



**Eastern Sewershed Package IV Project
Solicitation Number: CO-00149
Job No.: 17-4527**

**ADDENDUM 1
April 20, 2018**

To Bidder of Record:

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

CHANGES TO THE SPECIFICATIONS

1. Bid Proposal (BP-2 & BP-3) - Remove the bid proposal in its entirety and replace with the attached. This revised version should be used by bidders when submitting a bid for this project. The following items were updated:
Item 866 – description changed.
2. Insert Special Provisions to Technical Specifications (SPTS–5) with attached Special Provisions (SPTS–5). The following items added:
 - a. Item 100 - Mobilization
 - b. Item 101 – Preparation of Right-of-Way
3. Insert the following into special conditions:
Videos are available for download. To access the videos the bidder must complete and submit the Disclaimer form, found at the following link:

http://www.saws.org/business_center/ContractSol/Drill.cfm?id=3157&View=Yes

The completed form should be returned to Stella Manzello, Contract Administrator, at Stella.Manzello@saws.org. The password required to view the videos will be provided upon receipt of this form. NOTE: These videos are provided for information purposes only, and are not included in the bid documents. The deterioration is an ongoing process, so the condition at the time of construction may be substantially different from that shown in the videos.

CHANGES TO THE PLANS

1. Plan Sheet 2- Replace sheet dated 01/05/2018 with attached sheet 04/11/2018. Updates to plan sheets consist of revisions to pay item no.'s and/or pay item descriptions.
2. Plan Sheets 17-55- Replace sheet dated 01/05/2018 with attached sheet 04/11/2018. Updates to plan sheets consist of revisions to pay item no.'s and/or pay item descriptions.

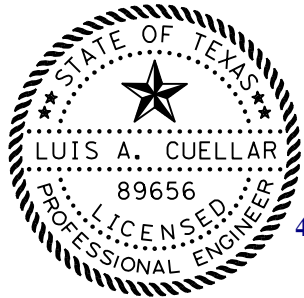
END OF ADDENDUM

This Addendum, including these two pages, is forty-four (45) pages with attachments in its entirety.

- Attachments:
- Bid Proposal, page BP-2 and BP-3
 - Special Provision to Technical Specifications SPTS-5
 - Plan sheet 2
 - Plan sheets 17-55.



Luis Cuellar
RPS



4/18/2018



Solicitation No. CO-00149

SAWS Job No 17-4527

Proposal Eastern Sewershed Package IV

Item No.	Spec No	Specification No. & Description	Unit	Qty	Unit Price	Total Price
1	COSA-413.1	Flowable Fill (Low Strength)	CY	50	\$	\$
2	COSA-520	Hydromulch	SY	2200		
3	530.1	Barricade, Signs, and Traffic Handling	LS	1	\$	\$
4	COSA - 540	Storm Water Pollution Prevention Plan	LS	1	\$	\$
5	550	Trench Excavation Safety Protection	LF	130	\$	\$
6	851.1	Manhole Adjustment	EA	24	\$	\$
7	852.1	Sanitary Sewer Manhole (0-6' Depth)	EA	1	\$	\$
8	852.2	Sanitary Sewer Manhole (Extra depth Manhole)	VF	6	\$	\$
9	855	Reconstruction of Existing Manhole	EA	3	\$	\$
10	858	Concrete Encasement, Cradles, Saddles, and Collars	CY	17	\$	\$
11	864-S2	Bypass Pumping Large Diameter (Project Location J)	LS	1	\$	\$
12	864-S2	Bypass Pumping Large Diameter (Project Location K)	LS	1	\$	\$
13	864-S2	Bypass Pumping Large Diameter (Project Location P)	LS	1	\$	\$
14	864-S2	Bypass Pumping Large Diameter (Project Location T)	LS	1	\$	\$
15	864-S2	Bypass Pumping Large Diameter (Project Location Z)	LS	1	\$	\$
16	866	Sewer Main Television Inspection(18" Through 27")	LF	11428	\$	\$
17	866	Sewer Main Television Inspection(30" and larger)	LF	3134	\$	\$
18	901	24-Inch CIPP Sewer Main Rehabilitation (Water Cured) All Depths	LF	11029	\$	\$
19	901	27-Inch CIPP Sewer Main Rehabilitation (Water Cured) All Depths	LF	399	\$	\$
20	901	30-Inch CIPP Sewer Main Rehabilitation (Water Cured) All Depths	LF	1382	\$	\$
21	901	42-Inch CIPP Sewer Main Rehabilitation (Water Cured) All Depths	LF	1752	\$	\$
22	910.1	Manhole Rehabilitation	VF	329	\$	\$
23	1103	24- Inch Pipe Point Repair , All Depths	EA	1	\$	\$
24	1103	27- Inch Pipe Point Repair , All Depths	EA	1	\$	\$
25	1103	42- Inch Pipe Point Repair , All Depths	EA	2	\$	\$



Solicitation No. CO-00149

SAWS Job No 17-4527

Proposal Eastern Sewershed Package IV

26	1103.2	Extra Length Point Repair, 27-Inch Pipe, All Depths	LF	93	\$	\$
27	1103.4	Obstruction Removal by Remote, 24" Diameter, All Depths	EA	1	\$	\$
28	1103.4	Obstruction Removal by Remote, 42" Diameter, All Depths	EA	21	\$	\$

Special Provisions to Technical Specifications

F. Special Provision to Item NO. 100 Mobilization

100.2 Measurement: Delete this section in its entirety

100.3 Payment: Delete this section in its entirety and **Replace** with following:

Mobilization, including cost for insurance and bonds, will not be measured or paid for directly, but shall be included in the unit price bid for the items of construction in which the work occurs.

G. Special Provision to Item NO. 101 Preparing Right-of-Way

101.3 Measurement: Delete this section in its entirety

101.4 Payment: Delete this section in its entirety and **Replace** with following:

Preparing Right-of-Way will not be measured or paid for directly, but shall be included in the unit price bid for the items of construction in which the work occurs.

INDEX OF SHEETS

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ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
	COSA-413.1* FLOWABLE FILL (LOW STRENGTH)	CY	50
	COSA-520* HYDROMULCH	SY	2200
530.1	BARRICADE, SIGNS, AND TRAFFIC HANDLING	LS	1
	COSA-540 STORM WATER POLLUTION PREVENTION PLAN	LS	1
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	130
851.1	MANHOLE ADJUSTMENT	EA	24
852.1	SANITARY SEWER MANHOLE, (0-6' DEPTH)	EA	1
852.2	SANITARY SEWER MANHOLE, (EXTRA DEPTH MANHOLE)	VF	6
855	RECONSTRUCTION OF EXISTING MANHOLE	EA	3
858	CONCRETE ENCASEMENT, CRADLES, SADDLES, AND COLLARS	CY	17
864-S2	BYPASS PUMPING LARGE DIAMETER (PROJECT LOCATION J)	LS	1
864-S2	BYPASS PUMPING LARGE DIAMETER (PROJECT LOCATION K)	LS	1
864-S2	BYPASS PUMPING LARGE DIAMETER (PROJECT LOCATION P)	LS	1
864-S2	BYPASS PUMPING LARGE DIAMETER (PROJECT LOCATION T)	LS	1
864-S2	BYPASS PUMPING LARGE DIAMETER (PROJECT LOCATION Z)	LS	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	11428
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	3134
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	11029
901	27-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	399
901	30-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	1382
901	42-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	1752
910.1	MANHOLE REHABILITATION	VF	329
1103	24-INCH PIPE POINT REPAIR, ALL DEPTHS	EA	1
1103	27-INCH PIPE POINT REPAIR, ALL DEPTHS	EA	1
1103	42-INCH PIPE POINT REPAIR, ALL DEPTHS	EA	2
1103.2	EXTRA LENGTH POINT REPAIR, 27-INCH PIPE, ALL DEPTHS	LF	93
1103.4	OBSTRUCTION REMOVAL BY REMOTE, 24" DIAMETER, ALL DEPTHS	EA	1
1103.4	OBSTRUCTION REMOVAL BY REMOTE, 42" DIAMETER, ALL DEPTHS	EA	21
*	SEE SHEET 3 GENERAL NOTES, ADDITIONAL NOTE 16.		

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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY LUIS A. CUELLAR P.E. 89656 04/11/2018

R.A. Cuellar



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NO.	REVISION	DRAWN	APPROVED	DATE

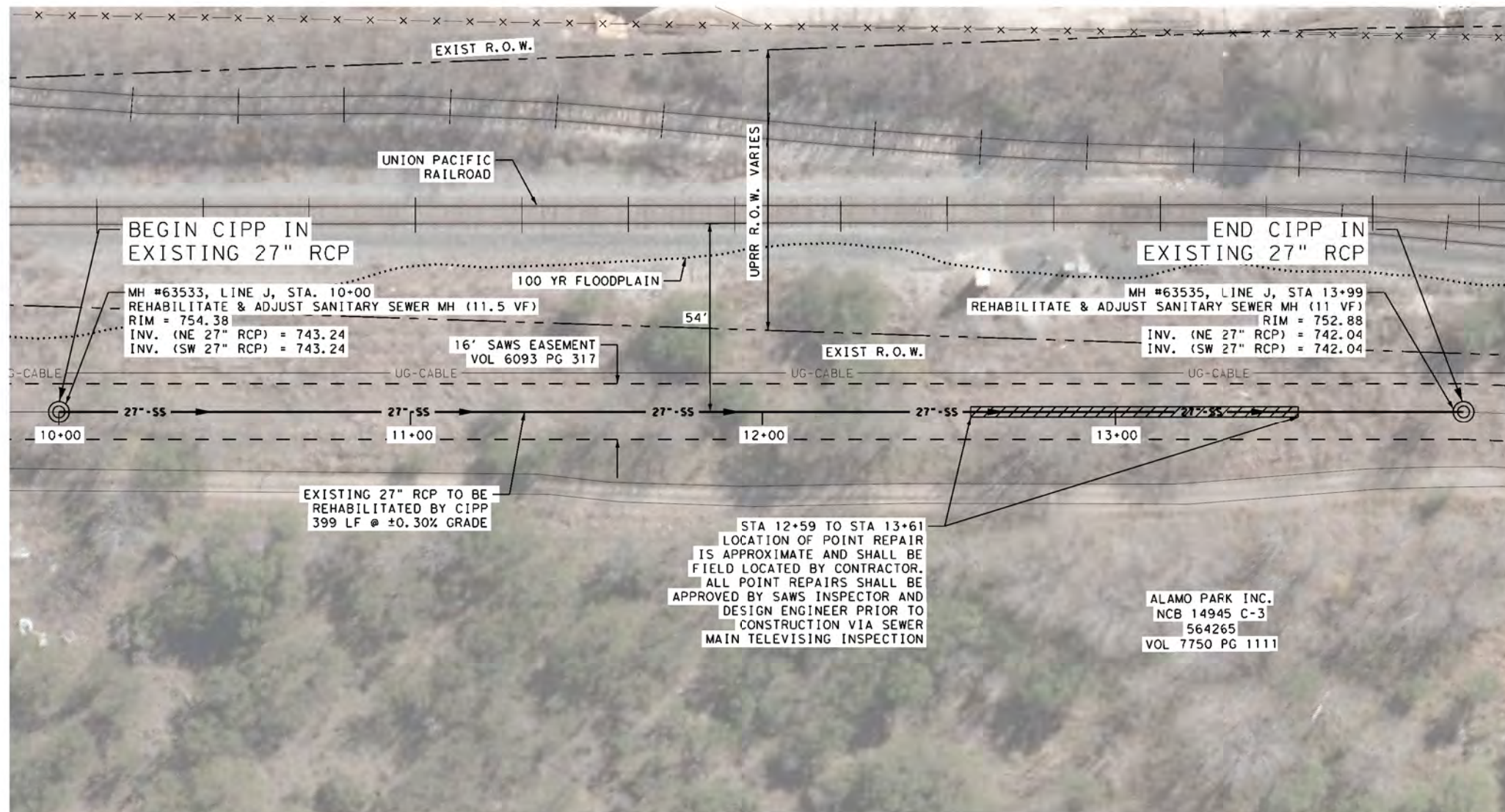
REVISIONS

EASTERN SEWERSHED PACKAGE IV

INDEX AND QUANTITIES

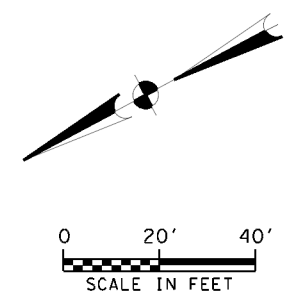
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CONT.	BUDGET PROJ.
SUBMITTED 1/5/2018	
APPROVED _____	
MAP No.	SHEET
SECT. No.	SHEET: 2 OF 61
DR.	CK.
JOB No.	17-4527

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SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



NOTES

- 1 THE EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE BASED UPON RECORDED INFORMATION ONLY AND ARE APPROXIMATE. THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT TEXAS STATE WIDE ONE CALL (811) PRIOR TO THE BEGINNING OF WORK. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL AND ANY DAMAGES THAT MIGHT OCCUR BY HIS FAILURE TO ACCURATELY LOCATE ALL EXISTING UNDERGROUND UTILITIES AND PRESERVE
- 2 ALL CONSTRUCTION ACTIVITY SHALL BE MAINTAINED WITHIN THE SAWS EASEMENT UNLESS A TEMPORARY CONSTRUCTION EASEMENT, AGREEMENT, OR RIGHT OF ENTRY PERMITTING IS PROVIDED BY SAWS.
- 3 CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SEWER SERVICE TO EXISTING SEWER MAINS AND SERVICES AT ALL TIMES.
- 4 CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS THROUGH ALL DRIVEWAYS FOR EMERGENCY ACCESS.
- 5 THE CONTRACTOR SHALL REFER TO THE SEWER LAYOUT AND CONTROL PLAN (SHEETS 4-9) FOR APPROXIMATE LOCATION OF 100 YEAR FLOODPLAIN.
- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.

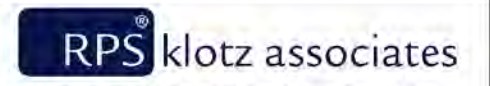
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	2
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	399
901	27-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	399
910.1	MANHOLE REHABILITATION	VF	22.5
1103	27-INCH PIPE POINT REPAIR, ALL DEPTHS	EA	1
1103.2	EXTRA LENGTH POINT REPAIR, 27-INCH PIPE, ALL DEPTHS	LF	93



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 04/11/2018

R.A. Cull



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No.	Revision	Drawn	Approved	Date

EA EASTERN SEWERSHED PACKAGE IV
 SEWER PLAN - LINE J
 BEGIN TO STA. 13+97

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED

MAP No.	SHEET: 17 OF 61	SHEET
DR. GP CK.	JOB No. 17-4527	17

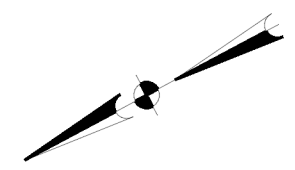
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MATCH LINE - STA. 14+00

SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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- 4 CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS THROUGH ALL DRIVEWAYS FOR EMERGENCY ACCESS.
- 5 THE CONTRACTOR SHALL REFER TO THE SEWER LAYOUT AND CONTROL PLAN (SHEETS 4-9) FOR APPROXIMATE LOCATION OF 100 YEAR FLOODPLAIN.
- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.
- 7 CONTRACTOR SHALL VENT MANHOLES AT MINIMUM EVERY 1500 LF. VENTED MANHOLES ARE IDENTIFIED IN PLANS.

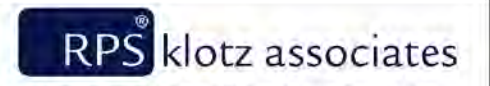
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	2
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	23.5



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
 LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cuellar



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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

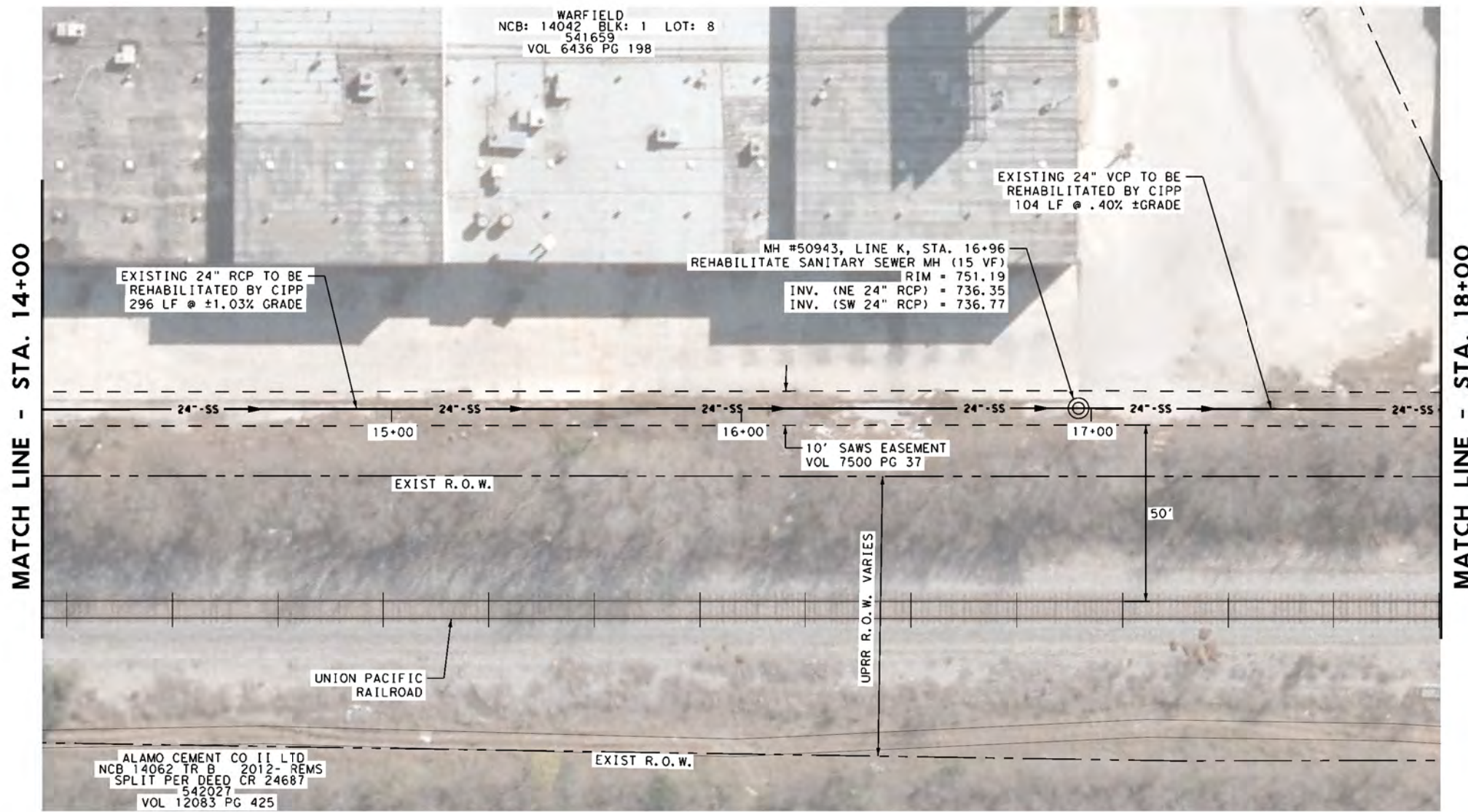
EASTERN SEWERSHED PACKAGE IV
 SEWER PLAN - LINE K
 BEGIN TO STA. 14+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED _____

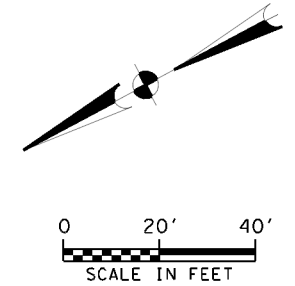
MAP No.	SHEET: 18 OF 61	SHEET 18
DR. GP CK.	JOB No. 17-4527	

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SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
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SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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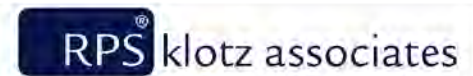
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910.1	MANHOLE REHABILITATION	VF	15



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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

EASTERN SEWERSHED PACKAGE IV

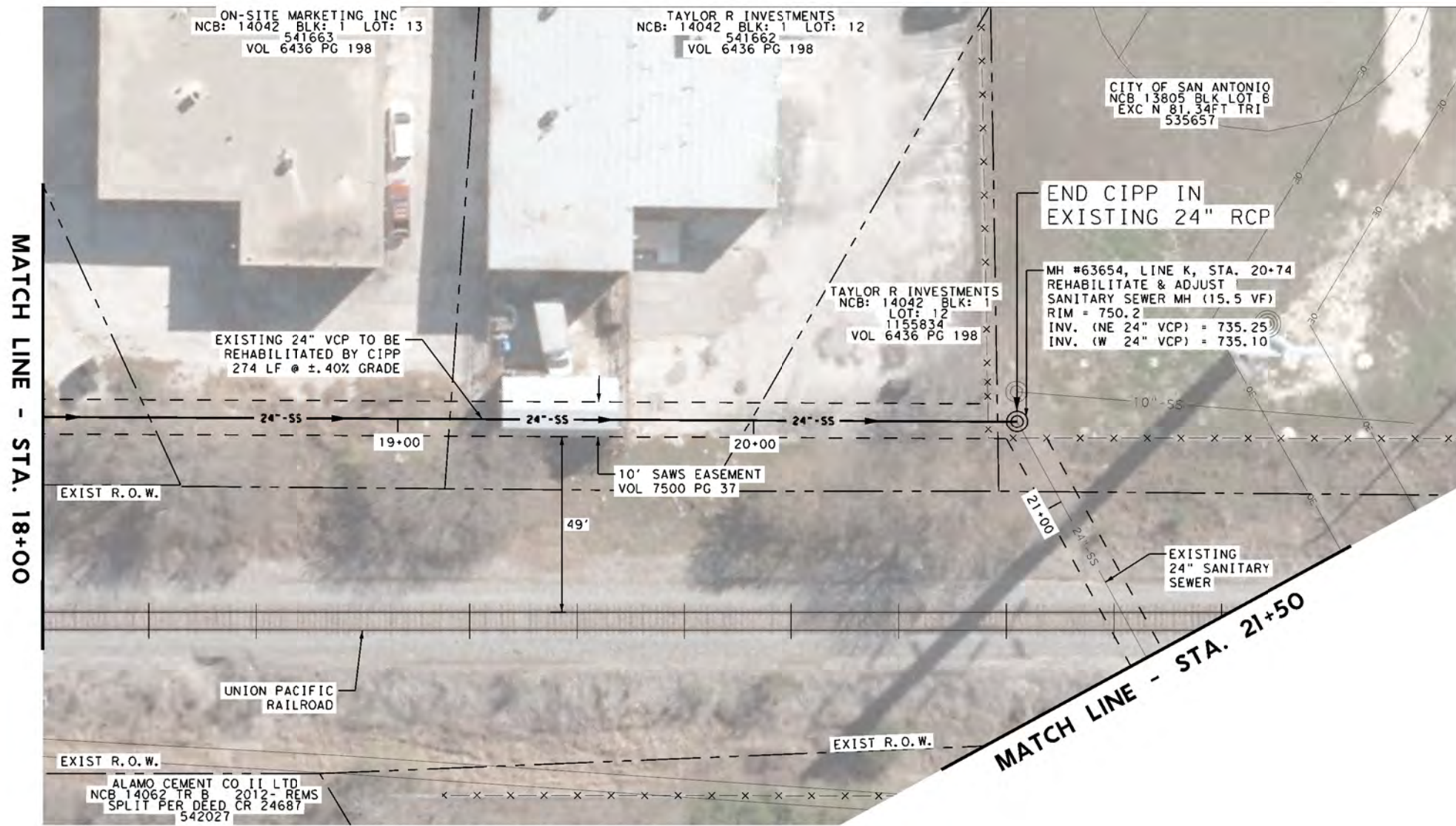
SEWER PLAN - LINE K
 STA. 14+00 TO STA. 18+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED _____

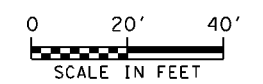
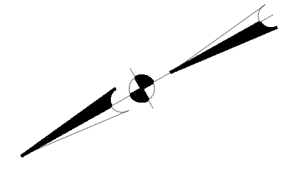
MAP No.	SHEET: 19 OF 61	SHEET
DR. GP CK.	JOB No. 17-4527	19

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SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



NOTES

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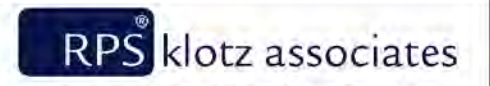
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	274
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	274
910.1	MANHOLE REHABILITATION	VF	15.5



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cuellar



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 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg. #F-929

NO.	REVISION	DATE

REVISIONS

EASTERN SEWERSHED PACKAGE IV

SEWER PLAN - LINE K
 STA. 18+00 TO STA. 21+50

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED _____

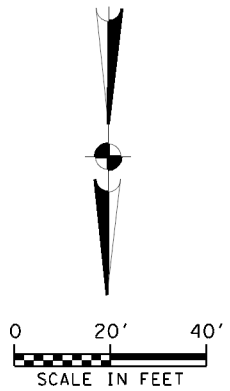
MAP No.	SHEET
SECT. No.	20 OF 61
DR. MN CK.	JOB No. 17-4527

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SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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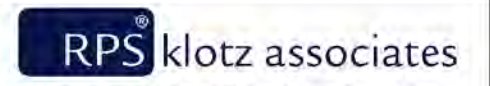
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	9.5



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cull



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NO.	REVISION	DATE

EASTERN SEWERSHED PACKAGE IV
SEWER PLAN - LINE K
 STA. 26+00 TO STA. 30+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED _____

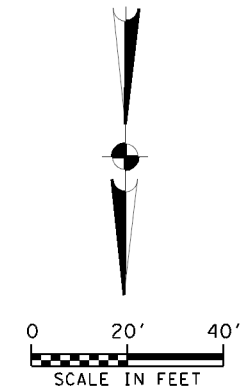
MAP No.	SHEET 22 OF 61	SHEET 22
DR. GP CK.	JOB No. 17-4527	

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SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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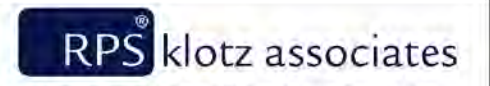
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	9.5



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LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cull



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 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg. #F-929

NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

EASTERN SEWERSHED PACKAGE IV

SEWER PLAN - LINE K
 STA. 30+00 TO STA. 34+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED _____

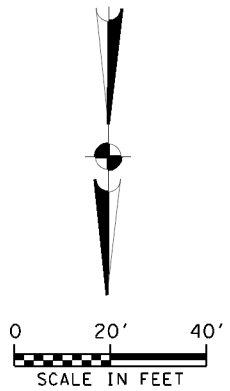
MAP No.	SHEET 23 OF 61	SHEET 23
DR. GP CK.	JOB No. 17-4527	

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SAWS LEGEND

REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	— 24"-SS —>	EXISTING SANITARY SEWER	— 8" SS —
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	---	EXISTING FENCE	← x x x →
100 YR FLOODPLAIN	EXISTING RAILROAD	====



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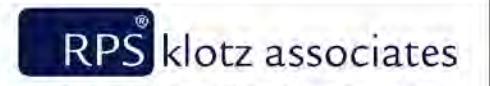
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	9



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LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cuh



4801 NW Loop 410, Suite 910, San Antonio, Texas 78229
 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg.#F-929

NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

EA EASTERN SEWERSHED PACKAGE IV
 SEWER PLAN — LINE K
 STA. 34+00 TO STA. 38+00

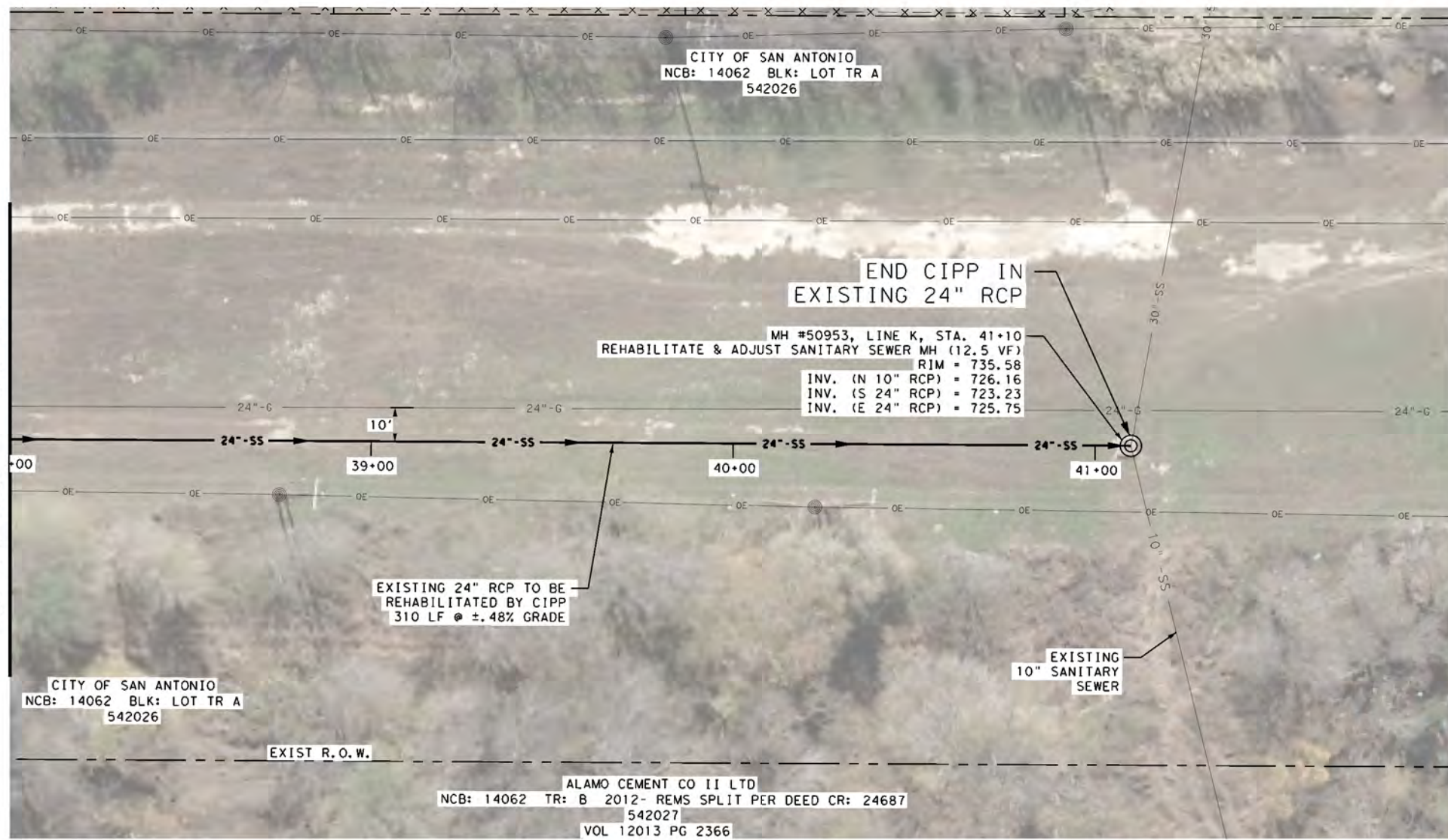
DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED

MAP No.	SHEET 24 OF 61	SHEET 24
DR. GP CK.	JOB No. 17-4527	

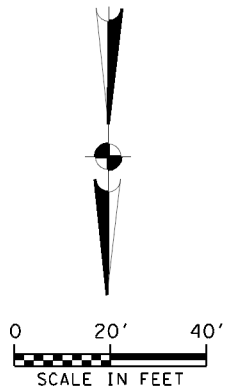
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MATCH LINE - STA. 38+00



SAWS LEGEND

REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	- 24"-SS →	EXISTING SANITARY SEWER	— 8" SS —
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	---	EXISTING FENCE	← x-x-x
100 YR FLOODPLAIN	⋯	EXISTING RAILROAD	⊥



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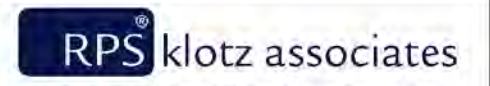
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	310
901	24- INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	310
910.1	MANHOLE REHABILITATION	VF	12.5



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cull



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 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg.#F-929

NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

EA EASTERN SEWERSHED PACKAGE IV

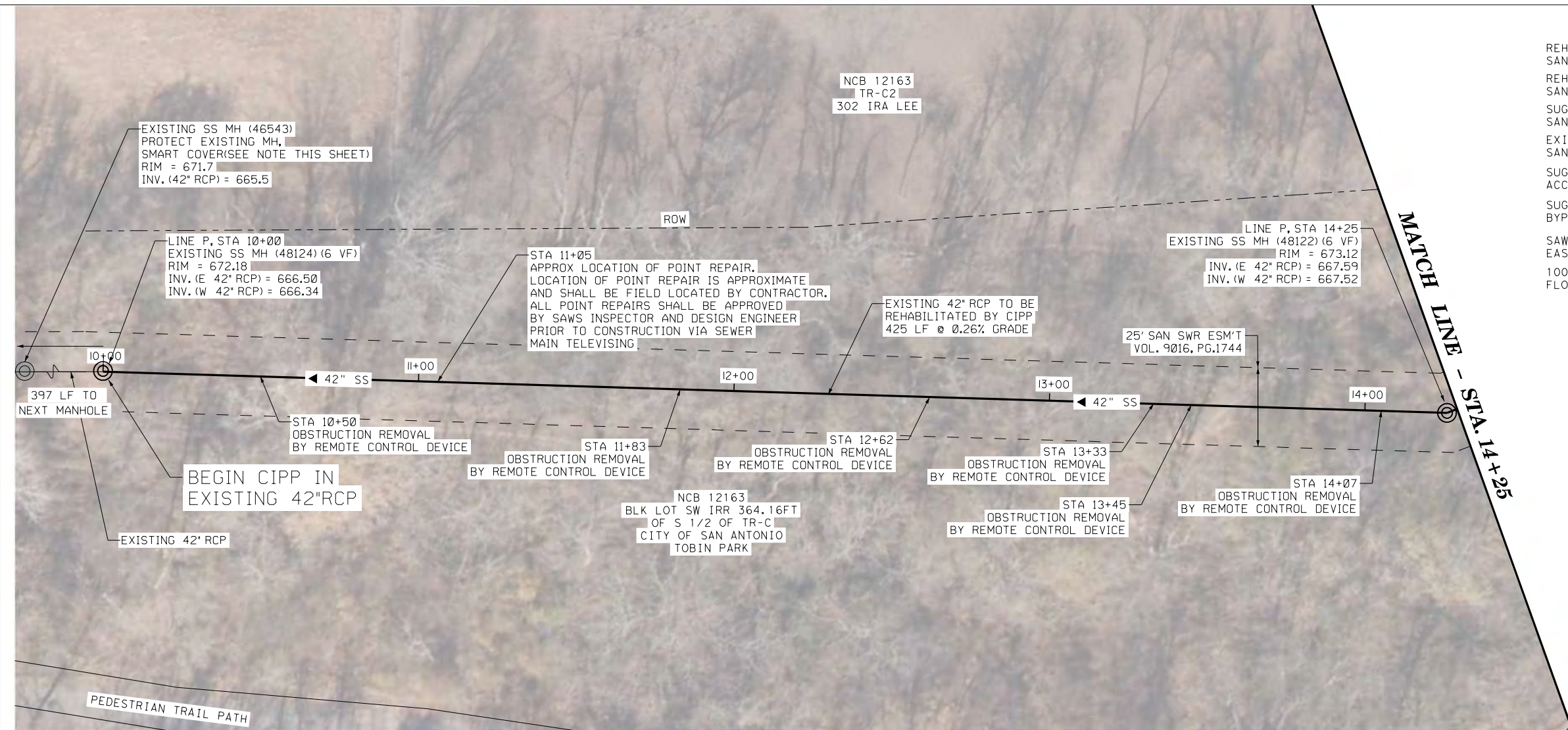
WUS SEWER PLAN - LINE K STA. 38+00 TO END

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED

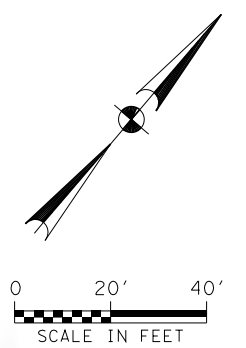
MAP No.	SHEET: 25 OF 61	SHEET
DR. GP CK.	JOB No. 17-4527	25

NCB 12163
TR-C2
302 IRA LEE



SAWS LEGEND

REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	— 24"SS —	EXISTING SANITARY SEWER	— 8" SS —
SUGGESTED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨▨▨▨▨▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→ → →	EXISTING OVERHEAD ELECTRIC	● OE
SAWS EASEMENT	---	EXISTING FENCE	— x — x — x
100 YR FLOODPLAIN	---	EXISTING RAILROAD	▬▬▬▬▬▬



**PROP 42" CIPP
SEGMENT 998872 - 425 L.F.**

NOTE:
NOTIFY JEFF SUPPLEE AT 210-233-3569 A MINIMUM OF 72 HOURS, NOT COUNTING WEEKENDS OR SAWS HOLIDAYS, BEFORE WORKING ON THE PIPE OR MANHOLE. IN ORDER TO HAVE SAWS REMOVE THE SMART COVER/FLOW METER, ANY DAMAGE DONE TO THE SMART COVER/FLOW METER WILL BE CHARGED TO THE CONTRACTOR.

NOTES

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- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	425
901	42-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	425
1103	42-INCH PIPE POINT REPAIR, ALL DEPTHS	EA	1
1103.4	OBSTRUCTION REMOVAL BY REMOTE DEVICE, 42" DIAMETER, ALL DEPTHS	EA	6



BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
TBPE F-001712
7073 San Pedro
San Antonio, Texas, 78216
Phone: 210-494-7223 Fax: 210-490-5120
WWW.BMBI.COM

1	UPDATED BID ITEM DESCRIPTIONS	MC	CB	4-11-18
No.	Revision	Drawn	Approved	Date

REVISIONS

EASTERN SEWERSHED PACKAGE IV

SEWER PLAN - LINE P BEGIN TO STA. 14+25

DEVELOPER: SAN ANTONIO WATER SYSTEM
CONT. BUDGET PROJ.

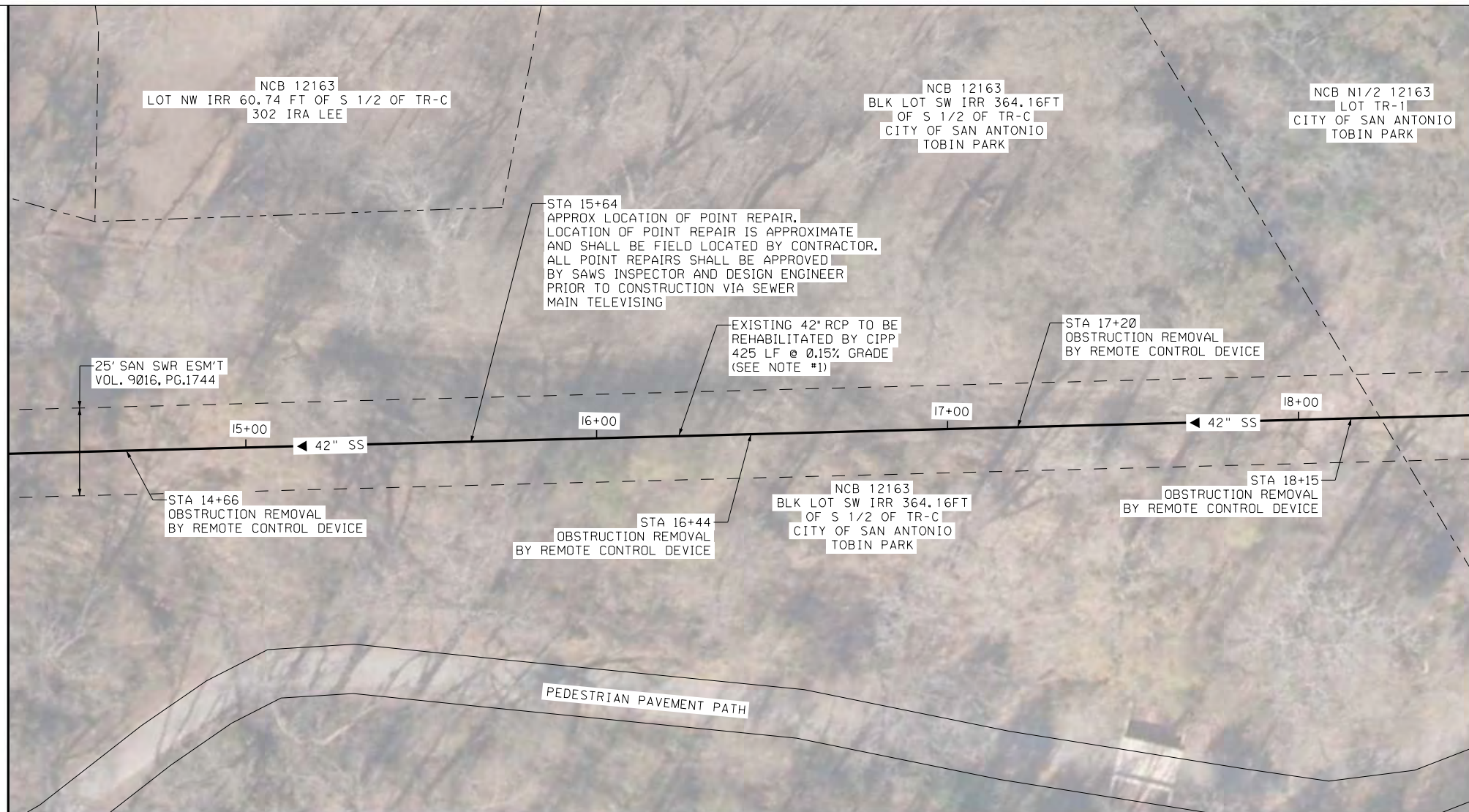
SUBMITTED 1/5/2018
APPROVED _____

MAP No.	SHEET: 26 OF 61	SHEET
DR.	CK.	JOB No. 17-4527

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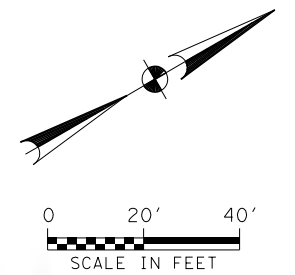
MATCH LINE - STA. 14+25

MATCH LINE - STA. 18+50



SAWS LEGEND

REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	— 24" SS —	EXISTING SANITARY SEWER	— 8" SS —
SUGGESTED NEW SANITARY SEWER MH	●	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	● OE
SAWS EASEMENT	- - - -	EXISTING FENCE	< x x x x
100 YR FLOODPLAIN	- · - · - ·	EXISTING RAILROAD	



**PROP 42" CIPP
SEGMENT 999937 - 425 L.F.**

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ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	425
901	42-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	425
1103	42-INCH PIPE POINT REPAIR, ALL DEPTHS	EA	1
1103.4	OBSTRUCTION REMOVAL BY REMOTE DEVICE, 42" DIAMETER, ALL DEPTHS	EA	4



BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
TBPE F-001712
7073 San Pedro
San Antonio, Texas, 78216
Phone: 210-494-7223 Fax: 210-490-5120
WWW.BMBI.COM

No.	Revision	Drawn	Approved	Date
1	UPDATED BID ITEM DESCRIPTIONS	MC	CB	4-11-18

**EASTERN SEWERSHED
PACKAGE IV**
SEWER PLAN - LINE P
STA. 14+25 TO STA. 18+50

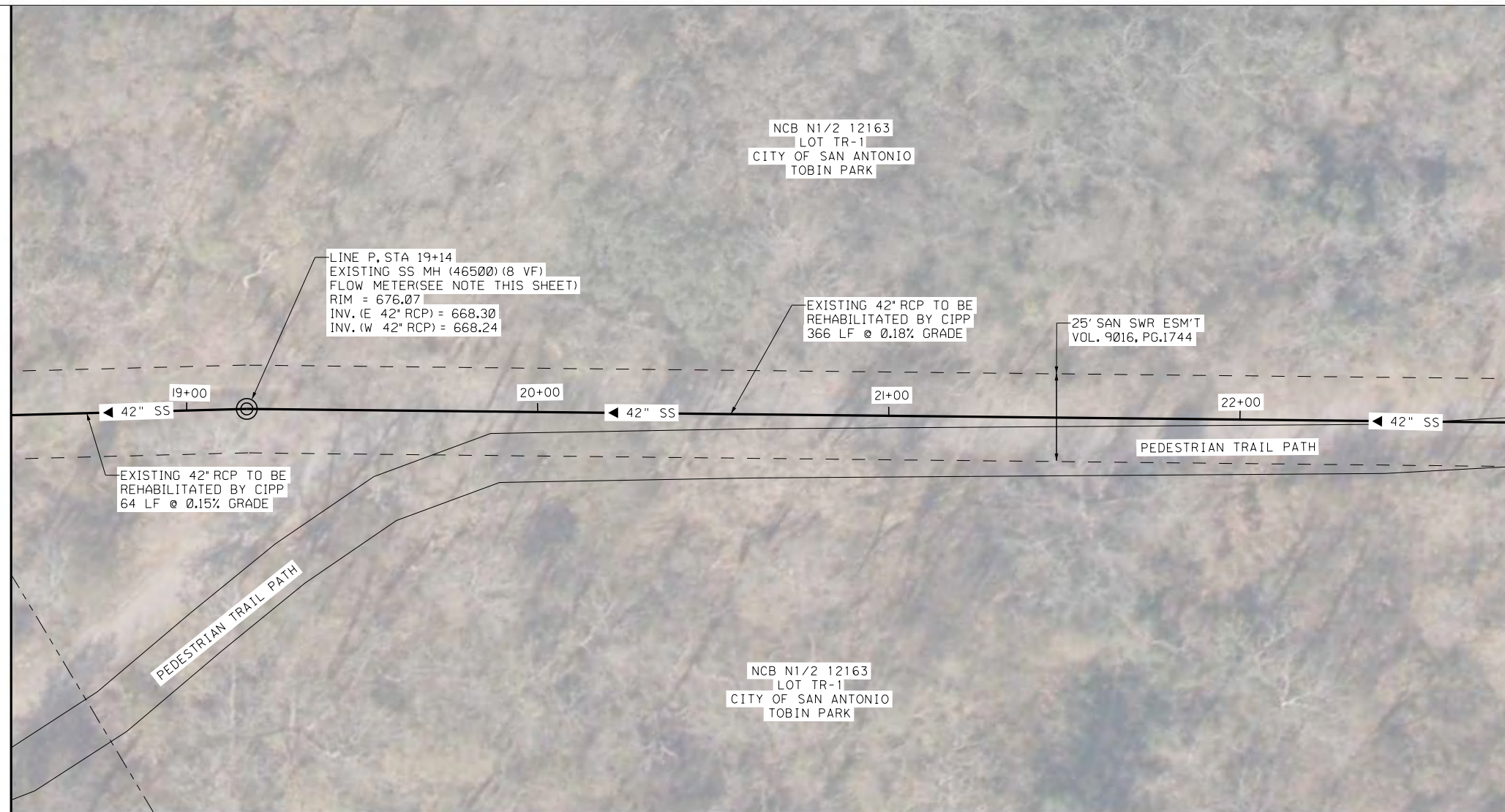
DEVELOPER: SAN ANTONIO WATER SYSTEM
CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
APPROVED _____

MAP No.	SHEET: 27 OF 61	SHEET
DR.	CK.	JOB No. 17-4527

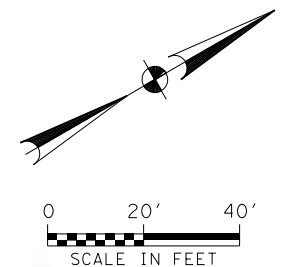
MATCH LINE - STA. 18+50

MATCH LINE - STA. 22+80



SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
SUGGESTED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



PROP 42" CIPP
SEGMENT 99937 - 64 L.F.
SEGMENT 999463 - 366 L.F.

NOTES

- 1 THE EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE BASED UPON RECORDED INFORMATION ONLY AND ARE APPROXIMATE. THE CONTRACTOR SHALL CONTACT TEXAS STATE WIDE ONE CALL(811) PRIOR TO THE BEGINNING OF WORK. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL AND ANY DAMAGES THAT MIGHT OCCUR BY HIS FAILURE TO ACCURATELY LOCATE ALL EXISTING UNDERGROUND UTILITIES AND PRESERVE EXISTING CONDITIONS.
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- 4 CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS THROUGH ALL DRIVEWAYS FOR EMERGENCY ACCESS.
- 5 THE CONTRACTOR SHALL REFER TO THE SEWER LAYOUT AND CONTROL PLAN (SHEETS 4-9) FOR APPROXIMATE LOCATION OF 100 YEAR FLOODPLAIN.
- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	430
901	42-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	430

NOTE:
 NOTIFY JEFF SUPLEE AT 210-233-3569 A MINIMUM OF 72 HOURS, NOT COUNTING WEEKENDS OR SAWS HOLIDAYS, BEFORE WORKING ON THE PIPE OR MANHOLE, IN ORDER TO HAVE SAWS REMOVE THE SMART COVER/FLOW METER. ANY DAMAGE DONE TO THE SMART COVER/FLOW METER WILL BE CHARGED TO THE CONTRACTOR.



The seal appearing on this document was authorized by
CARL BAIN
 P.E. 56996 ON
 4/11/2018

BAIN MEDINA BAIN, INC.
 ENGINEERS & SURVEYORS
 TBPE F-001712
 7073 San Pedro
 San Antonio, Texas, 78216
 Phone: 210-494-7223 Fax: 210-490-5120
 WWW.BMBI.COM

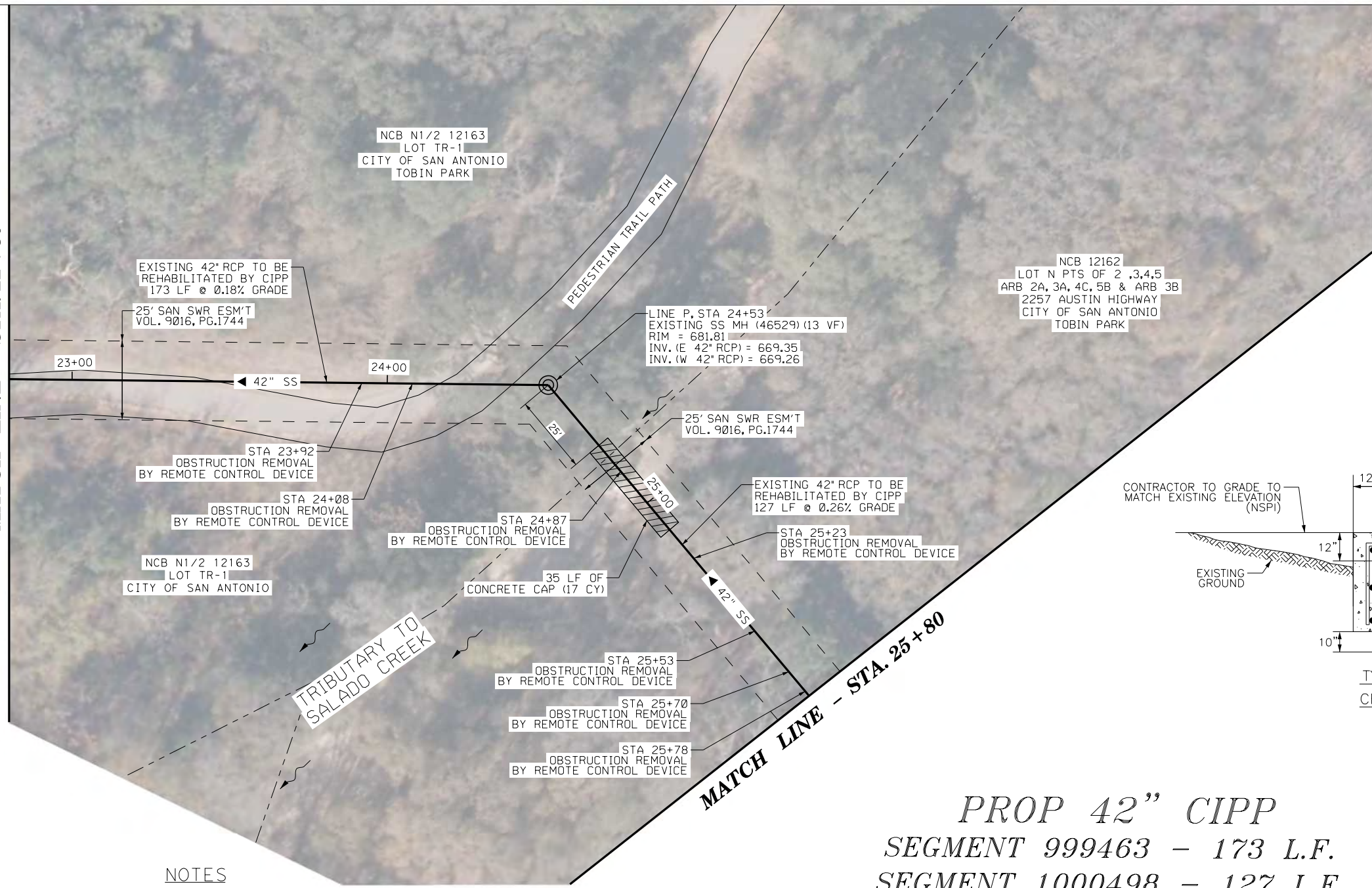
No.	Revision	Drawn	Approved	Date
1	UPDATED BID ITEM DESCRIPTIONS	MC	CB	4-11-18

EASTERN SEWERSHED PACKAGE IV
SEWER PLAN - LINE P
 STA. 18+50 TO STA. 22+80

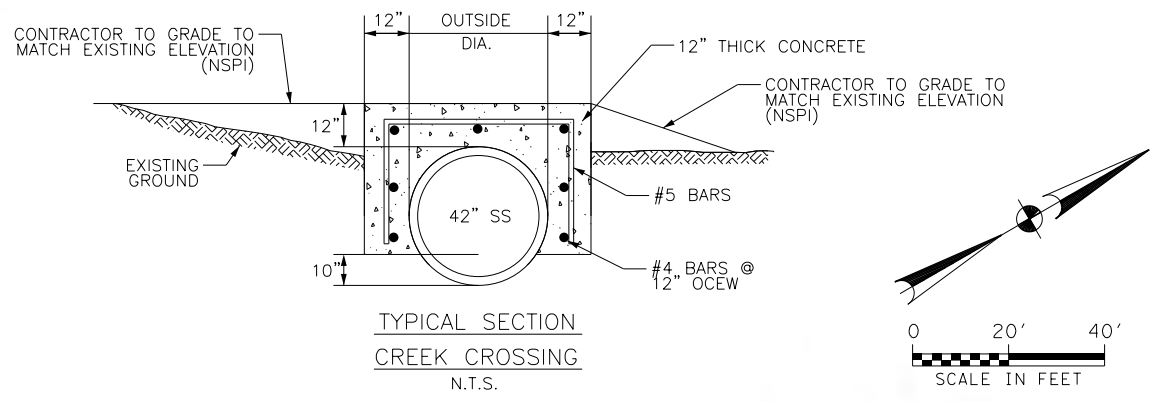
DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.
 SUBMITTED 1/5/2018
 APPROVED _____
 MAP No. _____ SHEET 28 OF 61
 SECT. No. _____ SHEET 28
 DR. _____ CK. _____ JOB No. 17-4527

4/11/2018 5:24:50 PM W:\Work\K.C.-462 Edst Sewershed Pkg 4 (KLOTZ)\SAWS Sheets\ESP4_P8_4 999463_1000498.dgn

MATCH LINE - STA. 22+80



SAWS LEGEND			
REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	— 24"SS —	EXISTING SANITARY SEWER	— 8" SS —
SUGGESTED NEW SANITARY SEWER MH	●	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	● OE
SAWS EASEMENT	---	EXISTING FENCE	< x x x x >
100 YR FLOODPLAIN	----	EXISTING RAILROAD	



TYPICAL SECTION
CREEK CROSSING
N.T.S.

NOTES

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- 5 THE CONTRACTOR SHALL REFER TO THE SEWER LAYOUT AND CONTROL PLAN (SHEETS 4-9) FOR APPROXIMATE LOCATION OF 100 YEAR FLOODPLAIN.
- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.

PROP 42" CIPP
SEGMENT 999463 - 173 L.F.
SEGMENT 1000498 - 127 L.F.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
858	CONCRETE ENCASEMENT, CRADLES, SADDLES, AND COLLARS	CY	17
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	300
901	42-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	300
1103.4	OBSTRUCTION REMOVAL BY REMOTE DEVICE, 42" DIAMETER, ALL DEPTHS	EA	7

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No.	Revision	Drawn	Approved	Date
1	UPDATED BID ITEM DESCRIPTIONS	MC	CB	4-11-18

REVISIONS

EASTERN SEWERSHED PACKAGE IV

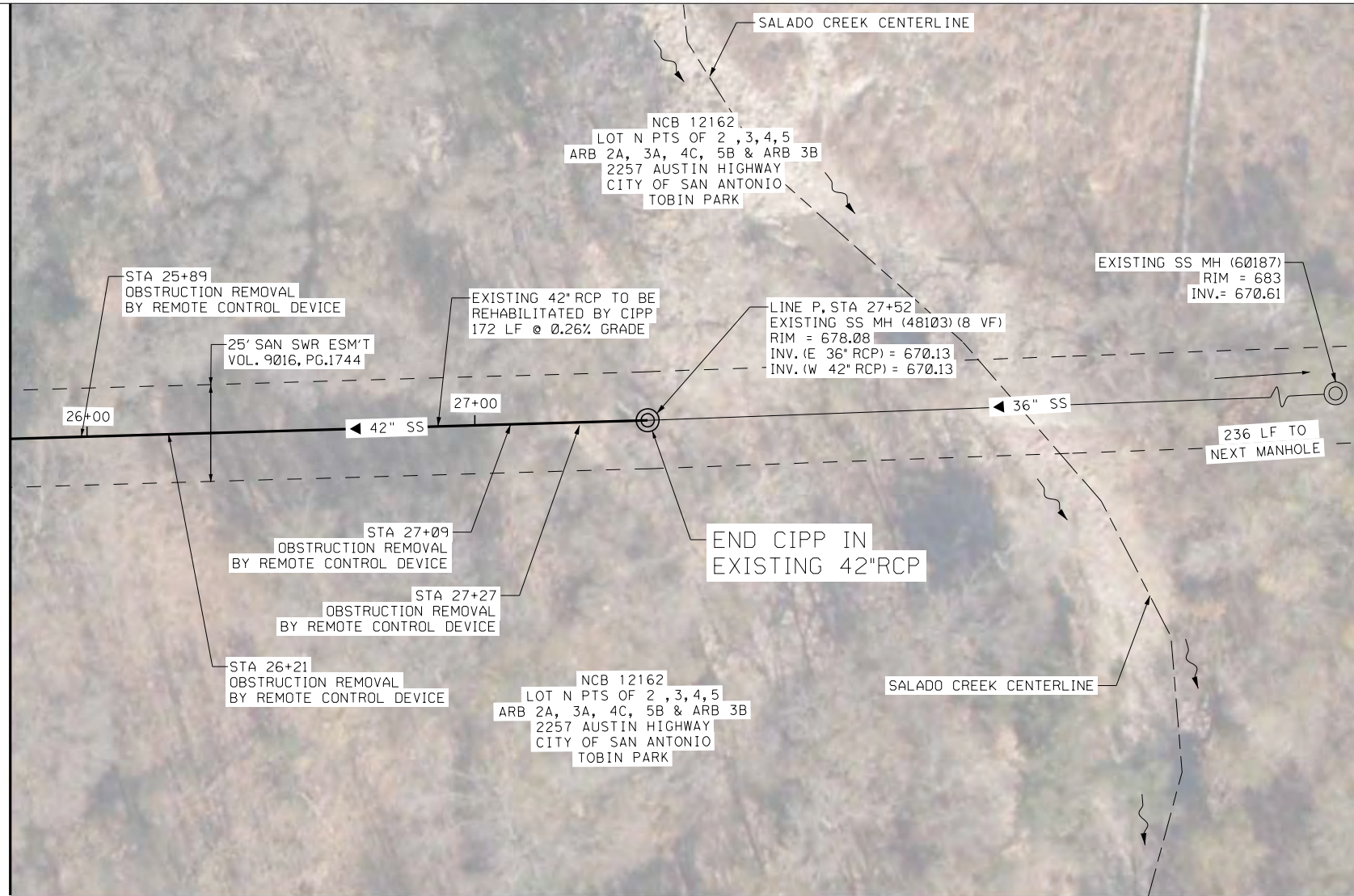
SEWER PLAN - LINE P
STA. 22+80 TO STA. 25+80

DEVELOPER: SAN ANTONIO WATER SYSTEM
CONT. BUDGET PROJ.

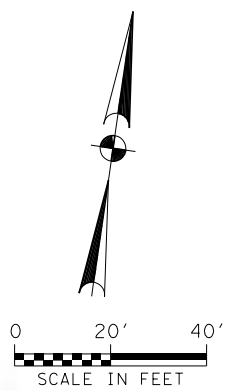
SUBMITTED 1/5/2018
APPROVED _____

MAP No.	SHEET: 29 OF 61	SHEET
DR.	CK.	JOB No. 17-4527

MATCH LINE - STA. 25 + 80



SAWS LEGEND			
REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	— 24"SS —	EXISTING SANITARY SEWER	— 8" SS —
SUGGESTED NEW SANITARY SEWER MH	●	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	● OE
SAWS EASEMENT	- - - -	EXISTING FENCE	< x x x x
100 YR FLOODPLAIN	- · - · - ·	EXISTING RAILROAD	⊥ ⊥ ⊥ ⊥



PROP 42" CIPP SEGMENT 1000498 - 172 L.F.

NOTES

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- THE CONTRACTOR SHALL REFER TO THE SEWER LAYOUT AND CONTROL PLAN (SHEETS 4-9) FOR APPROXIMATE LOCATION OF 100 YEAR FLOODPLAIN.
- PROPERTY LINES SHOWN ARE APPROXIMATE.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	172
901	42-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	172
1103.4	OBSTRUCTION REMOVAL BY REMOTE DEVICE, 42" DIAMETER, ALL DEPTHS	EA	4



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No.	Revision	Drawn	Approved	Date
1	UPDATED BID ITEM DESCRIPTIONS	MC	CB	4-11-18

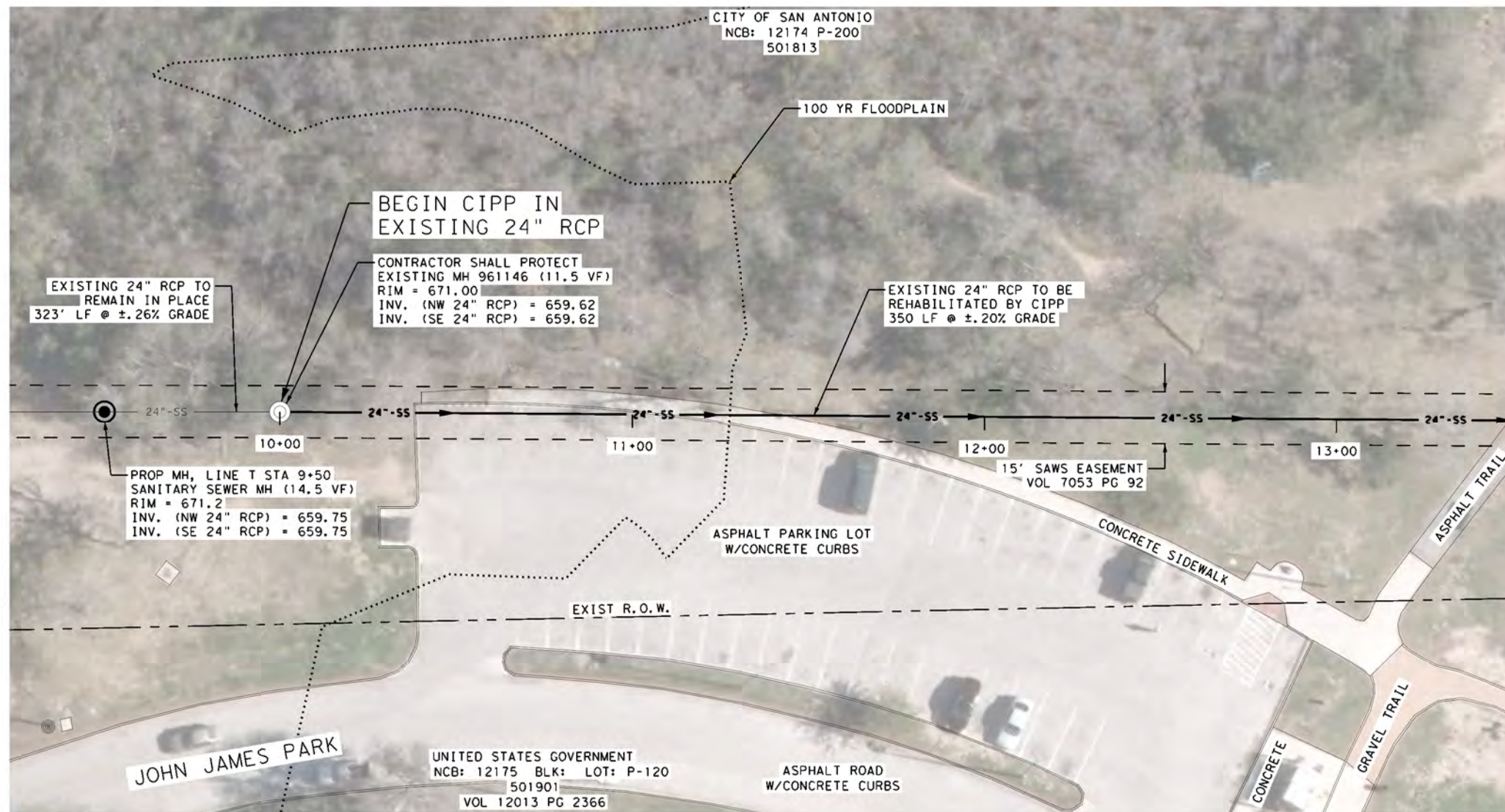
EA EASTERN SEWERSHED PACKAGE IV
SEWER PLAN - LINE P
STA. 25+80 TO END

DEVELOPER: SAN ANTONIO WATER SYSTEM
CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
APPROVED _____

MAP No.	SHEET
SECT. No.	SHEET: 30 OF 61
DR.	CK.
JOB No.	17-4527

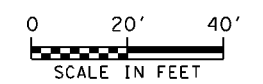
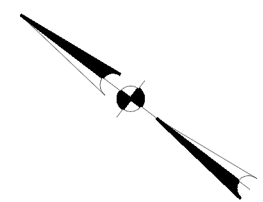
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MATCH LINE - STA. 13+50

SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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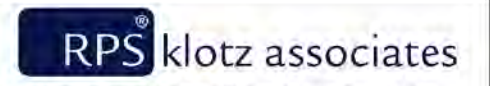
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
852.1	SANITARY SEWER MANHOLE, (0-6' DEPTH)	EA	1
852.2	SANITARY SEWER MANHOLE, (EXTRA DEPTH MANHOLE)	VF	6
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	350
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	350
910.1	MANHOLE REHABILITATION	VF	11.5



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
 LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cuh



4801 NW Loop 410, Suite 910, San Antonio, Texas 78229
 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg. #F-929

NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

EASTERN SEWERSHED PACKAGE IV

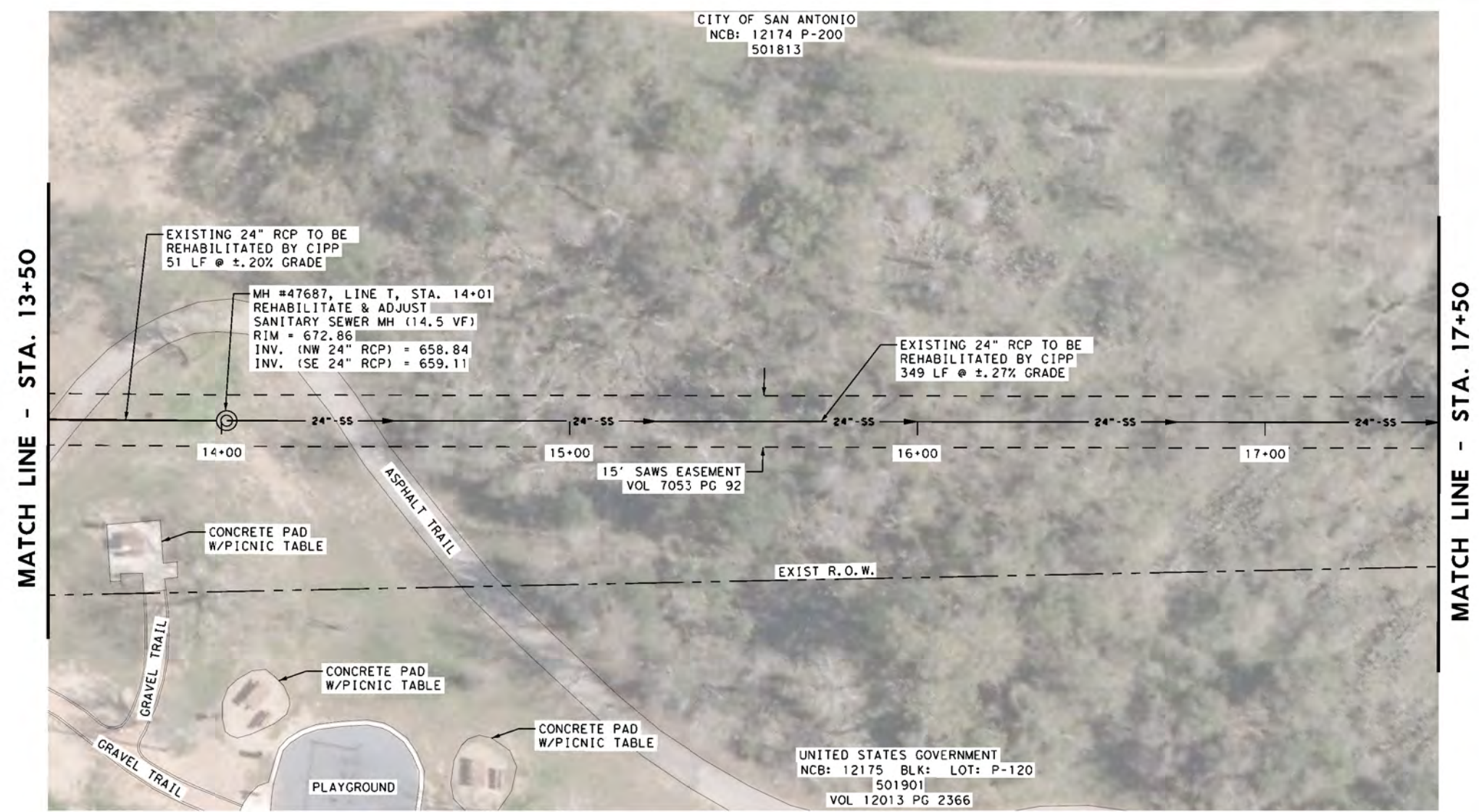
SEWER PLAN - LINE T BEGIN TO STA. 13+50

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED

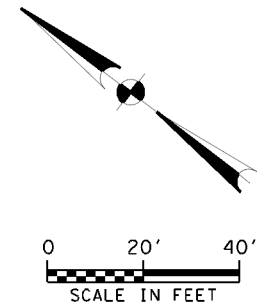
MAP No.	SHEET: 31 OF 61	SHEET: 31
DR. MN CK.	JOB No. 17-4527	

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SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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851.1	MANHOLE ADJUSTMENT	EA	1
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901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	14.5

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cuellar

4801 NW Loop 410, Suite 910, San Antonio, Texas 78229
 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg. #F-929

No.	Revision	Drawn	Approved	Date

EASTERN SEWERSHED PACKAGE IV

SEWER PLAN - LINE T

STA. 13+50 TO STA. 17+50

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED _____

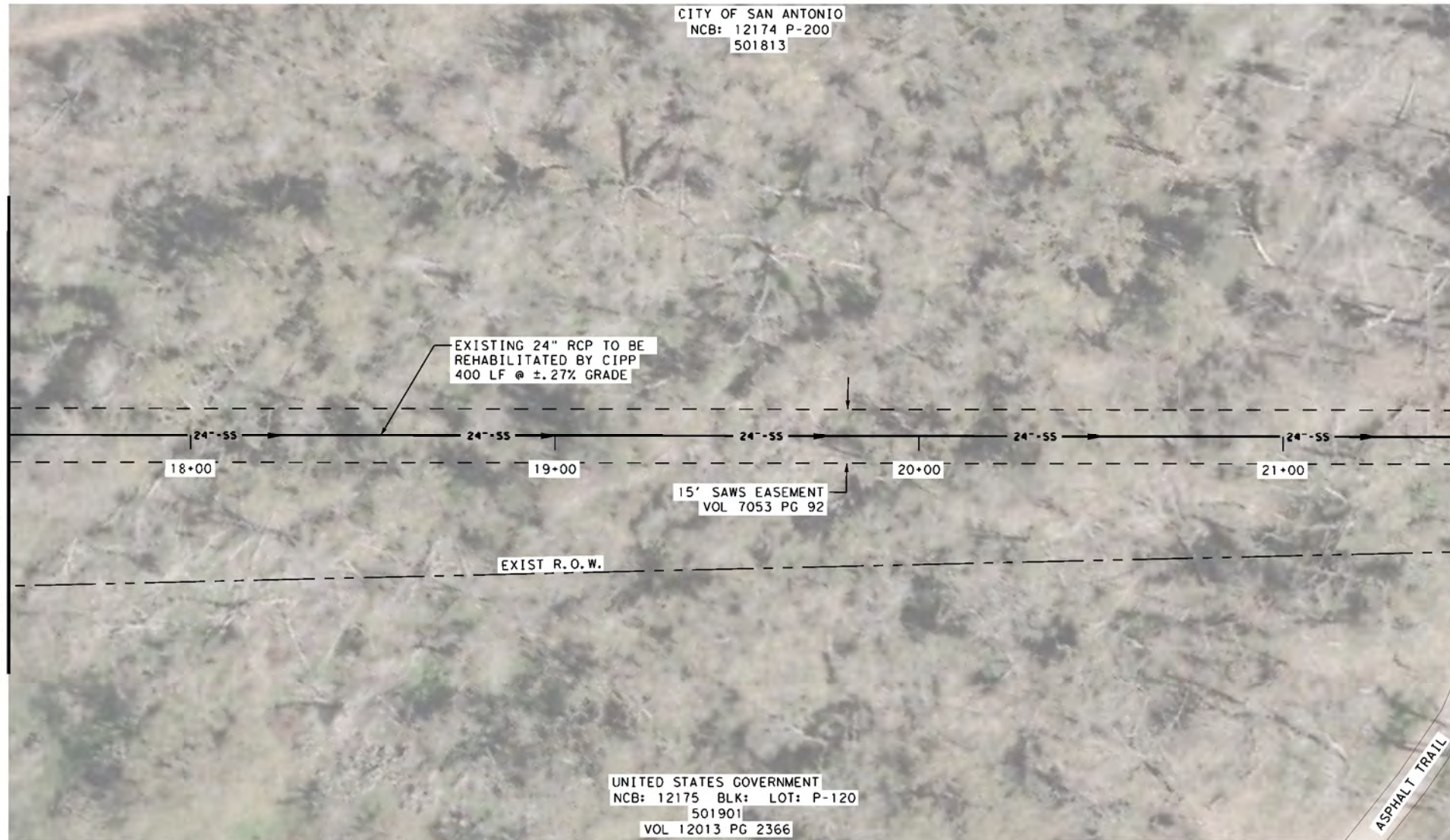
MAP No.	SHEET: 32 OF 61	SHEET 32
DR. MN CK.	JOB No. 17-4527	

CITY OF SAN ANTONIO
NCB: 12174 P-200
501813

UNITED STATES GOVERNMENT
NCB: 12175 BLK: LOT: P-120
501901
VOL 12013 PG 2366

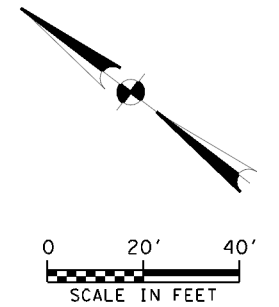
MATCH LINE - STA. 17+50

MATCH LINE - STA. 21+50



SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
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901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400



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LUIS A. CUELLAR
P.E. 89656
04/11/2018

R.A. Cuellar

RPS klotz associates

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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

EASTERN SEWERSHED PACKAGE IV

SEWER PLAN - LINE T
STA. 17+50 TO STA. 21+50

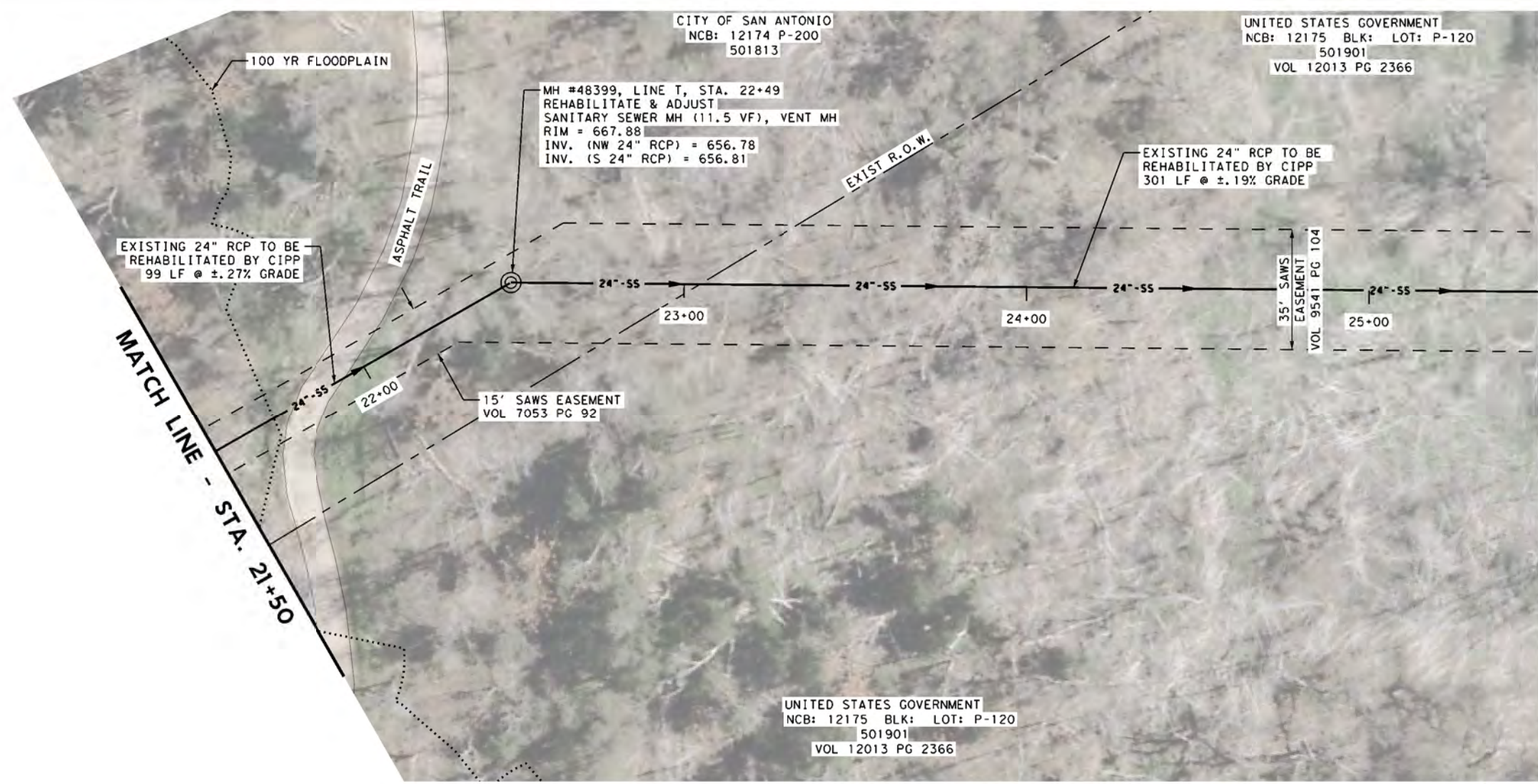
DEVELOPER: SAN ANTONIO WATER SYSTEM
CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
APPROVED _____

MAP No.	SHEET: 33 OF 61	SHEET 33
DR. MN CK.	JOB No. 17-4527	

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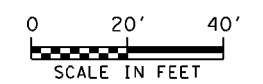
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MATCH LINE - STA. 25+50

SAWS LEGEND

REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	— 24"-SS —>	EXISTING SANITARY SEWER	— 8" SS —
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	---	EXISTING FENCE	— x-x-x-x —
100 YR FLOODPLAIN	⋯	EXISTING RAILROAD	⊕

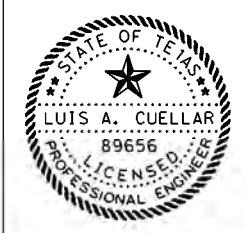


NOTES

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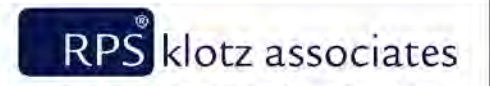
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	11.5



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cull



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 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg. #F-929

NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

No.	Revision	Drawn	Approved	Date

REVISIONS

EASTERN SEWERSHED PACKAGE IV

SEWER PLAN - LINE T
 STA. 21+50 TO STA. 25+50

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

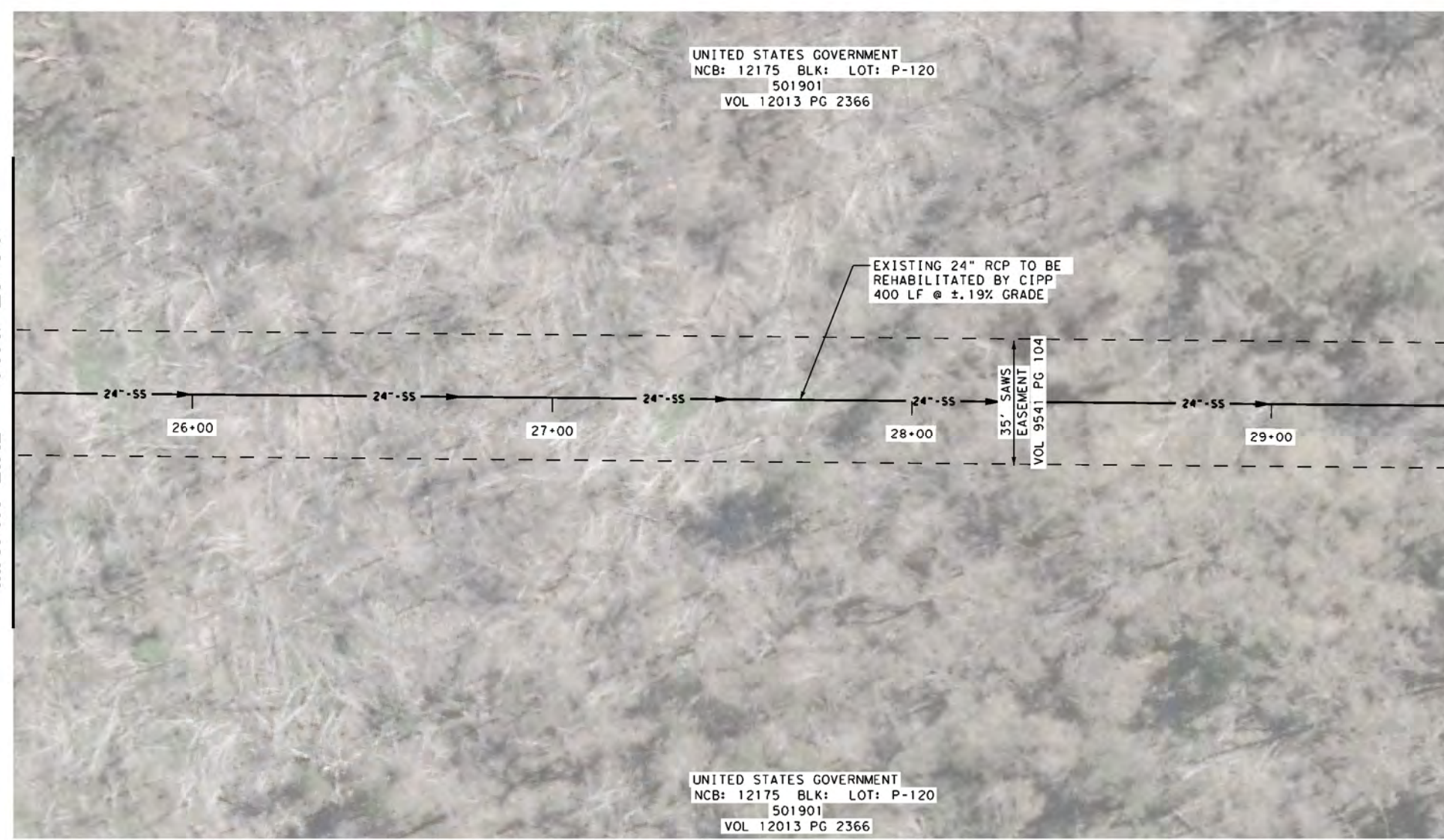
SUBMITTED 1/5/2018
 APPROVED

MAP No.	SHEET: 34 OF 61	SHEET: 34
SECT. No.	JOB No. 17-4527	

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MATCH LINE - STA. 25+50

MATCH LINE - STA. 29+50



UNITED STATES GOVERNMENT
NCB: 12175 BLK: LOT: P-120
501901
VOL 12013 PG 2366

UNITED STATES GOVERNMENT
NCB: 12175 BLK: LOT: P-120
501901
VOL 12013 PG 2366

EXISTING 24" RCP TO BE
REHABILITATED BY CIPP
400 LF @ ±.19% GRADE

35' SAWS
EASEMENT
VOL 9541 PG 104

SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	

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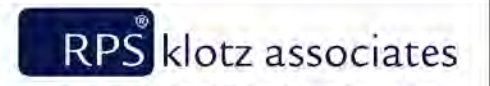
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400



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04/11/2018

R.A. Cuellar



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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

EASTERN SEWERSHED PACKAGE IV

SEWER PLAN - LINE T

STA. 25+50 TO STA. 29+50

DEVELOPER:	SAN ANTONIO WATER SYSTEM
CONT.	BUDGET PROJ.
SUBMITTED	1/5/2018
APPROVED	
MAP No.	
SECT. No.	SHEET: 35 OF 61
DR. MN CK.	JOB No. 17-4527

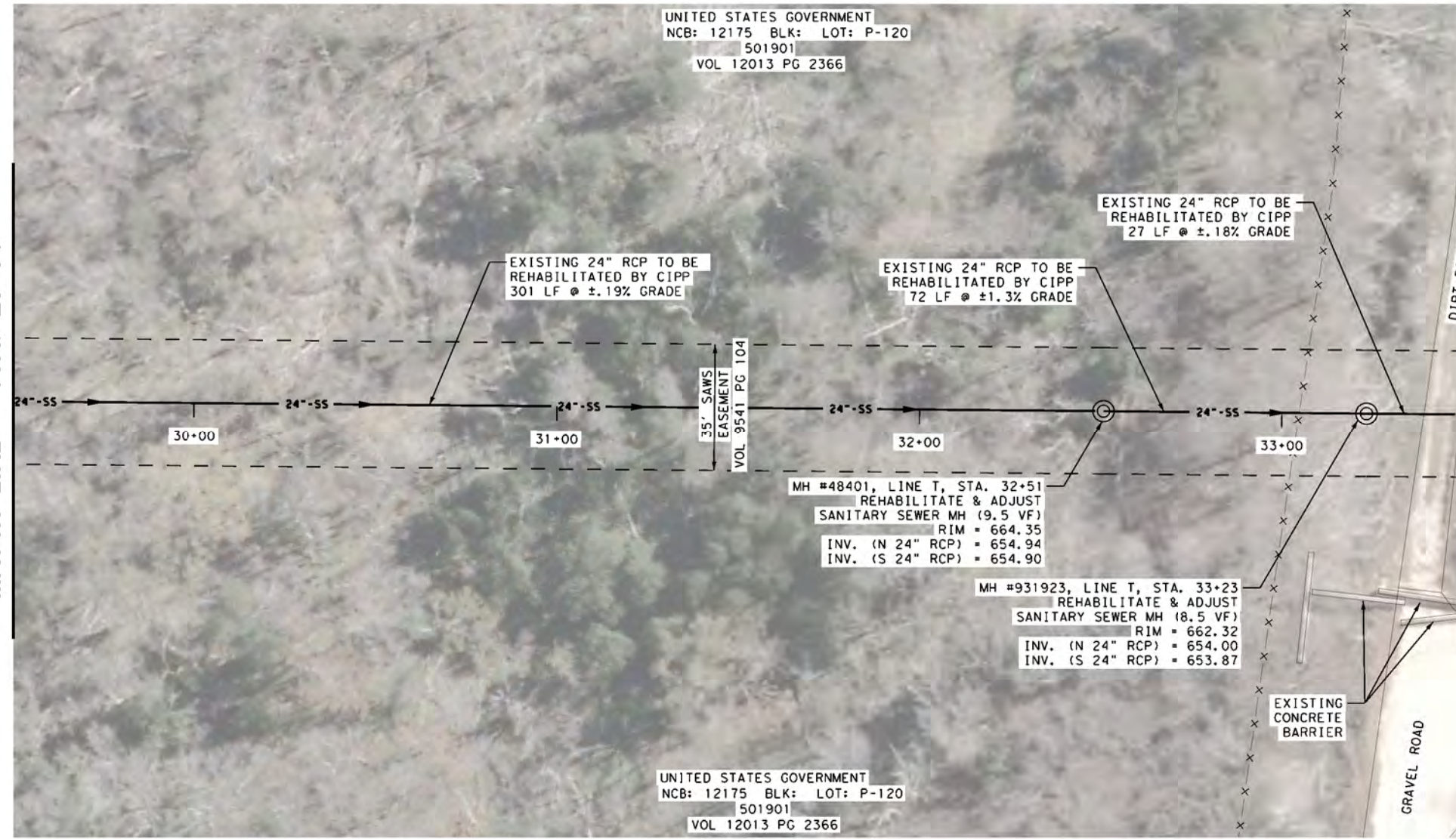
SHEET
35

UNITED STATES GOVERNMENT
 NCB: 12175 BLK: LOT: P-120
 501901
 VOL 12013 PG 2366

UNITED STATES GOVERNMENT
 NCB: 12175 BLK: LOT: P-120
 501901
 VOL 12013 PG 2366

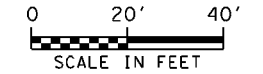
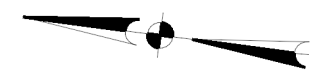
MATCH LINE - STA. 29+50

MATCH LINE - STA. 33+50



SAWS LEGEND

REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	- 24"-SS ->	EXISTING SANITARY SEWER	--- 8" SS ---
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	--- 6" W ---
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	--- 2" G ---
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	---	EXISTING FENCE	⊙-x-x-x
100 YR FLOODPLAIN	⋯	EXISTING RAILROAD	⊕



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- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	2
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	18



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 04/11/2018

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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS
 EASTERN SEWERSHED PACKAGE IV
 SEWER PLAN - LINE T
 STA. 29+50 TO STA. 33+50

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

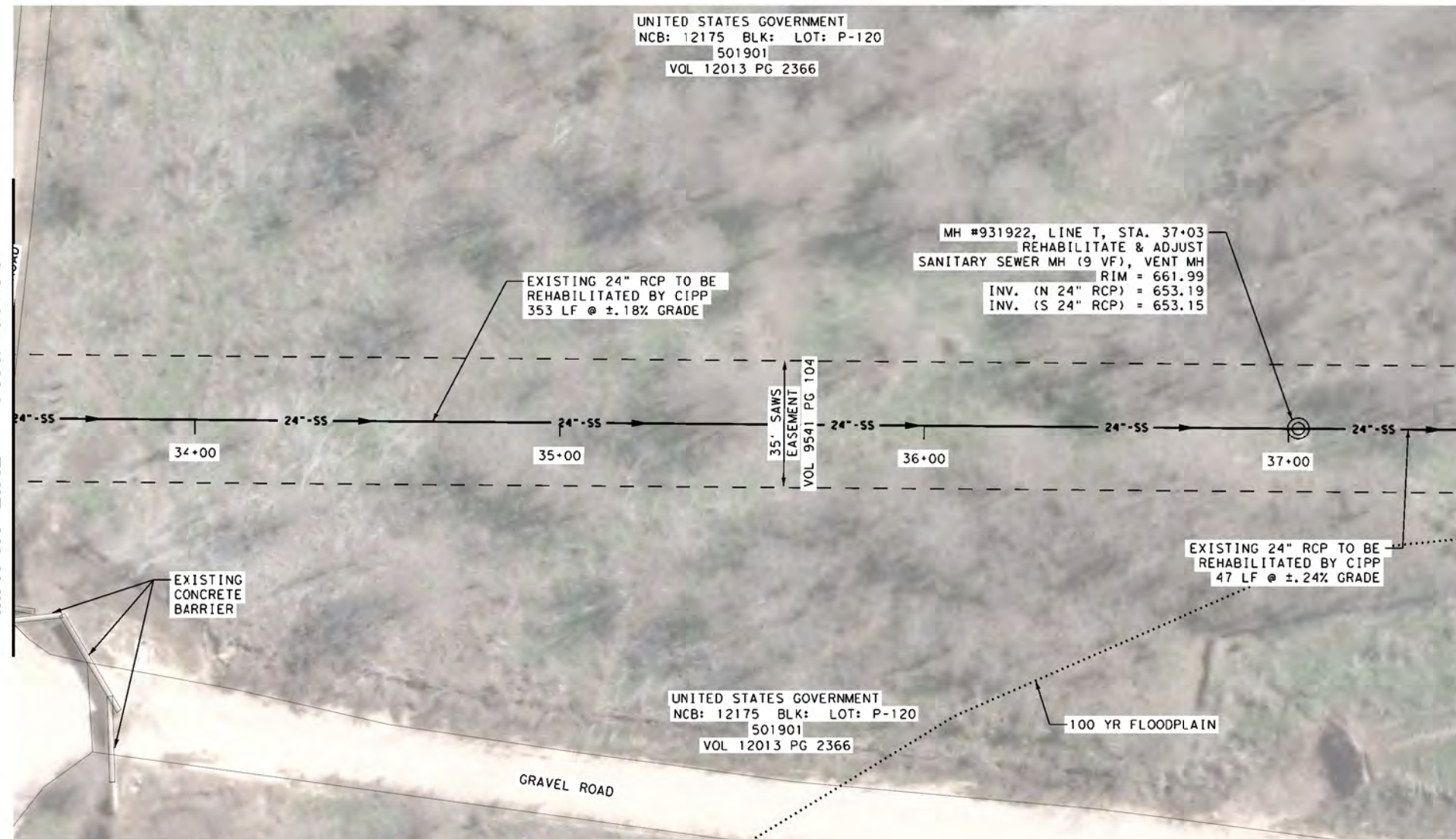
SUBMITTED 1/5/2018
 APPROVED

MAP No. SHEET: 36 OF 61 SHEET 36
 DR. MN CK. JOB No. 17-4527

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UNITED STATES GOVERNMENT
 NCB: 12175 BLK: LOT: P-120
 501901
 VOL 12013 PG 2366

MATCH LINE - STA. 33+50



MATCH LINE - STA. 37+50

SAWS LEGEND

REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	- 24"-SS →	EXISTING SANITARY SEWER	--- 8" SS ---
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	--- 6" W ---
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	--- 2" G ---
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	---	EXISTING FENCE	--- x-x-x ---
100 YR FLOODPLAIN	⋯	EXISTING RAILROAD	⊥



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ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24- INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	9



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 04/11/2018

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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS
 EASTERN SEWERSHED PACKAGE IV
 SEWER PLAN - LINE T
 STA. 33+50 TO STA. 37+50

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED

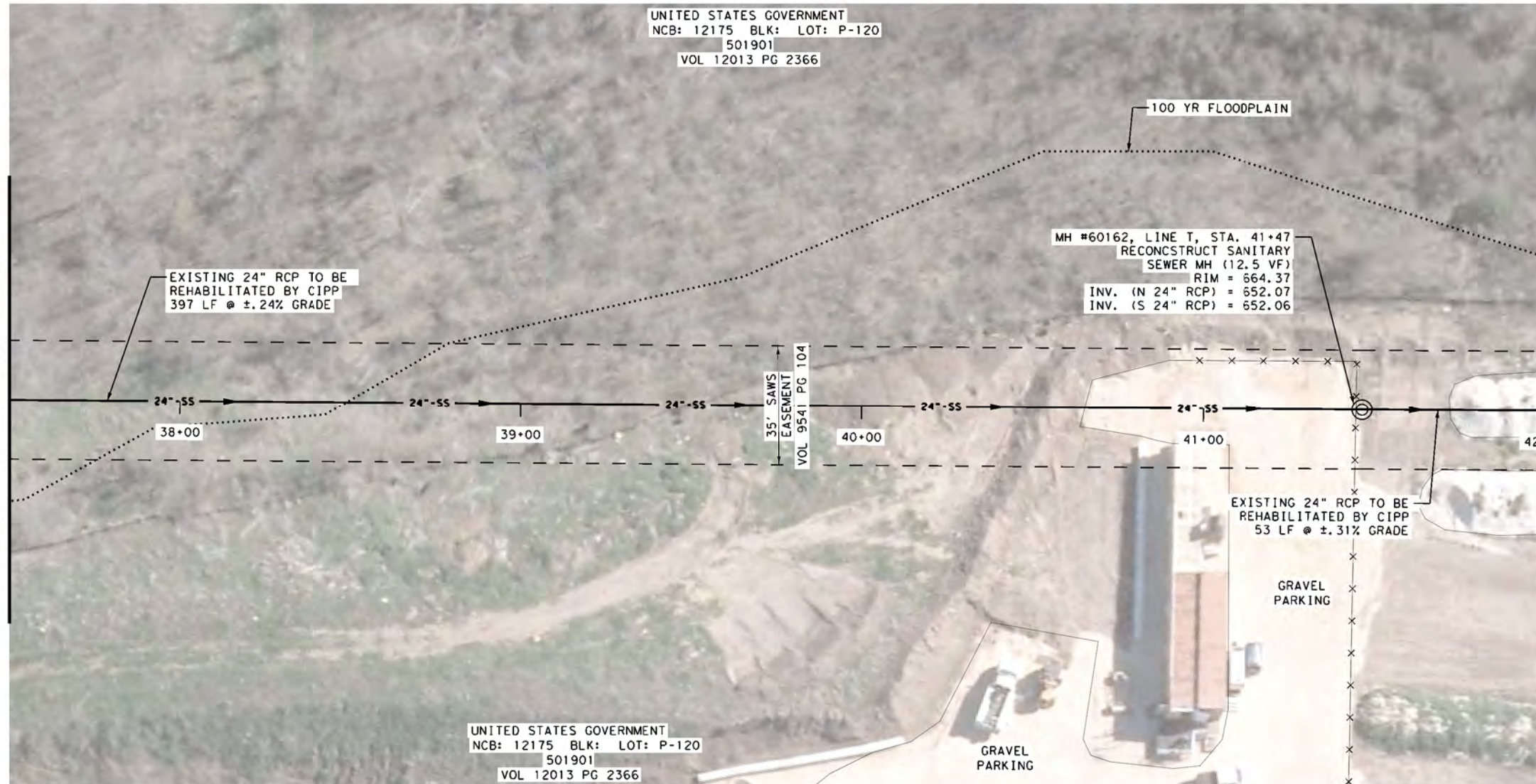
MAP No. SHEET: 37 OF 61 SHEET 37
 SECT. No. DR. MN CK. JOB No. 17-4527

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UNITED STATES GOVERNMENT
 NCB: 12175 BLK: LOT: P-120
 501901
 VOL 12013 PG 2366

MATCH LINE - STA. 37+50

MATCH LINE - STA. 42+00



UNITED STATES GOVERNMENT
 NCB: 12175 BLK: LOT: P-120
 501901
 VOL 12013 PG 2366

SAWS LEGEND

REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	- 24"-SS ->	EXISTING SANITARY SEWER	- 8" SS -
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	- 6" W -
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	- 2" G -
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	- - - -	EXISTING FENCE	- x - x - x
100 YR FLOODPLAIN	⋯	EXISTING RAILROAD	⊥



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ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
855	RECONSTRUCTION OF EXISTING MANHOLE	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	450
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	450



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 04/11/2018

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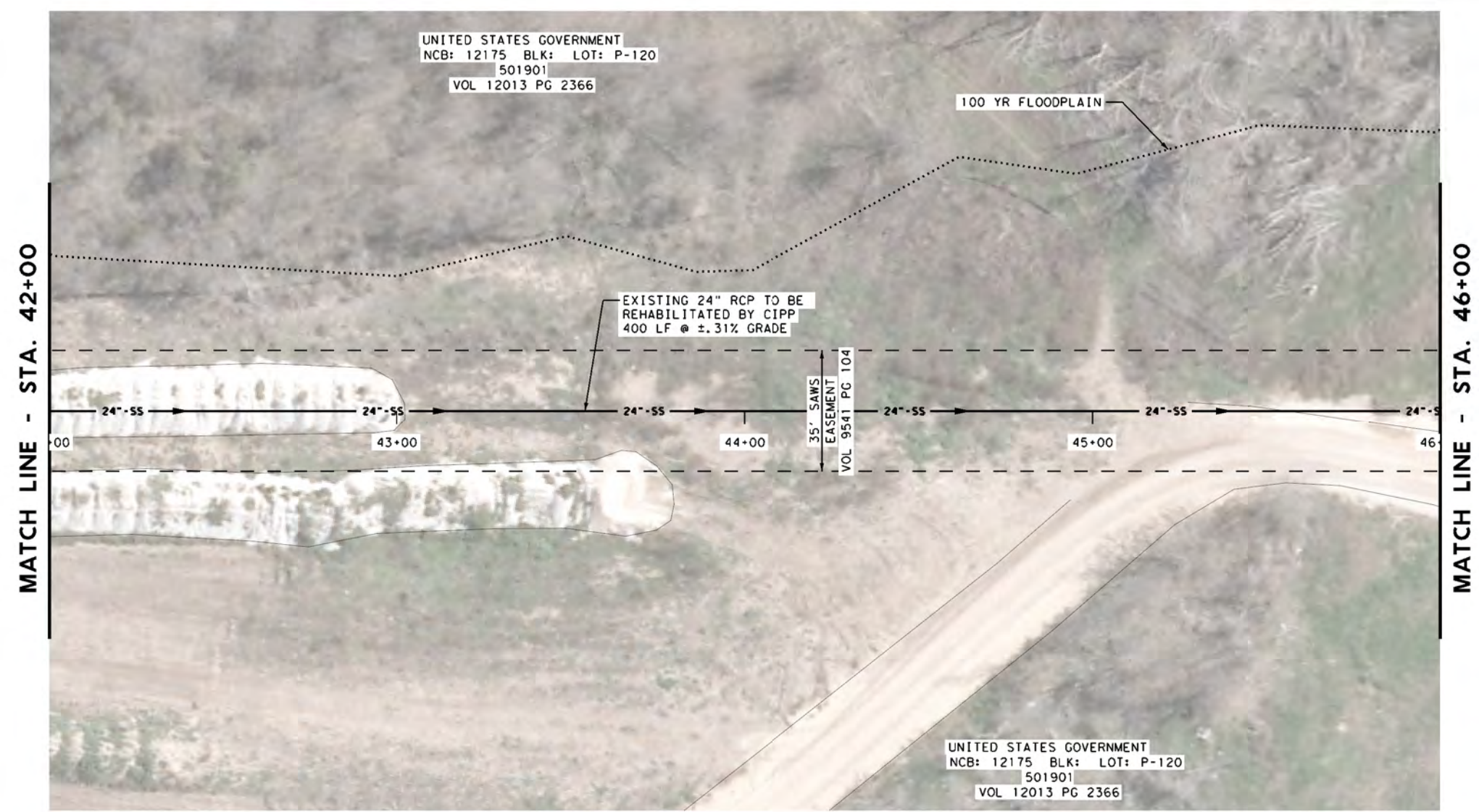
NO.	REVISION	DATE

REVISIONS
 EASTERN SEWERSHED PACKAGE IV
 SEWER PLAN - LINE T
 STA. 37+50 TO 42+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.
 SUBMITTED 1/5/2018
 APPROVED
 MAP No. SHEET: 38 OF 61 SHEET 38
 DR. MN CK. JOB No. 17-4527

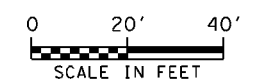
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SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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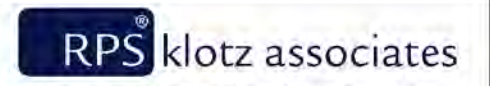
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400



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 04/11/2018

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NO.	REVISION	DATE
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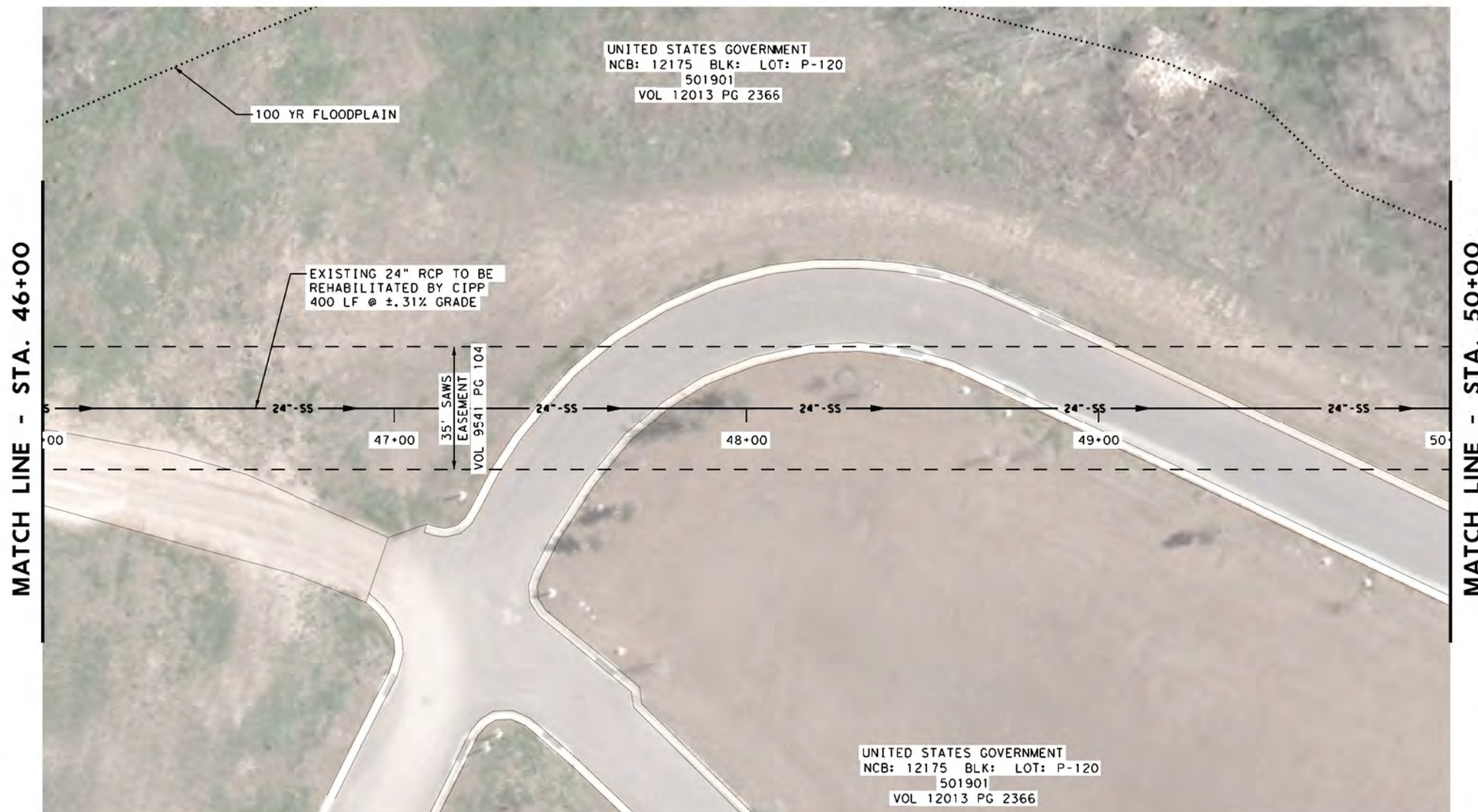
REVISIONS

EASTERN SEWERSHED PACKAGE IV

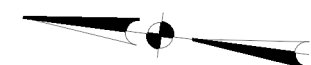
SEWER PLAN - LINE T
 STA. 42+00 TO STA 46+00

DEVELOPER: SAN ANTONIO WATER SYSTEM	
CONT. BUDGET PROJ.	
SUBMITTED 1/5/2018	
APPROVED	
MAP No.	SHEET 39 OF 61
SECT. No.	JOB No. 17-4527

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SAWS LEGEND			
REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	— 24"-SS —>	EXISTING SANITARY SEWER	— 8" SS —
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	---	EXISTING FENCE	← x x x →
100 YR FLOODPLAIN	⋯	EXISTING RAILROAD	⊕



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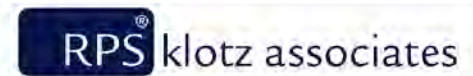
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
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901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400



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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

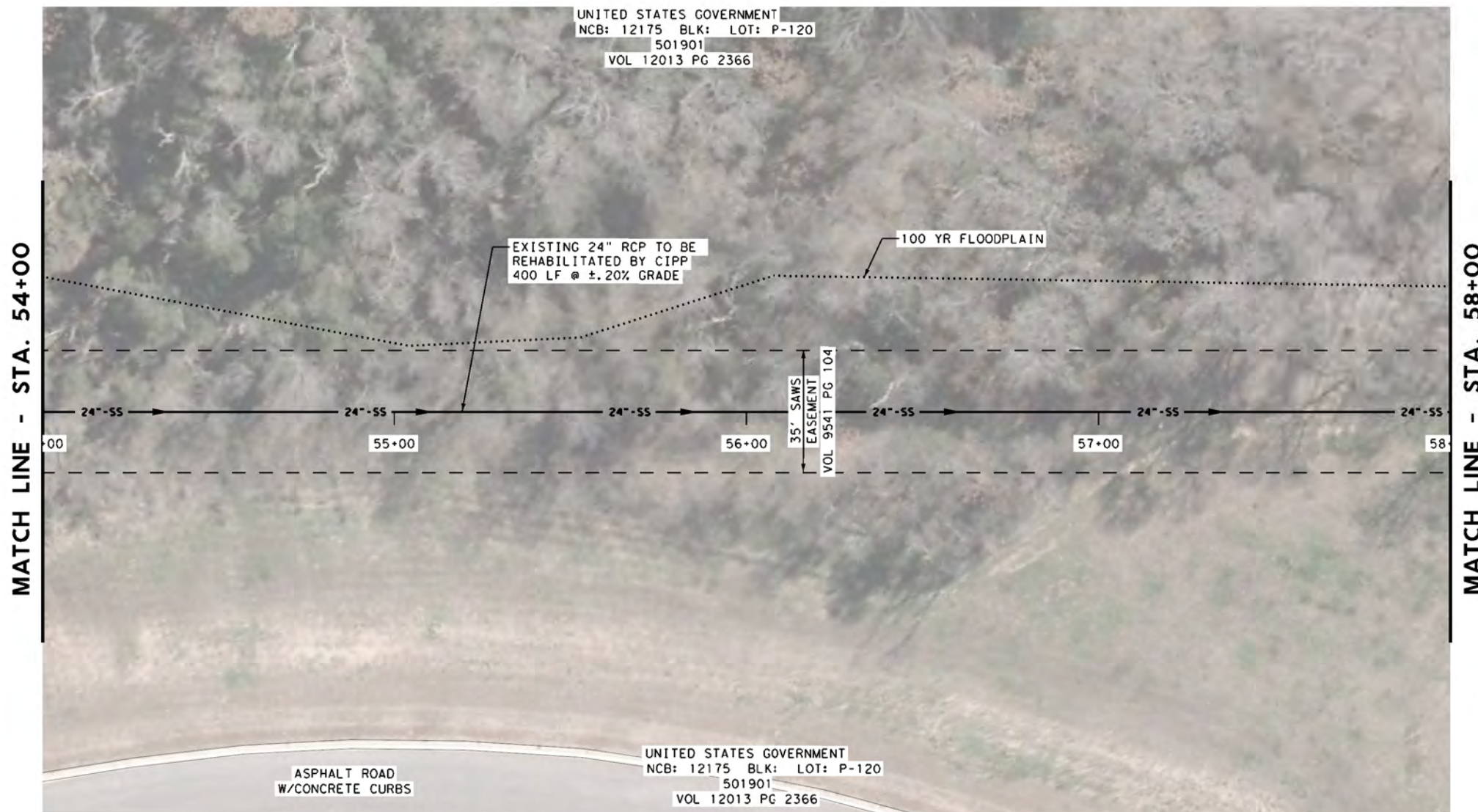
EA EASTERN SEWERSHED PACKAGE IV
WCS SEWER PLAN — LINE T
 STA. 46+00 TO STA 50+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

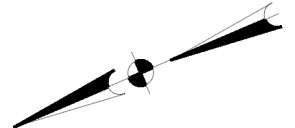
SUBMITTED 1/5/2018
 APPROVED

MAP No.	SHEET: 40 OF 61	SHEET
DR. MN CK.	JOB No. 17-4527	40

4/12/2018 9:16:11 AM T:\007555 2017 Pipeline Eng. Svc. PS-00035-07 \01\01.00 CADD\ESP4\07-V1 Utilities\SAWS+ESP4+T9.12.dgn



SAWS LEGEND			
REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	— 24"-SS —>	EXISTING SANITARY SEWER	— 8" SS —
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	---	EXISTING FENCE	← x-x-x
100 YR FLOODPLAIN	⋯	EXISTING RAILROAD	⊥

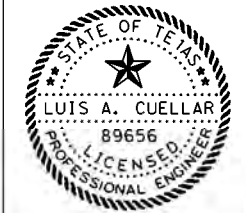


NOTES

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- 5 THE CONTRACTOR SHALL REFER TO THE SEWER LAYOUT AND CONTROL PLAN (SHEETS 4-9) FOR APPROXIMATE LOCATION OF 100 YEAR FLOODPLAIN.
- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.

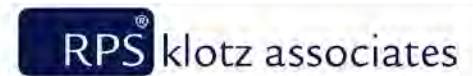
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cull



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 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg. #F-929

NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

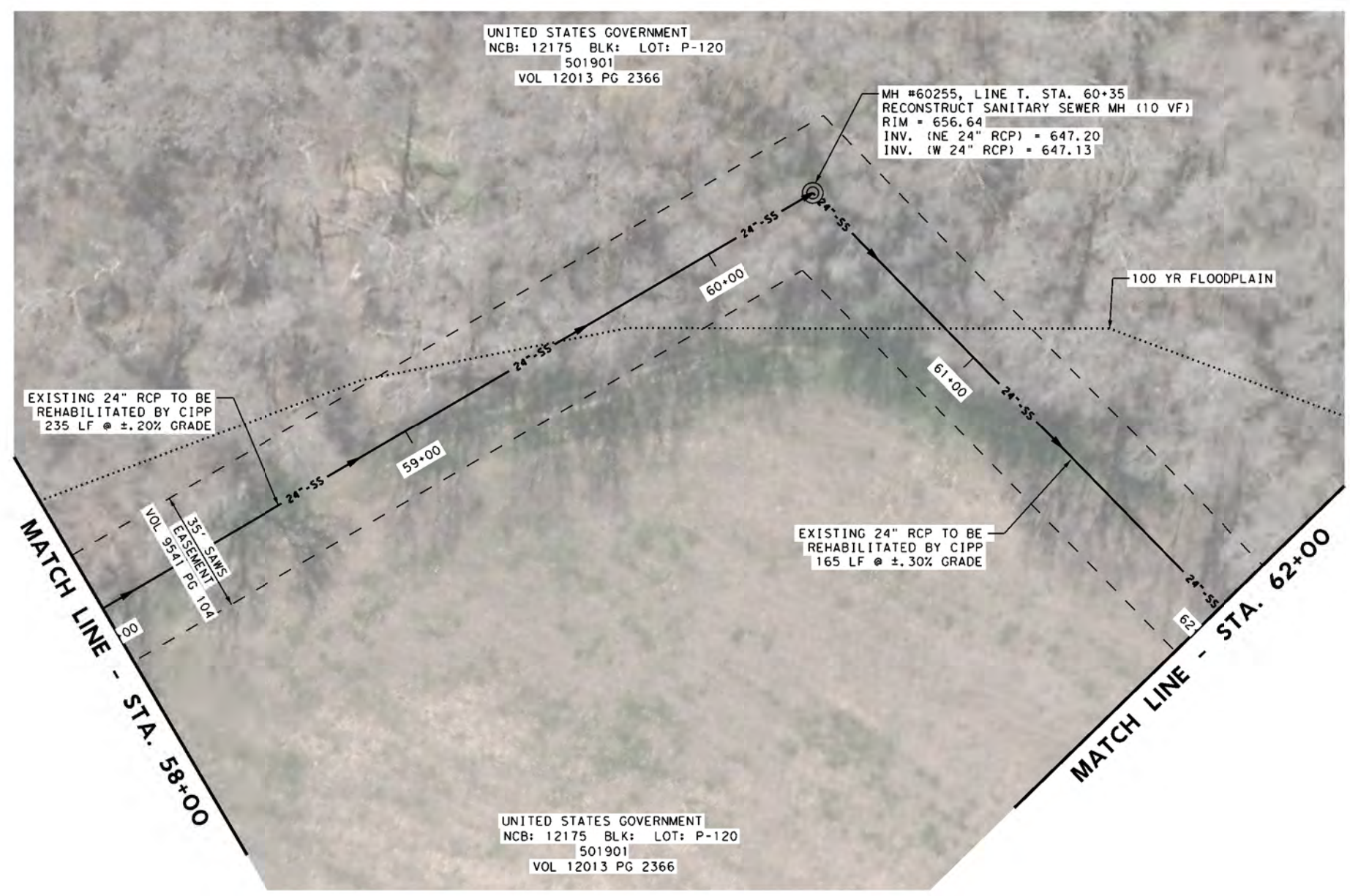
EA EASTERN SEWERSHED PACKAGE IV
WCS SEWER PLAN — LINE T
 STA. 54+00 TO STA 58+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED _____

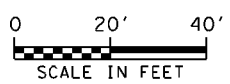
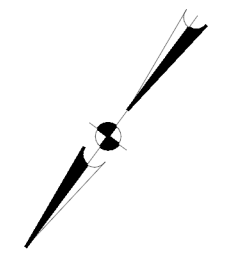
MAP No.	SHEET: 42 OF 61	SHEET
DR. MN CK.	JOB No. 17-4527	42

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SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	

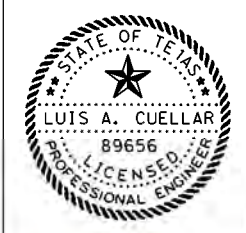


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- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.

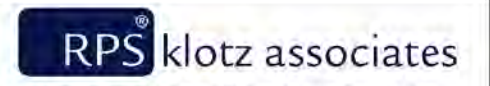
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
855	RECONSTRUCTION OF EXISTING MANHOLE	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
 LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cuellar



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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

EASTERN SEWERSHED PACKAGE IV

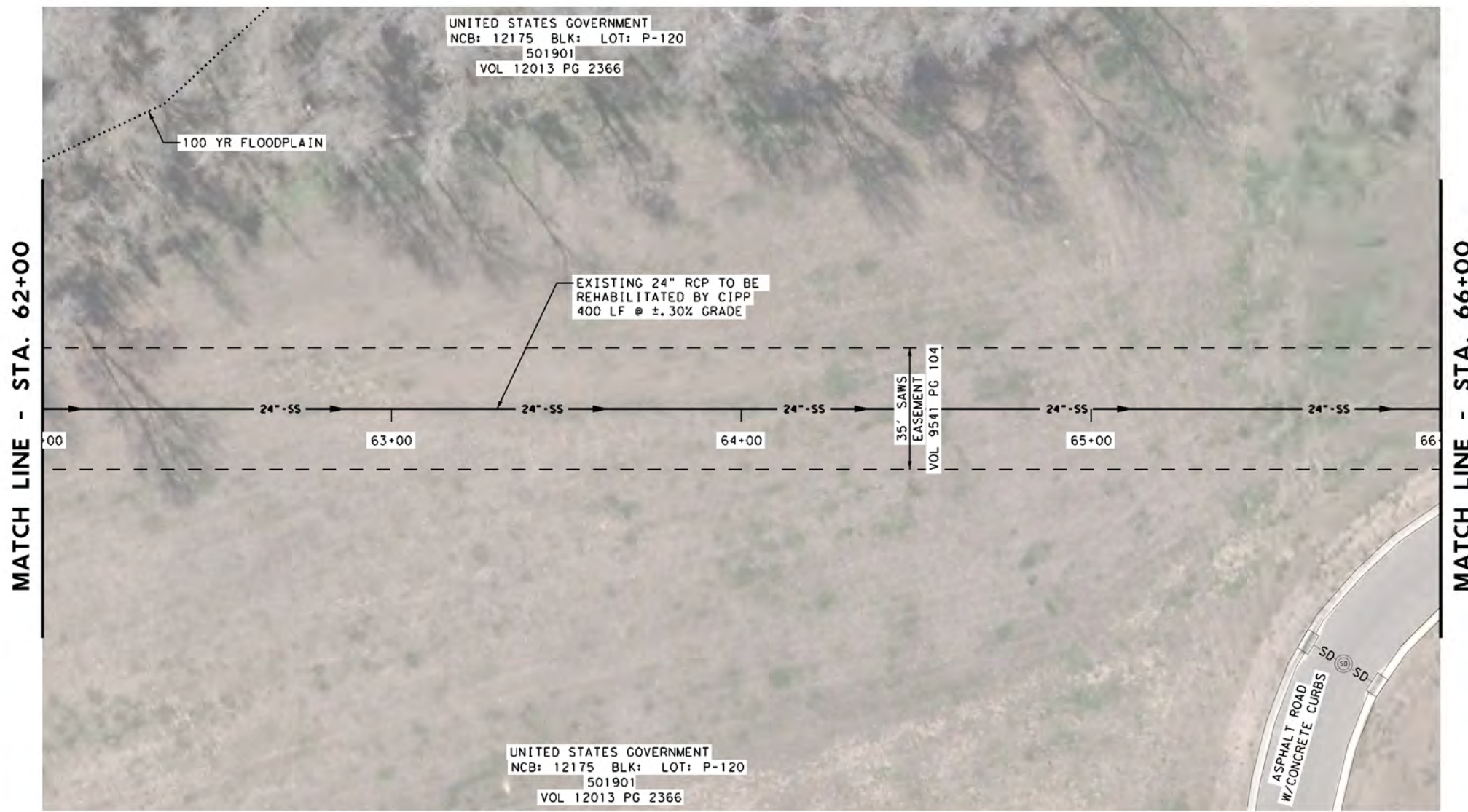
SEWER PLAN - LINE T
 STA. 58+00 TO STA. 62+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED _____

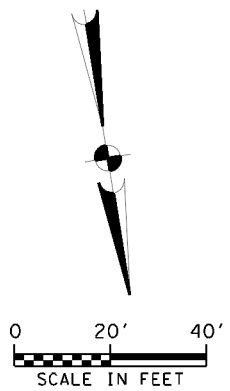
MAP No.	SHEET: 43 OF 61	SHEET 43
DR. MN CK.	JOB No. 17-4527	

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SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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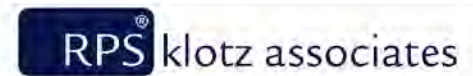
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400



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LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cull



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No.	Revision	Drawn	Approved	Date

REVISIONS

	EASTERN SEWERSHED PACKAGE IV
	SEWER PLAN - LINE T STA. 62+00 TO STA 66+00

DEVELOPER: SAN ANTONIO WATER SYSTEM

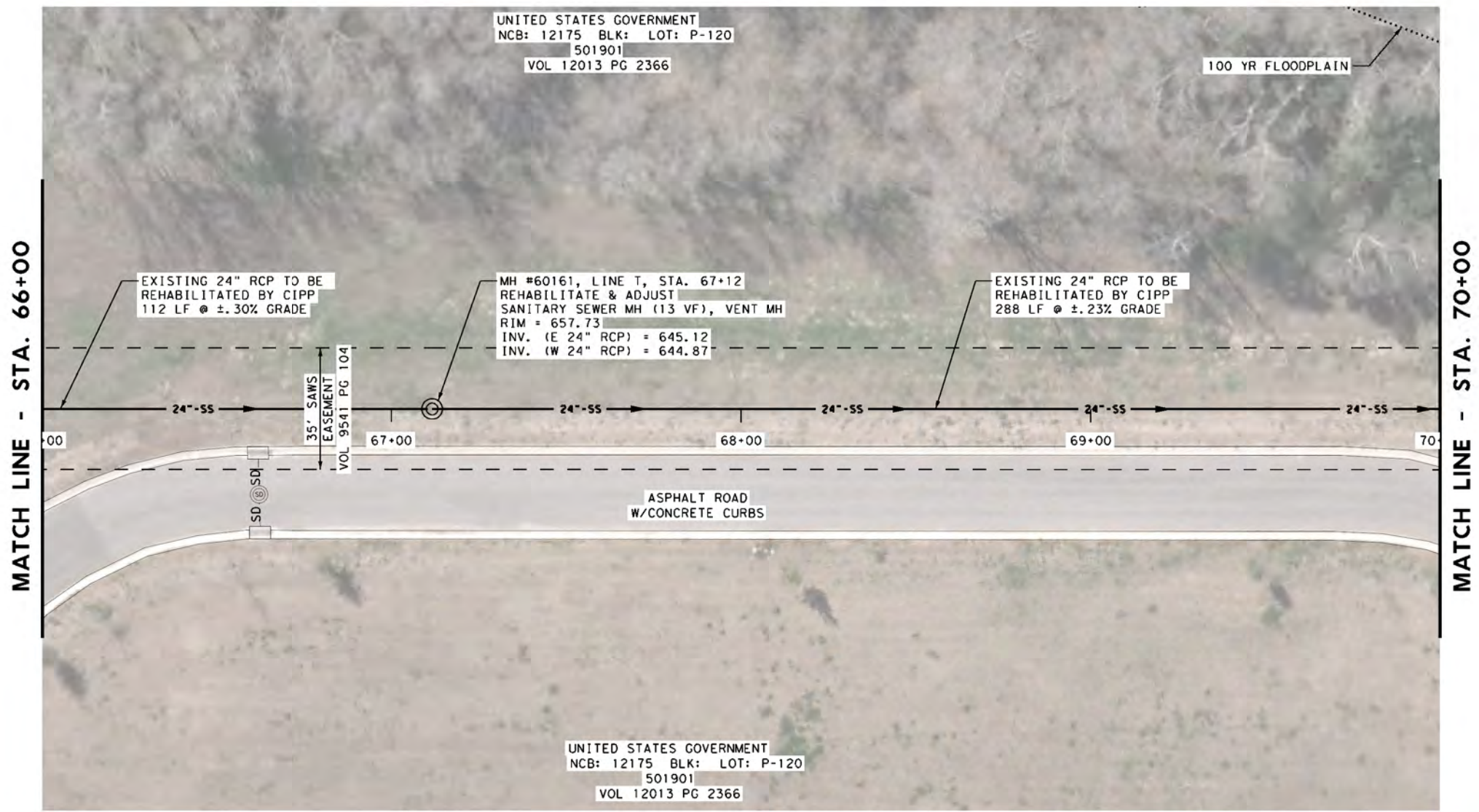
CONT. BUDGET PROJ.

SUBMITTED 1/5/2018

APPROVED _____

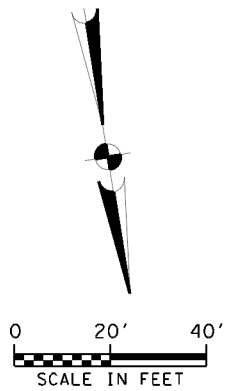
MAP No.		SHEET	
SECT. No.	SHEET: 44 OF 61		44
DR. MN CK.	JOB No. 17-4527		

4/12/2018 9:18:14 AM T:\007555\2017-Pipeline\Eng_Svc_PS-00035-07\01\01_00_CADD\ESP4\07-V1_UH\Utilities\SAWS+ESP4+T9-15.dgn



SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	13

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cuellar

RPS klotz associates

4801 NW Loop 410, Suite 910, San Antonio, Texas 78229
 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg. #F-929

UPDATED BID ITEM DESCRIPTION	JF	LC	4/11/18

No.	Revision	Drawn	Approved	Date

REVISIONS

EASTERN SEWERSHED
PACKAGE IV

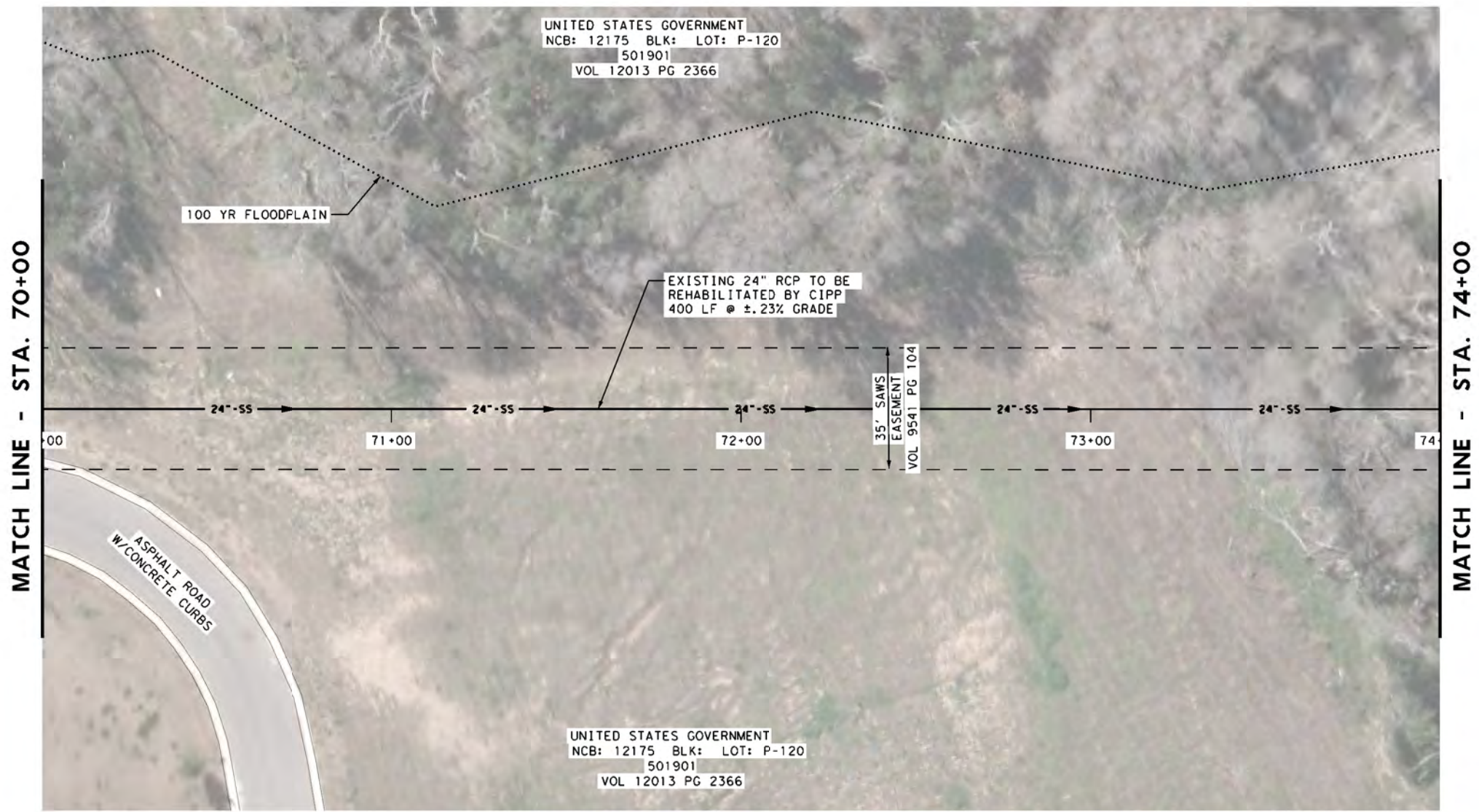
SEWER PLAN - LINE T
STA. 66+00 TO STA 70+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED _____

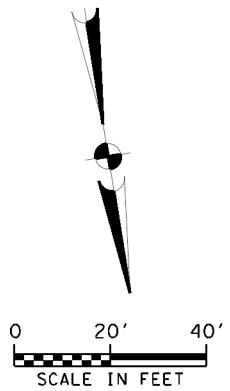
MAP No.	SHEET: 45 OF 61	SHEET 45
DR. MN CK.	JOB No. 17-4527	

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SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400

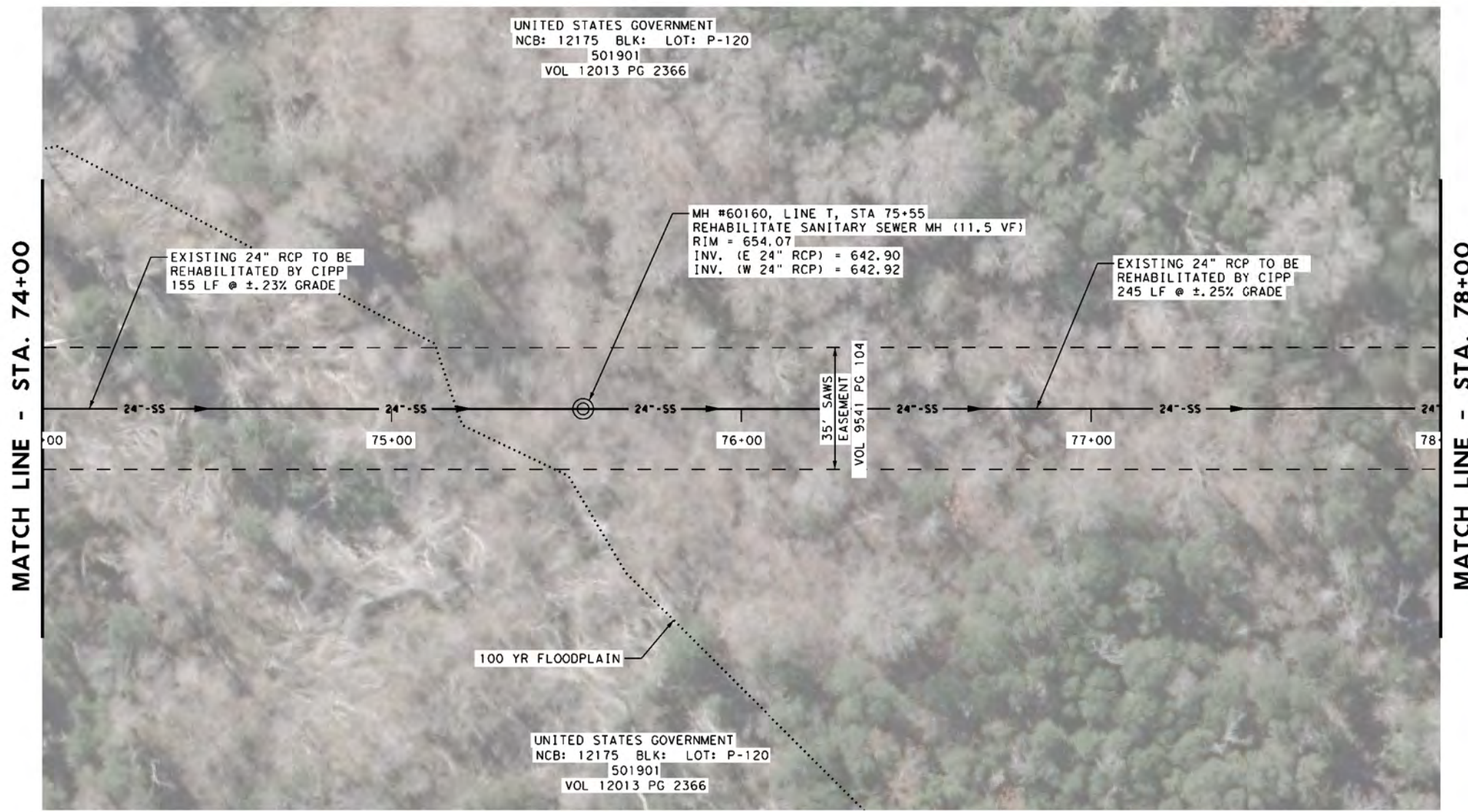
RPS klotz associates
 4801 NW Loop 410, Suite 910, San Antonio, Texas 78229
 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg. #F-929

NO.	REVISION	DATE

EA EASTERN SEWERSHED PACKAGE IV
 SEWER PLAN - LINE T
 STA. 70+00 TO STA. 74+00

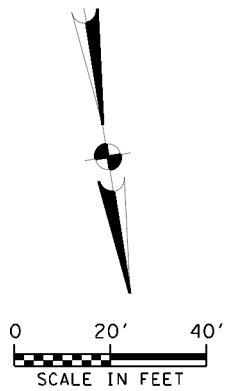
DEVELOPER:	SAN ANTONIO WATER SYSTEM
CONT.	BUDGET PROJ.
SUBMITTED	1/5/2018
APPROVED	
MAP No.	
SECT. No.	SHEET: 46 OF 61
DR. MN CK.	JOB No. 17-4527

4/12/2018 9:20:02 AM T:\007555\2017\PipeLines\Eng_Svc_P5-00035-07\101\01_00_CADD\ESP4\07-VI_UtilityLines\SAWS+ESP4+T9_17.dgn



SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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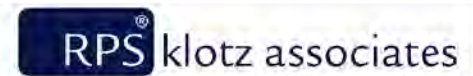
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
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901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	11.5



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
P.E. 89656
04/11/2018

R.A. Cuellar



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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

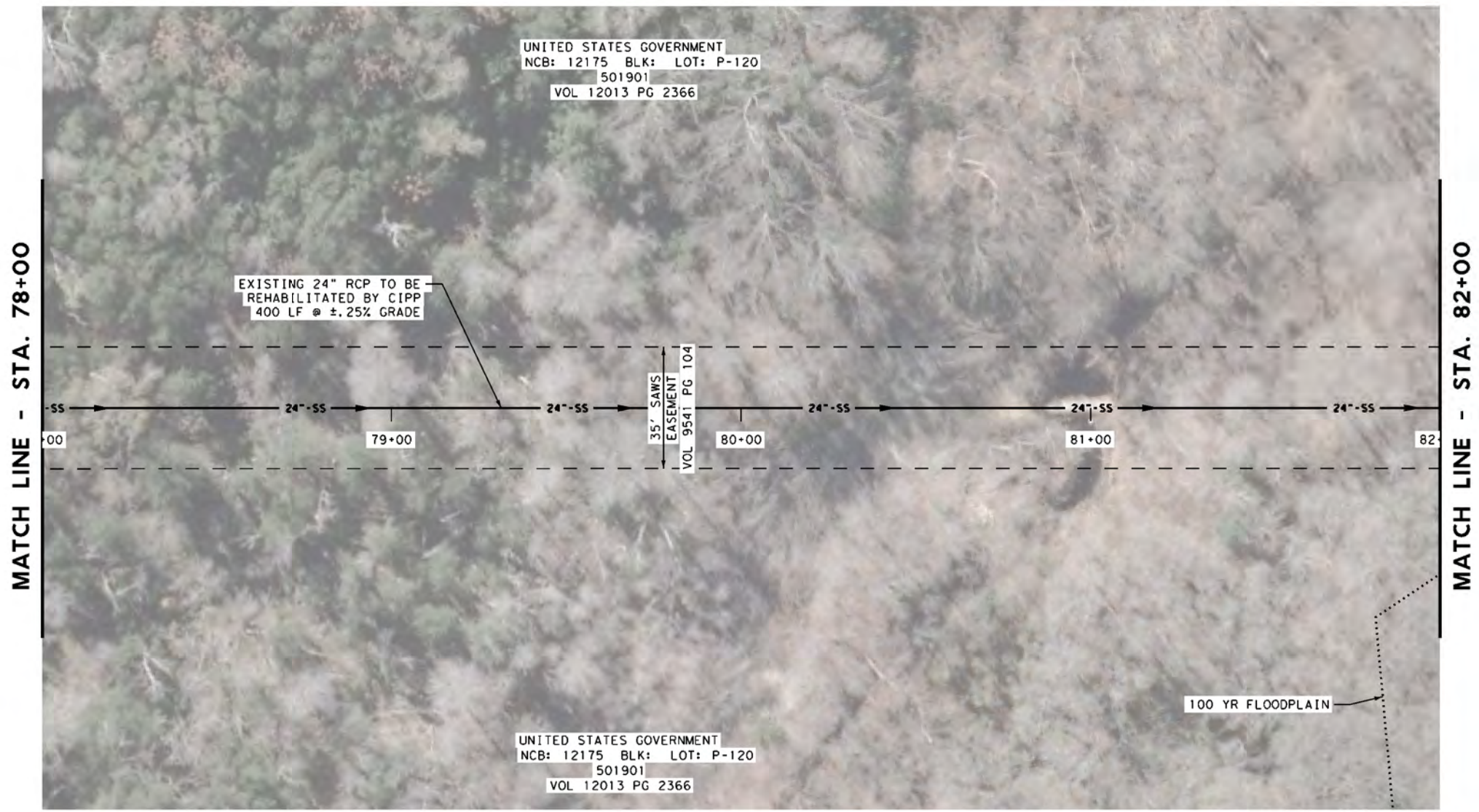
EA EASTERN SEWERSHED PACKAGE IV
SEWER PLAN - LINE T
STA. 74+00 TO STA 78+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
APPROVED

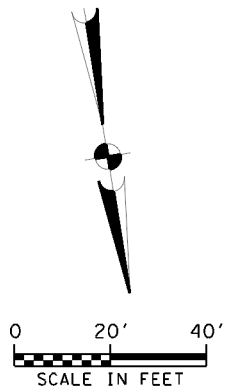
MAP No.	SHEET: 47 OF 61	SHEET
DR. MN CK.	JOB No. 17-4527	47

4/12/2018 9:20:46 AM T:\007555\2017 Pipeline Eng. Svc. PS-00035-07\01\01.00_CADD\ESP4\07-VI Utilities\SAWS+ESP4+T9_18.dgn



SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cuellar

RPS klotz associates
 4801 NW Loop 410, Suite 910, San Antonio, Texas 78229
 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg. #F-929

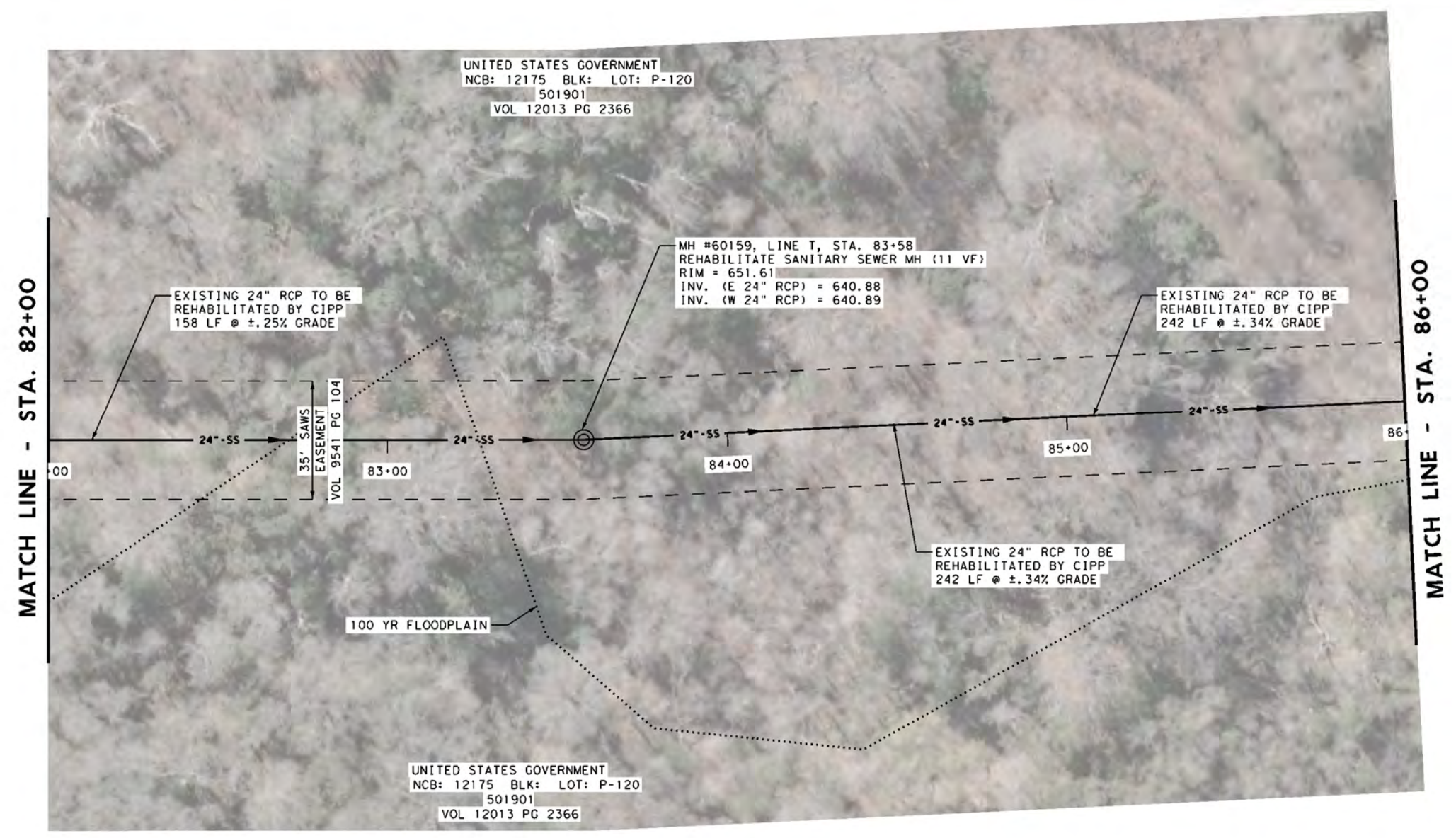
No.	Revision	Drawn	Approved	Date

EA EASTERN SEWERSHED PACKAGE IV
 SEWER PLAN - LINE T
 STA. 78+00 TO STA 82+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.
 SUBMITTED 1/5/2018
 APPROVED _____

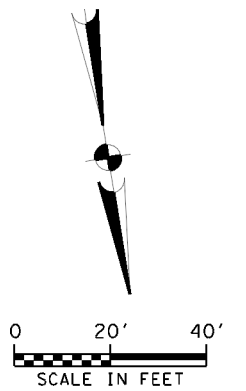
MAP No.	SHEET: 48 OF 61	SHEET
DR. MN CK.	JOB No. 17-4527	48

4/12/2018 9:21:21 AM T:\007555\2017\PipeLines\Eng_Svc_P5-00035-07\101\01_00_CADD\ESP4\07-VI_UtilityLines\SAWS+ESP4+T9_19.dgn



SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	

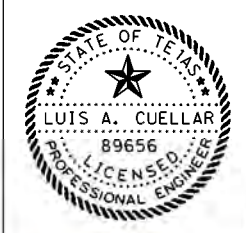


NOTES

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- 5 THE CONTRACTOR SHALL REFER TO THE SEWER LAYOUT AND CONTROL PLAN (SHEETS 4-9) FOR APPROXIMATE LOCATION OF 100 YEAR FLOODPLAIN.
- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.

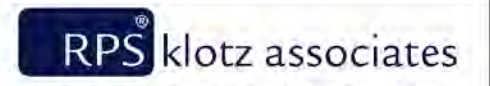
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	400
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	11



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 P.E. 89656
 04/11/2018

R.A. Cuellar



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NO.	REVISION	DATE

REVISIONS

EASTERN SEWERSHED PACKAGE IV

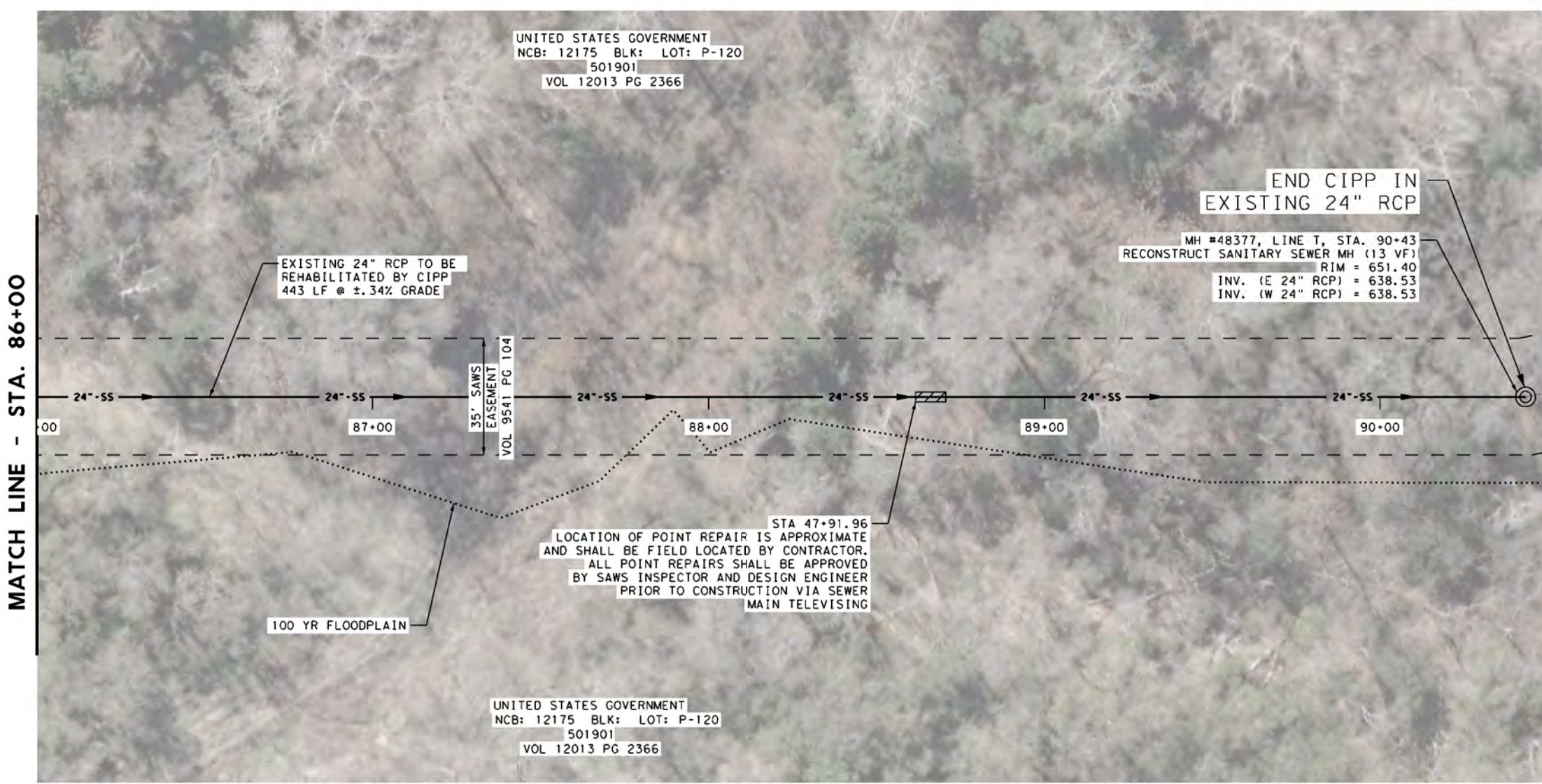
SEWER PLAN - LINE T
 STA. 82+00 TO STA 86+00

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED _____

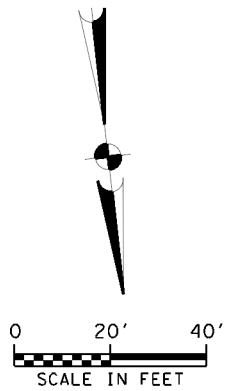
MAP No.	SHEET: 49 OF 61	SHEET
DR. MN CK.	JOB No. 17-4527	49

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SAWS LEGEND

- REHABILITATE SANITARY SEWER MH PROPERTY LINE/R.O.W.
- REHABILITATE SANITARY SEWER EXISTING SANITARY SEWER
- PROPOSED NEW SANITARY SEWER MH EXISTING WATER MAIN
- EXISTING SANITARY SEWER MH EXISTING STORM SEWER
- SUGGESTED ACCESS ROUTE EXISTING GAS
- SUGGESTED BYPASS ROUTE EXISTING OVERHEAD ELECTRIC
- SAWS EASEMENT EXISTING FENCE
- 100 YR FLOODPLAIN EXISTING RAILROAD



NOTES

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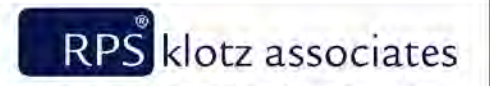
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
855	RECONSTRUCTION OF EXISTING MANHOLE	EA	1
866	SEWER MAIN TELEVISION INSPECTION (18" THROUGH 27")	LF	443
901	24-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	443
1103	24-INCH PIPE POINT REPAIR, ALL DEPTHS	EA	1



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 04/11/2018

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UPDATED BID ITEM DESCRIPTION	JP	LC	4/11/18

No. Revision Drawn Approved Date

REVISIONS

	EASTERN SEWERSHED PACKAGE IV
	SEWER PLAN - LINE T STA. 86+00 TO END

DEVELOPER: SAN ANTONIO WATER SYSTEM

CONT. BUDGET PROJ.

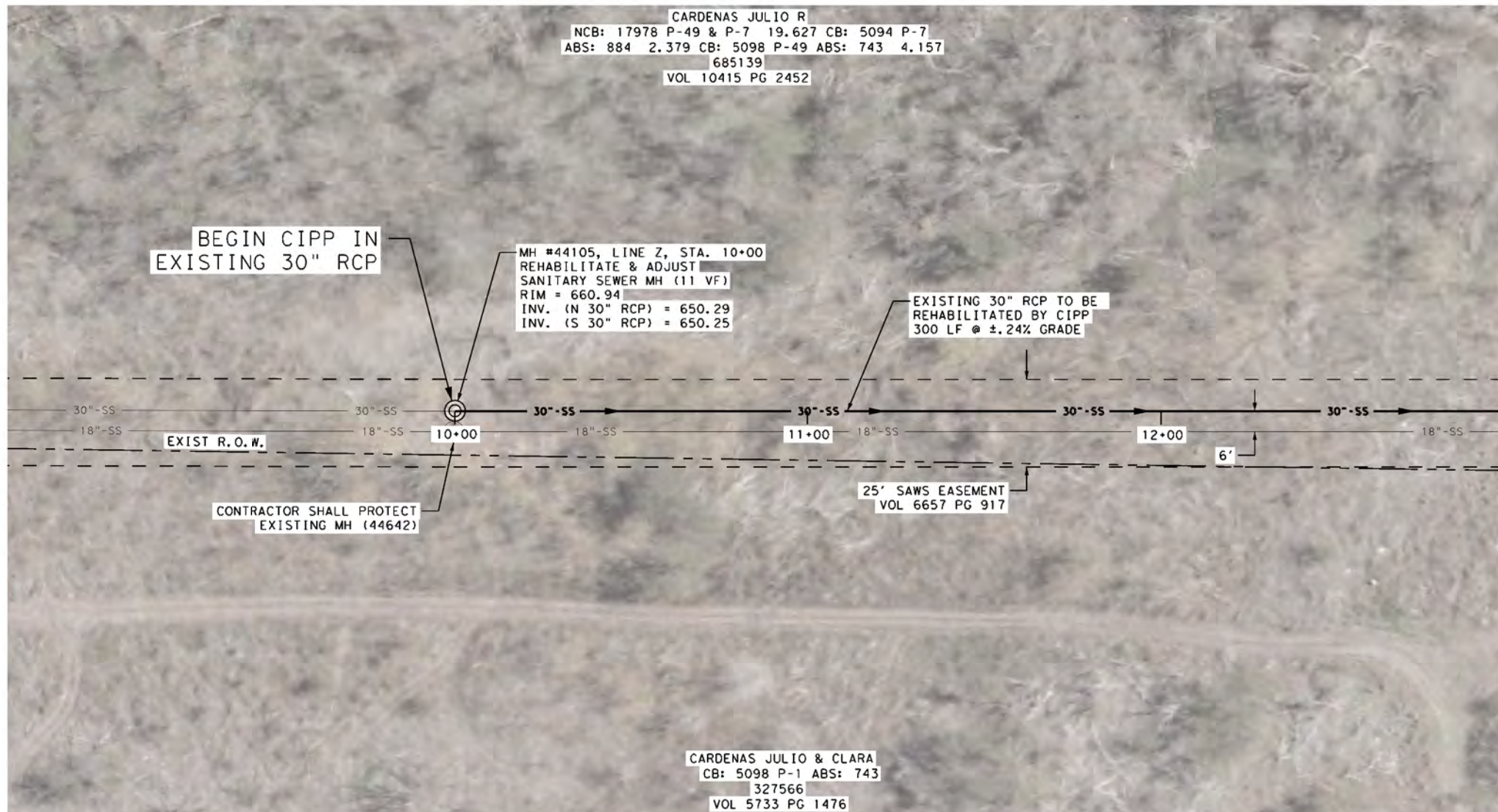
SUBMITTED 1/5/2018

APPROVED _____

MAP No.	SHEET: 50 OF 61	SHEET 50
SECT. No.	JOB No. 17-4527	

DR. MN CK.

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CARDENAS JULIO R
 NCB: 17978 P-49 & P-7 19.627 CB: 5094 P-7
 ABS: 884 2.379 CB: 5098 P-49 ABS: 743 4.157
 685139
 VOL 10415 PG 2452

BEGIN CIPP IN
 EXISTING 30" RCP

MH #44105, LINE Z, STA. 10+00
 REHABILITATE & ADJUST
 SANITARY SEWER MH (11 VF)
 RIM = 660.94
 INV. (N 30" RCP) = 650.29
 INV. (S 30" RCP) = 650.25

EXISTING 30" RCP TO BE
 REHABILITATED BY CIPP
 300 LF @ ±.24% GRADE

EXIST R.O.W.

CONTRACTOR SHALL PROTECT
 EXISTING MH (44642)

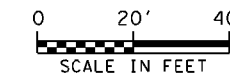
25' SAWS EASEMENT
 VOL 6657 PG 917

CARDENAS JULIO & CLARA
 CB: 5098 P-1 ABS: 743
 327566
 VOL 5733 PG 1476

MATCH LINE - STA. 13+00

SAWS LEGEND

REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	— 24"-SS —>	EXISTING SANITARY SEWER	— 8" SS —
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	---	EXISTING FENCE	← x-x-x
100 YR FLOODPLAIN	EXISTING RAILROAD	====

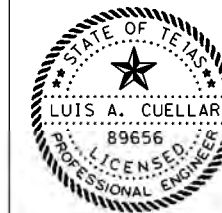


NOTES

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- PROPERTY LINES SHOWN ARE APPROXIMATE.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	300
901	30-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	300
910.1	MANHOLE REHABILITATION	VF	11



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
 LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cuellar

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 T 210.736.0425 • email@klotz.com • Texas PE Firm Reg. #F-929

NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

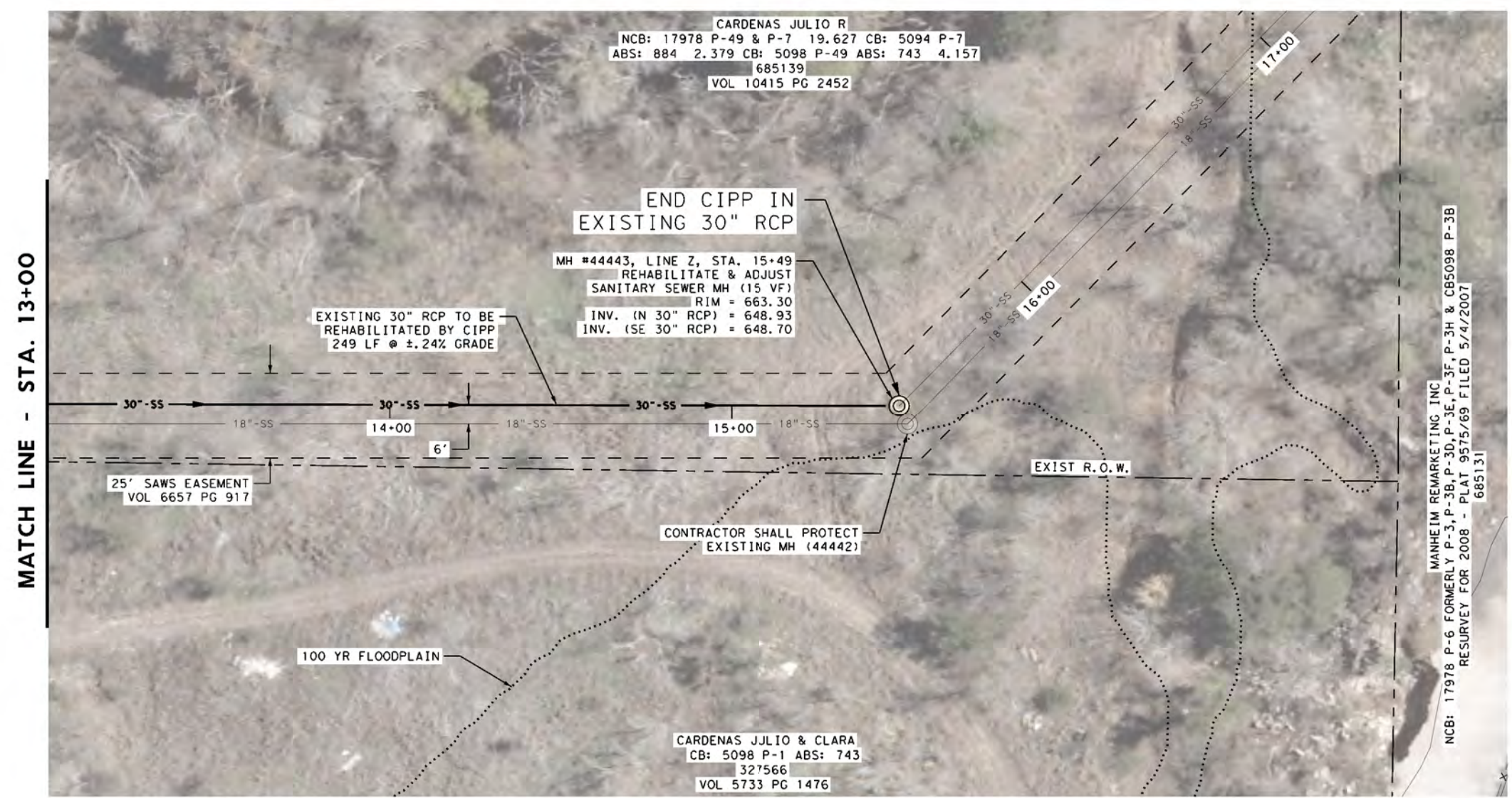
EASTERN SEWERSHED PACKAGE IV

SEWER PLAN - LINE Z BEGIN TO STA. 13+00

DEVELOPER:	SAN ANTONIO WATER SYSTEM
CONT.	BUDGET PROJ.
SUBMITTED	1/5/2018
APPROVED	
MAP No.	
SECT. No.	SHEET: 51 OF 61
DR. MN CK.	JOB No. 17-4527

SHEET
51

4/12/2018 9:24:48 AM T:\007555\2017\PipeLines\Eng_Svc_P5-00035-07\W01\01_00_CADD\ESP4\07-V1\Utilities\SAWS+ESP4+Z13_2.dgn



SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	

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- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	249
901	30-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	249
910.1	MANHOLE REHABILITATION	VF	15

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cuellar

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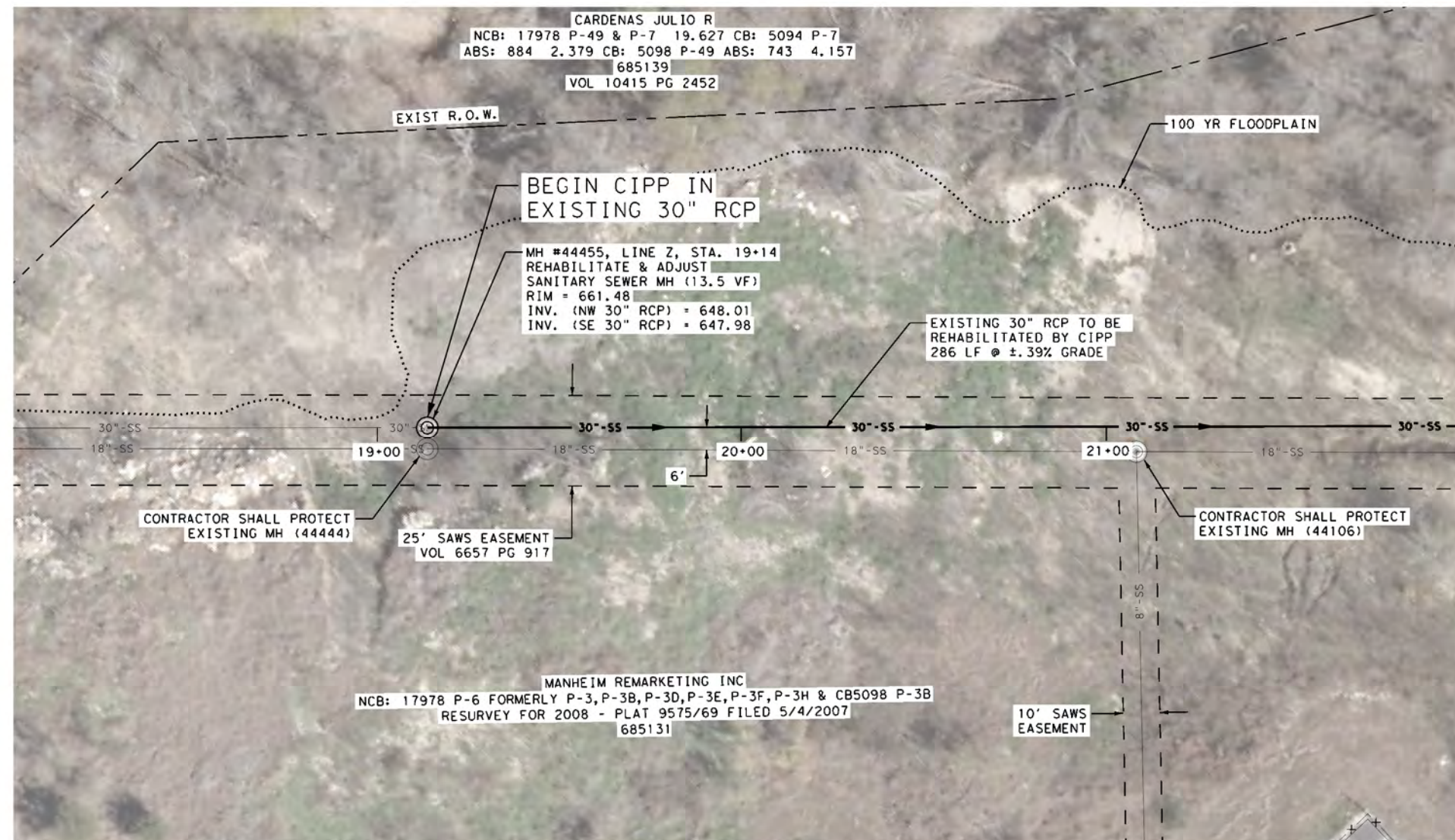
No.	Revision	Drawn	Approved	Date

EASTERN SEWERSHED
PACKAGE IV

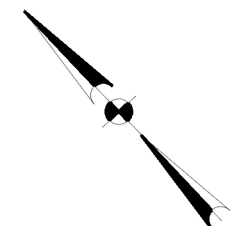
SEWER PLAN - LINE Z
STA. 13+00 TO END

DEVELOPER: SAN ANTONIO WATER SYSTEM	
CONT. BUDGET PROJ.	
SUBMITTED 1/5/2018	
APPROVED	
MAP No.	SHEET 52 OF 61
SECT. No.	JOB No. 17-4527
DR. MN CK.	SHEET 52

4/12/2018 9:25:25 AM T:\007555\2017_PipeLines_Eng_Svc_P5-00035-07\01\01.00_CADD\ESP4\07-V1_UtilityLines\SAWS+ESP4+Z13.3.dgn



SAWS LEGEND			
REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	— 24"-SS —>	EXISTING SANITARY SEWER	— 8" SS —
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	— 6" W —
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	— 2" G —
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	---	EXISTING FENCE	— x-x-x —
100 YR FLOODPLAIN	⋯	EXISTING RAILROAD	⊥

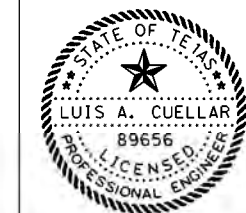


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ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	286
901	30-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	286
910.1	MANHOLE REHABILITATION	VF	13.5



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 04/11/2018

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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

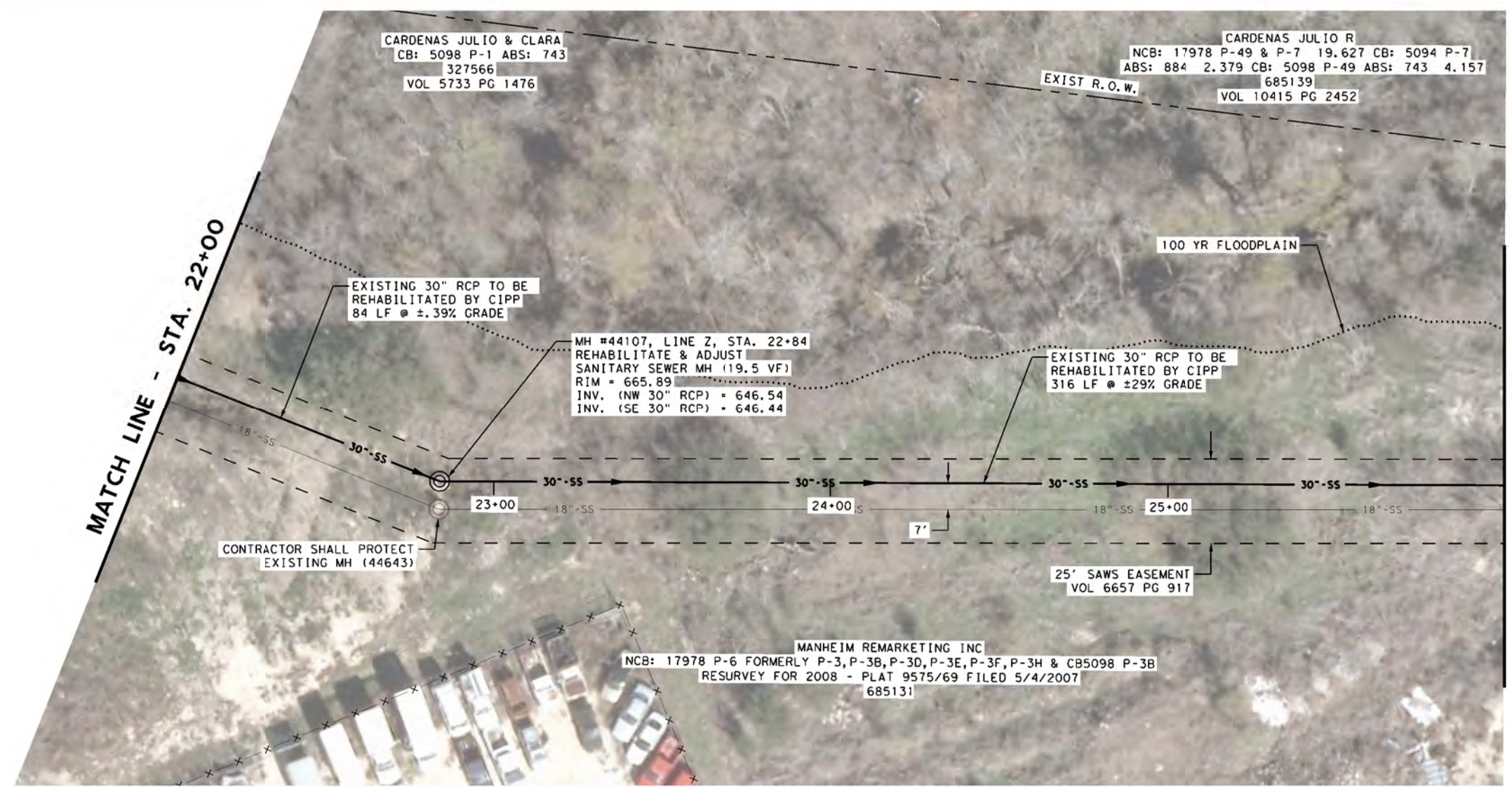
REVISIONS

EASTERN SEWERSHED PACKAGE IV

SEWER PLAN - LINE Z BEGIN TO STA 22+00

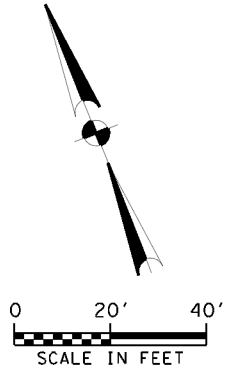
DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.
 SUBMITTED 1/5/2018
 APPROVED _____
 MAP No. _____ SHEET 53 OF 61
 SECT. No. _____ SHEET 53
 DR. MN CK. _____ JOB No. 17-4527

4/12/2018 9:26:35 AM T:\007555\2017\PipeLines\Eng_Svc_P5-00035-07\W01\01.00_CADD\ESP4\07-V1_UtilityLines\SAWS+ESP4+Z13_4.dgn



SAWS LEGEND

REHABILITATE SANITARY SEWER MH		PROPERTY LINE/R.O.W.	
REHABILITATE SANITARY SEWER		EXISTING SANITARY SEWER	
PROPOSED NEW SANITARY SEWER MH		EXISTING WATER MAIN	
EXISTING SANITARY SEWER MH		EXISTING STORM SEWER	
SUGGESTED ACCESS ROUTE		EXISTING GAS	
SUGGESTED BYPASS ROUTE		EXISTING OVERHEAD ELECTRIC	
SAWS EASEMENT		EXISTING FENCE	
100 YR FLOODPLAIN		EXISTING RAILROAD	



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- PROPERTY LINES SHOWN ARE APPROXIMATE.

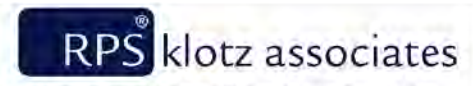
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	400
901	30-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	400
910.1	MANHOLE REHABILITATION	VF	19.5



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 04/11/2018

R.A. Cull



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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

EA EASTERN SEWERSHED PACKAGE IV
 SEWER PLAN - LINE Z
 STA. 22+00 TO STA. 26+00

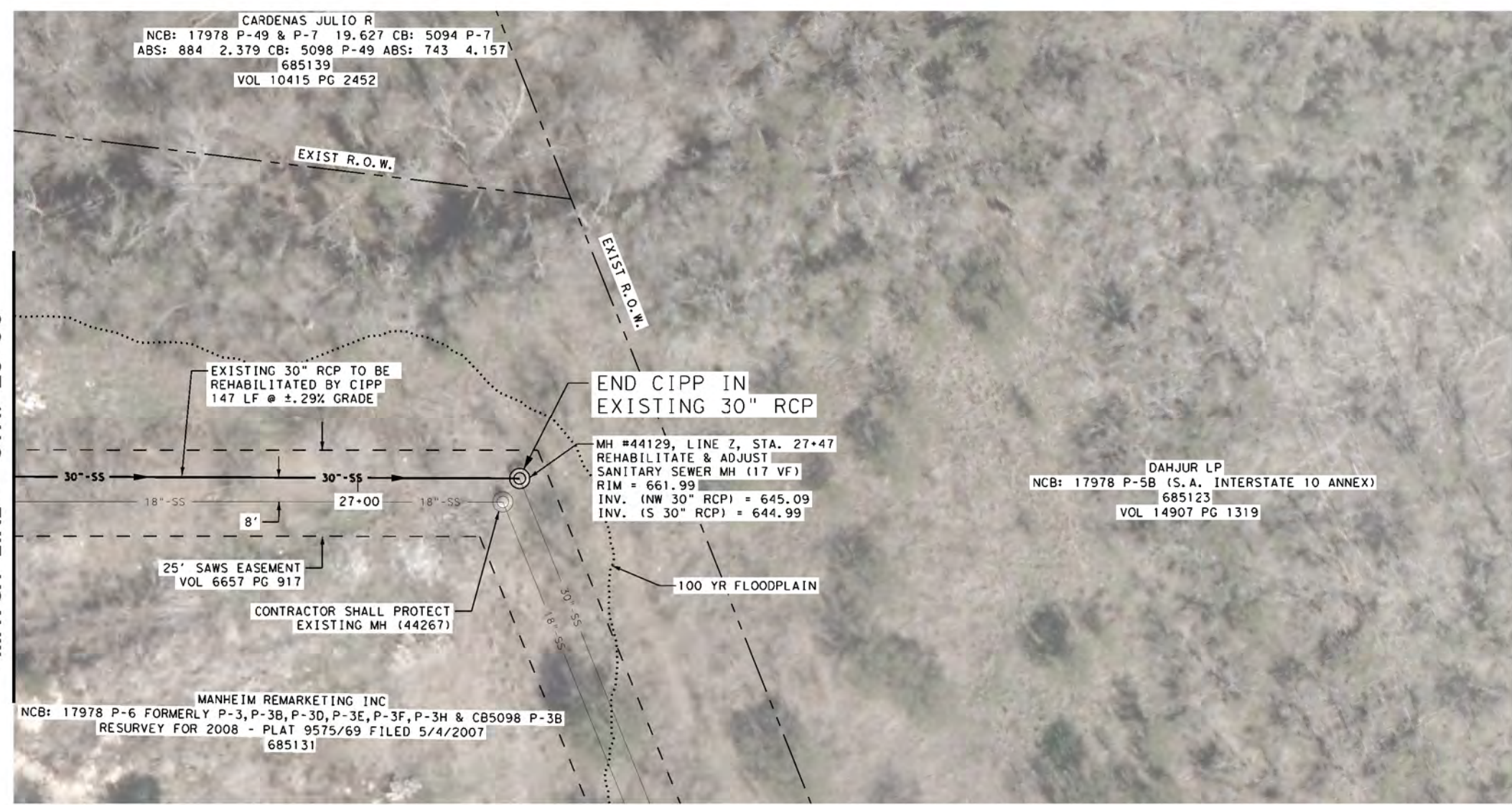
DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

SUBMITTED 1/5/2018
 APPROVED

MAP No.	SHEET: 54 OF 61	SHEET
DR. MN CK.	JOB No. 17-4527	54

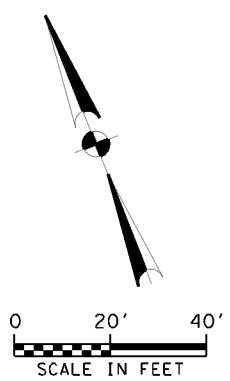
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MATCH LINE - STA. 26+00



SAWS LEGEND

REHABILITATE SANITARY SEWER MH	⊙	PROPERTY LINE/R.O.W.	---
REHABILITATE SANITARY SEWER	- 24"-SS ->	EXISTING SANITARY SEWER	- 8" SS -
PROPOSED NEW SANITARY SEWER MH	⊙	EXISTING WATER MAIN	- 6" W -
EXISTING SANITARY SEWER MH	⊙	EXISTING STORM SEWER	⊙ SD
SUGGESTED ACCESS ROUTE	▨	EXISTING GAS	- 2" G -
SUGGESTED BYPASS ROUTE	→	EXISTING OVERHEAD ELECTRIC	⊙ OE
SAWS EASEMENT	- - -	EXISTING FENCE	- x - x - x
100 YR FLOODPLAIN	EXISTING RAILROAD	====



NOTES

- 1 THE EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE BASED UPON RECORDED INFORMATION ONLY AND ARE APPROXIMATE. THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT TEXAS STATE WIDE ONE CALL (811) PRIOR TO THE BEGINNING OF WORK. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL AND ANY DAMAGES THAT MIGHT OCCUR BY HIS FAILURE TO ACCURATELY LOCATE ALL EXISTING UNDERGROUND UTILITIES AND PRESERVE
- 2 ALL CONSTRUCTION ACTIVITY SHALL BE MAINTAINED WITHIN THE SAWS EASEMENT UNLESS A TEMPORARY CONSTRUCTION EASEMENT, AGREEMENT, OR RIGHT OF ENTRY PERMITTING IS PROVIDED BY SAWS.
- 3 CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SEWER SERVICE TO EXISTING SEWER MAINS AND SERVICES AT ALL TIMES.
- 4 CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS THROUGH ALL DRIVEWAYS FOR EMERGENCY ACCESS.
- 5 THE CONTRACTOR SHALL REFER TO THE SEWER LAYOUT AND CONTROL PLAN (SHEETS 4-9) FOR APPROXIMATE LOCATION OF 100 YEAR FLOODPLAIN.
- 6 PROPERTY LINES SHOWN ARE APPROXIMATE.

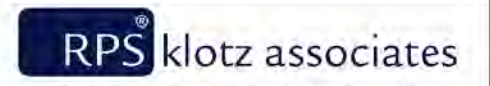
ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
851.1	MANHOLE ADJUSTMENT	EA	1
866	SEWER MAIN TELEVISION INSPECTION (30" AND LARGER)	LF	147
901	30-INCH CIPP SEWER MAIN REHABILITATION (WATER-CURED) ALL DEPTHS	LF	147
910.1	MANHOLE REHABILITATION	VF	17



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
LUIS A. CUELLAR
 P.E. 89656
 04/11/2018

R.A. Cull



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NO.	REVISION	DATE
1	UPDATED BID ITEM DESCRIPTION	4/11/18

REVISIONS

EA EASTERN SEWERSHED PACKAGE IV

WUS SEWER PLAN - LINE Z STA. 17+00 TO END

DEVELOPER:	SAN ANTONIO WATER SYSTEM
CONT.	BUDGET PROJ.
SUBMITTED	1/5/2018
APPROVED	
MAP No.	
SECT. No.	SHEET: 55 OF 61
DR. MN CK.	JOB No. 17-4527

SHEET 55