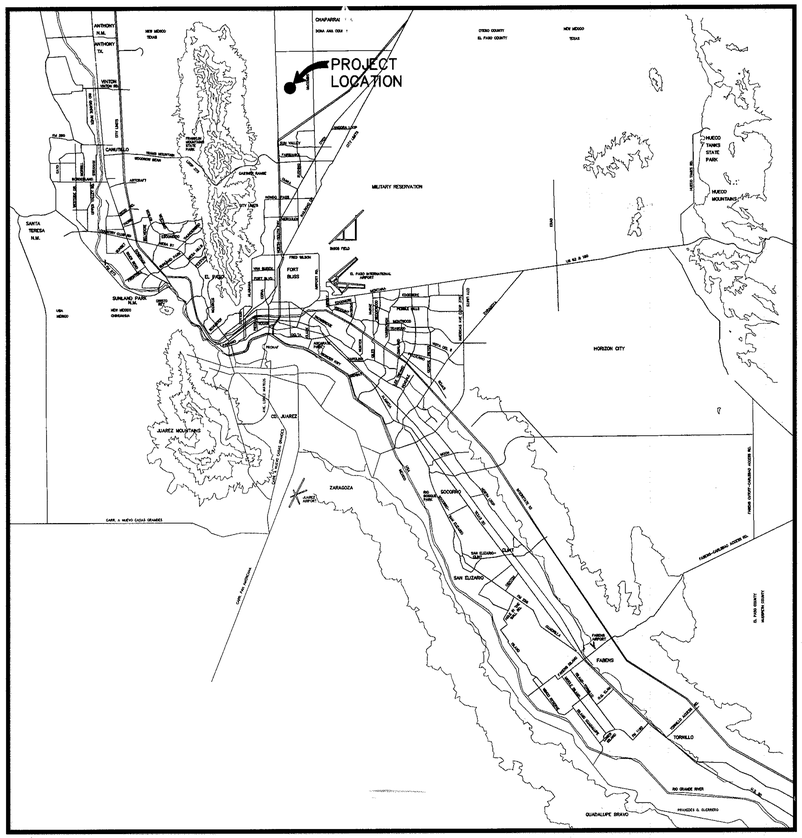
SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

BEING A PORTION OF SECTION 22, BLOCK 81, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS; CONTAINING 35.61± ACRES



VICINITY MAP
APPROXIMATE SCALE:
1" = 2 MILES

SHEET NUMBER	SHEET TITLE
CVR,1	COVER SHEET, GENERAL INFORMATION
2	FINAL PLAT
3,5	GRADING PLAN AND GRADING SECTIONS
4	DRAINAGE PLAN
6-18	STREET PLAN & PROFILES
19-24	STORM SEWER PLAN & PROFILES
25-27	STANDARD DETAILS
28, 29, S1.0	DRAINAGE DETAILS
30	ILLUMINATION PLAN
31-33	SWPPP

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

6-26-2008

JORGE L. AZCARATE, P.E. PROJECT MANAGER

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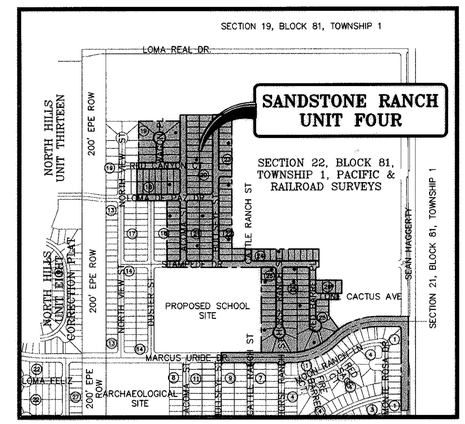

LOCATION MAP
APPROXIMATE SCALE:
1" = 600'

PRINCIPAL CONTACTS:

	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	NORTHTOWNE VILLAGE JOINT VENTURE	4655 COHEN AVE.	EL PASO, 79924	(915) 821-3550	(915) 821-3556
ENGINEER:	CEA ENGINEERING GROUP	1204 MONTANA AVE.	EL PASO, 79902	(915) 544-5232	(915) 544-5233
SURVEYOR:	CAD CONSULTING COMPANY	1790 N. LEE TREVINO SUITE 503	EL PASO, 79936	(915) 633-6422	(915) 633-6424

SANDSTONE RANCH UNIT FOUR

COVER SHEET

DATE PREPARED	DRAWN BY:	DESIGN BY:	CHECKED BY:	APPROVED BY:
JANUARY 2007	A.B.	A.H.	J.L.A.	J.L.A.
REVISION NUMBER	SHEET NAME OR NUMBER	DESCRIPTION OF REVISION	DATE OF REVISION	REVISION APPROVED BY:

JANUARY 2007

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING BIDS.
2. 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.
3. 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.
4. 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.
5. 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.
6. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION CHEDULE WITH THE USER, ALL UTILITIES, AND ALL OTHER AGENCIES WITH JURISDICTION OVER THE PROJECT.
7. 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.
8. 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.
9. ALL ELEVATIONS ARE TO CITY OF EL PASO DATUM, UNLESS OTHERWISE NOTED.
10. VIBRATORY ROLLERS WILL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE ENGINEER.
11. ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN CONFORMANCE WITH CURRENT SAFETY CODES AND STANDARDS WITH JURISDICTION OVER THE PROJECT.
12. THE LOCATION OF THE FLUMES AND INLETS SHALL BE AT THE FIELD LOW POINT AND APPROVED BY THE ENGINEER.
13. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THE FINAL APPROVED SUBDIVISION PLANS PRIOR TO COMMENCING ANY CONSTRUCTION WORK.

GRADING SPECIFICATIONS

1. 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.
2. 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.
3. 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 TWENTY (12)
4. EXCAVATION: IS UNCLASSIFIED AND INCLUDES EXCAVATION TO ELEVATIONS INDICATED, REGARDLESS OF CHARACTER OF MATERIAL AND OBSTRUCTIONS ENCOUNTERED.
5. 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. PLOW 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 PLOWING AND SCARIFYING FILL AREA, IT SHALL THEN BE DISCED OR BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS, BROUGHT TO OPTIMUM MOISTURE, AND COMPACTED TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D–1557.
6. 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.
7. 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. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED DENSITY.
8. 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
- ROW LINE
- CURB LINE
- PROPERTY LINE
- STREET CENTERLINE
- EASEMENT LINE
- MATCH LINE
- STORM SEWER LINE
- HIGH WATER MARK
- CURB AND GUTTER DROP INLET
- STORM SEWER MANHOLE
- 4000 — FINISHED GROUND CONTOUR ELEVATION (INDEX)
- FINISHED GROUND CONTOUR ELEVATION (INTERMEDIATE)
- 4000 — EXISTING GROUND CONTOUR ELEVATION (INDEX)
- EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE)
- NEW RETAINING ROCKWALL (3'–9' IN HEIGHT)
- EXISTING RETAINING ROCKWALL
- NEW RETAINING ROCKWALL (2'–3' IN HEIGHT)
- P — P — EXISTING ELECTRICAL LINE
- X / X — STANDARD DETAIL/SECTION NUMBER / SHEET NUMBER WHERE STANDARD/SECTION DETAIL IS LOCATED
- 4000.00 — FINISHED SPOT ELEVATION
- FG. 56.00 — LOT FINISHED GROUND ELEVATION
- TC 4000.00 — TOP OF CURB ELEVATION
- TP 4000.00 — TOP OF PAVEMENT ELEVATION
- 1 (2) — SUBDIVISION LOT AND BLOCK NUMBER
- DRAINAGE FLOW
- STORM SEWER LINE FLOW
- HIGH POINT
- LOW POINT
- EXISTING HIGH POINT
- EXISTING LOW POINT
- HEADWALL WITH WINGWALLS
- DA–4 — DRAINAGE AREA
- 2:1 SLOPE — HORIZONTAL: VERTICAL SLOPE RATIO
- 3980 — APPROXIMATE BASE FLOOD ELEVATION (NATIONAL GEODETIC VERTICAL DATUM, NGVD). TO CONVERT TO CITY OF EL PASO DATUM FROM NGVD, SUBTRACT 8.462–FEET.
- APPROXIMATE AREA OF 100 YEAR FLOOD, AS PER FIRM PANEL NO. 480214–0016–C (FEBRUARY 5, 1986)
- WHEELCHAIR RAMP

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
'R	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) 496–5244
EL PASO WATER UTILITIES	(915) 594–5500
MCI SURVEILLANCE	(800) MCI–WORK
TIME WARNER COMMUNICATIONS	(915) 772–1123
TEXAS GAS SERVICE	(915) 680–7200
SBC	(800) 545–6005
AT&T	(800) 852–3786
U.S. SPRINT TELECOMM	(800) 521–0579
STREET DEPT. – SIGNAL & SIGN	(915) 621–6750
(AFTER HOURS)	(915) 240–3220

WARNING ! BEFORE YOU DIG

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

RECORD DRAWINGS

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6–28–2008

INDEX OF DRAWINGS

DRAWING NAME	SHEET NO.
COVER	–
GENERAL INFORMATION	1
FINAL PLAT	2
GRADING PLAN	3
DRAINAGE PLAN	4
GRADING SECTIONS	5
PLAN AND PROFILE – ACOMA STREET FROM STA. 5+48.67 TO STA 13+48.67	6
PLAN AND PROFILE – ACOMA ST FROM STA. 13+48.67 TO STA 18+00.13 WAGON PLACE FROM STA. 0+00.00 TO STA. 2+32.97	7
PLAN AND PROFILE – BULLSEYE STREET FROM STA. 5+46.85 TO STA. 13+46.85	8
PLAN AND PROFILE – BULLSEYE STREET FROM STA. 13+46.85 TO STA. 17+99.77 CATTLE RANCH STREET FROM STA. 16+73.42 TO STA. 17+99.42	9
PLAN AND PROFILE – MARCUS URIBE DRIVE FROM STA. 11+68.12 TO STA. 19+68.12	10
PLAN AND PROFILE – MARCUS URIBE DRIVE FROM STA. 19+68.12 TO STA. 28+19.49	11
PLAN AND PROFILE – STAMPEDE DRIVE FROM STA. 3+88.00 TO STA. 11+88.00	12
PLAN AND PROFILE – STAMPEDE DRIVE FROM STA. 11+88.00 TO STA. 16+63.67 LONE CACTUS STREET FROM STA. 0+00.00 TO STA. 2+16.00	13
PLAN AND PROFILE – COPPER RANCH AVENUE FROM STA. 0+00.00 TO STA. 1+36.00 RED CANYON COURT FROM STA. 1+41.61 TO STA. 5+15.61	14
PLAN AND PROFILE – LOMA DE PAZ DRIVE FROM STA. 4+61.64 TO STA. 11+22.47	15
PLAN AND PROFILE – HORSE RANCH STREET FROM STA. 0+00.00 TO STA. 5+72.28	16
PLAN AND PROFILE – RED BARREL DRIVE FROM STA. 0+00.00 TO STA. 5+16.29	17
PLAN AND PROFILE – SEAN HAGGERTY DRIVE FROM STA. 7+27.31 TO STA. 15+09.00	18
STORM SEWER PLAN & PROFILE – LINE "A" FROM STA. –0+11.72 TO STA. 7+98.50	19
STORM SEWER PLAN & PROFILE – LINE "A" FROM STA. 7+98.50 TO STA. 16+37.80	20
STORM SEWER PLAN & PROFILE – LINE "B" FROM STA. 9+47.27 TO STA. 16+87.92	21
STORM SEWER PLAN & PROFILE LINE "C" FROM STA. 0+00.00 TO STA. 8+11.14	22
STORM SEWER PLAN & PROFILE – LINE "C" FROM STA. 8+11.14 TO STA. 16+15.14	23
STORM SEWER PLAN & PROFILE – LINE "C" FROM STA. 16+15.14 TO STA. 17+21.14 – LINE "D" FROM STA. 0+00.00 TO STA. 0+86.00 – LINE "E" FROM STA. 0+00.00 TO STA. 1+93.96	24
STANDARD DETAILS (SHEET 1 OF 3)	25
STANDARD DETAILS (SHEET 2 OF 3)	26
STANDARD DETAILS (SHEET 3 OF 3)	27
DRAINAGE DETAILS (SHEET 1 OF 2)	28
DRAINAGE DETAILS (SHEET 2 OF 2)	29
SD–8 MJB FOUNDATION PLAN, SECTION & NOTES	S1.0
ILLUMINATION PLAN	30
STORM DRAIN POLLUTION CONTROL PLAN – GENERAL NOTES	31
STORM DRAIN POLLUTION CONTROL PLAN – SITE PLAN	32
STORM DRAIN POLLUTION CONTROL PLAN – DETAILS	33

REFERENCES – BENCHMARKS
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 23 (ELEVATIONS REFERENCED TO NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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ENGINEER'S SEAL
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SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000–083–LD

PROJECT TITLE
SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE
GENERAL INFORMATION

SHEET NO.
1
OF 33

SANDSTONE RANCH UNIT FOUR

BEING A PORTION OF SECTION 22,
BLOCK 81, TOWNSHIP 1,
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS
CITY OF EL PASO, EL PASO COUNTY, TEXAS;
CONTAINING APPROX. 35.61± ACRES

CURVE TABLE

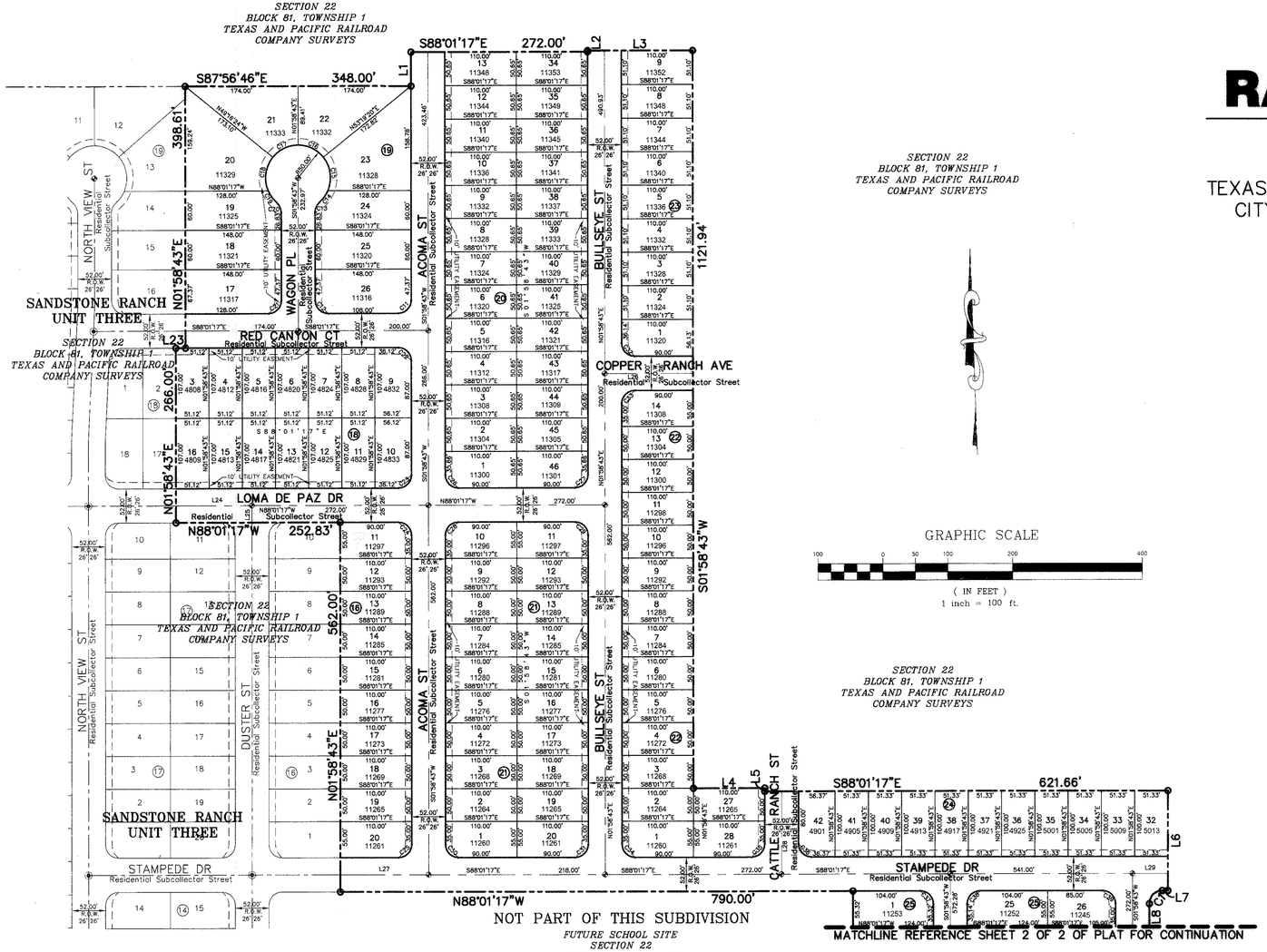
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C2	554.13'	348.28'	180.11'	342.58'	S74°00'01"W	36°00'41"
C3	25.00'	39.27'	25.00'	35.36'	N42°59'38"W	90°00'00"
C4	470.13'	369.24'	194.74'	359.83'	S69°30'21"W	45°00'02"
C5	555.31'	435.88'	229.86'	424.77'	N69°29'31"E	44°58'23"
C6	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C7	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C8	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C9	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C10	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'01"
C11	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C12	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C13	20.00'	17.08'	9.10'	16.56'	S26°26'15"W	48°55'04"
C14	50.00'	22.55'	11.47'	22.36'	N37°58'28"E	25°50'37"
C15	50.00'	53.87'	29.88'	51.30'	N05°48'46"W	61°43'49"
C16	50.00'	44.81'	24.03'	43.32'	N82°20'59"W	51°20'37"
C17	50.00'	44.73'	23.98'	43.25'	S66°21'10"W	51°15'07"
C18	50.00'	53.95'	29.94'	51.37'	S09°48'57"W	61°49'19"
C19	50.00'	22.55'	11.47'	22.36'	S34°01'02"E	25°50'37"
C20	20.00'	17.08'	9.10'	16.56'	N22°28'49"W	48°55'04"
C21	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C22	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C23	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C24	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C25	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C26	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C27	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C28	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C29	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C30	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C31	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C32	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C33	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C34	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C35	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C36	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C37	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C38	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C39	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C40	40.00'	24.20'	12.48'	23.83'	N19°18'37"E	34°39'48"
C41	40.00'	5.70'	2.86'	5.70'	N40°43'37"E	8°10'12"
C42	50.00'	49.33'	26.88'	47.36'	S16°32'43"W	56°32'00"
C43	50.00'	44.91'	24.10'	43.41'	S37°27'06"E	51°27'38"
C44	50.00'	32.81'	17.02'	32.23'	S81°58'57"E	37°36'04"
C45	50.00'	20.21'	10.24'	20.07'	N67°38'20"E	23°09'21"
C46	50.00'	37.37'	19.61'	36.50'	N34°39'03"E	42°49'14"
C47	50.00'	47.21'	25.53'	45.47'	N13°48'26"W	54°05'44"
C48	40.00'	7.96'	3.99'	7.94'	S35°09'26"E	11°23'44"
C49	40.00'	21.95'	11.26'	21.67'	S13°44'25"E	31°26'17"
C50	471.31'	49.87'	24.96'	49.85'	N88°56'50"E	6°03'47"
C51	471.31'	59.63'	29.85'	59.59'	N82°17'29"E	7°14'55"
C52	471.31'	153.53'	77.45'	152.86'	N69°20'05"E	18°39'53"
C53	471.31'	20.90'	10.45'	20.90'	N58°43'55"E	2°32'26"
C54	471.31'	86.01'	43.13'	85.89'	N52°14'01"E	10°27'22"
C55	554.11'	55.30'	27.67'	55.27'	S49°51'52"W	5°43'04"
C56	554.11'	31.64'	15.82'	31.64'	S54°21'33"W	3°16'18"
C57	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C58	40.00'	43.41'	24.12'	41.31'	S29°06'44"E	62°10'55"
C59	50.00'	32.57'	16.88'	31.99'	N41°32'40"W	37°19'02"
C60	50.00'	35.72'	18.66'	34.97'	N02°25'07"W	40°56'04"
C61	50.00'	29.62'	15.26'	29.19'	N35°01'17"E	33°56'43"
C62	50.00'	20.58'	10.44'	20.43'	N63°46'59"E	23°34'41"
C63	50.00'	35.71'	18.66'	34.96'	S83°57'54"E	40°55'32"
C64	50.00'	35.71'	18.66'	34.96'	S43°02'22"E	40°55'32"
C65	50.00'	21.43'	10.88'	21.26'	S10°17'57"E	24°33'19"
C66	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C67	513.31'	402.91'	212.48'	392.65'	N69°29'31"E	44°58'23"
C68	512.13'	402.23'	212.13'	391.97'	S69°30'21"W	45°00'02"

LINE TABLE

LINE	LENGTH	BEARING
L1	51.31'	S01°58'43"W
L2	1.47'	S01°58'43"W
L3	162.00'	N88°01'17"W
L4	110.00'	N88°01'17"W
L5	5.00'	N01°58'43"E
L6	152.00'	N01°58'43"E
L7	8.67'	S88°01'17"E
L8	90.00'	S01°58'43"W
L9	110.00'	N01°58'43"E
L10	29.80'	S88°01'17"E
L11	52.00'	N01°58'43"E
L12	80.00'	S88°01'17"E
L13	134.26'	N01°58'43"E
L14	140.23'	N34°00'19"W
L15	60.03'	N89°48'46"W
L16	35.23'	S88°01'17"E
L17	52.00'	S88°01'17"E
L18	170.00'	S88°01'17"E
L19	52.00'	S88°01'17"E
L20	176.77'	S88°01'17"E

LINE TABLE

LINE	LENGTH	BEARING
L21	104.00'	N01°58'42"E
L22	336.01'	N88°01'17"W
L23	14.83'	N88°01'17"W
L24	106.50'	S88°01'17"E
L25	26.00'	S01°58'43"W
L26	136.00'	S88°01'17"E
L27	136.00'	S88°01'17"E
L28	126.00'	N01°58'43"E
L29	54.50'	S88°01'17"E
L30	22.89'	S88°01'17"E
L31	216.00'	S88°01'17"E
L32	24.00'	S88°01'17"E
L33	243.00'	S88°01'17"E
L34	62.00'	S01°58'43"W
L35	262.00'	S88°01'17"E
L36	62.00'	S01°58'43"W
L37	81.23'	S88°01'17"E

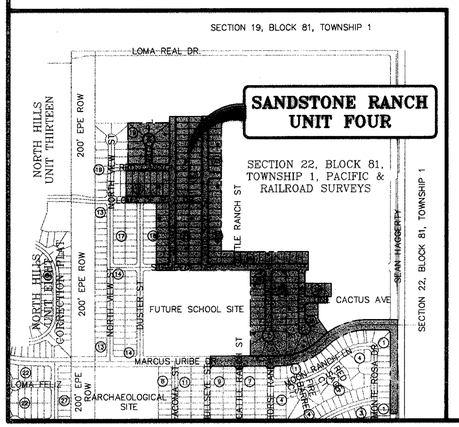


GRAPHIC SCALE

(IN FEET)
1 inch = 100 ft.

LOCATION MAP

SCALE 1"= 600'



GENERAL NOTES:

1. RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION,
   INSTRUMENT NO. 20070050532
2. TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORDS SECTION,
   INSTRUMENT NO. 20070050530
3. THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO SANDSTONE RANCH UNIT FOUR SUBDIVISION BY THE EL PASO WATER UTILITIES COMPANY IN ACCORDANCE WITH ITS REGULATIONS AND WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON MARCUS URIBE DRIVE AND WILL BE CONSTRUCTED TO SERVE THE SUBDIVISION.
4. SET 5/8" REBAR AT ALL EXTERIOR BOUNDARY CORNERS.
5. ALL UTILITY EASEMENTS ARE 10-FEET WIDE UNLESS OTHERWISE SPECIFIED.
6. 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.
7. LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES.
8. VEHICULAR ACCESS TO THESE 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.
   INSTRUMENT NO. 20070050531
9. U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS.

DEDICATION

NORTHTOWNE VILLAGE JOINT VENTURE, 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, drives, drainage and Public Service Board easement, and utility easements, as hereon laid down and designated, including easements for overhang 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 9th day of April, 2007.

NORTHTOWNE VILLAGE JOINT VENTURE

ROBERT L. BOWLING III, Managing Partner

ATTEST: NOT REQUIRED

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Robert L. Bowling III, Managing Partner of Northtowne Village Joint Venture, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and considerations herein expressed.

Given under my hand and seal of office this 9th day of April, 2007.

Martha L. Aranda 6/6/07
Notary Public in and for El Paso County — My Commission Expires

MARTHA L. ARANDA
NOTARY PUBLIC
State of Texas
Expires 06-21-2007

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 _____, 2007, A.D.

Kelly Carpenter — Secretary
Chairperson

Approved for filing this 16th day of May, 2007.

for DEVELOPMENT SERVICES DIRECTOR

FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 1 day of June, 2007, A.D. in File No. 20070050529

County Clerk — By Deputy

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

Jorge L. Azcarate, P.E. TX 85075 — 3-27-07

STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER

This plat represents a survey made on the ground by me or under my supervision and complies with the current Texas Board of Professional Land Survey Professional and Technical Standards.

Carlos M. Jimenez, R.P.L.S.
Registered Professional Land Surveyor
Texas License No. 3950

LEGEND

- = PROPOSED CITY MONUMENT
- = EXISTING CITY MONUMENT
- =SECTION CORNER

ENGINEER

cea engineering group
1204 Montana.. El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net
CONTACT: JORGE L. AZCARATE, P.E.

SURVEYOR

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CAD CONSULTING COMPANY
1790 N. LEE TREVINO DR. SUITE 503
EL PASO, TEXAS 79936
TEL (915) 633-6422
CONTACT: CARLOS M. JIMENEZ R.P.L.S.

SHEET 1 OF 2

DATE OF REVISION: JANUARY 15, 2007
DATE OF PREPARATION: JUNE 13, 2006

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

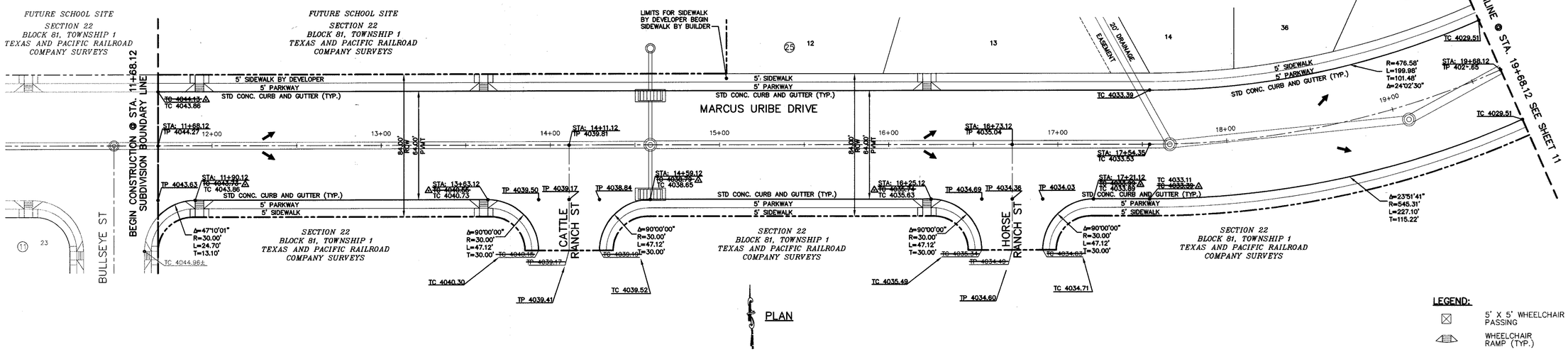
6-26-2008

UTILITY LOCATOR SERVICES

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

WARNING ! BEFORE YOU DIG

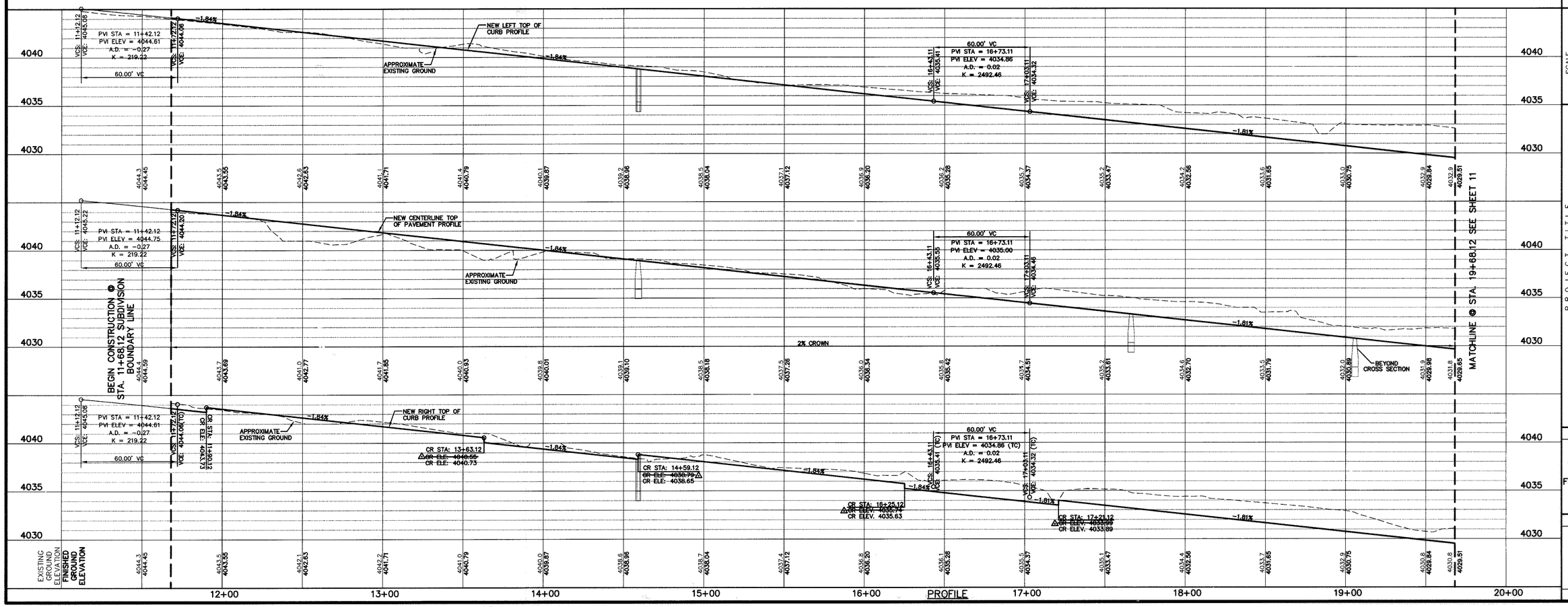
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



LEGEND:

5' X 5' WHEELCHAIR PASSING

WHEELCHAIR RAMP (TYP.)



REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 23, ELEVATION 4032.7 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
5/28/08	AS PER AS BUILT INFORMATION	A.B.
	AT MARCUS URIBE STUB OUTS	J.L.A.
	REV. TC AND TP ELEV	J.L.A.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER
TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

MARCUS URIBE DR PLAN & PROFILE FROM STA. 11+68.12 TO STA. 19+68.12

SHEET NO.

10R

OF 33

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

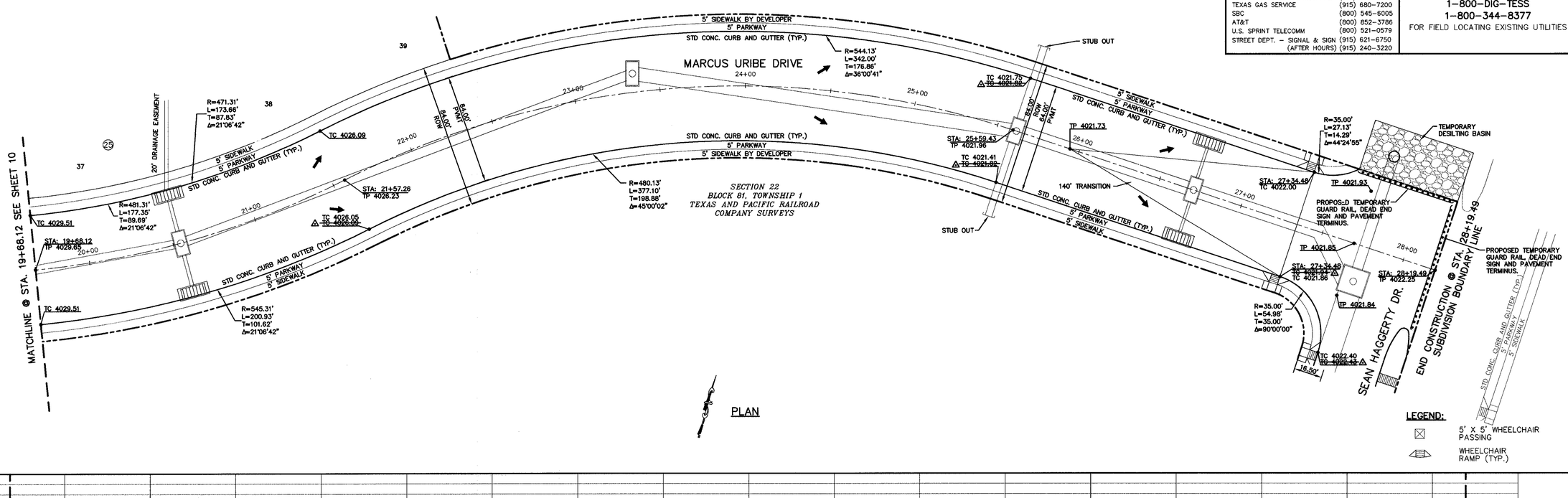
6-26-2008

UTILITY LOCATOR SERVICES

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

WARNING ! BEFORE YOU DIG

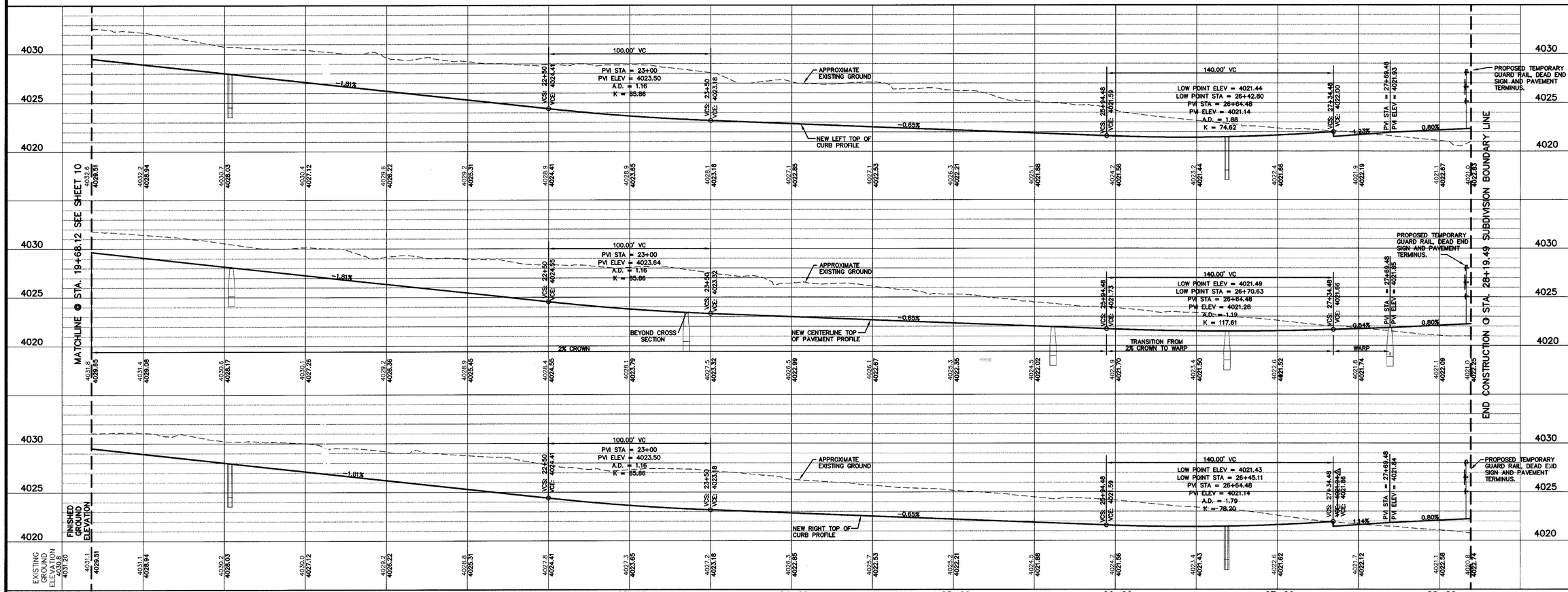
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)



PROFILE

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
6/28/08	AS PER AS BUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232, Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JAMES L. ALDERMAN
85075
LICENSED PROFESSIONAL ENGINEER
TEXAS
6/28/08

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

MARCUS URIBE DR PLAN & PROFILE FROM STA. 19+68.12 TO STA. 28+19.49

SHEET NO.

11

OF 33

RECORD DRAWINGS

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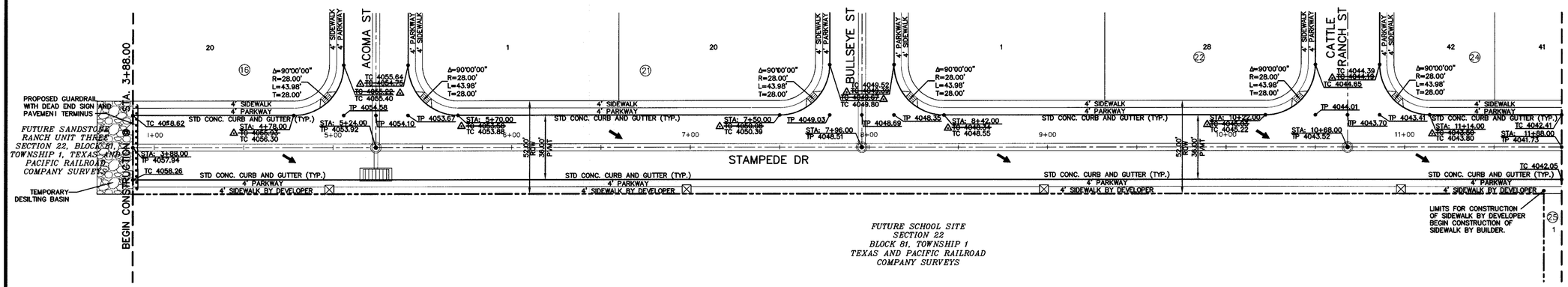
6-28-2008

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 4-6-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

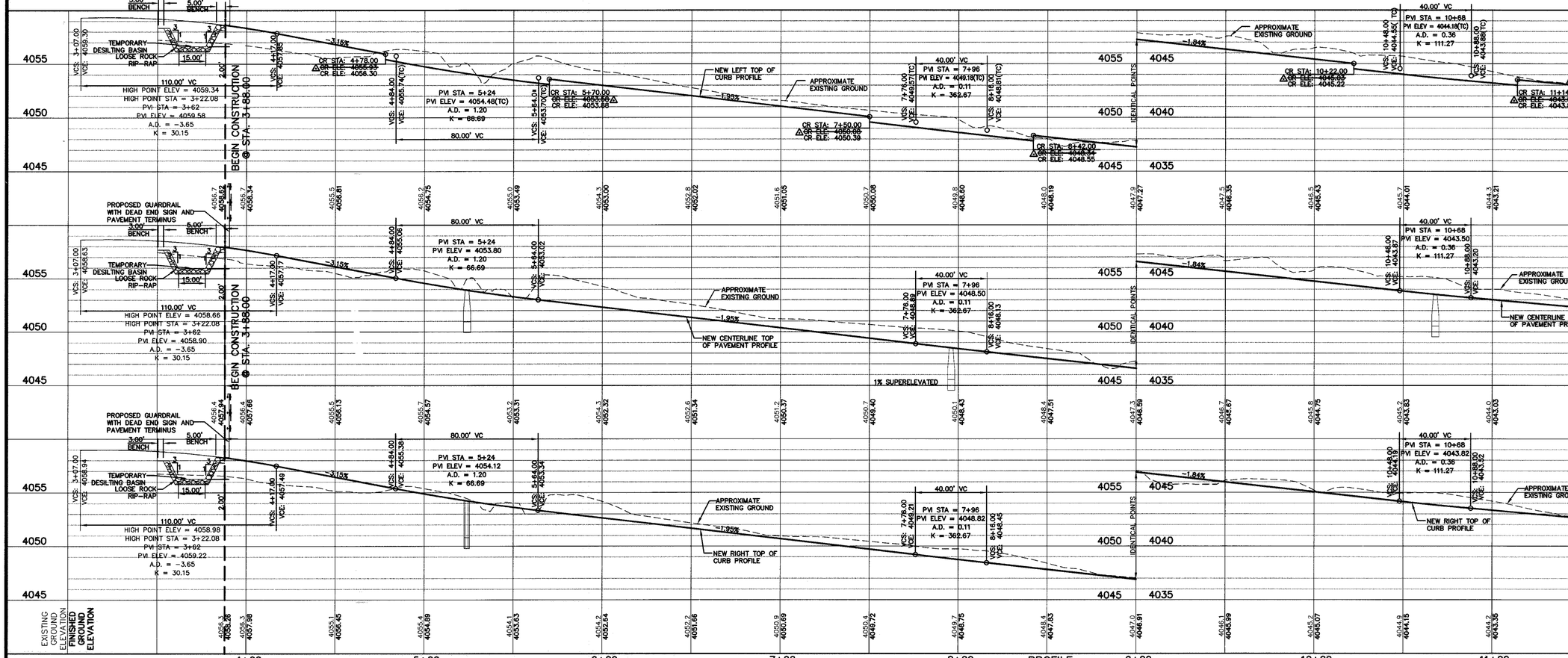
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)



PROFILE

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462' TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
6/28/08	AS PER AS BUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. ACUAVIVA III — 84075 — LICENSED PROFESSIONAL ENGINEER — STATE OF TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

STAMPEDE DR PLAN & PROFILE FROM STA. 3+88.00 TO STA. 11+88.00

SHEET NO.

12

OF 33

RECORD DRAWINGS

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6-26-2008

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 54*-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
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U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

CALL

1-800-DIG-TESS

1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

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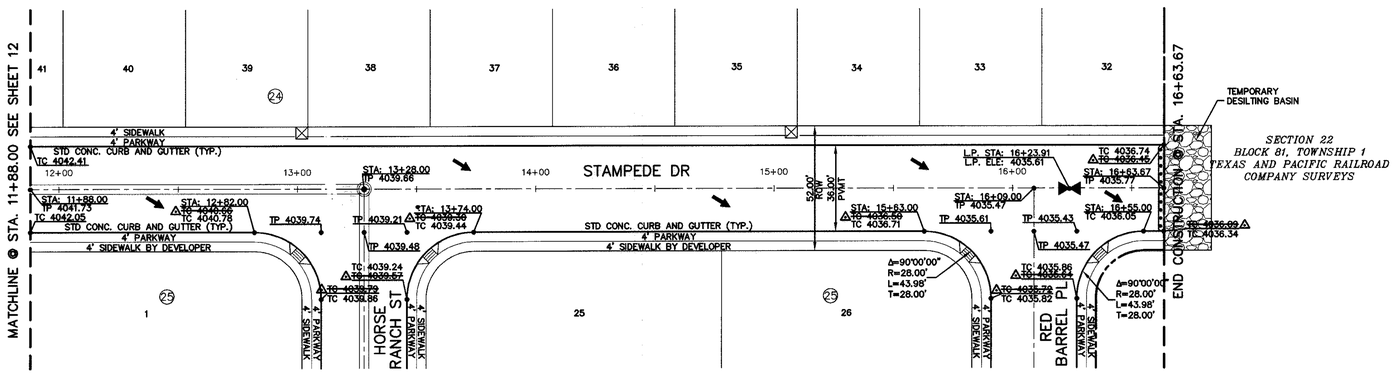
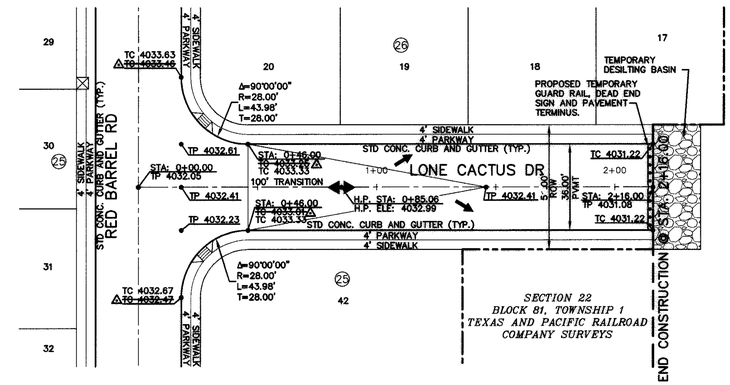
6/26/08	AS PER AS BUILT INFORMATION	A.B.



PLAN



PLAN

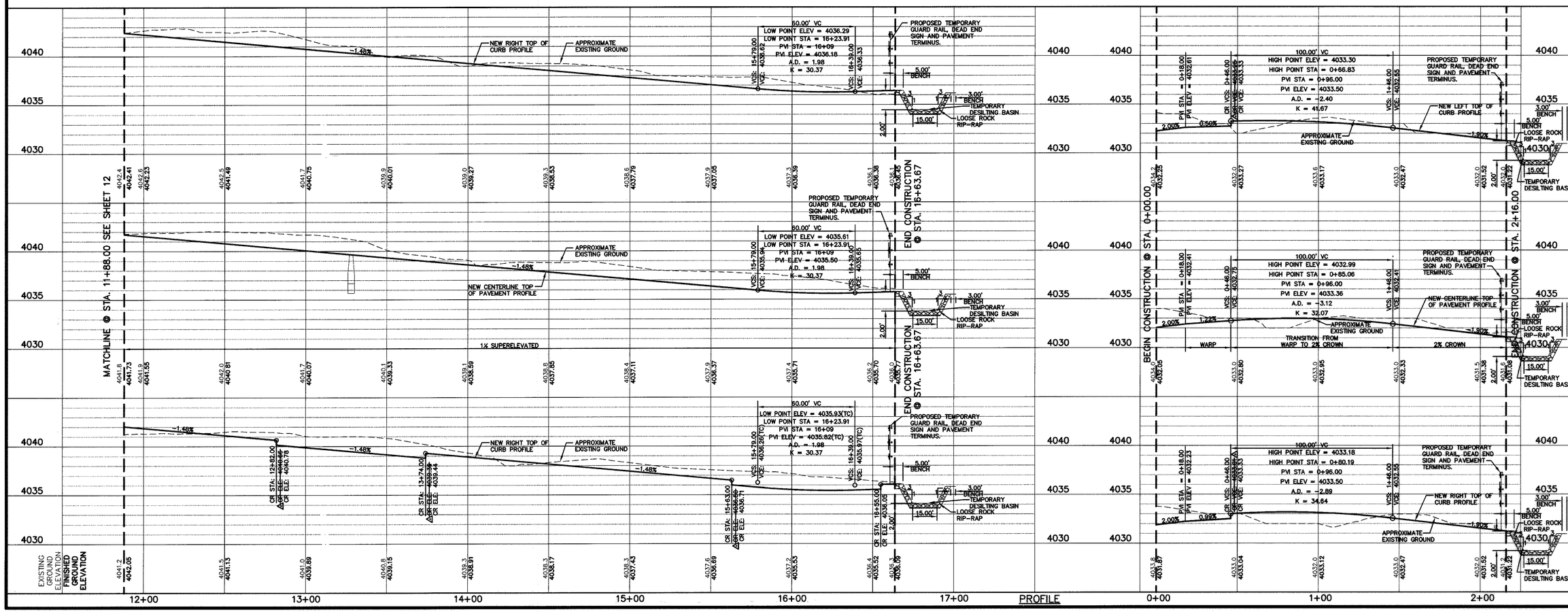
LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

STATE OF TEXAS — JORGE L. ACARATE — 86075 — REGISTERED PROFESSIONAL ENGINEER



PROFILE

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

STAMPEDE DR PLAN & PROFILE FROM STA. 11+88.00 TO STA. 16+63.67

LONE CACTUS DR PLAN & PROFILE FROM STA. 0+00.00 TO STA. 2+16.00

SHEET NO.

13

OF 33

RECORD DRAWINGS

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6-26-2008

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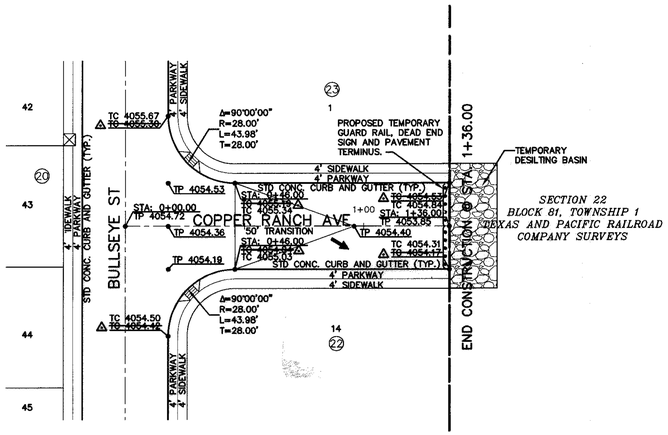
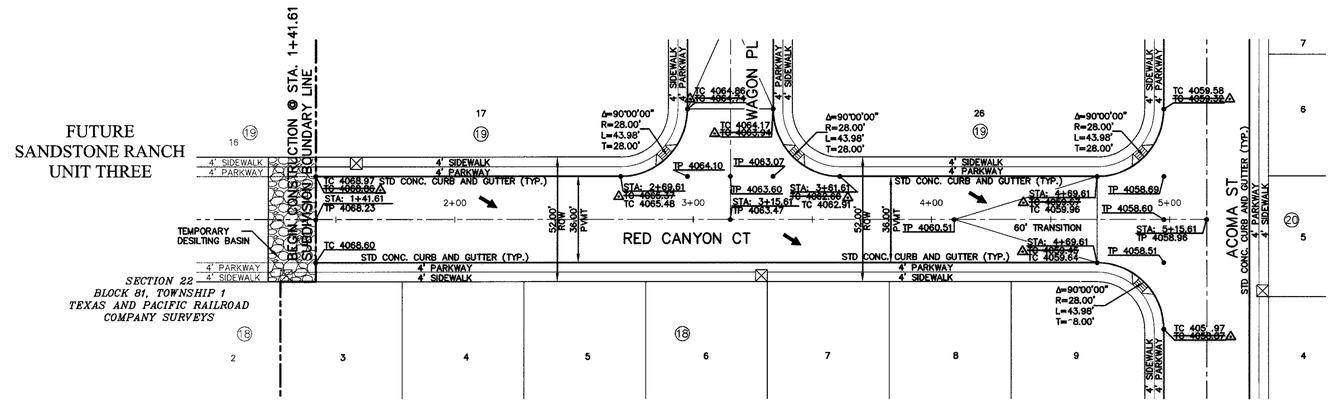


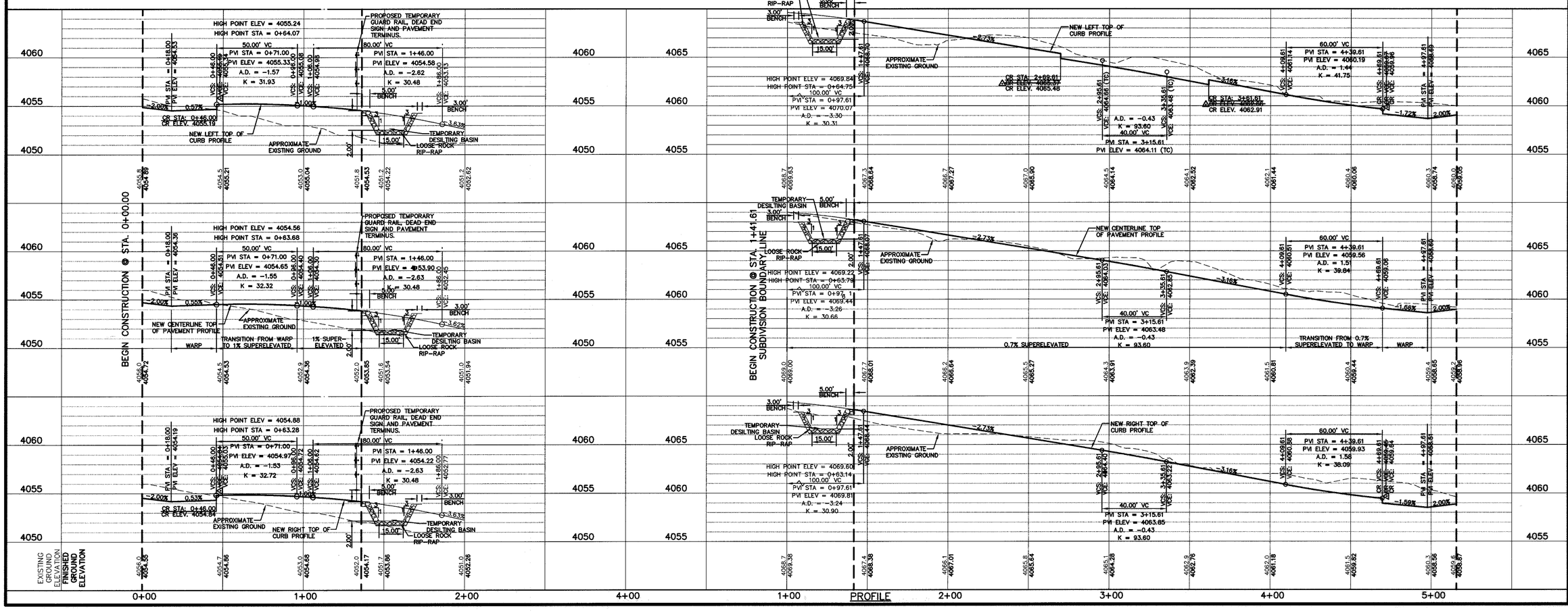
PLAN



PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)



REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
6/28/08	1 AS PER AS BUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. ACCARATE 85075 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: J.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

COPPER RANCH ST PLAN & PROFILE FROM STA. 0+00.00 TO STA. 1+36.00

RED CANYON CT PLAN & PROFILE FROM STA. 1+41.61 TO STA. 5+15.61

SHEET NO.

14

OF 33

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

6-26-2008

UTILITY LOCATOR SERVICES

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

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

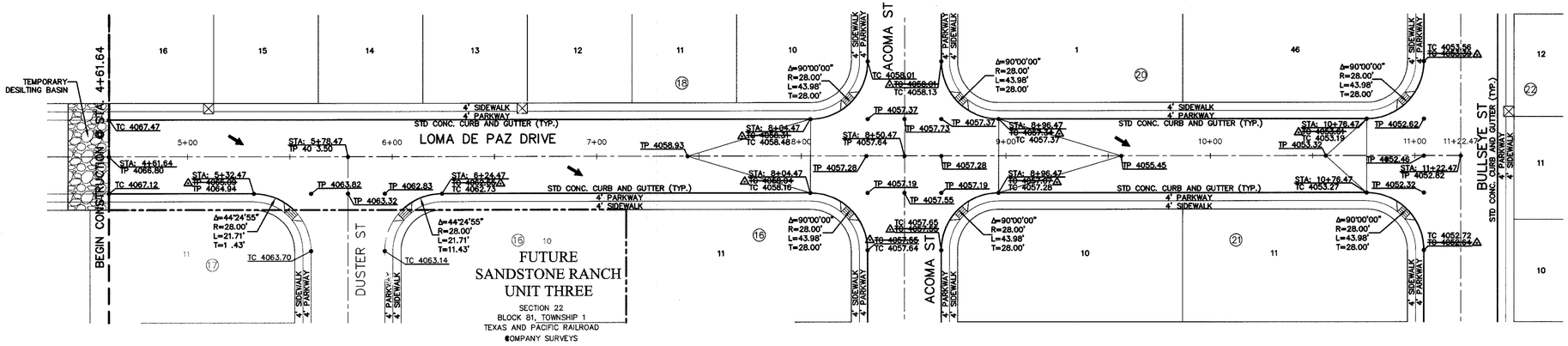
REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21 ELEVATION: 4033.72 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO 1017 DATUM)

DATE	REVISIONS	BY
6/28/08	1 AS PER AS BUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

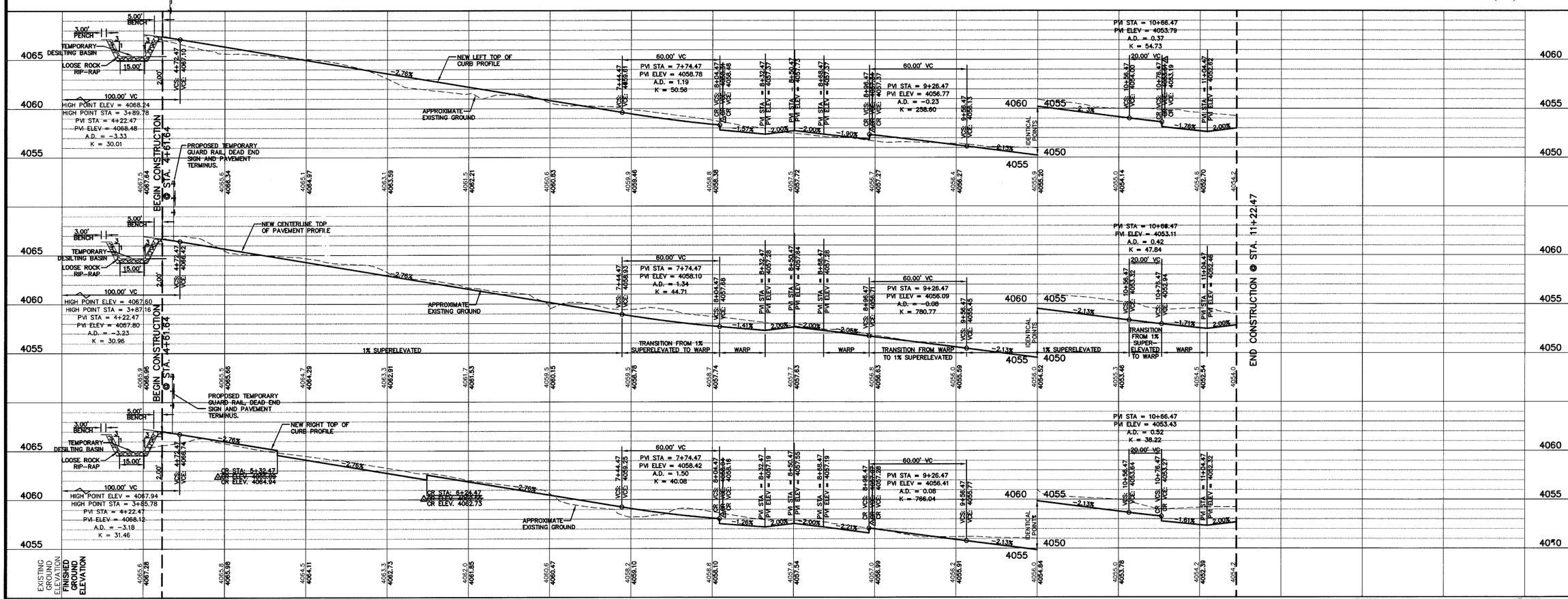
ENGINEER'S SEAL



PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)



PROFILE

SCALE	
Horizontal:	1"=30'
Vertical:	1"=5'
Contour Interval:	N/A
DATE:	JANUARY 2007
DESIGN BY:	A.H.
DRAWN BY:	A.B.
CHKD. BY:	J.L.A.
APPVD. BY:	J.L.A.
JOB No.	2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

LOMA DE PAZ DR PLAN & PROFILE FROM STA. 4+61.64 TO STA. 11+22.47

SHEET NO.

15

OF 33

RECC RD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

6-26-2008

UTILITY LOCATOR SERVICES

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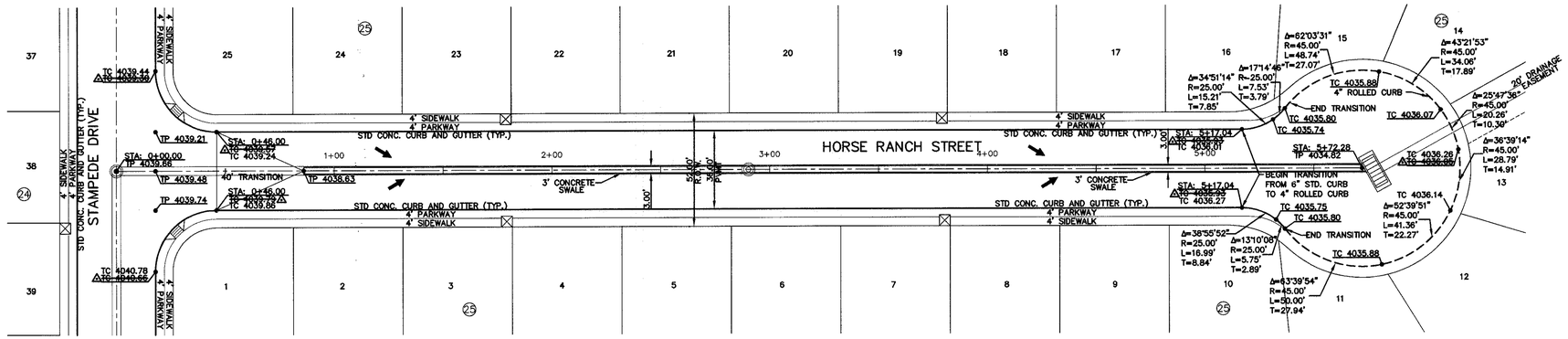
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

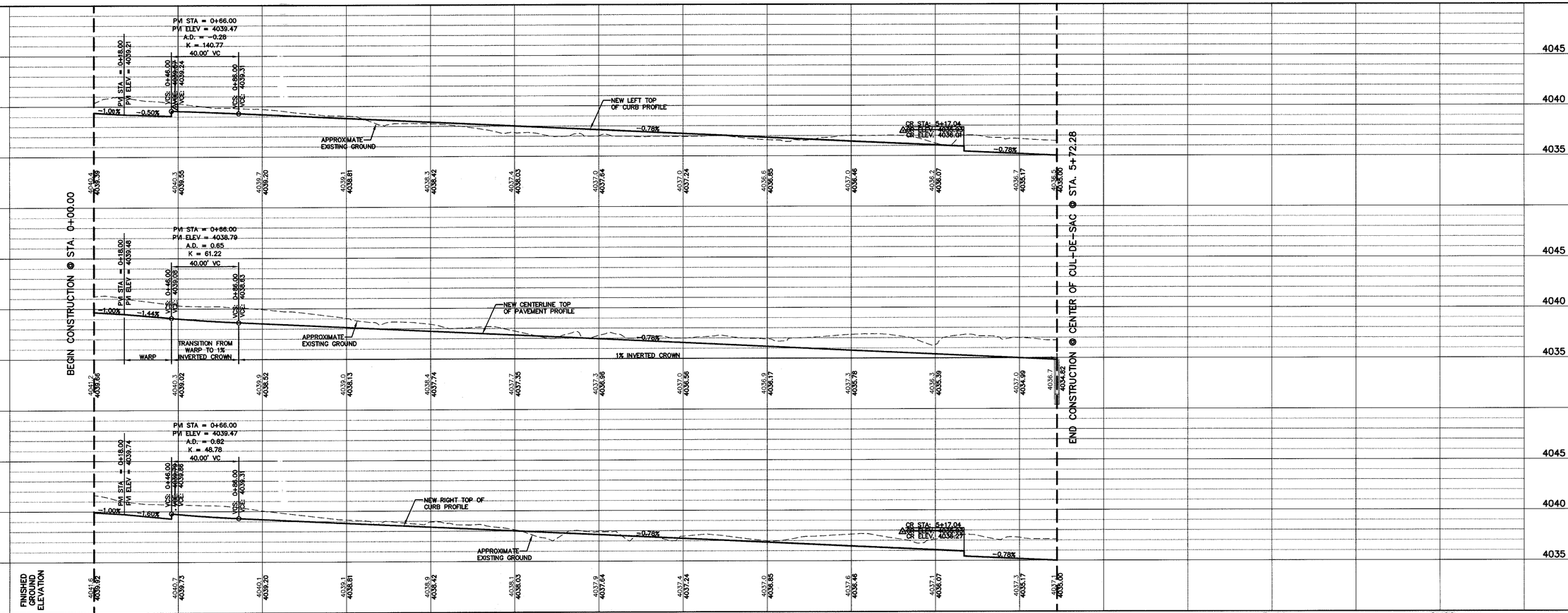
WARNING !
BEFORE YOU DIG
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)



PROFILE

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
6/26/08	1 AS PER AS BUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

HORSE RANCH ST PLAN & PROFILE FROM STA. 0+00.00 TO STA. 5+72.28

SHEET NO.

16

OF 33

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

6-26-2008

UTILITY LOCATOR SERVICES

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EL PASO ENERGY CORPORATION	(915) 496-5244
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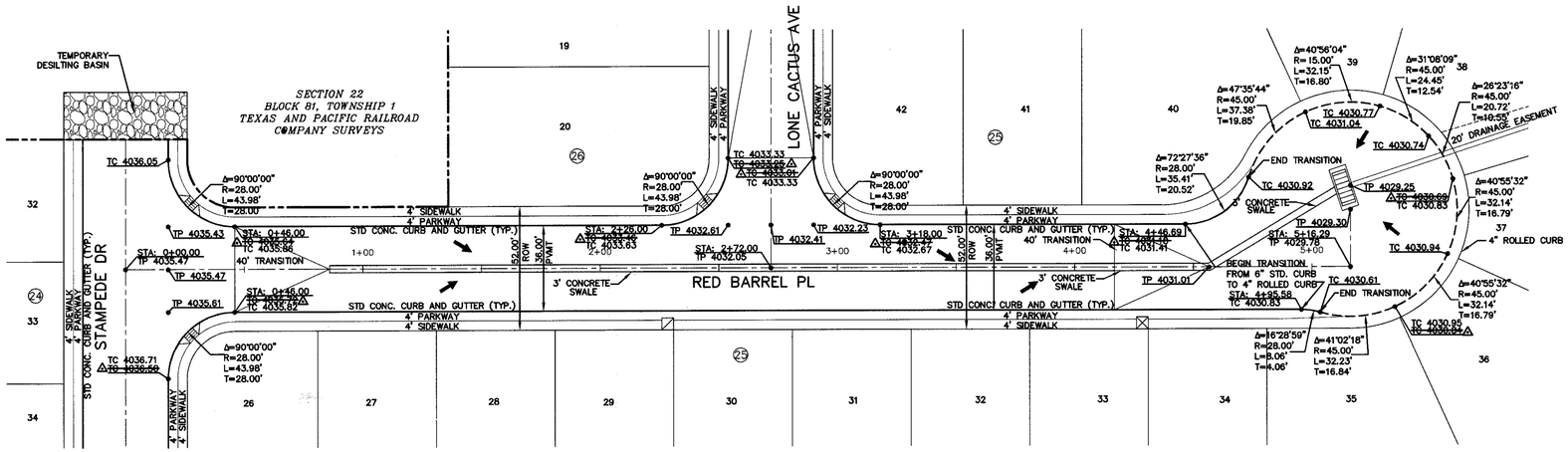
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

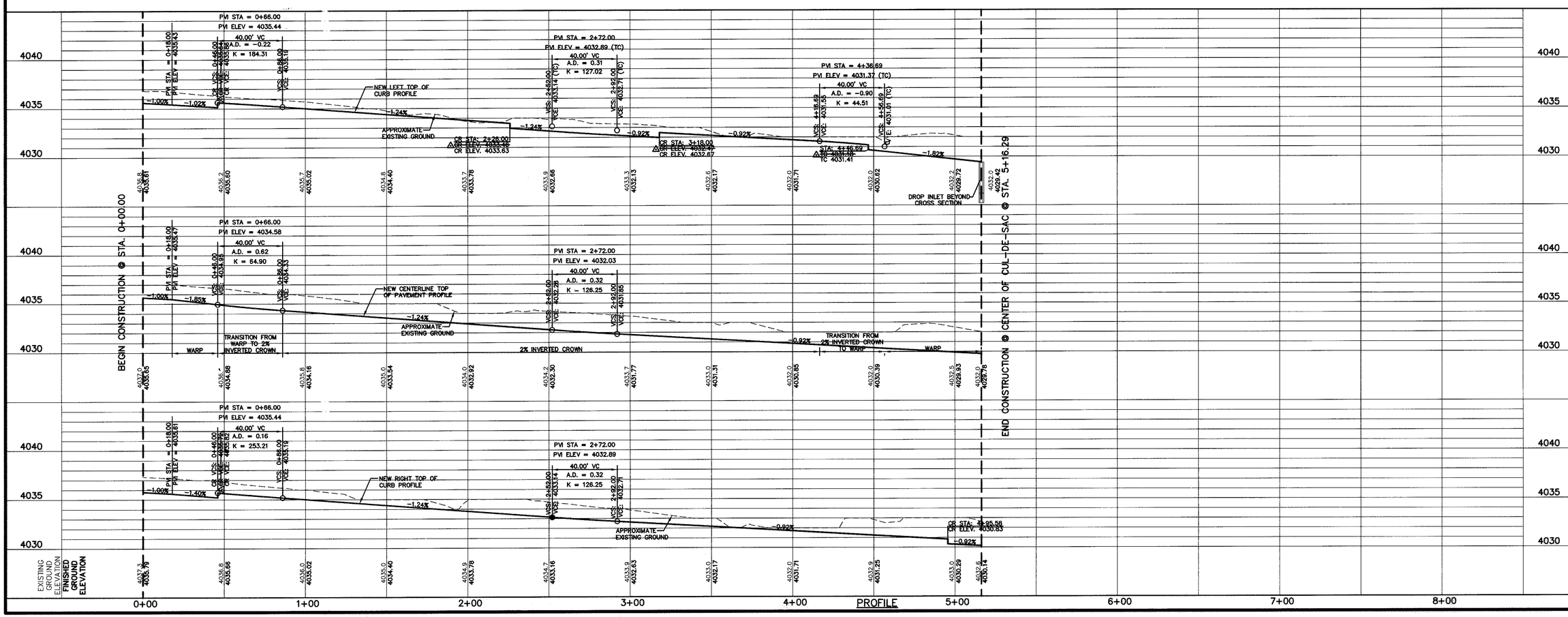
WARNING !
BEFORE YOU DIG
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)



PROFILE

REFERENCES - BENCHMARKS

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

DATE	REVISIONS	BY
6/28/08	AS PER AS BUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

STATE OF TEXAS — JORGE L. ACCARATE — 86075 — REGISTERED PROFESSIONAL ENGINEER

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.P.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE

RED BARREL DR
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 5+16.29

SHEET NO.

17

OF 33

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

6-26-2008

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
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AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

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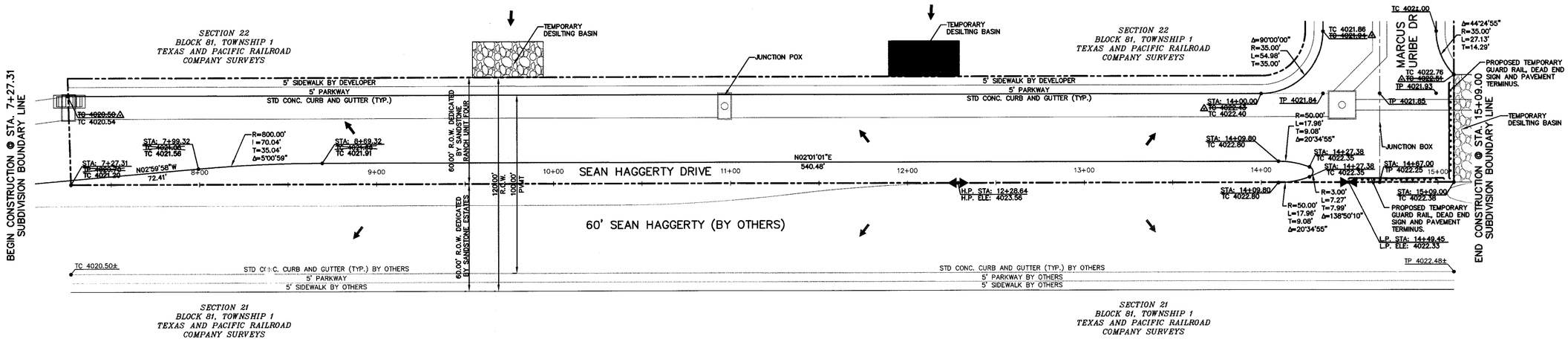
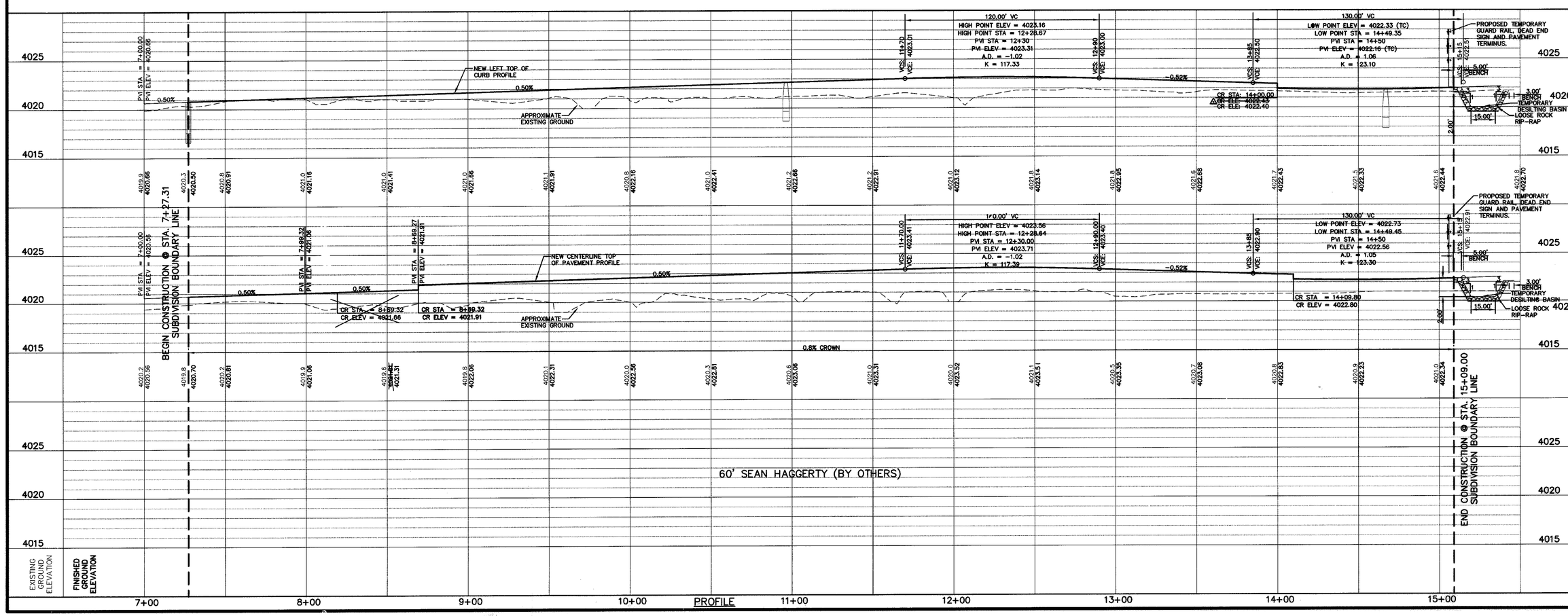
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)



PROFILE

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21; ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
6/28/08	△ AS PER AS BUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE
86075
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2006-093-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

SEAN HAGGERTY DR PLAN & PROFILE FROM STA. 7+27.31 TO STA. 15+09.00

HEET NO.

18

OF 33

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) 580-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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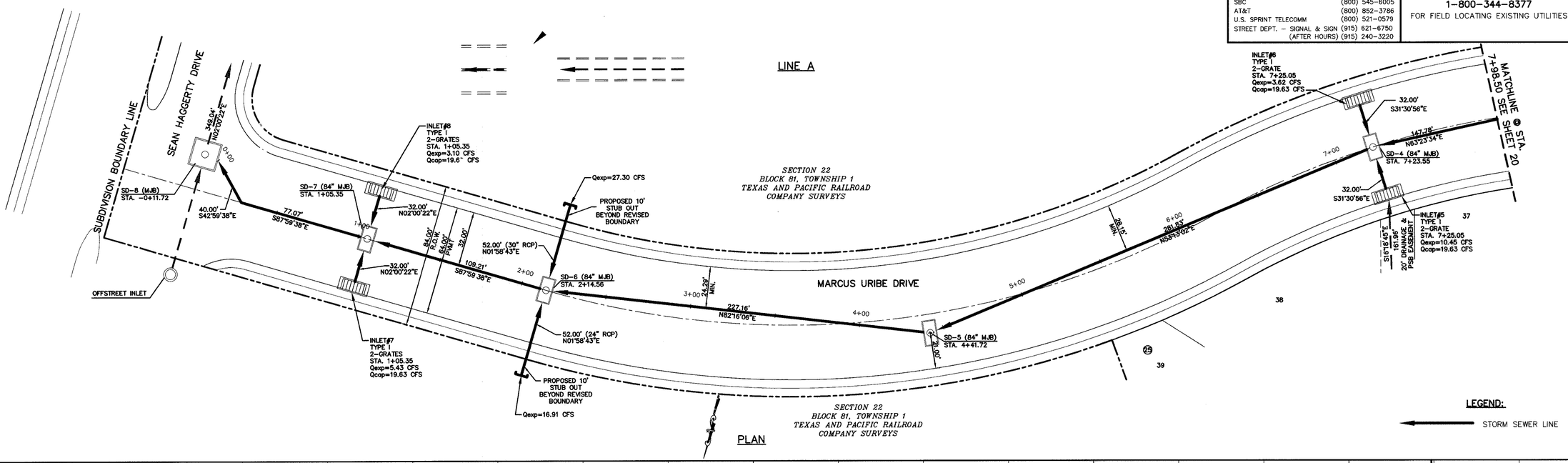
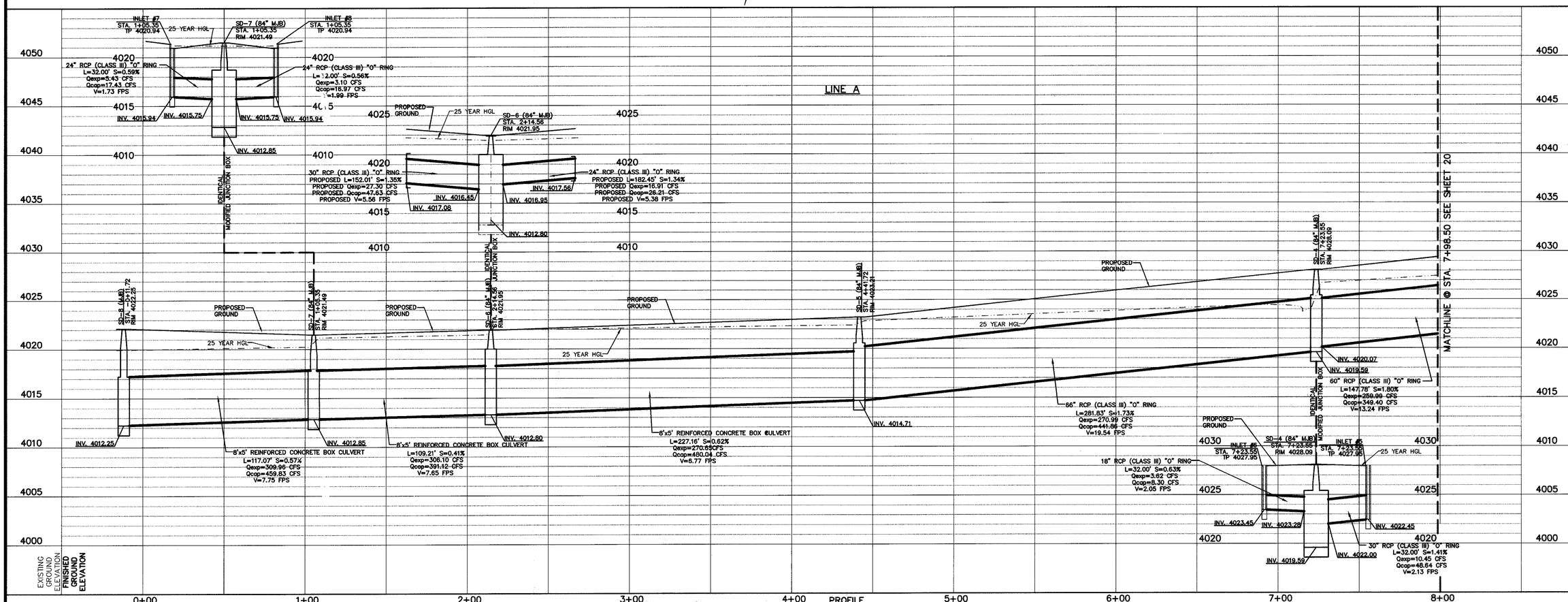
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES





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

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL
JORGE L. ACOSTA
85075
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

SCALE
Horizontal: 1"=30'
Vertical: 1"=5'
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: F.Z.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-083-LD

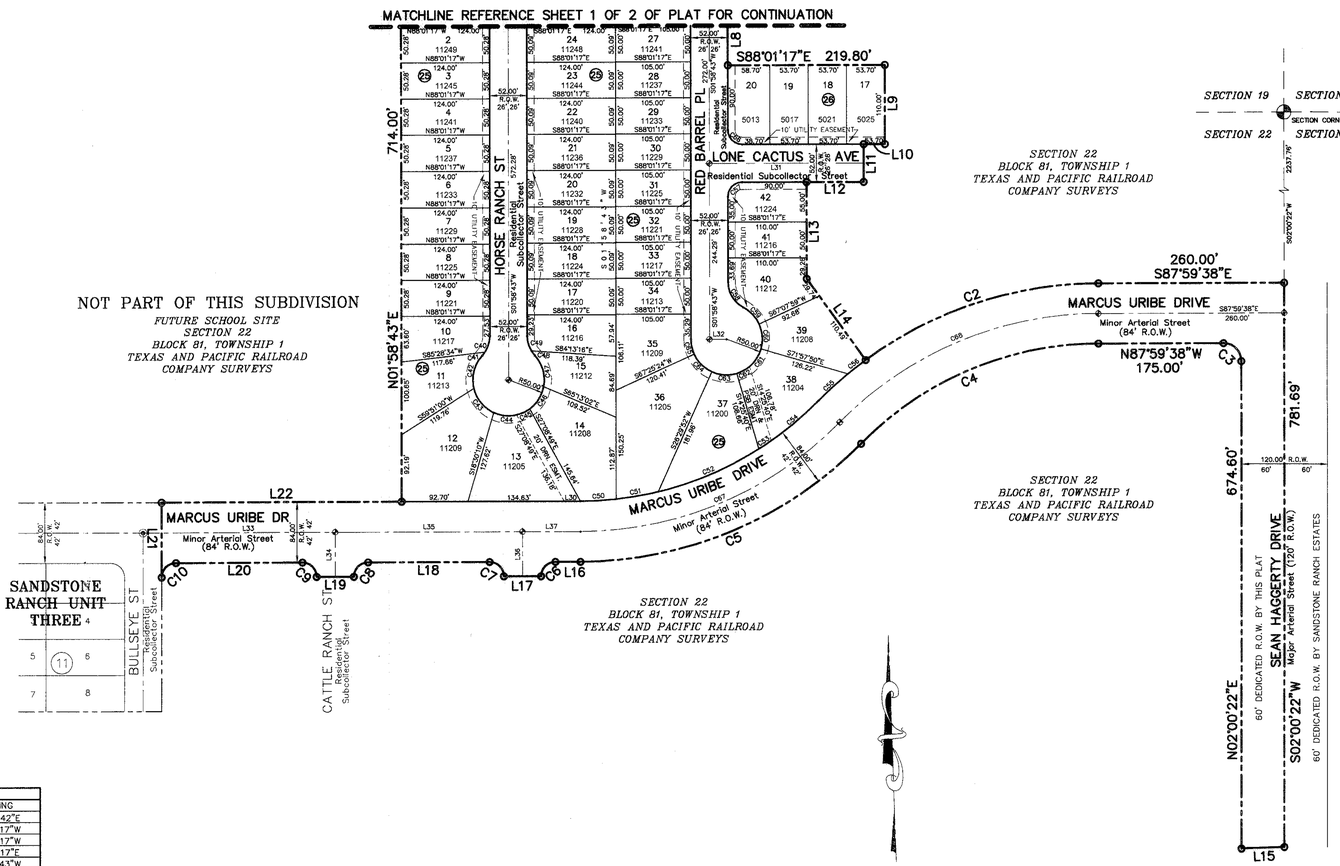
PROJECT TITLE
SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE
LINE A
PLAN & PROFILE
FROM STA. -0+11.72
TO STA. 7+98.50

SHEET NO.
19
OF 33

SANDSTONE RANCH UNIT FOUR

BEING A PORTION OF SECTION 22,
BLOCK 81, TOWNSHIP 1,
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS
CITY OF EL PASO, EL PASO COUNTY, TEXAS;
CONTAINING APPROX. 35.61± ACRES



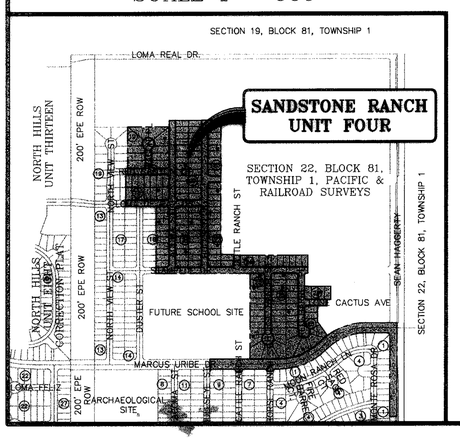
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C2	554.13'	348.28'	180.11'	342.58'	S74°00'01"W	36°00'41"
C3	25.00'	39.27'	25.00'	35.36'	N42°59'38"W	90°00'00"
C4	470.13'	369.24'	194.74'	359.83'	S69°30'21"W	45°00'02"
C5	555.31'	435.88'	229.86'	424.77'	N69°29'31"E	44°58'23"
C6	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C7	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C8	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C9	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C10	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'01"
C11	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C12	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C13	20.00'	17.08'	9.10'	16.56'	S26°26'15"W	48°55'04"
C14	50.00'	22.55'	11.47'	22.36'	N37°58'28"E	25°50'37"
C15	50.00'	53.87'	29.88'	51.30'	N05°48'46"W	61°43'49"
C16	50.00'	44.81'	24.03'	43.32'	N62°20'59"W	51°20'37"
C17	50.00'	44.73'	23.98'	43.25'	S66°21'10"W	51°15'07"
C18	50.00'	53.95'	29.84'	51.37'	S09°48'57"W	61°49'19"
C19	50.00'	22.55'	11.47'	22.36'	S34°01'02"E	25°50'37"
C20	20.00'	17.08'	9.10'	16.56'	N22°28'49"W	48°55'04"
C21	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C22	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C23	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C24	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C25	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C26	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C27	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C28	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C29	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C30	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C31	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C32	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C33	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C34	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C35	20.00'	31.42'	20.00'	28.28'	N46°58'43"E	90°00'00"
C36	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C37	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C38	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C39	20.00'	31.42'	20.00'	28.28'	N43°01'17"W	90°00'00"
C40	40.00'	24.20'	12.48'	23.83'	N19°18'37"E	34°39'48"
C41	40.00'	5.70'	2.86'	5.70'	N40°43'37"E	8°10'12"
C42	50.00'	49.33'	26.88'	47.36'	S16°32'43"W	56°32'00"
C43	50.00'	44.91'	24.10'	43.41'	S37°27'06"E	51°27'38"
C44	50.00'	32.81'	17.02'	32.23'	S81°58'57"E	37°36'04"
C45	50.00'	20.21'	10.24'	20.07'	N67°38'20"E	23°09'21"
C46	50.00'	37.37'	19.61'	36.50'	N34°39'03"E	42°49'14"
C47	50.00'	47.21'	25.53'	45.47'	N13°48'26"W	54°05'44"
C48	40.00'	7.98'	3.99'	7.94'	S35°09'26"E	11°23'44"
C49	40.00'	21.95'	11.26'	21.67'	S13°44'25"E	31°26'17"
C50	471.31'	49.87'	24.96'	49.85'	N88°56'50"E	6°03'47"
C51	471.31'	59.63'	29.85'	59.59'	N82°17'29"E	7°14'55"
C52	471.31'	153.53'	77.45'	152.86'	N69°20'05"E	18°39'53"
C53	471.31'	20.90'	10.45'	20.90'	N58°43'55"E	2°32'26"
C54	471.31'	86.01'	43.13'	85.89'	N52°14'01"E	10°27'22"
C55	554.11'	55.30'	27.67'	55.27'	S49°51'52"W	5°43'04"
C56	554.11'	31.64'	15.82'	31.64'	S54°21'33"W	3°16'18"
C57	20.00'	31.42'	20.00'	28.28'	S46°58'43"W	90°00'00"
C58	40.00'	43.41'	24.12'	41.31'	S29°06'44"E	62°10'55"
C59	50.00'	32.57'	16.88'	31.99'	N41°32'40"W	37°19'02"
C60	50.00'	35.72'	18.66'	34.97'	N02°25'07"W	40°56'04"
C61	50.00'	29.62'	15.26'	29.19'	N35°01'17"E	33°56'43"
C62	50.00'	20.58'	10.44'	20.43'	N63°46'59"E	23°34'41"
C63	50.00'	35.71'	18.66'	34.96'	S83°57'54"E	40°55'32"
C64	50.00'	35.71'	18.66'	34.96'	S43°02'22"E	40°55'32"
C65	50.00'	21.43'	10.88'	21.26'	S10°17'57"E	24°33'19"
C66	20.00'	31.42'	20.00'	28.28'	S43°01'17"E	90°00'00"
C67	513.31'	402.91'	212.48'	392.65'	N69°29'31"E	44°58'23"
C68	512.13'	402.23'	212.13'	391.97'	S69°30'21"W	45°00'02"

LINE TABLE		
LINE	LENGTH	BEARING
L1	51.31'	S01°58'43"W
L2	1.47'	S01°58'43"W
L3	162.00'	N88°01'17"W
L4	110.00'	N88°01'17"W
L5	5.00'	N01°58'43"E
L6	152.00'	N01°58'43"E
L7	8.67'	S88°01'17"E
L8	90.00'	S01°58'43"W
L9	110.00'	N01°58'43"E
L10	29.80'	S88°01'17"E
L11	52.00'	N01°58'43"E
L12	80.00'	S88°01'17"E
L13	134.26'	N01°58'43"E
L14	140.23'	N34°00'19"W
L15	60.03'	N89°48'46"W
L16	35.23'	S88°01'17"E
L17	52.00'	S88°01'17"E
L18	170.00'	S88°01'17"E
L19	52.00'	S88°01'17"E
L20	176.77'	S88°01'17"E

LINE TABLE		
LINE	LENGTH	BEARING
L21	104.00'	N01°58'42"E
L22	336.01'	N88°01'17"W
L23	14.83'	N88°01'17"W
L24	106.50'	S88°01'17"E
L25	26.00'	S01°58'43"W
L26	136.00'	S88°01'17"E
L27	136.00'	S88°01'17"E
L28	126.00'	N01°58'43"E
L29	54.50'	S88°01'17"E
L30	22.89'	S88°01'17"E
L31	216.00'	S88°01'17"E
L32	24.00'	S88°01'17"E
L33	243.00'	S88°01'17"E
L34	62.00'	S01°58'43"W
L35	262.00'	S88°01'17"E
L36	62.00'	S01°58'43"W
L37	81.23'	S88°01'17"E

LOCATION MAP

SCALE 1"= 600'



LOT AREA TABLE	
BLOCK 16	AREA: 55,902
LOT	SQUARE FEET
11	5,941
12	5,500
13	5,500
14	5,500
15	5,500
16	5,500
17	5,500
18	5,500
19	5,500
20	5,961

LOT AREA TABLE	
BLOCK 18	AREA: 77,472
LOT	SQUARE FEET
3	5,470
4	5,470
5	5,470
6	5,470
7	5,470
8	5,470
9	5,916
10	5,916
11	5,470
12	5,470
13	5,470
14	5,470
15	5,470
16	5,470

LOT AREA TABLE	
BLOCK 19	AREA: 104,102
LOT	SQUARE FEET
17	9,882
18	8,880
19	8,583
20	13,759
21	11,011
22	11,009
23	13,722
24	8,583
25	8,880
26	9,793

LOT AREA TABLE	
BLOCK 20	AREA: 145,802
LOT	SQUARE FEET
1	6,037
2	5,572
3	5,572
4	5,572
5	5,572
6	5,572
7	5,572
8	5,572
9	5,572
10	5,572
11	5,572
12	5,572
13	5,572
34	5,572
35	5,572
36	5,572
37	5,572
38	5,572
39	5,572
40	5,572
41	5,572
42	5,572
43	5,572
44	5,572
45	5,572
46	6,037

LOT AREA TABLE	
BLOCK 21	AREA: 111,844
LOT	SQUARE FEET
1	5,961
2	5,500
3	5,500
4	5,500
5	5,500
6	5,500
7	5,500
8	5,500
9	5,500
10	5,961
11	5,961
12	5,500
13	5,500
14	5,500
15	5,500
16	5,500
17	5,500
18	5,500
19	5,500
20	5,961

LOT AREA TABLE	
BLOCK 22	AREA: 89,392
LOT	SQUARE FEET
1	5,964
2	5,500
3	5,500
4	5,500
5	5,500
6	5,500
7	5,500
8	5,500
9	5,500
10	5,500
11	5,500
12	5,500
13	5,500
14	5,964
27	5,500
28	5,964

LOT AREA TABLE	
BLOCK 23	AREA: 51,034
LOT	SQUARE FEET
1	6,086
2	5,621
3	5,621
4	5,621
5	5,621
6	5,621
7	5,621
8	5,621
9	5,601

LOT AREA TABLE	
BLOCK 24	AREA: 56,878
LOT	SQUARE FEET
32	5,133
33	5,133
34	5,133
35	5,133
36	5,133
37	5,133
38	5,133
39	5,133
40	5,133
41	5,133
42	5,548

LOT AREA TABLE	
BLOCK 26	AREA: 23,990
LOT	SQUARE FEET
17	5,828
18	5,907
19	5,907
20	6,348

LOT AREA TABLE	
BLOCK 25	AREA: 303,526
LOT	SQUARE FEET
1	6,751
2	6,235
3	6,235
4	6,235
5	6,235
6	6,235
7	6,235
8	6,235
9	6,235
10	6,962
11	7,694
12	14,031
13	9,972
DRN ESMT	2,141
14	11,977
15	6,934
16	6,635
17	6,211
18	6,211
19	6,211
20	6,211
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25	6,748
26	5,686
27	5,250
28	5,250
29	5,250
30	5,250
31	5,250
32	5,250
33	5,250
34	5,250
35	8,657
36	16,504
37	11,797
38	12,776
DRN ESMT	2,141
39	9,064
40	8,329
41	5,500
42	5,941

LEGEND

- = PROPOSED CITY MONUMENT
- = EXISTING CITY MONUMENT
- = SECTION CORNER

ENGINEER

ceagroup engineering group
1204 Montana., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
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CONTACT: JORGE L. AZCARATE, P.E.

SURVEYOR

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CONSULTING COMPANY
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EL PASO, TEXAS 79936
TEL (915) 633-6422
CONTACT: CARLOS M. JIMENEZ R.P.L.S.

SHEET 2 OF 2

DATE OF REVISION: JANUARY 15, 2007
DATE OF PREPARATION: JUNE 13, 2006

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLITENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

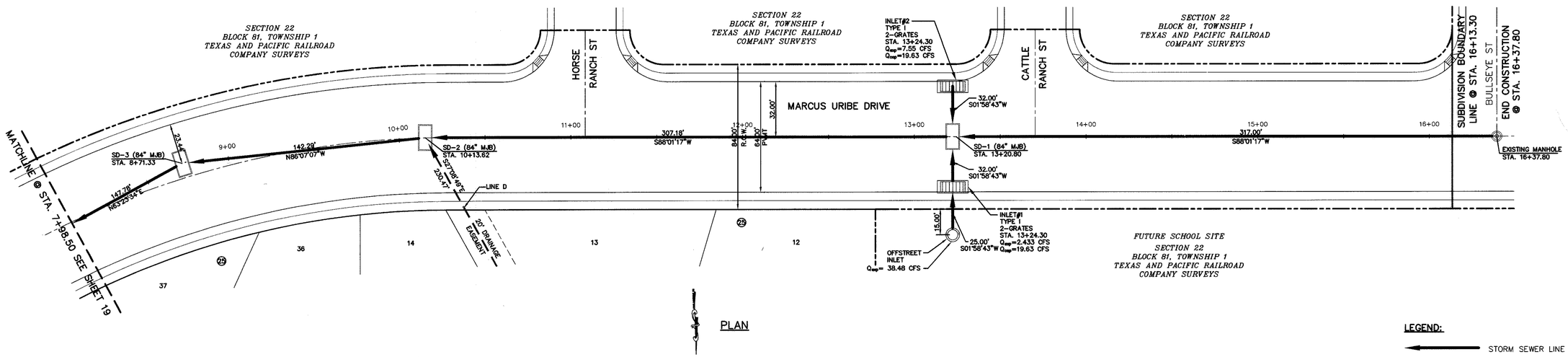
6-26-2008

UTILITY LOCATOR SERVICES

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

WARNING ! BEFORE YOU DIG

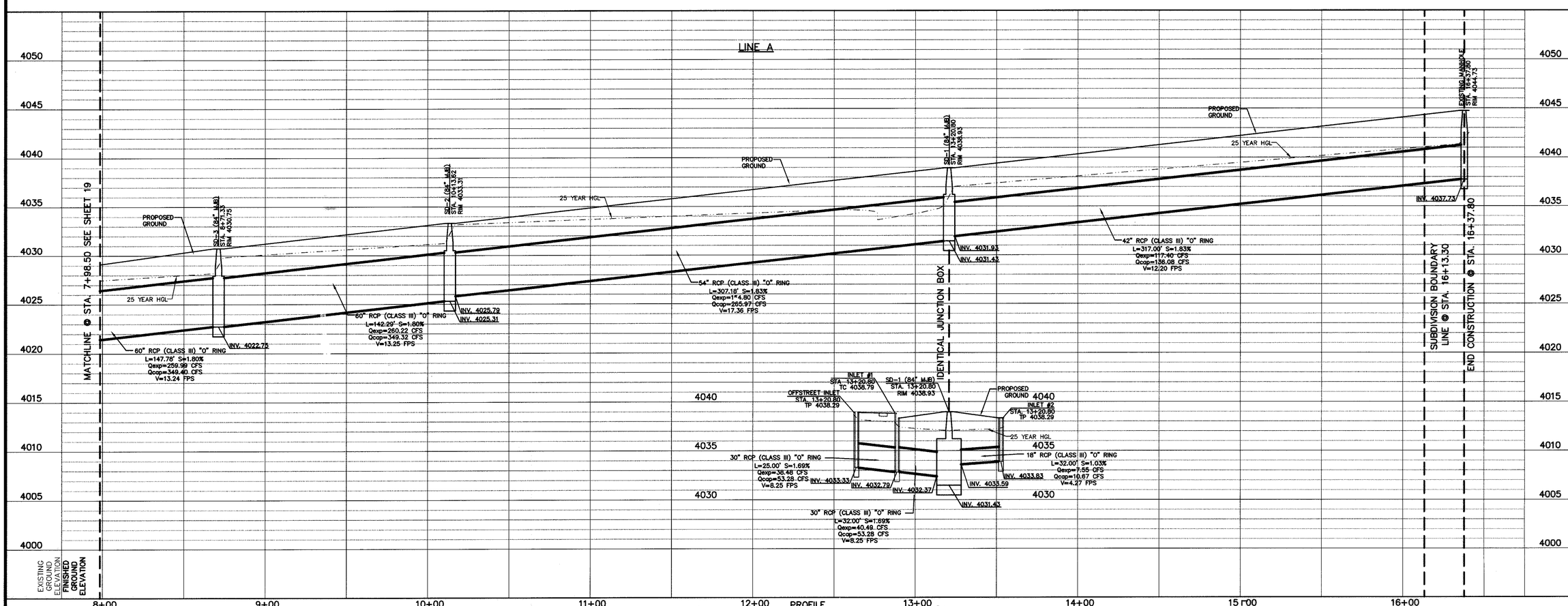
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



PLAN

LEGEND:

STORM SEWER LINE



PROFILE

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 27, ELEVATIONS 4037.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.2232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

LINE A
PLAN & PROFILE
FROM STA. 7+98.50
TO STA. 16+37.80

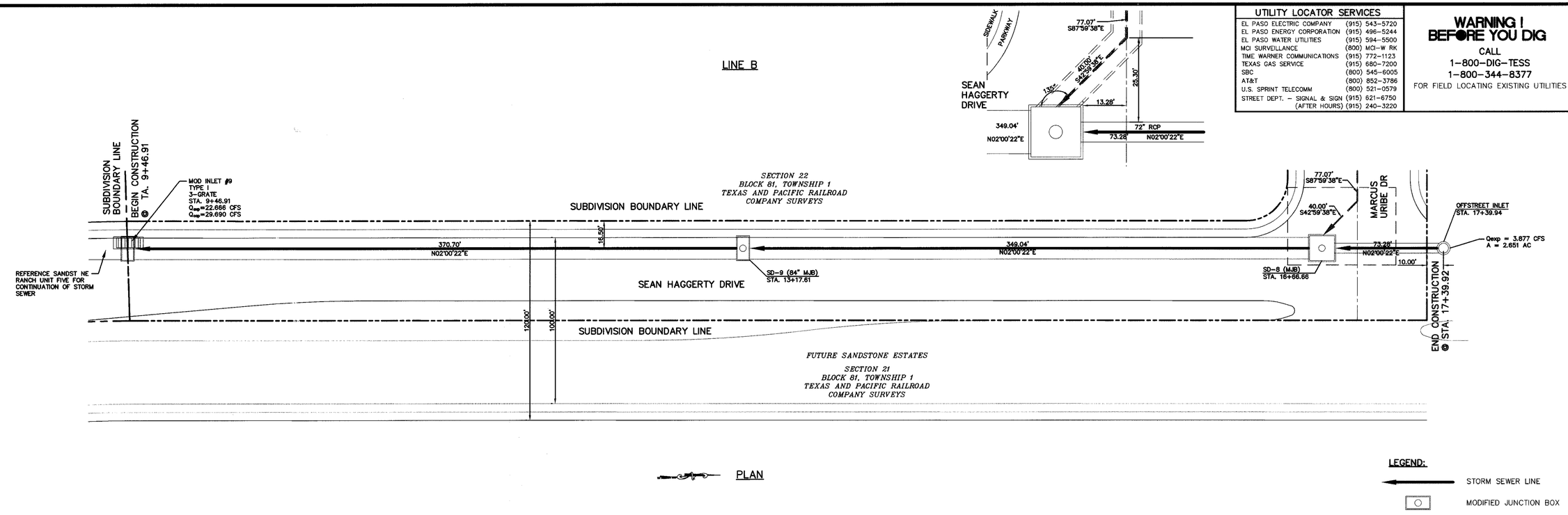
SHEET NO.

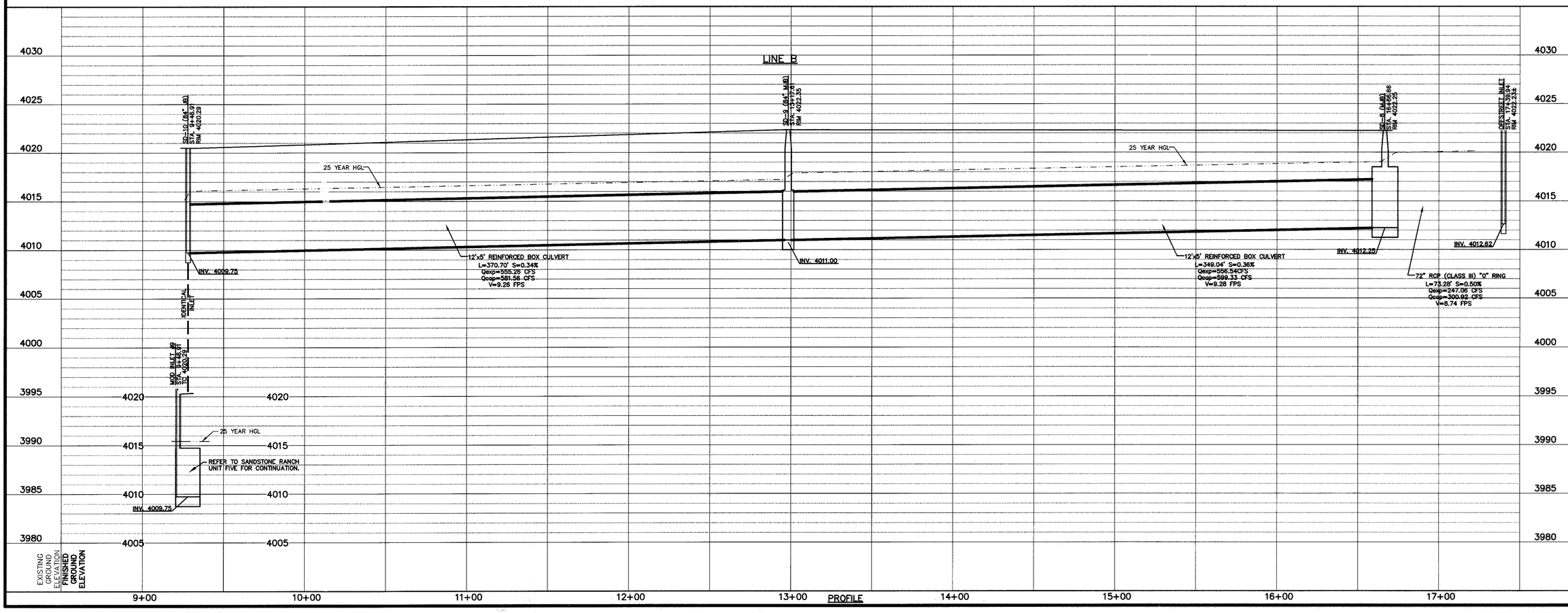
20

OF 33

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-W RK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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





REFERENCES - BENCHMARKS
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462' TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915-544-3232 Fax 915.544.5233
www.caegroup.net

ENGINEER'S SEAL
STATE OF TEXAS
JORGE L. ACUNA III
85075
LICENSED PROFESSIONAL ENGINEER

SCALE
Horizontal: 1"=30'
Vertical: 1"=5'
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE
SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE
LINE B
PLAN & PROFILE
FROM STA. 9+47.27
TO STA. 16+87.92

SHEET NO.
21
OF 33

RECORD DRAWINGS

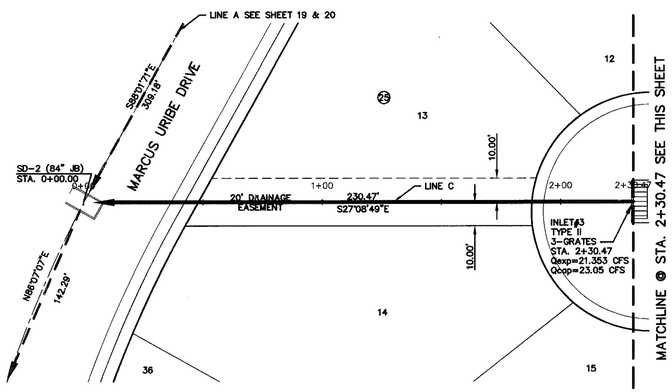
THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

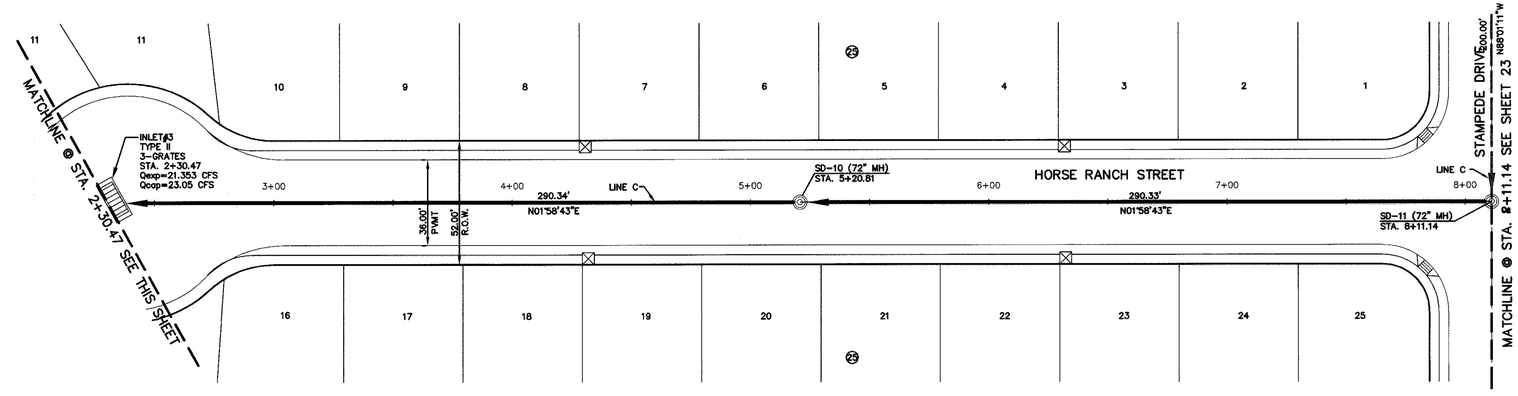
UTILITY LOCATOR SERVICES

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

WARNING ! BEFORE YOU DIG

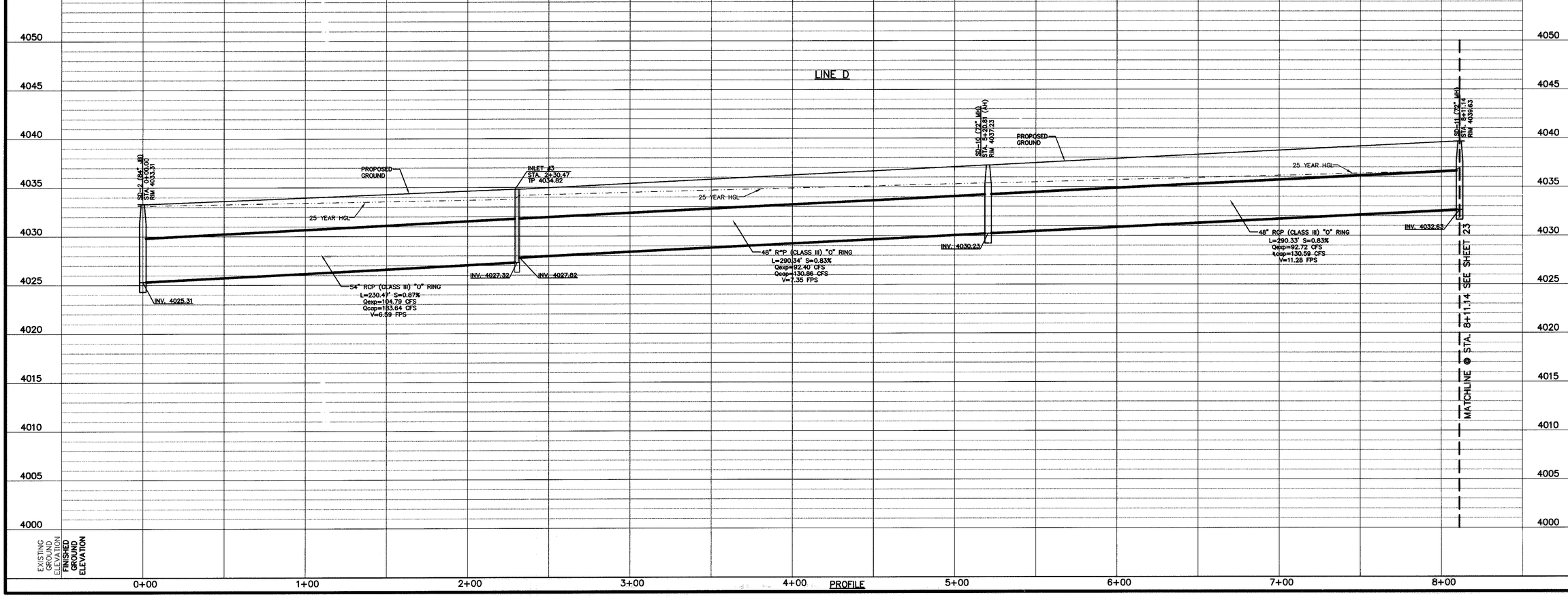
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES





LEGEND:

STORM SEWER LINE
PROPOSED STORM SEWER LINE ON OTHER STREETS



REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

STATE OF TEXAS
JORGE L. ACOSTA
85075
LICENSED PROFESSIONAL ENGINEER
8/31/06

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: E.Z.
CHK.): BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

LINE C
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 8+11.14

SHEET NO.

22

OF 33

RECORD DRAWINGS

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UTILITY LOCATOR SERVICES

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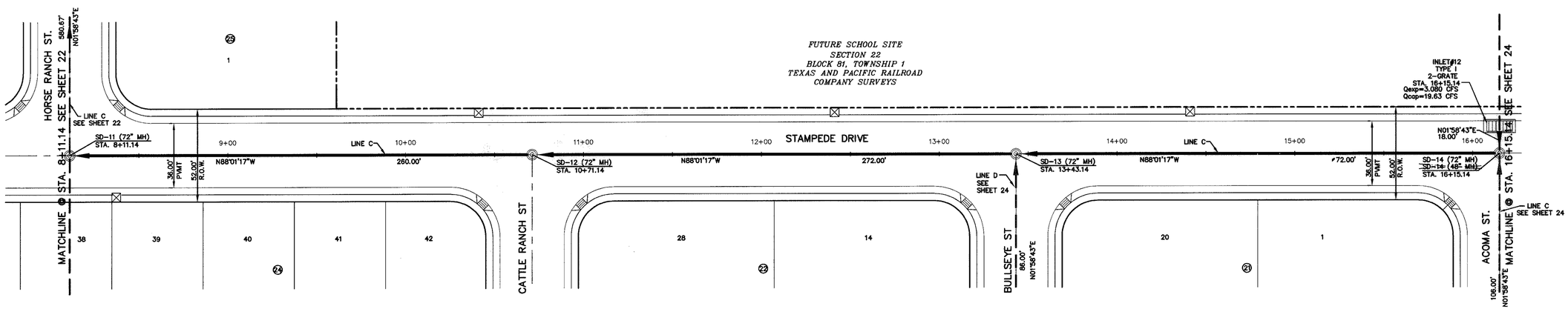
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750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

WARNING ! BEFORE YOU DIG

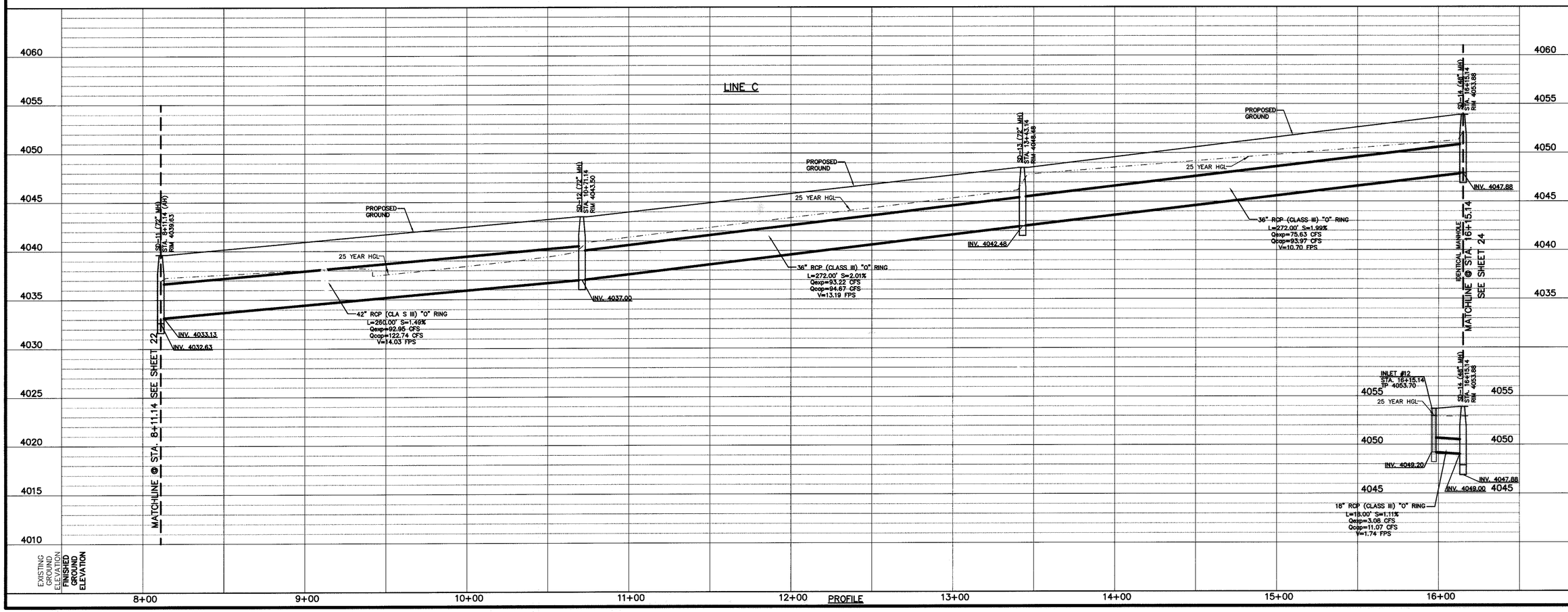
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



PLAN

LEGEND:

STORM SEWER LINE
PROPOSED STORM SEWER LINE ON OTHER STREETS



PROFILE

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 27, BLOCK 81, T1N, T&P RR CO. (NAVD 88 DATUM) (SUBTRACT 8.462' TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE
85075
Licensed
PROFESSIONAL ENGINEER
STATE OF TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: F.Z.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

LINE C
PLAN & PROFILE
FROM STA. 8+11.14
TO STA. 16+15.14

SHEET NO.

23

OF 33

RECORD DRAWINGS

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6-28-2008

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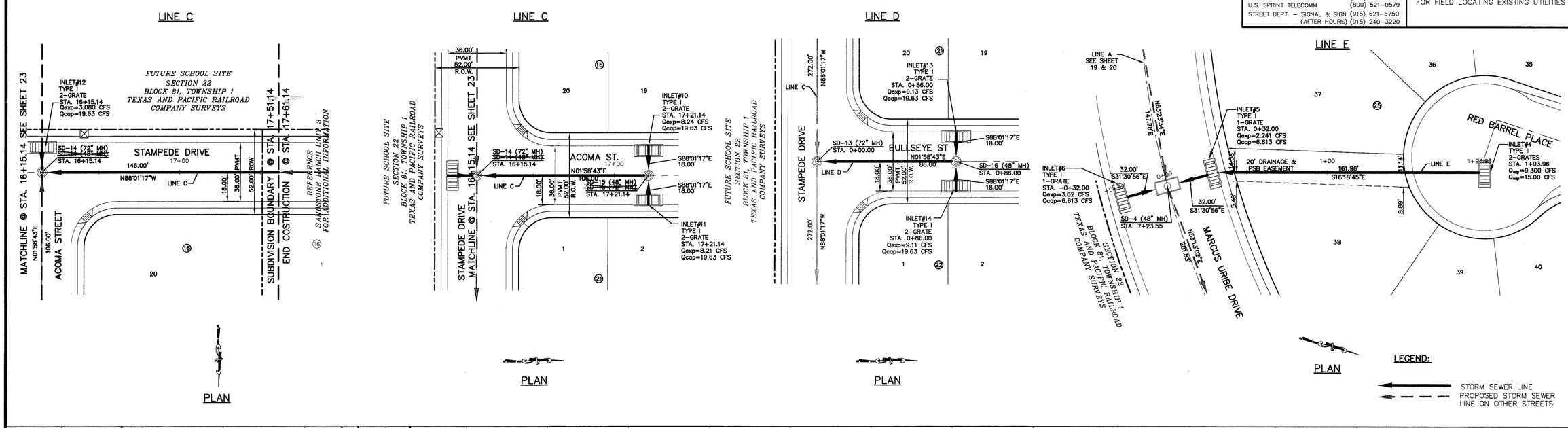
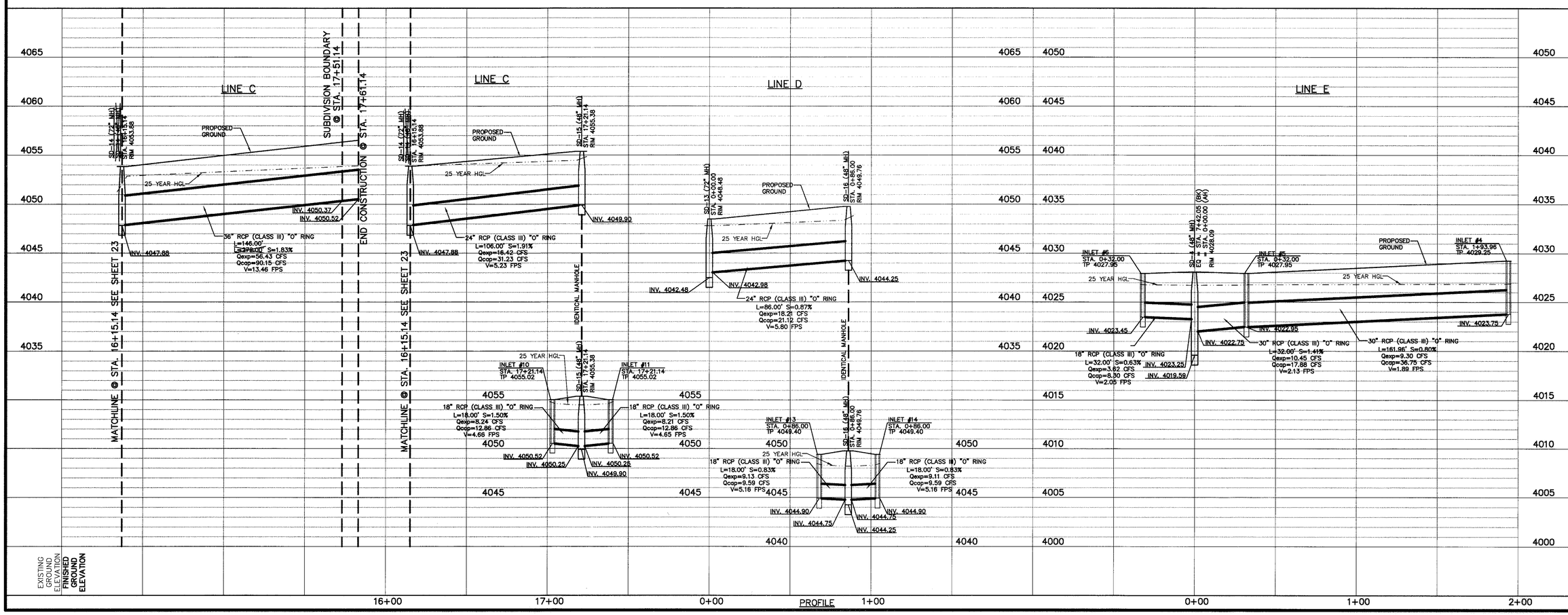
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750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

WARNING ! BEFORE YOU DIG

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





REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5233 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

85075 LICENSED PROFESSIONAL ENGINEER JORGE L. ACUARTE

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

DATE: JANUARY 2007
DESIGN. BY: A.H.
DRAWN. BY: F.Z.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

LINE C FROM STA. 16+15.14 TO STA. 17+61.14

LINE C FROM STA. 16+15.14 TO STA. 17+21.14

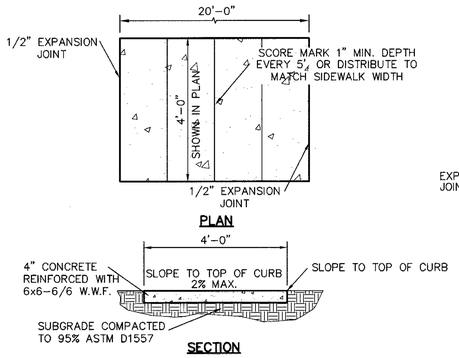
LINE D FROM STA. 0+00.00 TO STA. 0+86.00

LINE E FROM STA. 0+00.00 TO STA. 1+93.96

SHEET NO.

24

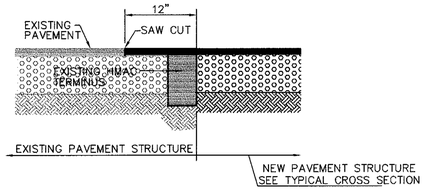
OF 33



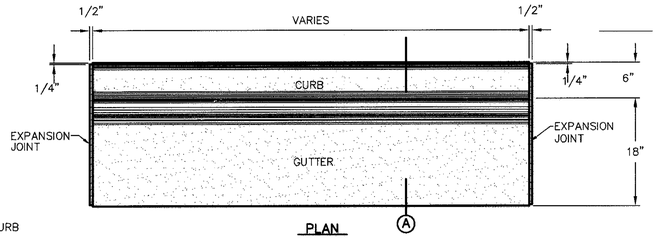
SIDEWALK NOTES:

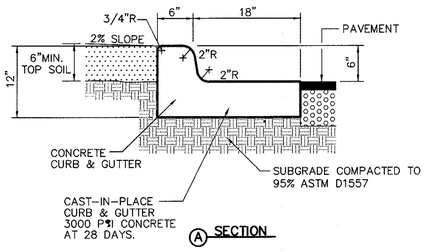
1. CONCRETE SIDEWALK SHALL BE 3,000 P.S.I.
2. DUMMY JOINTS REQUIRED AT 5' O.C.
3. EXPANSION JOINTS SHALL BE AT 20' O.C. MAXIMUM, USE 1/2" PREMOLDED BITUMINOUS EXPANSION JOINTS (AASHTO M-33)
4. EXPANSION JOINT FILLER SHALL BE PLACED WHEREVER SIDEWALK ABUTS ROCK OR MASONRY STRUCTURES SUCH AS CURBS OR BUILDINGS.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

1/25 SECTION-SIDEWALK/SLAB
SCALE: 1" = 2'-0"



5/25 TYPICAL PAVEMENT JOINT SECTION
SCALE: N.T.S.

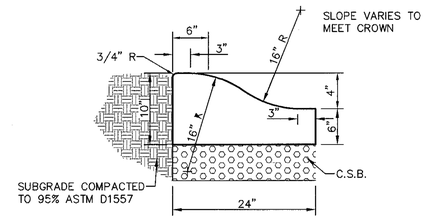




NOTES:

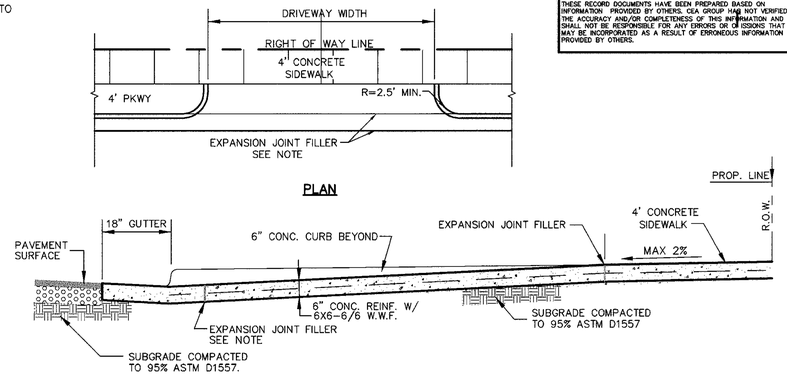
1. CONCRETE CURB, GUTTER, AND RETURNS SHALL BE 3,000 P.S.I. MIN.
2. DUMMY JOINTS REQUIRED AT 10' O.C.
3. 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT (AASHTO M-33) IS REQUIRED FOR ALL CURBS RETURNS. TRIM BITUMINOUS MATERIAL 1/4" LESS THAN NEAT CURB & GUTTER DIMENSION.
4. SUBGRADE UNDER CURBS MUST BE FORMED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

2/25 CURB & GUTTER DETAIL
SCALE: 1" = 1'-0"

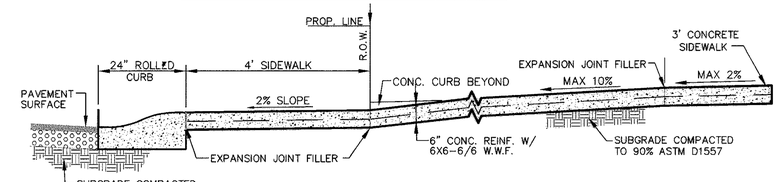


1. CONCRETE TO BE 3000 PSI MIN.
2. DUMMY JOINTS REQUIRED AT 10' O.C. FOR HEADERS AND 5' O.C. FOR SIDEWALK
3. EXPANSION MATERIAL REQUIRED AT CURB RETURNS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
4. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR HEADERS.
5. EXPANSION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

3/25 4" CONCRETE ROLLED CURB DETAIL
SCALE: 1" = 1'-0"



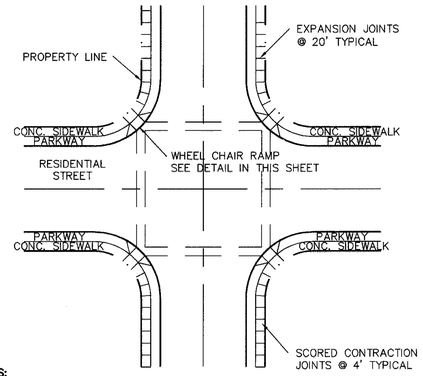
DRIVEWAY DETAIL - STANDARD CURB & GUTTER



DRIVEWAY DETAIL - ROLLED CURB SECTION AT CENTERLINE

4/25 TYPICAL DRIVEWAY DETAIL
SCALE: N.T.S.

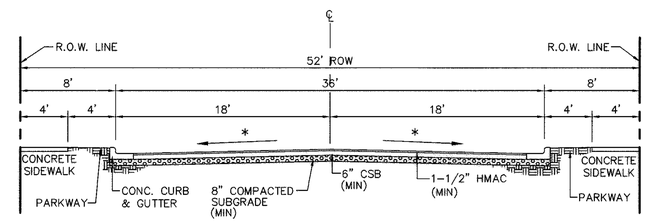
NOTES:
DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FEET AND 14% MAX. THEREAFTER (DRIVEWAY SHALL BE LOCATED @ HIGH SIDE OF LOT UNLESS OTHERWISE COORDINATED WITH CITY OF EL PASO)



NOTES:

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

6/25 WHEELCHAIR RAMP STREET PLAN
SCALE: 1" = 30'

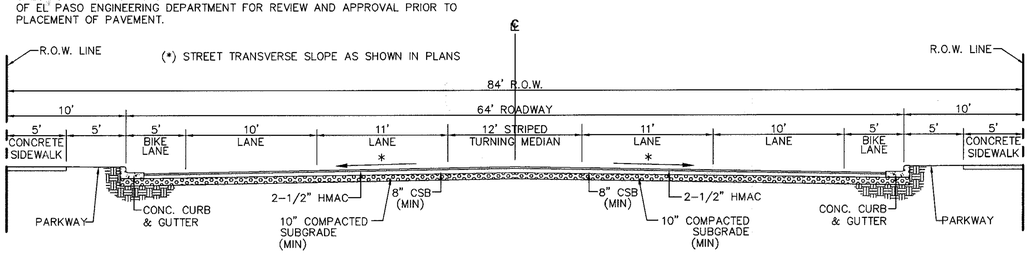


(*) STREET TRANSVERSE SLOPE AS SHOWN IN PLANS

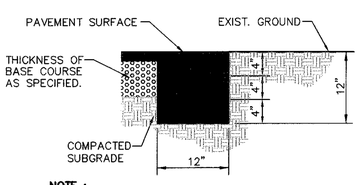
NOTE:
STREET IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS: CBR @ EVERY 500' RESULTS TO BE SUBMITTED TO DEVELOPMENT SERVICES OF CITY OF EL PASO FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT

8/25 TYPICAL 52' ROW STREET SECTIONS DETAIL
SCALE: 1" = 6'

NOTE:
STREET IMPROVEMENTS 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 ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT.

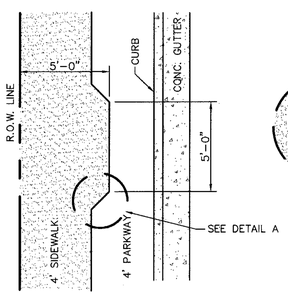


7/25 TYPICAL EXISTING 84' ROW STREET SECTION DETAIL MINOR ARTERIAL STREET W/ BIKE LANES
SCALE: N.T.S.



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

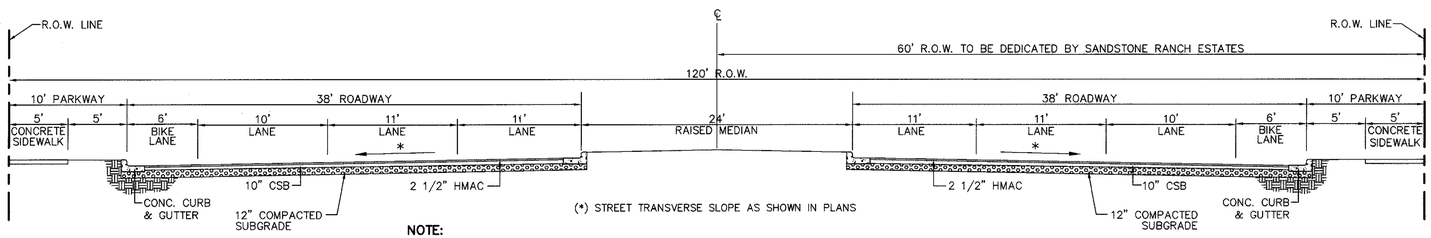
9/25 TERMINUS OF STREET
SCALE: 1" = 1'-0"



DETAIL A

NOTE:
PASSING LANES AT 200' MAX. INTERVALS

10/25 ACCESSIBLE PASSING SPACE DETAIL
SCALE: 1" = 4'-0"



NOTE:
STREET IMPROVEMENTS 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 ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT.

11/25 TYPICAL 120' ROW STREET SECTION DETAIL (MAJOR ARTERIAL STREET W/BIKE LANES)
SCALE: N.T.S.

RECORD DRAWINGS
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REFERENCES - BENCHMARKS
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL
STATE OF TEXAS — JORGE L. AZCARATE — 86075 — LICENSED PROFESSIONAL ENGINEER

SCALE
Horizontal: AS SHOWN
Vertical: N/A
Contour Interval: N/A
DATE: JANAURY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

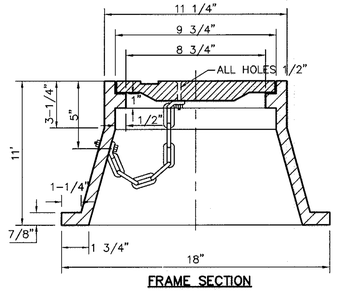
PROJECT TITLE
SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE
STANDARD DETAILS
(SHEET 1 OF 3)

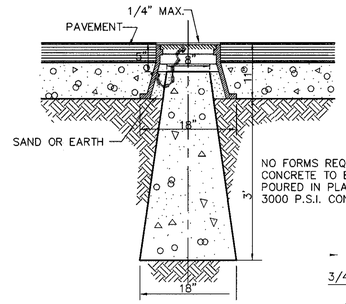
SHEET NO.
25
OF 33

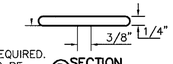
ROCK WALL NOTES

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

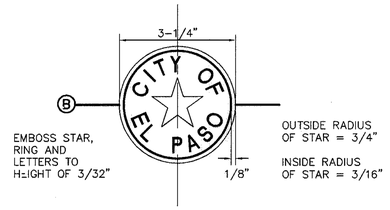


FRAME SECTION

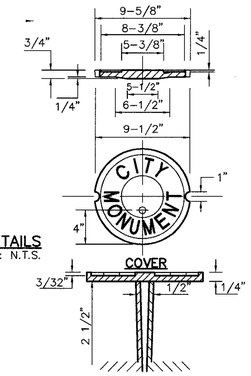




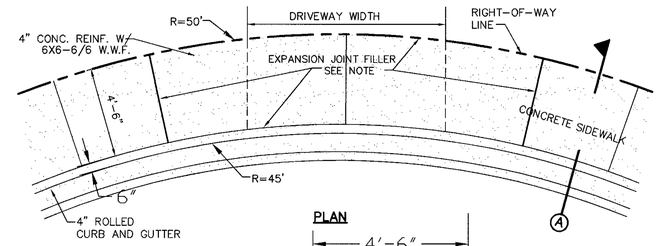
(B) SECTION



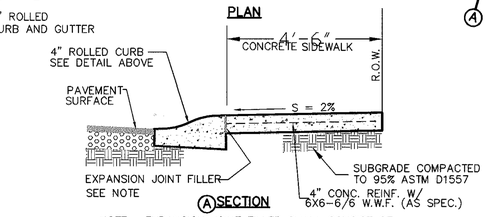
BRONZE MONUMENT CAP



1/26 CITY SURVEY MONUMENT DETAILS
SCALE: N.T.S.



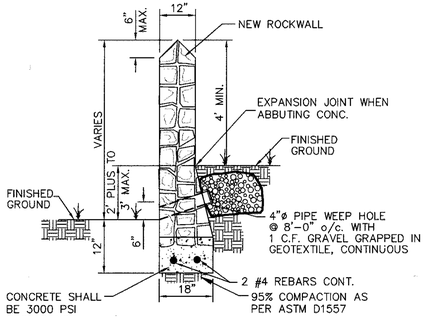
PLAN



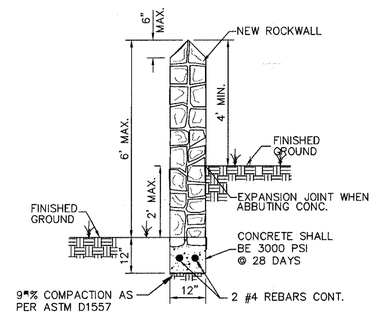
(A) SECTION

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

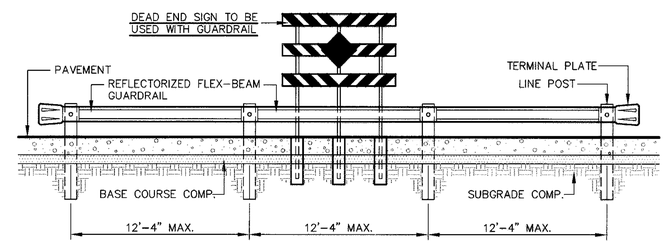
2/26 CUL-DE-SAC (50' R) DRIVEWAY DETAIL
SCALE: N.T.S.



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

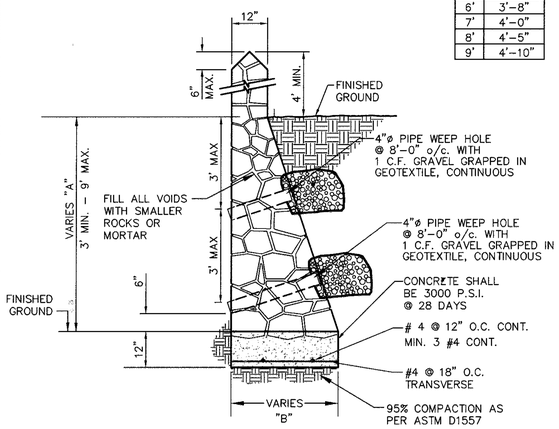


GARDEN WALL SECTION (2' MAX.)

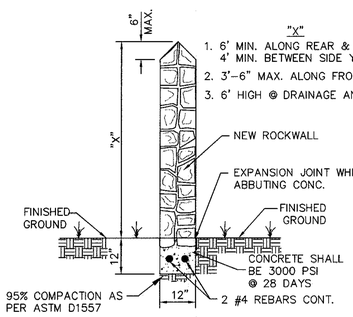


ELEVATION
SCALE: 1' = 5'

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



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

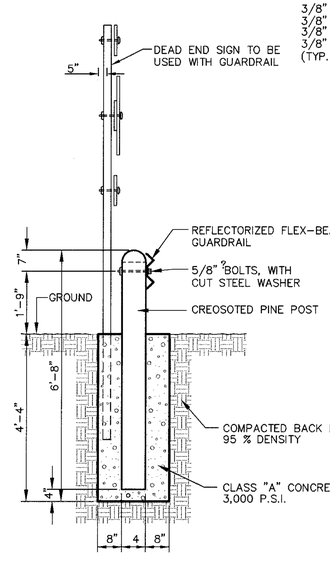


GARDEN WALL SECTION

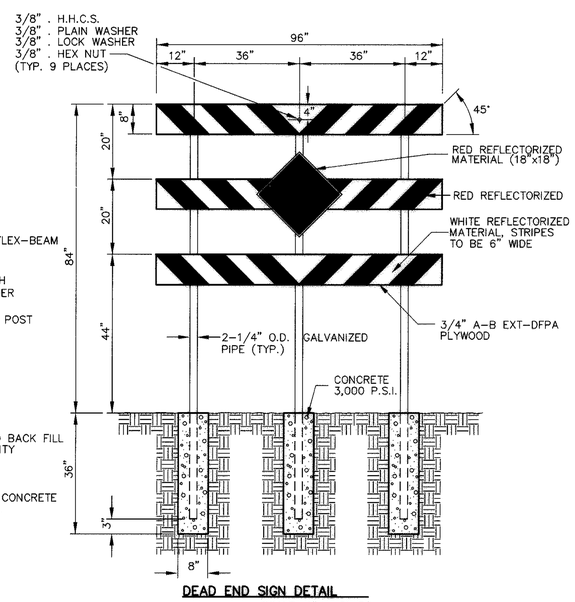
NOTES

1. 4' MIN. ALONG REAR & 4' MIN. BETWEEN SIDE YARDS.
2. 3'-6" MAX. ALONG FRONT YARDS.
3. 6' HIGH @ DRAINAGE AND BASINS.

3/26 TYPICAL ROCKWALL DETAILS
SCALE: 1" = 2'-0"



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



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

4/26 GUARD RAIL/SIGN ASSEMBLY AT DEAD END STREET DETAIL
SCALE: AS SHOWN

RECORD DRAWINGS

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6-28-2008

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. ACCARATE
85075
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
1-15-08

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

DATE: JANUARY 2007
DESIGN BY: A.B.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
AP VO. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE

STANDARD DETAILS

(SHEET 2 OF 3)

SHEET NO.

26

OF 33

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

6-28-2008

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

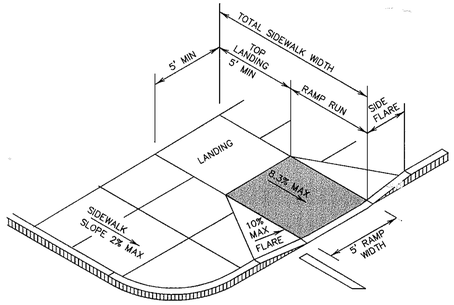
WARNING ! BEFORE YOU DIG

CALL

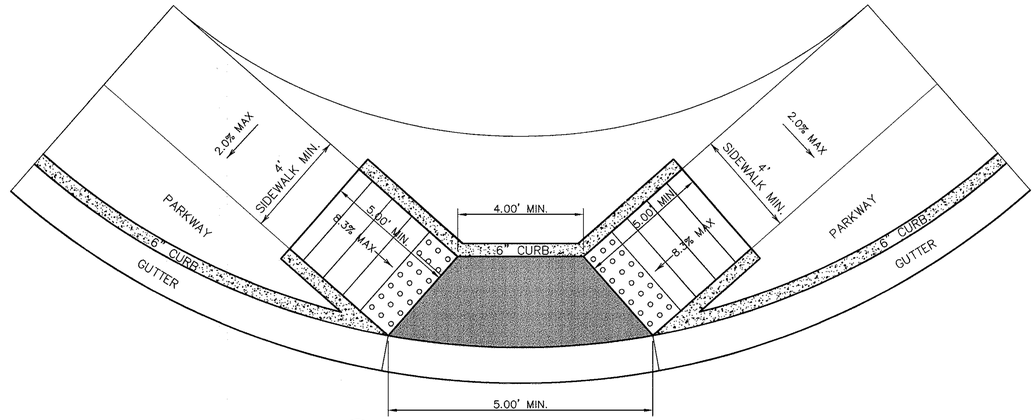
1-800-DIG-TESS

1-800-344-8377

FOR FIELD LOCATING EXISTING UTILITIES



1/27 PERPENDICULAR CURB RAMP (TYPE I)
SCALE: N.T.S.



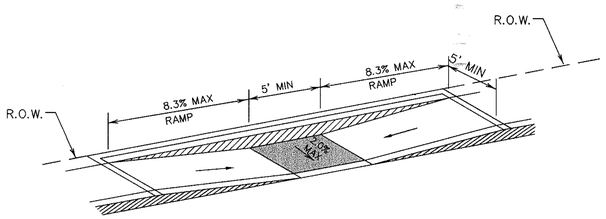
DIRECTIONAL RAMP @ INTERSECTION
SCALE: N.T.S.

LEGEND

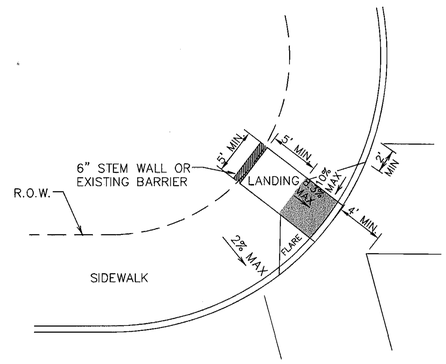
DETECTABLE WARNING SURFACE SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A NOMINAL DIAMETER OF 0.9 IN, A NOMINAL HEIGHT OF 0.2 IN AND A CENTER TO CENTER NOMINAL SPACING OF 2.35 IN, AND SHALL NOT BE STAGGERED. THE SURFACE SHALL HAVE A COLOR CONTRAST VISUALLY WITH ADJOINING SURFACES.

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 RAMPS SHALL BE A MINIMUM OF 4'X 4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
5. CURB RAMPS 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, RAMPS 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).



2/27 PARALLEL CURB RAMP (TYPE II)
SCALE: N.T.S.



5/27 DIAGONAL CURB RAMP (FLARED SIDES) (TYPE V)
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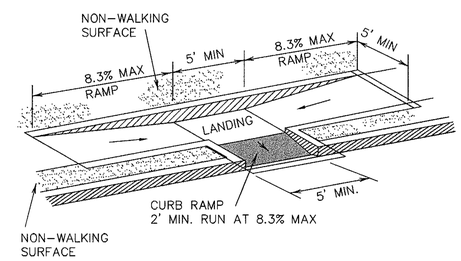

7/27 COMBINATION CURB RAMPS (TYPE VII)
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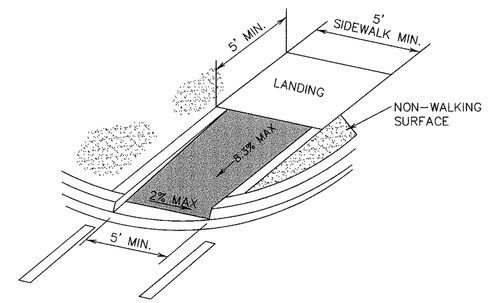

8/27 DIRECTIONAL RAMP WITHIN RADIUS (TYPE IV)
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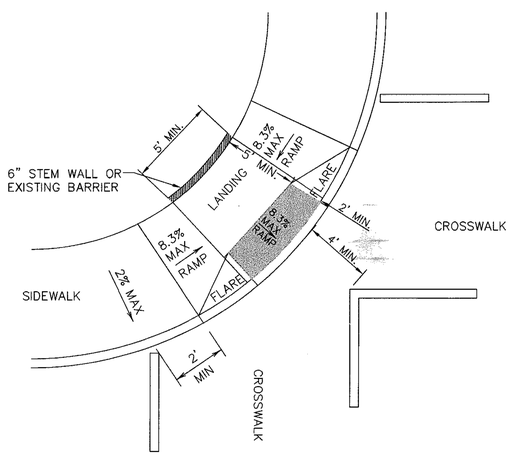
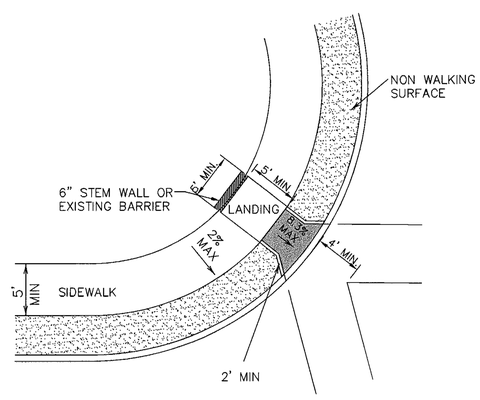
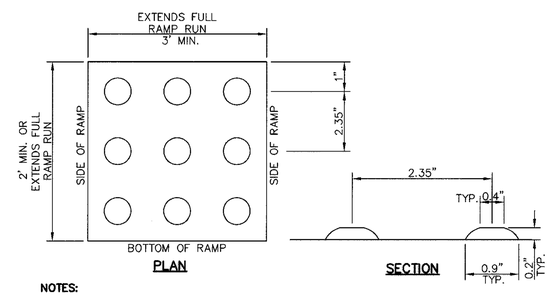


3/27 DIAGONAL COMBINATION CURB RAMP (TYPE III)
SCALE: N.T.S.



6/27 DIAGONAL CURB RAMP (RET RNED CURB) (TYPE VI)
SCALE: N.T.S.



NOTES:

1. ALL CONCRETE SHALL BE 3,000 P.S.I. MIN. AT 28 DAYS.
2. CONCRETE SLABS SHALL BE A MIN. 4" THICK.
3. DETECTABLE WARNING SURFACE SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A NOMINAL DIAMETER OF 0.9 IN, A NOMINAL HEIGHT OF 0.2 IN AND A CENTER TO CENTER NOMINAL SPACING OF 2.35 IN, AND SHALL NOT BE STAGGERED. THE SURFACE SHALL HAVE A COLOR CONTRAST VISUALLY WITH ADJOINING SURFACES.
4. ALL NEW RAMPS SHALL COMPLY WITH T.A.S. AND A.D.A. REQUIREMENTS. ANY SECTIONS NOT CONFORMING WILL BE REMOVED AT THE CONTRACTORS EXPENSE.
5. TRUNCATED DOMES SHALL BE ALIGNED

9/27 TRUNCATED DOME
SCALE: N.T.S.

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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1204 Montana Ave., El Paso, Texas 79902
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www.ceagroup.net

ENGINEER'S SEAL

STATE OF TEXAS
JORGE L. ALCANTAR
86075
LICENSED PROFESSIONAL ENGINEER
1/8/09

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE

STANDARD DETAILS

(SHEET 3 OF 3)

SHEET NO.

27

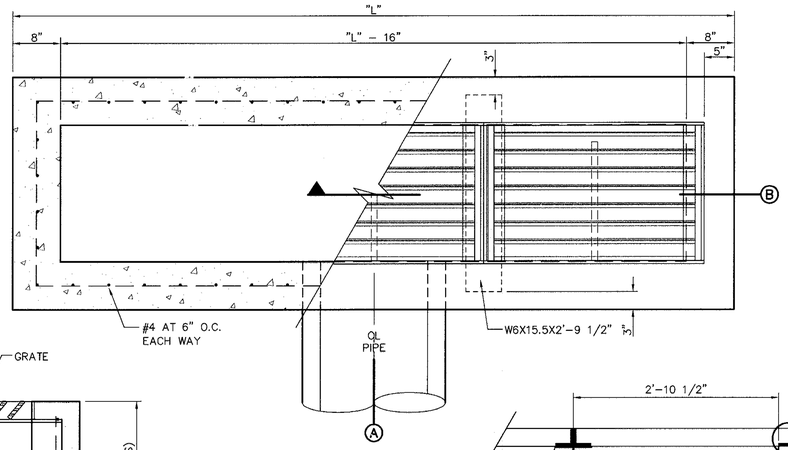
OF 33

NUMBER OF GRATES	"L"	CAPACITY*
1	4'-0"	6.96 CFS
2	7'-1"	15.00 CFS
3	10'-2"	23.05 CFS
4	13'-3"	31.09 CFS
5	16'-4"	39.14 CFS

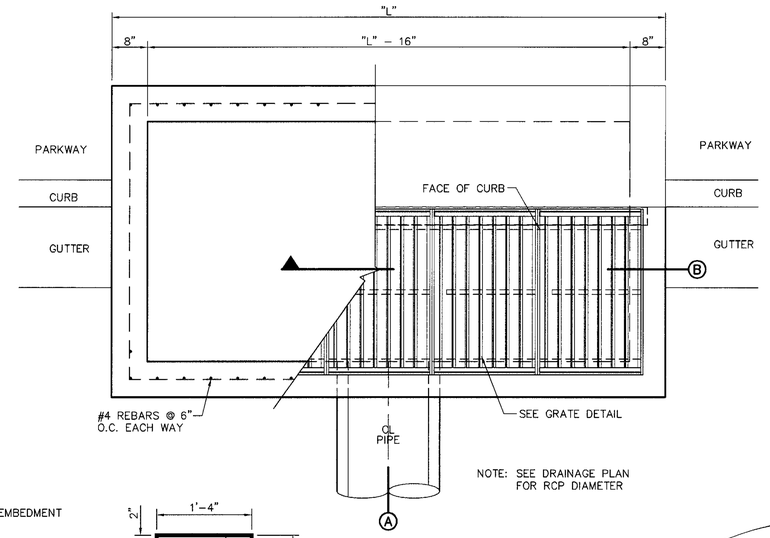
* THESE CAPACITIES CORRESPOND TO A CLOGGING FACTOR OF 0.5

NOTES:

1. GRATES TO BE PERPENDICULAR TO TRAFFIC
2. CONCRETE TO BE 3,000 PSI (MINIMUM) CORE TEST @ 28 DAYS.
3. H=20' MAXIMUM
4. **SEE DRAINAGE PLAN FOR APPROVED PIPE DIAMETER.**

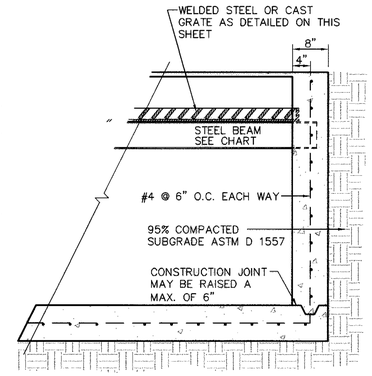


PLAN

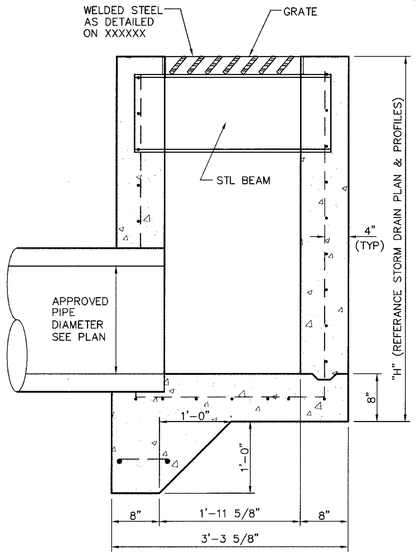


NOTE: SEE DRAINAGE PLAN FOR RCP DIAMETER

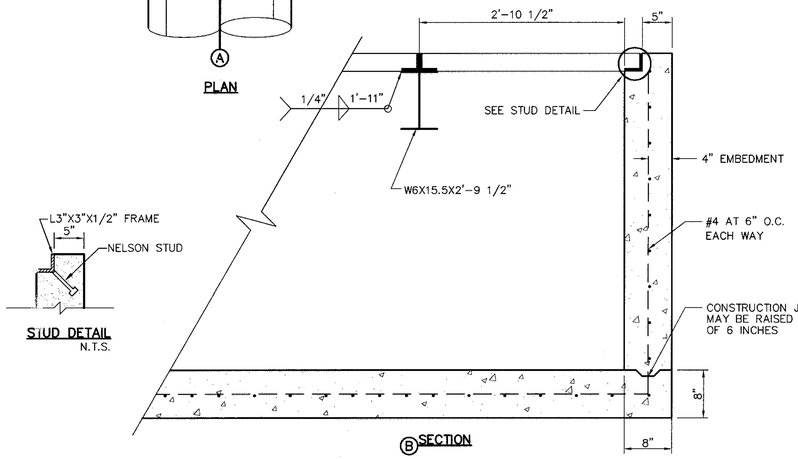
PLAN



B SECTION

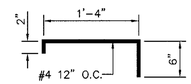


A SECTION

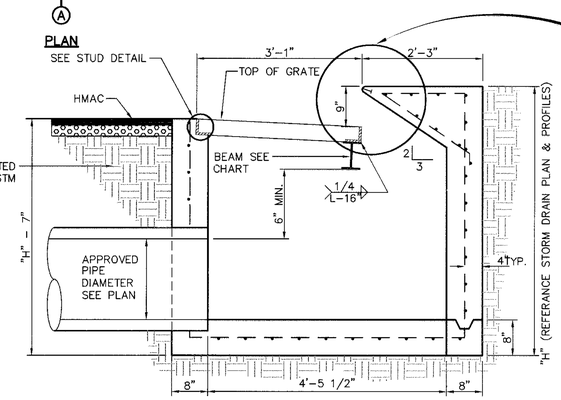


B SECTION

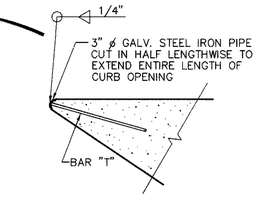
STUD DETAIL
N.T.S.



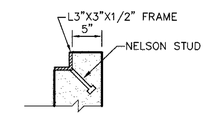
BAR "T" DETAIL
SCALE: 1" = 1' – 0"



A SECTION



DETAIL
N.T.S.

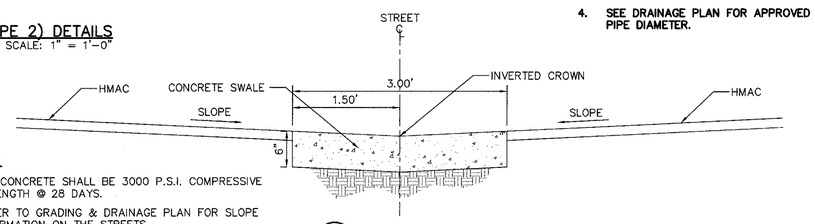


STUD DETAIL
SCALE: N.T.S.

1/28 DROP INLET (TYPE 2) DETAILS
SCALE: 1" = 1'-0"

NOTES:

1. GRATES TO BE PERPENDICULAR TO TRAFFIC
2. CONCRETE TO BE 3,000 PSI (MINIMUM) CORE TEST @ 28 DAYS.
3. H=20' MAXIMUM
4. **SEE DRAINAGE PLAN FOR APPROVED PIPE DIAMETER.**



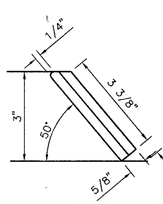
2/28 CONCRETE SWALE
SCALE: 1" = 1'-0"

NOTES:

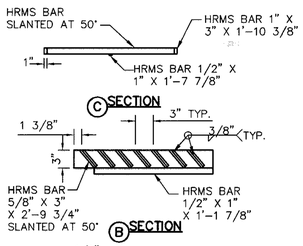
1. ALL CONCRETE SHALL BE 3000 P.S.I. COMPRESSIVE STRENGTH @ 28 DAYS.
2. REFER TO GRADING & DRAINAGE PLAN FOR SLOPE INFORMATION ON THE STREETS.
3. REFER TO SITE PLAN FOR LOCATION OF CONCRETE SWALE.

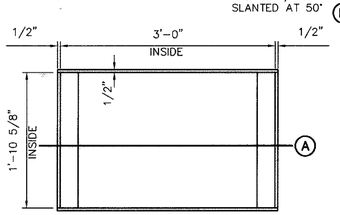
NO. GRATES	CAPACITY	"L"	BEAM LENGTH	BEAM (MIN. SIZES)
1	9.84 CFS	3'-2 5/8"	2'-10"	W6x12, S4x13, MC6x8.2
2	19.63 CFS	5'-1 1/8"	4'-7 1/8"	W6x12, S6x12.5, MC6x15.1
3	29.69 CFS	7'-[illegible] 1/4"	6'-5 1/8"	W8x15, S7x15.3, MC7x17.6
4	39.10 CFS	8'-9 7/8"	8'-3 7/8"	W9x18, S8x18.4, MC10x21.9
5	48.72 CFS	10'-8"	10'-2"	W12x16, S8x21, MC10x21.9

3/28 DROP INLET (TYPE 1) DETAILS
SCALE: 3" = 4'-0"

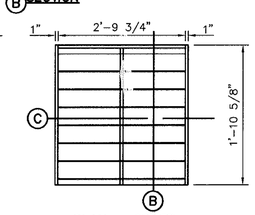


SLANTED BAR DETAIL

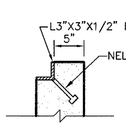




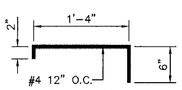
PLAN – FRAME



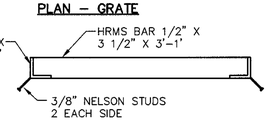
PLAN – GRATE



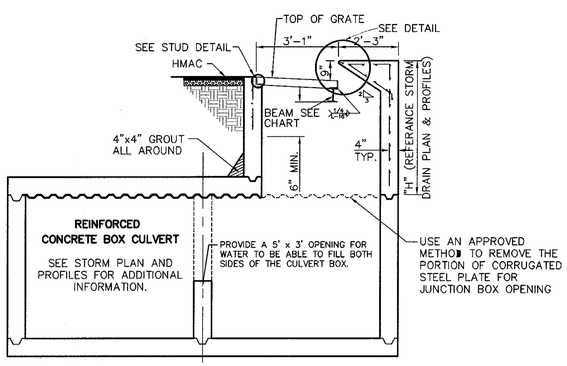
STUD DETAIL



BAR "T" DETAIL
N.T.S.



4/28 GRATE AND FRAME DETAILS
SCALE: 1" = 1'-0"



NOTES:

1. ALL CONCRETE SHALL HAVE 3000 PSI MIN. @ 28 DAYS
2. 95% COMPACTION AS PER ASTM D-1557 UNDER ALL CONCRETE STRUCTURES.
3. REINFORCED STEEL SHALL BE A MINIMUM OF GRADE 40.
4. SAME DETAILS APPLY AS DROP INLET (TYPE 1)

5/28 MODIFIED DROP INLET (TYPE 1) DETAILS
SCALE: N.T.S.

DROP INLET GENERAL NOTES:

1. WELDED STEEL OR CAST GRATES AS DETAILED ARE ALL ACCEPTABLE GRATES. MIXING OF ALTERNATE TYPES OF GRATES ON THE SAME PROJECT WILL BE PERMITTED WITH THE APPROVAL OF THE CITY ENGINEER.
2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS.
3. SHARP EDGES RESULTING FROM FABRICATION SHALL BE DULLED BY ANY ACCEPTABLE METHOD FOR SAFETY IN HANDLING.
4. GRATES SHALL BE INSTALLED IN FRAME WITH FLOW ARROW POINTING DOWNSTREAM OR TOWARD THE LOW POINT IN A SUMP.
5. WELDED GRATES SHALL BE STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-183 OR OF CORROSION RESISTANT STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-161 OR M-222 OR BE MADE OF OTHER APPROVED STEELS OF EQUAL QUALITY. MIXING GRADES OF STEEL ON THE SAME GRATE WILL NOT BE PERMITTED.
6. GRATES MADE OF M-183 STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111 SPECIFICATIONS OR SHALL BE PAINTED WITH INORGANIC ZINC PAINTS, MEETING THE REQUIREMENTS OF CURRENT STANDARD SPECIFICATIONS.
7. ALL WELDS SHALL HAVE A MINIMUM OF 1/4" FILLET AND SHALL CONFORM TO THE SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND TO THE AWS STRUCTURAL WELDING CODE. ELECTRODES SHALL BE COMPATIBLE TO THE DIFFERENT GRADES OF STEEL THAT COMPRISE THE GRATE MEMBERS.
8. CAST GRATES SHALL BE CAST STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-103, GRADE 65-35 OR OF DUCTILE IRON CONFORMING TO THE REQUIREMENTS OF ASTM A-536, SPECIAL GRADE 60-45, OR OF GRAY IRON CONFORMING TO THE REQUIREMENTS OF AASHTO M-105, CLASS 35B OR ASTM A-48 CLASS 35B. THE SPECIFICATIONS OF GENERAL APPLICATION FOR CAST STEEL GRATES SHALL BE AASHTO M-103 SCOPE 1.2.1, GRADE N-1.
9. FERROUS CASTINGS SHALL BE OF UNIFORM QUALITY, FREE OF BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING OR OTHER APPROVED CLEANING METHOD. AFTER CLEANING THEY SHALL BE COATED WITH ASPHALT BASE PAINT RESULTING IN A SMOOTH COATING, TOUGH AND TENACIOUS WHEN COLD, NOT TACKY OR BRITTLE.
10. ALL CASTING SHALL BE MANUFACTURED TRUE TO PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER.
11. ALL CONCRETE TO BE 3000 PSI. CHAMFER ALL EXPOSED EDGES 3/4". ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
12. MINIMUM CONCRETE COVER SHALL BE 1 1/2" FOR STEEL REINFORCING.
13. EXPANSION MATERIAL TO BE 1/2" BITUMINOUS FIBER AND PLACED WHERE PROPOSED CONCRETE COMES IN CONTACT WITH ANY EXISTING OR PROPOSED CONCRETE OR MASONRY STRUCTURE.
14. STRUCTURAL STEEL SHALL BE SHOP PAINTED IN ACCORDANCE WITH TxDOT. ITEM 446 "PAINT AND PAINTING"
1 . SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE AND GRADE TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO INLETS.
16. GRATES WILL BE DEPRESSED 1" BELOW PROPOSED OR EXISTING GRADE.
17. ALL REINFORCING BARS TO BE #4 BARS AT 6" O.C. GRADE 60. BEND BARS AROUND PIPE OPENINGS.
18. INLETS TO BE DESIGNATED IN PLANS BY NUMBER OF GRATES REQUIRED.
19. LOCATION OF SEWER PIPES SHOWN ELSEWHERE IN PLANS.
20. TWO 1/2"øX4" LONG CONCRETE ANCHOR STUDS REQUIRED FOR EACH SIDE OF FRAME, WHERE RESTING ON CONCRETE, USE NELSON STUDS OR EQUAL.
21. THE GRATES OF ALL INLETS WITHIN THE STREET PAVEMENT MUST BE CONSTRUCTED WITH THE GRATE BARS PERPENDICULAR TO THE CURB.

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.
6-28-2008

REFERENCES – BENCHMARKS
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21; ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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www.ceagroup.net

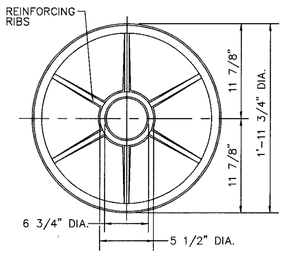
ENGINEER'S SEAL
JORGE L. AZCARATE 86075 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS

SCALE
Horizontal: 1"=30'
Vertical: 1"=5'
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

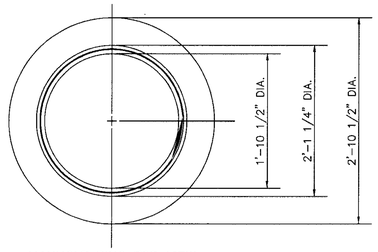
PROJECT TITLE
SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE
DRAINAGE DETAILS
(SHEET 1 OF 2)

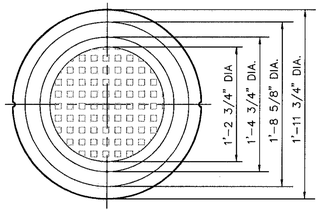
SHEET NO.
28
OF 33



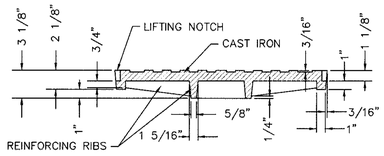
MANHOLE COVER BOTTOM VIEW
SCALE: 3/4" = 1'-0"



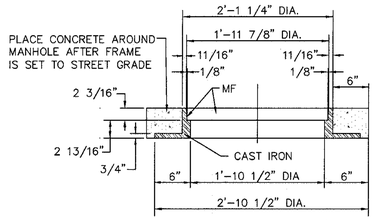
MANHOLE RING TOP VIEW
SCALE: 1" = 1'



MANHOLE COVER TOP VIEW
SCALE: 3" = 4'-0"



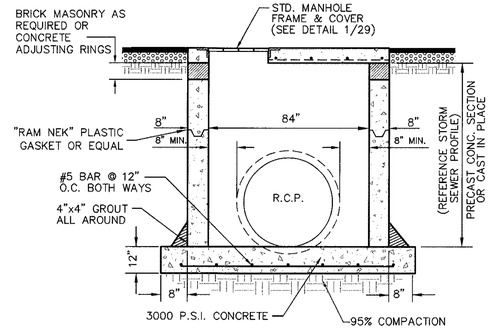
MANHOLE COVER SECTION
SCALE: 2" = 3'



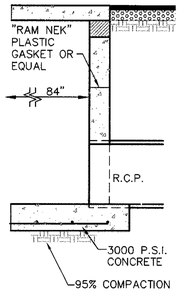
MANHOLE RING SECTION
SCALE: 1" = 1'

MANHOLE RING NOTES:
1. MATCHING SURFACES MARKED "MF" TO BE MACHINE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.

1/29 MANHOLE RING AND COVER DETAILS
SCALE: AS SHOWN

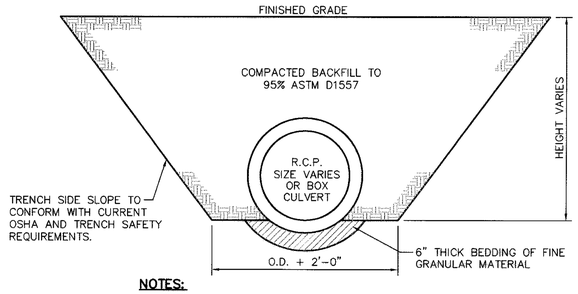


FRONT VIEW



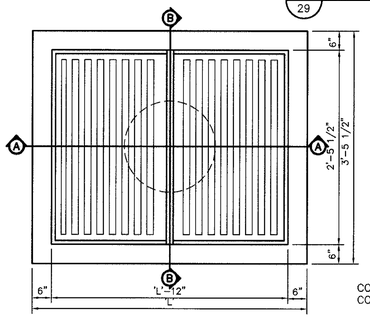
SIDE VIEW

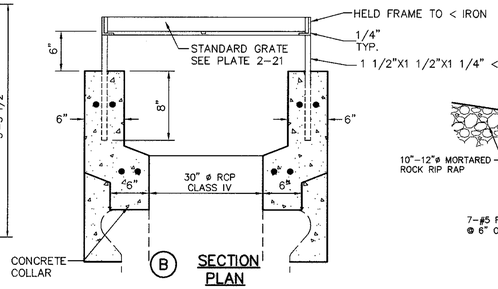
2/29 84" STANDARD JUNCTION BOX
SCALE: N.T.S.



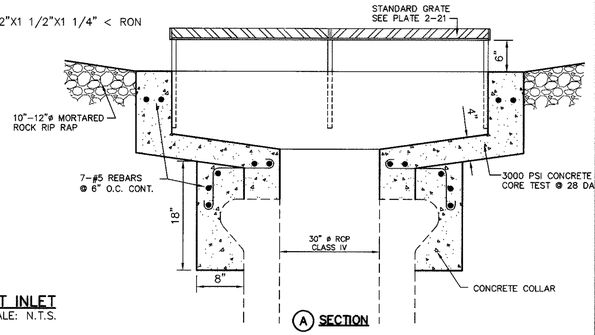
NOTES:
1. ALL CONCRETE SHALL BE 3000 P.S.I. COMPRESSIVE STRENGTH @ 28 DAYS.
2. REFER TO GRADING & DRAINAGE PLAN FOR SLOPE INFORMATION ON THE STREETS.
3. REFER TO SITE PLAN FOR LOCATION OF CONCRETE SWALE.

3/29 STORM SEWER BEDDING DETAIL
SCALE: 1" = 2'-0"



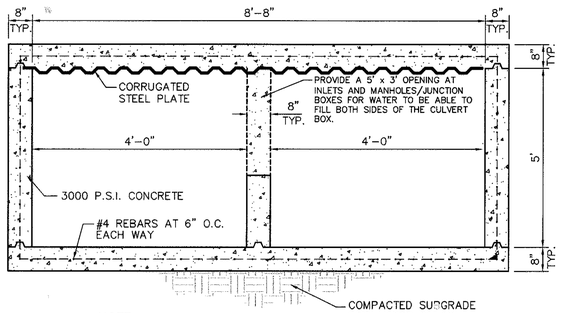


B SECTION PLAN



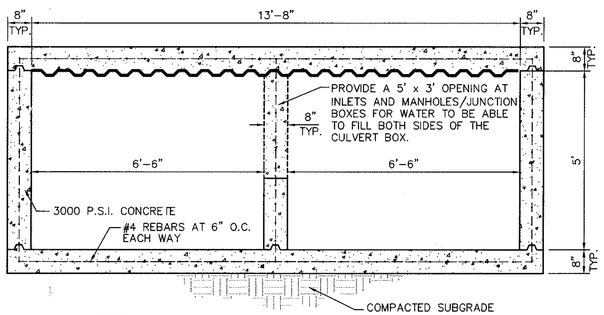
A SECTION

6/29 OFFSTREET INLET
SCALE: N.T.S.



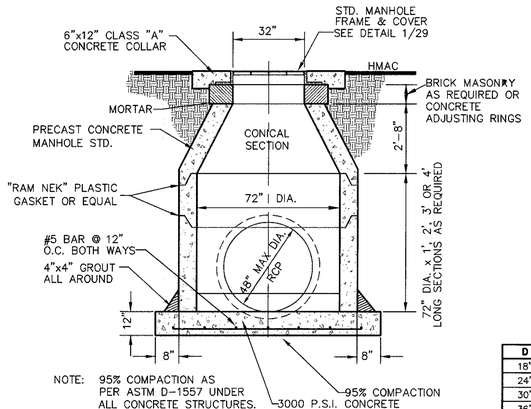
NOTE:
1. ALL CONCRETE SHALL HAVE 3000 PSI MIN. @ 28 DAYS.
2. STRUCTURE TO BE CONSTRUCTED AS PER H20 LOADING REQUIREMENTS.
3. REINFORCED STEEL SHALL BE A MINIMUM OF GRADE 40.

4/29 8' X 5' CAST-IN-PLACE CONCRETE BOX CULVERT
SCALE: N.T.S.

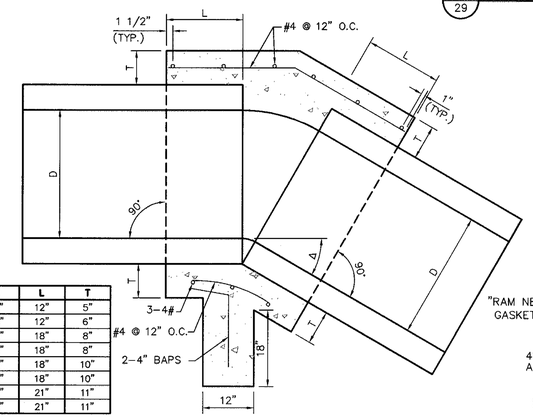


NOTE:
1. ALL CONCRETE SHALL HAVE 3000 PSI MIN. @ 28 DAYS.
2. STRUCTURE TO BE CONSTRUCTED AS PER H20 LOADING REQUIREMENTS.
3. REINFORCED STEEL SHALL BE A MINIMUM OF GRADE 40.

7/29 13' X 5' REINFORCED CAST-IN-PLACE CONCRETE BOX CULVERT
SCALE: 1" = 2'-0"

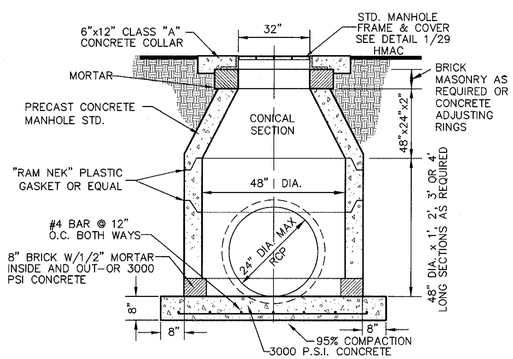


5/28 72" STANDARD MANHOLE DETAIL
SCALE: N.T.S.

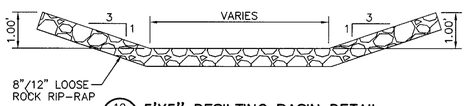


D	L	T
18"	12"	5"
24"	12"	6"
30"	18"	8"
36"	18"	8"
48"	18"	10"
54"	18"	10"
60"	21"	11"
66"	21"	11"

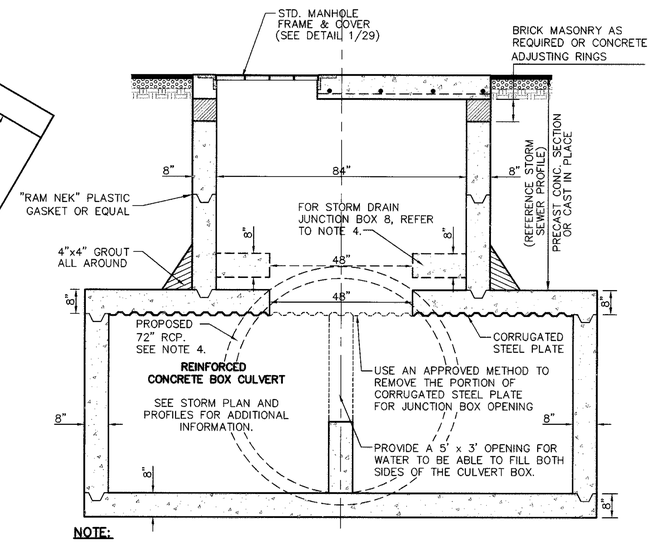
9/29 CONCRETE ANCHOR COLLAR
SCALE: N.T.S.



8/29 48" STANDARD MANHOLE DETAIL
SCALE: N.T.S.



10/29 5'X5" DESILTING BASIN DETAIL
SCALE: 1/2" = 1'-0"



NOTE:
1. ALL CONCRETE SHALL HAVE 3000 PSI MIN. @ 28 DAYS
2. 95% COMPACTION AS PER ASTM D-1557 UNDER ALL CONCRETE STRUCTURES.
3. REINFORCED STEEL SHALL BE A MINIMUM OF GRADE 40.
4. STORM DRAIN JUNCTION BOX 8 SHALL HAVE THE 48" OPENING SIX FEET ABOVE THE INVERT OF THE MANHOLE. THIS SHALL PROVIDE ENOUGH ROOM FOR THE PROPOSED 72" RCP TO TIE INTO THE STORM SEWER SYSTEM.

11/29 84" MODIFIED JUNCTION BOX DETAIL
SCALE: 1" = 2'-0"

REFERENCES – BENCHMARKS
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 4.402 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL
STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER

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

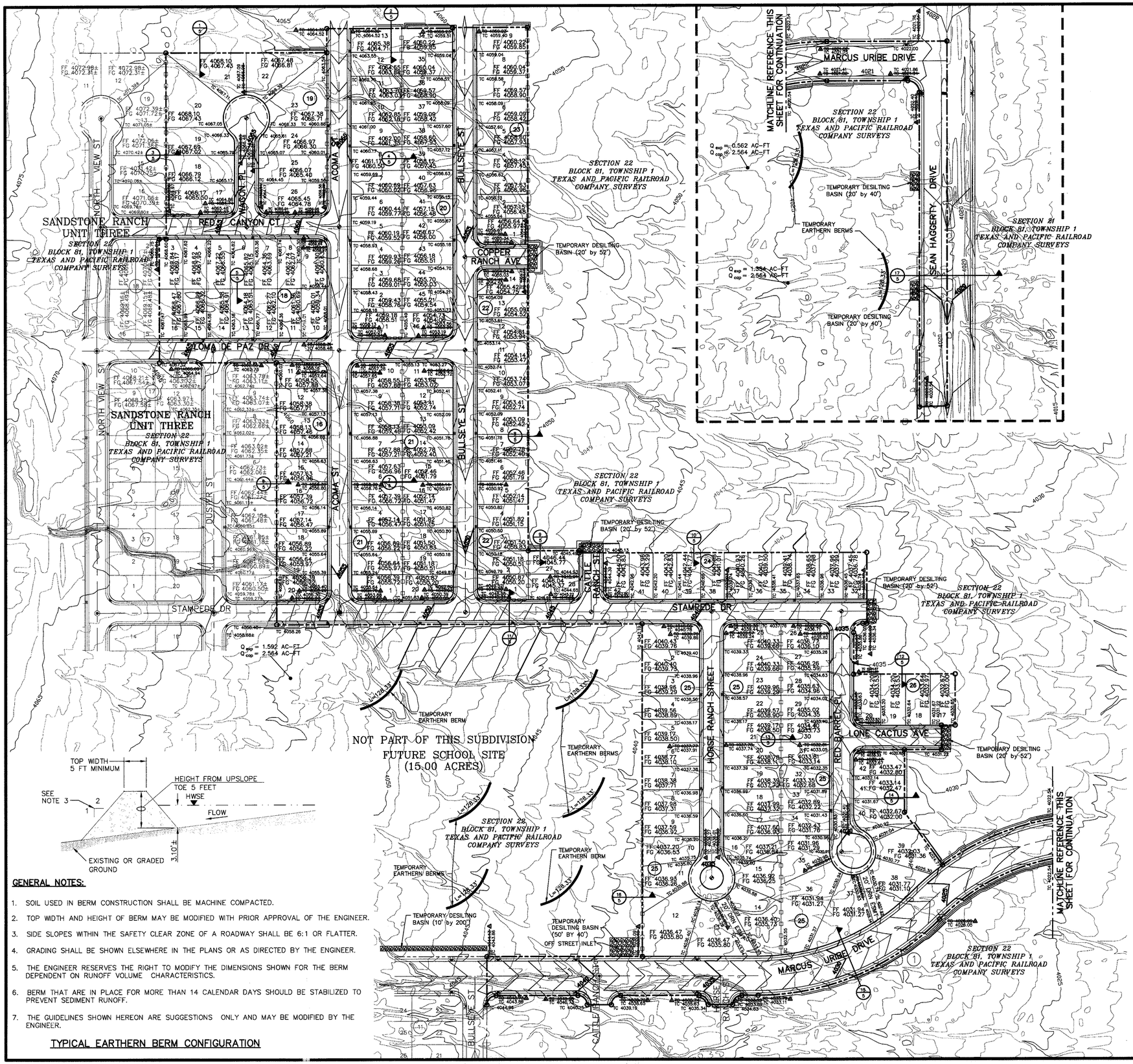
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: JLA.
APPVD. BY: JLA.
JOB No. 2000-083-LD

PROJECT TITLE
SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE
DRAINAGE DETAILS
(SHEET 2 OF 2)

SHEET NO.
29
OF 33

RECORD DRAWINGS
THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.
6-28-2008



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 EARTHERN BERM CONFIGURATION

UTILITY LOCATOR SERVICES

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

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

RECORD DRAWINGS

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6-28-2008

LEGEND:

- NEW RETAINING ROCKWALL (2'-3' IN HEIGHT)
- NEW RETAINING ROCKWALL (3'-9' IN HEIGHT)
- 5' X 5' WHEELCHAIR PASSING
- EXISTING MINOR CONTOUR
- 4075 EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 4075 PROPOSED MAJOR CONTOUR

NOTES:

1. RETAINING WALLS SHALL BE CONSTRUCTED FOR VERTICAL GRADES GREATER THAN 2-FEET.
2. SLOPED AREAS WHITHIN 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.

BENCHMARK:

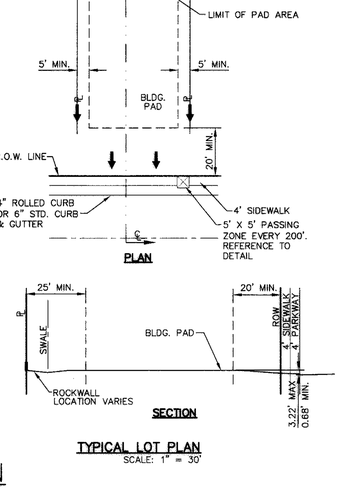
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

FLOOD ZONE:

THIS SUBDIVISION LIES WITHIN ZONE "C" AS DESIGNATED IN PANEL NO. 480214-0014 D, DATED OCTOBER 15, 1982, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "C" INDICATES AREAS OF MINIMAL FLOODING.

GRADING PLAN

SCALE: 1" = 100'



TYPICAL LOT PLAN

SCALE: 1" = 30'

NOTES:

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 SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
6/28/08	AS PER AS BUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE
85075
STATE OF TEXAS
PROFESSIONAL ENGINEER

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

GRADING PLAN

SHEET NO.

3

OF 33

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5527
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SOUTHWESTERN BELL TELEPHONE	(800) 828-5127
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
	(915) 621-6872

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

RECORD DRAWINGS
WARNING: THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA ENGINEERING GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE HELD RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MIGHT BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

FOUNDATION PLAN
1/8" = 1'-0"
NORTH

1 S1.0 **SECTION** 1/4"=1'-0"

2 S1.0 **SECTION** 1/4"=1'-0"

3 S1.0 **SECTION** 1/4"=1'-0"

GENERAL NOTES:

1. FOUNDATION & WALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. DECK CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. CONCRETE SHALL BE AIR ENTRAINED (8 + OR – 1.5%). CONCRETE SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.45. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318, LATEST EDITION.

2. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615 (GRADE 60). ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315, LATEST EDITION, UNLESS DETAILED OTHERWISE ON THIS DRAWING. CONCRETE COVER OVER STEEL REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ACI 318R-02.

3. COMPACT GROUND SURFACE TO 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D1557. IF COMPACTION IS NOT ACHIEVED WITH EXISTING SITE SOIL PROVIDE ENGINEERING FILL TO MEET SPECIFIED COMPACTION REQUIREMENTS.

4. PROVIDE CONTINUOUS WATERSTOPS AT ALL CONSTRUCTION JOINTS AND AROUND ALL PIPE OPENINGS. WATERSTOPS BY CETCO OR EQUAL. WATERSTOP TO BE FLEXIBLE STRIP OF BENTONITE 1 INCH BY 3/4 INCH COMPOSED OF BUTYL RUBBER HYDROCARBON (ASTM D297), BENTONITE (SS-S-210-A) AND VOLATILE MATTER (ASTM D6).

4 S1.0 **SECTION** 3/4"=1'-0"

5 S1.0 **SECTION** 3/4"=1'-0"

6 S1.0 **SECTION** 3/4"=1'-0"

7 S1.0 **SECTION** 3/4"=1'-0"

8 S1.0 **SECTION** 3/4"=1'-0"

NO.	DATE	REVISION REMARKS	BY

TEXAS FAR WEST CONSTRUCTION & ENGINEERING
2910 GATEWAY E. BLVD. EL PASO, TEXAS 79905 915-351-3933

ENGINEER'S SEAL
RAUL MEZA, JR. 86994 PROFESSIONAL ENGINEER
8/8/07

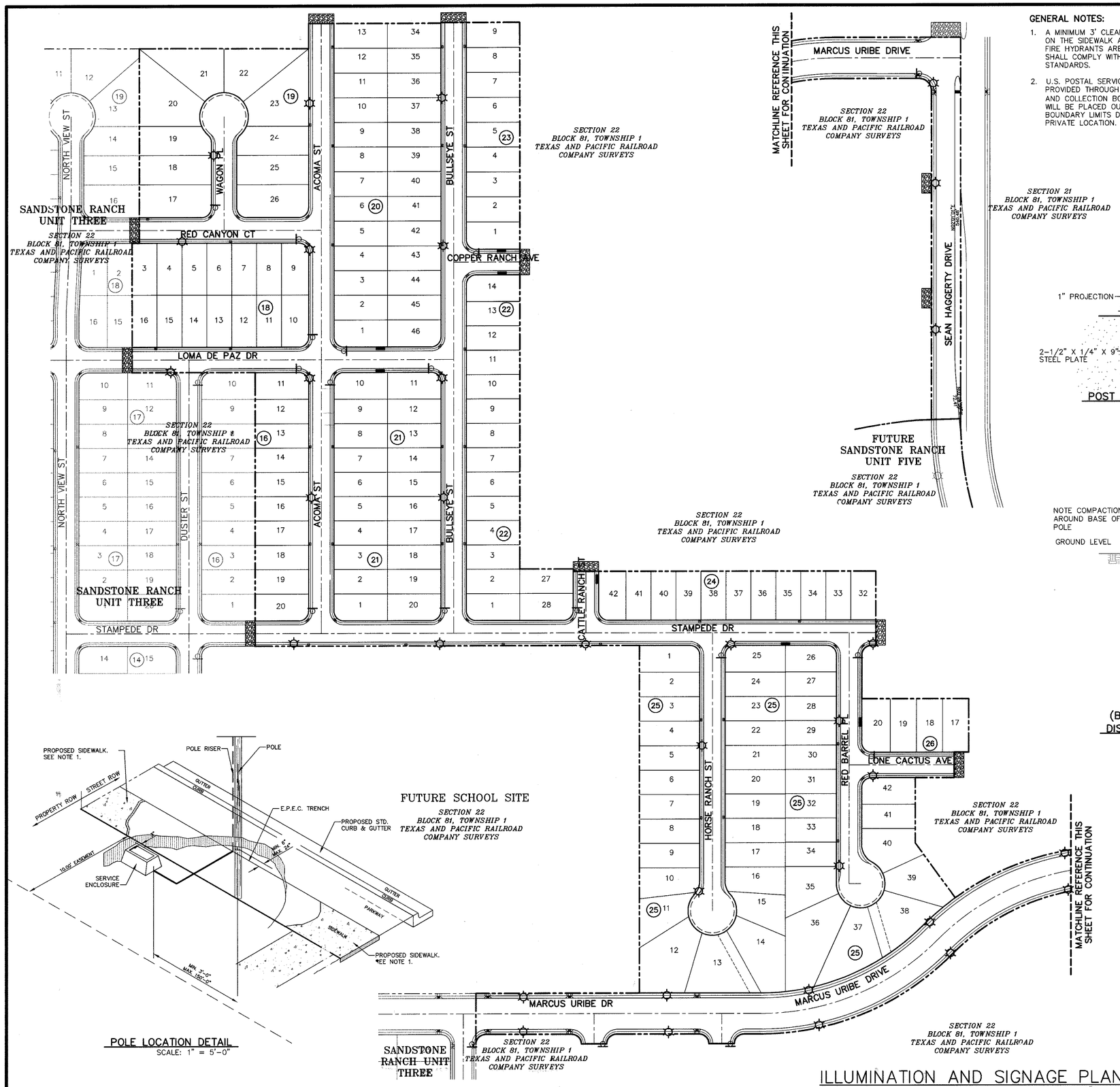
SCALE
HOR. NA
VER. NA

DATE MARCH 8, 2007
DESIGN BY R.M.
DRAWN BY R.M.
CHKD BY R.M.
APPD BY R.M.

PROJECT TITLE
SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE
SD-8 MJB FOUNDATION PLAN, SECTIONS & NOTES

SHEET NO.
S1.0



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 NEIGHBOP OOD DELIVERY AND COLLECTION BOX UNITS (NDCBU) THAT WILL BE PLACED OUTSIDE SUBDIVISION BOUNDARY LIMITS DUE TO THE SUBDIVISION PRIVATE LOCATION.

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
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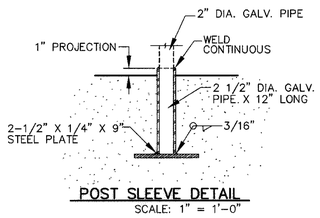
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

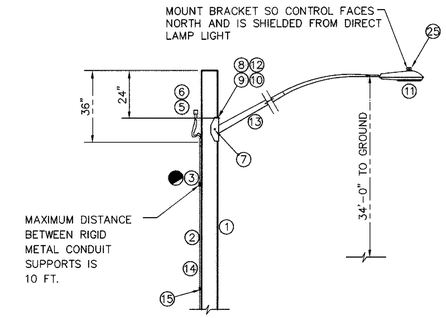
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

LEGEND:

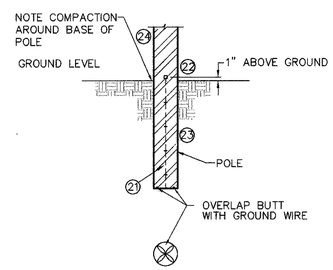
- EXISTING RESIDENTIAL STREET LIGHT
- PROPOSED RESIDENTIAL STREET LIGHT
- PROPOSED 9" STREET NAME AND 30" STOP SIGN
- PROPOSED 9" STREET NAME SIGN (TWO SIGNS)
- NDCBU



POST SLEEVE DETAIL
SCALE: 1" = 1'-0"



STREET LIGHT DETAIL
SCALE: 1" = 3'-0"

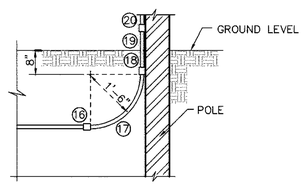


BOTTOM VIEW

(BUTT GROUNDING) DISTRIBUTION DETAIL
SCALE: 1" = 2'-0"

ITEM	QTY.	DESCRIPTION
1	1	POLE, PENTA TREATED PINE 40' CLASS III
2	27	1/2" RIGID GALVANIZED STEEL CONDUIT
3	4	TWO HOLE STEEL PIPE STRAP FOR 1/2" CONDUIT
4	8	1/4" x 1" LAG BOLT
5	1	PHOTO CELL RECEPTACLE WITH 1/2" THREADED BASE AND MOUNTING BRACKET
6	1	PHOTO CELL 240V.
7	4	1/2" x 4" LAG BOLT
8	1	WASHER, SQ. GALV. 2-1/4" x 2-1/4"
9	1	MACHINE BOLT 5/8" x 8"
10	1	LOCKNUT 5/8"
11	1	LUMINARE 100W H.P.S.
12	1	WASHER, COIL SPRING 5/8"
13	1	STEEL LUMINAIRE SUPPORT (10' OR 8') UNION METAL MANUF. CO. DESIGN 348 OR EQUIVALENT
14		2 – #12 COPPER WIRES WITH THW INSULATION
15	1	GROUND CLAMP FOR 1/2" RIGID CONDUIT
16	1	1/2" SCHEDULE 40 PVC COUPLING
17	1	1/2" SCHEDULE 40 PVC 18" RADIAL BEND
18	1	1/2" SCHEDULE 40 PVC FEMALE ADAPTER
*19	1	1/2" x 8" PVC COATED RIGID STEEL CONDUIT NIPPLE
*20	1	1/2" PVC COATED RIGID STEEL COUPLING
21		COPPER WIRE, #6 BARE SOLID HARD DRAWN
22		ALUMINUM WIRE, #4 BARE SOLID HARD DRAWN
23	1/2#	STAPLE, GALV. 1-1/2" NO. 9
24	1	SPLICE, #4 SOLID ALUM. TO #6 SOLID CU.
25	1	PHOTOCELL, 240V

* MUST MEET OCCIDENTAL COATING CO. SPECS.



POLE RISER DETAIL
SCALE: 1" = 2'-0"

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

ILLUMINATION AND SIGNAGE PLAN
SCALE: 1" = 100'

RECORD DRAWINGS

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6-28-2006

REFERENCES – BENCHMARKS
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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www.ceaeg roup.net

ENGINEER'S SEAL
JORGE L. ACCARATE 85075 LICENSED PROFESSIONAL ENGINEER

SCALE
Horizontal: 1"=100'
Vertical: N/A
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE
SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE
ILLUMINATION AND SIGNAGE PLAN

SHEET NO.
30
OF 33

SITE DESCRIPTION

PROJECT NAME AND LIMITS: SANDSTONE RANCH UNIT FOUR
SECTION 22, BLOCK 81, TOWNSHIP 1, TEXAS & PACIFIC RAIL ROAD COMPANY SURVEYS (FUTURE SCHOOL SITE) TO THE SOUTHWEST, SANDSTONE RANCH UNIT THREE TO THE WEST, SECTION 22, BLOCK 81, TOWNSHIP 1, TEXAS & PACIFIC RAILROAD COMPANY SURVEYS TO THE NORTH, EAST, AND SOUTH.

PROJECT DESCRIPTION: THE SITE FOR THE NEW SUBDIVISION WILL ENCOMPASS APPROXIMATELY 35.61± ACRES, AND WILL CONTAIN 151 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: 35.61± A.C.

TOTAL AREA TO BE DISTURBED: 50.75± A.C.

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.730

EXISTING CONDITION OF SOIL AND VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: THE PROJECT SITE IS LOCATED IN THE VICINITY OF THE TURNEY-BERINO ASSOCIATION: NEARLY LEVEL AND GENTLY SLOPING SOILS THAT HAVE A CLAY LOAM SUBSOIL AND ARE MODERRATELY DEEP OVER; IN THE HUECO BOLSON.

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

ERO°ION AND SEDIMENT CONTROL

SOIL STABILIZATION PRACTICES

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

OTHER:

STRUCTURAL PRACTICES:

- X SILT FENCES OR EATHERN BERMS
- ___ HAY BALES
- ___ ROCK BERMS
- ___ DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- ___ DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- ___ DIVERSION DIKE AND SWALE COUBINATION
- ___ PIPE SLOPE DRAINS
- ___ CONCRETE FLUMES
- X ROCK BEDDING AT CONSTRUCTION EXIT
- ___ TIMBER MATTING AT CONSTRUCTION EXIT
- ___ CHANNEL LINERS
- ___ SEDIMENT TRAPS
- ___ SEDIMENT BASINS
- ___ STORM INLET SEDIMENT TRAP
- ___ STONE OUTLET STRUCTURES
- X CURBS AND GUTTERS
- ___ STORM DRAINS
- X 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 EARTHERN 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 SWPP BEST MANAGEMENT PRACTICES (COMPLETE IN PLACE) ITEMS. THE SWPPP PROJECT MANUAL IS AVAILABLE FOR REVIEWING AT THE CITY OF EL PASO – ENGINEERING DEPARTMENT. UPON SELECTION, THE CONTRACTOR WILL BE PROVIDED AN SWPPP MANUAL. THE CONTRACTOR SHALL MAINTAIN THIS MANUAL AT THE CONSTRUCTION SITE AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD.
3. THE CONTRACTOR SHALL COMPLETE AND SUBMIT ALL REGULATORY FORMS AND APPLICATIONS, AS PROVIDED IN THE SWPPP MANUAL, INCLUDING, BUT NOT LIMITED TO; NOI, NOT, SDPCP, AND ANY OTHER FORM REQUIRED BY THE CITY OF EL PASO AND TCEQ.
4. ALLOWABLE STORM WATER AND NON-STORMWATER DISCHARGE SHALL COMPLY WITH 15.20.080 (GENERAL PROHIBITION) AND 15.20.090 (SPECIFIC PROHIBITIONS AND REQUIREMENTS) OF THE CITY OF EL PASO STORM DRAIN POLLUTION CONTROL PLAN ORDINANCE. NON-STORMWATER DISCHARGES MAY CONSIST OF, BUT ARE NOT LIMITED TO, THE DISCHARGE RESULTING FROM FIREFIG-TING, LAWN WATERING, LANDSCAPE IRRIGATION, NATURAL SPRING, AND/OR AGRICULTURAL STORM WATER RUNOFF.
5. REFER TO DRAINAGE PLAN SHEET 4, 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 HAULLD 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 COI POUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION AND CONTACT THE FIRE DEPT. AND TNRCC.

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 SHALI 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 CON°TRUCTED 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 SHA L BE COVERED WITH TARPAULIN
- EXCESS DIRT ON ROAD SHALL BE REMOVED IMMEDIATELY
- STABILIZED CONSTRUCTION ENTRANCE
- OTHER:

XII. REFER TO SWPPP REPORT FOR ADDITIONAL INFORMATION.

RECORD DRAWINGS
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6-28-2006

SDPCP #: __-____
SDPCP DATE: __-__-__

REFERENCES – BENCHMARKS
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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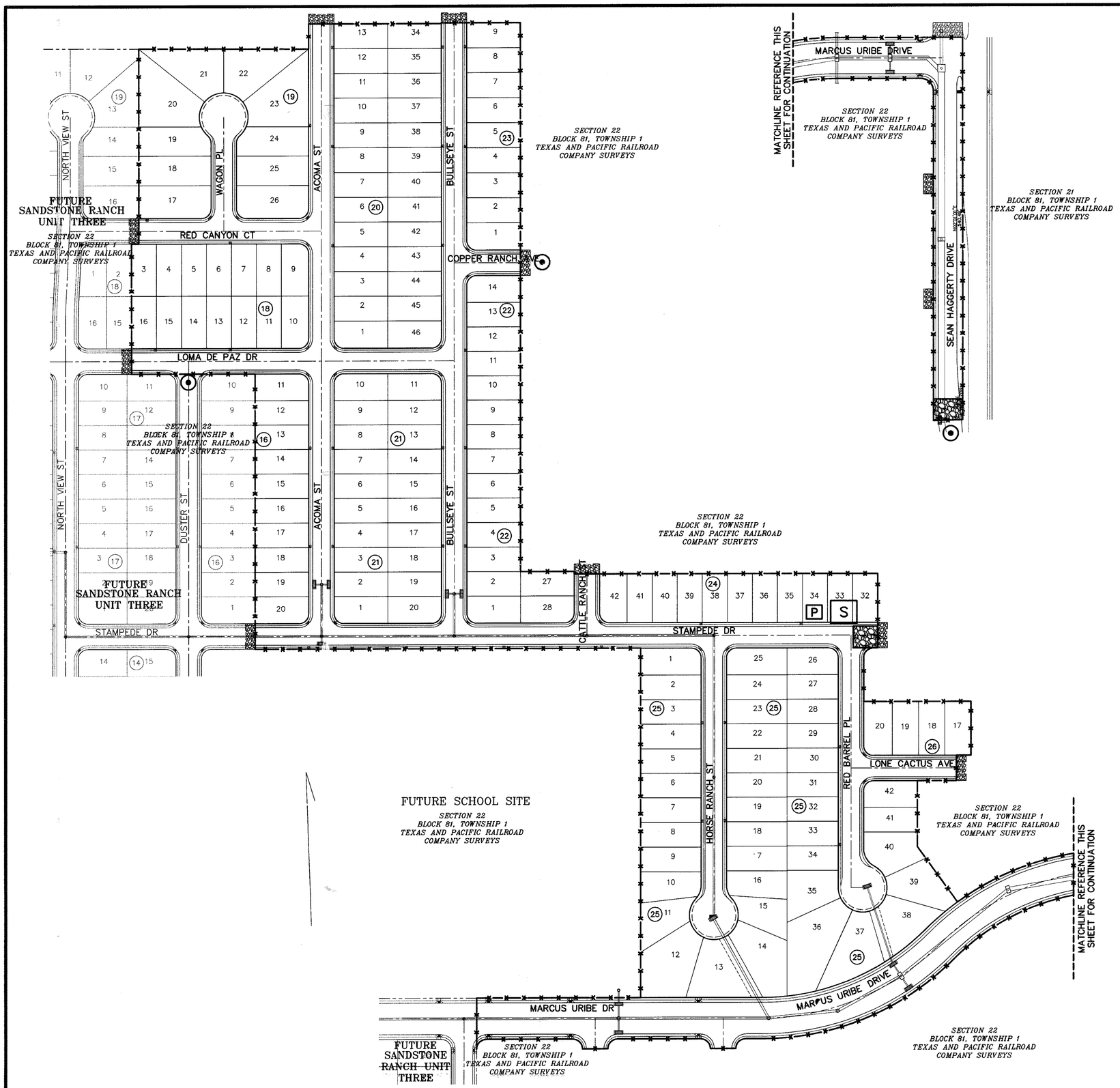
ENGINEER'S SEAL
STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER

SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE
SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE
STORM WATER POLLUTION PREVENTION PLAN: GENERAL NOTES

SHEET NO.
31
OF 33



SITE 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
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

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

RECORD DRAWINGS

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6-28-2008

LEGEND

- —X—X— SILT FENCE OR EARTHERN BERM
- STABILIZED CONSTRUCTION ENTRANCE
- S — STAGING AREA
- P — PORTABLE TOILETS
- OUTFALL

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 & 23 T.C.W. WORK: 10°37'2.4"(NAD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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ENGINEER'S SEAL

STATE OF TEXAS — JORGE L. AZCARATE — 85075 — REGISTERED PROFESSIONAL ENGINEER — 7-1-08

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

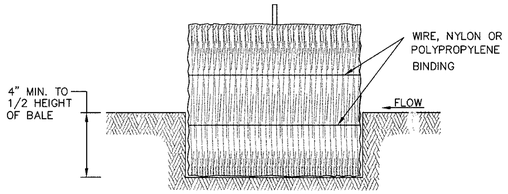
SHEET TITLE

STORM WATER POLLUTION PREVENTION PLAN: SITE PLAN

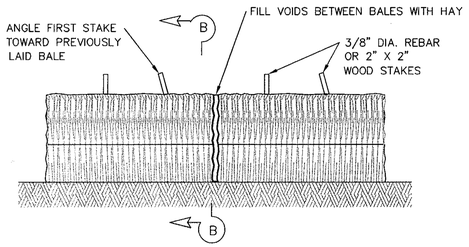
SHEET NO.

32

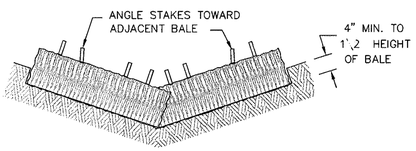
OF 33



SECTION B–B



BALED HAY FOR EROSION CONTROL



PROFILE VIEW

BALED HAY USAGE GUIDELINES

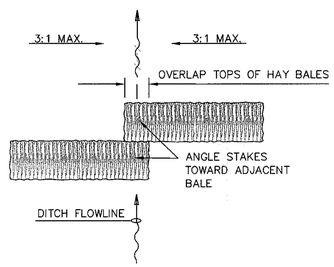
A BALED HAY INSTALLATION MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A TWO YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED. THE INSTALLATION SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 5 GPM/FT^2 OF CROSS SECTIONAL AREA. BALED HAY MAY BE USED AT THE FOLLOWING LOCATIONS:

1. WHERE THE RUNOFF APPROACHING THE BALED HAY FLOWS OVER DISTURBED SOIL FOR LESS THAN 100'. IF THE SLOPE OF THE DISTURBED SOIL EXCEEDS 10%, THE LENGTH OF SLOPE UPSTREAM THE BALED HAY SHOULD BE LESS THAN 50'.
2. WHERE THE INSTALLATION WILL BE REQUIRED FOR LESS THAN 3 MONTHS.
3. WHEKE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1/2 ACRE.

FOR BALED HAY INSTALLATIONS IN SMALL DITCHES, THE ADDITIONAL FOLLOWING CONSIDERATIONS APPLY:

1. THE DITCH SIDESLOPES SHOULD BE GRADED AS FLAT AS POSSIBLE TO MAXIMIZE THE DRAINAGE FLOWRATE THRU THE HAY.
2. THE DITCH SHOULD BE GRADED LARGE ENOUGH TO CONTAIN THE OVERTOPPING DRAINAGE WHEN SEDIMENT HAS FILLED TO THE TOP OF THE BALED HAY.

BALES SHOULD BE REPLACED USUALLY EVERY 2 MONTHS OR MORE OFTEN DURING WET WEATHER WHEN LOSS OF STRUCTURAL INTEGRITY IS ACCELERATED.

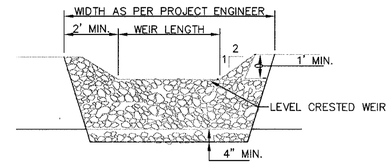


PLAN VIEW

GENERAL NOTES

1. HAY BALES SHALL BE A MINIMUM OF 30" IN LENGTH AND WEIGH A MINIMUM OF 50 LBS.
2. HAY BALES SHALL BE BOUND BY EITHER WIRE OR NYLON OR POLYPROPYLENE STRING. THE BALES SHALL BE COMPOSED ENTIRELY OF VEGETABLE MATTER.
3. HAY BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND WHERE POSSIBLE 1/2 THE HIEGHT OF THE BALE.
4. HAY BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
5. HAY BALES SHALL BE SECURELY ANCHORED IN PLACE WITH 3/8" DIA. REBAR OR 2" X 2" WOOD STAKES, DRIVEN THROUGH THE BALES. THE FIRST STAKE SHALL BE ANGLED TOWARDS THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

BALED HAY FOR EROSION CONTROL



PROFILE

ROCK FILTER DAM USAGE GUIDELINES

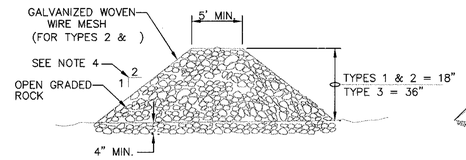
ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF AND/OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THROUGH RATE OF 60 GPM/FT^2 OF CROSS SECTIONAL AREA. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW 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 A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROX. 8 FT/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.

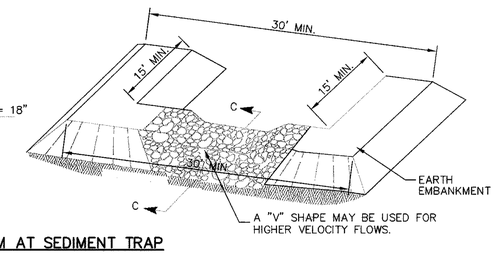
TYPE 2 (18" HIGH WITH WIRE MESH): TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

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

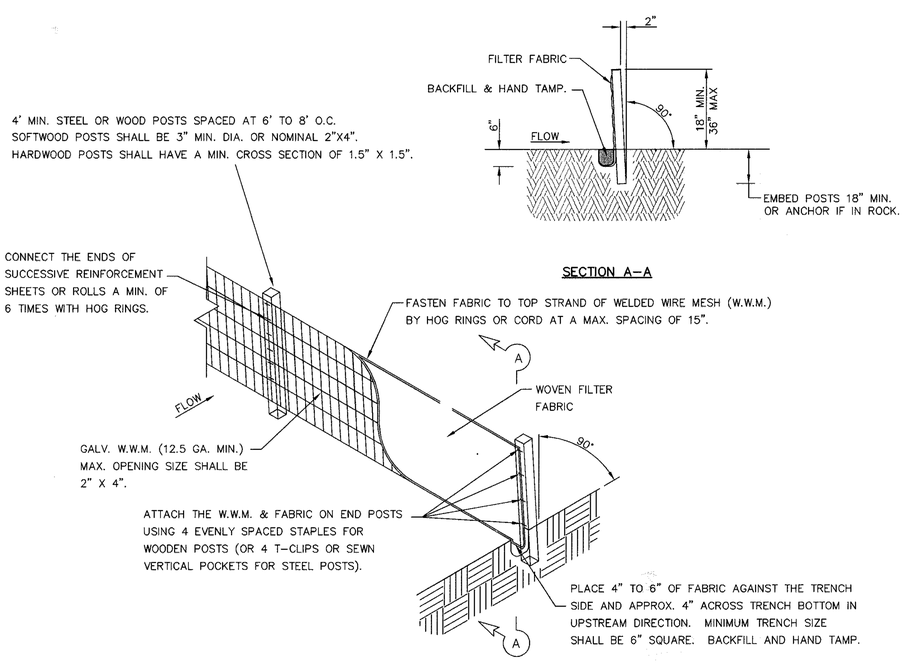
TYPE 4 (SACK GABIONS): TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.



SECTION C–C

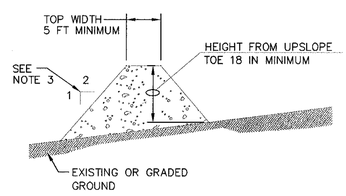


FILTER DAM AT SEDIMENT TRAP



SECTION A–A

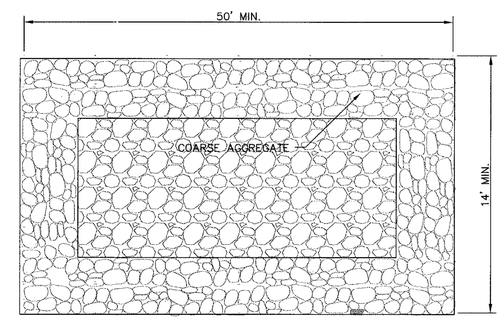
TEMPORARY SEDIMENT CONTROL FENCE



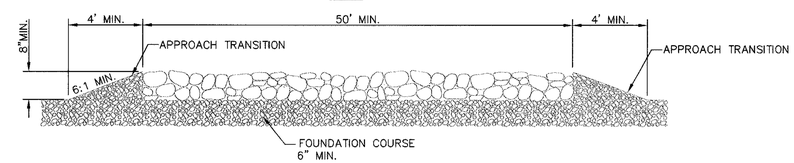
GENERAL NOTES:

1. SOIL USED IN BERM CONSTRUCTION SHALL BE MACHINE COMPACTED.
2. TOP WIDTH AND HEIGHT OF BERM MAY BE MODIFIED WITH PRIOR APPROVAL OF THE ENGINEER.
3. SIDE SLOPES WITHIN THE SAFETY CLEAR ZONE OF A ROADWAY SHALL BE 6:1 OR FLATTER.
4. GRADING SHALL BE SHOWN ELSEWHERE IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. THE ENGINEER RESERVES THE RIGHT TO MODIFY THE DIMENSIONS SHOWN FOR THE BERM DEPENDENT ON RUNO-F 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



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)

RECORD DRAWINGS
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6-23-2008

REFERENCES – BENCHMARKS

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

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

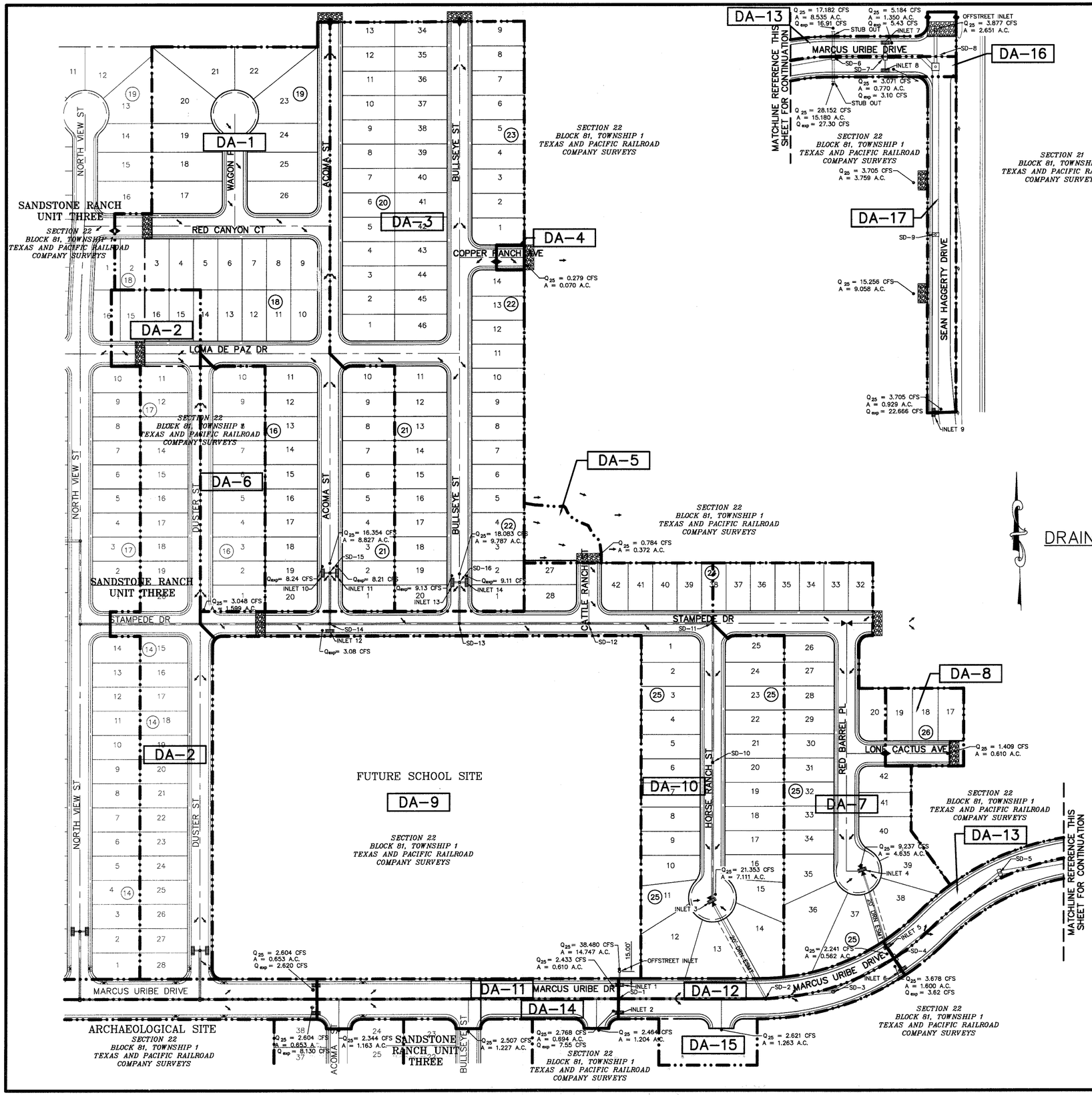
ENGINEER'S SEAL
JORGE L. AZCARATE 85075 Licensed PROFESSIONAL ENGINEER STATE OF TEXAS

SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J. A.
APPVD. BY: JLA.
JOB No. 2000-083-LD

PROJECT TITLE
SANDSTONE RANCH UNIT FOUR
SUBDIVISION IMPROVEMENTS

SHEET TITLE
STORM WATER POLLUTION PREVENTION PLAN: DETAILS

SHEET NO.
33
OF 33



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) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

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

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6-28-2008

SD - STORM DRAIN JUNCTION BOX OR MANHOLE

WATERSHED AREAS

DRAINAGE AREA NO. (1)	DRAINAGE AREA (AC) (2)	DESIGN STORM INTENSITY (I25) (3)	TIME OF CONCENTRATION (4)	RUNOFF COEFF. (C) (5)	Q25 (CFS) (6)
DA-1	8.827	2.743	26.86	0.676	16.354
DA-2	4.885	2.705	27.51	0.700	9.245
DA-3	9.787	2.766	26.47	0.668	18.083
DA-4	0.070	4.431	10.00	0.900	0.279
DA-5	0.372	3.510	17.00	0.600	0.784
DA-6	1.599	2.892	24.50	0.659	3.048
DA-7	4.635	2.960	23.50	0.673	9.237
DA-8	0.610	3.318	19.00	0.696	1.409
DA-9	14.747	3.070	22.00	0.850	38.480
DA-10	7.111	4.337	10.57	0.692	21.353
DA-11	0.610	4.431	10.00	0.900	2.433
DA-12	0.562	4.431	10.00	0.900	2.241
DA-13	1.350	4.431	10.00	0.900	5.184
DA-14	0.694	4.431	10.00	0.900	2.768
DA-15	1.600	2.996	23.00	0.767	3.678
DA-16	0.770	4.431	10.00	0.900	3.071
DA-17	0.929	4.431	10.00	0.900	3.705

* Q25 IS BASED ON DEVELOPED RUNOFF

REFERENCE: CITY OF EL PASO SUBDIVISION STANDARDS (3-11-97)

(1) WATERSHED AREA IDENTIFICATION

(2) AREA FROM DRAINAGE PLAN

(3) RAINFALL INTENSITY, 25 YEAR STORM => PLATE NO. 2-14

(4) TIME OF CONCENTRATION: TC= T (OVERLAND) + T (GUTTER)

(5) RUNOFF COEFFICIENT => PLATE NO. 2-10 TABLE A
UNDEVELOPED AREA = 0.33
RESIDENTIAL AREA = 0.60
PAVEMENT AREA = 0.90

(6) Q_{25}= C X A X I_{25}

(7) REFERENCE PATRIOT PALMS APARTMENTS FOR ADDITIONAL INFORMATION FOR FUTURE DEVELOPMENT

DROP INLETS

NO.	REQ. FLOW CAPACITY Q REQ (CFS)	AVAIL. FLOW CAPACITY Q AVAIL. (CFS)	ADDITIONAL FLOW (CFS)	FLOW BYPASS (CFS)	# OF GRATES	TYPE OF INLET
1	2.433	19.630	0	0	2	I
2	7.550	19.630	0	0	2	I
3	21.353	23.050	0	0	3	II
4	9.237	15.000	0	0	2	II
5	2.241	19.630	0	0	2	I
6	3.678	19.630	0	0	2	I
7	5.430	19.630	0	0	2	I
8	3.071	19.630	0	0	2	I
9	22.666	29.690	0	0	3	I
10	8.240	19.630	0	0	2	I
11	8.210	19.630	0	0	2	I
12	3.080	19.630	0	0	2	I
13	9.130	19.630	0	0	2	I
14	9.110	19.630	0	0	2	I

MOMENTUM COMPUTATION

LOCATION @ INLET (1)	DEPTH (2)	VELOCITY (3)	PRODUCT NUMBER (4)
1	0.166	2.912	0.483
2	0.254	3.864	0.981
3	0.479	3.074	1.472
4	0.350	2.493	0.872
5	0.195	3.215	0.627
6	0.194	3.209	0.624
7	0.282	2.158	0.608
8	0.231	1.893	0.438
9	0.335	2.679	0.899
10	0.334	2.419	0.808
11	0.334	2.419	0.808
12	0.170	3.481	0.592
13	0.331	2.721	0.901
14	0.331	2.721	0.901

(1) LOCATION

(2) DEPTH

(3) VELOCITY

(4) PRODUCT NUMBER = DEPTH X VELOCITY

REFERENCES - BENCHMARKS

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

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JOHN J. LACAYO JR. 85075 REGISTERED PROFESSIONAL ENGINEER

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

DRAINAGE PLAN

SHEET NO.

4

OF 33

RECORD DRAWINGS

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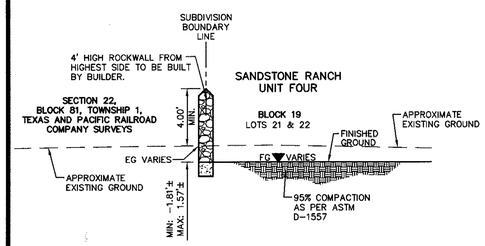
6-26-2008



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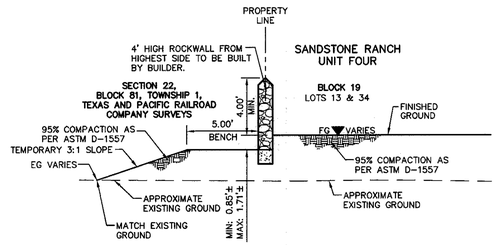

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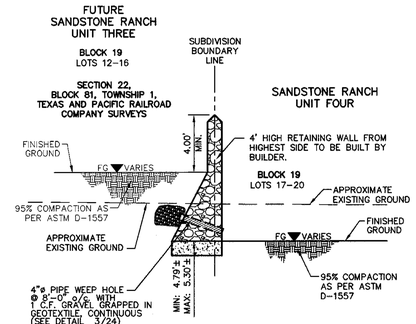

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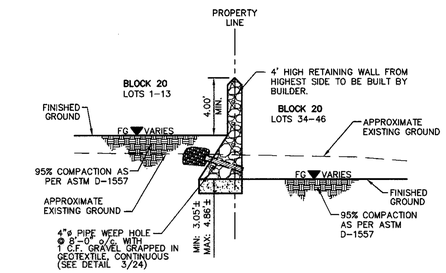

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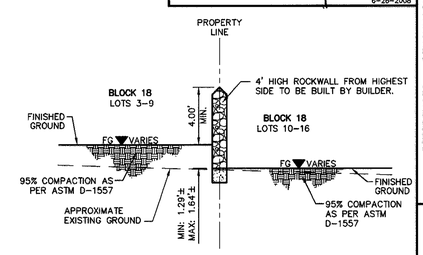

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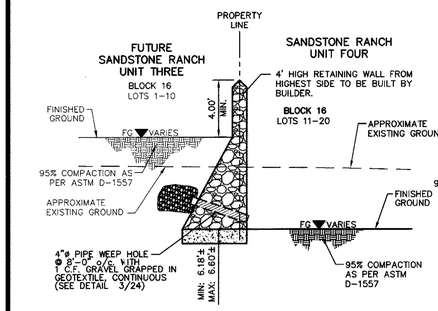

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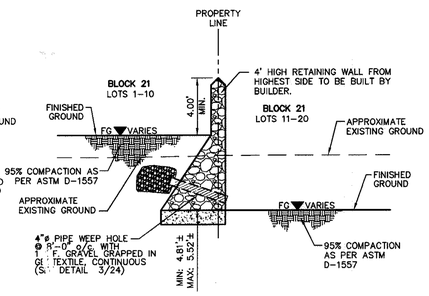

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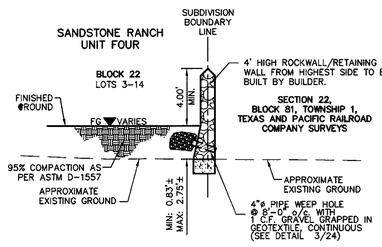

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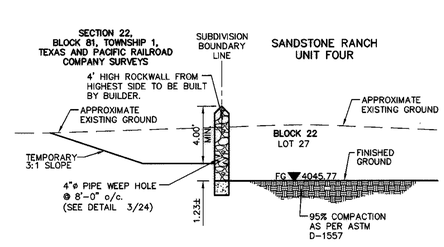

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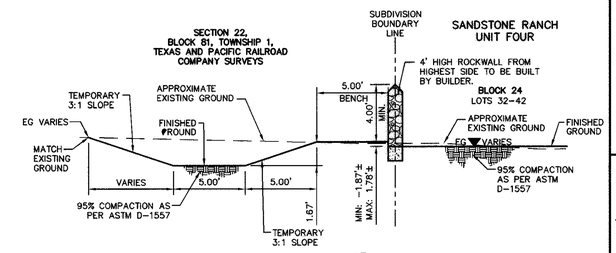

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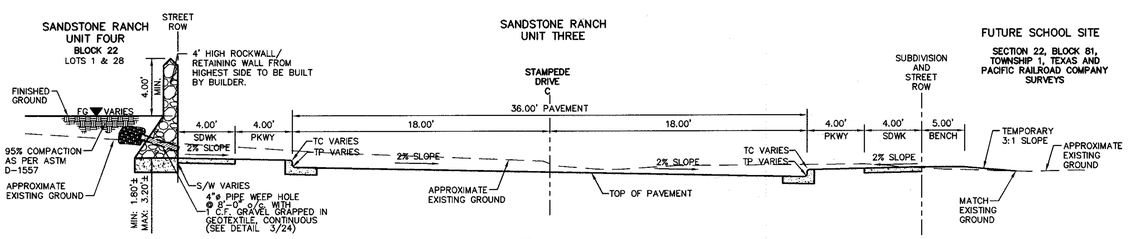

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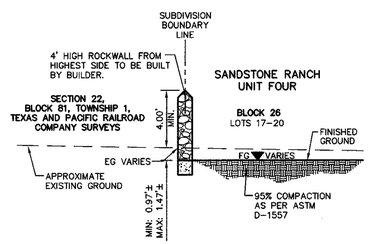

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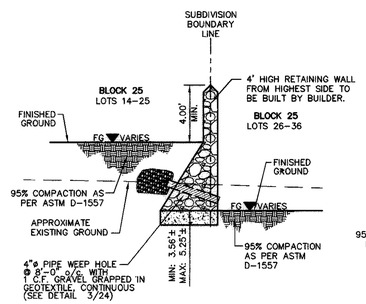

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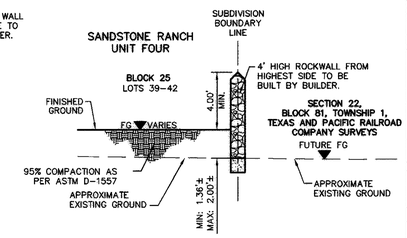

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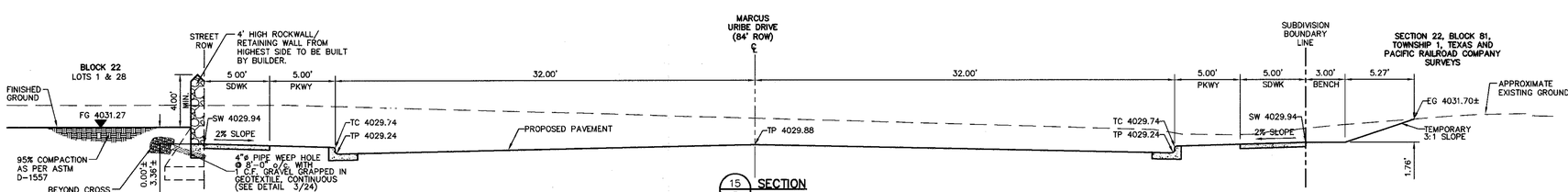

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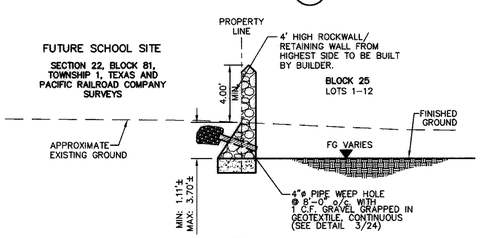

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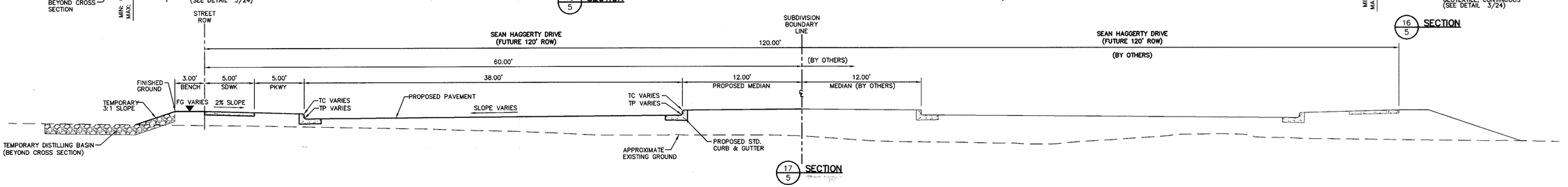

17/5 SECTION

REFERENCES – BENCHMARKS

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DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE 85075 TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2006-083-D

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

TYPICAL GRADING SECTIONS

SHEET NO.

5

OF 33

RECORD DRAWINGS

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6-26-2008

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1-800-344-8377
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REFERENCES - BENCHMARKS

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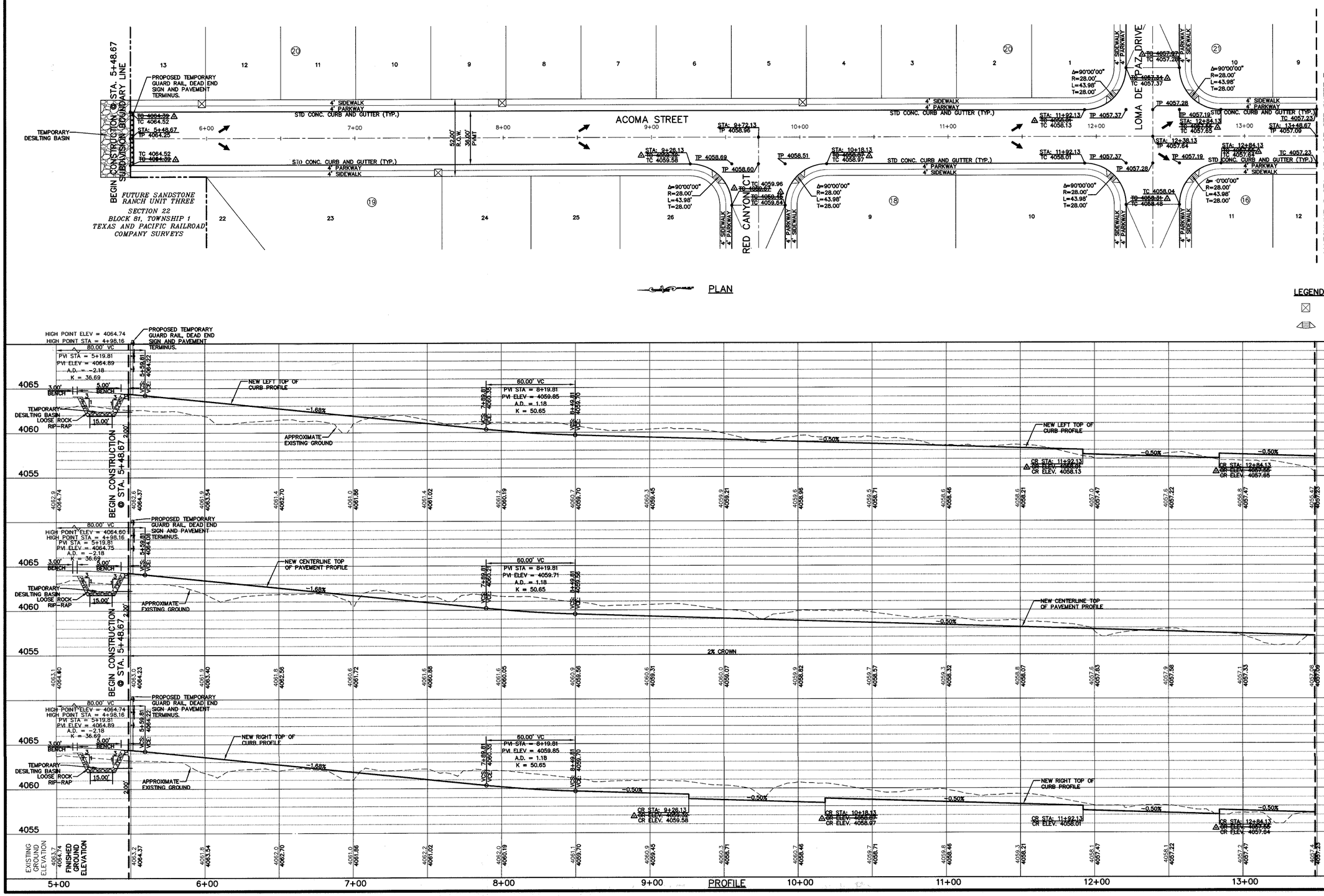
DATE	REVISIONS	BY
6/28/08	1 AS PER AS RUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office: 915.544.5232 Fax 915.544.5233
www.ceagroup.net



ENGINEER'S SEAL

JORGE L. ACCARATE
85075
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

SCALE	
Horizontal:	1"=30'
Vertical:	1"=5'
Contour Interval:	N/A
DATE:	JANUARY 2007
DESIGN BY:	A.B.
DRAWN BY:	A.B.
CHKD BY:	J.L.A.
APPVD BY:	J.L.A.
JOB No.	2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

ACOMA ST
PLAN & PROFILE
FROM STA. 5+48.67
TO STA. 13+48.67

SHEET NO.

6

OF 33

RECORD DRAWINGS

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6-28-2008

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MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 821-6750
(AFTER HOURS)	(915) 240-3220

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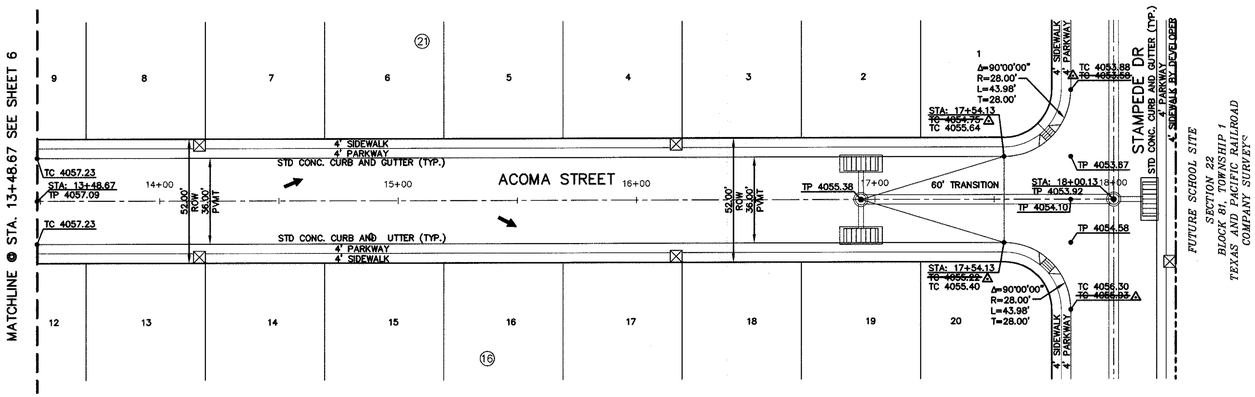
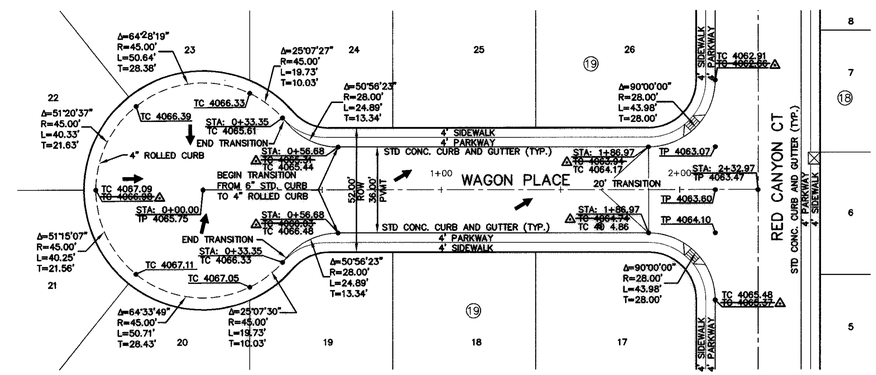
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



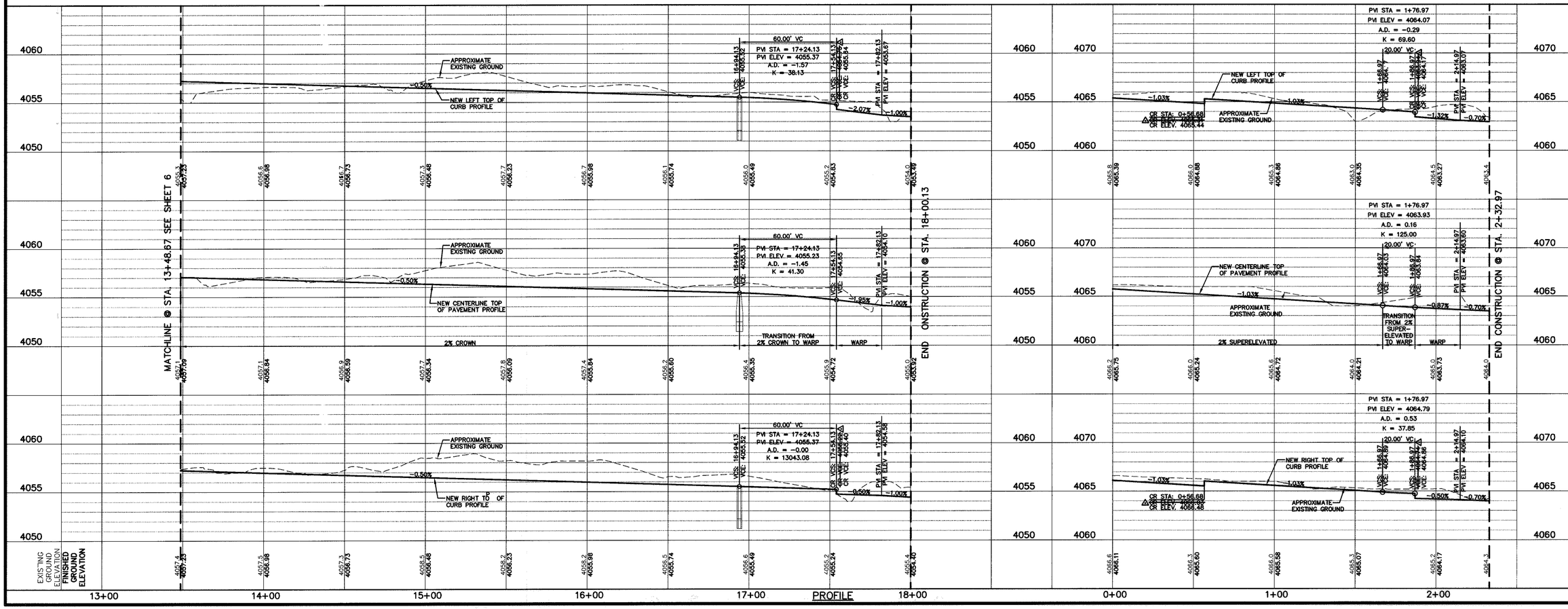
PLAN



PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)



REFERENCES - BENCHMARKS

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DATE	REVISIONS	BY
6/28/08	AS PER AS BUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE 86075 LICENSED PROFESSIONAL ENGINEER TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

ACOMA ST PLAN & PROFILE FROM STA. 13+48.67 TO STA. 18+00.13

WAGON PL PLAN & PROFILE FROM STA. 0+00.00 TO STA. 2+32.97

SHEET NO.

7

OF 33

RECORD DRAWINGS

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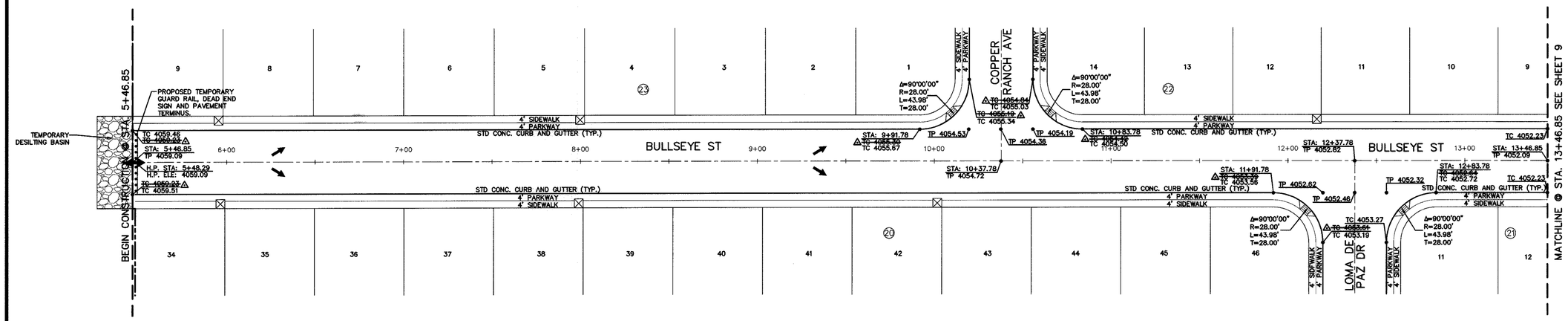
6-28-2008

UTILITY LOCATOR SERVICES

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

WARNING ! BEFORE YOU DIG

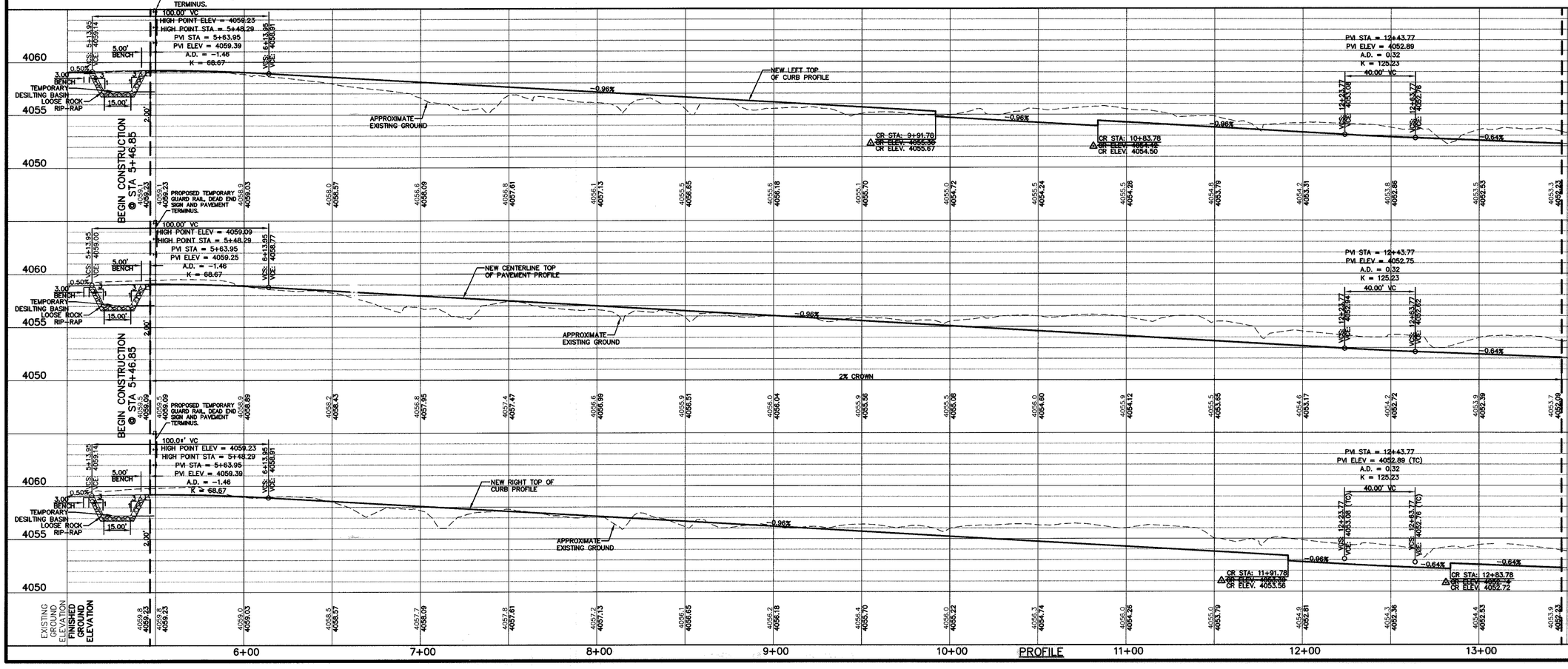
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)



PROFILE

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21; ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 6.462' TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
6/28/08	AS PER AS BUILT INFORMATION	A.B.

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

STATE OF TEXAS — JORGE L. AZCARATE — 85075 — LICENSED — PROFESSIONAL ENGINEER

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-083-LD

PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

BULLSEYE ST PLAN & PROFILE FROM STA. 5+46.8" TO STA. 13+46.85

SHEET NO.

8

OF 33

RECORD DRAWINGS

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6-26-2008

UTILITY LOCATOR SERVICES

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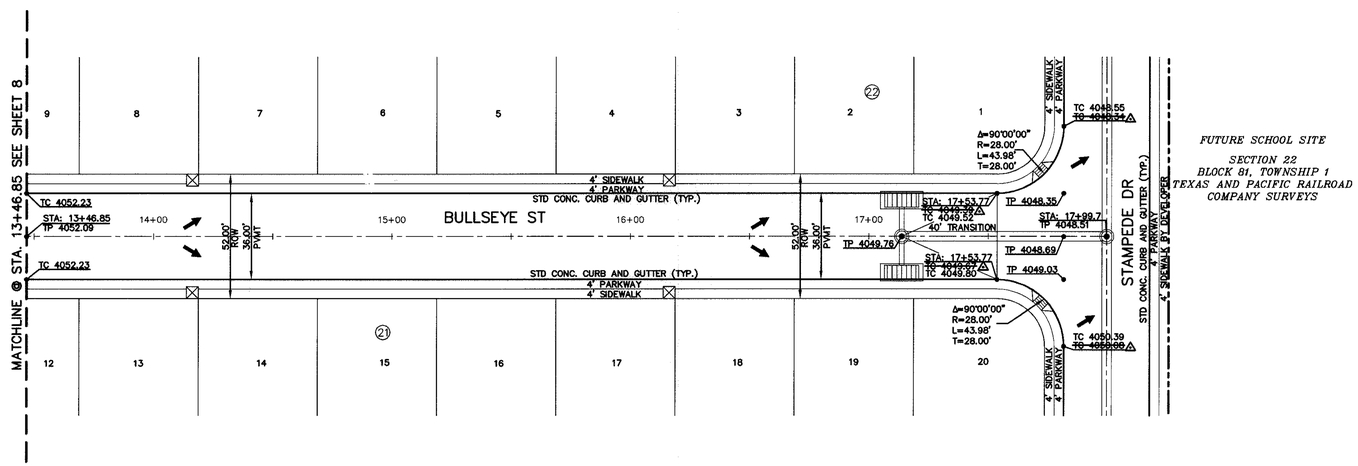
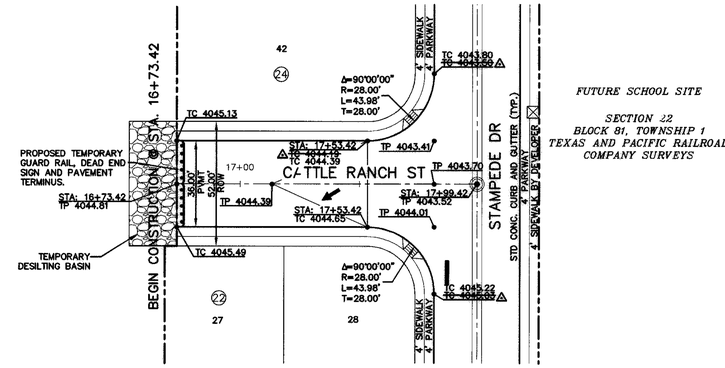


PLAN



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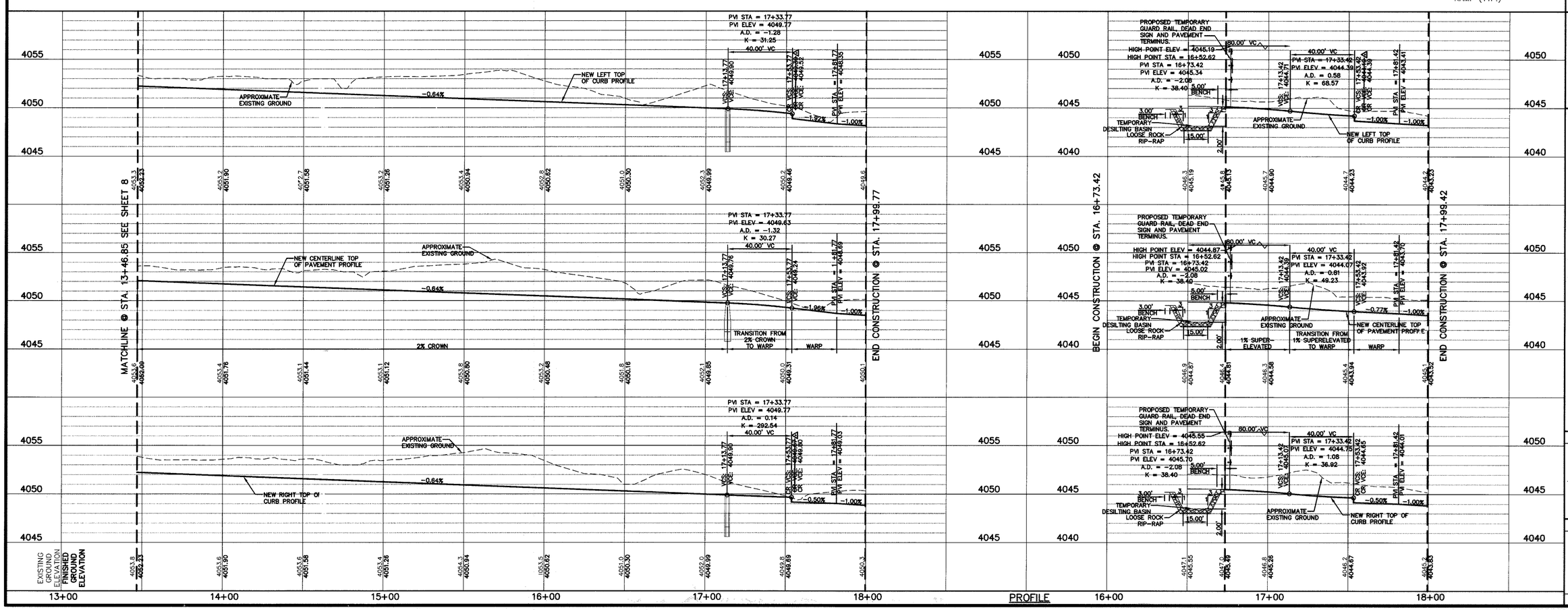

PROFILE

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ENGINEER'S SEAL

JORGE L. AZCARATE 85075 LICENSED PROFESSIONAL ENGINEER

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

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PROJECT TITLE

SANDSTONE RANCH UNIT FOUR SUBDIVISION IMPROVEMENTS

SHEET TITLE

BULLSEYE ST
PLAN & PROFILE
FROM STA. 13+46.85
TO STA. 17+99.77

CATTLE RANCH ST
PLAN & PROFILE
FROM STA. 16+73.42
TO STA. 17+99.42

SHEET NO.

9

OF 33