENCE
  - EX. MANHOLE
  - WATER VALVE
  - POWER POLE
  - BORE HOLE
  - SIGN
  - TREE
  - FIRE HYDRANT
  - GAS VALVE
  - EX. SANITARY SEWER LINE TO BE ABANDONED
  - PROP. SANITARY SEWER LINE
  - PROP. MANHOLE
  - PROP. CASING PIPE

- ABBREVIATIONS**
- APPROX APPROXIMATE
  - BOT BOTTOM
  - COSA CITY OF SAN ANTONIO
  - CPS CITY PUBLIC SERVICE
  - DIA DIAMETER
  - EA EACH
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  - EX EXISTING
  - FL FLOW LINE
  - FOC FIBER OPTIC CABLE
  - GA GALLON
  - HDPE HIGH DENSITY POLYETHYLENE
  - ID INSIDE DIAMETER
  - LF LINEAR FEET
  - MH MANHOLE
  - NSPI NO SEPARATE PAY ITEM
  - PROP PROPOSED
  - PVC POLYVINYL CHLORIDE PIPE
  - SPEC SPECIFICATION
  - SS SANITARY SEWER
  - STA STATION
  - STL STEEL
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  - UNK UNKNOWN
  - VF VERTICAL FEET
  - WW WASTEWATER



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

**San Antonio Water System**  
 JOB NO. 17-4555

**McCULLOUGH AVE. SANITARY SEWER LINE**  
**PLAN AND PROFILE STA. 30+00 TO 34+00**

NOTES	INITIALS	DATE
DESIGNED BY	JB	11/20
REVIEWED BY	SI	11/20

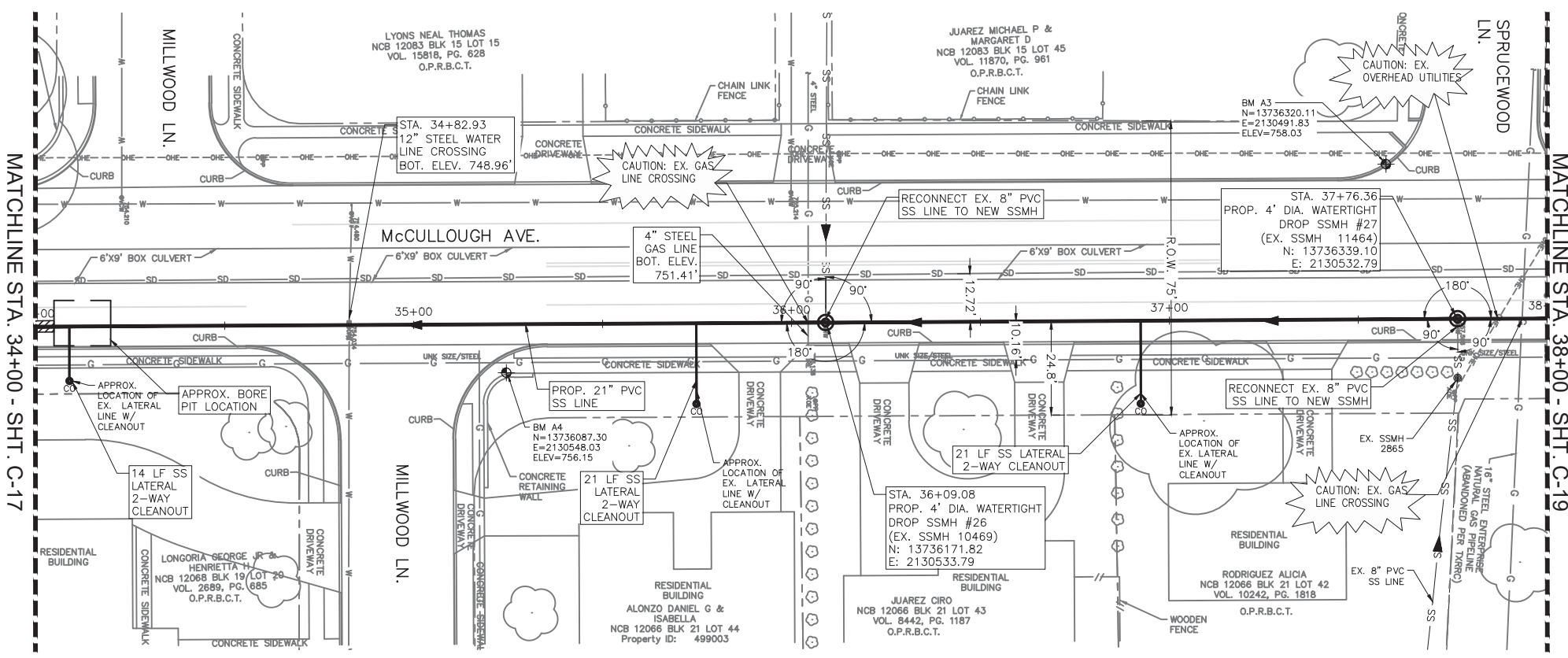
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SHEET NO. **C-17**  
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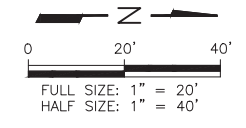
MATCHLINE STA. 34+00 - SHT. C-17

MATCHLINE STA. 38+00 - SHT. C-19



QUANTITIES TABLE		
ITEM	DESCRIPTION	UNIT QUANTITY
103.1	REMOVE CONCRETE CURB (COSA SPEC)	LF 13
103.3	REMOVE CONCRETE SIDEWALKS AND DRIVEWAYS (COSA SPEC)	SF 65
500.1	CONCRETE CURB (COSA SPEC)	LF 13
502.1	CONCRETE SIDEWALKS (COSA SPEC)	SY 8
516.1	BERMUDA SODDING (<2000 SY)	SY 60
550	TRENCH EXCAVATION SAFETY PROTECTION	LF 400
848	21" PVC SANITARY SEWER LINE (10'-15')	LF 400
852	SANITARY SEWER DROP MANHOLE (0'-6") 4' ID	EA 2
852	EXTRA DEPTH DROP MANHOLE (>6' DEPTH) 4' ID	VF 11
854	SANITARY SEWER LATERALS	LF 86
854.1	SANITARY SEWER CLEANOUTS (TWO-WAY)	EA 3
856.1	JACKING, BORING OR 36" TUNNELING	LF 4
856.2	21" CARRIER PIPE (ASTM F679 115 PSI)	LF 4
856.3	36" STEEL CASING PIPE	LF 4
860	VERTICAL STACKS	VF 17
866	POST SEWER MAIN TELEVISION INSPECTION (18"-24")	LF 400

- NOTES**
- BEFORE COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CROSSING ELEVATIONS AND LOCATIONS. ANY UTILITY DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE DESIGN ENGINEER.
  - WASTEWATER CROSSINGS SHALL ADHERE TO TITLE 30 OF THE TEXAS ADMINISTRATIVE CODE, CHAPTER 290, SUBCHAPTER D, RULE TAC 217.53(d). SEPARATION DISTANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING WASTEWATER LINES WILL BE A MINIMUM OF 9 FEET AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
  - INLET PROTECTION SHALL BE INSTALLED AT ALL STORMWATER INLETS AND BE PROPERLY MAINTAINED DURING CONSTRUCTION.
  - DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, OPS ENERGY 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.

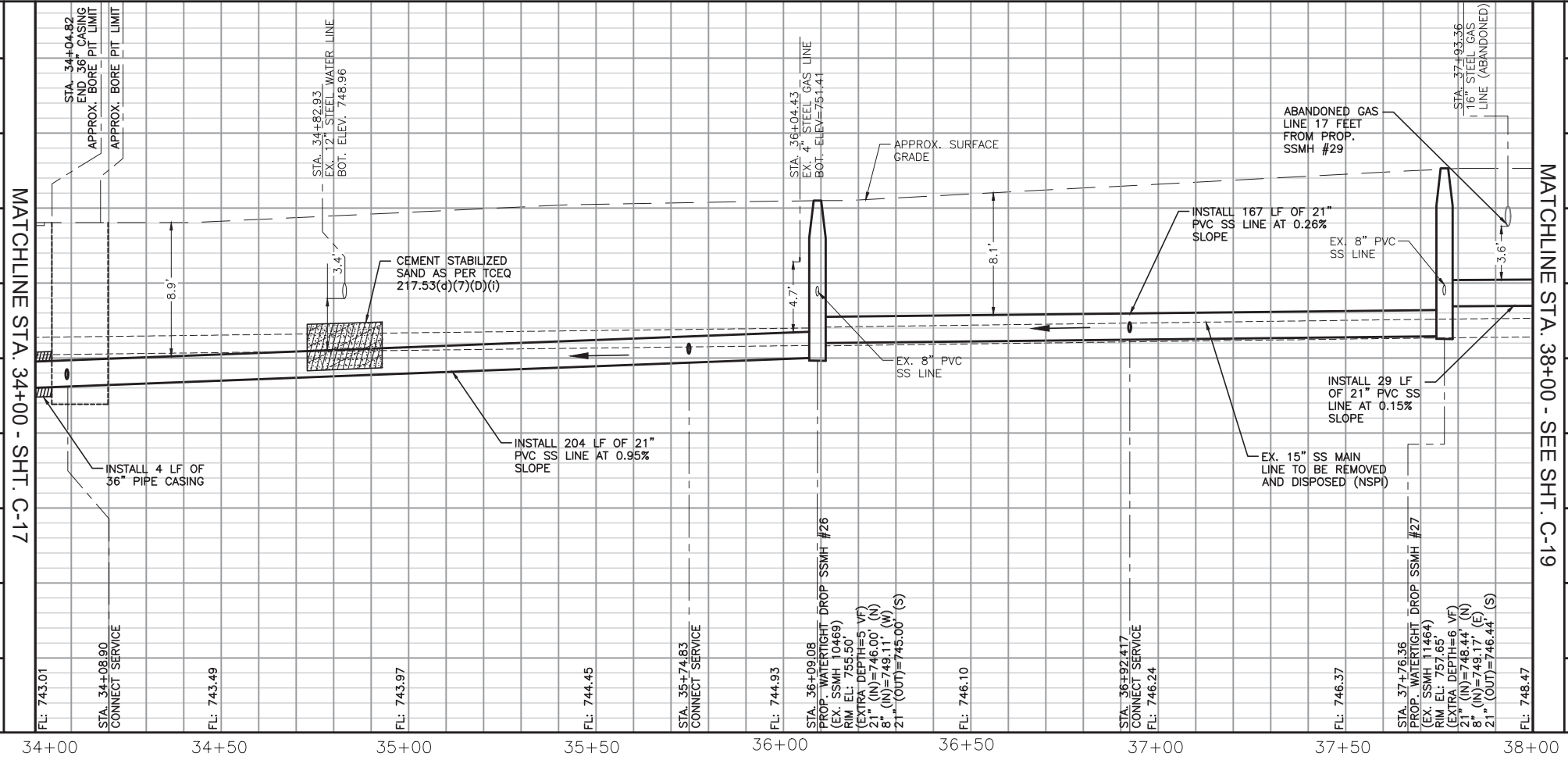
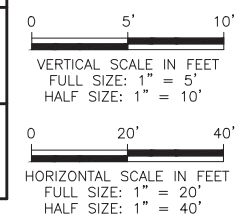


**LEGEND**

- PROPERTY LINE
- EX. WATER LINE
- SS EX. SANITARY SEWER LINE
- SD EX. STORM DRAIN LINE
- G EX. GAS LINE
- OHE EX. OVERHEAD POWER LINE
- UTY UTILITY POLE AND GUY WIRE
- CL EX. CHAIN LINK FENCE
- W EX. WOODEN FENCE
- ⊙ MH EX. MANHOLE
- ⊙ WV WATER VALVE
- ⊙ PP POWER POLE
- ⊙ BH BORE HOLE
- ⊙ S SIGN
- ⊙ T TREE
- ⊙ FH FIRE HYDRANT
- ⊙ GV GAS VALVE
- X — EX. SANITARY SEWER LINE TO BE ABANDONED
- ● — PROP. SANITARY SEWER LINE
- ⊙ PROP. MANHOLE
- ▨ PROP. CASING PIPE

**ABBREVIATIONS**

APPROX	APPROXIMATE
BOT	BOTTOM
COSA	CITY OF SAN ANTONIO
CPS	CITY PUBLIC SERVICE
DIA	DIAMETER
EA	EACH
ELEV	ELEVATION
EX	EXISTING
FL	FLOW LINE
FOC	FIBER OPTIC CABLE
GA	GALLON
HDPE	HIGH DENSITY POLYETHYLENE
ID	INSIDE DIAMETER
LF	LINEAR FEET
MH	MANHOLE
NSPI	NO SEPARATE PAY ITEM
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE PIPE
SPEC	SPECIFICATION
SS	SANITARY SEWER
STA	STATION
STL	STEEL
SY	SQUARE YARDS
TH	TEST HOLE
UNK	UNKNOWN
VF	VERTICAL FEET
WW	WASTEWATER



WESTON SOLUTIONS, INC.  
70 NE LOOP 410, SUITE 600  
SAN ANTONIO, TEXAS 78216-5842  
C-18 McCULLOUGH AVENUE SEWER REPLACEMENT

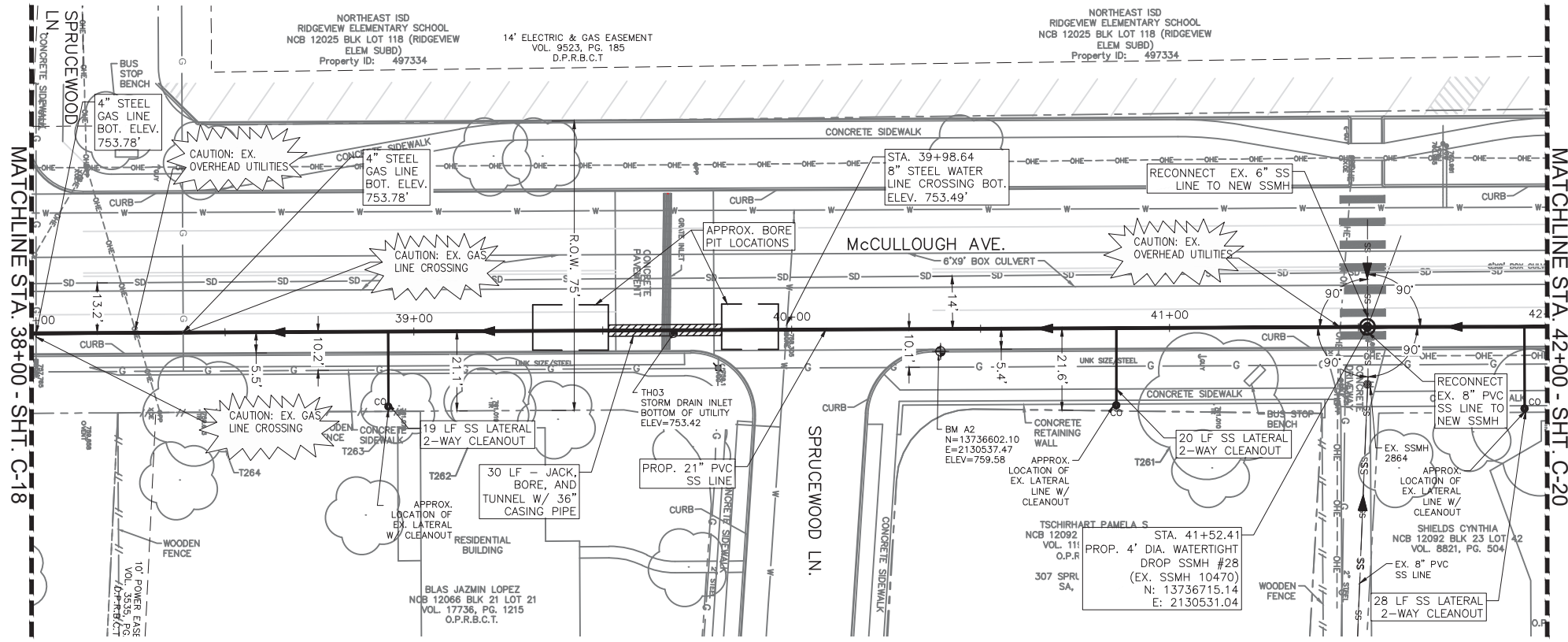
**San Antonio Water System**  
JOB NO. 17-4555

NOTES	INITIALS	DATE
DESIGNED BY	JB	11/20
REVIEWED BY	SI	11/20

SCALE: AS SHOWN

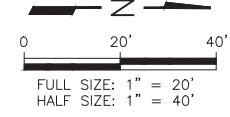
SHEET NO. **C-18**  
36 OF 74





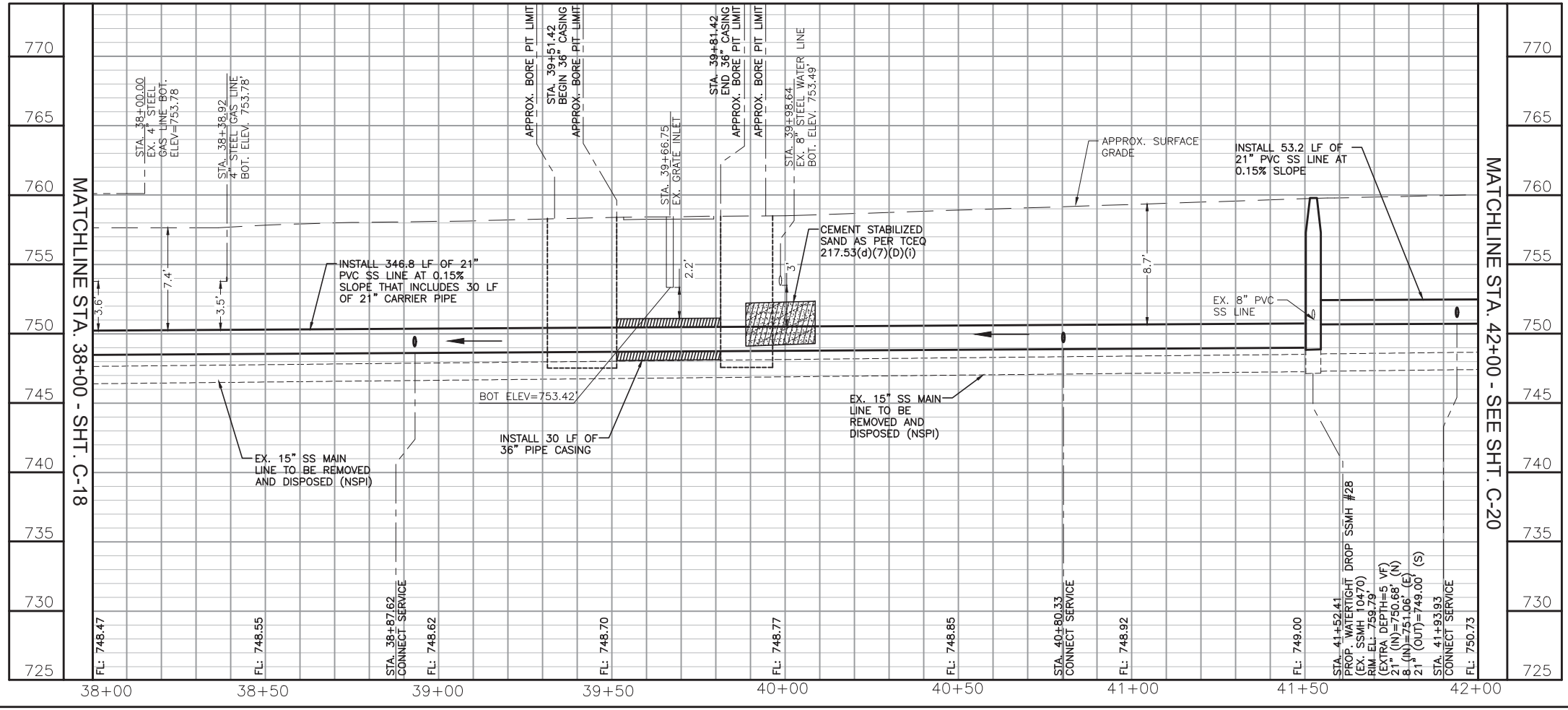
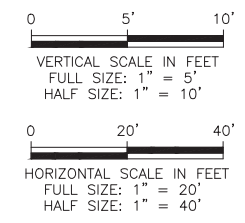
QUANTITIES TABLE			
ITEM	DESCRIPTION	UNIT	QUANTITY
103.1	REMOVE CONCRETE CURB (COSA SPEC)	LF	25
103.3	REMOVE CONCRETE SIDEWALKS AND DRIVEWAYS (COSA SPEC)	SF	125
500.1	CONCRETE CURB (COSA SPEC)	LF	25
502.1	CONCRETE SIDEWALKS (COSA SPEC)	SY	14
516.1	BERMUDA SODDING (<2000 SY)	SY	60
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	370
848	21" PVC SANITARY SEWER LINE (10'-15')	LF	370
852	SANITARY SEWER DROP MANHOLE (0'-6") 4" ID	EA	1
852	EXTRA DEPTH DROP MANHOLE (>6" DEPTH) 4" ID	VF	5
854	SANITARY SEWER LATERALS	LF	86
854.1	SANITARY SEWER CLEANOUTS (TWO-WAY)	EA	3
856.1	JACKING, BORING OR 36" TUNNELING PIPE	LF	30
856.2	21" CARRIER PIPE (ASTM F679 115 PSI)	LF	30
856.3	36" STEEL CASING PIPE (0.0438" THICKNESS MIN. YIELD STRENGTH 35,000 PSI)	LF	30
860	VERTICAL STACKS	VF	21
866	POST SEWER MAIN TELEVISION INSPECTION (18"-24")	LF	400

- NOTES
- BEFORE COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CROSSING ELEVATIONS AND LOCATIONS. ANY UTILITY DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE DESIGN ENGINEER.
  - WASTEWATER CROSSINGS SHALL ADHERE TO TITLE 30 OF THE TEXAS ADMINISTRATIVE CODE, CHAPTER 290, SUBCHAPTER D, RULE TAC 217.53(d). SEPARATION DISTANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING WASTEWATER LINES WILL BE A MINIMUM OF 9 FEET AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
  - INLET PROTECTION SHALL BE INSTALLED AT ALL STORMWATER INLETS AND BE PROPERLY MAINTAINED DURING CONSTRUCTION.
  - DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS ENERGY 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.
  - FOR INSTANCES WHERE THE TRENCH DEPTH IS MORE THAN 6" BELOW THE SEWER FLOW LINE DUE TO THE REMOVAL OF EXISTING SEWER PIPE, THE CONTRACTOR SHALL ENSURE BEDDING MATERIAL IS PLACED BETWEEN THE TRENCH BOTTOM AND THE SEWER FLOW LINE IN DIRECT CONTACT WITH THE BOTTOM OF THE PIPE.



- LEGEND**
- PROPERTY LINE
  - EX. WATER LINE
  - SS EX. SANITARY SEWER LINE
  - SD EX. STORM DRAIN LINE
  - G EX. GAS LINE
  - OHE EX. OVERHEAD POWER LINE
  - UTY UTILITY POLE AND GUY WIRE
  - CL EX. CHAIN LINK FENCE
  - WF EX. WOODEN FENCE
  - MH EX. MANHOLE
  - WV WATER VALVE
  - PP POWER POLE
  - BH BORE HOLE
  - SGN SIGN
  - TR TREE
  - FH FIRE HYDRANT
  - GV GAS VALVE
  - X EX. SANITARY SEWER LINE TO BE ABANDONED
  - P PROP. SANITARY SEWER LINE
  - PM PROP. MANHOLE
  - PC PROP. CASING PIPE

- ABBREVIATIONS**
- |        |                           |
|--------|---------------------------|
| APPROX | APPROXIMATE               |
| BOT    | BOTTOM                    |
| COSA   | CITY OF SAN ANTONIO       |
| CPS    | CITY PUBLIC SERVICE       |
| DIA    | DIAMETER                  |
| EA     | EACH                      |
| ELEV   | ELEVATION                 |
| EX     | EXISTING                  |
| FL     | FLOW LINE                 |
| FOC    | FIBER OPTIC CABLE         |
| GA     | GALLON                    |
| HDPE   | HIGH DENSITY POLYETHYLENE |
| ID     | INSIDE DIAMETER           |
| LF     | LINEAR FEET               |
| MH     | MANHOLE                   |
| NSPI   | NO SEPARATE PAY ITEM      |
| PROP   | PROPOSED                  |
| PVC    | POLYVINYL CHLORIDE PIPE   |
| SPEC   | SPECIFICATION             |
| SS     | SANITARY SEWER            |
| STA    | STATION                   |
| STL    | STEEL                     |
| SY     | SQUARE YARDS              |
| TH     | TEST HOLE                 |
| UNK    | UNKNOWN                   |
| VF     | VERTICAL FEET             |
| WW     | WASTEWATER                |



	REVISION DESCRIPTION				
REV. NO.	DATE	BY	DESCRIPTION		
1	12/16/20	JB	ADDENDUM 2		

WESTON SOLUTIONS, INC.  
70 NE LOOP 410, SUITE 600  
SAN ANTONIO, TEXAS 78216-5842  
C-18 McCULLOUGH AVENUE SEWER REPLACEMENT

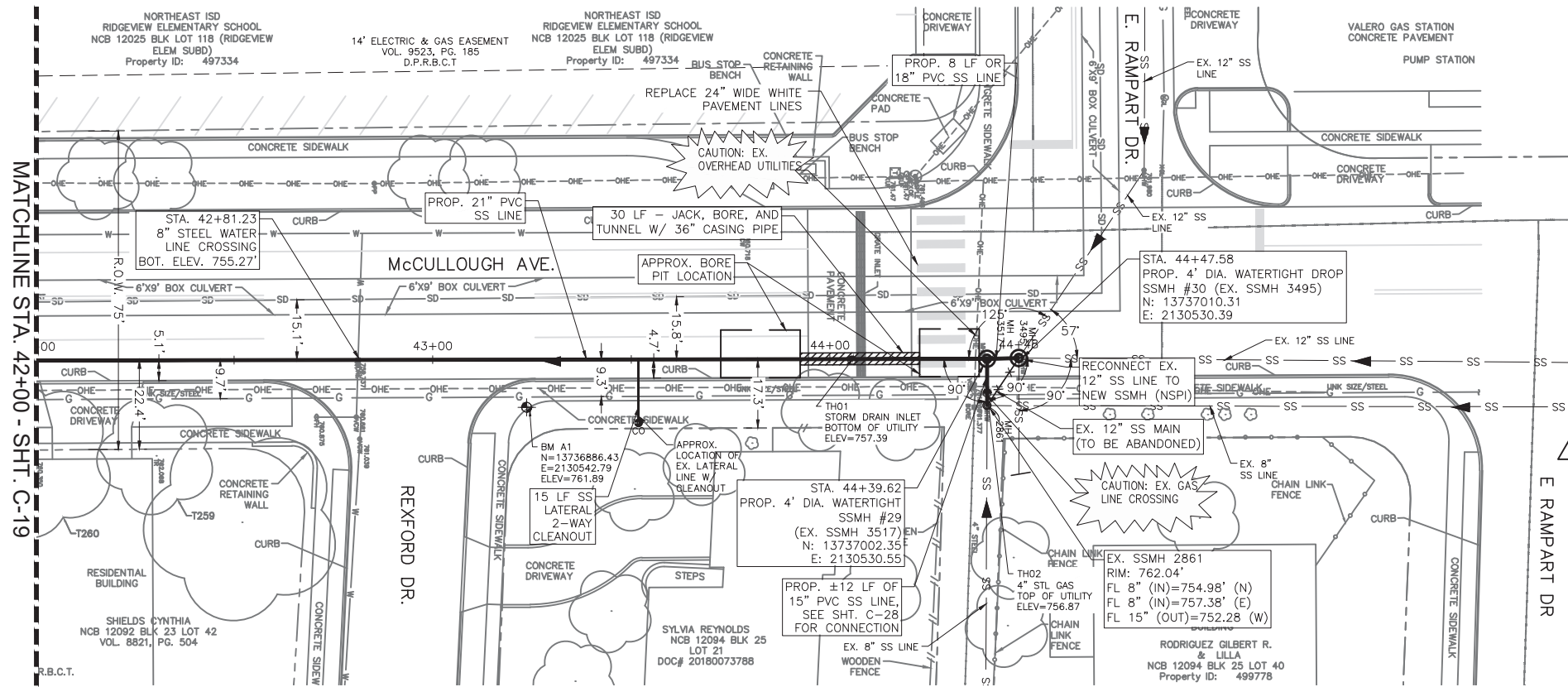
**McCULLOUGH AVE. SANITARY SEWER LINE  
PLAN AND PROFILE STA. 38+00 TO 42+00**

**San Antonio Water System**  
JOB NO. 17-4555

NOTES	INITIALS	DATE
DESIGNED BY	JB	11/20
REVIEWED BY	SI	11/20
SCALE:	AS SHOWN	
SHEET NO.	<b>C-19</b>	
	37 OF 74	

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QUANTITIES TABLE			
ITEM	DESCRIPTION	UNIT	QUANTITY
103.1	REMOVE CONCRETE CURB (COSA SPEC)	LF	180
103.3	REMOVE CONCRETE SIDEWALKS AND DRIVEWAYS (COSA SPEC)	SF	475
500.1	CONCRETE CURB (COSA SPEC)	LF	180
502.1	CONCRETE SIDEWALKS (COSA SPEC)	SY	42
503.1	PORTLAND CEMENT CONCRETE DRIVEWAY (<100 SY)	SY	10
516.1	BERMUDA SODDING (<2000 SY)	SY	60
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	207
848	21" PVC SANITARY SEWER LINE (10'-15')	LF	204
852	SANITARY SEWER MANHOLE (0'-6") 4' ID	EA	1
852	EXTRA DEPTH MANHOLE (>6' DEPTH) 4' ID	VF	5
852	SANITARY SEWER DROP MANHOLE (0'-6") 4' ID	EA	1
852	EXTRA DEPTH DROP MANHOLE (>6' DEPTH) 4' ID	VF	4
854	SANITARY SEWER LATERALS	LF	28
854.1	SANITARY SEWER CLEANOUTS (TWO-WAY)	EA	1
856.1	JACKING, BORING OR 36" TUNNELING PIPE	LF	30
856.2	21" CARRIER PIPE (ASTM F679 115 PSI)	LF	30
856.3	36" STEEL CASING PIPE (0.0438" THICKNESS MIN. YIELD STRENGTH 35,000 PSI)	LF	30
866	POST SEWER MAIN TELEVISION INSPECTION (18"-24")	LF	234

- NOTES**
- BEFORE COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CROSSING ELEVATIONS AND LOCATIONS. ANY UTILITY DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE DESIGN ENGINEER.
  - WASTEWATER CROSSINGS SHALL ADHERE TO TITLE 30 OF THE TEXAS ADMINISTRATIVE CODE, CHAPTER 290, SUBCHAPTER D, RULE TAC 217.53(d). SEPARATION DISTANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING WASTEWATER LINES WILL BE A MINIMUM OF 9 FEET AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
  - INLET PROTECTION SHALL BE INSTALLED AT ALL STORMWATER INLETS AND BE PROPERLY MAINTAINED DURING CONSTRUCTION.
  - DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS ENERGY 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.
  - FOR INSTANCES WHERE THE TRENCH DEPTH IS MORE THAN 6" BELOW THE SEWER FLOW LINE DUE TO THE REMOVAL OF EXISTING SEWER PIPE, THE CONTRACTOR SHALL ENSURE BEDDING MATERIAL IS PLACED BETWEEN THE TRENCH BOTTOM AND THE SEWER FLOW LINE IN DIRECT CONTACT WITH THE BOTTOM OF THE PIPE.

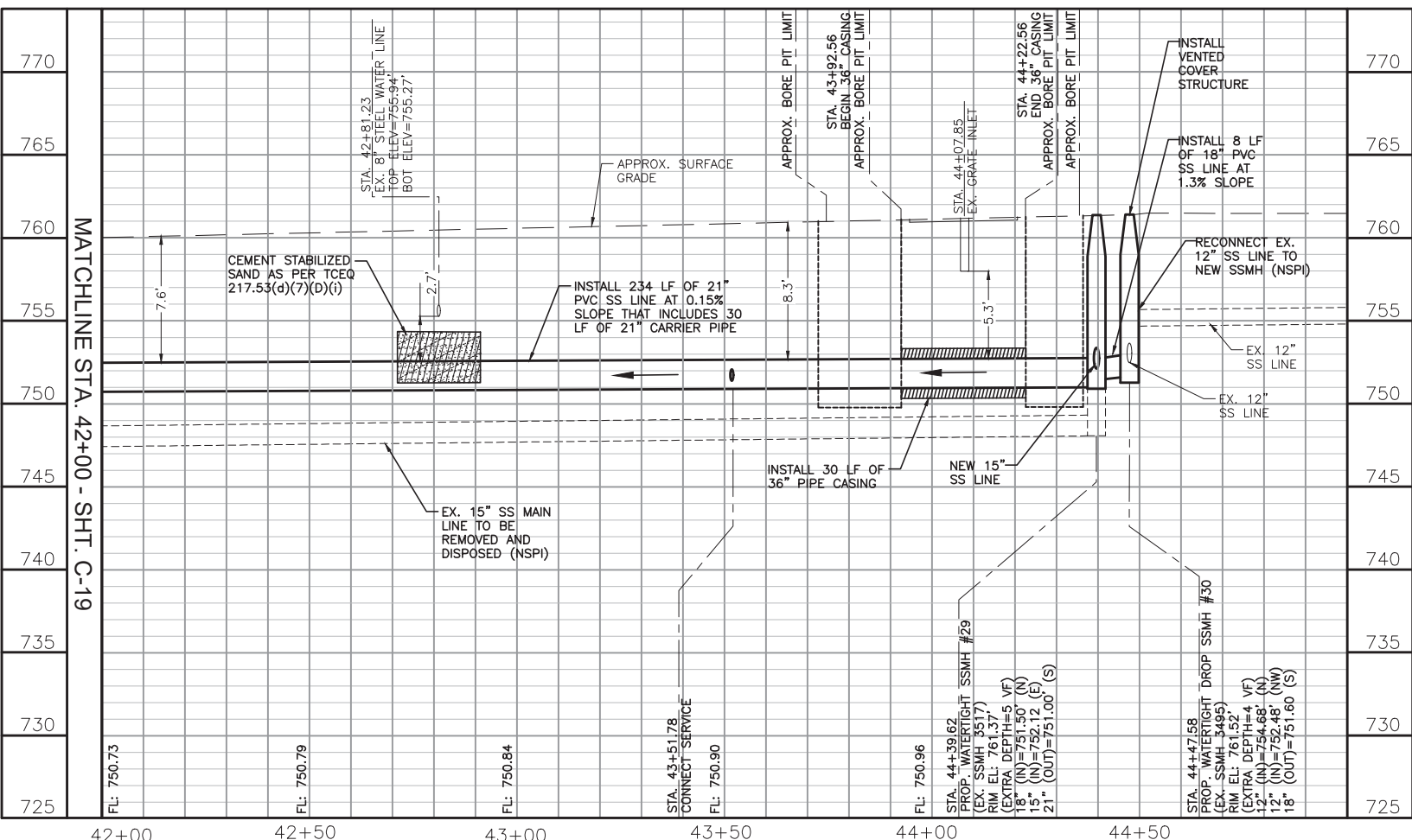
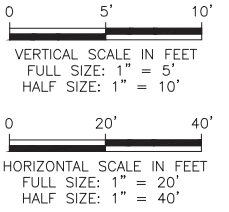


**ABBREVIATIONS**

- APPROX APPROXIMATE
- BOT BOTTOM
- COSA CITY OF SAN ANTONIO
- CPS CITY PUBLIC SERVICE
- DIA DIAMETER
- EA EACH
- ELEV ELEVATION
- EX EXISTING
- FL FLOW LINE
- FOC FIBER OPTIC CABLE
- GA GALLON
- HDPE HIGH DENSITY POLYETHYLENE
- ID INSIDE DIAMETER
- LF LINEAR FEET
- MH MANHOLE
- NSPI NO SEPARATE PAY ITEM
- PROP PROPOSED
- PVC POLYVINYL CHLORIDE PIPE
- SPEC SPECIFICATION
- SS SANITARY SEWER
- STA STATION
- STL STEEL
- SY SQUARE YARDS
- TH TEST HOLE
- UNK UNKNOWN
- VF VERTICAL FEET
- WW WASTEWATER

**LEGEND**

- - - - - PROPERTY LINE
- - - - - EX. WATER LINE
- - - - - EX. SANITARY SEWER LINE
- - - - - EX. STORM DRAIN LINE
- - - - - EX. GAS LINE
- - - - - EX. OVERHEAD POWER LINE
- ○ ○ ○ ○ UTILITY POLE AND GUY WIRE
- ○ ○ ○ ○ EX. CHAIN LINK FENCE
- ○ ○ ○ ○ EX. WOODEN FENCE
- ○ ○ ○ ○ EX. MANHOLE
- ○ ○ ○ ○ WATER VALVE
- ○ ○ ○ ○ POWER POLE
- ○ ○ ○ ○ BORE HOLE
- ○ ○ ○ ○ SIGN
- ○ ○ ○ ○ TREE
- ○ ○ ○ ○ FIRE HYDRANT
- ○ ○ ○ ○ GAS VALVE
- ○ ○ ○ ○ EX. SANITARY SEWER LINE TO BE ABANDONED
- ○ ○ ○ ○ PROP. SANITARY SEWER LINE
- ○ ○ ○ ○ PROP. MANHOLE
- ○ ○ ○ ○ PROP. CASING PIPE



REV. NO.	DATE	REVISION DESCRIPTION
1	12/16/20	ADDENDUM 2

WESTON SOLUTIONS, INC.  
70 NE LOOP 410, SUITE 600  
SAN ANTONIO, TEXAS 78216-5842  
C-18 McCULLOUGH AVENUE SEWER REPLACEMENT

**McCULLOUGH AVE. SANITARY SEWER LINE  
PLAN AND PROFILE STA. 42+00 TO 44+47.58**

**San Antonio Water System**  
JOB NO. 17-4555

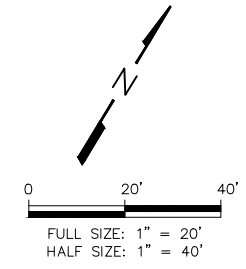
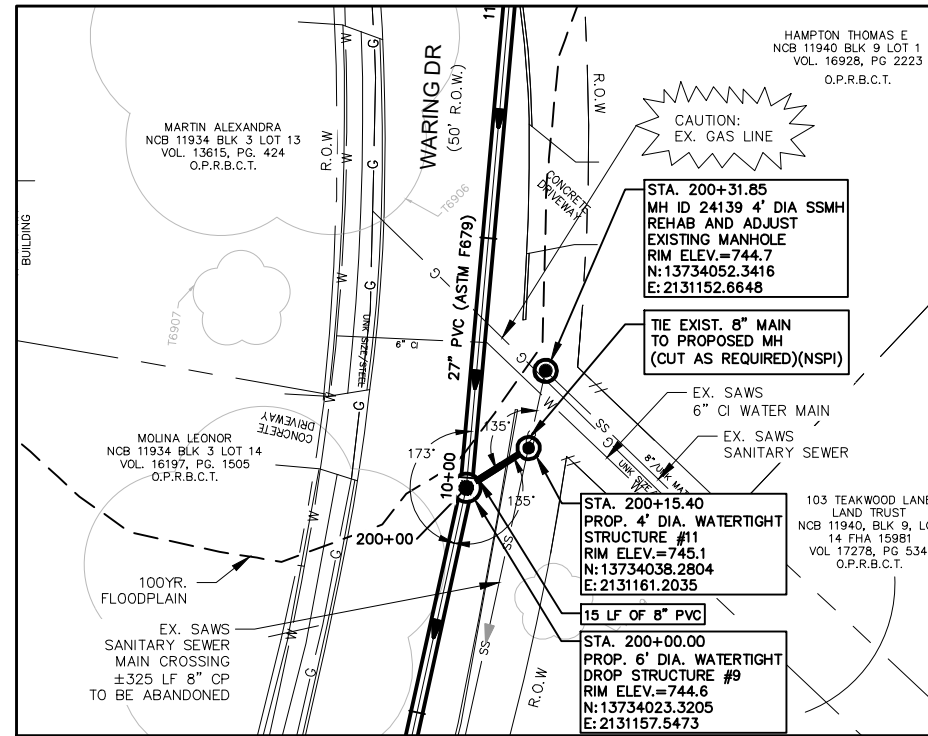
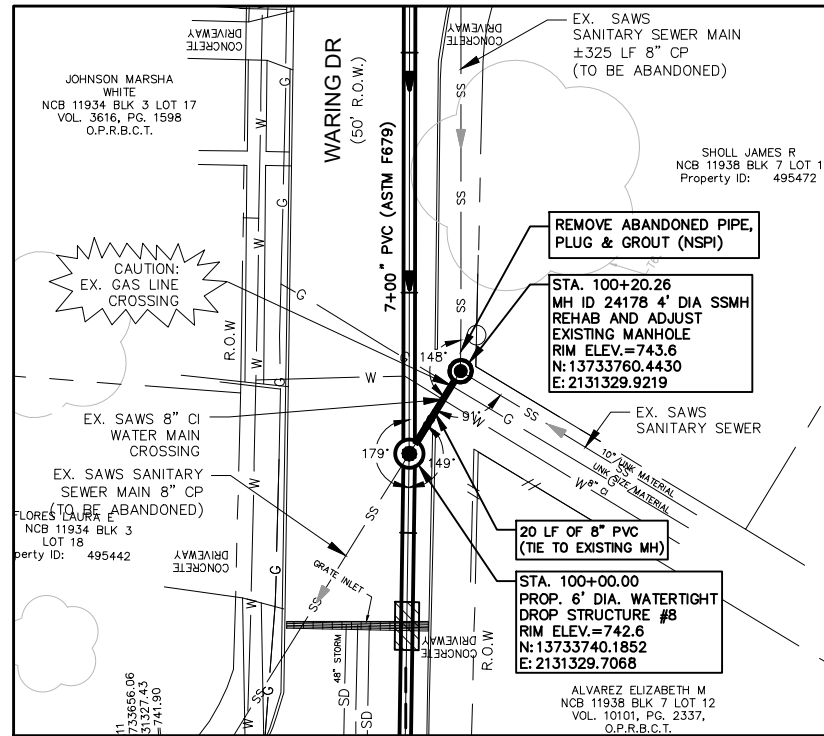
NOTES	INITIALS	DATE
DESIGNED BY	JB	11/20
REVIEWED BY	SI	11/20

SCALE: AS SHOWN

SHEET NO. **C-20**  
38 OF 74



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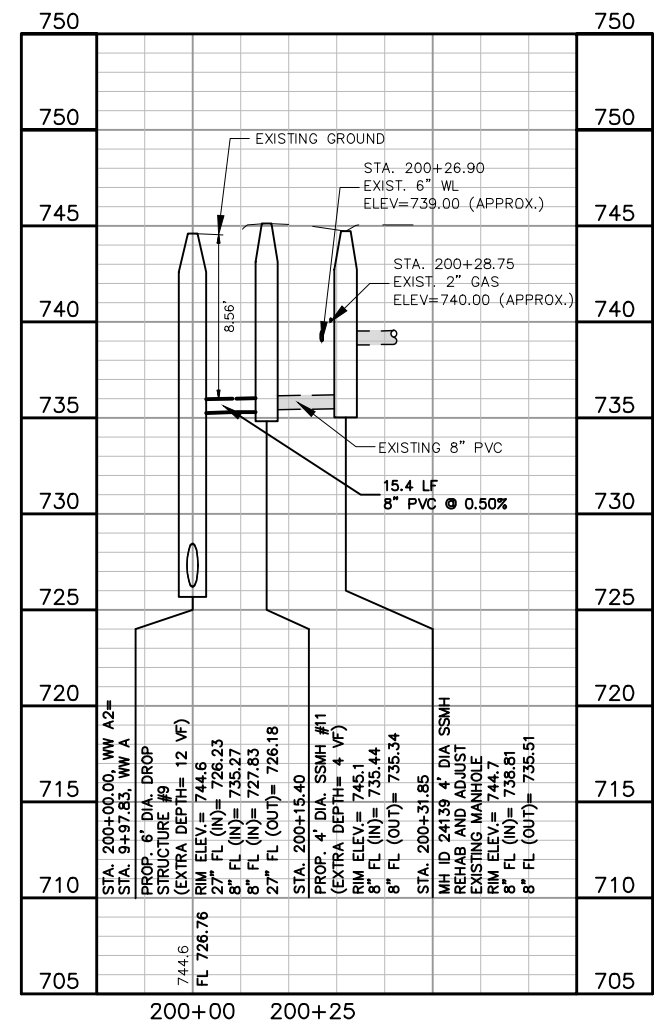
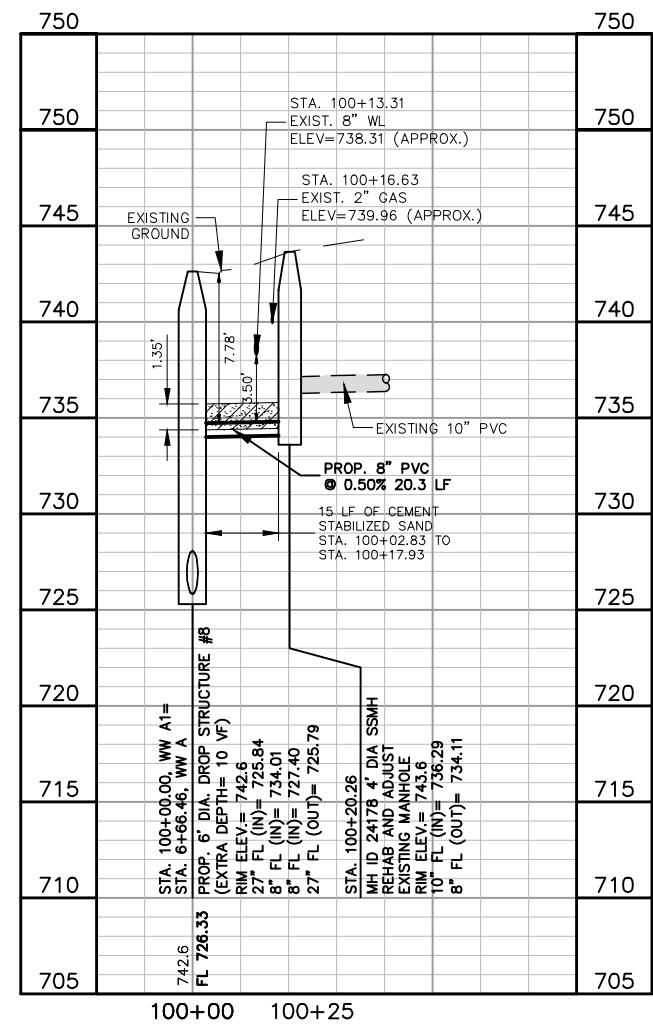
QUANTITIES TABLE			
ITEM	DESCRIPTION	UNIT	QUANTITY
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	35.7
848	8" PVC SANITARY SEWER (6'-10' DEPTH)	LF	35.7
851	EXISTING MANHOLE ADJUSTMENT	EA	2
852	4' DIA. SANITARY SEWER MANHOLE	EA	1
852	EXTRA DEPTH MANHOLES (>6' DEPTH) (4' ID)	VF	4
866	POST SEWER TELEVISION INSPECTION (8"-15")	LF	35.7
910	MANHOLE REHAB	VF	20

NOTES

- BEFORE COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CROSSING ELEVATIONS AND LOCATIONS. ANY UTILITY DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE DESIGN ENGINEER.
- SANITARY SEWER CROSSINGS SHALL ADHERE TO TITLE 30 OF THE TEXAS ADMINISTRATIVE CODE, CHAPTER 217, SUBCHAPTER C, RULE 217.53(d). SEPARATION DISTANCE BETWEEN THE EXISTING WATER MAIN AND THE PROPOSED SANITARY SEWER LINES WILL BE A MINIMUM OF 9 FEET AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
- INLET PROTECTION SHALL BE INSTALLED AT ALL STORMWATER INLETS AND BE PROPERLY MAINTAINED DURING CONSTRUCTION.
- DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CENTERPOINT ENERGY 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.
- CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING ALL UTILITY CROSSINGS FOR OPEN CUT CONSTRUCTION.
- FLOWABLE FILL BACKFILL SHALL BE SUBSIDIARY TO THE INSTALLATION OF PIPE.
- SEE PAVEMENT PLANS FOR PAVEMENT REPLACEMENT LIMITS AND DETAILS.

EXISTING MH #24178 AND PROPOSED STRUCTURE #8  
SEE SHEET C-10

PROPOSED STRUCTURE #9 AND PROPOSED MANHOLE #11  
SEE SHEET C-11

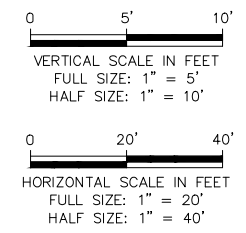


LEGEND

- PROPERTY LINE
- W --- EX. WATER LINE
- SS --- EX. SANITARY SEWER LINE
- SS --- ABANDONED SANITARY SEWER LINE
- SD --- EX. STORM DRAIN LINE
- G --- EX. GAS LINE
- G --- ABANDONED GAS LINE
- OHE --- EX. OVERHEAD POWER LINE
- UTILITY POLE AND GUY WIRE
- EX. CHAIN LINK FENCE
- EX. WOODEN FENCE
- MH --- EX. MANHOLE
- WV --- WATER VALVE
- PP --- POWER POLE
- BH --- BORE HOLE
- S --- SIGN
- PH --- FIRE HYDRANT
- GV --- GAS VALVE
- EX. SANITARY SEWER LINE TO BE ABANDONED
- PROP. SANITARY SEWER LINE
- M --- PROP. MANHOLE

ABBREVIATIONS

- |        |                         |
|--------|-------------------------|
| APPROX | APPROXIMATE             |
| BOT    | BOTTOM                  |
| COSA   | CITY OF SAN ANTONIO     |
| DIA    | DIAMETER                |
| EA     | EACH                    |
| ELEV   | ELEVATION               |
| EX     | EXISTING                |
| FL     | FLOW LINE               |
| FOC    | FIBER OPTIC CABLE       |
| GA     | GALLON                  |
| ID     | INSIDE DIAMETER         |
| LF     | LINEAR FEET             |
| MH     | MANHOLE                 |
| NSPI   | NO SEPARATE PAY ITEM    |
| PROP   | PROPOSED                |
| PVC    | POLYVINYL CHLORIDE PIPE |
| SPEC   | SPECIFICATION           |
| SS     | SANITARY SEWER          |
| STA    | STATION                 |
| STL    | STEEL                   |
| SY     | SQUARE YARDS            |
| TH     | TEST HOLE               |
| UNK    | UNKNOWN                 |
| VF     | VERTICAL FEET           |
| WW     | WASTEWATER              |
| WMMH   | WASTEWATER MANHOLE      |



REV. NO.	DATE	REVISION DESCRIPTION			
1	12/16/20	ADDENDUM 2			
100 NE Loop 410, Suite 1090 San Antonio, Texas 78216 TBPE #F-14629					
C-18 McCULLOUGH AVENUE SEWER REPLACEMENT <b>SANITARY SEWER LINE A</b> <b>LATERAL PLAN &amp; PROFILES</b>					
NOTES		INITIALS	DATE		
DESIGNED BY	BAL		09/20		
REVIEWED BY	KF		09/20		
SCALE:		AS SHOWN			
SHEET NO.	C-29		47 OF 74		