



AZUCENA STREET
30-INCH SEWER PROJECT

SAWS Job. No. 11-4518
SAWS Solicitation No. B-12-059-DD

ADDENDUM NO. 3

October 8, 2012

To Bidder of Record:

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

Item 1: Non-Mandatory Pre-Bid Conference Meeting Minutes:

- A. **Pre-Bid Conference Meeting Minutes** – A copy of the non-mandatory pre-bid conference meeting minutes held on October 3, 2012 is attached for reference only.

Item 2: Bidding and Contract Requirements

- A. **Invitation to Bidders** – Please note the following changes to the “Invitation to Bidders”:
- a. Bid Opening – the time of the Bid Opening has been changed from 10:00 A.M., October 11, 2012 to 2:30 P.M. of the same day. Location of the Bid Opening per the Invitation to Bidders remains unchanged.
- B. **Bid Proposal** – Remove in its entirety and replace with the revised “Bid Proposal” attached, noting the following changes:
- a. BP-1 – Pay Item 205.4, change the quantity from 344.79 SY to 377.6 SY.
 - b. BP-1 – Pay Item 206.1, change the quantity from 291.8 SY to 319.6 SY.
 - c. BP-1 – Pay Item 507.2, change the quantity from 212 LF to 2,050 LF.
 - d. BP-2 – Pay Item 515.1, change the quantity from 99.38 CY to 334.7 CY.
 - e. BP-2 – Pay Item 516.1, change the quantity from 894.8 SY to 3,041.7 SY.
 - f. BP-5, change in the project completion time from 120 calendar days to 150 calendar days. This is to allow for time off during the holiday season. The contractor is still expected to make a diligent effort to perform all responsibilities and services under this contract.

C. **Instructions to Bidders** – Page IB-7, replace paragraph 23 with the following:

23. *To assist the San Antonio Water System Contracting Office in performing the bidder evaluation and subsequent recommendation of award, the apparent low bidder will submit the following items **with the bid packet the day of the bid opening**. Failure to provide the required information within the specific time, may result in determining a non-responsive bidder:*

- (a) *A complete financial statement for your organization that was prepared within the past 12 months, by an independent Certified Public Accountant, and a point of contact for your banking institution.*
- (b) *An information packet on company showing experience, organization and equipment.*
- (c) *A statement regarding ability to complete the project within the schedule taking into account existing commitments.*
- (d) *Record of performance on three (3) similar projects completed within the last 5 years including name of project, amount of project, project duration, name, address, and telephone number of contact person for each project.*
- (e) *A completed and signed W-9 Request for Taxpayer Identification Number and Certification form.*

D. **Special Conditions** – Please note the following changes to the “Special Conditions”:

- a. Add section SC-2.5 which states: “Temporary Construction Fencing. Provisions are quantified in the plans for 6-foot tall temporary chain link fencing to enclose the construction zone for areas outside of the streets for the purposes of preventing outside intruders, animals, etc. from entering. For purposes of quantity calculation, it has been assumed that the entire permanent sewer and temporary construction easement areas will be enclosed.”
- b. Add section SC-2.6 which states: “Pre-Construction Video and Photos. Contractor will be required to provide video and photographs of existing homes and the job site prior to starting work in order to address any claims that may arise during construction.”

E. **Construction Plans – Sheet 2** – Remove in its entirety and replace with the revised “Sheet 2 – Quantities & General Notes” attached.

F. **Construction Plans – Sheet 10** – Remove in its entirety and replace with the revised “Sheet 10 – Line A – 30-Inch Sewer Plan & Profile – Sta. 0+00 to Sta. 2+00” attached.

G. **Construction Plans – Sheet 11** – Remove in its entirety and replace with the revised “Sheet 11 – Line A – 30-Inch Sewer Plan & Profile – Sta. 2+00 to Sta. 4+00” attached.

H. **Construction Plans – Sheet 12** – Remove in its entirety and replace with the revised “Sheet 12 – Line A – 30-Inch Sewer Plan & Profile – Sta. 4+00 to Sta. 6+00” attached.

I. **Construction Plans – Sheet 13** – Remove in its entirety and replace with the revised “Sheet 13 – Line A – 30-Inch Sewer Plan & Profile – Sta. 6+00 to Sta. 8+00” attached.

J. **Construction Plans – Sheet 14** – Remove in its entirety and replace with the revised “Sheet 14 – Line A – 30-Inch Sewer Plan & Profile – Sta. 8+00 to Sta. 10+00” attached.

K. **Construction Plans – Sheet 15** – Remove in its entirety and replace with the revised “Sheet 15 – Line A – 30-Inch Sewer Plan & Profile – Sta. 10+00 to Sta. 12+00” attached.

- L. **Construction Plans – Sheet 16** – Remove in its entirety and replace with the revised “Sheet 16 – Line A – 30-Inch Sewer Plan & Profile – Sta. 12+00 to End” attached.

Item 3: Questions and Answers

A. The following represent clarifications to the Contract Documents:

- a. SAWS owns the property located at 335 Azucena. SAWS does not own the property located at 328 Azucena.
- b. The contractor is to determine the means and methods of abandoning the sanitary sewer siphon structures.
- c. There are several locations in the plans where existing fencing is called out to be removed and replaced as NSPI. The cost of this fence repair should be included in the unit prices of the sanitary sewer pipe.
- d. Upon further verification in the field, it has been determined by SAWS staff that the home at 335 Azucena is built on a solid concrete slab.

B. The following represent answers to questions received by SAWS in writing:

Q1: Can you please change the bid opening time from 10:00 A.M. to 2:00 P.M. for the Azucena Street 30-Inch Sewer Project, SAWS Job No. 11-4518, Solicitation No. B-12-059-DD? A change in time will allow FedEx to deliver the out-of-town bids on time. This change benefits the owner by receiving more competitive bids for the project.

A1: Though it isn't always feasible for SAWS to adjust the bid opening date and/or time for its construction solicitations when requested, we are not opposed to changing the time for this project to increase the competitiveness of the bids. The time has been changed to 2:30 p.m. Please reference page A2-1, Item 1 - Bidding and Contract Requirements of this Addendum.

Q2: Items 856-1 and 856-3 on Drawing #19 shows a 30" steel pipe inside of the 48" casing pipe, changing outside of the casing into a 30" FRP pipe.

A2: For clarification, the Plans show 2 proposed 48" casings for the 30" FRP siphon pipes crossing under the concrete drainage structure and one 30" casing for the 18" air bypass line. The FRP pipe is shown uninterrupted through the casings. There is no tie of casing to FRP indicated.

Q3: If this transition from steel to FRP is correct, there is no transition detail on the drawings.

A3: There is no transition called out or suggested.

Q4: The quantities covering the four items do not appear to be correct.

A4: The quantities are correct.

Q5: How does the 18" HDPE tie-in down at the bottom (elev: 685) or does it go through between the two 48" casing pipes (i.e.: is it direct bury or is there a casing pipe)?

- A5: The plans call out for a 30” steel casing to carry the proposed 18” air bypass line. The air bypass line is shown to go in between the two 30” siphon lines. You cannot direct bury this section under the existing drainage structure, that’s why we are boring. The casing is used to pass the proposed pipes through the bore and not as part of the siphon pipes as flow sections.**
- Q6: Note 3 on various plan sheets states that the Contractor is to locate all existing sanitary sewer laterals and provide invert elevations to the engineer prior to any construction activities. Is it the intent of the engineer to have this work preformed to insure there are no conflicts with the proposed S.S. depth? Also, is it correct to assume that this work is to be performed by the owner/engineers RPLS that will be providing the Constructing Staking as described in the Special Conditions (SC-2.0)?
- A6: Yes, the intent is to insure there are no conflicts with the proposed S.S. depth. The determination of the invert elevations is to be performed by the contractor during construction and the data is to be reported to the engineer before installation of the lateral. This work is not related to the staking as outlined in the Special Conditions.**
- Q7: For consistency amongst all bidders will the owner/engineer please provide the most recent CoSA sidewalk & driveway design/construction guidelines for excavation in streets as referenced in Note 6 found on Sheet 10, and other various plan sheets?
- A7: These guidelines may be obtained from the City of San Antonio’s website provided at the end of the contract documents.**
- Q8: Will the owner/engineer consider adding a bid allowance for misc. repairs (sidewalk, driveway, seed/sod, etc...) associated to the installation/repair of sanitary sewer laterals?
- A8: Per SAWS Standard Specification No. 854: Sanitary Sewer Laterals, removal and repair of any and all pavement and surface structures (to include sidewalk, concrete, etc.) encountered during lateral installation shall be paid for under the unit price for Sanitary Sewer Laterals. No separate payment shall be allowed for repair of sidewalk, driveways, etc. associated with this work.**
- Q9: For consistency amongst all bidders will the owner/engineers consider adding a bid item for the removal/replacement of all fences & gates within the limits of construction? Including but not limited to: Chain Link fences located at 342 Amires, Wooden fences located at 346 Amires, Wrought Iron Fences along Amires Pl., Chain Link fences located at 383 Amires, Chain Link fences located at 347 Amires, Chain Link fence located at 347 Azucena, and Chain Link fence located at 344 Groff.
- A9: Removal and replacement of all miscellaneous fences and gates and called out on the contract documents for replacement shall be included in the price of the sanitary sewer pipe installed under item No. 848: Sanitary Sewers.**
- Q10: After reviewing the construction drawings it appears that the pay limit width for Item #'s 515.1 & 516.1 (Topsoil & Sod) are the estimated maximum trench width (6.5'). If vegetated areas outside of these limits are disturbed by construction activities will the contractor be expected to restore these areas with the same materials? If this is the case, will the owner/engineer consider extending the maximum pay width for Items 515.1 & 516.1?

A10: It is expected that all areas disturbed within the sanitary sewer and temporary construction easements shall be restored to equal or better condition. As a result, the limits for sod and soil replacement have been extended to include all of the area within the permanent and temporary easements. See attached revised Bid Proposal for updated quantities.

Q11: After reviewing the construction drawings it appears that the pay limit width for Item #'s 205.4 & 206.1 (HMAC & ATB) are the estimated maximum trench width plus 12" on each side to create a clean joint (6.5' + 1' + 1'). In our experience it is typical for pavement outside of the maximum trench width to be damaged by construction activities while installing the proposed utility. Will the owner/engineer consider extending the maximum pay width of Items 205.4 & 206.1 to the full width of the street?

A11: As a clarification, the trench width shown on the plans is the pipe diameter plus 2 feet on either side, per the detail on sheet 34. This yields a pavement cut width of 6.5 feet. The maximum trench width shown on the plans shall not be changed as it is following a standard SAWS detail. However, to facilitate construction of the sanitary sewer structures (manholes specifically), the pavement area to be disturbed around the proposed structure has been increased to allow for the construction of the concrete base and other components. See attached revised Bid Proposal for updated quantities.

Q12: At the pre-bid, it was discussed and a concern about the access to under the houses to abandon the existing siphon and boxes. SAWS stated it did not want the houses damaged and the contractor is to determine method to do so. Would it be acceptable to excavate and break into the structures from the side of these homes and avoid actually going under these homes? The exact location of the structure is not known for bidding, would this option be possible?

A12: This option might be a viable one as long as the methods are approved by SAWS and the Consultant. Please submit for approval a plan of action for the method anticipated for the abandonment of the structures and siphon piping. The methods need to show how, if damaged, the house's structural integrity will be supported and the damage repaired to SAWS's satisfaction and to current building code standards. If the foundation of the home is in fact a slab on-grade, then engineered plans may be required detailing all necessary measures needed to perform the work as called out on the contract documents without damaging the foundation of the home.

Q13: Has SAWS notified the homeowners who's backyards will be crossing on the project and what will be necessary removed & replaced? (Specifically #347 Azucena and #346 Amires homes)

A13: The homeowners are aware of the fact that there will be construction activities in the vicinity of their properties and permanent and temporary easements have already been acquired to allow for the construction to occur. Per the plans, it is the contractor's responsibility to notify the affected homeowners at least 48 hours in advance of work occurring. It is recommended that the contractor coordinate with the homeowners in the relocation of portable items which may be within the easements order to minimize damage to the homeowner's property, vehicles and other miscellaneous objects within the project site.

Q14: Will SAWS guarantee access to a work zone regarding the two siphons at #335 and #328 abandonment? The special conditions sound as though the owners may be non-cooperative.

A14: SAWS currently owns the home located at 335 Azucena Street. In addition, there is a temporary 25-foot construction easement which encompasses all of 331 Azucena which is to be used by the contractor, if needed, during abandonment operations. The home at 328 Azucena is owned by another individual, but SAWS has a 25-foot sanitary sewer easement encompassing Lot 17, Block 10. The downstream siphon box lies within this easement and the contractor shall work within it to achieve the abandonment of the siphon box.

Q15: Does SAWS own the house at both #328 and #335 Azucena? At the pre-bid SAWS mentioned the homes were now owned by SAWS.

A15: SAWS currently owns the home located at 335 Azucena Street. The home at 328 Azucena is owned by another individual.

Q16: At 335 Azucena the structure to be abandoned is under the house foundation, how will this structure be abandoned?

A16: Per the plans and other contract documents, the contractor is to determine the means and methods of performing the abandonment. Such means and methods are to be approved by the engineer and SAWS inspector.

Q17: Will the Contractor be responsible for any damage to the house during the duration of the construction in this area?

A17: Yes, per contract documents the contractor will be responsible for damage to the structure of the home. Though undesirable, the costs of repair to the foundation in attempting to access the siphon box shall be included in the price of the abandonment of the structure.

Q18: At 328 Azucena shows 2 structures, will both of them need to be abandoned? And is this a double or single barrel?

A18: The existing siphon is a 30-inch, single-barrel siphon (based on best available records). As a clarification, there is one upstream siphon structure at 335 Azucena and one downstream structure at 328 Azucena. Just within the right of way in front of 328 Azucena, there is a sanitary sewer manhole. This manhole, along with both existing siphon structure will need to be abandoned in accordance with SAWS standard specifications. Given the complexity of the siphon structure abandonment, each siphon structure is presented as separate bid line item since the means and methods to abandon them will differ. The abandonment of the other standard sanitary sewer manholes and main are included on separate line items as well.

Q19: Are there easements inside the properties still in place just in case the contractor needs to go and excavate to pressure grout/abandon the existing 30" main from between the streets?

A19: The easements are still in place with the exception of the property at 335 Azucena. However, since SAWS owns this property, construction will be allowed as long as the existing home is not damaged during construction. As

stated in the contract documents, any damage to the home is to be repaired at the contractor's expense.

Q20: On the inside drop manholes, are the drops going to follow SAWS detail DD-852-09? No detail or spec is showing on the plans. Please advise.

A20: Correct. The drop manhole shall be built in accordance with SAWS standard specifications and details available at www.saws.org. The plans include notes indicating that all standard details are to be obtained from SAWS's website.

The remainder of the bid documents remains unchanged.

This Addendum, including this page, is seven (7) pages in its entirety.

Each bidder is requested to acknowledge receipt of this Addendum No. 3 by his/her signature affixed hereto and to file same as an attachment to his/her bid.



Mark B. Hill, P.E.
Principal
Ford Engineering, Inc.
TBPE Firm No. F-1162



The Undersigned acknowledges receipt of this Addendum No.3 and the bid submitted herewith is in accordance with the information and stipulations set forth.

Date

Signature of Bidder

END OF ADDENDUM



**PRE-BID CONFERENCE
MEETING MINUTES**

PROJECT: Azucena Street 30-Inch Sewer Project
SAWS Job. No. 11-4518
SAWS Solicitation No. B-12-059-DD

DATE OF MEETING: October 3, 2012, 10:00 A.M.

LOCATION OF MEETING: San Antonio Water System Customer Service Building, Floor 1
2800 U.S. Hwy 281 North, San Antonio, TX CR-169

ATTENDEES: Sign-in sheet is available at www.saws.org

ITEMS OF DISCUSSION:

1. Sandra Gomez made brief introduction and gave a description of the scope of the project.
2. Contract duration 120 days
3. Cost \$1,063,604.60
4. Bid Opening: Thursday October 11, 2012 at 2:30 P.M.
5. Liquidated damages are \$350 per day
6. Diana Dwyer, SAWS contract administrator, informed bidders that Addendum No. 1 (which changed the project title in the IFB; this is not an emergency, but it will be on a fast-track) has been issued.
 - a. Stressed to the bidders present the importance of reviewing the instruction to bidders, special conditions and general conditions and stated that nothing has changed dramatically from previous projects with SAWS. Added emphasis was placed on the special conditions for this project due to the complex nature of some of the aspects.
 - b. Bidders strongly urged to investigate the project site prior to bidding.
 - c. There must be a superintendant on site and that the contractor must use 40% of their own crews.
 - d. The following shall be included in the bid packet:
 - i. Bid proposal (seven pages in length including the proposal certification, mobilization is 10% of the subtotal base bid);
 - ii. Proposal Certification;
 - iii. Good Faith Effort Plan

1. Goal for SAWS is 17% of contract to be paid to certified SMWBs. Call Marisol Robles, SMWB Program Manager, for questions or help in finding subcontractors up until the day before the bid opening. Her phone number may be found GFEP). Contractor will be required to utilize the SPUR System for reporting sub-contractor payments;
- iv. Conflict of Interest Questionnaire;
 - v. Bid Bond or Cashier's Check;
 - vi. Signed W-9;
 - vii. Sample Certificate of Insurance or a letter of insurance company verification
 1. See Section 5.7 of the General Conditions, as well as the Instructions to Complete the ACORD Certificate.
 2. Builder's Risk is waived
 3. If the low bidder, need to submit insurance once SAWS had determined responsibility.
 4. All insurance on other SAWS contracts must be 100% compliant.
 5. Remain compliant by submitting pollution liability to run c/c with the warranty period per Final Certificate of Acceptance.
 - viii. Acknowledgement of addendum(s).
- e. Will change via addendum - apparent low bidder (#23 per instructions to bidders)
 1. A complete financial statement prepared within the past 12 months, by an independent certified public accountant;
 2. An information packet showing company experience, organization and equipment;
 3. A statement regarding the ability to complete the project within the schedule taking into account existing commitments;
 4. Record of performance on 3 similar projects within the last 5 years to include the project name, duration, name, telephone number and address of the point of contact.
 - f. SAWS anticipates presenting this at the November 6 Board Meeting, therefore execution of the contract will move very quickly. Will obtain insurance early on.
 - g. Key Dates (though they are subject to change):

- i. Deadline for questions is: **Today, Wednesday, Oct. 3 at 4:00 p.m.** (This date and time has changed since the pre-bid meeting. Please reference Addendum No. 2 for correct date and time).
 1. All questions should be sent in writing to Diana Dwyer via email or fax (Business cards available).
 2. No questions should be sent to project engineer or consultant directly.
 - ii. Addendum to be posted **Fri., Oct. 5 by 4:00 p.m.** (This date and time has changed since the pre-bid meeting. Please reference Addendum No .2 for correct date and time).
 - iii. Bid Opening Date: **Thursday, Oct. 11 at 2:30 p.m.** (This date and time is changed in this addendum).
 1. Bids that are late will not be accepted.
 2. Allow time for checking in at the guard station.
 3. Make arrangements if you are mailing your bid.
7. Sandra urged bidders again to perform a site visit.
 8. Described that the existing 30-inch sewer main is under some houses and one of the siphon structures is under a house.
 9. Questions and discussion about the siphon boxes to be abandoned ensued.
 10. One contractor stated that SAWS would need to work with the contractor to come to an agreement as to how to abandon the siphon boxes.
 11. Mark Hill with Ford Engineering, Inc. read aloud a note in the plans referring to the abandonment of the siphon box at 335 Azucena.
 12. Sandra urged again to read the special conditions due to the nature of the project.
 13. Mark made a clarification about the construction of the new siphon and how it shall be bored because of the potential conflicts with existing utilities and storm drain facilities.
 14. Sandra stated that all of the easements have been acquired and that the contractor shall stay within them at all times.
 15. Diana stated that the bidders should look at the plans and specifications before submitting questions to avoid asking about items that are already answered in the contract documents.
 16. Questions from bidders:
 - Q1: How do SAWS and the consultant propose to perform the abandonment of the existing 30-inch sanitary sewer line? Do the specifications cover this?

- A1:** Use the standard SAWS construction specification No. 862: Abandonment of Sanitary Sewer Main and Manholes. Access to the main is available through the manholes and access to the siphon is available through the downstream structure.
- Q2: Since SAWS owns the house (at 335 Azucena where the siphon structure is under the building), if the contractor damages the house to perform the abandonment...
- A2:** There shall be no damage to the house.
- Q3: What is the anticipated method to perform the abandonment of the siphon?
- A3:** Not answered.
- Q4: Is the structure a manhole?
- A4:** It is a siphon box underneath a house.
- Q5: Which part of the house is the siphon located.
- A5:** The location of the box is shown on the plans.
- Q6: Is the house empty?
- A6:** Yes.
- Q7: Can we clarify the structural makeup of the home's foundation through the addendum?
- A7:** Yes. To our understanding, the house to the south is a pier-and-beam foundation and this has been field-verified. The house under which the upstream siphon box is located cannot be verified by entry as there are no access points. It appears as if it is the same type of construction as the other houses in the area, which appear to be pier-and-beam.
- Q8: Can there be more time allowed for submitting questions?
- A8:** The deadline is extended to Friday, October 5 by 4:00 P.M., the addendum will be posted Monday, October 8 by 4:00 P.M. and the bid opening will not be delayed.
- Q9: Is the position of SAWS going to be to remove and replace (as-is) any damaged parts of the house under which the siphon box lies?
- A9:** Please submit the question in writing and it will be answered.
- Q10: As long as the 30-inch mains are abandoned, is not abandoning the siphon boxes an issue?
- A10:** The siphon structures need to be abandoned as well, to the best extent possible.

Q11: Is there going to be flows provided for the purposes of setting up bypass pumping operations?

A11: The contractor shall determine the flows, but Sandra to verify with Inspections about providing flows.

Q12: Is the 30-inch pipe running full?

A12: Uncertain. Contractor should verify in the field.

Q13: Are bore pits allowed for on the plans?

A13: They are laid out on the plans.

Q14: Are there approximate elevations provided for existing utilities?

A14: Yes.

Q15: Is there a geotechnical study for this project?

A15: No.

Q16: Is there a line item in plans providing for the removing and replacement of miscellaneous fences?

A16: No. If the item is added, then there would be a new bid proposal. Otherwise it is recommended that the price of the replacement be lumped in with the cost of the new pipe.

BID PROPOSAL

PROPOSAL of _____, a corporation
 a partnership consisting of _____
 an individual doing business as _____

TO THE SAN ANTONIO WATER SYSTEM:

Pursuant to Instructions and Invitation to Bidders, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the construction of pipelines and appurtenances, **San Antonio Water System Job Number. 11-4518** in accordance with the Plans and Specifications for the following prices to wit:

Item No.	Item Description (Unit Price to be Written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
103.1	Remove Concrete Curb _____ Dollars and _____ Cents	LF	43	\$ _____	\$ _____
103.3	Remove Concrete Sidewalk and Driveways _____ Dollars and _____ Cents	SF	122.46	\$ _____	\$ _____
205.4	Hot Mix Asphaltic Pavement - TYPE D (2" Compacted Depth) _____ Dollars and _____ Cents	SY	377.6	\$ _____	\$ _____
206.1	Asphalt Treated Base - 10" Compacted Depth _____ Dollars and _____ Cents	SY	319.6	\$ _____	\$ _____
306.1	Structural Excavation (Bore Pits) _____ Dollars and _____ Cents	CY	1,161	\$ _____	\$ _____
500.1	Concrete Curb _____ Dollars and _____ Cents	LF	43	\$ _____	\$ _____
502.1	Concrete Sidewalks - Conventionally Formed _____ Dollars and _____ Cents	SY	13.64	\$ _____	\$ _____
507.2	Temporary Chain Link Wire Fence (6' High) _____ Dollars and _____ Cents	LF	2,050	\$ _____	\$ _____

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Item No.	Item Description (Unit Price to be Written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
515.1	Topsoil (4" Depth) _____ Dollars and _____ Cents	CY	334.7	\$	\$
516.1	Bermuda Sodding _____ Dollars and _____ Cents	SY	3,041.7	\$	\$
530.1	Barricades, Signs, and Traffic Handling _____ Dollars and _____ Cents	LS	1	\$	\$
550	Trench Excavation Safety Protection _____ Dollars and _____ Cents	LF	1,290.77	\$	\$
553	Stormwater Pollution Prevention Plan (SW3P) _____ Dollars and _____ Cents	EA	1	\$	\$
799	Removal and Replacement of Speed Hump (Type II) _____ Dollars and _____ Cents	EA	2	\$	\$
848	8" PVC Sanitary Sewer Line. (SDR 26) (6'-10') _____ Dollars and _____ Cents	LF	107.54	\$	\$
848	10" PVC Sanitary Sewer Line. (SDR 26) (10'-14') _____ Dollars and _____ Cents	LF	10.00	\$	\$
848	30" PVC Sanitary Sewer Line. (SDR 26) (6'-10') _____ Dollars and _____ Cents	LF	390.40	\$	\$
848	30" PVC Sanitary Sewer Line. (SDR 26) (10'-14') _____ Dollars and _____ Cents	LF	290.00	\$	\$
848	30" PVC Sanitary Sewer Line. (SDR 26) (14'-18') _____ Dollars and _____ Cents	LF	362.83	\$	\$
848	30" PVC Sanitary Sewer Line. (SDR 26 150 psi) (6'-10') _____ Dollars and _____ Cents	LF	40.00	\$	\$

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Item No.	Item Description (Unit Price to be Written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
850	Sanitary Sewer Structures, 6 ft Diameter - Type "B" (Complete in Place) _____ Dollars and _____ Cents	EA	9	\$	\$
852.1	Sanitary Sewer Manhole (4' Diameter) (0' - 6') _____ Dollars and _____ Cents	EA	2	\$	\$
852.2	Extra Depth Manholes (4' Diameter) (> 6') _____ Dollars and _____ Cents	VF	6.26	\$	\$
854.1	Sanitary Sewer Laterals (6" Dia.) _____ Dollars and _____ Cents	LF	302.16	\$	\$
854.2	One-Way Sanitary Sewer Clean-out _____ Dollars and _____ Cents	EA	10	\$	\$
856.1	Jacking, Boring, or Tunneling 30" _____ Dollars and _____ Cents	LF	38	\$	\$
856.1	Jacking, Boring, or Tunneling 48" _____ Dollars and _____ Cents	LF	76	\$	\$
856.3	Casing or Liner 30" (To Include Casing Spacers) _____ Dollars and _____ Cents	LF	38	\$	\$
856.3	Casing or Liner 48" (To Include Casing Spacers) _____ Dollars and _____ Cents	LF	76	\$	\$
860	Vertical Stacks _____ Dollars and _____ Cents	VF	58.33	\$	\$
862.1	Abandonment of 8" Sanitary Sewer Main _____ Dollars and _____ Cents	LF	250	\$	\$

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Item No.	Item Description (Unit Price to be Written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
862.1	Abandonment of 30" Sanitary Sewer Main _____ Dollars and _____ Cents	LF	857	\$ _____	\$ _____
862.2	Abandonment of Sanitary Sewer Manholes _____ Dollars and _____ Cents	EA	2	\$ _____	\$ _____
862.2	Abandonment of Sanitary Sewer Siphon Structure (335 Azucena) _____ Dollars and _____ Cents	EA	1	\$ _____	\$ _____
862.2	Abandonment of Sanitary Sewer Siphon Structure (328 Azucena) _____ Dollars and _____ Cents	EA	1	\$ _____	\$ _____
864	Bypass Pumping _____ Dollars and _____ Cents	LS	1	\$ _____	\$ _____
866	Sewer Main Television Inspection (8"-15") _____ Dollars and _____ Cents	LF	117.54	\$ _____	\$ _____
866	Sewer Main Television Inspection (≥30") _____ Dollars and _____ Cents	LF	1,294.23	\$ _____	\$ _____
5000	Siphon - Complete-in-Place (Siphon Structures, Pipes, Air By-pass, Excavation, Risers, Manholes, All Material and Labor) _____ Dollars and _____ Cents	LS	1	\$ _____	\$ _____

SUBTOTAL SAWS JOB NO. 11-4518 (SEWER): \$ _____

LINE ITEM "A"

SUBTOTAL BASE BID (SEWER): \$ _____

Azucena Street 30-Inch Sewer Project
Job No. 11-4518
Solicitation No. B-12-059-DD

Item No.	Item Description	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
100.1	Mobilization (Percent of Line Item "A" Sub Total Base Bid written in words) _____ Percent (Maximum of 10% of the Line Item "A" Sub Total Base Bid Amount)	LS	1	\$ _____	\$ _____

MOBILIZATION SUBTOTAL: \$ _____

Mobilization lump sum bid shall be limited to a maximum 10% of the Line Item "A" Sub-total Base Bid amount. The Line Item "A" Sub-total base bid is defined as all bid items **EXCLUDING** Item 100.1, Mobilization. **In the event of a discrepancy between the written percentage and dollar amount shown for Mobilization and Preparation of ROW bid items the written percentage will govern. If the percentage written exceeds the allowable maximum stated for mobilization and or preparation of ROW, SAWS reserves the right to cap the amount at the percentages shown and adjust the extensions of the bid items accordingly.**

TOTAL BID AMOUNT (Line Item "A" & Mobilization \$ _____

_____ **DOLLARS AND**
 _____ **CENTS**

 Bidder's Signature & Title

 Firm's Name (Type or Print)

 Firm's Address

 Firm's Phone No./Fax No.

 Firm's E-mail

The contractor herein acknowledges Addendum No.'s _____

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

The bidder offers to construct the Project in accordance with the Contract Documents for the contract price and to complete the Project within **150** calendar days after the Authorization to Proceed. The Bidder understands and accepts the provisions of the Contract Documents relating to liquidated damages of the project if not completed on time. Complete the Additional requirements of the Proposal, which are included on the following page(s).

PROPOSAL CERTIFICATION

Accompanying this proposal is a Bid Bond or Certified or Cashier's Check on a State or National Bank payable to the Order of the San Antonio Water System for _____ dollars (\$ _____), which amount represents five percent (5%) of the total bid price. Said bond or check is to be returned to the bidder unless the proposal is accepted and the bidder fails to execute and file a contract within 10 calendar days after the award of the Contract, in which case the check shall become the property of said San Antonio Water System, and shall be considered as payment for damages due to delay and other inconveniences suffered by said San Antonio Water System due to the failure of the bidder to execute the contract. The San Antonio Water System reserves the right to reject any and all bids.

It is anticipated that the Owner will act on this proposal within 60 calendar days after the bid opening. Upon acceptance and award of the contract to the undersigned by the Owner, the undersigned shall execute standard San Antonio Water System Contract Documents and make Performance and Payment Bonds for the full amount of the contract within 10 calendar days after the award of the Contract to secure proper compliance with the terms and provisions of the contract, to insure and guarantee the work until final completion and acceptance, and the guarantee period stipulated, and to guarantee payment of all lawful claims for labor performed and materials furnished in the fulfillment of the contract.

It is anticipated that the Owner will provide written Authorization to Proceed within 30 days after the award of the Contract.

The Contractor hereby agrees to commence work under this Contract within seven (7) calendar days after issuance by the SAWS of the written Authorization to Proceed. Under no circumstances shall the work commence prior to Contractor's receipt of SAWS issued, written Authorization to Proceed. Work shall be completed in full within ___ consecutive calendar days.

The undersigned certifies that the bid prices contained in the proposal have been carefully checked and are submitted as correct and final.

In completing the work contained in this proposal the undersigned certifies that bidder's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin and that the bidder will affirmatively cooperate in the implementation of these policies and practices.

Signed: _____
Company Representative

Company Name

Address

Please return bidder's check to:

Company Name

Address

H:\CIV_PROJ_SAWS\180037_06 Azucena St. 30in Sewer Relocation\dwg\18003706 SEWER COVER.dwg, 2 QUANTITIES & GENERAL NOTES, 10/8/2012 9:37:24 AM

TREE PROTECTION & PRESERVATION GENERAL NOTES

- NO UTILITY OR STREET EXCAVATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
- TREE PROTECTION FENCING SHALL BE REQUIRED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING SITE CONSTRUCTION. DURING CONSTRUCTION ACTIVITY, AT LEAST A SIX-INCH LAYER OF COARSE MULCH SHALL BE PLACED AND MAINTAINED OVER THE ROOT PROTECTION ZONE (NO SEPARATE PAY ITEM).
- THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN THE VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR FOR GUIDANCE.
- ROOTS WILL BE CUT WITH A ROCK SAW OR BY HAND, NOT BY AN EXCAVATOR OR OTHER ROAD CONSTRUCTION EQUIPMENT.
- ALL CURB AND SIDEWALK WORK SHALL USE ALTERNATIVE CONSTRUCTION METHODS TO MINIMIZE EXTENSIVE ROOT DAMAGE TO TREES (REFER TO DETAILS).
- EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH, OR WET BURLAP.
- NO EQUIPMENT, VEHICLES OR MATERIALS SHALL OPERATE OR BE STORED WITHIN THE ROOT PROTECTION ZONE OF ANY TREE NEAR THE PROJECT. ROOT PROTECTION ZONE IS 1 FOOT OF RADIUS PER INCH OF TREE'S DIAMETER. A 10-INCH DIAMETER TREE WOULD HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE AROUND THE TREE. ROOTS OR BRANCHES IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. OAK WOUNDS SHALL BE PAINTED OVER WITHIN 30 MINUTES TO PREVENT OAK WILT.
- SAPLINGS, SHRUBS OR BUSHES TO BE CLEARED FROM THE PROTECTED ROOT ZONE AREA OF A LARGE TREE SHALL BE REMOVED BY HAND AS DESIGNATED BY THE INSPECTOR.
- NO WIRES, NAILS OR OTHER MATERIAL MAY BE ATTACHED TO PROTECTED TREES.
- TREES, TREE LIMBS, BUSHES AND SHRUBS LOCATED IN THE CITY STREET OR ALLEY RIGHT-OF-WAY OR PERMANENT EASEMENTS WHICH INTERFERE WITH PROPOSED CONSTRUCTION ACTIVITIES SHALL BE PROPERLY PRUNED FOLLOWING THE ANSI A-300 STANDARDS FOR PRUNING. ALL TREE PRUNING SHALL BE COMPLETED BY A CITY OF SAN ANTONIO TREE MAINTENANCE LICENSED CONTRACTOR (ARTICLE 21-171, CITY CODE) ONLY AFTER APPROVAL FROM THE CAPITAL PROJECTS MANAGEMENT THROUGH THE INSPECTOR.
- NO EXCESSIVE TREE TRIMMING WILL BE PERMITTED.
- ALL DEBRIS GENERATED BY THE TRIMMING AND PRUNING OF THE TREES AND/OR BUSHES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY (NO SEPARATE PAY ITEM).
- TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE, BUT NOT BE LIMITED TO: WATERING THE ROOT PROTECTION ZONE, WASHING FOLIAGE, FERTILIZATION, PRUNING, ADDITIONAL MULCH APPLICATIONS AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT.
- ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST (210-207-0278).
- TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.
- TREE PLANTING FOR MITIGATION OR ENHANCEMENT: ALL PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATION, FERTILIZING, PRUNING AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT. TREES THAT DIE WITHIN TWELVE (12) MONTHS SHALL BE REPLACED WITH A TREE OF EQUAL SIZE AND SPECIES.

EROSION AND SEDIMENTATION CONTROL

- THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIRE EROSION AND SEDIMENTATION CONTROL FOR CONSTRUCTION OF SEWER COLLECTION SYSTEMS. DEVELOPER OR AUTHORIZED REPRESENTATIVE SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AS NOTES ON THE PROJECT'S PLAN AND PROFILE SHEETS.
- ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE SAN ANTONIO WATER SYSTEM.
- THE LOCATION AND TYPE OF EROSION CONTROL MEASURES SHOWN HEREIN ARE PROVIDED AS A GENERAL GUIDELINE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE APPROPRIATE LOCATIONS OF ALL EROSION CONTROL MEASURES TO ENSURE COMPLIANCE WITH TPDES REQUIREMENTS. ANY DRIVEWAYS, CURB, SIDEWALKS, ETC. DAMAGED AS A RESULT OF EROSION CONTROL MEASURE IMPLEMENTATION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE (NSPI).

TRENCH EXCAVATION SAFETY PROTECTION

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

S.A.W.S. NOTE

LOCATION AND DEPTH OF EXISTING WATER 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 WATER LINE LOCATOR AT 704-7811. THE CONTRACTOR SHOULD EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING WATER 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 OR REPLACE THE DAMAGED FACILITIES.

AT&T NOTE

"THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48 HOURS PRIOR TO EXCAVATION AT 1-800-828-5127. CONTRACTOR IS TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION."

ALL WEATHER NOTE

ALL TRENCHING AND BACKFILLING SHOULD BE DONE IN ACCORDANCE WITH S.A.W.S. SPECIFICATION NO. 804 "EXCAVATION, TRENCHING AND BACKFILLING" AND WHEN IN PAVED STREETS SHOULD BE COVERED WITH A TEMPORARY ALL WEATHER SURFACE AT THE END OF EACH WORK DAY.

CPS ENERGY NOTE

CALL THE TEXAS STATE WIDE ONE CALL LOCATOR NUMBER 1-800-344-8377 48 HOURS BEFORE BEGINNING ANY EXCAVATION.

DUE TO FEDERAL REGULATIONS TITLE 48, PART 192.181, CPS ENERGY MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING CPS ENERGY OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES IF ADJACENT TO WORK AREAS.


UNDERGROUND UTILITY NOTE

CONTRACTOR TO HAVE AREAS WHERE MULTIPLE UTILITIES EXIST IN CLOSE PROXIMITY TO EACH OTHER POT-HOLED TO VERIFY THE DEPTHS PRIOR TO CONSTRUCTION OF THE PROPOSED IMPROVEMENTS (NSPI).

SPECIAL NOTES

- ALL STANDARD DETAILS FOR CONSTRUCTION TO BE OBTAINED FROM THE SAWS OR CITY OF SAN ANTONIO WEBSITES, WHICHEVER IS APPLICABLE. SUCH DETAILS SHALL BE USED FOR ALL SANITARY SEWER AND OTHER INCIDENTAL CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES.
- THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY ARBORIST AT 207-8053 FOR GUIDANCE. SAWS CONSTRUCTION INSPECTOR SHALL ALSO BE NOTIFIED.
- NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.

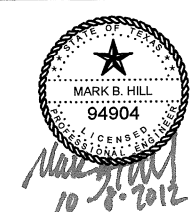
SEWER QUANTITY SUMMARY			
ITEM	DESCRIPTION	UNIT	QUANTITY
100.1	Mobilization	LS	1
103.1	Remove Concrete Curb	LF	43
103.3	Remove Concrete Sidewalk and Driveways	SF	122.46
205.4	Hot Mix Asphaltic Pavement - TYPE D (2" Compacted Depth)	SY	377.60
206.1	Asphalt Treated Base - 10" Compacted Depth	SY	319.6
306.1	Structural Excavation (Bore Pits)	CY	1161
500.1	Concrete Curb	LF	43
502.1	Concrete Sidewalks - Conventionally Formed	SY	13.64
507.2	Temporary Chain Link Wire Fence (6' High)	LF	2050
515.1	Topsoil (4" Depth)	CY	334.70
516.1	Bermuda Sodding	SY	3041.7
530.1	Barricades, Signs, and Traffic Handling	LS	1
550	Trench Excavation Safety Protection	LF	1290.77
553	Stormwater Pollution Prevention Plan (SW3P)	EA	1
799	Removal and Replacement of Speed Hump (Type II)	EA	2
848	8" PVC Sanitary Sewer Line. (SDR 26) (6'-10')	LF	107.54
848	10" PVC Sanitary Sewer Line. (SDR 26) (10'-14')	LF	10.00
848	30" PVC Sanitary Sewer Line. (SDR 26) (6'-10')	LF	390.40
848	30" PVC Sanitary Sewer Line. (SDR 26) (10'-14')	LF	290.00
848	30" PVC Sanitary Sewer Line. (SDR 26) (14'-18')	LF	362.83
848	30" PVC Sanitary Sewer Line. (SDR 26 150 psi) (6'-10')	LF	40.00
850	Sanitary Sewer Structures, 6 ft Diameter - Type "B" (Complete in Place)	EA	9
852.1	Sanitary Sewer Manhole (4' Diameter) (0' - 6')	EA	2
852.2	Extra Depth Manholes (4' Diameter) (> 6')	VF	6.26
854.1	Sanitary Sewer Laterals (6" Dia.)	LF	302.16
854.2	One-Way Sanitary Sewer Clean-out	EA	10
856.1	Jacking, Boring, or Tunneling 30"	LF	38
856.1	Jacking, Boring, or Tunneling 48"	LF	76
856.3	Casing or Liner 30" (To Include Casing Spacers)	LF	38
856.3	Casing or Liner 48" (To Include Casing Spacers)	LF	76
860	Vertical Stacks	VF	58.33
862.1	Abandonment of 8" Sanitary Sewer Main	LF	250
862.1	Abandonment of 30" Sanitary Sewer Main	LF	857
862.2	Abandonment of Sanitary Sewer Manholes	EA	2
862.2	Abandonment of Sanitary Sewer Siphon Structure (335 Azucena)	EA	1
862.2	Abandonment of Sanitary Sewer Siphon Structure (328 Azucena)	EA	1
864	Bypass Pumping	LS	1
866	Sewer Main Television Inspection (8"-15")	LF	117.54
866	Sewer Main Television Inspection (≥30")	LF	1294.23
5000	Siphon - Complete-in-Place (Siphon Structures, Pipes, Air By-pass, Excavation, Risers, Manholes, All Material and Labor)	LS	1



FORD ENGINEERING INC.
 ENGINEERING • PLANNING • DEVELOPMENT
 1922 WYE DRIVE, SUITE 104 • SAN ANTONIO, TEXAS 78217
 TEL: (210) 590-4777 • FAX: (210) 590-4940
 www.fordengineering.com TBE No. F-1162

LEGEND

- PROP. WATER MAIN
- EXIST. WATER MAIN
- EXIST. GAS MAIN
- EXIST. ELECTRIC CABLE
- EXIST. FIBER
- EXIST. TELE. CABLE
- EXIST. SANITARY SEWER
- EXIST. STORM SEWER
- EXIST. UTILITY POLE LINE
- EXIST. WOOD FENCE
- EXIST. CHAINLINK FENCE
- EXIST. WR. IRON FENCE
- EXIST. EDGE OF P.V.M.T.
- PROP. SAN. SWR.
- PROP. SAN. SWR. CLEANOUT



AZUCENA STREET 30-INCH SEWER PROJECT
30-IN SANITARY SEWER RELOCATION

QUANTITIES & GENERAL NOTES

SAWS JOB NO. 11-4518
SOLICITATION: B-12-059-DD

DEVELOPER: SAN ANTONIO WATER SYSTEM

CONT. BUDGET PROJ.

SUBMITTED 09/19/2012

APPROVED _____

MAP No. 134-582-132-584

SECT. No. _____

DR. MDS CK. MBH

SHEET

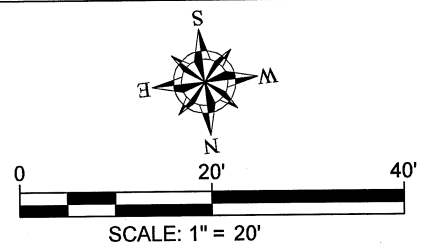
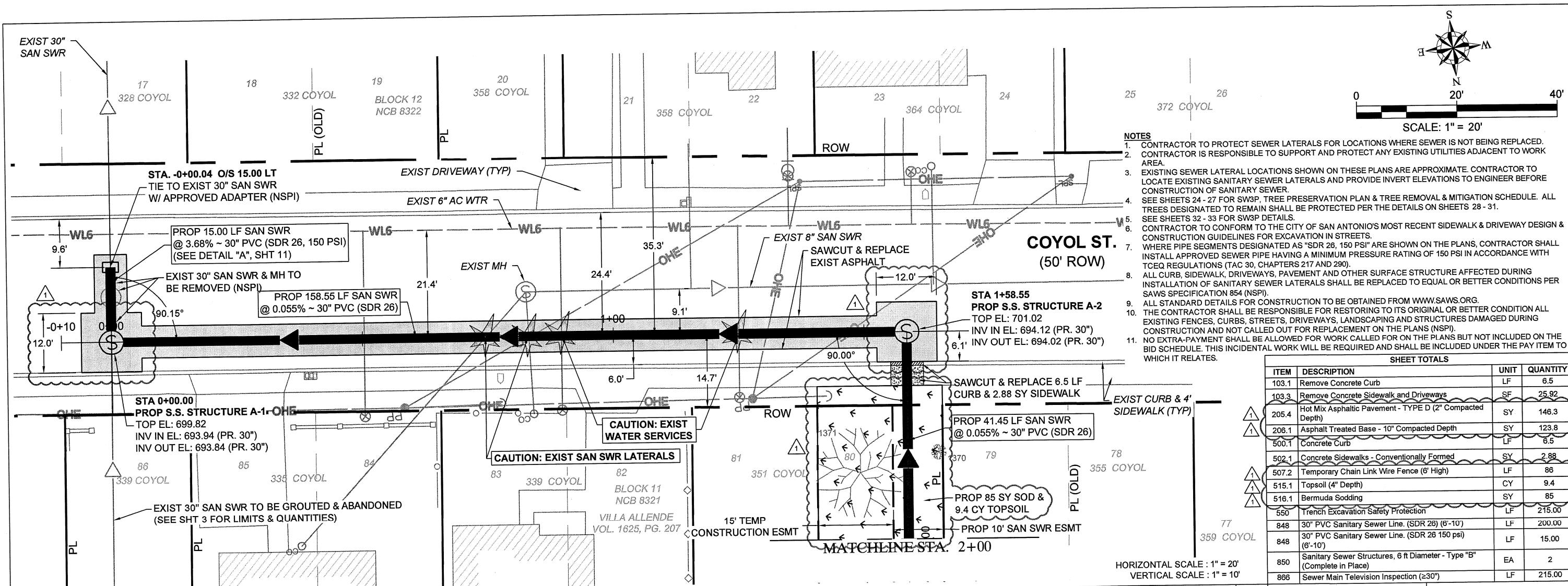
2 OF 34

JOB No. 11-4518

CONTRACT

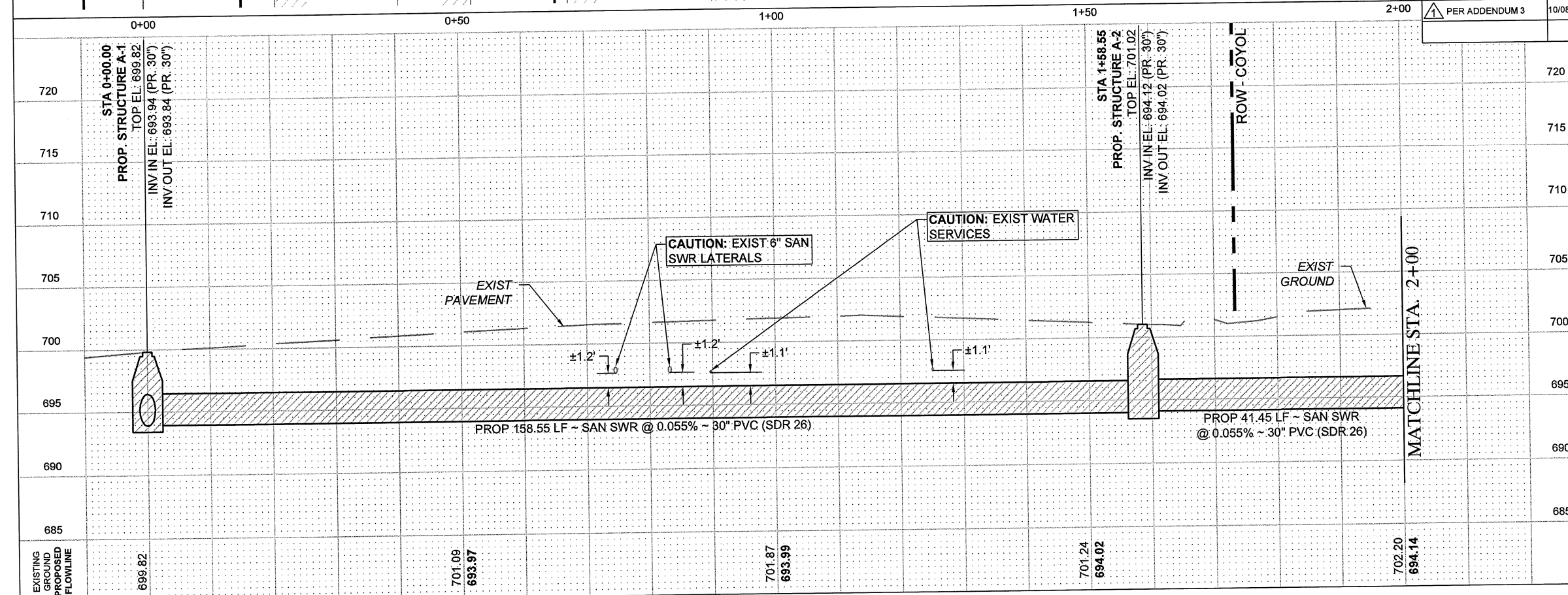
PER ADDENDUM 3 10/08/12

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- NOTES**
- CONTRACTOR TO PROTECT SEWER LATERALS FOR LOCATIONS WHERE SEWER IS NOT BEING REPLACED.
 - CONTRACTOR IS RESPONSIBLE TO SUPPORT AND PROTECT ANY EXISTING UTILITIES ADJACENT TO WORK AREA.
 - EXISTING SEWER LATERAL LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. CONTRACTOR TO LOCATE EXISTING SANITARY SEWER LATERALS AND PROVIDE INVERT ELEVATIONS TO ENGINEER BEFORE CONSTRUCTION OF SANITARY SEWER.
 - SEE SHEETS 24 - 27 FOR SW3P, TREE PRESERVATION PLAN & TREE REMOVAL & MITIGATION SCHEDULE. ALL TREES DESIGNATED TO REMAIN SHALL BE PROTECTED PER THE DETAILS ON SHEETS 28 - 31.
 - SEE SHEETS 32 - 33 FOR SW3P DETAILS.
 - CONTRACTOR TO CONFORM TO THE CITY OF SAN ANTONIO'S MOST RECENT SIDEWALK & DRIVEWAY DESIGN & CONSTRUCTION GUIDELINES FOR EXCAVATION IN STREETS.
 - WHERE PIPE SEGMENTS DESIGNATED AS "SDR 26, 150 PSI" ARE SHOWN ON THE PLANS, CONTRACTOR SHALL INSTALL APPROVED SEWER PIPE HAVING A MINIMUM PRESSURE RATING OF 150 PSI IN ACCORDANCE WITH TCEQ REGULATIONS (TAC 30, CHAPTERS 217 AND 290).
 - ALL CURB, SIDEWALK, DRIVEWAYS, PAVEMENT AND OTHER SURFACE STRUCTURE AFFECTED DURING INSTALLATION OF SANITARY SEWER LATERALS SHALL BE REPLACED TO EQUAL OR BETTER CONDITIONS PER SAWS SPECIFICATION 854 (NSPI).
 - ALL STANDARD DETAILS FOR CONSTRUCTION TO BE OBTAINED FROM WWW.SAWS.ORG.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ALL EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES DAMAGED DURING CONSTRUCTION AND NOT CALLED OUT FOR REPLACEMENT ON THE PLANS (NSPI).
 - NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.

SHEET TOTALS			
ITEM	DESCRIPTION	UNIT	QUANTITY
103.1	Remove Concrete Curb	LF	6.5
103.3	Remove Concrete Sidewalk and Driveways	SF	25.92
205.4	Hot Mix Asphaltic Pavement - TYPE D (2" Compacted Depth)	SY	146.3
206.1	Asphalt Treated Base - 10" Compacted Depth	SY	123.8
500.1	Concrete Curb	LF	6.5
502.1	Concrete Sidewalks - Conventionally Formed	SY	2.88
507.2	Temporary Chain Link Wire Fence (6' High)	LF	86
515.1	Topsoil (4" Depth)	CY	9.4
516.1	Bermuda Sodding	SY	85
550	Trench Excavation Safety Protection	LF	215.00
848	30" PVC Sanitary Sewer Line. (SDR 26) (6'-10')	LF	200.00
848	30" PVC Sanitary Sewer Line. (SDR 26 150 psi) (6'-10')	LF	15.00
850	Sanitary Sewer Structures, 6 ft Diameter - Type "B" (Complete in Place)	EA	2
866	Sewer Main Television Inspection (≥30")	LF	215.00



FORD ENGINEERING INC.
 ENGINEERING • PLANNING • DEVELOPMENT
 FBI PROJECT No: 1800.3706 DATE: 09/19/2012
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 TEL: (210) 590-4777 • FAX: (210) 590-4940
 www.fordengineering.com T&E No. F-1162

MARK B. HILL
 94904
 10-F-2012

LEGEND

- PROP. WATER MAIN
- EXIST. WATER MAIN
- EXIST. GAS MAIN
- EXIST. ELECTRIC CABLE
- EXIST. FIBER
- EXIST. TELE. CABLE
- EXIST. SANITARY SEWER
- EXIST. STORM SEWER
- EXIST. UTILITY POLE LINE
- EXIST. WOOD FENCE
- EXIST. CHAINLINK FENCE
- EXIST. WR. IRON FENCE
- EXIST. EDGE OF PVMT.
- PROP. SAN. SWR.
- PROP. SAN. SWR. CLEANOUT

SAN ANTONIO WATER SYSTEM

AZUCENA STREET 30-INCH SEWER PROJECT
30-IN SANITARY SEWER RELOCATION
LINE A - 30-IN SEWER PLAN & PROFILE

STA 0+00 TO STA 2+00

SAWS JOB NO. 11-4518
 SOLICITATION: B-12-059-DD

DEVELOPER: SAN ANTONIO WATER SYSTEM
 CONT. BUDGET PROJ.

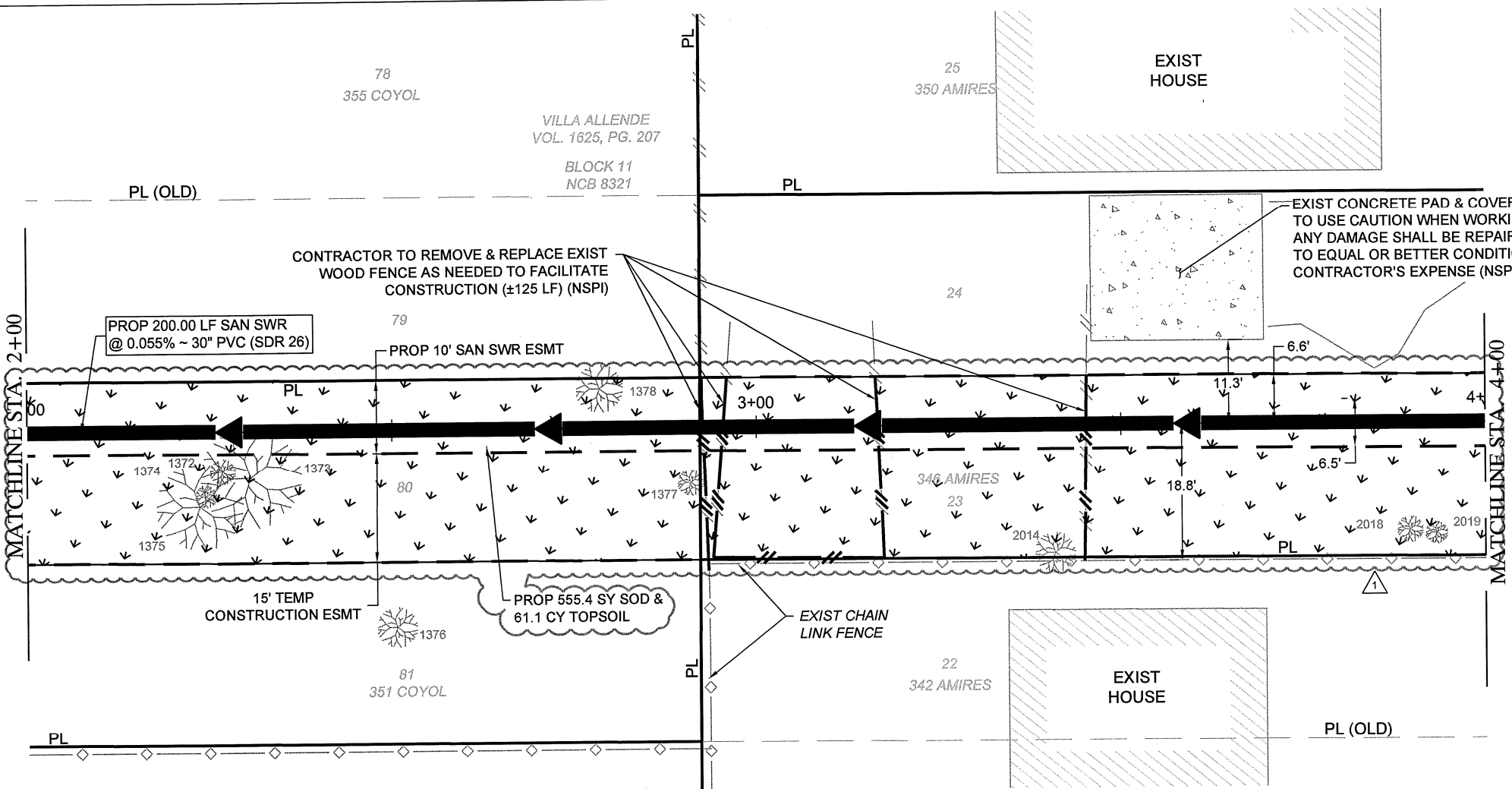
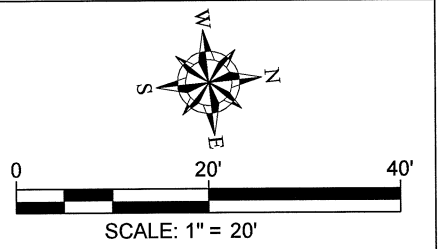
SUBMITTED 09/19/2012
 APPROVED

MAP No. 134-582, 132-584 SHEET

SECT. No. JOB No. 11-4518 10 OF 34

DR. MDS CK. MBH

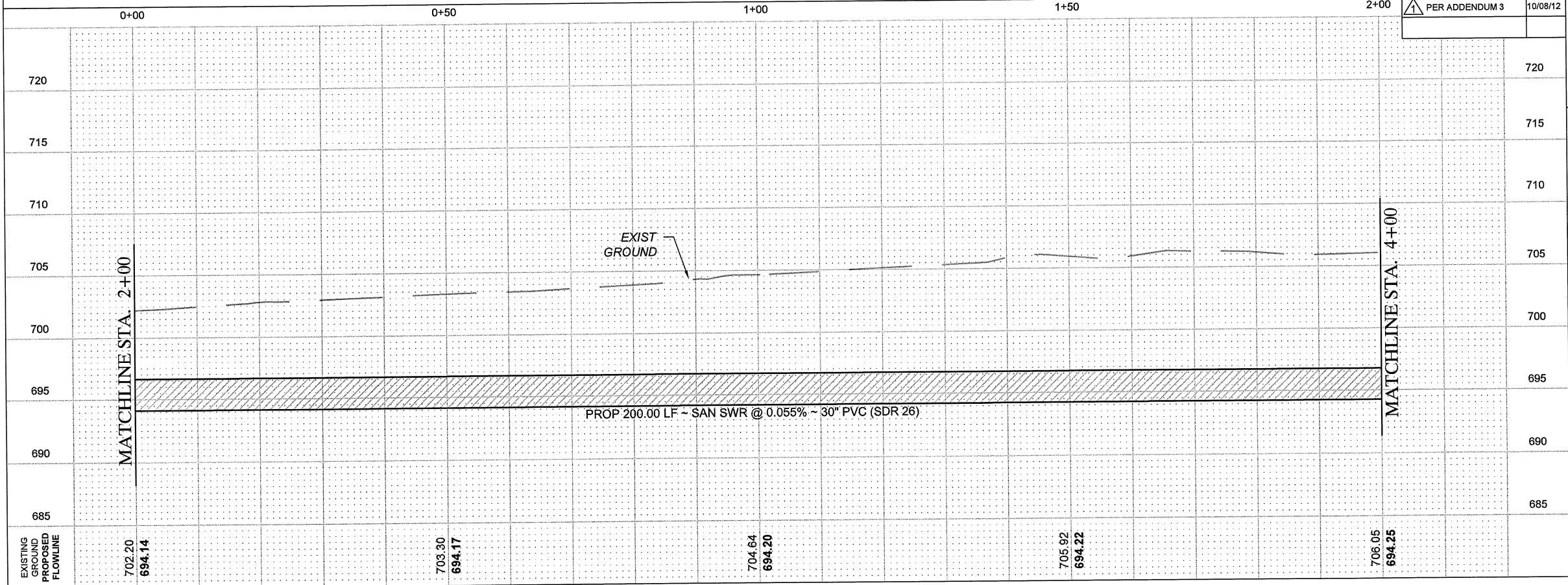
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- NOTES**
1. CONTRACTOR TO PROTECT SEWER LATERALS FOR LOCATIONS WHERE SEWER IS NOT BEING REPLACED.
 2. CONTRACTOR IS RESPONSIBLE TO SUPPORT AND PROTECT ANY EXISTING UTILITIES ADJACENT TO WORK AREA.
 3. EXISTING SEWER LATERAL LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. CONTRACTOR TO LOCATE EXISTING SANITARY SEWER LATERALS AND PROVIDE INVERT ELEVATIONS TO ENGINEER BEFORE CONSTRUCTION OF SANITARY SEWER.
 4. SEE SHEETS 24 - 27 FOR SW3P, TREE PRESERVATION PLAN & TREE REMOVAL & MITIGATION SCHEDULE. ALL TREES DESIGNATED TO REMAIN SHALL BE PROTECTED PER THE DETAILS ON SHEETS 28 - 31.
 5. SEE SHEETS 32 - 33 FOR SW3P DETAILS.
 6. CONTRACTOR TO CONFORM TO THE CITY OF SAN ANTONIO'S MOST RECENT SIDEWALK & DRIVEWAY DESIGN & CONSTRUCTION GUIDELINES FOR EXCAVATION IN STREETS.
 7. WHERE PIPE SEGMENTS DESIGNATED AS "SDR 26, 150 PSI" ARE SHOWN ON THE PLANS, CONTRACTOR SHALL INSTALL APPROVED SEWER PIPE HAVING A MINIMUM PRESSURE RATING OF 150 PSI IN ACCORDANCE WITH TCEQ REGULATIONS (TAC 30, CHAPTERS 217 AND 290).
 8. ALL CURB, SIDEWALK, DRIVEWAYS, PAVEMENT AND OTHER SURFACE STRUCTURE AFFECTED DURING INSTALLATION OF SANITARY SEWER LATERALS SHALL BE REPLACED TO EQUAL OR BETTER CONDITIONS PER SAWS SPECIFICATION 854 (NSPI).
 9. ALL STANDARD DETAILS FOR CONSTRUCTION TO BE OBTAINED FROM WWW.SAWS.ORG.
 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ALL EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES DAMAGED DURING CONSTRUCTION AND NOT CALLED OUT FOR REPLACEMENT ON THE PLANS (NSPI).
 11. NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.

SHEET TOTALS			
ITEM	DESCRIPTION	UNIT	QUANTITY
507.2	Temporary Chain Link Wire Fence (6' High)	LF	400
515.1	Topsoil (4" Depth)	CY	61.10
516.1	Bermuda Sodding	SY	555.4
550	Trench Excavation Safety Protection	LF	200.00
848	30" PVC Sanitary Sewer Line. (SDR 26) (6'-10')	LF	90.00
848	30" PVC Sanitary Sewer Line. (SDR 26) (10'-14')	LF	110.00
866	Sewer Main Television Inspection (≥30")	LF	200.00

HORIZONTAL SCALE : 1" = 20'
VERTICAL SCALE : 1" = 10'



FORD ENGINEERING INC.
ENGINEERING * PLANNING * DEVELOPMENT
FEI PROJECT No: 1800.3706 DATE: 09/19/2012
10927 WYE DRIVE, SUITE 104 * SAN ANTONIO, TEXAS 78217
TEL: (210) 590-4777 * FAX: (210) 590-4960
www.fordengineering.com TSFE No. F-1162

LEGEND

- PROP. WATER MAIN
- EXIST. WATER MAIN
- EXIST GAS MAIN
- EXIST ELECTRIC CABLE
- EXIST FIBER
- EXIST TELE. CABLE
- EXIST SANITARY SEWER
- EXIST STORM SEWER
- EXIST UTILITY POLE LINE
- EXIST WOOD FENCE
- EXIST CHAINLINK FENCE
- EXIST WR. IRON FENCE
- EXIST EDGE OF PVMT.
- PROP. SAN. SWR.
- PROP. SAN. SWR. CLEANOUT

Mark B. Hill
10-8-2012

SAN ANTONIO WATER SYSTEM

AZUCENA STREET 30-INCH SEWER PROJECT
30-IN SANITARY SEWER RELOCATION
LINE A - 30-IN SEWER PLAN & PROFILE

STA 2+00 TO STA 4+00

SAWS JOB NO. 11-4518
SOLICITATION: B-12-059-DD

DEVELOPER: SAN ANTONIO WATER SYSTEM

CONT. BUDGET PROJ.

SUBMITTED 09/19/2012

APPROVED

MAP No. 134-582,132-584

SECT. No.

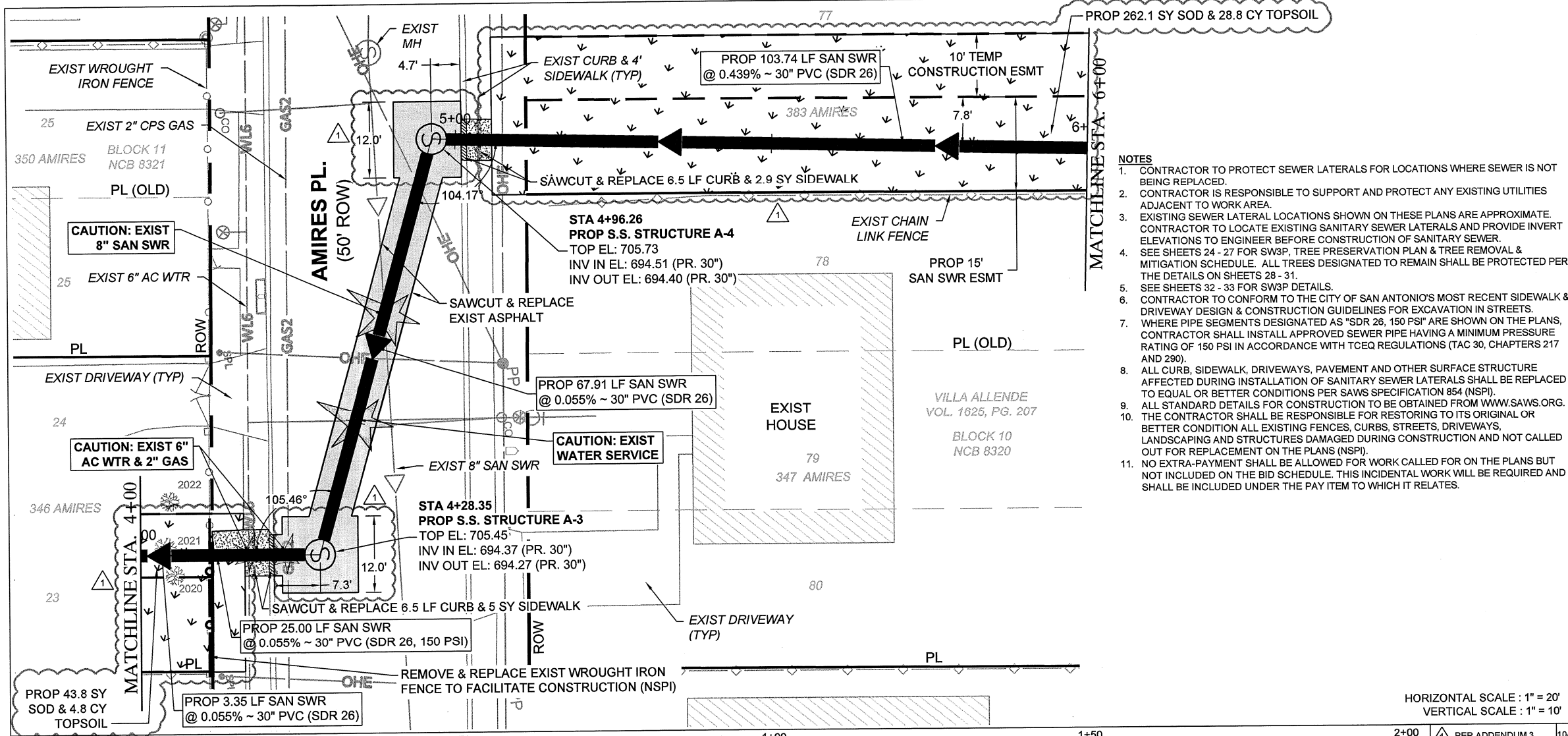
DR. MDS CK. MBH

JOB No. 11-4518

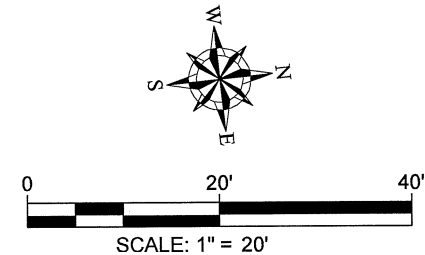
SHEET 11 OF 34

CONTRACT

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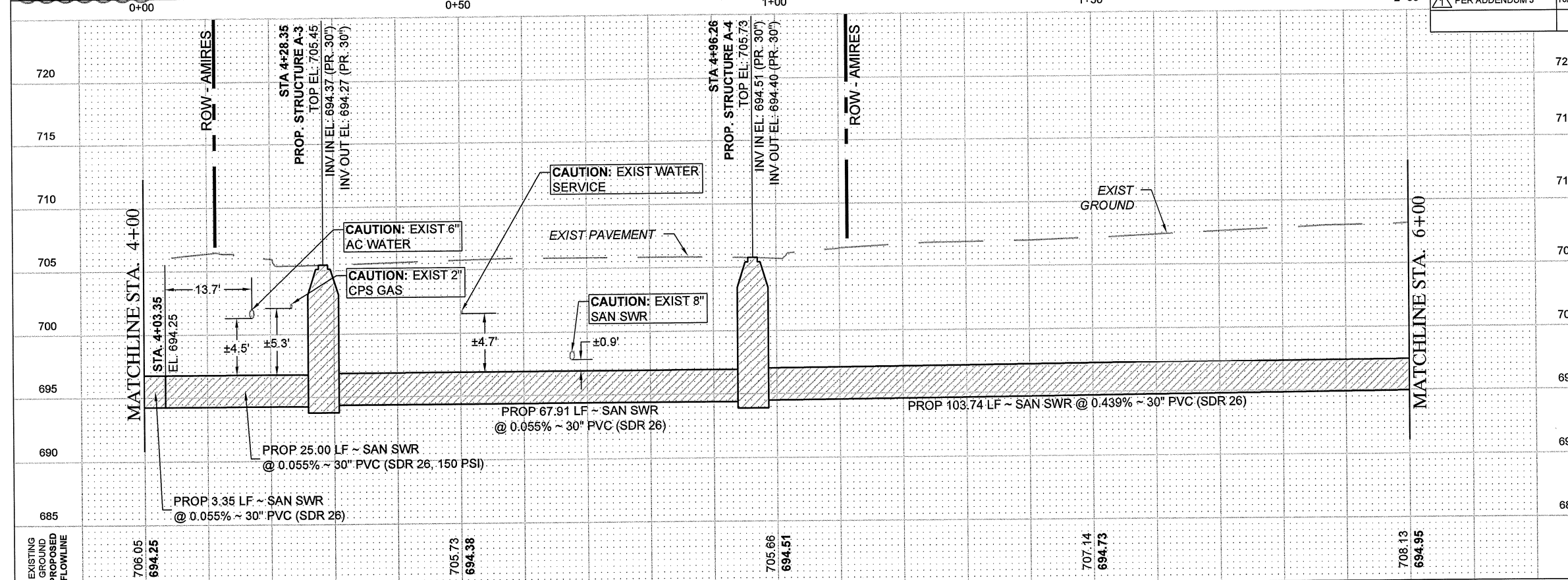


- NOTES**
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SHEET TOTALS			
ITEM	DESCRIPTION	UNIT	QUANTITY
103.1	Remove Concrete Curb	LF	13
103.3	Remove Concrete Sidewalk and Driveways	SF	70.8
205.4	Hot Mix Asphaltic Pavement - TYPE D (2" Compacted Depth)	SY	71.2
206.1	Asphalt Treated Base - 10" Compacted Depth	SY	60.3
500.1	Concrete Curb	LF	13
502.1	Concrete Sidewalks - Conventionally Formed	SY	7.9
507.2	Temporary Chain Link Wire Fence (6' High)	LF	282
515.1	Topsoil (4" Depth)	CY	33.6
516.1	Bermuda Sodding	SY	305.9
550	Trench Excavation Safety Protection	LF	200.00
848	30" PVC Sanitary Sewer Line. (SDR 26) (10'-14')	LF	175.00
848	30" PVC Sanitary Sewer Line. (SDR 26 150 psi) (6'-10')	LF	25.00
850	Sanitary Sewer Structures, 6 ft Diameter - Type "B" (Complete in Place)	EA	2
866	Sewer Main Television Inspection (≥30")	LF	200.00

HORIZONTAL SCALE : 1" = 20'
VERTICAL SCALE : 1" = 10'



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www.fordengineering.com T&PE No. F-1162

LEGEND

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- EXIST. WATER MAIN
- EXIST. GAS MAIN
- EXIST. ELECTRIC CABLE
- EXIST. FIBER
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- EXIST. CHAINLINK FENCE
- EXIST. WR. IRON FENCE
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- PROP. SAN. SWR.
- PROP. SAN. SWR. CLEANOUT

MARK B. HILL
94904
LICENSED PROFESSIONAL ENGINEER
10-9-2012

SAN ANTONIO WATER SYSTEM

AZUCENA STREET 30-INCH SEWER PROJECT
30-IN SANITARY SEWER RELOCATION
LINE A - 30-IN SEWER PLAN & PROFILE

STA 4+00 TO STA 6+00

SAWS JOB NO. 11-4518
SOLICITATION: B-12-059-DD

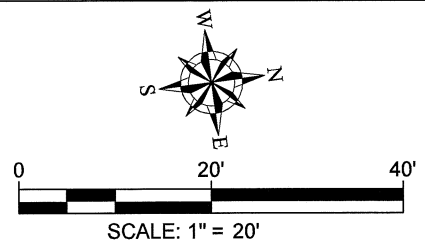
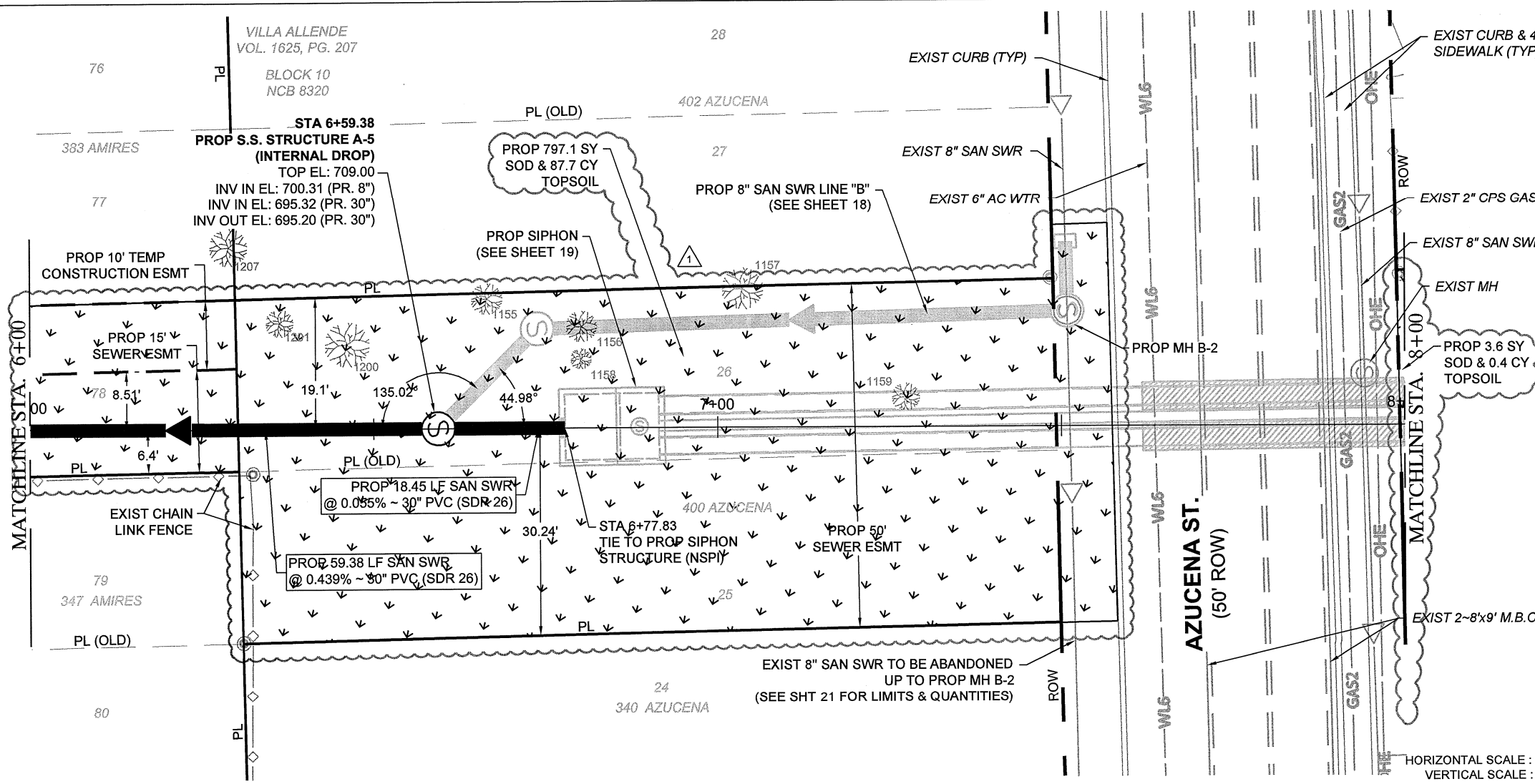
DEVELOPER: SAN ANTONIO WATER SYSTEM
CONT. BUDGET PROJ.

SUBMITTED 09/19/2012
APPROVED

MAP No. 134-582,132-584 SHEET 12 OF 34

SECT. No. DR. MDS CK. MBH JOB No. 11-4518

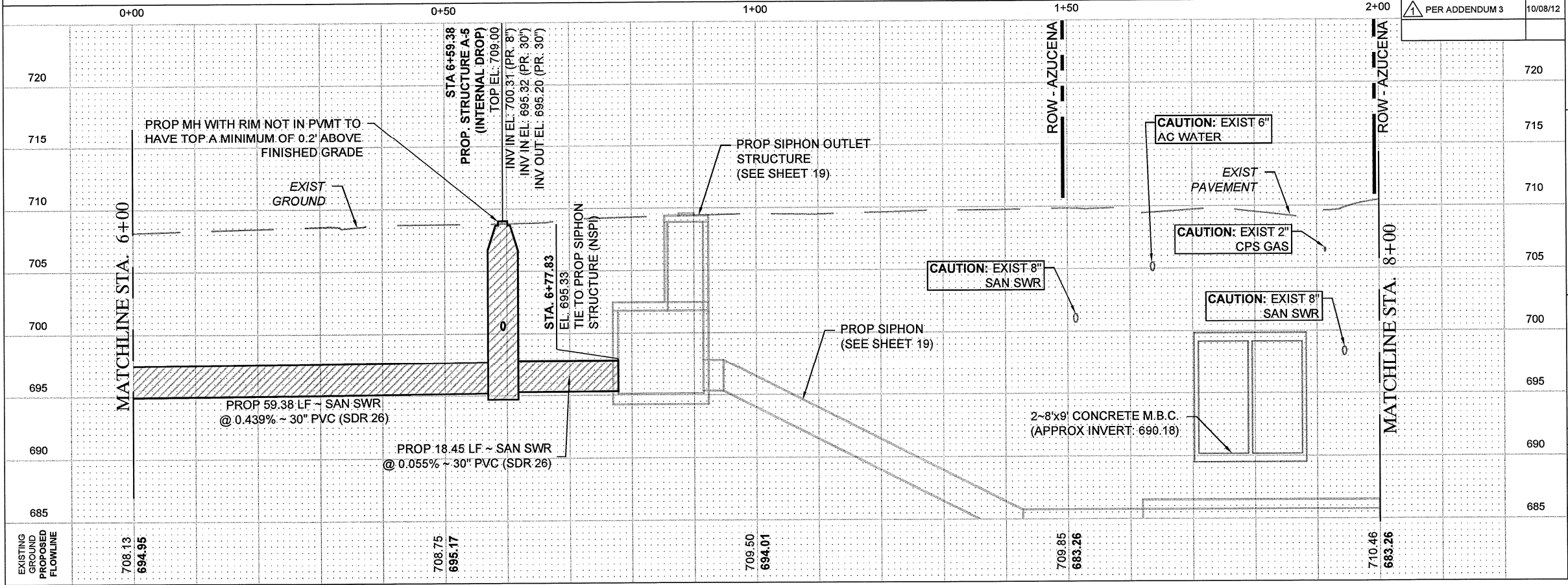
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- NOTES**
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- SIPHON QUANTITIES NOTE**
SEE SHEET 19 FOR QUANTITIES PERTAINING TO CONSTRUCTION OF SANITARY SEWER SIPHON AND RELATED APPURTENANCES. SEE SHEET 2 FOR QUANTITY SUMMARY.

SHEET TOTALS			
ITEM	DESCRIPTION	UNIT	QUANTITY
515.1	Topsoil (4" Depth)	CY	88.1
516.1	Bermuda Sodding	SY	800.7
507.2	Temporary Chain Link Wire Fence (6' High)	LF	405
550	Trench Excavation Safety Protection	LF	77.83
848	30" PVC Sanitary Sewer Line, (SDR 26) (10'-14')	LF	77.83
850	Sanitary Sewer Structures, 6 ft Diameter - Type "B" (Complete in Place)	EA	1
866	Sewer Main Television Inspection (≥30")	LF	77.83

HORIZONTAL SCALE : 1" = 20'
VERTICAL SCALE : 1" = 10'



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FEI PROJECT No: 18003706 DATE: 09/19/2012
10927 WYDE DRIVE, SUITE 104 • SAN ANTONIO, TEXAS 78217
TEL: (210) 590-4777 • FAX: (210) 590-4940
www.fordengineering.com TXPE No. F-1142

MARK B. HILL
94904
10-8-2012

LEGEND

- PROP. WATER MAIN
- EXIST. WATER MAIN
- EXIST. GAS MAIN
- EXIST. ELECTRIC CABLE
- EXIST. FIBER
- EXIST. TELE. CABLE
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- EXIST. EDGE OF PVMT.
- PROP. SAN. SWR.
- PROP. SAN. SWR. CLEANOUT

SAN ANTONIO WATER SYSTEM

**AZUCENA STREET 30-INCH SEWER PROJECT
30-IN SANITARY SEWER RELOCATION
LINE A - 30-IN SEWER PLAN & PROFILE**

STA 6+00 TO STA 8+00

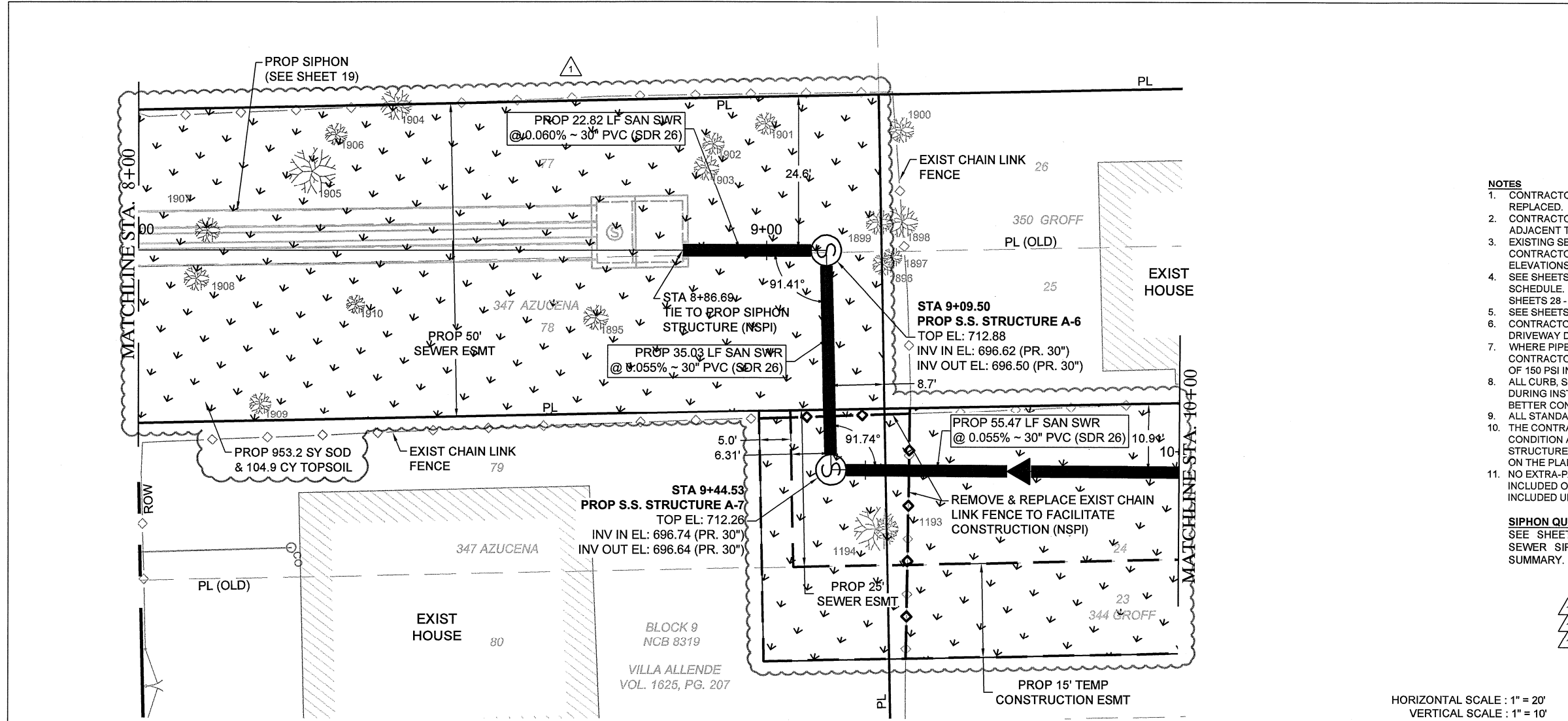
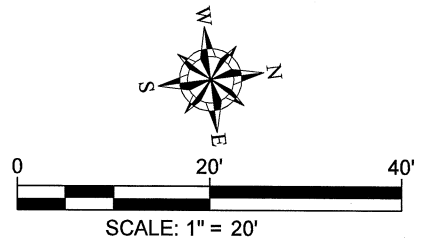
SAWS JOB NO. 11-4518
SOLICITATION: B-12-059-DD

DEVELOPER: SAN ANTONIO WATER SYSTEM
CONT. BUDGET PROJ.

SUBMITTED 09/19/2012
APPROVED

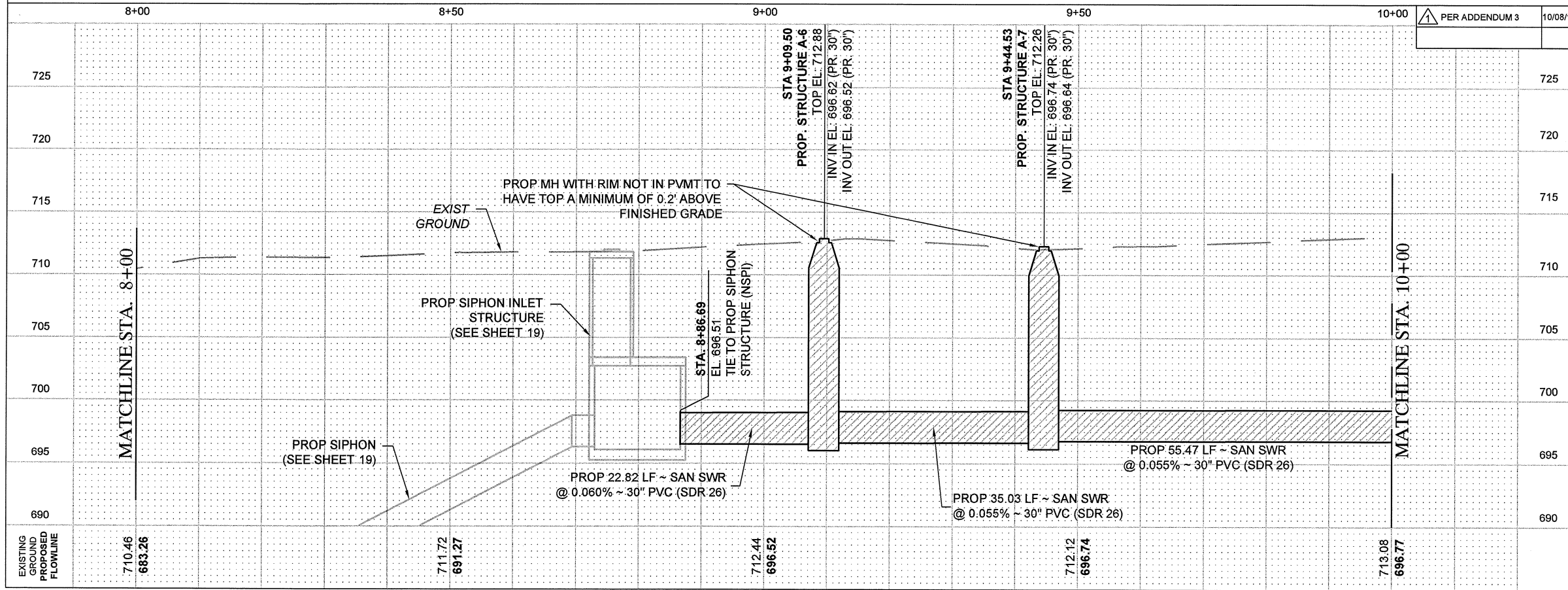
MAP No. 134-582,132-584 SHEET
SECT. No. 13 OF 34
DR. MDS CK. MBH JOB No. 11-4518

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SHEET TOTALS			
ITEM	DESCRIPTION	UNIT	QUANTITY
507.2	Temporary Chain Link Wire Fence (6' High)	LF	471
515.1	Topsoil (4" Depth)	CY	104.9
516.1	Bermuda Sodding	SY	953.2
550	Trench Excavation Safety Protection	LF	113.32
848	30" PVC Sanitary Sewer Line, (SDR 26) (14'-18')	LF	113.32
850	Sanitary Sewer Structures, 6ft Diameter - Type "B" (Complete in Place)	EA	2
866	Sewer Main Television Inspection (≥30")	LF	113.32



FORD ENGINEERING INC.
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FB PROJECT No. 18003706 DATE 09/19/2012
10927 WYE DRIVE, SUITE 104 * SAN ANTONIO, TEXAS 78217
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www.fordengineering.com T&E No. F-1162

LEGEND

- PROP. WATER MAIN
- EXIST. WATER MAIN
- EXIST. GAS MAIN
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- PROP. SAN. SWR.
- PROP. SAN. SWR. CLEANOUT

SEAL
MARK B. HILL
94904
LICENSED PROFESSIONAL ENGINEER
10-8-2012

SAN ANTONIO WATER SYSTEM

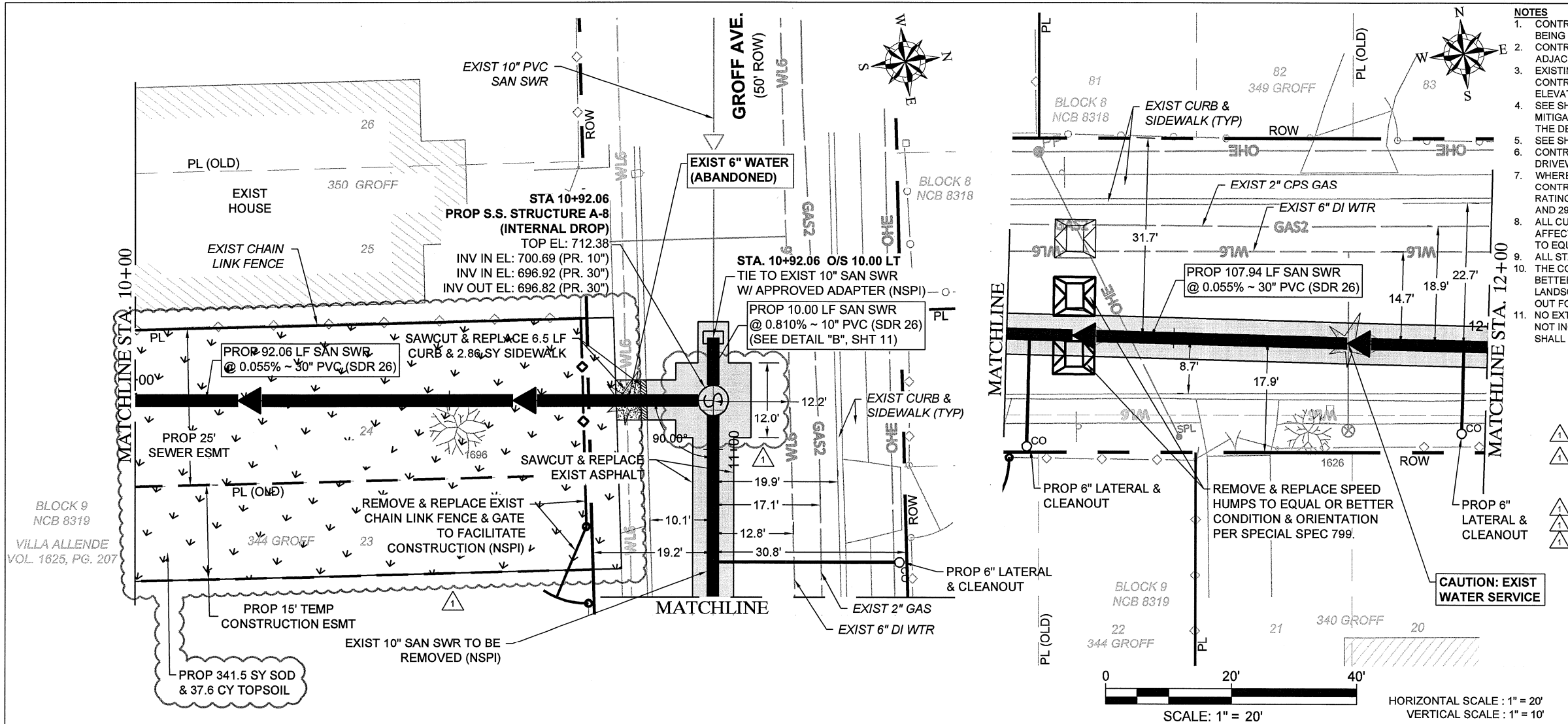
AZUCENA STREET 30-INCH SEWER PROJECT
30-IN SANITARY SEWER RELOCATION
LINE A - 30-IN SEWER PLAN & PROFILE
STA 8+00 TO STA 10+00
SAWS JOB NO. 11-4518
SOLICITATION: B-12-059-DD

DEVELOPER: SAN ANTONIO WATER SYSTEM
CONT. BUDGET PROJ.

SUBMITTED 09/19/2012
APPROVED _____

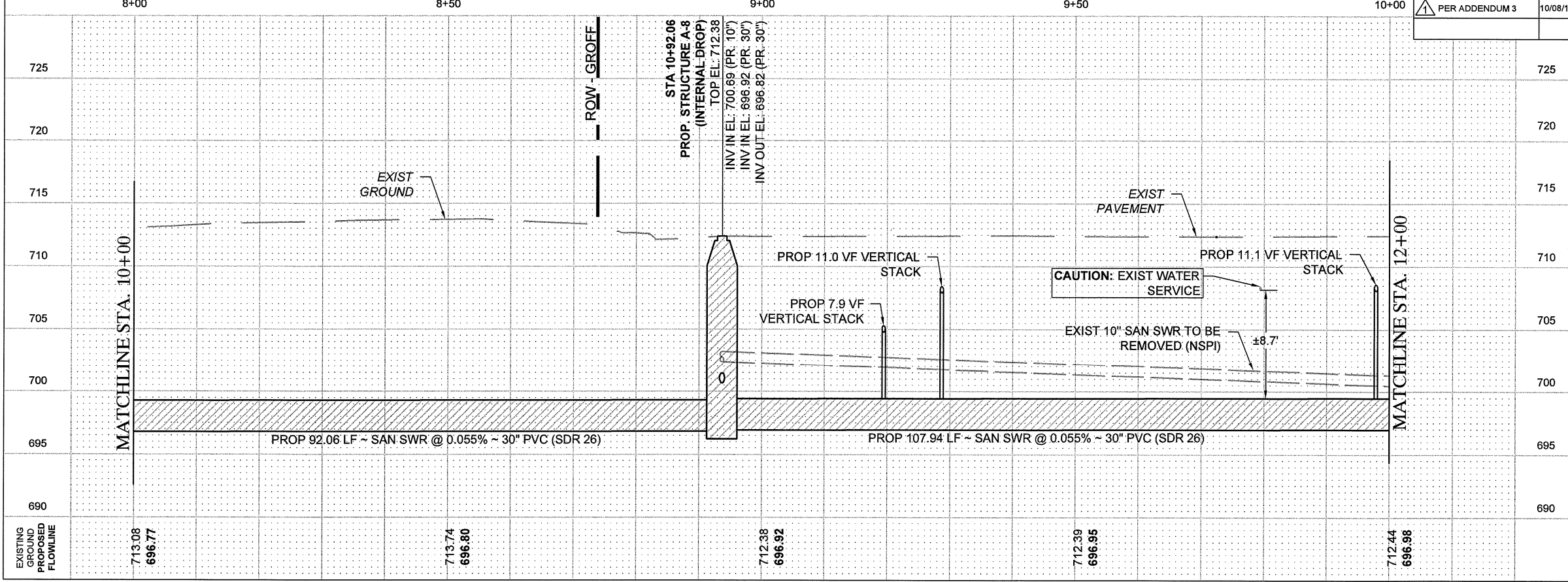
MAP No. 134-582,132-584 SHEET
SECT. No. 14 OF 34
DR. MDS CK. MBH JOB No. 11-4518

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SHEET TOTALS			
ITEM	DESCRIPTION	UNIT	QUANTITY
103.1	Remove Concrete Curb	LF	6.5
103.3	Remove Concrete Sidewalk and Driveways	SF	25.74
205.4	Hot Mix Asphaltic Pavement - TYPE D (2" Compacted Depth)	SY	96.4
206.1	Asphalt Treated Base - 10" Compacted Depth	SY	81.6
500.1	Concrete Curb	LF	6.5
502.1	Concrete Sidewalks - Conventionally Formed	SY	2.88
507.2	Temporary Chain Link Wire Fence (6' High)	LF	194
515.1	Topsoil (4" Depth)	CY	37.6
516.1	Bermuda Sodding	SY	341.5
550	Trench Excavation Safety Protection	LF	210.00
799	Removal and Replacement of Speed Hump (Type II)	EA	2
848	10" PVC Sanitary Sewer Line. (SDR 26) (10'-14')	LF	10.00
848	30" PVC Sanitary Sewer Line. (SDR 26) (14'-18')	LF	200.00
850	Sanitary Sewer Structures, 6ft Diameter - Type "B" (Complete in Place)	EA	1
854.1	Sanitary Sewer Laterals (6" Dia.)	LF	61.7
854.2	One-Way Sanitary Sewer Clean-out	EA	3
860	Vertical Stacks	VF	30.00
866	Sewer Main Television Inspection (8"-15")	LF	10.00
866	Sewer Main Television Inspection (≥30")	LF	200.00



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 TEL: (210) 590-4777 • FAX: (210) 590-4940
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SAN ANTONIO WATER SYSTEM

AZUCENA STREET 30-INCH SEWER PROJECT
30-IN SANITARY SEWER RELOCATION
LINE A - 30-IN SEWER PLAN & PROFILE

STA 10+00 TO STA 12+00

SAWS JOB NO. 11-4518
 SOLICITATION: B-12-059-DD

DEVELOPER: SAN ANTONIO WATER SYSTEM

CONT. BUDGET PROJ.

SUBMITTED 09/19/2012

APPROVED

MAP No. 134-582,132-584

SECT. No.

DR. MDS CK. MBH

725

720

715

710

705

700

695

690

EXISTING GROUND PROPOSED FLOWLINE

713.08 696.77

713.74 696.80

712.38 696.92

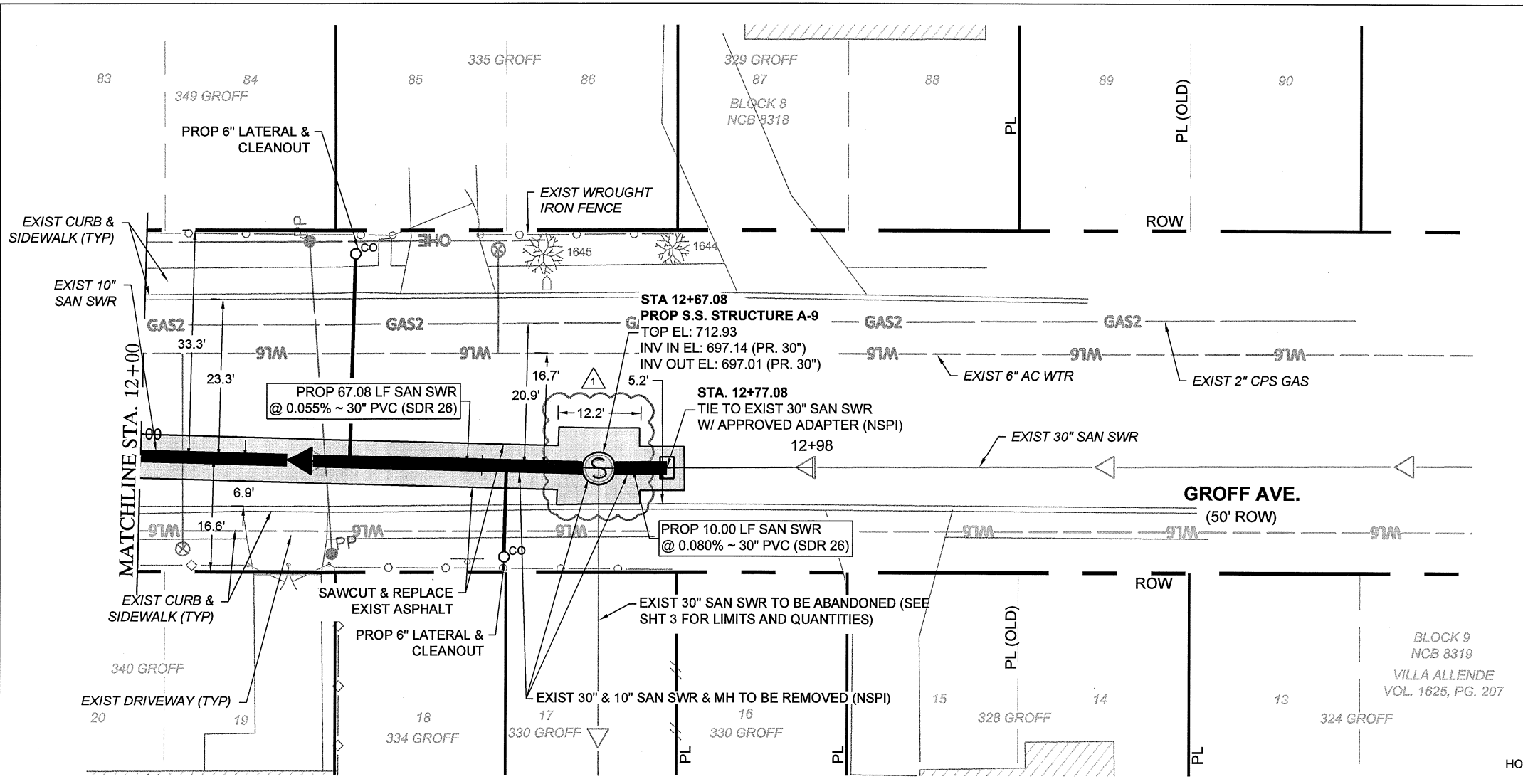
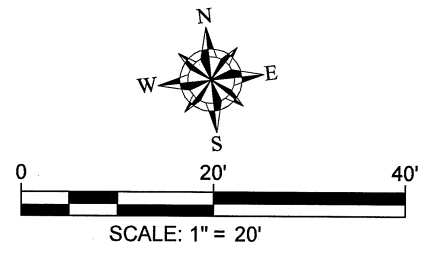
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SHEET **15** OF 34

CONTRACT

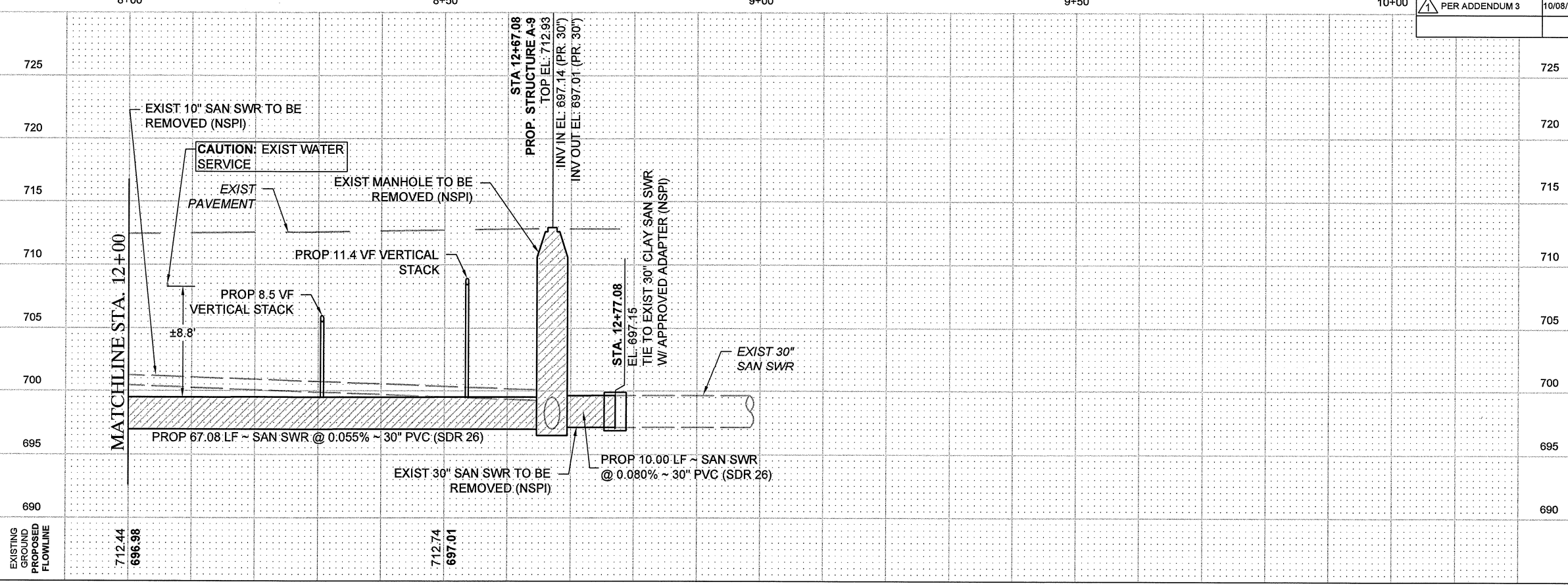
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 5. SEE SHEETS 32 - 33 FOR SW3P DETAILS.
 6. CONTRACTOR TO CONFORM TO THE CITY OF SAN ANTONIO'S MOST RECENT SIDEWALK & DRIVEWAY DESIGN & CONSTRUCTION GUIDELINES FOR EXCAVATION IN STREETS.
 7. WHERE PIPE SEGMENTS DESIGNATED AS "SDR 26, 150 PSI" ARE SHOWN ON THE PLANS, CONTRACTOR SHALL INSTALL APPROVED SEWER PIPE HAVING A MINIMUM PRESSURE RATING OF 150 PSI IN ACCORDANCE WITH TCEQ REGULATIONS (TAC 30, CHAPTERS 217 AND 290).
 8. ALL CURB, SIDEWALK, DRIVEWAYS, PAVEMENT AND OTHER SURFACE STRUCTURE AFFECTED DURING INSTALLATION OF SANITARY SEWER LATERALS SHALL BE REPLACED TO EQUAL OR BETTER CONDITIONS PER SAWS SPECIFICATION 854 (NSPI).
 9. ALL STANDARD DETAILS FOR CONSTRUCTION TO BE OBTAINED FROM WWW.SAWS.ORG.
 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ALL EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES DAMAGED DURING CONSTRUCTION AND NOT CALLED OUT FOR REPLACEMENT ON THE PLANS (NSPI).
 11. NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.

SHEET TOTALS			
ITEM	DESCRIPTION	UNIT	QUANTITY
205.4	Hot Mix Asphaltic Pavement - TYPE D (2" Compacted Depth)	SY	63.7
206.1	Asphalt Treated Base - 10" Compacted Depth	SY	53.9
550	Trench Excavation Safety Protection	LF	77.08
848	30" PVC Sanitary Sewer Line. (SDR 26) (14'-18')	LF	77.08
850	Sanitary Sewer Structures, 6ft Diameter - Type "B" (Complete in Place)	EA	1
854.1	Sanitary Sewer Laterals (6" Dia.)	LF	43.8
854.2	One-Way Sanitary Sewer Clean-out	EA	2
860	Vertical Stacks	VF	19.9
866	Sewer Main Television Inspection (≥30')	LF	77.08

HORIZONTAL SCALE : 1" = 20'
VERTICAL SCALE : 1" = 10'



FORD ENGINEERING INC.
ENGINEERING • PLANNING • DEVELOPMENT
FEI PROJECT No: 1800.3706 DATE: 09/19/2012
10927 WYE DRIVE, SUITE 104 • SAN ANTONIO, TEXAS 78217
TEL: (210) 590-4777 • FAX: (210) 590-4946
www.fordengineering.com TPE No. F-1162

LEGEND

- PROP. WATER MAIN
- EXIST. WATER MAIN
- EXIST GAS MAIN
- EXIST ELECTRIC CABLE
- EXIST FIBER
- EXIST TELE CABLE
- EXIST SANITARY SEWER
- EXIST STORM SEWER
- EXIST UTILITY POLE LINE
- EXIST WOOD FENCE
- EXIST CHAINLINK FENCE
- EXIST WR. IRON FENCE
- EXIST EDGE OF PVMT.
- PROP. SAN. SWR.
- PROP. SAN. SWR. CLEANOUT

MARK B. HILL
94904
10-1-2012

SAN ANTONIO WATER SYSTEM

AZUCENA STREET 30-INCH SEWER PROJECT
30-IN SANITARY SEWER RELOCATION
LINE A - 30-IN SEWER PLAN & PROFILE

STA 12+00 TO END

SAWS JOB NO. 11-4518
SOLICITATION: B-12-059-DD

DEVELOPER: SAN ANTONIO WATER SYSTEM
CONT. BUDGET PROJ.

SUBMITTED 09/19/2012
APPROVED

MAP No. 134-582,132-584 SHEET
SECT. No. DR. MDS CK. MBH JOB No. 11-4518 16 OF 34