

12/8/2011 2:19:04 PM



**YOUNG PROFESSIONAL RESOURCES**  
 8100 Roughrider Drive, Suite 101  
 Windcrest, TX 78239  
 Tel. (210) 590-9215 Fax (210) 590-9346  
 Young Professional Resources ©  
 Registration No. F-8635

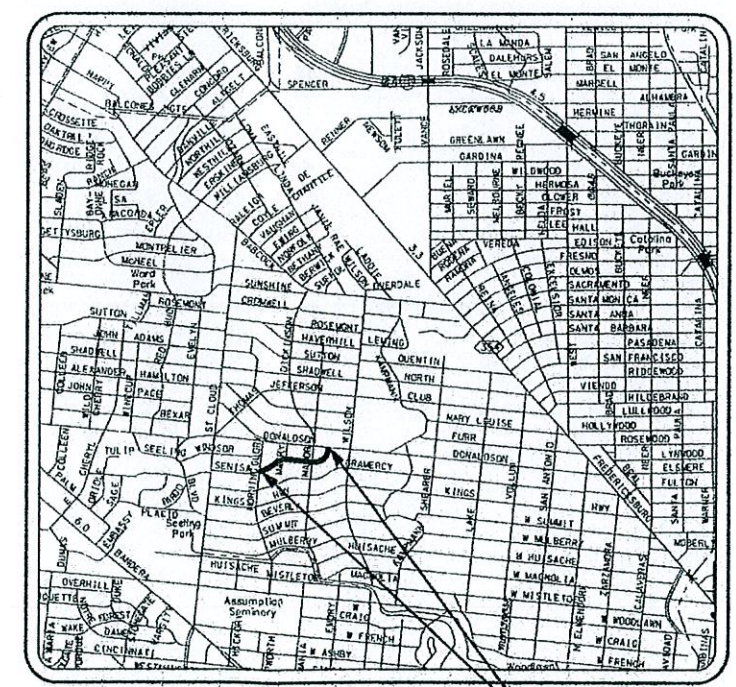
# SAN ANTONIO WATER SYSTEM

WATER JOB NO:10-5102

## SENISA DRIVE RECONSTRUCTION MORNING GLORY TO DONALDSON AVE.

ESTIMATED QUANTITIES

FINAL QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	1779
818	6" PVC WATERLINE (RESTRAINED)	LF	2
818	8" PVC WATERLINE (RESTRAINED)	LF	1777
824	RELAY 3/4" LONG SERVICE	EA	16
824	RELAY 3/4" SHORT SERVICE	EA	13
824	RELAY 1" SHORT SERVICE	EA	7
824	RELAY 1" LONG SERVICE	EA	3
828	8" GATE VALVES	EA	3
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	39
833	METER BOX	EA	39
834.1	FIRE HYDRANT	EA	1
836	PIPE FITTINGS, ALL SIZES AND TYPES	TON	0.66
840	6" WATER TIE-INS	EA	4
841	HYDROSTATIC TESTING	EA	1
844	2" BLOWOFF, TEMPORARY	EA	3
3000.14	REMOVAL, TRANSPORTATION AND DISPOSAL OF AC PIPE	LS	1
3000.15	ASBESTOS ABATEMENT WORK PLANS	LS	1



LOCATION MAP  
NTS

**PROJECT LOCATION:**  
 SENISA DRIVE  
 DONALDSON AVENUE TO MORNING GLORY

DESCRIPTION	SHEET NO.
COVER SHEET	1
WATER GENERAL NOTES	2
PROJECT LAYOUT SHEET	3
8-INCH PVC WATER MAIN PLAN SHEETS	4-9
SPECIAL DETAILS	10
STANDARD DETAILS	11-15

8" PVC	6" PVC	6" DI (FH)
2	2	33
2		2
5		35
52		
640		
466		
26		
2		
2		
30		
3		
3		
3		
1,777		

MATERIALS NOTE	AS-BUILT / PLAN OF RECORD
PIPE: JM EAGLE	SAWS JOB NO.: 10-5102
VALVES: CLOW	COMPLETION DATE: SEPTEMBER 12, 2011
FITTINGS: SIGMA	CONTRACTOR: J3 EXCAVATION CO., LLC
FIRE HYDRANTS: CLOW	INSPECTOR: ROMEO CANALES

AS-BUILT / PLAN OF RECORD

I HEREBY CERTIFY THAT THIS "PLAN OF RECORD" IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND WAS PREPARED UNDER MY SUPERVISION.

LEONARD D. YOUNG, P.E.  
 LICENSED PROFESSIONAL ENGINEER  
 TEXAS REGISTRATION NO. 61852

*[Signature]* 12-8-11  
 DATE

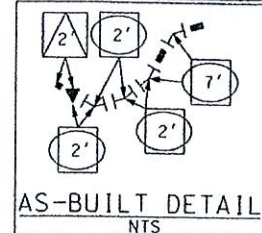
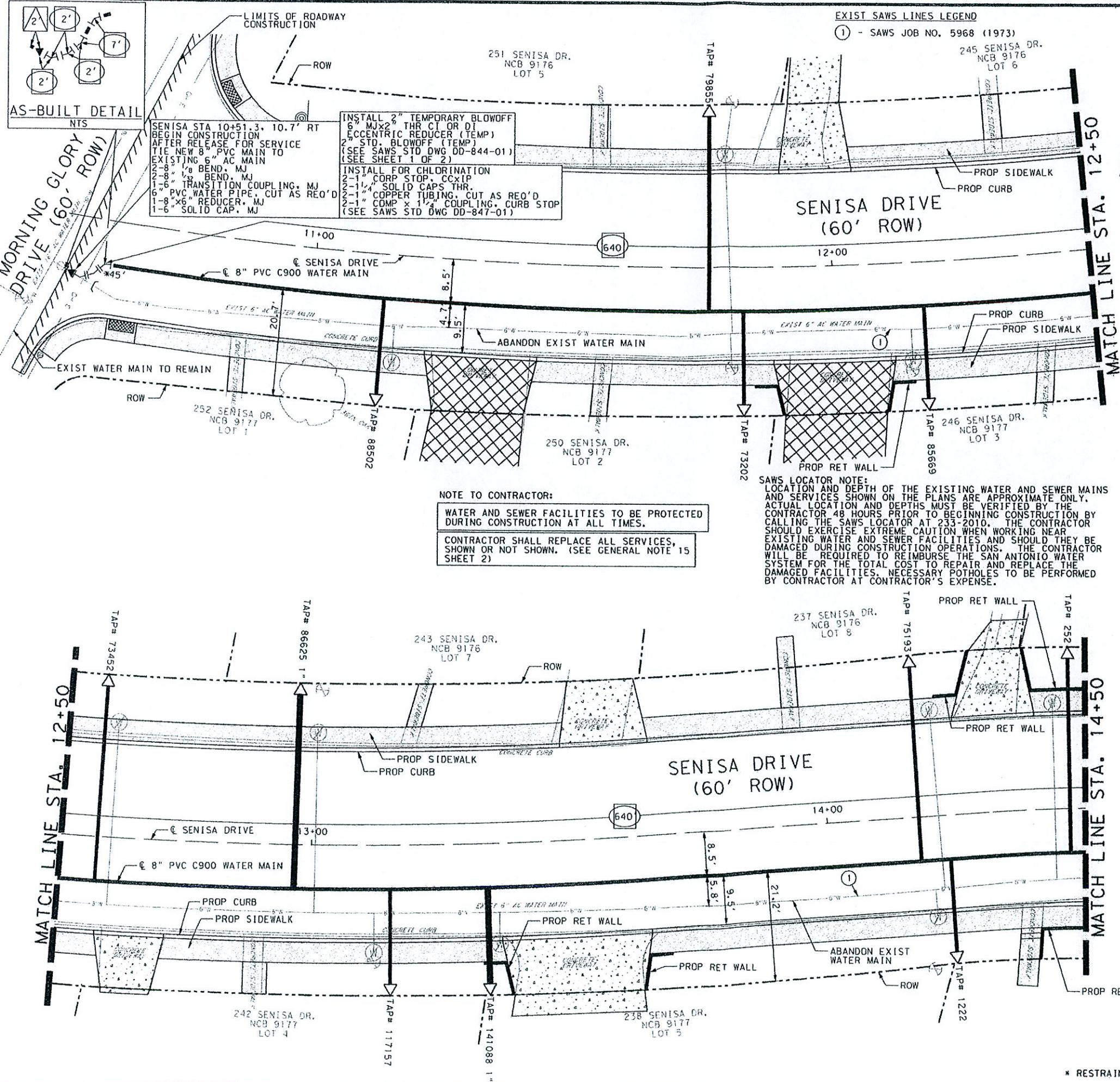
JAIME MORIEGA, P.E.  
 LICENSED PROFESSIONAL ENGINEER  
 TEXAS REGISTRATION NO. 93788

*[Signature]* 2011-12-08  
 DATE

WATER JOB NO: 10-5102

Plotted on: 12/8/2011

Design File name: C:\Users\Chris\Documents\Projects\Senisa\Design\Civil\2p\plansheets\AS-Built\Water\Senisa\water01.dgn



**AS-BUILT DETAIL**  
NTS

SENISA STA 10+51.3, 10.7' RT  
BEGIN CONSTRUCTION  
AFTER RELEASE FOR SERVICE  
TIE NEW 8" PVC MAIN TO  
EXISTING 6" AC MAIN  
2'-8" 1/2" BEND, MJ  
1'-6" 1/2" BEND, MJ  
1'-6" TRANSITION COUPLING, MJ  
1'-8" 1/2" REDUCER, MJ  
1'-6" SOLID CAP, MJ

INSTALL 2" TEMPORARY BLOWOFF  
6" MUX 2" THR CI OR DI  
ECCENTRIC REDUCER (TEMP)  
2" STD. BLOWOFF (TEMP)  
(SEE SAWS STD DWG DD-844-01)  
(SEE SHEET 1 OF 2)

INSTALL FOR CHLORINATION  
2-1" COPR STOP, CCxIP  
2-1" 1/2" SOLID CAPS THR.  
2-1" COPPER TUBING, CUT AS REQ'D  
2-1" COMP x 1/2" COUPLING, CURB STOP  
(SEE SAWS STD DWG DD-847-01)

**NOTE TO CONTRACTOR:**  
WATER AND SEWER FACILITIES TO BE PROTECTED DURING CONSTRUCTION AT ALL TIMES.  
CONTRACTOR SHALL REPLACE ALL SERVICES, SHOWN OR NOT SHOWN. (SEE GENERAL NOTE 15 SHEET 2)

**SAWS LOCATOR NOTE:**  
LOCATION AND DEPTH OF THE EXISTING WATER AND SEWER MAINS AND SERVICES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATION AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR 48 HOURS PRIOR TO BEGINNING CONSTRUCTION BY CALLING THE SAWS LOCATOR AT 233-2010. THE CONTRACTOR SHOULD EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING WATER AND SEWER FACILITIES AND SHOULD THEY BE DAMAGED DURING CONSTRUCTION OPERATIONS. THE CONTRACTOR WILL BE REQUIRED TO REIMBURSE THE SAN ANTONIO WATER SYSTEM FOR THE TOTAL COST TO REPAIR AND REPLACE THE DAMAGED FACILITIES. NECESSARY POTHOLES TO BE PERFORMED BY CONTRACTOR AT CONTRACTOR'S EXPENSE.

**EXIST SAWS LINES LEGEND**  
① - SAWS JOB NO. 5968 (1973)

		FINAL QUANTITIES	
ITEM	DESCRIPTION	UNIT	QTY
650	TRENCH EXCAVATION SAFETY PROTECTION	LF	265
818	6" PVC WATERLINE (RESTRAINED)	LF	2
818	8" PVC WATERLINE (RESTRAINED)	LF	283
824	RELAY 3/4" LONG SERVICE	EA	4
824	RELAY 3/4" SHORT SERVICE	EA	5
824	RELAY 1" SHORT SERVICE	EA	1
824	RELAY 1" LONG SERVICE	EA	1
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	11
833	METER BOX	EA	11
836	PIPE FITTINGS, ALL SIZES AND TYPES	TON	0.20
840	6" WATER TIE-INS	EA	1
844	2" BLOWOFF, TEMPORARY	EA	1

ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE AND WHICH IS KNOWN TO CONTAIN ASBESTOS CONTAINING MATERIAL (ACM), IS LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCUR. PAYMENT FOR SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000.14 "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE."

- NOTES:**
- 1.) ALL EXISTING FEATURES ARE SHOWN SCREENED BACK, I.E. FADED.
  - 2.) CONTRACTOR SHALL USE CAUTION WHEN EXCAVATING IN THE AREA OF EXISTING UTILITIES AND SERVICE LINES. PROPOSED SAWS WATER LINES CROSSING EXISTING OR PROPOSED UTILITIES REQUIRES 2-FOOT VERTICAL CLEARANCE (SEE DETAIL SHEET 10 OF 15). ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR (NSPI).
  - 3.) CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE INTEGRITY OF POWER POLES AND GUY WIRES DURING CONSTRUCTION (NSPI).
  - 4.) CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER SERVICE TO EXISTING WATER MAINS AND SERVICES AT ALL TIMES.
  - 5.) DEPTH OF EXISTING UTILITIES IS APPROXIMATE FROM AVAILABLE AS-BUILT RECORDS. CONTRACTOR TO POTHOLE EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. IF EXISTING UTILITIES' DEPTH AND/OR ALIGNMENT DIFFERS FROM WHAT IS SHOWN ON PLAN, NOTIFY ENGINEER IMMEDIATELY (NSPI).
  - 6.) CONTRACTOR SHALL PROTECT AND/OR REPAIR (IF DAMAGED) ANY EXISTING WATER SERVICE, LATERALS AND IRRIGATION SHOWN OR NOT SHOWN ON THE PLANS (NSPI).
  - 7.) CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS THROUGH ALL DRIVEWAYS FOR EMERGENCY ACCESS.
  - 8.) SAWS SHALL MACHINE CHLORINATE ALL NEW MAINS.

**AS-BUILT / PLAN OF RECORD**

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**Leonard D. Young, P.E.**  
LICENSED PROFESSIONAL ENGINEER  
TEXAS REGISTRATION NO. 61852

12-8-11  
DATE

**Jaime Noriega, P.E.**  
LICENSED PROFESSIONAL ENGINEER  
TEXAS REGISTRATION NO. 93788

201-12-08  
DATE

SCALE: 1"=20'

**LEGEND**

- PROP. WATER MAIN
- EXIST. WATER MAIN
- GAS MAIN
- SANITARY SEWER
- STORM SEWER
- UTILITY POLE LINE
- ELECTRIC CABLE
- TELEPHONE CABLE
- DUAL BRANCH SERV.
- NEW UNMETERED SERVICE:
- 1" SINGLE
- 1" DUAL
- SERVICE RECONNECT:
- 1" OR LARGER
- SERVICE RELAY:
- 1" OR LARGER
- SERVICE RELOCATE:
- 1" OR LARGER
- RELOCATE METER
- NEW SERVICE:
- 1" OR LARGER

No.	Revision	Drawn	Approved	Date
1				6/16/2011

**REVISIONS**

SENISA DRIVE RECONSTRUCTION  
MORNING GLORY TO DONALDSON AVE.  
WATER SYSTEM  
8-INCH PVC WATER  
MAIN ADJUSTMENTS  
BEGIN TO STA 14+50

DEVELOPER: [Signature]

CONT. BUDGET PROJ.

SUBMITTED

APPROVED

MAP No. 144-592

SECT. No. 4

DR. CB CK. JN JOB No. 10-5102 OF 15

\* RESTRAINED PIPE LENGTH

**SAWS LOCATOR NOTE:**  
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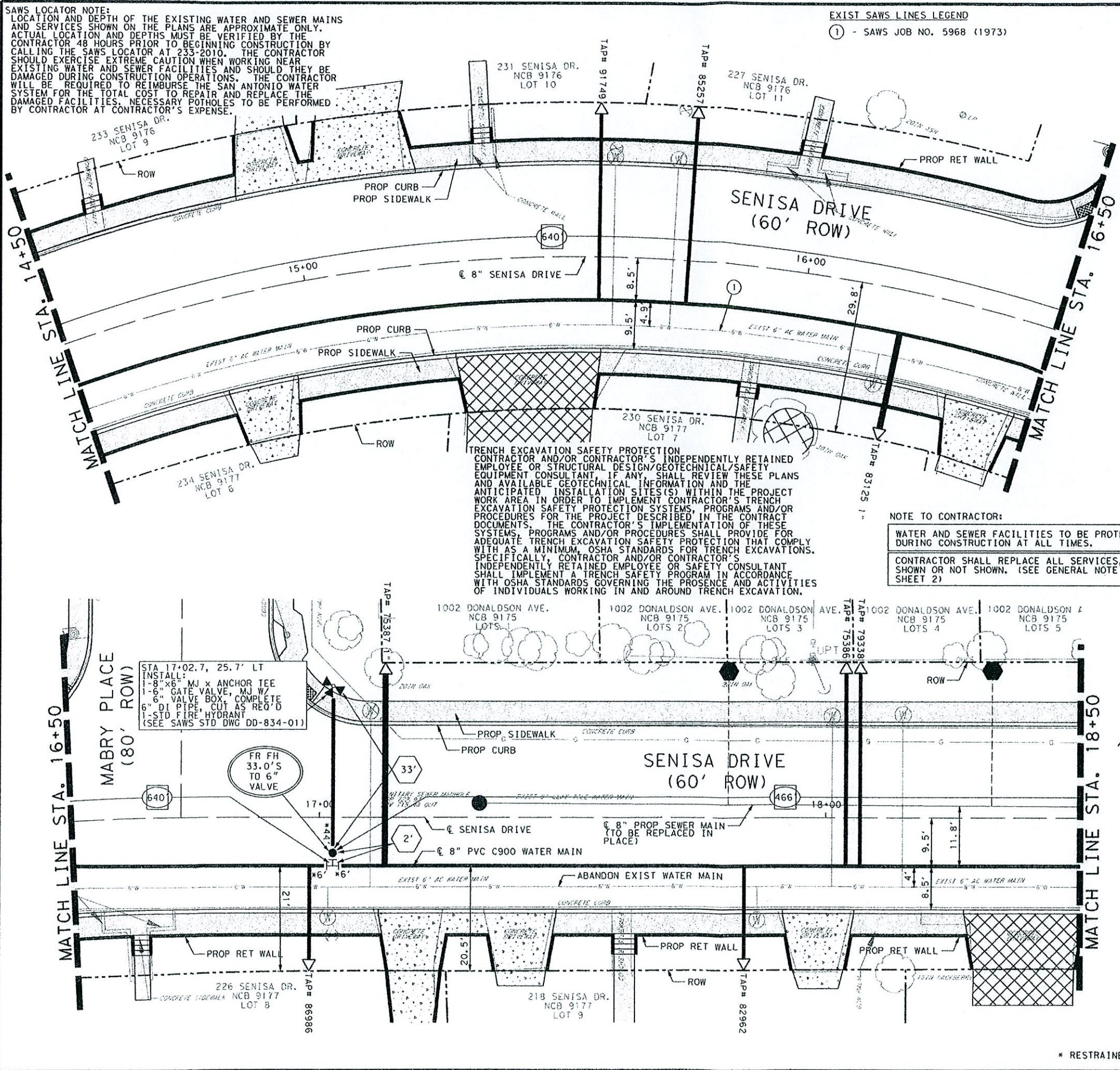
**EXIST SAWS LINES LEGEND**  
 ① - SAWS JOB NO. 5968 (1973)

		FINAL QUANTITIES	
ITEM	DESCRIPTION	UNIT	QTY
560	TRENCH EXCAVATION SAFETY PROTECTION	LF	400
818	8" PVC WATERLINE (RESTRAINED)	LF	400
824	RELAY 3/4" LONG SERVICE	EA	4
824	RELAY 3/4" SHORT SERVICE	EA	2
824	RELAY 1" SHORT SERVICE	EA	1
824	RELAY 1" LONG SERVICE	EA	1
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	8
833	METER BOX	EA	8
834.1	FIRE HYDRANT	EA	1
836	PIPE FITTINGS, ALL SIZES AND TYPES	TON	0.038
841	HYDROSTATIC TESTING	EA	1

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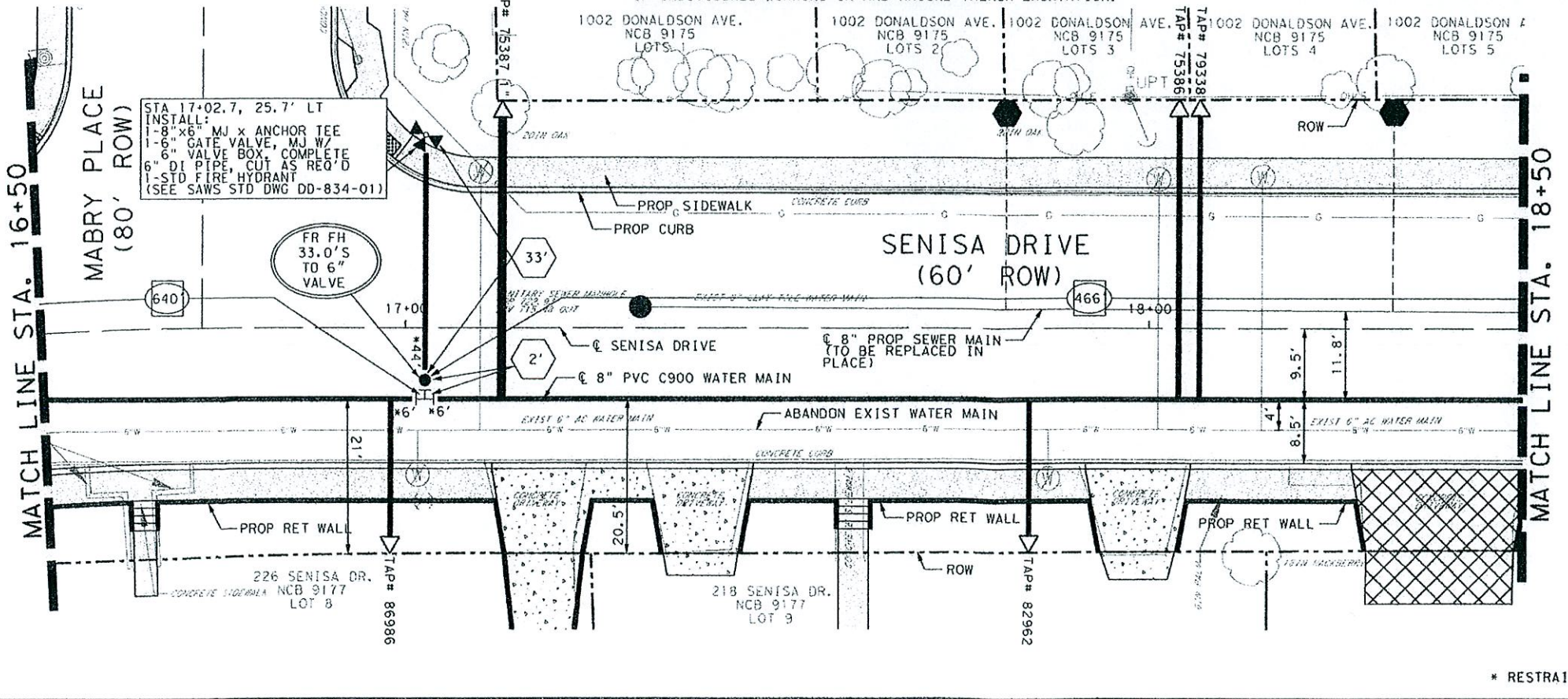
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  - 3.) CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE INTEGRITY OF POWER POLES AND GUY WIRES DURING CONSTRUCTION (NSPI).
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Plotted on: 12/8/2011  
 Design File name: C:\Users\Chris\Documents\Projects\Senisa\Des\ign\civ\1\2\2\ionsheets\As-Built\Water\SenisaWater02.dgn



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

**NOTE TO CONTRACTOR:**  
 WATER AND SEWER FACILITIES TO BE PROTECTED DURING CONSTRUCTION AT ALL TIMES.  
 CONTRACTOR SHALL REPLACE ALL SERVICES, SHOWN OR NOT SHOWN. (SEE GENERAL NOTE 15 SHEET 2)



**AS-BUILT / PLAN OF RECORD**

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*Leonard D. Young, P.E.* 12-8-11  
 LEONARD D. YOUNG, P.E.  
 LICENSED PROFESSIONAL ENGINEER  
 TEXAS REGISTRATION NO. 61652

*Juan M. Noriega, P.E.* 201-12-08  
 JUAN M. NORIEGA, P.E.  
 LICENSED PROFESSIONAL ENGINEER  
 TEXAS REGISTRATION NO. 93788

SCALE: 1"=20'

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 Windsor, TX 78229  
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 Registration No. F-6035

**LEGEND**

PROP. WATER MAIN  
 EXIST. WATER MAIN  
 GAS MAIN  
 SANITARY SEWER  
 STORM SEWER  
 UTILITY POLE LINE  
 ELECTRIC CABLE  
 TELEPHONE CABLE  
 DUAL BRANCH SERV.  
 NEW UNMETERED SERVICE  
 SERVICE RECONNECT  
 SERVICE RELAY  
 SERVICE RELOCATE  
 RELOCATE METER  
 NEW SERVICE

**REVISIONS**

1 SENISA DRIVE RECONSTRUCTION MORNING GLORY TO DONALDSON AVE. WATER SYSTEM 8-INCH PVC WATER MAIN ADJUSTMENTS STA 14+50 TO STA 18+50

**DEVELOPER:**  
 CONT. BUDGET PROJ.

**SUBMITTED**  
 APPROVED

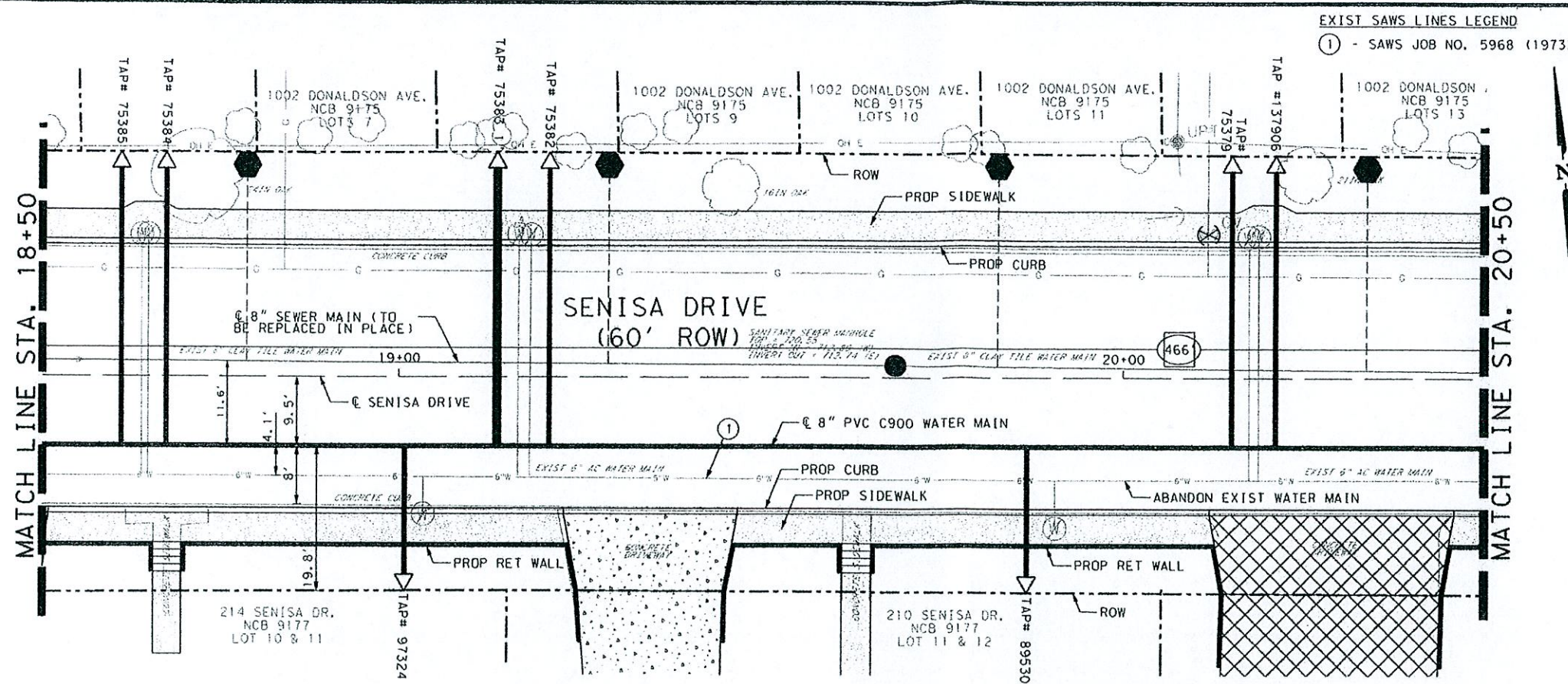
MAP No. 144-592 SHEET 5  
 SECT. No. 5  
 DR. CB CK. JN JOB No. 10-5102 OF 15

\* RESTRAINED PIPE LENGTH

Plotted on: 12/8/2011

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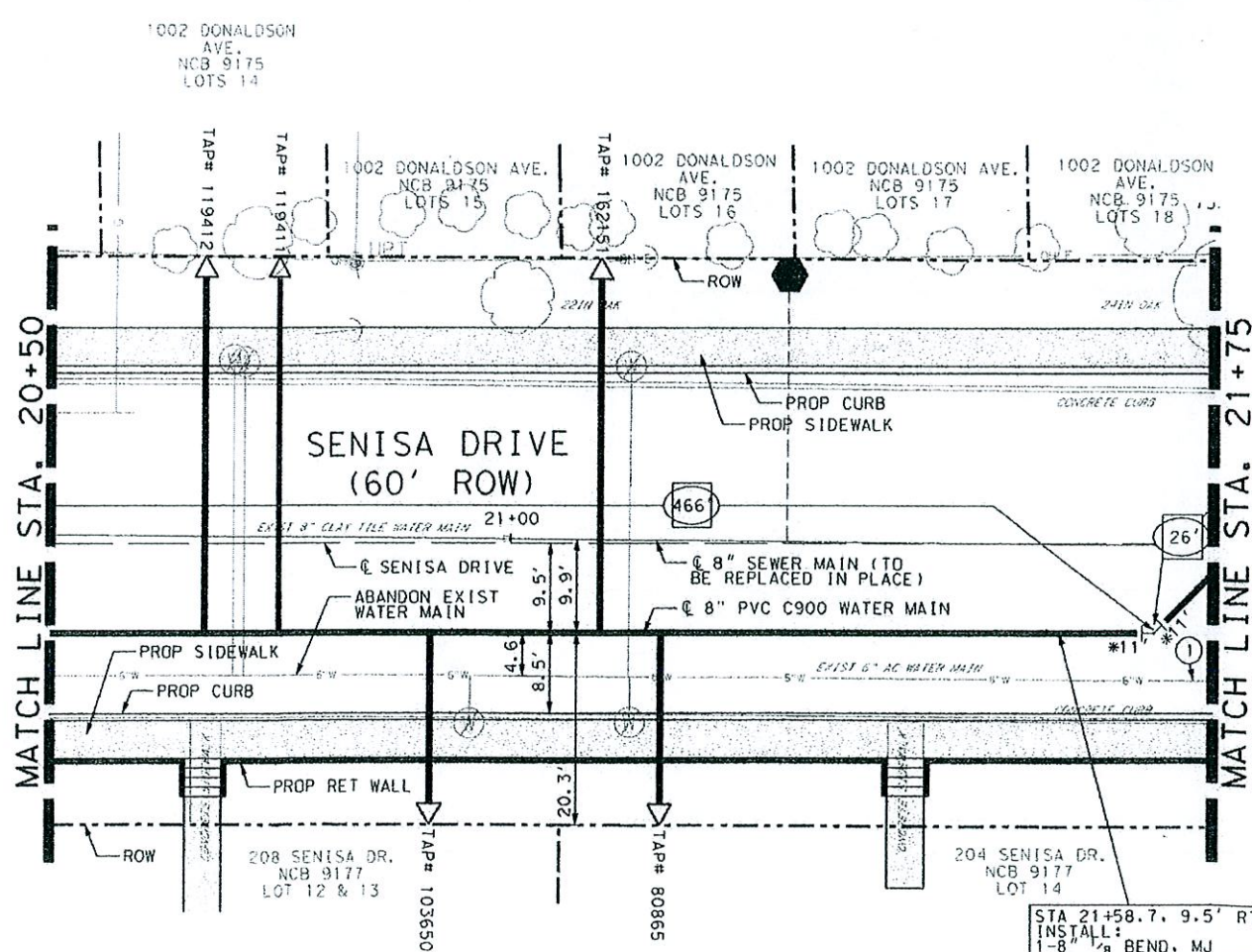
Design File name:



EXIST SAWS LINES LEGEND  
 ① - SAWS JOB NO. 5968 (1973)

		FINAL QUANTITIES	
ITEM	DESCRIPTION	UNIT	QTY
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	335
618	8" PVC WATERLINE (RESTRAINED)	LF	335
824	RELAY 3/4" LONG SERVICE	EA	8
824	RELAY 3/4" SHORT SERVICE	EA	4
824	RELAY 1" LONG SERVICE	EA	1
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	13
833	METER BOX	EA	13
836	PIPE FITTINGS, ALL SIZES AND TYPES	TON	0.025

- NOTES:
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ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE AND WHICH IS KNOWN TO CONTAIN ASBESTOS CONTAINING MATERIAL (ACM), IS LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCUR. PAYMENT FOR SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000.14 "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE."

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 Wintersville, TX 78239  
 Tel: (210) 580-9215 Fax: (210) 580-9348  
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 Registration No. F-8635

No.	Revision	Drawn	Approved	Date
1				6/16/2011

REVISIONS

SENISA DRIVE RECONSTRUCTION  
 MORNING GLORY TO DONALDSON AVE.  
 WATER SYSTEM  
 8-INCH PVC WATER  
 MAIN ADJUSTMENTS  
 STA 18+50 TO STA 21+75

DEVELOPER: [Signature]  
 CONT. [Signature] BUDGET PROJ.  
 SUBMITTED [Signature]  
 APPROVED [Signature]  
 MAP No. 144-592 SHEET 6  
 SECT. No. [Signature]  
 DR. CB CK. JN JOB No. 10-5102 OF 15

\* RESTRAINED PIPE LENGTH

EXIST SAWS LINES LEGEND

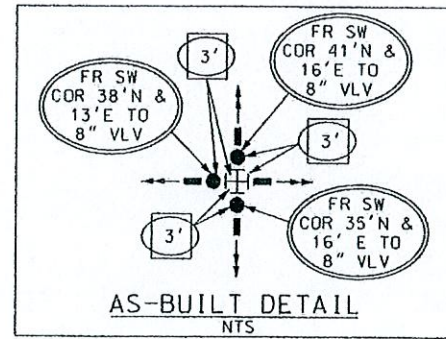
① - SAWS JOB NO. 5968 (1973)

		FINAL QUANTITIES	
ITEM	DESCRIPTION	UNIT	QTY
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	427
818	8" PVC WATERLINE (RESTRAINED)	LF	427
824	RELAY 3/4" SHORT SERVICE	EA	1
824	RELAY 1" SHORT SERVICE	EA	2
828	8" GATE VALVES	EA	3
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	3
833	METER BOX	EA	3
836	PIPE FITTINGS, ALL SIZES AND TYPES	TON	0.30
840	6" WATER TIE-INS	EA	2
844	2" BLOWOFF, TEMPORARY	EA	2

ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE AND WHICH IS KNOWN TO CONTAIN ASBESTOS CONTAINING MATERIAL (ACM), IS LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCUR. PAYMENT FOR SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000.14 "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE."

NOTES:

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- 2.) CONTRACTOR SHALL USE CAUTION WHEN EXCAVATING IN THE AREA OF EXISTING UTILITIES AND SERVICE LINES. PROPOSED SAWS WATER LINES CROSSING EXISTING OR PROPOSED UTILITIES REQUIRES 2-FOOT VERTICAL CLEARANCE (SEE DETAIL SHEET 10 OF 15). ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR (NSPI). CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE INTEGRITY OF POWER POLES AND GUY WIRES DURING CONSTRUCTION (NSPI).
- 3.) CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER SERVICE TO EXISTING WATER MAINS AND SERVICES AT ALL TIMES.
- 4.) DEPTH OF EXISTING UTILITIES IS APPROXIMATE FROM AVAILABLE AS-BUILT RECORDS. CONTRACTOR TO POTHOLE EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. IF EXISTING UTILITIES' DEPTH AND/OR ALIGNMENT DIFFERS FROM WHAT IS SHOWN ON PLAN, NOTIFY ENGINEER IMMEDIATELY (NSPI).
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- 6.) CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS THROUGH ALL DRIVEWAYS FOR EMERGENCY ACCESS.
- 8.) SAWS SHALL MACHINE CHLORINATE ALL NEW MAINS.



SENISA STA 21+92.5, 48.5' LT  
 BEGIN CONSTRUCTION  
 AFTER RELEASE FOR SERVICE  
 TIE NEW 8" PVC MAIN TO  
 EXISTING 6" CI MAIN  
 2-8" 1/8 BEND, MJ  
 1-6" CAST COUPLING, MJ  
 6" PVC WATER PIPE, CUT AS REQ'D  
 1-8"x6" REDUCER, MJ  
 1-6" SOLID CAP, MJ  
 INSTALL 2" TEMPORARY BLOWOFF  
 6" MJx2" THR CI OR DI  
 ECCENTRIC REDUCER (TEMP)  
 2" STD. BLOWOFF (TEMP)  
 (SEE SAWS STD DWG DD-844-01)  
 (SEE SHEET 1 OF 2)

SENISA STA 21+96.0, 11.4' LT  
 (SEE AS-BUILT DETAIL THIS SHEET)  
 INSTALL:  
 1-8"x8" CROSS, MJ  
 3-8" GATE VALVE, MJ W/  
 6" VALVE BOX, COMPLETE

SEE DETAIL 1 (SHEET 10 OF 15)  
 SEWER INV ELEV: 709.7  
 WATER TOP OF PIPE ELEV: 714.0  
 TOP OF PVMT ELEV: 718.0

STA 22+48.1, 1.8' LT  
 INSTALL:  
 1-8" 1/8 BEND, MJ

SEE DETAIL 1 (SHEET 10 OF 15)  
 SEWER INV ELEV: 710.1  
 WATER TOP OF PIPE ELEV: 714.8  
 TOP OF PVMT ELEV: 718.8

STA 22+59.6, 7.7' RT  
 INSTALL:  
 1-8" 1/8 BEND, MJ

STA 21+87.4, 8.7' LT  
 INSTALL:  
 1-8" 1/8 BEND, MJ

SENISA STA 21+88.5, 38.4' RT  
 BEGIN CONSTRUCTION  
 AFTER RELEASE FOR SERVICE  
 TIE NEW 8" PVC MAIN TO  
 EXISTING 6" CI MAIN  
 2-8" 1/8 BEND, MJ  
 1-6" CAST COUPLING, MJ  
 6" PVC WATER PIPE, CUT AS REQ'D  
 1-8"x6" REDUCER, MJ  
 1-6" SOLID CAP, MJ  
 INSTALL 2" TEMPORARY BLOWOFF  
 6" MJx2" THR CI OR DI  
 ECCENTRIC REDUCER (TEMP)  
 2" STD. BLOWOFF (TEMP)  
 (SEE SAWS STD DWG DD-844-01)  
 (SEE SHEET 1 OF 2)

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TRENCH EXCAVATION SAFETY PROTECTION  
 CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES(S) WITHIN THE PROJECT EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PROSENE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

\* RESTRAINED PIPE LENGTH

NOTE TO CONTRACTOR:

WATER AND SEWER FACILITIES TO BE PROTECTED DURING CONSTRUCTION AT ALL TIMES.

CONTRACTOR SHALL REPLACE ALL SERVICES, SHOWN OR NOT SHOWN. (SEE GENERAL NOTE 15 SHEET 2)

AS-BUILT / PLAN OF RECORD

I HEREBY CERTIFY THAT THIS "PLAN OF RECORD" IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND WAS PREPARED UNDER MY SUPERVISION.

STATE OF TEXAS  
 LEONARD D. YOUNG  
 LICENSED PROFESSIONAL ENGINEER  
 61852  
 12-8-11  
 LEONARD D. YOUNG, P.E.  
 LICENSED PROFESSIONAL ENGINEER  
 TEXAS REGISTRATION NO. 61852

STATE OF TEXAS  
 JUNE HERRERA  
 LICENSED PROFESSIONAL ENGINEER  
 93788  
 2011-12-08  
 JUNE HERRERA, P.E.  
 LICENSED PROFESSIONAL ENGINEER  
 TEXAS REGISTRATION NO. 93788

SCALE: 1"=20'

YOUNG PROFESSIONAL RESOURCES  
 8100 Roughridge Drive, Suite 101  
 Wixom, TX 76199  
 Tel. (210) 590-8215 Fax (210) 590-9346  
 Young Professional Resources ©  
 Registration No. F-8635

No.	Revision	Drawn	Approved	Date
1	CONFORMING SET	CB		6/16/2011

REVISIONS

SENISA DRIVE RECONSTRUCTION  
 MORNING GLORY TO DONALDSON AVE.  
 WATER SYSTEM  
 8-INCH PVC WATER  
 MAIN ADJUSTMENTS  
 STA 21+75 TO STA 23+75

DEVELOPER: [Signature]  
 CONT. [Signature] BUDGET PROJ. [Signature]

SUBMITTED [Signature]  
 APPROVED [Signature]

MAP No. 144-592 SHEET 7  
 SECT. No. [Signature]  
 DR. CB CK. JN JOB No. 10-5102 OF 15

Plotted on: 12/8/2011  
 Design Filename: C:\Users\Chr...Documents\Projects\Senisa\As-Built\As-Built\As-Built\SenisaWater04.dgn

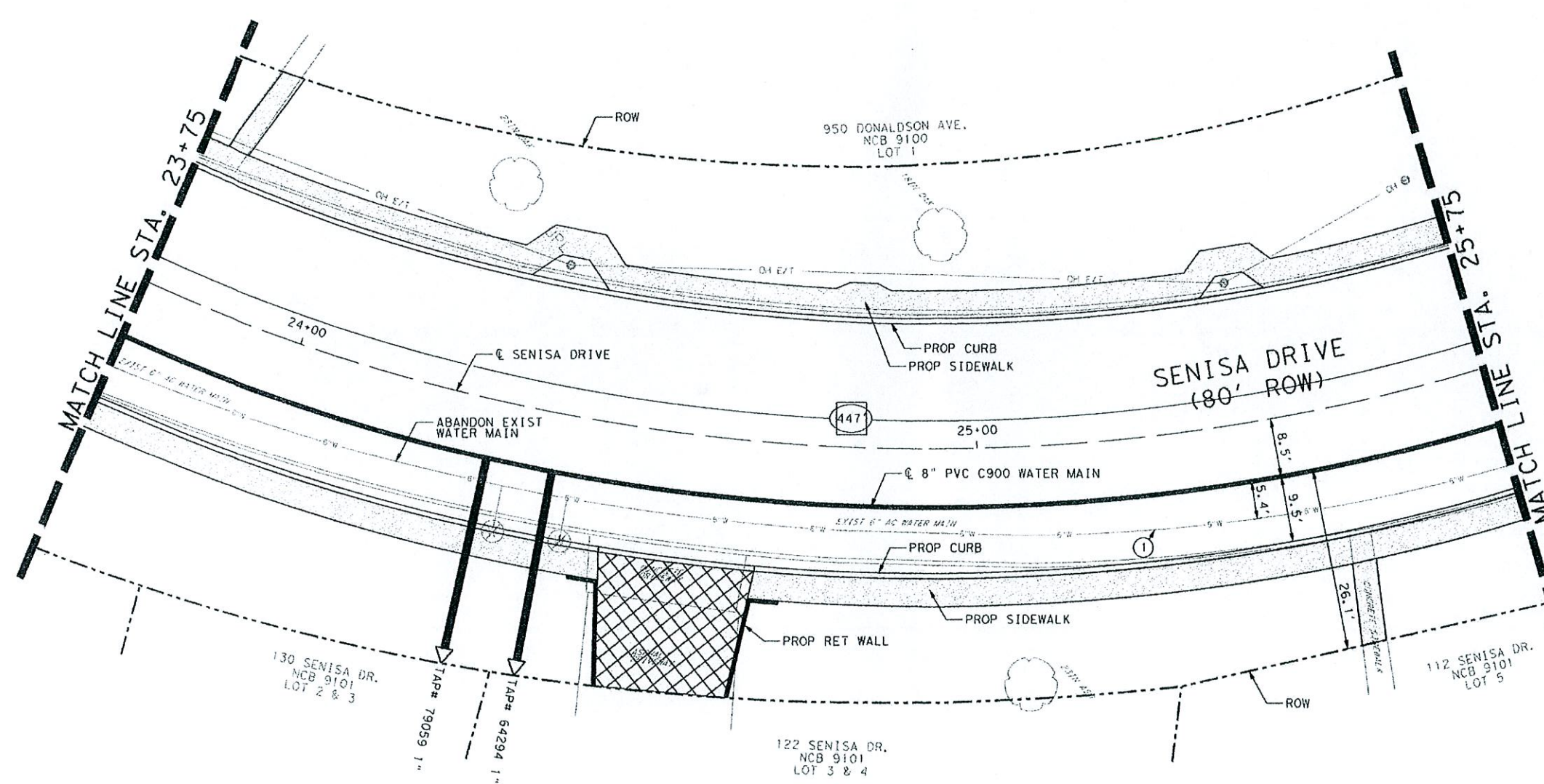
EXIST SAWS LINES LEGEND

① - SAWS JOB NO. 5968 (1973)

FINAL QUANTITIES		UNIT	QTY
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	200
818	8" PVC WATERLINE (RESTRAINED)	LF	200
824	RELAY 1" SHORT SERVICE	EA	2
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	2
833	METER BOX	EA	2

Plotted on: 12/8/2011

Design File name: C:\Users\Chris\Documents\Projects\Senisa\Design\Civil\2plansheets\As-Built\Water\Senisa\water05.dgn



**SAWS LOCATOR NOTE:**  
 LOCATION AND DEPTH OF THE EXISTING WATER AND SEWER MAINS AND SERVICES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATION AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR 48 HOURS PRIOR TO BEGINNING CONSTRUCTION BY CALLING THE SAWS LOCATOR AT 233-2010. THE CONTRACTOR SHOULD EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING WATER AND SEWER FACILITIES AND SHOULD THEY BE DAMAGED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO REIMBURSE THE SAN ANTONIO WATER SYSTEM FOR THE TOTAL COST TO REPAIR AND REPLACE THE DAMAGED FACILITIES. NECESSARY POTHOLES TO BE PERFORMED BY CONTRACTOR AT CONTRACTOR'S EXPENSE.

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AS-BUILT / PLAN OF RECORD

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LEONARD D. YOUNG, P.E.  
 LICENSED PROFESSIONAL ENGINEER  
 TEXAS REGISTRATION NO. 61852

12-8-11  
DATE

JAIME NORIEGA, P.E.  
 LICENSED PROFESSIONAL ENGINEER  
 TEXAS REGISTRATION NO. 93788

2011-12-08  
DATE

ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE AND WHICH IS KNOWN TO CONTAIN ASBESTOS CONTAINING MATERIAL (ACM), IS LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCUR. PAYMENT FOR SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000.14 "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE."

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

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\* RESTRAINED PIPE LENGTH

SCALE: 1"=20'

**YPR** YOUNG PROFESSIONAL RESOURCES  
 8100 Roughrider Drive, Suite 101  
 Windcrest, TX 78239  
 Tel. (214) 590-8215 Fax (214) 590-9346  
 Young Professional Resources ©  
 Registration No. F-8636

No.	Revision	Drawn	Approved	Date

**REVISIONS**

**SENISA DRIVE RECONSTRUCTION MORNING GLORY TO DONALDSON AVE. WATER SYSTEM 8-INCH PVC WATER MAIN ADJUSTMENTS STA 23-75 TO STA 25-75**

DEVELOPER: \_\_\_\_\_  
 CONT. BUDGET PROJ.  
 SUBMITTED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_

MAP No. 144-592 SHEET 8  
 SECT. No. \_\_\_\_\_ OF 15  
 DR. CB CK. JN JOB No. 10-5102

ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE AND WHICH IS KNOWN TO CONTAIN ASBESTOS CONTAINING MATERIAL (ACM), IS LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCUR. PAYMENT FOR SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000.14 "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE."

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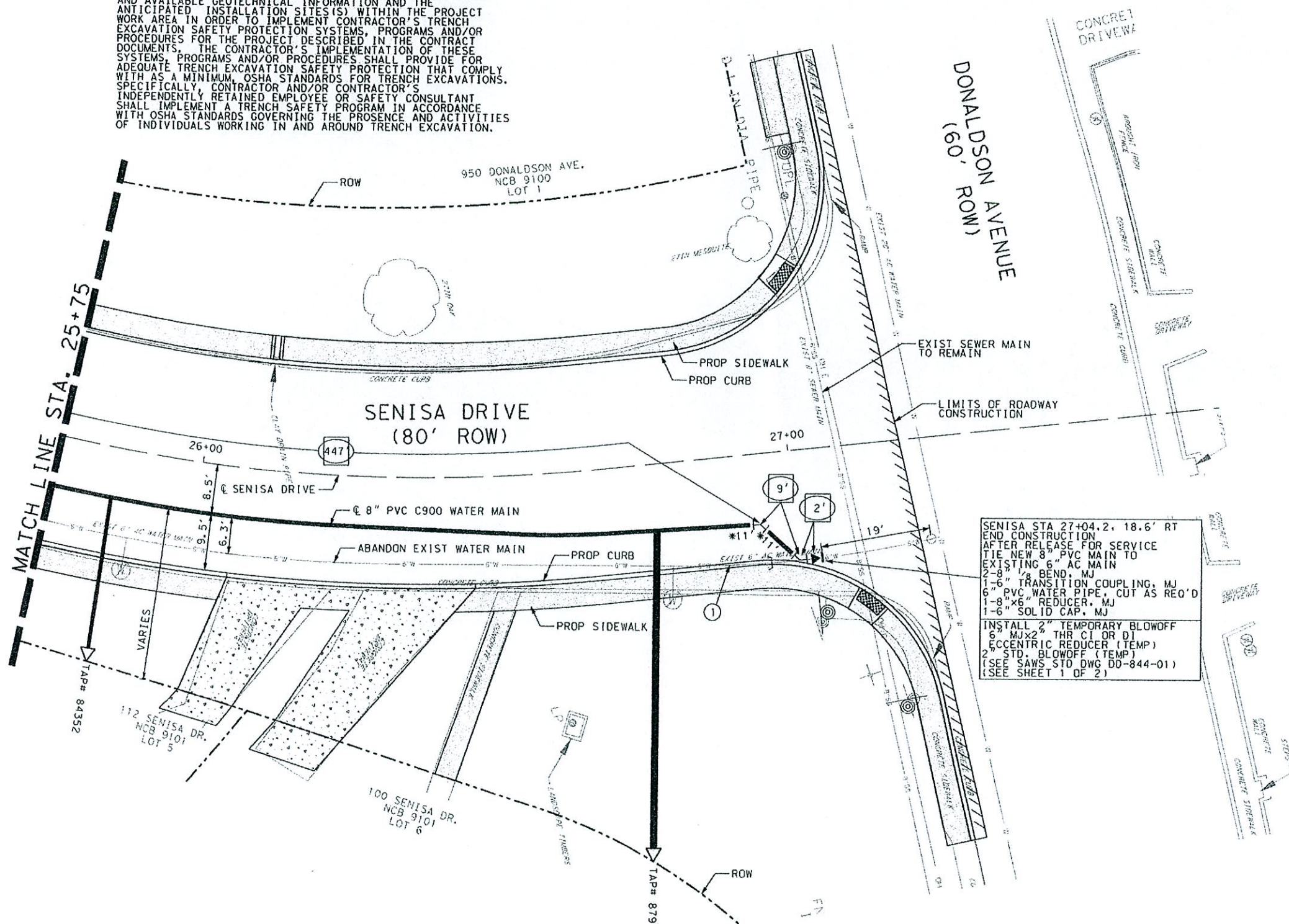
EXIST SAWS LINES LEGEND

① - SAWS JOB NO. 5968 (1973)

FINAL QUANTITIES			
ITEM	DESCRIPTION	UNIT	QTY
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	160
818	6" PVC WATERLINE (RESTRAINED)	LF	2
818	8" PVC WATERLINE (RESTRAINED)	LF	158
824	RELAY 3/4" SHORT SERVICE	EA	1
824	RELAY 1" SHORT SERVICE	EA	1
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	2
833	METER BOX	EA	2
836	PIPE FITTINGS, ALL SIZES AND TYPES	TON	0.10
840	6" WATER TIE-INS	EA	1
844	2" BLOWOFF, TEMPORARY	EA	0

NOTES:

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SENISA STA 27+04.2, 18.6' RT  
 END CONSTRUCTION  
 AFTER RELEASE FOR SERVICE  
 TIE NEW 8" PVC MAIN TO  
 EXISTING 6" AC MAIN  
 2-8" 1/2 BEND, MJ  
 1-6" TRANSITION COUPLING, MJ  
 6" PVC WATER PIPE, CUT AS REQ'D  
 1-8"x6" REDUCER, MJ  
 1-6" SOLID CAP, MJ  
 INSTALL 2" TEMPORARY BLOWOFF  
 6" MJx2" THR CI OR DI  
 ECCENTRIC REDUCER (TEMP)  
 2" STD. BLOWOFF (TEMP)  
 (SEE SAWS STD DWG DD-844-01)  
 (SEE SHEET 1 OF 2)

AS-BUILT / PLAN OF RECORD

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STATE OF TEXAS  
 LEONARD DALE YOUNG  
 61852  
 LICENSED PROFESSIONAL ENGINEER

STATE OF TEXAS  
 JAIME NORIEGA  
 93788  
 LICENSED PROFESSIONAL ENGINEER

128-11 DATE  
 2011-12-08 DATE

Plotted on: 12/8/2011  
 Design File name: C:\Users\chr\is\Documents\Projects\Senisa\Des\ign\Civil\2\plansheets\As-Built\Water\Senisa\Water06.dgn

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SCALE: 1"=20'

YOUNG PROFESSIONAL RESOURCES  
 8100 Roughrider Drive, Suite 101  
 Winderess, TX 76209  
 Tel: (214) 500-8215 Fax: (214) 500-3345  
 Young Professional Resources ©  
 Registration No. F-8635

LEGEND

PROP. WATER MAIN	—
EXIST. WATER MAIN	—
GAS MAIN	—
SANITARY SEWER	—
STORM SEWER	—
UTILITY POLE LINE	—
ELECTRIC CABLE	—
TELEPHONE CABLE	—
DUAL BRANCH SERV.	—
NEW UNMETERED SERVICE:	
1/4" SINGLE	—
1" DUAL	—
SERVICE RECONNECT:	—
1/4" OR LARGER	—
SERVICE RELAY:	—
1/4" OR LARGER	—
SERVICE RELOCATE:	—
1/4" OR LARGER	—
RELOCATE METER	—
NEW SERVICE:	—
1/4" OR LARGER	—

CONFORMING SET CB 6/16/2011

REVISIONS

No.	Revision	Drawn	Approved	Date

SENA DRIVE RECONSTRUCTION  
 MORNING GLORY TO DONALDSON AVE.  
 WATER SYSTEM  
 8-INCH PVC WATER  
 MAIN ADJUSTMENTS  
 STA 25-75 TO END

DEVELOPER: [Signature]  
 CONT. BUDGET PROJ.  
 SUBMITTED: [Signature]  
 APPROVED: [Signature]

MAP No. 144-592 SHEET 9  
 SECT. No. 9  
 DR. CB CK. JN JOB No. 10-5102 OF 15

\* RESTRAINED PIPE LENGTH