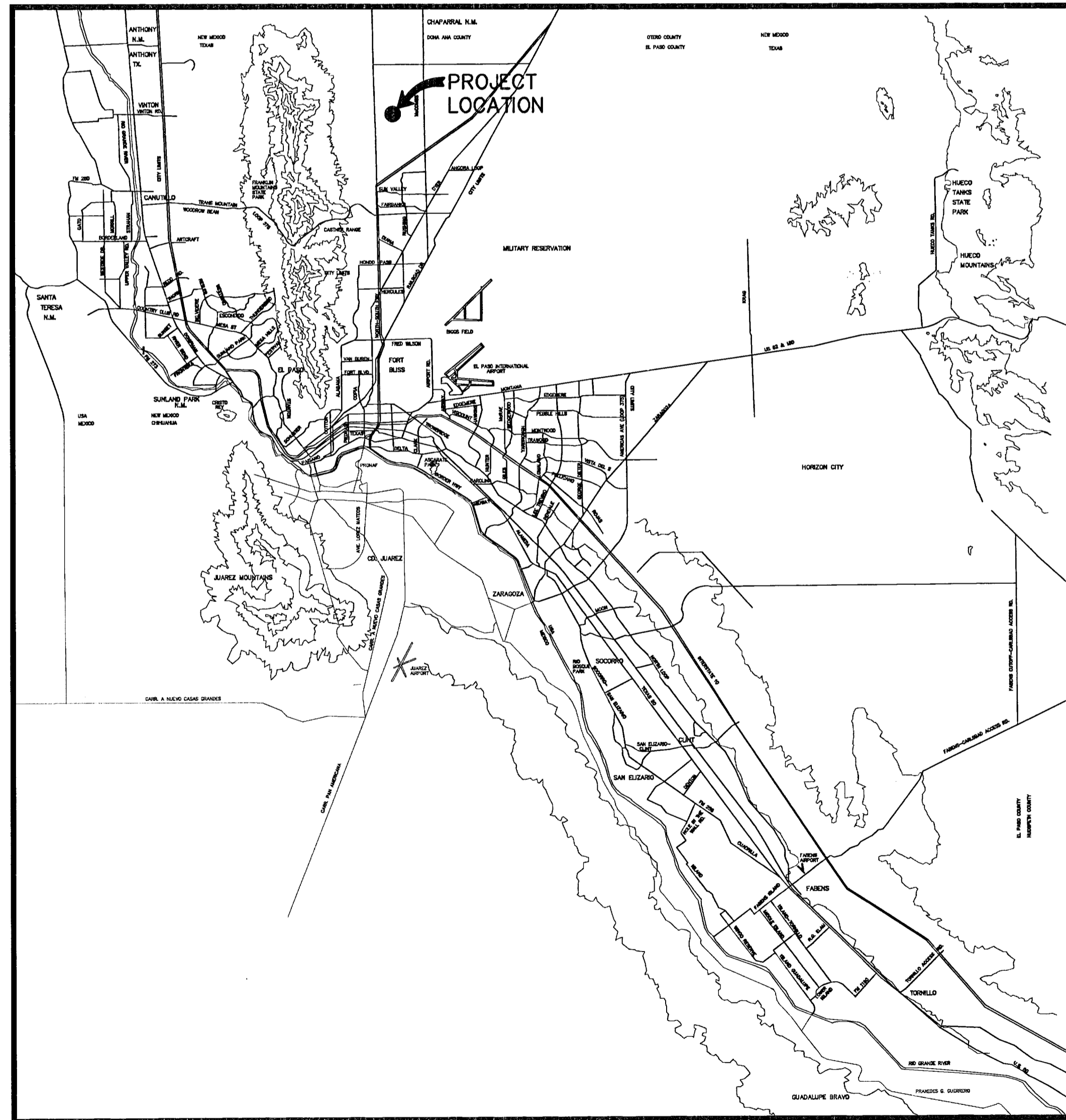


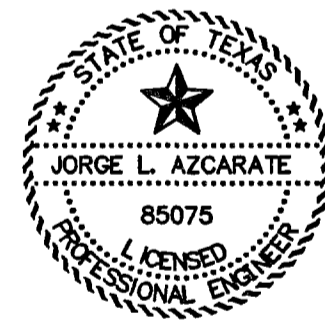
SANDSTONE RANCH UNIT EIGHT SUBDIVISION IMPROVEMENTS

**A PORTION OF SECTION 22, BLOCK 81, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD CO.
SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS; CONTAINING 25.93± ACRES**



VICINITY MAP
APPROXIMATE SCALE:
1" = 2 MILES

SHEET NUMBER	SHEET TITLE
CVR	COVER SHEET, GENERAL INFORMATION
C1.1	GENERAL NOTES, GRADING SPECIFICATIONS
C2.1	FINAL PLAT
C3.1	GRADING PLAN
C4.1	DRAINAGE PLAN
C5.1	GRADING SECTIONS
C6.1 - C6.10	STREET PLAN & PROFILES
C7.1, C7.2	STORM SEWER PLAN & PROFILES
C8.1	SANITARY SEWER INDEX / GENERAL INFORMATION
C9.1 - C9.3	SANITARY SEWER PLAN & PROFILES
C10.1	WATER INDEX / GENERAL INFORMATION
C11.1 - C11.3	SANITARY SEWER DETAILS
C12.1 - C12.5	WATER DETAILS
C13.1 - C13.3	STANDARD DETAILS
C14.1, C14.2	DRAINAGE DETAILS
C15.1	ILLUMINATION PLAN
C16.1 - C16.3	SWPPP
L-1 - L-2	LANDSCAPE & IRRIGATION PLANS



Jorge L. Azcarate
3/10/11

JORGE L. AZCARATE, P.E. PROJECT MANAGER

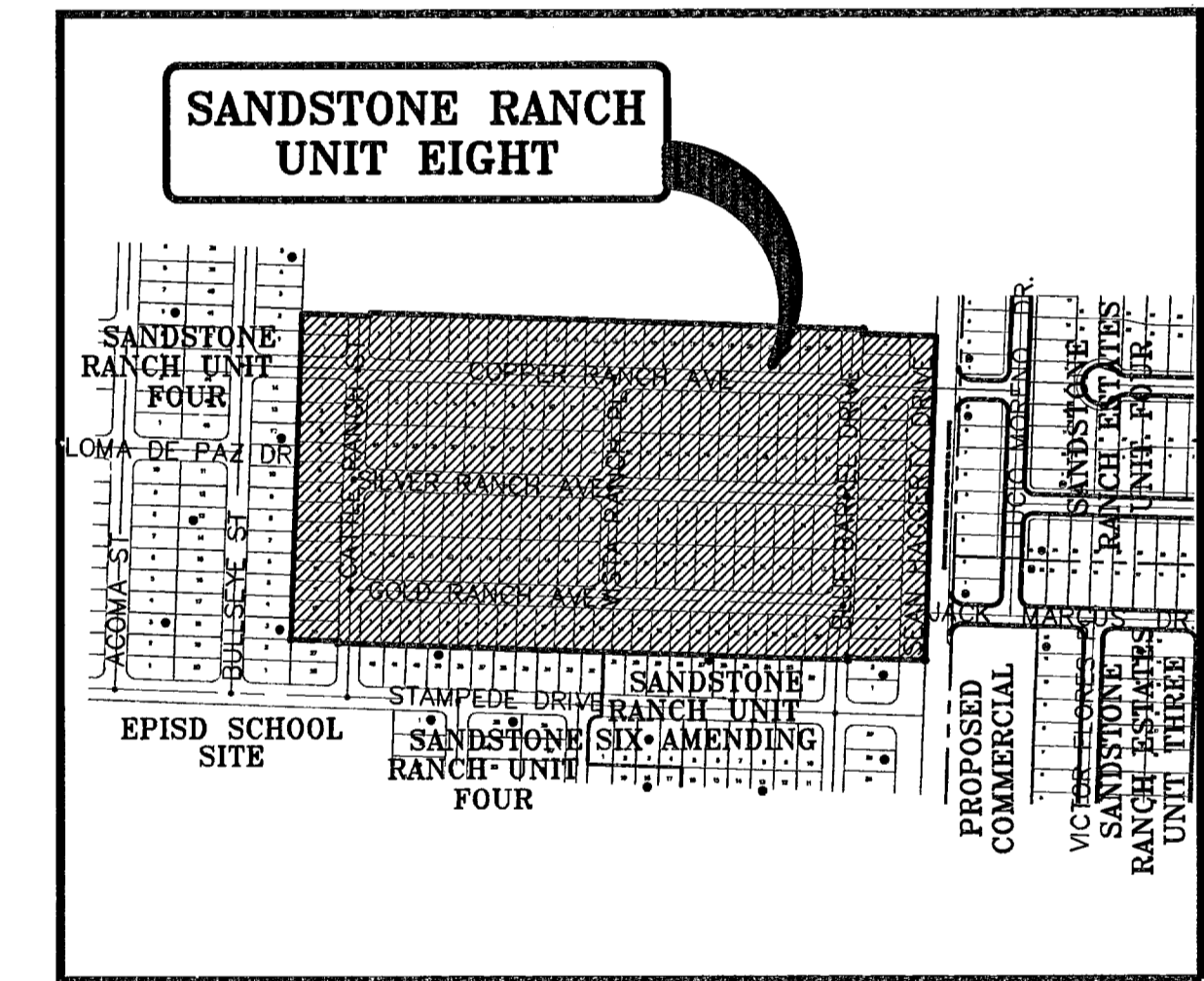


cea
group
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4564

4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.ceagroup.net

PRINCIPAL CONTACTS:

	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	TROPICANA DEVELOPMENT INC.	4655 COHEN AVE.	EL PASO, 79924	(915) 821-3550	(915) 821-3556
ENGINEER:	CEA GROUP	4712 WOODROW BEAN, STE. F	EL PASO, 79924	(915) 544-5232	(915) 544-5233
SURVEYOR:	BARRAGAN & ASSOCIATES	10950 PELLICANO BLDG F	EL PASO, 79935	(915) 591-5709	(915) 591-5706



LOCATION MAP
APPROXIMATE SCALE:
1" = 600'

DEVELOPMENT SERVICES DEPARTMENT
SITE PLAN REVIEW
Reviewed For Conformance For Conditions Related To:
 Demolition Only
 Grading & Drainage
 Wheelchair Ramps
 On Site Parking Layout
 Sidewalks
 Driveways
 Retaining Rock Walls
 On-Site Ponding of Storm Waters
 Contractor Must Call 24 Hours Prior To Construction For Inspection
 BY: *J. Azcarate* DATE: 3/10/11

SANDSTONE RANCH UNIT EIGHT				
COVER SHEET				
DATE PREPARED	DRAWN BY:	DESIGN BY:	CHECKED BY:	APPROVED BY:
JANUARY 2011	A.C.	G.R.	G.R.	J.L.A.
REVISION NUMBER	SHEET NAME OR NUMBER	DESCRIPTION OF REVISION	DATE OF REVISION	REVISION APPROVED BY:

103177

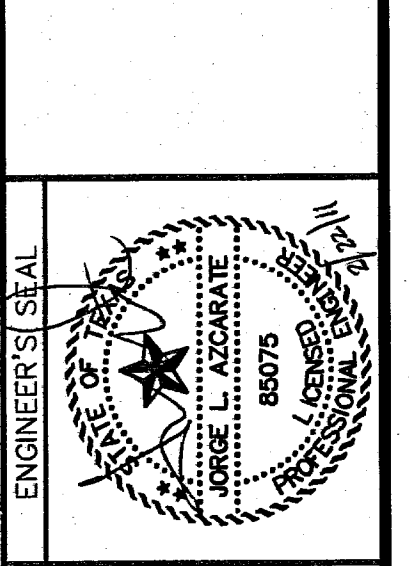
SANDSTONE RANCH UNIT 8

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 498-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3788
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING!
BEFORE YOU DIG
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM).



SCALE: Horizontal: Vertical: Contour: Interval: N/A
DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: G.R.
CHKD BY: J.L.A.
APPVD BY: J.L.A.
JOB No. 2000-127-LD

PROJECT NAME
SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS

SHEET TITLE
GRADING PLAN

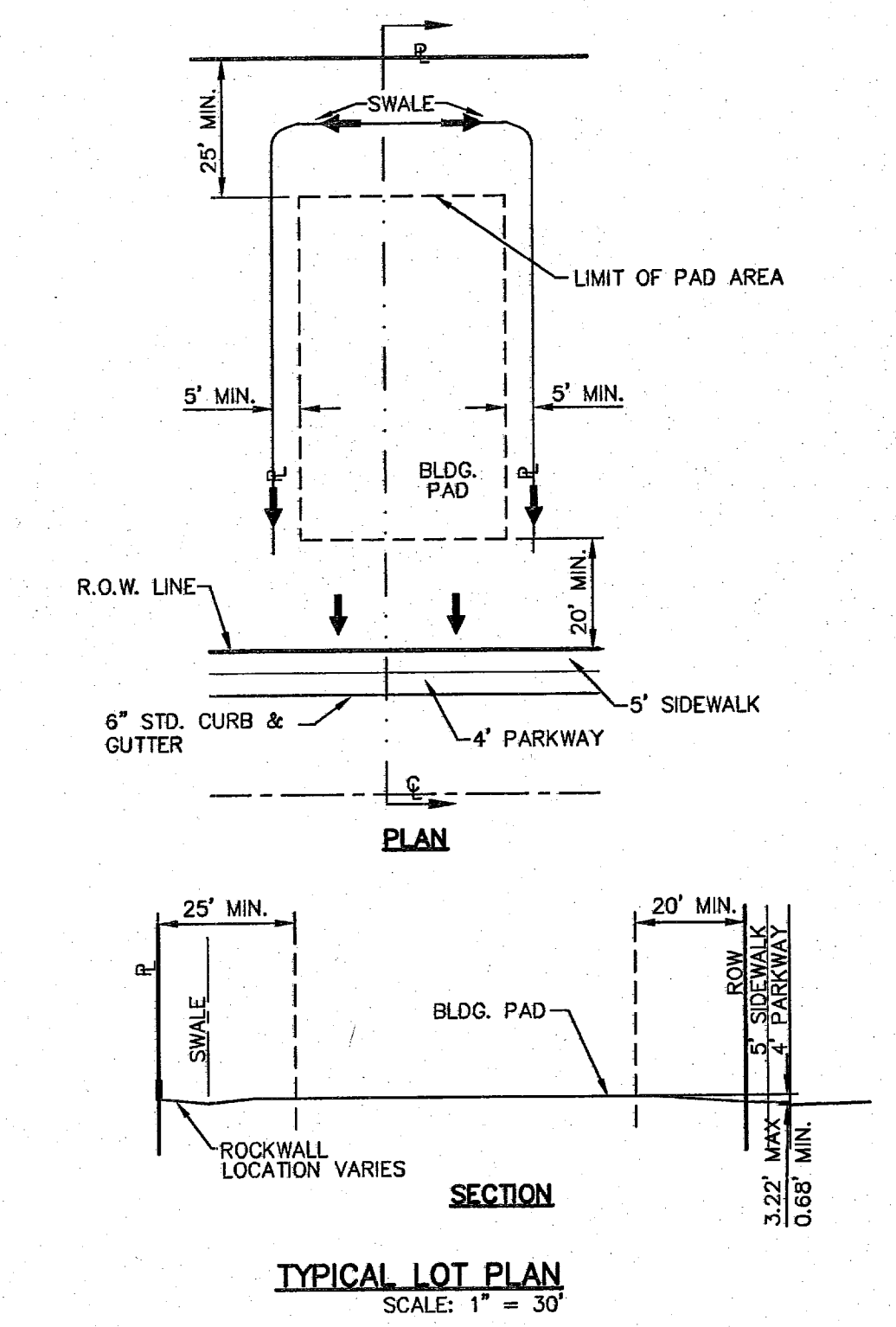
SHEET NO.
C3.1

- LEGEND:**
- >—>—> EXISTING RETAINING WALL
 - >—>—> NEW RETAINING ROCKWALL (2'-3' IN HEIGHT)
 - >—>—> NEW RETAINING ROCKWALL (3'-9' IN HEIGHT)
 - >—>—> 5' X 5' WHEELCHAIR PASSING
 - >—>—> EXISTING MINOR CONTOUR
 - 4075 EXISTING MAJOR CONTOUR
 - >—>—> PROPOSED MINOR CONTOUR
 - 4075 PROPOSED MAJOR CONTOUR

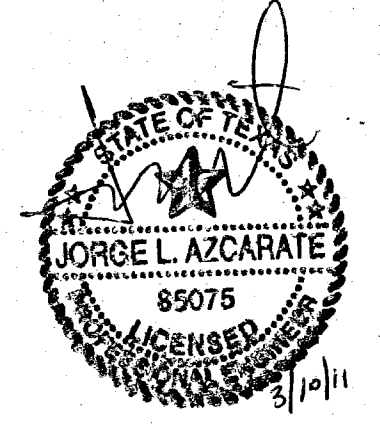
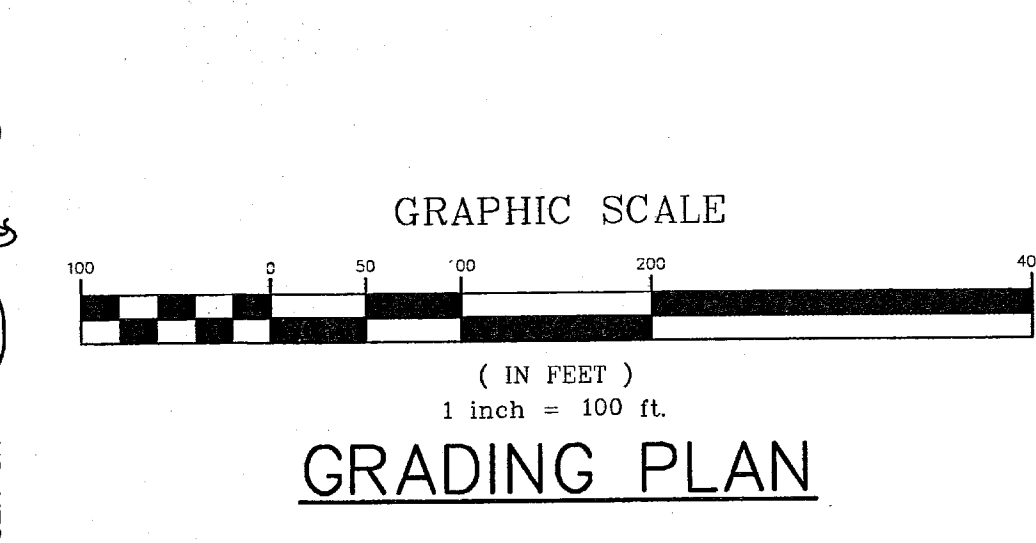
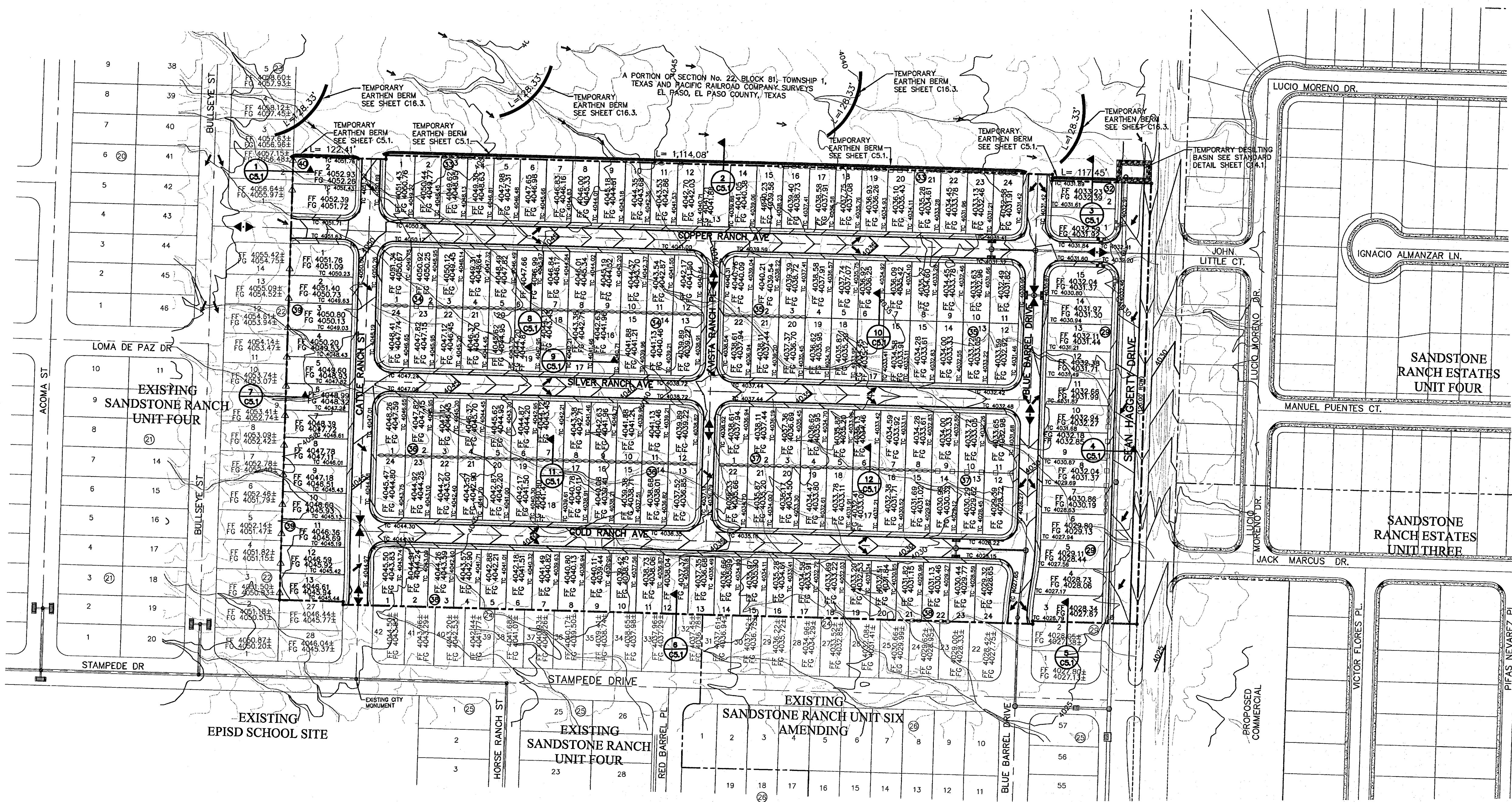
- NOTES:**
- RETAINING WALLS SHALL BE CONSTRUCTED FOR VERTICAL GRADES GREATER THAN 2'-FEET.
 - ALL RETAINING WALLS NOT SPECIFIED TO BE CONSTRUCTED BY DEVELOPER, SHALL BE BUILT BY BUILDER.
 - DEVELOPER SHALL COMPLY WITH SECTION 13.08.170 (EXCESSIVE PAVING CUTS) OF THE EL PASO MUNICIPAL CODE.
 - IMPROVEMENTS SHALL NOT BE PLACED ON SIDEWALK (NDBC'S, SIGNS, POLES, FIRE HYDRANTS, ETC.).
 - IMPROVEMENTS SHALL COMPLY WITH T.A.S./A.D.A. STANDARDS
 - U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS.
 - EXISTING PAVEMENT SHALL BE DEMOLISHED TO THE CURB RETURNS. CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO NOT DAMAGE ADJACENT PROPERTY. ANY DAMAGE SHALL BE REPAIRED AT ORIGINAL OR BETTER CONDITION AT CONTRACTOR'S EXPENSE.
 - ALL WHEELCHAIR RAMPS WILL BE CONSTRUCTED BY DEVELOPER AS PART OF SUBDIVISION IMPROVEMENTS.
 - RETAINING ROCKWALLS (PORTIONS) IN EXCESS OF 4' HIGH TO BE BUILT BY DEVELOPER.
 - OWNER / DEVELOPER SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL OFF-SITE TEMPORARY EARTHEN BERMS AND DRAINAGE STRUCTURES.

BENCHMARK:
FOUND TxDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

FLOOD ZONE:
THIS SUBDIVISION LIES WITHIN ZONE "C", AS DESIGNATED IN PANEL NO. 480214-0014.D, DATED AUGUST 5, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "C" INDICATES AREAS OF MINIMAL FLOODING.



- NOTES:**
- DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FEET AND 14% MAX. THEREAFTER (DRIVEWAY SHALL BE LOCATED @ HIGH SIDE OF LOT UNLESS OTHERWISE COORDINATED WITH CITY OF EL PASO)



UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 690-7200
SPC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING!
BEFORE YOU DIG

CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

NOTE:
OWNER / DEVELOPER SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL OFF-SITE TEMPORARY EARTHEN BERMS AND DRAINAGE STRUCTURES.

FLOOD ZONE:
THIS SUBDIVISION LIES WITHIN ZONE "C", AS DESIGNATED IN PANEL NO. 480214-0014.D, DATED AUGUST 5, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "C" INDICATES AREAS OF MINIMAL FLOODING.

25 YEAR STORM CALCULATIONS FOR WATERSHED AREAS

DRAINAGE AREA NO. (1)	DRAINAGE AREA (AC) (2)	DESIGN STORM INTENSITY (I ₂₅) (3)	TIME OF CONCENTRATION (4)	RUNOFF COEFF. (C) (5)	Q ₂₅ (CFS) (7)
DA-1	3.363	2.98	23.22	0.665	6.67
DA-2	4.049	2.99	23.06	0.676	8.19
DA-3	7.971	2.89	24.48	0.685	15.80
DA-4	1.276	3.11	21.50	0.678	2.69
DA-5	2.971	3.16	20.79	0.666	6.26
DA-6	4.074	3.00	22.90	0.666	8.15
DA-7	1.070	4.33	10.60	0.900	4.17
DA-8	1.806	3.08	21.80	0.793	4.42
OFF-SITE A	3.034	3.16	20.90	0.330	3.16
OFF-SITE B	4.096	3.59	18.24	0.330	4.85

- * Q₂₅ IS BASED ON DEVELOPED RUNOFF
REFERENCE: CITY OF EL PASO SUBDIVISION STANDARDS (3-11-97)
- (1) WATERSHED AREA IDENTIFICATION
 - (2) AREA FROM DRAINAGE PLAN
 - (3) RAINFALL INTENSITY, 25 YEAR STORM => PLATE NO. 2-14
 - (4) TIME OF CONCENTRATION: TC = T (OVERLAND) + T (GUTTER)
 - (5) RUNOFF COEFFICIENT => PLATE NO. 2-10 TABLE A
RESIDENTIAL AREA = 0.90
 - (6) Q₂₅ = C X A X I₂₅

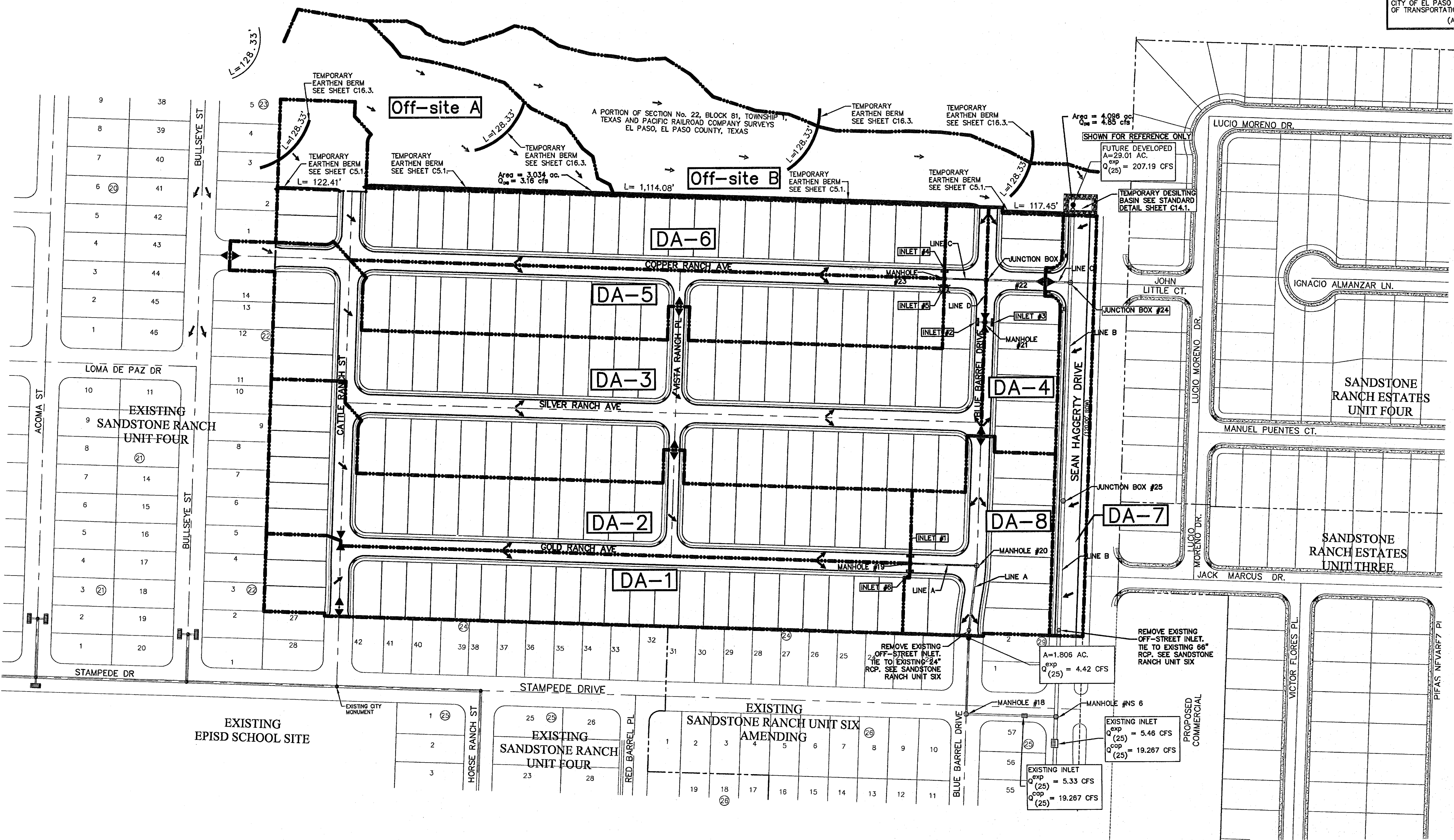
DROP INLETS

NO.	REQ. FLOW CAPACITY Q REQ (CFS)	AVAIL. FLOW CAPACITY Q AVAIL. (CFS)	ADDITIONAL FLOW BYPASS (CFS)	# OF INLETS	TYPE OF INLET
1	8.19	12,000	0	2	I
2	10.27	19,267	0	2	I
3	8.17	19,267	0	2	I
4	8.15	10,800	0	2	I
5	6.26	10,800	0	2	I
6	6.67	12,000	0	2	I

MOMENTUM COMPUTATION

LOCATION @ INLET (1)	DEPTH (2)	VELOCITY (3)	PRODUCT NUMBER (4)
1	0.271	3.689	1.000
2	0.335	2.720	0.911
3	0.335	2.720	0.911
4	0.262	3.915	1.026
5	0.237	3.665	0.869
6	0.251	3.505	0.880

- (1) LOCATION
- (2) DEPTH
- (3) VELOCITY
- (4) PRODUCT NUMBER = DEPTH X VELOCITY



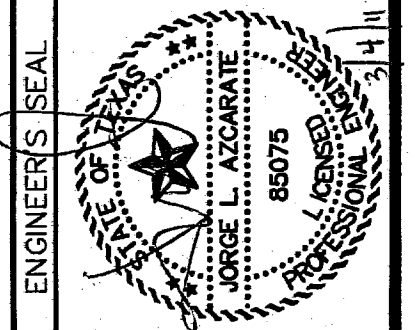
DRAINAGE PLAN
SCALE: 1" = 100'

REFERENCES - BENCHMARKS

FOUND TPOOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

DATE	REVISIONS

CSA GROUP
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4694
4712 Woodrow Bldg. Ste. F El Paso, TX 79904
Office: 915.544.5222 Fax: 915.544.5253 www.csaengineers.com



SCALE: Horizontal: Vertical: Contour Interval: N/A
DATE: FEBRUARY 2011
DESIGN BY: J.L.A.
DRAWN BY: J.L.A.
CHECKED BY: J.L.A.
JOB NO.: 2010-127-1D

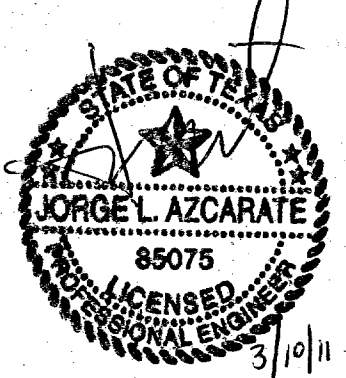
PROJECT NAME
SANDSTONE RANCH UNIT EIGHT SUBDIVISION IMPROVEMENTS

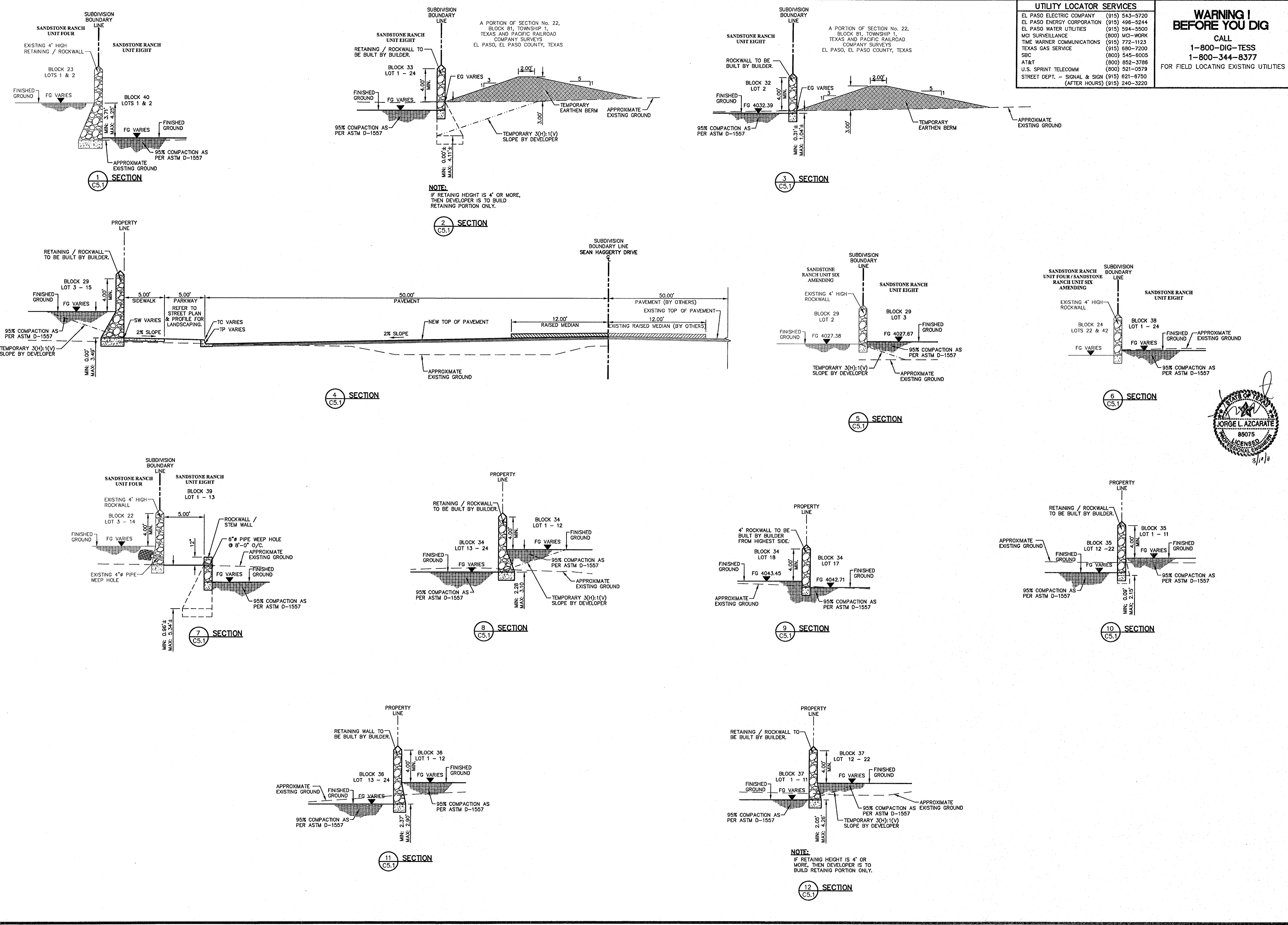
SHEET TITLE

DRAINAGE PLAN

SHEET NO.

C4.1





UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
A&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750 (AFTER HOURS) (915) 240-3220

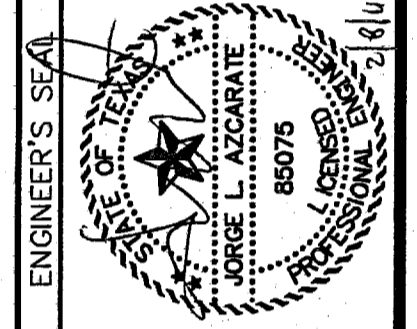
WARNING!
BEFORE YOU DIG
 CALL
 1-800-DIG-TESS
 1-800-344-8377
 FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

FOUND TYPICAL BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

DATE	REVISIONS	BY

CSA GROUP
 engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM F-4664
 4712 Woodrow Branch, Ste. F, El Paso, TX 79924
 Office: 915.544.5232 Fax: 915.544.5233 www.csaengineers.com



SCALE

Horizontal: N/A
 Vertical: Contour Interval: N/A

DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: J.L.A.
 CHECK BY: J.L.A.
 JOB NO.: 2000-197-LD

PROJECT NAME

**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
TYPICAL GRADING SECTIONS
SHEET NO.
C5.1

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750 (AFTER HOURS) (915) 240-3220

**WARNING !
BEFORE YOU DIG**

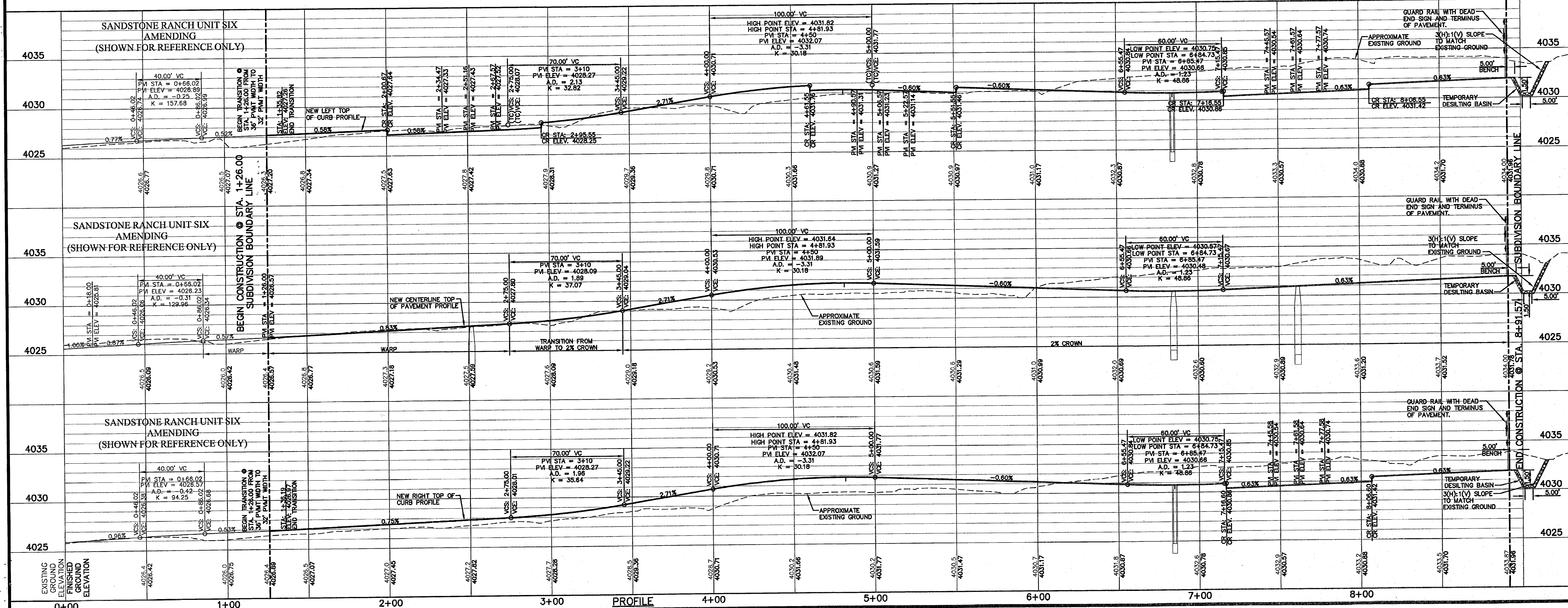
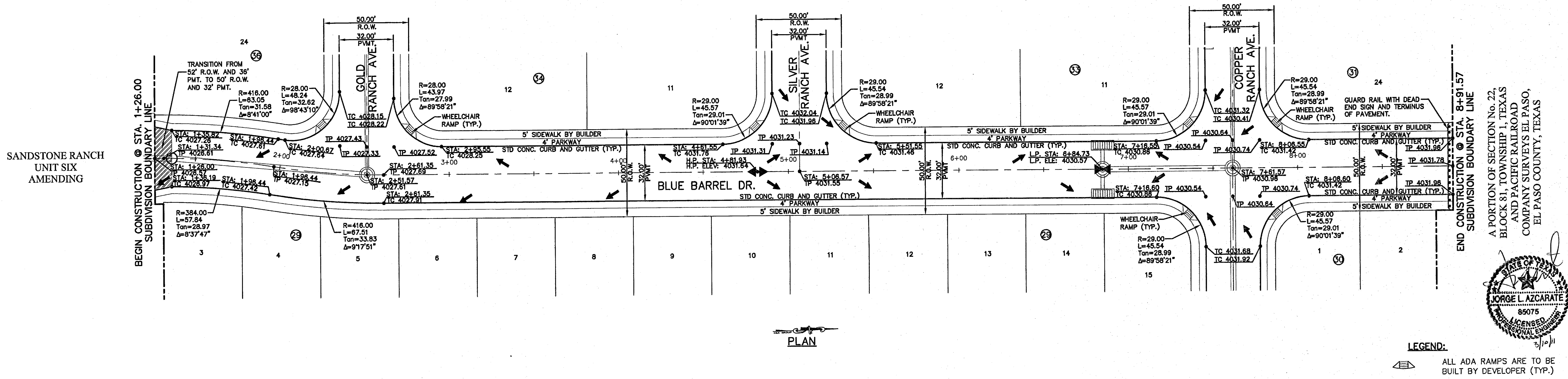
CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

FOUND TYPED BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM).

BY	
REVISIONS	
DATE	



ENGINEER'S SEAL

SCALE: Horizontal: 1"=30', Vertical: 1"=5'

Contour Interval: 3'/4'

DATE: FEBRUARY 2011

DESIGN BY: G.R.

DRAWN BY: J.L.A.

CHKD. BY: J.L.A.

APPVD. BY: J.L.A.

JOB No. 2000-1127-LD

**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

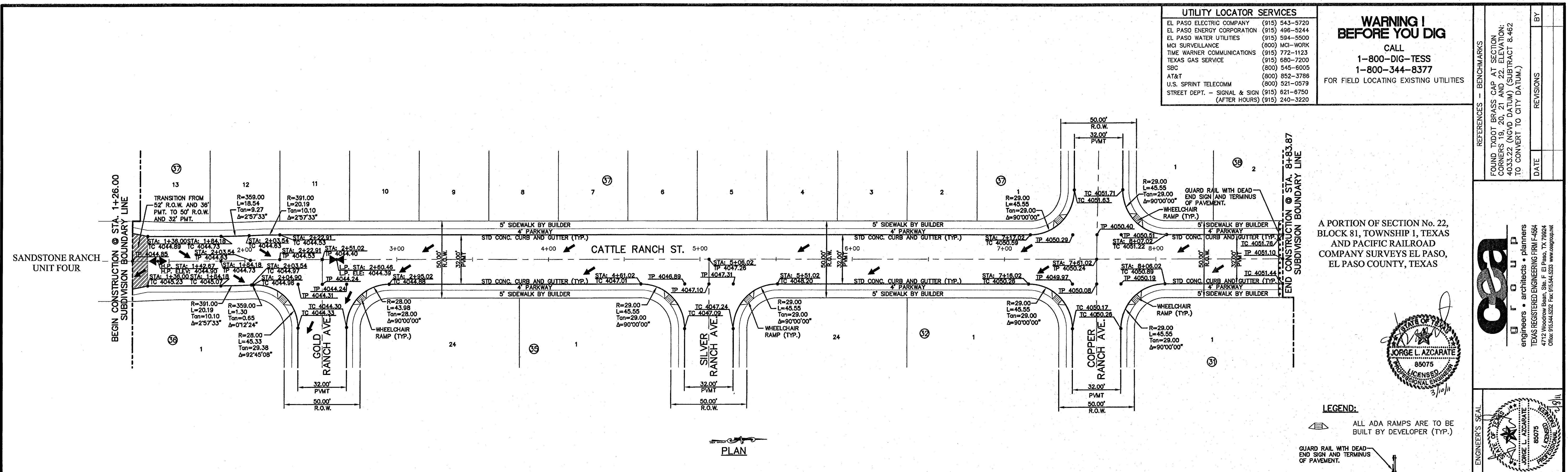
**SANDSTONE RANCH UNIT SIX
AMENDING**

(SHOWN FOR REFERENCE ONLY)

**BLUE BARREL DR.
PLAN & PROFILE
FROM STA. 1+26.00
TO STA. 8+91.57**

SHEET NO. C6.1

103177



UTILITY LOCATOR SERVICES

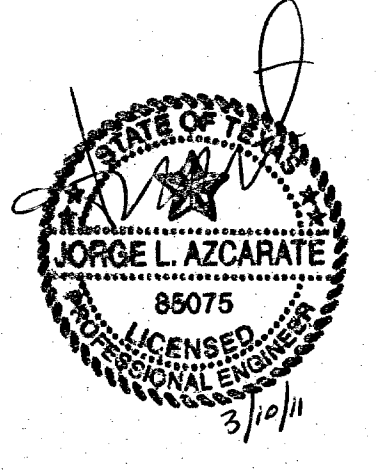
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(900) 521-0579
STREET DEPT. - SIGNAL & SIGN (AFTER HOURS)	(915) 621-6750
	(915) 240-3220

WARNING I BEFORE YOU DIG

CALL
1-800-DIG-TESS
1-800-344-8377

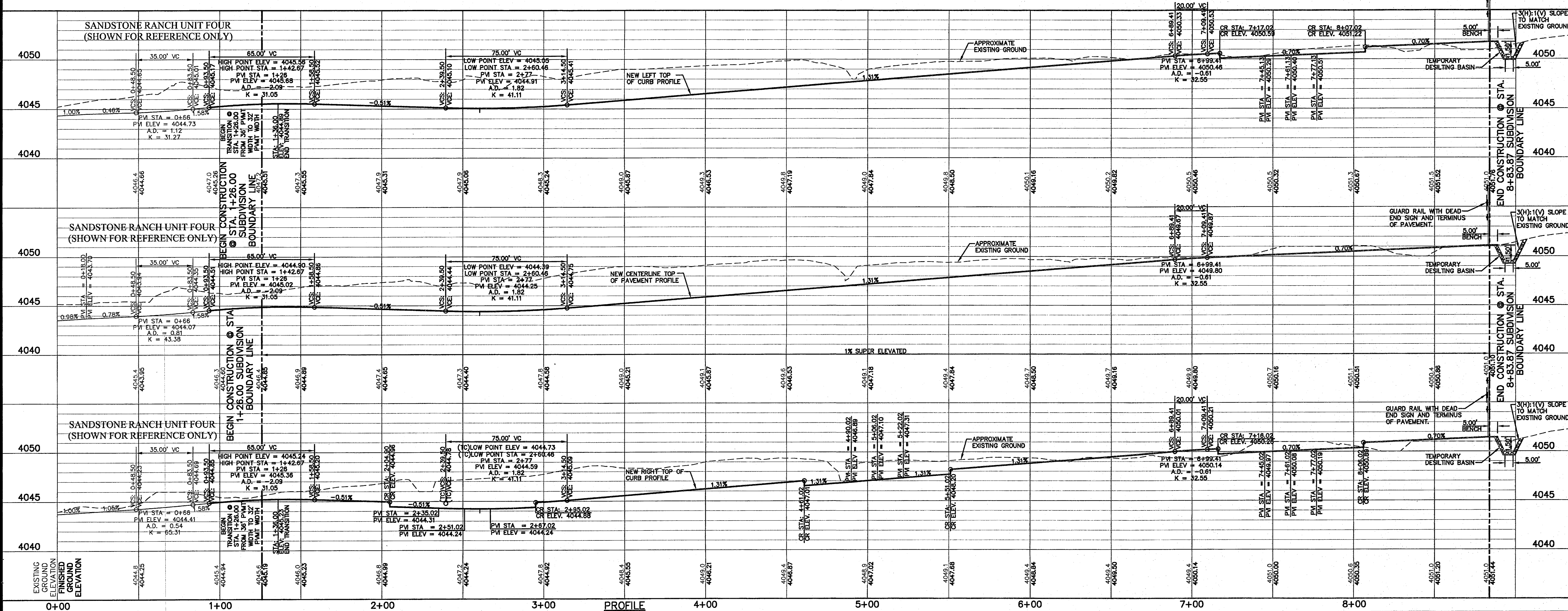
FOR FIELD LOCATING EXISTING UTILITIES

A PORTION OF SECTION No. 22, BLOCK 81, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS EL PASO, EL PASO COUNTY, TEXAS



LEGEND:
ALL ADA RAMP ARE TO BE BUILT BY DEVELOPER (TYP.)

PLAN



REFERENCES - BENCHMARKS

FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM).

DATE	REVISIONS	BY

OS&A

engineers • architects • planners

TEXAS REGISTERED ENGINEERING FIRM #484
4712 Woodrow Bean, Ste. F El Paso, TX 79924
APE NO. 915-544-5202 Fax: 915-544-5203 www.osaeng.com

ENGINEER'S SEAL

SCALE: 1"=30'
Horizontal: 1"=5'
Vertical: 1"=5'
Contour Interval: N/A

DATE: FEBRUARY 2011
DESIGN BY: GR
DRAWN BY: JLA
CHKD. BY: JLA
APE NO. 915-544-5202
JOB NO. 2000-127-LD

SANDSTONE RANCH UNIT EIGHT SUBDIVISION IMPROVEMENTS

SHEET TITLE

CATTLE RANCH ST. PLAN & PROFILE FROM STA. 1+26.00 TO STA. 8+83.87

SHEET NO.

C6.2

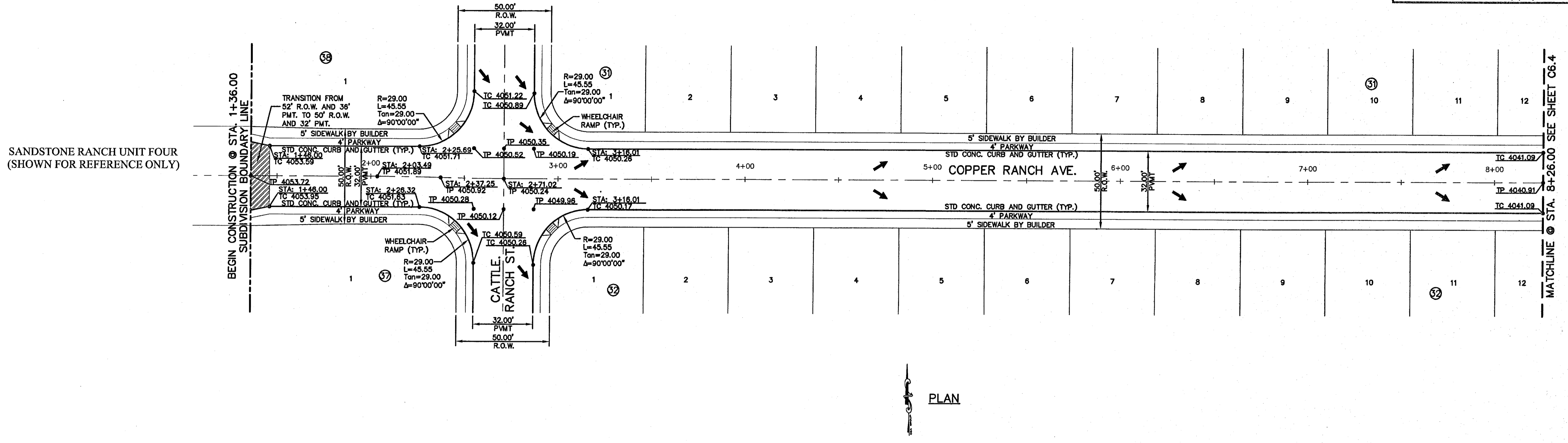
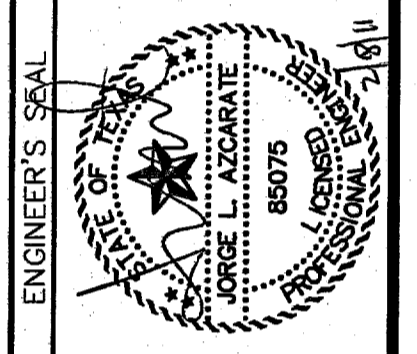
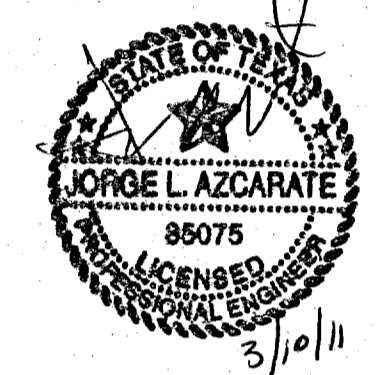
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3798
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
	(AFTER HOURS) (915) 240-3220

WARNING I BEFORE YOU DIG
 CALL
 1-800-DIG-TESS
 1-800-344-8377
 FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

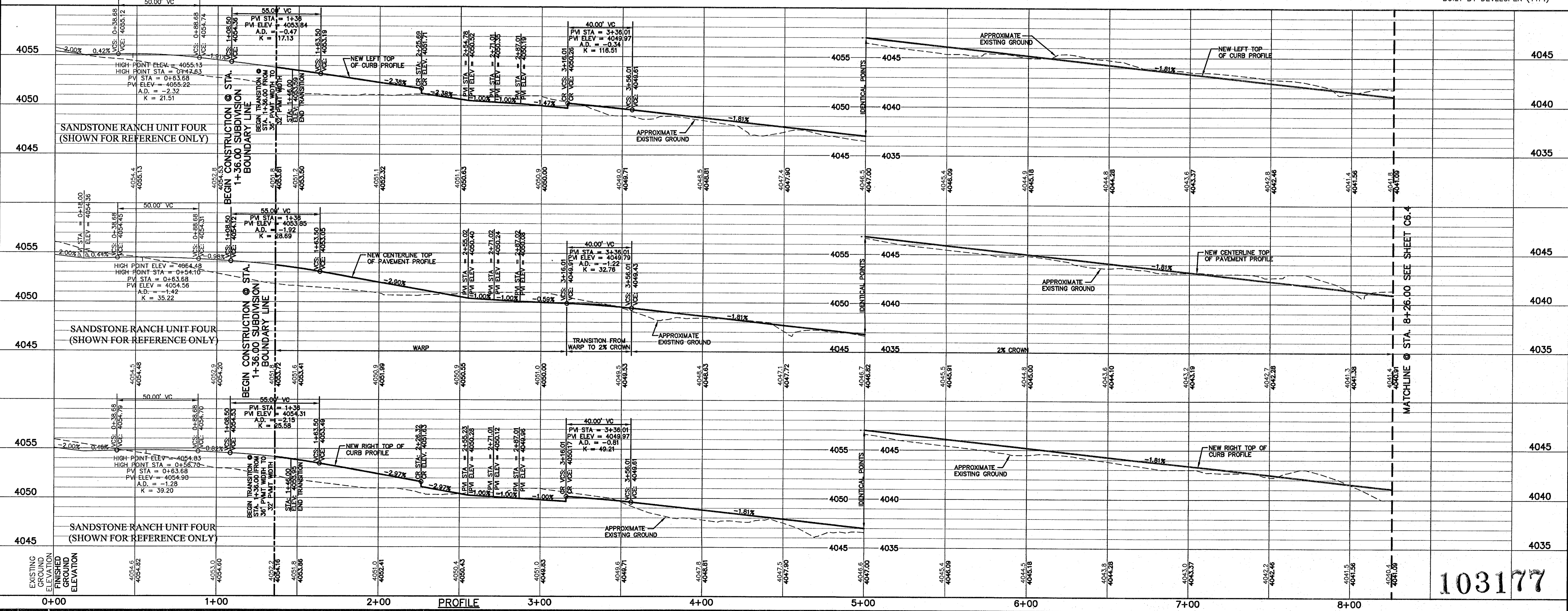
REFERENCES - BENCHMARKS
 FOUND TYPED BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.482 TO CONVERT TO CITY DATUM.)

osa
 engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM #484
 4712 Woodrow Bean, Ste. F El Paso, TX 79904
 Office: 915.544.5252 Fax: 915.544.5233 www.osainc.net



PLAN

LEGEND:
 ALL ADA RAMP ARE TO BE BUILT BY DEVELOPER (TYP.)



SCALE: 1"=30'
 Horizontal: 1"=5'
 Vertical: Interval: 1/4"
 DATE: FEBRUARY 2011
 DESIGN BY: J.L.A.
 DRAWN BY: J.L.A.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-127-1D

PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**COPPER RANCH AVE
 PLAN & PROFILE
 FROM STA. 1+36.00
 TO STA. 8+26.00**

SHEET NO.
103177 C6.3

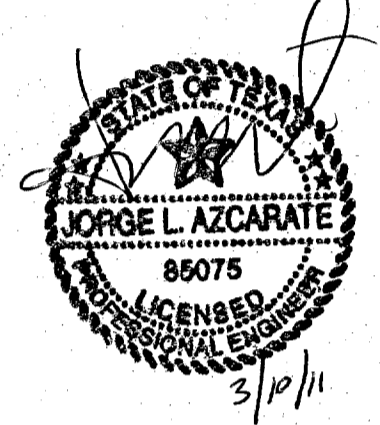
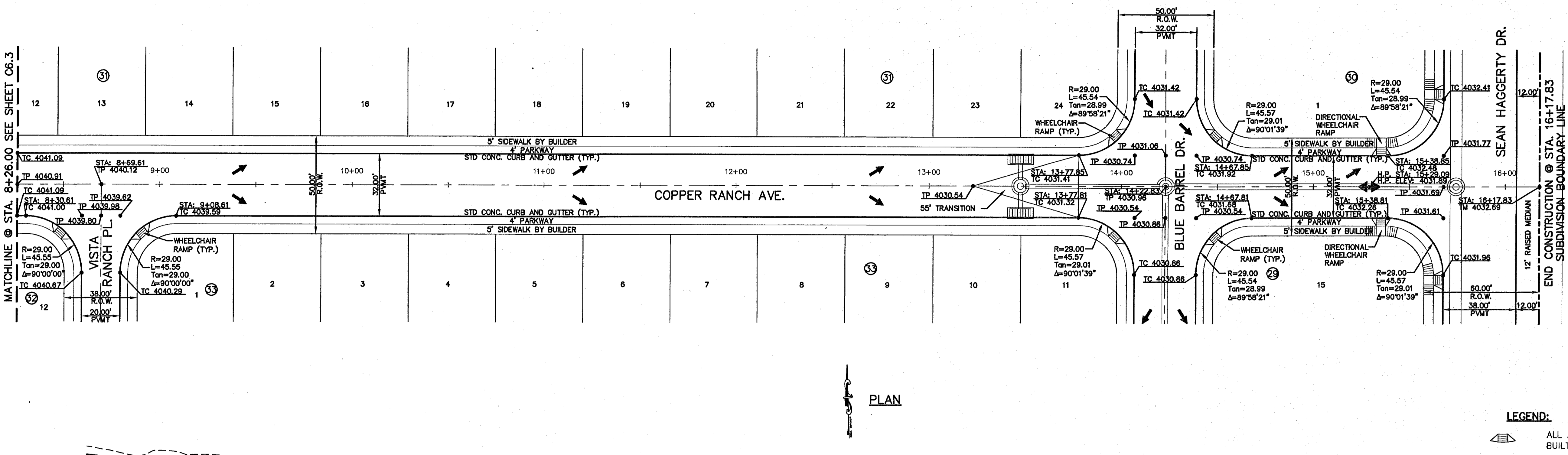
UTILITY LOCATOR SERVICES		
EL PASO ELECTRIC COMPANY	(915) 543-5720	
EL PASO ENERGY CORPORATION	(915) 498-5244	
EL PASO WATER UTILITIES	(915) 594-5500	
MCI SURVEILLANCE	(800) MCI-WORK	
TIME WARNER COMMUNICATIONS	(915) 772-1123	
TEXAS GAS SERVICE	(915) 680-7200	
SBC	(800) 545-6005	
AT&T	(800) 852-3786	
U.S. SPRINT TELECOMM	(800) 521-0579	
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750	
(AFTER HOURS)	(915) 240-3220	

WARNING!
BEFORE YOU DIG

CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY



LEGEND:

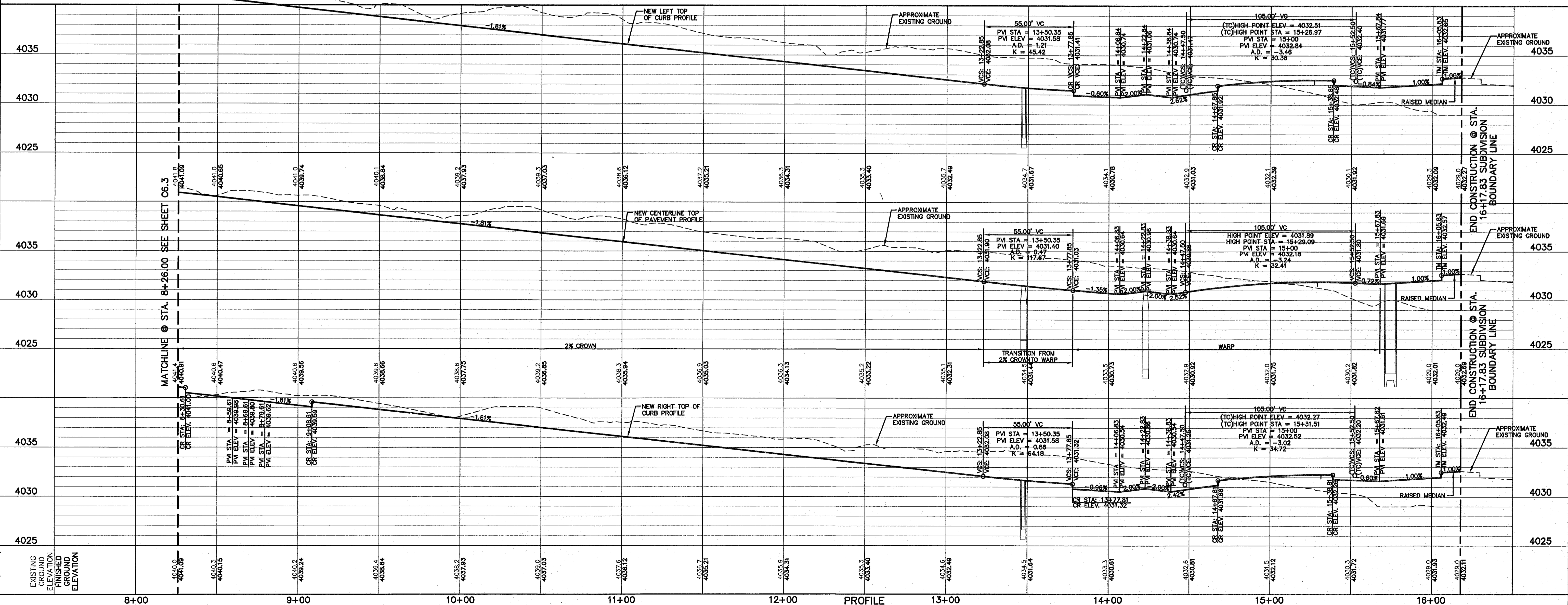
ALL ADA RAMP ARE TO BE BUILT BY DEVELOPER (TYP.)

REFERENCES - BENCHMARKS
FOUND TWOOD BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NOVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

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TEXAS REGISTERED ENGINEERING PRF# 4584
4712 Woodrow Blank, Ste. F El Paso, TX 79924
Office: 915.544.5222 Fax: 915.544.5223 www.csaeng.com

ENGINEER'S SEAL
Jorge L. Azarate
85075
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
3/10/11

PLAN



STATION	EXISTING GROUND ELEVATION	FINISHED GROUND ELEVATION
8+00	4041.08	4041.08
9+00	4040.3	4040.3
10+00	4039.2	4039.2
11+00	4037.6	4037.6
12+00	4035.9	4035.9
13+00	4034.5	4034.5
14+00	4033.3	4033.3
15+00	4032.1	4032.1
16+00	4030.9	4030.9

SCALE: Horizontal: 1"=30'
Vertical: 1"=5'

Contour Interval: N/A
DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APPROV. BY: J.L.A.
JOB No. 2000-127-LD

PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**COPPER RANCH AVE
PLAN & PROFILE
FROM STA. 8+26.00
TO STA. 16+17.83**

SHEET NO.
C6.4

103177

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 521-6750
(AFTER HOURS)	(915) 240-3220

**WARNING !
BEFORE YOU DIG**

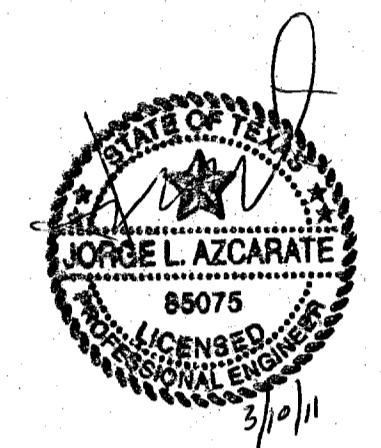
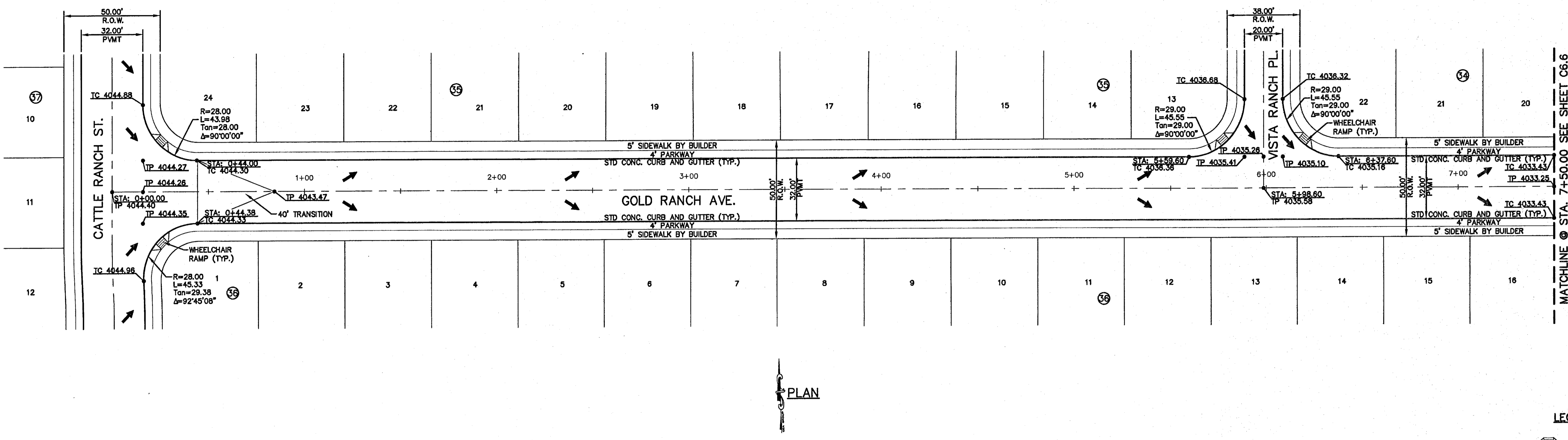
CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

FOUND TROUT BRASS CAP AT SECTION CORNERS 10 BY 20 AND 22
4033.20 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY



OSU
engineers • architects • planners

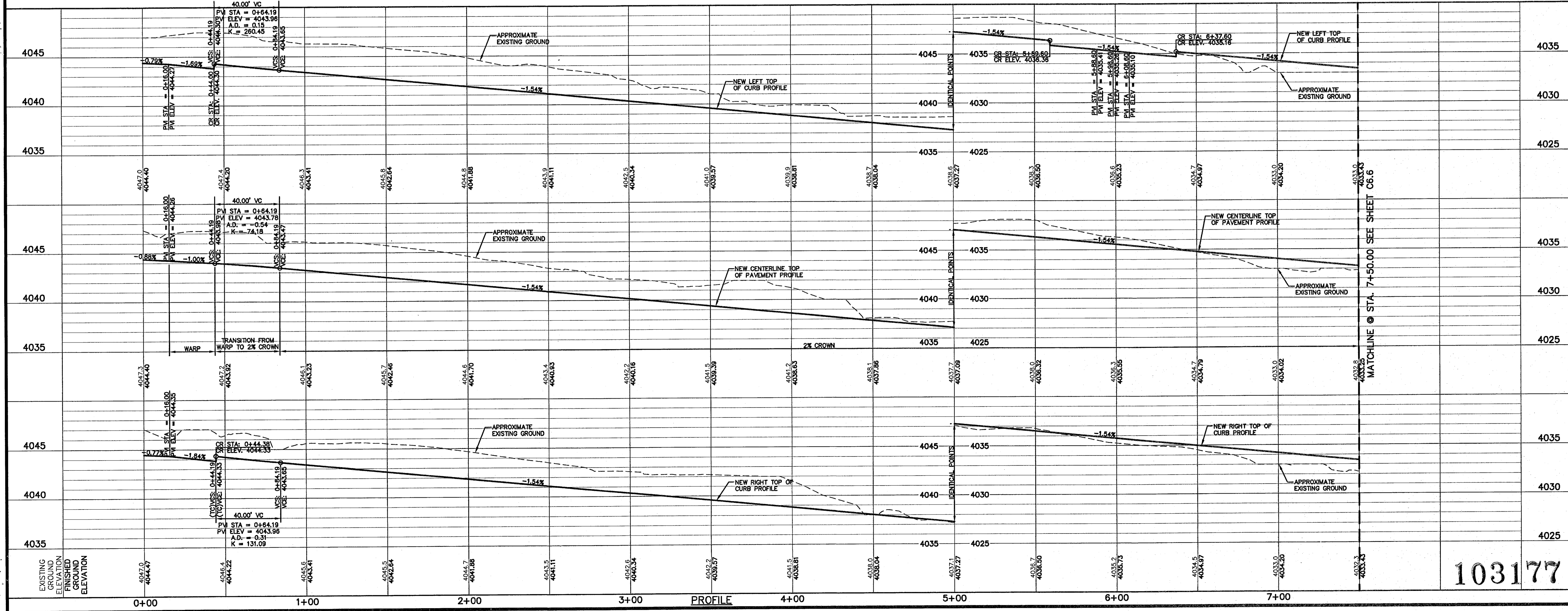
TEXAS REGISTERED ENGINEERING FIRM F-4594
4712 Woodrow Wilson, Ste. F El Paso, TX 79904
Office: 915.544.5232 Fax: 915.544.5233 www.osuengr.com

ENGINEER'S SEAL

DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APPROV. BY: J.L.A.

LEGEND:

ALL ADA RAMP ARE TO BE BUILT BY DEVELOPER (TYP.)



SCALE

Horizontal: 1"=30'
Vertical: 1"=5'

Contour Interval: N/A

DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APPROV. BY: J.L.A.

PROJECT NAME

**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

GOLD RANCH AVE
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 7+50.00

SHEET NO.

103177 C6.5

UTILITY LOCATOR SERVICES

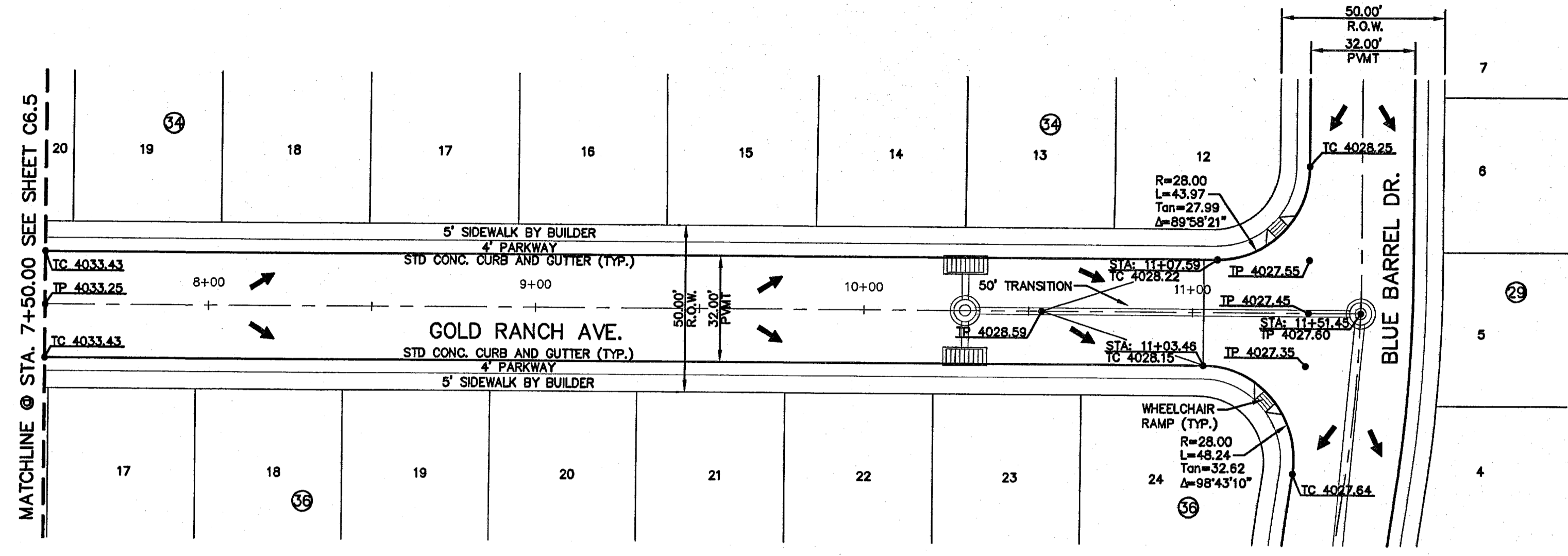
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3788
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING!
BEFORE YOU DIG
 CALL
 1-800-DIG-TESS
 1-800-344-8377
 FOR FIELD LOCATING EXISTING UTILITIES

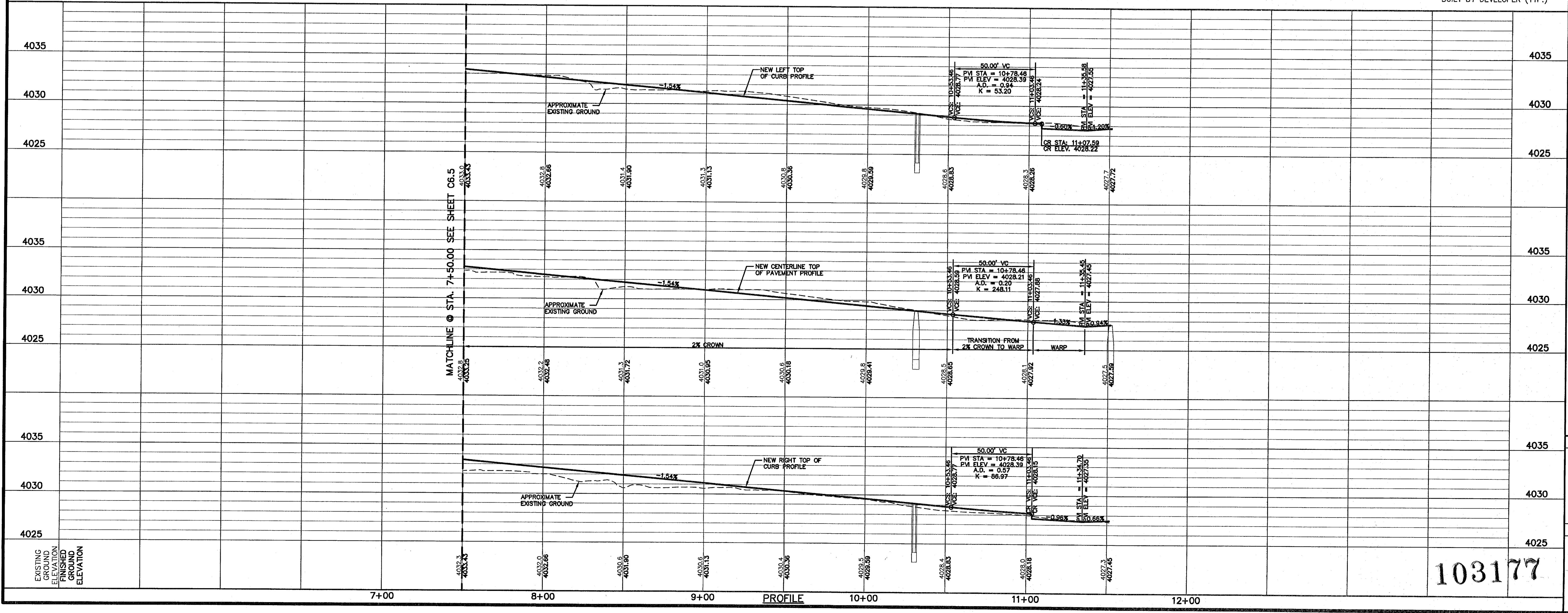
REFERENCES - BENCHMARKS

FOUND TYDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

DATE	REVISIONS	BY



LEGEND:
 ALL ADA RAMP ARE TO BE BUILT BY DEVELOPER (TYP.)



SCALE

Horizontal: 1" = 30'
 Vertical: 1" = 5'
 Contour Interval: N/A

DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: J.L.A.
 CHECKED BY: J.L.A.
 APPVD. BY: J.L.A.

JOB No. 2000-127-LD

PROJECT NAME

**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE

GOLD RANCH AVE
 PLAN & PROFILE
 FROM STA. 7+50.00
 TO STA. 11+51.45

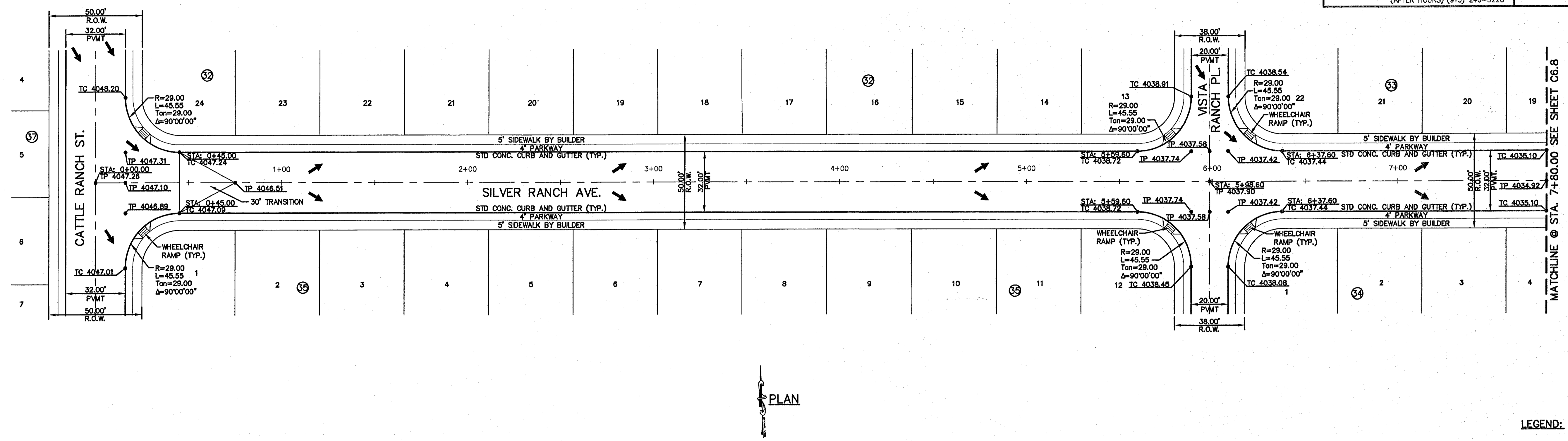
SHEET NO.

103177
 C6.6

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING I BEFORE YOU DIG
 CALL
 1-800-DIG-TESS
 1-800-344-8377
 FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY



LEGEND:
 ALL ADA RAMP ARE TO BE BUILT BY DEVELOPER (TYP.)

REFERENCES - BENCHMARKS
 FOUND TYPED BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

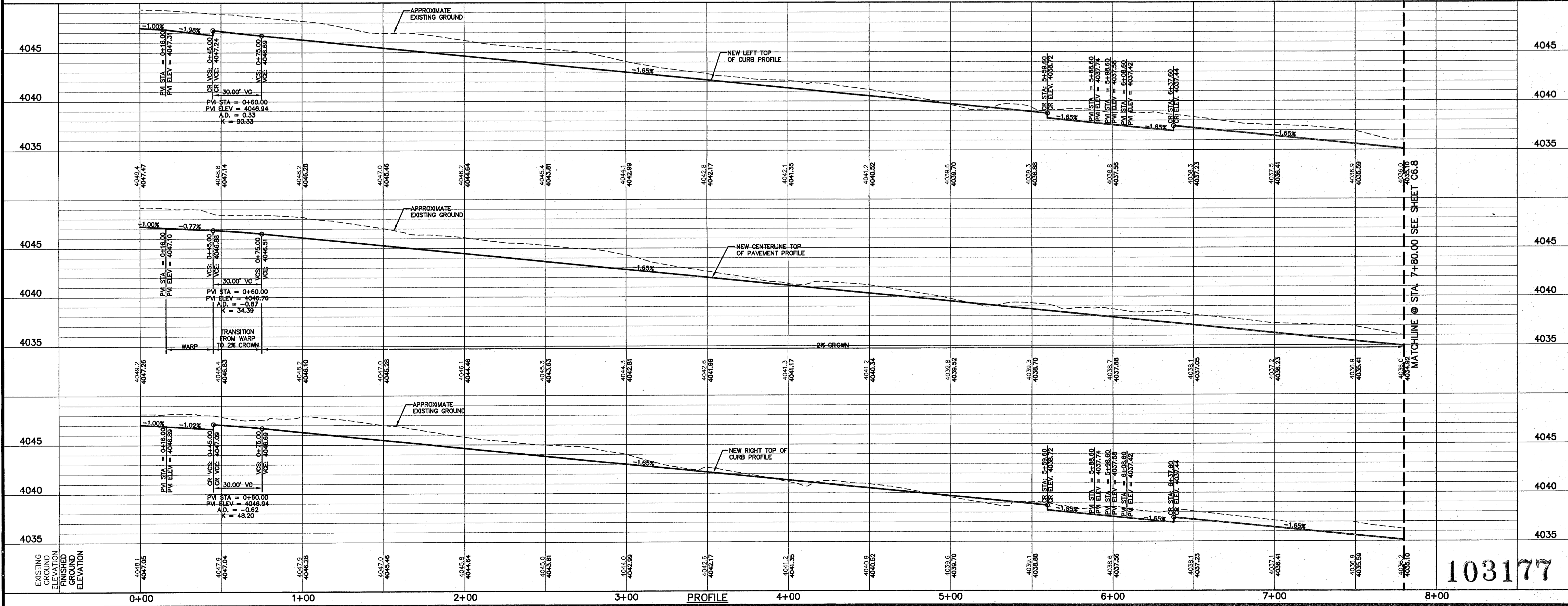
ENGINEER'S SEAL

 JORGE L. AZCARATE
 LICENSED PROFESSIONAL ENGINEER
 85075
 3/1/14

DESIGNER'S SEAL

 JORGE L. AZCARATE
 LICENSED PROFESSIONAL ENGINEER
 85075
 3/1/14

engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM #4564
 4712 Woodrow Bean, Ste. F, El Paso, TX 79904
 Office: 915.544.5232 Fax: 915.544.6333 www.csaeng.com



SCALE	PROJECT NAME	SHEET TITLE	SHEET NO.
Horizontal: 1"=30' Vertical: 1"=5'	SANDSTONE RANCH UNIT EIGHT SUBDIVISION IMPROVEMENTS	SILVER RANCH AVE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 7+80.00	103177 C6.7

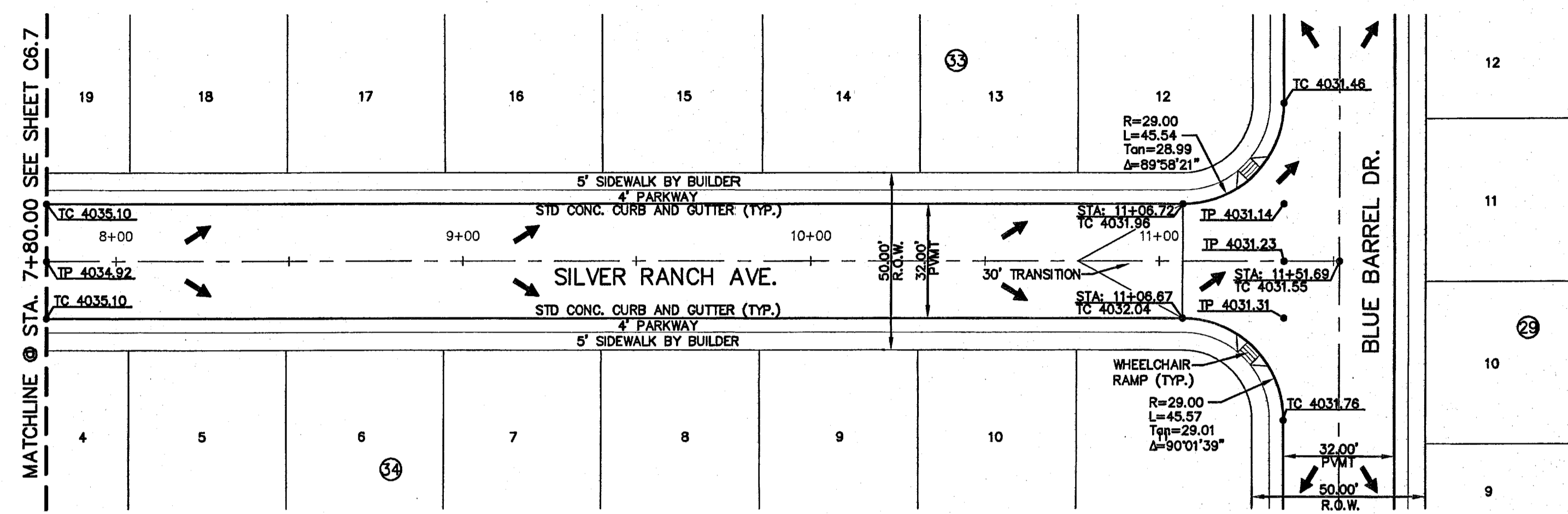
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 690-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 521-6750
(AFTER HOURS)	(915) 240-3220

WARNING!
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 CALL
 1-800-DIG-TESS
 1-800-344-8377
 FOR FIELD LOCATING EXISTING UTILITIES

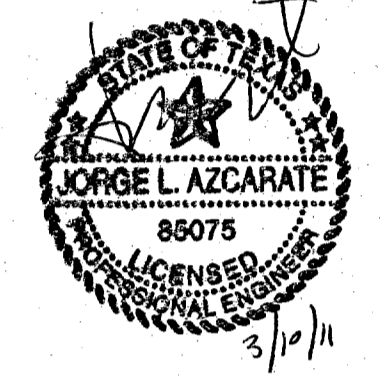
DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
 FOUND 1X100T BRASS CAP AT SECTION CORNERS (NVD) ELEVATION: 4033.22 (NVD) (LUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

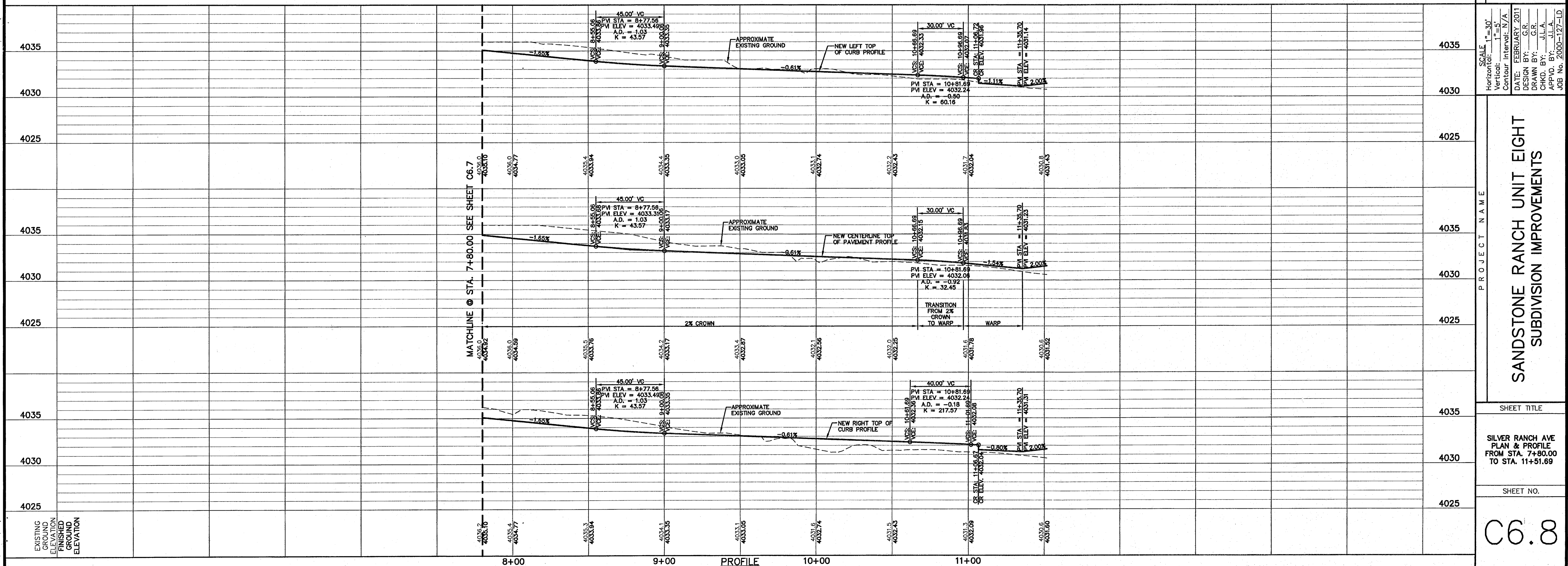
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 4712 Woodrow Bann, Ste. F, El Paso, TX 79824
 Office: 915.544.5232 Fax: 915.544.4233 www.csandl.com



PLAN



LEGEND:
 ALL ADA RAMP ARE TO BE BUILT BY DEVELOPER (TYP.)



SCALE
 Horizontal: 1" = 30'
 Vertical: 1" = 5'
 Contour Interval: 1' / 4'
 DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: J.L.A.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-127-LD

PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**SILVER RANCH AVE
 PLAN & PROFILE
 FROM STA. 7+80.00
 TO STA. 11+51.69**

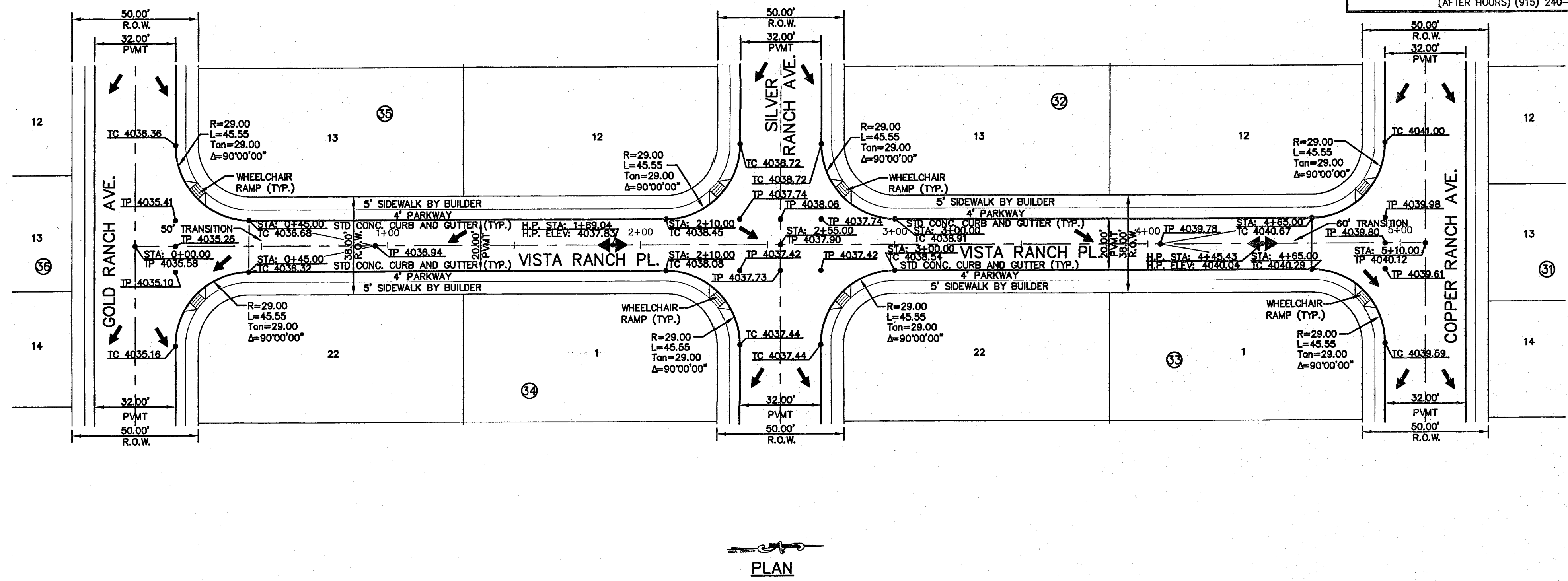
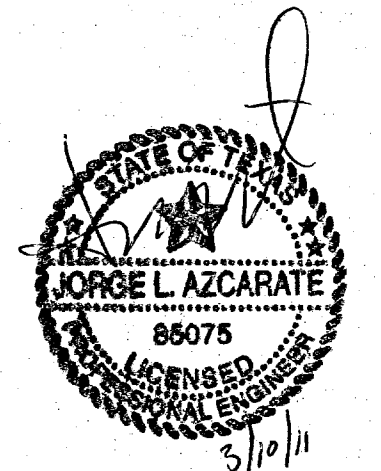
SHEET NO.
C6.8

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 590-7200
SBC	(800) 545-6005
AT&T	(800) 852-3766
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING!
BEFORE YOU DIG
 CALL
1-800-DIG-TESS
1-800-344-8377
 FOR FIELD LOCATING EXISTING UTILITIES

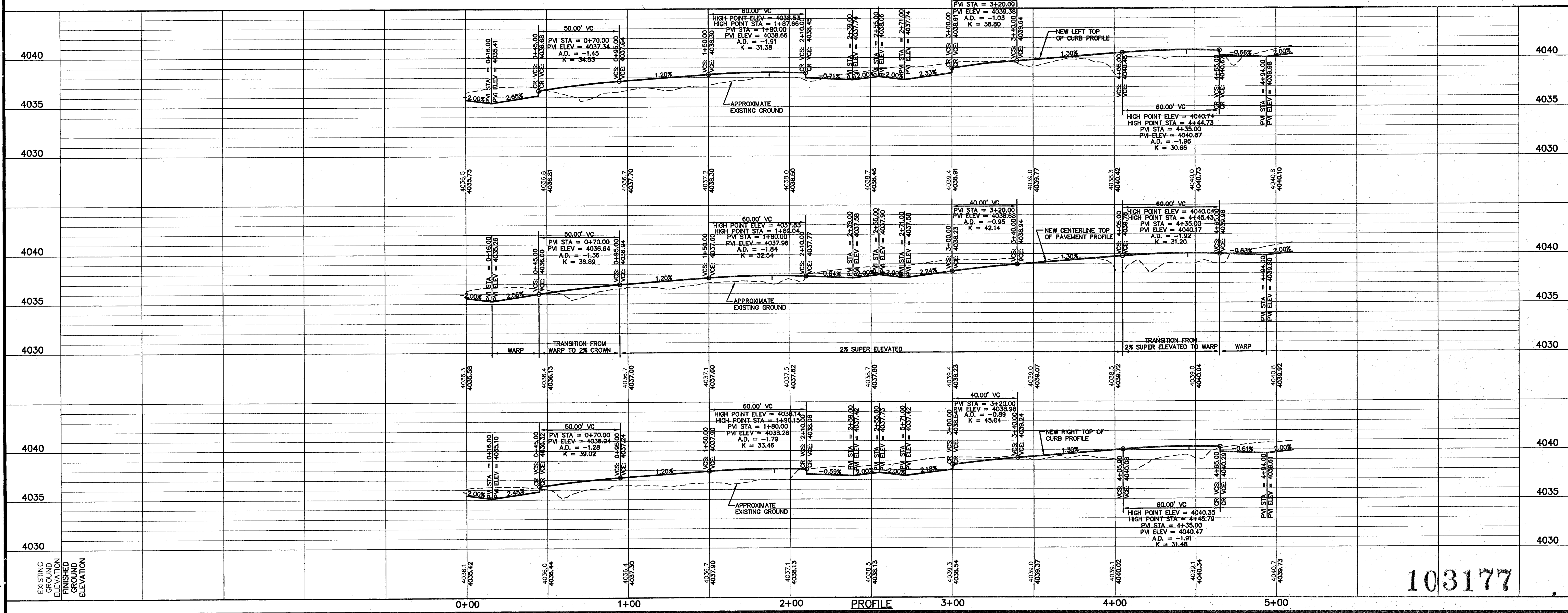
DATE	REVISIONS	BY

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 4712 Woodrow Bann, Ste. F El Paso, TX 79924
 Office: 915.544.5232 Fax: 915.544.6233 www.csandp.net



PLAN

LEGEND:
 ALL ADA RAMP ARE TO BE BUILT BY DEVELOPER (TYP.)



SCALE:
 Horizontal: 1" = 30'
 Vertical: 1" = 5'
 Contour Interval: 1' / A.
 DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: G.R.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-127-1D

PROJECT NAME:
 SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS

SHEET TITLE:
 VISTA RANCH PL.
 PLAN & PROFILE
 FROM STA. 0+00.00
 TO STA. 5+10.00

SHEET NO.:
 103177
 C6.9

LEGEND:

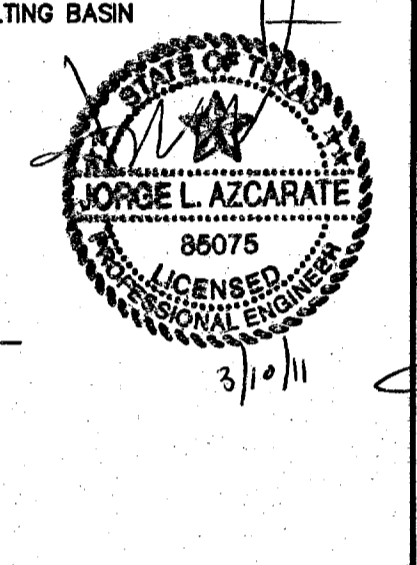
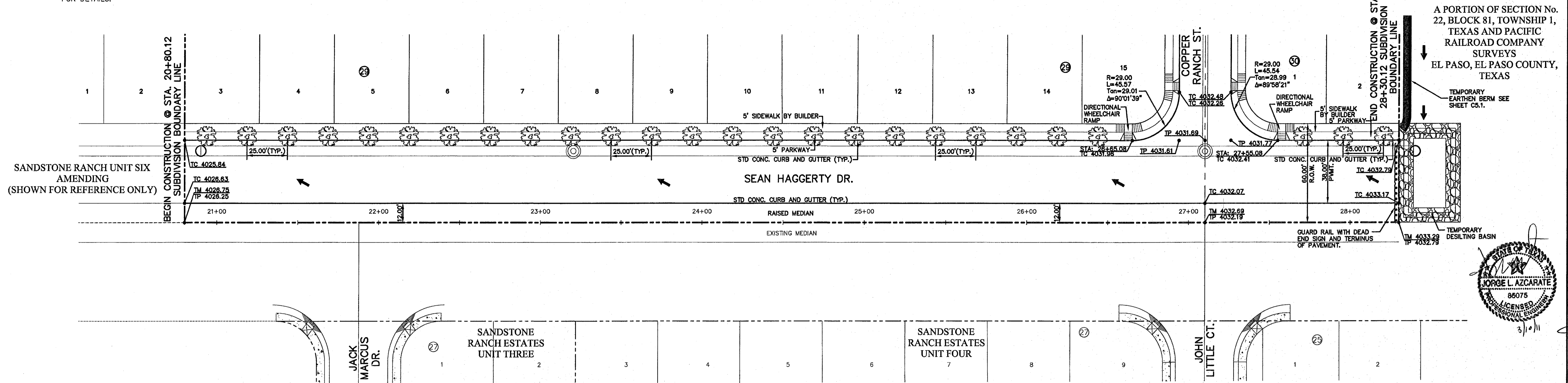
ALL ADA RAMPS ARE TO BE BUILT BY DEVELOPER (TYP.)

LANDSCAPE TREES AS REQUIRED BY CPC. TREES SHALL CONSIST OF RAYWOOD ASH, ARIZONA ASH, CHINQUAPIN OAK, BONITA ASH OR LIVE OAK. REFER TO SHEET L1 - LANDSCAPE PLAN FOR DETAILS.

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPD&T) (AFTER HOURS)	(915) 621-6750 (915) 240-3220

WARNING!
BEFORE YOU DIG
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

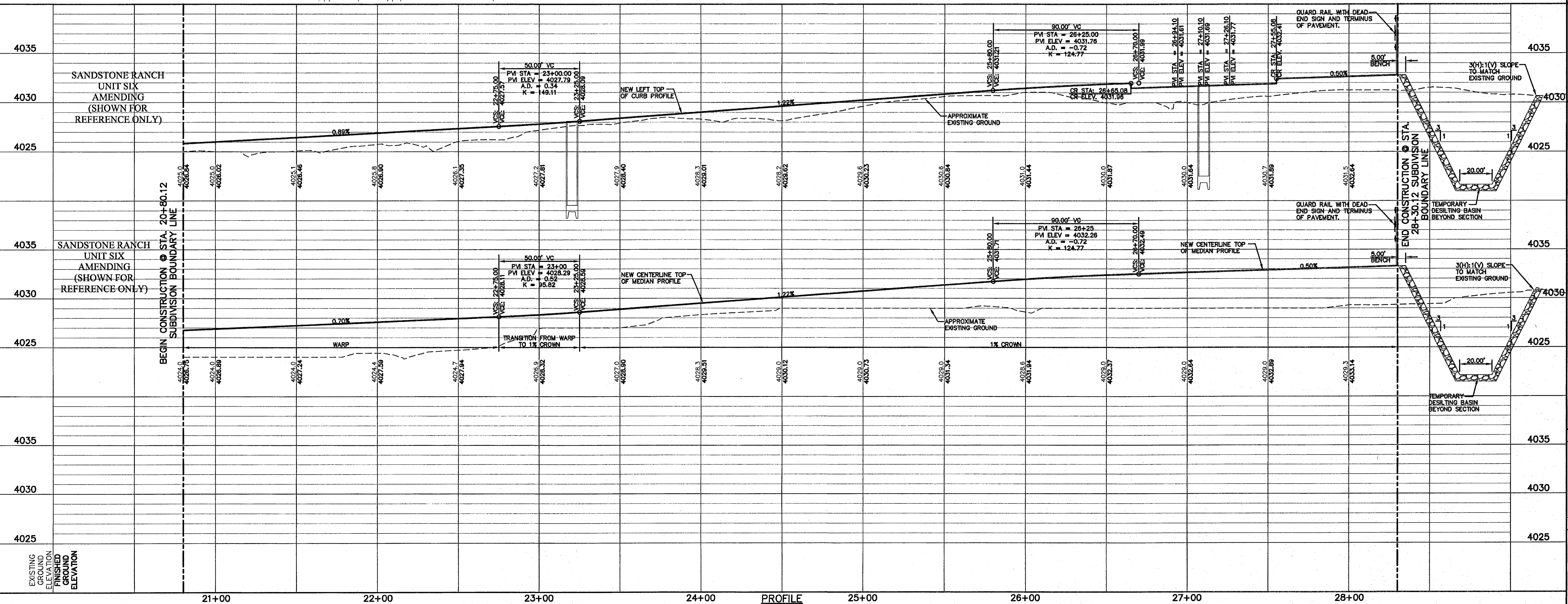
DATE	REVISIONS	BY



REFERENCES - BENCHMARKS
FOUND TYPED BRASS CAP AT SECTION CORNERS 18, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM).

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TEXAS REGISTERED ENGINEERING FIRM #684
4710 N. Loop West, Suite 300, Dallas, TX 75244
Office: 972.442.8232 Fax: 972.442.8233 www.csa-engineers.com

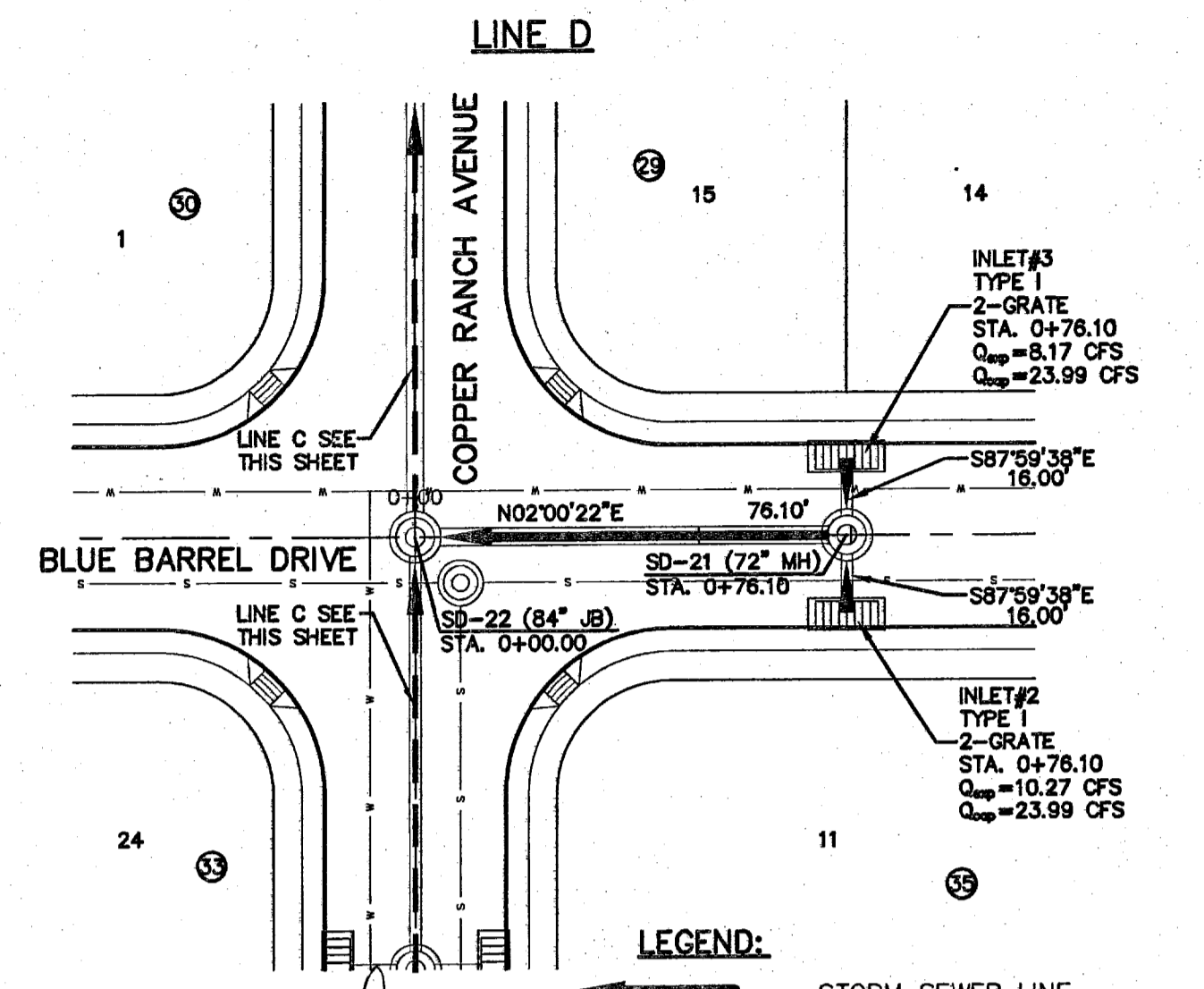
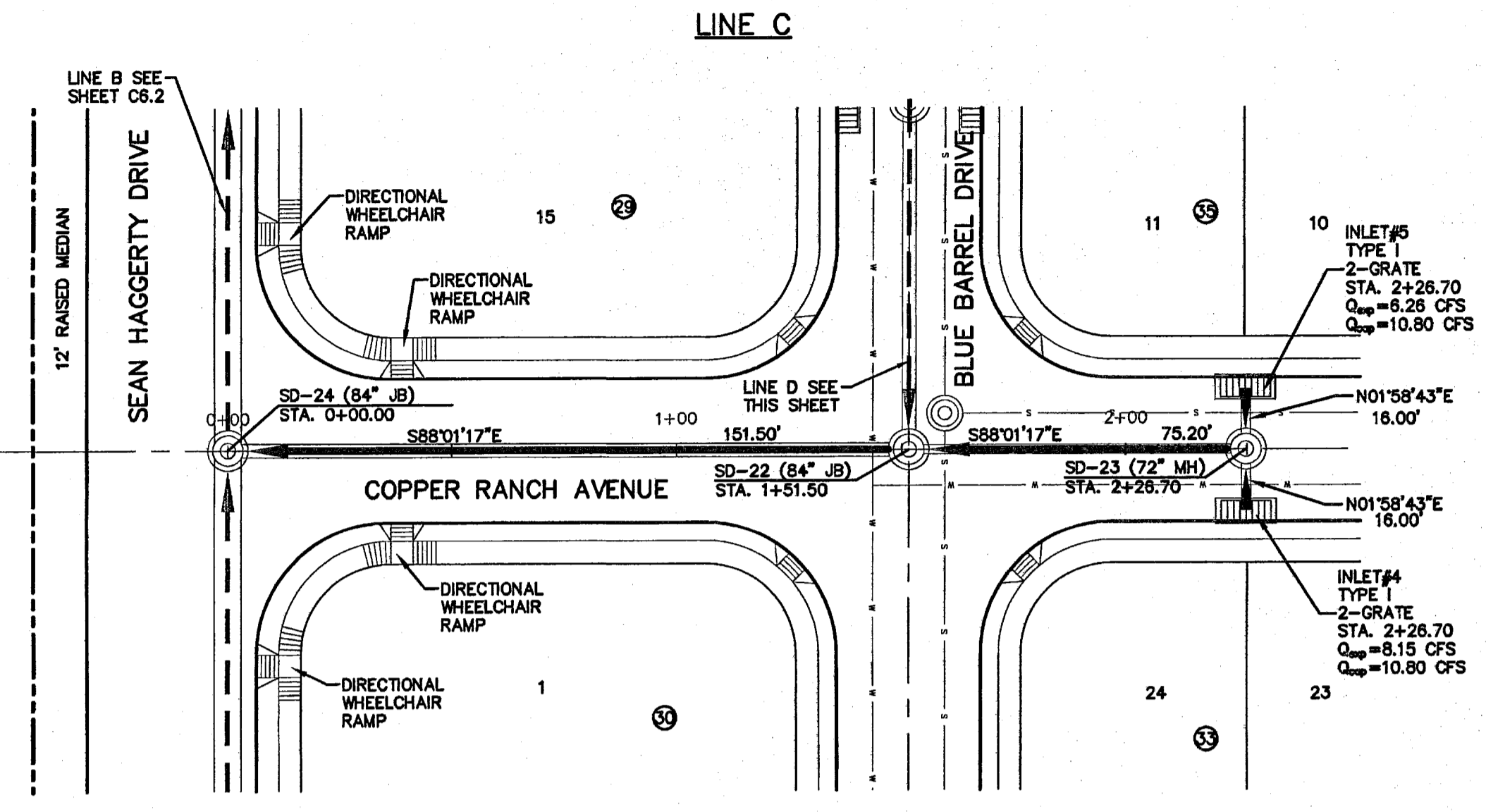
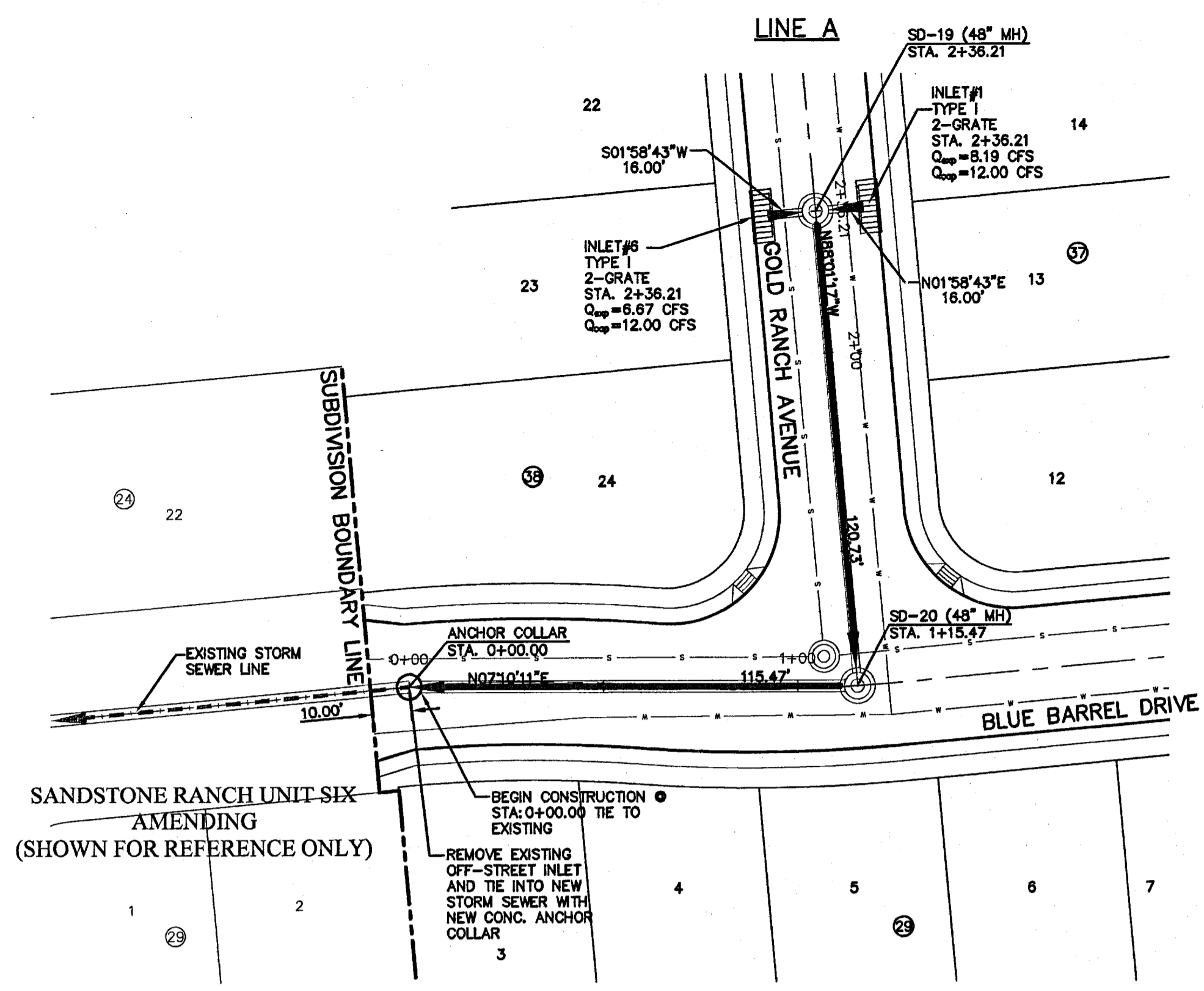
ENGINEER'S SEAL
DATE: FEBRUARY 2011
DESIGN BY: G.R.
CHECKED BY: J.L.A.
APPROVED BY: J.L.A.
JOB NO. 2000-127-LD



PROJECT NAME
SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS

SHEET TITLE
SEAN HAGGERTY DRIVE
PLAN & PROFILE
FROM STA. 20+80.12
TO STA. 28+30.12

SHEET NO.
C6.10



UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING!
BEFORE YOU DIG

CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

FOUND TYPED BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

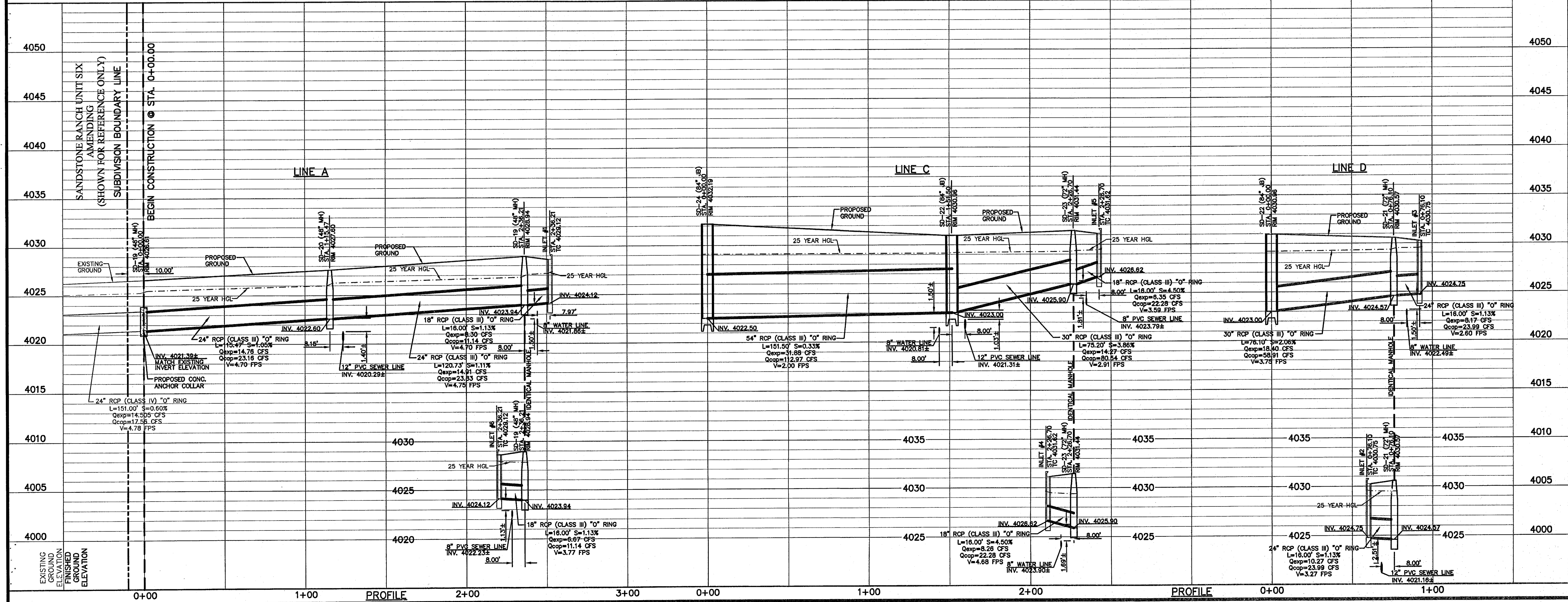
DATE	REVISIONS	BY

JORGE L. AZCARATE
LICENSED PROFESSIONAL ENGINEER
86075

engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM #464
1712 West Loop, Suite 401, Fort Worth, TX 76102
Office: 817.544.8622 Fax: 817.544.8625



- LEGEND:**
- STORM SEWER LINE
 - - - PROPOSED STORM SEWER LINE ON OTHER STREETS
 - - - EXISTING STORM SEWER LINE
 - ⊘ DROP INLET
 - ⊙ MANHOLE
 - - - WATER LINE
 - - - SANITARY SEWER LINE



SCALE: Horizontal: 1"=30'
Vertical: 1"=5'

Contour Interval: N/A

DATE: FEBRUARY 2011

DESIGN BY: G.R.

DRAWN BY: J.L.A.

CHKD. BY: J.L.A.

APPROV. BY: J.L.A.

JOB No. 2000-127-LD

PROJECT NAME

**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

STORM DRAIN PLAN & PROFILE LINE "A" FROM STA. 0+00.00 TO STA. 2+36.21

STORM DRAIN PLAN & PROFILE LINE "C" FROM STA. 0+00.00 TO STA. 2+28.70

STORM DRAIN PLAN & PROFILE LINE "D" FROM STA. 0+00.00 TO STA. 0+76.10

SHEET NO.

C7.1

- LEGEND:**
- STORM SEWER LINE
 - - - PROPOSED STORM SEWER LINE ON OTHER STREETS
 - - - EXISTING STORM SEWER LINE
 - ▭ DROP INLET
 - ⊙ MANHOLE

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 498-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
	(AFTER HOURS) (915) 240-3220

WARNING!
BEFORE YOU DIG

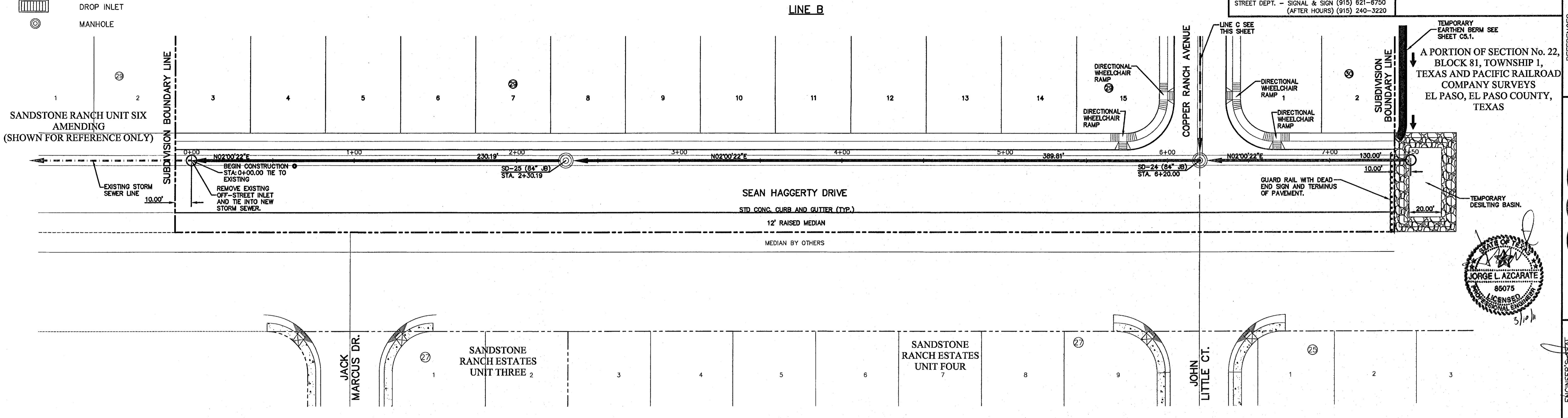
CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

FOUND TYPED BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

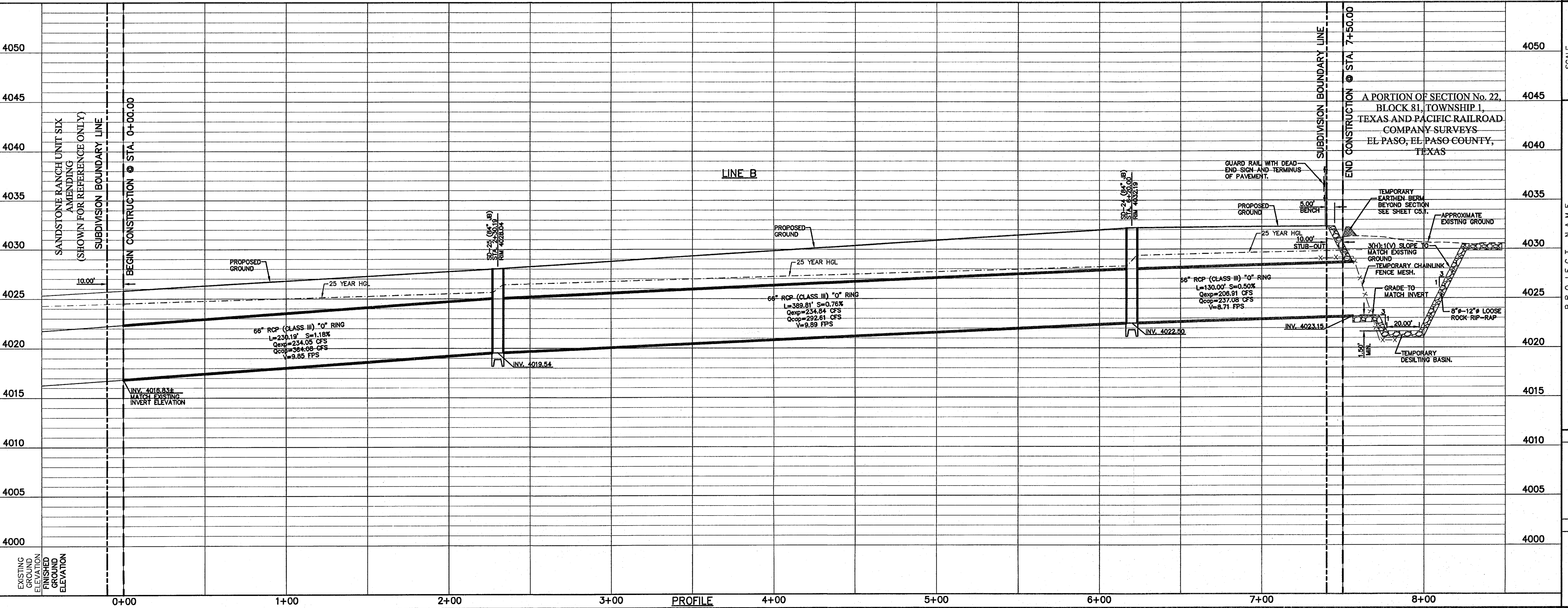
DATE	REVISIONS	BY



CSA
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4684
1101 W. 15TH STREET, SUITE 1000, EL PASO, TEXAS 79902
PHONE: (915) 544-6222 FAX: (915) 544-6222 WWW.CSA-ELPASO.COM

Jorge L. Azcarate
85075
LICENSED PROFESSIONAL ENGINEER

Jorge L. Azcarate
85075
LICENSED PROFESSIONAL ENGINEER



SCALE
Horizontal: 1"=30'
Vertical: 1"=5'

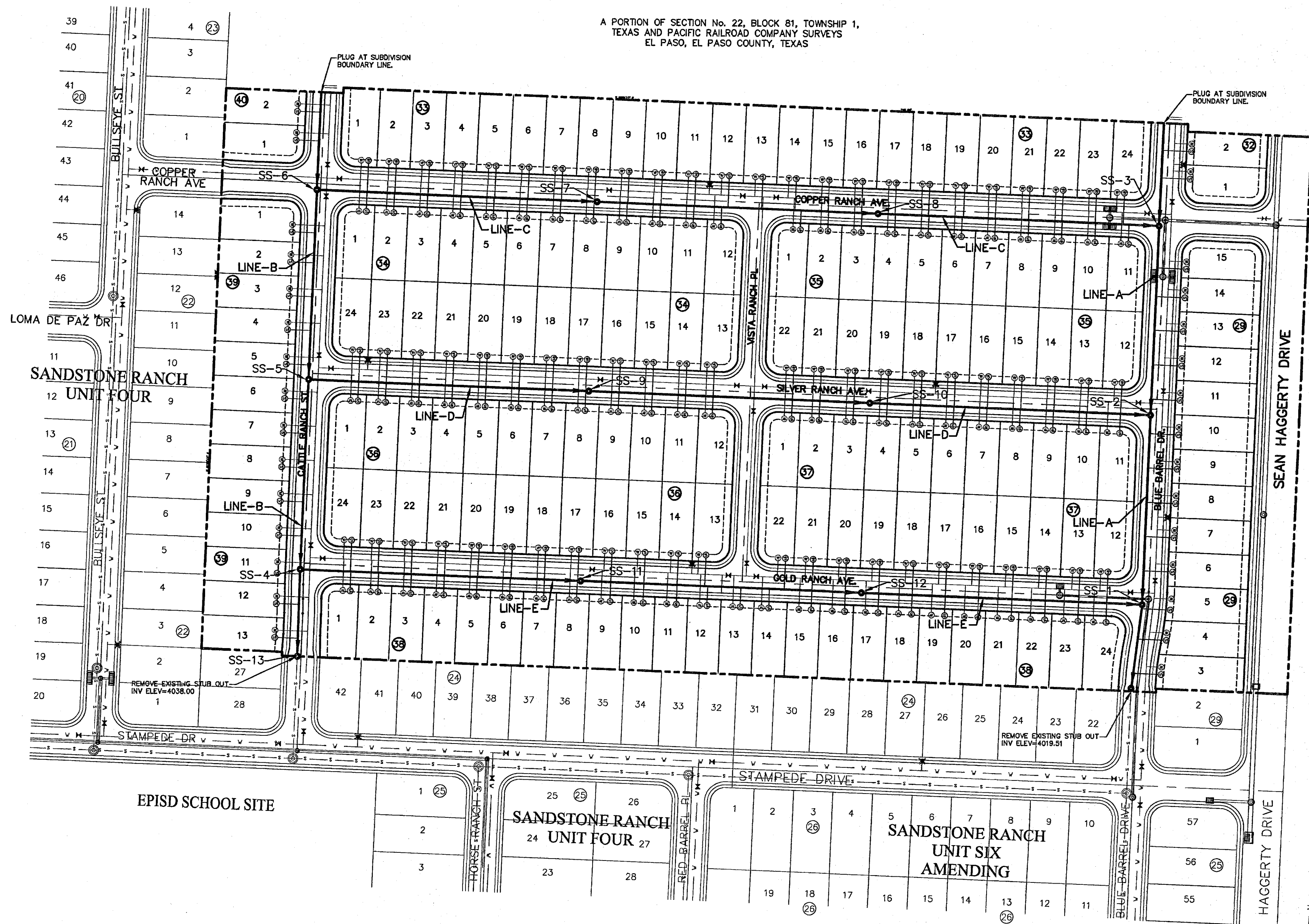
DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APPROV. BY: J.L.A.

PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

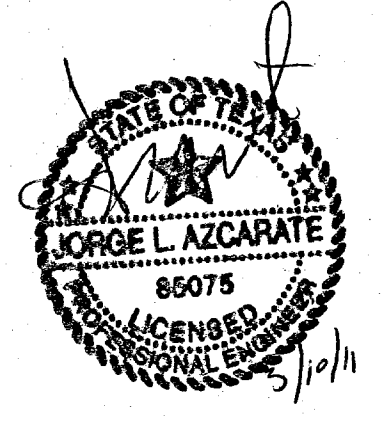
SHEET TITLE
STORM DRAIN
PLAN & PROFILE
LINE "B"
FROM STA. 0+00.00
TO STA. 7+50.00

SHEET NO.
C7.2

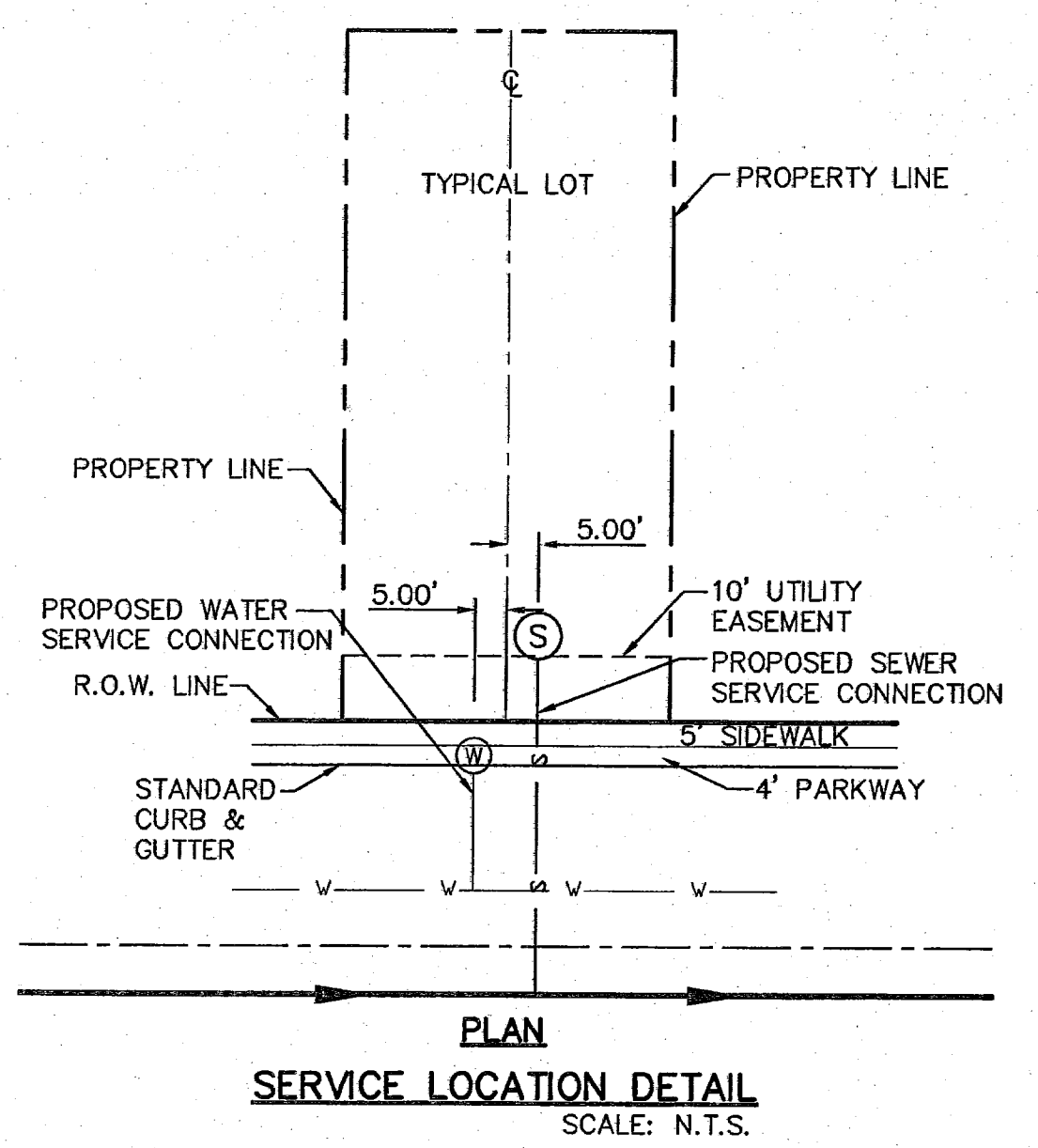
Horizontal: 1"=30'
Vertical: 1"=5'
DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APPROV. BY: J.L.A.
JOB No. 2000-127-LD



NOTES:
 ALL SEWER LINES SHALL BE PVC SDR35 PIPE UNLESS OTHERWISE REQUIRED BY THE EPWU/PSB RULES AND REGULATIONS AND DESIGN STANDARDS.



LEGEND	
SYMBOL	DESCRIPTION
--- (dashed line)	10' UTILITY EASEMENT
— S — S — (solid line with S)	EXISTING SEWER LINE
— V — V — (solid line with V)	EXISTING WATER LINE
— (solid line)	PROPOSED WATER LINE
- - - - - (dashed line)	SUBD. BOUNDARY LINE
— (solid line)	PROPERTY LINE
— (dashed line)	CENTER LINE
← 8" SWR SDR35 (solid line with arrow)	PROPOSED SEWER LINE (PLAN VIEW)
← 12" SWR SDR35 (solid line with arrow)	PROPOSED SEWER LINE (PLAN VIEW)
P.V.C. @ (SLOPE) (solid line with slope indicator)	PROPOSED SEWER LINE (PROFILE VIEW)
Q=(CAPACITY) GPM (solid line with Q)	PROPOSED SEWER LINE (PROFILE VIEW)
— (solid line with T)	PROPOSED STORM SEWER
⊙ (circle with dot)	PROPOSED MANHOLE (PLAN VIEW)
(two vertical lines)	PROPOSED 8" CAP
⊙ (circle with S)	PROPOSED SERVICE CONNECTION (PLAN VIEW)
⊙ (circle with T)	PROPOSED MANHOLE (PROFILE VIEW)
⊙ (circle with S)	EXISTING MANHOLE (PROFILE VIEW)



- GENERAL NOTES**
- UNLESS OTHERWISE SHOWN ON THE DRAWINGS, THE PROPOSED SEWER MAINS AND SEWER MANHOLES SHALL BE INSTALLED NO LESS THAN 10' AWAY FROM EXISTING WATER LINE. SEPARATION DISTANCES SHALL FOLLOW TOEQ STANDARD REQUIREMENTS (8290.44).
 - THE INTENT OF THE OWNER IS TO HAVE THE SANITARY SEWER PIPELINES INSTALLED TO SUCH A DEPTH THAT THEY WILL HAVE AT LEAST 48" OF COVER BELOW PROPOSED GROUND AT ALL LOCATIONS. THE PIPELINES SHALL HAVE NO DIPS, SAGS OR HUMPS OR OTHER IRREGULARITIES IN VERTICAL ALIGNMENT. CONSIDERING UTILITIES AND OTHER CONDITIONS, VARIANCE FROM GRADE PROFILE IS NOT RECOMMENDED IF OTHER EXISTING UTILITIES OR OBSTRUCTIONS ARE ENCOUNTERED DURING THE WORK. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO INSTALLING THE SEWER PIPELINE SO THAT AN ACCEPTABLE PROFILE CAN BE ESTABLISHED PRIOR TO INSTALLATION OF THE PIPELINE.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN IN THE PLANS, AND COORDINATE HIS WORK WITH ALL UTILITY COMPANIES, EL PASO WATER UTILITIES AND CITY OF EL PASO PRIOR TO CONSTRUCTION. ALL EXISTING UTILITY DEPTHS ARE UNKNOWN. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR ACQUIRING FIELD DEPTHS OF ALL UTILITIES WITH THE PROJECT AREAS.
 - TRENCH SAFETY REQUIREMENTS SHALL COMPLY WITH CURRENT OSHA REGULATIONS.
 - AS-BUILT STATIONING, OFFSET FROM R.O.W. AND INVERT ELEVATIONS SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR ON A CLEAN SET OF PLANS FOR EACH MANHOLE, SERVICE CONNECTION AND/OR STUB-OUT, WITH RESPECT TO THE APPROPRIATE PROJECT CONTROL POINT.
 - THE EL PASO WATER UTILITIES AND CITY OF EL PASO MUST BE NOTIFIED 48 HOURS PRIOR TO COMMENCING ANY WORK IN AREAS WITHIN THEIR JURISDICTION. A COPY OF ALL FIELD SOIL DENSITY TESTS WITHIN THEIR RESPECTIVE R.O.W. SHALL BE FORWARDED TO THE DEVELOPER'S ENGINEER AND THE DEVELOPER BY THE CONTRACTOR.
 - EXISTING STREETS, DRIVEWAYS AND ALL OTHER MISCELLANEOUS STRUCTURES DAMAGE OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITION.
 - CONSTRUCTION OF THE PUBLIC WATER AND SANITARY SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFORM TO EPWU-PSB STANDARD SPECIFICATIONS FOR THE INSTALLATION OF WATER MAINS, SEWER MAINS AND RELATED APPURTENANCES.

GENERAL UTILITIES:
 TEXAS EXCAVATION SAFETY SERVICE
 11884 GREENVILLE AVENUE
 DALLAS, TX 75243
 (800) 344-8377

ENGINEER:
 CEA GROUP
 CASTNER CENTER @ TRANSMOUNTAIN
 4712 WOODROW BEAN, STE. F
 EL PASO, TX 79924
 (915) 544-5232
 MR. JORGE L. AZCARATE, P.E.

FIBER OPTICS:
 U.S. SPRINT
 151 N. BOONE ST.
 EL PASO, TX 79905
 (915) 534-7910
 MR. RICK DERAGSCH

FIBER OPTICS:
 MCI TELECOMMUNICATIONS CORP.
 4045 DONIPHAN PARK CIRCLE
 EL PASO, TX 79922
 (915) 542-2770 EXT. 201
 MR. DANIEL HERNANDEZ

WATER & SEWER:
 EL PASO WATER UTILITIES
 1154 HAWKINS BOULEVARD
 EL PASO, TX 79961
 (915) 594-5630
 MR. FELIPE LOPEZ, JR., P.E.

ELECTRIC:
 EL PASO ELECTRIC CO.
 DEPARTMENT OF TRANSPORTATION
 7959 SAN PAULINO DRIVE
 EL PASO, TX 79907
 (915) 821-8750
 MR. DARYL W. COLE

EL PASO STREETS:
 CITY OF EL PASO
 DEPARTMENT OF TRANSPORTATION
 7959 SAN PAULINO DRIVE
 EL PASO, TX 79907
 (915) 821-8750
 MR. DARYL W. COLE

CABLE TELEVISION:
 TIME WARNER COMMUNICATIONS
 7010 AIRPORT ROAD
 EL PASO, TX 79906
 (915) 772-1123

TELEPHONE:
 SBC
 11200 PELICANO
 EL PASO, TX 79935
 (800) 852-3758
 MR. TIM BROWN

FIBER OPTICS:
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 P.O. BOX 1650
 EL PASO, TX 79949
 (915) 595-5151
 MS. DARLENE NORRIS

RESIDENTIAL GAS LINES:
 TEXAS GAS SERVICE
 4700 POLLARD ST.
 EL PASO, TX 79930
 (915) 680-7218
 MR. JOSE DE ALBA

WARNING!
BEFORE YOU DIG
 CALL
 1-800-DIG-TESS
 1-800-344-8377
 FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES — BENCHMARKS
 FOUND TYPICAL BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

DATE: _____ REVISIONS: _____ BY: _____

CEA GROUP
 ENGINEERS • ARCHITECTS • PLANNERS
 TEXAS REGISTERED ENGINEERING FIRM F-4884
 4712 WOODROW BEAN, STE. F EL PASO, TX 79924
 OFFICE: 915-544-5232 FAX: 915-544-5233 WWW.CEAGROUP.COM

ENGINEER'S SEAL
 JORGE L. AZCARATE
 85075

SCALE: 1" = 100'
 Horizontal: _____
 Vertical: _____
 Contour Interval: N/A
 DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: G.R.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB NO. 2000-117-LD

PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
SANITARY SEWER INDEX

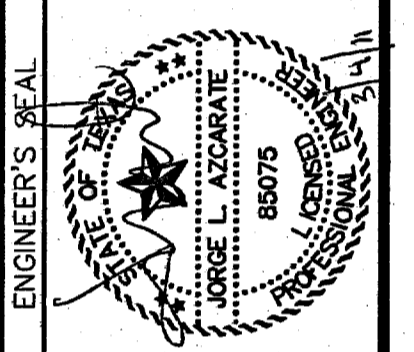
SHEET NO.
C8.1

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
	(AFTER HOURS) (915) 240-3220

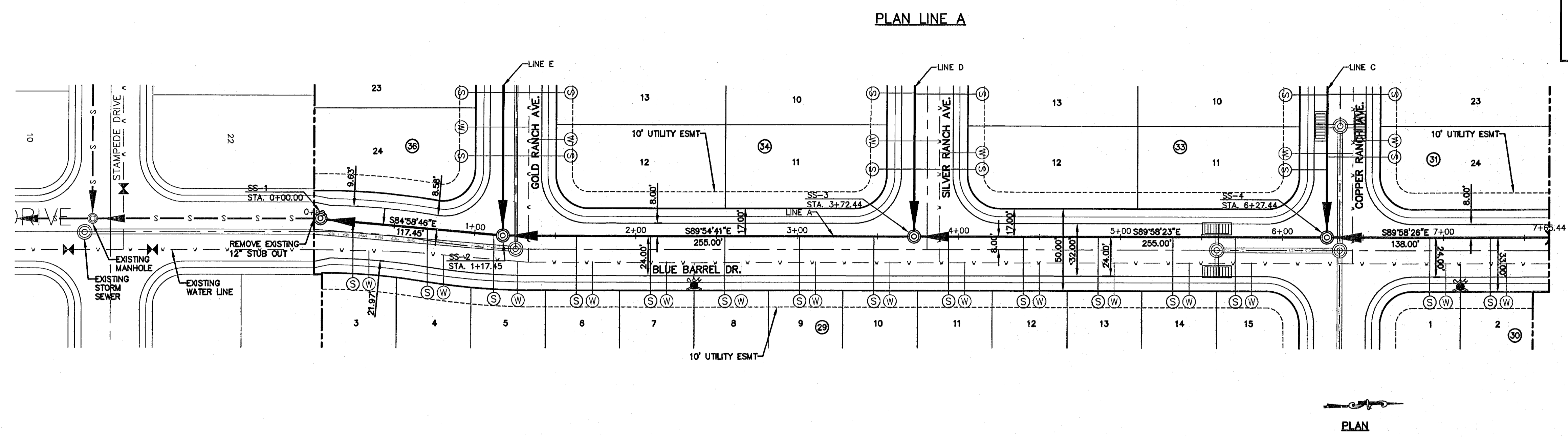
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DATE	REVISIONS	BY

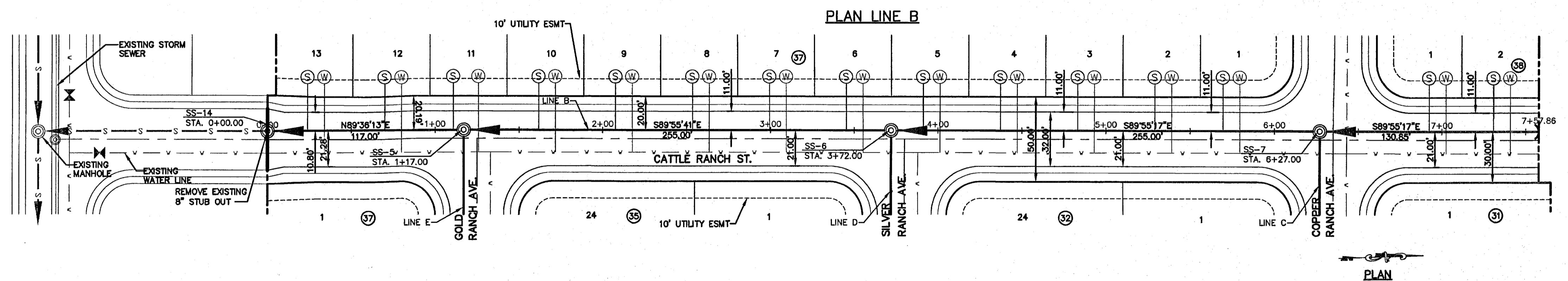
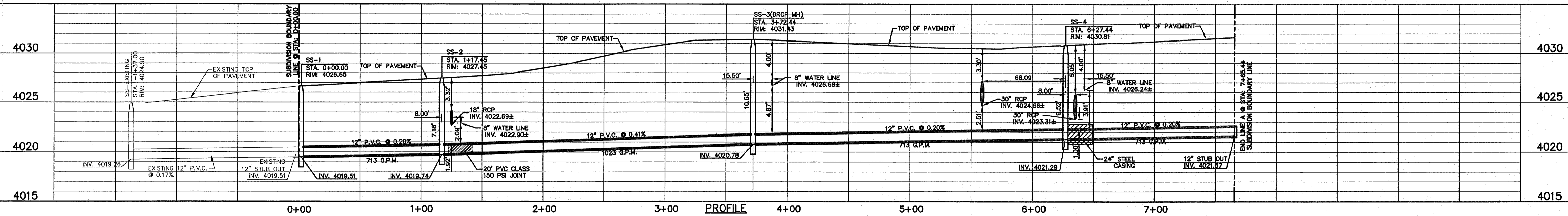
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SCALE: 1"=40'
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 Contour Interval: N/A
 DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: G.R.
 CHKD. BY: J.L.A.
 APP'D. BY: J.L.A.
 JOB No. 2000-127-LD

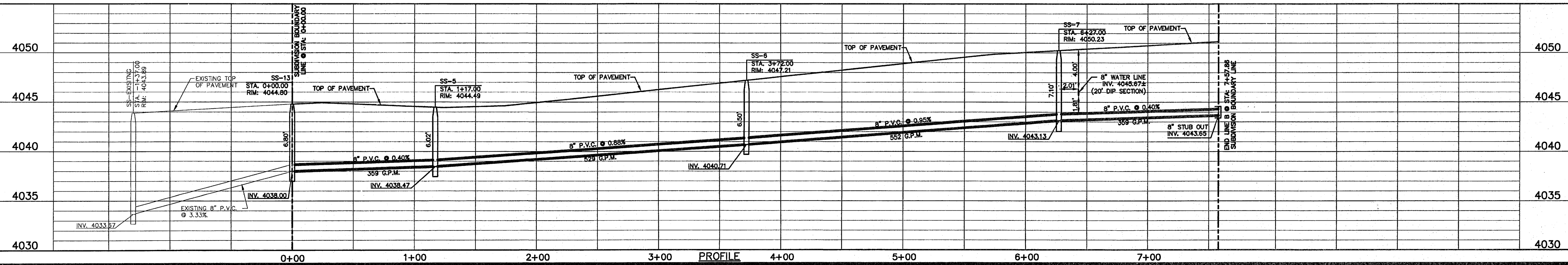


PLAN



PLAN

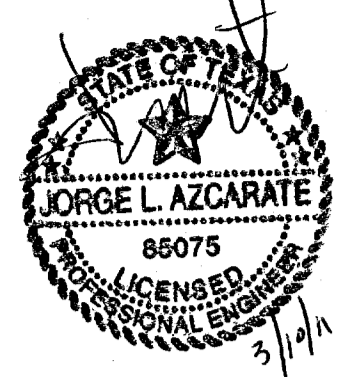
- LEGEND:
- s—s— EXISTING WASTE WATER FLOW
 - - - - - PROPOSED STORM SEWER LINE
 - - - - - PROPOSED WATER LINE
 - w—w— PROPOSED WASTE WATER FLOW
 - (W) PROPOSED WATER SERVICE
 - (S) PROPOSED SEWER SERVICE



PROJECT NAME
SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS

SHEET TITLE
 SANITARY SEWER
 PLAN & PROFILE
 LINES A & B

SHEET NO.
C9.1



- LEGEND:**
- S — EXISTING WASTE WATER FLOW
 - PROPOSED STORM SEWER LINE
 - - - PROPOSED WATER LINE
 - W — PROPOSED WASTE WATER FLOW
 - V — PROPOSED WATER SERVICE
 - (W) PROPOSED SEWER SERVICE
 - (S) PROPOSED SEWER SERVICE

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-5005
AT&T	(800) 852-3788
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-8750
(AFTER HOURS)	(915) 240-3220

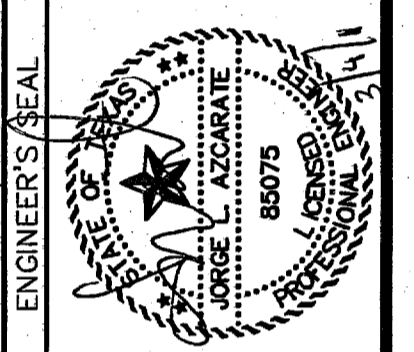
WARNING!
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 1-800-DIG-TESS
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REFERENCES - BENCHMARKS

FOUND TYPICAL BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

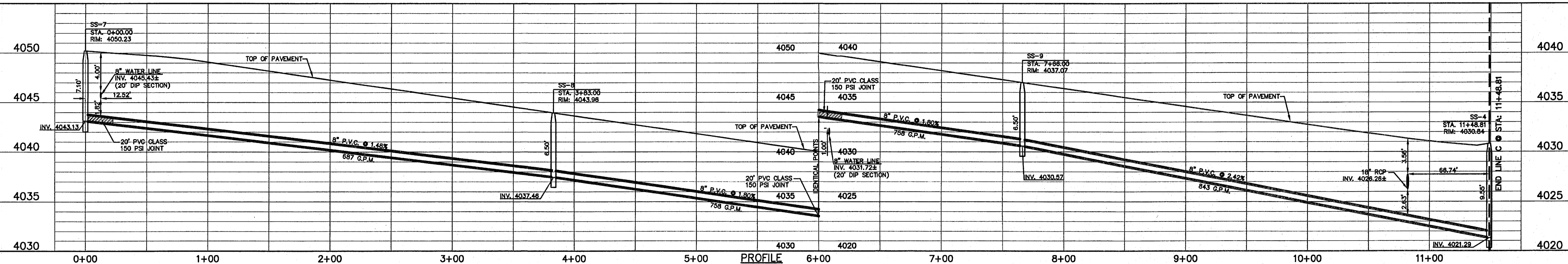
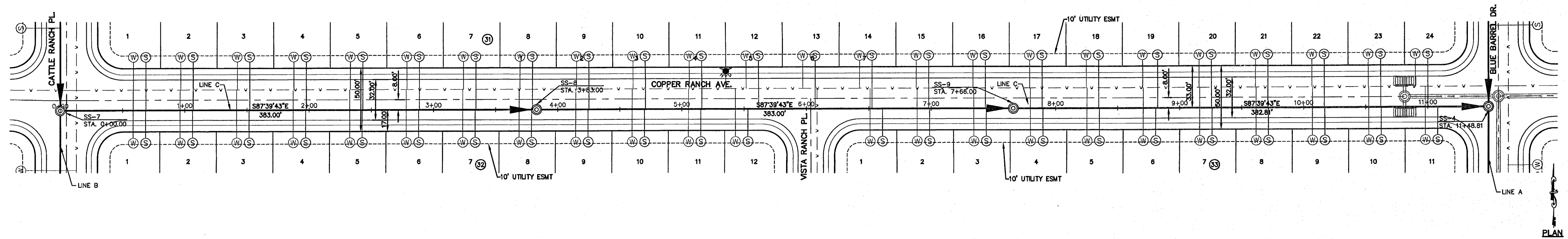
DATE	REVISIONS	BY

osa
 engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM F-4664
 4712 Woodrow Bean, Ste. F, El Paso, TX 79924
 Office: 915-543-5222 Fax: 915-543-5220 www.osaonline.com

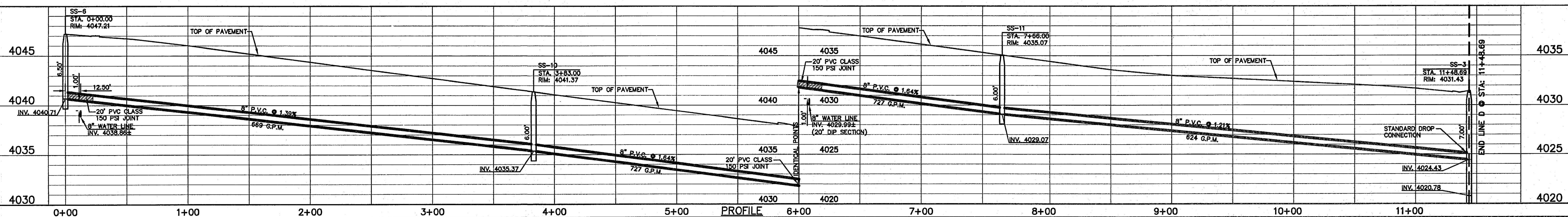
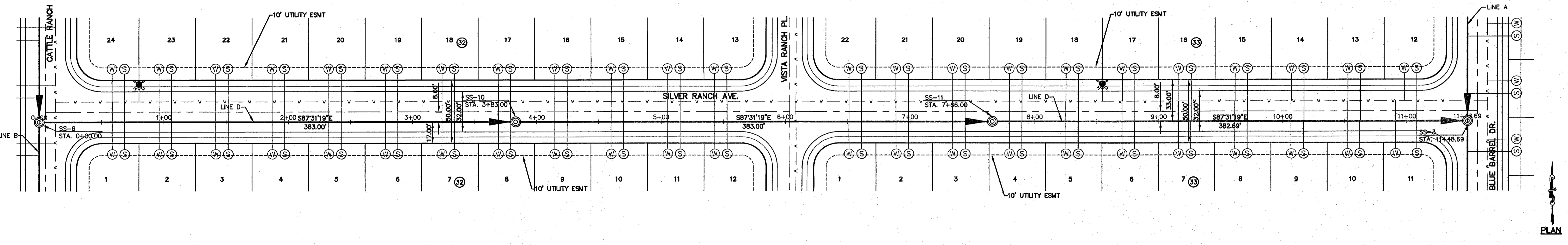


SCALE: 1"=40'
 Horizontal: 1"=50'
 Vertical: 1"=5'
 Contour Interval: N/A
 DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: J.L.A.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-127-LD

PLAN LINE C



PLAN LINE D



PROJECT NAME
SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS

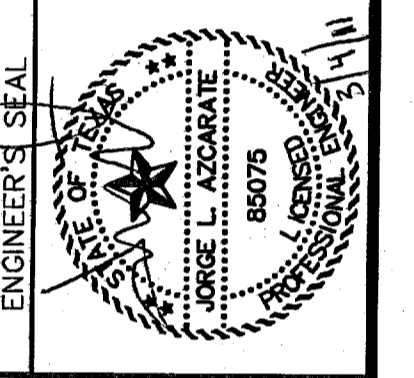
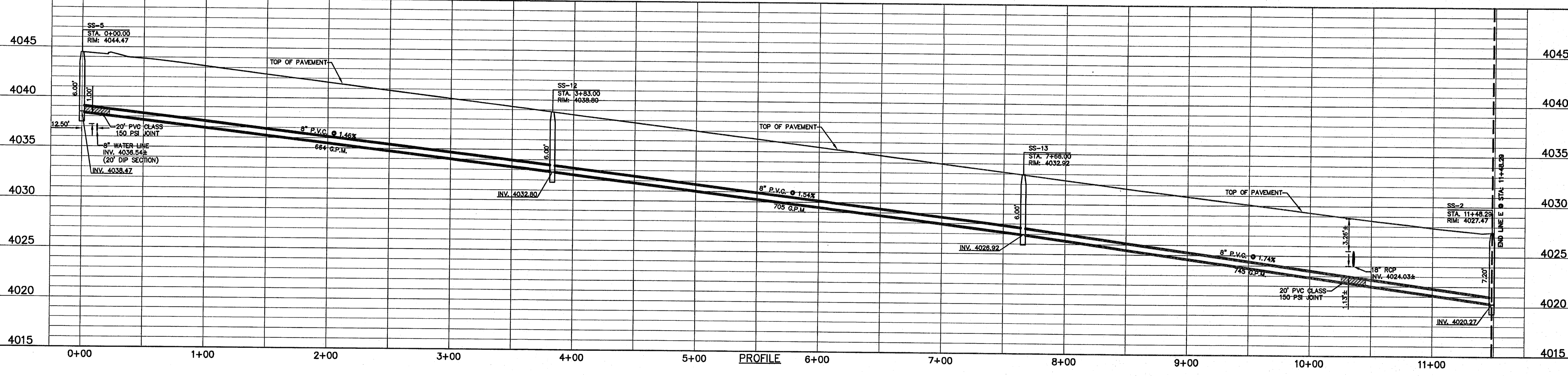
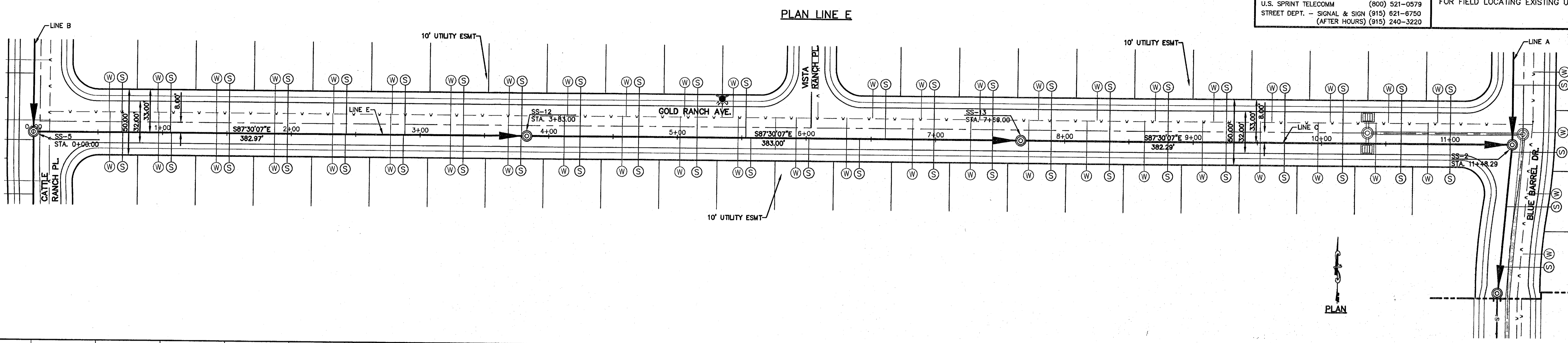
SHEET TITLE
SANITARY SEWER
PLAN & PROFILE
LINE C & D

SHEET NO.
C9.2

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 498-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750 (AFTER HOURS) (915) 240-3220

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 FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY



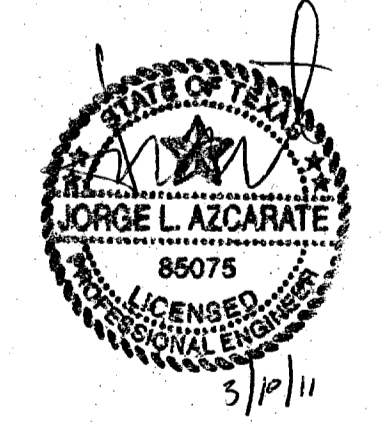
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 Contour Interval: N/A
 DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: G.R.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-127-LD

PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

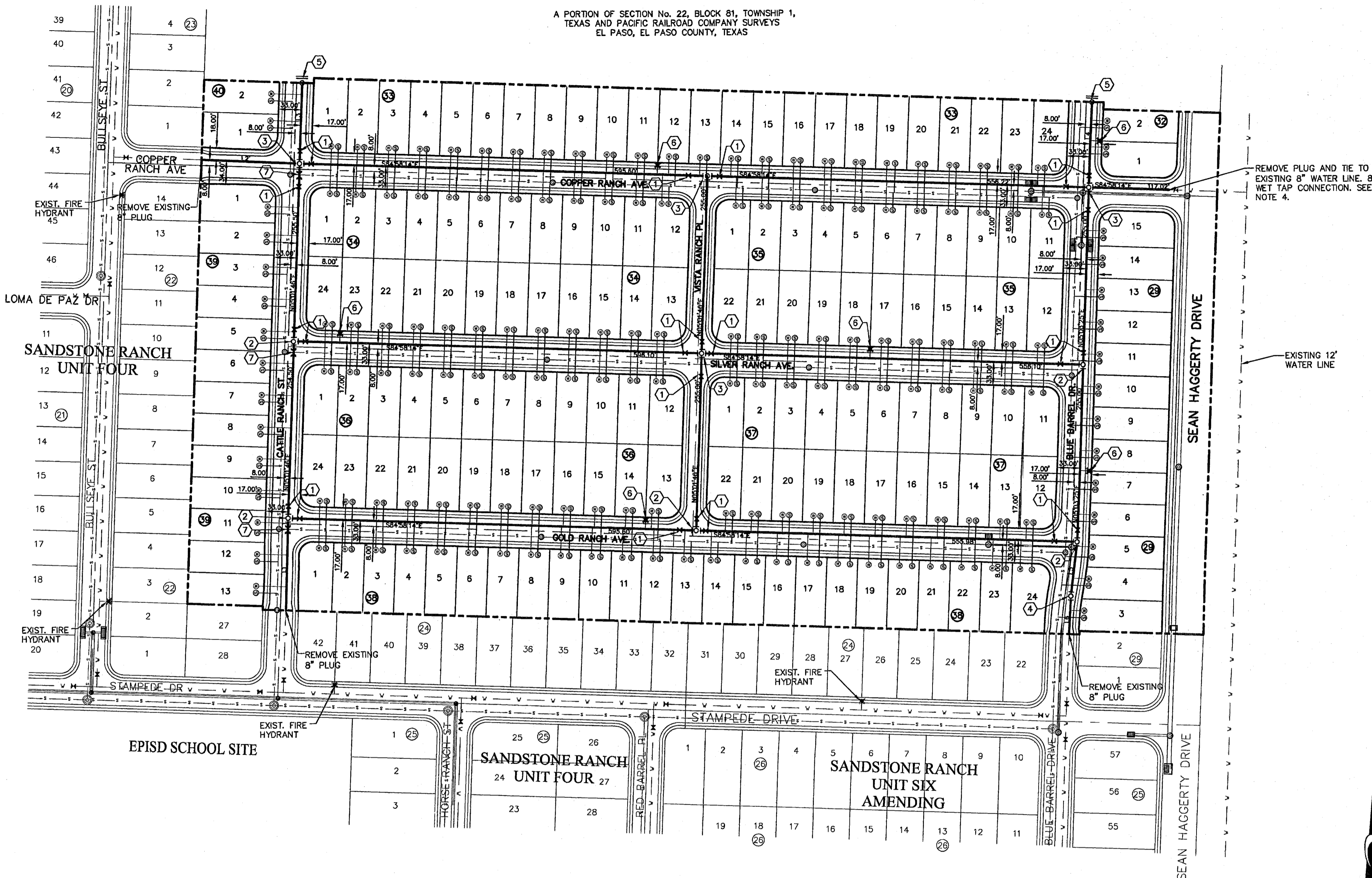
SHEET TITLE
**SANITARY SEWER
 PLAN & PROFILE
 LINE E**

SHEET NO.
C9.3

- LEGEND:**
- S — EXISTING WASTE WATER FLOW
 - v — v — PROPOSED STORM SEWER LINE
 - v — v — PROPOSED WATER LINE
 - S — PROPOSED WASTE WATER FLOW
 - (W) PROPOSED WATER SERVICE
 - (S) PROPOSED SEWER SERVICE



A PORTION OF SECTION No. 22, BLOCK 81, TOWNSHIP 1,
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS
EL PASO, EL PASO COUNTY, TEXAS



WATER KEYED NOTES

- ① 8" Ø GATE VALVE
- ② 8" X 8" X 8" TEE
- ③ 8" X 8" X 8" CROSS
- ④ 8" BEND
- ⑤ 8" PLUG
- ⑥ FIRE HYDRANT
- ⑦ 8" DUCTILE IRON PIPE SEE DETAIL 3/C12.5

WATER LINE TABLE

LINE	BEARING	LENGTH
L1	S04°35'55"E	133.00'
L2	S84°34'12"E	143.00'
L3	N05°01'46"E	114.85'
L4	N05°03'25"E	122.00'
L5	S09°47'15"W	78.72'
L6	S06°07'07"W	54.58'

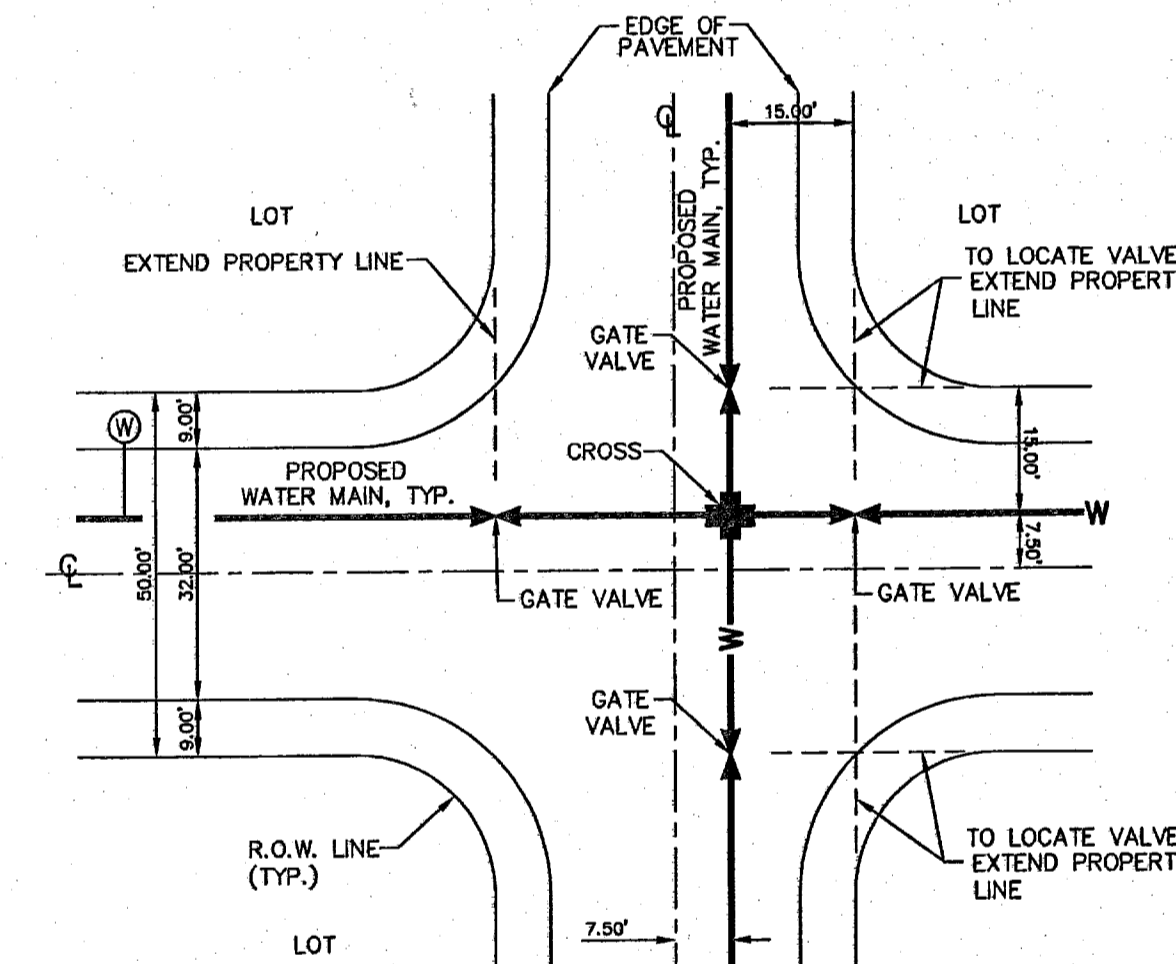


WATER MAP
SCALE: 1" = 100'

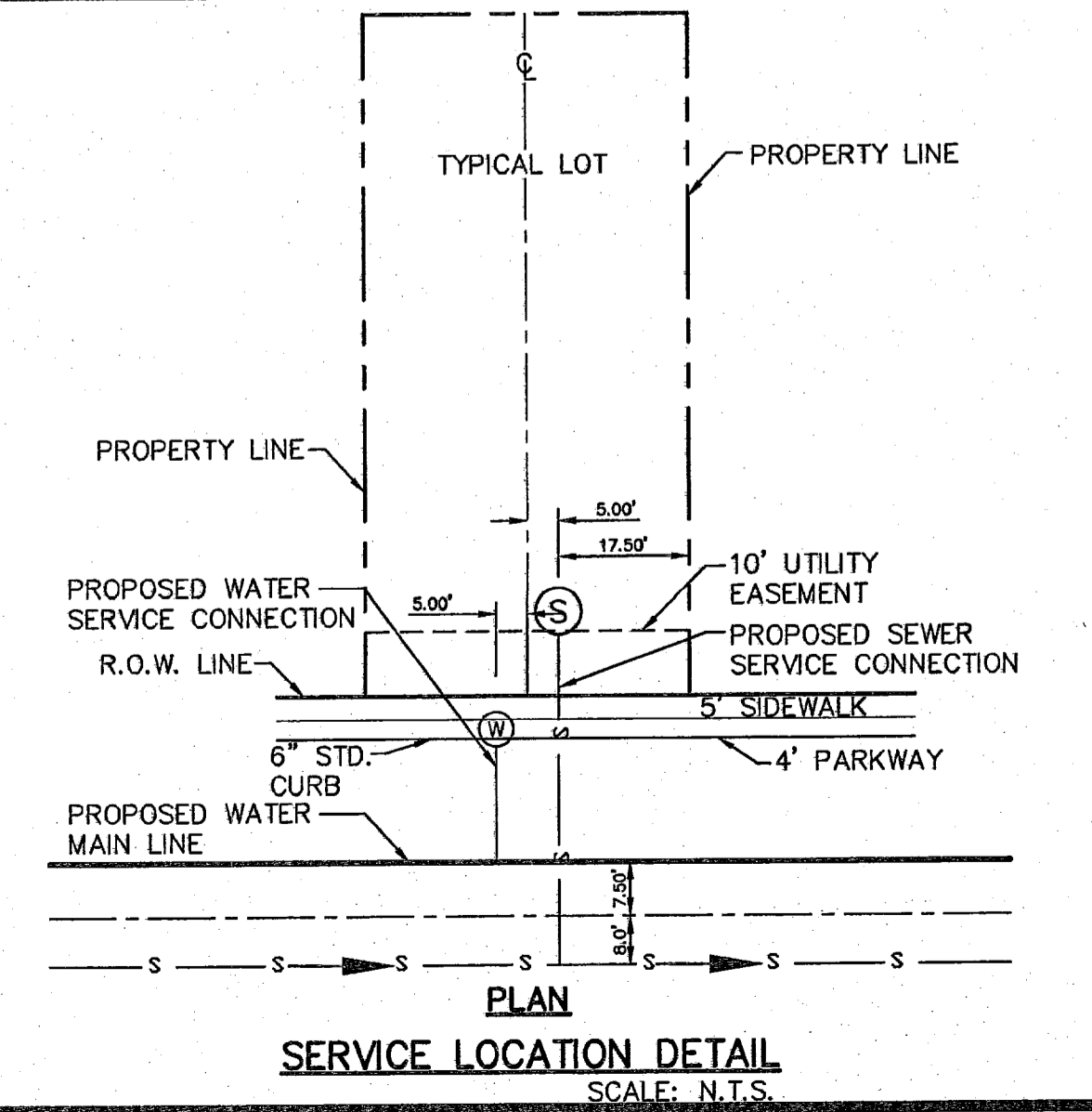
NOTES:
ALL WATER LINES SHALL COMPLY WITH AWWA C-900, DR-14, PRESSURE CLASS OF 305 OR UNLESS OTHERWISE REQUIRED BY THE EPWU/PSB RULES AND REGULATIONS AND DESIGN STANDARDS.

LEGEND

SYMBOL	DESCRIPTION
---	PROPERTY LINE
---	SUBDIVISION BOUNDARY
---	STREET R.O.W. LINE
---	10' UTILITY EASEMENT
---	PROPOSED 8" C-900 P.V.C. PIPE, CLASS 305, UNLESS OTHERWISE SPECIFIED
---	PROPOSED SANITARY SEWER
---	PROPOSED STORM SEWER
---	EXISTING SEWER LINE
---	EXISTING WATER LINE
---	PROPOSED SERVICE CONNECTION
---	PROPOSED FIRE HYDRANT, KENNEDY OR MUELLER MODEL
---	EXISTING FIRE HYDRANT
---	PROPOSED GATE VALVE
---	EXISTING GATE VALVE
---	PLUG
---	POINT OF TANGENCY



TYPICAL VALVE AND WATER LOCATION AT STREET INTERSECTIONS
SCALE: N.T.S.



SERVICE LOCATION DETAIL
SCALE: N.T.S.

GENERAL NOTES

1. LESS OTHERWISE SHOWN ON THE DRAWINGS, THE PROPOSED WATER MAINS SHALL BE INSTALLED NO LESS THAN 10' AWAY FROM EXISTING SEWER LINE. SEPARATION DISTANCES SHALL FOLLOW TCEQ STANDARD REQUIREMENTS (8290.44).
2. THE INTENT OF THE OWNER IS TO HAVE THE WATER MAINS INSTALLED TO SUCH A DEPTH THAT THEY WILL HAVE AT LEAST 60" FROM INVERT OF PIPELINE TO PROPOSED ELEVATIONS AT ALL LOCATIONS. THE PIPELINES SHALL HAVE NO DIPS, SAGS OR HUMPS OR OTHER IRREGULARITIES IN VERTICAL ALIGNMENT. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO INSTALLING THE WATER PIPELINE SO THAT AN ACCEPTABLE PROFILE CAN BE ESTABLISHED PRIOR TO INSTALLATION OF THE PIPELINE.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN IN THE PLANS, AND COORDINATE WORK WITH ALL UTILITY COMPANIES, EL PASO WATER UTILITIES AND CITY OF EL PASO PRIOR TO CONSTRUCTION. ALL EXISTING UTILITY DEPTHS ARE UNKNOWN. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR ACQUIRING FIELD DEPTHS OF ALL UTILITIES WITHIN THE PROJECT AREAS.
4. TRENCH SAFETY REQUIREMENTS SHALL BE AS REQUIRED BY OSHA.
5. AS-BUILT STATIONING, OFFSET FROM R.O.W. AND INVERT ELEVATIONS SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR ON A CLEAN SET OF PLANS FOR EACH VALVE, FIRE HYDRANT, ELBOW, SERVICE CONNECTION AND/OR STUB-OUT, WITH RESPECT TO THE APPROPRIATE PROJECT CONTROL POINT.
6. THE EL PASO WATER UTILITIES AND CITY OF EL PASO MUST BE NOTIFIED 48 HOURS PRIOR TO COMMENCING ANY WORK IN AREAS WITHIN THEIR JURISDICTION.
7. EXISTING STREETS, DRIVEWAYS, PARKING LOTS, MAILBOXES, SIGNS, CHAIN-LINK FENCES, AND ALL OTHER MISCELLANEOUS STRUCTURES DAMAGE OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITION AT NO COST TO OWNER.
8. TRAFFIC CONTROL SHALL BE IN PLACE PRIOR TO INITIATING WORK.
9. ALL TIE-INS SHALL BE CLOSELY COORDINATED WITH THE EL PASO WATER UTILITIES AT LEAST 48 HOURS PRIOR TO ACTUAL CONSTRUCTION.
10. CONTRACTOR SHALL PROVIDE THE REQUIRED COUPLINGS, ELBOWS AND NECESSARY PIPING APPURTENANCES FOR A COMPLETE AND OPERATIONAL WATER SYSTEM.
11. ALL NEW VALVES SHALL BE ALIGNED PERPENDICULAR TO PROPERTY LINES.
12. CONSTRUCTION OF THE PUBLIC WATER AND SANITARY SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFORM TO EPWU-PSB STANDARD SPECIFICATIONS FOR THE INSTALLATION OF WATER MAINS, SEWER MAINS AND RELATED APPURTENANCES.

GENERAL UTILITIES:
TEXAS EXCAVATION SAFETY SERVICE
11884 GREENVILLE AVENUE
DALLAS, TX. 75243
(800) 344-8377

ENGINEER:
CEA GROUP
CASTNER CENTER @ TRANSMOUNTAIN
4712 WOODROW BEAN, STE. F
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(915) 544-5232
MR. JORGE L. AZCARATE, P.E.

FIBER OPTICS:
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EL PASO, TX. 79905
(915) 534-7910
MR. RICK DERAGSCH

FIBER OPTICS:
MCI TELECOMMUNICATIONS CORPS.
4045 DONIPHAN PARK CIRCLE
EL PASO, TX. 79922
(915) 542-2770 EXT. 201
MR. DANIEL HERNANDEZ

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EL PASO, TX. 79961
(915) 594-5530
MR. FELIPE LOPEZ, JR., P.E.

ELECTRIC:
EL PASO ELECTRIC CO.
501 W. SAN ANTONIO ST.
EL PASO, TX. 79902
(915) 543-2078
MR. FRANK VIGEL (DISTRIBUTION)

EL PASO STREETS
CITY OF EL PASO
7010 AIRPORT ROAD
7969 SAN PAULO DRIVE
EL PASO, TX. 79907
(915) 621-6750
MR. DARYL W. COLE

CABLE TELEVISION:
TIME WARNER COMMUNICATIONS
7010 AIRPORT ROAD
EL PASO, TX. 79906
(915) 772-1123

TELEPHONE:
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11200 PELICANO
EL PASO, TX. 79935
(915) 595-5151
MR. TIM BROWN

FIBER OPTICS:
AT&T
P.O. BOX 1650
EL PASO, TX. 79949
(800) 852-3788
MS. DARLENE NORIS

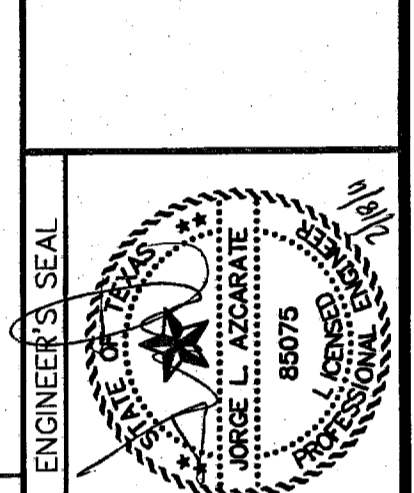
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4700 POLLARD ST.
EL PASO, TX. 79930
(915) 680-7218
MR. JOSE DE ALBA

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1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS
FOUND TYPED BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

DATE	REVISIONS	BY

CEA GROUP
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4584
4712 WOODROW BEAN, STE. F, EL PASO, TX. 79924
OFFICE: 915.544.5232 FAX: 915.544.5233 www.ceagroup.net



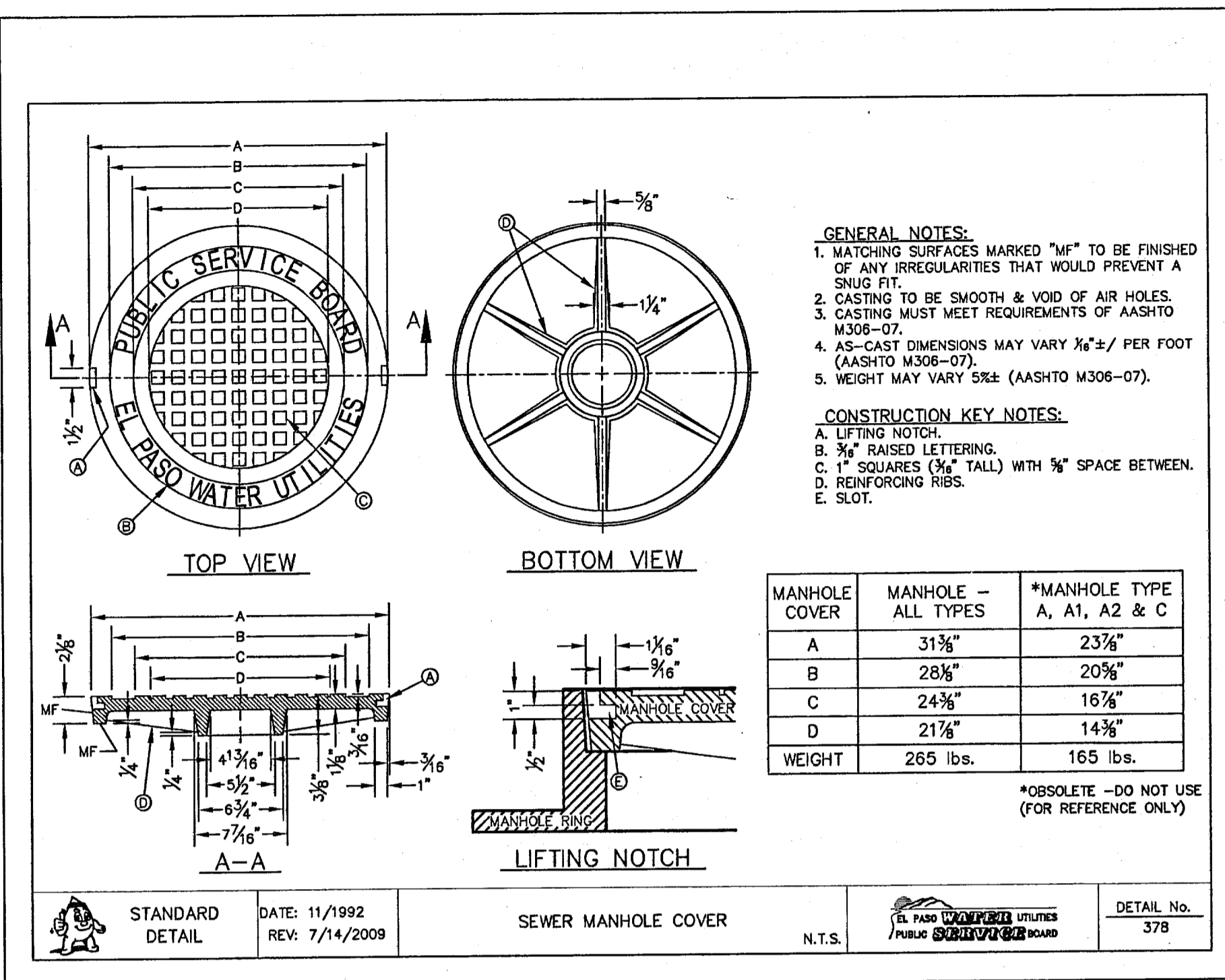
PROJECT NAME
SANDSTONE RANCH UNIT EIGHT SUBDIVISION IMPROVEMENTS

SCALE: 1" = 100'
Vertical: N/A
Horizontal: N/A
DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: G.R.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB NO. 2000-127-1D

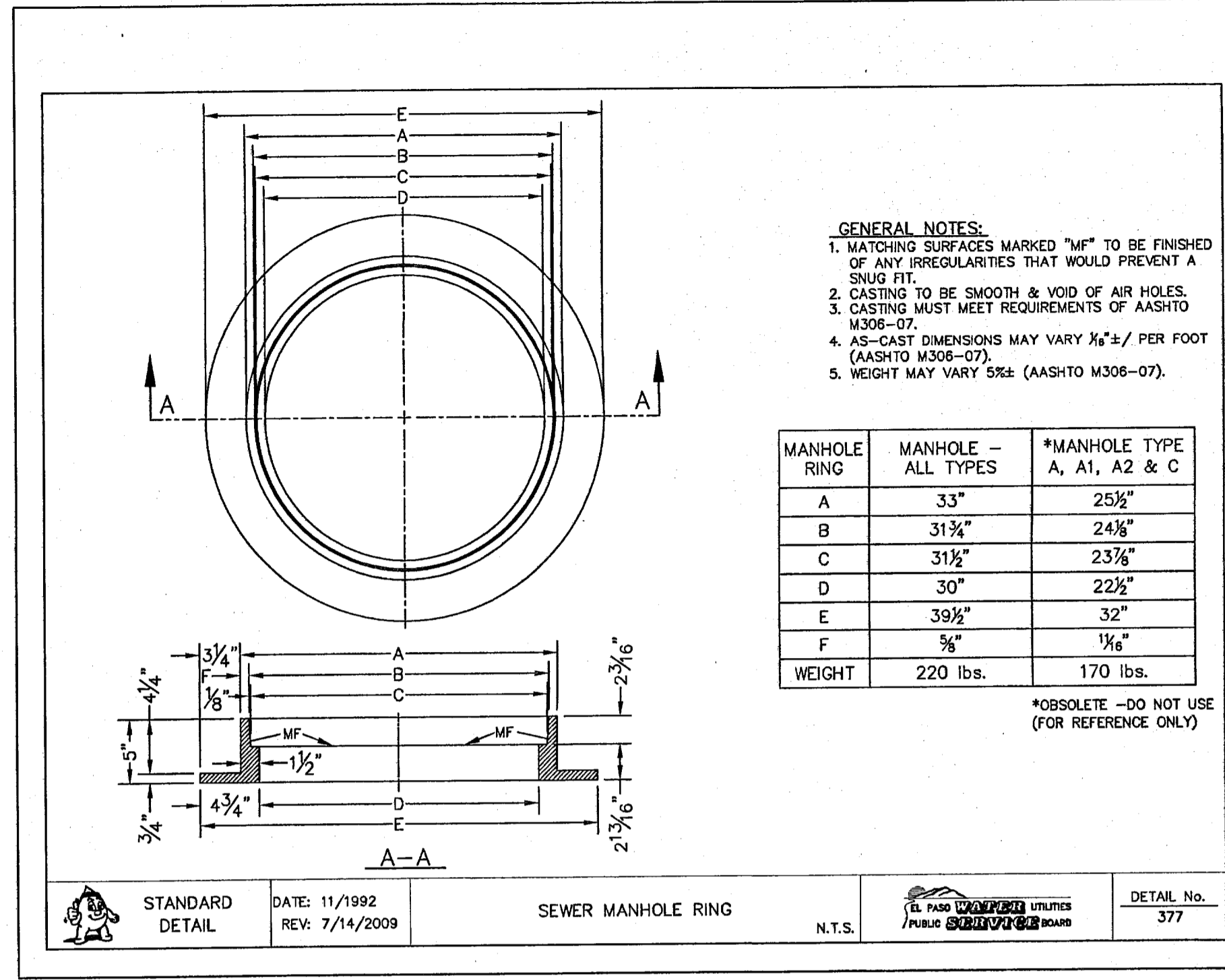
SHEET TITLE
SANDSTONE RANCH UNIT EIGHT SUBDIVISION IMPROVEMENTS

WATER INDEX
SHEET NO.

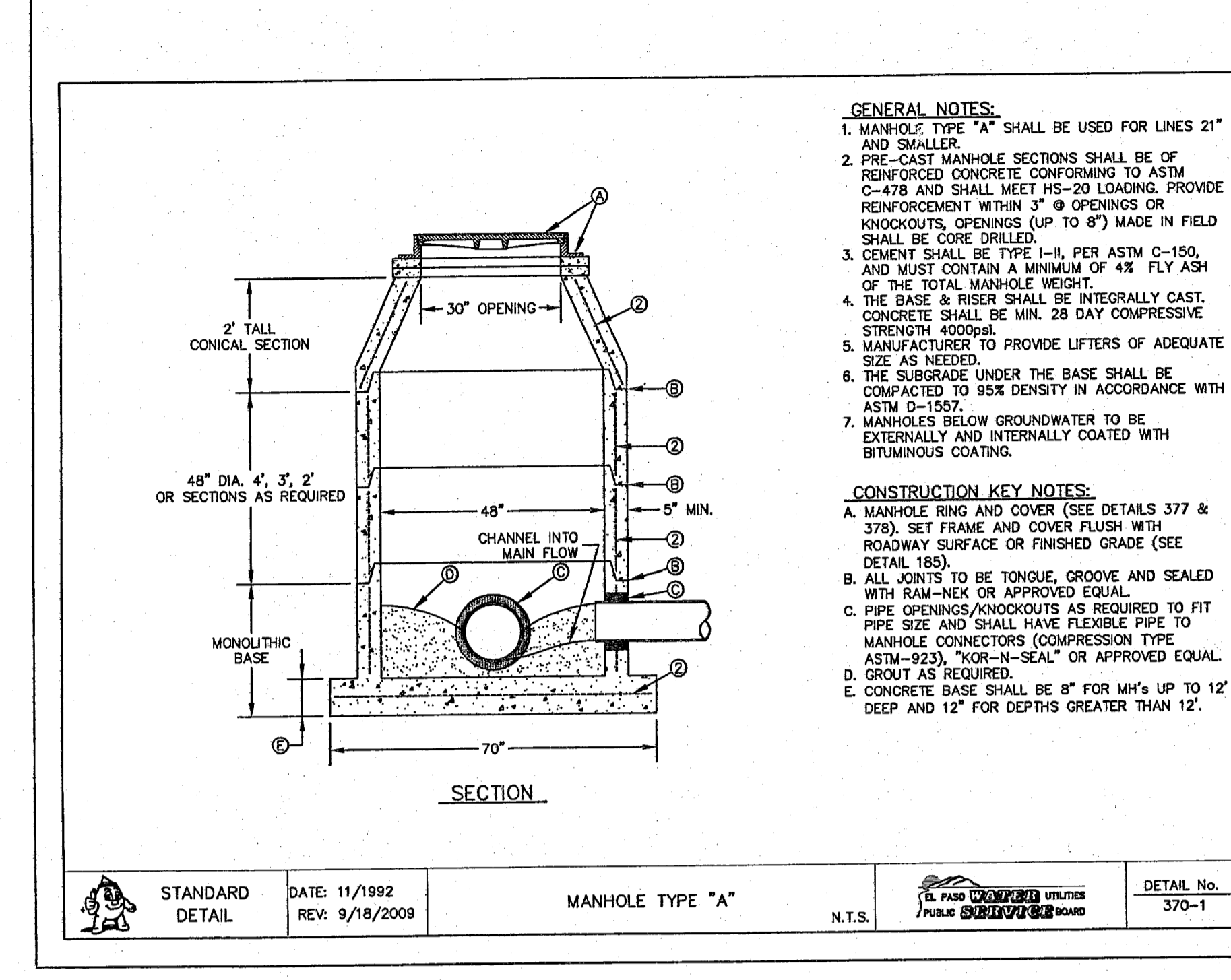
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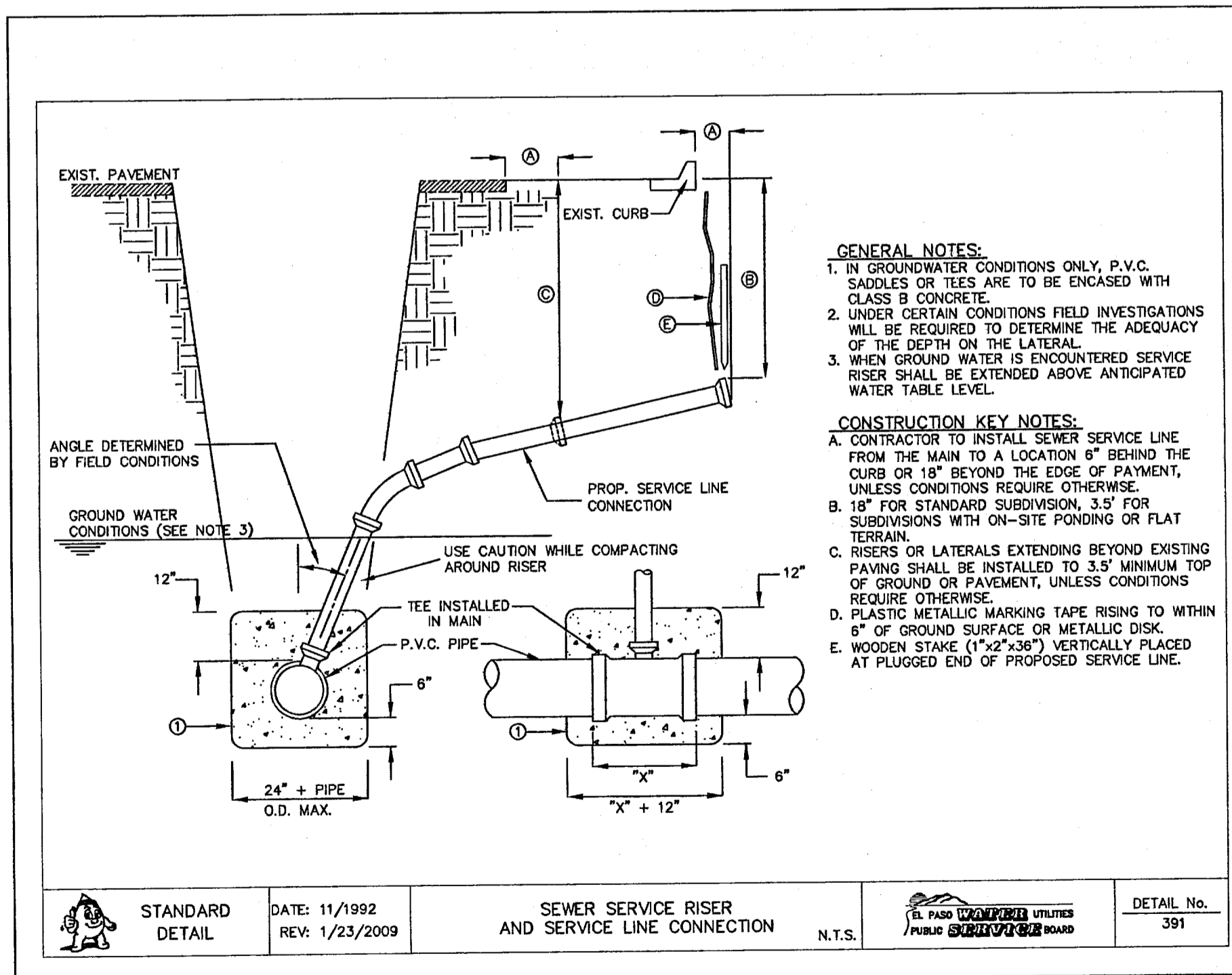
1 STANDARD MANHOLE COVER DETAIL SCALE: N.T.S.



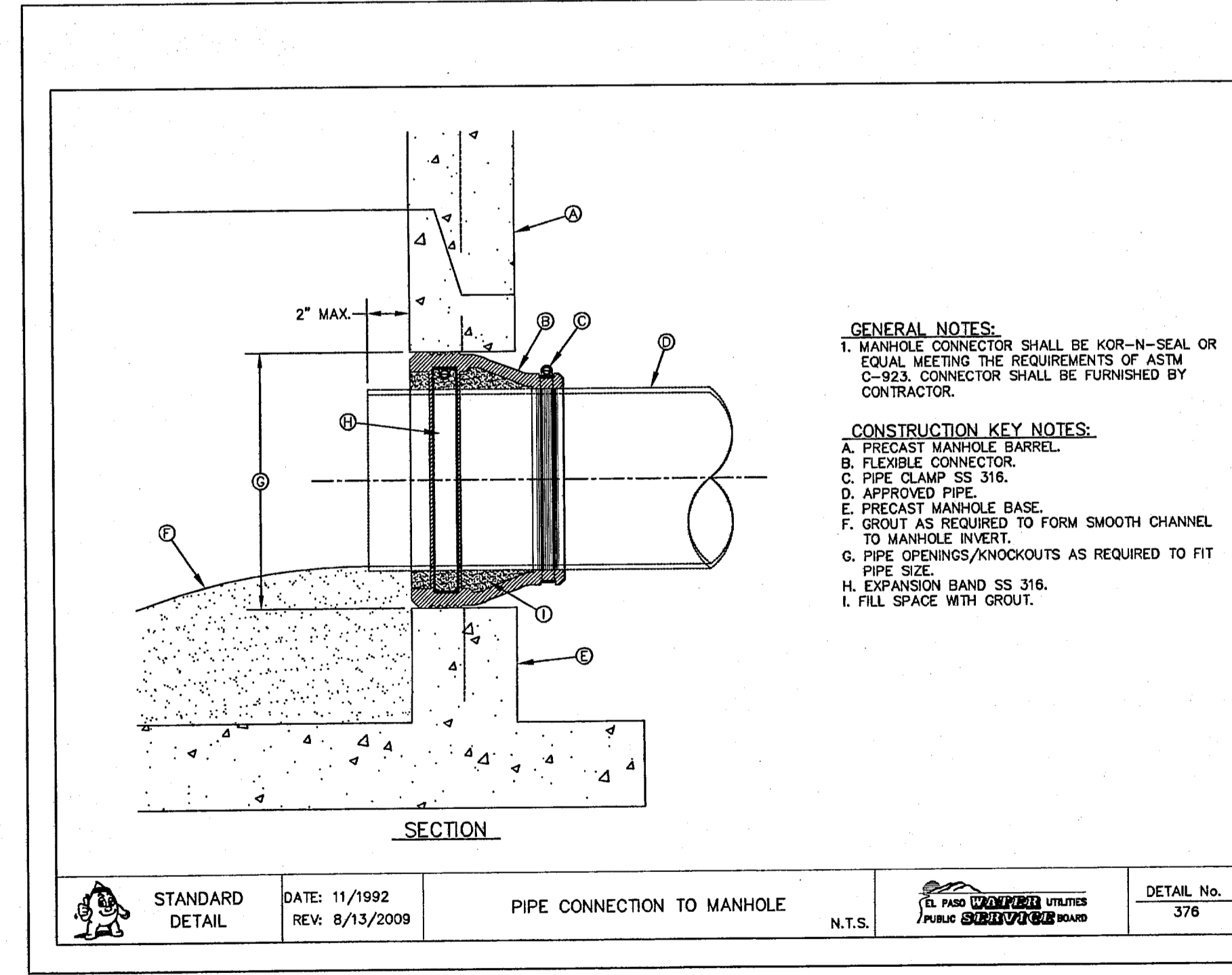
2 STANDARD MANHOLE RING DETAIL SCALE: N.T.S.



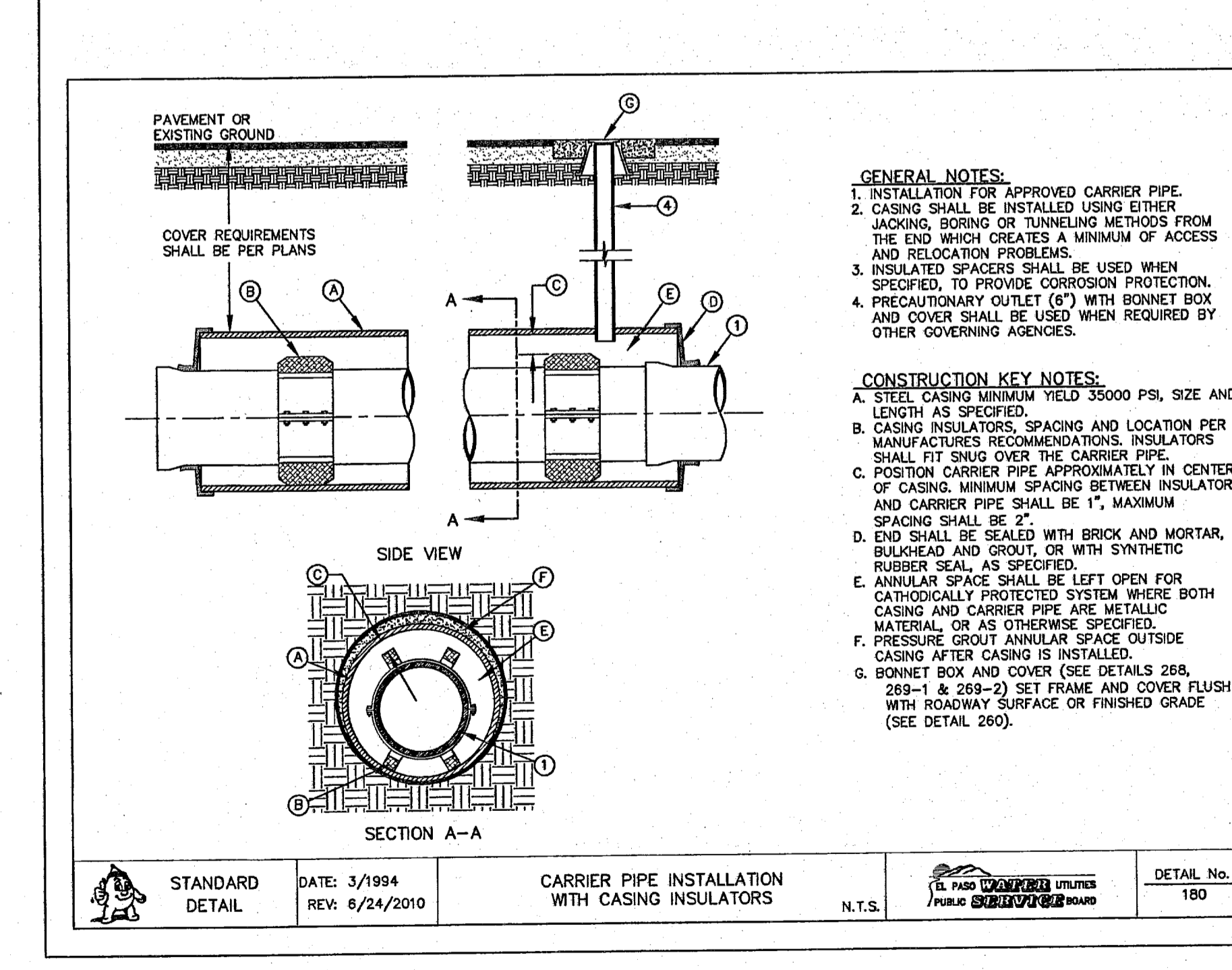
3 STANDARD MANHOLE TYPE "A" SCALE: N.T.S.



4 SEWER SERVICE RISER AND SERVICE LINE CONNECTION SCALE: N.T.S.



5 PIPE CONNECTION TO MANHOLE SCALE: N.T.S.



6 CARRIER PIPE W/ CASING INSULATORS SCALE: N.T.S.

REFERENCES - BENCHMARKS

FOUND TYPICAL BRASS CAP AT SECTION CORNERS 20' AND 22' ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)	DATE	REVISIONS	BY

ENGINEERS

engineers • architects • planners

TEXAS REGISTERED ENGINEERING FIRM F4594

4712 MacArthur Blvd., Ste. F, El Paso, TX 79904

Office: 915.544.5232 Fax: 915.544.5233 www.cogroup.net

ENGINEER'S SEAL

SCALE: N/A

Horizontal: N/A

Vertical: N/A

Contour Interval: N/A

DATE: FEBRUARY 2011

DESIGN BY: G.R.

DRAWN BY: J.L.A.

CHKD. BY: J.L.A.

APPRD. BY: J.L.A.

JOB No. 2000-117-LD

PROJECT NAME

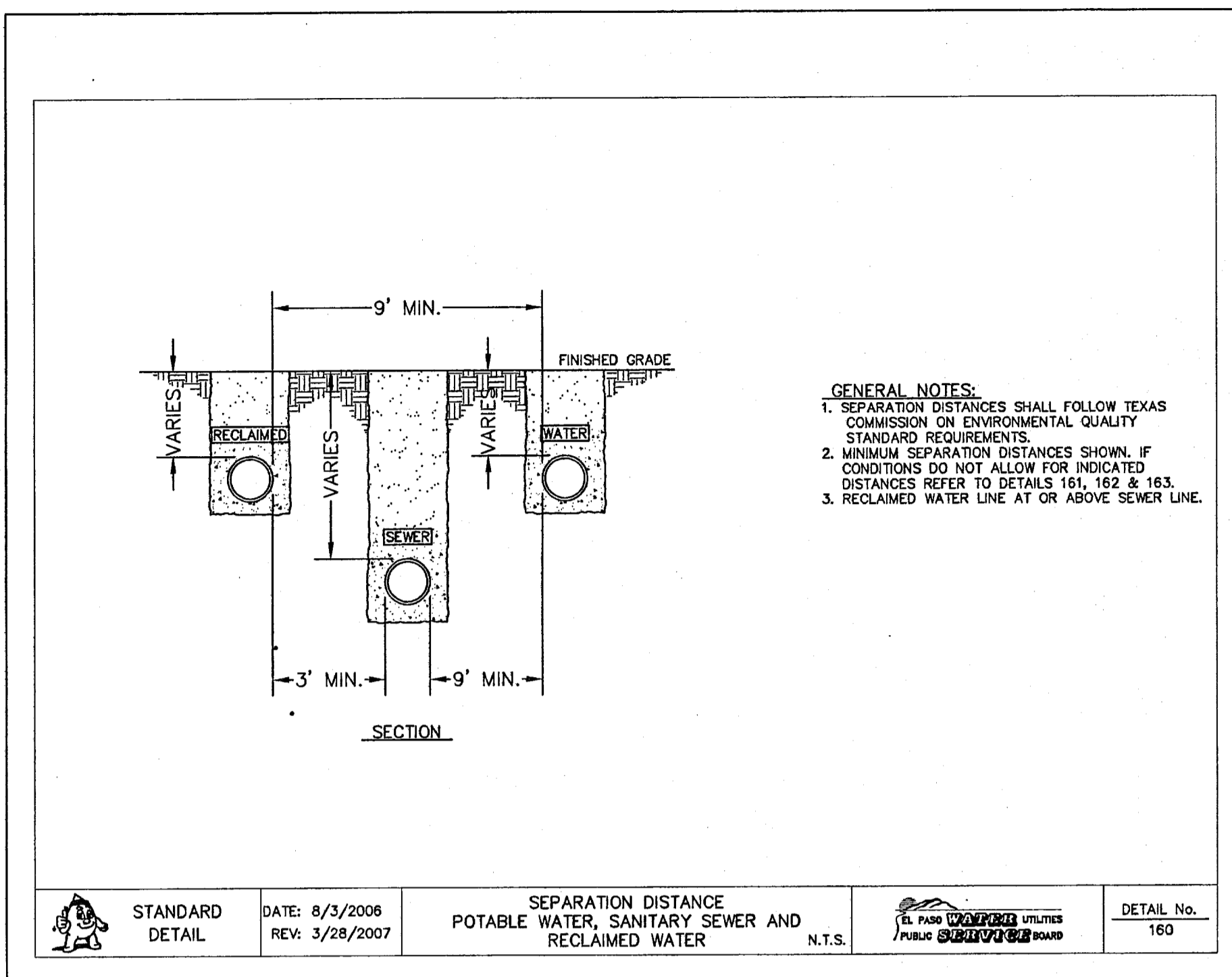
SANDSTONE RANCH UNIT EIGHT SUBDIVISION IMPROVEMENTS

SHEET TITLE

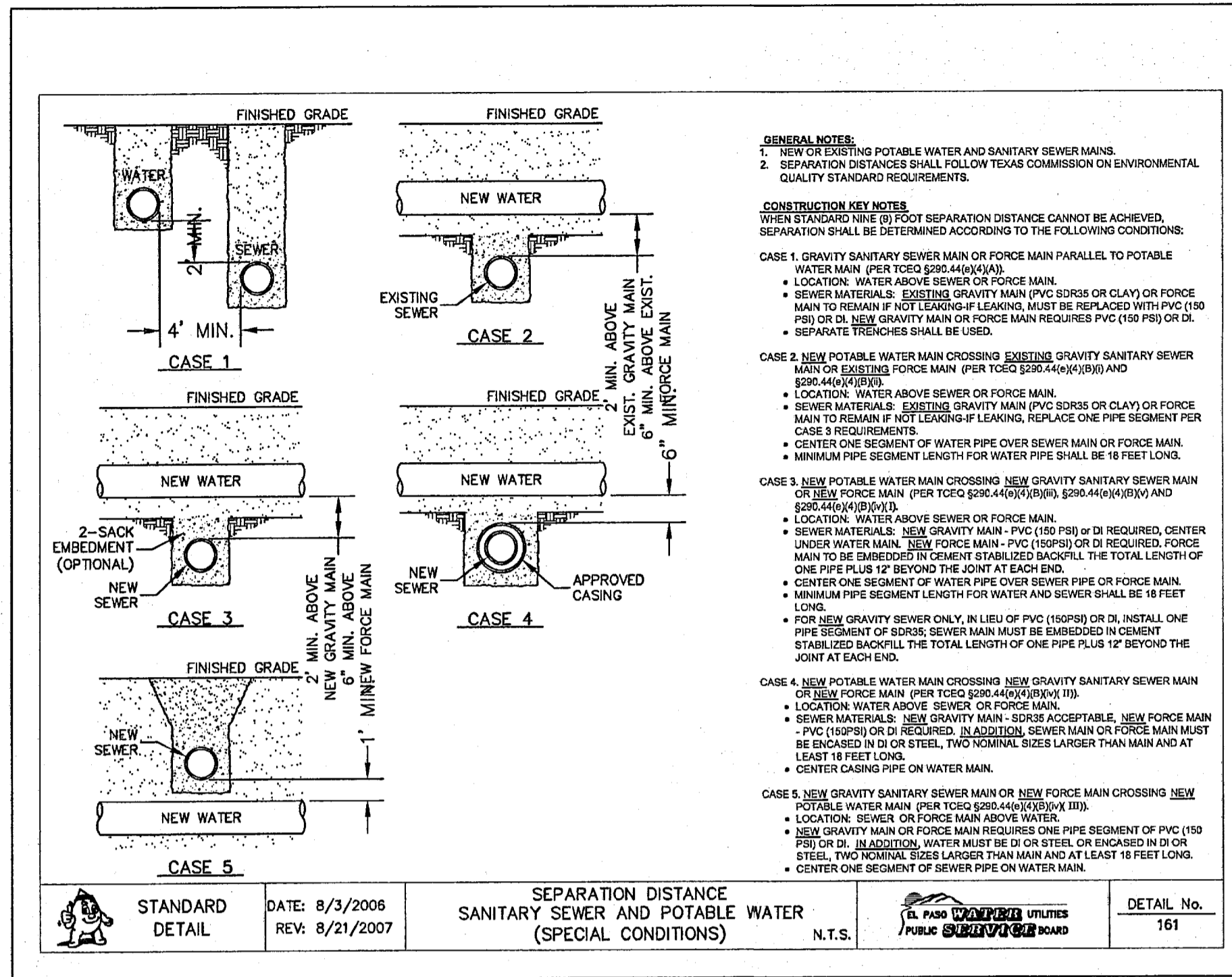
SANITARY SEWER DETAILS (SHEET 1 OF 3)

SHEET No.

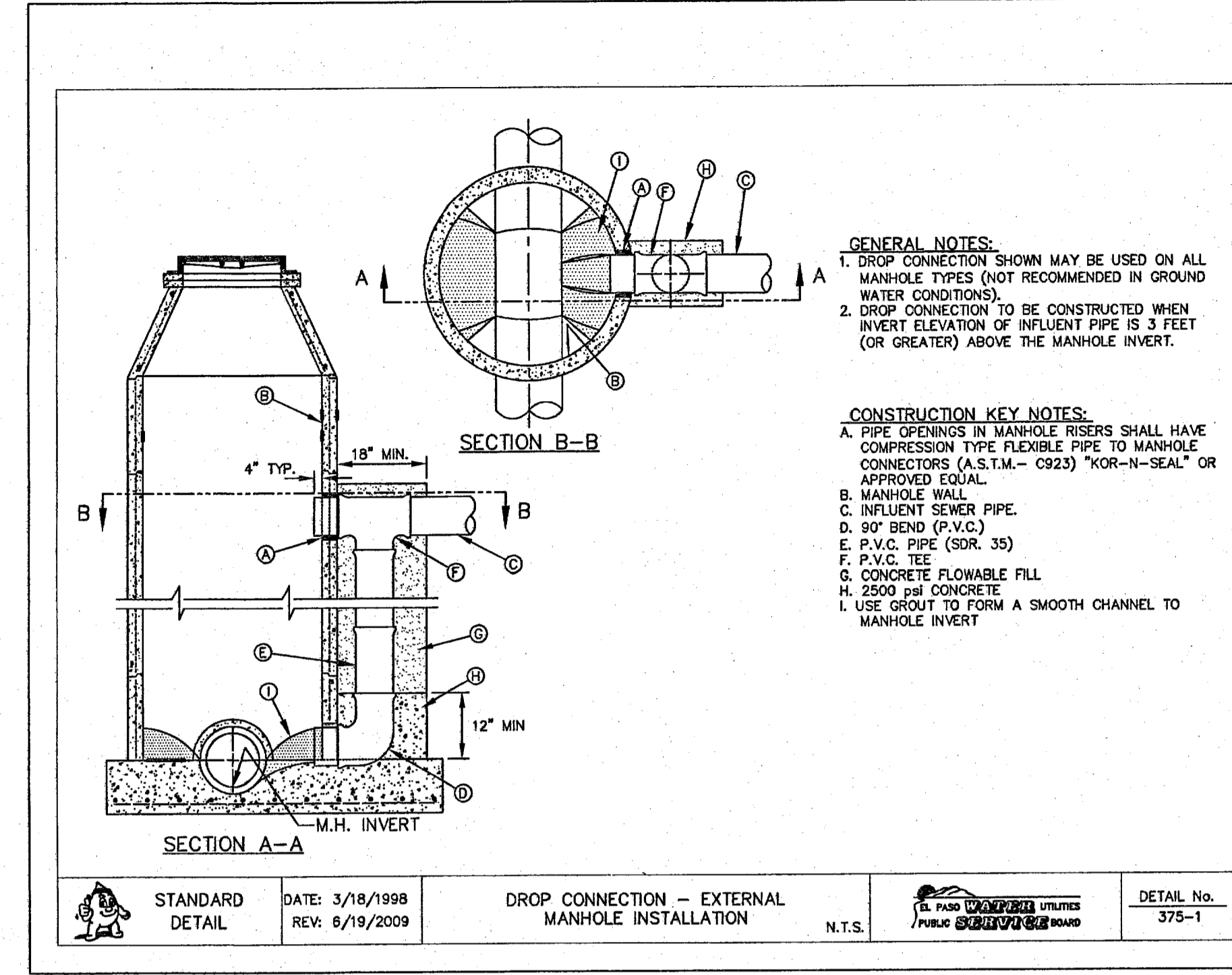
C11.1



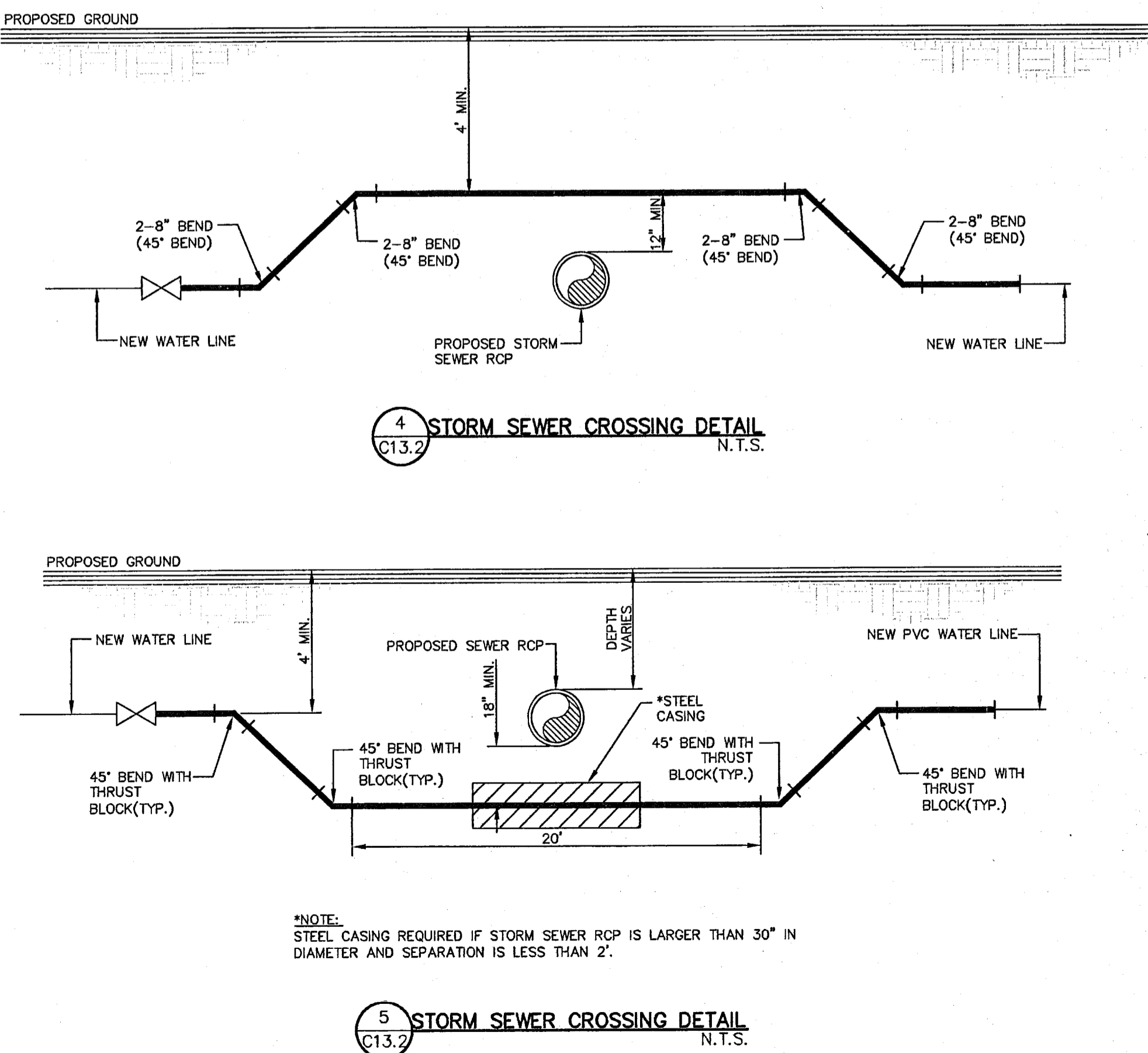
1 SEPARATION DISTANCE-NEW WATER AND NEW SEWER SCALE: N.T.S.



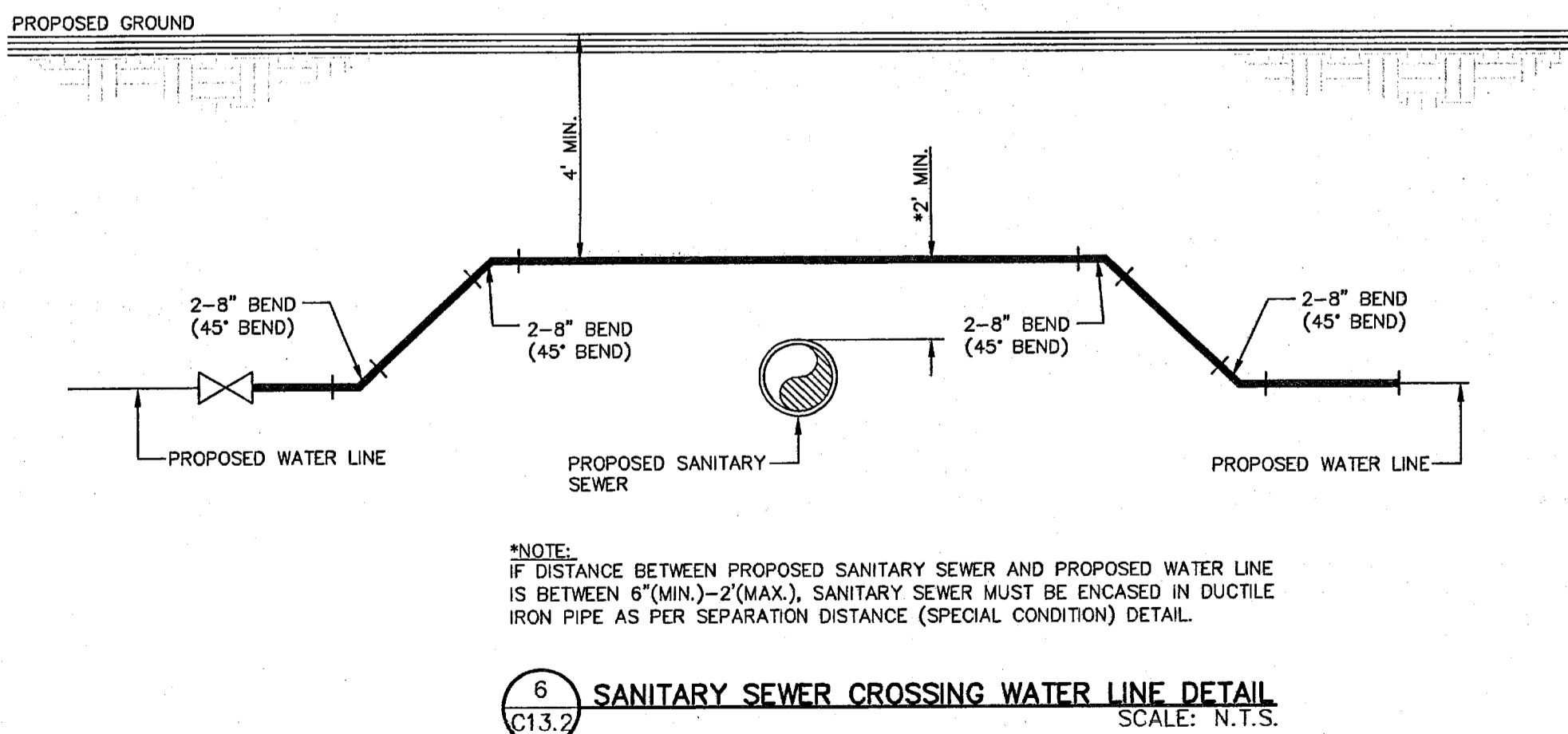
2 SEPARATION DISTANCE-SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS) SCALE: N.T.S.



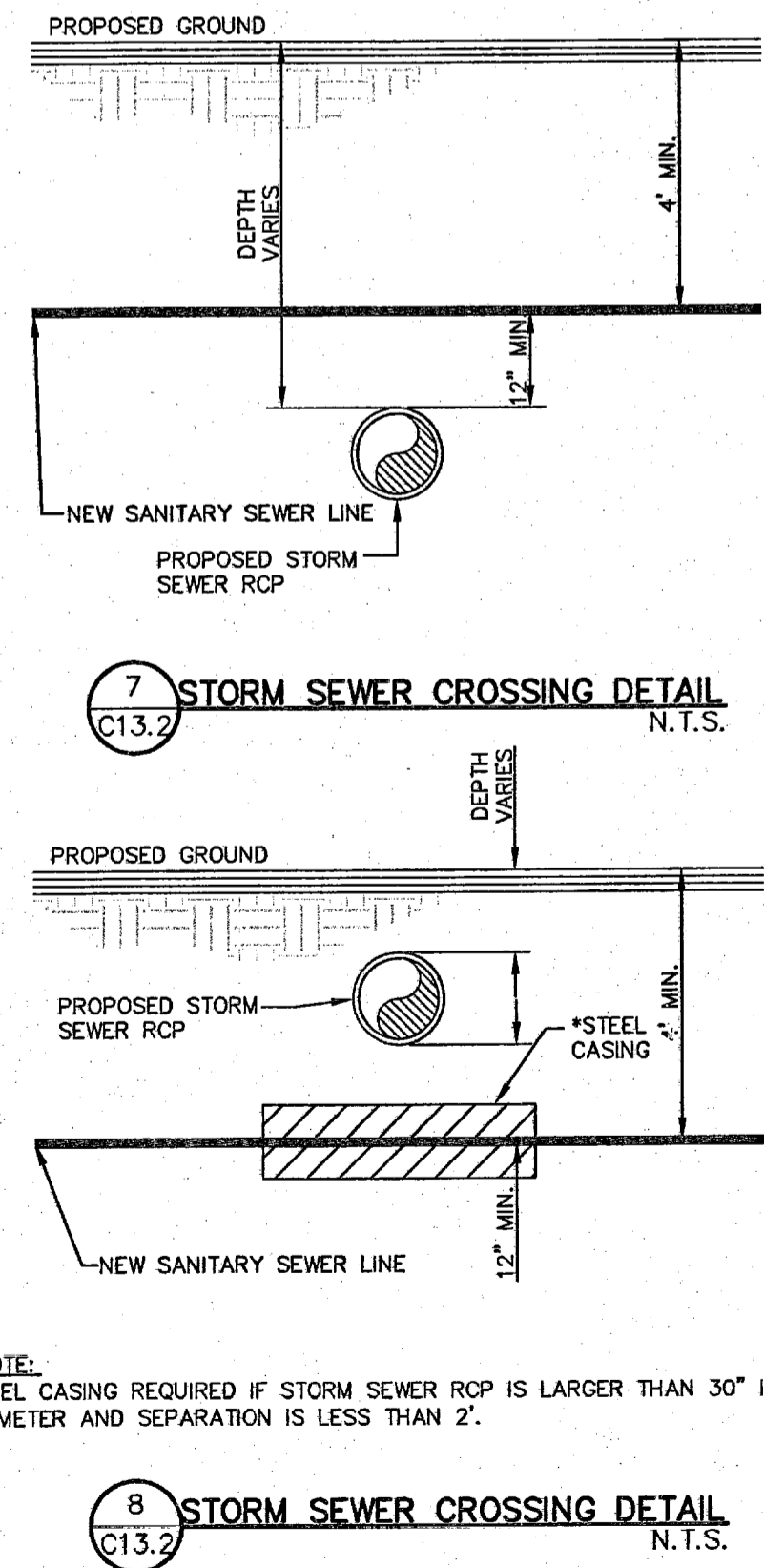
3 DROP CONNECTION-EXTERNAL MANHOLE INSTALLATION SCALE: N.T.S.



4 STORM SEWER CROSSING DETAIL SCALE: N.T.S.



5 SANITARY SEWER CROSSING WATER LINE DETAIL SCALE: N.T.S.

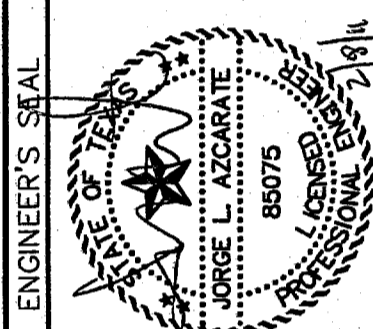


6 STORM SEWER CROSSING DETAIL SCALE: N.T.S.

REFERENCES - BENCHMARKS
 FOUND TYPICAL BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

ENGINEERS SEAL
 JORGE L. AZCARATE
 88075
 LICENSED PROFESSIONAL ENGINEER
 STATE OF TEXAS
 5/10/11

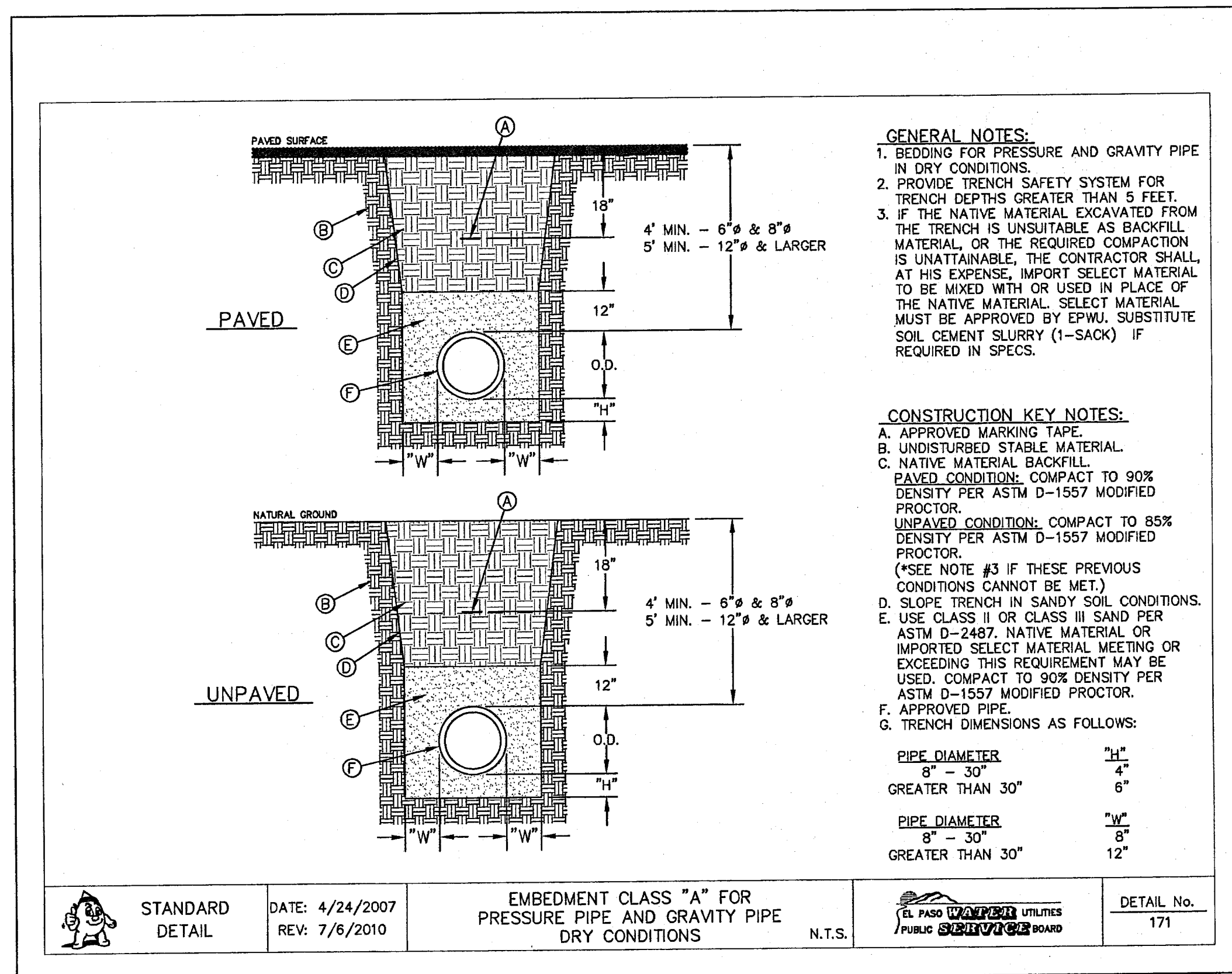


SCALE: N/A
 Horizontal: N/A
 Vertical: N/A
 Contour Interval: N/A
 DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: G.R.
 CHKD. BY: J.L.A.
 APP'D. BY: J.L.A.
 JOB No. 2000-127-LD

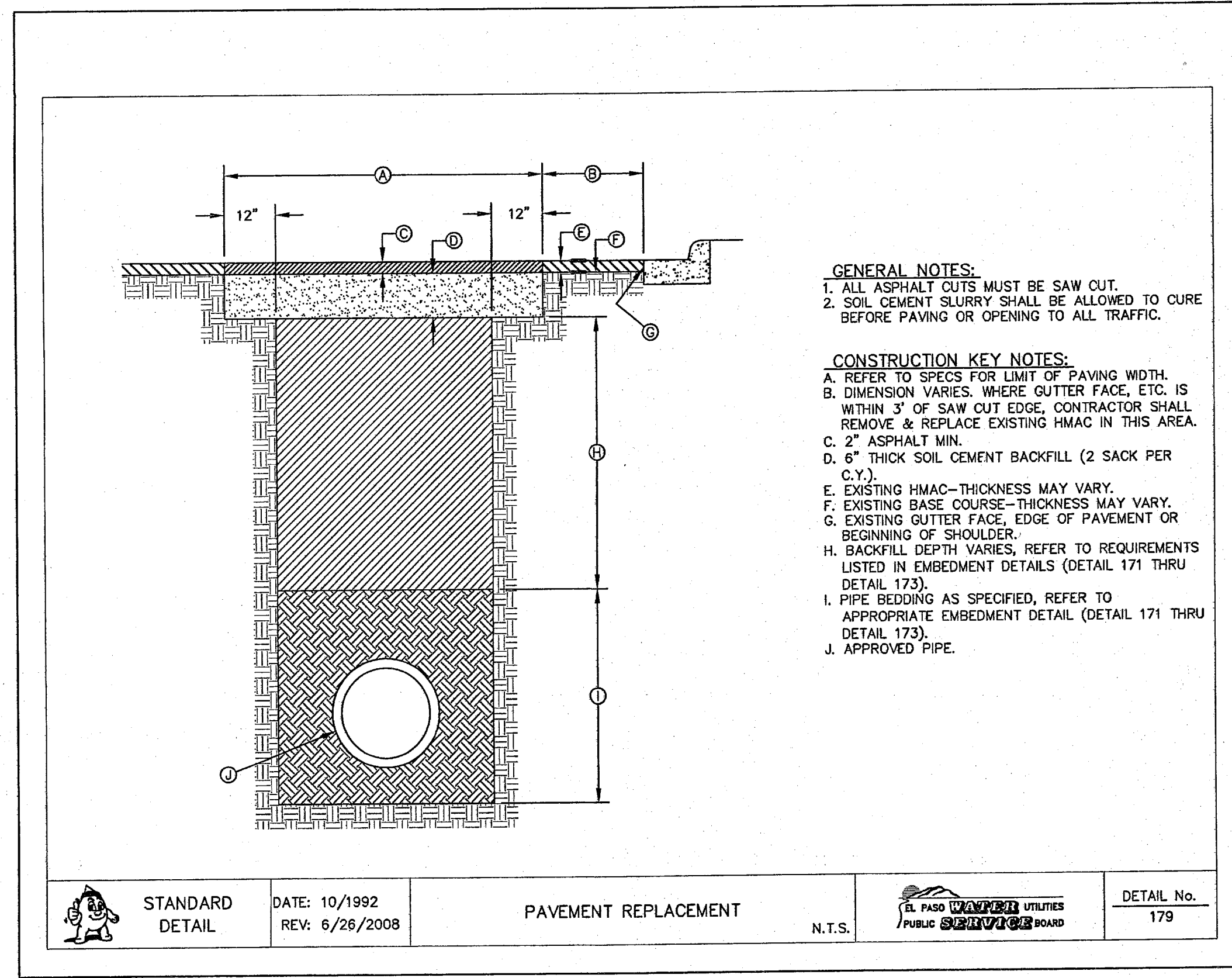
PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**SANITARY SEWER
 DETAILS
 (SHEET 2 OF 3)**

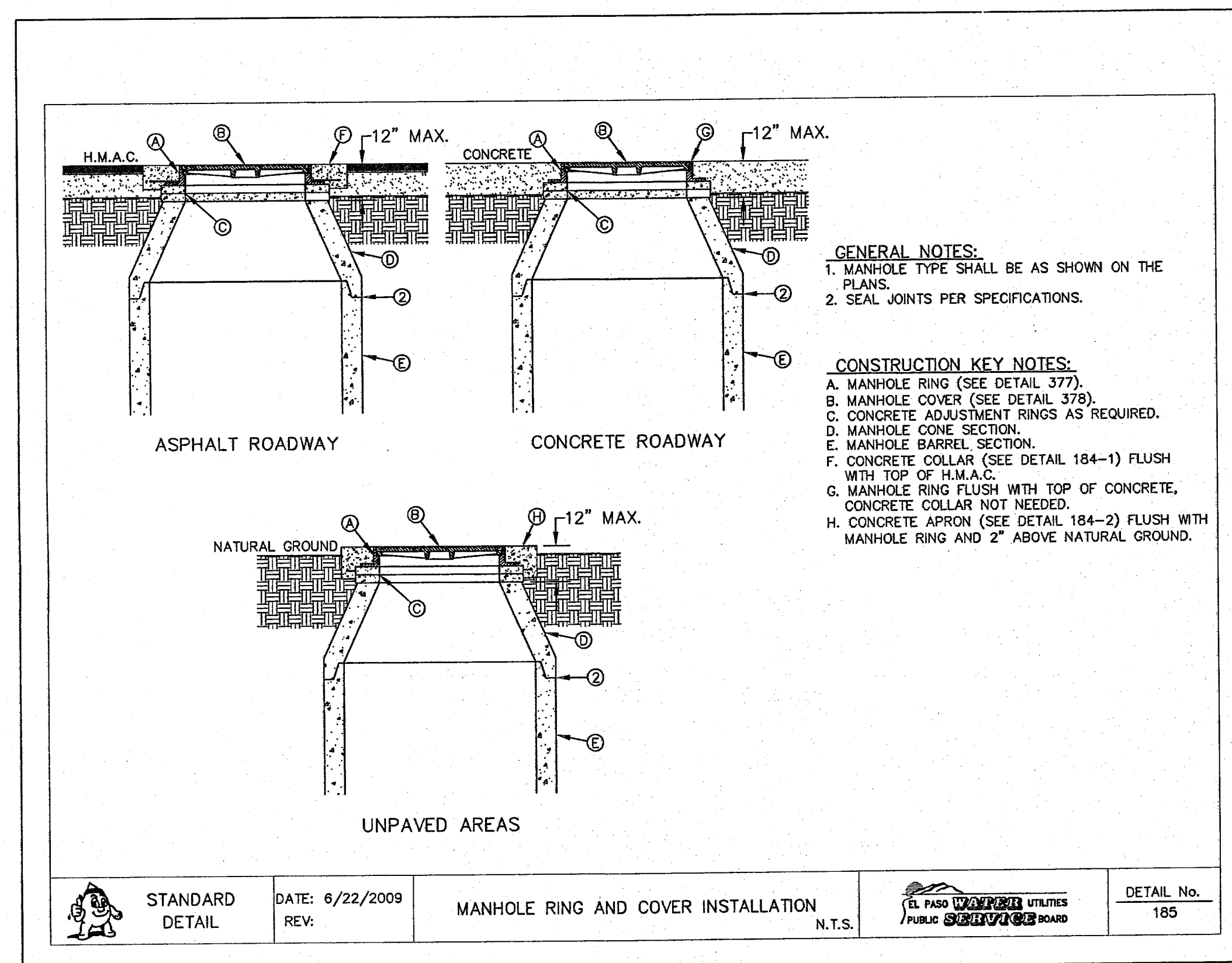
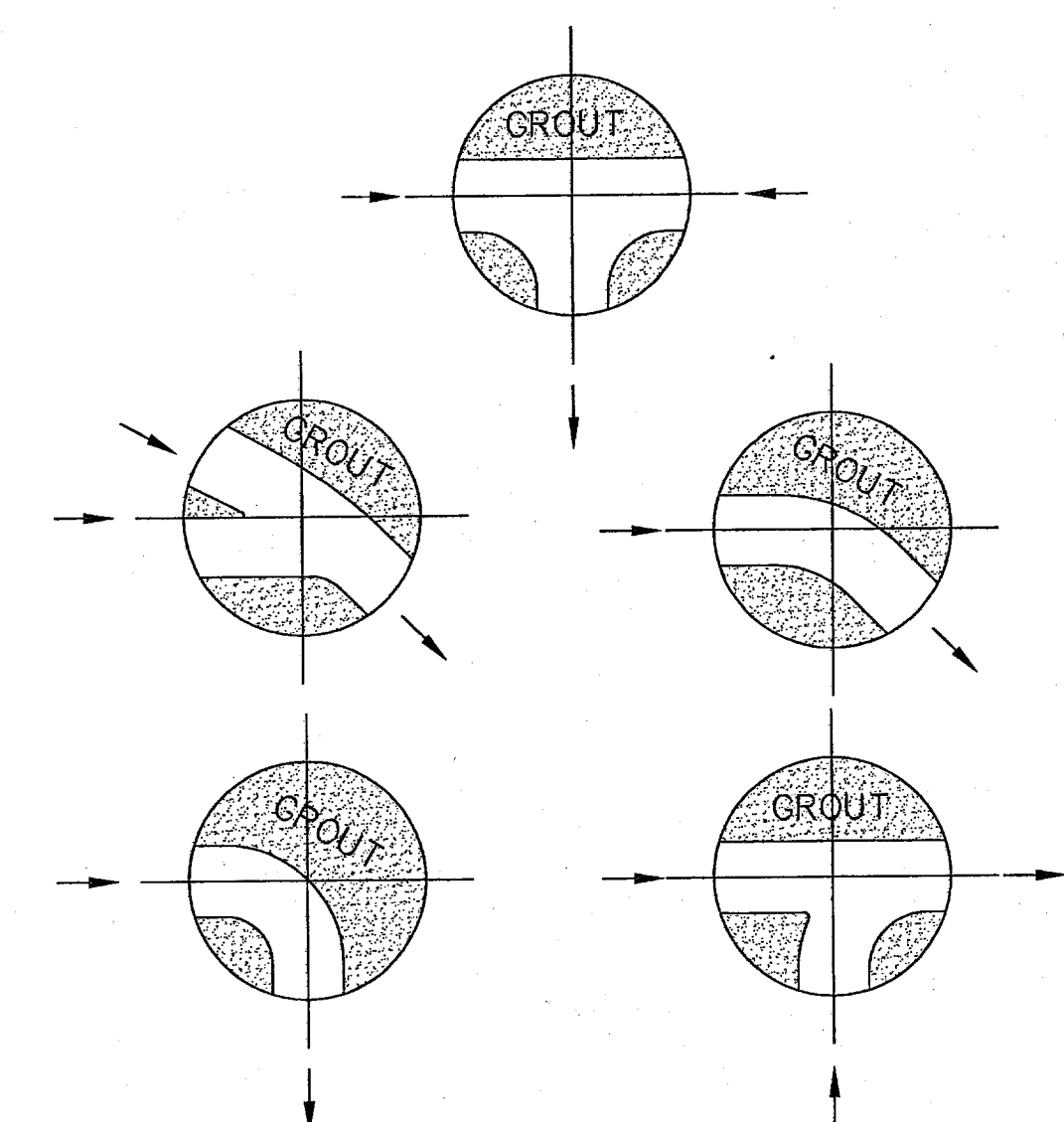
SHEET NO.
C11.2



1 BEDDING CLASS DETAILS FOR P.V.C. PRESSURE PIPE SCALE: N.T.S.



2 PAVEMENT REPLACEMENT DETAIL N.T.S.

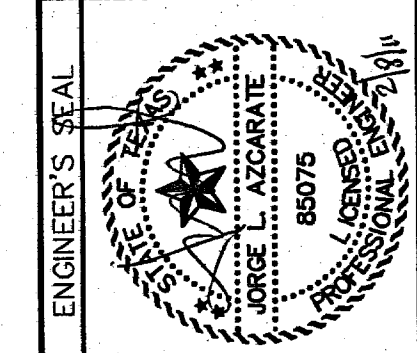
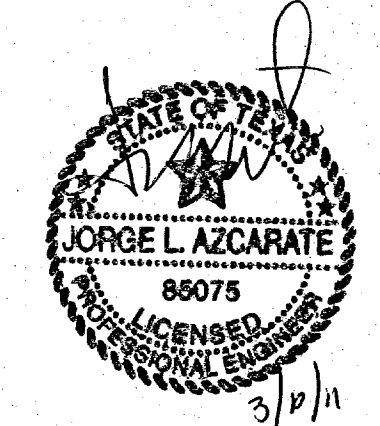


4 MANHOLE RING AND COVER INSTALLATION N.T.S.

REFERENCES - BENCHMARKS

FOUND TUDOT BRASS CAP AT SECTION CORNERS 18, 20, 21, 22	SECTION	BY
033522 (NG TO ATUM) SUBTRACT 8.462 TO CONVERT TO CITY DATUM.	DATE	REVISIONS

CSA
C S A
 engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM #4584
 4014 W. LOOP W. SUITE 100 EL PASO, TX 79904
 OFFICE: 915.544.6222 FAX: 915.544.6223 WWW.CSAENGINEERS.COM



SCALE: N/A

Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	FEBRUARY 2011
DESIGN BY:	G.R.
DRAWN BY:	J.L.A.
CHKD. BY:	J.L.A.
APPVD. BY:	J.L.A.
JOB No.	2000-127-LD

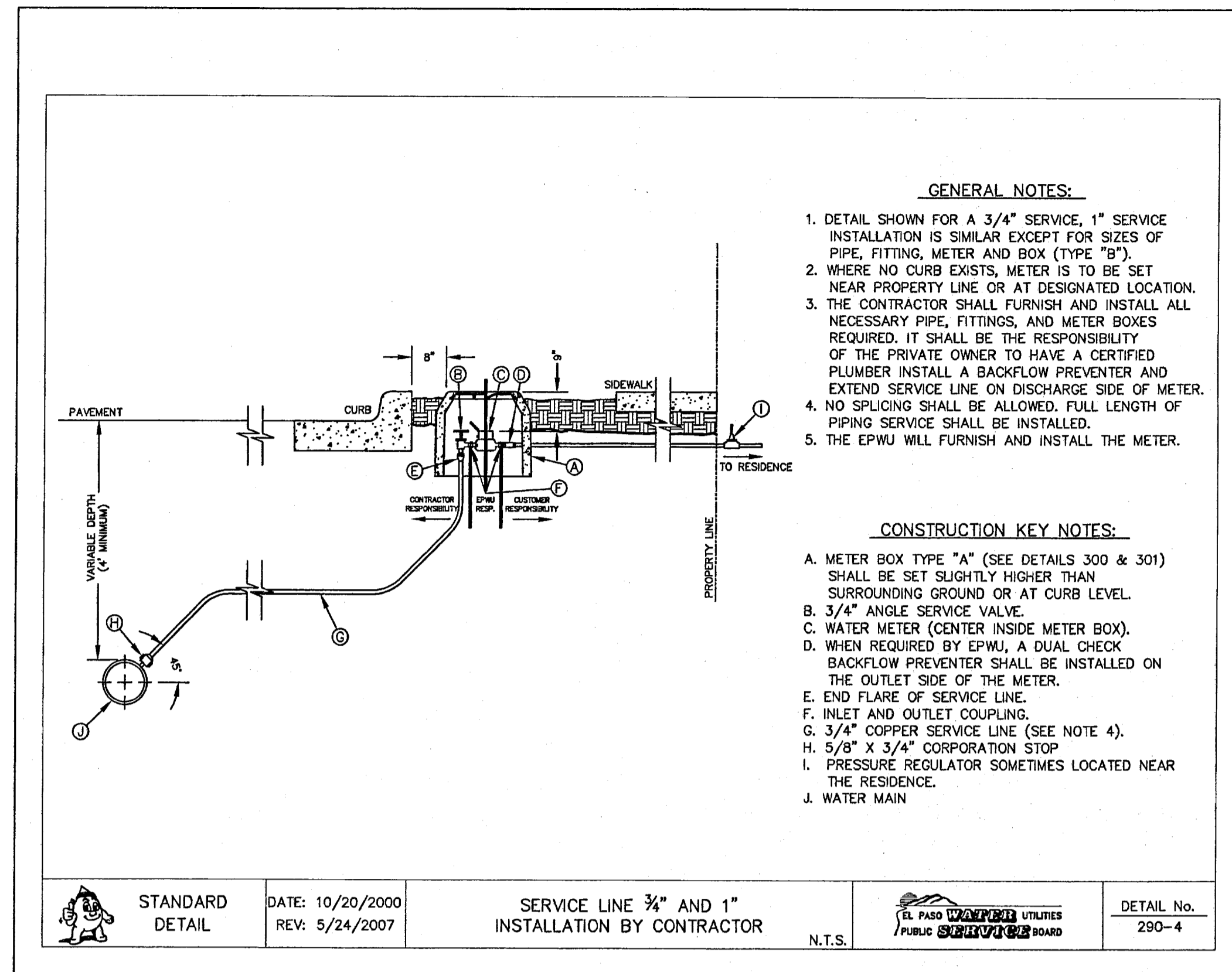
PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE

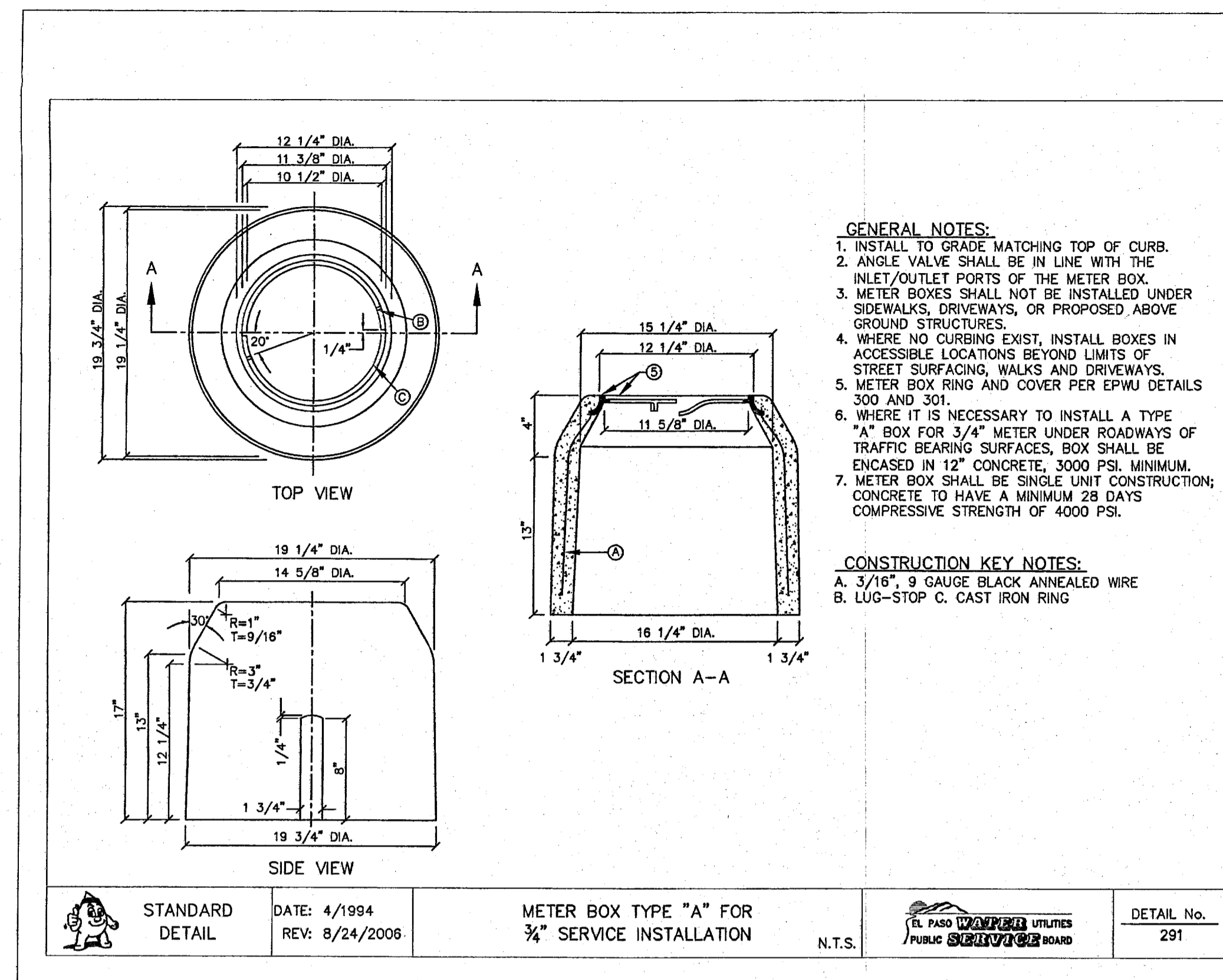
SANITARY SEWER DETAILS
 (SHEET 3 OF 3)

SHEET NO.

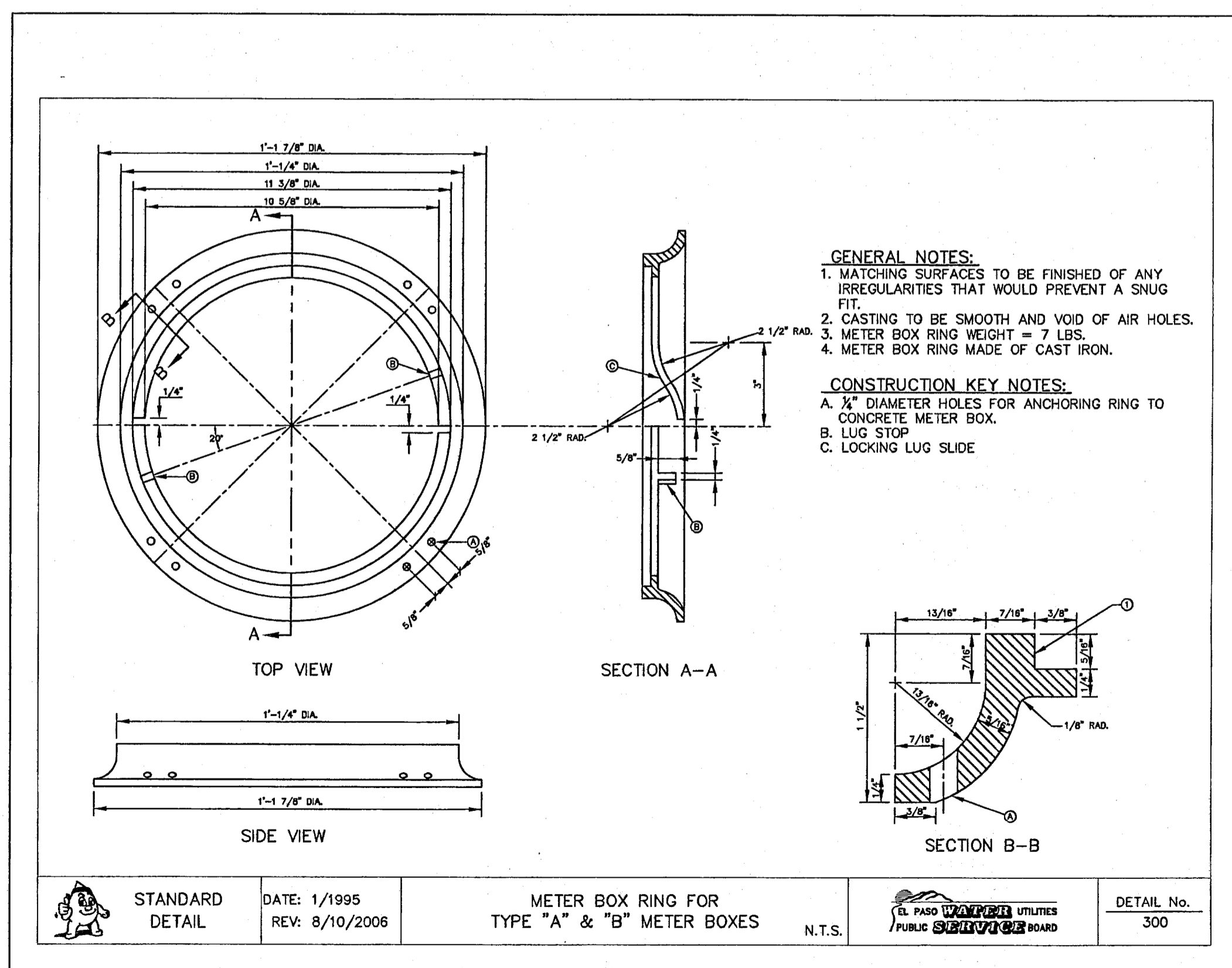
C11.3



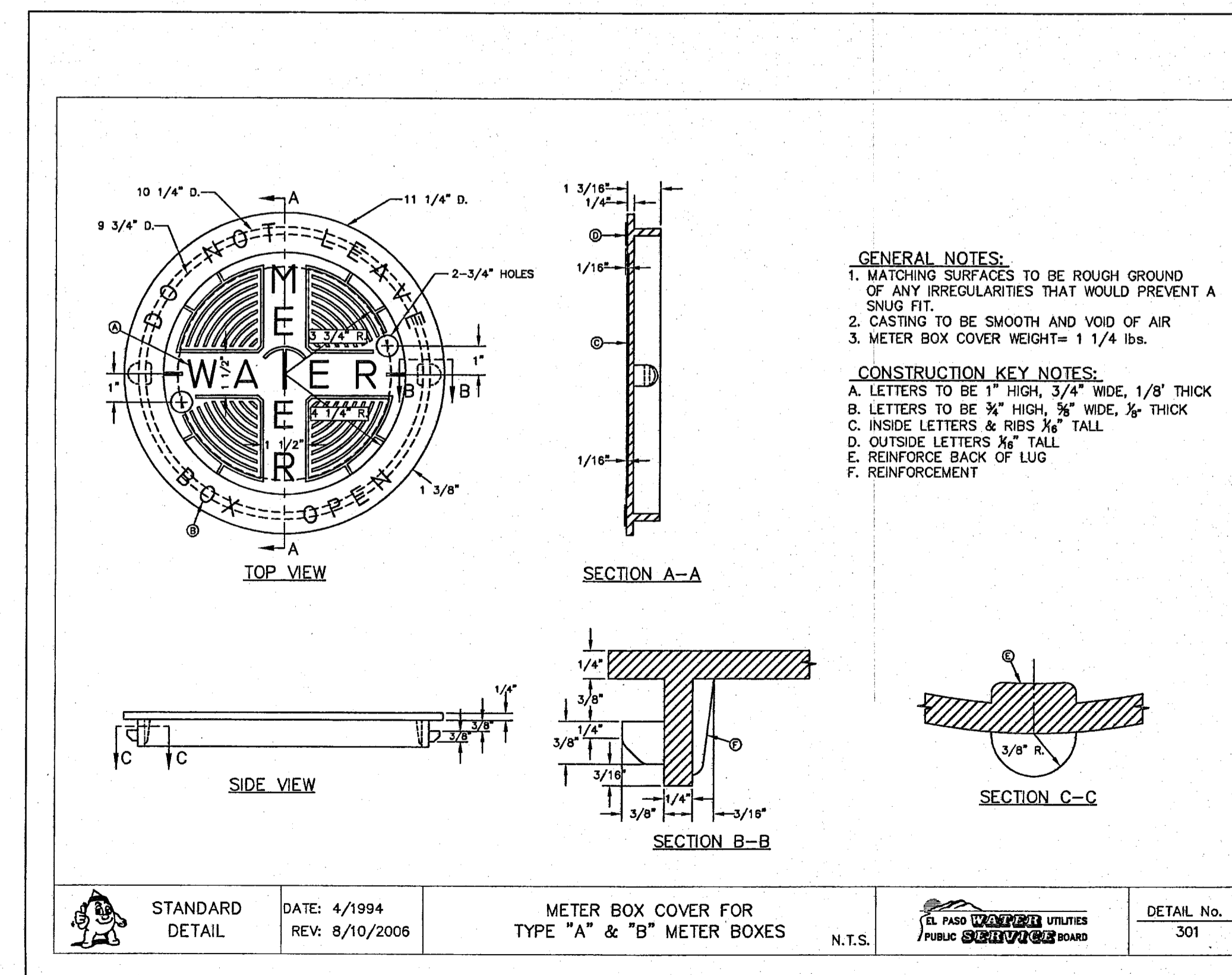
1 TYPICAL SERVICE LINE INSTALLATION
C12.1 N.T.S.



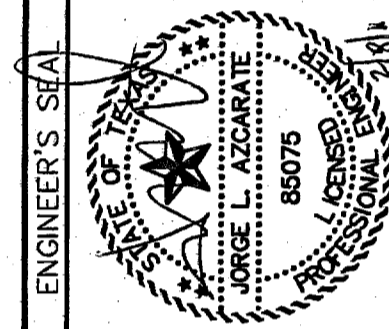
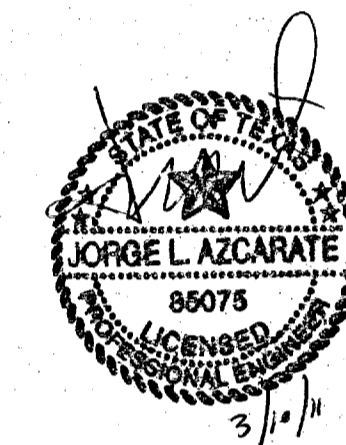
2 METER BOX DETAIL
C12.1 N.T.S.



3 METER BOX RING DETAIL
C12.1 N.T.S.



4 METER BOX COVER DETAIL
C12.1 N.T.S.



SCALE: N/A
Horizontal: N/A
Vertical: N/A
DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: G.R.
CHECKED BY: J.L.A.
APPROVED BY: J.L.A.
JOB No. 2000-127-LD

PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

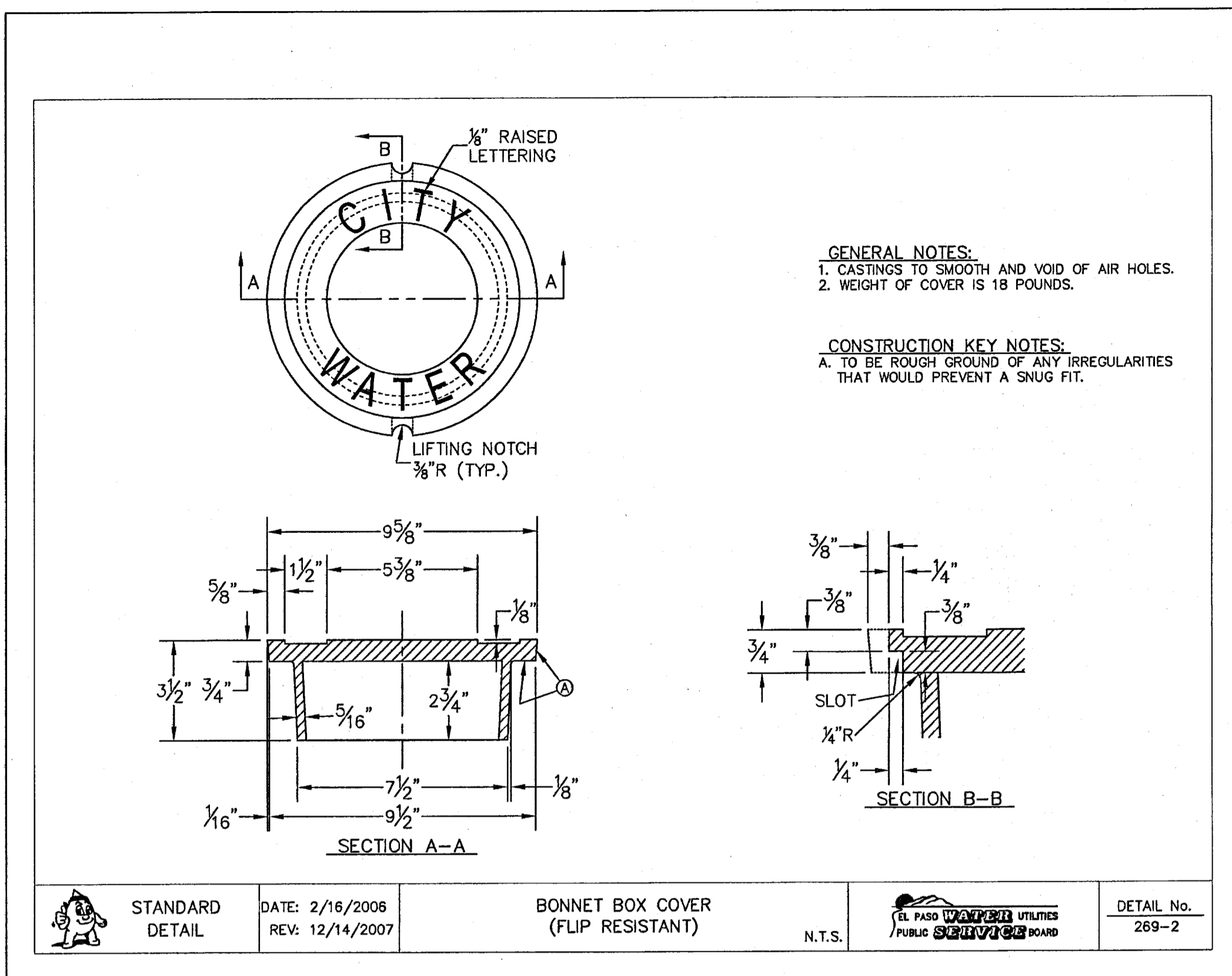
WATER DETAILS
(SHEET 1 OF 5)

SHEET NO.

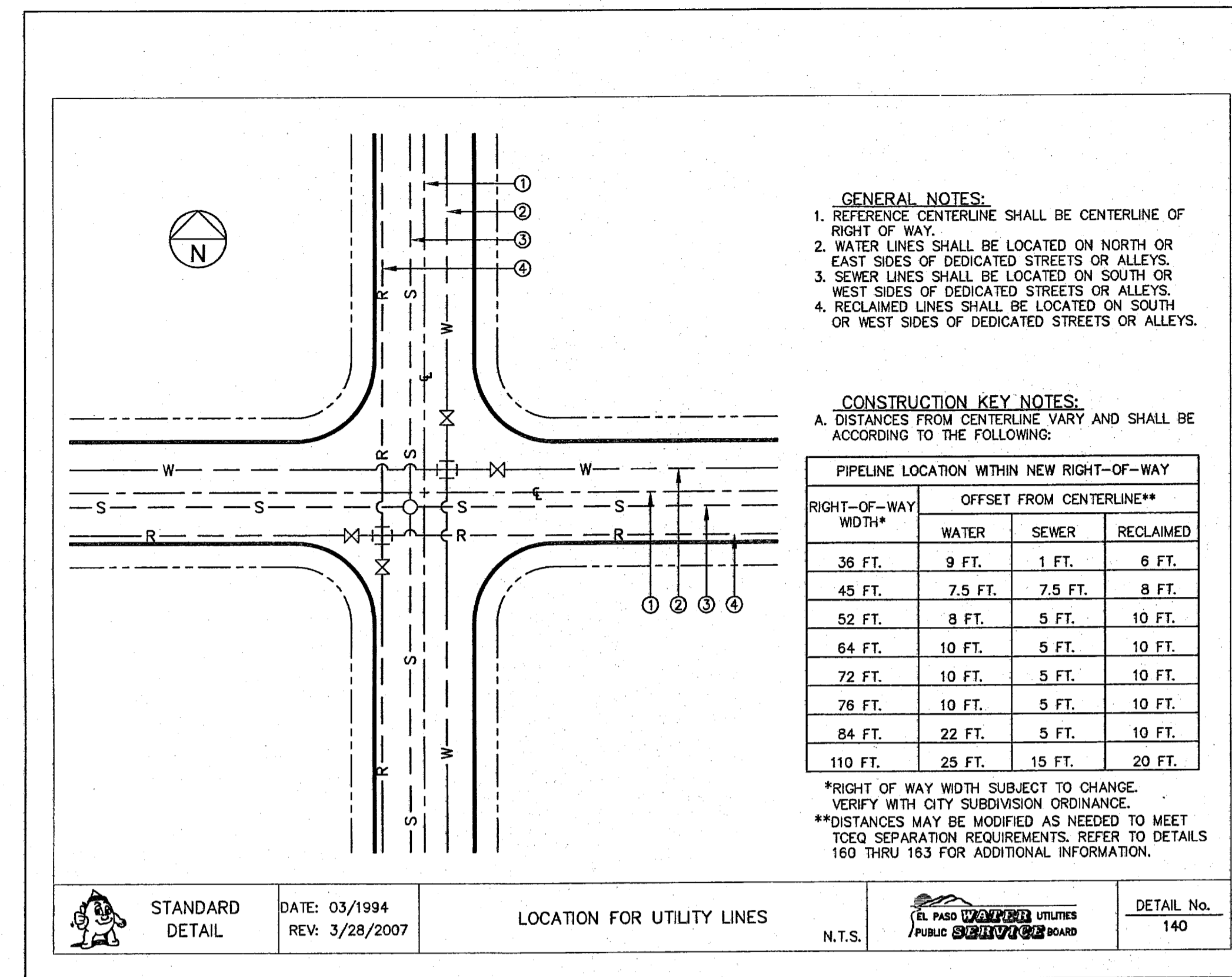
C12.1

REFERENCES - BENCHMARKS	FOUND TYDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.482 TO CONVERT TO CITY DATUM).
DATE	REVISIONS
BY	

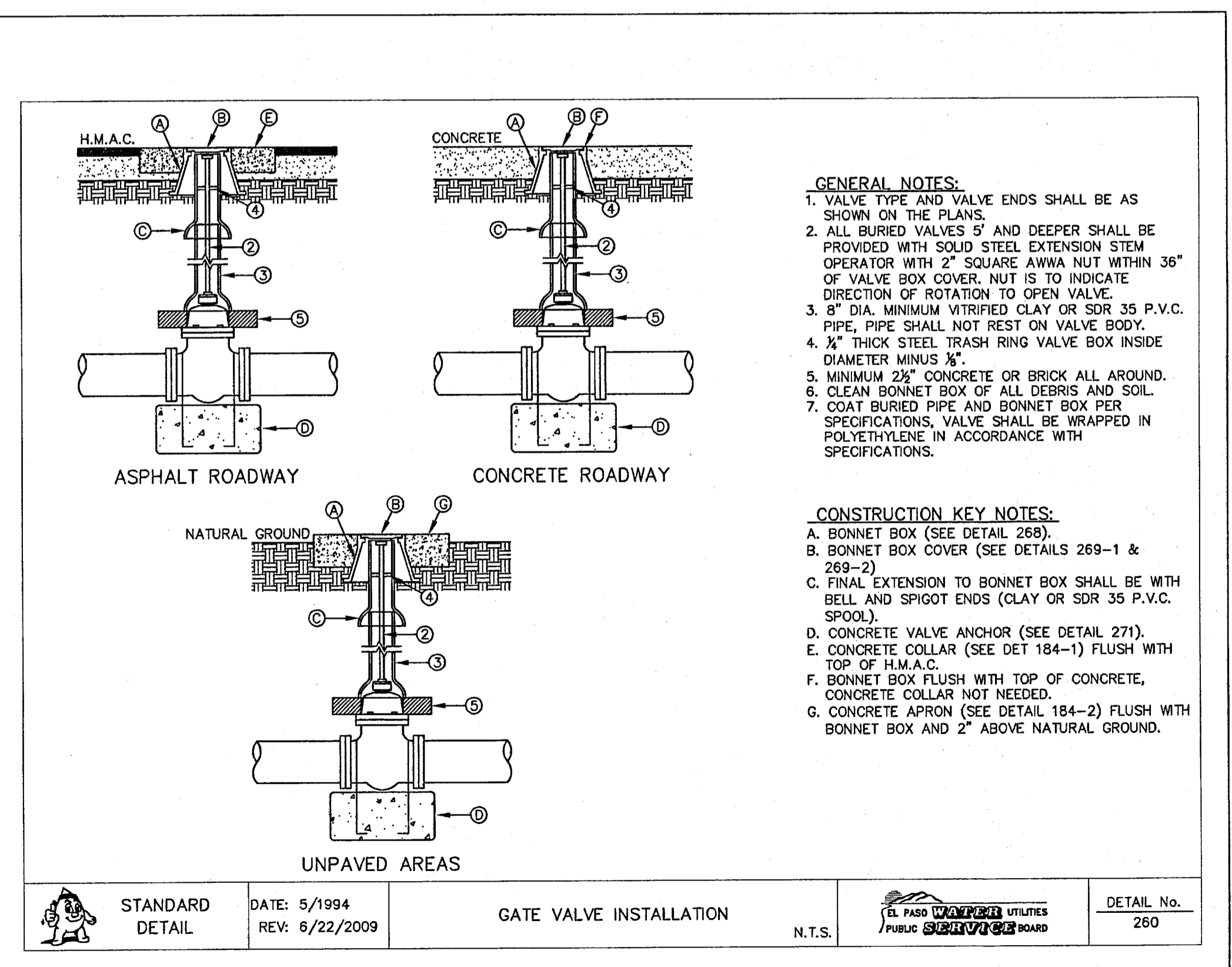
CSA
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-454
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.541.8332 Fax: 915.541.8333 www.csaeng.com



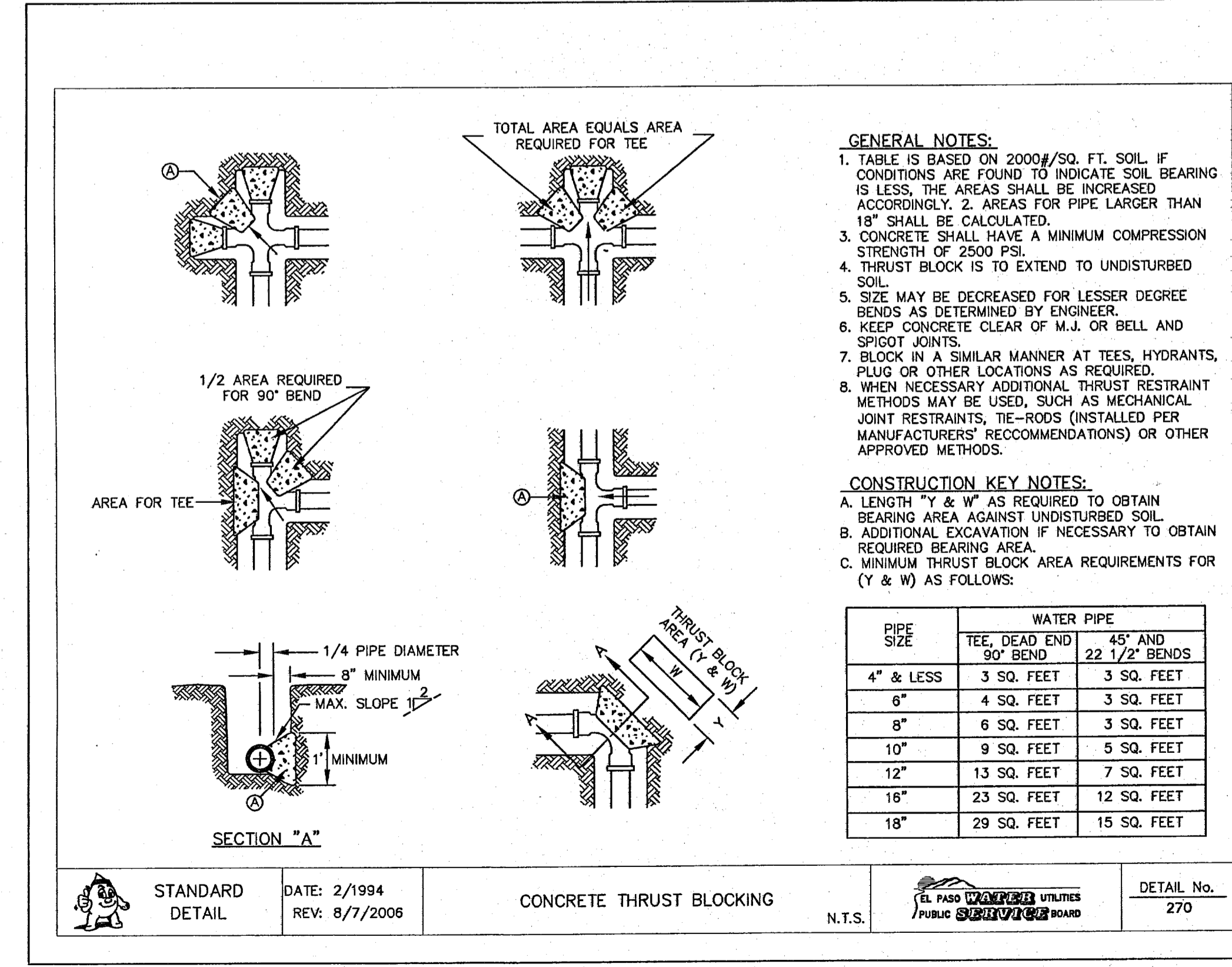
1 BONNET BOX COVER & EXTENSION (FLIP RESISTANT)
N.T.S.



2 STANDARD LOCATION FOR EXTENSIONS DETAIL
N.T.S.



3 GATE VALVE INSTALLATION
N.T.S.



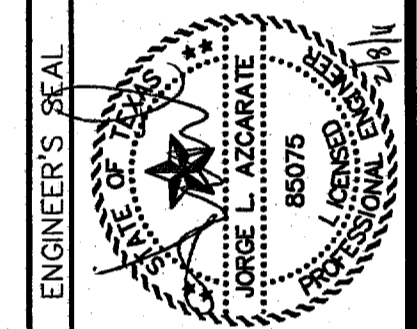
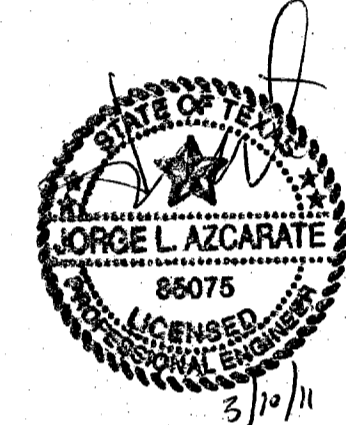
4 THRUST BLOCKING
N.T.S.

REFERENCES - BENCHMARKS

FOUND TYPICAL BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

DATE	REVISIONS	BY

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Office: 915.544.5222 Fax: 915.544.5233 www.csanduo.com



SCALE
Horizontal: 1"=40'
Vertical: 1"=4'
Contour Interval: N/A
DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APP'D. BY: J.L.A.
JOB No. 2000-127-LD

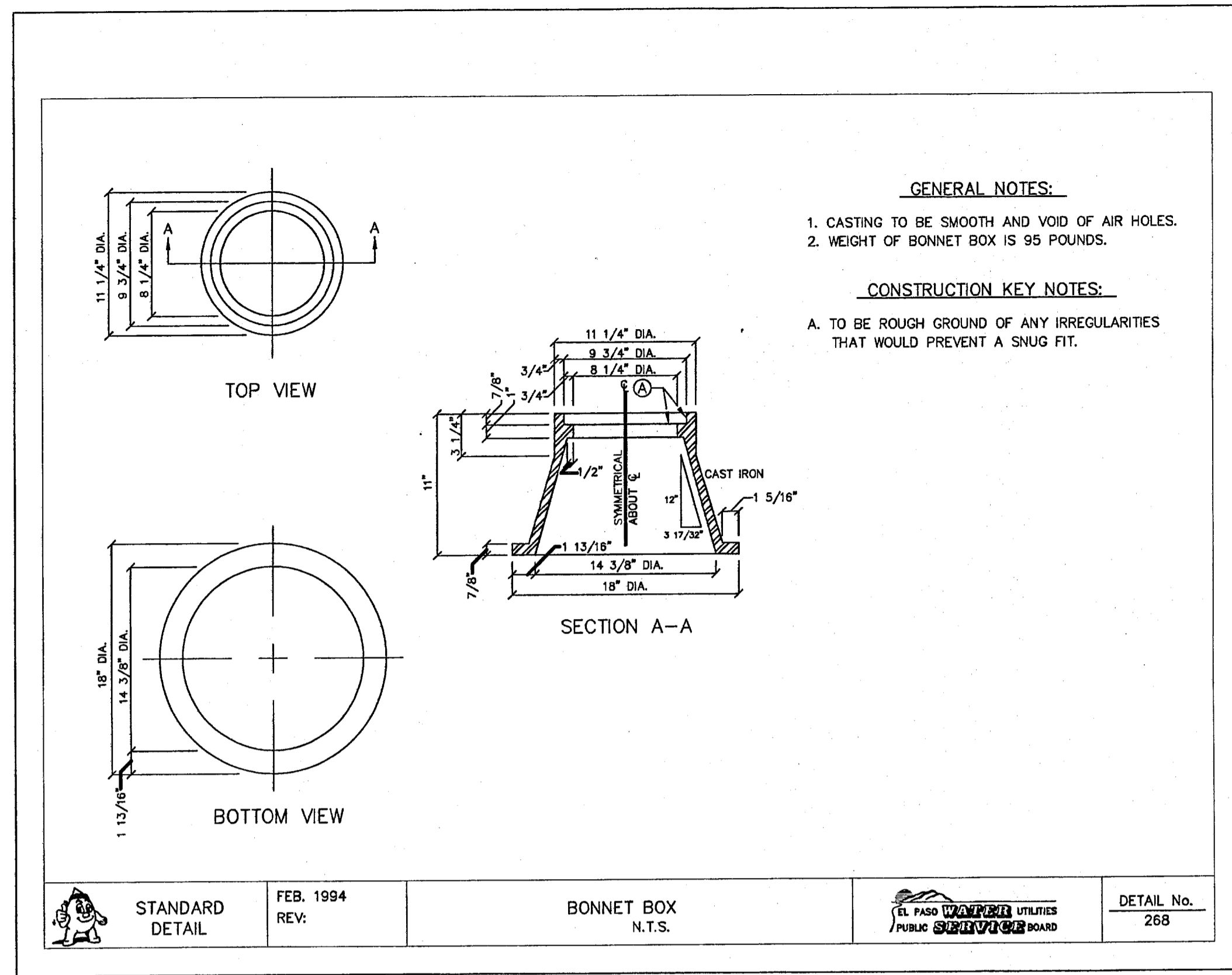
PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

WATER DETAILS
(SHEET 2 OF 5)

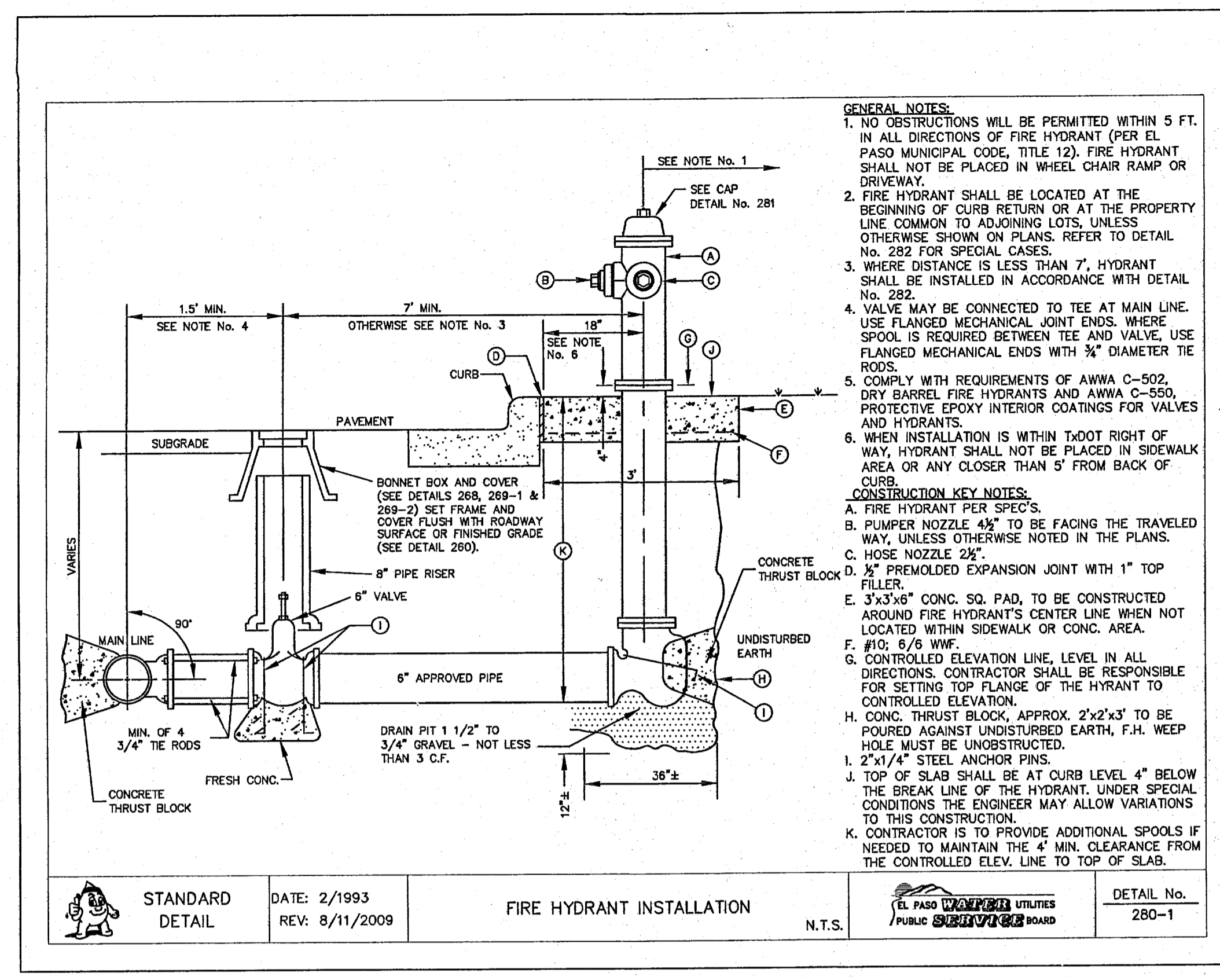
SHEET NO.

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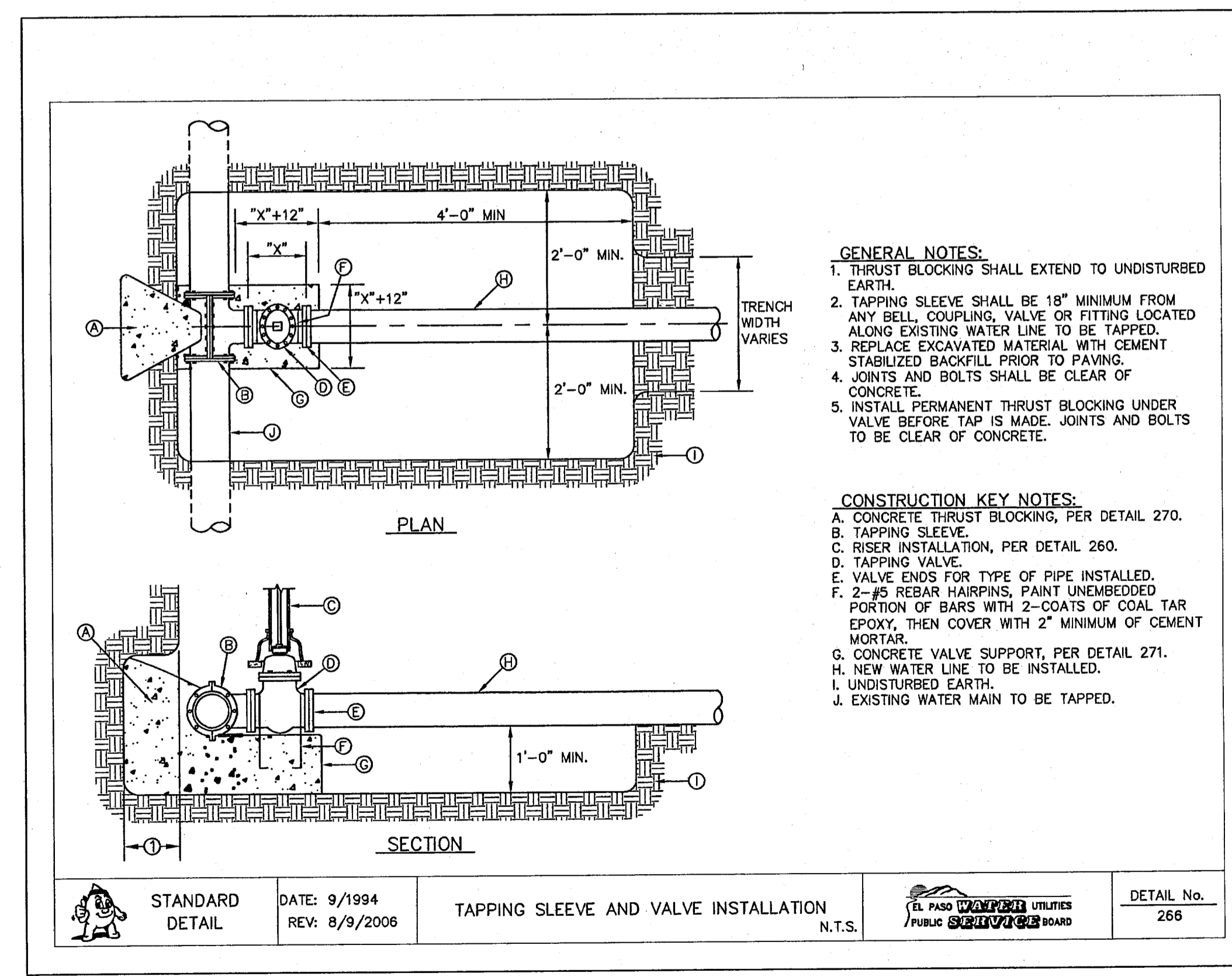
STANDARD DETAIL	FEB. 1994 REV.	BONNET BOX N.T.S.	EL PASO UTILITIES PUBLIC WORKS BOARD	DETAIL No. 268
-----------------	----------------	-------------------	--------------------------------------	----------------

1 BONNET BOX
C12.3 N.T.S.



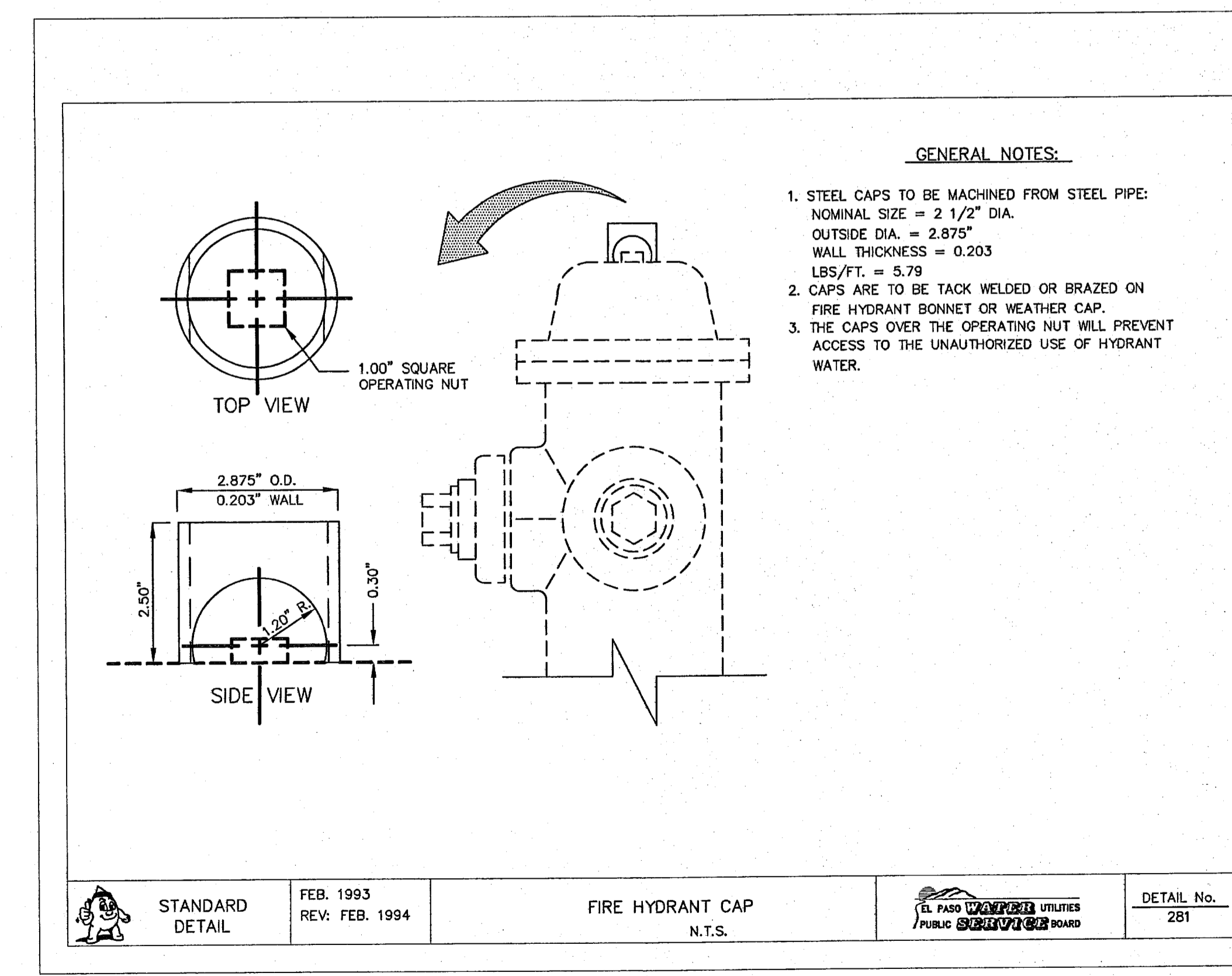
STANDARD DETAIL	DATE: 2/1993 REV: 8/11/2009	FIRE HYDRANT INSTALLATION N.T.S.	EL PASO UTILITIES PUBLIC WORKS BOARD	DETAIL No. 280-1
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2 STANDARD FIRE HYDRANT INSTALLATION
C12.3 N.T.S.



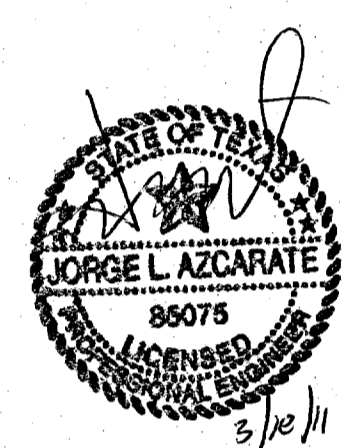
STANDARD DETAIL	DATE: 9/1994 REV: 8/9/2006	TAPPING SLEEVE AND VALVE INSTALLATION N.T.S.	EL PASO UTILITIES PUBLIC WORKS BOARD	DETAIL No. 266
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3 TAPPING SLEEVE AND VALVE INSTALLATION
C12.3 N.T.S.



STANDARD DETAIL	FEB. 1993 REV: FEB. 1994	FIRE HYDRANT CAP N.T.S.	EL PASO UTILITIES PUBLIC WORKS BOARD	DETAIL No. 281
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4 FIRE HYDRANT CAP
C12.3 N.T.S.



REFERENCES - BENCHMARKS
 FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

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 TEXAS REGISTERED ENGINEERING FIRM #454
 4712 Woodrow Dean, Ste. F, El Paso, TX 79924
 Office: 915-444-4444 Fax: 915-444-4455 www.csandp.com

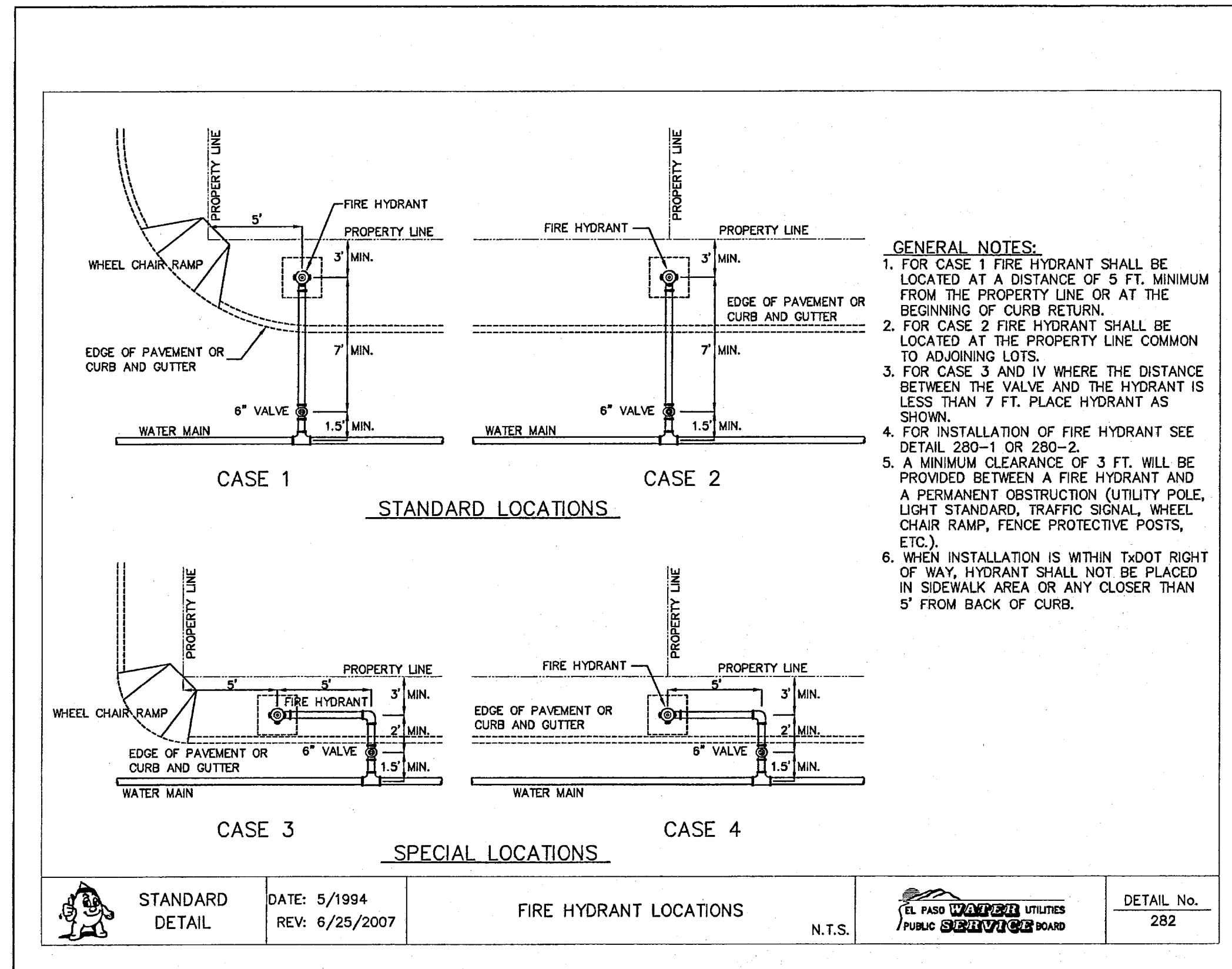
ENGINEER'S SEAL
 JORGE L. AZCARATE
 86075
 LICENSED PROFESSIONAL ENGINEER
 STATE OF TEXAS
 3/20/11

SCALE: N/A
 Horizontal: N/A
 Vertical: N/A
 Contour Interval: N/A
 DATE: FEBRUARY 2011
 DESIGN BY: GR
 DRAWN BY: J.L.A.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-127-LD

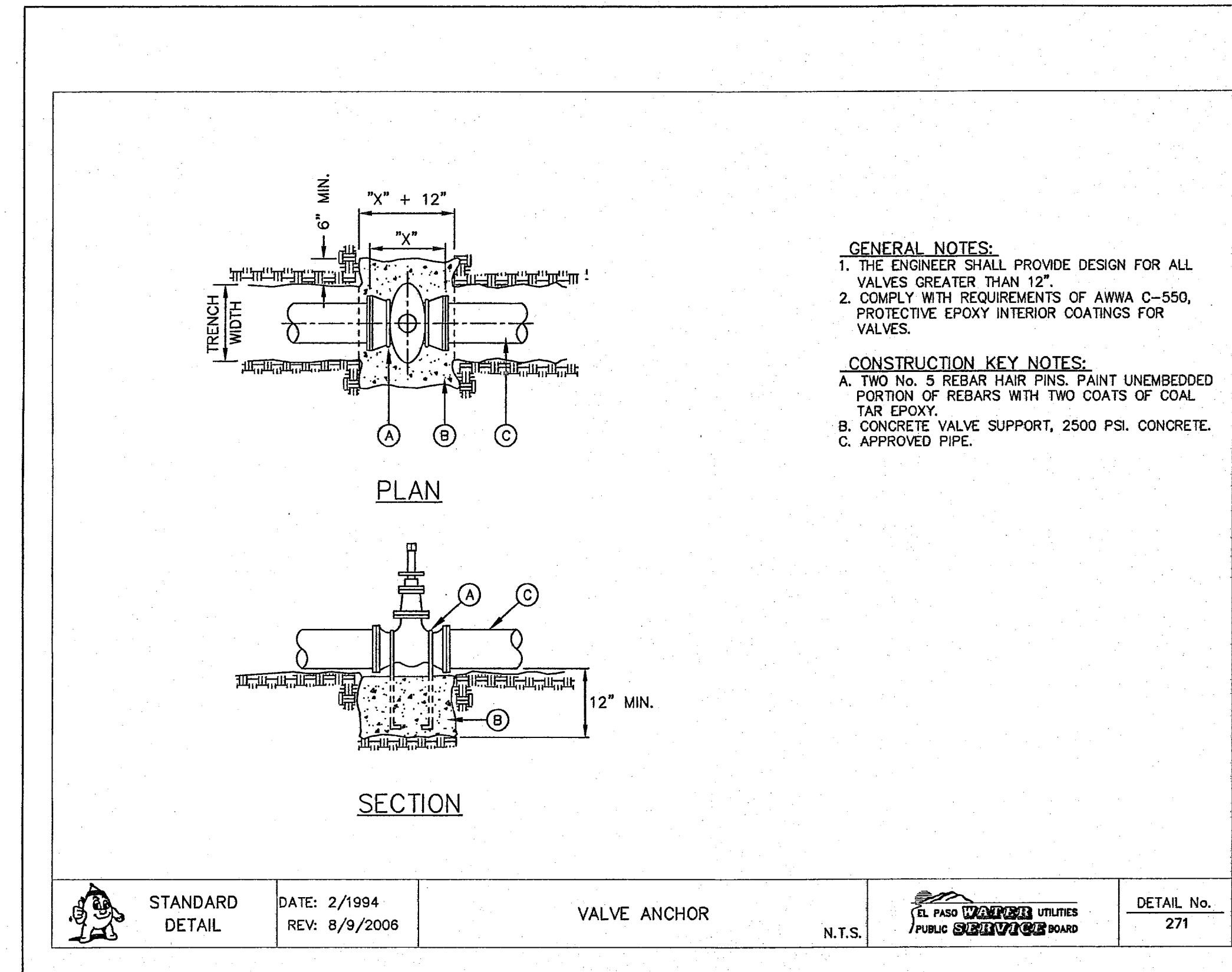
PROJECT NAME
 SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS

SHEET TITLE
 WATER DETAILS
 (SHEET 3 OF 5)

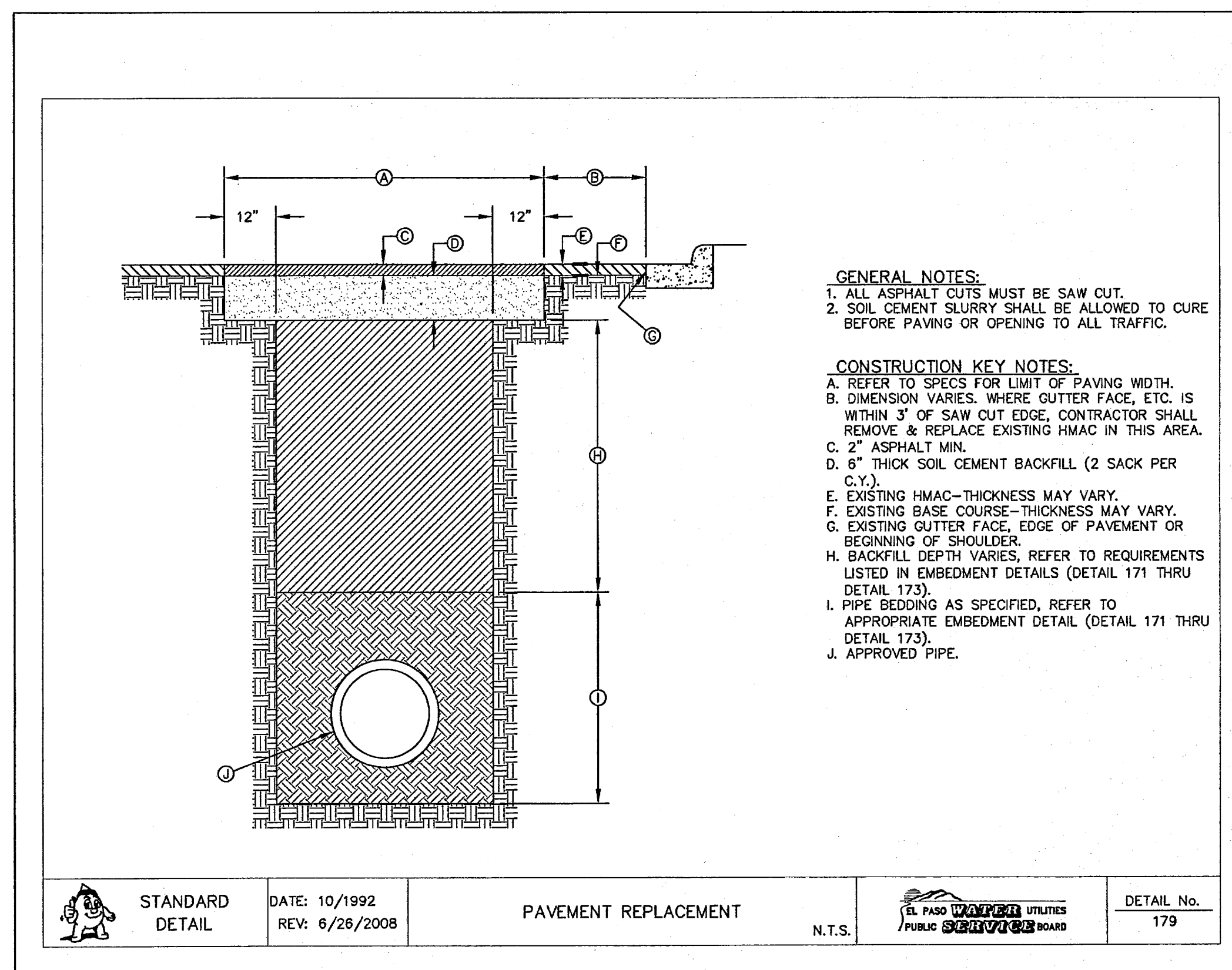
SHEET No.
 C12.3



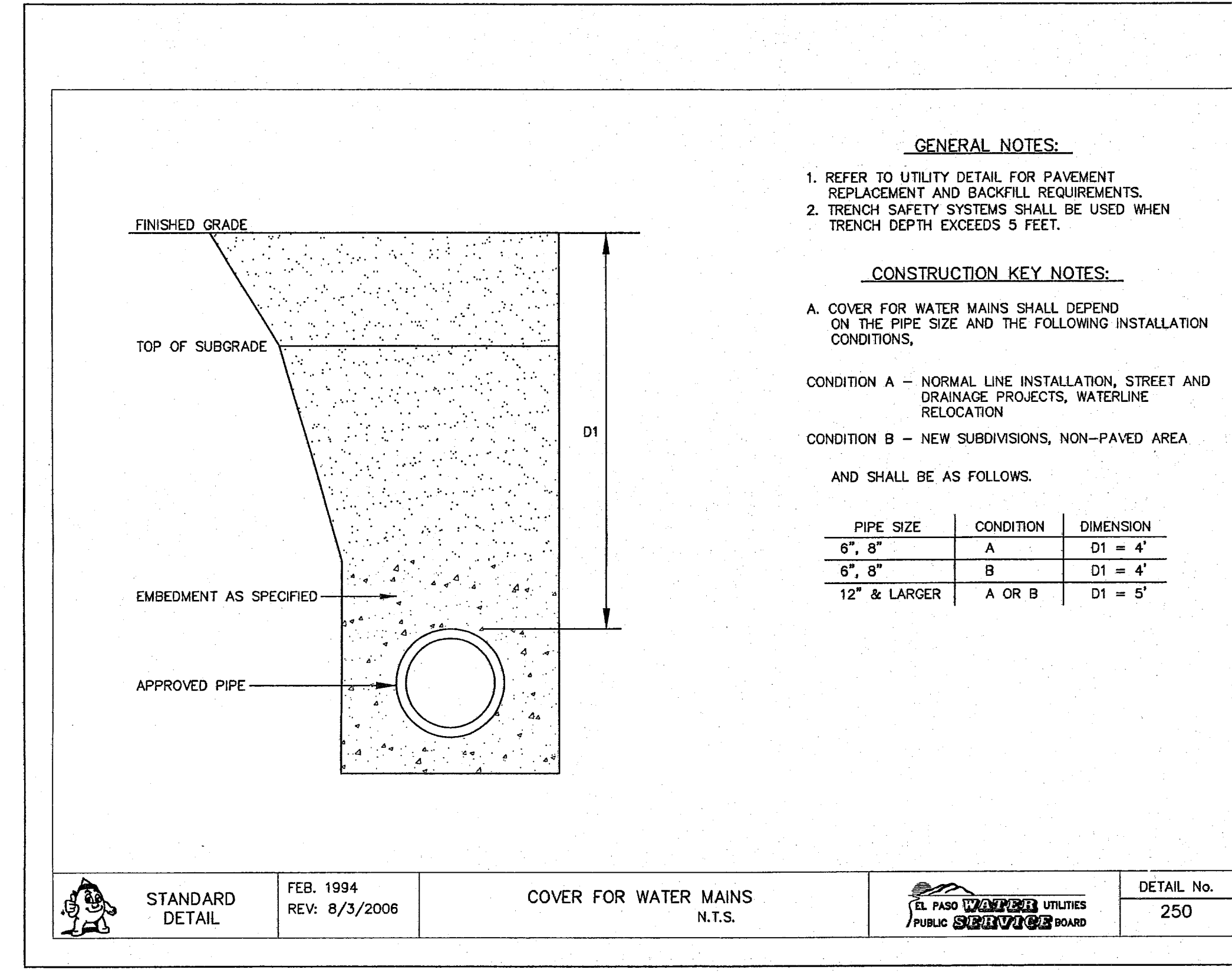
1 FIRE HYDRANT LOCATIONS
C12.4 N.T.S.



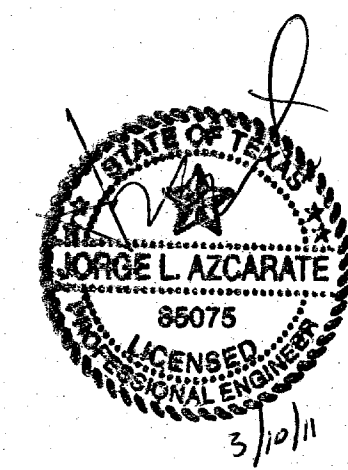
2 VALVE ANCHOR
C12.4 N.T.S.



3 PAVEMENT REPAIR DETAIL
C12.4 N.T.S.



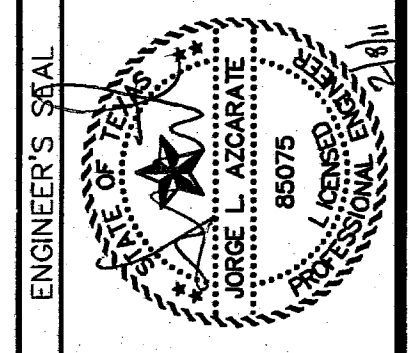
4 STANDARD COVER FOR WATER MAINS
C12.4 N.T.S.



REFERENCES - BENCHMARKS
FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.482 TO CONVERT TO CITY DATUM.)

DATE _____ REVISIONS _____ BY _____

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TEXAS REGISTERED ENGINEERING FIRM F-4684
4712 Woodrow Bean, Ste. F El Paso, TX 79824
Office: 915.544.5232 Fax: 915.544.5233 www.osainc.net



SCALE: N/A
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: FEBRUARY 2011
DESIGN BY: C.R.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APP'D. BY: J.L.A.
JOB No. 23000-127-LD

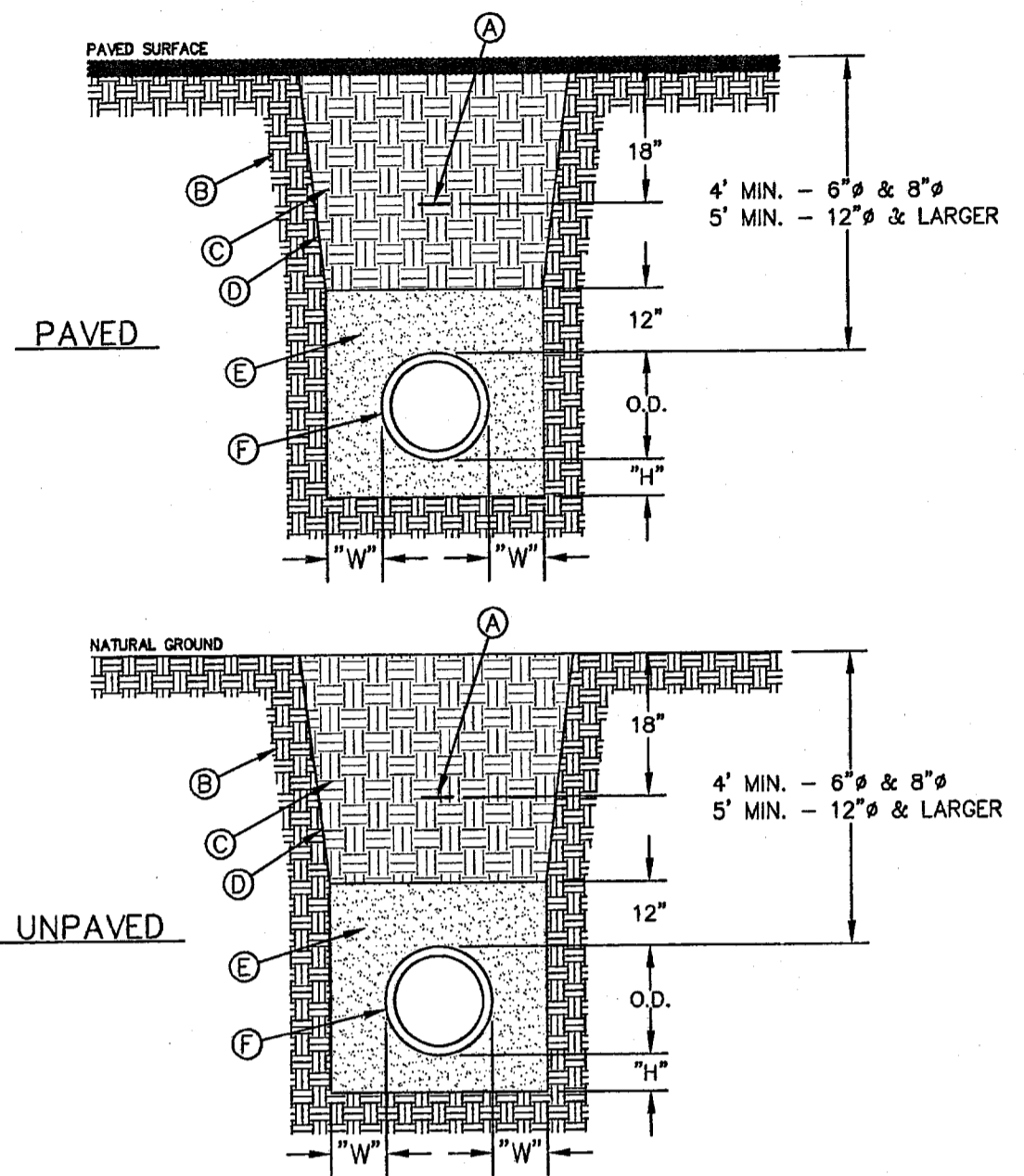
PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

WATER DETAILS
(SHEET 4 OF 5)

SHEET NO.

C12.4

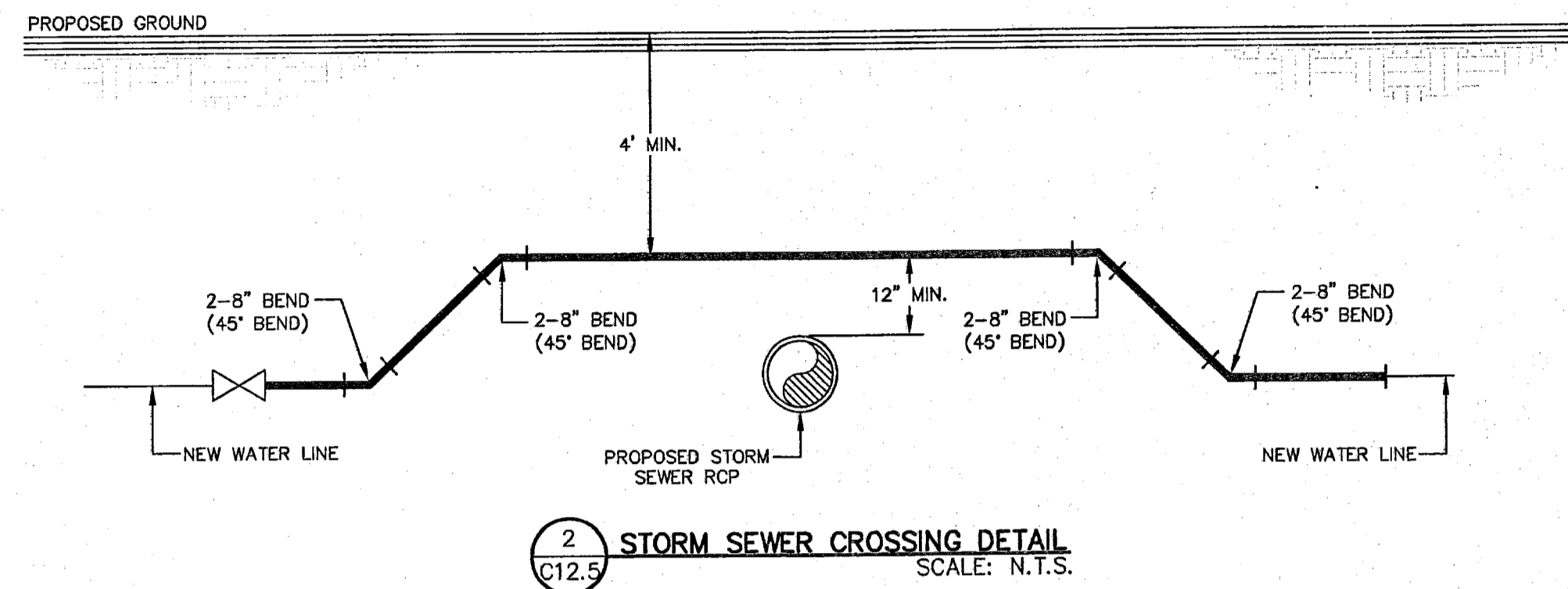


GENERAL NOTES:
 1. BEDDING FOR PRESSURE AND GRAVITY PIPE IN DRY CONDITIONS.
 2. PROVIDE TRENCH SAFETY SYSTEM FOR TRENCH DEPTHS GREATER THAN 5 FEET.
 3. IF THE NATIVE MATERIAL EXCAVATED FROM THE TRENCH IS UNSUITABLE AS BACKFILL MATERIAL, OR THE REQUIRED COMPACTION IS UNATTAINABLE, THE CONTRACTOR SHALL, AT HIS EXPENSE, IMPORT SELECT MATERIAL TO BE MIXED WITH OR USED IN PLACE OF THE NATIVE MATERIAL. SELECT MATERIAL MUST BE APPROVED BY EPWU. SUBSTITUTE SOIL CEMENT SLURRY (1-SACK) IF REQUIRED IN SPECS.

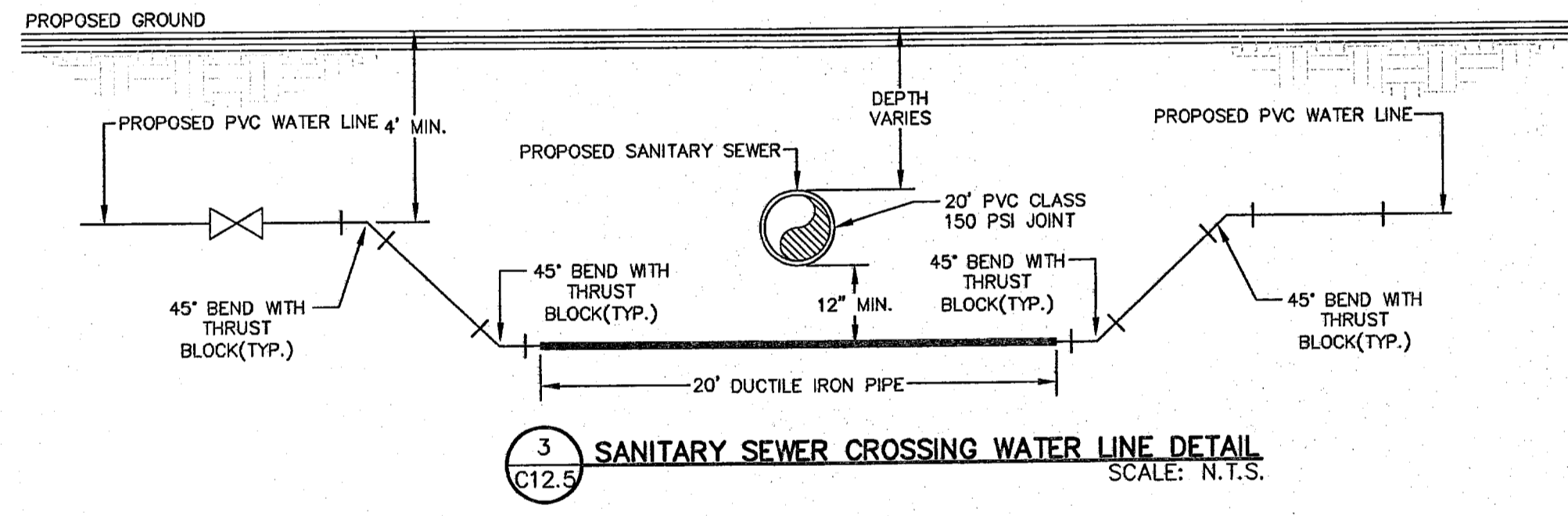
CONSTRUCTION KEY NOTES:
 A. APPROVED MARKING TAPE.
 B. UNDISTURBED STABLE MATERIAL.
 C. NATIVE MATERIAL BACKFILL PAVED CONDITION: COMPACT TO 90% DENSITY PER ASTM D-1557 MODIFIED PROCTOR. UNPAVED CONDITION: COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR. (*SEE NOTE #3 IF THESE PREVIOUS CONDITIONS CANNOT BE MET.)
 D. SLOPE TRENCH IN SANDY SOIL CONDITIONS.
 E. USE CLASS II OR CLASS III SAND PER ASTM D-2487. NATIVE MATERIAL OR IMPORTED SELECT MATERIAL MEETING OR EXCEEDING THIS REQUIREMENT MAY BE USED. COMPACT TO 90% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
 F. APPROVED PIPE.
 G. TRENCH DIMENSIONS AS FOLLOWS:
 PIPE DIAMETER 4" - 6"
 8" - 30" 6"
 GREATER THAN 30" 6"
 PIPE DIAMETER 4" - 6"
 8" - 30" 8"
 GREATER THAN 30" 12"

STANDARD DETAIL	DATE: 4/24/2007 REV: 7/26/2010	EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS	DETAIL No. 171
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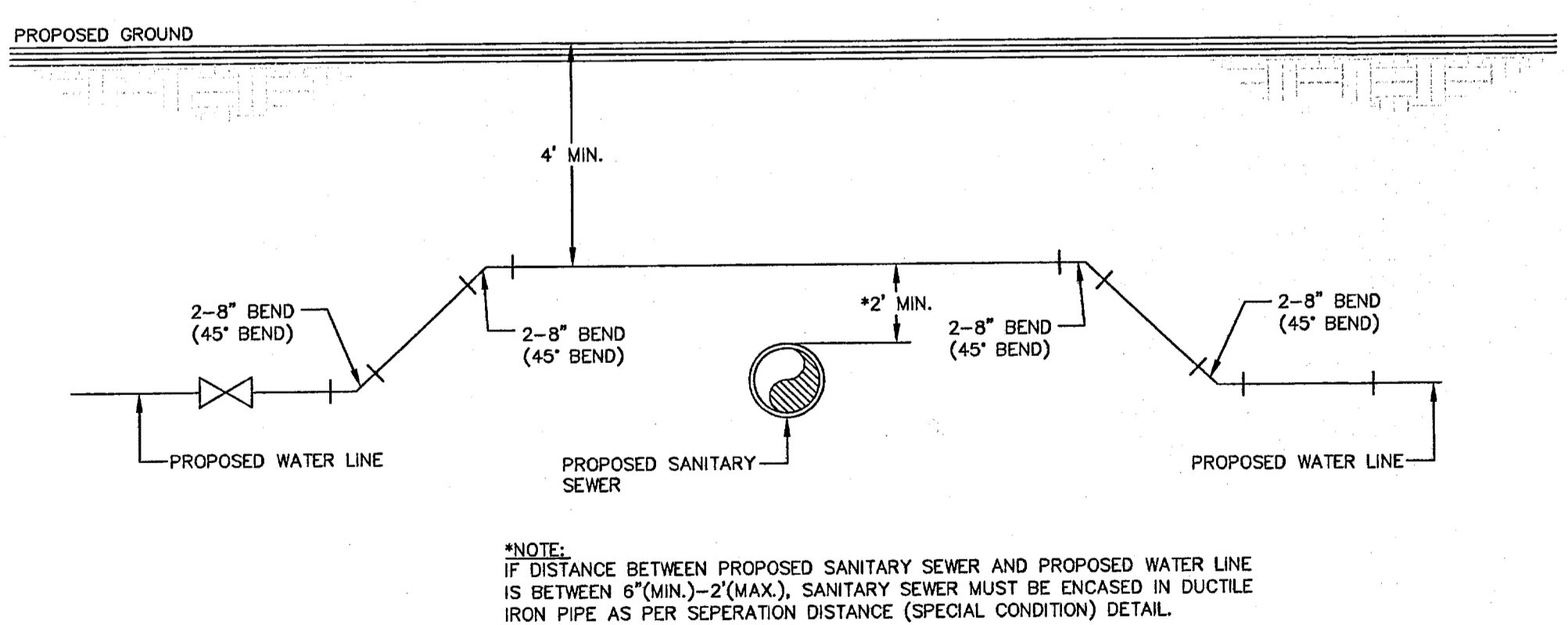
1 BEDDING CLASS DETAILS FOR P.V.C. PRESSURE PIPE
 SCALE: N.T.S.



2 STORM SEWER CROSSING DETAIL
 SCALE: N.T.S.

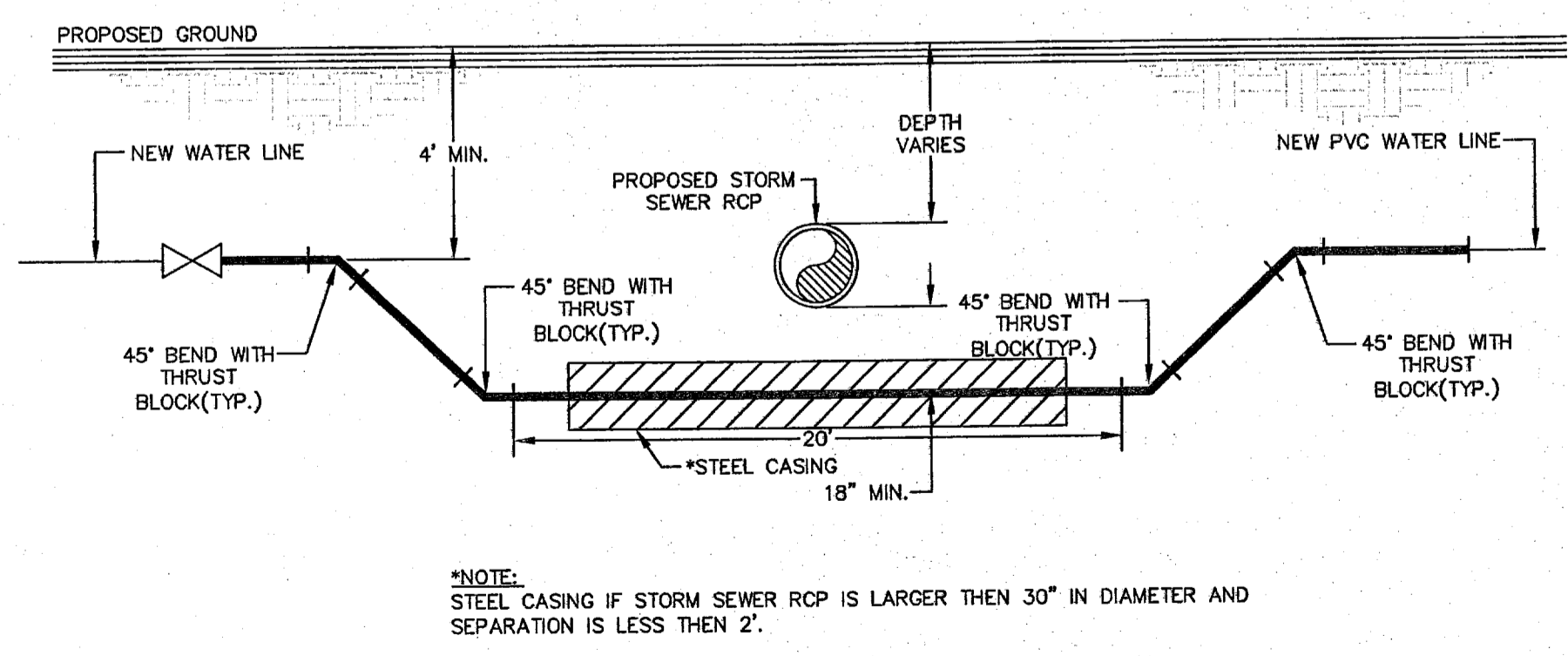


3 SANITARY SEWER CROSSING WATER LINE DETAIL
 SCALE: N.T.S.



*NOTE:
 IF DISTANCE BETWEEN PROPOSED SANITARY SEWER AND PROPOSED WATER LINE IS BETWEEN 6"(MIN.)-2"(MAX.), SANITARY SEWER MUST BE ENCASED IN DUCTILE IRON PIPE AS PER SEPARATION DISTANCE (SPECIAL CONDITION) DETAIL.

4 SANITARY SEWER CROSSING WATER LINE DETAIL
 SCALE: N.T.S.



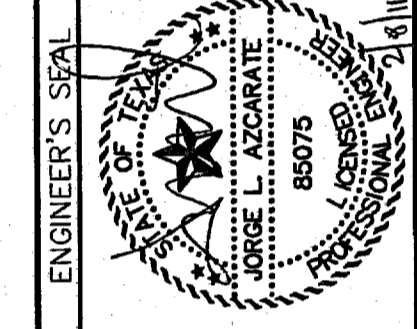
*NOTE:
 STEEL CASING IF STORM SEWER RCP IS LARGER THEN 30" IN DIAMETER AND SEPARATION IS LESS THEN 2'.

5 STORM SEWER CROSSING DETAIL
 SCALE: N.T.S.

REFERENCES - BENCHMARKS

FOUND TADOT BRASS CAP AT SECTION	BY
ELEVATION: 4333 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)	REVISIONS
DATE	BY

CS&U
 engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM #4584
 14710 Rock Star F. El Paso, TX 79824
 Office: 915.544.4228 Fax: 915.544.4233 www.csandu.com



SCALE: N/A	DATE: FEBRUARY 2011
Horizontal: N/A	DESIGN BY: G.R.
Vertical: N/A	DRAWN BY: J.L.A.
Contour Interval: N/A	CHKD. BY: J.L.A.
	APPRD. BY: J.L.A.
	JOB No. 2000-127-LD

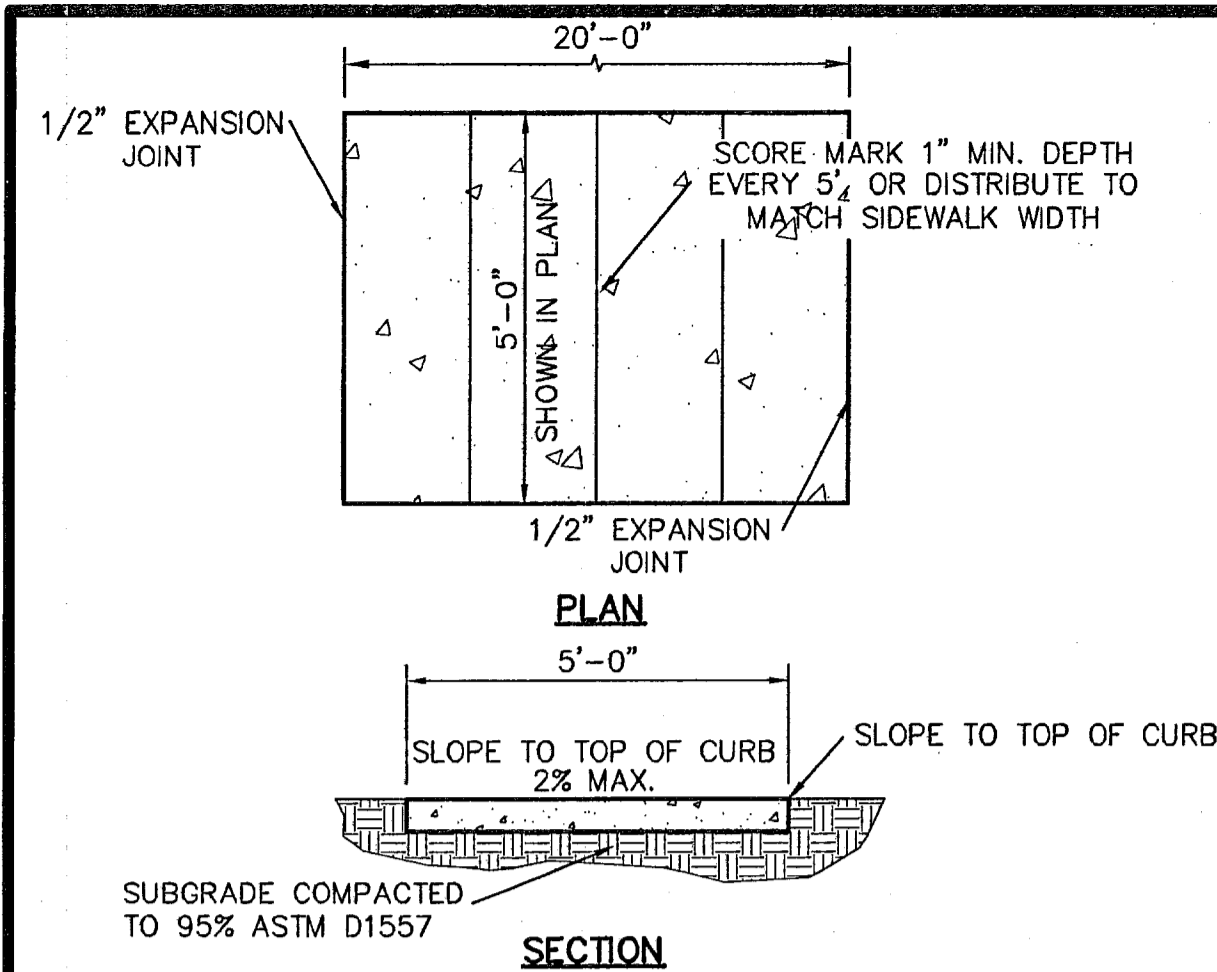
PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE

WATER DETAILS
 (SHEET 5 OF 5)

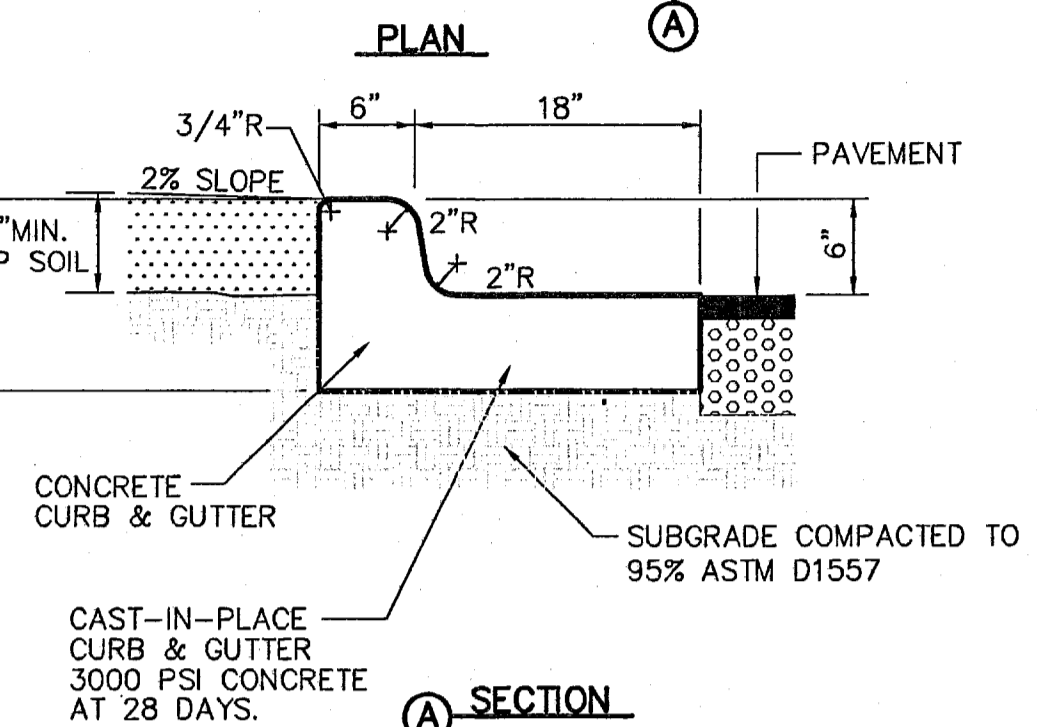
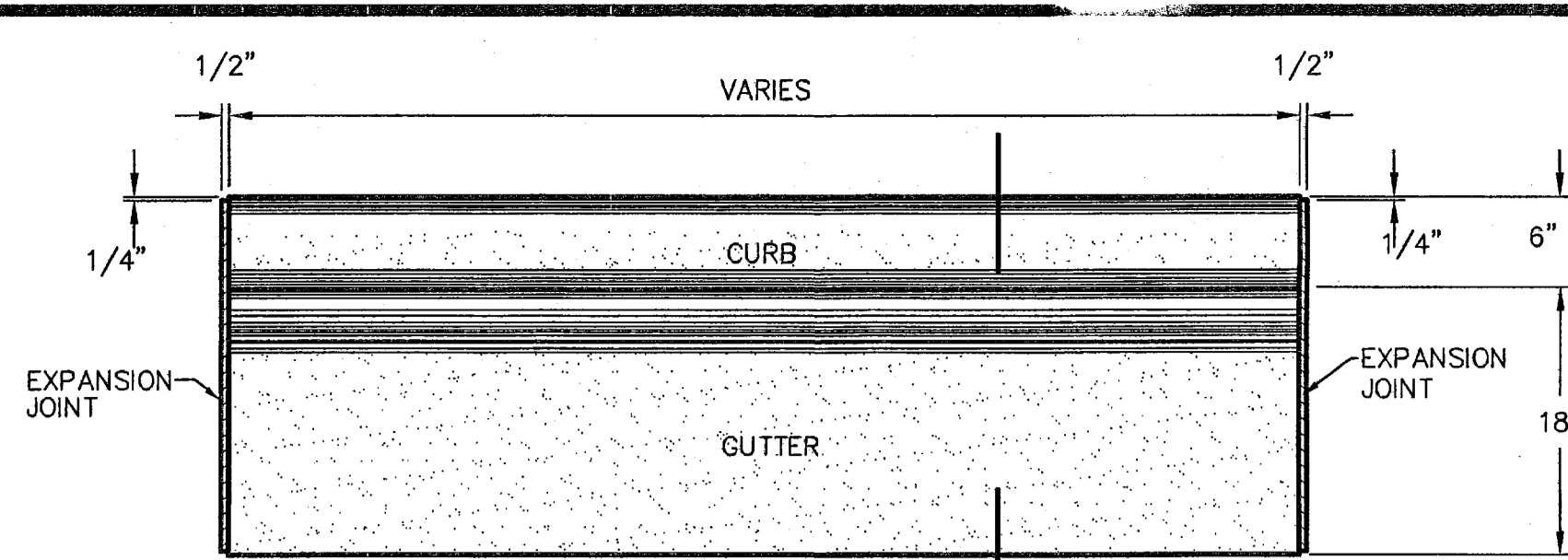
SHEET NO.

C12.5



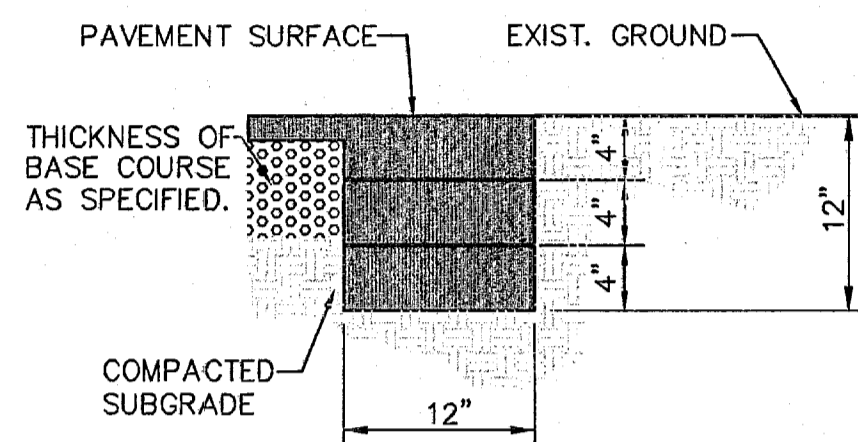
- SIDEWALK NOTES:**
1. CONCRETE SIDEWALK SHALL BE 3,000 P.S.I.
 2. DUMMY JOINTS REQUIRED AT 5' O.C.
 3. EXPANSION JOINTS SHALL BE AT 20' O.C. MAXIMUM, USE 1/2" PREMOLDED BITUMINOUS EXPANSION JOINTS (AASHTO M-33)
 4. EXPANSION JOINT FILLER SHALL BE PLACED WHEREVER SIDEWALK ABUTS ROCK OR MASONRY STRUCTURES SUCH AS CURBS OR BUILDINGS.
 5. SUBGRADE TO BE COMPACTED TO 95% ASTM D1557.

1 SECTION-SIDEWALK/SLAB
SCALE: 1" = 2'-0"



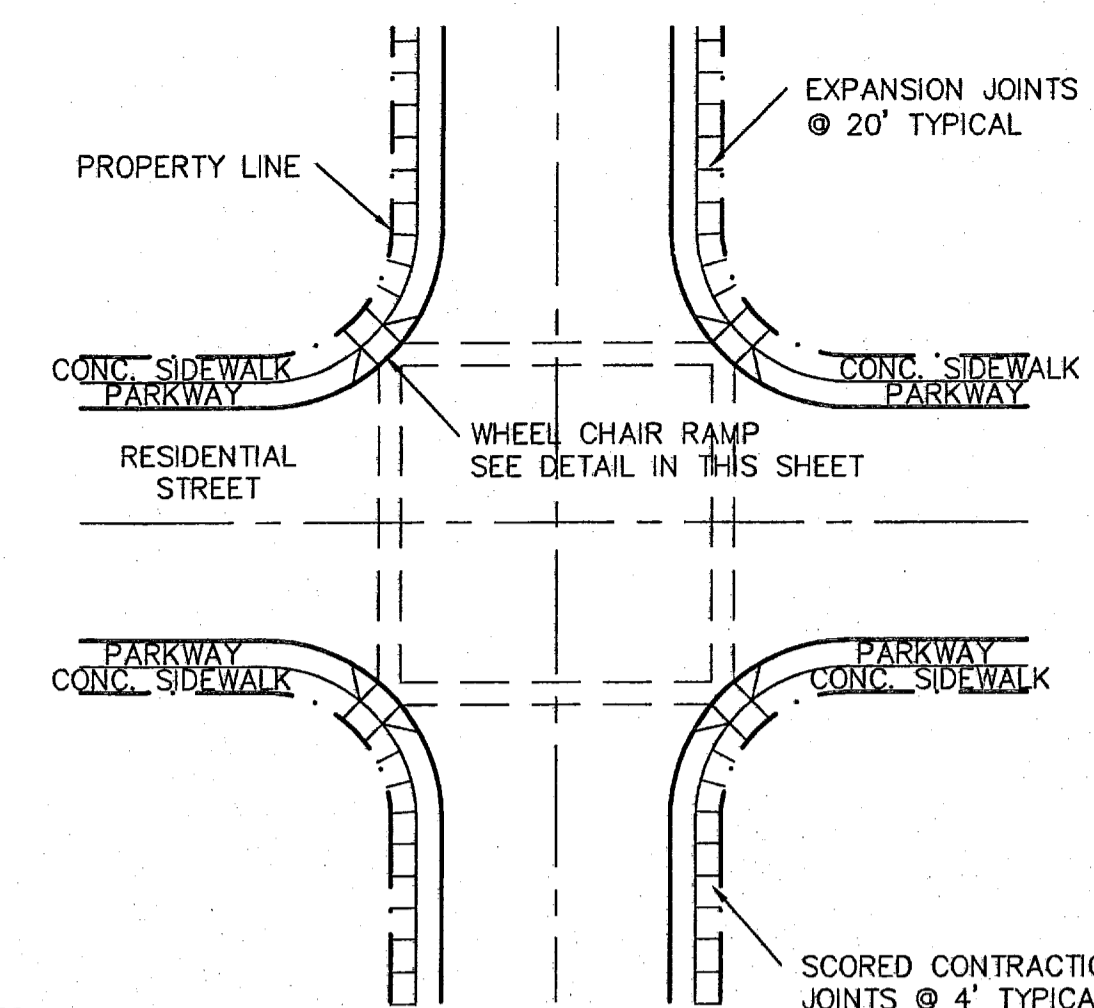
- NOTES:**
1. TERMINUS MUST BE CONSTRUCTED IN 4" LIFTS.
 2. FINAL LIFT MUST BE PLACED WITH FINAL PAVEMENT COURSE.

3 TYPICAL PAVEMENT JOINT SECTION
SCALE: 1" = 1'-0"



- NOTE:** TERMINUS MUST BE CONSTRUCTED IN 4" LIFTS. FINAL LIFT MUST BE PLACED WITH FINAL PAVEMENT COURSE.

4 TERMINUS OF STREET
SCALE: 1" = 1'-0"

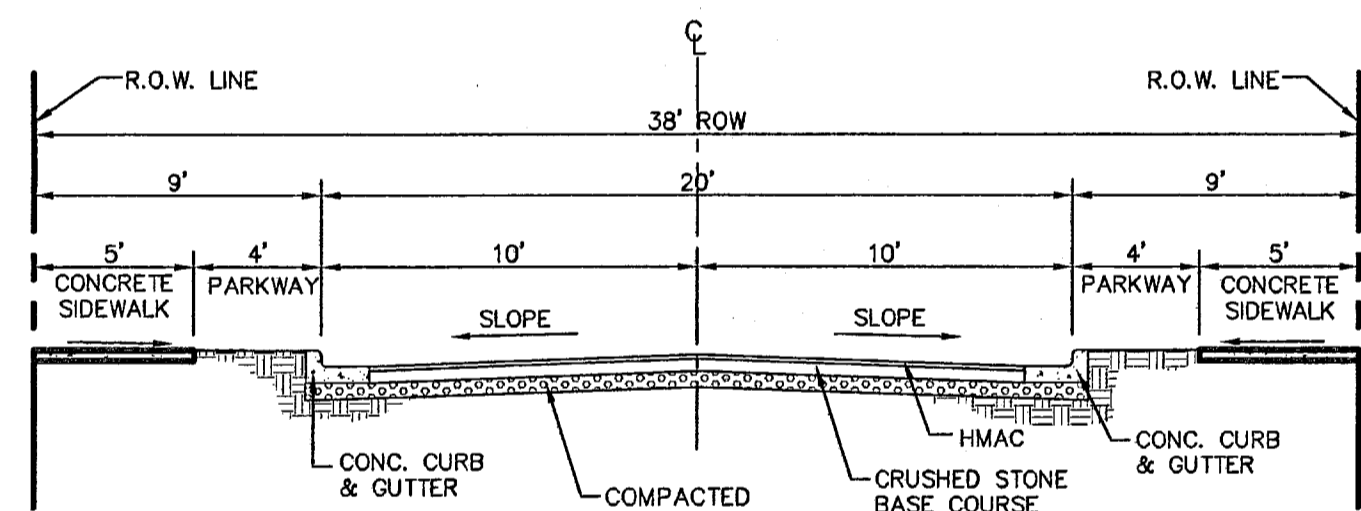


- NOTES:**
1. RAMPS MAY BE PLACED AS SUGGESTED, HOWEVER EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC., MAY AFFECT PLACEMENT.
 2. THE CONCRETE SURFACE SHALL HAVE A ROUGH, NONSKID TYPE FINISH.
 3. CONSTRUCTION METHODS SHALL CONFORM WITH THE COUNTY OF EL PASO SPECIFICATIONS.
 4. ALL PARKING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF EL PASO STANDARDS.

5 WHEELCHAIR RAMP STREET PLAN
SCALE: 1" = 30'-0"

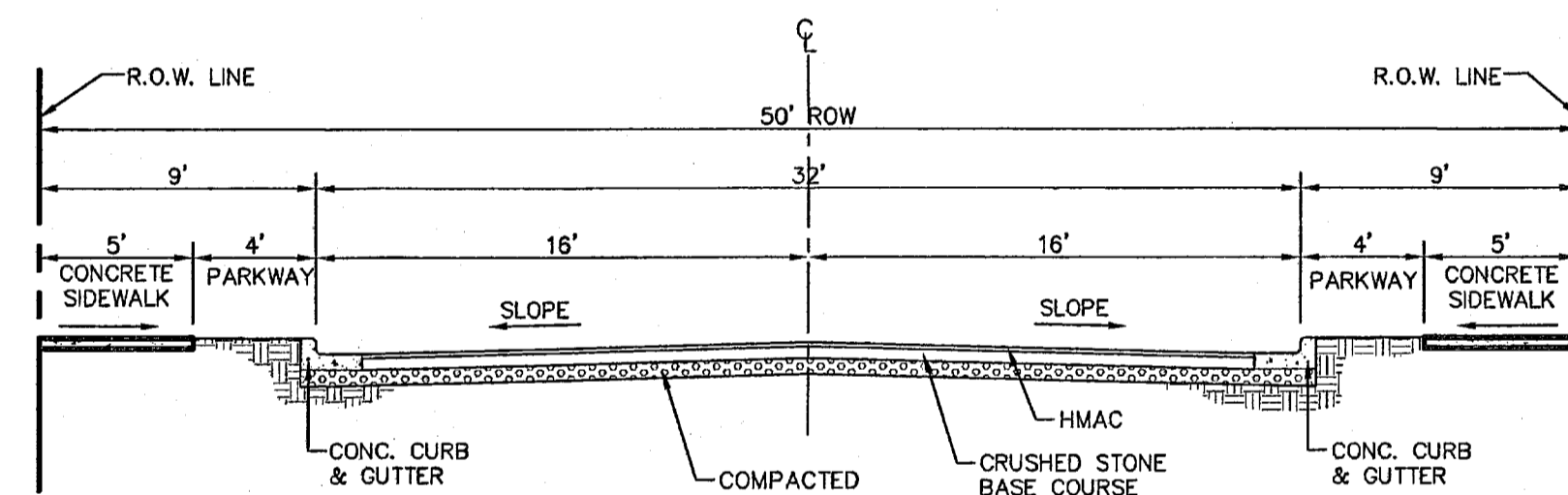
- NOTES:**
1. CONCRETE CURB, GUTTER, AND RETURNS SHALL BE 3,000 P.S.I. MIN.
 2. DUMMY JOINTS REQUIRED AT 10' O.C.
 3. 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT (AASHTO M-33) IS REQUIRED FOR ALL CURBS RETURNS. TRIM BITUMINOUS MATERIAL 1/4" LESS THAN NEAT CURB & GUTTER DIMENSION.
 4. SUBGRADE UNDER CURBS MUST BE FORMED AND COMPACTED TO 95% ASTM D1557.
 5. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR CURBS.

2 CURB & GUTTER DETAIL
SCALE: 1" = 1'-0"



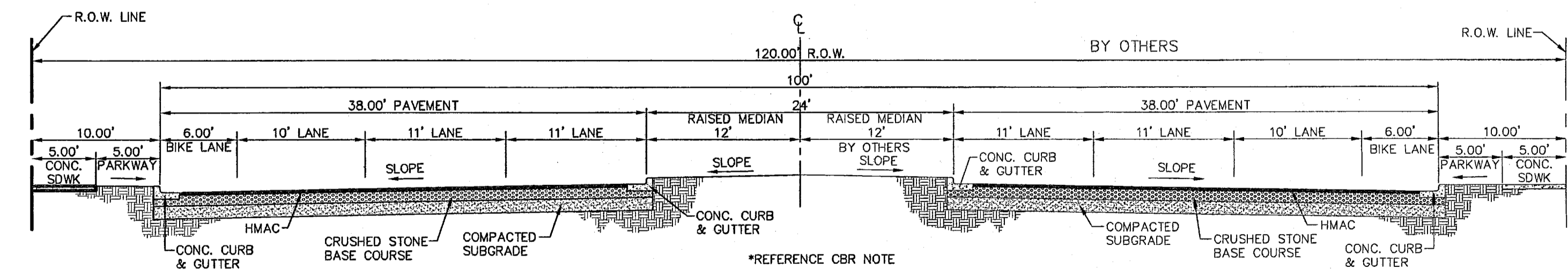
- *CBR NOTE:** STREET IMPROVEMENTS (FLEXIBLE PAVEMENT DESIGN STRUCTURE) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS: CBR @ EVERY 500' RESULTS TO BE SUBMITTED TO THE CITY OF EL PASO FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT. THE CBR RESULTS WILL DICTATE THE REQUIRED THICKNESS OF THE PAVEMENT STRUCTURE BASED ON CITY OF EL PASO DESIGN STANDARDS. THE DEVELOPER SHALL PLACE THE HIGHER VALUE OF PAVEMENT STRUCTURE BASED ON THE CBR RESULTS OR THE MINIMUM PAVEMENT THICKNESS AS SHOWN ON THE CITY OF EL PASO DESIGN STANDARDS.

6 TYPICAL 38' ROW STREET SECTIONS DETAIL
SCALE: N.T.S.



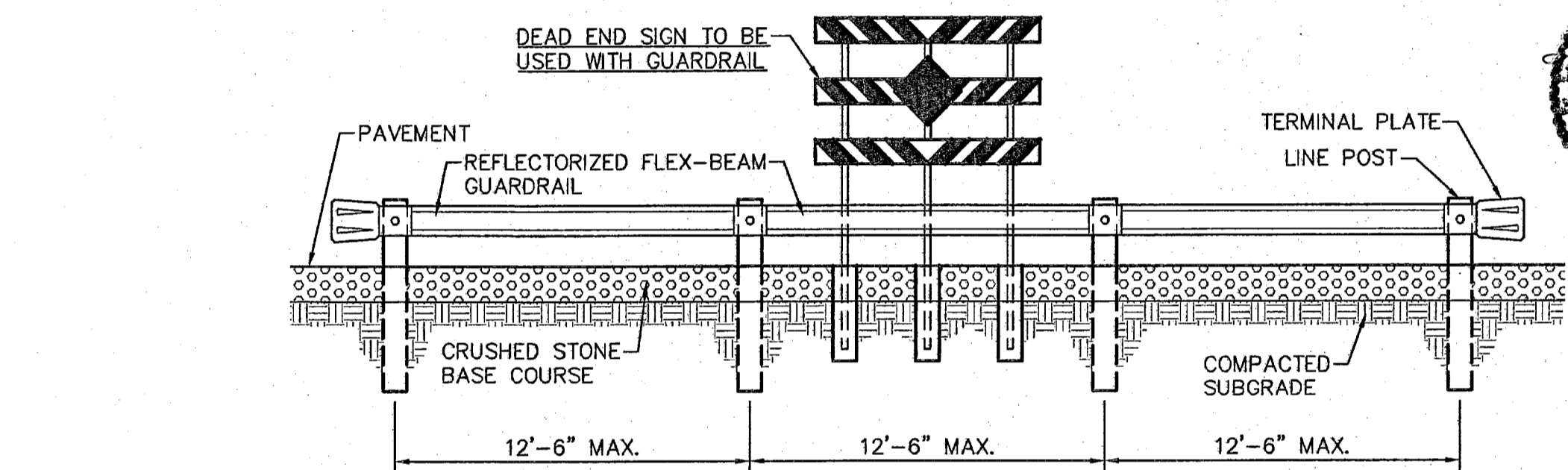
- *CBR NOTE:** STREET IMPROVEMENTS (FLEXIBLE PAVEMENT DESIGN STRUCTURE) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS: CBR @ EVERY 500' RESULTS TO BE SUBMITTED TO THE CITY OF EL PASO FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT. THE CBR RESULTS WILL DICTATE THE REQUIRED THICKNESS OF THE PAVEMENT STRUCTURE BASED ON CITY OF EL PASO DESIGN STANDARDS. THE DEVELOPER SHALL PLACE THE HIGHER VALUE OF PAVEMENT STRUCTURE BASED ON THE CBR RESULTS OR THE MINIMUM PAVEMENT THICKNESS AS SHOWN ON THE CITY OF EL PASO DESIGN STANDARDS.

7 TYPICAL 50' ROW STREET SECTIONS DETAIL
SCALE: N.T.S.



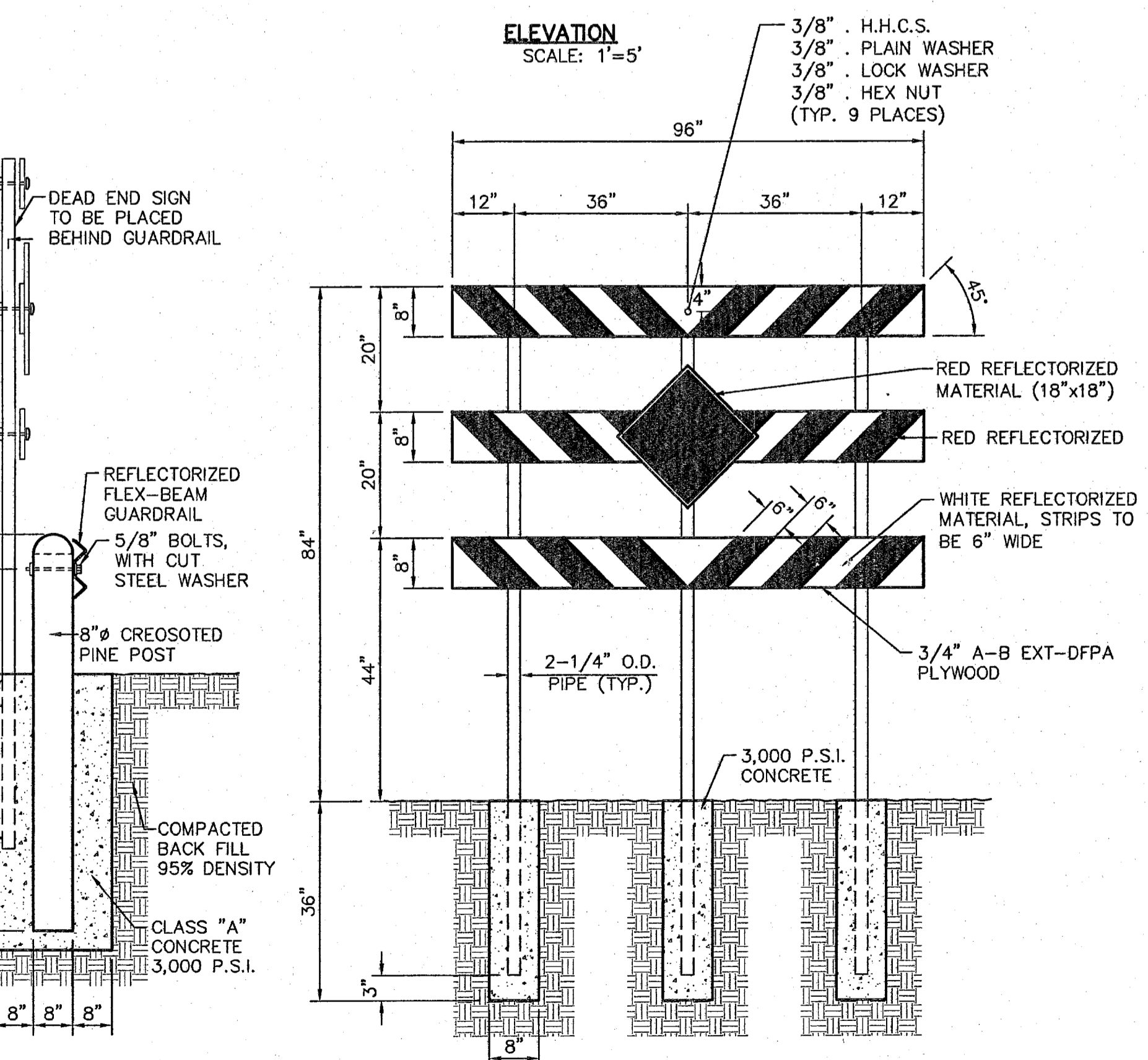
- *CBR NOTE:** STREET IMPROVEMENTS (FLEXIBLE PAVEMENT DESIGN STRUCTURE) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS: CBR @ EVERY 500' RESULTS TO BE SUBMITTED TO THE CITY OF EL PASO FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT. THE CBR RESULTS WILL DICTATE THE REQUIRED THICKNESS OF THE PAVEMENT STRUCTURE BASED ON CITY OF EL PASO DESIGN STANDARDS. THE DEVELOPER SHALL PLACE THE HIGHER VALUE OF PAVEMENT STRUCTURE BASED ON THE CBR RESULTS OR THE MINIMUM PAVEMENT THICKNESS AS SHOWN ON THE CITY OF EL PASO DESIGN STANDARDS.

8 TYPICAL 120' ROW STREET SECTION DETAIL (MAJOR ARTERIAL STREET W/BIKE LANES)
SCALE: N.T.S.



POST AND SIGN DETAIL
SCALE: N.T.S.

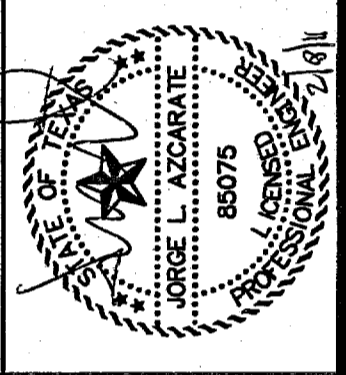
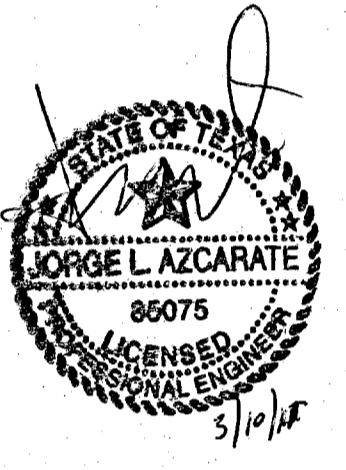
9 GUARD RAIL/SIGN ASSEMBLY AT DEAD END STREET DETAIL
SCALE: AS SHOWN



ELEVATION
SCALE: 1" = 5'

REFERENCES - BENCHMARKS	FOUND 100' BRASS CAP AT SECTION CORNERS 9, 20, 21 AND 22. ELEVATION: 403.822 (NGVD DATUM) (SUBTRACT 0.462 TO CONVERT TO CITY DATUM.)
DATE	REVISIONS
BY	

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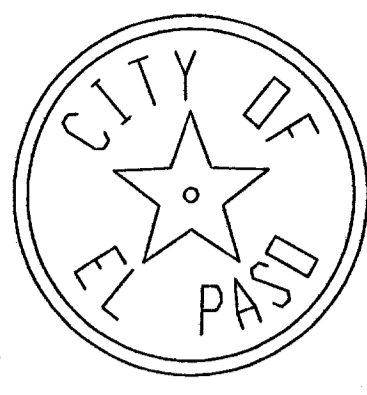
SCALE:	Horizontal: 1" = 30'-0"
Vertical:	1" = 5'
Contour Interval:	1/4"
DATE:	FEBRUARY 2011
DESIGN BY:	G.R.
DRAWN BY:	J.L.A.
CHECKED BY:	J.L.A.
APPROVED BY:	J.L.A.
JOB No.:	2000-117-1D

PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

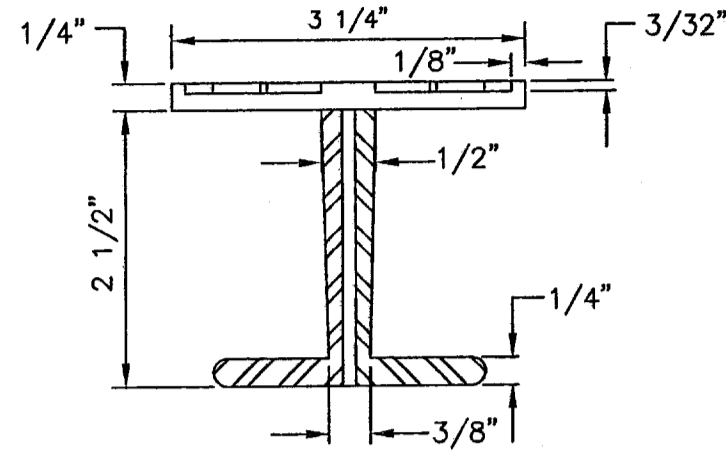
SHEET TITLE
**STANDARD
DETAILS**
(SHEET 1 OF 3)
SHEET NO.

C13.1

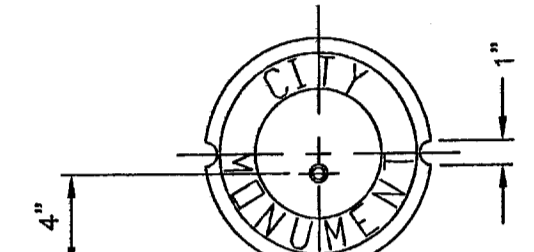
EMBOSS STAR, RING AND LETTERS TO HEIGHT OF 3/32"



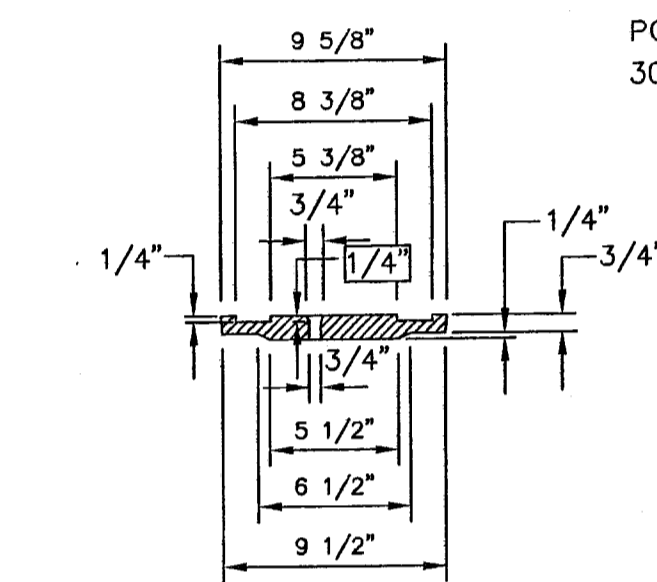
OUTSIDE RADIUS OF STAR = 3/4"
INSIDE RADIUS OF STAR = 3/16"



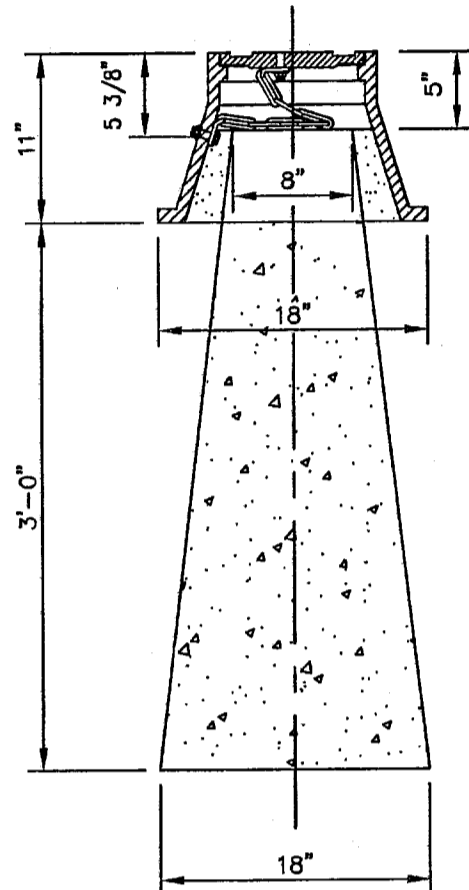
BRONZE MONUMENT CAP



BOX COVER



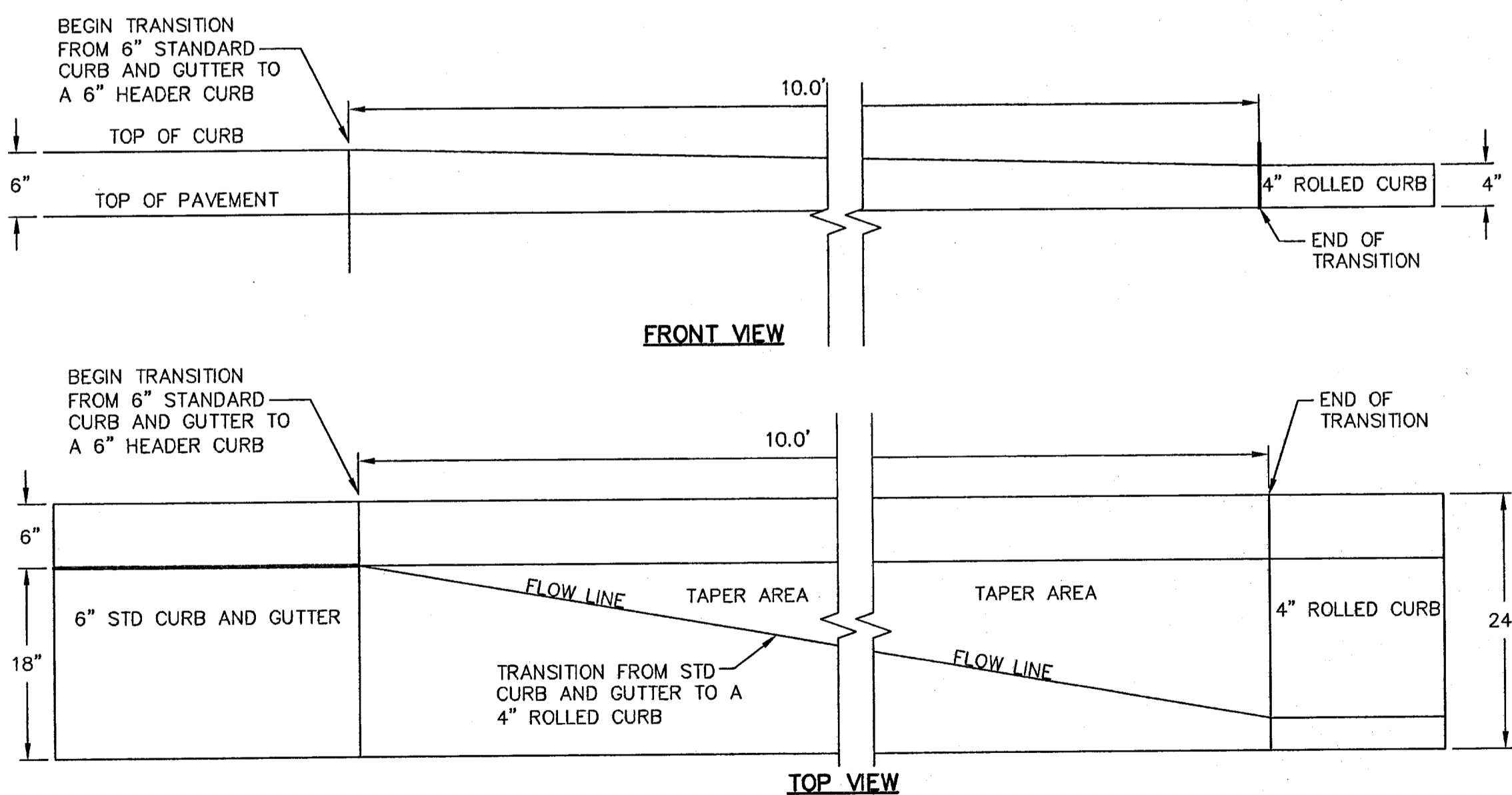
MONUMENT BOX



SECTION VIEW

NO FORMS REQUIRED CONCRETE TO BE POURED IN PLACE. 3000 P.S.I. CONCRETE.

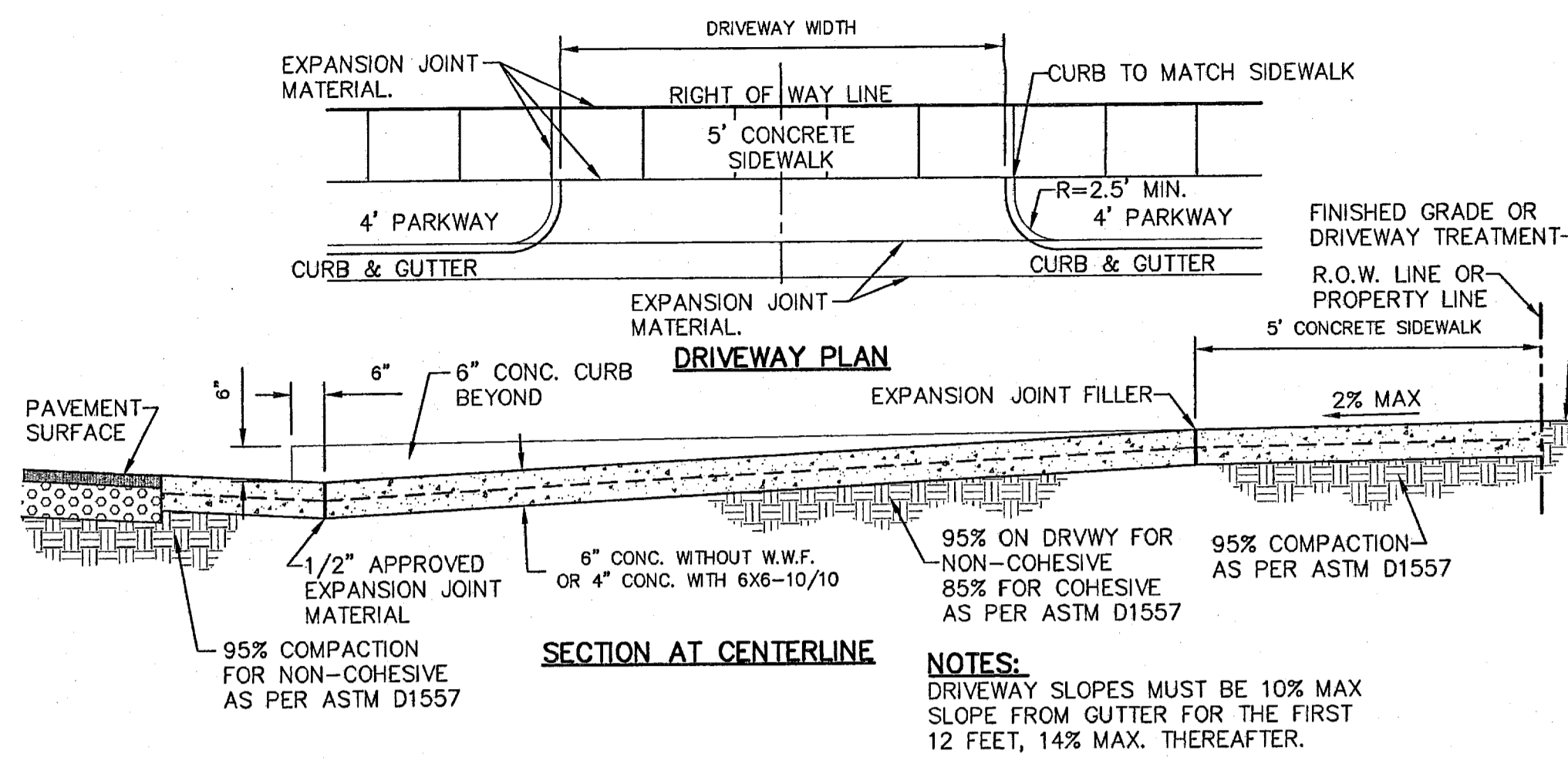
1 CITY SURVEY MONUMENT DETAILS
SCALE: N.T.S.



FRONT VIEW

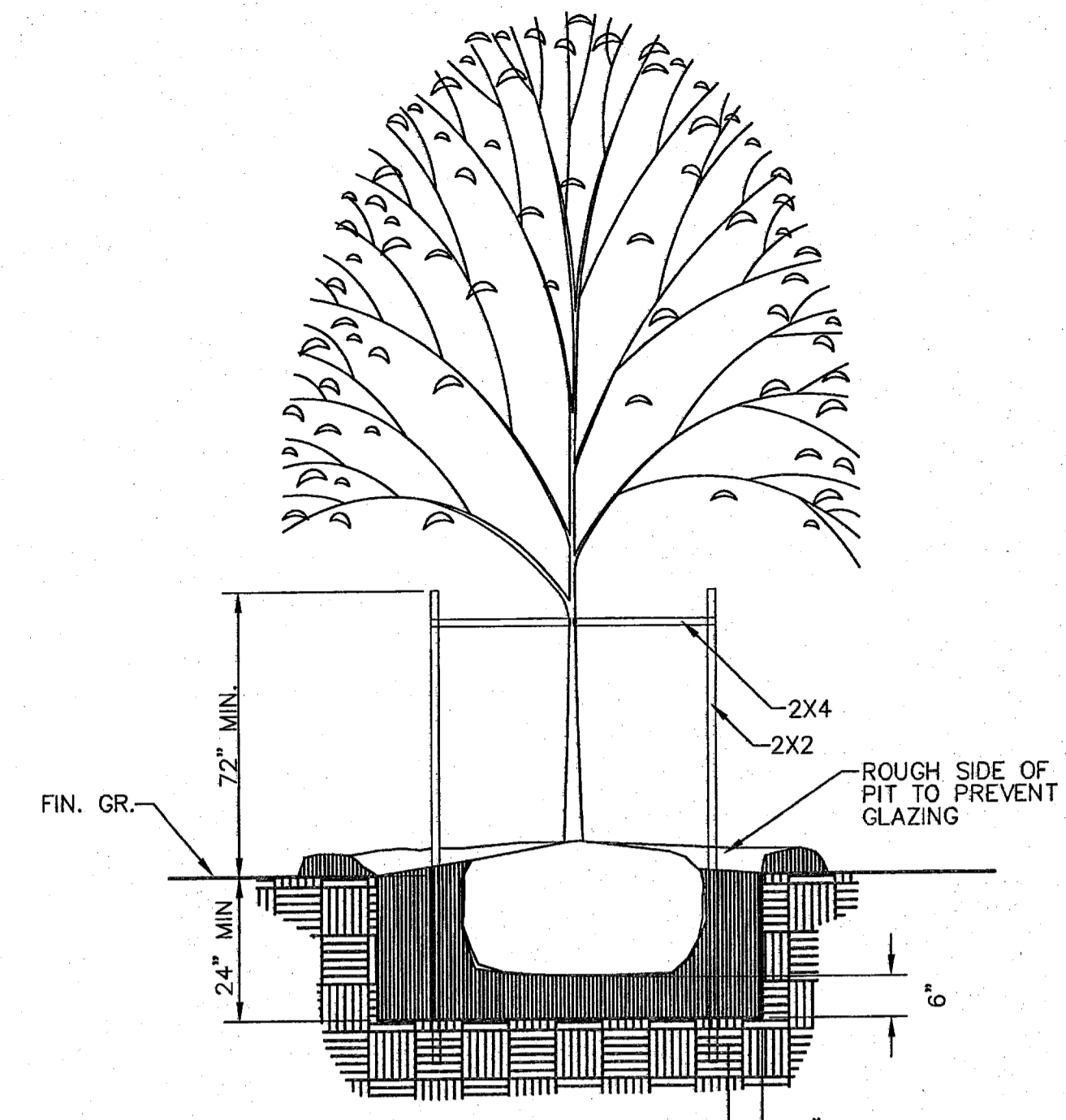
TOP VIEW

4 CURB TRANSITION DETAIL
SCALE: 1" = 1'-0"



2 TYPICAL DRIVEWAY DETAIL
SCALE: N.T.S.

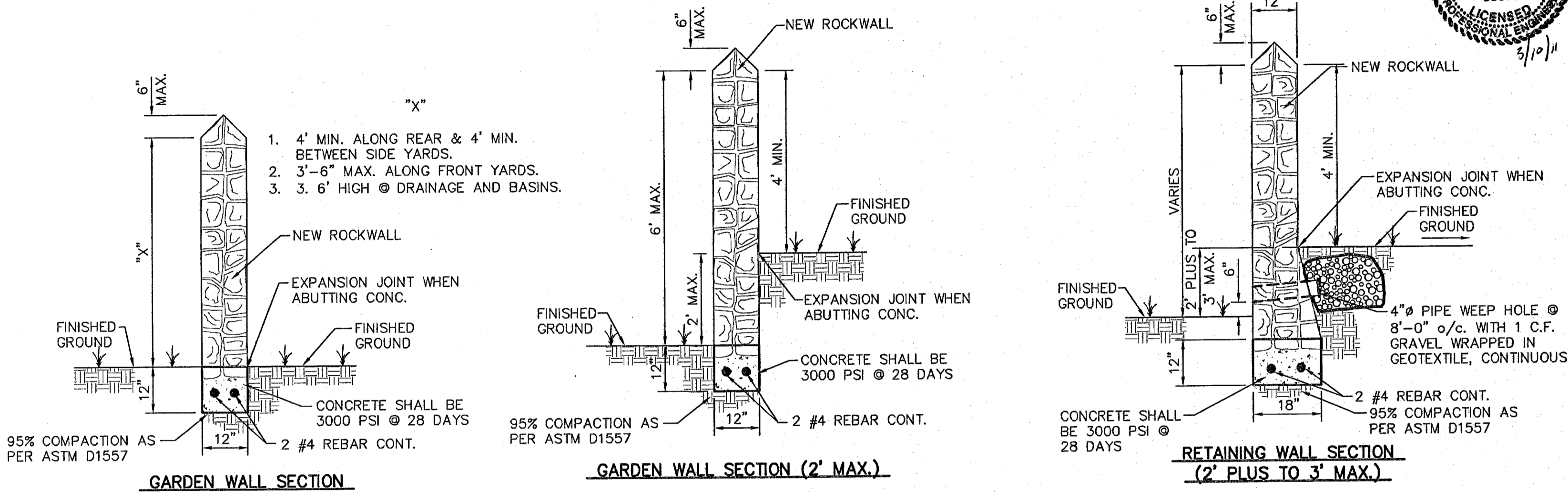
NOTES:
DRIVEWAY SLOPES MUST BE 10% MAX SLOPE FROM GUTTER FOR THE FIRST 12 FEET, 14% MAX. THEREAFTER.



3 TREE PLANTING DETAIL
SCALE: N.T.S.

NOTE:
DO NOT PUNCTURE ROOT BALL WITH STAKE.

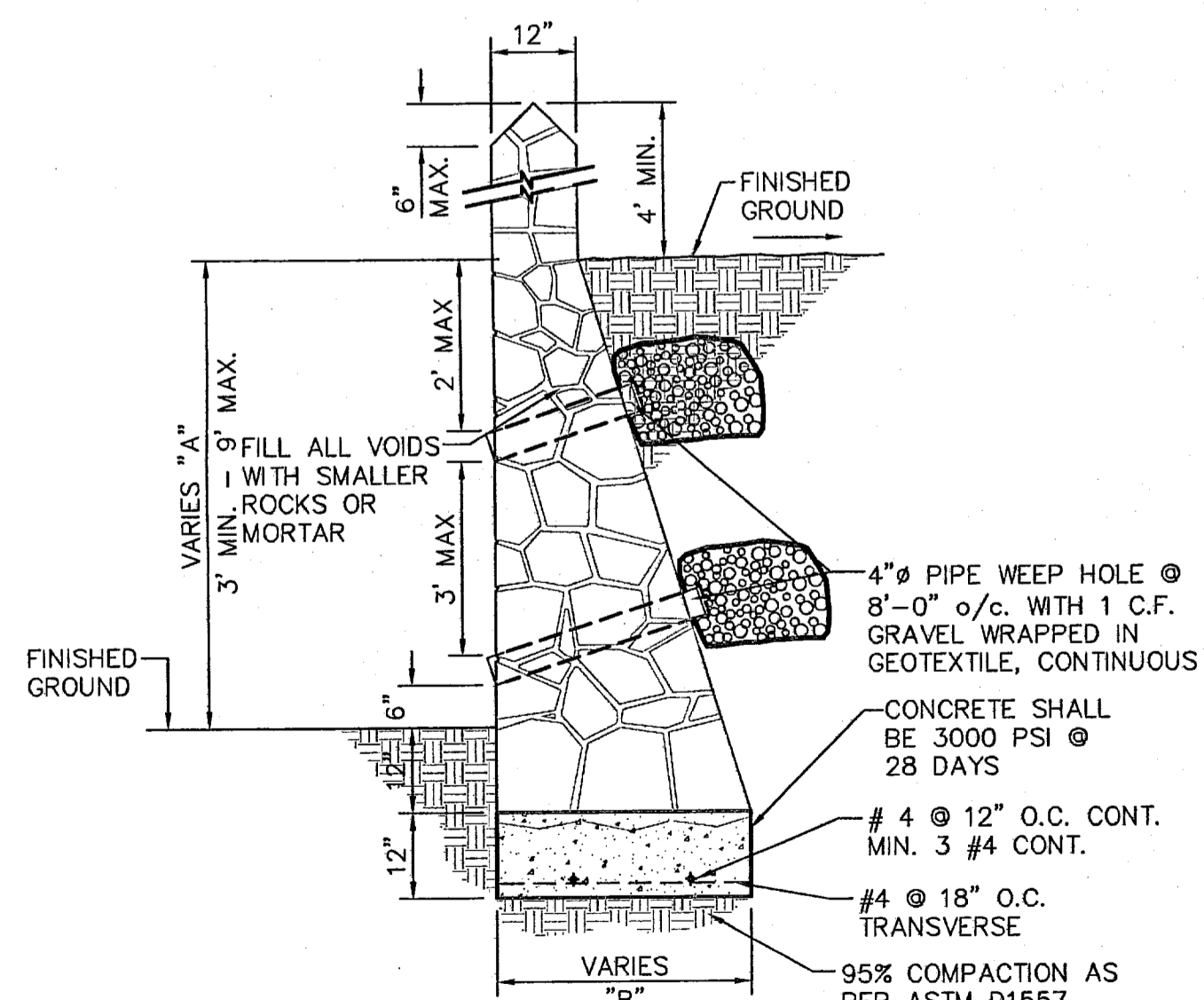
BACKFILL WITH:
1 PART ORGANIC MATERIAL
2 PART NATIVE SOIL



GARDEN WALL SECTION

GARDEN WALL SECTION (2' MAX.)

RETAINING WALL SECTION (2' PLUS TO 3' MAX.)



RETAINING WALL SECTION (3' MIN. TO 9' MAX.)

RETAINING ROCK WALL	
"A"	"B"
3.0'	2'-6"
4'	2'-10"
5'	3'-3"
6'	3'-8"
7'	4'-0"
8'	4'-5"
9'	4'-10"

ROCK WALL NOTES

- STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTIONS AS IN PRACTICABLE THE STONE SHALL BE DENSE AND RESISTANT OF AIR AND WATER.
- MORTAR MUST BE TYPE "S": 1800 P.S.I. AS PER ASTM C270.
- MASONRY WALL OVER SIX (6) FEET IN HEIGHT AND THOSE USED FOR EARTH RETENTION OVER TWO (2) FEET MUST BE DESIGNED AS STRUCTURAL WALLS..
- WALLS ADJACENT TO PONDING AREAS OR DRAINAGE DITCHES MAY BE CONSTRUCTED OF BRICK, ROCK, STONE, OR CINDER BLOCK AND SHALL NOT BE LESS THAN SIX (6) FEET HIGH.
- ROCKWALL MORTAR JOINTS MUST NOT EXCEED TWO (2) INCHES.
- PROVIDE ONE (1) INCH EXPANSION JOINTS AT EVERY 100 FEET.
- ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED.
- ALL STONE FOR ROCKWALLS SHALL BE FRACTURED QUARRIED ROCK OR ROUND ROCK, NO RIVER ROCK SHALL BE ALLOWED.
- REINFORCING STEEL SHALL BE ASTM A615 GRADE 40.
- ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSI (MINIMUM).
- BACKFILL MATERIALS SHALL CONSIST OF COARSE GRAINED, WELL-DRAINED SOILS (WITH NO CLAY CONTENT).

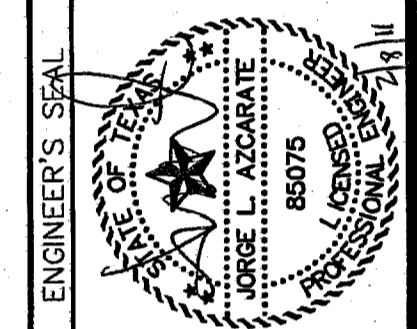
5 TYPICAL ROCKWALL/RETAINING WALL DETAILS
SCALE: 1" = 2'-0"

REFERENCES - BENCHMARKS

FOUND FOOT BRASS CAP AT SECTION CORNERS AND 2' ELEVATION: 4033.22 (NO DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM).

DATE	REVISIONS	BY

CSU
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4712 Woodway Blvd., Ste. F, El Paso, TX 79904
Office: 915.544.5228 Fax: 915.544.5233 www.csuonline.net



SCALE:
Horizontal: Interval: N/A
Vertical: Interval: N/A

DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APPROV. BY: J.L.A.
JOB No. 2000-127-LD

SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS

SHEET TITLE
STANDARD DETAILS
(SHEET 2 OF 3)
SHEET NO.

C13.2

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
	(AFTER HOURS) (915) 240-3220

WARNING I BEFORE YOU DIG

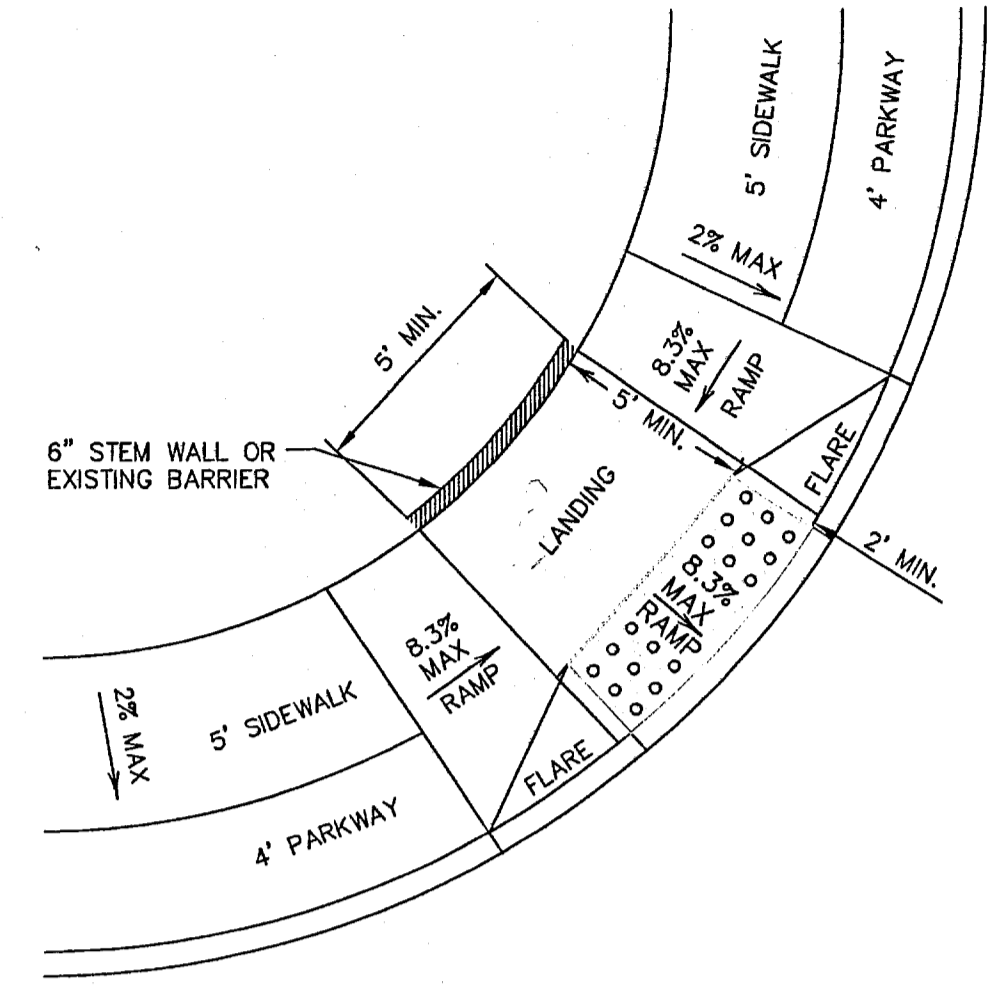
CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

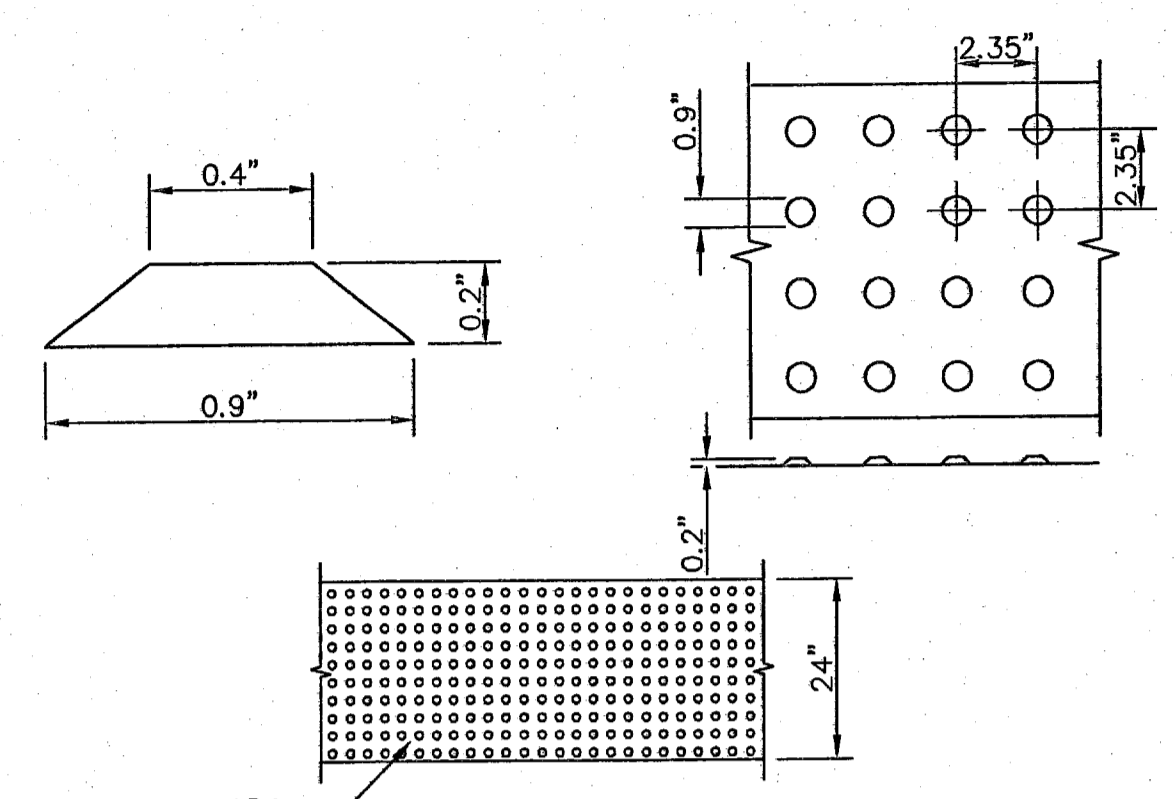
DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
FOUND TYDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

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Office: 915-544-5232 Fax: 915-544-5233 www.csandp.com



1 DIAGONAL COMBINATION CURB RAMP (TYPE III)
C13.3 SCALE: N.T.S.

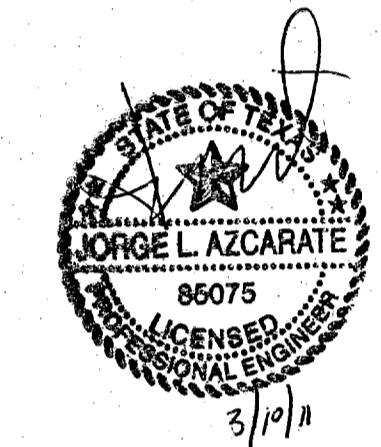


TRUNCATED DOMETILES. ADA CERTIFIED "ARMOR-TILE" TACTILE SYSTEMS OR APPROVED EQUAL

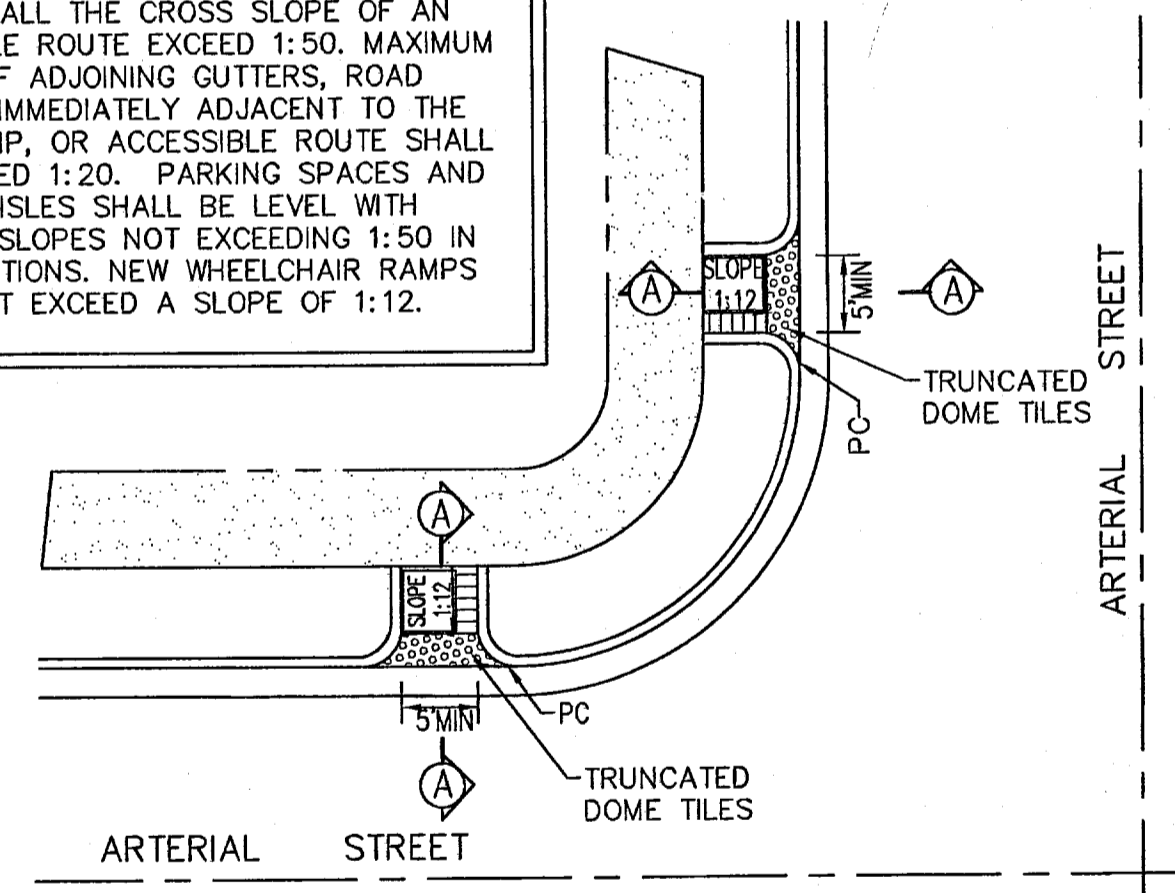
DOMES SIZE AND SPACING. TRUNCATED DOMES SHALL HAVE A DIAMETER OF NOMINAL 0.9 INCHES (23 mm) AT THE BOTTOM, A DIAMETER OF 0.4 INCH (10 mm) AT THE TOP, A HEIGHT OF NOMINAL 0.2 INCHES (5 mm), AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES (60 mm) MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT.

DOMES ALIGNMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES. DETECTABLE WARNING SURFACES SHALL EXTEND 24 INCHES (610 mm) MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION.

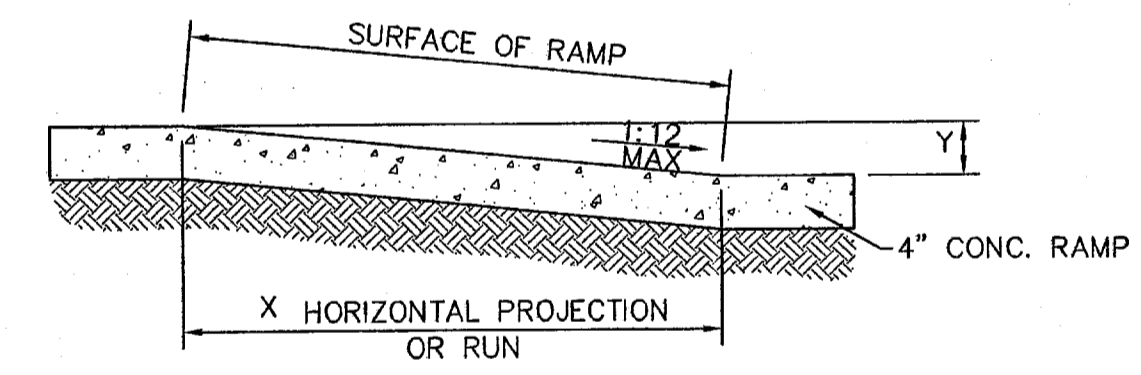
CONTRAST. THERE SHALL BE A MINIMUM OF 70 PERCENT CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE, OR THE DETECTABLE WARNING SHALL BE "RED BRICK" COLOR, UNLESS OTHERWISE DIRECTED BY THE OWNER. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE. CONTRAST SHALL BE PROVIDED BY PLACING AND MIXING TINT IN THE PLASTIC CONCRETE USED FOR THE DETECTABLE WARNING SURFACE. NO PAINTING OF SURFACE SHALL BE PERMITTED.



ALL ACCESSIBLE ROUTES SHALL NOT EXCEED A RUNNING SLOPE GREATER THAN 1:20. NO WHERE SHALL THE CROSS SLOPE OF AN ACCESSIBLE ROUTE EXCEED 1:50. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 IN ALL DIRECTIONS. NEW WHEELCHAIR RAMPS SHALL NOT EXCEED A SLOPE OF 1:12.



2 STRAIGHT CURB RAMP DESIGN WITH CURB RETURNS
C13.3



NOTES:
(1) SLOPE = y:x, where x is level plane
(2) Cross-slope shall not exceed 1:50

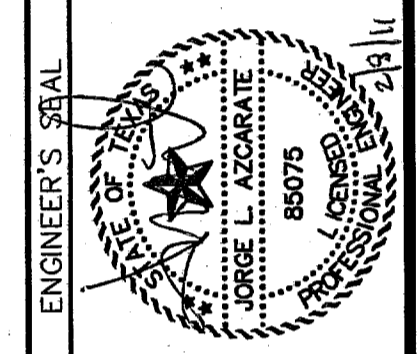
3 DOME SIZE AND SPACING
C13.3 SCALE: N.T.S.

LEGEND

DETECTABLE WARNING SURFACE SHALL CONSIST OF A COLOR CONTRAST VISUALLY WITH ADJOINING SURFACES.

GENERAL NOTES:

- ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
- THE MINIMUM SIDEWALK WIDTH IS 4'. WHERE A 5' SIDEWALK CAN NOT BE PROVIDED DUE TO SITE CONSTRAINTS, A MINIMUM 3' SIDEWALK WITH 5'X 5' PASSING AREAS AT INTERVALS NOT TO EXCEED 200 FT IS REQUIRED.
- LANDINGS SHALL BE 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
- MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 4'X 4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
- CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED.
- ALL CONCRETE SIDEWALK SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
- RAMP TEXTURES MUST CONSIST OF TRUNCATED DOMED SURFACES. TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED. REFER TO TRUNCATED DOME DETAIL.
- CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE ENGINEER.
- MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND RAMP SURFACES IS 2%.
- ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) PREPARED AND ADMINISTERED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR).
- ALL ADA RAMPS ARE TO BE BUILT BY DEVELOPER (TYP.)
- ALL WHEELCHAIR RAMPS WILL BE CONSTRUCTED BY DEVELOPER AS PART OF SUBDIVISION IMPROVEMENTS.



SCALE	
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	FEBRUARY 2011
DESIGN BY:	G.R.
DRAWN BY:	G.R.
CHKD. BY:	J.L.A.
APPD. BY:	J.L.A.
JOB NO.	2000-127-LD

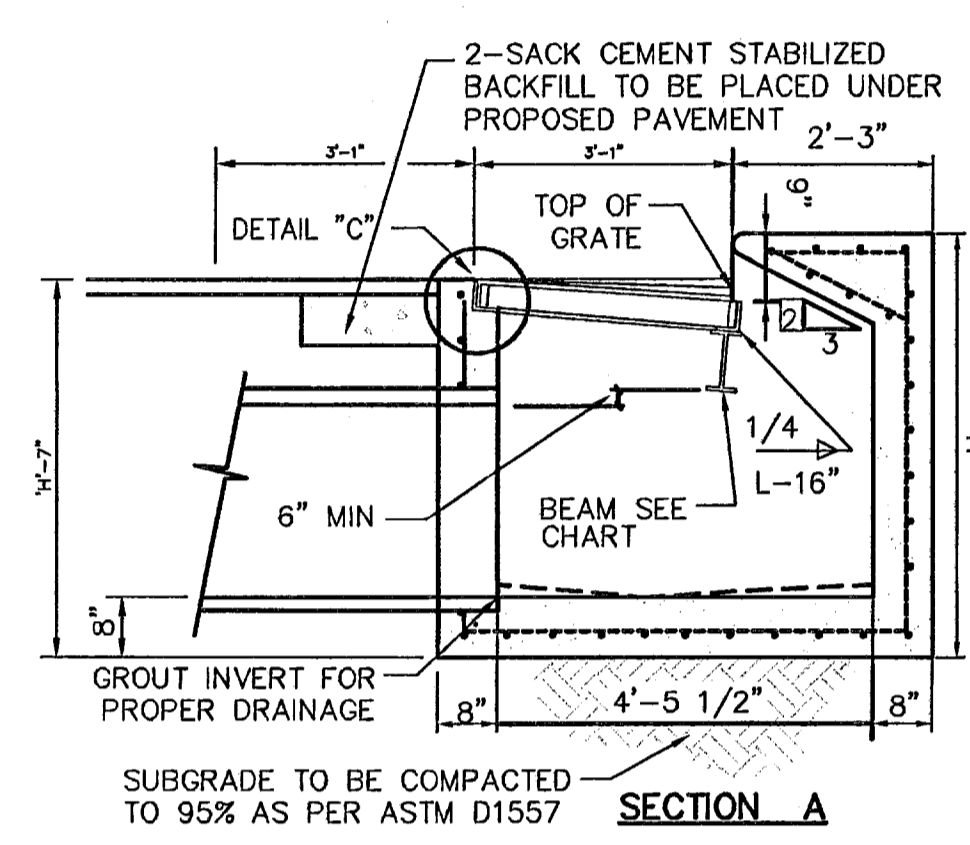
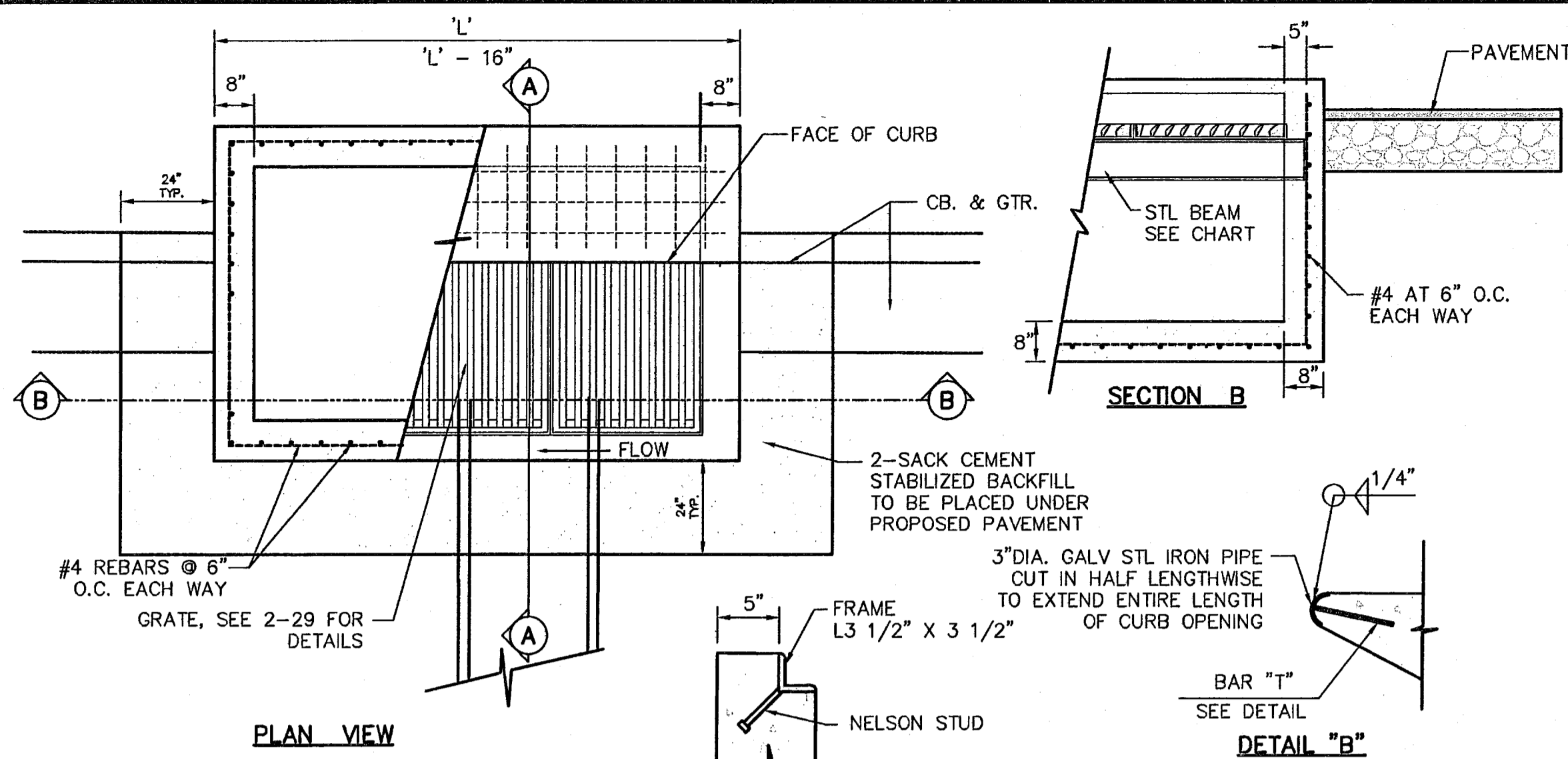
PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

STANDARD
DETAILS

(SHEET 3 OF 3)
SHEET NO.

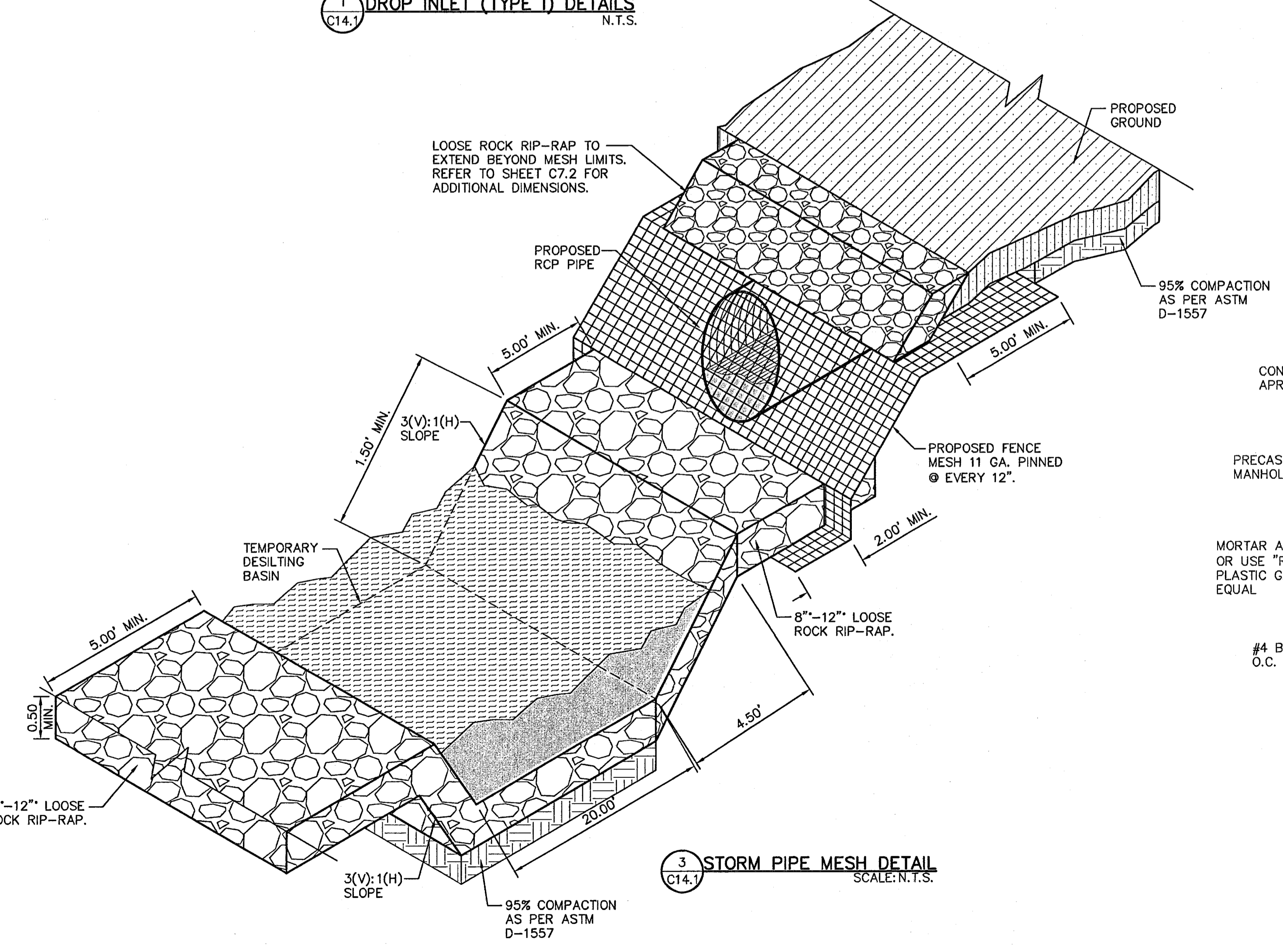
C13.3



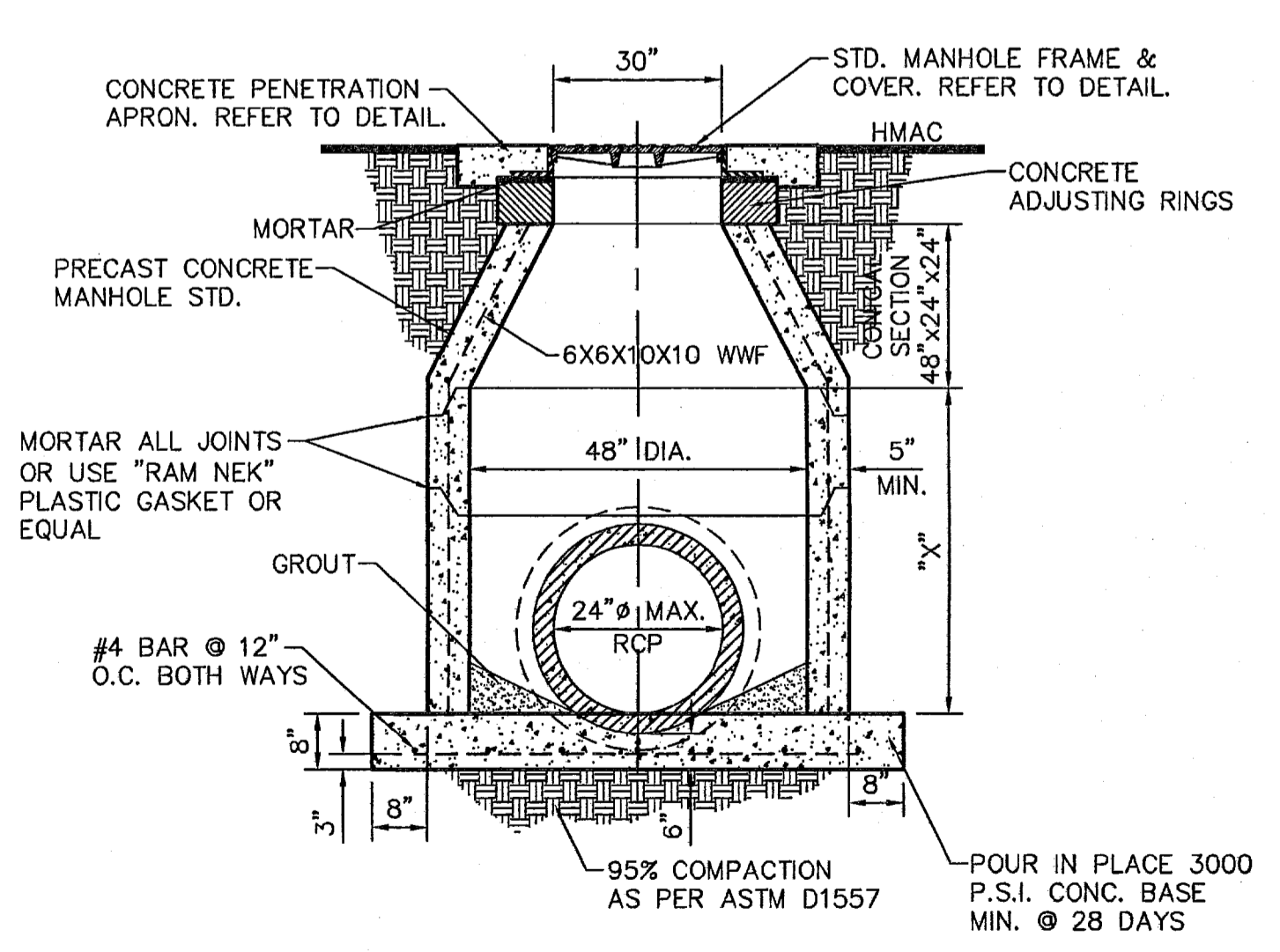
NOTES
 1. H = 20' MAXIMUM
 2. CONCRETE TO BE 3000 PSI MIN CORE TEST @ 28 DAYS.
 3. GRATE TO BE PERPENDICULAR TO TRAFFIC.

NO. OF GRATES	'L'	BEAM	
		LENGTH	MINIMUM SIZES
2	5'-1 1/8"	4'-7 1/8"	W6X12, S6X12.5, MC6X15.1
3	7'-0 1/4"	6'-5 1/8"	W8X15, S7X15.3, MC7X17.6
4	8'-9 7/8"	8'-3 7/8"	W9X18, S8X18.4, MC10X21.9
5	10'-8"	10'-2"	W12X16, S8X21, MC10X21.9
6	12'-6 5/8"	12'-0 5/8"	W12X19, S8X23, MC10X25

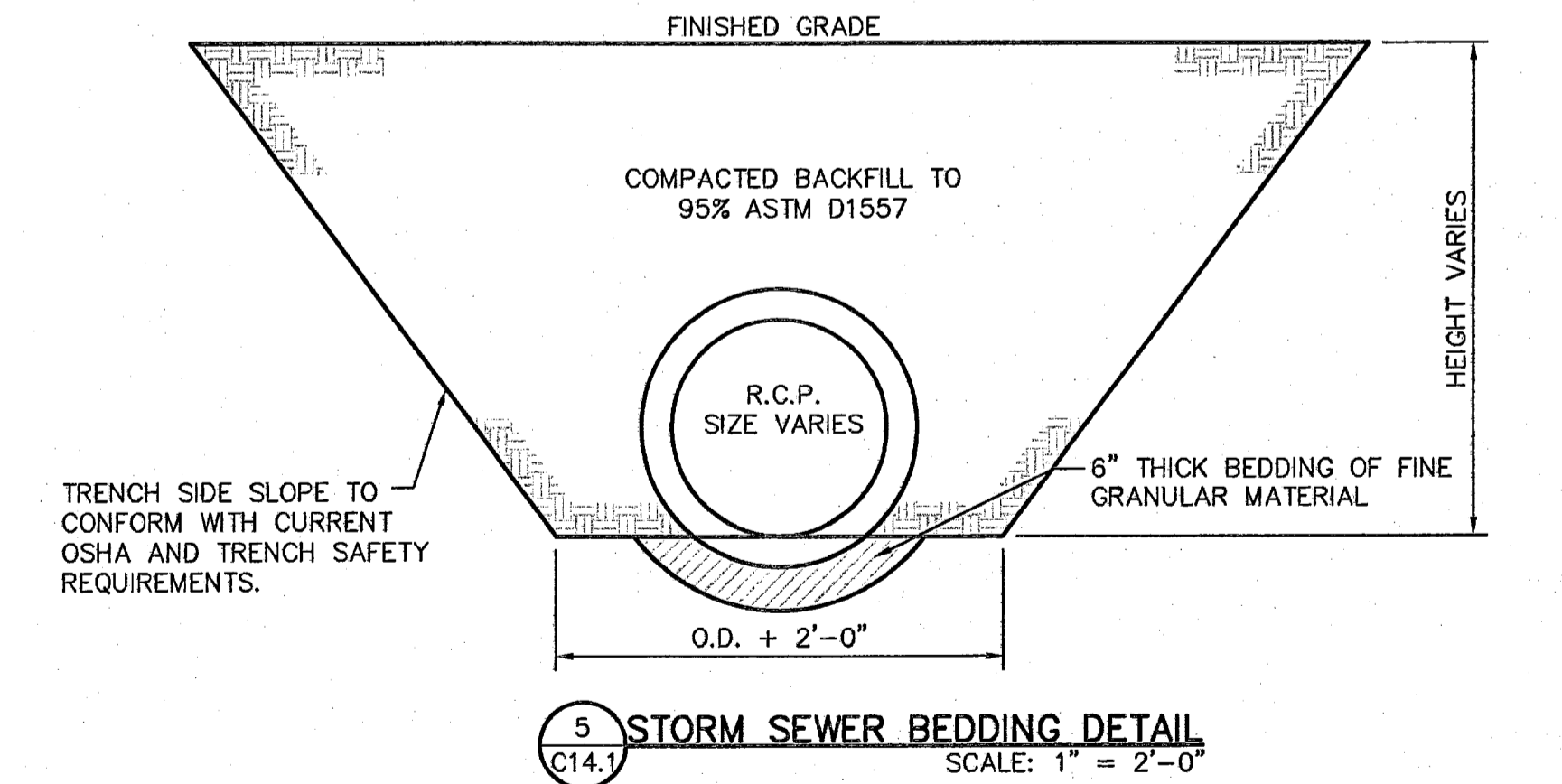
1 DROP INLET (TYPE I) DETAILS
 C14.1 N.T.S.



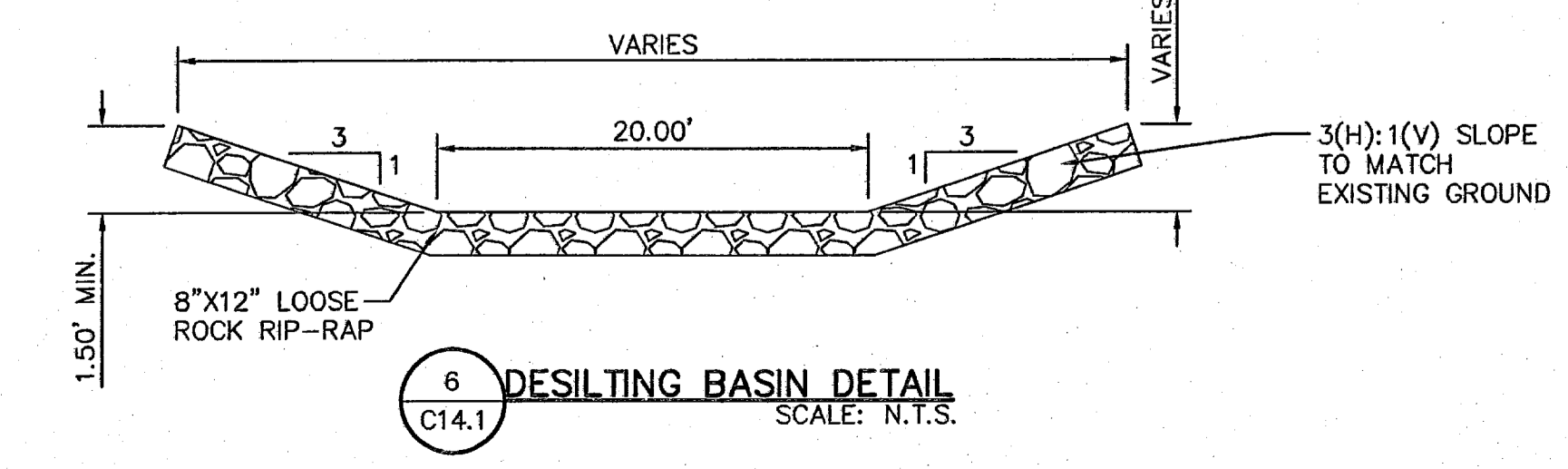
3 STORM PIPE MESH DETAIL
 C14.1 SCALE: N.T.S.



4 48" STANDARD MANHOLE DETAIL
 C14.1 SCALE: N.T.S.



5 STORM SEWER BEDDING DETAIL
 C14.1 SCALE: 1" = 2'-0"

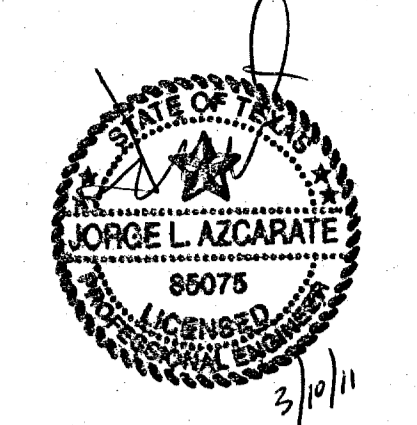


6 DESILTING BASIN DETAIL
 C14.1 SCALE: N.T.S.

- DROP INLET GENERAL NOTES:**
1. WELDED STEEL OR CAST GRATES AS DETAILED ARE ALL ACCEPTABLE GRATES. MIXING OF ALTERNATE TYPES OF GRATES ON THE SAME PROJECT WILL BE PERMITTED WITH THE APPROVAL OF THE CITY ENGINEER.
 2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS.
 3. SHARP EDGES RESULTING FROM FABRICATION SHALL BE DULLED BY ANY ACCEPTABLE METHOD FOR SAFETY IN HANDLING.
 4. GRATES SHALL BE INSTALLED IN FRAME WITH FLOW ARROW POINTING DOWNSTREAM OR TOWARD THE LOW POINT IN A SUMP.
 5. WELDED GRATES SHALL BE STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-183 OR OF CORROSION RESISTANT STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-161 OR M-222 OR BE MADE OF OTHER APPROVED STEELS OF EQUAL QUALITY. MIXING GRADES OF STEEL ON THE SAME GRATE WILL NOT BE PERMITTED.
 6. GRATES MADE OF M-183 STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111 SPECIFICATIONS OR SHALL BE PAINTED WITH INORGANIC ZINC PAINTS, MEETING THE REQUIREMENTS OF CURRENT STANDARD SPECIFICATIONS.
 7. ALL WELDS SHALL HAVE A MINIMUM OF 1/4" FILLET AND SHALL CONFORM TO THE SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND TO THE AWS STRUCTURAL WELDING CODE. ELECTRODES SHALL BE COMPATIBLE TO THE DIFFERENT GRADES OF STEEL THAT COMPRISE THE GRATE MEMBERS.
 8. CAST GRATES SHALL BE CAST STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-103, GRADE 65-35 OR OF DUCTILE IRON CONFORMING TO THE REQUIREMENTS OF ASTM A-536, SPECIAL GRADE 60-45, OR OF GRAY IRON CONFORMING TO THE REQUIREMENTS OF AASHTO M-105, CLASS 35B OR ASTM A-48 CLASS 35B. THE SPECIFICATIONS OF GENERAL APPLICATION FOR CAST STEEL GRATES SHALL BE AASHTO M-103 SCOPE 1.2.1, GRADE N-1.
 9. FERROUS CASTINGS SHALL BE OF UNIFORM QUALITY, FREE OF BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING OR OTHER APPROVED CLEANING METHOD. AFTER CLEANING THEY SHALL BE COATED WITH ASPHALT BASE PAINT RESULTING IN A SMOOTH COATING, TOUGH AND TENACIOUS WHEN COLD, NOT TACKY OR BRITTLE.
 10. ALL CASTING SHALL BE MANUFACTURED TRUE TO PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER.
 11. ALL CASTING TO BE 3000 PSI. CHAMFER ALL EXPOSED EDGES 3/4". ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
 12. MINIMUM CONCRETE COVER SHALL BE 1 1/2" FOR STEEL REINFORCING.
 13. EXPANSION MATERIAL TO BE 1/2" BITUMINOUS FIBER AND PLACED WHERE PROPOSED CONCRETE COMES IN CONTACT WITH ANY EXISTING OR PROPOSED CONCRETE OR MASONRY STRUCTURE.
 14. STRUCTURAL STEEL SHALL BE SHOP PAINTED IN ACCORDANCE WITH TxDOT ITEM 446 "PAINT AND PAINTING"
 15. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE AND GRADE TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO INLETS.
 16. GRATES WILL BE DEPRESSED 1" BELOW PROPOSED OR EXISTING GRADE.
 17. ALL REINFORCING BARS TO BE #4 BARS AT 6" O.C. GRADE 60. BEND BARS AROUND PIPE OPENINGS.
 18. INLETS TO BE DESIGNATED IN PLANS BY NUMBER OF GRATES REQUIRED.
 19. LOCATION OF SEWER PIPES SHOWN ELSEWHERE IN PLANS.
 20. TWO 1/2"x4" LONG CONCRETE ANCHOR STUDS REQUIRED FOR EACH SIDE OF FRAME, WHERE RESTING ON CONCRETE, USE NELSON STUDS OR EQUAL.
 21. THE GRATES OF ALL INLETS WITHIN THE STREET PAVEMENT MUST BE CONSTRUCTED WITH THE GRATE BARS PERPENDICULAR TO THE CURB.

2 GRATE AND FRAME DETAILS
 C14.1 SCALE: 1" = 1'-0"

DROP INLET GENERAL NOTES:



UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 821-6750
(AFTER HOURS)	(915) 240-3220

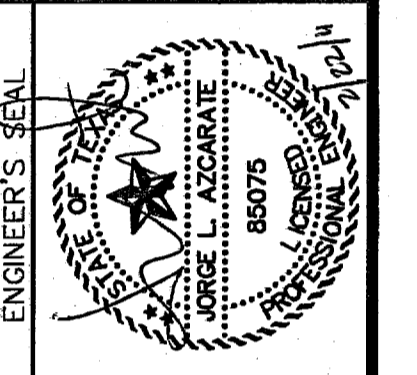
WARNING!
BEFORE YOU DIG
 CALL
1-800-DIG-TESS
1-800-344-8377
 FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

FOUND TYPOT BRASS CAP AT SECTION CORNERS 100' AND 200' 4033.22 (NAD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM).

BY	DATE	REVISIONS

CS&P
 engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM F-4984
 4712 Woodrow Bean, Ste. F, El Paso, TX 79904
 Office: 915-544-5232 Fax: 915-544-5233 www.csandp.com



SCALE:

Vertical: N/A
 Horizontal: Interval: N/A

DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: J.L.A.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-127-LD

PROJECT NAME
SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS

SHEET TITLE
DRAINAGE
DETAILS

(SHEET 1 OF 2)
 SHEET NO.

C14.1

A PORTION OF SECTION No. 22, BLOCK 81, TOWNSHIP 1,
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3788
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (AFTER HOURS)	(915) 821-6750 (915) 240-3220

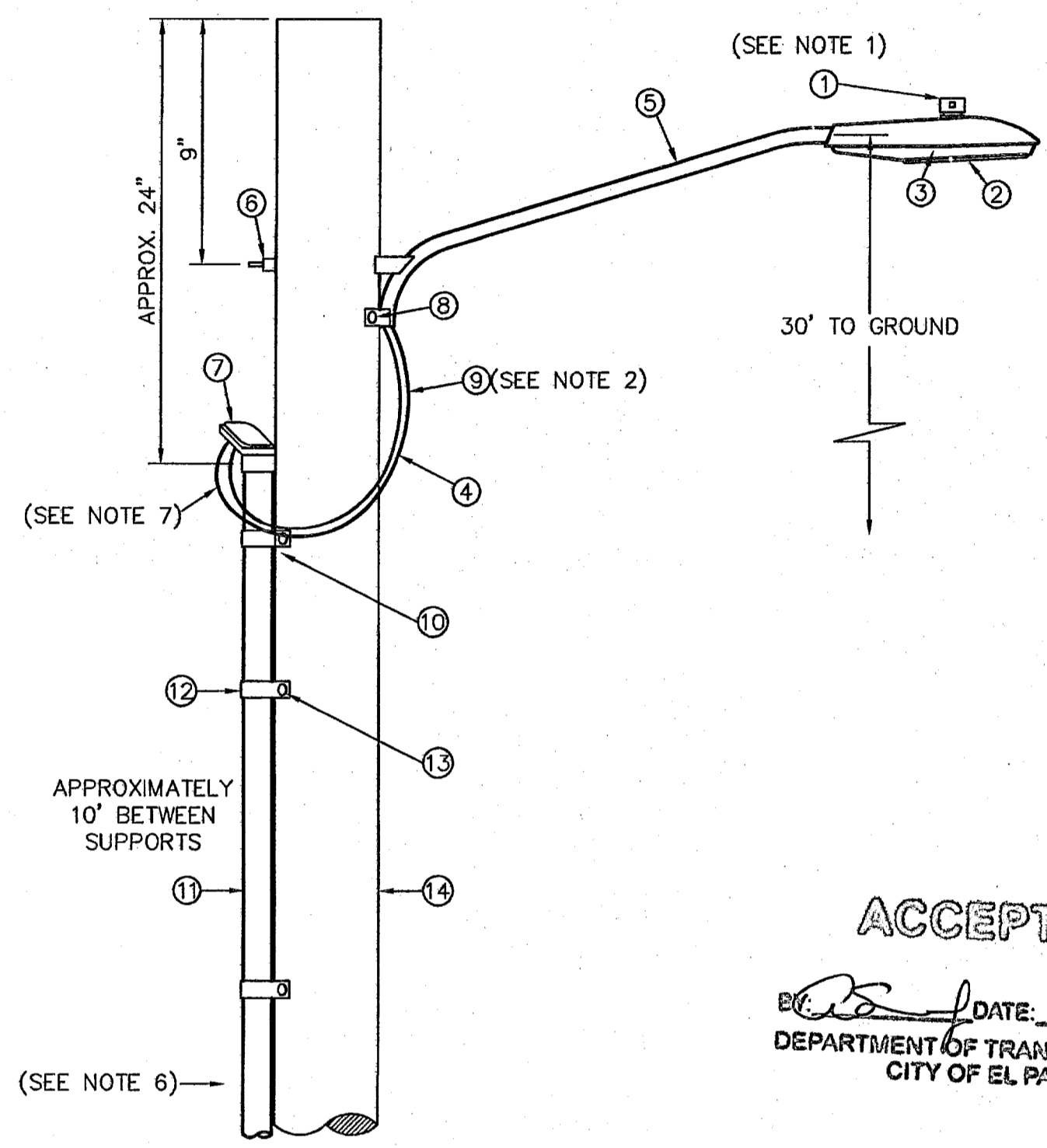
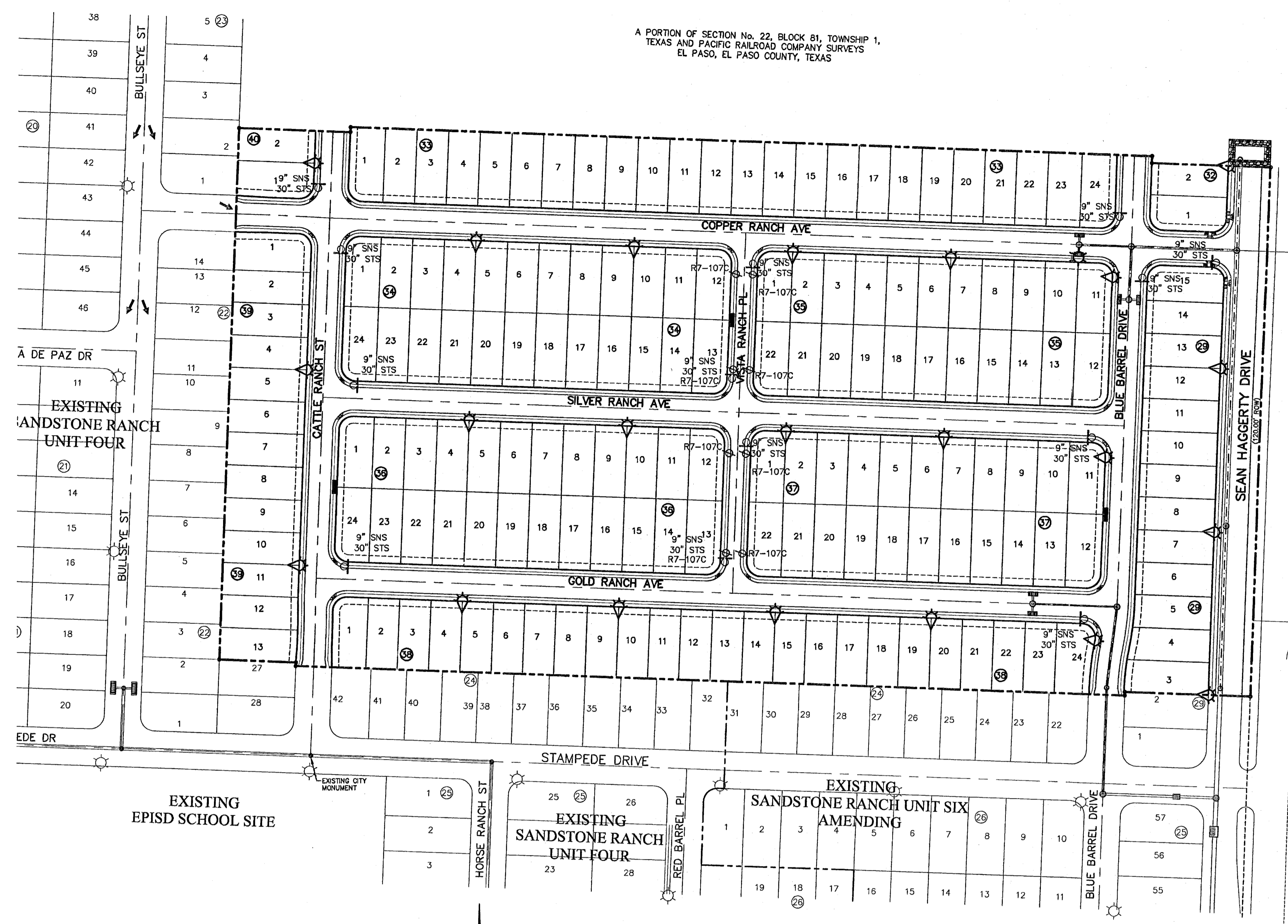
**WARNING!
BEFORE YOU DIG**

CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

LEGEND:

- ☼ EXISTING RESIDENTIAL STREET LIGHT
- ☼ PROPOSED RESIDENTIAL STREET LIGHT
- ⊙ PROPOSED 9" STREET NAME AND 30" STOP SIGN
- ⊙ R7-107C NO PARKING SIGN
- NDCBU



ACCEPTED:

DATE: 2 Mar 11

DEPARTMENT OF TRANSPORTATION
CITY OF EL PASO

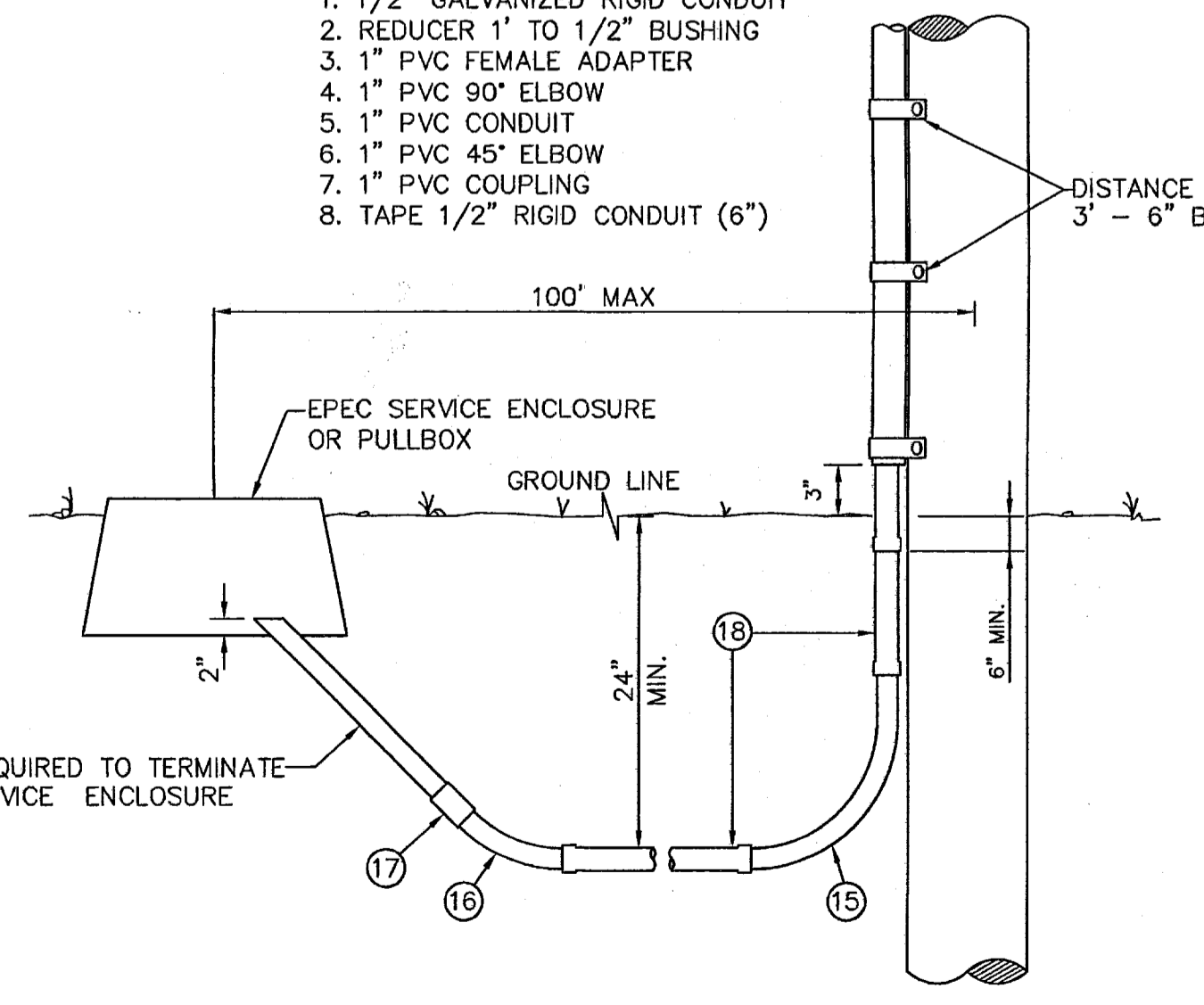
RESIDENTIAL STREET LIGHT WOOD POLE
SCALE: N.T.S.

ITEM NO.	DESCRIPTION	STOCK NO.	QTY.	
1	PHOTO CELL, 240 V-SEE NOTE 1	21-225	1	LCOBRAHD
2	HPS LAMP, 100W	21-085	1	
3	LUMINAIRE, 100W H.P.S.	21-335	1	
4	SLEEVES, #12-10	05-140	2	LSLV1210
5	MAST ARM, 6" X 1 1/4"	21-200	1	LBRKT1*6
6	MACHINE BOLT, 5/8" X 12"	02-470	1	LMB5/812
	SQUARE GALV. WASHER, 2 1/4" X 2 1/4"	02-760	1	
	COIL SPRING WASHER, 5/8"	02-786	1	
7	LOCK NUT, 5/8"	02-705	1	LCOBRAUG
	SERVICE ENTRANCE CAP FOR 1" PVC CONDUIT	17-281	1	
8	LAG BOLT, 3/8" X 3"	02-343	1	LLAG38*3
9	CABLE, #10, 2 CONDUCTOR, 600V, UF	13-600	8'	L2C#10S
10	COPPER CABLE, #12, SOLID, 600V, BLUE	13-702	60'	LC#12CU
11	SCHEDULE 80 1" PVC CONDUIT	17-280	30'	LSCH801
12	PIPE STRAP FOR 1" PVC CONDUIT, 2-HOLE	17-283	9'	LPVCSTRP
13	NAIL, STAINLESS STEEL SCREW 2.5 IN.	14-427	.25#	LNAL14*2
14	POLE, 35 FT. - CLASS 4	09-035	1	L354UG
15	1" PVC 90 DEGREE ELBOW	17-297	1	LEL901
16	1" PVC 45 DEGREE ELBOW	17-298	1	LEL451
17	1" PVC COUPLING	17-296	1	LCPLG1
18	1" PVC CONDUIT	17-299	AS REQ	LPVC1

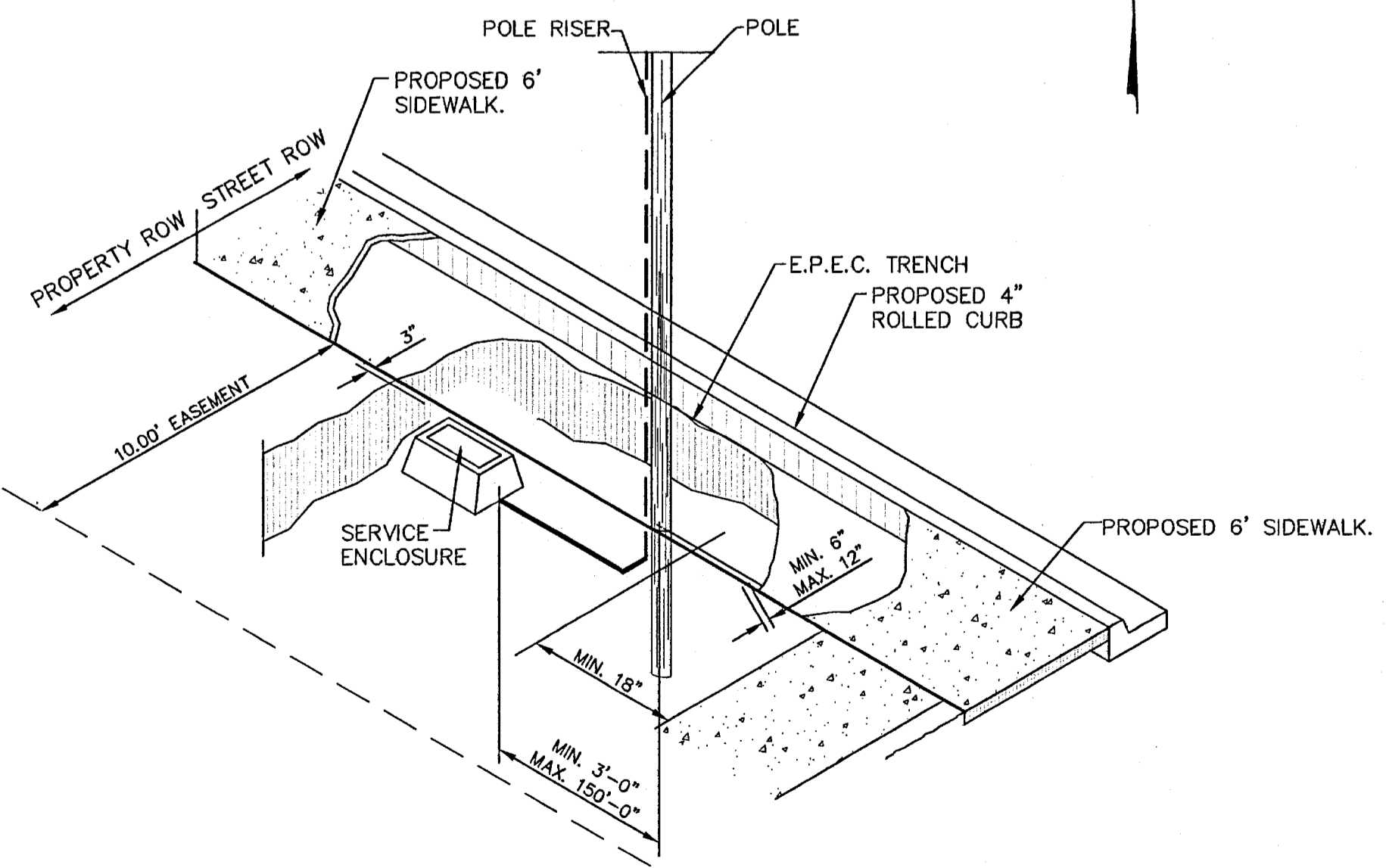
- NOTES:**
- MOUNT SO THAT PHOTO CELL IS FACING NORTH.
 - ITEM # 9 SHALL NOT BE SPLICED INSIDE ITEM # 5.
 - INSTALLATION MUST COMPLY WITH LOCAL CODE REQUIREMENTS.
 - FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING THIS STANDARD, CALL THE EL PASO ELECTRIC COMPANY DISTRIBUTION DESIGN DEPARTMENT.
 - ON STREETS WHERE SIDEWALK IS ADJACENT TO CURBS, STREET LIGHT POLE SHALL BE INSTALLED IN THE SIDEWALK NEXT TO PROPERTY LINE. 36 INCHES REQUIRED FROM BACK OF CURB TO COMPLY WITH AMERICAN DISABILITY'S ACT AND LOCAL CODES.
 - THE CONDUIT RISER SHALL BE INSTALLED ON THE BACK OF THE WOOD POLE (AWAY FROM THE STREET).
 - THE WIRE LEADS FROM THE WEATHER HEAD TO THE MAST ARM SHALL HAVE A MINIMUM 4" DRIP LOOP BELOW THE WEATHER HEAD.

ILLUMINATION PLAN
SCALE: 1" = 100'

- KEY NOTES:**
- 1/2" GALVANIZED RIGID CONDUIT
 - REDUCER 1" TO 1/2" BUSHING
 - 1" PVC FEMALE ADAPTER
 - 1" PVC 90° ELBOW
 - 1" PVC CONDUIT
 - 1" PVC 45° ELBOW
 - 1" PVC COUPLING
 - TAPE 1/2" RIGID CONDUIT (6")



RESIDENTIAL STREET LIGHT WOOD POLE
SCALE: N.T.S.



POLE LOCATION DETAIL
SCALE: 1" = 5'-0"

REFERENCES - BENCHMARKS

FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)

SCALE
Horizontal: N/A
Vertical: Interval: N/A

DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.

JOB NO. 2000-127-LD

PROJECT NAME

**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

ILLUMINATION PLAN

SHEET NO.

C15.1

SITE DESCRIPTION

PROJECT NAME AND LIMITS: SANDSTONE RANCH UNIT EIGHT
THE PROJECT IS BORDERED BY SANDSTONE RANCH UNIT FOUR, AND SIX TO THE SOUTH, SANDSTONE RANCH
UNIT FOUR TO THE WEST, SANDSTONE RANCH ESTATES UNIT ONE TO THE EAST, AND VACANT LAND TO THE
NORTH.

PROJECT DESCRIPTION: THE SITE FOR THE NEW SUBDIVISION WILL ENCOMPASS APPROXIMATELY 25.923± ACRES
AND WILL CONTAIN 170 RESIDENTIAL LOTS.

EXISTING CONDITIONS: THE SITE IS CLEAR OF SITE IMPROVEMENTS AND IS COVERED WITH ITS NATURAL
SURROUNDINGS.

MAJOR SOIL DISTURBING ACTIVITIES: MAJOR SOIL DISTURBING ACTIVITIES WILL CONSIST OF CLEARING AND
GRUBBING, GRADING FOR BUILDING PAD ELEVATIONS, CONSTRUCTION OF STREETS AND EXCAVATION FOR
UTILITIES.

TOTAL PROJECT AREA: 25.923± A.C.

TOTAL AREA TO BE DISTURBED: 25.293± A.C.

WEIGHTED RUNOFF COEFFICIENT
(AFTER CONSTRUCTION): 0.645

EXISTING CONDITION OF SOIL AND VEGETATIVE
COVER AND % OF EXISTING VEGETATIVE COVER: IGNEOUS ROCK LAND-LIMESTONE ROCK LAND ASSOCIATION;
VERY STEEP AREAS OF IGNEOUS AND LIMESTONE ROCKS AND STONY SOILS; IN THE FRANKLIN MOUNTAINS.

NAME OF RECEIVING WATERS: STORM RUNOFF FROM THE NEW SUBDIVISION WILL BE CONVEYED BY STREET
SHEET FLOW TO ULTIMATELY BE DISCHARGED TO THE WESTERN FREEWAY CHANNEL.

EROSION AND SEDIMENT CONTROL

SOIL STABILIZATION PRACTICES

- TEMPORARY SEEDING
- PERMANENT PLANTING, SODDING, OR SEEDING
- MULCHING
- SOIL RETENTION BLANKET
- BUFFER ZONES
- PRESERVATION OF NATURAL RESOURCES

OTHER: _____

STRUCTURAL PRACTICES:

- SILT FENCES
- EARTHEN BERMS
- ROCK BERMS
- DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- DIVERSION DIKE AND SWALE COMBINATION
- PIPE SLOPE DRAINS
- CONCRETE FLUMES
- ROCK BEDDING AT CONSTRUCTION EXIT
- TIMBER MATTING AT CONSTRUCTION EXIT
- CHANNEL LINERS
- SEDIMENT TRAPS
- SEDIMENT BASINS
- STORM INLET SEDIMENT TRAP
- STONE OUTLET STRUCTURES
- CURBS AND GUTTERS
- STORM DRAINS
- VELOCITY CONTROL DEVICES
- VEGETATED SWALES & NATURAL DEPRESSIONS

OTHER: _____

NARRATIVE - SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES:

1. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS (e.g. SILT FENCE AND/OR
EARTHEN BERM, AND STABILIZED CONSTRUCTION ENTRANCE);
2. PERFORM CLEARING AND GRUBBING;
3. EXCAVATION FOR UTILITIES;
4. COMPLETE STREET AND LOT GRADING;
5. CONSTRUCTION OF SUBDIVISION IMPROVEMENTS; AND,
6. WHEN ALL CONSTRUCTION ACTIVITY RELATED IN DEVELOPMENT OF THE SITE IS
COMPLETE, REMOVE TEMPORARY CONTROLS IN 1. ABOVE.

SWPPP GENERAL NOTES:

1. PLACEMENT OF SILT FENCE SHALL BE ADJUSTED AS NECESSARY TO PREVENT THE BLOCKING OF DRIVEWAYS
OR DRIVING LANES.
2. THE SWPPP MANUAL IDENTIFIES THE DUTIES AND RESPONSIBILITIES OF THE GENERAL CONTRACTOR IN
COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. THIS ITEM SHALL BE SUBSIDIARY TO THE
SWPPP BEST MANAGEMENT PRACTICES (COMPLETE IN PLACE) ITEMS. THE SWPPP PROJECT MANUAL IS
AVAILABLE FOR REVIEWING AT THE CITY OF EL PASO - ENGINEERING DEPARTMENT. UPON SELECTION, THE
CONTRACTOR WILL BE PROVIDED AN SWPPP MANUAL. THE CONTRACTOR SHALL MAINTAIN THIS MANUAL AT
THE CONSTRUCTION SITE AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD.
3. THE CONTRACTOR SHALL COMPLETE AND SUBMIT ALL REGULATORY FORMS AND APPLICATIONS, AS
PROVIDED IN THE SWPPP MANUAL, INCLUDING, BUT NOT LIMITED TO; NOI, NOT, SDPCP, AND ANY OTHER
FORM REQUIRED BY THE CITY OF EL PASO AND TCEQ.
4. ALLOWABLE STORM WATER AND NON-STORMWATER DISCHARGE SHALL COMPLY WITH 15.20.080 (GENERAL
PROHIBITION) AND 15.20.090 (SPECIFIC PROHIBITIONS AND REQUIREMENTS) OF THE CITY OF EL PASO STORM
DRAIN POLLUTION CONTROL PLAN ORDINANCE. NON-STORMWATER DISCHARGES MAY CONSIST OF, BUT ARE
NOT LIMITED TO, THE DISCHARGE RESULTING FROM FIREFIGHTING, LAWN WATERING, LANDSCAPE IRRIGATION,
NATURAL SPRING, AND/OR AGRICULTURAL STORM WATER RUNOFF.
5. REFER TO DRAINAGE PLAN SHEET 5, FOR ADDITIONAL INFORMATION ON WATERSHED AREAS AND RUNOFF
QUANTITIES (Q).
6. THE FOLLOWING HAVE BEEN IDENTIFIED AS POTENTIAL CONTAMINATION SOURCES: CLEARED AND GRADED
AREAS; CONSTRUCTION SITE ENTRANCE AND ASPHALT PARKING AREA CONSTRUCTION; ASPHALT
LOADING/UNLOADING AREAS; CONCRETE LOADING/UNLOADING AREAS; AND, ALL UNDISTURBED AREAS.
7. THE FOLLOWING IS A LIST OF POTENTIAL CONSTRUCTION SITE STORM WATER POLLUTANTS: ASPHALT;
CONCRETE; GLUE/ADHESIVE; PAINTS; CURING COMPOUNDS; WASTEWATER FROM CONSTRUCTION EQUIPMENT
WASHING; HYDRAULIC OIL/FLUIDS; GASOLINE; DIESEL FUEL; KEROSENE; ANTIFREEZE/COOLANT; AND
EROSION.

BEST MANAGEMENT PRACTICES CONTROLS

I. WASTE MATERIALS:

ALL WASTE MATERIALS, INCLUDING CONSTRUCTION DEBRIS, SHALL BE COLLECTED AND STORED
IN A SECURELY LIDDED METAL DUMPSTER. NO CONSTRUCTION WASTE MATERIAL SHALL BE
BURIED ON SITE. THE TRANSIT DUMPSTER SHALL COMPLY WITH ORDINANCE 18.52.010 (ENCLOSURE
AND REMOVAL OF WASTE MATERIALS DURING CONSTRUCTION). THE DUMPSTER SHALL BE EMPTIED
AS NECESSARY OR AS REQUIRED BY ORDINANCE 9.04 (SOLID WASTE MANAGEMENT) AND THE TRASH
SHALL BE HAULED TO A LICENSED LANDFILL.

II. HAZARDOUS WASTE:

AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES SHALL BE CONSIDERED HAZARDOUS:
PAINT, ACIDS FOR CLEANING MASONRY SURFACES, CLEANING SOLVENTS, ASPHALT PRODUCTS, CHEMICAL
ADDITIVES FOR SPILL STABILIZATION, CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A
SPILL WHICH MAY BE HAZARDOUS, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION AND CONTACT
THE FIRE DEPT. AND TNRC.

III. SANITARY WASTE:

ALL SANITARY WASTE SHALL BE COLLECTED FROM THE CONSTRUCTION PORTABLE UNITS AS NECESSARY
OR AS REQUIRED, CHAPTER 18.08 (BUILDING CODE), BY A LICENSED SANITARY WASTE MANAGEMENT
CONTRACTOR. ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

IV. SPILL PREVENTION:

THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL
EXPOSURES OF MATERIALS TO STORM WATER RUNOFF.

V. GOOD HOUSEKEEPING:

- A. STORE ONLY ENOUGH PRODUCTS REQUIRED TO DO THE JOB
- B. NEATLY STORE MATERIALS ON-SITE IN AN ORDERLY MANNER
- C. KEEP PRODUCTS IN THEIR ORIGINAL CONTAINER
- D. DO NOT MIX SUBSTANCES WITH ONE ANOTHER, UNLESS OTHERWISE
RECOMMENDED BY THE MANUFACTURER
- E. USE ENTIRE CONTENTS OF A PRODUCT BEFORE DISPOSING THE CONTAINER
- F. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL

VI. HAZARDOUS PRODUCTS:

PRACTICES USED TO REDUCE RISKS:

- A. KEEP PRODUCTS IN THEIR ORIGINAL CONTAINER IF AT ALL POSSIBLE
- B. RETAIN ORIGINAL LABELS, PRODUCT INFORMATION AND MATERIAL
SAFETY DATA SHEETS (MSDS)
- C. DISPOSE SURPLUS PRODUCT IN ACCORDANCE WITH MANUFACTURER'S
OR LOCAL & STATE RECOMMENDED METHODS

VII. PETROLEUM PRODUCTS:

ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE
MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED
IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES
USED ON-SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.

VIII. SPILL CONTROL PRACTICES:

- A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY
POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES:
- B. MATERIALS AND EQUIPMENT NECESSARY FOR CLEANUP SHALL BE KEPT IN THE
MATERIAL STORAGE AREA ON-SITE:
- C. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY
- D. SPILL AREA SHALL BE WELL VENTILATED AND APPROPRIATE CLOTHING WILL
BE WORN:
- E. ANY SPILL SHALL BE REPORTED TO THE APPROPRIATE GOVERNMENTAL AGENCY
- F. MEASURES SHALL BE TAKEN TO PREVENT A SPILL FROM REOCCURRING

IX. MAINTENANCE AND INSPECTION PROCEDURES:

ALL POLLUTION PREVENTION MEASURES SHALL BE INSPECTED AT LEAST ONCE A MONTH OR
WITHIN 24-HOURS PRIOR TO ANTICIPATED STORM EVENT AND FOLLOWING A STORM EVENT
OF 0.5 INCHES OR MORE. INSPECTION IN FINAL STABILIZED AREAS OR DURING ARID PERIODS
WILL BE CONDUCTED MONTHLY, BEST MANAGEMENT PRACTICES AND POLLUTION CONTROL
PROCEDURES SHALL BE INSPECTED FOR ADEQUACY.

X. REMARKS:

DISPOSAL AREAS, STOCKPILES, AND HAUL ROADS SHALL BE CONSTRUCTED IN A MANNER THAT WILL
MINIMIZE AND CONTROL THE AMOUNT OF SEDIMENT THAT MAY ENTER RECEIVING WATERS. DISPOSAL
AREAS SHALL NOT BE LOCATED IN ANY WETLAND, WATERBODY OR STREAMBED. CONSTRUCTION STAGING
AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A
MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS. ALL WATERWAYS SHALL BE CLEANED AS SOON
AS PRACTICABLE OF TEMPORARY EMBANKMENT, TEMPORARY BRIDGES, MATTING, FALSEWORK, PILING
DEBRIS OR OTHER OBSTRUCTIONS PLACED DURING CONSTRUCTION OPERATIONS THAT ARE NOT A PART
OF THE FINISHED WORK.

XI. OFFSITE VEHICLE TRACKING:

IN ADDITION TO THE STABILIZED CONSTRUCTION ENTRANCES, THE FOLLOWING MEASURES SHALL BE
OBSERVED DURING CONSTRUCTION:

- HAUL ROADS SHALL BE DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPULIN
- EXCESS DIRT ON ROAD SHALL BE REMOVED IMMEDIATELY
- STABILIZED CONSTRUCTION ENTRANCE
- OTHER: _____

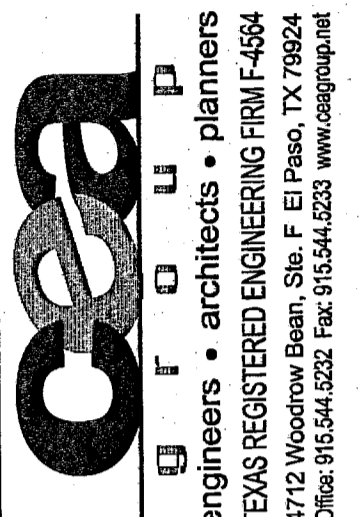
XII. REFER TO SWPPP REPORT FOR ADDITIONAL INFORMATION

SDPCP #: _____
SDPCP DATE: _____

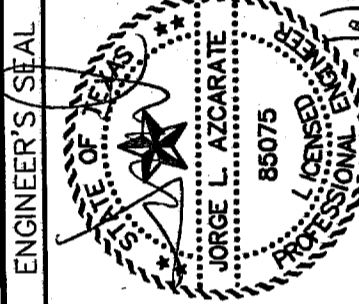
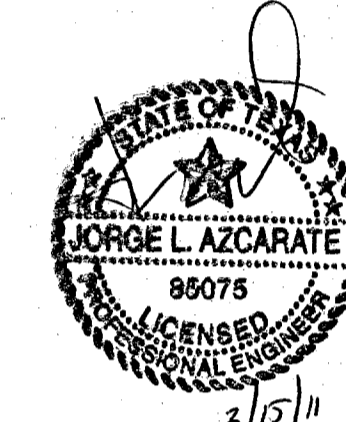
REFERENCES - BENCHMARKS

FOUND TYPOT BRASS CAP AT SECTION
CORNERS 19, 20, 21 AND 22. ELEVATION:
4033.22 (NGVD DATUM) (SUBTRACT B-462
TO CONVERT TO CITY DATUM.)

DATE	REVISIONS	BY



CSEA
engineers • architects • planners
engineers • registered engineering firm - 4884
4712 Woodrow Bean, Ste. F El Paso, TX 79904
Office: 915.544.5232 Fax: 915.544.5233 www.cseainc.com



SCALE

Horizontal: _____
Vertical: _____
Contour Interval: 1/4"

DATE: FEBRUARY 2011
DESIGN BY: G.R.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APPV. BY: J.L.A.
JOB No. 2000-1177-LD

**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**STORM WATER
POLLUTION
PREVENTION PLAN:
GENERAL NOTES**

SHEET NO.

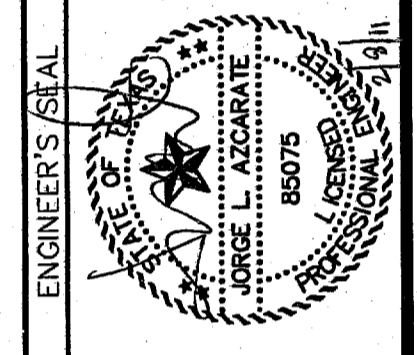
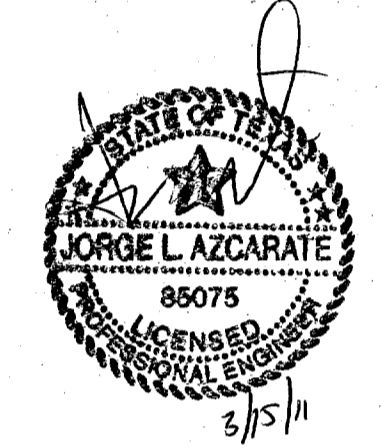
C16.1

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 486-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-8750
(AFTER HOURS)	(915) 240-3220

WARNING!
BEFORE YOU DIG
 CALL
 1-800-DIG-TESS
 1-800-344-8377
 FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

ceba
 engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM #484
 4712 Woodrow Bean, Ste. F El Paso, TX 79904
 Office 915-544-5232 Fax 915-544-5233 www.cebaup.com



SCALE: 1" = 100'
 Horizontal: Vertical: Contour Interval: 3' / 4'
 DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: G.R.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-1177-LD

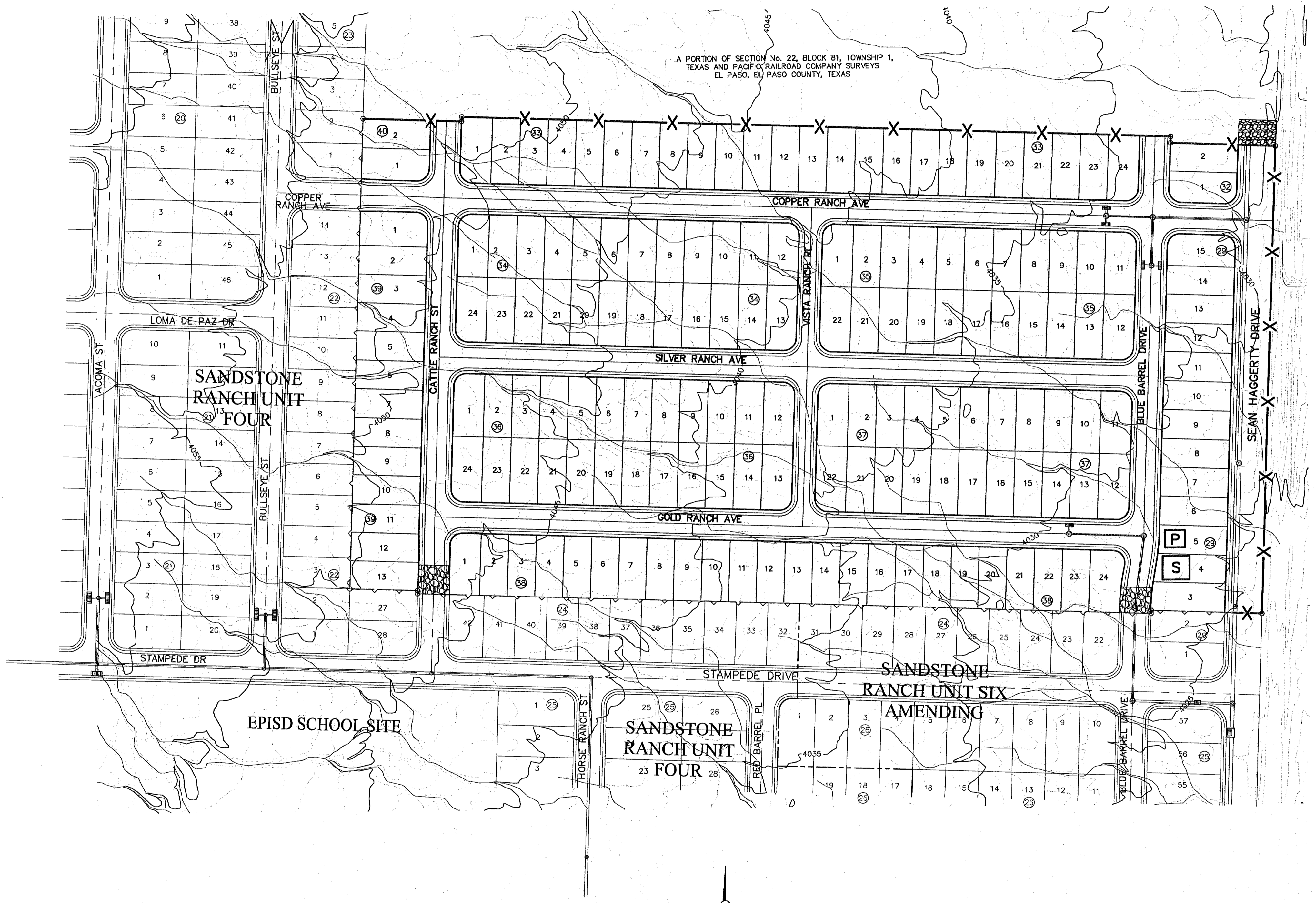
PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**STORM WATER
 POLLUTION
 PREVENTION PLAN:
 SITE PLAN**

SHEET NO.
C16.2

LEGEND

- SILT FENCE OR EARTHEN BERM
- STABILIZED CONSTRUCTION ENTRANCE
- STAGING AREA
- PORTABLE TOILETS
- EXISTING ROCKWALL



SITE PLAN
 SCALE: 1" = 100'

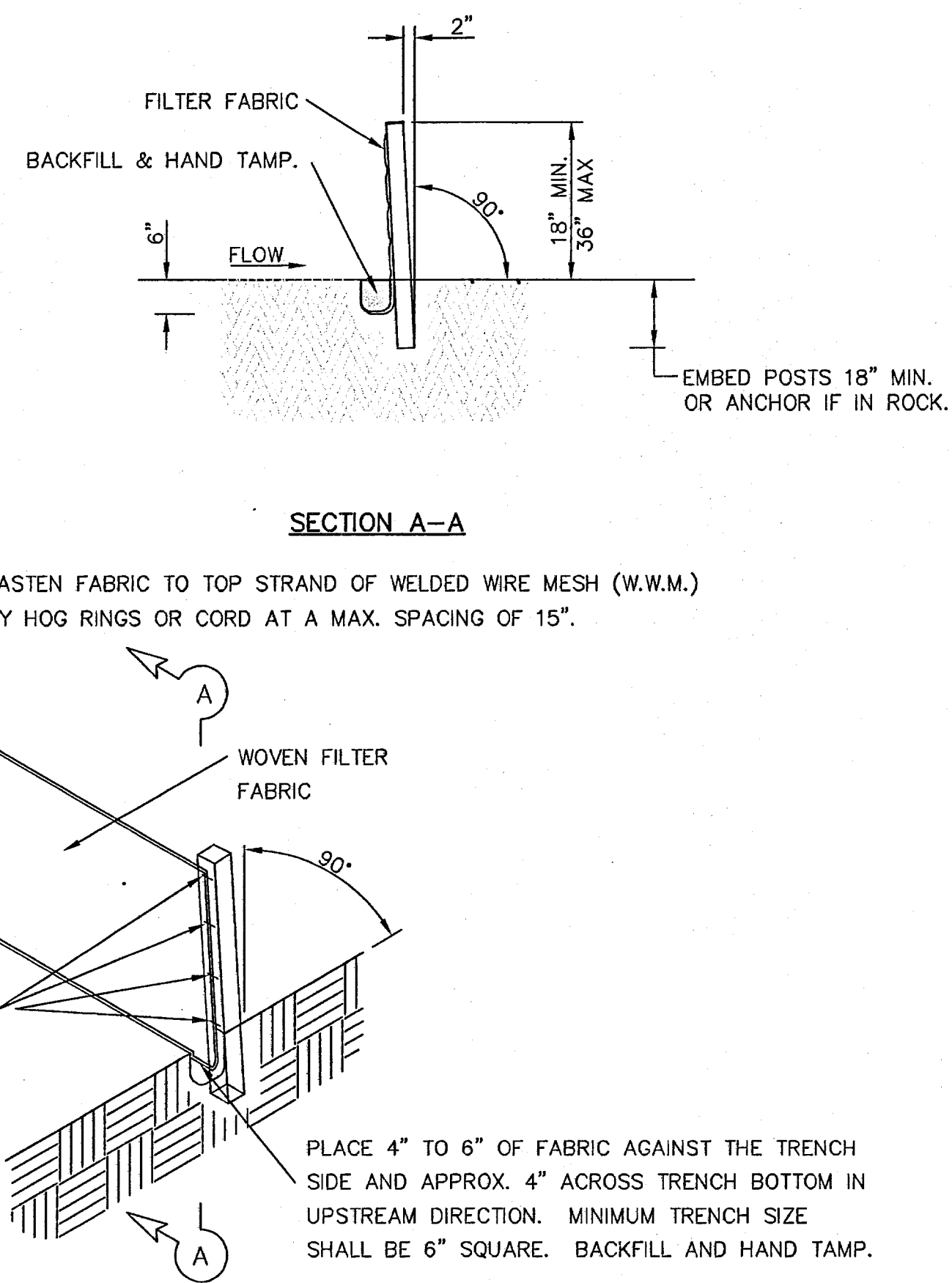
A PORTION OF SECTION No. 22, BLOCK 81, TOWNSHIP 1,
 TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS
 EL PASO, EL PASO COUNTY, TEXAS

4' MIN. STEEL OR WOOD POSTS SPACED AT 6' TO 8' O.C.
 SOFTWOOD POSTS SHALL BE 3" MIN. DIA. OR NOMINAL 2"x4".
 HARDWOOD POSTS SHALL HAVE A MIN. CROSS SECTION OF 1.5" X 1.5".

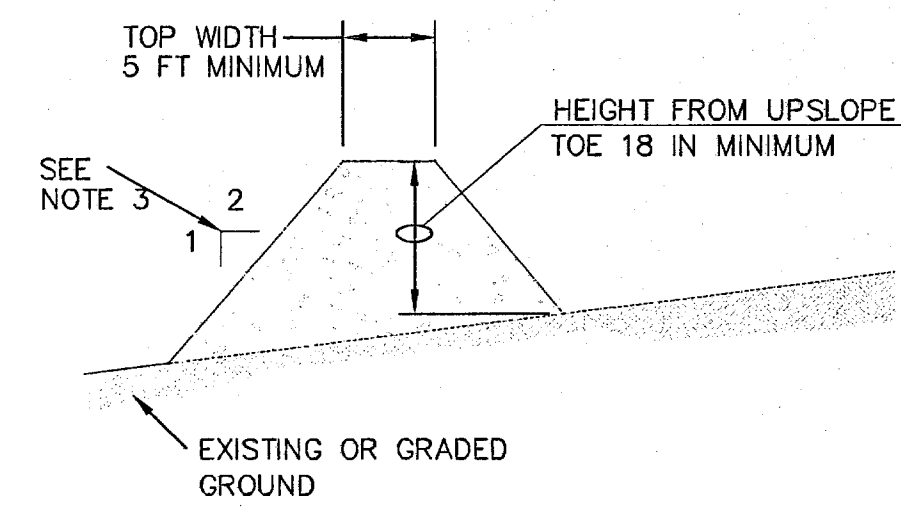
CONNECT THE ENDS OF
 SUCCESSIVE REINFORCEMENT
 SHEETS OR ROLLS A MIN. OF
 6 TIMES WITH HOG RINGS.

GALV. W.W.M. (12.5 GA. MIN.)
 MAX. OPENING SIZE SHALL BE
 2" X 4".

ATTACH THE W.W.M. & FABRIC ON END POSTS
 USING 4 EVENLY SPACED STAPLES FOR
 WOODEN POSTS (OR 4 T-CLIPS OR SEWN
 VERTICAL POCKETS FOR STEEL POSTS).



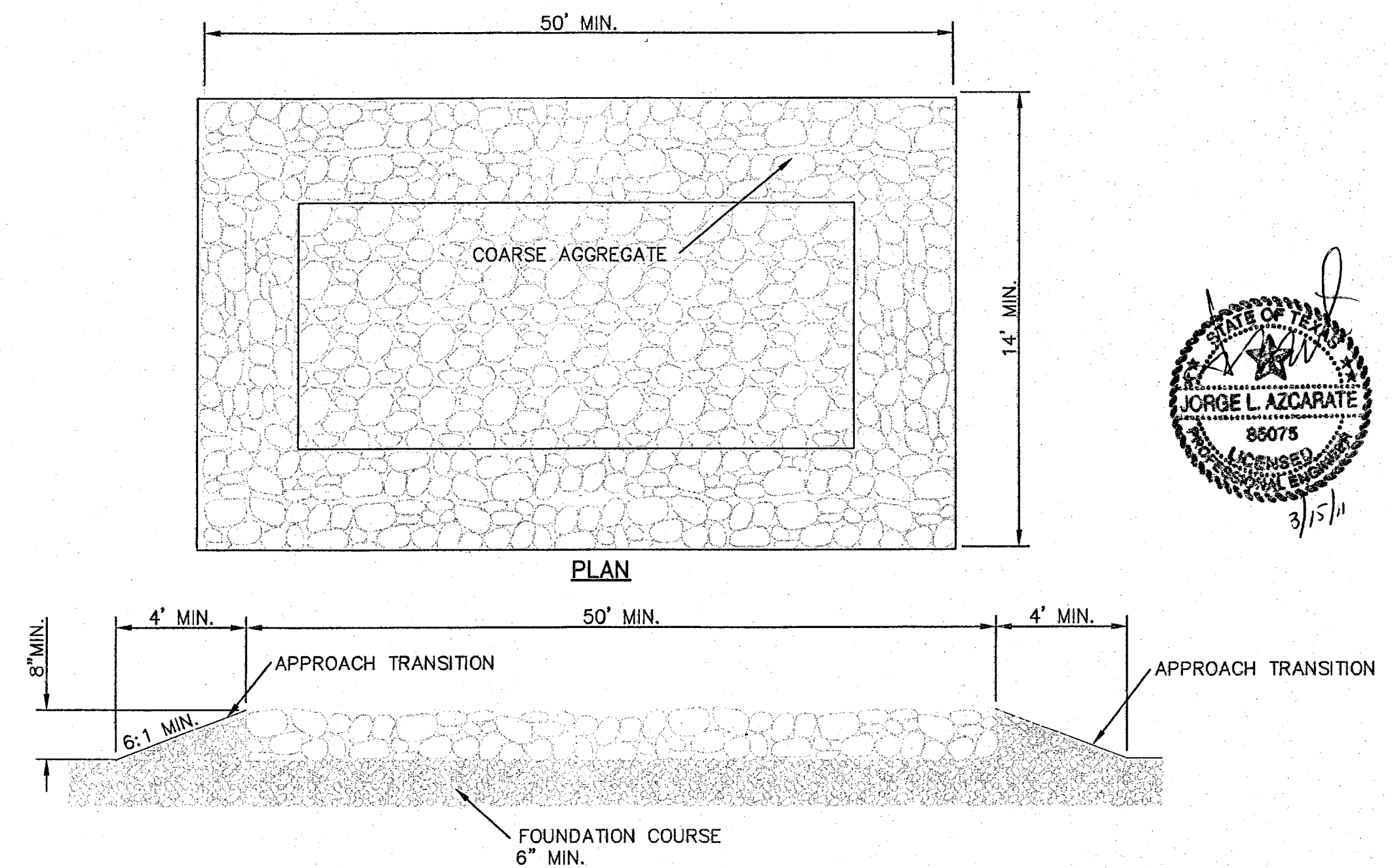
TEMPORARY SEDIMENT CONTROL FENCE



GENERAL NOTES:

1. SOIL USED IN BERM CONSTRUCTION SHALL BE MACHINE COMPACTED.
2. TOP WIDTH AND HEIGHT OF BERM MAY BE MODIFIED WITH PRIOR APPROVAL OF THE ENGINEER.
3. SIDE SLOPES WITHIN THE SAFETY CLEAR ZONE OF A ROADWAY SHALL BE 6:1 OR FLATTER.
4. GRADING SHALL BE SHOWN ELSEWHERE IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. THE ENGINEER RESERVES THE RIGHT TO MODIFY THE DIMENSIONS SHOWN FOR THE BERM DEPENDENT ON RUNOFF VOLUME CHARACTERISTICS.
6. BERM THAT ARE IN PLACE FOR MORE THAN 14 CALENDAR DAYS SHOULD BE STABILIZED TO PREVENT SEDIMENT RUNOFF.
7. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

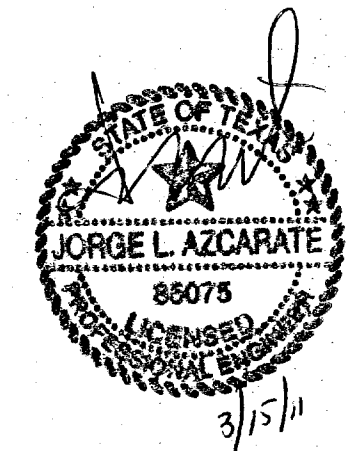
TYPICAL BERM CONFIGURATION



GENERAL NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6:1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

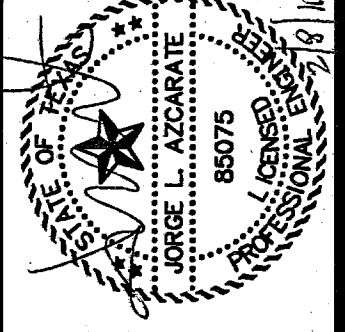
CONSTRUCTION EXIT (TYPE 1)



REFERENCES - BENCHMARKS
 FOUND TYPOT BRASS CAP AT SECTION
 CORNERS 19, 20, 21 AND 22 ELEVATION:
 4033.22 (NGVD DATUM) (SUBTRACT 8.462
 TO CONVERT TO CITY DATUM.)

DATE	REVISIONS	BY

CS&U
 engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM F-4584
 4712 Woodrow Bean, Ste. F, El Paso, TX 79924
 Office: 915.544.5232 Fax: 915.544.5233 www.csanduo.net



SCALE
 Horizontal: N/A
 Vertical: Interval: N/A
 Contour: Interval: N/A

DATE: FEBRUARY 2011
 DESIGN BY: G.R.
 DRAWN BY: J.L.A.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-1127-LD

PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE

STORM WATER
 POLLUTION
 PREVENTION PLAN:
 DETAILS

SHEET NO.

C16.3

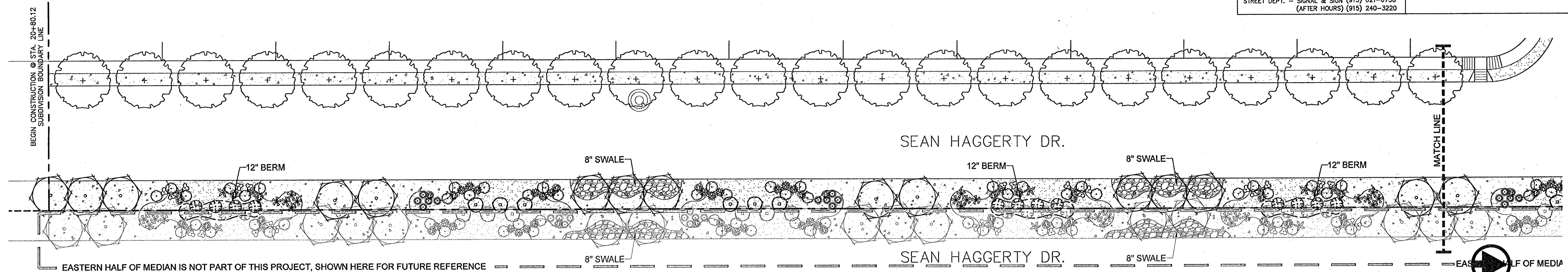
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 498-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3788
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
	(AFTER HOURS) (915) 240-3220

WARNING I BEFORE YOU DIG

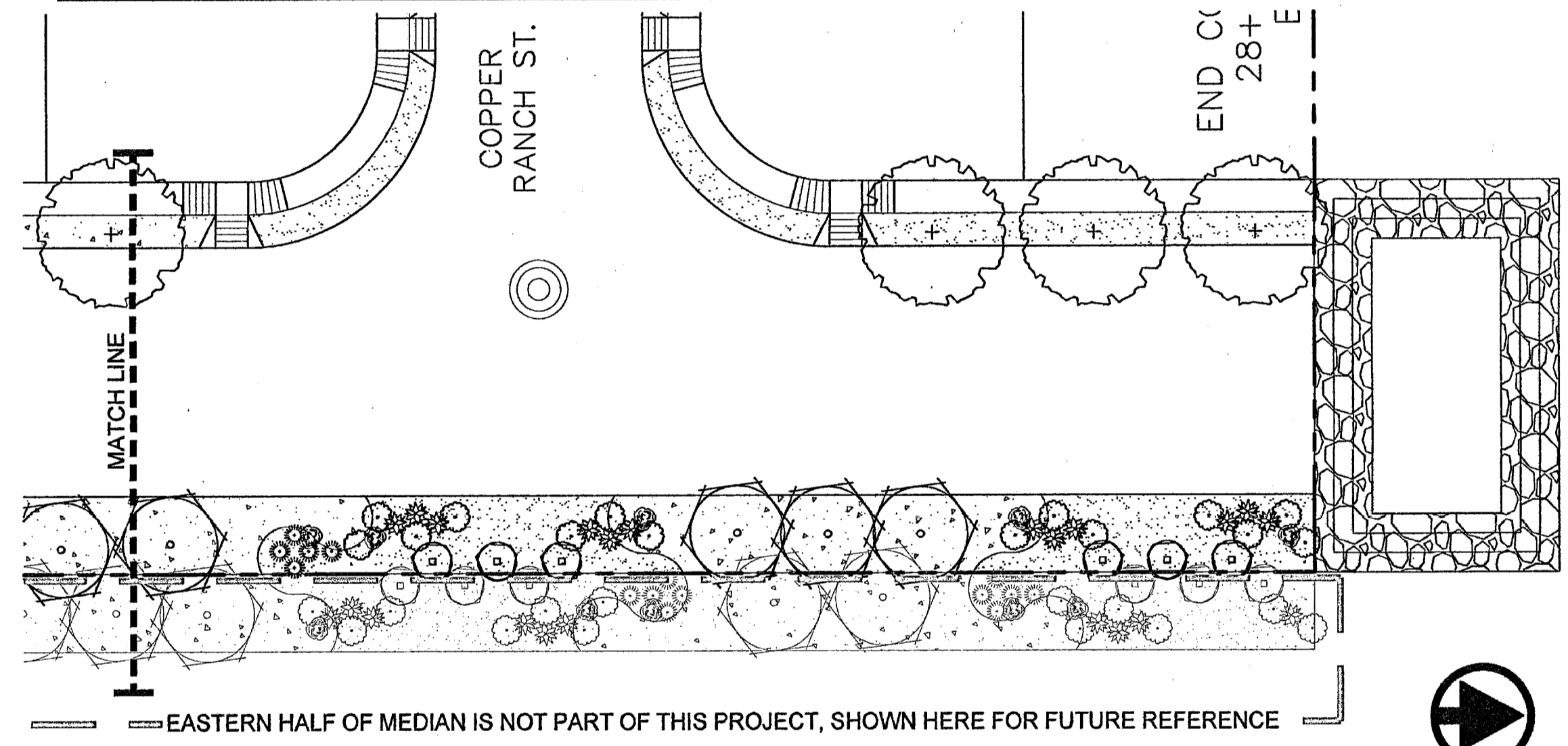
CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS	FOUND TYPOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM).
DATE	REVISIONS
BY	



LANDSCAPE PLAN



LANDSCAPE NOTES

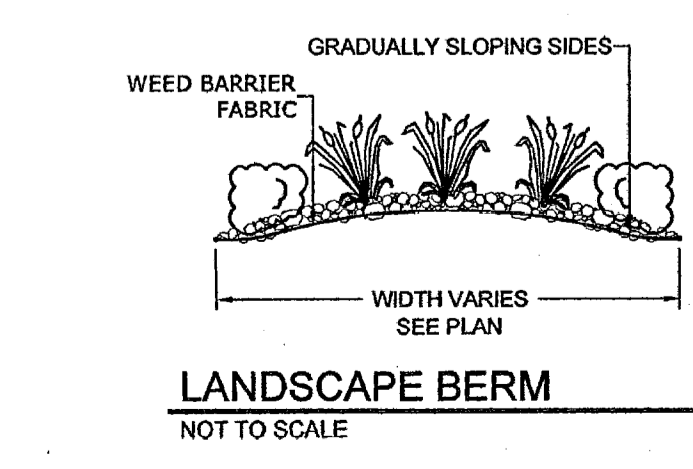
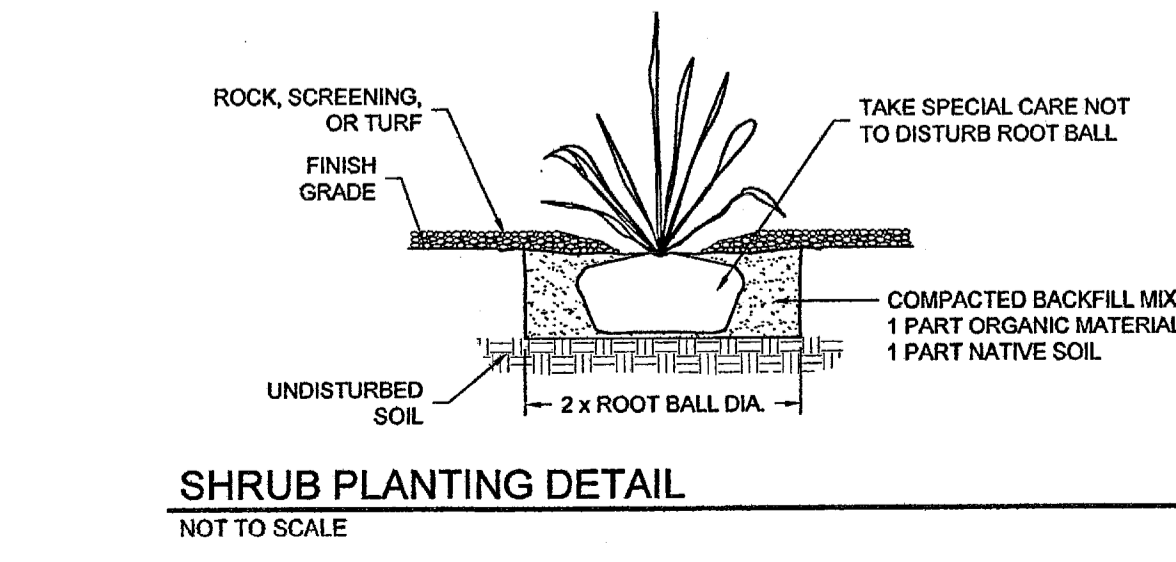
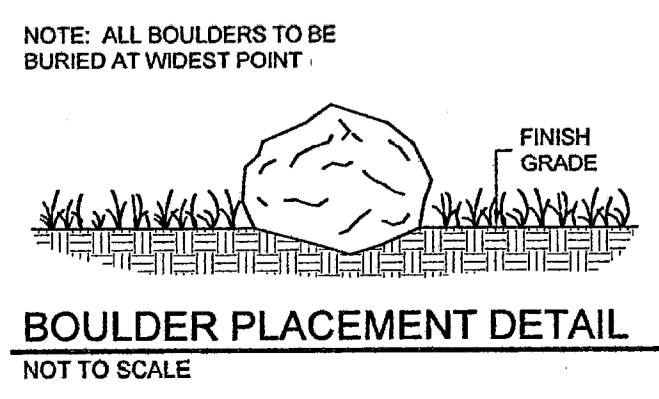
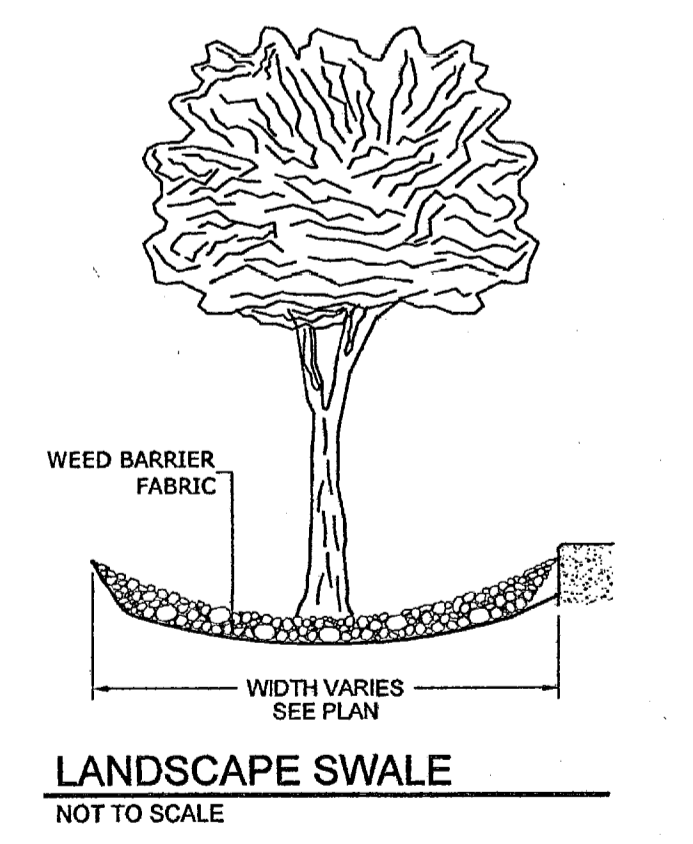
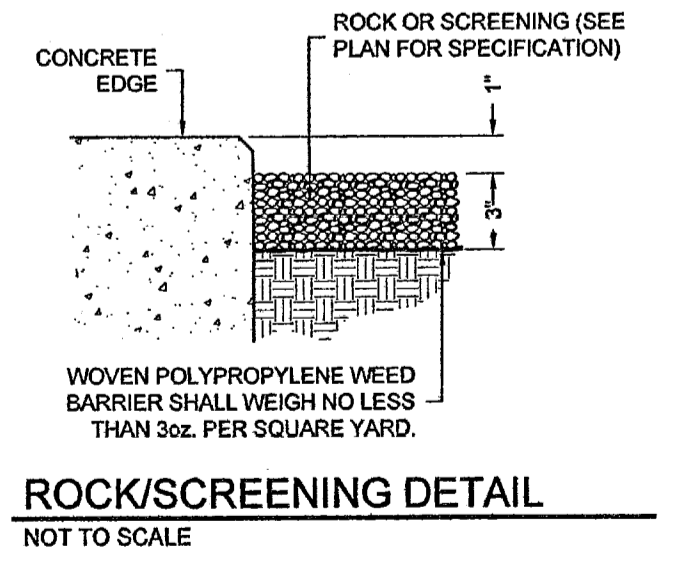
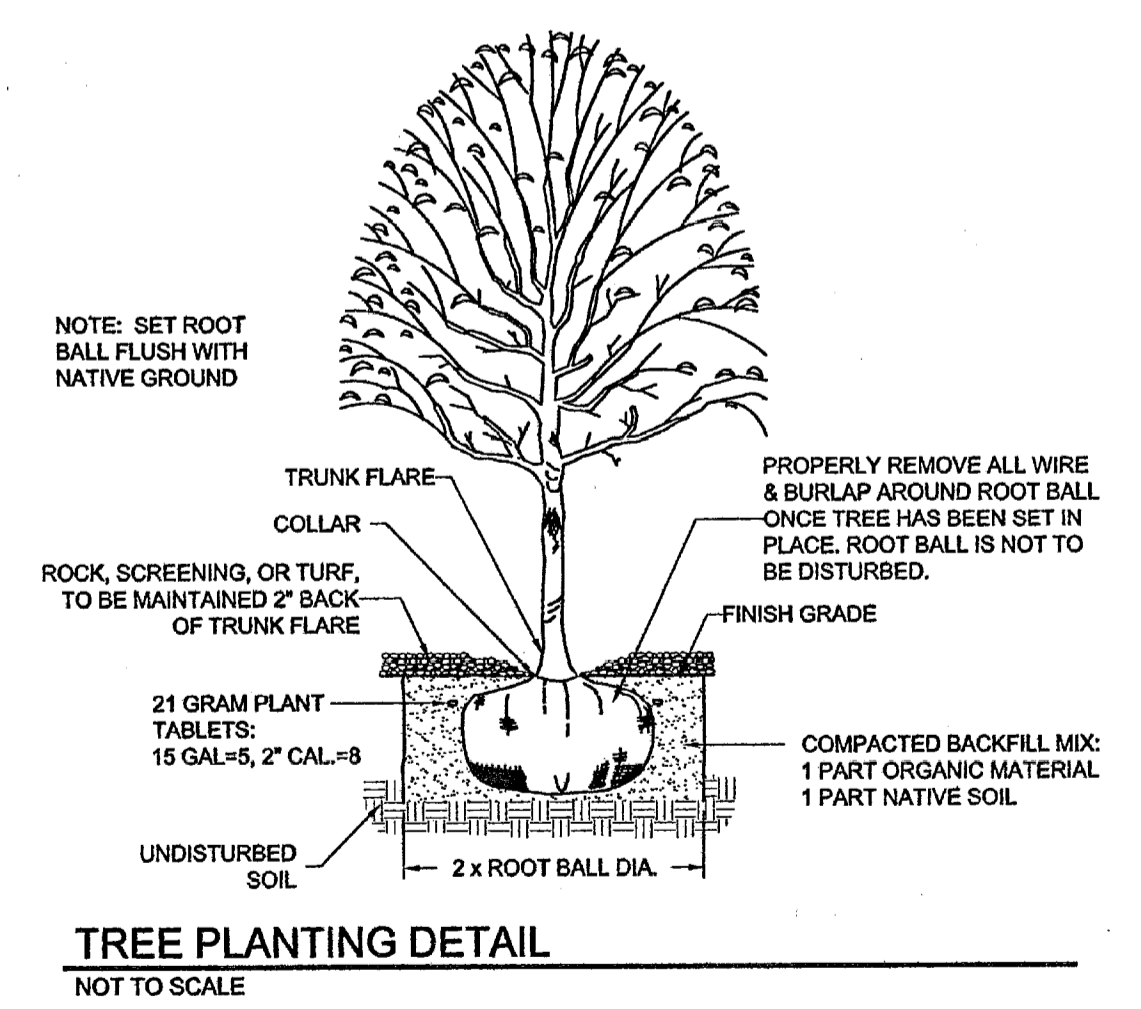
- ALL UTILITY EASEMENTS SHALL BE MARKED PRIOR TO EXCAVATION, AND PARTICULAR ATTENTION PAID TO TREE PLACEMENT WITHIN AND THROUGHOUT SITE.
- THERE SHALL BE NO STEEL EDGING BETWEEN ROCK TYPES.
- CONTRACTOR SHALL PROVIDE ROCK SAMPLES AND OBTAIN APPROVAL FROM OWNER PRIOR TO FINAL DELIVERY OF QUARRIED MATERIALS.
- CONTRACTOR TO PAY CLOSE ATTENTION TO FINISH GRADES. SHOULD GRAVELLED AREAS EXCEED 4:1 SLOPE, CONTRACTOR TO OBTAIN APPROVAL OF LANDSCAPE DESIGNER PRIOR TO MULCH INSTALLATION.
- ALL TREES SHALL BE SINGLE LEADER TRUNK, UNLESS INDICATED IN PLANS.

SITE OBSERVATION SCHEDULE

- CONTRACTOR SHALL CONTACT OWNER FOR INSPECTION ON THE FOLLOWING ITEMS:
- TREE REVIEW, PRIOR TO INSTALLATION (AT NURSERY OR ON SITE).
 - PLANT PLACEMENT, PRIOR TO INSTALLATION OF MULCH.

LANDSCAPE LEGEND

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY
2" CALIPER TREE - 10' HEIGHT MINIMUM			
	CHINQUAPIN OAK	QUERCUS MUHLENBERGII	26
	LUCRETIA HAM. DESERT WILLOW	CHILOPSIS LINEARIS 'LUCRETIA HAMILTON'	18
5 GALLON SHRUB - 18" HEIGHT MINIMUM UNLESS OTHERWISE INDICATED			
	CHIHUAHUAN SAGE	LEUCOPHYLLUM LAEVIGATUM	12
	RED YUCCA	HESPERALOE PARVIFLORA	15
	FEATHERY CASSIA	CASSIA ARTEMISIOIDES	12
	DESERT CARPET	ACACIA RENDOLENS	46
	CENTURY PLANT	AGAVE AMERICANA	9
	SOTOL	DASYLIRON WHEELERI	24
	BEAVERTAIL PRICKLY PEAR	OPUNTIA BASILARIS	18
	DEER GRASS	MUHLENBERGIA RIGENS	15
DECORATIVE STONES & BOULDERS			
	BOULDER - FRANKLIN RED (OR EQUIVALENT)		21
TURF, GRAVELS, & MULCHES			
	FRANKLIN RED 1.5" ROCK (OR EQUIVALENT), 3" DEPTH W/ DEWITT PRO-5 WEED BARRIER		
	FRANKLIN RED 3/8" ROCK (OR EQUIVALENT), 3" DEPTH W/ DEWITT PRO-5 WEED BARRIER		
	COBBLE BLEND - 10% "DINOSAUR EGGS", 70% 2"-4" COBBLE, 20% PEA GRAVEL (APPLIED LAST) 3" DEPTH W/ DEWITT PRO-5 WEED BARRIER		



CSA
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4584
4712 Woodrow Bawn, Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.csaeng.com

CONSULTANT'S SEAL	SCALE
	Horizontal: Vertical: Conour Interval: N/A
	DATE: MARCH 2011
	DESIGN BY: CH
	DRAWN BY: CH
	CHKD. BY: JBA
	APPD. BY: JBA
	JOB No. 2000-127-LD

PROJECT NAME
SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS

SHEET TITLE
LANDSCAPE PLAN

SHEET NO.
L-1



UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 498-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3788
U.S. SPRINT TELECOMM	(800) 521-0379
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
	(AFTER HOURS) (915) 240-3220

WARNING!
BEFORE YOU DIG

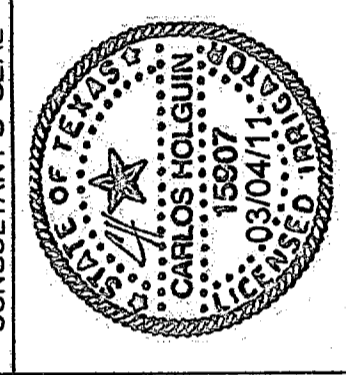
CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
FOUND FOOT BRASS CAP AT SECTION
CORNER (S. 221) ELEVATION:
4033.23 (NGVD) (MVA) SUBTRACT 6.462
TO CONVERT TO CITY DATUM.)

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TEXAS REGISTERED ENGINEERING FIRM #4584
4712 Westway Blvd., Ste. F, El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.cepa.com

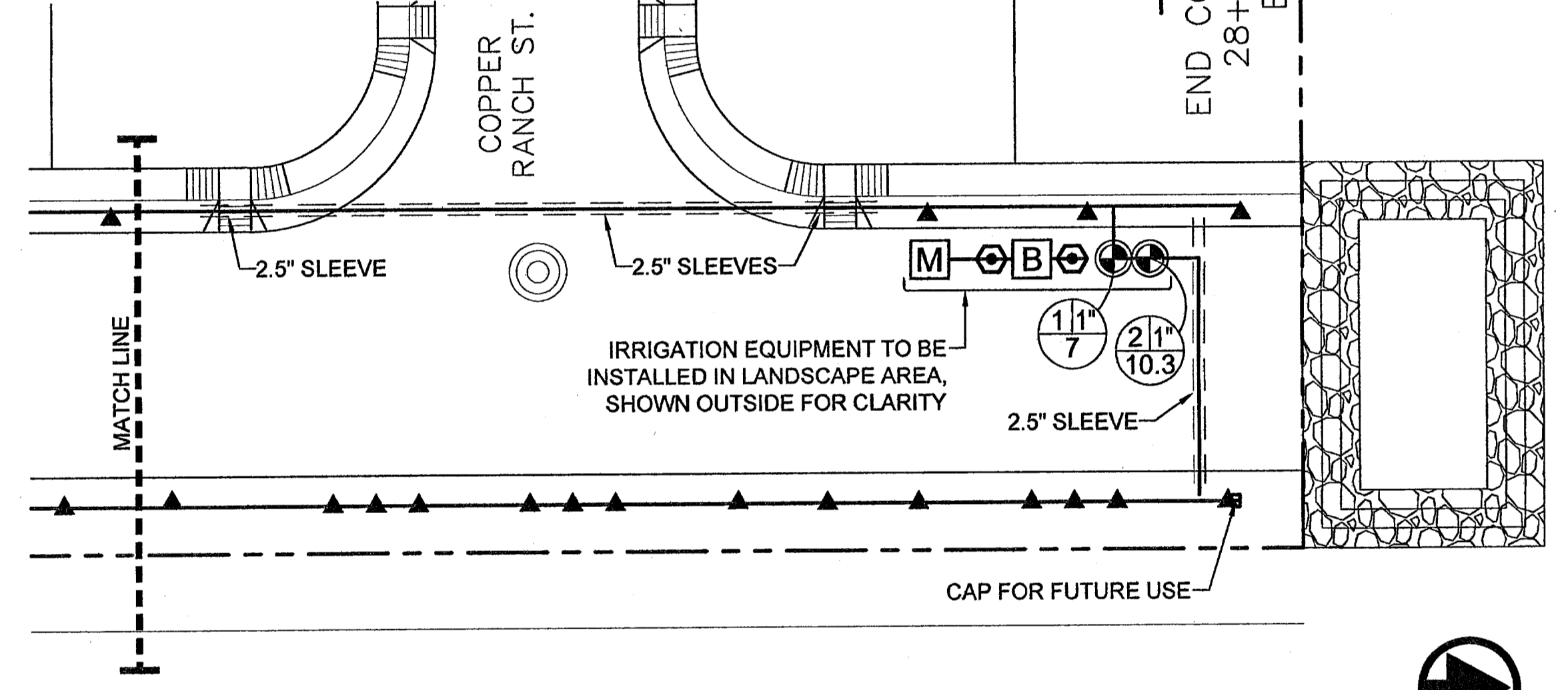
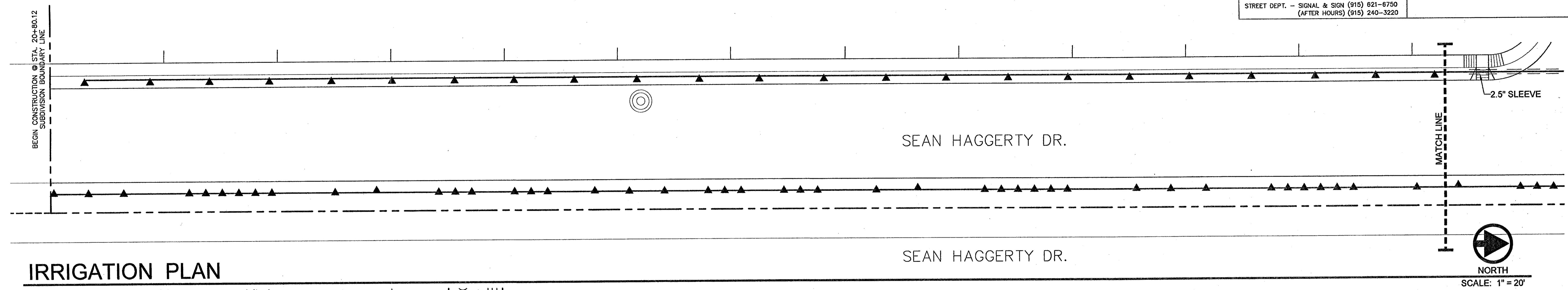


SCALE	DATE	DESIGN BY	CHKD. BY	APPVD. BY	JOB No.
Horizontal: 1" = 20' Vertical: 1" = 10'	MARCH 2011	CH	CH	JBA	2010-127-LD

PROJECT NAME
**SANDSTONE RANCH UNIT EIGHT
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
IRRIGATION PLAN

SHEET NO.
L-2

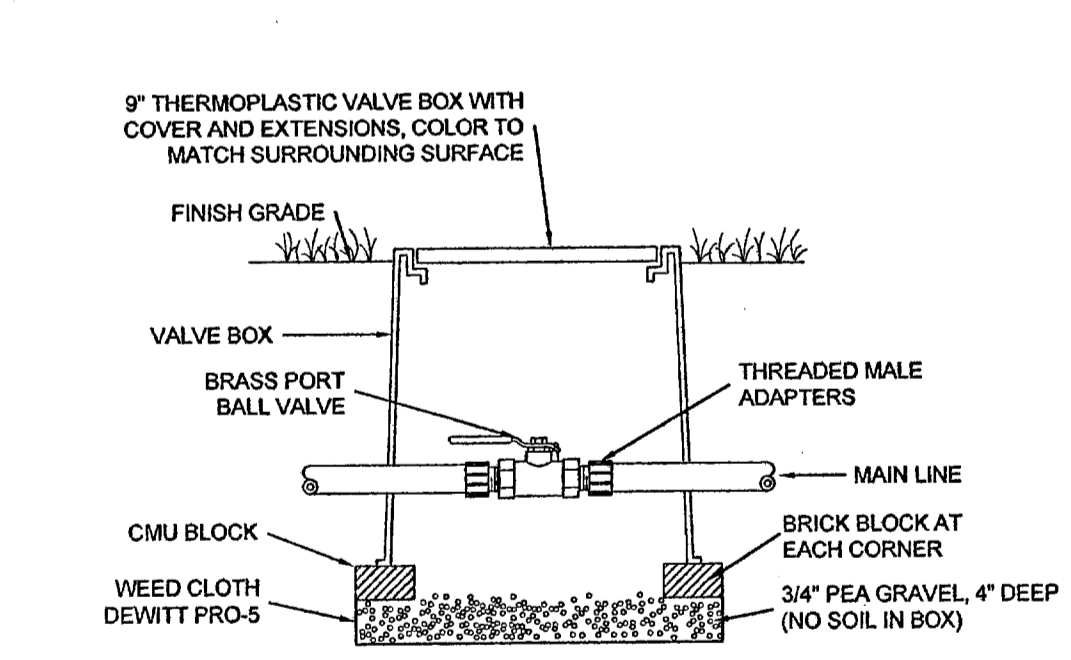


IRRIGATION NOTES

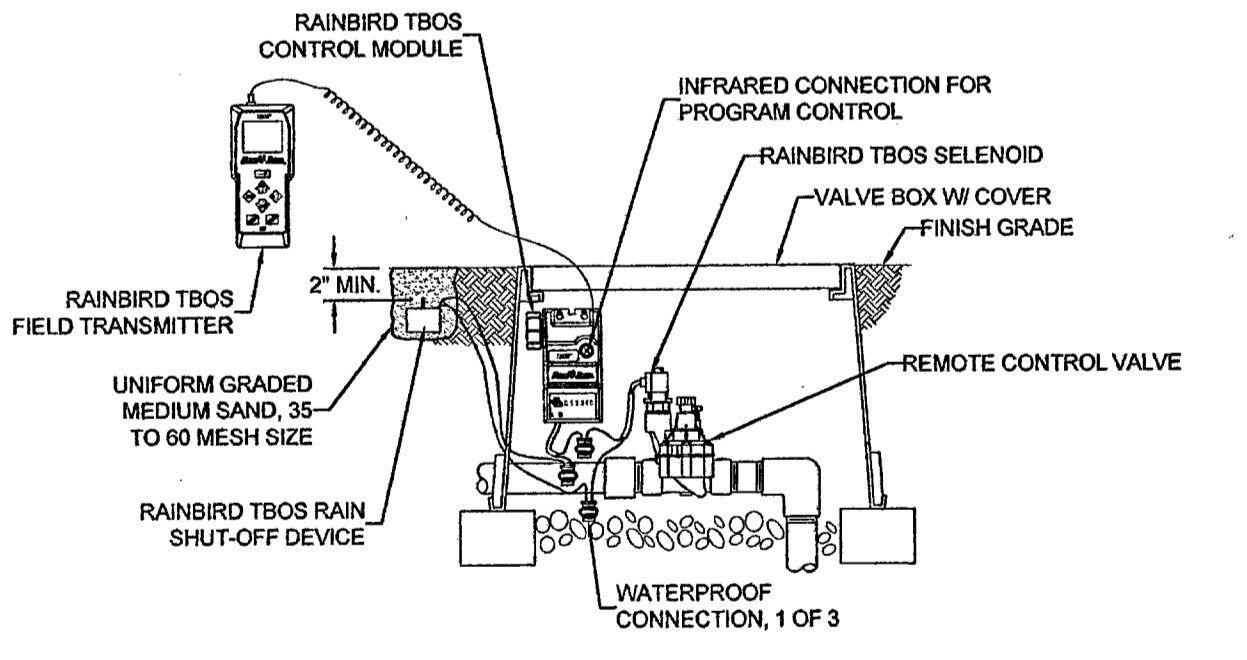
- IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, P.O. BOX 13087, AUSTIN, TX 78711.
- CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING AND PROPOSED UTILITIES AND ALL SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- IRRIGATION SHALL BE INSTALLED ACCORDING TO PLANS, DETAILS, AND SPECIFICATIONS. SHOULD CHANGES BE IMPLEMENTED IN THE FIELD, A NEW SET OF PLANS IS REQUIRED TO BE SUBMITTED TO THE CITY OF EL PASO. LANDSCAPE DESIGNER IS NOT UNDER CONTRACT TO PROVIDE THESE PLANS, EXCEPT AS PROVIDED FOR IN ORIGINAL CONTRACT.
- CONTRACTOR WILL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM IRRIGATION SYSTEM AS DESIGNED, WHEN IT IS OBVIOUS THAT FIELD CONDITIONS EXIST, THAT WERE NOT CONSIDERED AT TIME OF DESIGNING THE SYSTEM. ANY CONDITIONS NOTED AS SUCH, SHALL BE REPORTED TO THE ARCHITECT AND IRRIGATION DESIGNER. IF THE CONTRACTOR FAILS TO DO SO, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY CORRECTIONS NEEDED.
- PLANS SCHEMATIC FOR READABILITY. CONTRACTOR TO ADJUST AS NECESSARY TO FIT SITE.
- CONTRACTOR SHALL VERIFY STATIC PRESSURE AT METER MEETS SYSTEM NEEDS. LICENSED IRRIGATOR TO AMEND AS NECESSARY.
- PROVIDE SHUTOFF VALVE BETWEEN METER AND BACKFLOW.
- CONTROL VALVE SHALL BE PROVIDED TO MAINLINE AFTER BACKFLOW
- CONTRACTOR IS RESPONSIBLE FOR CONNECTING AUTOMATIC CONTROLLER TO ELECTRICITY.
- 14 GA. SOLID COPPER WIRE (PVC INSULATED AND UL APPROVED) SHALL RUN FROM CONTROLLER TO VALVES. COMMON WIRE TO BE 12GA.
- ALL CONTROL WIRING FROM THE VALVES TO THE CONTROLLER MUST BE INSTALLED IN A 1" PVC CONDUIT PIPE IF BURIED BENEATH CONCRETE OR ASPHALT SURFACES.
- LOCATE VALVES AWAY FROM LOW SPOTS OR AREAS OF DRAINAGE FLOW.
- VALVE CAPS SHALL MATCH COLOR OF SURROUNDING MATERIAL, AS CLOSELY AS POSSIBLE.
- ALL MAINLINES SHALL BE BURIED MIN. 18", ALL LATERALS 12".
- MAINTAIN 4" MINIMUM CLEARANCE BETWEEN PIPE RUNNING IN THE SAME TRENCH. CONTROL WIRE SHALL ALWAYS BE TO THE SIDE AND BELOW THE TOP OF THE PIPE RUNNING IN THE SAME TRENCH.
- POLYETHYLENE TUBING TO BE PLACED UNDER WEED BARRIER FABRIC. MICROTUBING TO BE STAKED.
- THE CONTRACTOR SHALL PROVIDE THE OWNER WITH AS-BUILT DRAWINGS ON MYLAR PRIOR TO APPROVAL OF FINAL PAYMENT.
- ALL PIPING/WIRING RUNNING BENEATH PAVED SURFACES (DRIVES, SIDEWALKS, ETC.) SHALL BE INSTALLED IN SCH 40 PVC SLEEVES. SLEEVES SHALL BE OF THE SIZE SO THAT THE INSIDE DIAMETER OF THE SLEEVE IS 3 TIMES GREATER THAN THAT OF THE COMBINED OUTER DIAMETER OF ALL ITEMS INSTALLED IN THE SLEEVES.
- PEA GRAVEL SHALL BE INSTALLED AT THE BASE OF ALL VALVE BOXES, WITH A CLEARANCE OF MIN. 2" BETWEEN VALVE AND TOP OF GRAVEL.

IRRIGATION LEGEND

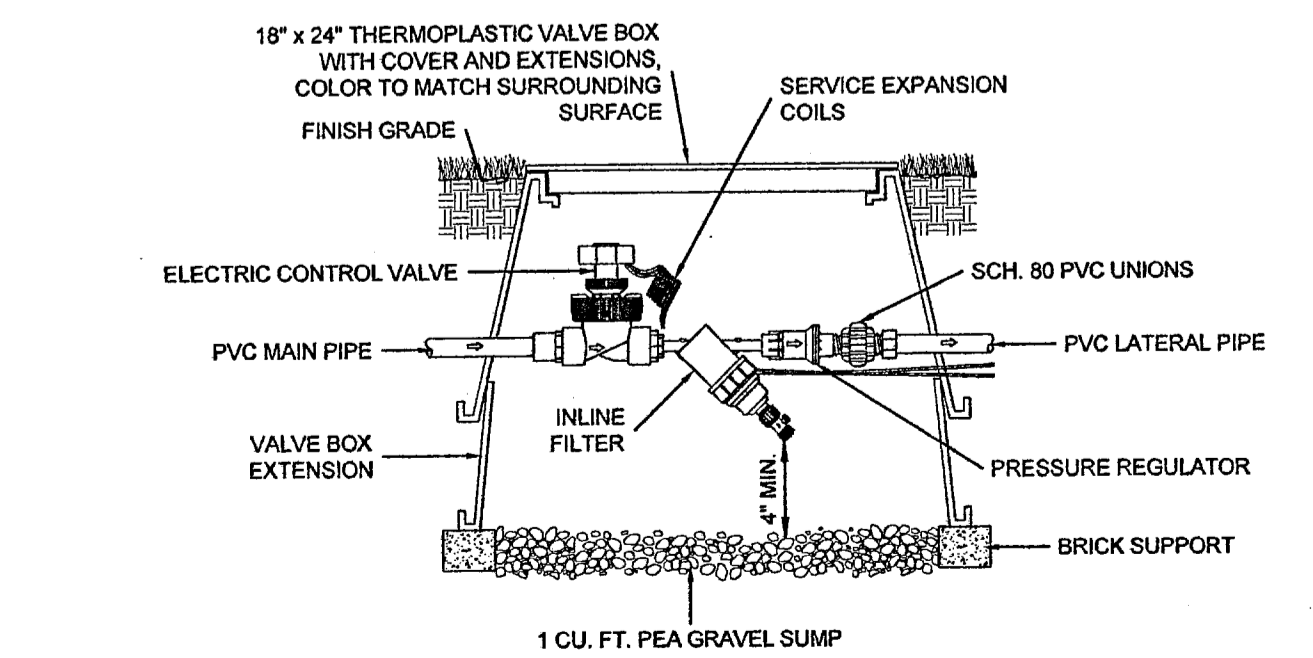
SYMBOL	ITEM
M	1" METER (BY OWNER)
B	3/4" FEBCO 850 DOUBLE CHECK VALVE BACKFLOW PREVENTER W/ 17"x30" REINFORCED CONCRETE BOX W/ SCREW DOWN STEEL CHECKER LID
⊙	1" BRASS PORT VALVE
⊙	1" REMOTE CONTROL VALVE, RAINBIRD 100-PESB W/ AMIAD Y FILTER AFTER THE VALVE
⊙	RAIN BIRD TBOS CONTROLLER/ WITH POTTED LATCHING SELENOID & TBOS FIELD TRANSMITTER (SEE DETAIL FOR INSTALLATION)
---	MAINLINE - 1.5" SCHED. 40 PVC
---	PVC SLEEVE - 2 SIZES LARGER THAN LATERAL OR MAIN
---	LATERAL LINE - SCHED. 40 PVC - 1.5" UNLESS OTHERWISE INDICATED
▲	RAINBIRD XERI-BIRD 8 MULTI-OUTLET EMISSION DEVICE
▲	RAINBIRD XB-20 DRIP EMITTERS - 8 PER TREE
ABC	A) STATION NUMBER B) SIZE OF VALVE IN INCHES C) TOTAL GPM



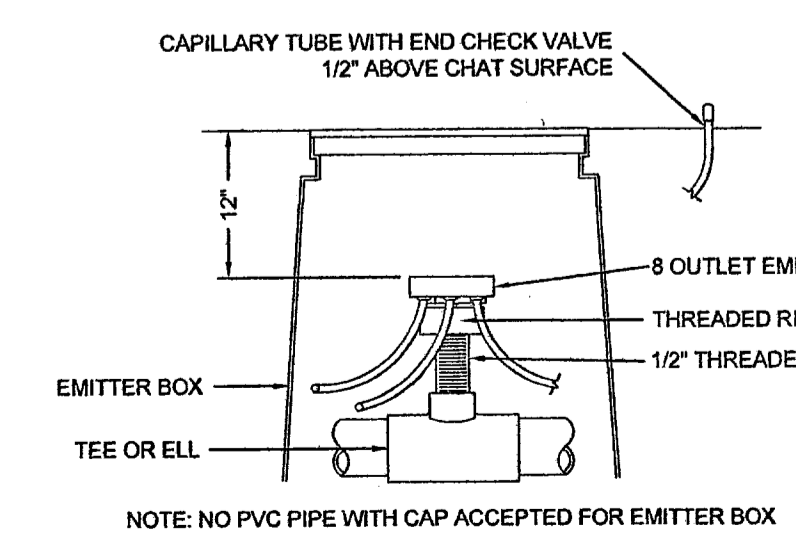
ISOLATION VALVE DETAIL
NOT TO SCALE



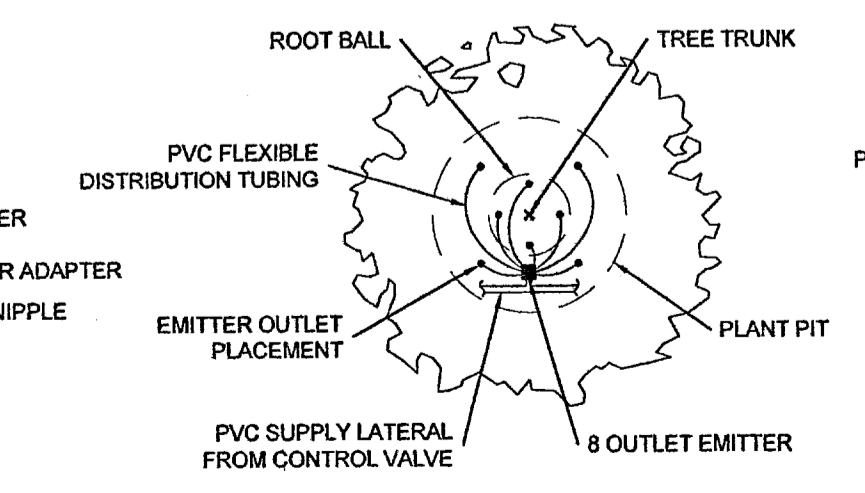
TBOS BATTERY OPERATED CONTROLLER W/ TRANSMITTER
NOT TO SCALE



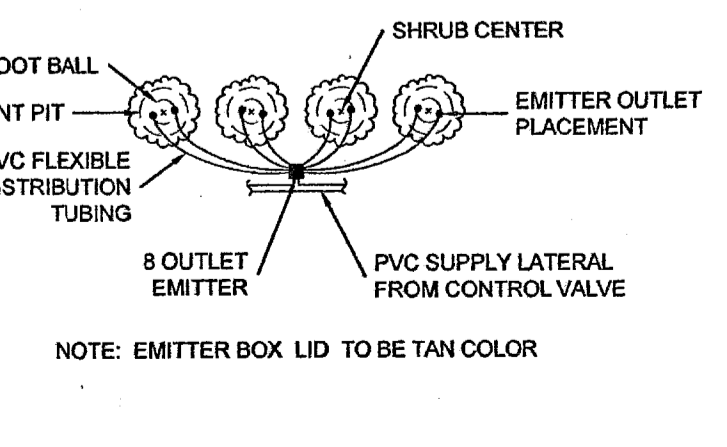
REMOTE CONTROL VALVE, PRESSURE REGULATOR & FILTER
NOT TO SCALE



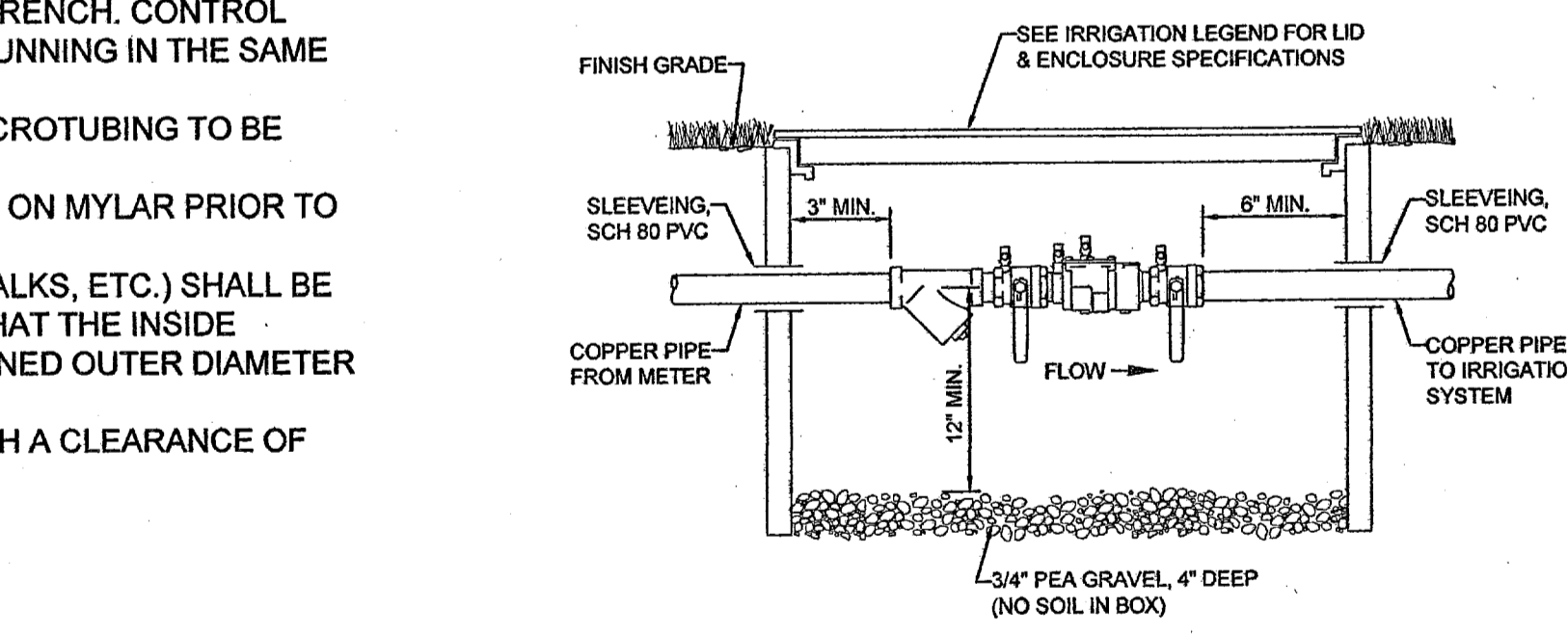
DRIP EMITTER DETAIL
NOT TO SCALE



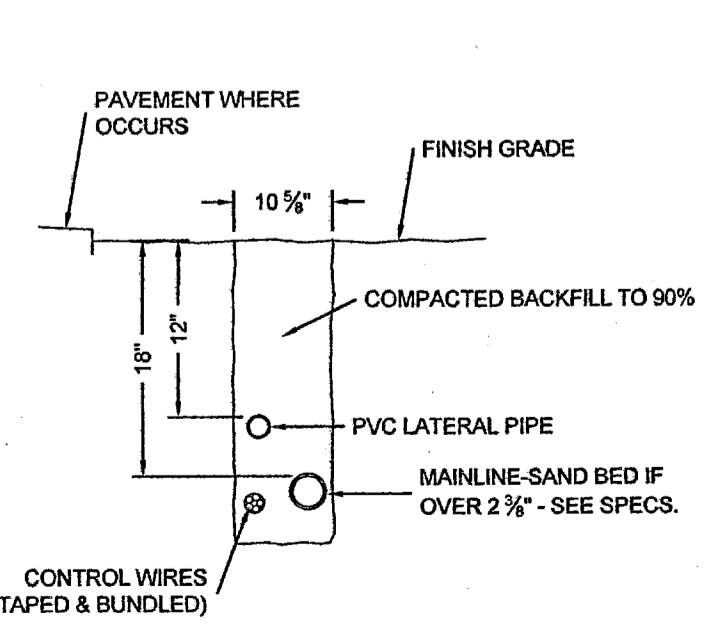
EMITTER OUTLET PLACEMENT DETAIL
NOT TO SCALE



TRENCHING DETAIL
NOT TO SCALE



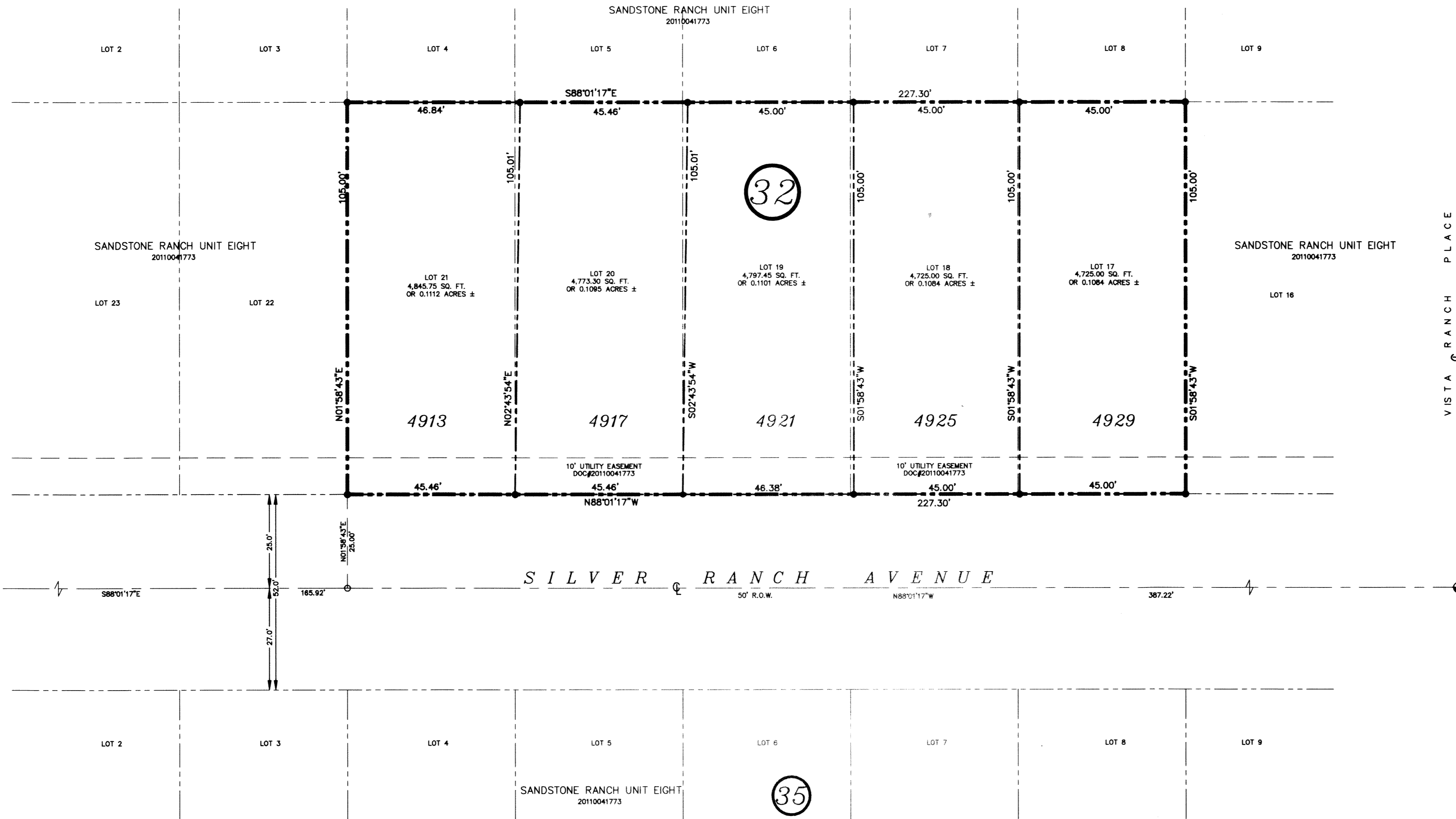
DOUBLE CHECK ASSY. FEBCO Mo.850
NOT TO SCALE



SLEEVING STANDARD DETAIL
NOT TO SCALE

SANDSTONE RANCH UNIT EIGHT AMENDING PLAT

BEING AN AMENDMENT OF
LOTS 17, 18, 19, 20 AND 21 BLOCK 32
SANDSTONE RANCH UNIT EIGHT
CITY OF EL PASO, EL PASO COUNTY TX.
CONTAINING:
23,866.50 SQ. FT.
OR 0.5478 ACRES ±



DEDICATION
TROPICANA DEVELOPMENT INC., property owner of this land, hereby present this plat as hereon laid down and designated.
Witness our signature this _____ day of _____, 2012.
By: TROPICANA DEVELOPMENT INC.
Robert Bowling III
Robert Bowling III, President

ATTEST: NOT REQUIRED
ACKNOWLEDGEMENT
STATE OF TEXAS
COUNTY OF EL PASO
Before me, the undersigned authority, on this day personally appeared Robert Bowling III, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and considerations herein expressed.

Given under my hand and seal of office this 14th day of November, 2012.
Raquel Guzman
Notary Public in and for El Paso County My Commission Expires 8/15/2014
RAQUEL GUZMAN
NOTARY PUBLIC
In and for the State of Texas
My commission expires
08-15-2014

AMENDING PLAT APPROVAL STATEMENT
This subdivision is hereby approved in accordance with Chapter 212.0065 (Amending Plat) of the Local Government Code and Title 19.07.040 as to meeting the requirements for a review of an amending plat.
Clayton Executive Secretary
L. Yonker Subdivision Coordinator
Approved for filing this 12 day of DECEMBER, 2012.
DM
City Development Director

FILING
Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 25 day of MARCH, 2012 S.A.D. in
File No. 20130021203
Carlos Jimenez
FOR RECORDING PURPOSES ONLY
County Clerk
Anthony J. [Signature]
By Deputy

This plat represents a survey made on the ground by me or under my supervision and complies with the current Texas Board of Professional Land Survey Professional and Technical Standards.
Carlos M. Jimenez, R.P.L.S.
Registered Professional Land Surveyor
Texas License No. 3950

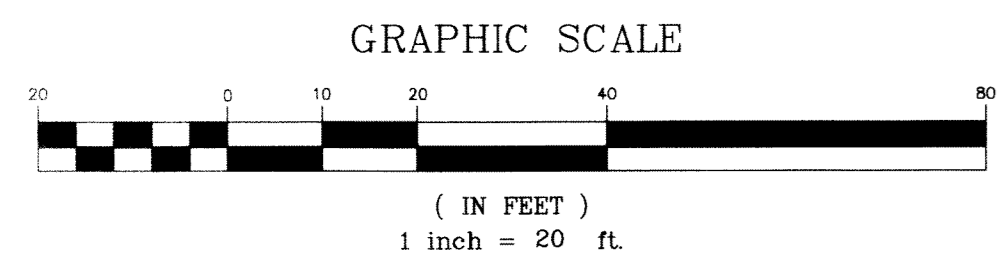
THE REASON OF THE AMENDING PLAT IS TO MOVE THE PROPERTY LINES BETWEEN LOTS DUE TO A ROCKWALL ENCROACHMENT.

NOTES:
RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
INSTRUMENT No. _____ DATE _____
SET 5/8" REBAR AT ALL EXTERIOR BOUNDARY CORNERS.
TAX CERTIFICATE FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
INSTRUMENT No. 20130021204-8 DATE 3/25/13
THIS PROPERTY LIES IN ZONE "C", AS DESIGNATED BY F.E.M.A.; CITY OF EL PASO, AUGUST 05, 1991, COMMUNITY PANEL NO. 480212-0014 D.
POSTAL DELIVERY SERVICE WITHIN SUBDIVISION WILL BE BY NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS.
EXISTING CITY MONUMENT

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EL PASO, TEXAS 79936
TEL (915) 633-6422

SURVEYOR:
CAD CONSULTING CO.
CARLOS M. JIMENEZ
1790 N. LEE TREVINO
EL PASO, TEXAS 79936
PHONE: (915) 633-6422

OWNER/DEVELOPER:
TROPICANA DEVELOPMENT INC.
ROBERT BOWLING III
4655 COHEN AVE.
EL PASO, TEXAS 79924
PHONE: (915) 821-3550



LOCATION MAP
SCALE 1" = 600'

