

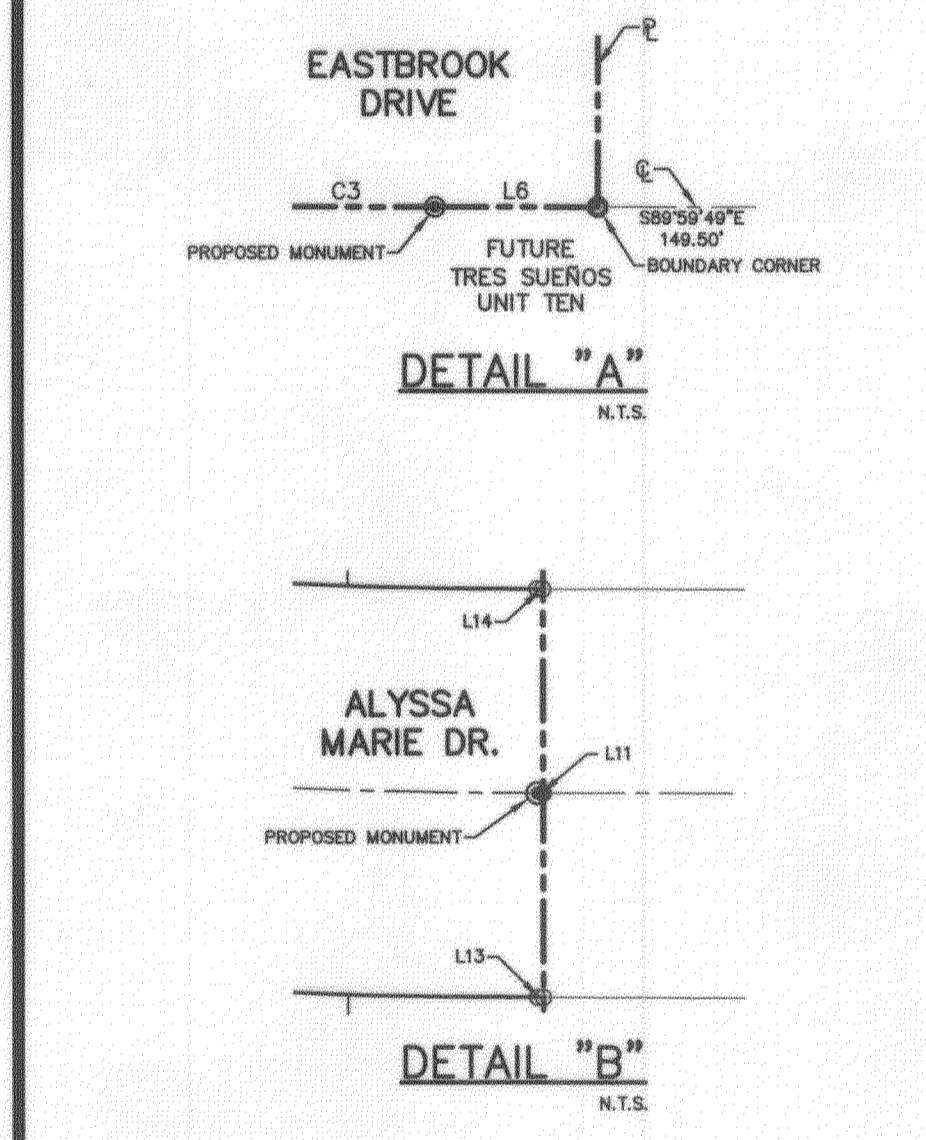
# TRES SUEÑOS UNIT ELEVEN

A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS, AND A REPLAT OF A PORTION OF ADRIAN CAMPOS STREET, TRES SUEÑOS UNIT EIGHT AMENDING PLAT, AN ADDITION TO THE CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING 10.62 ACRES ±

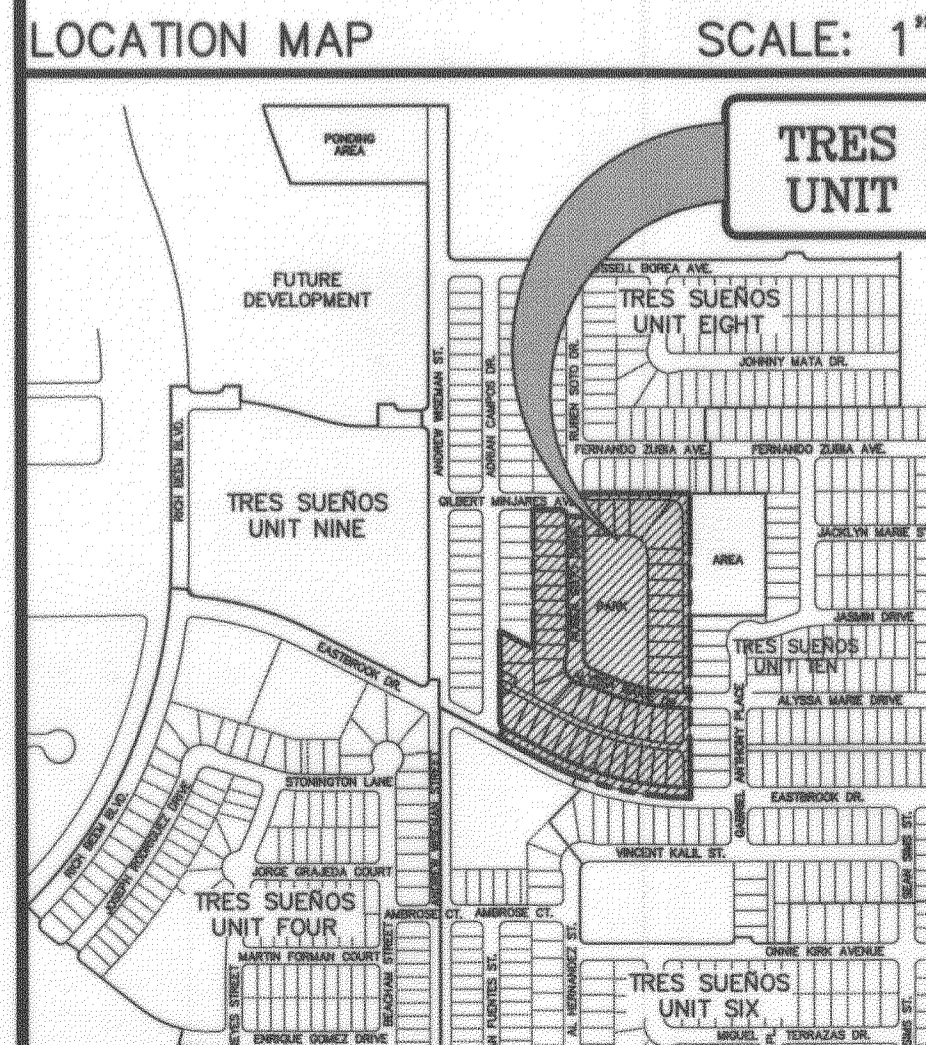
CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	CHORD
C1	20.00'	21.98'	12.25'	28.28'
C2	20.00'	31.42'	20.00'	46.61'
C3	1000.00'	471.98'	240.47'	467.61'
C4	56.00'	61.53'	34.29'	58.48'
C5	706.00'	333.22'	169.77'	330.13'
C6	40.00'	6.73'	3.37'	6.72'
C7	40.00'	9.63'	4.84'	9.61'
C8	65.00'	41.63'	21.56'	40.92'
C9	65.00'	34.58'	17.71'	34.17'
C10	65.00'	39.13'	20.18'	38.54'
C11	65.00'	9.36'	4.69'	9.36'
C12	40.00'	15.40'	7.80'	15.31'
C13	732.00'	20.84'	10.42'	20.84'
C14	732.00'	43.80'	21.91'	43.80'
C15	732.00'	46.67'	24.34'	46.66'
C16	732.00'	43.80'	21.91'	43.80'
C17	732.00'	46.67'	24.34'	46.66'
C18	732.00'	43.80'	21.91'	43.80'
C19	732.00'	52.89'	26.46'	52.88'
C20	732.00'	24.27'	12.14'	24.27'
C21	20.00'	32.50'	21.12'	29.04'
C22	838.00'	42.98'	21.49'	42.97'
C23	838.00'	50.15'	25.08'	50.14'
C24	838.00'	55.72'	27.87'	55.71'
C25	838.00'	50.15'	25.08'	50.14'
C26	838.00'	55.72'	27.87'	55.71'
C27	838.00'	50.15'	25.08'	50.14'
C28	838.00'	45.31'	22.66'	45.31'
C29	838.00'	350.16'	177.67'	347.62'
C30	863.00'	364.06'	184.78'	361.37'
C31	863.00'	8.42'	4.21'	8.42'

CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	CHORD
C32	863.00'	22.92'	11.46'	22.92'
C33	863.00'	45.83'	22.92'	45.83'
C34	863.00'	45.83'	22.92'	45.83'
C35	863.00'	45.83'	22.92'	45.83'
C36	863.00'	45.83'	22.92'	45.83'
C37	863.00'	45.83'	22.92'	45.83'
C38	863.00'	45.83'	22.92'	45.83'
C39	863.00'	34.83'	17.42'	34.82'
C40	20.00'	30.41'	19.02'	27.56'
C41	968.00'	24.16'	12.08'	24.16'
C42	968.00'	63.35'	31.69'	63.34'
C43	968.00'	51.41'	25.71'	51.40'
C44	968.00'	51.41'	25.71'	51.40'
C45	968.00'	51.41'	25.71'	51.40'
C46	968.00'	51.41'	25.71'	51.40'
C47	968.00'	51.41'	25.71'	51.40'
C48	968.00'	51.41'	25.71'	51.40'
C49	968.00'	51.41'	25.71'	51.40'
C50	968.00'	9.51'	4.76'	9.51'
C51	680.00'	24.28'	12.14'	24.28'
C52	680.00'	106.81'	53.51'	106.70'
C53	680.00'	189.86'	95.55'	189.24'
C54	30.00'	32.96'	18.37'	31.33'
C55	60.00'	2.00'	1.00'	2.00'
C56	60.00'	32.06'	16.42'	31.68'
C57	60.00'	31.54'	16.15'	31.18'
C58	60.00'	26.45'	13.44'	26.23'
C59	60.00'	94.25'	60.00'	84.85'
C60	40.00'	62.83'	40.00'	56.57'
C61	20.00'	21.98'	12.25'	28.28'
C62	20.00'	40.86'	32.66'	34.11'

LINE TABLE		
LINE	BEARING	LENGTH
L1	N27°02'45"E	32.00'
L2	S62°57'16"E	117.89'
L3	S89°59'49"E	85.00'
L4	S89°59'49"E	52.00'
L5	N00°00'11"E	71.95'
L6	N89°59'49"W	0.85'
L7	N62°57'16"W	159.55'
L8	S00°00'11"W	34.29'
L9	S62°57'16"E	34.29'
L10	S62°57'16"E	6.35'
L11	S89°59'49"E	0.73'
L12	S89°59'49"E	0.84'
L13	S89°59'49"E	0.73'
L14	S89°59'49"E	0.72'
L15	S00°00'11"W	25.00'
L16	S62°57'16"E	6.35'



**BENCHMARK:**  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40



**NOTES:**  
THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO TRES SUEÑOS UNIT ELEVEN BY THE EL PASO WATER UTILITIES/PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR RULES AND REGULATIONS AND WITH SECTION 16.343 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON EASTBROOK DRIVE AND RUBEN SOTO DRIVE AND WILL BE CONSTRUCTED TO SERVE THE SUBDIVISION.

TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.  
INSTRUMENT No. 20130092959 DATE 12/20/13

VEHICULAR ACCESS TO THOSE RESIDENTIAL LOTS ABUTTING EASTBROOK DRIVE SHALL BE FROM OTHER STREETS OR ALLEYS. THE INSTRUMENT ASSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.  
INSTRUMENT No. 20130092961 DATE 12/20/13

RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.  
INSTRUMENT No. 20130092960 DATE 12/20/13

SUBDIVISION AGREEMENT AND GUARANTEE LETTER ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.  
INSTRUMENT No. 20130092962 DATE 12/20/13

INTERIOR LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES.

THIS SUBDIVISION LIES WITHIN IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212 0175 B, DATED SEPTEMBER 4, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "X" INDICATES AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN.

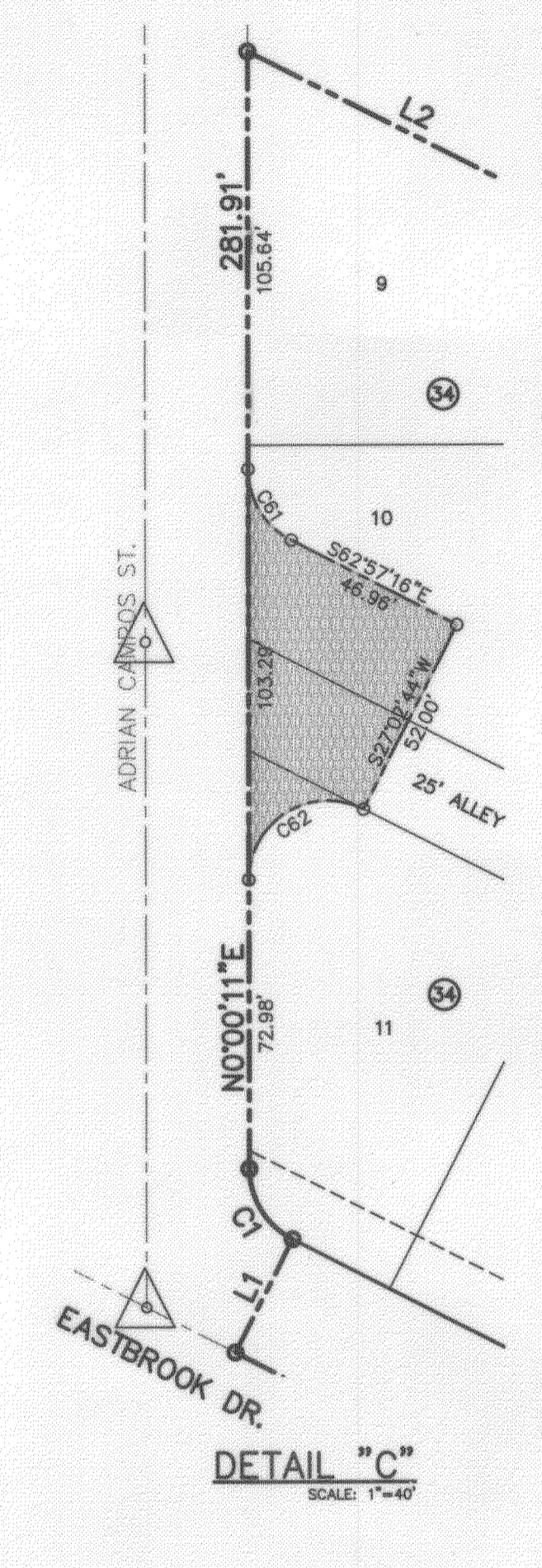
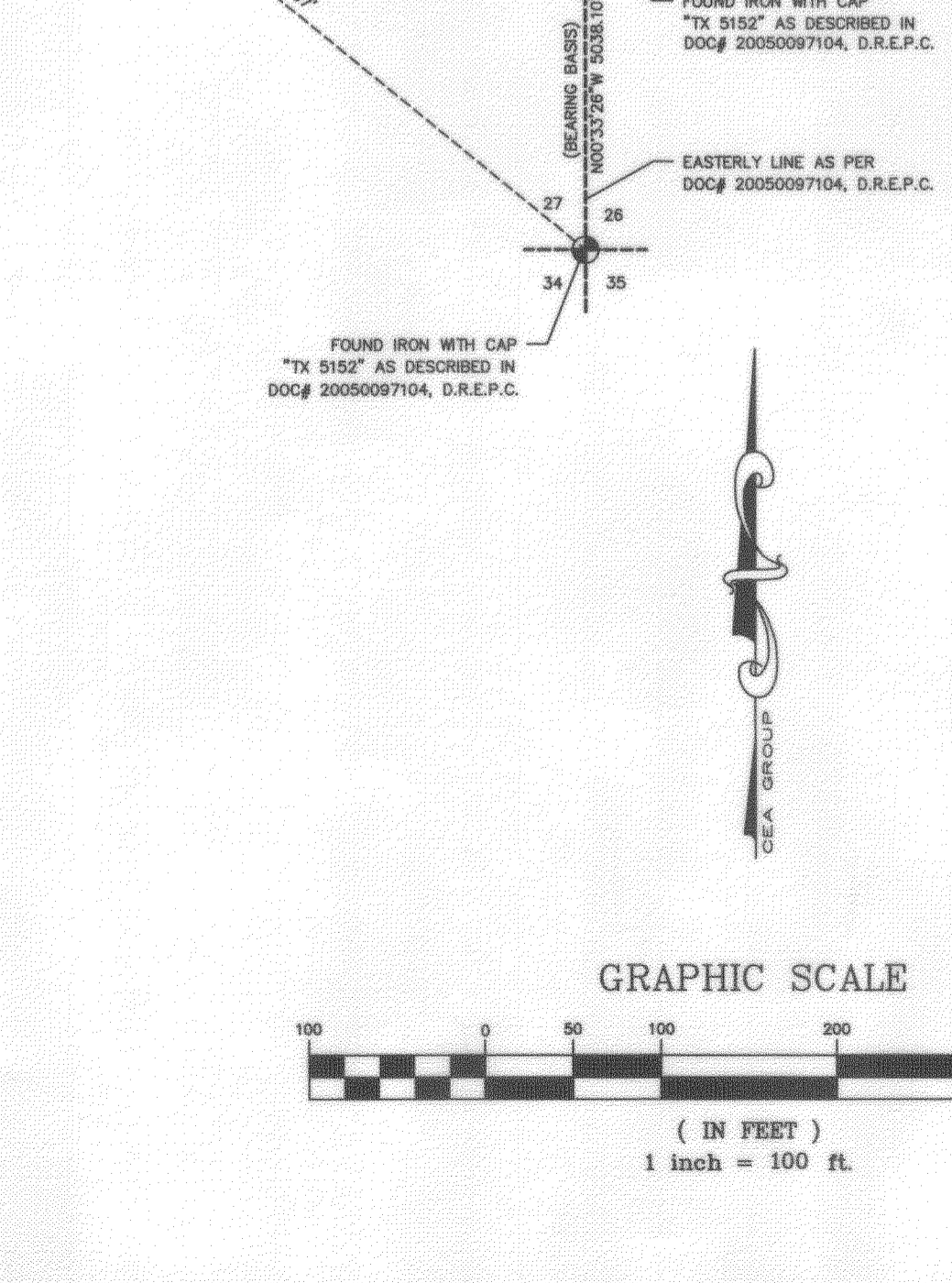
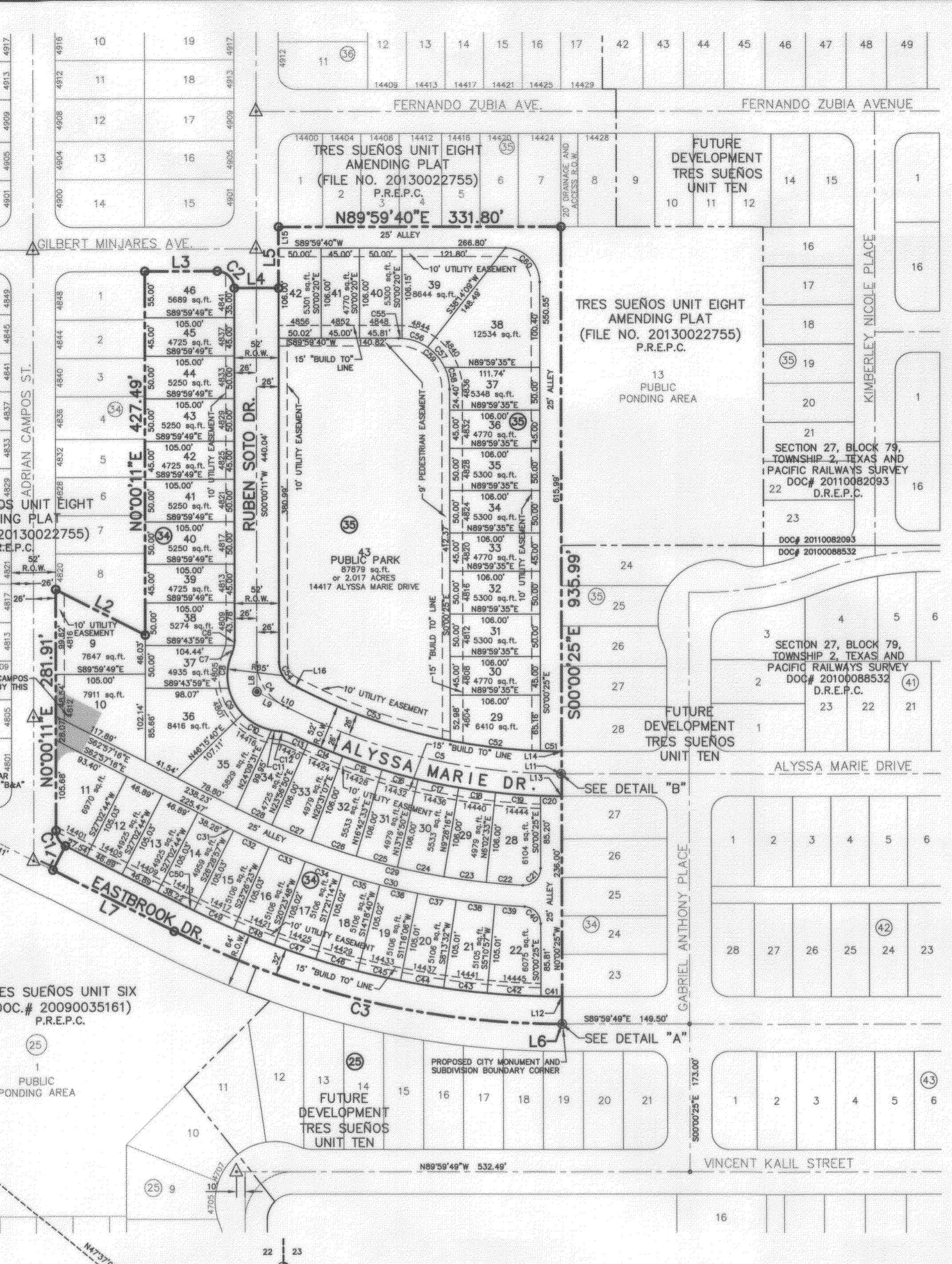
THIS SUBDIVISION LIES WITHIN THE SOCORRO INDEPENDENT SCHOOL DISTRICT 12440 ROJAS DR, EL PASO, TX 79928

SET 1/2" REBAR WITH CAP MARKED "B&A INC." AT ALL EXTERIOR BOUNDARY CORNERS UNLESS NOTED OTHERWISE.

"U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS."

BEARINGS SHOWN ARE BASED ON THE DEED FILED IN DOCUMENT NO. 20050097104, D.R.E.P.C.

DEED REFERENCE: DOCUMENT NO. 20050097104, AND DOCUMENT NO. 20100088531, D.R.E.P.C.



**DEDICATION**  
Tropicana Development Inc., property owners of this land do hereby present this plat and dedicate, if not previously dedicated, its respective portion of said property to the use of the public, the streets, utility easements, parks, pedestrian easement, and alleys, as hereon laid out and designated, including easements for overhead of service wires, conduits and pipes for underground utilities, the right to ingress and egress for service and construction, and the right to trim interfering trees and shrubs.

Witness our signature this 20 day of December, 2013.  
 TROPICANA DEVELOPMENT INC.

**ACKNOWLEDGEMENT**  
STATE OF TEXAS  
COUNTY OF EL PASO  
Before me, the undersigned authority, on this day personally appeared R. L. Bowling, III, President of Tropicana Development Inc., 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 20 day of December, 2013.  
 Notary Public in and for El Paso County  
 My Commission Expires January 6, 2015

**CITY PLAN COMMISSION**  
This subdivision is hereby approved as to the platting and as to the condition of the dedication in accordance with Chapter 212 of the Local Government Code of Texas this 19th day of December, 2013, A.D.  
 Executive Secretary  
 Approved for filing this 19th day of December, 2013.  
 City Development Director

**FILING**  
Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 20 day of DECEMBER, 2013, A.D. in Document No. 20130092958 of the Plat Records.  
 County Clerk  
 By Deputy

**OWNER**  
TROPICANA DEVELOPMENT  
4655 COHEN DRIVE  
EL PASO, TEXAS 79924  
VOICE (915) 821-3550  
FAX (915) 821-3556  
CONTACT: MR. R.L. BOWLING, III

**SURVEYOR**  
Benito Barragan  
R.P.L.S. No. 5615

**OWNER**  
Barragan & Associates Inc.  
LAND PLANNING & LAND SURVEYING  
10959 Tropicana Dr. Bldg. F - El Paso, TX 79924  
Phone (915) 591-5709 Fax (915) 591-5706  
CONTACT: BENITO BARRAGAN, R.P.L.S.

**ENGINEER**  
Jorge L. Azcarate, P.E. Tx 85075

**ENGINEER**  
cea group  
engineers • architects • planners  
Castner Center @ Transmountain  
4712 Woodrow Bean, Ste. F El Paso, TX 79924  
Office (915) 544-5222 Fax (915) 544-5233 www.ceagroup.net  
TEXAS FIRM REGISTRATION NO. 4584  
CONTACT: JORGE L. AZCARATE, P.E.  
DATE OF PREPARATION: APRIL 23, 2013







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

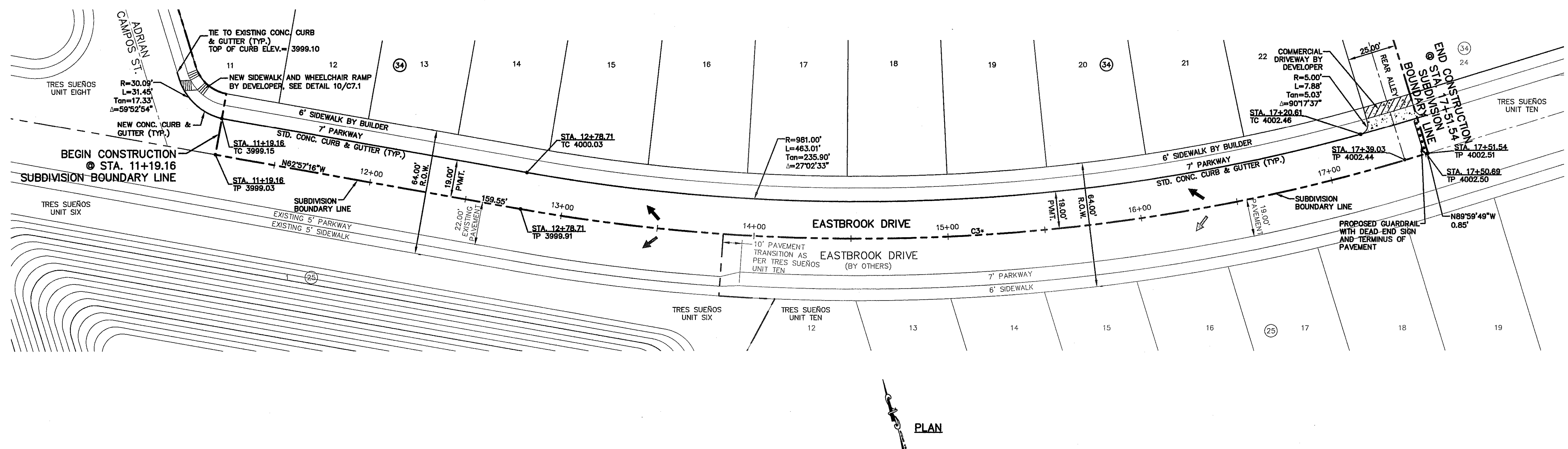
**WARNING!**  
**BEFORE YOU DIG**

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

FOR FIELD LOCATING EXISTING UTILITIES

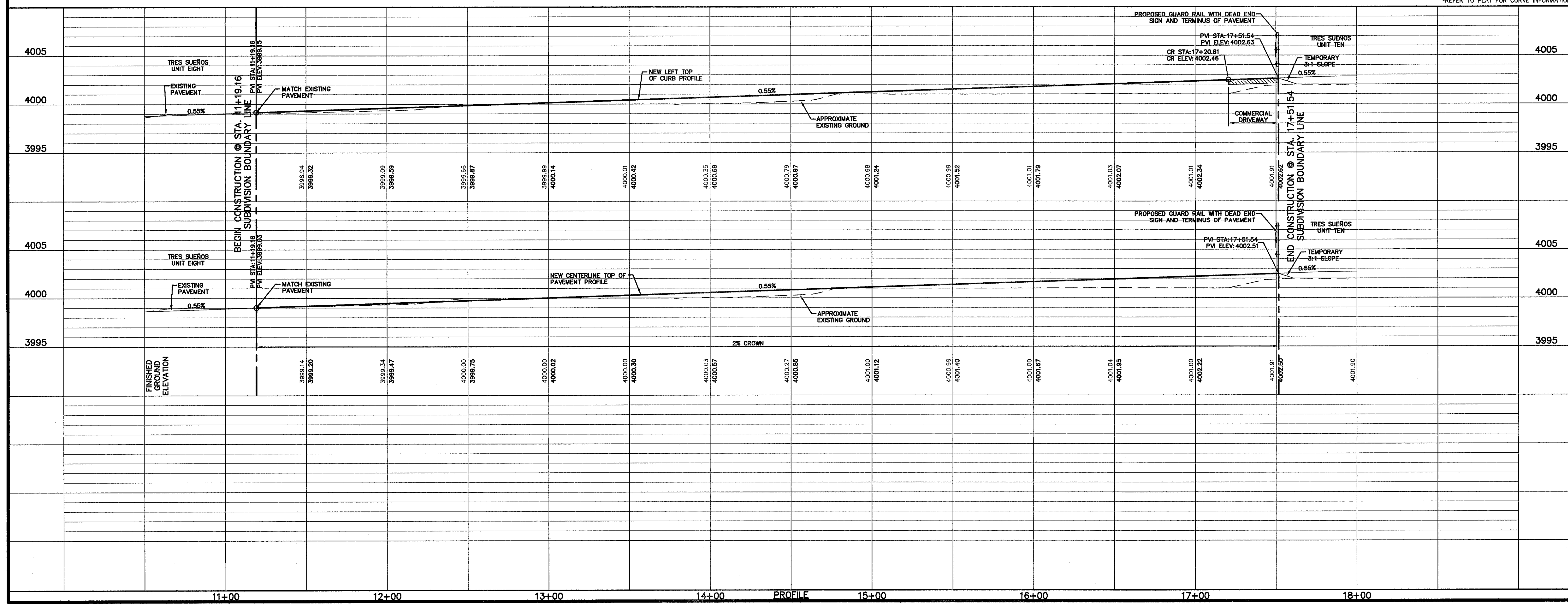
**LEGEND:**

- WHEELCHAIR RAMP TO BE CONSTRUCTED BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.
- SIDEWALK BY DEVELOPER, 2% MAX. CROSS SLOPE. SEE DETAIL 1/C7.2



PLAN

\*REFER TO PLAN FOR CURVE INFORMATION



DATE	REVISIONS	BY

ENGINEERS - ARCHITECTS - PLANNERS

**CSA**

engineers • architects • planners  
TEXAS REGISTERED ENGINEERING FIRM F-6684

4712 Woodrow Wilson, Ste. F El Paso, TX 79924  
Office: 915.544.6222 Fax: 915.544.6203 www.csaengineers.com

ENGINEER'S SEAL

REGISTERED PROFESSIONAL ENGINEER

JORGE L. AZCARATE  
80075

1-18-13

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

DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.L.A.  
APPROV. BY: J.L.A.

JOB No. 2000-157-LD

PROJECT TITLE

**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**EASTBROOK DRIVE  
PLAN & PROFILE  
FROM STA. 11+19.16  
TO STA. 17+51.54**

SHEET NO.

**C6.3**

S:\2000\2000-157-LD\Units\Construction\Drawings\Improvement\Plan\CSA\_EASTBROOK\_Profile.dwg, User: jlh, 9/18/2013 9:05:23 AM



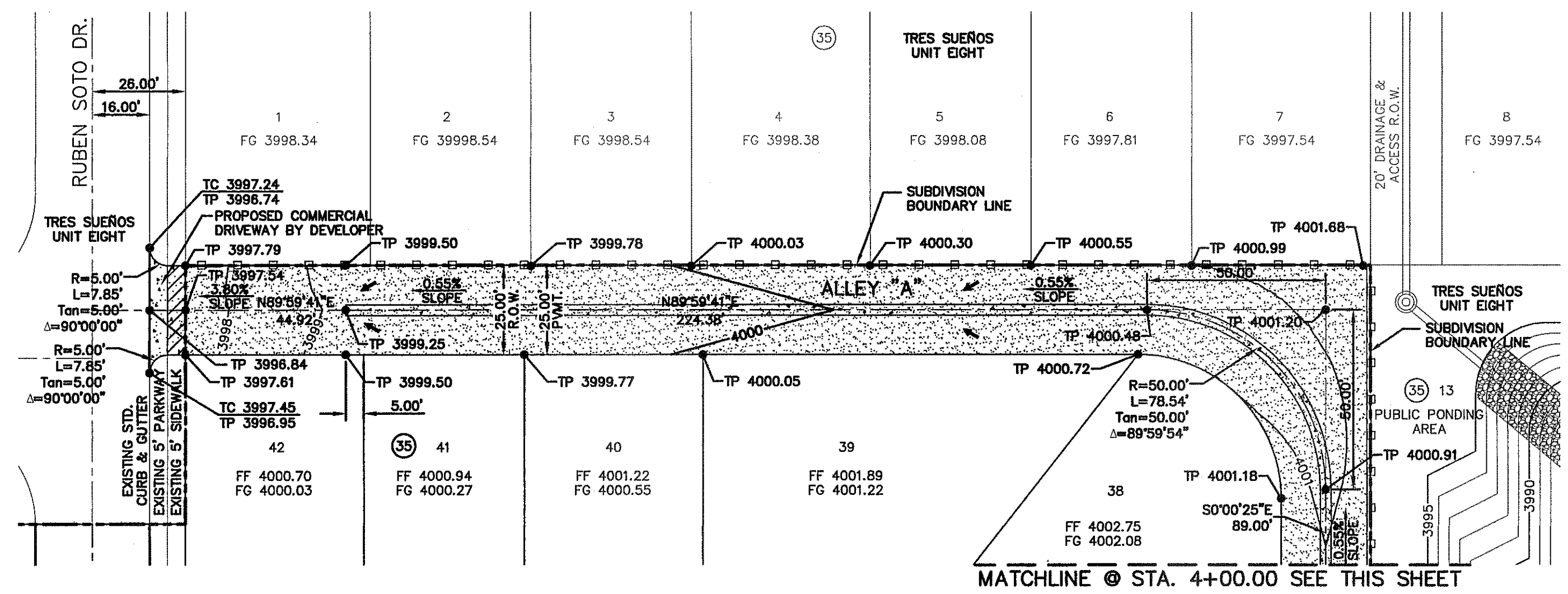
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AT&T	(800) 852-3788
U.S. SPRINT TELECOMM	(800) 521-0579

**WARNING I  
BEFORE YOU DIG**

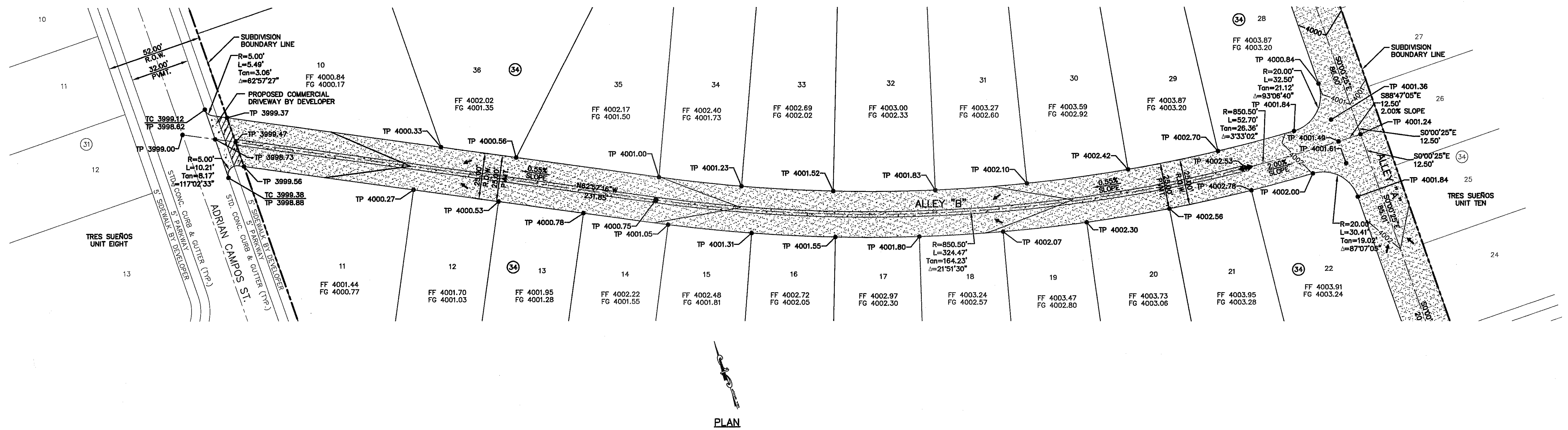
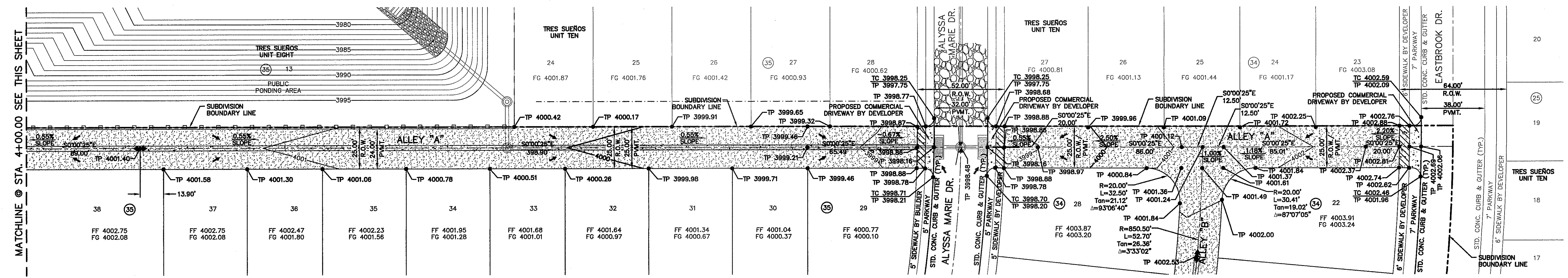
CALL  
1-800-DIG-TESS  
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY



- LEGEND:**
- WHEELCHAIR RAMP TO BE CONSTRUCTED BY DEVELOPER (TYP.)
  - NEW 4' HIGH RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)
  - NEW 4' HIGH RETAINING ROCKWALL (3'-9' RETAINING HEIGHT)
  - PROPOSED ASPHALT PAVEMENT
  - SIDEWALK BY DEVELOPER, 2% MAX. CROSS SLOPE. SEE DETAIL 1/C7.2
  - CONCRETE VALLEY GUTTER SEE DETAIL 4/C7.3



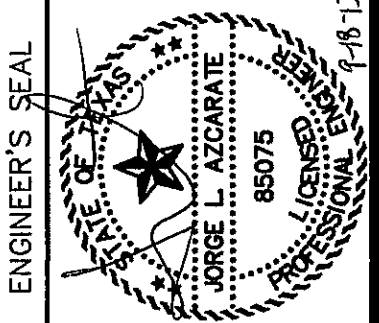
**CSA**

engineers • architects • planners

TEXAS REGISTERED ENGINEERING FIRM F-464

4712 Woodrow Bean, Ste. F El Paso, TX 79924

Office: 915.544.5232 Fax: 915.544.5233 www.csaengineers.com



SCALE: 1" = 30'

Horizontal: 1" = 30'

Vertical: 1" = 12'

Contour Interval: 1.0'

DATE: SEPTEMBER 2013

DESIGN BY: J.H.

DRAWN BY: J.H.

CHKD. BY: J.L.A.

APPD. BY: J.L.A.

JOB No. 2000-157-LD

PROJECT TITLE

**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

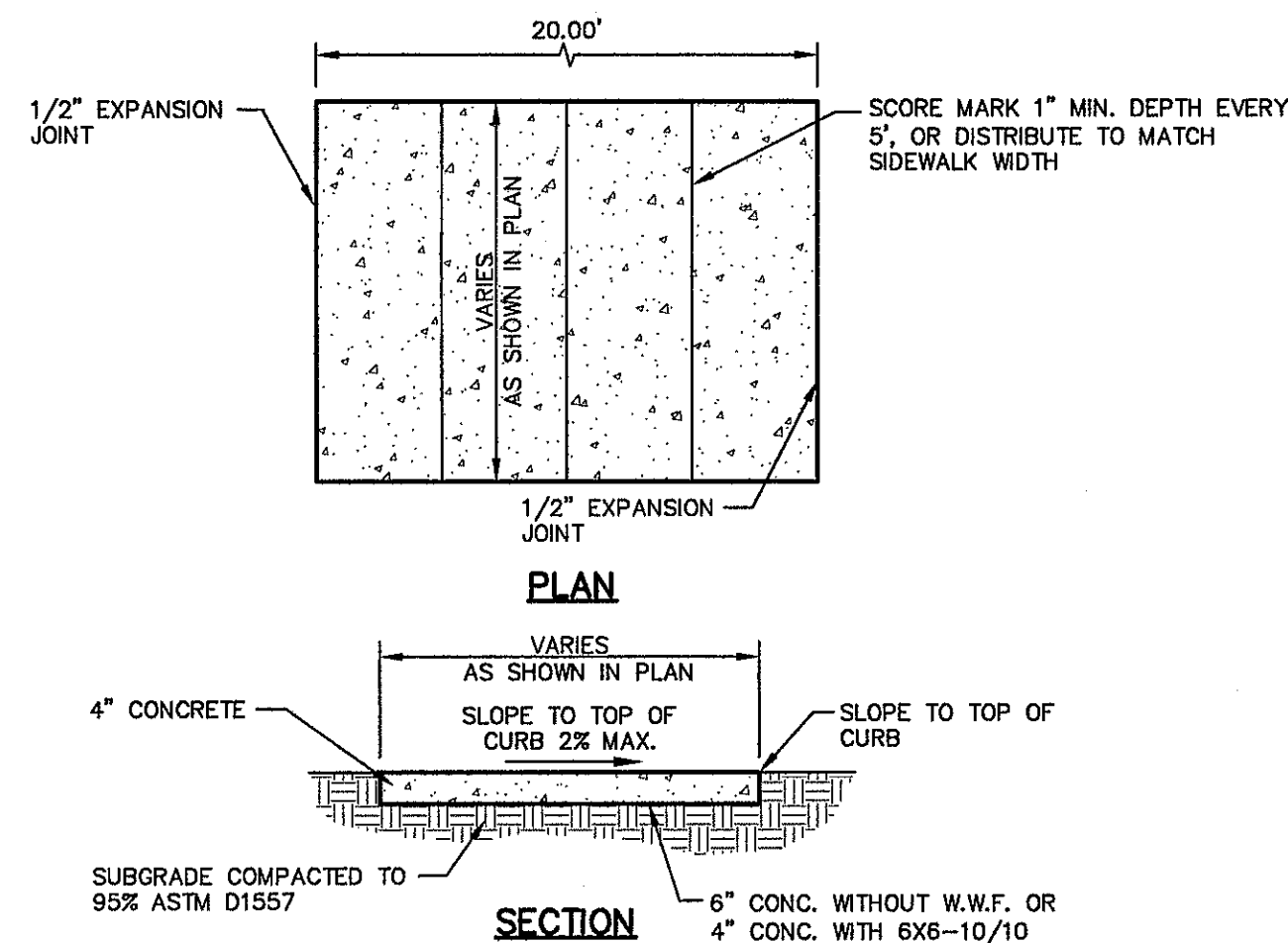
SHEET TITLE

REAR ALLEY "A" PLAN  
AND  
REAR ALLEY "B" PLAN

SHEET NO.

C6.4

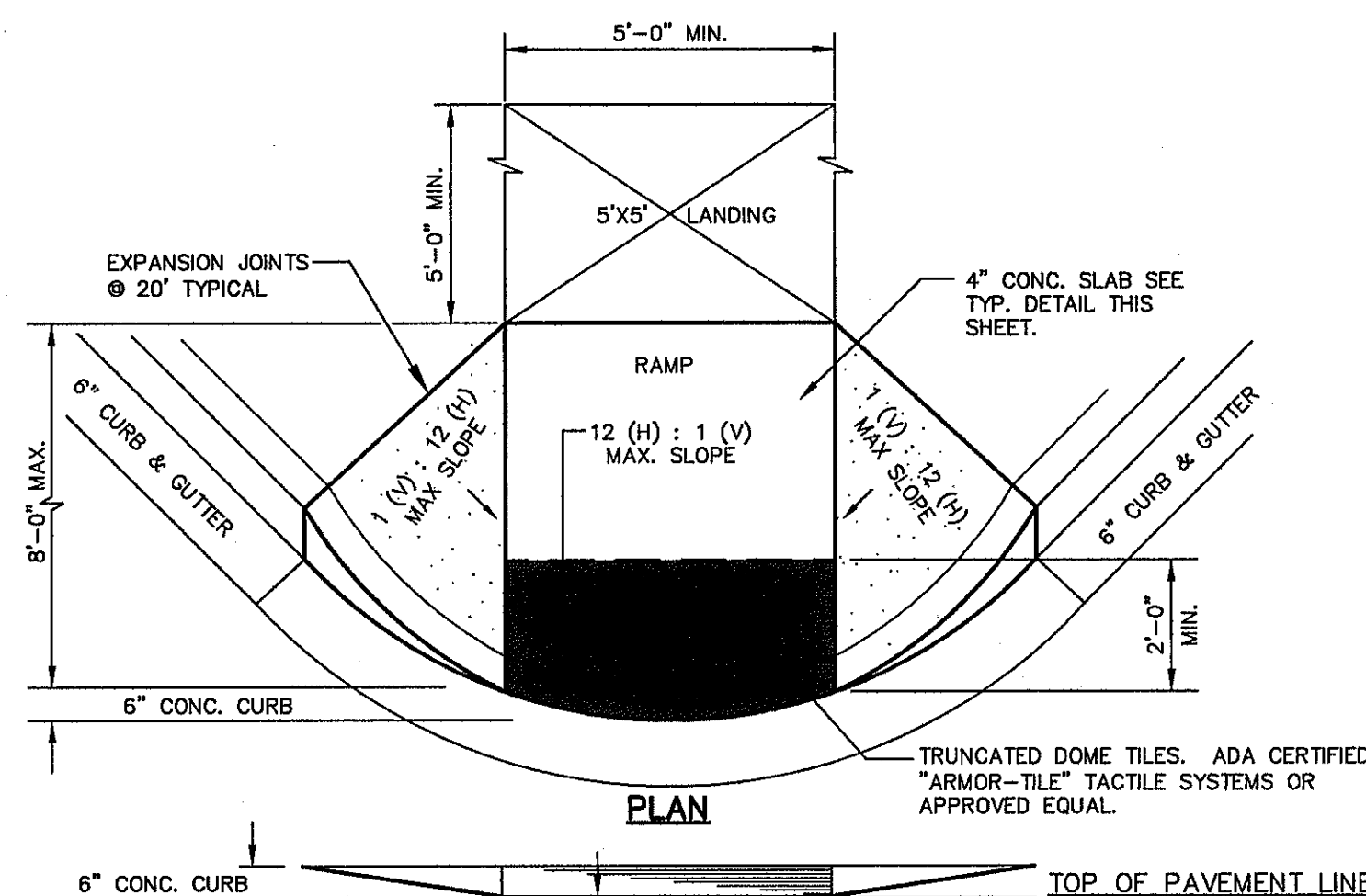




**SIDEWALK NOTES:**

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.

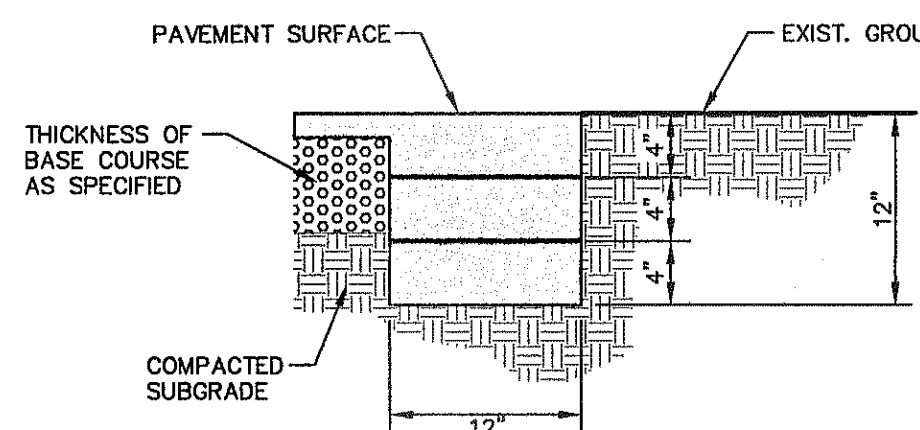
**1 SECTION-SIDEWALK/SLAB**  
SCALE: 1" = 2'-0"



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

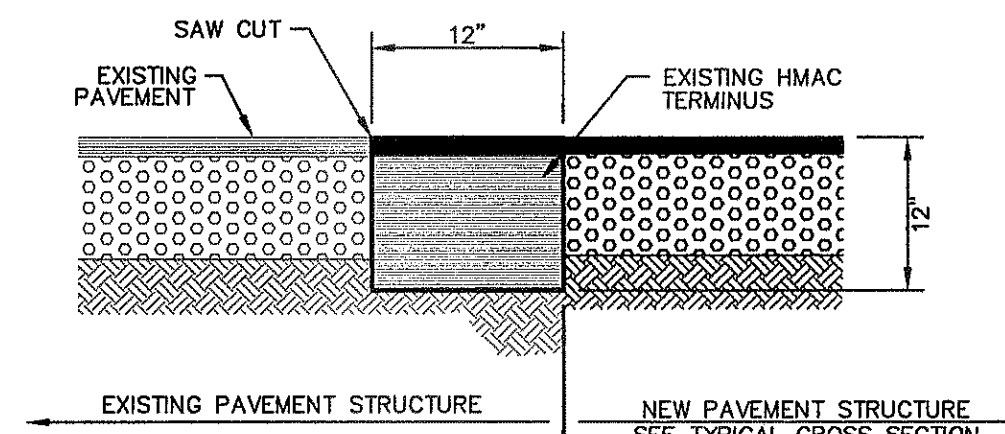
- NOTES:**
1. CONCRETE CURB, GUTTER, AND RETURNS SHALL BE 3,000 P.S.I. MIN.
  2. DUMMY JOINTS REQUIRED AT 10' O.C.
  3. 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT (AASHTO M-33) IS REQUIRED FOR ALL CURBS RETURNS. TRIM BITUMINOUS MATERIAL 1/4" LESS THAN NEAT CURB & GUTTER DIMENSION.
  4. SUBGRADE UNDER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

**3 WHEELCHAIR RAMP STREET PLAN**  
SCALE: 1" = 30'



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

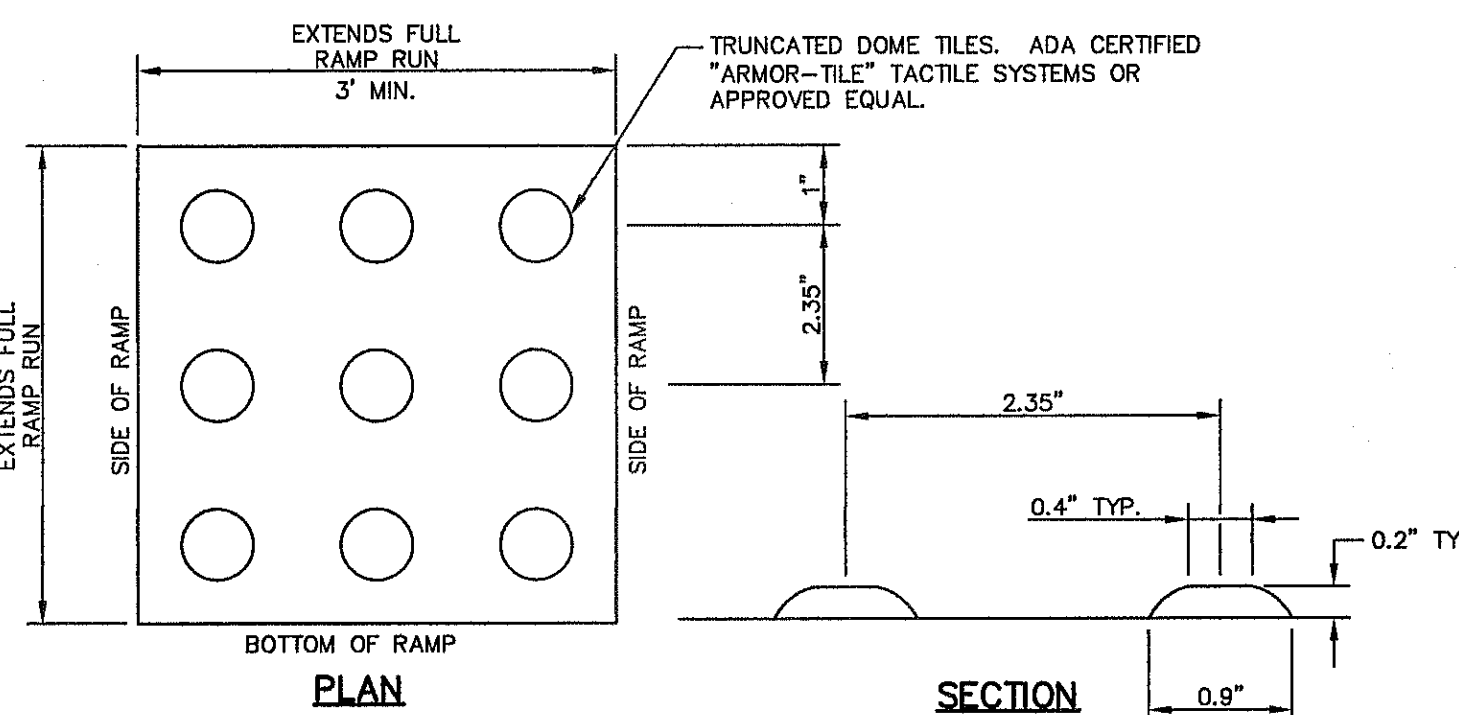
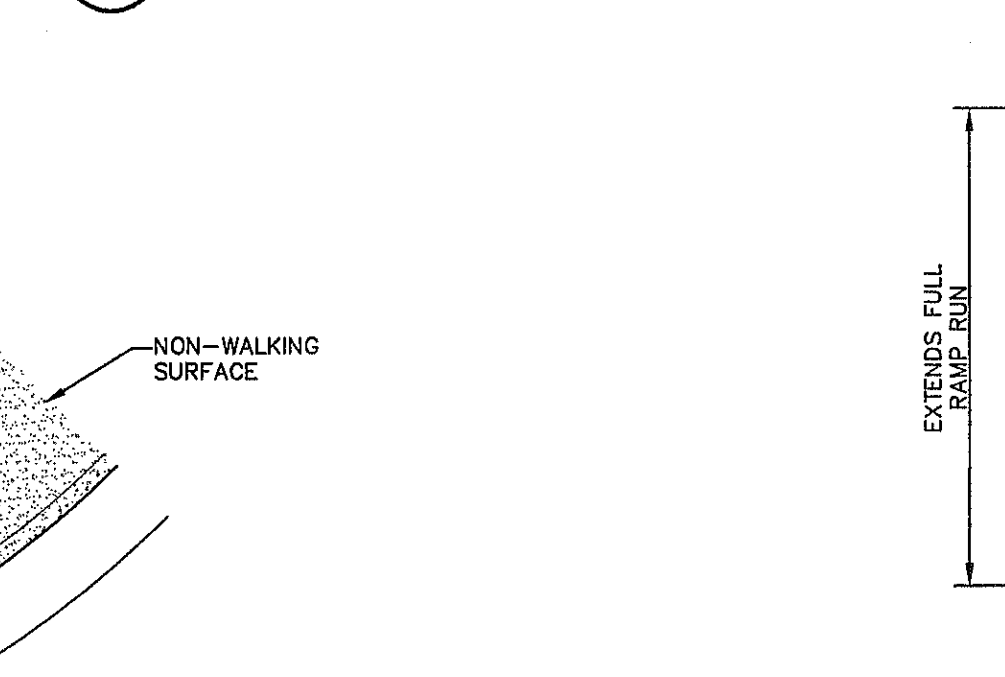
**7 TERMINUS OF STREET**  
SCALE: 1" = 1'-0"



1. CONCRETE TO BE 3000 PSI MIN.
2. DUMMY JOINTS REQUIRED AT 10' O.C. FOR HEADERS AND 5' O.C. FOR SIDEWALK
3. EXPANSION MATERIAL REQUIRED AT CURB RETURNS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
4. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR HEADERS.
5. EXPANSION JOINTS REQUIRED FOR SIDEWALK AT 20' O.C.
6. \* FOR CUL-DE-SAC AND HEEL ONLY.

**6 4\"/>**

**8 TYPICAL PAVEMENT JOINT SECTION**  
SCALE: N.T.S.



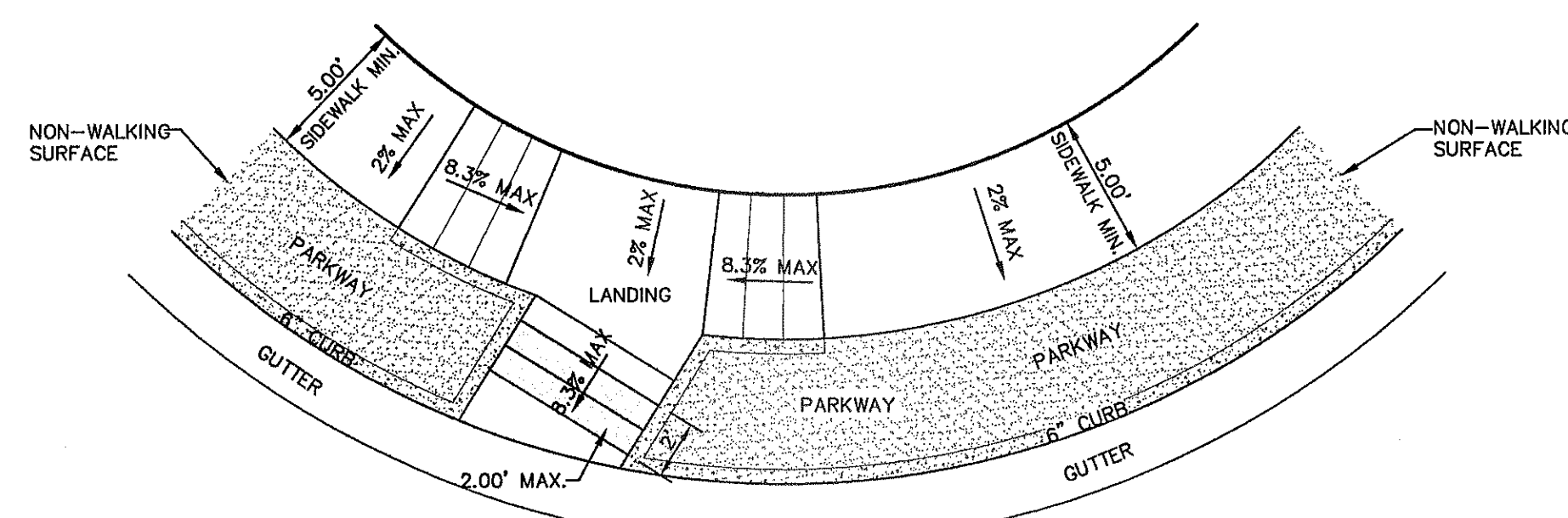
**9 HEEL (65' R) DRIVEWAY DETAIL**  
SCALE: N.T.S.

**LEGEND**

DETECTABLE WARNING SURFACE SHALL BE A MINIMUM OF 70% 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 COUNTY OF EL PASO ROAD AND BRIDGE DEPARTMENT. 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.

- NOTES:**
1. ALL CONCRETE SHALL BE 3,000 P.S.I. MIN. AT 28 DAYS.
  2. CONCRETE SLABS SHALL BE A MIN. 4" THICK.
  3. ALL NEW RAMPS SHALL COMPLY WITH T.A.S. AND A.D.A. REQUIREMENTS. ANY SECTIONS NOT CONFORMING WILL BE REMOVED AT THE CONTRACTORS EXPENSE.
  4. ALL ADA RAMPS SHALL BE BUILT BY DEVELOPER.
  5. 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.
  6. THE MINIMUM SIDEWALK WIDTH IS 5' 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.
  7. LANDINGS SHALL BE 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
  8. 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.
  9. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED.
  10. ALL CONCRETE SIDEWALK SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
  11. RAMP TEXTURES MUST CONSIST OF TRUNCATED DOME SURFACES. TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED. REFER TO TRUNCATED DOME DETAIL.
  12. 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.
  13. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND RAMP SURFACES IS 2%.
  14. 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).

**5 TYPICAL WHEELCHAIR RAMP DETAIL**  
SCALE: N.T.S.

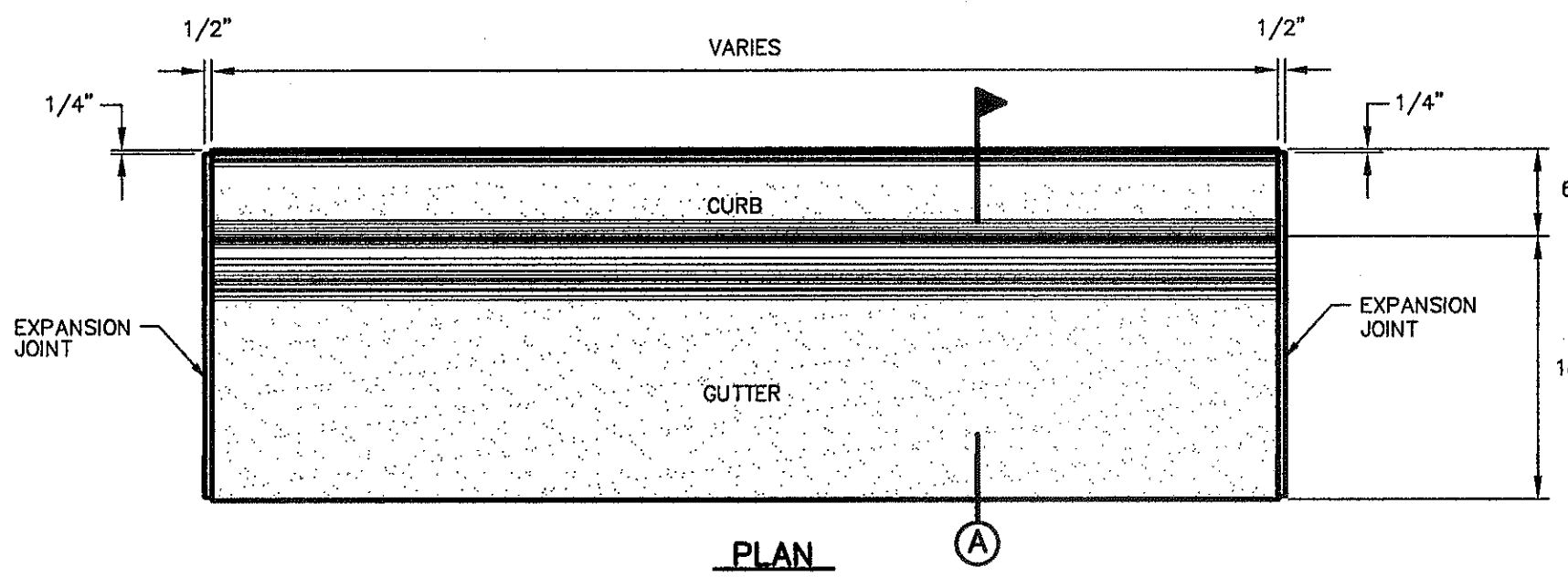


**10 DIRECTIONAL RAMP @ INTERSECTION**  
SCALE: N.T.S.

**LEGEND**

DETECTABLE WARNING SURFACE SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A NOMINAL DIAMETER OF 0.9 IN. A NOMINAL HEIGHT OF 0.2 IN AND A CENTER TO CENTER NOMINAL SPACING OF 2.35 IN, AND SHALL NOT BE STAGGERED. THE SURFACE SHALL BE A MINIMUM OF 70% 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 CITY OF EL PASO TRANSPORTATION DEPARTMENT. 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.

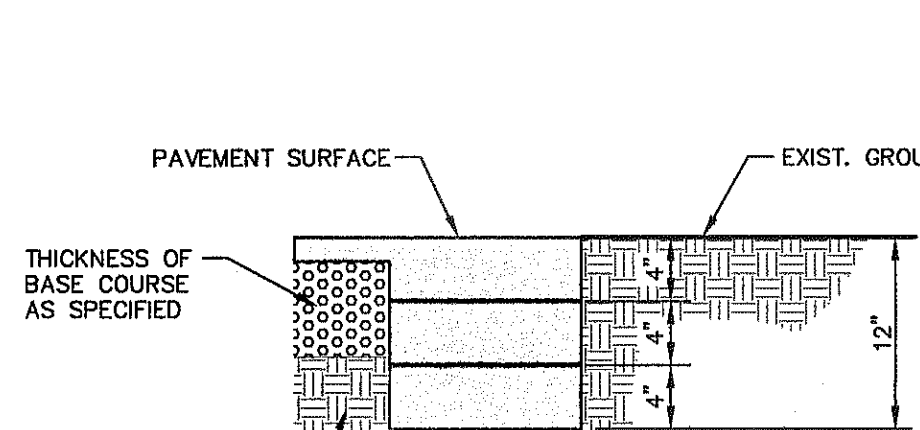
**11 TRUNCATED DOME**  
SCALE: N.T.S.



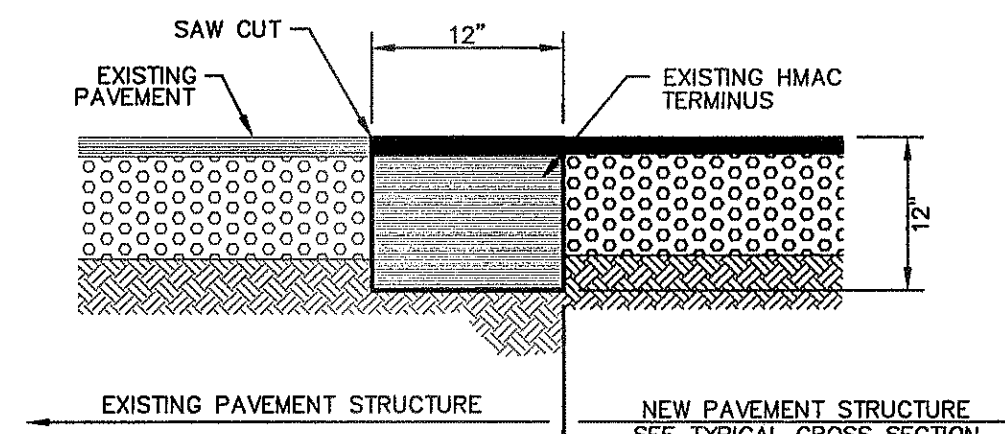
**4 TYPICAL HEEL/CUL-DE-SAC SIDEWALK TRANSITION**  
SCALE: N.T.S.

- 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 CITY OF EL PASO SPECIFICATIONS.
  4. ALL PARKING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE COUNTY OF EL PASO ROAD AND BRIDGE DEPARTMENT.

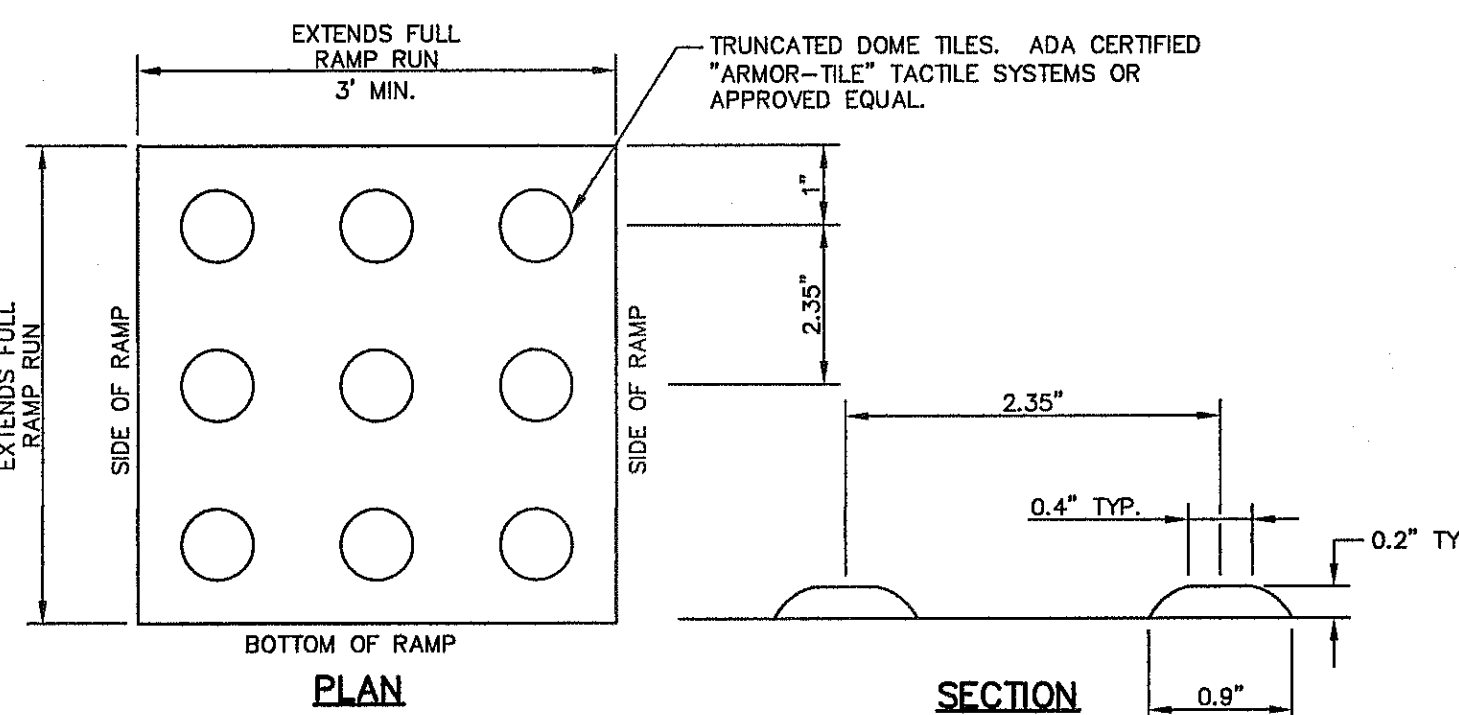
**3 WHEELCHAIR RAMP STREET PLAN**  
SCALE: 1" = 30'



**7 TERMINUS OF STREET**  
SCALE: 1" = 1'-0"



**8 TYPICAL PAVEMENT JOINT SECTION**  
SCALE: N.T.S.



**9 HEEL (65' R) DRIVEWAY DETAIL**  
SCALE: N.T.S.

**10 DIRECTIONAL RAMP @ INTERSECTION**  
SCALE: N.T.S.

**11 TRUNCATED DOME**  
SCALE: N.T.S.

**REFERENCES - BENCHMARKS**

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEAM BLVD. SUBSTATION A DISTANCE OF 47.59 FEET FROM MONUMENT TO POINT OF CURVE. ELEVATION 4005.40

AVENUE CITY DATUM. ELEVATION 4005.40

DATE	REVISIONS	BY

**engineers • architects • planners**

TEXAS REGISTERED ENGINEERING FIRM F-464

4712 Woodrow Bean, Ste. F, El Paso, TX 79924

Office: 915.544.8222 Fax: 915.544.8203 www.aepgroup.com

**ENGINEER'S SEAL**

JORGE L. AZCARRATE

80075

1-18-13

SCALE	N/A
Horizontal	N/A
Vertical	N/A
Contour Interval	N/A
DATE	SEPTEMBER 2013
DESIGN BY	J.H.
DRAWN BY	J.H.
CHECKED BY	J.L.A.
APPROVED BY	J.L.A.
JOB No.	2000-157-ID

**PROJECT TITLE**

TRES SUEÑOS UNIT ELEVEN SUBDIVISION IMPROVEMENTS

**SHEET TITLE**

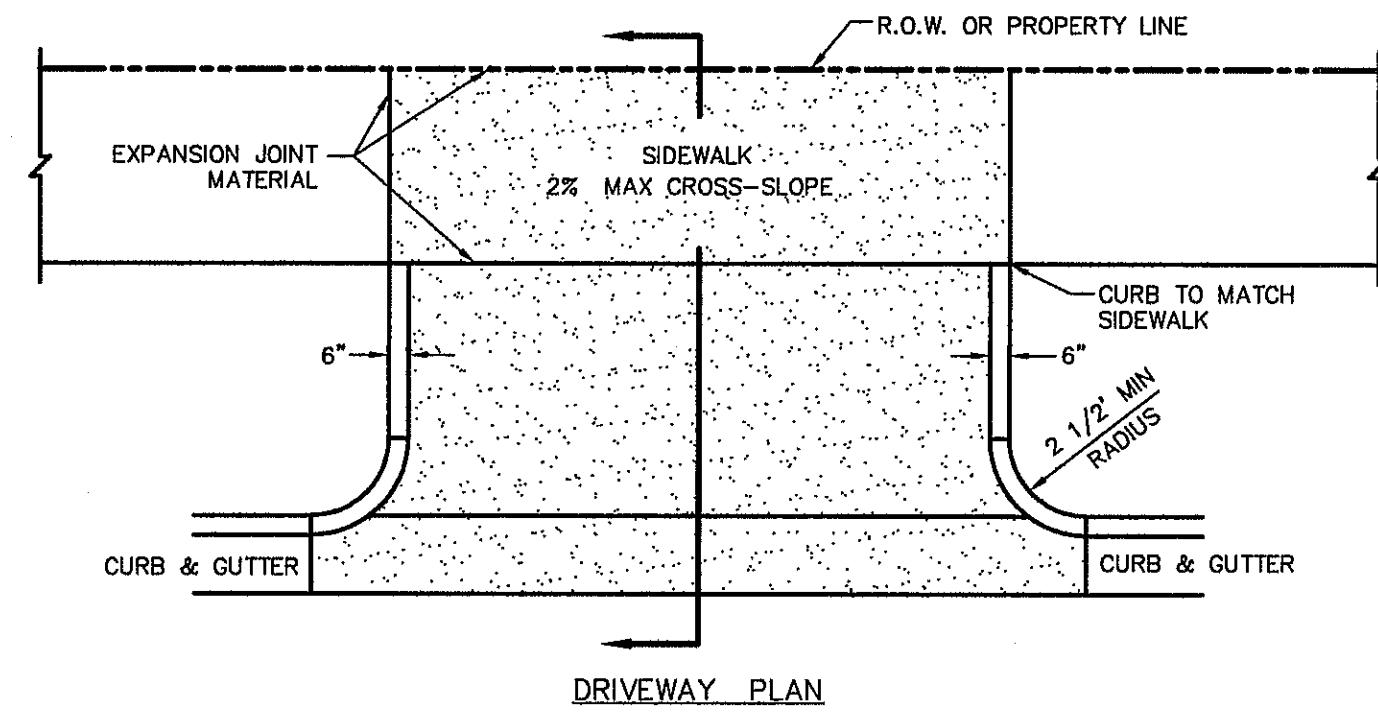
STANDARD DETAILS

(SHEET 1 OF 3)

SHEET NO.

**C7.1**

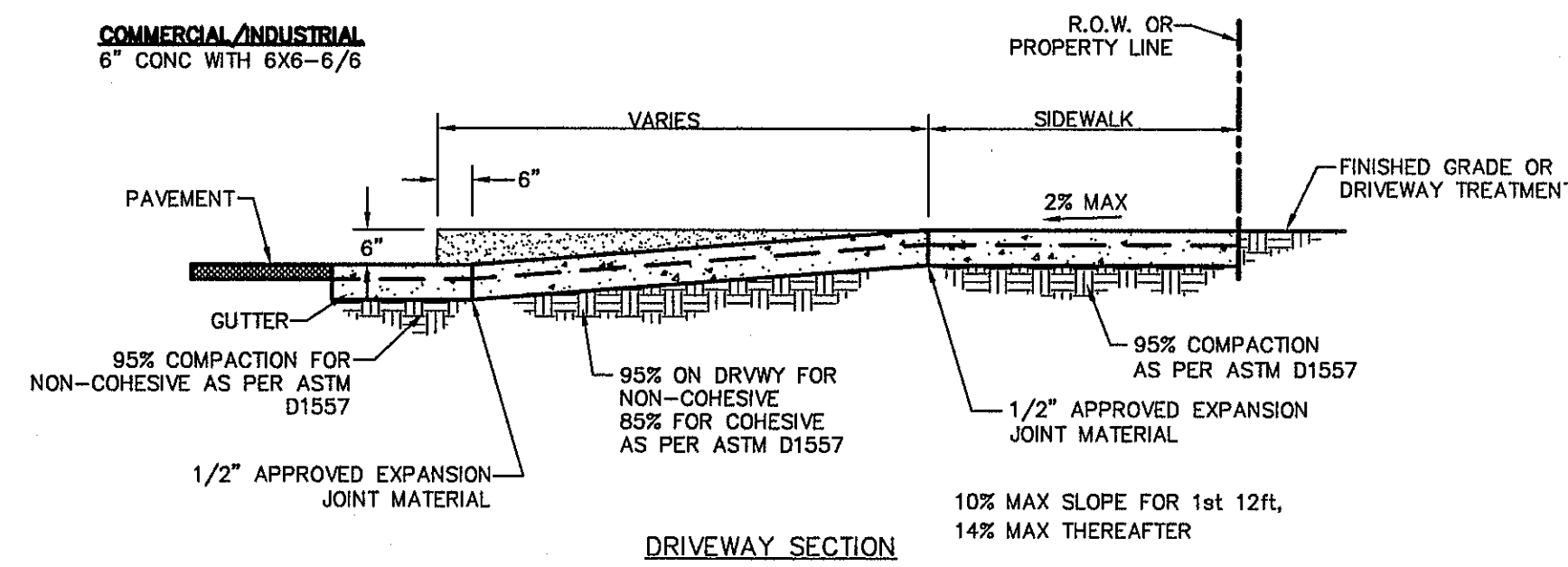




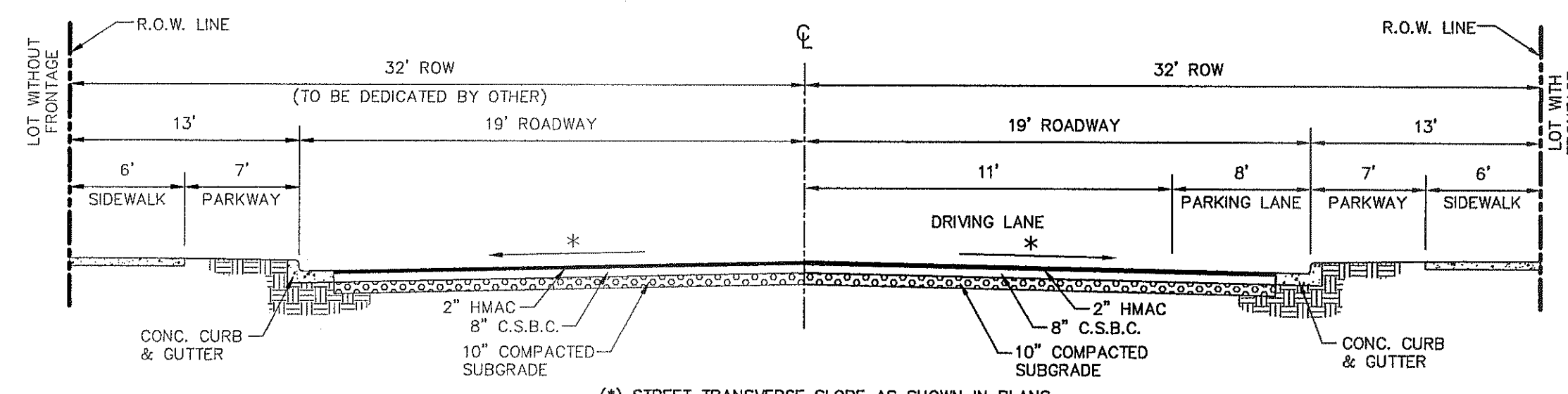
DRIVEWAY WIDTH	MIN	MAX
COMMERCIAL/INDUSTRIAL	24'	35'
RESIDENTIAL (SINGLE FAMILY 60' LOTS)	10'	20'
LESS THAN 60' LOTS, DUPLEX AND TOWN HOMES (REFER TO PLATE 6-16)	15'	25'

**RESIDENTIAL**  
6" CONC WITHOUT W.W.F.  
4" CONC WITH 6X6-10/10

**COMMERCIAL/INDUSTRIAL**  
6" CONC WITH 6X6-6/6



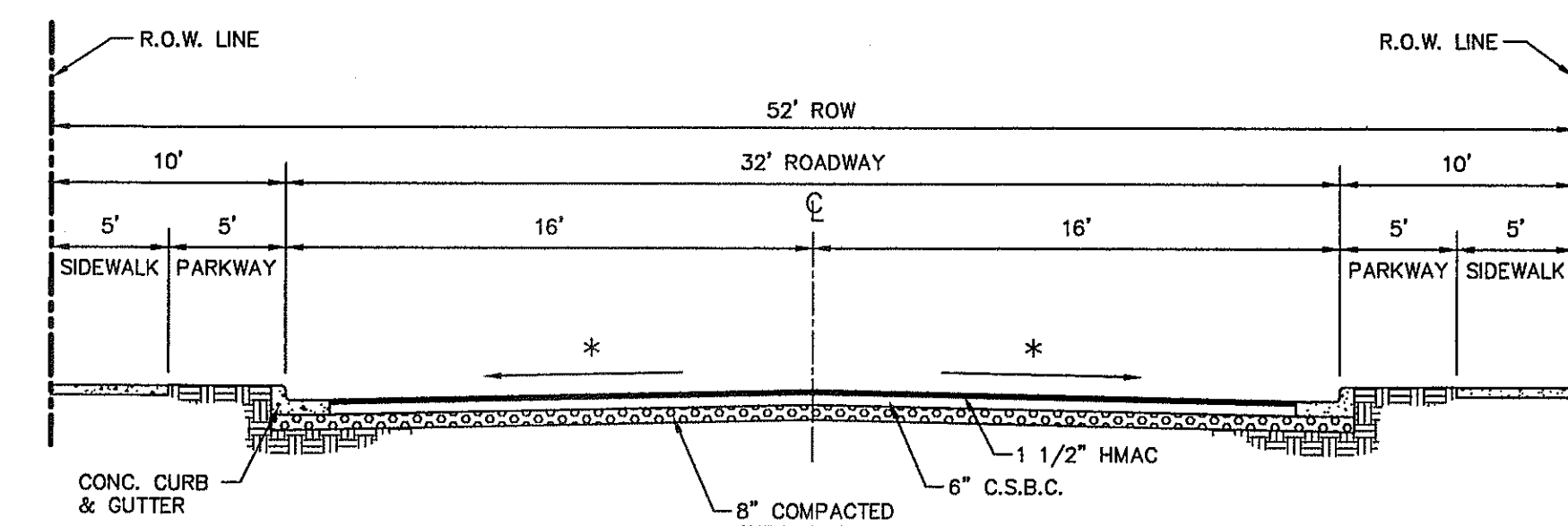
1 CONCRETE APRON FOR DRIVEWAYS/ALLEYS  
SCALE: N.T.S.



(\*) STREET TRANSVERSE SLOPE AS SHOWN IN PLANS  
NOTE: CROSS SECTIONS ARE MINIMUM STANDARD REQUIREMENTS  
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.

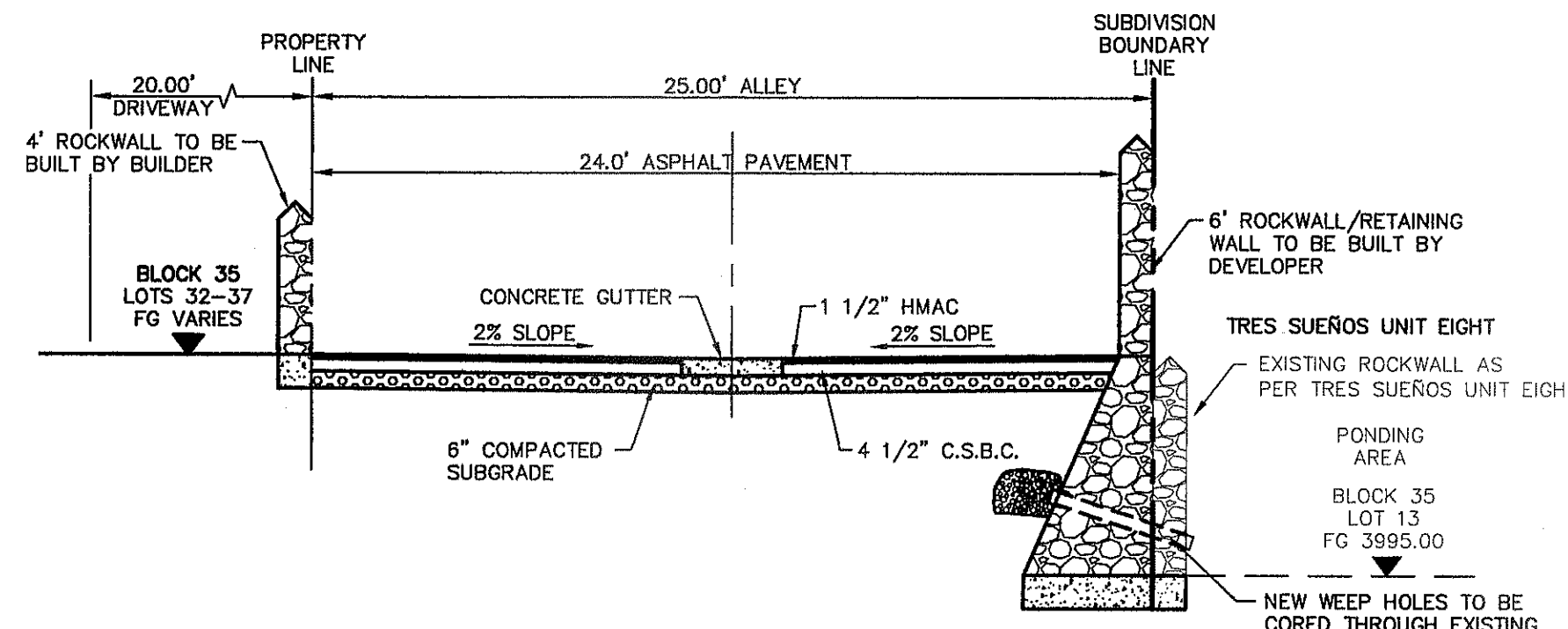
NOTE: STREET TREES SHALL BE PLANTED EVERY 30' ALONG EASTBROOK DRIVE. NO RESIDENTIAL DRIVEWAYS WILL BE ALLOWED DIRECTLY OFF OF THESE STREETS.

2 TYPICAL 64' ROW STREET SECTION DETAIL  
SCALE: N.T.S.

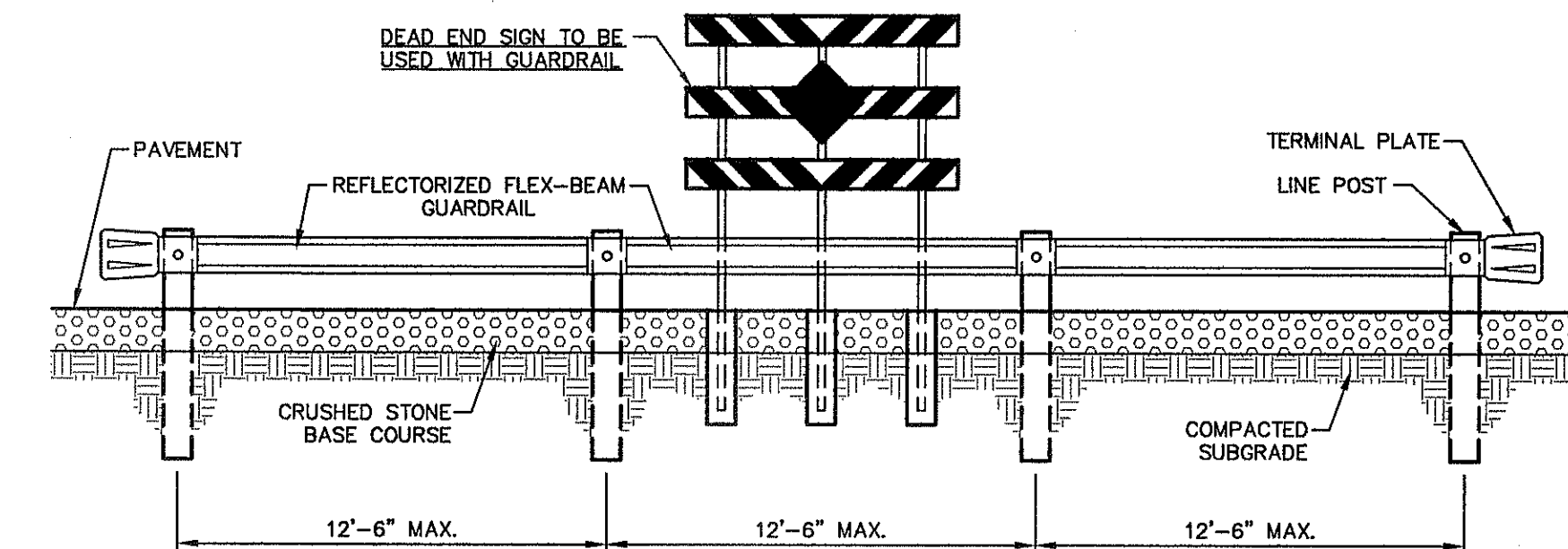


(\*) STREET TRANSVERSE SLOPE AS SHOWN IN PLANS  
NOTE: CROSS SECTIONS ARE MINIMUM STANDARD REQUIREMENTS  
STREET IMPROVEMENTS (FLEXIBLE PAVEMENT DESIGN STRUCTURE) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS: CBR @ EVERY 500' 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.

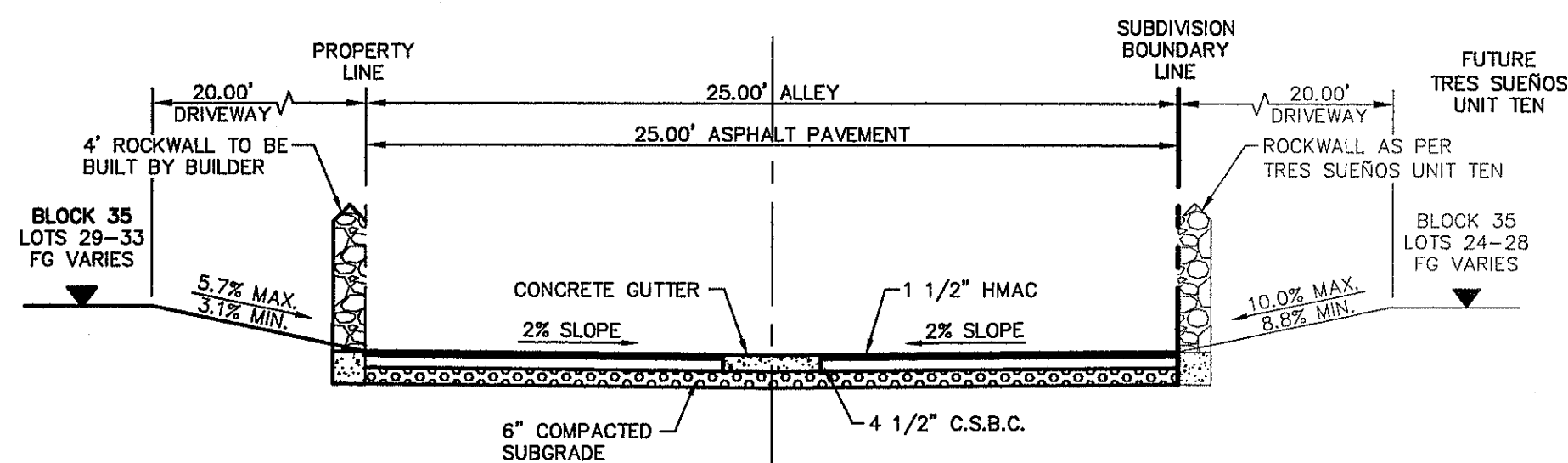
3 TYPICAL 52' ROW STREET SECTION DETAIL  
SCALE: N.T.S.



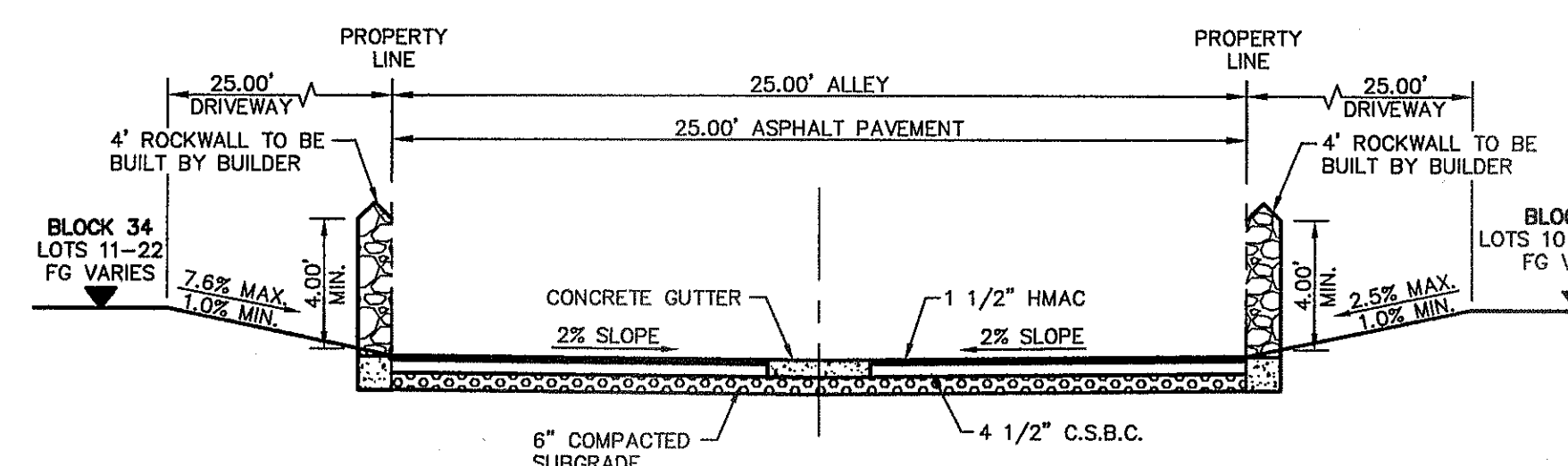
4 TYPICAL 25' ALLEY AT POND SECTION DETAIL  
SCALE: N.T.S.



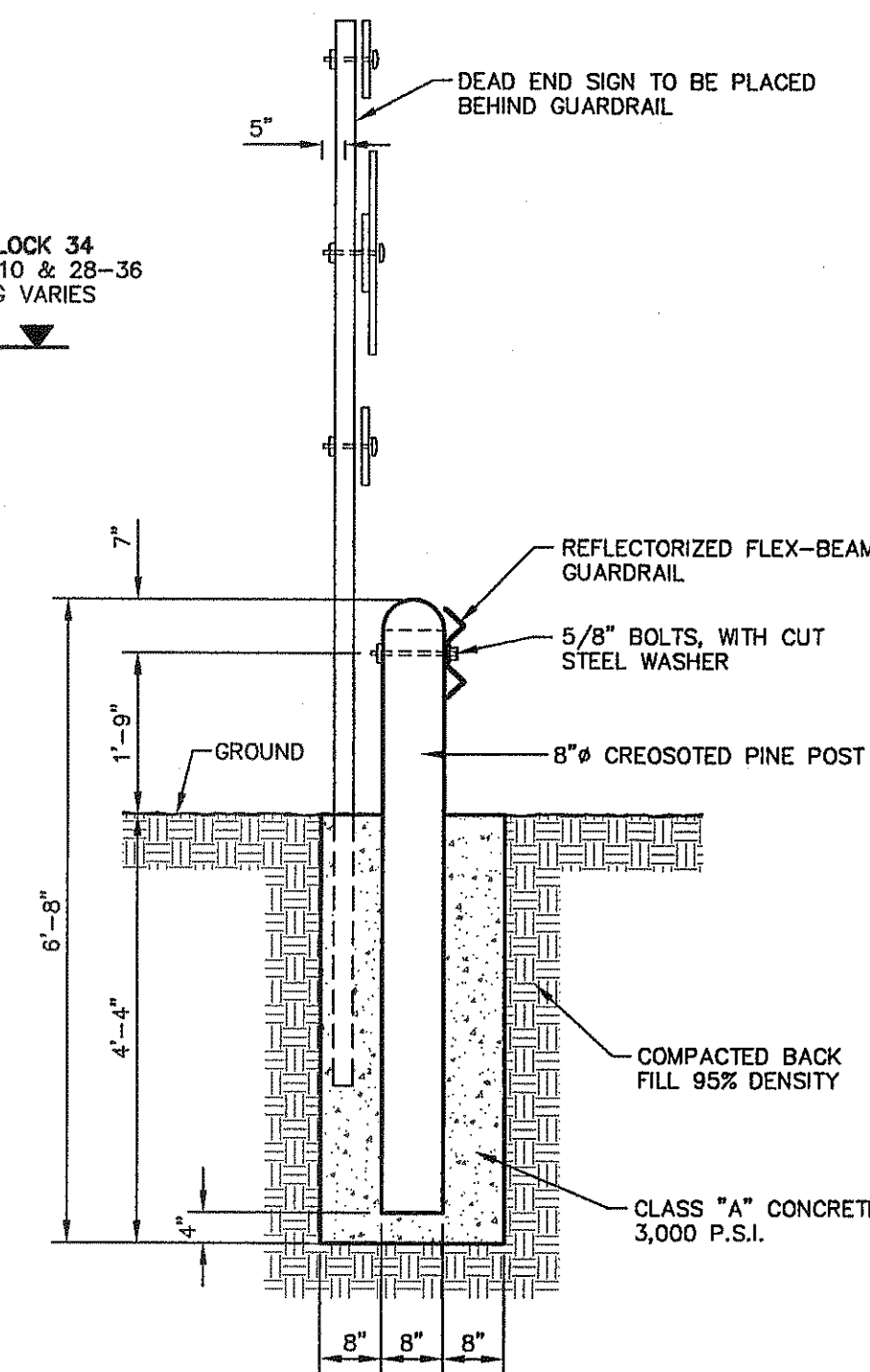
ELEVATION  
SCALE: 1"=5'



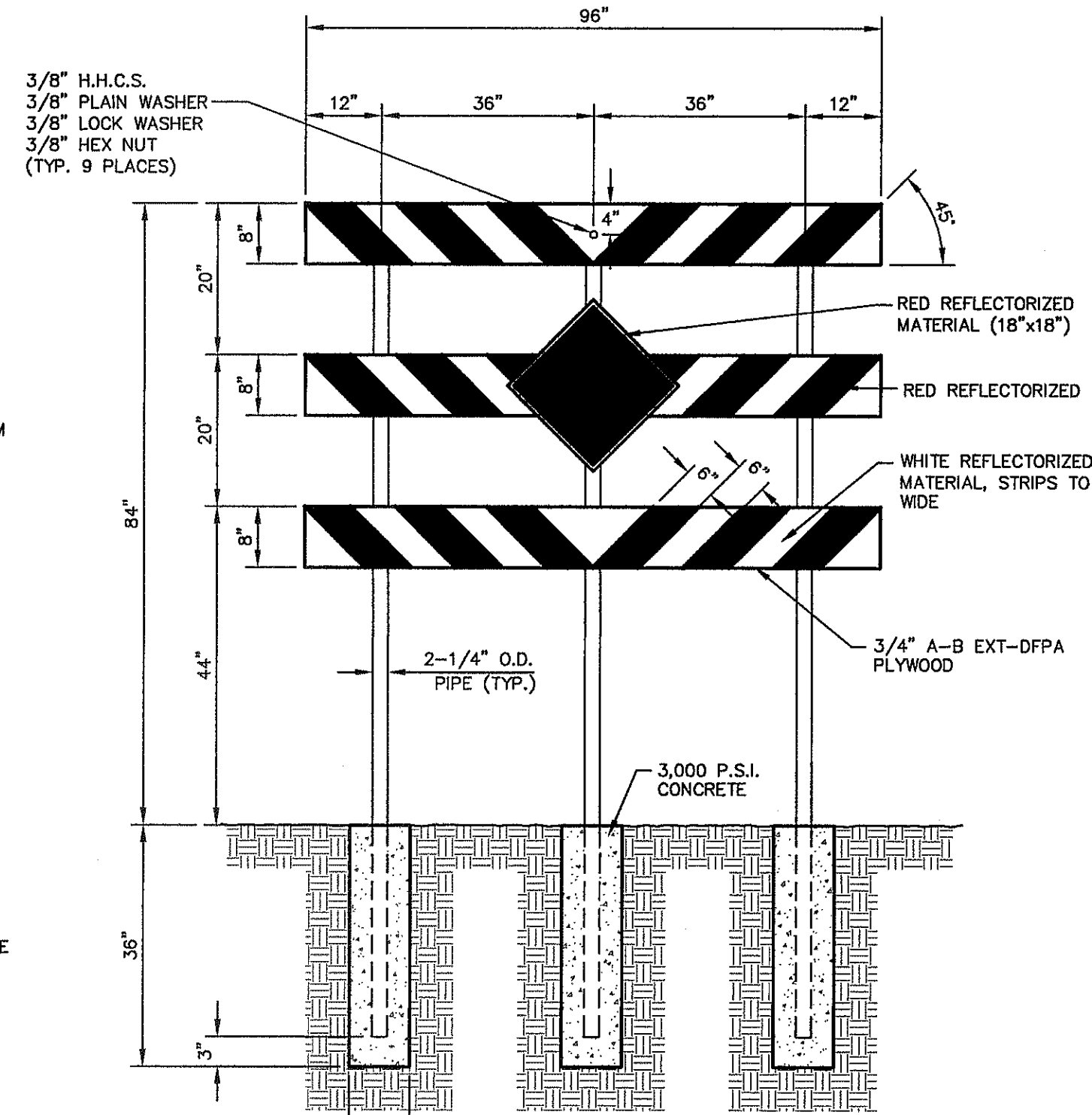
5 TYPICAL 25' ALLEY AT FUTURE SUBDIVISION SECTION DETAIL  
SCALE: N.T.S.



6 TYPICAL 25' ALLEY WITHIN SUBDIVISION SECTION DETAIL  
SCALE: N.T.S.



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



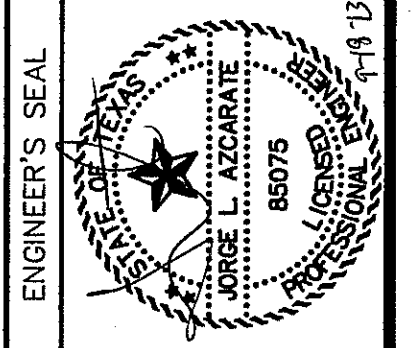
DEAD END SIGN DETAIL  
SCALE: 1" = 2'-0"

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

REFERENCES - BENCHMARKS  
CITY MOUNTAIN AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. SOUTHWEST CORNER OF RICH BEEM BLVD. FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

DATE	REVISIONS	BY

**CSA**  
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TEXAS REGISTERED ENGINEERING FIRM F-4884  
4710 Woodhams Road, Suite F, El Paso, TX 79904  
PHONE: 915.544.2322 FAX: 915.544.2323 www.csaeng.com



SCALE	N/A
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	SEPTEMBER 2013
DESIGN BY:	J.H.
DRAWN BY:	J.H.
CHECKED BY:	J.H.
APP'D. BY:	J.H.A.
JOB No.	2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN**  
SUBDIVISION IMPROVEMENTS

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

C7.2

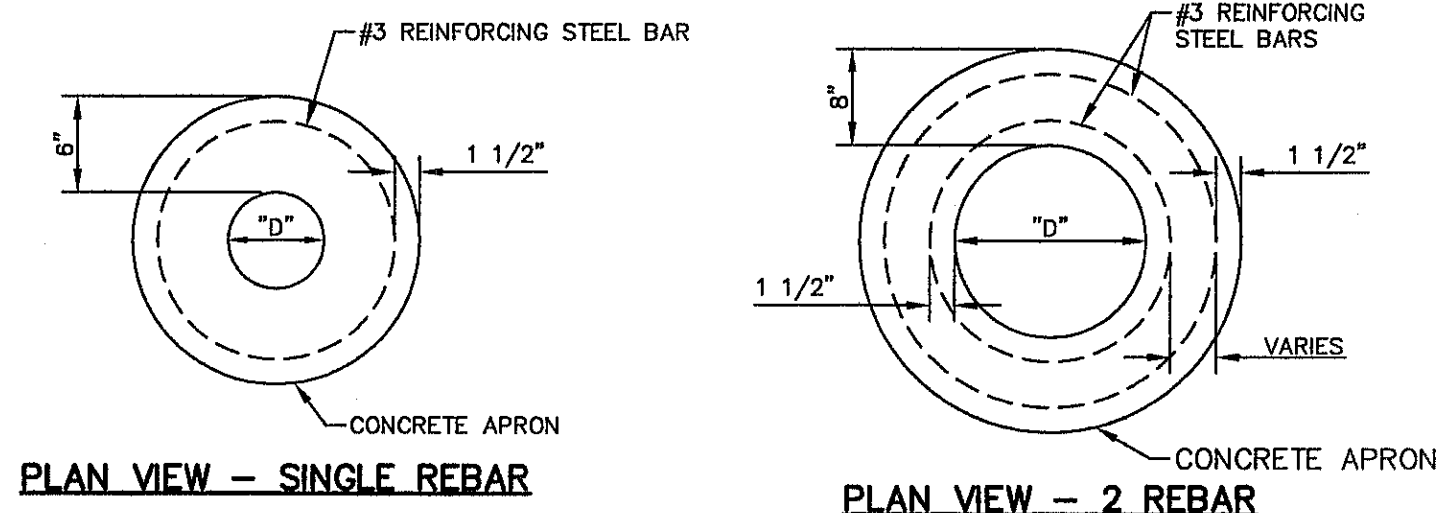


**CONSTRUCTION NOTES**

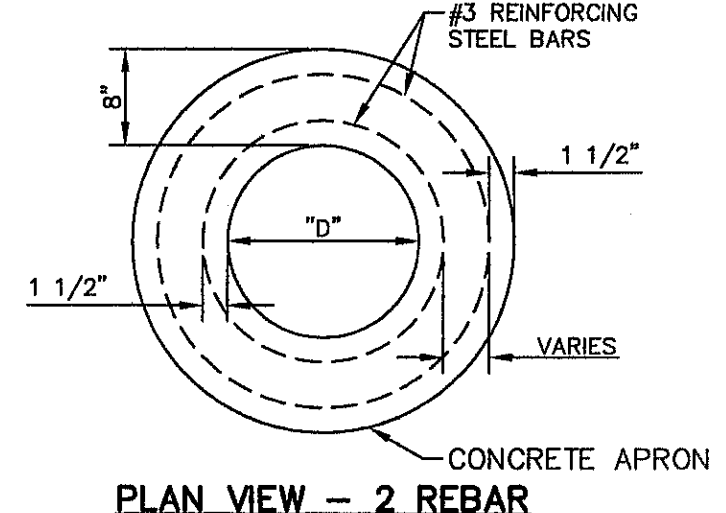
1. ANY DISTURBED SUBGRADE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 95% DENSITY ± 3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
2. ANY DISTURBED COARSE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 100% DENSITY ± 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
3. PROVIDE A MINIMUM OF 1 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
4. REINFORCING SHALL MEET ASTM C-478 AND TRAFFIC LOADING (HS-20).
5. NO. 3 REINFORCING STEEL HOOPS SHALL BE SPACED EQUALLY.

**GENERAL NOTES**

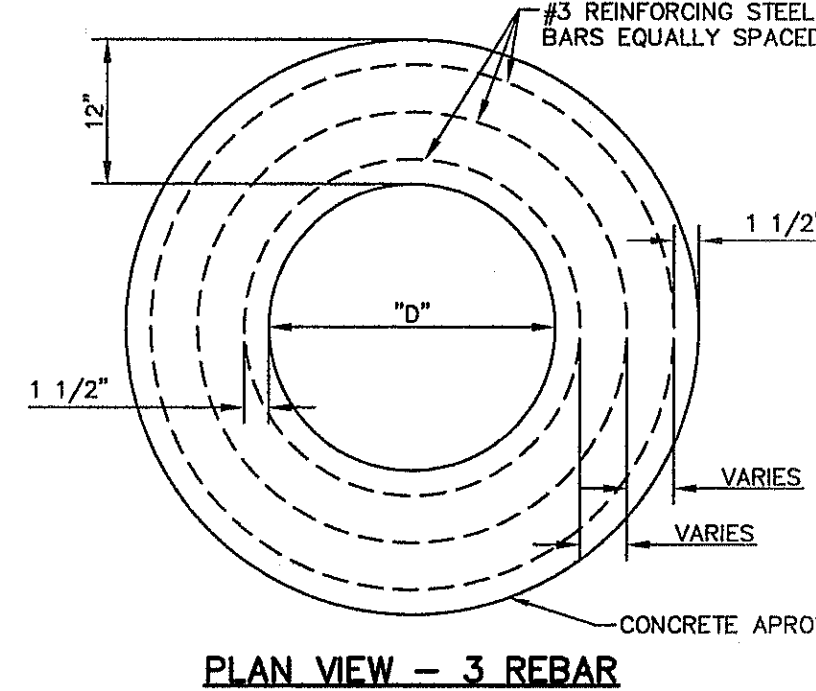
1. THE PENETRATION APRON SHOULD BE CAST IN-PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED).
2. TOPS OF PENETRATION APRON SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED.
3. PENETRATION APRON SHALL BE APPLIED ON SANITARY SEWER MANHOLES, STORM SEWER MANHOLES, WATER VALVES, AND MONUMENTS.



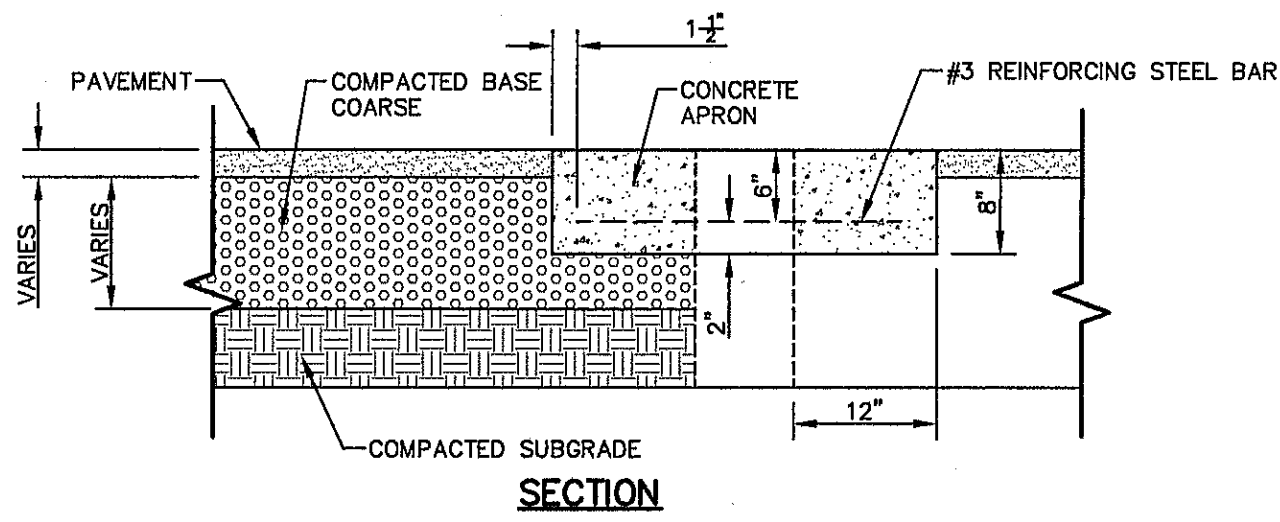
PLAN VIEW - SINGLE REBAR



PLAN VIEW - 2 REBAR



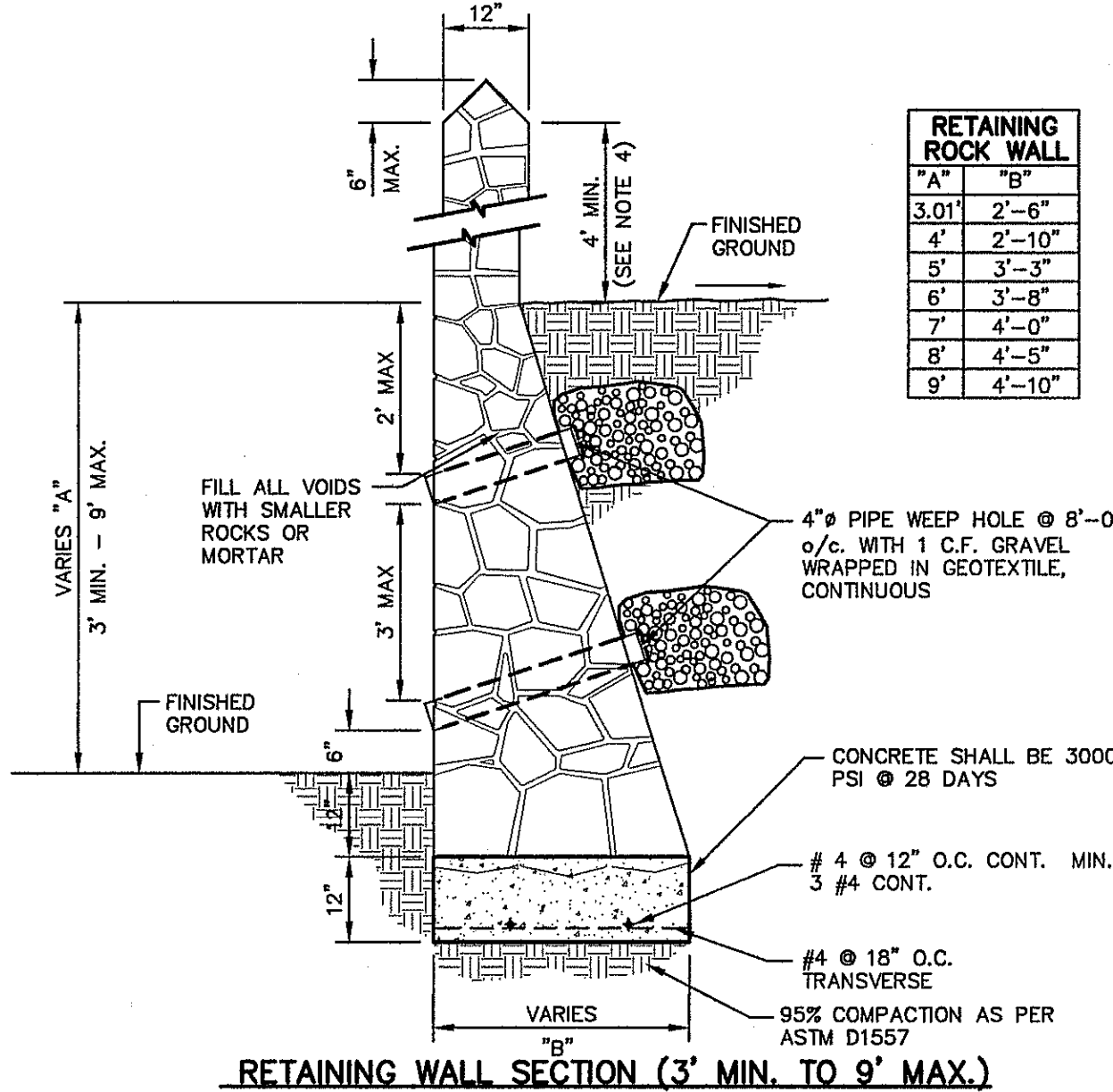
PLAN VIEW - 3 REBAR



SECTION

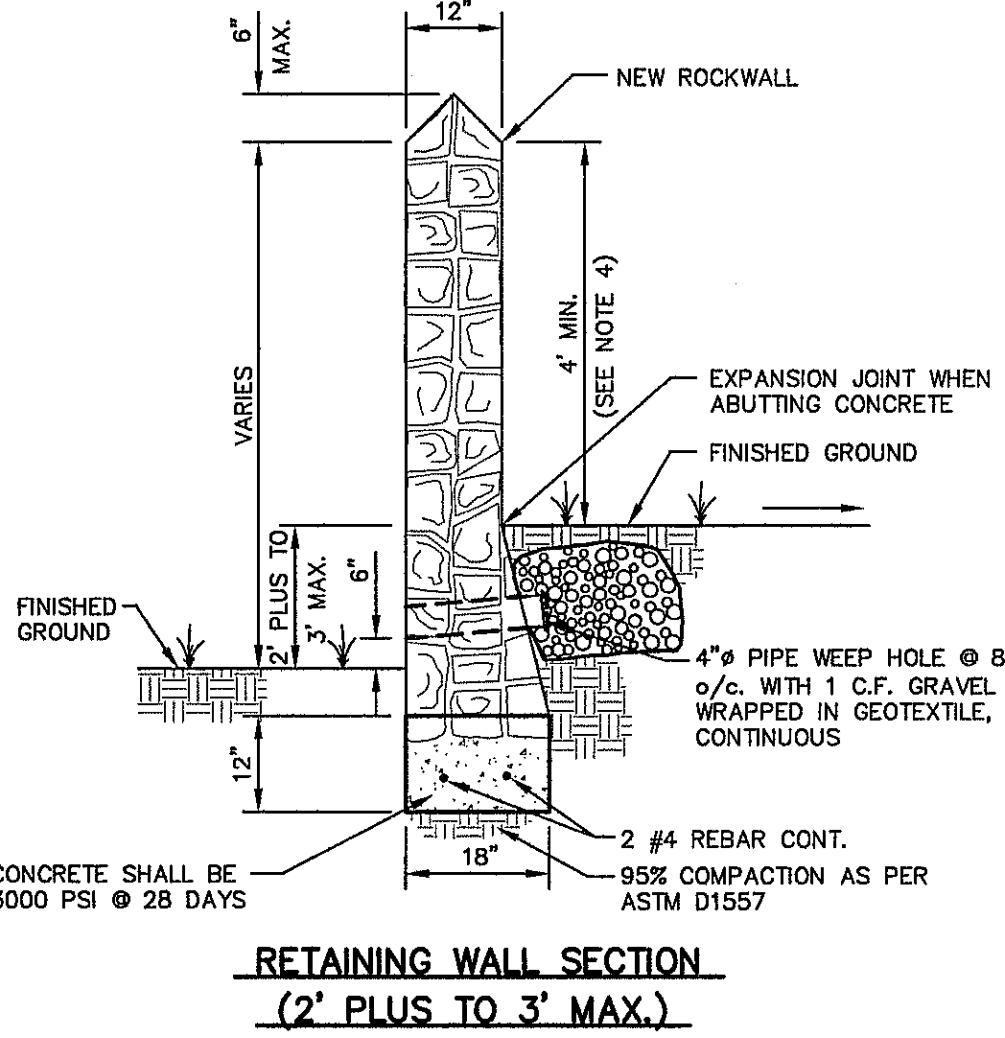
CONCRETE APRON FOR CIRCULAR PENETRATIONS IN ASPHALT PAVEMENTS				
"D" DIAMETER OF PENETRATION (INCHES)	"A" CONCRETE HORIZONTAL DIMENSION FROM PENETRATION (INCHES)	NUMBER OF NO. 3 REINFORCING STEEL BARS (INCHES)	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE APRON TO CENTER OF NEAREST REBAR (INCHES)	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR (INCHES)
0 TO 6.01	6	1	1 1/2	1 1/2
6.01 TO 18.01	8	2	1 1/2	1 1/2
18.01 AND OVER	12	3	1 1/2	1 1/2

1 PENETRATION APRON DETAILS SCALE: N.T.S.



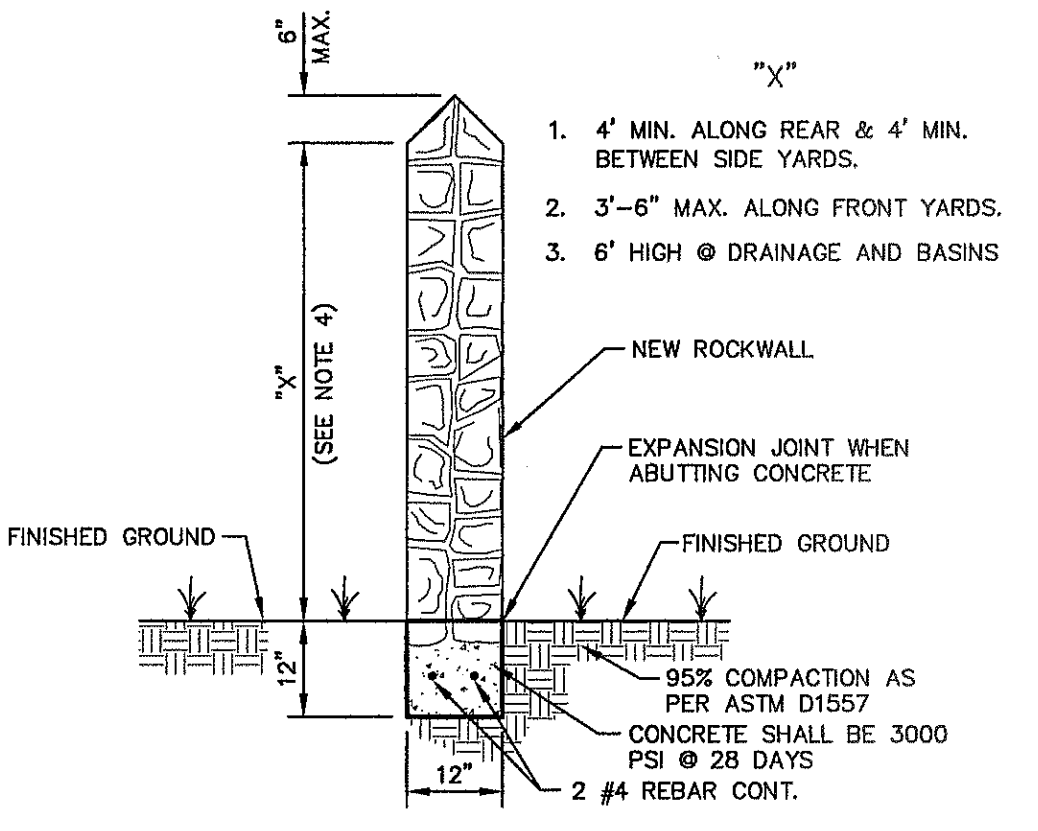
RETAINING WALL SECTION (3' MIN. TO 9' MAX.)

RETAINING ROCK WALL	
"A"	"B"
3.01'	2'-6"
4'	2'-10"
5'	3'-3"
6'	3'-8"
7'	4'-0"
8'	4'-5"
9'	4'-10"

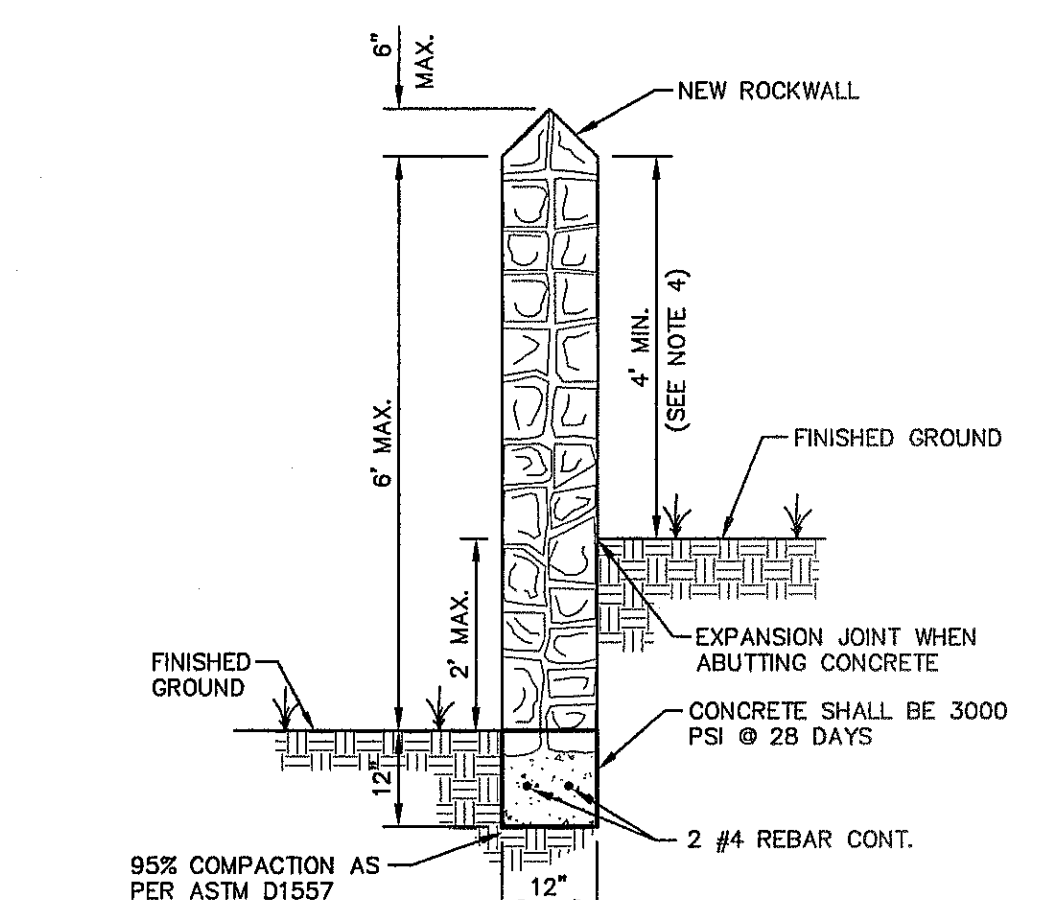


RETAINING WALL SECTION (2' PLUS TO 3' MAX.)

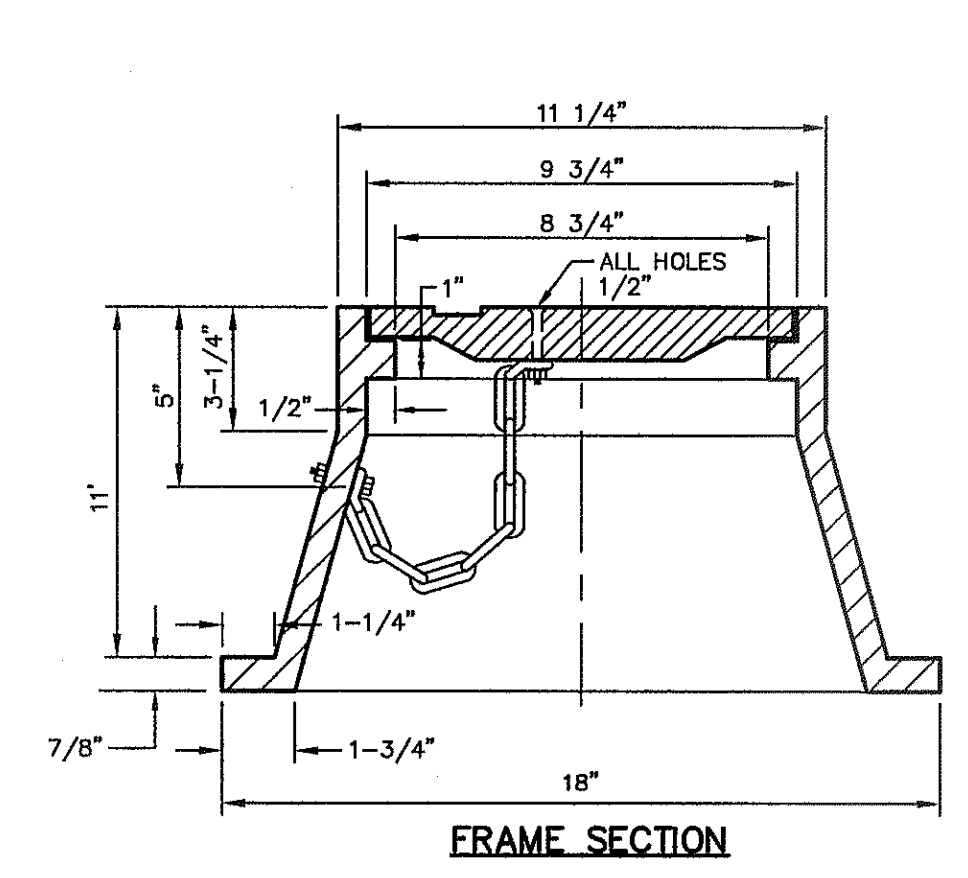
3 TYPICAL ROCKWALL DETAILS SCALE: 1/2" = 1'-0"



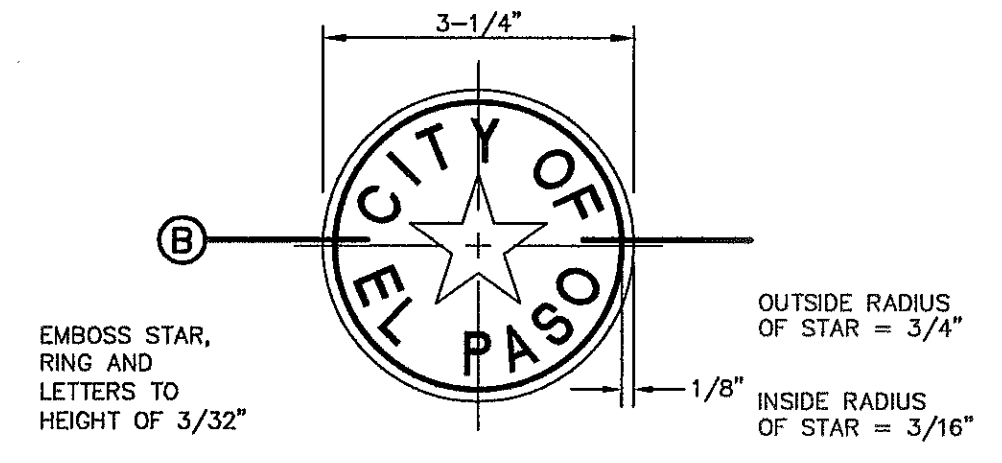
GARDEN WALL SECTION



GARDEN WALL SECTION (2' MAX.)

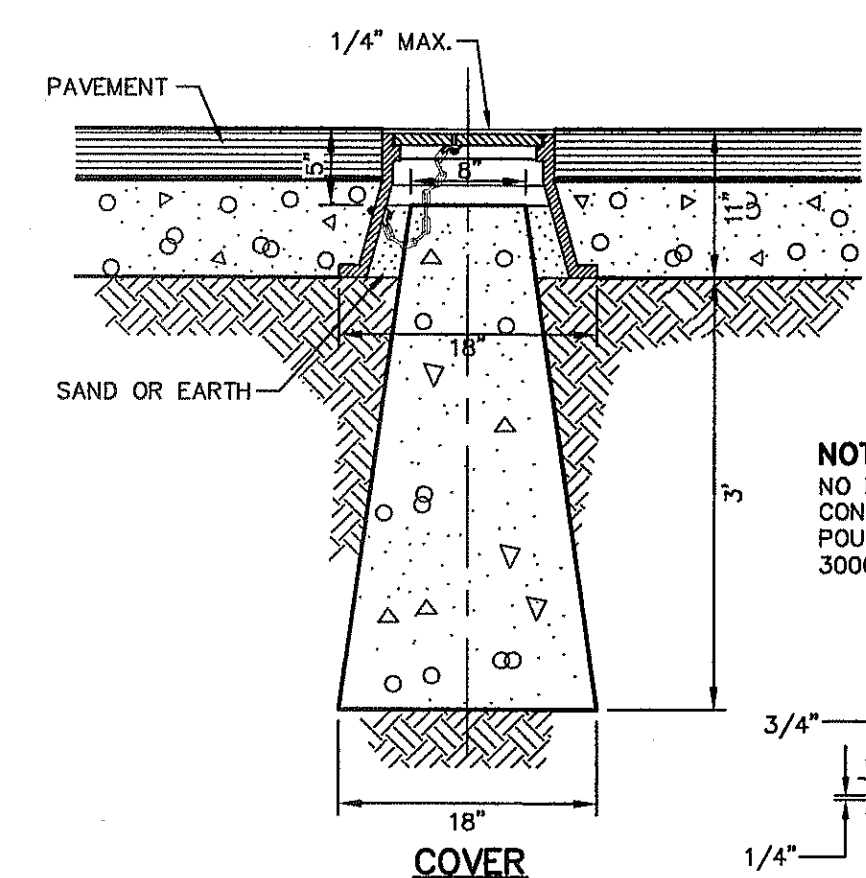


FRAME SECTION

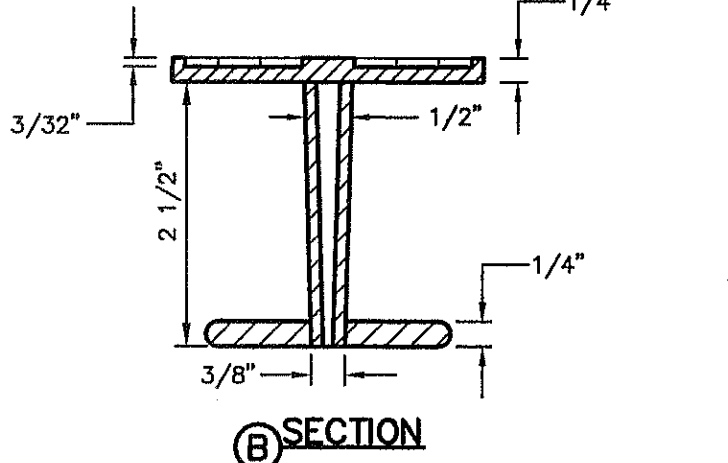


BRONZE MONUMENT CAP

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



COVER



COVER

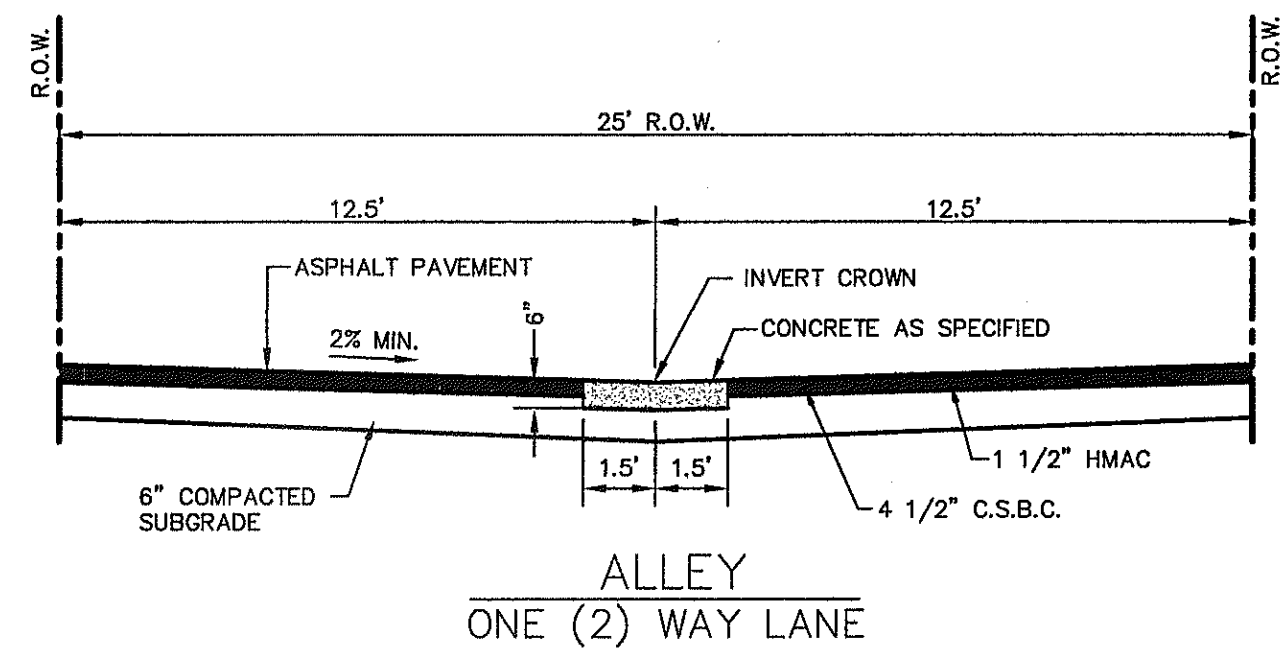
NOTE: NO FORMS REQUIRED. CONCRETE TO BE POURED IN PLACE 3000 P.S.I. CONC.

**PROPOSED MONUMENT LOCATIONS**

- MONUMENTS SHALL BE INSTALLED SO THAT ALL FRONT PROPERTY CORNERS OF ALL LOTS IN THE SUBDIVISION ARE WITHIN LINE OF SIGHT OF A MONUMENT, OR WITHIN SIGHT OF THE LINE BETWEEN TWO ADJACENT MONUMENTS.
- EACH MONUMENT SHALL BE WITHIN LINE OF SIGHT OF ANOTHER MONUMENT.
- MONUMENTS SHALL BE NO FARTHER THAN 2000 FEET APART.
- AT LEAST ONE (1) MONUMENT SHALL BE PLACED ON EACH HORIZONTAL CURVE (PI) OF THE TANGENTS LEADING INTO THE CURVE FALLS OUTSIDE THE CURB LINE.
- NO FEWER THAN TWO MONUMENTS SHALL BE PLACED IN ONE (1) STREET SUBDIVISIONS.

**ROCK WALL NOTES**

1. STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTIONS AS IN PRACTICABLE THE STONE SHALL BE DENSE AND RESISTANT OF AIR AND WATER.
2. MORTAR MUST BE TYPE "S" 1800 P.S.I. AS PER ASTM C270
3. MASONRY WALL OVER SIX (6) FEET IN HEIGHT AND THOSE USED FOR EARTH RETENTION OVER TWO (2) FEET MUST BE DESIGNED AS STRUCTURAL WALLS.
4. 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.
5. ROCKWALL MORTAR JOINTS MUST NOT EXCEED TWO (2) INCHES
6. PROVIDE ONE (1) INCH EXPANSION JOINTS AT EVERY 100 FEET
7. ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED
8. ALL STONE FOR ROCKWALLS SHALL BE FRACTURED QUARRIED ROCK OR ROUND ROCK, NO RIVER ROCK SHALL BE ALLOWED.
9. REINFORCING STEEL SHALL BE ASTM A615 GRADE 40.
10. ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSI (MINIMUM)
11. BACKFILL MATERIALS SHALL CONSIST OF COARSE GRAINED, WELL-DRAINED SOILS (WITH NO CLAY CONTENT).
12. ALL THE RETAINING WALLS OVER 4' IN DEPTH SHALL BE BUILT BY DEVELOPER, REMAINING ROCKWALL TO BE BUILT BY BUILDER.



ALLEY ONE (2) WAY LANE

- NOTES:
1. ONE (1)-THREE FOOT CONCRETE VALLEY GUTTER LOCATED AT THE CENTERLINE OF THE RIGHT-OF-WAY WHEN THE LONGITUDINAL SLOPE OF THE ALLEY IS LESS THAN ONE (1) PERCENT, AND DRAINAGE IS TO BE CARRIED WITHIN THE ALLEY.
  2. NO CONCRETE VALLEY GUTTER REQUIRED WHEN LONGITUDINAL SLOPE OF THE ALLEY IS EQUAL OR GREATER THAN ONE (1) PERCENT.

4 ALLEY CROSS-SECTIONS AND DETAILS SCALE: N.T.S.

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. STATION 43+37.50 A DISTANCE OF 467.50 FEET FROM MONUMENT TO POINT OF CURVE. MONUMENT AVENUE CITY DATUM. ELEVATION: 4008.40

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ENGINEER'S SEAL  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.G.  
APP. VD. BY: J.L.A.  
JOB No. 2000-197-LD

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

PROJECT TITLE  
TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS

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

C7.3



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

**WARNING I BEFORE YOU DIG**

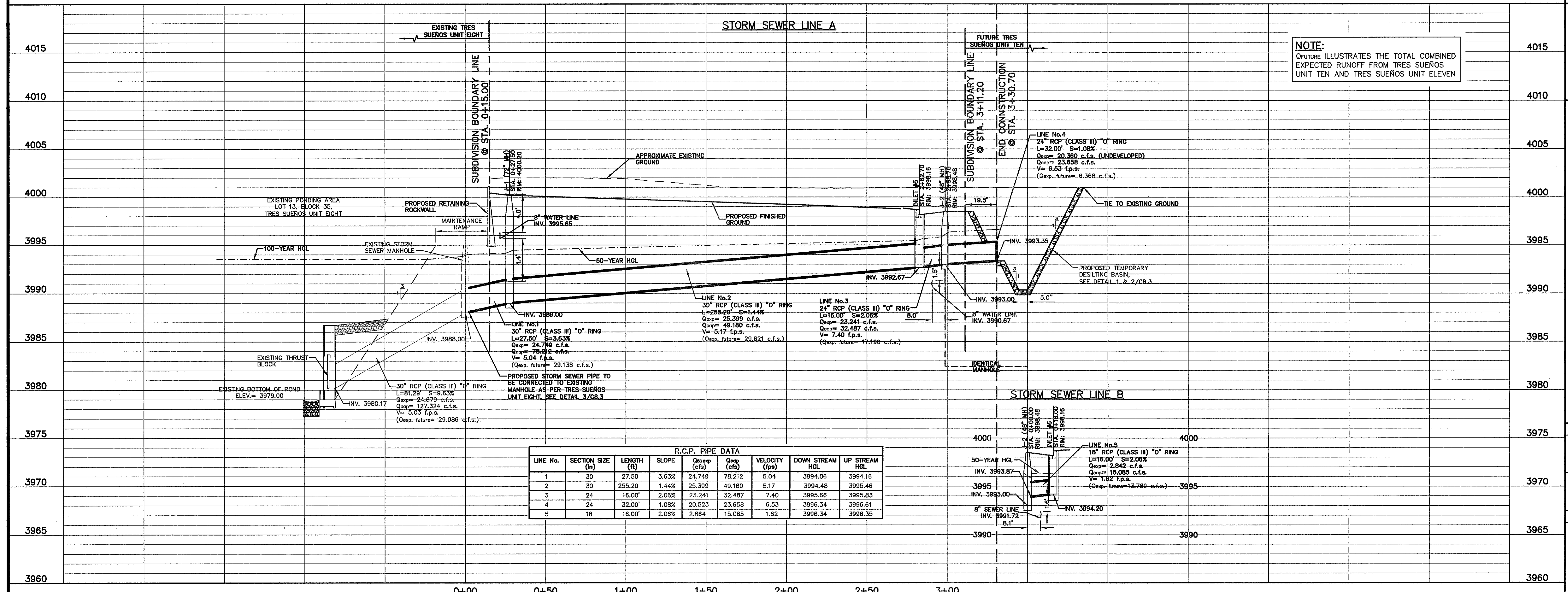
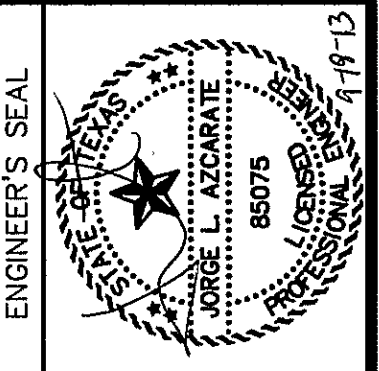
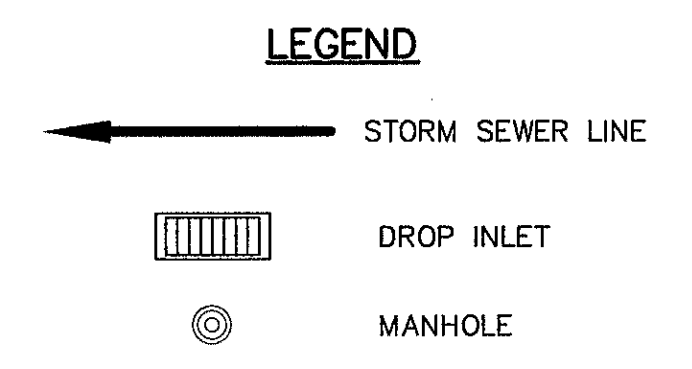
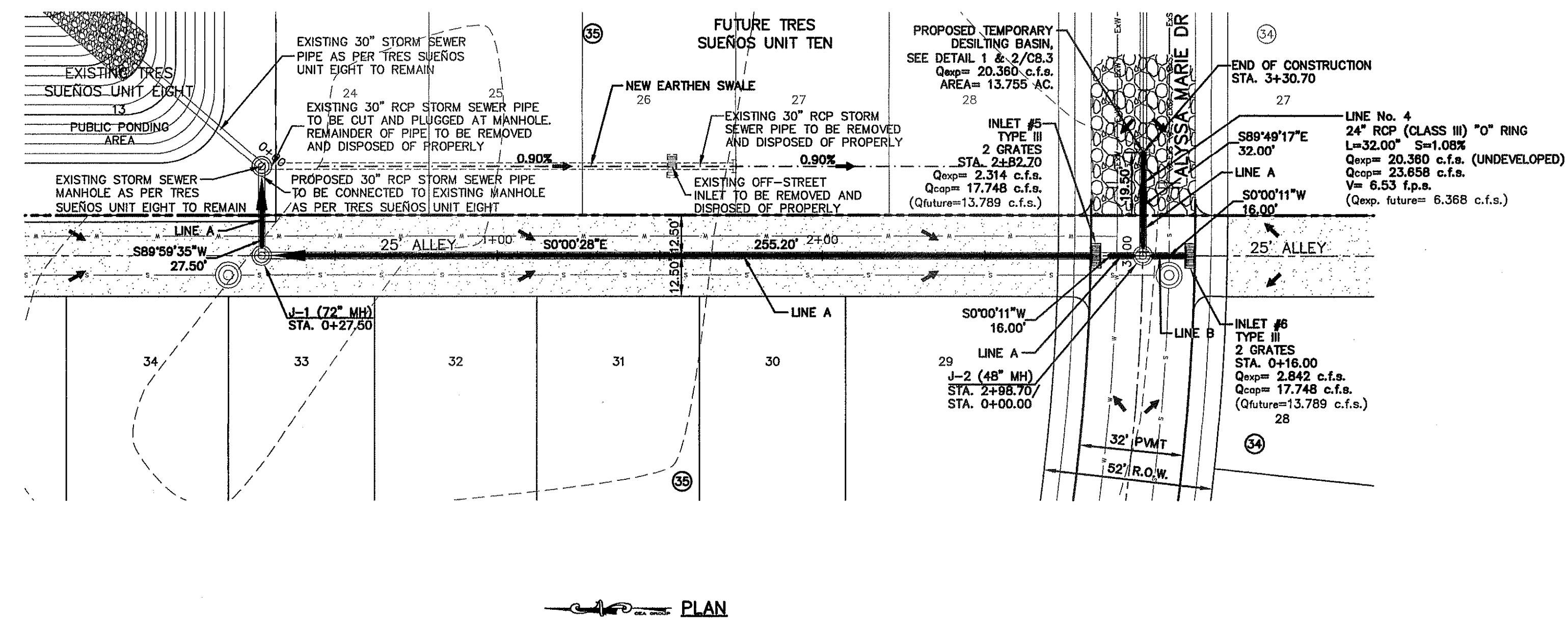
CALL  
1-800-DIG-TESS  
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. SUBSTATION A DISTANCE OF 467.99 FEET FROM STA. 0+00.00. ELEVATION: 4008.40  
AVENUE, CITY DATUM. ELEVATION: 4008.40

**CSA**  
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4712 Woodrow Bean, Ste. F, El Paso, TX 79924  
Office: 915.544.8322 Fax: 915.544.5203 www.csa-engineers.com



R.C.P. PIPE DATA									
LINE No.	SECTION SIZE (in)	LENGTH (ft)	SLOPE	Q <sub>exp</sub> (cfs)	Q <sub>exp</sub> (cfs)	VELOCITY (fps)	DOWN STREAM HGL	UP STREAM HGL	
1	30	27.50	3.63%	24,749	78,212	5.04	3994.06	3994.16	
2	30	255.20	1.44%	25,399	49,180	5.17	3994.48	3995.46	
3	24	16.00	2.06%	23,241	32,487	7.40	3995.66	3995.83	
4	24	32.00	1.08%	20,523	23,658	6.53	3996.34	3996.61	
5	18	16.00	2.06%	2,864	15,085	1.82	3996.34	3996.35	

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

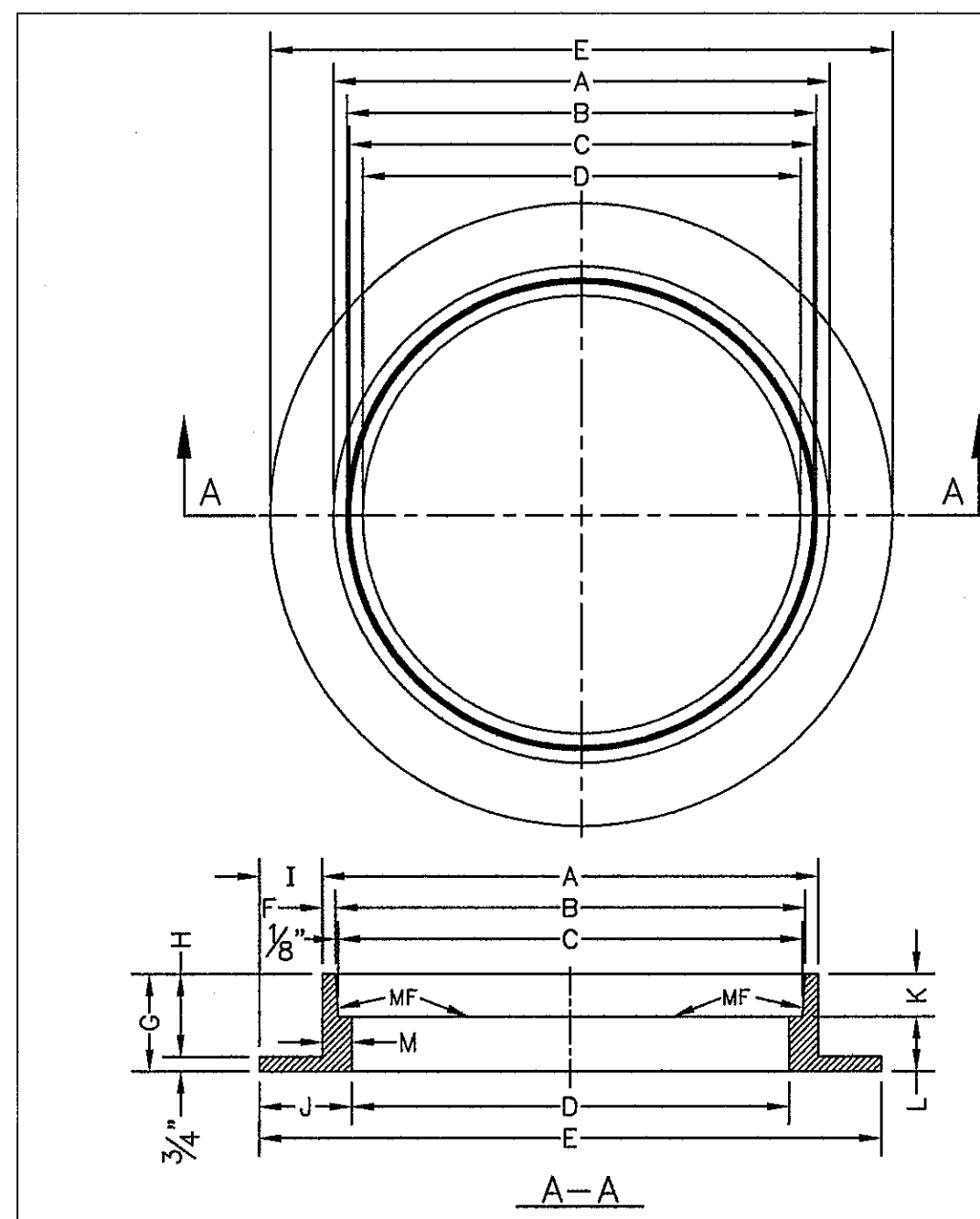
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.L.A.  
APP'D. BY: J.L.A.  
JOB No. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**LINE A STORM SEWER PLAN & PROFILE FROM STA. 0+00.00 TO STA. 3+30.70**  
**LINE B STORM SEWER PLAN & PROFILE FROM STA. 0+00.00 TO STA. 0+16.00**

SHEET NO.  
**C8.1**

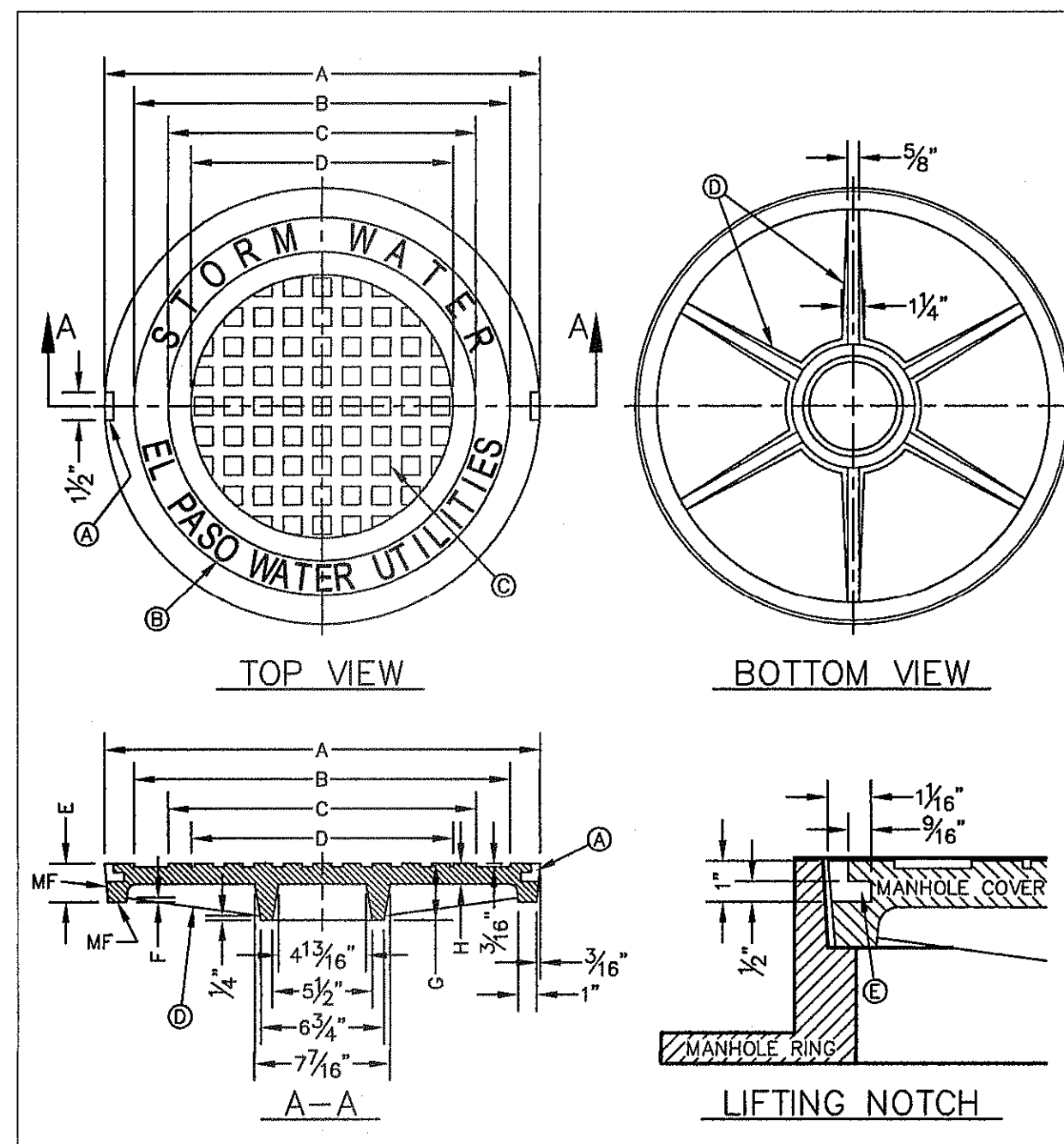




- GENERAL NOTES:**
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED TO ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
  2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.
  3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
  4. AS-CAST DIMENSIONS MAY VARY 1/8" ± PER FOOT (AASHTO M306-07).
  5. WEIGHT MAY VARY 5% (AASHTO M306-07).
  6. SHAPED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, DETAIL 2-16.

MANHOLE RING	MANHOLE - ALL TYPES	MANHOLE TYPE 48"	MANHOLE TYPE 72"
A	33"	25 1/2"	32 1/2"
B	31 1/2"	23 3/8"	31 3/8"
C	31 1/2"	23 3/8"	31 3/8"
D	30"	22 1/2"	30"
E	39 1/2"	34 1/2"	42"
F	5 1/8"	1 7/8"	1 7/8"
G	5"	6"	6"
H	4 1/4"	5 1/4"	5 1/4"
I	3 1/2"	4 1/2"	4 1/2"
J	4 1/4"	6"	6"
K	2 3/8"	3 3/8"	3 3/8"
L	2 1/4"	2 1/4"	2 1/4"
M	1 1/2"	1 1/8"	1 1/8"
WEIGHT	220 lbs.	165 lbs.	225 lbs.

STANDARD DETAIL DATE: 8/19/2009 REV: STORMWATER MANHOLE RING N.T.S. EL PASO WATER UTILITIES PUBLIC UTILITIES BOARD DETAIL No. 916



- GENERAL NOTES:**
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED TO ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
  2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.
  3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
  4. AS-CAST DIMENSIONS MAY VARY 1/8" ± PER FOOT (AASHTO M306-07).
  5. WEIGHT MAY VARY 5% (AASHTO M306-07).
  6. SHAPED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, DETAIL 2-17.

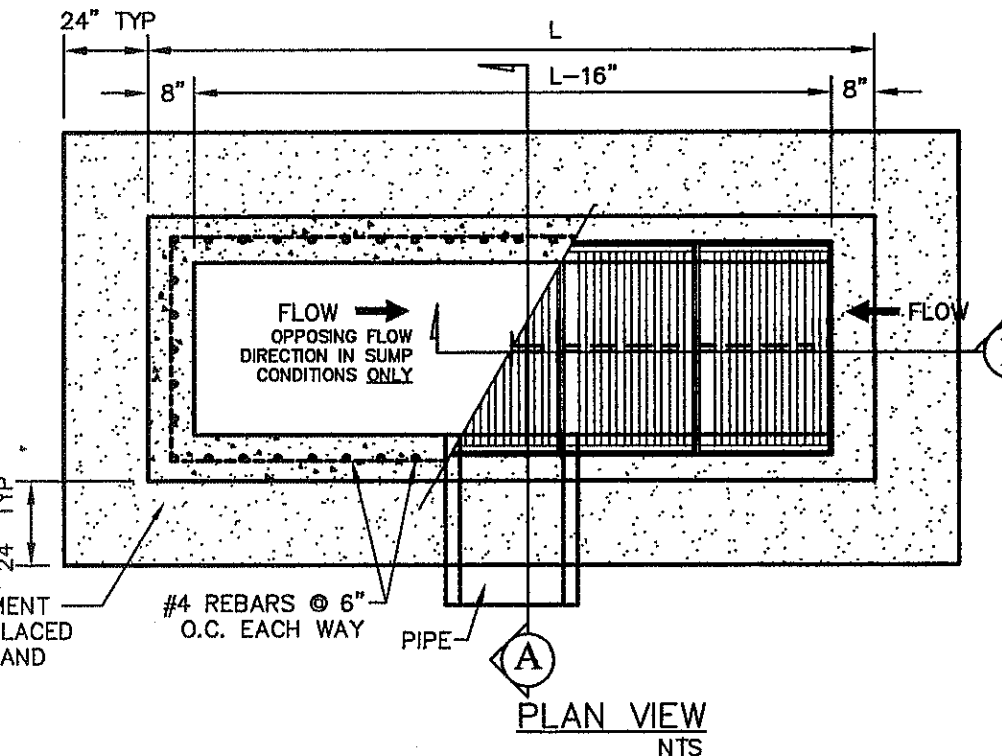
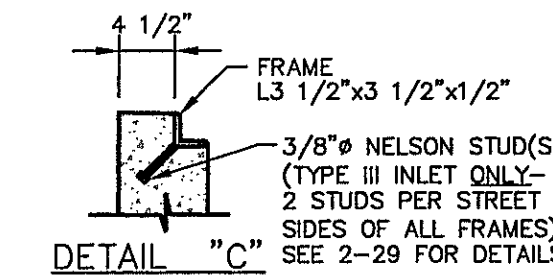
MANHOLE COVER	MANHOLE - ALL TYPES	MANHOLE TYPE 48"	MANHOLE TYPE 72"
A	31 3/8"	23 3/8"	31 3/8"
B	28 3/8"	20 3/8"	28 3/8"
C	24 3/8"	16 3/8"	24 3/8"
D	21 7/8"	14 3/8"	21 7/8"
E	2 1/8"	3"	3"
F	1 1/4"	1 1/4"	1 1/4"
G	3 1/8"	3"	3"
H	1 1/8"	1"	1"
WEIGHT	265 lbs.	175 lbs.	310 lbs.

STANDARD DETAIL DATE: 8/19/2009 REV: STORMWATER MANHOLE COVER N.T.S. EL PASO WATER UTILITIES PUBLIC UTILITIES BOARD DETAIL No. 917

ALL SUBSTITUTIONS OF STRUCTURAL STEEL BEAMS AND CHANNELS FOR DROP INLETS MUST BE SUBMITTED FOR REVIEW AND INCLUDE SECTION MODULUS AND DEFLECTION CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS.

NUMBER OF GRATES	L'
2	5'-2 1/4"
3	7'-1 7/8"
4	9'-1 1/2"
5	11'-1 1/8"

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

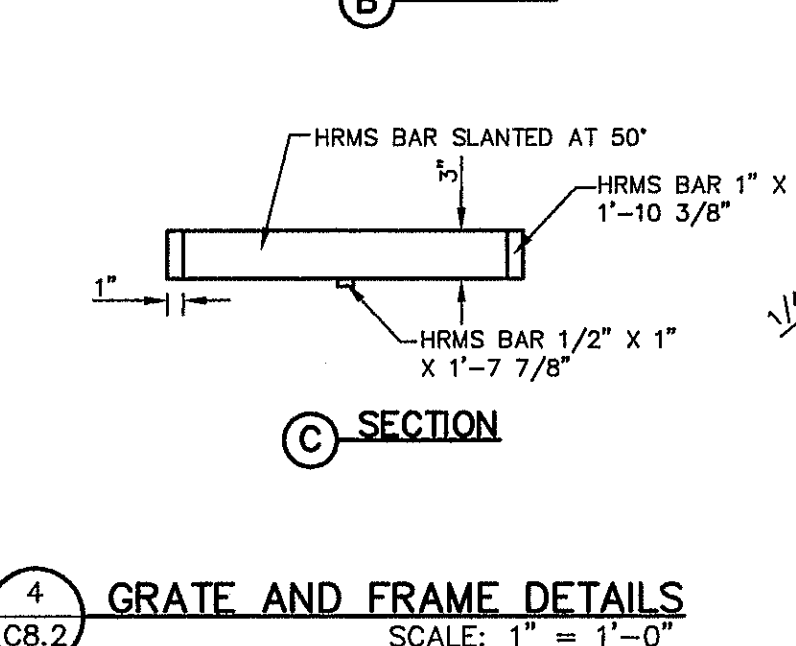
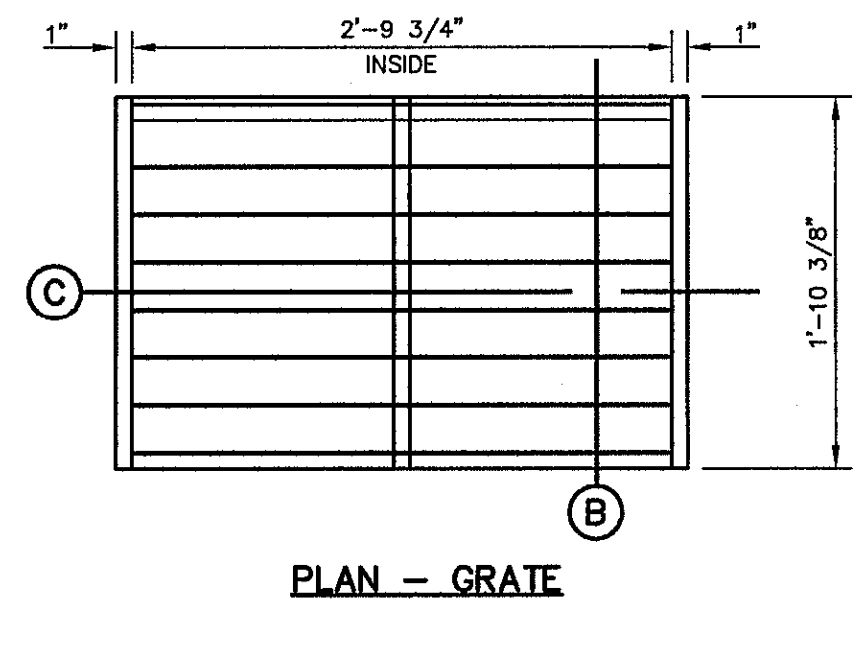
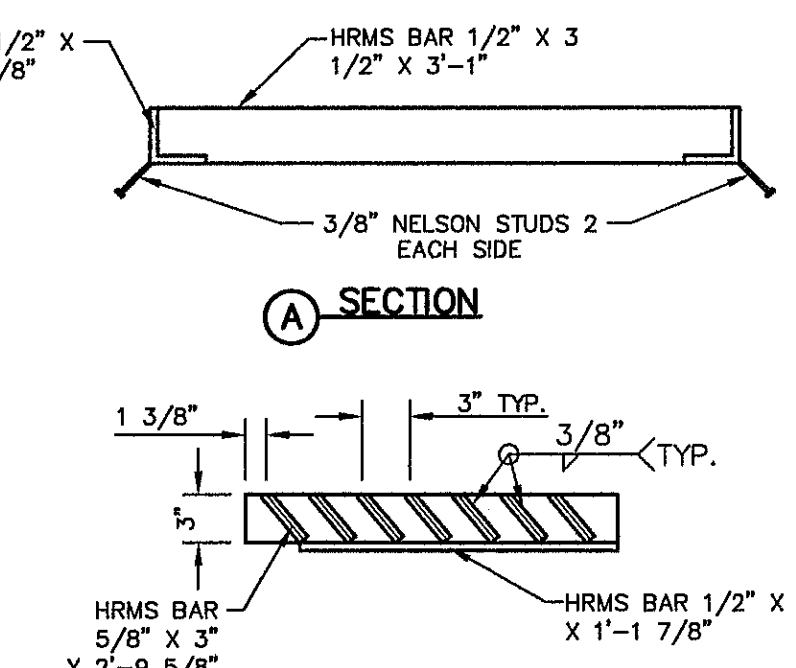
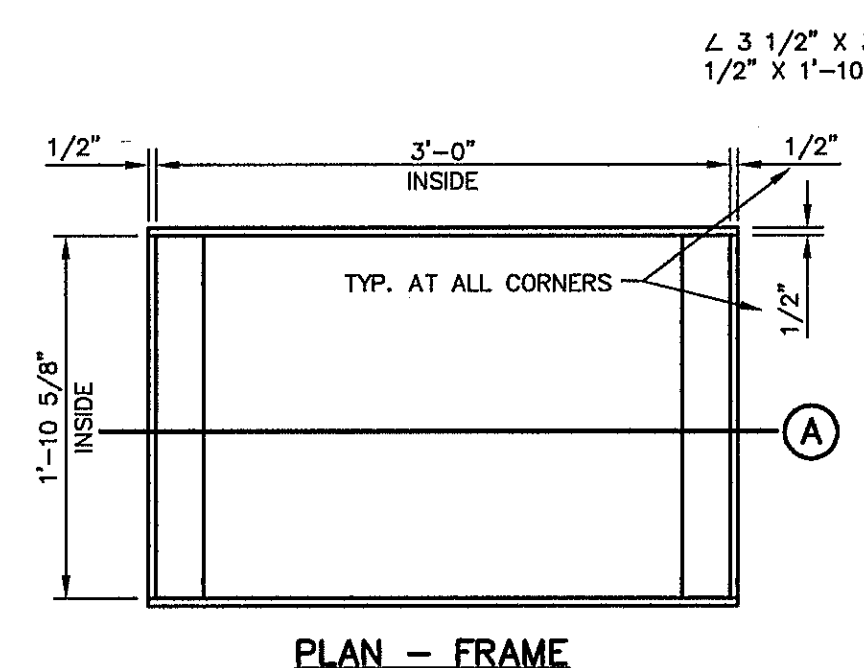


18" THICK (MIN.) 2-SACK CEMENT STABILIZED BACKFILL TO BE PLACED UNDER PROPOSED PAVEMENT AND CURB & GUTTER.

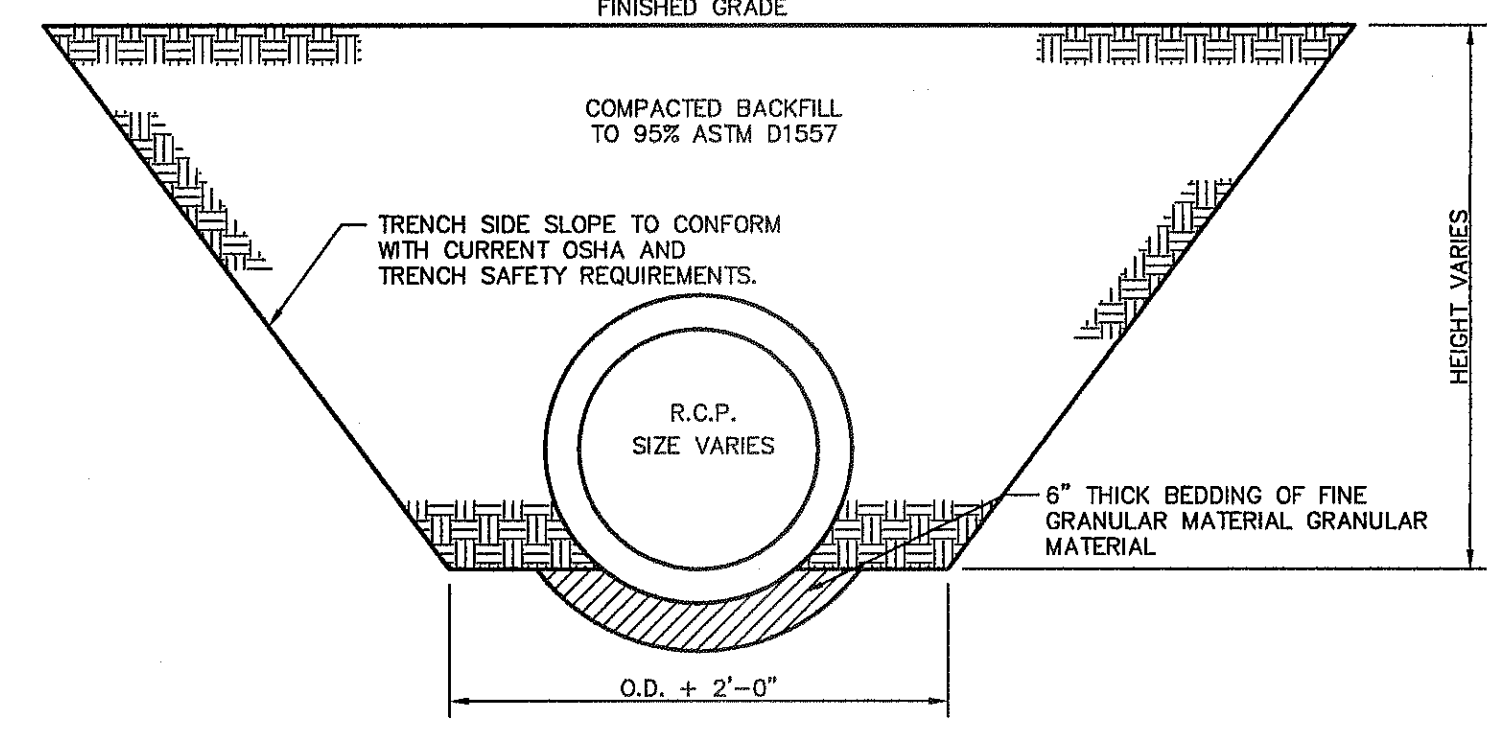
18" THICK (MIN.) 2-SACK CEMENT STABILIZED BACKFILL TO BE PLACED UNDER PROPOSED PAVEMENT AND CURB & GUTTER.

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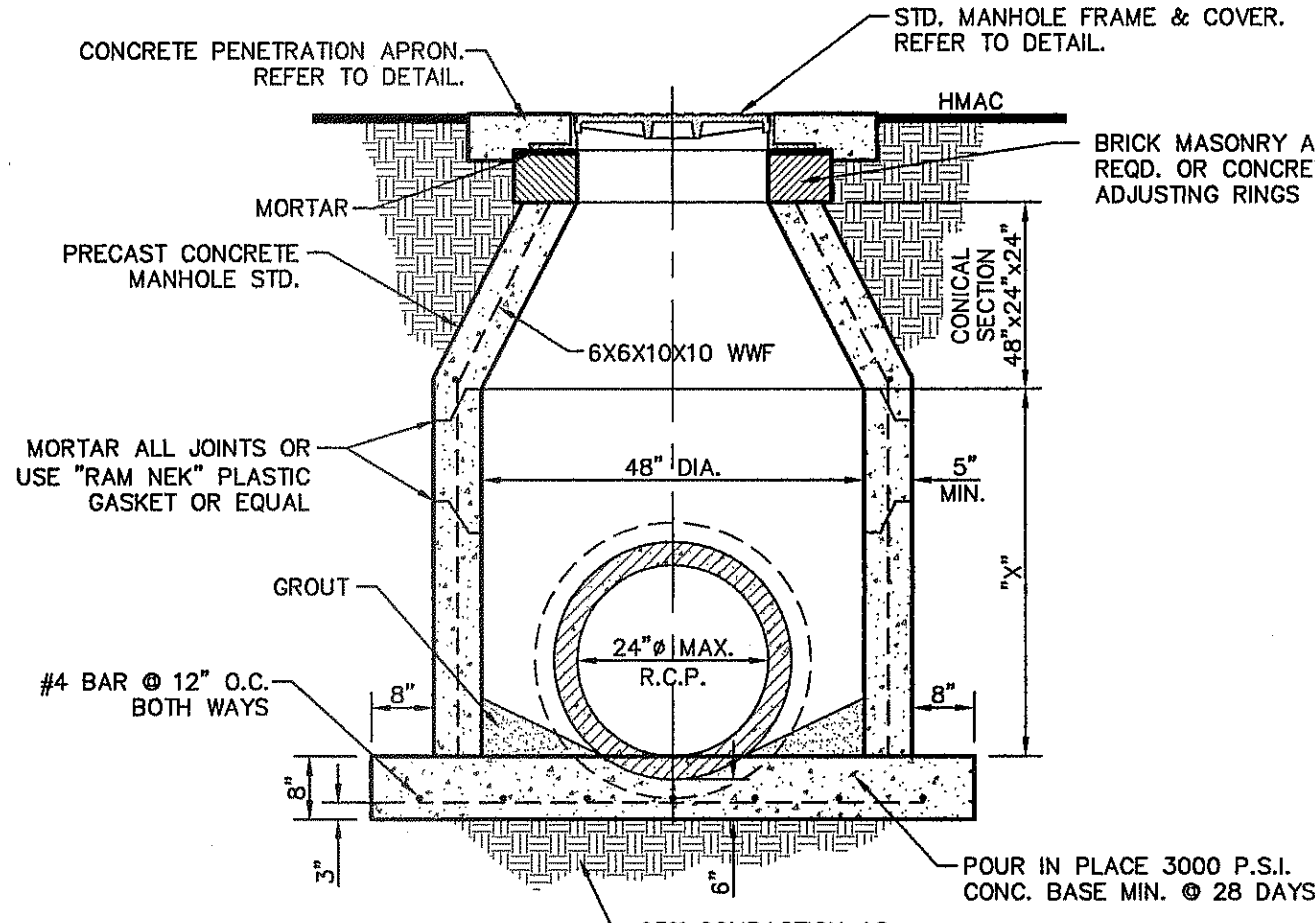
3 DROP INLET TYPE III DETAILS SCALE: N.T.S.



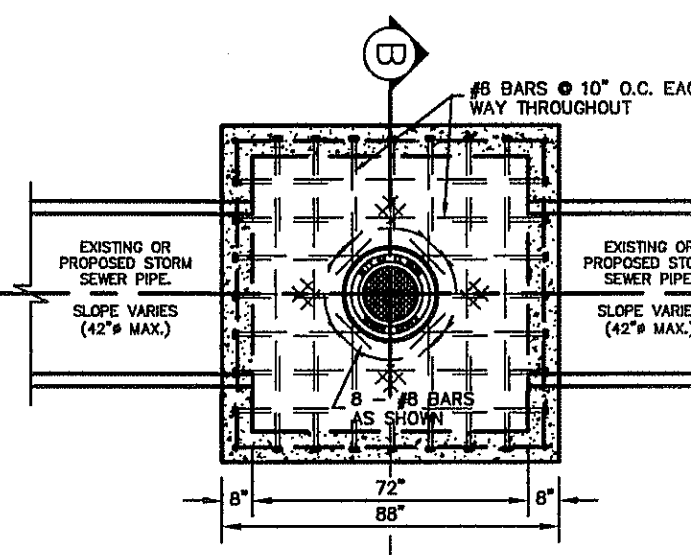
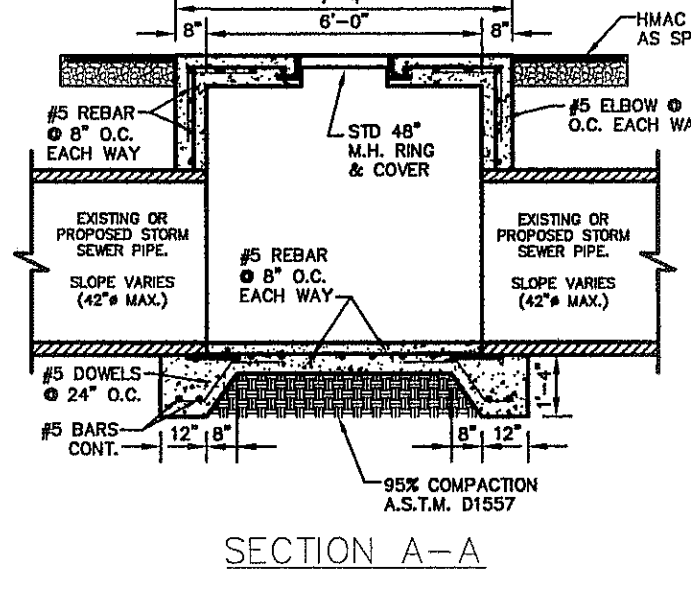
4 GRATE AND FRAME DETAILS SCALE: 1" = 1'-0"



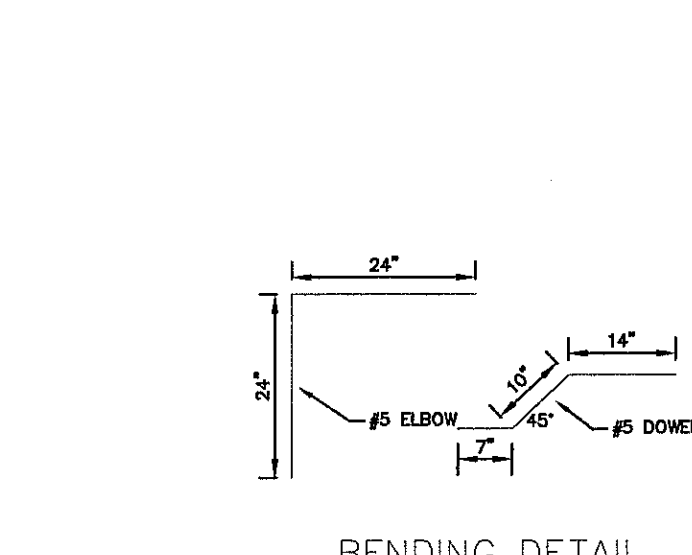
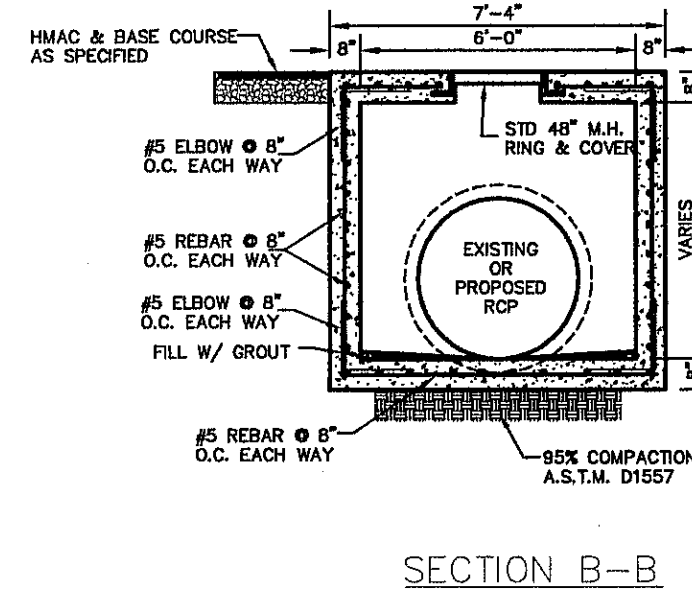
5 STORM SEWER BEDDING DETAIL SCALE: 1" = 2'-0"



6 48" STANDARD MANHOLE DETAIL SCALE: N.T.S.



72" DIAMETER CAST-IN-PLACE STANDARD MANHOLE



7 72" DIAMETER CAST-IN-PLACE MANHOLE 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 SLUMP.
  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 DIFFERENTIAL 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 CONCRETE 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 T.DOT ITEM 446 "PAINT AND PAINTING".
  15. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM TO 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. EACH WAY. 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"x84" 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.

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEN BLVD. STATION 43+37.16 A DISTANCE OF 497.99 FEET FROM THE MONUMENT TO THE CENTERLINE OF THE MONUMENT. ELEVATION: 4005.40

engineers • architects • planners  
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4712 Woodrow Bldg. Ste. F El Paso, TX 79924  
Office: 915.544.5232 Fax: 915.544.5203 www.coburn.com

ENGINEER'S SEAL  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.L.A.  
APPVD. BY: J.L.A.  
JOB No. 2000-157-LD

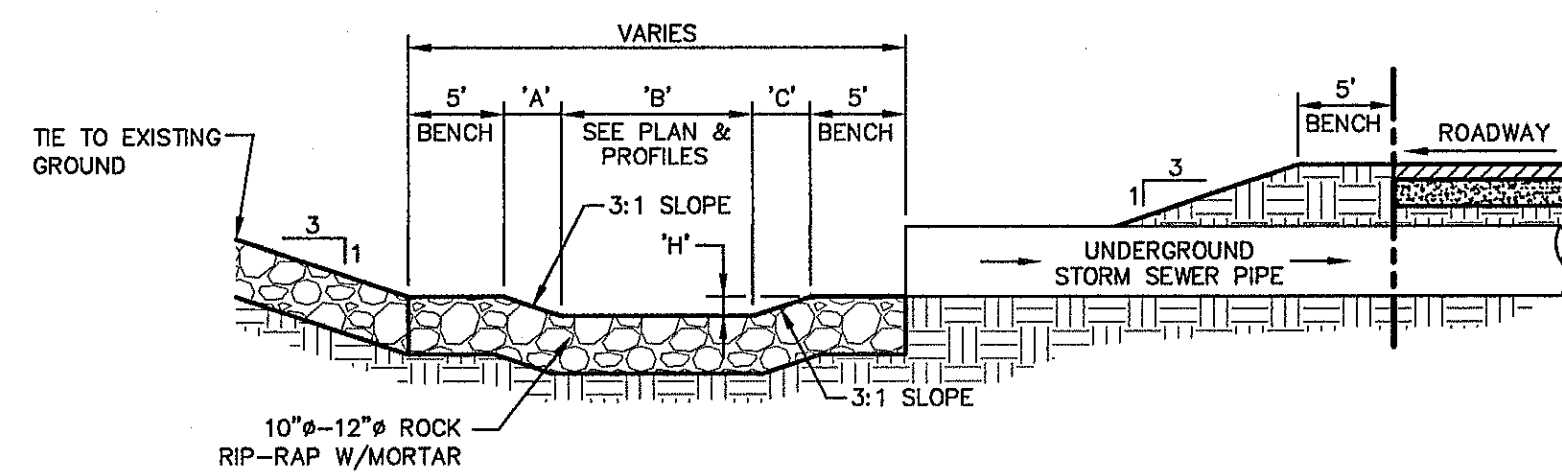
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Vertical: N/A  
Contour Interval: N/A

PROJECT TITLE  
TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
DRAINAGE  
DETAILS  
SHEET NO.

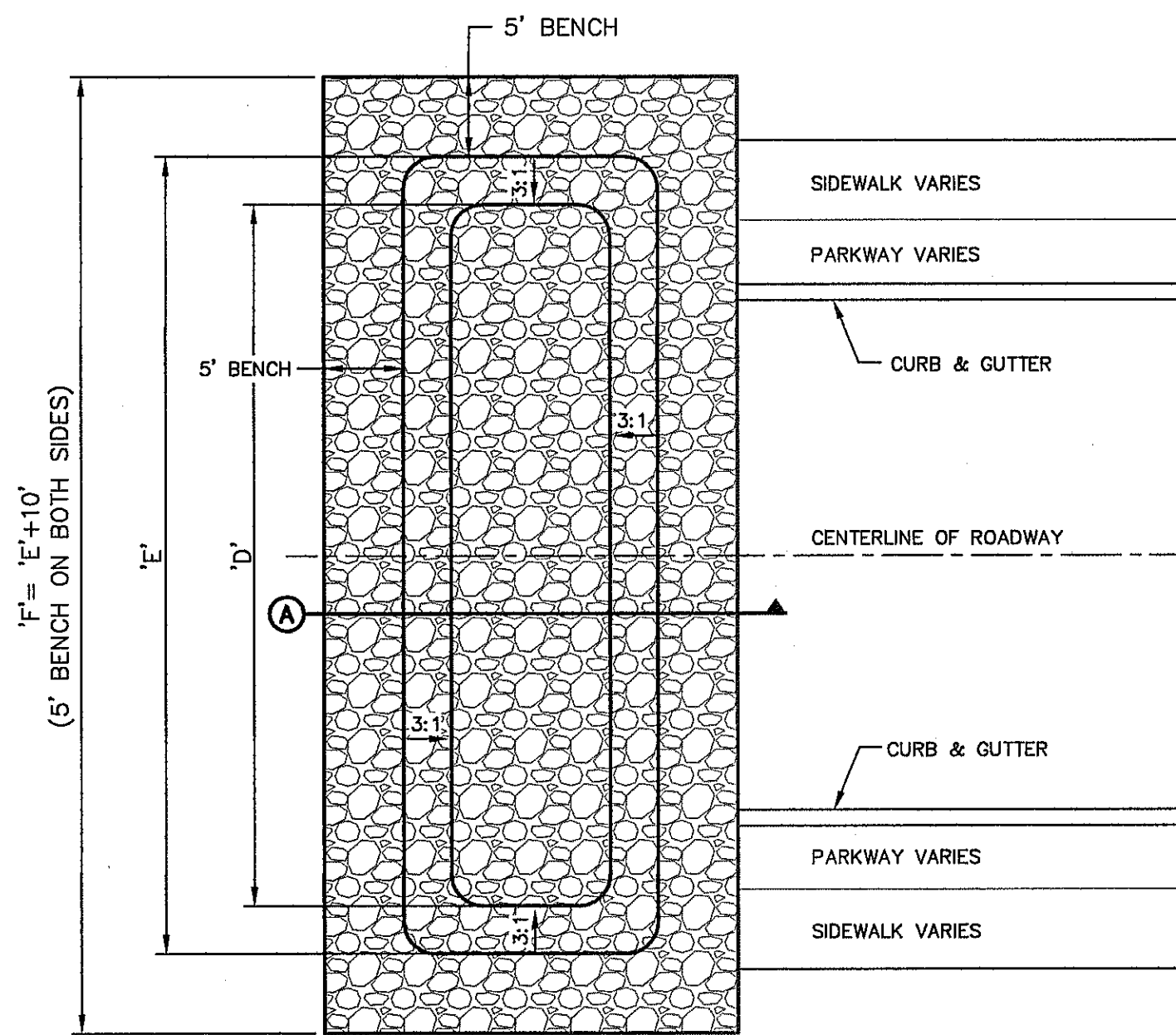
C8.2



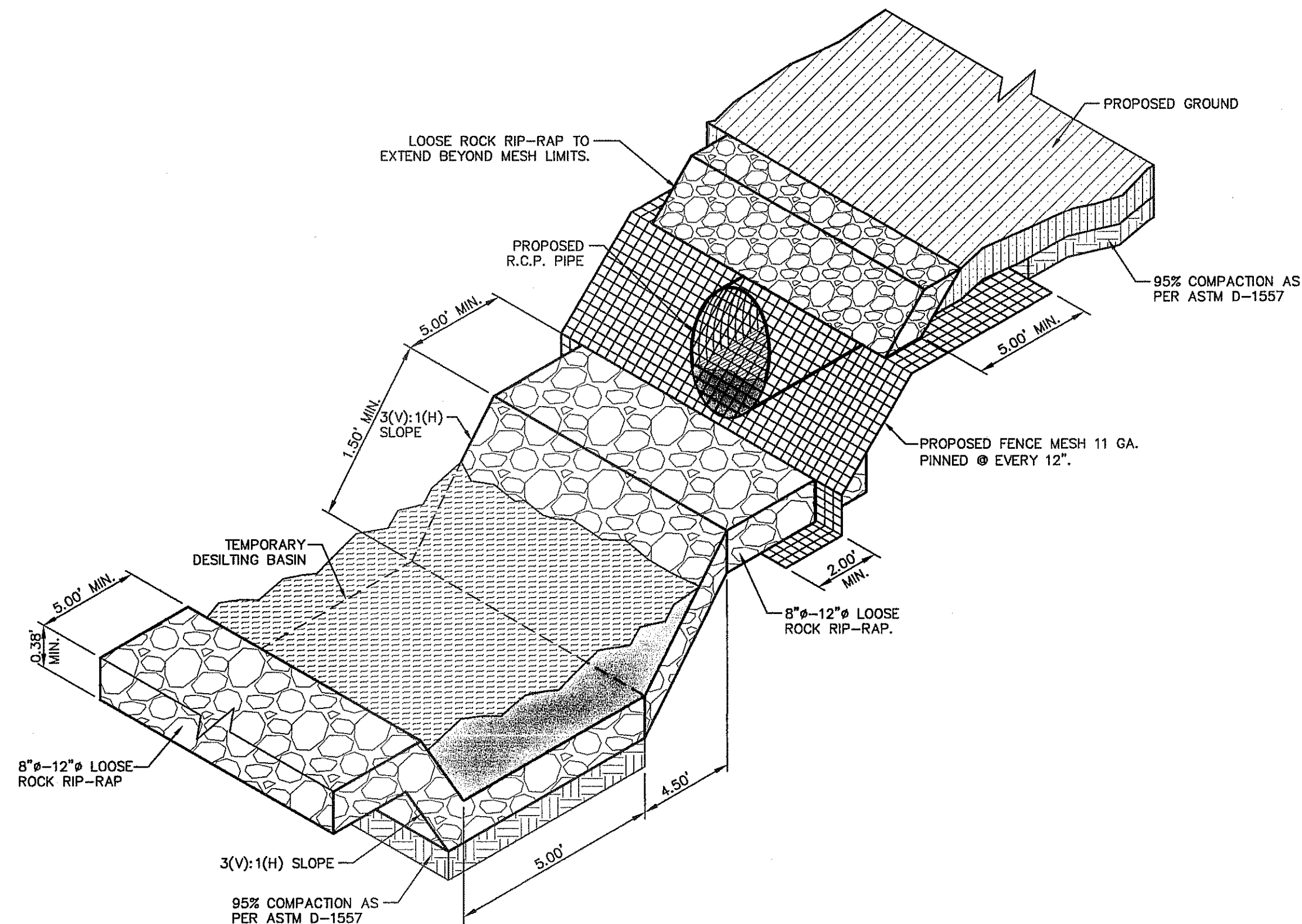


SECTION A-A

DESILTING BASIN No.	'A'	'B'	'C'	'D'	'E'	'F'	'H'
1	9.00'	5.00'	9.00'	10.00'	28.00'	38.00'	3.00'



1 TEMPORARY DESILTING BASIN DETAIL  
SCALE: N.T.S.



2 STORM PIPE MESH DETAIL  
SCALE: N.T.S.

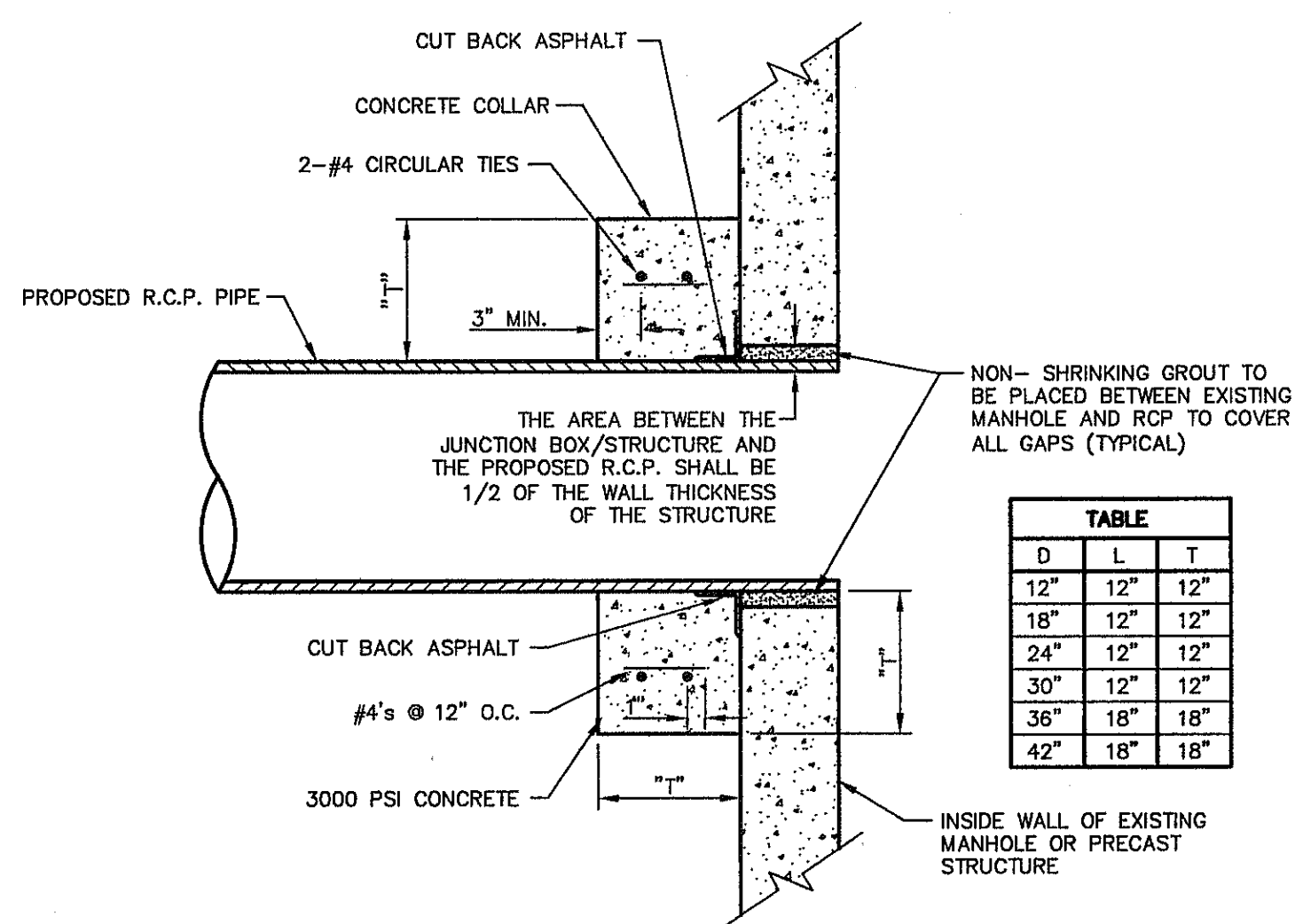
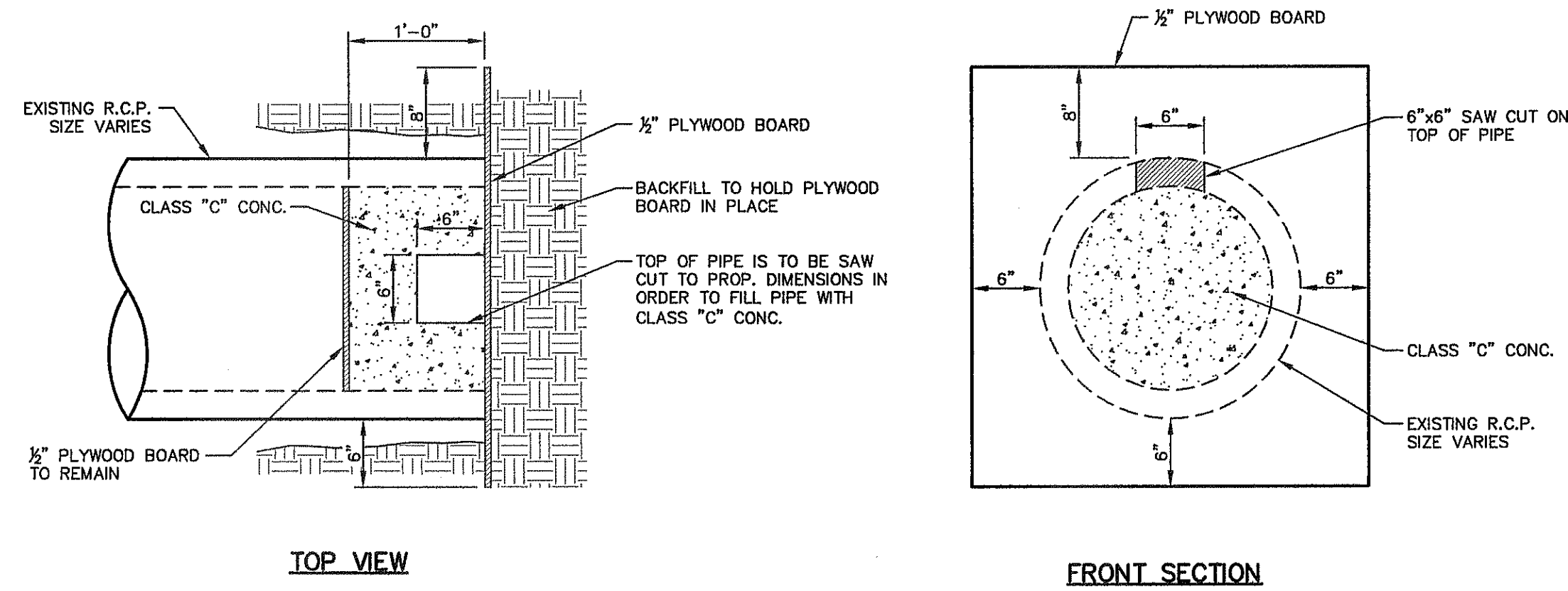


TABLE		
D	L	T
12"	12"	12"
18"	12"	12"
24"	12"	12"
30"	12"	12"
36"	18"	18"
42"	18"	18"

3 PIPE TO MANHOLE CONNECTION DETAIL  
SCALE: 1" = 2'-0"



4 CONCRETE PLUG DETAIL  
SCALE: N.T.S.

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH FROM END OF CURVE DISTANCE OF 677.98 FEET FROM END OF CURVE TO BENCH MARK ELEVATION 4005.40 AVENUE CITY DATUM. ELEVATION 4005.40

DATE	REVISIONS	BY

**ca**  
engineers • architects • planners  
TEXAS REGISTERED ENGINEERING FIRM F-4584  
4712 Woodrow Blvd., Ste. F El Paso, TX 79924  
Office: 915.544.5222 Fax: 915.544.5233 www.caegroup.net

ENGINEER'S SEAL

SCALE: N/A

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

DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.G.  
APPVD. BY: J.G.  
JOB No. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

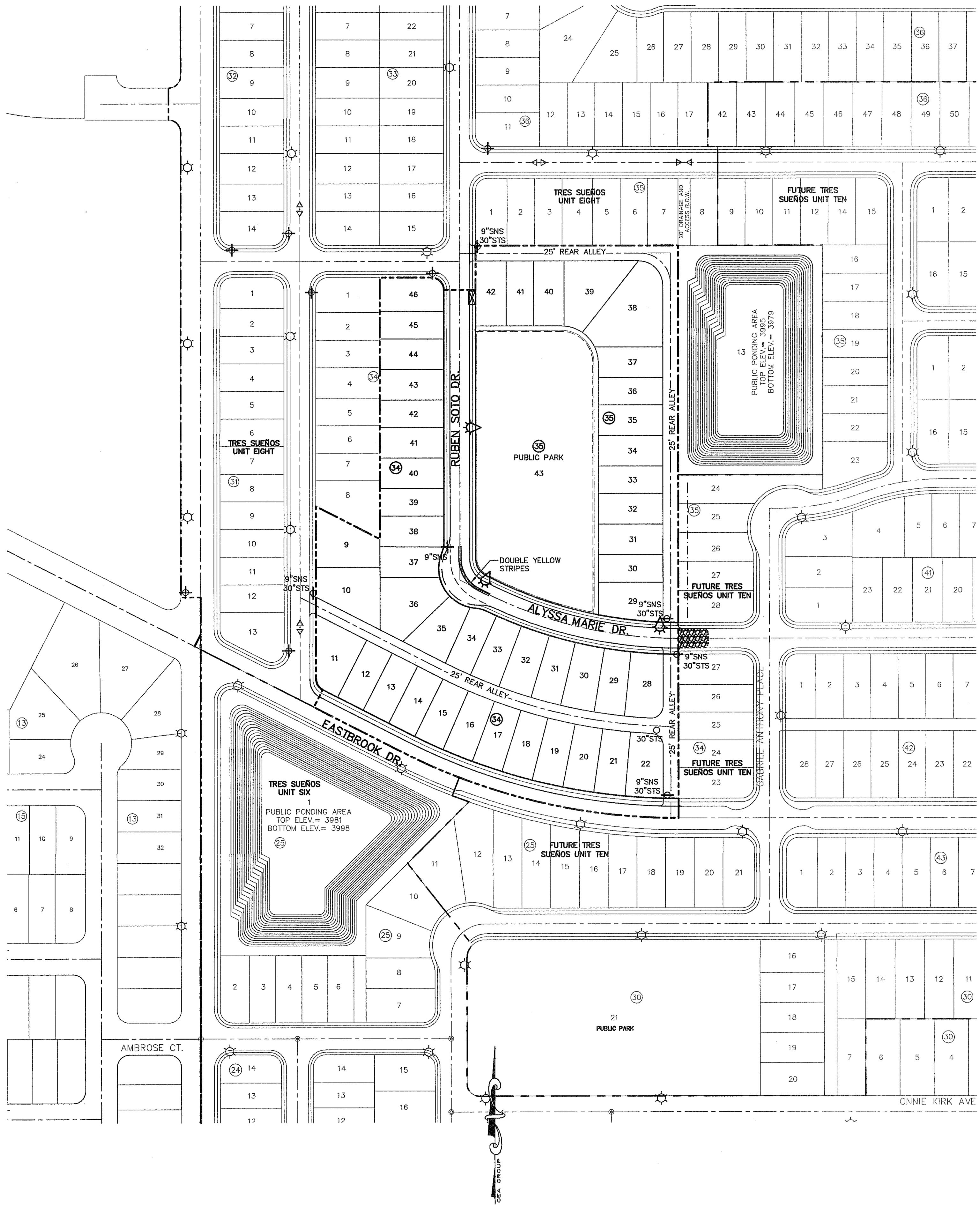
SHEET TITLE  
**DRAINAGE  
DETAILS**

SHEET NO.

**C8.3**



3 RESIDENTIAL STREET LIGHTS



ILLUMINATION AND SIGNAGE PLAN

SCALE: 1" = 100'

KEYED NOTES:

1. MOUNT SO THAT CONTROL FACES NORTH
2. ITEM 17 SHALL NOT BE SPLICED INSIDE ITEM 14

DESIGN NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL LOCAL CODE REQUIREMENTS.
2. FOR ANY CLARIFICATION, EXCEPTIONS, OR QUESTIONS REGARDING CODE INTERPRETATION, CALL THE EL PASO ELECTRIC CO. DISTRIBUTION DEVELOPMENT DEPARTMENT.

LEGEND:

- ☉ EXISTING RESIDENTIAL STREET LIGHT
- ☉ PROPOSED RESIDENTIAL STREET LIGHT
- ✚ PROPOSED 9" STREET NAME SIGN AND 30" STOP SIGN
- ✚ EXISTING 9" STREET NAME SIGN (TWO SIGNS) AND 30" STOP SIGN
- ✚ PROPOSED 9" STREET NAME SIGN (ONE SIGN) AND 30" STOP SIGN
- PROPOSED 30" STOP SIGN
- ✚ PROPOSED N.D.B.C.U. MAIL BOX

**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

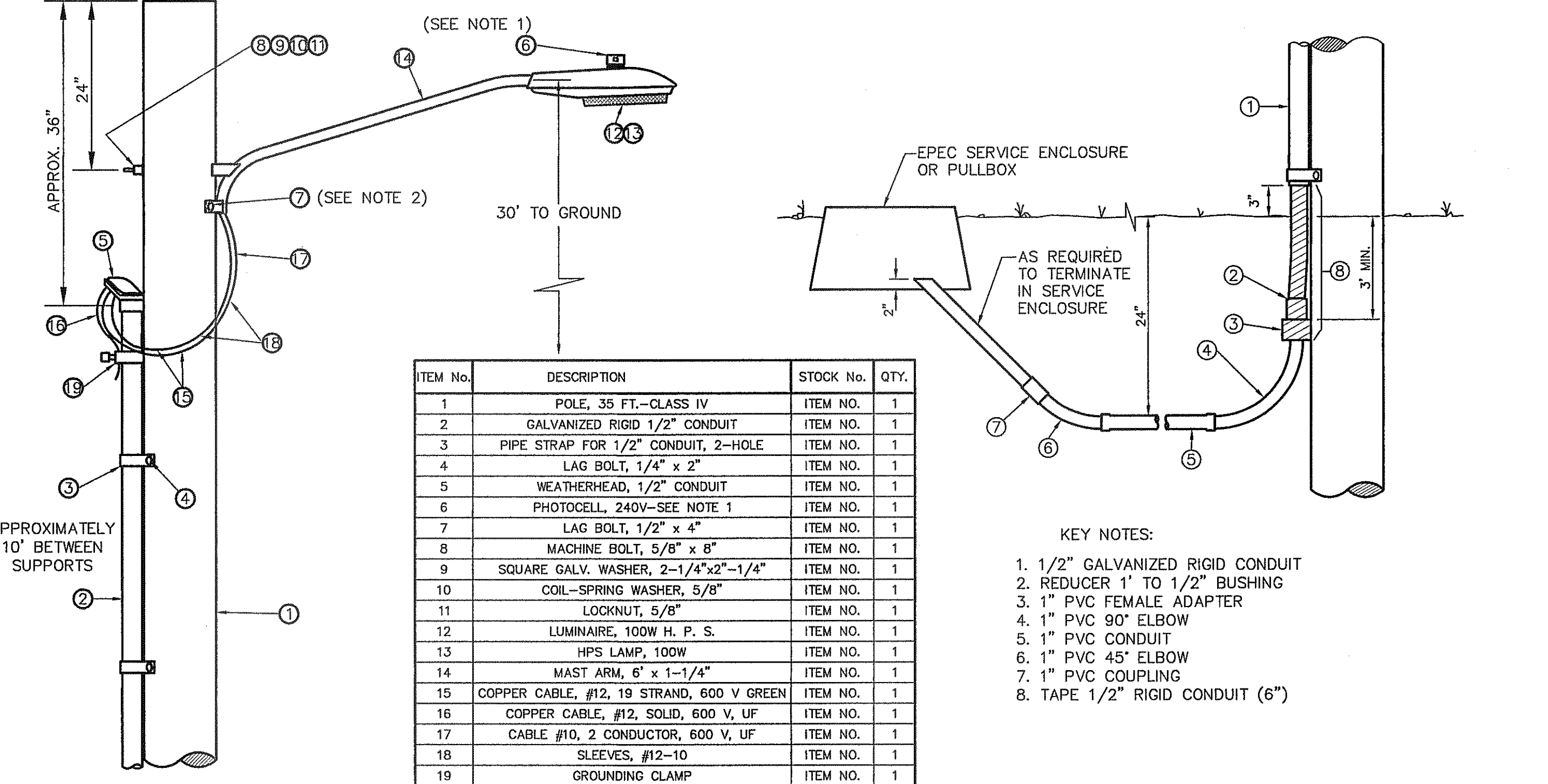
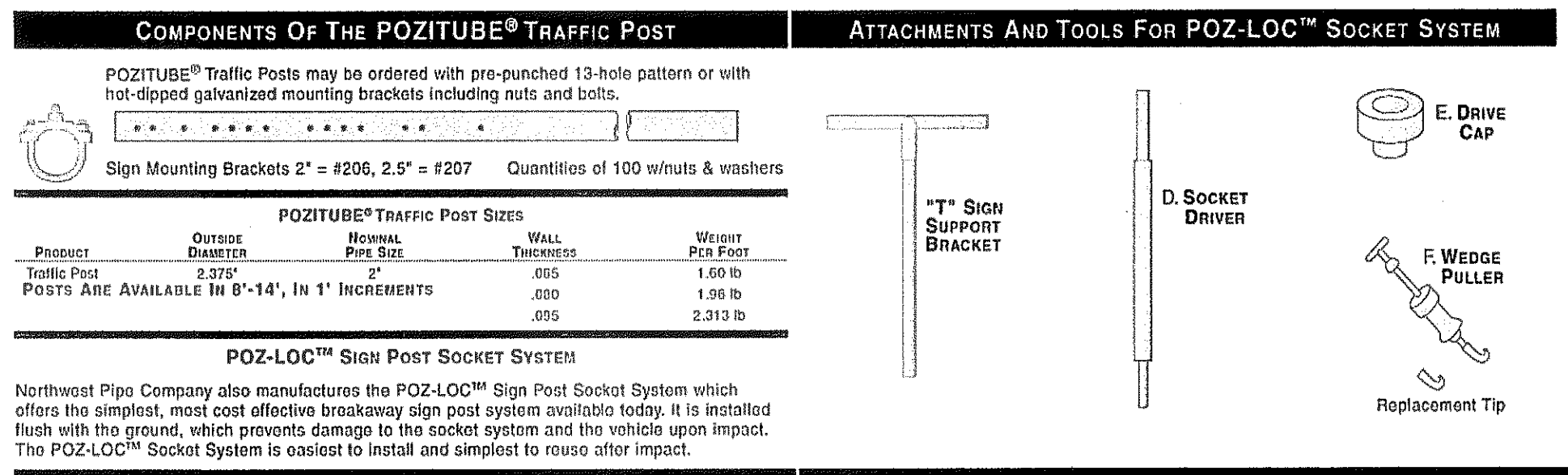
**WARNING!**  
**BEFORE YOU DIG**

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

FOR FIELD LOCATING EXISTING UTILITIES

GENERAL NOTES:

1. A MINIMUM 3' CLEARANCE SHALL BE PROVIDED ON THE SIDEWALK AFTER THE LIGHT POLES & FIRE HYDRANTS ARE PLACED. SIDEWALK SHALL COMPLY WITH A.D.A. AND T.D.L.R. STANDARDS.
2. U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NDCBU) THAT WILL BE PLACED OUTSIDE SUBDIVISION BOUNDARY LIMITS DUE TO THE SUBDIVISION PRIVATE LOCATION.
3. POSTS MUST BE BREAK-AWAY TYPE AS SHOWN ON THIS SHEET.
4. TRAFFIC STREET SIGNS MUST BE OF HIGH INTENSITY REFLECTIVE SHEETING.



ITEM No.	DESCRIPTION	STOCK No.	QTY.
1	POLE, 35 FT.—CLASS IV	ITEM NO.	1
2	GALVANIZED RIGID 1/2" CONDUIT	ITEM NO.	1
3	PIPE STRAP FOR 1/2" CONDUIT, 2-HOLE	ITEM NO.	1
4	LAG BOLT, 1/4" x 2"	ITEM NO.	1
5	WEATHERHEAD, 1/2" CONDUIT	ITEM NO.	1
6	PHOTOCCELL, 240V—SEE NOTE 1	ITEM NO.	1
7	LAG BOLT, 1/2" x 4"	ITEM NO.	1
8	MACHINE BOLT, 5/8" x 8"	ITEM NO.	1
9	SQUARE GALV. WASHER, 2-1/4"x2"-1/4"	ITEM NO.	1
10	COIL-SPRING WASHER, 5/8"	ITEM NO.	1
11	LOCKNUT, 5/8"	ITEM NO.	1
12	LUMINAIRE, 100W H. P. S.	ITEM NO.	1
13	HPS LAMP, 100W	ITEM NO.	1
14	MAST ARM, 6" x 1-1/4"	ITEM NO.	1
15	COPPER CABLE, #12, 19 STRAND, 600 V GREEN	ITEM NO.	1
16	COPPER CABLE, #12, SOLID, 600 V, UF	ITEM NO.	1
17	CABLE #10, 2 CONDUCTOR, 600 V, UF	ITEM NO.	1
18	SLEEVES, #12-10	ITEM NO.	1
19	GROUNDING CLAMP	ITEM NO.	1

KEY NOTES:

1. 1/2" GALVANIZED RIGID CONDUIT
2. REDUCER 1" TO 1/2" BUSHING
3. 1" PVC FEMALE ADAPTER
4. 1" PVC 90° ELBOW
5. 1" PVC CONDUIT
6. 1" PVC 45° ELBOW
7. 1" PVC COUPLING
8. TAPE 1/2" RIGID CONDUIT (6")

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

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

REFERENCES — BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH FROM THE SOUTHWEST CORNER OF THE INTERSECTION OF AVENUE CITY DATUM. ELEVATION.....4005.40

DATE \_\_\_\_\_ BY \_\_\_\_\_

REVISIONS \_\_\_\_\_

**C9.1**

engineers • architects • planners  
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4712 Woodrow Branch, Ste. F, El Paso, TX 79924  
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SCALE: 1"=100'  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A

DATE: SEPTEMBER 2013  
DESIGN BY: JHL  
DRAWN BY: JHL  
CHKD. BY: JHL  
APP'D. BY: JHL  
JOB No.: 2000-157-ILD

PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN**  
SUBDIVISION IMPROVEMENTS

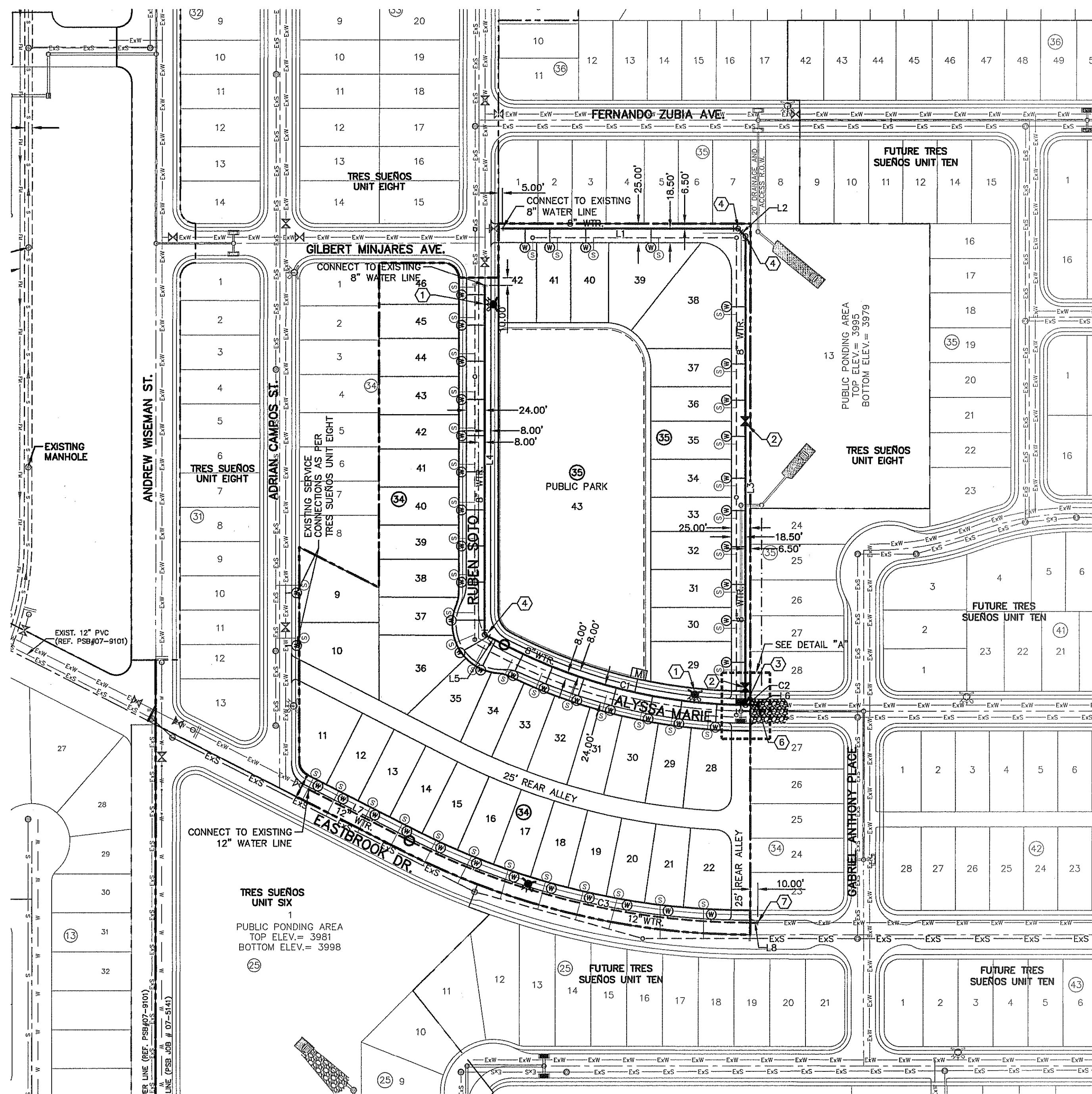
SHEET TITLE  
**ILLUMINATION PLAN & DETAILS**

SHEET NO.

**C9.1**

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

**LINE TABLE**

LINE	BEARING	LENGTH
L1	N89°59'41"E	310.30'
L2	S45°00'22"E	14.14'
L3	S00°00'25"E	617.46'
L4	S00°00'11"W	457.18'
L5	N62°57'16"W	29.21'
L6	S89°58'02"E	12.05'
L7	S62°57'16"E	148.76'
L8	S89°59'49"E	10.80'

**WATER KEYED NOTES**

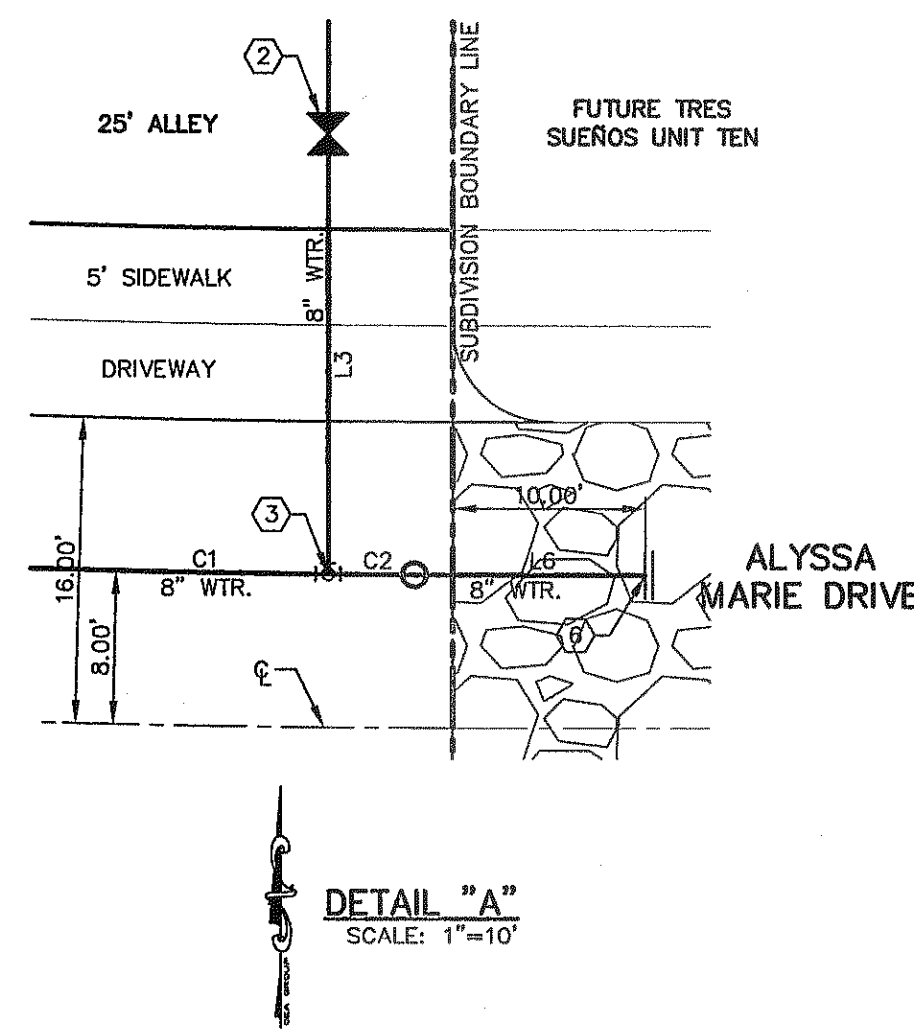
①	FIRE HYDRANT
②	8" # GATE VALVE
③	8" X 8" X 8" TEE
④	8" BEND
⑤	8" CROSS
⑥	8" PLUG
⑦	12" PLUG

**CURVE TABLE**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	698.00'	334.71'	170.64'	331.51'	N76°09'39"W	027°28'29"
C2	623.82'	4.50'	2.25'	4.50'	S89°42'23"E	000°24'48"
C3	992.23'	465.20'	236.96'	460.95'	S76°26'58"E	026°51'45"

**WATER QUANTITIES**

DESCRIPTION	QUANTITY	UNIT
8" PVC WATER LINE	1,780	LF
SERVICE LINES	46	EA
8" GATE VALVE	2	EA
8" TEE	1	EA
8" PLUG	1	EA
12" PVC WATER LINE	625	LF
12" PLUG	1	EA
FIRE HYDRANT	3	EA



**WATER INDEX MAP**  
 SCALE: 1" = 100'

**INDEX**

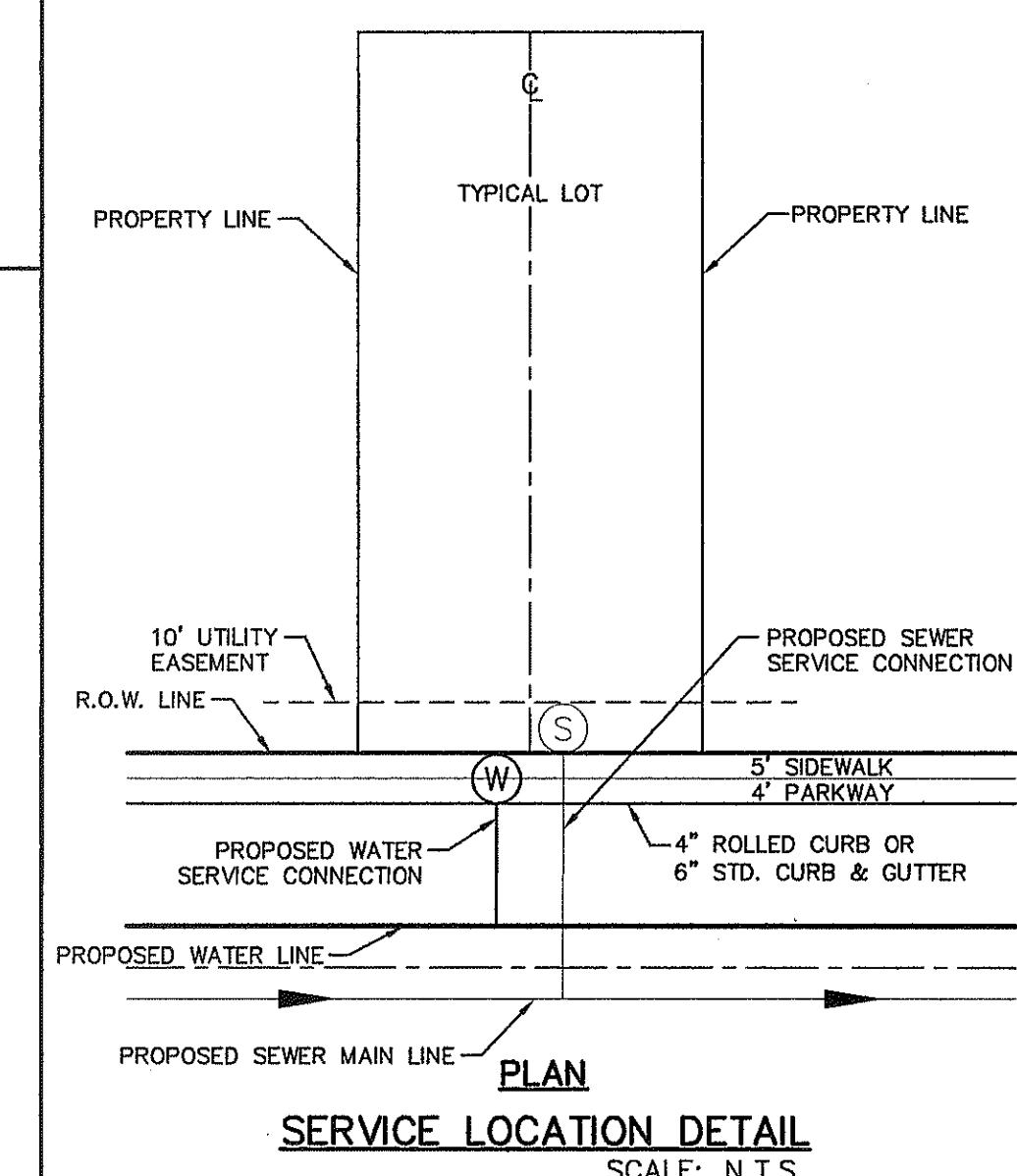
SHEET NO.	DESCRIPTION
C9.1	TRES SUEÑOS UNIT ELEVEN WATER MAIN PIPE LAYOUT
C9.2	WATER DETAILS
C9.3	WATER DETAILS
C9.4	WATER DETAILS
C9.5	WATER DETAILS

- NOTES:**
- ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
  - ALL WATER LINES SHALL BE PVC C-900, CLASS 150.
  - REFERENCE WATER DETAILS FOR TYPICAL VALVE AND WATER LOCATION AT STREET INTERSECTIONS.
  - REFERENCE TRES SUEÑOS UNIT SIX, TRES SUEÑOS UNIT EIGHT, AND TRES SUEÑOS UNIT TEN FOR EXISTING WATER LINES.

**NOTE:**  
 THE WATER INDEX PLAN SHALL DICTATE THE LOCATIONS OF WATER VALVES AND FIRE HYDRANTS.

**LEGEND**

SYMBOL	DESCRIPTION
---	SUBDIVISION BOUNDARY LINE
---	PROPERTY LINE
---	CENTER LINE
8" WTR.	PROPOSED 8", C-900 P.V.C. PIPE CL 150
12" WTR.	PROPOSED 12", C-900 P.V.C. PIPE CL 150
ExW ExW	EXISTING 8" WATER LINE
8" SWR	PROPOSED SEWER LINE (PLAN VIEW)
ExS ExS	EXISTING SEWER LINE
---	PROPOSED STORM SEWER
---	PROPOSED SERVICE CONNECTION (PLAN VIEW)
⊙	PROPOSED FIRE HYDRANT, KENNEDY OR MUELLER MODEL
⊙	EXISTING FIRE HYDRANT
⊗	PROPOSED GATE VALVE
⊗	EXISTING GATE VALVE
⊖	PROPOSED WATER LINE PLUG
⊖	EXISTING PLUG
○	PROPOSED POINT OF TANGENCY
⊠	4" WATER METER FOR LANDSCAPE AND IRRIGATION INSTALLED BY PSB



**GENERAL NOTES**

- UNLESS 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 T.C.E.W REQUIREMENTS (290-44).
- THE INTENT OF THE OWNER IS TO HAVE THE WATER MAINS 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. 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.
- 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 THE CITY OF EL PASO DEPARTMENT OF TRANSPORTATION 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.
- 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 VALVE, FIRE HYDRANT, ELBOW, SERVICE CONNECTION AND/OR STUB-OUT, WITH RESPECT TO THE APPROPRIATE PROJECT CONTROL POINT.
- THE CITY OF EL PASO AND EL PASO WATER UTILITIES MUST BE NOTIFIED 48 HOURS PRIOR TO COMMENCING ANY WORK IN AREAS WITHIN THEIR JURISDICTION.
- EXISTING STREETS, DRIVEWAYS, SIGNS, 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.
- TRAFFIC CONTROL SHALL BE IN PLACE PRIOR TO INITIATING WORK.
- ALL TIE-INS SHALL BE CLOSELY COORDINATED WITH THE EL PASO WATER UTILITIES AT LEAST 48 HOURS PRIOR TO ACTUAL CONSTRUCTION.
- CONSTRUCTION OF THE PUBLIC WATER AND SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFORM WITH E.P.W.U. - P.S.B. 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

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

**FIBER OPTICS:**  
 AT&T  
 P.O. BOX 1650  
 EL PASO, TX. 79949  
 (800) 852-3786  
 MS. DARLENE NORIS

**EL PASO STREETS**  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION  
 7969 SAN PAULÓ DR.  
 EL PASO, TX. 79907  
 (915) 621-6750  
 MR. TED MARQUEZ, P.E.

**WATER & SEWER:**  
 EL PASO WATER UTILITIES  
 1154 HAWKINS BLVD #1  
 EL PASO, TX. 79925  
 (915) 544-5500  
 MR. FELIPE LOPEZ, P.E.

**ENGINEER:**  
 CEA GROUP  
 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 DERAGISCH

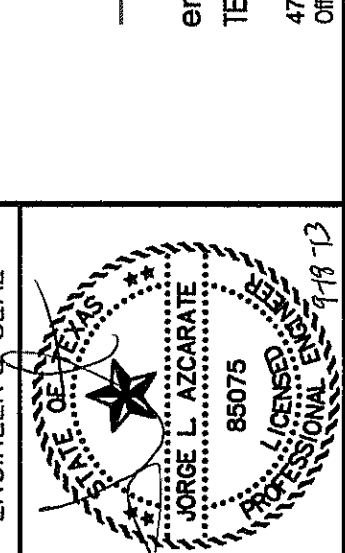
**RESIDENTIAL GAS LINES:**  
 TEXAS GAS SERVICE  
 4700 FOLLARD ST.  
 EL PASO, TX. 79930  
 (915) 680-7218

**TELEPHONE:**  
 SBC  
 11200 PELICANO  
 EL PASO, TX. 79935  
 (915) 534-5161  
 MR. TIM BROWN

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

REFERENCES - BENCHMARKS  
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E A DISTANCE OF 487.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION: 4606.40

**CSA**  
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 4712 Woodrow Bean, Ste. F, El Paso, TX 79924  
 Office: 915.544.5232 Fax: 915.544.5233 www.csaengr.com



SCALE: 1" = 100'  
 Horizontal: N/A  
 Vertical: N/A  
 Contour Interval: N/A  
 DATE: SEPTEMBER 2013  
 DESIGN BY: J.H.  
 DRAWN BY: J.H.  
 CHKD. BY: J.L.A.  
 APPVD. BY: J.L.A.  
 JOB NO. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**WATER INDEX**  
 SHEET NO.  
**C10.1**



**GENERAL NOTES**

- THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING BIDS.
- CONTRACTOR SHALL WATER CONSTRUCTION AREA A MINIMUM OF TWICE A DAY TO KEEP DUST TO A MINIMUM - ONCE IN THE MORNING AND BEFORE QUITTING TIME. THIS SHALL ALSO BE DONE DURING WEEKENDS AND HOLIDAYS.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE, PROTECT, AND REPLACE ALL UNDERGROUND UTILITY LINES AT NO EXTRA COST TO THE OWNER WHEN LINES ARE DISTURBED AS A RESULT OF THE WORK.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM HIS WORK SO AS TO ASSURE PROPER PASSAGE OF STORM RUNOFF DURING THE COURSE OF HIS OPERATIONS. ALL LABOR, TOOLS, EQUIPMENT, AND SUPERVISION REQUIRED TO ASSURE SUCH PROPER PASSAGE OF RUNOFF WATER AND ANY REMOVAL OR HANDLING OF WATER IN ORDER TO MAINTAIN DRY CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH THE USER, ALL UTILITIES, AND ALL OTHER AGENCIES WITH JURISDICTION OVER THE PROJECT.
- ALL EXISTING PAVEMENT, ADJACENT UTILITIES, STRUCTURES, ETC., DISTURBED AS A RESULT OF THE NEW CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE OWNER WILL FURNISH HORIZONTAL AND VERTICAL CONTROL REFERENCED POINTS ONLY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES BEFORE PROCEEDING WITH THE WORK. ANY DISCREPANCIES FOUND SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER, OTHERWISE THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THEIR CORRECTNESS.
- SEE REFERENCED BENCHMARK ON TITLE BLOCK FOR DATUM ELEVATIONS.
- VIBRATORY ROLLERS WILL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE ENGINEER.
- ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN CONFORMANCE WITH CURRENT SAFETY CODES AND STANDARDS WITH JURISDICTION OVER THE PROJECT.

**GRADING SPECIFICATIONS**

- CLEARING AND GRUBBING: CLEAR SITE OF TREES, SHRUBS AND OTHER VEGETATION; COMPLETELY REMOVE STUMPS, ROOTS AND OTHER DEBRIS PROTRUDING THROUGH GROUND SURFACE; FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY FILL MATERIAL, UNLESS FURTHER EXCAVATION OF EARTHWORK IS INDICATED; REMOVE EXISTING ABOVE-GRADE AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION. BURNING IS NOT PERMITTED ON OWNER'S PROPERTY. REMOVE WASTE MATERIALS FROM OWNER'S PROPERTY.
- SATISFACTORY FILL MATERIALS: FILL MATERIALS SHALL BE FREE OF ANY ORGANIC OR DELETERIOUS SUBSTANCE AND SHALL NOT CONTAIN ROCKS OR LUMPS OVER 3 INCHES IN GREATEST DIMENSION AND SHALL BE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, GC, SM, SP, SM, AND SC.
- UNSATISFACTORY FILL MATERIAL: ARE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS ML, MH, CL, CH, OL, OH, AND PT, OR WHERE THE PLASTICITY INDEX EXCEEDS 12, UNLESS OTHERWISE APPROVED BY ENGINEER OR CITY ENGINEER.
- EXCAVATION: IS UNCLASSIFIED AND INCLUDES EXCAVATION TO ELEVATIONS INDICATED, REGARDLESS OF CHARACTER OF MATERIAL AND OBSTRUCTIONS ENCOUNTERED.
- GROUND SURFACE PREPARATION FOR FILL: REMOVE VEGETATION, DEBRIS, UNSATISFACTORY SOIL MATERIAL, OBSTRUCTIONS, AND DELETERIOUS MATERIAL FROM GROUND SURFACE UPON WHICH THE FILL IS TO BE PLACED. THE SURFACE SHALL THEN BE SCARIFIED TO A DEPTH OF AT LEAST 6-INCHES, AND UNTIL THE SURFACE IS FREE FROM RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH WOULD PREVENT UNIFORM COMPACTION. PLOW STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO THAT FILL MATERIAL WILL BOND WITH EXISTING SURFACE. AFTER PLOWING AND SCARIFYING FILL AREA, IT SHALL THEN BE DISCED OR BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS, BROUGHT TO OPTIMUM MOISTURE, AND COMPACTED TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557.
- PLACEMENT OF FILL: PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. BEFORE COMPACTION, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE OPTIMUM MOISTURE CONTENT. PLACE FILL MATERIALS EVENLY ADJACENT TO SITE APPURTENANCES, PIPING, OR CONDUIT TO REQUIRED ELEVATIONS. PREVENT WEDGING ACTION OF BACKFILL AGAINST SITE APPURTENANCES OR DISPLACEMENT OF PIPING OR CONDUIT BY CARRYING MATERIAL UNIFORMLY AROUND SITE APPURTENANCES, PIPING, OR CONDUIT TO APPROXIMATELY SAME ELEVATION IN EACH LIFT. COMPACT SOIL TO NOT LESS THAN 95% OF MAXIMUM DENSITY, IN ACCORDANCE WITH ASTM D1557.
- MOISTURE CONTROL: WHERE SUBGRADE OR LAYER OF SOIL MATERIAL MUST BE CONDITIONED FOR OPTIMUM MOISTURE BEFORE COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SUBGRADE OR LAYER OF SOIL MATERIAL. APPLY WATER IN MINIMUM QUANTITY AS NECESSARY TO PREVENT FREE WATER FROM APPEARING ON SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS. WATER CONTENT SHALL BE WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED DENSITY.
- QUALITY CONTROL: THE OWNER SHALL PROVIDE A GEOTECHNICAL ENGINEER TO PERFORM FIELD DENSITY TEST OF THE COMPACTION OF EACH LAYER OF FILL. DENSITY TESTS SHALL BE TAKEN IN THE COMPACTED MATERIAL BELOW THE DISTURBED SURFACE. WHEN THESE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE PARTICULAR LAYER OR PORTION SHALL BE REWORKED UNTIL THE REQUIRED DENSITY HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL TESTING AND WHEN REQUIRED DENSITIES ARE NOT MET, SUPERVISION BY THE GEOTECHNICAL ENGINEER DURING THE GRADING OPERATIONS TO ENSURE GRADING WORK IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS.

**ABBREVIATIONS**

LP	LOW POINT
HP	HIGH POINT
ELEV	ELEVATION
STA	STATION
VCS	VERTICAL CURVE STATION
VCE	VERTICAL CURVE ELEVATION
TC	TOP OF CURB
TM	TOP OF MEDIAN
TP	TOP OF PAVEMENT
TYP	TYPICAL
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
AD	ALGEBRAIC DIFFERENCE
CR	CURVE RETURN
ROW	RIGHT OF WAY
CL	CENTER LINE
PL	PROPERTY LINE
FG	FINISH GRADE
FF	FINISH FLOOR
EG	EXISTING GRADE
MIN.	MINIMUM
MAX.	MAXIMUM
ROP	REINFORCED CONCRETE PIPE
Q	QUANTITY
CAP	CAPACITY
EXP	EXPECTED
INV	INVERT
CFS	CUBIC FEET PER SECOND
A	AREA
DA	DRAINAGE AREA
LF	LINEAR FEET
STD	STANDARD
CONC	CONCRETE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
L	LENGTH
R	RADIUS
T	TANGENT
Δ	DELTA ANGLE
S	SLOPE
TEMP	TEMPORARY
V	VELOCITY IN FEET PER SECOND
HGL	HYDRAULIC GRADE LINE
HWE	HIGH WATER ELEVATION

**LEGEND**

---	SUBDIVISION BOUNDARY
---	ROW LINE
---	CURB LINE
---	PROPERTY LINE
---	STREET CENTERLINE
---	EASEMENT LINE
---	MATCH LINE
---	STORM SEWER LINE
---	HIGH WATER MARK
---	CURB AND GUTTER DROP INLET
⊙	STORM SEWER MANHOLE
4000	FINISHED GROUND CONTOUR ELEVATION (INDEX)
---	FINISHED GROUND CONTOUR ELEVATION (INTERMEDIATE)
4000	EXISTING GROUND CONTOUR ELEVATION (INDEX)
---	EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE)
⊘	NEW 4' HIGH RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)
⊘	NEW 4' HIGH RETAINING ROCKWALL (3'-9' RETAINING HEIGHT)
X	STANDARD DETAIL/SECTION NUMBER
X	SHEET NUMBER WHERE STANDARD/SECTION DETAIL IS LOCATED
4000.00	FINISHED SPOT ELEVATION
FG. 56.00	LOT FINISHED GROUND ELEVATION
TC 4000.00	TOP OF CURB ELEVATION
TP 4000.00	TOP OF PAVEMENT ELEVATION
1 2	SUBDIVISION LOT AND BLOCK NUMBER
→	DRAINAGE FLOW
▲	HIGH POINT
▼	LOW POINT
◁▷	EXISTING HIGH POINT
▷◁	EXISTING LOW POINT
◁	HEADWALL WITH WINGWALLS
DA-4	DRAINAGE AREA
3:1 SLOPE	HORIZONTAL:VERTICAL SLOPE RATIO
⊠	WHEELCHAIR RAMP

**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

**WARNING I BEFORE YOU DIG**

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

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BERN BLVD. SUBSTATION A DISTANCE OF 467.58 FEET FROM MONUMENT TO POINT OF CURVE CENTERLINE. MONUMENT AVENUE CITY DATUM. ELEVATION: 4006.40

DATE	REVISIONS	BY

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Office: 915.544.5222 Fax: 915.544.5233 www.csaengr.com

ENGINEER'S SEAL

STATE OF TEXAS

REGISTERED PROFESSIONAL ENGINEER

JORGE L. AZCARATE

88075

11-18-13

SCALE

Horizontal: N/A

Vertical: N/A

Contour Interval: N/A

DATE: SEPTEMBER 2013

DESIGN BY: J.H.

DRAWN BY: J.H.

CHKD. BY: J.G.

APP'D. BY: J.L.A.

JOB No. 2000-197-ID

PROJECT TITLE

**TRES SUEÑOS UNIT ELEVEN SUBDIVISION IMPROVEMENTS**

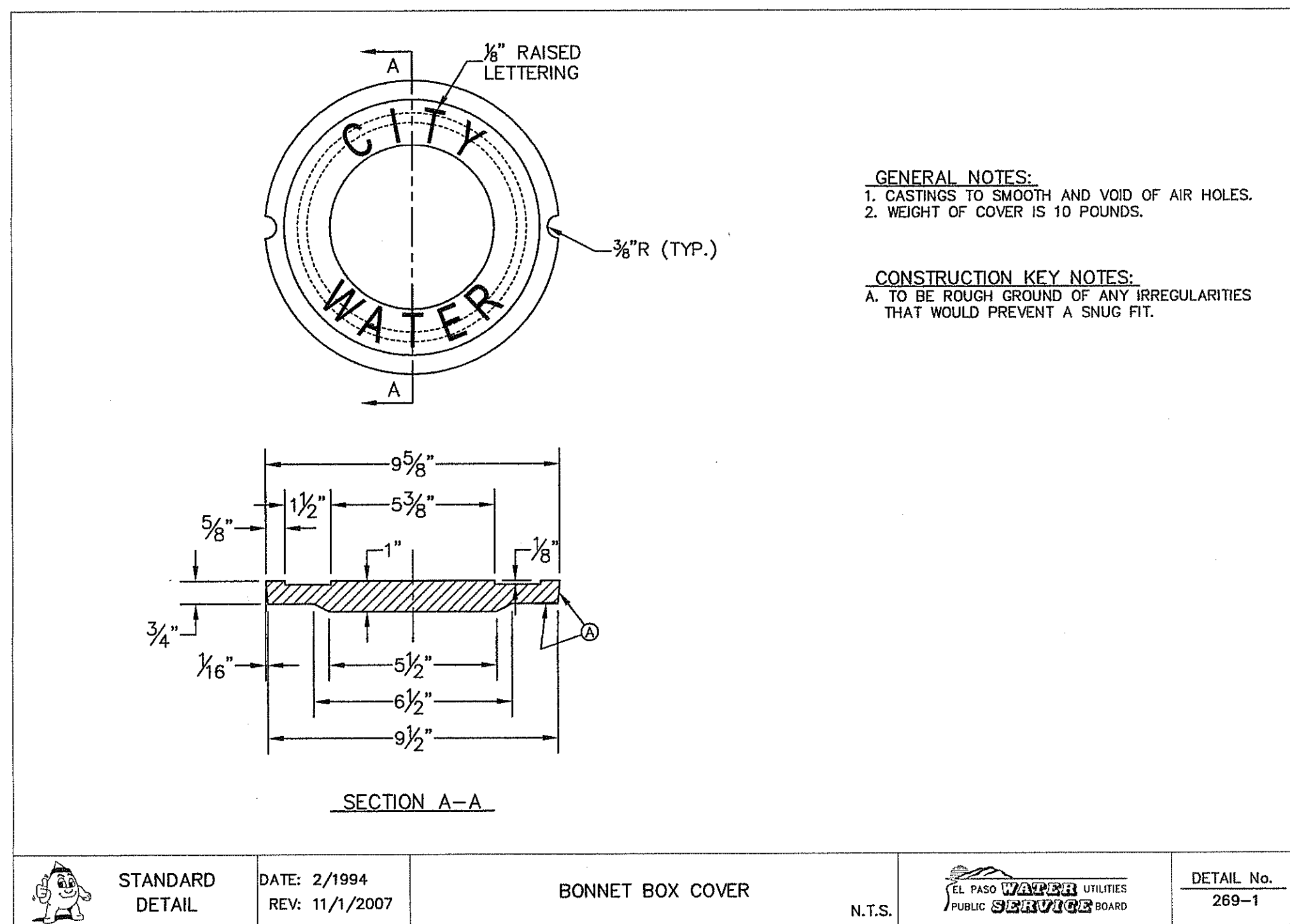
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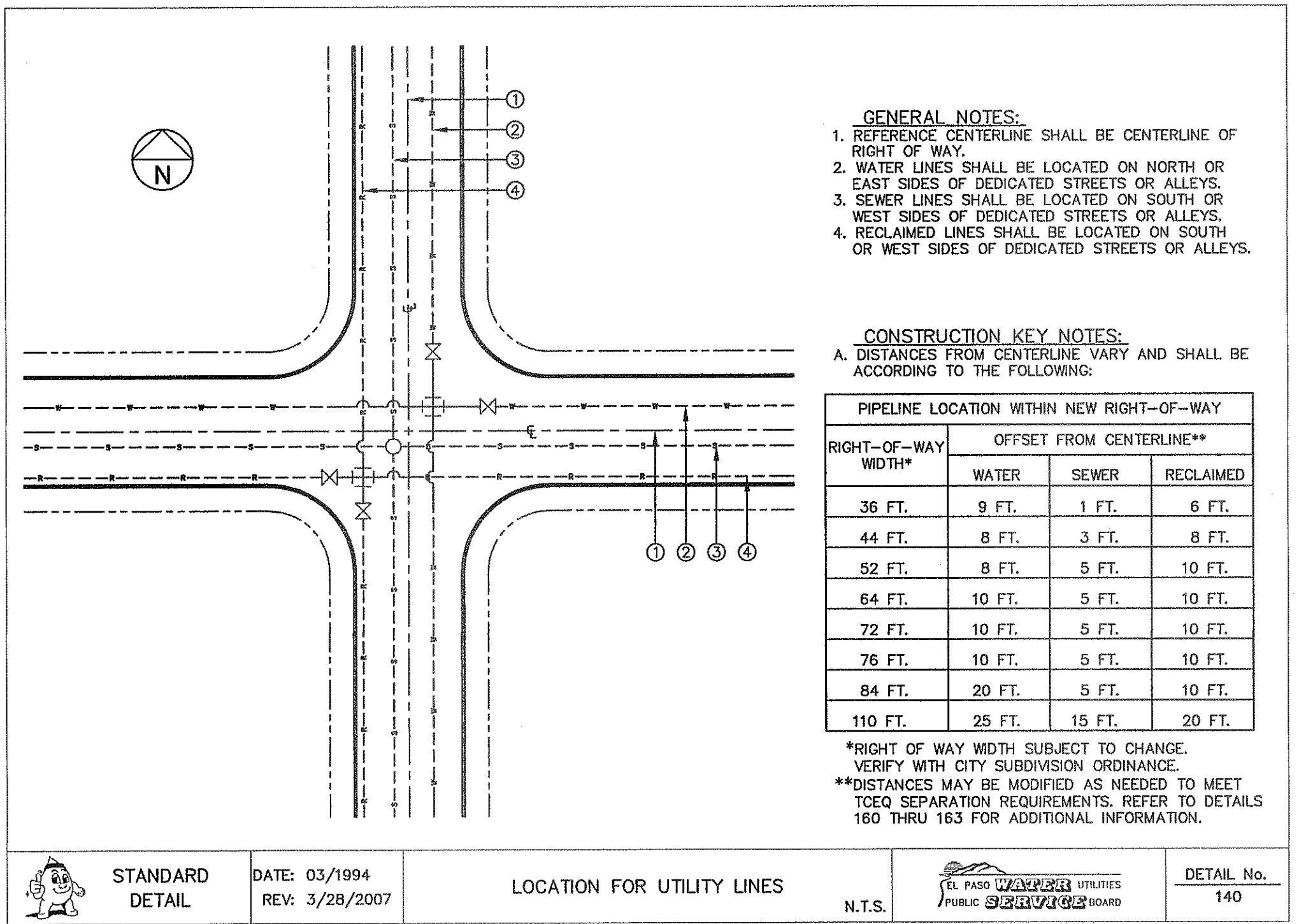
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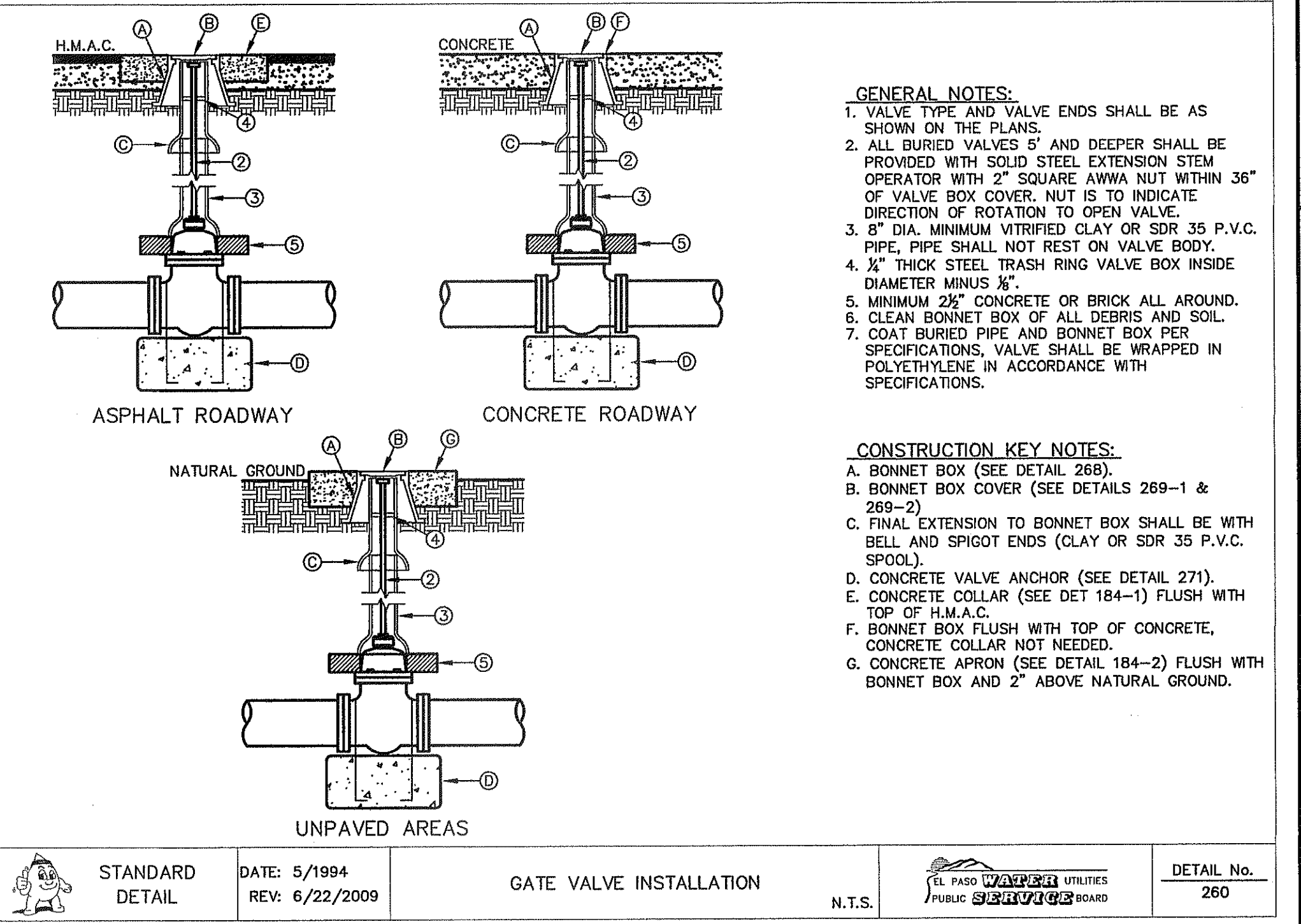




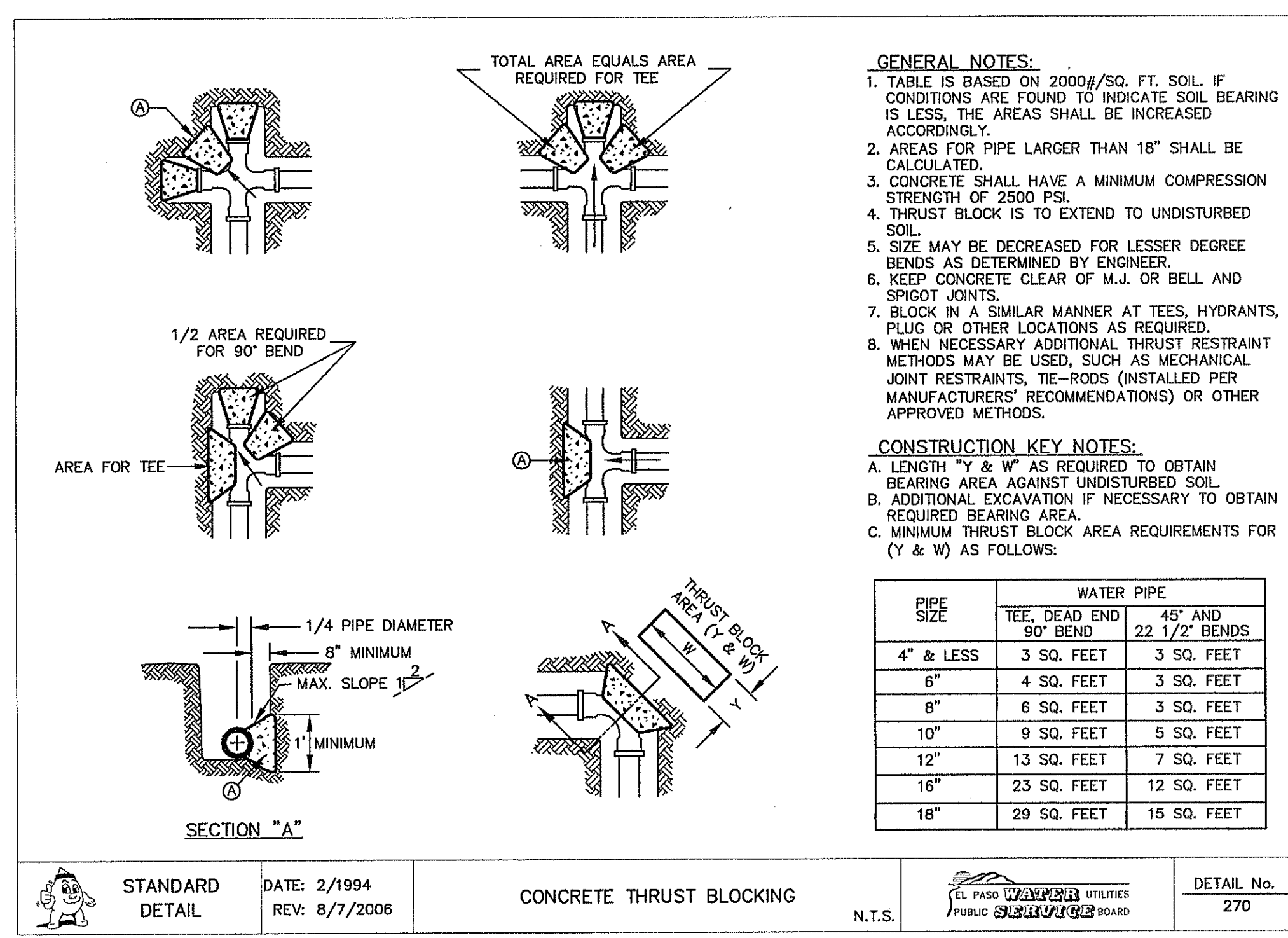
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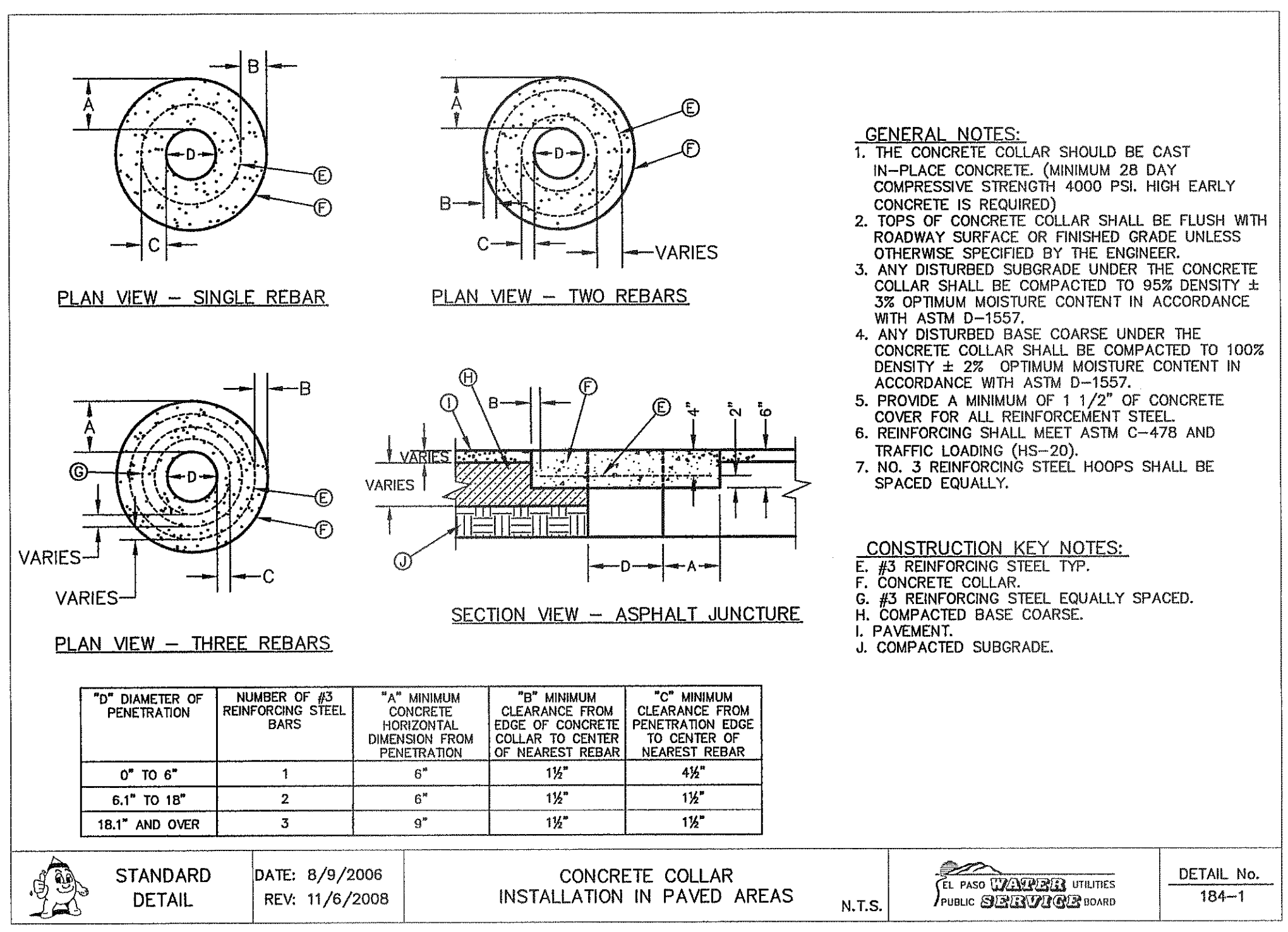
2 LOCATION FOR UTILITY LINES SCALE: N.T.S.



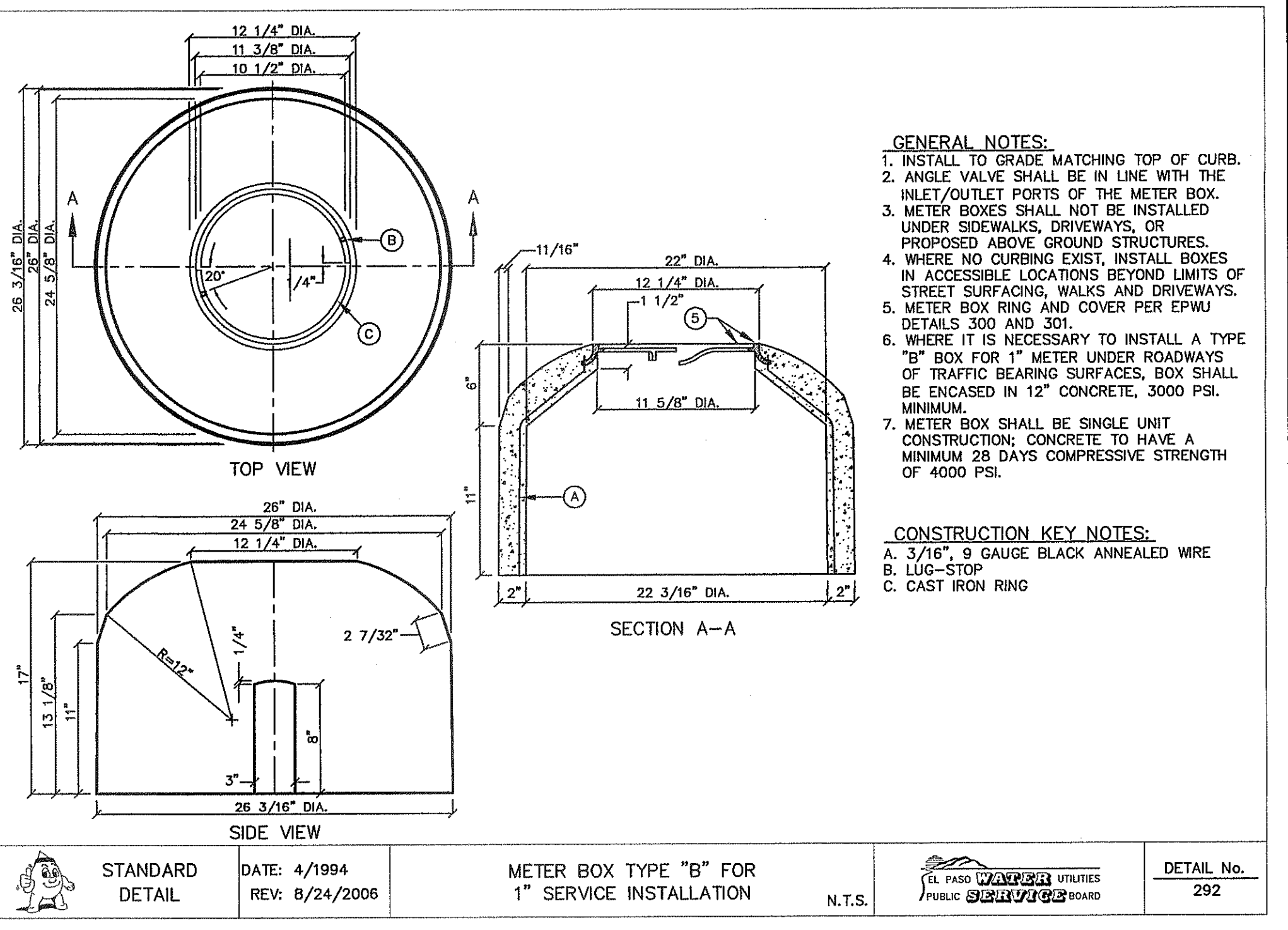
3 GATE VALVE INSTALLATION SCALE: N.T.S.



4 CONCRETE THRUST BLOCKING SCALE: N.T.S.



5 CONCRETE COLLAR INSTALLATION SCALE: N.T.S.



6 METER BOX TYPE "B" FOR 1" INSTALLATION SCALE: N.T.S.

REFERENCES - BENCHMARKS  
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLD., S08°43'31"E A DISTANCE OF 487.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION: 10668.70

ENGINEER'S SEAL  
 TRES SUEÑOS ARCHITECTS & PLANNERS  
 TEXAS REGISTERED ENGINEERING FIRM F-454  
 4712 Woodrow Bann, Ste. F El Paso, TX 79924  
 OFFICE: 915.544.5232 Fax: 915.544.5233 www.esgn.com

SCALE: N/A  
 Horizontal: N/A  
 Vertical: N/A  
 Contour Interval: N/A  
 DATE: SEPTEMBER 2013  
 DESIGN BY: J.H.  
 DRAWN BY: J.H.  
 CHKD. BY: J.L.A.  
 APPVD. BY: J.L.A.  
 JOB No. 2000-157-LD

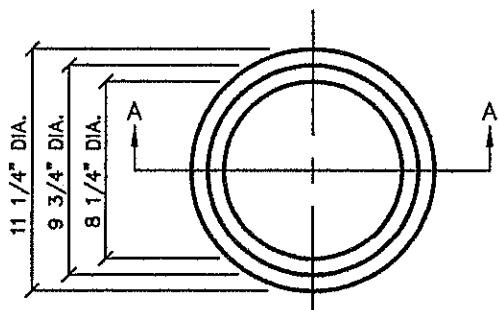
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 TRES SUEÑOS  
 UNIT ELEVEN  
 SUBDIVISION IMPROVEMENTS

SHEET TITLE  
 WATER DETAILS

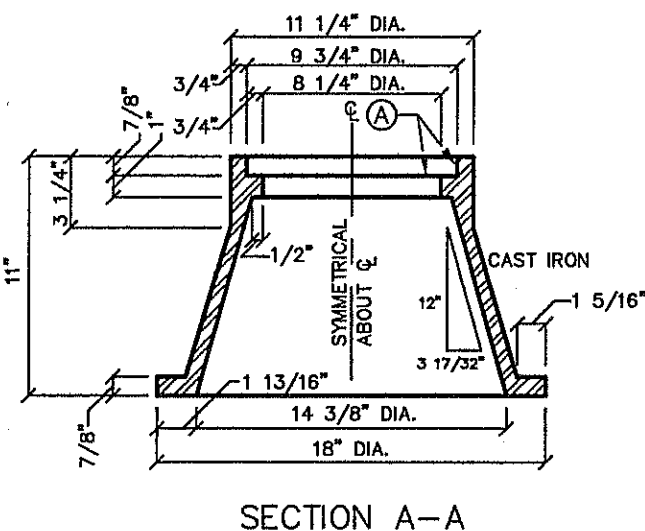
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C10.2

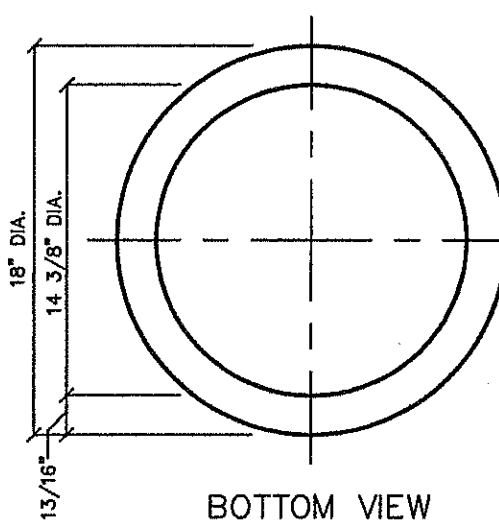




TOP VIEW



SECTION A-A



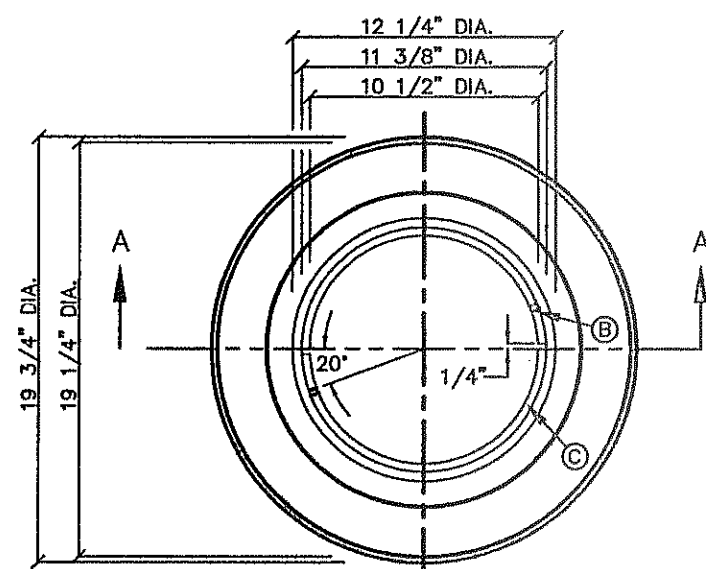
BOTTOM VIEW

**GENERAL NOTES:**  
 1. CASTING TO BE SMOOTH AND VOID OF AIR HOLES.  
 2. WEIGHT OF BONNET BOX IS 95 POUNDS.

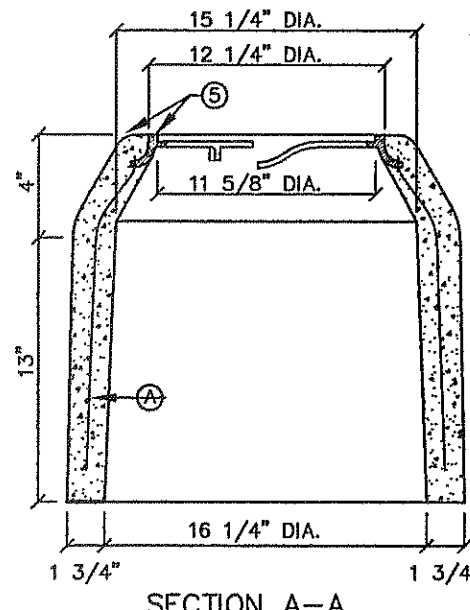
**CONSTRUCTION KEY NOTES:**  
 A. TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.

STANDARD DETAIL	DATE: 2/1994 REV:	BONNET BOX	N.T.S.	EL PASO UTILITIES PUBLIC UTILITIES BOARD	DETAIL No. 268
-----------------	----------------------	------------	--------	---	-------------------

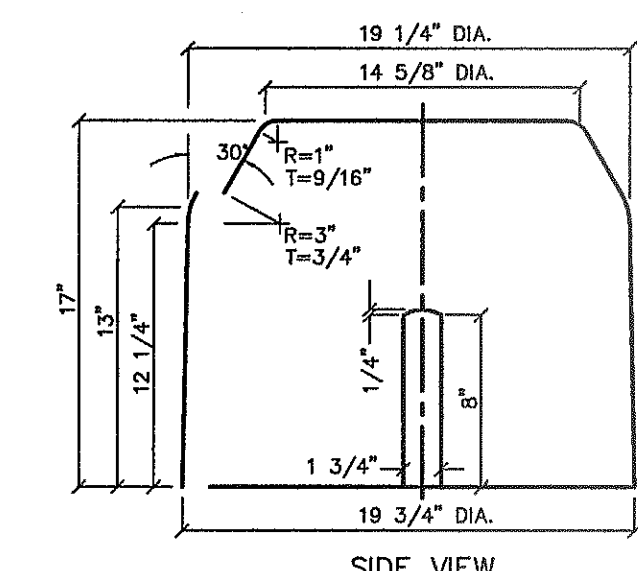
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SCALE: N.T.S.



TOP VIEW



SECTION A-A



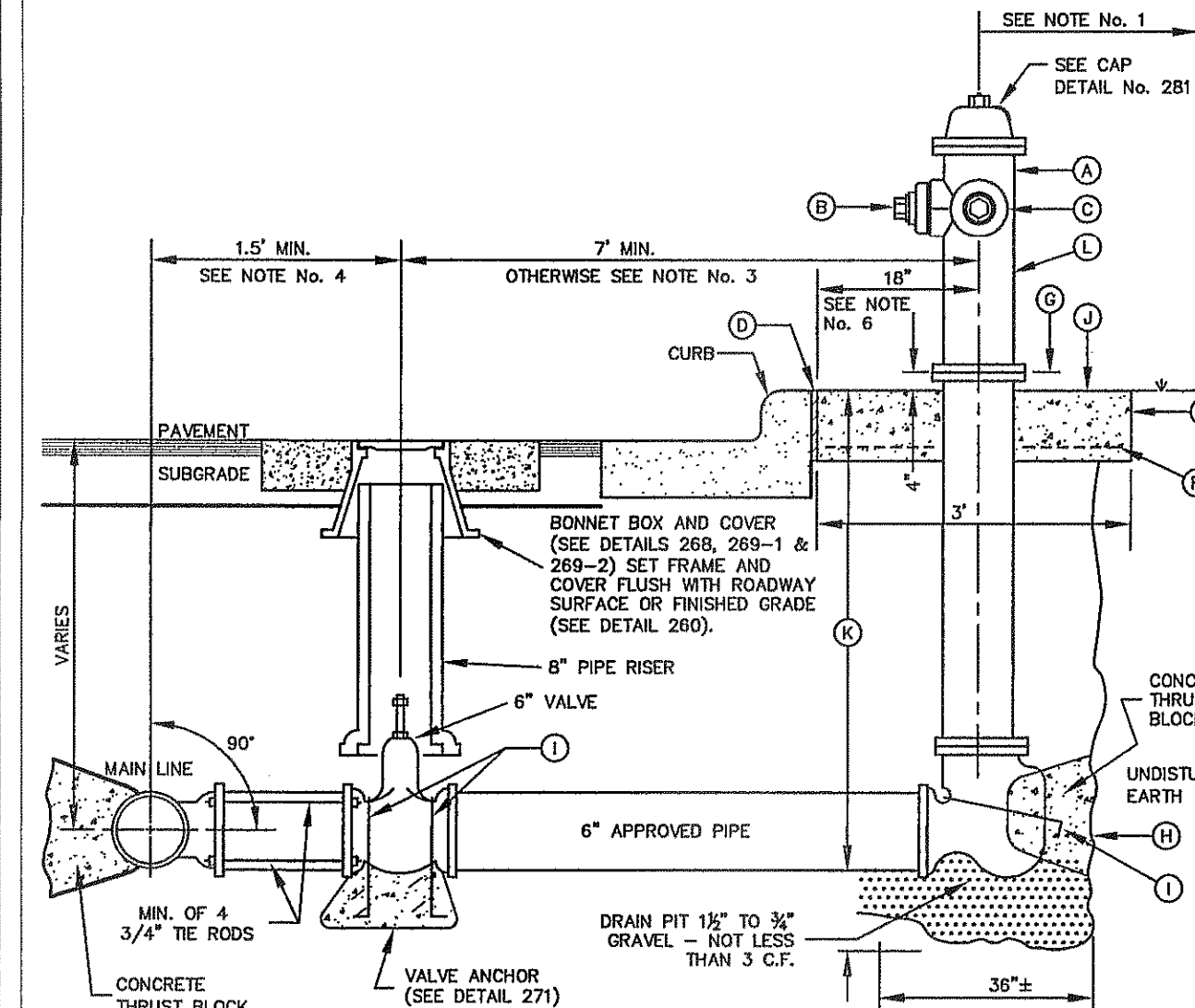
SIDE VIEW

**GENERAL NOTES:**  
 1. INSTALL TO GRADE MATCHING TOP OF CURB.  
 2. ANGLE VALVE SHALL BE IN LINE WITH THE INLET/OUTLET PORTS OF THE METER BOX.  
 3. METER BOXES SHALL NOT BE INSTALLED UNDER SIDEWALKS, DRIVEWAYS, OR PROPOSED ABOVE GROUND STRUCTURES.  
 4. WHERE NO CURBING EXISTS, INSTALL BOXES IN ACCESSIBLE LOCATIONS BEYOND LIMITS OF STREET SURFACING, WALKS AND DRIVEWAYS.  
 5. METER BOX RING AND COVER PER EPWU DETAILS 300 AND 301.  
 6. WHERE IT IS NECESSARY TO INSTALL A TYPE "A" BOX FOR 3/4" METER UNDER ROADWAYS OF TRAFFIC BEARING SURFACES, BOX SHALL BE ENCASED IN 12" CONCRETE, 3000 PSI, MINIMUM.  
 7. METER BOX SHALL BE SINGLE UNIT CONSTRUCTION; CONCRETE TO HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 4000 PSI.

**CONSTRUCTION KEY NOTES:**  
 A. 3/16", 9 GAUGE BLACK ANNEALED WIRE  
 B. LUG-STOP C. CAST IRON RING

STANDARD DETAIL	DATE: 4/1994 REV: 8/24/2006	METER BOX TYPE "A" FOR 3/4" SERVICE INSTALLATION	N.T.S.	EL PASO UTILITIES PUBLIC UTILITIES BOARD	DETAIL No. 291
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2 METER BOX TYPE "A"  
SCALE: N.T.S.



STANDARD DETAIL	DATE: 2/1993 REV: 12/1/2011	FIRE HYDRANT INSTALLATION	N.T.S.	EL PASO UTILITIES PUBLIC UTILITIES BOARD	DETAIL No. 280-1
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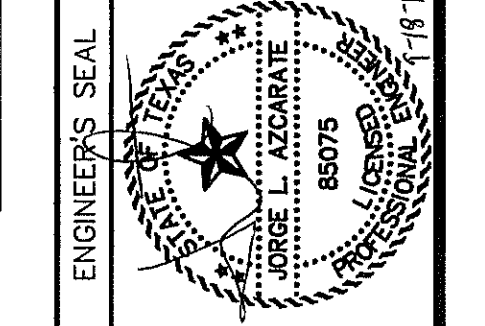
3 FIRE HYDRANT INSTALLATION  
SCALE: N.T.S.

**GENERAL NOTES:**  
 1. NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 5 FT. IN ALL DIRECTIONS OF FIRE HYDRANT (PER EL PASO MUNICIPAL CODE, TITLE 12). FIRE HYDRANT SHALL NOT BE PLACED IN WHEEL CHAIR RAMP OR DRIVEWAY.  
 2. FIRE HYDRANT SHALL BE LOCATED AT THE BEGINNING OF CURB RETURN OR AT THE PROPERTY LINE COMMON TO ADJOINING LOTS, UNLESS OTHERWISE SHOWN ON PLANS. REFER TO DETAIL No. 282 FOR SPECIAL CASES.  
 3. WHERE DISTANCE IS LESS THAN 7', HYDRANT SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL No. 282.  
 4. VALVE MAY BE CONNECTED TO TEE AT MAIN LINE. USE FLANGED MECHANICAL JOINT ENDS. WHERE SPOOL IS REQUIRED BETWEEN TEE AND VALVE, USE FLANGED MECHANICAL ENDS WITH 3/4" DIAMETER TIE RODS.  
 5. COMPLY WITH REQUIREMENTS OF AWWA C-502, DRY BARREL FIRE HYDRANTS AND AWWA C-550, PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES AND HYDRANTS.  
 6. WHEN INSTALLATION IS WITHIN 1'00" RIGHT OF WAY, HYDRANT SHALL NOT BE PLACED IN SIDEWALK AREA OR ANY CLOSER THAN 5' FROM BACK OF CURB.

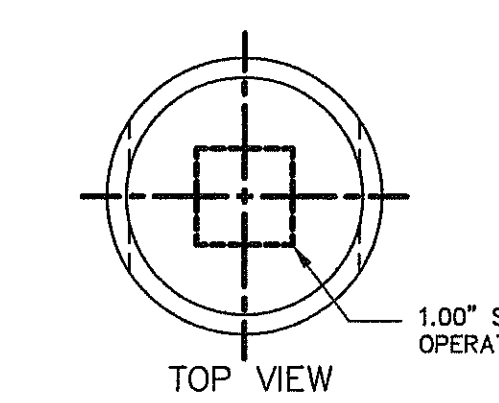
**CONSTRUCTION KEY NOTES:**  
 A. FIRE HYDRANT PER SPECS.  
 B. PUMPER NOZZLE 4 1/2" TO BE FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED IN THE PLANS.  
 C. HOSE NOZZLE 2 1/2"  
 D. 1/2" PREMOLDED EXPANSION JOINT WITH 1" TOP FILLER.  
 E. 3"x3"x6" CONC. SQ. PAD, TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONC. AREA.  
 F. #10, 6/8 WWF.  
 G. CONTROLLED ELEVATION LINE, LEVEL IN ALL DIRECTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF THE HYDRANT TO CONTROLLED ELEVATION.  
 H. CONC. THRUST BLOCK, APPROX. 2'x2'x3' TO BE POURED AGAINST UNDISTURBED EARTH, F.H. WEEP HOLE MUST BE UNOBSTRUCTED.  
 I. 2"x4" STEEL ANCHOR PINS.  
 J. TOP OF SLAB SHALL BE AT CURB LEVEL 4" BELOW THE BREAK LINE OF THE HYDRANT, UNDER SPECIAL CONDITIONS THE ENGINEER MAY ALLOW VARIATIONS TO THIS CONSTRUCTION.  
 K. MAXIMUM OF ONE (1) SPOOL EXTENSION ALLOWED TO MAINTAIN THE CONTROLLED ELEVATION LINE TO TOP OF SLAB. ADDITIONAL ADJUSTMENT MUST BE MADE WITH OFFSETS & FITTINGS AS NEEDED.  
 L. REQUIRED - DAVIDSON ANTI TERRORISM CORROSION RESISTANT VALVE KIT (DATV).

REVISIONS	DATE	BY

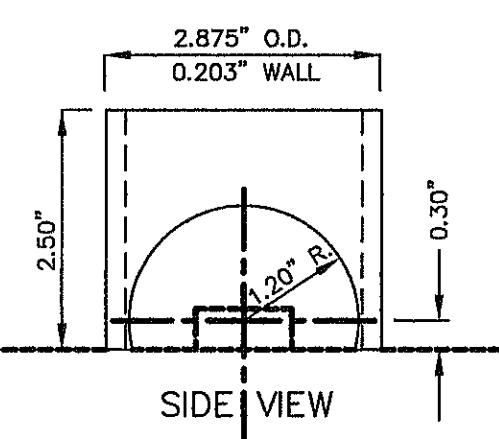
engineers • architects • planners  
 TEXAS REGISTERED ENGINEERING FIRM F-4564  
 4712 Woodrow Bean, Ste. F, El Paso, TX 79904  
 Office: 915.544.4202 Fax: 915.544.4203 www.eppgroup.net



SCALE: N/A  
 Horizontal: N/A  
 Vertical: N/A  
 Date: SEPTEMBER 2013  
 Design By: J.H.  
 Drawn By: J.H.  
 Check By: J.G.  
 App'd. By: J.L.A.  
 Job No.: 2000-157-1D



TOP VIEW

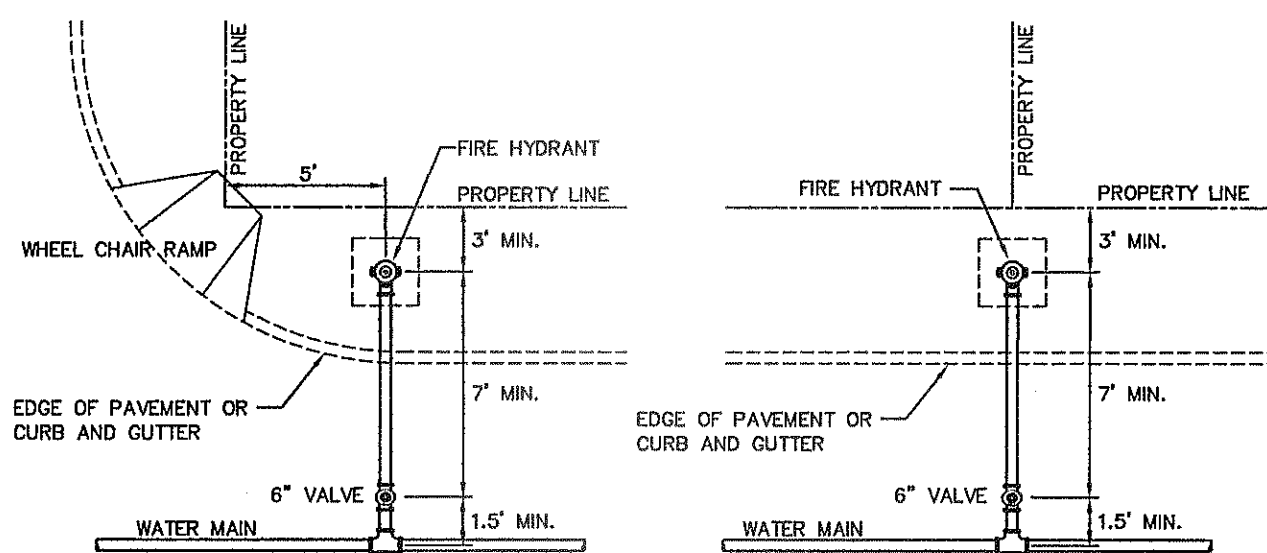


SIDE VIEW

**GENERAL NOTES:**  
 1. STEEL CAPS TO BE MACHINED FROM STEEL PIPE: NOMINAL SIZE = 2 1/2" DIA. OUTSIDE DIA. = 2.875" WALL THICKNESS = 0.203 LBS./FT. = 5.79  
 2. CAPS ARE TO BE TACK WELDED OR BRAZED ON FIRE HYDRANT BONNET OR WEATHER CAP.  
 3. THE CAPS OVER THE OPERATING NUT WILL PREVENT ACCESS TO THE UNAUTHORIZED USE OF HYDRANT WATER.

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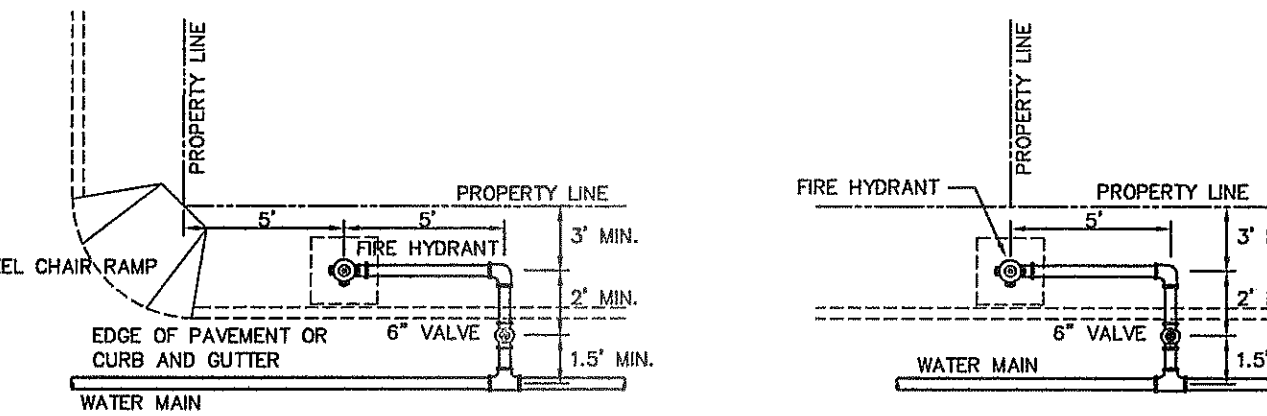
4 FIRE HYDRANT CAP  
SCALE: N.T.S.



CASE 1

CASE 2

STANDARD LOCATIONS



CASE 3

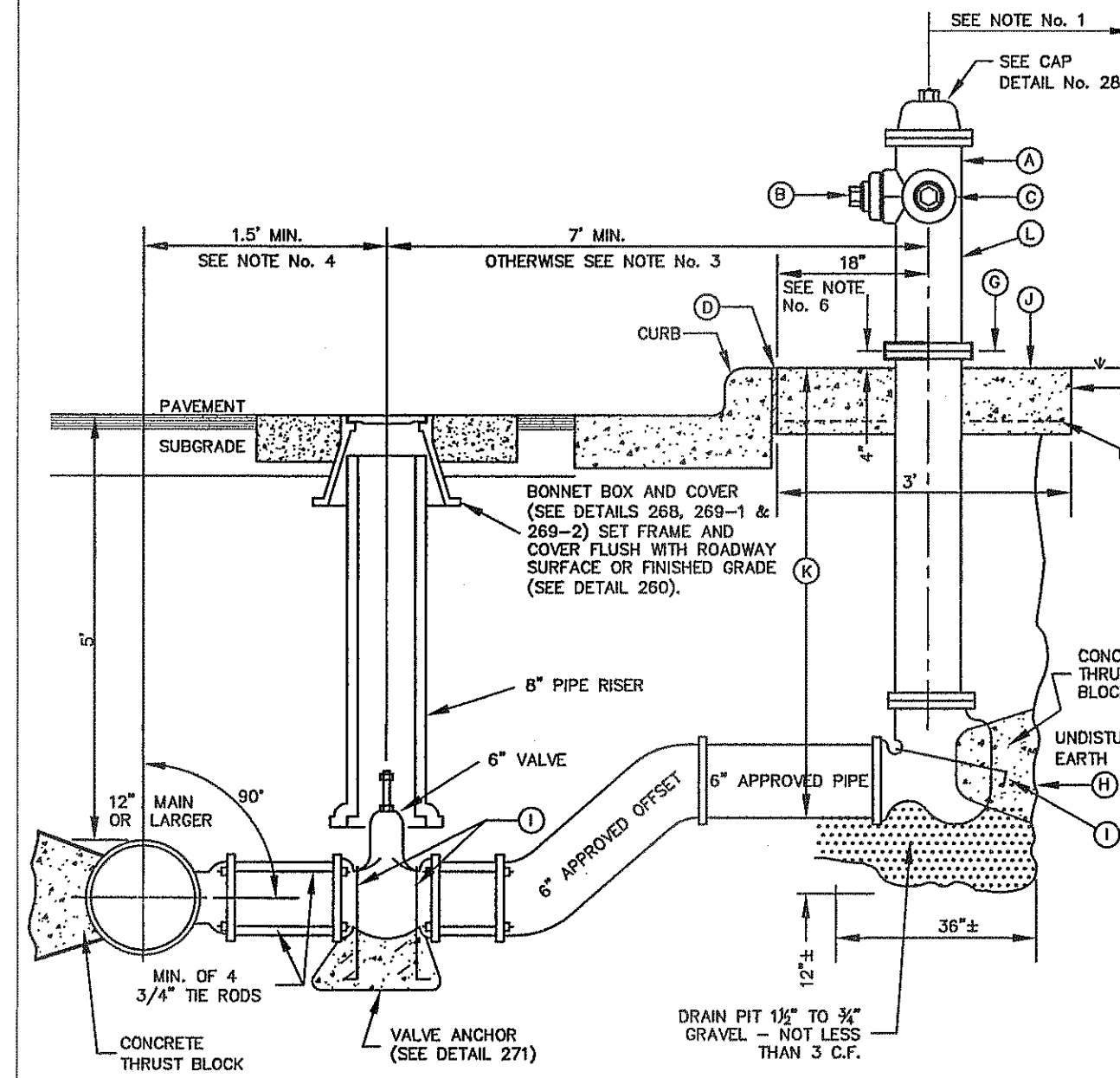
CASE 4

SPECIAL LOCATIONS

**GENERAL NOTES:**  
 1. FOR CASE 1 FIRE HYDRANT SHALL BE LOCATED AT A DISTANCE OF 5 FT. MINIMUM FROM THE PROPERTY LINE OR AT THE BEGINNING OF CURB RETURN.  
 2. FOR CASE 2 FIRE HYDRANT SHALL BE LOCATED AT THE PROPERTY LINE COMMON TO ADJOINING LOTS.  
 3. FOR CASE 3 AND IV WHERE THE DISTANCE BETWEEN THE VALVE AND THE HYDRANT IS LESS THAN 7 FT. PLACE HYDRANT AS SHOWN.  
 4. FOR INSTALLATION OF FIRE HYDRANT SEE DETAIL 280-1 OR 280-2.  
 5. A MINIMUM CLEARANCE OF 3 FT. WILL BE PROVIDED BETWEEN A FIRE HYDRANT AND A PERMANENT OBSTRUCTION (UTILITY POLE, LIGHT STANDARD, TRAFFIC SIGNAL, WHEEL CHAIR RAMP, FENCE PROTECTIVE POSTS, ETC.).  
 6. WHEN INSTALLATION IS WITHIN 1'00" RIGHT OF WAY, HYDRANT SHALL NOT BE PLACED IN SIDEWALK AREA OR ANY CLOSER THAN 5' FROM BACK OF CURB.

STANDARD DETAIL	DATE: 5/1994 REV: 6/25/2007	FIRE HYDRANT LOCATIONS	N.T.S.	EL PASO UTILITIES PUBLIC UTILITIES BOARD	DETAIL No. 282
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5 FIRE HYDRANT LOCATIONS  
SCALE: N.T.S.



STANDARD DETAIL	DATE: 12/1995 REV: 12/1/2011	FIRE HYDRANT INSTALLATION (12" MAIN OR LARGER)	N.T.S.	EL PASO UTILITIES PUBLIC UTILITIES BOARD	DETAIL No. 280-2
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6 FIRE HYDRANT INSTALLATION (12" MAIN OR LARGER)  
SCALE: N.T.S.

**GENERAL NOTES:**  
 1. NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 5 FT. IN ALL DIRECTIONS OF FIRE HYDRANT (PER EL PASO MUNICIPAL CODE, TITLE 12). FIRE HYDRANT SHALL NOT BE PLACED IN WHEEL CHAIR RAMP OR DRIVEWAY.  
 2. FIRE HYDRANT SHALL BE LOCATED AT THE BEGINNING OF CURB RETURN OR AT THE PROPERTY LINE COMMON TO ADJOINING LOTS, UNLESS OTHERWISE SHOWN ON PLANS. REFER TO DETAIL No. 282 FOR SPECIAL CASES.  
 3. WHERE DISTANCE IS LESS THAN 7', HYDRANT SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL No. 282.  
 4. VALVE MAY BE CONNECTED TO TEE AT MAIN LINE. USE FLANGED MECHANICAL JOINT ENDS. WHERE SPOOL IS REQUIRED BETWEEN TEE AND VALVE, USE FLANGED MECHANICAL ENDS WITH 3/4" DIAMETER TIE RODS.  
 5. COMPLY WITH REQUIREMENTS OF AWWA C-502, DRY BARREL FIRE HYDRANTS AND AWWA C-550, PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES AND HYDRANTS.  
 6. WHEN INSTALLATION IS WITHIN 1'00" RIGHT OF WAY, HYDRANT SHALL NOT BE PLACED IN SIDEWALK AREA OR ANY CLOSER THAN 5' FROM BACK OF CURB.

**CONSTRUCTION KEY NOTES:**  
 A. FIRE HYDRANT PER SPECS.  
 B. PUMPER NOZZLE 4 1/2" TO BE FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED IN THE PLANS.  
 C. HOSE NOZZLE 2 1/2"  
 D. 1/2" PREMOLDED EXPANSION JOINT WITH 1" TOP FILLER.  
 E. 3"x3"x6" CONC. SQ. PAD, TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONC. AREA.  
 F. #10, 6/8 WWF.  
 G. CONTROLLED ELEVATION LINE, LEVEL IN ALL DIRECTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF THE HYDRANT TO CONTROLLED ELEVATION.  
 H. CONC. THRUST BLOCK, APPROX. 2'x2'x3' TO BE POURED AGAINST UNDISTURBED EARTH, F.H. WEEP HOLE MUST BE UNOBSTRUCTED.  
 I. 2"x4" STEEL ANCHOR PINS.  
 J. TOP OF SLAB SHALL BE AT CURB LEVEL 4" BELOW THE BREAK LINE OF THE HYDRANT, UNDER SPECIAL CONDITIONS THE ENGINEER MAY ALLOW VARIATIONS TO THIS CONSTRUCTION.  
 K. MAXIMUM OF ONE (1) SPOOL EXTENSION ALLOWED TO MAINTAIN THE CONTROLLED ELEVATION LINE TO TOP OF SLAB. ADDITIONAL ADJUSTMENT MUST BE MADE WITH OFFSETS & FITTINGS AS NEEDED.  
 L. REQUIRED - DAVIDSON ANTI TERRORISM CORROSION RESISTANT VALVE KIT (DATV).

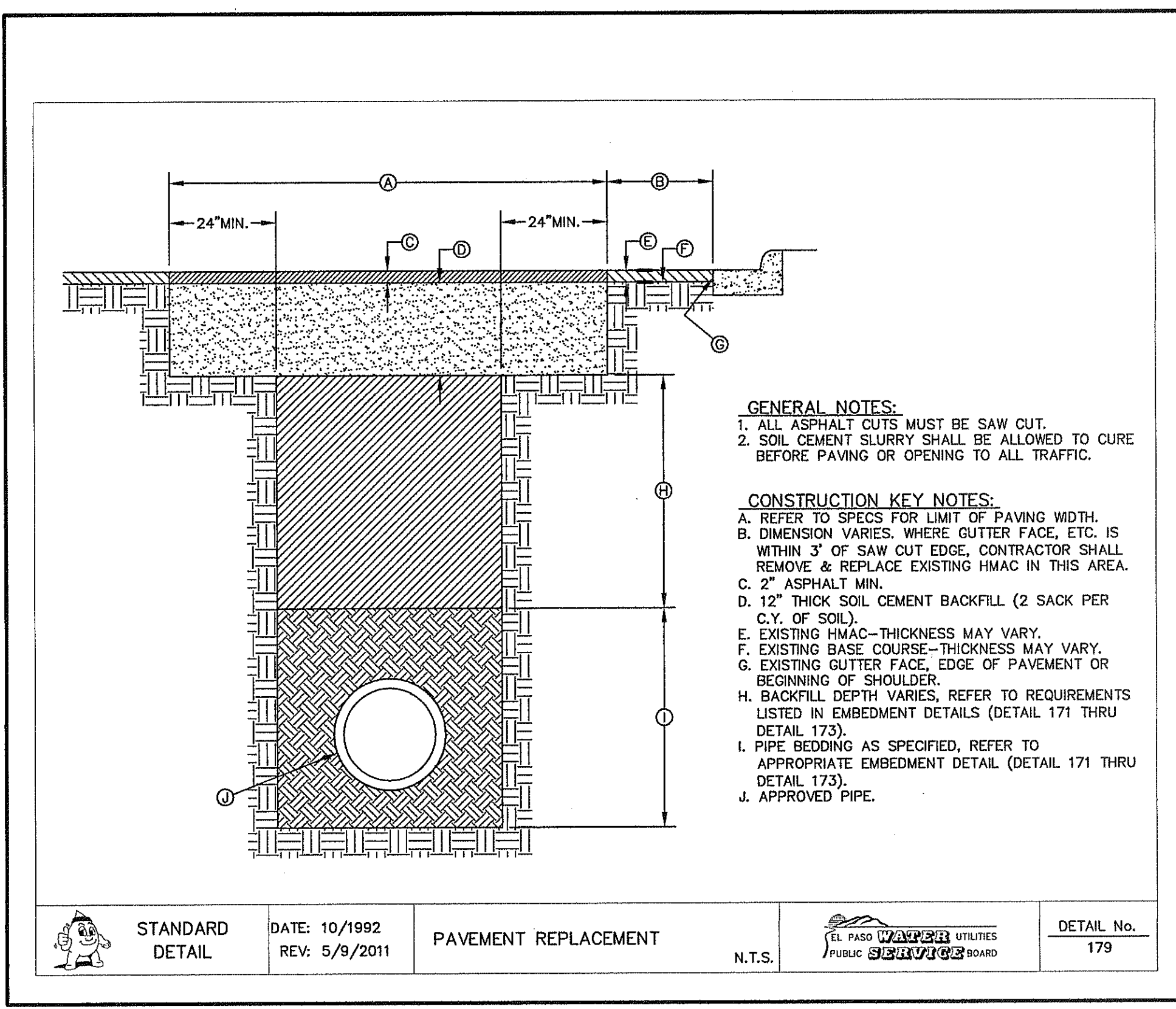
PROJECT TITLE  
**TRES SUEÑOS  
 UNIT ELEVEN  
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**WATER DETAILS**

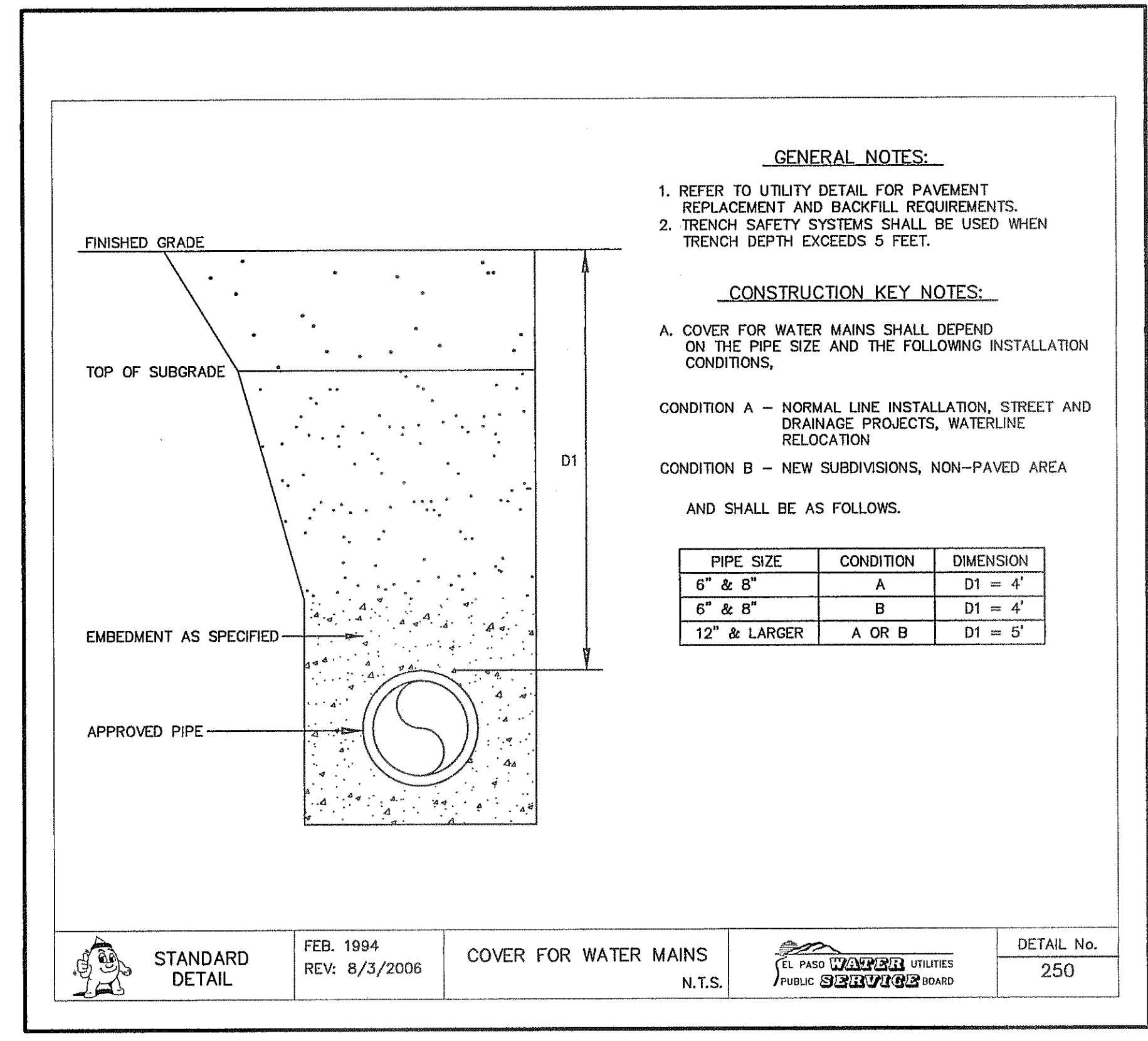
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 SHEET NO.

C10.3

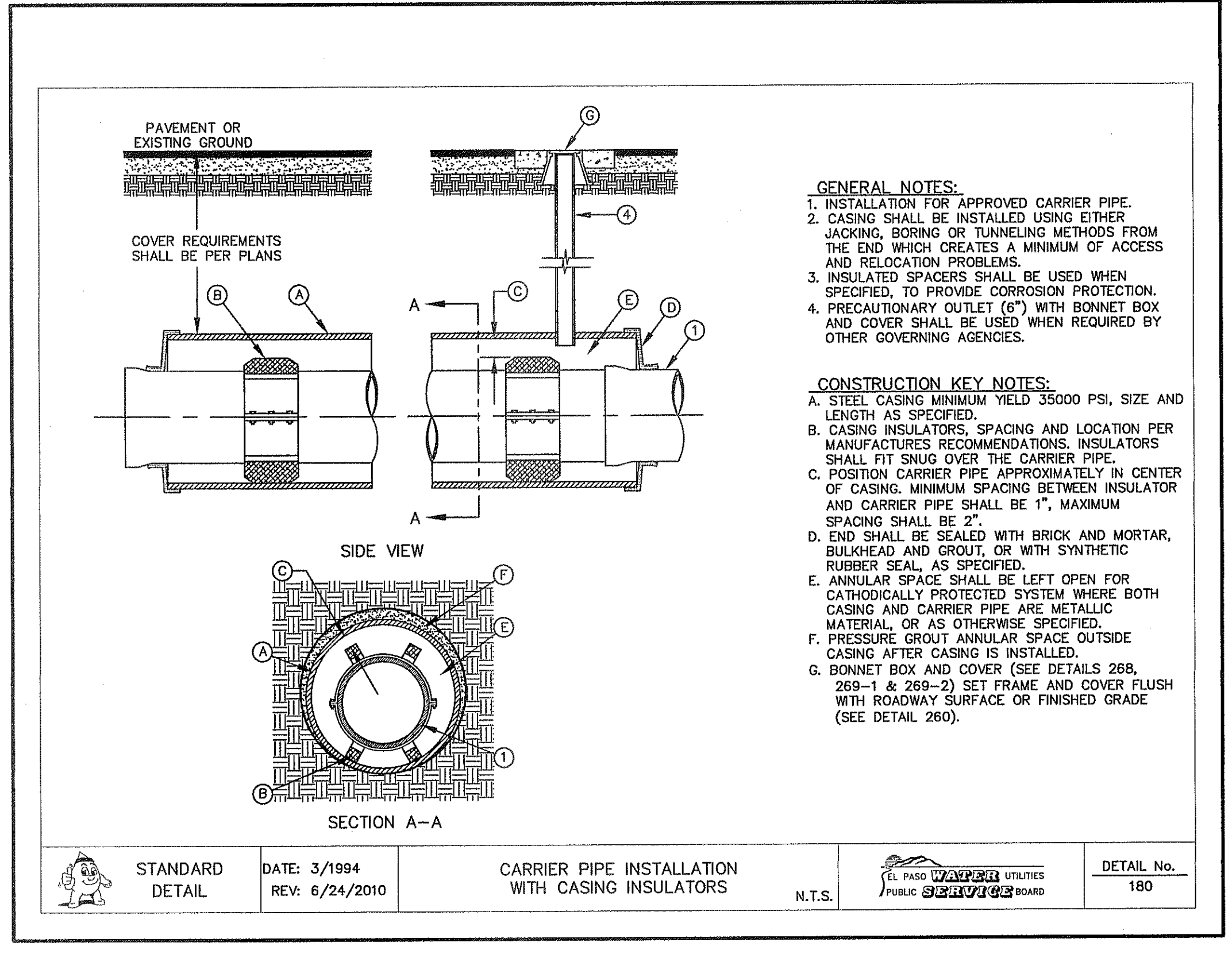




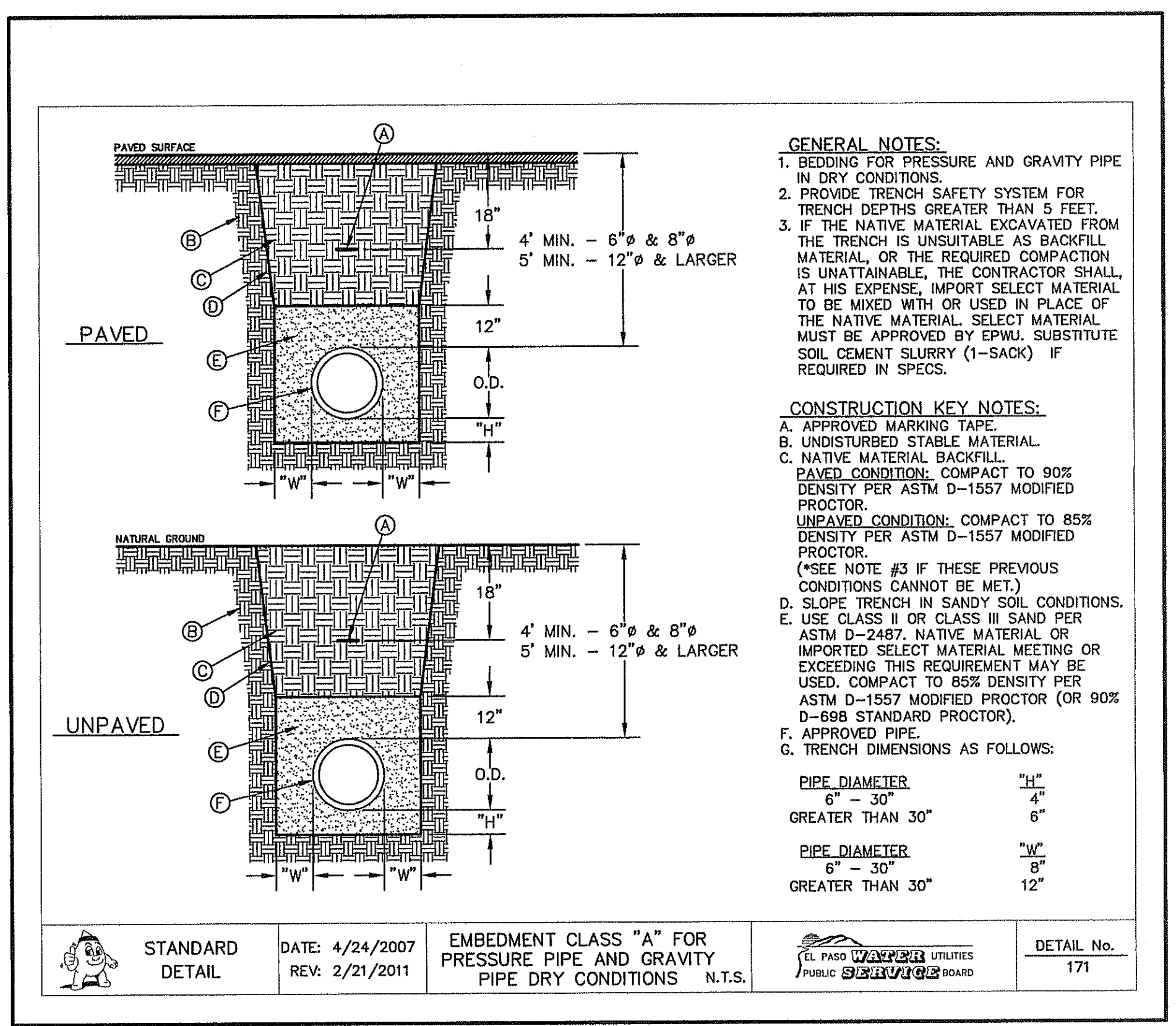
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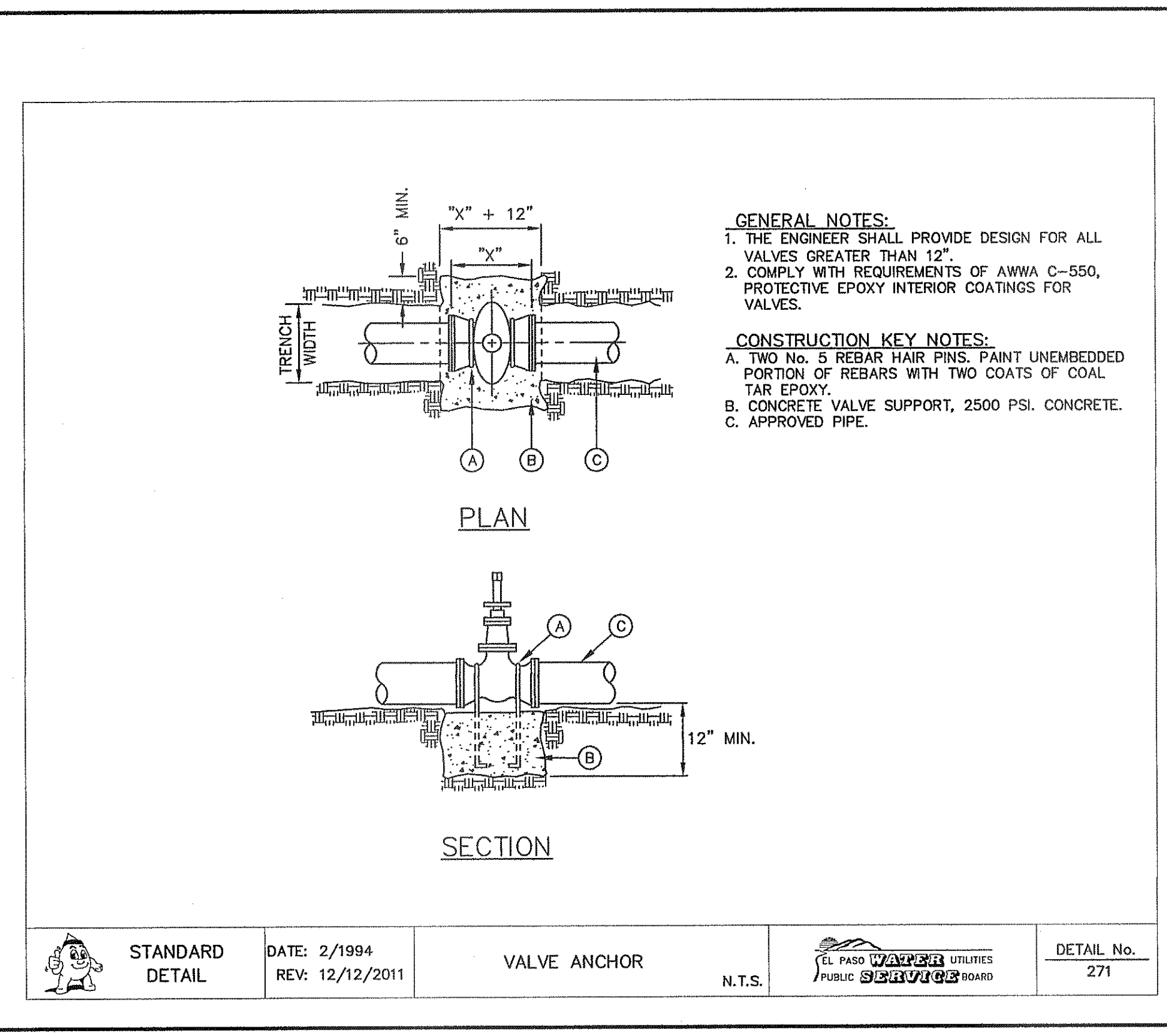
2 COVER FOR WATER MAINS  
 SCALE: N.T.S.



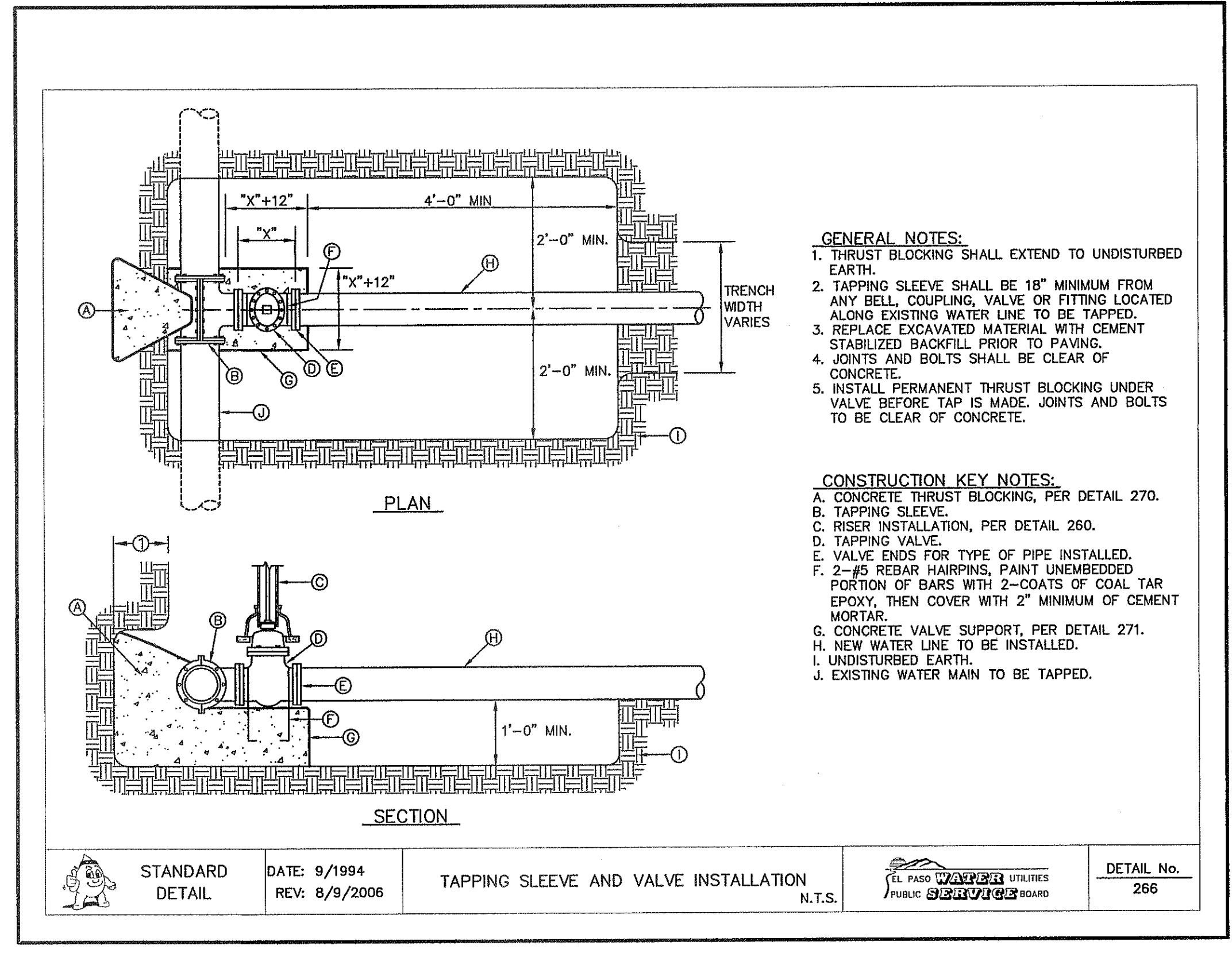
3 CARRIER PIPE INSTALLATION W/ CASING INSULATORS  
 SCALE: N.T.S.



4 EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS  
 SCALE: N.T.S.



5 VALVE ANCHOR  
 SCALE: N.T.S.



6 TAPPING SLEEVE AND VALVE INSTALLATION  
 SCALE: N.T.S.

REFERENCES — BENCHMARKS  
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., 508°43'31"E, A DISTANCE OF 487.56 FEET FROM THE INTERSECTION OF RICH BEEM BLVD. AND AVENUE CITY DATUM. ELEVATION: 1005.40

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 JORGE L. AZCARATE  
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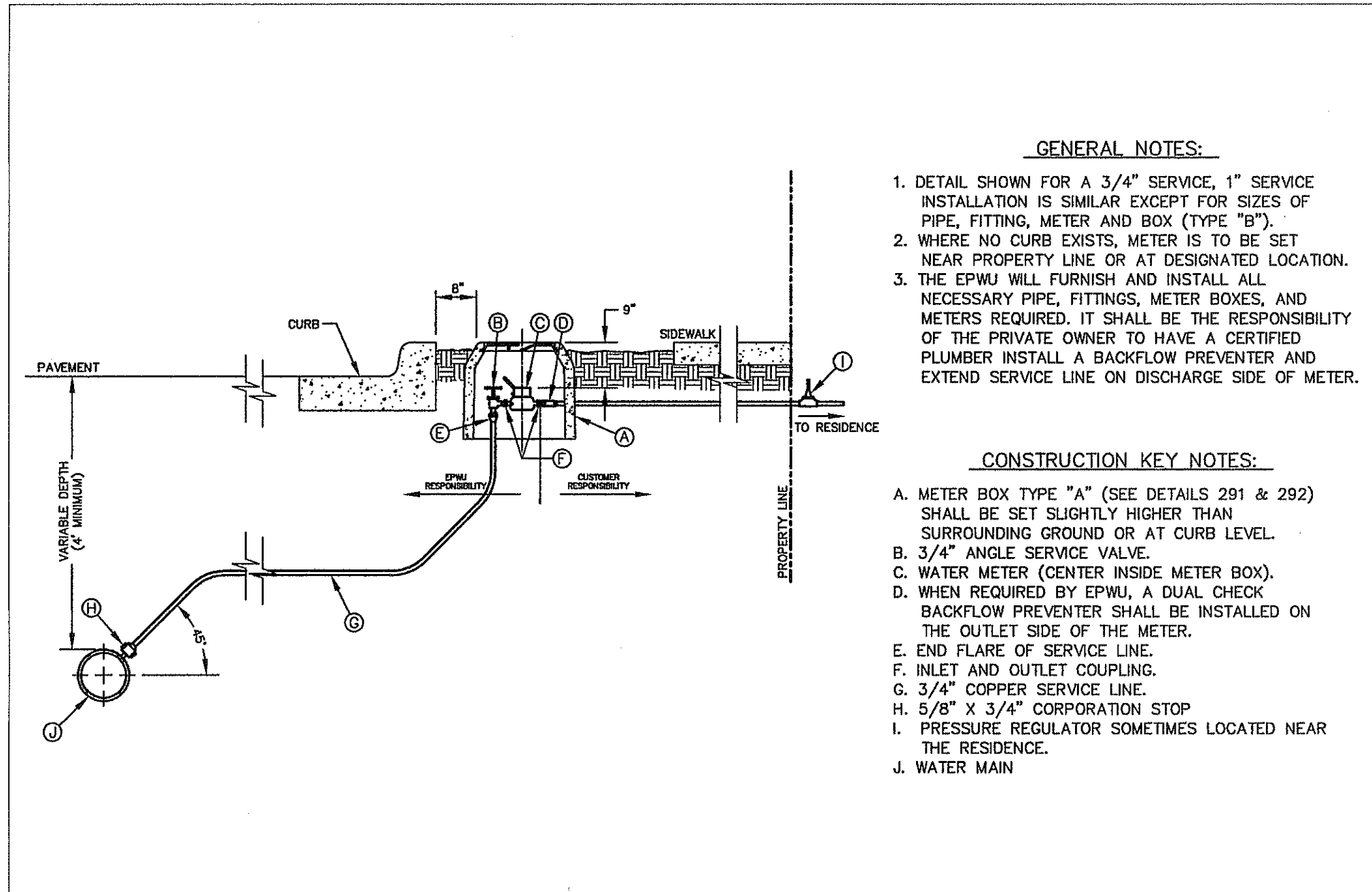
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 DATE: SEPTEMBER 2013  
 DESIGN BY: J.H.  
 DRAWN BY: J.H.  
 CHKD. BY: J.L.A.  
 APPD. BY: J.L.A.  
 JOB NO. 2000-157-LD

PROJECT TITLE  
 TRES SUEÑOS  
 UNIT ELEVEN  
 SUBDIVISION IMPROVEMENTS

SHEET TITLE  
 WATER DETAILS  
 (SHEET 3 OF 5)  
 SHEET NO.

REVISIONS  
 DATE  
 BY





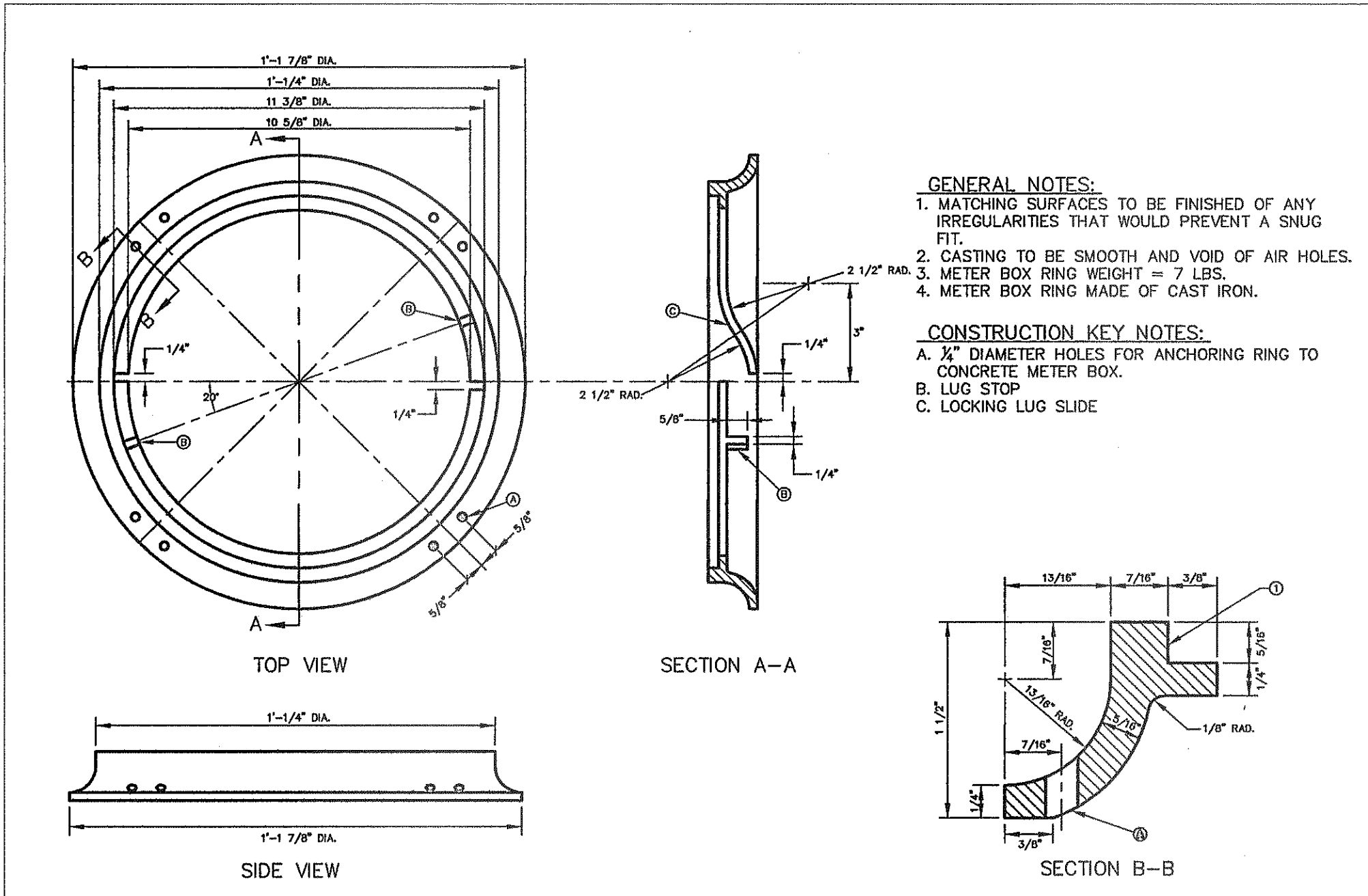
**GENERAL NOTES:**

- DETAIL SHOWN FOR A 3/4" SERVICE, 1" SERVICE INSTALLATION IS SIMILAR EXCEPT FOR SIZES OF PIPE, FITTING, METER AND BOX (TYPE "B").
- WHERE NO CURB EXISTS, METER IS TO BE SET NEAR PROPERTY LINE OR AT DESIGNATED LOCATION.
- THE EPWU WILL FURNISH AND INSTALL ALL NECESSARY PIPE, FITTINGS, METER BOXES, AND METERS REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE PRIVATE OWNER TO HAVE A CERTIFIED PLUMBER INSTALL A BACKFLOW PREVENTER AND EXTEND SERVICE LINE ON DISCHARGE SIDE OF METER.

**CONSTRUCTION KEY NOTES:**

- METER BOX TYPE "A" (SEE DETAILS 291 & 292) SHALL BE SET SLIGHTLY HIGHER THAN SURROUNDING GROUND OR AT CURB LEVEL.
- 3/4" ANGLE SERVICE VALVE.
- WATER METER (CENTER INSIDE METER BOX).
- WHEN REQUIRED BY EPWU, A DUAL CHECK BACKFLOW PREVENTER SHALL BE INSTALLED ON THE OUTLET SIDE OF THE METER.
- END FLARE OF SERVICE LINE.
- INLET AND OUTLET COUPLING.
- 3/4" COPPER SERVICE LINE.
- 5/8" X 3/4" CORPORATION STOP.
- PRESSURE REGULATOR SOMETIMES LOCATED NEAR THE RESIDENCE.
- WATER MAIN.

STANDARD DETAIL	DATE: 12/1994 REV: 5/2/2007	SERVICE LINE 3/4" AND 1" INSTALLATION BY EPWU	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 290-1
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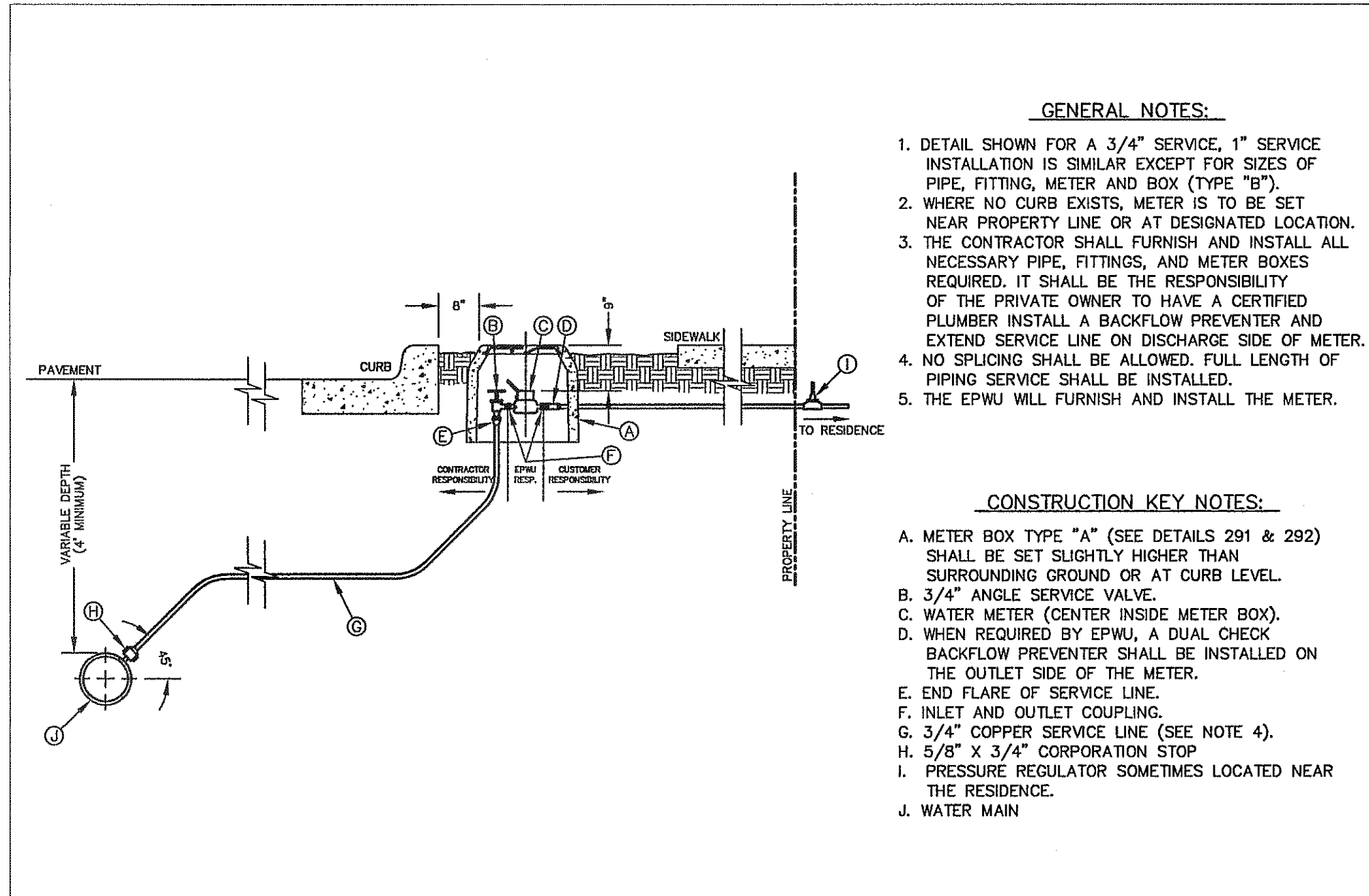
**GENERAL NOTES:**

- MATCHING SURFACES TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
- CASTING TO BE SMOOTH AND VOID OF AIR HOLES.
- METER BOX RING WEIGHT = 7 LBS.
- METER BOX RING MADE OF CAST IRON.

**CONSTRUCTION KEY NOTES:**

- DIAMETER HOLES FOR ANCHORING RING TO CONCRETE METER BOX.
- LUG STOP.
- LOCKING LUG SLIDE.

STANDARD DETAIL	DATE: 1/1995 REV: 8/10/2006	METER BOX RING FOR TYPE "A" & "B" METER BOXES	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 300
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**GENERAL NOTES:**

- DETAIL SHOWN FOR A 3/4" SERVICE, 1" SERVICE INSTALLATION IS SIMILAR EXCEPT FOR SIZES OF PIPE, FITTING, METER AND BOX (TYPE "B").
- WHERE NO CURB EXISTS, METER IS TO BE SET NEAR PROPERTY LINE OR AT DESIGNATED LOCATION.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY PIPE, FITTINGS, AND METER BOXES REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE PRIVATE OWNER TO HAVE A CERTIFIED PLUMBER INSTALL A BACKFLOW PREVENTER AND EXTEND SERVICE LINE ON DISCHARGE SIDE OF METER.
- NO SPLICING SHALL BE ALLOWED. FULL LENGTH OF PIPING SERVICE SHALL BE INSTALLED.
- THE EPWU WILL FURNISH AND INSTALL THE METER.

**CONSTRUCTION KEY NOTES:**

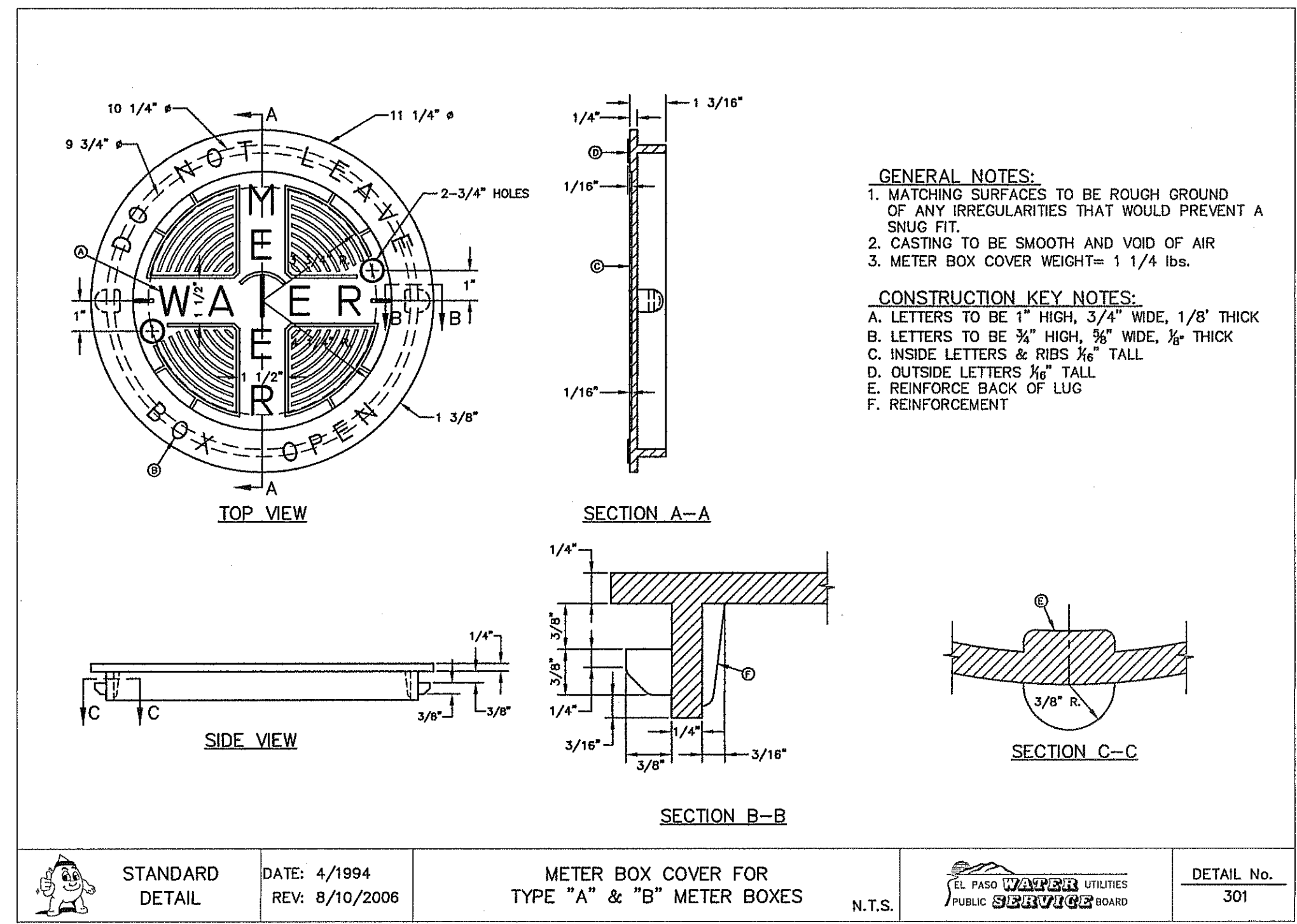
- METER BOX TYPE "A" (SEE DETAILS 291 & 292) SHALL BE SET SLIGHTLY HIGHER THAN SURROUNDING GROUND OR AT CURB LEVEL.
- 3/4" ANGLE SERVICE VALVE.
- WATER METER (CENTER INSIDE METER BOX).
- WHEN REQUIRED BY EPWU, A DUAL CHECK BACKFLOW PREVENTER SHALL BE INSTALLED ON THE OUTLET SIDE OF THE METER.
- END FLARE OF SERVICE LINE.
- INLET AND OUTLET COUPLING.
- 3/4" COPPER SERVICE LINE (SEE NOTE 4).
- 5/8" X 3/4" CORPORATION STOP.
- PRESSURE REGULATOR SOMETIMES LOCATED NEAR THE RESIDENCE.
- WATER MAIN.

STANDARD DETAIL	DATE: 10/20/2000 REV: 5/24/2007	SERVICE LINE 3/4" AND 1" INSTALLATION BY CONTRACTOR	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 290-4
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1 TYPICAL 3/4" SERVICE LINE INSTALLATION  
SCALE: N.T.S.

2 TYPE "A" & "B" METER BOX RING  
SCALE: N.T.S.

3 SERVICE LINE 3/4" INSTALLATION BY CONTRACTOR  
SCALE: N.T.S.



**GENERAL NOTES:**

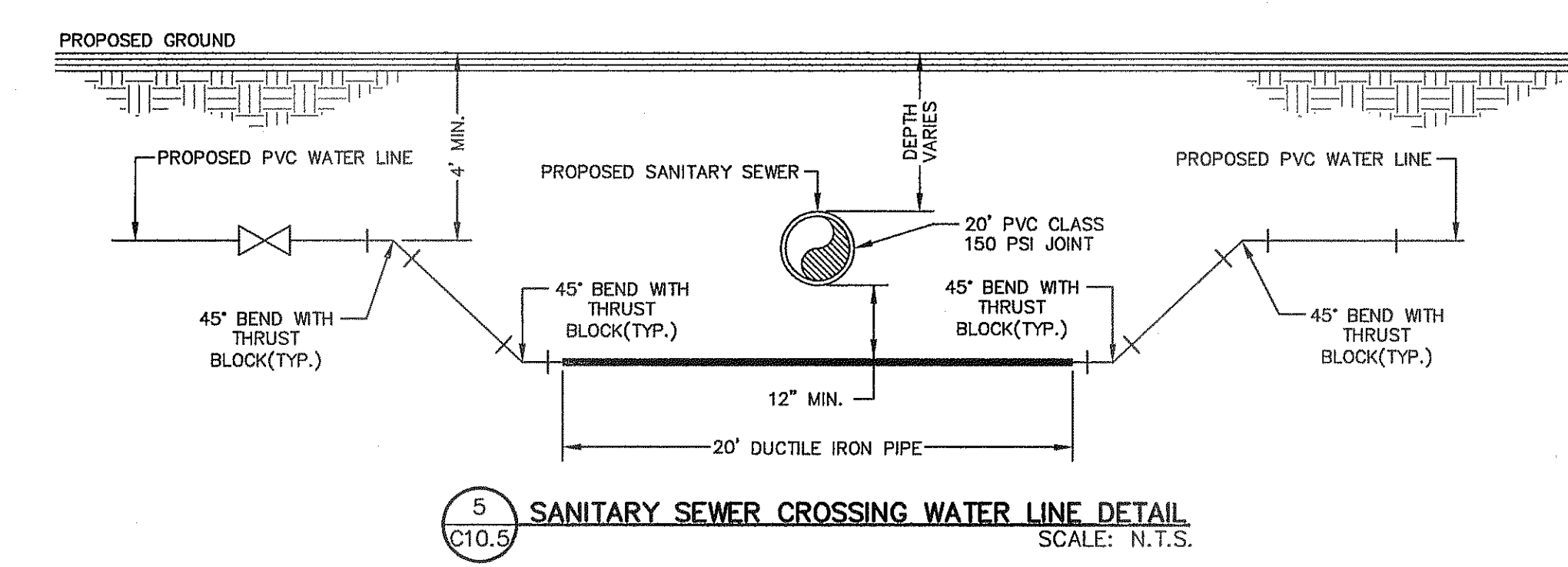
- MATCHING SURFACES TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
- CASTING TO BE SMOOTH AND VOID OF AIR HOLES.
- METER BOX COVER WEIGHT = 1 1/4 LBS.

**CONSTRUCTION KEY NOTES:**

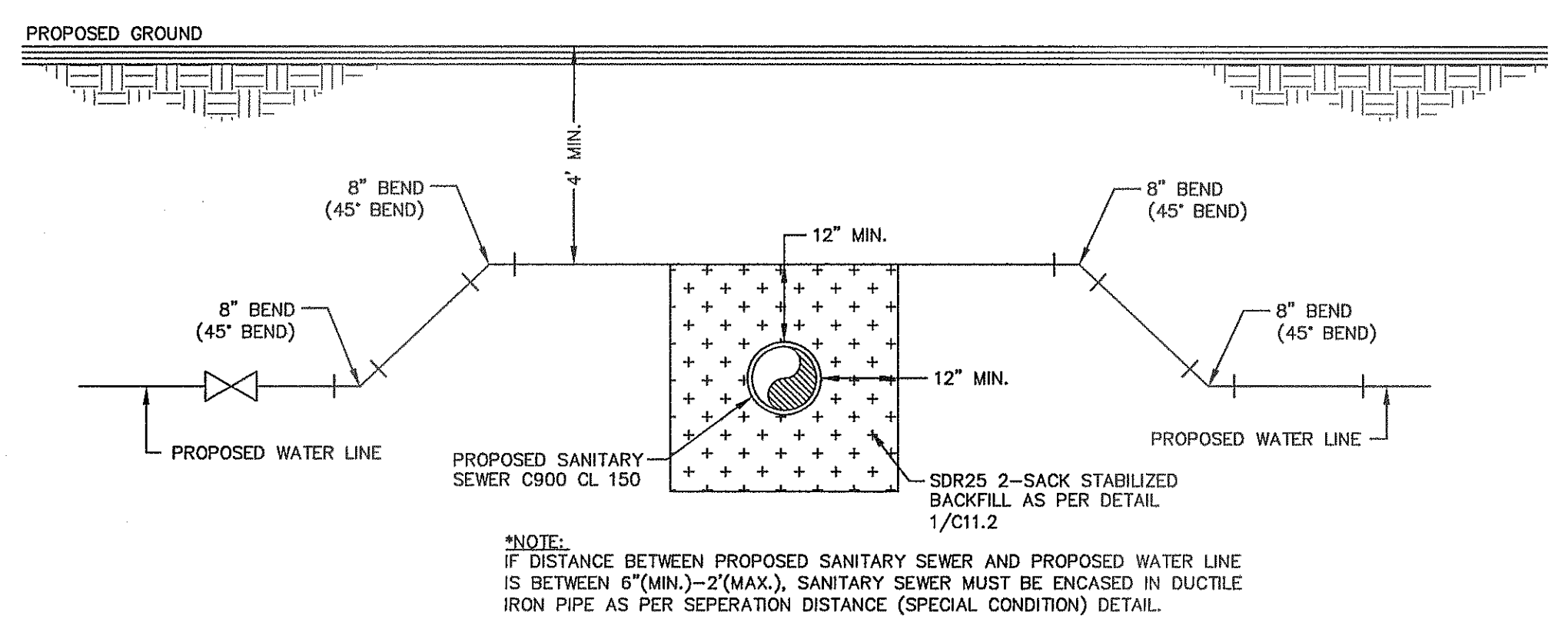
- LETTERS TO BE 1" HIGH, 3/4" WIDE, 1/8" THICK.
- LETTERS TO BE 3/4" HIGH, 3/8" WIDE, 1/8" THICK.
- INSIDE LETTERS & RIBS 1/8" TALL.
- OUTSIDE LETTERS 1/8" TALL.
- REINFORCE BACK OF LUG.
- REINFORCEMENT.

STANDARD DETAIL	DATE: 4/1994 REV: 8/10/2006	METER BOX COVER FOR TYPE "A" & "B" METER BOXES	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 301
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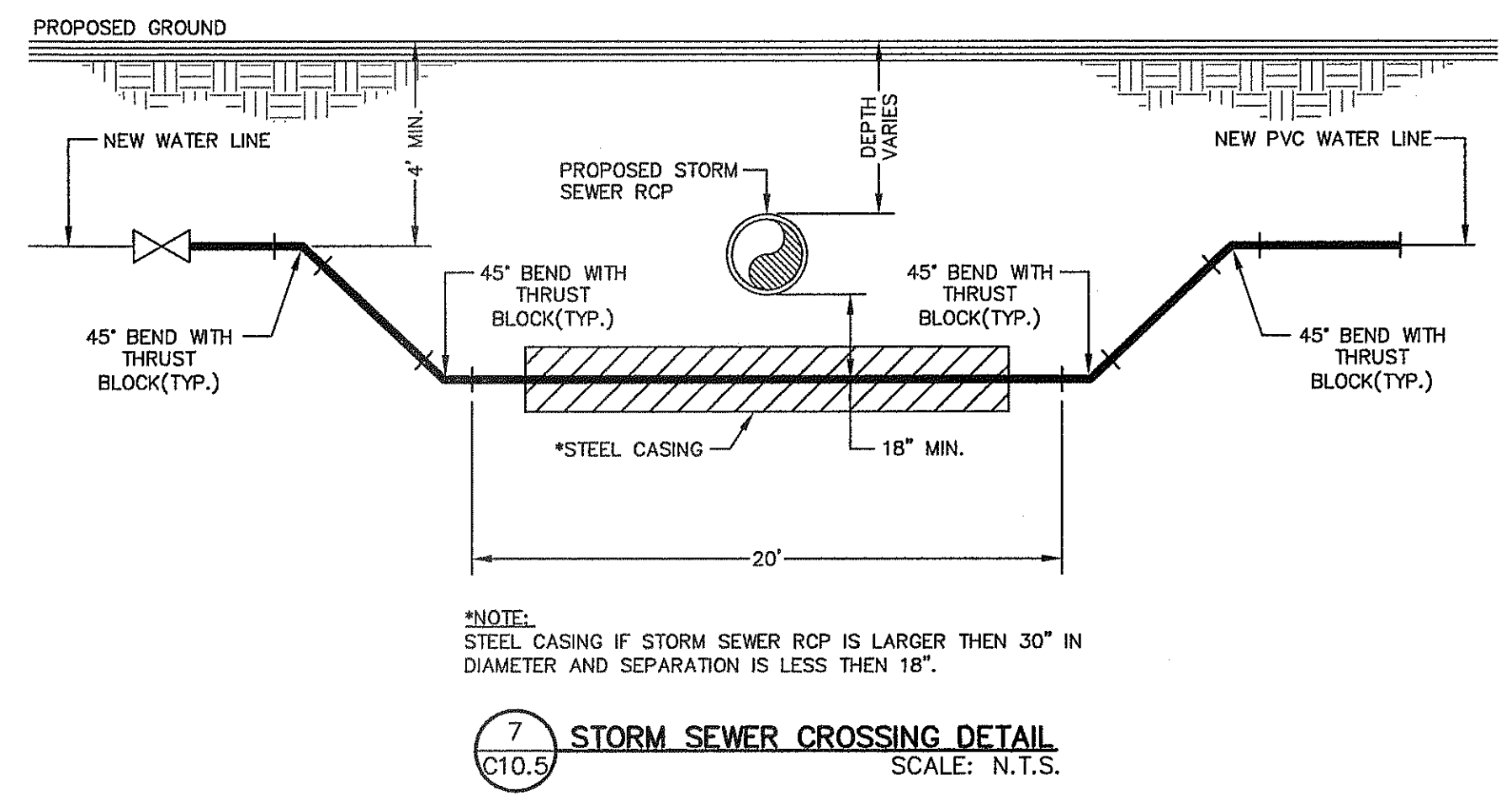
4 TYPE "A" & "B" METER BOX COVER  
SCALE: N.T.S.



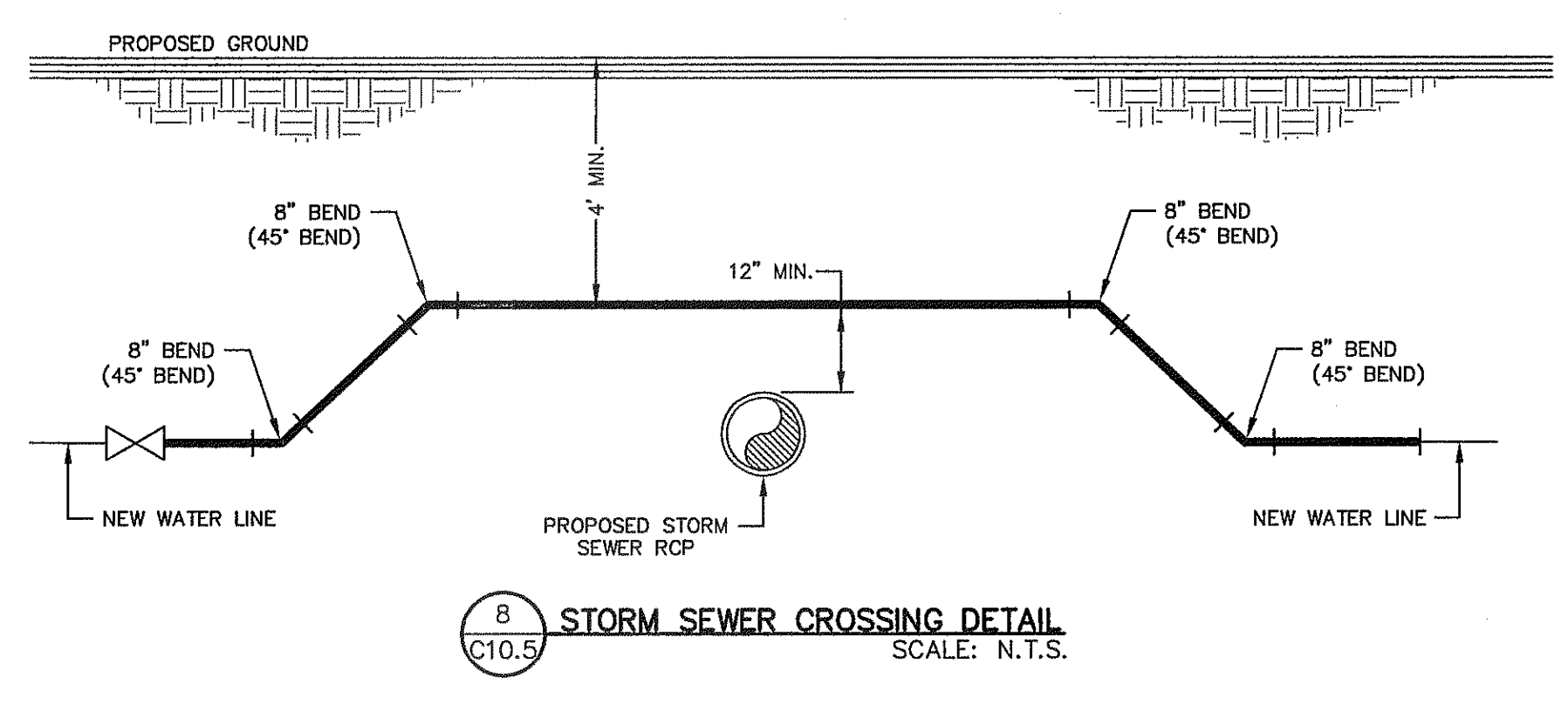
5 SANITARY SEWER CROSSING WATER LINE DETAIL  
SCALE: N.T.S.



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



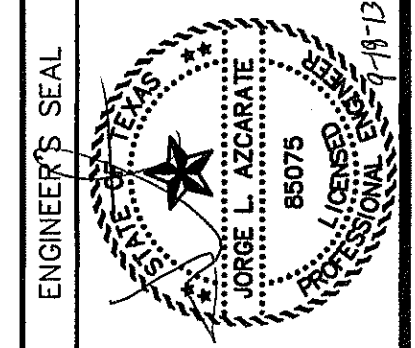
7 STORM SEWER CROSSING DETAIL  
SCALE: N.T.S.



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

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEN BLVD. SUBSTATION A DISTANCE OF 67.49 FEET FROM MONUMENT TO CENTERLINE OF CURVE. 1005.40 AVENUE CITY DATUM. ELEVATION.....1005.40

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SCALE: N/A  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.G.  
APP'D. BY: J.H.  
JOB No. 2000-157-ID

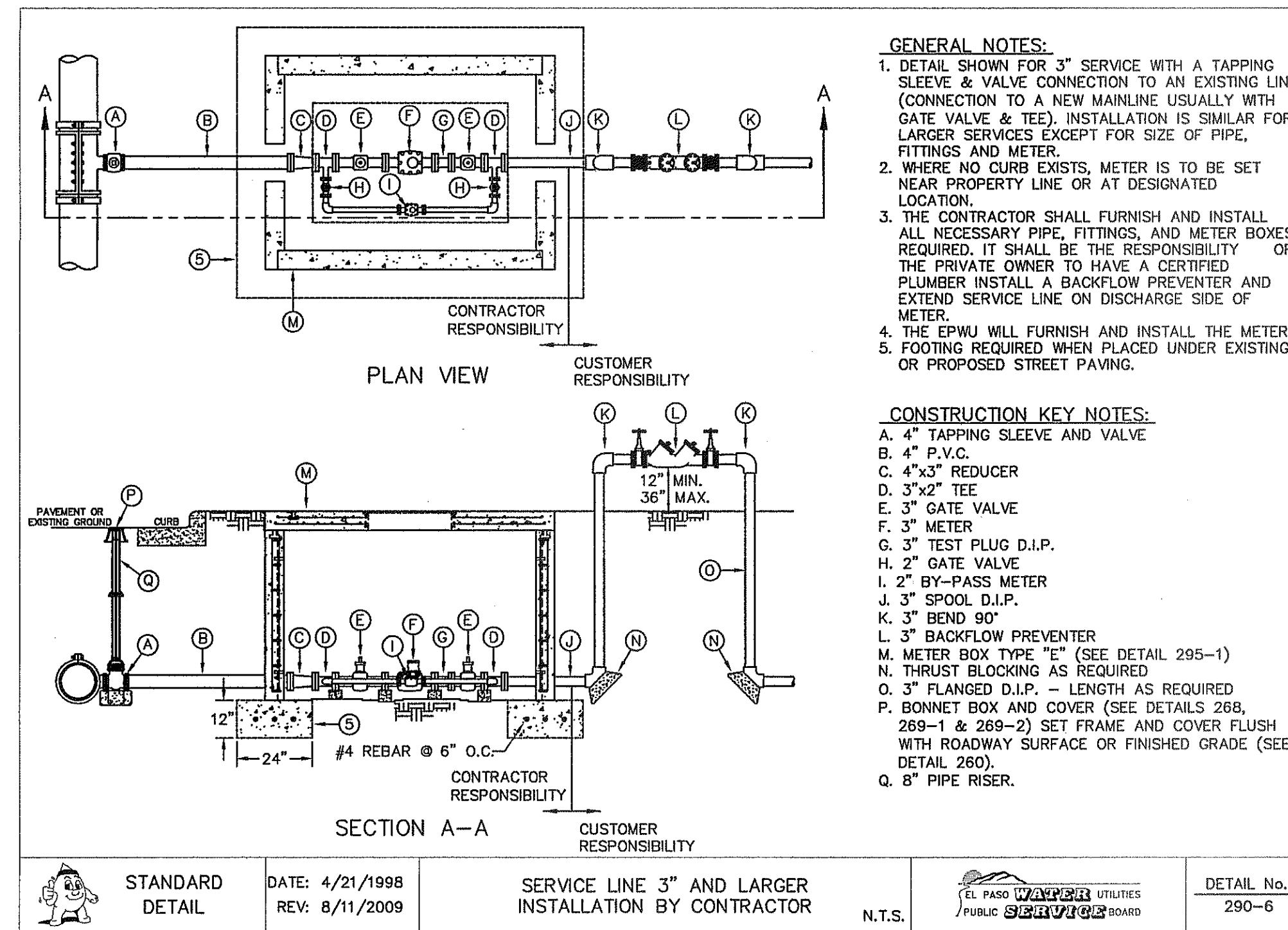
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TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
WATER DETAILS  
(SHEET 4 OF 5)  
SHEET NO.

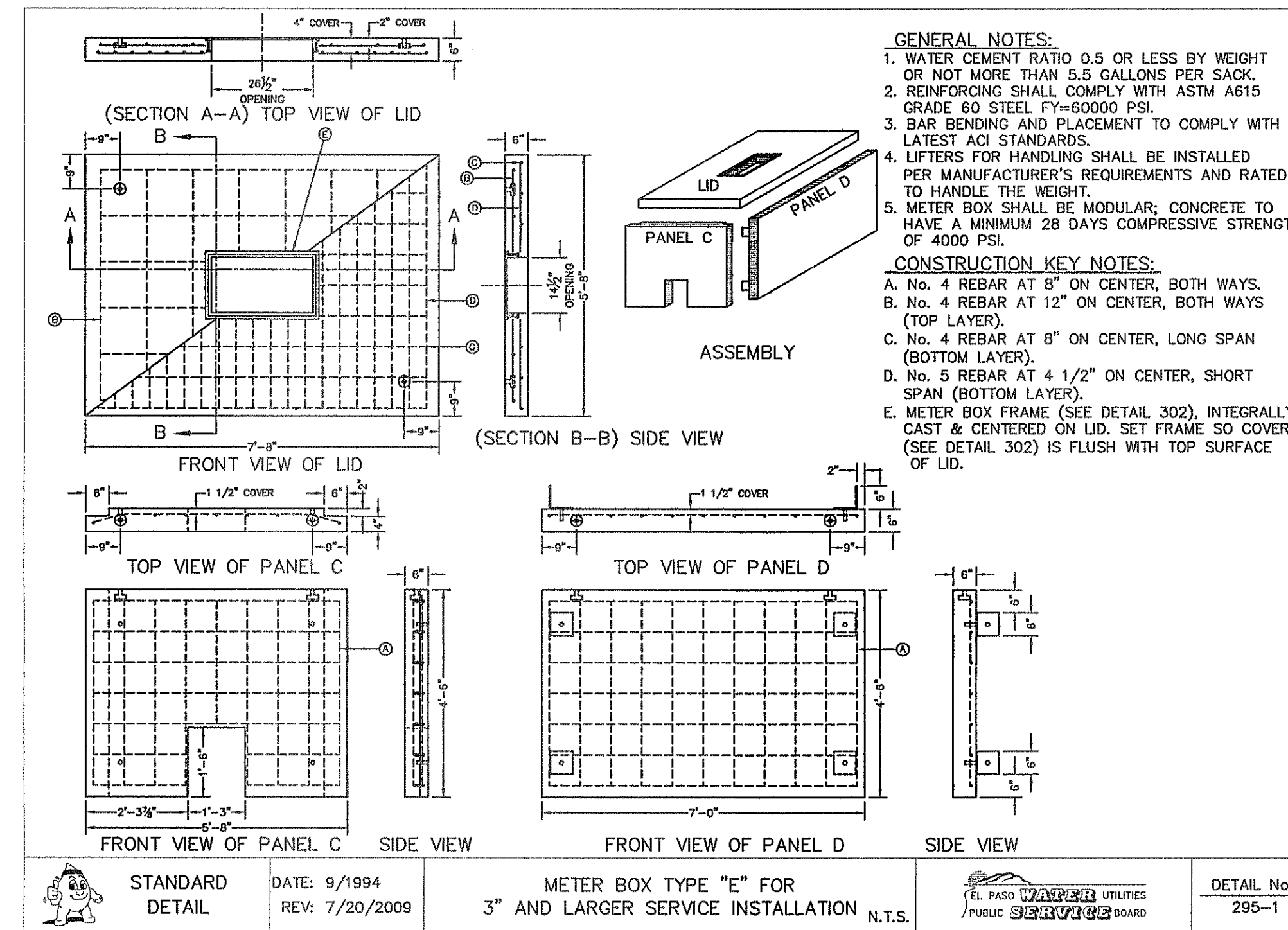
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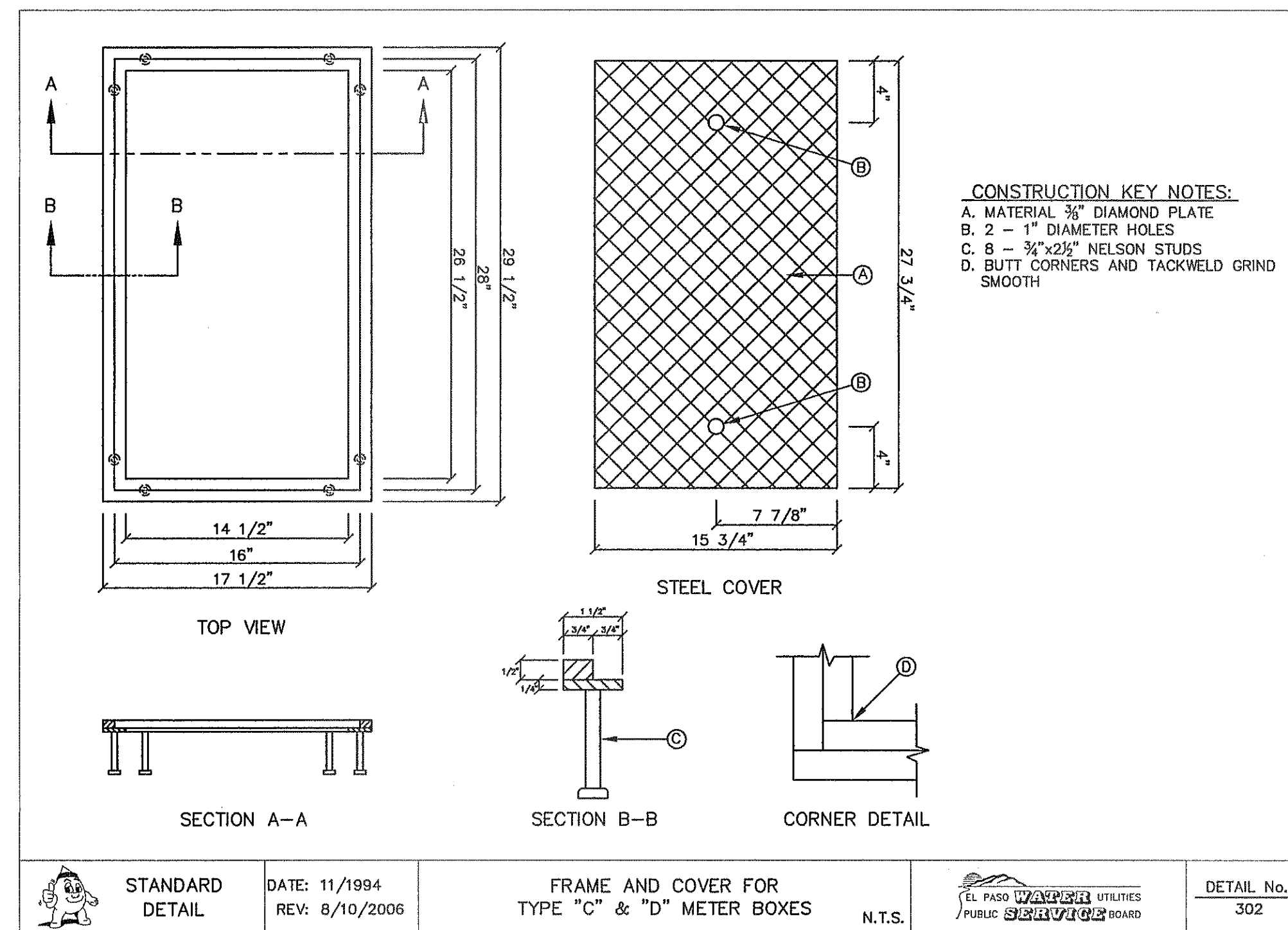




1 TYPICAL 3" OR LARGER SERVICE LINE INSTALLATION SCALE: N.T.S.



2 METER BOX TYPE "E" SCALE: N.T.S.

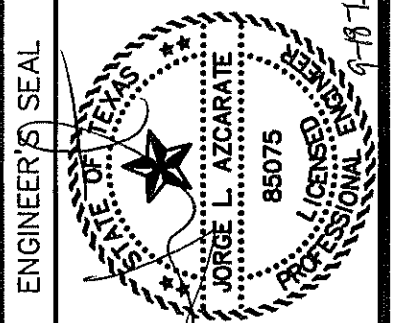


3 TYPE "C" & "D" METER BOX COVER SCALE: N.T.S.

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08+43.31'E A DISTANCE OF 487.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

DATE REVISIONS BY

**CSA**  
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4712 Woodrow Bean, Ste. F El Paso, TX 79924  
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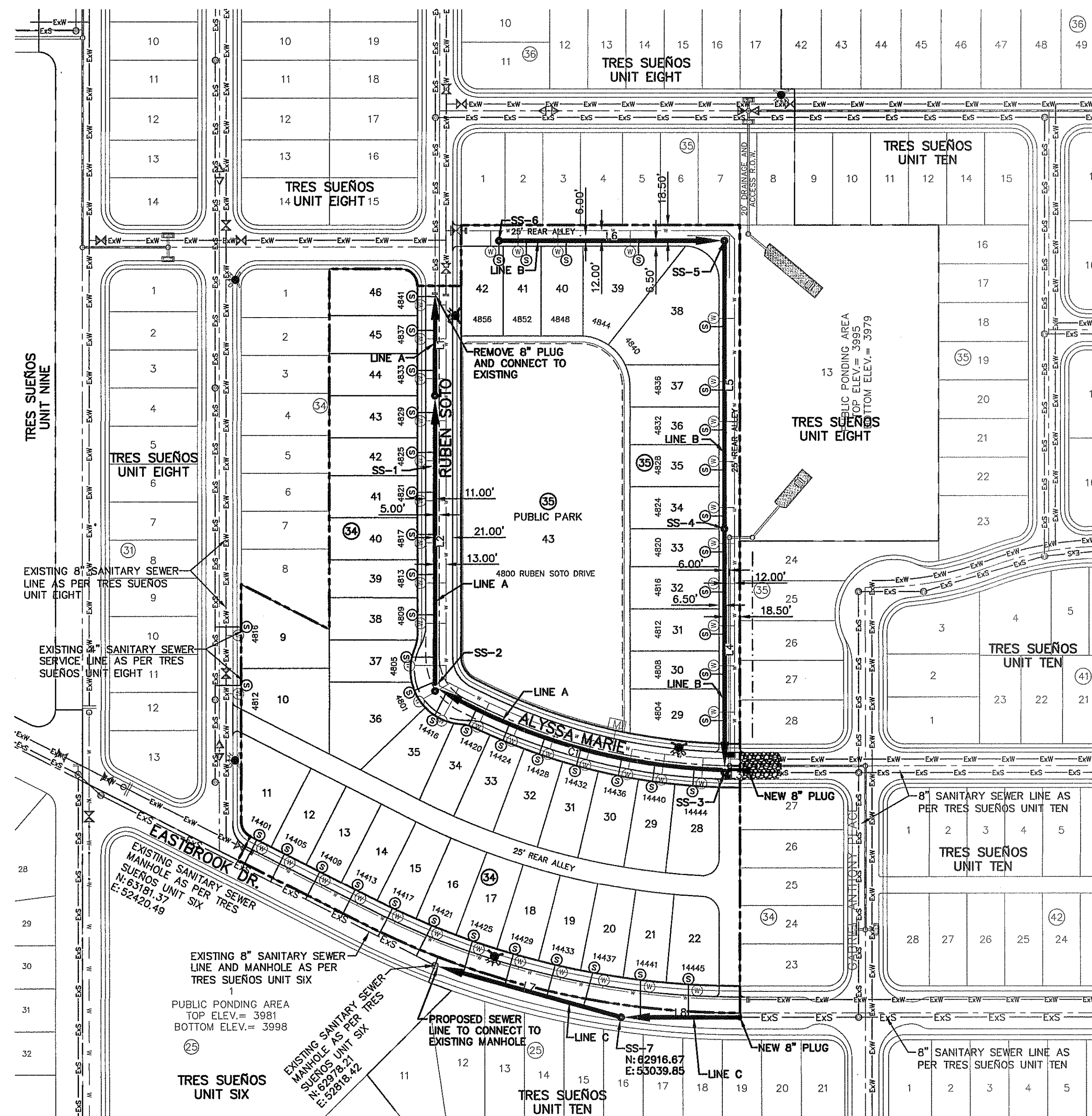
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Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.L.A.  
APPVD. BY: J.L.A.  
JOB No. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**WATER DETAILS  
(SHEET 5 OF 5)  
SHEET NO.**

C10.6





CONTRACTOR SHALL VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

LINE	BEARING	LENGTH
L1	S00°00'12"W	120.00'
L2	S00°00'11"W	345.83'
L3	S89°59'49"E	28.50'
L4	S00°00'05"E	286.59'
L5	N00°00'25"W	341.89'
L6	N89°59'52"E	268.30'
L7	S74°28'07"E	229.83'
L8	S89°59'49"E	141.62'

M.H. DEPTH	No. of M.H.'s
0'-8"	5
8'-12"	2
12'-16"	0

MANHOLE QUANTITIES

PIPE SIZE	DEPTH			
	0'-8"	8'-10"	10'-12"	12'-14"
8"	741.72'	1,383.10'	0.00'	0.00'

PIPE QUANTITIES

CURVE	CURVE TABLE					
	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	714.46'	362.27'	185.12'	358.40'	S73°56'06"E	029°03'08"

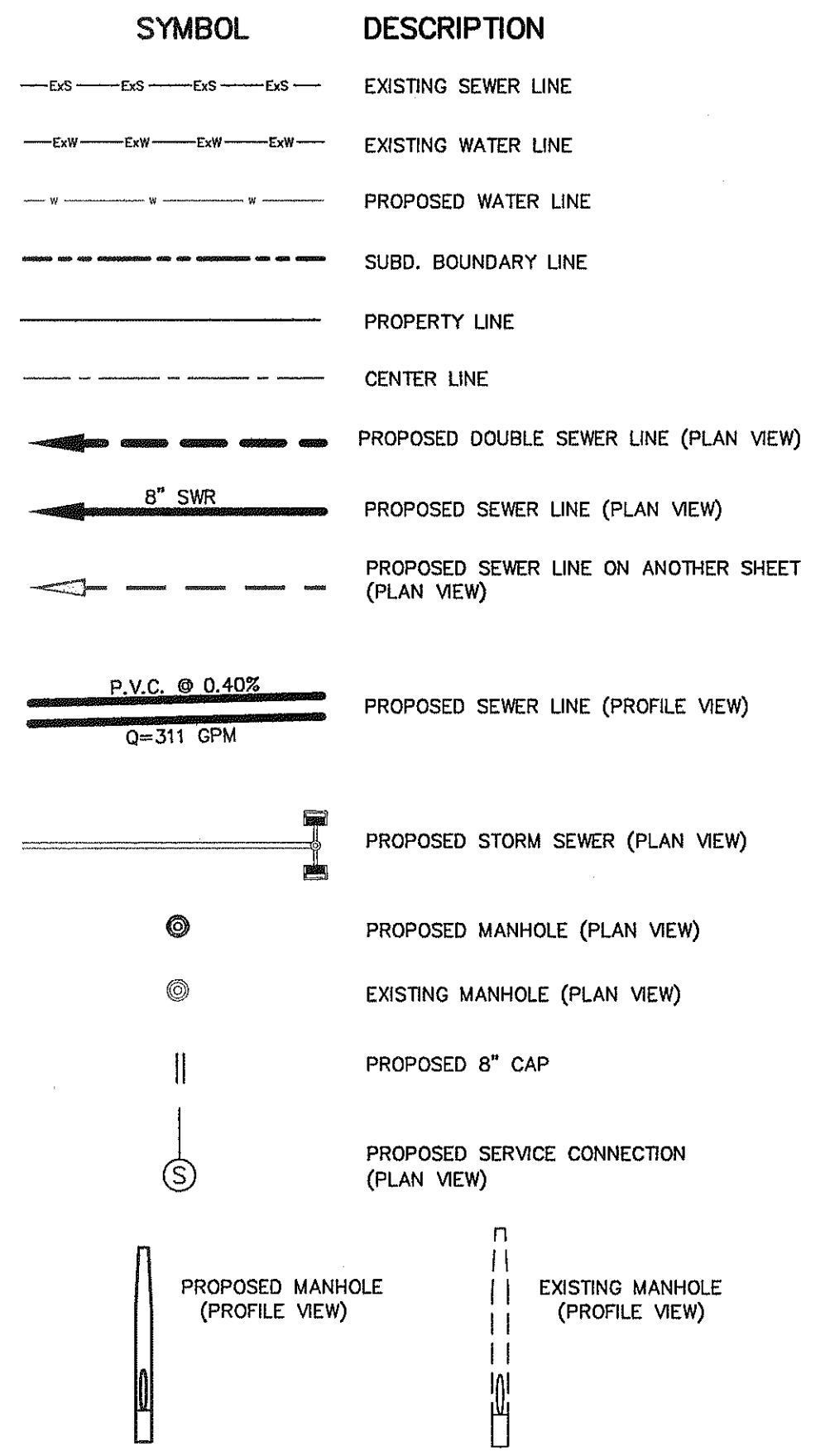
INDEX

SHEET NO.	DESCRIPTION
C11.1	TRES SUEÑOS UNIT ELEVEN SANITARY PIPE LAYOUT
C11.2	SANITARY SEWER LINE A AND LINE B
C11.3	SANITARY SEWER LINE C
C11.4	SANITARY DETAILS
C11.5	SANITARY DETAILS

NOTES:

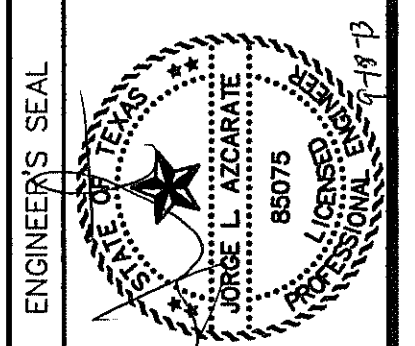
- ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
- ALL SANITARY SEWER PIPES SHALL BE PVC, SDR 35, (D 3034), UNLESS OTHERWISE SHOWN.
- REFERENCE TRES SUEÑOS UNIT SIX, TRES SUEÑOS UNIT EIGHT, AND TRES SUEÑOS UNIT TEN FOR EXISTING SEWER LINES.
- LOTS 11-16, BLOCK 34 SHALL BE SERVICED THROUGH THE EXISTING 8" SANITARY SEWER LINE ALONG EASTBROOK DRIVE, LOTS 9 & 10, BLOCK 34, SHALL BE SERVICED THROUGH THE EXISTING 8" SANITARY SEWER LINE ALONG ADRIAN CAMPOS STREET.

LEGEND



DATE	REVISIONS	BY

**CSA**  
engineers • architects • planners  
TEXAS REGISTERED ENGINEERING FIRM F-4964  
4713 Nicholson Plaza, Ste. F El Paso, TX 79904  
Office: 915.544.5202 Fax: 915.544.5203 www.csaonline.com



SCALE: 1" = 100'  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.L.A.  
APPROV. BY: J.L.A.  
JOB No. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**SANITARY SEWER INDEX**

SHEET NO.

**C11.1**

**SANITARY SEWER INDEX MAP**  
SCALE: 1" = 100'

**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. SEPARATIONS DISTANCES SHALL FOLLOW TCEQ STANDARD REQUIREMENTS (§290.44).
- THE INTENT OF THE OWNER IS TO HAVE THE SANITARY SEWER PIPELINES INSTALLED TO SUCH A DEPTH THAT THEY WILL HAVE AT LEAST 60" 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, SIGNS AND ALL OTHER MISCELLANEOUS STRUCTURES DAMAGED OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITION AT NO COST TO OWNER.
- ALL WATER AND SEWER UTILITY WORK, INCLUDING TIE-INS SHALL BE CLOSELY COORDINATED WITH EL PASO WATER UTILITIES FIELD ENGINEERING AT LEAST 48 HOURS PRIOR TO COMMENCING UTILITY WORK.
- TRAFFIC CONTROL SHALL BE IN PLACE PRIOR TO INITIATING WORK.
- CONSTRUCTION OF THE PUBLIC WATER AND SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFIRM 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:**  
CSA GROUP  
CASTNER CENTER @ TRANSMOUNTAIN  
4712 WOODROW BEAN, STE. F  
EL PASO, TX. 79924  
(915) 534-5232  
MR. JORGE L. AZCARATE, P.E.

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

**FIBER OPTICS:**  
MCI TELECOMMUNICATIONS CORPS.  
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) 594-5530  
MR. FELIPE LOPEZ, JR., P.E.

**ELECTRIC:**  
EL PASO ELECTRIC CO.  
501 W. SAN ANTONIO ST.  
EL PASO, TX. 79902  
(915) 543-2076  
MR. FRANK VIGEL (DISTRIBUTION)

**EL PASO STREETS**  
CITY OF EL PASO  
DEPARTMENT OF TRANSPORTATION  
7969 SAN PAULO DRIVE  
EL PASO, TX. 79907  
(915) 621-6750  
MR. TED MARQUEZ, P.E.

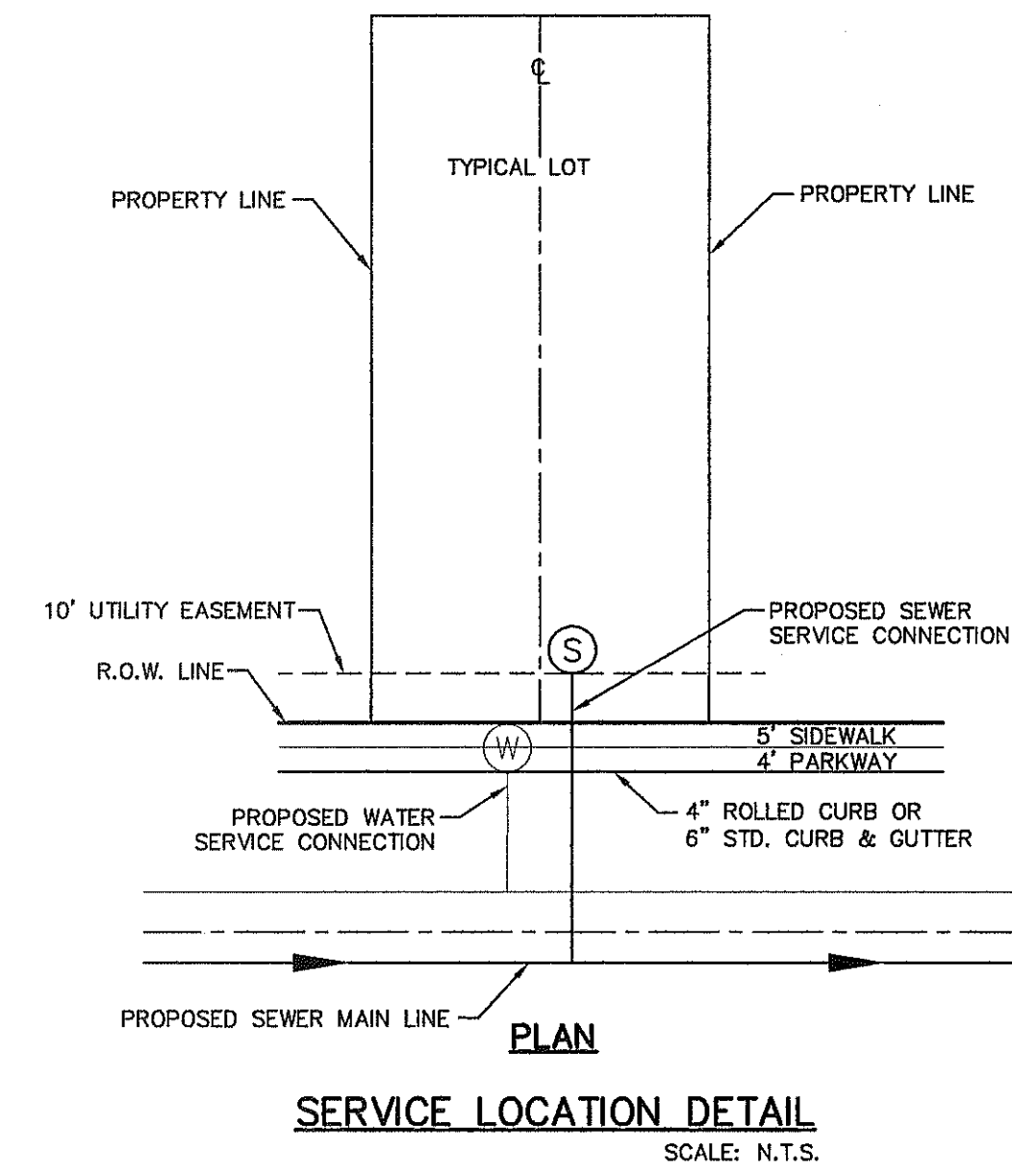
**CABLE TELEVISION:**  
TIME WARNER COMMUNICATIONS  
7010 AIRPORT ROAD  
EL PASO, TX. 79906  
(915) 772-1123

**TELEPHONE:**  
SBC  
11200 PELICANO  
P.O. BOX 1650  
EL PASO, TX. 79935  
(915) 595-5151  
MR. TIM BROWN

**FIBER OPTICS:**  
AT&T  
P.O. BOX 1650  
EL PASO, TX. 79949  
1(800) 852-3786  
MS. DARLENE NORIS

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

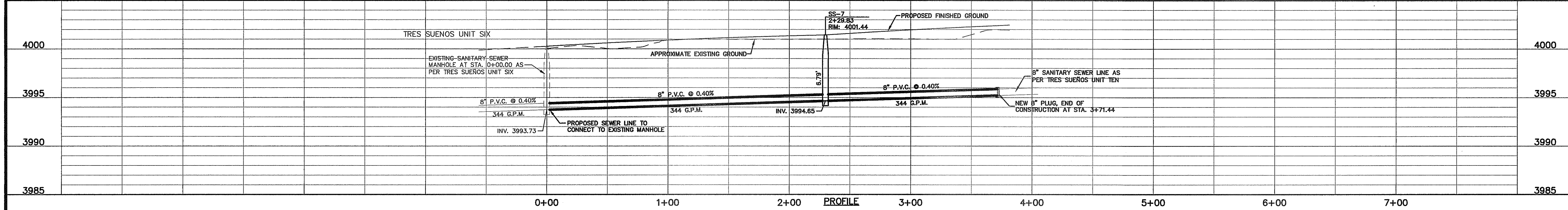
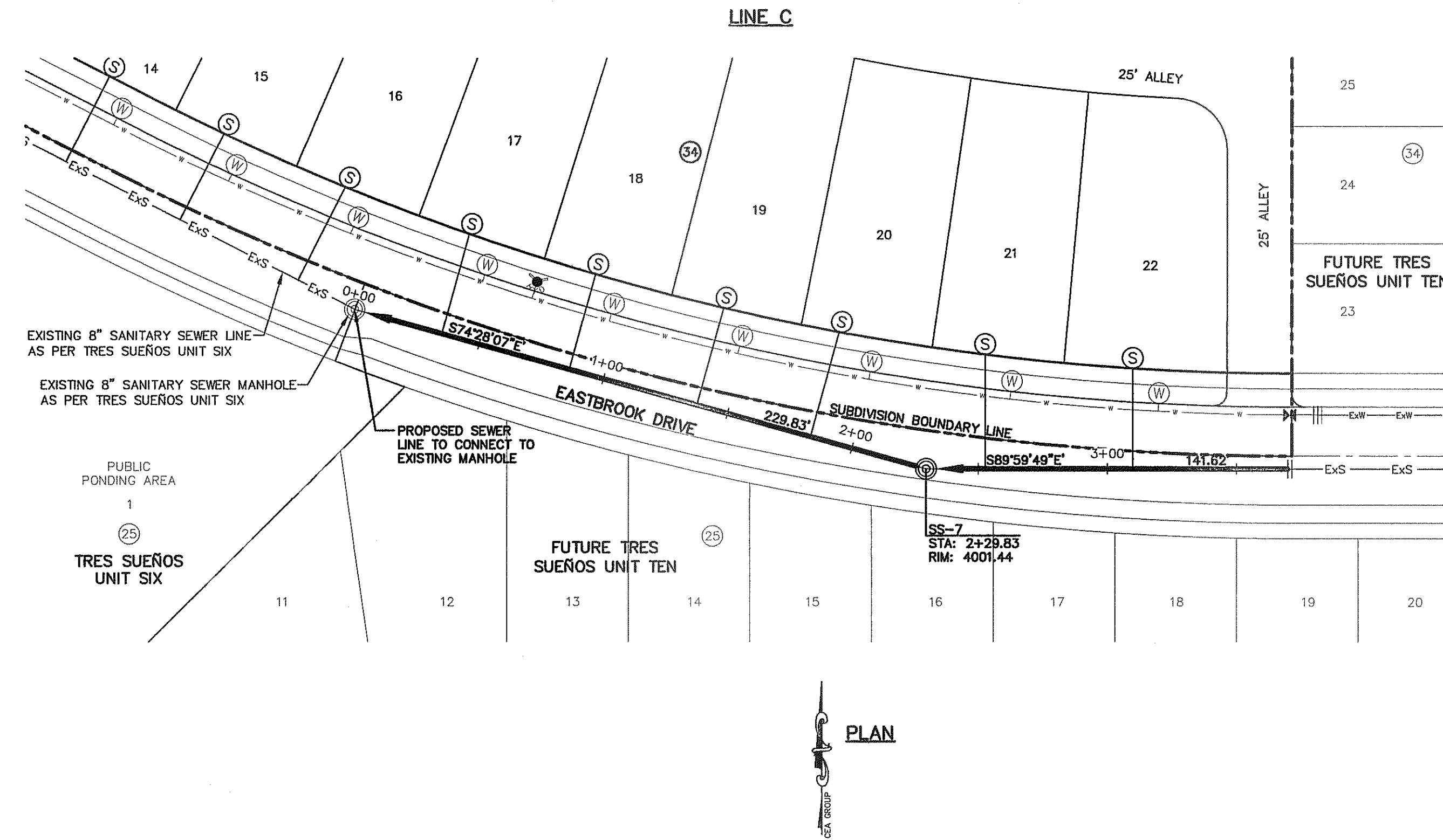
**WARNING!**  
**BEFORE YOU DIG**  
CALL  
1-800-DIG-TESS  
1-800-344-8377  
FOR FIELD LOCATING EXISTING UTILITIES











REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. S89°43'37"E DISTANCE OF 467.89 FEET TO BENCHMARK 1000.00 ELEVATION 4005.40

AVENUE CITY DATUM. ELEVATION 4005.40

DATE	REVISIONS	BY

engineers • architects • planners

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4712 Woodrow Bean, Ste. F, El Paso, TX 79924

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ENGINEER'S SEAL

JORGE L. AZCARATE  
85075  
Professional Engineer  
Civil Engineering  
State of Texas

SCALE

Horizontal: 1" = 40'

Vertical: 1" = 5'

Contour Interval: N/A

DATE: SEPTEMBER 2013

DESIGN BY: J.H.

DRAWN BY: J.H.

CHKD. BY: J.G.

APP'D. BY: J.H.

JOB No. 22000-157-ID

PROJECT TITLE

TRES SUEÑOS UNIT ELEVEN

SUBDIVISION IMPROVEMENTS

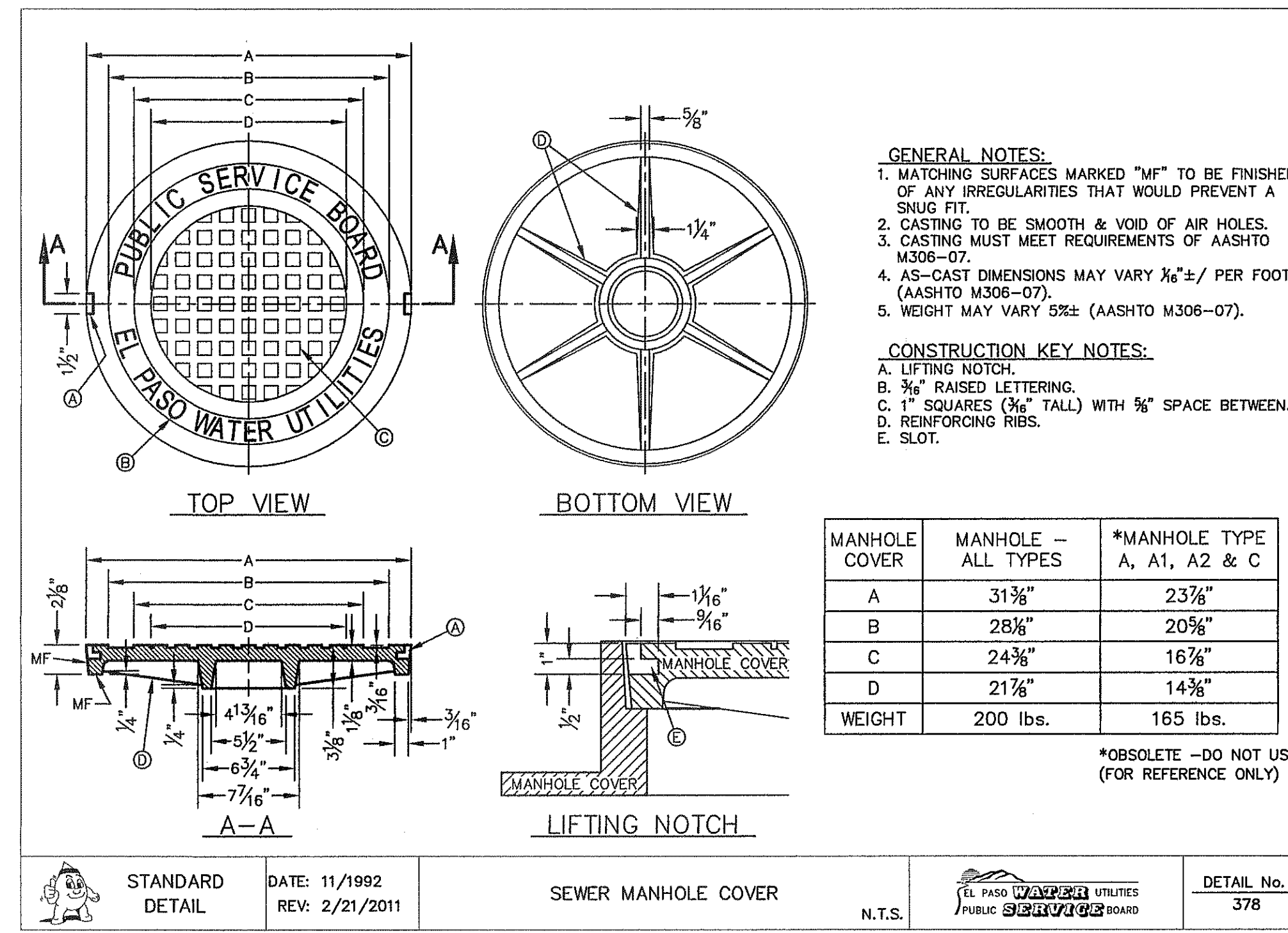
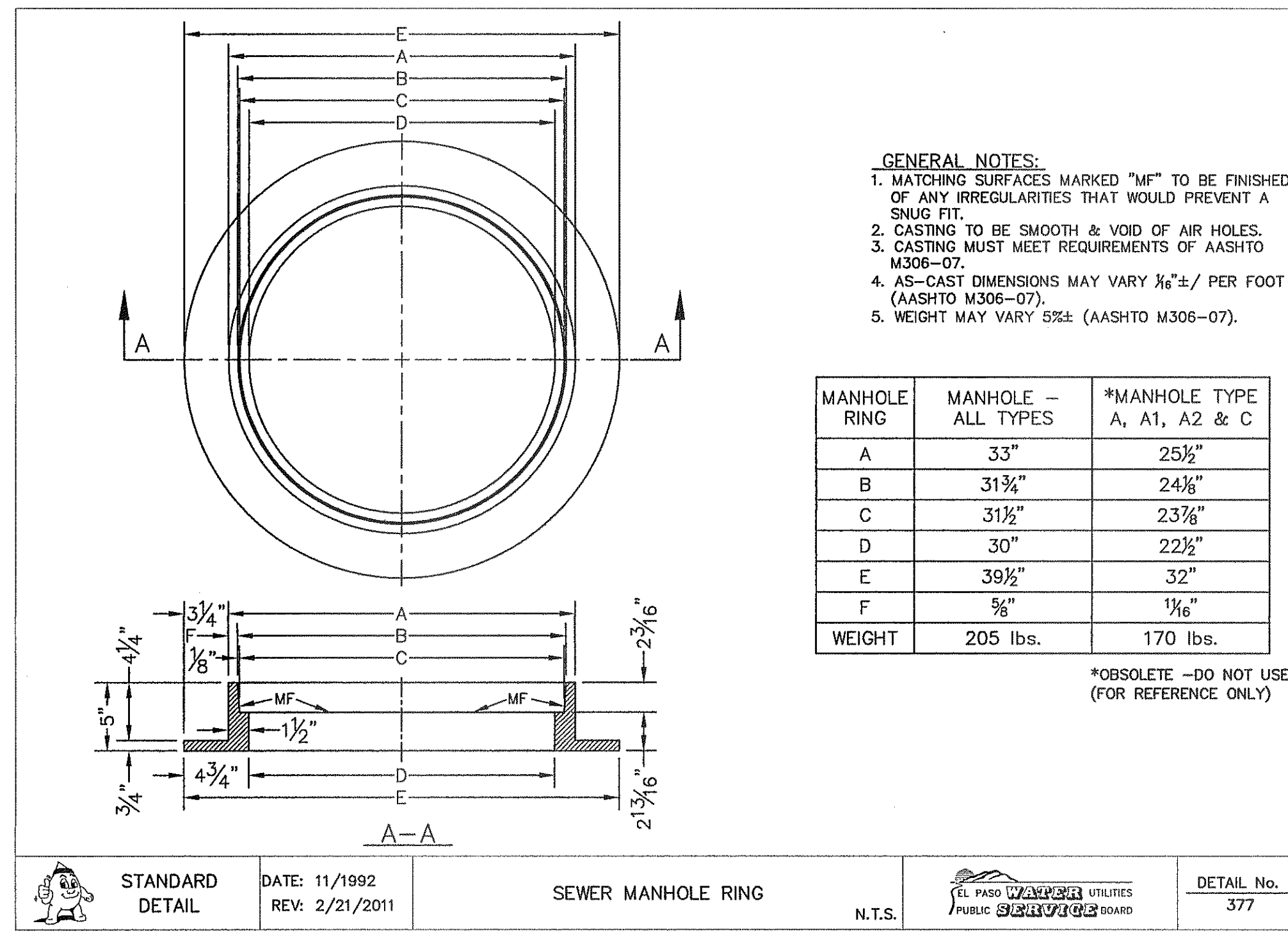
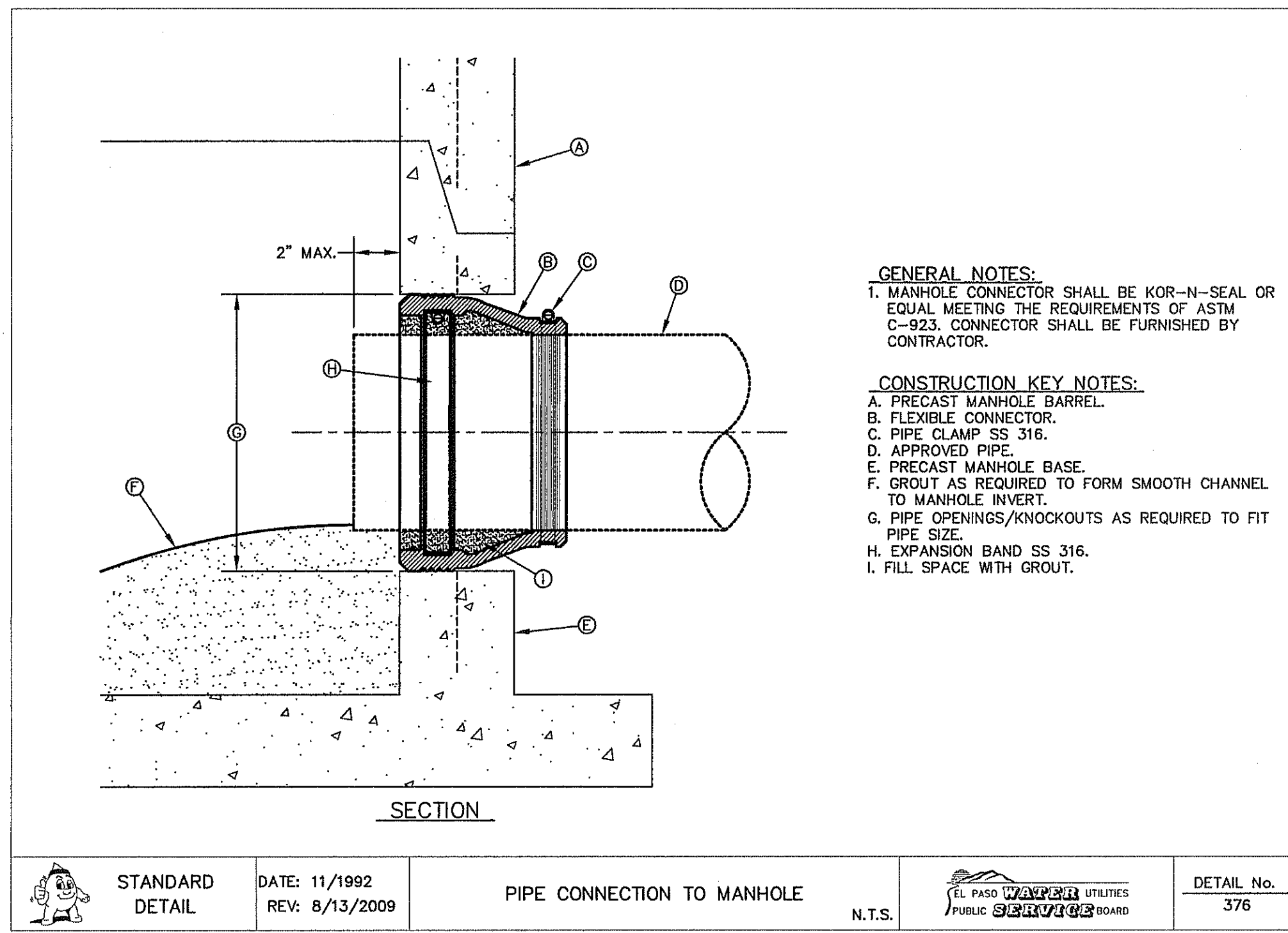
SHEET TITLE

LINE C SANITARY SEWER PLAN & PROFILE

SHEET NO.

C11.3

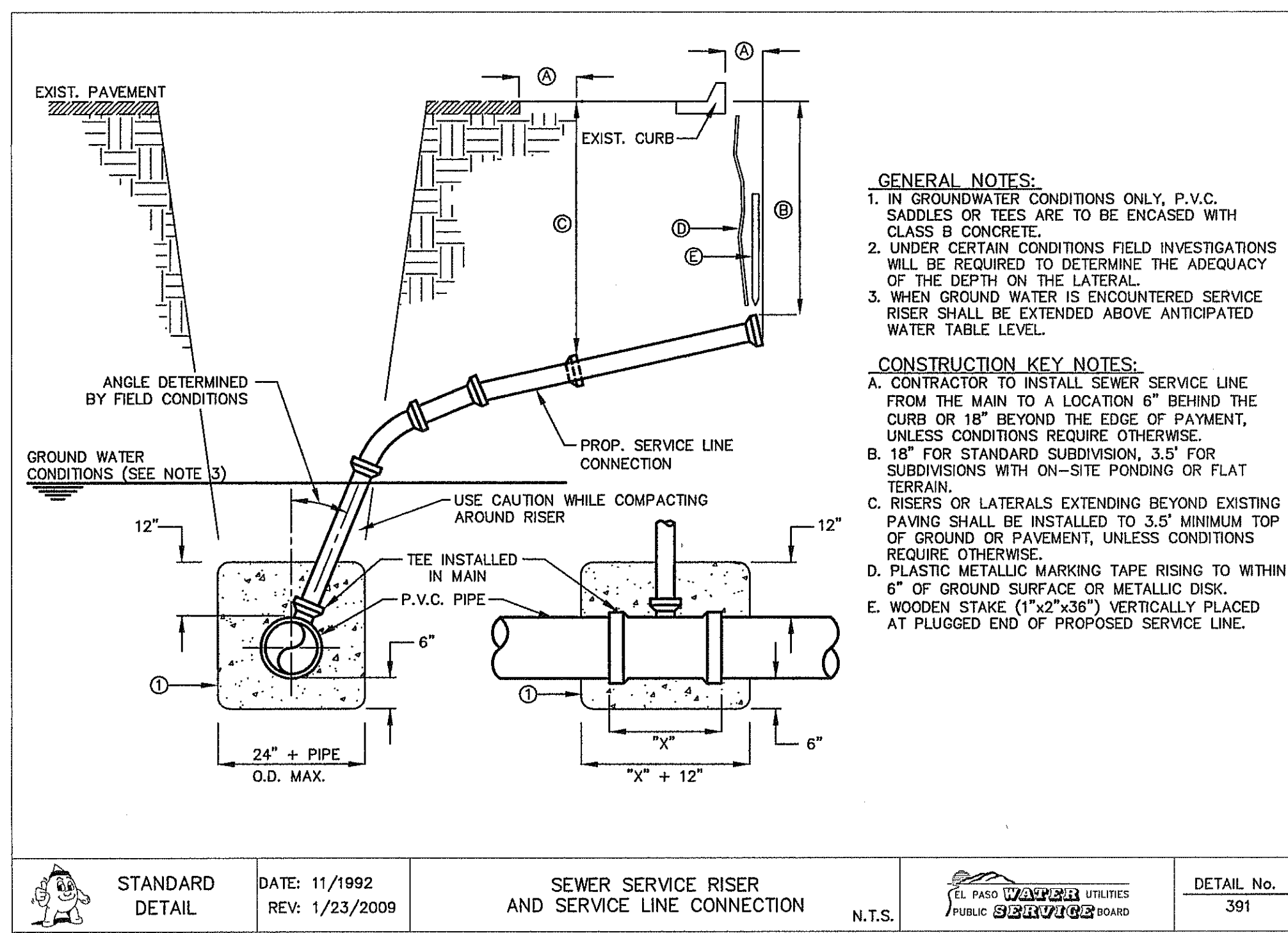




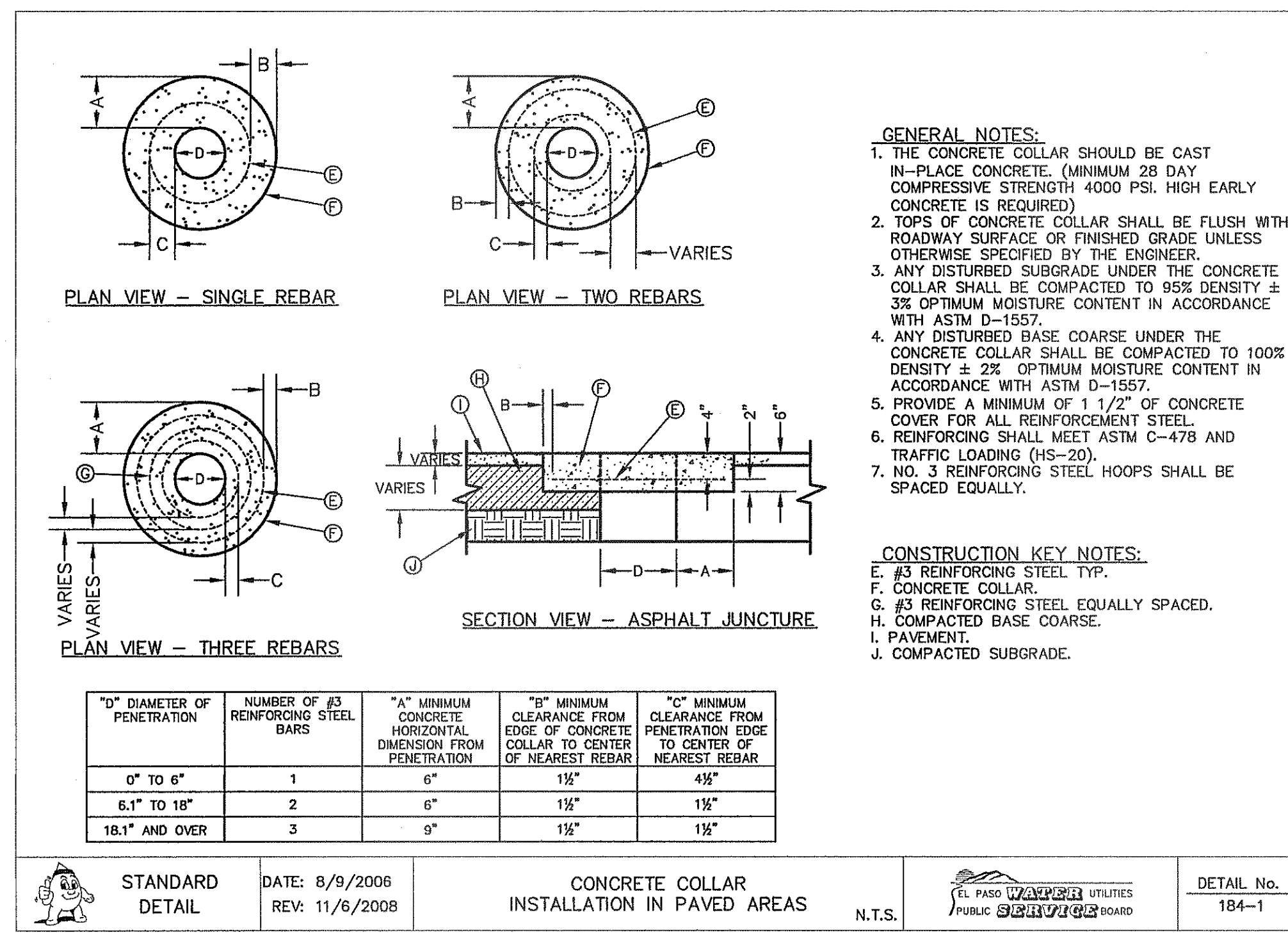
1 PIPE CONNECTION TO MANHOLE  
 C11.4 SCALE: N.T.S.

2 STANDARD MANHOLE RING  
 C11.4 SCALE: N.T.S.

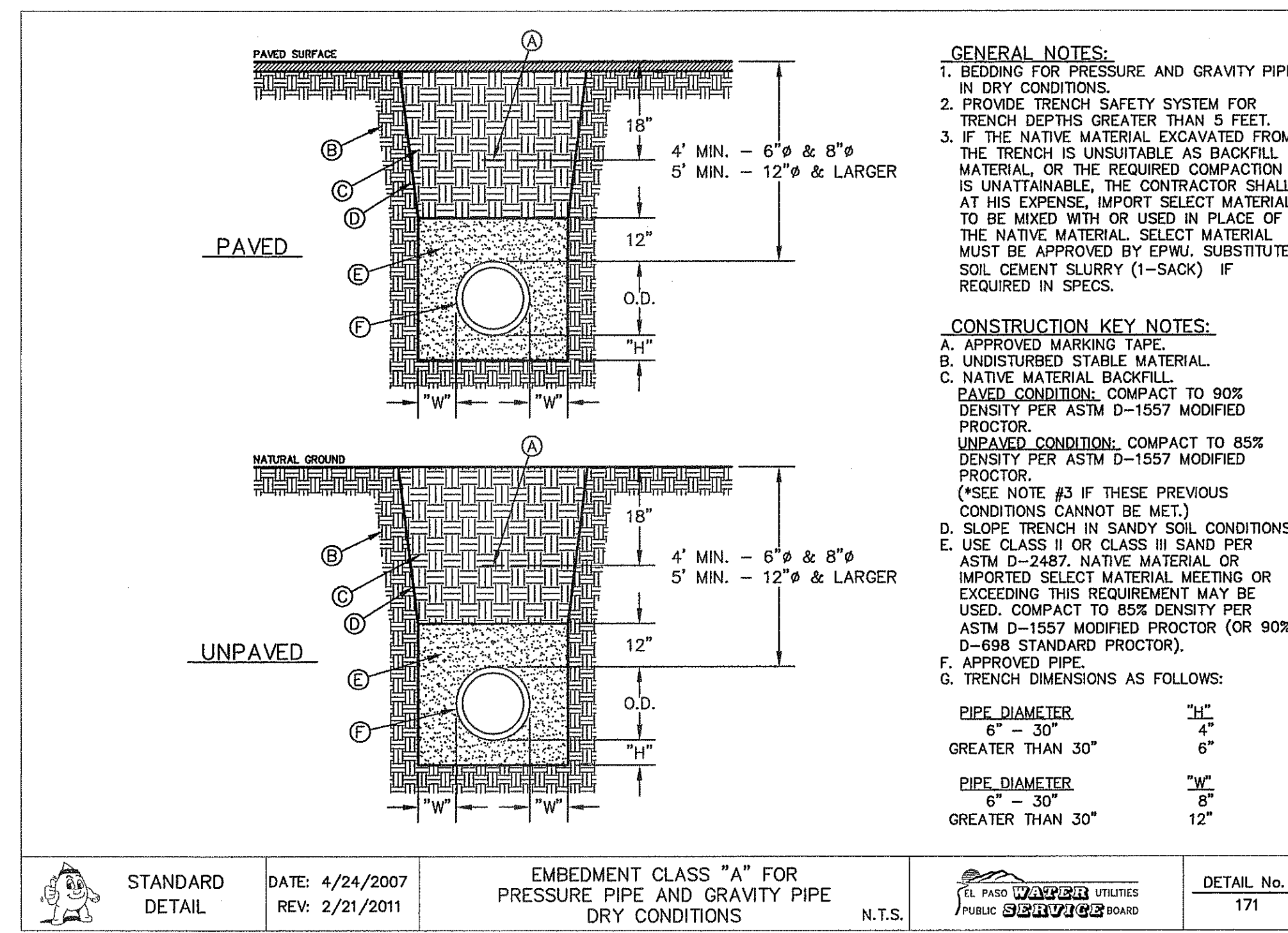
3 STANDARD COVER DETAIL  
 C11.4 SCALE: N.T.S.



4 SEWER SERVICE RISER AND SERVICE LINE CONNECTION  
 C11.4 SCALE: N.T.S.



5 CONCRETE COLLAR INSTALLATION IN PAVED AREAS  
 C11.4 SCALE: N.T.S.



6 EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS  
 C11.4 SCALE: N.T.S.

REFERENCES - BENCHMARKS  
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEN BLVD. SUBSTATION ELEVATION OF 67.98 FEET  
 50' SOUTH OF 50' EAST DISTANCE OF 40.00 FEET  
 AVENUE CITY DATUM. ELEVATION.....4005.40

ENGINEER'S SEAL  
 J. L. ACAPARTE  
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 88075  
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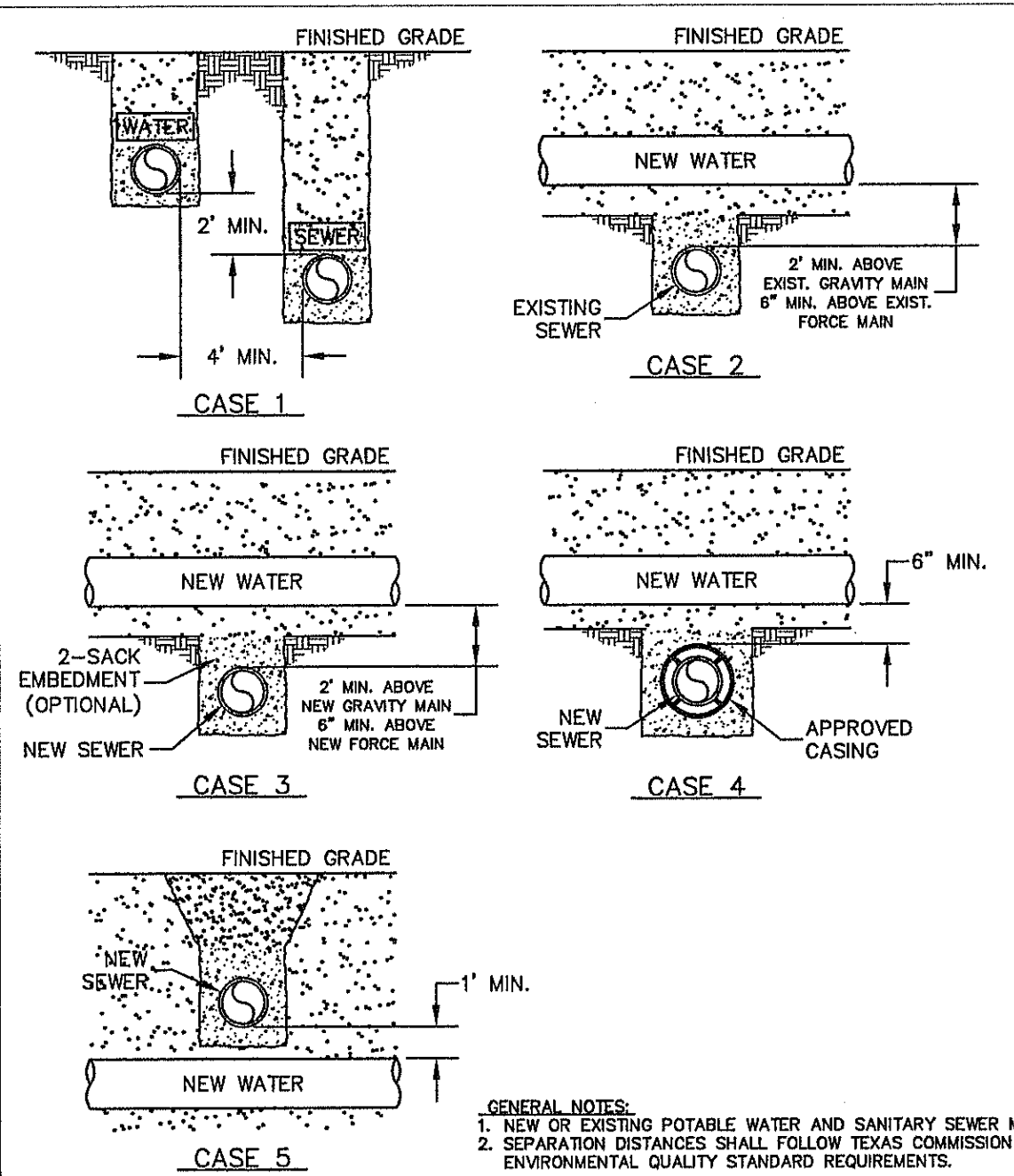
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 Contour Interval: N/A  
 DATE: SEPTEMBER 2013  
 DESIGN BY: J.H.  
 DRAWN BY: J.H.  
 CHECKED BY: J.G.  
 APP'D. BY: J.G.  
 JOB No. 2000-157-UD

PROJECT TITLE  
 TRES SUEÑOS  
 UNIT ELEVEN  
 SUBDIVISION IMPROVEMENTS

SHEET TITLE  
 SANITARY SEWER DETAILS  
 (SHEET 1 OF 2)  
 SHEET NO.  
 C11.4

DATE REVISIONS BY





**CONSTRUCTION KEY NOTES:**  
WHEN STANDARD NINE (9) FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, SEPARATION SHALL BE DETERMINED ACCORDING TO THE FOLLOWING CONDITIONS:

**CASE 1. GRAVITY SANITARY SEWER MAIN OR FORCE MAIN PARALLEL TO POTABLE WATER MAIN (PER TCEQ §290.44(a)(4)(A)).**  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, MUST BE REPLACED WITH PVC (150 PSI) OR DI. NEW GRAVITY MAIN OR FORCE MAIN REQUIRES PVC (150 PSI) OR DI.  
 • SEPARATE TRENCHES SHALL BE USED.

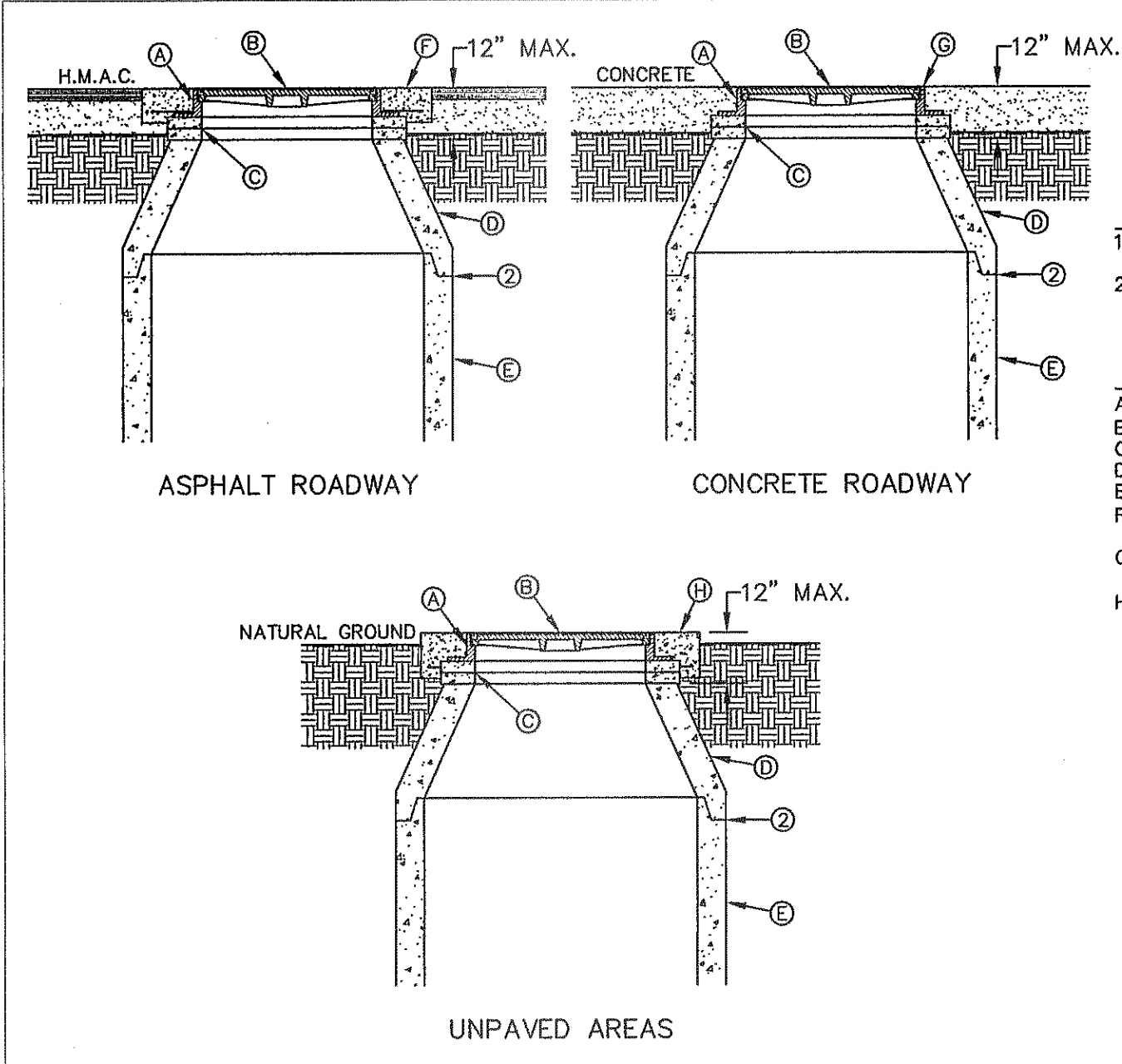
**CASE 2. NEW POTABLE WATER MAIN CROSSING EXISTING GRAVITY SANITARY SEWER MAIN OR EXISTING FORCE MAIN (PER TCEQ §290.44(c)(4)(B)(i) AND §290.44(c)(4)(B)(ii)).**  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.  
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.  
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.

**CASE 3. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44(c)(4)(B)(iii), §290.44(c)(4)(B)(iv) AND §290.44(c)(4)(B)(v)).**  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: NEW GRAVITY MAIN - PVC (150 PSI) OR DI REQUIRED, CENTER UNDER WATER MAIN. NEW FORCE MAIN - PVC (150 PSI) OR DI REQUIRED, FORCE MAIN TO BE EMBEDDED IN CEMENT STABILIZED BACKFILL, THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.  
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER PIPE OR FORCE MAIN.  
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER AND SEWER SHALL BE 18 FEET LONG.  
 • FOR NEW GRAVITY SEWER ONLY, IN LIEU OF PVC (150PSI) OR DI, INSTALL ONE PIPE SEGMENT OF SDR35; SEWER MAIN MUST BE EMBEDDED IN CEMENT STABILIZED BACKFILL, THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.

**CASE 4. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44(c)(4)(B)(i)(ii)).**  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: NEW GRAVITY MAIN - SDR35 ACCEPTABLE, NEW FORCE MAIN - PVC (150PSI) OR DI REQUIRED, IN ADDITION, SEWER MAIN OR FORCE MAIN MUST BE ENCASED IN DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.  
 • CENTER CASING PIPE ON WATER MAIN.

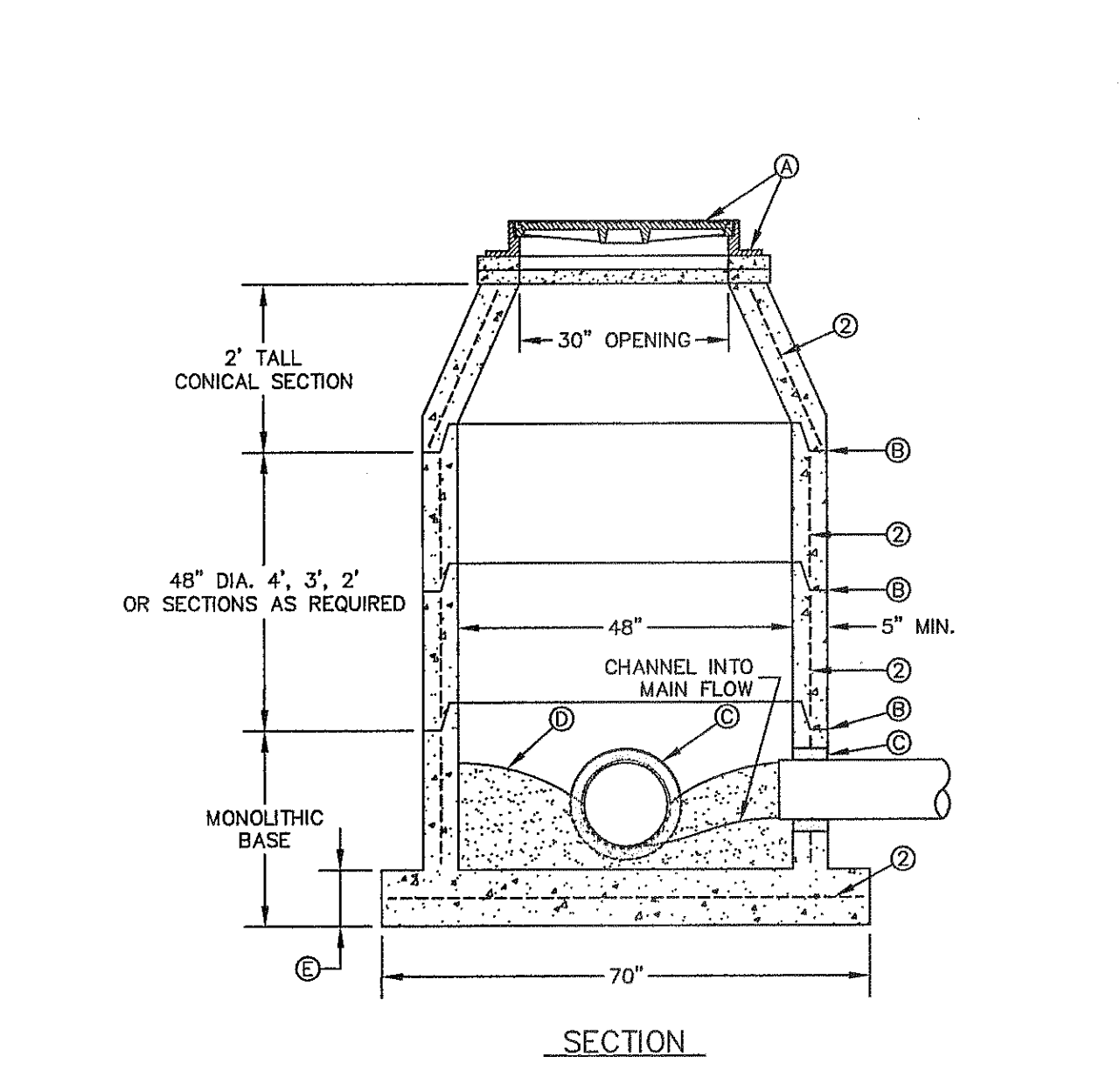
**CASE 5. NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN CROSSING NEW POTABLE WATER MAIN (PER TCEQ §290.44(c)(4)(B)(v)(ii)).**  
 • LOCATION: SEWER OR FORCE MAIN ABOVE WATER.  
 • NEW GRAVITY MAIN OR FORCE MAIN REQUIRES ONE PIPE SEGMENT OF PVC (150 PSI) OR DI. IN ADDITION, WATER MUST BE DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.  
 • CENTER ONE SEGMENT OF SEWER PIPE ON WATER MAIN.

**GENERAL NOTES:**  
 1. NEW OR EXISTING POTABLE WATER AND SANITARY SEWER MAINS.  
 2. SEPARATION DISTANCES SHALL FOLLOW TEXAS COMMISSION ON ENVIRONMENTAL QUALITY STANDARD REQUIREMENTS.



**GENERAL NOTES:**  
 1. MANHOLE TYPE SHALL BE AS SHOWN ON THE PLANS.  
 2. SEAL JOINTS PER SPECIFICATIONS.

**CONSTRUCTION KEY NOTES:**  
 A. MANHOLE RING (SEE DETAIL 377).  
 B. MANHOLE COVER (SEE DETAIL 378).  
 C. CONCRETE ADJUSTMENT RINGS AS REQUIRED.  
 D. MANHOLE CONE SECTION.  
 E. MANHOLE BARREL SECTION.  
 F. CONCRETE COLLAR (SEE DETAIL 184-1) FLUSH WITH TOP OF H.M.A.C.  
 G. MANHOLE RING FLUSH WITH TOP OF CONCRETE, CONCRETE COLLAR NOT NEEDED.  
 H. CONCRETE APRON (SEE DETAIL 184-2) FLUSH WITH MANHOLE RING AND 2" ABOVE NATURAL GROUND.



**GENERAL NOTES:**  
 1. MANHOLE TYPE "A" SHALL BE USED FOR LINES 21" AND SMALLER.  
 2. PRE-CAST MANHOLE SECTIONS SHALL BE OF REINFORCED CONCRETE CONFORMING TO ASTM C-478 AND SHALL MEET HS-20 LOADING. PROVIDE REINFORCEMENT WITHIN 3" OF OPENINGS OR KNOCKOUTS, OPENINGS (UP TO 8") MADE IN FIELD SHALL BE CORE DRILLED.  
 3. CEMENT SHALL BE TYPE I-II, PER ASTM C-150, AND MUST CONTAIN A MINIMUM OF 4% FLY ASH OF THE TOTAL MANHOLE WEIGHT.  
 4. THE BASE & RISER SHALL BE INTEGRALLY CAST. CONCRETE SHALL BE MIN. 28 DAY COMPRESSIVE STRENGTH 4000psi.  
 5. MANUFACTURER TO PROVIDE LIFTERS OF ADEQUATE SIZE AS NEEDED.  
 6. THE SUBGRADE UNDER THE BASE SHALL BE COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM D-1557.  
 7. MANHOLES BELOW GROUNDWATER TO BE EXTERNALLY AND INTERNALLY COATED WITH BITUMINOUS COATING.

**CONSTRUCTION KEY NOTES:**  
 A. MANHOLE RING AND COVER (SEE DETAILS 377 & 378). SET FRAME AND COVER FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE (SEE DETAIL 185).  
 B. ALL JOINTS TO BE TONGUE, GROOVE AND SEALED WITH RAM-NEK OR APPROVED EQUAL.  
 C. PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE AND SHALL HAVE FLEXIBLE PIPE TO MANHOLE CONNECTORS (COMPRESSION TYPE ASTM-923). "KOR-N-SEAL" OR APPROVED EQUAL. D. GROUT AS REQUIRED.  
 E. CONCRETE BASE SHALL BE 8" FOR MH'S UP TO 12' DEEP AND 12" FOR DEPTHS GREATER THAN 12'.

STANDARD DETAIL	DATE: 8/3/2006 REV: 8/21/2007	SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS)	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 161
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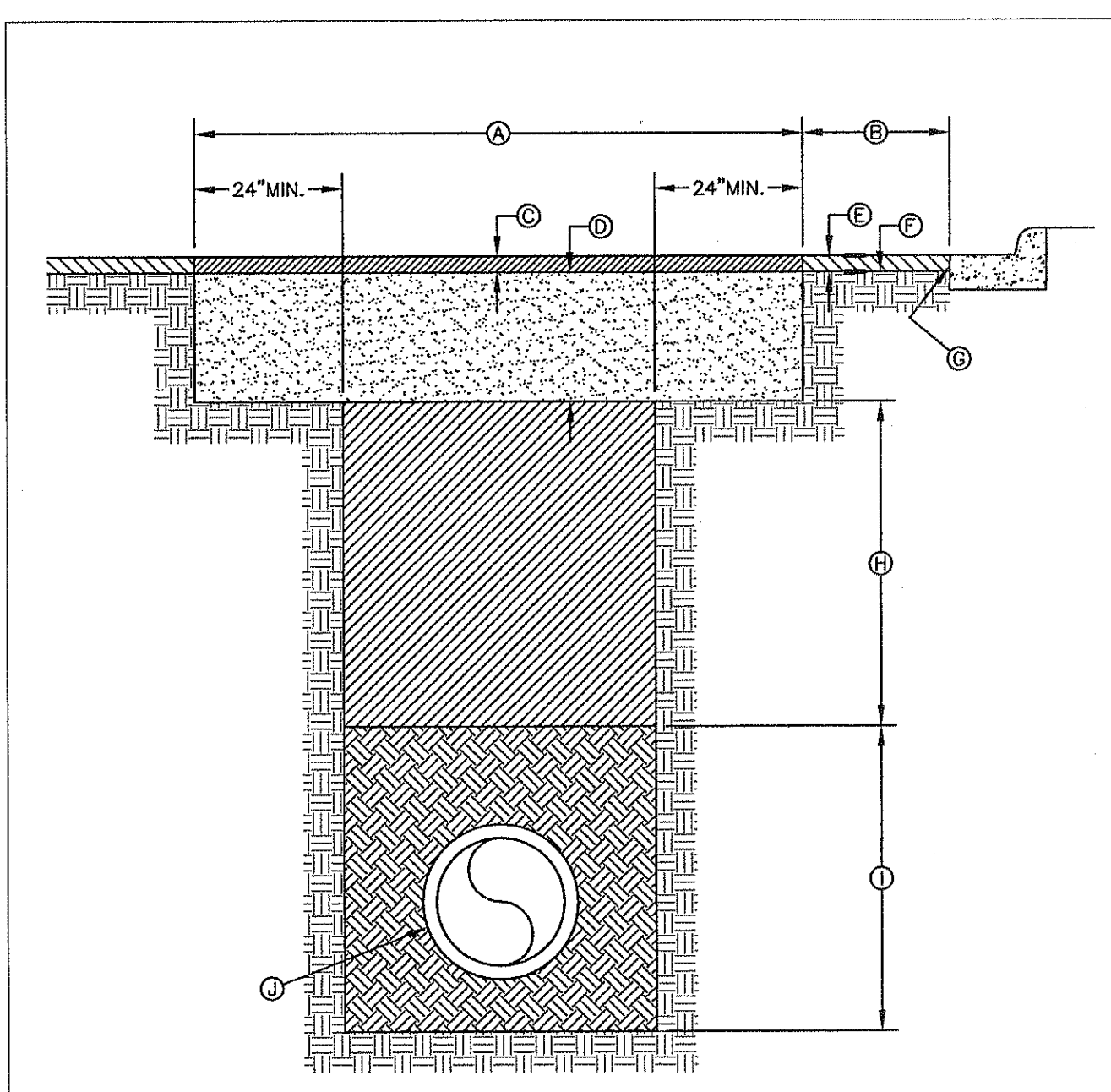
STANDARD DETAIL	DATE: 6/22/2009 REV:	MANHOLE RING AND COVER INSTALLATION	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 185
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STANDARD DETAIL	DATE: 11/1992 REV: 9/18/2009	MANHOLE TYPE "A"	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 370-1
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1 SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS) SCALE: N.T.S.

2 STANDARD MANHOLE RING AND COVER INSTALLATION DETAIL SCALE: N.T.S.

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

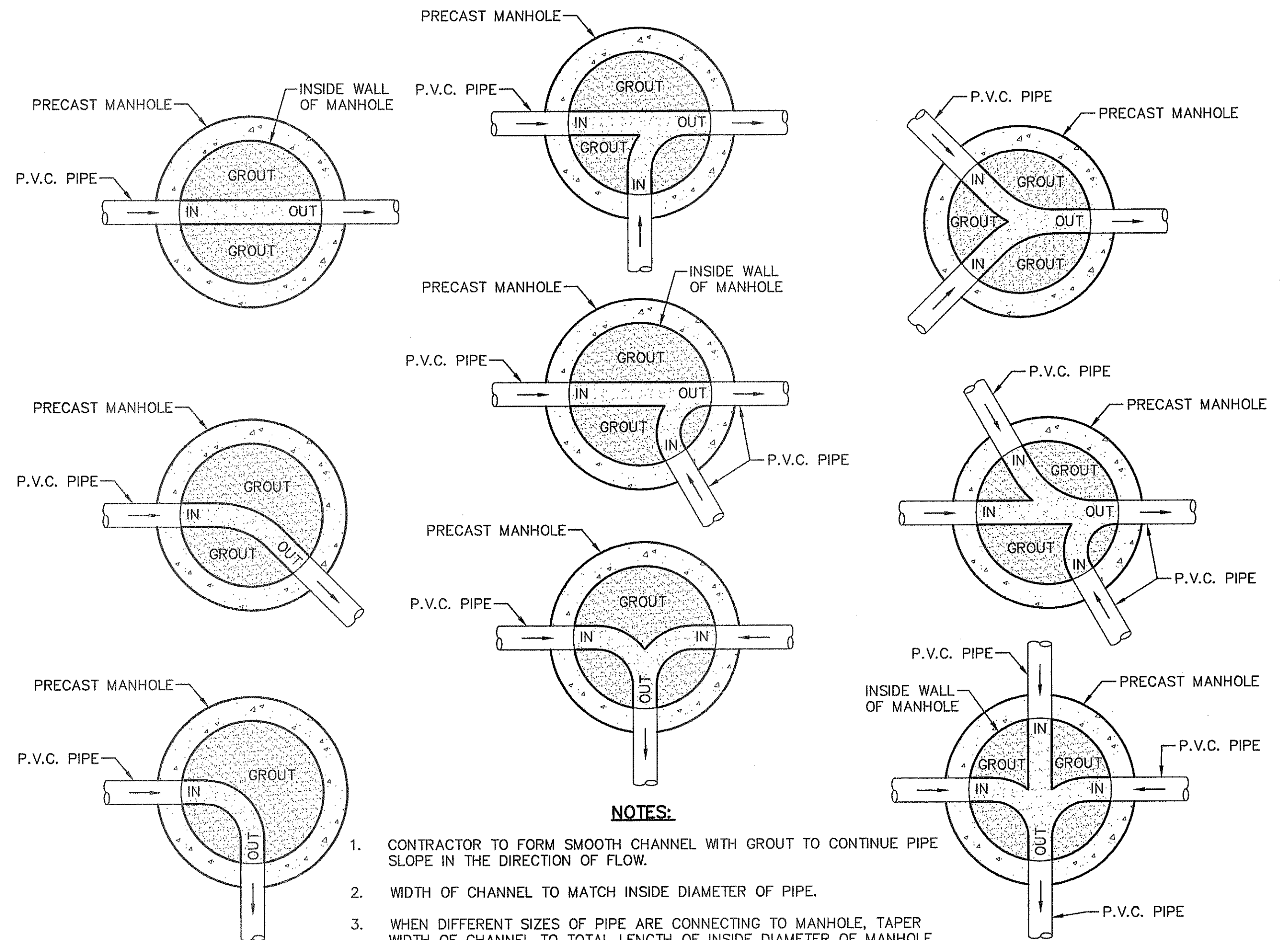


**GENERAL NOTES:**  
 1. ALL ASPHALT CUTS MUST BE SAW CUT.  
 2. SOIL CEMENT SLURRY SHALL BE ALLOWED TO CURE BEFORE PAVING OR OPENING TO ALL TRAFFIC.

**CONSTRUCTION KEY NOTES:**  
 A. REFER TO SPECS FOR LIMIT OF PAVING WIDTH.  
 B. DIMENSION VARIES. WHERE GUTTER FACE, ETC. IS WITHIN 3' OF SAW CUT EDGE, CONTRACTOR SHALL REMOVE & REPLACE EXISTING H.M.A.C. IN THIS AREA.  
 C. 2" ASPHALT MIN.  
 D. 12" THICK SOIL CEMENT BACKFILL (2 SACK PER C.Y. OF SOIL).  
 E. EXISTING H.M.A.C.-THICKNESS MAY VARY.  
 F. EXISTING BASE COURSE-THICKNESS MAY VARY.  
 G. EXISTING GUTTER FACE, EDGE OF PAVEMENT OR BEGINNING OF SHOULDER.  
 H. BACKFILL DEPTH VARIES. REFER TO REQUIREMENTS LISTED IN EMBEDMENT DETAILS (DETAIL 171 THRU DETAIL 173).  
 I. PIPE BEDDING AS SPECIFIED, REFER TO APPROPRIATE EMBEDMENT DETAIL (DETAIL 171 THRU DETAIL 173).  
 J. APPROVED PIPE.

STANDARD DETAIL	DATE: 10/1992 REV: 5/9/2011	PAVEMENT REPAIR	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 179
-----------------	--------------------------------	-----------------	--------	--	----------------

4 PAVEMENT REPAIR DETAIL N.T.S.



**NOTES:**  
 1. CONTRACTOR TO FORM SMOOTH CHANNEL WITH GROUT TO CONTINUE PIPE SLOPE IN THE DIRECTION OF FLOW.  
 2. WIDTH OF CHANNEL TO MATCH INSIDE DIAMETER OF PIPE.  
 3. WHEN DIFFERENT SIZES OF PIPE ARE CONNECTING TO MANHOLE, TAPER WIDTH OF CHANNEL TO TOTAL LENGTH OF INSIDE DIAMETER OF MANHOLE.  
 4. GROUT TO BE USED FOR BOTH MANHOLES AND DROP MANHOLES. NO P.V.C. PIPE SHALL BE INSTALLED IN MANHOLE.  
 5. REFER TO PLAN & PROFILE SHEETS FOR SIZE OF PIPES AND MANHOLES.

5 TYPICAL MANHOLE INVERT PLANS SCALE: N.T.S.

REFERENCES - BENCHMARKS  
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH COUNTY, TEXAS  
 FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

ENGINEERS SEAL  
 TEXAS REGISTERED ENGINEERING FIRM F-6584  
 engineers • architects • planners  
 TEXAS REGISTERED ENGINEERING FIRM F-6584  
 4712 Woodrow Branch, Ste. F El Paso, TX 79924  
 Office: 915.544.5222 Fax: 915.544.5233 www.ccaonline.com

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

DATE: SEPTEMBER 2013  
 DESIGN BY: J.H.  
 DRAWN BY: J.H.  
 CHKD. BY: J.L.A.  
 APPRO. BY: J.L.A.  
 JOB No. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS  
 UNIT ELEVEN  
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**SANITARY SEWER  
 DETAILS**

(SHEET 2 OF 2)  
 SHEET NO.

C11.5

S:\2000\2000-157\SUBDIVISION IMPROVEMENTS\Drawings\Improvement Plans\C11.5 SANITARY DET ALL-2.dwg, MESH, 9/18/2013 10:09:17 AM



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	20.00'	21.98'	12.25'	28.28'	N31°28'33"W	62°57'27"
C2	20.00'	31.42'	20.00'	28.28'	S44°59'49"E	90°00'00"
C3	1000.00'	471.98'	240.47'	467.61'	N76°28'33"W	27°02'33"
C4	56.00'	61.53'	34.29'	58.48'	S31°28'33"E	62°57'27"
C5	706.00'	333.22'	169.77'	330.13'	S76°28'33"E	27°02'33"
C6	40.00'	6.73'	3.37'	6.72'	N04°49'26"E	09°38'31"
C7	40.00'	9.63'	4.84'	9.61'	N16°32'30"E	13°47'36"
C8	65.00'	41.63'	21.56'	40.92'	S05°05'24"W	36°41'48"
C9	65.00'	34.58'	17.71'	34.17'	S28°29'55"E	30°28'50"
C10	65.00'	39.13'	20.18'	38.54'	S65°09'03"E	34°29'25"
C11	65.00'	9.36'	4.69'	9.36'	S82°21'23"E	08°15'14"
C12	40.00'	15.40'	7.80'	15.31'	N75°27'08"W	22°03'44"
C13	732.00'	20.84'	10.42'	20.84'	S65°14'13"E	01°37'53"
C14	732.00'	43.80'	21.91'	43.80'	S67°46'01"E	03°25'43"
C15	732.00'	46.67'	24.34'	46.66'	S71°23'10"E	03°48'34"
C16	732.00'	43.80'	21.91'	43.80'	S75°00'19"E	03°25'43"
C17	732.00'	46.67'	24.34'	46.66'	S78°37'27"E	03°48'34"
C18	732.00'	43.80'	21.91'	43.80'	S82°14'36"E	03°25'43"
C19	732.00'	52.89'	26.46'	52.88'	S86°01'39"E	04°08'23"
C20	732.00'	24.27'	12.14'	24.27'	S89°02'50"E	01°53'59"
C21	20.00'	32.50'	21.12'	29.04'	N46°32'55"E	93°06'40"
C22	838.00'	42.98'	21.49'	42.97'	S85°25'37"E	02°56'18"
C23	838.00'	50.15'	25.08'	50.14'	S82°14'36"E	03°25'43"
C24	838.00'	55.72'	27.87'	55.71'	S78°37'27"E	03°48'34"
C25	838.00'	50.15'	25.08'	50.14'	S75°00'19"E	03°25'43"
C26	838.00'	55.72'	27.87'	55.71'	S71°23'10"E	03°48'34"
C27	838.00'	50.15'	25.08'	50.14'	S67°46'01"E	03°25'43"
C28	838.00'	45.31'	22.66'	45.31'	S64°30'13"E	03°05'53"
C29	838.00'	350.16'	177.67'	347.62'	S74°55'31"E	23°56'29"
C30	863.00'	364.06'	184.78'	361.37'	S75°02'24"E	24°10'14"
C31	863.00'	8.42'	4.21'	8.42'	S63°14'03"E	00°33'32"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C32	863.00'	863.00'	22.92'	45.83'	S65°02'06"E	03°02'34"
C33	863.00'	45.83'	22.92'	45.83'	S68°04'40"E	03°02'34"
C34	863.00'	45.83'	22.92'	45.83'	S71°07'14"E	03°02'34"
C35	863.00'	45.83'	22.92'	45.83'	S74°09'48"E	03°02'34"
C36	863.00'	45.83'	22.92'	45.83'	S77°12'22"E	03°02'34"
C37	863.00'	45.83'	22.92'	45.83'	S80°14'56"E	03°02'34"
C38	863.00'	45.83'	22.92'	45.83'	S83°17'30"E	03°02'34"
C39	863.00'	34.83'	17.42'	34.82'	S85°58'09"E	02°18'44"
C40	20.00'	30.41'	19.02'	27.56'	N43°33'58"W	87°07'05"
C41	968.00'	24.16'	12.08'	24.16'	S89°16'55"E	01°25'48"
C42	968.00'	63.35'	31.69'	63.34'	S86°41'32"E	03°44'58"
C43	968.00'	51.41'	25.71'	51.40'	S83°17'45"E	03°02'34"
C44	968.00'	51.41'	25.71'	51.40'	S80°15'11"E	03°02'34"
C45	968.00'	51.41'	25.71'	51.40'	S77°12'37"E	03°02'34"
C46	968.00'	51.41'	25.71'	51.40'	S74°10'03"E	03°02'34"
C47	968.00'	51.41'	25.71'	51.40'	S71°07'29"E	03°02'34"
C48	968.00'	51.41'	25.71'	51.40'	S68°04'55"E	03°02'34"
C49	968.00'	51.41'	25.71'	51.40'	S65°02'20"E	03°02'34"
C50	968.00'	9.51'	4.76'	9.51'	S63°14'10"E	00°33'47"
C51	680.00'	24.28'	12.14'	24.28'	S88°58'27"E	02°02'45"
C52	680.00'	106.81'	53.51'	106.70'	S83°27'05"E	08°59'58"
C53	680.00'	189.86'	95.55'	189.24'	S70°57'11"E	15°59'50"
C54	30.00'	32.96'	18.37'	31.33'	S31°28'33"E	62°57'27"
C55	60.00'	2.00'	2.10'	4.20'	N88°00'05"W	04°00'30"
C56	60.00'	32.06'	16.42'	31.68'	N70°41'30"W	30°36'39"
C57	60.00'	31.54'	16.15'	31.18'	N40°19'30"W	30°07'22"
C58	60.00'	26.45'	13.44'	26.23'	N12°38'07"W	25°15'23"
C59	60.00'	94.25'	60.00'	84.85'	N45°00'23"W	89°59'54"
C60	40.00'	62.83'	40.00'	56.57'	N45°00'23"W	89°59'54"
C61	20.00'	21.98'	12.25'	20.89'	S31°28'33"E	62°57'27"
C62	20.00'	40.86'	32.66'	34.11'	S58°31'27"W	11°02'33"

LINE TABLE		
LINE	BEARING	LENGTH
L1	N27°02'45"E	32.00'
L2	S62°57'16"E	117.89'
L3	S89°59'49"E	85.00'
L4	S89°59'49"E	52.00'
L5	N00°00'11"E	71.95'
L6	N89°59'49"W	0.85'
L7	N62°57'16"W	159.55'
L8	S00°00'11"W	34.29'
L9	S62°57'16"E	34.29'
L10	S62°57'16"E	6.35'
L11	S89°59'49"E	0.73'
L12	S89°59'49"E	0.84'
L13	S89°59'49"E	0.73'
L14	S89°59'49"E	0.72'
L15	S00°00'11"W	25.00'
L16	S62°57'16"E	6.35'

# TRES SUEÑOS UNIT ELEVEN

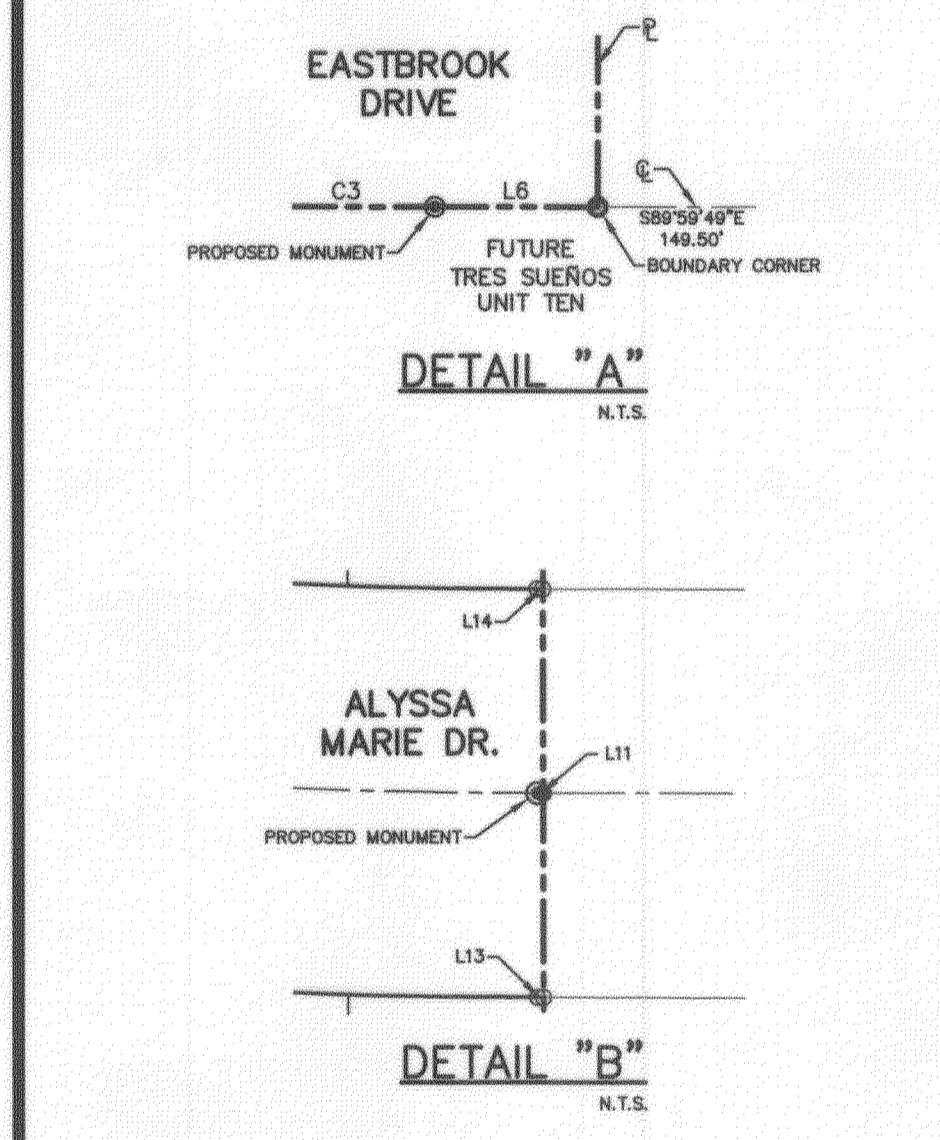
A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS, AND A REPLAT OF A PORTION OF ADRIAN CAMPOS STREET, TRES SUEÑOS UNIT EIGHT AMENDING PLAT, AN ADDITION TO THE CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING 10.62 ACRES ±

**DEDICATION**  
 Tropicana Development Inc., property owners of this land do hereby present this plat and dedicate, if not previously dedicated, its respective portion of said property to the use of the public, the streets, utility easements, parks, pedestrian easement, and alleys, as hereon laid out and designated, including easements for overhead of service wires, conduits and pipes for underground utilities, the right to ingress and egress for service and construction, and the right to trim interfering trees and shrubs.  
 Witness our signature this 19th day of December, 2013.  
 TROPICANA DEVELOPMENT INC.

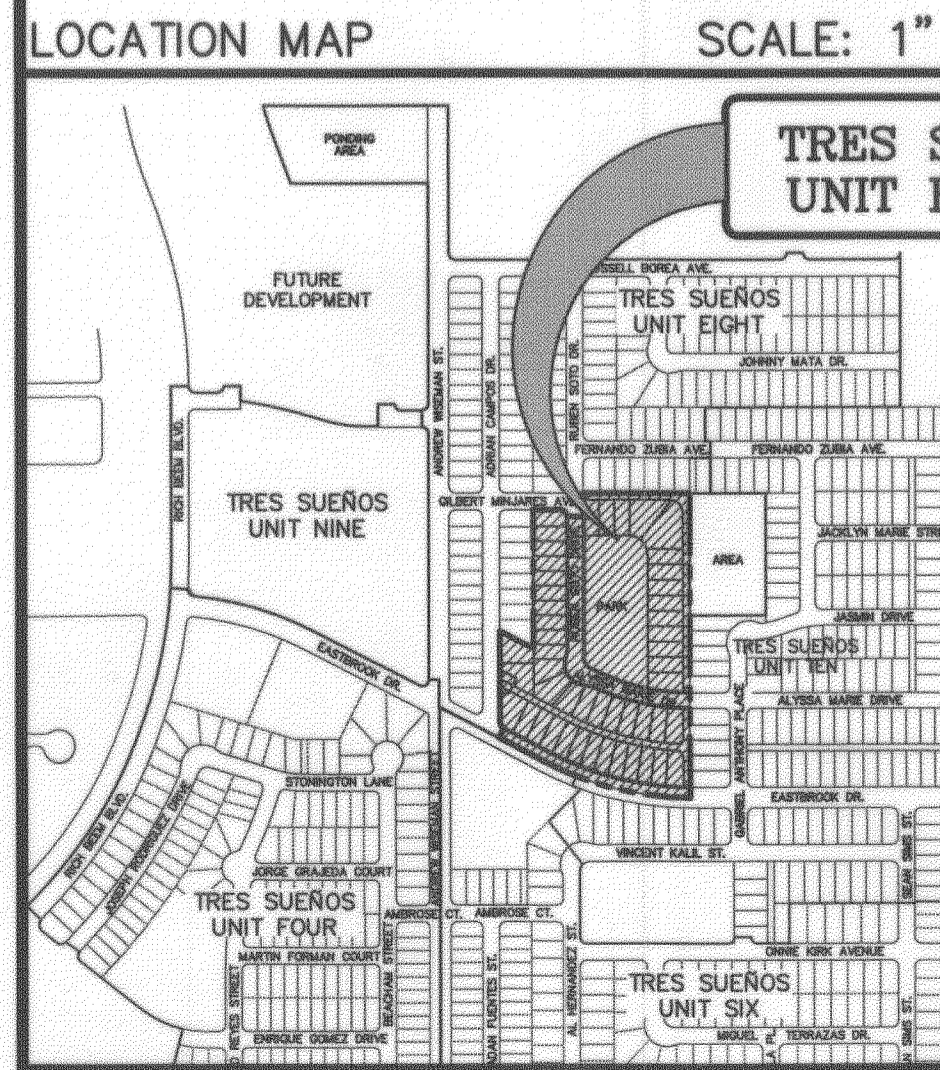
**ACKNOWLEDGEMENT**  
 STATE OF TEXAS  
 COUNTY OF EL PASO  
 Before me, the undersigned authority, on this day personally appeared R. L. Bowling, III, President of Tropicana Development Inc., known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and considerations therein expressed.  
 Given under my hand and seal of office this 19th day of December, 2013.  
 Notary Public in and for El Paso County  
 My Commission Expires January 6, 2015

**CITY PLAN COMMISSION**  
 This subdivision is hereby approved as to the platting and as to the condition of the dedication in accordance with Chapter 212 of the Local Government Code of Texas this 19th day of December, 2013, A.D.  
 Executive Secretary  
 Approved for filing this 19th day of December, 2013.  
 City Development Director

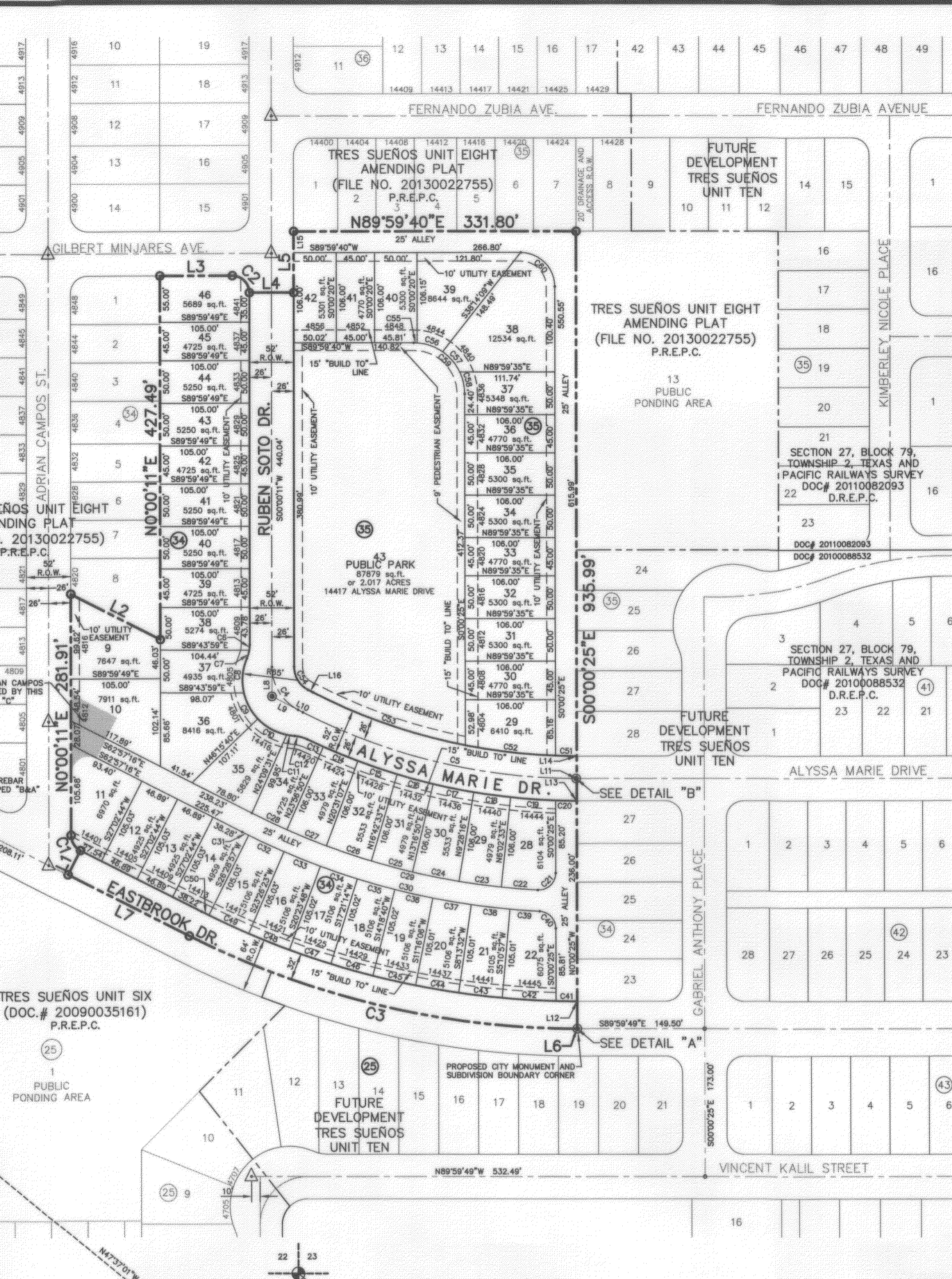
**FILING**  
 Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 20 day of DECEMBER, 2013, A.D. in Document No. 20130092958 of the Plat Records.  
 County Clerk



**BENCHMARK:**  
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40



**NOTES:**  
 THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO TRES SUEÑOS UNIT ELEVEN BY THE EL PASO WATER UTILITIES/PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR RULES AND REGULATIONS AND WITH SECTION 16.343 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON EASTBROOK DRIVE AND RUBEN SOTO DRIVE AND WILL BE CONSTRUCTED TO SERVE THE SUBDIVISION.  
 TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.  
 INSTRUMENT No. 20130092959 DATE 12/20/13  
 VEHICULAR ACCESS TO THOSE RESIDENTIAL LOTS ABUTTING EASTBROOK DRIVE SHALL BE FROM OTHER STREETS OR ALLEYS. THE INSTRUMENT ASSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.  
 INSTRUMENT No. 20120892961 DATE 12/20/13  
 RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.  
 INSTRUMENT No. 20130092960 DATE 12/20/13  
 SUBDIVISION AGREEMENT AND GUARANTEE LETTER ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.  
 INSTRUMENT No. 20120892962 DATE 12/20/13  
 INTERIOR LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES.  
 THIS SUBDIVISION LIES WITHIN IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212 0175 B, DATED SEPTEMBER 4, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "X" INDICATES AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN.  
 THIS SUBDIVISION LIES WITHIN THE SOCORRO INDEPENDENT SCHOOL DISTRICT 12440 ROJAS DR, EL PASO, TX 79928  
 SET 1/2" REBAR WITH CAP MARKED "B&A INC." AT ALL EXTERIOR BOUNDARY CORNERS UNLESS NOTED OTHERWISE.  
 "U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS."  
 BEARINGS SHOWN ARE BASED ON THE DEED FILED IN DOCUMENT NO. 20050097104, D.R.E.P.C.  
 DEED REFERENCE: DOCUMENT NO. 20050097104, AND DOCUMENT NO. 20100088531, D.R.E.P.C.



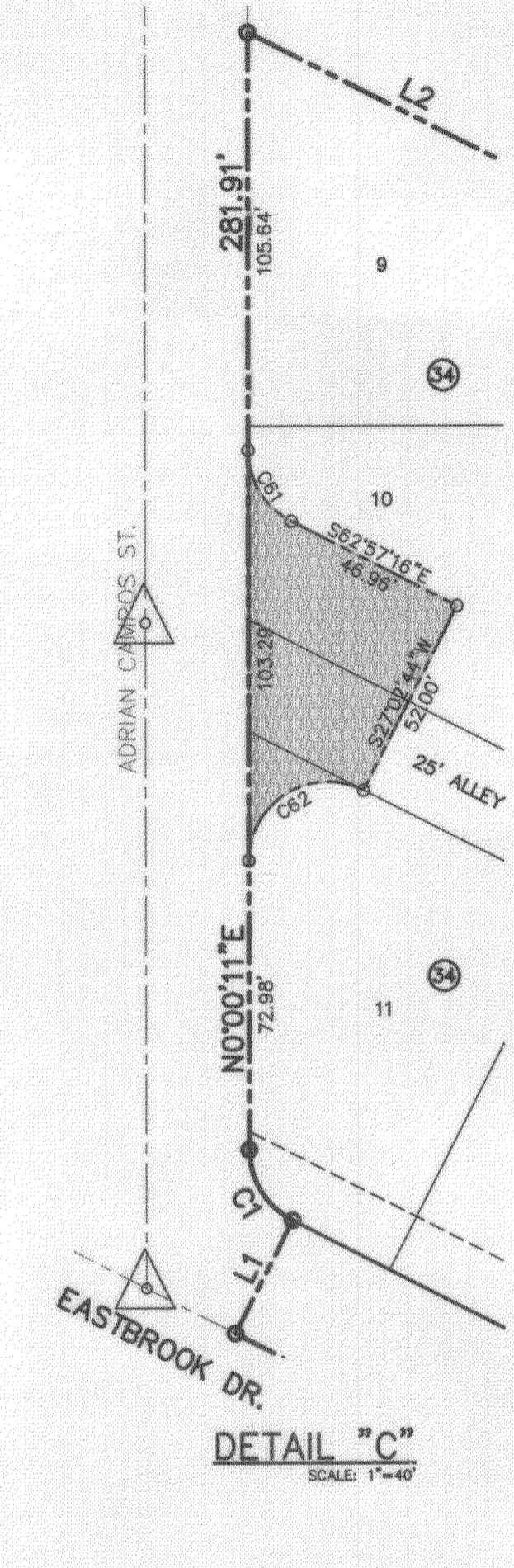
**LEGEND**  
 ● PROPOSED CITY MONUMENT. (MAY BE SUBJECT TO RELOCATION AT TIME OF CONSTRUCTION. FOR EXACT LOCATION PLEASE CONTACT THE CITY OF EL PASO)  
 ▲ EXISTING MONUMENT  
 ○ SUBDIVISION BOUNDARY CORNER  
 1 (3) LOT AND BLOCK NUMBER  
 D.R.E.P.C. DEED RECORDS OF EL PASO COUNTY, TEXAS  
 P.R.E.P.C. PLAT RECORDS OF EL PASO COUNTY, TEXAS

**OWNER**  
 TROPICANA DEVELOPMENT  
 4655 COHEN DRIVE  
 EL PASO, TEXAS 79924  
 VOICE (915) 821-3550  
 FAX (915) 821-3556  
 CONTACT: MR. R.L. BOWLING, III

**SURVEYOR**  
 Benito Barragan TX, R.P.L.S. No. 5615

**ENGINEER**  
 Jorge L. Azcarate, P.E. Tx 85075

**GRAPHIC SCALE**  
 (IN FEET)  
 1 inch = 100 ft.



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.

**BENITO BARRAGAN**  
 5615  
 PROFESSIONAL LAND SURVEYOR

**JORGE L. AZCARATE**  
 85075  
 LICENSED ENGINEER

**Barragan & Associates Inc.**  
 LAND PLANNING & LAND SURVEYING  
 10959 Paticana Dr. Bldg. F - El Paso, TX 79924  
 Phone (915) 591-5709 Fax (915) 591-5706  
 CONTACT: BENITO BARRAGAN, R.P.L.S.

**ceagroup**  
 engineers • architects • planners  
 Castner Center @ Transmountain  
 4712 Woodrow Bean, Ste. F El Paso, TX 79924  
 Office (915) 544-8222 Fax (915) 544-8223 www.ceagroup.net  
 TEXAS FIRM REGISTRATION NO. 4584  
 CONTACT: JORGE L. AZCARATE, P.E.  
 DATE OF PREPARATION: APRIL 23, 2013



**SITE DESCRIPTION**

PROJECT NAME AND LIMITS: TRES SUEÑOS UNIT ELEVEN  
THE PROJECT IS BORDERED BY TRES SUEÑOS UNIT EIGHT TO THE WEST AND NORTH, TRES SUEÑOS UNIT TEN TO THE EAST, AND TRES SUEÑOS UNIT SIX TO THE SOUTH.

PROJECT DESCRIPTION: THE SITE FOR THE NEW SUBDIVISION WILL ENCOMPASS APPROXIMATELY 10.621± ACRES, AND WILL CONTAIN 47 RESIDENTIAL LOTS AND A PARK SITE.

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, ROCKWALLS, AND EXCAVATION FOR UTILITIES.

TOTAL PROJECT AREA: 10.621± A.C.

TOTAL AREA TO BE DISTURBED: 10.634± A.C.

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.634

EXISTING CONDITION OF SOIL AND VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: HUECO-WINK ASSOCIATION; NEARLY LEVEL AND GENTLY SLOPING SOILS THAT HAVE A FINE SANDY LOAM SUBSOIL AND ARE MODERATELY DEEP OVER CALICHE; IN THE HUECO BOLSON.

NAME OF RECEIVING WATERS: STORM RUNOFF FROM THE NEW SUBDIVISION WILL BE CONVEYED BY STREET SHEET FLOW AND STORM SEWER INFRASTRUCTURE TO ULTIMATELY BE DISCHARGED TO AN OFF-SITE PONDING AREA LOCATED IN TRES SUEÑOS UNIT EIGHT SUBDIVISION.

**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:

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

**SWPPP GENERAL NOTES:**

- PLACEMENT OF SILT FENCE SHALL BE ADJUSTED AS NECESSARY TO PREVENT THE BLOCKING OF DRIVEWAYS OR DRIVING LANES.
- 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.
- 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.
- 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.
- REFER TO DRAINAGE PLAN SHEET C4.1, FOR ADDITIONAL INFORMATION ON WATERSHED AREAS AND RUNOFF QUANTITIES (Q).
- 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.
- 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 TCEQ.

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.

GOOD HOUSEKEEPING:

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

HAZARDOUS PRODUCTS:

PRACTICES USED TO REDUCE RISKS:

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

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.

SPILL CONTROL PRACTICES:

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

V. 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.

VI. 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.

VII. OFFSITE VEHICLE TRACKING:

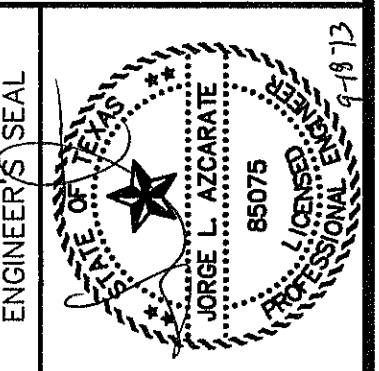
IN ADDITION TO THE STABILIZED CONSTRUCTION ENTRANCES, THE FOLLOWING MEASURES SHALL BE OBSERVED DURING CONSTRUCTION:  
- HAUL ROADS SHALL BE DAMPENED FOR DUST CONTROL  
- LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPULIN  
- EXCESS DIRT ON ROAD SHALL BE REMOVED IMMEDIATELY  
- STABILIZED CONSTRUCTION ENTRANCE  
- OTHER:

VIII. REFER TO SWPPP REPORT FOR ADDITIONAL INFORMATION

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEN BLVD. STATION 5+37.50 A DISTANCE OF 467.99 FEET FROM THE POINT OF CURVE TO THE MONUMENT. STATION 5+37.50 CITY DATUM. ELEVATION: 4058.40

DATE	REVISIONS	BY
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SCALE: N/A  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A

DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.L.S.  
APP'D. BY: J.L.S.  
JOB No. 2000-197-1D

PROJECT TITLE  
**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

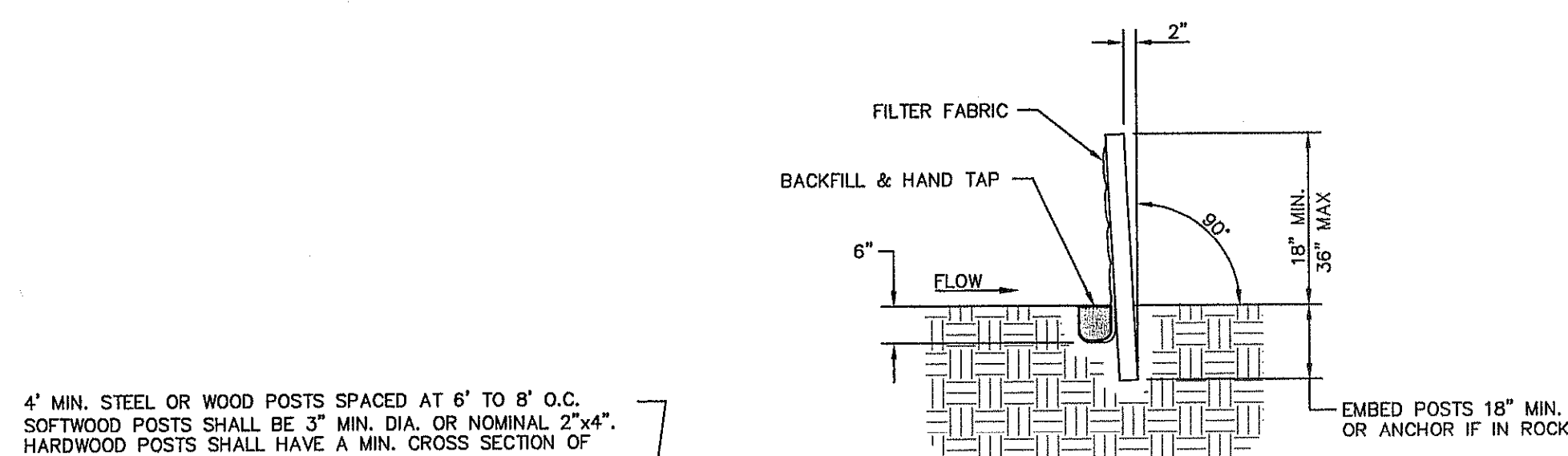
SHEET TITLE  
**STORM WATER  
POLLUTION  
PREVENTION PLAN:  
GENERAL NOTES**

SHEET NO.

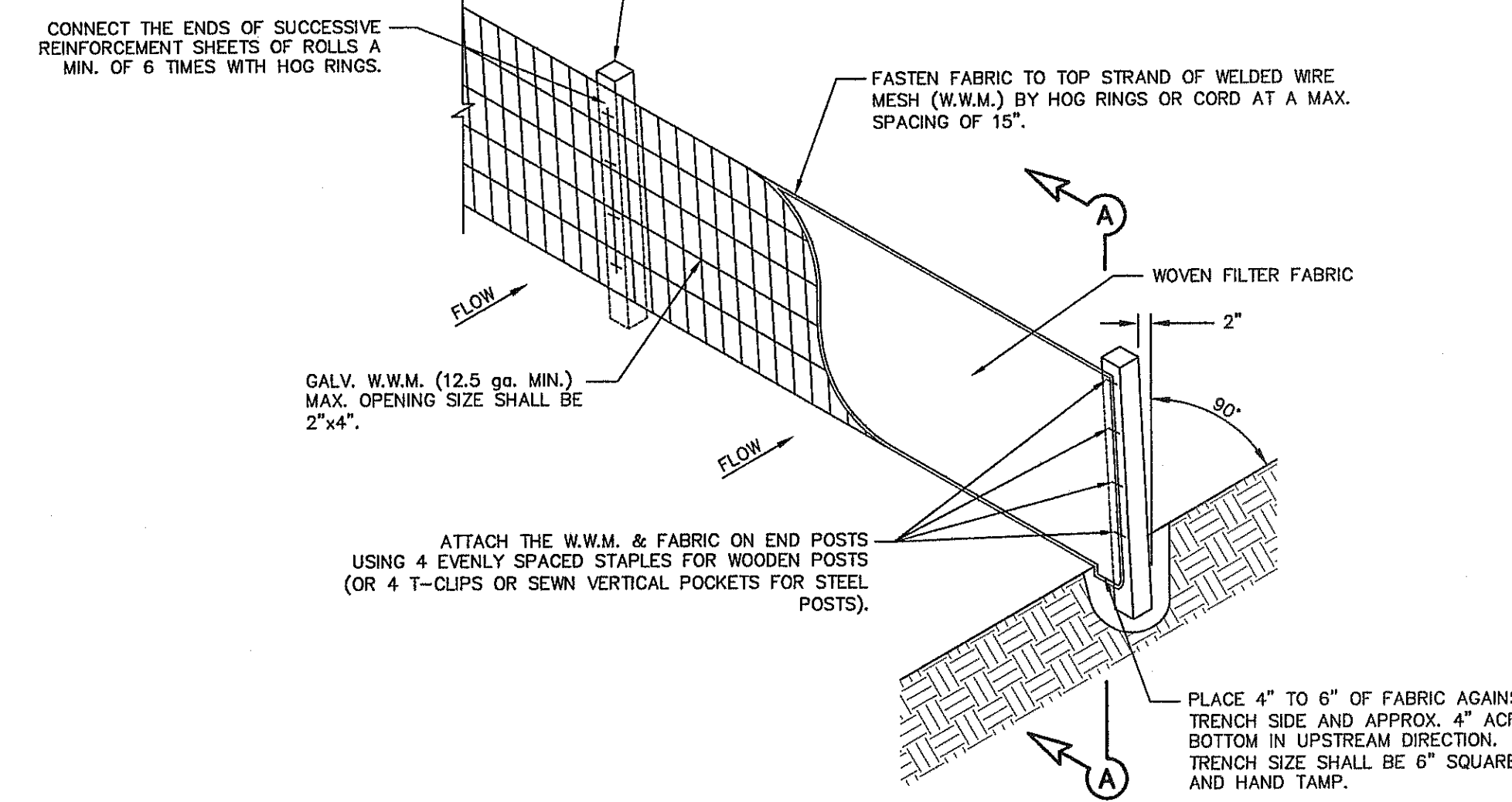
C12.1

S:\2000\2000-197D\065\Construction Drawings\Improvement Plans\C12.1 SWPPP Notes.dwg, Model: 9/19/2013 10:51:12 AM

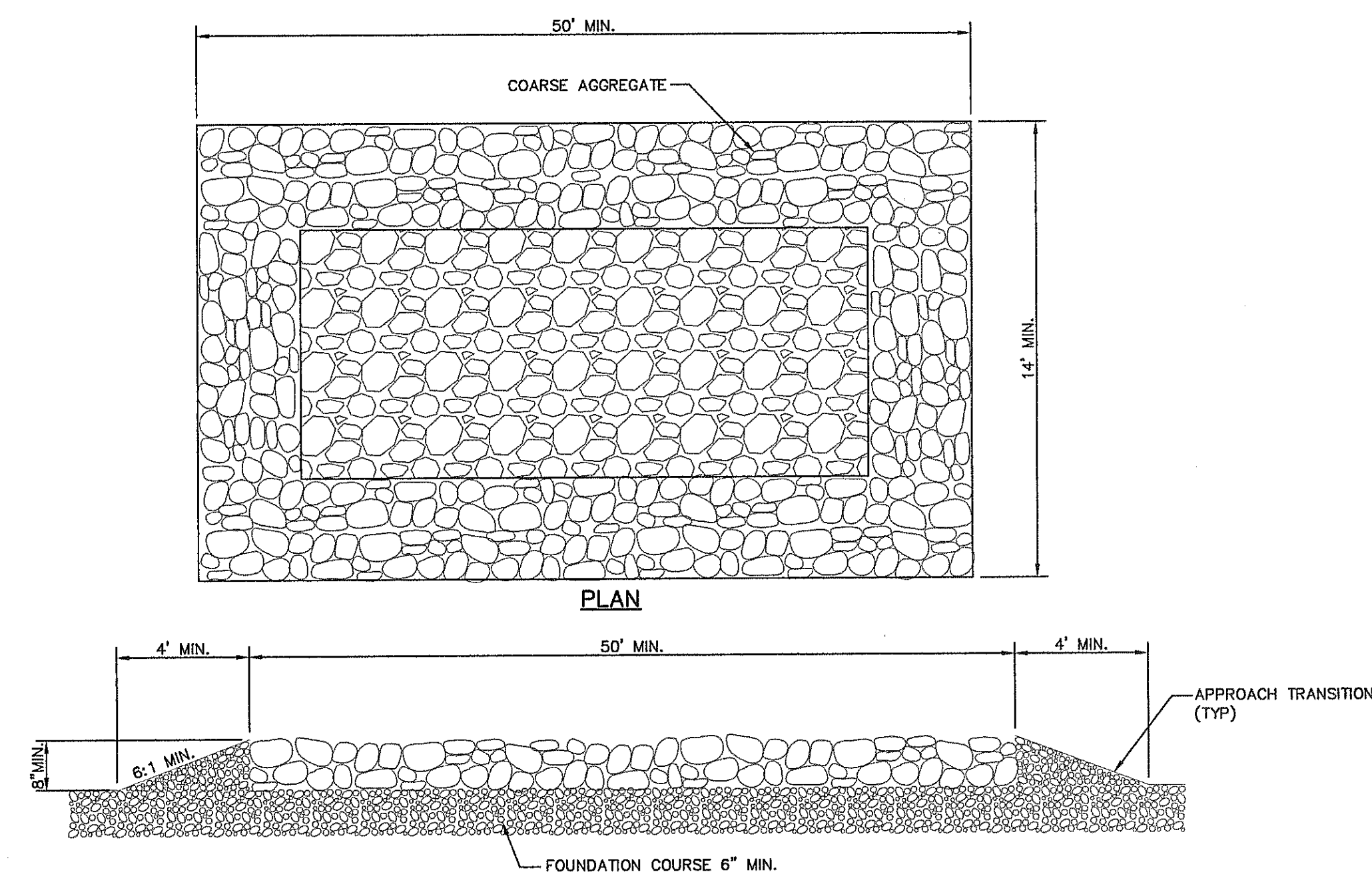




4" MIN. STEEL OR WOOD POSTS SPACED AT 6' TO 8' O.C. SOFTWOOD POSTS SHALL BE 3" MIN. DIA. OR NOMINAL 2"x4". HARDWOOD POSTS SHALL HAVE A MIN. CROSS SECTION OF 1.5"x1.5".



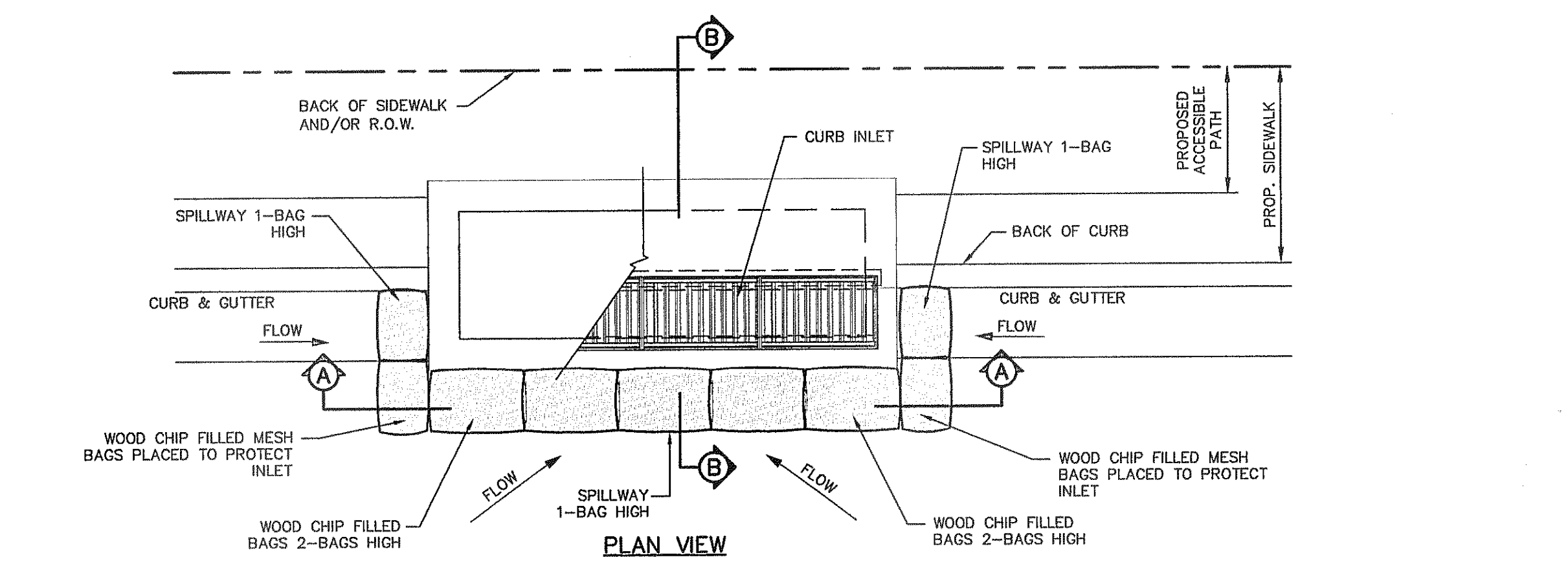
1 TEMPORARY SEDIMENT CONTROL FENCE  
C12.2 SCALE: N.T.S.



**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.

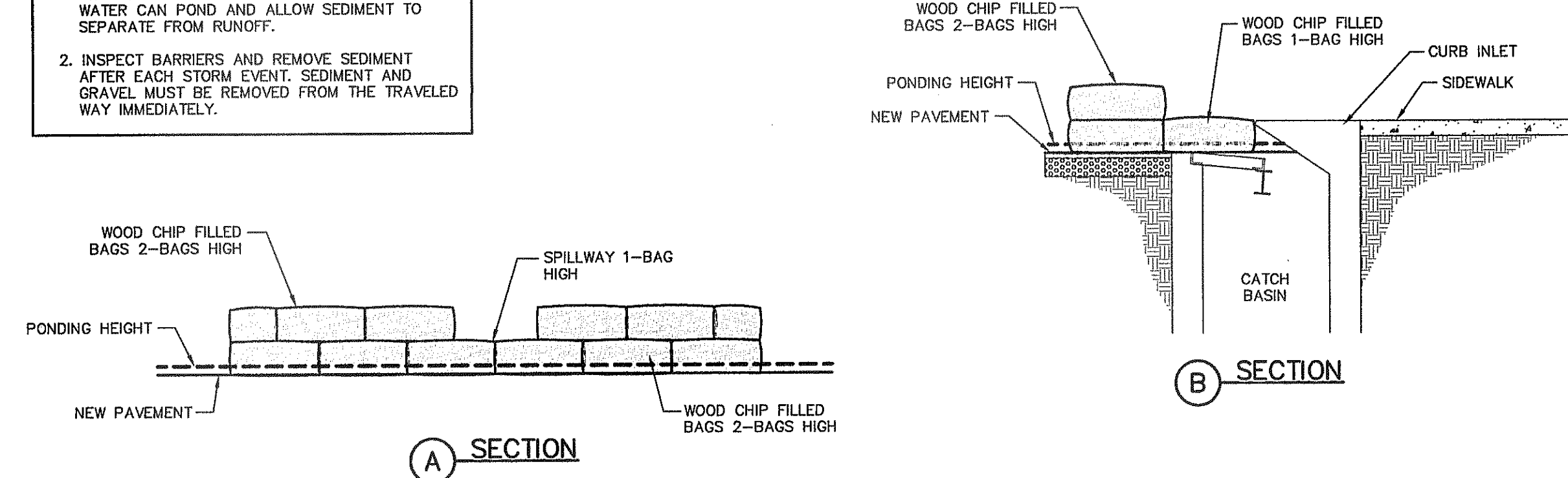
3 CONSTRUCTION EXIT (TYPE 1)  
C12.2 SCALE: N.T.S.



**GENERAL NOTES:**

1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

**NOTE:**  
WOOD CHIP FILLED MESH BAGS SHALL CONSIST OF 30-40% WEED FREE COMPOST AND 60-70% PARTIALLY DECOMPOSED WOOD CHIPS.



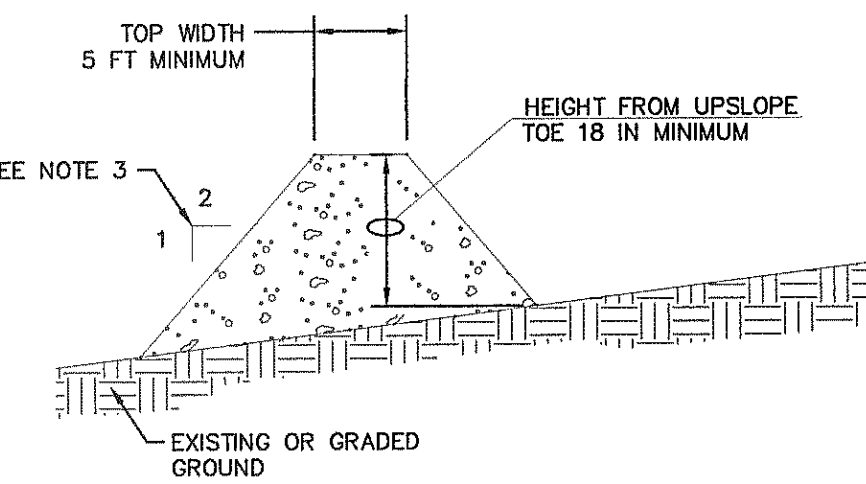
2 TEMPORARY INLET PROTECTION  
C12.2 SCALE: N.T.S.

**UTILITY LOCATOR SERVICES**

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EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
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TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
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**WARNING!**  
**BEFORE YOU DIG**  
CALL  
1-800-DIG-TESS  
1-800-344-8377  
FOR FIELD LOCATING EXISTING UTILITIES

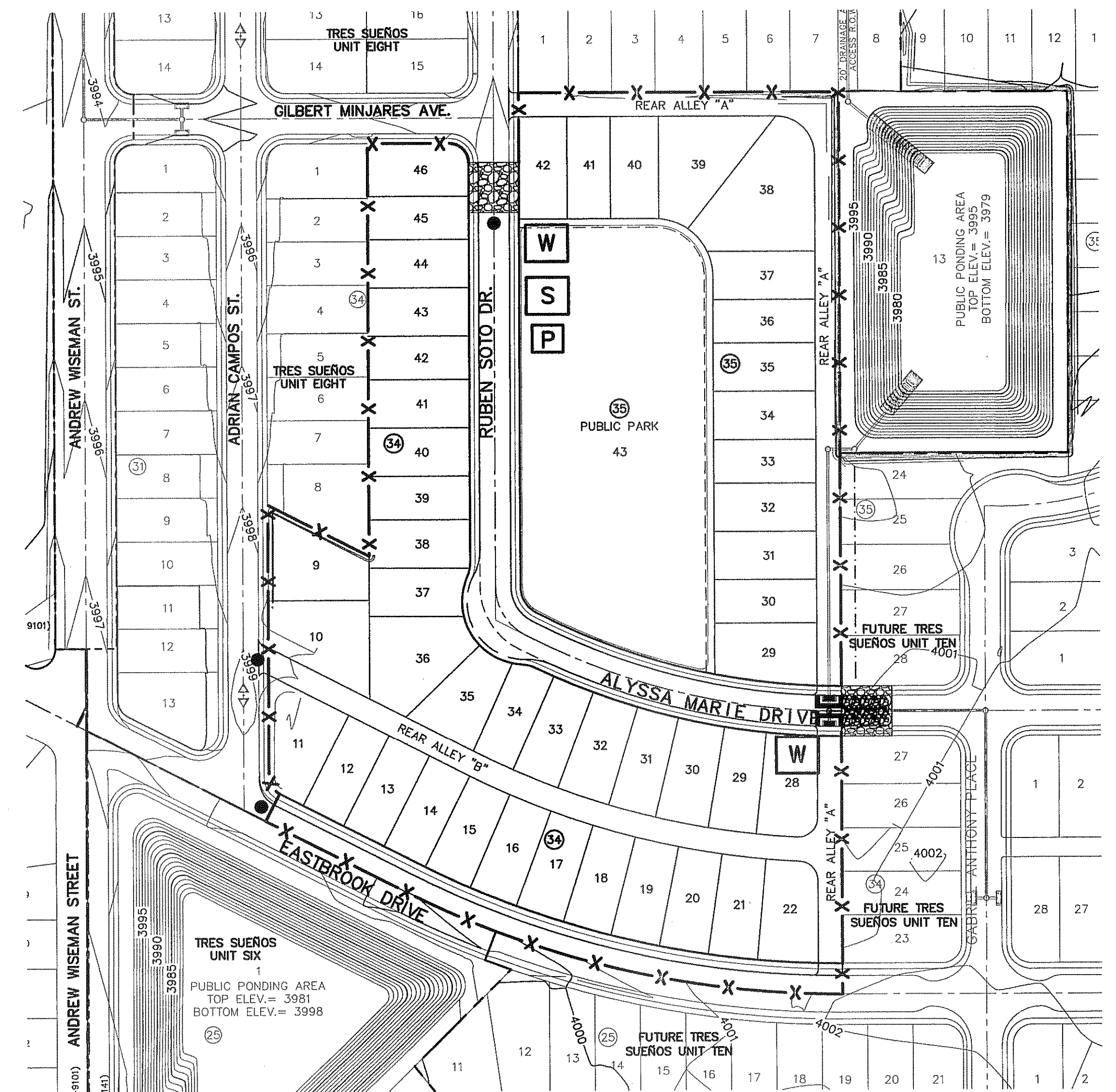
- X X X SILT FENCE OR EARTHEN BERM, SEE DETAIL 1/C12.2 & 4/C12.2
- [Symbol] STABILIZED CONSTRUCTION ENTRANCE, SEE DETAIL 3/C12.2
- S STAGING AREA
- P PORTABLE TOILETS
- W WASH OUT
- [Symbol] TEMPORARY INLET PROTECTION, SEE DETAIL 2/C12.2
- [Symbol] OUT FALL



**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.

4 TYPICAL BERM CONFIGURATION  
C12.2 SCALE: N.T.S.



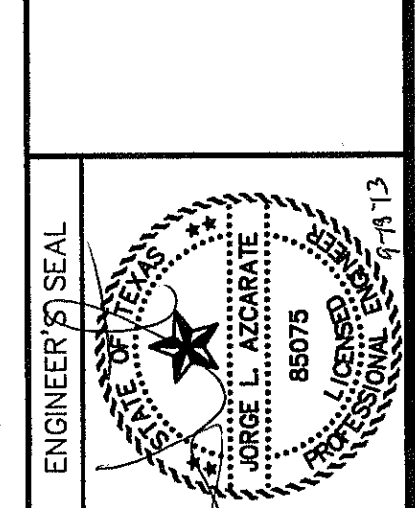
**SITE PLAN**  
SCALE: 1" = 100'

**REFERENCES — BENCHMARKS**

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., SURFACING A DISTANCE OF 472 FEET FROM AVENUE CITY DATUM. ELEVATION: 4005.40

DATE	REVISIONS	BY

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**SCALE**  
1" = 100'  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
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JOB No. 2000-157-LD

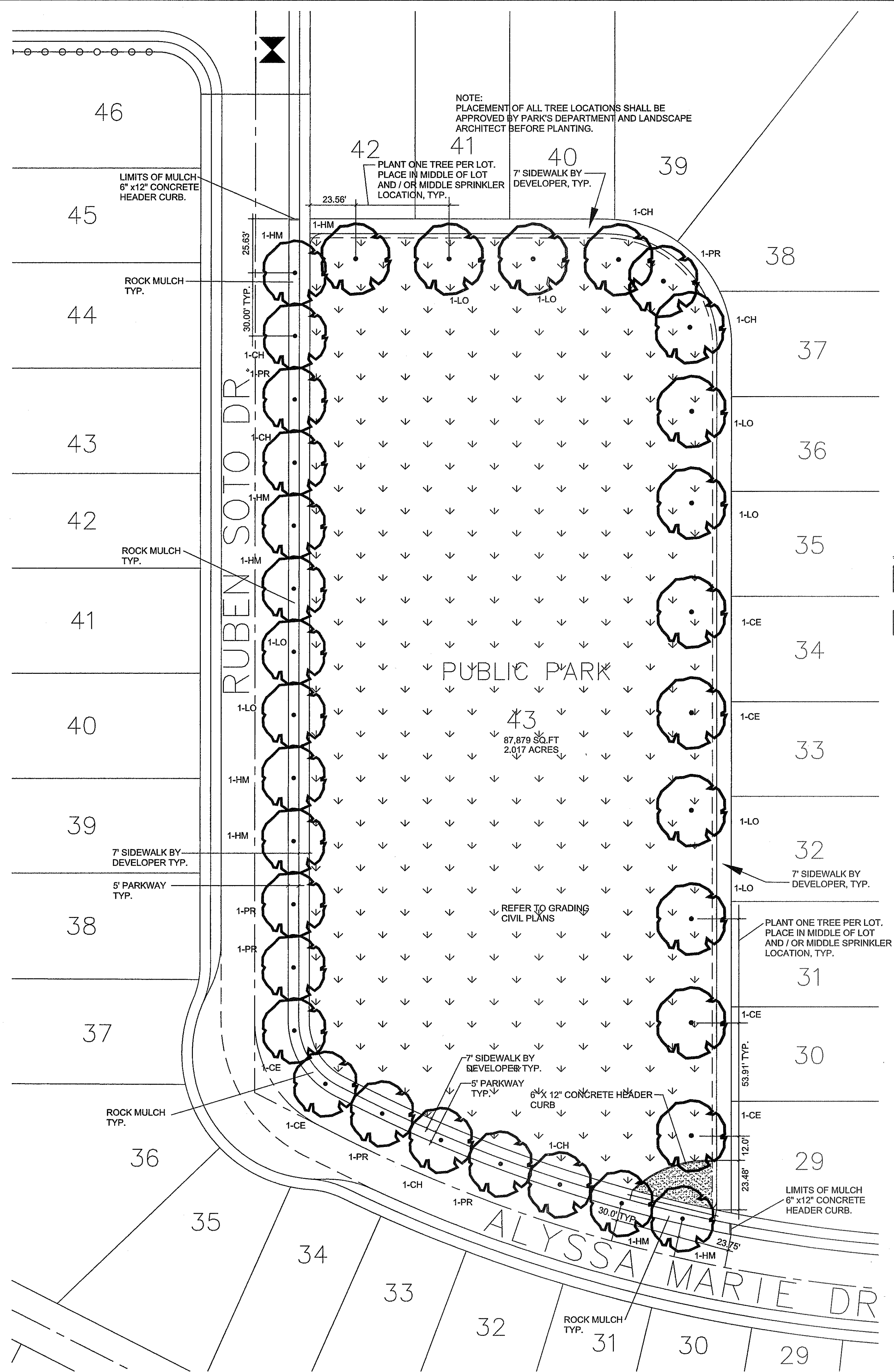
**PROJECT TITLE**  
TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS

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

**SHEET NO.**

C12.2





**PLANT SCHEDULE**

KEY	QTY	COMMON NAME / BOTANICAL NAME	CONT
CH	6	Chinese Pistachio / Pistacia Chinensis	2.0" CALIPER
HM	8	Honey Mesquite / Prosopis glandulosa	2.0" CALIPER
LO	8	Texas Live Oak / Quercus fusiformis	2.0" CALIPER
PR	6	Pink Flowering Locust / Robinia x ambigua 'Purple Robe'	2.0" CALIPER
CE	6	Lacebark Elm / Ulmus parvifolia 'Lacebark'	2.0" CALIPER

**GENERAL NOTES:**

- DEVELOPER SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE FINISHED GRADE) AND PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, MINERALS AVAILABILITY, WATER PEGELOCATION, DETAILED SALINITY & PH TEST WITH RECOMMENDATIONS FOR SOIL AMENDMENTS TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS AND TREES GROWTH; COORDINATE SITE VISIT WITH LANDSCAPE ARCHITECT FOR COLLECTION OF SOIL SAMPLES (TO BE A DEPTH OF 12").
- ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIATED BY REMOVAL OF SOILS, SOILS WITH STONES, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN GUIDELINES AND CONSTRUCTION STANDARDS.
- ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY LANDSCAPE ARCHITECT ARE TO BE REMOVED, DISPOSED-OFF SITE (APPROVED SITE) AND REPLACED WITH TOPSOIL TO THE REMOVAL DEPTH AS NEEDED.
- CONTRACTOR SHALL BE REQUIRED TO OBTAIN PROPER PERMITS.
  - LANDSCAPE PERMIT
  - IRRIGATION PERMIT
  - BUILDING PERMIT FOR PUMP HOUSE
  - ALL PARK IMPROVEMENTS SHALL COMPLY WITH APPLICABLE ADAAG AND TAS RULES AND REGULATIONS.
- DEVELOPER SHOULD PROVIDE TDLR REGISTRATION NUMBER TO LANDSCAPE ARCHITECT, CITY OF EL PASO, PARKS DEPARTMENT. INSPECTION AND CERTIFICATE TO BE INCLUDED

**MATERIAL LEGEND:**

- TURF TYPE SHALL BE CELEBRATION HYBRID BERMUNDA
- ROCK MULCH SHALL BE SCREENINGS 3" DEPTH PLACED ON GEOTEX FABRIC, CONTECH MARIPIA 160N. PLACE OVER LIGHTLY COMPACTED SOIL. OVERLAP GEOTEX FABRIC MINIMUM OF 12" AND PIN WITH U-SHAPE METAL PIN 3" LENGTH ON 12" CENTER. GEOTEX FABRIC SHALL BE MIRAFI 160N SEE DETAIL L-3

**NOTES FOR PLANTING:**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS FROM FALLING OR BEING BLOWN OVER AND TO STRAIGHTEN OR REPLANT ALL PLANTS WHICH ARE DAMAGED DUE TO WIND. PLANTS BLOWN OVER BY HIGH WINDS SHALL NOT BE A CAUSE FOR ADDITIONAL EXPENSE TO THE OWNER, BUT SHALL BE THE FINANCIAL RESPONSIBILITY OF CONTRACTOR.
- TOPSOIL MATERIAL FOR PLANTING SHALL BE FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, STONES LARGER THAN 1" IN DIAMETER, NOXIOUS WEEDS AND PLANTS, SOD, PARTIALLY DISINTEGRATED DEBRIS, INSECTS OR ANY OTHER UNDESIRABLE MATERIAL. PLANTS OR SEEDS THAT WOULD BE TOXIC OR HARMFUL TO GROWTH.
- CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF PLANT MATERIAL QUANTITIES.
- IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. IMPROPER PLANT COUNT MADE BY THE LANDSCAPE CONTRACTOR SHALL BE NO CAUSE FOR ADDITIONAL COSTS TO THE OWNER.
- THE CONTRACTOR SHALL MEET BOTH THE CONTAINER SIZE AND CALIPER SIZE, AS WELL AS HEIGHT AND SPREAD SPECIFICATIONS SPECIFIED.
- EXCAVATE TWO TIMES GREATER THAN THE ROOT BALL-DIAMETER OF THE SHRUB, TWO TIMES GREATER THAN THE ROOT BALL FOR TREES. SCARIFY BOTTOM OF PLANTING PIT BEFORE PLACING PLANT. PLACEMENT OF PLANT SHALL BE PERPENDICULAR TO GROUND. CONTRACTOR WILL NOT PLANT MATERIAL SHOWN ON PLANS WHEN IT IS EVIDENT THAT FIELD CONDITIONS HAVE CHANGES SINCE PLANS WERE DRAWN. ANY CHANGES ARE TO BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE DESIGNER BEFORE ANY PLANTING IS DONE IN THE AREA.
- PLANT SUBSTITUTIONS WILL BE PERMITTED, REQUEST SUBSTITUTION IN WRITING GIVING REASONS FOR SUCH SUBSTITUTIONS.
- TURF QUANTITY TAKE-OFF ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- TREAT ALL PLANTING AREAS WITH AN APPLICATION OF SURF. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION.
- REMOVE ALL WIRE, STRING, WIRE BASKETS, BURLAP, CONTAINERS, ETC., FROM THE ROOTBALL OF PLANTS BEFORE BACKFILLING THE PLANTING HOLE.
- WARRANTY FOR THE PLANTING MATERIAL SHALL BE ONE YEAR FROM THE DATE OF ACCEPTANCE. (TREES, SHRUBS AND GROUNDCOVER).

**PARKS DEPARTMENT**  
 REVIEWED BY: *Antonio del Rio*  
 09/18/2013



**LANDSCAPE PLAN**

SCALE: 1" = 30'-0"

2013-29-04 11:11

**SODDING NOTES**

- SUBMIT THE FOLLOWING:
- SOD CERTIFICATION FOR GRASS SPECIES AND NAME AND LOCATION OF SOD SOURCE. SODDING SCHEDULE, INCLUDING DATES AND TYPE OF WORK TO BE PERFORMED. PRIOR TO ORDERING, NAME OF SUPPLIER OF SOIL AMENDMENTS MATERIALS. QUALITY ASSURANCE
  - MINIMUM AGE 18 MONTHS. WITH ROOT DEVELOPMENT THAT WILL SUPPORT ITS OWN WEIGHT WITHOUT TEARING. WHEN SUSPENDED VERTICALLY BY HOLDING THE UPPER TWO CORNERS.
  - DELIVERY, STORAGE AND HANDLING
  - TIME DELIVERY SO THAT SOD WILL BE PLACED WITHIN 24 HOURS OF DELIVERY AT SITE. PROTECT AGAINST DRYING AND BREAKING OF ROLLED STRIPS.
  - DELIVER PACKAGED MATERIALS IN CONTAINERS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED

**SITE CONDITIONS**

- PROCEED WITH AND COMPLETE LANDSCAPE WORK AS RAPIDLY AS PORTIONS OF SITE BECOME AVAILABLE, WORKING WITHIN SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED.
- WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS CONSULT THE LANDSCAPE DESIGNER AND CITY OF EL PASO PARKS AND RECREATION BEFORE PLANTING.
- PLANT OR INSTALL MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF LANDSCAPE WORK REQUIRED. CORRELATE PLANTING WITH SPECIFIED MAINTENANCE PERIODS TO PROVIDE MAINTENANCE FROM DATE OF FINAL ACCEPTANCE.

**SOIL AMENDMENTS**

- PROVIDE SOIL ANALYSIS BEFORE ADDITION OF SOIL AMENDMENTS & ANALYSES OF SOIL AMENDMENTS. ORGANIC AMENDMENTS SHALL CONSIST OF WELL-AGED ORGANIC COMPOST OR APPROVED EQUAL FERTILIZER
- SLOW-RELEASE STARTER FERTILIZER ANALYSIS AS RECOMMENDED BY LANDSCAPE ARCHITECT BY WEIGHT AT A RATE OF 1 LB OF ACTUAL NITROGEN PER 1,000 SQUARE FEET BY WEIGHT.

**GRASS MATERIALS**

- PROVIDE STRONGLY ROOTED SOD, NOT LESS THAN 18 MONTHS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES AND MACHINE CUT TO PAD THICKNESS OF 3/4 INCH (PLUS OR MINUS 1/4 INCH), EXCLUDING TOP GROWTH AND THATCH. PROVIDE SOD CAPABLE OF GROWTH AND DEVELOPMENT WHEN PLANTED. CUT SOD PIECES A MINIMUM OF 18 INCHES WIDE.

**PREPARATION**

- PRIOR TO START OF SOIL PREPARATION ALL FINISH GRADES SHALL BE ESTABLISHED AND APPROVED AS MEETING THE REQUIREMENTS OF THE GRADING PLAN. APPLY A UNIFORM ONE-INCH LAYER (3 C.Y./1000 SQUARE FEET) OF ORGANIC SOIL AMENDMENT, AFTER APPLICATION OF ORGANIC AMENDMENT AND STARTER FERTILIZER ALL AREAS TO BE SODDED SHALL BE THOROUGHLY ROTOTILLED TO A MINIMUM DEPTH OF 12 INCHES. AFTER ROTOTILLING IS COMPLETE AT CROSS DIRECTIONS, DRAG, AND LASER LEVEL TO AN EVEN GRADE, THEN ROLL FOR FIRMNESS. RAKE TILLED AREA AND REMOVE ROLL ENTIRE AREA WITH WEIGHTED HAND ROLLER.

**SODDING OPERATIONS**

- LAY SOD WITHIN 24 HOURS OF DELIVERY AT SITE. DO NOT PLANT DORMANT SOD OR ON FROZEN
- IF SOIL IS DRY, MOISTEN AREAS BEFORE SODDING. WATER THOROUGHLY AND ALLOW SURFACE MOISTURE TO DRY. DO NOT CREATE A MUDDY SOIL CONDITION.
- REMOVE FIBER MESH USED BY SOD FARM TO TRANSPORT SOD ROLLS AS SOD IS BEING INSTALLED.
- LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. NO JOINT SHALL BE MORE THAN 1/4" OVER OR UNDER. LIGHTLY RAKE THE SOIL AHEAD OF EACH SOD STRIP. BUTT ENDS AND SIDES OF SOD STRIPS; DO NOT OVERLAP. STAGGER STRIPS TO OFF-SET JOINTS IN ADJACENT COURSES. LAY SOD PARALLEL TO CONTOURS OF SLOPE. WORK FROM BOARDS TO AVOID DAMAGE TO SUBSOIL OR SOD. TAMP FIRMLY AND EVENLY BY HAND TO ENSURE CONTACT WITH SUBSOIL. WORK SIFTED TOPSOIL OR SAND INTO MINOR CRACKS BETWEEN PIECES OF SOD
- WATER SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.
- BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.
- MAINTAIN LAWNS FOR NOT LESS THAN A PERIOD OF AT LEAST 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SOD. INSPECTION TO DETERMINE ACCEPTANCE OF SODDED LAWNS WILL BE MADE BY PARKS STAFF AND SITES SOUTHWEST REPRESENTATIVE UPON CONTRACTOR'S REQUEST. PROVIDE NOTIFICATION AT LEAST 10 WORKING DAYS BEFORE REQUESTED INSPECTION DATE. AND LONGER AS REQUIRED TO ESTABLISH AN ACCEPTABLE LAWN.
- SODDED LAWNS TO BE MAINTAINED NOT LESS THAN 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SODDING OPERATIONS.
- MAINTENANCE TO INCLUDE: WATER SOD THOROUGHLY EVERY 2 TO 3 DAYS MIN. AS REQUIRED TO ESTABLISH PROPER ROOTING. REPAIR, REWORK AND RESOD AREAS THAT HAVE WASHED OUT OR ERODED. REPLACE DEAD OR UNDESIRABLE SOD SECTIONS WITH NEW SOD. MOW LAWN AREAS WHEN THE GRASS IS OVER 2 INCHES HIGH FOR FIRST CUTTING. FERTILIZE LAWN WITH TOP DRESSING FERTILIZER AT 1 LB. PER 1,000 SQ.FT. OF NITROGEN, WATER THOROUGHLY.
- ADDITIONAL LAWN MAINTENANCE CONSISTS OF WEEDING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS. CLEANUP AND PROTECTION
- DURING THE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION.
- PROTECT WORK AND MATERIALS FROM DAMAGE DUE TO SODDING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED WORK AS DIRECTED.
- WHEN INSPECTED WORK DOES NOT COMPLY WITH REQUIREMENTS, REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED BY THE LANDSCAPE DESIGNER AND CITY OF EL PASO PARKS AND RECREATION AND FOUND TO BE ACCEPTABLE. REMOVE REJECTED SOD AND

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**REFERENCES - BENCHMARKS**

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S0843731E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

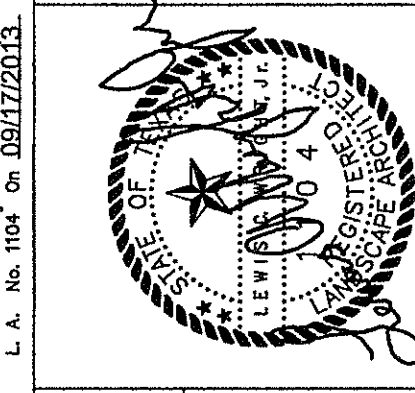
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4712 Woodrow Bean, Ste. F, El Paso, TX 79924  
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**SCALE**

Horizontal: 1" = 30'-0"

Vertical: 1" = 10'-0"

Contour Interval: 1' / 4"

DATE: AUGUST 2013

DESIGN BY: LW

DRAWN BY: JWC

CHKD. BY: LW

APPV. BY: L. WRIGHT

JOB NO.: 2000-1157-LD

**PROJECT TITLE**

TRES SUEÑOS UNIT ELEVEN  
 "SWEET DREAM PARK" - LOT 43, BLOCK 35  
 14417 ALYSSA MARIE DRIVE  
 SUBDIVISION IMPROVEMENTS  
 A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2, TEXAS  
 AND PACIFIC RAILROAD COMPANY SURVEYS

**SHEET TITLE**

**LANDSCAPE PLAN**

**SHEET NO.**

**L-1.0**

**DRAWING COORDINATION**

ARCHITECTURAL, CIVIL, MECHANICAL, STRUCTURAL, ELECTRICAL, AND LANDSCAPING DRAWINGS ARE INTERRELATED. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL REVIEW AND COORDINATE THE ENTIRE SET OF DRAWINGS AND PROJECT MANUAL.

**LAS LANDSCAPE ARCHITECTURAL SERVICES**

LANDSCAPE ARCHITECT & IRRIGATION CONSULTANT

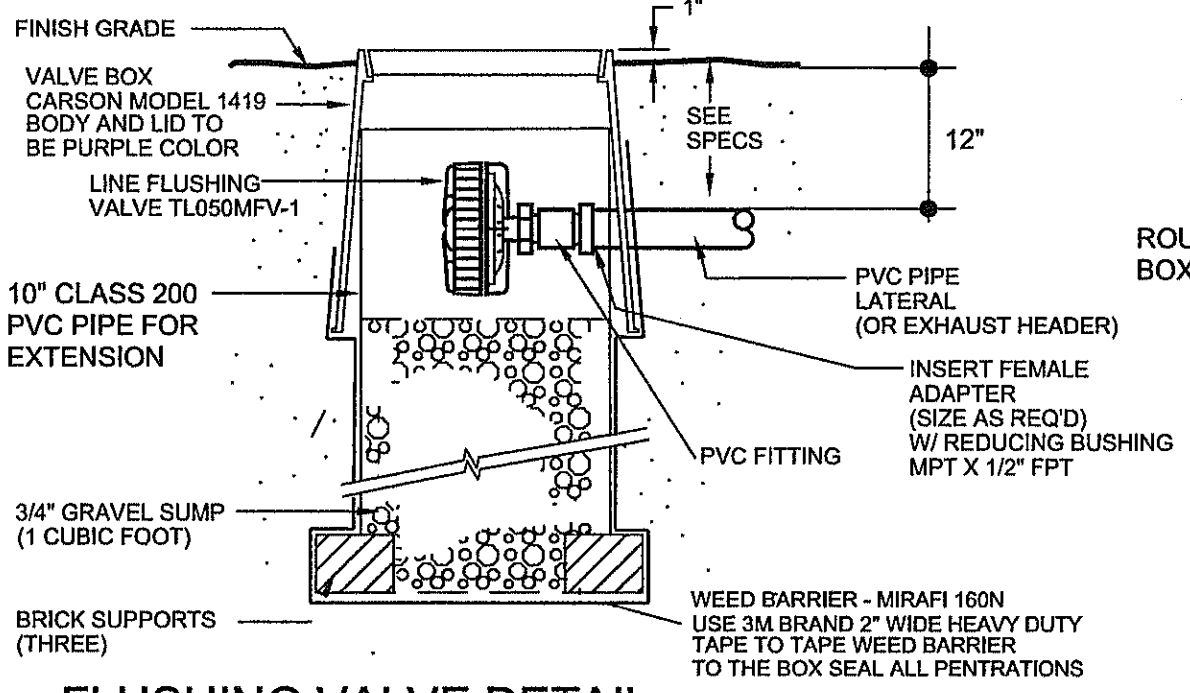
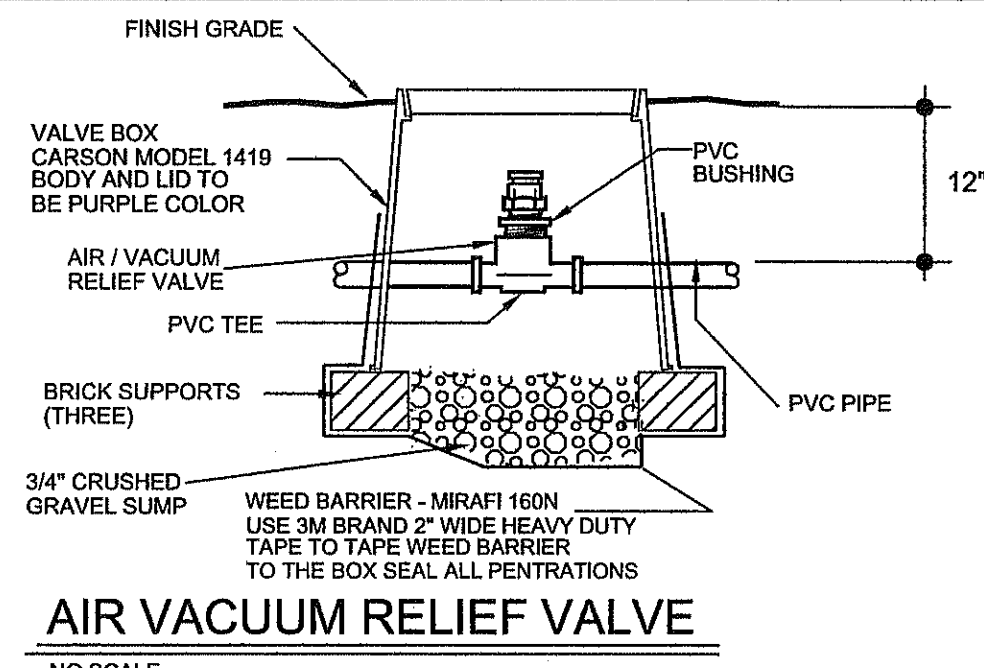
4004 KEMP AVE SUITE B EL PASO, TX. 79904  
 PHONE: (915) 422-7739 FAX: (915) 581-6730  
 EMAIL: lwrightlas@gmail.com

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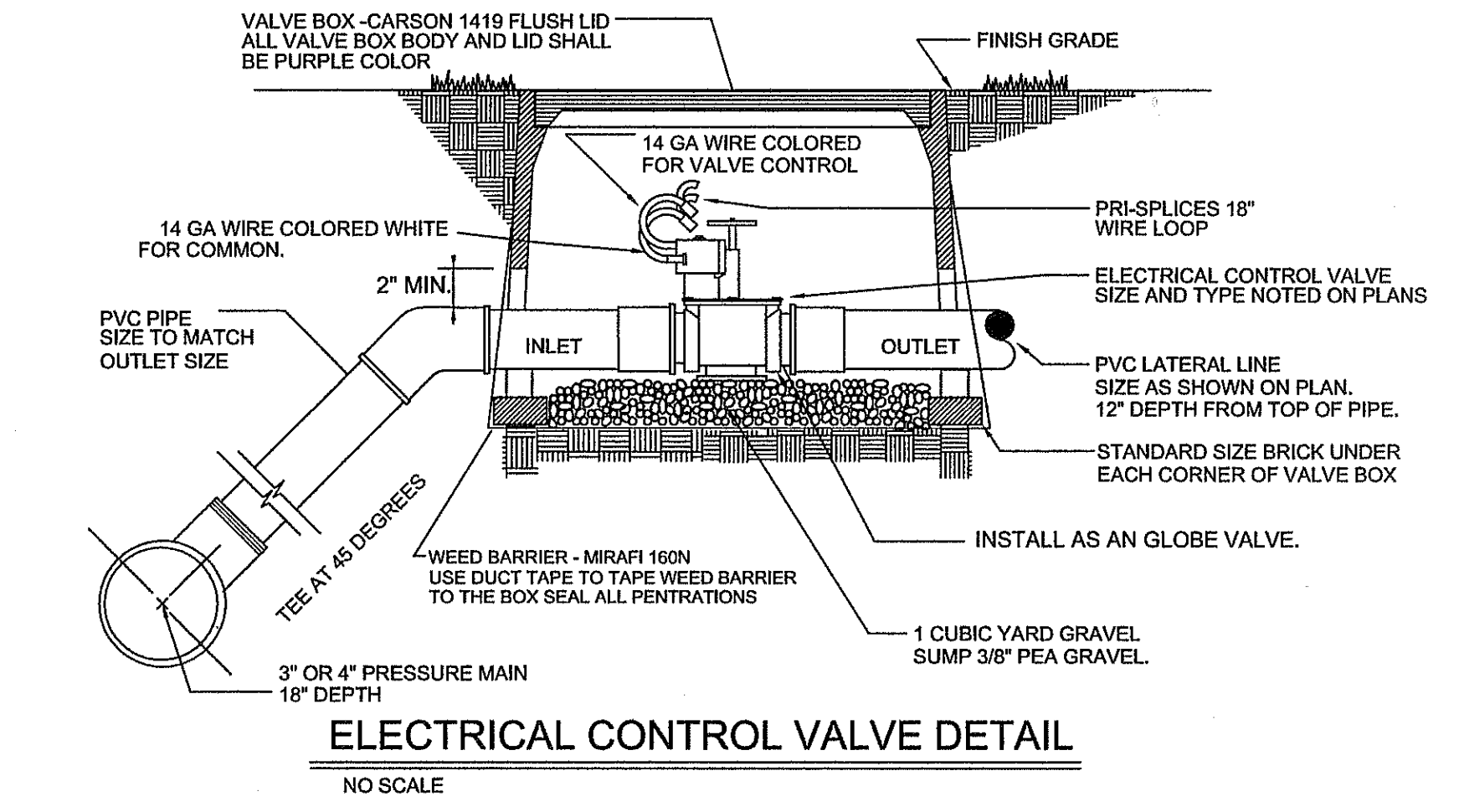






**GENERAL NOTES FOR VALVE AND ALL BOXES:**

- 1) ONLY ONE COURSE OF BRICK AT EACH CORNER SHALL BE ALLOWED.
- 2) CONTRACTOR SHALL USE VALVE BOX EXTENSIONS ONLY TO REACH THE PROPER HEIGHT OF VALVE BOX TO FINISHED GRADE OF MULCH.
- 3) ALL VALVE AND EMITTER BOXES SHALL HAVE GEOTEX FABRIC INSTALLED UNDERNEATH AND TAPED TO SEAL ALL OPENINGS. TAPE SHALL BE 3M BRAND 2" WIDE HEAVY DUTY PLASTIC TAPE ONLY, NO DUCT TAPE SHALL BE ALLOWED.
- 4) ALL VALVE, EXTENSIONS AND EMITTER BOXES SHALL NOT REST OR CONTACT THE PVC PIPE OR DRIPLINE TUBING.

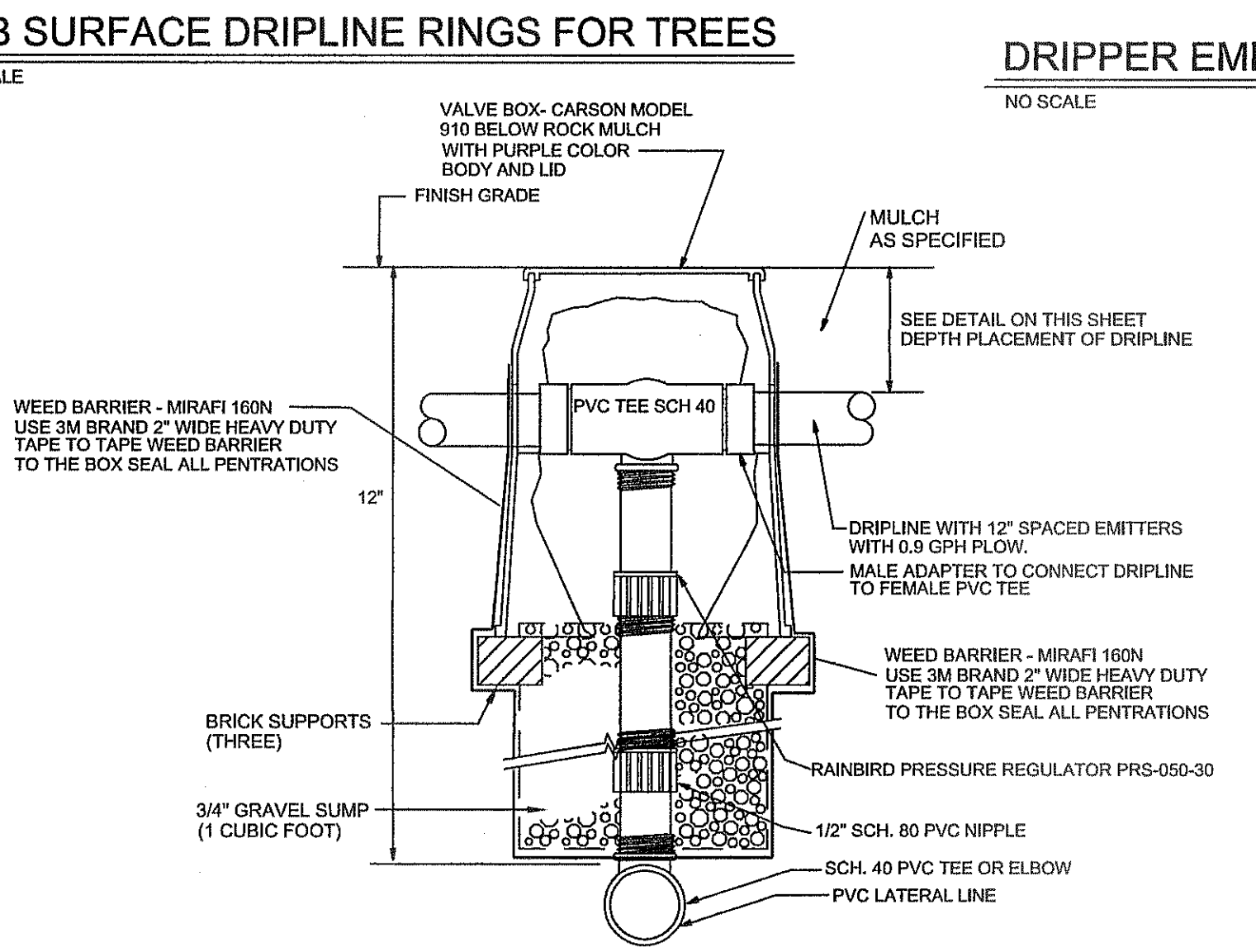
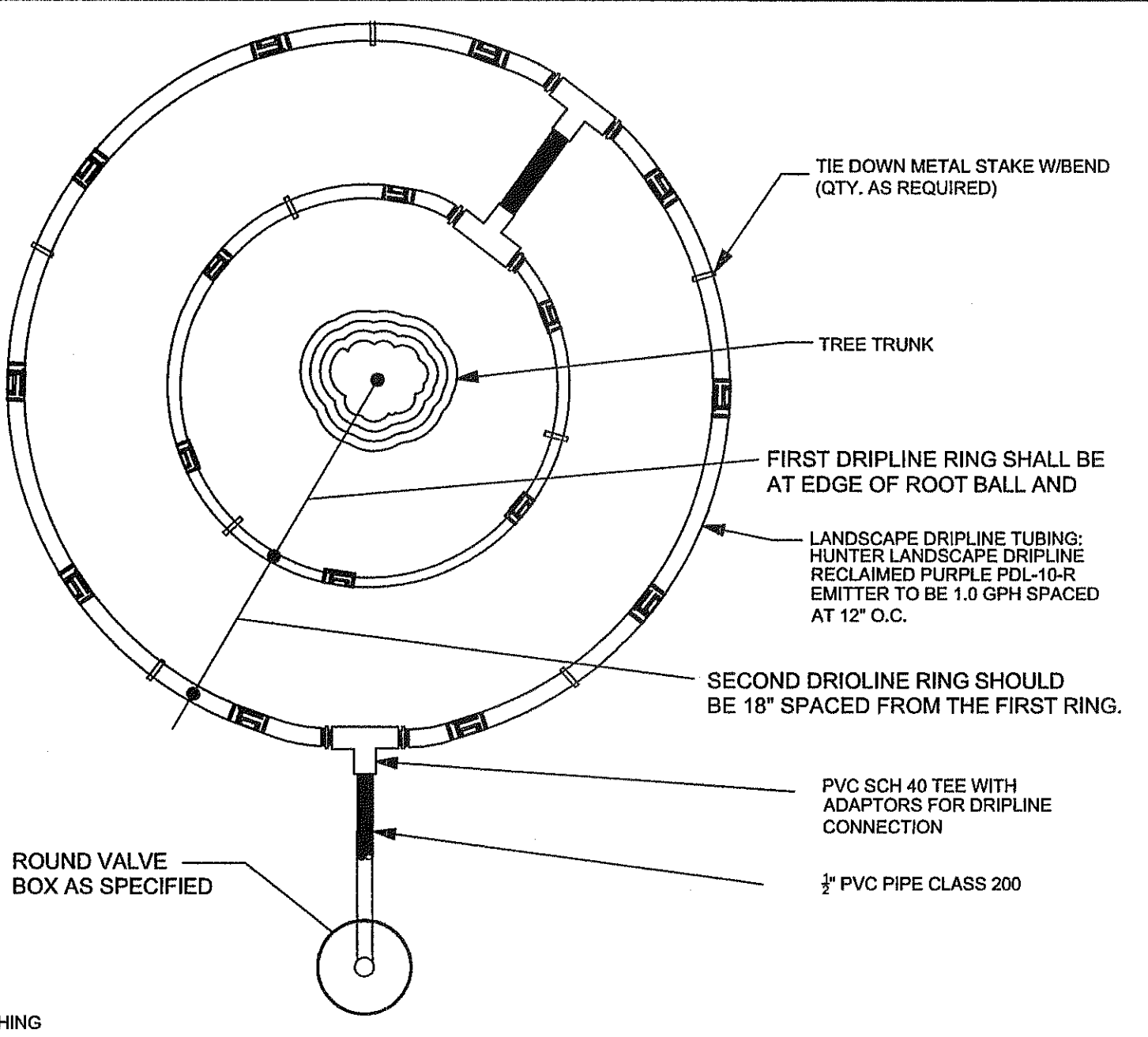


**NOTE:**

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- 2) CONTRACTOR SHALL USE VALVE BOX EXTENSIONS ONLY TO REACH THE PROPER HEIGHT OF VALVE BOX TO FINISHED GRADE OF MULCH.

**GENERAL NOTES FOR VALVE AND ALL BOXES:**

- 1) ONLY ONE COURSE OF BRICK AT EACH CORNER SHALL BE ALLOWED.
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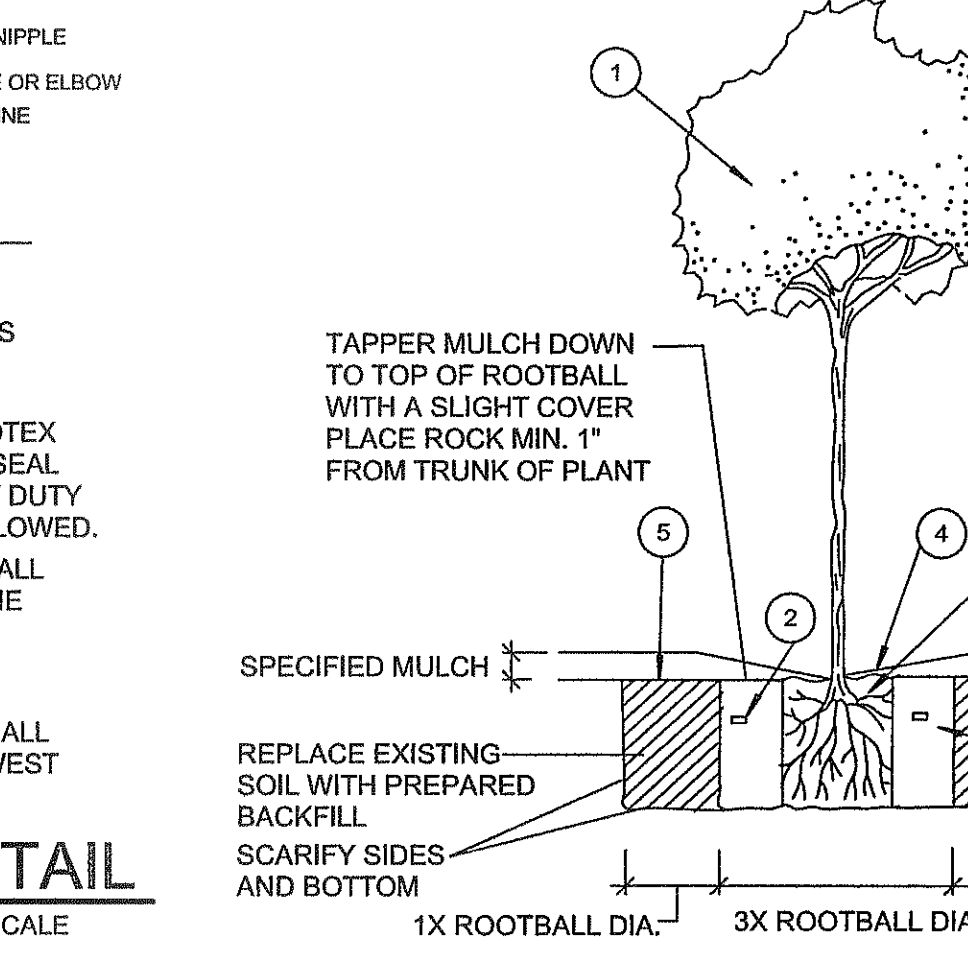
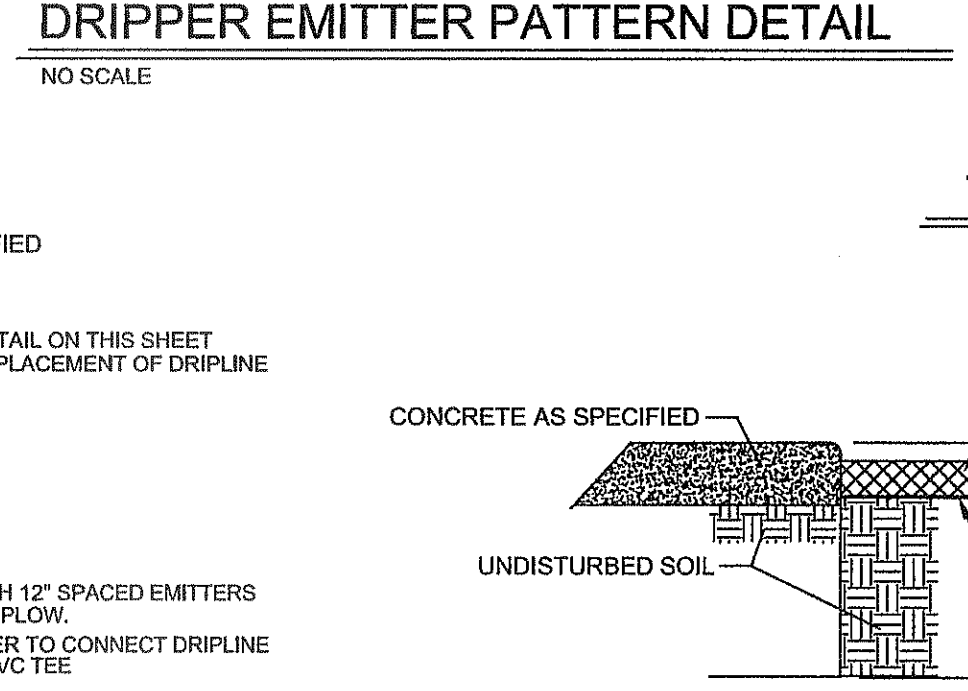
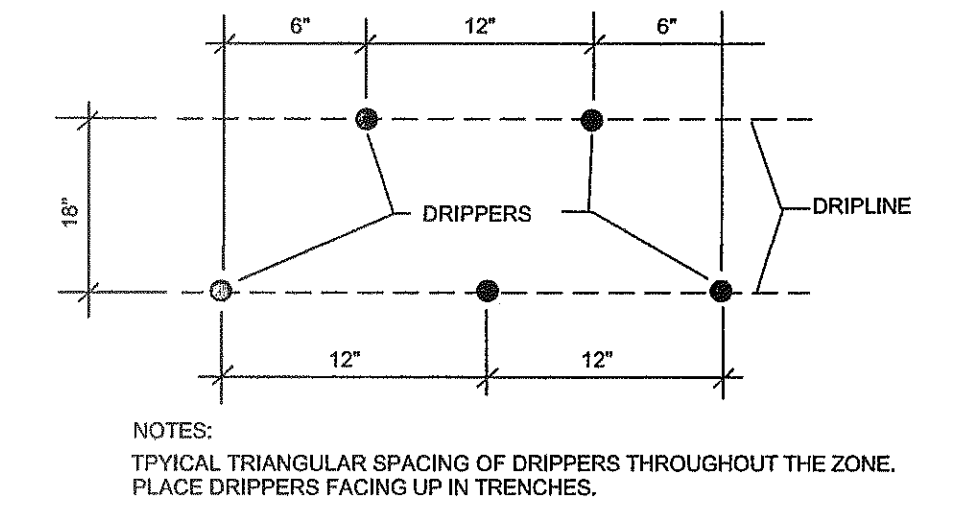
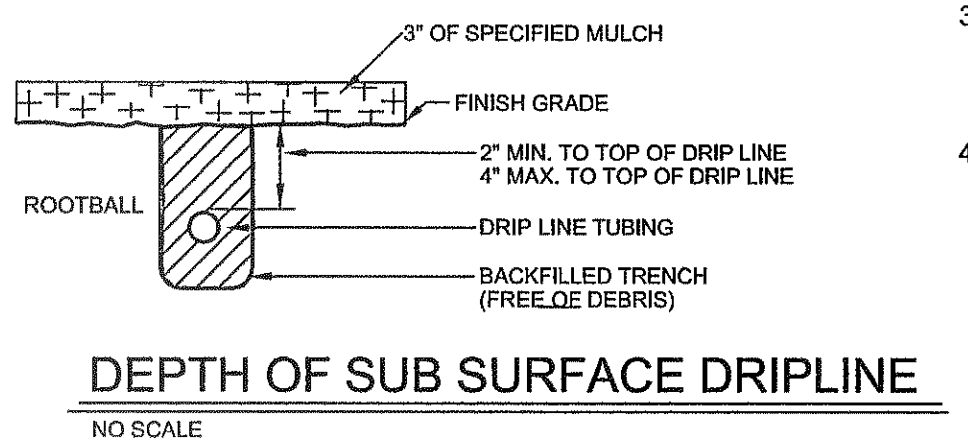
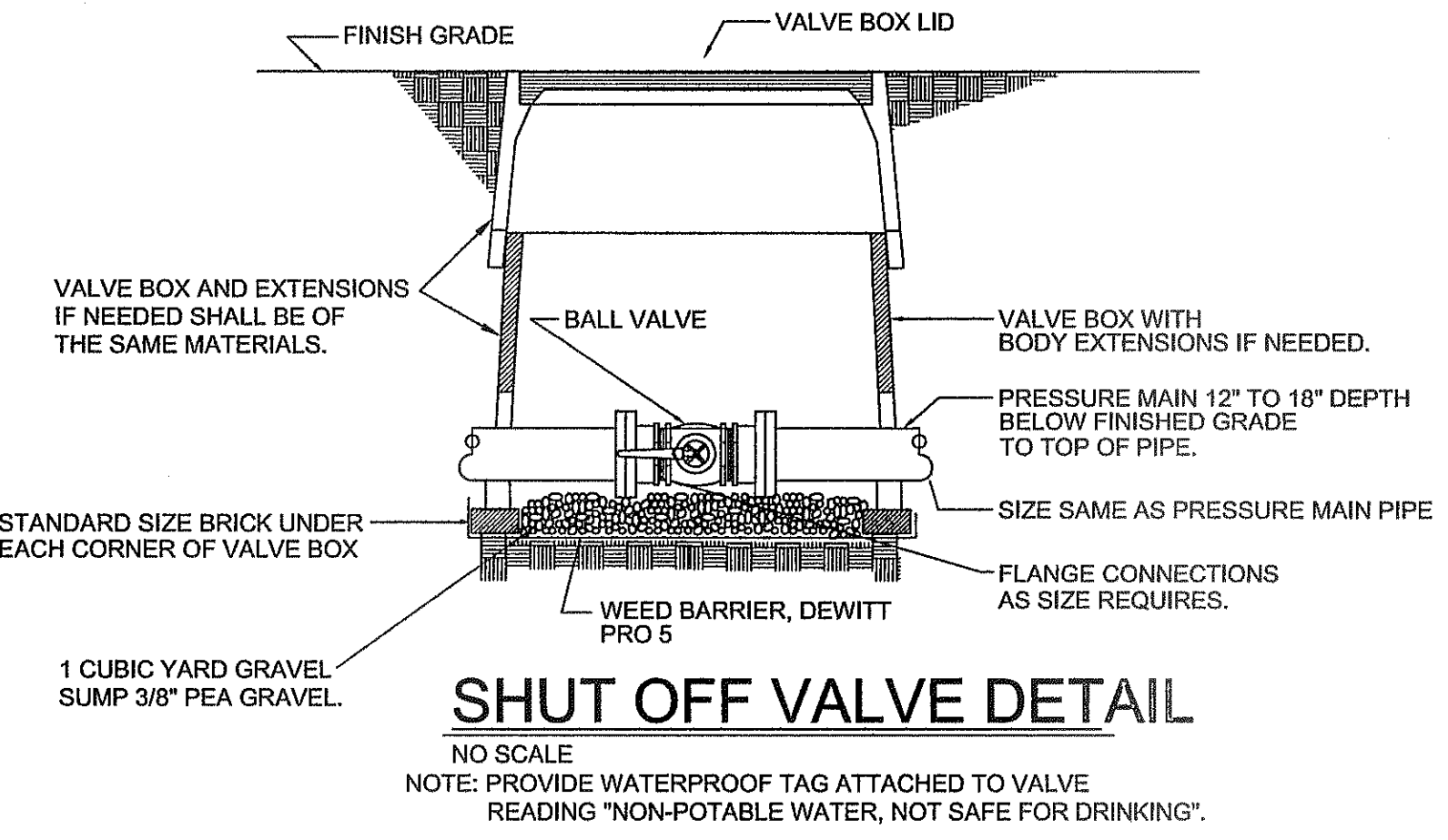


**GENERAL NOTES FOR VALVE AND ALL BOXES:**

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**NOTE:**  
PLACEMENT OF ACCESS BOX FOR CONNECTION SHALL BE FIVE FEET (5') FROM THE TREE TRUNK ON THE WEST SIDE.

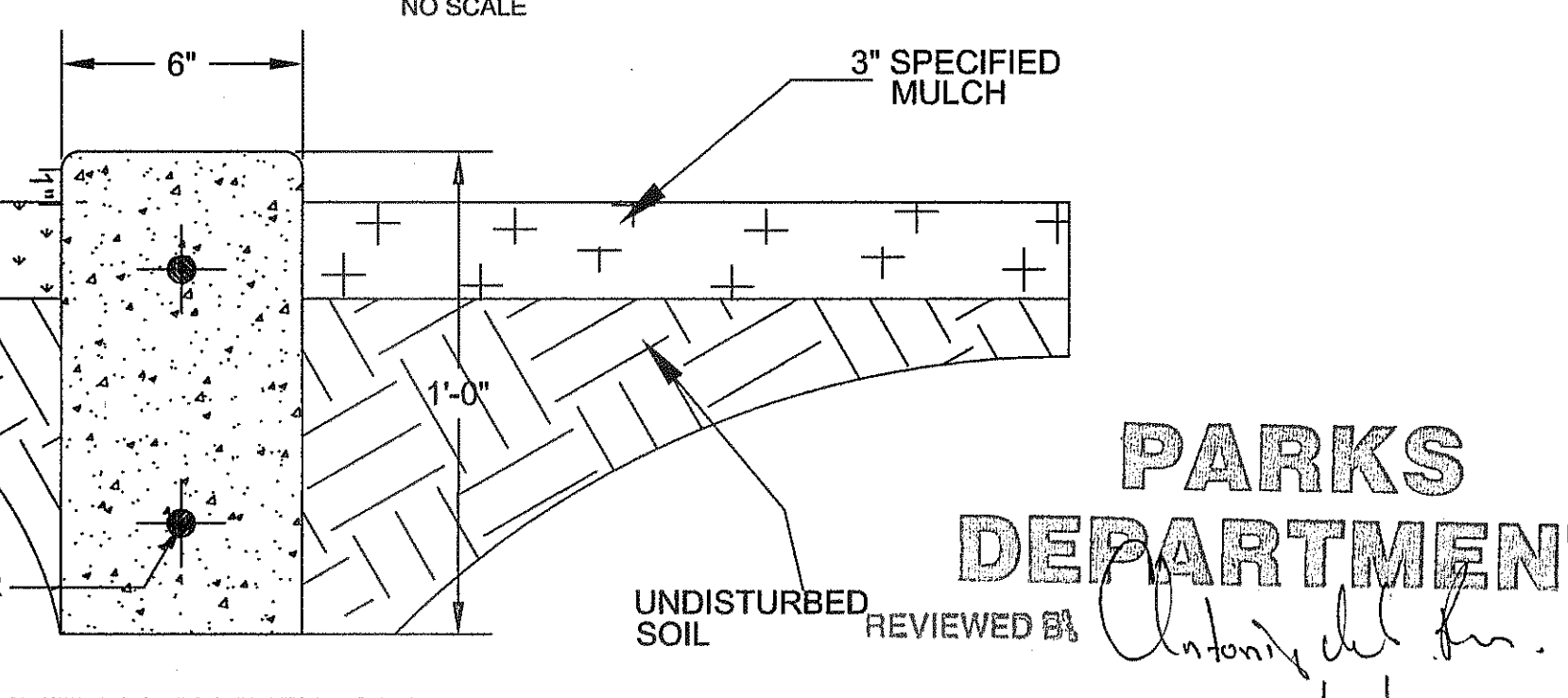
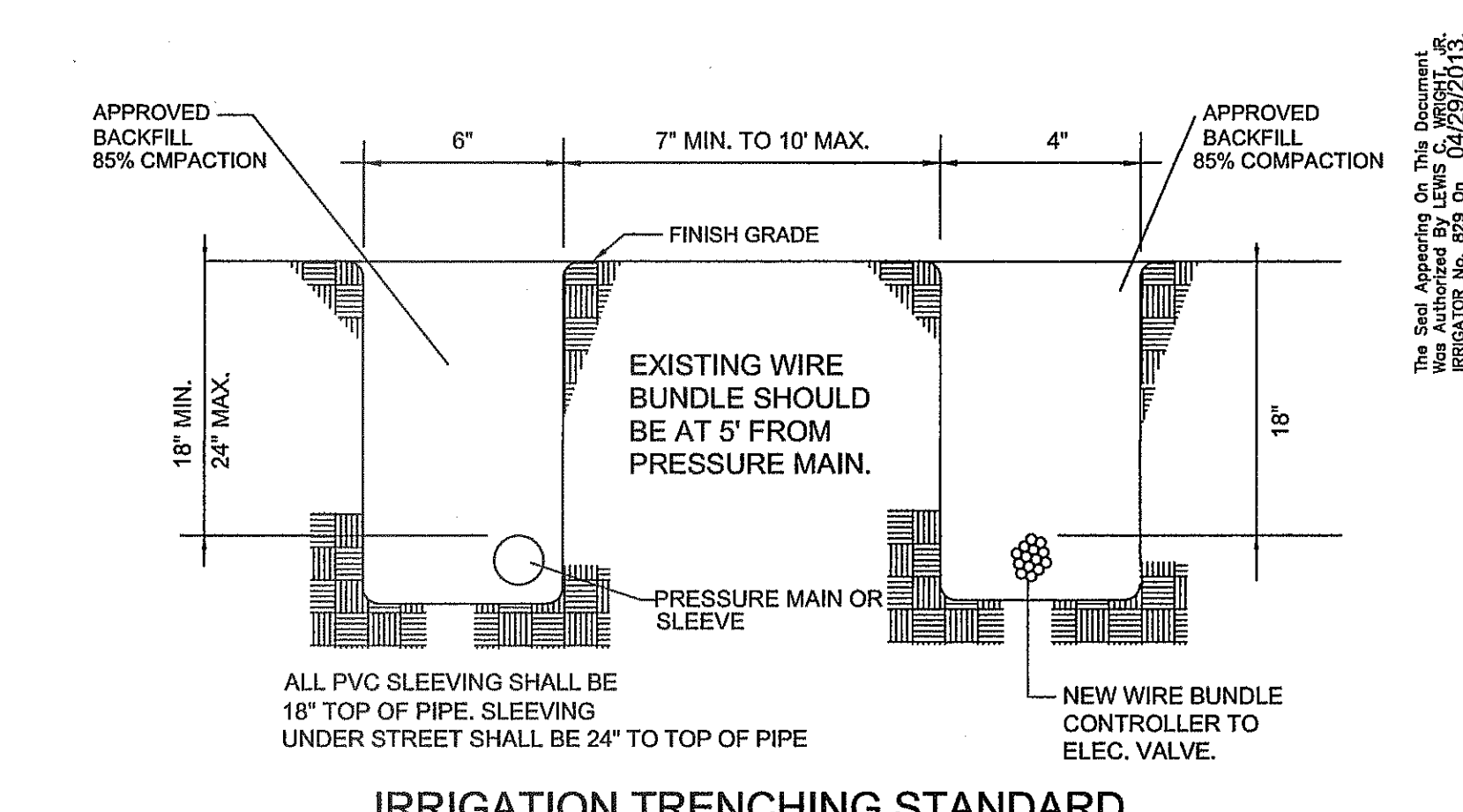
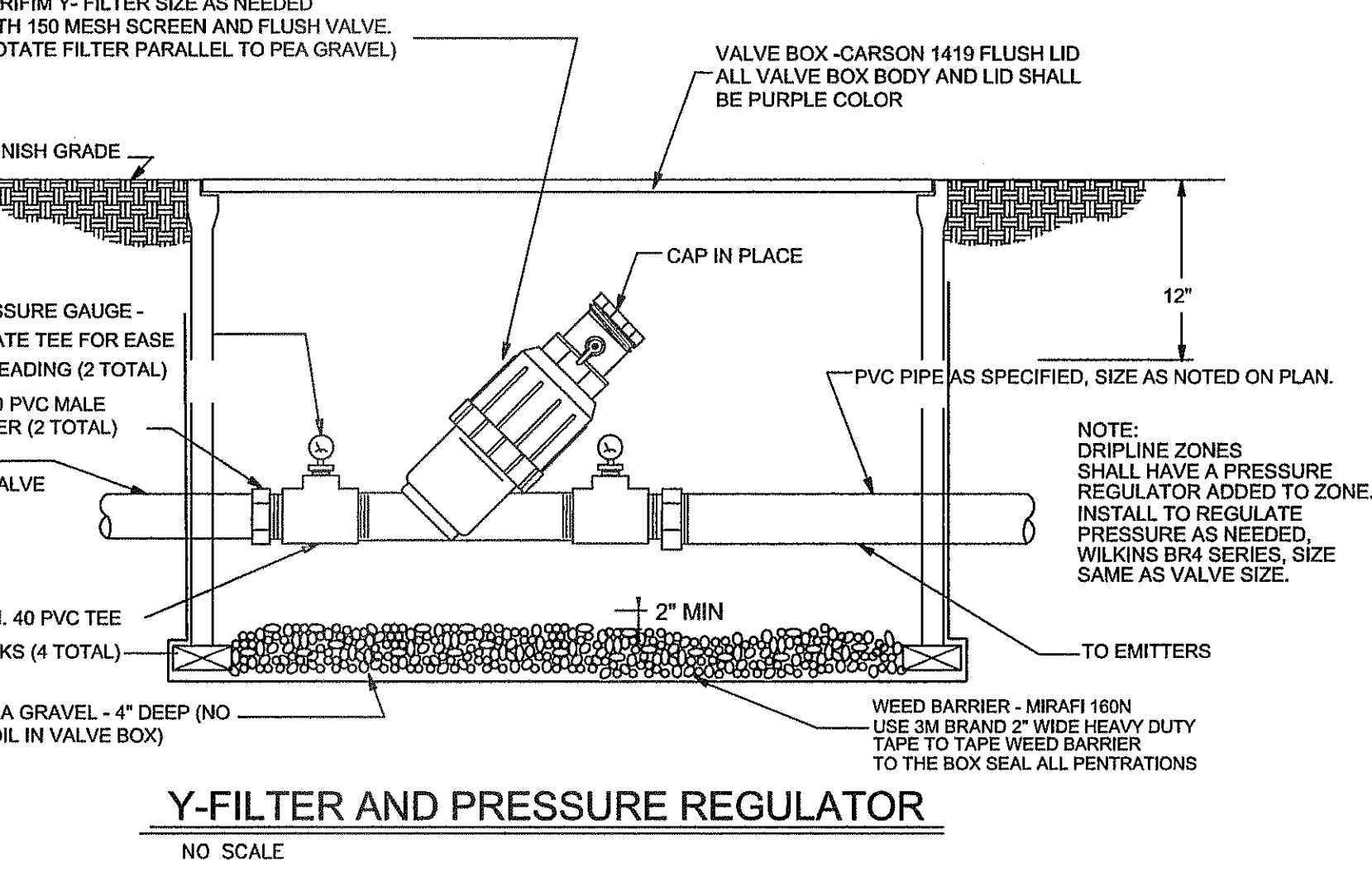
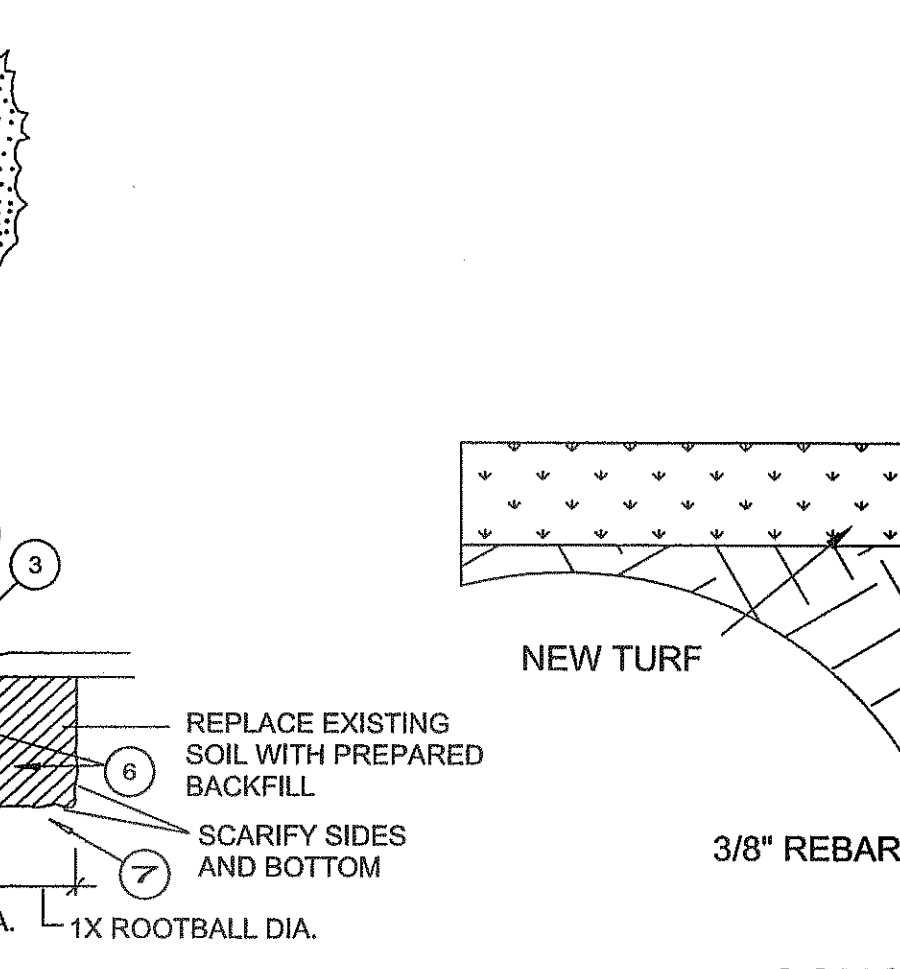
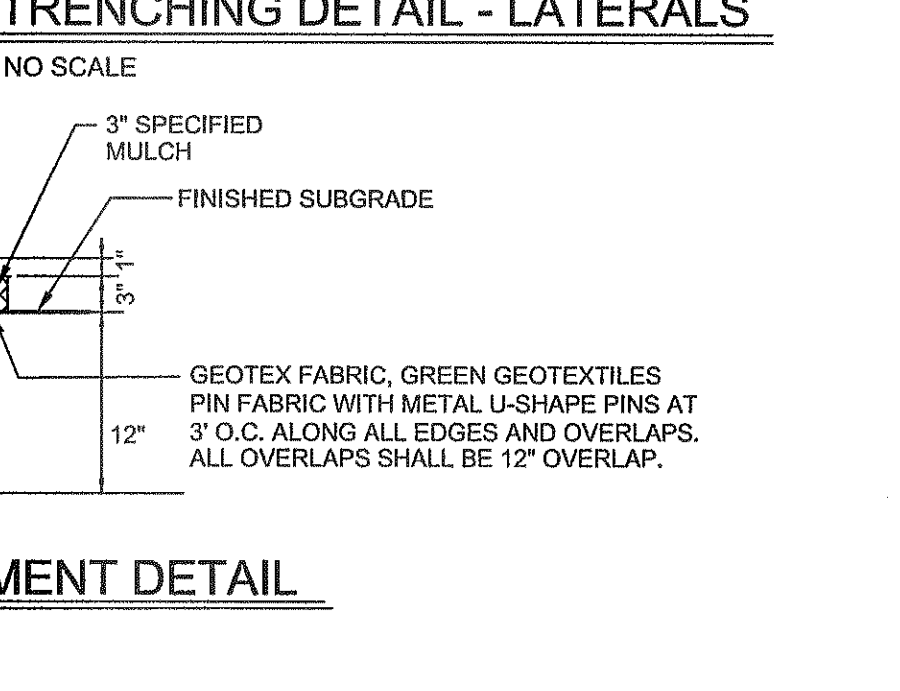
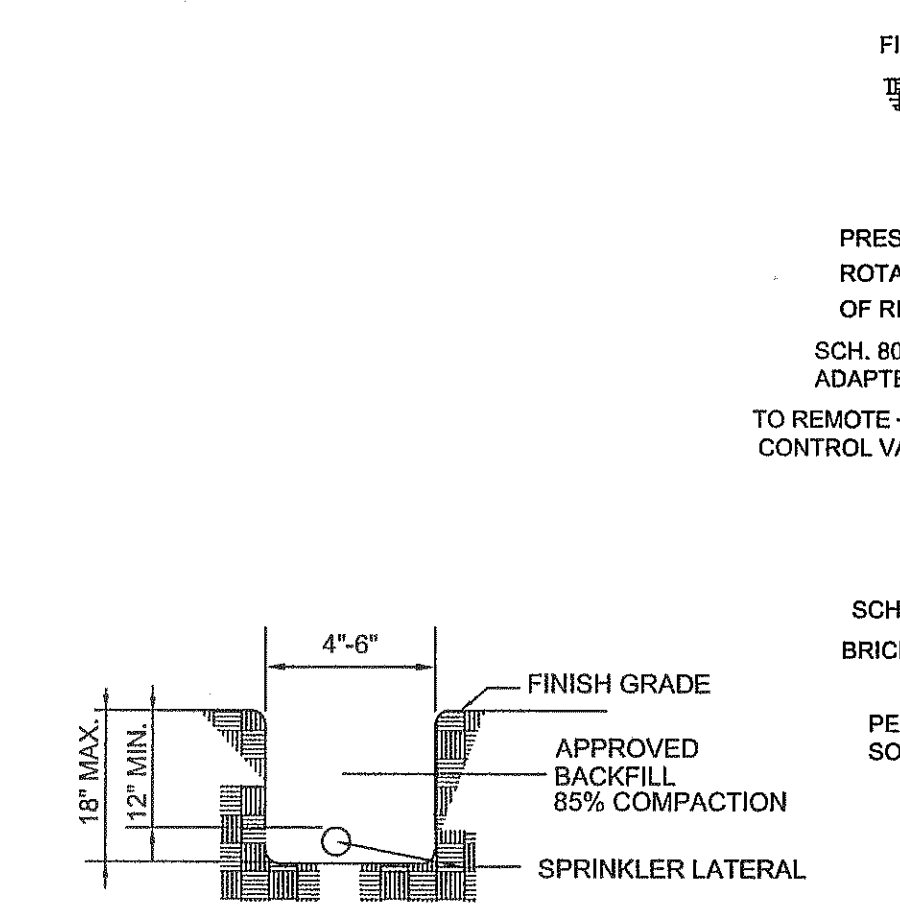
**CONNECTION DETAIL BETWEEN DRIPLINE AND LATERAL**  
NO SCALE



- LEGEND (FOR TREES)**
1. TREE PER PLAN
  2. 21 GRAM PLANT TABLETS  
5 GAL = 3, 15 GAL = 5, 24" BOX = 8
  3. ROOTBALL (SET CROWN FLUSH WITH FINISH GRADE)
  4. EARTH WATERING BASIN (COVER WITH 2" DEPTH OF SPECIFIED MULCH ON PLAN OR BARK MULCH FOR TURF AREAS).
  5. FINISH GRADE
  6. COMPACTED BACKFILL MIX WITH SOIL AMENDMENTS AS PER PLANTING SPECIFICATIONS AND NOTES)
  7. UNDISTURBED NATIVE SOIL

**GENERAL NOTES FOR VALVE AND ALL BOXES:**

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- 3) ALL VALVE AND EMITTER BOXES SHALL HAVE GEOTEX FABRIC INSTALLED UNDERNEATH AND TAPED TO SEAL ALL OPENINGS. TAPE SHALL BE 3M BRAND 2" WIDE HEAVY DUTY PLASTIC TAPE ONLY, NO DUCT TAPE SHALL BE ALLOWED.
- 4) ALL VALVE, EXTENSIONS AND EMITTER BOXES SHALL NOT REST OR CONTACT THE PVC PIPE OR DRIPLINE TUBING.



**HEADER CURB NOTES:**

1. HEADER CURBS SHALL BE 3,000 PSI CONCRETE STRENGTH.
2. HEADER CURBS HAND POURED AND PLACED SHALL INCLUDE:
  - (a) 2 CONTINUOUS #4 REBARS.
  - (b) WITH 1/2 INCH EXPANSION JOINTS EVERY 20.0 FEET AND CONTROL JOINTS EVERY 5.0 FEET, AND A BROOM FINISH.
3. HEADER CURBS MACHINE INSTALLED SHALL INCLUDE:
  - (a) 2.0 POUNDS OF LONG FIBERGLASS MESH CUBIC YARD.
  - (b) WITH 1/2 INCH EXPANSION JOINTS EVERY 20.0 FEET AND CONTROL JOINTS EVERY 5.0 FEET, AND A BROOM FINISH.

**IRRIGATION IS REGULATED BY:**  
TCEQ  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. # 829

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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

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CALL  
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1-800-344-8377

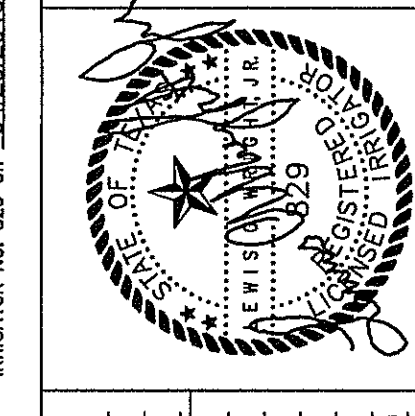
FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

**REFERENCES - BENCHMARKS**

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. SOAKAWAY AT INTERSECTION OF 1875 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

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TEXAS REGISTERED ENGINEERING FIRM F-4684  
4719 MacArthur Blvd. Ste. E, El Paso, TX 79904  
Office: 915.544.5232 Fax: 915.544.5233 www.landscape.com



**SCALE:**

Horizontal: Contour Interval: 1/4"

DATE: AUGUST 2013

DESIGN BY: LW

DRAWN BY: JC

CHKD. BY: LW

APPVD. BY: L. WRIGHT

JOB No. 2000-157-1D

**PROJECT TITLE**

TRES SUEÑOS UNIT ELEVEN  
"SWEET DREAM PARK" - LOT 43, BLOCK 35  
14417 ALYSSA MARIE DRIVE  
SUBDIVISION IMPROVEMENTS  
A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2, TEXAS  
AND PACIFIC RAILROAD COMPANY SURVEYS

**LANDSCAPE DETAILS**

SHEET NO.

**L-3.0**

**PARKS DEPARTMENT**

REVIEWED BY: *Antonio...*

09/18/2013

**DRAWING COORDINATION**

ARCHITECTURAL, CIVIL, MECHANICAL, STRUCTURAL, ELECTRICAL, AND LANDSCAPING DRAWINGS ARE INTERRELATED. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL REVIEW AND COORDINATE THE ENTIRE SET OF DRAWINGS AND PROJECT MANUAL.

**LAS LANDSCAPE ARCHITECTURAL SERVICES**  
LANDSCAPE ARCHITECT & IRRIGATION CONSULTANT  
4004 KEMP AVE SUITE B EL PASO, TX 79904  
PHONE: (915) 422-7739 FAX: (915) 581-6730  
EMAIL: lwrightlas@gmail.com



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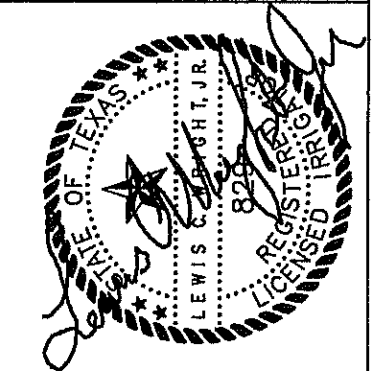
**WARNING!**  
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CALL  
1-800-DIG-TESS  
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS	REVISIONS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. 5082.33' FROM A DISTANCE OF 67.98 FEET FROM BEEM BLVD. TO CENTERLINE OF RICH BEEM BLVD. AVENUE. CITY DATUM. ELEVATION: 4005.40	DATE
	BY

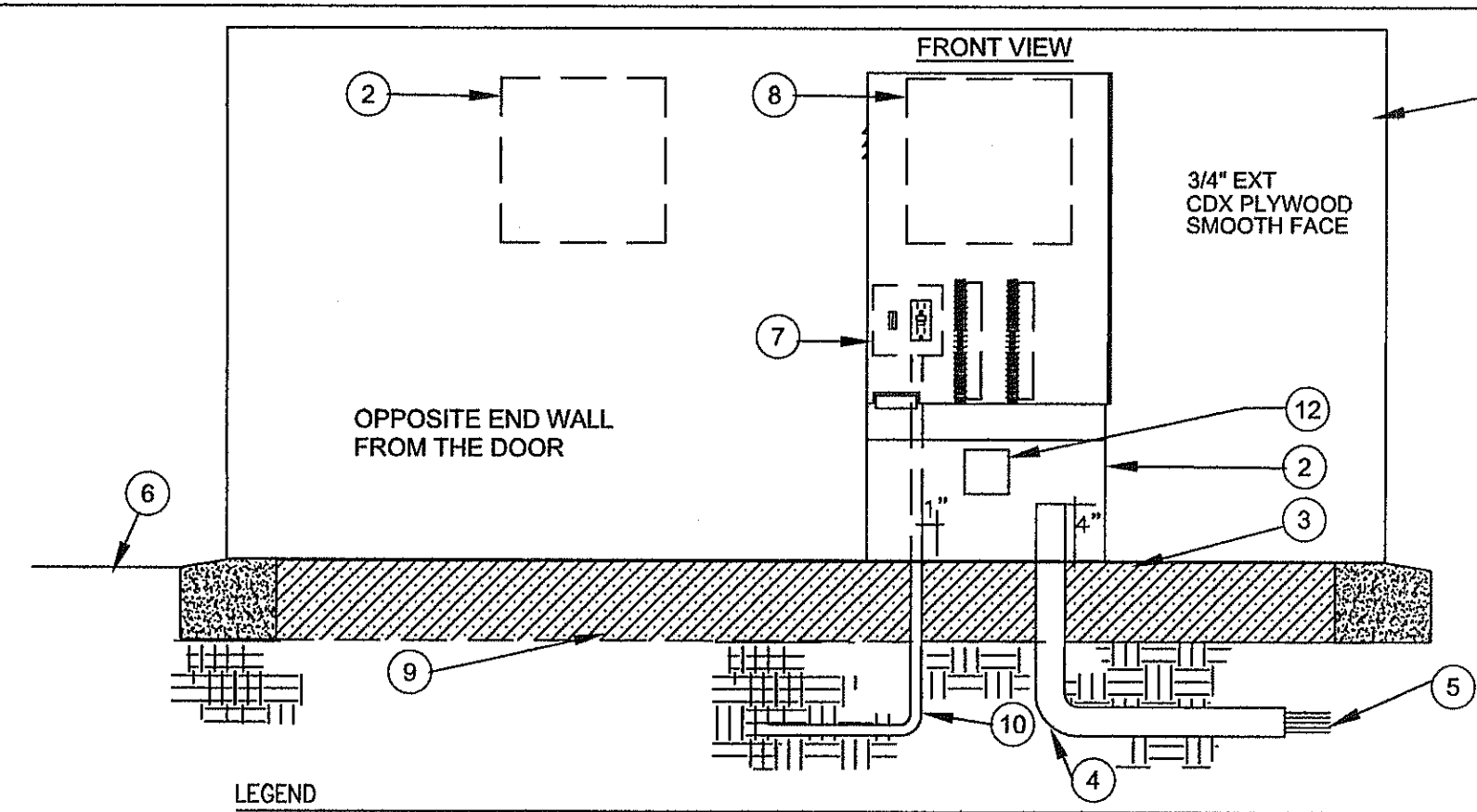
**ceea**  
engineers • architects • planners  
TEXAS REGISTERED ENGINEERING FIRM F-4564  
4712 Woodrow Bean, Ste. F, El Paso, TX 79924  
Office: 915-534-5202 Fax: 915-534-5233 www.ceea.com



SCALE	PROJECT TITLE
Vertical: N/A Horizontal: N/A	TRES SUEÑOS UNIT ELEVEN
DATE: AUGUST 2013	DESIGN BY: LW
DRAWN BY: LW	CHECK BY: LW
APPROVED BY: L. WRIGHT	JOB NO. 2000-157-LD

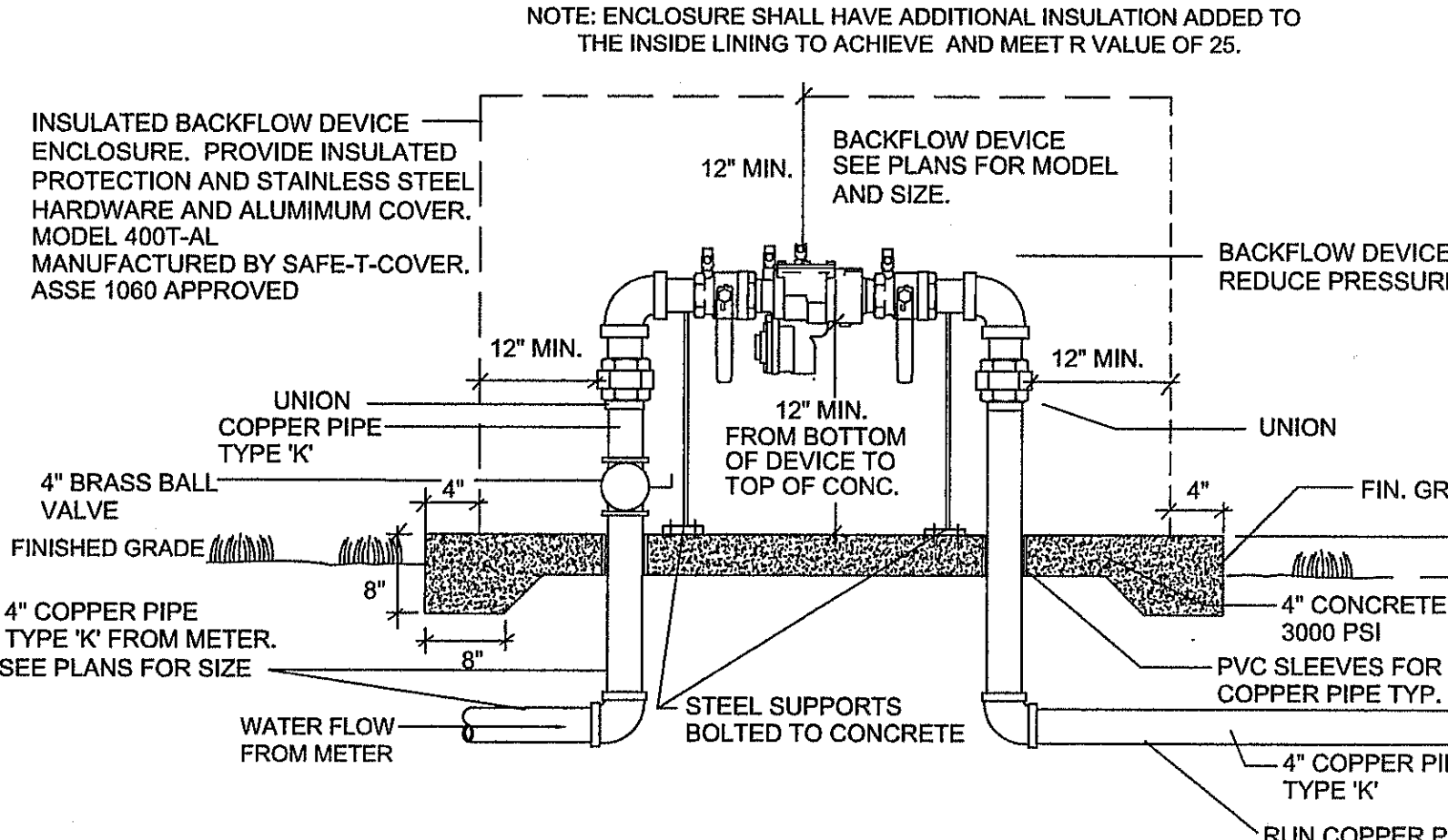
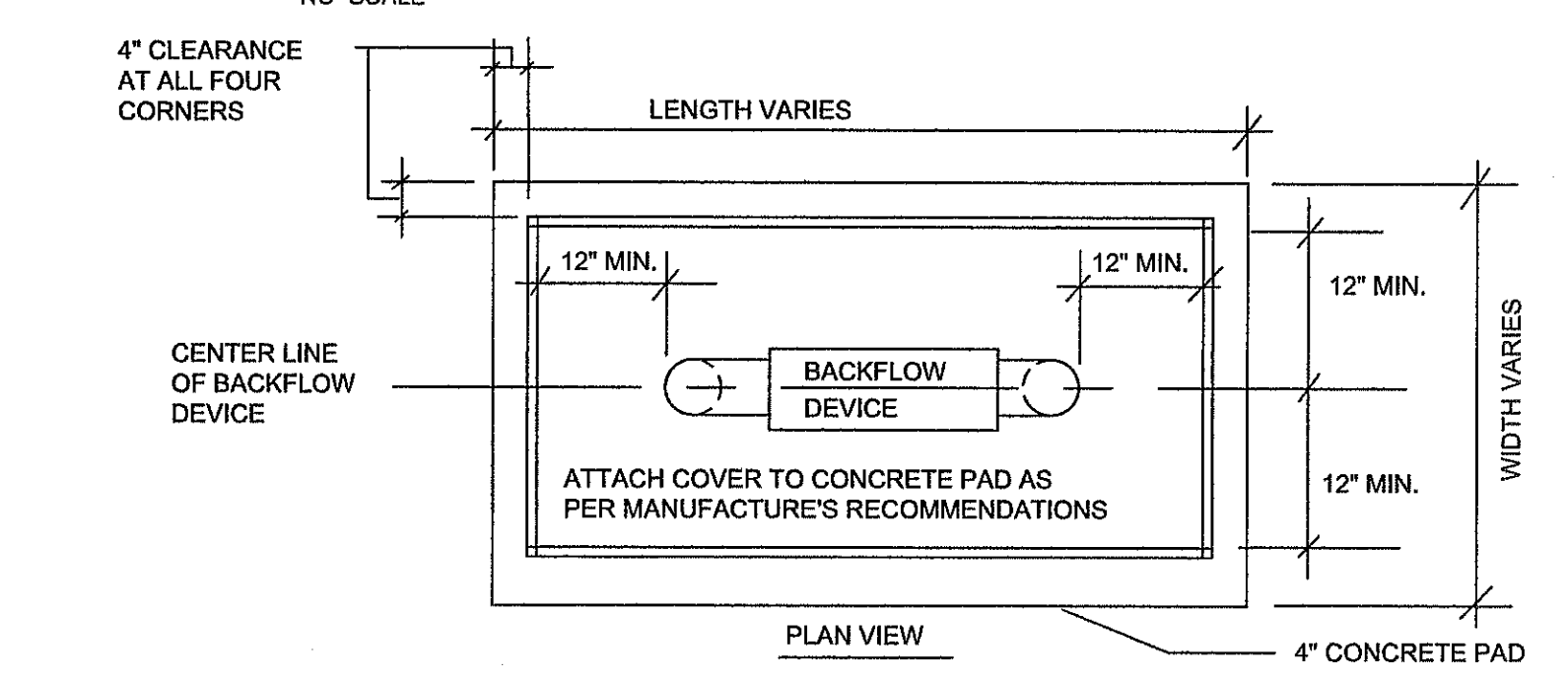
**PROJECT TITLE**  
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"SWEET DREAM PARK" - LOT 43, BLOCK 35  
14417 ALYSSA MARIE DRIVE  
SUBDIVISION IMPROVEMENTS  
A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2, TEXAS  
AND PACIFIC RAILROAD COMPANY SURVEYS

SHEET TITLE	SHEET NO.
IRRIGATION DETAILS	L-4.0

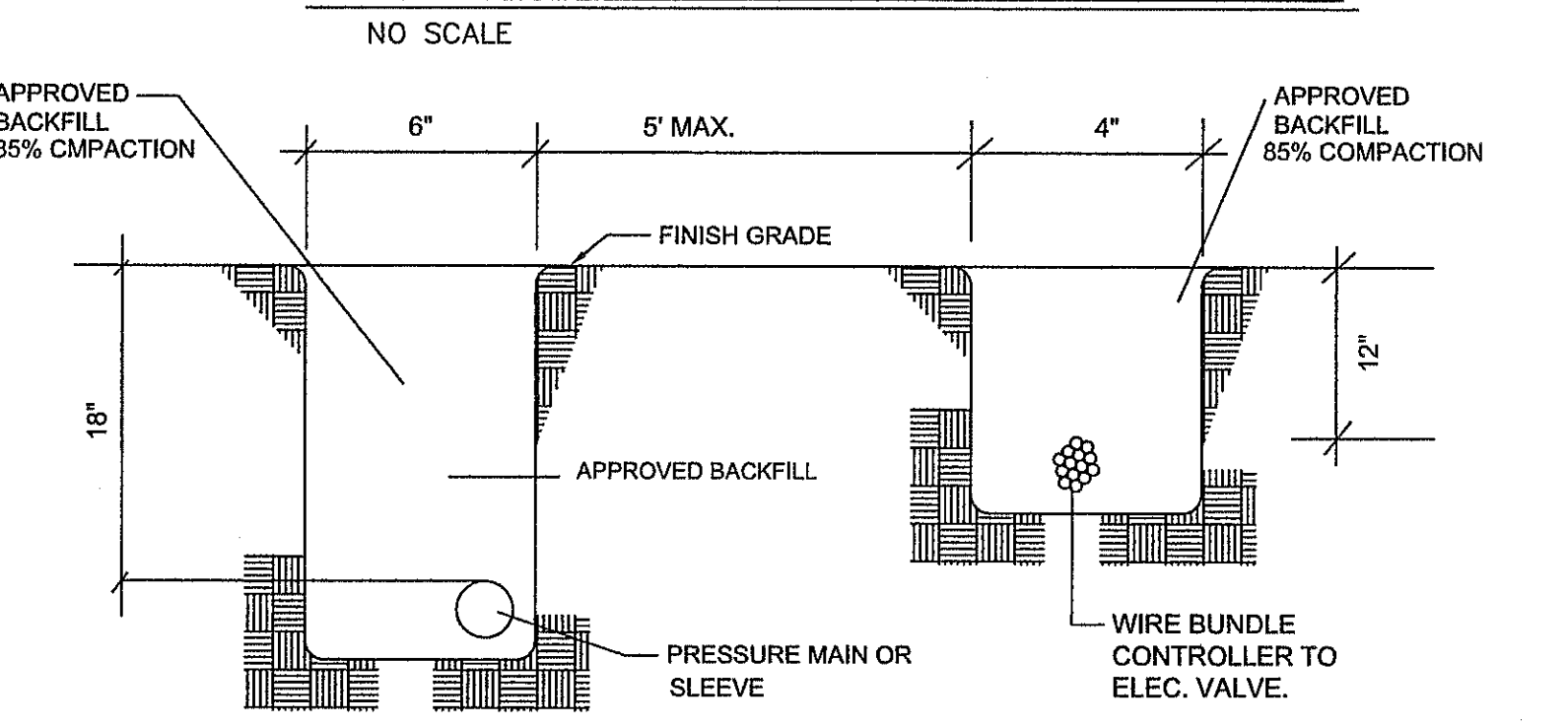


- LEGEND**
- TUFF SHED INTERIOR WALL OF PUMP HOUSE PROVIDE ALL BRACING AS NEEDED TO MOUNT PANELS.
  - PUMP CONTROL PANEL AND BREAKERS
  - POURED CONCRETE BASE - 6" MIN. THICKNESS - EXTEND 6" BEYOND OUTSIDE DIMENSIONS OF ENCLOSURE WITH 1/2% SLOPE FOR DRAINAGE.
  - PVC LONG SWEEP ELL USE ONE SWEEP ELL PER CONTROLLER 18" DEEP.
  - DIRECT BURIAL CONTROL WIRES TO CONTROL VALVES. LABEL ALL WIRING AT CONTROLLER, PANELS AND AT VALVES WITH WEATHER PROOF TAGS. OR USE DIFFERENT COLOR FOR EA. VALVE WIRE AND PANEL WIRING.
  - FINISH GRADE.
  - CONTROLLER SUB-ASSEMBLY INCLUDES GFI OUTLET AND TOGGLE SWITCH, TERMINAL STRIPS WITH OUTLET, ONE CIRCUIT FULL TIME AND ONE FOR LIGHT MODEL AS-110-A. PROVIDE ELECTRIC CORD TO PLUG CONTROLLER TO OUTLET.
  - AUTOMATIC CONTROLLER, AND CCU WITH POWER CORDS.
  - 3/4" WASHED PEA GRAVEL.
  - 120-VOLT SERVICE IN CONDUIT 36" DEEP.
  - LABEL ALL WIRING COMING INTO THE ENCLOSURE WEATHER PROOF TAGS.
  - PROVIDE METAL ENCLOSURE WITH COVER TO HOUSE THE SURGE ARRESTOR. PROVIDE RAINBIRD MODEL MSP-1 SURGE PROTECTOR.

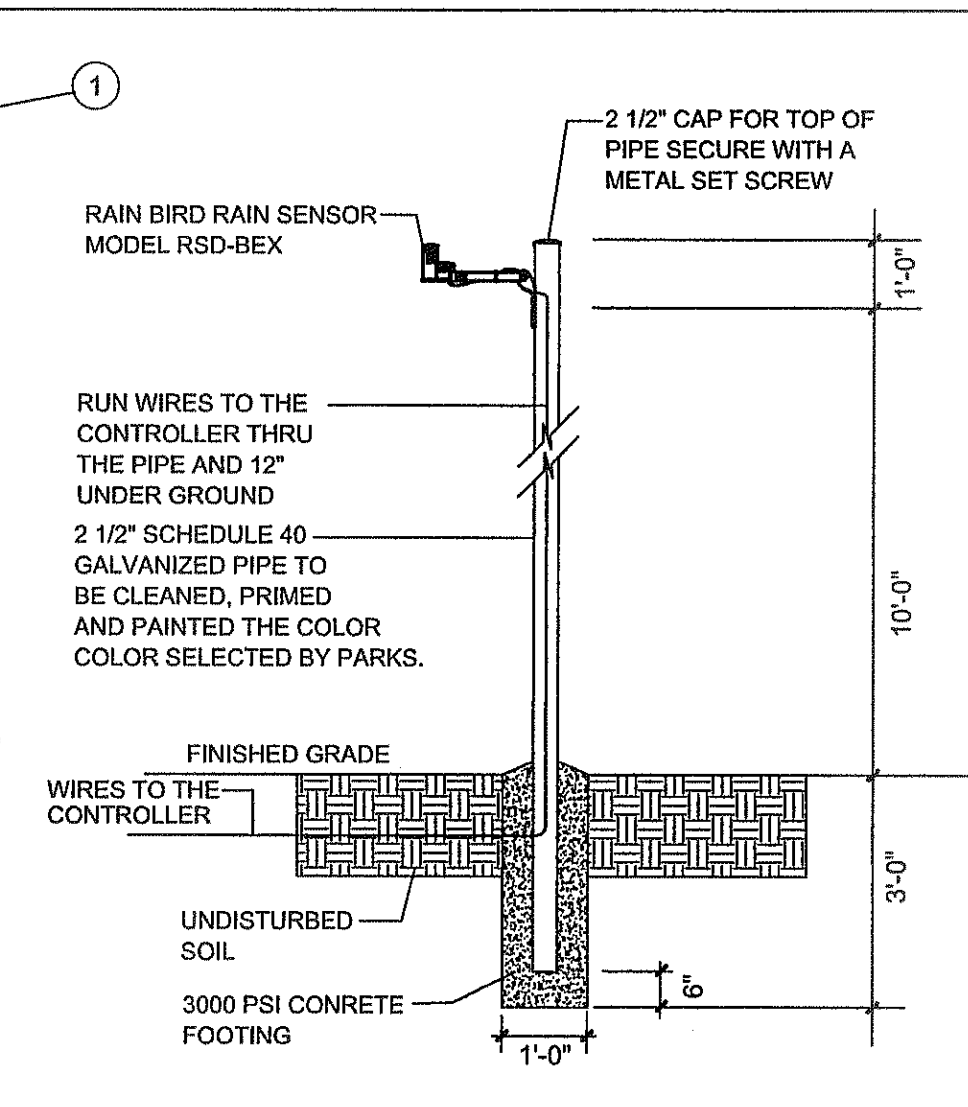
**CONTROLLER ENCLOSURE DETAIL**



**BACKFLOW DEVICE DETAIL**

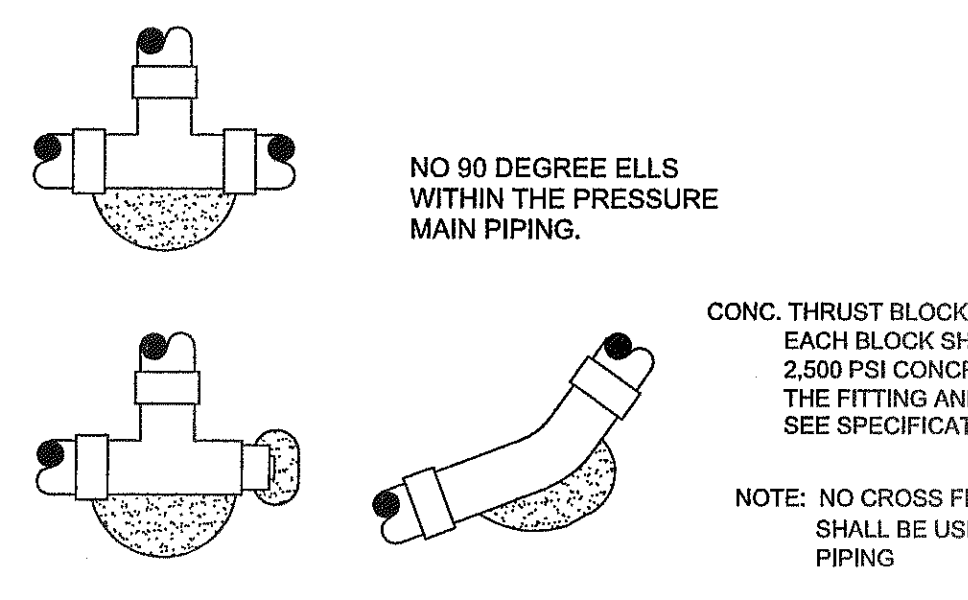


**IRRIGATION TRENCHING STANDARD**



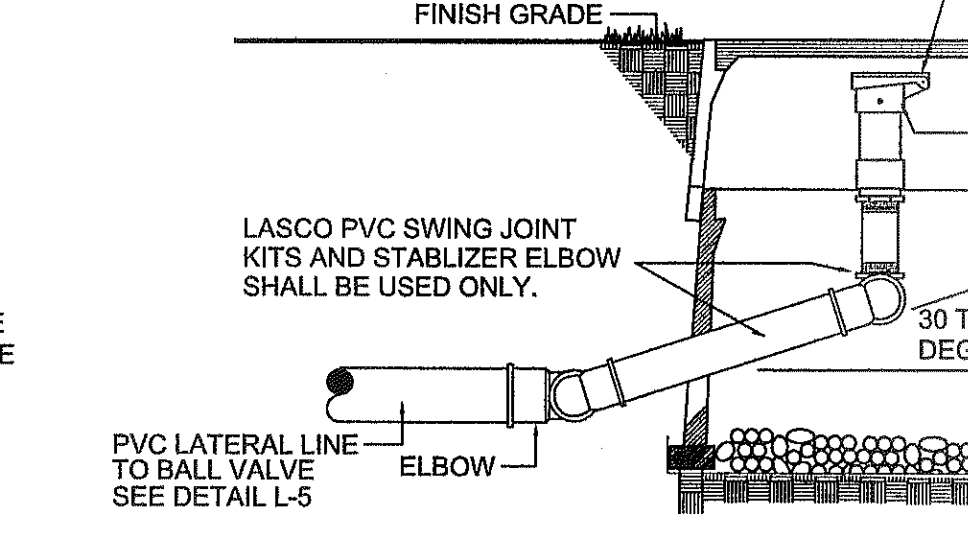
**RAIN SENSOR DETAIL**

NOTE: INSTALL MINIMUM 7" OF CONTROLLER ENCLOSURE, TUFF SHED OR ROCK WALLS



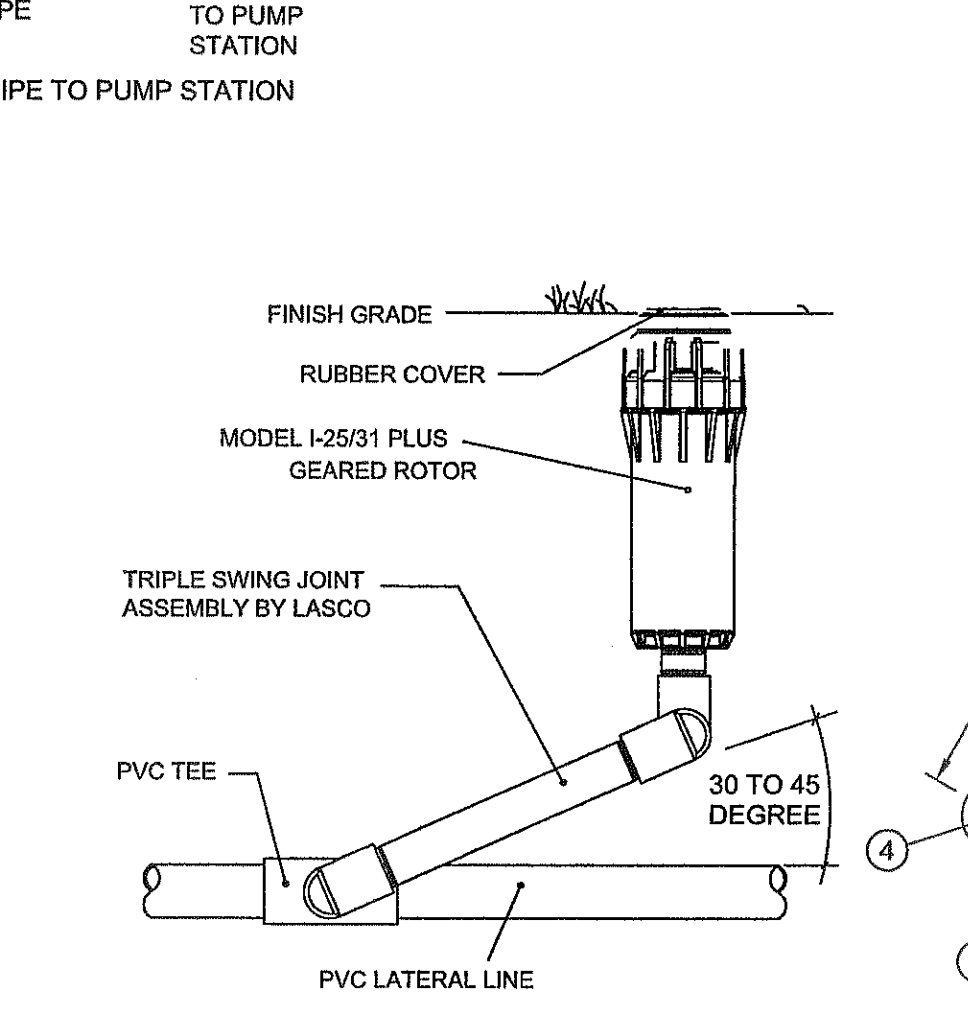
**THRUST BLOCK DETAIL**

NOTE: 1. INSTALL THRUST BLOCK ON 2 1/2" AND LARGER PVC PIPE. APPLIES TO ALL 45 ELLS AND TEES IN THE PRESSURE MAIN.  
2. ALL PVC FITTING SHALL BE MANUFACTURED BY LASCO



**QUICK COUPLING DETAIL**

NOTE: PROVIDE WATERPROOF TAG ATTACHED TO VALVE READING "NON-POTABLE WATER, NOT SAFE FOR DRINKING".



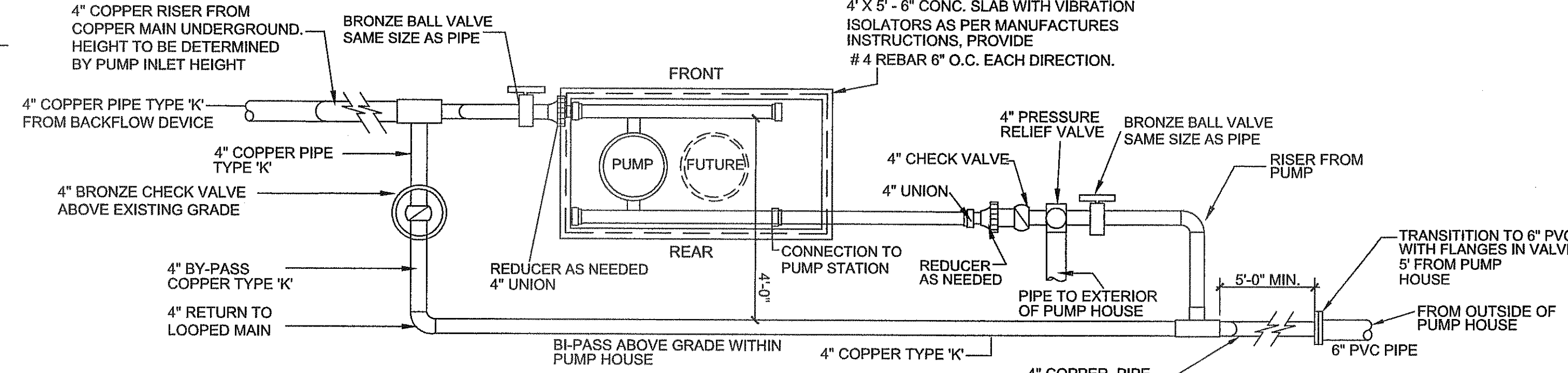
**GROUND ROD DETAIL**

NOTE: ALL PIPING ABOVE GRADE SHALL BE TYPE 'K' WITH LEAD-FREE SOLDER FITTINGS. SUPPORT PIPE WITH APPROVED PIPE SUPPORT SADDLES AS REQUIRED. ALL PIPING AND EQUIPMENT TO HAVE ADEQUATE WALL CLEARANCE FOR OPERATION AND MAINTENANCE.

FLINT AND WALLING MODEL C56A1503T PUMP 7.5 H.P. (PROVIDE VARIABLE SPEED) 260 GPM @ 85 PSI DISCHARGE. 230V/1PH/60 A. PROVIDE ALL CONTROLS & POWER RECD OPERATE IRRIGATION CONTROLLER AND PUMP. EG CONTROL PANEL FOR PRESSURE CONTROL STARTER, WIRING AND BREAKERS. (OR EQUAL)

**NOTE:**

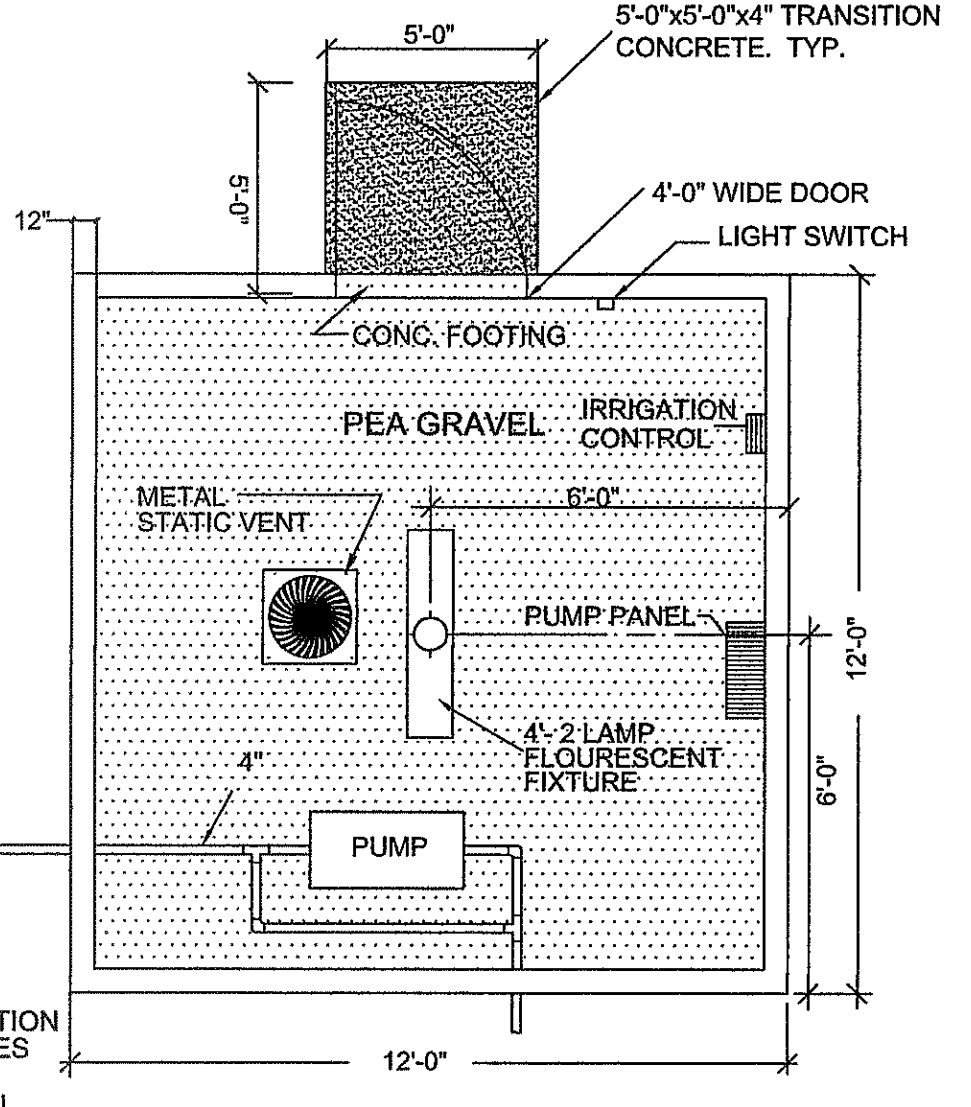
PROVIDE TUFF SHED FOR PUMP HOUSE TO COVER PUMP, IRRIGATION AND PUMP CONTROLS. SECURED TO A CONC. FOOTING 3000 PSI WITH PEA GRAVEL 12" DEPTH FOR FLOOR OF THE SHED. ELECTRICAL SERVICE ON THE EXTERIOR OF TUFF SHED (ELECTRICAL METER PLACE BREAKERS ON THE INSIDE OF BUILDING. ALL ELECTRICAL SHALL BE TO CODE.



**BOOSTER PUMP DETAIL**

NOTE: ALL ABOVE GROUND COPPER PIPE SHALL BE WRAP WITH PLUMBERS PIPE WRAP AND SEAL PENETRATIONS.

- PRESSURE RELIEF VALVE 4" BRONZE BODY WITH PRESSURE SET AT 125 PSI FEMALE INLET & OUTLET WATTS MODEL No. 174A OR APPROVED EQUAL.
- PRESSURE GAUGE: STAINLESS STEEL CASE BRONZE BOURDON TUBE AND BRASS SOCKET, DRY CONSTRUCTION CALIBRADED 0 TO 200 PSI, MARSHALL TOWN MODEL No 185 OR APPROVED EQUAL.
- CHECK VALVE: IRON BODIED SWINK CHECK VALVE, 4", RATED 200 PSI AMERICAN VALVE MFG. MODEL No WOG OR APPROVED EQUAL.
- VIBRATION ISOLATORS: STEEL OR CAST IRON HOUSINGS INCORPORATING ONE OR MORE STEEL BUILT-IN SPRINGS AND SHALL BE PROVIDED WITH BUILT-IN LEVELING BOLTS AND BUILT-IN RESILIENT CHECKS TO CONTROL OSCILLATIONS AND WITHSTAND LATERAL FORCES IN ALL DIRECTIONS. KORFUND SERIES L OR APPROVED EQUAL INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS
- INSULATE ALL PIPING NEW AND EXISTING WITH A RIDGE INSULATE COVERED WITH ALUMINUM JACKET. OR APPROVED EQUAL.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT, SENSORS, WIRING, RELAYS, CONNECTORS, ETC. TO ALLOW BOTH PUMPS TO OPERATE ON PRESSURE DEMAND.



**PUMP HOUSE PLAN**

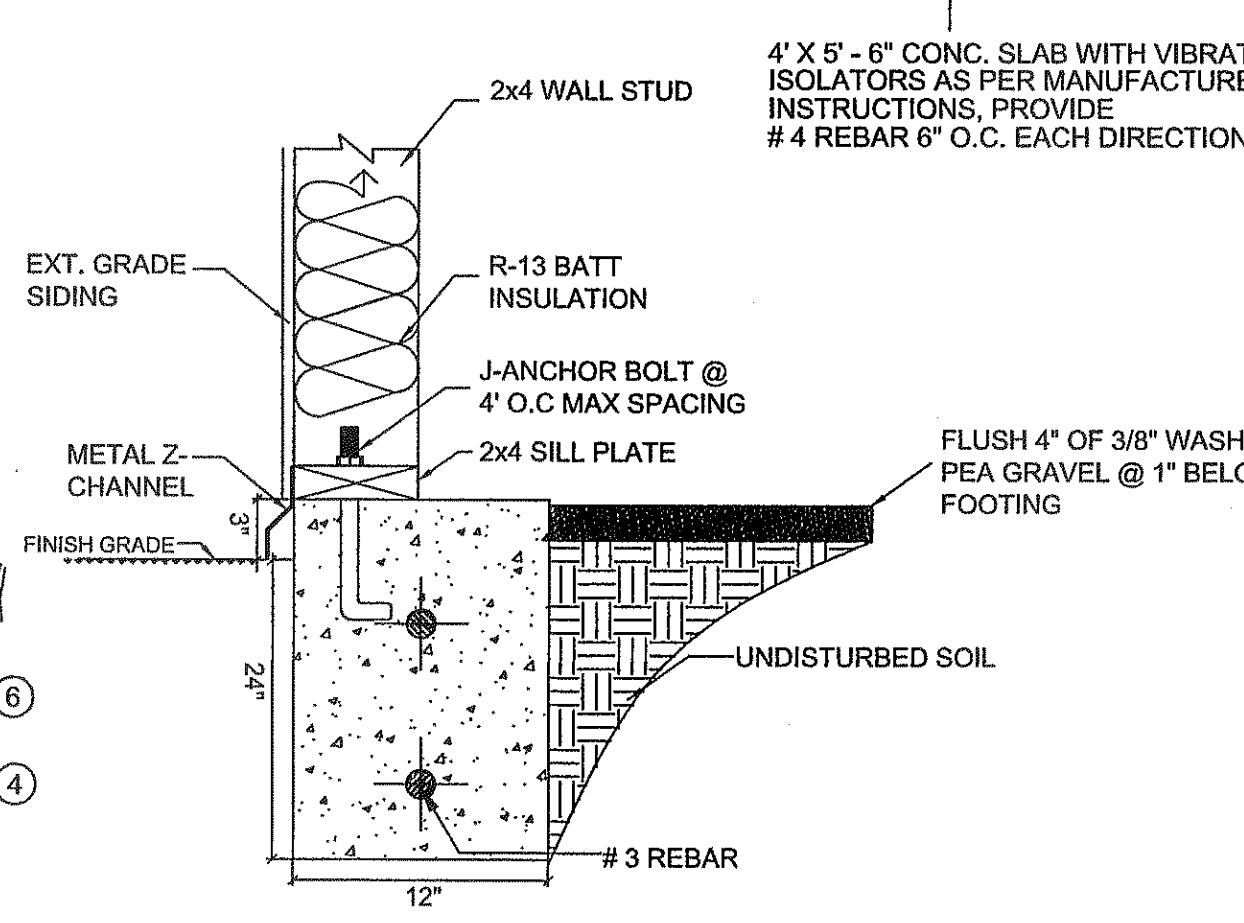
NOTE: CONTRACTOR SHALL WRAP ALL COPPER PIPE WITH PLUMBERS PIPE WRAP AND SEAL PENETRATIONS OF THE WATER METER CONCRETE VAULT WITH NON-SHRINK GROUT.

**INSULATION FOR PUMP HOUSE**

WALL- R-13  
CEILING- R-19

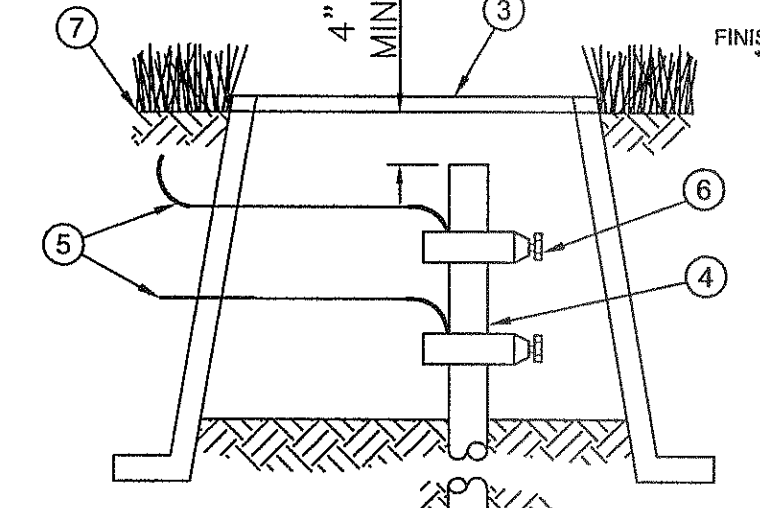
**GENERAL NOTE:**

PUMP HOUSE EXTERIOR SIDING TO HAVE ALL SEAMS AND JOINTS CAULKED THEN PRIMED WITH ONE COAT AND PAINTED WITH TWO COATS.



**PUMP HOUSE FOOTING**

NO SCALE



**WIRE CONNECTORS**

NO SCALE

**PARKS DEPARTMENT**  
REVIEWED BY: [Signature] 09/13/2013

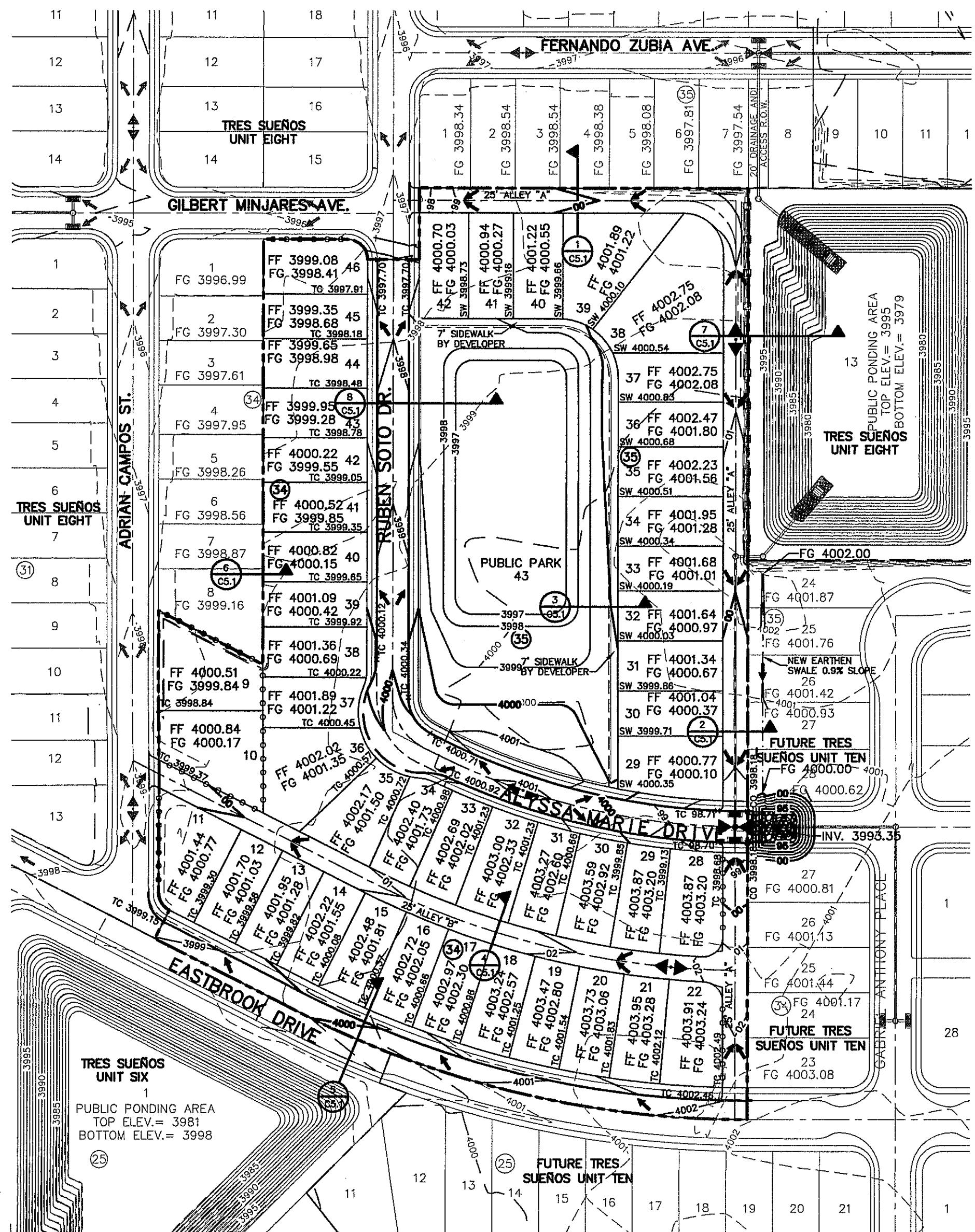
**DRAWING COORDINATION**

IRRIGATION IS REGULATED BY:  
TCEQ  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. # 829

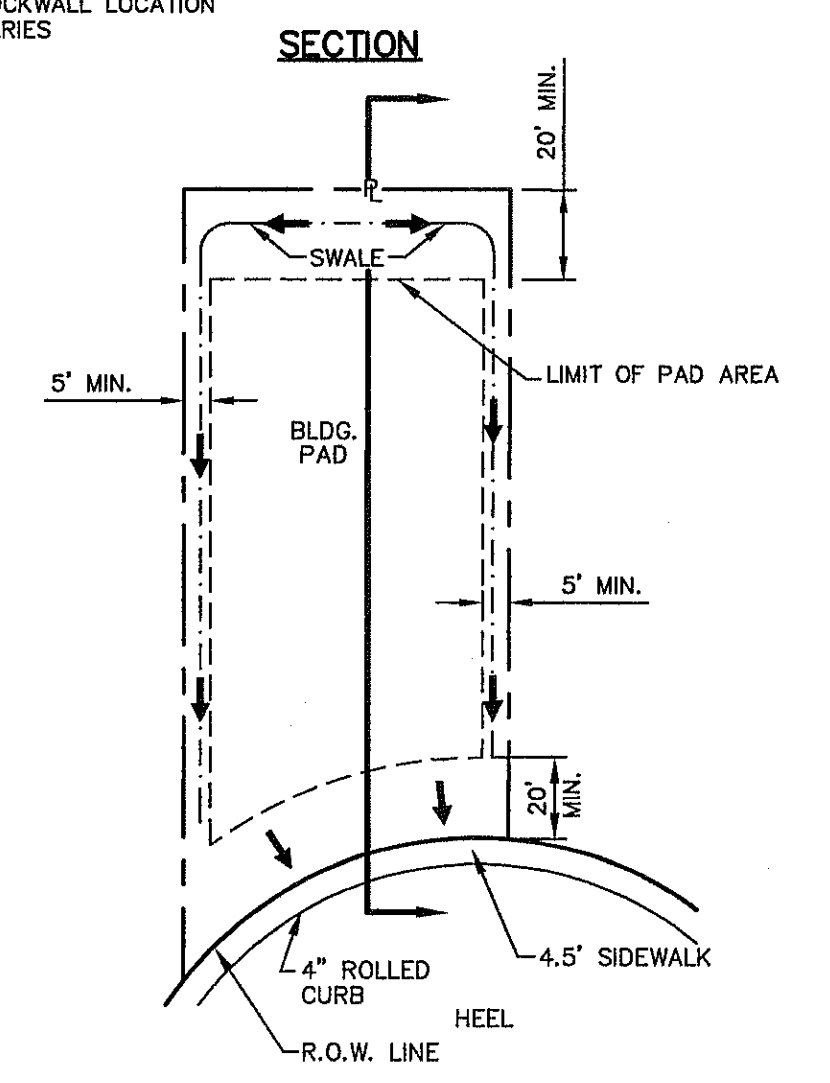
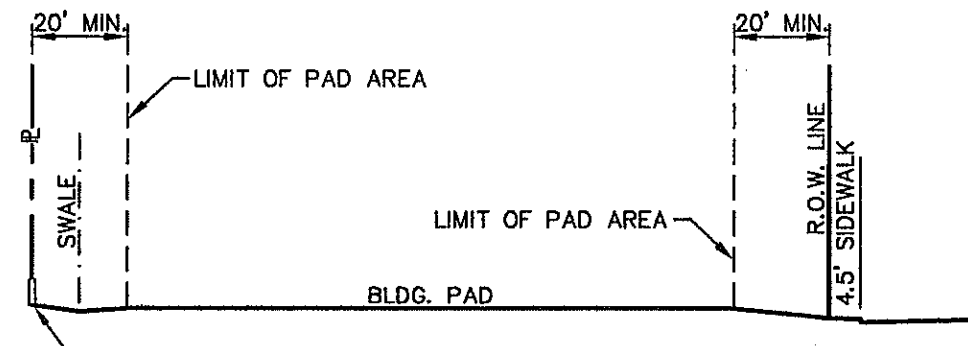
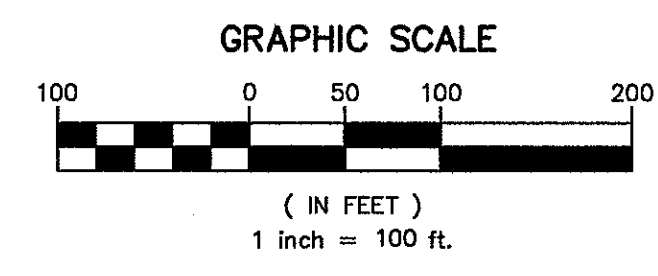
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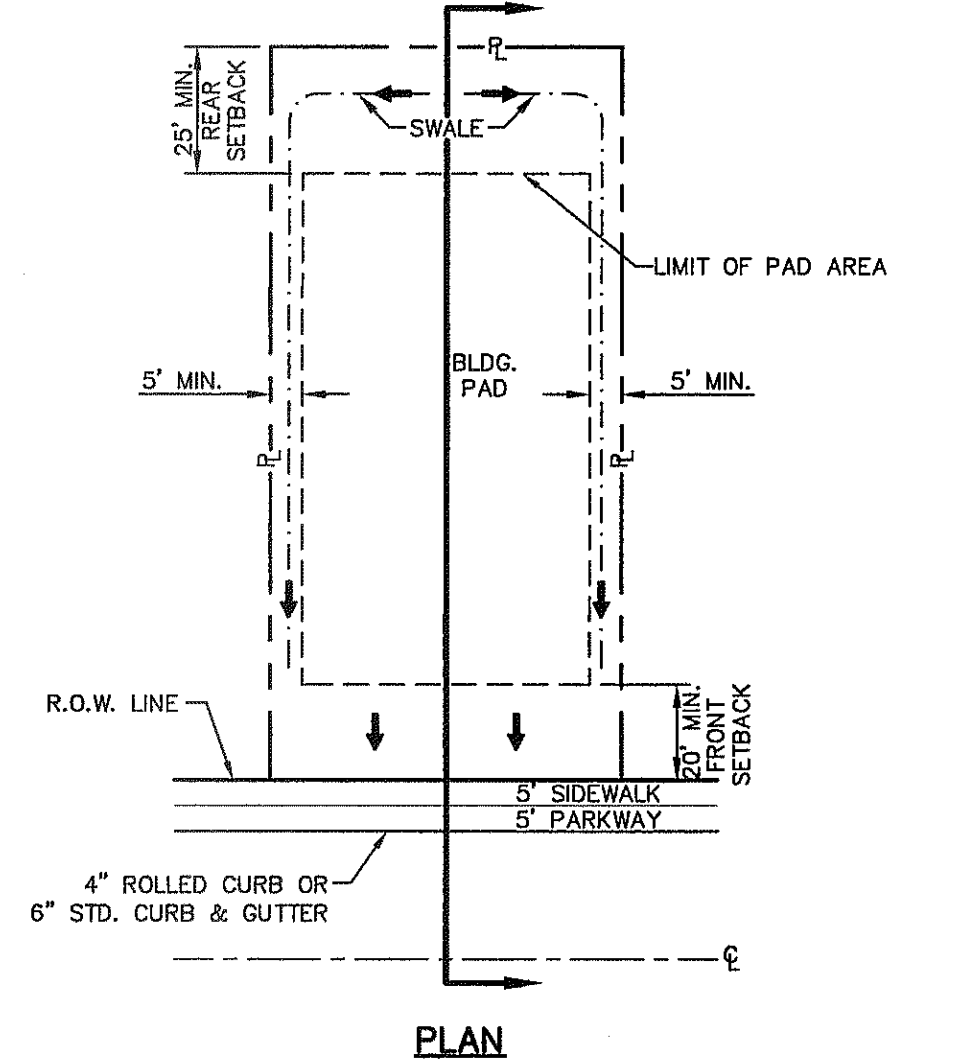
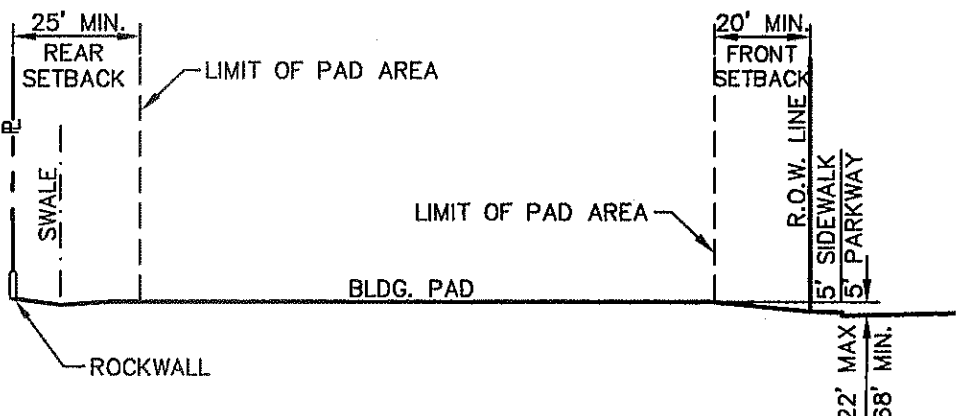




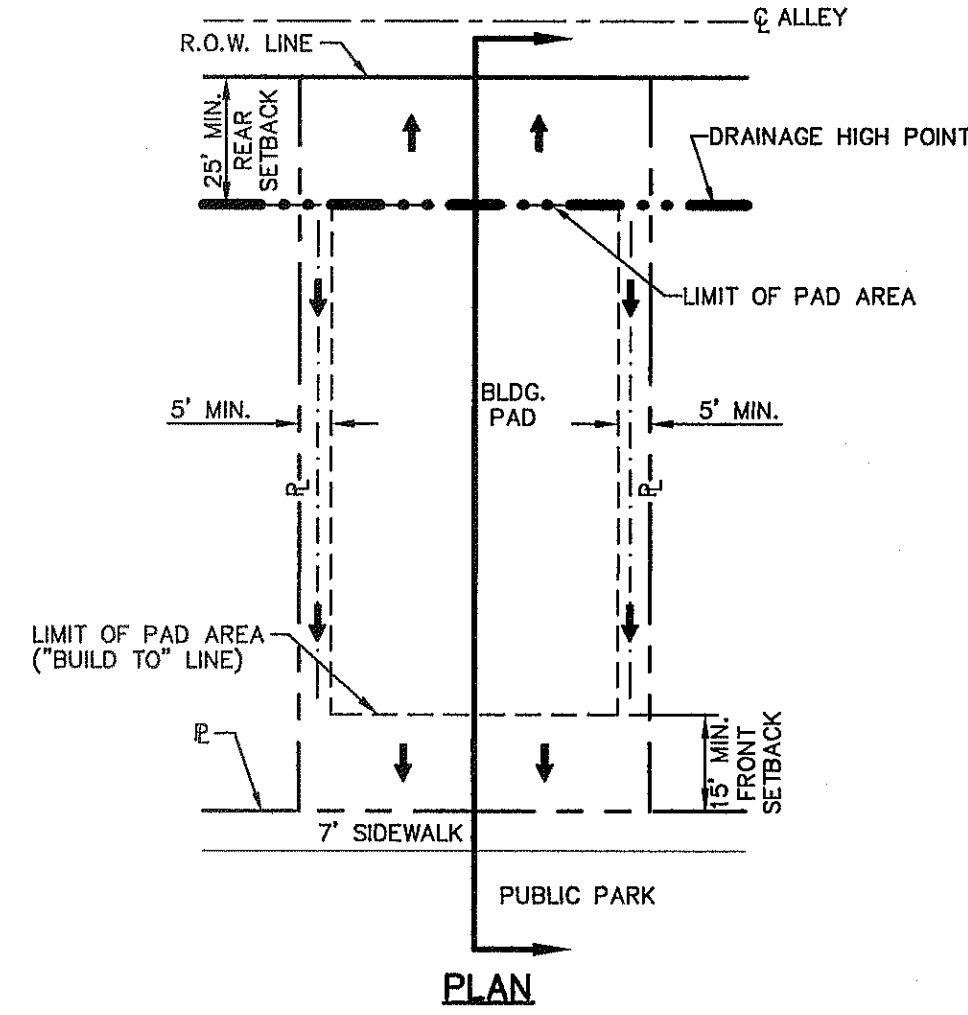
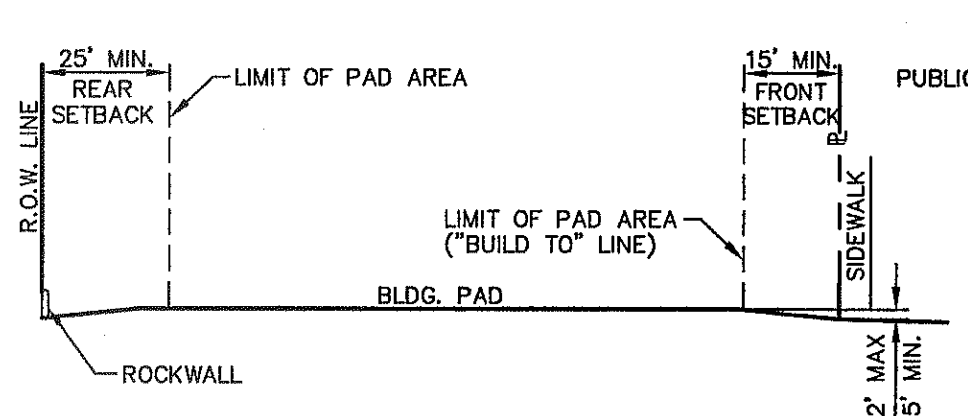
**GRADING PLAN**  
SCALE: 1" = 100'



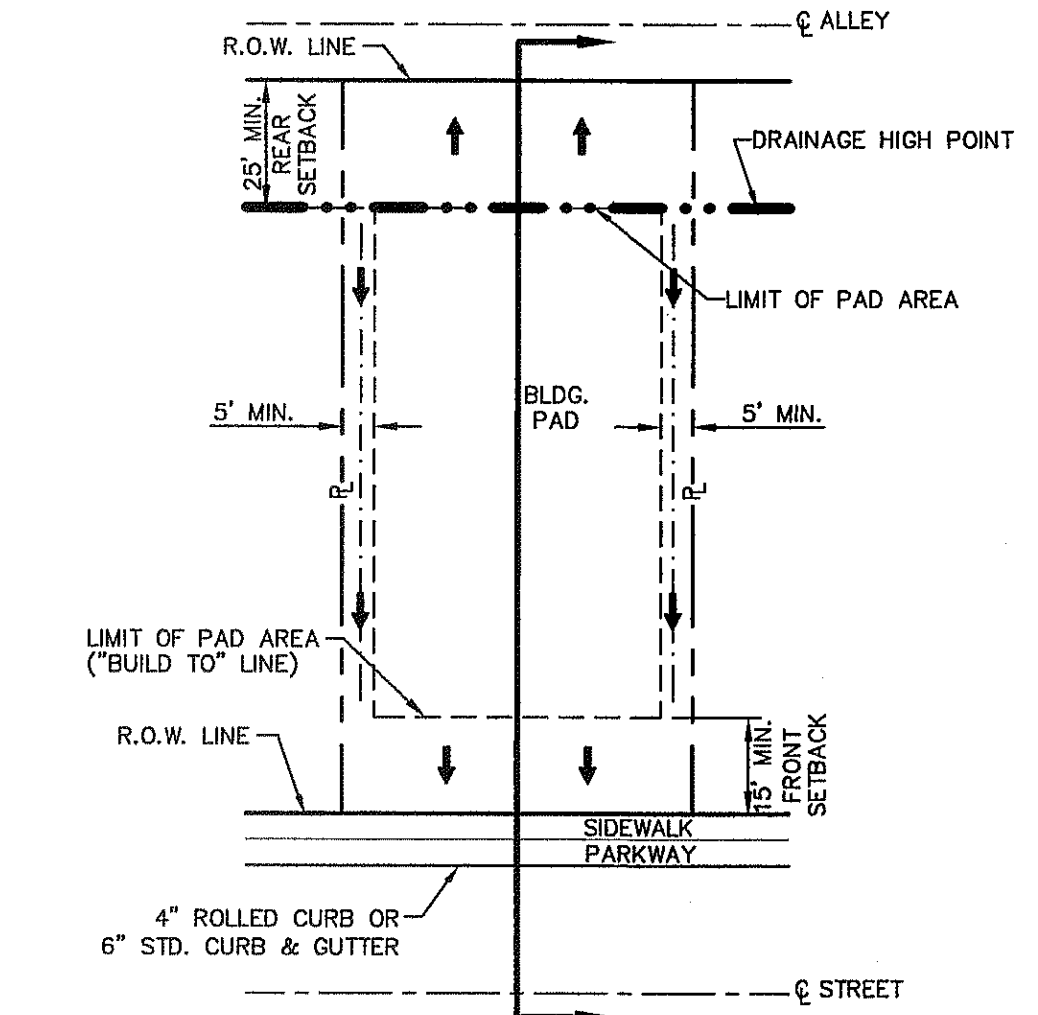
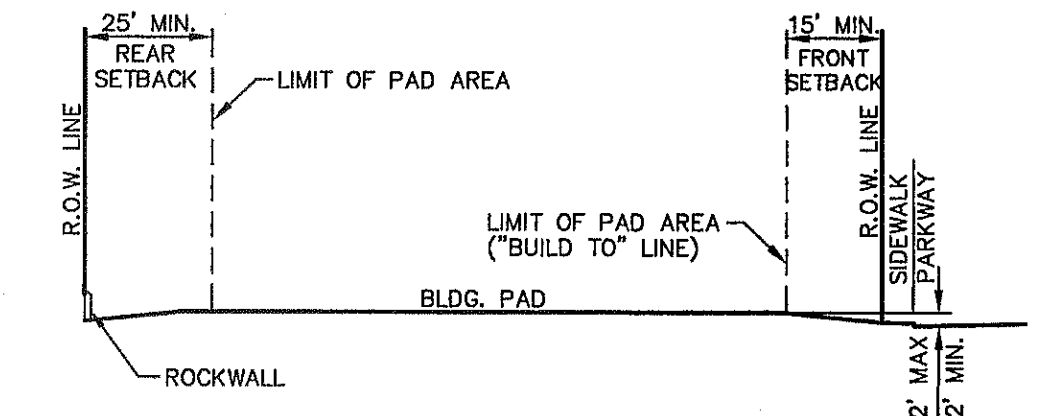
**(BLOCK 34) LOT 37  
TYPICAL LOT AT HEEL PLAN**  
SCALE: N.T.S.  
DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FEET AND 14% MAX. THEREAFTER (DRIVEWAY SHALL BE LOCATED @ HIGH SIDE OF LOT UNLESS OTHERWISE COORDINATED WITH CITY OF EL PASO)



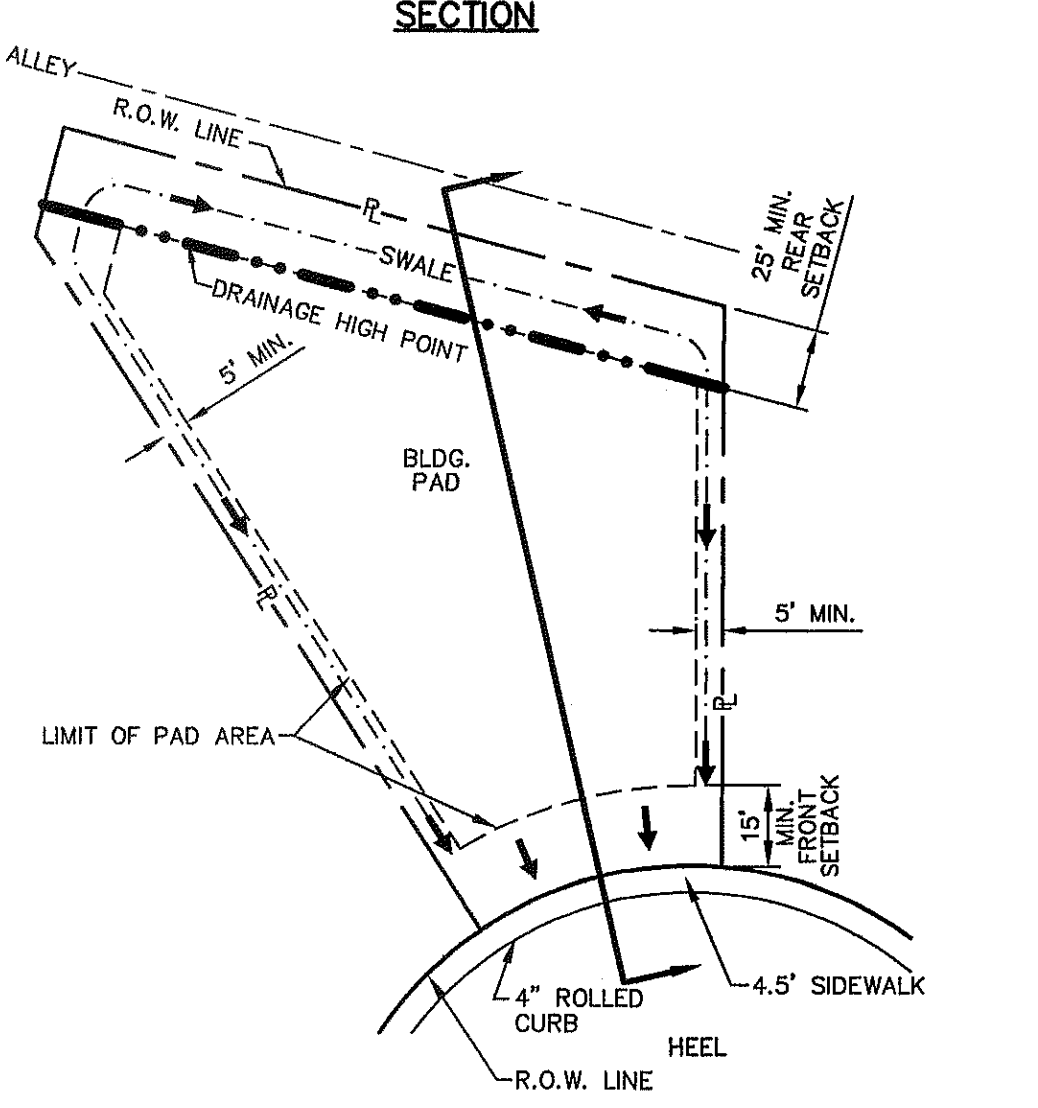
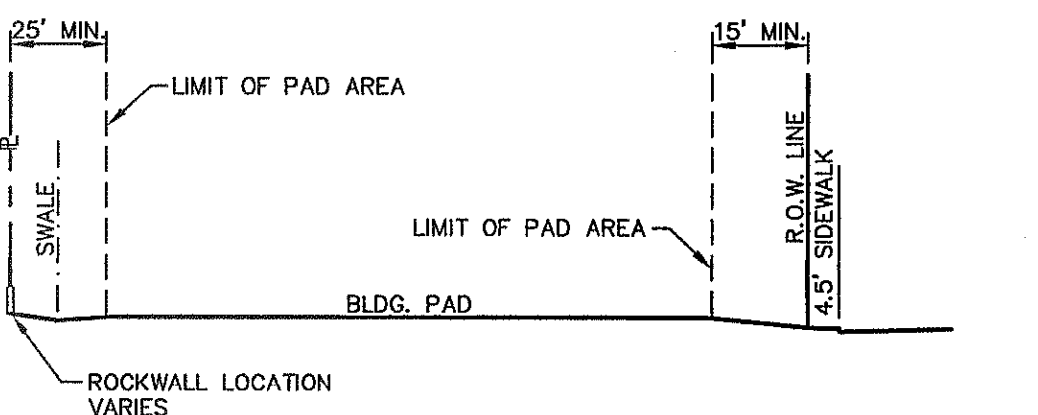
**(BLOCK 34) LOTS 38-46  
TYPICAL LOT PLAN**  
SCALE: N.T.S.  
DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FEET AND 14% MAX. THEREAFTER (DRIVEWAY SHALL BE LOCATED @ HIGH SIDE OF LOT UNLESS OTHERWISE COORDINATED WITH CITY OF EL PASO)



**(BLOCK 35) LOTS 29-37 & 40-42  
TYPICAL LOT ABUTTING PARK WITH ALLEY PLAN**  
SCALE: N.T.S.  
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)



**(BLOCK 34) LOTS 11-22 AND LOTS 28-34  
TYPICAL LOT WITH ALLEY PLAN**  
SCALE: N.T.S.  
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)



**(BLOCK 34) LOTS 35-36  
TYPICAL LOT AT HEEL PLAN**  
SCALE: N.T.S.  
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
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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

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1-800-344-8377

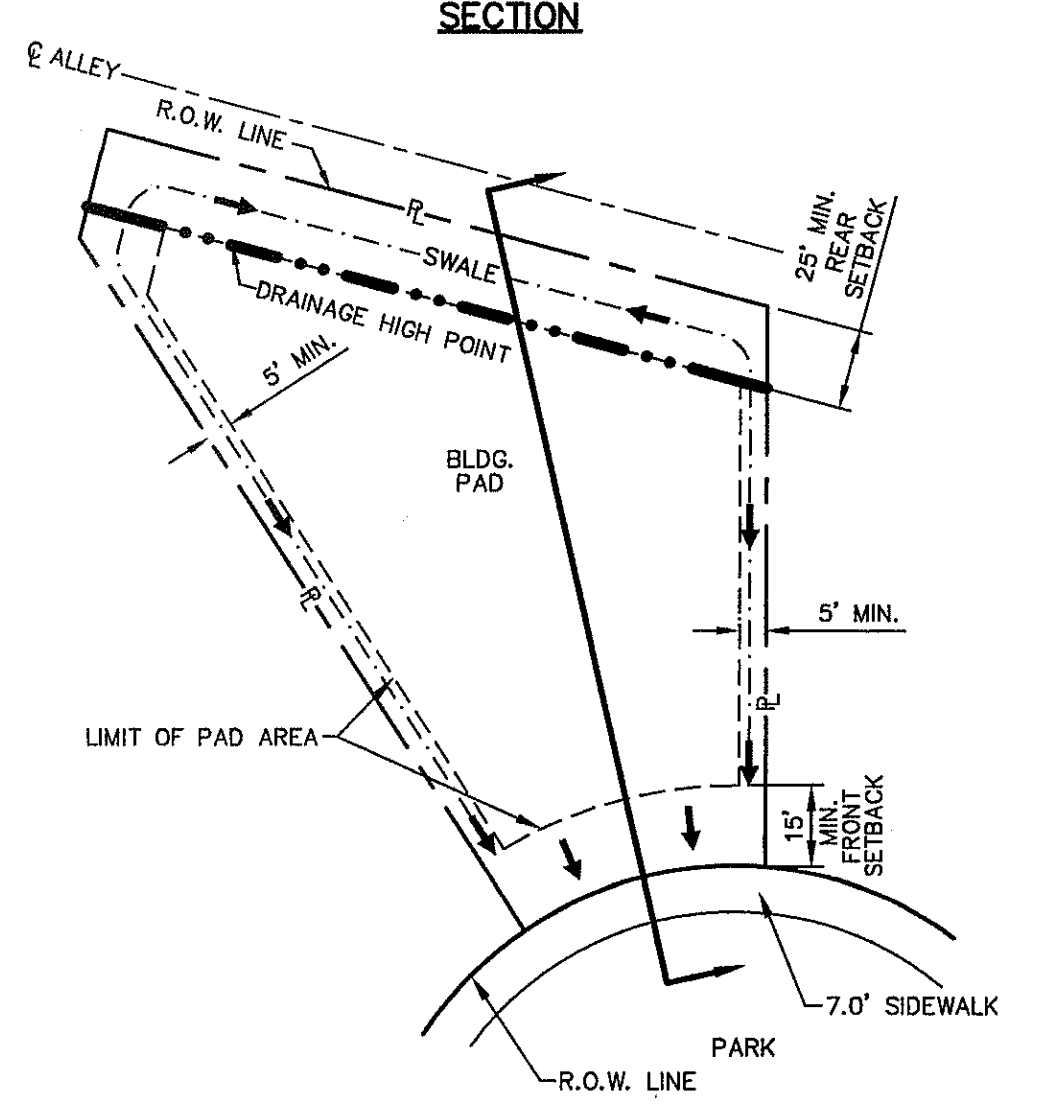
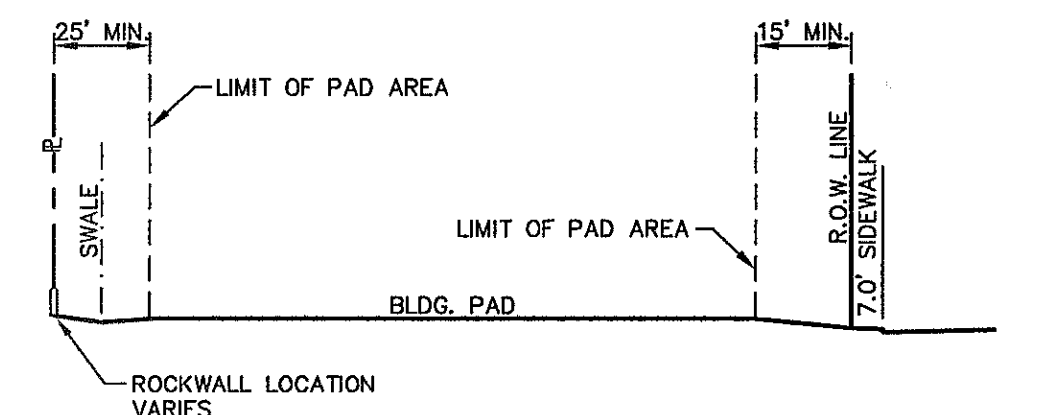
FOR FIELD LOCATING EXISTING UTILITIES

- NOTES:**
- RETAINING WALLS SHALL BE CONSTRUCTED FOR VERTICAL GRADES GREATER THAN 2- FEET.
  - SLOPED AREAS SHALL BE MAINTAINED BY THE PROPERTY OWNERS.
  - ALL RETAINING WALLS NOT SPECIFIED TO BE CONSTRUCTED BY DEVELOPER, SHALL BE BUILT BY BUILDER.
  - RETAINING ROCKWALLS (RETAINING PORTIONS ONLY) IN EXCESS OF 4' HIGH TO BE BUILT BY DEVELOPER. REMAINING ROCKWALL SECTION TO 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 (NOCU'S, SIGNS, POLES, FIRE HYDRANTS, ELECTRIC TRANSFORMERS, UTILITY PEDESTALS, AND JUNCTION BOXES, ETC.) REFER TO STANDARD DETAIL SHEETS.
  - IMPROVEMENTS SHALL COMPLY WITH T.A.S./A.D.A.
  - REFERENCE SHEET C6.4 FOR ALLEY "A" AND "B" STREET GRADING.
  - ALL UNDERGROUND UTILITIES WITHIN PARK SHALL BE AT 5 FT. MIN. DEPTH.

**BENCHMARK**  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., 508'43"31'E A DISTANCE OF 487.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

**FLOOD ZONE:**  
THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212 0175 B, DATED SEPTEMBER 4, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "X" INDICATES AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN.

- LEGEND:**
- NEW 4' HIGH RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)
  - NEW 4' HIGH RETAINING ROCKWALL (3'-9' RETAINING HEIGHT)
  - PROPOSED MAJOR CONTOURS
  - PROPOSED MINOR CONTOURS
  - EXISTING MAJOR CONTOURS
  - EXISTING MINOR CONTOURS



**(BLOCK 35) LOTS 38-39  
TYPICAL LOT AT HEEL PLAN**  
SCALE: N.T.S.  
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)

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., 508'43"31'E A DISTANCE OF 487.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

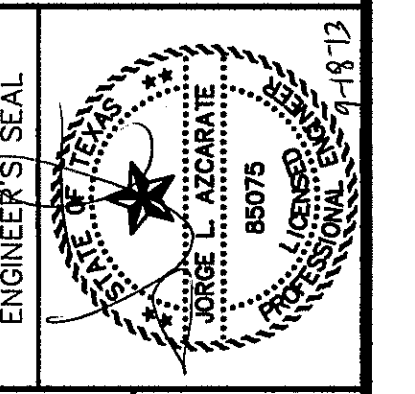
DATE	REVISIONS	BY
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**ca**

engineers • architects • planners

TEXAS REGISTERED ENGINEERING FIRM F-464

4712 Woodrow Bean, Ste. F, El Paso, TX 79924  
Office: 915.544.3222 Fax: 915.544.3223 www.caegp.com



SCALE: 1" = 100'

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

DATE: SEPTEMBER 2013  
DESIGN BY: JHL  
DRAWN BY: JHL  
CHECKED BY: JHL  
JOB NO.: 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**GRADING PLAN**

SHEET NO.

**C3.1**















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AT&T	(800) 852-3786
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1-800-DIG-TESS  
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

**LEGEND:**

WHEELCHAIR RAMP TO BE CONSTRUCTED BY DEVELOPER (TYP.)

PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.

REFERENCES - BENCHMARKS

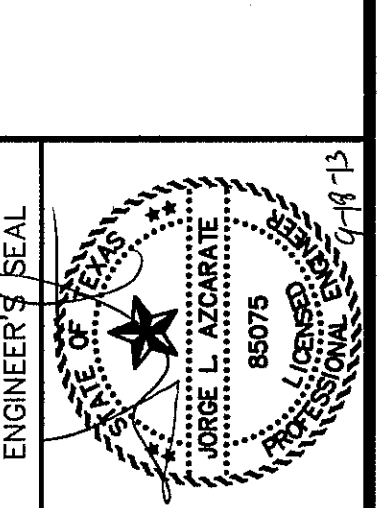
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEN BLVD. STATION 43+37.6 A DISTANCE OF 67.59 FEET FROM MONUMENT TO POINT OF CURVE CENTERLINE. MONUMENT AVENUE CITY DATUM. ELEVATION: 4005.43

ENGINEERS & ARCHITECTS • PLANNERS

TEXAS REGISTERED ENGINEERING FIRM F-454

4712 Woodrow Bean, Ste. F El Paso, TX 79924

Office: 915.544.5222 Fax: 915.544.5228 www.aagp.com



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

Contour Interval: N/A

DATE: SEPTEMBER 2013

DESIGN BY: J.H.

DRAWN BY: J.H.

APP'D. BY: J.L.A.

JOB No. 2000-157-LD

PROJECT TITLE

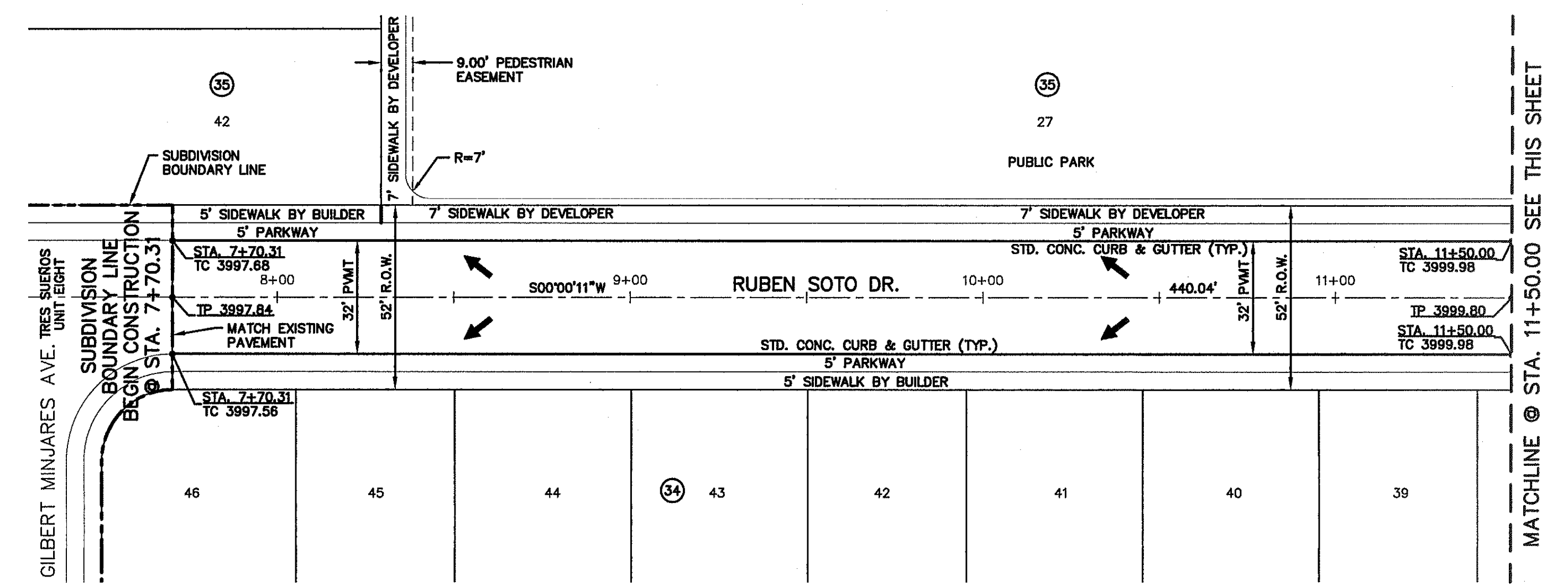
**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

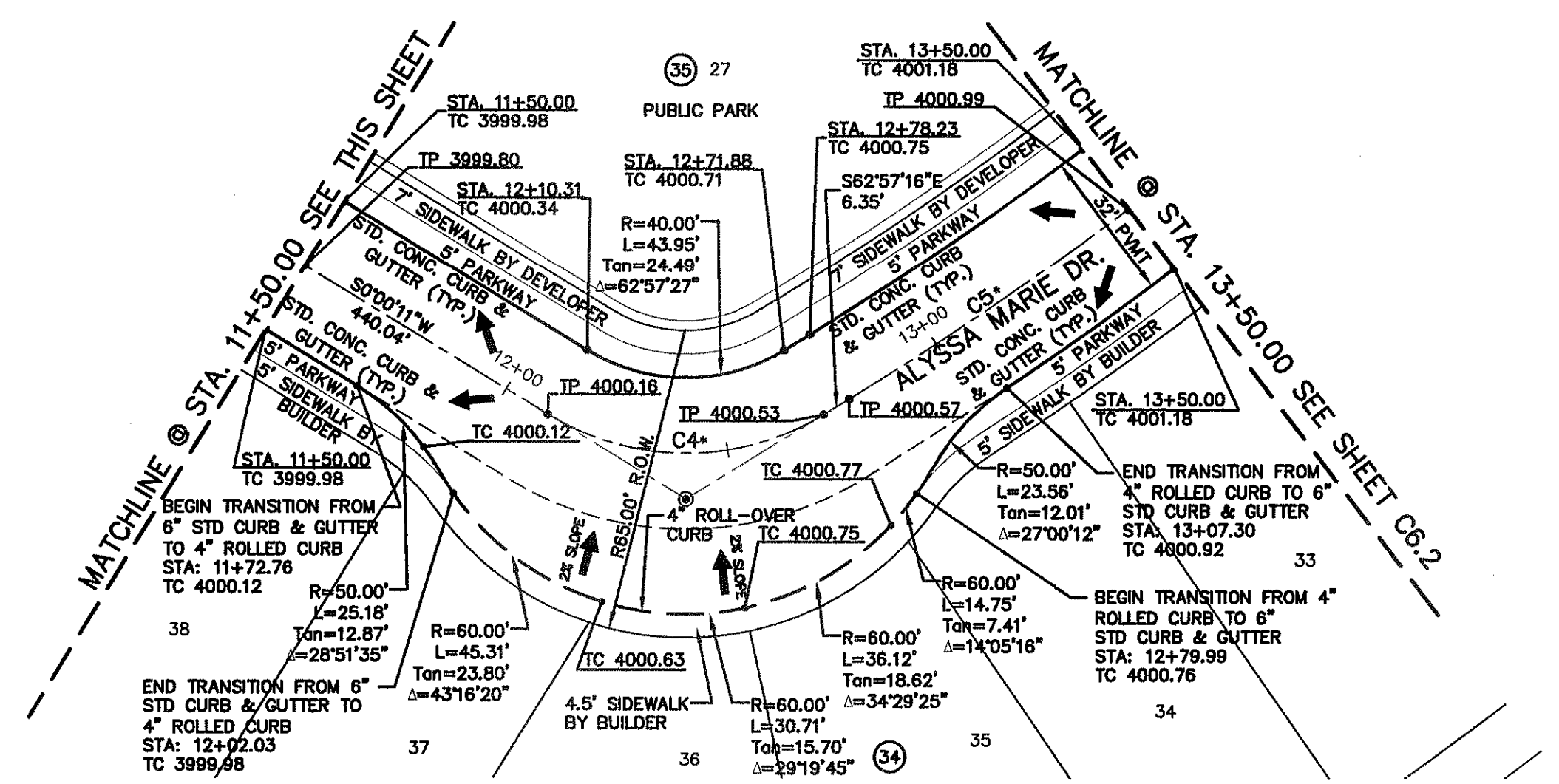
**RUBEN SOTO DR. -  
PLAN & PROFILE  
FROM STA. 7+70.31  
TO STA. 13+50.00**

SHEET NO.

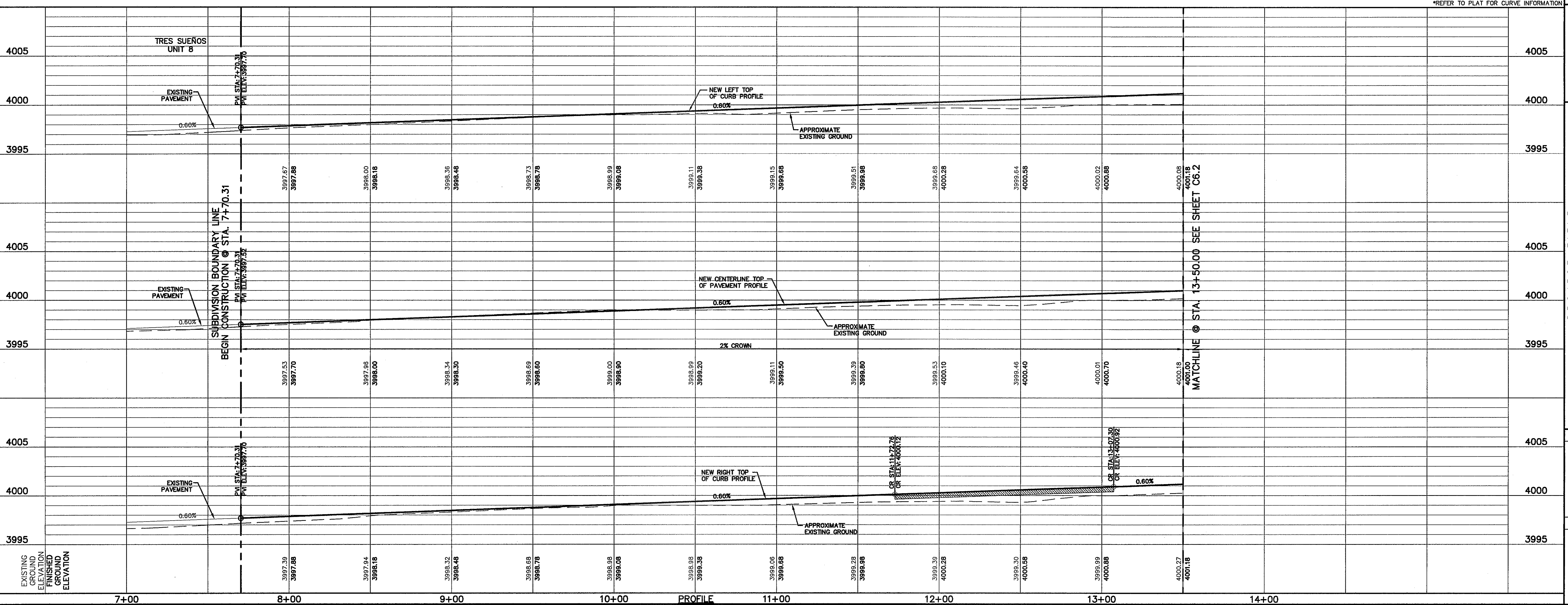
**C6.1**



PLAN



PLAN



\*REFER TO PLAT FOR CURVE INFORMATION

S:\2005\2005-157-LD\0505\Construction Drawings\Improvement Plans\C6.1-C6.2\_RUBEN SOTO DR. SUBDIVISION IMPROVEMENTS.dwg, 1/10/2013 10:03:51 AM











**GENERAL NOTES**

- THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING BIDS.
- CONTRACTOR SHALL WATER CONSTRUCTION AREA A MINIMUM OF TWICE A DAY TO KEEP DUST TO A MINIMUM - ONCE IN THE MORNING AND BEFORE QUITTING TIME. THIS SHALL ALSO BE DONE DURING WEEKENDS AND HOLIDAYS.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE, PROTECT, AND REPLACE ALL UNDERGROUND UTILITY LINES AT NO EXTRA COST TO THE OWNER WHEN LINES ARE DISTURBED AS A RESULT OF THE WORK.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM HIS WORK SO AS TO ASSURE PROPER PASSAGE OF STORM RUNOFF DURING THE COURSE OF HIS OPERATIONS. ALL LABOR, TOOLS, EQUIPMENT, AND SUPERVISION REQUIRED TO ASSURE SUCH PROPER PASSAGE OF RUNOFF WATER AND ANY REMOVAL OR HANDLING OF WATER IN ORDER TO MAINTAIN DRY CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH THE USER, ALL UTILITIES, AND ALL OTHER AGENCIES WITH JURISDICTION OVER THE PROJECT.
- ALL EXISTING PAVEMENT, ADJACENT UTILITIES, STRUCTURES, ETC., DISTURBED AS A RESULT OF THE NEW CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE OWNER WILL FURNISH HORIZONTAL AND VERTICAL CONTROL REFERENCED POINTS ONLY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES BEFORE PROCEEDING WITH THE WORK. ANY DISCREPANCIES FOUND SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER, OTHERWISE THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THEIR CORRECTNESS.
- SEE REFERENCED BENCHMARK ON TITLE BLOCK FOR DATUM ELEVATIONS.
- VIBRATORY ROLLERS WILL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE ENGINEER.
- ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN CONFORMANCE WITH CURRENT SAFETY CODES AND STANDARDS WITH JURISDICTION OVER THE PROJECT.

**GRADING SPECIFICATIONS**

- CLEARING AND GRUBBING: CLEAR SITE OF TREES, SHRUBS AND OTHER VEGETATION; COMPLETELY REMOVE STUMPS, ROOTS AND OTHER DEBRIS PROTRUDING THROUGH GROUND SURFACE; FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY FILL MATERIAL, UNLESS FURTHER EXCAVATION OF EARTHWORK IS INDICATED; REMOVE EXISTING ABOVE-GRADE AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION. BURNING IS NOT PERMITTED ON OWNER'S PROPERTY. REMOVE WASTE MATERIALS FROM OWNER'S PROPERTY.
- SATISFACTORY FILL MATERIALS: FILL MATERIALS SHALL BE FREE OF ANY ORGANIC OR DELETERIOUS SUBSTANCE AND SHALL NOT CONTAIN ROCKS OR LUMPS OVER 3 INCHES IN GREATEST DIMENSION AND SHALL BE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, GC, SM, SP, SM, AND SC.
- UNSATISFACTORY FILL MATERIAL: ARE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS ML, MH, CL, CH, OL, OH, AND PT, OR WHERE THE PLASTICITY INDEX EXCEEDS 12, UNLESS OTHERWISE APPROVED BY ENGINEER OR CITY ENGINEER.
- EXCAVATION: IS UNCLASSIFIED AND INCLUDES EXCAVATION TO ELEVATIONS INDICATED, REGARDLESS OF CHARACTER OF MATERIAL AND OBSTRUCTIONS ENCOUNTERED.
- GROUND SURFACE PREPARATION FOR FILL: REMOVE VEGETATION, DEBRIS, UNSATISFACTORY SOIL MATERIAL, OBSTRUCTIONS, AND DELETERIOUS MATERIAL FROM GROUND SURFACE UPON WHICH THE FILL IS TO BE PLACED. THE SURFACE SHALL THEN BE SCARIFIED TO A DEPTH OF AT LEAST 6-INCHES, AND UNTIL THE SURFACE IS FREE FROM RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH WOULD PREVENT UNIFORM COMPACTION. PLOW STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO THAT FILL MATERIAL WILL BOND WITH EXISTING SURFACE. AFTER PLOWING AND SCARIFYING FILL AREA, IT SHALL THEN BE DISCED OR BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS, BROUGHT TO OPTIMUM MOISTURE, AND COMPACTED TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557.
- PLACEMENT OF FILL: PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. BEFORE COMPACTION, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE OPTIMUM MOISTURE CONTENT. PLACE FILL MATERIALS EVENLY ADJACENT TO SITE APPURTENANCES, PIPING, OR CONDUIT TO REQUIRED ELEVATIONS. PREVENT WEDGING ACTION OF BACKFILL AGAINST SITE APPURTENANCES OR DISPLACEMENT OF PIPING OR CONDUIT BY CARRYING MATERIAL UNIFORMLY AROUND SITE APPURTENANCES, PIPING, OR CONDUIT TO APPROXIMATELY SAME ELEVATION IN EACH LIFT. COMPACT SOIL TO NOT LESS THAN 95% OF MAXIMUM DENSITY, IN ACCORDANCE WITH ASTM D1557.
- MOISTURE CONTROL: WHERE SUBGRADE OR LAYER OF SOIL MATERIAL MUST BE CONDITIONED FOR OPTIMUM MOISTURE BEFORE COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SUBGRADE OR LAYER OF SOIL MATERIAL. APPLY WATER IN MINIMUM QUANTITY AS NECESSARY TO PREVENT FREE WATER FROM APPEARING ON SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS. WATER CONTENT SHALL BE WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED DENSITY.
- QUALITY CONTROL: THE OWNER SHALL PROVIDE A GEOTECHNICAL ENGINEER TO PERFORM FIELD DENSITY TEST OF THE COMPACTION OF EACH LAYER OF FILL. DENSITY TESTS SHALL BE TAKEN IN THE COMPACTED MATERIAL BELOW THE DISTURBED SURFACE. WHEN THESE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE PARTICULAR LAYER OR PORTION SHALL BE REWORKED UNTIL THE REQUIRED DENSITY HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL TESTING AND WHEN REQUIRED DENSITIES ARE NOT MET, SUPERVISION BY THE GEOTECHNICAL ENGINEER DURING THE GRADING OPERATIONS TO ENSURE GRADING WORK IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS.

**ABBREVIATIONS**

LP	LOW POINT
HP	HIGH POINT
ELEV	ELEVATION
STA	STATION
VCS	VERTICAL CURVE STATION
VCE	VERTICAL CURVE ELEVATION
TC	TOP OF CURB
TM	TOP OF MEDIAN
TP	TOP OF PAVEMENT
TYP	TYPICAL
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
AD	ALGEBRAIC DIFFERENCE
CR	CURVE RETURN
ROW	RIGHT OF WAY
CL	CENTER LINE
PL	PROPERTY LINE
FG	FINISH GRADE
FF	FINISH FLOOR
EG	EXISTING GRADE
MIN.	MINIMUM
MAX.	MAXIMUM
ROP	REINFORCED CONCRETE PIPE
Q	QUANTITY
CAP	CAPACITY
EXP	EXPECTED
INV	INVERT
CFS	CUBIC FEET PER SECOND
A	AREA
DA	DRAINAGE AREA
LF	LINEAR FEET
STD	STANDARD
CONC	CONCRETE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
L	LENGTH
R	RADIUS
T	TANGENT
Δ	DELTA ANGLE
S	SLOPE
TEMP	TEMPORARY
V	VELOCITY IN FEET PER SECOND
HGL	HYDRAULIC GRADE LINE
HWE	HIGH WATER ELEVATION

**LEGEND**

---	SUBDIVISION BOUNDARY
---	ROW LINE
---	CURB LINE
---	PROPERTY LINE
---	STREET CENTERLINE
---	EASEMENT LINE
---	MATCH LINE
---	STORM SEWER LINE
---	HIGH WATER MARK
---	CURB AND GUTTER DROP INLET
⊙	STORM SEWER MANHOLE
4000	FINISHED GROUND CONTOUR ELEVATION (INDEX)
---	FINISHED GROUND CONTOUR ELEVATION (INTERMEDIATE)
4000	EXISTING GROUND CONTOUR ELEVATION (INDEX)
---	EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE)
⊘	NEW 4' HIGH RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)
⊘	NEW 4' HIGH RETAINING ROCKWALL (3'-9' RETAINING HEIGHT)
X	STANDARD DETAIL/SECTION NUMBER
X	SHEET NUMBER WHERE STANDARD/SECTION DETAIL IS LOCATED
4000.00	FINISHED SPOT ELEVATION
FG. 56.00	LOT FINISHED GROUND ELEVATION
TC 4000.00	TOP OF CURB ELEVATION
TP 4000.00	TOP OF PAVEMENT ELEVATION
1 2	SUBDIVISION LOT AND BLOCK NUMBER
→	DRAINAGE FLOW
▲	HIGH POINT
▼	LOW POINT
◁▷	EXISTING HIGH POINT
▷◁	EXISTING LOW POINT
◁	HEADWALL WITH WINGWALLS
DA-4	DRAINAGE AREA
3:1 SLOPE	HORIZONTAL:VERTICAL SLOPE RATIO
⊠	WHEELCHAIR RAMP

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U.S. SPRINT TELECOMM	(800) 521-0579

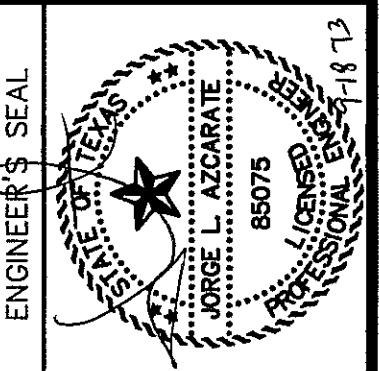
**WARNING I BEFORE YOU DIG**  
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1-800-DIG-TESS  
1-800-344-8377  
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BERN BLVD. SUBSTATION A DISTANCE OF 467.58 FEET FROM THE MONUMENT TO THE POINT OF CURVE. MONUMENT AVENUE CITY DATUM. ELEVATION: 4006.40
DATE
REVISIONS
BY

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IRRIGATION DETAILS	L-4.0

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SCALE	N/A
Horizontal	N/A
Vertical	N/A
Contour Interval	N/A
DATE: SEPTEMBER 2013	
DESIGN BY: J.H.	
DRAWN BY: J.H.	
CHKD. BY: J.G.	
APP'D. BY: J.L.A.	
JOB No. 2000-197-ID	

PROJECT TITLE  
**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

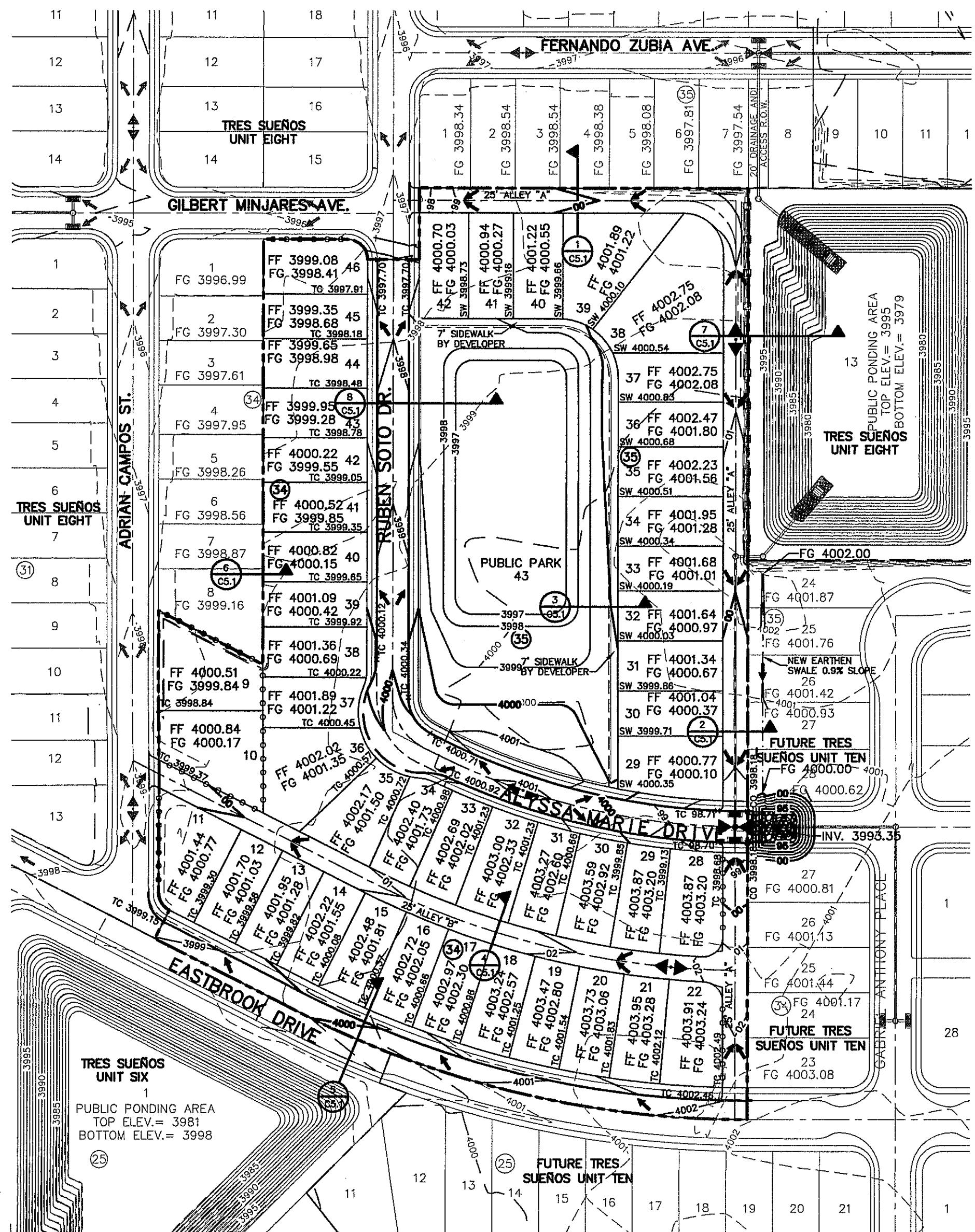
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SHEET NO.

**C1.1**

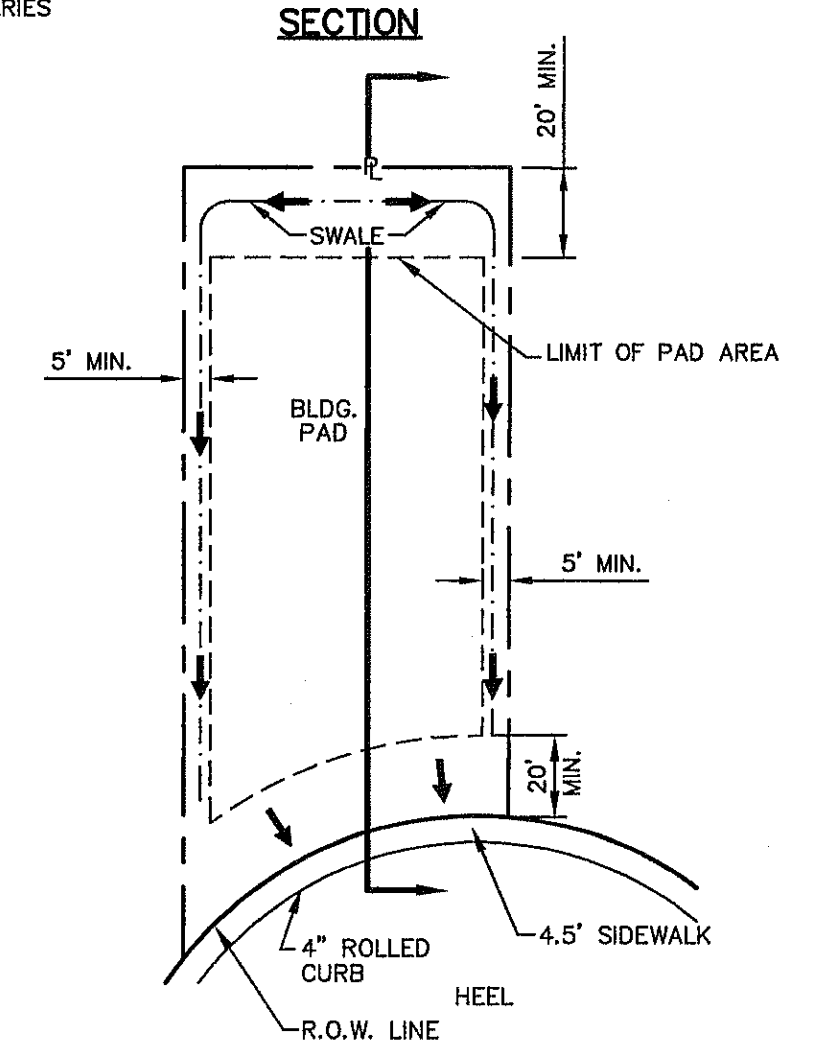
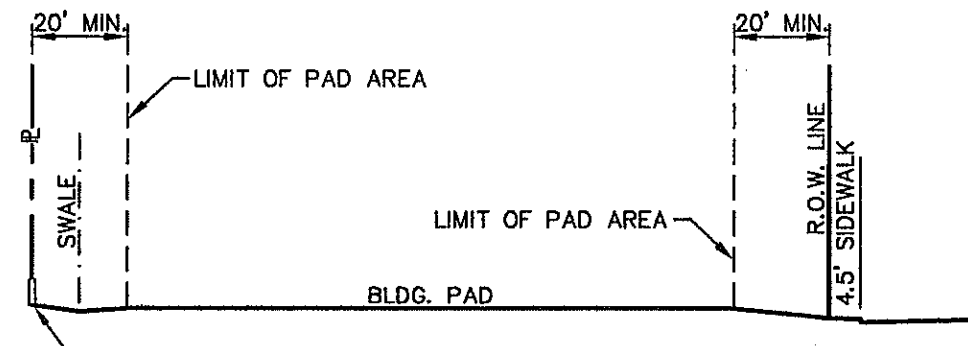
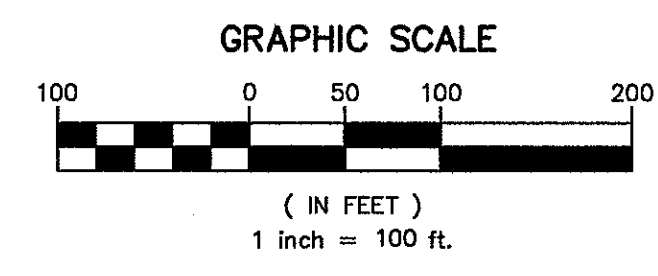




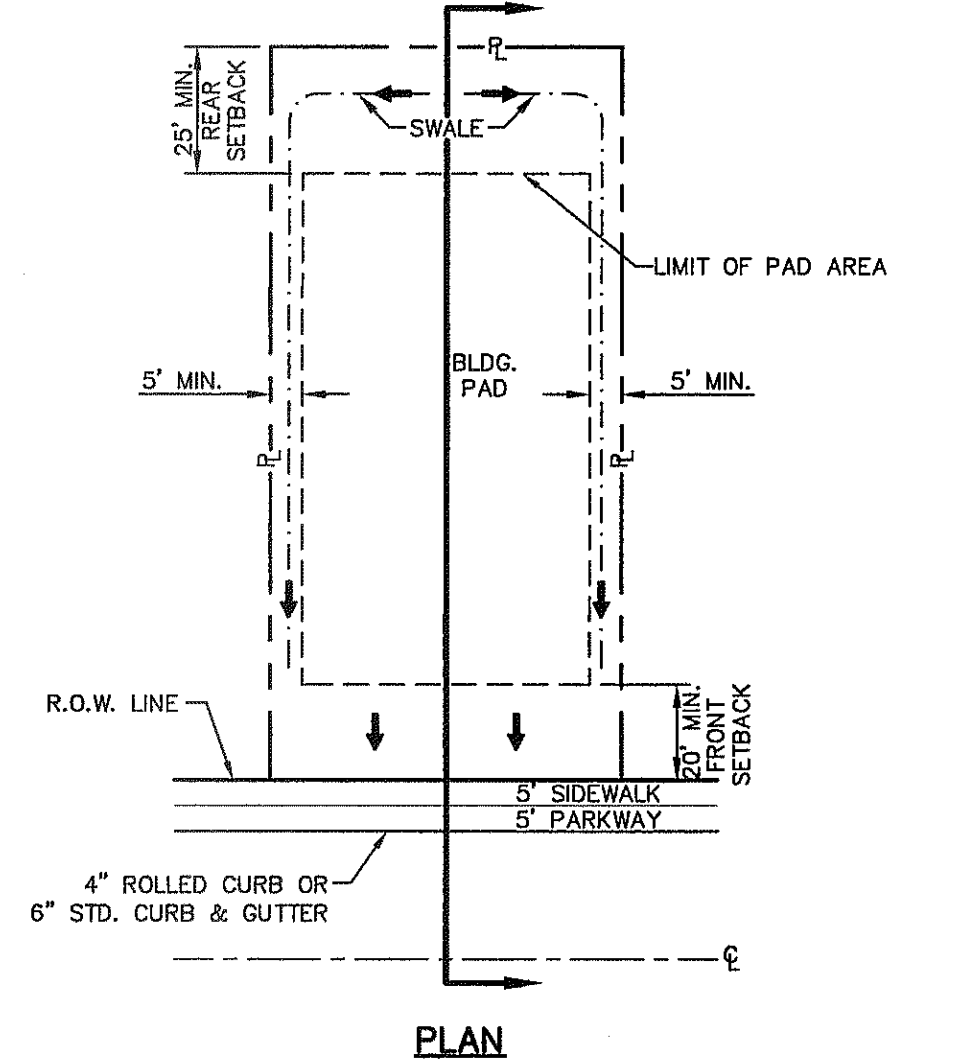
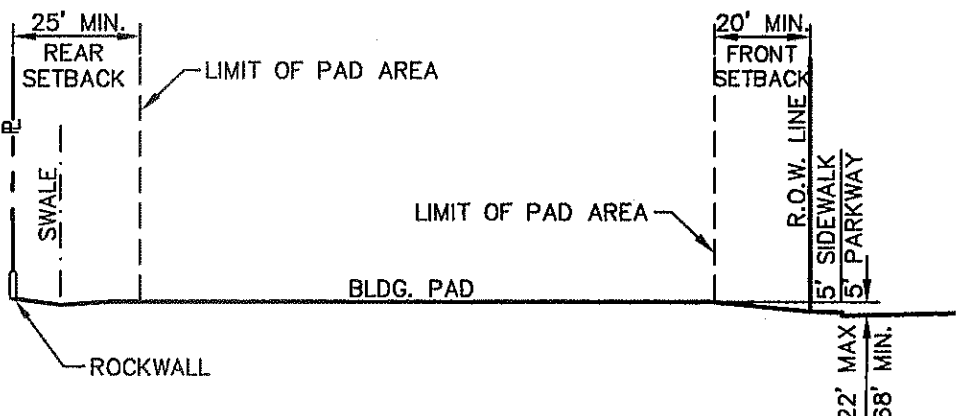




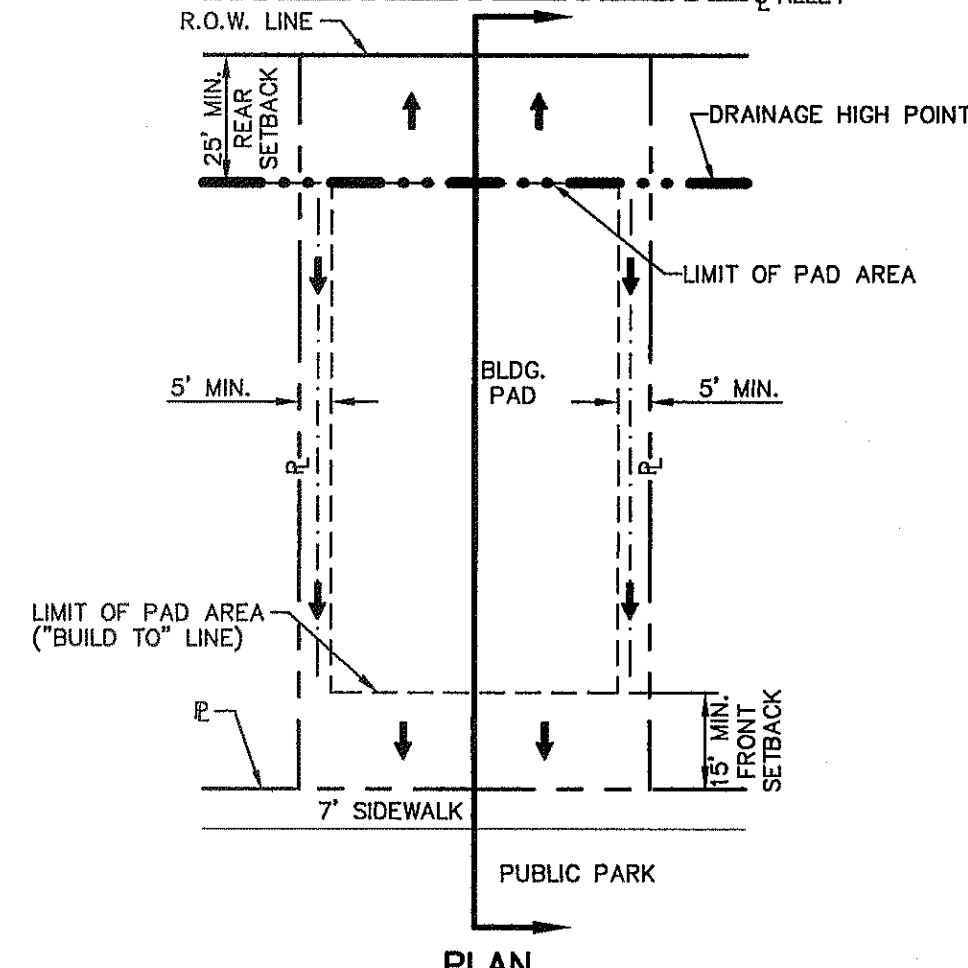
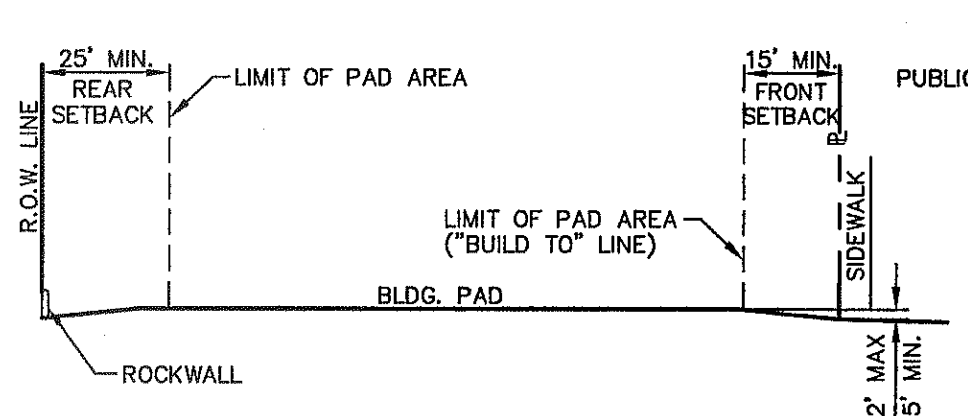
**GRADING PLAN**  
SCALE: 1" = 100'



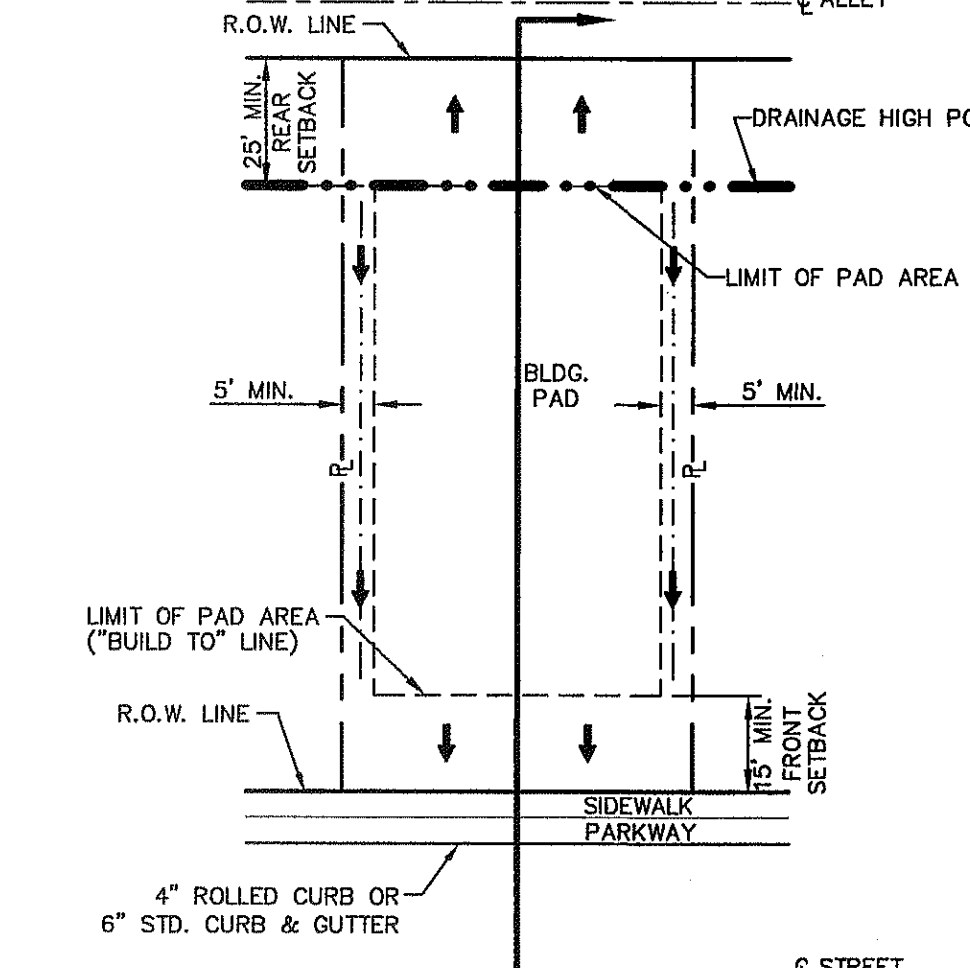
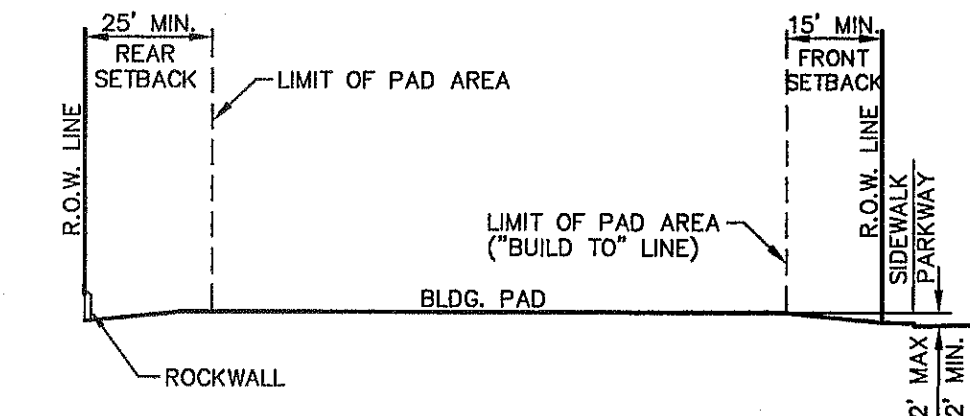
**(BLOCK 34) LOT 37  
TYPICAL LOT AT HEEL PLAN**  
SCALE: N.T.S.  
DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FEET AND 14% MAX. THEREAFTER (DRIVEWAY SHALL BE LOCATED @ HIGH SIDE OF LOT UNLESS OTHERWISE COORDINATED WITH CITY OF EL PASO)



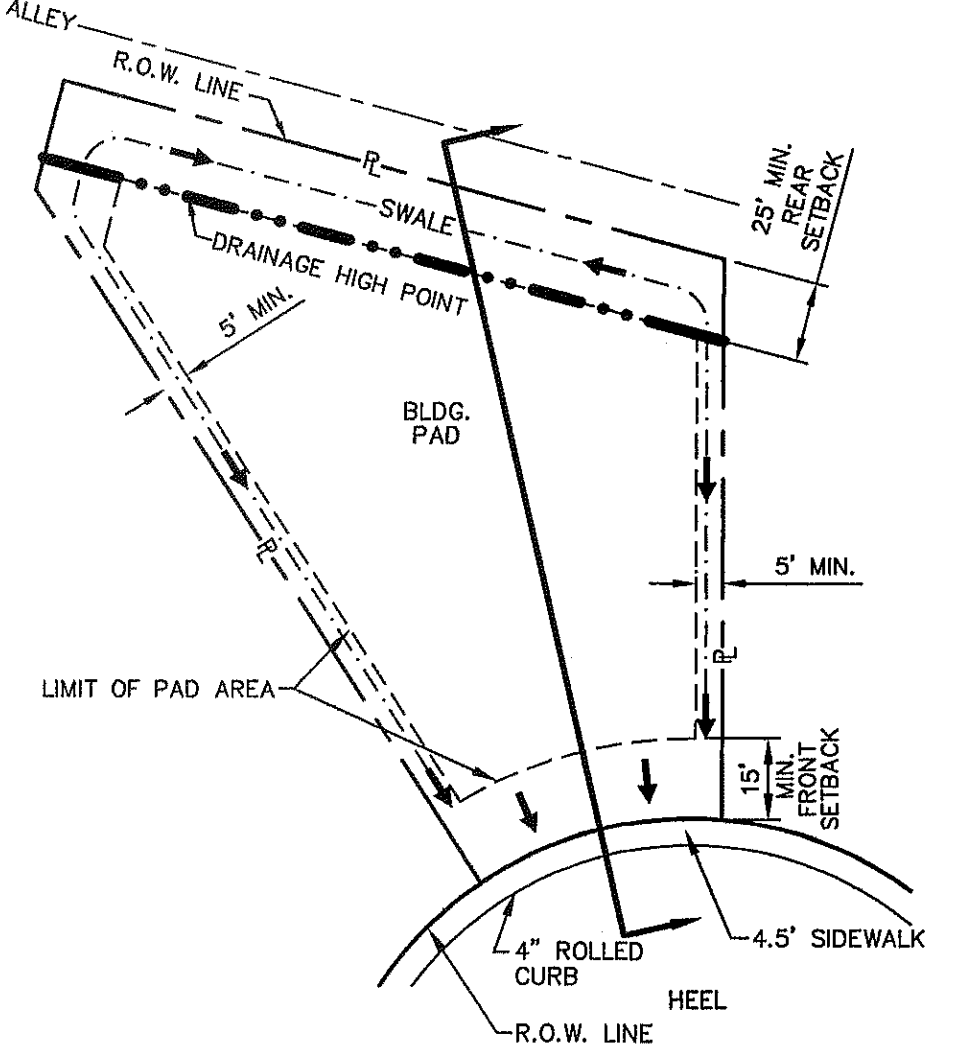
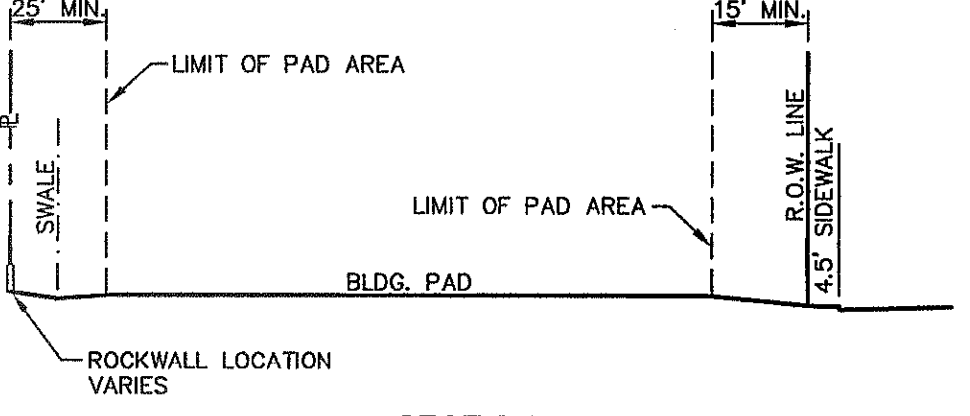
**(BLOCK 34) LOTS 38-46  
TYPICAL LOT PLAN**  
SCALE: N.T.S.  
DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FEET AND 14% MAX. THEREAFTER (DRIVEWAY SHALL BE LOCATED @ HIGH SIDE OF LOT UNLESS OTHERWISE COORDINATED WITH CITY OF EL PASO)



**(BLOCK 35) LOTS 29-37 & 40-42  
TYPICAL LOT ABUTTING PARK WITH ALLEY PLAN**  
SCALE: N.T.S.  
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)



**(BLOCK 34) LOTS 11-22 AND LOTS 28-34  
TYPICAL LOT WITH ALLEY PLAN**  
SCALE: N.T.S.  
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)



**(BLOCK 34) LOTS 35-36  
TYPICAL LOT AT HEEL PLAN**  
SCALE: N.T.S.  
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) 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

**WARNING !  
BEFORE YOU DIG**

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

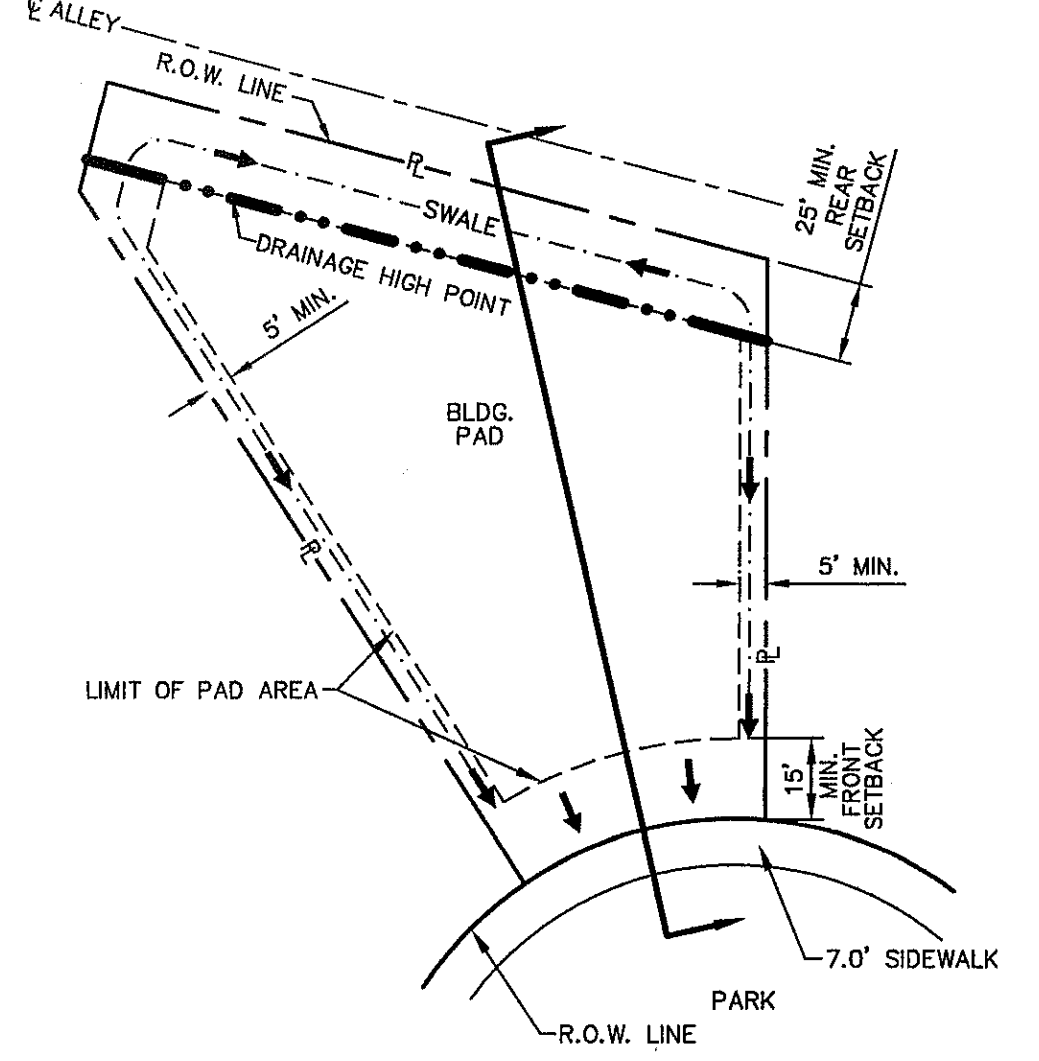
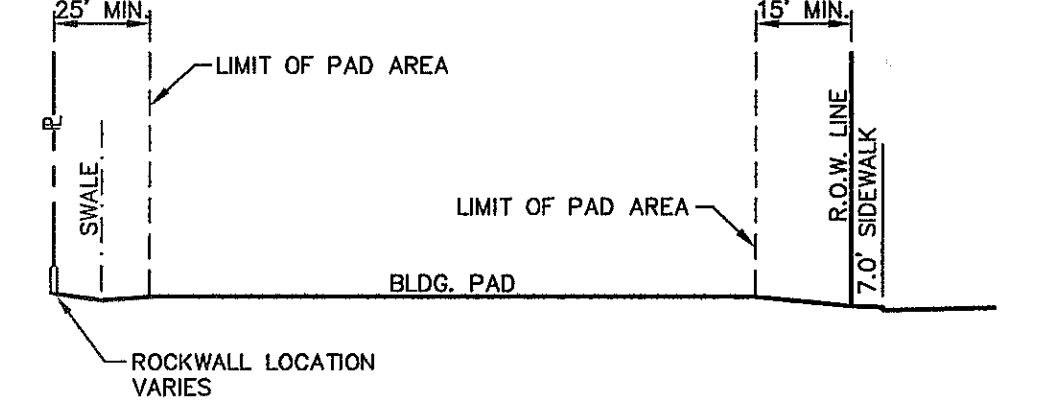
FOR FIELD LOCATING EXISTING UTILITIES

- NOTES:**
- RETAINING WALLS SHALL BE CONSTRUCTED FOR VERTICAL GRADES GREATER THAN 2- FEET.
  - SLOPED AREAS SHALL BE MAINTAINED BY THE PROPERTY OWNERS.
  - ALL RETAINING WALLS NOT SPECIFIED TO BE CONSTRUCTED BY DEVELOPER, SHALL BE BUILT BY BUILDER.
  - RETAINING ROCKWALLS (RETAINING PORTIONS ONLY) IN EXCESS OF 4' HIGH TO BE BUILT BY DEVELOPER. REMAINING ROCKWALL SECTION TO 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 (NOCU'S, SIGNS, POLES, FIRE HYDRANTS, ELECTRIC TRANSFORMERS, UTILITY PEDESTALS, AND JUNCTION BOXES, ETC.) REFER TO STANDARD DETAIL SHEETS.
  - IMPROVEMENTS SHALL COMPLY WITH T.A.S./A.D.A.
  - REFERENCE SHEET C6.4 FOR ALLEY "A" AND "B" STREET GRADING.
  - ALL UNDERGROUND UTILITIES WITHIN PARK SHALL BE AT 5 FT. MIN. DEPTH.

**BENCHMARK**  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., 508'43"31'E A DISTANCE OF 487.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

**FLOOD ZONE:**  
THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212 0175 B, DATED SEPTEMBER 4, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "X" INDICATES AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN.

- LEGEND:**
- NEW 4' HIGH RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)
  - NEW 4' HIGH RETAINING ROCKWALL (3'-9' RETAINING HEIGHT)
  - PROPOSED MAJOR CONTOURS
  - PROPOSED MINOR CONTOURS
  - EXISTING MAJOR CONTOURS
  - EXISTING MINOR CONTOURS



**(BLOCK 35) LOTS 38-39  
TYPICAL LOT AT HEEL PLAN**  
SCALE: N.T.S.  
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)

**REFERENCES - BENCHMARKS**

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., 508'43"31'E A DISTANCE OF 487.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

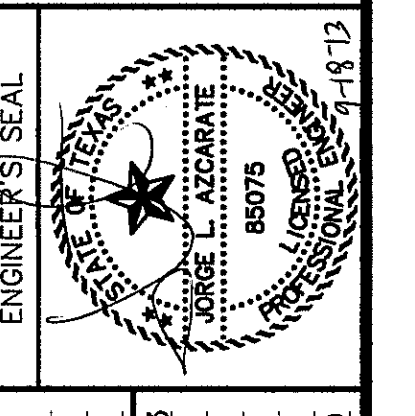
DATE	REVISIONS	BY
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4712 Woodrow Bean, Ste. F, El Paso, TX 79924  
Office: 915.544.3222 Fax: 915.544.3223 www.caegp.com



**SCALE** 1" = 100'

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

DATE: SEPTEMBER 2013  
DESIGN BY: JHL  
DRAWN BY: JHL  
CHECKED BY: JHL  
JOB NO.: 2000-157-LD

**PROJECT TITLE**  
TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS

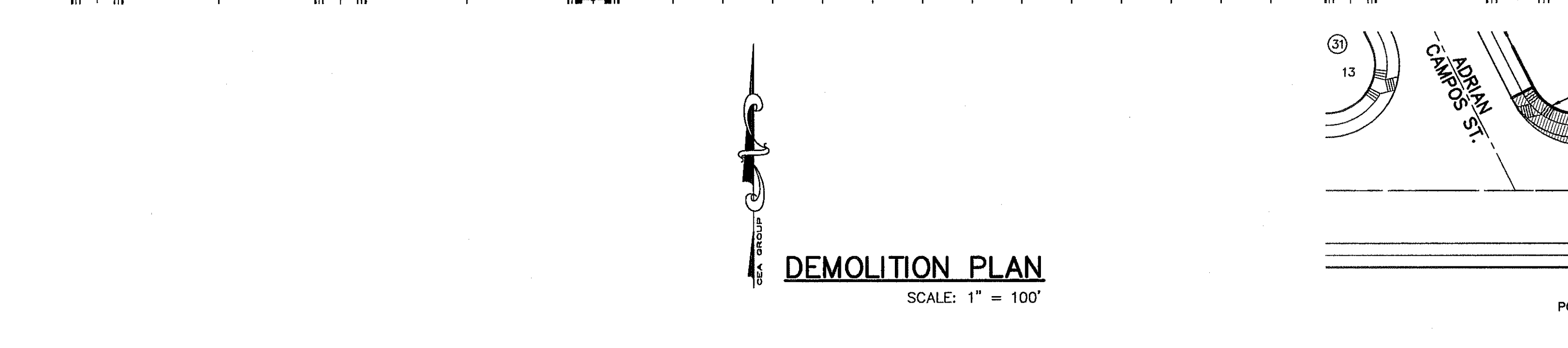
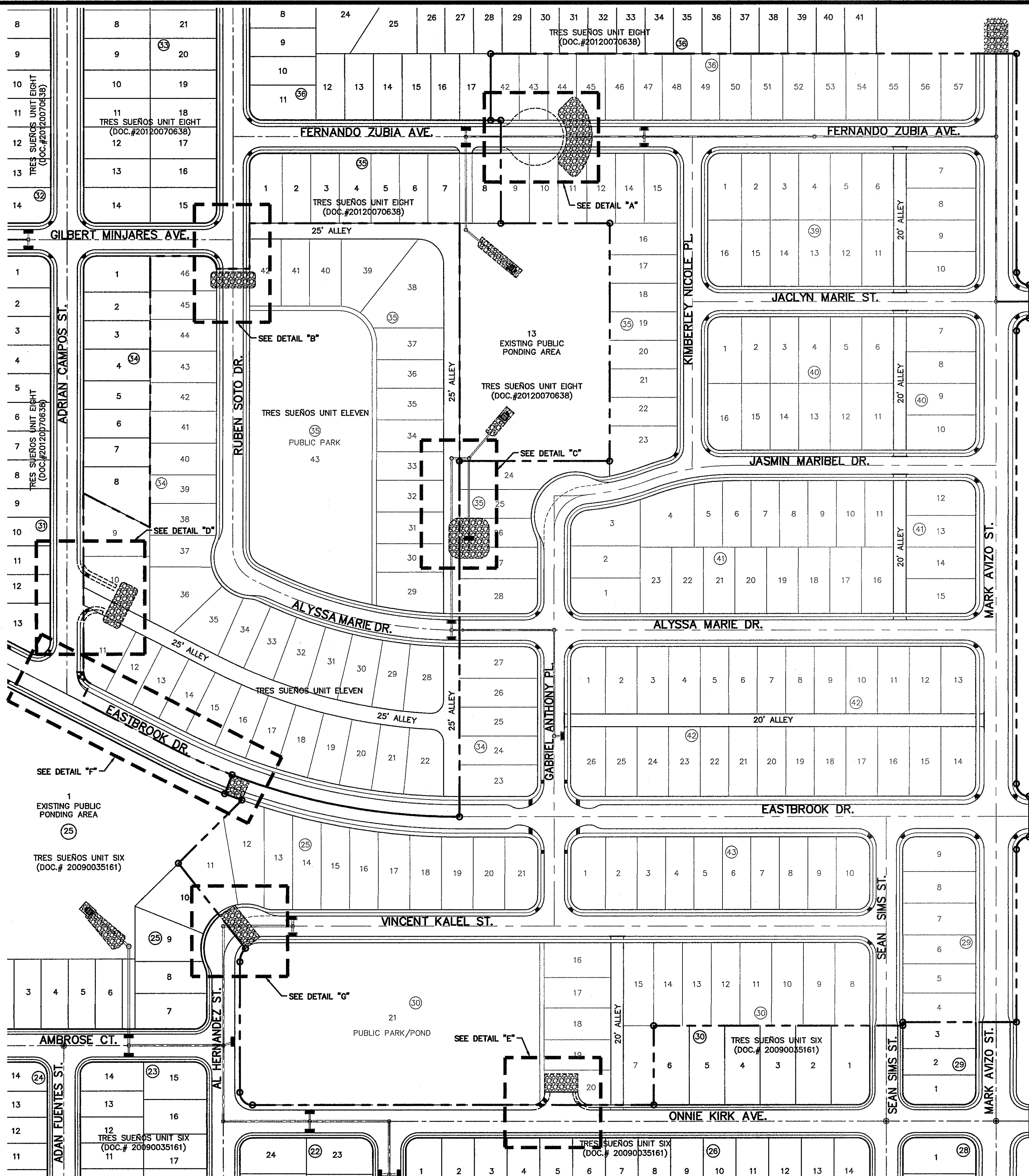
**SHEET TITLE**

**GRADING PLAN**

**SHEET NO.**

**C3.1**





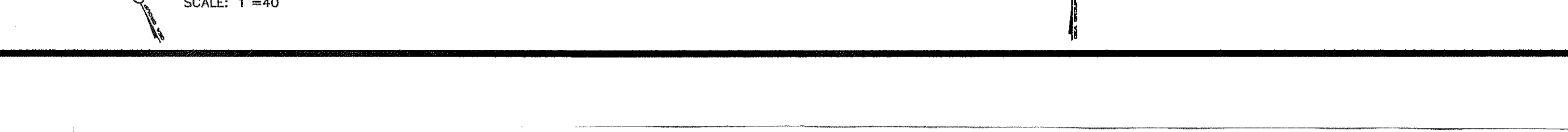
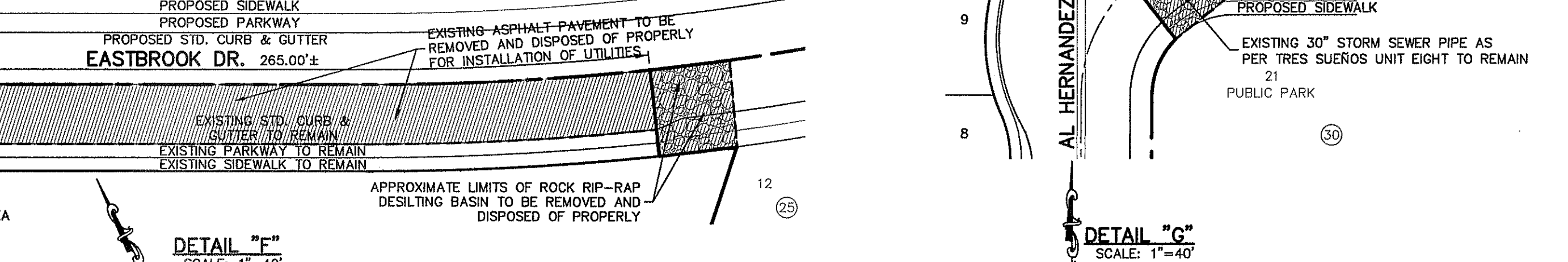
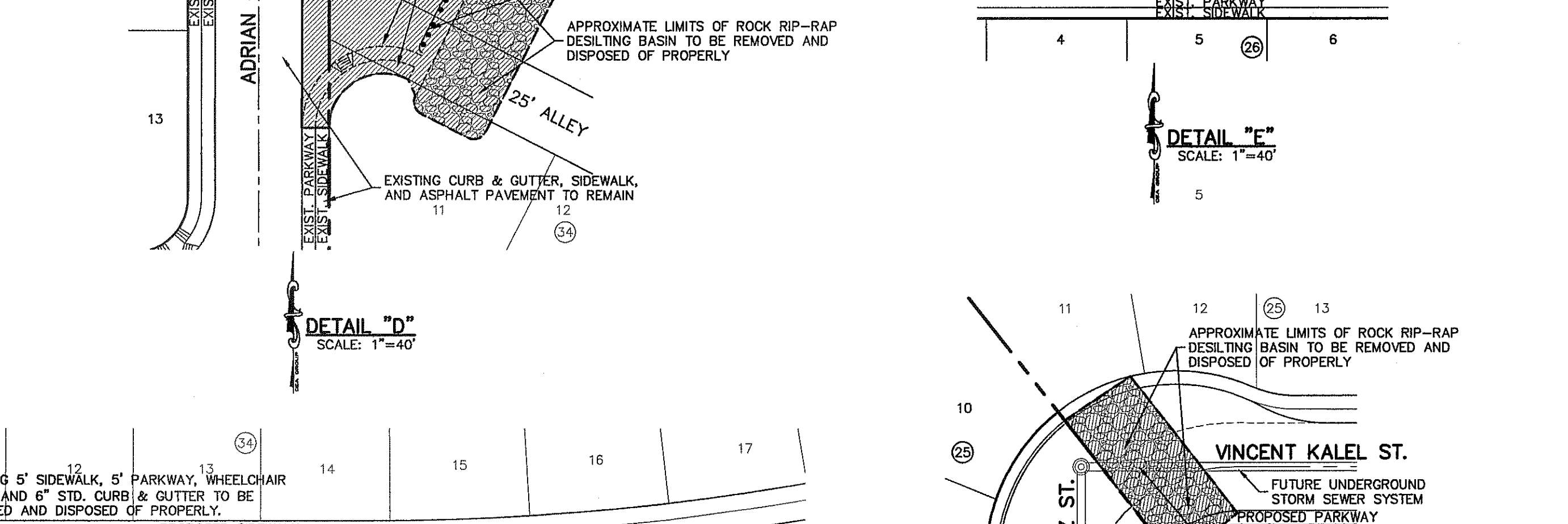
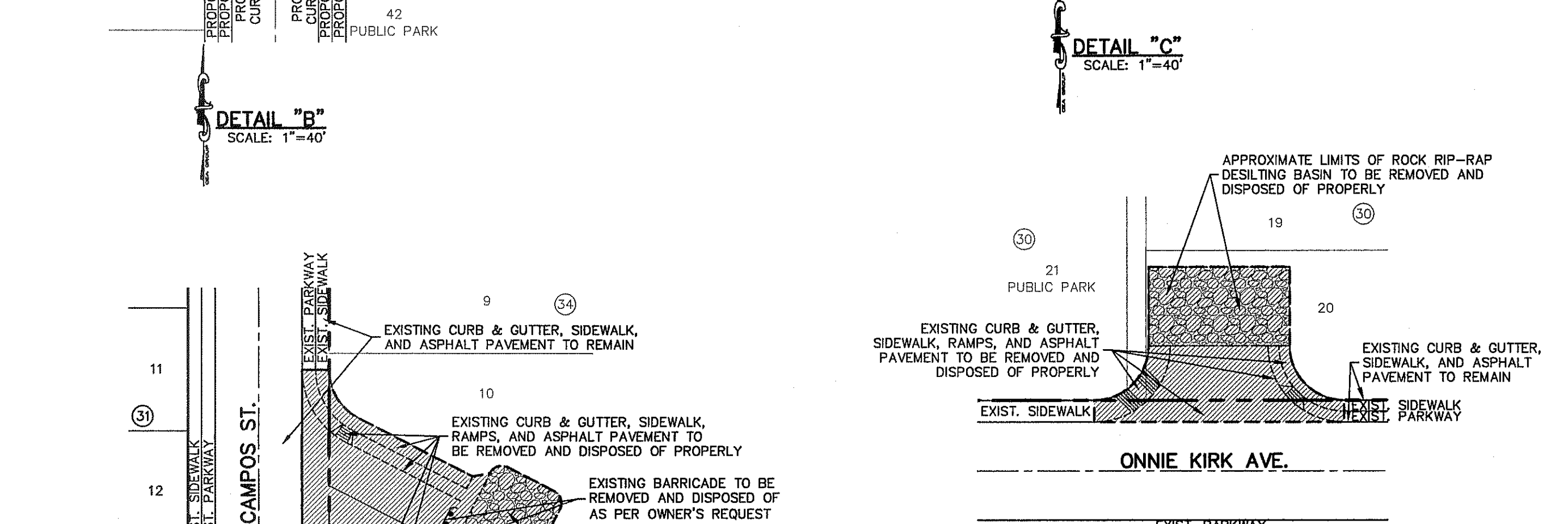
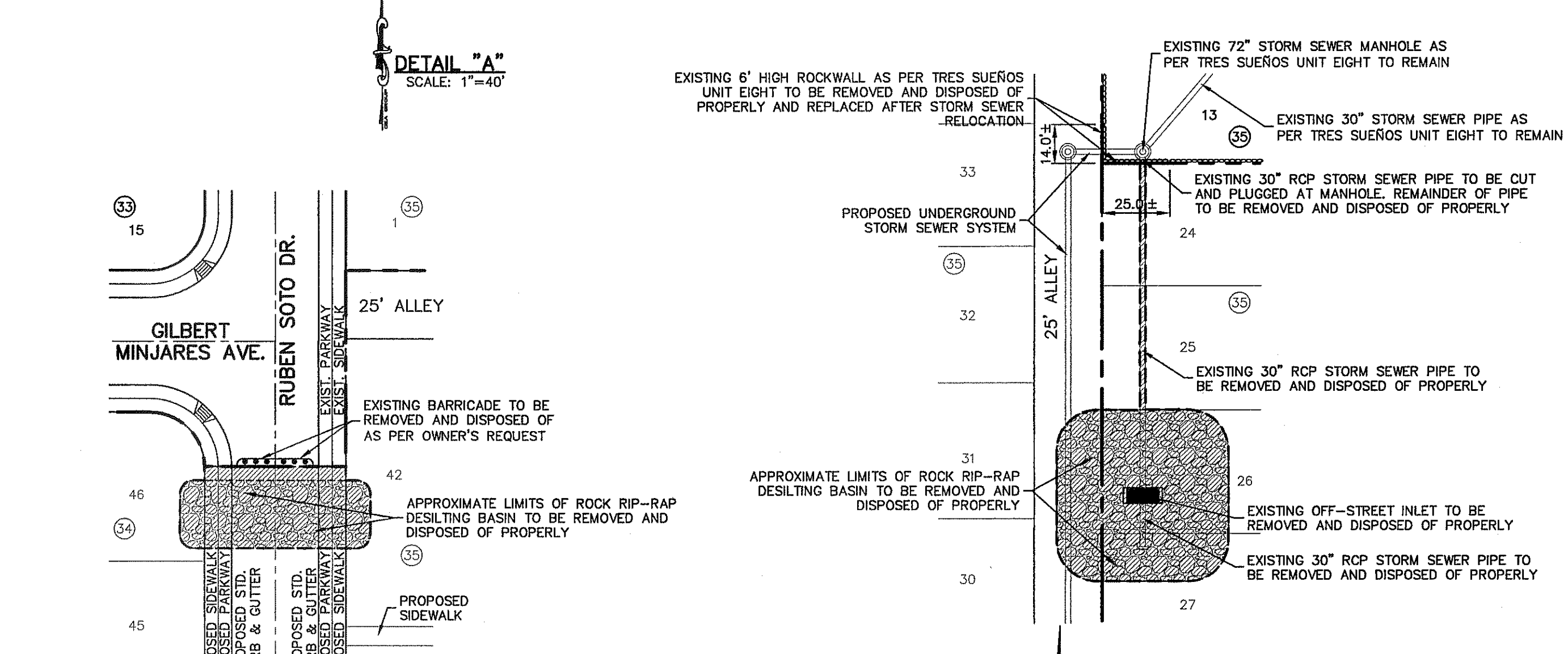
**UTILITY LOCATOR SERVICES**

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

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

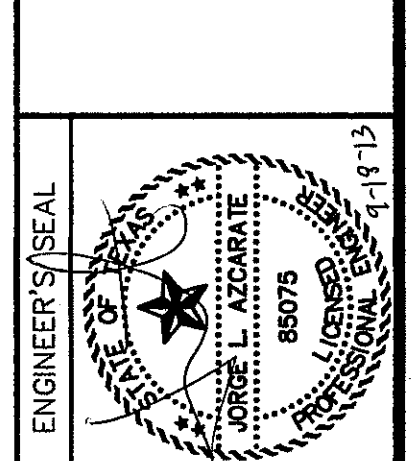
**LEGEND:**

- LIMITS OF DEMOLITION WORK
- EXISTING 6" HIGH RETAINING WALL TO REMAIN
- EXISTING 6" HIGH RETAINING WALL TO BE REMOVED AND DISPOSED OF PROPERLY



REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH FROM THE SOUTHERLY RIGHT OF WAY OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

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SCALE: 1"=100'  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: SEPTEMBER 2013  
DESIGN BY: JHL  
CHECK BY: JHL  
APP'D BY: JLA  
JOB No.: 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN**  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
**DEMOLITION PLAN**

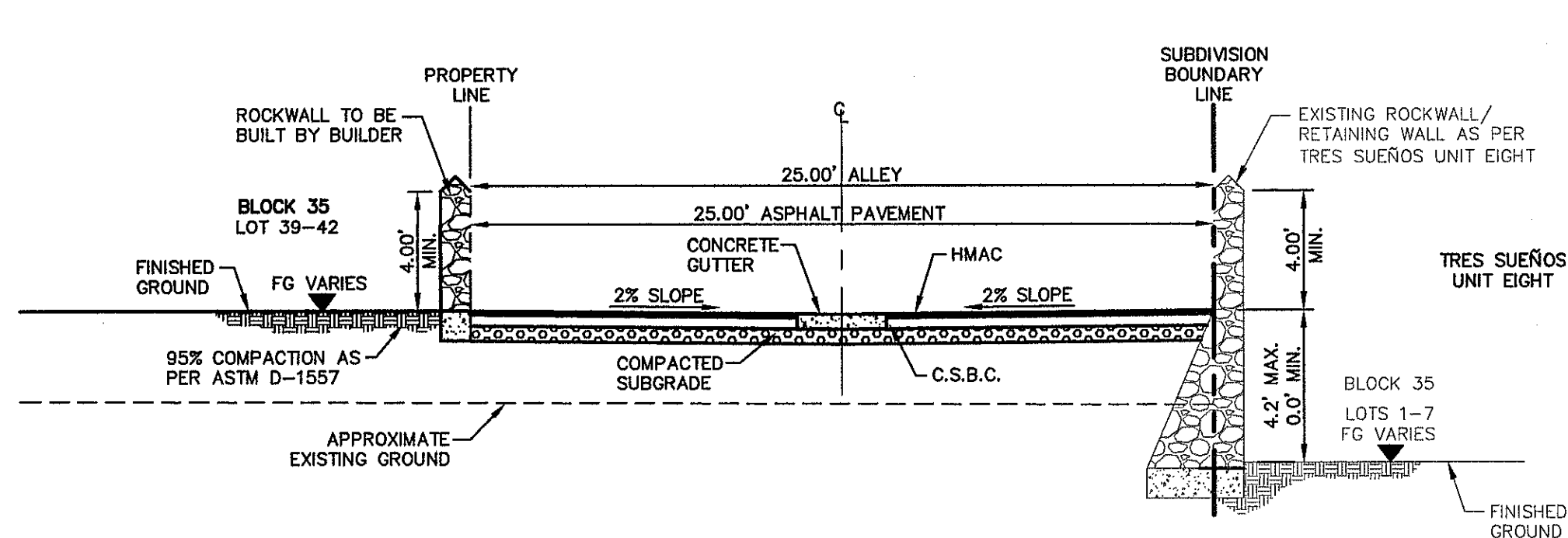
SHEET NO.  
**C3.2**

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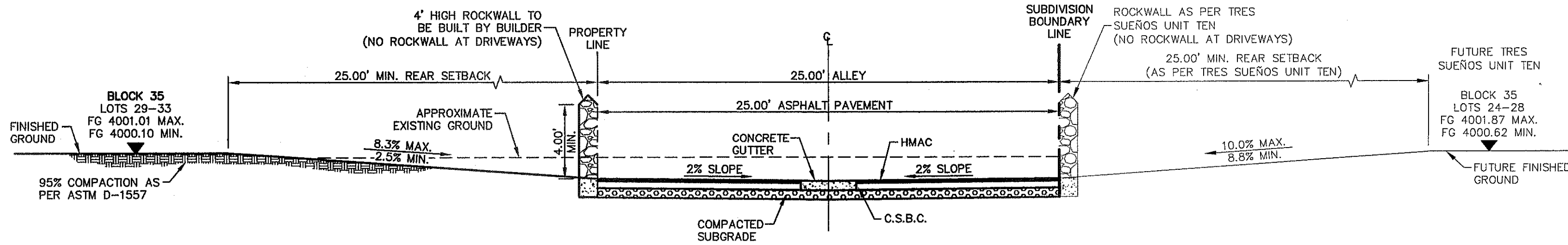






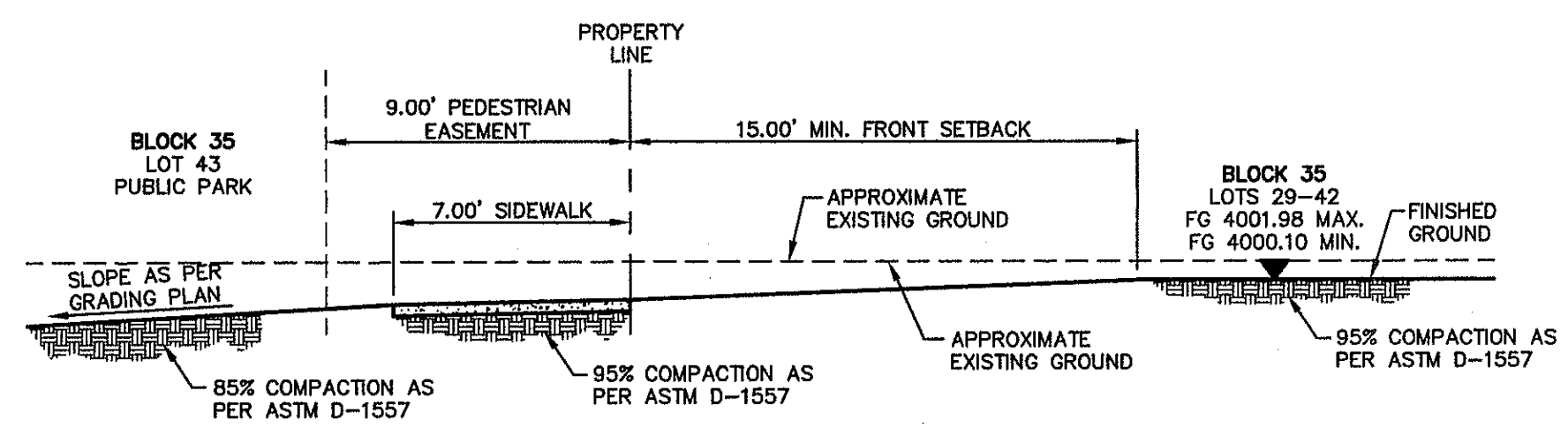


SECTION 1  
C5.1

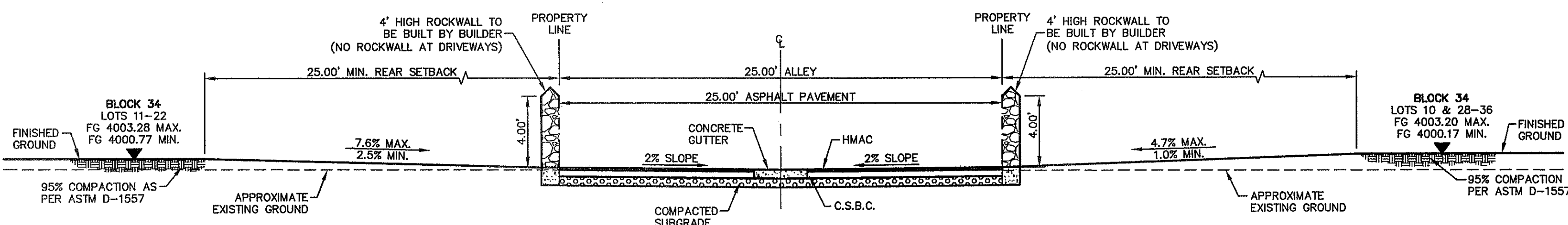


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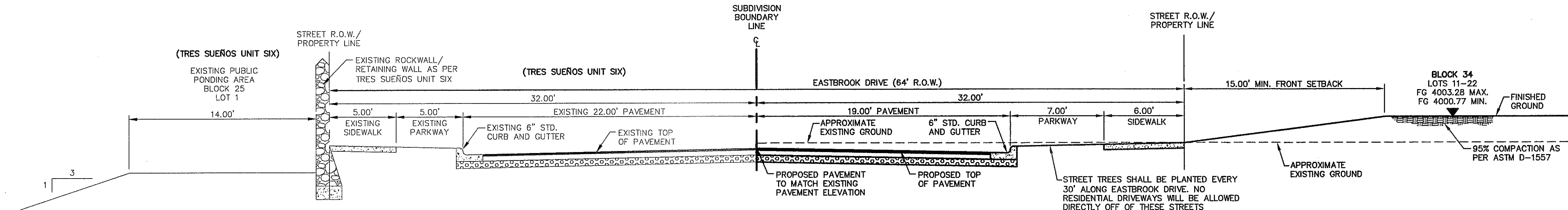
NOTES:  
1. ALL RETAINING WALLS OVER 4 FT IN HEIGHT SHALL BE CONSTRUCTED BY DEVELOPER (RETAINING PORTION ONLY). REMAINING ROCK WALL SECTIONS TO BE BUILT BY BUILDER.



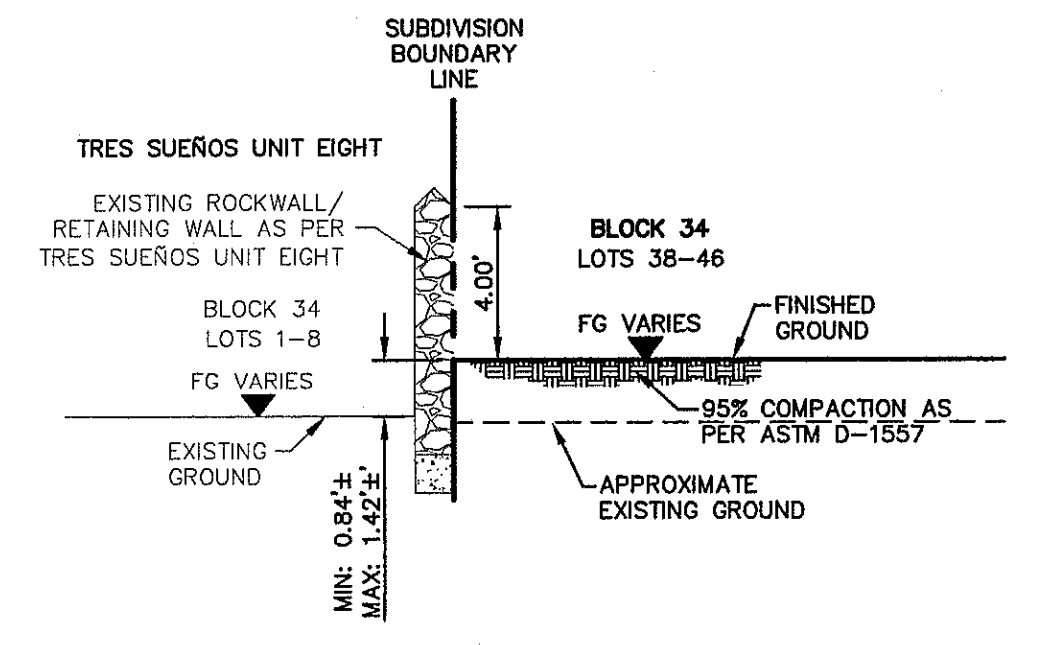
SECTION 3  
C5.1



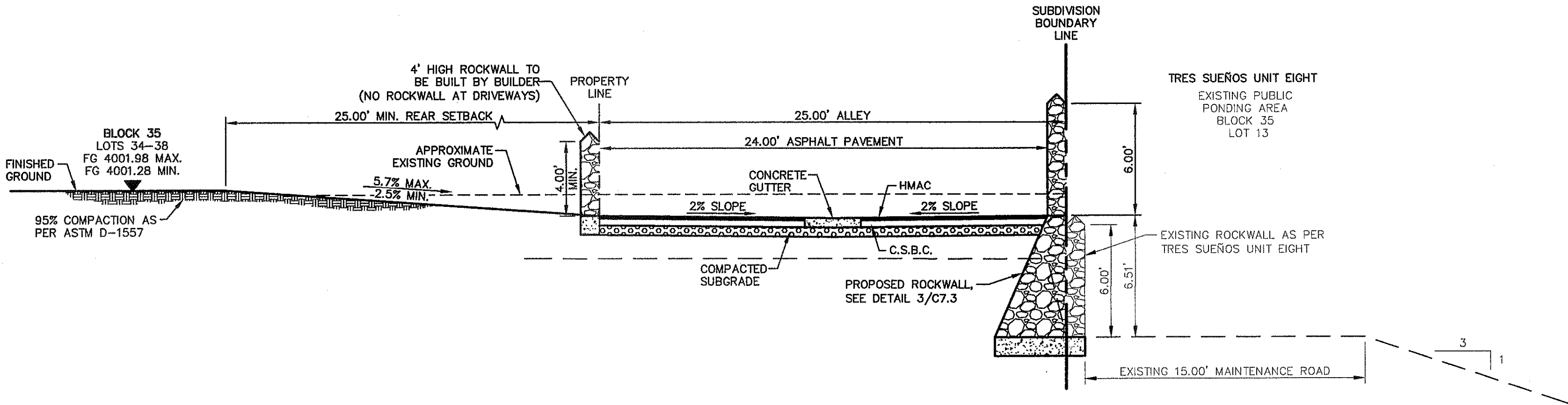
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C5.1



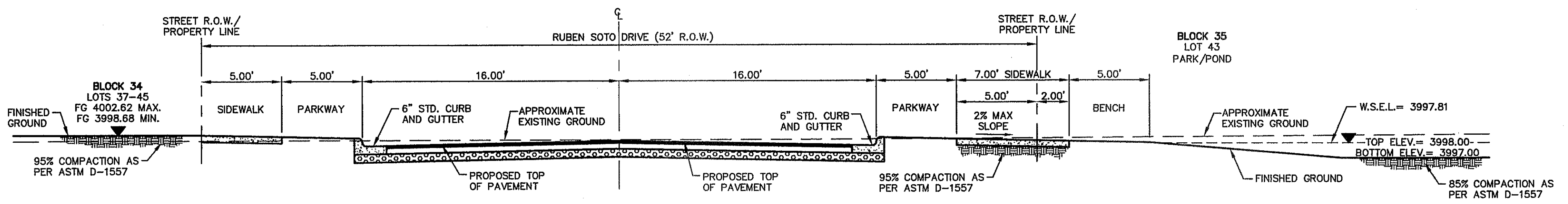
SECTION 5  
C5.1



SECTION 6  
C5.1



SECTION 7  
C5.1

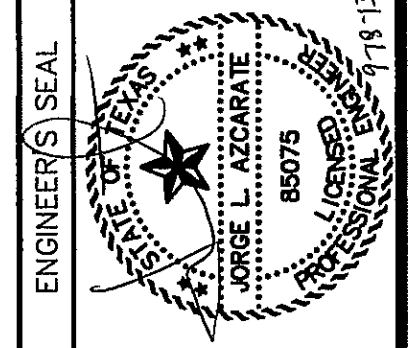


SECTION 8  
C5.1

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

DATE	REVISIONS	BY
------	-----------	----

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Office: 915.544.5222 Fax: 915.544.5223 www.caonline.net



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

DATE: SEPTEMBER 2013  
DESIGN BY: JHL  
DRAWN BY: JHL  
CHKD. BY: JLA  
APP'D. BY: JLA  
JOB NO.: 20000-157-1LD

PROJECT TITLE  
**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**GRADING SECTIONS**

SHEET NO.  
**C5.1**

S:\2000\2000-1571D\UNIT ELEVEN\Construction Drawings\Improvement Plans\C5.1 GRADING SECTIONS.dwg, layout, 9/19/2013 8:00:01 AM



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

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

FOR FIELD LOCATING EXISTING UTILITIES

**LEGEND:**

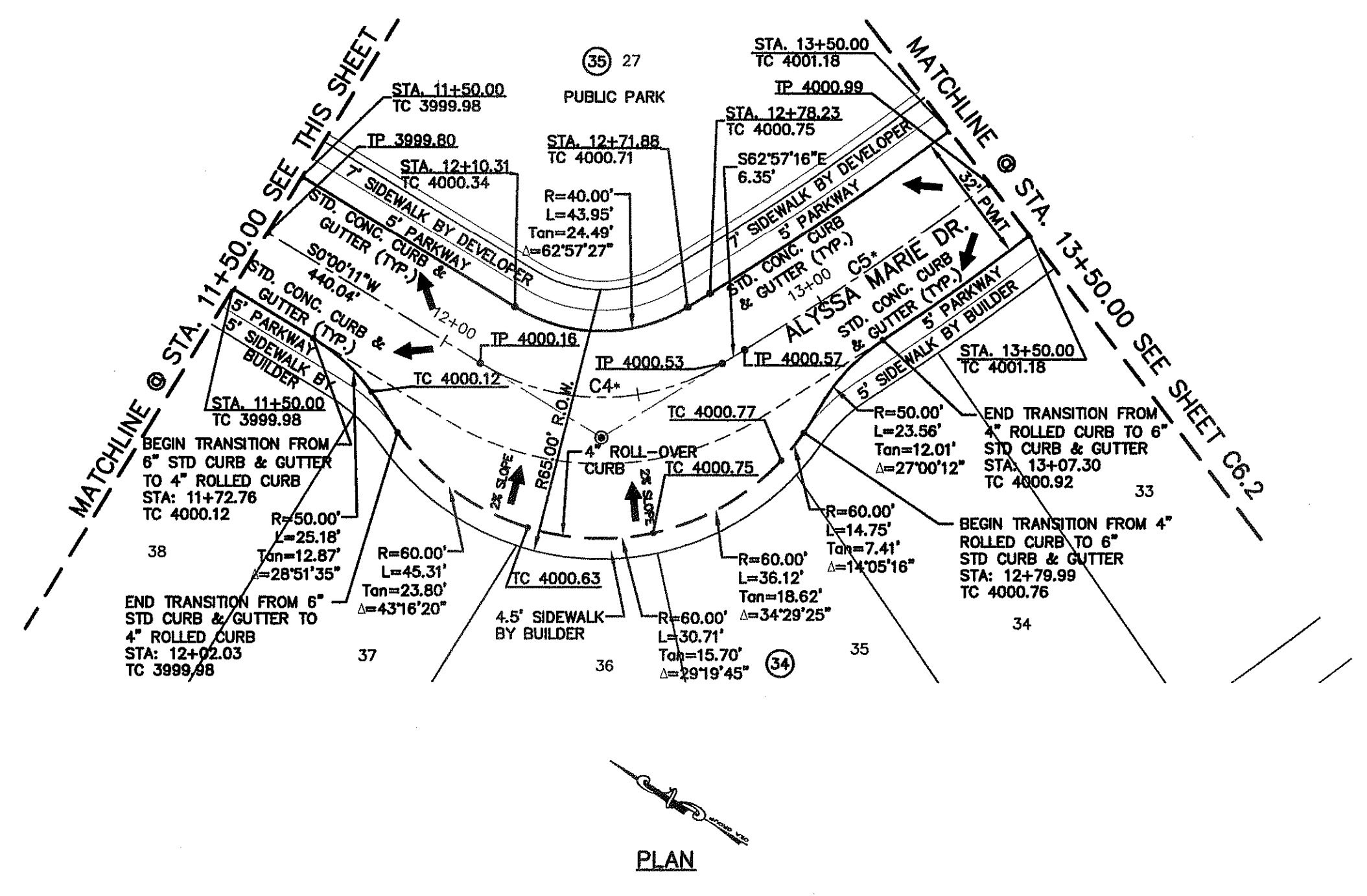
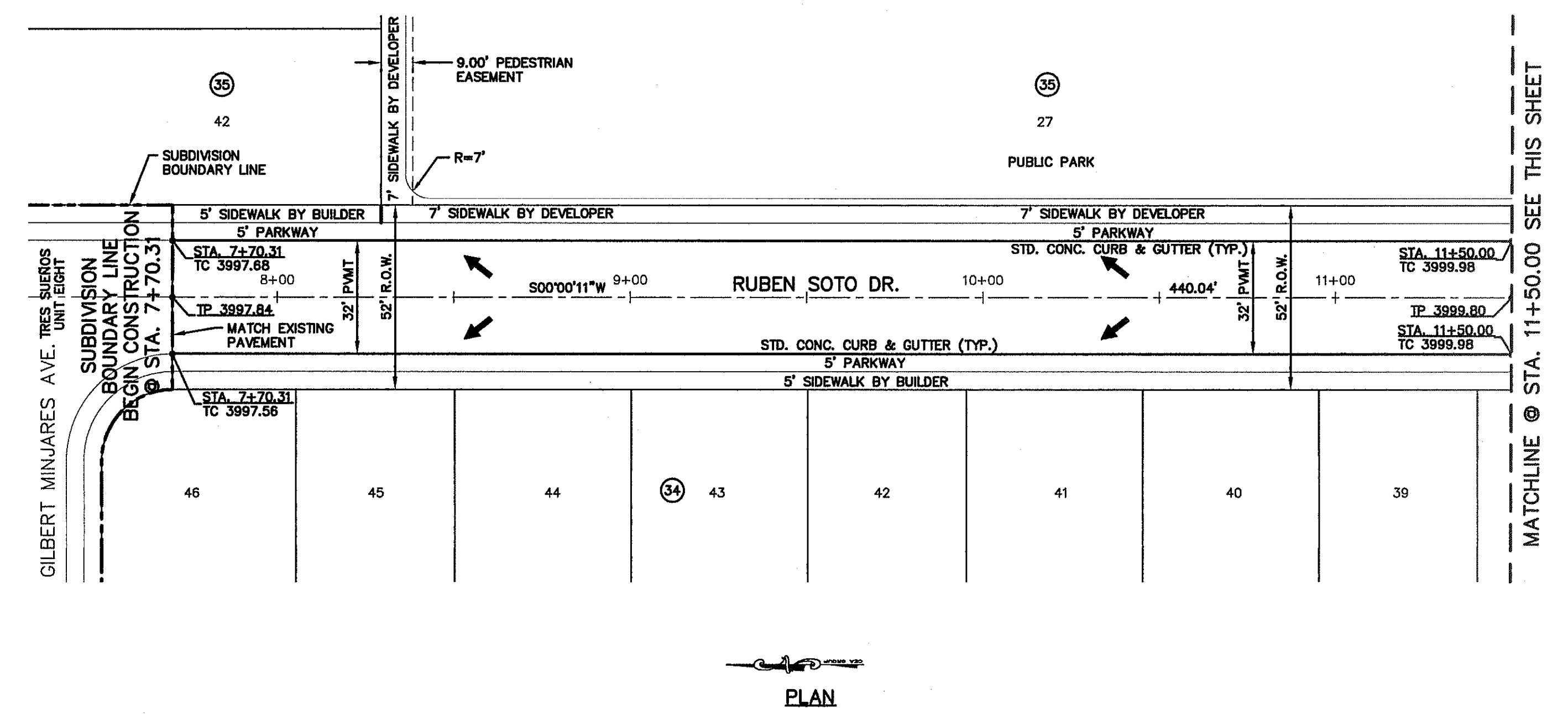
WHEELCHAIR RAMP TO BE CONSTRUCTED BY DEVELOPER (TYP.)

PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.

REFERENCES - BENCHMARKS

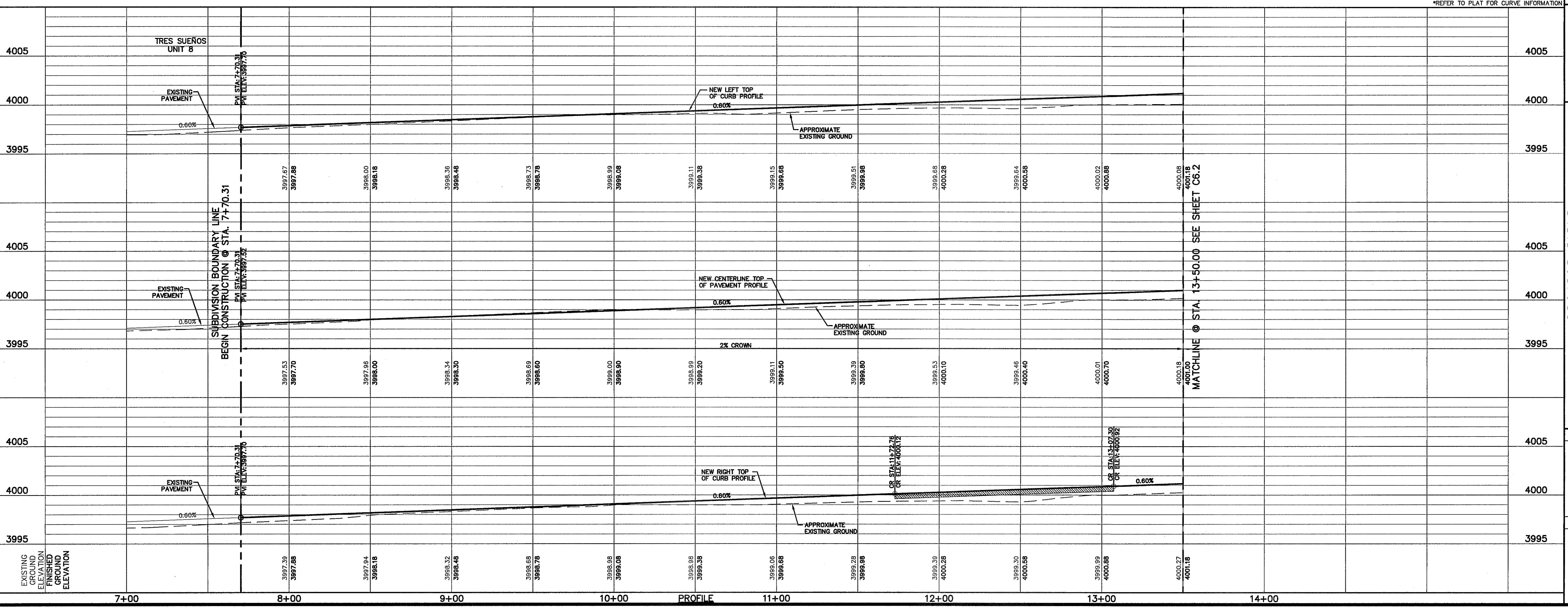
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEN BLVD. STATION 43+37.6 A DISTANCE OF 67.59 FEET FROM MONUMENT TO POINT OF CURVE CENTERLINE. MONUMENT AVENUE CITY DATUM. ELEVATION: 4005.43

DATE \_\_\_\_\_ REVISIONS \_\_\_\_\_ BY \_\_\_\_\_



PLAN

PLAN



\*REFER TO PLAT FOR CURVE INFORMATION

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

Contour Interval: N/A

DATE: SEPTEMBER 2013

DESIGN BY: J.H.

DRAWN BY: J.H.

CHKD. BY: J.L.A.

APP'D. BY: J.L.A.

JOB No. 2000-197-LD

PROJECT TITLE

**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**RUBEN SOTO DR. -  
ALYSSA MARIE DR.  
PLAN & PROFILE  
FROM STA. 7+70.31  
TO STA. 13+50.00**

SHEET NO.

**C6.1**

S:\2000\2000-197-LD\0005\Construction\Drawings\Improvement\Plan\C6.1-C6.2.dwg, 2 Plotter: 3010-A4-3636, Model: 760.dwg, C1, 19/09/2013 10:03:51 AM



UTILITY LOCATOR SERVICES	
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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

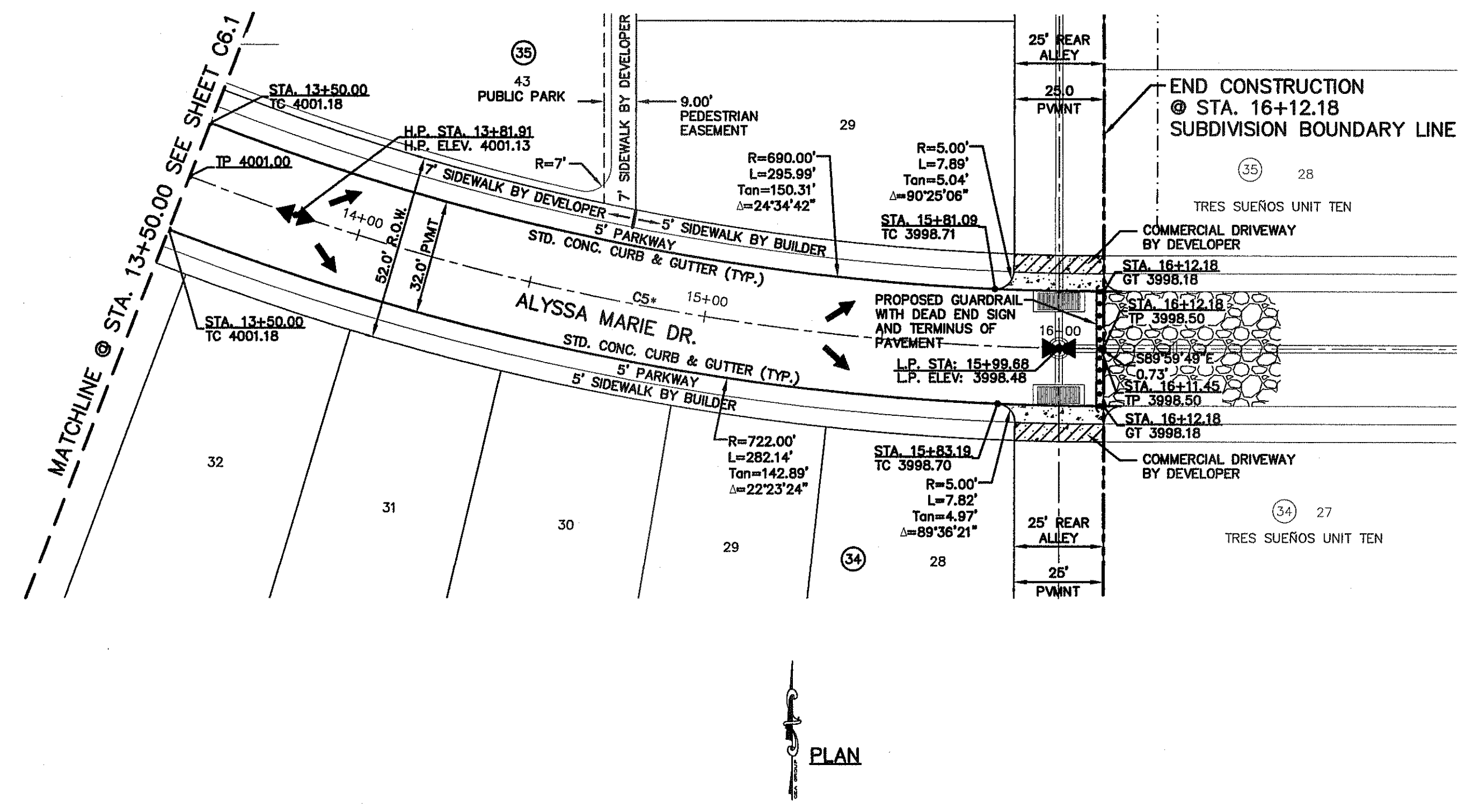
**WARNING I BEFORE YOU DIG**

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

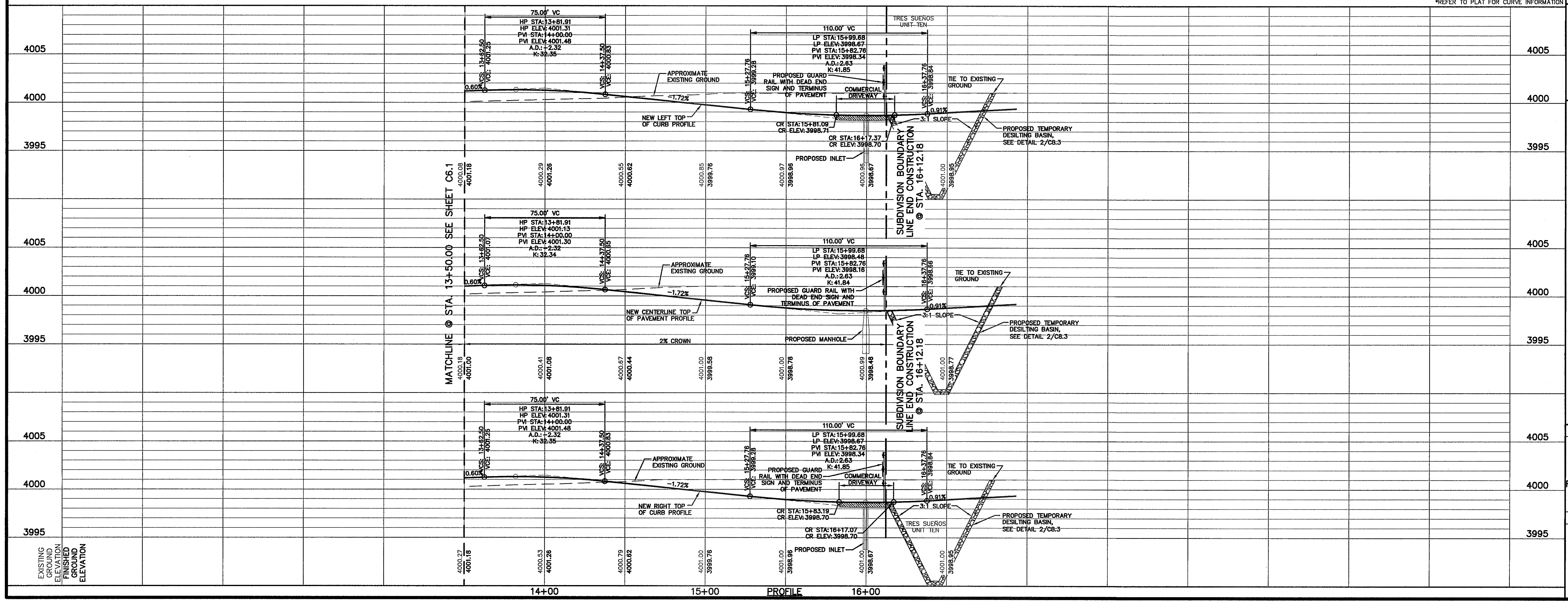
FOR FIELD LOCATING EXISTING UTILITIES

**LEGEND:**

- WHEELCHAIR RAMP TO BE CONSTRUCTED BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.
- SIDEWALK BY DEVELOPER, 2% MAX. CROSS SLOPE. SEE DETAIL 1/C7.2



PLAN

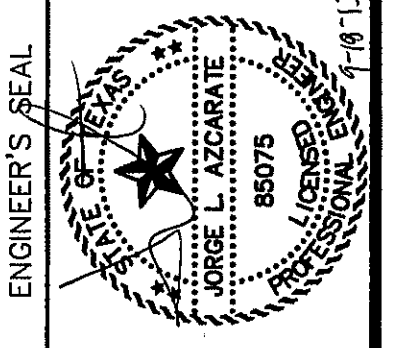


PROFILE

\*REFER TO PLAT FOR CURVE INFORMATION

DATE	REVISIONS	BY

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SCALE: 1" = 30'  
Horizontal: 1" = 30'  
Vertical: 1" = 3'  
Contour Interval: N/A  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.G.  
APPVD. BY: J.L.A.  
JOB No. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**RUBEN SOTO DR. - ALYSSA MARIE DR. PLAN & PROFILE FROM STA. 13+50.00 TO STA. 16+12.18**

SHEET NO.

**C6.2**

S:\2008\2008-15\150\1505\Construction\_Improvements\Plan\06.1-C6.2\_RUBEN\_SOTO\_DR.-ALYSSA\_MARIE\_Profile.dwg, C6.2, 9/16/2013 11:45:57 AM



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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

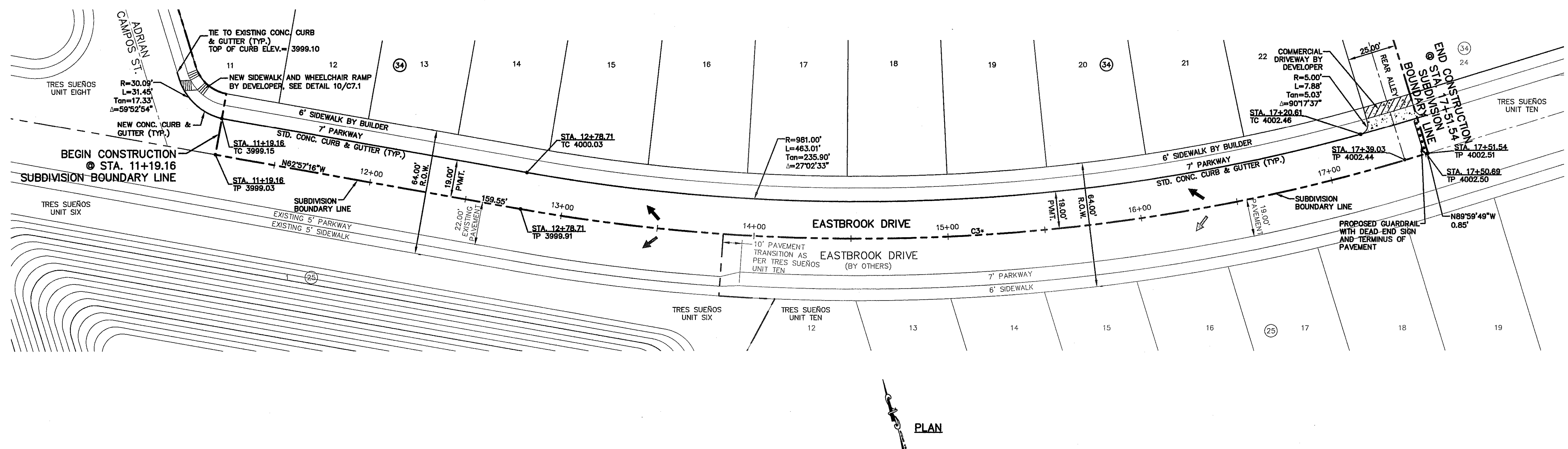
**WARNING!**  
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1-800-DIG-TESS  
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

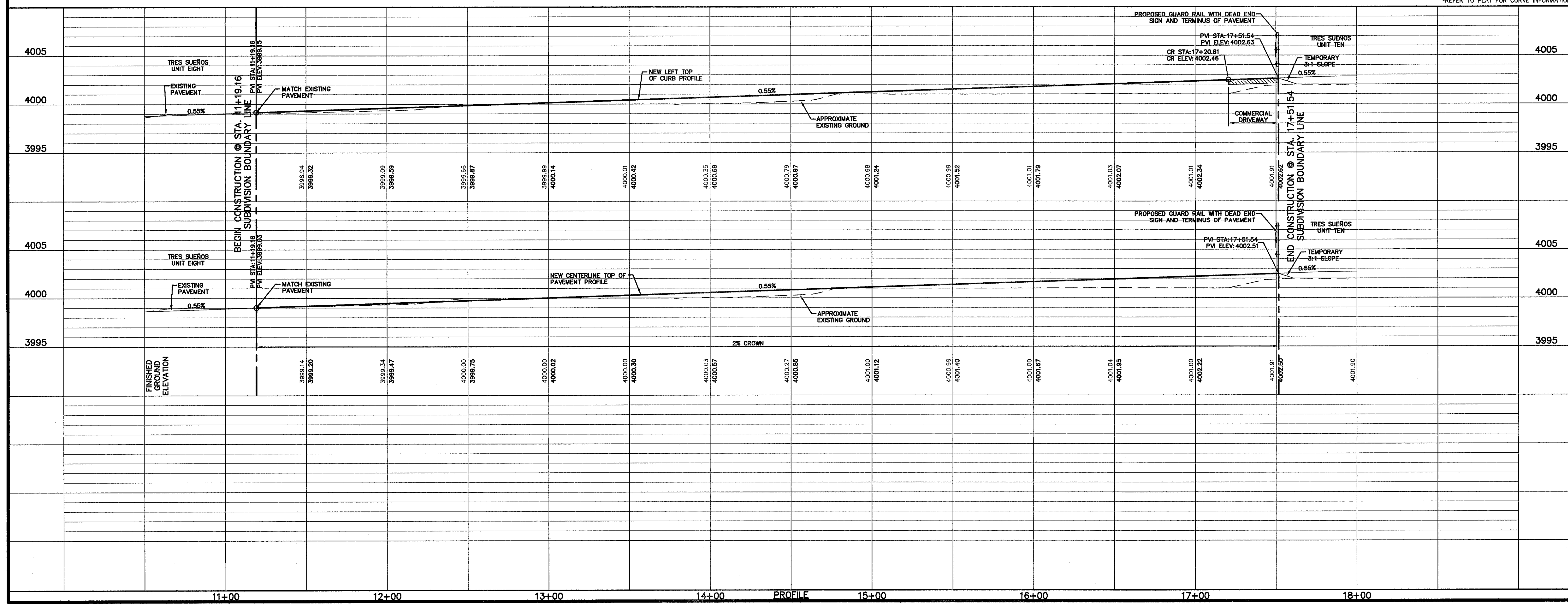
**LEGEND:**

- WHEELCHAIR RAMP TO BE CONSTRUCTED BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.
- SIDEWALK BY DEVELOPER, 2% MAX. CROSS SLOPE. SEE DETAIL 1/C7.2



PLAN

\*REFER TO PLAN FOR CURVE INFORMATION



DATE	REVISIONS	BY

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. S094337E A DISTANCE OF 677.98 FEET FROM THE INTERSECTION OF RICH BLVD. AND PANA AVENUE CITY DATUM. ELEVATION: 4005.40

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4712 Woodrow Wilson, Ste. F El Paso, TX 79924  
Office: 915.544.6222 Fax: 915.544.6203 www.csaengineers.com

ENGINEER'S SEAL

DESIGNED BY: J.H.  
DRAWN BY: J.H.  
CHECKED BY: J.L.A.  
APPROVED BY: J.L.A.

DATE: SEPTEMBER 2013  
CONTOUR INTERVAL: N/A

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

PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**EASTBROOK DRIVE PLAN & PROFILE FROM STA. 11+19.16 TO STA. 17+51.54**

SHEET NO.  
**C6.3**



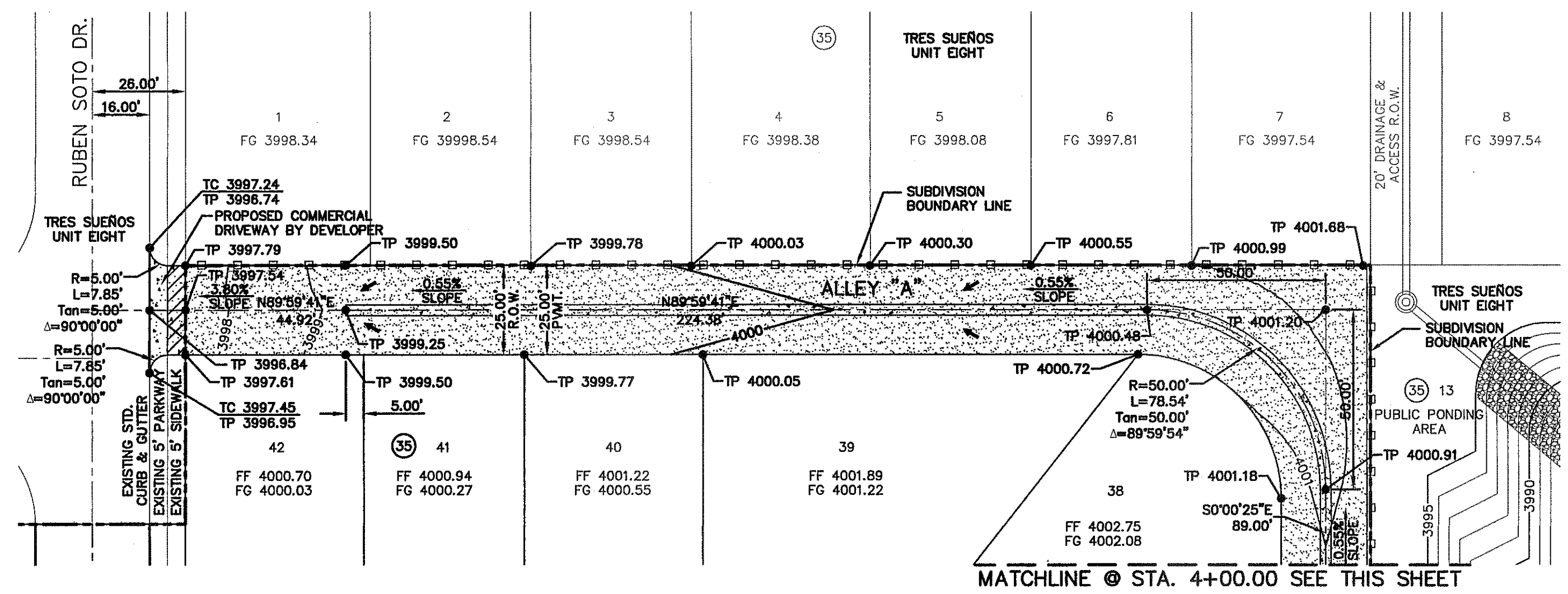
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3788
U.S. SPRINT TELECOMM	(800) 521-0579

**WARNING I  
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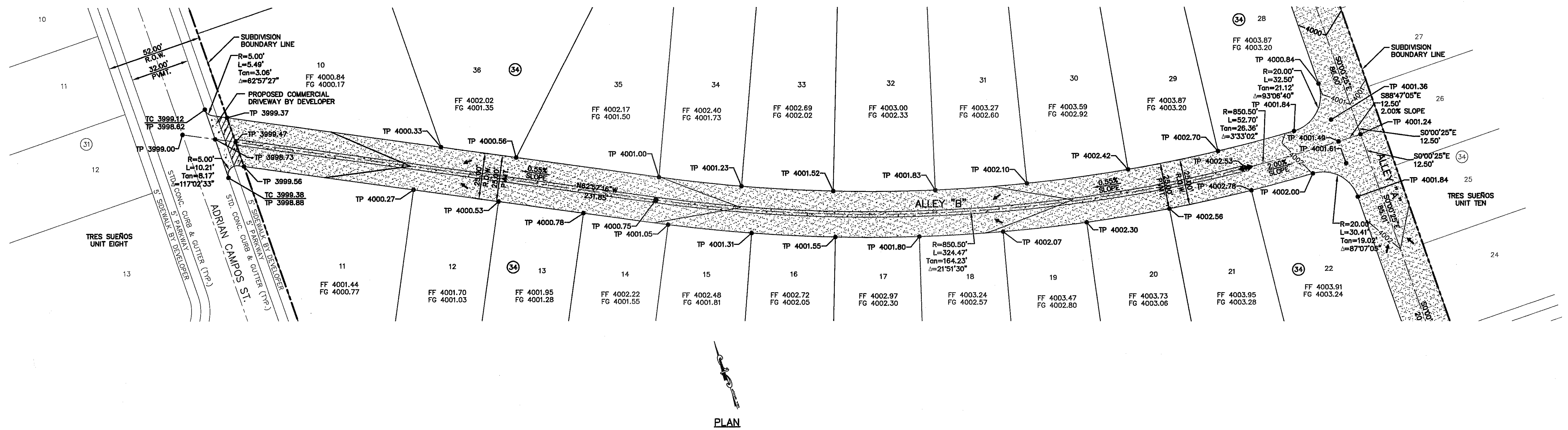
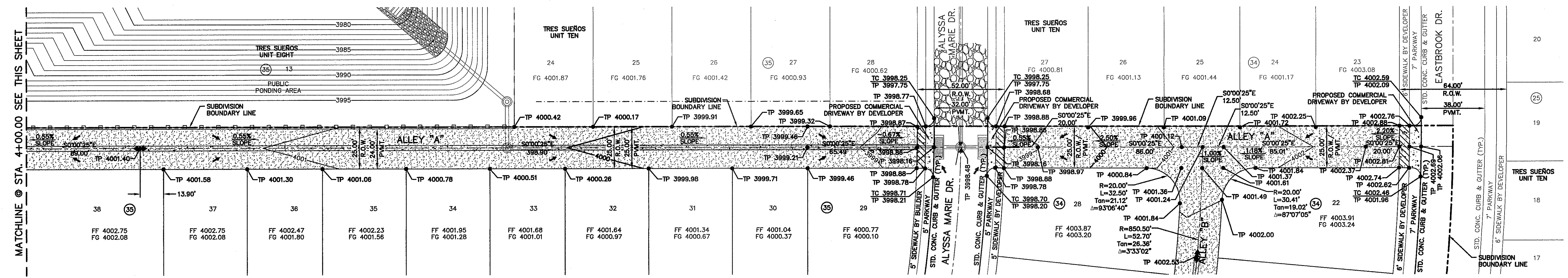
CALL  
1-800-DIG-TESS  
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY



- LEGEND:**
- WHEELCHAIR RAMP TO BE CONSTRUCTED BY DEVELOPER (TYP.)
  - NEW 4' HIGH RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)
  - NEW 4' HIGH RETAINING ROCKWALL (3'-9' RETAINING HEIGHT)
  - PROPOSED ASPHALT PAVEMENT
  - SIDEWALK BY DEVELOPER, 2% MAX. CROSS SLOPE. SEE DETAIL 1/C7.2
  - CONCRETE VALLEY GUTTER SEE DETAIL 4/C7.3



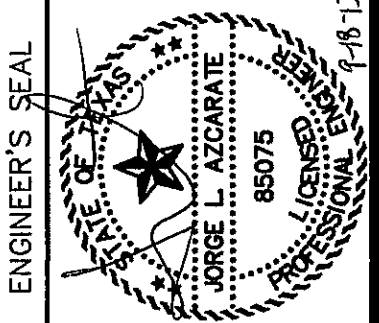
**CSA**

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TEXAS REGISTERED ENGINEERING FIRM F-464

4712 Woodrow Bean, Ste. F El Paso, TX 79924

Office: 915.544.5232 Fax: 915.544.5233 www.csaengineers.com



SCALE: 1" = 30'

Horizontal: 1" = 30'

Vertical: 1" = 10'

Contour Interval: 1.0'

DATE: SEPTEMBER 2013

DESIGN BY: J.H.

DRAWN BY: J.H.

CHKD. BY: J.L.A.

APPD. BY: J.L.A.

JOB No. 2000-157-LD

PROJECT TITLE

**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

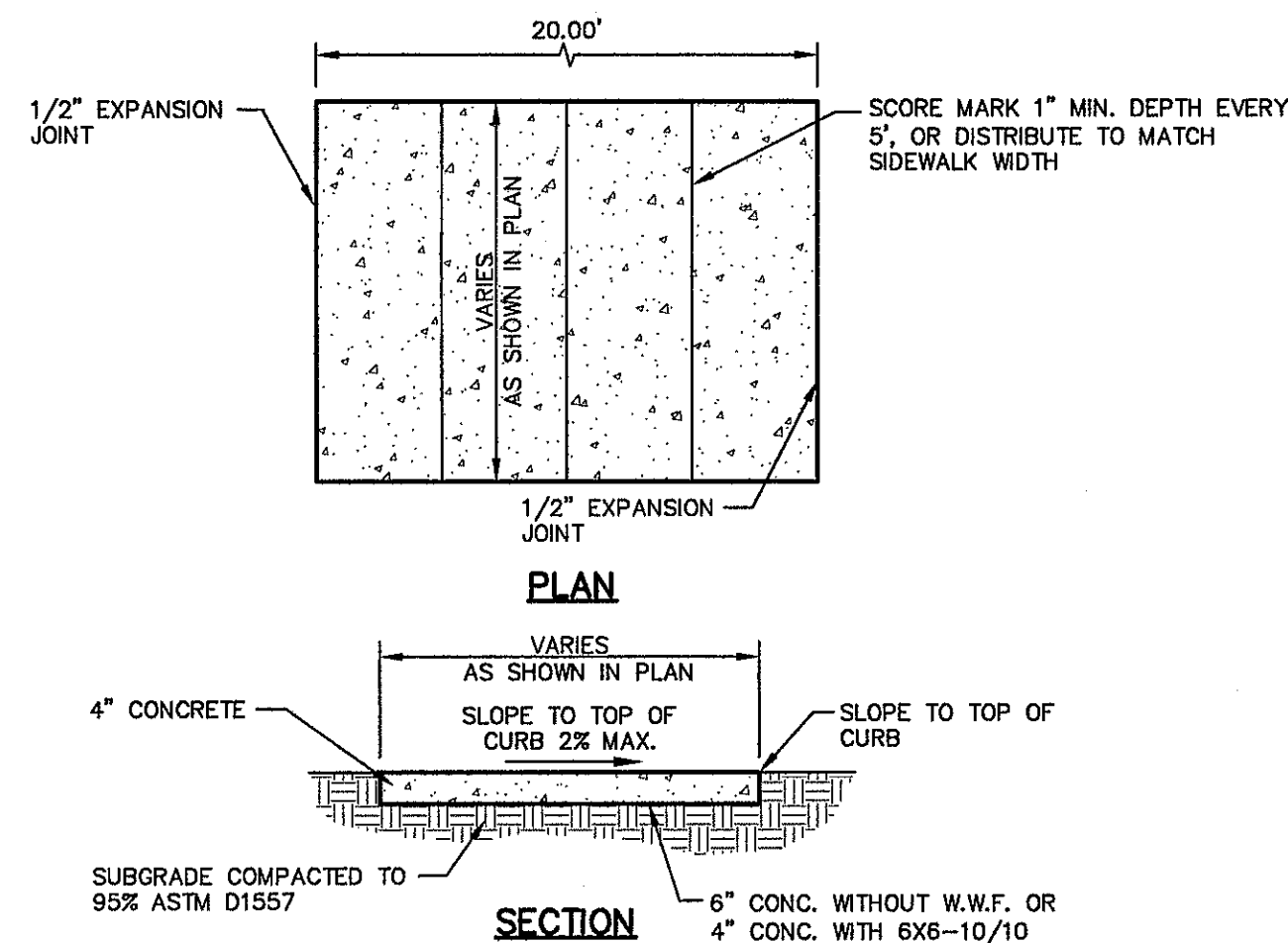
REAR ALLEY "A" PLAN  
AND  
REAR ALLEY "B" PLAN

SHEET NO.

C6.4

S:\2000\2000-157-LD\DWG\Construction\Drawings\Improvements\Plan\C6.4 REAR ALLEY A&B P&P.dwg, Layout, 9/19/2013 8:07:05 AM

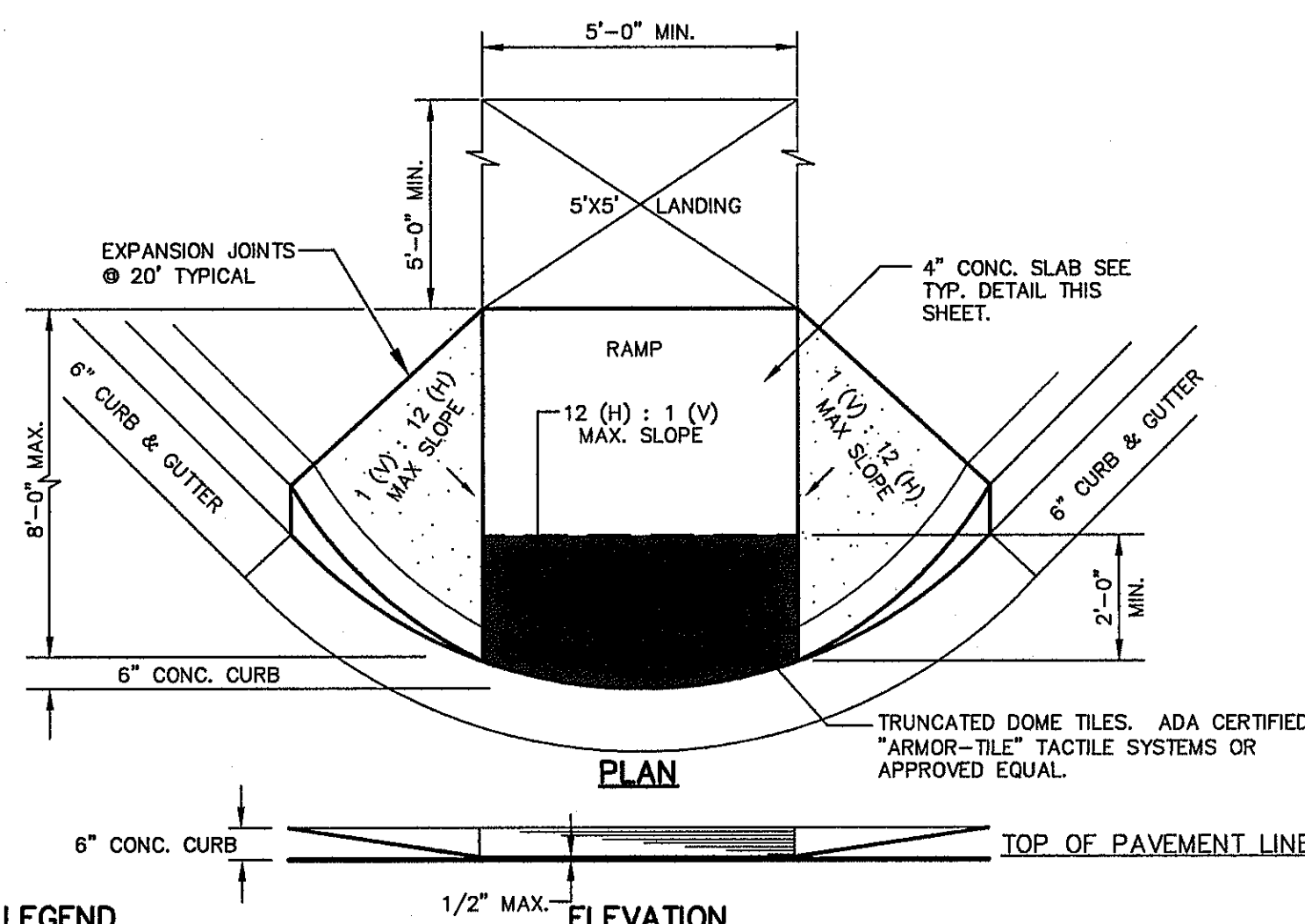




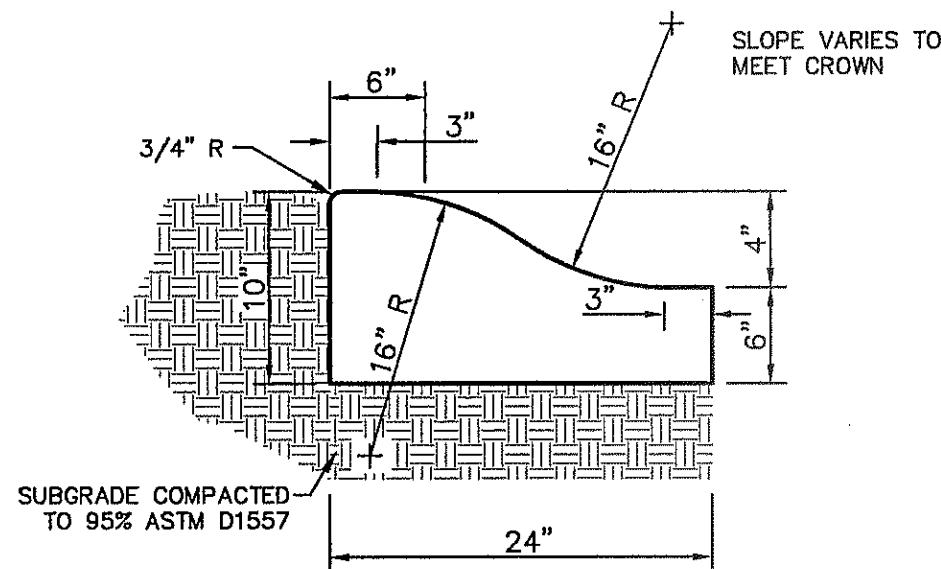
**SIDEWALK NOTES:**

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.

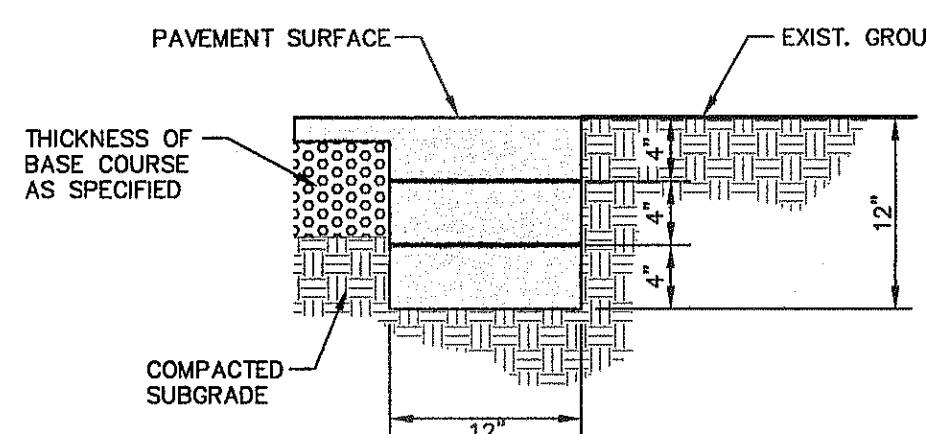
**1 SECTION-SIDEWALK/SLAB**  
SCALE: 1" = 2'-0"



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

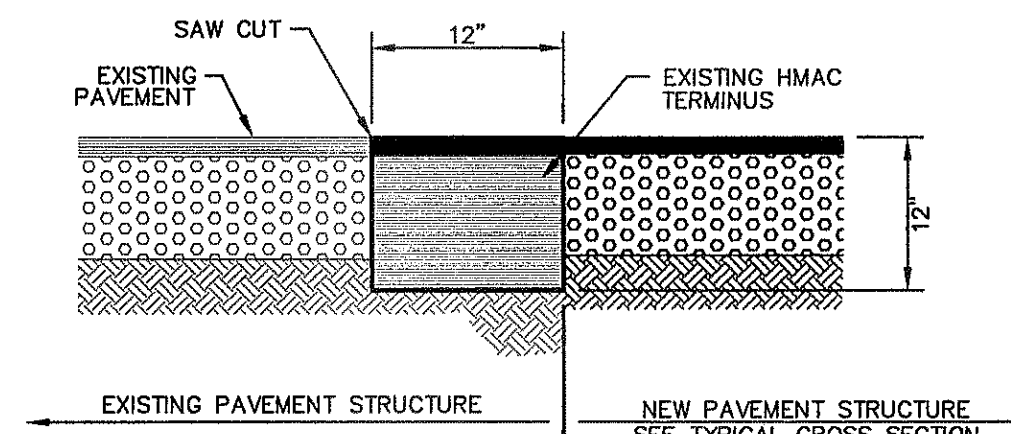


**3 WHEELCHAIR RAMP STREET PLAN**  
SCALE: 1" = 30'

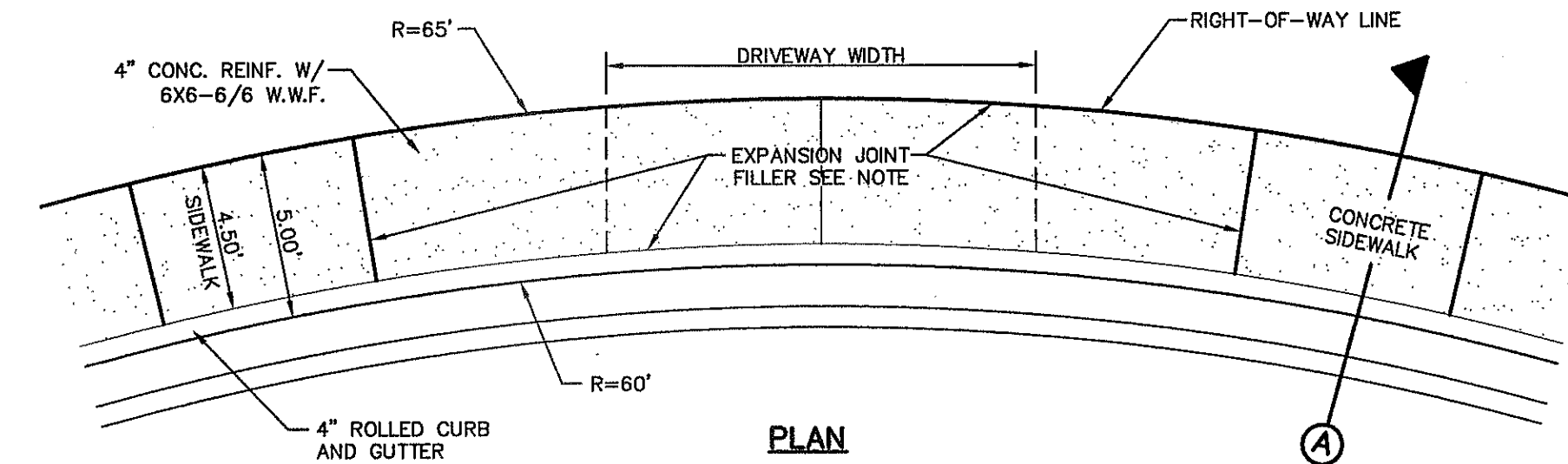


- NOTES:**
1. TERMINUS MUST BE CONSTRUCTED IN 4" LIFTS.
  2. FINAL LIFT MUST BE PLACED WITH FINAL PAVEMENT COURSE.

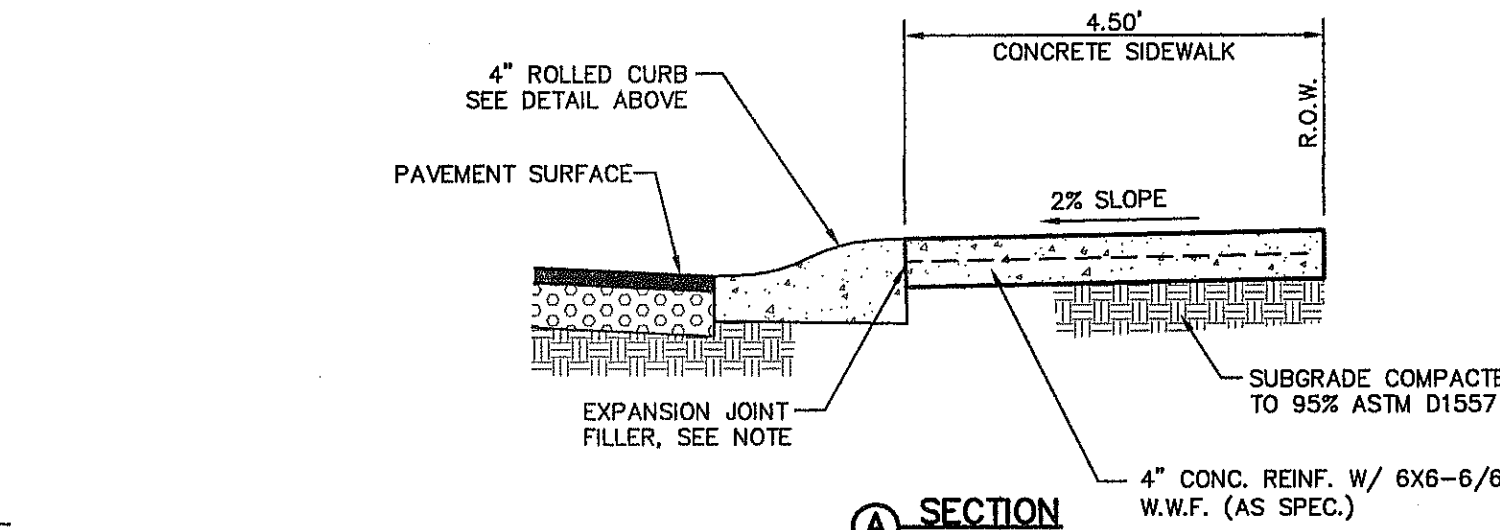
**7 TERMINUS OF STREET**  
SCALE: 1" = 1'-0"



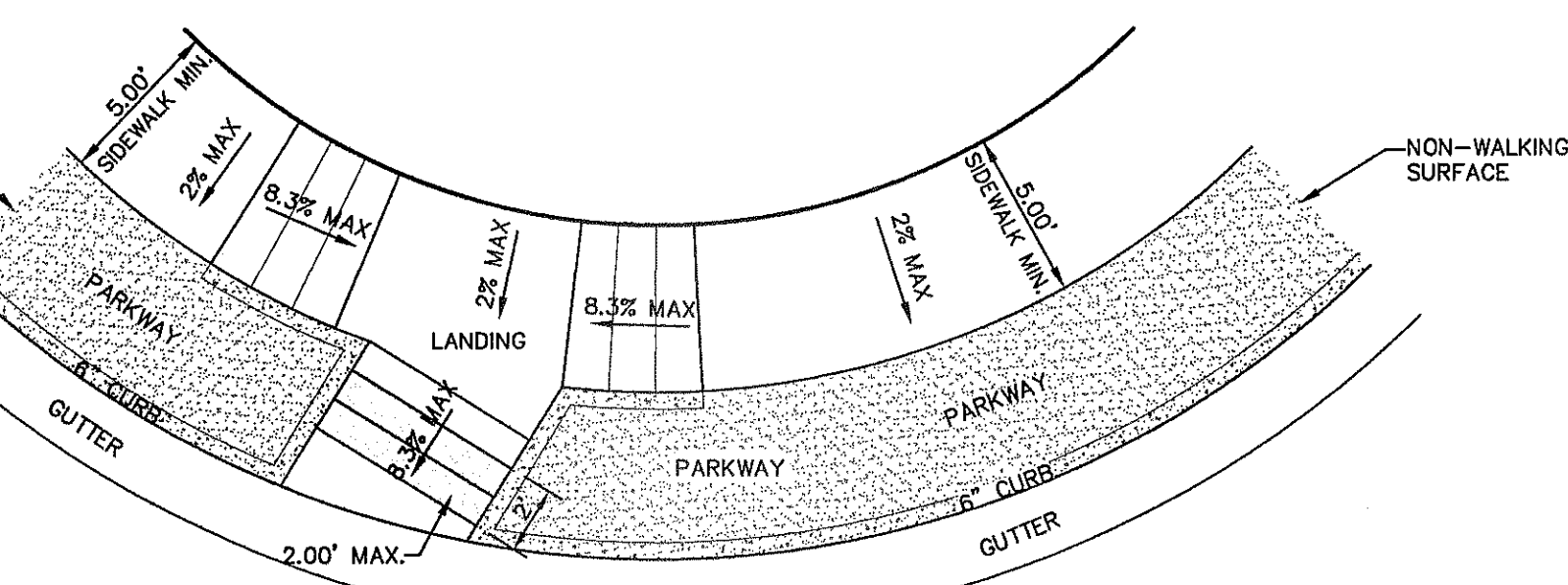
**8 TYPICAL PAVEMENT JOINT SECTION**  
SCALE: N.T.S.



**9 HEEL (65' R) DRIVEWAY DETAIL**  
SCALE: N.T.S.



**6 4\"/>**



**11 TRUNCATED DOME**  
SCALE: N.T.S.

**LEGEND**

DETECTABLE WARNING SURFACE SHALL BE A MINIMUM OF 70% 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 COUNTY OF EL PASO ROAD AND BRIDGE DEPARTMENT. 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.

- NOTES:**
1. ALL CONCRETE SHALL BE 3,000 P.S.I. MIN. AT 28 DAYS.
  2. CONCRETE SLABS SHALL BE A MIN. 4" THICK.
  3. ALL NEW RAMPS SHALL COMPLY WITH T.A.S. AND A.D.A. REQUIREMENTS. ANY SECTIONS NOT CONFORMING WILL BE REMOVED AT THE CONTRACTORS EXPENSE.
  4. ALL ADA RAMPS SHALL BE BUILT BY DEVELOPER.
  5. 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.
  6. THE MINIMUM SIDEWALK WIDTH IS 5' 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.
  7. LANDINGS SHALL BE 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
  8. 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.
  9. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED.
  10. ALL CONCRETE SIDEWALK SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
  11. RAMP TEXTURES MUST CONSIST OF TRUNCATED DOME SURFACES. TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED. REFER TO TRUNCATED DOME DETAIL.
  12. 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.
  13. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND RAMP SURFACES IS 2%.
  14. 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).

**5 TYPICAL WHEELCHAIR RAMP DETAIL**  
SCALE: N.T.S.

**10 DIRECTIONAL RAMP @ INTERSECTION**  
N.T.S.

**LEGEND**

DETECTABLE WARNING SURFACE SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A NOMINAL DIAMETER OF 0.9 IN. A NOMINAL HEIGHT OF 0.2 IN AND A CENTER TO CENTER NOMINAL SPACING OF 2.35 IN, AND SHALL NOT BE STAGGERED. THE SURFACE SHALL BE A MINIMUM OF 70% 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 CITY OF EL PASO TRANSPORTATION DEPARTMENT. 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.

S:\2000\2000-1670\DWG\Construction\Drawings\Improvement\Plan\07.1 STD DET ALLING.Mxd, 9/19/2013 8:11:52 AM

**REFERENCES - BENCHMARKS**

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEAM BLVD. SUBSTATION A DISTANCE OF 47.59 FEET FROM MONUMENT TO POINT OF CURVE. ELEVATION: 405.40

AVENUE CITY DATUM. ELEVATION: 405.40

DATE	REVISIONS	BY

**ENGINEER'S SEAL**

**TRES SUEÑOS UNIT ELEVEN SUBDIVISION IMPROVEMENTS**

DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.L.A.  
APPVD. BY: J.L.A.  
JOB No. 2000-157-ID

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**PROJECT TITLE**

TRES SUEÑOS UNIT ELEVEN SUBDIVISION IMPROVEMENTS

**SHEET TITLE**

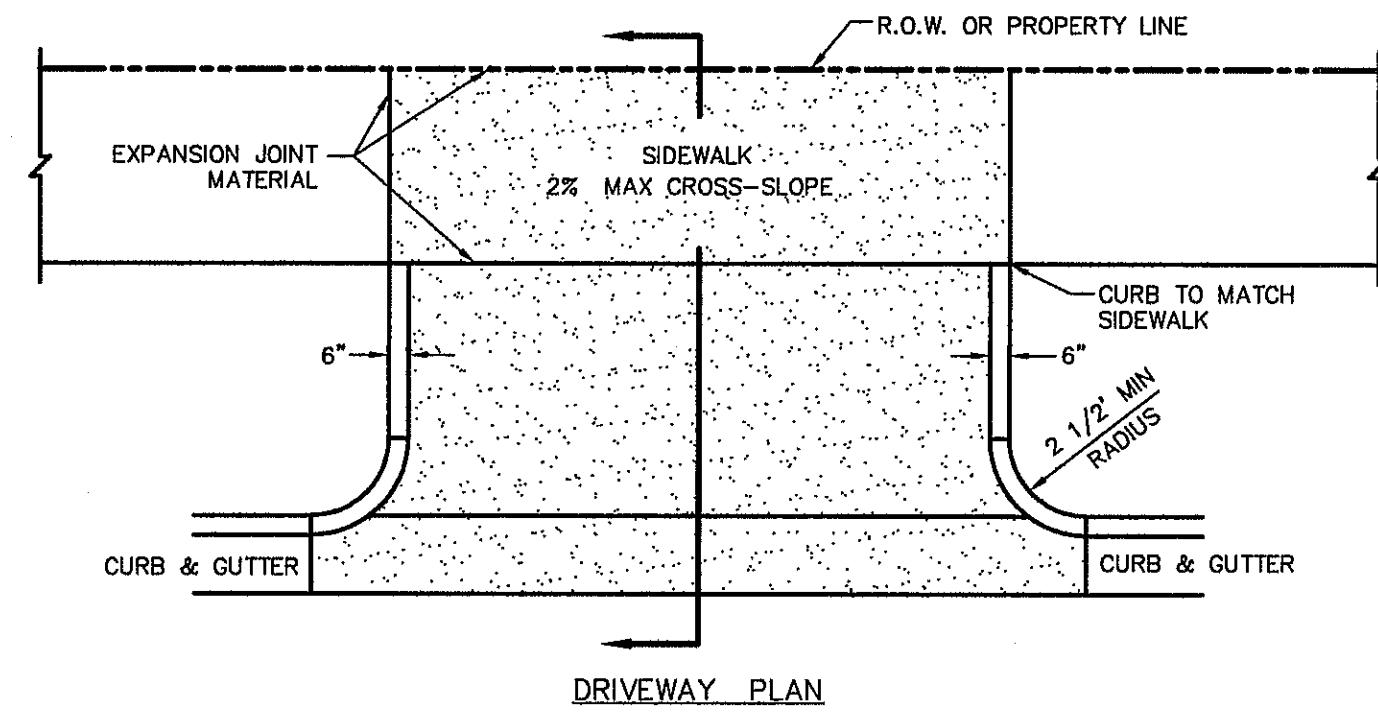
STANDARD DETAILS

(SHEET 1 OF 3)

SHEET NO.

**C7.1**

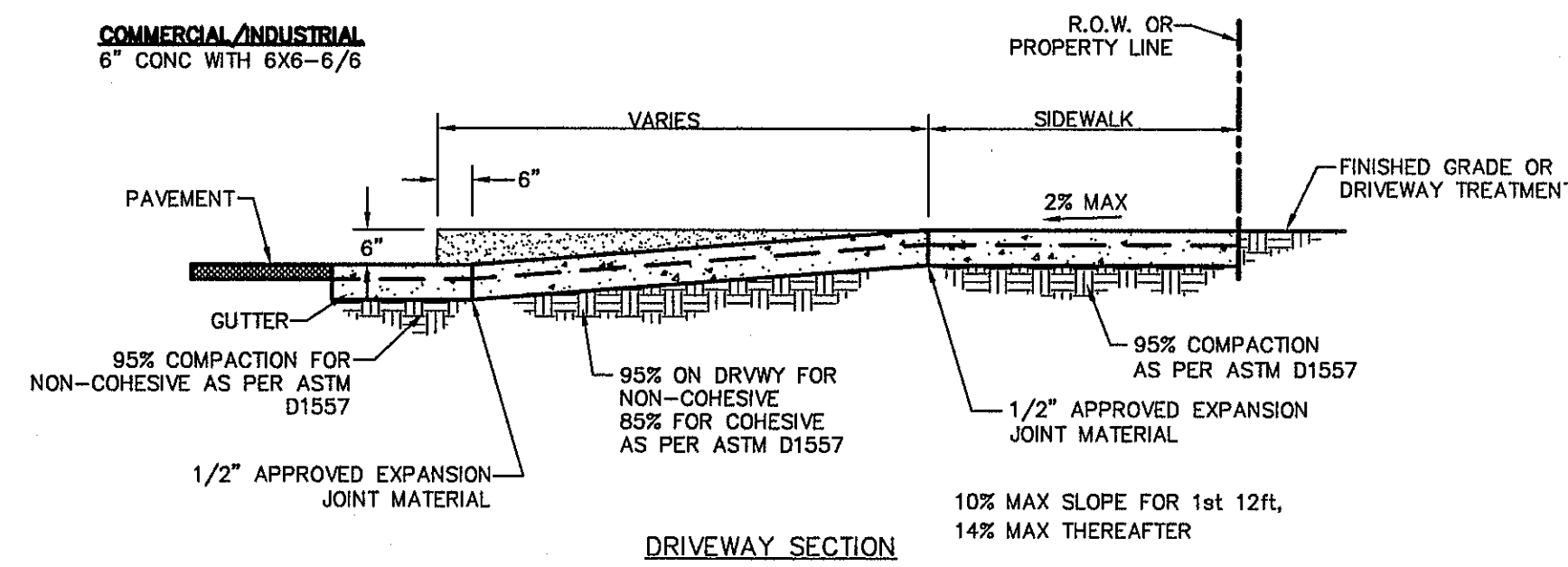




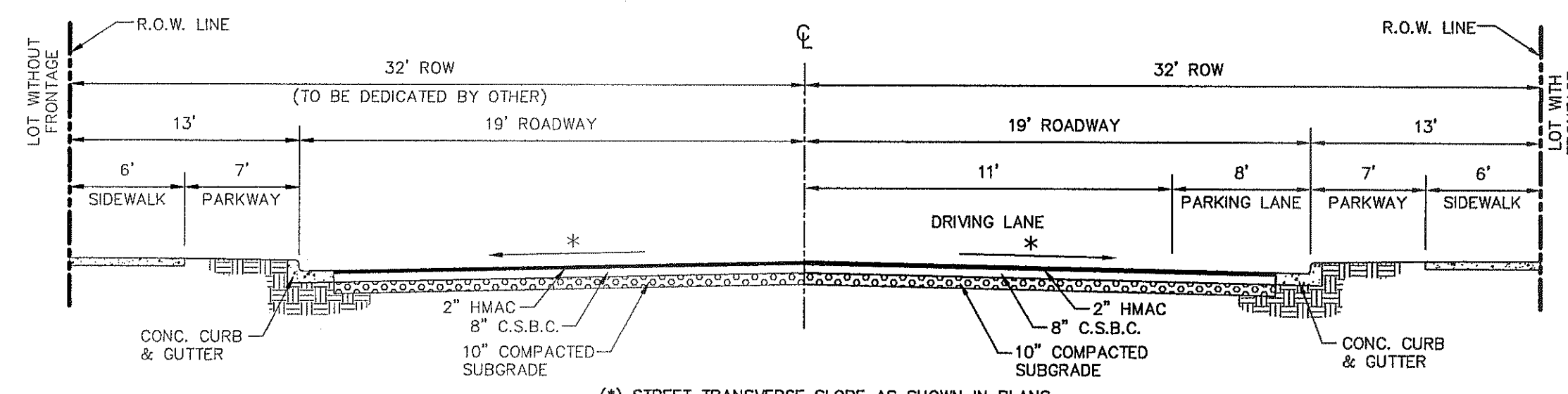
DRIVEWAY WIDTH	MIN	MAX
COMMERCIAL/INDUSTRIAL	24'	35'
RESIDENTIAL (SINGLE FAMILY 60' LOTS)	10'	20'
LESS THAN 60' LOTS, DUPLEX AND TOWN HOMES (REFER TO PLATE 6-16)	15'	25'

**RESIDENTIAL**  
6" CONC WITHOUT W.W.F.  
4" CONC WITH 6X6-10/10

**COMMERCIAL/INDUSTRIAL**  
6" CONC WITH 6X6-6/6



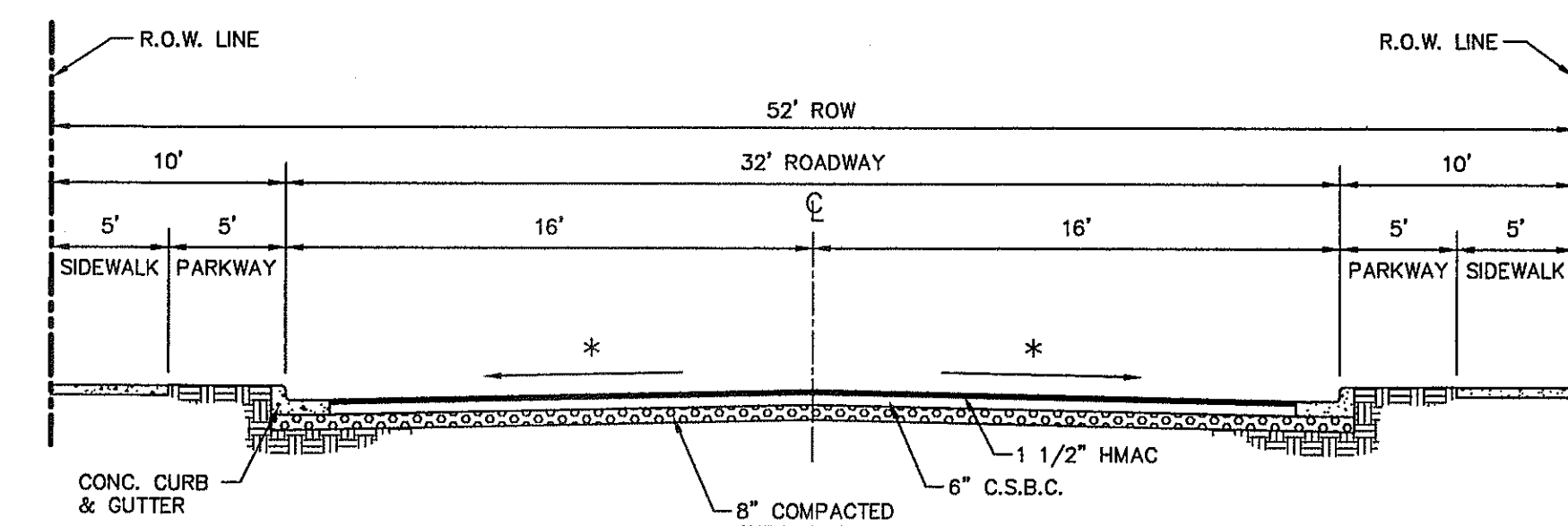
1 CONCRETE APRON FOR DRIVEWAYS/ALLEYS  
SCALE: N.T.S.



(\*) STREET TRANSVERSE SLOPE AS SHOWN IN PLANS  
NOTE: CROSS SECTIONS ARE MINIMUM STANDARD REQUIREMENTS  
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.

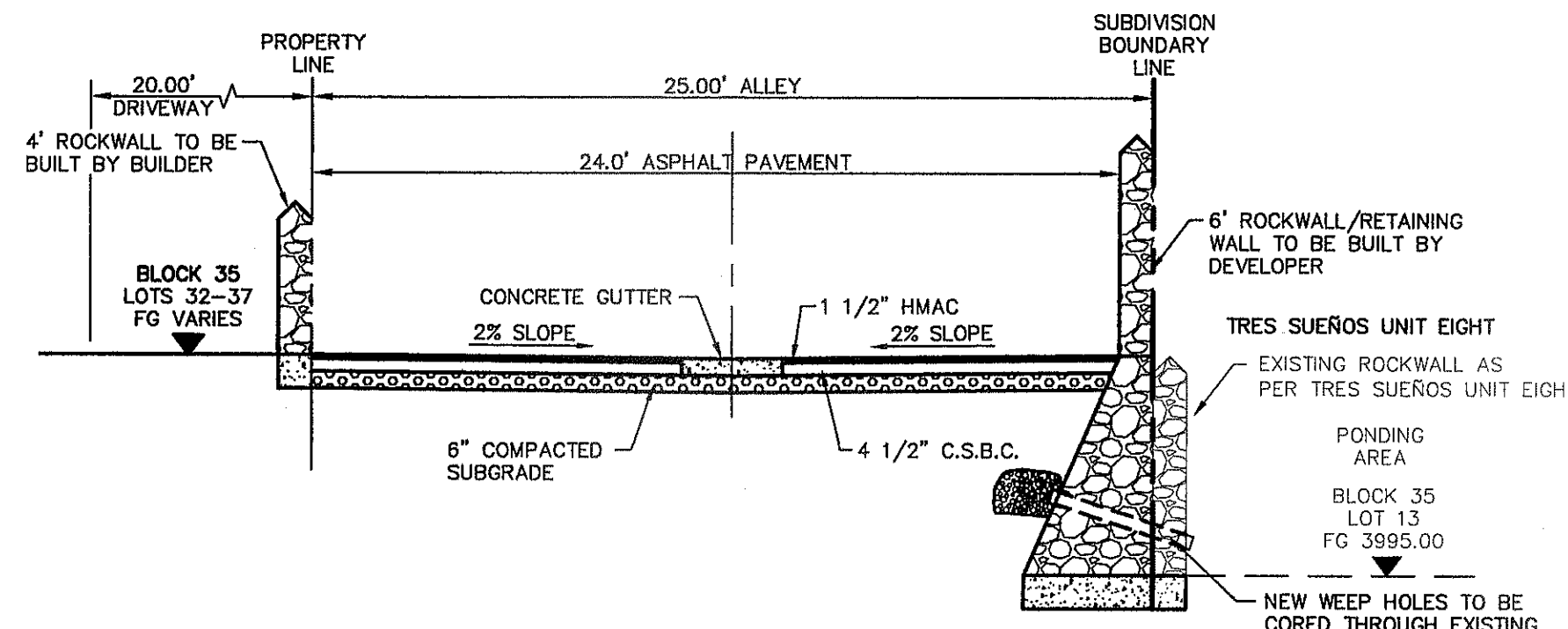
NOTE:  
STREET TREES SHALL BE PLANTED EVERY 30'  
ALONG EASTBROOK DRIVE. NO RESIDENTIAL  
DRIVEWAYS WILL BE ALLOWED DIRECTLY OFF  
OF THESE STREETS.

2 TYPICAL 64' ROW STREET SECTION DETAIL  
SCALE: N.T.S.

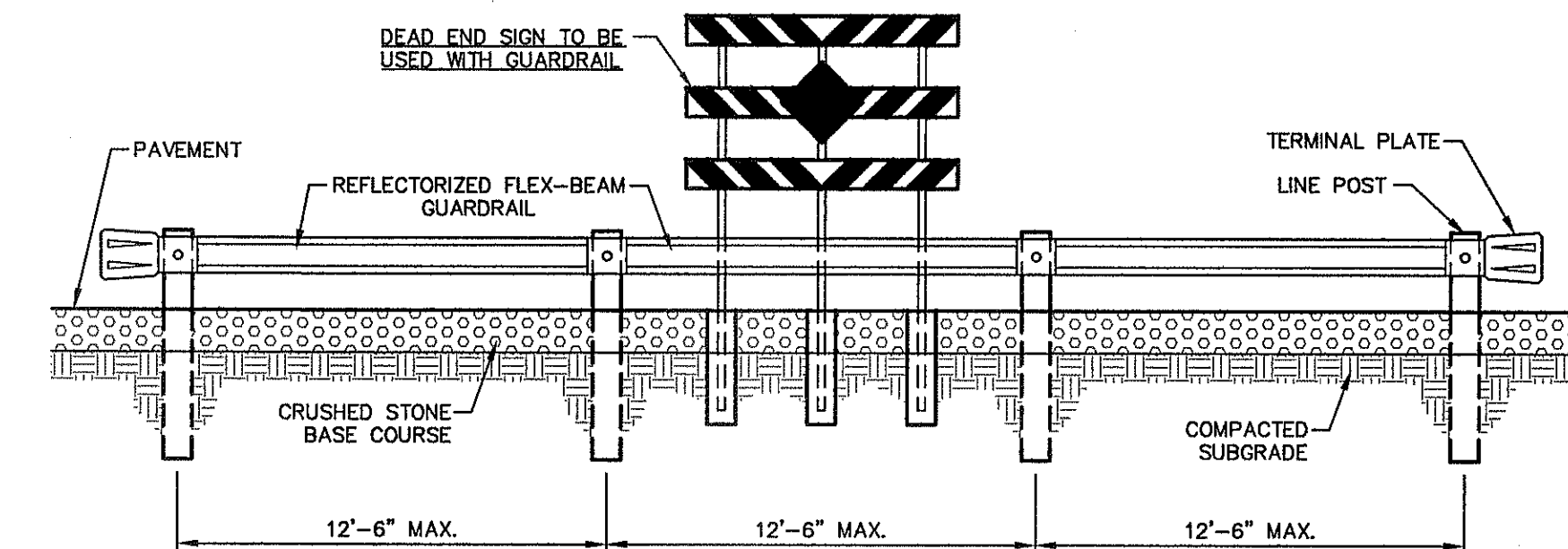


(\*) STREET TRANSVERSE SLOPE AS SHOWN IN PLANS  
NOTE: CROSS SECTIONS ARE MINIMUM STANDARD REQUIREMENTS  
STREET IMPROVEMENTS (FLEXIBLE PAVEMENT DESIGN STRUCTURE) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS: CBR @ EVERY 500' 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.

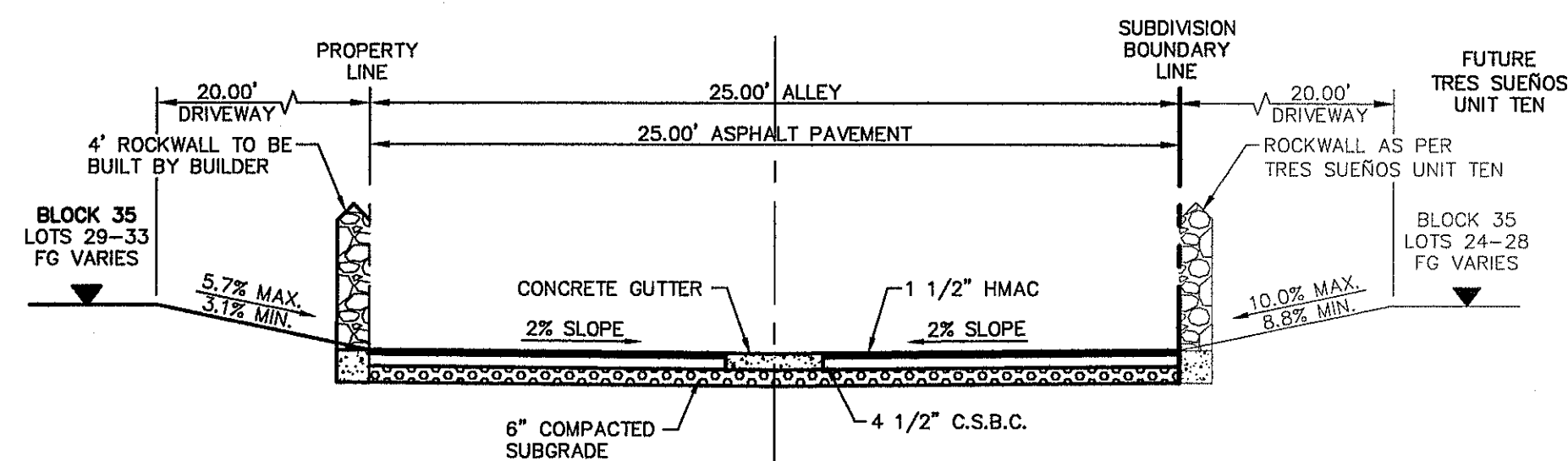
3 TYPICAL 52' ROW STREET SECTION DETAIL  
SCALE: N.T.S.



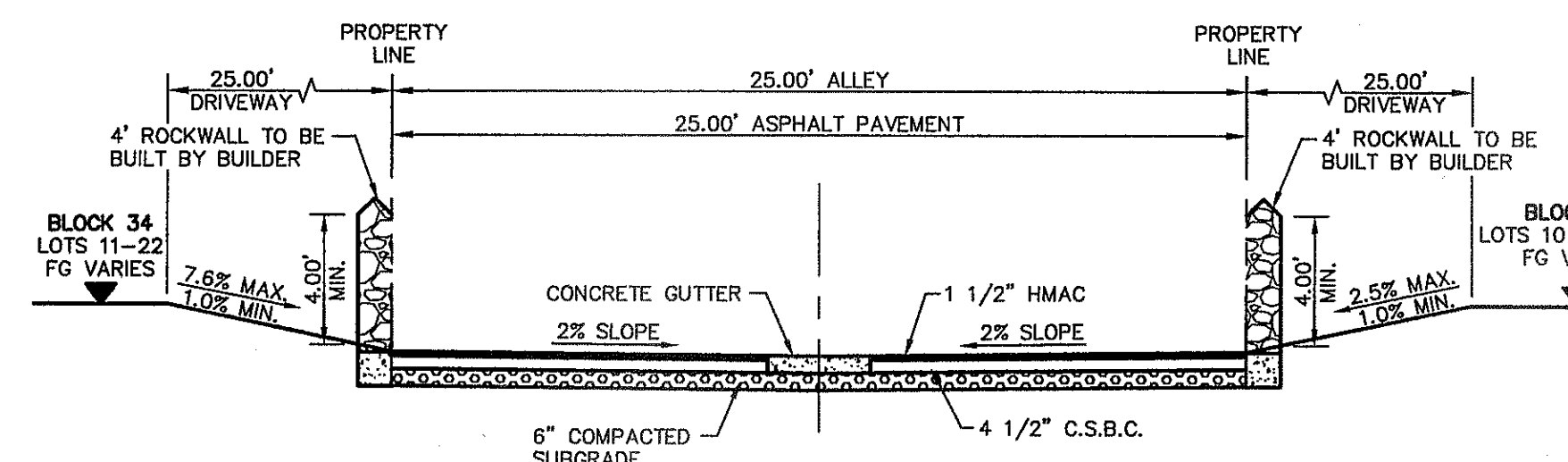
4 TYPICAL 25' ALLEY AT POND SECTION DETAIL  
SCALE: N.T.S.



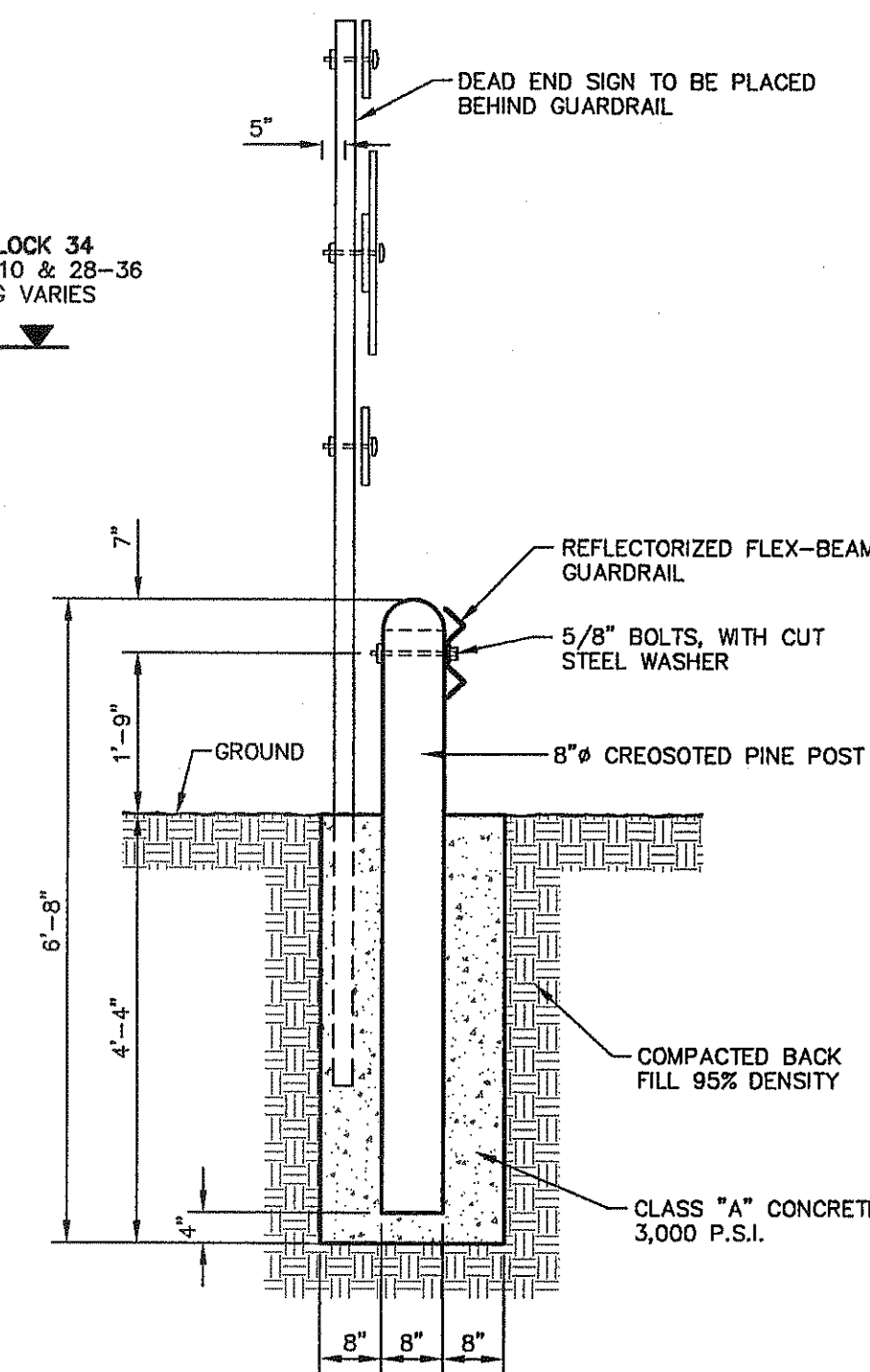
ELEVATION  
SCALE: 1"=5'



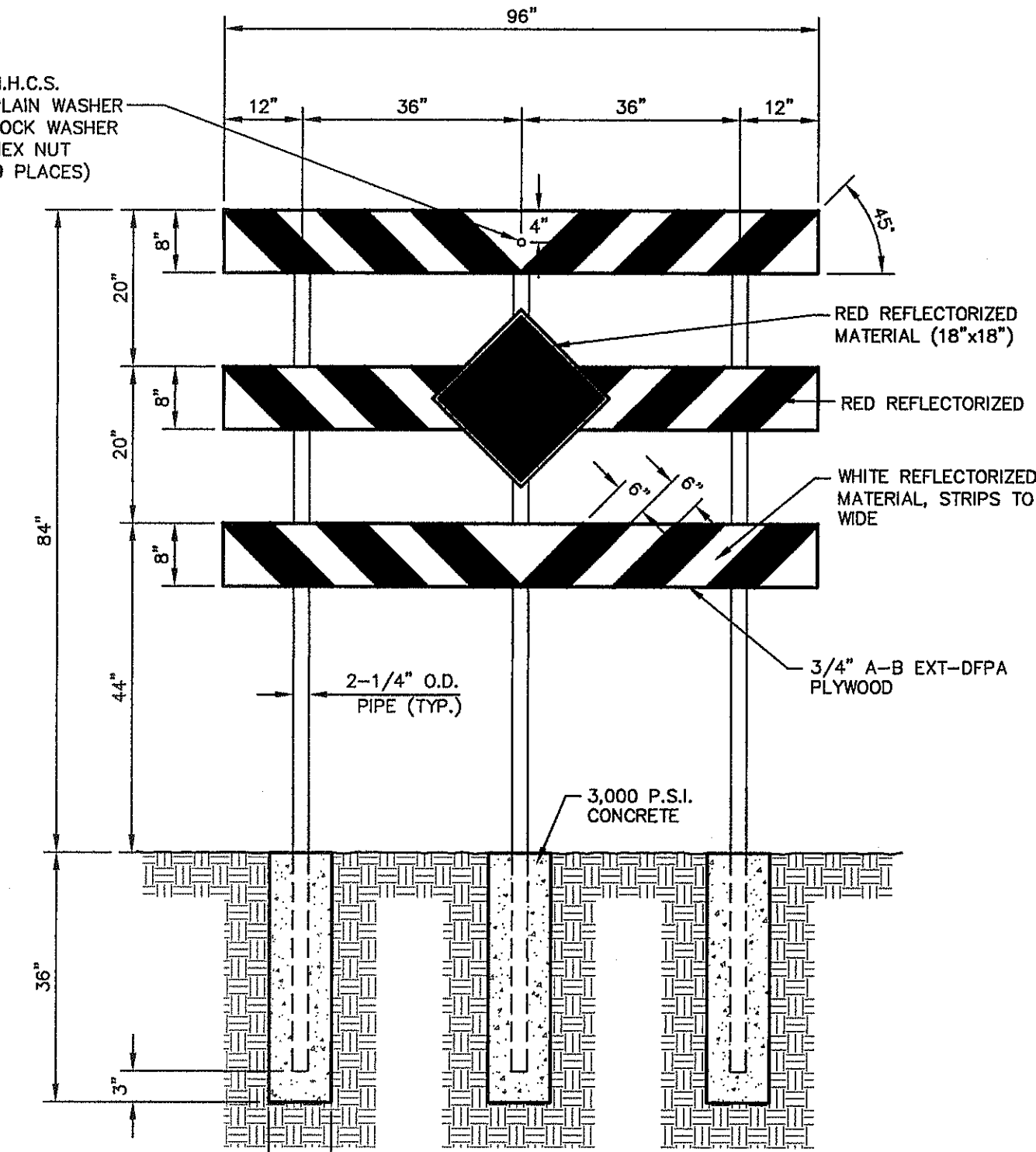
5 TYPICAL 25' ALLEY AT FUTURE SUBDIVISION SECTION DETAIL  
SCALE: N.T.S.



6 TYPICAL 25' ALLEY WITHIN SUBDIVISION SECTION DETAIL  
SCALE: N.T.S.



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



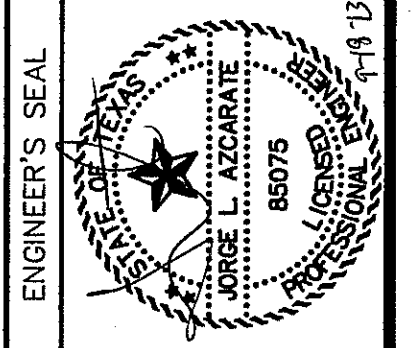
DEAD END SIGN DETAIL  
SCALE: 1" = 2'-0"

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

REFERENCES - BENCHMARKS  
CITY MOUNTAIN AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. SOAKLEY RUSTY RICH BEEM BLVD. FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

DATE	REVISIONS	BY

**oa**  
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4710 Woodhams Park, Ste. F, El Paso, TX 79904  
CDBG #155442322 Fax #915.644.6282 www.oaeng.com



SCALE	N/A
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	SEPTEMBER 2013
DESIGN BY:	J.H.
DRAWN BY:	J.H.
CHECKED BY:	J.G.
APP'D. BY:	J.L.A.
JOB No.	2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

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

C7.2

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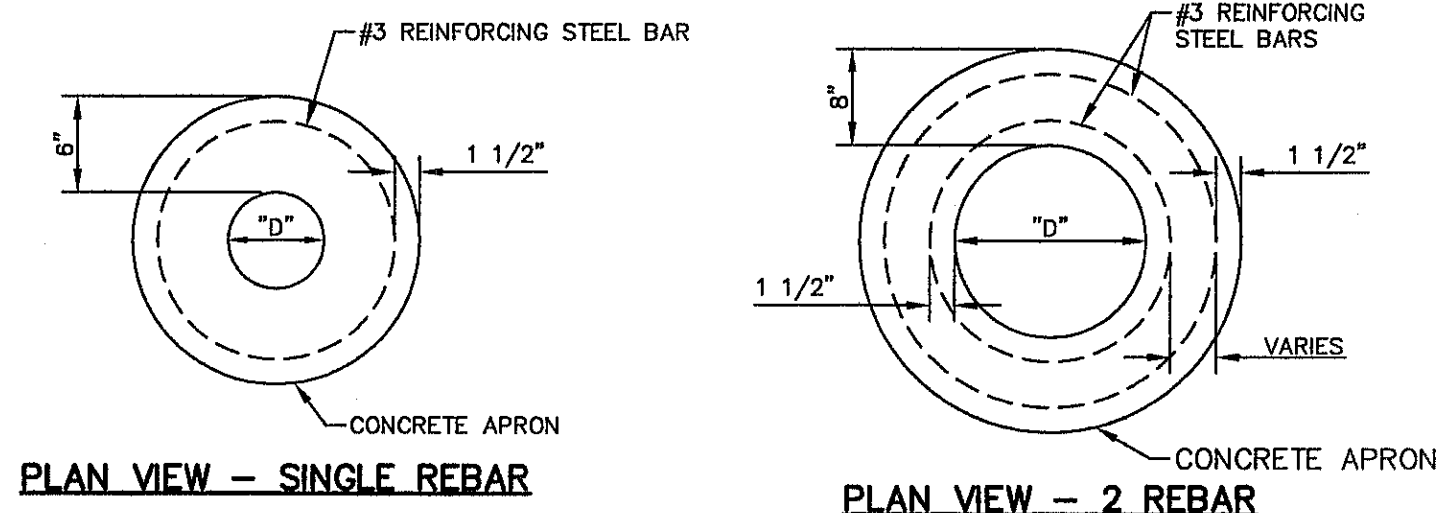


**CONSTRUCTION NOTES**

1. ANY DISTURBED SUBGRADE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 95% DENSITY  $\pm 3\%$  OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
2. ANY DISTURBED COARSE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 100% DENSITY  $\pm 2\%$  OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
3. PROVIDE A MINIMUM OF 1 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
4. REINFORCING SHALL MEET ASTM C-478 AND TRAFFIC LOADING (HS-20).
5. NO. 3 REINFORCING STEEL HOOPS SHALL BE SPACED EQUALLY.

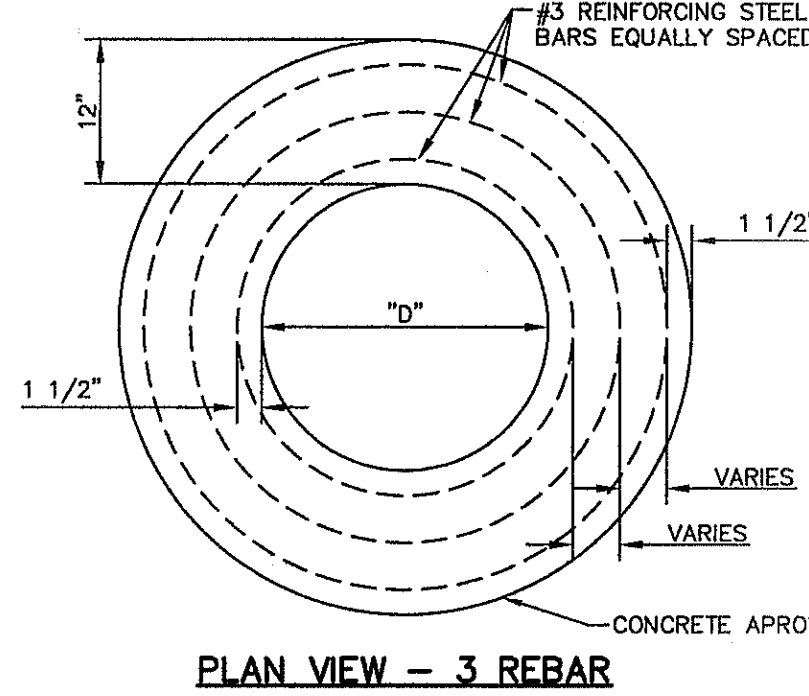
**GENERAL NOTES**

1. THE PENETRATION APRON SHOULD BE CAST IN-PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED).
2. TOPS OF PENETRATION APRON SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED.
3. PENETRATION APRON SHALL BE APPLIED ON SANITARY SEWER MANHOLES, STORM SEWER MANHOLES, WATER VALVES, AND MONUMENTS.

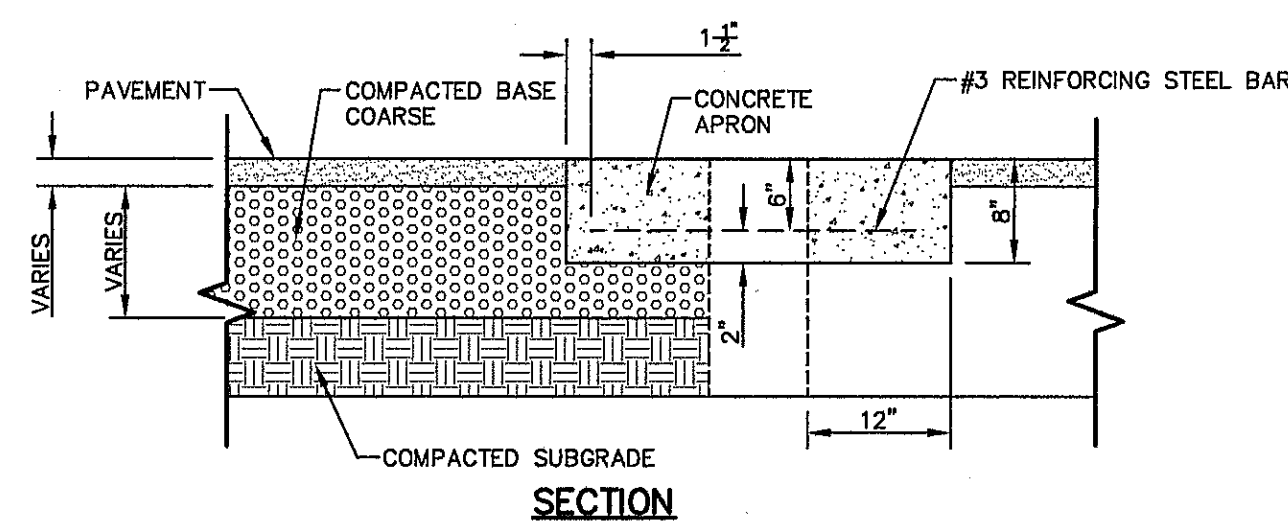


PLAN VIEW - SINGLE REBAR

PLAN VIEW - 2 REBAR



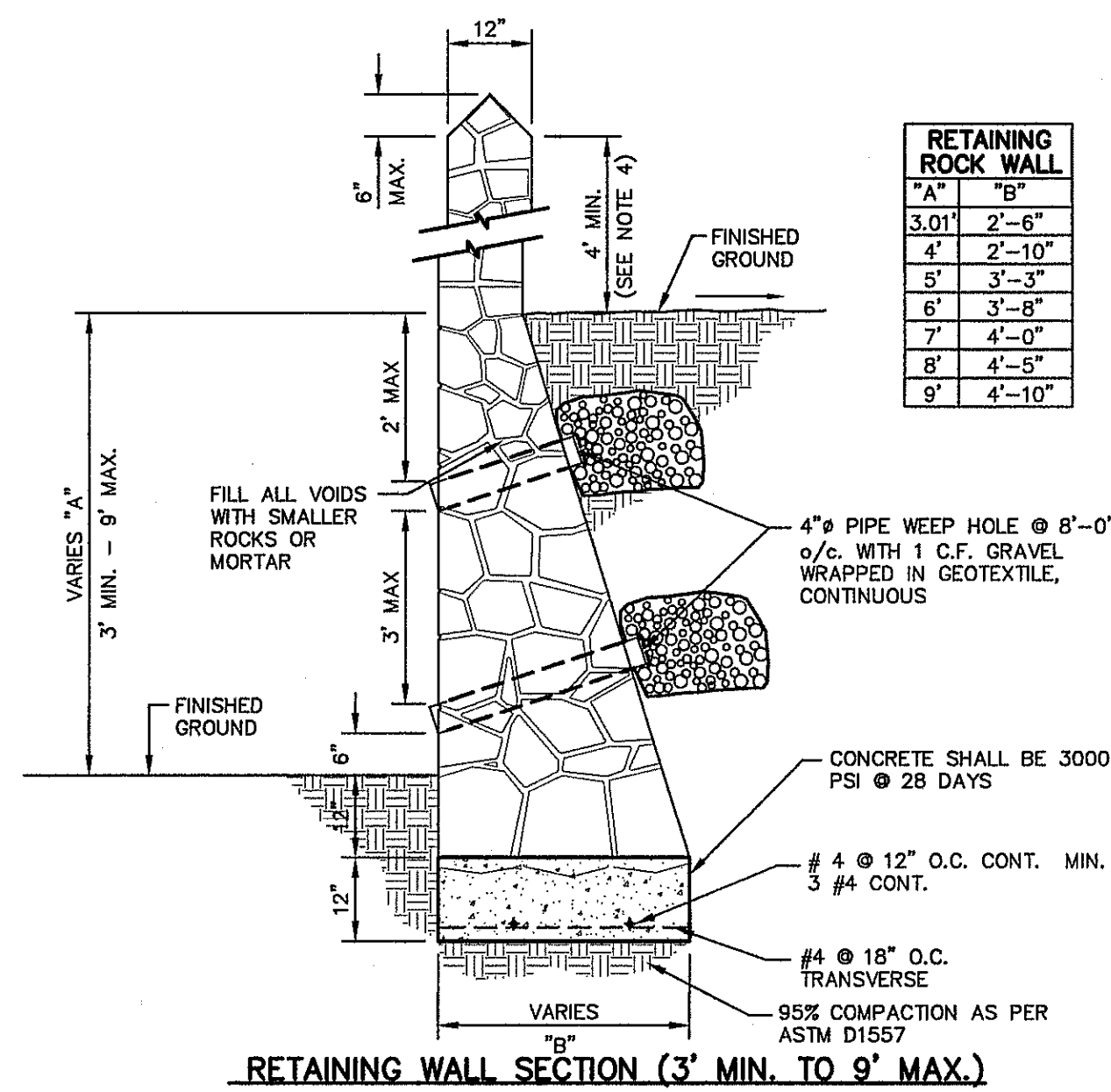
PLAN VIEW - 3 REBAR



SECTION

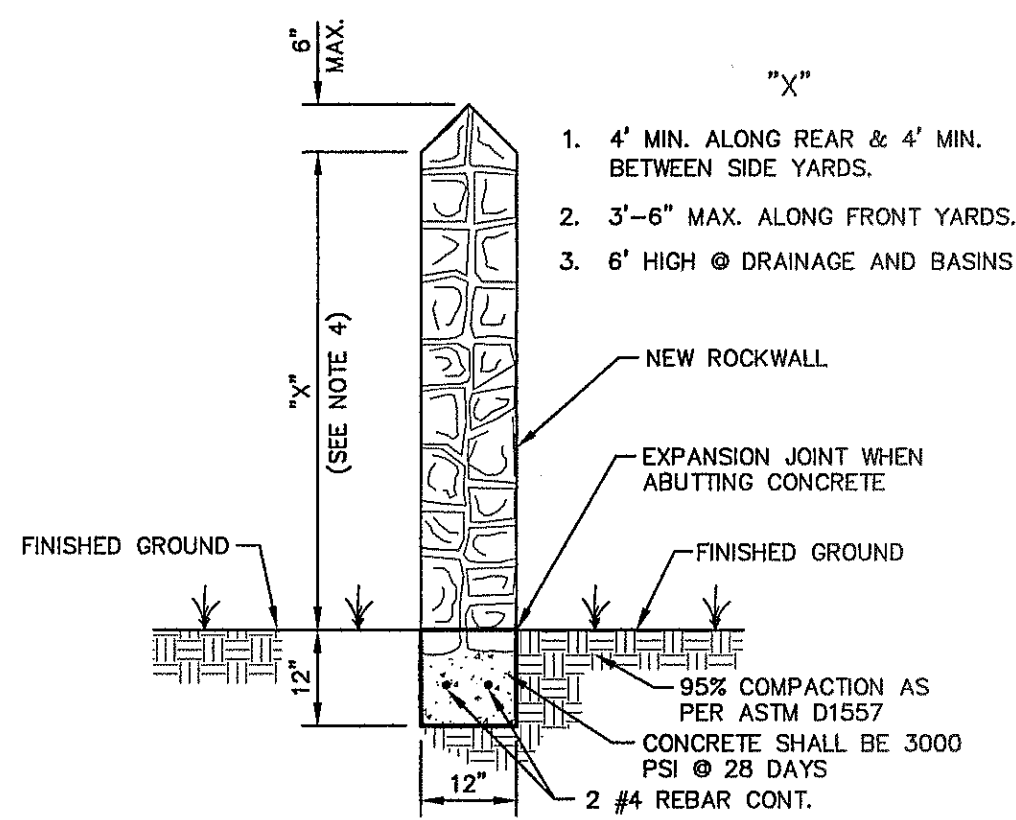
CONCRETE APRON FOR CIRCULAR PENETRATIONS IN ASPHALT PAVEMENTS				
"D" DIAMETER OF PENETRATION (INCHES)	"A" CONCRETE HORIZONTAL DIMENSION FROM PENETRATION (INCHES)	NUMBER OF NO. 3 REINFORCING STEEL BARS (INCHES)	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE APRON TO CENTER OF NEAREST REBAR (INCHES)	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR (INCHES)
0 TO 6.01	6	1	1 1/2	1 1/2
6.01 TO 18.01	8	2	1 1/2	1 1/2
18.01 AND OVER	12	3	1 1/2	1 1/2

1 PENETRATION APRON DETAILS SCALE: N.T.S.

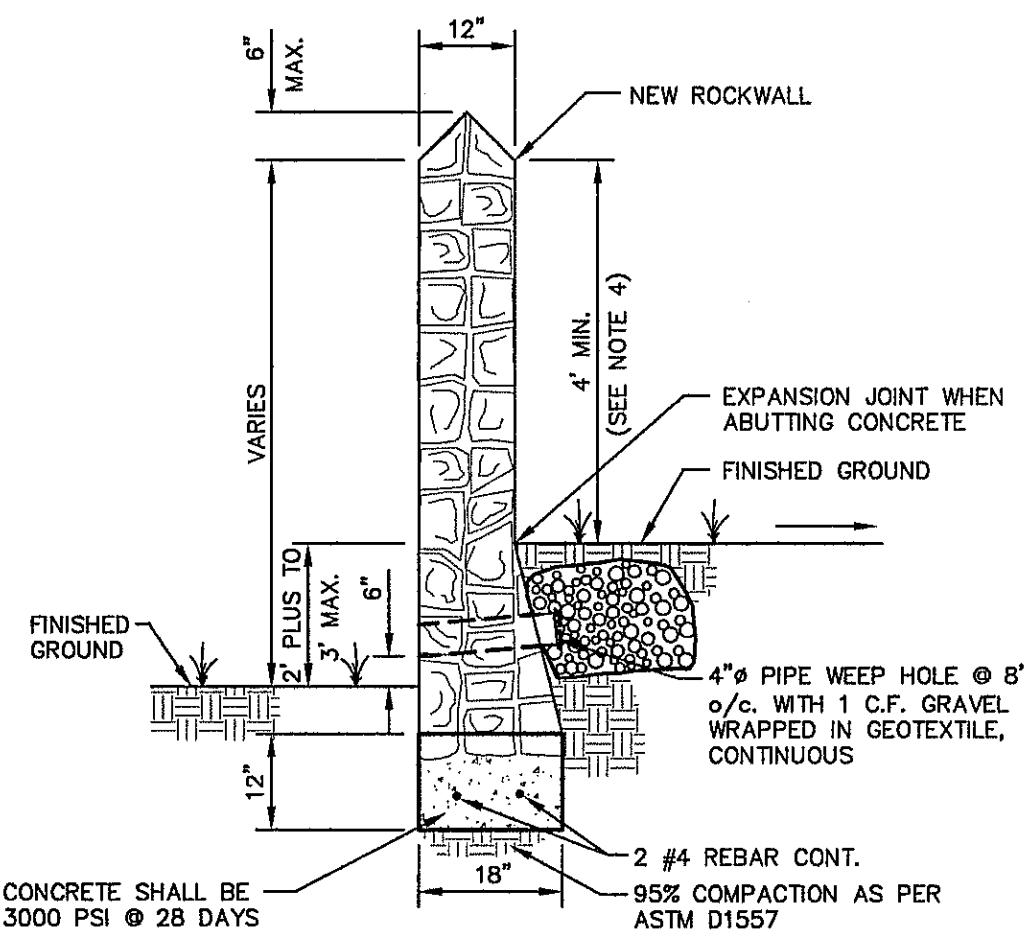


RETAINING WALL SECTION (3' MIN. TO 9' MAX.)

RETAINING ROCK WALL	
"A"	"B"
3.01'	2'-6"
4'	2'-10"
5'	3'-3"
6'	3'-8"
7'	4'-0"
8'	4'-5"
9'	4'-10"

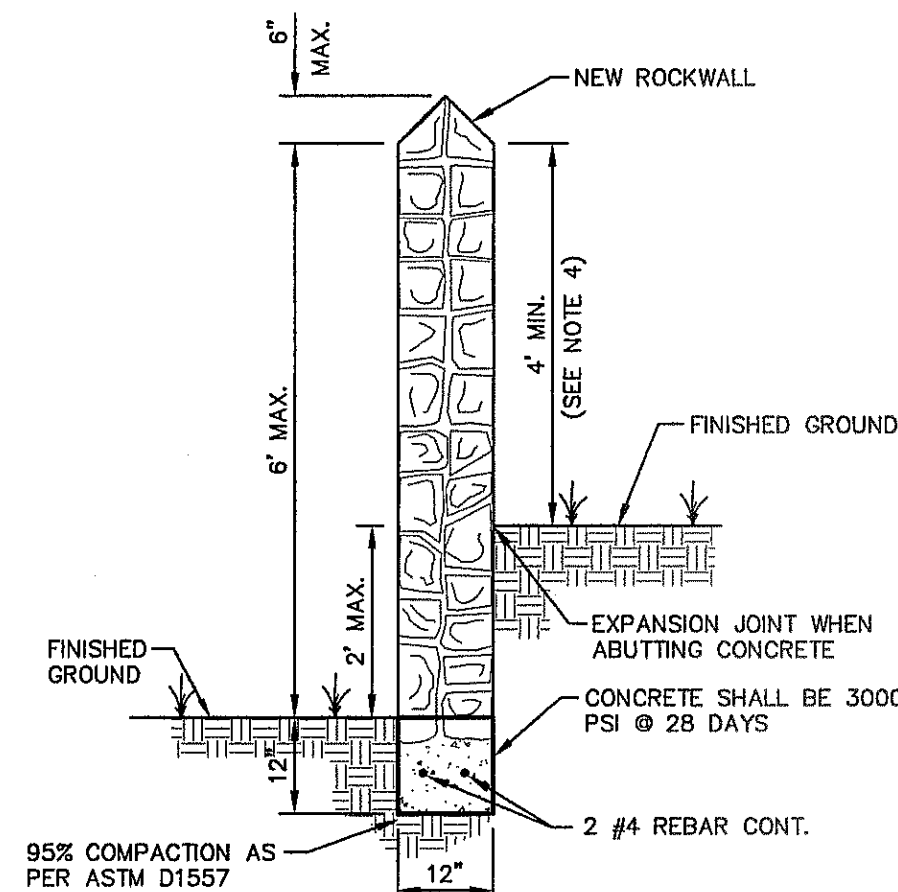


GARDEN WALL SECTION

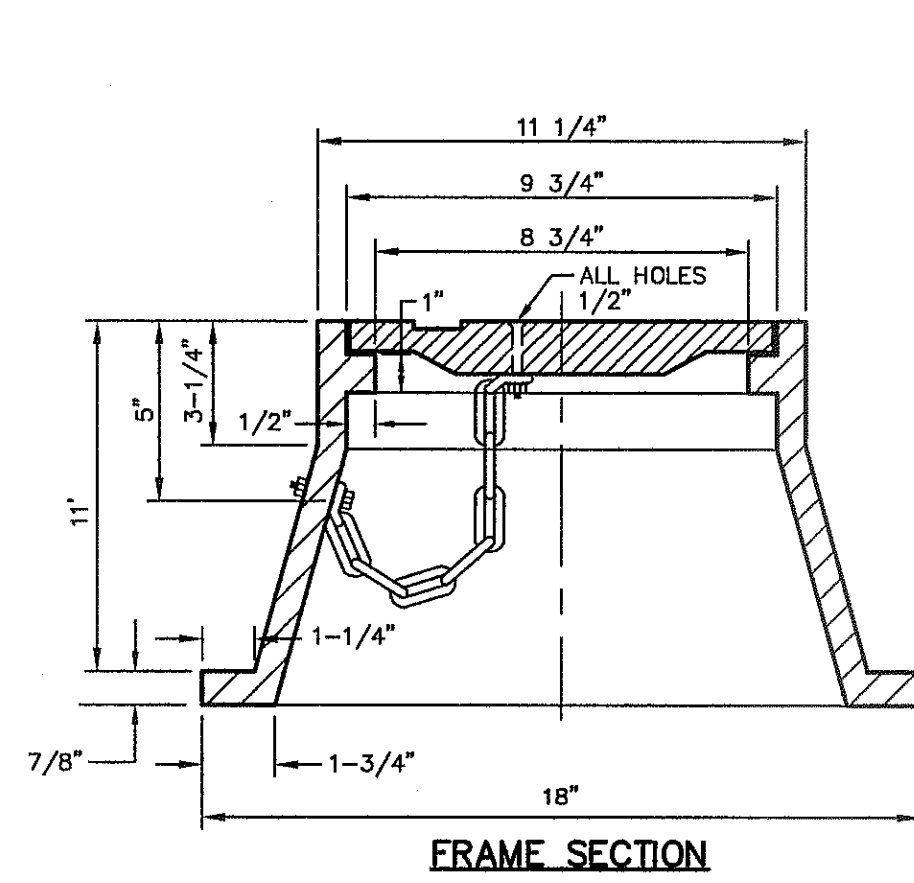


RETAINING WALL SECTION (2' PLUS TO 3' MAX.)

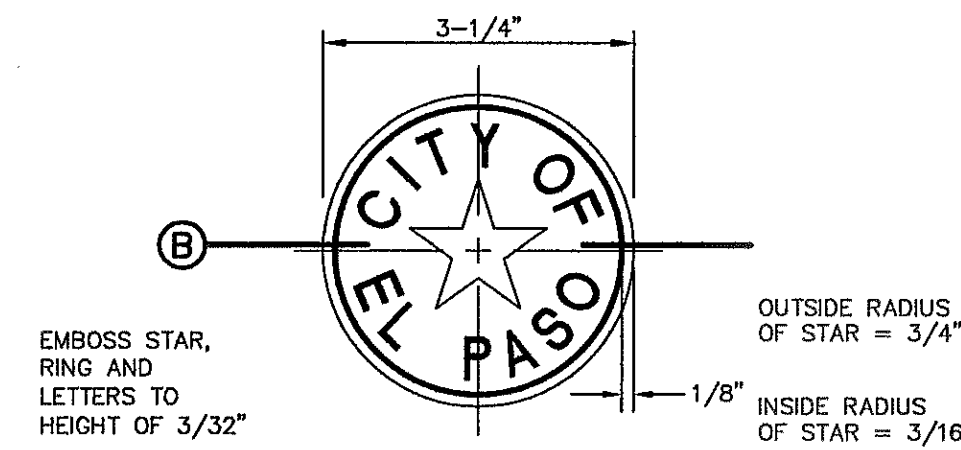
3 TYPICAL ROCKWALL DETAILS SCALE: 1/2" = 1'-0"



GARDEN WALL SECTION (2' MAX.)

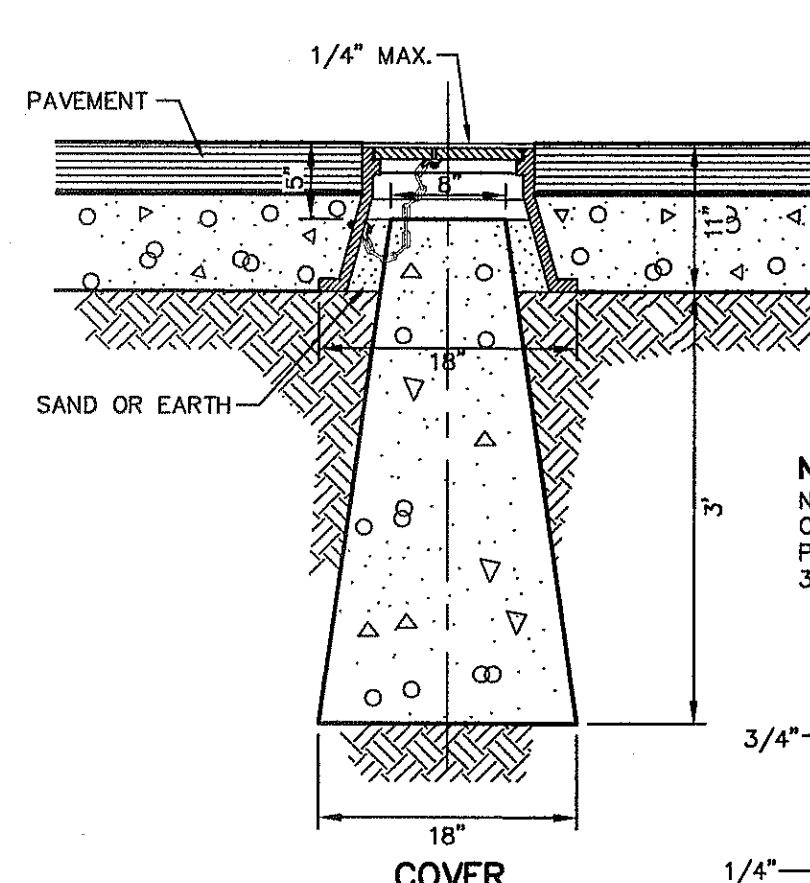


FRAME SECTION

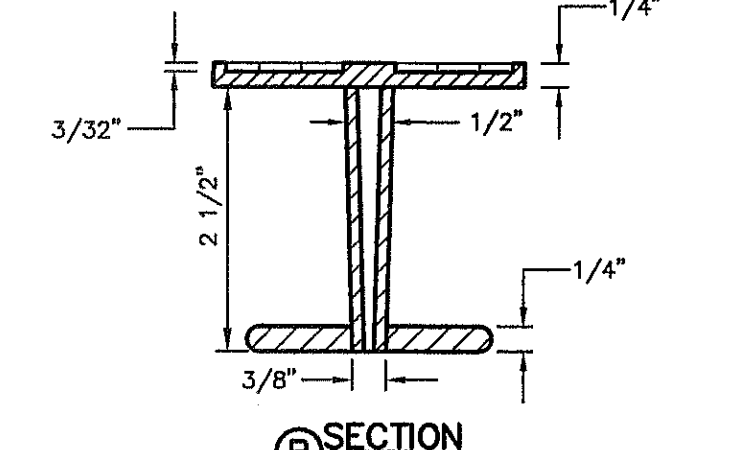


BRONZE MONUMENT CAP

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



COVER



B SECTION

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

COVER

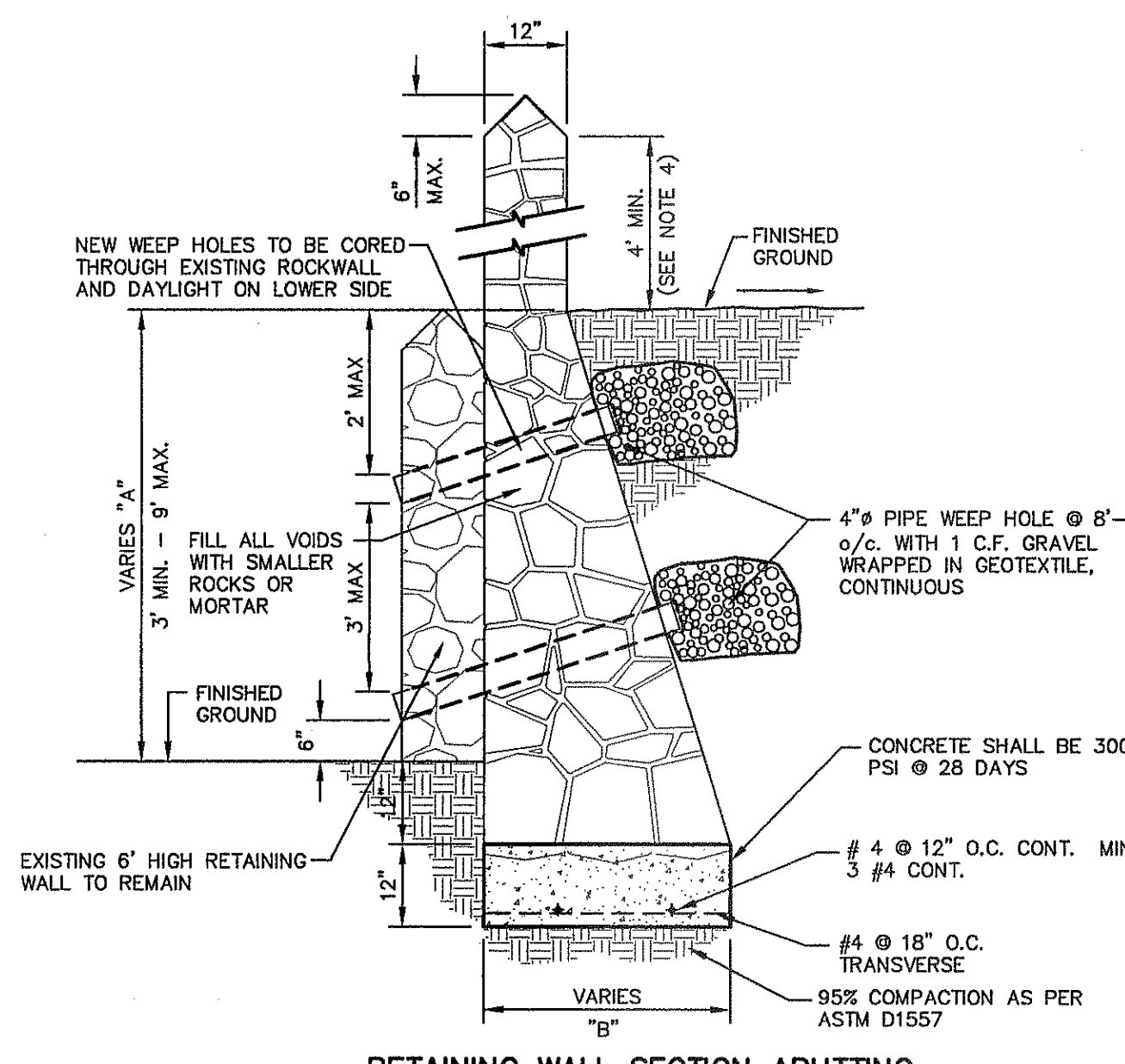
COVER

**PROPOSED MONUMENT LOCATIONS**

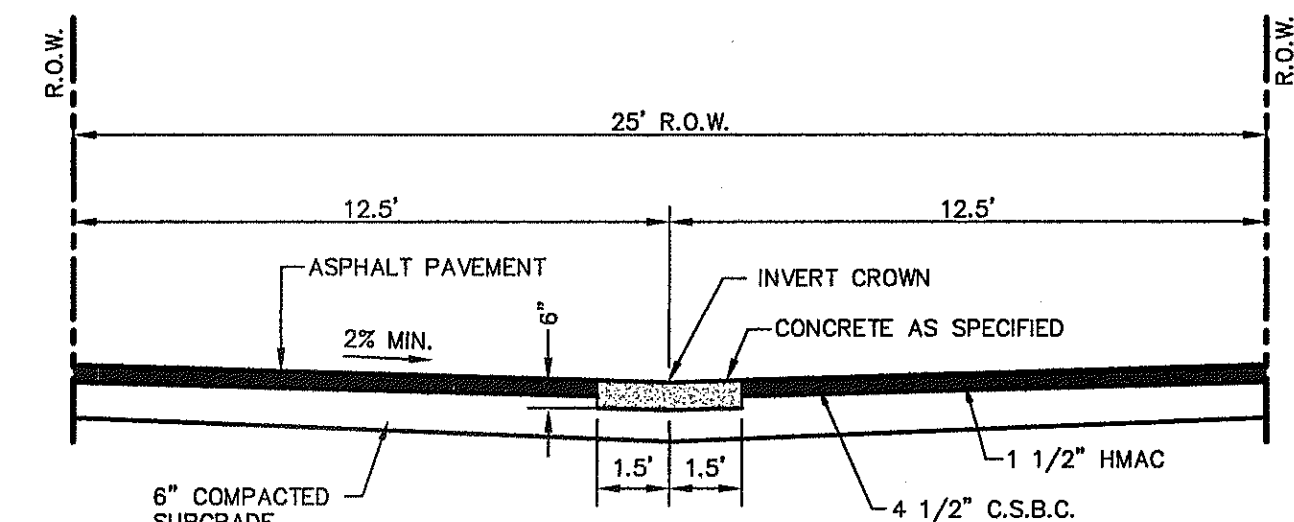
- A. MONUMENTS SHALL BE INSTALLED SO THAT ALL FRONT PROPERTY CORNERS OF ALL LOTS IN THE SUBDIVISION ARE WITHIN LINE OF SIGHT OF A MONUMENT, OR WITHIN SIGHT OF THE LINE BETWEEN TWO ADJACENT MONUMENTS.
- B. EACH MONUMENT SHALL BE WITHIN LINE OF SIGHT OF ANOTHER MONUMENT.
- C. MONUMENTS SHALL BE NO FARTHER THAN 2000 FEET APART.
- D. AT LEAST ONE (1) MONUMENT SHALL BE PLACED ON EACH HORIZONTAL CURVE (PI) OF THE TANGENTS LEADING INTO THE CURVE FALLS OUTSIDE THE CURB LINE.
- E. NO FEWER THAN TWO MONUMENTS SHALL BE PLACED IN ONE (1) STREET SUBDIVISIONS.

**ROCK WALL NOTES**

1. STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTIONS AS IN PRACTICABLE THE STONE SHALL BE DENSE AND RESISTANT OF AIR AND WATER
2. MORTAR MUST BE TYPE "S" 1800 P.S.I. AS PER ASTM C270
3. MASONRY WALL OVER SIX (6) FEET IN HEIGHT AND THOSE USED FOR EARTH RETENTION OVER TWO (2) FEET MUST BE DESIGNED AS STRUCTURAL WALLS.
4. 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.
5. ROCKWALL MORTAR JOINTS MUST NOT EXCEED TWO (2) INCHES
6. PROVIDE ONE (1) INCH EXPANSION JOINTS AT EVERY 100 FEET
7. ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED
8. ALL STONE FOR ROCKWALLS SHALL BE FRACTURED QUARRIED ROCK OR ROUND ROCK, NO RIVER ROCK SHALL BE ALLOWED.
9. REINFORCING STEEL SHALL BE ASTM A615 GRADE 40.
10. ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSI (MINIMUM)
11. BACKFILL MATERIALS SHALL CONSIST OF COARSE GRAINED, WELL-DRAINED SOILS (WITH NO CLAY CONTENT).
12. ALL THE RETAINING WALLS OVER 4' IN DEPTH SHALL BE BUILT BY DEVELOPER, REMAINING ROCKWALL TO BE BUILT BY BUILDER.



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



ALLEY ONE (2) WAY LANE

- NOTES:
1. ONE (1)-THREE FOOT CONCRETE VALLEY GUTTER LOCATED AT THE CENTERLINE OF THE RIGHT-OF-WAY WHEN THE LONGITUDINAL SLOPE OF THE ALLEY IS LESS THAN ONE (1) PERCENT, AND DRAINAGE IS TO BE CARRIED WITHIN THE ALLEY.
  2. NO CONCRETE VALLEY GUTTER REQUIRED WHEN LONGITUDINAL SLOPE OF THE ALLEY IS EQUAL OR GREATER THAN ONE (1) PERCENT.

4 ALLEY CROSS-SECTIONS AND DETAILS SCALE: N.T.S.

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. STATION 43+37.50 A DISTANCE OF 467.50 FEET FROM THE POINT OF CURVE CENTERLINE TO THE MONUMENT. AVENUE CITY DATUM. ELEVATION: 4008.40

CSA  
engineers • architects • planners  
TEXAS REGISTERED ENGINEERING FIRM F-4664  
4712 Woodrow Bean, Ste. F El Paso, TX 79924  
Office: 915.544.5222 Fax: 915.544.5223 www.csaeng.com

ENGINEER'S SEAL  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.G.  
APP. VD. BY: J.L.A.  
JOB No. 2000-197-LD

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

PROJECT TITLE  
TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS

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

C7.3



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

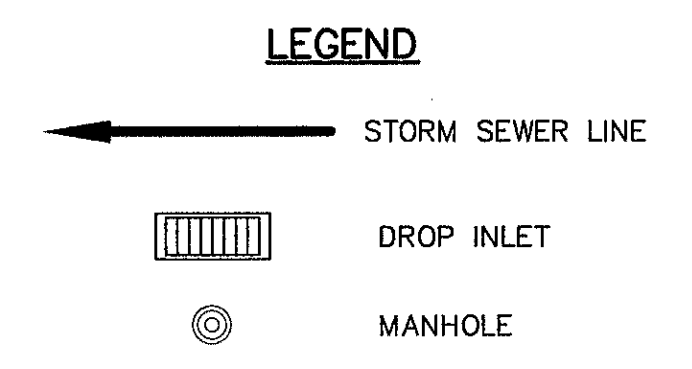
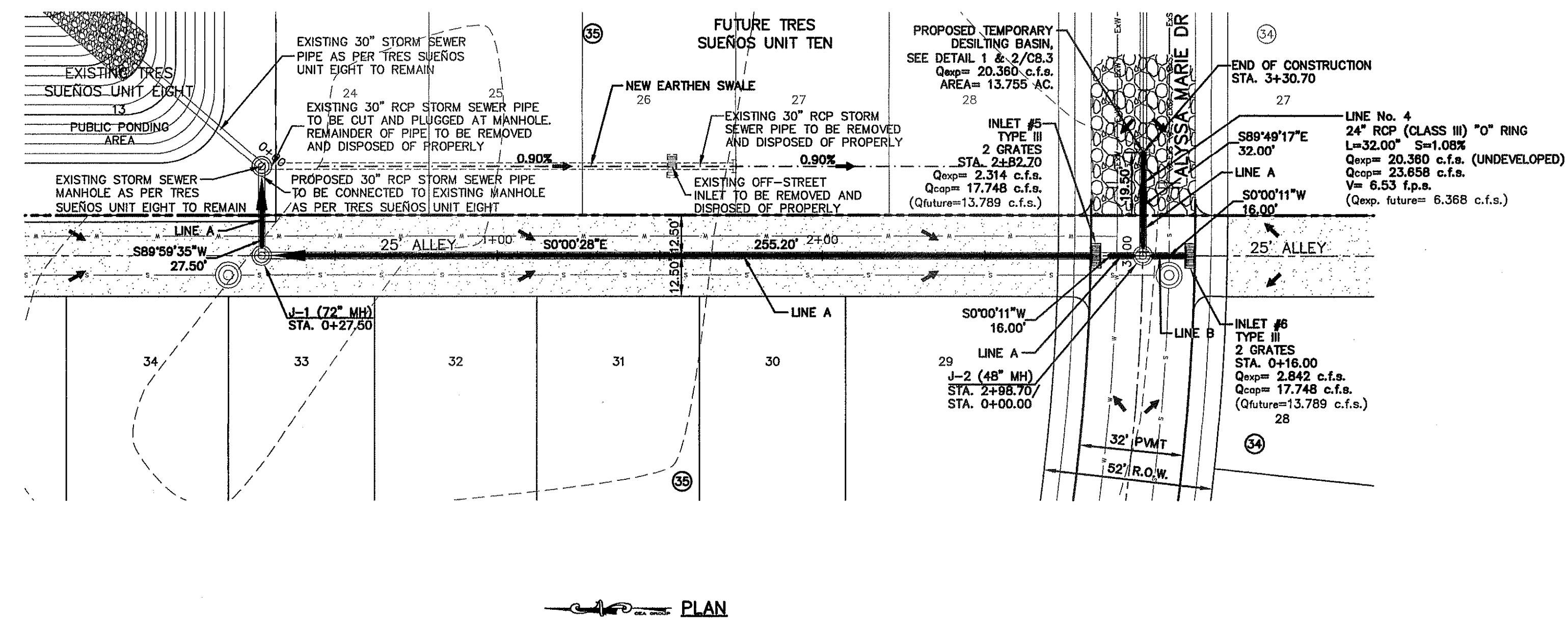
**WARNING I BEFORE YOU DIG**

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

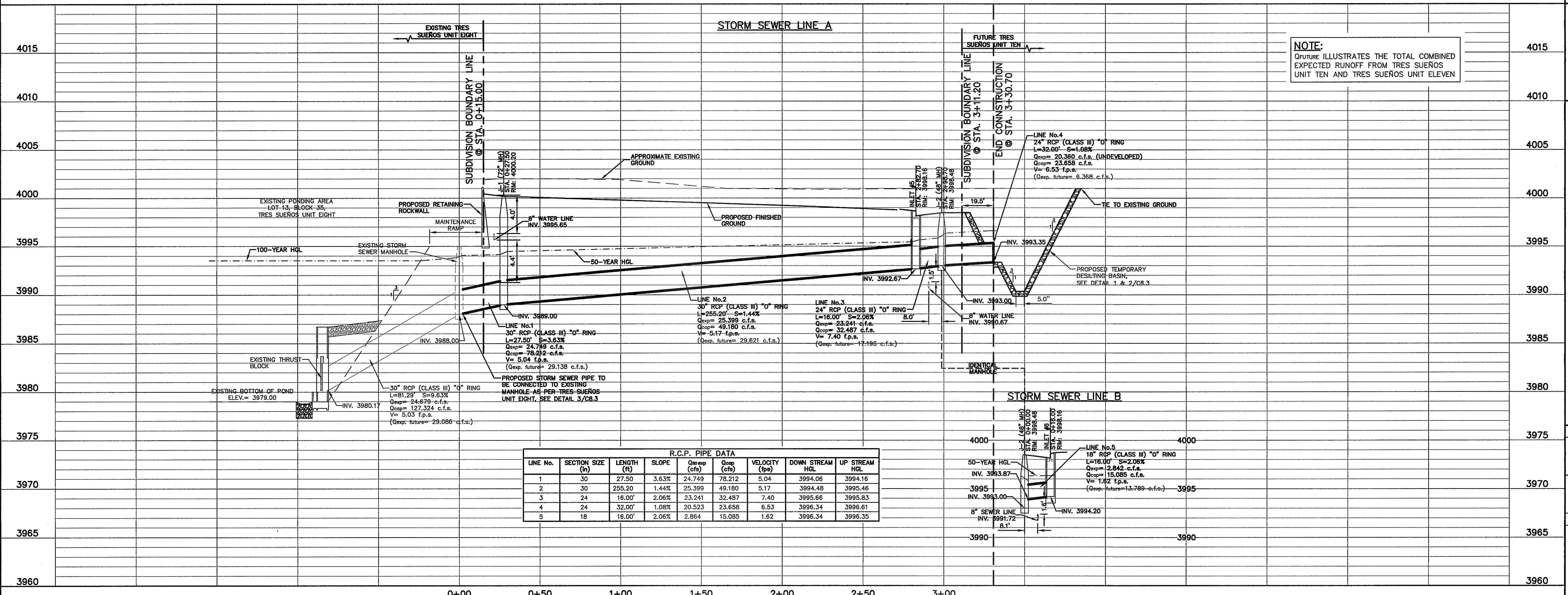
FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. SUBSTATION A DISTANCE OF 467.99 FEET FROM THE MONUMENT. ELEVATION: 4008.40  
AVENUE, CITY DATUM. ELEVATION: 4008.40



ENGINEER'S SEAL



**NOTE:**  
Qfuture ILLUSTRATES THE TOTAL COMBINED EXPECTED RUNOFF FROM TRES SUEÑOS UNIT TEN AND TRES SUEÑOS UNIT ELEVEN

R.C.P. PIPE DATA									
LINE No.	SECTION SIZE (in)	LENGTH (ft)	SLOPE	Q <sub>exp</sub> (cfs)	Q <sub>exp</sub> (cfs)	VELOCITY (fps)	DOWN STREAM HGL	UP STREAM HGL	
1	30	27.50	3.63%	24,749	78,212	5.04	3994.06	3994.16	
2	30	255.20	1.44%	25,399	49,180	5.17	3994.48	3995.46	
3	24	16.00	2.06%	23,241	32,487	7.40	3995.66	3995.83	
4	24	32.00	1.08%	20,523	23,658	6.53	3996.34	3996.61	
5	18	16.00	2.06%	2,864	15,085	1.62	3996.34	3996.35	

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

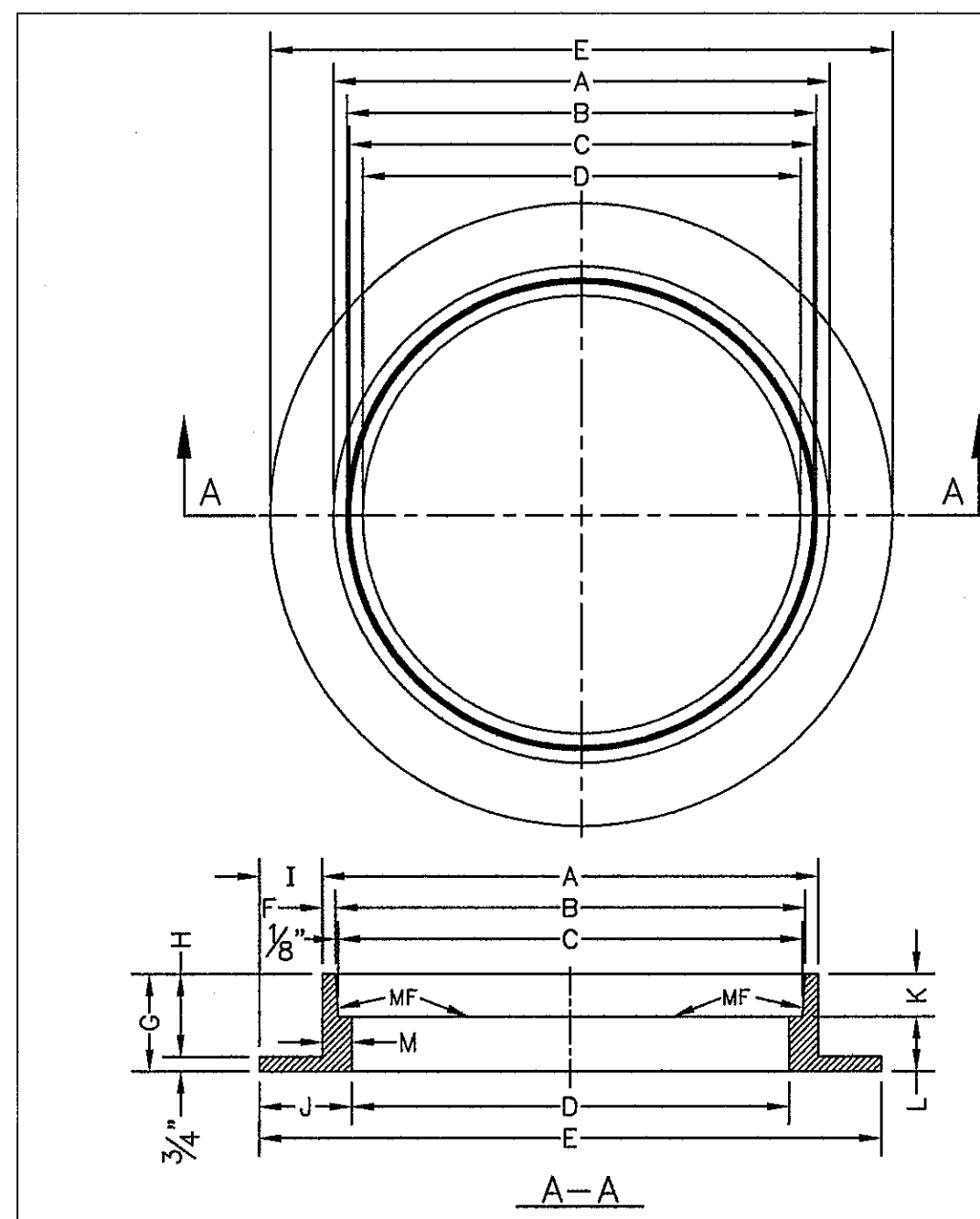
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.L.A.  
APP'D. BY: J.L.A.  
JOB No. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**LINE A STORM SEWER PLAN & PROFILE FROM STA. 0+00.00 TO STA. 3+30.70**  
**LINE B STORM SEWER PLAN & PROFILE FROM STA. 0+00.00 TO STA. 0+16.00**

SHEET NO.  
**C8.1**

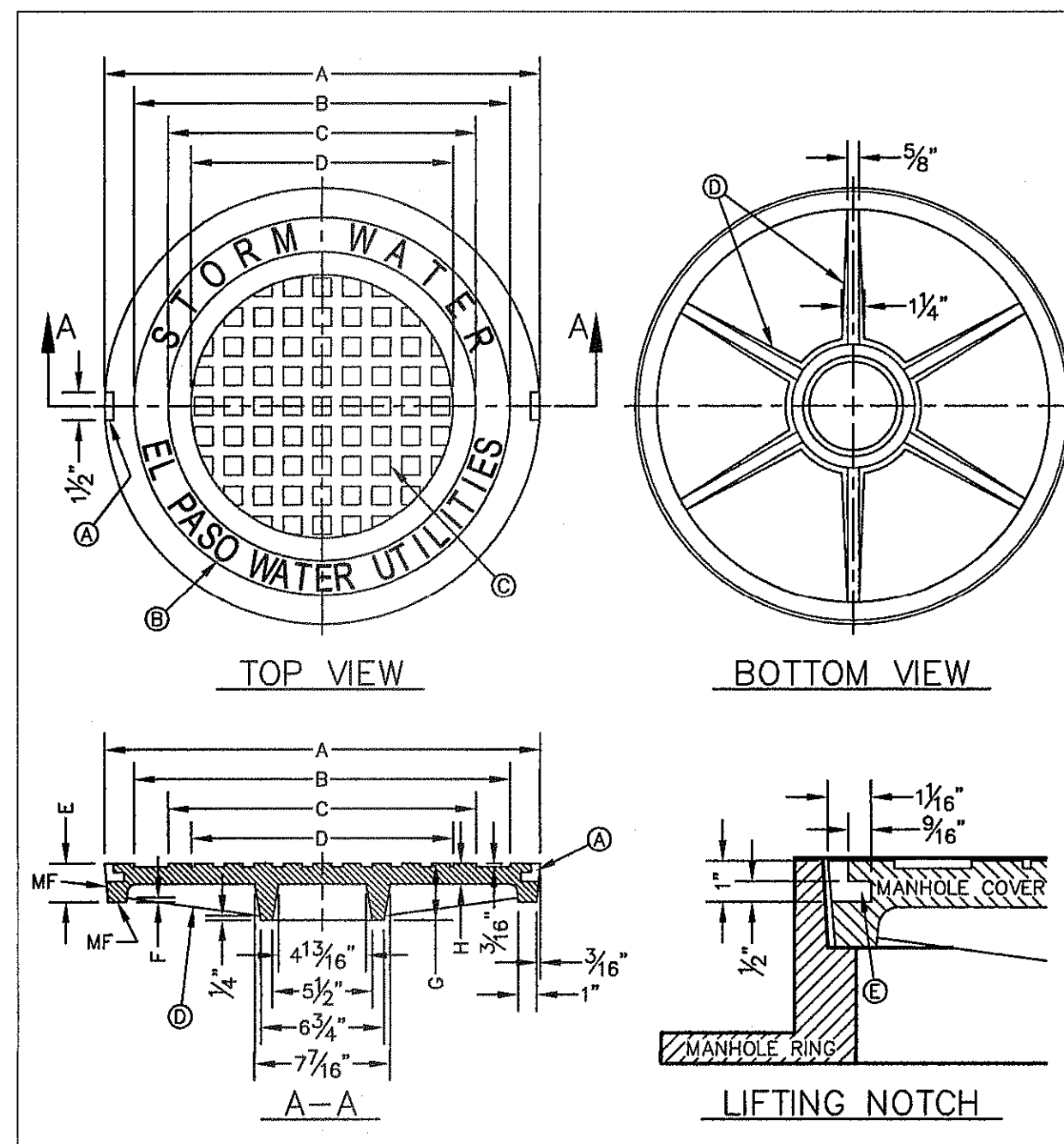




- GENERAL NOTES:**
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
  2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.
  3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
  4. AS-CAST DIMENSIONS MAY VARY  $\frac{1}{8}$ "  $\pm$ / PER FOOT (AASHTO M306-07).
  5. WEIGHT MAY VARY 5% (AASHTO M306-07).
  6. SHAPED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, DETAIL 2-16.

MANHOLE RING	MANHOLE - ALL TYPES	MANHOLE TYPE 48"	MANHOLE TYPE 72"
A	33"	25 $\frac{1}{2}$ "	32 $\frac{1}{2}$ "
B	31 $\frac{3}{4}$ "	23 $\frac{3}{8}$ "	31 $\frac{3}{8}$ "
C	31 $\frac{1}{2}$ "	23 $\frac{3}{8}$ "	31 $\frac{1}{2}$ "
D	30"	22 $\frac{1}{2}$ "	30"
E	39 $\frac{1}{2}$ "	34 $\frac{1}{2}$ "	42"
F	5 $\frac{1}{8}$ "	1 $\frac{1}{8}$ "	1 $\frac{1}{8}$ "
G	5"	6"	6"
H	4 $\frac{1}{4}$ "	5 $\frac{1}{4}$ "	5 $\frac{1}{4}$ "
I	3 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "
J	4 $\frac{1}{4}$ "	6"	6"
K	2 $\frac{3}{8}$ "	3 $\frac{3}{8}$ "	3 $\frac{3}{8}$ "
L	2 $\frac{1}{4}$ "	2 $\frac{1}{4}$ "	2 $\frac{1}{4}$ "
M	1 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "	1 $\frac{1}{8}$ "
WEIGHT	220 lbs.	165 lbs.	225 lbs.

STANDARD DETAIL DATE: 8/19/2009 REV: STORMWATER MANHOLE RING N.T.S. EL PASO WATER UTILITIES PUBLIC UTILITIES BOARD DETAIL No. 916



- GENERAL NOTES:**
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
  2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.
  3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
  4. AS-CAST DIMENSIONS MAY VARY  $\frac{1}{8}$ "  $\pm$ / PER FOOT (AASHTO M306-07).
  5. WEIGHT MAY VARY 5% (AASHTO M306-07).
  6. SHAPED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, DETAIL 2-17.

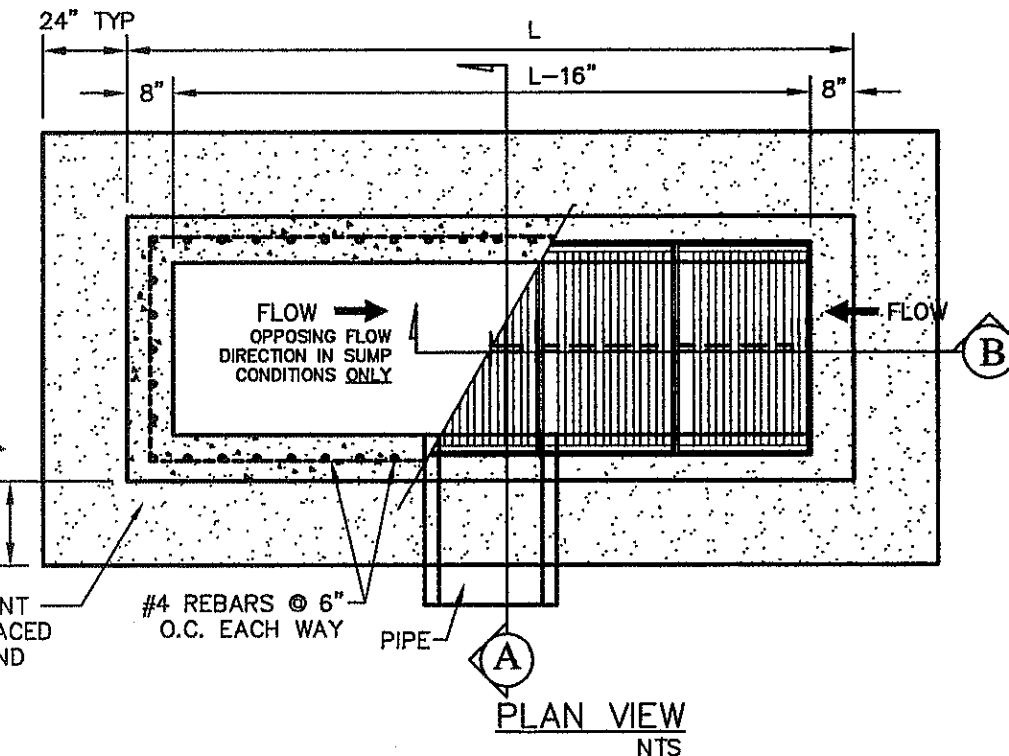
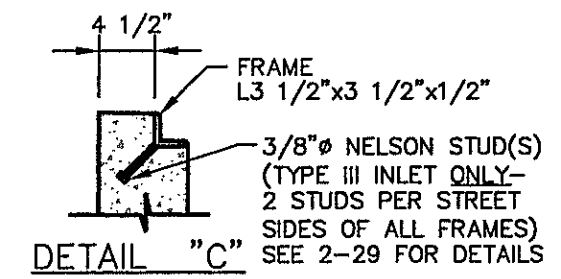
MANHOLE COVER	MANHOLE - ALL TYPES	MANHOLE TYPE 48"	MANHOLE TYPE 72"
A	31 $\frac{3}{8}$ "	23 $\frac{3}{8}$ "	31 $\frac{3}{8}$ "
B	28 $\frac{1}{2}$ "	20 $\frac{3}{8}$ "	28 $\frac{1}{2}$ "
C	24 $\frac{3}{8}$ "	16 $\frac{3}{8}$ "	24 $\frac{3}{8}$ "
D	21 $\frac{7}{8}$ "	14 $\frac{3}{8}$ "	21 $\frac{7}{8}$ "
E	2 $\frac{1}{8}$ "	3"	3"
F	1 $\frac{1}{4}$ "	1 $\frac{1}{4}$ "	1 $\frac{1}{4}$ "
G	3 $\frac{1}{8}$ "	3"	3"
H	1 $\frac{1}{8}$ "	1"	1"
WEIGHT	265 lbs.	175 lbs.	310 lbs.

STANDARD DETAIL DATE: 8/19/2009 REV: STORMWATER MANHOLE COVER N.T.S. EL PASO WATER UTILITIES PUBLIC UTILITIES BOARD DETAIL No. 917

ALL SUBSTITUTIONS OF STRUCTURAL STEEL BEAMS AND CHANNELS FOR DROP INLETS MUST BE SUBMITTED FOR REVIEW AND INCLUDE SECTION MODULUS AND DEFLECTION CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS.

NUMBER OF GRATES	L'
2	5'-2 1/4"
3	7'-1 7/8"
4	9'-1 1/2"
5	11'-1 1/8"

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

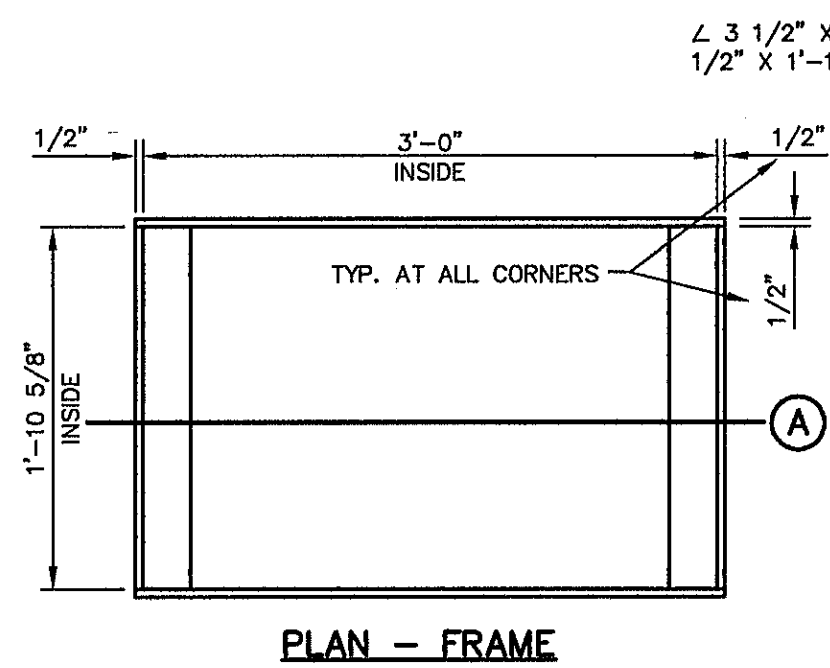


18" THICK (MIN.) 2-SACK CEMENT STABILIZED BACKFILL TO BE PLACED UNDER PROPOSED PAVEMENT AND CURB & GUTTER.

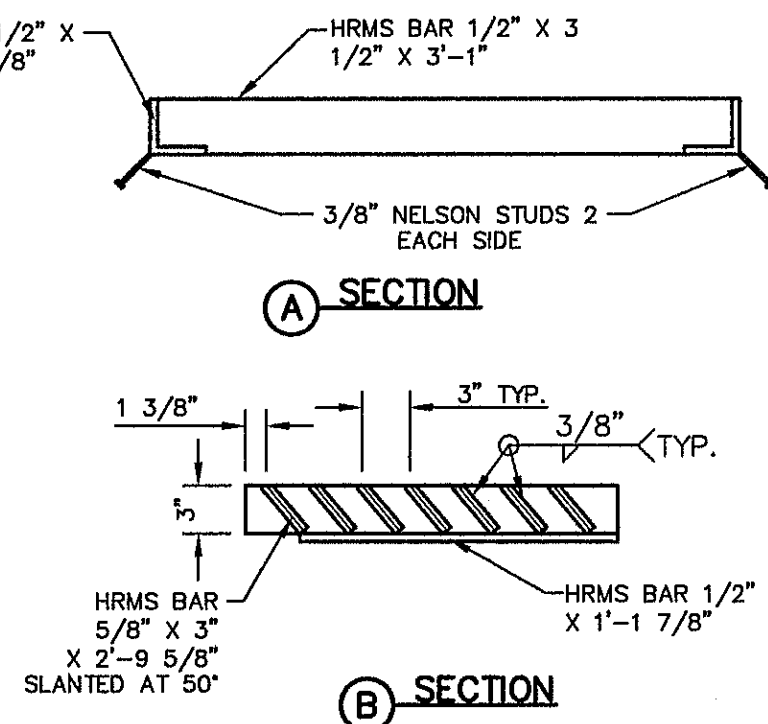
PLAN VIEW NTS

1 STORMWATER MANHOLE RING N.T.S.

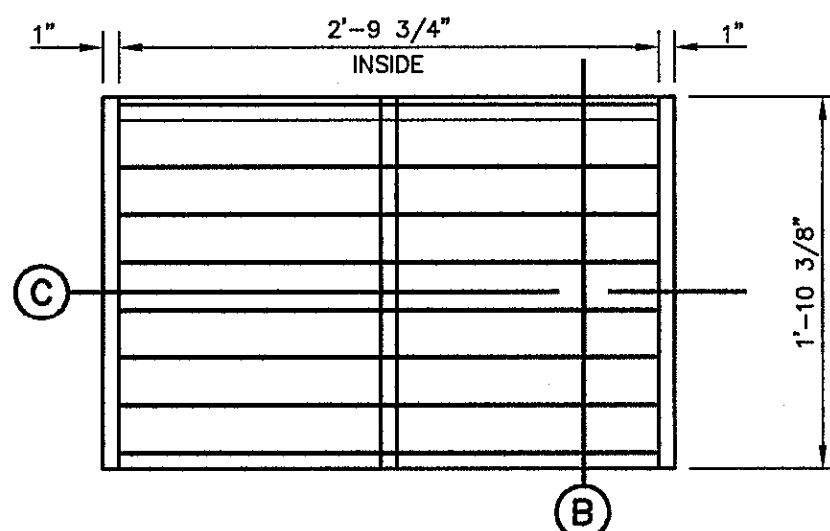
2 STORMWATER MANHOLE RING N.T.S.



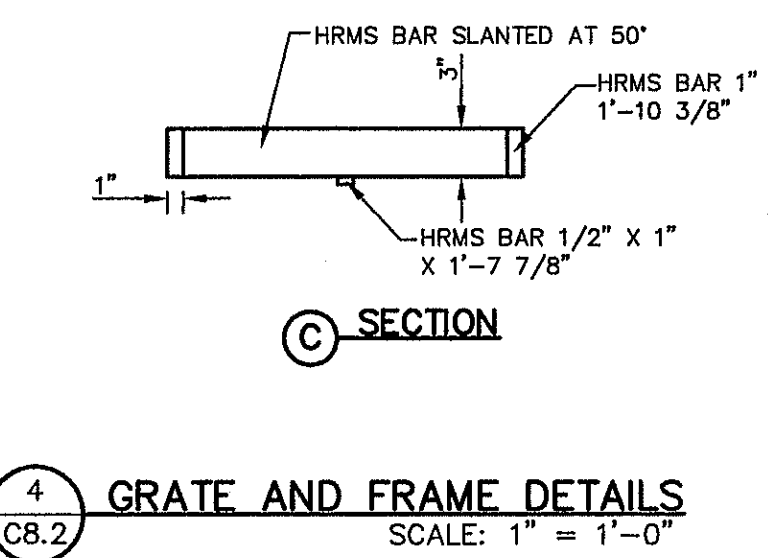
PLAN - FRAME



SECTION A SECTION B

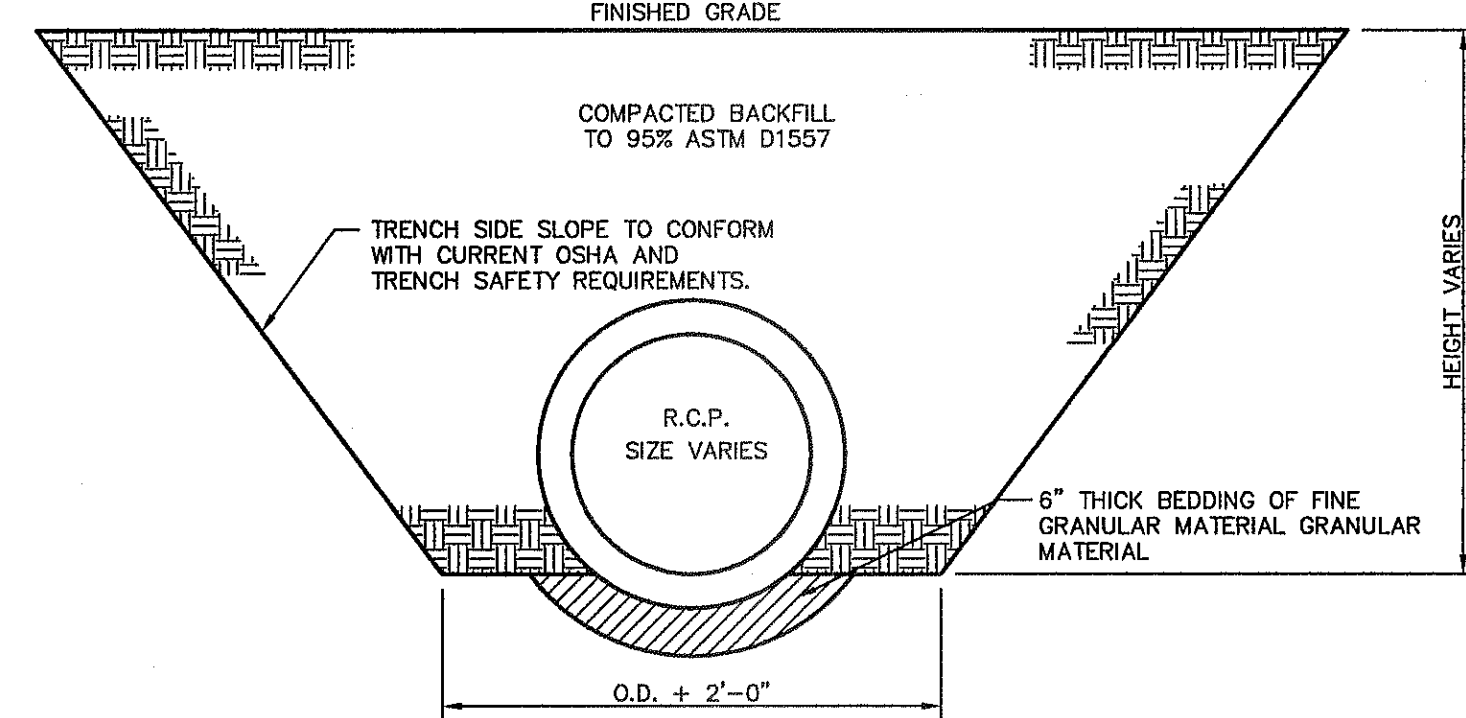


PLAN - GRATE

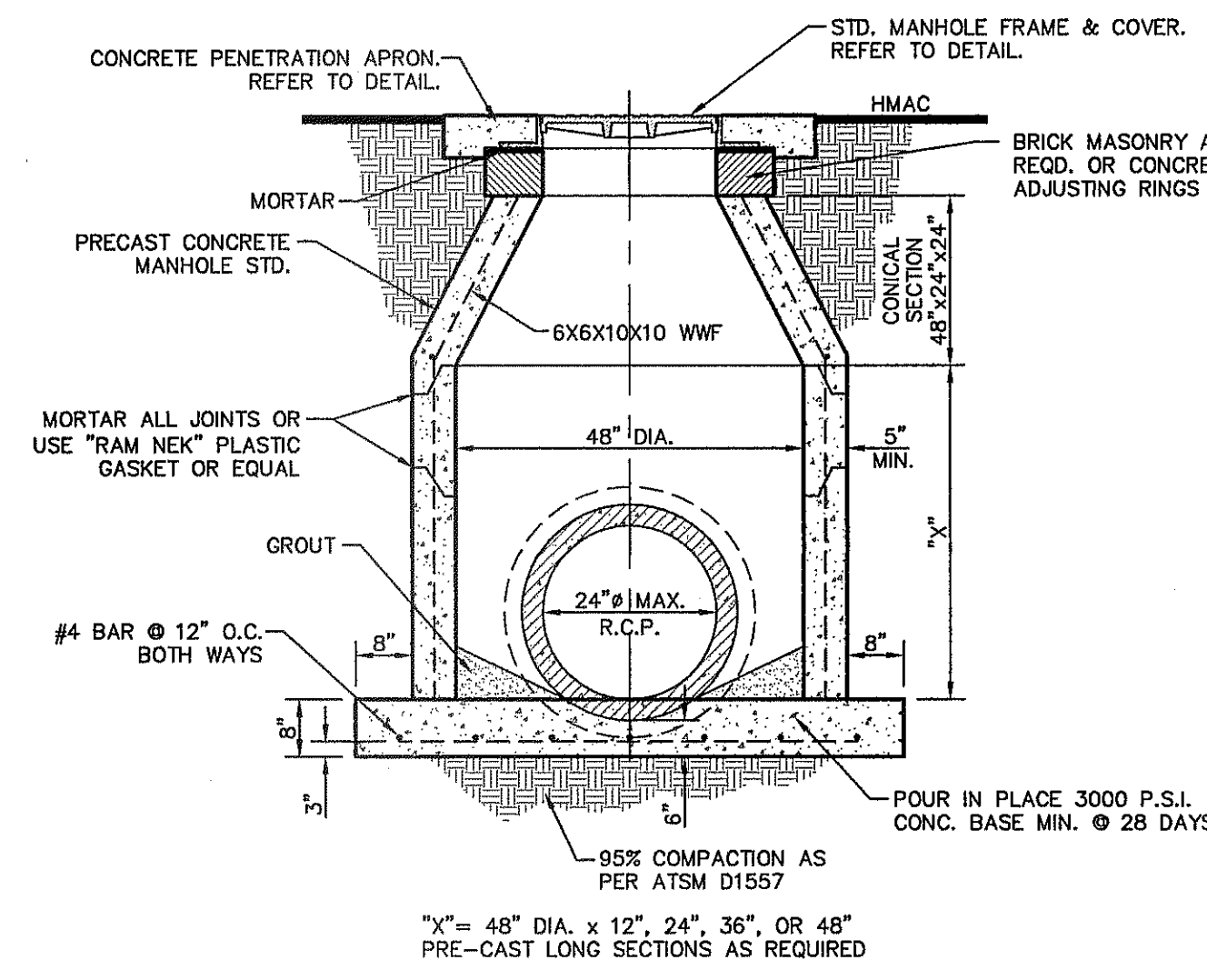


SECTION C

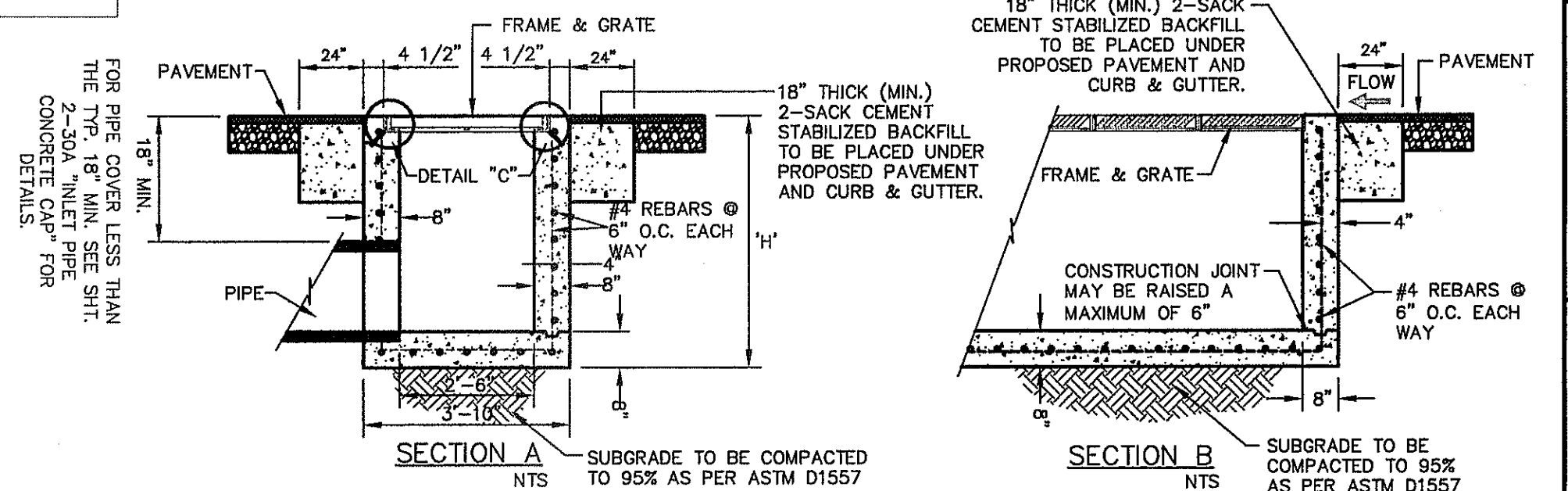
4 GRATE AND FRAME DETAILS SCALE: 1" = 1'-0"



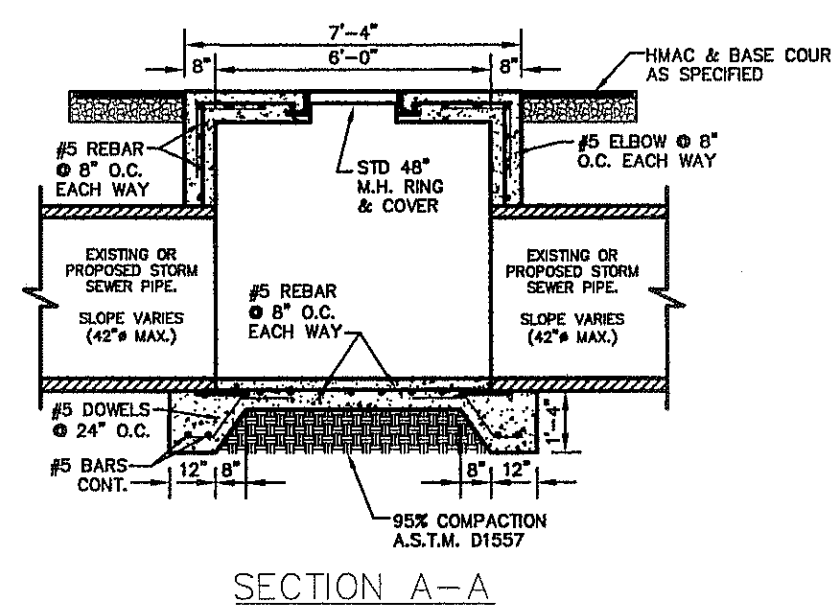
5 STORM SEWER BEDDING DETAIL SCALE: 1" = 2'-0"



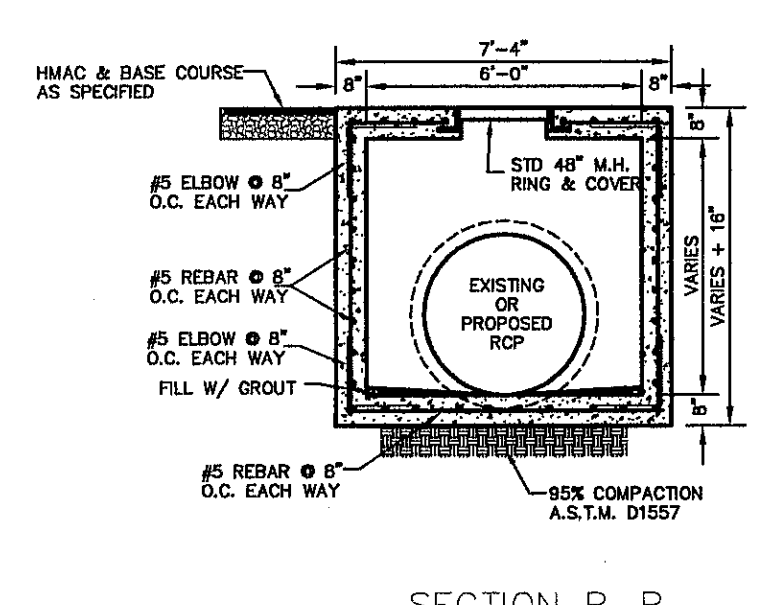
6 48" STANDARD MANHOLE DETAIL SCALE: N.T.S.



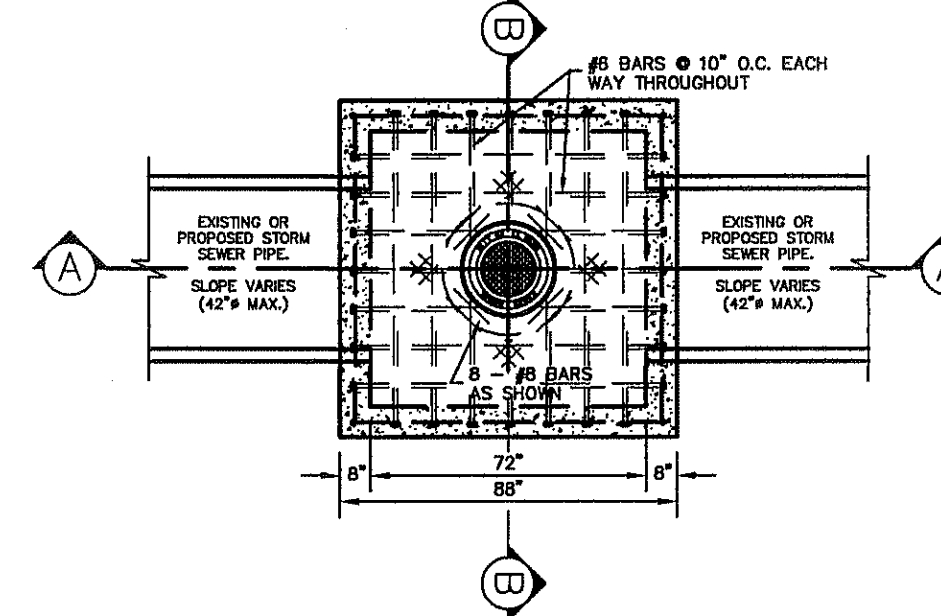
3 DROP INLET TYPE III DETAILS SCALE: N.T.S.



SECTION A-A

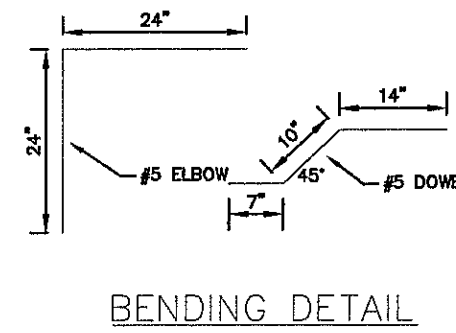


SECTION B-B



72" DIAMETER CAST-IN-PLACE STANDARD MANHOLE

7 72" DIAMETER CAST-IN-PLACE MANHOLE SCALE: N.T.S.

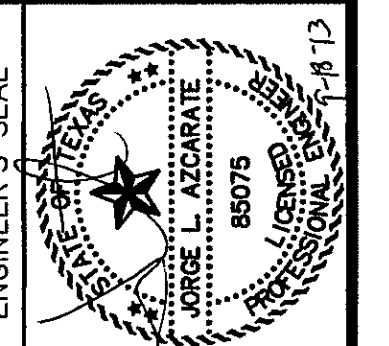


BENDING DETAIL

- 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 SLUMP.
  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 CONCRETE 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 T.DOT. ITEM 446 "PAINT AND PAINTING".
  15. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM TO 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. EACH WAY. 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"x84" 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.

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEN BEY BLVD. STATION 43+75.1 A DISTANCE OF 497.59 FEET FROM THE MONUMENT TO THE CENTERLINE OF THE MONUMENT. ELEVATION: 4005.40

engineers • architects • planners  
TEXAS REGISTERED ENGINEERING FIRM F-464  
4712 Woodrow Bldg. Ste. F El Paso, TX 79924  
Office: 915.544.5232 Fax: 915.544.5203 www.coburn.com



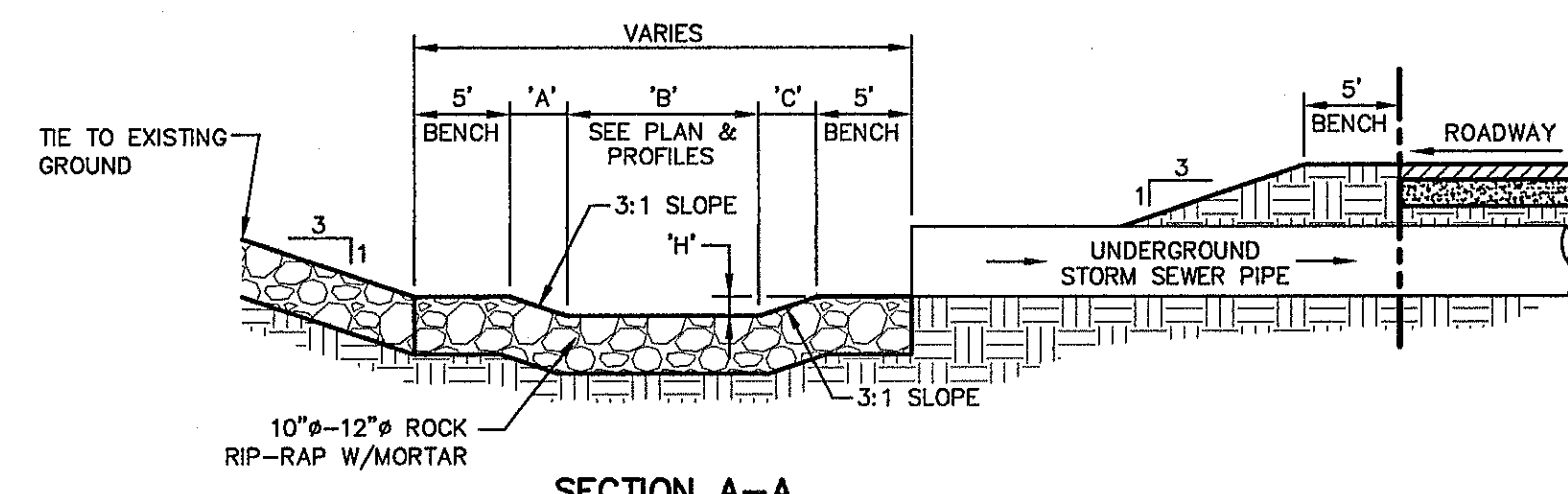
SCALE: N/A  
Vertical: N/A  
Horizontal: N/A  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.G.  
APPVD. BY: J.L.A.  
JOB No. 2000-157-LD

PROJECT TITLE  
TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
DRAINAGE  
DETAILS  
SHEET NO.

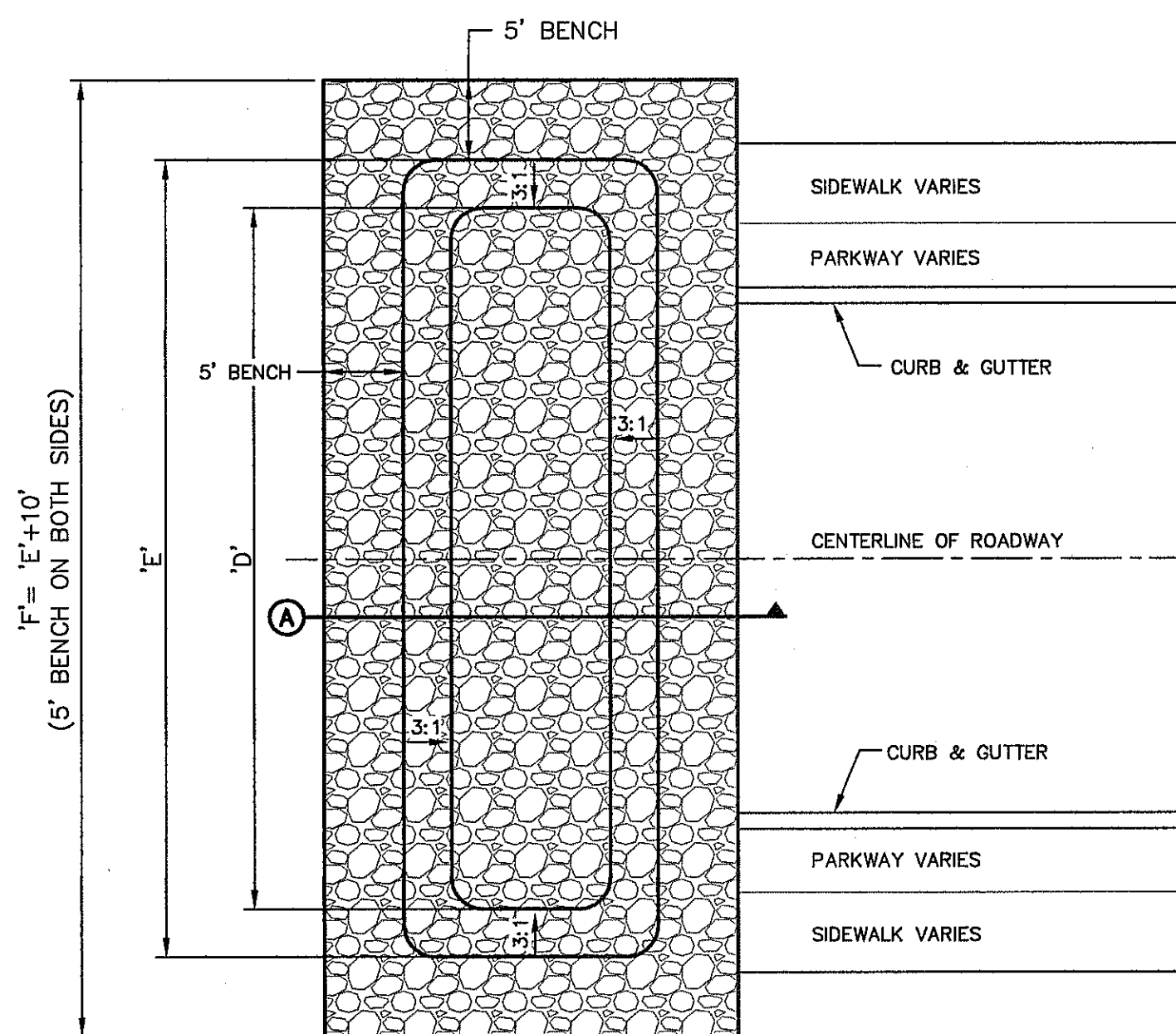
C8.2



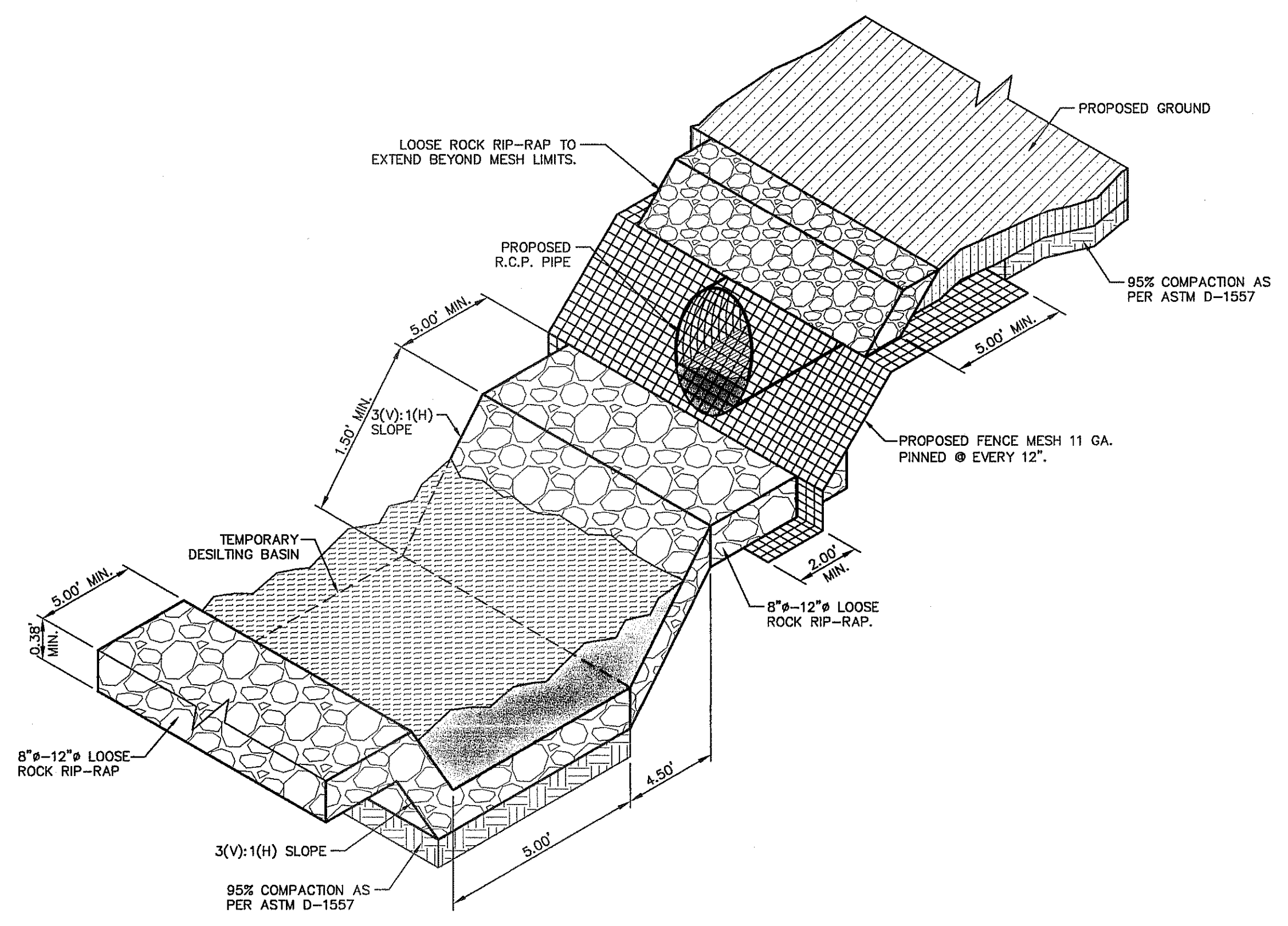


**SECTION A-A**

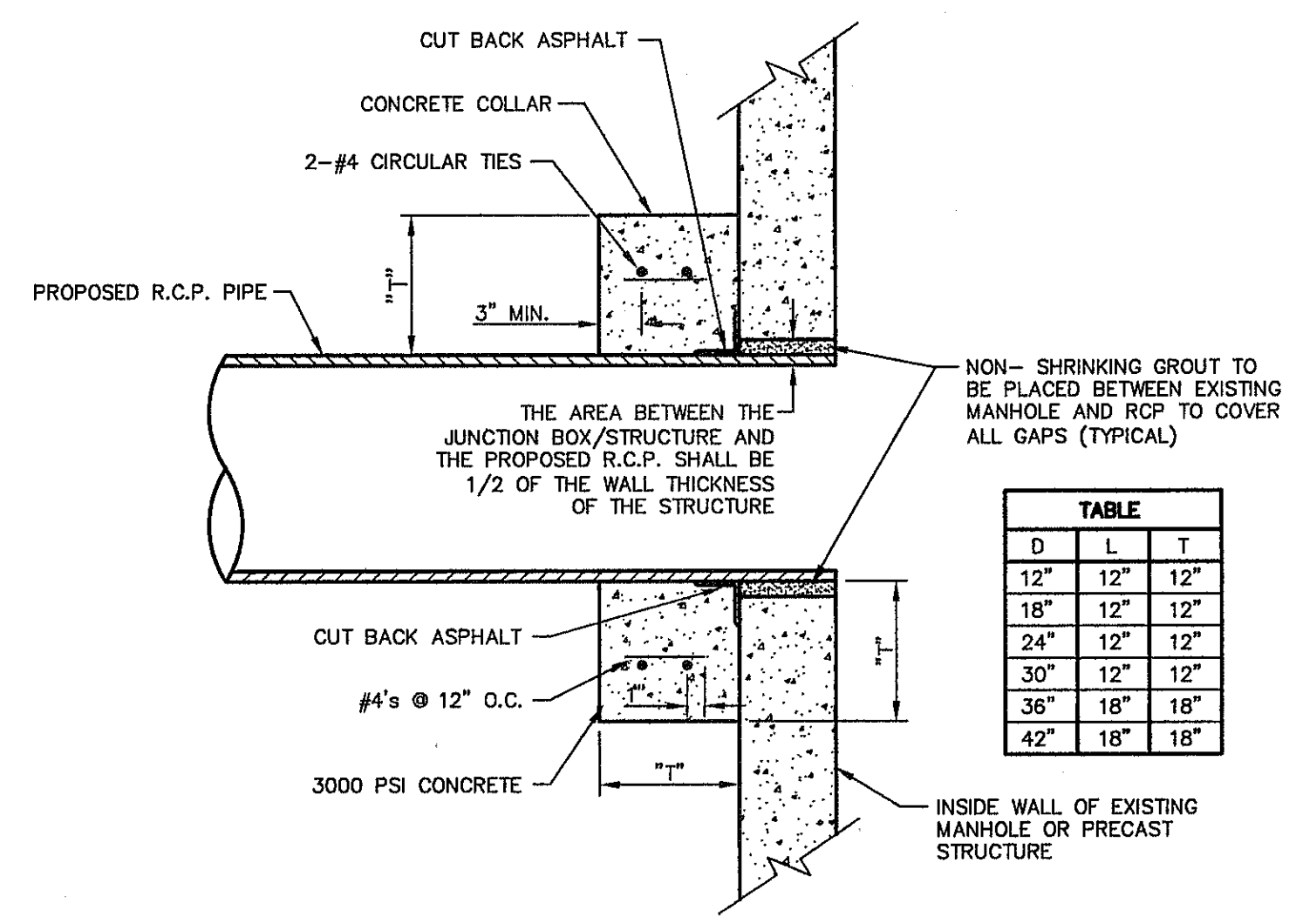
DESILTING BASIN No.	'A'	'B'	'C'	'D'	'E'	'F'	'H'
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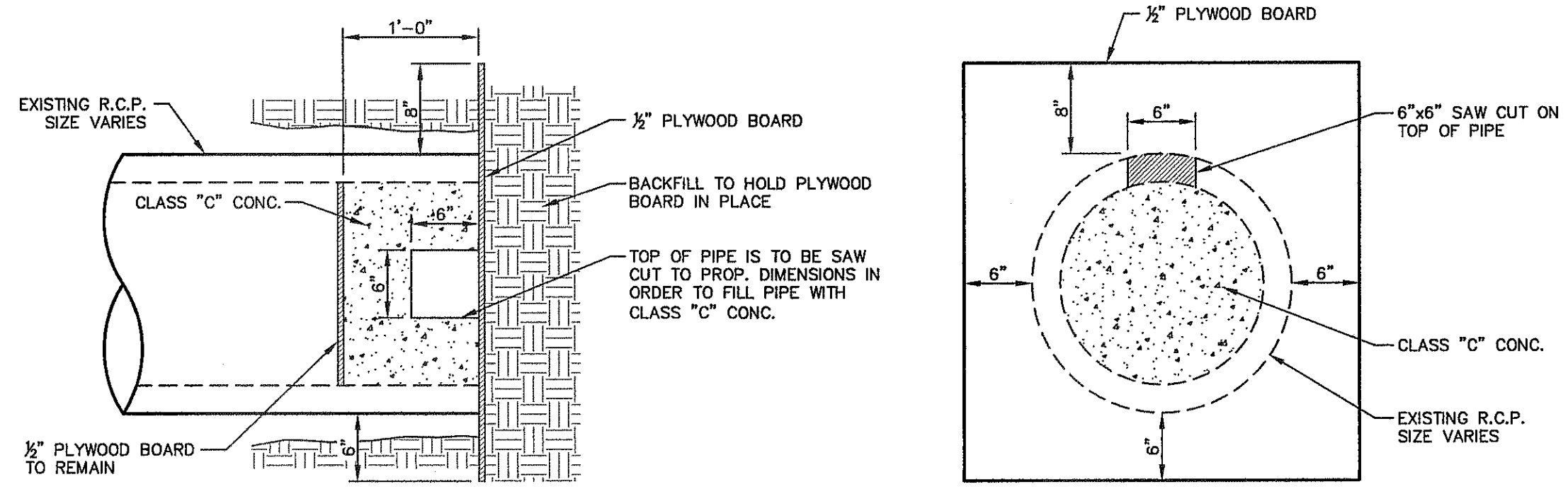
**1 TEMPORARY DESILTING BASIN DETAIL**  
SCALE: N.T.S.



**2 STORM PIPE MESH DETAIL**  
SCALE: N.T.S.



**3 PIPE TO MANHOLE CONNECTION DETAIL**  
SCALE: 1" = 2'-0"



**4 CONCRETE PLUG DETAIL**  
SCALE: N.T.S.

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH FROM ELEV. 500.00 TO 500.00 DISTANCE OF 67.58 FEET FROM MONUMENT TO POINT OF CURVE CENTERLINE AVENUE CITY DATUM. ELEVATION.....4005.40

DATE	REVISIONS	BY

**ca**

engineers • architects • planners

TEXAS REGISTERED ENGINEERING FIRM F-4584

4712 Woodrow Blvd., Ste. F El Paso, TX 79924  
Office: 915.544.5222 Fax: 915.544.5233 www.caengr.com

ENGINEER'S SEAL

SCALE: N/A

Horizontal: N/A

Vertical: N/A

Contour Interval: N/A

DATE: SEPTEMBER 2013

DESIGN BY: J.H.

DRAWN BY: J.H.

CHKD. BY: J.G.

APPVD. BY: J.G.

JOB No. 2000-157-LD

PROJECT TITLE

**TRES SUEÑOS**

**UNIT ELEVEN**

**SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**DRAINAGE**

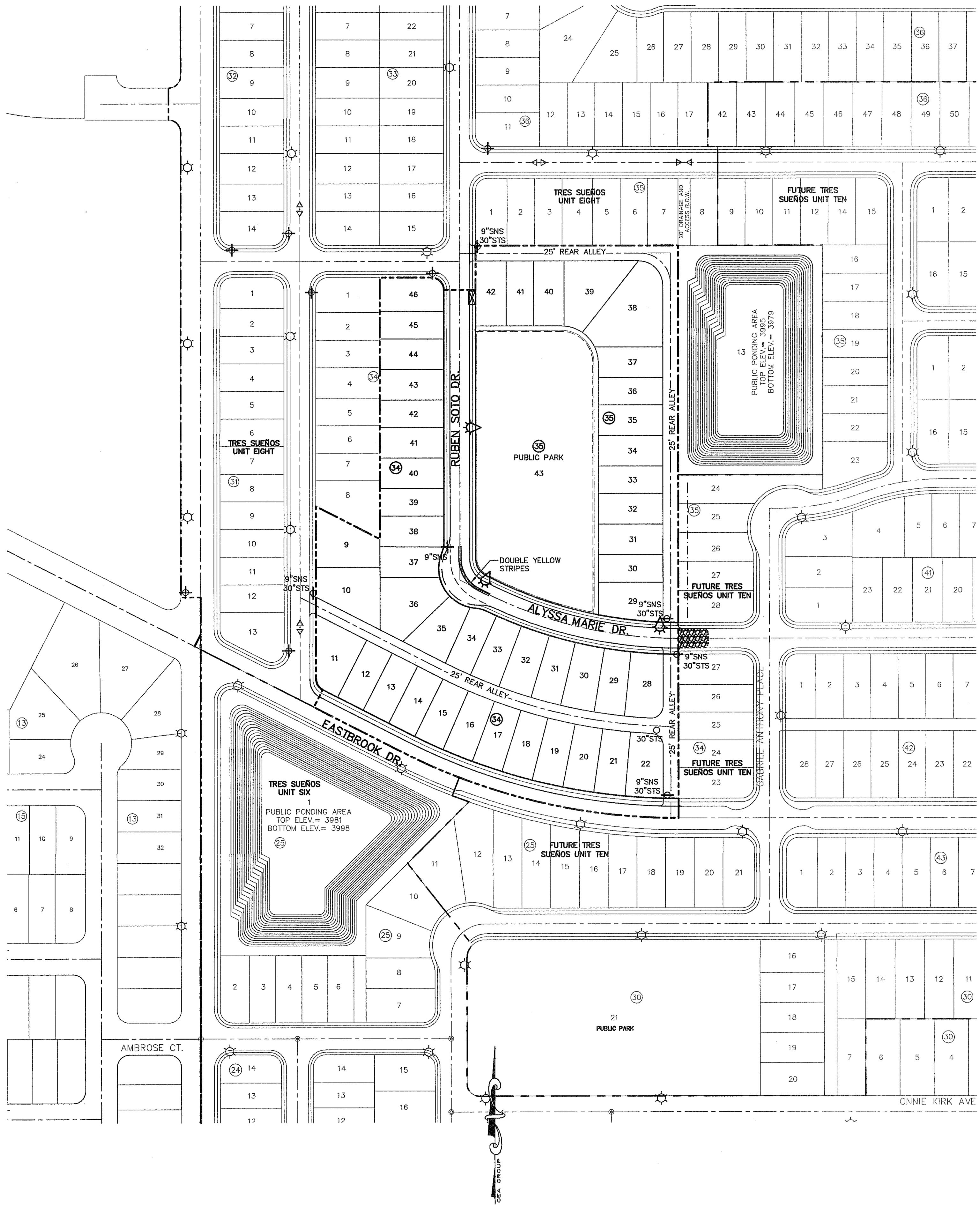
**DETAILS**

SHEET NO.

**C8.3**



3 RESIDENTIAL STREET LIGHTS



ILLUMINATION AND SIGNAGE PLAN

SCALE: 1" = 100'

KEYED NOTES:

1. MOUNT SO THAT CONTROL FACES NORTH
2. ITEM 17 SHALL NOT BE SPLICED INSIDE ITEM 14

DESIGN NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL LOCAL CODE REQUIREMENTS.
2. FOR ANY CLARIFICATION, EXCEPTIONS, OR QUESTIONS REGARDING CODE INTERPRETATION, CALL THE EL PASO ELECTRIC CO. DISTRIBUTION DEVELOPMENT DEPARTMENT.

LEGEND:

- ☉ EXISTING RESIDENTIAL STREET LIGHT
- ☉ PROPOSED RESIDENTIAL STREET LIGHT
- ✚ PROPOSED 9" STREET NAME SIGN AND 30" STOP SIGN
- ✚ EXISTING 9" STREET NAME SIGN (TWO SIGNS) AND 30" STOP SIGN
- ✚ PROPOSED 9" STREET NAME SIGN (ONE SIGN) AND 30" STOP SIGN
- PROPOSED 30" STOP SIGN
- ✚ PROPOSED N.D.B.C.U. MAIL BOX

**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

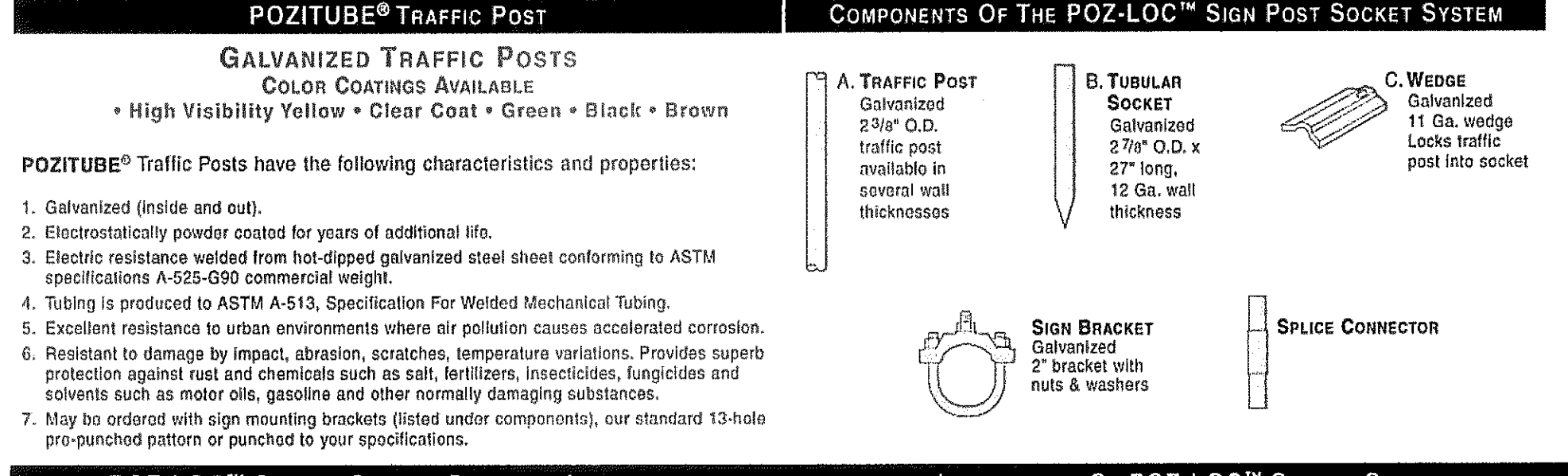
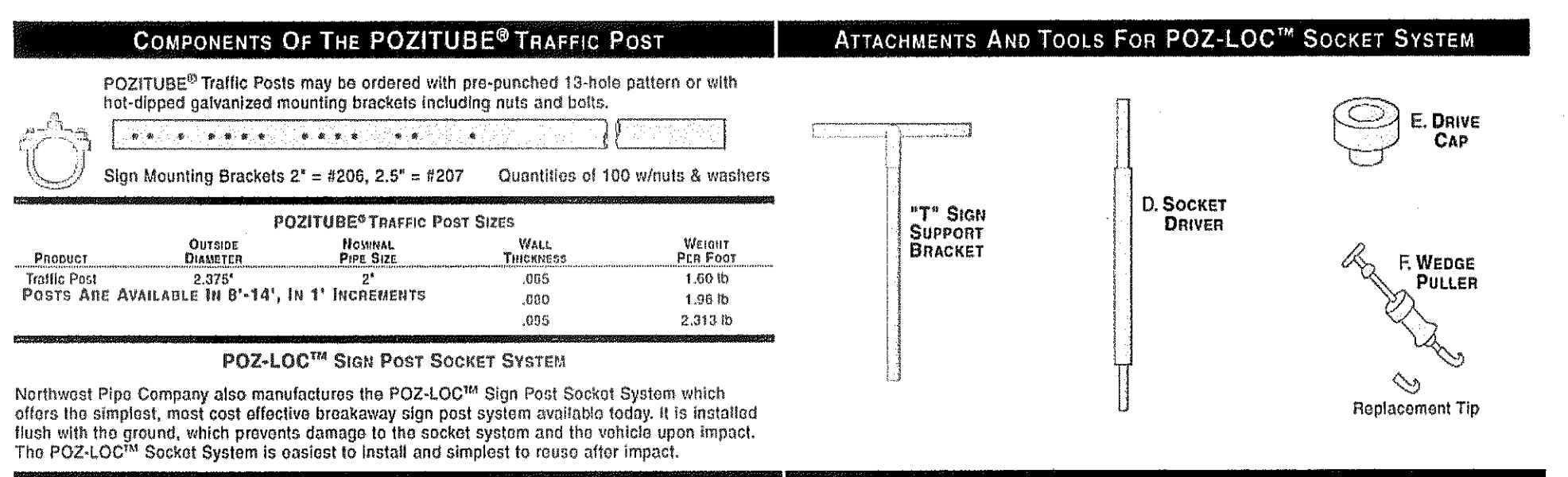
**WARNING!**  
**BEFORE YOU DIG**

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

FOR FIELD LOCATING EXISTING UTILITIES

GENERAL NOTES:

1. A MINIMUM 3' CLEARANCE SHALL BE PROVIDED ON THE SIDEWALK AFTER THE LIGHT POLES & FIRE HYDRANTS ARE PLACED. SIDEWALK SHALL COMPLY WITH A.D.A. AND T.D.L.R. STANDARDS.
2. U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NDCBU) THAT WILL BE PLACED OUTSIDE SUBDIVISION BOUNDARY LIMITS DUE TO THE SUBDIVISION PRIVATE LOCATION.
3. POSTS MUST BE BREAK-AWAY TYPE AS SHOWN ON THIS SHEET.
4. TRAFFIC STREET SIGNS MUST BE OF HIGH INTENSITY REFLECTIVE SHEETING.

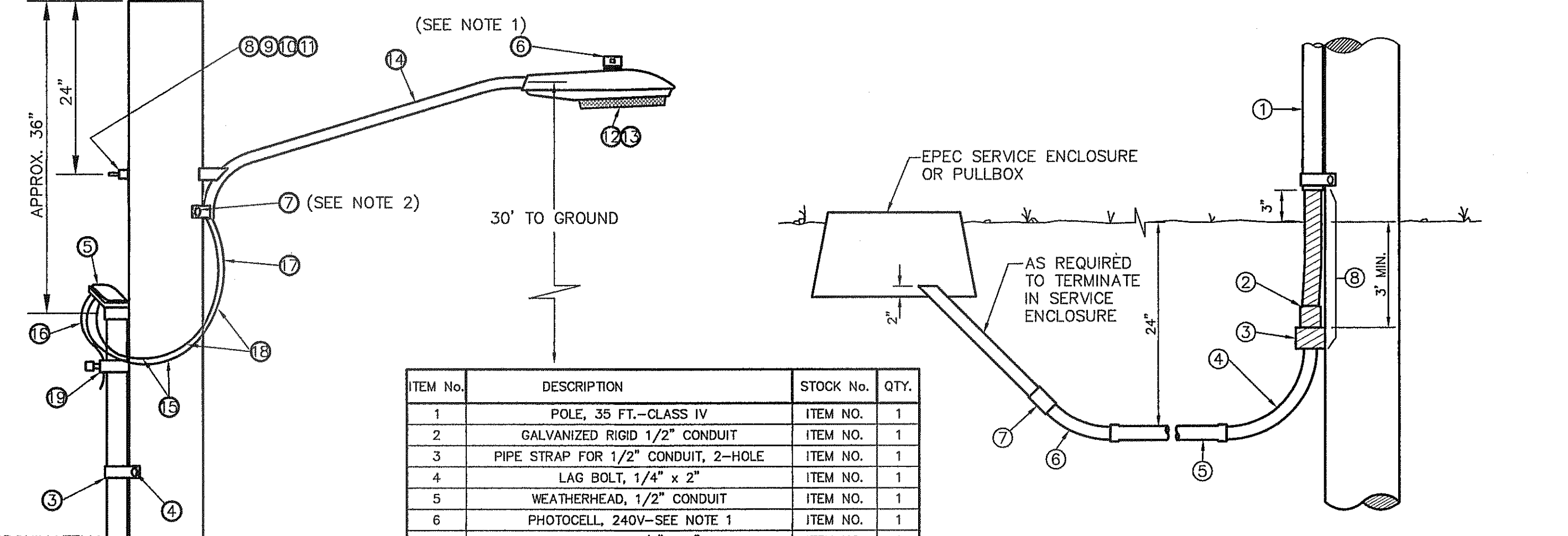


**POZ-LOC™ SOCKET SYSTEM ORDERING INFORMATION**

DESCRIPTION	PART No.	Wt. (Lbs.)	DESCRIPTION	PART No.	Wt. (Lbs.)
Socket 2 7/8" x 27"	2804	7.3	2 7/8" Drive Cap	2700	11.9
Wedge	2813	1.0	Wedge Puller	2713	6.0
Sign Post 2 3/8"	206	0.39	Puller Replacement Tip	2719	1.0
Sign Brackets 2"			Socket Driver	2712	45.0

**COMPLETE POZ-LOC POST & SOCKET ASSEMBLIES**  
(Posts Are Available in 8"-14", in 1" Increments)

PART No.	OUTSIDE DIAMETER	NOMINAL PIPE SIZE	POST WALL THICKNESS	POST WEIGHT PER FOOT	Plus weight of one socket and wedge per post 0.3 lbs.
238065	2.375	2"	.065	1.60 lb.	
238080	2.375	2"	.080	1.96 lb.	
238095	2.375	2"	.095	2.313 lb.	



ITEM No.	DESCRIPTION	STOCK No.	QTY.
1	POLE, 35 FT.—CLASS IV	ITEM NO.	1
2	GALVANIZED RIGID 1/2" CONDUIT	ITEM NO.	1
3	PIPE STRAP FOR 1/2" CONDUIT, 2-HOLE	ITEM NO.	1
4	LAG BOLT, 1/4" x 2"	ITEM NO.	1
5	WEATHERHEAD, 1/2" CONDUIT	ITEM NO.	1
6	PHOTOCELL, 240V—SEE NOTE 1	ITEM NO.	1
7	LAG BOLT, 1/2" x 4"	ITEM NO.	1
8	MACHINE BOLT, 5/8" x 8"	ITEM NO.	1
9	SQUARE GALV. WASHER, 2-1/4"x2"-1/4"	ITEM NO.	1
10	COIL-SPRING WASHER, 5/8"	ITEM NO.	1
11	LOCKNUT, 5/8"	ITEM NO.	1
12	LUMINAIRE, 100W H. P. S.	ITEM NO.	1
13	HPS LAMP, 100W	ITEM NO.	1
14	MAST ARM, 6" x 1-1/4"	ITEM NO.	1
15	COPPER CABLE, #12, 19 STRAND, 600 V GREEN	ITEM NO.	1
16	COPPER CABLE, #12, SOLID, 600 V, UF	ITEM NO.	1
17	CABLE #10, 2 CONDUCTOR, 600 V, UF	ITEM NO.	1
18	SLEEVES, #12-10	ITEM NO.	1
19	GROUNDING CLAMP	ITEM NO.	1

KEY NOTES:

1. 1/2" GALVANIZED RIGID CONDUIT
2. REDUCER 1" TO 1/2" BUSHING
3. 1" PVC FEMALE ADAPTER
4. 1" PVC 90° ELBOW
5. 1" PVC CONDUIT
6. 1" PVC 45° ELBOW
7. 1" PVC COUPLING
8. TAPE 1/2" RIGID CONDUIT (6")

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

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

REFERENCES — BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH FROM THE SOUTHWEST CORNER OF THE INTERSECTION OF AVENUE CITY DATUM. ELEVATION: 4005.40

SCALE: 1"=100'  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A

DATE: SEPTEMBER 2013  
DESIGN BY: JHL  
DRAWN BY: JHL  
CHKD. BY: JHL  
APP'D. BY: JHL  
JOB No.: 2000-157-ILD

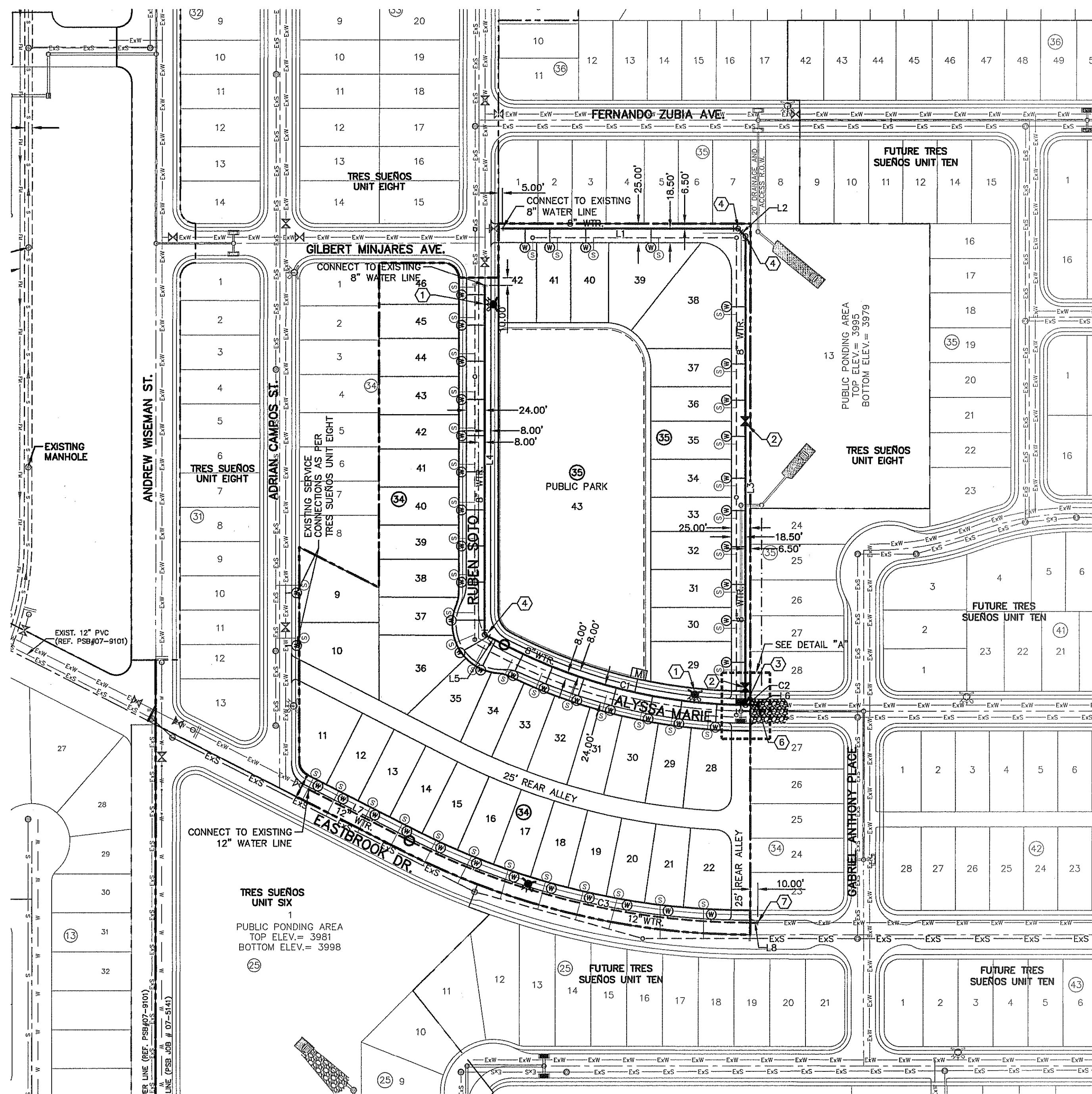
PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN**  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
**ILLUMINATION PLAN & DETAILS**

SHEET NO.  
**C9.1**

engineers • architects • planners  
TEXAS REGISTERED ENGINEERING FIRM F-4584  
4712 Woodrow Bean, Ste. F, El Paso, TX 79924  
Office: 915.543.5222 Fax: 915.543.5203 www.ccaip.com





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

**LINE TABLE**

LINE	BEARING	LENGTH
L1	N89°59'41"E	310.30'
L2	S45°00'22"E	14.14'
L3	S00°00'25"E	617.46'
L4	S00°00'11"W	457.18'
L5	N62°57'16"W	29.21'
L6	S89°58'02"E	12.05'
L7	S62°57'16"E	148.76'
L8	S89°59'49"E	10.80'

**WATER KEYED NOTES**

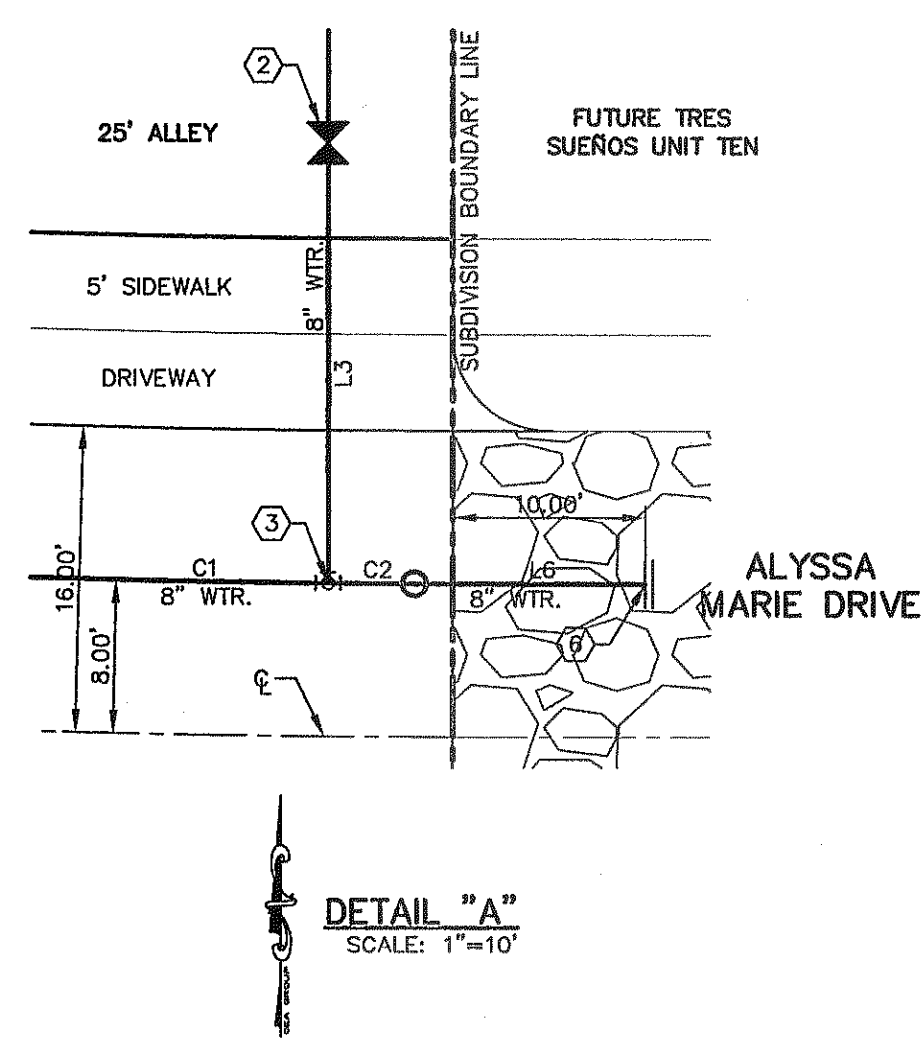
①	FIRE HYDRANT
②	8" # GATE VALVE
③	8" X 8" X 8" TEE
④	8" BEND
⑤	8" CROSS
⑥	8" PLUG
⑦	12" PLUG

**CURVE TABLE**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	698.00'	334.71'	170.64'	331.51'	N76°09'39"W	027°28'29"
C2	623.82'	4.50'	2.25'	4.50'	S89°42'23"E	000°24'48"
C3	992.23'	465.20'	236.96'	460.95'	S76°26'58"E	026°51'45"

**WATER QUANTITIES**

DESCRIPTION	QUANTITY	UNIT
8" PVC WATER LINE	1,780	LF
SERVICE LINES	46	EA
8" GATE VALVE	2	EA
8" TEE	1	EA
8" PLUG	1	EA
12" PVC WATER LINE	625	LF
12" PLUG	1	EA
FIRE HYDRANT	3	EA



**WATER INDEX MAP**  
 SCALE: 1" = 100'

**INDEX**

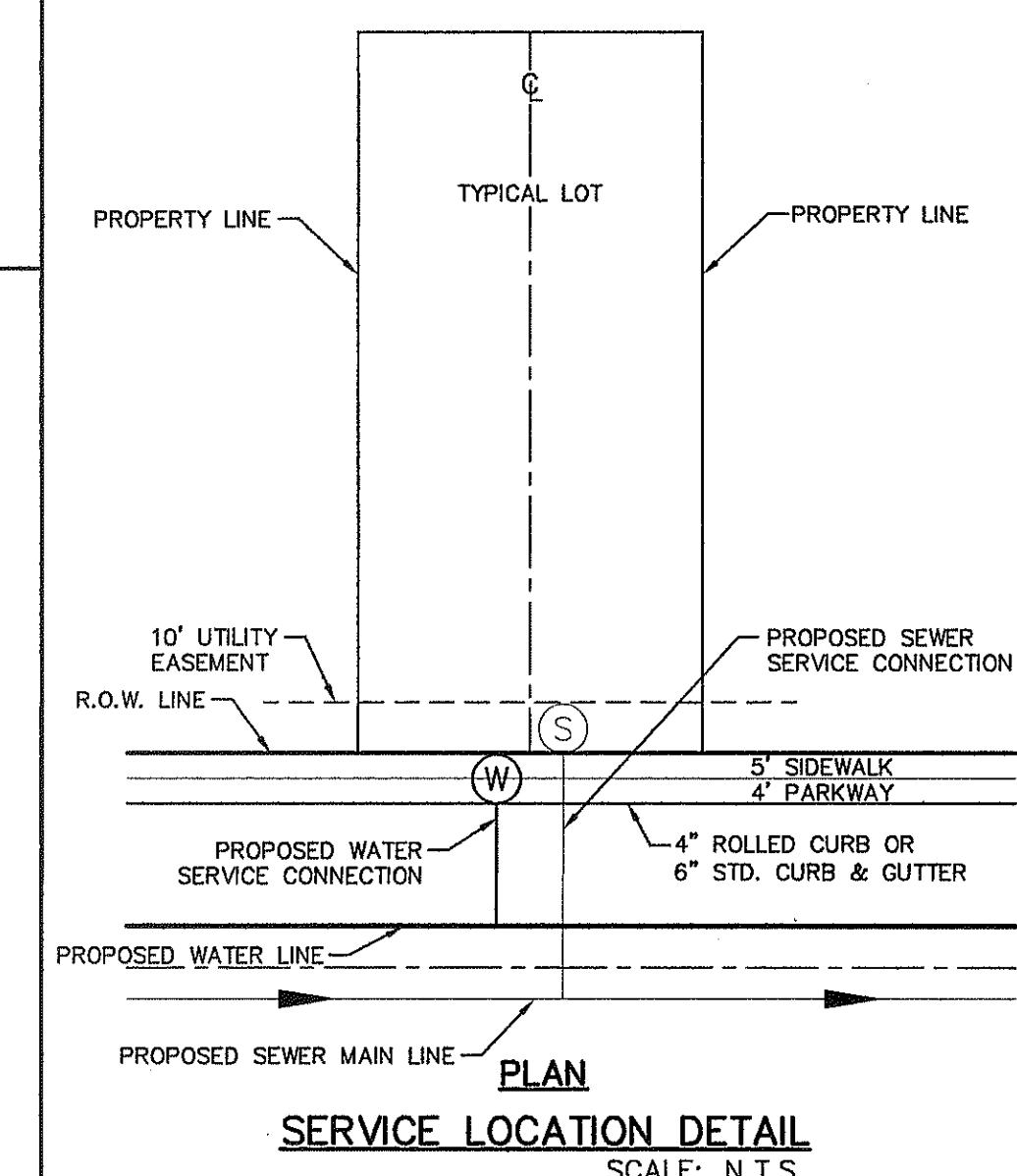
SHEET NO.	DESCRIPTION
C9.1	TRES SUEÑOS UNIT ELEVEN WATER MAIN PIPE LAYOUT
C9.2	WATER DETAILS
C9.3	WATER DETAILS
C9.4	WATER DETAILS
C9.5	WATER DETAILS

- NOTES:**
- ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
  - ALL WATER LINES SHALL BE PVC C-900, CLASS 150.
  - REFERENCE WATER DETAILS FOR TYPICAL VALVE AND WATER LOCATION AT STREET INTERSECTIONS.
  - REFERENCE TRES SUEÑOS UNIT SIX, TRES SUEÑOS UNIT EIGHT, AND TRES SUEÑOS UNIT TEN FOR EXISTING WATER LINES.

**NOTE:**  
 THE WATER INDEX PLAN SHALL DICTATE THE LOCATIONS OF WATER VALVES AND FIRE HYDRANTS.

**LEGEND**

SYMBOL	DESCRIPTION
---	SUBDIVISION BOUNDARY LINE
---	PROPERTY LINE
---	CENTER LINE
8" WTR.	PROPOSED 8", C-900 P.V.C. PIPE CL 150
12" WTR.	PROPOSED 12", C-900 P.V.C. PIPE CL 150
ExW	EXISTING 8" WATER LINE
8" SWR	PROPOSED SEWER LINE (PLAN VIEW)
ExS	EXISTING SEWER LINE
---	PROPOSED STORM SEWER
---	PROPOSED SERVICE CONNECTION (PLAN VIEW)
---	PROPOSED FIRE HYDRANT, KENNEDY OR MUELLER MODEL
---	EXISTING FIRE HYDRANT
---	PROPOSED GATE VALVE
---	EXISTING GATE VALVE
---	PROPOSED WATER LINE PLUG
---	EXISTING PLUG
---	PROPOSED POINT OF TANGENCY
---	4" WATER METER FOR LANDSCAPE AND IRRIGATION INSTALLED BY PSB



**GENERAL NOTES**

- UNLESS 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 T.C.E.W REQUIREMENTS (290-44).
- THE INTENT OF THE OWNER IS TO HAVE THE WATER MAINS 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. 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.
- 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 THE CITY OF EL PASO DEPARTMENT OF TRANSPORTATION 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.
- 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 VALVE, FIRE HYDRANT, ELBOW, SERVICE CONNECTION AND/OR STUB-OUT, WITH RESPECT TO THE APPROPRIATE PROJECT CONTROL POINT.
- THE CITY OF EL PASO AND EL PASO WATER UTILITIES MUST BE NOTIFIED 48 HOURS PRIOR TO COMMENCING ANY WORK IN AREAS WITHIN THEIR JURISDICTION.
- EXISTING STREETS, DRIVEWAYS, SIGNS, 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.
- TRAFFIC CONTROL SHALL BE IN PLACE PRIOR TO INITIATING WORK.
- ALL TIE-INS SHALL BE CLOSELY COORDINATED WITH THE EL PASO WATER UTILITIES AT LEAST 48 HOURS PRIOR TO ACTUAL CONSTRUCTION.
- CONSTRUCTION OF THE PUBLIC WATER AND SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFORM WITH E.P.W.U. - P.S.B. 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

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

**FIBER OPTICS:**  
 AT&T  
 P.O. BOX 1650  
 EL PASO, TX. 79949  
 (800) 852-3786  
 MS. DARLENE NORIS

**EL PASO STREETS**  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION  
 7969 SAN PAUL DR.  
 EL PASO, TX. 79907  
 (915) 621-6750  
 MR. TED MARQUEZ, P.E.

**WATER & SEWER:**  
 EL PASO WATER UTILITIES  
 1154 HAWKINS BLVD #1  
 EL PASO, TX. 79925  
 (915) 544-5500  
 MR. FELIPE LOPEZ, P.E.

**ENGINEER:**  
 CEA GROUP  
 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 DERAGISCH

**RESIDENTIAL GAS LINES:**  
 TEXAS GAS SERVICE  
 4700 FOLLARD ST.  
 EL PASO, TX. 79930  
 (915) 680-7218

**TELEPHONE:**  
 SBC  
 11200 PELICANO  
 EL PASO, TX. 79935  
 (915) 534-5161  
 MR. TIM BROWN

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

**REFERENCES - BENCHMARKS**  
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E A DISTANCE OF 487.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION: 4606.40

**ENGINEER'S SEAL**  
  
 JORGE L. AZCARATE  
 88075  
 STATE OF TEXAS  
 ENGINEER

**PROJECT TITLE**  
 TRES SUEÑOS  
 UNIT ELEVEN  
 SUBDIVISION IMPROVEMENTS

**SHEET TITLE**  
 WATER INDEX

**SHEET NO.**  
 C10.1

**REVISIONS**

DATE	REVISIONS	BY

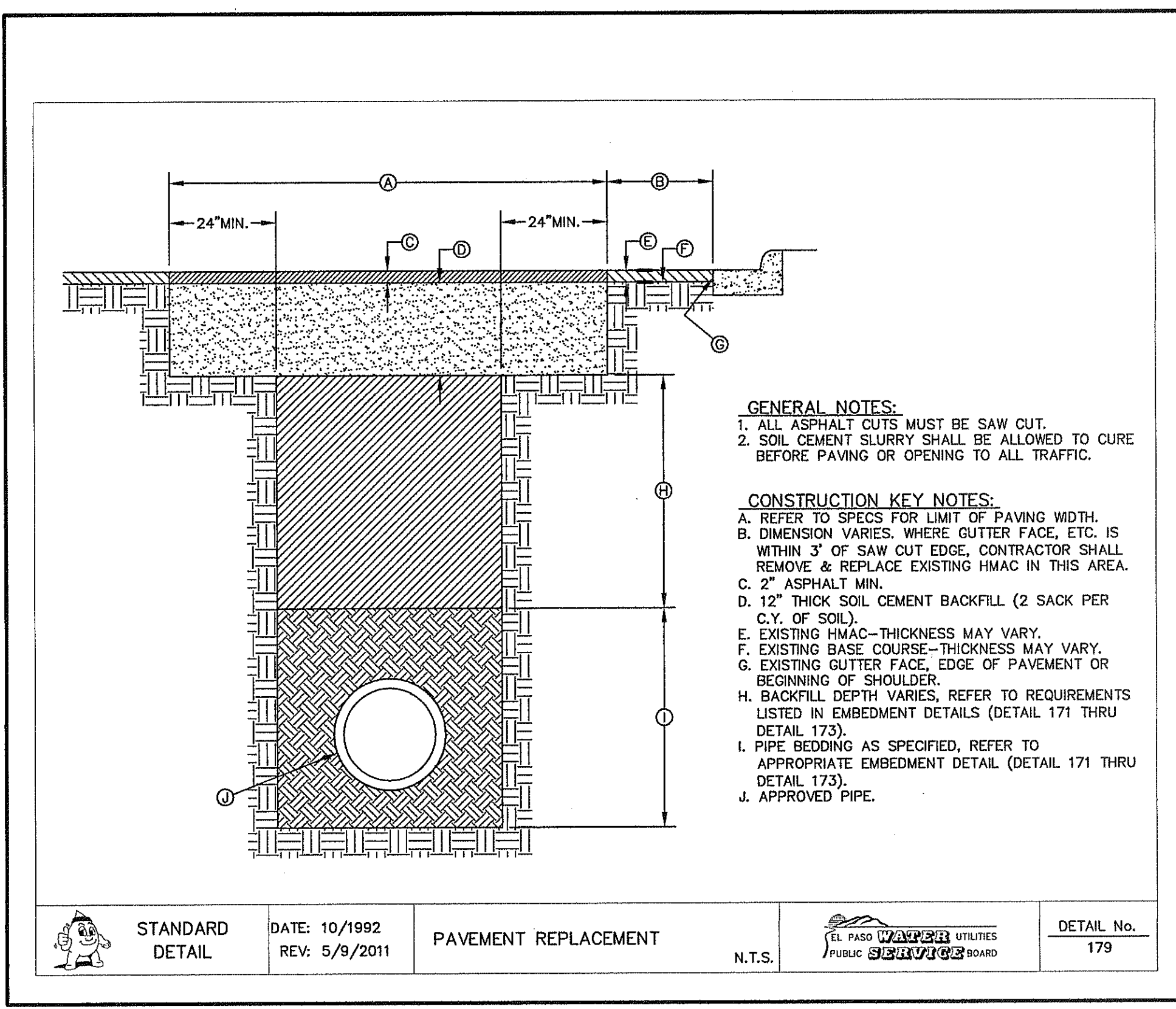




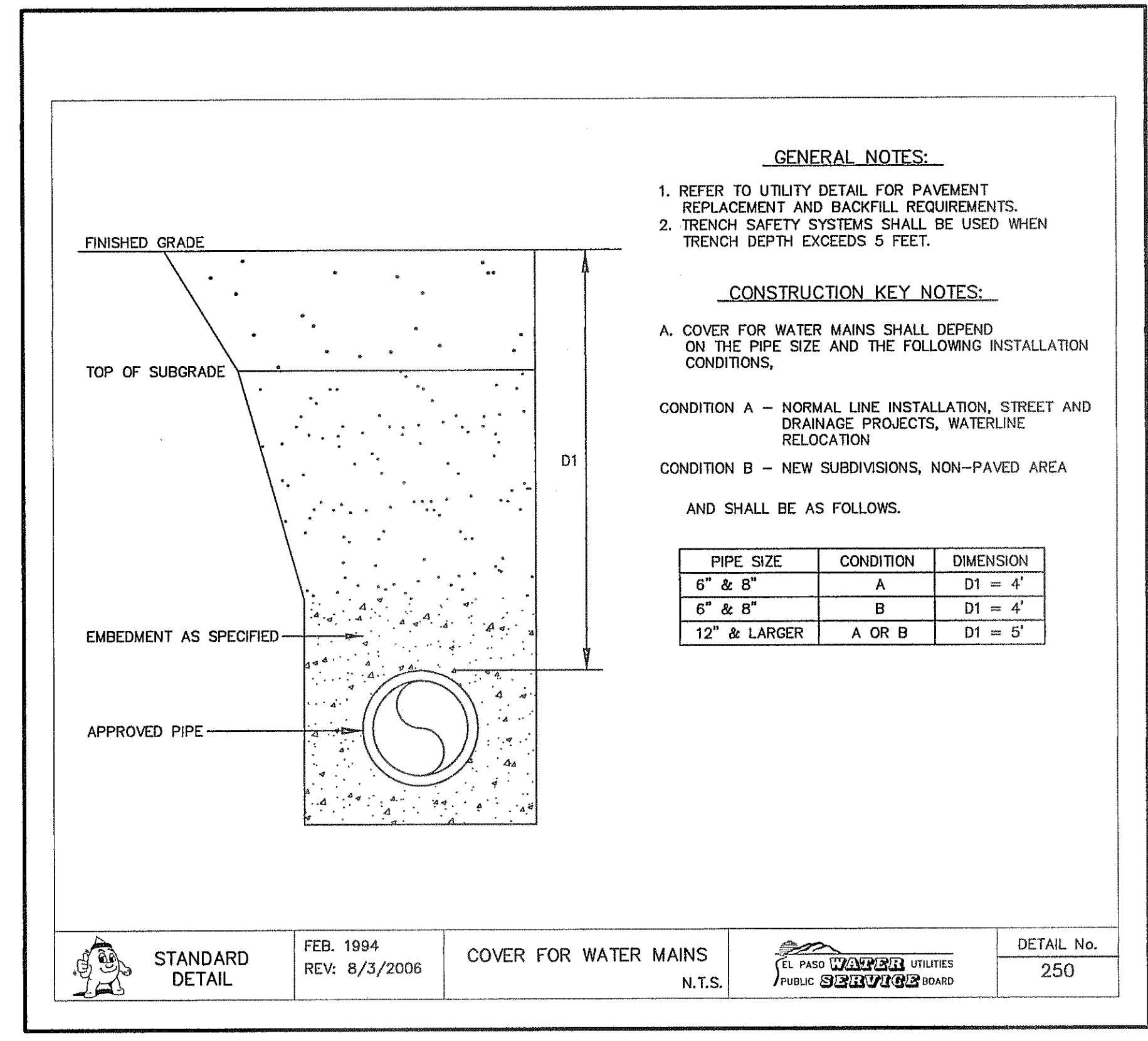




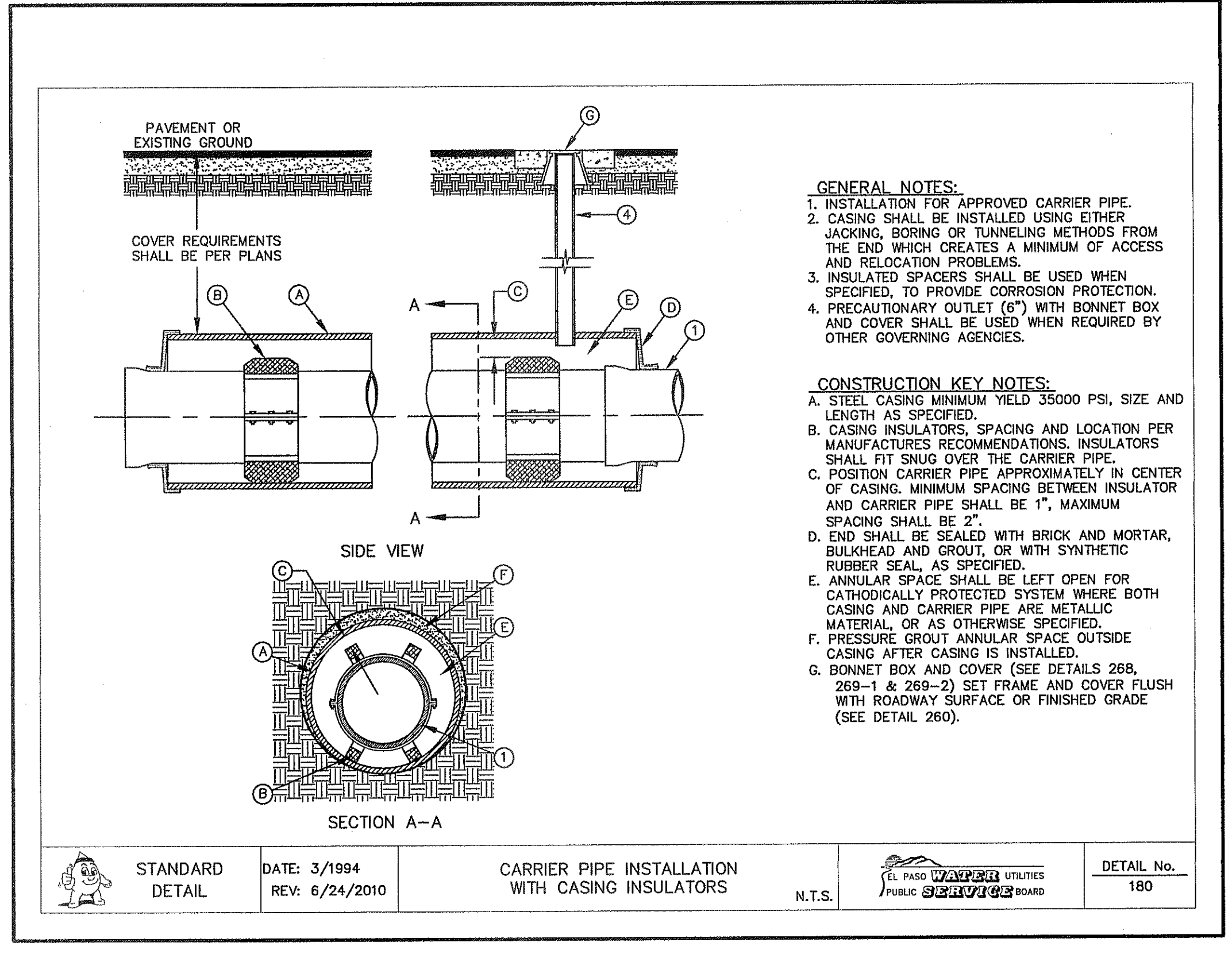




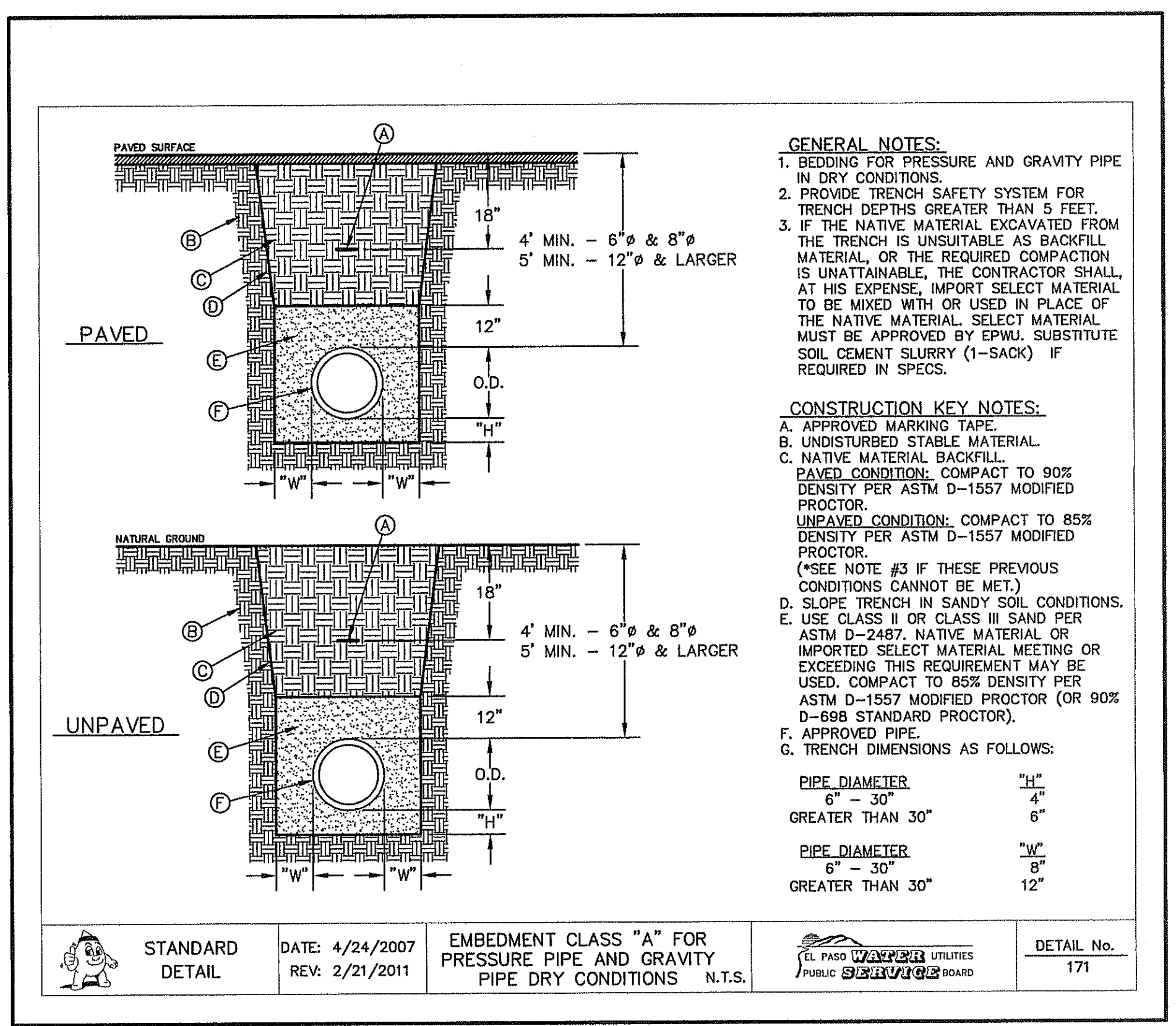
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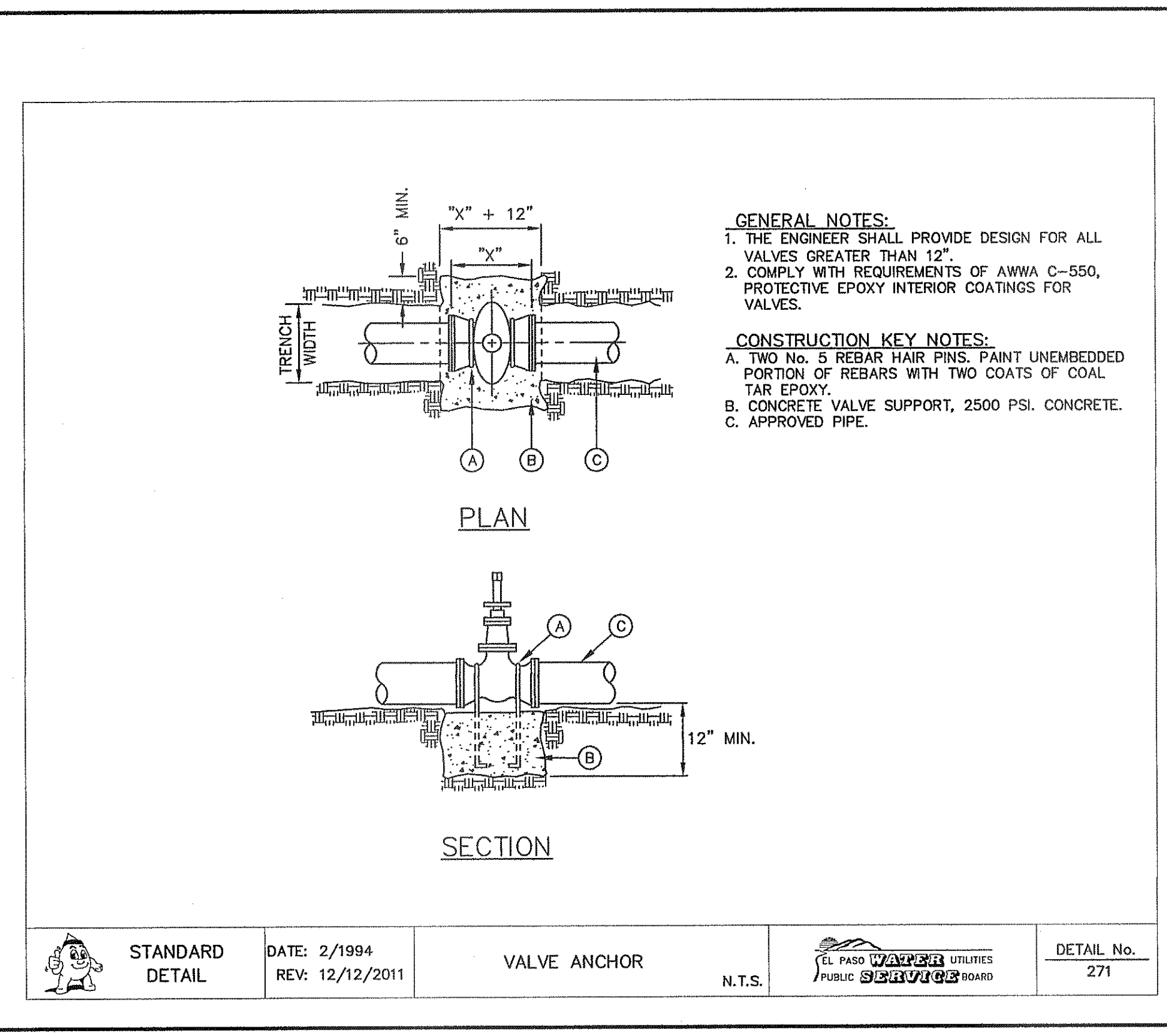
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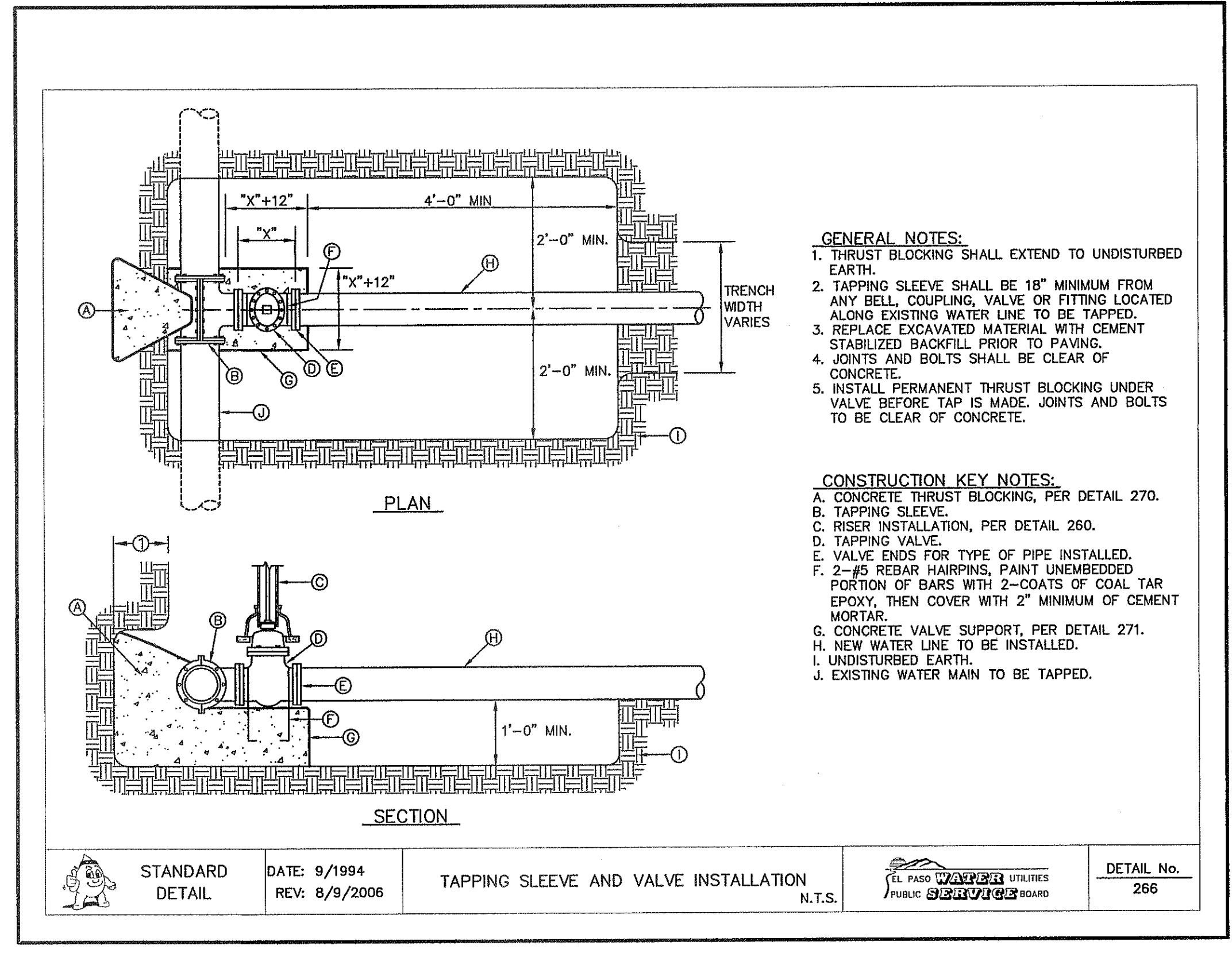
3 CARRIER PIPE INSTALLATION W/ CASING INSULATORS  
SCALE: N.T.S.



4 EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS  
SCALE: N.T.S.



5 VALVE ANCHOR  
SCALE: N.T.S.



6 TAPPING SLEEVE AND VALVE INSTALLATION  
SCALE: N.T.S.

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., 508°43'31"E, A DISTANCE OF 487.56 FEET FROM THE INTERSECTION OF RICH BEEM BLVD. AND AVENUE CITY DATUM. ELEVATION: 1005.40

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

DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.L.A.  
APPD. BY: J.L.A.

JOB NO. 2000-157-LD

PROJECT TITLE  
TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
WATER DETAILS  
(SHEET 3 OF 5)  
SHEET NO.

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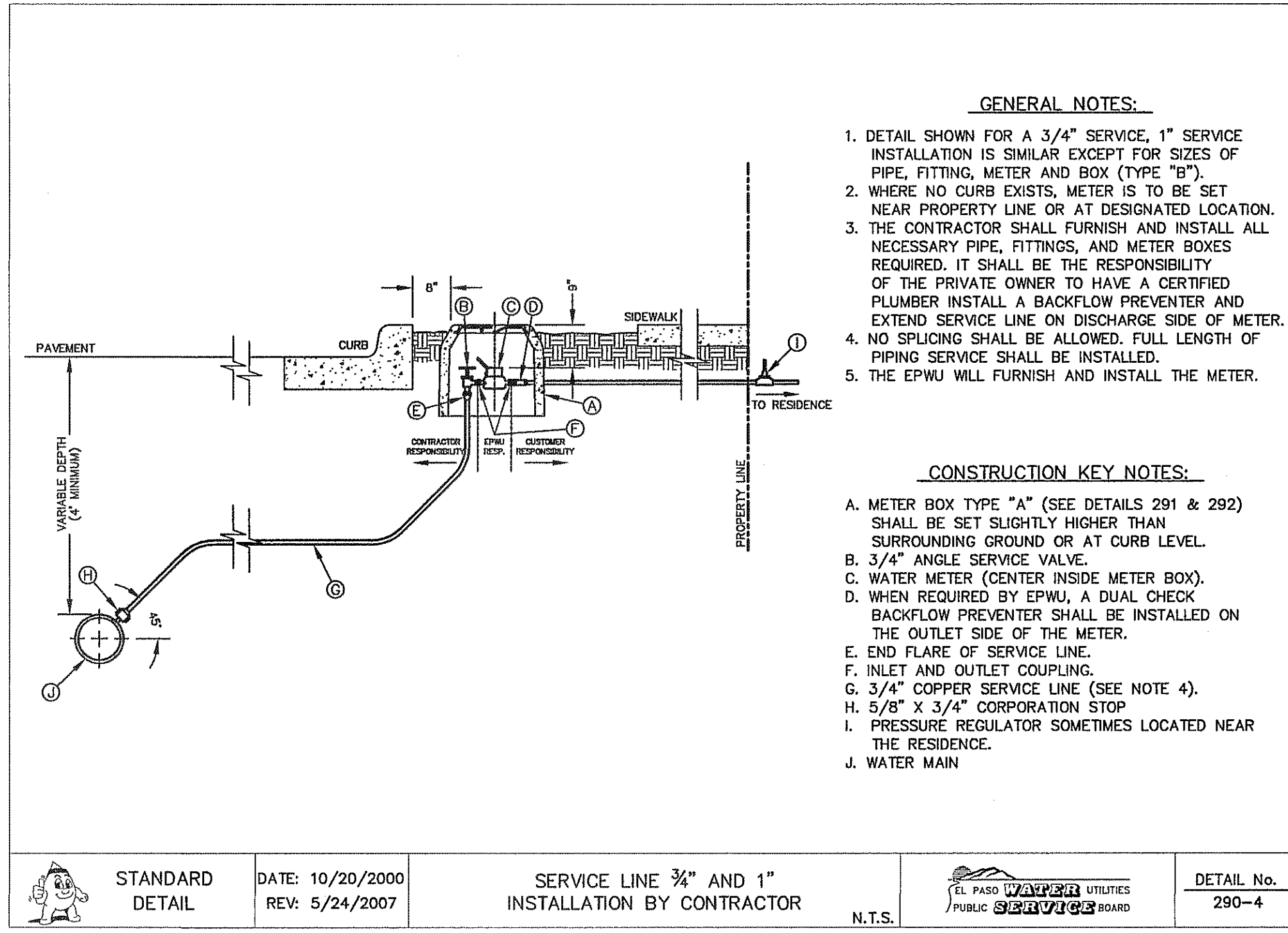
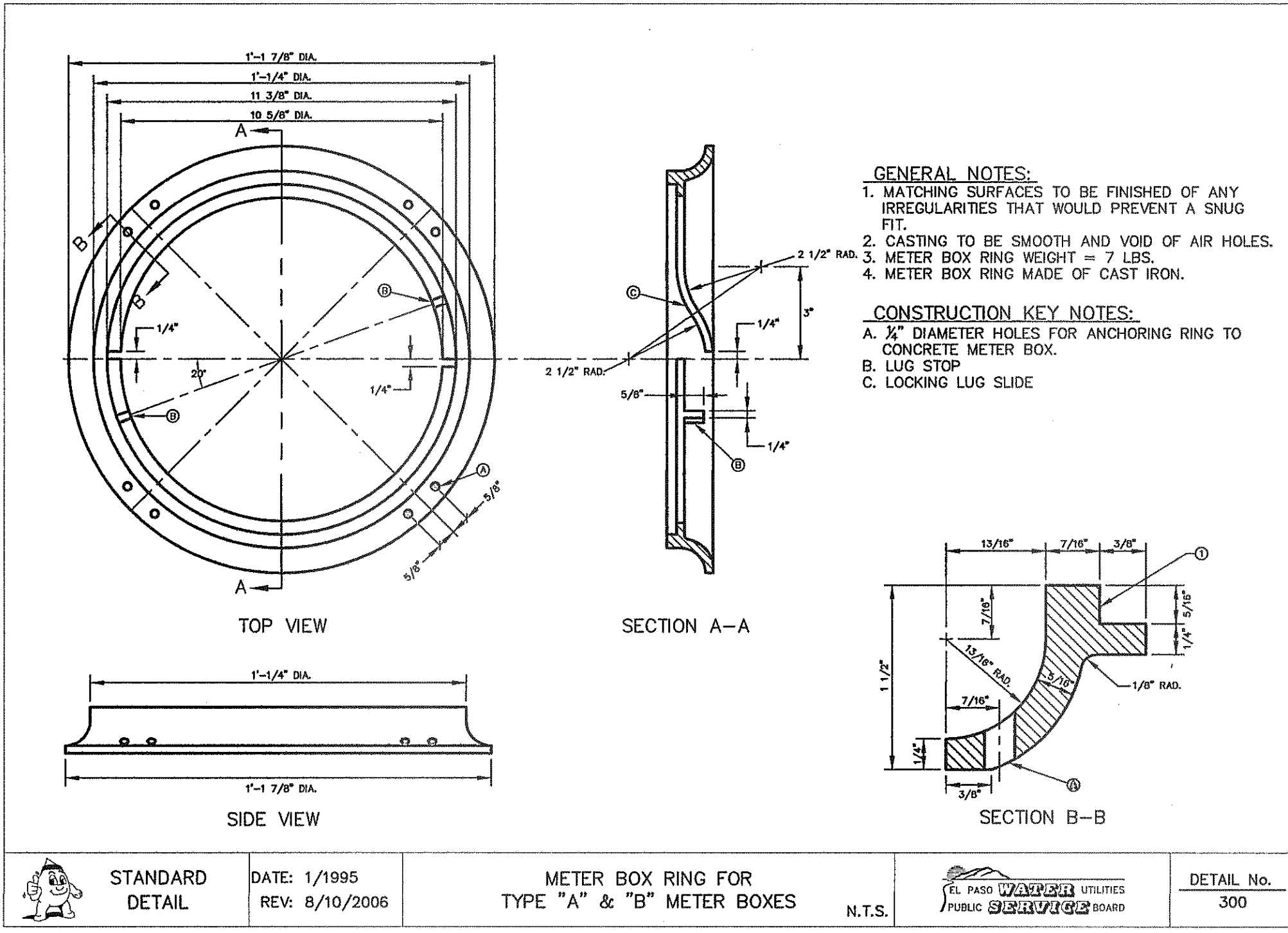
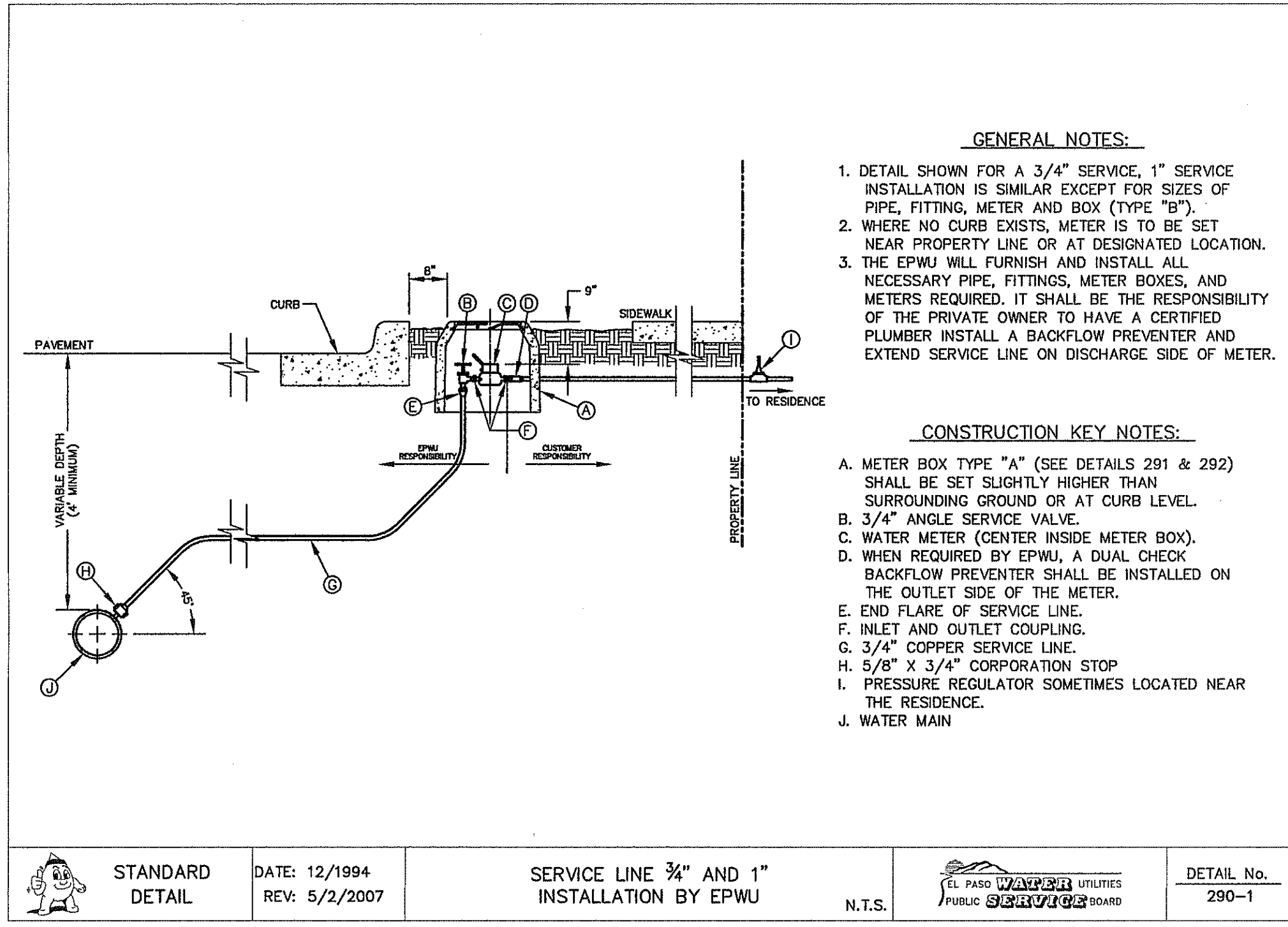
EL PASO WATER UTILITIES PUBLIC UTILITIES BOARD

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REVISIONS  
DATE  
BY

C10.4





STANDARD DETAIL	DATE: 12/1994 REV: 5/2/2007	SERVICE LINE 3/4" AND 1" INSTALLATION BY EPWU	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 290-1
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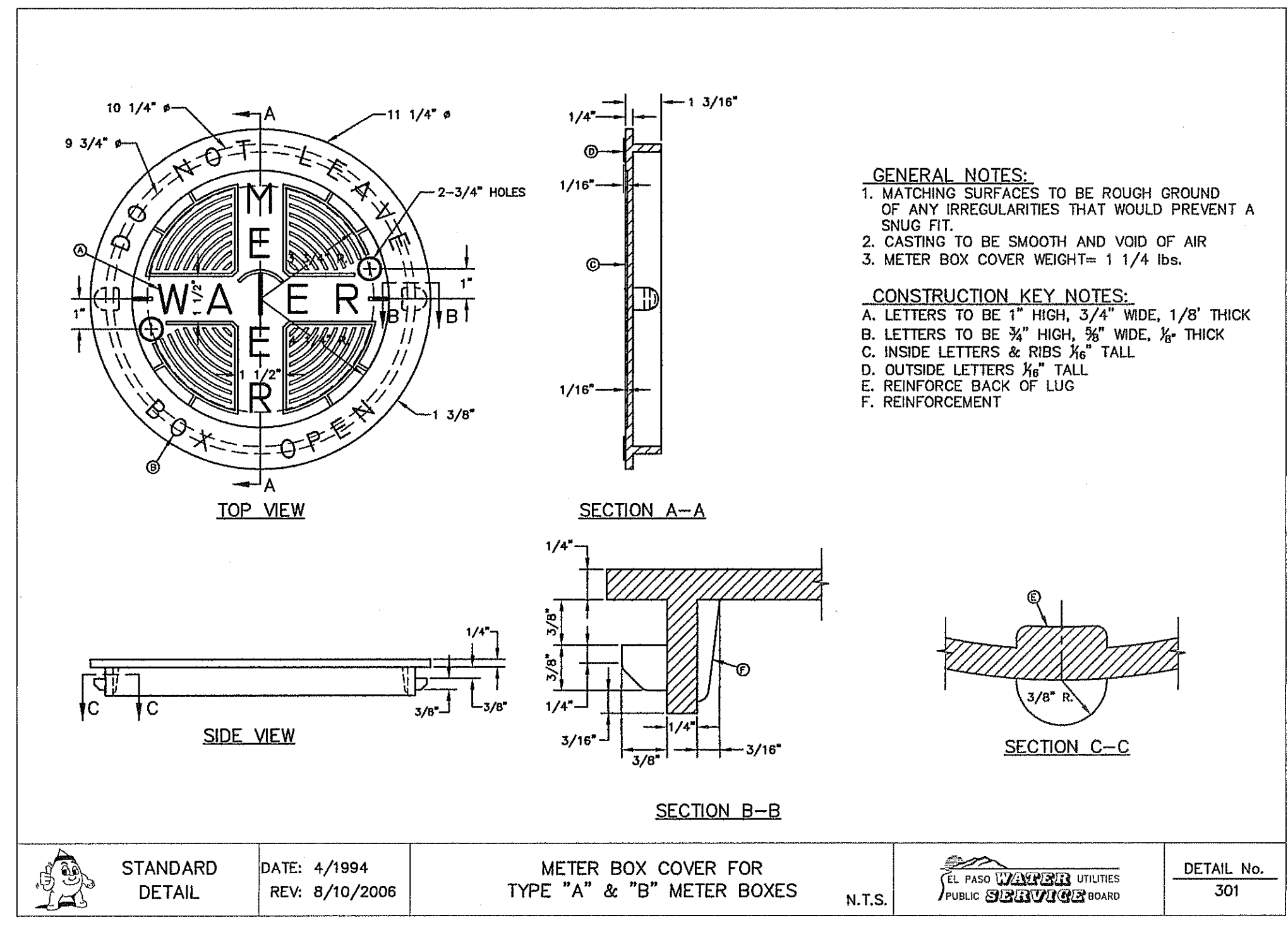
STANDARD DETAIL	DATE: 1/1995 REV: 8/10/2006	METER BOX RING FOR TYPE "A" & "B" METER BOXES	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 300
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STANDARD DETAIL	DATE: 10/20/2000 REV: 5/24/2007	SERVICE LINE 3/4" AND 1" INSTALLATION BY CONTRACTOR	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 290-4
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1 TYPICAL 3/4" SERVICE LINE INSTALLATION  
SCALE: N.T.S.

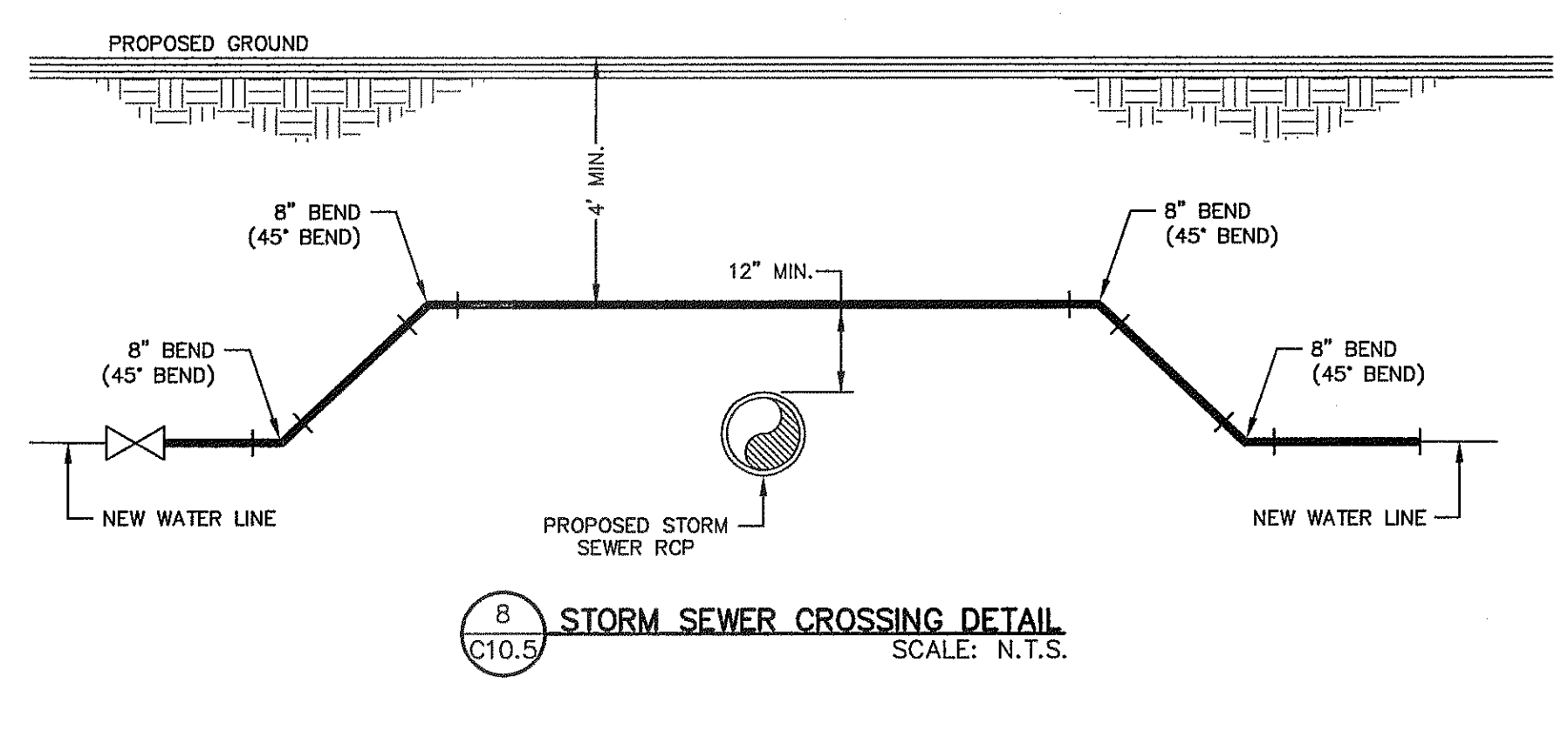
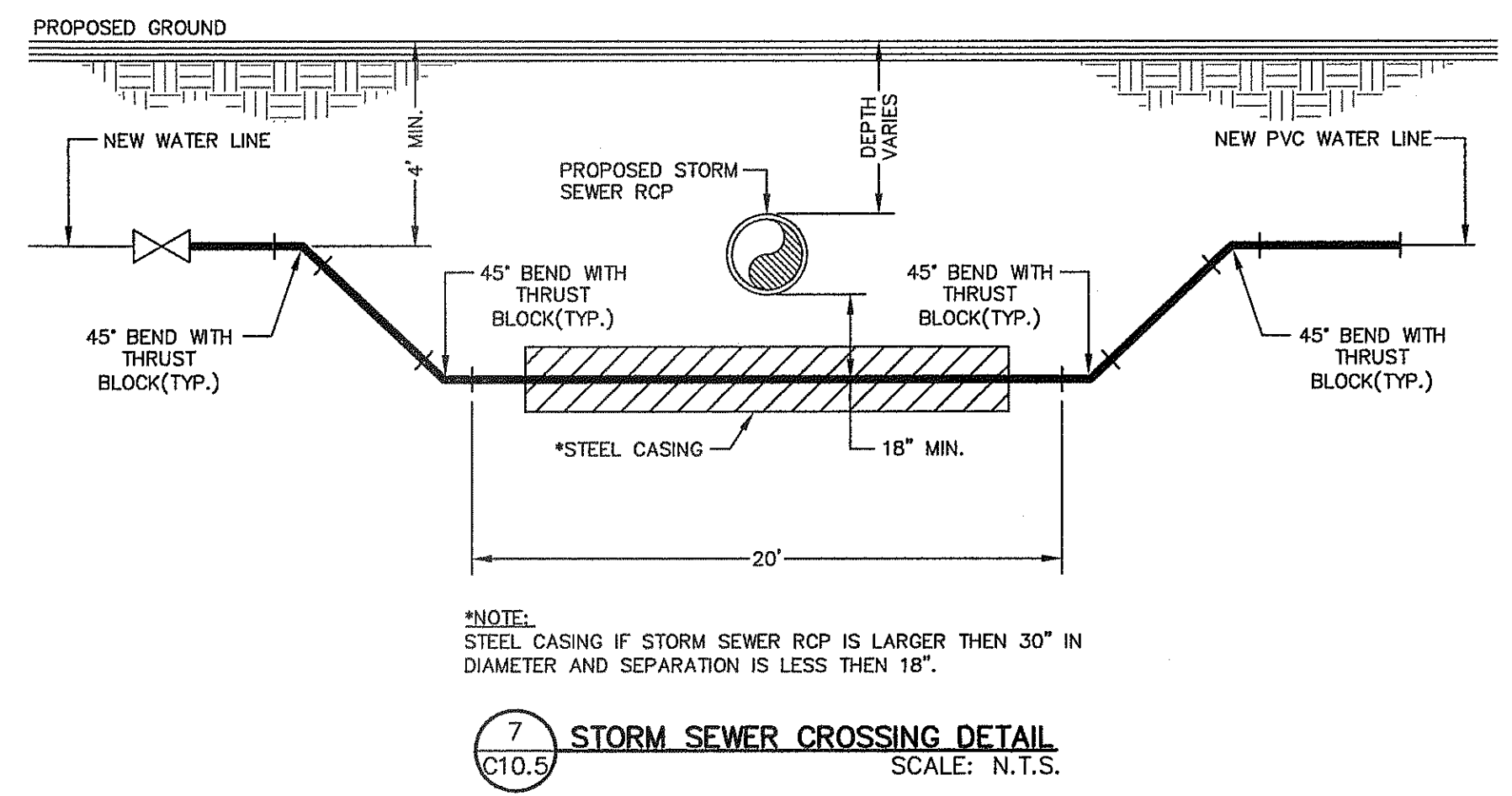
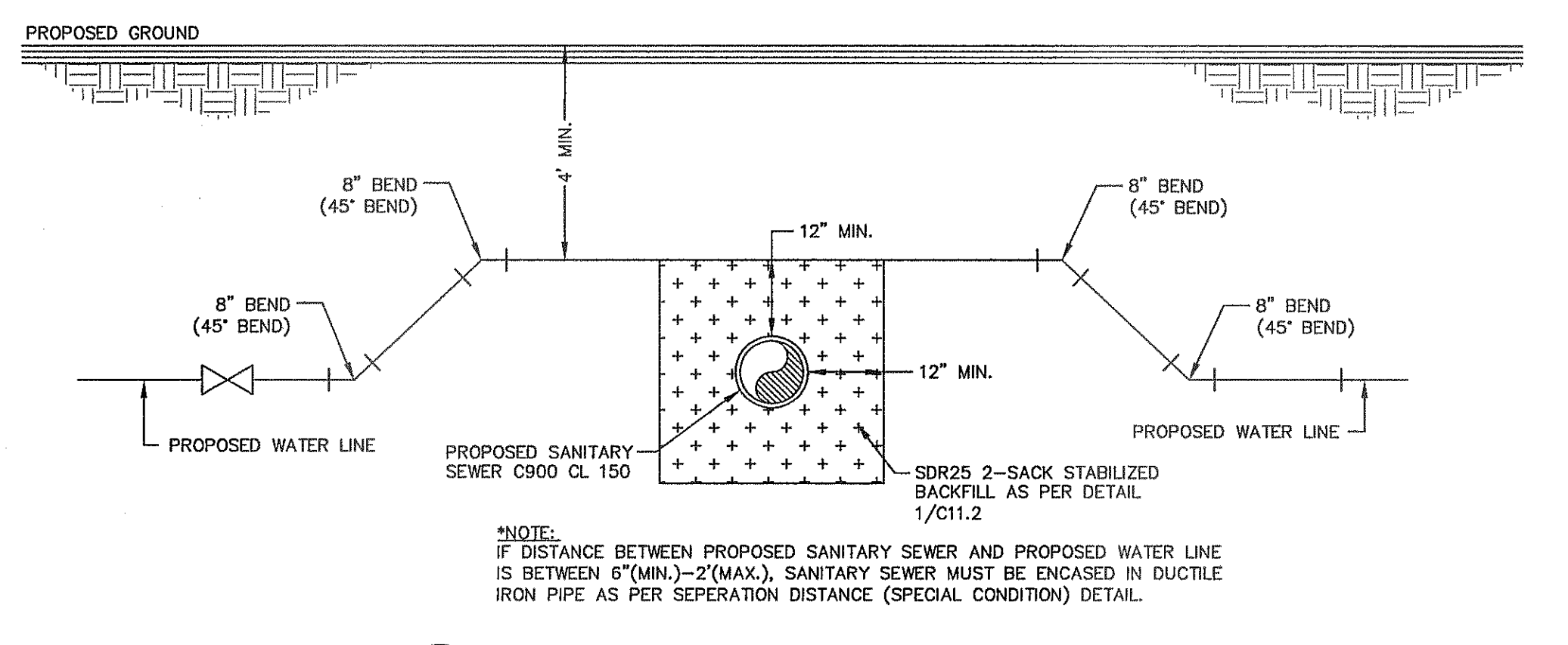
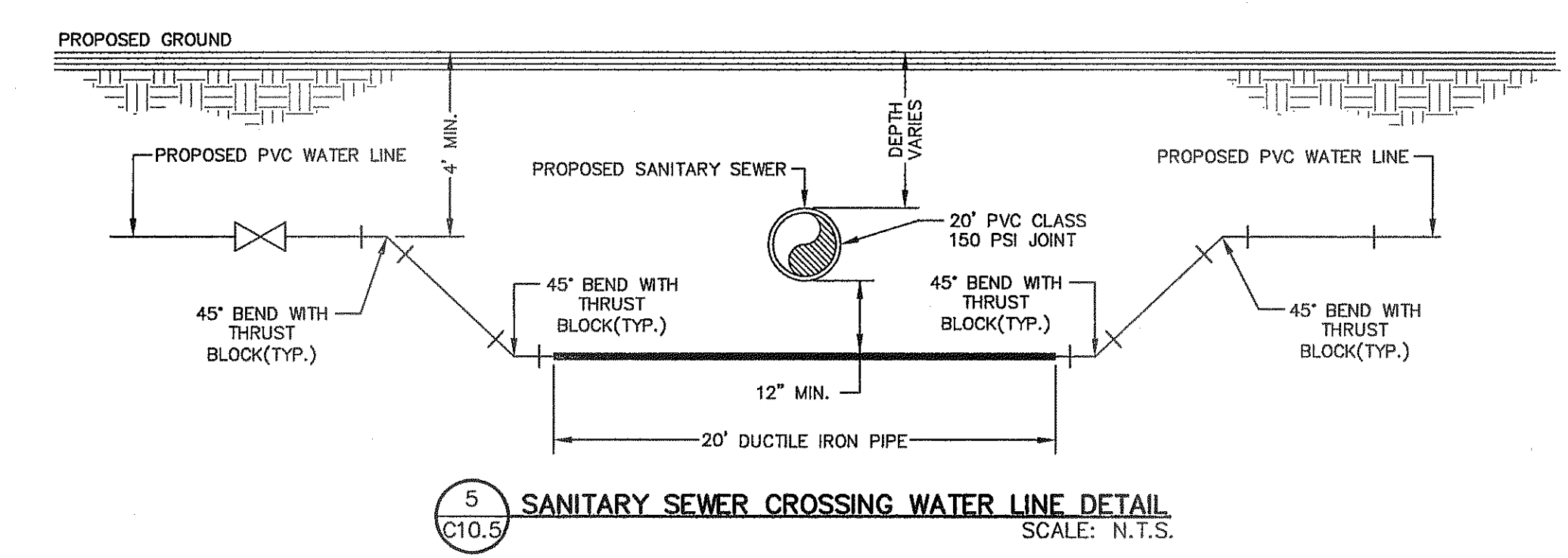
2 TYPE "A" & "B" METER BOX RING  
SCALE: N.T.S.

3 SERVICE LINE 3/4" INSTALLATION BY CONTRACTOR  
SCALE: N.T.S.



STANDARD DETAIL	DATE: 4/1994 REV: 8/10/2006	METER BOX COVER FOR TYPE "A" & "B" METER BOXES	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 301
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4 TYPE "A" & "B" METER BOX COVER  
SCALE: N.T.S.



REFERENCES - BENCHMARKS	CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEN BLVD. SUBSTATION A DISTANCE OF 67.49 FEET FROM CURB TO CENTERLINE. ELEVATION: 4005.40 AVENUE CITY DATUM. ELEVATION: 4005.40
DATE	REVISIONS
BY	

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4712 Woodrow Bean, Ste. F El Paso, TX 79924  
Office: 915.544.8222 Fax: 915.544.8228 www.caep.com

ENGINEER'S SEAL  
J. L. AZCARRATE  
88075  
Professional Engineer  
No. 17112

SCALE	N/A
Horizontal	N/A
Vertical	N/A
Contour Interval	N/A
DATE: SEPTEMBER 2013	
DESIGN BY: J.H.	
DRAWN BY: J.H.	
CHKD. BY: J.G.	
APPROV. BY: J.L.A.	
JOB No. 2000-157-1D	

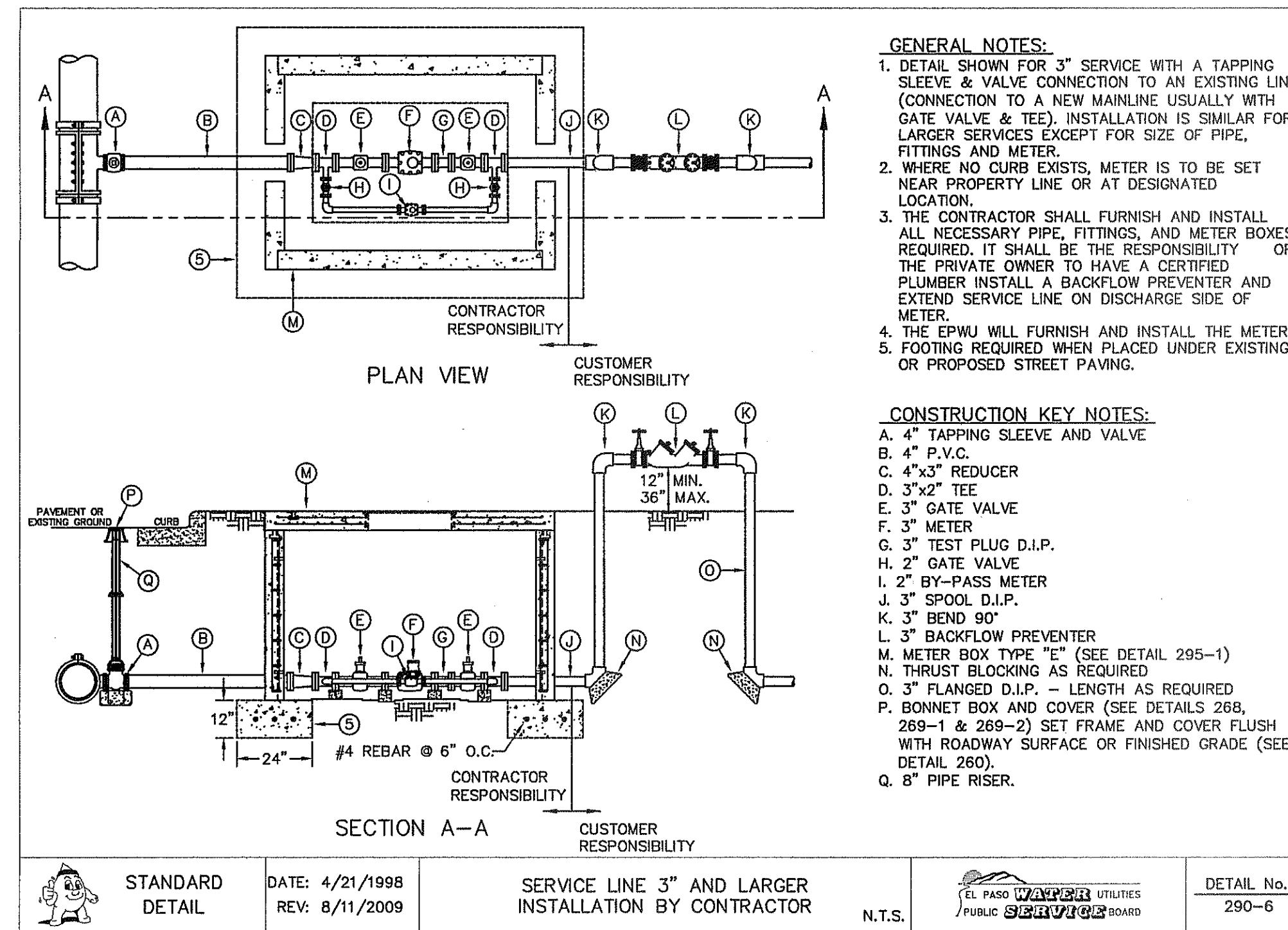
PROJECT TITLE  
**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

SHEET TITLE	WATER DETAILS
(SHEET 4 OF 5)	SHEET NO.

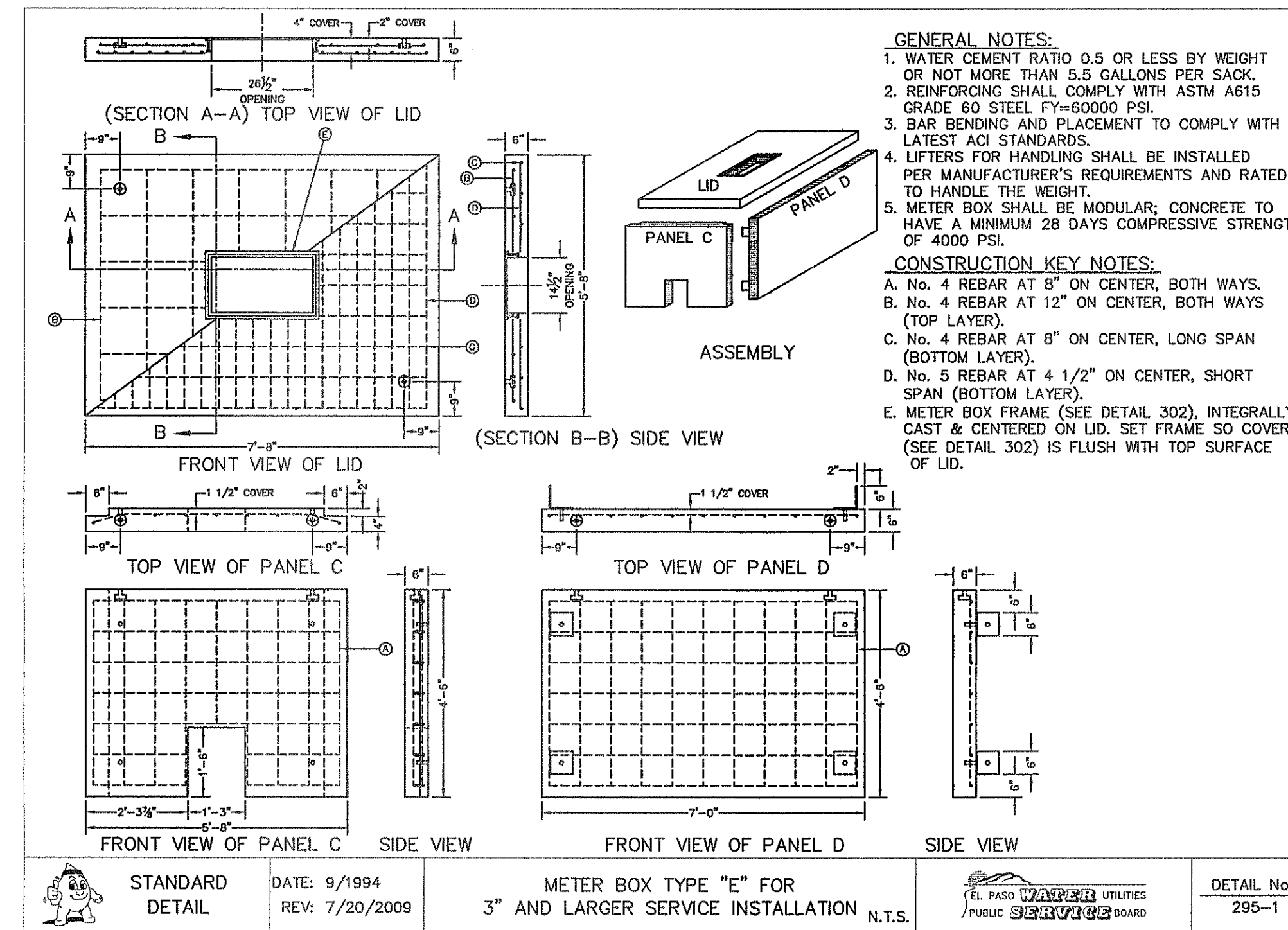
C10.5

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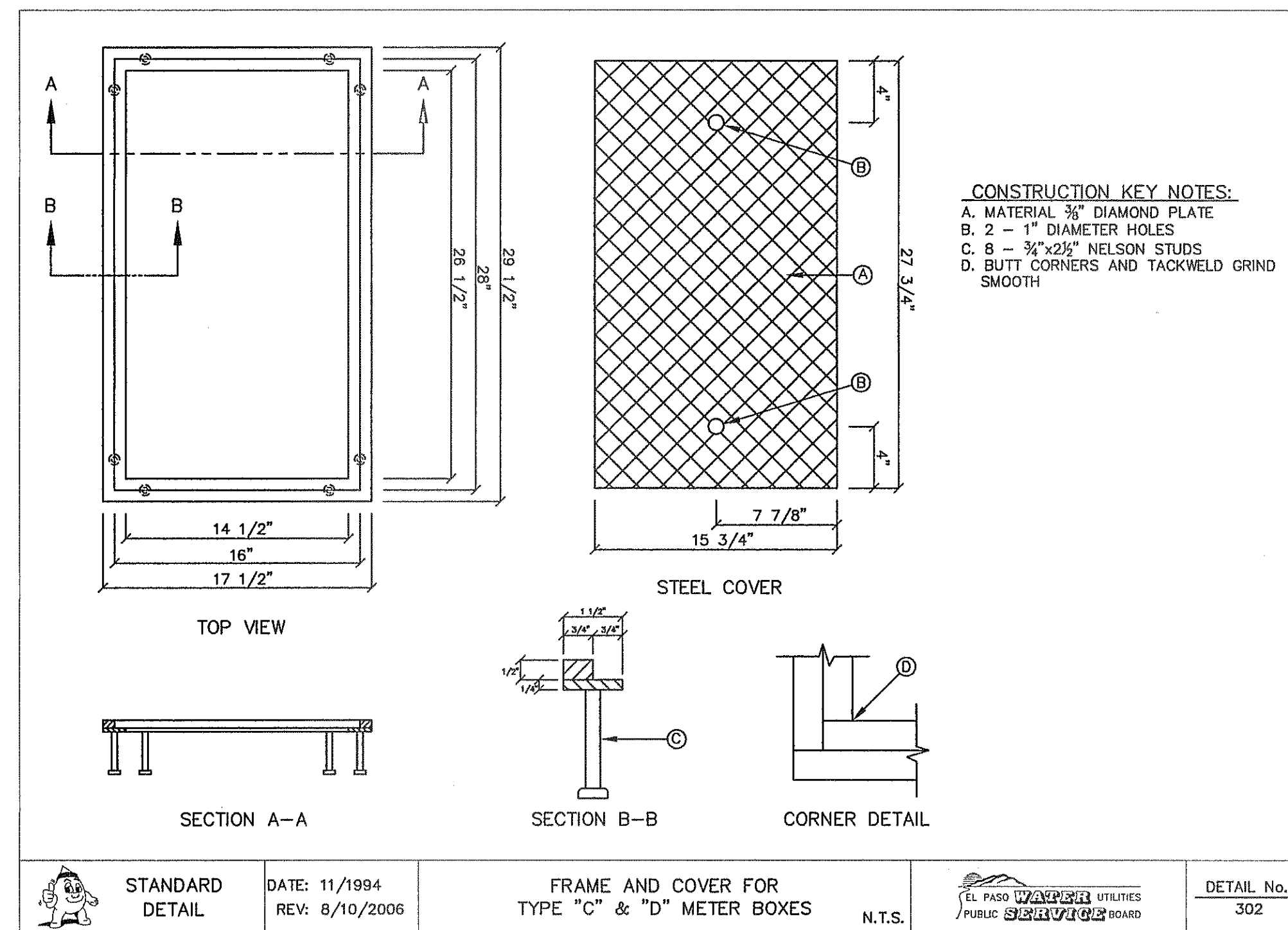




1 TYPICAL 3" OR LARGER SERVICE LINE INSTALLATION SCALE: N.T.S.



2 METER BOX TYPE "E" SCALE: N.T.S.

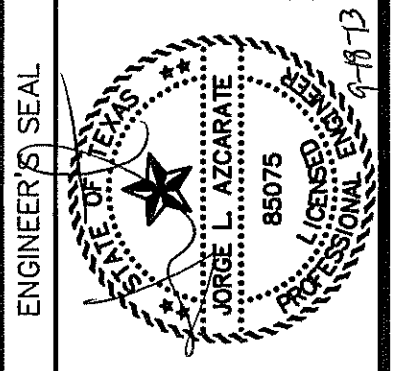


3 TYPE "C" & "D" METER BOX COVER SCALE: N.T.S.

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08+43.31'E A DISTANCE OF 487.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

DATE REVISIONS BY

**CSA**  
engineers • architects • planners  
TEXAS REGISTERED ENGINEERING FIRM F-4594  
4712 Woodrow Bess, Ste. F, El Paso, TX 79924  
Office: 915.544.5232 Fax: 915.544.5233 www.csaeng.com



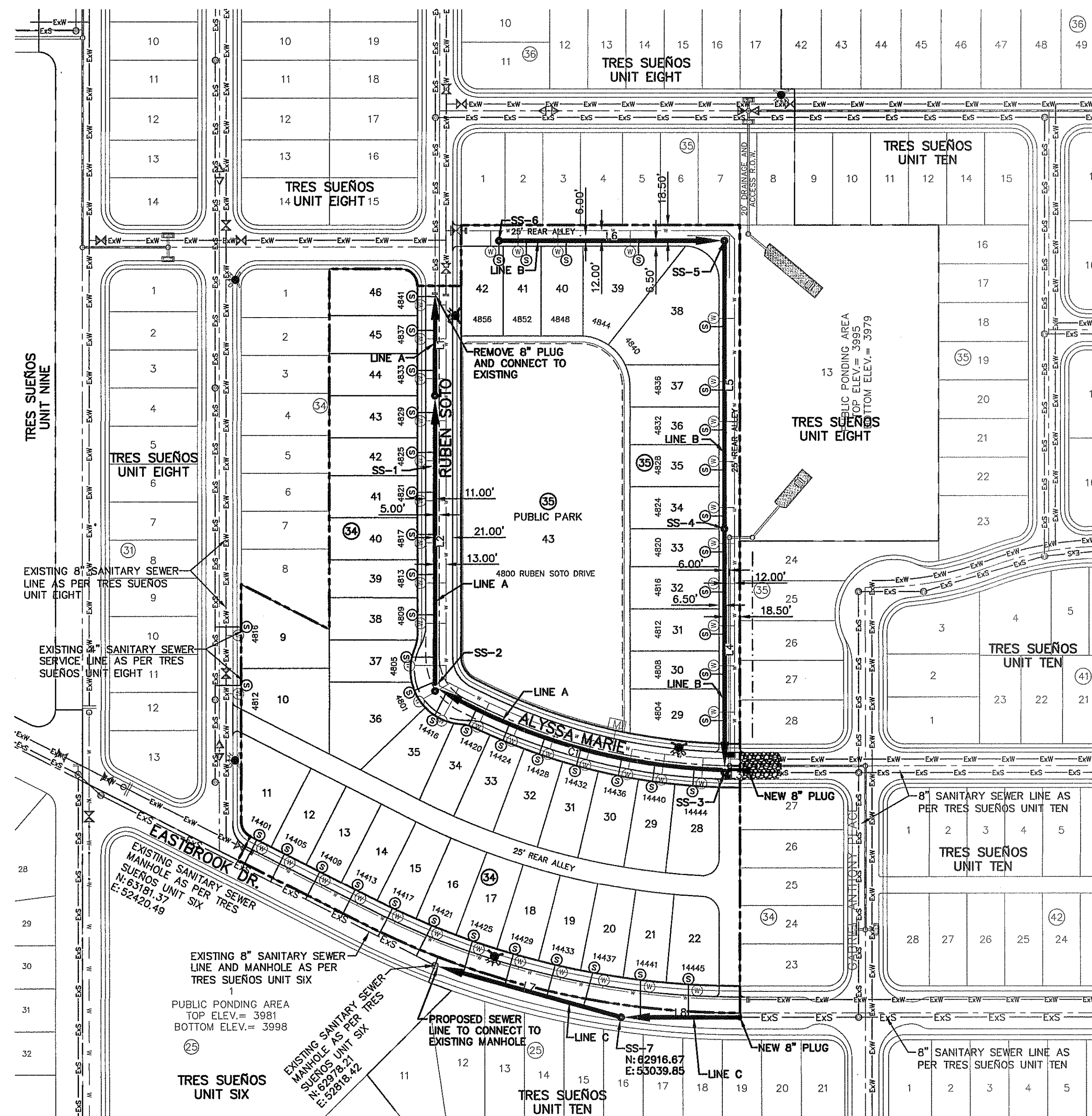
SCALE: N/A  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.L.A.  
APPD. BY: J.L.A.  
JOB No. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**WATER DETAILS  
(SHEET 5 OF 5)  
SHEET NO.**

C10.6





CONTRACTOR SHALL VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

LINE	BEARING	LENGTH
L1	S00°00'12"W	120.00'
L2	S00°00'11"W	345.83'
L3	S89°59'49"E	28.50'
L4	S00°00'05"E	286.59'
L5	N00°00'25"W	341.89'
L6	N89°59'52"E	268.30'
L7	S74°28'07"E	229.83'
L8	S89°59'49"E	141.62'

M.H. DEPTH	No. of M.H.'s
0'-8"	5
8'-12"	2
12'-16"	0

MANHOLE QUANTITIES

PIPE SIZE	DEPTH			
	0'-8"	8'-10"	10'-12"	12'-14"
8"	741.72'	1,383.10'	0.00'	0.00'

PIPE QUANTITIES

CURVE	CURVE TABLE					
	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	714.46'	362.27'	185.12'	358.40'	S73°56'06"E	029°03'08"

INDEX

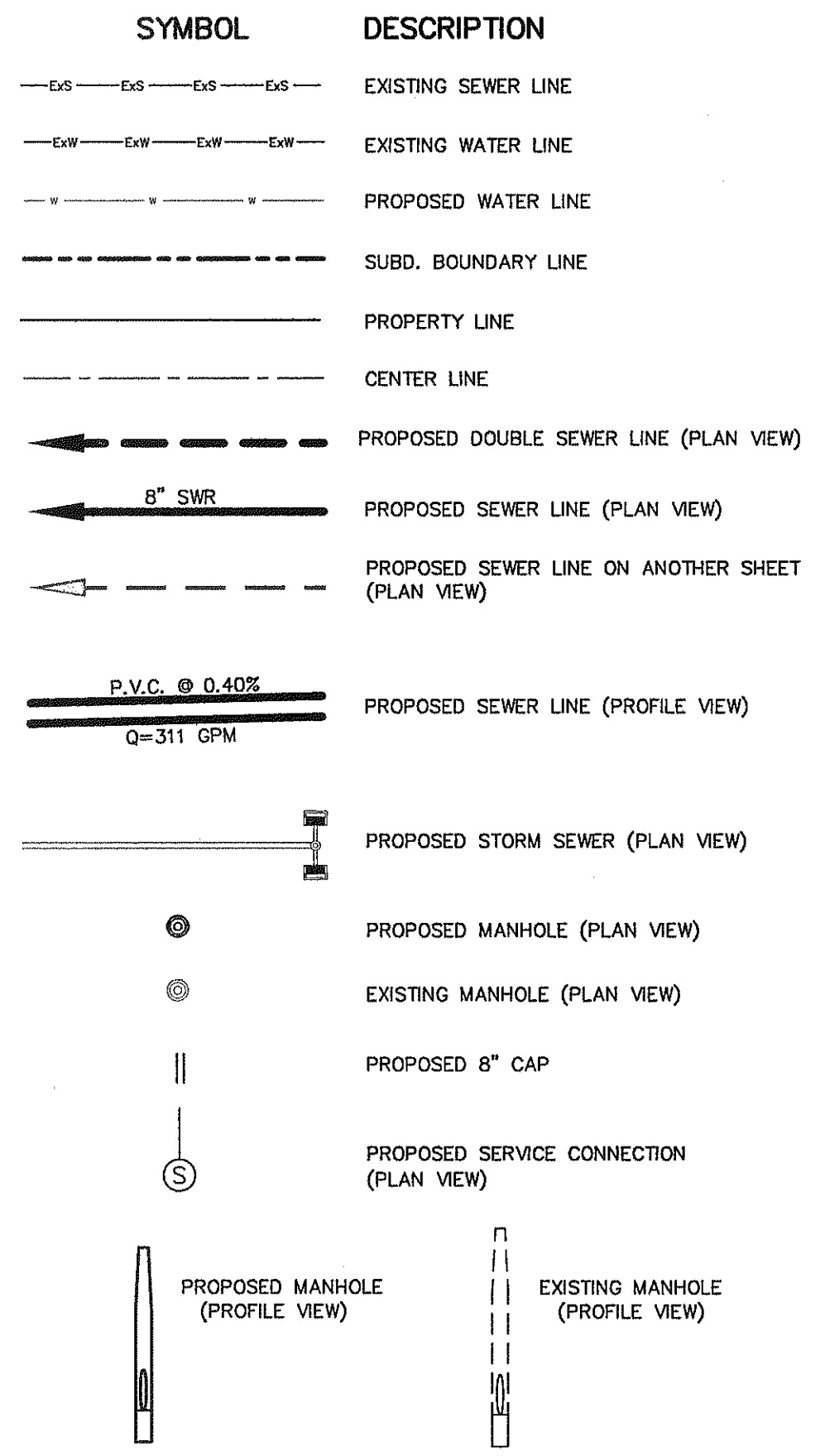
SHEET NO. DESCRIPTION

- C11.1 TRES SUEÑOS UNIT ELEVEN SANITARY PIPE LAYOUT
- C11.2 SANITARY SEWER LINE A AND LINE B
- C11.3 SANITARY SEWER LINE C
- C11.4 SANITARY DETAILS
- C11.5 SANITARY DETAILS

NOTES:

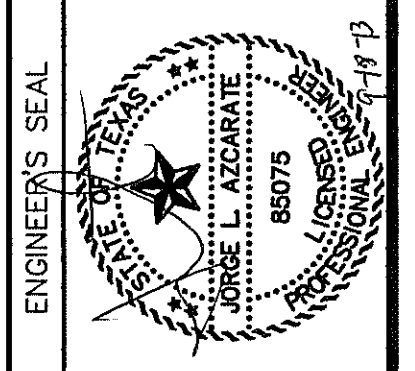
- ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
- ALL SANITARY SEWER PIPES SHALL BE PVC, SDR 35, (D 3034), UNLESS OTHERWISE SHOWN.
- REFERENCE TRES SUEÑOS UNIT SIX, TRES SUEÑOS UNIT EIGHT, AND TRES SUEÑOS UNIT TEN FOR EXISTING SEWER LINES.
- LOTS 11-16, BLOCK 34 SHALL BE SERVICED THROUGH THE EXISTING 8" SANITARY SEWER LINE ALONG EASTBROOK DRIVE, LOTS 9 & 10, BLOCK 34, SHALL BE SERVICED THROUGH THE EXISTING 8" SANITARY SEWER LINE ALONG ADRIAN CAMPOS STREET.

LEGEND



DATE	REVISIONS	BY

**CSA**  
engineers • architects • planners  
TEXAS REGISTERED ENGINEERING FIRM F-4964  
4713 Nicholson Plaza, Ste. F El Paso, TX 79904  
Office: 915.544.5202 Fax: 915.544.5203 www.csaonline.com



SCALE: 1" = 100'  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.L.A.  
CHKD. BY: J.L.A.  
APPROV. BY: J.L.A.  
JOB No. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS UNIT ELEVEN SUBDIVISION IMPROVEMENTS**

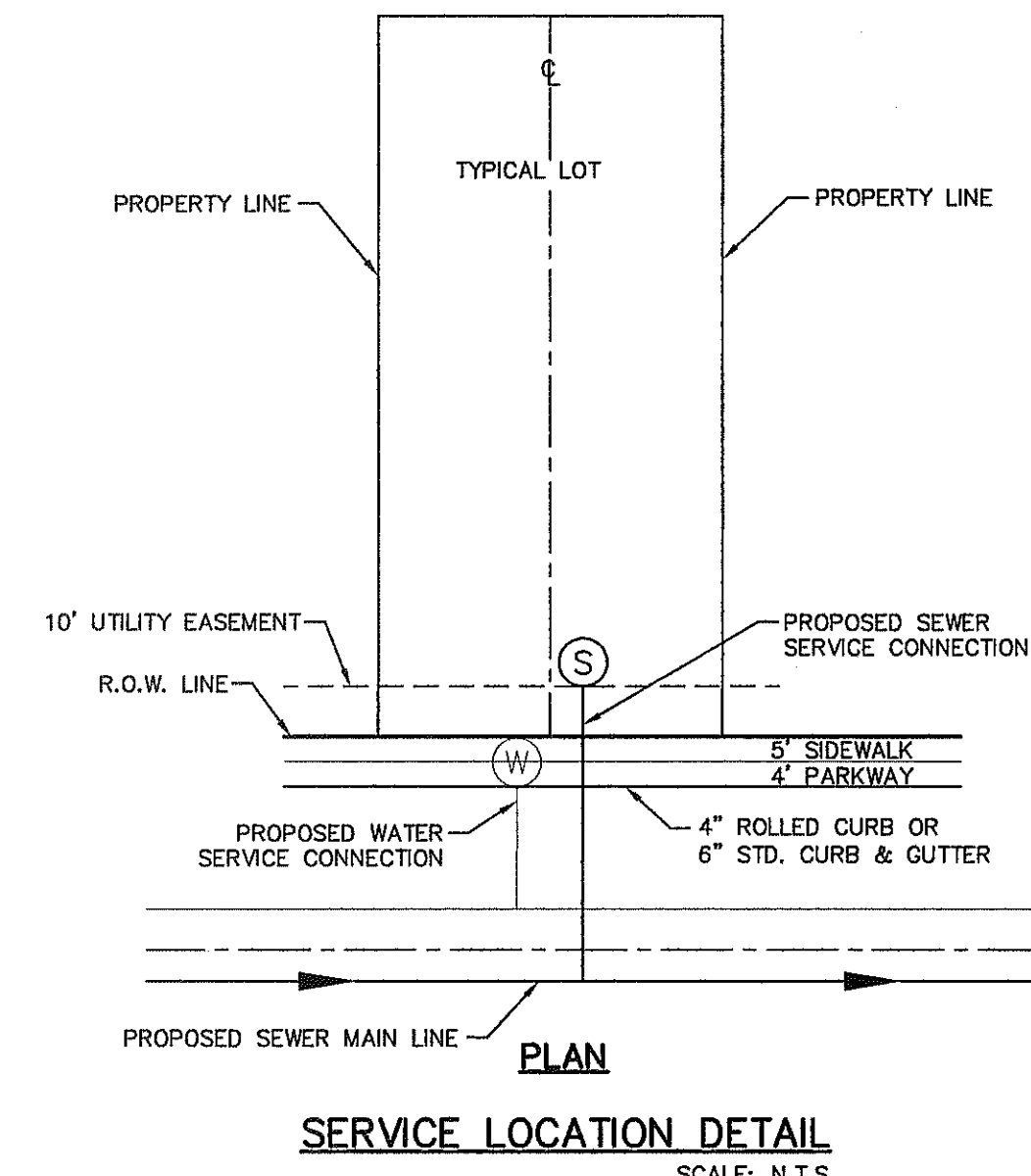
SHEET TITLE

**SANITARY SEWER INDEX**

SHEET NO.

**C11.1**

**SANITARY SEWER INDEX MAP**  
SCALE: 1" = 100'



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. SEPARATIONS DISTANCES SHALL FOLLOW TCEQ STANDARD REQUIREMENTS (§290.44)
- THE INTENT OF THE OWNER IS TO HAVE THE SANITARY SEWER PIPELINES INSTALLED TO SUCH A DEPTH THAT THEY WILL HAVE AT LEAST 60" 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, SIGNS AND ALL OTHER MISCELLANEOUS STRUCTURES DAMAGED OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITION AT NO COST TO OWNER.
- ALL WATER AND SEWER UTILITY WORK, INCLUDING TIE-INS SHALL BE CLOSELY COORDINATED WITH EL PASO WATER UTILITIES FIELD ENGINEERING AT LEAST 48 HOURS PRIOR TO COMMENCING UTILITY WORK.
- TRAFFIC CONTROL SHALL BE IN PLACE PRIOR TO INITIATING WORK.
- CONSTRUCTION OF THE PUBLIC WATER AND SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFIRM 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:**  
CSA GROUP  
CASTNER CENTER @ TRANSMOUNTAIN  
4712 WOODROW BEAN, STE. F  
EL PASO, TX. 79924  
(915) 534-5232  
MR. JORGE L. AZCARATE, P.E.

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

**FIBER OPTICS:**  
MCI TELECOMMUNICATIONS CORPS.  
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) 594-5530  
MR. FELIPE LOPEZ, JR., P.E.

**ELECTRIC:**  
EL PASO ELECTRIC CO.  
501 W. SAN ANTONIO ST.  
EL PASO, TX. 79902  
(915) 543-2076  
MR. FRANK VIGEL (DISTRIBUTION)

**EL PASO STREETS**  
CITY OF EL PASO  
DEPARTMENT OF TRANSPORTATION  
7969 SAN PAULO DRIVE  
EL PASO, TX. 79907  
(915) 621-6750  
MR. TED MARQUEZ, P.E.

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

**TELEPHONE:**  
SBC  
11200 PELICANO  
P.O. BOX 1650  
EL PASO, TX. 79935  
(915) 595-5151  
MR. TIM BROWN

**FIBER OPTICS:**  
AT&T  
P.O. BOX 1650  
EL PASO, TX. 79949  
1(800) 852-3786  
MS. DARLENE NORIS

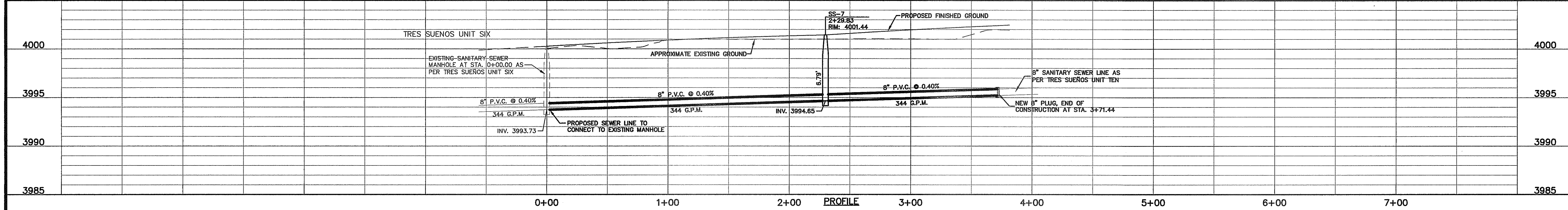
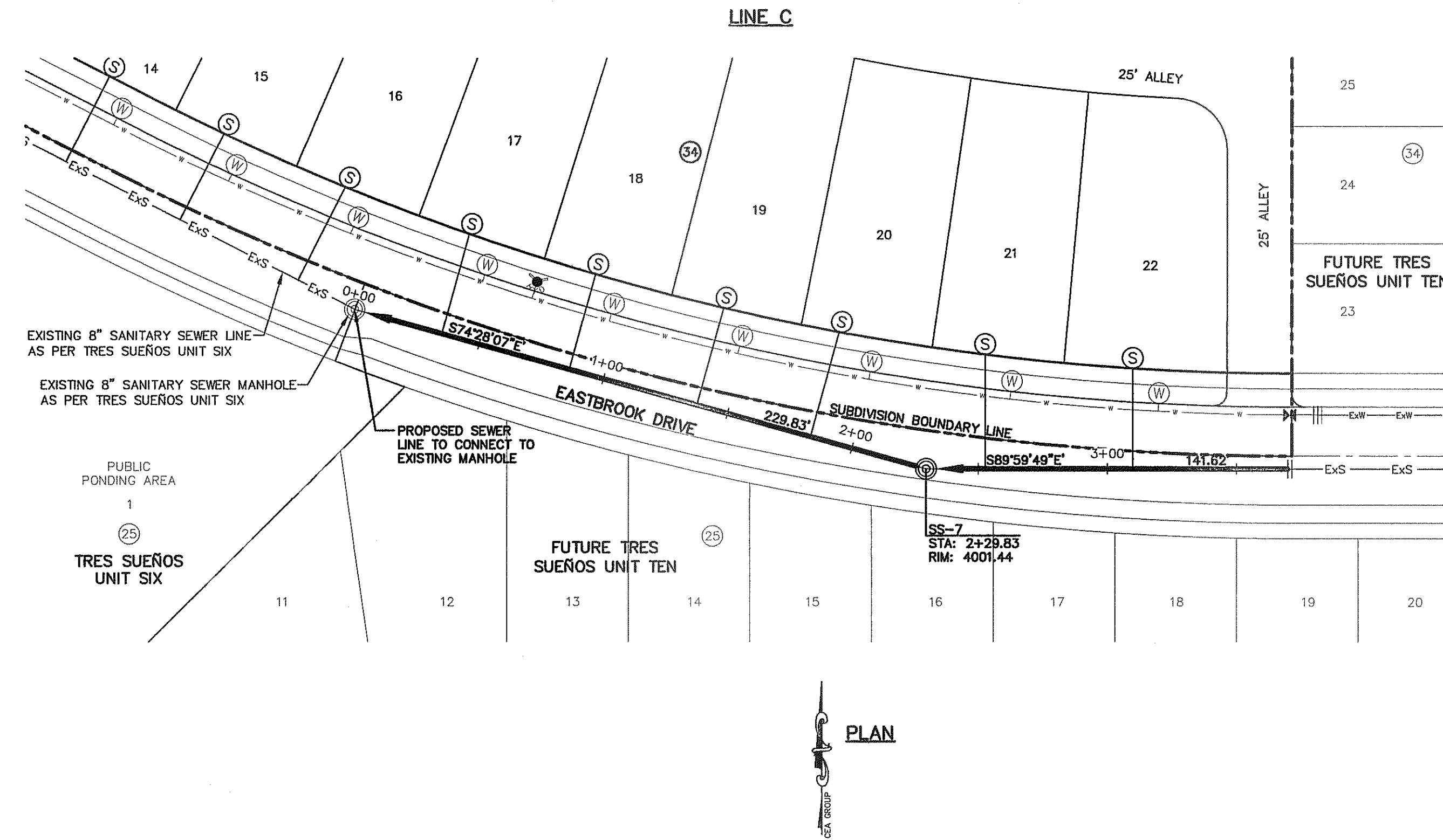
**RESIDENTIAL GAS LINES:**  
TEXAS GAS SERVICE  
4700 POLLARD ST.  
EL PASO, TX. 79930  
(915) 680-7218  
MR. JOSE DE ALBA

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









REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. SUBSTATION DISTANCE OF 677.89 FEET FROM BENCHMARK AT POINT OF CURVE CENTERLINE AVENUE CITY DATUM. ELEVATION.....4005.40

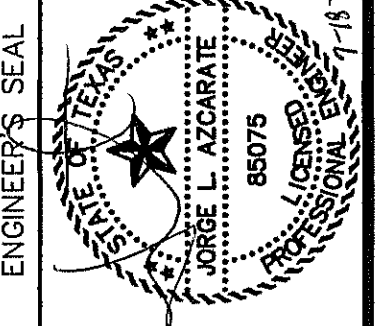
DATE	REVISIONS	BY

engineers • architects • planners

TEXAS REGISTERED ENGINEERING FIRM F-454

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Office: 915.541.8222 Fax: 915.544.6293 www.ccaonline.com



SCALE

Horizontal: 1" = 40'

Vertical: 1" = 5'

Contour Interval: N/A

DATE: SEPTEMBER 2013

DESIGN BY: J.H.

DRAWN BY: J.H.

CHKD. BY: J.G.

APP'D. BY: J.H.

JOB No. 22000-157-ID

PROJECT TITLE

TRES SUEÑOS UNIT ELEVEN

SUBDIVISION IMPROVEMENTS

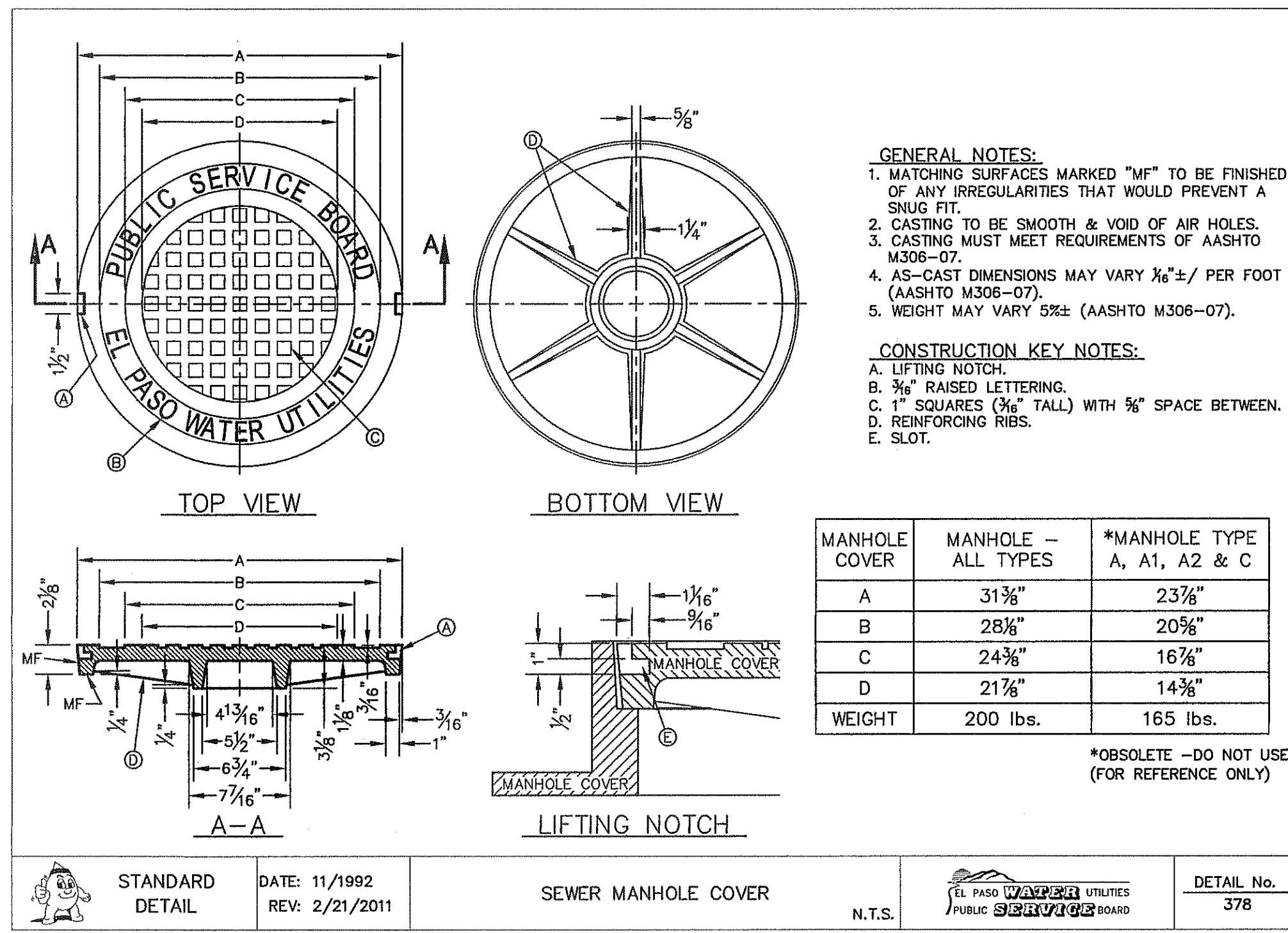
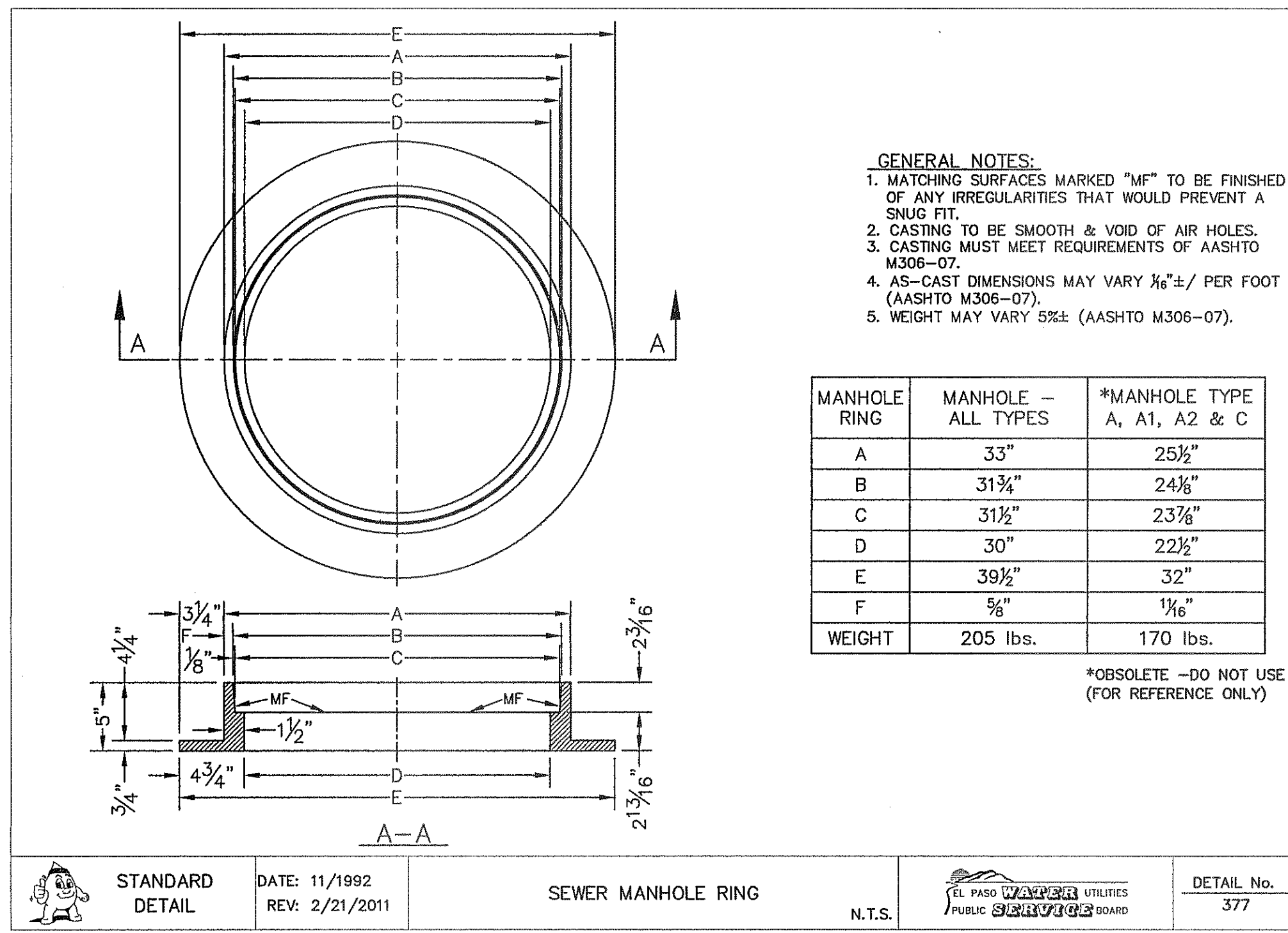
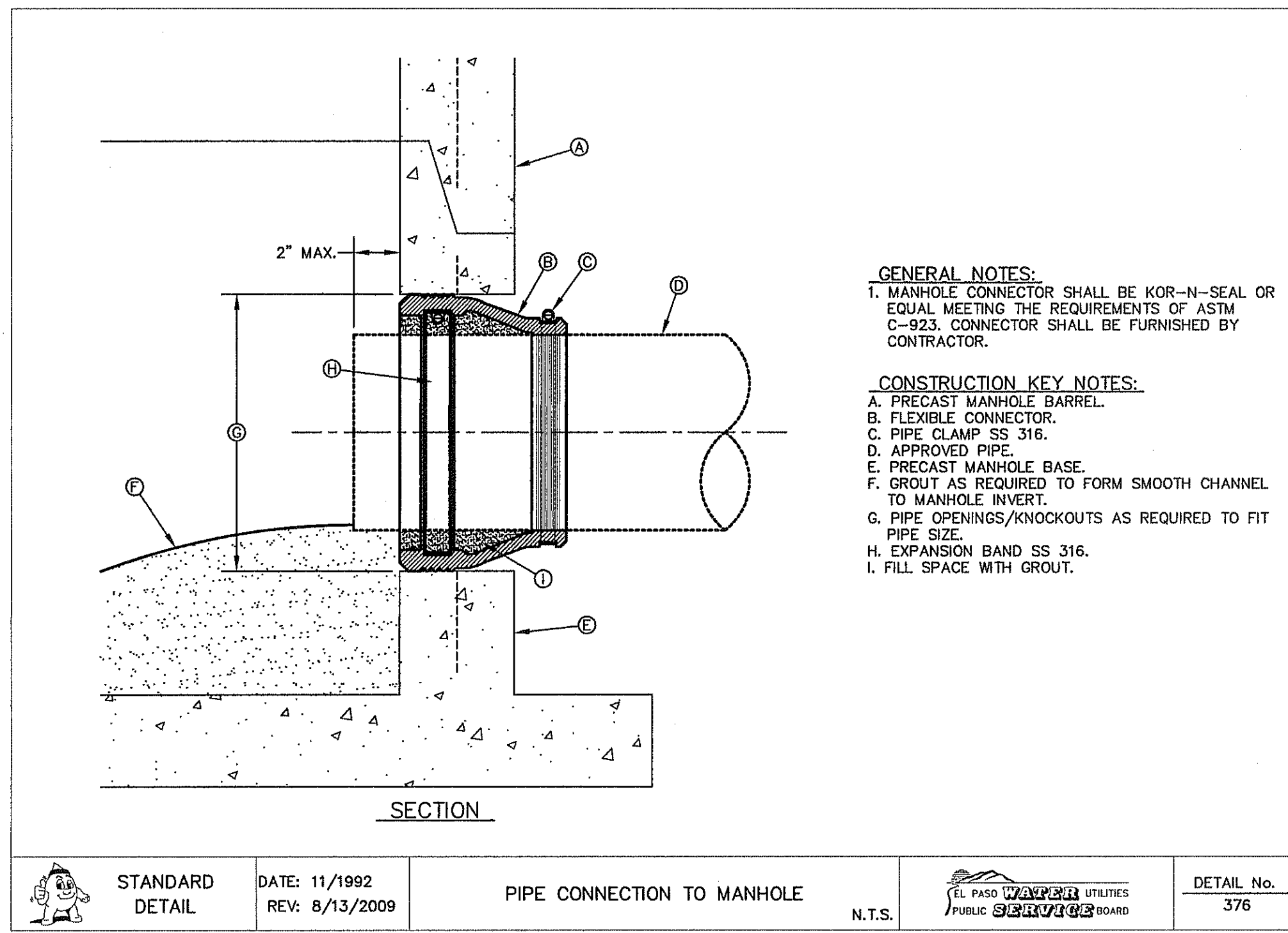
SHEET TITLE

LINE C SANITARY SEWER PLAN & PROFILE

SHEET NO.

C11.3

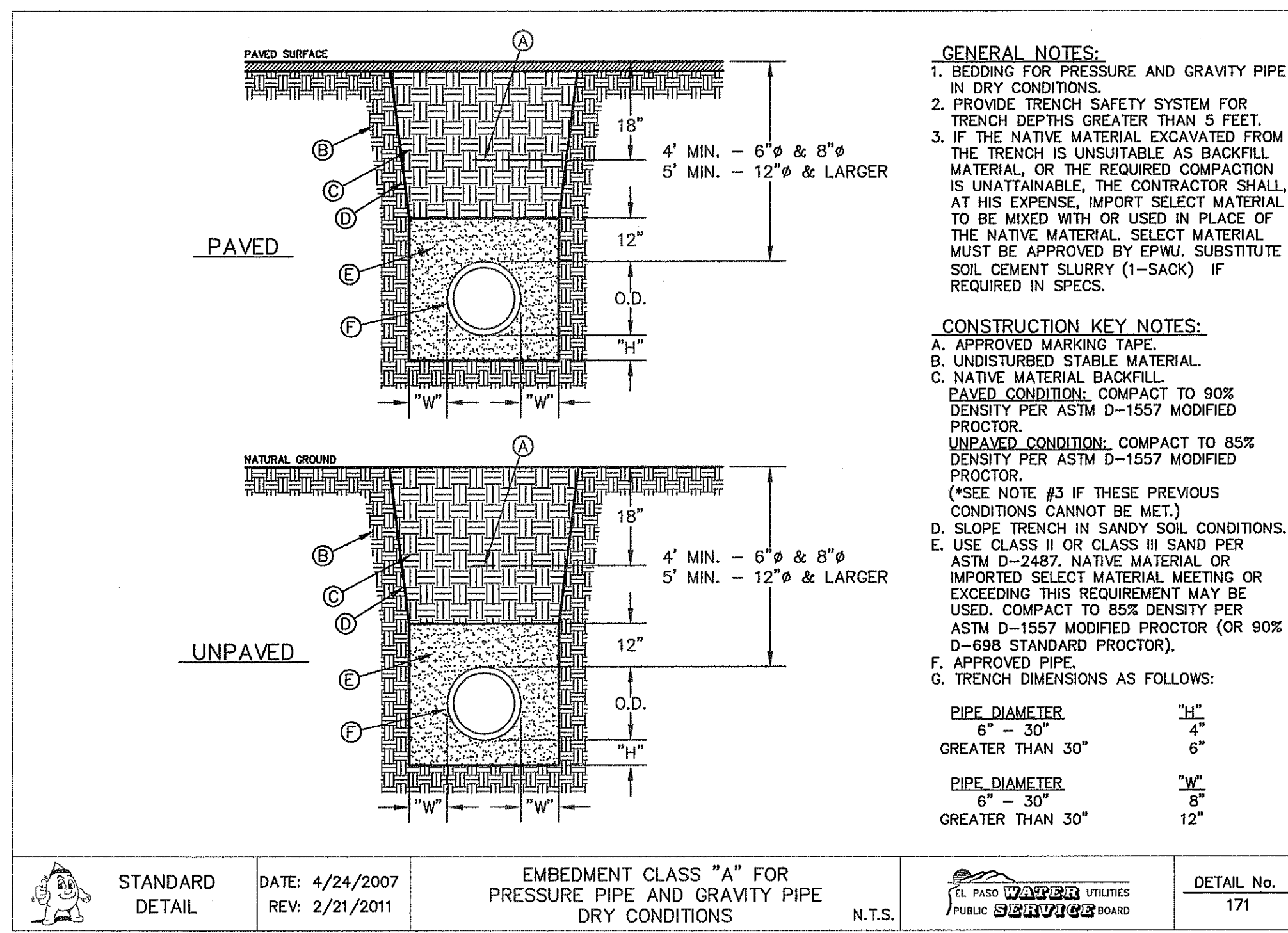
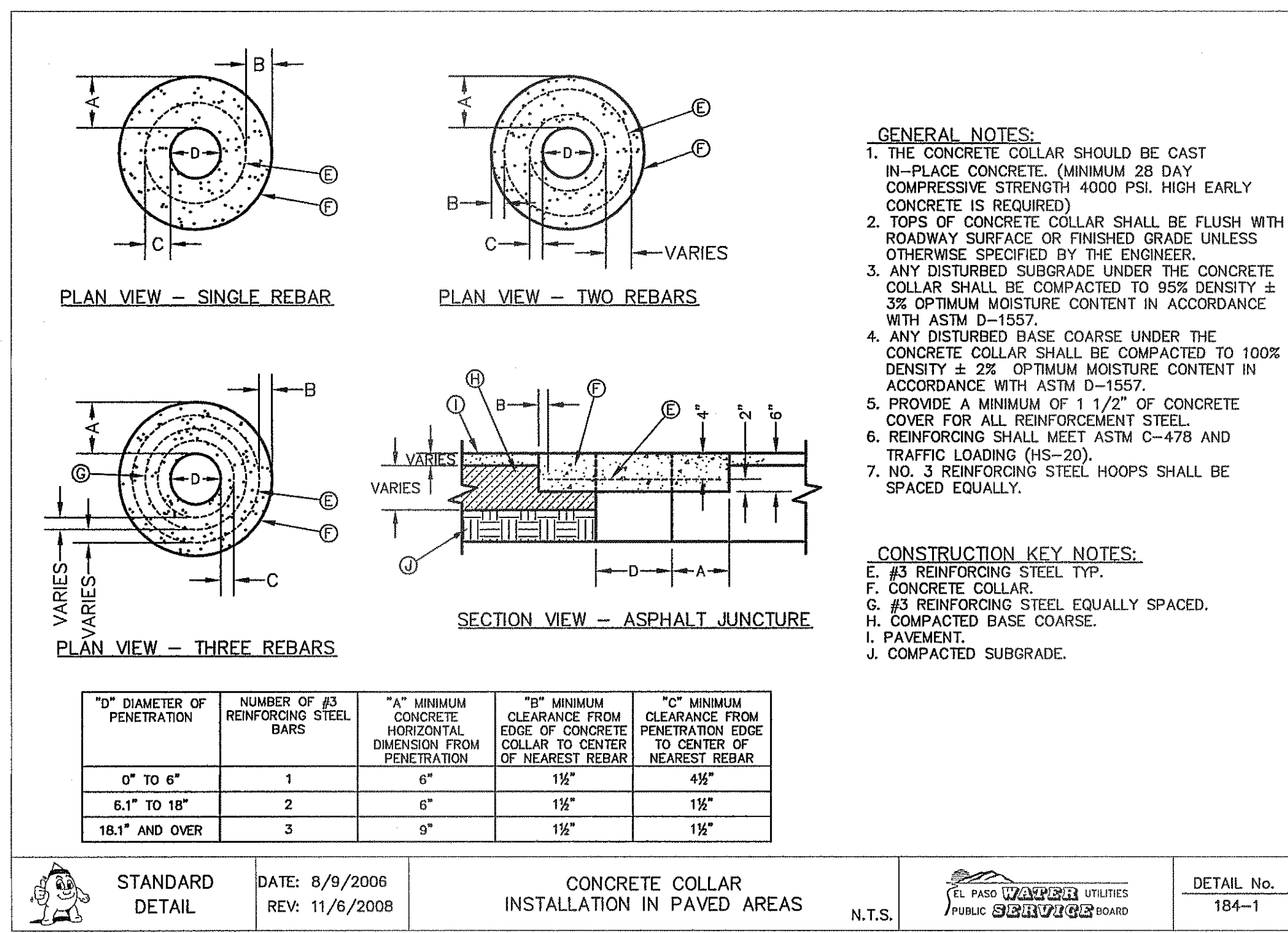
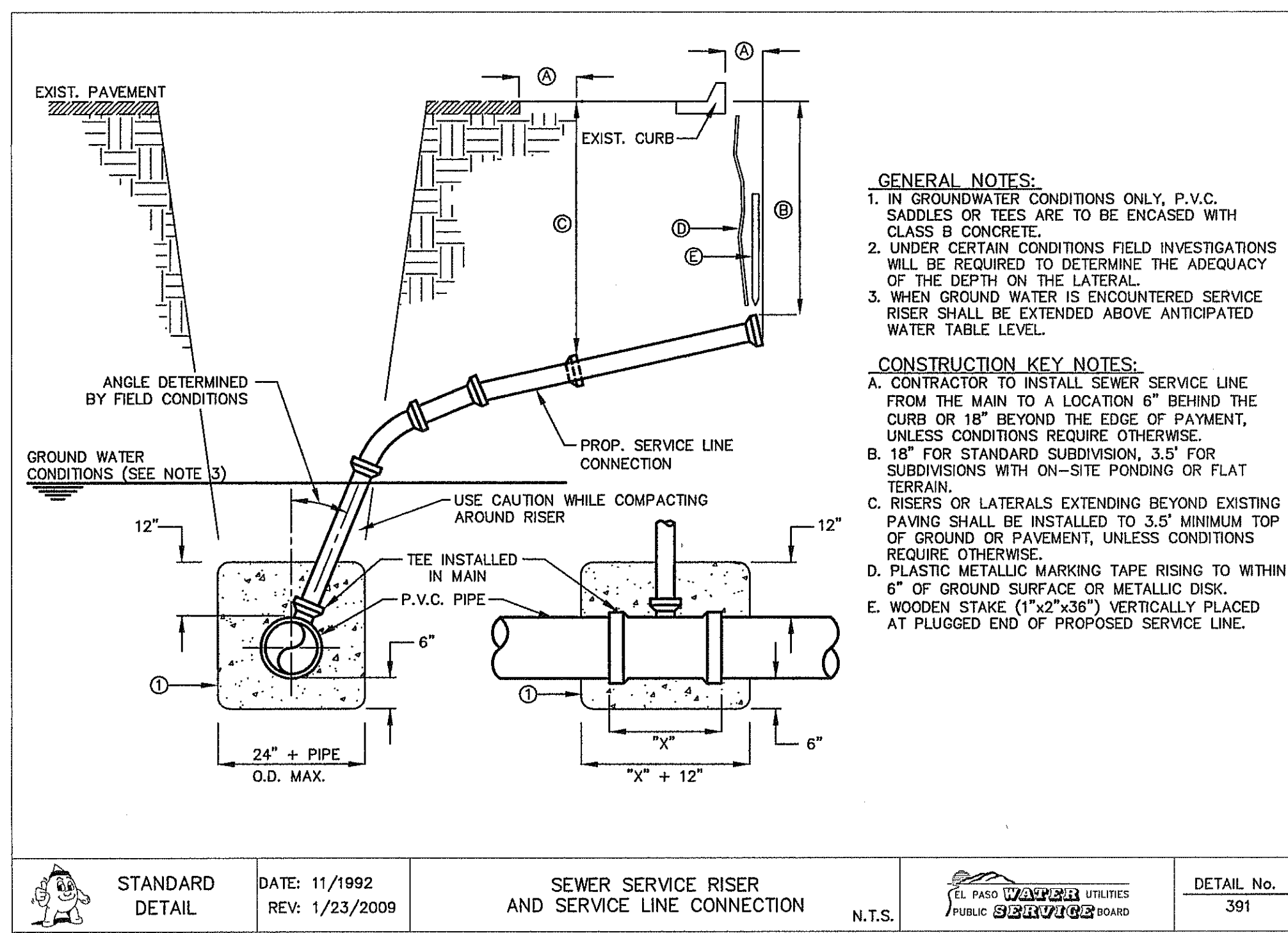




1 PIPE CONNECTION TO MANHOLE  
SCALE: N.T.S.

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

3 STANDARD COVER DETAIL  
SCALE: N.T.S.



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

5 CONCRETE COLLAR INSTALLATION IN PAVED AREAS  
SCALE: N.T.S.

6 EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS  
SCALE: N.T.S.

REFERENCES - BENCHMARKS  
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEN BLVD. SUBSTATION EAST DISTANCE OF 67.58 FEET FROM MONUMENT TO CENTERLINE OF MAINLINE AVENUE CITY DATUM. ELEVATION.....4005.40

ENGINEER'S SEAL  
J. L. ACAPARTE  
JULIO L. ACAPARTE  
80075  
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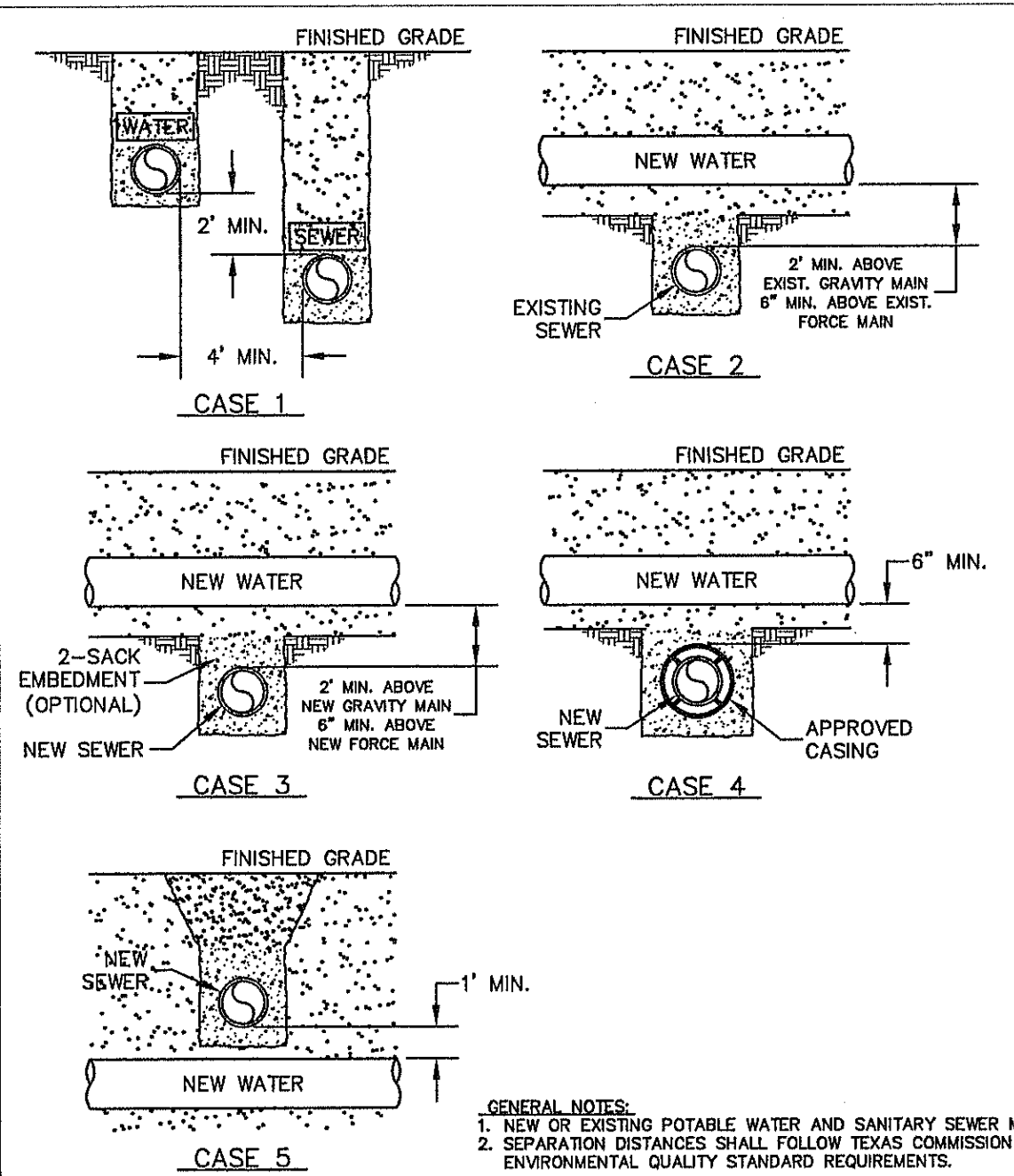
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Contour Interval: N/A  
DATE: SEPTEMBER 2013  
DESIGN BY: J.H.  
DRAWN BY: J.H.  
CHKD. BY: J.G.  
APP'D. BY: J.G.  
JOB No. 2000-157-1D

PROJECT TITLE  
TRES SUEÑOS  
UNIT ELEVEN  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
SANITARY SEWER DETAILS  
(SHEET 1 OF 2)  
SHEET NO.  
C11.4

DATE REVISIONS BY





**CONSTRUCTION KEY NOTES:**  
WHEN STANDARD NINE (9) FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, SEPARATION SHALL BE DETERMINED ACCORDING TO THE FOLLOWING CONDITIONS:

**CASE 1. GRAVITY SANITARY SEWER MAIN OR FORCE MAIN PARALLEL TO POTABLE WATER MAIN (PER TCEQ §290.44(a)(4)(A)).**  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, MUST BE REPLACED WITH PVC (150 PSI) OR DI. NEW GRAVITY MAIN OR FORCE MAIN REQUIRES PVC (150 PSI) OR DI.  
 • SEPARATE TRENCHES SHALL BE USED.

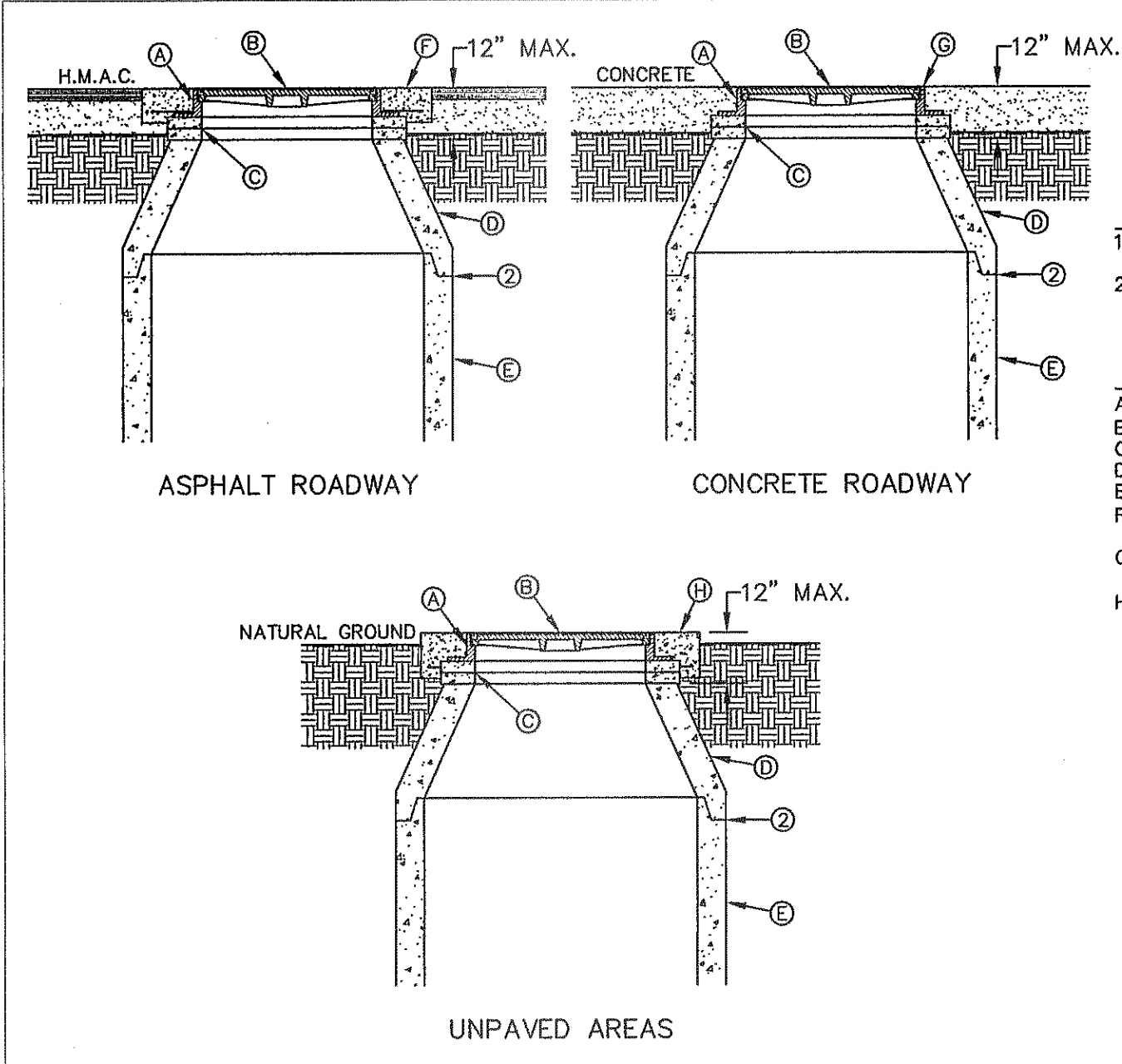
**CASE 2. NEW POTABLE WATER MAIN CROSSING EXISTING GRAVITY SANITARY SEWER MAIN OR EXISTING FORCE MAIN (PER TCEQ §290.44(c)(4)(B)(i) AND §290.44(c)(4)(B)(ii)).**  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.  
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.  
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.

**CASE 3. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44(c)(4)(B)(iii), §290.44(c)(4)(B)(iv) AND §290.44(c)(4)(B)(v)).**  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: NEW GRAVITY MAIN - PVC (150 PSI) OR DI REQUIRED, CENTER UNDER WATER MAIN. NEW FORCE MAIN - PVC (150 PSI) OR DI REQUIRED, FORCE MAIN TO BE EMBEDDED IN CEMENT STABILIZED BACKFILL. THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.  
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER PIPE OR FORCE MAIN.  
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER AND SEWER SHALL BE 18 FEET LONG.  
 • FOR NEW GRAVITY SEWER ONLY, IN LIEU OF PVC (150PSI) OR DI, INSTALL ONE PIPE SEGMENT OF SDR35; SEWER MAIN MUST BE EMBEDDED IN CEMENT STABILIZED BACKFILL. THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.

**CASE 4. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44(c)(4)(B)(i)(ii)).**  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: NEW GRAVITY MAIN - SDR35 ACCEPTABLE, NEW FORCE MAIN - PVC (150PSI) OR DI REQUIRED, IN ADDITION, SEWER MAIN OR FORCE MAIN MUST BE ENCASED IN DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.  
 • CENTER CASING PIPE ON WATER MAIN.

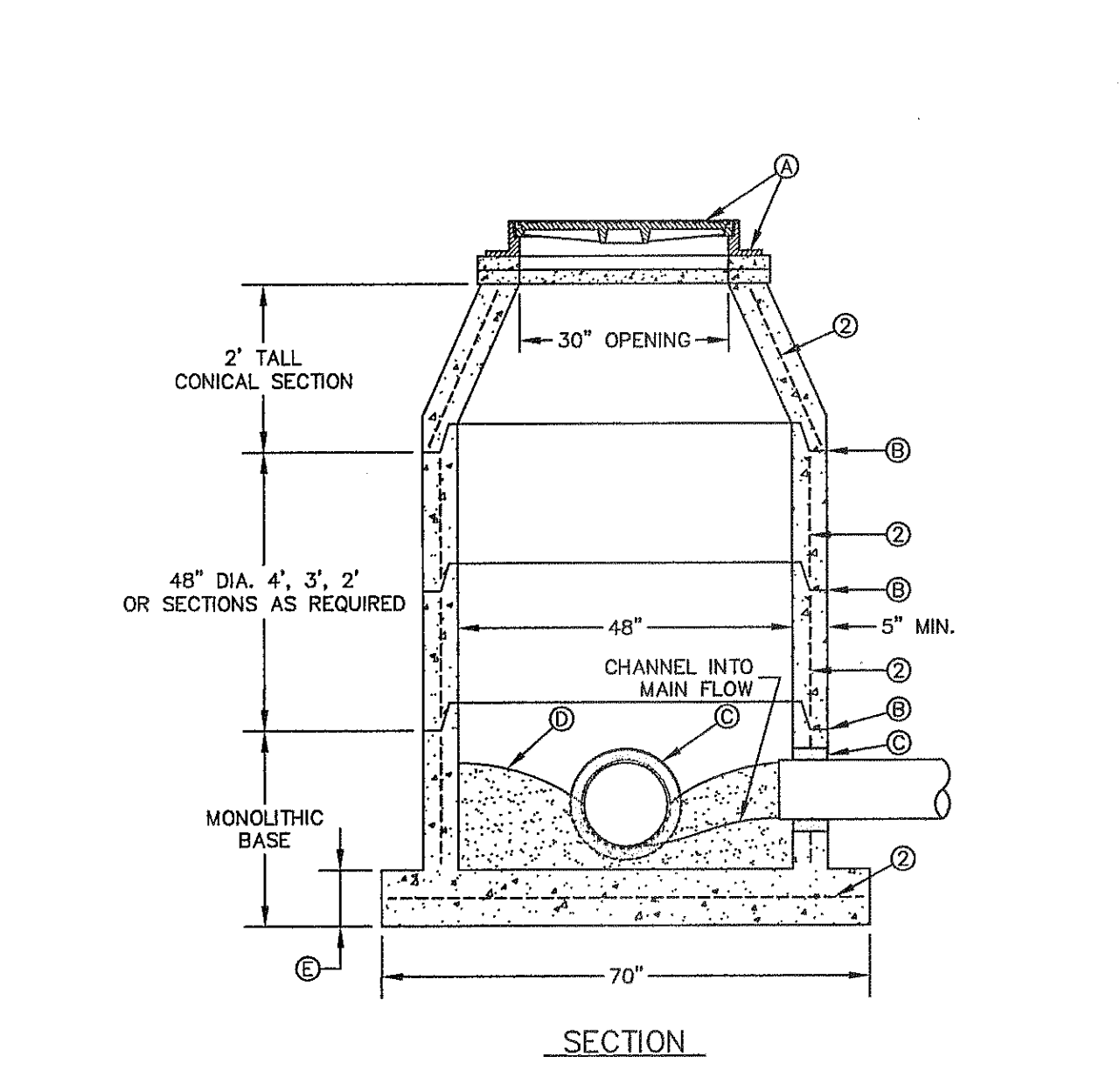
**CASE 5. NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN CROSSING NEW POTABLE WATER MAIN (PER TCEQ §290.44(c)(4)(B)(v)(ii)).**  
 • LOCATION: SEWER OR FORCE MAIN ABOVE WATER.  
 • NEW GRAVITY MAIN OR FORCE MAIN REQUIRES ONE PIPE SEGMENT OF PVC (150 PSI) OR DI. IN ADDITION, WATER MUST BE DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.  
 • CENTER ONE SEGMENT OF SEWER PIPE ON WATER MAIN.

**GENERAL NOTES:**  
 1. NEW OR EXISTING POTABLE WATER AND SANITARY SEWER MAINS.  
 2. SEPARATION DISTANCES SHALL FOLLOW TEXAS COMMISSION ON ENVIRONMENTAL QUALITY STANDARD REQUIREMENTS.



**GENERAL NOTES:**  
 1. MANHOLE TYPE SHALL BE AS SHOWN ON THE PLANS.  
 2. SEAL JOINTS PER SPECIFICATIONS.

**CONSTRUCTION KEY NOTES:**  
 A. MANHOLE RING (SEE DETAIL 377).  
 B. MANHOLE COVER (SEE DETAIL 378).  
 C. CONCRETE ADJUSTMENT RINGS AS REQUIRED.  
 D. MANHOLE CONE SECTION.  
 E. MANHOLE BARREL SECTION.  
 F. CONCRETE COLLAR (SEE DETAIL 184-1) FLUSH WITH TOP OF H.M.A.C.  
 G. MANHOLE RING FLUSH WITH TOP OF CONCRETE, CONCRETE COLLAR NOT NEEDED.  
 H. CONCRETE APRON (SEE DETAIL 184-2) FLUSH WITH MANHOLE RING AND 2" ABOVE NATURAL GROUND.



**GENERAL NOTES:**  
 1. MANHOLE TYPE "A" SHALL BE USED FOR LINES 21" AND SMALLER.  
 2. PRE-CAST MANHOLE SECTIONS SHALL BE OF REINFORCED CONCRETE CONFORMING TO ASTM C-478 AND SHALL MEET HS-20 LOADING. PROVIDE REINFORCEMENT WITHIN 3" OF OPENINGS OR KNOCKOUTS, OPENINGS (UP TO 8") MADE IN FIELD SHALL BE CORE DRILLED.  
 3. CEMENT SHALL BE TYPE I-II, PER ASTM C-150, AND MUST CONTAIN A MINIMUM OF 4% FLY ASH OF THE TOTAL MANHOLE WEIGHT.  
 4. THE BASE & RISER SHALL BE INTEGRALLY CAST. CONCRETE SHALL BE MIN. 28 DAY COMPRESSIVE STRENGTH 4000psi.  
 5. MANUFACTURER TO PROVIDE LIFTERS OF ADEQUATE SIZE AS NEEDED.  
 6. THE SUBGRADE UNDER THE BASE SHALL BE COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM D-1557.  
 7. MANHOLES BELOW GROUNDWATER TO BE EXTERNALLY AND INTERNALLY COATED WITH BITUMINOUS COATING.

**CONSTRUCTION KEY NOTES:**  
 A. MANHOLE RING AND COVER (SEE DETAILS 377 & 378). SET FRAME AND COVER FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE (SEE DETAIL 185).  
 B. ALL JOINTS TO BE TONGUE, GROOVE AND SEALED WITH RAM-NEK OR APPROVED EQUAL.  
 C. PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE AND SHALL HAVE FLEXIBLE PIPE TO MANHOLE CONNECTORS (COMPRESSION TYPE ASTM-923). "KOR-N-SEAL" OR APPROVED EQUAL. GROUT AS REQUIRED.  
 D. GROUT AS REQUIRED.  
 E. CONCRETE BASE SHALL BE 8" FOR MH'S UP TO 12' DEEP AND 12" FOR DEPTHS GREATER THAN 12'.

STANDARD DETAIL	DATE: 8/3/2006 REV: 8/21/2007	SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS)	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 161
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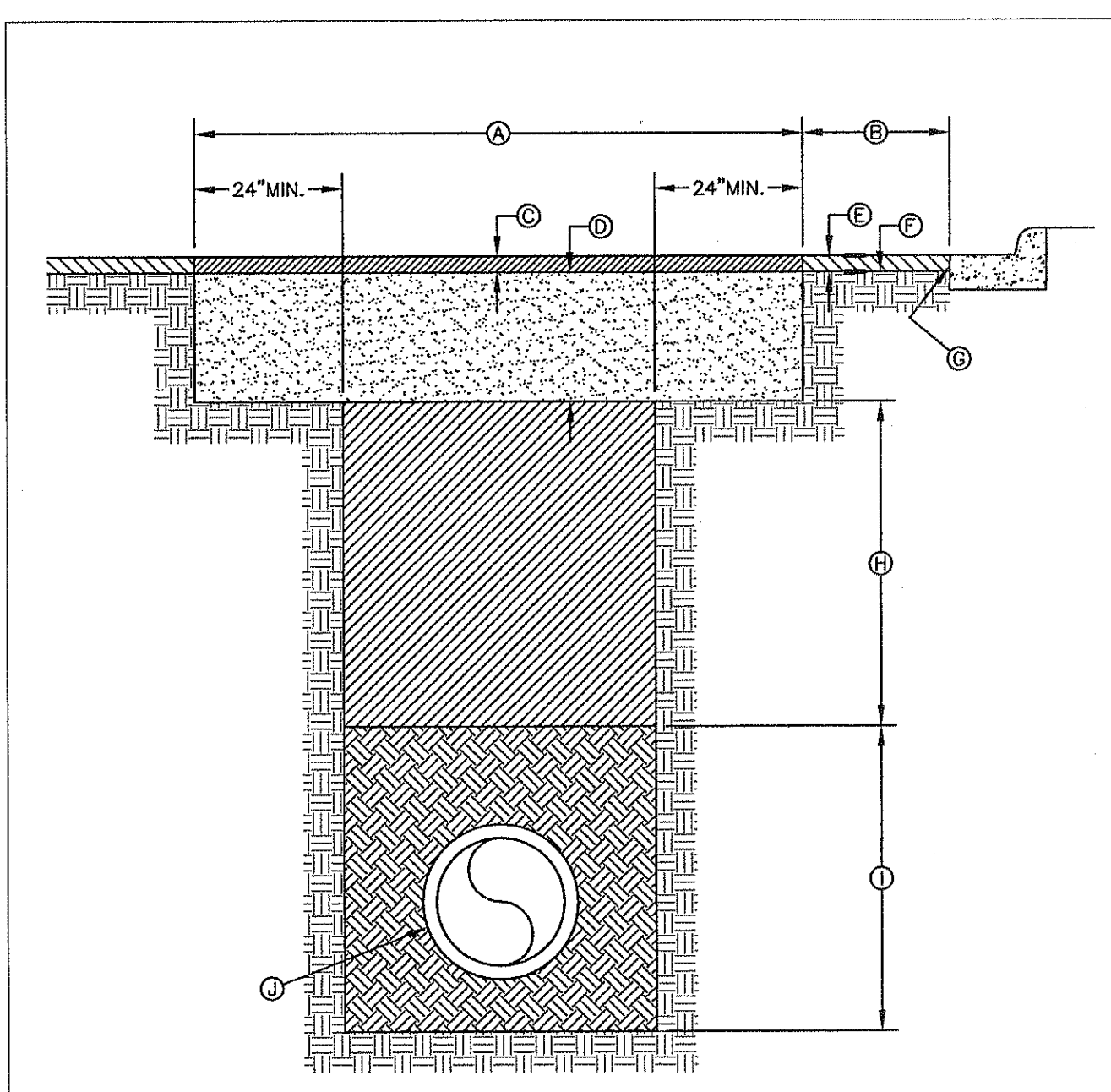
STANDARD DETAIL	DATE: 6/22/2009 REV:	MANHOLE RING AND COVER INSTALLATION	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 185
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STANDARD DETAIL	DATE: 11/1992 REV: 9/18/2009	MANHOLE TYPE "A"	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 370-1
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1 SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS) SCALE: N.T.S.

2 STANDARD MANHOLE RING AND COVER INSTALLATION DETAIL SCALE: N.T.S.

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

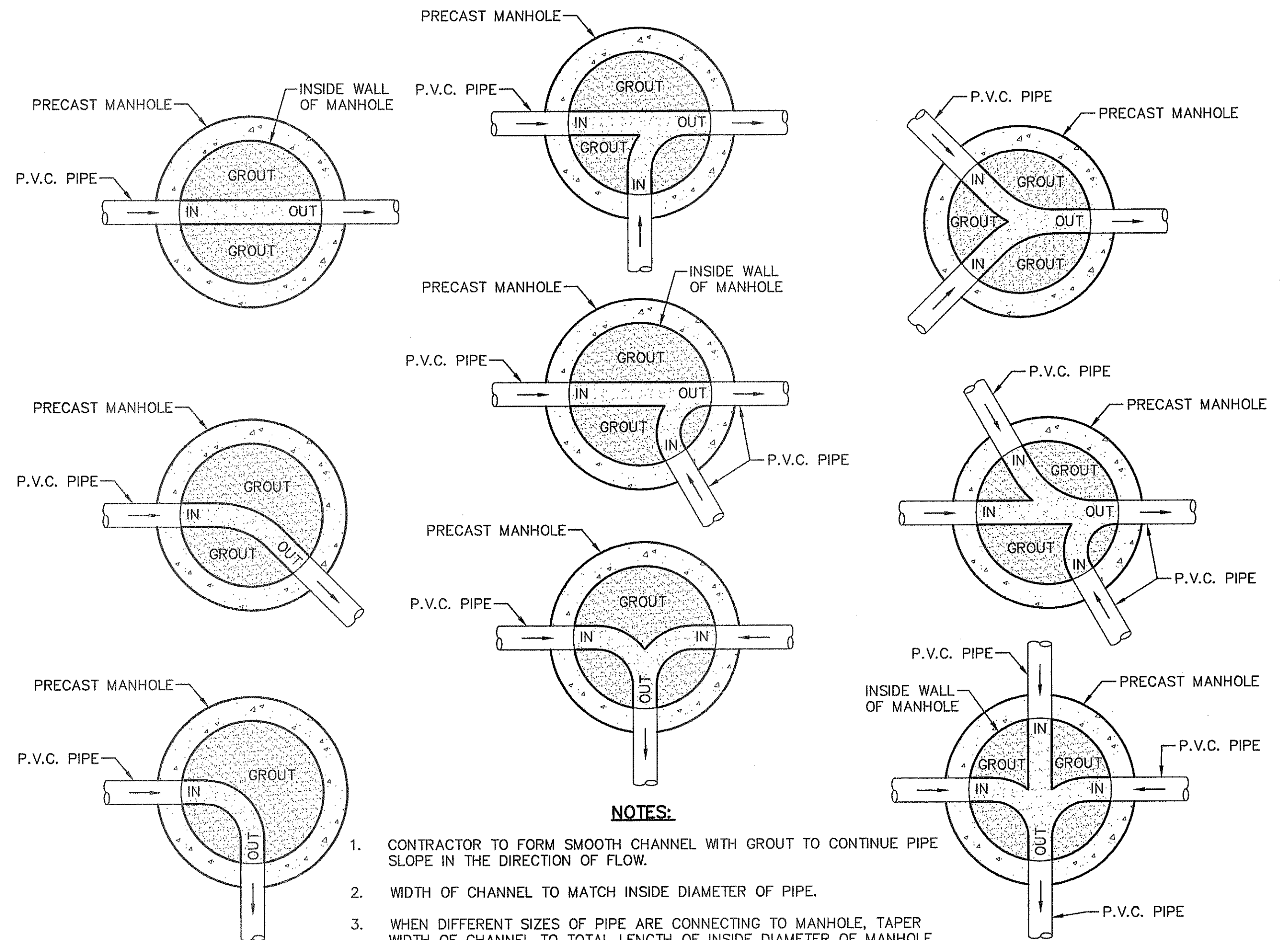


**GENERAL NOTES:**  
 1. ALL ASPHALT CUTS MUST BE SAW CUT.  
 2. SOIL CEMENT SLURRY SHALL BE ALLOWED TO CURE BEFORE PAVING OR OPENING TO ALL TRAFFIC.

**CONSTRUCTION KEY NOTES:**  
 A. REFER TO SPECS FOR LIMIT OF PAVING WIDTH.  
 B. DIMENSION VARIES. WHERE GUTTER FACE, ETC. IS WITHIN 3' OF SAW CUT EDGE, CONTRACTOR SHALL REMOVE & REPLACE EXISTING H.M.A.C. IN THIS AREA.  
 C. 2" ASPHALT MIN.  
 D. 12" THICK SOIL CEMENT BACKFILL (2 SACK PER C.Y. OF SOIL).  
 E. EXISTING H.M.A.C.-THICKNESS MAY VARY.  
 F. EXISTING BASE COURSE-THICKNESS MAY VARY.  
 G. EXISTING GUTTER FACE, EDGE OF PAVEMENT OR BEGINNING OF SHOULDER.  
 H. BACKFILL DEPTH VARIES. REFER TO REQUIREMENTS LISTED IN EMBEDMENT DETAILS (DETAIL 171 THRU DETAIL 173).  
 I. PIPE BEDDING AS SPECIFIED, REFER TO APPROPRIATE EMBEDMENT DETAIL (DETAIL 171 THRU DETAIL 173).  
 J. APPROVED PIPE.

STANDARD DETAIL	DATE: 10/1992 REV: 5/9/2011	PAVEMENT REPAIR DETAIL	N.T.S.	EL PASO UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 179
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4 PAVEMENT REPAIR DETAIL SCALE: N.T.S.



**NOTES:**  
 1. CONTRACTOR TO FORM SMOOTH CHANNEL WITH GROUT TO CONTINUE PIPE SLOPE IN THE DIRECTION OF FLOW.  
 2. WIDTH OF CHANNEL TO MATCH INSIDE DIAMETER OF PIPE.  
 3. WHEN DIFFERENT SIZES OF PIPE ARE CONNECTING TO MANHOLE, TAPER WIDTH OF CHANNEL TO TOTAL LENGTH OF INSIDE DIAMETER OF MANHOLE.  
 4. GROUT TO BE USED FOR BOTH MANHOLES AND DROP MANHOLES. NO P.V.C. PIPE SHALL BE INSTALLED IN MANHOLE.  
 5. REFER TO PLAN & PROFILE SHEETS FOR SIZE OF PIPES AND MANHOLES.

5 TYPICAL MANHOLE INVERT PLANS SCALE: N.T.S.

REFERENCES - BENCHMARKS  
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH COUNTY, TEXAS  
 FROM THE SUBURBAN RIGHT OF WAY OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

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 TEXAS REGISTERED ENGINEERING FIRM F-6584  
 4712 Woodrow Branch, Ste. F El Paso, TX 79924  
 Office: 915.544.5222 Fax: 915.544.5233 www.ccaonline.com

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

DATE: SEPTEMBER 2013  
 DESIGN BY: J.H.  
 DRAWN BY: J.H.  
 CHKD. BY: J.L.A.  
 APPRO. BY: J.L.A.  
 JOB No. 2000-157-LD

PROJECT TITLE  
**TRES SUEÑOS  
 UNIT ELEVEN  
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**SANITARY SEWER  
 DETAILS**

(SHEET 2 OF 2)  
 SHEET NO.

C11.5

S:\2000\2000-157\SUBDIVISION IMPROVEMENTS\Drawings\Improvement Plans\C11.5 SANITARY DET ALL-2.dwg, MESH, 9/18/2013 10:09:17 AM



**SITE DESCRIPTION**

PROJECT NAME AND LIMITS: TRES SUEÑOS UNIT ELEVEN  
 THE PROJECT IS BORDERED BY TRES SUEÑOS UNIT EIGHT TO THE WEST AND NORTH, TRES SUEÑOS UNIT TEN TO THE EAST, AND TRES SUEÑOS UNIT SIX TO THE SOUTH.

PROJECT DESCRIPTION: THE SITE FOR THE NEW SUBDIVISION WILL ENCOMPASS APPROXIMATELY 10.621± ACRES, AND WILL CONTAIN 47 RESIDENTIAL LOTS AND A PARK SITE.

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, ROCKWALLS, AND EXCAVATION FOR UTILITIES.

TOTAL PROJECT AREA: 10.621± A.C.

TOTAL AREA TO BE DISTURBED: 10.634± A.C.

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.634

EXISTING CONDITION OF SOIL AND VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: HUECO-WINK ASSOCIATION; NEARLY LEVEL AND GENTLY SLOPING SOILS THAT HAVE A FINE SANDY LOAM SUBSOIL AND ARE MODERATELY DEEP OVER CALICHE; IN THE HUECO BOLSON.

NAME OF RECEIVING WATERS: STORM RUNOFF FROM THE NEW SUBDIVISION WILL BE CONVEYED BY STREET SHEET FLOW AND STORM SEWER INFRASTRUCTURE TO ULTIMATELY BE DISCHARGED TO AN OFF-SITE PONDING AREA LOCATED IN TRES SUEÑOS UNIT EIGHT SUBDIVISION.

**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 C4.1, 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 TCEQ.

**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.

**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

**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

**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.

**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

**V. 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.

**VI. 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.

**VII. OFFSITE VEHICLE TRACKING:**

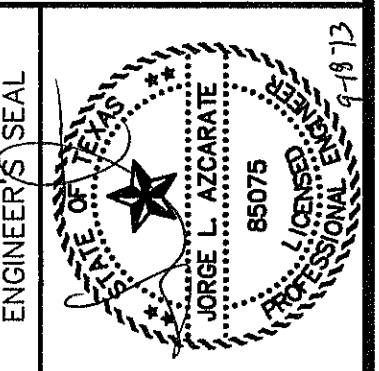
IN ADDITION TO THE STABILIZED CONSTRUCTION ENTRANCES, THE FOLLOWING MEASURES SHALL BE OBSERVED DURING CONSTRUCTION:

- 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: \_\_\_\_\_

**VIII. REFER TO SWPPP REPORT FOR ADDITIONAL INFORMATION**

REFERENCES - BENCHMARKS  
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEN BLVD. STATION 5+37.50 A DISTANCE OF 467.99 FEET FROM MONUMENT TO POINT OF CURVE. STATION 5+37.50 TO AVENUE CITY DATUM. ELEVATION: 4058.40

**ceea**  
 engineers • architects • planners  
 TEXAS REGISTERED ENGINEERING FIRM F-4684  
 4712 Woodrow Bean, Ste. F, El Paso, TX 79924  
 Office: 915.544.5232 Fax: 915.544.5233 www.ceeaonline.com



SCALE: N/A  
 Horizontal: N/A  
 Vertical: N/A  
 Contour Interval: N/A  
 DATE: SEPTEMBER 2013  
 DESIGN BY: J.H.  
 DRAWN BY: J.H.  
 CHECKED BY: J.H.  
 APP'D. BY: J.H.  
 JOB No. 2000-197-1D

PROJECT TITLE  
**TRES SUEÑOS  
 UNIT ELEVEN  
 SUBDIVISION IMPROVEMENTS**

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

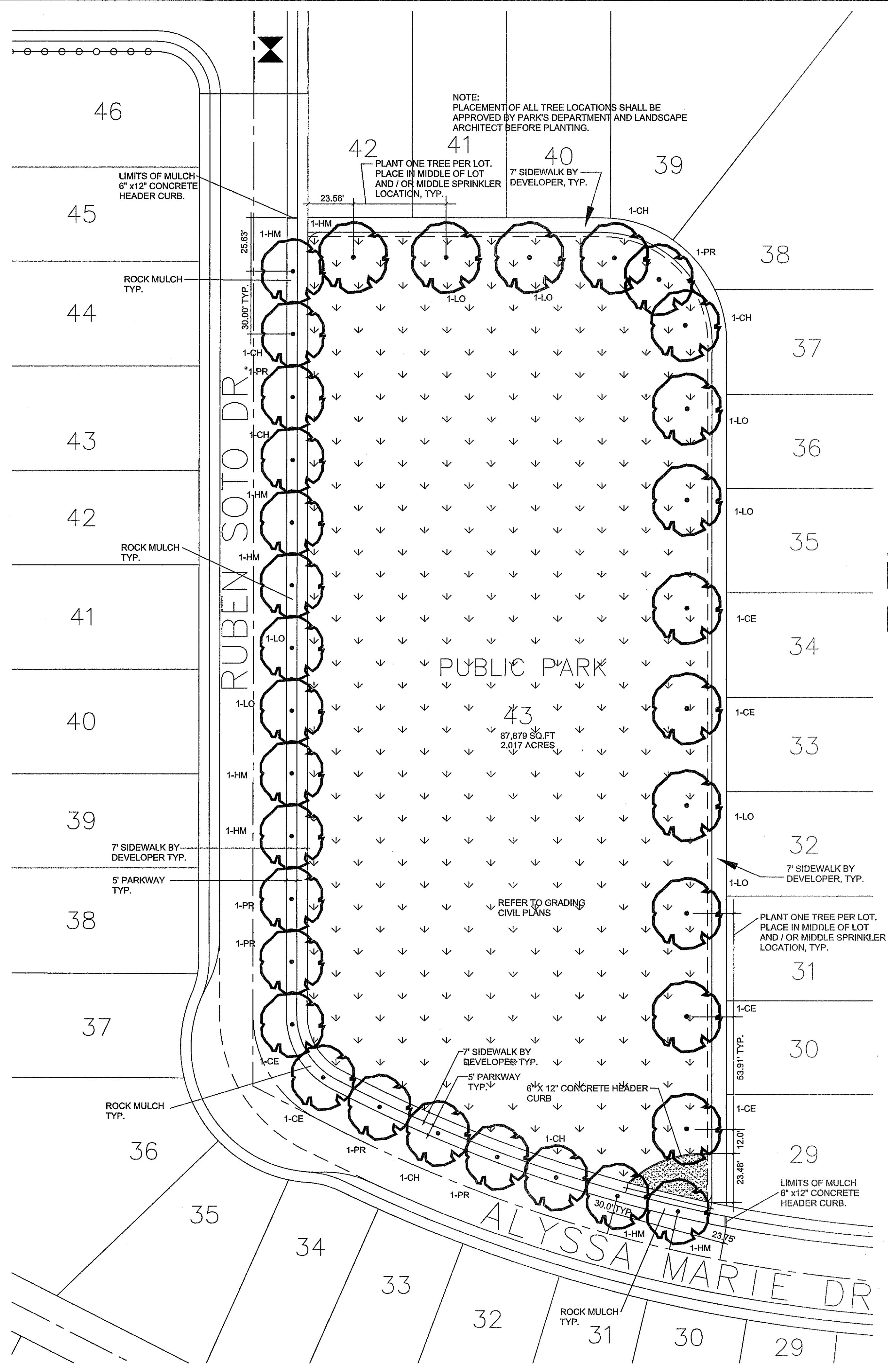
SHEET NO.

C12.1









**PLANT SCHEDULE**

KEY	QTY	COMMON NAME / BOTANICAL NAME	CONT
CH	6	Chinese Pistachio / Pistacia Chinensis	2.0" CALIPER
HM	8	Honey Mesquite / Prosopis glandulosa	2.0" CALIPER
LO	8	Texas Live Oak / Quercus fusiformis	2.0" CALIPER
PR	6	Pink Flowering Locust / Robinia x ambigua 'Purple Robe'	2.0" CALIPER
CE	6	Lacebark Elm / Ulmus parvifolia 'Lacebark'	2.0" CALIPER

**GENERAL NOTES:**

- DEVELOPER SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE FINISHED GRADE) AND PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, MINERALS AVAILABILITY, WATER PEGELOCATION, DETAILED SALINITY & PH TEST WITH RECOMMENDATIONS FOR SOIL AMENDMENTS TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS AND TREES GROWTH; COORDINATE SITE VISIT WITH LANDSCAPE ARCHITECT FOR COLLECTION OF SOIL SAMPLES (TO BE A DEPTH OF 12").
- ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIATED BY REMOVAL OF SOILS, SOILS WITH STONES, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN GUIDELINES AND CONSTRUCTION STANDARDS.
- ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY LANDSCAPE ARCHITECT ARE TO BE REMOVED, DISPOSED-OFF SITE (APPROVED SITE) AND REPLACED WITH TOPSOIL TO THE REMOVAL DEPTH AS NEEDED.
- CONTRACTOR SHALL BE REQUIRED TO OBTAIN PROPER PERMITS.
  - LANDSCAPE PERMIT
  - IRRIGATION PERMIT
  - BUILDING PERMIT FOR PUMP HOUSE
  - ALL PARK IMPROVEMENTS SHALL COMPLY WITH APPLICABLE ADAAG AND TAS RULES AND REGULATIONS.
- DEVELOPER SHOULD PROVIDE TDLR REGISTRATION NUMBER TO LANDSCAPE ARCHITECT, CITY OF EL PASO, PARKS DEPARTMENT. INSPECTION AND CERTIFICATE TO BE INCLUDED

**MATERIAL LEGEND:**

- TURF TYPE SHALL BE CELEBRATION HYBRID BERMUNDA
- ROCK MULCH SHALL BE SCREENINGS 3" DEPTH PLACED ON GEOTEX FABRIC, CONTECH MARIPIA 160N. PLACE OVER LIGHTLY COMPACTED SOIL. OVERLAP GEOTEX FABRIC MINIMUM OF 12" AND PIN WITH U-SHAPE METAL PIN 3" LENGTH ON 12" CENTER. GEOTEX FABRIC SHALL BE MIRAFI 160N SEE DETAIL L-3

**NOTES FOR PLANTING:**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS FROM FALLING OR BEING BLOWN OVER AND TO STRAIGHTEN OR REPLANT ALL PLANTS WHICH ARE DAMAGED DUE TO WIND. PLANTS BLOWN OVER BY HIGH WINDS SHALL NOT BE A CAUSE FOR ADDITIONAL EXPENSE TO THE OWNER, BUT SHALL BE THE FINANCIAL RESPONSIBILITY OF CONTRACTOR.
- TOPSOIL MATERIAL FOR PLANTING SHALL BE FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, STONES LARGER THAN 1" IN DIAMETER, NOXIOUS WEEDS AND PLANTS, SOD, PARTIALLY DISINTEGRATED DEBRIS, INSECTS OR ANY OTHER UNDESIRABLE MATERIAL. PLANTS OR SEEDS THAT WOULD BE TOXIC OR HARMFUL TO GROWTH.
- CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF PLANT MATERIAL QUANTITIES.
- IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. IMPROPER PLANT COUNT MADE BY THE LANDSCAPE CONTRACTOR SHALL BE NO CAUSE FOR ADDITIONAL COSTS TO THE OWNER.
- THE CONTRACTOR SHALL MEET BOTH THE CONTAINER SIZE AND CALIPER SIZE, AS WELL AS HEIGHT AND SPREAD SPECIFICATIONS SPECIFIED.
- EXCAVATE TWO TIMES GREATER THAN THE ROOT BALL-DIAMETER OF THE SHRUB, TWO TIMES GREATER THAN THE ROOT BALL FOR TREES. SCARIFY BOTTOM OF PLANTING PIT BEFORE PLACING PLANT. PLACEMENT OF PLANT SHALL BE PERPENDICULAR TO GROUND. THAT FIELD CONDITIONS HAVE CHANGES SINCE PLANS WERE DRAWN. ANY CHANGES ARE TO BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE DESIGNER BEFORE ANY PLANTING IS DONE IN THE AREA.
- PLANT SUBSTITUTIONS WILL BE PERMITTED, REQUEST SUBSTITUTION IN WRITING GIVING REASONS FOR SUCH SUBSTITUTIONS.
- TURF QUANTITY TAKE-OFF ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- TREAT ALL PLANTING AREAS WITH AN APPLICATION OF SURF. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION.
- REMOVE ALL WIRE, STRING, WIRE BASKETS, BURLAP, CONTAINERS, ETC., FROM THE ROOTBALL OF PLANTS BEFORE BACKFILLING THE PLANTING HOLE.
- WARRANTY FOR THE PLANTING MATERIAL SHALL BE ONE YEAR FROM THE DATE OF ACCEPTANCE. (TREES, SHRUBS AND GROUNDCOVER).



**PARKS DEPARTMENT**  
 REVIEWED BY: *Antonio del Rio*  
 09/18/2013

**LANDSCAPE PLAN**

SCALE: 1" = 30'-0"

2013-29-04 11:11

**SODDING NOTES**

- SUBMIT THE FOLLOWING:
- SOD CERTIFICATION FOR GRASS SPECIES AND NAME AND LOCATION OF SOD SOURCE. SODDING SCHEDULE, INCLUDING DATES AND TYPE OF WORK TO BE PERFORMED. PRIOR TO ORDERING, NAME OF SUPPLIER OF SOIL AMENDMENTS MATERIALS. QUALITY ASSURANCE
  - MINIMUM AGE 18 MONTHS. WITH ROOT DEVELOPMENT THAT WILL SUPPORT ITS OWN WEIGHT WITHOUT TEARING. WHEN SUSPENDED VERTICALLY BY HOLDING THE UPPER TWO CORNERS.
  - DELIVERY, STORAGE AND HANDLING
  - TIME DELIVERY SO THAT SOD WILL BE PLACED WITHIN 24 HOURS OF DELIVERY AT SITE. PROTECT AGAINST DRYING AND BREAKING OF ROLLED STRIPS.
  - DELIVER PACKAGED MATERIALS IN CONTAINERS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED

**SITE CONDITIONS**

- PROCEED WITH AND COMPLETE LANDSCAPE WORK AS RAPIDLY AS PORTIONS OF SITE BECOME AVAILABLE, WORKING WITHIN SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED.
- WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS CONSULT THE LANDSCAPE DESIGNER AND CITY OF EL PASO PARKS AND RECREATION BEFORE PLANTING.
- PLANT OR INSTALL MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF LANDSCAPE WORK REQUIRED. CORRELATE PLANTING WITH SPECIFIED MAINTENANCE PERIODS TO PROVIDE MAINTENANCE FROM DATE OF FINAL ACCEPTANCE.

**SOIL AMENDMENTS**

- PROVIDE SOIL ANALYSIS BEFORE ADDITION OF SOIL AMENDMENTS & ANALYSES OF SOIL AMENDMENTS. ORGANIC AMENDMENTS SHALL CONSIST OF WELL-AGED ORGANIC COMPOST OR APPROVED EQUAL FERTILIZER
- SLOW-RELEASE STARTER FERTILIZER ANALYSIS AS RECOMMENDED BY LANDSCAPE ARCHITECT BY WEIGHT AT A RATE OF 1 LB OF ACTUAL NITROGEN PER 1,000 SQUARE FEET BY WEIGHT.

**GRASS MATERIALS**

- PROVIDE STRONGLY ROOTED SOD, NOT LESS THAN 18 MONTHS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES AND MACHINE CUT TO PAD THICKNESS OF 3/4 INCH (PLUS OR MINUS 1/4 INCH), EXCLUDING TOP GROWTH AND THATCH. PROVIDE SOD CAPABLE OF GROWTH AND DEVELOPMENT WHEN PLANTED. CUT SOD PIECES A MINIMUM OF 18 INCHES WIDE.

**PREPARATION**

- PRIOR TO START OF SOIL PREPARATION ALL FINISH GRADES SHALL BE ESTABLISHED AND APPROVED AS MEETING THE REQUIREMENTS OF THE GRADING PLAN. APPLY A UNIFORM ONE-INCH LAYER (3 C.Y./1000 SQUARE FEET) OF ORGANIC SOIL AMENDMENT, AFTER APPLICATION OF ORGANIC AMENDMENT AND STARTER FERTILIZER ALL AREAS TO BE SODDED SHALL BE THOROUGHLY ROTOTILLED TO A MINIMUM DEPTH OF 12 INCHES. AFTER ROTOTILLING IS COMPLETE AT CROSS DIRECTIONS, DRAG, AND LASER LEVEL TO AN EVEN GRADE, THEN ROLL FOR FIRMNESS. RAKE TILLED AREA AND REMOVE ROLL ENTIRE AREA WITH WEIGHTED HAND ROLLER.

**SODDING OPERATIONS**

- LAY SOD WITHIN 24 HOURS OF DELIVERY AT SITE. DO NOT PLANT DORMANT SOD OR ON FROZEN
- IF SOIL IS DRY, MOISTEN AREAS BEFORE SODDING. WATER THOROUGHLY AND ALLOW SURFACE MOISTURE TO DRY. DO NOT CREATE A MUDDY SOIL CONDITION.
- REMOVE FIBER MESH USED BY SOD FARM TO TRANSPORT SOD ROLLS AS SOD IS BEING INSTALLED.
- LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. NO JOINT SHALL BE MORE THAN 1/4" OVER MOISTENED SOIL. LIGHTLY RAKE THE SOIL AHEAD OF EACH SOD STRIP. BUTT ENDS AND SIDES OF SOD STRIPS; DO NOT OVERLAP. STAGGER STRIPS TO OFF-SET JOINTS IN ADJACENT COURSES. LAY SOD PARALLEL TO CONTOURS OF SLOPE. WORK FROM BOARDS TO AVOID DAMAGE TO SUBSOIL OR SOD. TAMP FIRMLY AND EVENLY BY HAND TO ENSURE CONTACT WITH SUBSOIL. WORK SIFTED TOPSOIL OR SAND INTO MINOR CRACKS BETWEEN PIECES OF SOD
- WATER SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.
- BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.
- MAINTAIN LAWNS FOR NOT LESS THAN A PERIOD OF AT LEAST 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SOD. INSPECTION TO DETERMINE ACCEPTANCE OF SODDED LAWNS WILL BE MADE BY PARKS STAFF AND SITES SOUTHWEST REPRESENTATIVE UPON CONTRACTOR'S REQUEST. PROVIDE NOTIFICATION AT LEAST 10 WORKING DAYS BEFORE REQUESTED INSPECTION DATE. AND LONGER AS REQUIRED TO ESTABLISH AN ACCEPTABLE LAWN.
- SODDED LAWNS TO BE MAINTAINED NOT LESS THAN 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SODDING OPERATIONS.
- MAINTENANCE TO INCLUDE: WATER SOD THOROUGHLY EVERY 2 TO 3 DAYS MIN. AS REQUIRED TO ESTABLISH PROPER ROOTING. REPAIR, REWORK AND RESOD AREAS THAT HAVE WASHED OUT OR ERODED. REPLACE DEAD OR UNDESIRABLE SOD SECTIONS WITH NEW SOD. MOW LAWN AREAS WHEN THE GRASS IS OVER 2 INCHES HIGH FOR FIRST CUTTING. FERTILIZE LAWN WITH TOP DRESSING FERTILIZER AT 1 LB. PER 1,000 SQ.FT. OF NITROGEN, WATER THOROUGHLY.
- ADDITIONAL LAWN MAINTENANCE CONSISTS OF WEEDING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS. CLEANUP AND PROTECTION
- DURING THE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION.
- PROTECT WORK AND MATERIALS FROM DAMAGE DUE TO SODDING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED WORK AS DIRECTED.
- WHEN INSPECTED WORK DOES NOT COMPLY WITH REQUIREMENTS, REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED BY THE LANDSCAPE DESIGNER AND CITY OF EL PASO PARKS AND RECREATION AND FOUND TO BE ACCEPTABLE. REMOVE REJECTED SOD AND

**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

**WARNING ! BEFORE YOU DIG**

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

FOR FIELD LOCATING EXISTING UTILITIES

**REFERENCES - BENCHMARKS**

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S0843731E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION: 4005.40

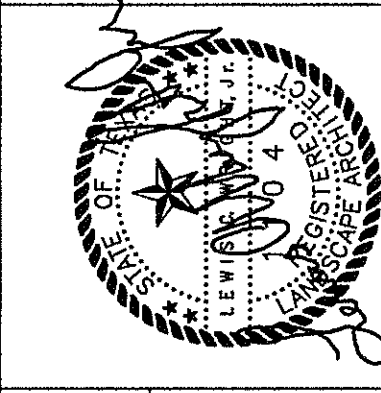
DATE	REVISIONS	BY

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4712 Woodrow Bean, Ste. F, El Paso, TX 79924  
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**SCALE**

Horizontal: 1" = 30'-0"

Vertical: 1" = 10'-0"

Contour Interval: 1' / 4"

DATE: AUGUST 2013

DESIGN BY: LW

DRAWN BY: JWC

CHKD. BY: LW

APPV. BY: L. WRIGHT

JOB NO.: 2000-1157-LD

**PROJECT TITLE**

TRES SUEÑOS UNIT ELEVEN  
 "SWEET DREAM PARK" - LOT 43, BLOCK 35  
 14417 ALYSSA MARIE DRIVE  
 SUBDIVISION IMPROVEMENTS  
 A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2, TEXAS  
 AND PACIFIC RAILROAD COMPANY SURVEYS

**SHEET TITLE**

**LANDSCAPE PLAN**

**SHEET NO.**

**L-1.0**

**DRAWING COORDINATION**

ARCHITECTURAL, CIVIL, MECHANICAL, STRUCTURAL, ELECTRICAL, AND LANDSCAPING DRAWINGS ARE INTERRELATED. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL REVIEW AND COORDINATE THE ENTIRE SET OF DRAWINGS AND PROJECT MANUAL.

**LAS LANDSCAPE ARCHITECTURAL SERVICES**

LANDSCAPE ARCHITECT & IRRIGATION CONSULTANT

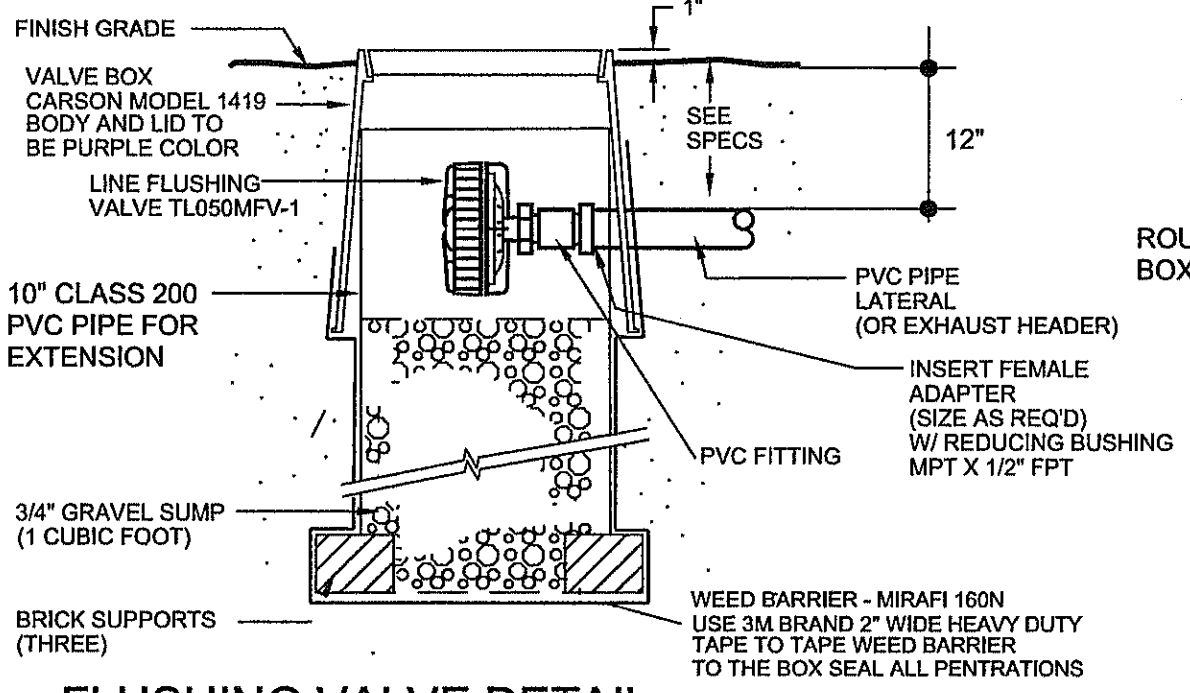
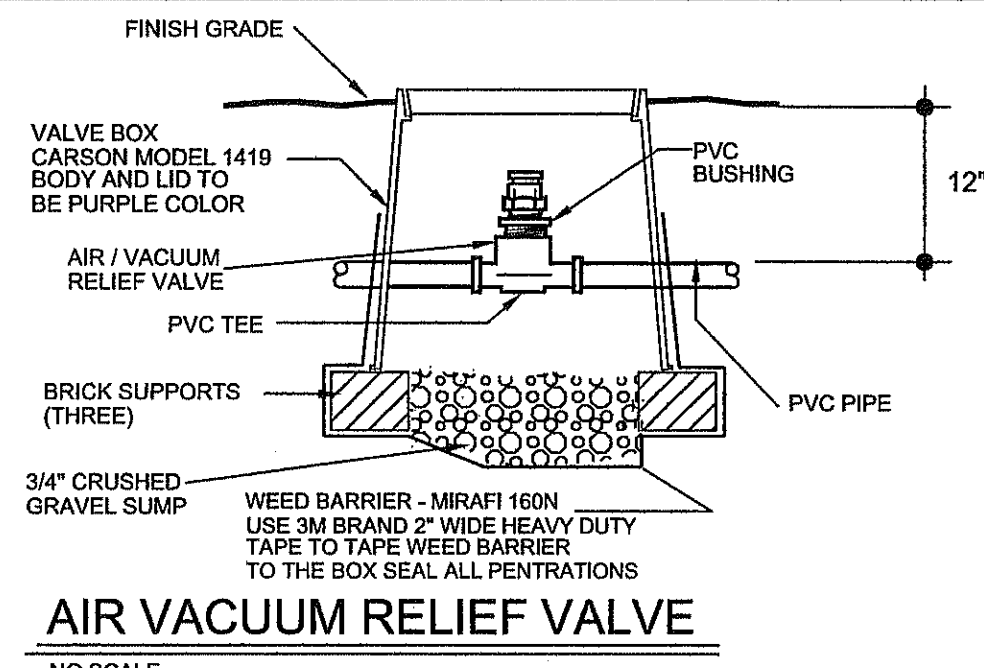
4004 KEMP AVE SUITE B EL PASO, TX 79904  
 PHONE: (915) 422-7739 FAX: (915) 581-6730  
 EMAIL: lwrightlas@gmail.com

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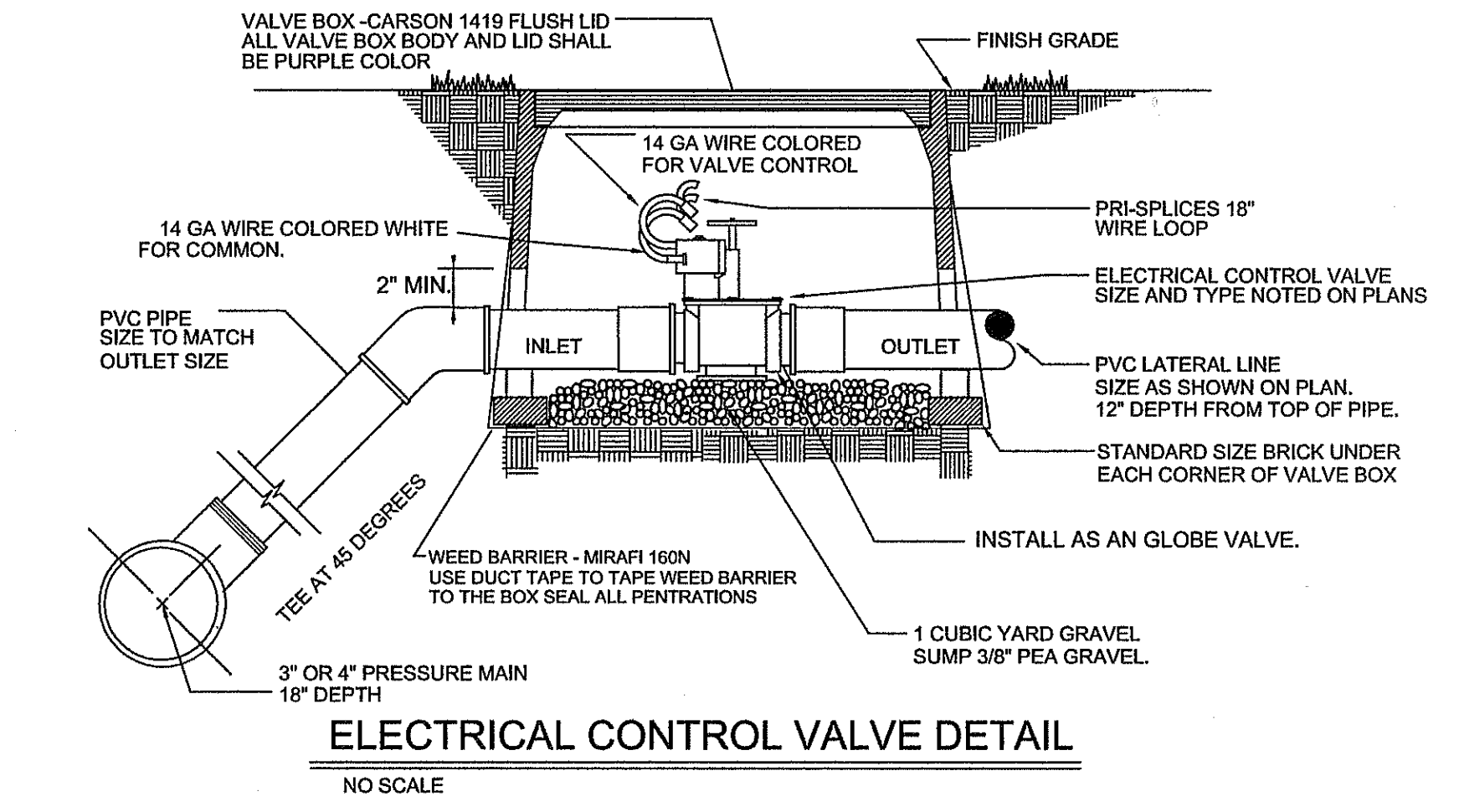






**GENERAL NOTES FOR VALVE AND ALL BOXES:**

- ONLY ONE COURSE OF BRICK AT EACH CORNER SHALL BE ALLOWED.
- CONTRACTOR SHALL USE VALVE BOX EXTENSIONS ONLY TO REACH THE PROPER HEIGHT OF VALVE BOX TO FINISHED GRADE OF MULCH.
- ALL VALVE AND EMITTER BOXES SHALL HAVE GEOTEX FABRIC INSTALLED UNDERNEATH AND TAPED TO SEAL ALL OPENINGS. TAPE SHALL BE 3M BRAND 2" WIDE HEAVY DUTY PLASTIC TAPE ONLY, NO DUCT TAPE SHALL BE ALLOWED.
- ALL VALVE, EXTENSIONS AND EMITTER BOXES SHALL NOT REST OR CONTACT THE PVC PIPE OR DRIPLINE TUBING.

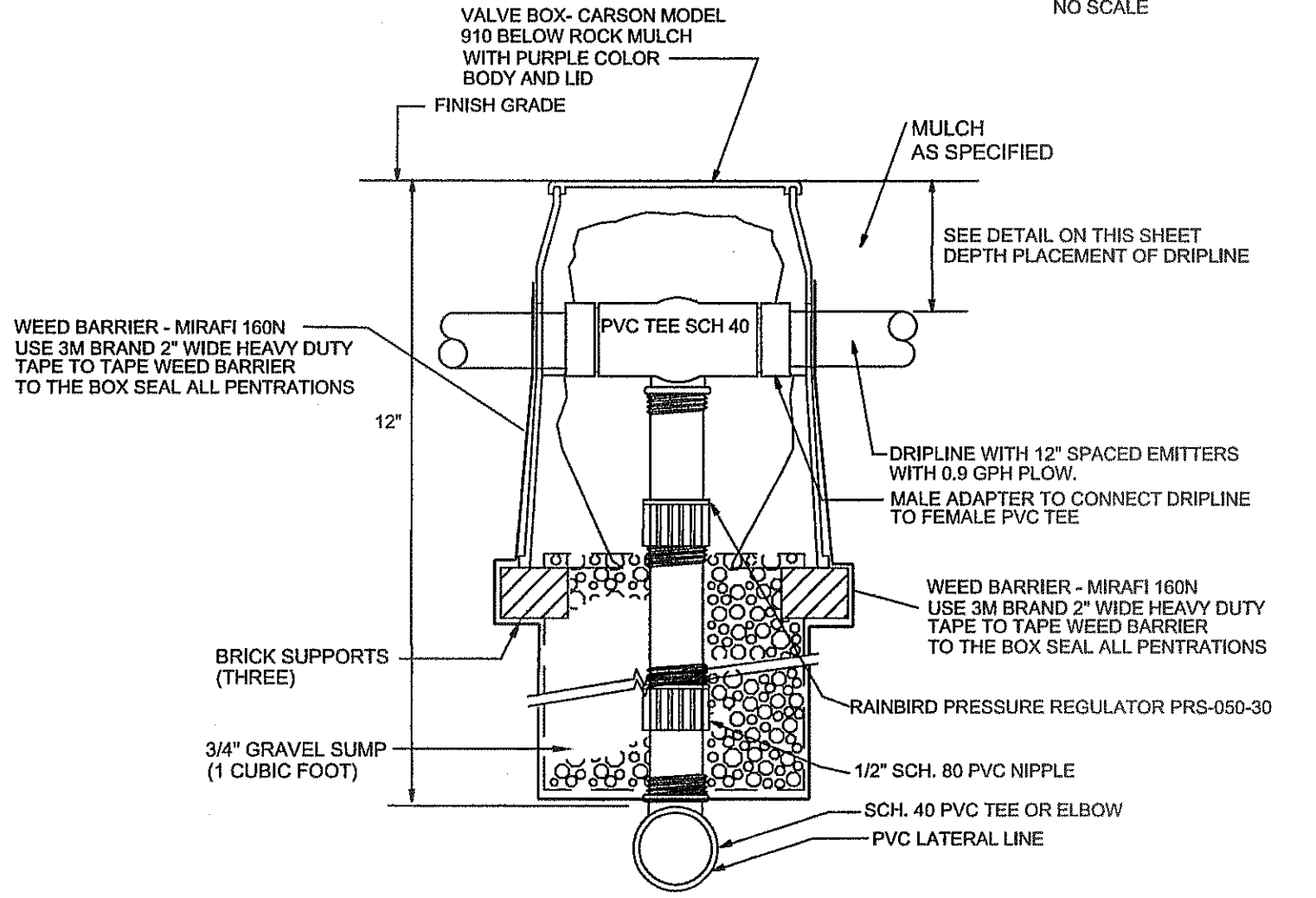
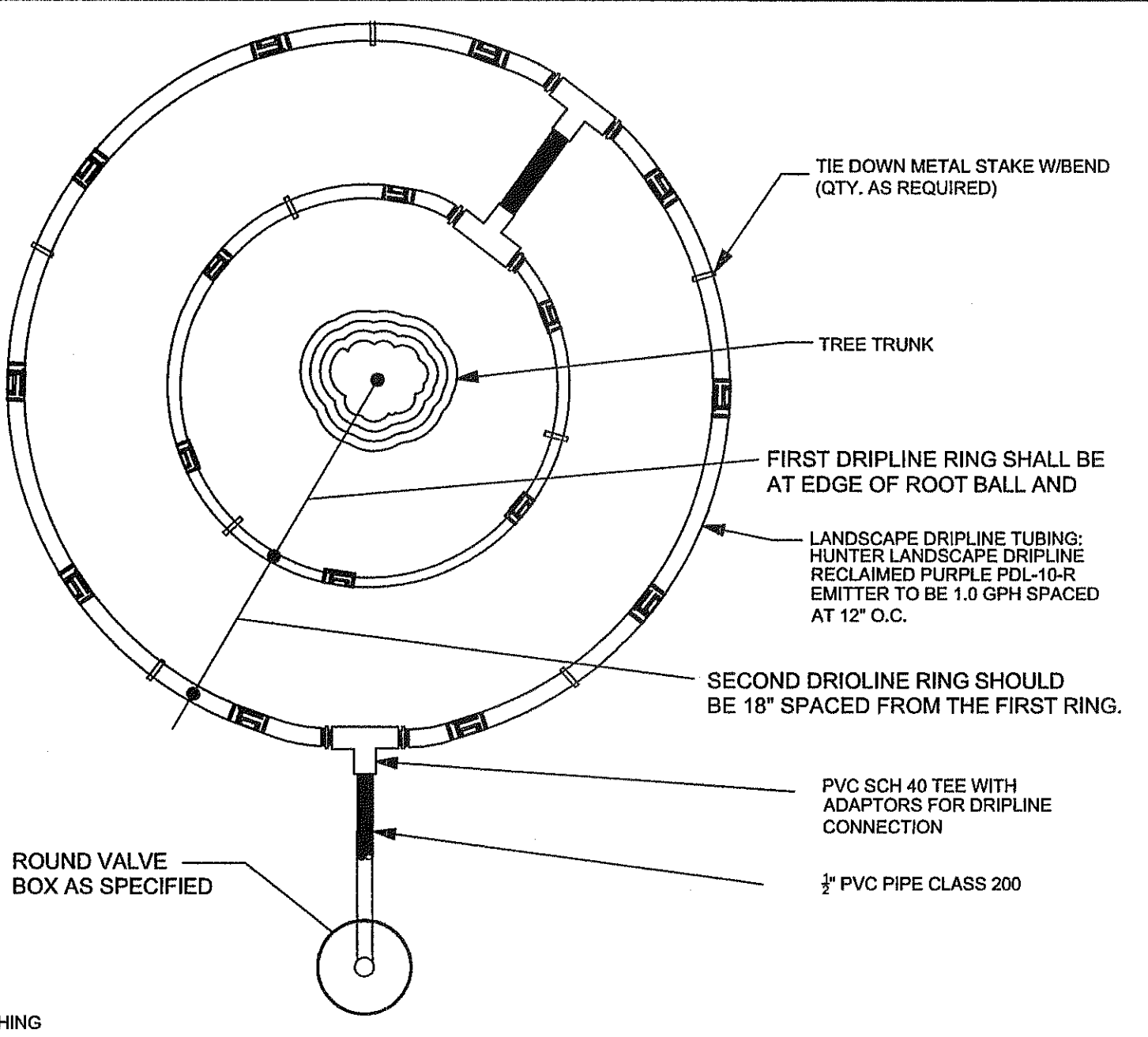


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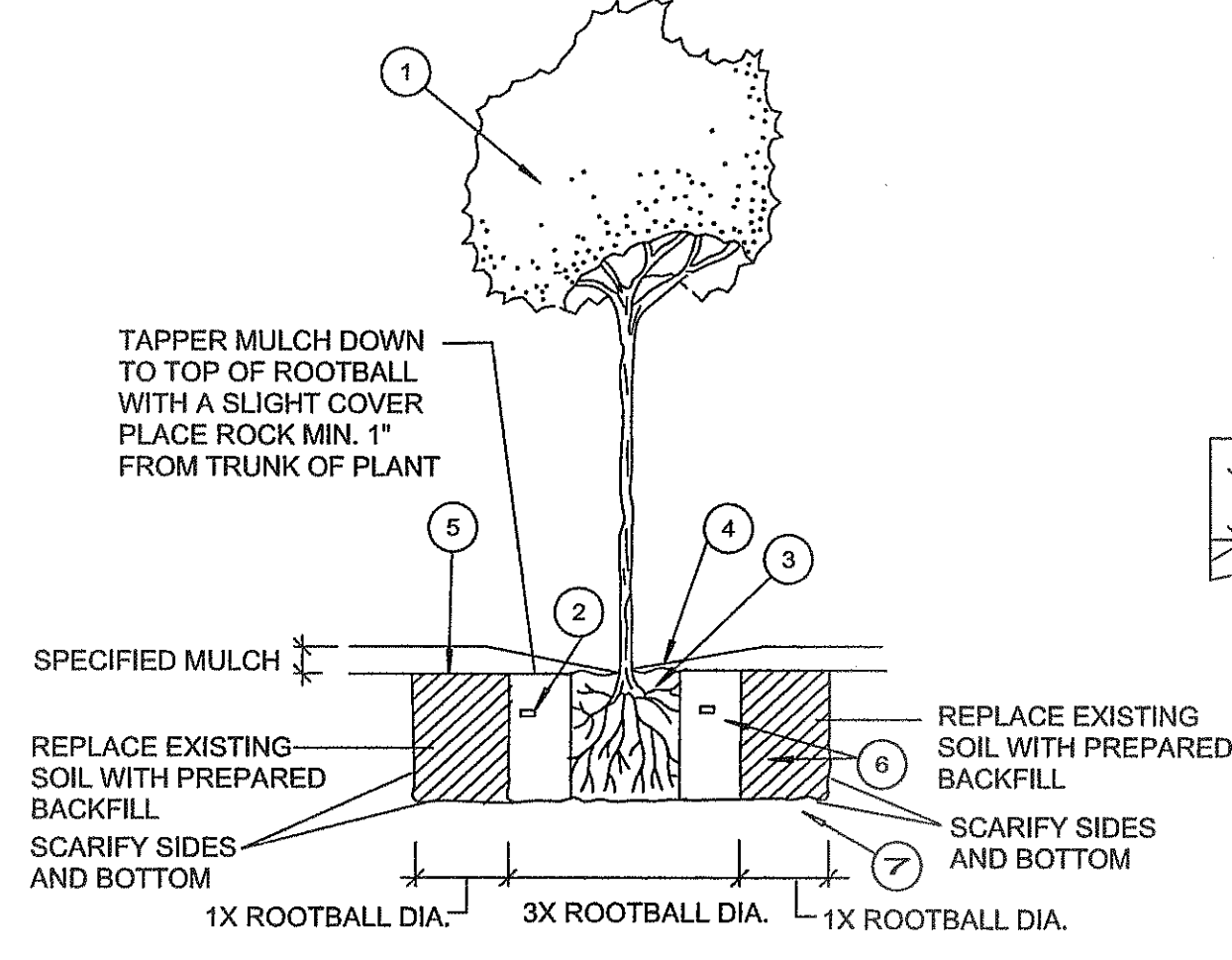
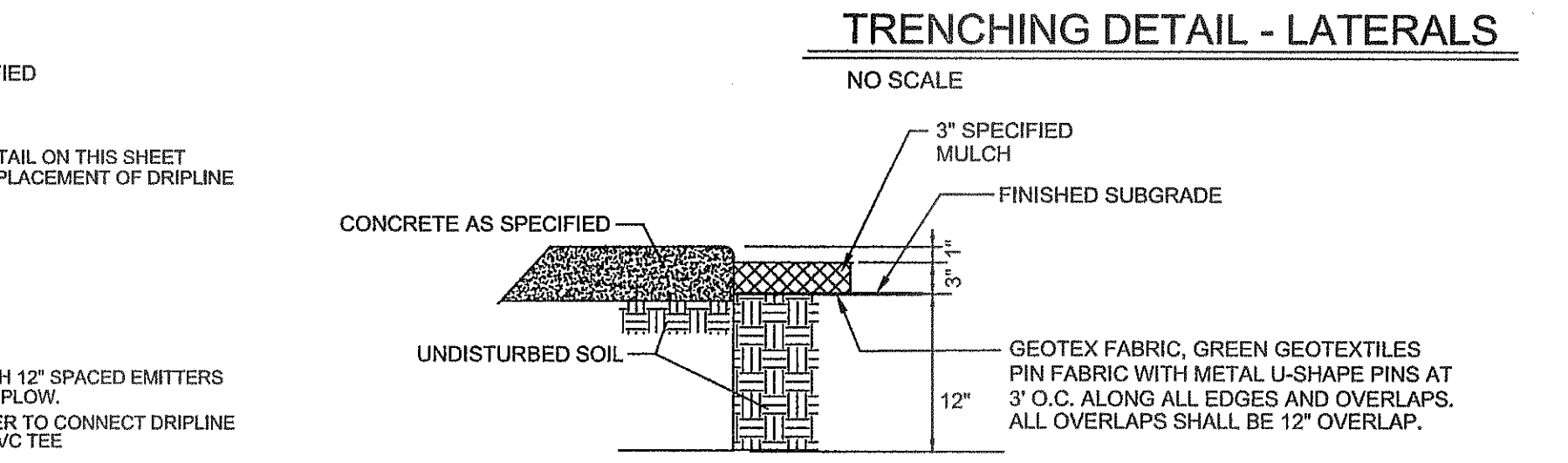
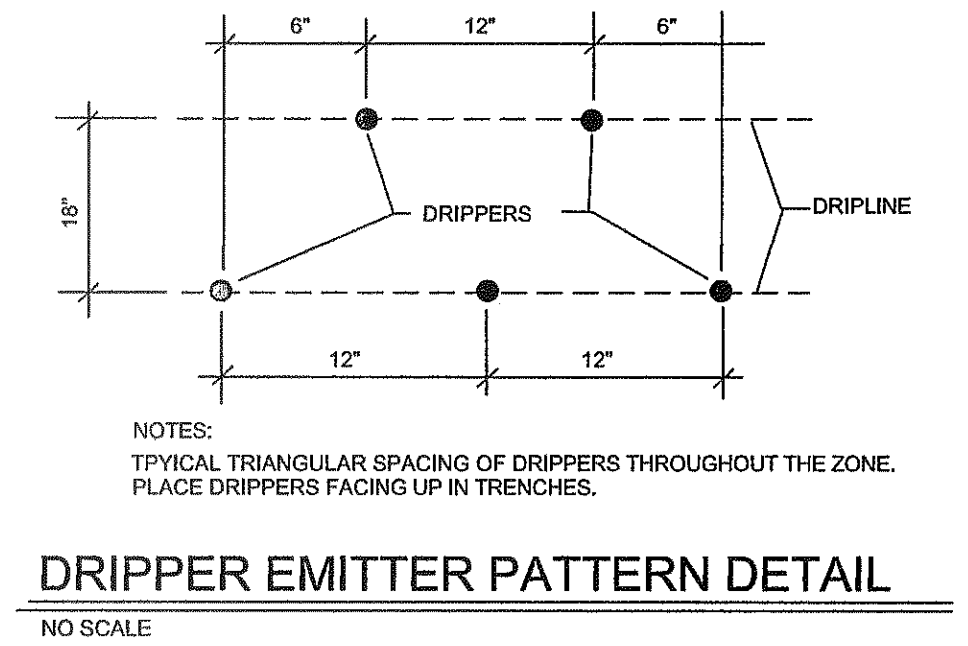
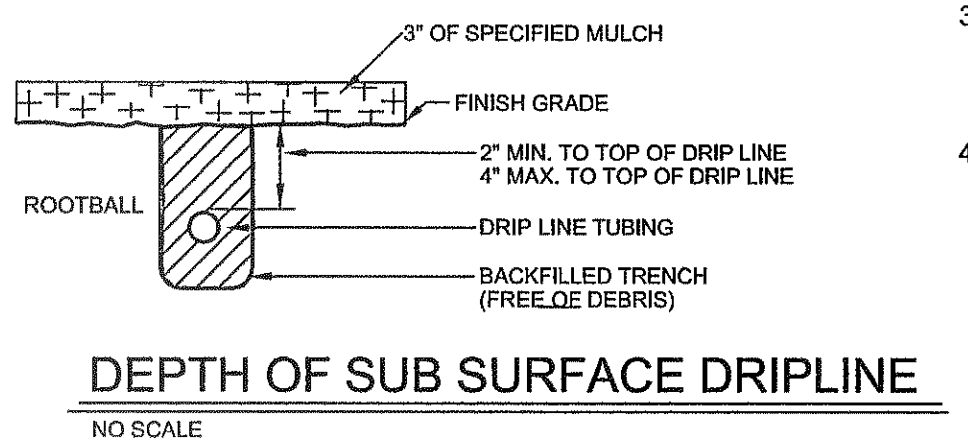
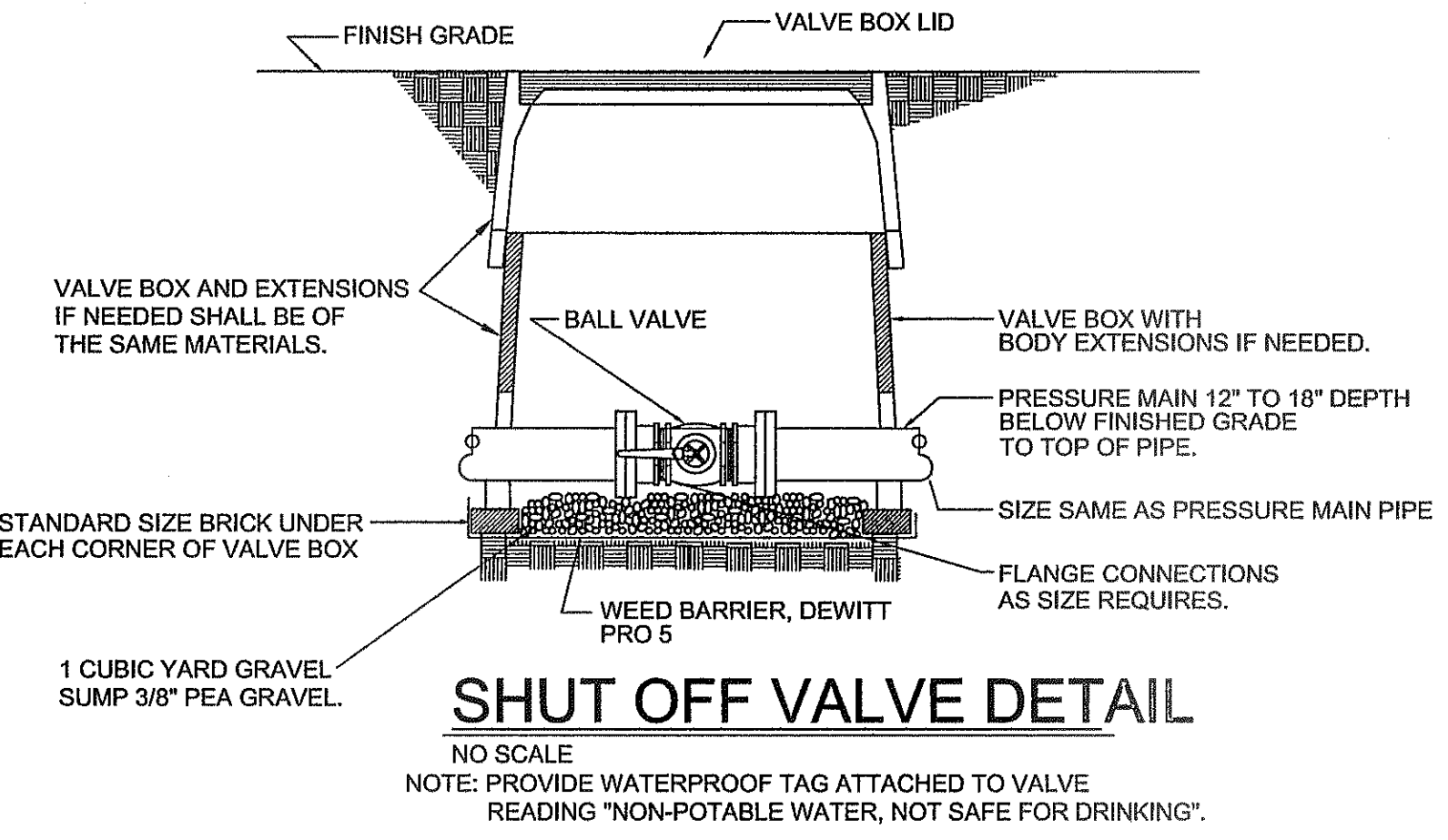


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**NOTE:**  
PLACEMENT OF ACCESS BOX FOR CONNECTION SHALL BE FIVE FEET (5') FROM THE TREE TRUNK ON THE WEST SIDE.

**CONNECTION DETAIL BETWEEN DRIPLINE AND LATERAL**  
NO SCALE

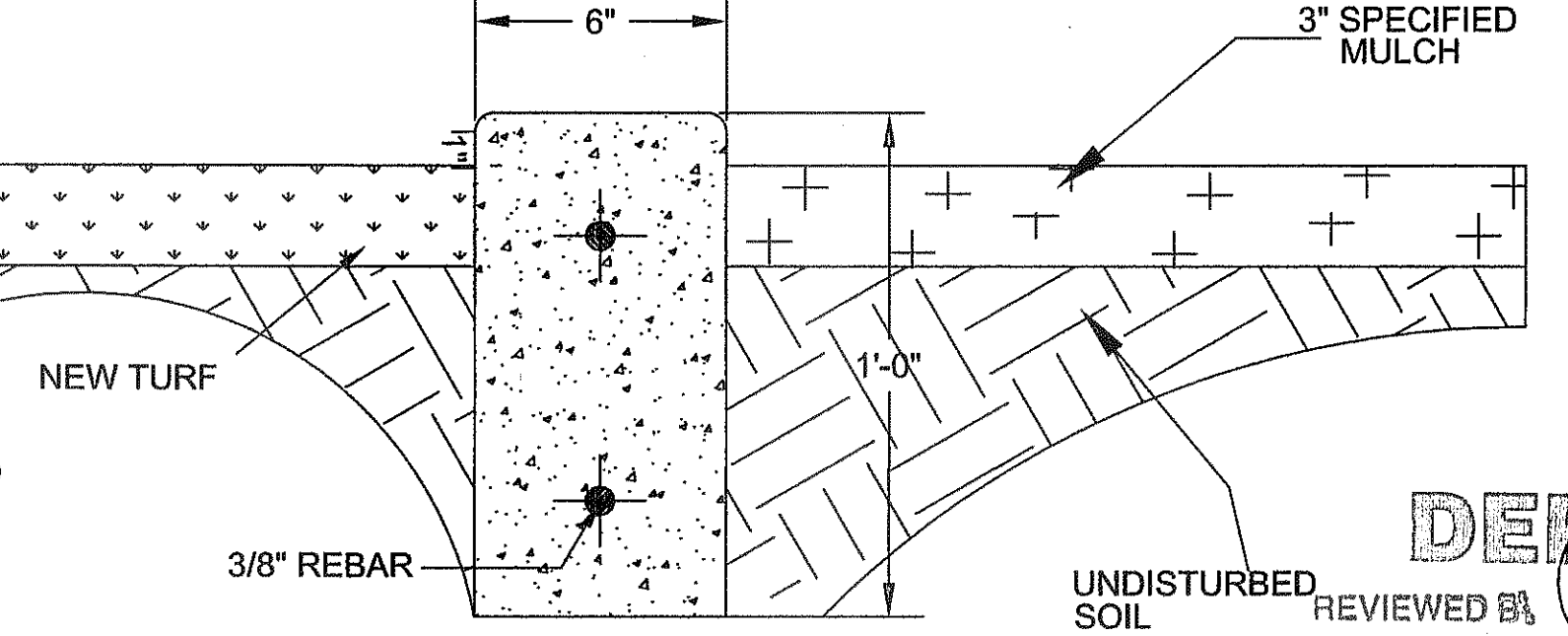
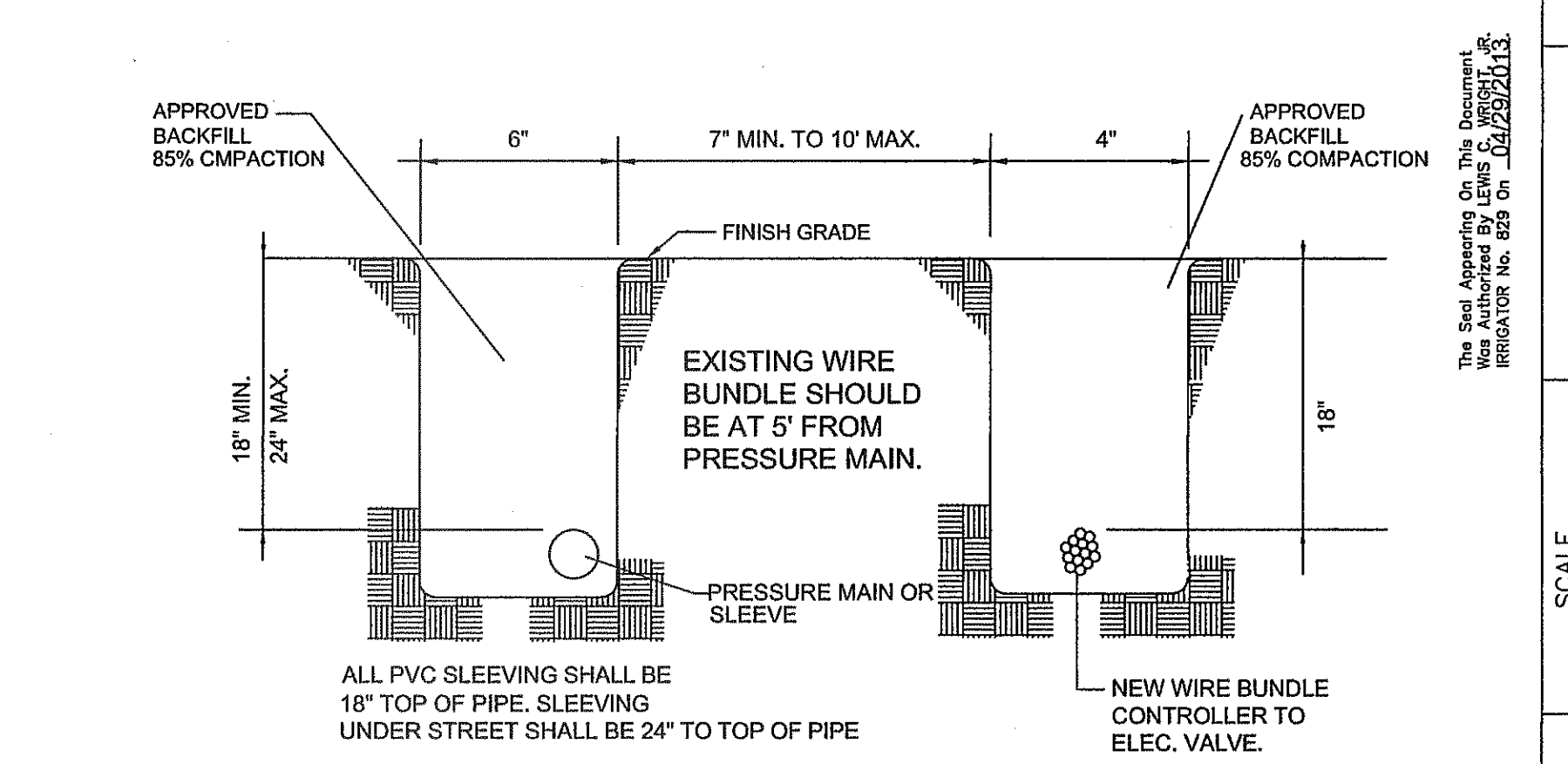
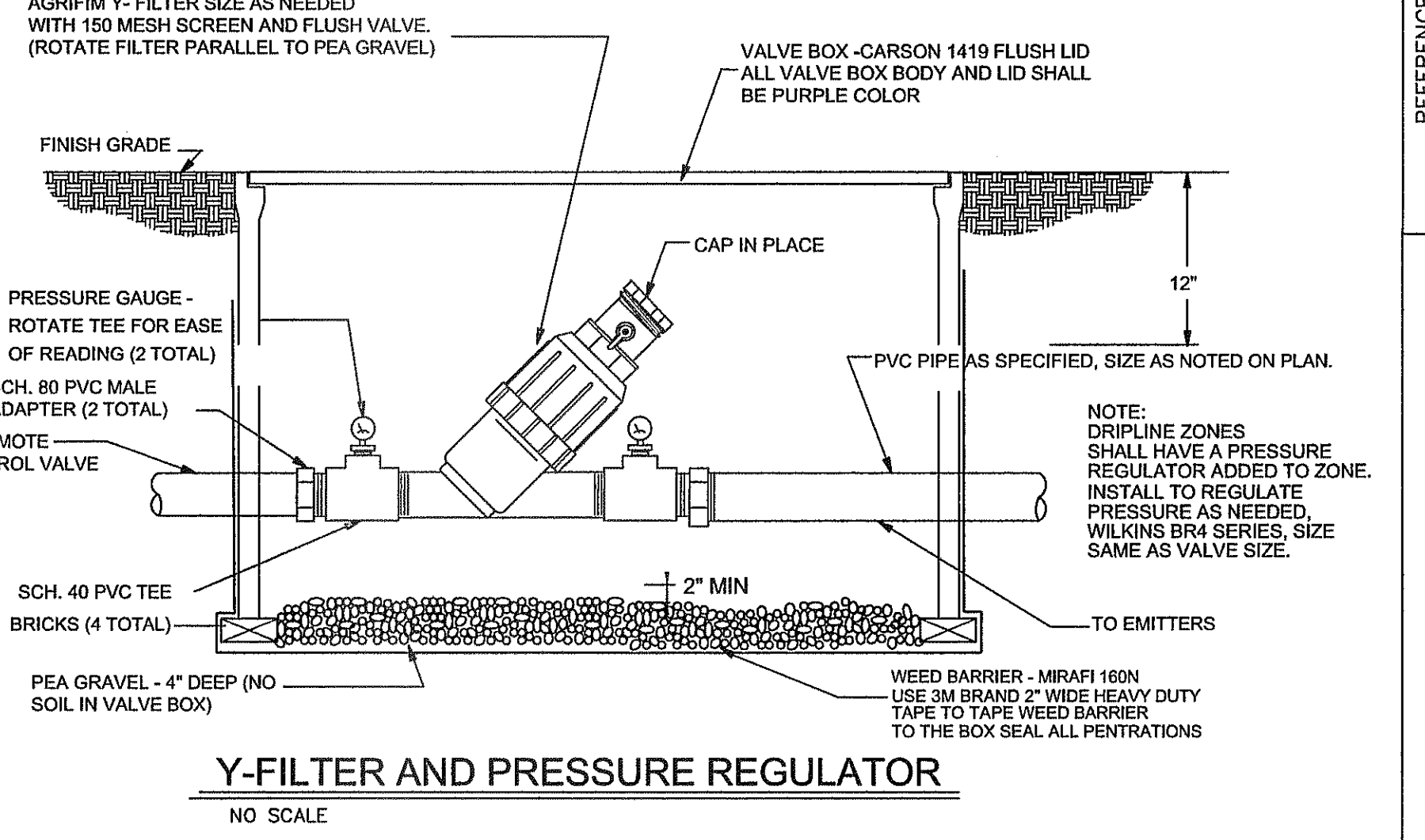


- LEGEND (FOR TREES)**
- TREE PER PLAN
  - 21 GRAM PLANT TABLETS  
5 GAL = 3, 15 GAL = 5, 24" BOX = 8
  - ROOTBALL (SET CROWN FLUSH WITH FINISH GRADE)
  - EARTH WATERING BASIN (COVER WITH 2" DEPTH OF SPECIFIED MULCH ON PLAN OR BARK MULCH FOR TURF AREAS).
  - FINISH GRADE
  - COMPACTED BACKFILL MIX WITH SOIL AMENDMENTS AS PER PLANTING SPECIFICATIONS AND NOTES)
  - UNDISTURBED NATIVE SOIL



**GENERAL NOTES FOR VALVE AND ALL BOXES:**

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**HEADER CURB NOTES:**

- HEADER CURBS SHALL BE 3,000 PSI CONCRETE STRENGTH.
- HEADER CURBS HAND POURED AND PLACED SHALL INCLUDE:
  - 2 CONTINUOUS #4 REBARS.
  - WITH 1/2 INCH EXPANSION JOINTS EVERY 20.0 FEET AND CONTROL JOINTS EVERY 5.0 FEET, AND A BROOM FINISH.
- HEADER CURBS MACHINE INSTALLED SHALL INCLUDE:
  - 2.0 POUNDS OF LONG FIBERGLASS MESH CUBIC YARD.
  - WITH 1/2 INCH EXPANSION JOINTS EVERY 20.0 FEET AND CONTROL JOINTS EVERY 5.0 FEET, AND A BROOM FINISH.

**DRAWING COORDINATION**

ARCHITECTURAL, CIVIL, MECHANICAL, STRUCTURAL, ELECTRICAL, AND LANDSCAPING DRAWINGS ARE INTERRELATED. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL REVIEW AND COORDINATE THE ENTIRE SET OF DRAWINGS AND PROJECT MANUAL.

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4004 KEMP AVE SUITE B EL PASO, TX. 79904  
PHONE: (915) 422-7739 FAX: (915) 581-6730  
EMAIL: lwrightlas@gmail.com

IRRIGATION IS REGULATED BY:  
TCEQ  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. # 829

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

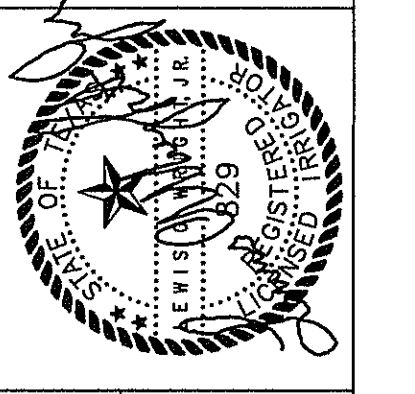
**REFERENCES - BENCHMARKS**

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. SOAKAWAY AT INTERSECTION OF 1875 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM. ELEVATION.....4005.40

DATE	REVISIONS	BY

**engineers • architects • planners**

TEXAS REGISTERED ENGINEERING FIRM F-4684  
4719 MacArthur Blvd. Ste. F, El Paso, TX 79904  
Office: 915.544.5232 Fax: 915.544.5233 www.lwrightlas.com



**SCALE:**

Horizontal: Contour Interval: 1/4"

DATE: AUGUST 2013

DESIGN BY: LW

DRAWN BY: JC

CHKD. BY: LW

APPVD. BY: L. WRIGHT

JOB No. 2000-157-1D

**PROJECT TITLE**

TRES SUEÑOS UNIT ELEVEN  
"SWEET DREAM PARK" - LOT 43, BLOCK 35  
14417 ALYSSA MARIE DRIVE  
SUBDIVISION IMPROVEMENTS  
A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2, TEXAS  
AND PACIFIC RAILROAD COMPANY SURVEYS

**LANDSCAPE DETAILS**

SHEET NO.

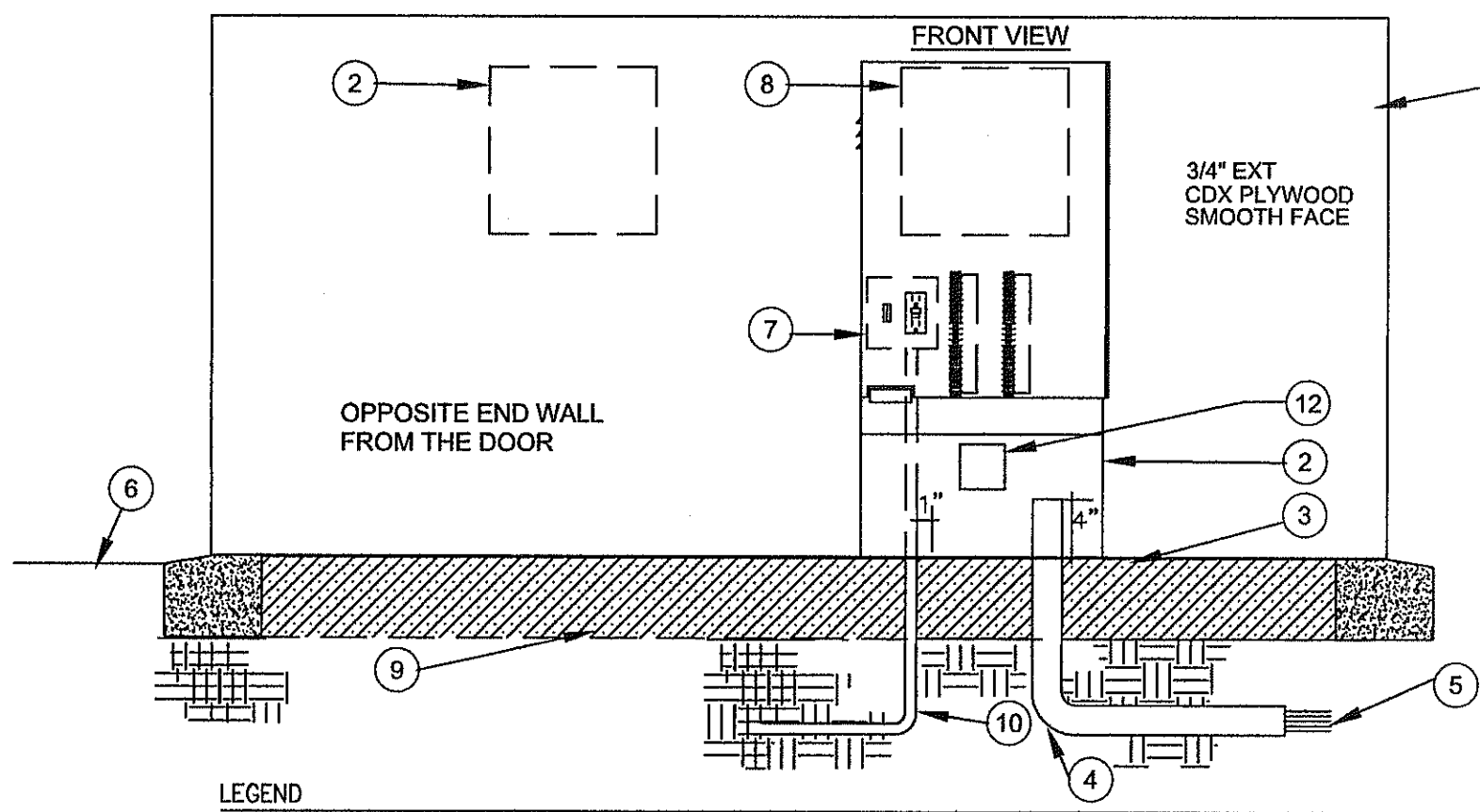
**L-3.0**

**PARKS DEPARTMENT**

REVIEWED BY: *Antonio...*

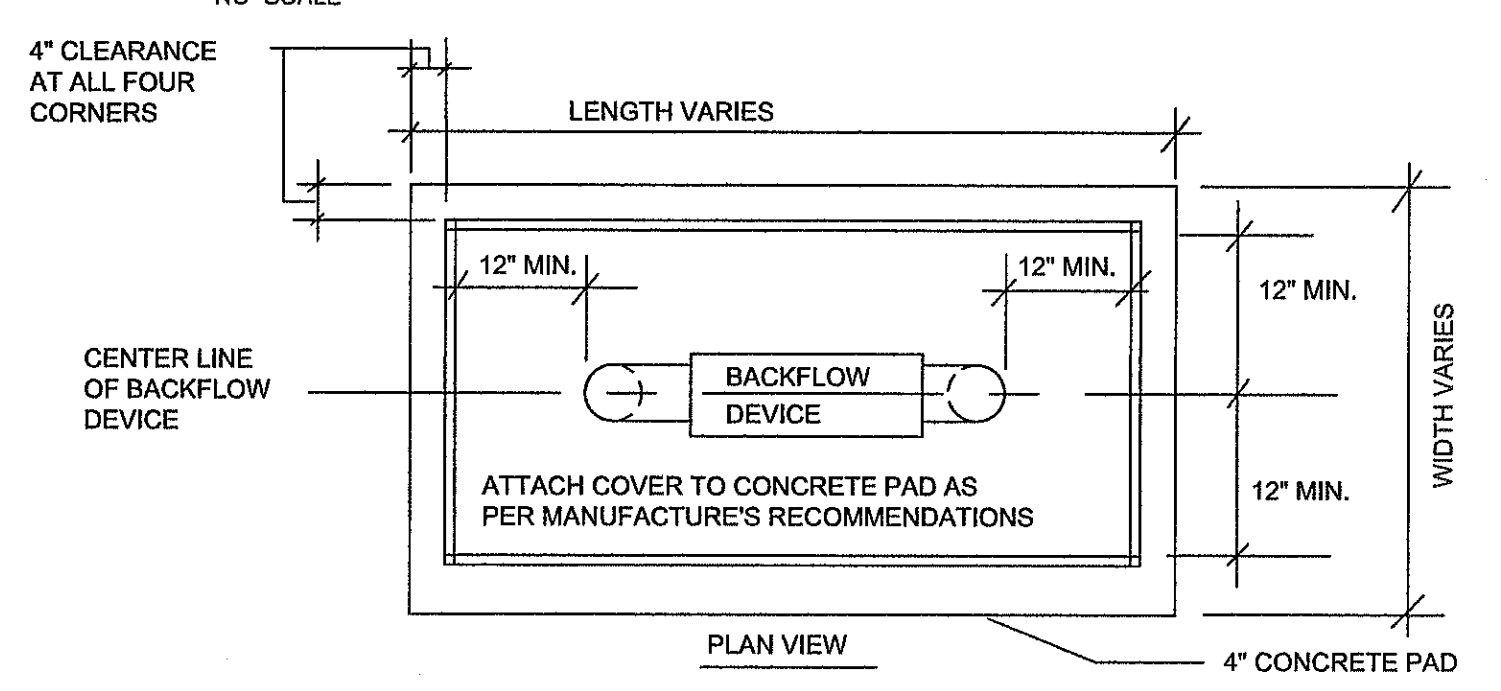
09/18/2013



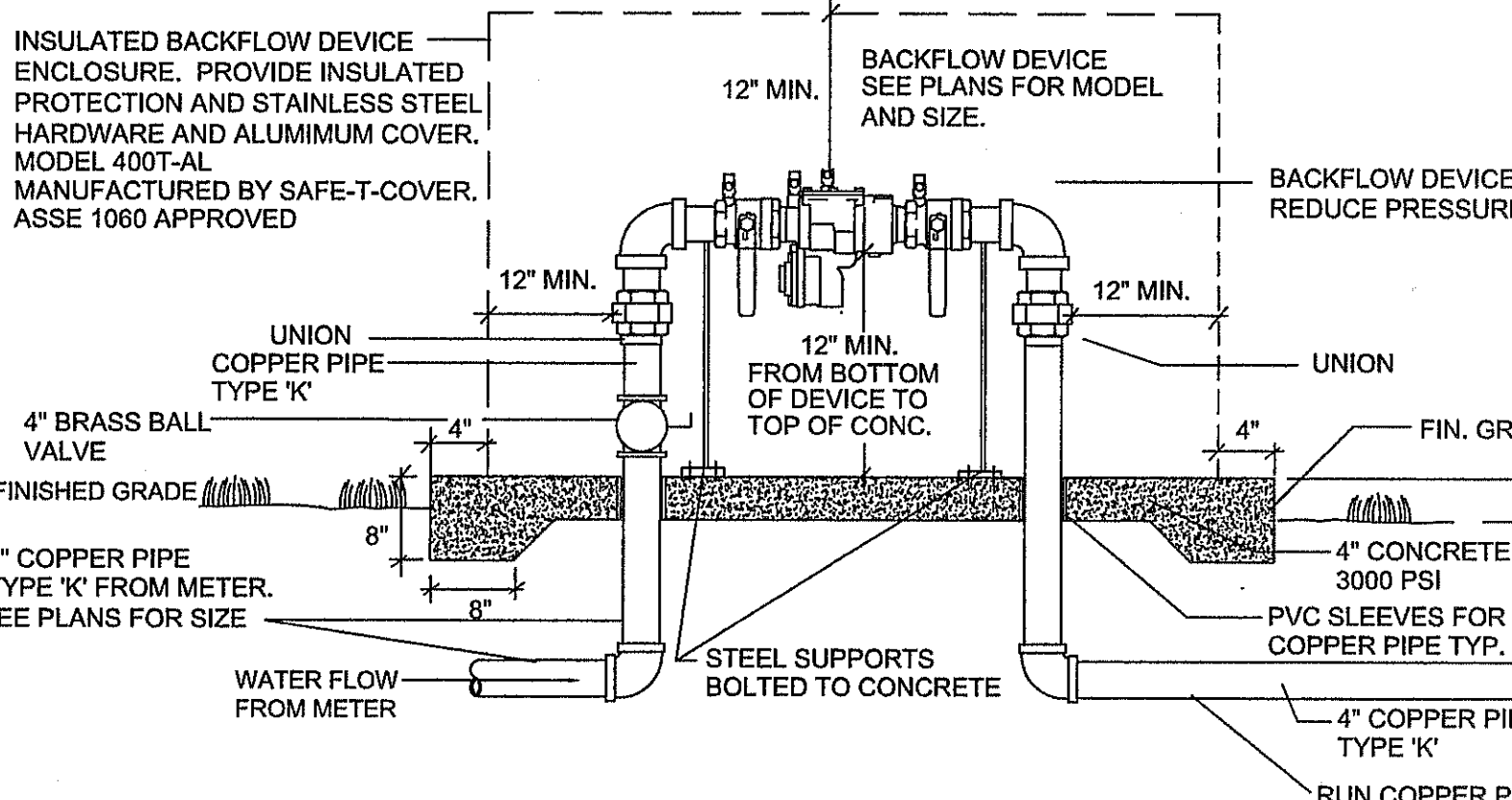


- LEGEND**
- TUFF SHED INTERIOR WALL OF PUMP HOUSE PROVIDE ALL BRACING AS NEEDED TO MOUNT PANELS.
  - PUMP CONTROL PANEL AND BREAKERS
  - POURED CONCRETE BASE - 6" MIN. THICKNESS - EXTEND 6" BEYOND OUTSIDE DIMENSIONS OF ENCLOSURE WITH 1/2% SLOPE FOR DRAINAGE.
  - PVC LONG SWEEP ELL USE ONE SWEEP ELL PER CONTROLLER 18" DEEP.
  - DIRECT BURIAL CONTROL WIRES TO CONTROL VALVES. LABEL ALL WIRING AT CONTROLLER, PANELS AND AT VALVES WITH WEATHER PROOF TAGS. OR USE DIFFERENT COLOR FOR EA. VALVE WIRE AND PANEL WIRING.
  - FINISH GRADE.
  - CONTROLLER SUB-ASSEMBLY INCLUDES GFI OUTLET AND TOGGLE SWITCH, TERMINAL STRIPS WITH OUTLET, ONE CIRCUIT FULL TIME AND ONE FOR LIGHT MODEL AS-110-A. PROVIDE ELECTRIC CORD TO PLUG CONTROLLER TO OUTLET.
  - AUTOMATIC CONTROLLER, AND CCU WITH POWER CORDS.
  - 3/4" WASHED PEA GRAVEL.
  - 120-VOLT SERVICE IN CONDUIT 36" DEEP.
  - LABEL ALL WIRING COMING INTO THE ENCLOSURE WEATHER PROOF TAGS.
  - PROVIDE METAL ENCLOSURE WITH COVER TO HOUSE THE SURGE ARRESTOR. PROVIDE RAINBIRD MODEL MSP-1 SURGE PROTECTOR.

**CONTROLLER ENCLOSURE DETAIL**

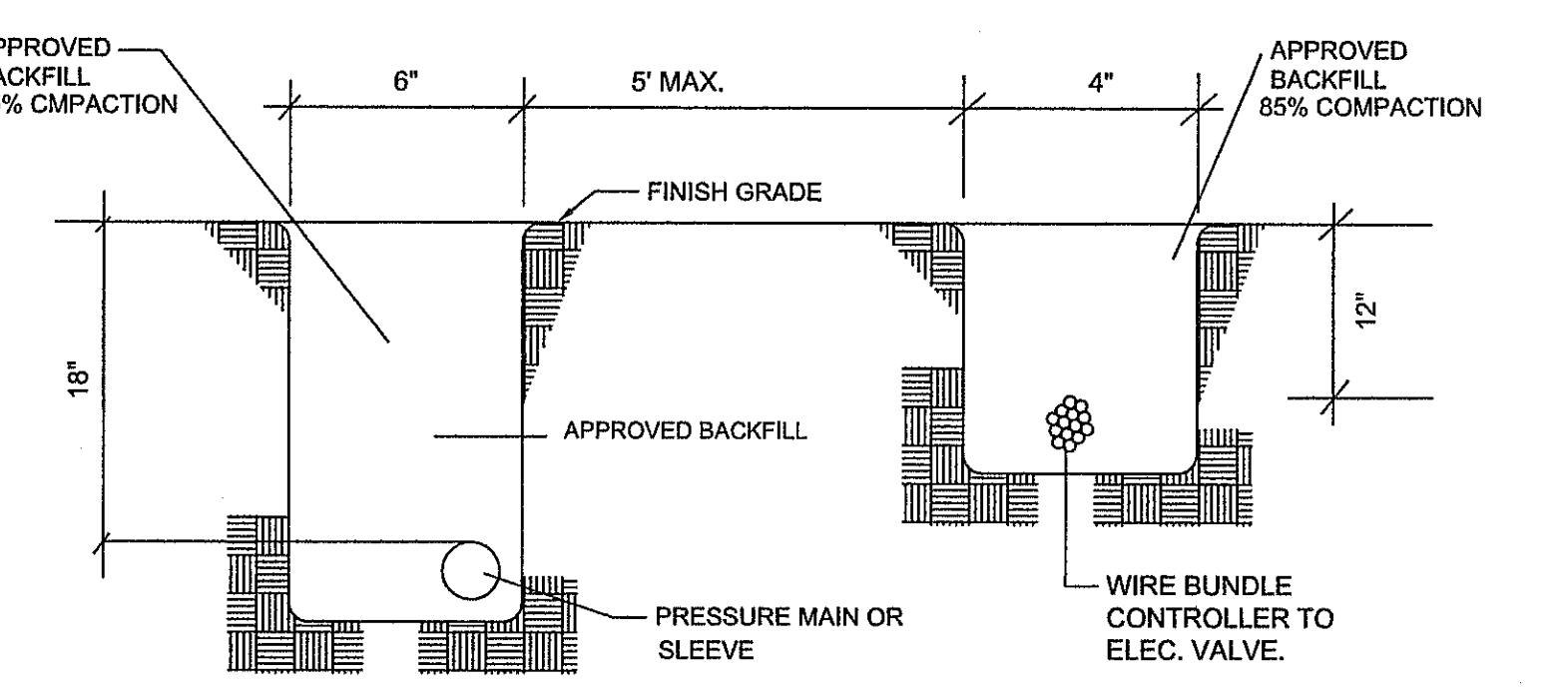


NOTE: ENCLOSURE SHALL HAVE ADDITIONAL INSULATION ADDED TO THE INSIDE LINING TO ACHIEVE AND MEET R VALUE OF 25.



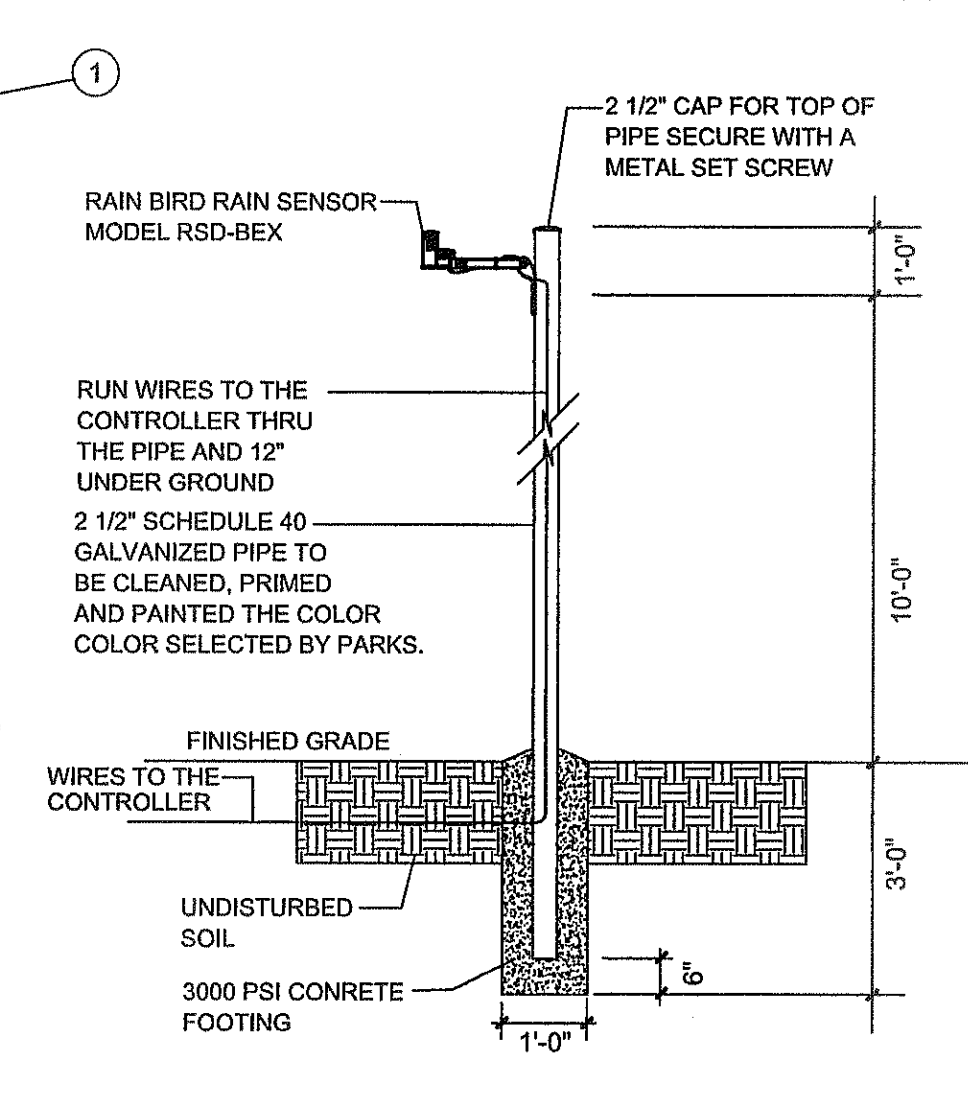
**BACKFLOW DEVICE DETAIL**

NO SCALE



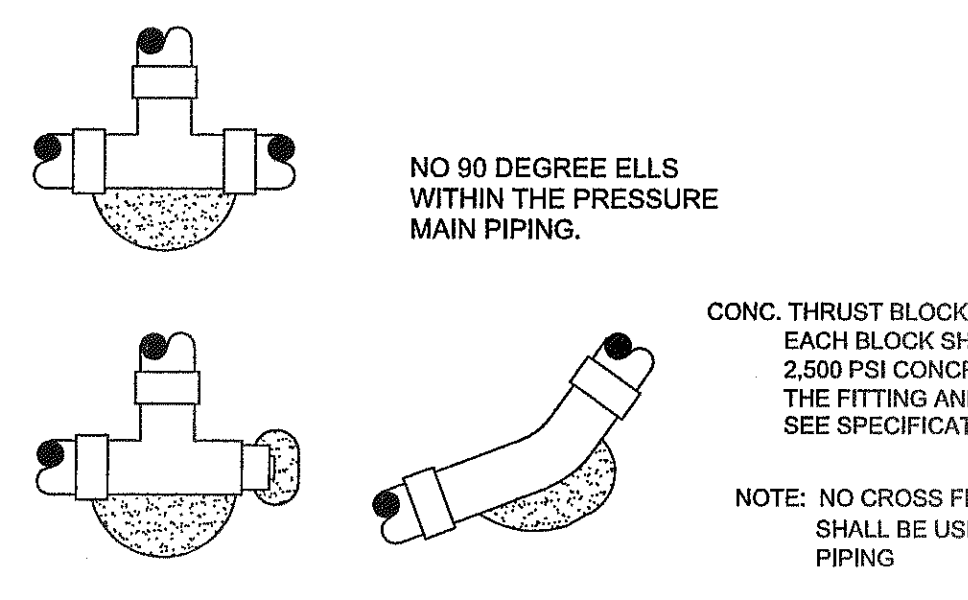
**IRRIGATION TRENCHING STANDARD**

NO SCALE



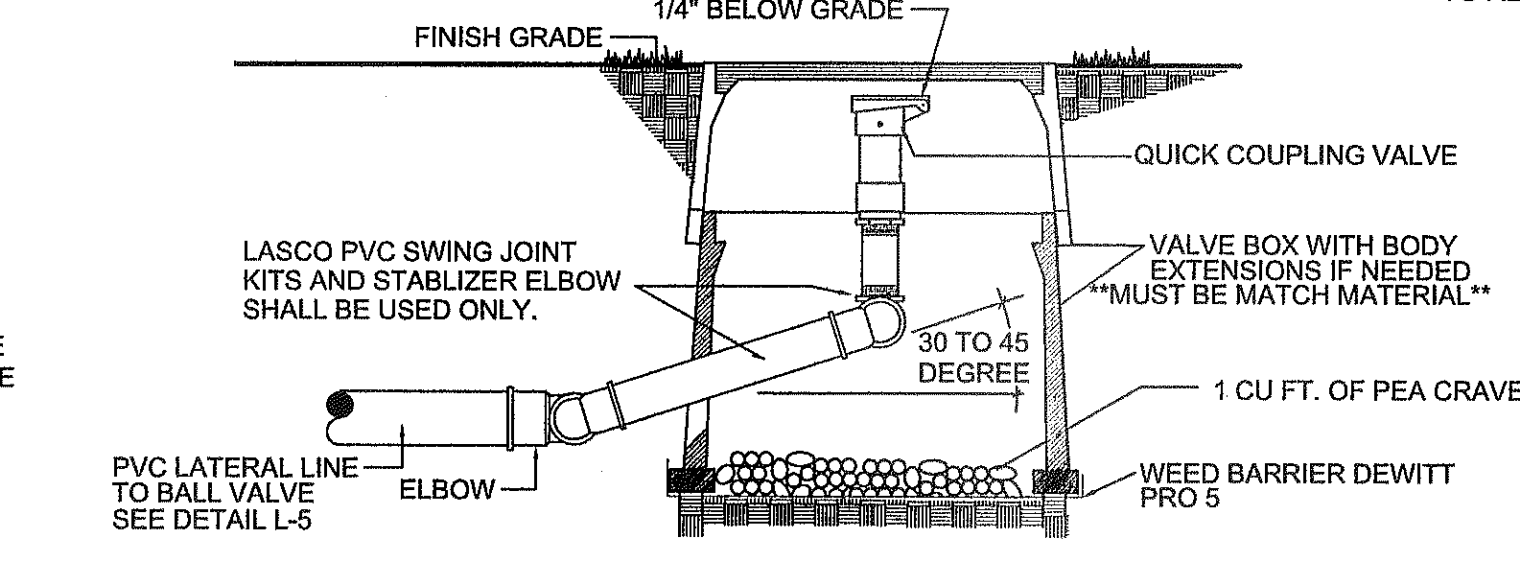
**RAIN SENSOR DETAIL**

NOTE: INSTALL MINIMUM 7' OF CONTROLLER ENCLOSURE, TUFF SHED OR ROCK WALLS



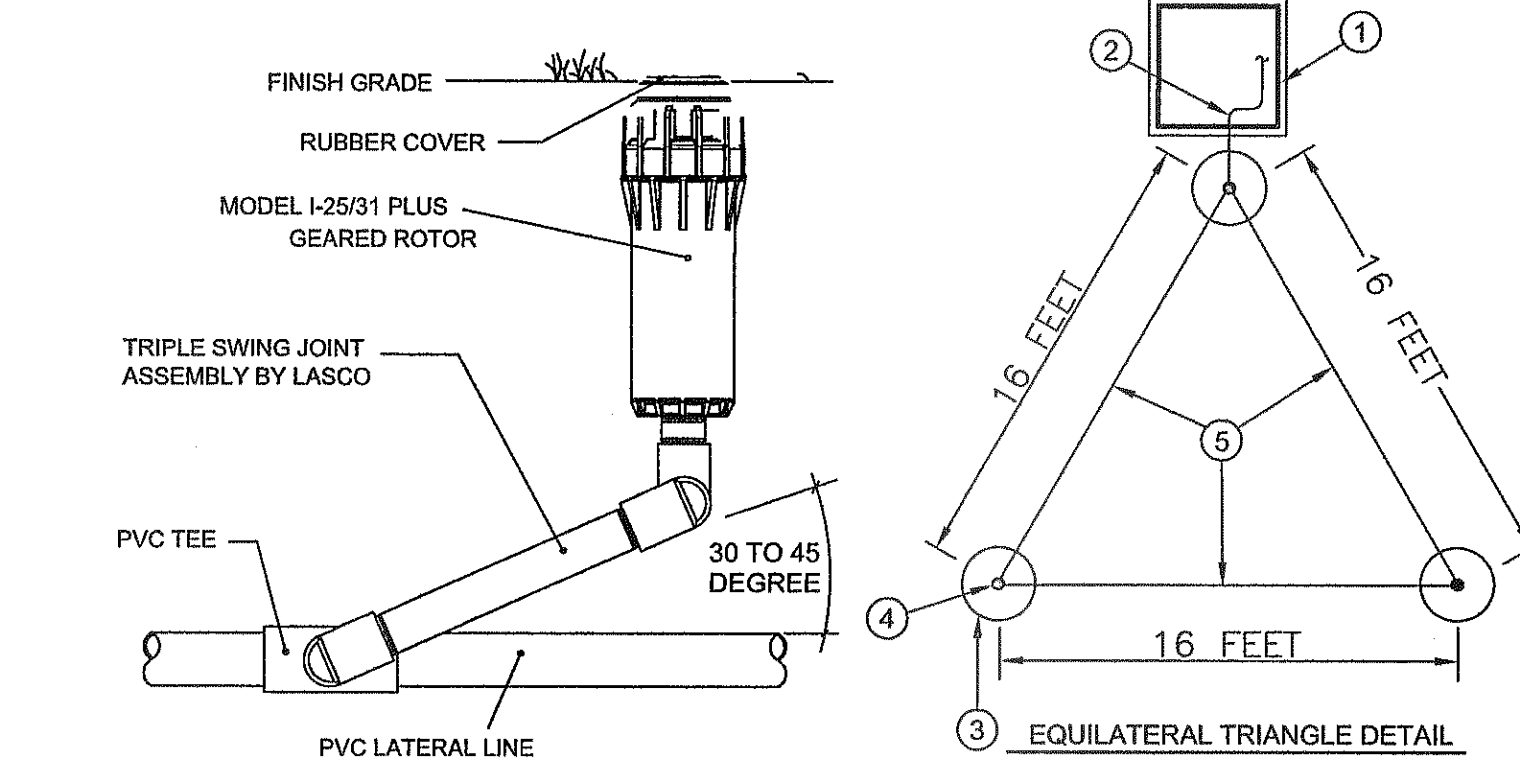
**THRUST BLOCK DETAIL**

- NOTE: 1. INSTALL THRUST BLOCK ON 2 1/2" AND LARGER PVC PIPE. APPLIES TO ALL 45 ELLS AND TEES IN THE PRESSURE MAIN. 2. ALL PVC FITTING SHALL BE MANUFACTURED BY LASCO



**QUICK COUPLING DETAIL**

NOTE: PROVIDE WATERPROOF TAG ATTACHED TO VALVE READING "NON-POTABLE WATER, NOT SAFE FOR DRINKING".



**GROUND ROD DETAIL**

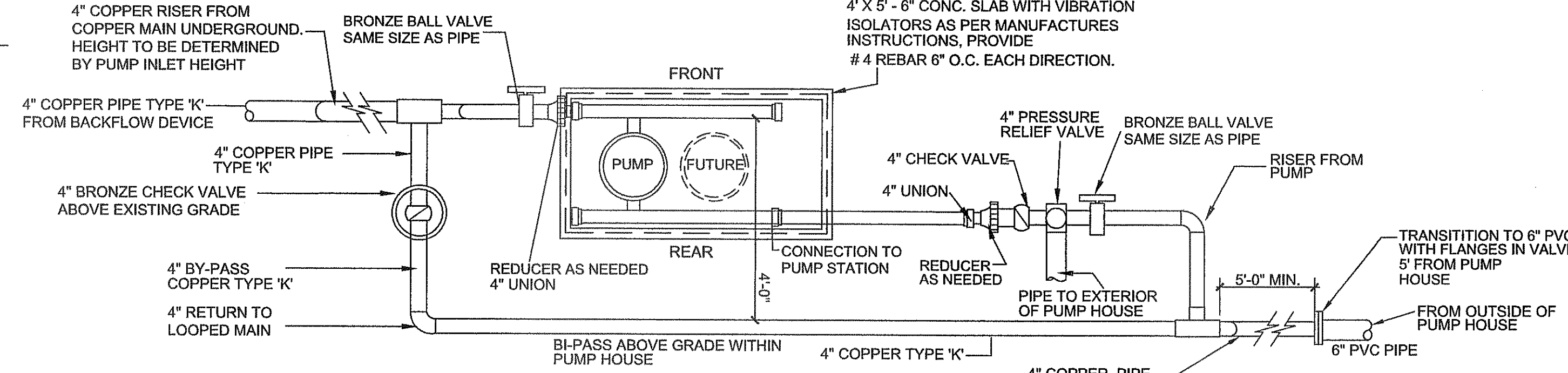
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NOTE: ALL PIPING ABOVE GRADE SHALL BE TYPE 'K' WITH LEAD-FREE SOLDER FITTINGS. SUPPORT PIPE WITH APPROVED PIPE SUPPORT SADDLES AS REQUIRED. ALL PIPING AND EQUIPMENT TO HAVE ADEQUATE WALL CLEARANCE FOR OPERATION AND MAINTENANCE.

FLINT AND WALLING MODEL C56A1503T PUMP 7.5 H.P. (PROVIDE VARIABLE SPEED) 260 GPM @ 85 PSI DISCHARGE, 230V/1PH/60 A. PROVIDE ALL CONTROLS & POWER RECD OPERATE IRRIGATION CONTROLLER AND PUMP. EG CONTROL PANEL FOR PRESSURE CONTROL STARTER, WIRING AND BREAKERS. (OR EQUAL)

**NOTE:**

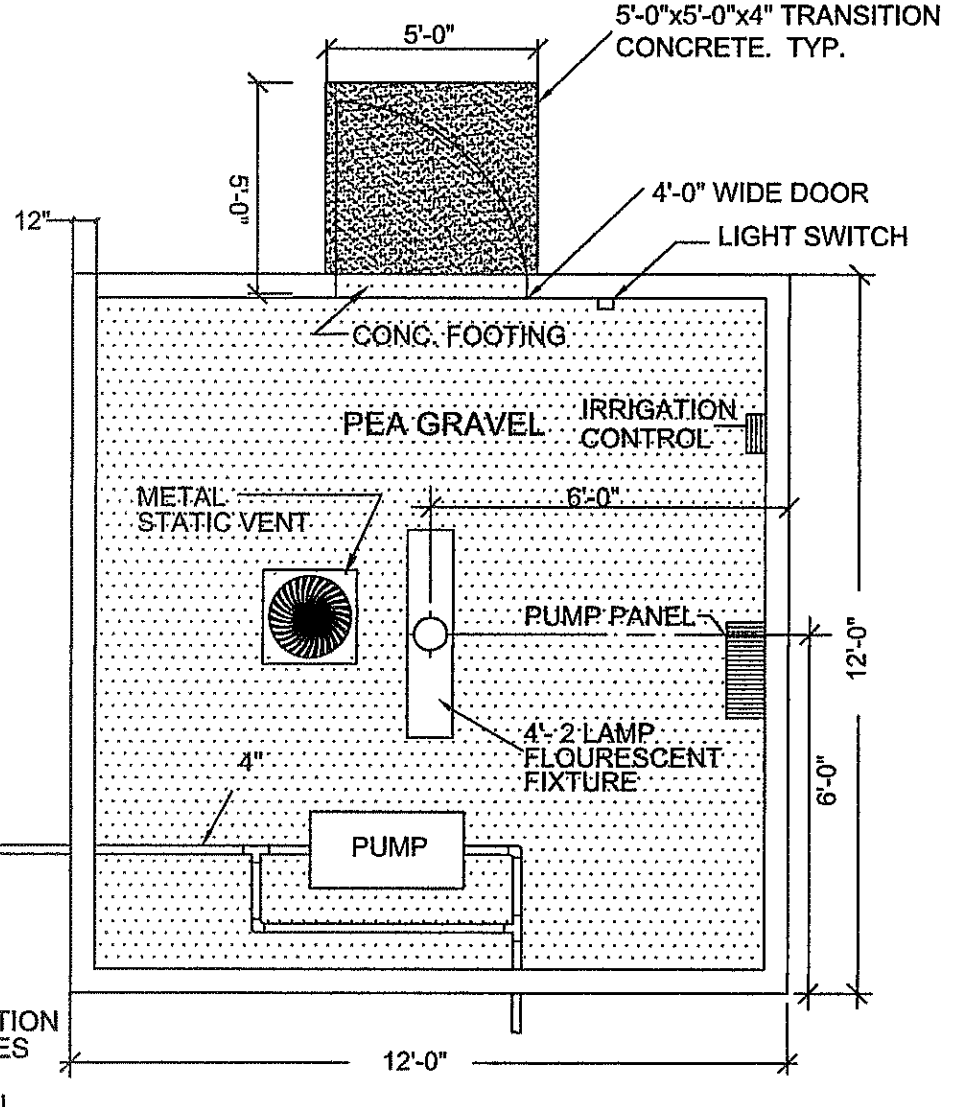
PROVIDE TUFF SHED FOR PUMP HOUSE TO COVER PUMP, IRRIGATION AND PUMP CONTROLS. SECURED TO A CONC. FOOTING 3000 PSI WITH PEA GRAVEL 12" DEPTH FOR FLOOR OF THE SHED. ELECTRICAL SERVICE ON THE EXTERIOR OF TUFF SHED (ELECTRICAL METER PLACE BREAKERS ON THE INSIDE OF BUILDING. ALL ELECTRICAL SHALL BE TO CODE.



**BOOSTER PUMP DETAIL**

NOTE: ALL ABOVE GROUND COPPER PIPE SHALL BE WRAP WITH PLUMBERS PIPE WRAP AND SEAL PENETRATIONS.

- PRESSURE RELIEF VALVE 4" BRONZE BODY WITH PRESSURE SET AT 125 PSI FEMALE INLET & OUTLET WATTS MODEL No. 174A OR APPROVED EQUAL.
- PRESSURE GAUGE: STAINLESS STEEL CASE BRONZE BOURDON TUBE AND BRASS SOCKET, DRY CONSTRUCTION CALIBRADED 0 TO 200 PSI, MARSHALL TOWN MODEL No 185 OR APPROVED EQUAL.
- CHECK VALVE: IRON BODIED SWINK CHECK VALVE, 4", RATED 200 PSI AMERICAN VALVE MFG. MODEL No WOG OR APPROVED EQUAL.
- VIBRATION ISOLATORS: STEEL OR CAST IRON HOUSINGS INCORPORATING ONE OR MORE STEEL BUILT-IN SPRINGS AND SHALL BE PROVIDED WITH BUILT-IN LEVELING BOLTS AND BUILT-IN RESILIENT CHECKS TO CONTROL OSCILLATIONS AND WITHSTAND LATERAL FORCES IN ALL DIRECTIONS. KORFUND SERIES L OR APPROVED EQUAL INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS
- INSULATE ALL PIPING NEW AND EXISTING WITH A RIDGE INSULATE COVERED WITH ALUMINUM JACKET. OR APPROVED EQUAL.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT, SENSORS, WIRING, RELAYS, CONNECTORS, ETC. TO ALLOW BOTH PUMPS TO OPERATE ON PRESSURE DEMAND.



**PUMP HOUSE PLAN**

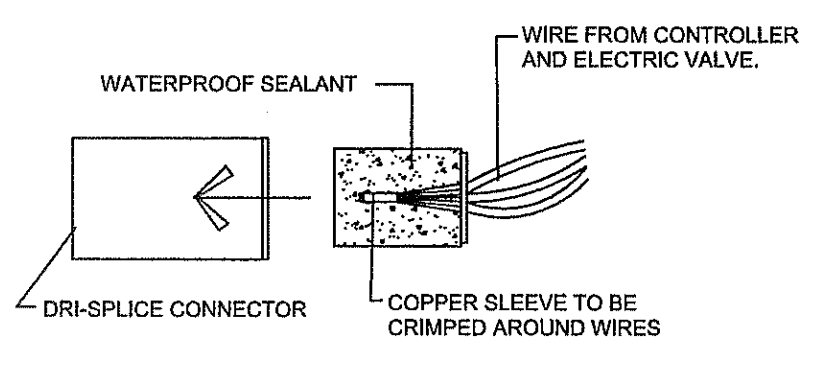
NOTE: CONTRACTOR SHALL WRAP ALL COPPER PIPE WITH PLUMBERS PIPE WRAP AND SEAL PENETRATIONS OF THE WATER METER CONCRETE VAULT WITH NON-SHRINK GROUT.

**INSULATION FOR PUMP HOUSE**

WALL- R-13  
CEILING- R-19

**GENERAL NOTE:**

PUMP HOUSE EXTERIOR SIDING TO HAVE ALL SEAMS AND JOINTS CAULKED THEN PRIMED WITH ONE COAT AND PAINTED WITH TWO COATS.



**WIRE CONNECTORS**

NO SCALE

**PARKS DEPARTMENT**  
REVIEWED BY: [Signature] 09/13/2013

**DRAWING COORDINATION**

IRRIGATION IS REGULATED BY: TCEQ  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. # 829

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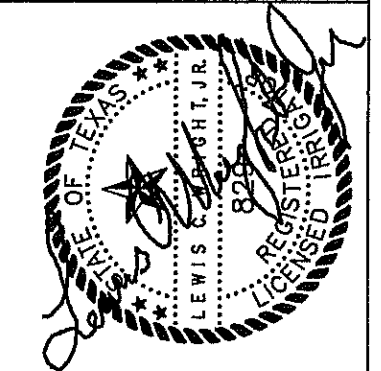
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4712 Woodrow Bean, Ste. F El Paso, TX 79924  
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SCALE:  
Vertical: 1/4" = 1'-0"  
Horizontal: 1/4" = 1'-0"  
DATE: AUGUST 2013  
DESIGN BY: LW  
DRAWN BY: LW  
CHECK BY: LW  
APP'D. BY: L. WRIGHT  
JOB No. 2000-157-LD

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TRES SUEÑOS UNIT ELEVEN  
"SWEET DREAM PARK" - LOT 43, BLOCK 35  
14417 ALYSSA MARIE DRIVE  
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A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2, TEXAS  
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**SHEET TITLE**  
IRRIGATION DETAILS

SHEET NO.

**L-4.0**