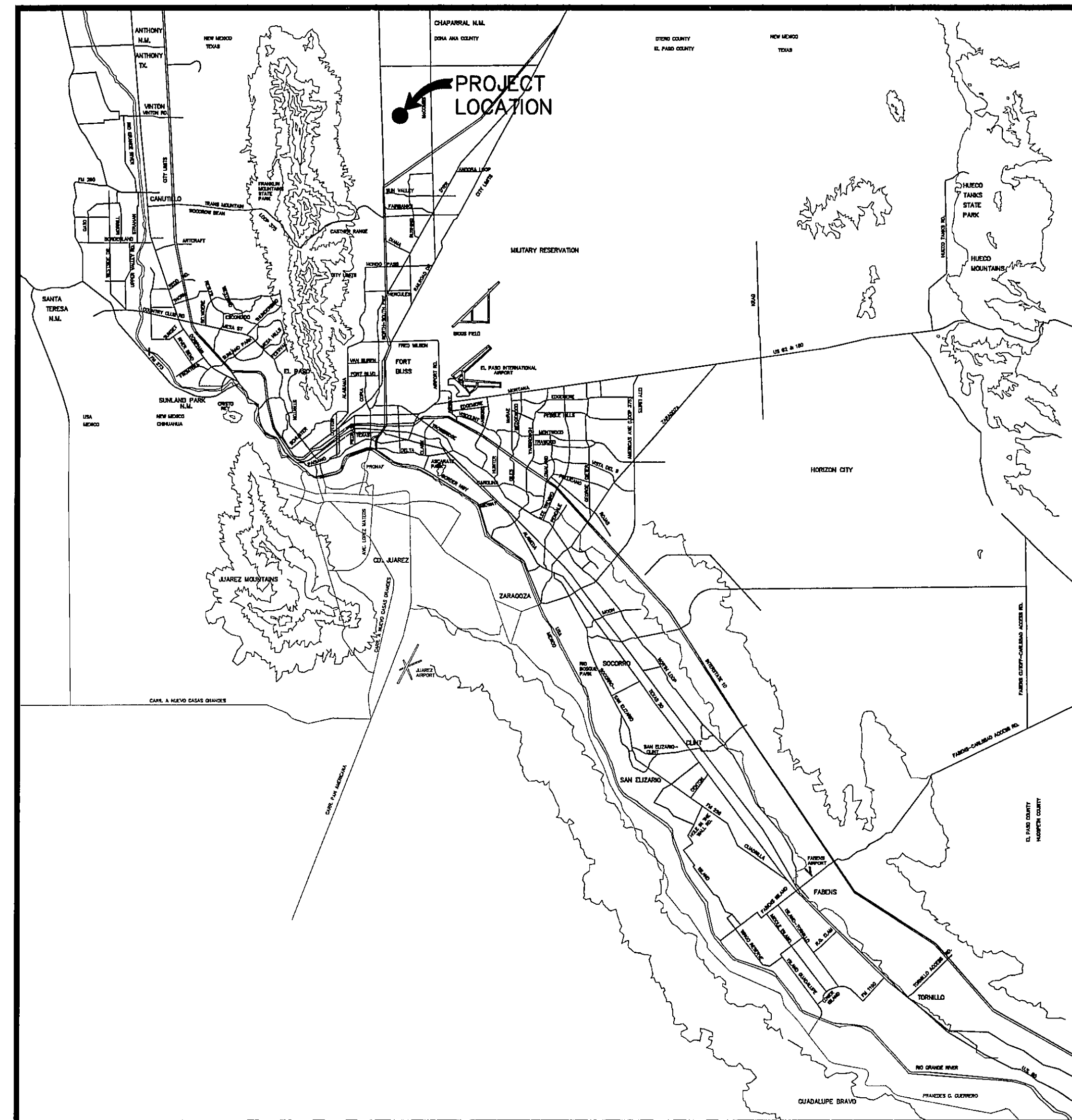


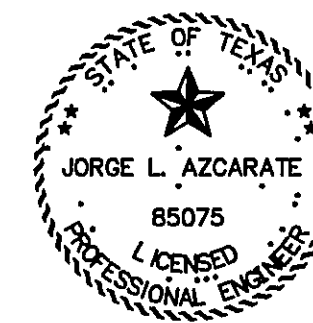
SANDSTONE RANCH UNIT SEVEN REPLAT-D SUBDIVISION IMPROVEMENTS

BEING A PORTION OF BLOCK 1, LOTS 69 TO 87, 92 TO 102, AND 124 TO 135; BLOCK 30, LOTS 9 TO 18, AND 29 TO 43; BLOCK 31, LOTS 14 TO 25; AND PORTIONS OF ROW OUT OF SILVER CHOLLA DR., MOON RANCH DR., CATTLE LN., COYOTE RANCH DR., FIRE BARREL WAY, ALL WITHIN SANDSTONE RANCH UNIT SEVEN, AND BLOCK 1, LOT 69 AND 25' DRAINAGE R.O.W AND PSB EASEMENT WITHIN SANDSTONE RANCH UNIT SEVEN REPLAT C, ADDITIONS TO THE CITY OF EL PASO, EL PASO COUNTY, TEXAS; CONTAINING APPROXIMATELY 14.395± ACRES



VICINITY MAP
APPROXIMATE SCALE
1" = 2 MILES

SHEET NUMBER	SHEET TITLE
CVR	COVER SHEET, GENERAL INFORMATION
C1.1	GENERAL NOTES, GRADING SPECIFICATIONS
C2.1	FINAL PLAT
C3.1	GRADING PLAN
C4.1	DRAINAGE PLAN
C5.1-C5.2	GRADING SECTIONS
C6.1-6.4	STREET PLAN & PROFILES
C7.1	STORM SEWER PLAN & PROFILE
C8.1	SANITARY SEWER INDEX
C9.1-9.2	SANITARY SEWER PLAN & PROFILES
C10.1-10.3	SANITARY SEWER DETAILS
C11.1	WATER INDEX
C12.1-12.5	WATER DETAILS
C13.1-13.3	STANDARD DETAILS
C14.1-14.2	DRAINAGE DETAILS
C15.1	ILLUMINATION PLAN
C16.1	SWPP NOTES
C16.2	SWPP SITE PLAN
C16.3	SWPP DETAILS
L1-L2	LANDSCAPE & IRRIGATION PLANS



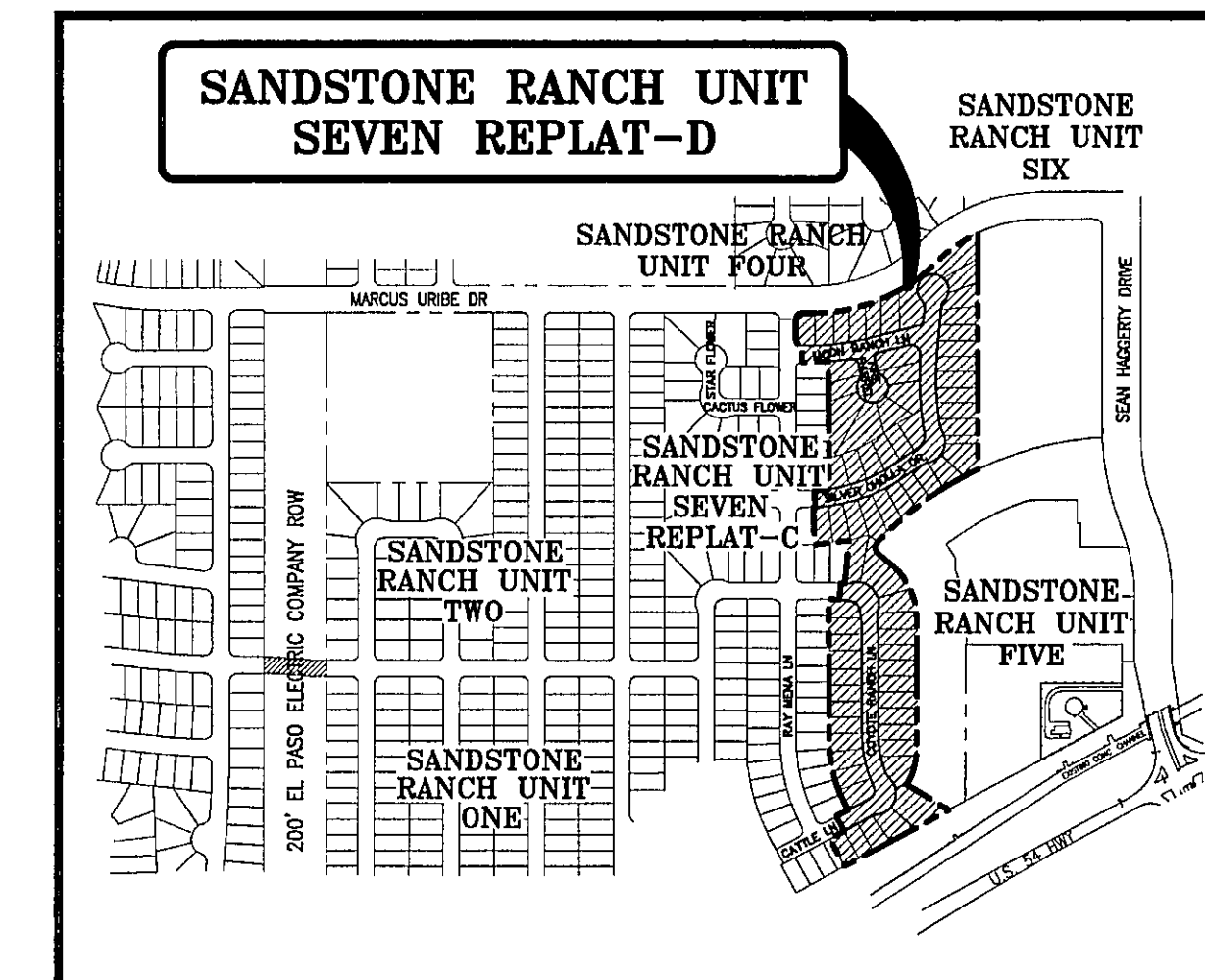
Jorge L. Azcarate
7/30/12
JORGE L. AZCARATE, P.E. PROJECT MANAGER



engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste F El Paso, TX 79924
Office 915 544 5232 Fax 915 544 5233 www.ceagroup.net

PRINCIPAL CONTACTS:

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



LOCATION MAP
APPROXIMATE SCALE
1" = 600'

DEVELOPMENT SERVICES DEPARTMENT
SITE PLAN REVIEW
Reviewed For Conformance For Conditions Related To:
Demolition Only
Grading & Drains
Wheelchair Ramps
On Site Parking Layout
Sidewalks
Driveways
Retaining Rock Wall
On-Site Ponding of Storm Waters
Contractor Must Call 24 Hours Prior To Construction For Inspection
Jorge L. Azcarate
DATE 7/30/12

SANDSTONE RANCH UNIT SEVEN REPLAT-D				
COVER SHEET				
DATE PREPARED	DRAWN BY:	DESIGN BY:	CHECKED BY:	APPROVED BY:
JULY 2012	J.H.	GR	J.L.A.	J.L.A.
REVISION NUMBER	SHEET NAME OR NUMBER	DESCRIPTION OF REVISION	DATE OF REVISION	REVISION APPROVED BY:

GENERAL NOTES

- THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING BIDS
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AUTOMOBILE AND PEDESTRIAN ACCESS TO THE USER AT ALL TIMES, INCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS THIS INCLUDES, BUT IS NOT LIMITED TO DRIVEWAYS, STREETS, PARKING, AND WALKWAYS THIS REQUIREMENT SHALL BE FULFILLED AT NO EXTRA COST TO THE OWNER
- 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 SERVICE SHALL BE PROVIDED TO USER AT ALL TIMES
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM WORK SO AS TO ASSURE PROPER PASSAGE OF STORM RUNOFF DURING THE COURSE OF THE 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
- FOR ELEVATIONS, REFERENCE BENCHMARK IN TITLE BLOCK FOR ADDITIONAL INFORMATION
- 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
- THE LOCATION OF THE FLUMES AND INLETS SHALL BE AT THE FIELD LOW POINT AND APPROVED BY THE ENGINEER
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THE FINAL APPROVED SUBDIVISION PLANS PRIOR TO COMMENCING ANY CONSTRUCTION WORK

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 THREE (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 OR UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER, GEOTECHNICAL ENGINEER OR CITY ENGINEER
- 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 TWELVE (12)
- 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 SIX (6) INCHES, AND UNTIL THE SURFACE IS FREE FROM RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH WOULD PREVENT UNIFORM COMPACTION FLOW STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN ONE (1) VERTICAL TO FOUR (4) HORIZONTAL SO THAT FILL MATERIAL WILL BOND WITH EXISTING SURFACE AFTER FLOWING 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 EIGHT (8) INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN FOUR (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 TWO (2%) PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT 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 IS REQUIRED DURING THE GRADING OPERATIONS TO ENSURE GRADING WORK IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS

LEGEND

	SUBDIVISION BOUNDARY		FINISHED SPOT ELEVATION
	ROW LINE		LOT FINISHED GROUND ELEVATION
	CURB LINE		TOP OF CURB ELEVATION
	PROPERTY LINE		TOP OF PAVEMENT ELEVATION
	STREET CENTERLINE		SUBDIVISION LOT AND BLOCK NUMBER
	EASEMENT LINE		DRAINAGE FLOW
	MATCH LINE		STORM SEWER LINE FLOW
	STORM SEWER LINE		HIGH POINT
	HIGH WATER MARK		LOW POINT
	CURB AND GUTTER DROP INLET		EXISTING HIGH POINT
	STORM SEWER MANHOLE		EXISTING LOW POINT
	FINISHED GROUND CONTOUR ELEVATION (INDEX)		HEADWALL WITH WINGWALLS
	FINISHED GROUND CONTOUR ELEVATION (INTERMEDIATE)		DRAINAGE AREA
	EXISTING GROUND CONTOUR ELEVATION (INDEX)		HORIZONTAL VERTICAL SLOPE RATIO
	EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE)		
	NEW RETAINING ROCKWALL (3'-9' IN HEIGHT)		
	EXISTING RETAINING ROCKWALL		
	NEW RETAINING ROCKWALL (2'-3' IN HEIGHT)		
	EXISTING ELECTRICAL LINE		
	STANDARD DETAIL/SECTION NUMBER		
	SHEET NUMBER WHERE STANDARD/SECTION DETAIL IS LOCATED		

ABBREVIATIONS

LP	LOW POINT
HP	HIGH POINT
ELEV	ELEVATION
STA	STATION
VCS	VERTICAL CURVE STATION
VCE	VERTICAL CURVE ELEVATION
TC	TOP OF CURB
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
RCP	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
S	SLOPE
TEMP	TEMPORARY
V	VELOCITY IN FEET PER SECOND
HGL	HYDRAULIC GRADE LINE
HWE	HIGH WATER ELEVATION

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-9244
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) 545-8005
AT&T	(800) 852-3786
U S SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

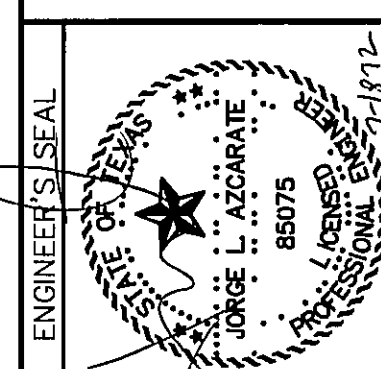
WARNING I BEFORE YOU DIG
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS	FOUND TYPICAL BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN
DATE	REVISIONS
BY	

INDEX OF DRAWINGS

DRAWING NAME	SHEET NO.
COVER	-
GENERAL INFORMATION	C1.1
FINAL PLAT	C2.1
GRADING PLAN	C3.1
DRAINAGE PLAN	C4.1
GRADING SECTIONS	C5.1
GRADING SECTIONS	C5.2
PLAN AND PROFILE - COYOTE RANCH LANE FROM STA. 2+18.87 TO STA 9+50.00	C6.1
PLAN AND PROFILE - COYOTE RANCH LANE FROM STA. 9+50.00 TO STA 11+00.00	C6.2
FIRE BARREL WAY FROM STA. 0+00.00 TO STA. 1+29.45	C6.3
PLAN AND PROFILE - SILVER CHOLLA FROM STA. 3+25.00 TO STA 11+00.00	C6.4
PLAN AND PROFILE - SILVER CHOLLA FROM STA. 11+00.00 TO STA 12+52.10	C6.4
MOON RANCH FROM STA. 0+00.00 TO STA. 4+64.76	C7.1
STORM DRAIN PLAN & PROFILE - LINE "C" FROM STA. 0+00.00 TO STA. 1+13.89	C7.1
SANITARY SEWER INDEX	C8.1
SANITARY SEWER PLAN & PROFILE LINES B, C, & D	C9.1
SANITARY SEWER PLAN & PROFILE LINE F & A	C9.2
SANITARY SEWER DETAILS (SHEET 1 of 3)	C10.1
SANITARY SEWER DETAILS (SHEET 2 of 3)	C10.2
SANITARY SEWER DETAILS (SHEET 3 of 3)	C10.3
WATER INDEX	C11.1
WATER DETAILS (SHEET 1 of 5)	C12.1
WATER DETAILS (SHEET 2 of 5)	C12.2
WATER DETAILS (SHEET 3 of 5)	C12.3
WATER DETAILS (SHEET 4 of 5)	C12.4
WATER DETAILS (SHEET 5 of 5)	C12.5
STANDARD DETAILS (SHEET 1 OF 3)	C13.1
STANDARD DETAILS (SHEET 2 OF 3)	C13.2
STANDARD DETAILS (SHEET 3 OF 3)	C13.3
DRAINAGE DETAILS (SHEET 1 OF 2)	C14.1
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ILLUMINATION PLAN	C15.1
STORM WATER POLLUTION PREVENTION PLAN - GENERAL NOTES	C16.1
STORM WATER POLLUTION PREVENTION PLAN - SITE PLAN	C16.2
STORM WATER POLLUTION PREVENTION PLAN - DETAILS	C16.3
LANDSCAPE PLAN	L1
IRRIGATION PLAN	L2

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TEXAS REGISTERED ENGINEERING FIRM F-694
4712 Woodrow Bham, Ste F El Paso, TX 79924
Office 915.544.5522 Fax 915.544.3233 www.ceea.com



SCALE	Horizontal	N/A
	Vertical	Interval
DATE	DESIGN BY	DR
	DRAWN BY	JLA
	CHECKED BY	JLA
	APPROVED BY	JLA
	JOB No.	2000-128-1D

SANDSTONE RANCH UNIT SEVEN REPLAT-D SUBDIVISION IMPROVEMENTS

SHEET TITLE	
GENERAL INFORMATION	
SHEET NO	C1.1

SANDSTONE RANCH UNIT SEVEN REPLAT D

BEING A PORTION OF BLOCK 1, LOTS 69 TO 87, 92 TO 102, AND 124 TO 135; BLOCK 30, LOTS 9 TO 18, AND 29 TO 43; BLOCK 31, LOTS 14 TO 25; AND PORTIONS OF ROW OUT OF SILVER CHOLLA DR., MOON RANCH DR., CATTLE LN., COYOTE RANCH DR., FIRE BARREL WAY, ALL WITHIN SANDSTONE RANCH UNIT SEVEN, AND BLOCK 1, LOT 69 AND 25' DRAINAGE R.O.W AND PSB EASEMENT WITHIN SANDSTONE RANCH UNIT SEVEN REPLAT C, ADDITIONS TO THE CITY OF EL PASO, EL PASO COUNTY, TEXAS; CONTAINING APPROXIMATELY 14.395± ACRES

DEDICATION
Tropicana Development Inc., property owner of this land does hereby present this plat and dedicates, if not previously dedicated, its respective portion of said property to the use of the public, the streets, drainage right of way, PSB easement and utility easements, as hereon laid down 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 _____ day of _____, 2012

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, 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 _____ day of _____, 2012

Notary Public in and for El Paso County My Commission Expires _____

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 _____ day of _____, 2012, A.D

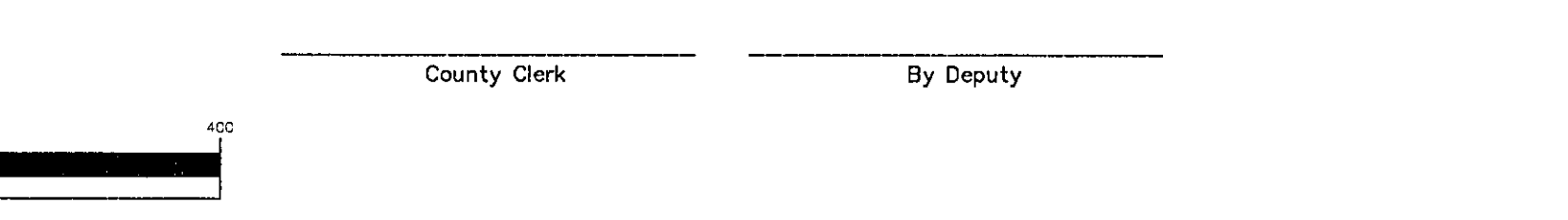
Chairperson Executive Secretary

Approved for filing this _____ day of _____, 2012

CITY ENGINEER FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this _____ day of _____, 2012, A.D in Document No. _____ of the Plat Records

County Clerk By Deputy



FINAL PLAT

Subdivision improvement plans prepared by and under the supervision of CEA Group
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

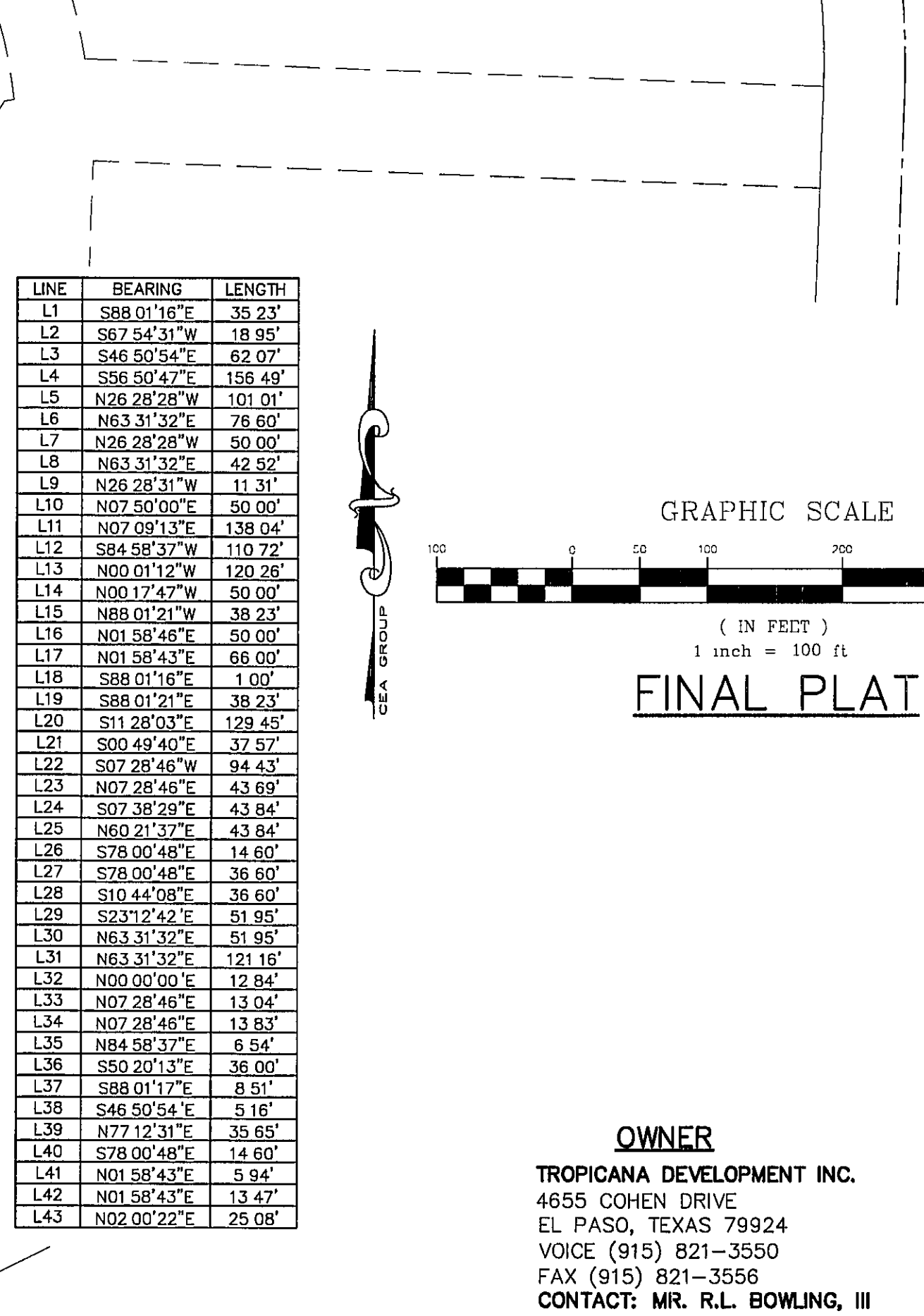
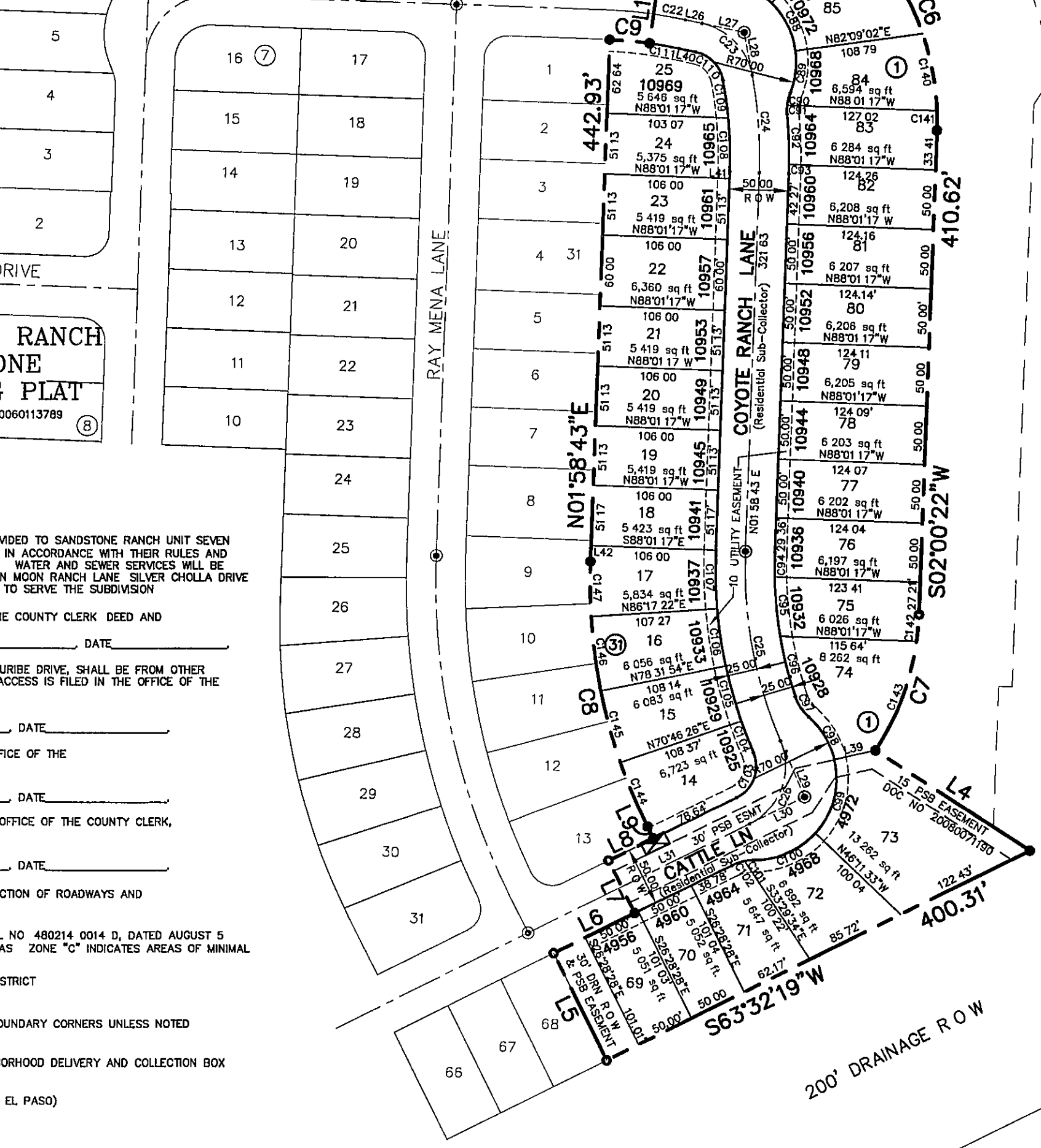
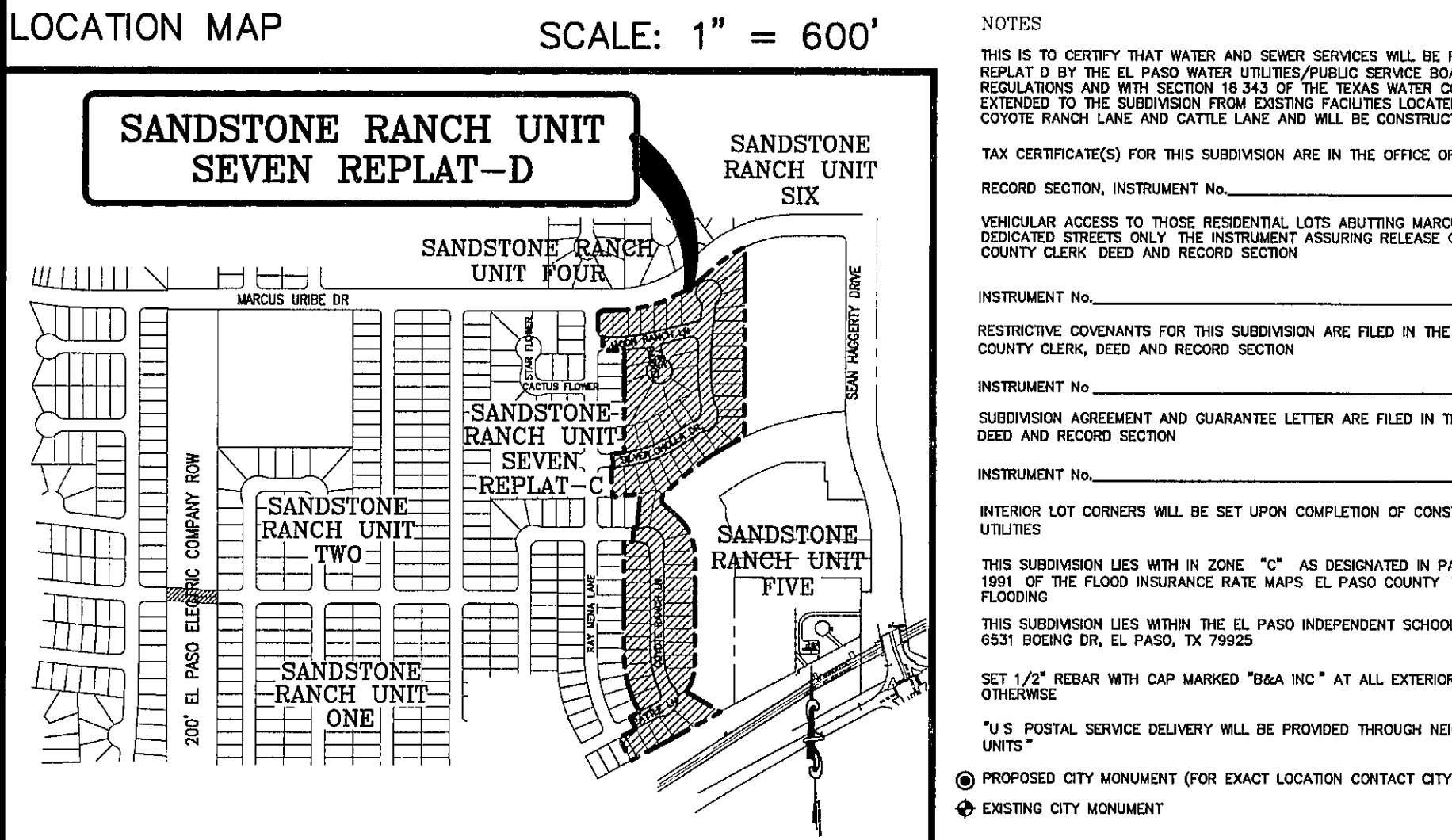
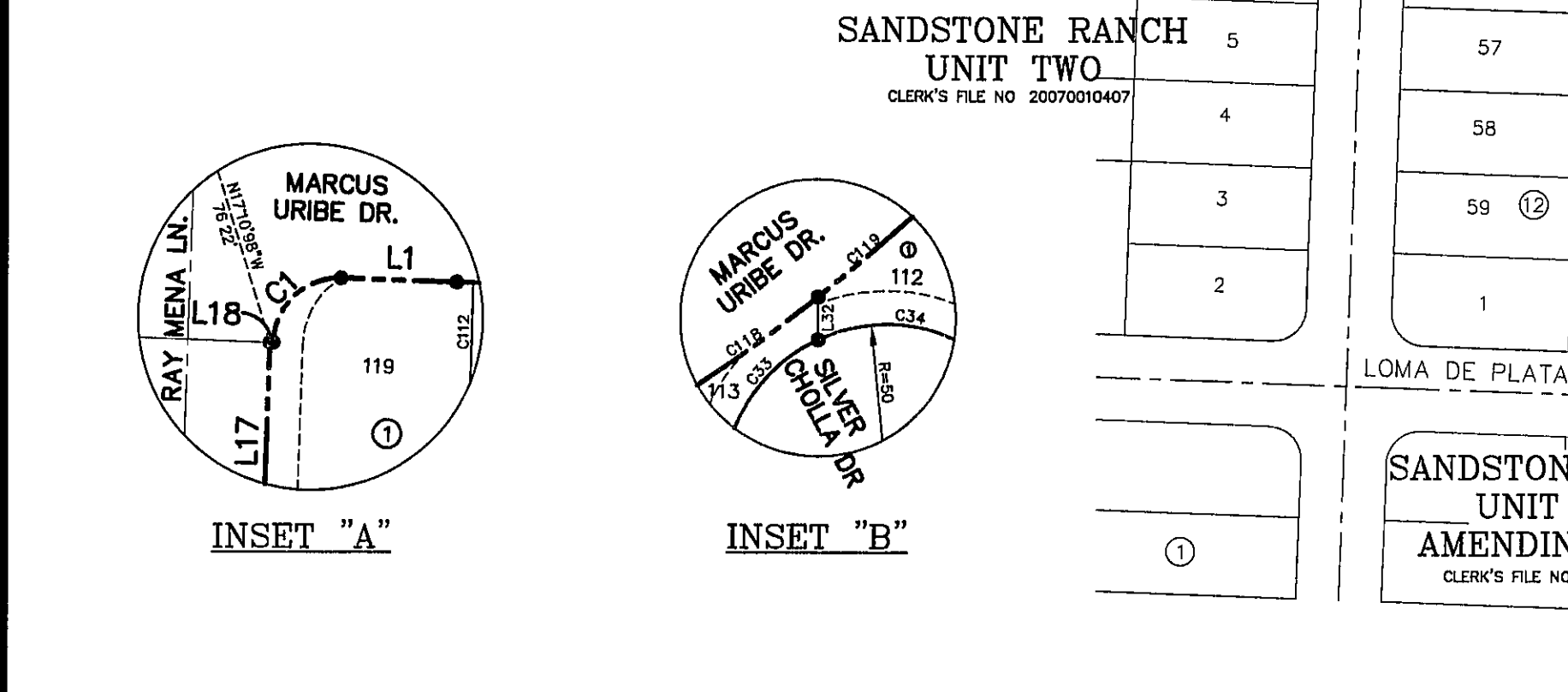
JORGE L. AZCARATE, P.E. Licensed Professional Engineer Texas License No. 65075
Benito Barragan R.P.L.S. Texas, No. 5615

ENGINEER
ceagroup
engineers • architects • planners
TROPICANA DEVELOPMENT INC.
4655 COHEN DRIVE
EL PASO, TEXAS 79924
VOICE (915) 821-3550
FAX (915) 821-3556
CONTACT: MR. R.L. BOWLING, III

SURVEYOR
Barragan & Associates Inc.
LAND PLANNING & LAND SURVEYING
10950 Pelicano Blvd F - El Paso, TX 79935
Phone (915) 591-5709 Fax (915) 591-8705
CONTACT: BENITO BARRAGAN, R.P.L.S.
DATE OF PREPARATION: March 2011

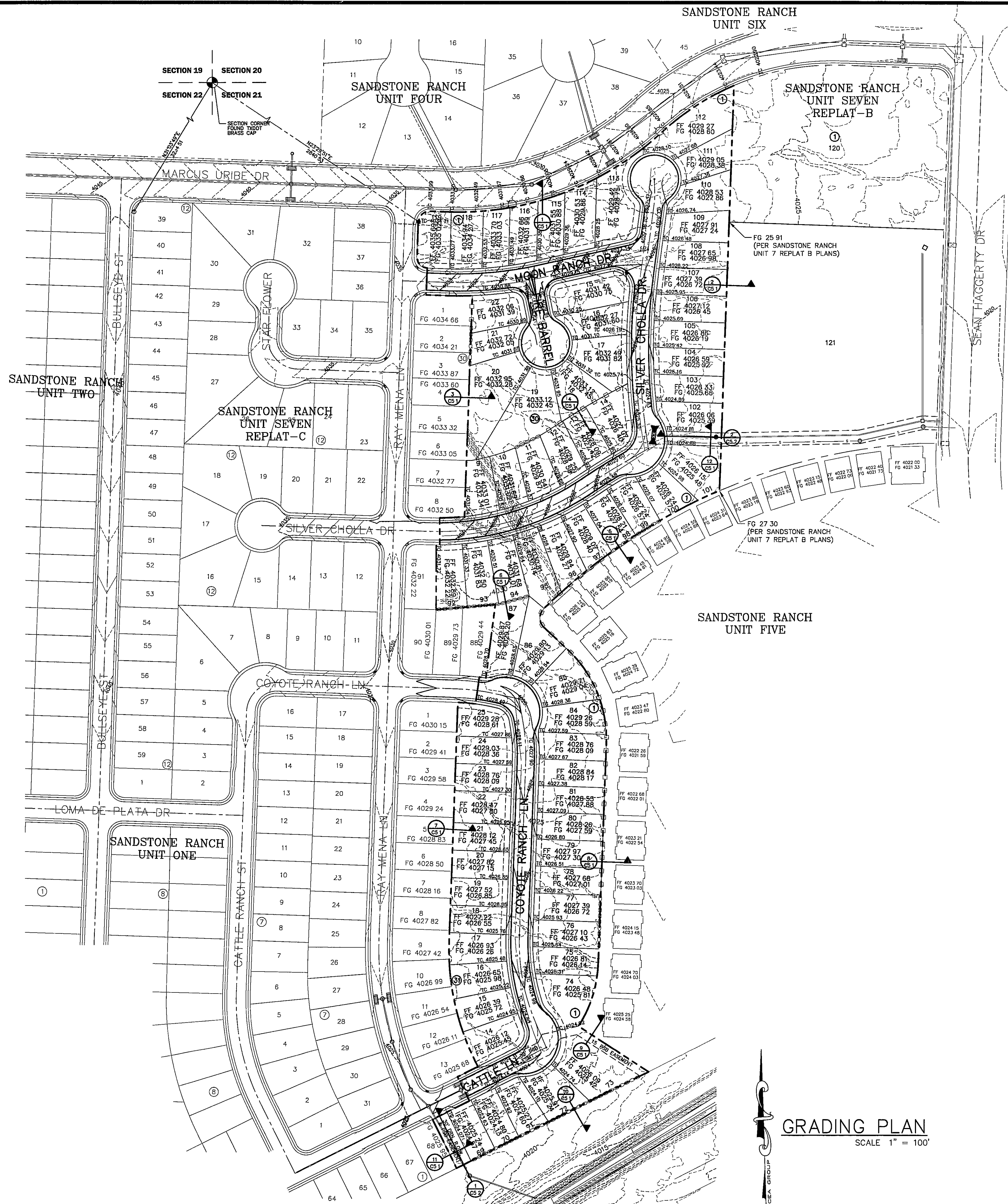
NOTE:
THIS REPLAT SUBDIVISION MODIFIES THE STREET R.O.W WIDTH FROM A 52' R.O.W TO A 50' R.O.W AND INCLUDES REVISIONS TO LOT CONFIGURATIONS

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	20.00'	31.42'	20.00'	28.28'	N46°58'44"E	90°00'00"
C2	555.31'	435.88'	229.66'	424.77'	N69°29'33"E	44°58'23"
C3	470.13'	162.66'	82.15'	161.85'	N56°55'04"E	19°49'25"
C4	1090.00'	376.99'	190.40'	375.12'	S55°48'17"W	19°49'00"
C5	25.00'	40.48'	28.22'	36.19'	S00°28'34"E	92°44'18"
C6	228.00'	122.86'	61.43'	122.86'	S22°12'15"E	42°24'47"
C7	228.00'	122.86'	61.43'	122.86'	S22°12'15"E	42°24'47"
C8	469.00'	232.91'	118.91'	230.52'	N12°14'54"W	28°27'14"
C9	350.00'	33.93'	16.98'	33.92'	S84°56'38"E	6°33'16"
C10	400.00'	5.86'	2.93'	5.86'	S81°44'50"E	0°50'20"
C11	40.00'	6.11'	3.06'	6.10'	S85°47'08"E	8°44'57"
C12	525.00'	6.74'	3.37'	6.74'	S89°55'44"E	0°44'07"
C13	475.00'	46.20'	23.10'	46.20'	N88°55'01"E	5°34'24"
C14	711.31'	42.81'	21.41'	42.80'	N89°58'52"E	6°13'03"
C15	20.00'	31.42'	20.00'	28.28'	N43°01'19"W	90°00'04"
C16	686.31'	159.10'	79.55'	158.74'	N85°20'12"E	13°16'55"
C17	686.31'	14.57'	7.28'	14.57'	N78°05'15"E	1°12'58"
C18	1081.88'	285.52'	143.59'	284.69'	S00°04'51"E	15°07'16"
C19	65.00'	77.15'	43.84'	77.20'	N26°21'34"E	68°00'06"
C20	1205.00'	88.48'	44.24'	88.48'	S88°15'29"W	4°12'17"
C21	500.00'	22.78'	11.39'	22.78'	N72°58'46"E	3°32'53"
C22	375.00'	27.18'	13.60'	27.18'	N80°05'24"W	4°09'12"
C23	55.00'	64.98'	32.49'	64.94'	N04°22'43"W	16°40'40"
C24	375.00'	83.21'	41.78'	83.04'	N04°22'43"W	12°42'51"
C25	375.00'	164.87'	83.79'	163.54'	S10°36'59"E	25°11'26"
C26	55.00'	83.26'	41.63'	83.26'	N20°09'25"E	86°44'14"
C27	661.31'	3.97'	1.98'	3.97'	S88°11'40"E	0°27'38"
C28	661.31'	42.81'	21.41'	42.80'	N89°58'52"E	6°13'03"
C29	661.31'	50.11'	25.07'	50.10'	N84°15'09"W	4°20'29"
C30	661.31'	53.19'	26.61'	53.17'	N79°47'01"E	4°36'29"
C31	20.00'	24.43'	14.00'	22.94'	N42°28'46"E	70°00'00"
C32	20.00'	19.40'	10.54'	19.40'	N20°18'29"W	55°34'31"
C33	50.00'	98.75'	75.77'	83.47'	S08°29'06"W	113°09'43"
C34	50.00'	60.27'	34.40'	56.89'	N80°24'09"E	69°03'46"
C35	50.00'	60.27'	34.40'	56.89'	N80°24'09"E	69°03'46"
C36	50.00'	32.37'	16.18'	32.37'	N32°50'39"E	67°00'00"
C37	20.00'	15.33'	8.06'	14.96'	S28°26'10"W	43°54'47"
C38	1056.88'	36.34'	18.18'	36.34'	S06°29'40"W	1°58'13"
C39	1056.88'	50.04'	25.02'	50.04'	S04°09'10"W	2°42'46"
C40	1056.88'	50.01'	25.01'	50.00'	S01°26'27"W	2°42'55"
C41	1056.88'	50.08'	25.05'	50.08'	S01°16'21"E	2°42'55"
C42	1056.88'	50.28'	25.14'	50.28'	S03°59'35"E	2°43'33"
C43	1056.88'	11.88'	5.95'	11.98'	S05°40'50"E	0°38'58"
C44	40.00'	20.59'	10.53'	20.36'	S20°45'06"E	29°29'32"
C45	70.00'	27.29'	13.82'	27.12'	N24°19'40"W	22°20'24"
C46	70.00'	38.75'	19.89'	38.26'	S23°22'53"W	31°43'14"
C47	70.00'	51.33'	26.88'	50.19'	N80°14'57"E	42°00'54"
C48	70.00'	8.96'	4.29'	8.96'	N84°45'38"E	7°00'29"
C49	40.00'	10.90'	5.45'	10.90'	S73°34'52"W	7°00'29"
C50	1180.60'	30.31'	15.16'	30.31'	S88°09'45"W	1°28'15"
C51	1180.60'	26.20'	13.10'	26.20'	S66°47'28"W	1°16'17"
C52	525.00'	25.48'	12.74'	25.48'	N57°32'45"E	2°46'51"
C53	525.00'	48.08'	24.06'	48.06'	N61°33'36"E	5°14'49"
C54	525.00'	48.08'	24.06'	48.06'	N66°48'24"E	5°14'49"
C55	525.00'	48.08'	24.06'	48.06'	N72°03'33"E	5°14'49"
C56	525.00'	48.08'	24.06'	48.06'	N77°18'02"E	5°14'49"
C57	525.00'	48.08'	24.06'	48.06'	N82°32'50"E	5°14'49"
C58	525.00'	41.54'	20.78'	41.52'	N87°26'14"E	4°31'58"
C59	475.00'	66.89'	33.40'	66.64'	N80°06'28"E	8°02'41"
C60	475.00'	57.20'	28.64'	57.17'	N72°38'08"E	6°54'00"
C61	475.00'	64.84'	32.52'	64.89'	N65°16'08"E	7°49'59"
C62	475.00'	43.08'	21.56'	43.07'	N58°45'14"E	5°11'49"
C63	1230.60'	15.09'	7.55'	15.09'	S56°31'49"W	0°44'57"
C64	1230.60'	55.13'	27.57'	55.13'	S58°11'18"W	2°34'01"
C65	1230.60'	19.09'	9.54'	19.09'	S59°54'58"W	0°53'19"
C66	40.00'	47.47'	26.98'	44.74'	N26°21'34"E	68°00'06"
C67	1106.88'	81.23'	40.63'	81.21'	S05°32'21"E	4°12'16"
C68	1106.88'	92.36'	46.21'	92.33'	S01°02'47"E	4°46'51"
C69	1106.88'	61.21'	30.61'	61.20'	S02°55'41"W	3°10'06"
C70	1106.88'	23.57'	11.79'	23.57'	S05°07'20"W	1°13'13"
C71	30.00'	56.68'	41.48'	48.62'	N48°23'38"W	108°15'11"
C72	20.00'	31.05'	19.64'	28.02'	S33°00'22"W	88°58'49"
C73	20.00'	8.36'	4.24'	8.30'	S23°26'54"E	23°57'42"



LINE	BEARING	LENGTH
L1	S88°01'16"E	35.23'
L2	S67°54'31"W	18.95'
L3	S46°50'54"E	62.07'
L4	S56°50'47"E	156.49'
L5	N26°28'28"W	101.01'
L6	N63°31'32"E	78.60'
L7	N26°28'28"W	50.00'
L8	N63°31'32"E	42.92'
L9	N26°28'31"W	11.31'
L10	N07°50'00"E	50.00'
L11	N07°09'13"E	138.04'
L12	S84°58'37"W	110.72'
L13	N00°01'12"W	120.26'
L14	N01°17'47"W	50.00'
L15	N88°01'21"W	38.23'
L16	N01°58'46"E	50.00'
L17	N01°58'43"E	66.00'
L18	S88°01'16"E	1.00'
L19	S88°01'21"E	38.23'
L20	N01°28'03"E	129.45'
L21	S00°49'40"E	37.57'
L22	S07°28'46"W	94.43'
L23	N07°28'46"E	43.69'
L24	S07°38'29"E	43.84'
L25	N60°21'37"E	43.84'
L26	S78°00'48"E	14.60'
L27	S78°00'48"E	36.60'
L28	S10°44'08"E	36.00'
L29	S23°12'42"E	51.95'
L30	N63°31'32"E	51.95'
L31	N63°31'32"E	121.16'
L32	N00°00'00"E	12.84'
L33	N07°28'46"E	13.04'
L34	N01°58'43"E	13.94'
L35	N84°58'17"E	6.54'
L36	S50°20'13"E	36.00'
L37	S88°01'17"E	8.51'
L38	S46°50'54"E	5.16'
L39	N77°12'31"E	35.65'
L40	S78°00'48"E	14.60'
L41	N01°58'43"E	9.94'
L42	N01°58'43"E	13.47'
L43	N02°00'22"E	25.08'

NOTES
THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO SANDSTONE RANCH UNIT SEVEN REPLAT D BY THE EL PASO WATER UTILITIES/PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR RULES AND REGULATIONS AND WITH SECTION 16.043 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE PROVIDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON MOON RANCH LANE, SILVER CHOLLA DRIVE, COYOTE RANCH LANE AND CATTLE LANE 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. _____ DATE _____
VEHICULAR ACCESS TO THOSE RESIDENTIAL LOTS ABUTTING MARCUS URIBE DRIVE, SHALL BE FROM OTHER DEDICATED STREETS ONLY. THE INSTRUMENT ASSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION
RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION
INSTRUMENT NO. _____ DATE _____
SUBDIVISION AGREEMENT AND GUARANTEE LETTER ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION
INSTRUMENT NO. _____ DATE _____
INTERIOR LOT CORNERS WILL BE SET UP UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES
THIS SUBDIVISION LIES WITHIN ZONE "C" AS DESIGNATED IN PANEL NO. 480214 0014 D, DATED AUGUST 5 1991 OF THE FLOOD INSURANCE RATE MAPS EL PASO COUNTY TEXAS. ZONE "C" INDICATES AREAS OF MINIMAL FLOODING
THIS SUBDIVISION LIES WITHIN THE EL PASO INDEPENDENT SCHOOL DISTRICT
6531 BOEING DR., EL PASO, TX 79925
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
PROPOSED CITY MONUMENT (FOR EXACT LOCATION CONTACT CITY OF EL PASO)
EXISTING CITY MONUMENT



SANDSTONE RANCH UNIT SIX

GRADING PLAN
SCALE 1" = 100'

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

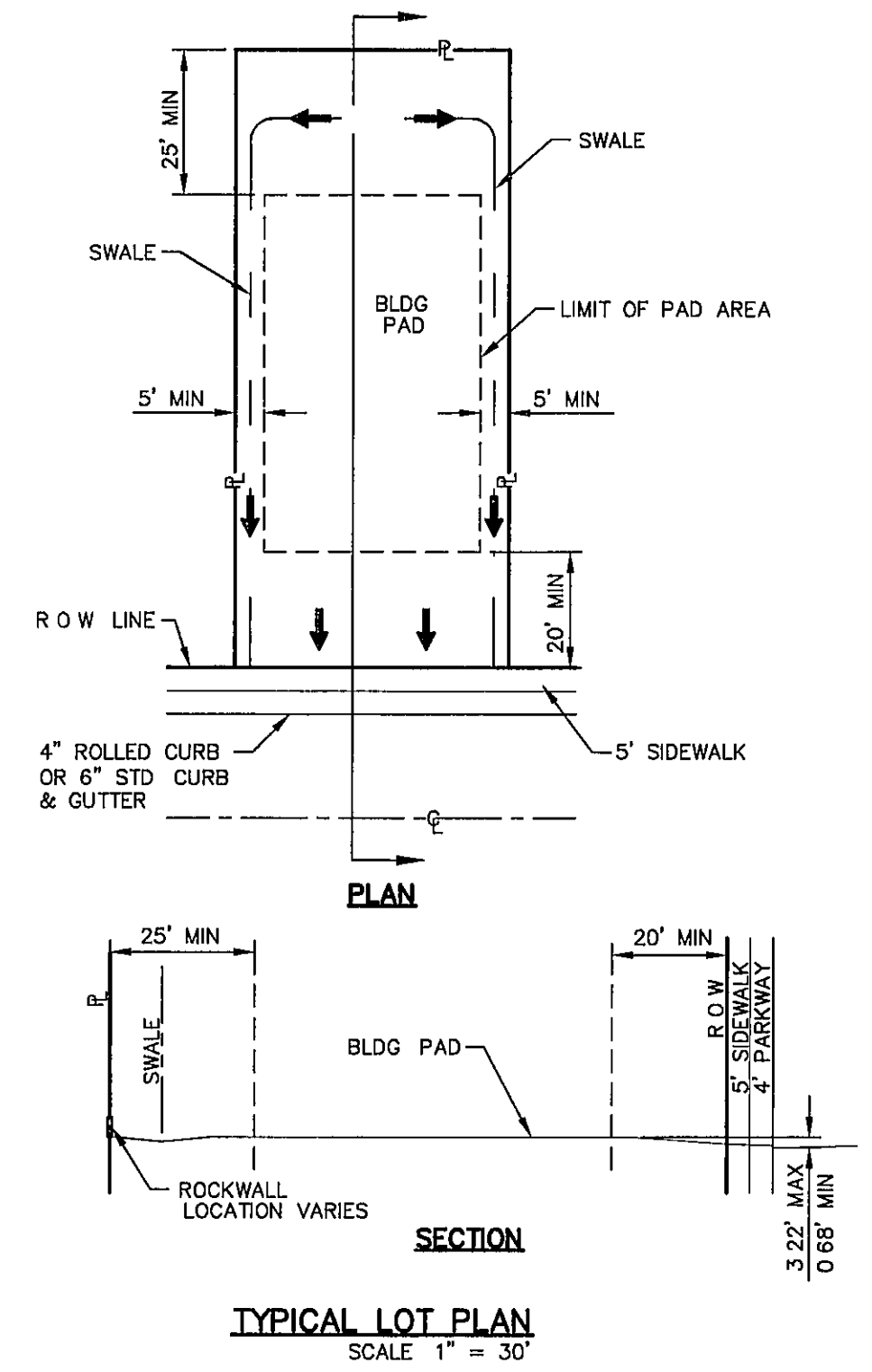
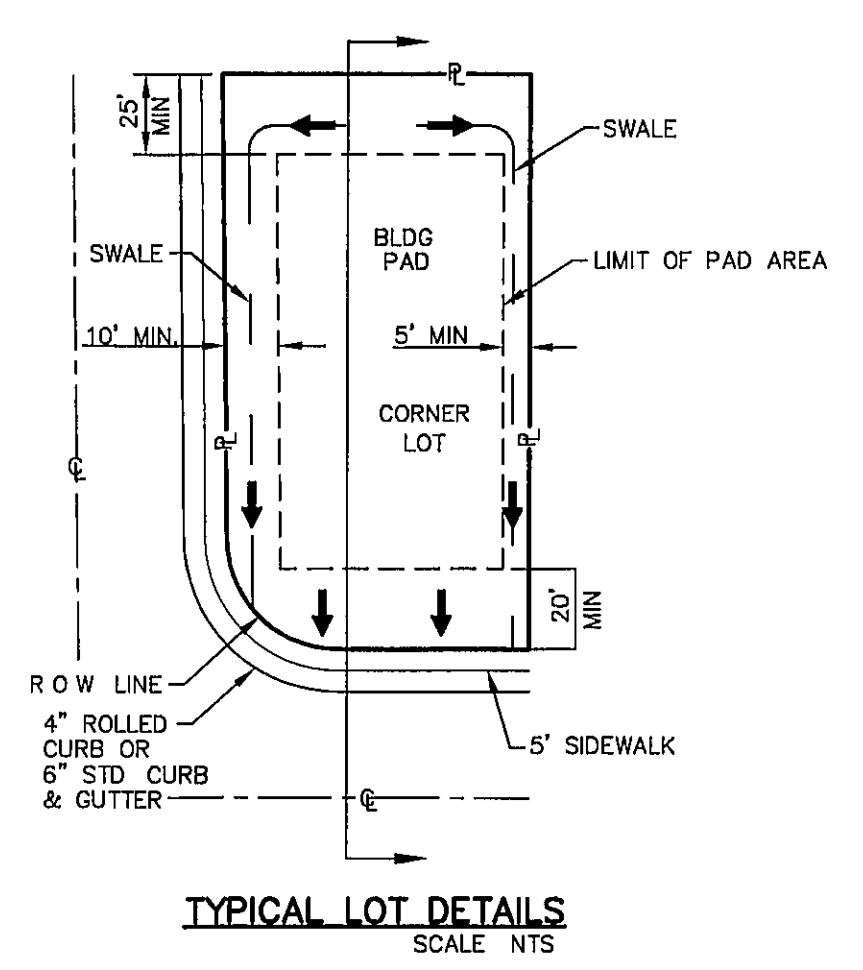
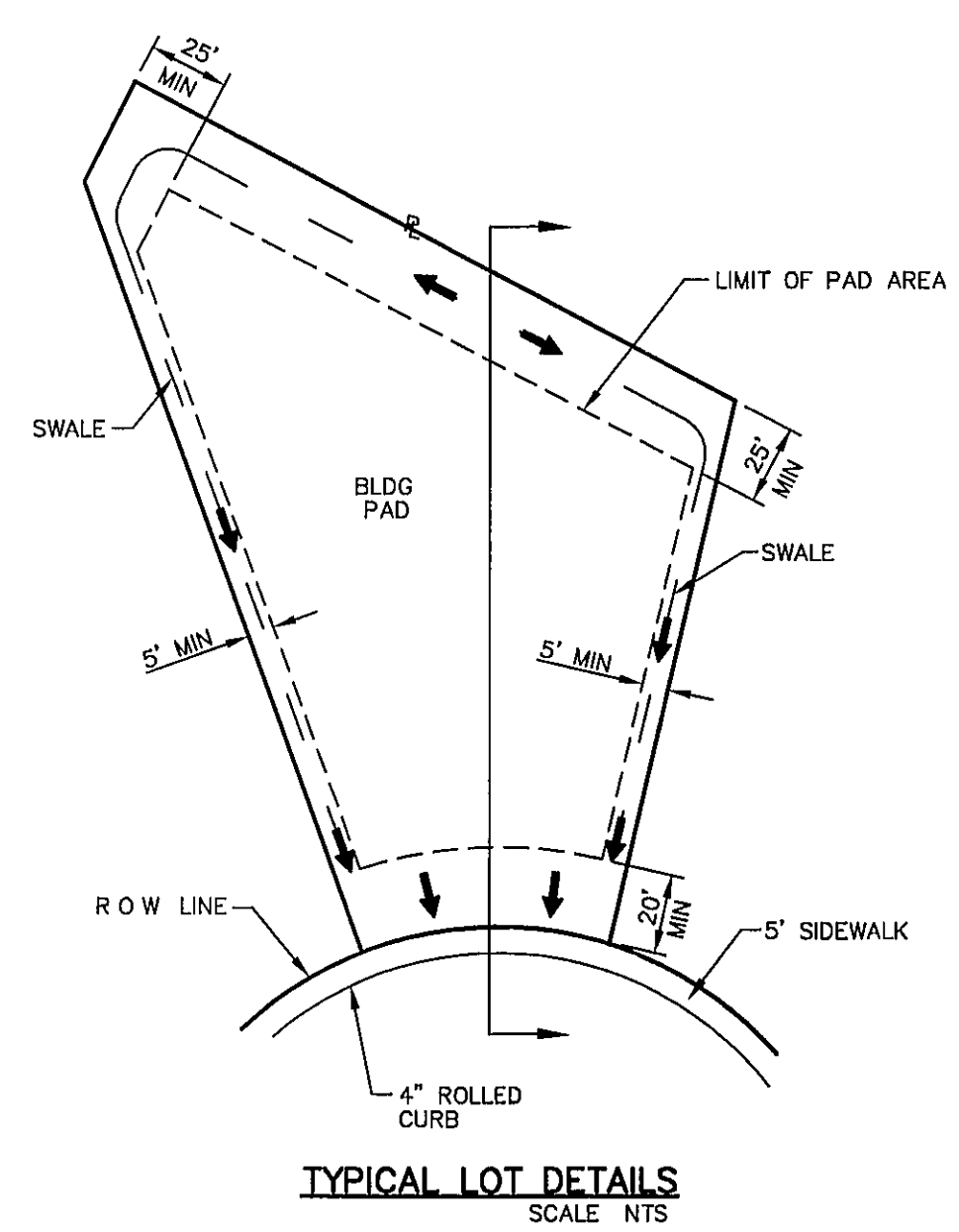
WARNING!
BEFORE YOU DIG
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

- LEGEND:**
- NEW ROCKWALL (4' IN HEIGHT)
 - NEW RETAINING ROCKWALL (2'-3' IN RETAINING HEIGHT)
 - NEW RETAINING ROCKWALL (3'-9' IN RETAINING HEIGHT)
 - - - - - EXISTING MINOR CONTOUR
 - - - - - EXISTING MAJOR CONTOUR
 - - - - - PROPOSED MINOR CONTOUR
 - 4075 PROPOSED MAJOR CONTOUR

- NOTES:**
- 1 RETAINING WALLS SHALL BE CONSTRUCTED FOR VERTICAL GRADES GREATER THAN 2- FEET
 - 2 SLOPED AREAS WITHIN RESIDENTIAL LOTS SHALL BE MAINTAINED BY THE PROPERTY OWNERS
 - 3 ALL RETAINING WALLS NOT SPECIFIED TO BE CONSTRUCTED BY DEVELOPER, SHALL BE BUILT BY BUILDER
 - 4 DEVELOPER SHALL COMPLY WITH SECTION 13.08.170 (EXCESSIVE PAVING CUTS) OF THE EL PASO MUNICIPAL CODE
 - 5 IMPROVEMENTS SHALL NOT BE PLACED ON SIDEWALK (NDBCU'S, SIGNS, POLES, FIRE HYDRANTS, ETC)
 - 6 IMPROVEMENTS SHALL COMPLY WITH T.A.S./A.D.A STANDARDS
 - 7 U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS
 - 8 EXISTING PAVEMENT SHALL BE DEMOLISHED TO THE CURB RETURNS. CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO NOT DAMAGE ADJACENT PROPERTY. ANY DAMAGE SHALL BE REPAIRED AT ORIGINAL OR BETTER CONDITION AT CONTRACTOR'S EXPENSE
 - 9 ALL WHEELCHAIR RAMPS WILL BE CONSTRUCTED BY DEVELOPER AS PART OF SUBDIVISION IMPROVEMENTS
 - 10 RETAINING WALL EQUAL TO OR GREATER THAN 4' (RETAINING PORTION) SHALL BE CONSTRUCTED BY DEVELOPER

BENCHMARK:
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN

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



NOTE:
1 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
FOUND TXDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN

ENGINEER'S SEAL

SCALE
 Horizontal Interval N/A
 Vertical Interval 1" = 30'
 DATE MAY 2017
 DESIGN BY GR
 DRAWN BY J.H.
 CHKD BY J.L.A.
 APPVD BY J.L.A.
 JOB No. 2000-128-LD

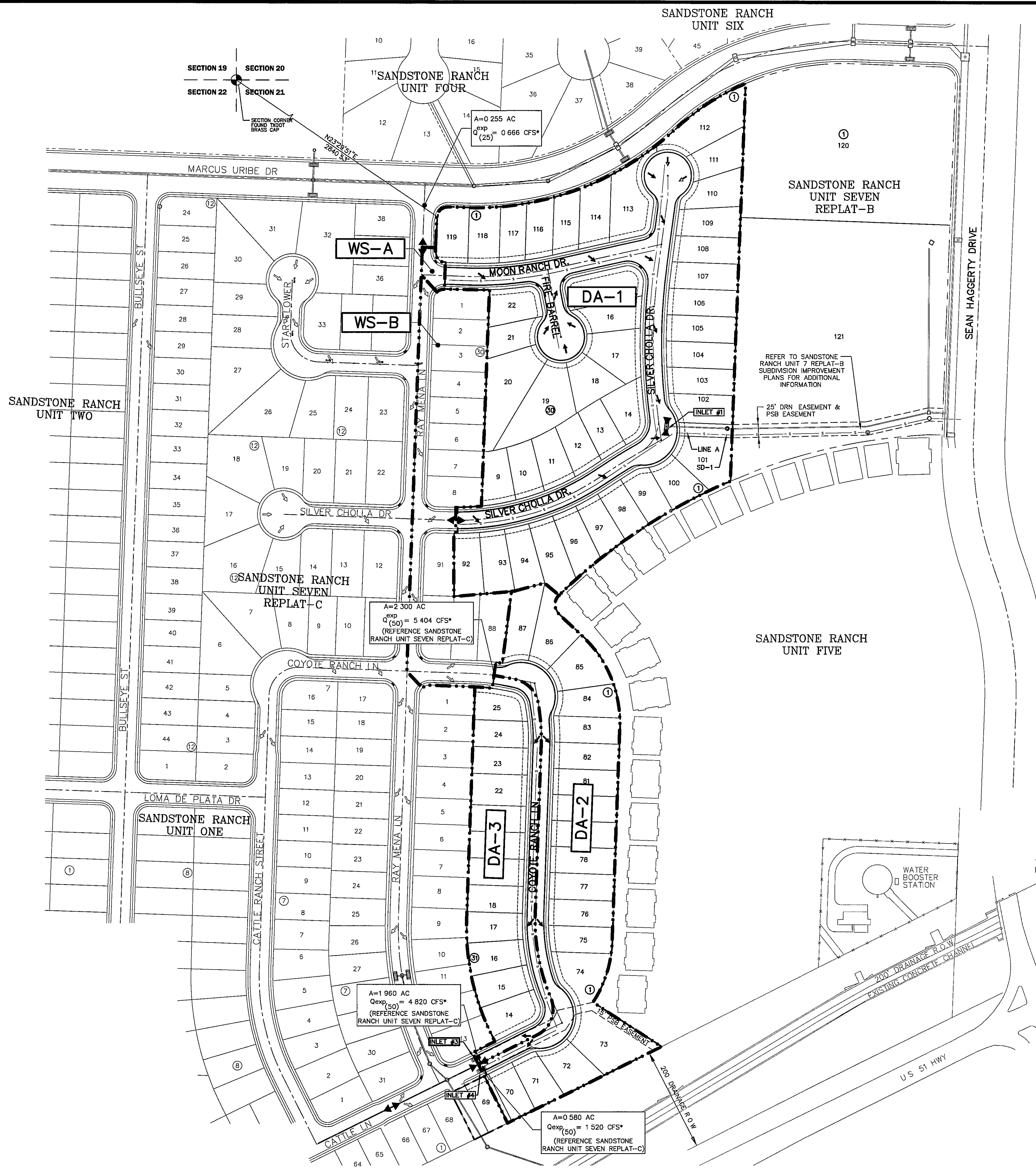
PROJECT NAME
SANDSTONE RANCH UNIT SEVEN REPLAT-D
SUBDIVISION IMPROVEMENTS

SHEET TITLE
GRADING PLAN

SHEET NO
C3.1

BY
 DATE
 REVISIONS

ceap
 ENGINEERS • ARCHITECTS • PLANNERS
 TEXAS REGISTERED ENGINEERING FIRM F-4584
 4712 Woodrow Bann, Suite F, El Paso, TX 79924
 Office: 915-544-5232 Fax: 915-544-5233 www.ceagroup.net



UTILITY LOCATOR SERVICES

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

WARNING!
BEFORE YOU DIG

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

FOR FIELD LOCATING EXISTING UTILITIES

LEGEND:

- DRAINAGE AREA BOUNDARY
- DRAINAGE FLOW
- ▲ HIGH POINT
- ▼ LOW POINT
- ⊕ DROP INLET
- ⊙ STORM DRAIN MANHOLE
- ⊖ RCP
- DRAINAGE AREA

50 YEAR STORM CALCULATIONS FOR WATERSHED AREAS

DRAINAGE AREA NO (1)	DRAINAGE AREA (AC) (2)	DESIGN STORM INTENSITY (ISO) (3)	TIME OF CONCENTRATION (4)	RUNOFF COEFF (C) (5)	Q50 (CFS) (6)
*WS-A	0.063	5.573	10.00	0.900	0.316
*WS-B	2.300	3.420	25.85	0.687	5.404
DA-1	8.621	3.533	24.50	0.590	17.975
DA-2	3.527	3.488	25.02	0.571	7.031
DA-3	2.078	3.658	23.12	0.594	4.514

*NOTE WS-A AND WS-B REFLECT THE EXISTING DEVELOPED CONDITIONS FROM SANDSTONE RANCH UNIT SEVEN REPLAT-C
**Q50 IS BASED ON DEVELOPED RUNOFF
REFERENCE CITY OF EL PASO SUBDIVISION STANDARDS (3-11-97)
(1) WATERSHED AREA IDENTIFICATION
(2) AREA FROM DRAINAGE PLAN
(3) RAINFALL INTENSITY, 50 YEAR STORM => PLATE NO 2-14
(4) TIME OF CONCENTRATION TC= T (OVERLAND) + T (GUTTER)
(5) RUNOFF COEFFICIENT => PLATE NO 2-10 TABLE A
RESIDENTIAL AREA = 0.50 (>= 6,000 SQ FT)
= 0.60 (< 6,000 SQ FT)
PAVEMENT AREA = 0.90
(6) Q50 = C x A x I50

DROP INLETS

NO	REQ FLOW CAPACITY Q REQ (CFS)	AVAIL FLOW CAPACITY Q AVAIL (CFS)	ADDITIONAL FLOW (CFS)	FLOW BYPASS (CFS)	ACTUAL FLOW (CFS)	# OF GRATES	TYPE OF INLET	INLET LOCATION
1	18 291	26 844	0	0	18 291	3	III	SUMP
*3	12 036	19 267	0	0.392	11 644	2	I	SUMP
*4	11 253	19 267	0.392	0	11 644	2	I	SUMP

*NOTE EXISTING INLETS FROM SANDSTONE RANCH UNIT 7 REPLAT-C
CALCULATIONS INCLUDED A 0.5 CLOGGING FACTOR SUMP INLETS

MOMENTUM COMPUTATION

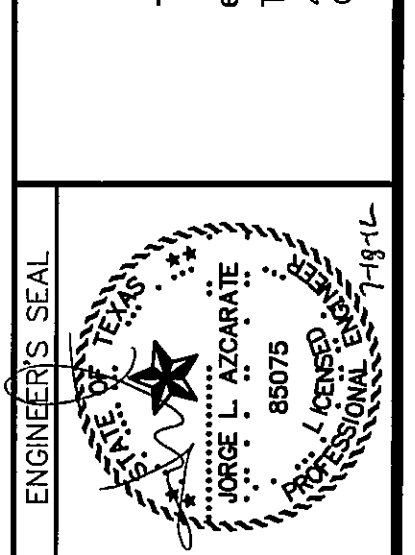
LOCATION @ INLET (1)	DEPTH (2)	VELOCITY (3)	PRODUCT NUMBER (4)
1	0.348	4.984	1.734
*3	0.374	2.811	1.051
*4	0.374	2.811	1.051

*NOTE EXISTING INLETS FROM SANDSTONE RANCH UNIT 7 REPLAT-C

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

REFERENCES - BENCHMARKS
FOUND TXDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 40.33 22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN BY DATE

cea
Group
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-6864
4712 Woodrow Breen, Ste F, El Paso, TX 79924
Cable 915.541.5232 Fax 915.541.5233 www.ceaeng.com



SCALE
Horizontal Vertical
Interval N/A
DATE MAY 2012
DESIGN BY G.R.
DRAWN BY J.H.
CHKD BY J.L.A.
APPVD BY J.L.A.
JOB No 2000-128-LD

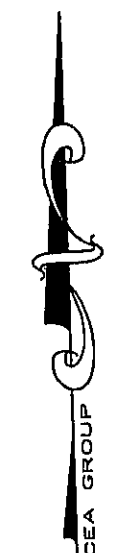
PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

DRAINAGE PLAN

SHEET NO

C4.1



DRAINAGE PLAN
SCALE 1" = 100'

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) 545-8065
AT&T	(800) 852-3766
U S SPRINT TELECOMM	(800) 521-0379
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

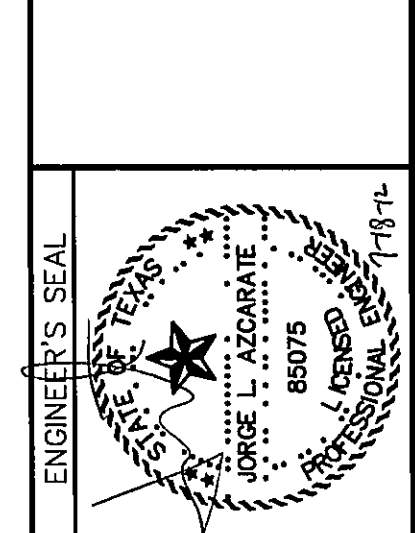
WARNING ! BEFORE YOU DIG

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

FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN



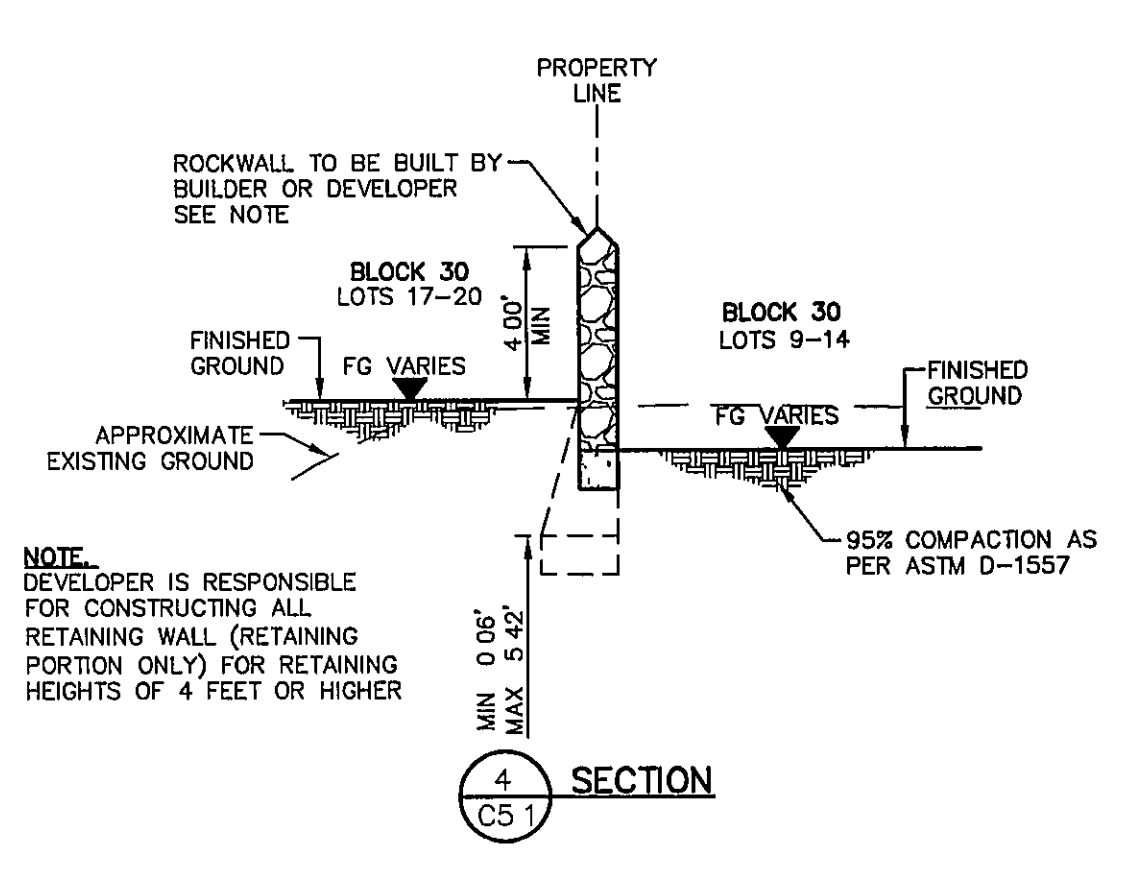
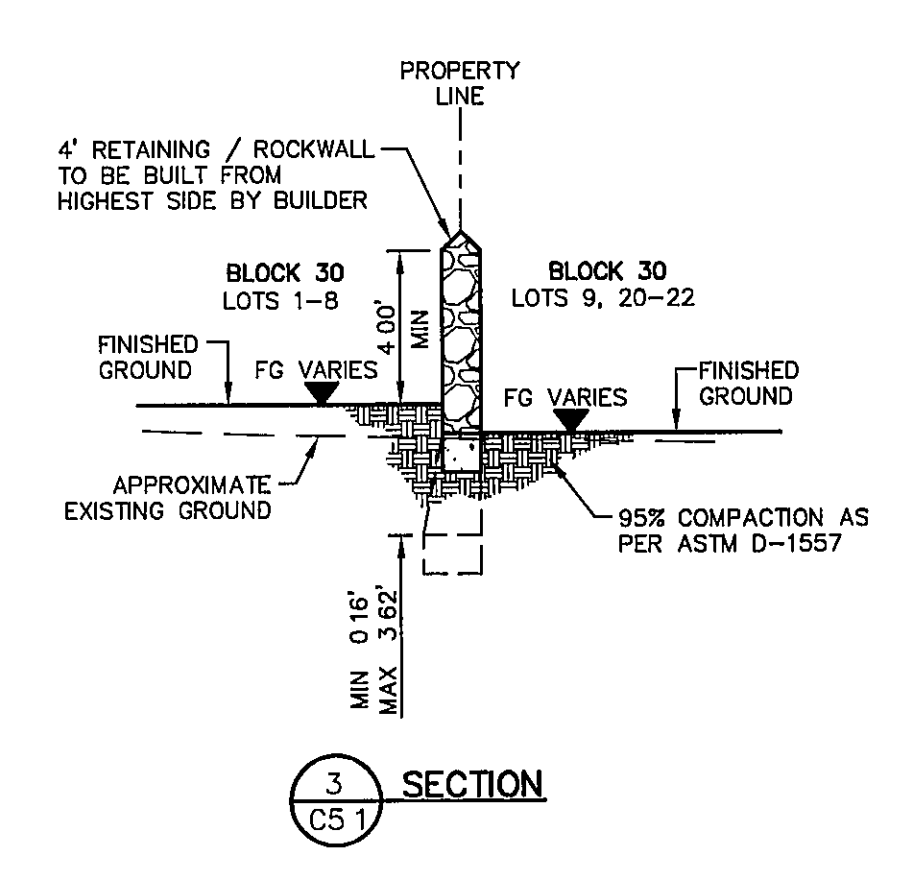
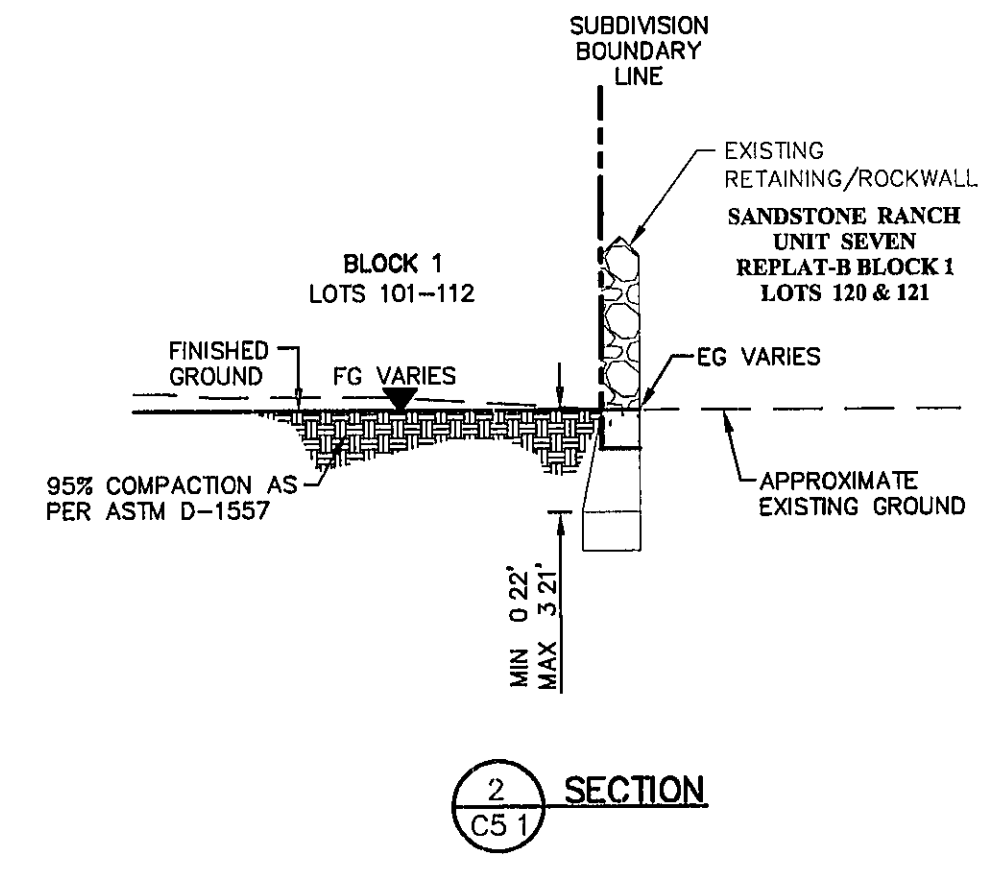
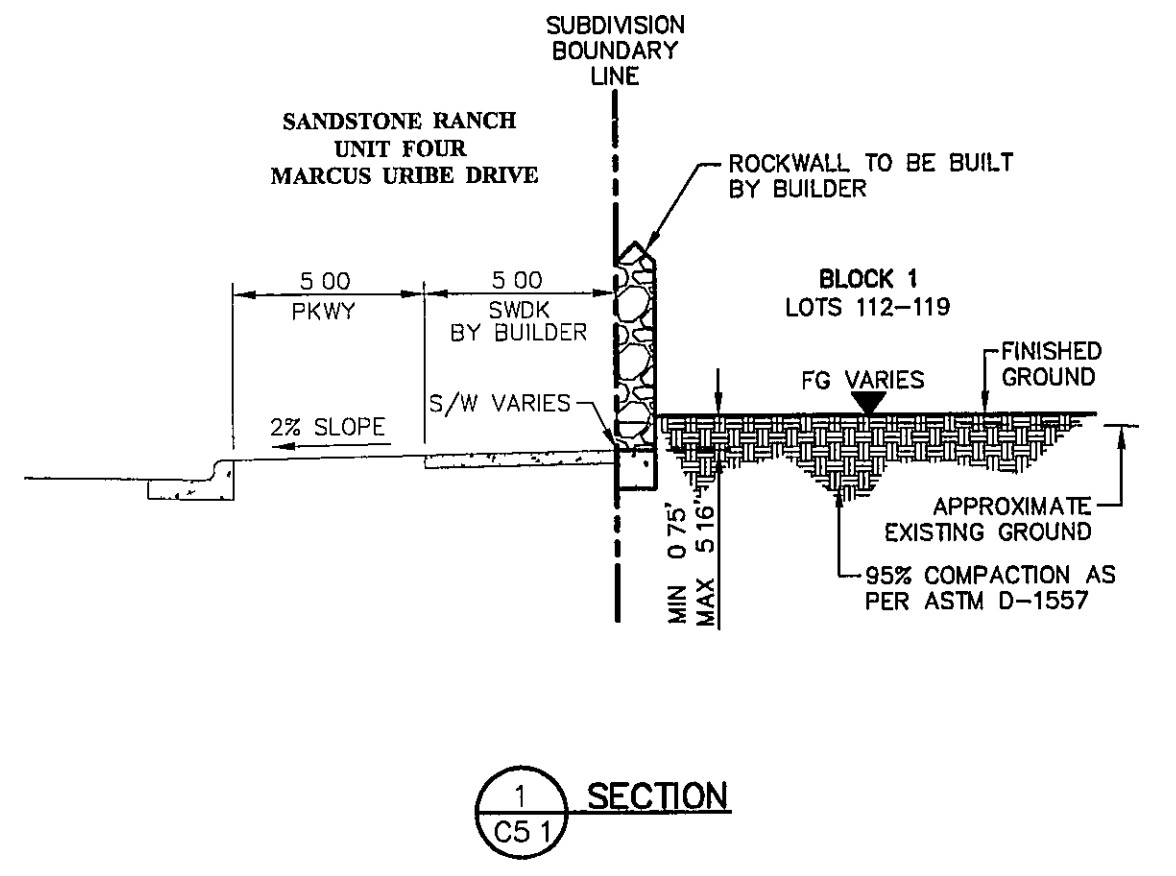
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Vertical	N/A
DATE	MAY 2012
DESIGN BY	G.R.
DRAWN BY	J.H.
CHKD BY	J.L.A.
APPD BY	J.L.A.
JOB No	2000-128-LD

PROJECT NAME
SANDSTONE RANCH UNIT SEVEN REPLAT-D SUBDIVISION IMPROVEMENTS

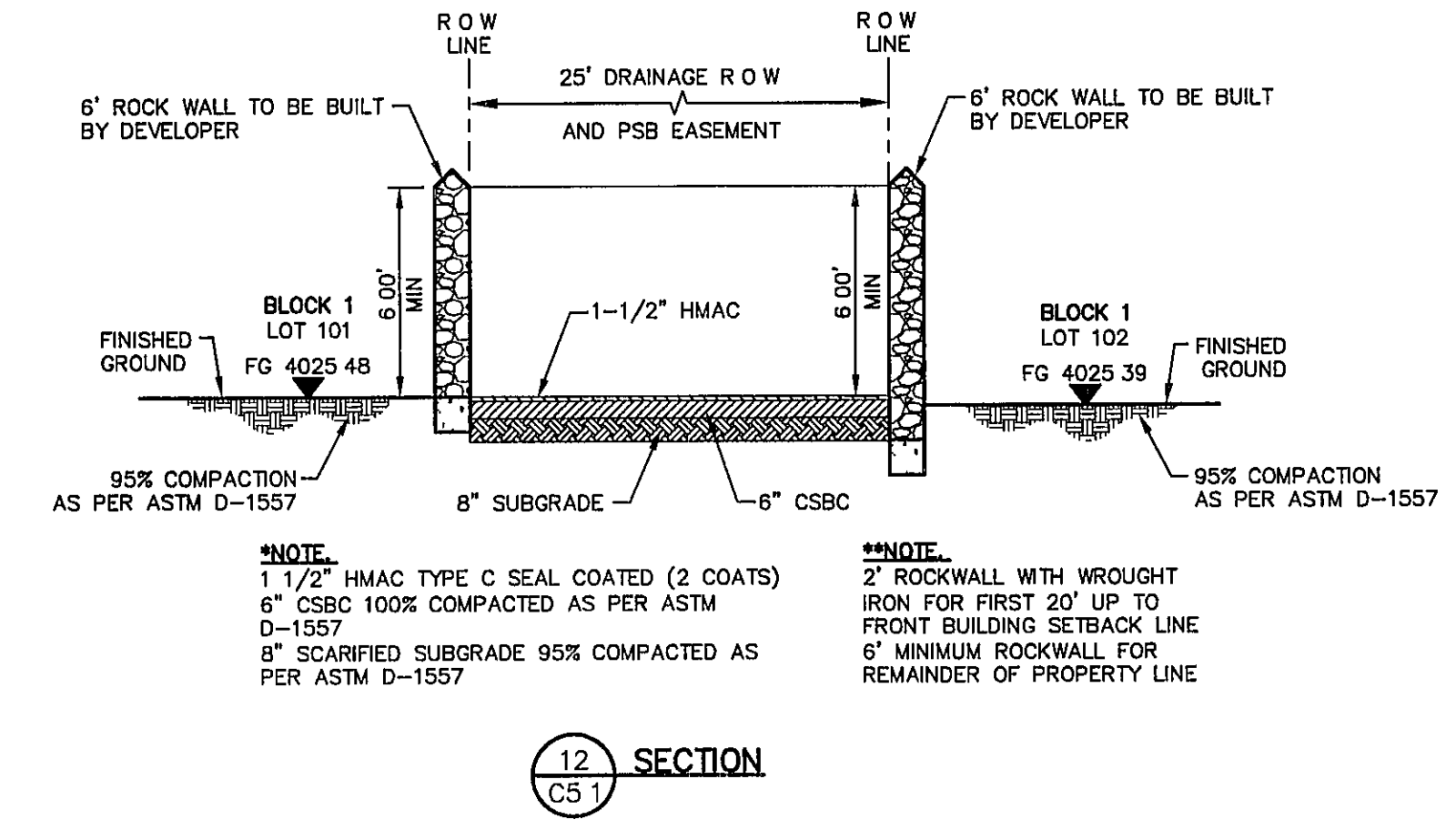
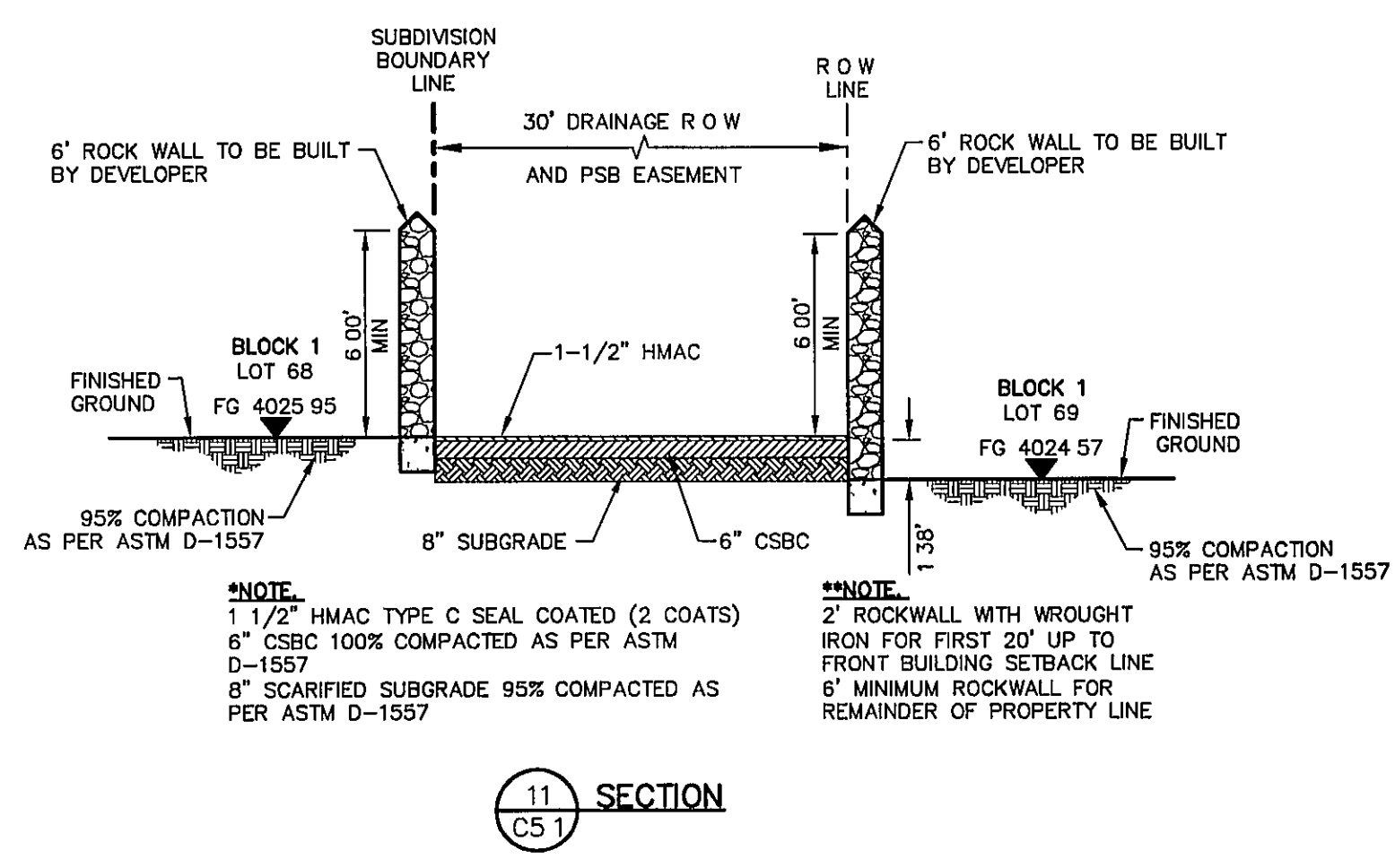
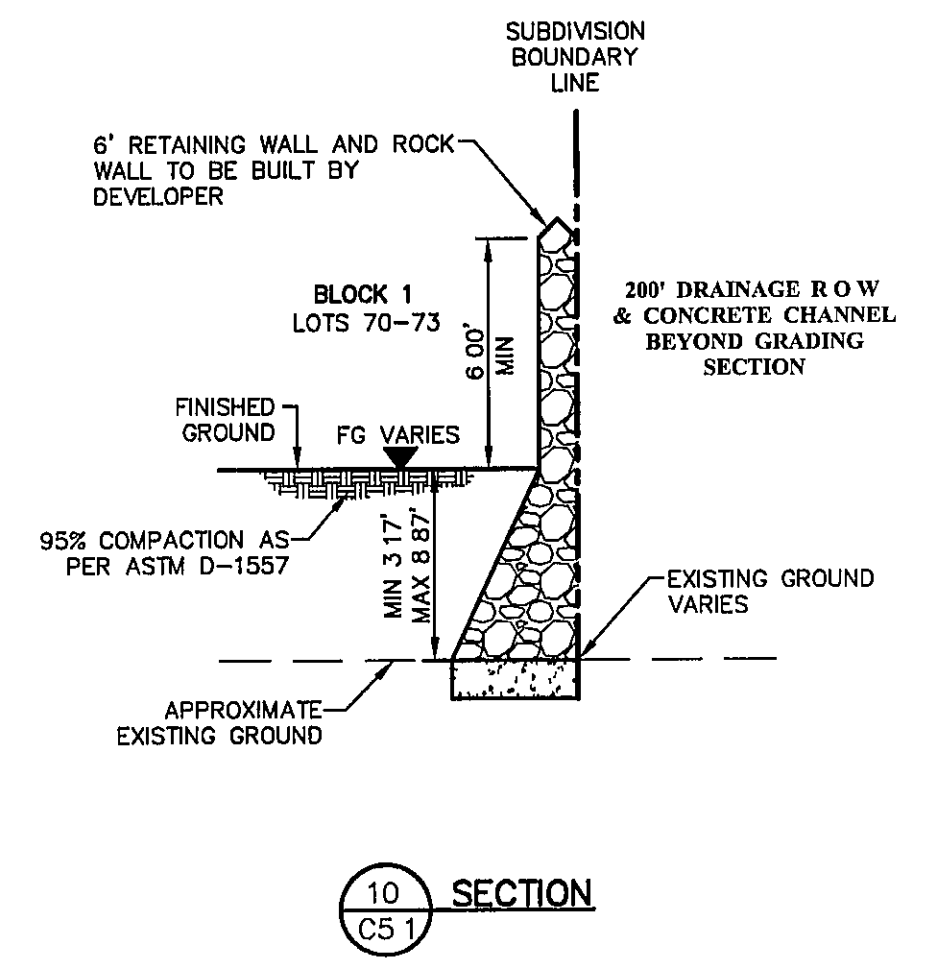
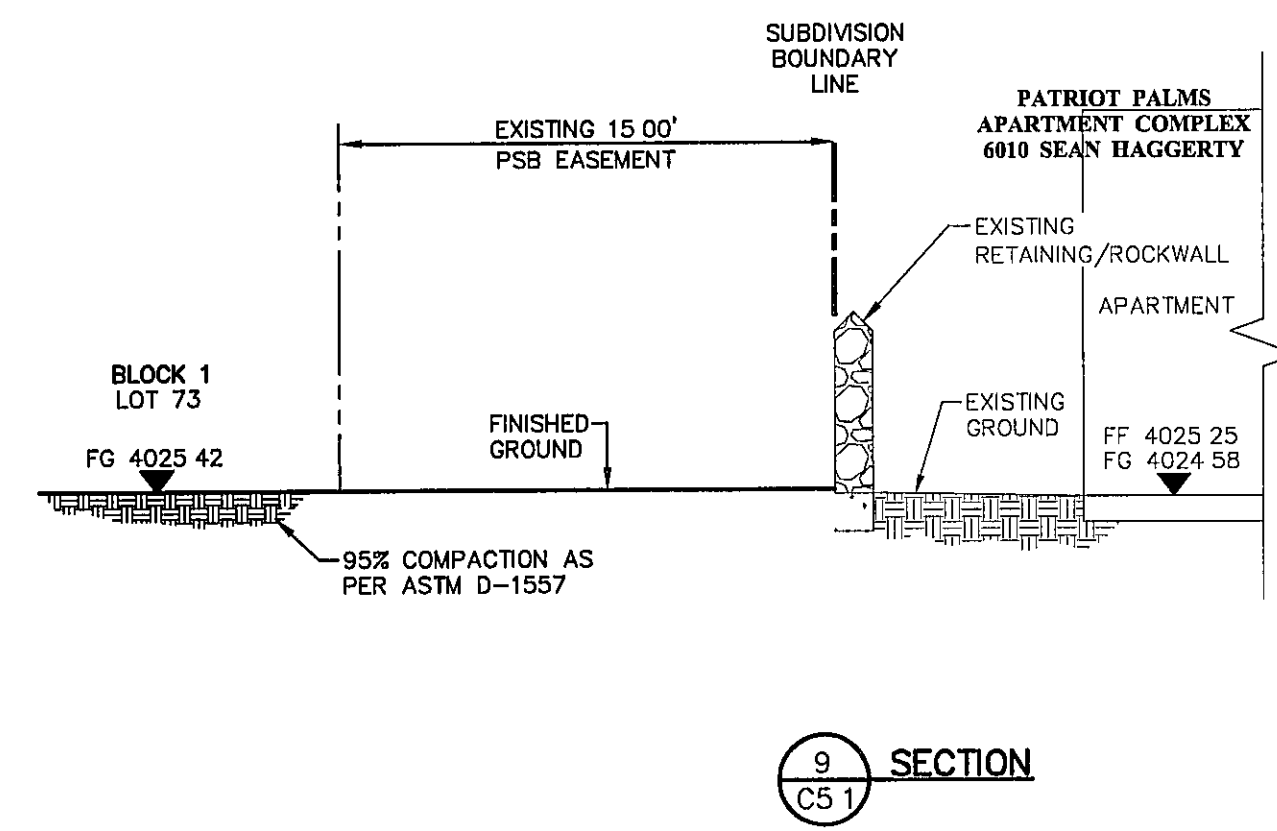
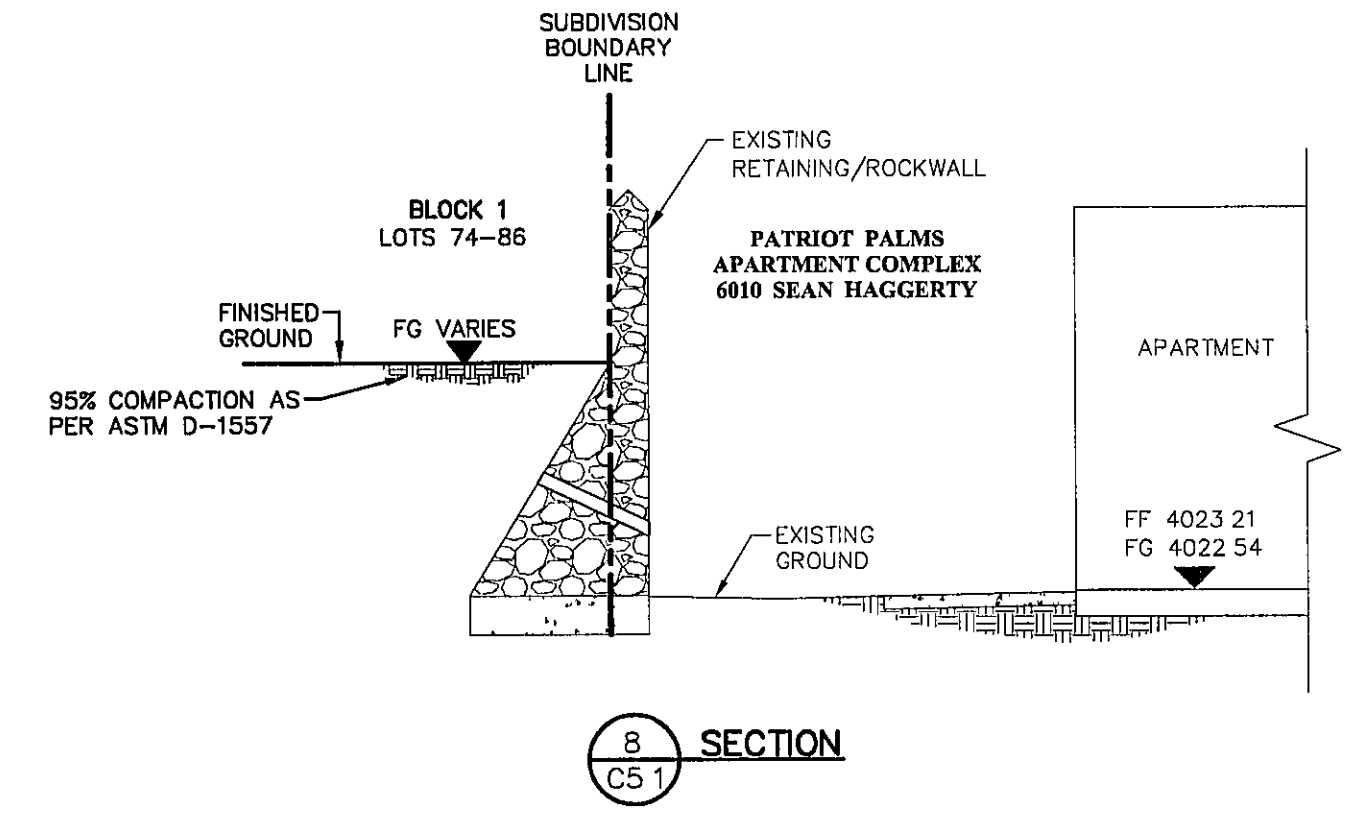
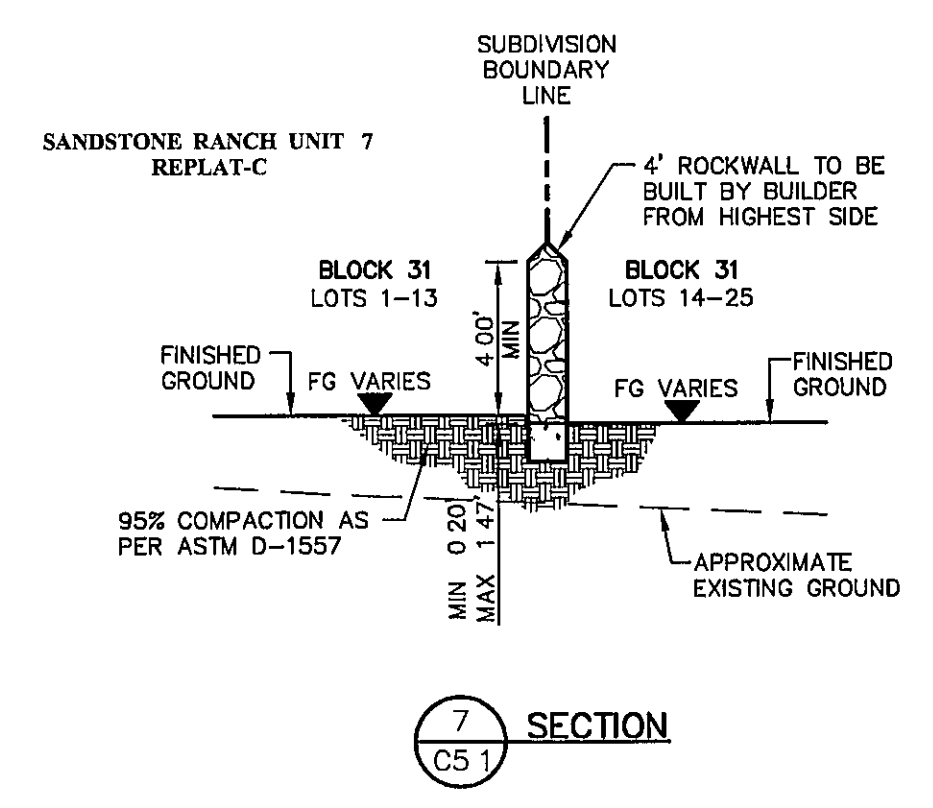
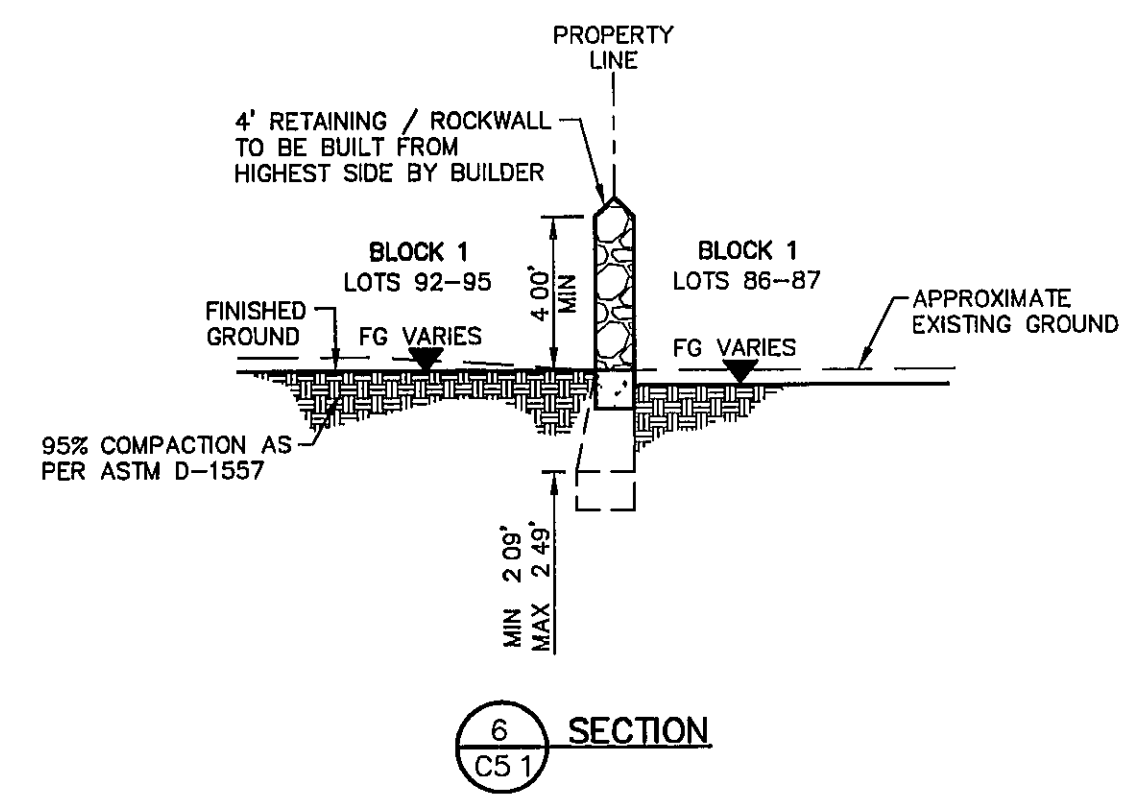
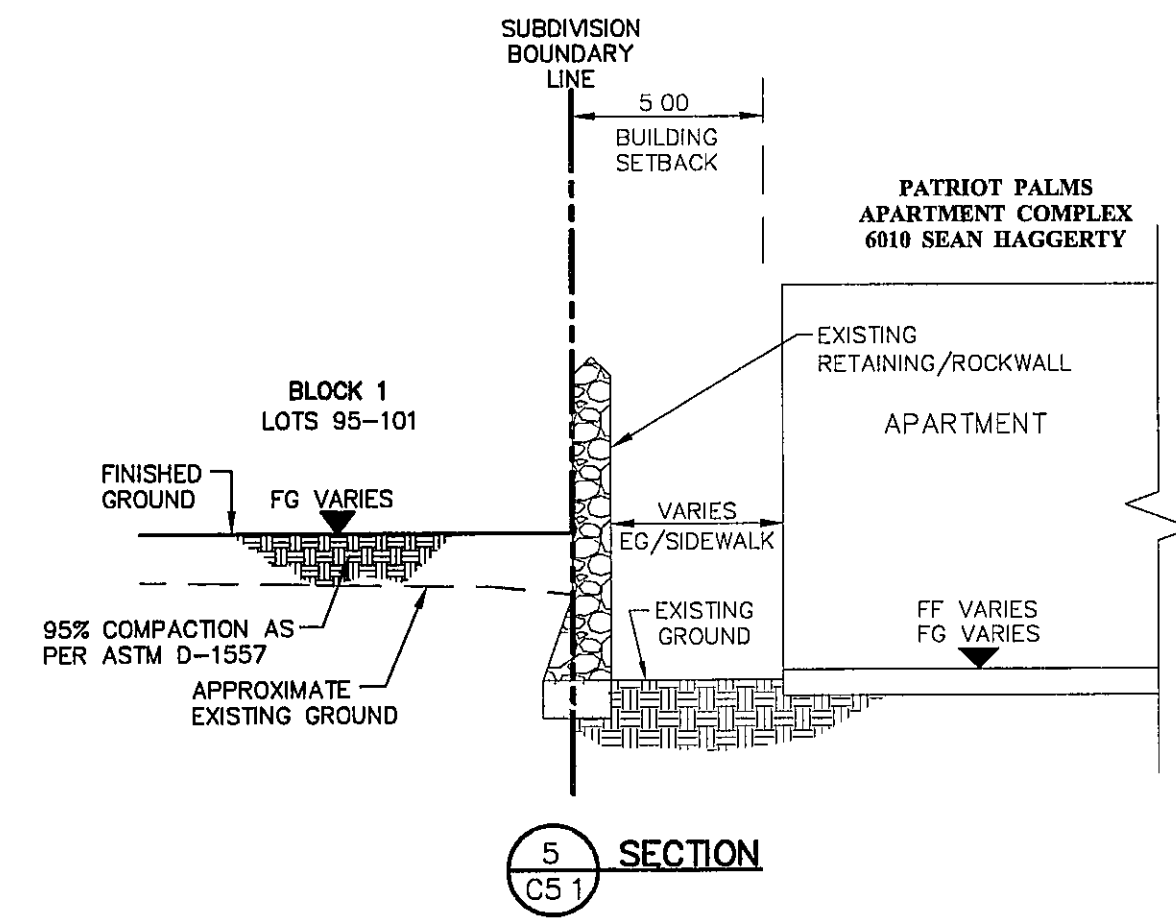
SHEET TITLE
TYPICAL GRADING SECTIONS

SHEET 1 OF 2
SHEET NO

C5.1



- NOTES:**
- 1 SIDEWALK ON ALL DOUBLE FRONTAGE LOTS SHALL BE BUILT BY BUILDER
 - 2 DEVELOPER IS RESPONSIBLE FOR CONSTRUCTING ALL RETAINING WALL (RETAINING PORTION ONLY) FOR RETAINING HEIGHTS OF 4 FEET OR HIGHER



- NOTE:**
1 1/2" HMAC TYPE C SEAL COATED (2 COATS)
6" CSBC 100% COMPACTED AS PER ASTM D-1557
8" SCARIFIED SUBGRADE 95% COMPACTED AS PER ASTM D-1557
- NOTE:**
2" ROCKWALL WITH WROUGHT IRON FOR FIRST 20' UP TO FRONT BUILDING SETBACK LINE
6" MINIMUM ROCKWALL FOR REMAINDER OF PROPERTY LINE

- NOTE:**
1 1/2" HMAC TYPE C SEAL COATED (2 COATS)
6" CSBC 100% COMPACTED AS PER ASTM D-1557
8" SCARIFIED SUBGRADE 95% COMPACTED AS PER ASTM D-1557
- NOTE:**
2" ROCKWALL WITH WROUGHT IRON FOR FIRST 20' UP TO FRONT BUILDING SETBACK LINE
6" MINIMUM ROCKWALL FOR REMAINDER OF PROPERTY LINE

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) 686-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U S SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING!
BEFORE YOU DIG

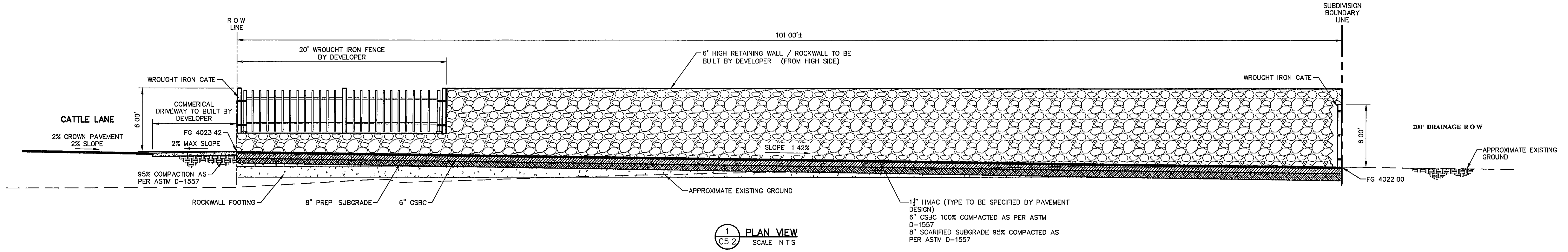
CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

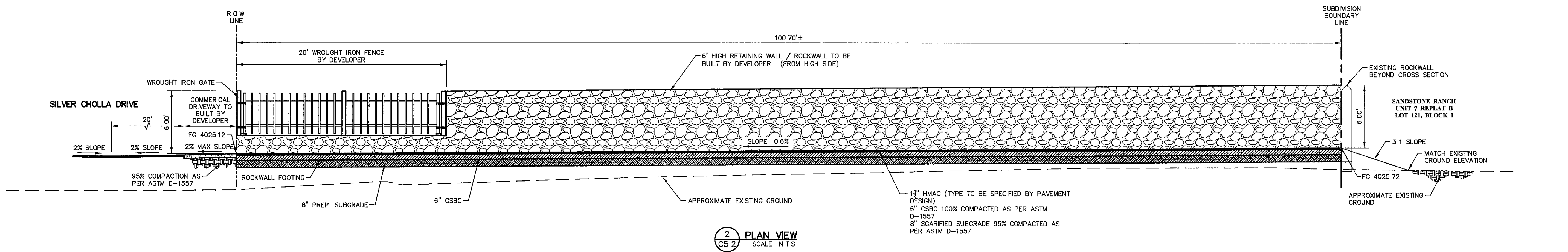
DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
FOUND TYPICAL BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN

cea
ENGINEERS • ARCHITECTS • PLANNERS
TEXAS REGISTERED ENGINEERING FIRM F-4584
4712 Woodrow Bean, Ste F, El Paso, TX 79924
Office: 915 544 5222 Fax: 915 544 5233 www.ceainc.net

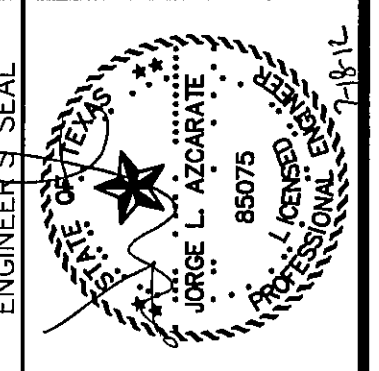


1 PLAN VIEW
SCALE N T S



2 PLAN VIEW
SCALE N T S

NOTES:
1 RETAINING WALL EQUAL TO OR HIGHER THAN 4' (RETAINING PORTION) SHALL BE CONSTRUCTED BY DEVELOPER



SCALE	Horizontal	Vertical	Interval	N/A
Horizontal	1" = 40'	1" = 10'	5'	N/A
DATE	MAY 2012			
DESIGN BY	C.R.			
DRAWN BY	J.H.			
CHKD BY	J.L.A.			
APPROV. BY	J.L.A.			
JOB No.	20100-12E-LD			

PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
GRADING SECTIONS

SHEET 2 OF 2
SHEET NO

C5.2

- 1* BEGIN TRANSITION FROM 4" ROLLED CURB & GUTTER TO 6" STD CURB & GUTTER
- 2* END TRANSITION FROM 4" ROLLED CURB & GUTTER TO 6" STD CURB & GUTTER
- 3* BEGIN TRANSITION FROM 6" STD CURB & GUTTER TO 4" ROLLED CURB & GUTTER
- 4* END TRANSITION FROM 6" STD CURB & GUTTER TO 4" ROLLED CURB & GUTTER

CURVE	RADIUS	LENGTH	TANGENT	DELTA
C1	55.00'	83.26'	51.95'	86.44°14"
C2	375.00'	184.87'	83.79'	251°12'51"
C3	375.00'	83.21'	41.78'	12.42°51"

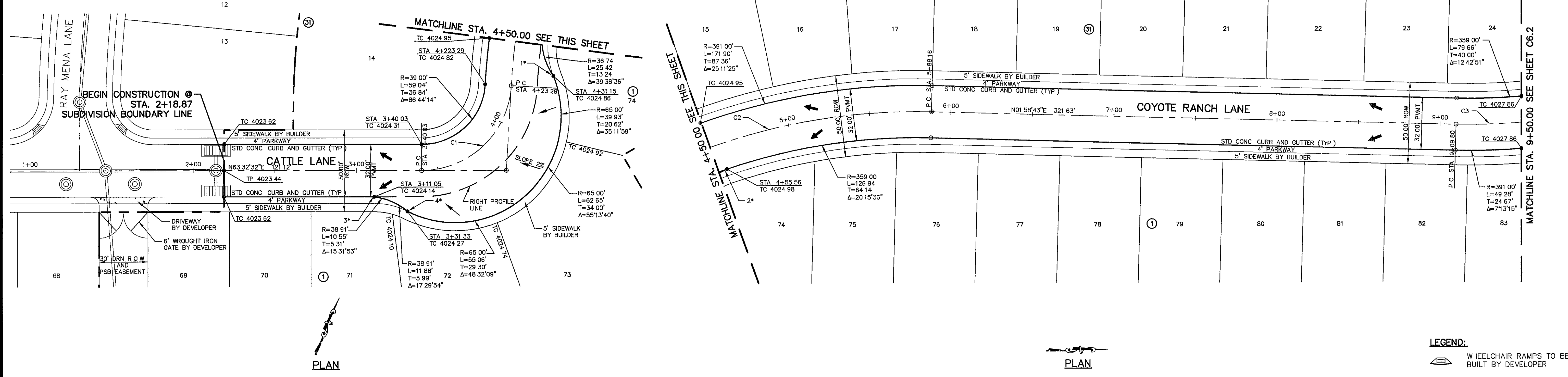
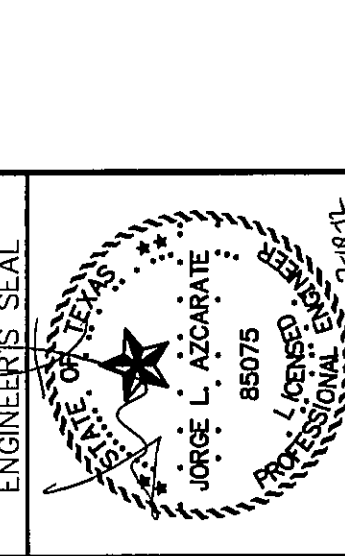
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MC SURVEILLANCE	(800) MCH-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U S SPRINT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

**WARNING !
BEFORE YOU DIG**

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

REFERENCES - BENCHMARKS	REVISIONS
FOUND TPOOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN	DATE
	BY

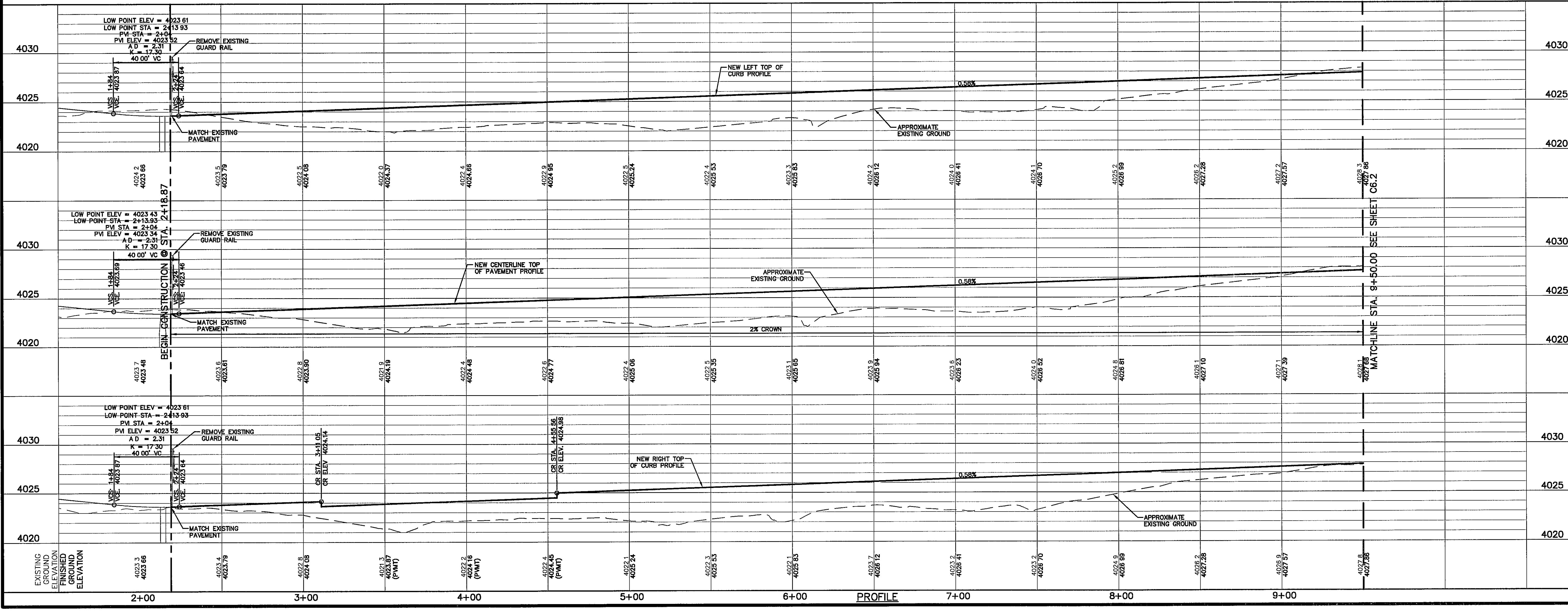
CSA
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4584
4712 Woodrow Wilson, Ste F El Paso, TX 79924
Office 915 544 6232 Fax 915 544 5933 www.csaengr.com



PLAN

PLAN

LEGEND:
WHEELCHAIR RAMPS TO BE BUILT BY DEVELOPER



SCALE	Vertical	Horizontal
Vertical	1" = 10'	1" = 40'
Horizontal	1" = 40'	1" = 40'
Contour	Interval	N/A
DATE	MAY 2012	
DESIGN BY	JR	
DRAWN BY	JLA	
CHKD BY	JLA	
APPRD BY	JLA	
JOB No.	2000-128-1D	

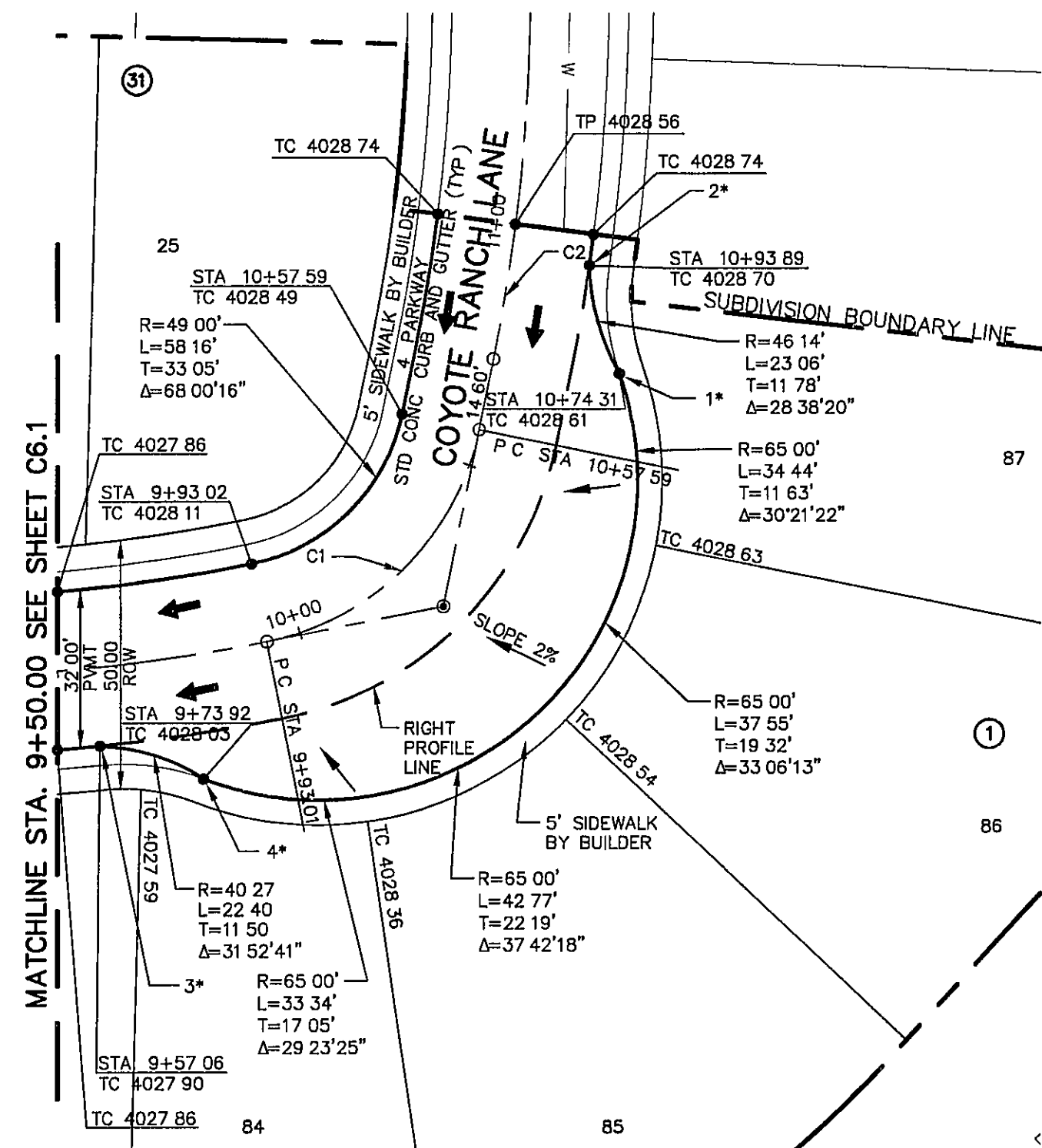
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

COYOTE RANCH LN.
PLAN & PROFILE
FROM STA. 2+18.87
TO STA. 9+50.00

SHEET NO

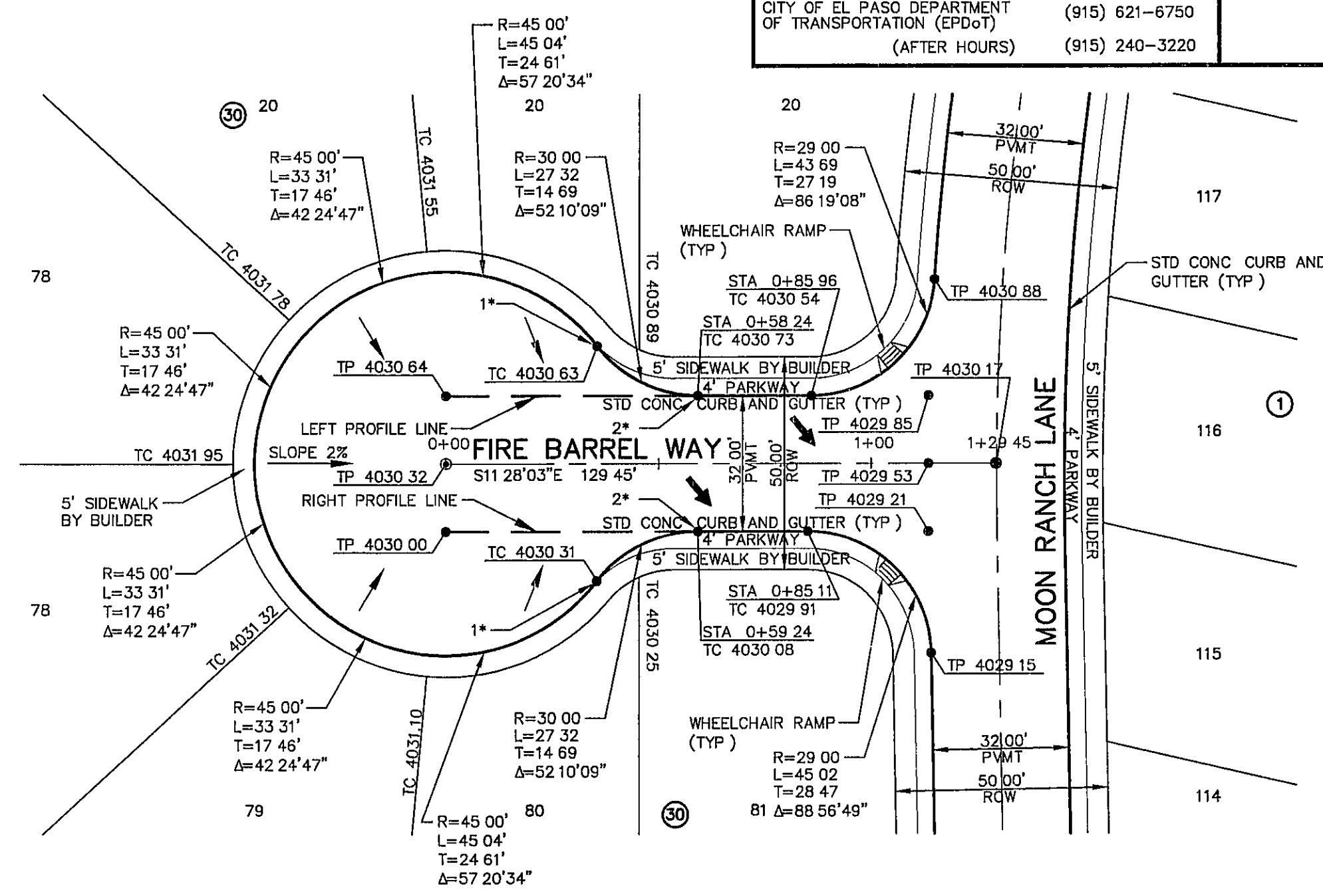
C6.1



- 1* BEGIN TRANSITION FROM 4" ROLLED CURB & GUTTER TO 6" STD CURB & GUTTER
- 2* END TRANSITION FROM 4" ROLLED CURB & GUTTER TO 6" STD CURB & GUTTER
- 3* BEGIN TRANSITION FROM 6" STD CURB & GUTTER TO 4" ROLLED CURB & GUTTER
- 4* END TRANSITION FROM 6" STD CURB & GUTTER TO 4" ROLLED CURB & GUTTER

CURVE	RADIUS	LENGTH	TANGENT	DELTA
C1	55.00'	64.58'	36.60'	67.16°40"
C2	375.00'	27.18'	13.60'	04.09°12"

PLAN



PLAN

LEGEND:
 WHEELCHAIR RAMPS TO BE BUILT BY DEVELOPER

UTILITY LOCATOR SERVICES

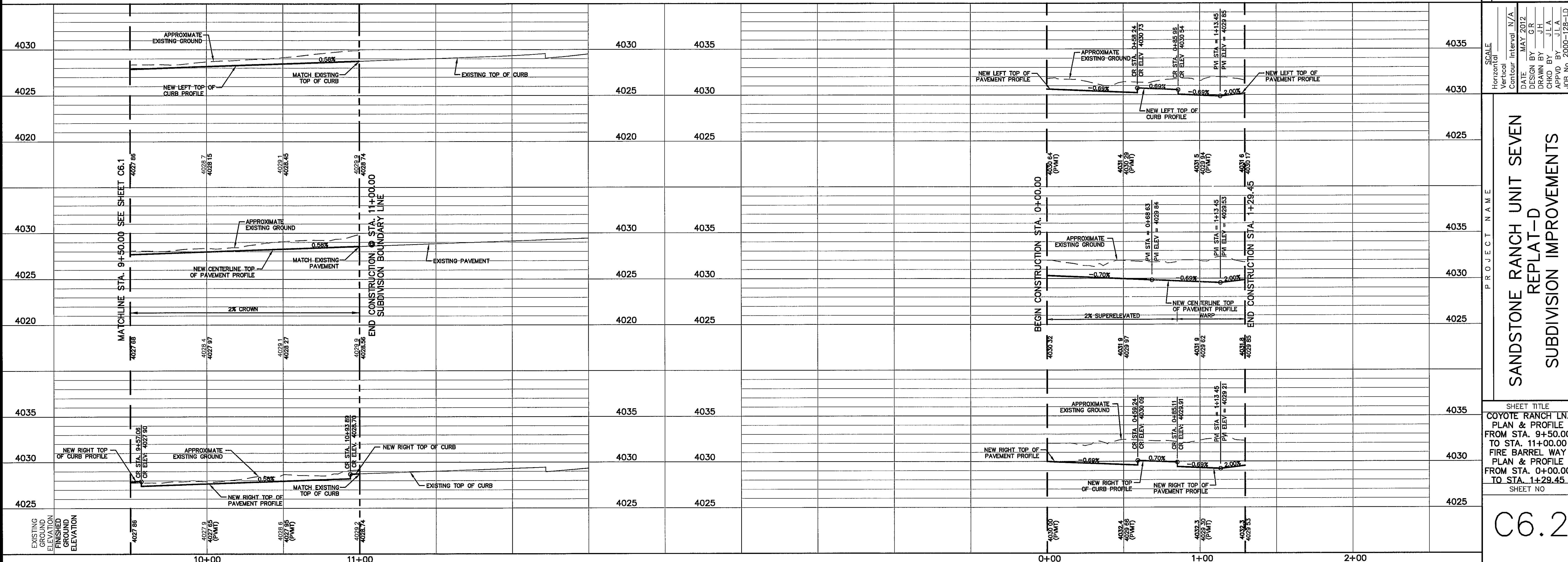
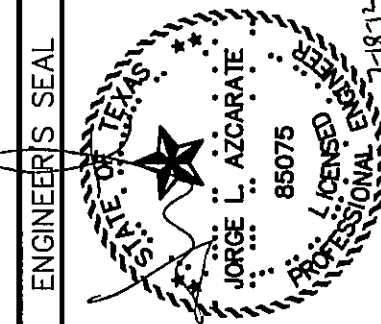
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U S SPRINT TELECOMM	(800) 521-0579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

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

REFERENCES - BENCHMARKS

FOUND TYPICAL BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN	BY
DATE	REVISIONS

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 TEXAS REGISTERED ENGINEERING FIRM F-4584
 4712 Woodrow Bean, Ste F, El Paso, TX 79924
 Office 915.544.5232 Fax 915.544.5233 www.osaengr.com



SCALE

Horizontal	Vertical
Contour Interval	N/A
DATE	MAY 2012
DESIGN BY	G.R.
DRAWN BY	J.L.A.
APP'D BY	J.L.A.
JOB No.	2000-128-1D

PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
 REPLAT-D
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**COYOTE RANCH LN.
 PLAN & PROFILE
 FROM STA. 9+50.00
 TO STA. 11+00.00
 FIRE BARREL WAY
 PLAN & PROFILE
 FROM STA. 0+00.00
 TO STA. 1+29.45**

SHEET NO
C6.2

CURVE	RADIUS	LENGTH (TANGENT)	DELTA	
C1	500.00'	292.76'	150.71'	33.32°53"
C2	1205.60'	88.48'	44.26'	04.12°17"
C3	65.00'	77.15'	43.84'	68.00°06"
C4	1081.88'	285.52'	143.59'	15.07°16"

- BEGIN TRANSITION FROM 4" ROLLED CURB & GUTTER TO 6" STD CURB & GUTTER
- END TRANSITION FROM 4" ROLLED CURB & GUTTER TO 6" STD CURB & GUTTER
- BEGIN TRANSITION FROM 6" STD CURB & GUTTER TO 4" ROLLED CURB & GUTTER
- END TRANSITION FROM 6" STD CURB & GUTTER TO 4" ROLLED CURB & GUTTER

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
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING!
BEFORE YOU DIG

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

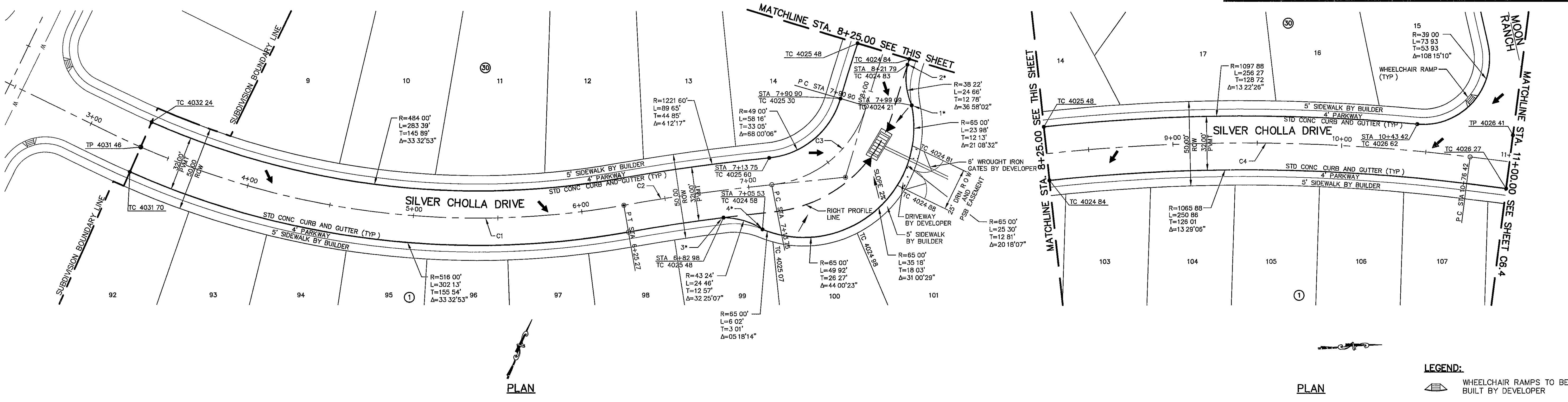
FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
FOUND TPOOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 EUBTRACT 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN

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4712 Woodrow Wilson, Ste F El Paso, TX 79924
Office: 915.544.6222 Fax: 915.544.5203 www.csaeng.com

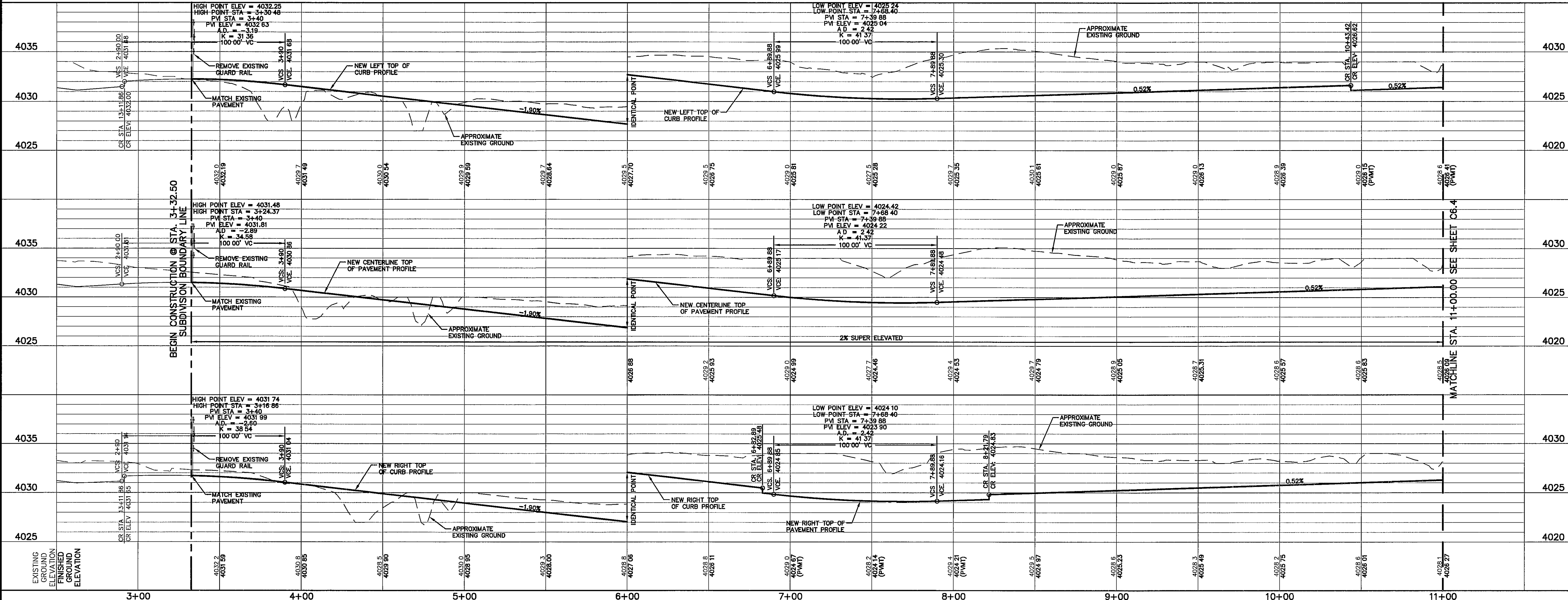
ENGINEER'S SEAL
JAMES L. ZIMMERMAN
Professional Engineer
No. 88076
Exp. 12/31/14



PLAN

PLAN

LEGEND:
WHEELCHAIR RAMPS TO BE BUILT BY DEVELOPER



SCALE	Horizontal	Vertical
	Contour Interval	N/A
	DATE	MAY 2012
	DESIGN BY	J.L.A.
	CHECKED BY	J.L.A.
	APPROVED BY	J.L.A.
	JOB No.	2000-125-1D

PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**SILVER CHOLLA
PLAN & PROFILE
FROM STA. 3+25.00
TO STA. 11+00.00**

SHEET NO
C6.3

1* BEGIN TRANSITION FROM 6" STD CURB & GUTTER TO 4" ROLLED CURB & GUTTER
 2* END TRANSITION FROM 6" STD CURB & GUTTER TO 4" ROLLED CURB & GUTTER

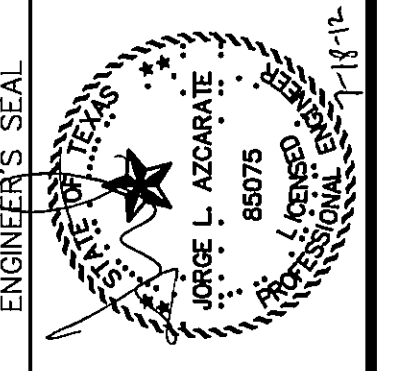
CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
C1	686.31'	173.66'	87.30'	14.28°53"

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 486-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U S SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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

REFERENCES - BENCHMARKS	DATE	REVISIONS	BY
FOUND TPOOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN			

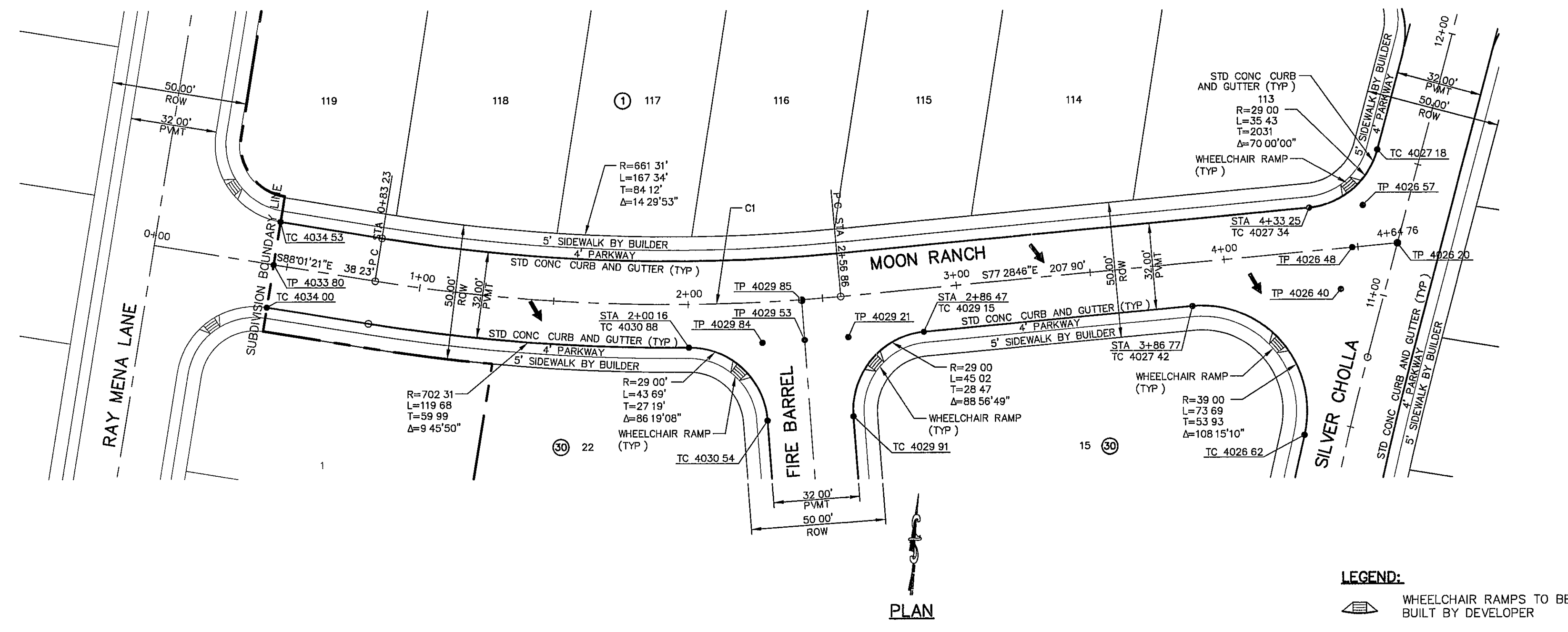
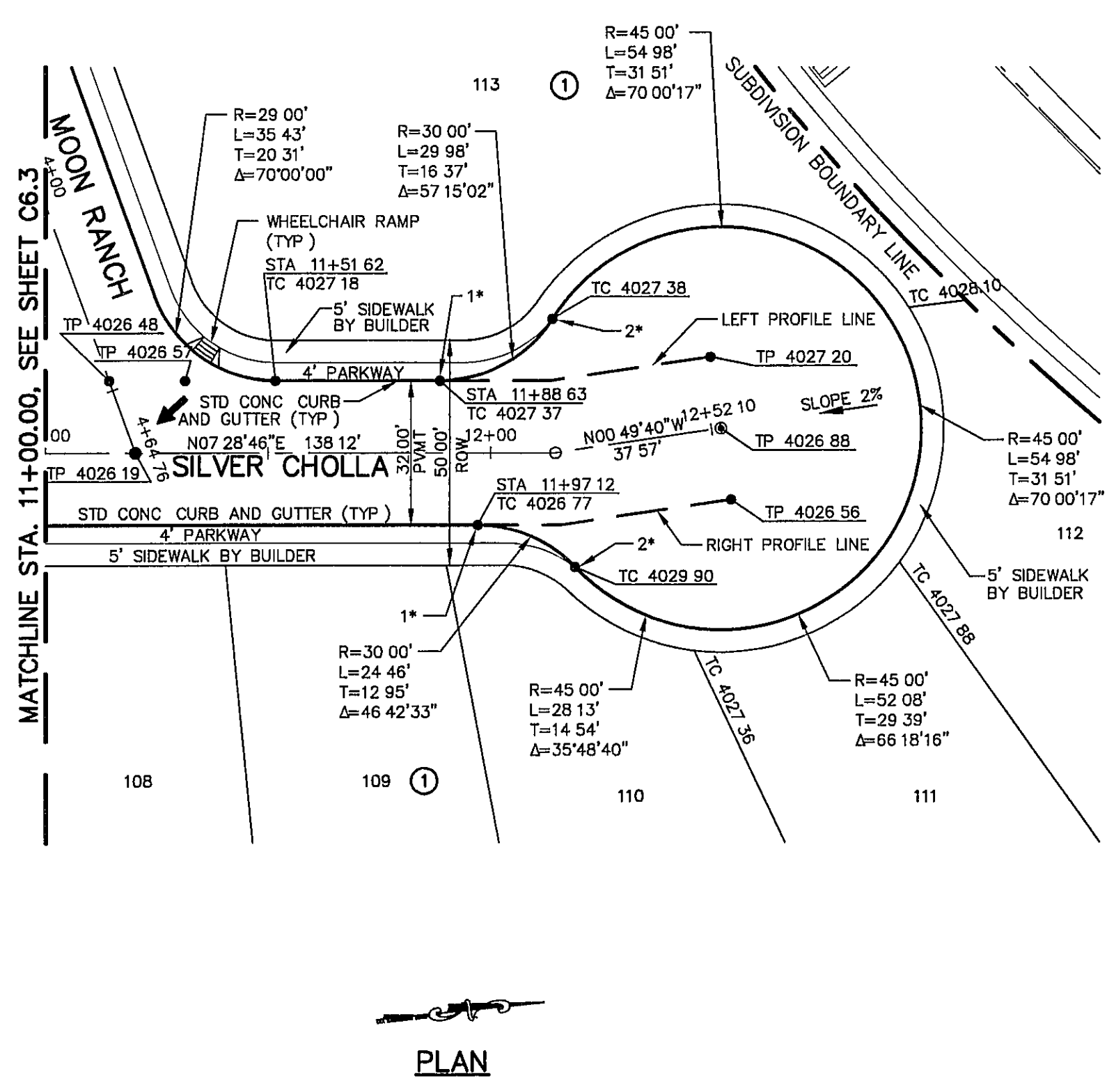
CS&P
 engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM #4684
 4712 Woodrow Bean, Ste. F El Paso, TX 79924
 Office: 915.544.9232 Fax: 915.544.5233 www.csandp.net



SCALE	PROJECT NAME
Vertical Interval: N/A Horizontal Contour Interval: 2.0'	SANDSTONE RANCH UNIT SEVEN REPLAT-D SUBDIVISION IMPROVEMENTS

SANDSTONE RANCH UNIT SEVEN REPLAT-D SUBDIVISION IMPROVEMENTS
 SHEET TITLE
 SILVER CHOLLA PLAN & PROFILE FROM STA. 11+00.00 TO STA. 12+52.10
 MOON RANCH PLAN & PROFILE FROM STA. 0+45.00 TO STA. 4+64.76
 SHEET NO

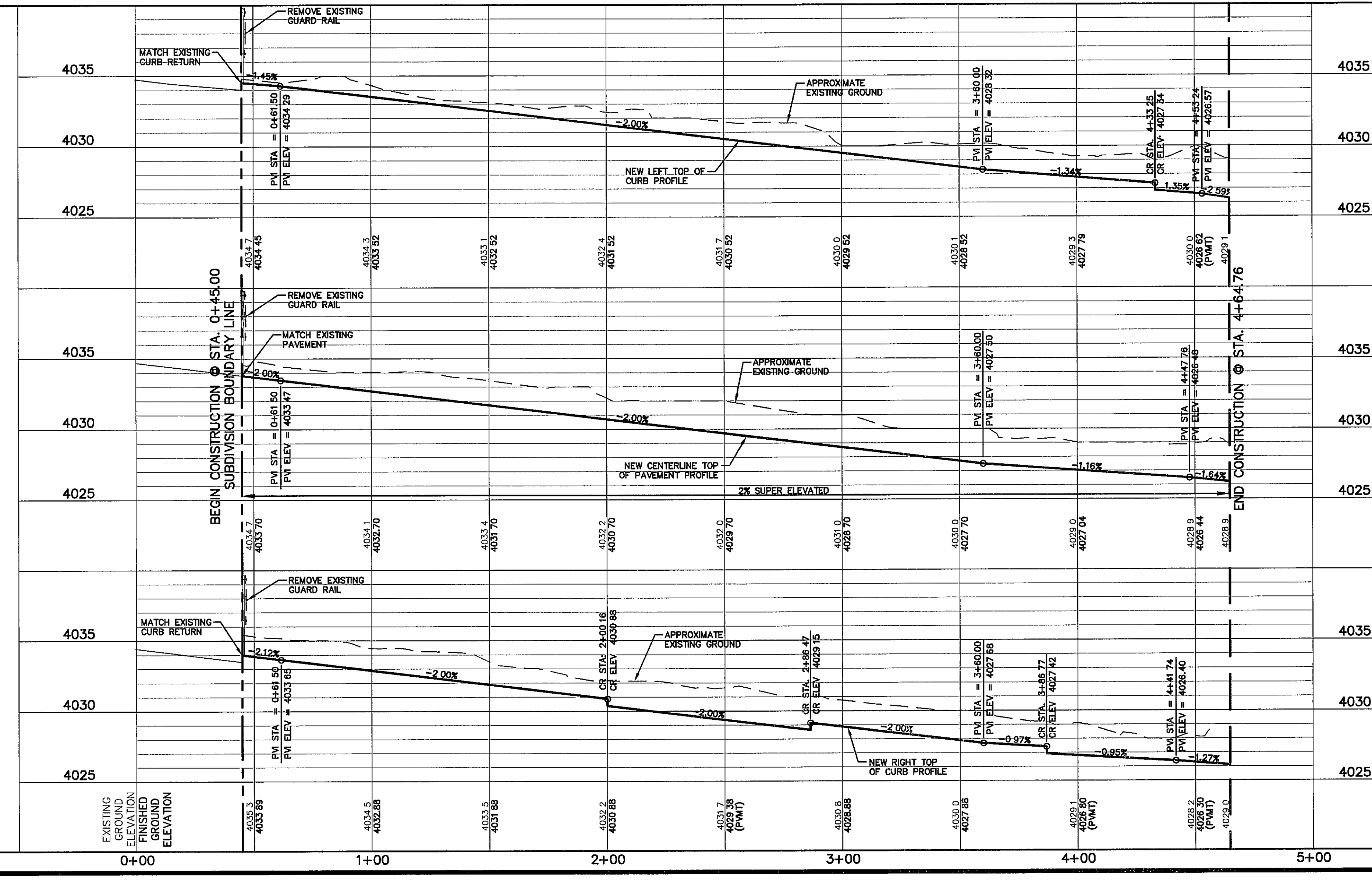
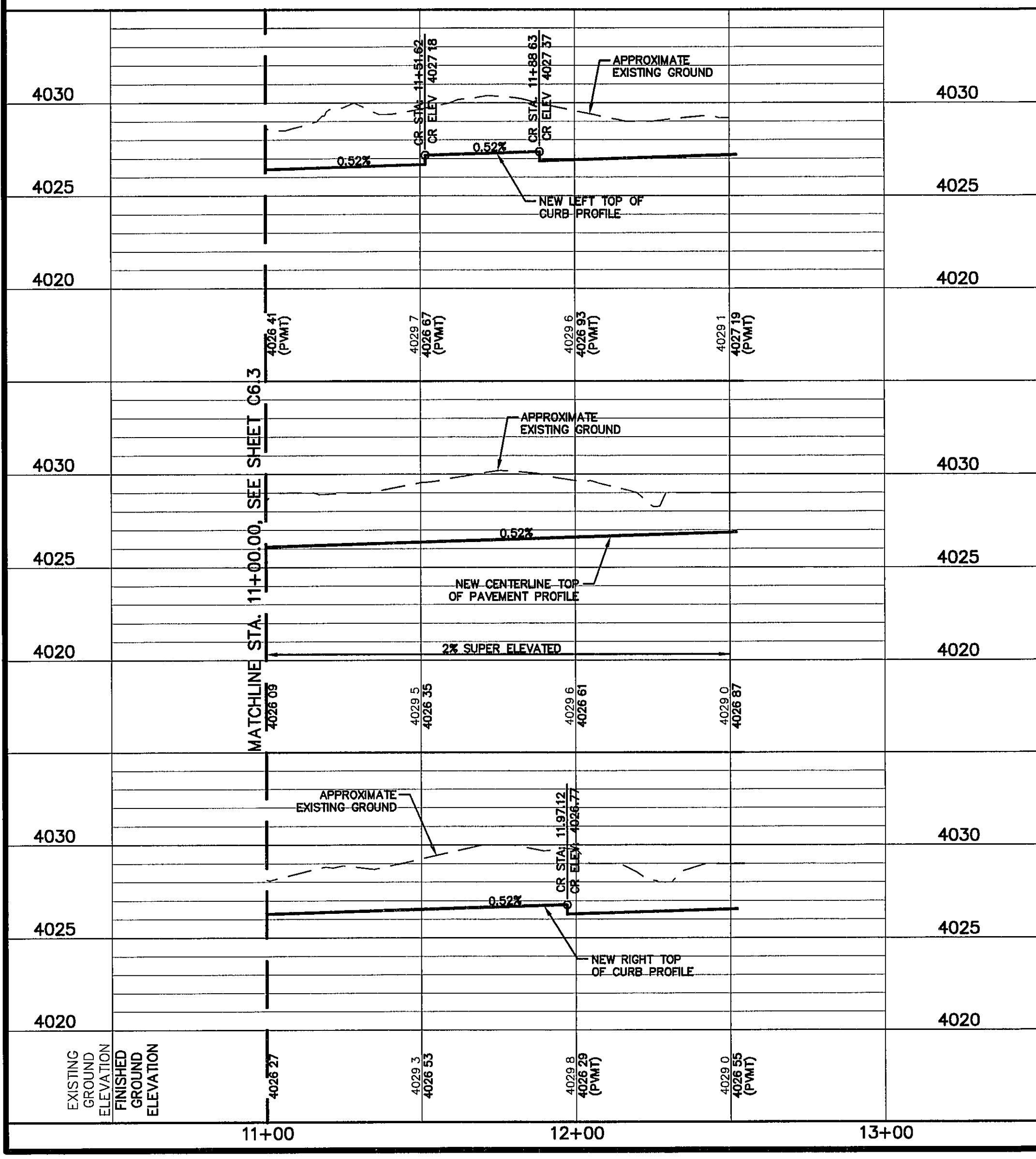
C6.4



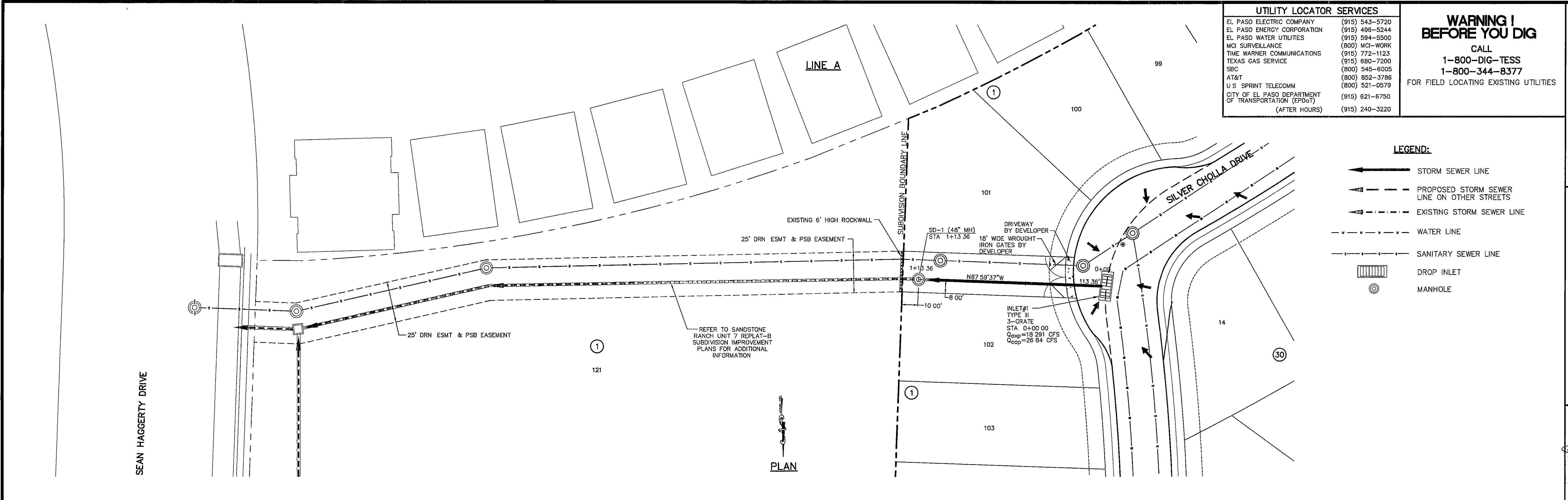
PLAN

PLAN

LEGEND:
 WHEELCHAIR RAMPS TO BE BUILT BY DEVELOPER



11+00 12+00 13+00 0+00 1+00 2+00 3+00 4+00 5+00



REFERENCES - BENCHMARKS

FOUND TWOOD BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN

DATE _____ BY _____

REVISIONS

DATE _____ BY _____

CE&A

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TEXAS REGISTERED ENGINEERING FIRM F-4584

4712 Woodrow Blank, Ste F El Paso, TX 79924

Office 915 544 5322 Fax 915 544 5233 www.ceagroup.net

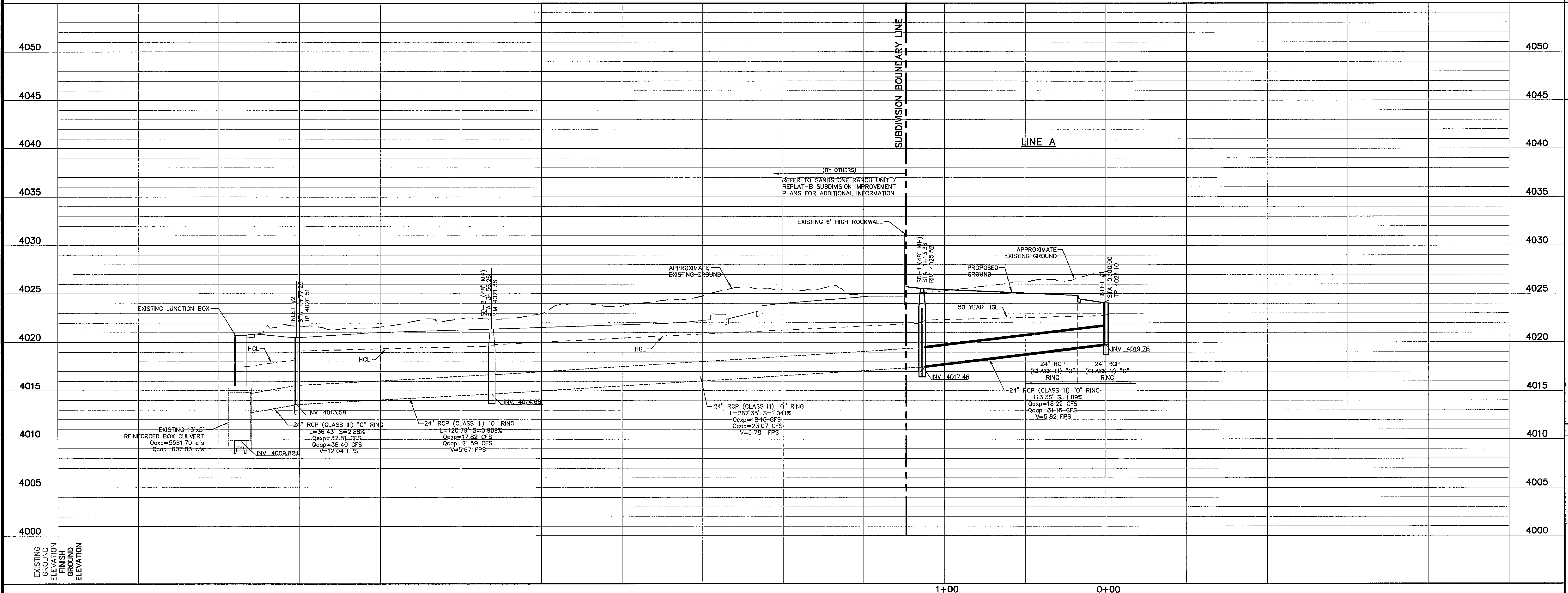
ENGINEER'S SEAL

CE&A

JORGE L. AZCARATE

REGISTERED PROFESSIONAL ENGINEER

EXPIRES 12/31/14



SCALE

Horizontal N/A

Vertical Contour Interval N/A

DATE MAY 2012

DESIGN BY C.R.

DRAWN BY J.H.

CHECKED BY J.L.A.

APPROVED BY J.L.A.

JOB No. 2000-128-LD

PROJECT NAME

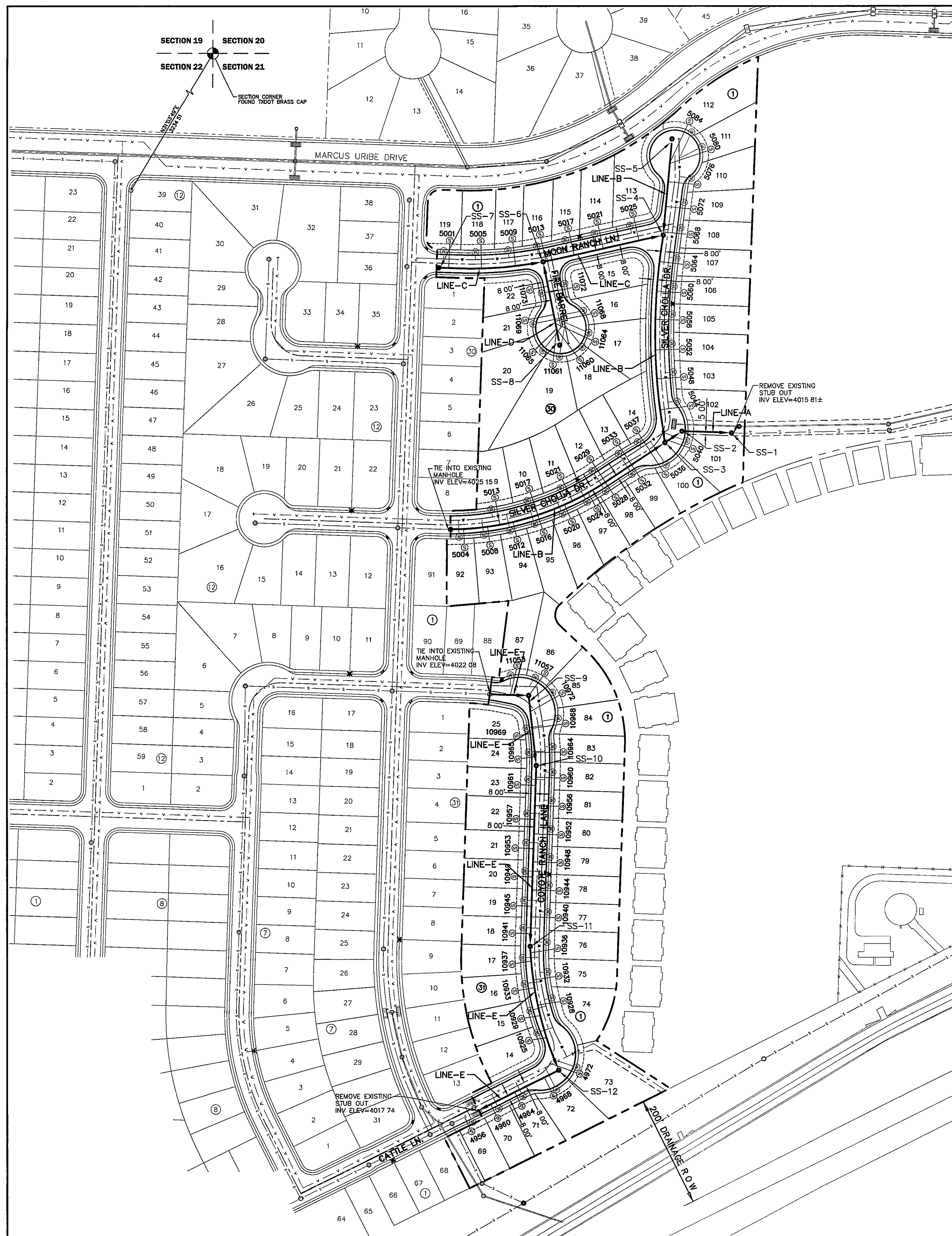
SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS

SHEET TITLE

STORM DRAIN
PLAN & PROFILE
LINE A
FROM STA. 0+00.00
TO STA. 1+13.79

SHEET NO

C7.1



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

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

EL PASO STREETS:
 CITY OF EL PASO
 DEPARTMENT OF TRANSPORTATION
 7969 SAN PAULINO DRIVE
 EL PASO, TX 79907
 (915) 621-6780
 MR DARYL W COLE

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

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

FIBER OPTICS:
 AT&T
 P O BOX 1650
 EL PASO, TX 79949
 (800) 542-3786
 MS DARLENE NORIS

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

WATER & SEWER:
 TEXAS GAS SERVICE
 EL PASO WATER UTILITIES
 1154 HAWKINS BOULEVARD
 EL PASO, TX 79961
 (915) 594-5530
 MR FELIPE LOPEZ, JR, P E

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

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

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

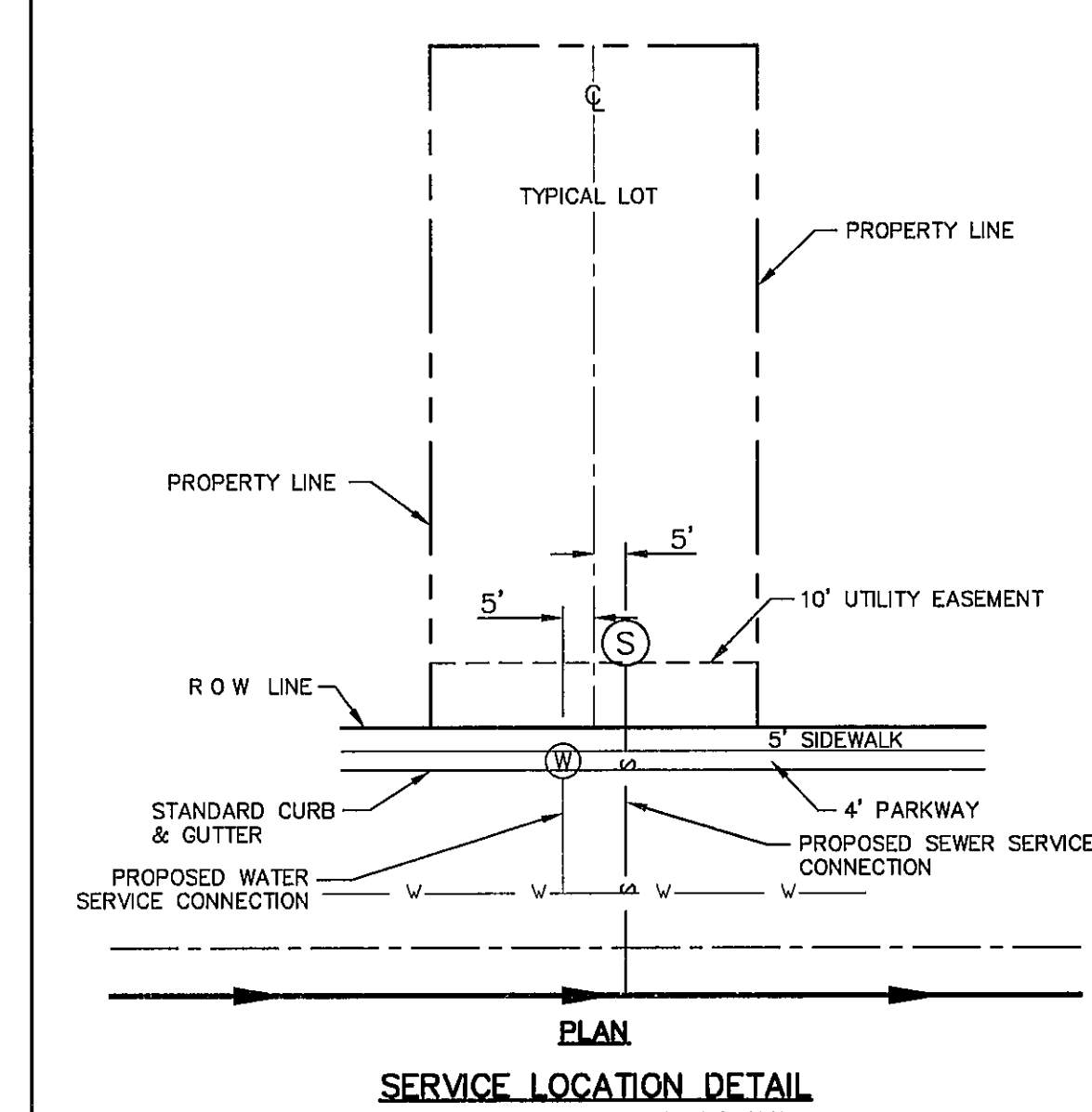
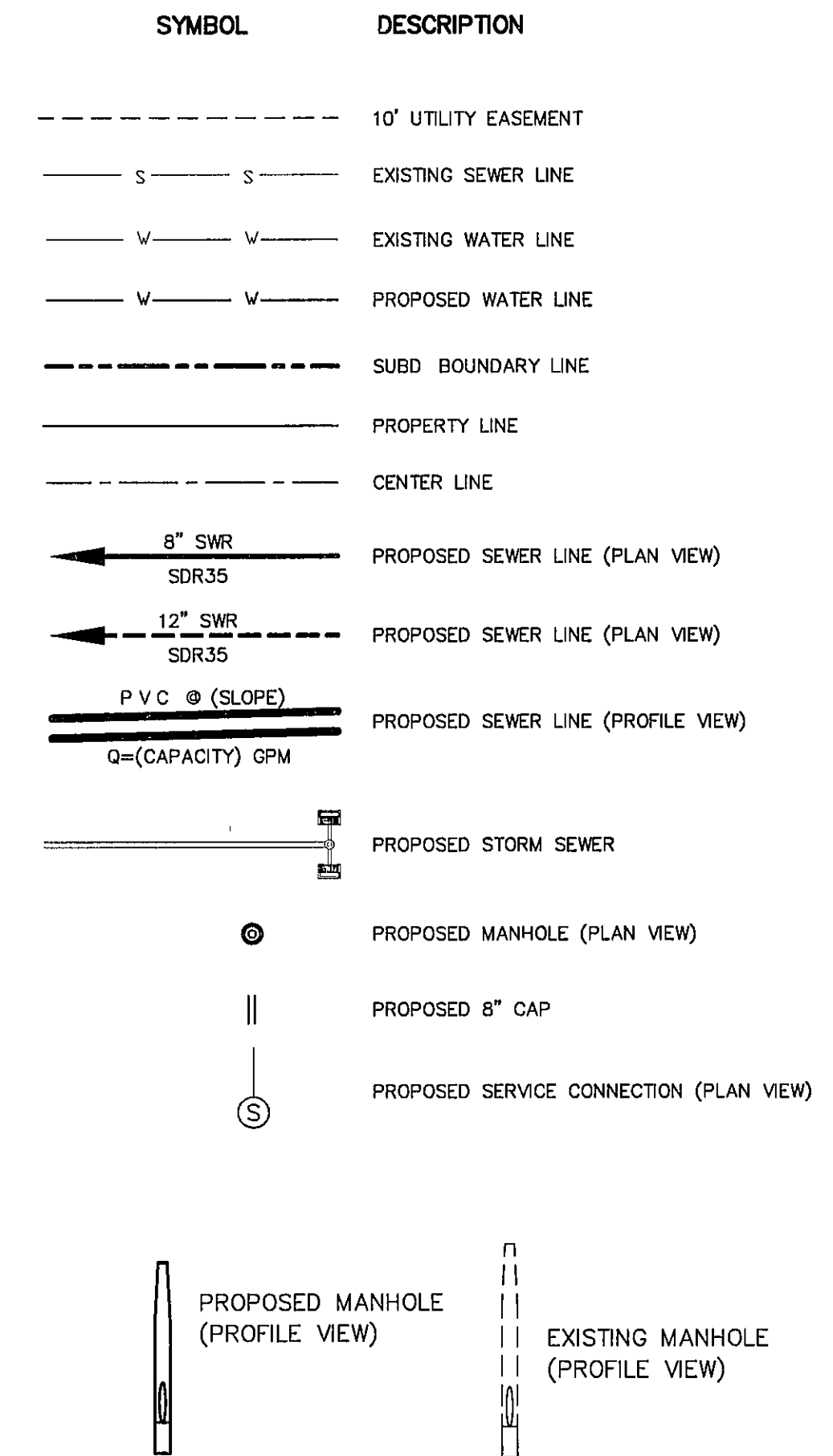
RESIDENTIAL GAS LINES:
 TEXAS GAS SERVICE
 4700 POLLARD ST
 EL PASO, TX 79930
 (915) 680-7218
 MR JOSE DE ALBA

GENERAL NOTES

- UNLESS OTHERWISE SHOWN ON THE DRAWINGS, THE PROPOSED SEWER MAINS AND SEWER MANHOLES SHALL BE INSTALLED NO LESS THAN 10' AWAY FROM WATER LINE SEPARATION DISTANCES SHALL FOLLOW TCEQ STANDARDS (§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 THE 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 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.
- EL PASO WATER UTILITIES AND THE 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 ENGINEERS AT LEAST 48 HOURS PRIOR TO COMMENCING ANY 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 CONFORM TO EPWU STANDARD SPECIFICATIONS FOR THE INSTALLATION OF WATER MAINS, SEWER MAINS AND APPURTENANT STRUCTURES.

SANITARY SEWER QUANTITIES		
DESCRIPTION	QUANTITY	UNIT
8" PVC SDR35	2,535	LF
48" MANHOLE	12	EA

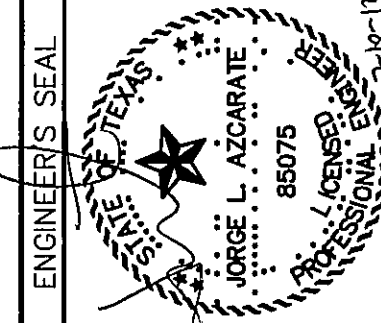
LEGEND



SANITARY INDEX MAP
 SCALE 1" = 100'

REFERENCES - BENCHMARKS
 FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NVD DATUM) (SUBTRACT B 462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN BY DATE REVISIONS

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SCALE 1" = 100'
 Horizontal Vertical Contour Interval N/A
 DATE: MAY 2012
 DESIGN BY: GJR
 DRAWN BY: JLA
 CHECKED BY: JLA
 APPROVED BY: JLA
 JOB NO. 2000-128-LD

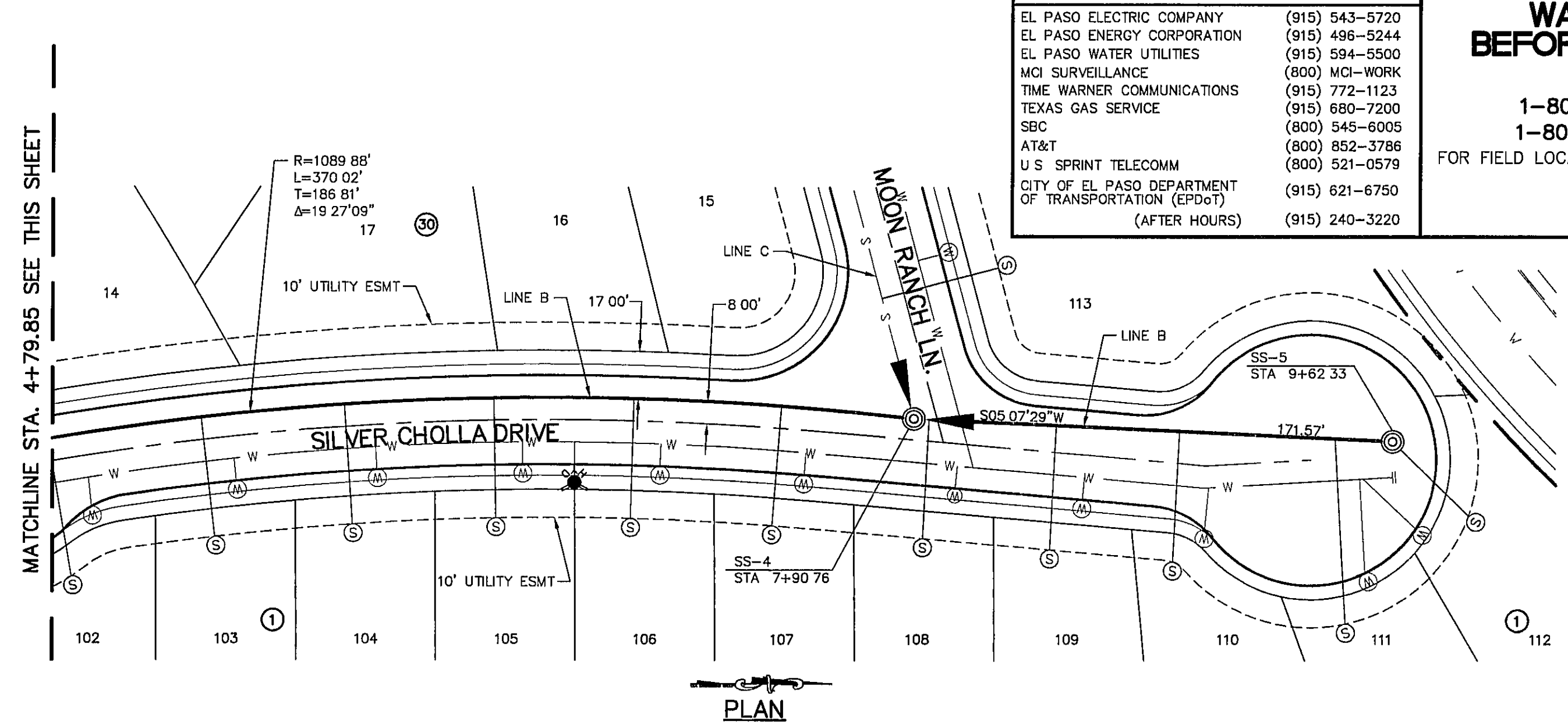
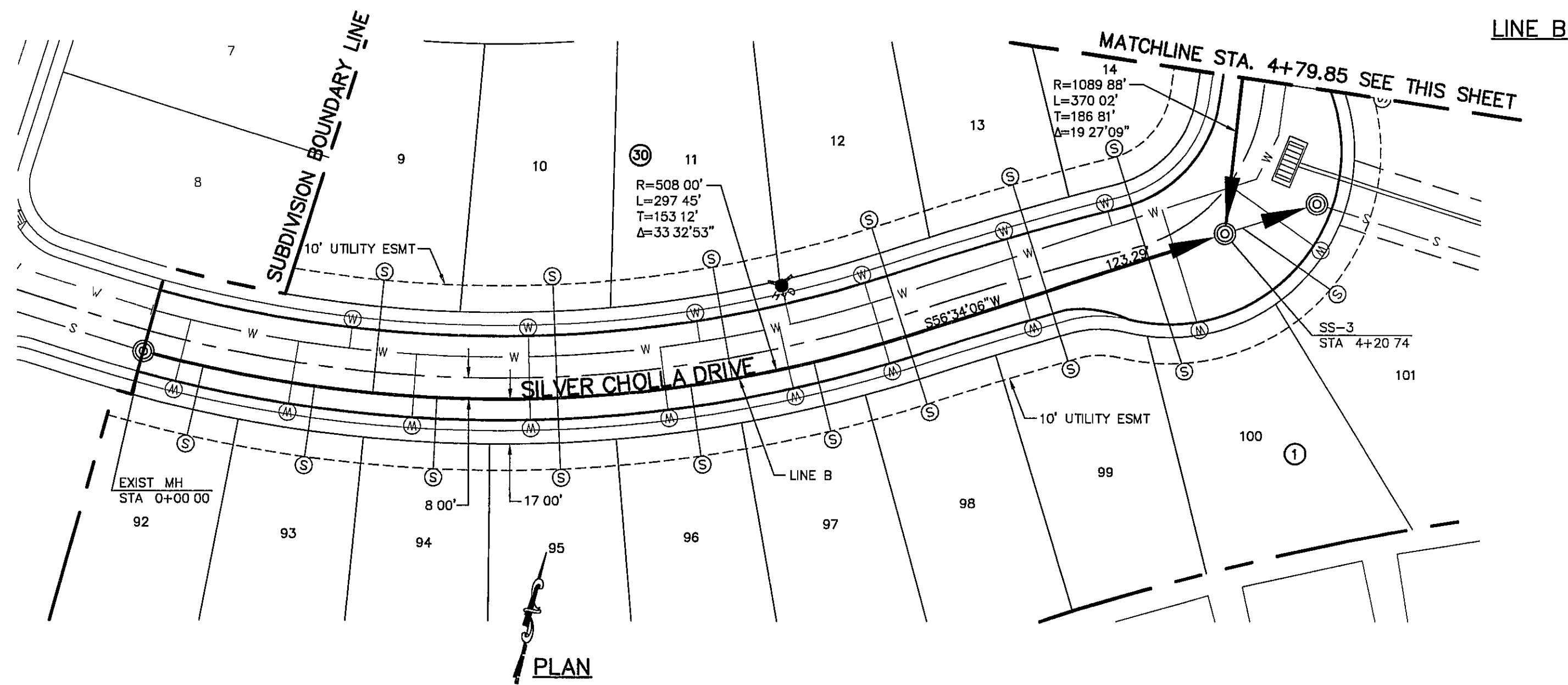
PROJECT NAME
SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS

SHEET TITLE

SANITARY SEWER INDEX

SHEET NO

C8.1



UTILITY LOCATOR SERVICES

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

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

FOR FIELD LOCATING EXISTING UTILITIES

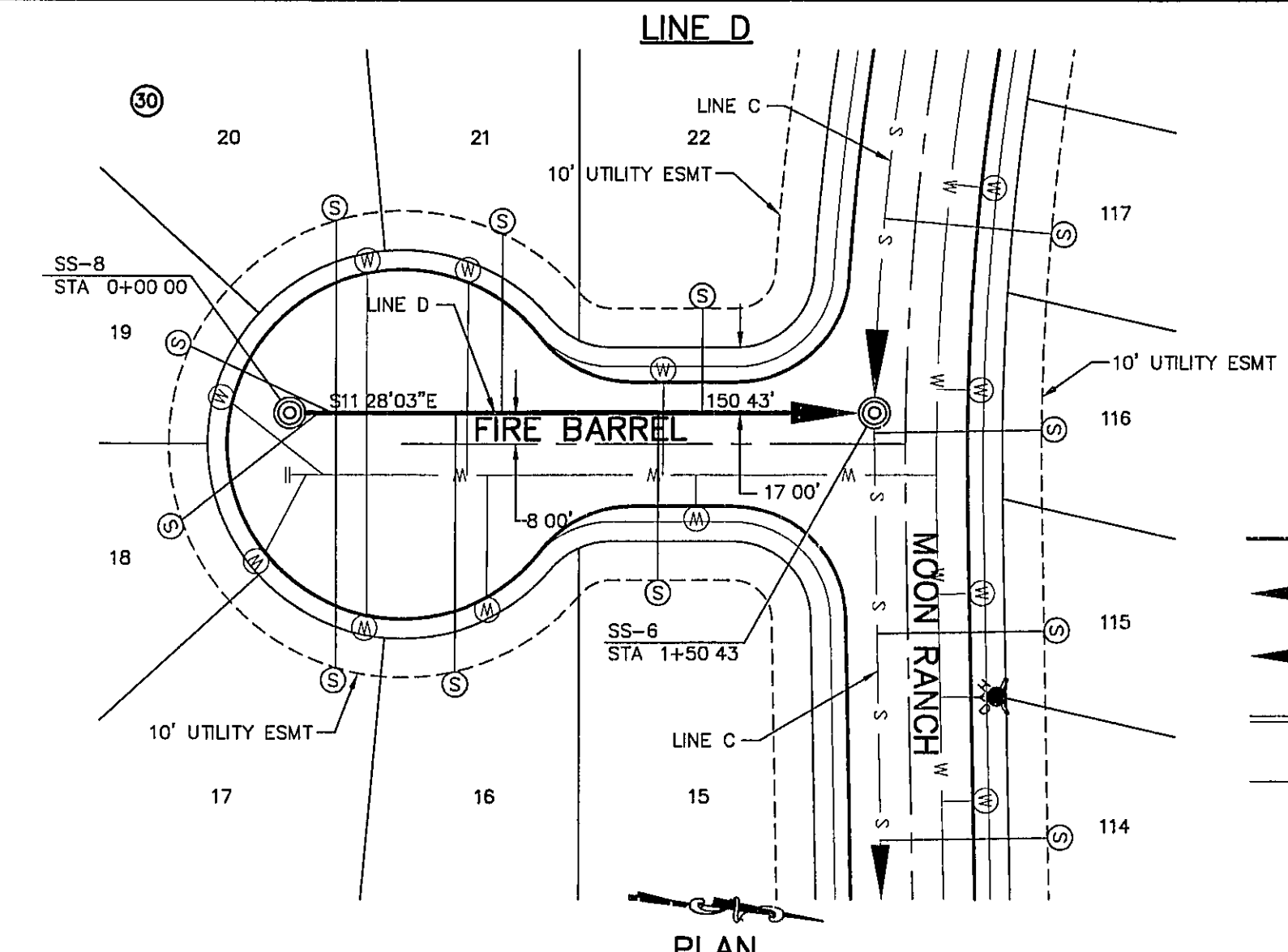
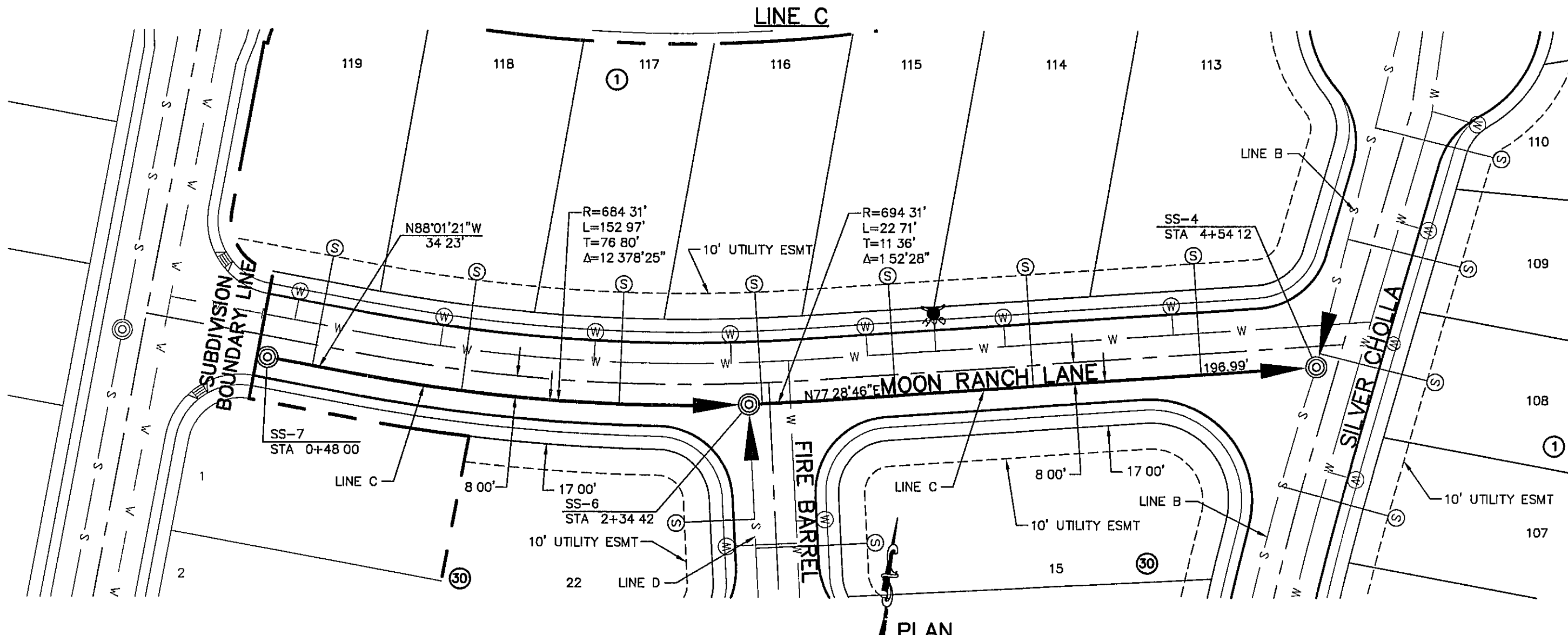
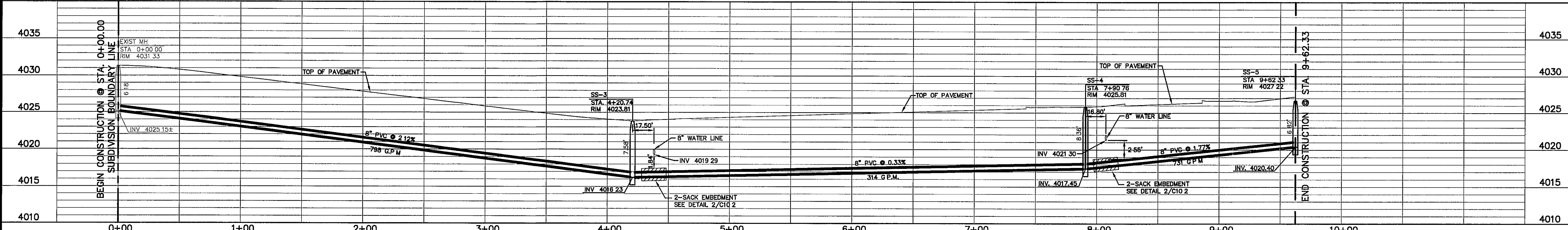
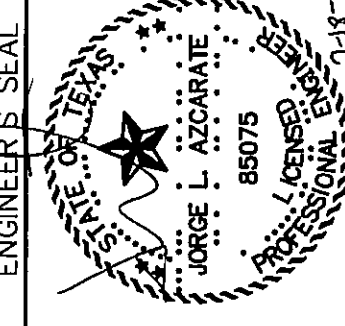
REFERENCES - BENCHMARKS

FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN

DATE	REVISIONS	BY

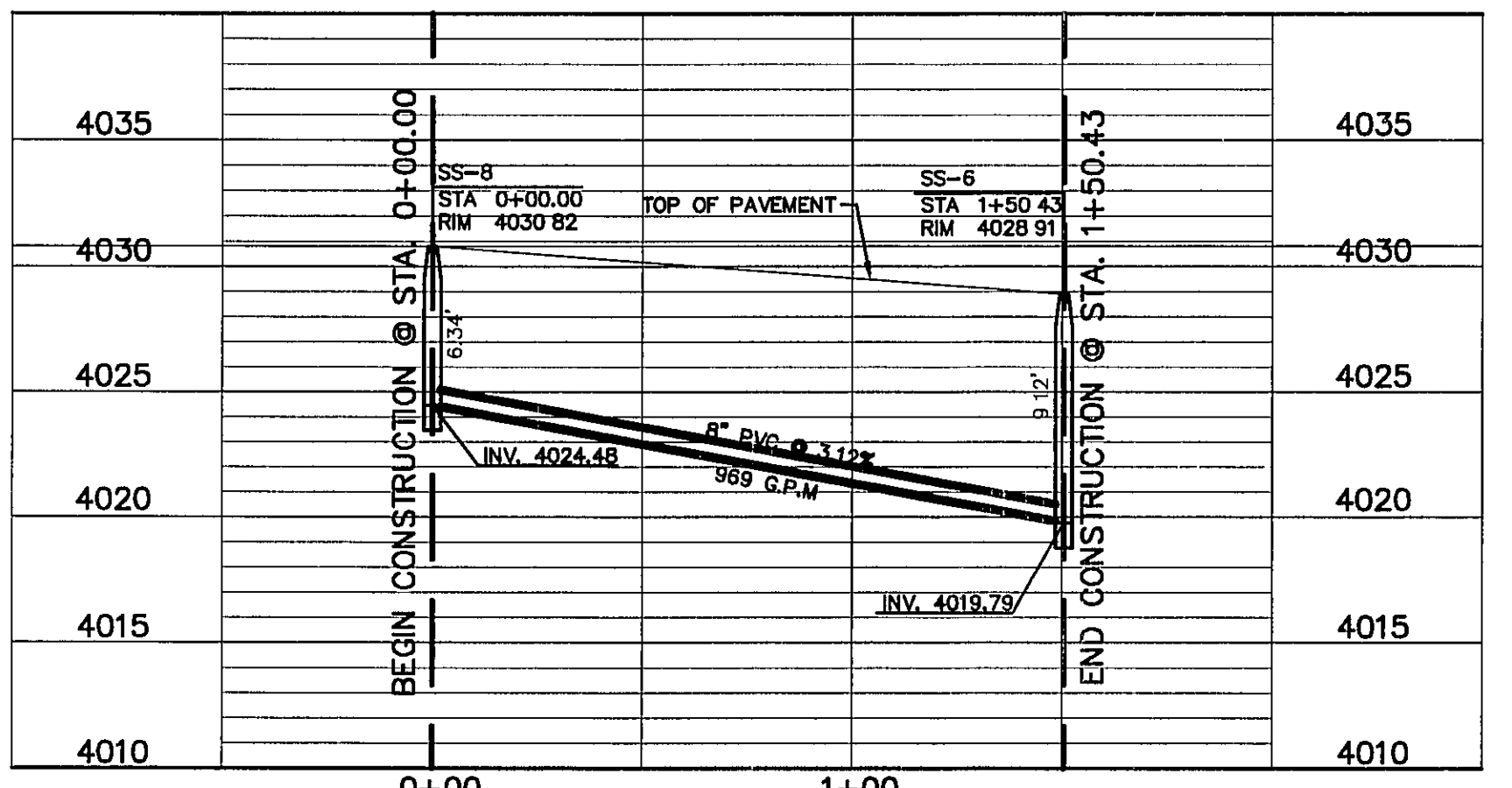
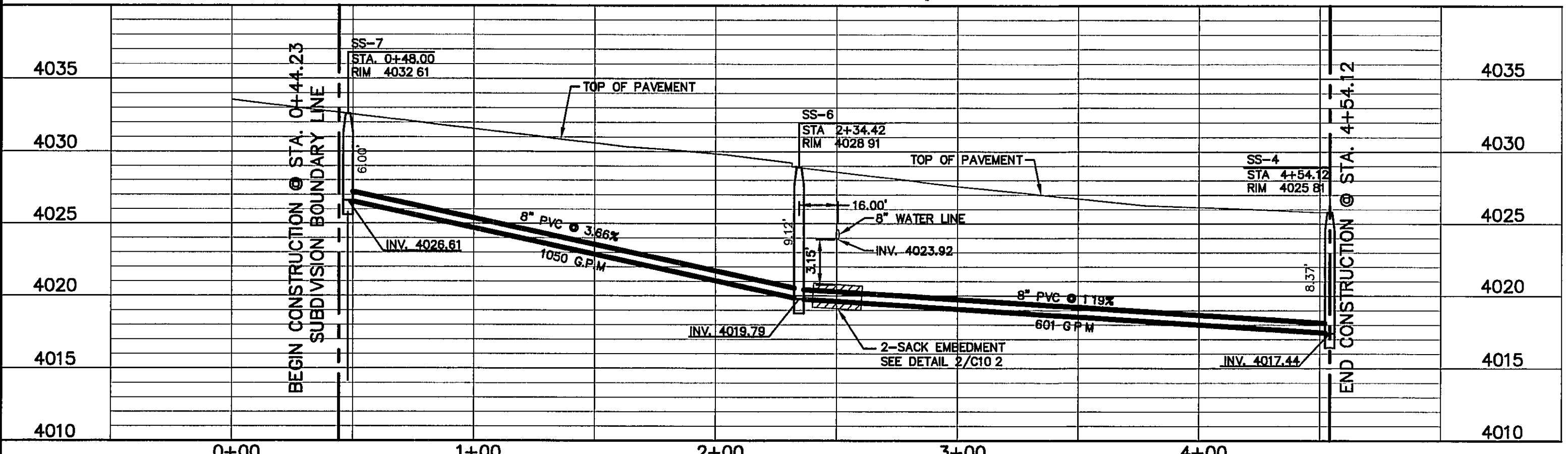
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Office 915.544.5232 Fax 915.544.5233 www.osaengineers.com



LEGEND

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



PROJECT NAME

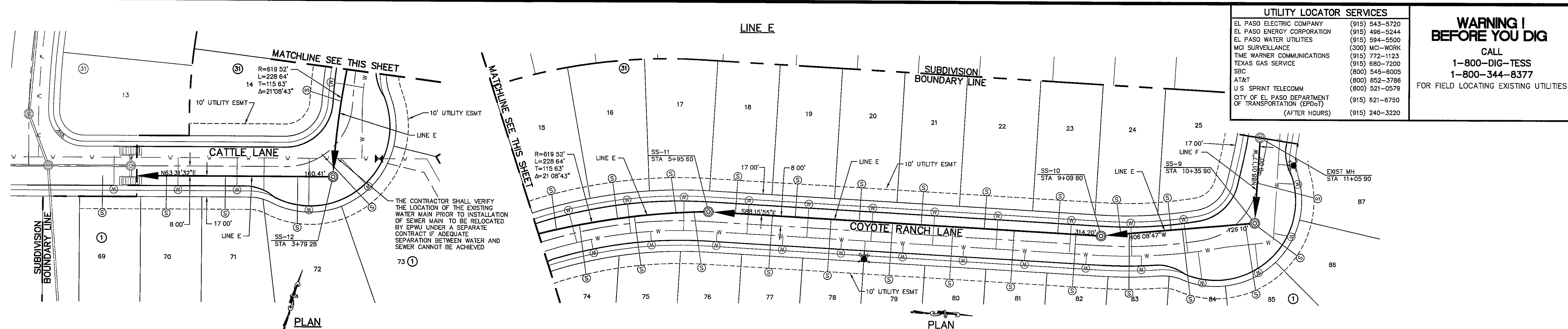
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

SANITARY SEWER
PLAN & PROFILE
LINES B, C & D

SHEET NO

C9.1



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	(300) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 650-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U S SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

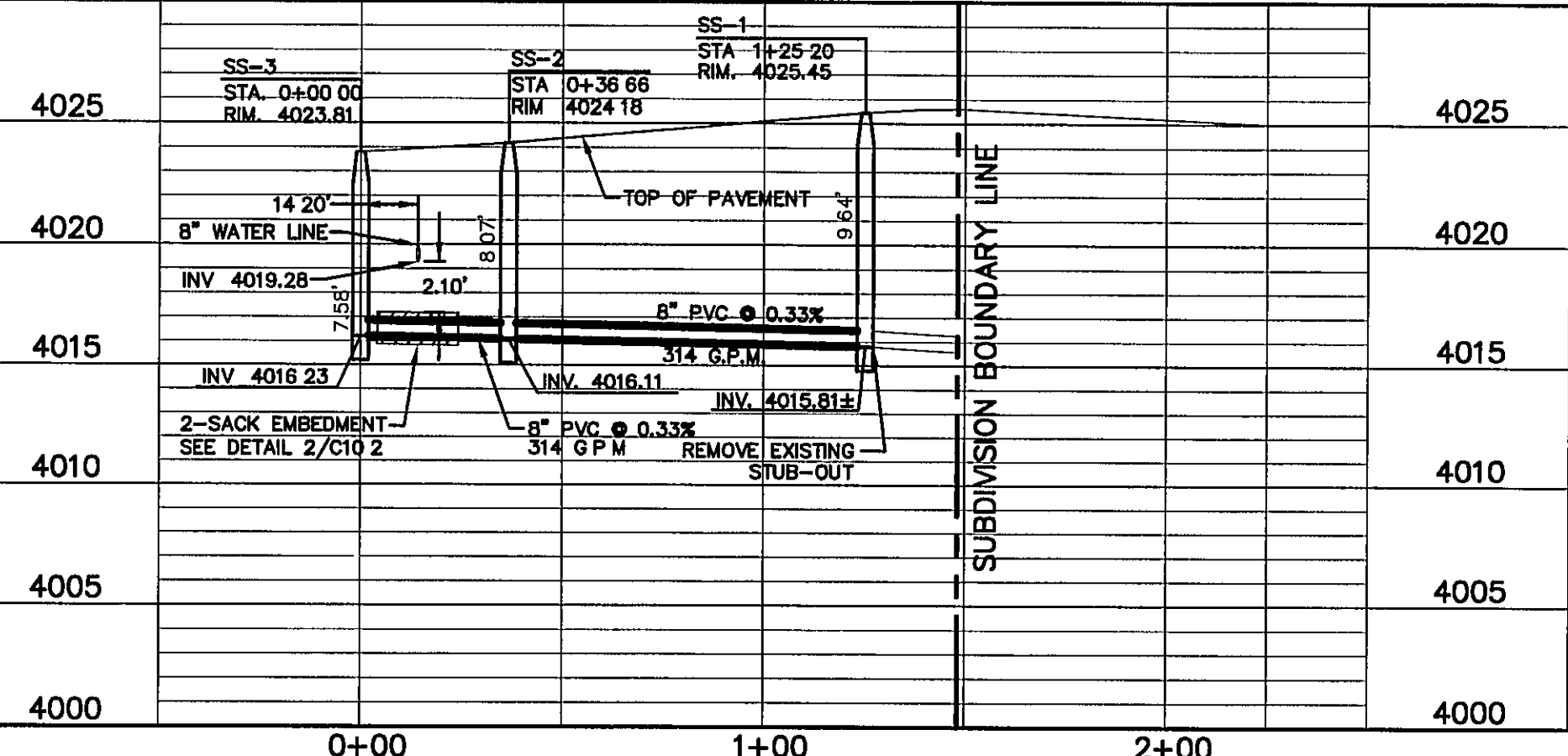
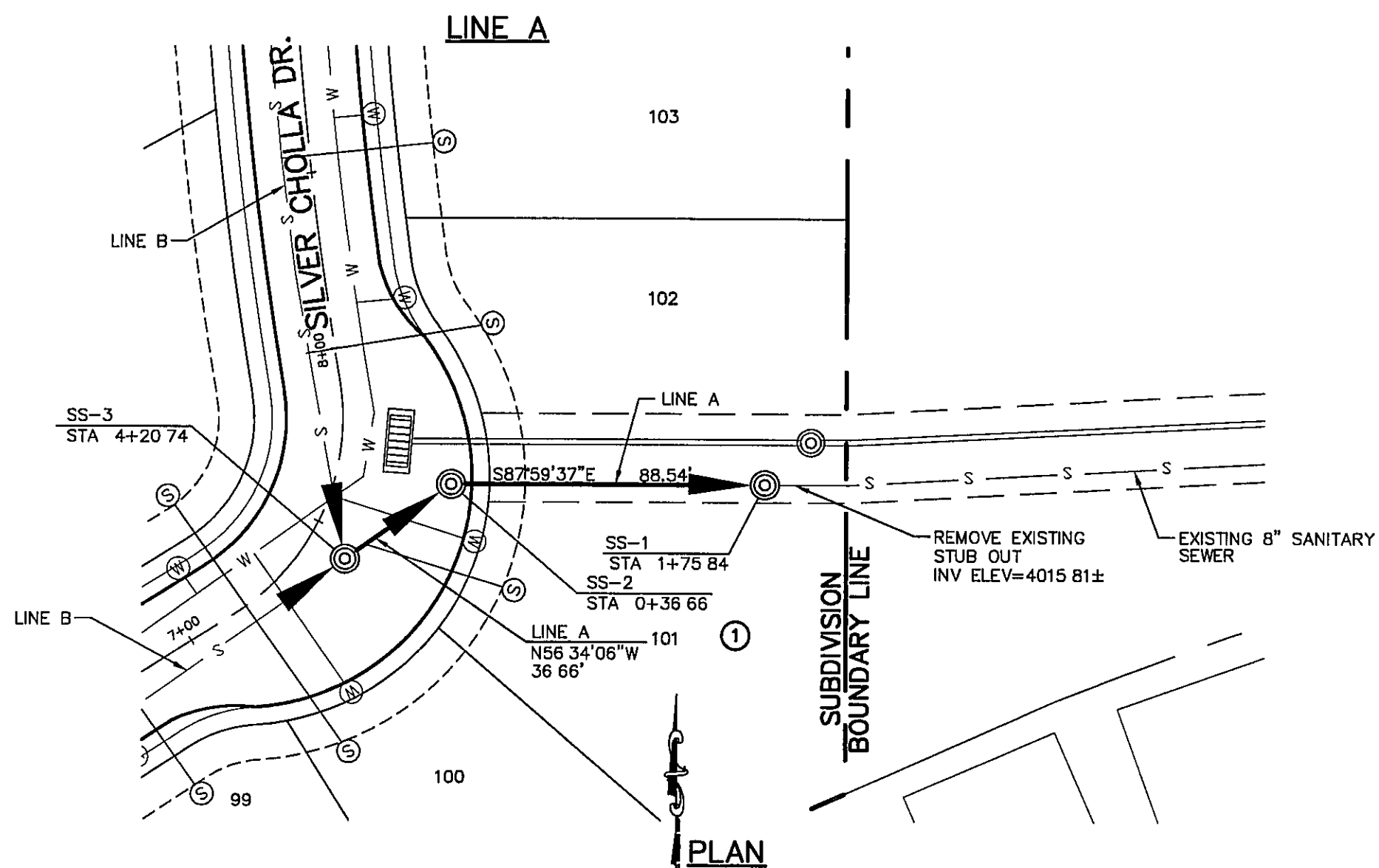
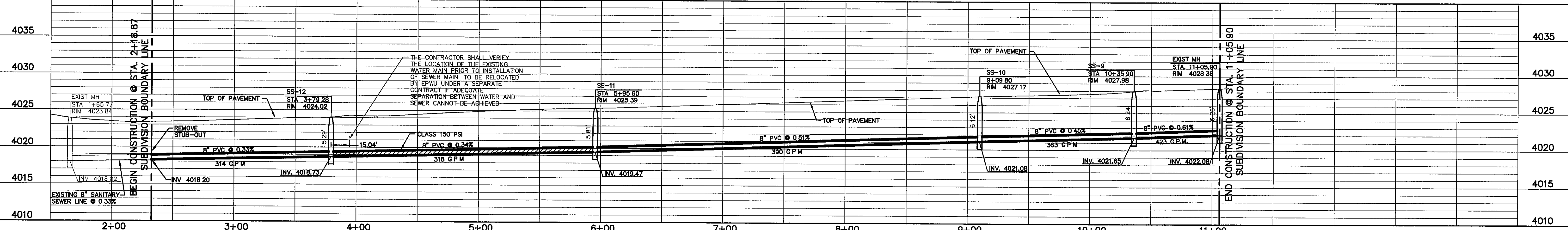
WARNING I BEFORE YOU DIG

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1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

FOUND TYDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.) CITY OF EL PASO VERTICAL DATUM SHOWN	BY
DATE	REVISIONS



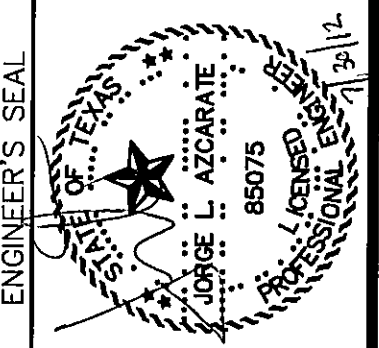
LEGEND

- S — EXISTING WASTE WATER FLOW
- S — PROPOSED WASTE WATER FLOW
- S — PROPOSED STORM SEWER LINE
- W — PROPOSED WATER LINE
- W — PROPOSED WATER SERVICE
- S — PROPOSED SEWER SERVICE

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SCALE: Horizontal 1"=40'
 Vertical 1"=5'

Contour Interval N/A

DATE: MAY 2012

DESIGN BY: GR

DRAWN BY: J.H.

CHKD BY: J.L.A.

APPVD BY: J.L.A.

JOB No. 2000-128-LD

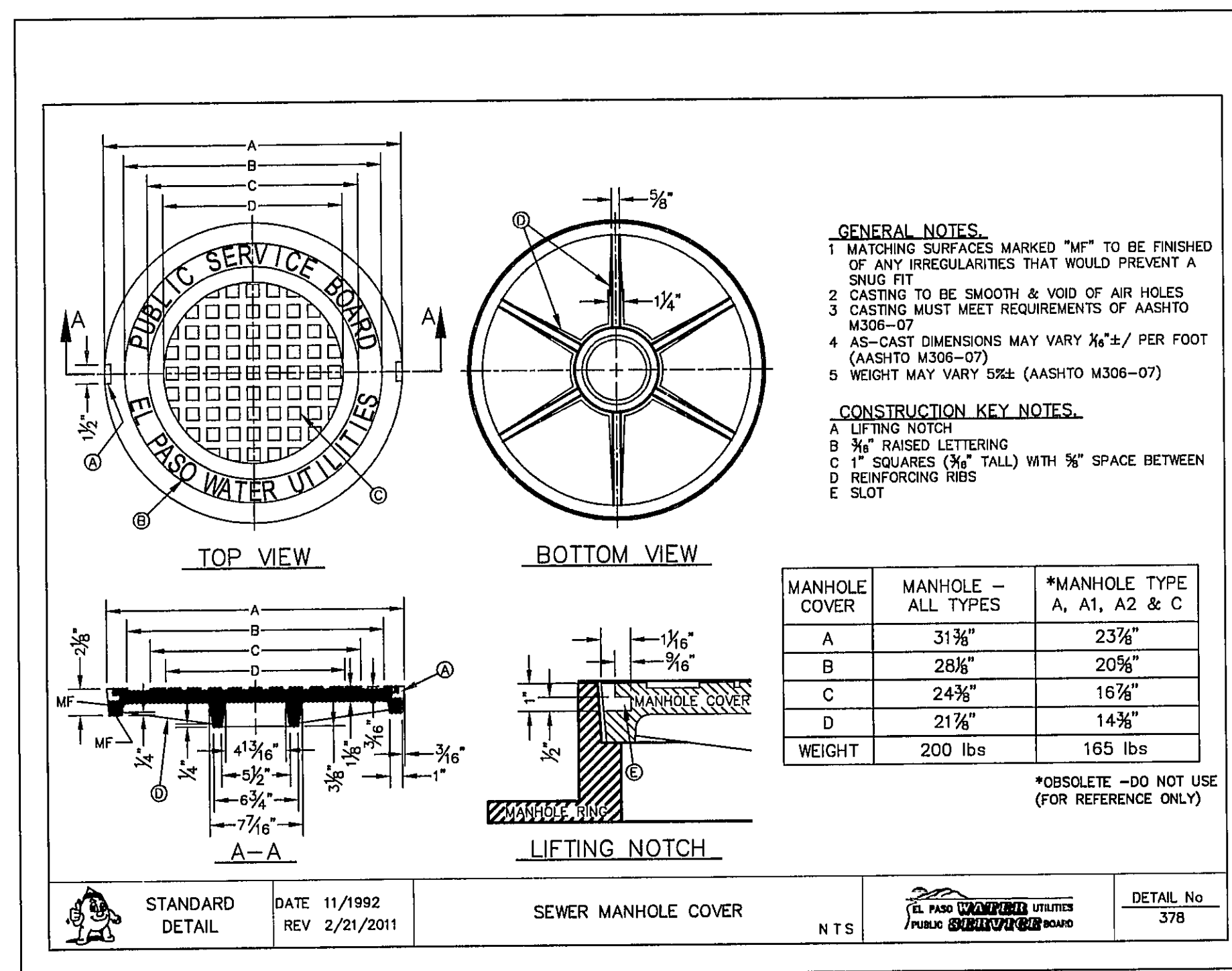
**SANDSTONE RANCH UNIT SEVEN
 REPLAT-D
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE

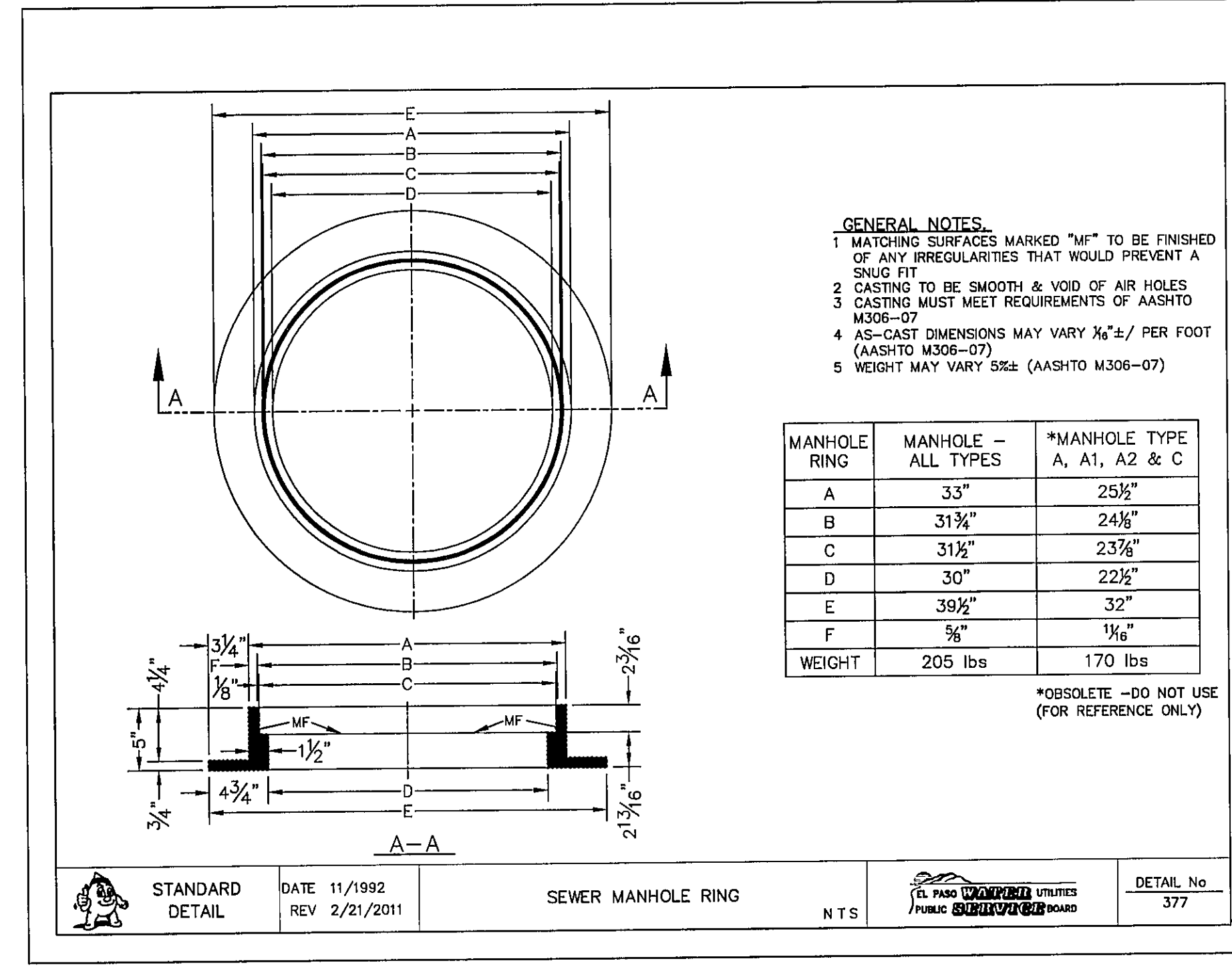
SANITARY SEWER
 PLAN & PROFILE
 LINES E & A

SHEET NO

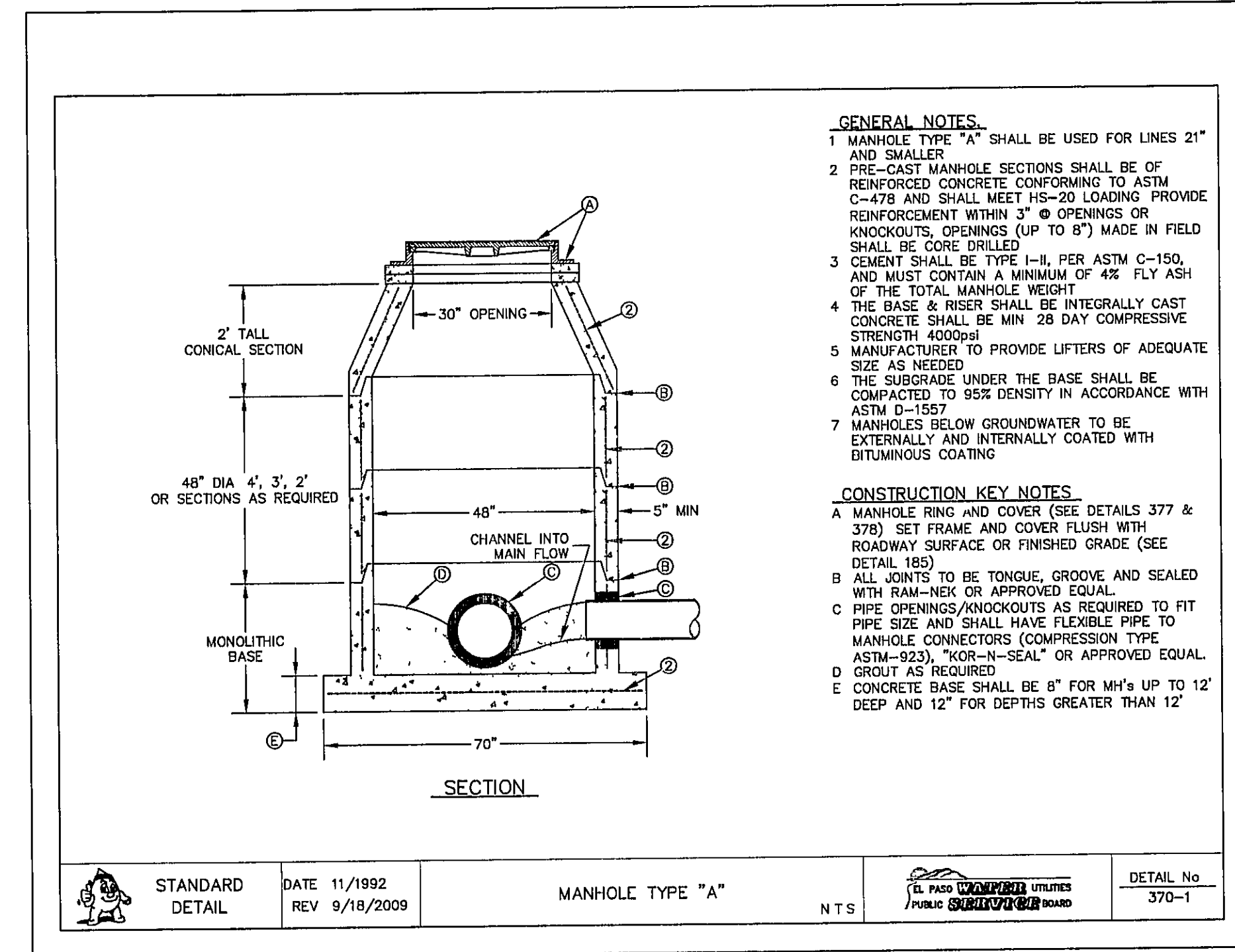
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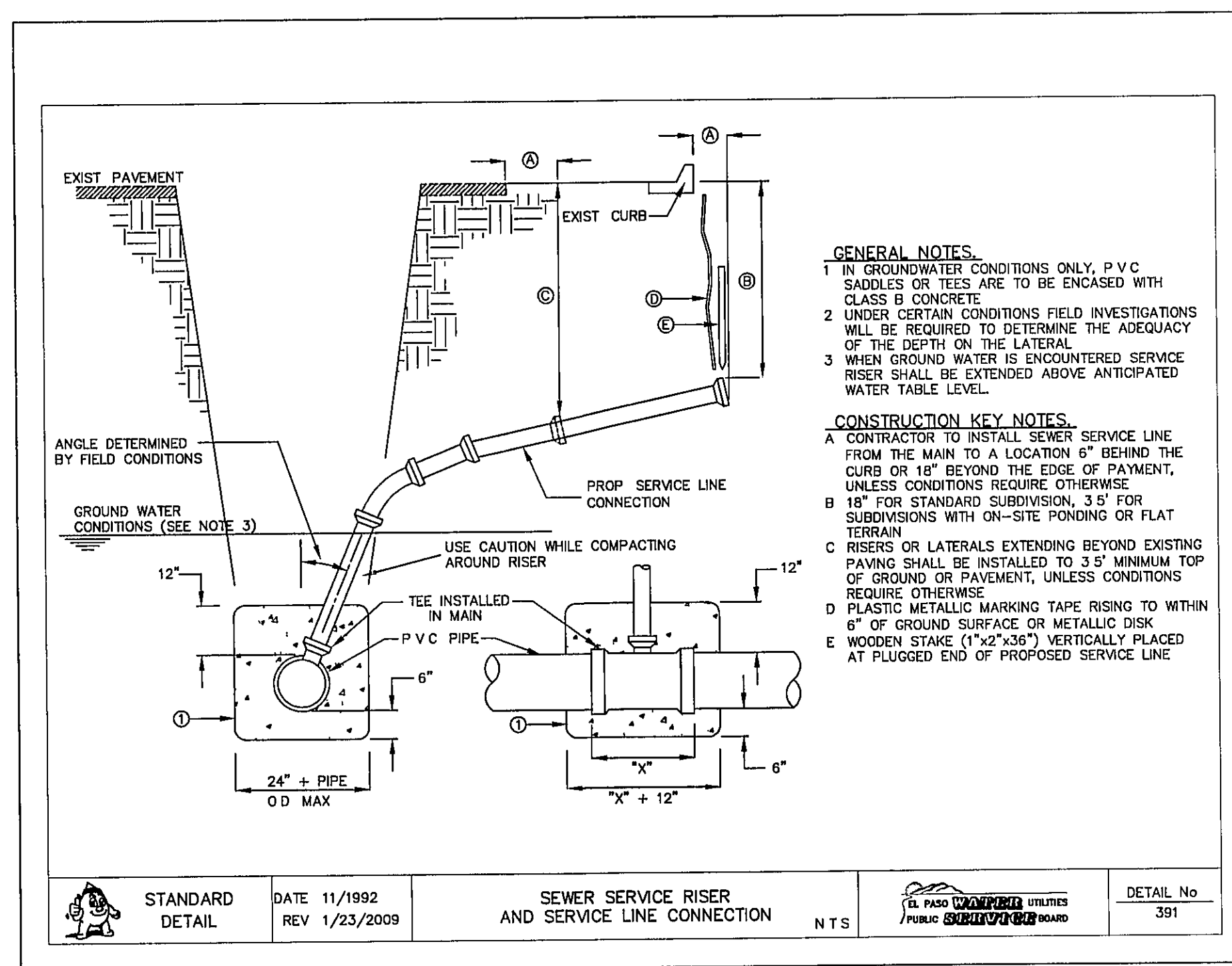
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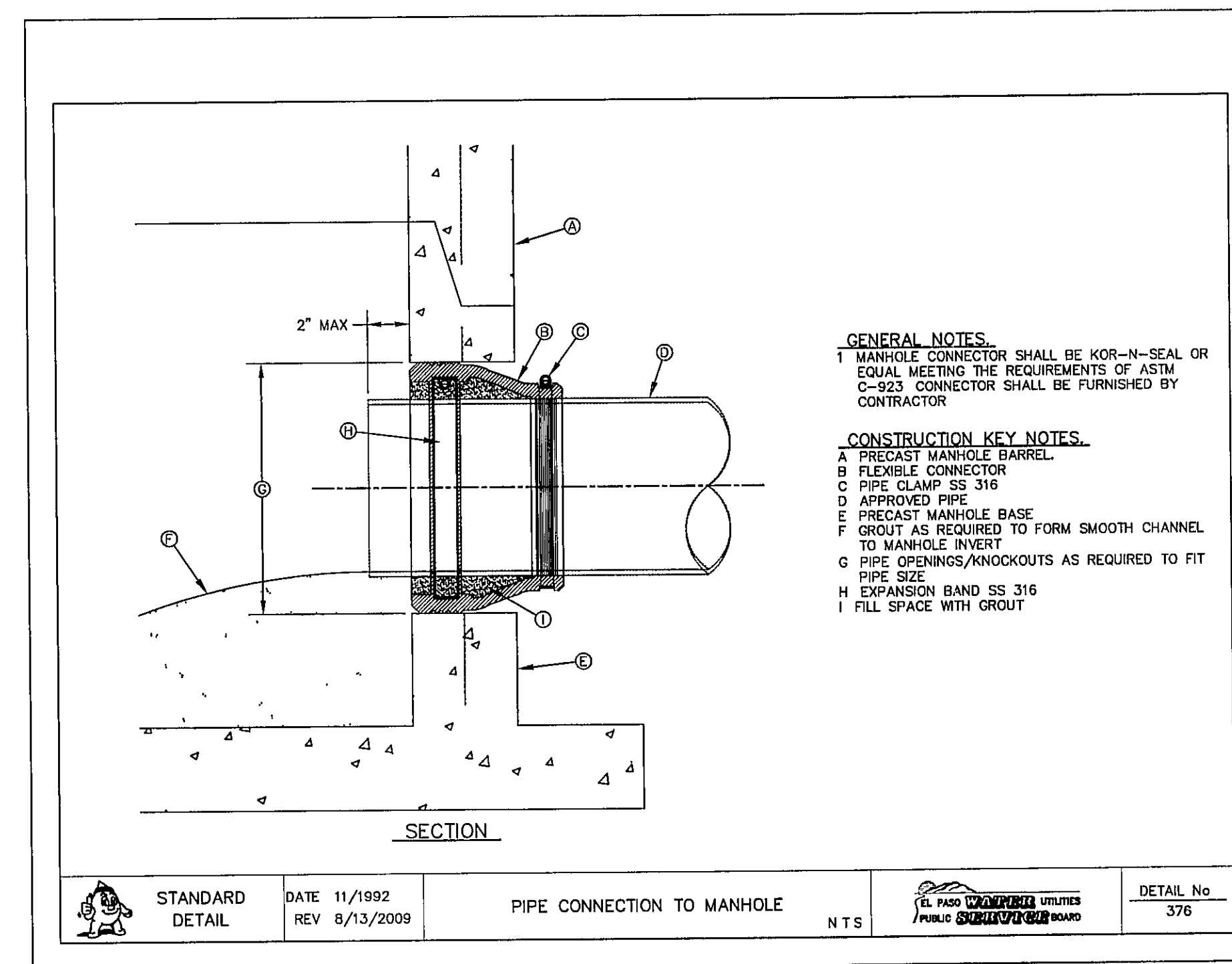
2 STANDARD MANHOLE RING DETAIL
SCALE N T S



3 STANDARD MANHOLE TYPE "A"
SCALE N T S



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



5 PIPE CONNECTION TO MANHOLE
SCALE N T S

REFERENCES - BENCHMARKS

FOUND TxDOT BRASS CAP AT SECTION		
CORNERS 19, 20, 21 AND 22 ELEVATION		
4033 22 (NGVD DATUM) (SUBTRACT		
8.462 TO CONVERT TO CITY DATUM) CITY		
OF EL PASO VERTICAL DATUM SHOWN		
DATE	REVISIONS	BY

ENGINEER'S SEAL

SCALE	N/A
Horizontal	N/A
Vertical	N/A
Contour Interval	N/A
DATE	MAY 2012
DESIGN BY	GR
DRAWN BY	JH
CHKD BY	JLA
APPROV BY	JLA
JOB NO.	2000-128-LD

PROJECT NAME

**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

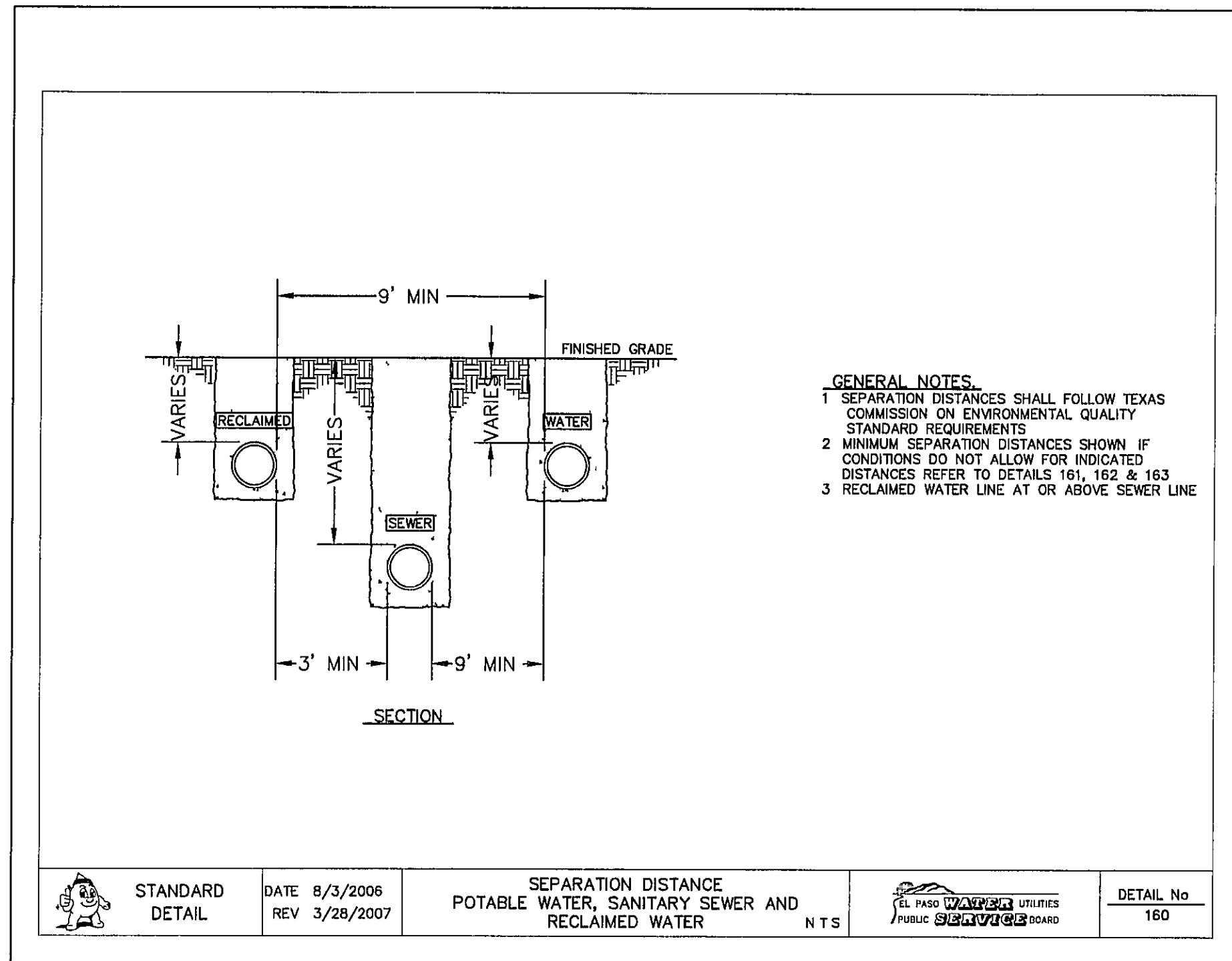
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SANITARY SEWER
DETAILS

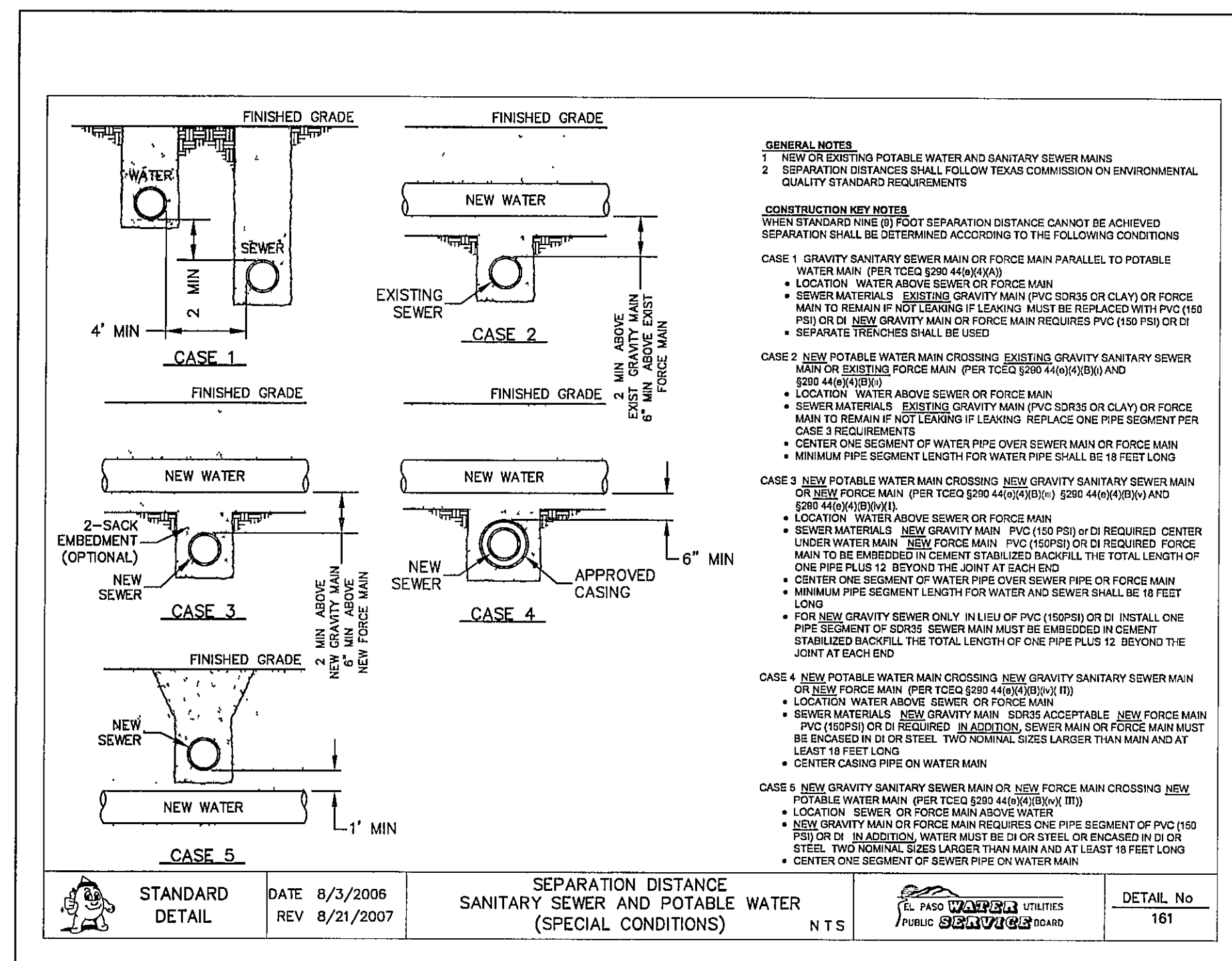
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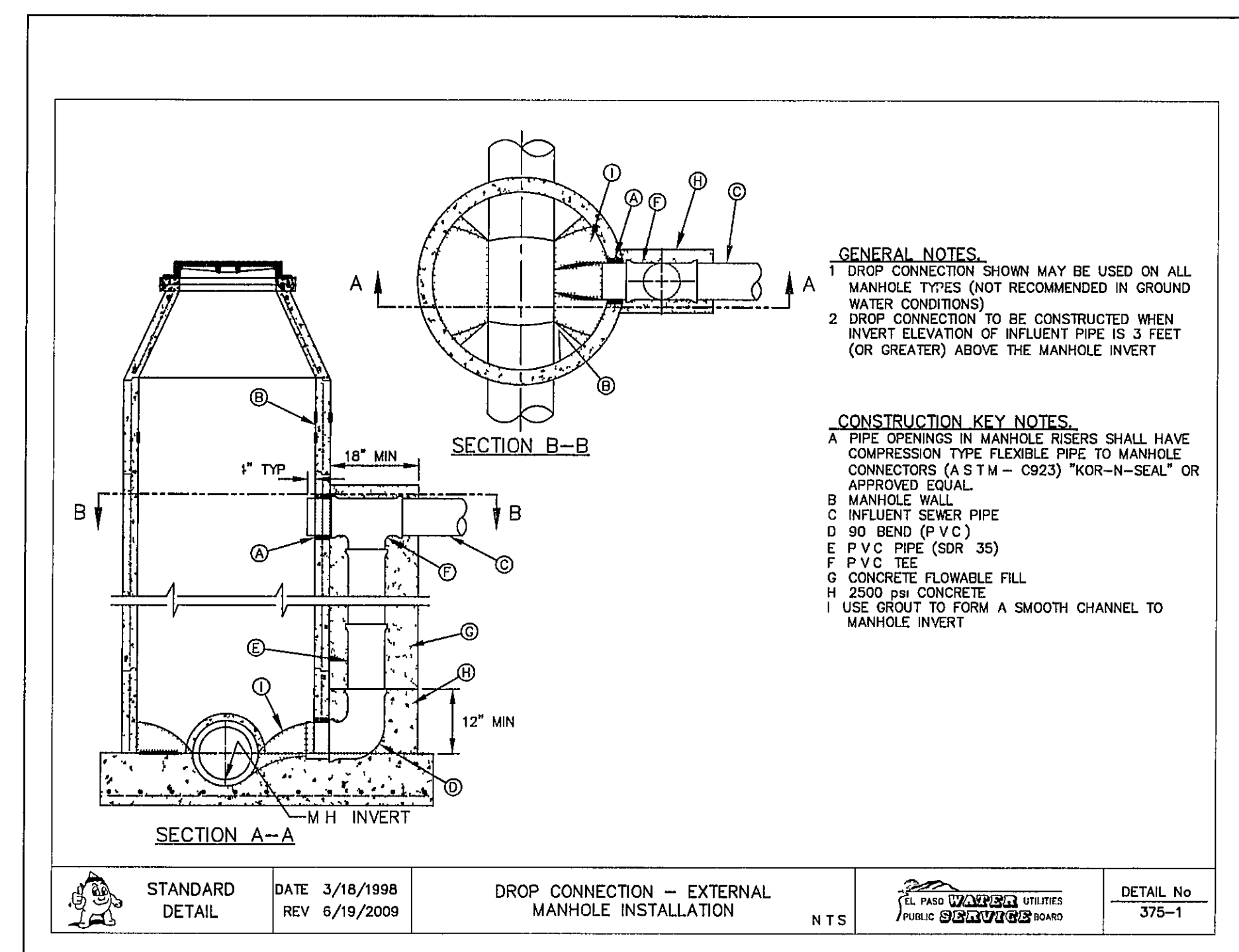
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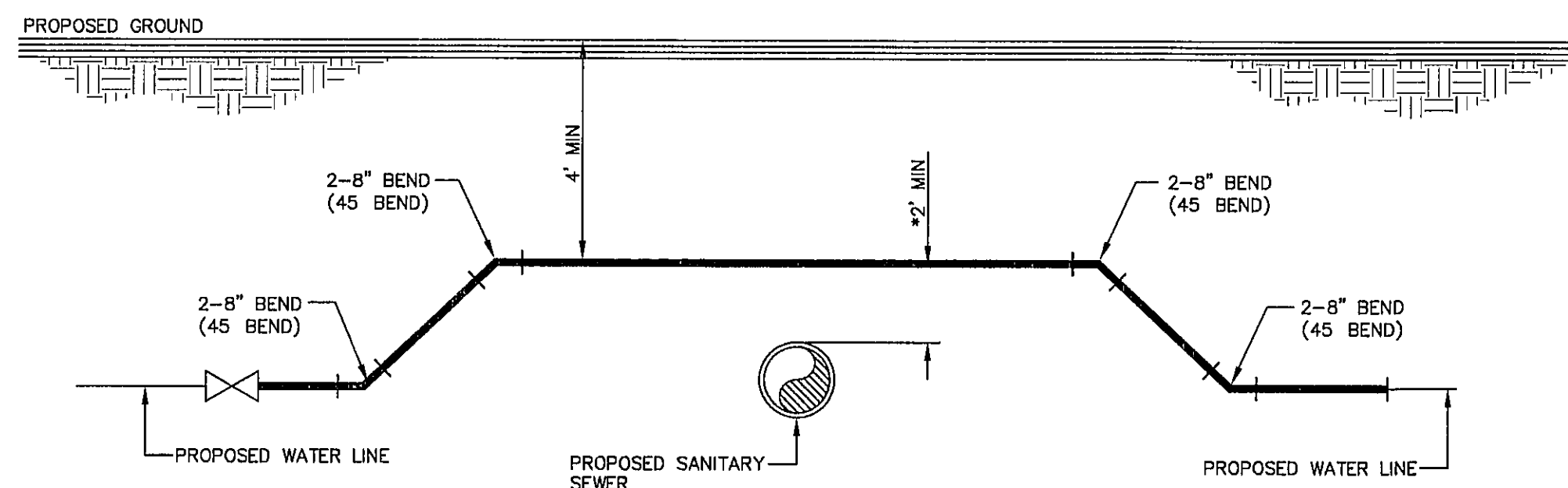
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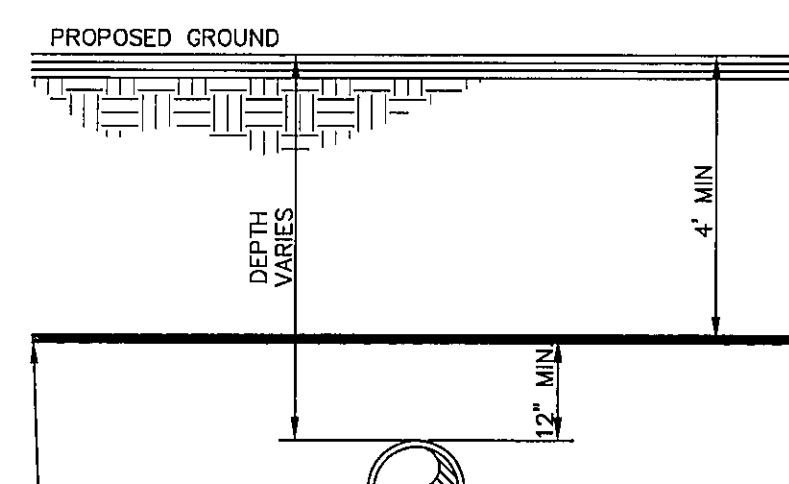
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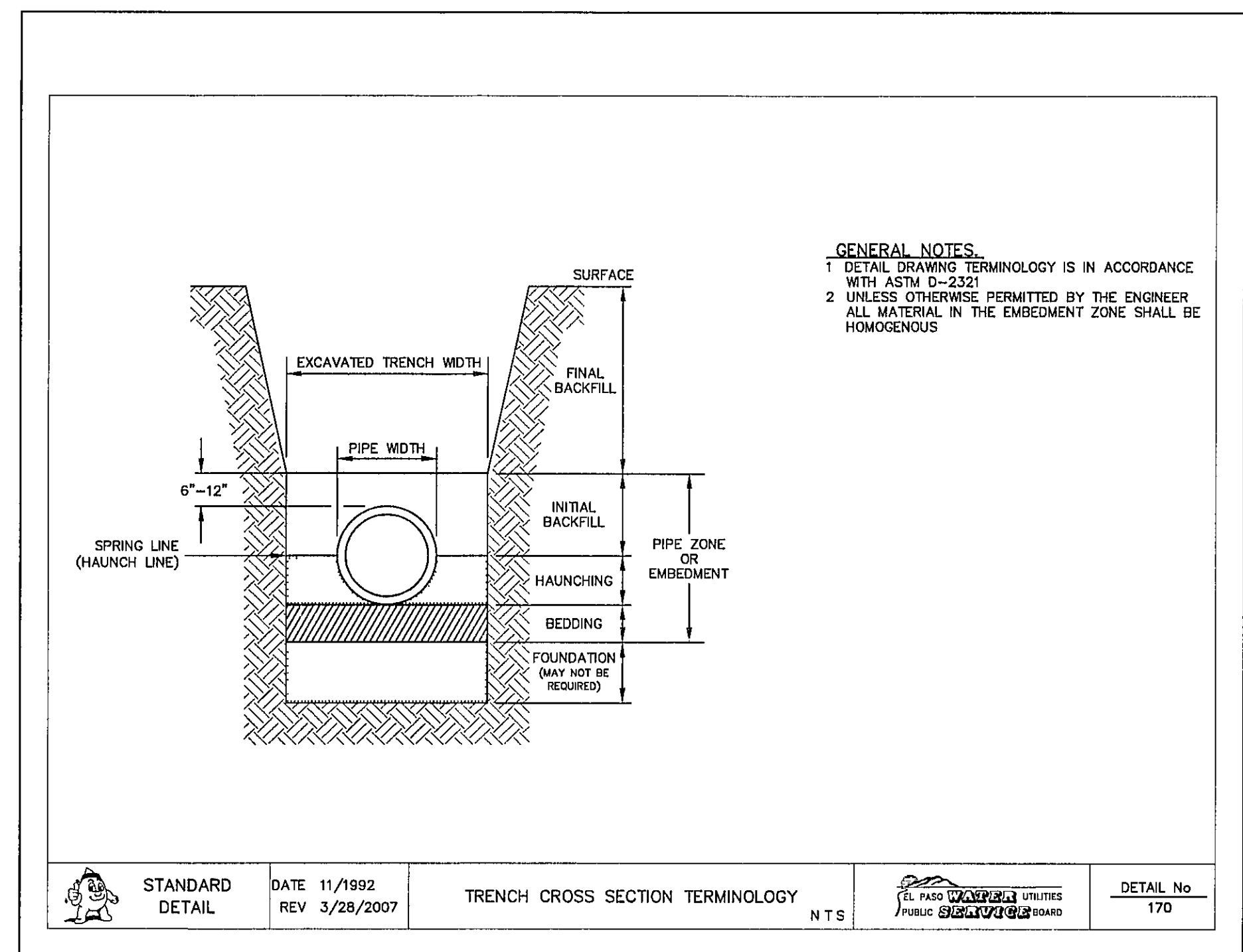
3 DROP CONNECTION-EXTERNAL MANHOLE INSTALLATION SCALE N T S



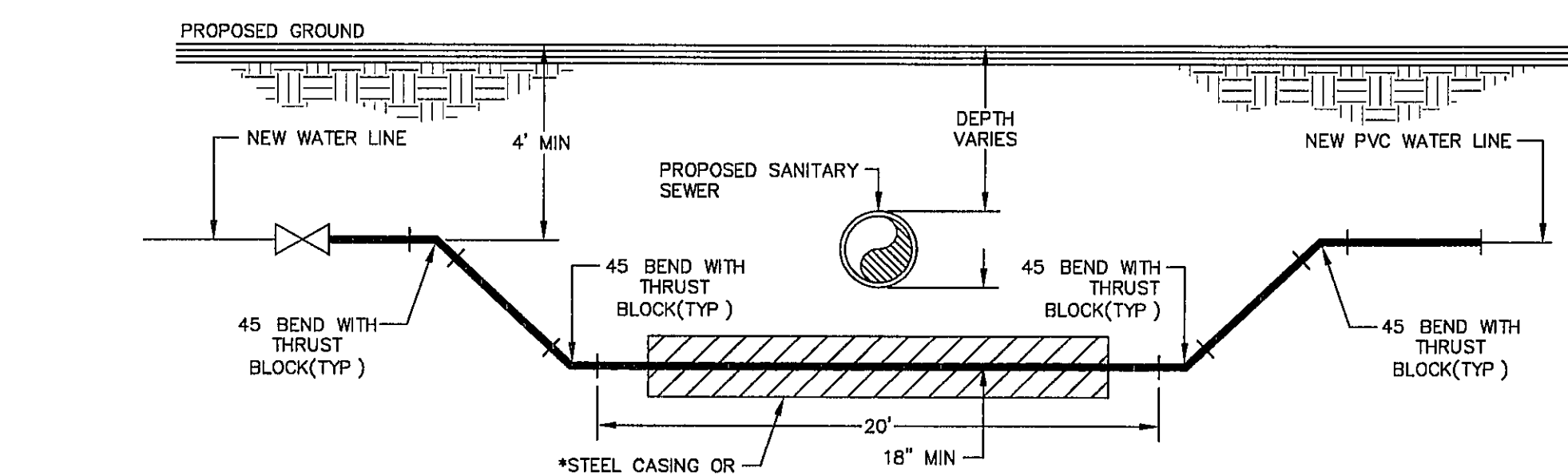
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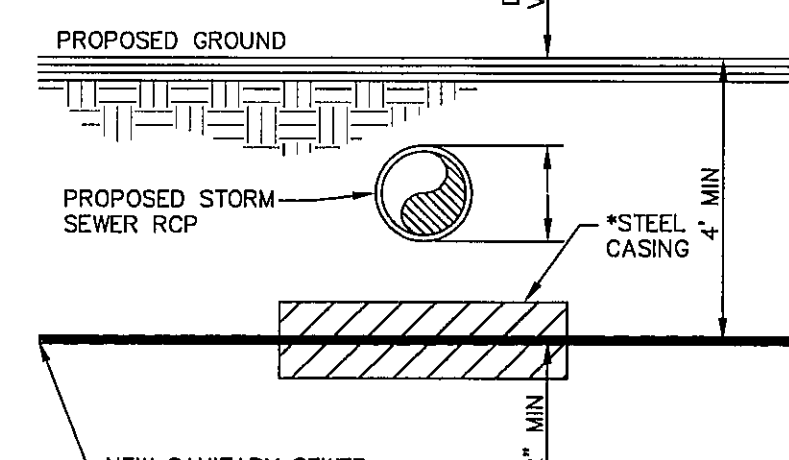
6 STORM SEWER CROSSING DETAIL SCALE N T S



8 TRENCH CROSS SECTION TERMINOLOGY SCALE N T S



5 SANITARY SEWER CROSSING WATER LINE DETAIL SCALE N T S

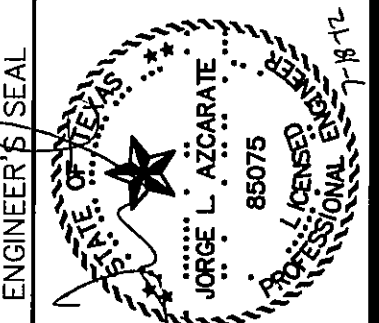


7 STORM SEWER CROSSING DETAIL SCALE N T S

REFERENCES - BENCHMARKS

FOUND TYOOT BRASS CAP AT SECTION CORNERS 19.20' 21' AND 22' ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN	DATE	REVISIONS	BY

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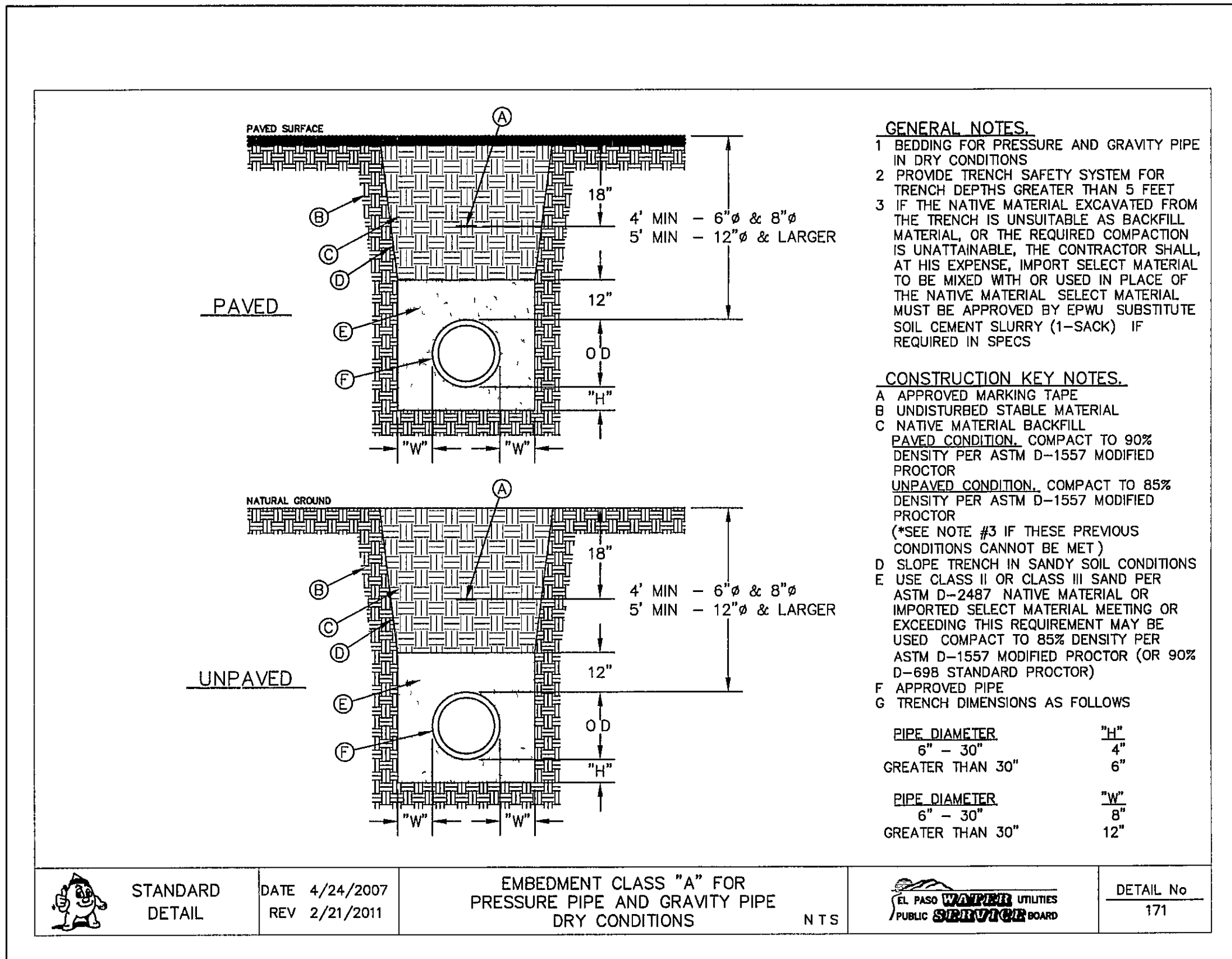
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Vertical Contour Interval	N/A
DATE	MAY 2012
DESIGN BY	G.R.
DRAWN BY	J.H.
CHKD BY	J.L.A.
APPVD BY	J.L.A.
JOB No.	2000-128-LD

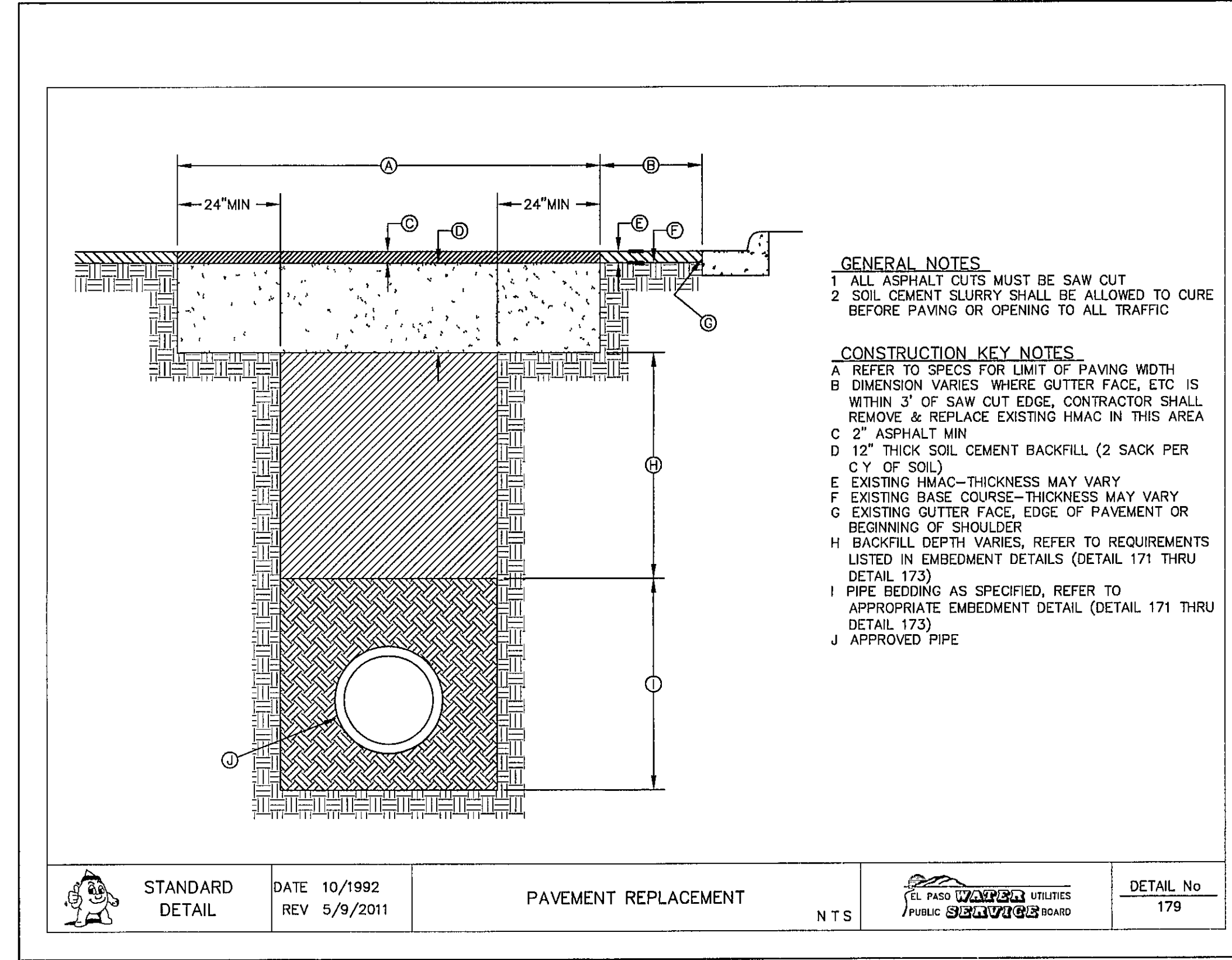
PROJECT NAME
SANDSTONE RANCH UNIT SEVEN REPLAT-D SUBDIVISION IMPROVEMENTS

SHEET TITLE
SANITARY SEWER DETAILS
 (SHEET 2 OF 3)
 SHEET NO

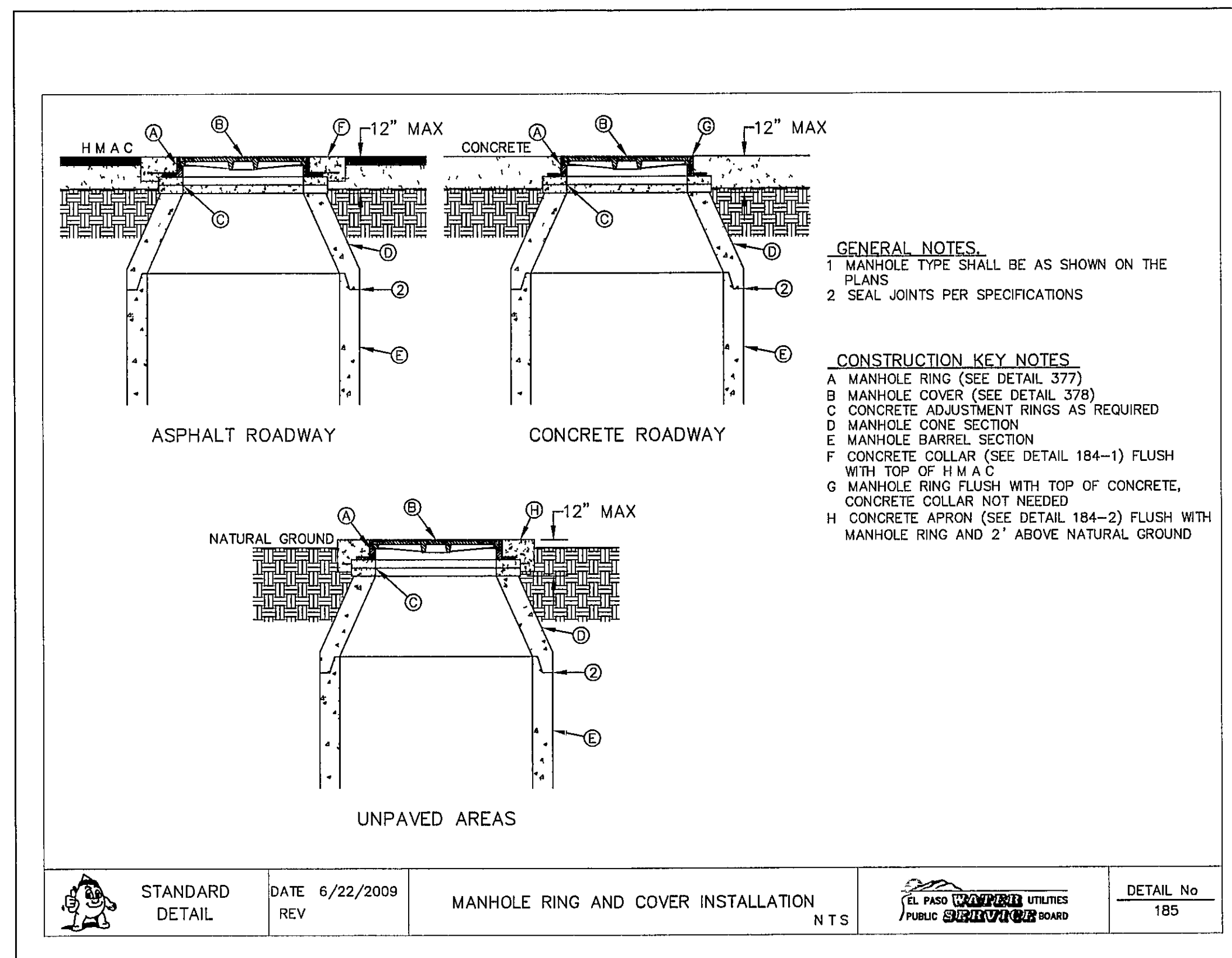
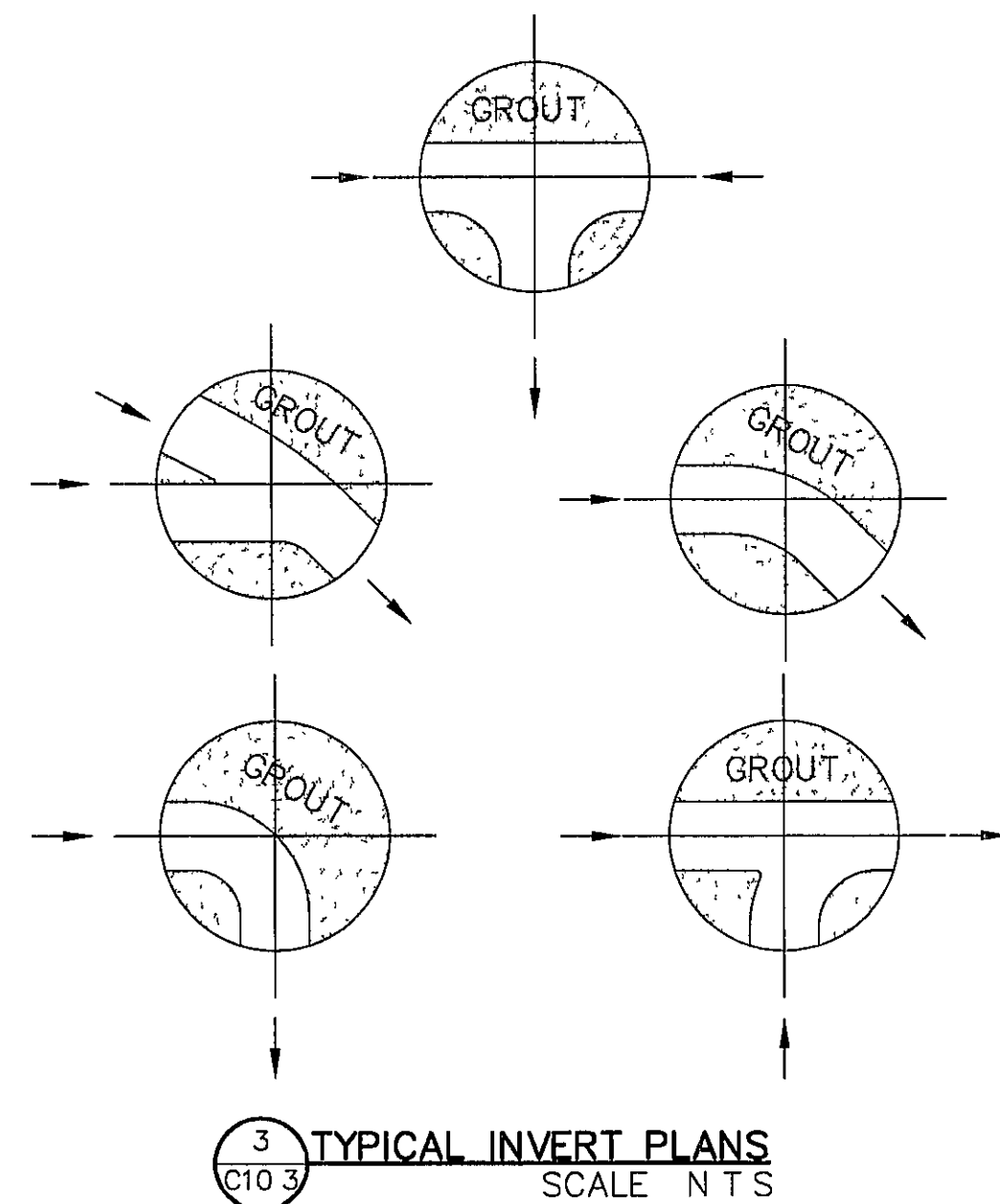
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1 BEDDING CLASS DETAILS FOR P.V.C. PRESSURE PIPE SCALE NTS



2 PAVEMENT REPLACEMENT DETAIL NTS

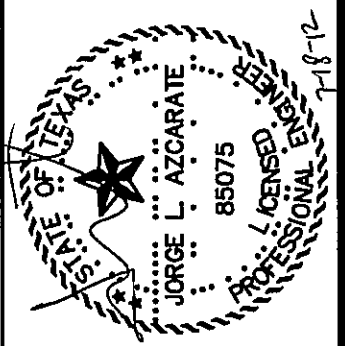


4 MANHOLE RING AND COVER INSTALLATION NTS

REFERENCES - BENCHMARKS

FOUND TYDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22	ELEVATION
4033.22 (NGVD DATUM)	(SUBTRACT)
8.462 TO CONVERT TO CITY DATUM.)	CITY
OF EL PASO VERTICAL DATUM SHOWN	DATE
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SCALE N/A

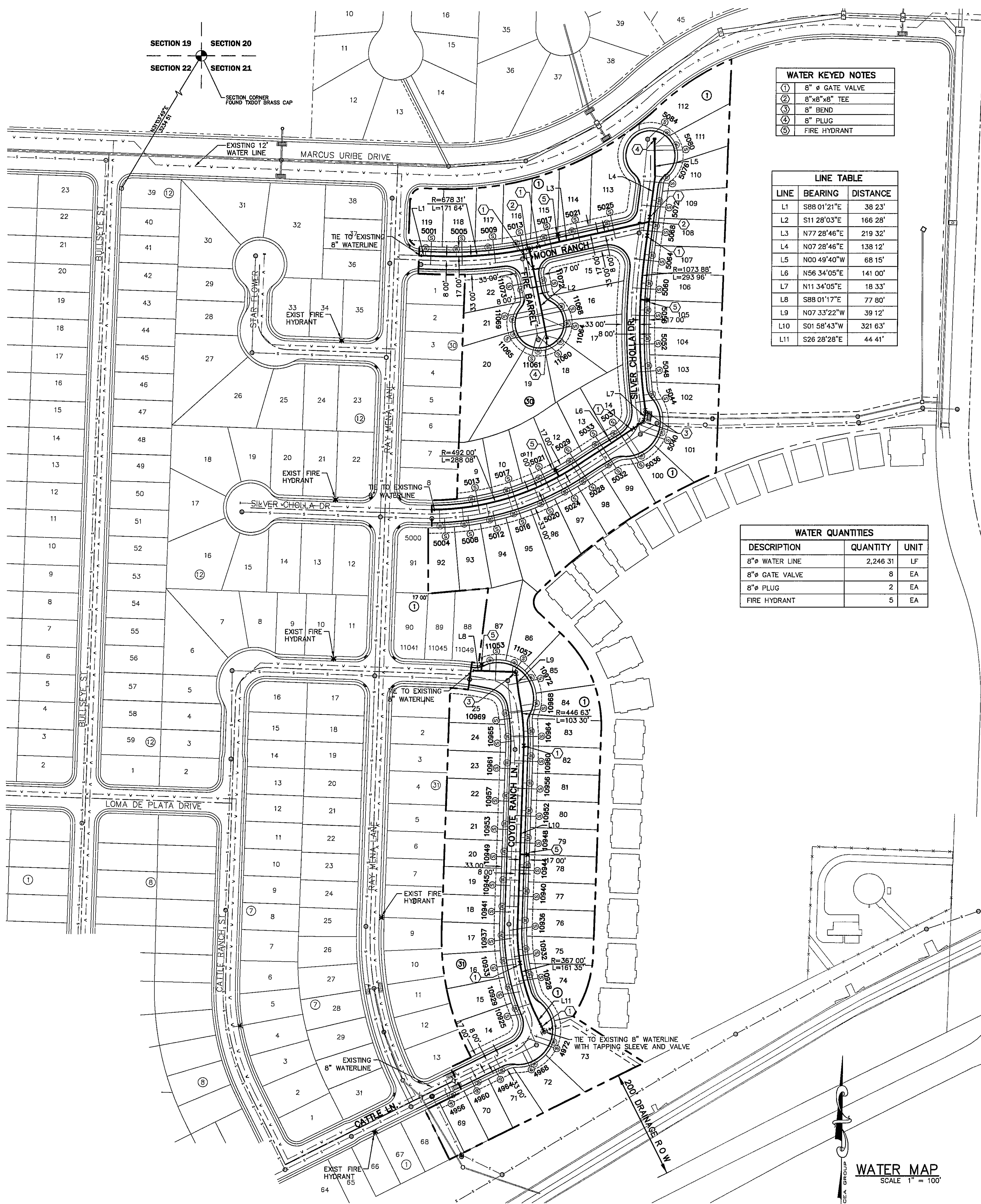
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DATE	DESIGN BY	DRAWN BY
MAY 2012	G.R.	J.H.
CHKD BY	J.L.A.	J.L.A.
APPRD BY	J.L.A.	J.L.A.

JOB No 2000-128-LD

PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
 REPLAT-D
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**SANITARY SEWER
 DETAILS**
 (SHEET 3 OF 3)
 SHEET NO

C10.3



WATER KEYED NOTES

1	8" # GATE VALVE
2	8"x8"x8" TEE
3	8" BEND
4	8" PLUG
5	FIRE HYDRANT

LINE TABLE

LINE	BEARING	DISTANCE
L1	S88 01'21"E	38.23'
L2	S11 28'03"E	166.28'
L3	N77 28'46"E	219.32'
L4	N07 28'46"E	138.12'
L5	N00 49'40"W	68.15'
L6	N56 34'05"E	141.00'
L7	N11 34'05"E	18.33'
L8	S88 01'17"E	77.80'
L9	N07 33'22"W	39.12'
L10	S01 58'43"W	321.63'
L11	S26 28'28"E	44.41'

WATER QUANTITIES

DESCRIPTION	QUANTITY	UNIT
8" # WATER LINE	2,246.31	LF
8" # GATE VALVE	8	EA
8" # PLUG	2	EA
FIRE HYDRANT	5	EA

WATER MAP
SCALE 1" = 100'

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

EL PASO STREETS
CITY OF EL PASO
DEPARTMENT OF TRANSPORTATION
7969 SAN PAULO DRIVE
EL PASO, TX 79907
(915) 621-6750
MR DARYL W COLE

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

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

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

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

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

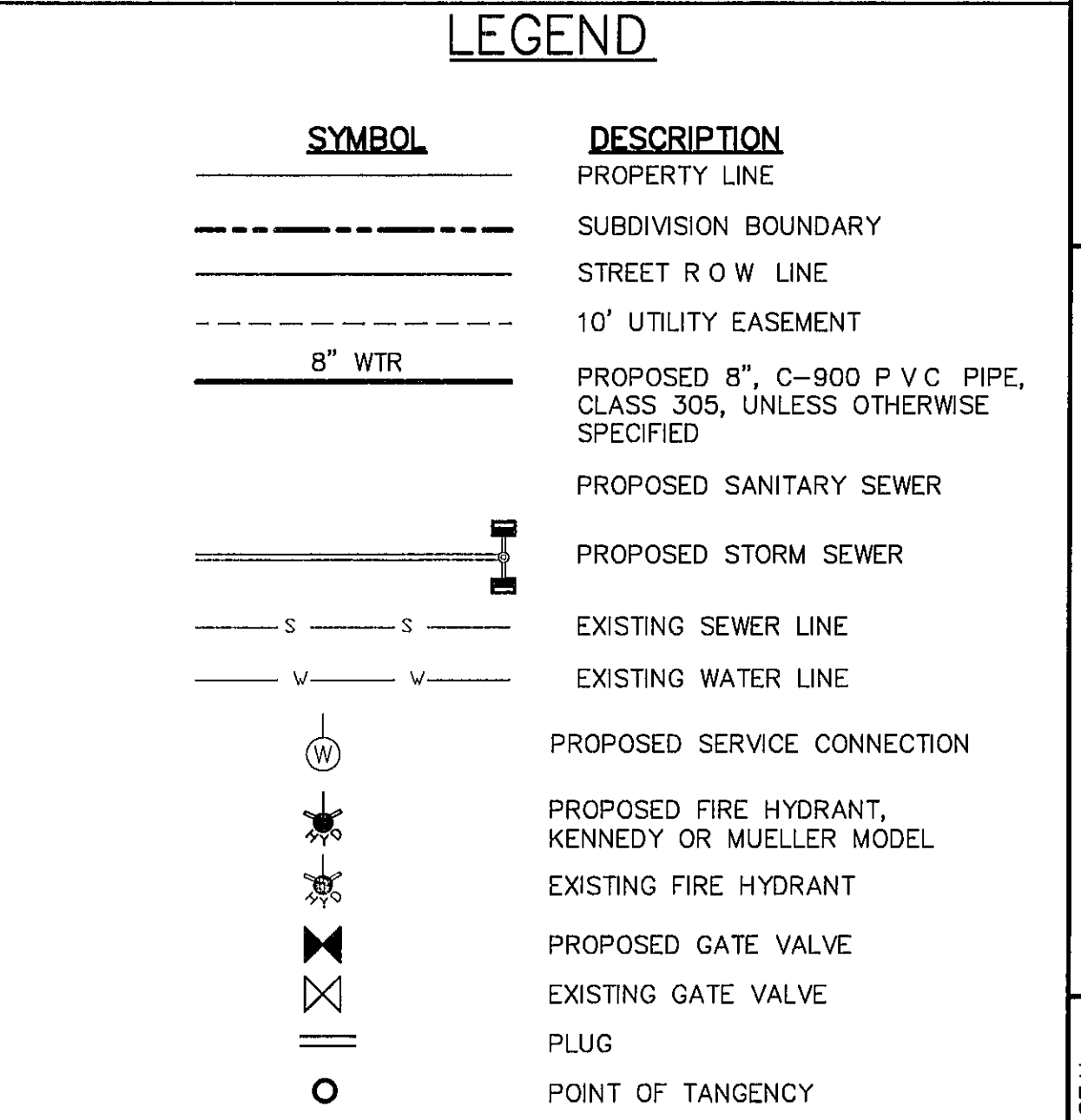
FIBER OPTICS:
MCI TELECOMMUNICATIONS CORP
4045 DONIPHAN PARK CIRCLE
EL PASO, TX 79922
(915) 542-2770 EXT 201
MR DANIEL HERNANDEZ

FIBER OPTICS:
AT&T
P BOX 1650
4700 POLLARD ST
EL PASO, TX 79949
(800) 852-3786
MS DARLENE NORIS

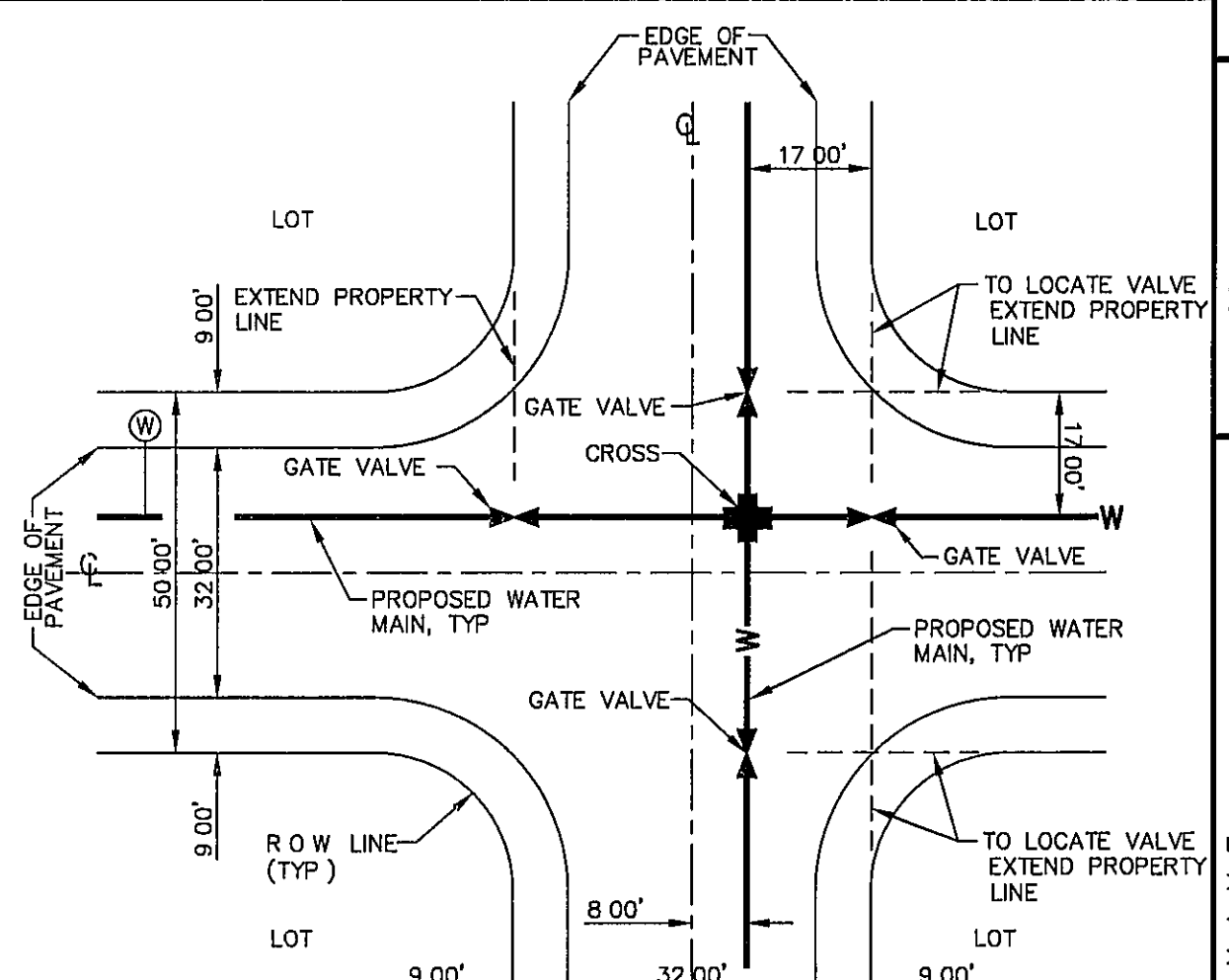
WATER & SEWER:
EL PASO WATER UTILITIES
1154 HAWKINS BOULEVARD
EL PASO, TX 79961
(915) 594-5530
MR FELIPE LOPEZ, JR, P.E.

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

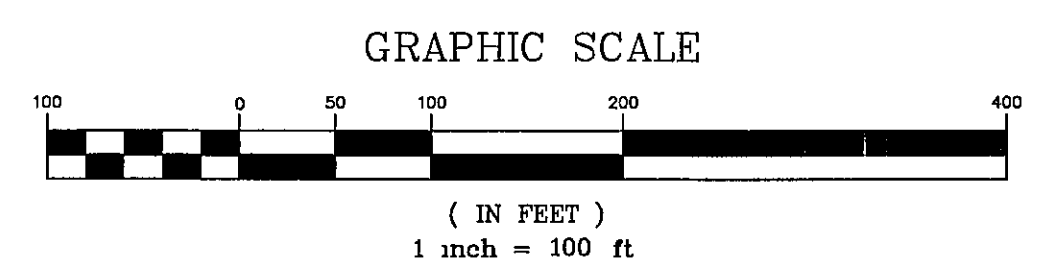
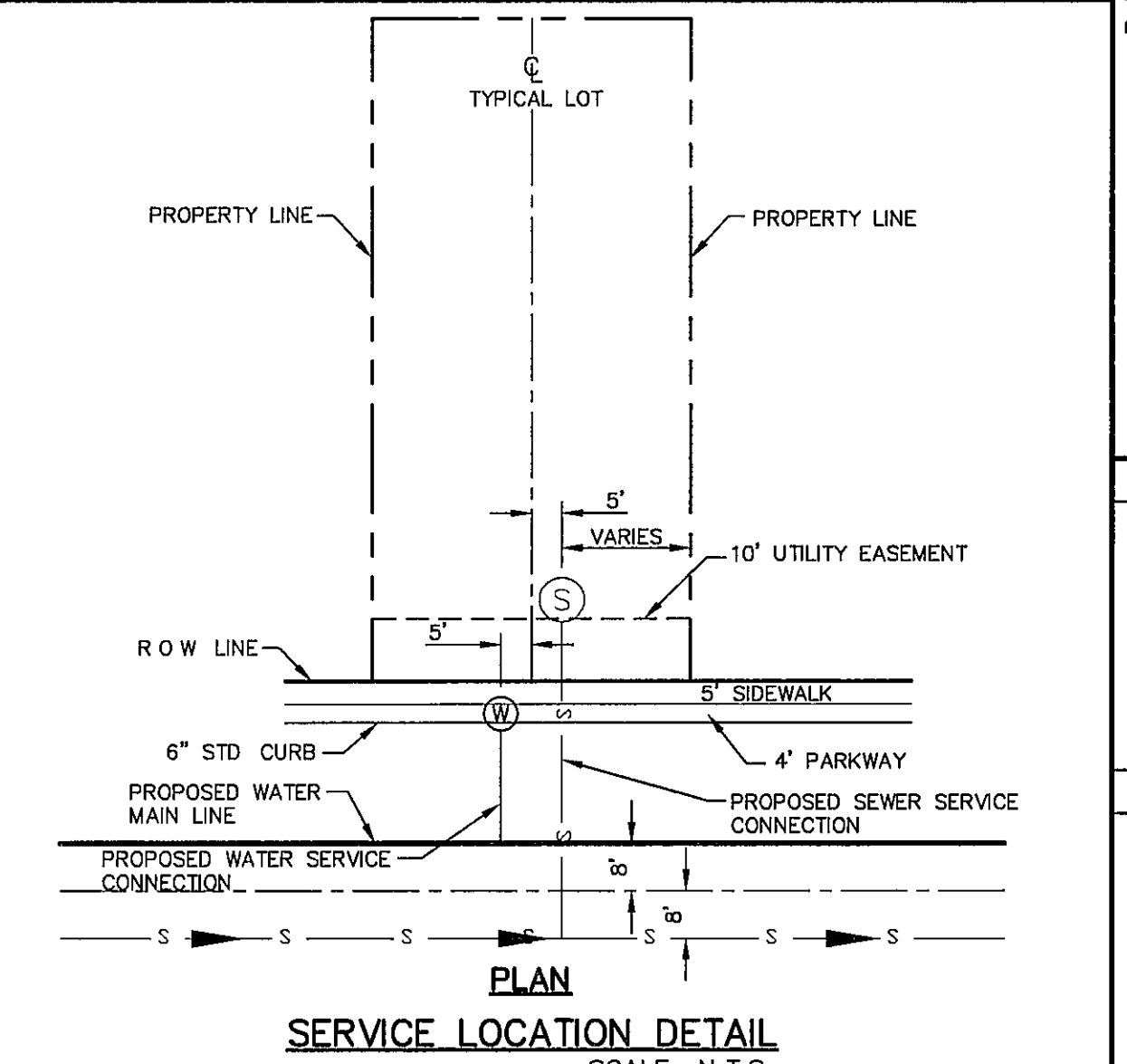
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1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



- GENERAL NOTES**
- LESS OTHERWISE SHOWN ON THE DRAWINGS, THE PROPOSED WATER MAINS SHALL BE INSTALLED NO LESS THAN 10' AWAY FROM EXISTING SEWER LINE SEPARATION DISTANCES SHALL FOLLOW TCEQ STANDARD REQUIREMENTS (\$290.44)
 - THE INTENT OF THE OWNER IS TO HAVE THE WATER MAINS INSTALLED TO SUCH A DEPTH THAT THEY WILL HAVE AT LEAST 60" FROM INVERT OF PIPELINE TO PROPOSED ELEVATIONS AT ALL LOCATIONS. THE PIPELINES SHALL HAVE NO DIPS, SAGS OR HUMPS OR OTHER IRREGULARITIES IN VERTICAL ALIGNMENT. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO INSTALLING THE WATER PIPELINE SO THAT AN ACCEPTABLE PROFILE CAN BE ESTABLISHED PRIOR TO INSTALLATION OF THE PIPELINE.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN IN THE PLANS, AND COORDINATE WORK WITH ALL UTILITY COMPANIES, EL PASO WATER UTILITIES AND CITY OF EL PASO PRIOR TO CONSTRUCTION. ALL EXISTING UTILITY DEPTHS ARE UNKNOWN. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR ACQUIRING FIELD DEPTHS OF ALL UTILITIES WITHIN THE PROJECT AREAS.
 - TRENCH SAFETY REQUIREMENTS SHALL BE AS REQUIRED BY OSHA.
 - 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 EL PASO WATER UTILITIES AND CITY OF EL PASO MUST BE NOTIFIED 48 HOURS PRIOR TO COMMENCING ANY WORK IN AREAS WITHIN THEIR JURISDICTION.
 - EXISTING STREETS, DRIVEWAYS, PARKING LOTS, MAILBOXES, SIGNS, CHAIN-LINK FENCES, AND ALL OTHER MISCELLANEOUS STRUCTURES DAMAGE OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITION AT NO COST TO OWNER.
 - 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.
 - CONTRACTOR SHALL PROVIDE THE REQUIRED COUPLINGS, ELBOWS AND NECESSARY PIPING APPURTENANCES FOR A COMPLETE AND OPERATIONAL WATER SYSTEM.
 - ALL NEW VALVES SHALL BE ALIGNED PERPENDICULAR TO PROPERTY LINES.
 - CONSTRUCTION OF THE PUBLIC WATER AND SANITARY SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFORM TO EPWU-PSB STANDARD SPECIFICATIONS FOR THE INSTALLATION OF WATER MAINS, SEWER MAINS AND RELATED APPURTENANCES.
 - ALL WATER LINES SHALL COMPLY WITH AWWA C-900, DR-14, PRESSURE CLASS OF 305 OR UNLESS OTHERWISE REQUIRED BY THE EPWU/PSB RULES AND REGULATIONS AND DESIGN STANDARDS.



NOTE
SEE PLANS FOR SIZE AND LOCATION OF WATER MAIN AND LOTS TO BE SERVICED



REFERENCES - BENCHMARKS
FOUND TPOOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) OF EL PASO VERTICAL DATUM SHOWN BY DATE REVISIONS

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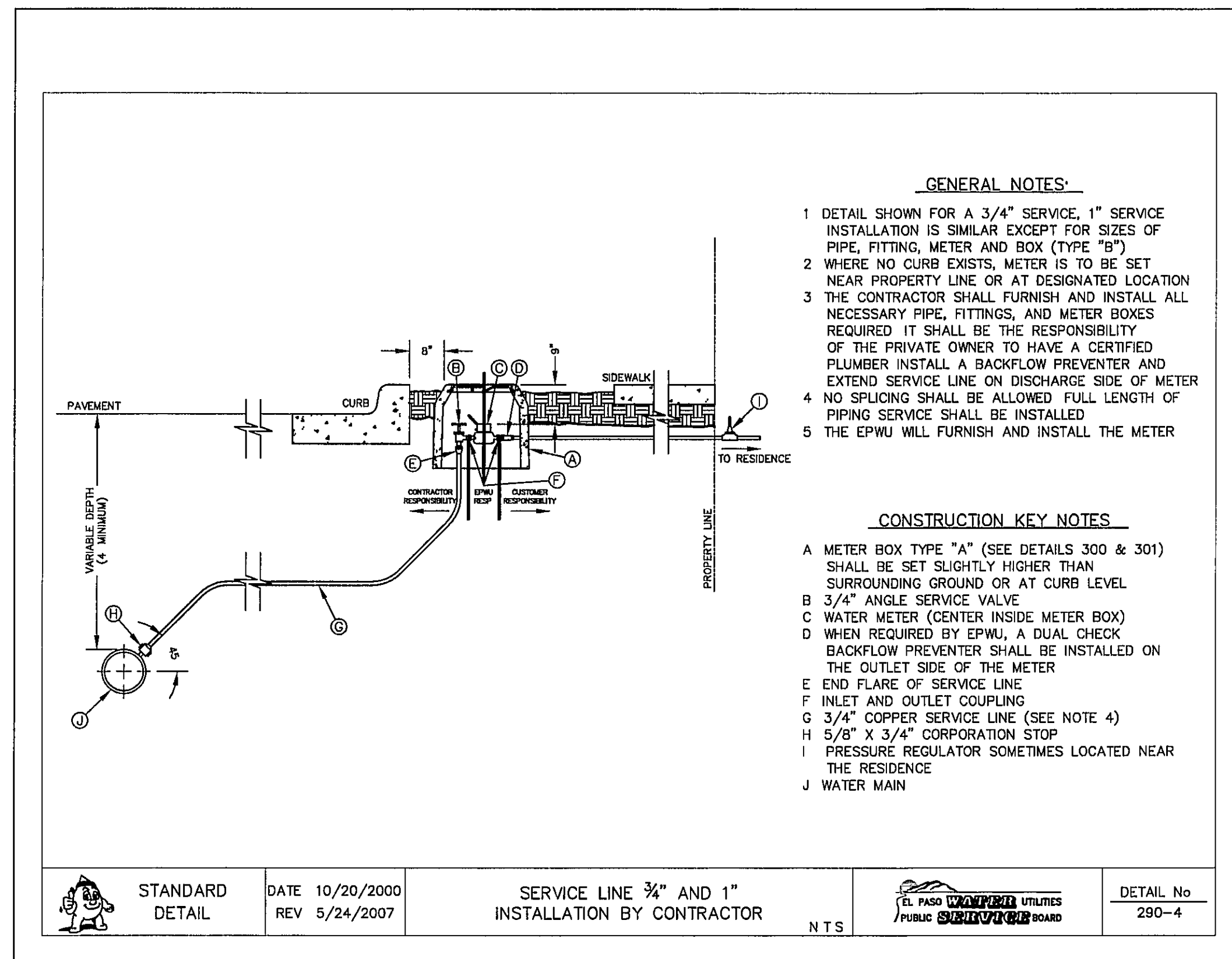
ENGINEER'S SEAL
Jorge L. Azcarate
Professional Engineer
No. 88075
Exp. 12/31/2012

SCALE 1" = 100'
Horizontal Contour Interval N/A
Vertical Contour Interval 1' N/A
DATE: MAY 2012
DESIGN BY: G.R.
DRAWN BY: J.H.
CHKD BY: J.L.A.
APP'D BY: J.L.A.
JOB No. 2000-128-1D

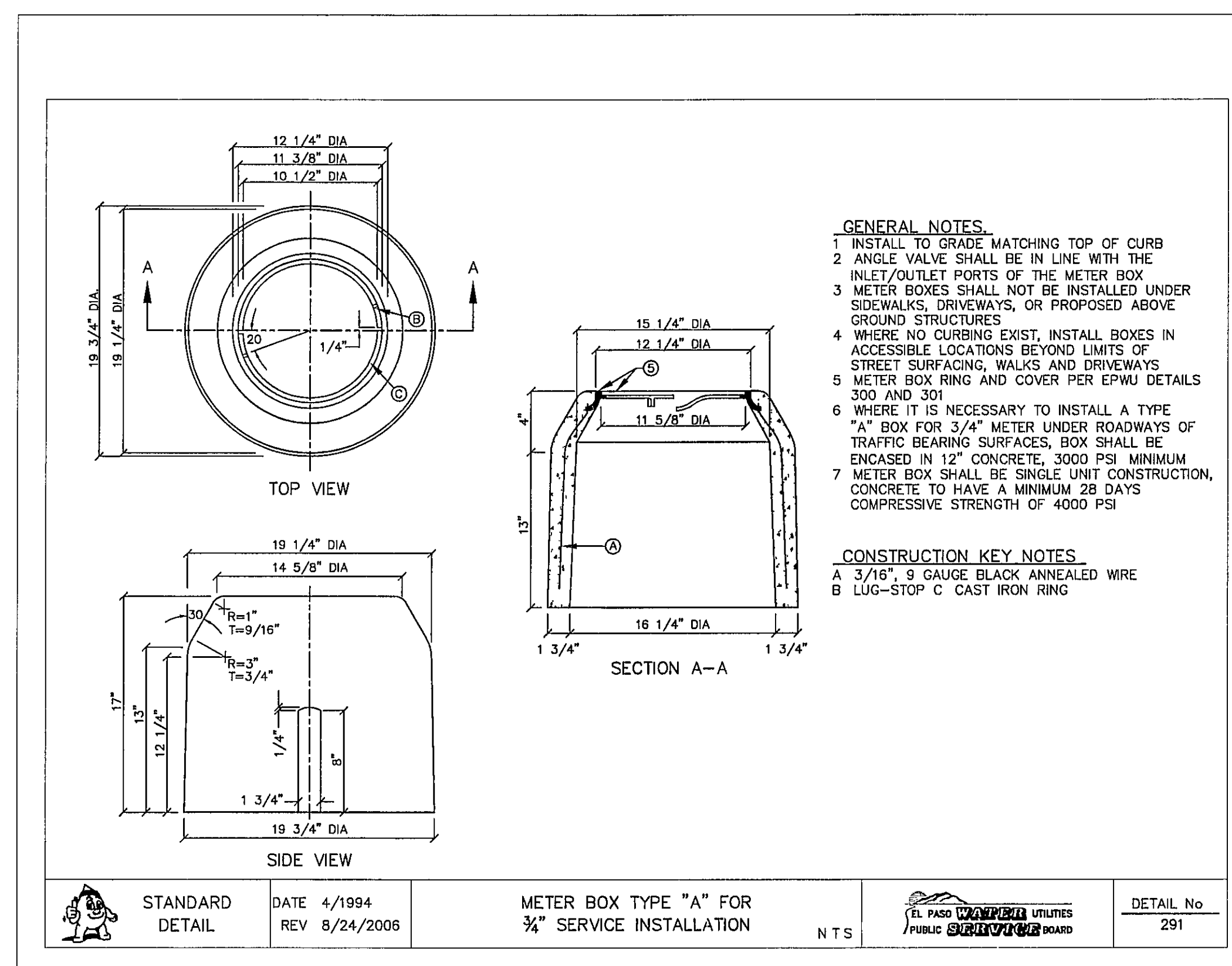
PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
WATER INDEX

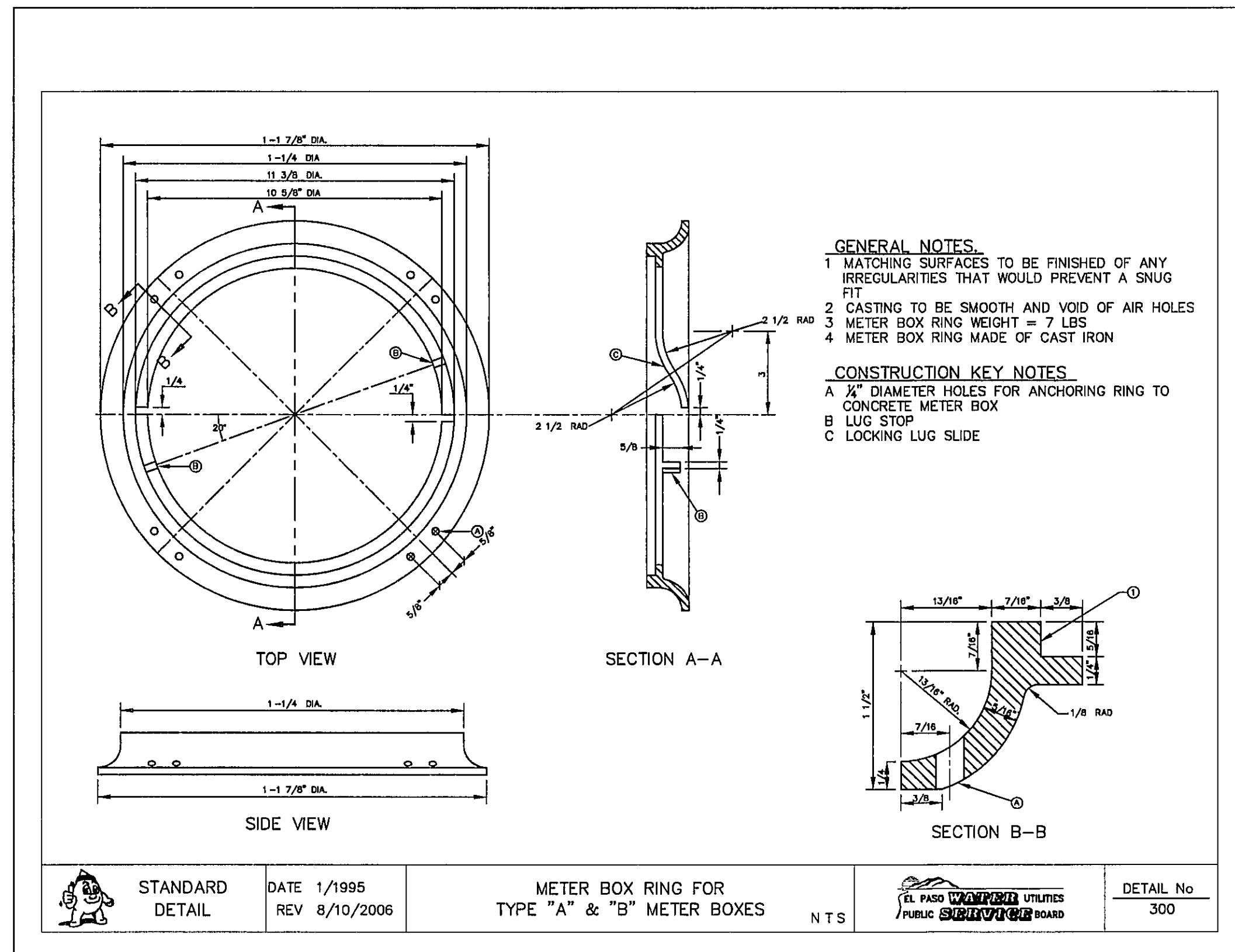
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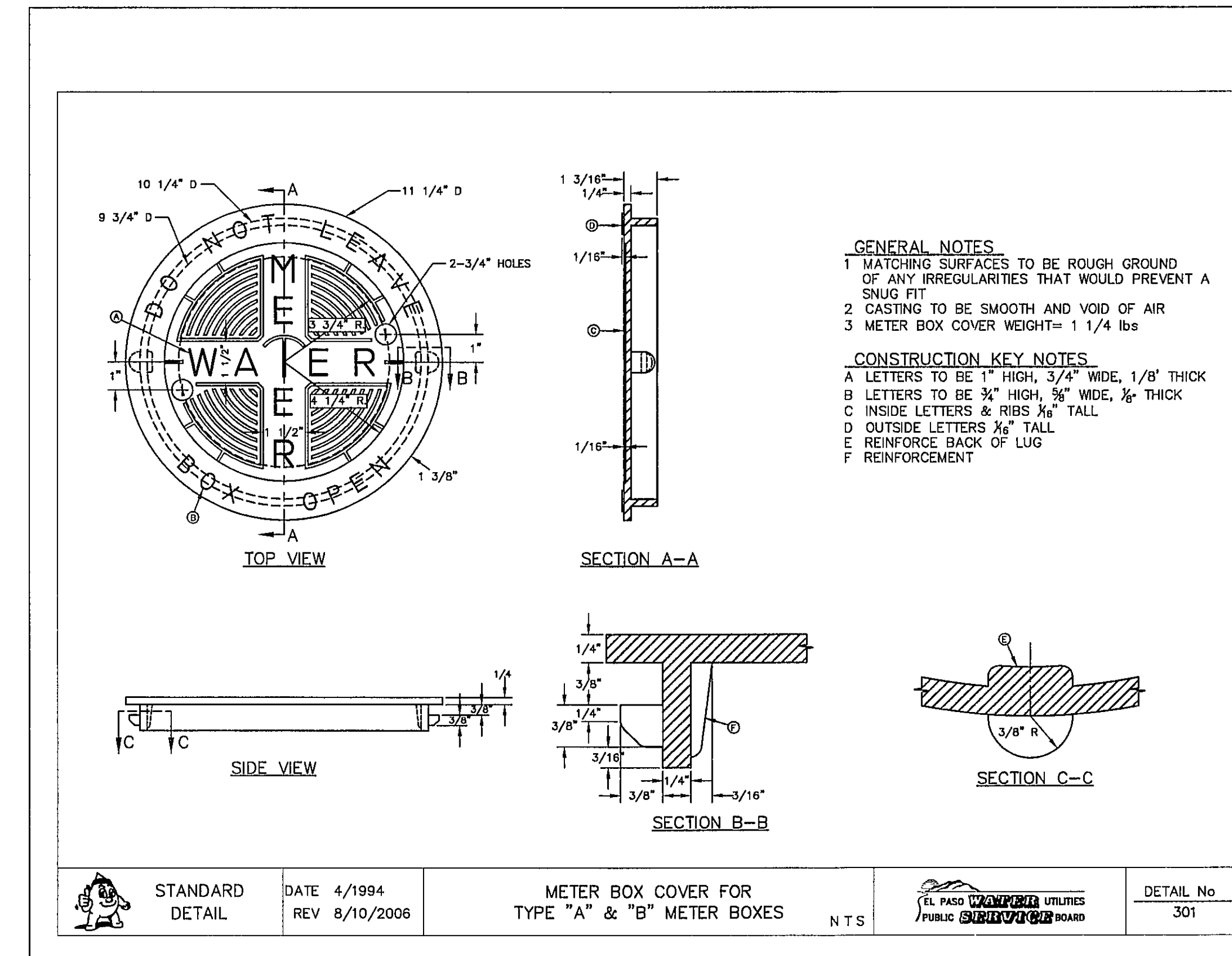
1 TYPICAL SERVICE LINE INSTALLATION
NTS



2 METER BOX DETAIL
NTS



3 METER BOX RING DETAIL
NTS



4 METER BOX COVER DETAIL
NTS

REFERENCES - BENCHMARKS

FOUND TPOOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN

DATE	REVISIONS	BY

CSA
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4584
4712 Woodrow Blvd, Ste F El Paso, TX 79924
Office 915.544.6222 Fax 915.544.5233 www.csaengr.com



SCALE: N/A

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

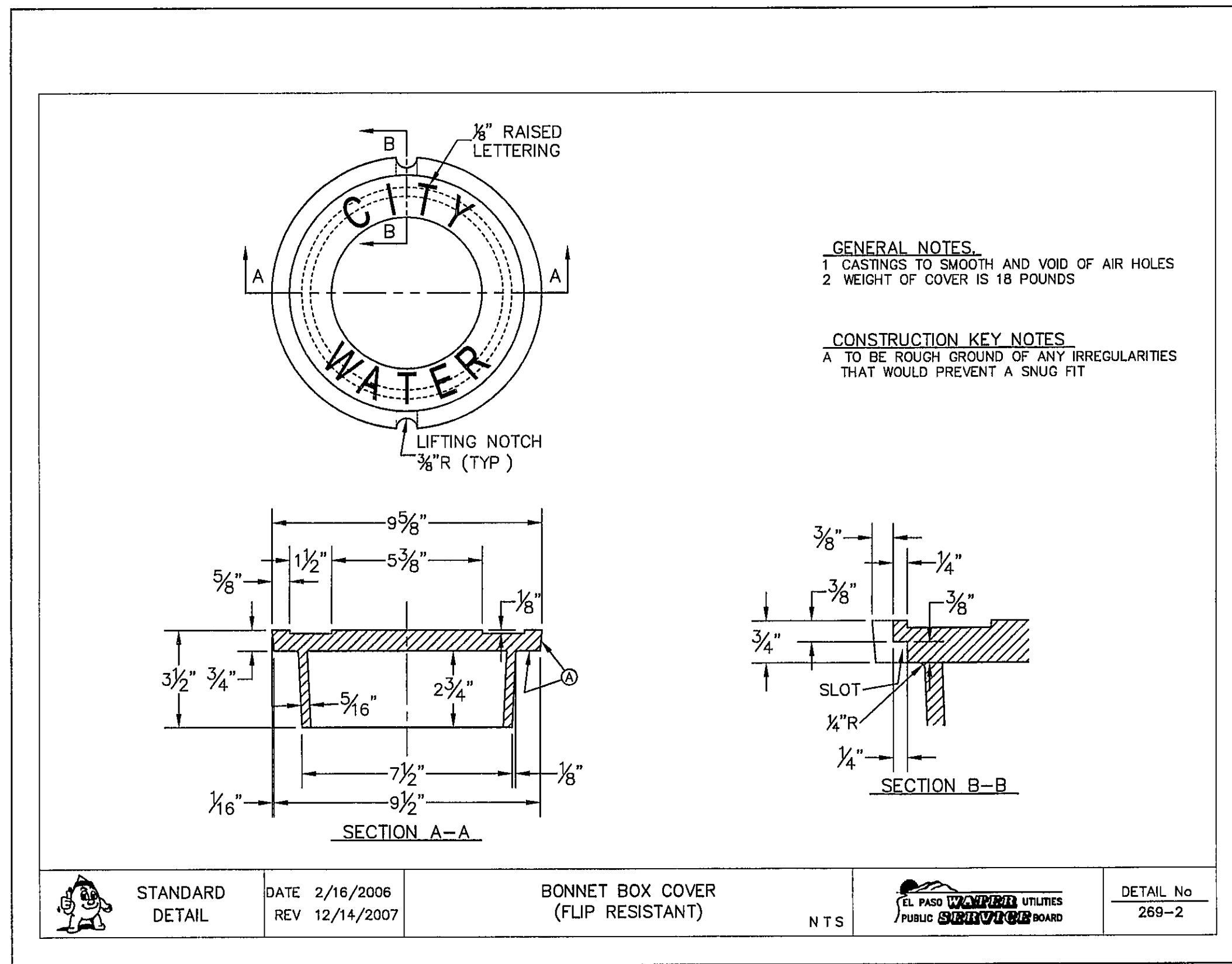
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DESIGN BY: GR
DRAWN BY: JLA
CHECKED BY: JLA
APPROVED BY: JLA

JOB No. 2000-128-LD

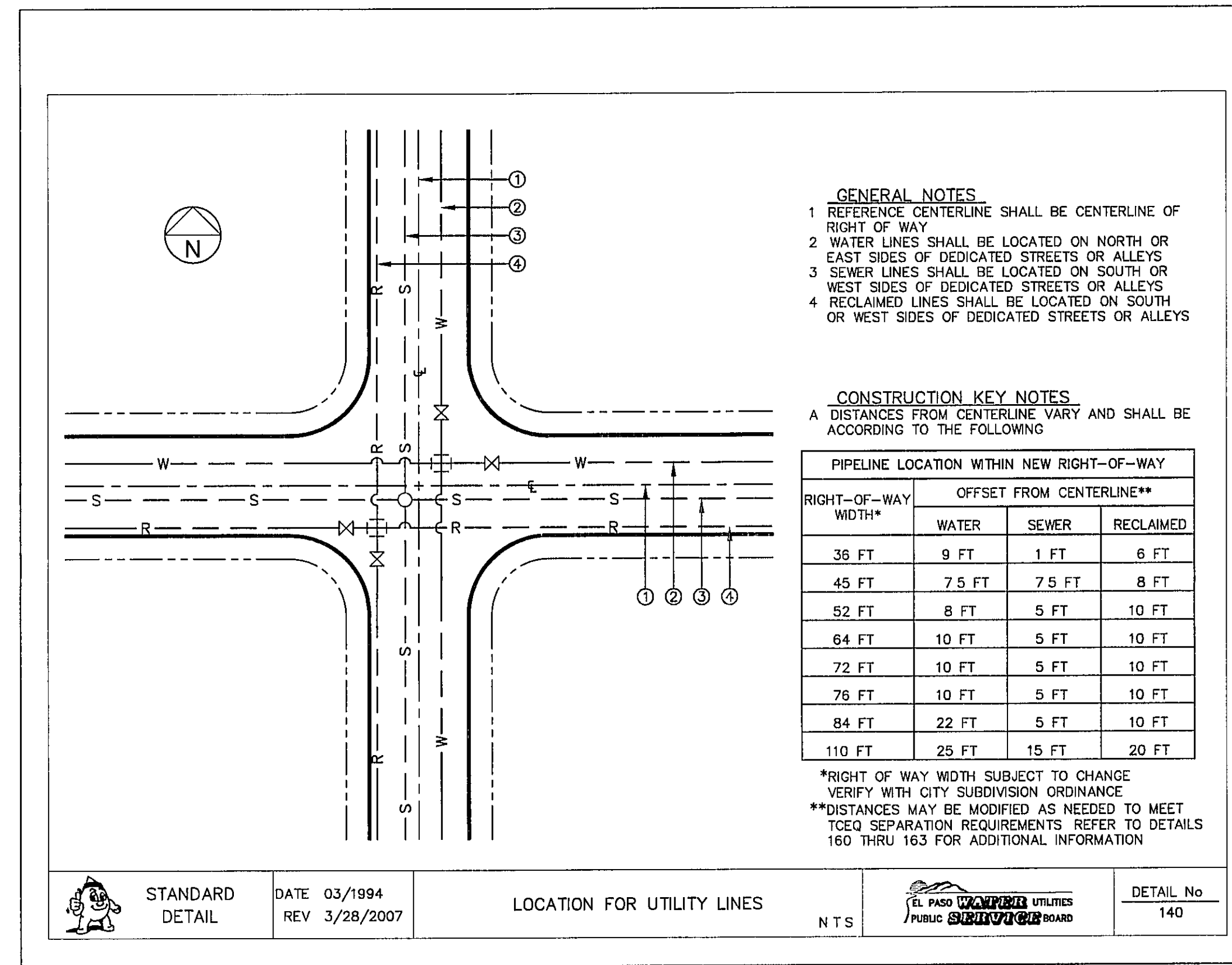
PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
WATER DETAILS
(SHEET 1 OF 5)
SHEET NO

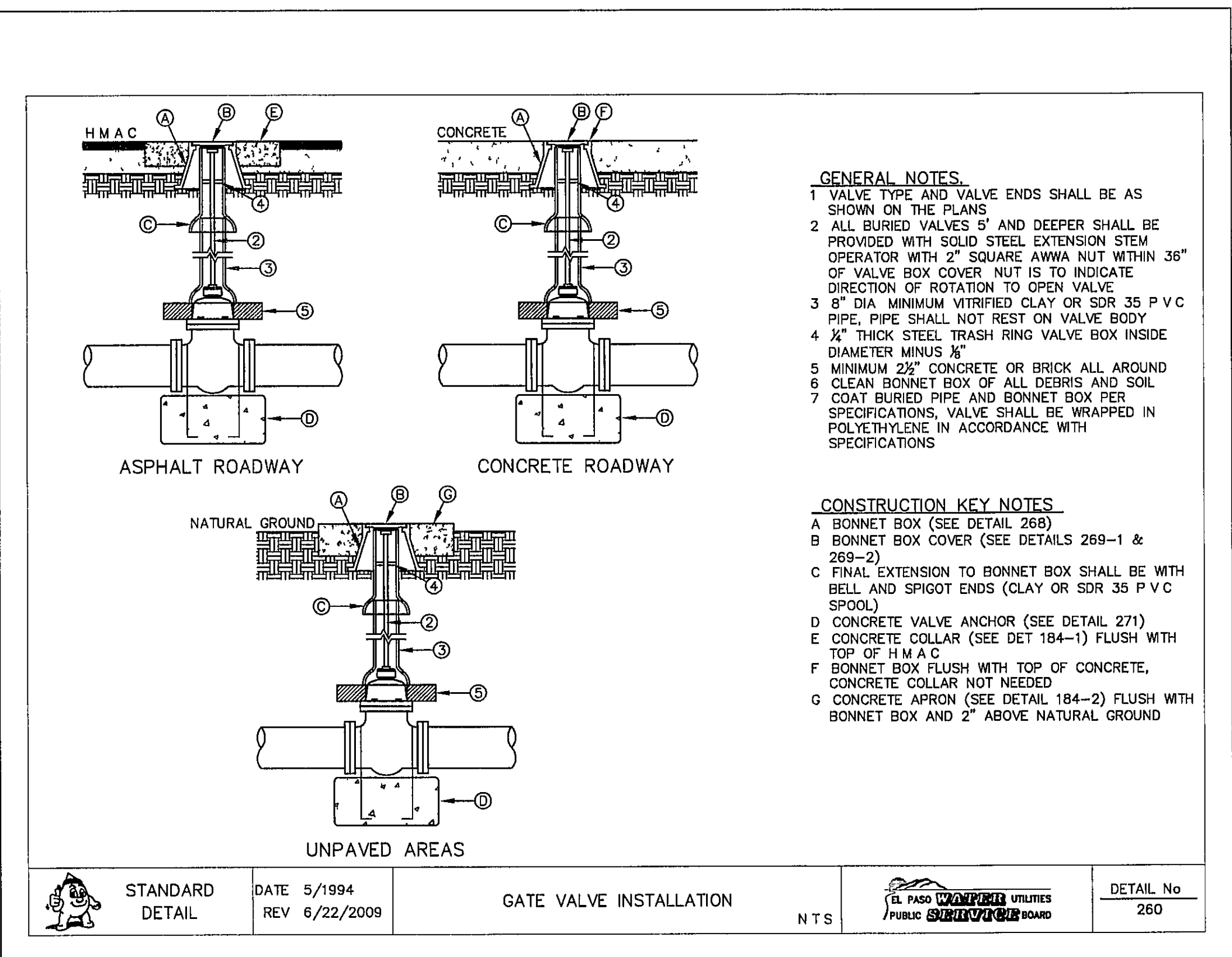
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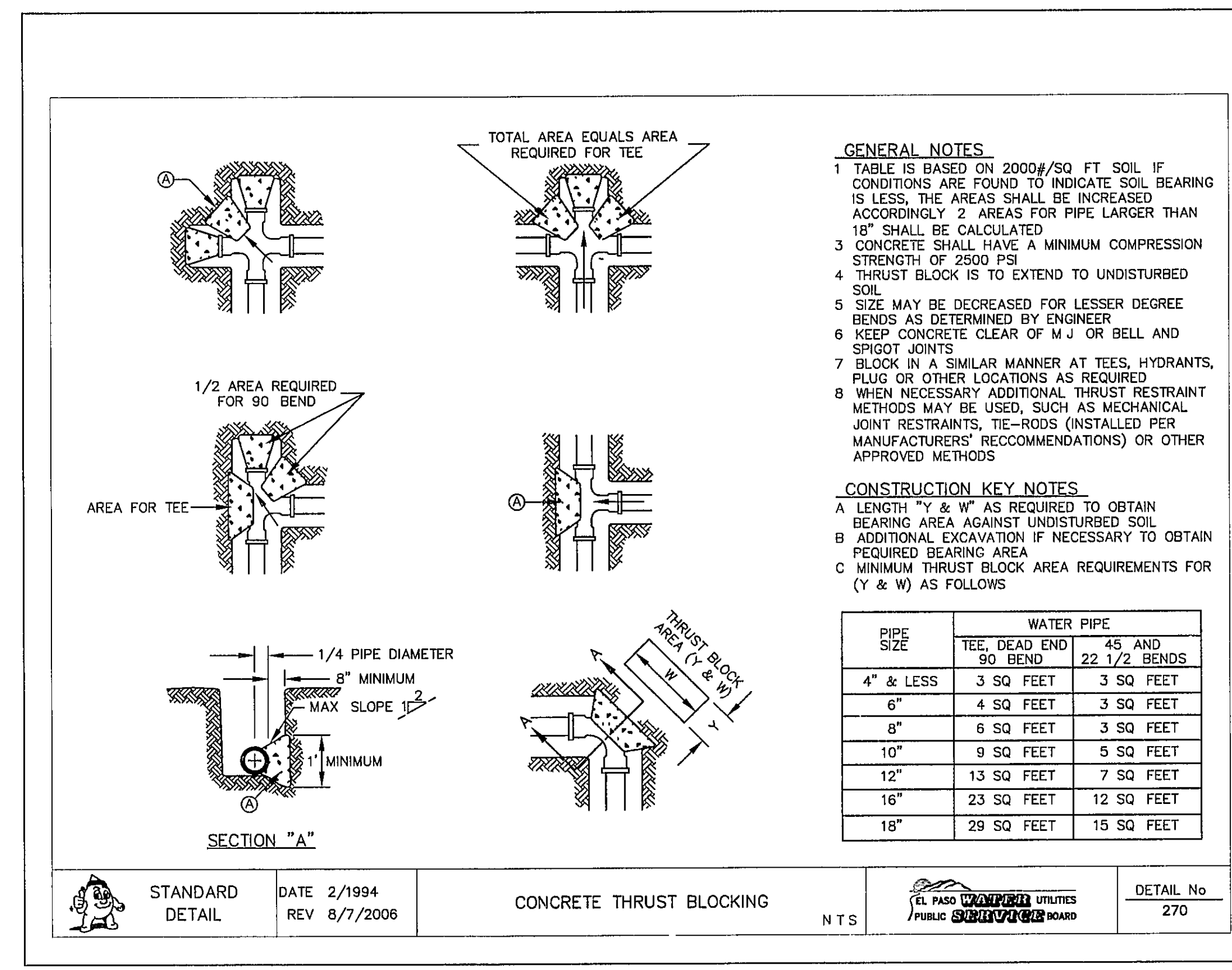
1 BONNET BOX COVER & EXTENSION (FLIP RESISTANT) NTS



2 STANDARD LOCATION FOR EXTENSIONS DETAIL NTS



3 GATE VALVE INSTALLATION NTS



4 THRUST BLOCKING NTS

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

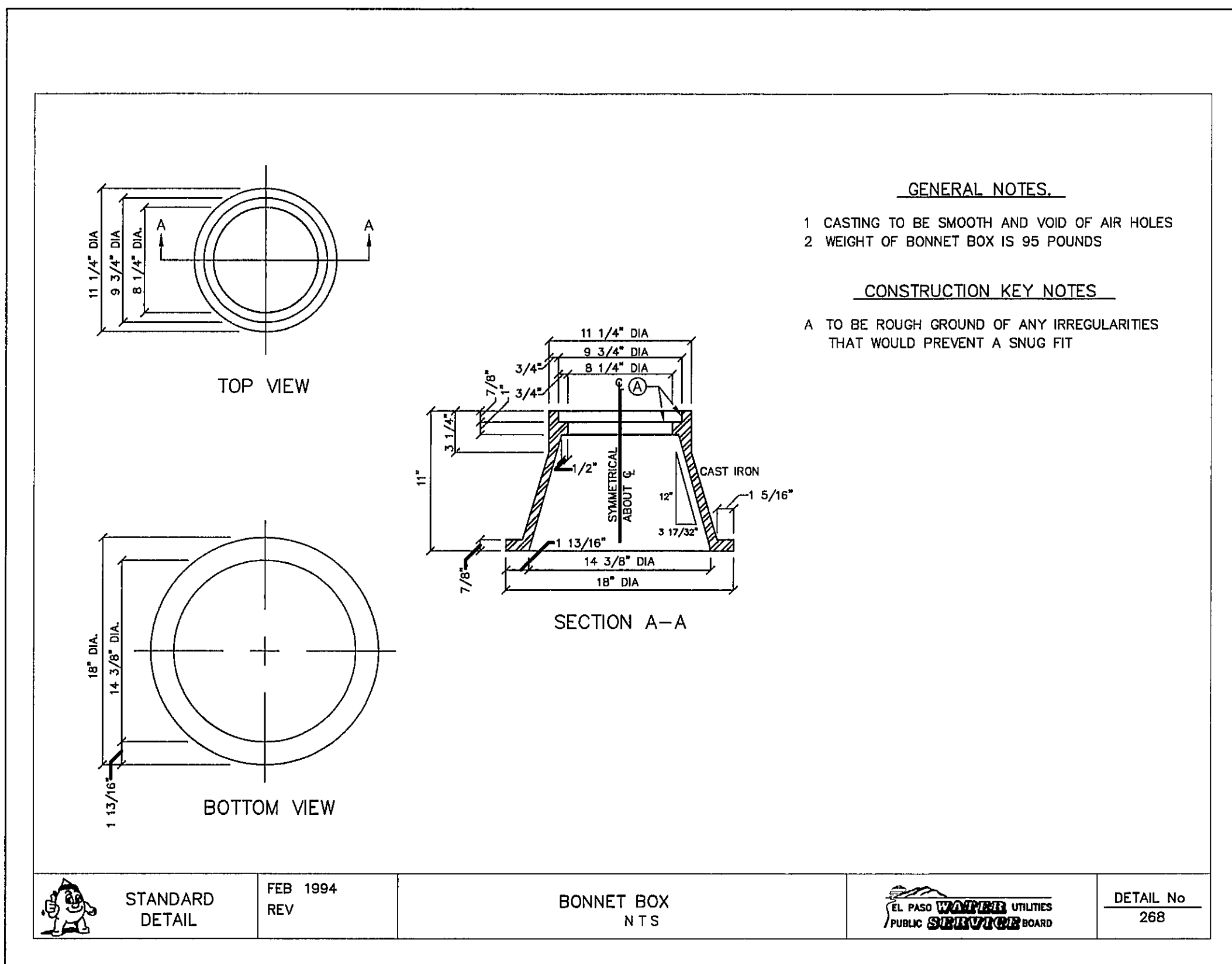
ENGINEER'S SEAL
 JORGE L. AZCARRATE
 TEXAS REGISTERED ENGINEERING FIRM #4584
 4712 Woodrow Bean, Ste F El Paso, TX 79904
 Office 915.544.5232 Fax 915.544.5233 www.cesgroup.net

SCALE
 Horizontal Vertical
 Contour Interval N/A
 DATE MAY 2012
 DESIGN BY GR J.H.
 DRAWN BY J.H.
 CHKD BY J.L.A.
 APPVD BY J.L.A.
 JOB No. 2000-128-LD

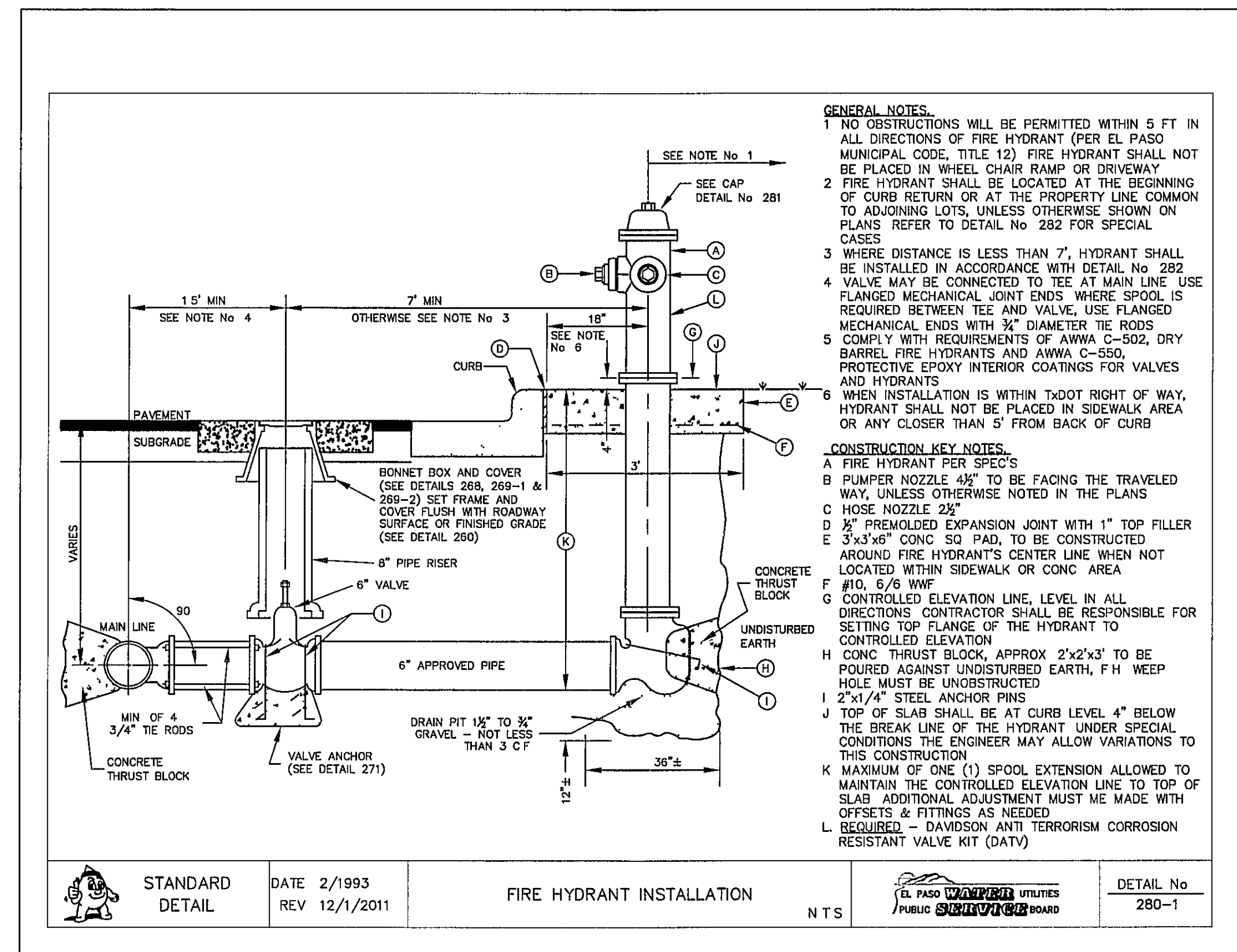
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 SANDSTONE RANCH UNIT SEVEN
 REPLAT-D
 SUBDIVISION IMPROVEMENTS

SHEET TITLE
 WATER DETAILS
 (SHEET 2 OF 5)
 SHEET NO

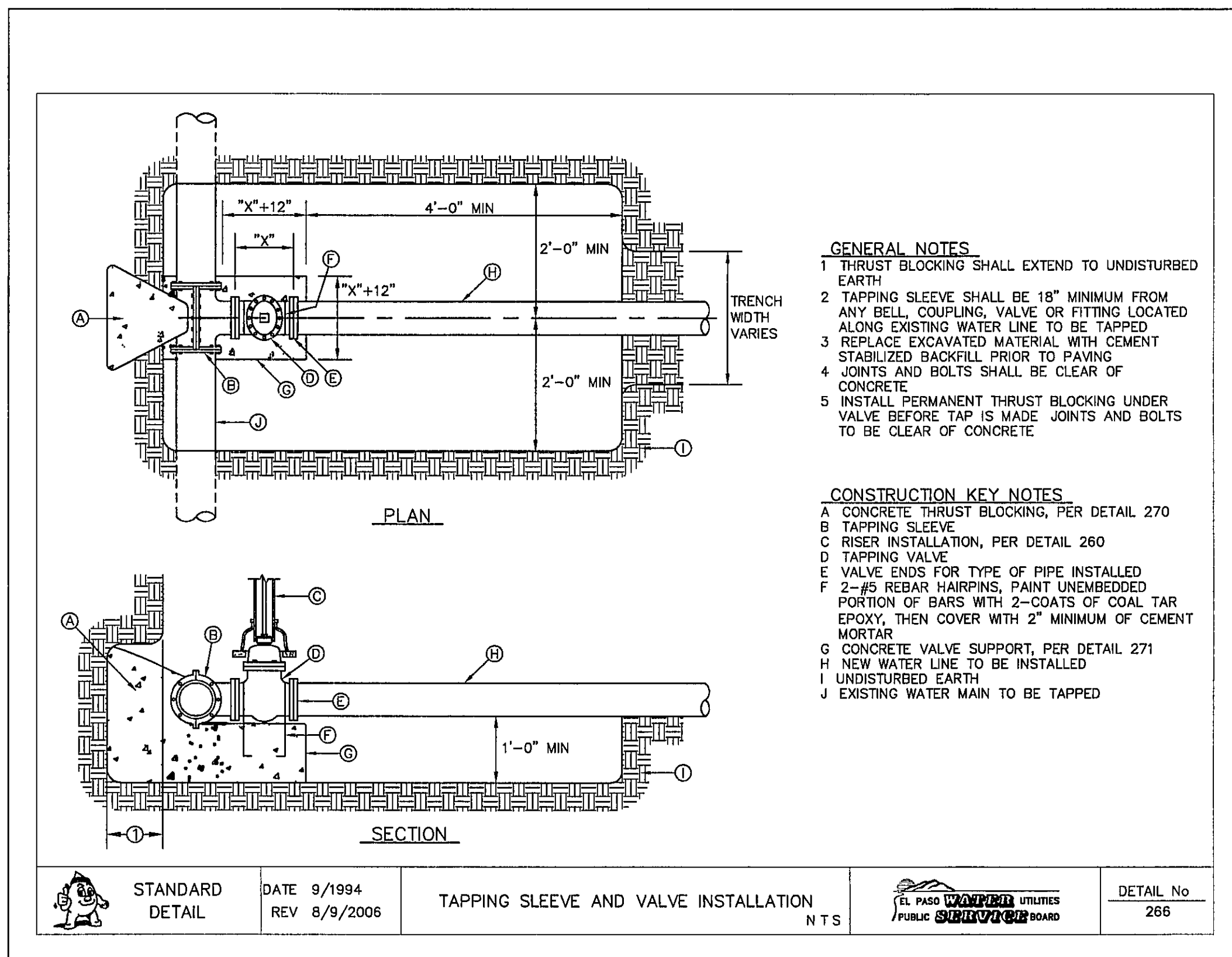
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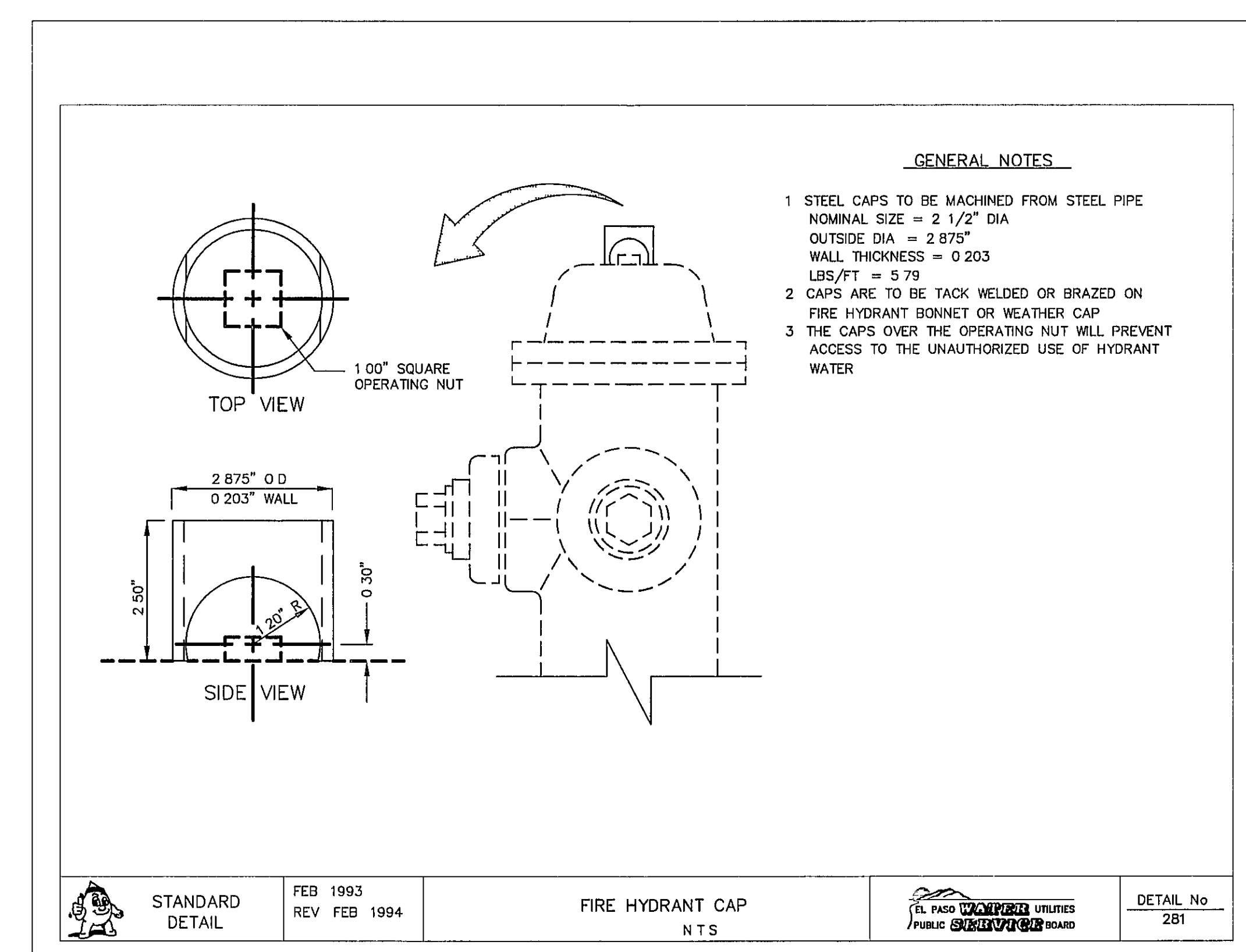
1 BONNET BOX
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2 STANDARD FIRE HYDRANT INSTALLATION
 NTS



3 TAPPING SLEEVE AND VALVE INSTALLATION
 NTS

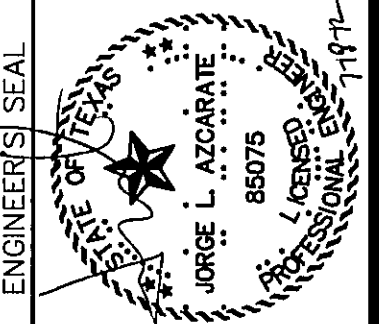


4 FIRE HYDRANT CAP
 NTS

REFERENCES - BENCHMARKS

FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 40.33 22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN	BY
DATE	REVISIONS

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 TEXAS REGISTERED ENGINEERING FIRM F-4684
 4712 Woodrow Blain, Ste F, El Paso, TX 79924
 Office: 915.544.6222 Fax: 915.544.6233 www.cebaengr.com



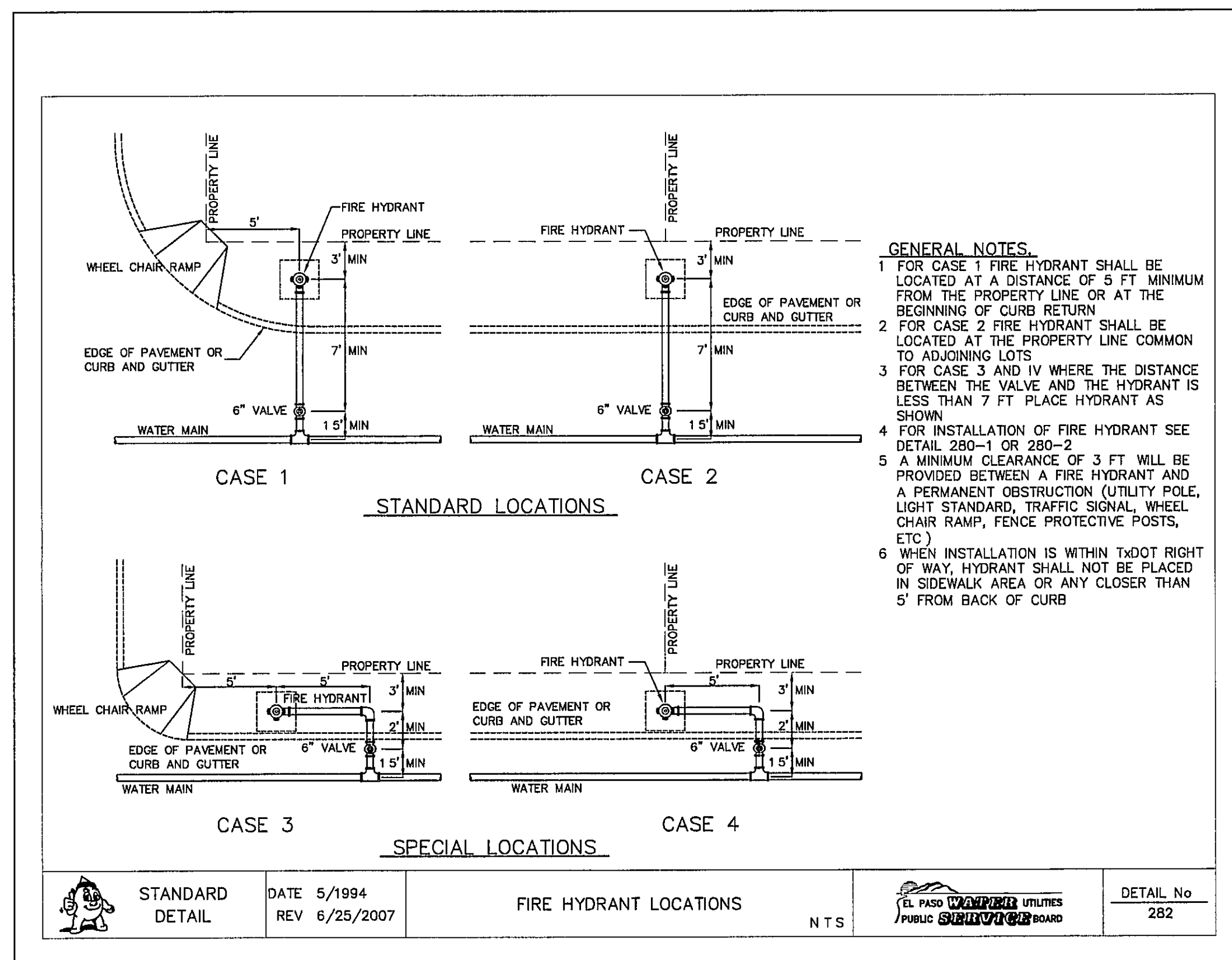
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Vertical	N/A
Contour Interval	N/A
DATE	MAY 2012
DESIGN BY	G.R.
DRAWN BY	J.H.
CHECK BY	J.L.A.
APPROV BY	J.L.A.
JOB No	2000-128-LD

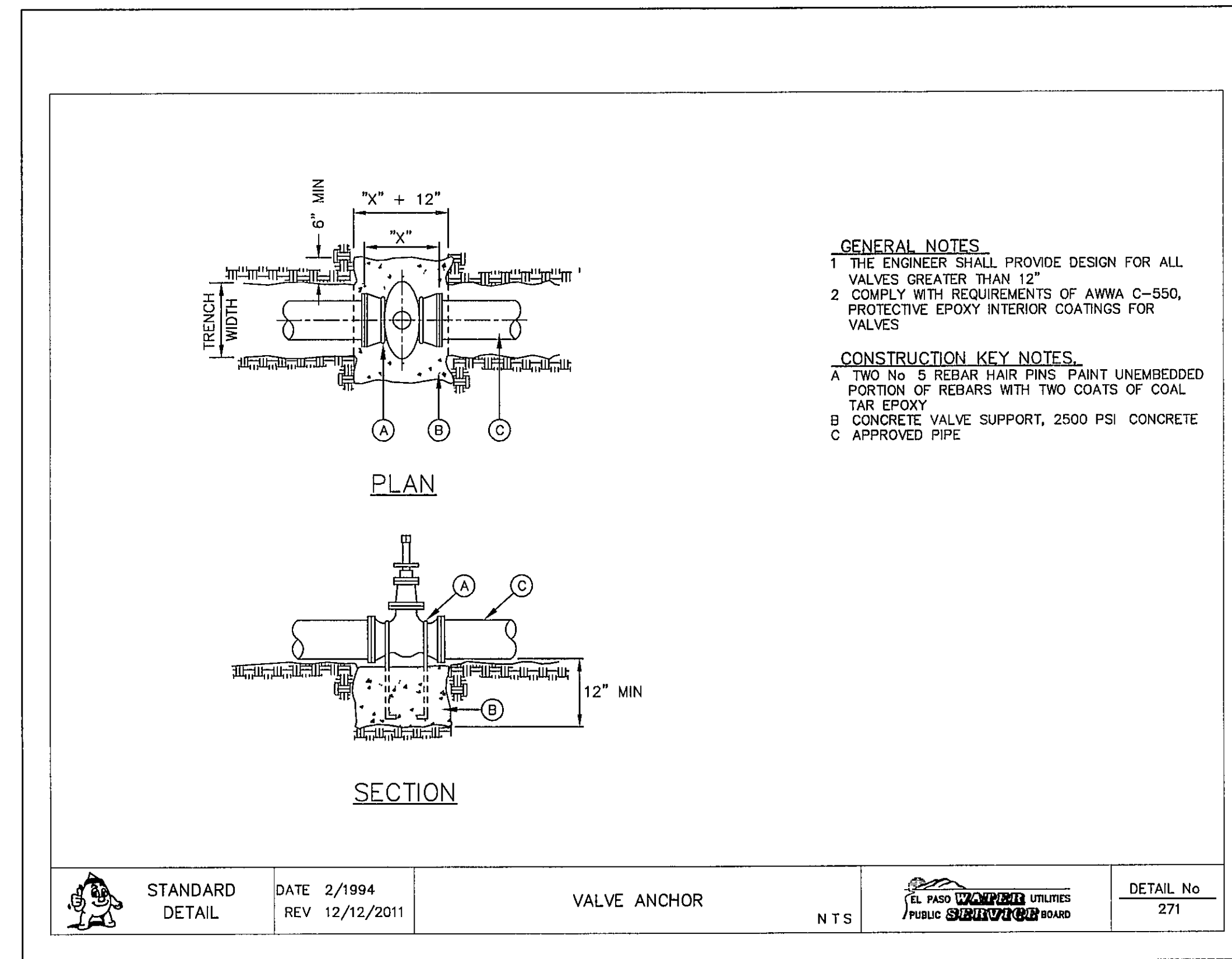
PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
 REPLAT-D
 SUBDIVISION IMPROVEMENTS**

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

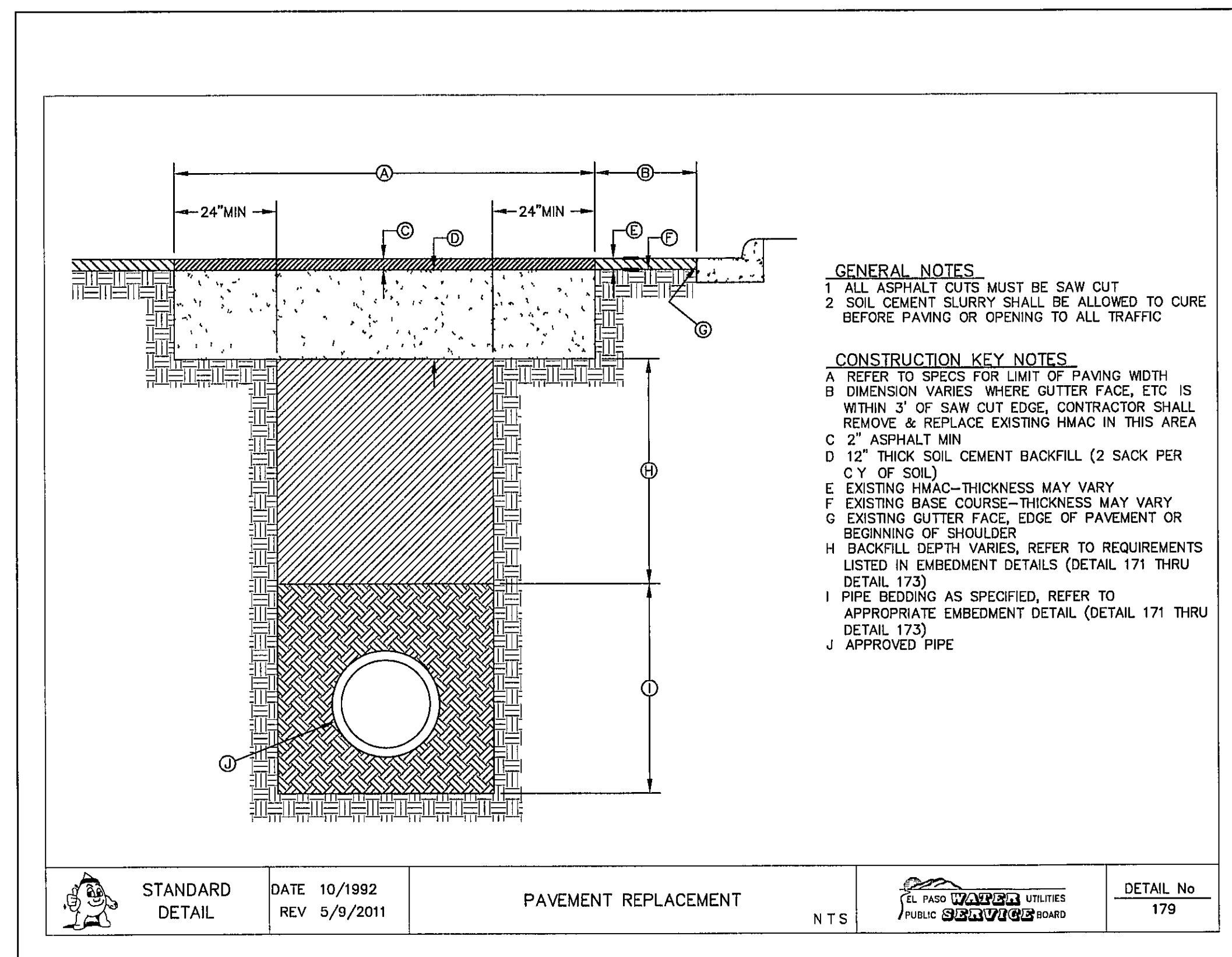
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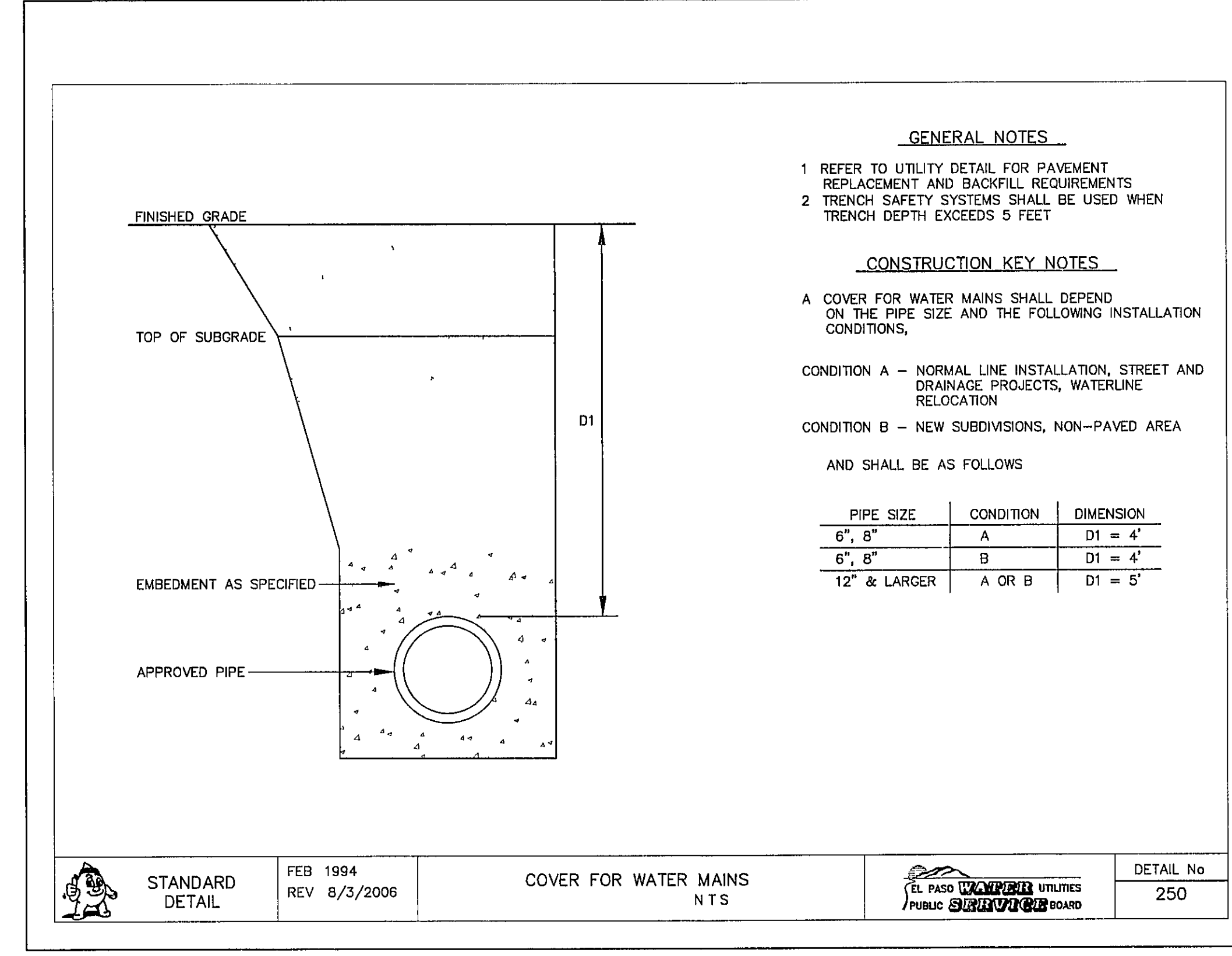
1 FIRE HYDRANT LOCATIONS N T S



2 VALVE ANCHOR N T S



3 PAVEMENT REPAIR DETAIL N T S



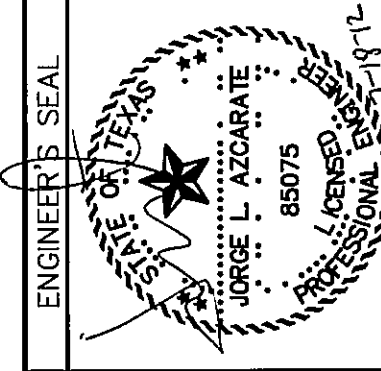
4 STANDARD COVER FOR WATER MAINS N T S

REFERENCES - BENCHMARKS

FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN

DATE	REVISIONS	BY

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o s a
 engineers • architects • planners
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 4712 Woodrow Beam, Ste. F El Paso, TX 79924
 Office 915.544.5232 Fax 915.544.5233 www.osainc.net



SCALE N/A

Horizontal	Vertical	Contour Interval	N/A

DATE MAY 2012
 DESIGN BY GR
 DRAWN BY JH
 CHKD BY JLL
 APPVD BY JLL
 JOB No. 2000-1728-LD

PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
 REPLAT-D
 SUBDIVISION IMPROVEMENTS**

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

C12.4

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) 549-6005
AT&T	(800) 852-3786
U S SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPD&T)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

**WARNING !
BEFORE YOU DIG**

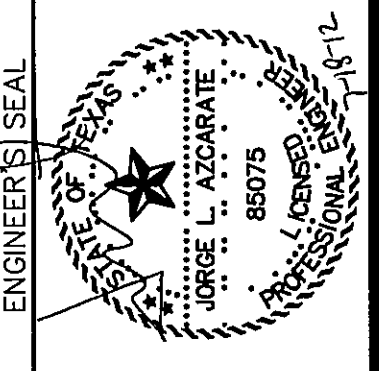
CALL
1-800-DIG-TESS
1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS	REVISIONS
FOUND TYPIC BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22 ELEVATION 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM) CITY OF EL PASO VERTICAL DATUM SHOWN	DATE
	BY

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engineers • architects • planners

TEXAS REGISTERED ENGINEERING FIRM F-4684
4712 Woodrow Bann, Ste. F El Paso, TX 79924
Office 915 544 5232 Fax 915 544 5233 www.ceea.com



SCALE	N/A
Horizontal	N/A
Vertical	N/A
Contour Interval	N/A
DATE	MAY 2012
DESIGN BY	GR
DRAWN BY	J.H.
CHKD BY	J.L.A.
APPRD BY	J.L.A.
JOB NO	2000-128-LD

PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
WATER DETAILS

(SHEET 5 OF 5)
SHEET NO

C12.5

GENERAL NOTES

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

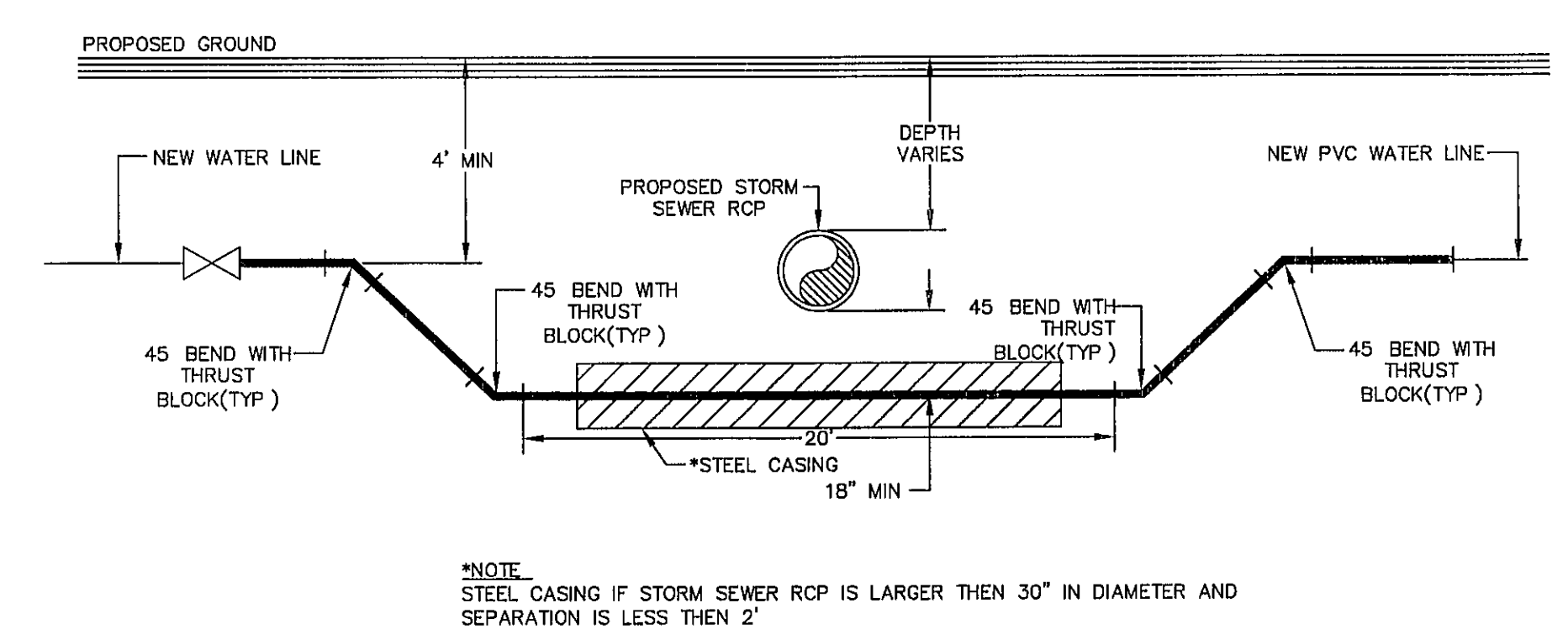
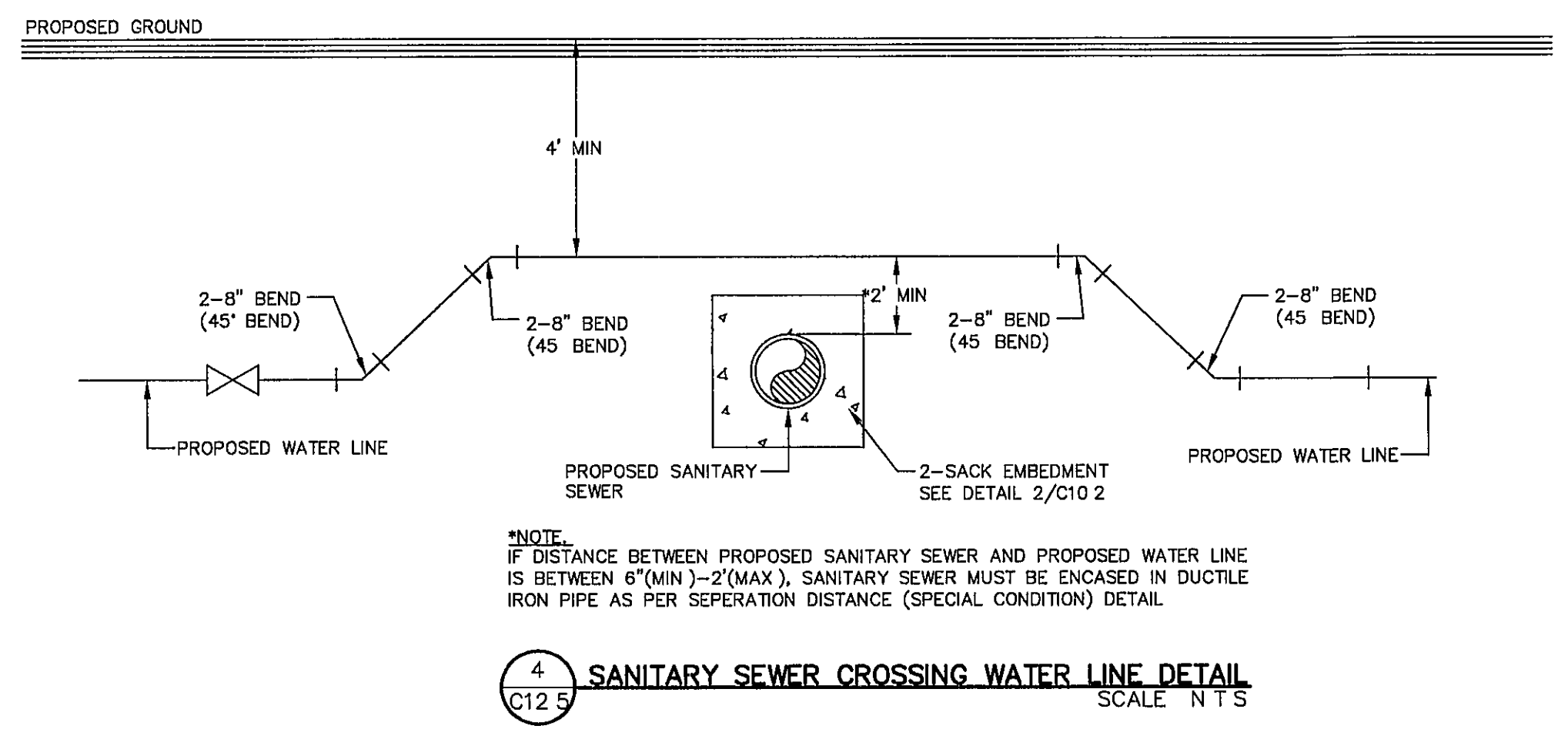
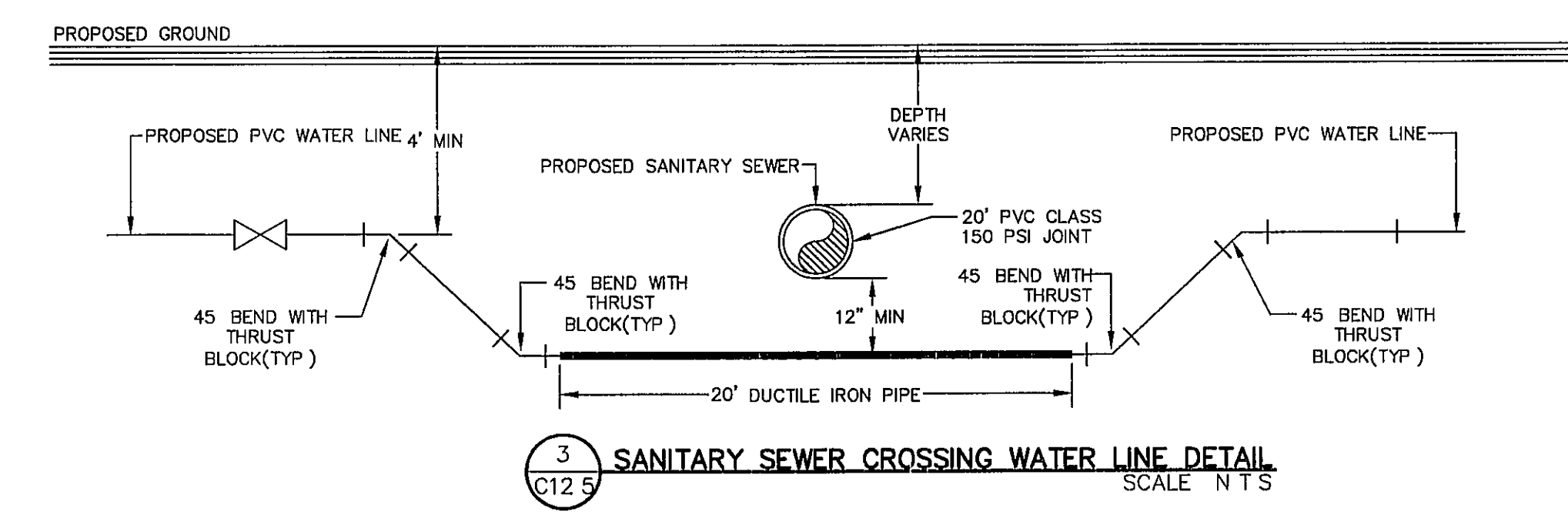
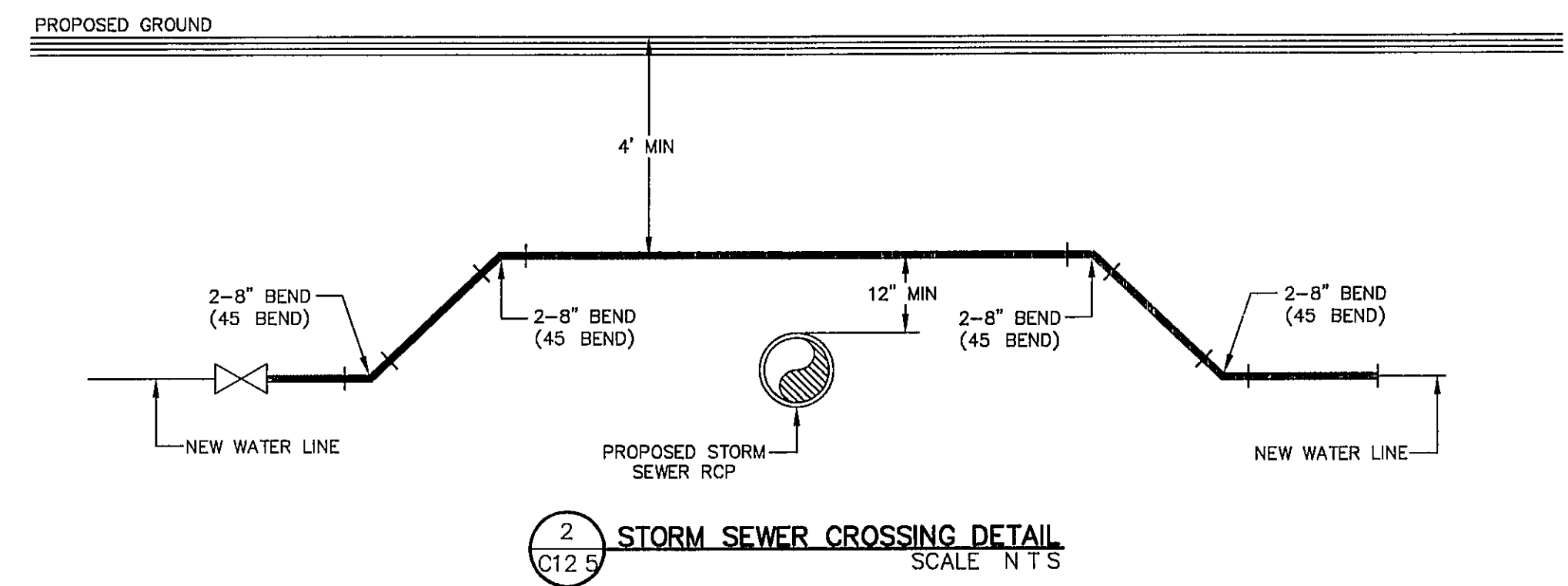
CONSTRUCTION KEY NOTES

A APPROVED MARKING TAPE
B UNDISTURBED STABLE MATERIAL
C NATIVE MATERIAL BACKFILL
PAVED CONDITION, COMPACT TO 90% DENSITY PER ASTM D-1557 MODIFIED PROCTOR
UNPAVED CONDITION, COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR (*SEE NOTE #3 IF THESE PREVIOUS CONDITIONS CANNOT BE MET)
D SLOPE TRENCH IN SANDY SOIL CONDITIONS
E USE CLASS II OR CLASS III SAND PER ASTM D-2487 NATIVE MATERIAL OR IMPORTED SELECT MATERIAL MEETING OR EXCEEDING THIS REQUIREMENT MAY BE USED COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR (OR 90% D-698 STANDARD PROCTOR)
F APPROVED PIPE
G TRENCH DIMENSIONS AS FOLLOWS

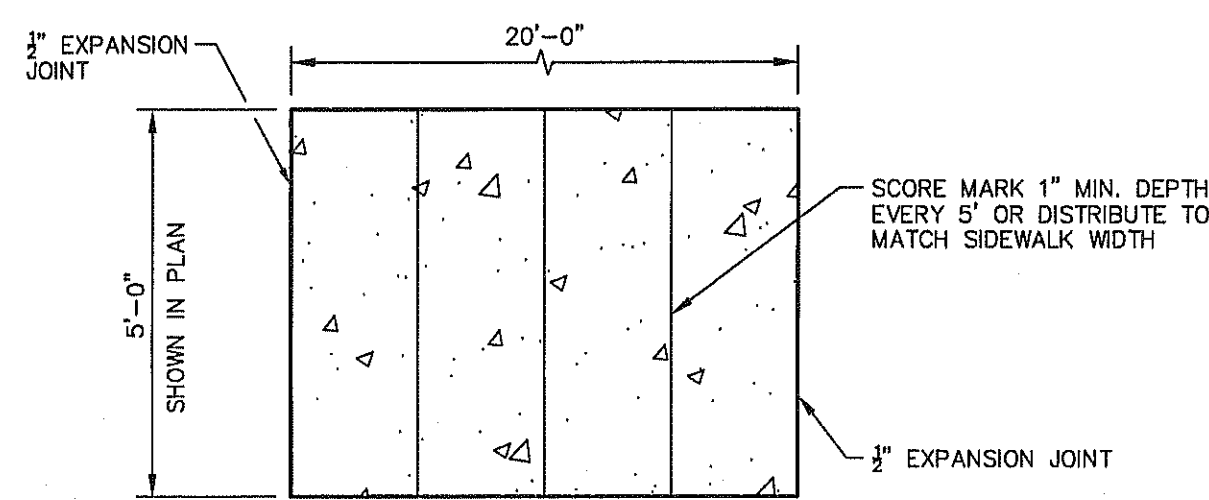
PIPE DIAMETER	"H"
6" - 30"	4"
GREATER THAN 30"	6"
PIPE DIAMETER	"W"
6" - 30"	8"
GREATER THAN 30"	12"

STANDARD DETAIL DATE 4/24/2007 REV 2/21/2011 EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS N T S EL PASO PUBLIC UTILITIES DIVISION PUBLIC UTILITIES DEPARTMENT DETAIL No 171

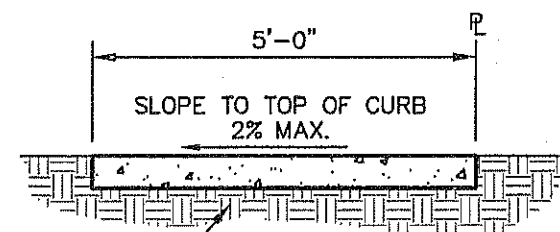
1 BEDDING CLASS DETAILS FOR P.V.C. PRESSURE PIPE
SCALE N T S



5 STORM SEWER CROSSING DETAIL
SCALE N T S



PLAN



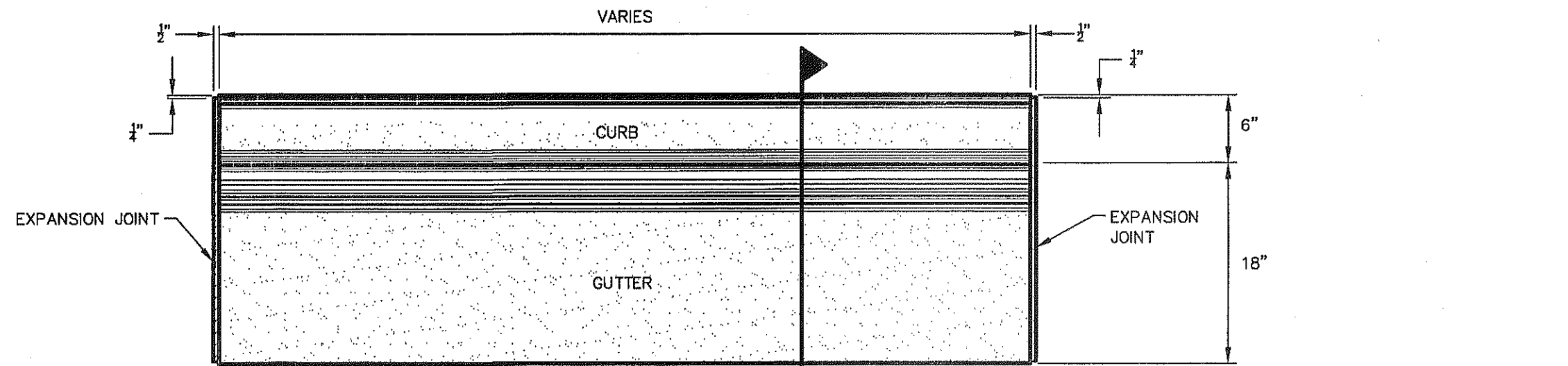
SECTION

SUBGRADE COMPACTED TO 95% ASTM D1557

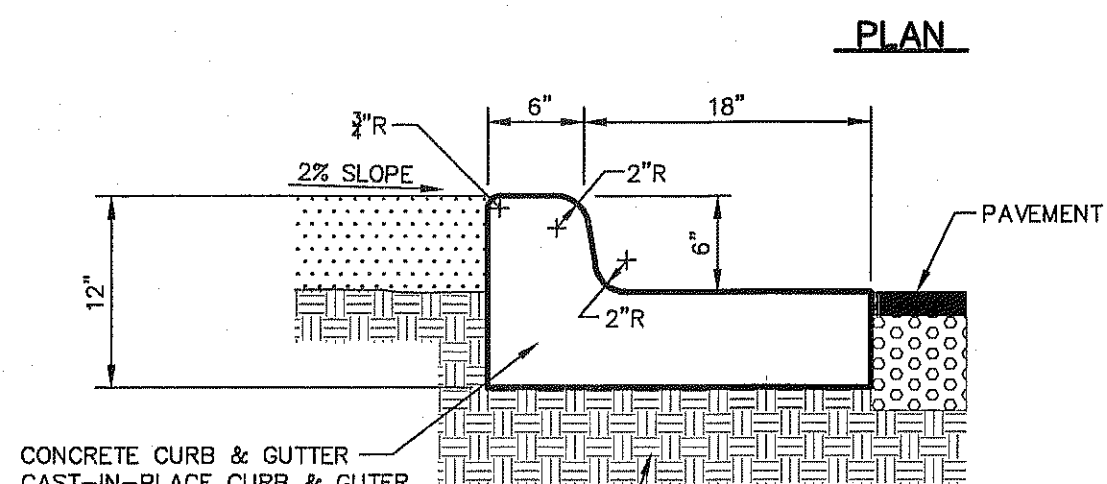
SIDEWALK NOTES:

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"



PLAN



SECTION

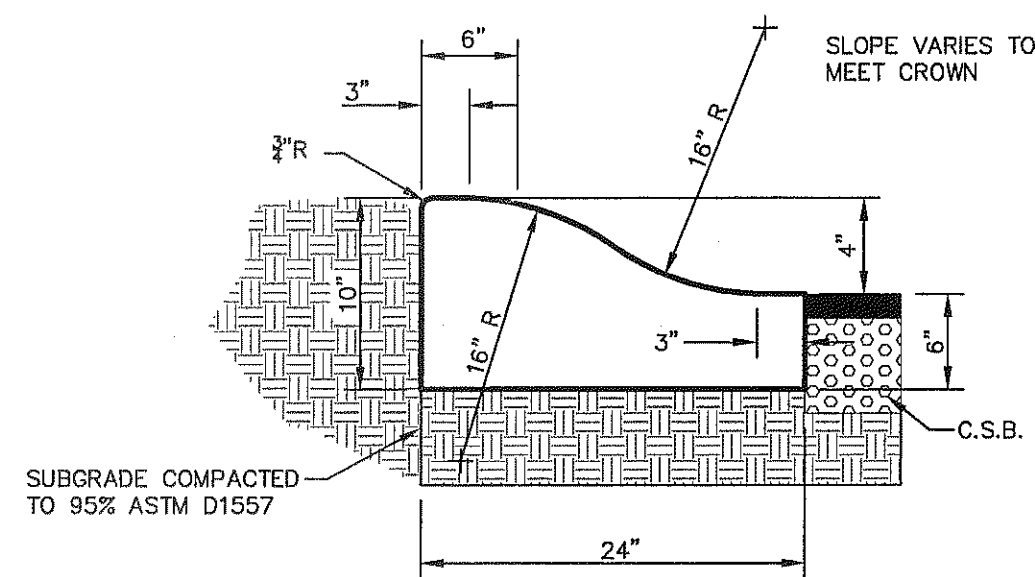
CONCRETE CURB & GUTTER CAST-IN-PLACE CURB & GUTTER 3000 PSI CONCRETE AT 28 DAYS.

SUBGRADE COMPACTED TO 95% ASTM D1557

NOTES:

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

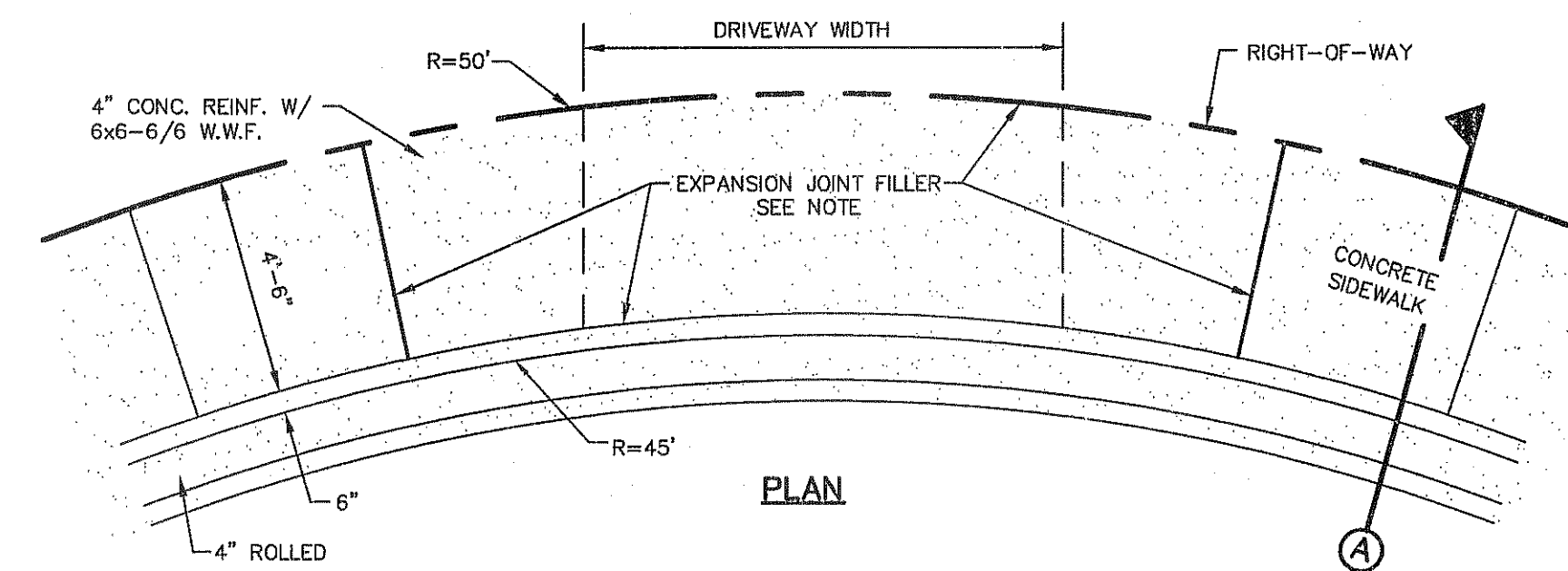
2 CURB & GUTTER DETAIL
SCALE: 1" = 1'-0"



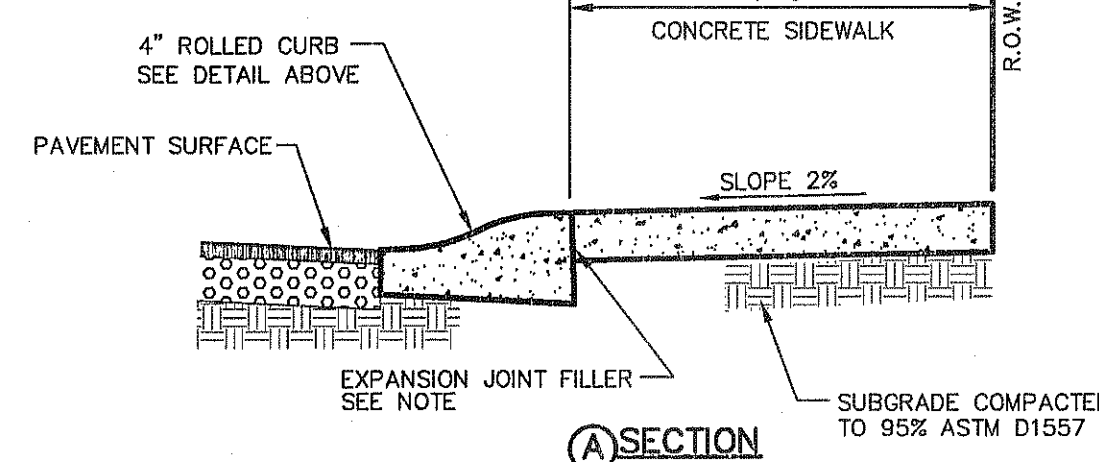
NOTES:

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.

3 4" CONCRETE ROLLED CURB DETAIL
SCALE: 1" = 1'-0"



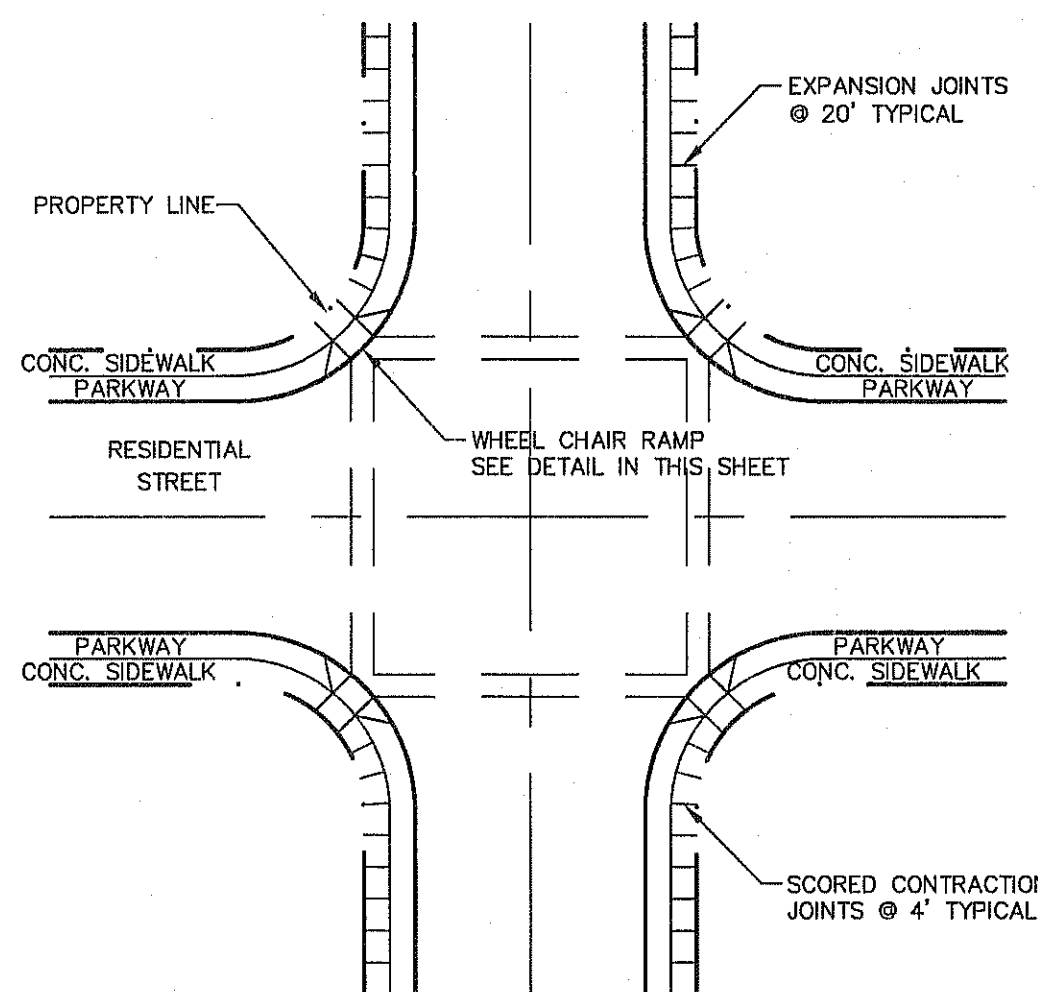
PLAN



SECTION

NOTES:
EXPANSION JOINT FILLER SHALL CONSIST OF 1/2" BITUMINOUS TYPE PREFORMED (AASHTO M-33)

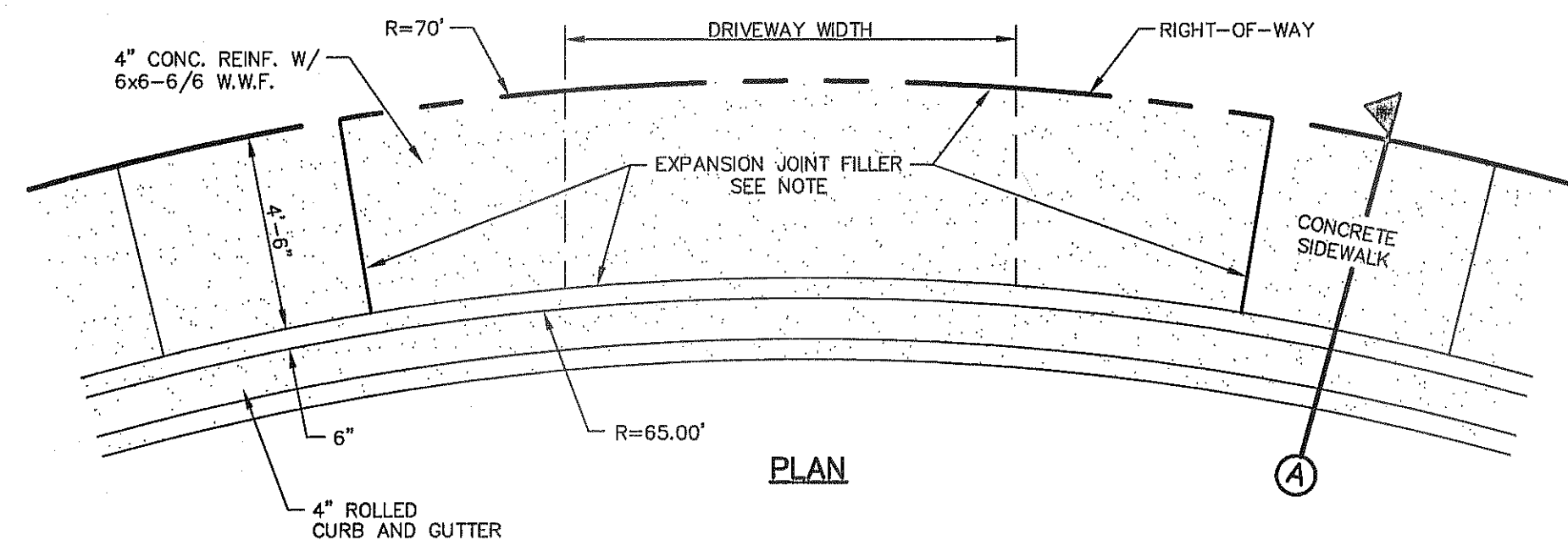
4 CUL-DE-SAC (50' R) DRIVEWAY DETAIL
SCALE: N.T.S.



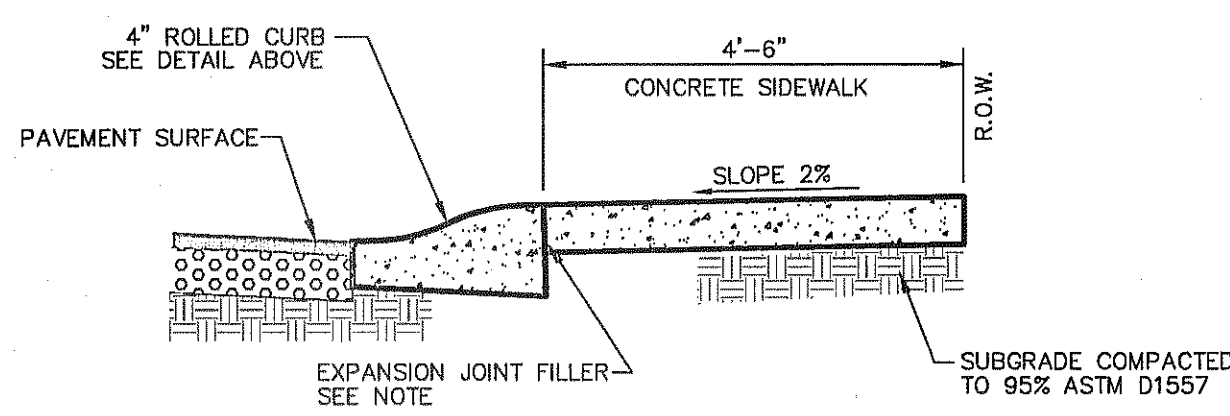
NOTES:

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. ALL PARKING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF EL PASO STANDARDS.

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



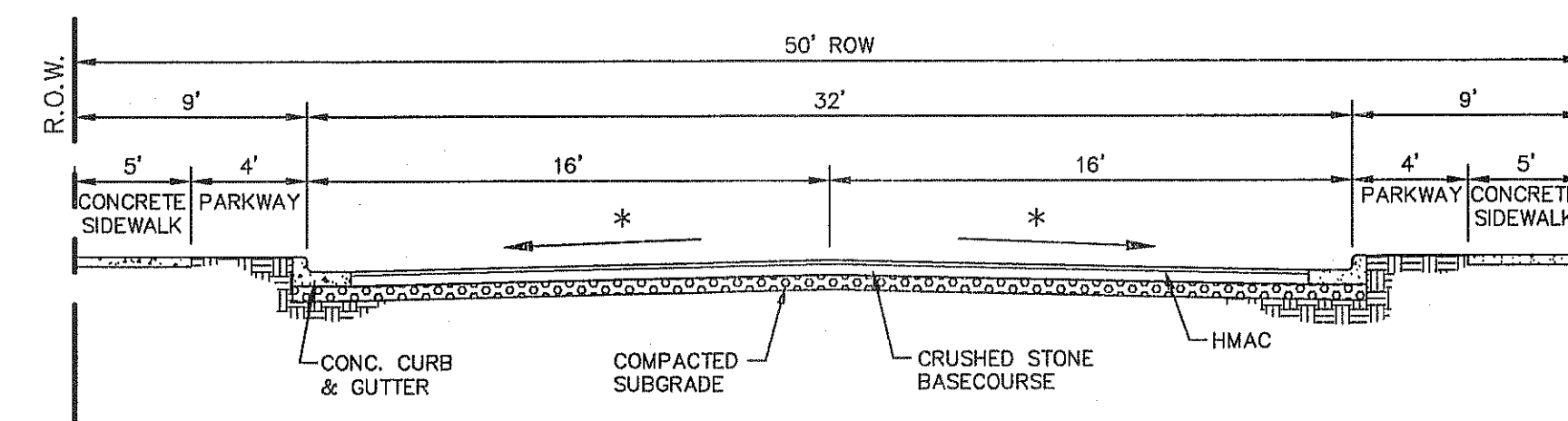
PLAN



SECTION

NOTES:
EXPANSION JOINT FILLER SHALL CONSIST OF 1/2" BITUMINOUS TYPE PREFORMED (AASHTO M-33)

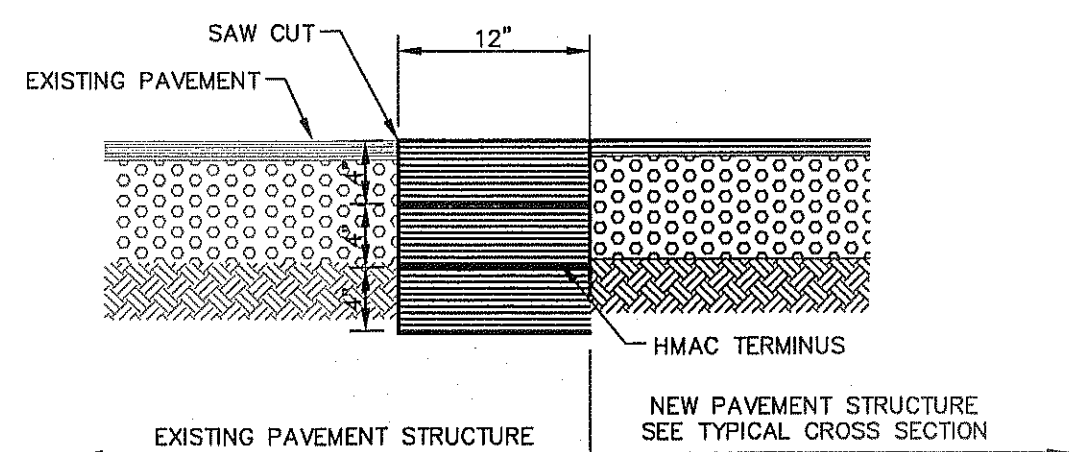
6 HEEL (70' R) DRIVEWAY DETAIL
SCALE: N.T.S.



NOTE:

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

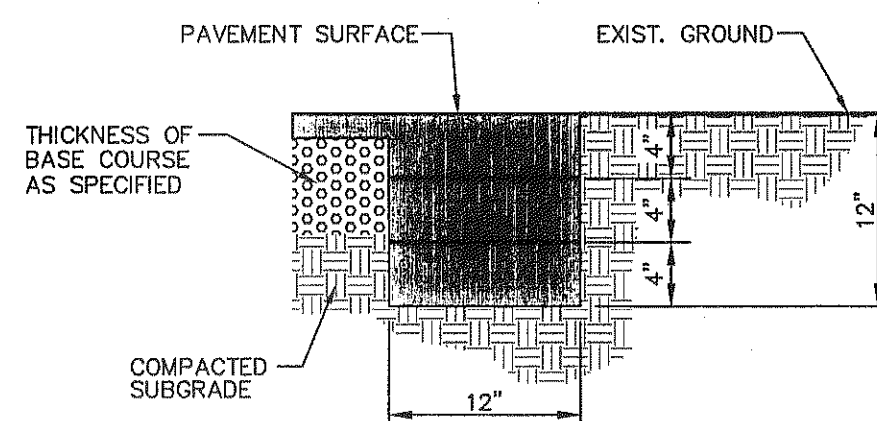
7 TYPICAL ROW STREET SECTIONS DETAIL
SCALE: 1" = 6'-0"



NOTES:

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

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



NOTE:

TERMINUS MUST BE CONSTRUCTED IN 4" LIFTS. FINAL LIFT MUST BE PLACED WITH FINAL PAVEMENT COURSE.

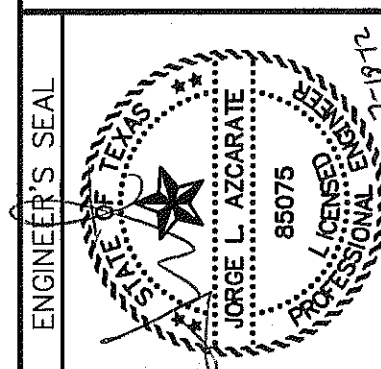
9 TERMINUS OF STREET
SCALE: 1" = 1'-0"

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

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

REFERENCES - BENCHMARKS	DATE	REVISIONS
FOUND TYPICAL BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NOVD DATUM). (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.) CITY OF EL PASO VERTICAL DATUM SHOWN.		

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

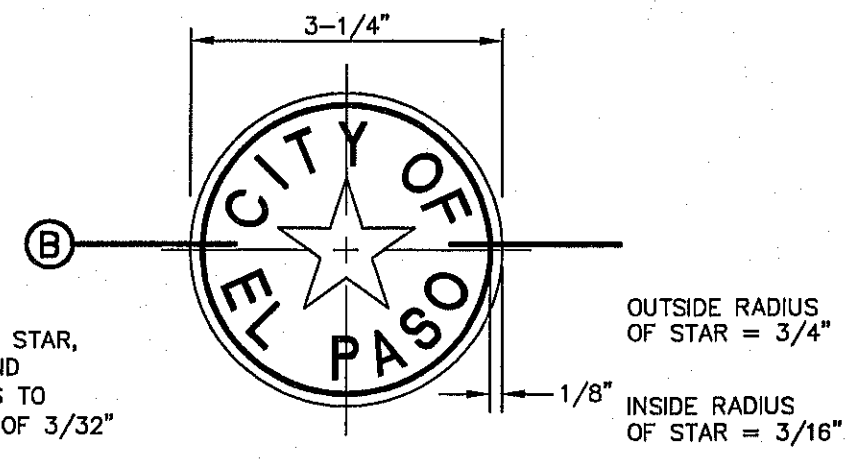
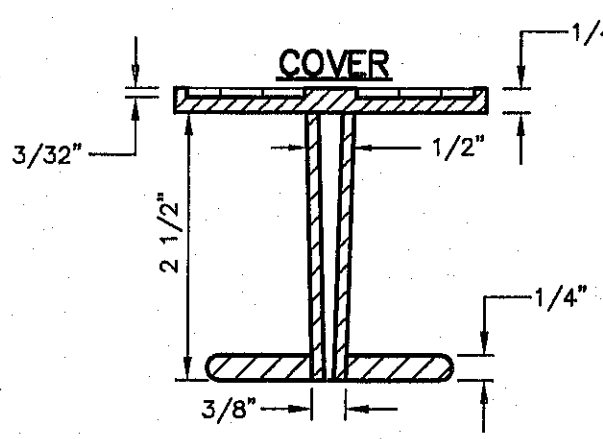
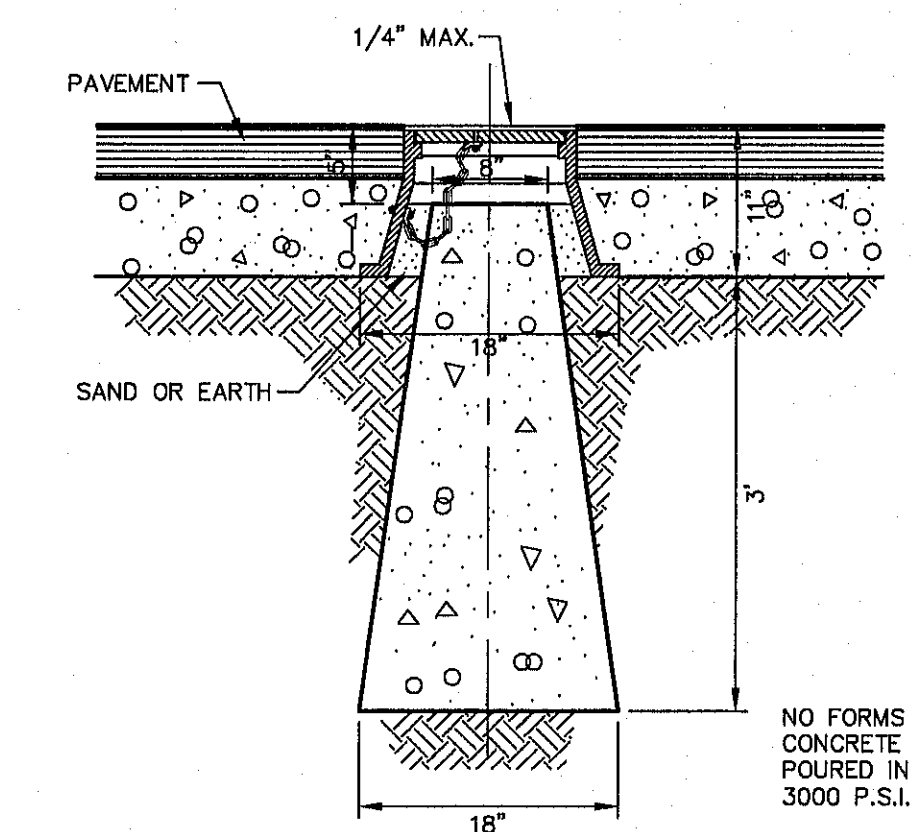
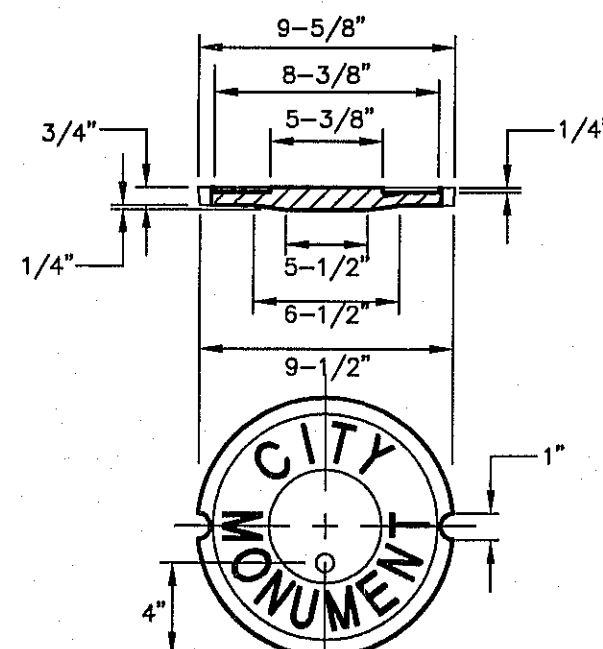
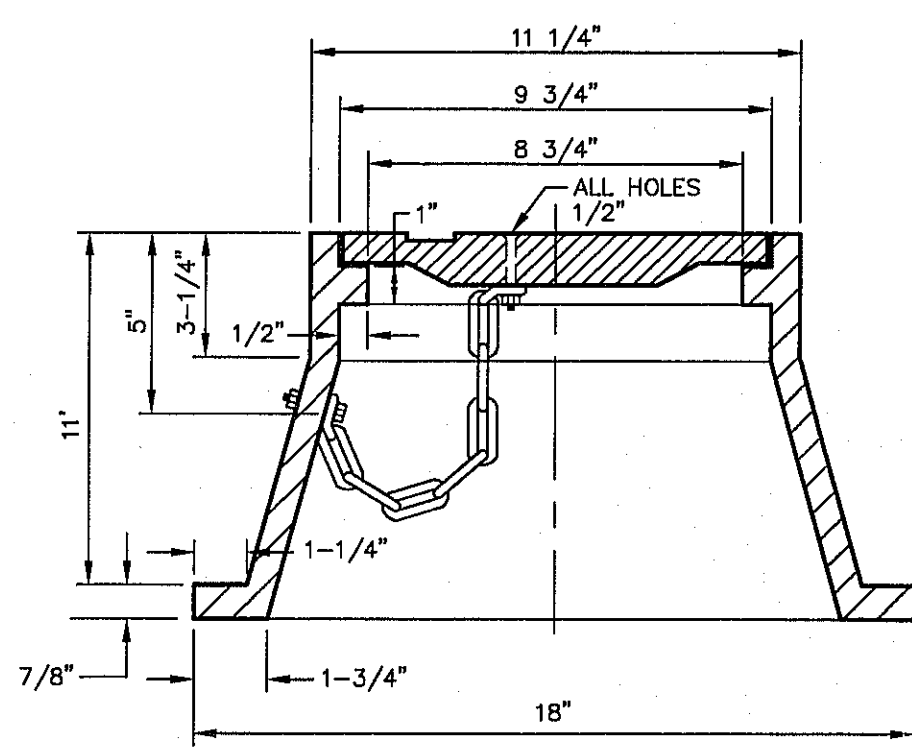


SCALE	Vertical	Horizontal
Vertical	Contour Interval: N/A	
DATE:	MAY 2012	
DESIGN BY:	J.L.A.	
DRAWN BY:	J.L.A.	
CHKD. BY:	J.L.A.	
APP'D. BY:	J.L.A.	
JOB No.	2000-128-LD	

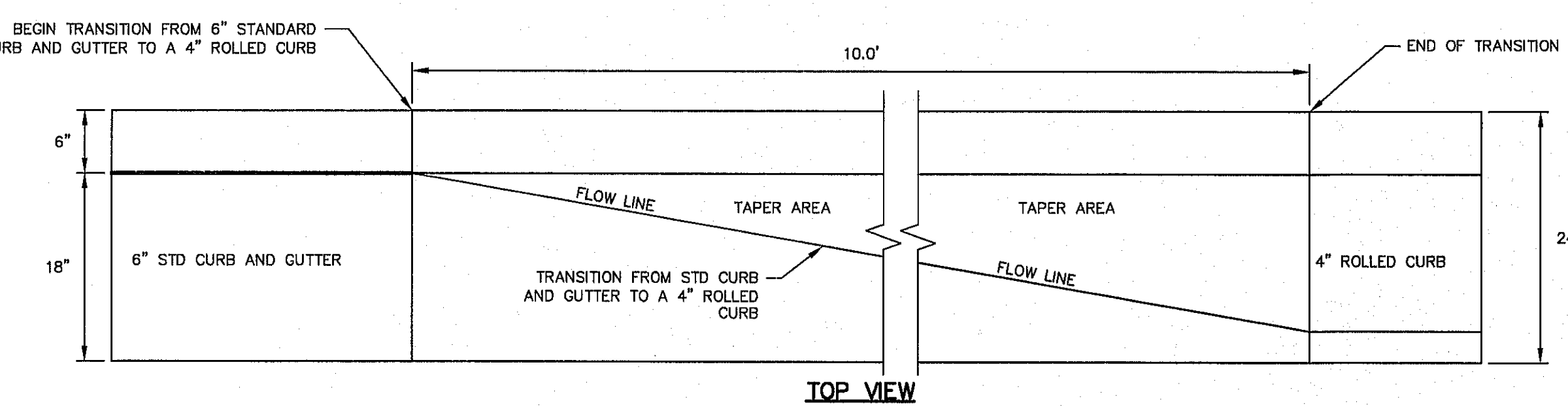
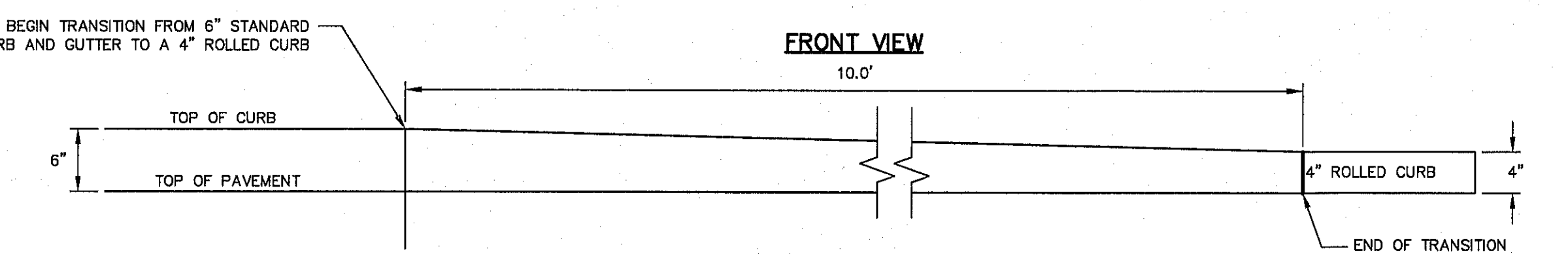
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

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

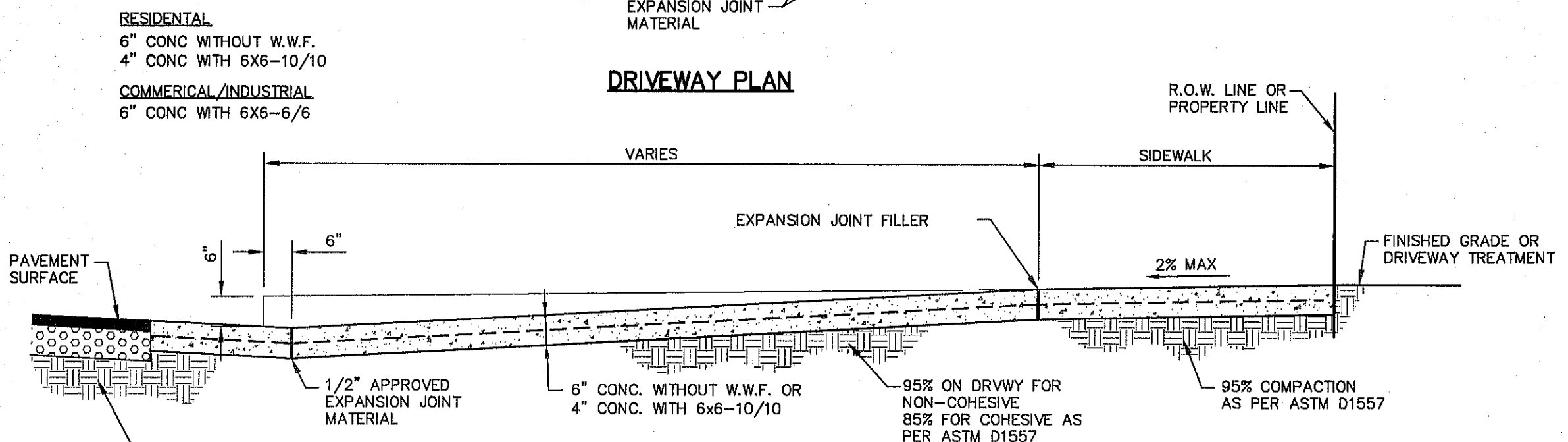
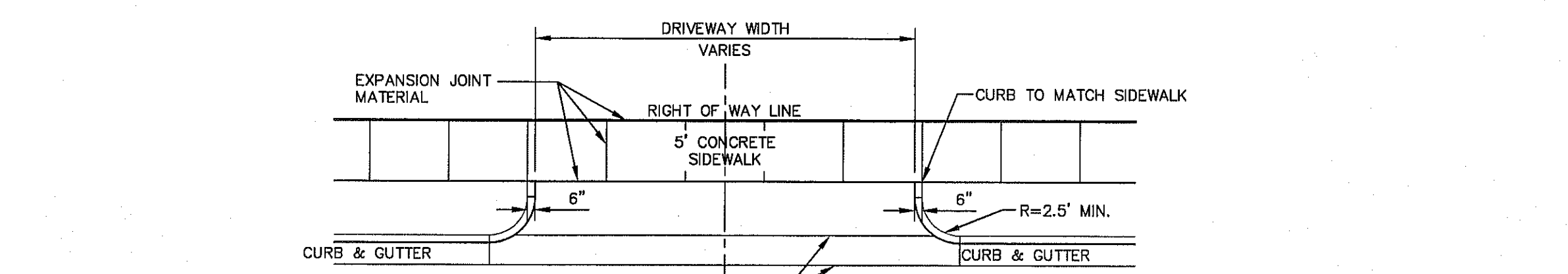
C13.1



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



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



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

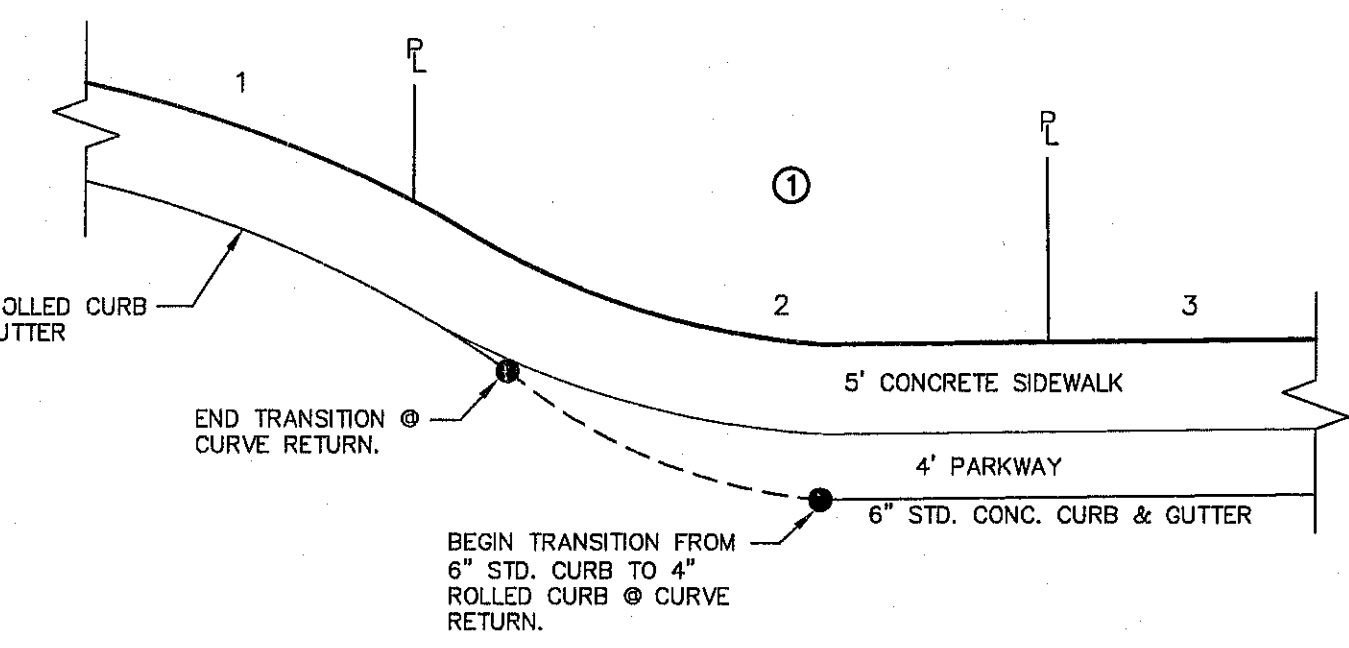
UTILITY LOCATOR SERVICES

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

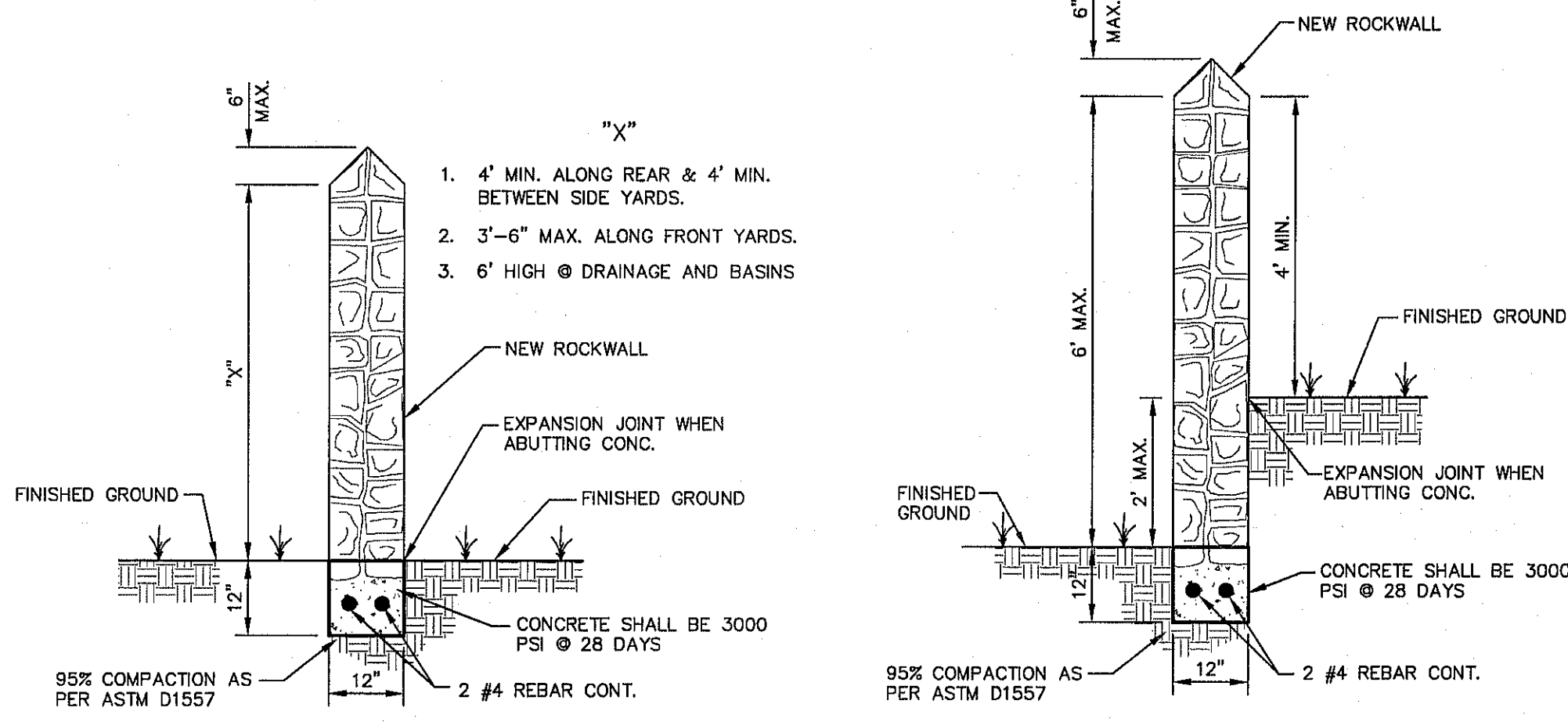
WARNING!
BEFORE YOU DIG

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

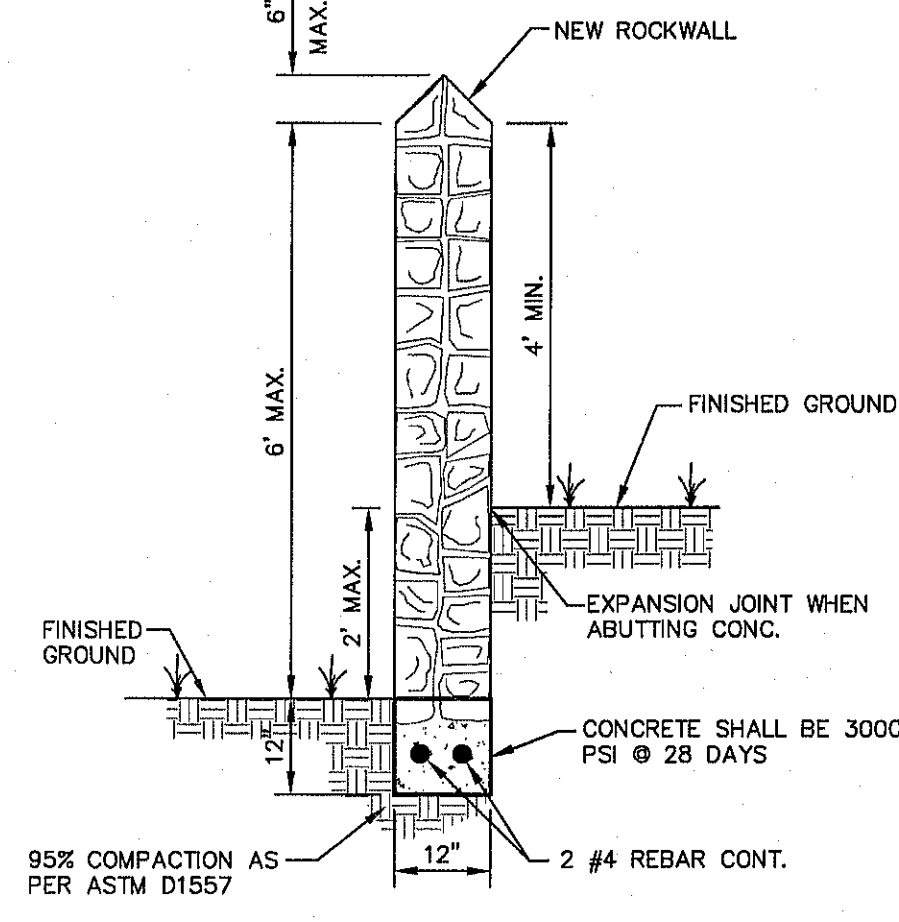
FOR FIELD LOCATING EXISTING UTILITIES



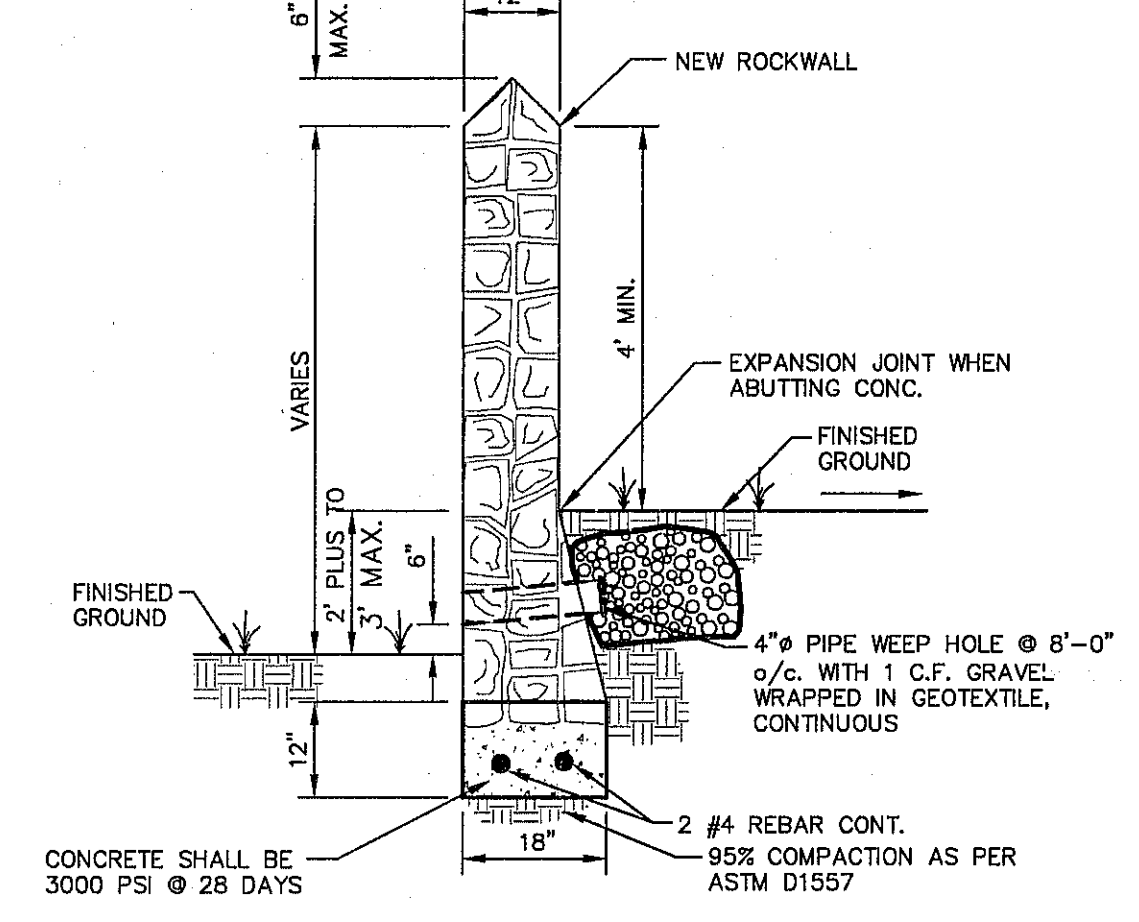
3 TYPICAL HEEL/CUL-DE-SAC SIDEWALK TRANSITION
SCALE: N.T.S.



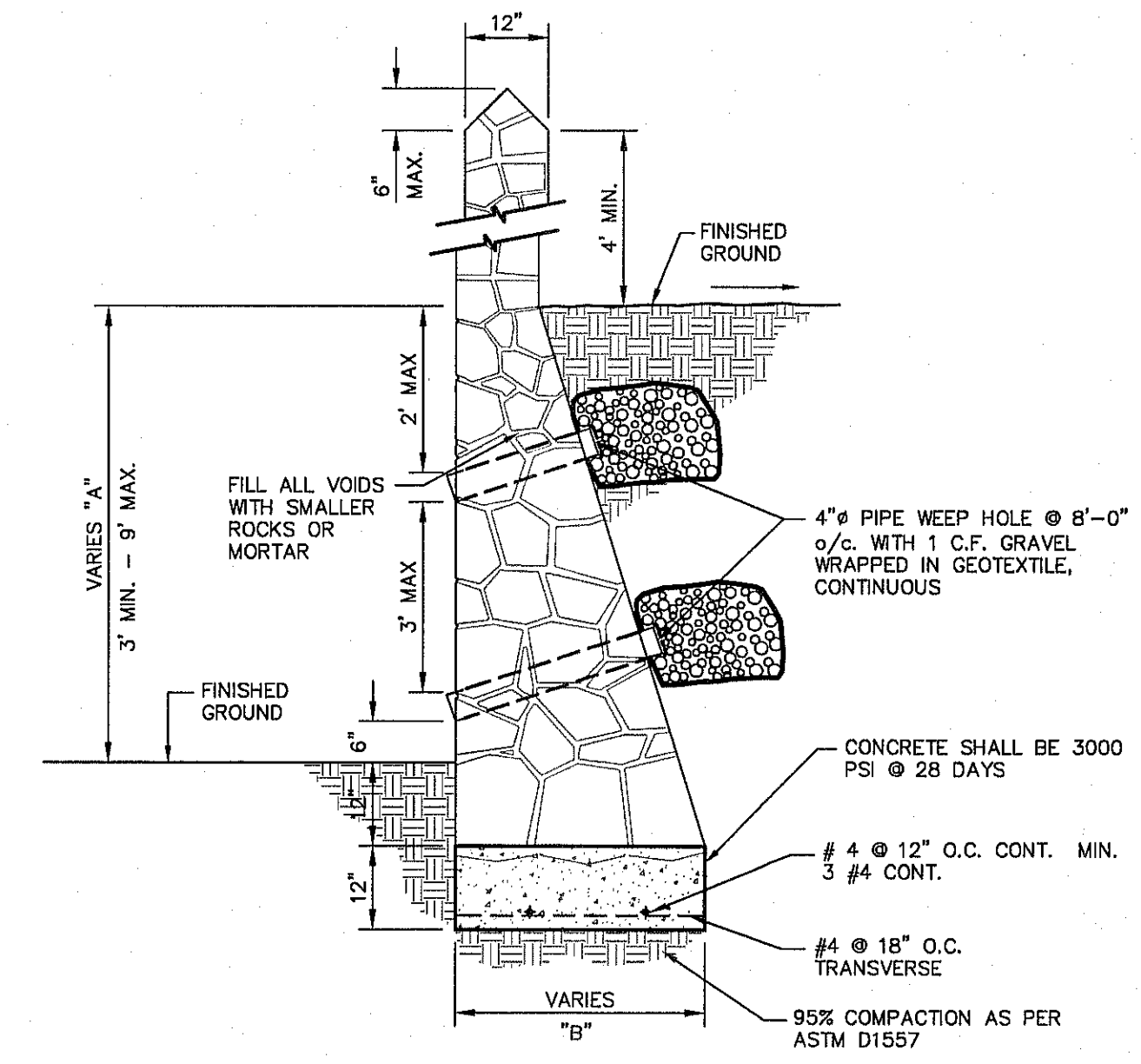
GARDEN WALL SECTION



GARDEN WALL SECTION (2' MAX.)



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



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

RETAINING ROCK WALL

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

ROCK WALL NOTES

- STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTIONS AS IN PRACTICABLE THE STONE SHALL BE DENSE AND RESISTANT OF AIR AND WATER.
- MORTAR MUST BE TYPE "S" 1800 P.S.I. AS PER ASTM C270.
- MASONRY WALL OVER SIX (6) FEET IN HEIGHT AND THOSE USED FOR EARTH RETENTION OVER TWO (2) FEET MUST BE DESIGNED AS STRUCTURAL WALLS..
- WALLS ADJACENT TO PONDING AREAS OR DRAINAGE DITCHES MAY BE CONSTRUCTED OF BRICK, ROCK, STONE, OR CINDER BLOCK AND SHALL NOT BE LESS THAN SIX (6) FEET HIGH.
- ROCKWALL MORTAR JOINTS MUST NOT EXCEED TWO (2) INCHES.
- PROVIDE ONE (1) INCH EXPANSION JOINTS AT EVERY 100 FEET.
- ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED.
- ALL STONE FOR ROCKWALLS SHALL BE FRACTURED QUARRIED ROCK OR ROUND ROCK, NO RIVER ROCK SHALL BE ALLOWED.
- REINFORCING STEEL SHALL BE ASTM A615 GRADE 40.
- ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSI (MINIMUM).
- BACKFILL MATERIALS SHALL CONSIST OF COARSE GRAINED, WELL-DRAINED SOILS (WITH NO CLAY CONTENT).
- RETAINING WALL EQUAL TO OR HIGHER THAN 4' (RETAINING PORTION) SHALL BE CONSTRUCTED BY DEVELOPER.

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

REFERENCES - BENCHMARKS

FOUND TWOOD BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM). (SUBTRACT 8.462 TO CONVERT TO CITY DATUM). CITY OF EL PASO VERTICAL DATUM SHOWN.

DATE	REVISIONS	BY

esa

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4712 Woodrow Bessie, Ste. F, El Paso, TX 79924
Office: 915.541.5232 Fax: 915.541.5233 www.esaengineer.com

ENGINEER'S SEAL

Professional Engineer Seal for J.L.A. No. 85075, State of Texas.

SCALE

Horizontal: Contour Interval: N/A

Vertical: MAY 2012

DATE: MAY 2012

DESIGN BY: G.R.

DRAWN BY: J.H.

CHECKED BY: J.L.A.

APPROVED BY: J.L.A.

JOB No.: 2000-128-LD

PROJECT NAME

SANDSTONE RANCH UNIT SEVEN REPLAT-D SUBDIVISION IMPROVEMENTS

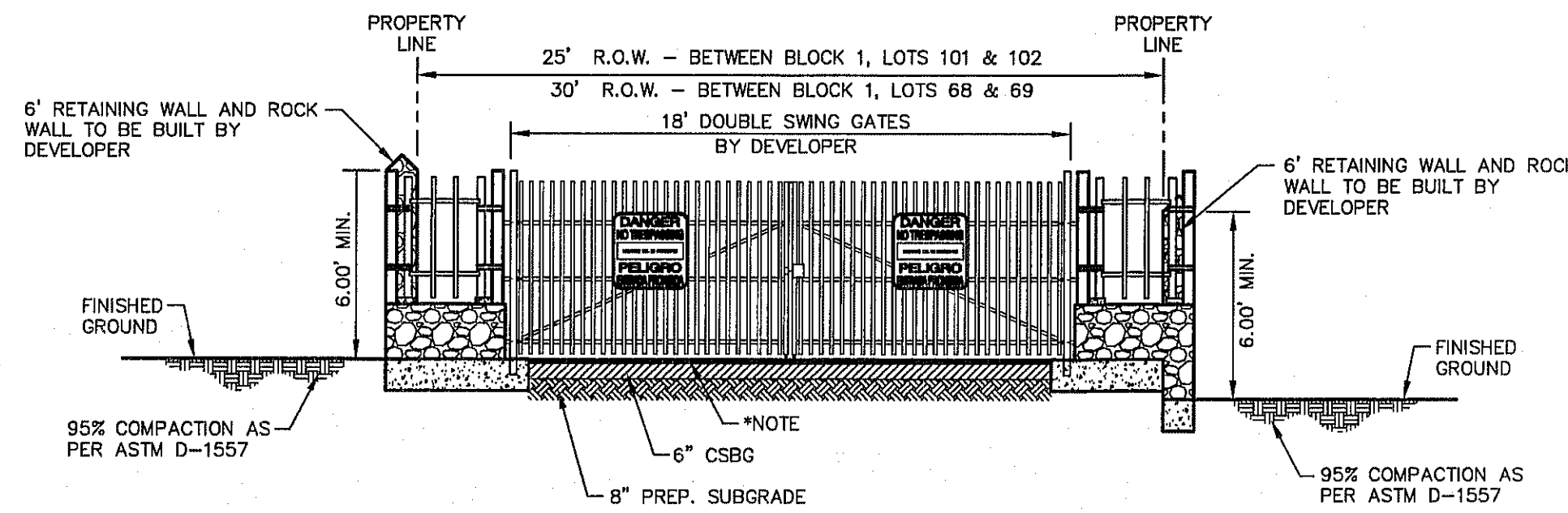
SHEET TITLE

STANDARD DETAILS

(SHEET 2 OF 3)

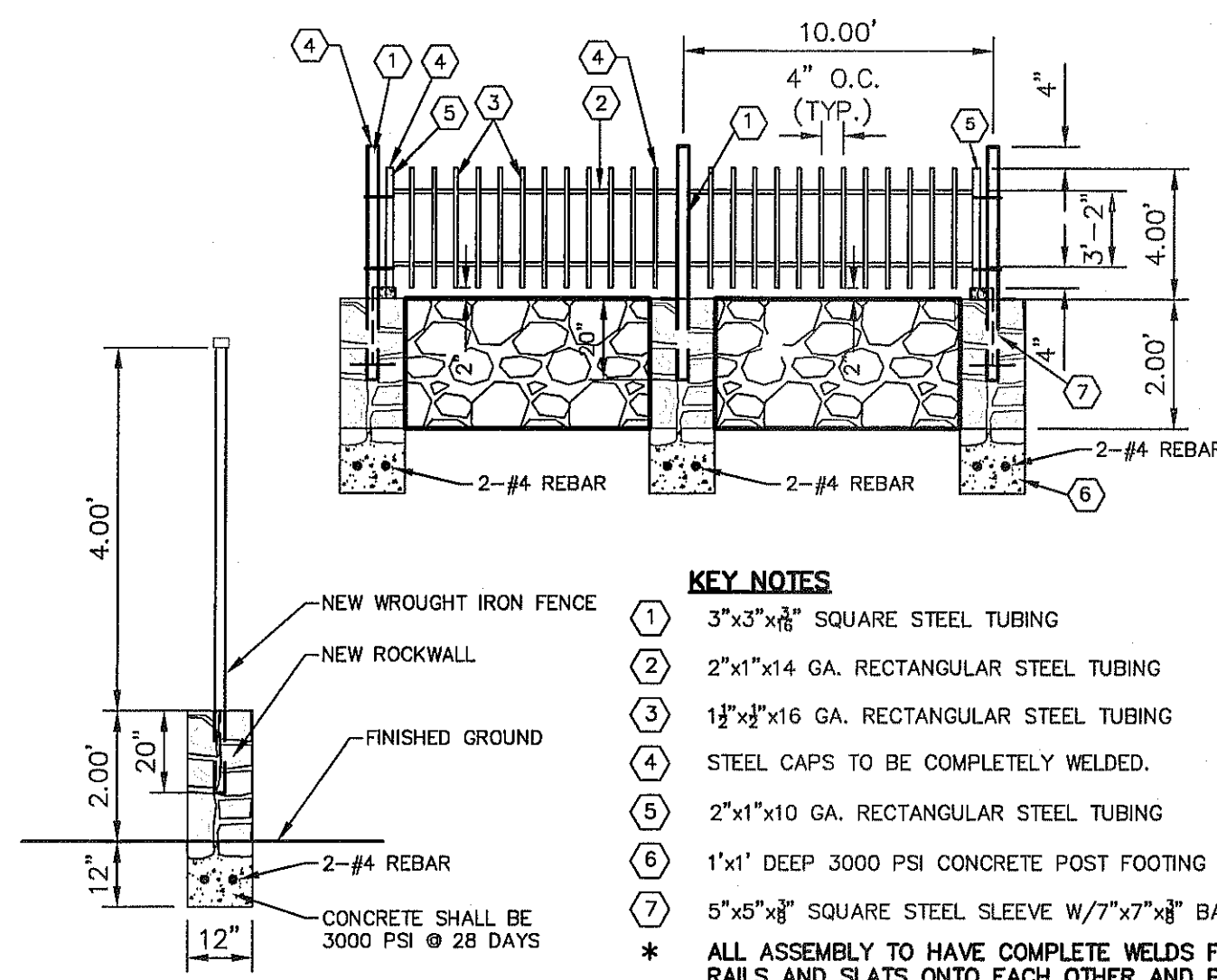
SHEET NO.

C13.2



***NOTE:**
 1. 1 1/2" HMAC TYPE C SEAL COATED (2 COATS)
 6" CSBG 100% COMPACTED AS PER ASTM D-1557
 6" SCARIFIED SUBGRADE 95% COMPACTED AS PER ASTM D-1557

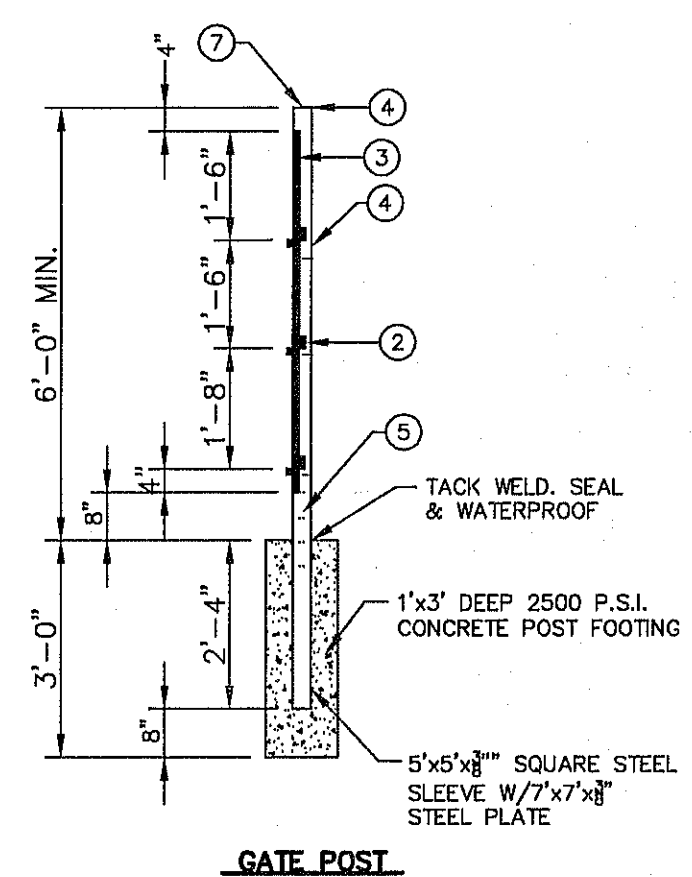
FRONT VIEW
 SCALE: N.T.S.



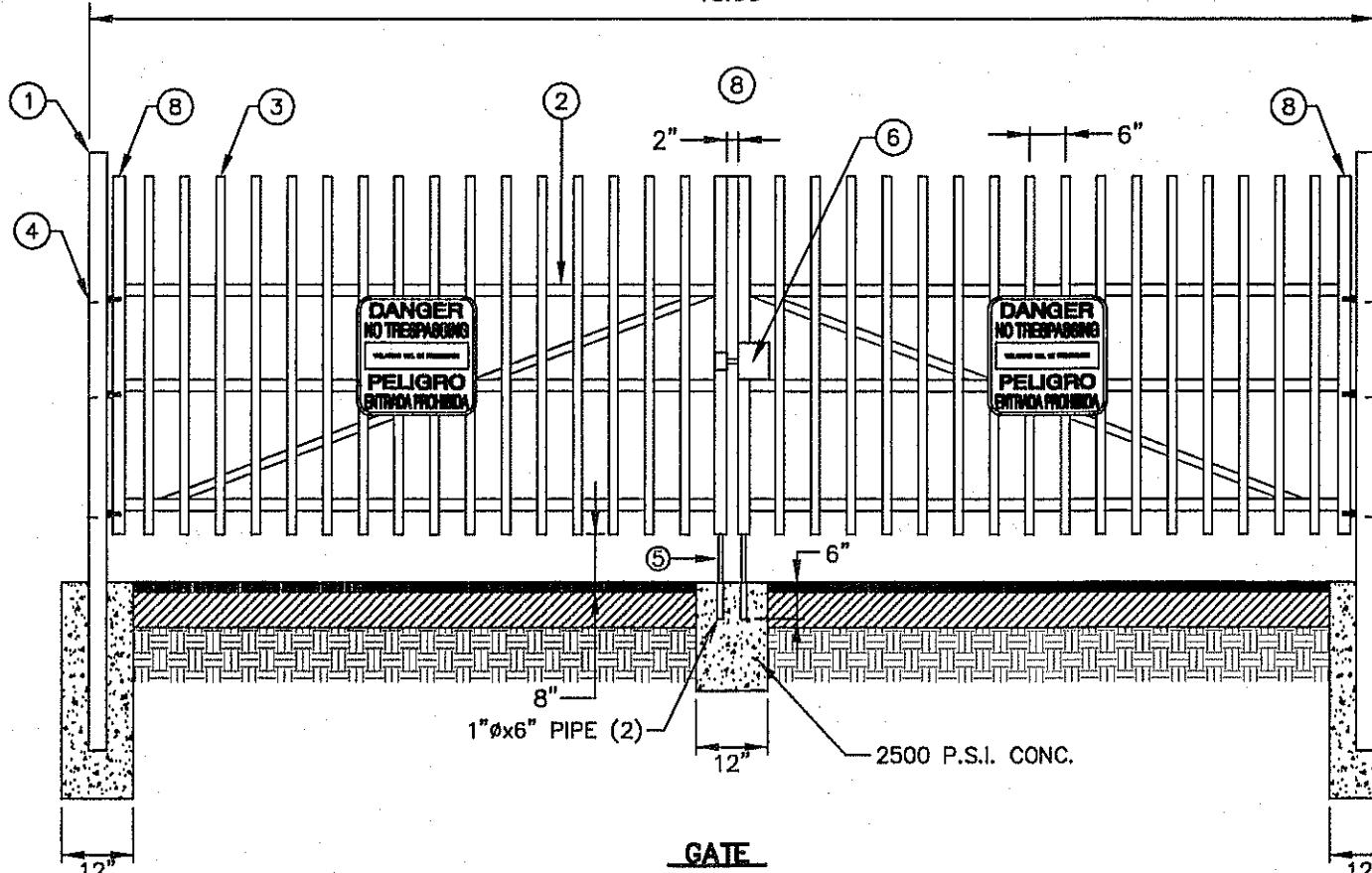
ROCKWALL SECTION
 SCALE: 1/2"=1'-0"

2 TYPICAL ROCKWALL W/ WROUGHT IRON FENCE DETAILS
 SCALE: N.T.S.

- KEY NOTES**
- 1 3"x3"x8" SQUARE STEEL TUBING
 - 2 2"x1"x14 GA. RECTANGULAR STEEL TUBING
 - 3 1 1/2"x2"x16 GA. RECTANGULAR STEEL TUBING
 - 4 STEEL CAPS TO BE COMPLETELY WELDED.
 - 5 2"x1"x10 GA. RECTANGULAR STEEL TUBING
 - 6 1"x1" DEEP 3000 PSI CONCRETE POST FOOTING
 - 7 5"x5"x8" SQUARE STEEL SLEEVE W/7"x7"x8" BASE PLATE
- * ALL ASSEMBLY TO HAVE COMPLETE WELDS FOR RAILS AND SLATS ONTO EACH OTHER AND POST.



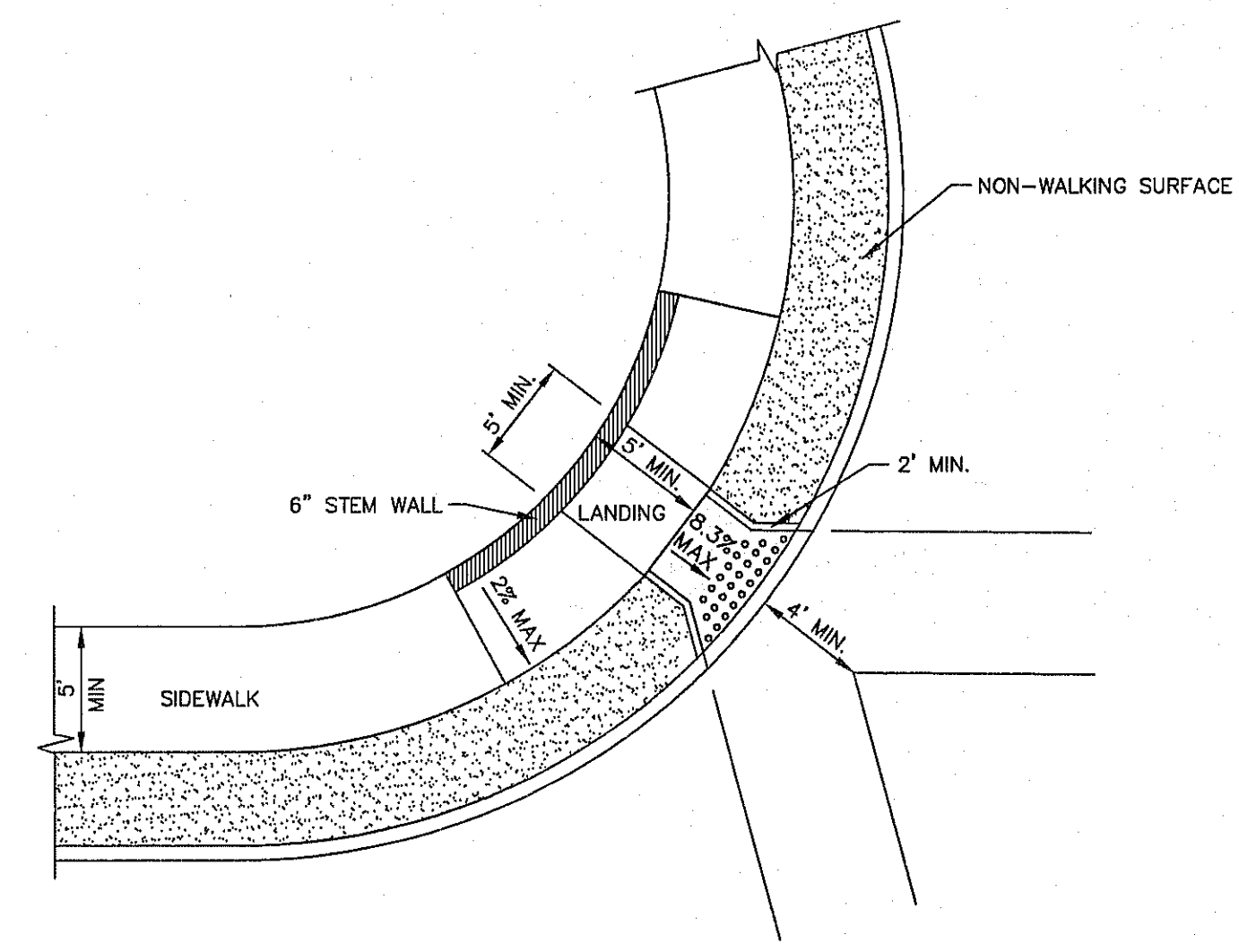
GATE POST



GATE

- NOTES:**
- 1 3"x3"x8" SQUARE STEEL TUBING
 - 2 2"x1"x14 GA. RECTANGULAR STEEL TUBING
 - 3 1 1/2"x2"x16 GA. RECTANGULAR STEEL TUBING
 - 4 BOLT HOOK AND STRAP HINGE
 - 5 CANE BOLT LATCH W/KEEPER 5-8"x18" LONG (2 REQUIRED)
 - 6 DOUBLE GATE HEAVY DUTY INDUSTRIAL LATCH W/PAD LOCK
 - 7 FLAT TOP POLYVINYL CAP
 - 8 2"x1"x10 GA. RECT. STL. TUBING

1 18' WROUGHT IRON GATE
 SCALE: 1" = 2'-0"



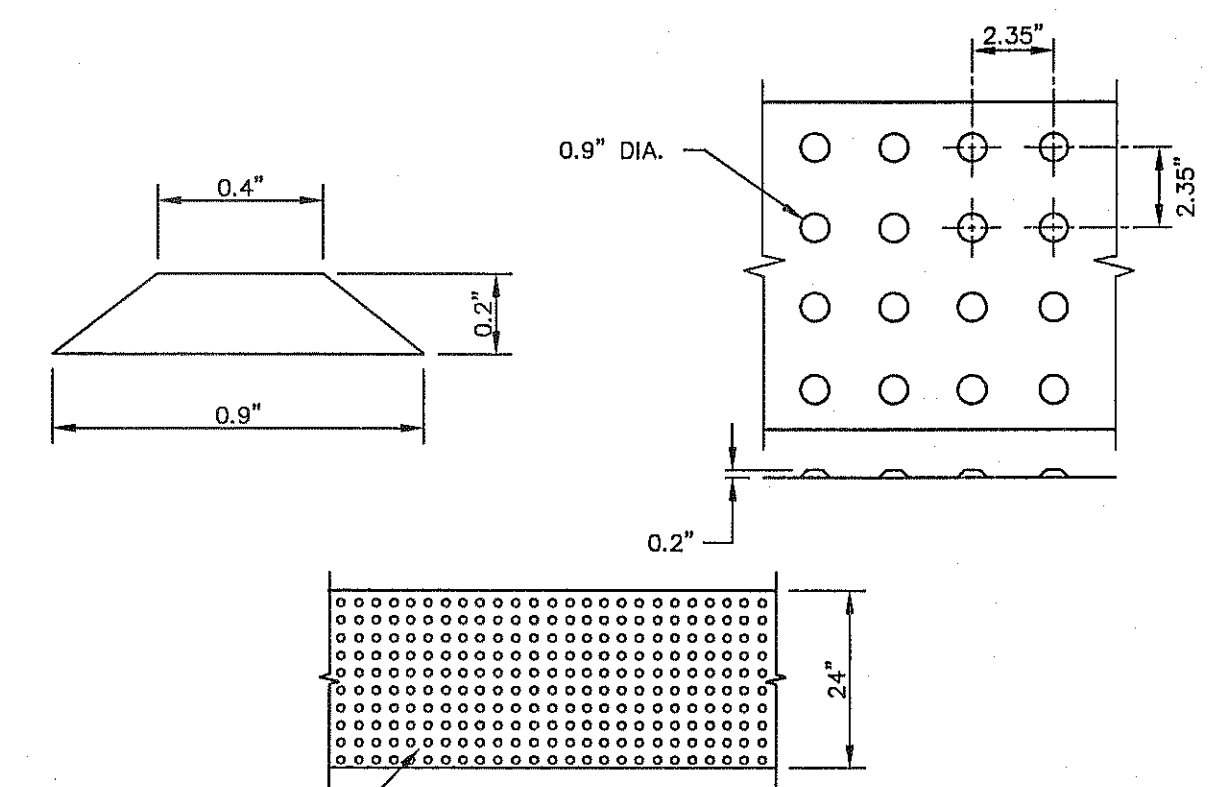
4 DIAGONAL CURB RAMP (RETURNED CURB) (TYPE VI)
 SCALE: N.T.S.

LEGEND

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

GENERAL NOTES:

1. 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.
2. THE MINIMUM SIDEWALK WIDTH IS 4'. WHERE A 5' SIDEWALK CAN NOT BE PROVIDED DUE TO SITE CONSTRAINTS, A MINIMUM 3' SIDEWALK WITH 5'X 5' PASSING AREAS AT INTERVALS NOT TO EXCEED 200 FT. IS REQUIRED.
3. LANDINGS SHALL BE 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
4. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMP SHALL BE A MINIMUM OF 4'X 4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
5. CURB RAMP WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED.
6. ALL CONCRETE SIDEWALK SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
7. RAMP TEXTURES MUST CONSIST OF TRUNCATED DOMED SURFACES. TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED. REFER TO TRUNCATED DOME DETAIL.
8. CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, RAMP SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE ENGINEER.
9. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND RAMP SURFACES IS 2%.
10. 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).
11. ALL ADA RAMP ARE TO BE BUILT BY DEVELOPER (TYP.)
12. ALL WHEELCHAIR RAMP WILL BE CONSTRUCTED BY DEVELOPER AS PART OF SUBDIVISION IMPROVEMENTS.



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

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

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

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

5 DOME SIZE AND SPACING
 SCALE: N.T.S.

UTILITY LOCATOR SERVICES

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

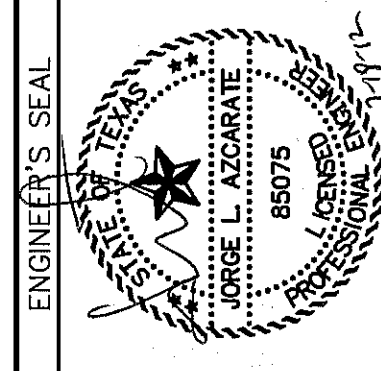
WARNING!
BEFORE YOU DIG
 CALL
 1-800-DIG-TESS
 1-800-344-8377
 FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

FOUND TWOOD BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM). (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.) CITY OF EL PASO VERTICAL DATUM SHOWN.

DATE	REVISIONS

osa
o s a
 engineers • architects • planners
 TEXAS REGISTERED ENGINEERING FIRM F-4584
 4712 Woodrow Breen, Ste. F El Paso, TX 79924
 Office: 915.544.5226 Fax: 915.544.5233 www.osainc.com



SCALE:
 Horizontal: N/A
 Vertical: N/A
DATE: MAY 2012
DESIGN BY: J.H.
DRAWN BY: J.H.
CHECKED BY: J.L.A.
APPROVED BY: J.L.A.
 JOB No. 2000-128-LD

PROJECT NAME
 SANDSTONE RANCH UNIT SEVEN
 REPLAT-D
 SUBDIVISION IMPROVEMENTS

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

C13.3

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCS SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
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U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPD&T)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING!
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1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

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BY	
DATE	
REVISIONS	

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TEXAS REGISTERED ENGINEERING FIRM F-4884
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.541.5226 Fax: 915.541.5233 www.osainc.com

ENGINEER'S SEAL

SCALE

Horizontal: N/A
Vertical: N/A

Contour Interval: N/A

DATE: MAY 2012

DESIGN BY: G.R.
DRAWN BY: J.H.L.
CHKD. BY: J.L.A.
APP'VD. BY: J.L.A.
JOB No.: 2009-128-LD

PROJECT NAME

**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**DRAINAGE
DETAILS**

(SHEET 1 OF 2)

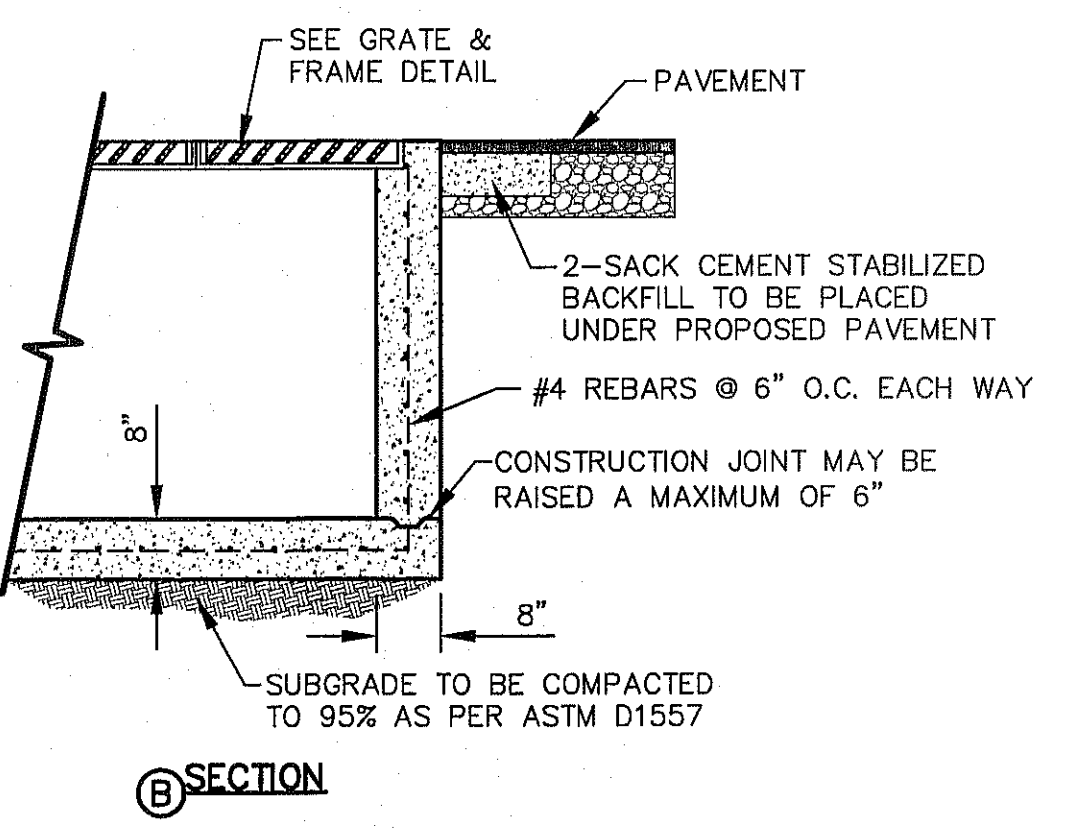
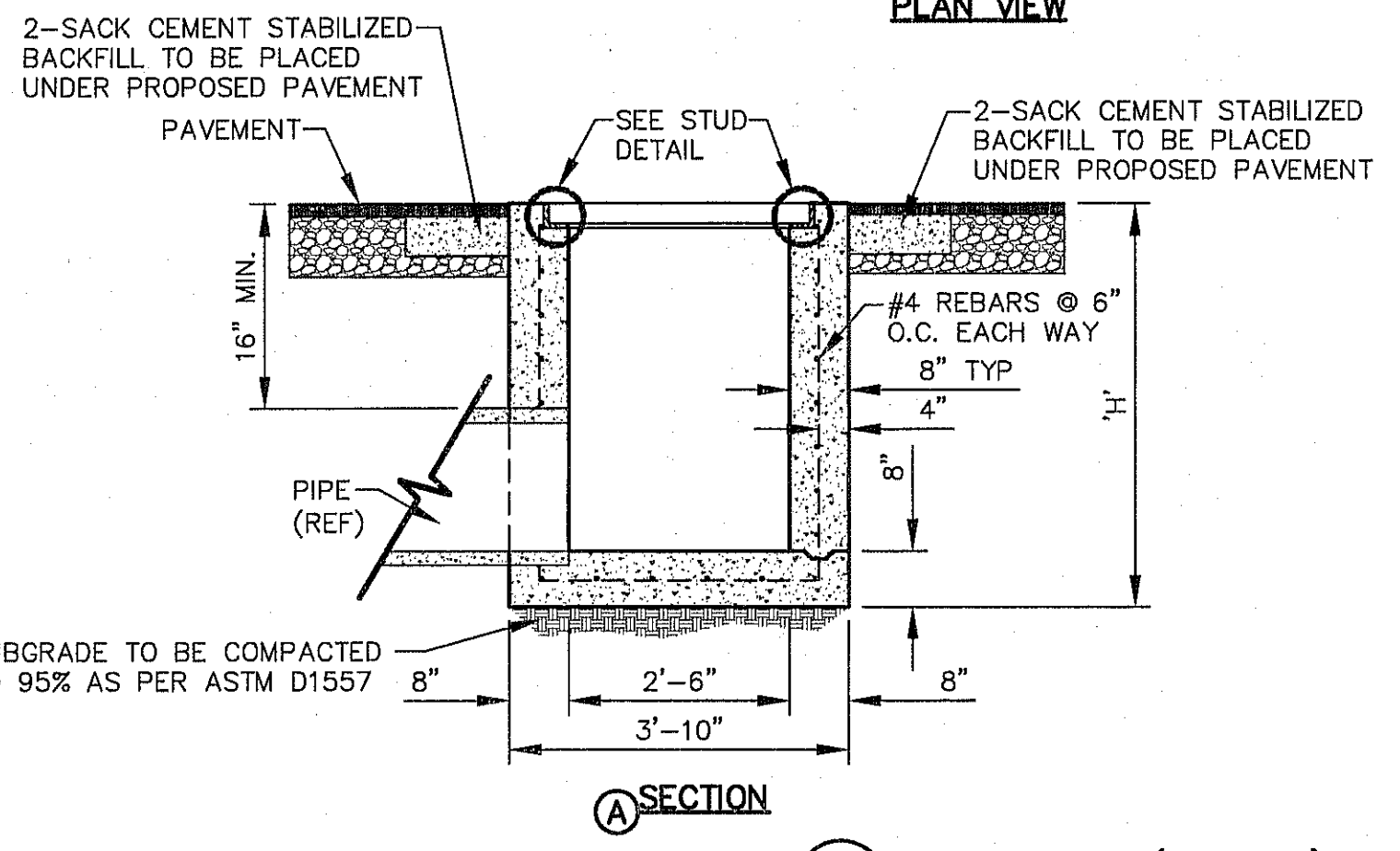
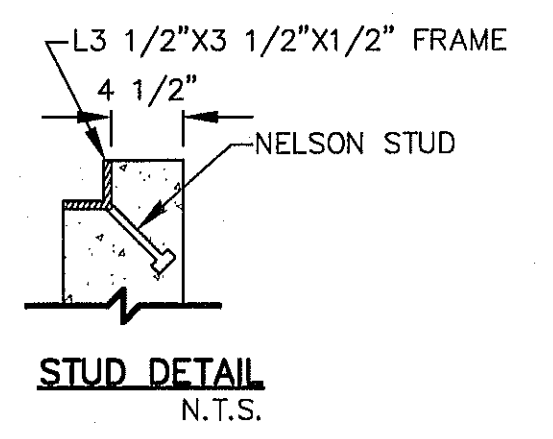
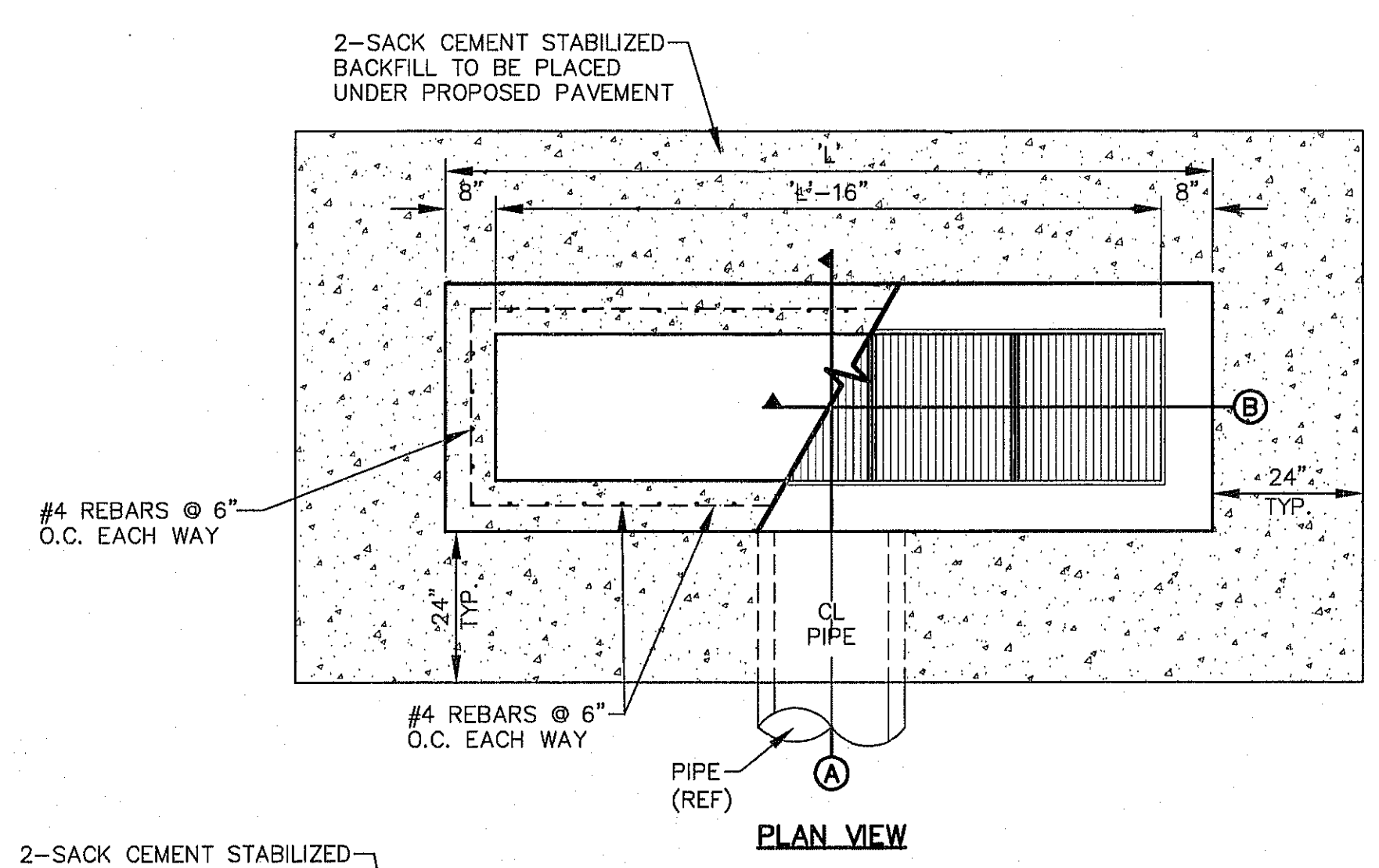
SHEET NO.

C14.1

NUMBER OF GRATES	"L"	CAPACITY*
2	5'-1 1/8"	17,748 CFS
3	7'-1 1/8"	26,844 CFS
4	8'-9 7/8"	35,349 CFS
5	10'-8"	44,051 CFS

* THESE CAPACITIES CORRESPOND TO A CLOGGING FACTOR OF 0.5

- NOTES:**
- GRATES TO BE PERPENDICULAR TO TRAFFIC
 - CONCRETE TO BE 3,000 PSI (MIN.) CORE TEST @ 28 DAYS.
 - H=20' MAXIMUM
 - SEE STORM SEWER PLAN & PROFILES FOR APPROVED PIPE DIAMETER.



1 DROP INLET (TYPE III) DETAILS
SCALE: 1" = 2'-0"

CONCRETE APRON FOR CIRCULAR PENETRATIONS IN ASPHALT PAVEMENTS

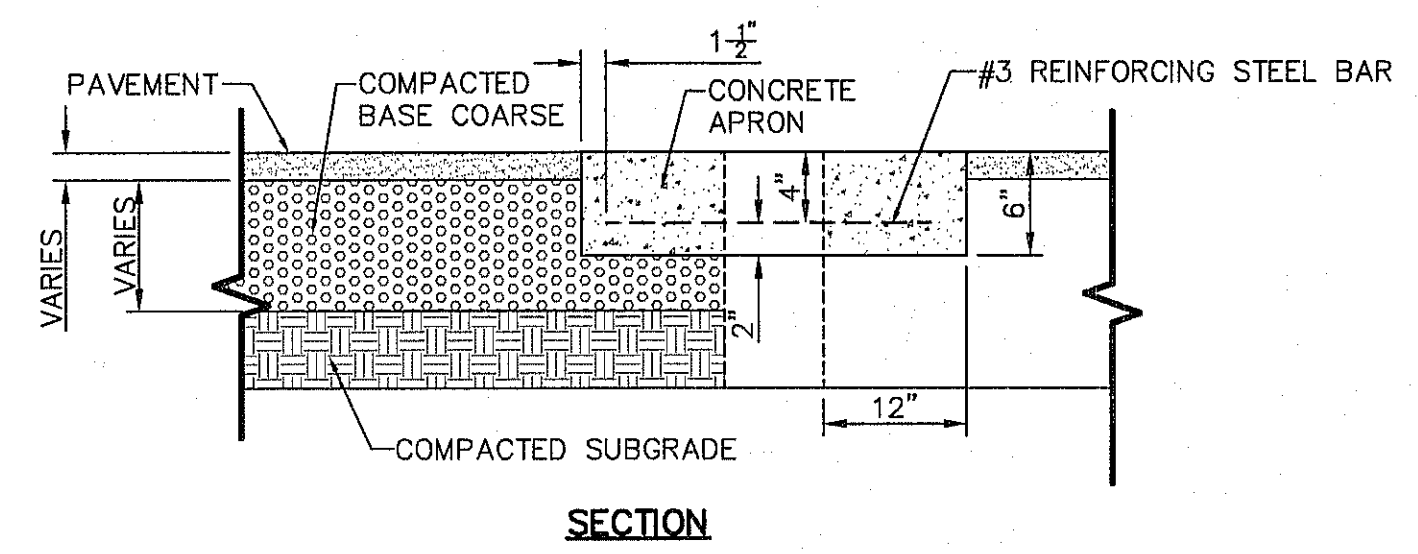
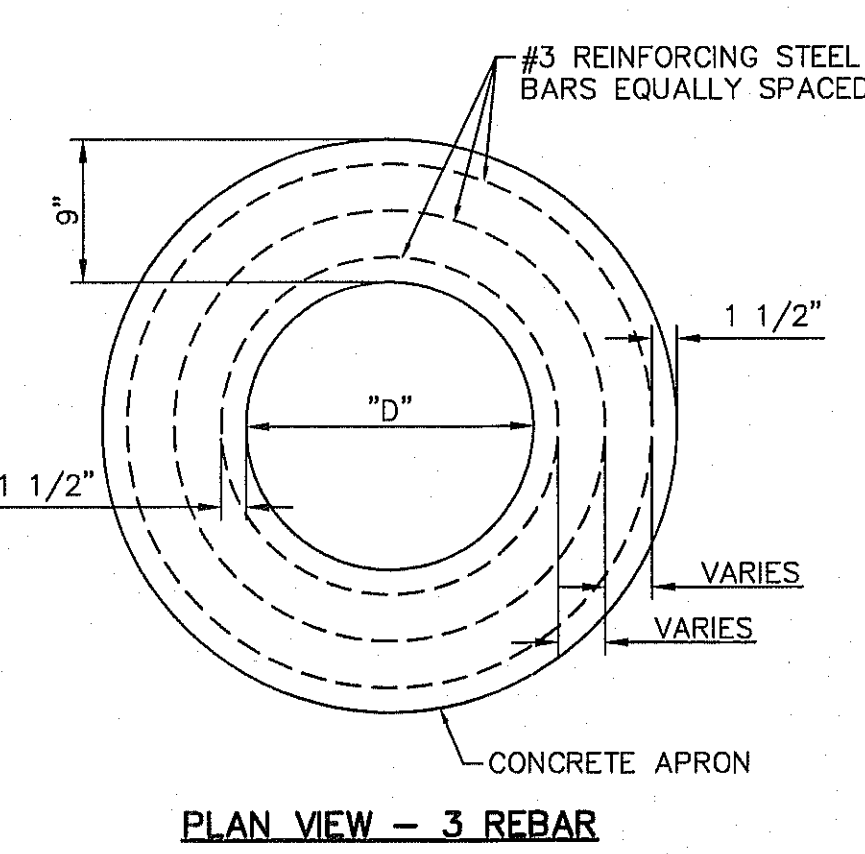
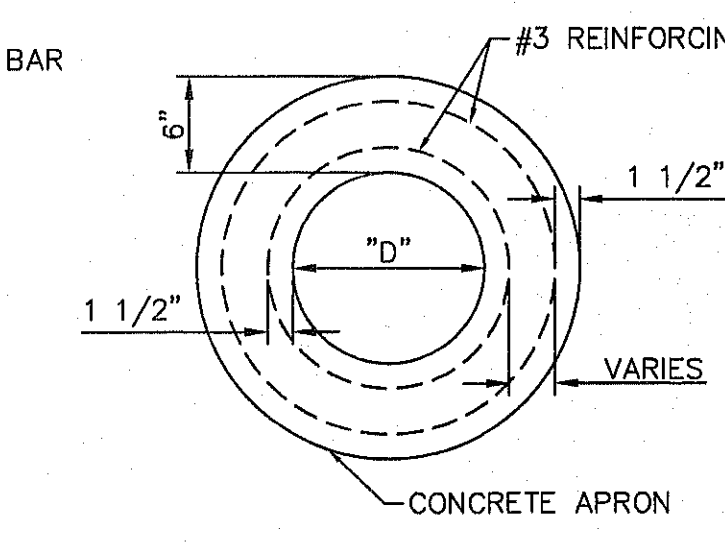
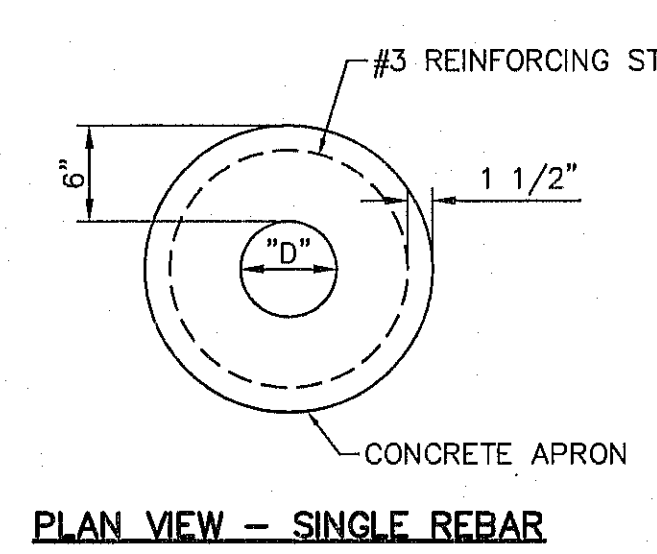
"D" DIAMETER OF PENETRATION (INCHES)	"A" CONCRETE HORIZONTAL DIMENSION FROM PENETRATION (INCHES)	NUMBER OF NO. 3 REINFORCING STEEL BARS (QUANTITY)	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE APRON TO CENTER OF NEAREST REBAR (INCHES)	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR (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

CONSTRUCTION NOTES:

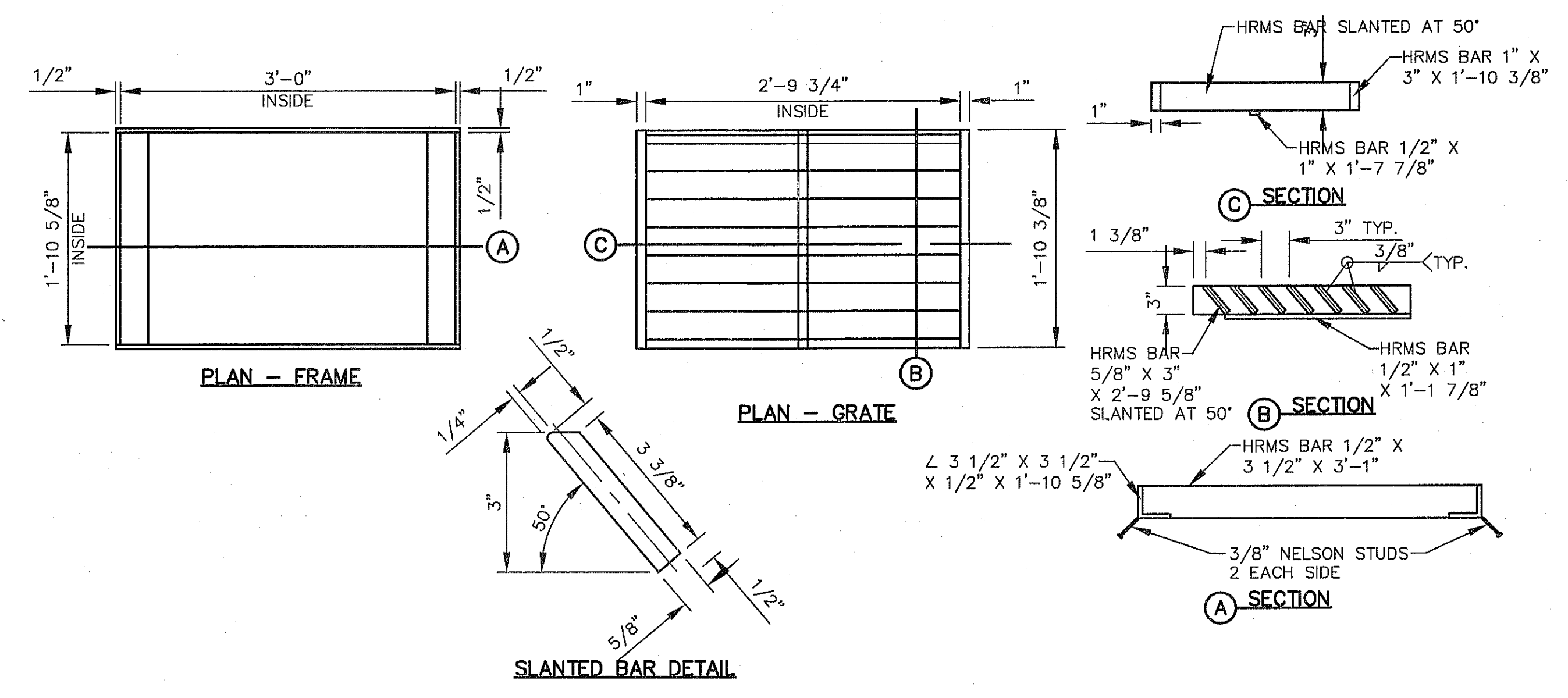
- ANY DISTURBED SUBGRADE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 95% DENSITY ±3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
- ANY DISTURBED COARSE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 100% DENSITY ±2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
- PROVIDE A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

GENERAL NOTES:

- THE PENETRATION APRON SHOULD BE CAST IN-PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED).
- TOPS OF PENETRATION APRON SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.



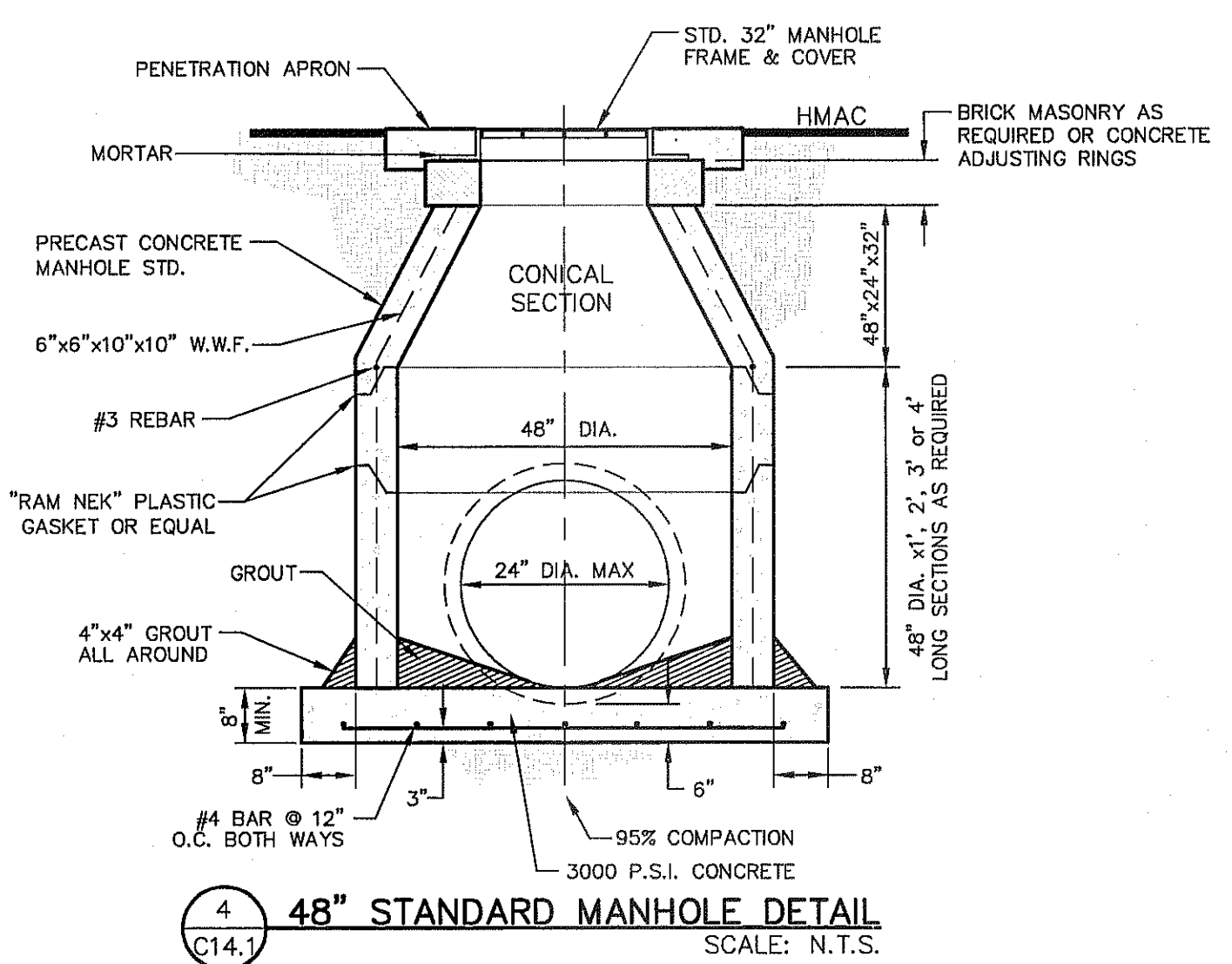
3 PENETRATION APRON DETAILS
SCALE: N.T.S.



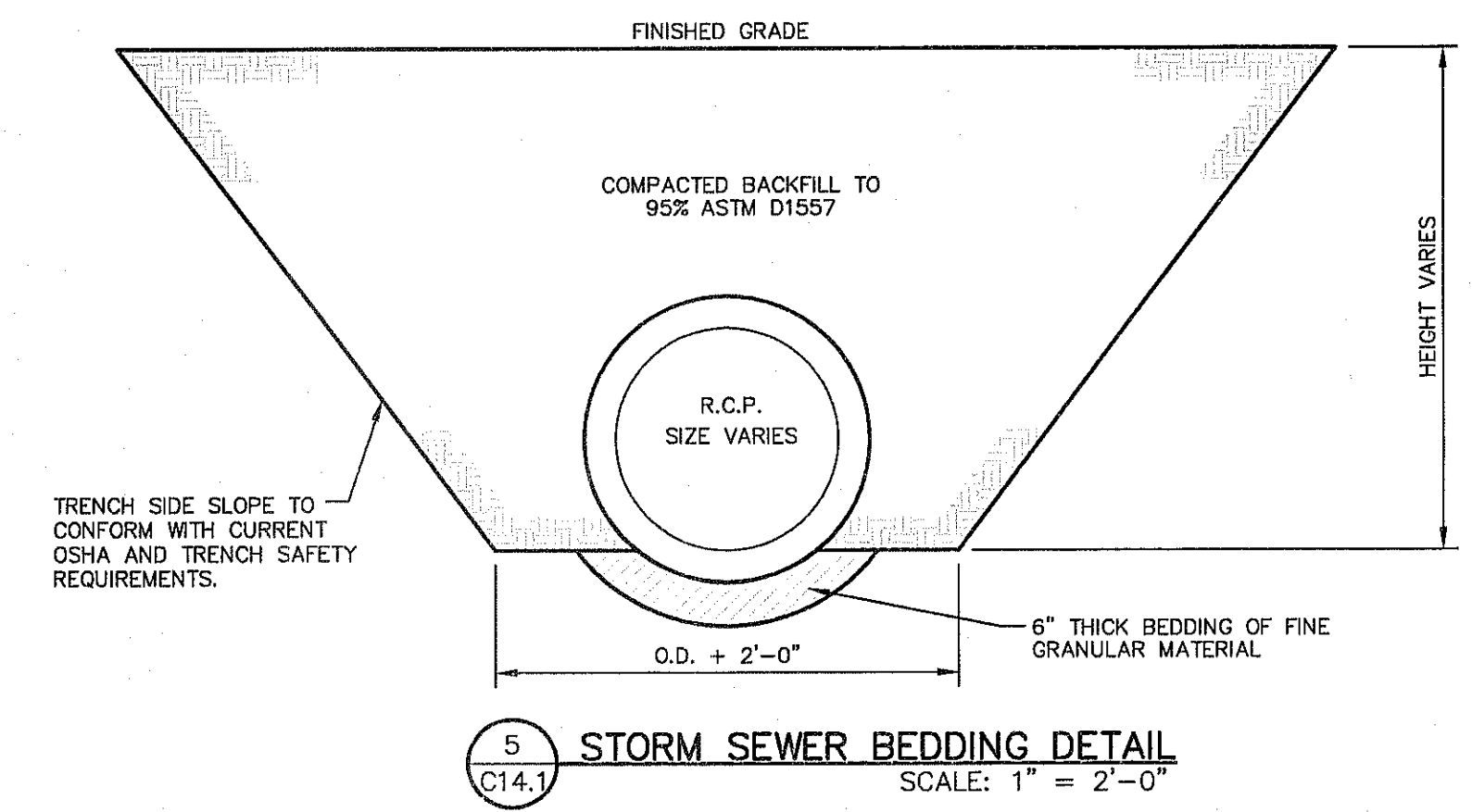
2 GRATE AND FRAME DETAILS
SCALE: 1" = 1'-0"

DROP INLET GENERAL NOTES:

- 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.
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS.
- SHARP EDGES RESULTING FROM FABRICATION SHALL BE DULLED BY ANY ACCEPTABLE METHOD FOR SAFETY IN HANDLING.
- GRATES SHALL BE INSTALLED IN FRAME WITH FLOW ARROW POINTING DOWNSTREAM OR TOWARD THE LOW POINT IN A SUMP.
- 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.
- CAST GRATES MADE OF M-183 STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASSHTO M-111 SPECIFICATIONS OR SHALL BE PAINTED WITH INORGANIC ZINC PAINTS, MEETING THE REQUIREMENTS OF CURRENT STANDARD SPECIFICATIONS.
- ALL WELDS SHALL HAVE A MINIMUM OF 3/8" 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.
- CAST GRATES SHALL ABE 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.
- 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.
- ALL CASTING SHALL BE MANUFACTURED TRUE T PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER.
- ALL CONCRETE TO BE 3000PSI. CHAMFER ALL EXPOSED EDGES 3/8". ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
- MINIMUM CONCRETE COVER SHALL BE 1 1/2" FOR STEEL REINFORCING.
- EXPANSION MATERIAL TO BE 3/8" BITUMINOUS FIBER AND PLACED WHERE PROPOSED CONCRETE COMES IN CONTACT WITH ANY EXISTING OR PROPOSED CONCRETE OR MASONRY STRUCTURE.
- STRUCTURAL STEEL SHALL BE SHOP PAINTED IN ACCORDANCE WITH TxDOT. ITEM 446 "PAINT AND PAINTING"
- SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE AND GRADE TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO INLETS.
- GRATES WILL BE DEPRESSED 1" BELOW PROPOSED OR EXISTING GRADE.
- ALL REINFORCING BARS TO BE #4 AT 6" O.C. GRAD 60. BEND BARS AROUND PIPE OPENINGS.
- INLETS TO BE DESIGNATED IN PLANS BY NUMBER OF GRATES REQUIRED.
- LOCATION OF SEWER PIPES SHOWN ELSEWHERE IN PLANS.
- TWO 3/8"x4" LONG CONCRETE ANCHOR STUDS REQUIRED FOR EACH SIDE OF FRAME, WHERE RESTING ON CONCRETE, USE NELSON STUDS OR EQUAL.
- THE GRATES OF ALL INLETS WITHIN THE STREET PAVEMENT MUST BE CONSTRUCTED WITH THE GRATE BARS PERPENDICULAR TO THE CURB.



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



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

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) MC-WORK	
TIME WARNER COMMUNICATIONS	(915) 772-1123	
TEXAS GAS SERVICE	(915) 680-7200	
SBC	(800) 545-6005	
AT&T	(800) 852-3786	
U.S. SPRINT TELECOMM	(800) 521-0579	
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPD&T)	(915) 621-6750	
(AFTER HOURS)	(915) 240-3220	

WARNING!
BEFORE YOU DIG

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

FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

CS&A
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4594
4712 Woodrow Beams, Ste. F, El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.csandamp.com

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 $\frac{1}{8}$ " ± / PER FOOT (AASHTO M306-07).
5. WEIGHT MAY VARY 5% ± (AASHTO M306-07).
6. SHADED 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 $\frac{3}{4}$ "
B	31 $\frac{3}{4}$ "	23 $\frac{7}{8}$ "	31 $\frac{3}{8}$ "
C	31 $\frac{1}{2}$ "	23 $\frac{3}{8}$ "	31 $\frac{1}{8}$ "
D	30"	22 $\frac{1}{2}$ "	30"
E	39 $\frac{1}{2}$ "	34 $\frac{1}{2}$ "	42"
F	$\frac{5}{8}$ "	$\frac{1}{8}$ "	$\frac{1}{8}$ "
G	5"	6"	6"
H	4 $\frac{1}{4}$ "	5 $\frac{1}{4}$ "	5 $\frac{1}{4}$ "
I	3 $\frac{1}{4}$ "	4 $\frac{1}{16}$ "	4 $\frac{1}{16}$ "
J	4 $\frac{3}{4}$ "	6"	6"
K	2 $\frac{3}{16}$ "	3 $\frac{7}{16}$ "	3 $\frac{7}{16}$ "
L	2 $\frac{3}{16}$ "	2 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "
M	1 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "	1 $\frac{3}{8}$ "
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

1 STORM WATER MANHOLE RING SCALE AS SHOWN

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 $\frac{1}{8}$ " ± / PER FOOT (AASHTO M306-07).
5. WEIGHT MAY VARY 5% ± (AASHTO M306-07).
6. SHADED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, DETAIL 2-17.

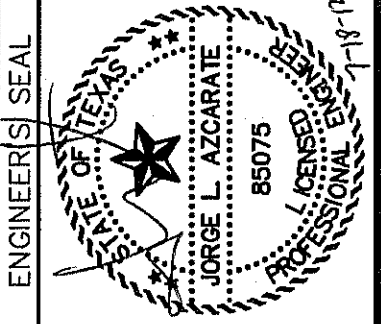
CONSTRUCTION KEY NOTES:

- A. LIFTING NOTCH.
- B. $\frac{3}{8}$ " RAISED LETTERING.
- C. 1" SQUARES ($\frac{1}{4}$ " TALL) WITH $\frac{5}{8}$ " SPACE BETWEEN.
- D. REINFORCING RIBS.
- E. SLOT.

MANHOLE COVER	MANHOLE - ALL TYPES	MANHOLE TYPE 48"	MANHOLE TYPE 72"
A	31 $\frac{3}{8}$ "	23 $\frac{3}{4}$ "	31 $\frac{1}{2}$ "
B	28 $\frac{5}{8}$ "	20 $\frac{5}{8}$ "	28 $\frac{5}{8}$ "
C	24 $\frac{3}{8}$ "	16 $\frac{3}{8}$ "	24 $\frac{3}{8}$ "
D	21 $\frac{1}{4}$ "	14 $\frac{3}{8}$ "	21 $\frac{1}{4}$ "
E	2 $\frac{1}{8}$ "	3"	3"
F	$\frac{1}{4}$ "	1 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "
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

2 STORM WATER MANHOLE COVER SCALE AS SHOWN



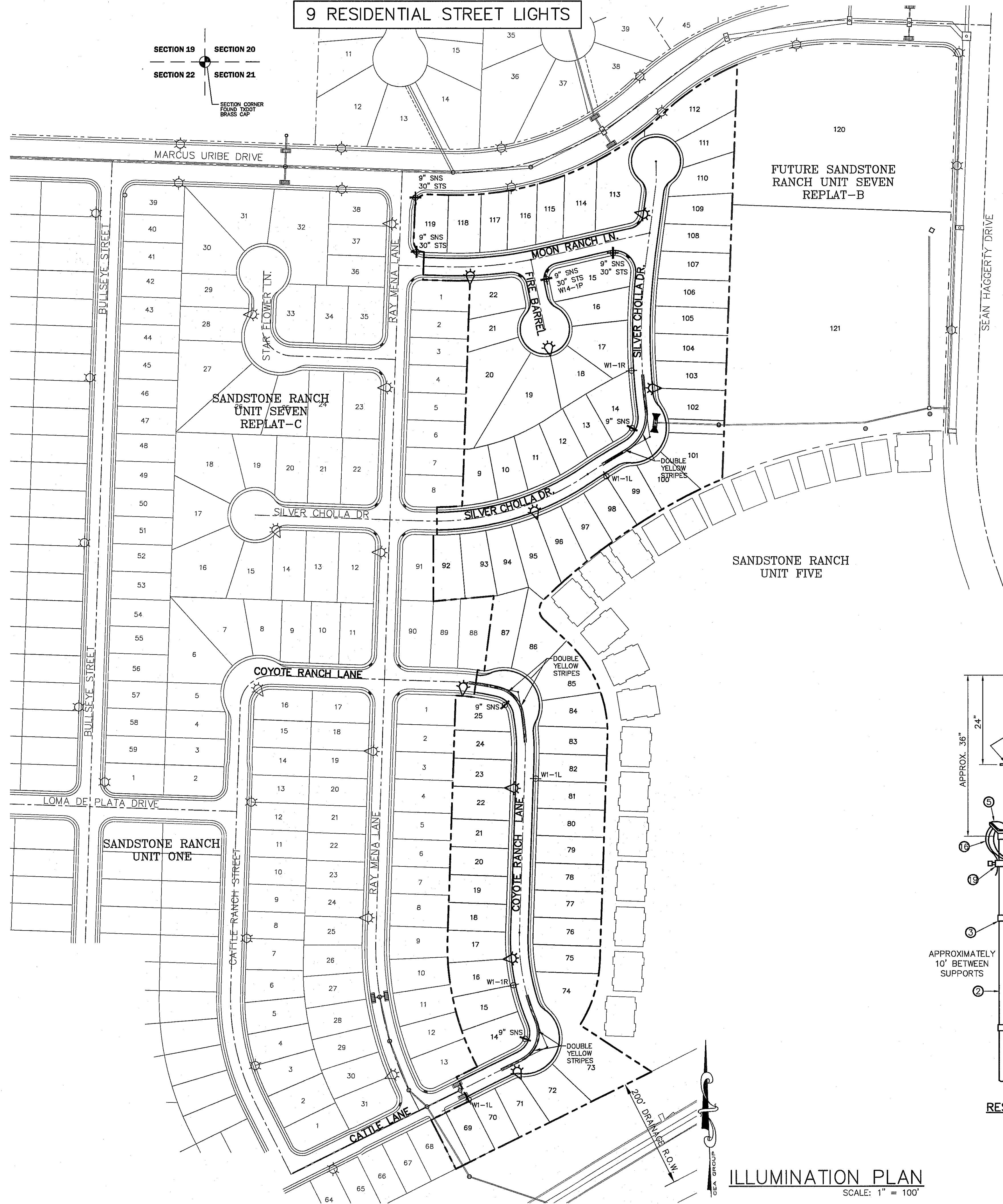
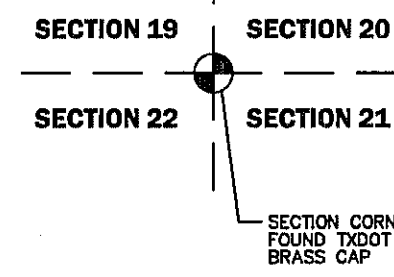
SCALE	
Horizontal:	Interval: N/A
Vertical:	Interval: N/A
DATE:	MAY 2012
DESIGN BY:	G.R.
DRAWN BY:	J.H.
CHKD. BY:	J.L.A.
APPRD. BY:	J.L.A.
JOB NO.	2000-128-LD

PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**DRAINAGE
DETAILS**
(SHEET 2 OF 2)
SHEET NO.

C14.2

9 RESIDENTIAL STREET LIGHTS



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.

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) 880-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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

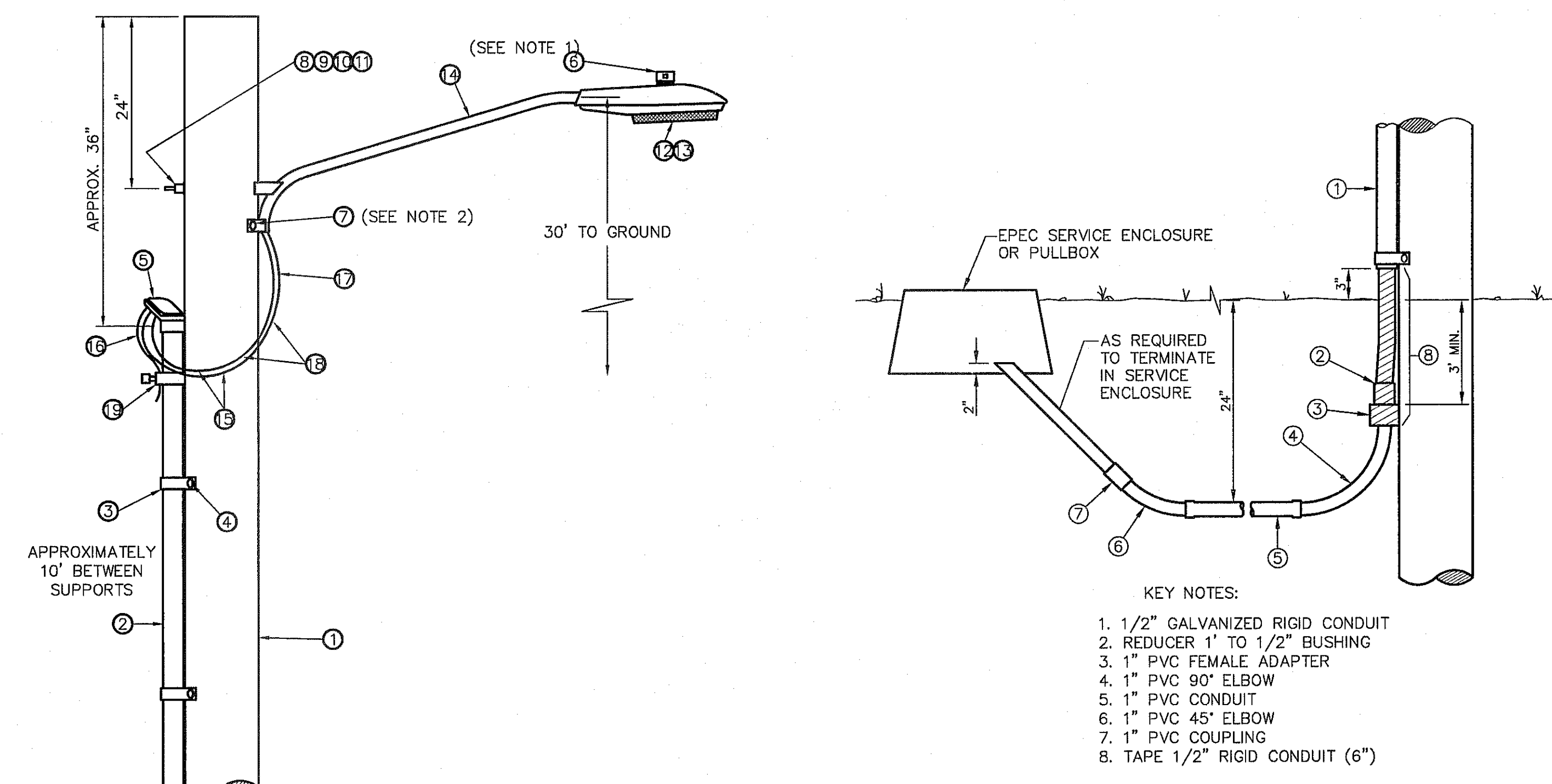
LEGEND:

- EXISTING RESIDENTIAL STREET LIGHT
- PROPOSED RESIDENTIAL STREET LIGHT
-
-
- W14-1P DEAD END SIGN
- PROPOSED N.D.B.C.U. MAIL BOX

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	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



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

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

ILLUMINATION PLAN
SCALE: 1" = 100'

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

BY: []
DATE: []
REVISIONS: []

osa
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4584
4712 Woodrow Bldg., Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.osainc.net

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

DATE: MAY 2012
DESIGN BY: G.R.
DRAWN BY: J.H.
CHKD. BY: J.L.A.
APPROV. BY: []

PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
ILLUMINATION PLAN

SHEET NO.
C15.1

SITE DESCRIPTION

PROJECT NAME AND LIMITS: SANDSTONE RANCH UNIT SEVEN REPLAT-D
THE PROJECT IS BORDERED BY SANDSTONE RANCH UNIT FOUR, AND SIX TO THE NORTH, SANDSTONE RANCH UNIT SEVEN REPLAT-C, AND TWO TO THE WEST, SANDSTONE RANCH UNIT FIVE AND SEVEN REPLAT-B TO THE EAST, AND THE WESTERN FREEWAY CHANNEL TO THE SOUTH

PROJECT DESCRIPTION: THE SITE FOR THE NEW SUBDIVISION WILL ENCOMPASS APPROXIMATELY 14.395± ACRES, AND WILL CONTAIN 69 RESIDENTIAL LOTS

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

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

TOTAL PROJECT AREA: 14.395± A.C.

TOTAL AREA TO BE DISTURBED: 14.827± A.C.

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.67

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

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

CERTIFICATION

DEVELOPER/OWNER CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGES THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

OPERATOR: _____

SIGNATURE: _____

NAME (PRINT): _____

TITLE: _____

DATE: _____

CONTRACTOR'S CERTIFICATION

GENERAL CONTRACTOR

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGES THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

OPERATOR: _____

SIGNATURE: _____

NAME (PRINT): _____

TITLE: _____

DATE: _____

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 DRAIN POLLUTION CONTROL PLAN ORDINANCE. NON-STORMWATER DISCHARGES MAY CONSIST OF, BUT ARE NOT LIMITED TO, THE DISCHARGE RESULTING FROM FIREFIGHTING, LAWN WATERING, LANDSCAPE IRRIGATION, NATURAL SPRING, AND/OR AGRICULTURAL STORM WATER RUNOFF.
5. REFER TO DRAINAGE PLAN SHEET 5, FOR ADDITIONAL INFORMATION ON WATERSHED AREAS AND RUNOFF QUANTITIES (Q).
6. THE FOLLOWING HAVE BEEN IDENTIFIED AS POTENTIAL CONTAMINATION SOURCES: CLEARED AND GRADED AREAS; CONSTRUCTION SITE ENTRANCE AND ASPHALT PARKING AREA CONSTRUCTION; ASPHALT LOADING/UNLOADING AREAS; CONCRETE LOADING/UNLOADING AREAS; AND, ALL UNDISTURBED AREAS.
7. THE FOLLOWING IS A LIST OF POTENTIAL CONSTRUCTION SITE STORM WATER POLLUTANTS: ASPHALT; CONCRETE; GLUE/ADHESIVE; PAINTS; CURING COMPOUNDS; WASTEWATER FROM CONSTRUCTION EQUIPMENT WASHING; HYDRAULIC OIL/FLUIDS; GASOLINE; DIESEL FUEL; KEROSENE; ANTIFREEZE/COOLANT; AND EROSION.

BEST MANAGEMENT PRACTICES CONTROLS

I. WASTE MATERIALS:

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

II. HAZARDOUS WASTE:

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

III. SANITARY WASTE:

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

IV. SPILL PREVENTION:

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

V. GOOD HOUSEKEEPING:

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

VI. HAZARDOUS PRODUCTS:

PRACTICES USED TO REDUCE RISKS:

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

VII. PETROLEUM PRODUCTS:

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

VIII. SPILL CONTROL PRACTICES:

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

IX. MAINTENANCE AND INSPECTION PROCEDURES:

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

X. REMARKS:

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

XI. OFFSITE VEHICLE TRACKING:

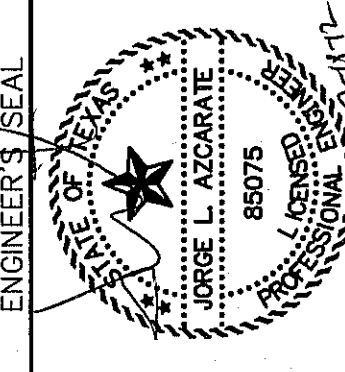
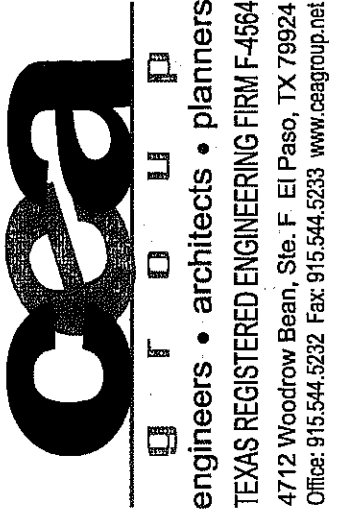
IN ADDITION TO THE STABILIZED CONSTRUCTION ENTRANCES, THE FOLLOWING MEASURES SHALL BE OBSERVED DURING CONSTRUCTION:

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

XII. REFER TO SWPPP REPORT FOR ADDITIONAL INFORMATION

SDPCP #: _____
SDPCP DATE: _____

REFERENCES - BENCHMARKS
FOUND TPOOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM). (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.) CITY OF EL PASO VERTICAL DATUM SHOWN.
DATE: _____
REVISIONS: _____
BY: _____



SCALE: _____
Horizontal Interval: N/A
Vertical Interval: _____
DATE: MAY 2012
DESIGN BY: G.R.
DRAWN BY: J.H.
CHKD. BY: J.L.A.
APPROV. BY: J.L.A.
JOB No. 2000-128-LD

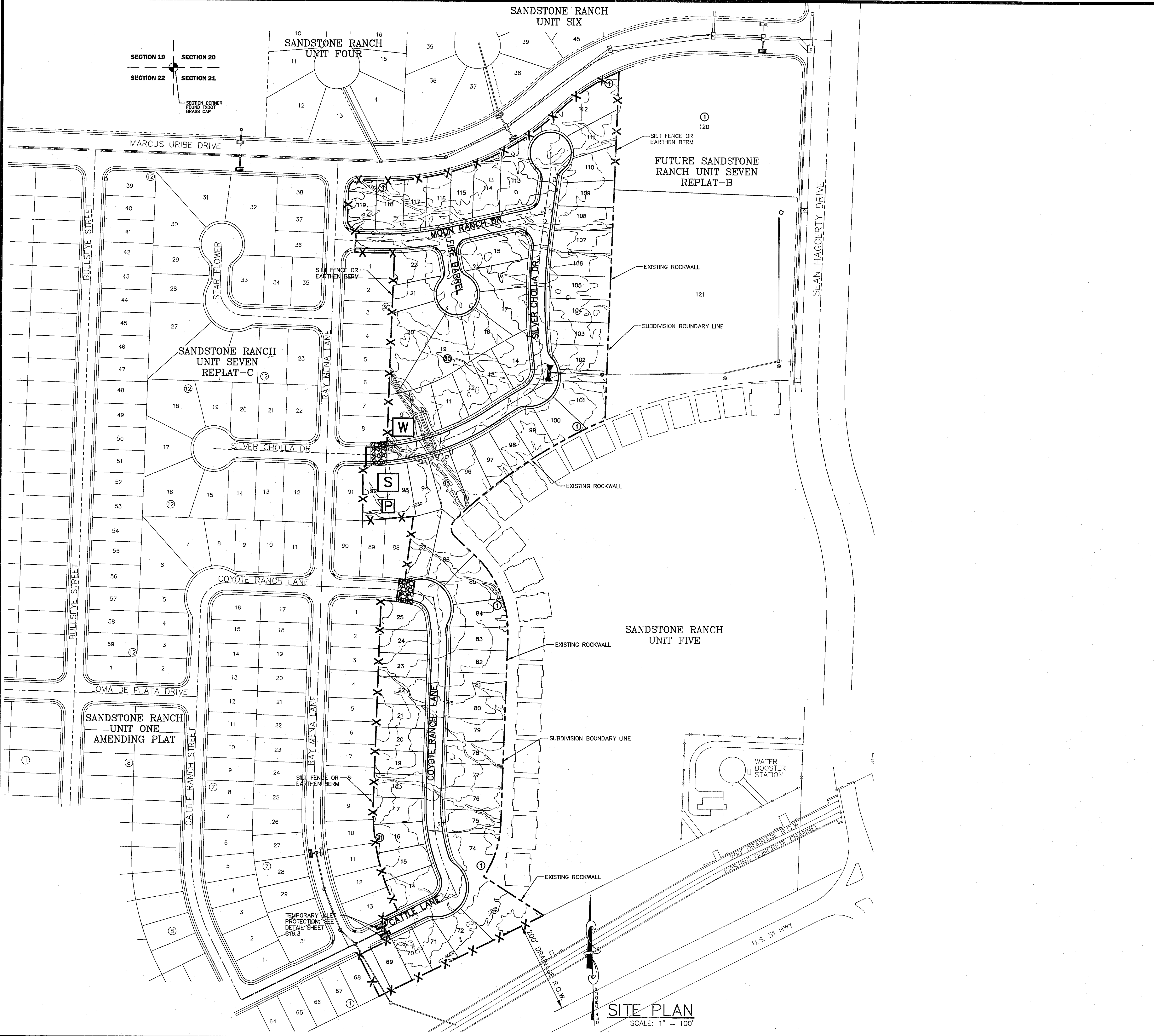
PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

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

SHEET NO.

C16.1



UTILITY LOCATOR SERVICES

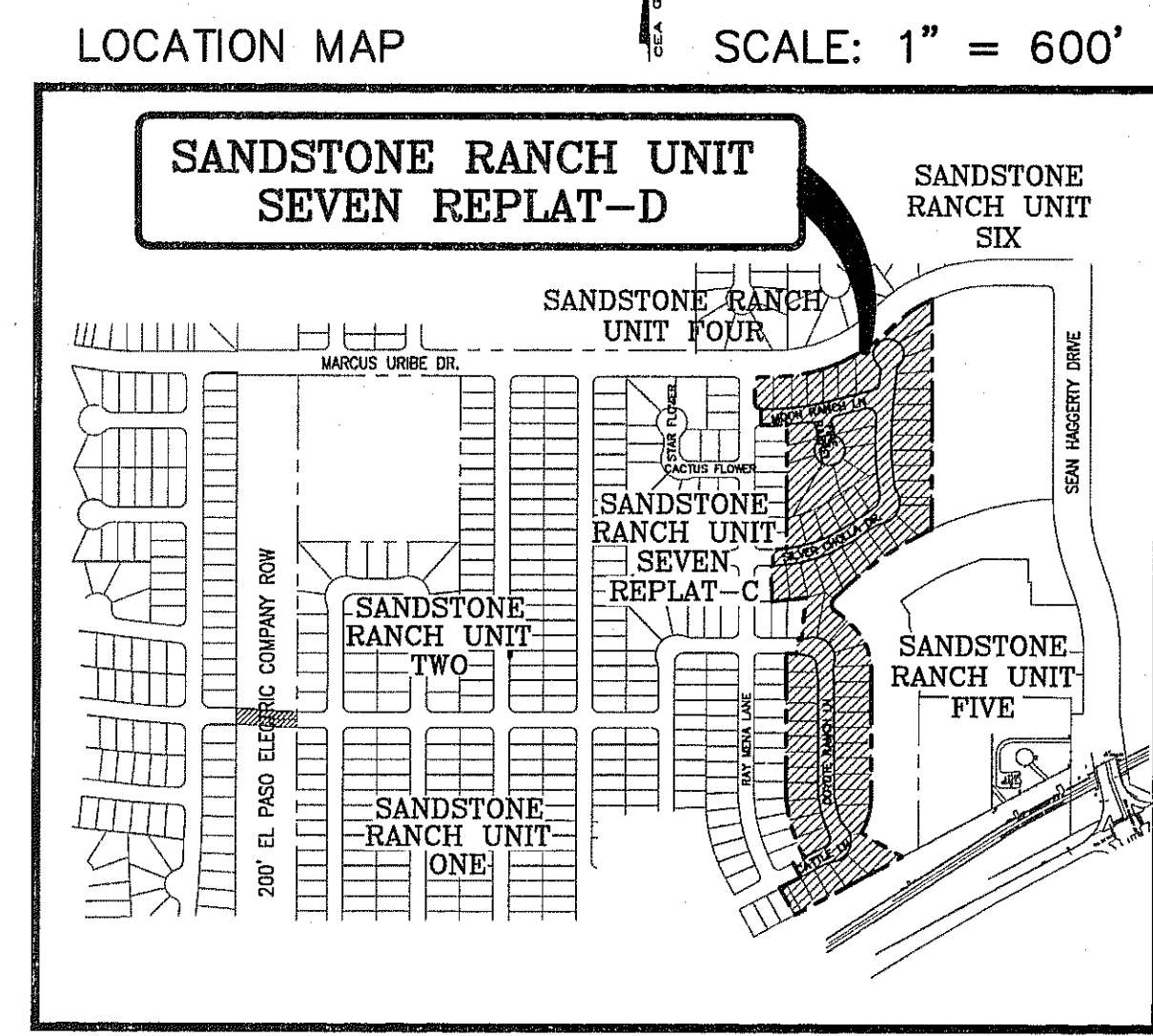
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 498-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-8005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDoT) (AFTER HOURS)	(915) 621-6750 (915) 240-3220

WARNING ! BEFORE YOU DIG

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

FOR FIELD LOCATING EXISTING UTILITIES

- LEGEND**
- X-X- SILT FENCE OR EARTHEN BERM
 - [Hatched Box] STABILIZED CONSTRUCTION ENTRANCE
 - [S] STAGING AREA
 - [P] PORTABLE TOILETS
 - [W] WASHOUT SITE



SITE PLAN
SCALE: 1" = 100'

REFERENCES - BENCHMARKS

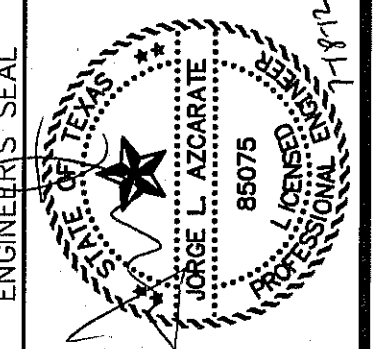
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4712 Woodrow Blvd., Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.cea.com



SCALE

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

DATE: MAY 2012
DESIGN BY: G.R.
DRAWN BY: J.H.
CHECKED BY: J.L.A.
APPROVED BY: J.L.A.

JOB No. 2000-128-LD

PROJECT NAME

SANDSTONE RANCH UNIT SEVEN REPLAT-D SUBDIVISION IMPROVEMENTS

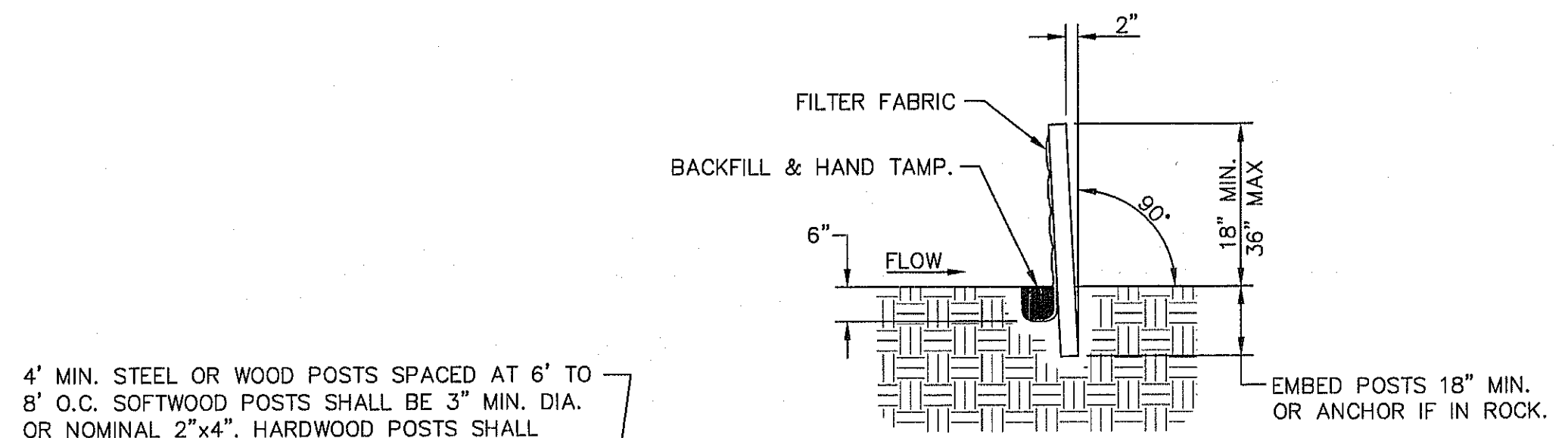
SHEET TITLE

STORM WATER POLLUTION PREVENTION PLAN: SITE PLAN

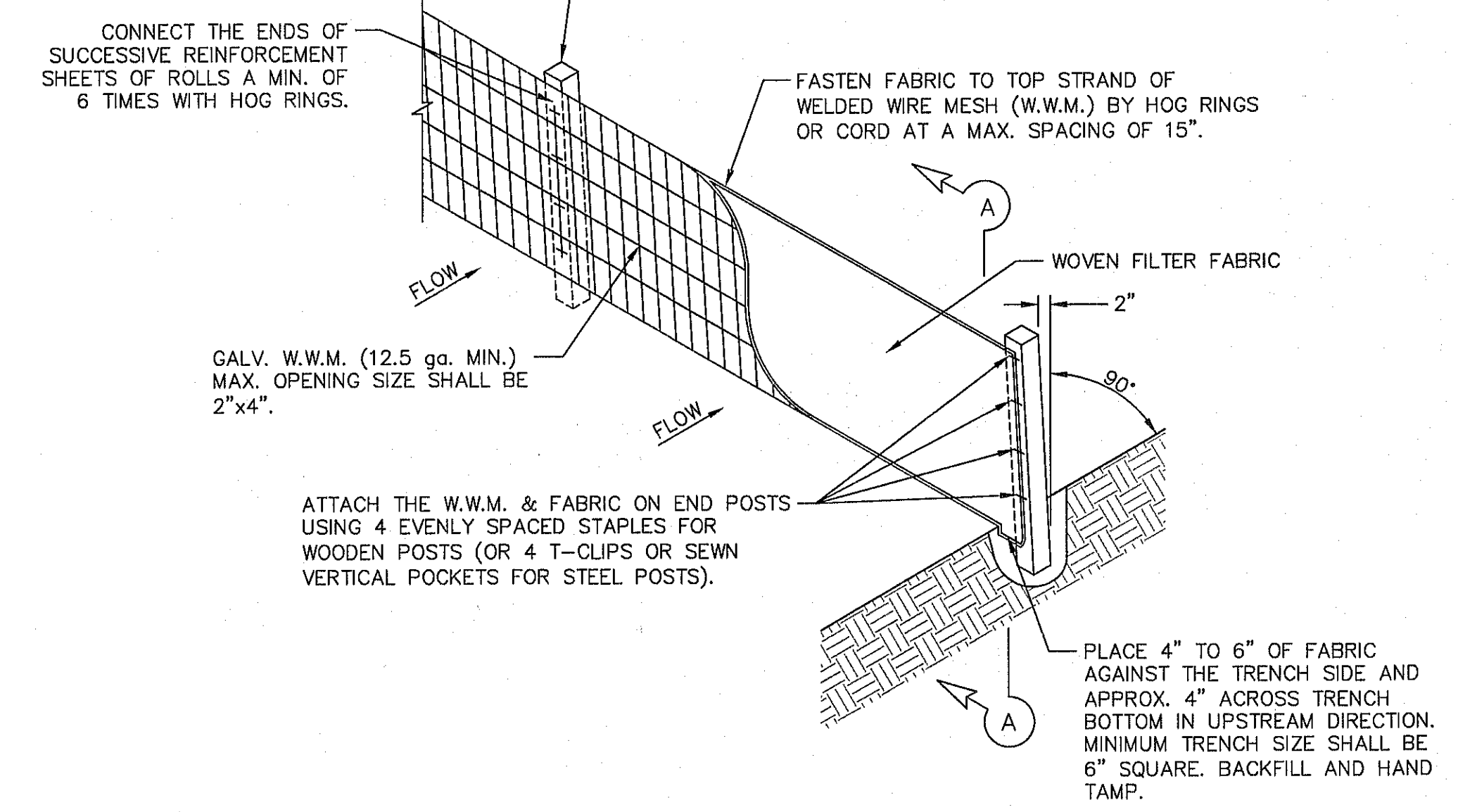
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SDPCP DATE: _____

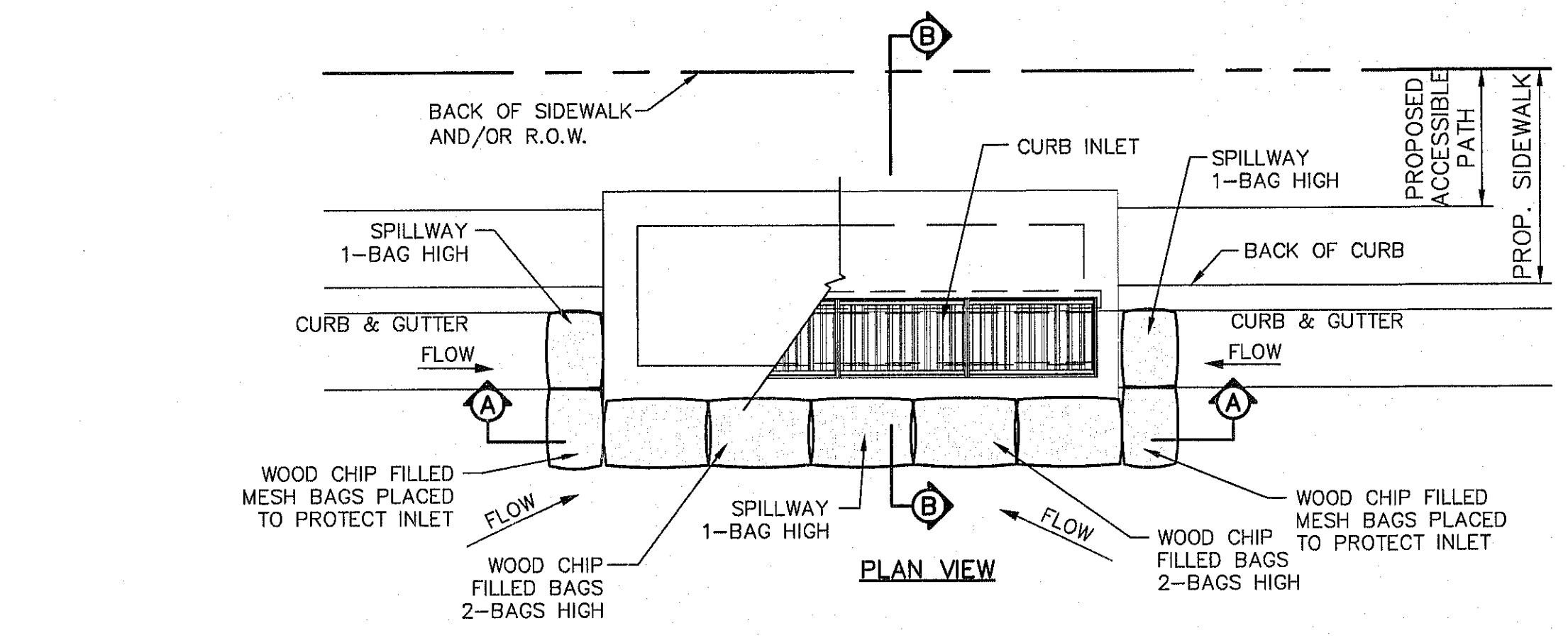
C16.2



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".

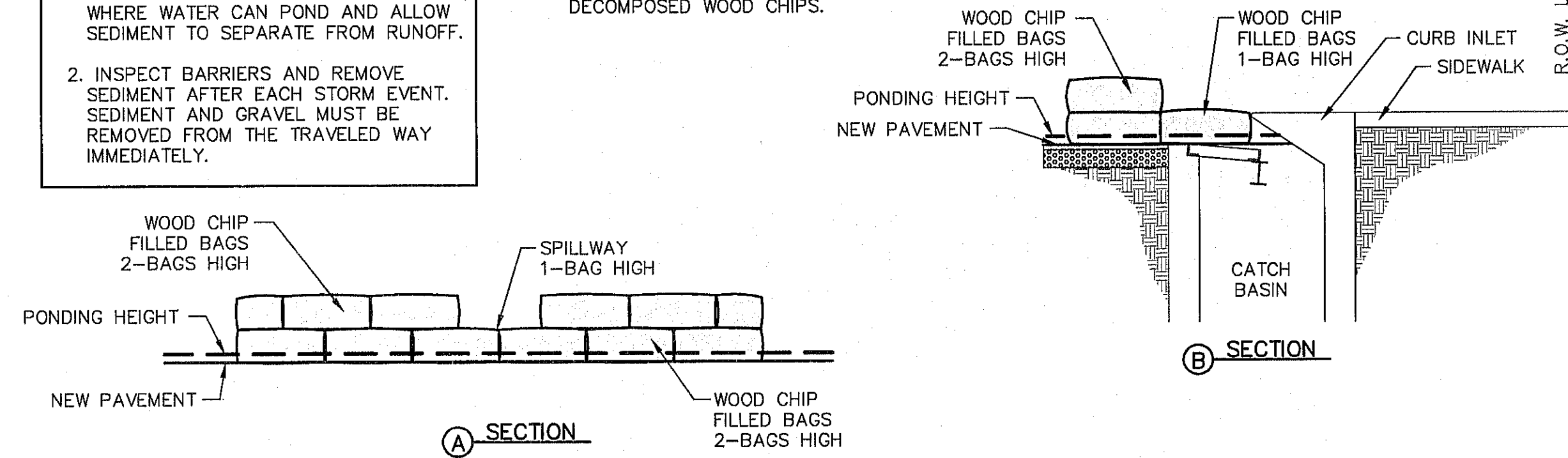


TEMPORARY SEDIMENT CONTROL FENCE
SCALE: N.T.S.



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.



TEMPORARY INLET PROTECTION
SCALE: N.T.S.

ROCK FILTER DAM USAGE GUIDELINES

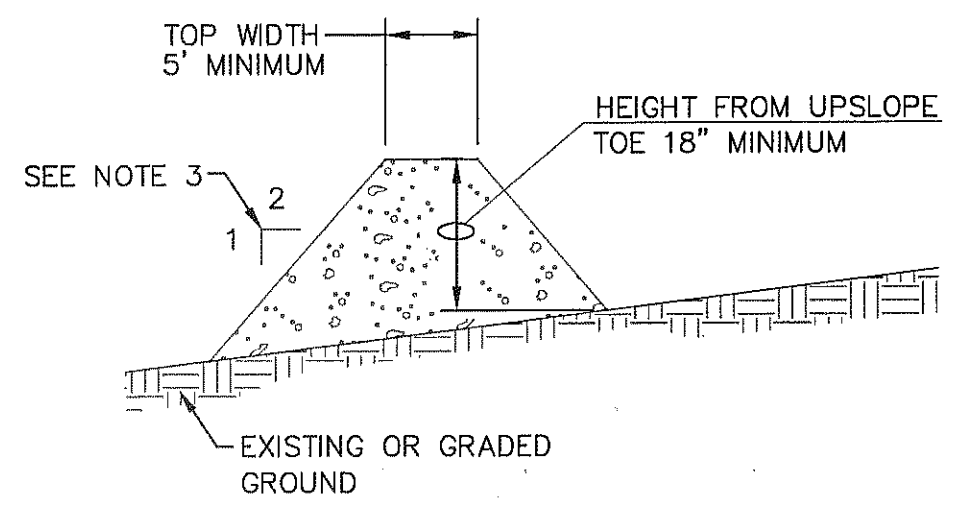
ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF AND/OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THROUGH RATE OF 60gpm/ft² OF CROSS SECTIONAL AREA. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

TYPE 1 (18" HIGH WITH NO WIRE MESH): TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROX. 8ft/sec OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS MAY BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR DIRECTED BY THE ENGINEER.

TYPE 2 (18" HIGH WITH WIRE MESH): TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

TYPE 3 (36" HIGH WITH WIRE MESH): TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

TYPE 4 (SACK GABIONS): TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.



GENERAL NOTES:

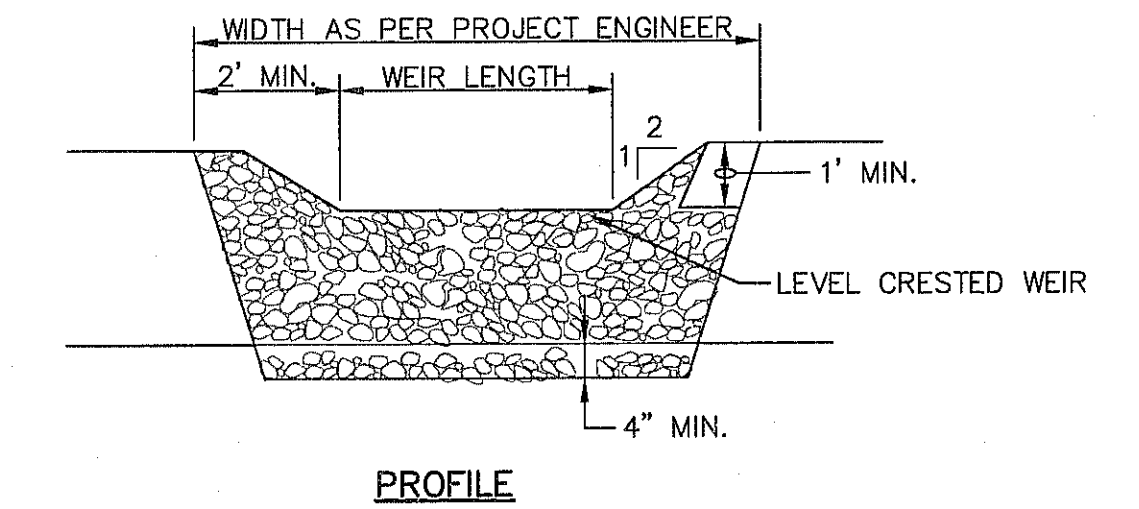
1. SOIL USED IN BERM CONSTRUCTION SHALL BE MACHINE COMPACTED.
2. TOP WIDTH AND HEIGHT OF BERM MAY BE MODIFIED WITH PRIOR APPROVAL OF THE ENGINEER.
3. SIDE SLOPES WITHIN THE SAFETY CLEAR ZONE OF A ROADWAY SHALL BE 6:1 OR FLATTER.
4. GRADING SHALL BE SHOWN ELSEWHERE IN THE PLANS OR AS DIRECTED BY THE ENGINEER.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

TYPICAL BERM CONFIGURATION
SCALE: N.T.S.

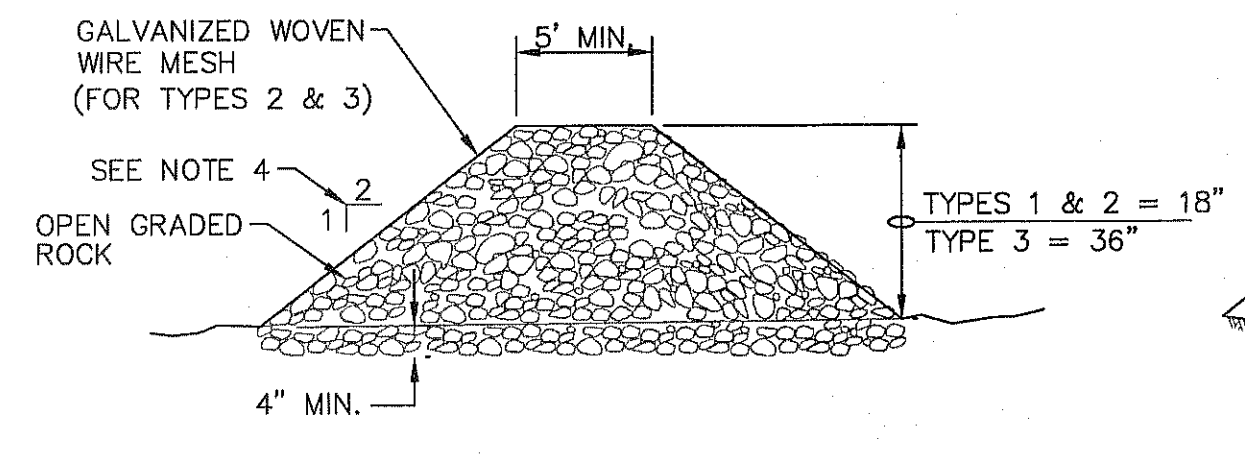
UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 498-8244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (AFTER HOURS)	(915) 621-6750
	(915) 240-3220

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

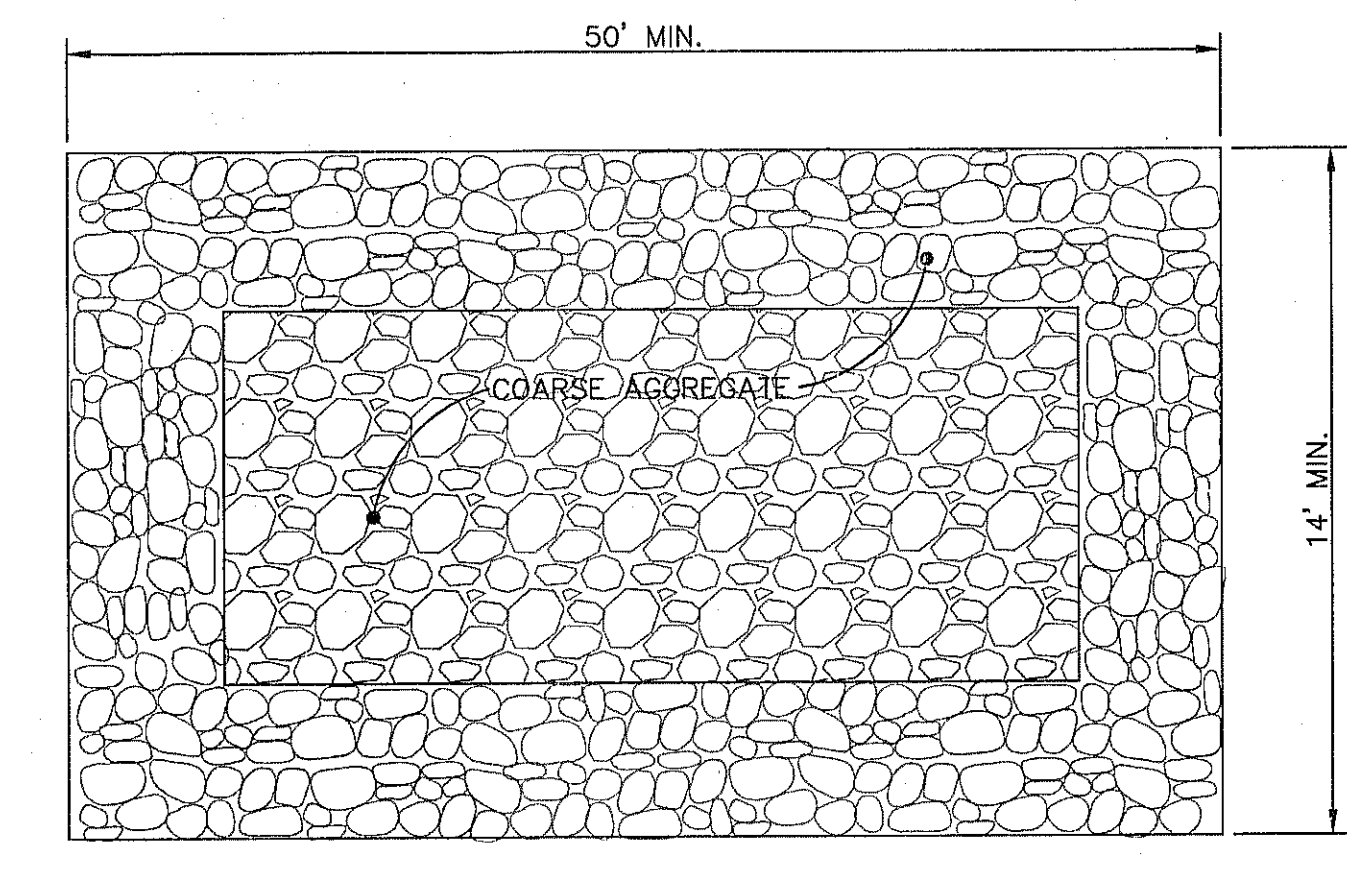
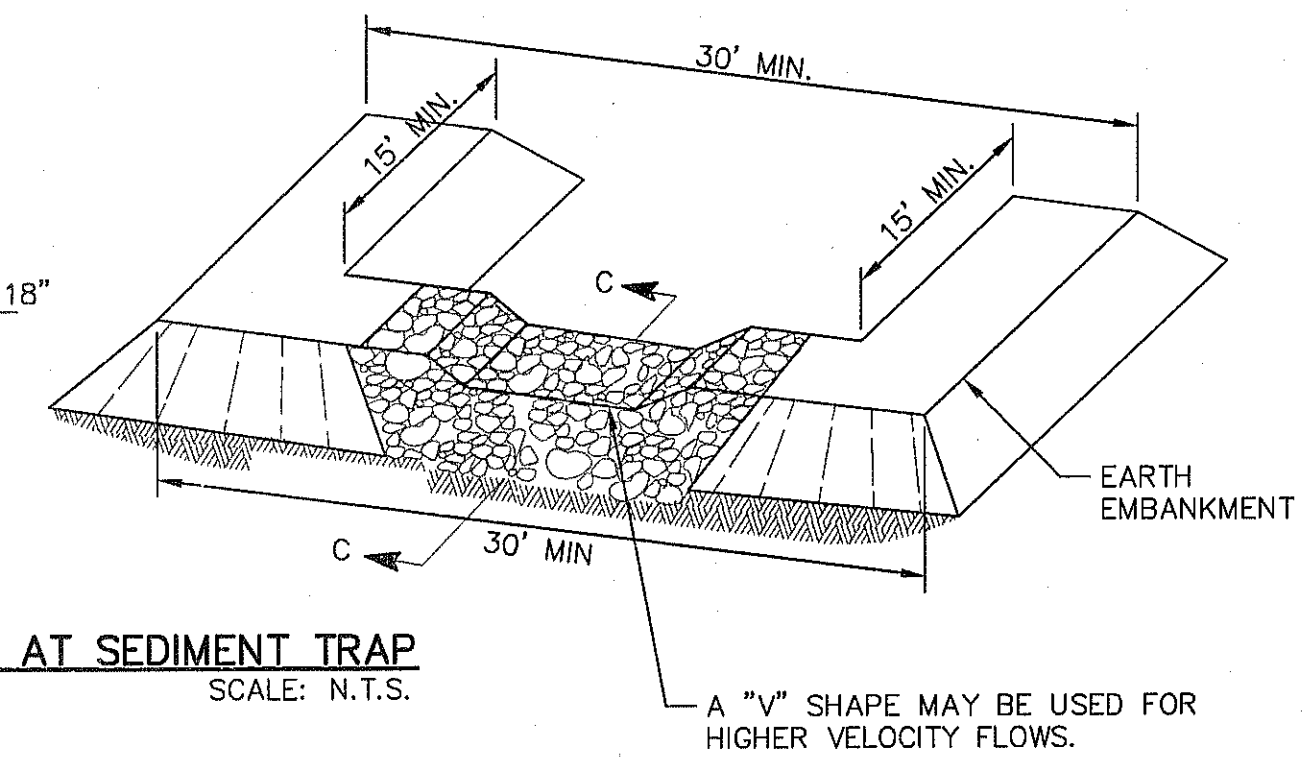


PROFILE

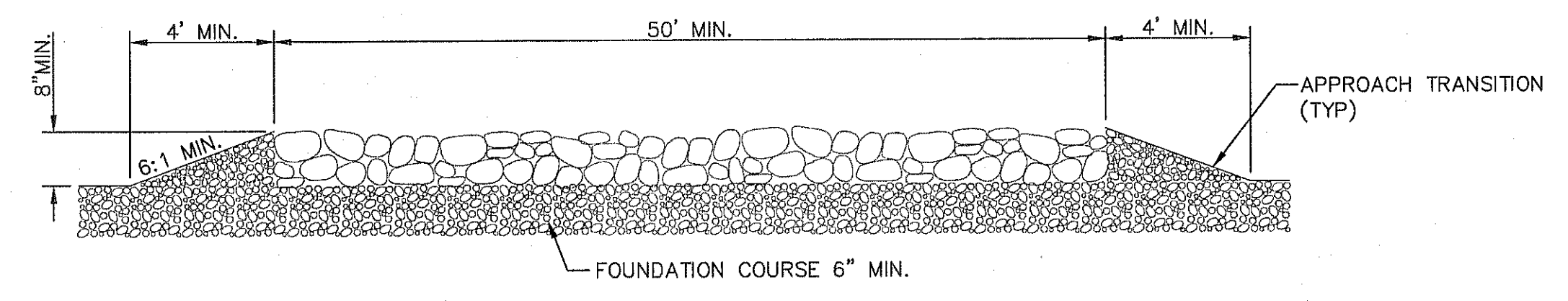


SECTION C-C

FILTER DAM AT SEDIMENT TRAP
SCALE: N.T.S.



PLAN



PROFILE

GENERAL NOTES

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

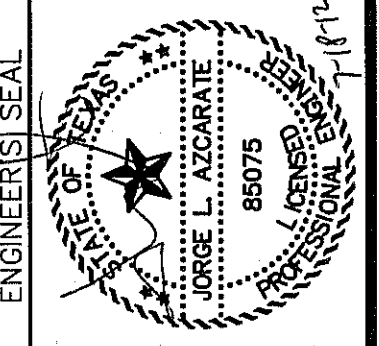
CONSTRUCTION EXIT (TYPE 1)
SCALE: N.T.S.

REFERENCES - BENCHMARKS

FOUND TYPOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM). (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.) CITY OF EL PASO VERTICAL DATUM SHOWN.

BY	
DATE	
REVISIONS	

osa
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM #484
4712 Woodrow Bean, Ste. F El Paso, TX 79904
Office: 915.544.8377 Fax: 915.544.8233 www.osaeng.com



SCALE

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

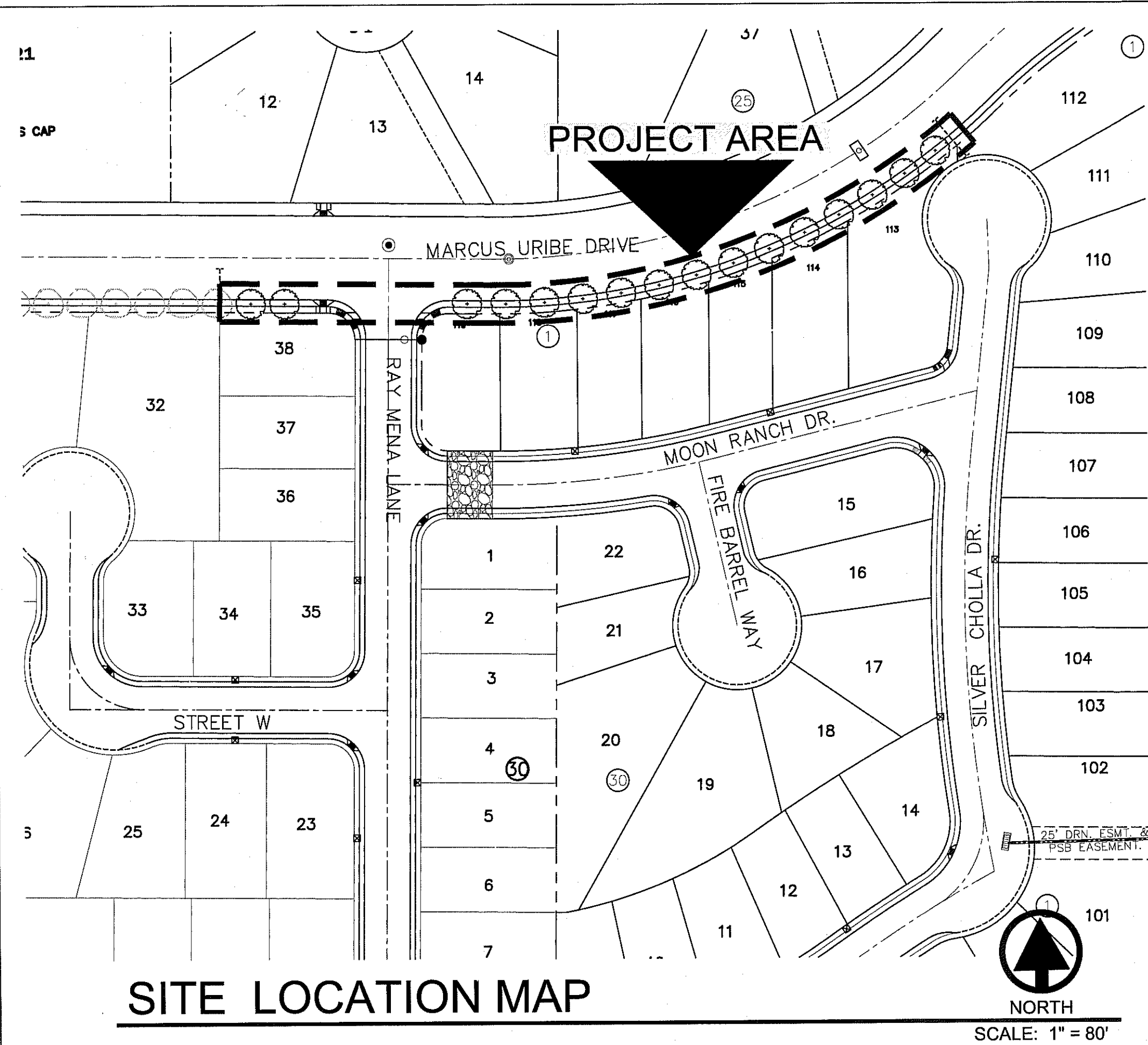
DATE: MAY 2012
DESIGN BY: G.R.
DRAWN BY: J.H.
CHKD. BY: J.L.A.
APPROV. BY: J.L.A.
JOB No. 2000-1128-LD

PROJECT NAME
SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS

SHEET TITLE
STORM WATER POLLUTION PREVENTION PLAN: DETAILS

SHEET NO.

C16.3



SITE LOCATION MAP

NORTH
SCALE: 1" = 80'

LANDSCAPE LEGEND

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY
(Symbol: Circle with a cross)	SOUTHERN LIVE OAK	QUERCUS VIRGINIANA	16
TURF, GRAVELS, & MULCHES			
(Symbol: Stippled rectangle)	3/4" FRANKLIN RED ROCK, 3" DEPTH W/ MIRAFI 140NC WEED BARRIER		

LANDSCAPE NOTES

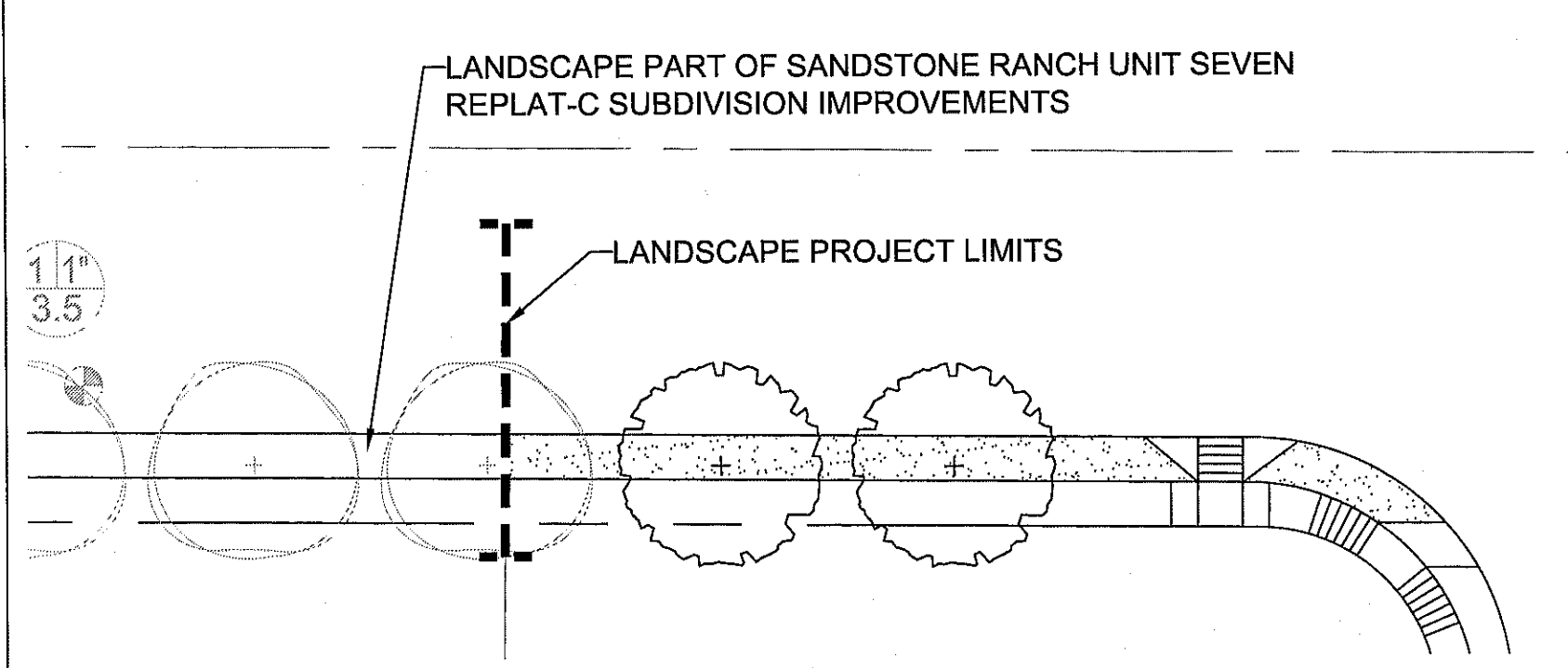
- ALL UTILITY EASEMENTS SHALL BE MARKED PRIOR TO EXCAVATION, AND PARTICULAR ATTENTION PAID TO TREE PLACEMENT WITHIN AND THROUGHOUT SITE.
- THERE SHALL BE NO STEEL EDGING BETWEEN ROCK TYPES.
- CONTRACTOR SHALL PROVIDE ROCK SAMPLES AND OBTAIN APPROVAL FROM OWNER PRIOR TO FINAL DELIVERY OF QUARRIED MATERIALS.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

UTILITY LOCATOR SERVICES	
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CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

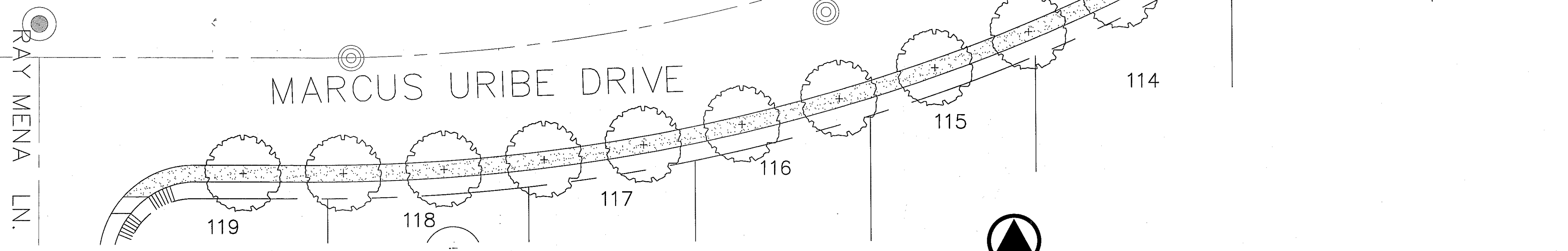
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CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

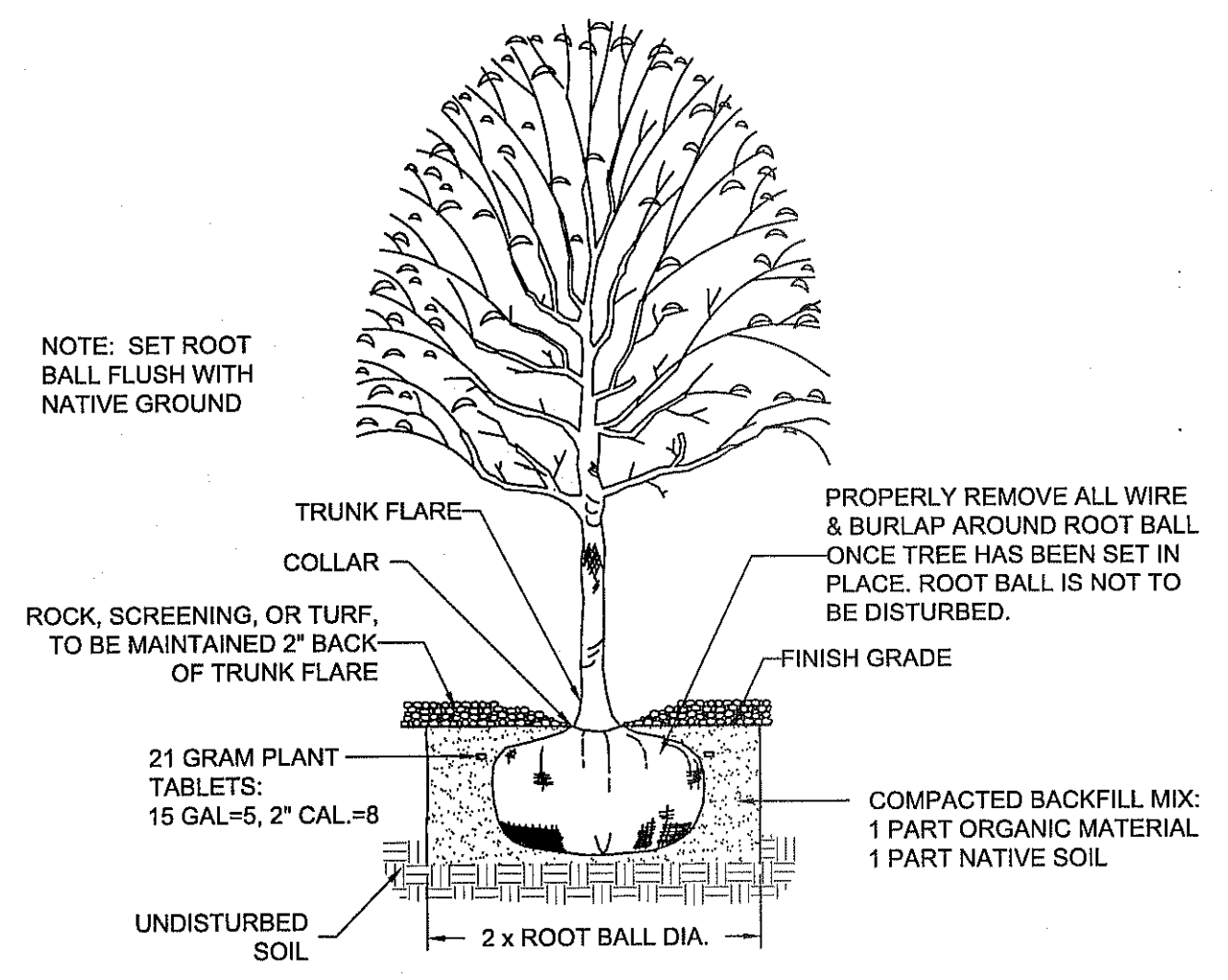
REFERENCES - BENCHMARKS	FOUND TxDOT BRASS CAP AT SECTION CORNERS 19, 20, 21 AND 22. ELEVATION: 4033.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM.)
DATE	REVISIONS
BY	



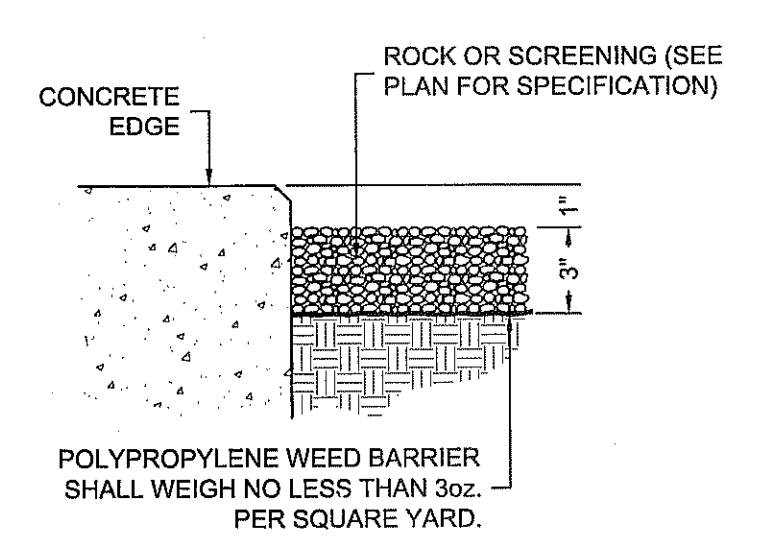
LANDSCAPE PLAN



NORTH
SCALE: 1" = 20'



TREE PLANTING DETAIL
NOT TO SCALE



ROCK/SCREENING DETAIL
NOT TO SCALE

CONSULTANT'S SEAL	
SCALE	Vertical: N/A Horizontal: N/A
DATE	JUNE 2012
DESIGN BY:	CH
DRAWN BY:	CH
CHKD. BY:	SA
APPVD. BY:	
JOB No.	2000-128-LD

PROJECT NAME
**SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
LANDSCAPE PLAN

SHEET NO.
L1.00

IRRIGATION NOTES

- IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, P.O. BOX 13067, AUSTIN, TX 78711.
- CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING AND PROPOSED UTILITIES AND ALL SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- IRRIGATION SHALL BE INSTALLED ACCORDING TO PLANS, DETAILS, AND SPECIFICATIONS. SHOULD CHANGES BE IMPLEMENTED IN THE FIELD, A NEW SET OF PLANS IS REQUIRED TO BE SUBMITTED TO THE CITY OF EL PASO. LANDSCAPE DESIGNER IS NOT UNDER CONTRACT TO PROVIDE THESE PLANS, EXCEPT AS PROVIDED FOR IN ORIGINAL CONTRACT.
- CONTRACTOR WILL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS DESIGNED, WHEN IT IS OBVIOUS THAT FIELD CONDITIONS EXIST, THAT WERE NOT CONSIDERED AT TIME OF DESIGNING THE SYSTEM. ANY CONDITIONS NOTED AS SUCH, SHALL BE REPORTED TO THE ARCHITECT AND IRRIGATION DESIGNER. IF THE CONTRACTOR FAILS TO DO SO, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY CORRECTIONS NEEDED.
- PLANS SCHEMATIC FOR READABILITY. CONTRACTOR TO ADJUST AS NECESSARY TO FIT SITE.
- CONTRACTOR SHALL VERIFY STATIC PRESSURE AT METER MEETS SYSTEM NEEDS. LICENSED IRRIGATOR TO AMEND AS NECESSARY.
- PROVIDE SHUTOFF VALVE BETWEEN METER AND BACKFLOW.
- CONTROL VALVE SHALL BE PROVIDED TO MAINLINE AFTER BACKFLOW
- CONTRACTOR IS RESPONSIBLE FOR CONNECTING AUTOMATIC CONTROLLER TO ELECTRICITY.
- 14 GA. SOLID COPPER WIRE (PVC INSULATED AND UL APPROVED) SHALL RUN FROM CONTROLLER TO VALVES. COMMON WIRE TO BE 12GA.
- ALL CONTROL WIRING FROM THE VALVES TO THE CONTROLLER MUST BE INSTALLED IN A 1" PVC CONDUIT PIPE IF BURIED BENEATH CONCRETE OR ASPHALT SURFACES.
- LOCATE VALVES AWAY FROM LOW SPOTS OR AREAS OF DRAINAGE FLOW.
- VALVE CAPS SHALL MATCH COLOR OF SURROUNDING MATERIAL, AS CLOSELY AS POSSIBLE.
- ALL MAINLINES SHALL BE BURIED MIN. 18", ALL LATERALS 12".
- MAINTAIN 4" MINIMUM CLEARANCE BETWEEN PIPE RUNNING IN THE SAME TRENCH. CONTROL WIRE SHALL ALWAYS BE TO THE SIDE AND BELOW THE TOP OF THE PIPE RUNNING IN THE SAME TRENCH.
- POLYETHYLENE TUBING TO BE PLACED UNDER WEED BARRIER FABRIC. MICROTUBING TO BE STAKED.
- THE CONTRACTOR SHALL PROVIDE THE OWNER WITH AS-BUILT DRAWINGS ON MYLAR PRIOR TO APPROVAL OF FINAL PAYMENT.
- ALL PIPING/WIRING RUNNING BENEATH PAVED SURFACES (DRIVES, SIDEWALKS, ETC.) SHALL BE INSTALLED IN SCH 40 PVC SLEEVES. SLEEVES SHALL BE OF THE SIZE SO THAT THE INSIDE DIAMETER OF THE SLEEVE IS 3 TIMES GREATER THAN THAT OF THE COMBINED OUTER DIAMETER OF ALL ITEMS INSTALLED IN THE SLEEVES.
- PEA GRAVEL SHALL BE INSTALLED AT THE BASE OF ALL VALVE BOXES, WITH A CLEARANCE OF MIN. 2" BETWEEN VALVE AND TOP OF GRAVEL.
- CONTRACTOR SHALL VERIFY THAT EXISTING BACKFLOW IS IN PROPER WORKING ORDER, IS CODE COMPLIANT AND HAS BEEN TESTED WITHIN THE PAST YEAR.
- CONTRACTOR SHALL VERIFY THAT EXISTING IRRIGATION CONTROLLER IS IN PROPER WORKING ORDER.

IRRIGATION LEGEND

SYMBOL	ITEM
[M]	EXISTING: 5/8" METER
[B]	EXISTING: 3/4" FEBCO 850 DOUBLE CHECK VALVE BACKFLOW PREVENTER
[V]	EXISTING: 1" BRASS PORT VALVE
[C]	EXISTING: 1" REMOTE CONTROL VALVE, RAINBIRD 100-PESB W/ AMIAD Y FILTER AFTER THE VALVE
[R]	EXISTING: 1" REMOTE CONTROL VALVE, RAINBIRD 100-PESB W/ AMIAD Y FILTER AFTER THE VALVE
[S]	MAINLINE - 1" SCHED. 40 PVC
[D]	PVC SLEEVE - 2 SIZES LARGER THAN LATERAL OR MAIN
[L]	LATERAL LINE - SCHED. 40 PVC - 1" UNLESS OTHERWISE INDICATED
[O]	PEPCO OCTABUBBLER - BLUE 2 GPH
[A/B/C]	A) STATION NUMBER B) SIZE OF VALVE IN INCHES C) TOTAL GPM

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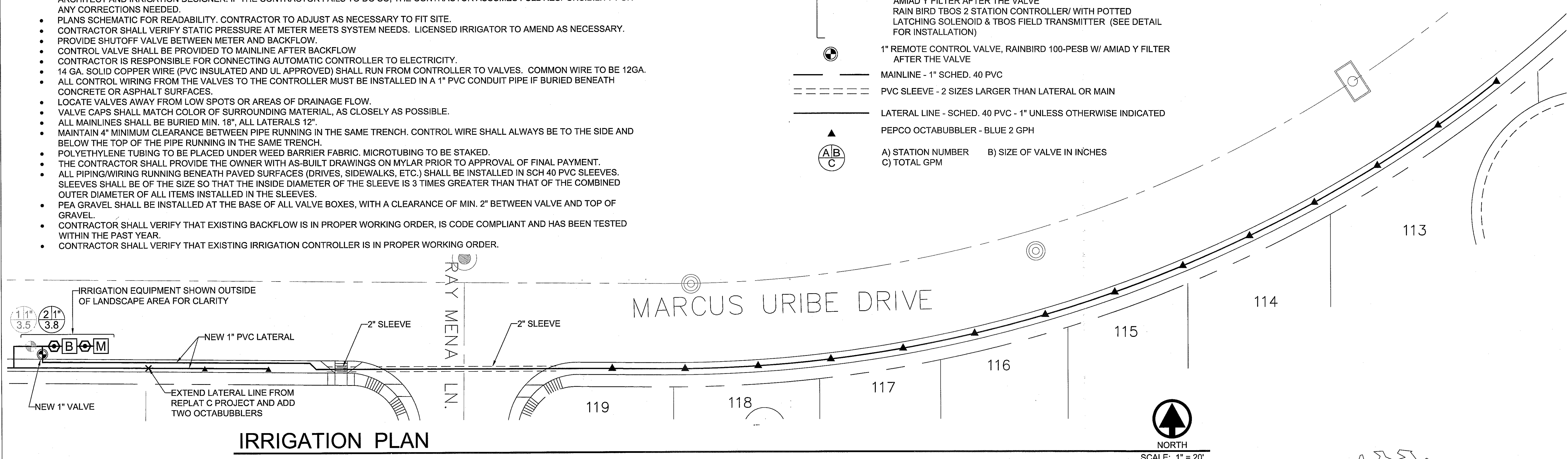
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1-800-344-8377

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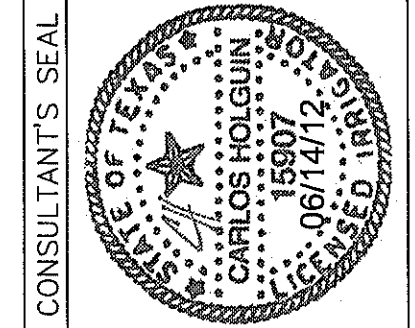
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DATE	REVISIONS	BY



ceea
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4584
4712 Woodrow Bean, Ste. F, El Paso, TX 79924
Office: 915.544.8232 Fax: 915.544.8233 www.ceea.org



SCALE

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

DATE: JUNE 2012
DESIGN BY: CH
DRAWN BY: SA
CHKD. BY: SA
APPVD. BY: SA
JOB No. 2000-128-LD

PROJECT NAME

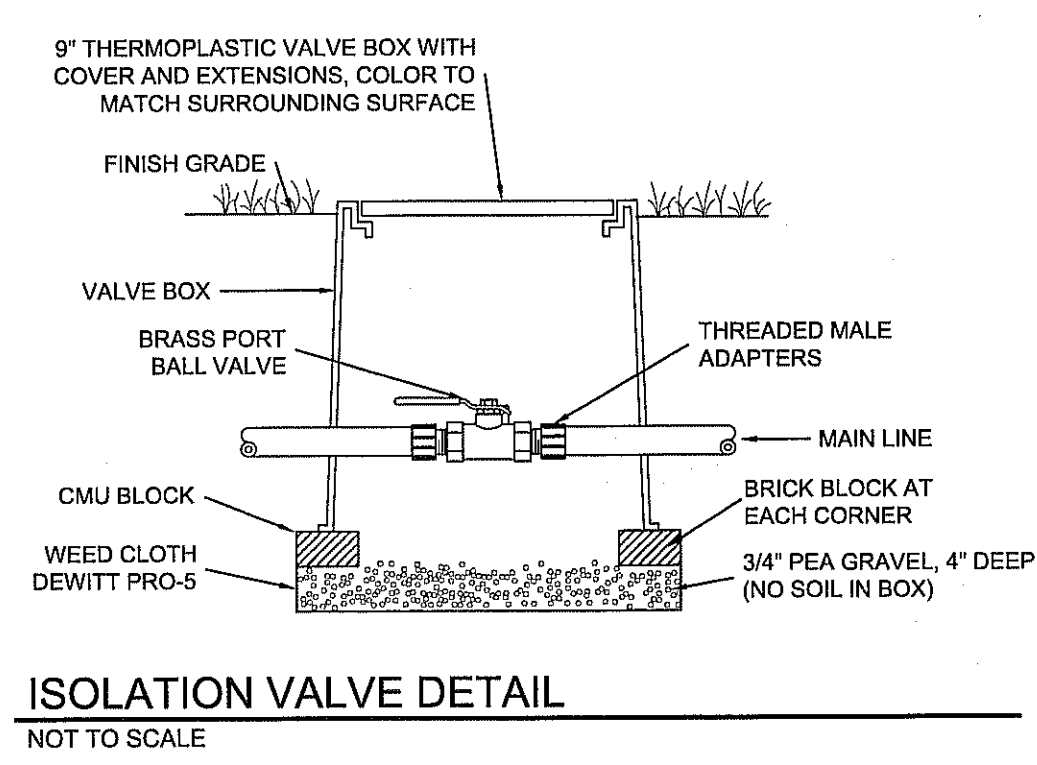
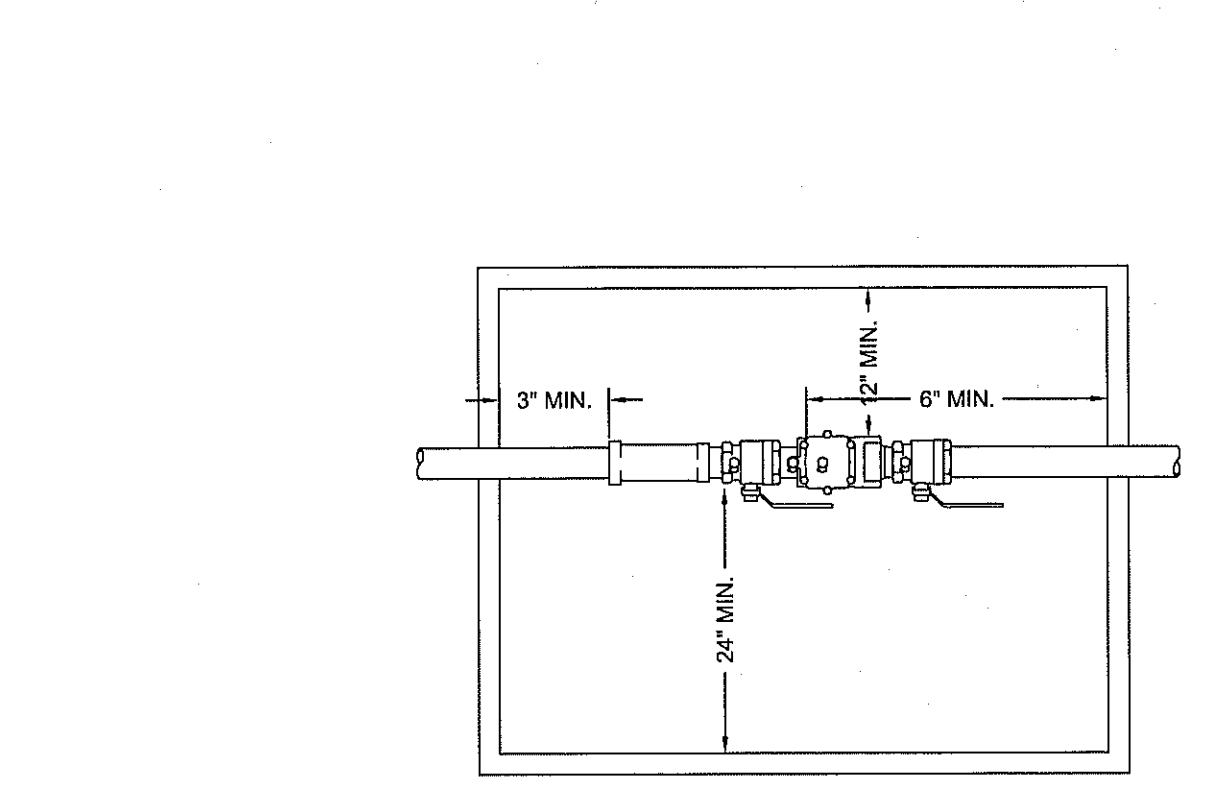
SANDSTONE RANCH UNIT SEVEN
REPLAT-D
SUBDIVISION IMPROVEMENTS

SHEET TITLE

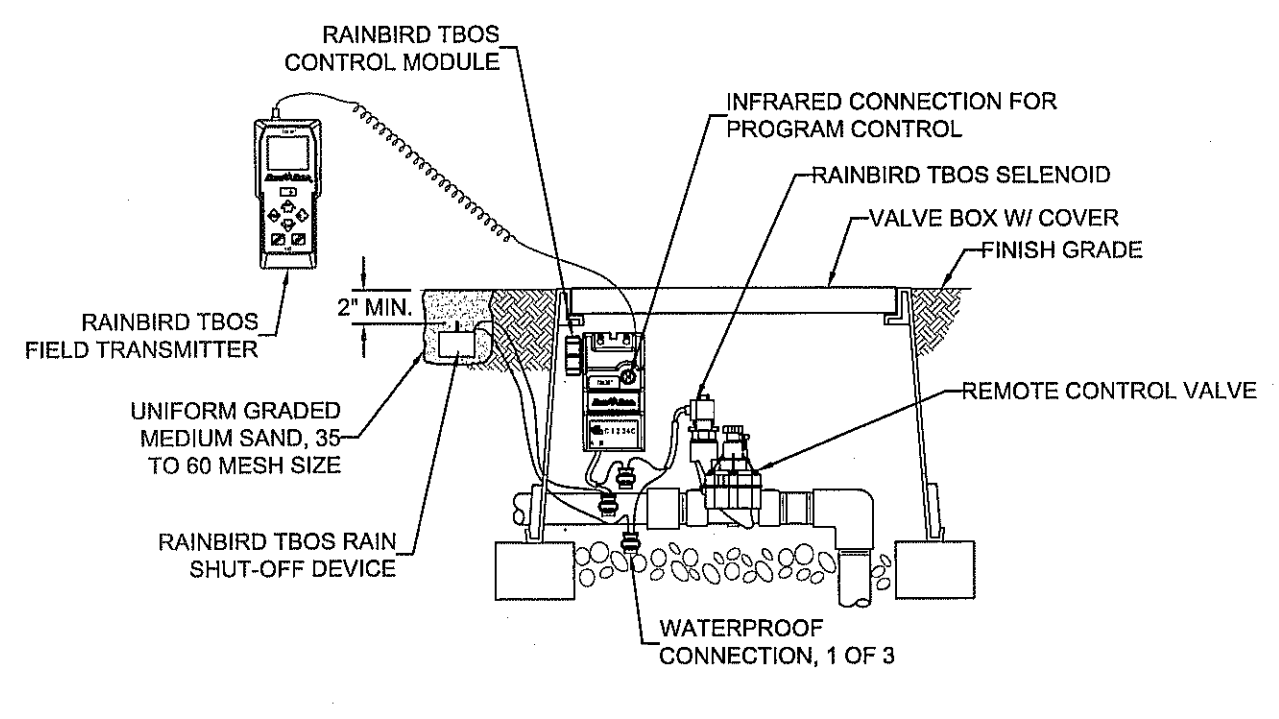
IRRIGATION PLAN

SHEET NO.

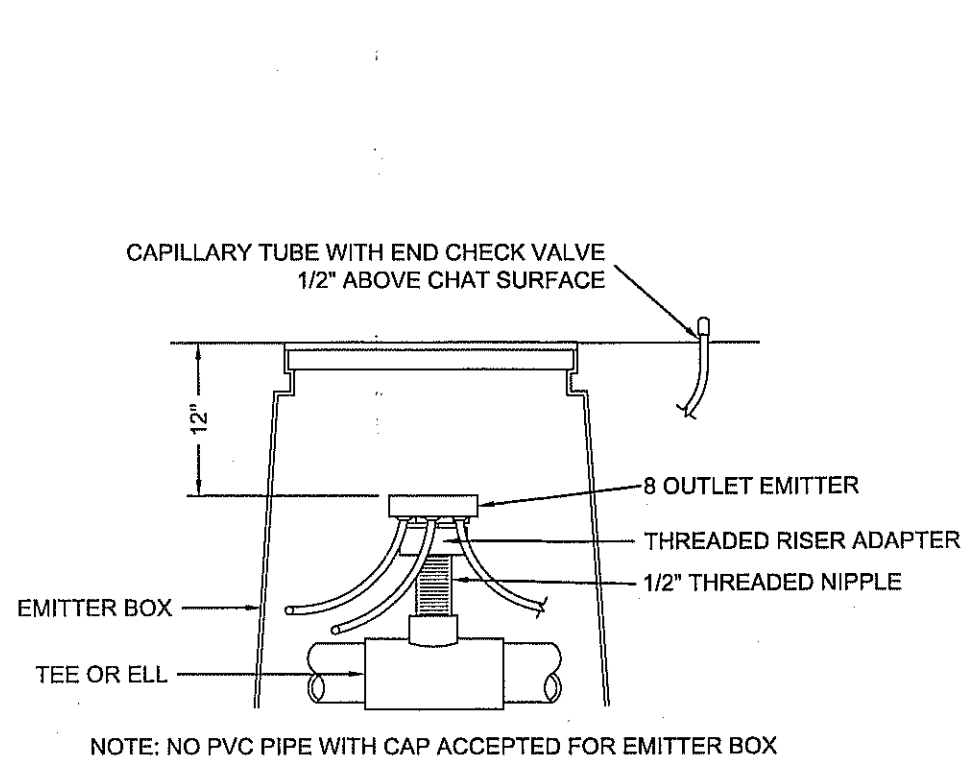
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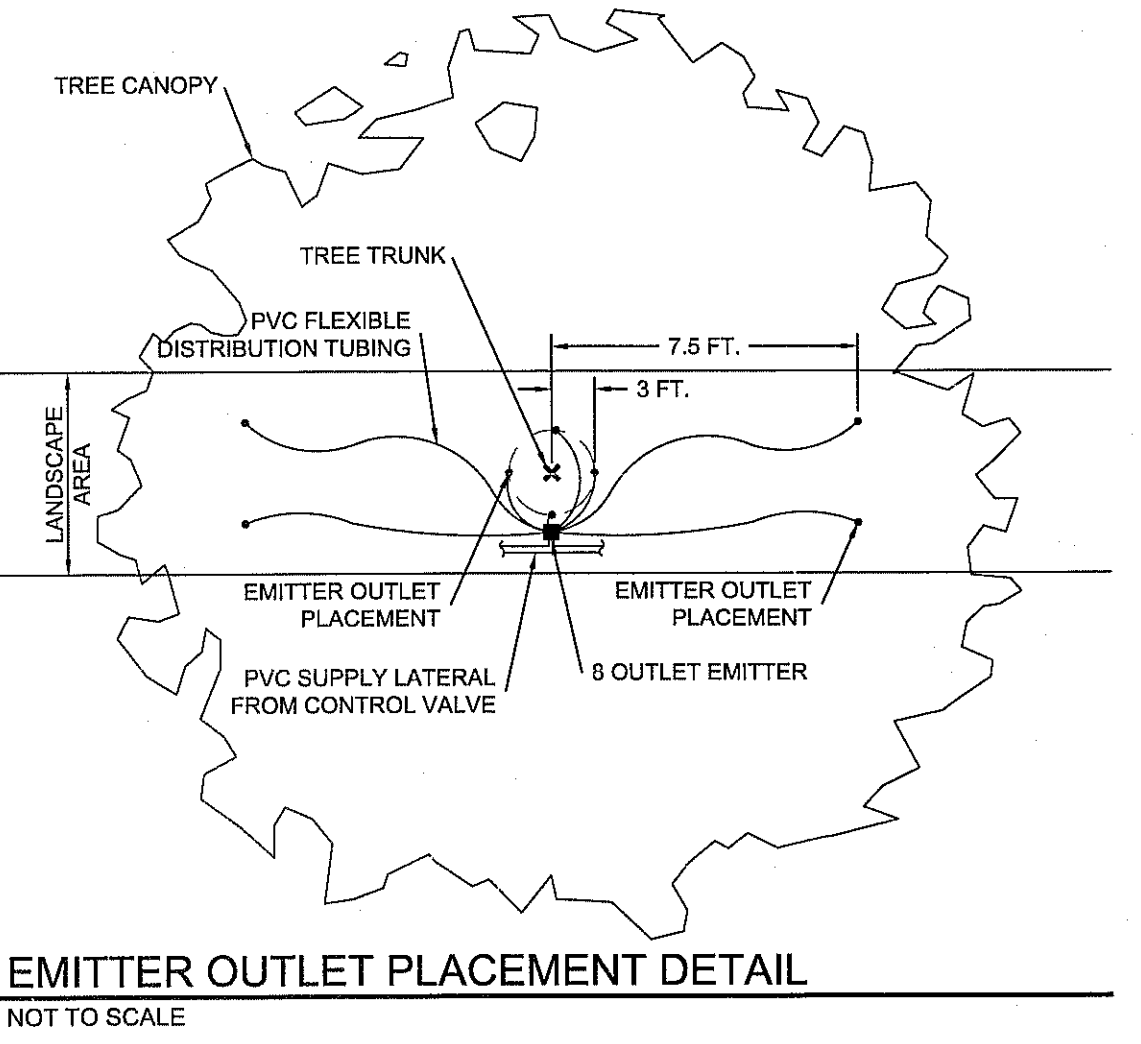
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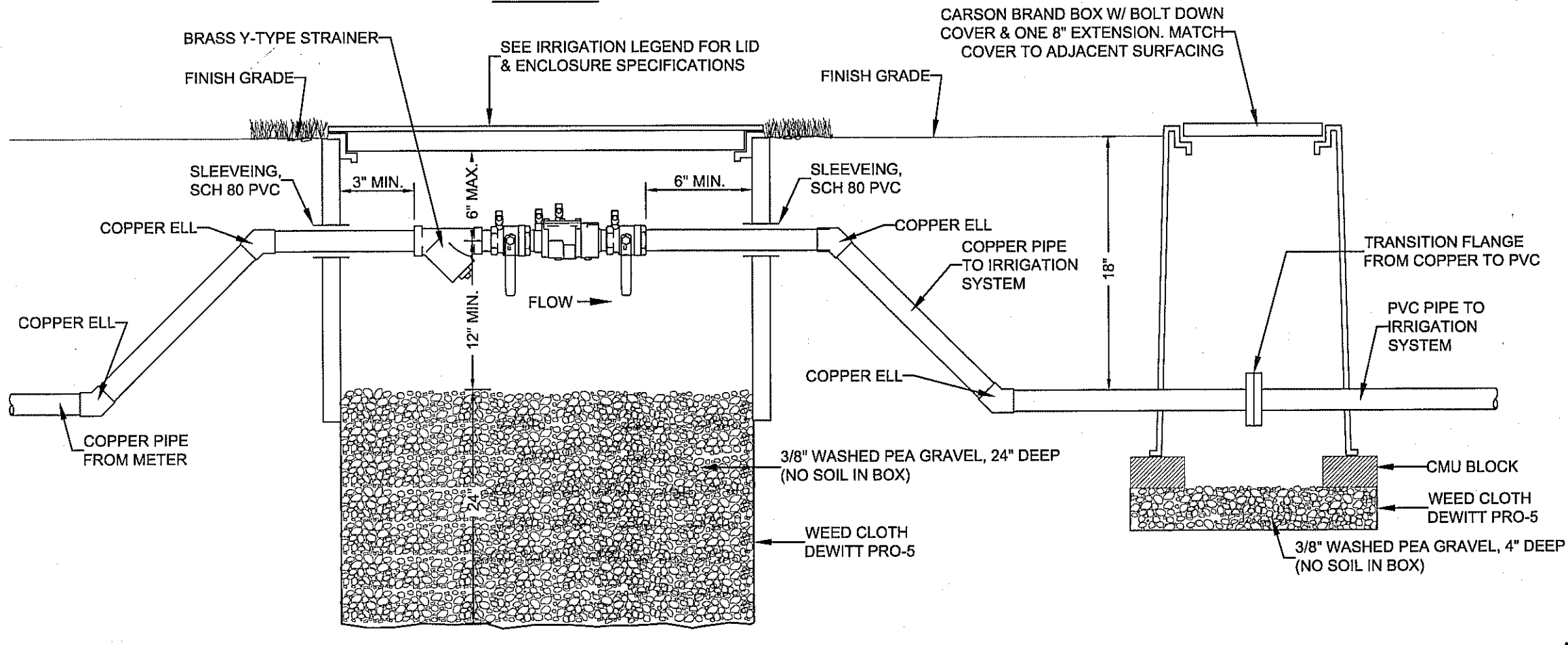
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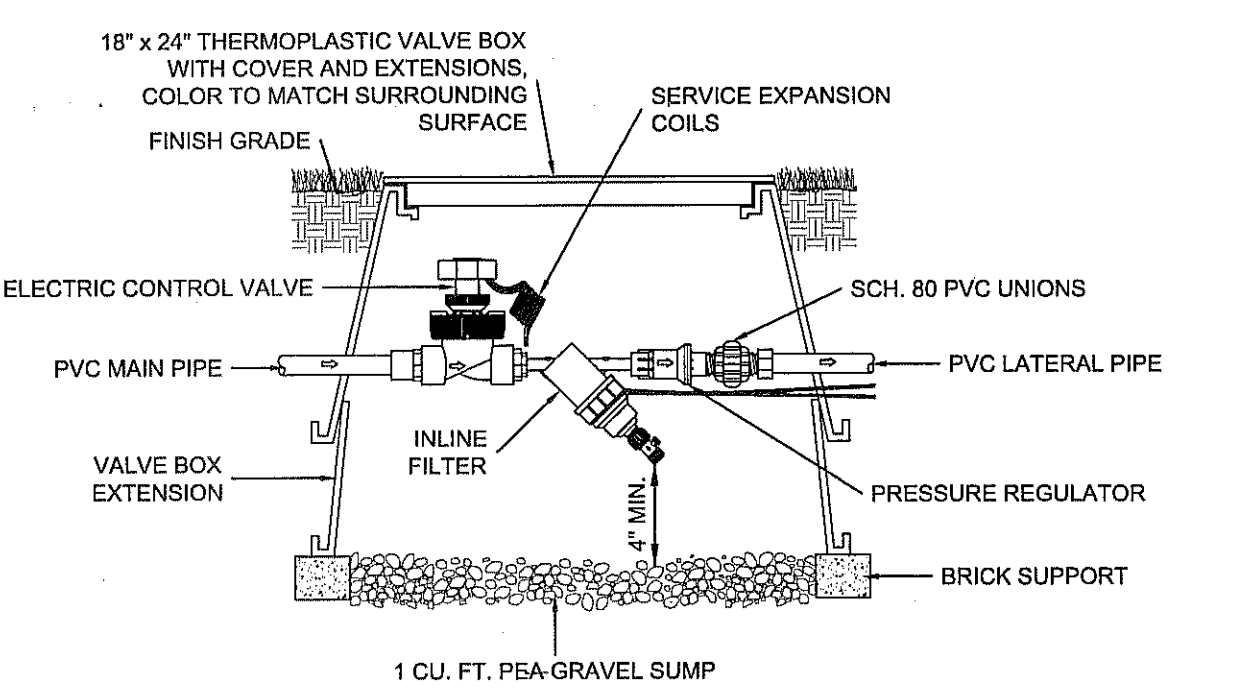
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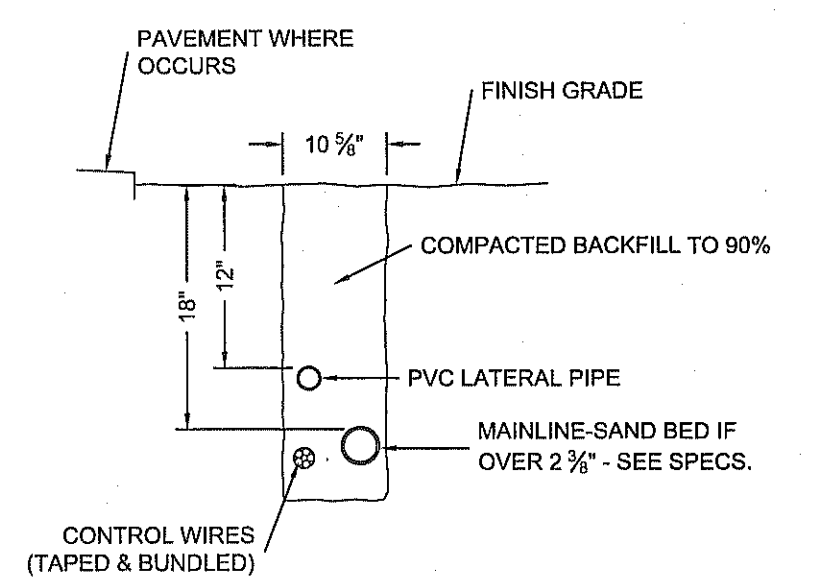
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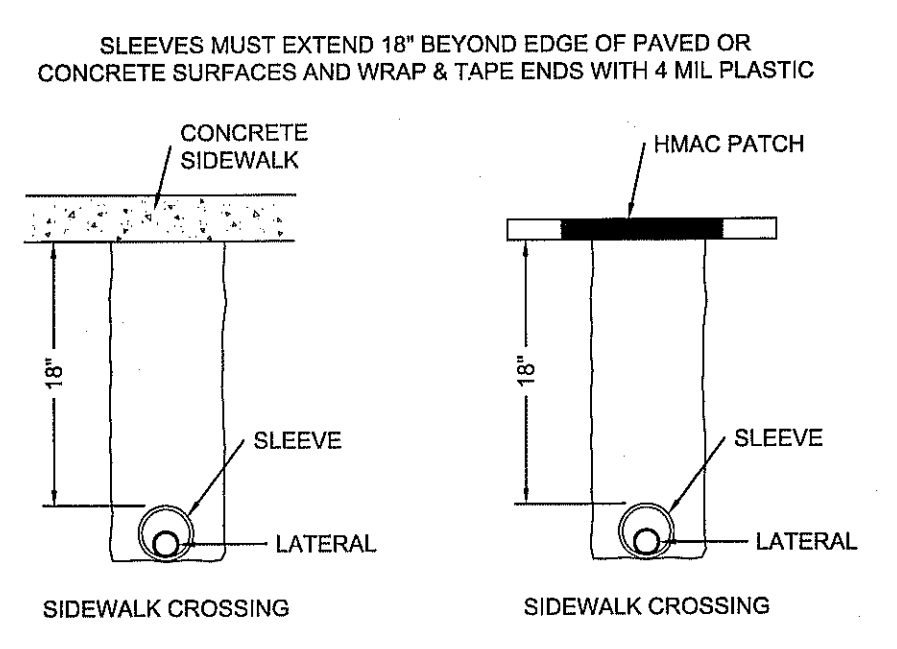
DOUBLE CHECK ASSY. FEBCO Mo.850 & TRANSITION FLANGE
NOT TO SCALE



REMOTE CONTROL VALVE, PRESSURE REGULATOR & FILTER
NOT TO SCALE



TRENCHING DETAIL
NOT TO SCALE



SLEEVING STANDARD DETAIL
NOT TO SCALE



SANDSTONE RANCH UNIT SEVEN REPLAT D

BEING A REPLAT OF LOTS 69 TO 87, LOTS 92 TO 102, AND LOTS 124 TO 135, BLOCK 1; LOTS 9 TO 18, AND LOTS 29 TO 43, BLOCK 30; LOTS 14 TO 25, BLOCK 31; AND PORTIONS OF R.O.W. OUT OF SILVER CHOLLA DRIVE, MOON RANCH DRIVE, CATTLE LANE, COYOTE RANCH DRIVE, RED SAGE WAY, AND FIRE BARREL WAY, ALL WITHIN SANDSTONE RANCH UNIT SEVEN, AN ADDITION TO THE CITY OF EL PASO, EL PASO COUNTY TEXAS, AND A REPLAT OF LOT 69, AND A 25' DRAINAGE R.O.W. AND PSB EASEMENT, BLOCK 1, WITHIN SANDSTONE RANCH UNIT SEVEN REPLAT C, AN ADDITION TO THE CITY OF EL PASO, EL PASO COUNTY, TEXAS; CONTAINING 14.395 ACRES ±

DEDICATION
Tropicana Development Inc., property owner of this land does hereby present this plat and dedicates, if not previously dedicated, its respective portion of said property to the use of the public, the streets, drainage right of way, P.S.B. easement and utility easements, as hereon laid down 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 _____ day of _____, 2012.

[Signature]
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, known to me to be the person whose name is subscribed to the foregoing instrument, and his acknowledged to me that he executed the same for the purposes and considerations herein expressed.

[Signature]
MICHELLE SHOUROFS
My Commission Expires
January 8, 2015

Given under my hand and seal of office this _____ day of _____, 2012.

Notary Public in and for El Paso County My Commission Expires _____

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 _____ day of _____, 2012, A.D.

Chairperson *[Signature]* Executive Secretary *[Signature]*

Approved for filing this _____ day of _____, 2012.

[Signature]
CITY DEVELOPMENT DIRECTOR

FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this _____ day of _____, 2012, A.D. in Document No. 20120074138 of the Plat Records.

[Signature] County Clerk
[Signature] By Deputy

Subdivision improvement plans prepared by and under the supervision of CEA Group.

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.

JORGE L. AZCARATE, P.E.
Licensed Professional Engineer
Texas License No. 85075

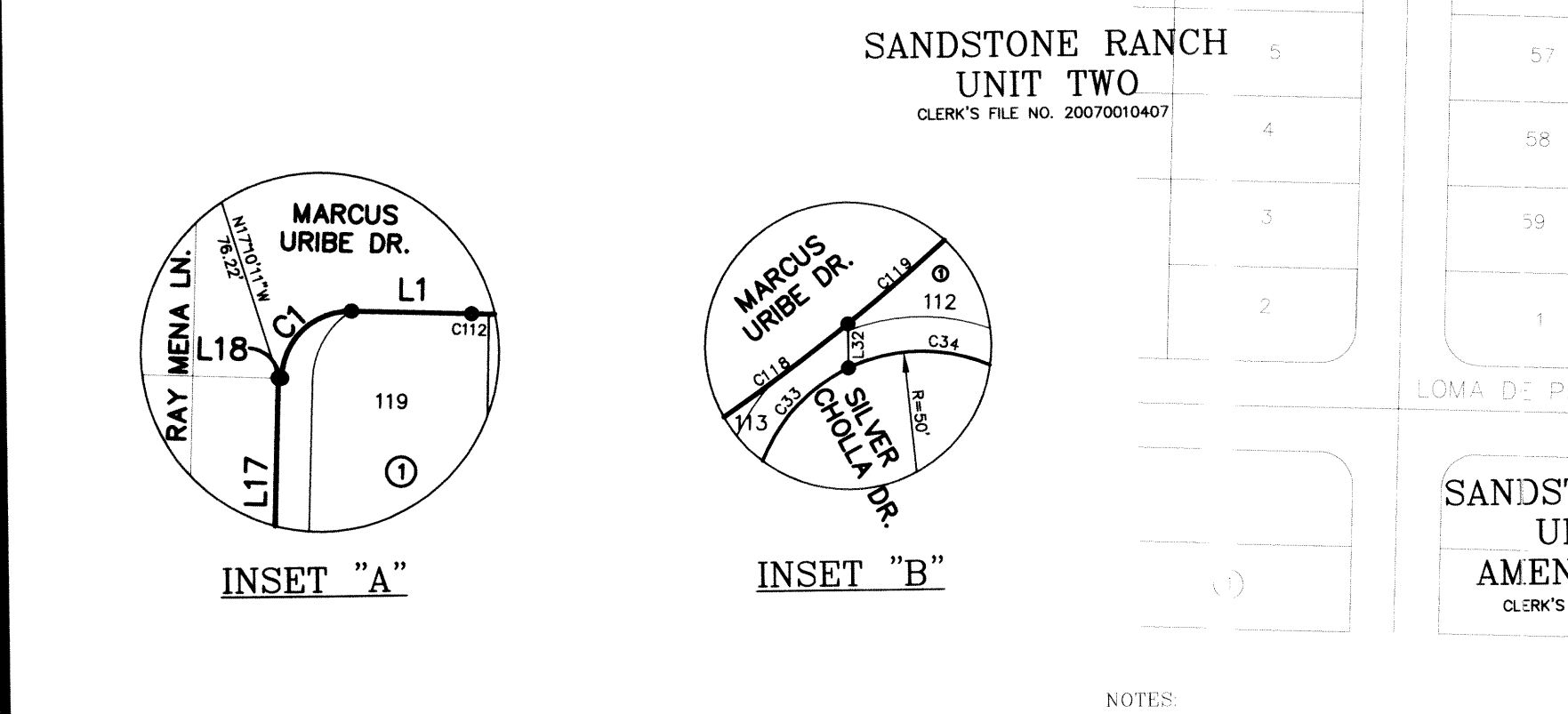
Benito Barragan, R.P.L.S. Texas, No. 5615



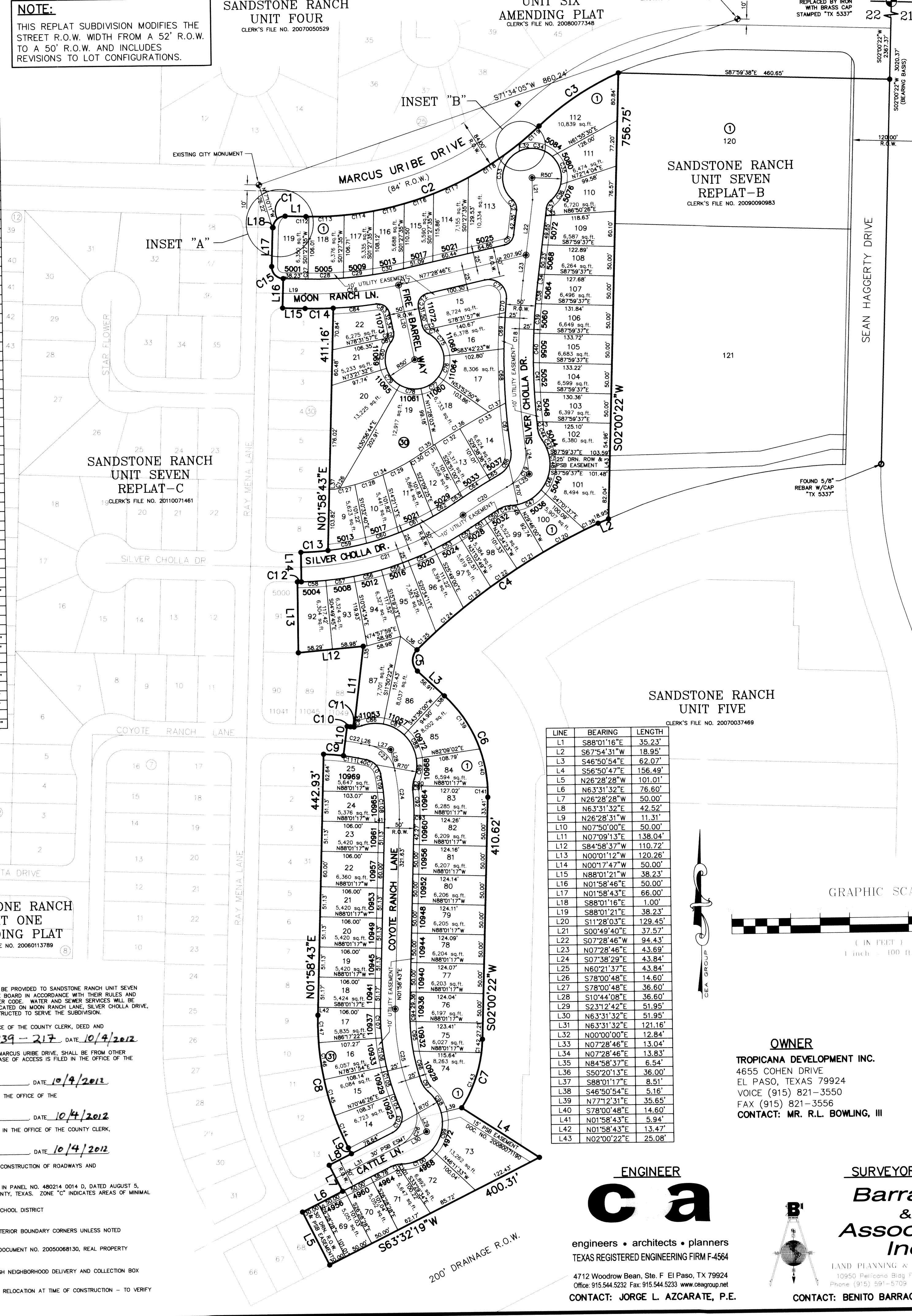
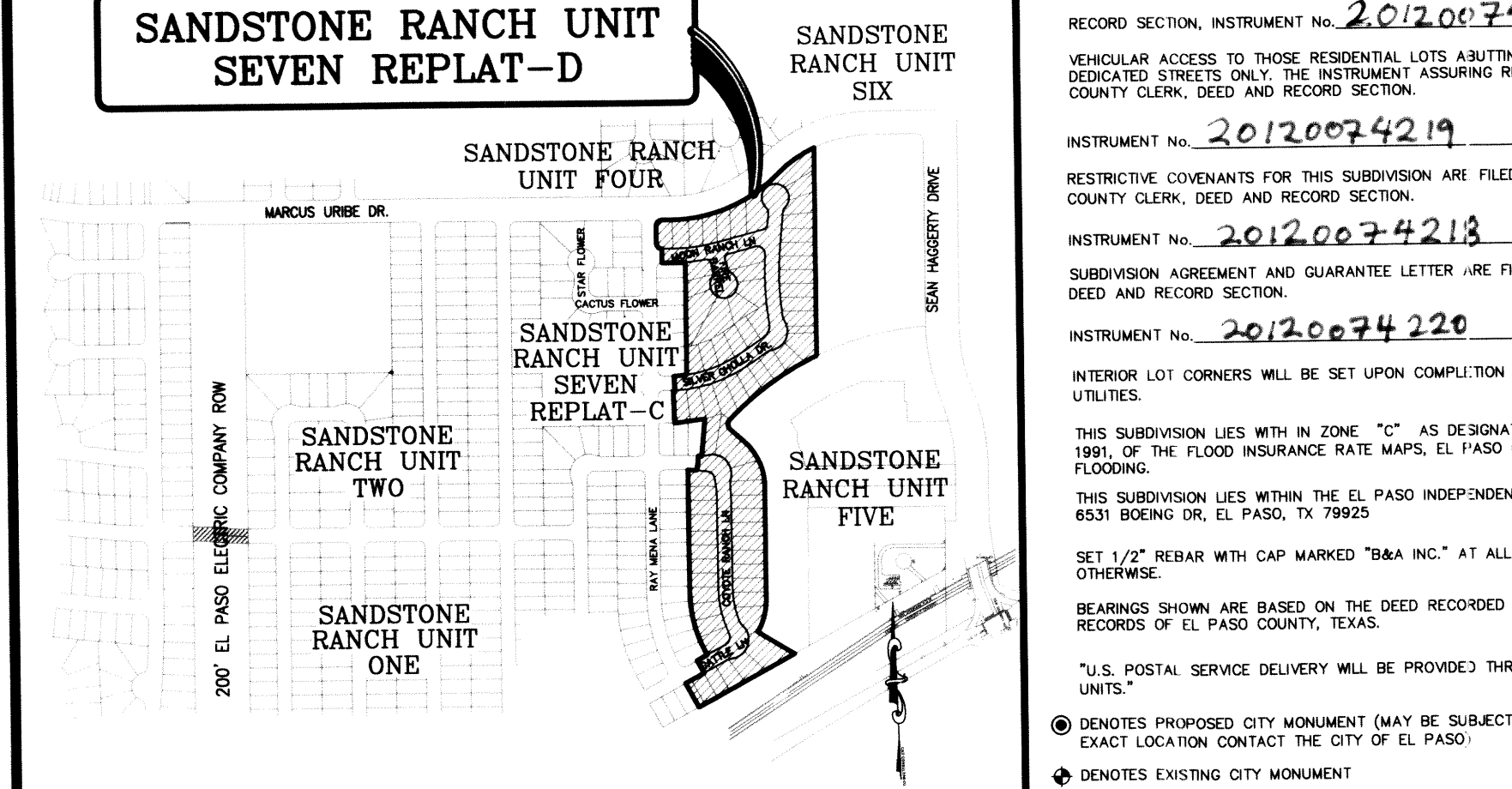
DATE OF PREPARATION: August, 2012

NOTE:
THIS REPLAT SUBDIVISION MODIFIES THE STREET R.O.W. WIDTH FROM A 52' R.O.W. TO A 50' R.O.W. AND INCLUDES REVISIONS TO LOT CONFIGURATIONS.

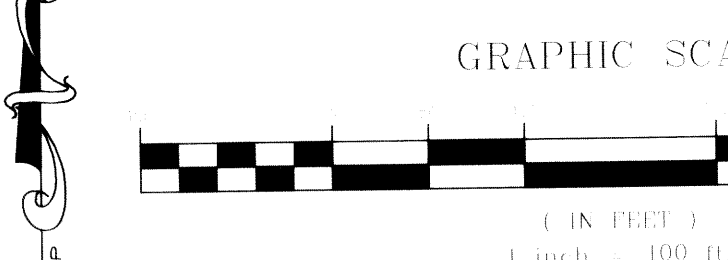
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	20.00'	31.42'	20.00'	28.28'	N46°58'44"E	90°00'00"
C2	55.31'	43.58'	22.98'	42.77'	N69°29'33"E	44°58'23"
C3	47.01'	162.66'	82.15'	161.85'	N56°55'04"E	19°49'25"
C4	109.00'	376.99'	190.40'	375.12'	S55°48'17"W	19°49'00"
C5	25.00'	40.46'	26.22'	36.19'	S00°28'34"E	92°44'18"
C6	226.00'	192.70'	102.65'	186.92'	S22°29'18"E	92°44'18"
C7	226.00'	172.86'	62.69'	121.35'	S17°34'48"W	48°51'17"
C8	469.00'	232.91'	118.91'	230.52'	N121°45'44"W	28°27'14"
C9	350.00'	33.93'	16.98'	33.92'	S84°56'38"E	5°33'16"
C10	400.00'	5.86'	2.93'	5.86'	S81°44'50"E	0°50'20"
C11	40.00'	6.11'	3.06'	6.10'	S85°42'08"E	8°44'57"
C12	525.00'	6.74'	3.37'	6.74'	S89°55'44"E	0°44'07"
C13	475.00'	46.20'	23.10'	46.19'	N89°55'44"E	0°44'07"
C14	711.31'	47.81'	23.91'	47.80'	N89°55'44"E	5°34'24"
C15	20.00'	31.42'	20.00'	28.28'	N43°01'19"W	90°00'04"
C16	686.31'	159.10'	79.51'	158.74'	N20°20'12"E	13°16'55"
C17	686.31'	14.57'	7.28'	14.57'	N78°05'15"E	17°25'58"
C18	1081.88'	285.52'	143.59'	284.69'	S00°24'51"E	15°07'16"
C19	65.00'	77.15'	43.84'	72.70'	N26°21'34"E	68°00'06"
C20	1205.60'	68.48'	44.26'	68.46'	S85°15'29"W	41°21'17"
C21	500.00'	222.76'	150.71'	288.60'	N72°55'46"E	33°32'53"
C22	375.00'	27.18'	13.59'	27.18'	N00°17'17"W	4°09'12"
C23	35.00'	64.58'	36.60'	60.94'	N44°22'28"W	67°16'40"
C24	575.00'	83.21'	41.78'	83.04'	N02°22'43"W	12°42'51"
C25	375.00'	164.87'	83.79'	163.54'	S10°36'59"E	28°11'25"
C26	50.00'	83.28'	51.95'	75.54'	N20°09'29"E	86°44'14"
C27	661.31'	31.97'	15.98'	31.96'	S88°11'40"E	0°20'38"
C28	661.31'	60.07'	30.06'	60.05'	N89°01'53"E	5°12'17"
C29	661.31'	50.11'	25.07'	50.10'	N84°15'30"E	4°20'29"
C30	661.31'	53.19'	26.61'	53.17'	N79°47'01"E	4°36'29"
C31	20.00'	24.43'	14.00'	22.94'	N42°28'46"E	70°00'00"
C32	20.00'	19.40'	10.54'	18.65'	N20°18'29"W	55°34'31"
C33	50.00'	98.75'	75.77'	83.77'	S08°29'08"W	11°30'43"
C34	50.00'	60.27'	34.40'	56.69'	N80°24'09"W	69°03'46"
C35	50.00'	52.51'	28.96'	50.13'	N15°47'16"W	60°10'00"
C36	50.00'	32.37'	16.78'	31.81'	N32°50'39"E	37°05'49"
C37	20.00'	15.33'	8.06'	14.96'	S29°26'10"W	43°54'47"
C38	1056.88'	36.34'	18.18'	36.34'	S06°29'40"W	1°58'13"
C39	1056.88'	50.04'	25.02'	50.04'	S04°09'10"W	2°42'46"
C40	1056.88'	50.01'	25.01'	50.00'	S01°26'27"W	2°42'46"
C41	1056.88'	50.09'	25.05'	50.08'	S01°16'21"E	2°42'55"
C42	1056.88'	50.28'	25.14'	50.28'	S03°59'35"E	2°43'33"
C43	1056.88'	11.98'	5.99'	11.98'	S05°40'50"E	0°38'59"
C44	40.00'	20.59'	10.53'	20.36'	S20°45'06"E	29°29'32"
C45	70.00'	27.29'	13.82'	27.12'	N24°19'40"W	22°20'24"
C46	70.00'	38.75'	19.89'	38.26'	S67°22'53"W	31°31'34"
C47	70.00'	51.03'	26.88'	50.19'	N60°14'57"E	42°00'54"
C48	70.00'	8.96'	4.49'	8.56'	N84°45'38"E	7°00'29"
C49	40.00'	20.50'	10.48'	20.28'	S73°34'52"W	29°22'01"
C50	1180.60'	30.31'	15.16'	30.31'	S58°09'45"W	1°28'15"
C51	1180.60'	26.20'	13.10'	26.20'	S56°47'28"W	1°16'17"
C52	525.00'	25.48'	12.74'	25.48'	N57°32'45"E	2°46'54"
C53	525.00'	48.06'	24.06'	48.06'	N61°33'36"E	5°14'49"
C54	525.00'	48.06'	24.06'	48.06'	N66°48'24"E	5°14'49"
C55	525.00'	48.06'	24.06'	48.06'	N72°03'13"E	5°14'48"
C56	525.00'	48.06'	24.06'	48.06'	N77°18'02"E	5°14'49"
C57	525.00'	48.06'	24.06'	48.06'	N82°32'50"E	5°14'49"
C58	525.00'	41.54'	20.78'	41.52'	N87°28'14"E	4°31'58"
C59	475.00'	66.89'	33.40'	66.84'	N80°36'28"E	8°04'21"
C60	475.00'	57.20'	28.64'	57.17'	N72°38'08"E	6°54'00"
C61	475.00'	64.94'	32.52'	64.89'	N65°16'08"E	7°49'59"
C62	475.00'	43.05'	21.56'	43.07'	N58°45'14"E	5°11'49"
C63	1230.60'	16.09'	8.05'	16.09'	S56°31'48"W	0°44'57"
C64	1230.60'	55.13'	27.57'	55.13'	S58°11'18"W	2°34'01"
C65	1230.60'	19.09'	9.54'	19.09'	S59°54'58"W	0°51'19"
C66	40.00'	47.47'	26.98'	44.74'	N22°21'34"E	68°00'06"
C67	1106.88'	81.23'	40.63'	81.21'	N25°32'21"E	41°21'16"
C68	1106.88'	92.36'	46.21'	92.33'	S01°02'47"E	4°46'51"
C69	1106.88'	61.21'	30.61'	61.20'	S02°55'41"W	31°06'06"
C70	1106.88'	23.57'	11.79'	23.57'	S05°07'20"W	11°13'13"
C71	30.00'	56.68'	41.48'	48.62'	N48°23'38"W	108°51'11"
C72	20.00'	31.05'	19.84'	28.02'	S33°00'22"W	88°56'19"
C73	20.00'	8.36'	4.24'	8.30'	S23°26'54"E	23°57'42"



LOCATION MAP SCALE: 1" = 600'



LINE	BEARING	LENGTH
L1	S88°01'16"E	35.23'
L2	S67°54'31"W	18.95'
L3	S46°50'54"E	62.07'
L4	S56°50'47"E	156.49'
L5	N26°28'28"W	101.01'
L6	N63°31'32"E	76.60'
L7	N26°28'28"W	50.00'
L8	N63°31'32"E	42.52'
L9	N26°28'31"W	11.31'
L10	N07°50'00"E	50.00'
L11	N07°09'13"E	138.04'
L12	S84°58'37"W	110.72'
L13	N00°01'12"W	120.26'
L14	N00°17'47"W	50.00'
L15	N88°01'21"W	38.23'
L16	N01°58'46"E	50.00'
L17	N01°58'43"E	66.00'
L18	S88°01'16"E	1.00'
L19	S88°01'21"E	38.23'
L20	S11°28'03"E	129.65'
L21	S00°49'40"E	37.57'
L22	S07°28'46"W	94.43'
L23	N07°28'46"E	43.69'
L24	S07°38'29"E	43.84'
L25	N60°21'37"E	43.84'
L26	S78°00'48"E	14.60'
L27	S78°00'48"E	36.60'
L28	S10°44'08"E	36.60'
L29	S23°12'42"E	51.95'
L30	N63°31'32"E	51.95'
L31	N63°31'32"E	121.16'
L32	N00°00'00"E	12.84'
L33	N07°28'46"E	13.04'
L34	N07°28'46"E	13.83'
L35	N84°58'37"E	6.54'
L36	S50°20'13"E	36.00'
L37	S88°01'17"E	8.51'
L38	S46°50'54"E	5.16'
L39	N77°21'31"E	35.65'
L40	S78°00'48"E	14.60'
L41	N01°58'43"E	5.94'
L42	N01°58'43"E	13.47'
L43	N02°00'22"E	25.08'



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