



**SAN ANTONIO WATER SYSTEM**  
**NORTHEAST SERVICE CENTER – PARKING LOT ADDITION**

**SAWS JOB NUMBER #12-7701**  
**SAWS SOLICITATION #B-12-038-DD**

**ADDENDUM NO. 1**  
**June 22, 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.

**SPECIFICATIONS:**

**Section 02360, 2.01, N, Seed**

Delete paragraph in its entirety and replace with the following:

1. All seed must meet the requirements of the Texas Seed Law including the labeling requirements. These labels shall show purity, germination, name and type of seed. Seed furnished shall be of the previous season's crop for the date of the project, and the date of analysis shown on each bag shall be within nine (9) months of the time of use on the project. Bermuda grass shall be hulled and treated and have a purity of 95% and germination of no less than 90%. Each variety of seed shall be furnished and delivered in separate bags or containers. A sample of each variety of seed shall be furnished for analysis and testing when directed by the Owner.
  
2. Annual Rye grass will be free of Johnson grass, field bind weed, dodder seed, and free of other seed to the limits allowable under the Federal Seed Act and applicable Texas Seed Law. Annual Rye grass will be added into slurry between October 1 through March 15. No additional cost will be charged to the Owner.

**Section 16722**

Delete section in its entirety and replace with the technical specification included herein.

**PLANS:**

**Sheet C1.25**

"Added removable bollards detail, handicap spot details and wheel stop details."

**Sheet C1.28**

"Added the following notes."

1. CONTRACTOR SHALL CONTACT SAWS FOR APPROVAL OF DESIGN OF LETTERS AND SAWS LOGO TO GO ON SIGN PRIOR TO FABRICATION AND INSTALLATION. SAWS HAS USED "SIGN SPOT" PREVIOUSLY LOCATED AT: 1150 N. LOOP 1604 #108-559, SAN ANTONIO, TEXAS, 78248. PH# (210)454-9545. THIS SIGN CAN BE BUILT BY ANY SIGN COMPANY AS LONG AS THE DESIGN IS APPROVED BY SAWS.
2. METHOD FOR ATTACHING SAWS LOGO AND LETTERS TO THE WALL SHALL BE APPROVED BY SAWS PRIOR TO INSTALLATION. METHOD FOR ATTACHING SAWS LOGO AND LETTERS SHALL BE BASED ON THE SIGN MANUFACTURE'S RECOMMENDATIONS.
3. CONCRETE FOR FOUNDATION AND WALL SHALL BE A MINIMUM OF 3,000 PSI CONCRETE.
4. MASONRY VENEER FOR MARQUEE SIGN SHALL BE CONSTRUCTED ACCORDING TO ACI 530.1.
5. BRICK: ASTM C216 OR C652 GRADE SW, CORED BRICK.
6. MORTAR: USE TYPE S PORTLAND CEMENT AND LIME OR MORTAR CEMENT. CONTRACTOR TO ENSURE PROPER BOND BETWEEN THE BRICK AND THE CONCRETE WALL.
7. GROUT: SHALL BE 2,500 PSI POURED AT 8" TO 11" SLUMP. GROUT SHALL CONFORM TO ASTM C476 SPECIFICATIONS.
8. BRICK PATTERN WALL SHALL BE A RUNNING BOND PATTERN.

**Sheet C1.30**

"Added new sheet C1.30 'Striping and Signage Plan'."

**Sheet C1.31**

"Added new sheet C1.31 '54" Casing Profile'."

**Sheet L1.10**

"Revised quantities"

**Sheet L1.12**

"Added note #1"

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR PROVIDING 3 WATER HOSES AND 3 NOZZLES, SEE BELOW FOR SPECIFICATIONS.

HOSES:

CONTRACTOR'S CHOICE 3/4" x 100' MEAN GREEN FOREST GANDEN HOSE.  
MODEL #MGF3/4"x100.

SPRAY NOZZLES:

HEAVY DUTY INSULATED PISTOL GRIP WATER NOZZLE BY MELNOR.  
MODEL #301-416.

## **Sheet E-02**

**“Added handholes, electrical racks, electrical and security equipment”**

## **Sheet E-03**

**“Revised security system diagram”**

## **Sheet E-05**

**“Revised sheet to include handholes, electrical racks, electrical and security equipment ”**

## **Questions and Answers:**

1. Specification Section 02760 - Concrete Pavement, item 2.01 denotes that the Hydraulic Cement Concrete to have a 4400 psi in 28 days. Section 03300 - Cast-In-Place Concrete, item 2.03.B indicates that the concrete pavement have 4000 psi in 28 days. Please clarify.

*Response: Hydraulic cement concrete for pavement shall be Class P designed to meet a minimum average flexural strength of 570 psi or a minimum average compressive strength of 3,500 psi at 7 days or a minimum average flexural strength of 680 psi or a minimum average compressive strength of 4,400 psi at 28 days.*

2. Sheet C1.21, Notes, #3 denotes to refer to Geotechnical Report No.90125067 by Terracon dated May 18, 2012 for the pavement design and subgrade preparation. Page 10 of the report indicates that the concrete paving shall be 4000 psi. Specification Section 02760 - Concrete Paving indicates the concrete shall be "Hydraulic Cement Concrete", TxDOT Item 421, Class P, 4400 28 day psi. Please clarify.

*Response: See answer to question no. 1.*

3. Sheet C1.21, Notes, #3 denotes to refer to Geotechnical Report No.90125067 by Terracon dated May 18, 2012 for the pavement design and subgrade preparation. Page 10 of the report indicates that the concrete paving shall be 4000 psi. Specification Section 03300 - Cast-In-Place Concrete item 2.01 Hydraulic Cement shall be used only per TxDOT certified producers will be accepted by the OWNER. Please clarify.

*Response: Hydraulic cement shall be furnished conforming to TXDOT Material Specification DMS-4600, “Hydraulic Cement”. Section 4600.3 includes the Materials Producers List that are certified by TXDOT and accepted for the project.*

4. Specification Section 03300 - Cast-In-Place Concrete, item 2.03 Concrete Mixes denotes that cementitious content of 650 lb/cy of concrete. Please clarify.

*Response: Note no. 7 under Table 2 pertains to Class SS concrete. This type of concrete is not being requested for the project.*

5. Sheet C1.24, Concrete Sidewalk Detail denotes that 2" gravel, crushed rock or flexible base cushion. Can a 2" Sand Cushion be used in lieu of the specified?

*Response: Sidewalk needs to meet City of San Antonio standard specifications therefore 2” gravel or flexible base will be required.*

6. Sheet C1.27 denotes a PVC Waterstop used at the expansion joints of the retaining walls. Since the wall is an average of 3' high and 80' long will an expansion joint be required.

*Response: An expansion joint will not be required.*

7. Geotechnical Report, page 7 denotes rigid pavement sections of 8.5" and 9.5" thick. This project has 5", 8" and 9" thick paving. Will this affect the subgrade designs?

*Response: The project requires a modified subgrade with hydrated lime in accordance with TXDOT Item 260. Therefore, references should be made to the modified subgrade column shown on page 7 of the geotechnical report which identifies an 8" thick reinforced concrete pavement for the parking lot tractor trailer areas and 6" reinforced concrete pavement for passenger car areas, and a 9" thick reinforced concrete pavement for the access drive.*

8. Specification #01451 Quality Controls required the Contractor to provide Testing Services. This specification does not identify what systems are to be tested or the testing frequency (i.e. 3 Test Cylinders per 100 CY concrete). Please provide clarification on what materials are to be tested and the frequency of testing.

*Response: The technical specifications for each item indicate the testing frequency, and services required. Unless otherwise provided in the specifications, 1 set of 4 cylinders per 100 CY to test for the compressive strength of concrete shall be required.*

9. Section 01322 Photographs, 1.02 Quality describe construction photos to be submitted with negatives & mounted with linen binding. Is this required, or will CD's in a jpg photograph format be acceptable?

*Response: CD's in a jpg photograph format is acceptable.*

10. Will the GC need to prepare and submit an engineered SWPPP Program for this project and develop an engineered grading plan? Plan Note #1 states that sheet C2.21 is not a SW3P plan. Note # 2 states that a SW3P plan is not to be provided by the Contractor. Please clarify.

*Response: It is the contractor's responsibility to prepare and submit the SW3P, (N.O.I.) notice of intent form, and (N.O.T.) notice of termination form of as required by TCEQ as stated on the plans on sheet C2.21 in notes # 1 and 2 on the bottom left of the sheet.*

11. The Terracon Soils report, page #10 paragraph 4.3.5 Pavement Section Materials recommends that 4,000 PSI Concrete be used for all concrete pavement. Confirm that 3000 PSI is acceptable for all other concrete structures.

*Response: The sidewalks, ramps, and concrete steps must comply with COSA specifications class A concrete 3,000 psi as stated on sheet C1.24. 3,000 psi concrete will be acceptable for all drainage structures, retaining wall, and marquee sign.*

12. The Terracon Soils report, page #7 paragraph 4.3.2 Minimum Pavement Section Chart calls for a 6" lime modified subgrade and no granular base material, is this correct?

*Response: Yes.*

13. With regards to the Pavement Marking requirements for this project:

- a. Will ADA Parking Signs and wheel stops be required at the handicapped spaces; they are not currently shown on the Paving Plan?

*Response: Yes. ADA signs will be required at the handicap spaces a detail will be added to the plans.*

- b. Please confirm that the traffic arrows shown on the Site Plan are for clarification of traffic flow and not painted directional arrows.

*Response: The traffic arrows shown on C1.00 are for information only.*

- c. Confirm that there are no requirements for fire lane striping.

*Response: No Fire lane striping will be required with this project.*

14. Why are they (Alterman Data Comm) the only company that is allowed for this project? And when it's stated on the scope of work " security services" on the specs and the drawings giving other companies a chance to bid.

*Response: In the Fall of 2011 SAWS issued an RFP for a Security Access Control Project. Included in the scope of work was integration of all SAWS security devices and equipment into a single integrated management system. This competitive process established our Agent of Record with an United Technologies FCWnx Global integrator. United Technologies, as common with large integrated security management systems, requires that Global system users select a single Agent of Record to maintain manufacture service for technical and system support. Allowing multiple companies or uncertified operators to integrate components to our system would void system warranties and support agreements established during this recent competitive selection process. All companies had the ability to participate in the selection process that established our management system and agent of record.*

15. How do we and other companies become Record of Agent?

*Response: If not currently certified, become FCWnx Global Certified by United Technologies. Respond to future competitive RFPs for Integrated Security Management Systems and Maintenance for an opportunity to establish these services.*

16. Please provide a masonry selection & specification for the Marquee Sign Wall shown on sheet C1.28.

*Response: A note has been added to sheet C1.28 that states "SAWS HAS USED "SIGN SPOT" PREVIOUSLY LOCATED AT: 1150 N. LOOP 1604 #108-559, SAN ANTONIO, TEXAS, 78248. PH# (210) 454-9545. THIS SIGN CAN BE BUILT BY ANY SIGN COMPANY AS LONG AS THE DESIGN IS APPROVED BY SAWS" The contractor is responsible for coordinating with Sign Spot or another sign contractor for the design and specifications of the sign to be approved by SAWS.*

17. Please provide a Cast Alum Letter selection & specification for the Marquee Sign Wall shown on sheet C1.28. Advise if SAWS has a current Signage Contractor who can fabricate the approved SAWS Logo and lettering.

*Response: See response to question No. 16 above.*

18. Please confirm that all soils & materials testing will be furnished and paid for by SAWS.

*Response: Per Section 01451 Quality Control, Sampling of materials and laboratory testing of materials shall be performed at the expense of the CONTRACTOR in an independent, certified commercial testing laboratory.*

19. Can you be more specific about sizing on (H/H units) hand holes for bidding purposes? If it is spelled out by the Engineer everyone is bidding the same way.

*Response: The hand holes should be 24"x24"x36" minimum with a steel barrier dividing fiber optic cable from other cable.*

20. Do you want hand hole covers to have "electrical" in cover?

*Response: Yes.*

21. Can we schedule a site visit with SAWS?

*Response: It is not necessary to schedule a site visit with SAWS staff as the Northeast Service Center is readily accessible. The plans, as well as Item No. 1 under the Supplemental Notes of this Addendum provide specific information about the location of the site. As outlined in Section 5.6 -Conditions of the Site in the General Conditions and SPC 3.1 of the Special Conditions, it is the responsibility of the bidder to exam the site of work and the conditions that exist prior to bidding for this project.*

22. Section 3.04 trench width. Does ditch for multiple conduit really need to be 18" greater than the ditch width for the amount of conduits being installed with concrete encased conduits?

*Response: The width of the electrical trench is determined by the width of the duct bank to be installed plus a minimum three-inch space on each side to adequately place and compact the backfill material. If shoring is required, additional trench width may be necessary*

23. In regards to red dye in duct bank concrete, concrete suppliers do not allow red dye to be added to concrete in their trucks, would spreading dye on top of poured in place concrete be acceptable?

*Response: This will be acceptable provided that the warning tape is included per plans and specifications.*

## **Supplemental Notes:**

**The following are Minutes from the non-mandatory pre-bid meeting:**

- 1.) Project Location: The SAWS Northeast Service Center and parking lot site are located at 13655 O'Connor Road in San Antonio, TX, 78233.
- 2.) OPCC for projects is:
  - o **\$800,000**
- 3.) Calendar days to complete the project: **90 days (but 80 days for substantial completion).**
- 4.) Review the Instructions to Bidders, General Conditions, Special Conditions, and Supplemental Conditions.
  - o Supplemental Conditions

- Contractor shall perform work on at least 40% of the total contract price, per SUC-1.1.
- On-site superintendent required, per SC-1.3.
- **Liquidated Damages are \$1000/day as outlined in SUC-1.9.**

5.) Bid Packet should include:

- **BID PROPOSAL**
  - Lump sum bid proposal with allowances for permits and additional work.
  - Mobilization should not be greater than 10%.
  - Check mathematical calculations, especially when calculating percentage for mobilization.
- **PROPOSAL CERTIFICATION PAGE**
- **GFEP**
  - 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 subcontractor payments.
- **Conflict of Interest Questionnaire**
- **W-9**
- **SAMPLE CERTIFICATE OF INSURANCE OR LETTER FROM INSURANCE COMPANY**
  - See Section 5.7 of the General Conditions, as well as the Instructions to Complete the ACORD Certificate.
  - Pollution Liability and Builder's Risk are waived per SUC-1.4.
  - If the low bidder, all insurance on other SAWS contracts must be 100% compliant.
- **BID BOND/CASHIER'S CHECK**
- **ACKNOWLEDGEMENT OF ADDENDUM(S)**
- **APPARENT LOW BIDDER (#23 per Instructions to Bidders)**
  - A **COMPLETE FINANCIAL STATEMENT** prepared within the past 12 months, by an independent Certified Public Accountant.
  - An **INFORMATION PACKET SHOWING COMPANY EXPERIENCE, ORGANIZATION AND EQUIPMENT.**
  - A **STATEMENT REGARDING THE ABILITY TO COMPLETE THE PROJECT WITHIN THE SCHEDULE** taking into account existing commitments.
  - **RECORD OF PERFORMANCE ON 3 SIMILAR PROJECTS WITHIN THE LAST 5 YEARS** to include the project name, amount, duration, name and address of the point of contact.

6.) Deadline for questions is: **Thurs, June 21 at 4:00 p.m.**

- All questions should be sent in writing to Diana Dwyer via email or fax.
- No questions should be sent to project engineer or consultant directly.

7.) Addendum to be posted **Fri. June 22** by 4:00 p.m.

8.) Bid Opening Date:

- **Thurs., June 28 at 2:00 p.m.**

- The possibility exists that we may move submittal location, check for Addendums on the SAWS website the day before the bid opening. If no change, then follow the instructions on the Invitation to Bidders.
  - Bids that are late will not be accepted. Allow time for checking in at the guard station.
  - Make arrangements if you are mailing your bid.
- 9.) New parking lot will be constructed on a lot purchased by SAWS adjacent to an existing SAWS facility known as the Northeast Service Center.
- Pavement will consist of 8", 9", and 6" concrete pavement as shown on the construction plans.
  - There will also be drainage improvements with this project as shown in the construction plans.
  - Striping the parking lot for the large equipment parking spots will be included.
- 10.) There will be some additional work on the parking lot where the existing building sits.
- Mill/asphalt overlay and re-strip handicap area adjacent to building as shown on plans to meet ADA standards will be required with this project.
  - Remove existing concrete sidewalks and reconstruct concrete ramps to meet ADA standards adjacent to the handicap parking lot.
  - Re-striping other areas of the parking lot will be required as shown on the plans.
- 11.) There will be a new drive connecting into O'Connor Road to serve the existing building.
- It will be 9" concrete pavement with a culvert under the driveway.
  - O'Connor is a City Road therefore a TxDOT driveway permit will not be required.
  - 54" steel casing pipe for a future water main is required to be installed under the driveway. The specification for the steel casing pipe is included in Section 02400 "Jacking and Boring".
- 12.) The project will require the construction of a 6' sidewalk along O'Connor Road in front of the new parking lot and the existing SAWS site.
- This sidewalk will be built in City ROW therefore the City of San Antonio standard specifications for sidewalk construction will need to be followed.
  - The contractor will also be responsible for traffic control while constructing the sidewalks according to the City of San Antonio.
- 13.) The contractor will be responsible for removing and replacing fence in front the existing building as shown on the plans and constructing a new fence around the proposed site as shown on the plans.
- It will be the contractor's responsibility during construction and demolition of the existing fence **to keep the existing site secure at all times**. The contractor must coordinate with SAWS on a plan to keep the existing site secure throughout construction.
  - Contractor must remove and salvage existing signs attached to the fence and install salvaged signs back on new fence at locations approved by SAWS.



**Attachments:**

The following attachments are included as part of Addendum No. 1.

1. Section 16722 – CCTV Surveillance and Security System
2. Sheet C1.25
3. Sheet C1.28
4. Sheet C1.30
5. Sheet C1.31
6. Sheet L1.10
7. Sheet L1.12
8. Sheet E-02
9. Sheet E-03
10. Sheet E-05

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



6-22-2012

*Brian Longworth*

**BRIAN W. LONGWORTH, P.E.  
P.E. NO. 106144  
HALFF ASSOCIATES, INC.  
TBPE FIRM REG. NO. 312**

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

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Bidder

**SECTION 16722**  
**CCTV SURVEILLANCE AND SECURITY SYSTEM**



**PART 1 GENERAL**

**1.01 SCOPE**

- A. This section covers the design, furnishings, and installation of a complete, functional security system including but not limited to a closed circuit television (CCTV) surveillance system and security system.
- B. The security system's major components shall consist of electrical cable, video cable, relay boxes, conduits, CCTV cameras, connectors, digital video recorder system, power supplies, transformers and ethernet switch. All required mounting hardware, and other appurtenant items shall be furnished as specified herein or recommended by the equipment manufacturer to make a complete system.

**1.02 SUPPLIER'S QUALIFICATIONS**

- A. The entire system shall be designed, coordinated, supplied, and integrated by a single approved licensed security CONTRACTOR from the list below who is certified by United Technologies as a FCWNX Global installer. All system integration and testing shall be performed by SAWS agent of record with UTC, currently Alterman Data Comm. There are to be no substitutions.
  - 1. Alterman Data Comm
  - 2. Or Contractor pre-approved by SAWS Security prior to Bid Opening

**1.03 POWER REQUIREMENTS**

- A. Primary power supply to CCTV surveillance and security system components will be 120 volts, 60 Hz, single phase, furnished on-site. The licensed security CONTRACTOR shall be responsible for all power supply requirements and shall furnish and install transformers or other power supply equipment required.

**1.04 SYSTEM COMPONENTS**

- A. All CCTV surveillance and security system equipment and materials, devices and assemblies shall be listed and/or labeled by UL or another accepted testing laboratory for the intended purpose. The equipment shall not be altered, installed, or modified in any way that would void the label or listing.

**1.05 COORDINATION**

- A. All devices shall be supplied in full conformity with the specifications, engineering data, instructions, and recommendations of the manufacturers. The licensed security CONTRACTOR shall be responsible for coordination of the device locations and wiring requirements.

## **PART 2 PRODUCTS**

### **2.01 CLOSED CIRCUIT TELEVISION (CCTV) SYSTEM COMPONENTS**

The following paragraphs shall apply to the CCTV equipment to be provided. The number of components, and general location shall be as shown on the drawings.

#### **A. Exterior Fixed IP Dome Cameras**

1. The housing shall be vandal resistant and shall include weather shield
2. The camera shall be suitable for day and night operation.
3. The image capture device shall be 1/4 inch progressive scan RGB CMOS.
4. The camera shall have automatic backlight suppression.
5. The camera shall have a varifocal lens.
6. The signal system shall be NTSC.
7. The minimum resolution shall be 800x600 (SUGA) or better.
8. The minimum illumination shall be 0.3 lux or less in color mode.
9. Day/night switching on the day/night modes shall occur through the lens with an IR cut filter.
10. The compression shall be MPEG-4 ASP or H.264 compliant.
11. The Ethernet connections shall be 10/100 Base-T with an RJ-45 connector.
12. The camera shall support the following protocols: TCP, UDP, IP, HTTP, DHCP, RTP, RTSP and 802.1X.
13. The camera shall have password protection configured by the administrator.
14. Lens shall be 6mm or 122 depending on camera location and view. Fial lens configuration shall be coordinated with SAWS security.
15. Provide all cameras from a single manufacturer. Camera manufacturer shall be:
  - a. Axis model P3343-VE. Mounts shall be from the same manufacturer and shall be specifically designed for the model used.

#### **B. Network Video Recorder (NVR)**

1. Unit shall have 4CIF, VGA, SVGA and XGA recording resolutions.
2. Unit shall have real-time live capability on all video channels.
3. Video compression shall type match the cameras compression type.
4. Unit shall have 16 channels.
5. Unit shall have these recording modes: Schedule Motion, and Continuous.
6. Unit shall have video loss detection.
7. Unit shall have internal 100-240VAC, 50/60 Hz universal power supply with auto-switching.
8. Unit shall utilize 2RU space.
9. Unit shall have 10/100/1000 Ethernet RJ-45 connection.
10. Unit shall have four USB 2.0 ports, two front and two back.
11. Unit shall have searchable video playback.
12. Unit shall archive video to Client PC through *GE Nav* software.
13. Minimum storage shall be 16TB for 16 channel units.
14. Provide all NVR's from a single manufacturer. They shall be fully compatible with SAWS existing *GE Nav* video management system. NVR's shall be:
  1. UTC model TVN-2016-16T.

C. Power Supplies and Transformers

1. Power supplies and transformers shall be provided as required for proper distribution of power to the CCTV equipment. The licensed security CONTRACTOR shall be responsible for power supply or transformer connections and cable routing. All equipment shall be designed to operate from an external power source rated 120 Vac. The licensed security CONTRACTOR is responsible for providing all transformers and power supplies needed for other operating voltages.

D. Ethernet Switch

1. The Ethernet Switch shall be a Cisco model 3560-V2 with advanced IP services. Provide the number of ports necessary for all equipment connections plus 25% spare ports.

E. Cable

1. Cat6 Cable shall be gel filled outdoor rated
  - a. Manufacturers:
    - (i) Andrew
    - (ii) Essex
    - (iii) Belden
2. Fiber Optic Cable
  - a. 50  $\mu$ m single mode
  - b. Minimum 6-strands of fiber to the north parking lot.
  - c. Minimum 24-strands of fiber to the south parking lot.
  - d. Wavelength: 850/1300 nm
  - e. Shall be suitable for installation in buried conduit.
  - f. Manufacturers:
    - (i) Corning

F. Media Converter:

1. Fiber Optic to Ethernet Converter
  - a. Manufacturers: Phoenix Contact or equal.

## 2.02 SECURITY RACK

Components to include:

- A. Ethernet switches needed for the Security enclosure inside the NESC Admin building will require:
  1. 3560v2 with 48 Ethernet 10/100 ports and 4 SFP-based Gigabit Ethernet ports with PoE rack mounted.
  2. Enterprise IP Services license
  3. Quantity of 4 SFP modules to connect single mode fiber to parking lot switches
- B. Ethernet switches needed for north parking lot will require:
  1. 48 Ethernet 10/100 ports and 4 SFP-based Gigabit Ethernet ports with PoE rack mounted
  2. IP Services software feature set

3. Qty 2 SFP modules to connect single mode fiber to Admin switch
- C. Ethernet switches needed for south parking lot, we will require:
  1. 24 Ethernet 10/100 ports and 2 SFP-based Gigabit Ethernet ports with PoE rack mounted
  2. IP Services software feature set
  3. Quantity of 2 SFP modules to connect single mode fiber to Admin switch

### **2.03 GATE SYSTEM COMPONENTS**

- A. There shall be a Linear Induction Slide Gate Operator for the opening/closing of the access gate. 480VAC 3 phase power will be furnished on-site. This will be part of the gate installation. It shall be wired for obstruction loops inserted on both sides of the entrance access gate. The twisted pair #14 AWG obstruction loops shall be buried 4 inches in the pavement and arranged as per the Contract Drawings. The manufacturer shall be V-mag (High Velocity Magnetic Gate Operators.)

## **PART 3 EXECUTION**

### **3.01 INSTALLATION**

- A. All CCTV and security system components, including mounting hardware, shall be provided and installed by the licensed security CONTRACTOR. The licensed security CONTRACTOR shall be responsible for providing, installing, and terminating all wiring to the CCTV and security system equipment, including the NVR setup and 120 Vac power wiring. Conduits and wiring shall be provided by the licensed security CONTRACTOR unless noted otherwise.
- B. The licensed security CONTRACTOR shall be responsible for installation of control and signal wiring.
- C. Miscellaneous
  1. Any signal converters, signal boosters, amplifiers, special power supplies, special cable, special grounding, or isolation requirements shall be furnished as required to make the equipment perform properly.
  2. All components shall be securely mounted and all cabling shall be neatly organized and tied.
- D. Training
  1. Training shall be provided by an experienced, competent, and authorized representative of the equipment manufacturer. The training shall be conducted onsite in the OWNER's facilities and shall cover equipment setup, operation, maintenance, and features. One eight-hour session shall be provided for the CCTV system. One eight-hour training session shall be provided for the security system. All costs for these services shall be included in the Contract Price.

### **3.02 SUBMITTALS**

- A. Complete electrical wiring diagrams, assembly drawings, detailed specifications, and data covering the materials used and the parts, devices and other accessories forming a part of the

- equipment furnished shall be submitted. The equipment submittals shall include the following:
1. A complete description of all system components including certification of UL and FM listings.
  2. Complete sequence of operation for all functions of the system.
  3. Complete system wiring diagram for all components.
  4. A listing of the manufacturer's representatives responsible for service.
- B. Operation and Maintenance Manuals. Adequate operation and maintenance information shall be supplied for all equipment requiring maintenance or other attention. The licensed security CONTRACTOR shall prepare an operation and maintenance manual for each type of equipment indicated in the individual equipment sections or the equipment schedule.
- C. Operation and maintenance manuals shall include the following:
1. Equipment function, normal operating characteristics, and limiting conditions.
  2. Assembly, installation, alignment, adjustment, and checking instructions.
  3. Operating instructions for startup, routine and normal operation, regulation and control, shutdown, and emergency conditions.
  4. Maintenance instructions.
  5. Guide to troubleshooting.
  6. Parts lists and predicted life of parts subject to wear.
  7. Outline, cross section, and assembly drawings; engineering data; and wiring diagrams.
- D. The operation and maintenance manuals shall be in addition to any instructions or parts lists packed with or attached to the equipment when delivered.
- E. Preliminary copies of operation and maintenance manuals shall be submitted to the OWNER before shipment of the equipment. Preliminary copies shall be in hardcopy format. The quantity of copies shall be as required.
- F. After review by OWNER, final copies of operation and maintenance manuals shall be delivered to OWNER no later than 30 days prior to placing the equipment in operation. Final copies shall include the number of hard copies and electronic copies as required.
- G. Hardcopies for final manuals shall be temporarily bound in heavy paper covers bearing suitable identification. All manuals and other data shall be printed on heavy, first quality 8-1/2 x 11 inch paper, with standard three-hole punching. Drawings and diagrams shall be reduced to 8-1/2 x 11 inches or 11 x 17 inches. Where reductions are not practicable, larger drawings shall be folded separately and placed in envelopes, which are bound into the manuals. Each envelope shall be suitably identified on the outside. Each volume containing data for three or more items of equipment shall include a table of contents and index tabs. The final hardcopy of each manual shall be prepared and delivered in substantial, permanent, three-ring or three-post binders with a table of contents and suitable index tabs.
- H. Each electronic copy shall be delivered on a unique CD-ROM in Adobe Acrobat's Portable Document Format (PDF). The PDF files(s) shall be fully indexed using the Table of Contents, searchable with thumbnails generated.
- I. All material shall be marked with project identification, and inapplicable information shall be marked out or deleted.

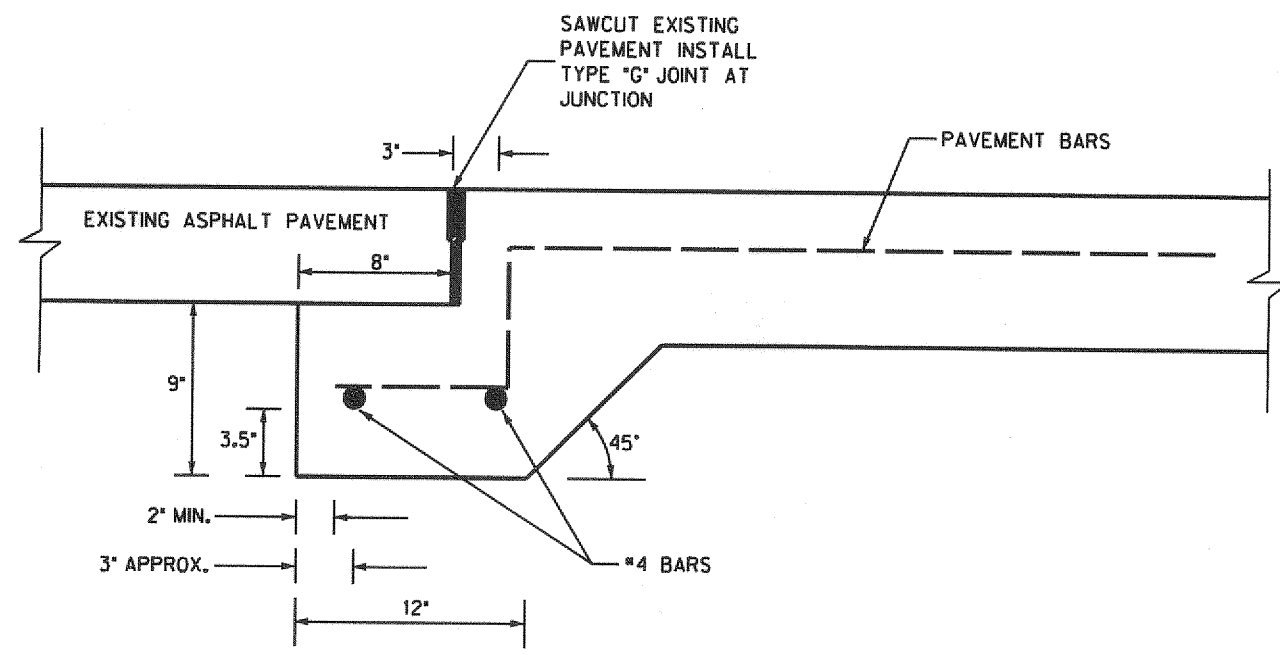
- J. Shipment of equipment will not be considered complete until all required manuals and data have been received.

**3.03 WARRANTIES AND GUARANTEES**

- A. All equipment shall be covered by manufacturer's normal written guarantee and/or warranty (minimum one year) with respect to parts, workmanship, and performance of the product. CONTRACTOR shall warranty labor and installation for a minimum of 24 months. The equipment guarantee and/or warranty will become effective on the date of acceptance of the completed system by the OWNER.

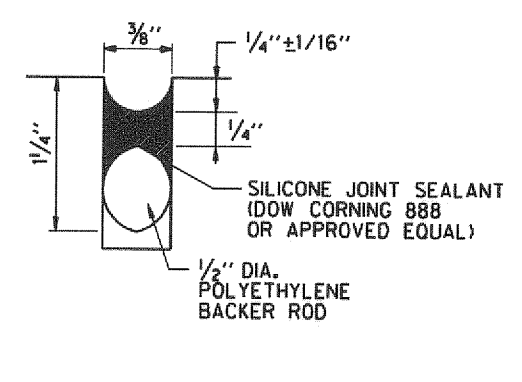
**END OF SECTION**



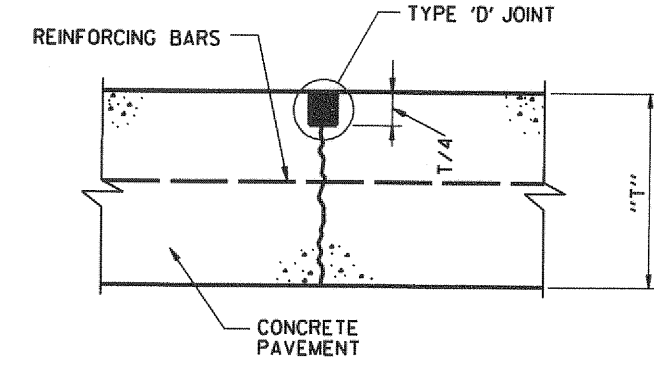


NOTE: PAVEMENT BARS TO BE BENT DOWN INTO HEADER AND PAVEMENT TO BE MONOLITHIC

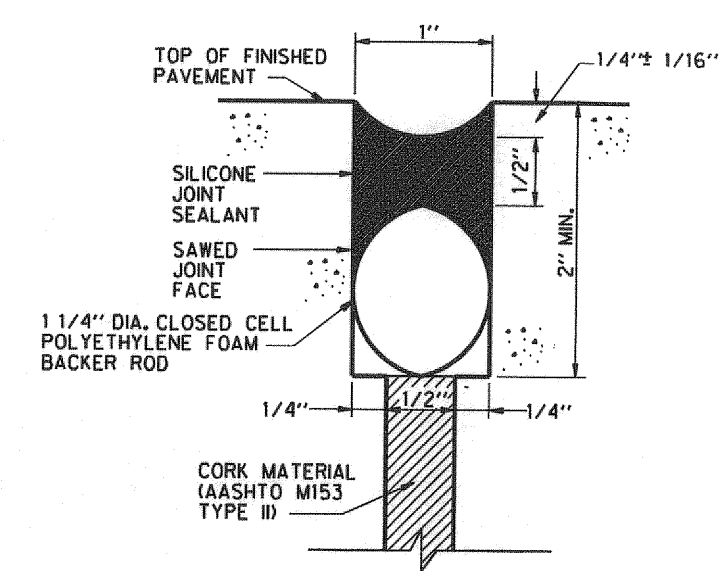
HEADER JOINT  
NOT TO SCALE



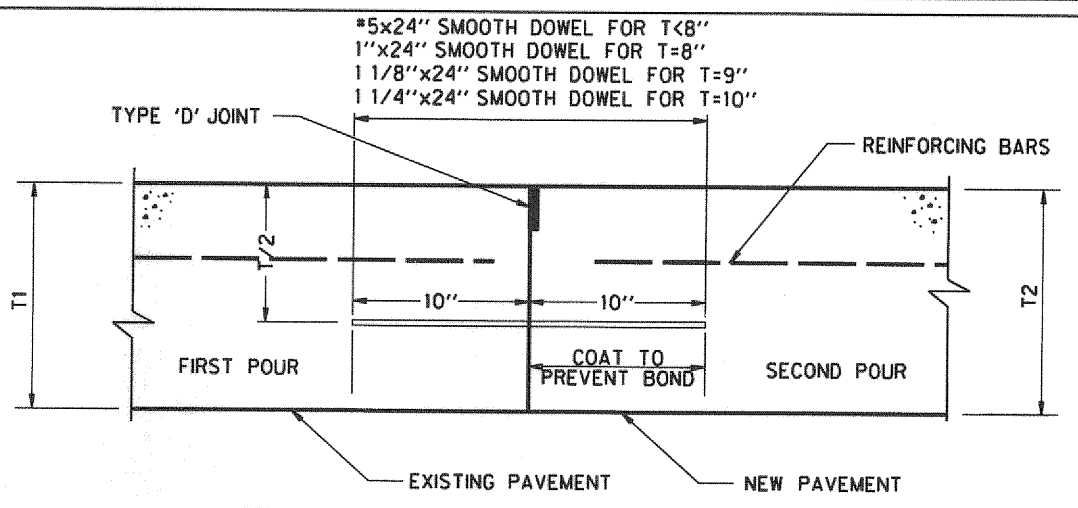
TYPE 'D' JOINT  
NOT TO SCALE



SAWED CONTRACTION JOINT  
NOT TO SCALE

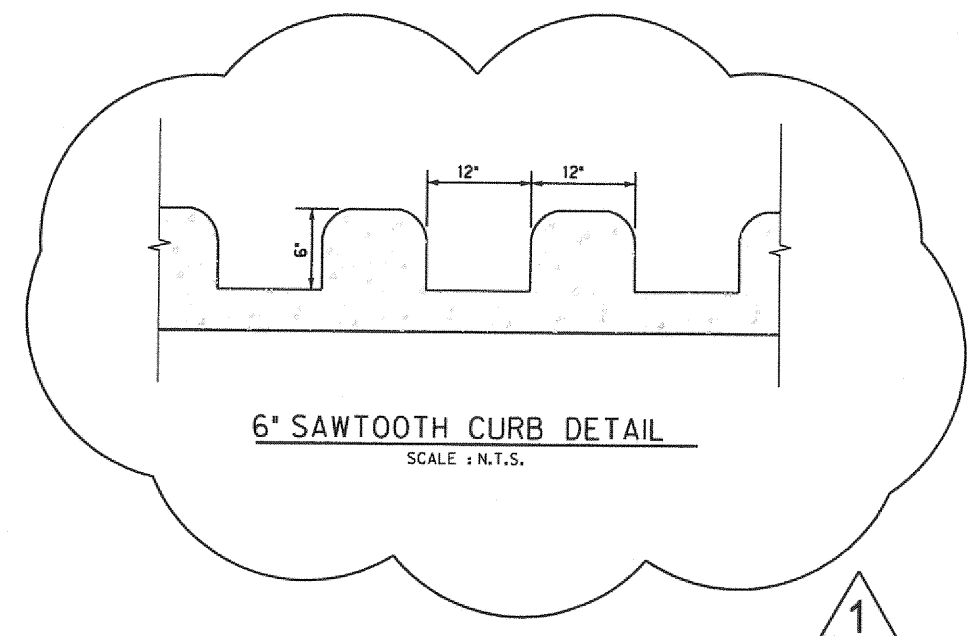


TYPE 'G'  
JOINT SEALING DETAILS  
NOT TO SCALE

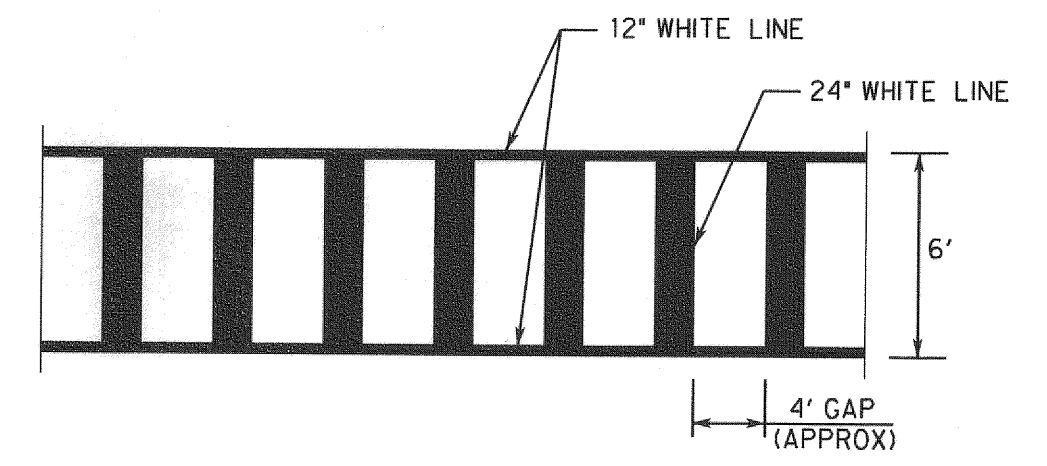


NOTES:  
1. DOWEL SUPPORT SHALL BE OF A METHOD APPROVED BY ENGINEER.  
2. DOWELS TO BE PLACED ON 12" CENTERS.

CONSTRUCTION JOINT  
NOT TO SCALE



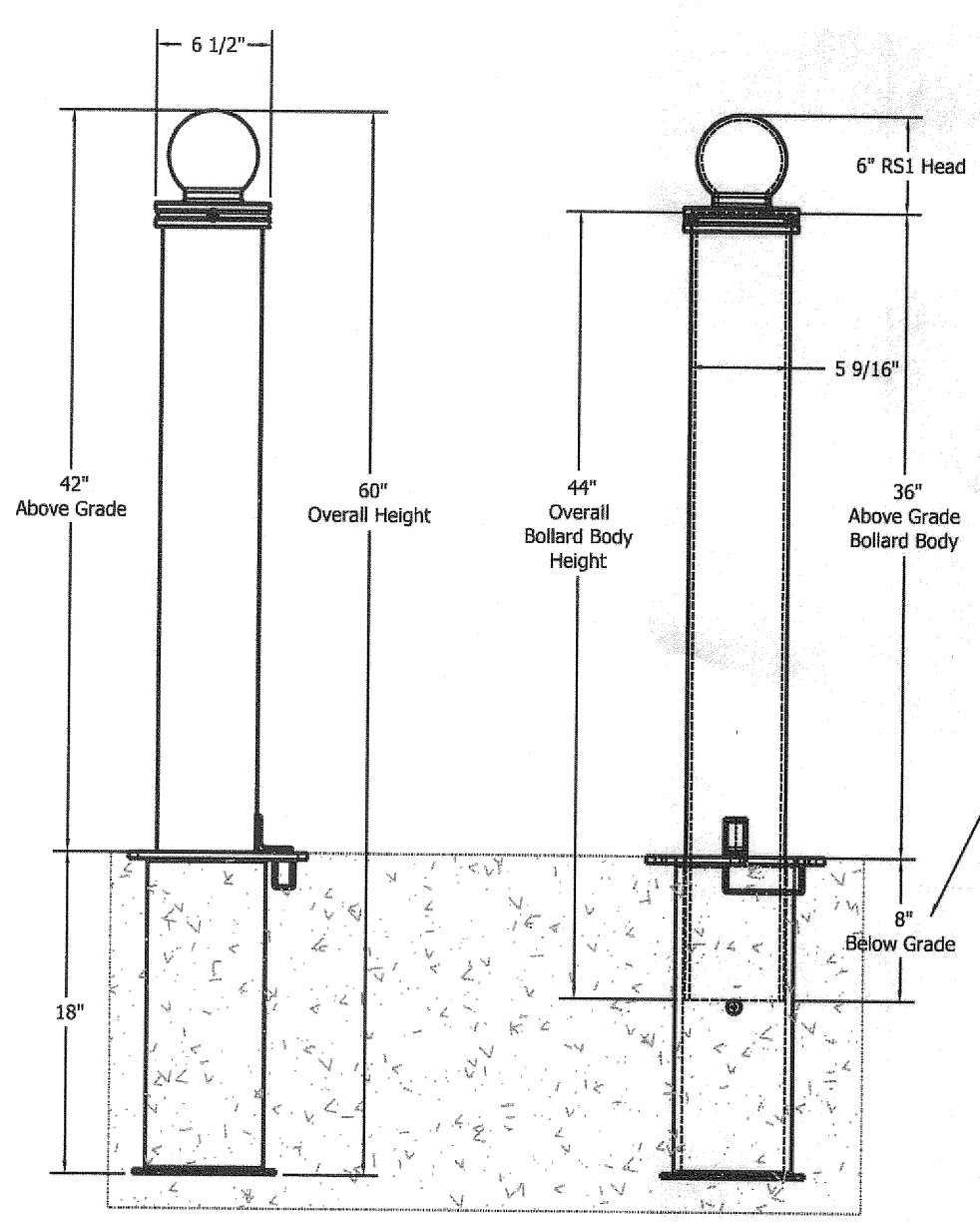
6" SAWTOOTH CURB DETAIL  
SCALE: N.T.S.



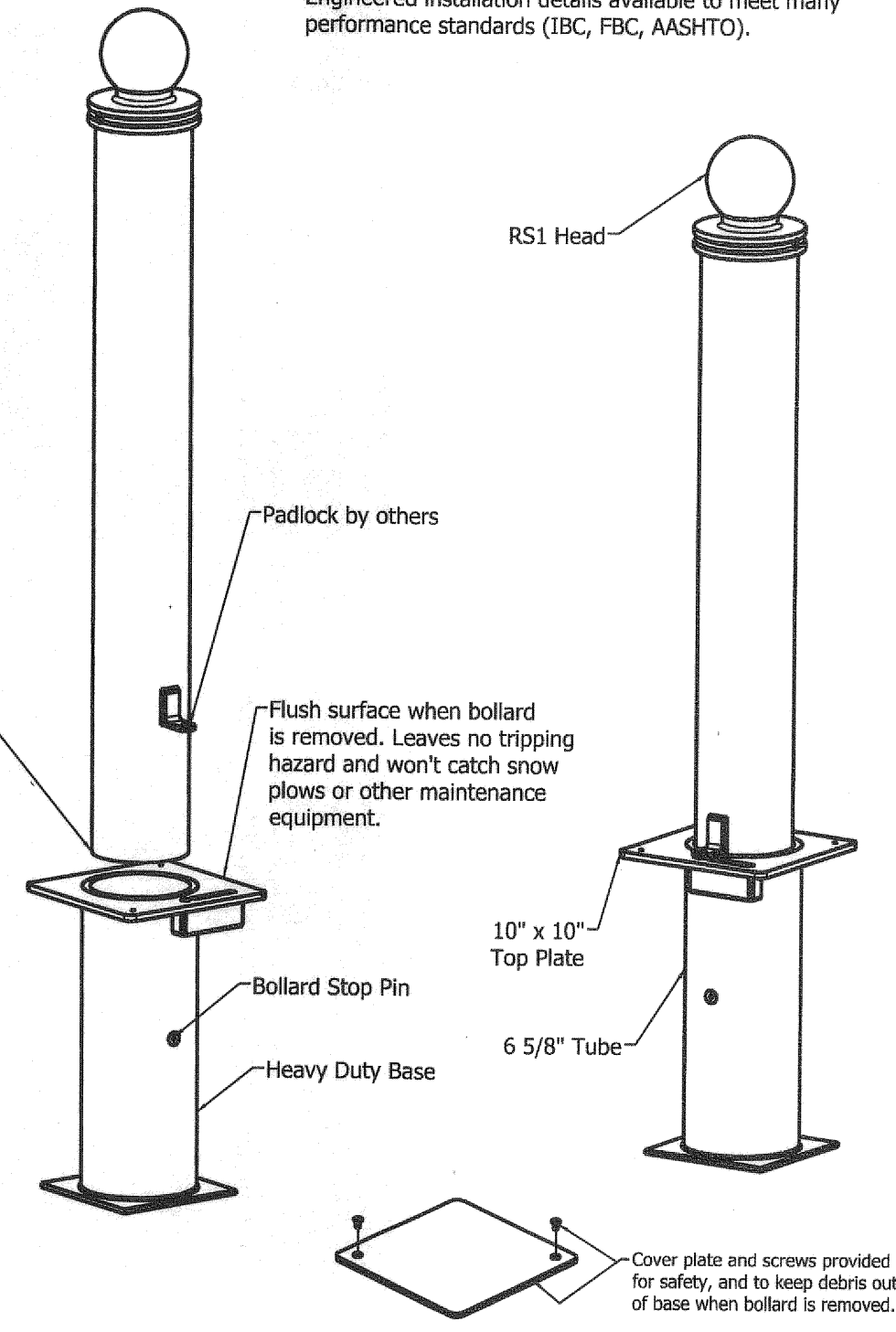
CROSS WALK STRIPING DETAIL  
NOT TO SCALE

### MaxiForce™ Removable Bollard

HD Round Body, Padlock Operated, Round Style 1 Head, Heavy Duty Base (5")



Engineered installation details available to meet many performance standards (IBC, FBC, AASHTO).



- No Maintenance / Durable steel construction
- One year warranty / Protected by \$1,000,000 in liability insurance
- No complex assembly required in the field
- Custom sizes, options, colors and finishes available upon request
- Finish options available (add code to the end of the model number)
  - Powder coated (PC)
  - Powder coated with DRYZINC primer (PCZ)
  - Hot dip galvanized (G)
  - Hot dip galvanized & powder coated (GPC)
- Reflective tape available upon request

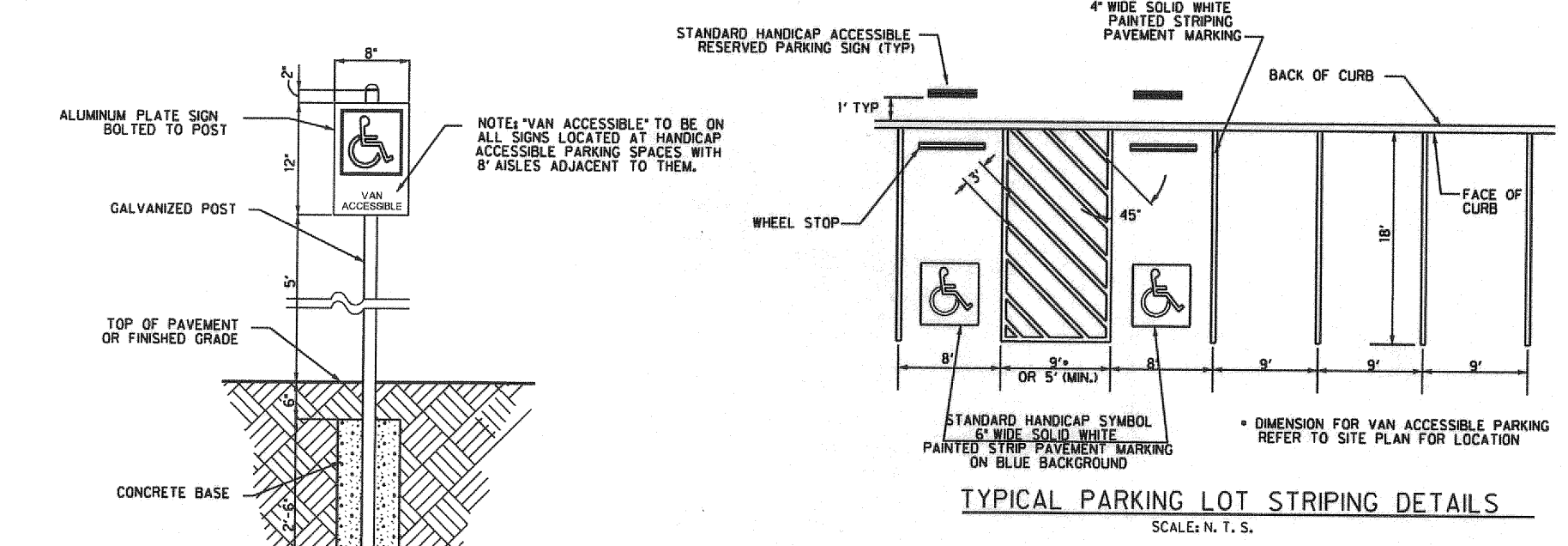
Bollard Assy. Weight	Base Weight
110 lbs	150 lbs

**MaxiForce™ Traffic Control Bollards**  
 Copyright © 2011  
 410-247-8888 (phone) - 410-552-9939 (fax)  
 www.maxiforcebollards.com - sales@maxiforcebollards.com

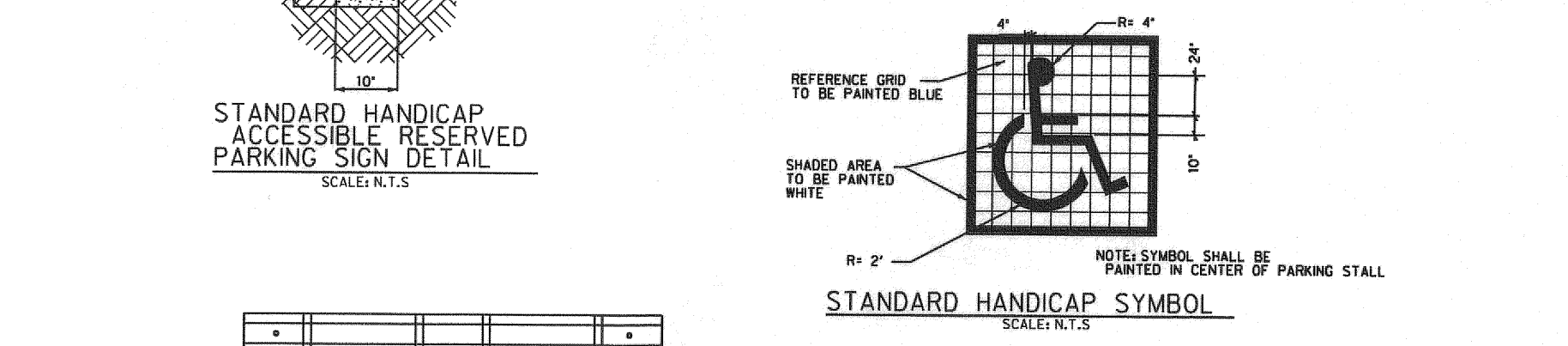
PROPRIETARY AND CONFIDENTIAL  
 THIS DRAWING CONTAINS PROPRIETARY INFORMATION OF BLUE ENERGY TECHNOLOGICALS, LLC. ANY USE OF THIS DRAWING OR THE INFORMATION CONTAINED HEREIN FOR OTHER THAN THE PURPOSES FOR WHICH THIS DRAWING IS FURNISHED IS FORBIDDEN.

Project: MRHP-RS1-HDS-PC  
 Title: MRHP-RS1-HDS  
 Scale: N/A

NOTES: 1.) BOLLARDS SHALL BE MAXIFORCE REMOVABLE BOLLARDS OR EQUAL APPROVED BY ENGINEER.  
 2.) BOLLARDS SHALL BE CONSTRUCTED AND INSTALLED PER THE MANUFACTURES RECOMENDATIONS AND SPECIFICATIONS.

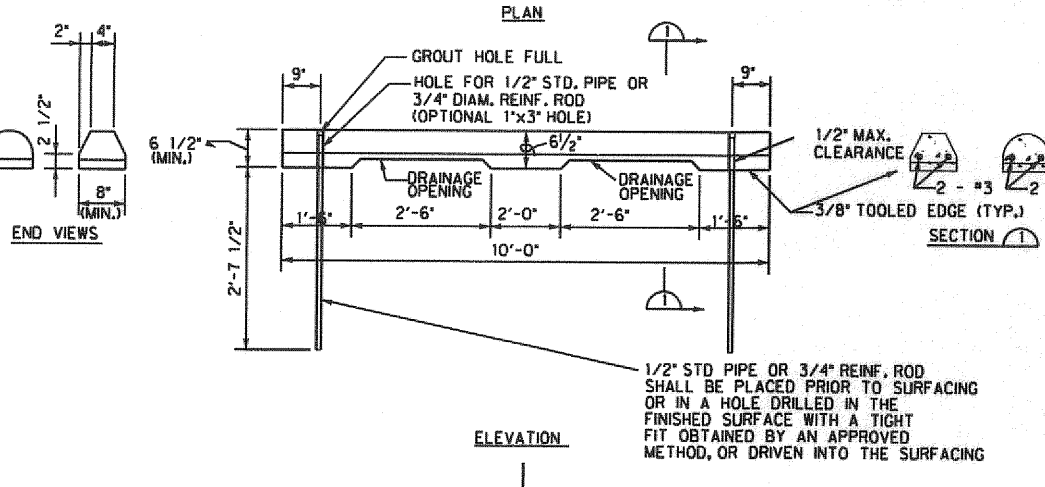


TYPICAL PARKING LOT STRIPING DETAILS  
SCALE: N.T.S.



STANDARD HANDICAP ACCESSIBLE RESERVED PARKING SIGN DETAIL  
SCALE: N.T.S.

STANDARD HANDICAP SYMBOL  
SCALE: N.T.S.



PRECAST CONCRETE WHEEL STOP DETAILS  
N.T.S.

NORTHEAST SERVICE CENTER  
 PARKING LOT ADDITION  
 SAWS JOB # 12-6003  
 SAN ANTONIO, TX

**HALFF**  
 300 E. SONTERRA BLVD. SUITE 230  
 SAN ANTONIO, TEXAS 78266  
 TEL (210) 798-8855  
 FAX (210) 798-8886  
 TFP# TRM REGISTRATION #502

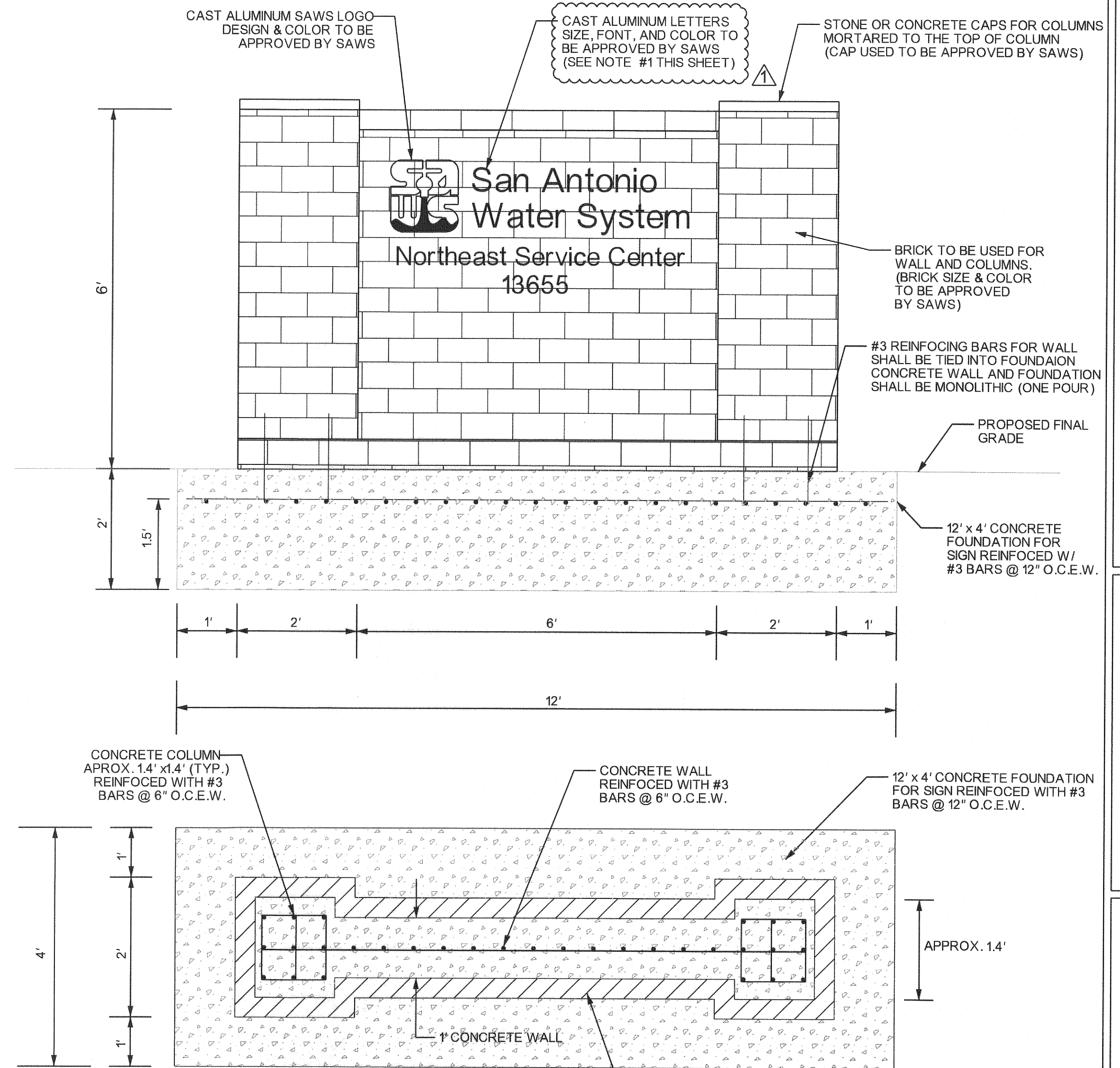
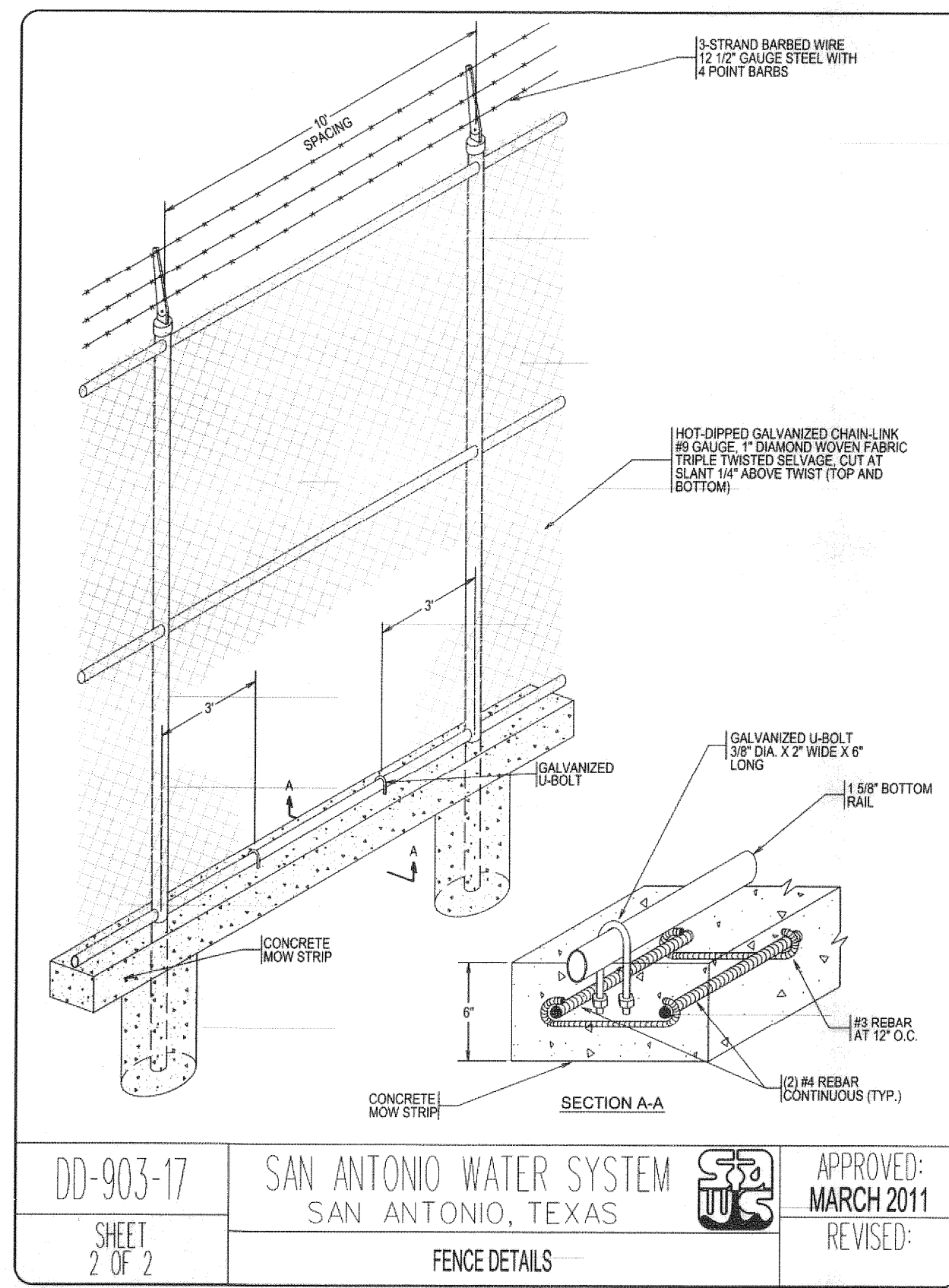
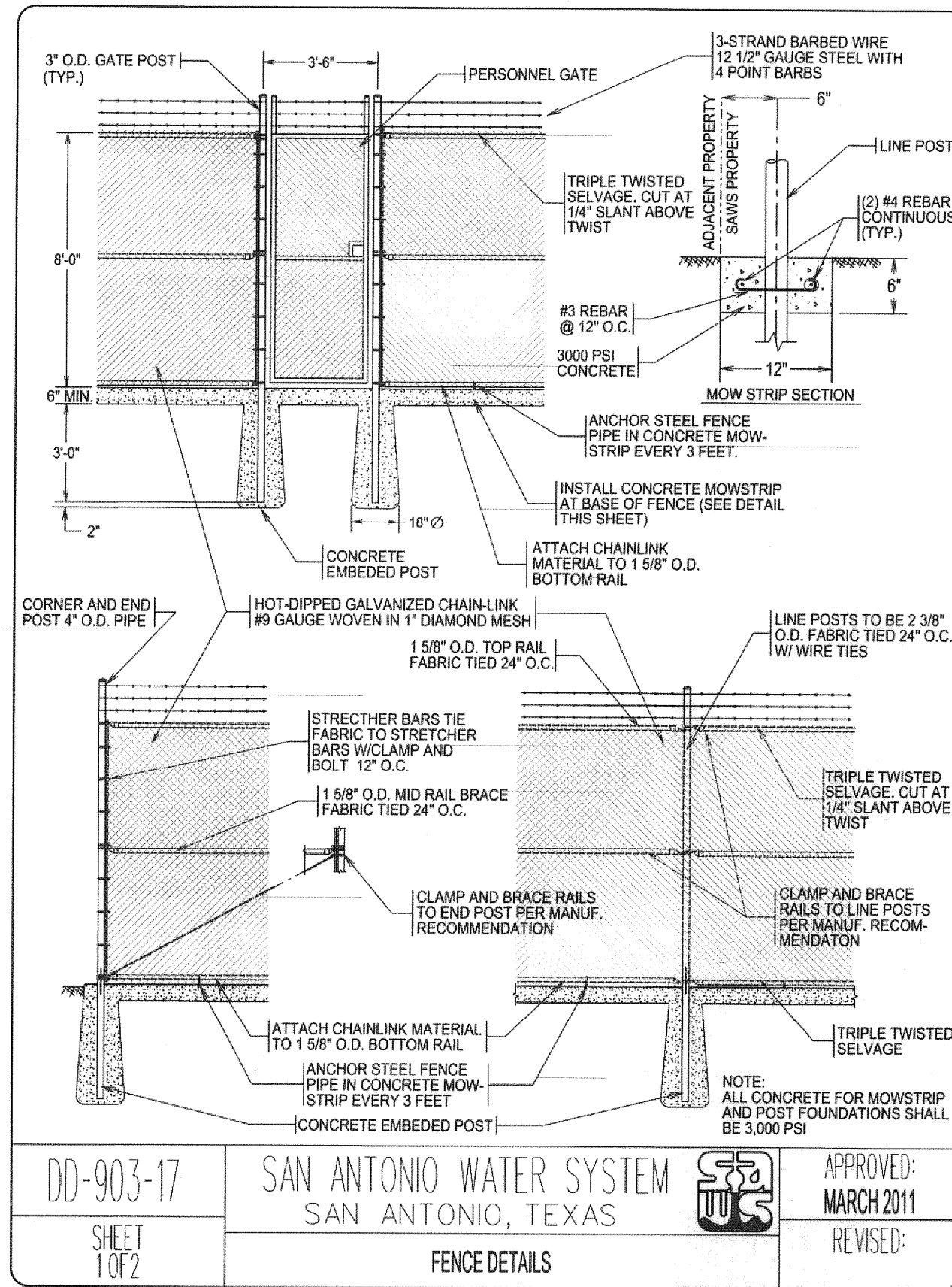
Revision No.	Date	Description
1	06/21/2012	Added Details

60614  
 STATE OF TEXAS  
 BRIAN W. LONGWORTH  
 106144  
 LICENSED PROFESSIONAL ENGINEER  
 Brian Longworth

Project No.: 28722  
 Issued: JUNE 2012  
 Drawn By: CC  
 Checked By: BWL  
 Scale: AS NOTED  
 Sheet Title  
 PAVING DETAILS  
 C1.25  
 Sheet Number

6/22/2012 11:34:26 AM ah2311 HALFF I:\28000s\28722\CADD\Sheets\C1.25-PD-28722.dgn Design C:KIP\_MCN\_FS\_FW.plt

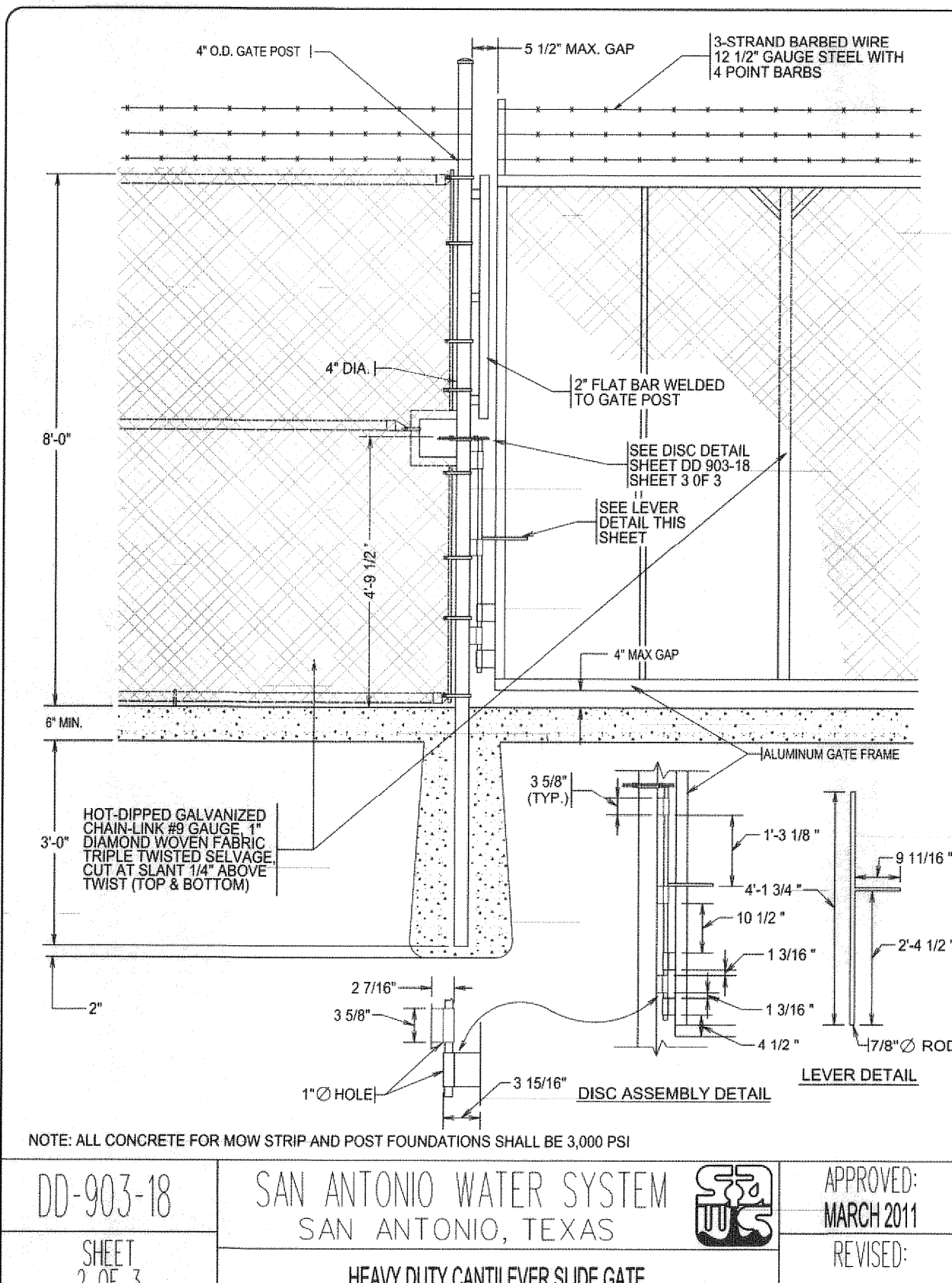
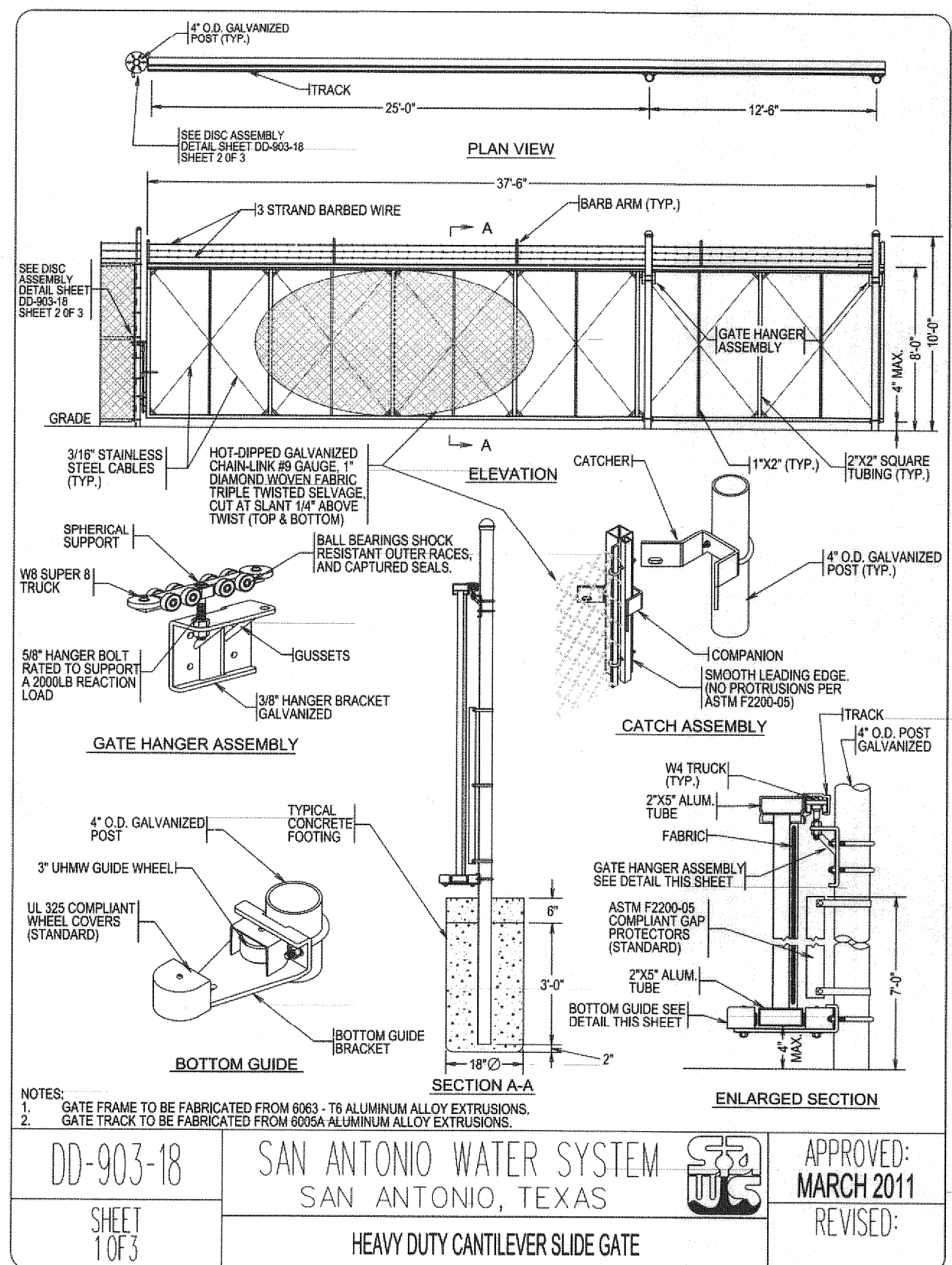




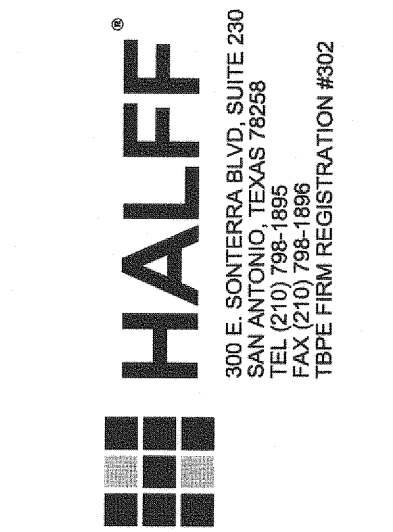
**MARQUEE SIGN/WALL**  
NOT TO SCALE

**NOTES:**

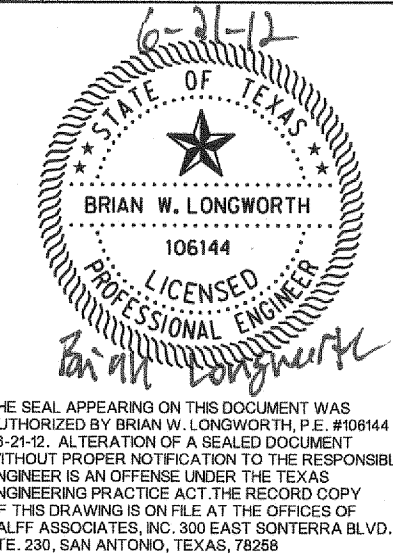
- CONTRACTOR SHALL CONTACT SAWS FOR APPROVAL OF DESIGN OF LETTERS AND SAWS LOGO TO GO ON SIGN PRIOR TO FABRICATION AND INSTALLATION. SAWS HAS USED "SIGN SPOT" PREVIOUSLY LOCATED AT: 1150 N. LOOP 1604 #108-559, SAN ANTONIO, TEXAS, 78248. PH# (210)454-9545. THIS SIGN CAN BE BUILT BY ANY SIGN COMPANY AS LONG AS THE DESIGN IS APPROVED BY SAWS.
- METHOD FOR ATTACHING SAWS LOGO AND LETTERS TO THE WALL SHALL BE APPROVED BY SAWS PRIOR TO INSTALLATION. METHOD FOR ATTACHING SAWS LOGO AND LETTERS SHALL BE BASED ON THE SIGN MANUFACTURE'S RECOMMENDATIONS.
- CONCRETE FOR FOUNDATION AND WALL SHALL BE A MINIMUM OF 3,000 PSI CONCRETE.
- MASONRY VENEER FOR MARQUEE SIGN SHALL BE CONSTRUCTED ACCORDING TO ACI 530.1.
- BRICK: ASTM C216 OR C652 GRADE SW, CORED BRICK.
- MORTAR: USE TYPE S PORTLAND CEMENT AND LIME OR MORTAR CEMENT. CONTRACTOR TO ENSURE PROPER BOND BETWEEN THE BRICK AND THE CONCRETE WALL.
- GROUT: SHALL BE 2,500 PSI POURED AT 8" TO 11" SLUMP. GROUT SHALL CONFORM TO ASTM C476 SPECIFICATIONS.
- BRICK PATTERN FOR WALL SHALL BE A RUNNING BOND PATTERN.



**NORTHEAST SERVICE CENTER  
PARKING LOT ADDITION  
SAWS JOB # 12-6003  
SAN ANTONIO, TX**



Revision No.	Date	Description
1	06/21/2012	Revised added notes.



Project No.: 28722  
Issued: JUNE 2012  
Drawn By: CC  
Checked By: BWL  
Scale: AS NOTED

Sheet Title  
**FENCE AND GATE DETAILS**

**C1.28**  
Sheet Number



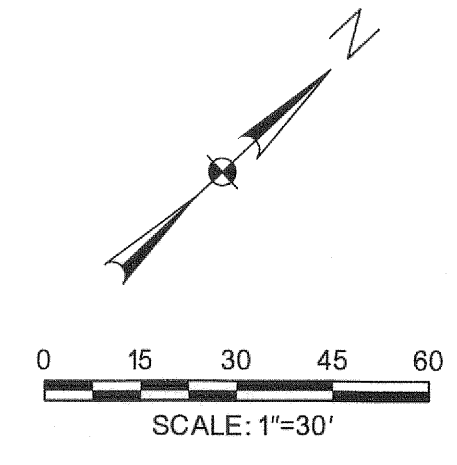
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Design

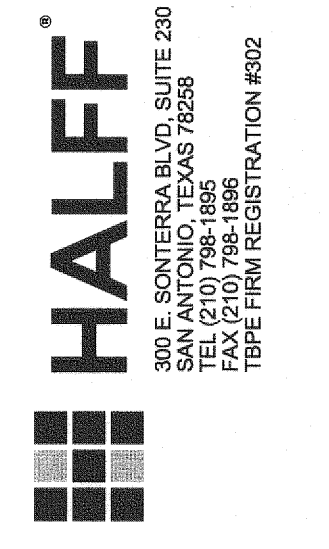
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6/22/2012 10:47:45 AM ah2311 HALFF

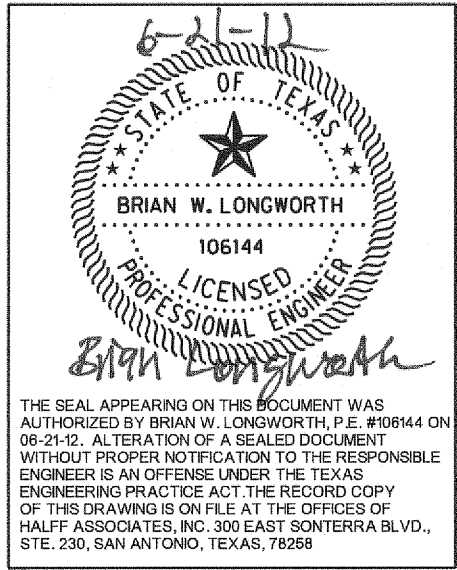
EXISTING WATER TANK



NORTHEAST SERVICE CENTER  
PARKING LOT ADDITION  
SAWS JOB # 12-6003  
SAN ANTONIO, TX

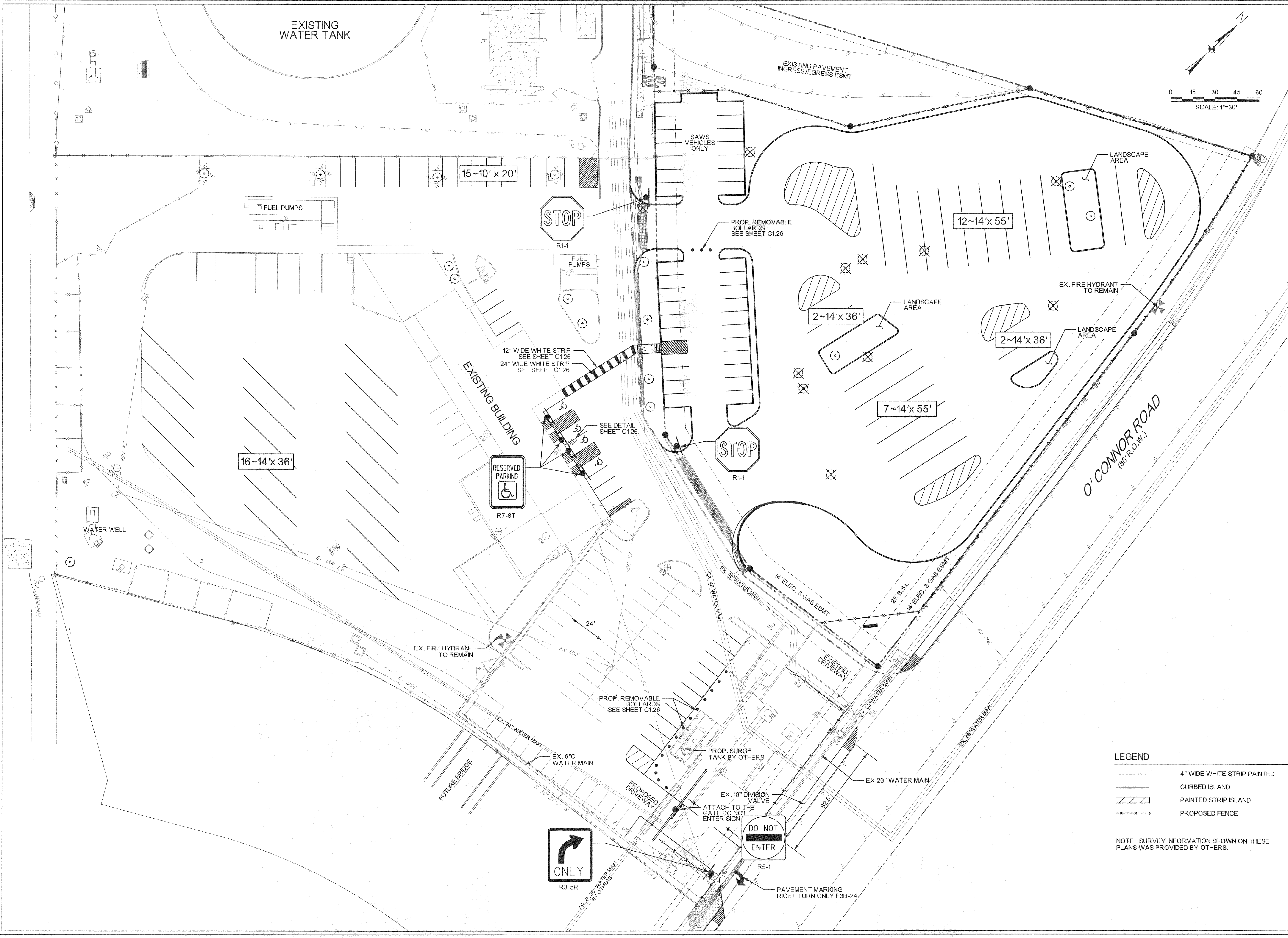


Revision No.	Date	Description
1	06/21/2012	ADDED SHEET TO THE PLANS



Project No.:	28722
Issued:	JUNE 2012
Drawn By:	CC
Checked By:	BWL
Scale:	AS NOTED
Sheet Title:	SIGNAGE PLAN

C1.30  
Sheet Number



LEGEND

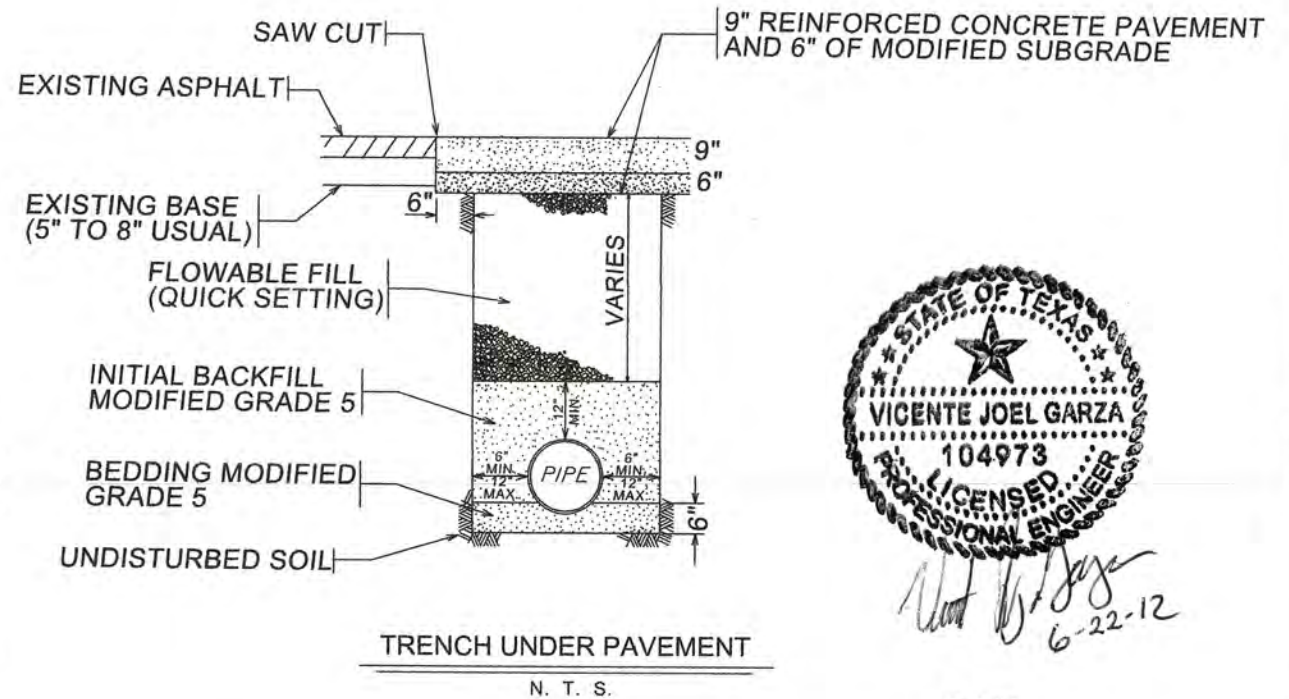
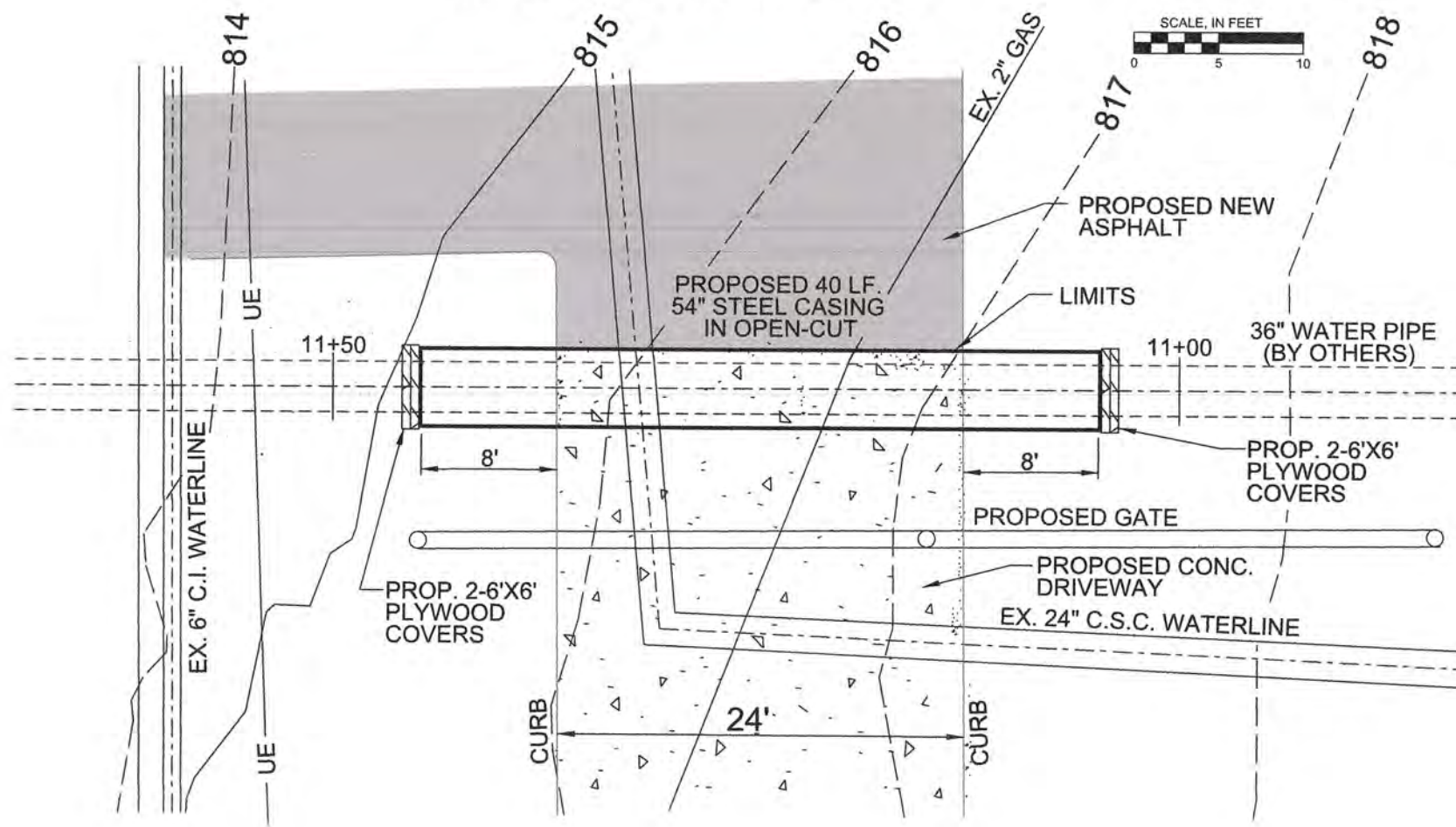
	4" WIDE WHITE STRIP PAINTED
	CURBED ISLAND
	PAINTED STRIP ISLAND
	PROPOSED FENCE

NOTE: SURVEY INFORMATION SHOWN ON THESE PLANS WAS PROVIDED BY OTHERS.

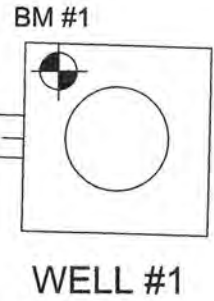
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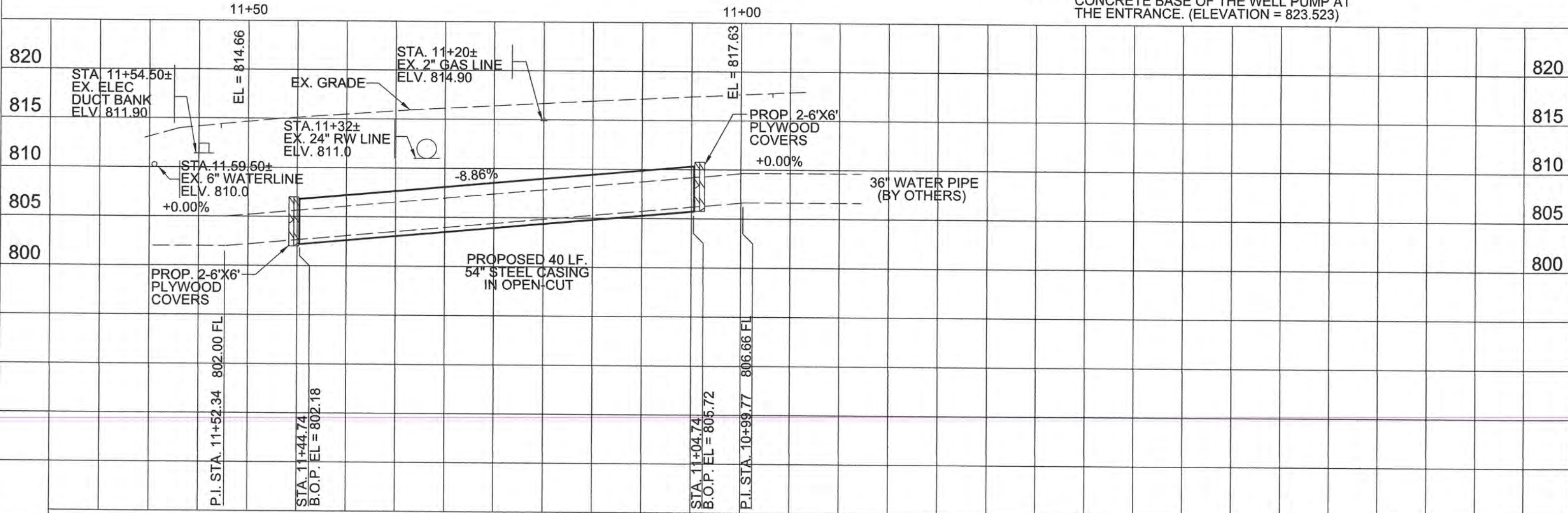
EXISTING PARKING LOT AREA



*Handwritten signature and date:*  
6-22-12



BM #1 ALUMINUM BENCH MARK LOCATED ON THE CONCRETE BASE OF THE WELL PUMP AT THE ENTRANCE. (ELEVATION = 823.523)



No.	Description	Drn.	Approved	Date

LEDGEND  
 PROP. WATER MAIN  
 EXIST. WATER MAIN  
 GAS MAIN  
 SANITARY SEWER  
 STORM SEWER  
 UTILITY POLE LINE  
 ELECTRIC CABLE

Date: 06/22/2012  
 Drawn by: GLP  
 Designed by: GLP  
 Checked by: VG  
 Scale: AS NOTED ABOVE  
 Approved by: VG  
 Map No: 196-630

**San Antonio Water System**

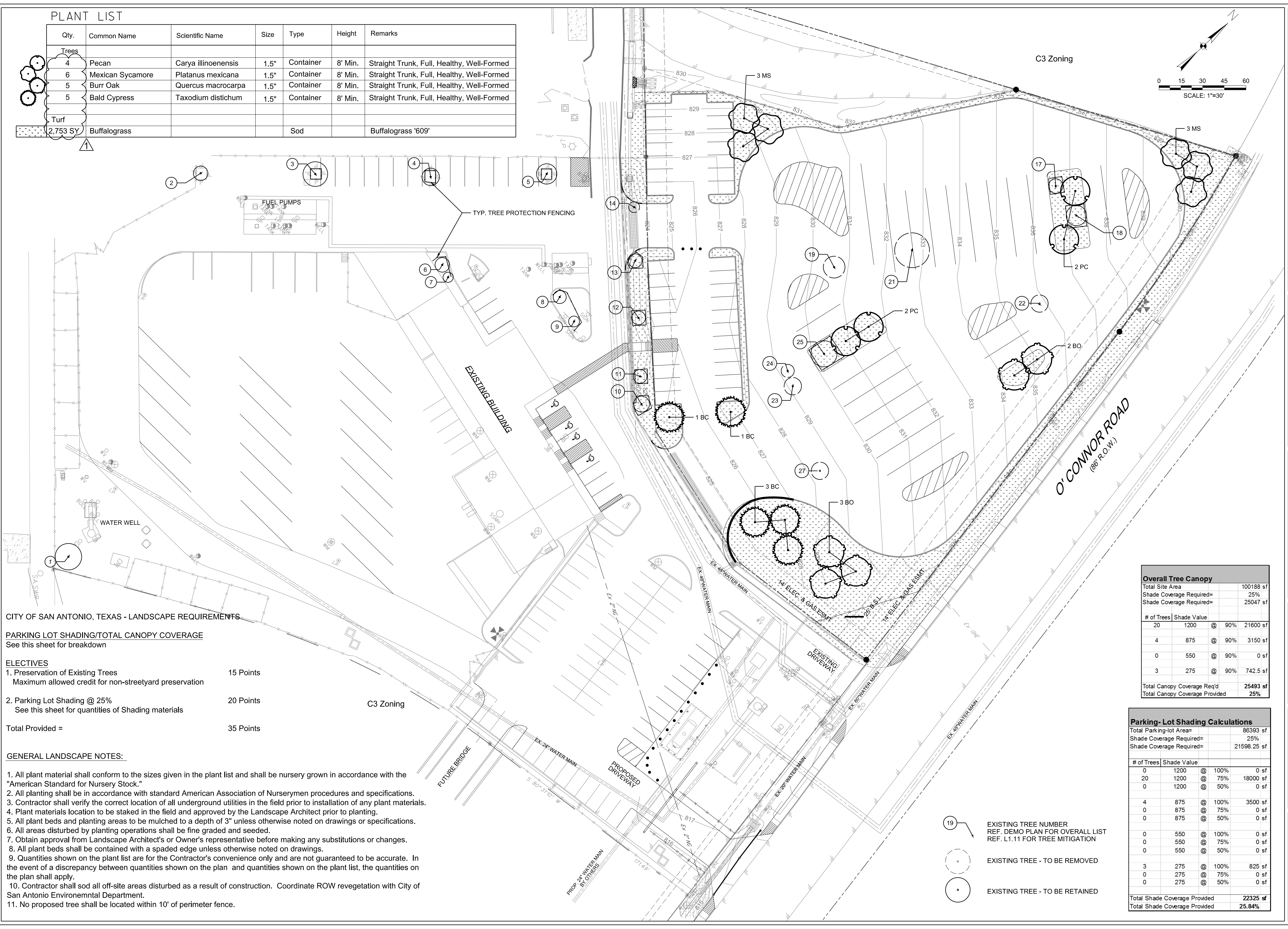
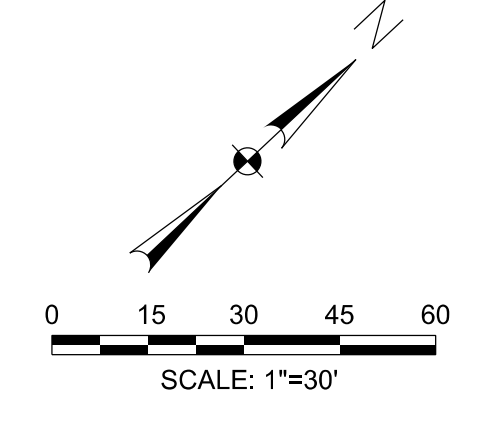
SAWS JOB NO. 12-7701  
 NORTHEAST SERVICE CENTER  
 PARKING LOT ADDITION  
 (54" CASING PROFILE)

PLAN AND PROFILE SHEET  
 NORTHEAST SERVICE CENTER



PLANT LIST

Qty.	Common Name	Scientific Name	Size	Type	Height	Remarks
<b>Trees</b>						
4	Pecan	Carya illinoensis	1.5"	Container	8' Min.	Straight Trunk, Full, Healthy, Well-Formed
6	Mexican Sycamore	Platanus mexicana	1.5"	Container	8' Min.	Straight Trunk, Full, Healthy, Well-Formed
5	Burr Oak	Quercus macrocarpa	1.5"	Container	8' Min.	Straight Trunk, Full, Healthy, Well-Formed
5	Bald Cypress	Taxodium distichum	1.5"	Container	8' Min.	Straight Trunk, Full, Healthy, Well-Formed
<b>Turf</b>						
2,753 SY	Buffalograss			Sod		Buffalograss '609'



**NORTHEAST SERVICE CENTER  
PARKING LOT ADDITION**  
SAWS JOB # 12-6003  
SAN ANTONIO, TX



Revision No.	Date	Description
1	06/21/2012	Revised quantities



Project No.:	28722
Issued:	MAY 2012
Drawn By:	DR
Checked By:	TF
Scale:	AS NOTED
Sheet Title	LANDSCAPE & TREE PROTECTION PLAN
Sheet Number	L1:10

CITY OF SAN ANTONIO, TEXAS - LANDSCAPE REQUIREMENTS

**PARKING LOT SHADING/TOTAL CANOPY COVERAGE**  
See this sheet for breakdown

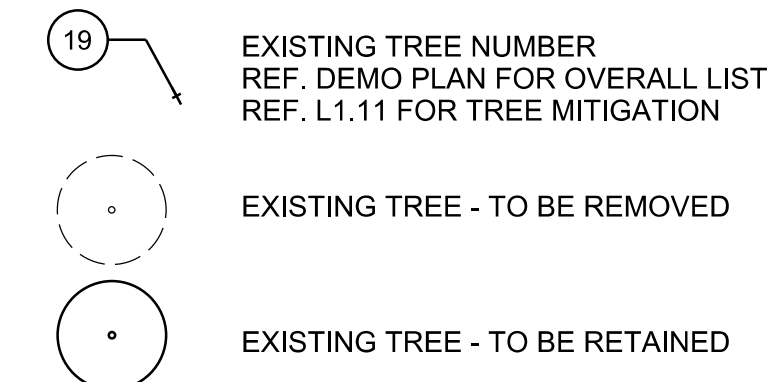
ELECTIVES	Points	Zoning
1. Preservation of Existing Trees Maximum allowed credit for non-streetyard preservation	15 Points	
2. Parking Lot Shading @ 25% See this sheet for quantities of Shading materials	20 Points	C3 Zoning
<b>Total Provided =</b>	<b>35 Points</b>	

**GENERAL LANDSCAPE NOTES:**

- All plant material shall conform to the sizes given in the plant list and shall be nursery grown in accordance with the "American Standard for Nursery Stock."
- All planting shall be in accordance with standard American Association of Nurserymen procedures and specifications.
- Contractor shall verify the correct location of all underground utilities in the field prior to installation of any plant materials.
- Plant materials location to be staked in the field and approved by the Landscape Architect prior to planting.
- All plant beds and planting areas to be mulched to a depth of 3" unless otherwise noted on drawings or specifications.
- All areas disturbed by planting operations shall be fine graded and seeded.
- Obtain approval from Landscape Architect's or Owner's representative before making any substitutions or changes.
- All plant beds shall be contained with a spaded edge unless otherwise noted on drawings.
- Quantities shown on the plant list are for the Contractor's convenience only and are not guaranteed to be accurate. In the event of a discrepancy between quantities shown on the plan and quantities shown on the plant list, the quantities on the plan shall apply.
- Contractor shall sod all off-site areas disturbed as a result of construction. Coordinate ROW revegetation with City of San Antonio Environmental Department.
- No proposed tree shall be located within 10' of perimeter fence.

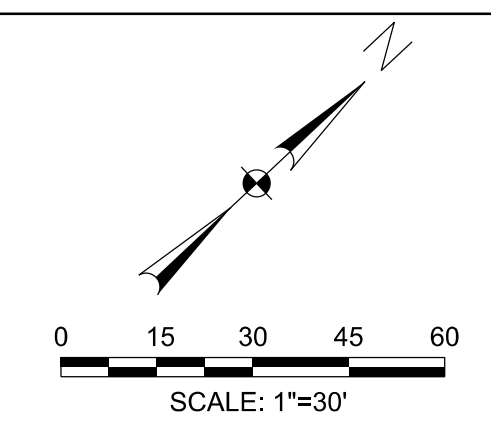
Overall Tree Canopy				
Total Site Area				100188 sf
Shade Coverage Required=			25%	25047 sf
Shade Coverage Provided=			25.84%	25493 sf
# of Trees	Shade Value	@	%	Total
20	1200	@	90%	21600 sf
4	875	@	90%	3150 sf
0	550	@	90%	0 sf
3	275	@	90%	742.5 sf
<b>Total Canopy Coverage Req'd</b>				<b>25493 sf</b>
<b>Total Canopy Coverage Provided</b>				<b>25%</b>

Parking-Lot Shading Calculations				
Total Parking-lot Area=				86393 sf
Shade Coverage Required=			25%	21598.25 sf
Shade Coverage Provided=			25.84%	22325 sf
# of Trees	Shade Value	@	%	Total
0	1200	@	100%	0 sf
20	1200	@	75%	18000 sf
0	1200	@	50%	0 sf
4	875	@	100%	3500 sf
0	875	@	75%	0 sf
0	875	@	50%	0 sf
0	550	@	100%	0 sf
0	550	@	75%	0 sf
0	550	@	50%	0 sf
3	275	@	100%	825 sf
0	275	@	75%	0 sf
0	275	@	50%	0 sf
<b>Total Shade Coverage Provided</b>				<b>22325 sf</b>
<b>Total Shade Coverage Required</b>				<b>21598.25 sf</b>



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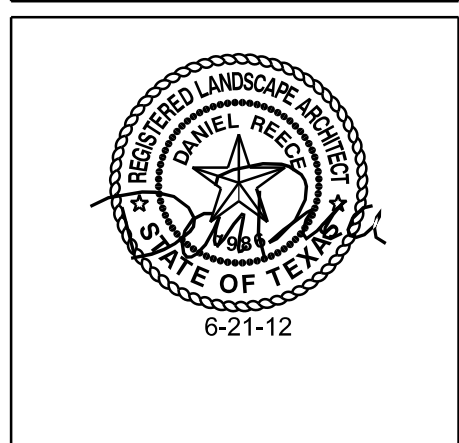




**NORTHEAST SERVICE CENTER  
PARKING LOT ADDITION**  
SAWS JOB # 12-6003  
SAN ANTONIO, TX

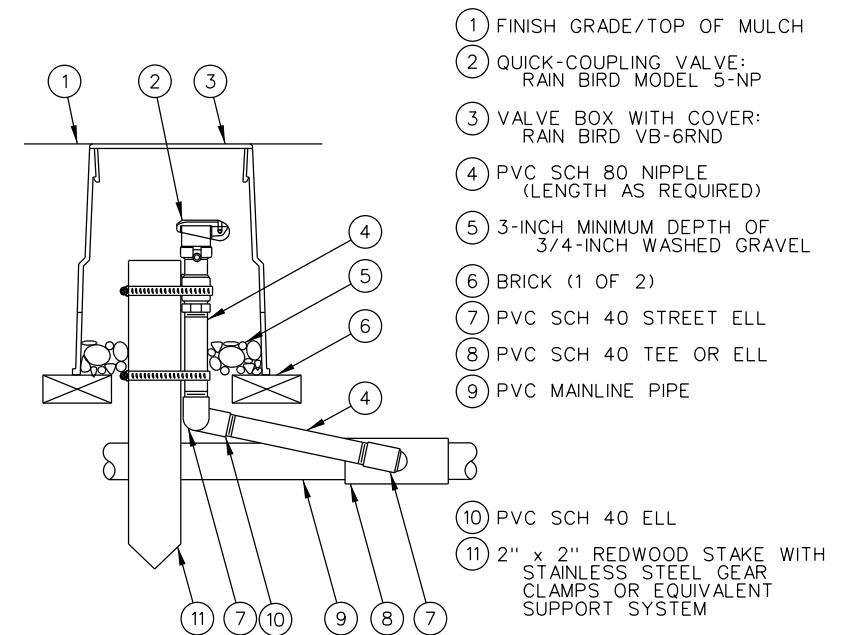
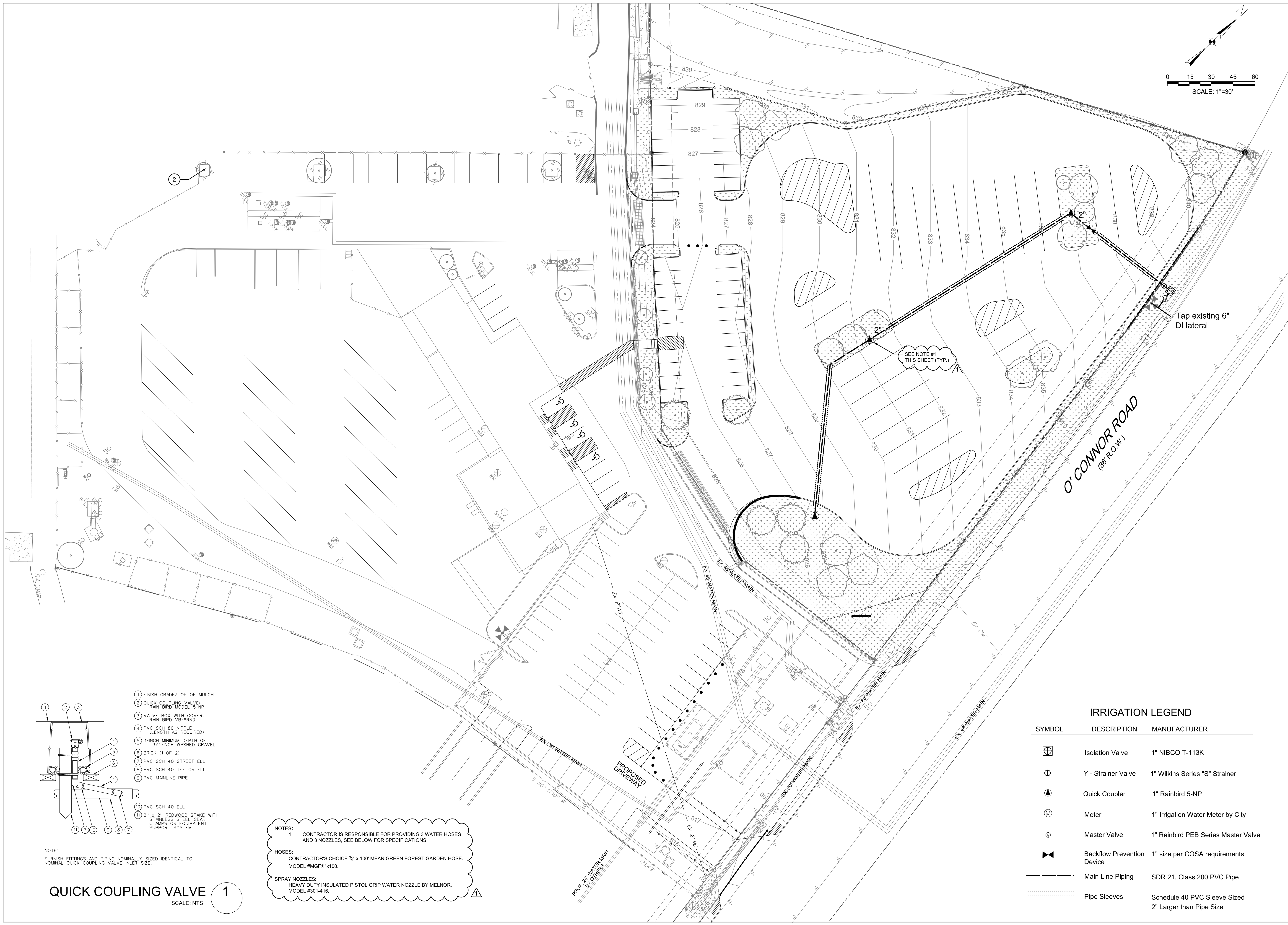
**HALFF**  
301 E. SONNENBLAU BLVD, SUITE 230  
SAN ANTONIO, TEXAS 78206  
TEL (210) 798-1885  
FAX (210) 798-0885  
TIRE FRM REGISTRATION #8302

Revision No.	Date	Description
1	06/21/2012	Added hoses and nozzles.



Project No.:	28722
Issued:	MAY 2012
Drawn By:	DR
Checked By:	TF
Scale:	AS NOTED
Sheet Title	IRRIGATION PLAN

Project No.:	28722
Issued:	MAY 2012
Drawn By:	DR
Checked By:	TF
Scale:	AS NOTED
Sheet Title	IRRIGATION PLAN
Sheet Number	L1:12



NOTE:  
FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO  
NOMINAL QUICK COUPLING VALVE INLET SIZE.

**QUICK COUPLING VALVE** 1  
SCALE: NTS

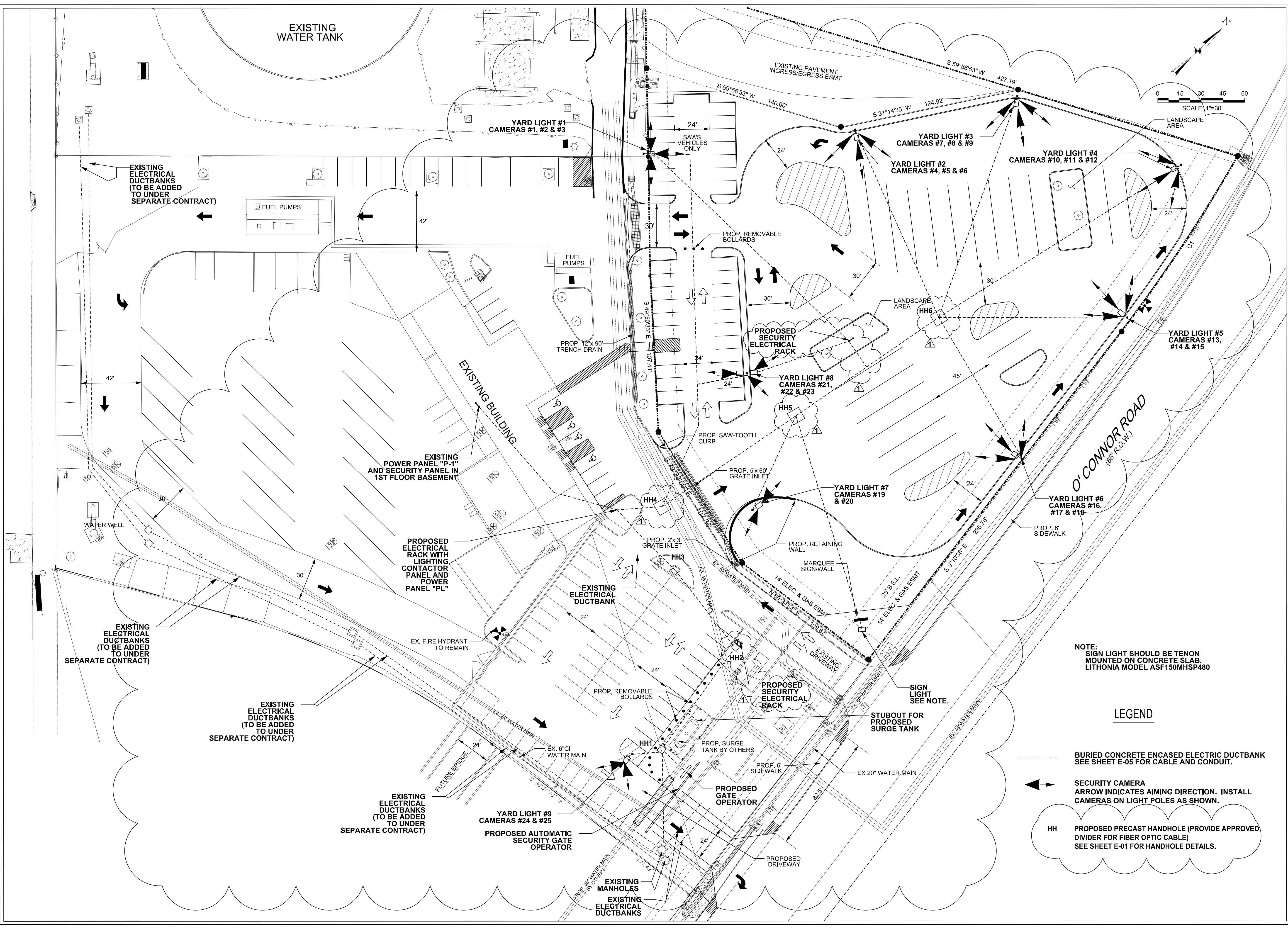
NOTES:  
1. CONTRACTOR IS RESPONSIBLE FOR PROVIDING 3 WATER HOSES  
AND 3 NOZZLES, SEE BELOW FOR SPECIFICATIONS.  
HOSES:  
CONTRACTOR'S CHOICE 3/4" x 100' MEAN GREEN FOREST GARDEN HOSE,  
MODEL #MGF3/4"x100.  
SPRAY NOZZLES:  
HEAVY DUTY INSULATED PISTOL GRIP WATER NOZZLE BY MELNOR,  
MODEL #301-416.

**IRRIGATION LEGEND**

SYMBOL	DESCRIPTION	MANUFACTURER
	Isolation Valve	1" NIBCO T-113K
	Y - Strainer Valve	1" Wilkins Series "S" Strainer
	Quick Coupler	1" Rainbird 5-NP
	Meter	1" Irrigation Water Meter by City
	Master Valve	1" Rainbird PEB Series Master Valve
	Backflow Prevention Device	1" size per COSA requirements
	Main Line Piping	SDR 21, Class 200 PVC Pipe
	Pipe Sleeves	Schedule 40 PVC Sleeve Sized 2" Larger than Pipe Size



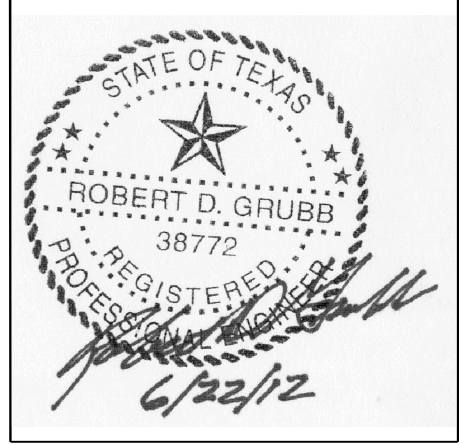
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**NORTHEAST SERVICE CENTER  
PARKING LOT ADDITION**  
SAWS JOB # 12-7701  
SAN ANTONIO, TX

**GRUBB ENGINEERING, INC.**  
ELECTRICAL-POWER SYSTEMS DESIGN AND TESTING  
3128 SIDNEY BROOKS | SAN ANTONIO, TEXAS 78235  
PHONE: 210.656.7250 FAX: 210.656.8905  
TYPE FIRM REGISTRATION #5904

Revision No.	Date	Description
1	1/21/12	ADDENDUM #1

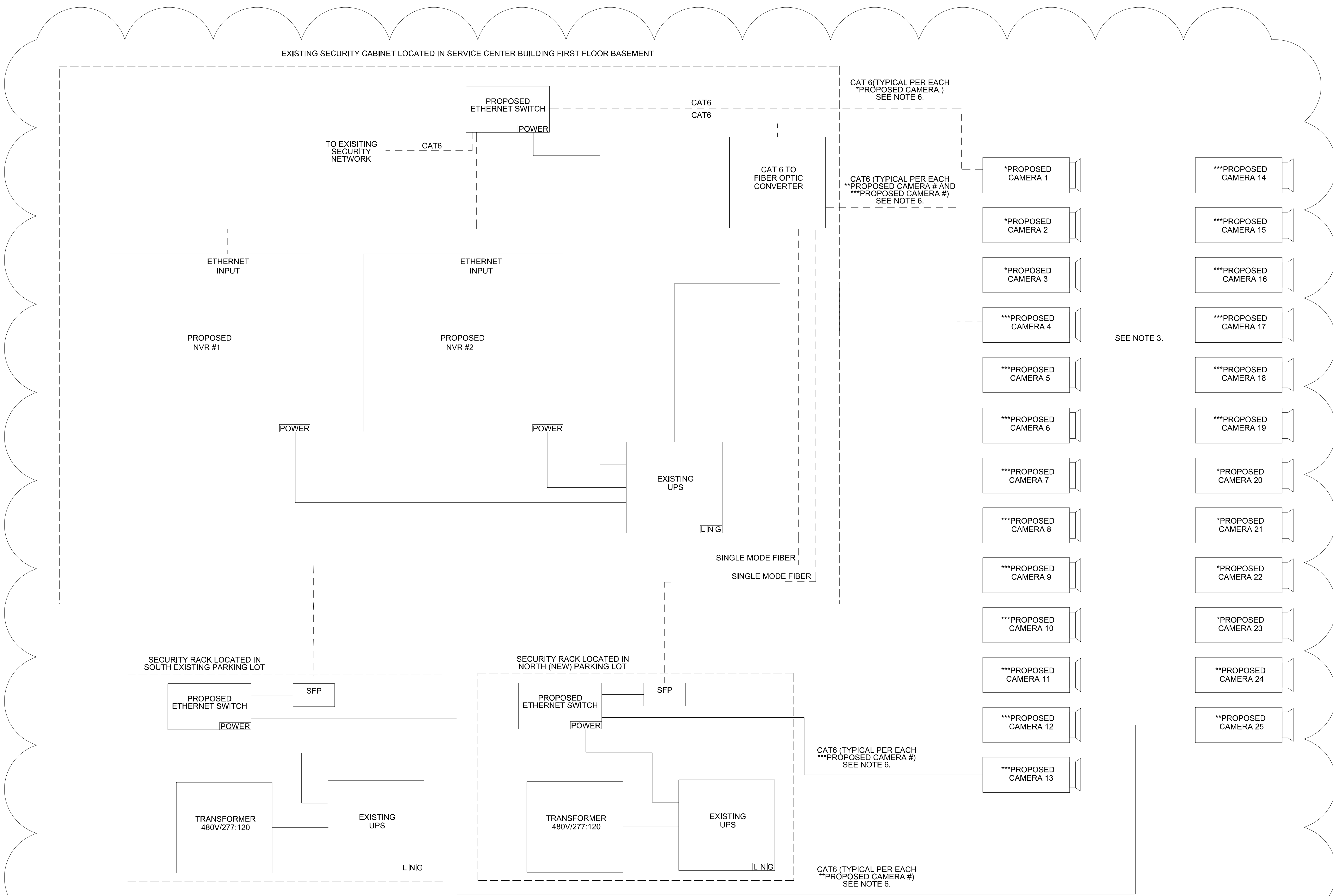


**NOTE:**  
SIGN LIGHT SHOULD BE TENON MOUNTED ON CONCRETE SLAB. LITHONIA MODEL ASF150MHSP480

**LEGEND**

- BURIED CONCRETE ENCASED ELECTRIC DUCTBANK SEE SHEET E-05 FOR CABLE AND CONDUIT.
- SECURITY CAMERA ARROW INDICATES AIMING DIRECTION. INSTALL CAMERAS ON LIGHT POLES AS SHOWN.
- HH PROPOSED PRECAST HANDHOLE (PROVIDE APPROVED DIVIDER FOR FIBER OPTIC CABLE) SEE SHEET E-01 FOR HANDHOLE DETAILS.

GEI Project No.:	SAWS12-006
Issued:	JUNE 1, 2012
Drawn By:	SG
Checked By:	BD
Scale:	AS NOTED
Sheet Title	PARKING LOT LAYOUT
<b>E-02</b>	
Sheet Number	



**NOTES:**

1. SURGE ARRESTORS TO BE PROVIDED BY CONTRACTOR FOR 24VAC, CAT6 AND CAT5 CABLES. MANUFACTURER SHALL BE PHOENIX CONTACT OR EQUAL.
2. SEE SPECIFICATION 16722 FOR EQUIPMENT DETAILS.
3. MOUNT CAMERAS TO LIGHT POLES AS SHOWN ON SITE PLAN.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING MOTION SENSORS FOR ALL CAMERAS. SENSORS ARE NOT SHOWN ON THIS DIAGRAM.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING SECURITY CABLE AND CONDUIT FROM THE SECURITY EQUIPMENT TO SECURITY PANEL.
6. CAT6 TO EACH CAMERA NOT SHOWN FOR CLARITY. EACH CAMERA WITH (\*\*) AND (\*\*\*) IS TO HAVE CAT6 CONNECTION. PROVIDE ALL NECESSARY CONVERTERS.

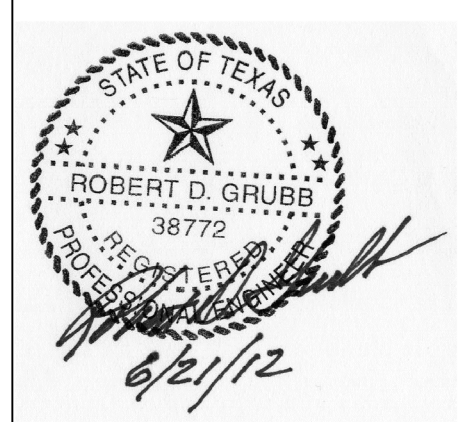
**LEGEND**

- \* USES A CAT 6 CABLE AND ITS EXISTING SECURITY CABINET IS LOCATED IN SERVICE CENTER BUILDING FIRST FLOOR BASEMENT AS SHOWN ON SHEET E-02.
- \*\* USES CAT6 AND ITS SECURITY RACK IS LOCATED IN EXISTING PARKING LOT AS SHOWN ON SHEET E-02.
- \*\*\* USES CAT6 AND ITS SECURITY RACK IS LOCATED IN THE NEW PARKING LOT AS SHOWN ON SHEET E-02.

**NORTHEAST SERVICE CENTER  
PARKING LOT ADDITION**  
SAWS JOB # 12-7701  
SAN ANTONIO, TX

**GRUBB ENGINEERING, INC.**  
ELECTRICAL POWER SYSTEMS DESIGN AND TESTING  
3128 SIDNEY BROOKS | SAN ANTONIO, TEXAS 78235  
PHONE: 210.658.7250 FAX: 210.658.9805  
TBPE FIRM REGISTRATION #3904

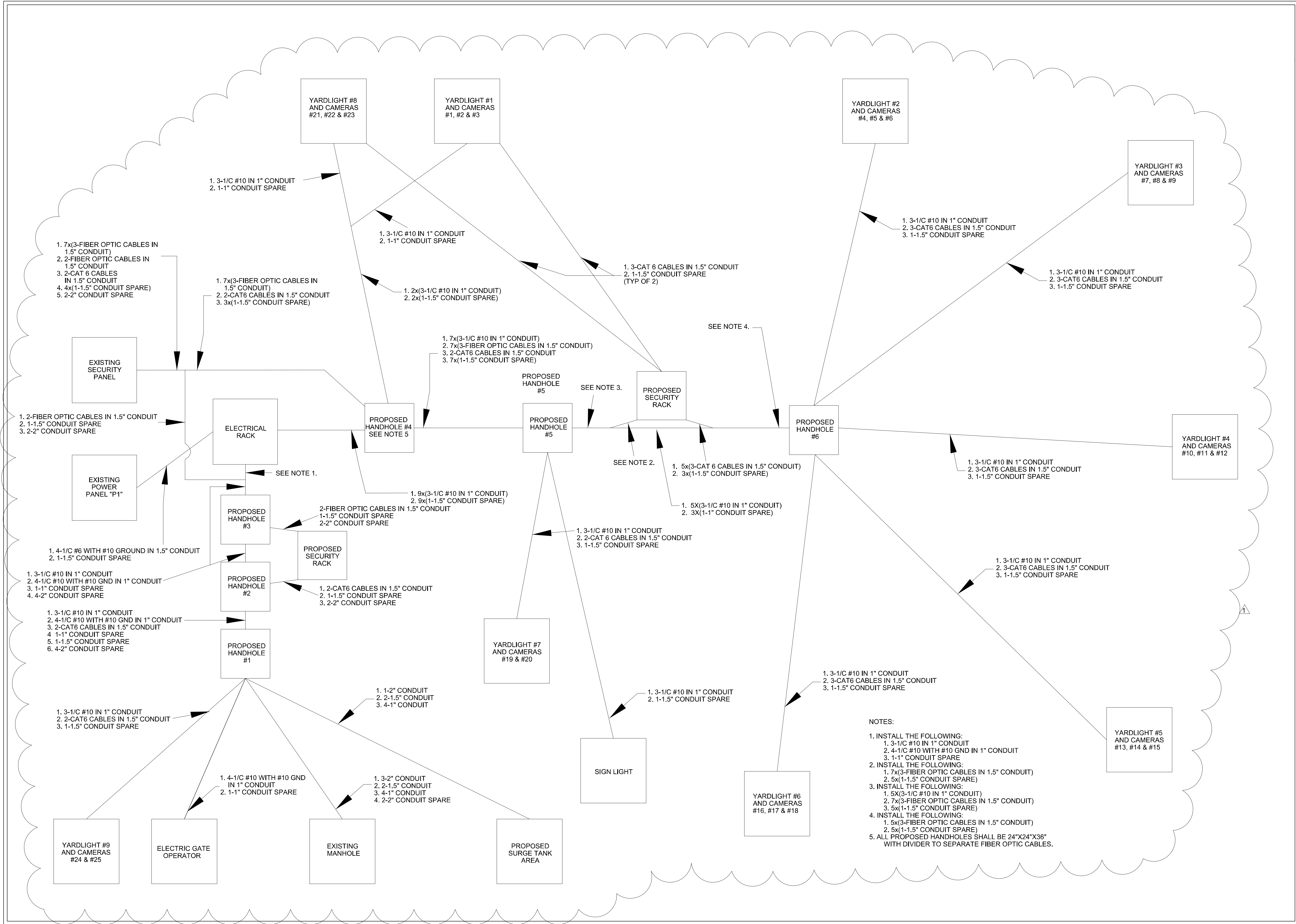
Revision No.	Date	Description
1	6/21/12	ADDENDUM #1



GEI Project No.:	SAWS12-006
Issued:	JUNE 1, 2012
Drawn By:	SG
Checked By:	BD
Scale:	AS NOTED

Sheet Title  
**SECURITY SYSTEM DIAGRAM**

**E-03**  
Sheet Number

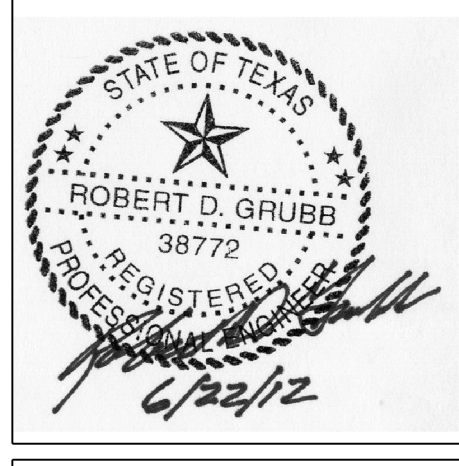


- NOTES:**
1. INSTALL THE FOLLOWING:
    1. 3-1/C #10 IN 1" CONDUIT
    2. 4-1/C #10 WITH #10 GND IN 1" CONDUIT
    3. 1-1" CONDUIT SPARE
  2. INSTALL THE FOLLOWING:
    1. 7x(3-FIBER OPTIC CABLES IN 1.5" CONDUIT)
    2. 5x(1-1.5" CONDUIT SPARE)
  3. INSTALL THE FOLLOWING:
    1. 5x(3-1/C #10 IN 1" CONDUIT)
    2. 7x(3-FIBER OPTIC CABLES IN 1.5" CONDUIT)
    3. 5x(1-1.5" CONDUIT SPARE)
  4. INSTALL THE FOLLOWING:
    1. 5x(3-FIBER OPTIC CABLES IN 1.5" CONDUIT)
    2. 5x(1-1.5" CONDUIT SPARE)
  5. ALL PROPOSED HANDHOLES SHALL BE 24"X24"X36" WITH DIVIDER TO SEPARATE FIBER OPTIC CABLES.

**NORTHEAST SERVICE CENTER  
PARKING LOT ADDITION**  
SAWS JOB # 12-7701  
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Sheet Title	CONDUIT AND CABLE DETAILS
Sheet Number	E-05