



A. [www.sjra.net](http://www.sjra.net)

B. ADDENDUM NO. 3

C. RFP #11-029

Date: November 14, 2011  
To: All Interested Parties  
From: Steve Gibson  
GRP Division Buyer

The following additions and changes are hereby made a part of the RFQ Documents for the above referenced project as fully and as completely as though the same were included therein.

**Drawing Items:**

1. The revised sheet (01C-113) includes (1) the reference to the details for headwall and riprap in the callout revisions and (2) the horizontal control for the proposed detention swale. The new sheet (01C-114) contains the construction details for the proposed concrete headwall with flared wings and for the riprap where the proposed detention swale outfalls into the existing ditch.
2. Revised electrical sheets (01E-100, 01E-102 and 01E-600) issued for incorporation of 800A, 480V, 3-phase Service #2 (construction trailer power). This includes duct bank modifications as well as a pad mounted service transformer in lieu of the pole mounted transformer bank. This item No.2 only will be considered as an ADD ALTERNATE.

**Specification Items:**

1. Specifications to be edited as follows:
  - Division 01320, Section 1.4, Paragraph A, number 3: remove brackets only
  - Division 01320, Section 1.8, Paragraph E: remove brackets only
  - Division 01320, Section 1.9, Paragraph B, number 2(c): remove brackets only
  - Division 01340, Section 1.4, Paragraph D, number 5(a): remove brackets only
  - Division 01650, Section 1.2, Paragraph B, number 1: remove brackets only
  - Division 01650, Section 3.2, Paragraph D, number 3(a)(1): remove brackets only
  - Division 06410, Section 2.3, Paragraph B, number 6(a): remove brackets and text with-in

Division 07412, Section 1.6, Paragraph A: remove all brackets , remove text of "20"  
Division 07412, Section 3.1, Paragraph I, number 5: remove brackets and text with-in  
Division 07900, Section 1.3, Paragraph A: remove brackets and text with-in  
Division 07900, Section 1.3, Paragraph B: remove brackets and text with-in  
Division 08305, Section 1.1, Paragraph A, number 3: remove brackets and text with-in  
Division 09660, Section 3.1, Paragraph B: remove brackets and text with-in  
Division 09905, Section 1.4, Paragraph A, number (3) (d): remove brackets only  
Division 09905, Section 3.1, Paragraph B, number 2 and 3: remove brackets only  
Division 09905, Section 3.4, Paragraph J, number 1: remove brackets and text with-in  
Division 10400, Section 3.2, Paragraph A, number 6(d): remove brackets only  
Division 13121, Section 3.1, Paragraph F: remove all brackets, remove word "concealed"



**END OF ADDENDUM NO.3**

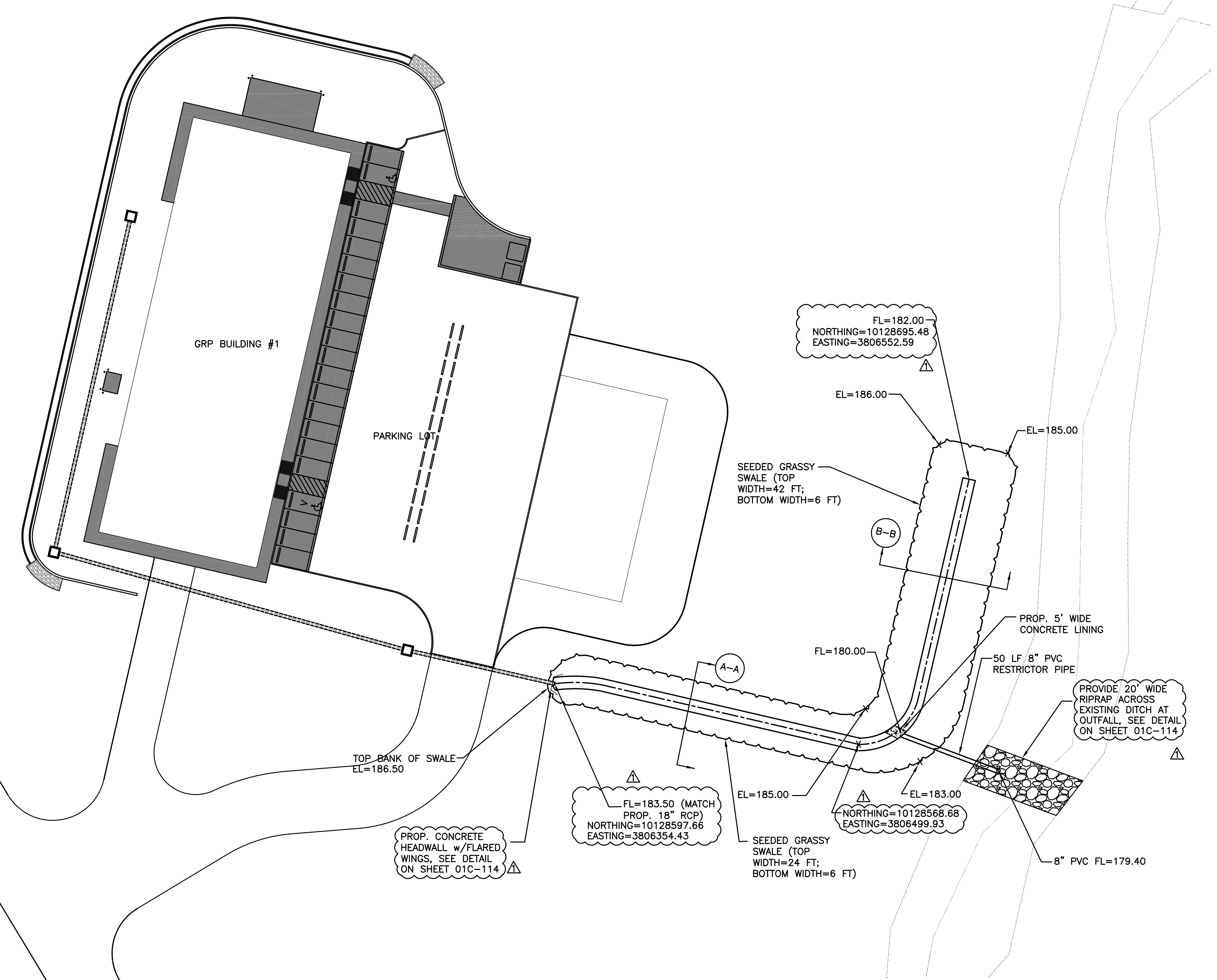
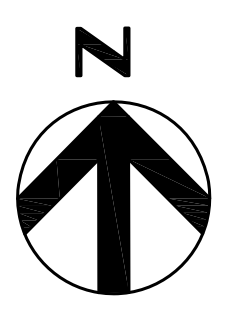
Please acknowledge receipt of this addendum with signature and date and return with your firm's Sealed Proposal. Failure to do so may cause your Proposal to be considered non-responsive.

***Receipt of this Addendum No. 3 is hereby acknowledged***

\_\_\_\_\_  
**Authorized Signature**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Company Name**

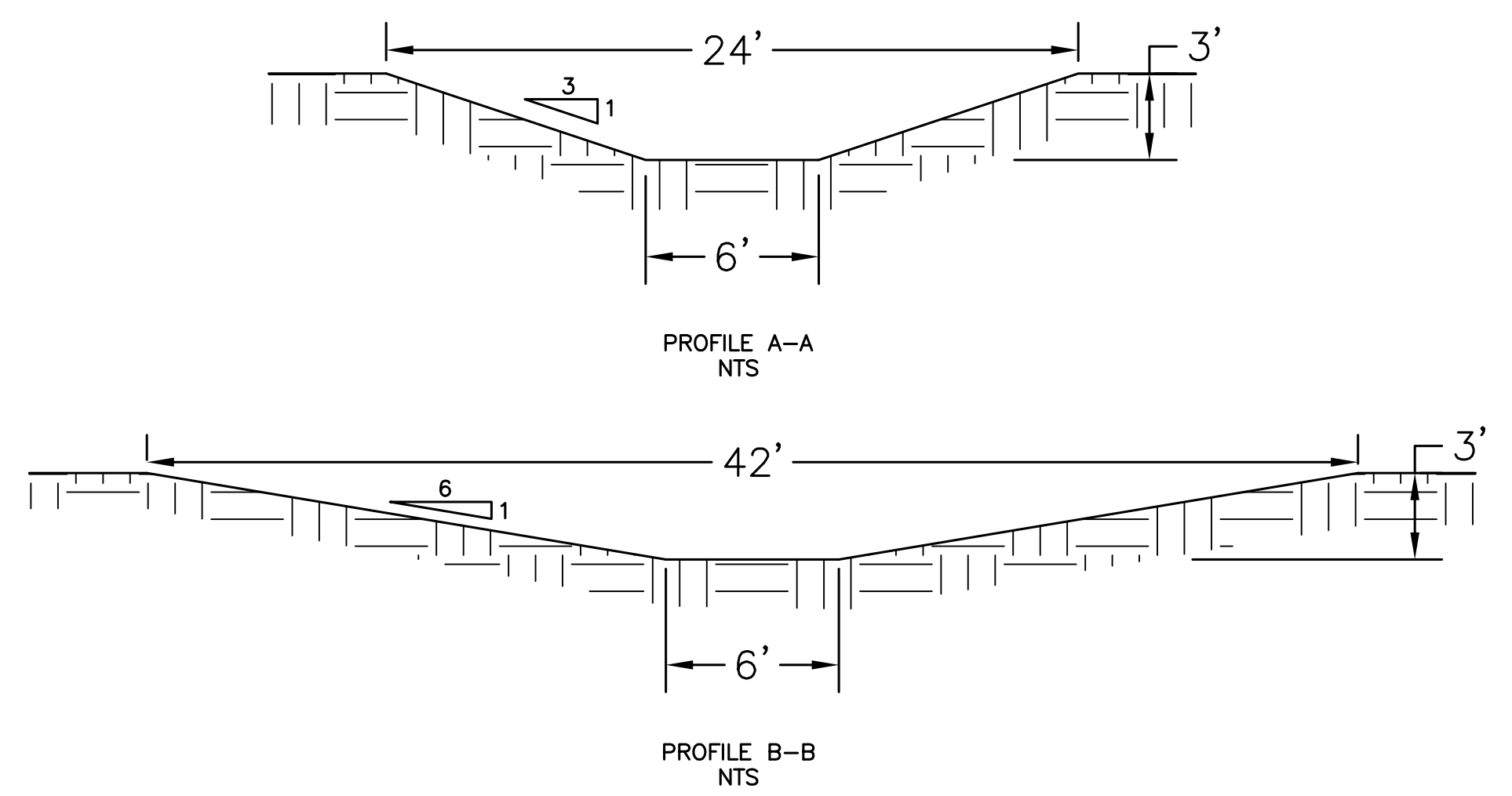


### Temporary Detention Calculations

- Calculations were based on Hydrologic Analysis Methodology for watershed smaller than 50 acres, as outlined in "Drainage Criteria Manual for Montgomery County, Texas", November 1989.
- The detention volume requirement was calculated using Rational Method and other empirical methods, as per the small watershed methodology, given in the Manual.
- The following assumptions are made for the calculations:
  - The soil type is assumed to be Urban Clay, to allow for most conservative scenario (for detention volume calculations)
  - The existing C-value is taken to be 0.40 (for pasture land cover in clay soil, from Table 2.2 of the manual)
  - The Time of Concentration is calculated using  $T_c = 10.A^{0.1761} + 15$  (most conservative)
  - The design rainfall duration is taken to be the time of concentration
  - The total drainage area is assumed to be equal to the building footprint (26,650 SF) with 100% imperviousness
- The point rainfall depths for 100-year storm events for a 24-hr rainfall duration are taken from Table 2.4 from the manual.
- The rainfall intensity is obtained from Fig 2.1 (Rainfall IDF Curves for Montgomery County) from the manual.

**Parameter Summary:**

Design Frequency	100 Year
Watershed Basin Area	0.61 acre (26,650 SF)
Soil Type	Urban Clay Soil
Hydrograph Time Increment	10 minutes
Time of Concentration	24.17 minutes
Intensity	7.1 inches
Existing C-Value	0.40
Proposed C-Value	0.80
Existing Discharge	1.73 cfs
Proposed Discharge	3.48 cfs
Rainfall Excess	10.47 inches
Runoff Volume	0.53 acre-ft
Time to Peak, Existing Conditions	140.0 minutes
Time to Peak, Proposed Conditions	80.20 minutes
Hydrograph Lag Time	59.80 minutes
<b>Required Storage Volume</b>	<b>0.24 acre-ft</b>
<b>Proposed Storage Volume</b>	<b>0.35 acre-ft</b>



DETENTION SWALE  
SCALE: 1"=40'

Challenging Challenges...  
KIT Professionals, Inc.  
Engineers • Planners • Construction Managers  
2825 Wilcrest Dr., Suite 600  
Houston, Texas 77042  
Phone: (713)783-8700, Fax: (713)783-8747  
TBP Firm Registration No. F-4991

HDR Engineering, Inc.  
Texas P.E. Firm  
Registration No. F-754

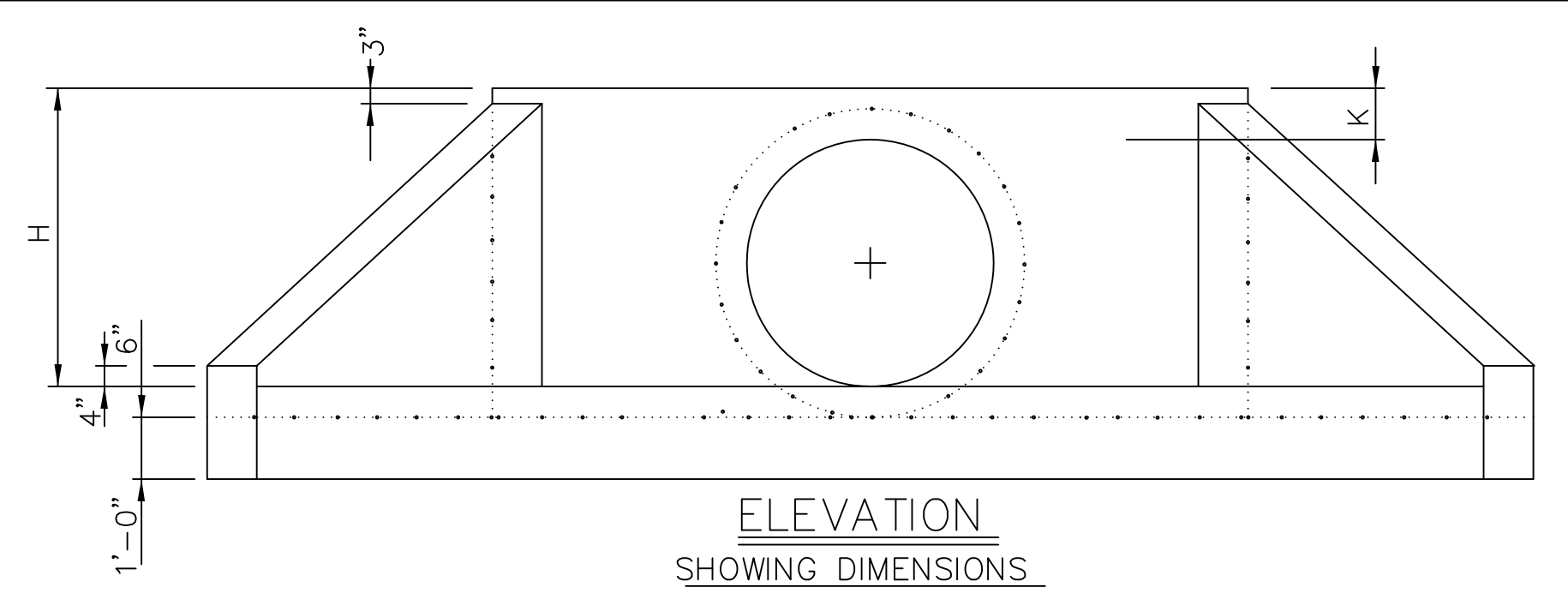
ISSUE	DATE	DESCRIPTION
△	11-14-2011	ADDENDUM NO.3
	10-03-2011	FINAL SIGNED AND SEALED

PROJECT MANAGER	SP
DESIGNED BY	SC;SA
DRAWN BY	SC;SA
CHECKED BY	SP
PROJECT NUMBER	00000000162444

**SAN JACINTO RIVER  
AUTHORITY  
ADMINISTRATION BUILDING**

GRP BUILDING #1  
CIVIL  
TEMPORARY DETENTION SWALE

0 1" 2"	FILENAME	O1C-113.DWG	SHEET
	SCALE	AS SHOWN	O1C-113



**TABLE OF REINFORCING STEEL**

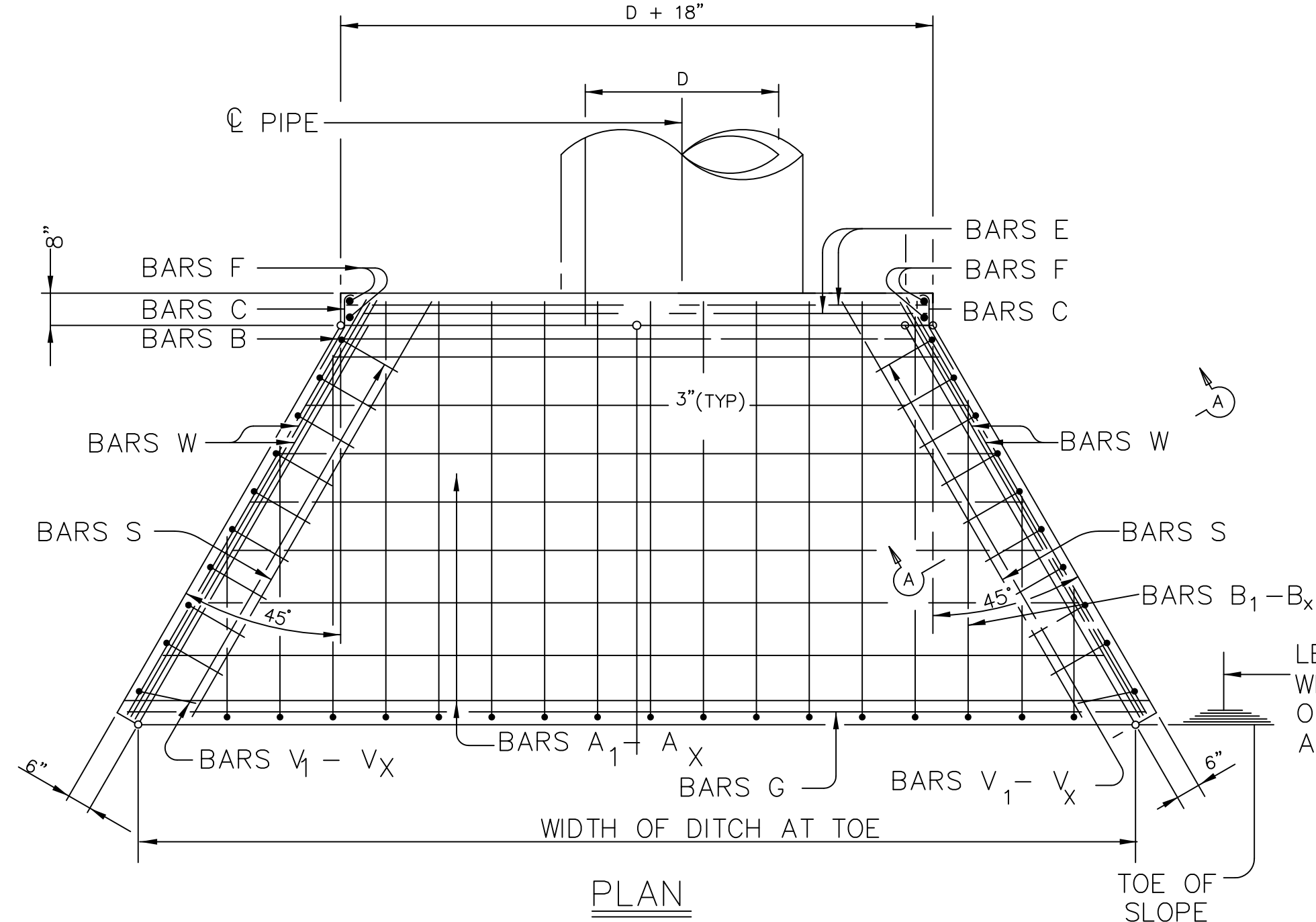
BAR	SIZE	SPA	NO.
A	# 4	1'-0"	~
B	# 3	1'-6"	~
C	# 4	1'-0"	~
D	# 3	1'-0"	~
E	# 5	~	4
F	# 5	~	~
G	# 3	~	2
S	# 4	~	6
V	# 4	1'-0"	~
W	# 5	~	4

- GENERAL NOTES:**
- DESIGNED ACCORDING TO CURRENT AASHTO STANDARD AND INTERIM SPECIFICATIONS.
  - REINFORCING STEEL SHALL BE PLACED WITH THE CENTER OF THE OUTSIDE LAYER OF BARS 2" FROM THE SURFACE OF THE CONCRETE.
  - ALL REINFORCING STEEL SHALL BE GRADE 80.
  - ALL CONCRETE SHALL BE GRADE 60 AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3600 PSI.

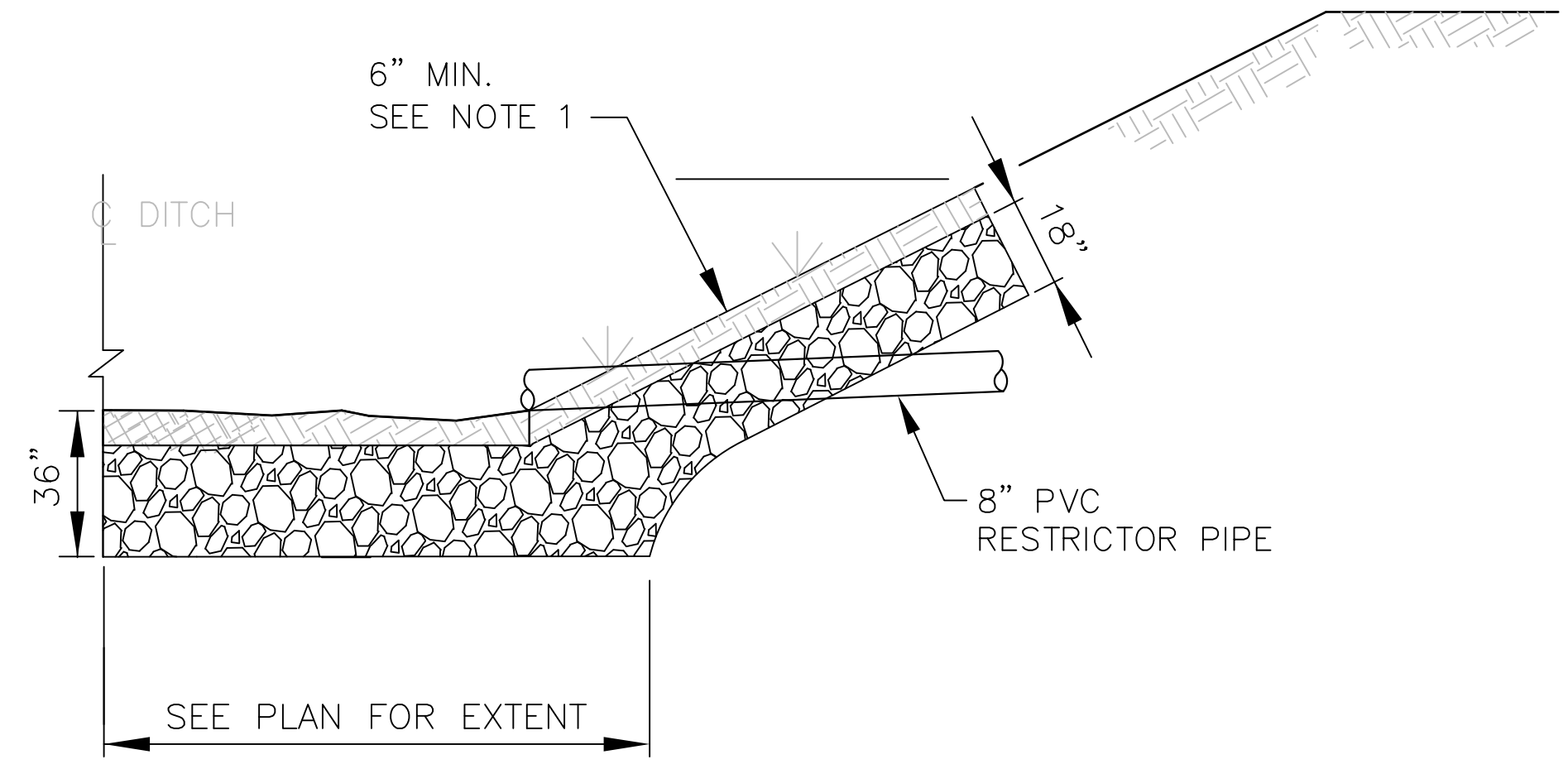
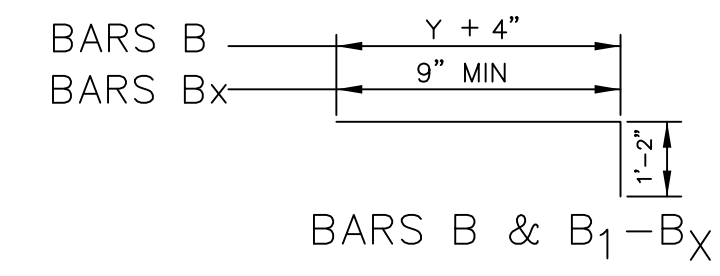
QUANTITIES SHOWN ARE FOR ONE STRUCTURE END (ONE HEADWALL)

**TABLE OF CONSTANT DIMENSIONS**

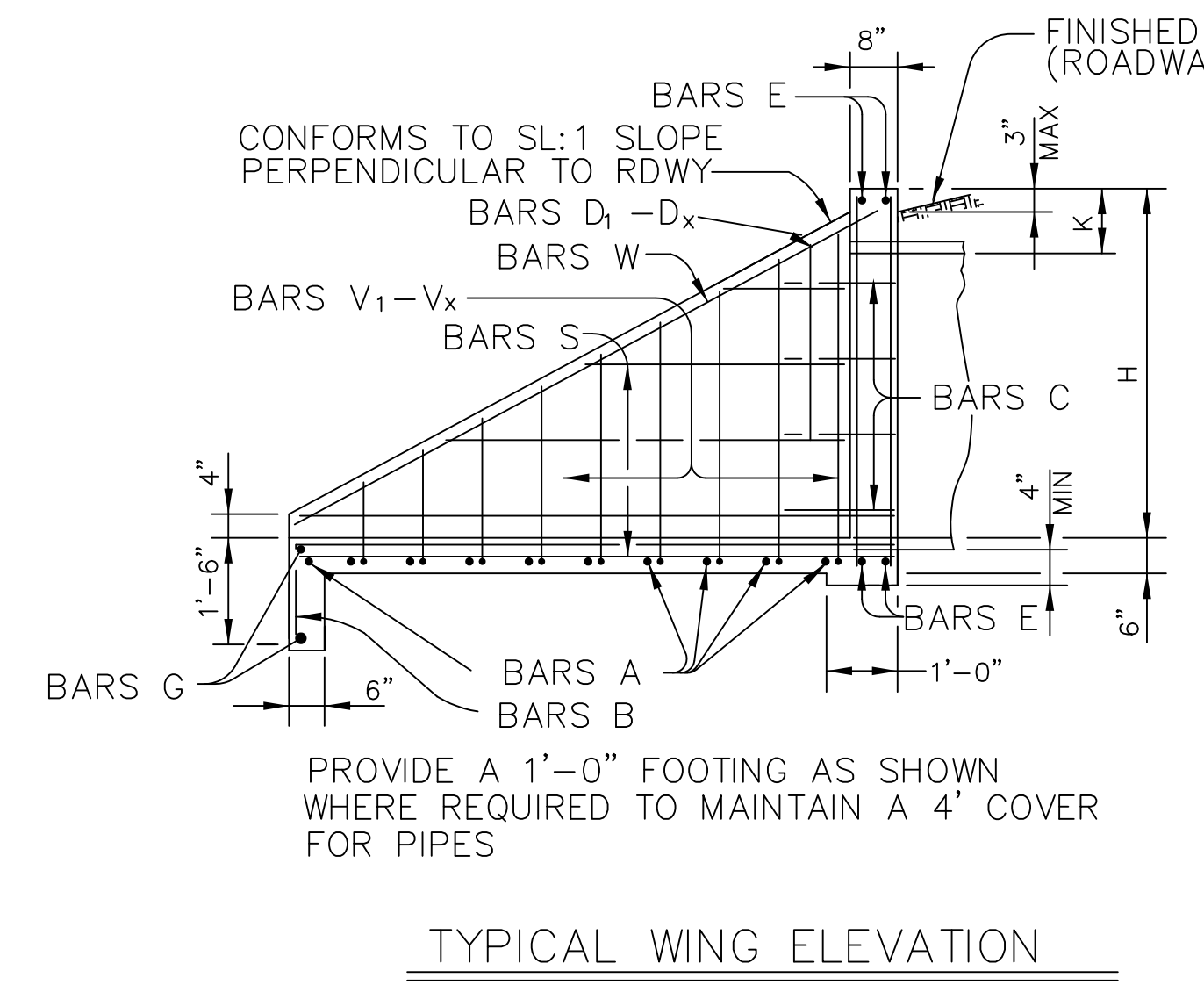
DIA OF PIPE, D	G	K	H
12"	9"	1'-0"	2'-0"
15"	11"	1'-0"	2'-3"
18"	1'-2"	1'-0"	2'-6"
21"	1'-4"	1'-0"	2'-9"
24"	1'-7"	1'-0"	3'-0"
27"	1'-8"	1'-0"	3'-3"
30"	1'-10"	1'-0"	3'-6"



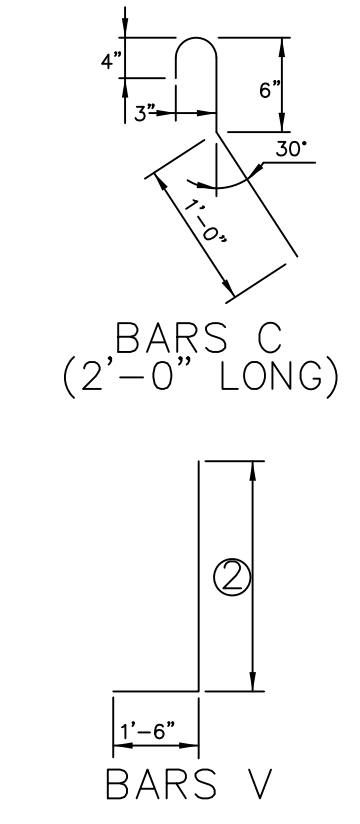
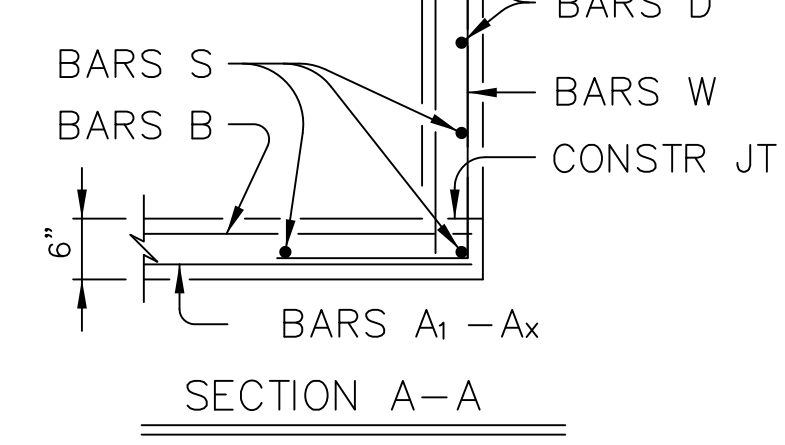
LENGTHS OF WINGS BASED ON SL:1 SLOPE ALONG THIS LINE.



- RIPRAP SHALL BE PLACED IN ACCORDANCE WITH HCFCD SPECIFICATION SECTION 02378-RIPRAP AND GRANULAR FILL. FILL RIPRAP VOIDS AND BURY RIPRAP A MINIMUM OF 6 INCHES WITH TOPSOIL ON SIDE SLOPE AS DIRECTED BY THE ENGINEER.



CONTRACTOR SHALL PROVIDE BARS AS NEEDED TO SUPPORT BAR W ON INSIDE FACE OF WALL



② MIN LENGTH = 6" + 3" x  $\left(\frac{12 \times H - 7}{12 \times L}\right)$   
 MAX LENGTH = 12 x H - 3" x  $\left(\frac{12 \times H - 7}{12 \times L}\right) - 1"$

**CONCRETE HEADWALL WITH FLARED WINGS**

Challenging Challenges...  
KIT Professionals, Inc.  
Engineers • Planners • Construction Managers  
2825 Wilcrest Dr., Suite 600  
Houston, Texas 77042  
Phone: (713)783-8700, Fax: (713)783-8147  
TPE Firm Registration No. F-4991

HDR Engineering, Inc.  
Texas P.E. Firm  
Registration No. F-754

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PROJECT MANAGER	SP
DESIGNED BY	SC:SA
DRAWN BY	SC:SA
CHECKED BY	SP
PROJECT NUMBER	00000000162444

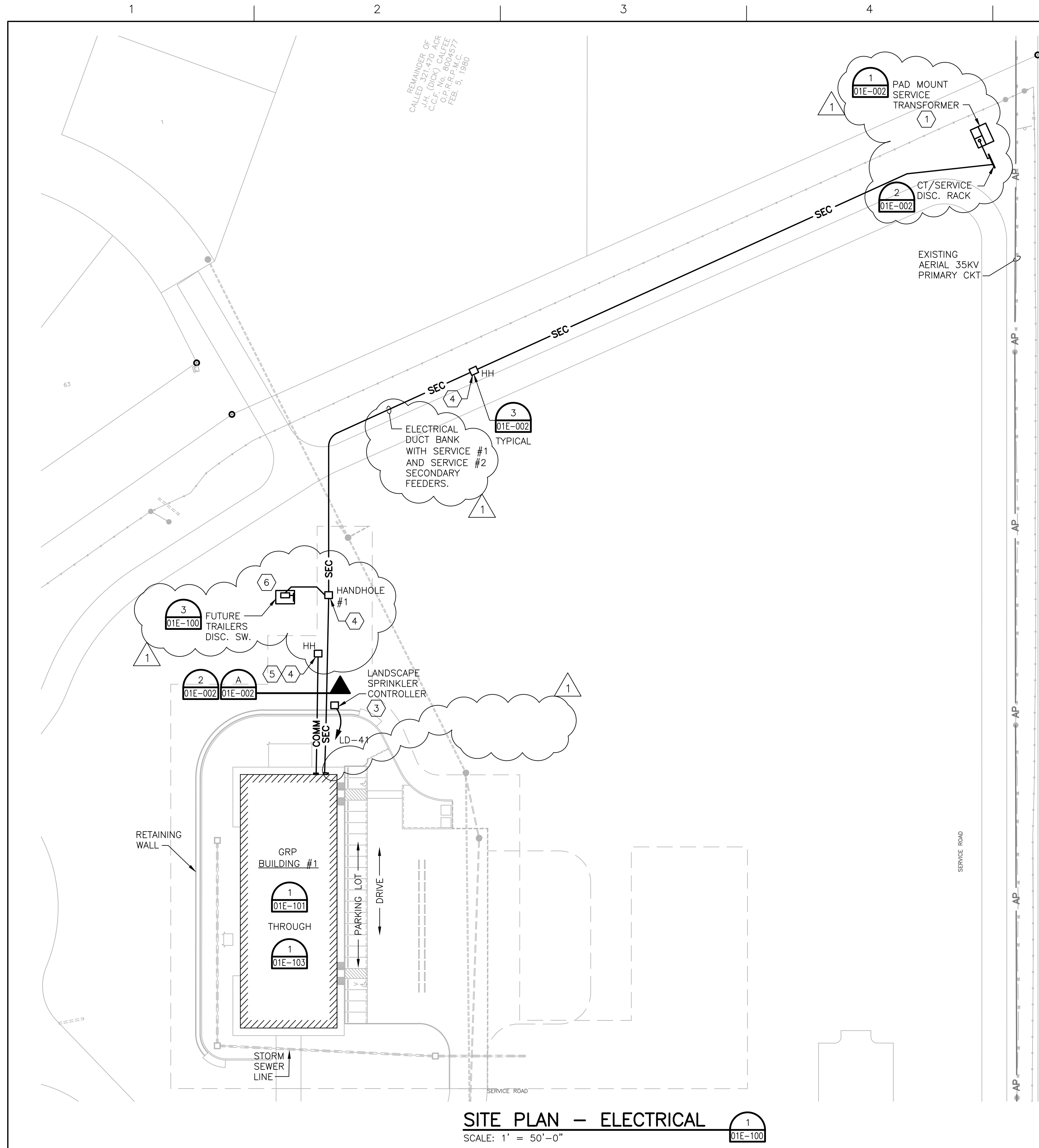
**SAN JACINTO RIVER AUTHORITY**  
ADMINISTRATION BUILDING

GRP BUILDING #1  
CIVIL  
CONCRETE HEADWALL W/FLARED WINGS  
AND RIPRAP LINING DETAIL

0 1" 2"

FILENAME	01C-114.DWG
SCALE	NTS

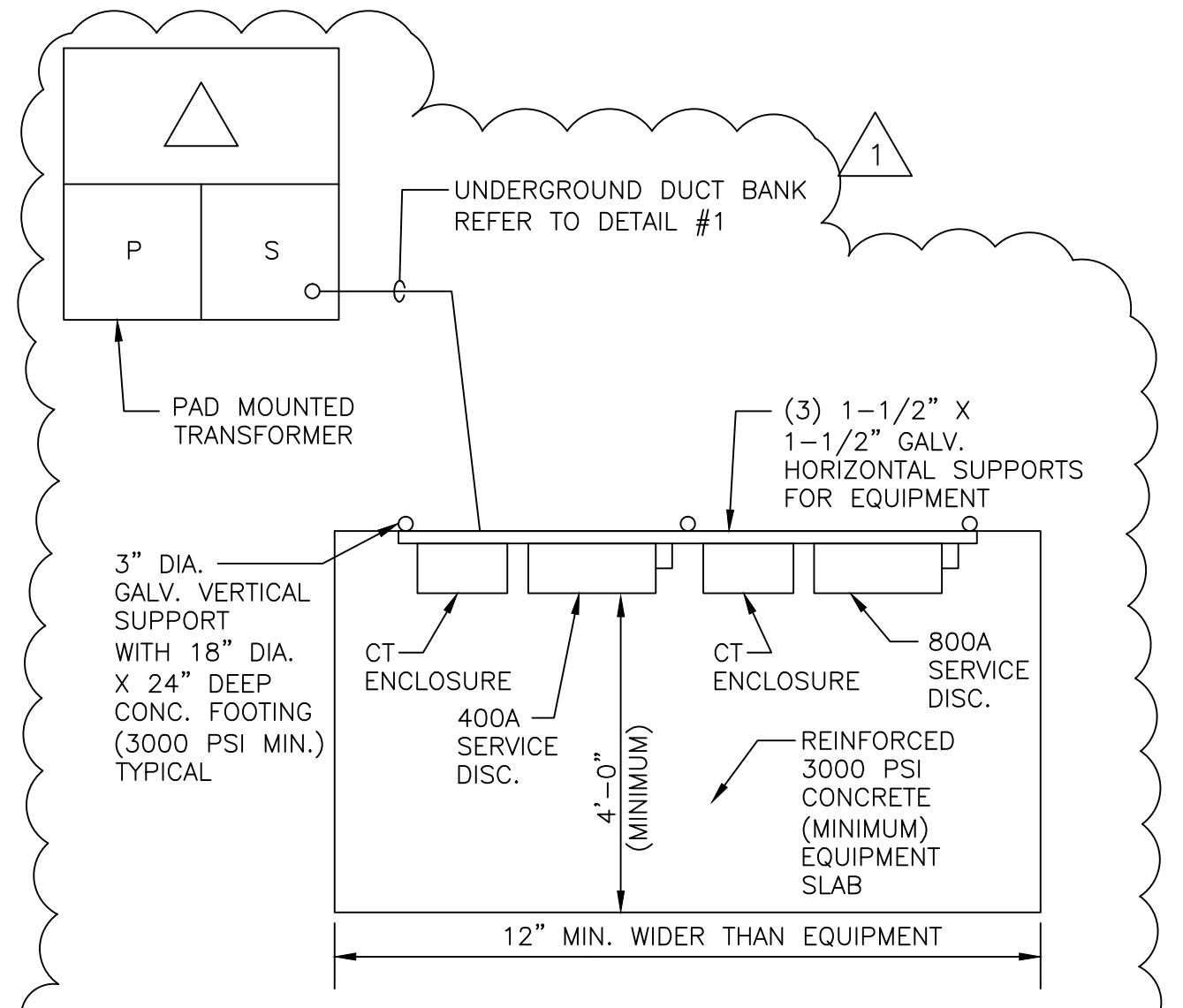
SHEET  
**01C-114**



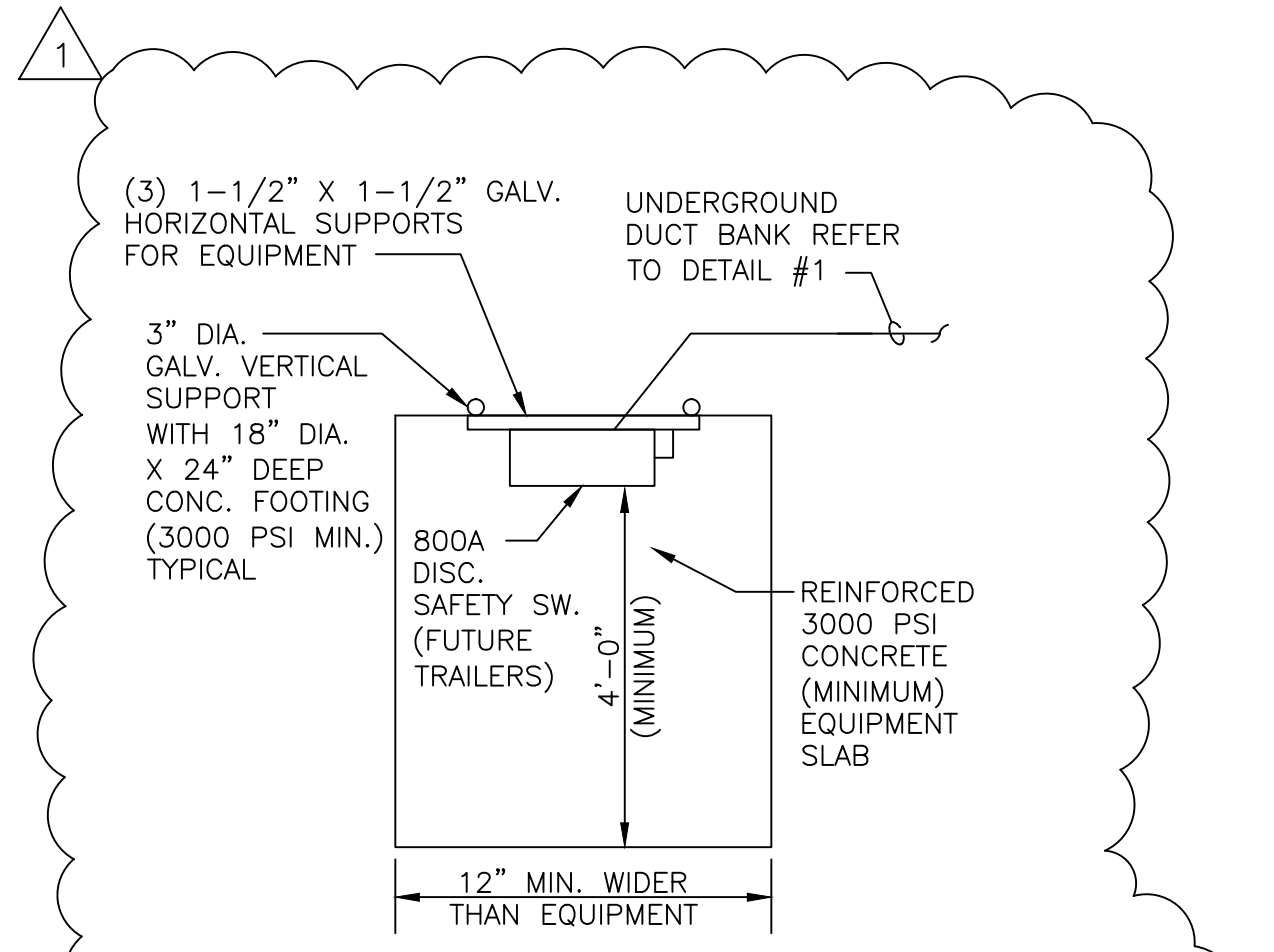
**SITE PLAN - ELECTRICAL** 1  
SCALE: 1" = 50'-0" 01E-100

- GENERAL NOTES- ELECTRICAL:**
- STRUCTURES, EQUIPMENT, AND PIPING AS WELL AS EXISTING ITEMS APPEARING ON THIS SHEET ARE SCREENED TO EMPHASIZE THE ELECTRICAL WORK. REFER TO THE CIVIL SITE PLAN FOR ADDITIONAL SITE INFORMATION AND COORDINATION.
  - COORDINATE SITE DUCT BANK ROUTINGS WITH SITE UTILITIES (I.E. PIPING) AND PHYSICAL SITE TO AVOID CONFLICT.
  - SPARE CONDUITS SHALL BE EQUIPPED WITH PULL CORD AND CAPPED AT EACH END.
  - CONDUITS LOCATED UNDER VEHICLE TRAFFIC-BEARING, AND SIDEWALK SURFACES SHALL BE REINFORCED CONCRETE DUCT BANKS. OTHER BURIED CONDUITS SHALL BE CONCRETE-ENCASED.
  - REFER TO ONE-LINE DIAGRAM FOR RACEWAY QUANTITIES AND SIZES.

- KEYED NOTES- ELECTRICAL:**
- COORDINATE EXACT LOCATION OF UTILITY SERVICE TRANSFORMER, CONDUIT STUB-UPS, AND GENERAL REQUIREMENTS WITH UTILITY PRIOR TO ROUGH-IN OF DUCT BANK.
  - LOCATE C.T. ENCLOSURE, METER, AND 400A/3P SERVICE DISCONNECT SWITCH TO BUILDING #1. THESE COMPONENTS ARE EXISTING (SJRA IN POSSESSION) TO BE RELOCATED TO THIS LOCATION BY CONTRACTOR.
  - ROUTE 2#10 AND 1#10 GND. CONDUCTOR IN A 3/4" CONDUIT. COORDINATE EXACT LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN.
  - FURNISH AND INSTALL 4'X4'X4" CONCRETE HAND HOLE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE LOCATION WITH DUCT BANK ROUTING AND OTHER SITE UTILITIES PRIOR TO ROUGH-IN.
  - TERMINATE COMM. DUCTBANK AT THIS HANDHOLE. EXTENSION OF COMM. DUCTBANK BY OTHERS.
  - COORDINATE EXACT LOCATION WITH SJRA PRIOR TO ROUGH-IN.



**SERVICE #1/#2 PARTIAL PLAN - ELECTRICAL** 2  
NOT TO SCALE 01E-100

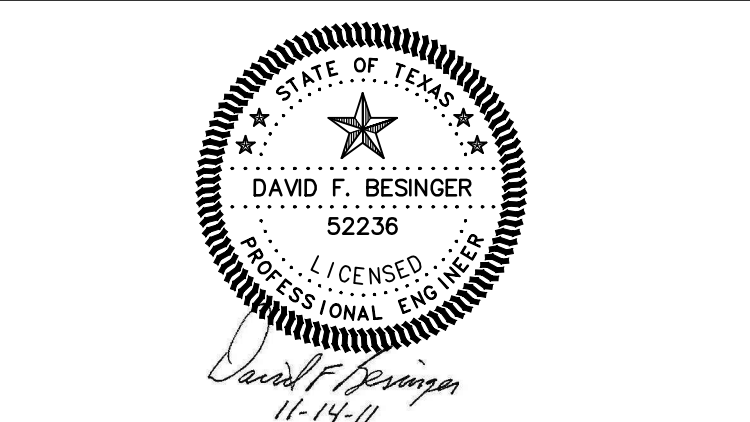


**(FUTURE TRAILERS) DISC. SWITCH PARTIAL PLAN - ELECTRICAL** 3  
NOT TO SCALE 01E-100

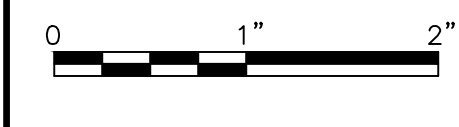


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09-21-2011	100% REVIEW SUBMITTAL	
08-12-2011	100% FINAL SUBMITTAL	

PROJECT MANAGER	W. WARD
DESIGNED BY	D. BESINGER
DRAWN BY	M. WARLEN
CHECKED BY	D. BESINGER
PROJECT NUMBER	00000000162444

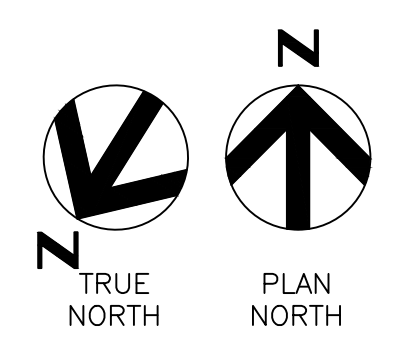
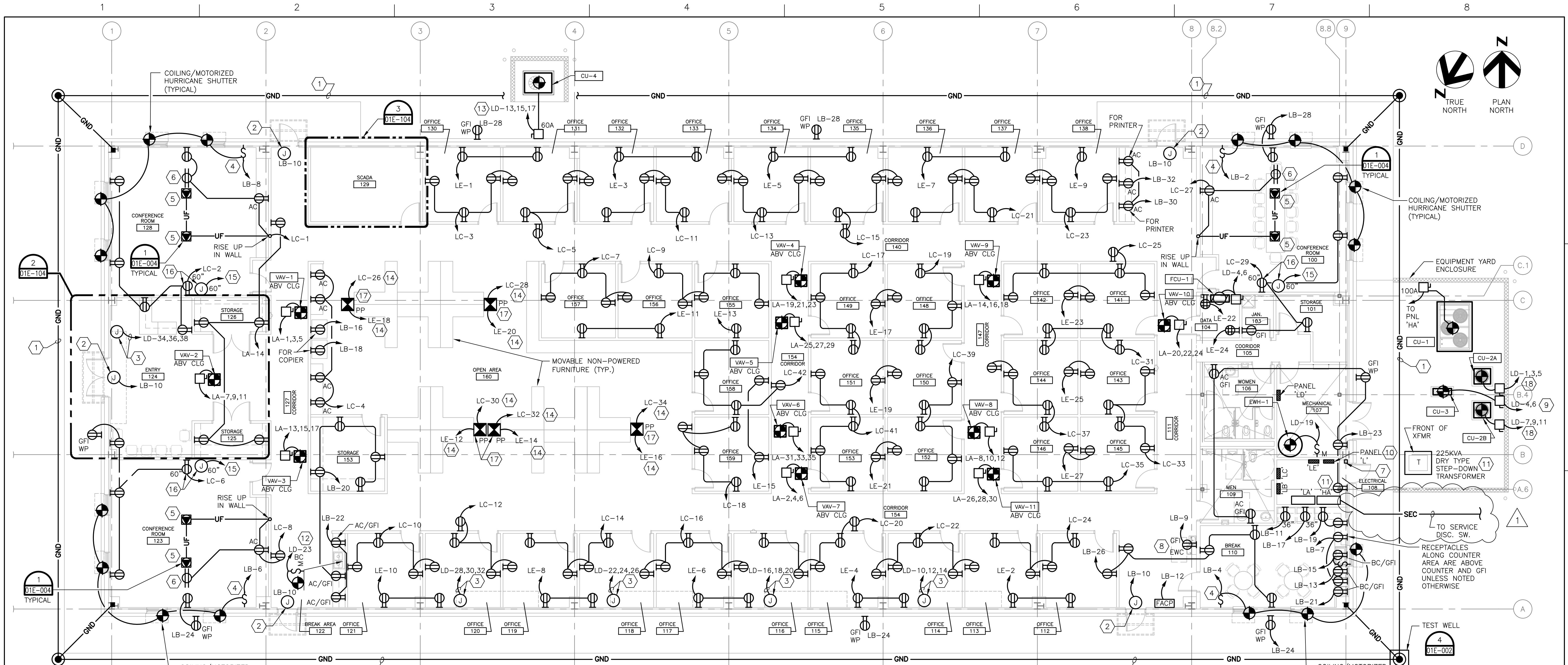


**SAN JACINTO RIVER AUTHORITY**



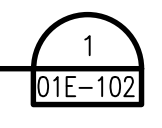
FILENAME 01E-100.dwg  
SCALE 1" = 50'-0"

SHEET  
**01E-100**



**FIRST FLOOR PLAN - POWER**

SCALE: 1/8" = 1'-0"



**GENERAL NOTES - POWER:**

1. NO MORE THAN THREE CIRCUITS PER "HOMERUN" SHALL BE INSTALLED.
2. MINIMUM SIZE CONDUIT PER HOMERUN SHALL BE 3/4".
3. ROUTE MINIMUM #10 CONDUCTORS FOR 120V CIRCUITS 75 FEET OR MORE.
4. CONDUITS SHALL BE INSTALLED PERPENDICULAR AND PARALLEL TO BUILDING LINES.
5. CONDUITS STUBBED-UP INTO CEILING SPACE SHALL BE FURNISHED WITH PLASTIC BUSHING AT END OF CONDUIT.
6. EXPOSED CONDUIT INSTALLATIONS ON THE EXTERIOR OF THE BUILDING ARE NOT ALLOWED.
7. THE REQUIREMENTS OF AMP RATING AND NEMA CONFIGURATION OF SPECIAL PURPOSE RECEPTACLES SHALL BE COORDINATED WITH THE ENGINEER.
8. LOCATE 'ABOVE COUNTER' DUPLEX RECEPTACLES ABOVE COUNTER BACKSPLASH.
9. RECEPTACLES CONNECTED TO UPS SHALL BE PROPERLY IDENTIFIED ON FACE PLATE (APPROVED BY ARCHITECT/ENGINEER).
10. SAFETY DISCONNECT SWITCHES SHALL BE MINIMUM 30A/3P UNLESS INDICATED OTHERWISE.

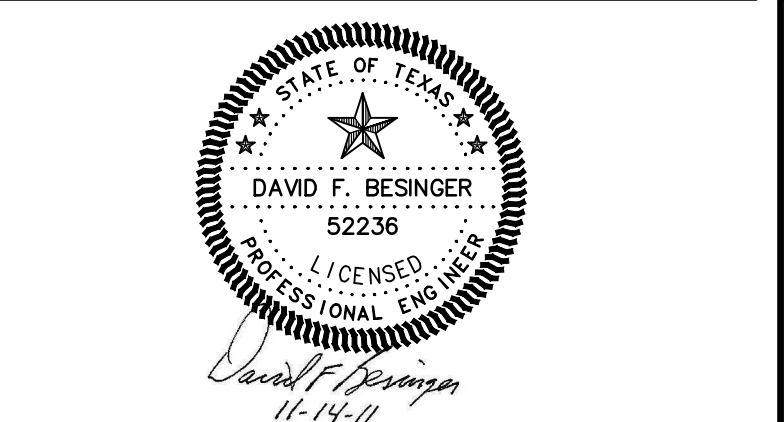
**KEYED NOTES - POWER:**

1. ROUTE #4/0 BARE COPPER GROUND ELECTRODE LOOP AROUND PERIMETER OF BUILDING AT MIN. 30" BFG AND 5'-0" FROM BLDG. WITH STRUCTURAL CONNECTIONS AS INDICATED IN GROUNDING SPECIFICATION. SEE SPECS FOR SPECIFIC GROUNDING REQUIREMENTS.
2. FURNISH AND INSTALL POWER FOR FUTURE MAGNETIC DOOR HOLDER/CARD READER. CIRCUIT WITH OTHER DOOR HOLDERS.
3. FURNISH AND INSTALL RACEWAY (FOR POWER) FOR FUTURE ROLL-UP DOOR ASSEMBLY. LOCATE JUNCTION BOX AT STRUCTURE AND LABEL "ROLL-UP DOOR POWER. ROUTE 1" CONDUIT WITH PULL STRING TO PANEL "LD".
4. FURNISH AND INSTALL A MOTORIZED HURRICANE SHUTTER OPERATION SWITCH WITH 3-POSITION 'UP-OFF-DOWN' CONTROL. COORDINATE WITH SUPPLIER FOR EXACT REQUIREMENTS (CIRCUIT OVERCURRENT PROTECTION AND AMPACITY BASED ON 2AMP LOAD EACH MOTOR. ADJUST AS REQUIRED BASED ON ACTUAL SUPPLIED SHUTTER). ROUTE CIRCUIT THROUGH SHUTTER TIME SWITCH. REFER TO KEYED NOTE 7.
5. FURNISH AND INSTALL A FULLY-ADJUSTABLE CAST IRON RECESSED FLOOR BOX (WIREMOLD CAT. NO. RFB4-CI-1, OR EQUAL). ROUTE A 3/4" CONDUIT WITH CABLEING TO COMM. ROOM FOR DATA AND VOICE. ROUTE 2-#12 CONDUCTORS AND 1-#12 GROUNDING CONDUCTOR IN A 3/4" CONDUIT. RISE UP CONDUITS IN WALL. COORDINATE EXACT LOCATION WITH ARCHITECTURAL AND STRUCTURAL PRIOR TO ROUGH-IN.
6. FURNISH AND INSTALL RECEPTACLE AT CEILING FOR PROJECTOR.
7. FURNISH AND INSTALL DIGITAL TIME SWITCH FOR CONTROL OF SHUTTERS.
8. LOCATE DUPLEX RECEPTACLE BEHIND ELECTRIC WATER COOLER. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
9. ROUTE CONDENSING UNIT CIRCUITRY TO CIRCUIT BREAKER VIA FAN COIL UNIT.
10. FURNISH AND INSTALL 24" SQUARE JUNCTION BOX AT ELEVATION ABOVE CLG. ABOVE FUTURE PNL 'M' LOCATION FOR TERMINATION OF ELEC. UNIT HTR CONDUITS.
11. RELOCATED EQUIPMENT FROM PILOT PLANT PROJECT. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
12. FURNISH AND INSTALL DISCONNECT SAFETY SWITCH FOR INSTANTANEOUS WATER HEATER UNDER-COUNTER. VERIFY EXACT REQUIREMENTS WITH SUPPLIER PRIOR TO ROUGH-IN. ROUTE 2 #10 AND 1 #12 GND IN A 3/4"C.
13. ROUTE 3#6 CONDUCTORS AND 1#10 GROUNDING CONDUCTOR IN A 1"C.
14. ROUTE CIRCUIT TO (2) RECEPTACLES ON POWER POLE.
15. ROUTE 3/4" CONDUIT WITH PULLCORD TO TELEPHONE TERM BOARD IN DATA ROOM (FOR CATV).
16. LOCATE RECEPTACLE AND CATV J-BOX IN CENTER OF WALL.
17. FURNISH AND INSTALL AN ALUMINUM 2-COMPARTMENT 2-CIRCUIT POWER/COMMUNICATIONS POLE. (WIREMOLD CAT. NO. ALTP-20W OFFICE WHITE, OR EQUAL). EXTEND POLE 12" ABOVE CEILING MIN. COORDINATE LOCATION WITH OWNER AND WITH FURNITURE (CUBICLES) LAYOUT PRIOR TO ROUGH-IN. POLE SHALL BE EQUIPPED WITH 4 RECEPTACLES.
18. ROUTE 3 #10 CONDUCTORS AND 1 #12 GROUNDING CONDUCTOR IN A 3/4"C.



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PROJECT NUMBER	00000000162444



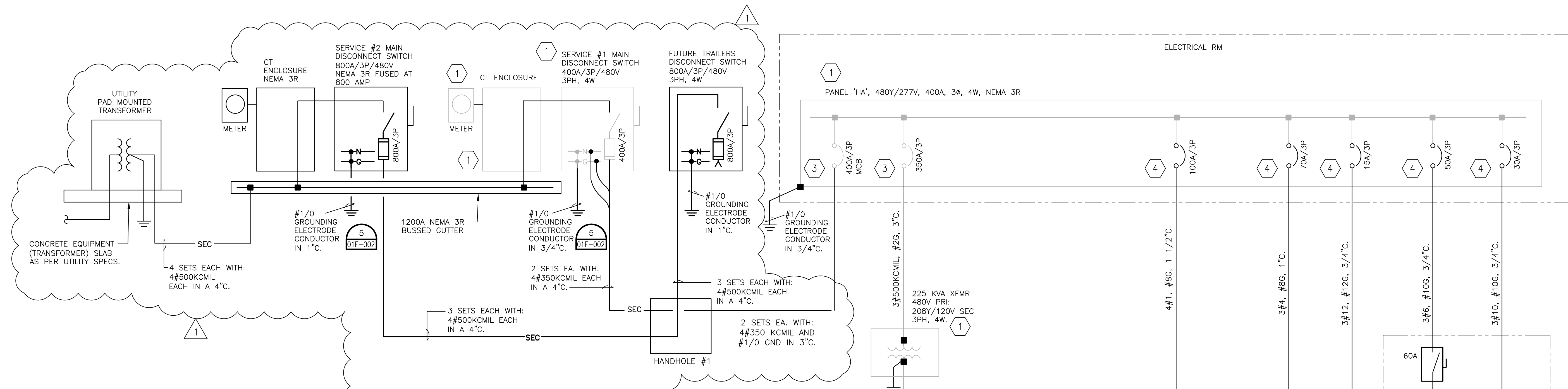
**SAN JACINTO RIVER AUTHORITY**

**GRP BUILDING #1  
ELECTRICAL  
POWER  
FIRST FLOOR PLAN**

0 1" 2"

FILENAME: 01E-102.dwg  
SCALE: 1/8" = 1'-0"

SHEET  
**01E-102**



**SERVICE #1  
LOAD ANALYSIS**

	VOLT-AMPS (VA)
<b>A/C EQUIPMENT</b>	
• AHU-1	27,886
• AHU-2	16,732
• CU-1 (AT 125%)	53,001
• CRAC-1	8,730
• SMALL COND UNITS	29,959
<b>VAV BOXES (W/ELEC HEAT) (42,996VA)</b>	-
<b>WATER HEATERS</b>	5,880
<b>RECEPTACLE LOAD (58,660 TOTAL)</b>	
• 1ST 10,000VA AT 100%	10,000
• REMAINDER AT 50%	24,330
<b>LIGHTING LOAD (100%)</b>	14,550
<b>MISC. EQUIPMENT LOAD</b>	31,525
<b>FUTURE EQUIPMENT</b>	30,075
<b>SUBTOTAL LOAD</b>	252,668VA
<b>TOTAL LOAD - AMPS AT 480V, 3PH.</b>	304 AMPS

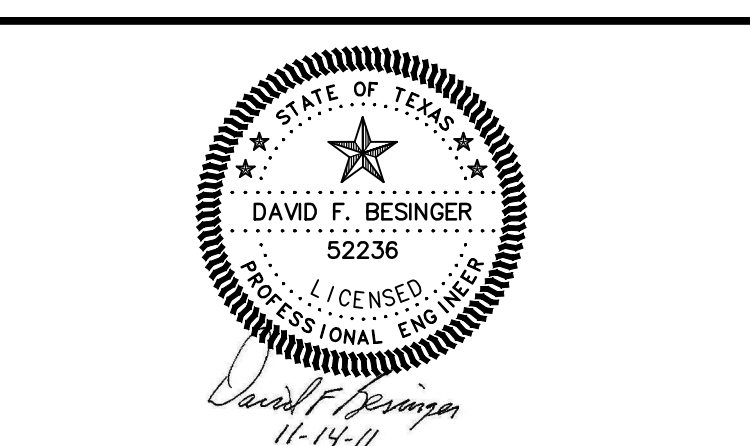
**ONE-LINE DIAGRAM - ELECTRICAL**  
NOT TO SCALE

- KEYED NOTES - ONE-LINE DIAGRAM:
- 1 EQUIPMENT IS EXISTING TO BE RELOCATED TO LOCATION AS INDICATED ON FLOOR PLANS, FROM PILOT PLANT (SJRA). COORDINATE WITH SJRA.
  - 2 VFD FURNISHED AS PART OF AHU-1, BY MECHANICAL.
  - 3 EXISTING CIRCUIT BREAKER.
  - 4 INSTALL CIRCUIT BREAKER IN AVAILABLE SPACE WITHIN EXISTING PANEL. BREAKER AIC RATING TO MATCH EXISTING AIC RATING OF EXISTING BREAKERS.



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PROJECT NUMBER	00000000162444



**GRP BUILDING #1  
ELECTRICAL  
ONE-LINE DIAGRAM**

0 1" 2"

FILENAME	01E-600.dwg	SHEET
SCALE	1/8" = 1'-0"	<b>01E-600</b>