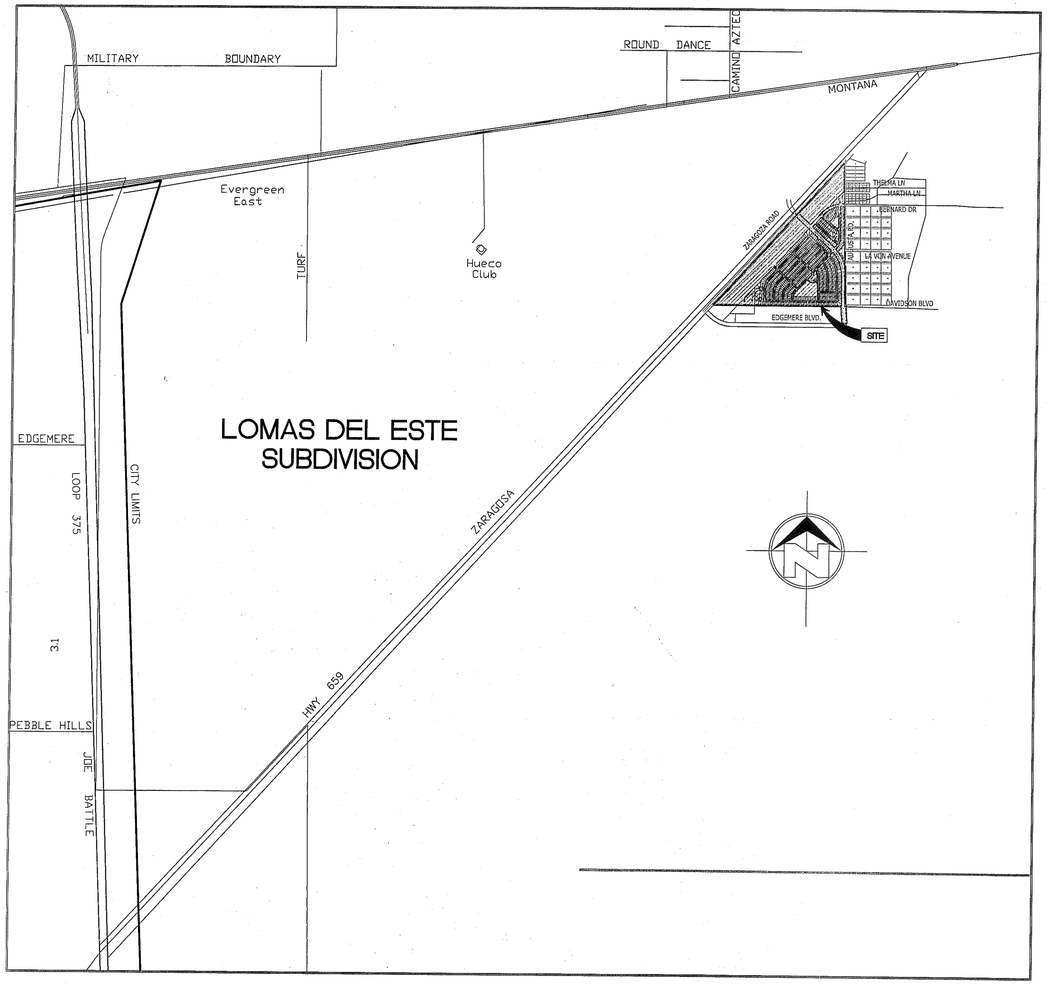
LOMAS DEL ESTE SUBDIVISION

STREET IMPROVEMENTS



LOCATION MAP

SCALE: 1"= 2,000'

ENGINEERING & CONSTRUCTION MANAGEMENT DEPARTMENT
SITE PLAN REVIEW
Reviewed For Conformance For conditions Related To:
- Demolition Only
- Grading & Drainage
- Wheelchair Ramps
- On Site Parking Layout
- Sidewalks
- Driveways
- Retaining Rock Walls
- On-Site Ponding of Storm Waters

Contractor Must Call 24 Hours Prior To Construction for Inspection
BY _____ DATE 1/14/13

PARKS DEPARTMENT
REVIEWED BY _____
Jan 14, 2013

INDEX OF SHEETS

C-01.0	COVER SHEET
C-02.0 - C-02.3	SUBDIVISION PLATS
C-03.0	GRADING PLAN (OVERALL)
C-03.1 - C-03.7	GRADING PLANS (ENLARGE)
C-03.8 - C-03.10	GRADING SECTION
C-04.0	DRAINAGE PLAN (OVERALL)
C-04.1 - C-04.2	DRAINAGE PLANS (ENLARGED)
C-05.0 - C-05.2	PLAN AND PROFILE LOMA ESMERALDA DR.
C-06.0 - C-06.3	PLAN AND PROFILE LOMA DANTE DR.
C-07.0 - C-07.2	PLAN AND PROFILE LOMA CORTEZ DR.
C-08.0 - C-08.2	PLAN AND PROFILE LOMA JACINTO DR.
C-09.0 - C-09.1	PLAN AND PROFILE BERNARD DR.
C-10.0	PLAN AND PROFILE LOMA REINA
C-11.0	PLAN AND PROFILE LOMA CRISTOBAL DR.
C-12.0 - C-12.4	PLAN AND PROFILE JOHN HAYES DR.
C-13.0 - C-13.2	PLAN AND PROFILE LOMA ADRIANA DR.
C-14.0 - C-14.1	PLAN AND PROFILE LOMA ESTHER DR.
C-15.0	PLAN AND PROFILE LOMA XAVIER DR.
C-16.0	PLAN AND PROFILE LOMA CHICA DR.
C-17.0 - C-17.2	PLAN AND PROFILE LOMA BRIZA DR.
C-18.0 - C-18.1	PLAN AND PROFILE LOMA DEL OESTE DR.
C-19.0	PLAN AND PROFILE LOMA ESTEBAN DR.
C-20.0	PLAN AND PROFILE LOMA CALDERA DR.
C-21.0 - C-21.5	STORM DRAIN PROFILES
C-22.0 - C-22.2	RETENTION POND LAYOUTS AND DETAILS
C-22.3	HEADWALL DETAILS
C-23.0 - C-23.1	INLET AND MISC. DETAILS (FLUMES AND RAMPS)
C-24.0 - C-24.2	TYP. DETAILS (MISCELLANEOUS)
C-25.0	ILLUMINATION PLAN
C-26.0 - C-26.1	SIGNAGE PLAN
C-27.0 - C-27.2	STORM WATER POLLUTION PREVENTION PLANS
C-28.0 - C-28.2	JOHN HAYES DR. STRIPING PLAN
C-28.3	BERNARD DR. STRIPING PLAN
C-28.4	TURNING HEELS STRIPING PLAN
C-29.0	ROCKWALL
LI-1-LI-8	LANDSCAPING PLANS

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED
PROFESSIONAL ENGINEER
11/30/12

SLI ENGINEERING, INC.
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS
6600 WESTWIND EL PASO, TEXAS (915) 584-4457

JULY 5, 2012

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-COVER.dwg 11/12/2012 4:40:12 PM MST

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 168.97 ACRES±

DEDICATION

STATE OF TEXAS
COUNTY OF EL PASO

RANCHOS REAL XV, LLC AND RIVER OAKS PROPERTIES, LTD PROPERTY OWNERS OF THIS LAND, HEREBY PRESENT THIS PLAT AND DEDICATE TO THE USE OF THE PUBLIC AS HEREON LAID DOWN AND DESIGNATED THE RETENTION PONDS, STREETS, PARKS, THE TEXAS GAS CO. R.O.W., THE 20' DRAINAGE AND P.S.B. R.O.W., AND UTILITY EASMENTS FOR OVERHANG OF SERVICE WIRES, POLE TYPE UTILITIES, BURIED SERVICE WIRES, CONDUITS AND PIPES FOR UNDERGROUND UTILITIES, AND THE RIGHT OF INGRESS AND EGRESS FOR SERVICE AND CONSTRUCTION AND THE RIGHT TO TRIM INTERFERING TREES AND SHRUBS

_____ DATE:_____
RANCHOS REAL XV, LLC
BY: ROBERT L. FOSTER, MANAGER

_____ DATE:_____
RIVER OAKS PROPERTIES, LTD
BY: ADAM FRANK, PRESIDENT

_____
NOTARY PUBLIC, STATE OF TEXAS

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY ROBERT L. FOSTER MANAGER OF RANCHOS REAL XV, LLC. ON BEHALF OF SAID LIMITED LIABILITY COMPANY, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME AS THE ACT AND DEED OF SAID COMPANY FOR THE PURPOSE AND CONSIDERATONS HEREIN EXPRESSED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS_____DAY OF _____ 2013

_____ _____
NOTARY PUBLIC IN AND FOR EL PASO COUNTY MY COMMISSION EXPIRES

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY ADAM FRANK, PRESIDENT OF RIVER OAKS PROPERTIES, ON BEHALF OF SAID COMPANY, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME AS THE ACT AND DEED OF SAID COMPANY FOR THE PURPOSE AND CONSIDERATONS HEREIN EXPRESSED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS_____DAY OF _____ 2013

_____ _____
NOTARY PUBLIC IN AND FOR EL PASO COUNTY MY COMMISSION EXPIRES

CITY PLAN COMMISSION

THIS SUBDIVISION IS HEREBY APPROVED AS TO THE PLATTING AND AS TO THE CONDITIONS OF THE DEDICATION IN ACCORDANCE WITH CHAPTER 212 OF THE LOCAL GOVERNMENT CODE OF TEXAS THIS _____ DAY OF _____, 2013 A.D..

_____ _____
EXECUTIVE SECRETARY CHAIRPERSON

APPROVED FOR FILING THIS _____ DAY OF_____ 2013

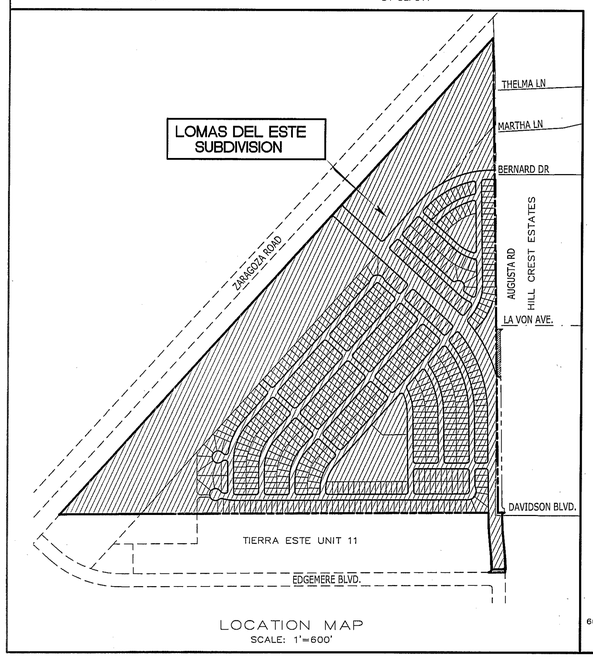
_____
CITY DEVELOPMENT DIRECTOR

FILING

FILED AND RECORDED IN THE OFFICE OF THE COUNTY CLERK OF EL PASO COUNTY, TEXAS, THIS _____DAY OF 2013.

FILE NO._____

_____ _____
COUNTY CLERK BY DEPUTY



LOCATION MAP
SCALE: 1"=600'

THIS PLAT REPRESENTS A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION AND IS IN COMPLIANCE WITH THE CURRENT TEXAS BOARD OF PROFESSIONAL LAND SURVEYING PROFESSIONAL AND TECHNICAL STANDARDS.

STATE OF TEXAS REGISTERED GUILLERMO LICON 2998 PROFESSIONAL LAND SURVEYOR

_____
GUILLERMO LICON, RPLS 2998

SUBDIVISION IMPROVEMENT PLANS PREPARED BY AND UNDER THE SUPERVISION OF GEORGES S. HALLOUL, REGISTERED PROFESSIONAL ENGINEER NO. 92105

STATE OF TEXAS GEORGES S. HALLOUL 92105 REGISTERED PROFESSIONAL ENGINEER

_____
GEORGES S. HALLOUL, P.E. TX 92105

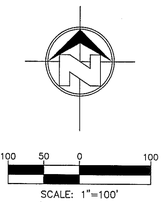
THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO LOMAS DEL ESTE BY THE EL PASO WATER UTILITY/ PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR REGULATIONS AND WITH SECTION 16.343 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON ZARAGOZA ROAD AND AND WILL BE CONSTRUCTED TO SERVE THIS SUBDIVISION.

TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT NO._____.

RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT NO._____.

NOTES

1. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY–PANEL NUMBER 480212 0175 B , DATED SEPTEMBER 4, 1991 . THIS PROPERTY LIES IN FLOOD ZONE X .
2. THIS SUBDIVISION IS WITHIN THE SOCORRO INDEPENDENT SCHOOL DISTRICT
3. 1/2" IRON WITH S.L.I. CAP TEXAS NO. 2998 ON ALL PROPERTY CORNERS UNLESS OTHERWISE INDICATED.
4. NEIGHBORHOOD DELIVERY AND COLLECTION BOX LOCATION TO BE DETERMINED BY U.S.P.S.

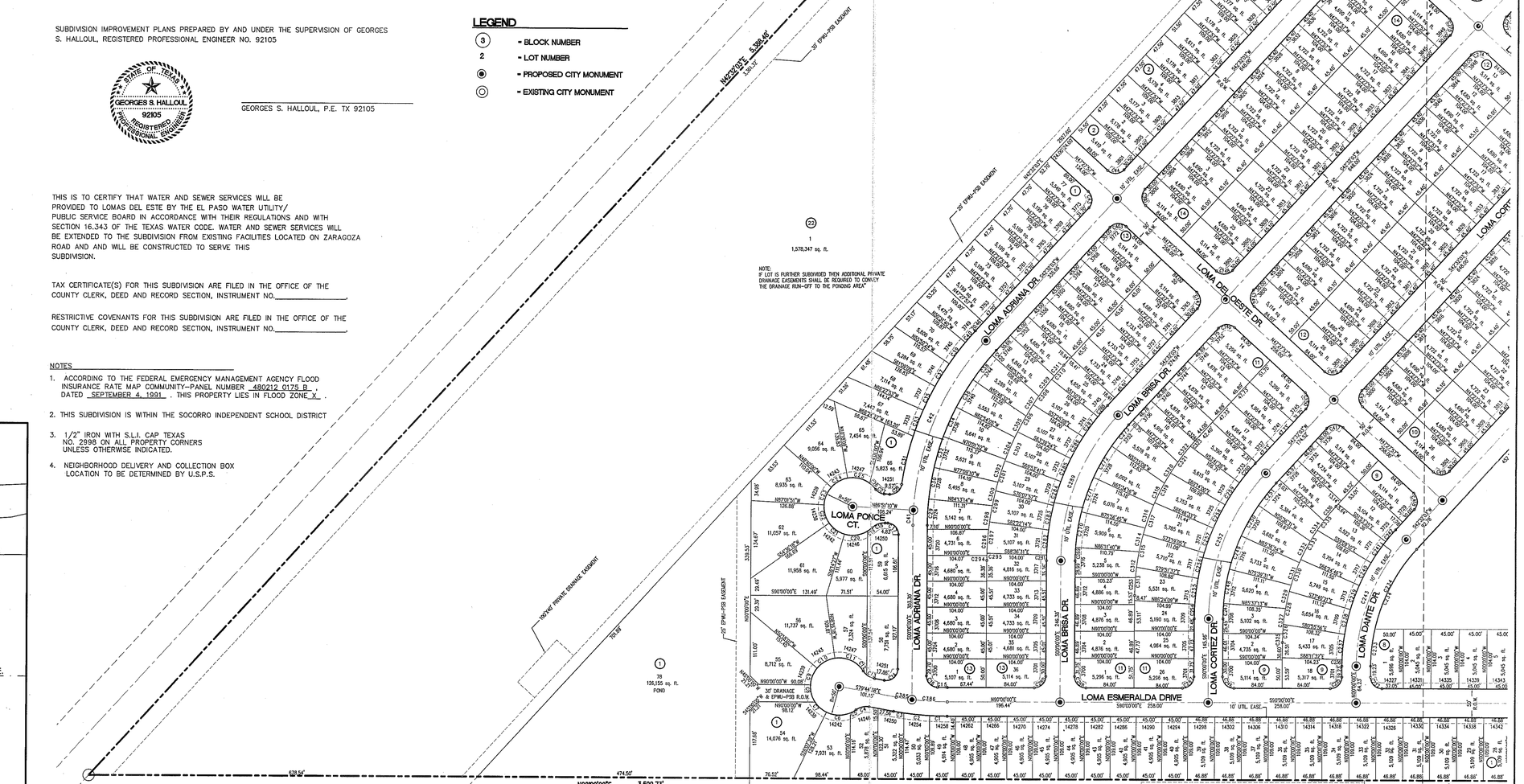


VEHICULAR ACCESS TO RESIDENTIAL LOTS 1–6, BLOCK 1, LOTS 27–32, BLOCK 2, LOTS 1–9, BLOCK 3, LOTS 1–23, BLOCK 4, LOTS 1–16, BLOCK 18, AND LOT 26, BLOCK 21, ABUTTING JOHN HAYES BLVD. AND LOT 1, BLOCK 18, LOTS 1 AND 28, BLOCK 19, LOTS 1–10, BLOCK 20 AND LOT 1, BLOCK 21 ABUTTING BERNARD DRIVE WILL BE FROM OTHER PUBLIC DEDICATED STREETS ONLY. THE INSTRUMENT INSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.

FILE NO._____ DATE_____

LEGEND

(3) = BLOCK NUMBER
2 = LOT NUMBER
◉ = PROPOSED CITY MONUMENT
◎ = EXISTING CITY MONUMENT



(1) 78 126,155 sq. ft. POND

(22) 1 1,578,347 sq. ft.

NOTE: IF LOT IS FURTHER SUBDIVIDED THEN ADDITIONAL PRIVATE DRAINAGE EASEMENTS SHALL BE REQUIRED TO CONVEY THE DRAINAGE RUN–OFF TO THE PONDING AREA"

(4) 1 TIERRA COMMERCIAL SUBDIVISION UNIT 4

(4) 4

(4) 5 TIERRA COMMERCIAL SUBDIVISION UNIT 11

SLI ENGINEERING, INC.
CIVIL ENGINEERS – LAND SURVEYORS
LAND PLANNERS – CONSTRUCTION MANAGEMENT
6600 WESTWND DR. – EL PASO, TEXAS – 79912 – (915) 584–4457
PREPARATION DATE: JANUARY 10, 2013

PORTION OF TRACT 4B, SECTION 38, BLOCK 79 TOWNSHIP 2, TEXAS & PACIFIC RAILWAY SURVEYS

SHEET 1 OF 4

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37,
AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2,
TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 168.97 ACRES±

100 50 0 100

SCALE: 1"=100'

LEGEND

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- 2 = LOT NUMBER
- ◉ = PROPOSED CITY MONUMENT
- ◉ = EXISTING CITY MONUMENT

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

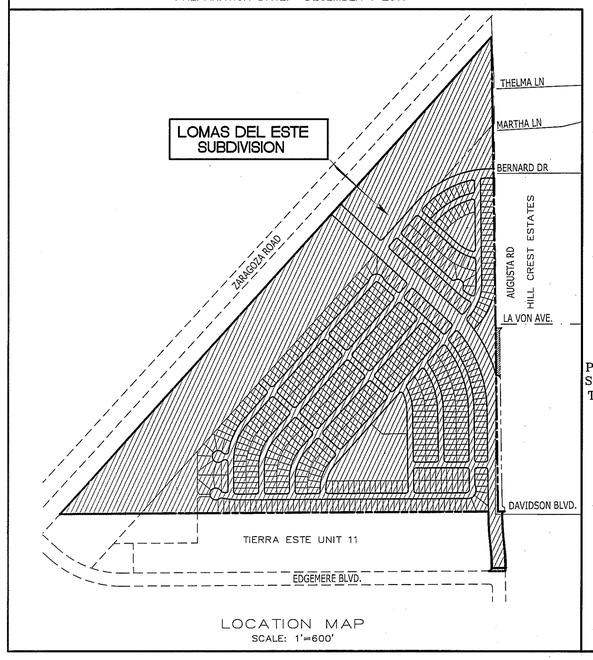
THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 20_____ BY _____.

_____
NOTARY PUBLIC, STATE OF TEXAS

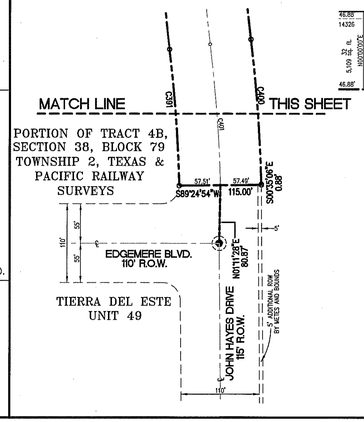
_____
MY COMMISSION EXPIRES:

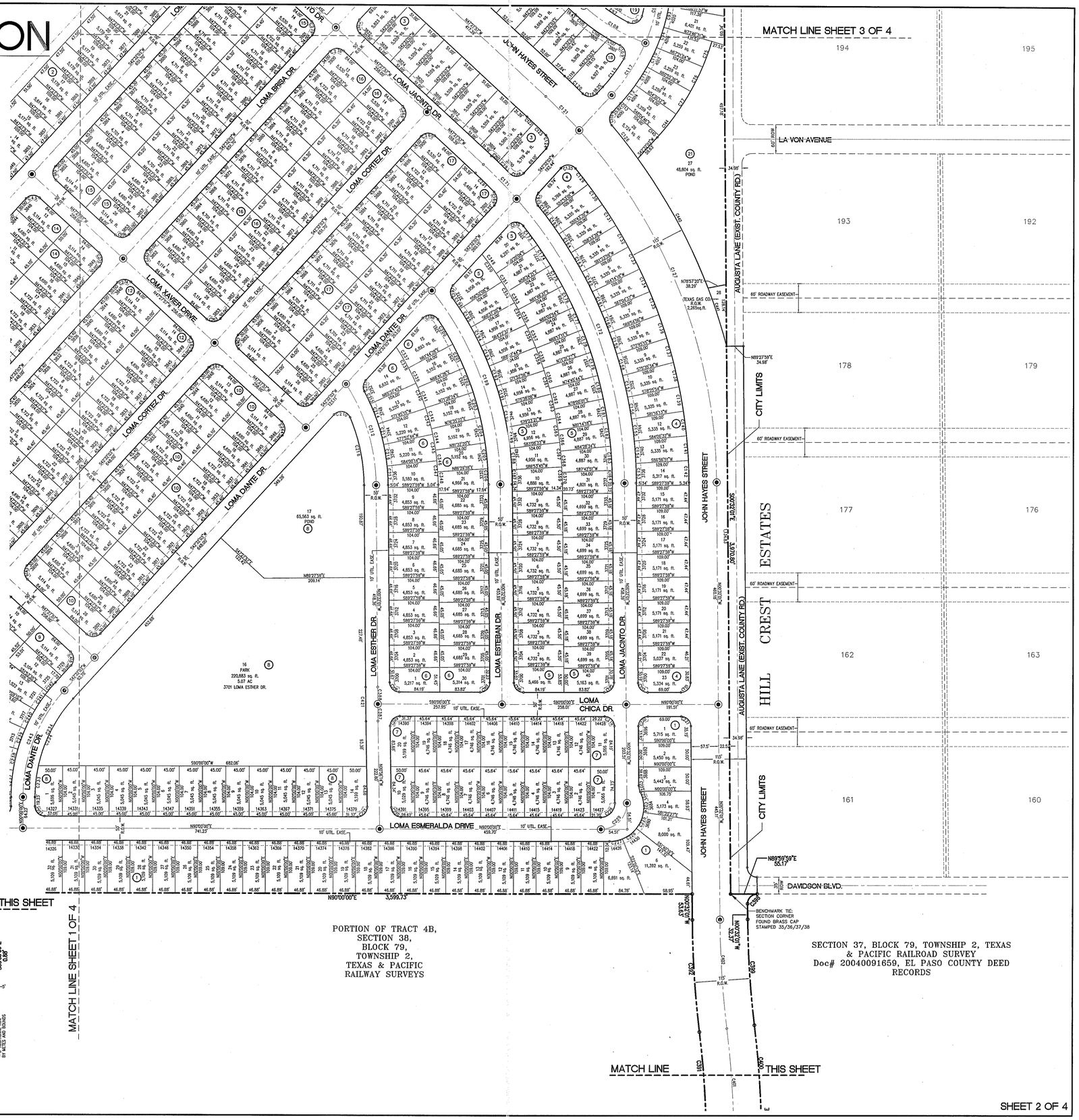
SLI ENGINEERING, INC.
CIVIL ENGINEERS — LAND SURVEYORS
LAND PLANNERS — CONSTRUCTION MANAGEMENT
6600 WESTWIND DR. – EL PASO, TEXAS – 79912 – (915) 584-4457

PREPARATION DATE: DECEMBER 1 2011



LOCATION MAP
SCALE: 1"=600'




MATCH LINE SHEET 3 OF 4
LOMA BRISA DR.
LOMA JACINTO DR.
JOHN HAYES STREET
LOMA CORTEZ DR.
LOMA XAVIER DRIVE
LOMA DANTE DR.
LOMA ESTHER DR.
LOMA ESTEBAN DR
LOMA JACINTO DR.
LOMA CHICA DR.
LOMA ESMERALDA DRIVE
LA VON AVENUE
AUGUSTA LANE (EXIST. COUNTY RD.)
CITY LIMITS
DAVIDSON BLVD.
HILL CREST ESTATES
MATCH LINE
THIS SHEET
MATCH LINE SHEET 1 OF 4
PORTION OF TRACT 4B, SECTION 38, BLOCK 79, TOWNSHIP 2, TEXAS & PACIFIC RAILWAY SURVEYS
SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS & PACIFIC RAILROAD SURVEY
Doc# 20040091659, EL PASO COUNTY DEED RECORDS
BENCHMARK TIE: SECTION CORNER FOUND BRASS CAP STAMPED 35/36/37/38
N89°50'50"E 55.17'
N00°07'10"W 923.7'
S89°27'59"E 34.98'
N89°27'59"E 34.98'
N78°57'30"E 38.29'
S90°00'00"E 682.06'
N90°00'00"E 741.23'
N90°00'00"E 459.20'
N90°00'00"E 257.95'
S90°00'00"E 258.01'
N90°00'00"E 191.51'
N90°00'00"E 3,599.73'
S00°07'10"E 923.7'
N00°07'10"W 923.7'
S89°27'59"E 1171.30'
N89°27'59"W 1171.30'
N89°27'59"W 1171.30'
N89°27'59"W 1171.30'
N89°27'59"W 209.14'
S89°27'59"E 209.14'
S89°27'59"E 1171.30'
S89°27'59"E 1171.30'
S89°27'59"E 1171.30

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37,
AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2,
TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 168.97 ACRES±

100 50 0 100
SCALE: 1"=100'

LEGEND

- (3) = BLOCK NUMBER
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- ◉ = PROPOSED CITY MONUMENT
- ◉ = EXISTING CITY MONUMENT

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

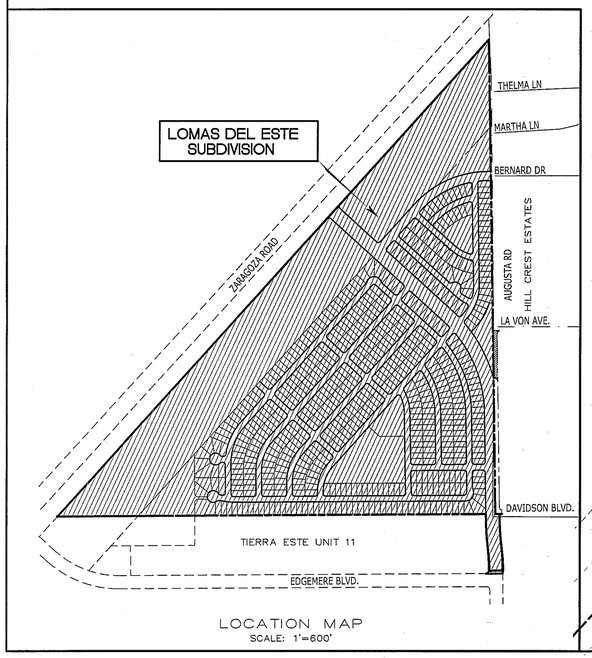
THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 20_____ BY _____.

_____
NOTARY PUBLIC, STATE OF TEXAS

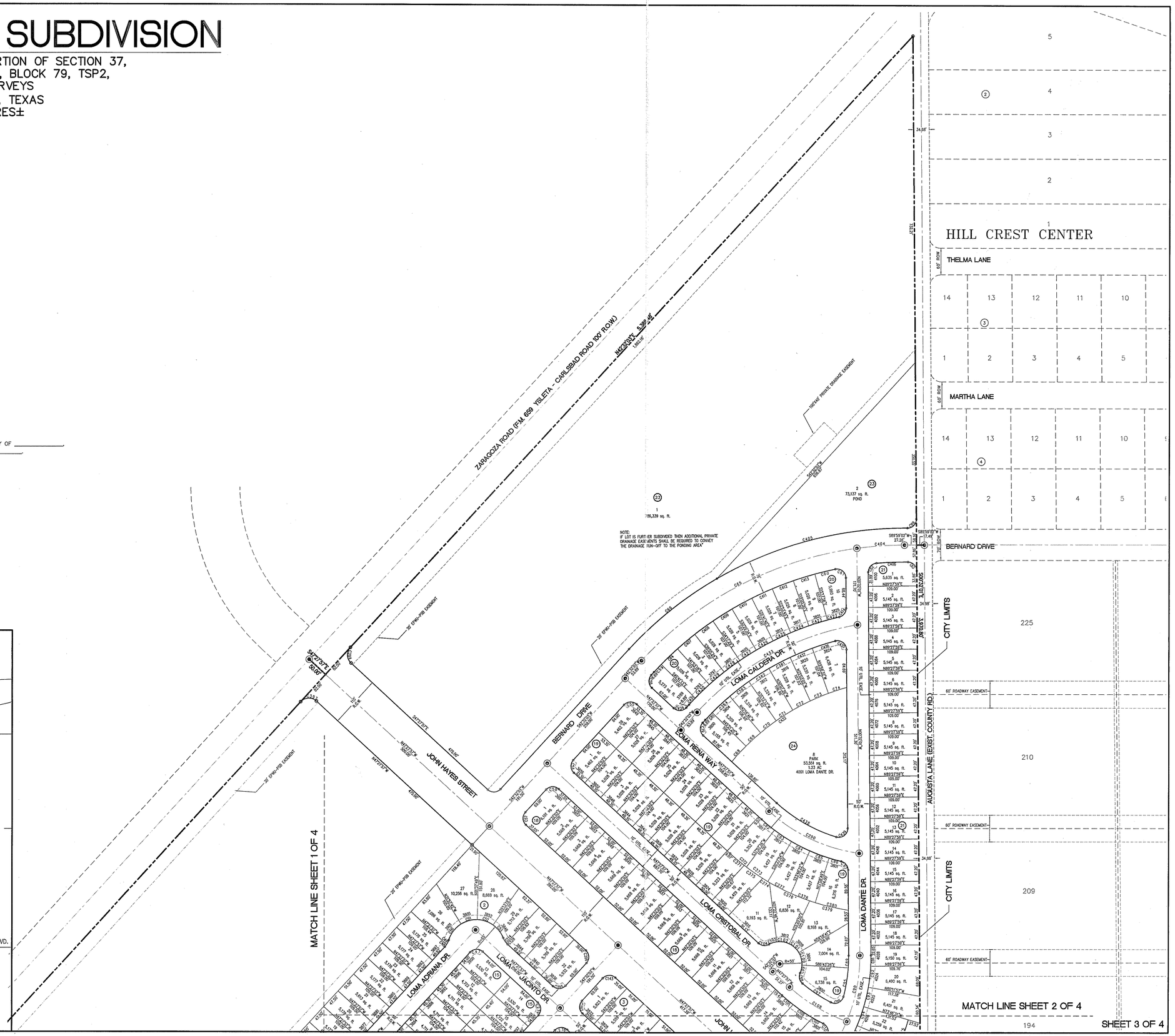
_____
MY COMMISSION EXPIRES:

SLI ENGINEERING, INC.
CIVIL ENGINEERS – LAND SURVEYORS
LAND PLANNERS – CONSTRUCTION MANAGEMENT
6600 WESTWIND DR. – EL PASO, TEXAS – 79912 – (915) 584-4457

PREPARATION DATE: DECEMBER 1 2011



LOCATION MAP
SCALE: 1"=600'



SHEET 3 OF 4

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37,
AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2,
TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 168.97 ACRES±

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	30.62	525.00	15.31	30.61	S88°19'45"E	3°20'29"
C2	45.25	525.00	22.64	45.23	S84°11'23"E	4°56'17"
C3	18.11	525.00	9.06	18.11	S80°43'56"E	1°58'37"
C4	24.38	30.00	12.91	23.72	S76°58'21"W	46°34'03"
C5	11.15	50.00	5.60	11.13	N60°04'40"E	12°46'41"
C6	43.34	50.00	23.14	41.99	S88°42'10"E	49°39'38"
C7	26.84	50.00	13.75	26.51	S48°29'49"E	30°45'05"
C8	31.58	50.00	16.34	31.06	S15°01'28"E	36°11'35"
C9	31.96	50.00	16.55	31.42	S21°23'06"W	36°37'34"
C10	36.15	50.00	18.91	35.37	S60°24'37"W	41°25'29"
C11	57.33	50.00	32.29	54.24	N66°01'36"W	65°42'03"
C12	9.23	30.00	4.65	9.19	S41°59'25"E	17°37'40"
C13	15.15	30.00	7.74	14.99	S65°16'26"E	28°56'23"
C14	35.00	20.00	23.94	30.70	N50°07'41"E	100°15'22"
C15	17.30	475.00	8.65	17.29	S88°57'25"E	2°05'10"
C16	30.69	20.00	19.28	27.76	S43°57'25"E	87°54'50"
C17	30.32	20.00	18.93	27.50	N43°25'35"W	86°51'10"
C18	24.38	30.00	12.91	23.72	S69°51'48"W	46°34'03"
C19	10.12	50.00	5.08	10.11	N52°22'49"E	11°36'04"
C20	41.94	50.00	22.29	40.72	N82°12'39"E	48°03'37"
C21	33.48	50.00	17.39	32.86	S54°34'37"E	38°21'51"
C22	33.48	50.00	17.39	32.86	S16°12'46"E	38°21'51"
C23	33.48	50.00	17.39	32.86	S22°09'05"W	38°21'51"
C24	33.48	50.00	17.39	32.86	S60°30'56"W	38°21'51"
C25	40.54	50.00	21.46	39.44	N77°04'24"W	46°27'30"
C26	14.82	50.00	7.47	14.77	N45°21'04"W	16°59'10"
C27	17.45	20.00	9.33	16.90	S61°51'20"E	49°59'41"
C28	29.69	20.00	18.34	27.04	N50°37'29"E	85°02'42"
C29	45.49	451.00	22.77	45.47	S02°53'23"W	5°46'46"
C30	55.64	451.00	27.85	55.60	S09°18'48"W	7°04'05"
C31	86.24	501.00	43.23	86.13	S13°02'00"W	9°51'46"
C32	56.06	451.00	28.06	56.02	S16°24'29"W	7°07'17"
C33	48.71	501.00	24.37	48.69	S20°45'00"W	5°34'13"
C34	56.12	451.00	28.10	56.09	S23°32'02"W	7°07'47"
C35	46.45	501.00	23.24	46.44	S26°11'29"W	5°18'44"
C36	55.83	451.00	27.95	55.79	S30°38'42"W	7°05'33"
C37	46.45	501.00	23.24	46.44	S31°30'13"W	5°18'44"
C38	54.44	451.00	27.25	54.40	S37°38'56"W	6°54'56"
C39	46.45	501.00	23.24	46.44	S36°48'58"W	5°18'44"
C40	26.77	501.00	13.39	26.77	S41°00'12"W	3°03'43"
C41	26.15	476.00	13.08	26.14	S01°34'25"W	3°08'50"
C42	327.22	476.00	170.37	320.81	S22°50'26"W	39°23'13"
C43	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C44	31.42	20.00	20.00	28.28	N87°32'03"E	90°00'00"
C45	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C46	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C47	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C48	6.71	40.00	3.36	6.70	N37°43'39"E	9°36'48"
C49	11.01	40.00	5.54	10.98	N25°01'57"E	15°46'37"
C50	46.39	65.00	24.23	45.41	S37°35'28"W	40°53'40"
C51	38.11	65.00	19.62	37.57	S7°45'09"W	33°35'30"
C52	38.11	65.00	19.62	37.57	N71°34'26"W	33°35'30"
C53	37.10	65.00	19.07	36.60	N38°25'37"W	32°42'10"
C54	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C55	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C56	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C57	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C58	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C59	23.66	762.00	11.83	23.66	S43°25'25"W	1°46'44"
C60	47.00	762.00	23.51	46.99	S76°28'05"W	3°32'02"
C61	35.34	20.00	24.36	30.92	N51°08'57"W	101°13'53"
C62	29.95	20.00	18.58	27.23	S42°21'35"W	85°47'11"
C63	31.03	20.00	19.61	28.01	N44°58'28"W	88°52'55"
C64	50.52	762.00	25.27	50.51	S46°12'44"W	3°47'55"
C65	555.52	800.00	289.49	544.43	S62°25'38"W	39°47'10"
C66	253.33	838.00	127.64	252.36	S51°11'40"W	17°19'14"
C67	25.99	398.00	13.00	25.98	N42°42'49"W	3°44'27"
C68	47.27	504.89	23.65	47.25	S42°16'55"W	5°21'50"
C69	44.16	504.89	22.09	44.14	S47°28'10"W	5°00'40"
C70	44.14	504.89	22.08	44.13	S52°28'47"W	5°00'33"
C71	44.13	504.89	22.08	44.11	S57°29'17"W	5°00'27"
C72	44.12	504.89	22.07	44.10	S62°29'42"W	5°00'24"
C73	44.12	504.89	22.07	44.10	S67°30'06"W	5°00'23"
C74	43.13	504.89	21.58	43.11	S72°27'06"W	4°53'39"
C75	56.40	503.00	28.23	56.37	N19°26'13"E	6°25'26"
C76	56.40	503.00	28.23	56.37	N25°51'39"E	6°25'26"
C77	56.40	503.00	28.23	56.37	N32°17'05"E	6°25'26"
C78	37.50	20.00	27.24	32.24	N53°10'40"E	107°25'21"
C79	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C80	59.63	347.00	29.89	59.56	S57°31'30"E	9°50'47"
C81	22.28	605.00	11.14	22.28	S43°35'22"W	2°06'37"
C82	37.49	397.00	18.76	37.47	S50°10'15"E	5°24'37"
C83	46.14	397.00	23.10	46.11	S56°12'20"E	6°39'32"
C84	46.14	397.00	23.10	46.11	S62°51'52"E	6°39'32"
C85	46.14	397.00	23.10	46.11	S69°31'24"E	6°39'32"
C86	28.42	397.00	14.21	28.41	S74°54'13"E	4°06'04"
C87	26.68	20.00	15.74	24.74	N38°44'38"W	76°25'14"
C88	31.75	20.00	20.34	28.52	N44°57'00"E	90°58'01"
C89	27.55	349.00	13.78	27.54	N01°43'41"E	4°31'23"
C90	151.56	374.00	76.84	150.53	N11°04'33"E	23°13'08"
C91	24.56	399.00	12.28	24.56	N01°13'47"E	3°31'36"
C92	47.41	399.00	23.73	47.38	N06°23'49"E	6°48'28"
C93	44.74	399.00	22.39	44.71	N13°00'46"E	6°25'26"
C94	44.74	399.00	22.39	44.71	N19°26'13"E	6°25'26"
C95	65.47	349.00	32.83	65.37	N09°21'48"E	10°44'52"
C96	35.83	20.00	24.98	31.22	N66°03'13"E	102°37'56"
C97	76.37	349.00	38.34	76.22	S56°21'42"E	12°32'15"
C98	25.84	20.00	15.08	24.08	S13°04'23"E	74°02'23"
C99	18.04	50.00	9.12	17.94	N13°36'40"E	20°40'17"
C100	29.64	50.00	15.27	29.21	N13°42'24"W	33°57'51"

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C101	29.64	50.00	15.27	29.21	N47°40'15"W	33°57'51"
C102	28.56	50.00	14.68	28.17	N81°00'58"W	32°43'36"
C103	19.02	50.00	9.63	18.91	S71°43'19"W	21°47'51"
C104	25.03	20.00	14.45	23.43	S83°19'17"E	71°42'40"
C105	32.61	399.00	16.31	32.60	S49°48'26"E	4°40'58"
C106	52.61	399.00	26.34	52.57	S55°55'34"E	7°33'17"
C107	27.50	399.00	13.75	27.49	S61°40'40"E	3°56'56"
C108	150.87	374.00	76.47	149.85	S59°01'20"E	23°06'45"
C109	32.87	20.00	21.51	29.29	N16°34'29"W	94°09'19"
C110	44.74	399.00	22.39	44.71	N25°51'39"E	6°25'26"
C111	44.74	399.00	22.39	44.71	N32°17'05"E	6°25'26"
C112	44.74	399.00	22.39	44.71	N38°42'31"E	6°25'26"
C113	4.27	399.00	2.14	4.27	N42°13'39"E	0°36'49"
C114	14.04	40.00	7.09	13.97	S32°07'53"E	20°06'42"
C115	73.28	349.00	36.78	73.15	N36°31'07"E	12°01'52"
C116	32.33	20.00	20.83	28.92	N88°50'20"E	92°36'34"
C117	129.56	374.00	65.44	128.92	N32°36'35"E	19°50'56"
C118	28.97	20.00	17.69	26.50	S01°02'13"W	82°59'41"
C119	14.16	1157.50	7.08	14.16	N47°06'55"W	0°42'03"
C120	38.56	1157.50	19.28	38.56	N45°48'38"W	1°54'32"
C121	98.74	1100.00	49.41	98.71	N44°53'39"W	5°08'36"
C122	19.61	1042.50	9.81	19.61	N46°55'37"W	1°04'41"
C123	35.07	1042.50	17.54	35.07	N45°25'27"W	1°55'39"
C124	30.37	20.00	18.98	27.53	N00°57'47"W	86°59'40"
C125	34.23	20.00	23.04	30.21	N88°25'44"W	98°04'26"
C126	87.58	1157.50	43.81	87.56	N38°17'34"W	4°20'07"
C127	802.29	1100.00	419.93	784.63	N21°25'41"W	41°47'20"
C128	3.69	40.00	1.84	3.68	S44°49'35"E	5°16'43"
C129	41.40	1042.50	20.70	41.40	N38°15'15"W	2°16'32"
C130	51.65	1042.50	25.83	51.64	N35°41'49"W	2°50'19"
C131	51.65	1042.50	25.83	51.64	N32°51'30"W	2°50'19"
C132	51.65	1042.50	25.83	51.64	N30°01'11"W	2°50'19"
C133	51.65	1042.50	25.83	51.64	N27°10'52"W	2°50'19"
C134	51.65	1042.50	25.83	51.64	N24°20'33"W	2°50'19"
C135	51.65	1042.50	25.83	51.64	N21°30'14"W	2°50'19"
C136	51.65	1042.50	25.83	51.64	N18°39'54"W	2°50'19"
C137	51.65	1042.50	25.83	51.64	N15°49'35"W	2°50'19"
C138	51.65	1042.50	25.83	51.64	N12°59'16"W	2°50'19"
C139	51.65	1042.50	25.83	51.64	N10°08'57"W	2°50'19"
C140	51.65	1042.50	25.83	51.64	N07°18'38"W	2°50'19"
C141	51.65	1042.50	25.83	51.64	N04°28'19"W	2°50'19"
C142	45.83	1042.50	22.92	45.83	N01°47'35"W	2°31'08"
C143	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C144	56.40	503.00	28.23	56.37	N38°42'31"E	6°25'26"
C145	5.39	503.00	2.69	5.39	N42°13'39"E	0°36'49"
C146	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C147	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C148	31.42	20.00	20.00	28.28	N87°32'03"E	90°00'00"
C149	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C150	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C151	31.60	20.00	20.19	28.42	N44°44'00"E	90°32'01"
C152	31.23	20.00	19.81	28.15	S45°16'00"E	89°27'59"
C153	41.04	933.50	20.52	41.04	N01°47'35"W	2°31'08"
C154	46.25	933.50	23.13	46.24	N04°28'19"W	2°50'19"
C155	46.25	933.50	23.13	46.24	N07°18'38"W	2°50'19"
C156	46.25	933.50	23.13	46.24	N10°08'57"W	2°50'19"
C157	46.25	933.50	23.13	46.24	N12°59'16"W	2°50'19"
C158	46.25	933.50	23.13	46.24	N15°49'35"W	2°50'19"
C159	46.25	933.50	23.13	46.24	N18°39'54"W	2°50'19"
C160	46.25	933.50	23.13	46.24	N21°30'14"W	2°50'19"
C161	46.25	933.50	23.13	46.24	N24°20'33"W	2°50'19"
C162	46.25	933.50	23.13	46.24	N27°10'52"W	2°50'19"
C163	46.25	933.50	23.13	46.24	N30°01'11"W	2°50'19"
C164	46.25	933.50	23.13	46.24	N32°51'30"W	2°50'19"
C165	46.25	933.50	23.13	46.24	N35°41'49"W	2°50'19"
C166	27.48	933.50	13.74	27.48	N37°57'35"W	1°41'13"
C167	28.39	20.00	17.18	26.07	S01°51'56"W	81°20'15"
C168	32.54	20.00	21.16	29.07	N89°08'45"E	93°13'24"
C169	30.17	20.00	18.79	27.39	N00°41'10"W	86°26'26"
C170	34.76	20.00	23.66	30.55	N87°40'44"W	99°34'25"
C171	98.81	908.50	49.45	98.76	N44°21'00"W	6°13'53"
C172	645.37	908.50	336.97	631.88	N20°53'02"W	40°42'03"
C173	49.75	883.50	24.88	49.75	N36°16'44"W	3°13'36"
C174	49.93	883.50	24.97	49.92	N33°02'48"W	3°14'17"
C175	49.93	883.50	24.97	49.92	N29°48'31"W	3°14'17"
C176	49.93	883.50	24.97	49.92	N26°34'14"W	3°14'17"
C177	49.93	883.50	24.97	49.92	N23°19'58"W	3°14'17"
C178	49.93	883.50	24.97	49.92	N20°05'41"W	3°14'17"
C179	49.93	883.50	24.97	49.92	N16°51'24"W	3°14'17"
C180	49.93	883.50	24.97	49.92	N13°37'08"W	3°14'17"
C181	49.93	883.50	24.97	49.92	N10°22'51"W	3°14'17"
C182	49.93	883.50	24.97	49.92	N07°08'34"W	3°14'17"
C183	49.93	883.50	24.97	49.92	N03°54'17"W	3°14'17"
C184	27.02	883.50	13.51	27.02	N01°24'35"W	1°45'08"
C185	31.60	20.00	20.19	28.42	N44°44'00"E	90°32'01"
C186	31.23	20.00	19.81	28.15	S45°16'00"E	89°27'59"
C187	30.31	675.50	15.16	30.30	N01°49'08"W	2°34'14"
C188	44.25	675.50	22.13	44.24	N04°58'51"W	3°45'12"
C189	44.25	675.50	22.13	44.24	N08°44'03"W	3°45'12"
C190	44.25	675.50	22.13	44.24	N12°29'15"W	3°45'12"
C191	44.25	675.50	22.13	44.24	N16°14'28"W	3°45'12"
C192	44.25	675.50	22.13	44.24	N19°59'40"W	3°45'12"
C193	44.25	675.50	22.13	44.24	N23°44'52"W	3°45'12"
C194	44.25	675.50	22.13	44.24	N27°30'04"W	3°45'12"
C195	44.25	675.50	22.13	44.24	N31°15'16"W	3°45'12"
C196	28.51	675.50	14.26	28.51	N34°20'25"W	2°25'05"
C197	27.26	20.00	16.22	25.20	S03°29'33"W	78°05'00"
C198	36.21	20.00	25.47	31.46	N85°36'21"W	103°43'12"
C199	433.85	650.50	225.34	425.85	N19°38'24"W	38°12'47"
C200	59.90	625.50	29.97	59.88	N31°00'08"W	5°29'12"

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C201	54.03	625.50	27.03	54.02	N25°47'03"W	4°56'58"
C202	54.03	625.50	27.03	54.02	N20°50'05"W	4°56'58"
C203	54.03	625.50	27.03	54.02	N15°53'07"W	4°56'58"
C204	54.03	625.50	27.03	54.02	N10°56'09"W	4°56'58"
C205	54.03	625.50	27.03	54.02	N05°59'11"W	4°56'58"
C206	32.51	625.50	16.26	32.51	N02°01'21"W	2°58'42"
C207	31.60	20.00	20.19	28.42	N44°44'00"E	90°32'01"
C208	31.23	20.00	19.81	28.15	S45°16'00"E	89°27'59"
C209	31.74	20.00	20.33	28.51	S44°31'53"W	90°56'14"
C210	39.94	20.00	31.04	33.62	N80°15'38"W	114°24'38"
C211	24.73	20.00	14.22	23.18	S07°06'56"W	70°50'14"
C212	221.83	392.50	113.96	218.89	N16°43'27"W	32°22'53"
C213	28.65	417.50	14.33	28.65	N28°20'13"W	3°55'55"
C214	44.63	417.50	22.34	44.61	N21°18'36"W	6°07'30"
C215	44.63	417.50	22.34	44.61	N15°11'01"W	6°07'30"
C216	44.63	417.50	22.34	44.61	N09°03'31"W	6°07'30"
C217	39.81	417.50	19.92	39.79	N03°15'54"W	5°27'46"
C218	144.46	367.50	73.17	143.53	N11°47'40"W	22°31'18"
C219	31.23	20.00	19.81	28.15	N45°16'00"W	89°27'59"
C220	31.60	20.00	20.19	28.42	S44°44'00"W	90°32'01"
C221	31.23	20.00	19.81	28.15	N45°16'00"W	89°27'59"
C222	11.70	30.00	5.93	11.63	S11°42'21"E	22°20'41"
C223	2.71	0.88	25.21	1.76	N24°33'42"W	175°59'35"
C224	43.25	71.00	22.32	42.59	N08°47'34"W	34°54'15"
C225	36.76	71.00	18.80	36.36	N23°39'37"E	29°40'07"
C226	36.76	71.00	18.80	36.36	N53°09'44"E	29°40'07"
C227	27.27	71.00	13.80	27.10	N78°59'54"E	22°00'12"
C228	45.82	29.00	29.27	41.20	N44°44'00"E	90°32'01"
C229	85.33	54.00	54.51	76.72	N44°44'00"E	90°32'01"
C230	31.09	20.00	19.68	28.05	S45°28'07"E	89°03'46"
C231	31.74	20.00	20.33	28.51	N44°31'53"E	90°56'14"
C232	31.42	20.00	20.00	28.28	S45°00'00"E	90°00'00"
C233	65.28	301.00	32.77	65.16	S06°12'48"W	12°25'36"
C234	158.17	301.00	80.96	156.35	S27°28'50"W	30°06'27"
C235	31.42	20.00	20.00	28.28	N45°00'00"E	90°00'00"
C236	11.07	351.00	5.54	11.07	S00°54'14"W	1°48'26"
C237	44.47	351.00	22.27	44.44	S05°26'16"W	7°15'35"
C238	44.47	351.00	22.27	44.44	S12°41'51"W	7°15'35"
C239	44.47	351.00	22.27	44.44	S19°57'27"W	7°15'35"
C240	44.47	351.00	22.27	44.44	S27°13'02"W	7°15'35"
C241	44.47	351.00	22.27	44.44	S34°28'37"W	7°15'35"
C242	27.12	351.00	13.57	27.12	S40°19'14"W	4°25'38"
C243	242.01	326.00	126.89	236.49	S21°16'02"W	42°32'03"
C244	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C245	31.42	20.00	20.00	28.28	N87°32'03"E	90°00'00"
C246	31.42	20.00	20.00	28.28	S45°00'00"E	90°00'00"
C247	26.68	349.00	13.35	26.67	S02°11'23"W	4°22'47"
C248	60.68	349.00	30.42	60.60	S09°21'38"W	9°57'43"
C249	61.18	349.00	30.67	61.10	S19°21'48"W	10°02'37"
C250	60.95	349.00	30.55	60.87	S29°23'18"W	10°00'23"
C251	49.60	349.00	24.84	49.56	S38°27'46"W	8°08'34"
C252	277.64	374.00	145.57	271.31	S21°16'02"E	42°32'03"
C253	16.57	398.00	8.29	16.57	S01°11'34"W	2°23'09"
C254	25.05	399.00	12.53	25.05	S01°47'55"W	3°35'51"
C255	45.56	399.00	22.80	45.53	S06°52'07"W	6°32'32"
C256	45.56	399.00	22.80	45.53	S13°24'39"W	6°32'32"
C257	45.56	399.00	22.80	45.53	S19°57'11"W	6°32'32"
C258	45.56	399.00	22.80	45.53	S26°29'44"W	6°32'32"
C259	45.56	399.00	22.80	45.53	S33°02'16"W	6°32'32"
C260	43.35	399.00	21.70	43.33	S39°25'18"W	6°13'31"
C261	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C262	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C263	31.42	20.00	20.00	28.28	N87°32'03"E	90°00'00"
C264	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C265	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C266	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C267	31.42	20.00	20.00	28.28	N45°00'00"E	90°00'00"
C268	31.42	20.00	20.00	28.28	S45°00'00"E	90°00'00"
C269	23.18	349.00	11.59	23.18	S01°54'10"W	3°48'20"
C270	62.43	349.00	31.30	62.34	S08°55'48"W	10°14'56"
C271	63.19	349.00	31.68	63.11	S19°14'30"W	10°22'29"
C272	62.85	349.00	31.51	62.77	S29°35'18"W	10°19'08"
C273	47.43	349.00	23.75	47.39	S38°38'28"W	7°47'11"
C274	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C275	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C276	31.42	20.00	20.00	28.28	N87°32'03"E	90°00'00"
C277	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C278	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C279	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C280	31.42	20.00	20.00	28.28	N45°00'00"E	90°00'00"
C281	9.69	399.00	4.85	9.69	S00°41'45"W	1°23'29"
C282	43.44	399.00	21.74	43.42	S04°30'36"W	6°14'17"
C283	43.44	399.00	21.74	43.42	S10°44'54"W	6°14'17"
C284	43.44	399.00	21.74	43.42	S16°59'11"W	6°14'17"
C285	43.44	399.00	21.74	43.42	S23°13'27"W	6°14'17"
C286	43.44	399.00	21.74	43.42	S29°27'44"W	6°14'17"
C287	43.44	399.00	21.74	43.42	S35°42'01"W	6°14'17"
C288	25.87	399.00	12.94	25.87	S40°40'36"W	3°42'54"
C289	277.64	374.00	145.57	271.31	S21°16'02"W	42°32'03"
C290	226.53	372.00	116.90	223.05	S54°54'41"E	34°53'28"
C291	54.89	883.50	27.45	54.88	N45°41'10"W	3°33'34"
C292	19.61	933.50	9.81	19.61	N46°51'50"W	1°12'14"
C293	32.90	933.50	16.45	32.90	N45°15'08"W	2°01'10"
C294	8.62	503.00	4.31	8.62	S00°29'27"W	0°58'54"
C295	4.53	503.00	2.27	4.53	S01°08'00"W	0°30'58"
C296	45.10	503.00	22.57	45.09	S03°33'01"W	5°08'15"
C297	54.76	503.00	27.41	54.74	S04°30'36"W	6°14'17"
C298	41.78	503.00	20.90	41.77	S08°29'54"W	4°45'32"
C299	54.76	503.00	27.41	54.74	S10°44'54"W	6°14'17"
C300	41.81	503.00	20.92	41.80	S13°15'33"W	4°45'45"

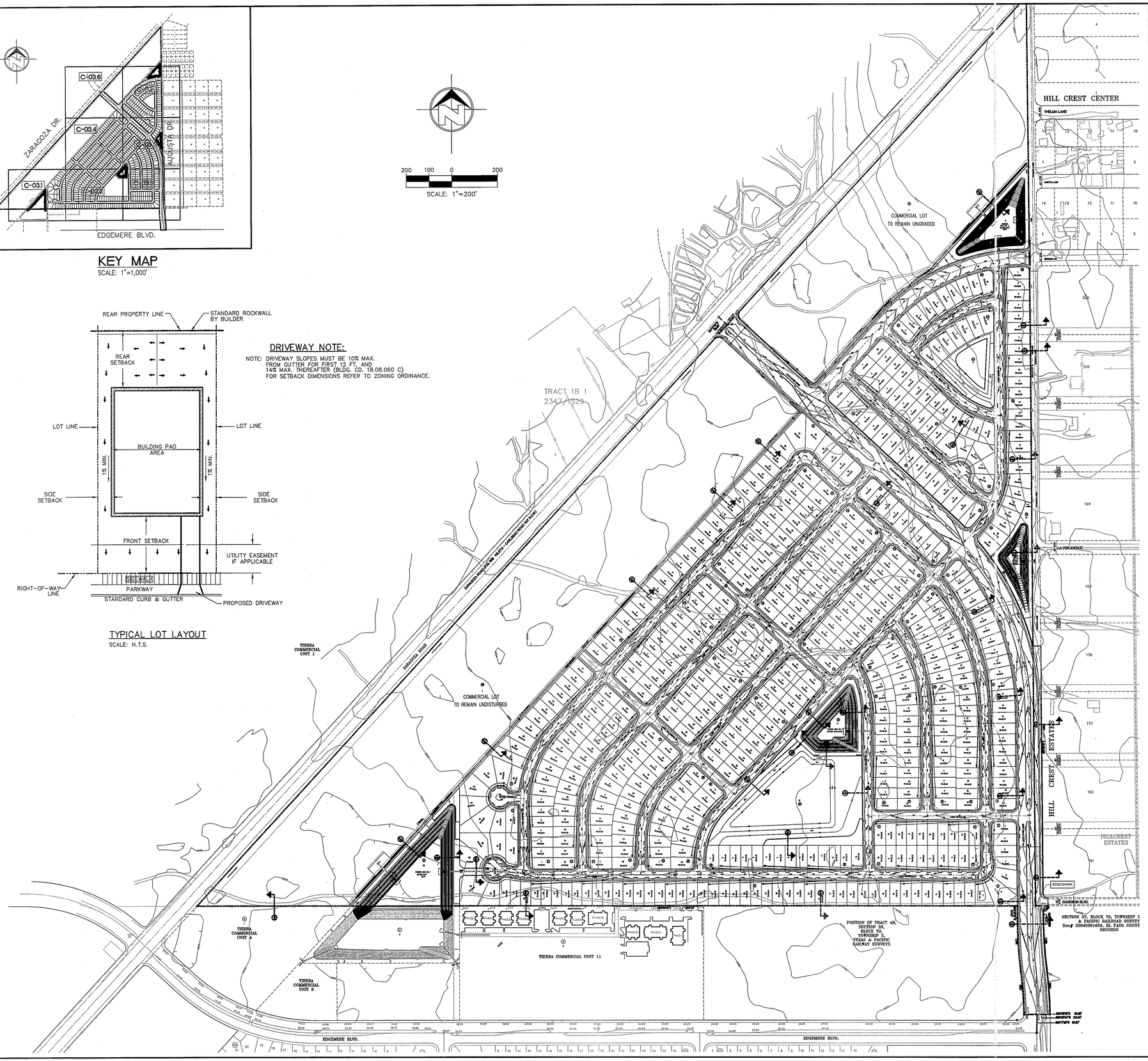
CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C301	54.76	503.00	27.41	54.74	S16°59'11"W	6°14'17"
C302	41.79	503.00	20.91	41.78	S18°01'14"W	4°45'37"
C303	54.76	503.00	27.41	54.74	S23°13'27"W	6°14'17"
C304	41.79	503.00	20.91	41.78	S22°46'51"W	4°45'36"
C305	41.80	503.00	20.91	41.79	S27°32'30"W	4°45'42"
C306	54.76	503.00	27.41	54.74	S29°27'44"W	6°14'17"
C307	41.25	503.00	20.64	41.24	S32°16'19"W	4°41'56"
C308	54.76	503.00	27.41	54.74	S35°42'01"W	6°14'17"
C309	44.40	503.00	22.21	44.39	S37°09'01"W	5°03'28"
C310	32.61	503.00	16.31	32.61	S40°40'36"W	3°42'54"
C311	25.07	503.00	12.54	25.06	S41°06'24"W	2°51'19"
C312	45.24	400.00	22.64	45.22	S07°43'59"W	6°28'49"
C313	49.45	400.00	24.76	49.42	S03°32'29"W	7°04'58"
C314	42.40	400.00	21.22	42.38	S14°00'36"W	6°04'26"
C315	58.18	400.00	29.14	58.13	S11°14'58"W	8°20'00"
C316	42.36	400.00	21.20	42.34	S20°04'51"W	6°04'04"
C317	58.29	400.00	29.19	58.23	S19°35'26"W	8°20'55"
C318	42.38	400.00	21.21	42.36	S26°09'00"W	6°04'14"
C319	58.24	400.00	29.17	58.19	S27°56'10"W	8°20'32"
C320	43.48	400.00	21.76	43.46	S32°17'58"W	6°13'43"
C321	58.04	400.00	29.07	57.99	S36°15'51"W	8°18'50"
C322	46.90	400.00	23.48	46.88	S38°46'23"W	6°43'06"
C323	14.75	400.00	7.38	14.75	S41°28'40"W	2°06'47"
C324	2.81	400.00	1.40	2.81	S42°20'00"W	0°24'07"
C325	15.42	350.00	7.71	15.42	S01°15'44"W	2°31'28"
C326	16.14	350.00	8.07	16.14	S03°50'44"W	2°38'32"
C327	44.11	350.00	22.08	44.08	S06°08'06"W	7°13'16"
C328	58.47	350.00	29.30	58.40	S09°57'11"W	9°34'20"
C329	41.66	350.00	20.86	41.64	S13°09'21"W	6°49'14"
C330	58.61	350.00	29.37	58.54	S19°32'12"W	9°35'42"
C331	41.63	350.00	20

KEY MAP
SCALE: 1"=1,000'

TYPICAL LOT LAYOUT
SCALE: N.T.S.

DRIVEWAY NOTE:

NOTE: DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FT. AND 14% MAX. THEREAFTER (BLDG. CD. 18.08.060 C) FOR SETBACK DIMENSIONS REFER TO ZONING ORDINANCE.



FLOOD ZONE

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCEY FLOOD INSURANCE RATE MAP COMMUNIT– PANEL NO. 480212 0175 B DATED SEPTEMBER 4, 1991
IN FLOOD ZONE
X AREAS OF MINIMAL FLOODING.

CONSTRUCTION NOTES:

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS PROVIDED FOR THIS PROJECT AND IN CONJUNCTION WITH THE CITY OF EL PASO SPECIFICATIONS AND STANDARDS.
2. ALL CUT/FILL AREAS SHALL BE COMPACTED TO 95% DENSITY ASTM D–1557. UNLESS OTHERWISE DIRECTED BY THE DESIGN ENGINEER (IN WRITING).
3. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITY LINES (SHOWN OR NOT SHOWN) WITHIN THE SCOPE OF CONSTRUCTION. THE CONTRACTOR MUST NOTIFY THE RESPECTIVE AGENCY PRIOR TO MOVING ON SITE, SO THE EXISTING UTILITY LINES CAN BE LOCATED IN THE FIELD. IF ANY LINES ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL REPLACE THEM AT HIS OWN EXPENSE.
4. POSITIVE DRAINAGE SHALL BE PROVIDED BY THE CONTRACTOR DURING ALL PHASES OF CONSTRUCTION AND GRADING.
5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS ON SITE AND SHALL CONTACT THE DESIGN ENGINEER AND REPORT ANY DISCREPANCIES, OMISSIONS AND ERRORS ON PLANS PRIOR TO COMMENCING OR CONTINUING WORK.
6. GRADING, SWPPP, AND N.O.I. PERMITS REQUIRED BEFORE MOVING ON SITE.
7. ALL RAMPS SHALL HAVE A MAX. OF 1:12 SLOPE AND ALL SIDEWALKS SHALL HAVE A MAX. OF 2% CROSS SLOPE. ALL ACCESSIBLE PARKING SPACES TO SLOPE A MAX. OF 2%
8. REFER TO SHT C–27.0 FOR GRADING STABILIZATION.

EROSION CONTROL NOTES:

WIND EROSION CONTROL: WATERING DURING AND AFTER COMPLETION OF SITE GRADING, THE PROJECT AREA SHALL BE COMPLETELY WATERED AS NEEDED TO CONTROL WIND EROSION OR AS DIRECTED BY THE CITY INSPECTOR.

1. THE CONTRACTOR SHALL CLEAN UP ANY DIRT OR DEBRIS THAT IS SPILLED ON THE EXISTING PUBLIC ROADWAY AS A RESULT OF THIS CONSTRUCTION PROJECT. CLEAN UP IS TO BE DONE ON A DAILY BASIS OR AS DIRECTED BY THE CITY INSPECTOR.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SLOPES IN GOOD CONDITION AND PROTECTING THEM FROM EROSION.
3. NO RUNOFF WILL BE ALLOWED ON UNPROTECTED SLOPES. THE CONTRACTOR SHALL ERECT/CONSTRUCT TEMPORARY ELEMENTS IN ORDER TO CONTROL EROSION THOUGHOUT THE SITE.
4.

LEGEND

- PROPOSED RETAINING WALL
- 86.20 + PROPOSED FG (SPOT ELEV.)
- 50.52 X EXISTING (SPOT ELEV.)
- 20 PROPOSED FG (CONTOUR)
- 3720 EXISTING GROUND (CONTOUR)
- FF=88.00 FINISHED BUILDING FLOOR ELEVATION

BENCHMARK

SECTION CORNER FOR SECTIONS 35–36–37 & 38
BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION: 3839.38 (NAVD88 DATUM)

NOTE: THE DEVELOPER IS RESPONSIBLE FOR CONSTRUCTION OF RETAINING WALLS GREATER THAN 4'.

NOTE: THE DEVELOPER IS RESPONSIBLE FOR CONSTRUCTION OF ACCESSIBLE RAMPS.

NOTE PERTAINING TO PARK SITES

1. UTILITY EASEMENTS SHALL NOT BE PLACED WITHIN PARK.
2. ANY UTILITIES SHALL BE A MIN. FIVE (5') FEET DEEP ADJACENT TO PARK.
3. UTILITIES SHALL BE PLACED UNDERNEATH 7' WIDE SIDEWALK TO AVOID FUTURE CONFLICT WITH THE PROPOSED STREET, TREE LINE OR DAMAGE TO THE UTILITIES.
4. NO TRANSFORMERS, PEDESTAL OR JUNCTION BOXES SHALL BE INSTALLED WITHIN PARK.

811 Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!!

	DATE	REVISIONS	BY
1			
2			
3			
4			
5			
6			

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09–10–2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

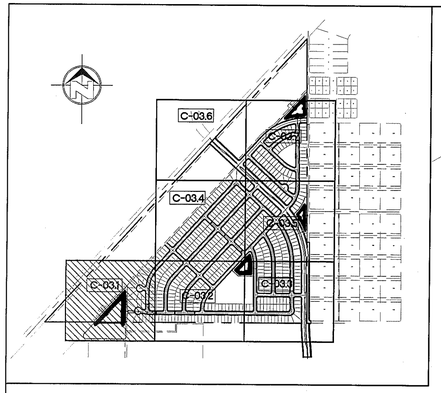
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584–4497
SLI ENGINEERING, INC.
SLI LICENSE No. F–1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 – 2012

SHEET TITLE
GRADING PLAN (OVERALL)

C-03.0

F:\PROJECTS\LOMAS DEL ESTE–2\FINALS\DE2–GRAD.dwg 11/27/2012 8:47:19 AM MST



KEY MAP
SCALE: 1"=1,000'

50 40 30 20 10 0 25 50
SCALE: 1"=50'

ZARAGOZA ROAD (F.M. 659 YSLETA - CARLSBAD ROAD 100' R.O.W.)

EXIST. PAVEMENT

59.37'

100.00'

N42°32'03"E 3351.32'

35' EPMU-PSB EASEMENT

8100
4009.25
FND 1/2IP TX 5152

8001
4009.25
FND 1/2IP TX 5152

TIERRA COMMERCIAL UNIT 4

19
1
COMMERCIAL LOT
TO REMAIN UNGRADED

NOTE:
IF LOT IS FURTHER SUBDIVIDED THEN ADDITIONAL PRIVATE DRAINAGE EASEMENTS SHALL BE REQUIRED TO CONVEY THE DRAINAGE RUN-OFF TO THE PONDING AREA"

1 C-210 SD. LINE 1A

100' TWO BASIC SDSTD C-22.9

15' MAINTENANCE RD. (3" COMPACTED SCREENING)

1
78
PONDING AREA NO. 1
BOTTOM ELEV
98.50
1 C-220

COMBINE POND WITH TIERRA COMMERCIAL UNIT 11

4
4

30' EPMU-PSB EASEMENT

8' ROCKWALL BY DEVELOPER

LOMA PONCE CT.

2 C-03.8

4 C-03.8

1 C-03.8

2 C-03.8

RETAINING WALL BY BUILDER

2 type LOMA ADRIANA DR.

25' EPMU-PSB EASEMENT

6' ROCKWALL BY DEVELOPER

30' DRAINAGE & EPMU-PSB ROW

GATE

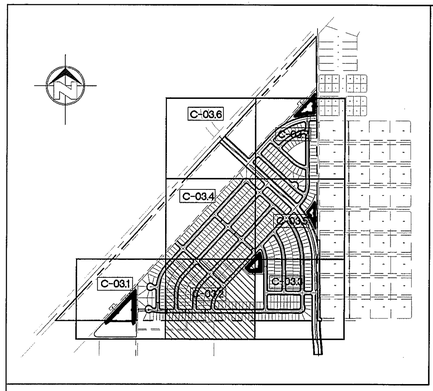
1 C-211 SD. LINE 1B

6' ROCKWALL BY DEVELOPER

1 C-03.8

1 C-03.8

1 C-03.8



KEY MAP
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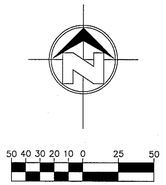
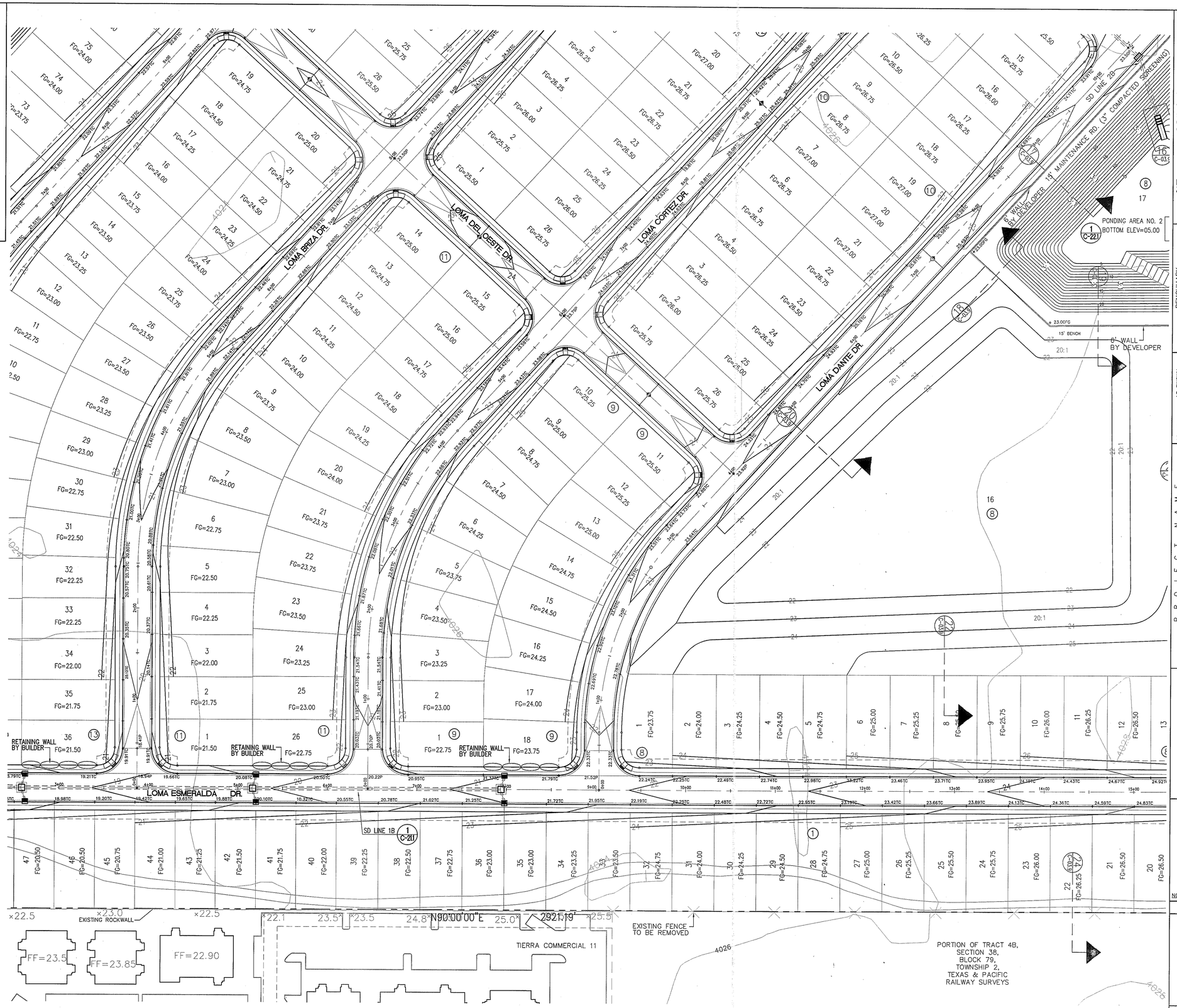


SCALE: 1"=50'

NOTE: THE DEVELOPER IS RESPONSIBLE FOR CONSTRUCTION OF ACCESSIBLE RAMPS.



REVISIONS	DATE	BY

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER

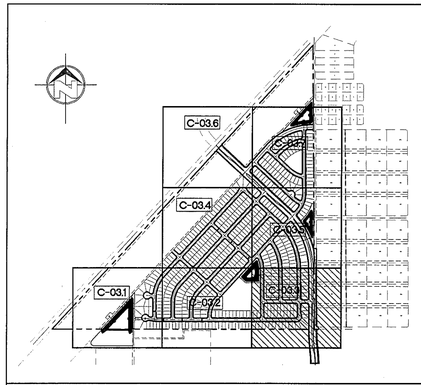
NOVEMBER 30, 2012

SHEET TITLE

GRADING PLAN (ENLARGED 2)

C-03.2

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-GRAD-ENL2.dwg 1/3/2012 10:52:59 AM MST



KEY MAP
SCALE: 1"=1,000'

50 40 30 20 10 0 25 50
SCALE: 1"=50'

NOTE: THE DEVELOPER IS RESPONSIBLE FOR CONSTRUCTION OF ACCESSIBLE RAMPS.

TEXAS & PARCEL RAILROAD SURVEY
TOWNSHIP 2, BLOCK 79

SECTION 35 | SECTION 36
SECTION 38 | SECTION 37

INSET "A"

PONDING AREA NO. 2
BOTTOM ELEV=05.00

6' WALL BY DEVELOPER

15' MAINTENACE RD. (3:1 COMPACTED SCREENING)

SD LINE 2A

SD LINE 2B

GATE

15' BENCH

20:1

PARK NO. 1

LOMA ESTHER DR.

LOMA ESTEBAN DR.

LOMA JACINTO DR.

LOMA CHICA DR.

LOMA ESMERALDA DR.

JOHN HAYES DRIVE

RETAINING WALL BY BUILDER

RETAINING WALL BY DEVELOPER >4'

60' ROADWAY EASEMENT

S00°32'01"E 1460'

177

162

161

BENCHMARK

SEE INSET "A" FOR SECTIONS

35' ROW DAVIDSO

N00°32'01"W 1460'

N00°32'01"W 532.63'

C398 N00°32'01"W 32.37'

PORTION OF TRACT 4B, SECTION 38, BLOCK 79, TOWNSHIP 2. TEXAS & PACIFIC RAILWAY SURVEYS

PORTION OF TRACT 4B, SECTION 38, BLOCK 79, TOWNSHIP 2, TEXAS & PACIFIC RAILWAY SURVEYS

EXISTING FENCE TO BE REMOVED

HILL CREST ESTATES

SECTIO

Doc#

REVISIONS	DATE	BY

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

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LAND SURVEYORS
LAND PLANNERS
6400 WESTWIND DRIVE
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SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER

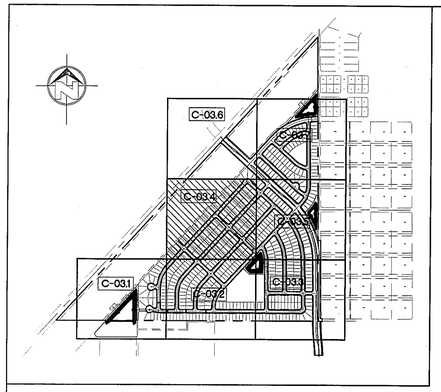
NOVEMBER 30, 2012

SHEET TITLE

GRADING PLAN (ENLARGED 3)

C-03.3

F:\PROJECTS\LOMAS DEL ESTE-2\FINAL'S\LDE2-GRAD-ENL.3.dwg 1/3/2012 11:41:03 AM MST



KEY MAP
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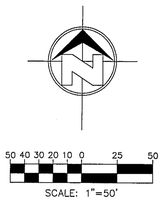

SCALE: 1"=50'

NOTE: THE DEVELOPER IS RESPONSIBLE FOR CONSTRUCTION OF ACCESSIBLE RAMPS.

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REVISIONS	DATE	BY

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

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SLI LICENSE No. F-1902

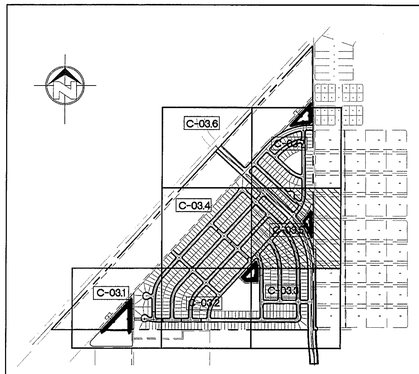
STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED
PROFESSIONAL ENGINEER

NOVEMBER 30, 2012

SHEET TITLE

GRADING PLAN (ENLARGED 4)

C-03.4



KEY MAP
SCALE: 1"=1,000'

50 40 30 20 10 0 25 50
SCALE: 1"=50'

NOTE: THE DEVELOPER IS RESPONSIBLE FOR CONSTRUCTION OF ACCESSIBLE RAMPS.

JOHN HAYES DRIVE
LOMA CRISTOBAL DR.
LOMA JACINTO DR.
LOMA BRIZA DR.
LOMA SORTEZ DR.
LOMA DANTE DR.
AUGUSTA LANE
LA VON AVE.
RETAINING WALL BY BUILDER
RETAINING WALL BY DEVELOPER >4'
6' WALL BY DEVELOPER
3'-COMPACTED SCREENING)
PONDING AREA NO. 3 BOTTOM ELEV 28.00
15' MAINTENANCE RD.
GATE
24' EXIST. PVMT.
60' ROADWAY EASEMENT
60' ROW
34.98'
GAS CO. EASEMENT SEE PLAT
SD LINE 3A
SD LINE 3B
HILL CREST ESTATES
209
194
193
178

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3639.39 NAVD88 DATUM

BY	DATE	REVISIONS
	1	
	2	
	3	
	4	
	5	
	6	

SCALE: AS SHOWN
JOB NO.: 09-10-2391
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6400 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4497
SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER

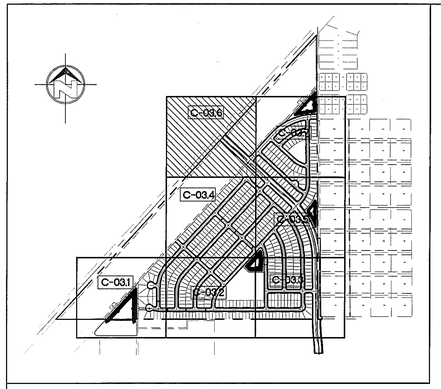
NOVEMBER 30, 2012

SHEET TITLE

GRADING PLAN (ENLARGED 5)

C-03.5

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-GRAD-ENL5.dwg 1/3/2012 10:41:58 AM MST



KEY MAP
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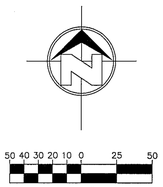
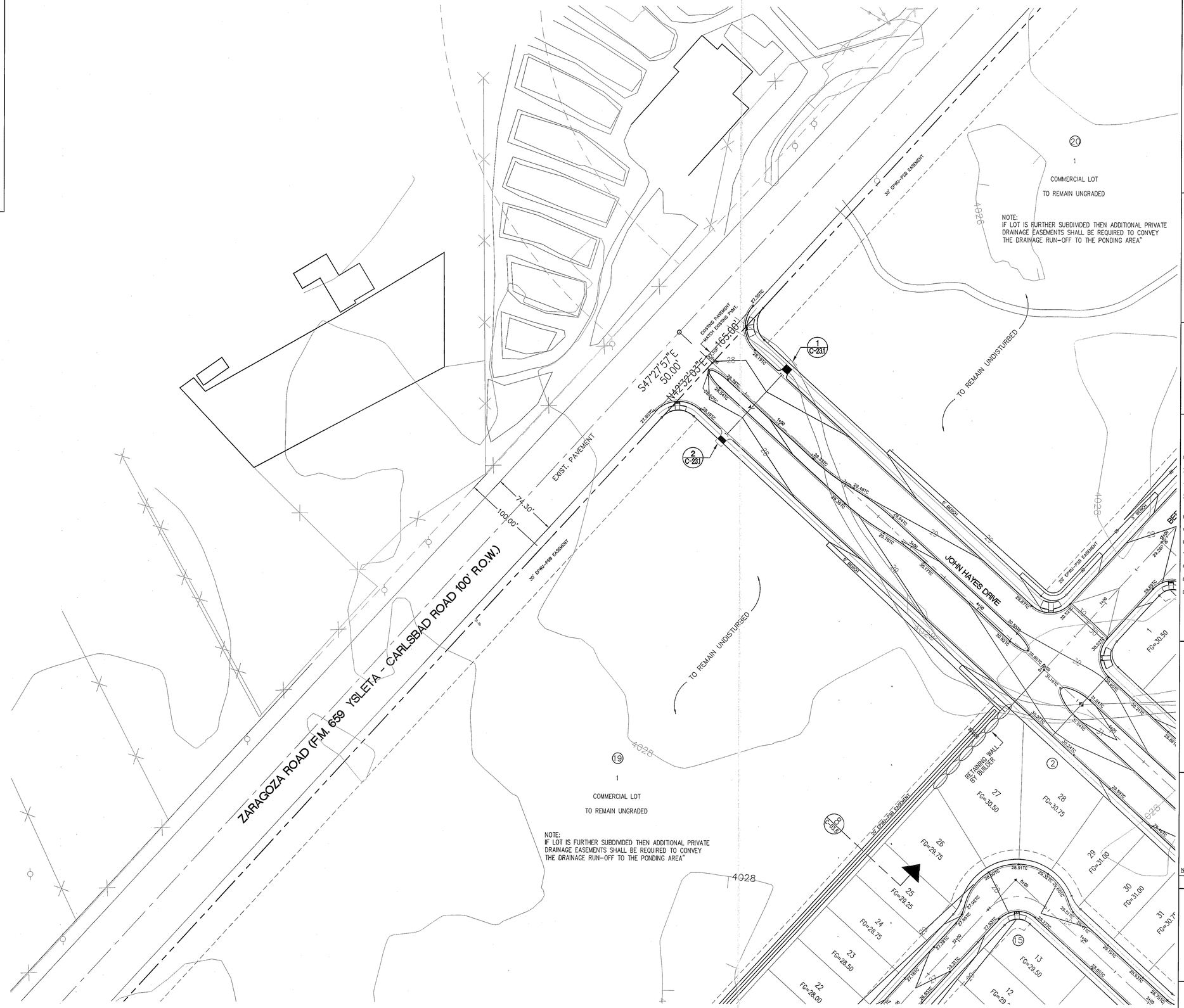


SCALE: 1"=50'

NOTE: THE DEVELOPER IS RESPONSIBLE FOR CONSTRUCTION OF ACCESSIBLE RAMPS.



REVISIONS												BY
												DATE
1	2	3	4	5	6	7	8	9	10	11	12	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS, AND PACIFIC R.R. SURVEYS' ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6660 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER

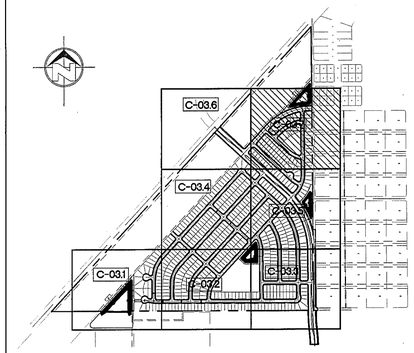
NOVEMBER 30, 2012

SHEET TITLE

GRADING PLAN (ENLARGED 6)

C-03.6

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-GRAD-ENL6.dwg 12/22/2011 11:49:27 AM MST



KEY MAP
SCALE: 1"=1,000'

50 40 30 20 10 0 25 50
SCALE: 1"=50'

NOTE: THE DEVELOPER IS RESPONSIBLE FOR CONSTRUCTION OF ACCESSIBLE RAMPS.

20
1
COMMERCIAL LOT
TO REMAIN UNGRADED

NOTE:
IF LOT IS FURTHER SUBDIVIDED THEN ADDITIONAL PRIVATE DRAINAGE EASEMENTS SHALL BE REQUIRED TO CONVEY THE DRAINAGE RUN-OFF TO THE PONDING AREA"

2
PONDING AREA NO. 4
BOTTOM ELEV 96.00

PARK NO. 2

AUGUSTA LANE
MARTHA LANE
BERNARD DR.
LOMA CALDERA DR.
LOMA REINA DR.
LOMA DANTE DR.
JOHN HAYES DRIVE
SD LINE 4A
SD LINE 4B
SD LINE 4C
6' WALL BY DEV.
RETAINING WALL BY BUILDER
RETAINING WALL BY DEVELOPER
20' EPWU-PSB EASEMENT
8' BENCH
60' ROW
70' ROW
24' EXIST. PVMT.
60' ROADWAY EASEMENT
GATE
PER STND DRAWING SEE SHT. C-22.3
S00°32'01"E 1589.30

PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, BLOCK 79, TSP2, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

REVISIONS	DATE	BY
1		
2		
3		
4		
5		
6		

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2591
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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LAND PLANNERS
8660 WESTMIND DRIVE
EL PASO, TEXAS 79925
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALOUS
92105
LICENSED
PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
GRADING PLAN (ENLARGED 7)

C-03.7

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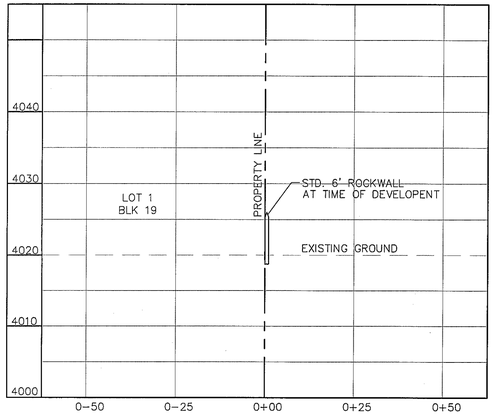

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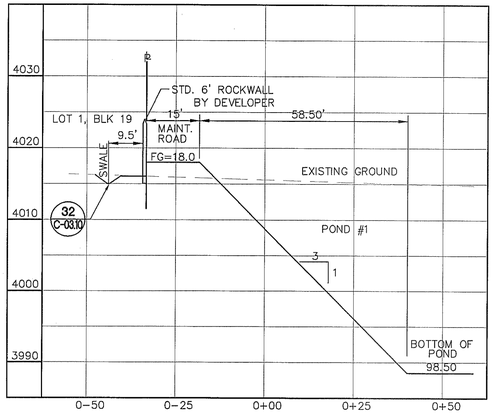
VERT: 1"=10'



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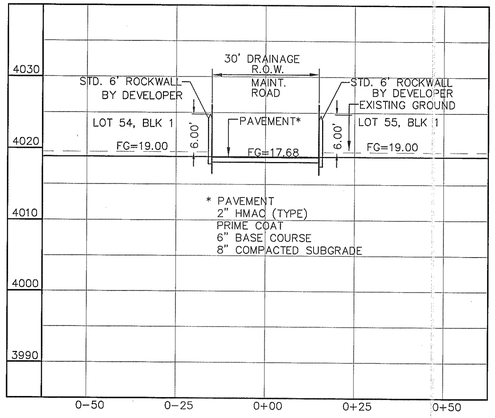

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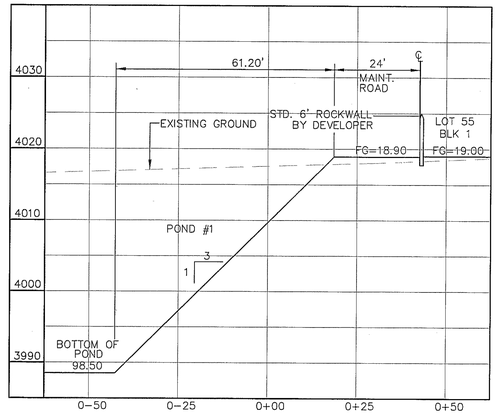
VERT: 1"=10'



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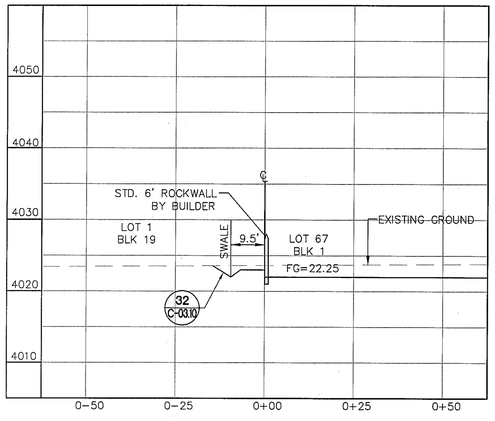

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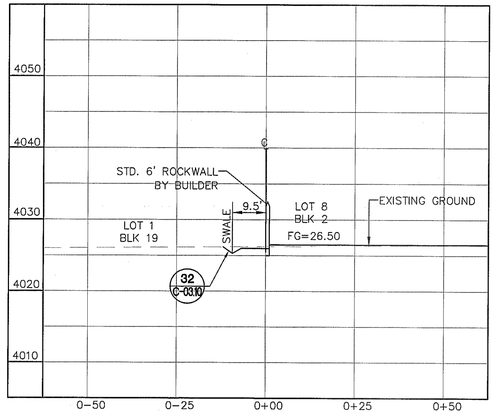

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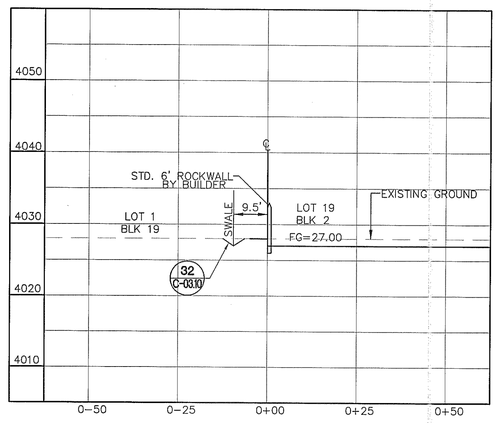

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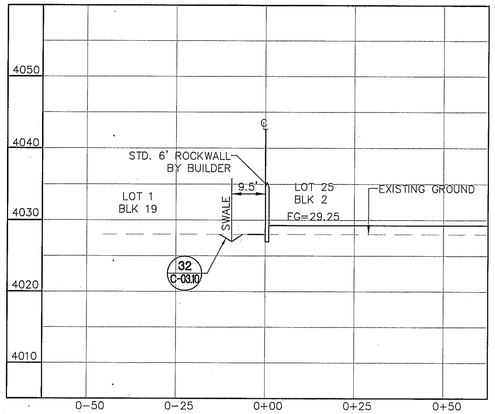

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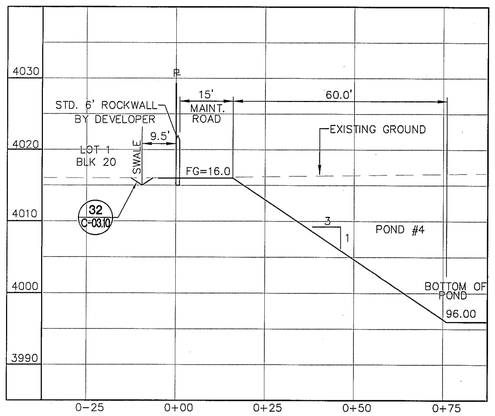

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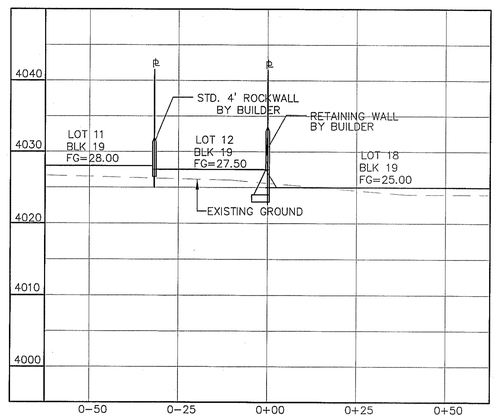

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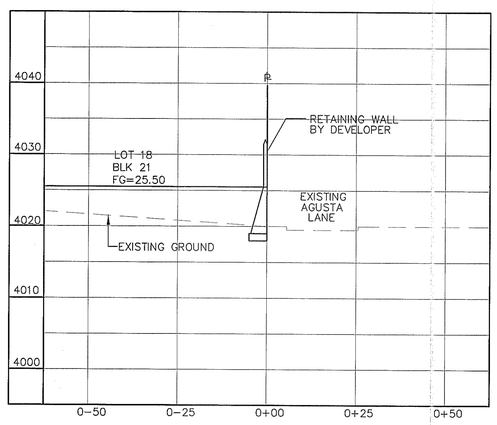

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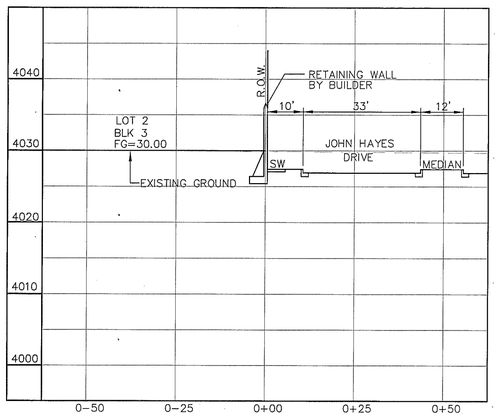

12 C-03.8 **GRADING SECTION**
HOR: 1"=20'
VERT: 1"=10'

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BY

REVISIONS

DATE

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.09 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2891
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

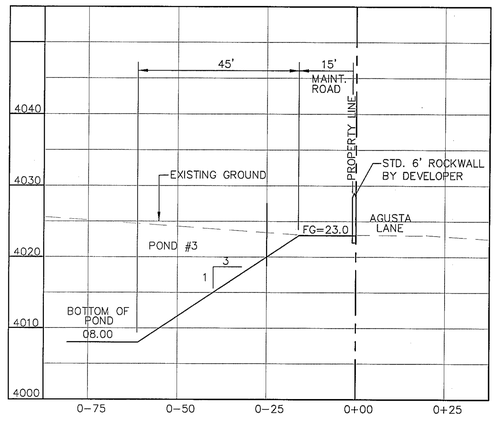
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED
PROFESSIONAL ENGINEER

NOVEMBER 30, 2012

SHEET TITLE
GRADING SECTIONS
(1 OF 3)

C-03.8



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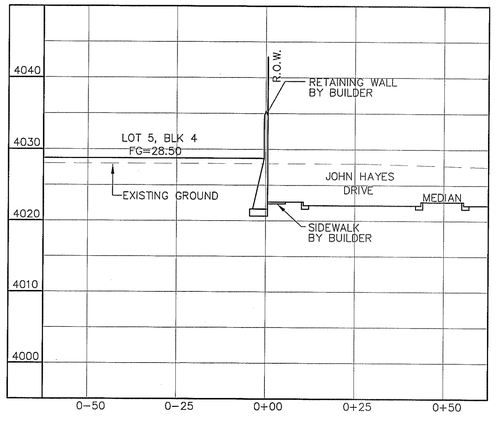

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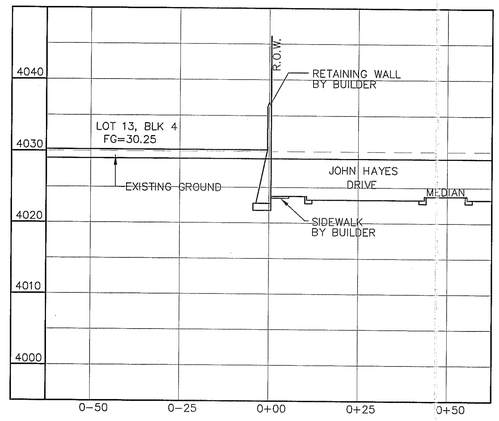

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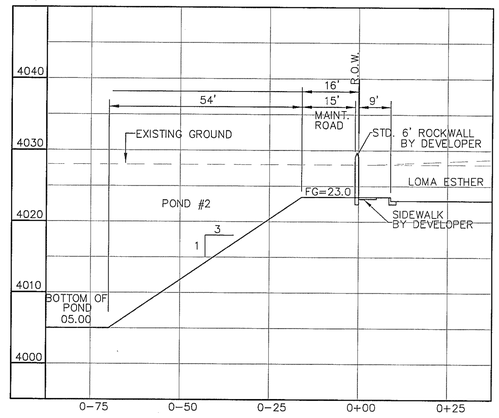

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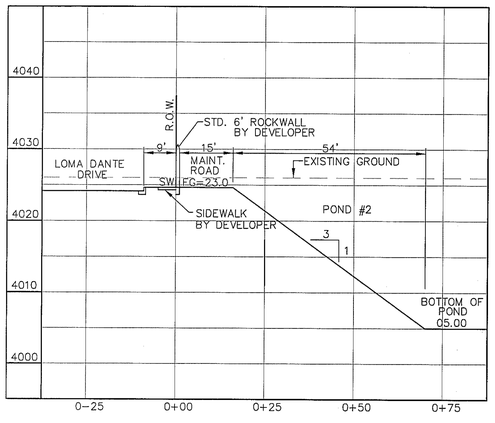

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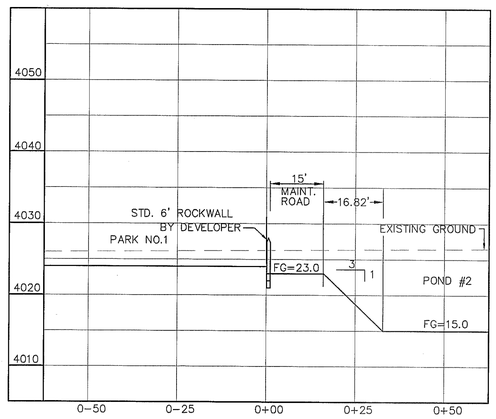

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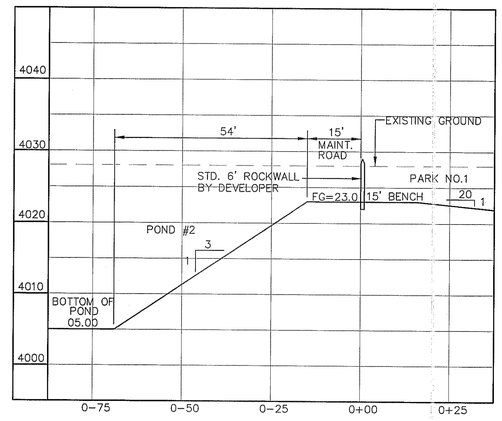

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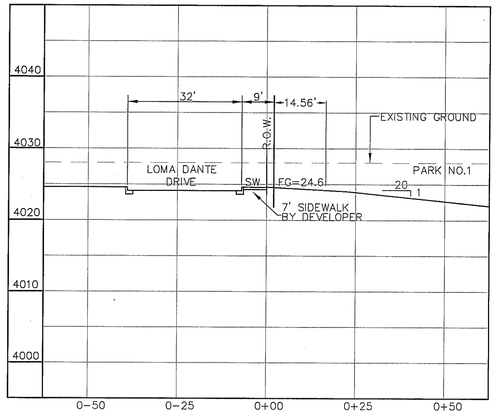
VERT: 1"=10'



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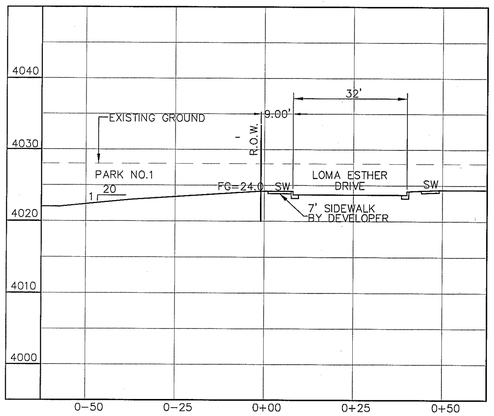

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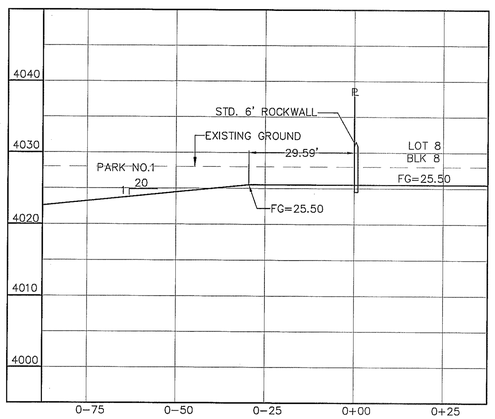

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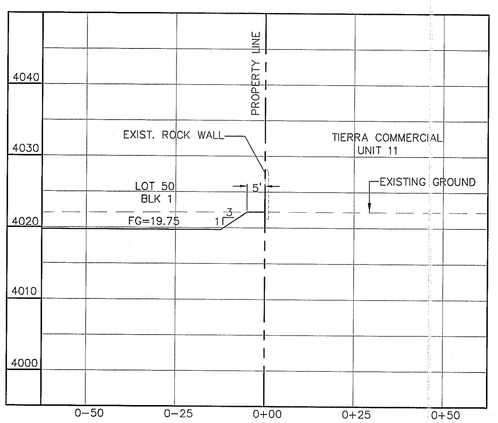

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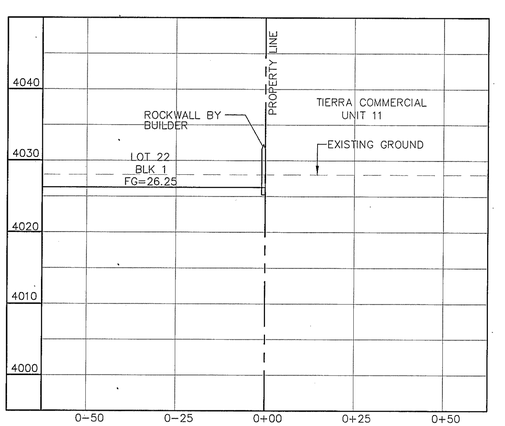

24 C-03.9 **GRADING SECTION**
HOR: 1"=20'
VERT: 1"=10'

PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

REVISIONS

BY	DATE
	1
	2
	3
	4
	5
	6

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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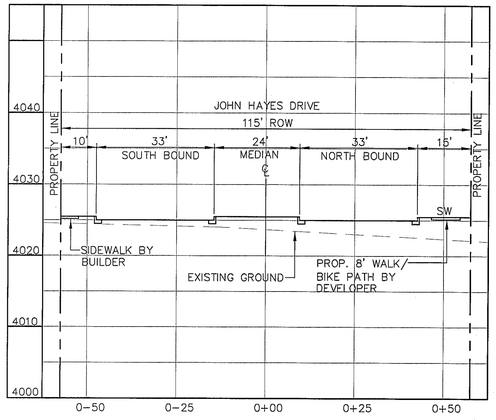
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER

NOVEMBER 30, 2012

SHEET TITLE
GRADING SECTIONS
(2 OF 3)

C-03.9



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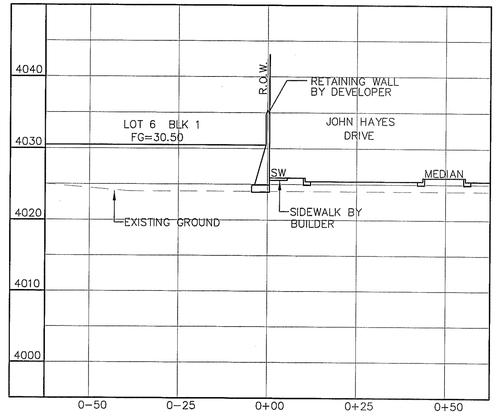

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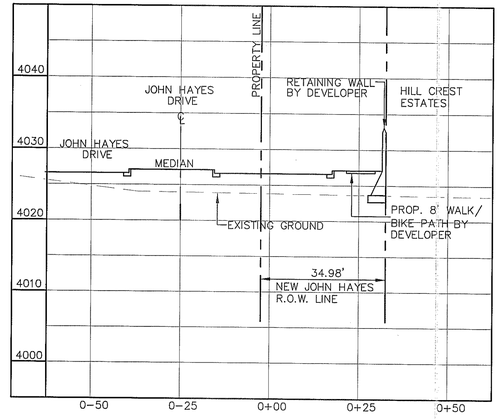

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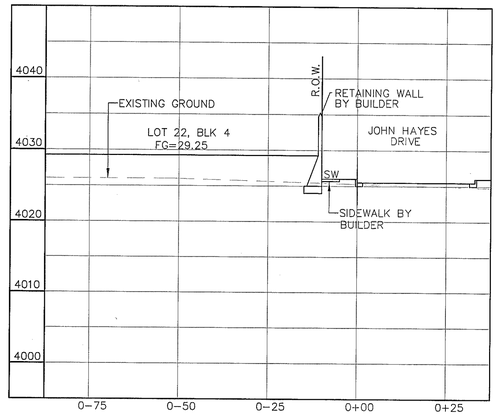

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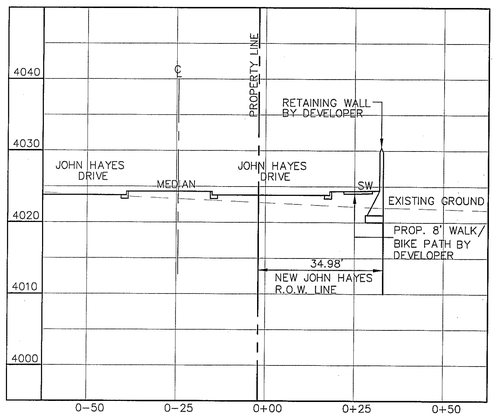

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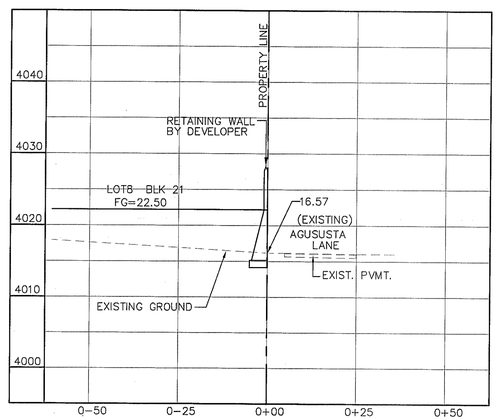

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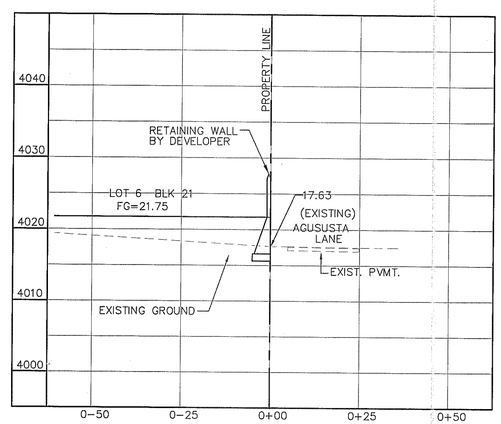
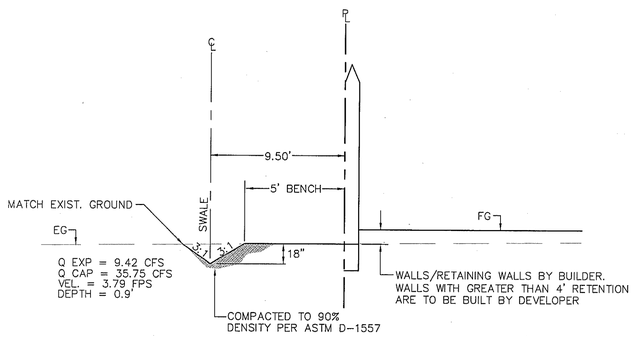
HOR: 1"=20'
VERT: 1"=10'



31 C-03.10 **GRADING SECTION**
HOR: 1"=20'
VERT: 1"=10'



31 C-03.10 **TYP. SWALE DETAIL**
NTS

BENCHMARK	SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM
REVISIONS	BY / DATE
SCALE:	AS SHOWN
JOB NO.:	09-10-2991
DESIGN BY:	E.T.
CHECKED BY:	G.H.
DATE:	NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED
PROFESSIONAL ENGINEER

NOVEMBER 30, 2012

SHEET TITLE

GRADING SECTIONS

(3 OF 3)

C-03.10

PONDING DATA FORMULA = Qt=ARC/12 + (A X 0.012) 100 YRS. STORM FREQUENCY

FOND DESIGNATION	'A' (AREA IN AC.)	'R'	C (AVG.)	REQUIRED VOLUME W/OUT SILT & 25%	HIGH WATER ELEV. W/OUT SILT & 25%	REQUIRED VOLUME (AC-FT) W/ SILT & 25%	HIGH WATER ELEV. W/SILT & 25%	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.
++POND NO. 1	79.09	4"/3 HRS.	0.74	19.51 ***48.76	4010.50	25.33 ***62.32	4013.50	72.05	3998.50	4018.00
POND NO. 2	35.83	4"/3 HRS.	0.65	07.76	4019.50	10.13	4022.10	10.92	4005.00	4023.00
POND NO. 3	14.53	4"/3 HRS.	0.68	03.29	4019.50	04.28	4021.50	06.16	4008.00	4023.00
POND NO. 4	39.65	4"/3 HRS.	0.75	09.91	4012.05	12.87	4014.95	14.12	3996.00	4016.00
PARK NO. 1	05.09	4"/3 HRS.	0.40	00.68	4022.35	00.91	4022.45	02.24	4022.00	4023.00
PARK NO. 2	01.23	4"/3 HRS.	0.40	00.16	4020.35	00.21	4020.45	00.55	4020.00	4021.00

++POND NO.1 TO BE COMBINED WITH POND FROM TIERRA COMMERCIAL UNIT 11 SEE SHEET C-22.0 FOR DETAILS
*** REQUIRED STORAGE VOLUME COMBINED WITH TIERRA COMMERCIAL UNIT 11
NOTE: REFER TO SHEET C-23 FOR INLET AND M.H. DATA

FLOOD ZONE

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY– PANEL NO. 480212 0175 B DATED SEPTEMBER 4, 1991
IN FLOOD ZONE
X AREAS OF MINIMAL FLOODING.

BENCHMARK:

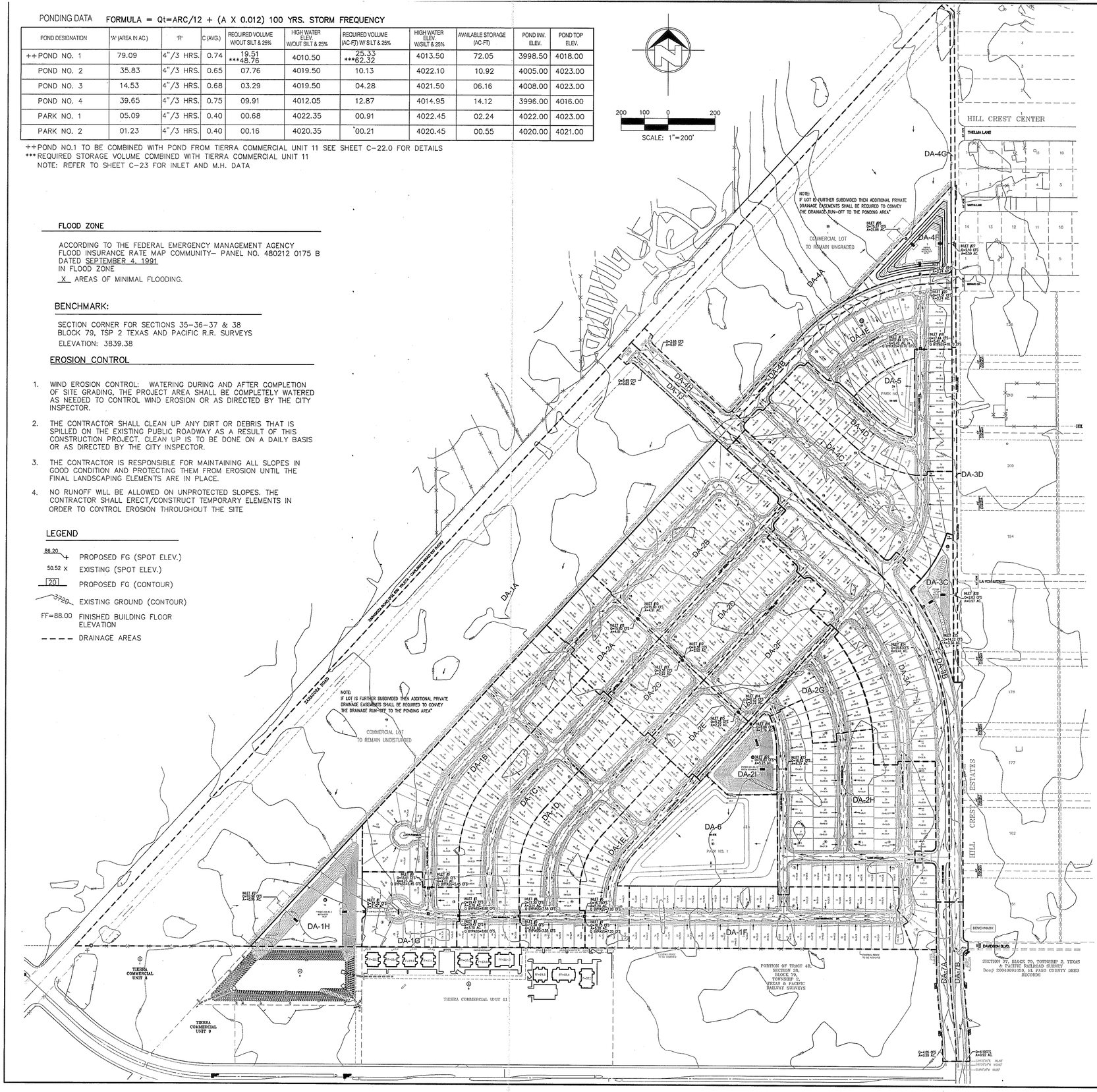
SECTION CORNER FOR SECTIONS 35–36–37 & 38
BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION: 3839.38

EROSION CONTROL

1. WIND EROSION CONTROL: WATERING DURING AND AFTER COMPLETION OF SITE GRADING, THE PROJECT AREA SHALL BE COMPLETELY WATERED AS NEEDED TO CONTROL WIND EROSION OR AS DIRECTED BY THE CITY INSPECTOR.
2. THE CONTRACTOR SHALL CLEAN UP ANY DIRT OR DEBRIS THAT IS SPILLED ON THE EXISTING PUBLIC ROADWAY AS A RESULT OF THIS CONSTRUCTION PROJECT. CLEAN UP IS TO BE DONE ON A DAILY BASIS OR AS DIRECTED BY THE CITY INSPECTOR.
3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SLOPES IN GOOD CONDITION AND PROTECTING THEM FROM EROSION UNTIL THE FINAL LANDSCAPING ELEMENTS ARE IN PLACE.
4. NO RUNOFF WILL BE ALLOWED ON UNPROTECTED SLOPES. THE CONTRACTOR SHALL ERECT/CONSTRUCT TEMPORARY ELEMENTS IN ORDER TO CONTROL EROSION THROUGHOUT THE SITE

LEGEND

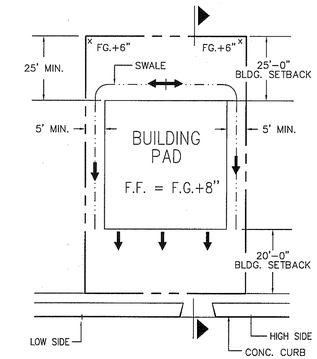
- 86.20 → PROPOSED FG (SPOT ELEV.)
- 50.52 X EXISTING (SPOT ELEV.)
- 20 PROPOSED FG (CONTOUR)
- 3778 EXISTING GROUND (CONTOUR)
- FF=88.00 FINISHED BUILDING FLOOR ELEVATION
- DRAINAGE AREAS



FREQUENCY FOR ESTIMATING RUNOFF FORMULA Q=CIA

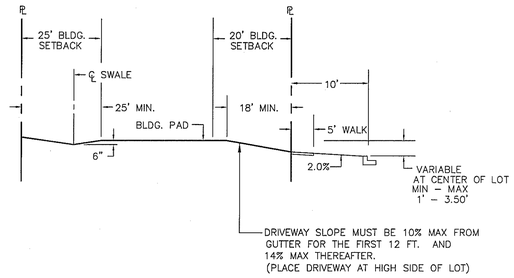
POND	DRAINAGE AREA	AREA (ACRES)	C (AVG)	TC (MIN)	I 100 (IN/HR)	Q100 (CFS)	Q50 (CFS)	Q25 (CFS)
NO. 1	1–A	40.13	00.85	30.00	03.05	104.04	94.49	82.55
	1–B	8.46	00.65	10.00	05.36	29.47	27.22	23.86
	1–C	7.41	00.65	10.00	05.36	25.82	23.84	20.90
	1–D	6.28	00.65	10.00	05.36	21.88	20.20	17.72
	1–E	3.39	00.65	10.00	05.36	11.81	10.91	9.56
	1–F	7.02	00.65	10.00	05.36	24.46	22.59	19.80
	1–G	2.74	00.65	10.00	05.36	9.55	8.82	7.73
	1–H (POND)	2.83	00.40	10.00	05.36	6.07	5.60	4.91
	1–J	0.83	00.85	10.00	05.36	3.78	3.49	3.06
NO. 2	2–A	2.78	00.65	10.00	05.36	9.68	8.94	7.84
	2–B	7.04	00.65	10.00	05.36	24.53	22.65	19.86
	2–C	2.03	00.65	10.00	05.36	7.07	06.53	5.72
	2–D	3.80	00.65	10.00	05.36	13.24	12.23	10.72
	2–E	2.03	00.65	10.00	05.36	7.07	06.53	5.73
	2–F	3.41	00.65	10.00	05.36	11.88	10.97	9.62
	2–G	2.76	00.65	10.00	05.36	9.62	8.88	7.79
	2–H	10.46	00.65	10.00	05.36	36.44	33.66	29.51
	2–I (POND)	1.52	00.40	10.00	05.36	3.25	3.01	2.64
NO.3	3–A	9.41	00.65	15.00	04.55	27.83	25.63	22.44
	3–B	3.38	00.85	10.00	05.36	15.40	14.22	12.47
	3–C (POND)	1.17	00.40	10.00	05.36	2.51	2.32	2.03
	3–D	0.57	00.85	15.00	04.55	2.20	2.03	1.78
NO. 4	4–A	20.19	00.85	15.00	04.55	78.08	71.91	62.98
	4–B	0.98	00.85	10.00	05.36	4.46	4.12	3.60
	4–C	6.76	00.65	10.00	05.36	23.55	21.75	19.11
	4–D	4.08	00.65	10.00	05.36	14.21	13.13	11.51
	4–E	4.50	00.65	10.00	05.36	15.68	14.48	12.69
	4–F (POND)	1.68	00.40	10.00	05.36	3.60	3.33	2.92
	4–G	0.59	00.85	15.00	04.55	2.28	2.10	1.84
	4–H	0.87	00.85	10.00	05.36	3.96	3.66	3.21
OS	5 (PARK)	1.23	00.40	10.00	05.36	02.64	2.43	2.14
OS	6 (PARK)	5.09	00.40	10.00	05.36	10.92	10.08	8.84
OFF SITE	7–A	0.89	00.85	10.00	05.36	4.05	3.74	3.28
OFF SITE	7–B	0.92	00.85	10.00	05.36	4.19	3.87	3.39

NOTE: RUNOFF COEFFECIENTS OBTAINED FROM PRE 2008 DESIGN STANDARDS.
OS = ONSITE PONDING



PLAN VIEW

NOTE:
EACH INDIVIDUAL LOT OWNER IS RESPONSIBLE FOR THE DRAINAGE OF ALL STORM WATER RUNOFF FROM THE BACK OF THE LOT TO THE FRONT OF THE LOT. THIS INCLUDES ALL RUNOFF FROM CONTRIBUTING SLOPES ONTO THE LOT. SEE LOT DRAINAGE DETAIL ON THIS SHEET.



SECTION THRU LOT

TYPICAL LOT DRAINAGE

NOT TO SCALE

REVISIONS

BY	DATE
	1
	2
	3
	4
	5
	6

BENCHMARK:
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 36, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6800 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
DRAINAGE PLAN (OVERALL)

C-04.0

LEGEND

- 86.20 + PROPOSED FG (SPOT ELEV.)
- 50.52 X EXISTING (SPOT ELEV.)
- 20 PROPOSED FG (CONTOUR)
- 3720 EXISTING GROUND (CONTOUR)
- FF=88.00 FINISHED BUILDING FLOOR ELEVATION
- DRAINAGE AREAS

100 50 0 100

SCALE: 1"=100'

TIERRA COMMERCIAL UNIT 1

ZARAGOZA ROAD (FM 659, YSLETA - CARLSBAD ROAD 100' ROW)

30' EPWU-PSB EASEMENT

NOTE:
IF LOT IS FURTHER SUBDIVIDED THEN ADDITIONAL PRIVATE DRAINAGE EASEMENTS SHALL BE REQUIRED TO CONVEY THE DRAINAGE RUN-OFF TO THE PONDING AREA"

COMMERCIAL LOT TO REMAIN UNDISTURBED

DA-1A
DA-1B
DA-1C
DA-1D
DA-1E
DA-1F
DA-1G
DA-1H
DA-2A
DA-2B
DA-2C
DA-2D
DA-2E
DA-2F
DA-2I
DA-6

INLET #1 Q=37.72 CFS A=2.74 AC.
INLET #2 Q=19.47 CFS A=3.70 AC. Q BYPASS=8.80 CFS
INLET #3 Q=19.47 CFS A=3.70 AC. Q BYPASS=8.80 CFS
INLET #4 Q=17.30 CFS A=3.14 AC. Q BYPASS=7.55 CFS
INLET #5 Q=17.30 CFS A=3.14 AC. Q BYPASS=7.55 CFS
INLET #6 Q=16.75 CFS A=5.20 AC. Q BYPASS=7.20 CFS
INLET #7 Q=16.75 CFS A=5.20 AC. Q BYPASS=7.20 CFS
INLET #8 Q=13.61 CFS A=4.23 AC. Q BYPASS=5.45 CFS
INLET #9 Q=13.61 CFS A=4.23 AC. Q BYPASS=5.45 CFS
INLET #10 Q=15.60 CFS A=4.91 AC.
INLET #11 Q=15.60 CFS A=4.91 AC.
INLET #12 Q=9.38 CFS A=2.92 AC.
INLET #13 Q=9.38 CFS A=2.92 AC.
INLET #14 Q=8.75 CFS A=2.72 AC.
INLET #15 Q=8.75 CFS A=2.72 AC.
INLET #16 Q=8.88 CFS A=2.76 AC.
INLET #21 Q=97.95 CFS A=40.96 AC.
INLET #22 Q=16.83 CFS A=5.23 AC.
INLET #23 Q=16.83 CFS A=5.23 AC.

PONDING AREA NO. 1 BOTTOM ELEV=95.00
PONDING AREA NO. 1 BOTTOM ELEV. 165.50
PONDING AREA NO. 2 BOTTOM ELEV=4018.00

STORM DRAIN LINE-1A
STORM DRAIN LINE-1B
STORM DRAIN LINE-2A
STORM DRAIN LINE-2B

LOMA PONCE CT.
LOMA ADRIANA DR.
LOMA ESMERALDA DR.
LOMA AREZZO DR.
LOMA DEL ESTE BLVD.
LOMA CORTES DR.
LOMA DUNES DR.
LOMA ESTHER DR.
LOMA VERDE DR.
LOMA CORTINA DR.

EXISTING FENCE TO BE REMOVED

PARK NO. 1

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3639.39 NAVD88 DATUM

REVISIONS

BY	DATE
1	
2	
3	
4	
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6	

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS 79912
(915) 584-4457

SLI ENGINEERING, INC.

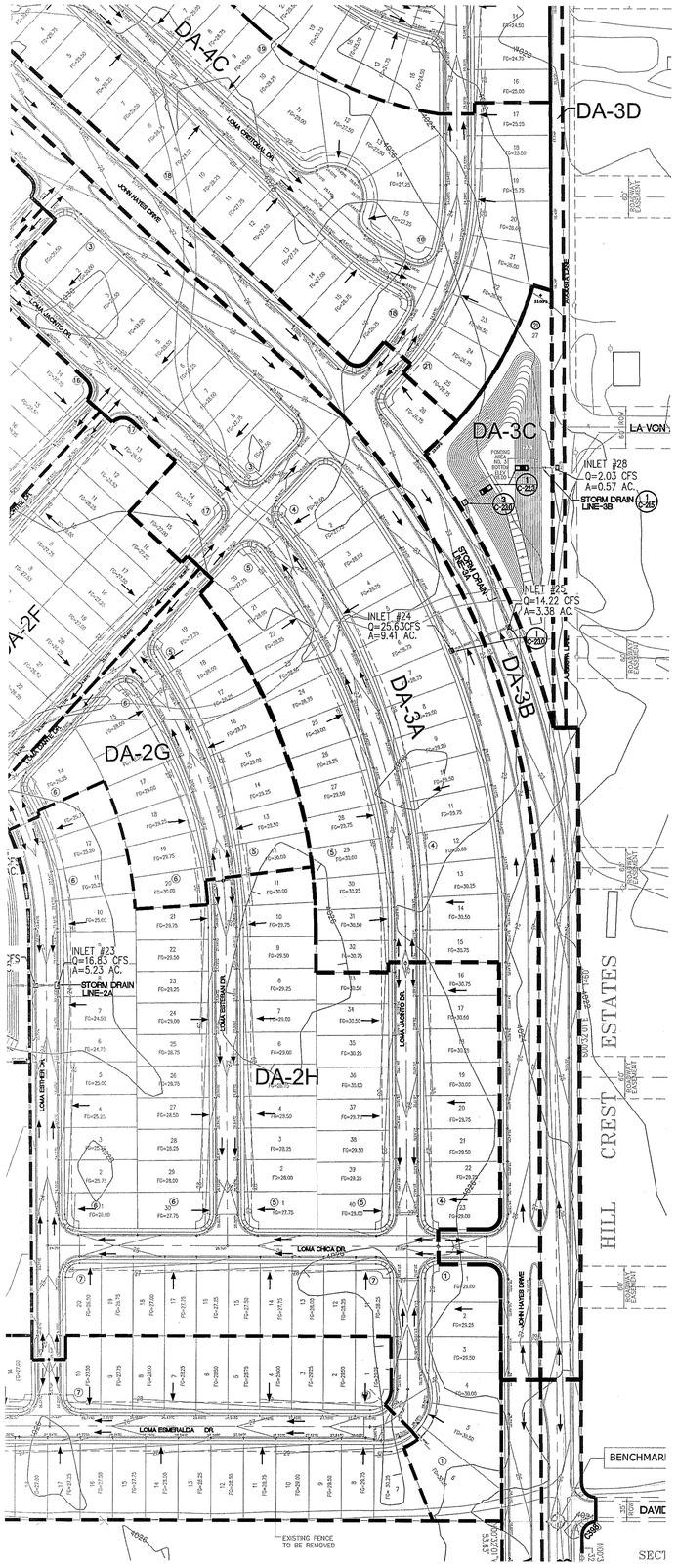
SLI LICENSE No. F-1902

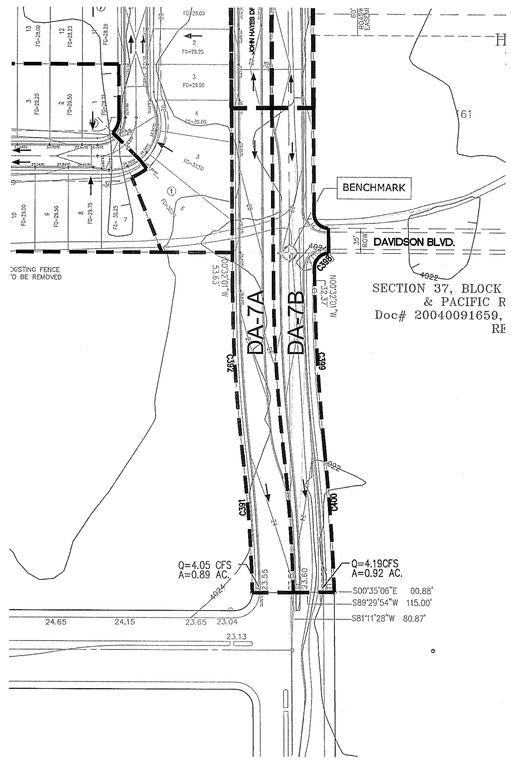
STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE

DRAINAGE PLAN (ENLARGED 1)

C-04.1



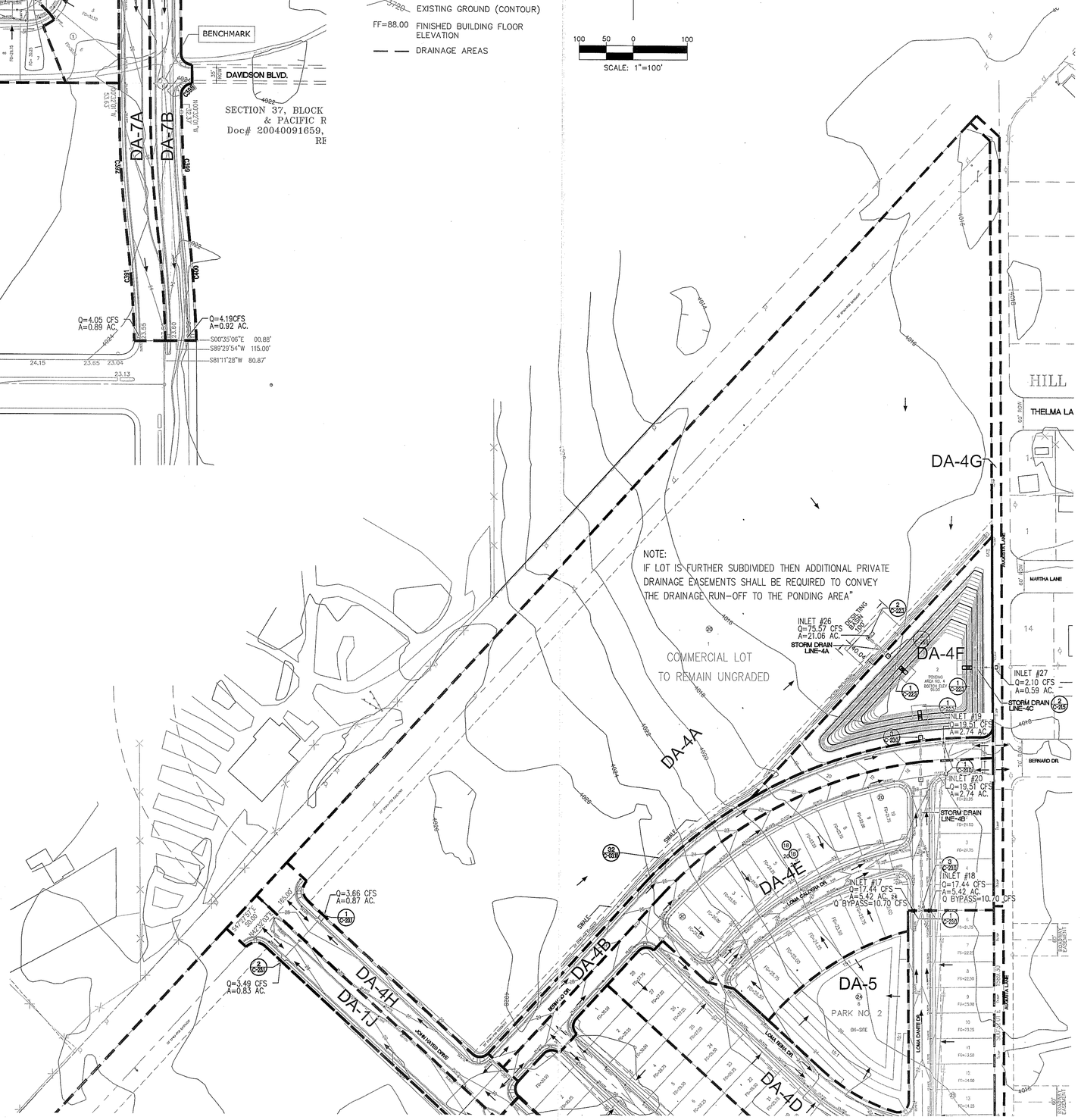


LEGEND

- 86.20 + — PROPOSED FG (SPOT ELEV.)
- 50.52 X — EXISTING (SPOT ELEV.)
- 20 — PROPOSED FG (CONTOUR)
- 3720 — EXISTING GROUND (CONTOUR)
- FF=88.00 — FINISHED BUILDING FLOOR ELEVATION
- — — DRAINAGE AREAS

100 50 0 100

SCALE: 1"=100'



NO.	DATE	REVISIONS	BY
1			
2			
3			
4			
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6			

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 2, AND 1, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS. ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35; A PORTION OF SECTION 37, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS AND A PORTION OF SECTION 36, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-1457

SLI ENGINEERING, INC.

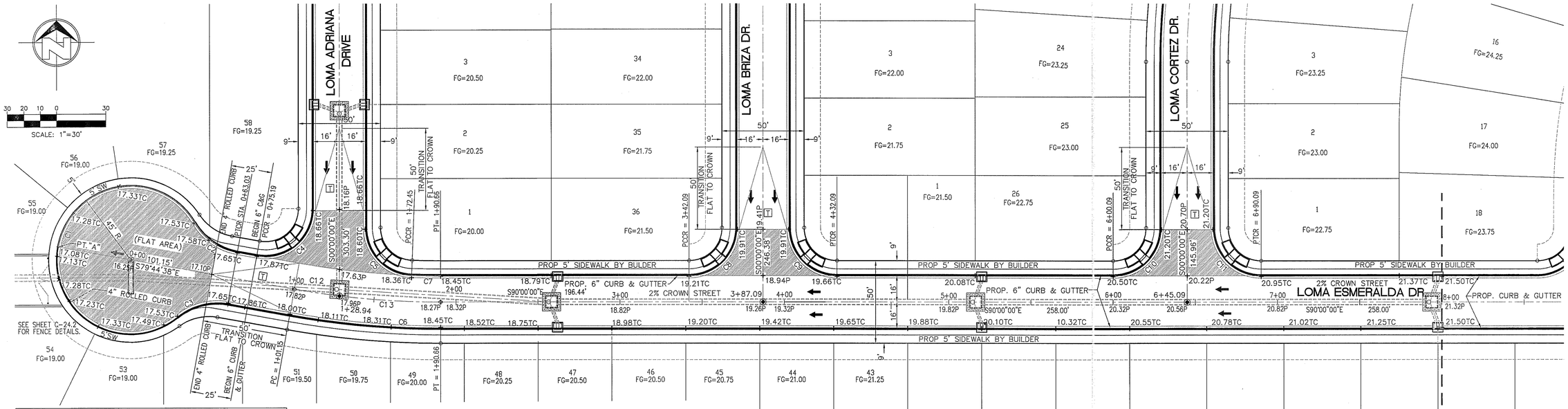
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE

DRAINAGE PLAN (ENLARGED 2)

C-04.2



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	218.99	45.00	38.55	58.55	S10°15'22"W	278°49'33"
C2	32.77	38.00	17.48	31.77	S55°02'14"E	49°24'47"
C3	32.77	38.00	17.48	31.77	S75°32'59"W	49°24'47"
C4	50.74	29.00	34.72	44.51	N50°07'41"E	100°15'22"
C5	44.50	29.00	27.96	40.26	S43°57'25"E	87°54'50"
C6	92.37	516.00	46.31	92.24	S84°52'19"E	10°15'22"
C7	17.62	484.00	8.81	17.62	S88°57'25"E	2°05'10"
C8	45.55	29.00	29.00	41.01	N45°00'00"E	90°00'00"
C9	45.55	29.00	29.00	41.01	S45°00'00"E	90°00'00"
C10	45.55	29.00	29.00	41.01	N45°00'00"E	90°00'00"
C11	45.55	29.00	29.00	41.01	S45°00'00"E	90°00'00"
C12	27.78	500.00	13.89	27.78	S81°20'08"E	3°11'01"
C13	61.72	500.00	30.90	61.68	S86°27'49"E	7°04'21"

LEGEND

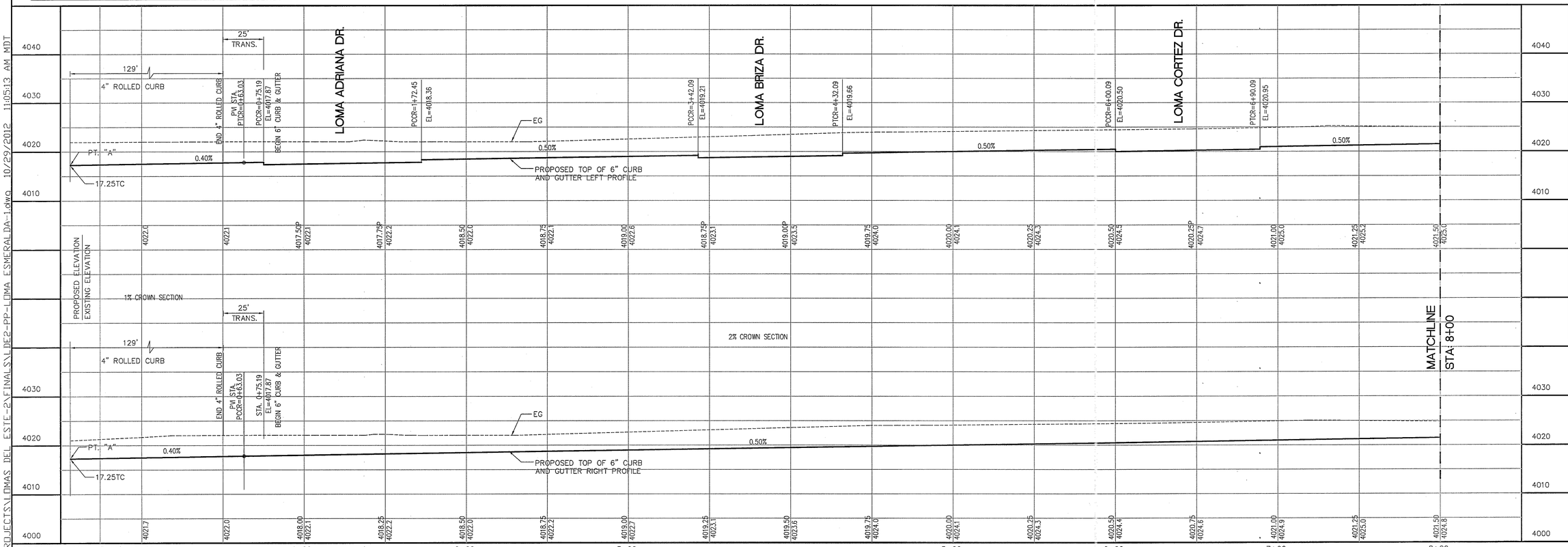
R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
T = PVMT. TRANSITION (FLAT TO CROWN)

PROFILE

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

811 Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.



F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA ESMERALDA-1.dwg 10/29/2012 11:05:13 AM MDT

DATE	REVISIONS	BY

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
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EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

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STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE
PLAN AND PROFILE
LOMA ESMERALDA DRIVE
STA 0+00.00
STA 8+00.00
(SHT 1 OF 3)

C-05.0

LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
T = PVMT. TRANSITION (FLAT TO CROWN)

PROFILE

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

Know what's **below.** **Call** before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

SCALE: 1"=30'

PARK AREA

LOMA DANTE DR.

LOMA ESTHER DR.

LOMA ESMERALDA DR.

PROP. 4" ROLLED CURB

PROP. 5' SIDEWALK

PROP. 5' SIDEWALK BY BUILDER

ROP. 6" CURB & GUTTER

2% CROWN STREET

1% CROWN STREET

PCCR = 8+58.09

PTCR = 9+48.09

PCCR = 15+98.58

BEGIN 4" ROLLED CURB

END 6" CURB & GUTTER

MATCH LINE
STA 8+00.00

MATCH LINE
STA 16+00.00

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N45°00'00"E	90°00'00"
C2	45.55	29.00	29.00	41.01	S45°00'00"E	90°00'00"

NOTE: THE DEVELOPER IS RESPONSIBLE FOR
THE CONSTRUCTION OFF ALL RAMPS.

PCCR=8+58.09 EL= 4021.79
PTCR=9+48.09 EL=4025.24
STA. 9+72.09 BEGIN 4" ROLLED CURB
PCCR STA 15+98.58 EL=4025.49

EG

PROPOSED LEFT TOP OF 6" CURB AND GUTTER PREOFILE

PROPOSED TOP OF 4" ROLLED CURB LEFT PROFILE

PROPOSED RIGTH TOP OF 6" CURB AND GUTTER PROFILE

PROPOSED TOP OF 4" ROLLED CURB RIGHT PROFILE

0.50%

2% CROWN SECTION

1% CROWN SECTION

PROPOSED ELEVATION
EXISTING ELEVATION

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

NO.	DATE	REVISIONS	BY
1	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6500 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

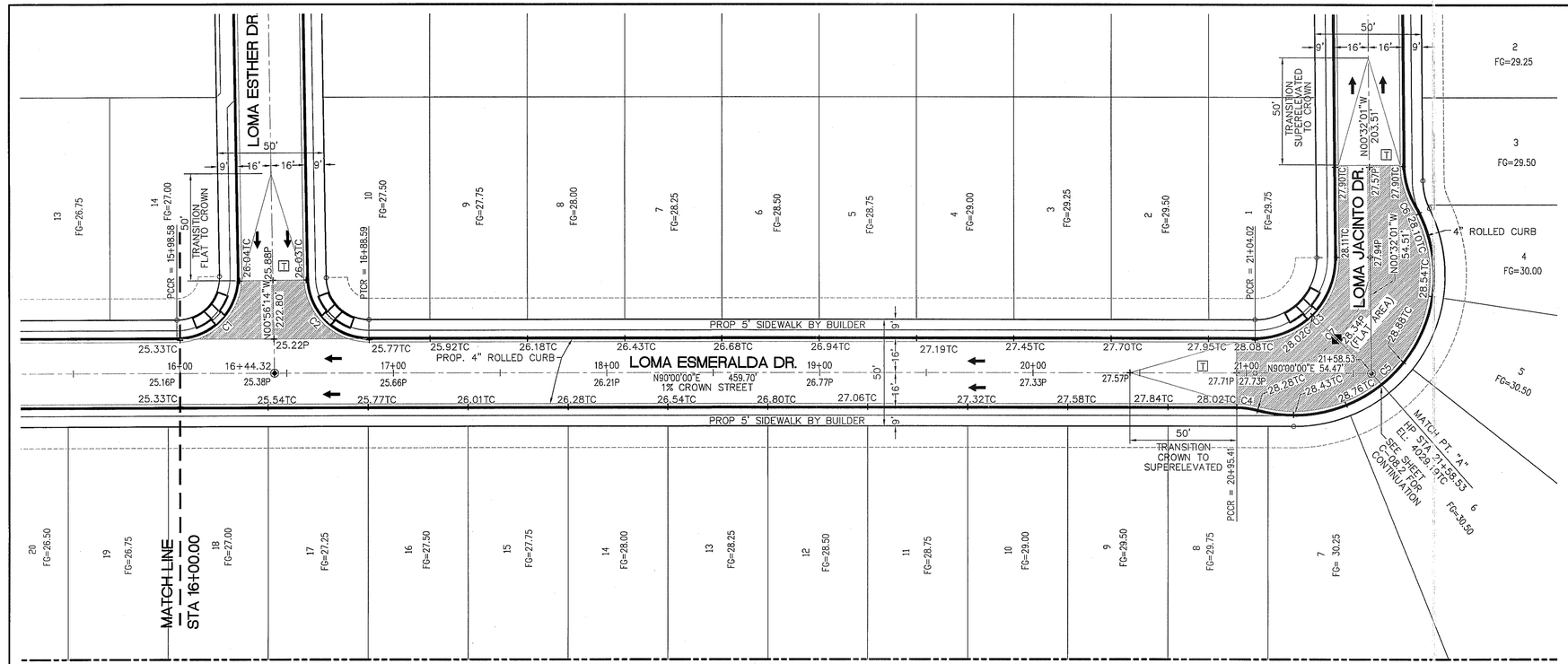
STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE

PLAN AND PROFILE
LOMA ESMERALDA
DRIVE
STA 8+00.00
STA 16+00.00

(SHT 2 OF 3)

C-05.1



NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

SCALE: 1"=30'

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	46.03	29.00	29.48	41.35	N44°31'53"E	90°56'14"
C2	45.08	29.00	28.53	40.68	S45°28'07"E	89°03'46"
C3	60.04	38.00	38.36	53.99	N44°44'00"E	90°32'01"
C4	9.91	38.00	4.98	9.88	N82°31'43"W	14°56'34"
C5	154.41	65.50	158.40	121.06	N37°24'31"E	135°04'05"
C6	19.63	38.00	10.04	19.41	S15°19'46"E	29°35'31"
C7	85.33	54.00	54.51	76.72	N44°44'00"E	90°32'01"

LEGEND

- R.O.W. = RIGHT-OF-WAY
- ← = PROPOSED WATER FLOW
- ◆ = HIGH POINT ON STREET
- ⋈ = LOW POINT ON STREET
- ◉ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- E.O.P. = EDGE OF PAVEMENT
- T = PVMT TRANSITION (FLAT TO CROWN)

PROFILE

= EXISTING GROUND PROFILE

= PROPOSED FINISH GROUND

811 Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig
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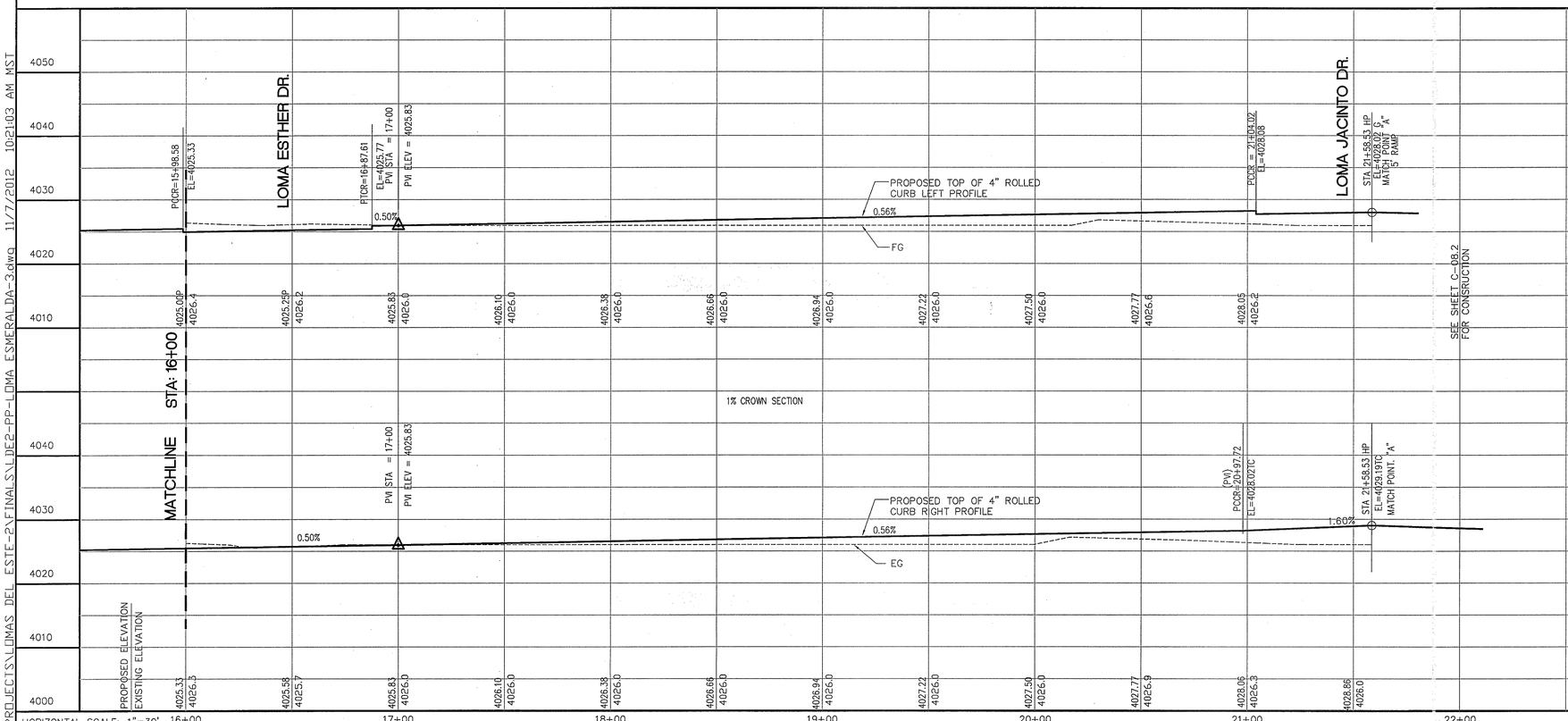
IT'S THE LAW!



NAME	DATE	REVISIONS	BY
	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2591
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
8600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

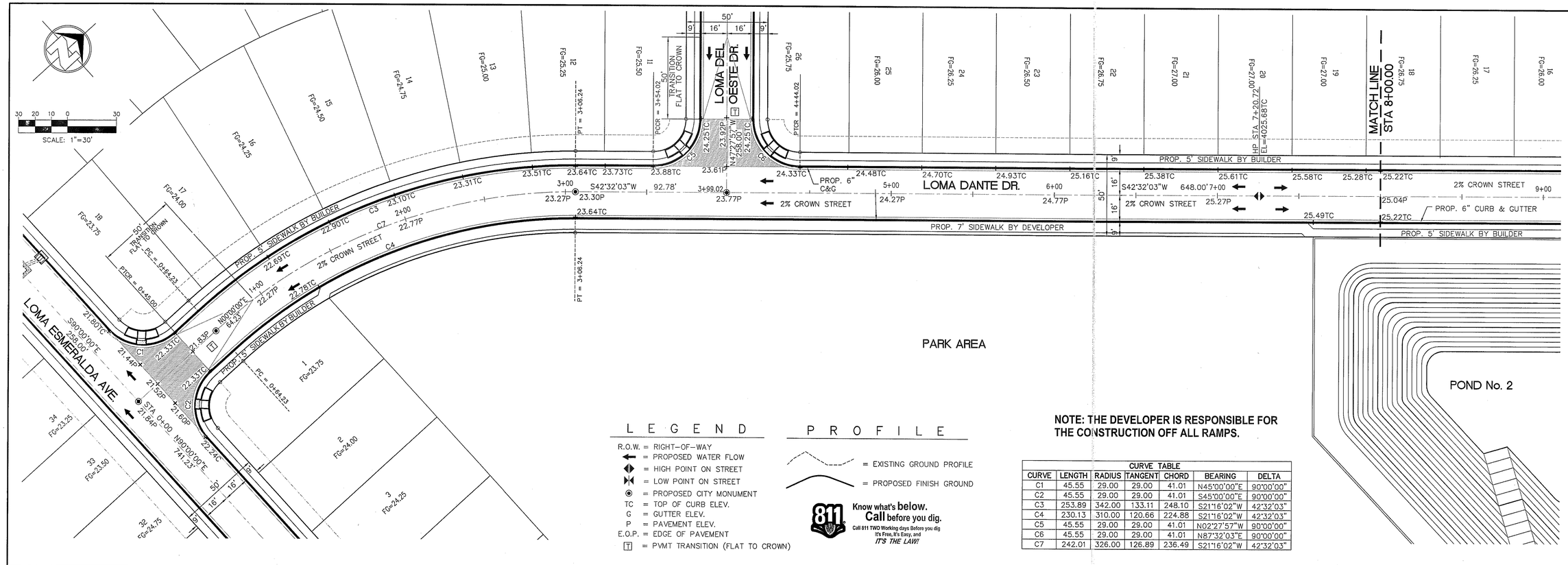
SHEET TITLE

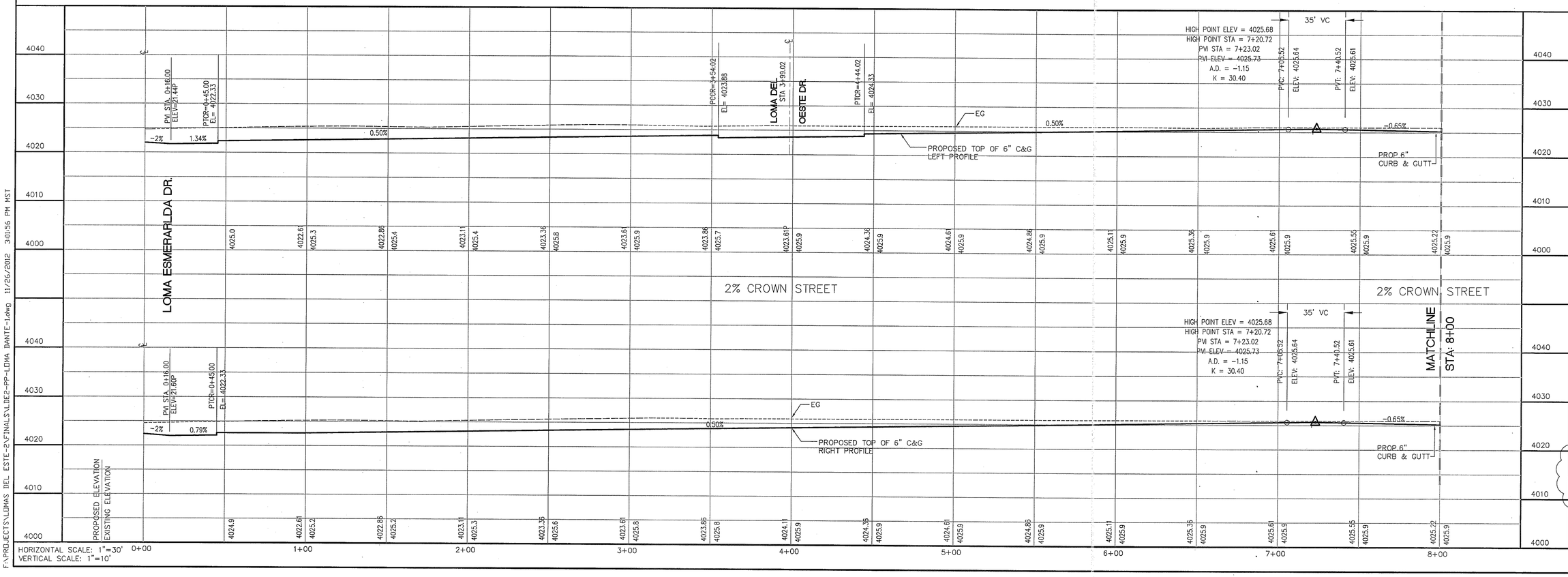
PLAN AND PROFILE
LOMA ESMERALDA DRIVE
STA 16+00.00
STA 21+58.53

(SHT 3 OF 3)

C-05.2

F:\PROJECTS\LOMAS DEL ESTE-2\FINAL SLIDE2-PP-LOMA ESMERALDA-3.dwg 11/7/2012 10:21:03 AM MST





DATE	REVISIONS	BY
4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 1A, SECTION 36, BLOCK 79, TSP 2, AND A PORTION OF TR. 1A, SECTION 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 581-1457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE
PLAN AND PROFILE
LOMA DANTE DRIVE
STA 0+00.00
STA 8+00.00
(SHT 1 OF 4)

C-06.0

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA DANTE-1.dwg 11/26/2012 3:01:56 PM MST

SCALE: 1"=30'

MATCH LINE STA 8+00.00

LOMA XAVIER DR.

PROP. 5' SIDEWALK BY BUILDER

PROP. 5' SIDEWALK BY DEVELOPER

PROP. 6" CURB & GUTTER

2% CROWN STREET

6' ROCKWALL BY DEVELOPER

POND No. 2

LOMA DANTE DR.

PROP. 4" ROLLED CURB

1% CROWN STREET

ESTHER DR.

LOMA ESTEBAN DR.

MATCH LINE STA 16+00.00

50' TRANSITION FLAT TO CROWN

50' TRANSITION CROWN TO FLAT

L E G E N D

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
T = PVMT TRANSITION (FLAT TO CROWN)

P R O F I L E

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

811 Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig It's Free, It's Easy, and IT'S THE LAW!

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C2	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C3	57.91	29.00	45.01	48.76	N80°15'38"W	114°24'38"
C4	35.85	29.00	20.62	33.61	S07°06'56"W	70°50'14"
C5	52.50	29.00	36.93	45.62	N85°36'21"W	103°43'12"
C6	39.52	29.00	23.52	36.53	S03°29'33"W	78°05'00"

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

LOW POINT ELEV = 4023.18P
LOW POINT STA = 10+49.98
PVI STA = 10+47.02
PVI ELEV = 4023.11P
A.D. = 1.15
K = 39.08
45' VC

LOW POINT ELEV = 4023.68
LOW POINT STA = 10+49.98
PVI STA = 10+47.02
PVI ELEV = 4023.61
A.D. = 1.15
K = 39.08
45' VC

-0.65% PROPOSED TOP OF 6" CURB AND GUTTER LEFT PROFILE

-0.65% PROPOSED TOP OF 6" CURB AND GUTTER RIGHT PROFILE

0.50% PROPOSED TOP OF 4" ROLLED CURB RIGHT PROFILE

-0.50%

PROPOSED ELEVATION
EXISTING ELEVATION

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA DANTE-2.dwg 11/26/2012 2:32:58 PM MST

REVISIONS	DATE	BY
CHANGED 6" CURB TO 4" ROLLED CURB	4/10/12	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

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SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP 2, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6500 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4497

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOS
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE

PLAN AND PROFILE
LOMA DANTE DRIVE
STA 8+00.00
STA 16+00.00

(SHT 2 OF 4)

C-06.1

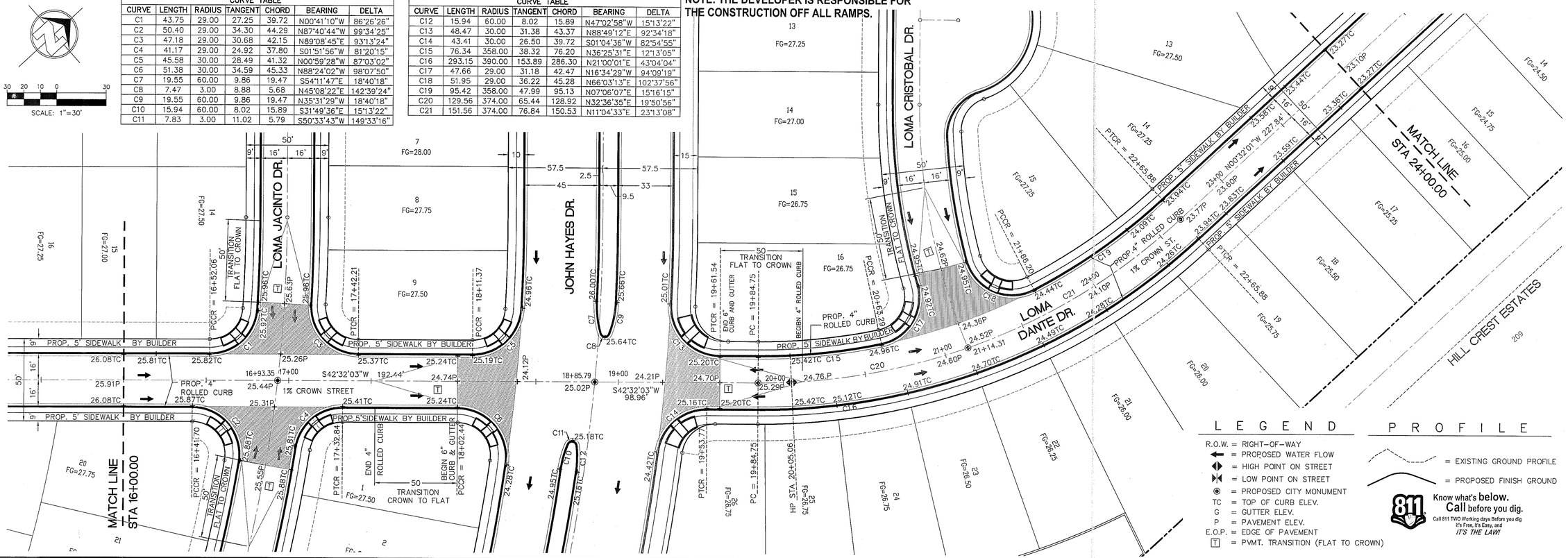
CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	43.75	29.00	27.25	39.72	N00°41'10"W	86°26'26"
C2	50.40	29.00	34.30	44.29	N87°40'44"W	99°34'25"
C3	47.18	29.00	30.68	42.15	N89°08'45"E	93°13'24"
C4	41.17	29.00	24.92	37.80	S01°51'56"W	81°20'15"
C5	45.58	30.00	28.49	41.32	N00°59'28"W	87°03'02"
C6	51.38	30.00	34.59	45.33	N88°24'02"W	98°07'50"
C7	19.55	60.00	9.86	19.47	S54°11'47"E	18°40'18"
C8	7.47	3.00	8.88	5.68	N45°08'22"E	142°39'24"
C9	19.55	60.00	9.86	19.47	N35°31'29"W	18°40'18"
C10	15.94	60.00	8.02	15.89	S31°49'36"E	15°13'22"
C11	7.83	3.00	11.02	5.79	S50°33'43"W	149°33'16"

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C12	15.94	60.00	8.02	15.89	N47°02'58"W	15°13'22"
C13	48.47	30.00	31.38	43.37	N88°49'12"E	92°34'18"
C14	43.41	30.00	26.50	39.72	S01°04'36"W	82°54'55"
C15	76.34	358.00	38.32	76.20	N36°25'31"E	12°13'05"
C16	293.15	390.00	153.89	286.30	N21°00'01"E	43°04'04"
C17	47.66	29.00	31.18	42.47	N16°34'29"W	94°09'19"
C18	51.95	29.00	36.22	45.28	N66°03'13"E	102°37'56"
C19	95.42	358.00	47.99	95.13	N07°06'07"E	15°16'15"
C20	129.56	374.00	65.44	128.92	N32°36'35"E	19°50'56"
C21	151.56	374.00	76.84	150.53	N11°04'33"E	23°13'08"

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

30 20 10 0 30

SCALE: 1"=30'



L E G E N D

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- = HIGH POINT ON STREET
- = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
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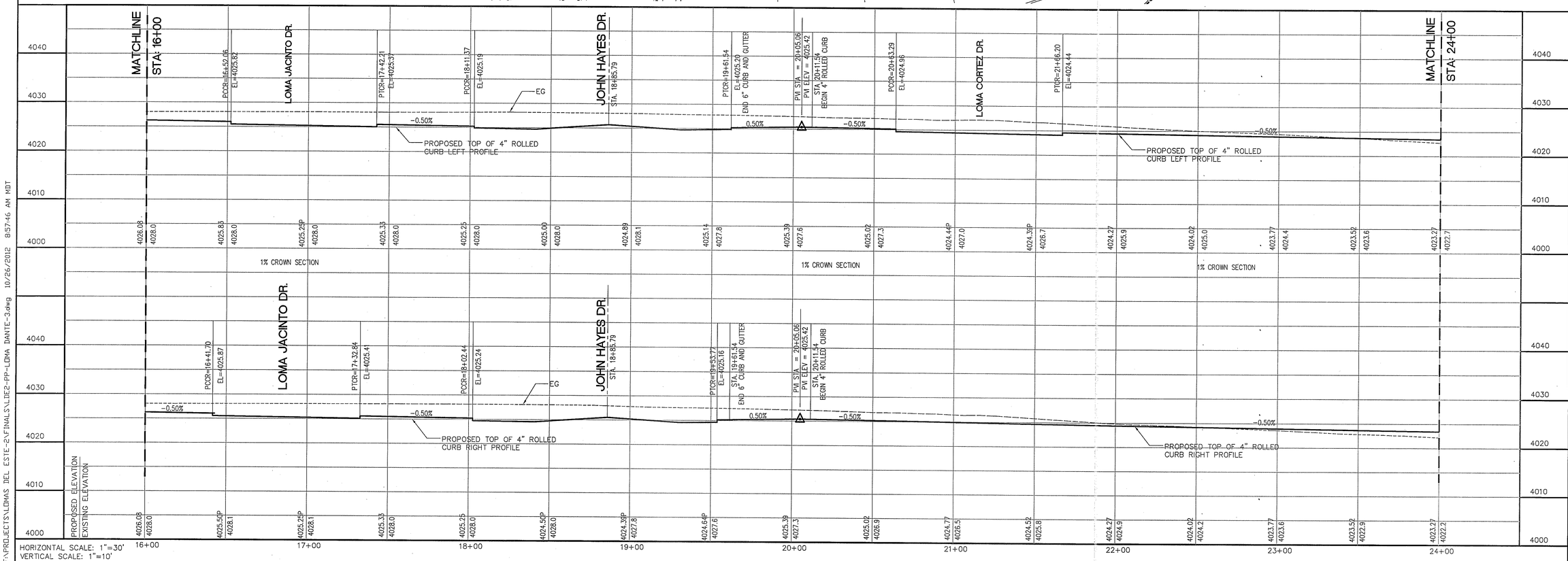
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- E.O.P. = EDGE OF PAVEMENT
- T = PVMT. TRANSITION (FLAT TO CROWN)

P R O F I L E

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

Know what's below. Call before you dig. Call 811 TWO Working days Before you dig It's Free, It's Easy, and IT'S THE LAW!!



HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA DANTE-3.dwg 10/26/2012 8:57:46 AM MDT

BY	DATE	REVISIONS
	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
660 MESCALERO DRIVE
EL PASO, TEXAS
(915) 584-1457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92108
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE

PLAN AND PROFILE
LOMA DANTE DRIVE
STA 16+00.00
STA 24+00.00

(SHT 3 OF 4)

C-06.2

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	38.68	29.00	22.83	35.88	N38°44'38"W	76°25'14"
C2	54.37	29.00	39.49	46.75	N53°10'40"E	107°25'21"
C3	52.79	29.00	37.32	45.80	N52°41'05"W	104°18'09"
C4	39.30	29.00	23.33	36.36	N38°17'06"E	77°38'13"
C5	49.42	28.00	34.04	43.25	N51°05'41"W	101°07'20"
C6	41.89	28.00	25.98	38.09	S42°19'36"W	85°43'13"

SCALE: 1"=30'

LOMA REINA DR.

LOMA DANTE DR.

LOMA CALDERA DR.

BERNARD DR.

MATCH LINE STA 24+00.00

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

LEGEND

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- = HIGH POINT ON STREET
- = LOW POINT ON STREET
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= EXISTING GROUND PROFILE

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Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and IT'S THE LAW!

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA DANTE-4.dwg 9/18/2012 10:32:53 AM MDT

REVISIONS		
BY	DATE	
	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6400 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

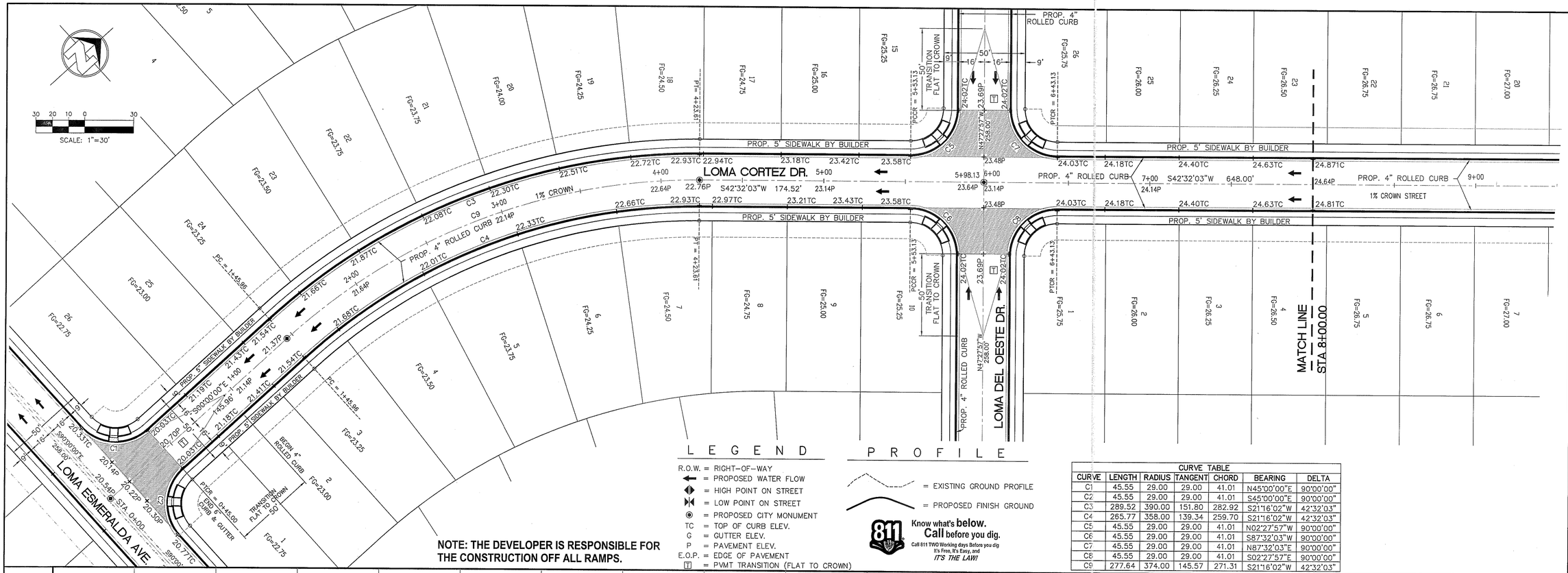
STATE OF TEXAS
GEORGES S. HALLOUL
92103
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE

PLAN AND PROFILE
LOMA DANTE DRIVE
STA 24+00.00
STA 31+76.71

(SHT 4 OF 4)

C-06.3



LEGEND

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- = HIGH POINT ON STREET
- = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- E.O.P. = EDGE OF PAVEMENT
- T = PVMT TRANSITION (FLAT TO CROWN)

PROFILE

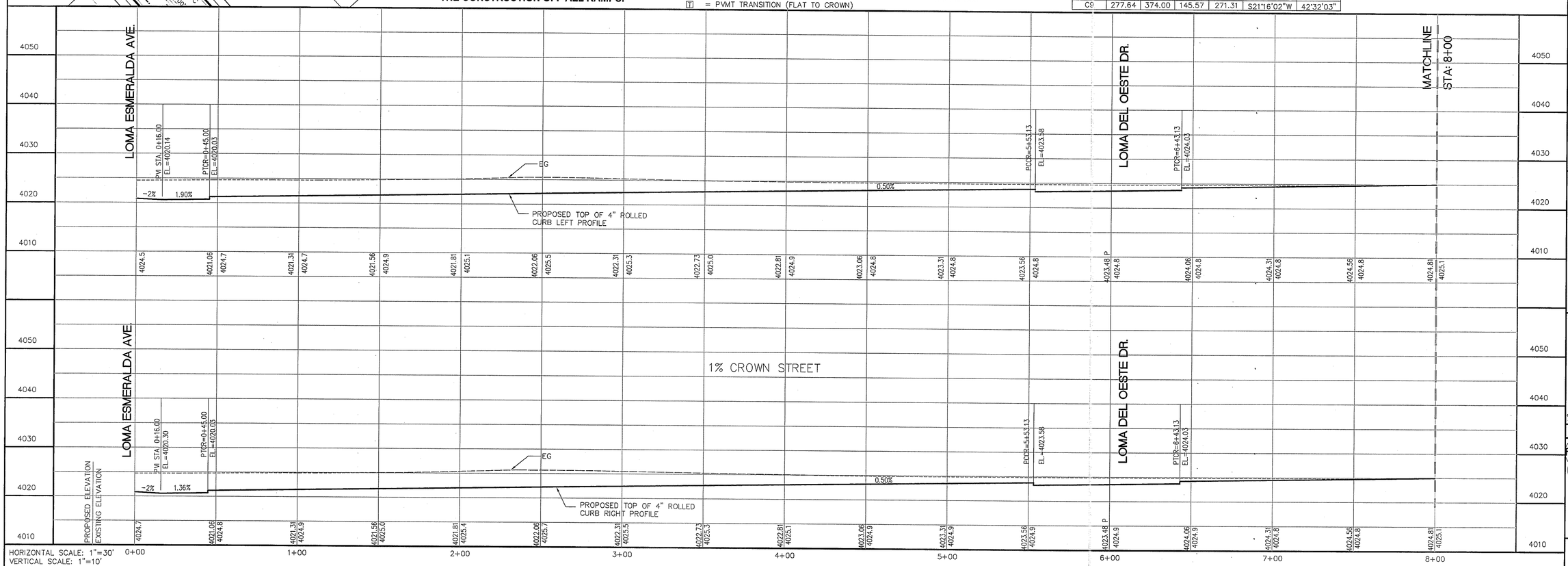
= EXISTING GROUND PROFILE

= PROPOSED FINISH GROUND

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

Know what's **below.** **Call** before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N45°00'00"E	90°00'00"
C2	45.55	29.00	29.00	41.01	S45°00'00"E	90°00'00"
C3	289.52	390.00	151.80	282.92	S21°16'02"W	42°32'03"
C4	265.77	358.00	139.34	259.70	S21°16'02"W	42°32'03"
C5	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C6	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C7	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C8	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C9	277.64	374.00	145.57	271.31	S21°16'02"W	42°32'03"



REVISIONS			
	DATE		BY
1	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	
2			
3			
4			
5			
6			

BENCHMARK:
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.I.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
8400 PISTOL RANGE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.

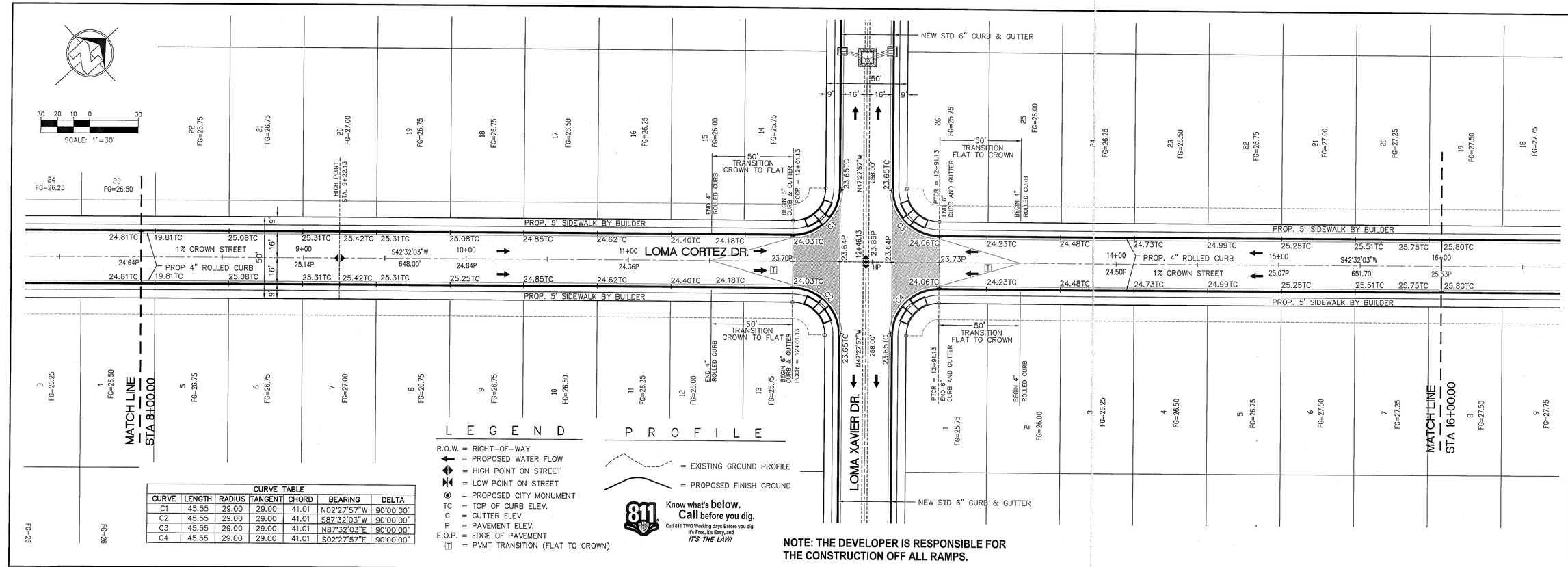
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE
PLAN AND PROFILE
LOMA CORTEZ DRIVE
STA 0+00.00
STA 8+00.00
(SHT 1 OF 3)

C-07.0

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA CORTEZ-1.dwg 10/26/2012 9:53:50 AM MDT



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C2	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C3	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C4	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"

LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
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TC = TOP OF CURB ELEV.
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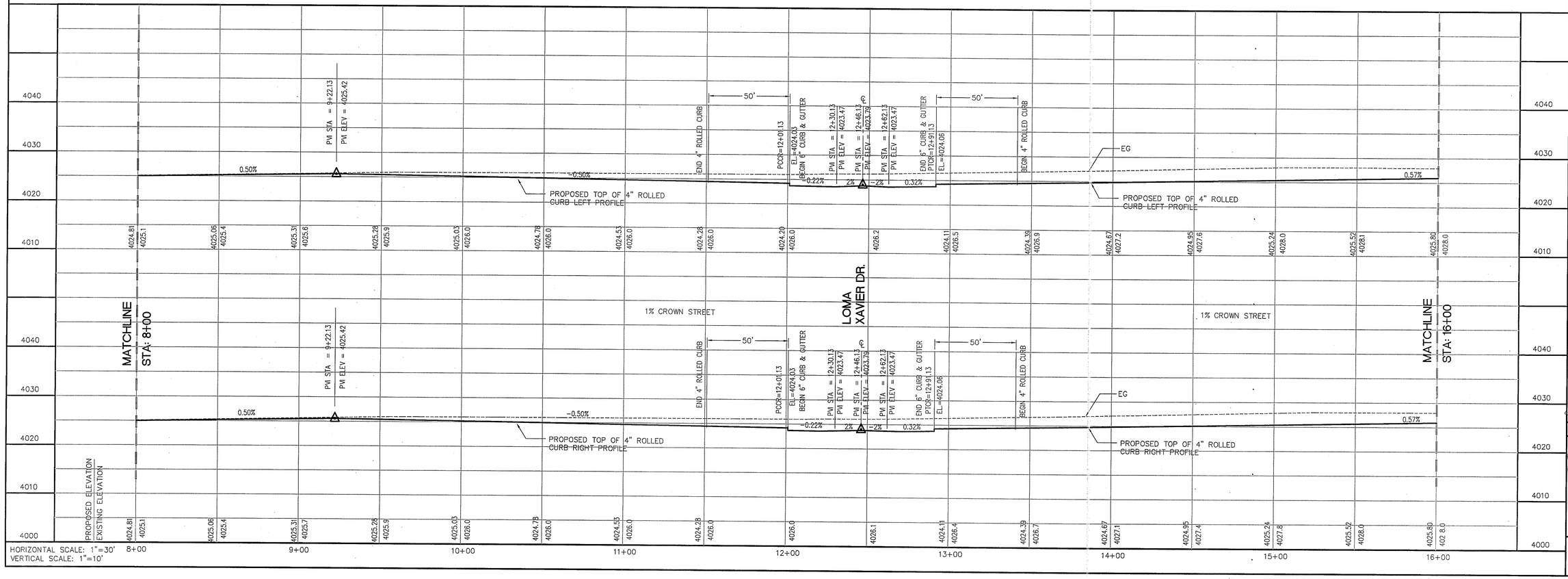

DATE	REVISIONS	BY
4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.

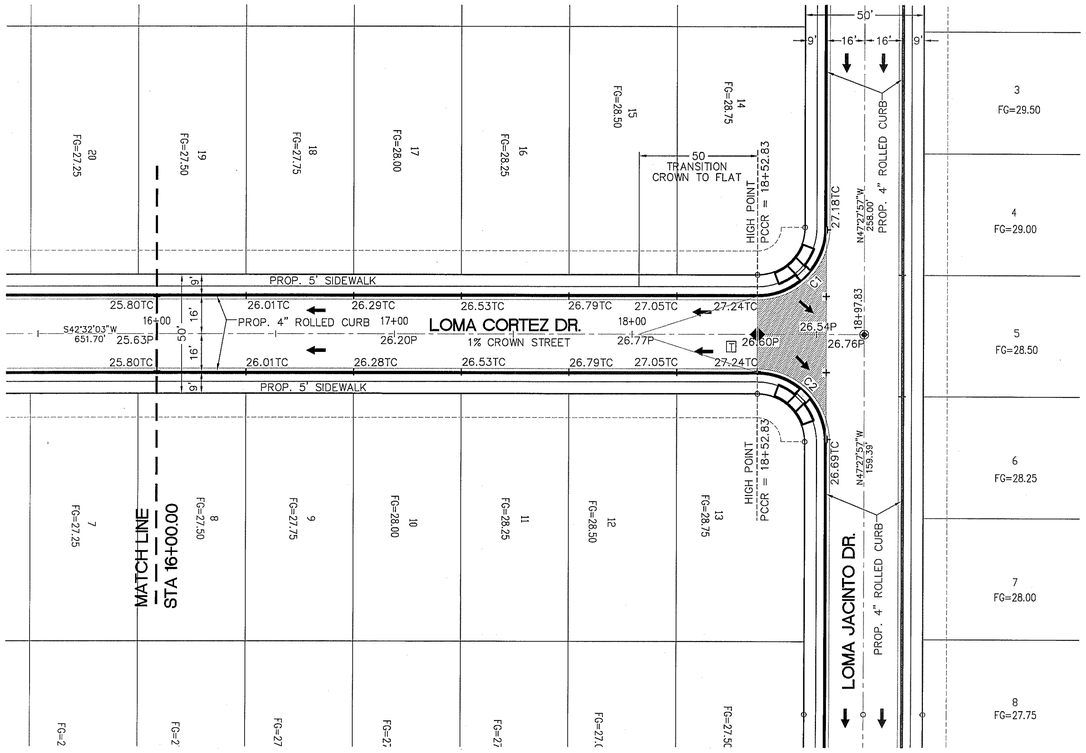
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE
PLAN AND PROFILE
LOMA CORTEZ DRIVE
STA 8+00.00
STA 16+00.00
(SHT 2 OF 3)

C-07.1

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA CORTEZ-2.dwg 10/26/2012 9:30:18 AM MDT



30 20 10 0 30

SCALE: 1"=30'

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C2	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"

L E G E N D

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= LOW POINT ON STREET
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= PVMT TRANSITION (FLAT TO CROWN)

P R O F I L E

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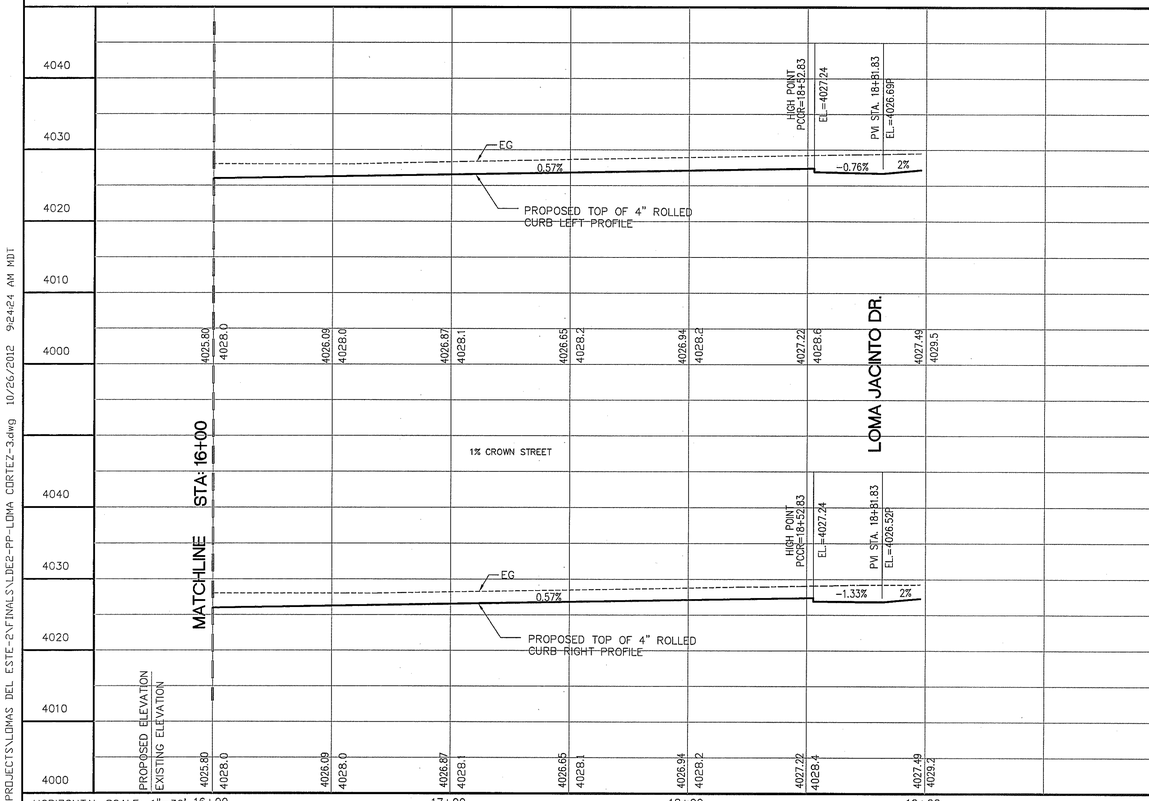

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BY	DATE	REVISIONS
	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

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LAND SURVEYORS
LAND PLANNERS
6400 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE
PLAN AND PROFILE
LOMA CORTEZ DRIVE
STA 16+00.00
STA 18+97.83
(SHT 3 OF 3)

C-07.2

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C2	21.19	40.00	10.85	20.95	N27°21'21"E	30°21'25"
C3	156.51	59.50	227.72	115.13	S87°32'03"W	150°42'50"
C4	21.19	40.00	10.85	20.95	S32°17'14"E	30°21'25"
C5	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C6	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C7	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C8	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C9	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C10	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C11	52.01	924.50	26.01	52.00	N45°51'15"W	3°13'24"
C12	55.45	892.50	27.73	55.44	N45°41'10"W	3°33'34"
C13	47.18	29.00	30.68	42.15	N89°08'45"E	93°13'24"
C14	43.75	29.00	27.25	39.72	N00°41'10"W	86°26'26"
C15	41.17	29.00	24.92	37.80	S01°51'56"W	81°20'15"
C16	50.40	29.00	34.30	44.29	N87°40'44"W	99°34'25"
C17	617.50	924.50	320.77	606.09	N19°40'06"W	38°16'11"
C18	70.69	45.00	45.00	63.64	S87°32'03"W	90°00'00"
C19	744.17	908.50	394.39	723.54	N23°59'59"W	46°55'56"

LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
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P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
= PVMT TRANSITION (FLAT TO CROWN)

PROFILE

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

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Call 811 TWC Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

SCALE: 1"=30'

JOHN HAYES DR.

LOMA ADRIANA DR.
LOMA BRIZA DR.
LOMA JACINTO DR.
LOMA CORTEZ DR.
LOMA DANTE DR.

PROP. 4" ROLLED CURB
PROP. 5' SIDEWALK BY BUILDER
SUPER ELEVATED
1% CROWN STREET
TRANSITION CROWN TO FLAT
TRANSITION SUPER ELEVATED TO CROWN
TRANSITION FLAT TO CROWN
MATCH LINE STA 8+27.19

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

SUPER ELEVATTED STREET
1% CROWN STREET
PROPOSED TOP OF 4" ROLLED CURB LEFT PROFILE
PROPOSED TOP OF 4" ROLLED CURB RIGHT PROFILE
PROPOSED ELEVATION
EXISTING ELEVATION
SEE SHT. C-05.2 FOR CONTINUATION
MATCH LINE

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA JACINTO-1.dwg 9/12/2012 8:15:52 AM MDT

REVISIONS			
	DATE		BY
1	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

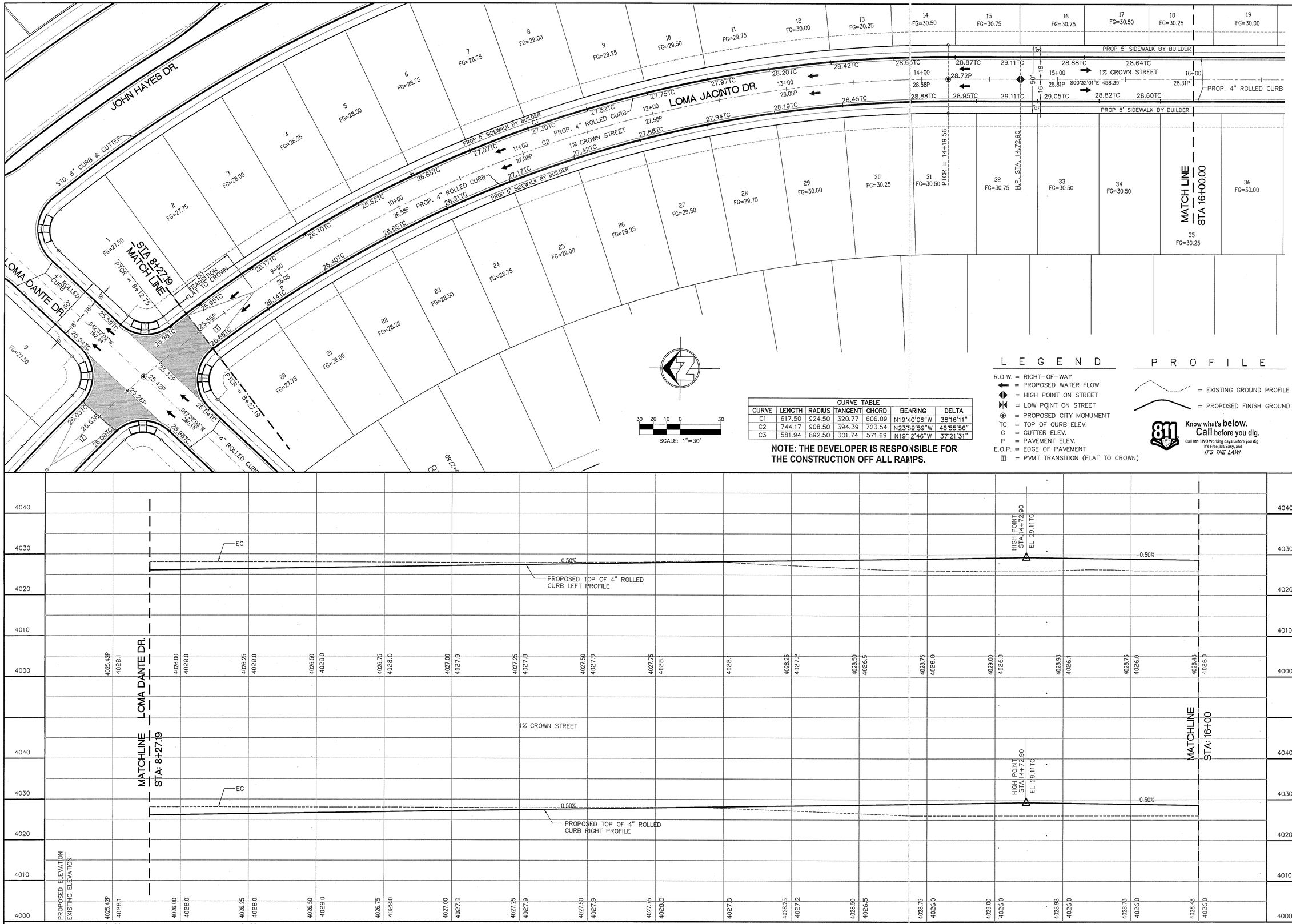
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6800 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
LOMA JACINTO DRIVE
STA 0+00.00
STA 8+27.19
(SHT 1 OF 3)

C-08.0



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	617.50	924.50	320.77	606.09	N19°0'06"W	38°16'11"
C2	744.17	908.50	394.39	723.54	N23°9'59"W	46°55'56"
C3	581.94	892.50	301.74	571.69	N19°2'46"W	37°21'31"

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

LEGEND

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- = HIGH POINT ON STREET
- = LOW POINT ON STREET
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HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA JACINTO-2.dwg 11/7/2012 10:34:39 AM MST

REVISIONS			BY
DATE			
4/10/12	1	CHANGED 6" CURB TO 4" ROLLED CURB	
	2		
	3		
	4		
	5		

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: C.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

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LAND SURVEYORS
LAND PLANNERS
6660 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

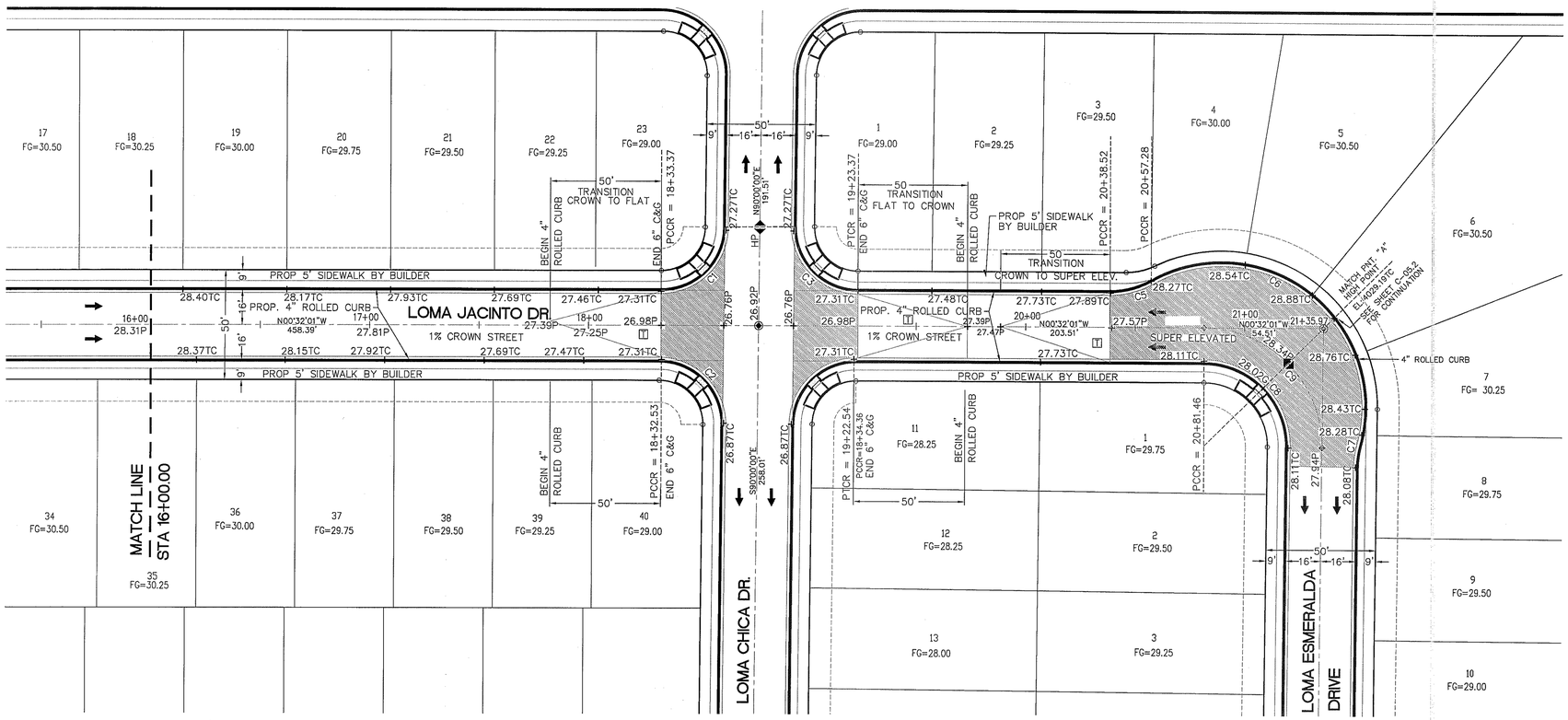
STATE OF TEXAS
GEORGES S. HALLOUL
82105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

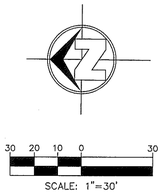
SHEET TITLE

PLAN AND PROFILE
LOMA JACINTO DRIVE
STA 8+27.19
STA 16+00.00

(SHT 2 OF 3)

C-08.1





CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.28	29.00	28.73	40.82	S45°16'00"E	89°27'59"
C2	45.82	29.00	29.27	41.20	N44°44'00"E	90°32'01"
C3	45.82	29.00	29.27	41.20	S44°44'00"W	90°32'01"
C4	45.28	29.00	28.73	40.82	N45°16'00"W	89°27'59"
C5	19.63	38.00	10.04	19.41	S15°19'46"E	29°35'31"
C6	154.41	65.50	158.40	121.06	N37°24'31"E	135°04'05"
C7	9.91	38.00	4.98	9.88	N82°31'43"W	14°56'34"
C8	60.04	38.00	38.36	53.99	N44°44'00"E	90°32'01"
C9	85.33	54.00	54.51	76.72	N44°44'00"E	90°32'01"

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

LEGEND

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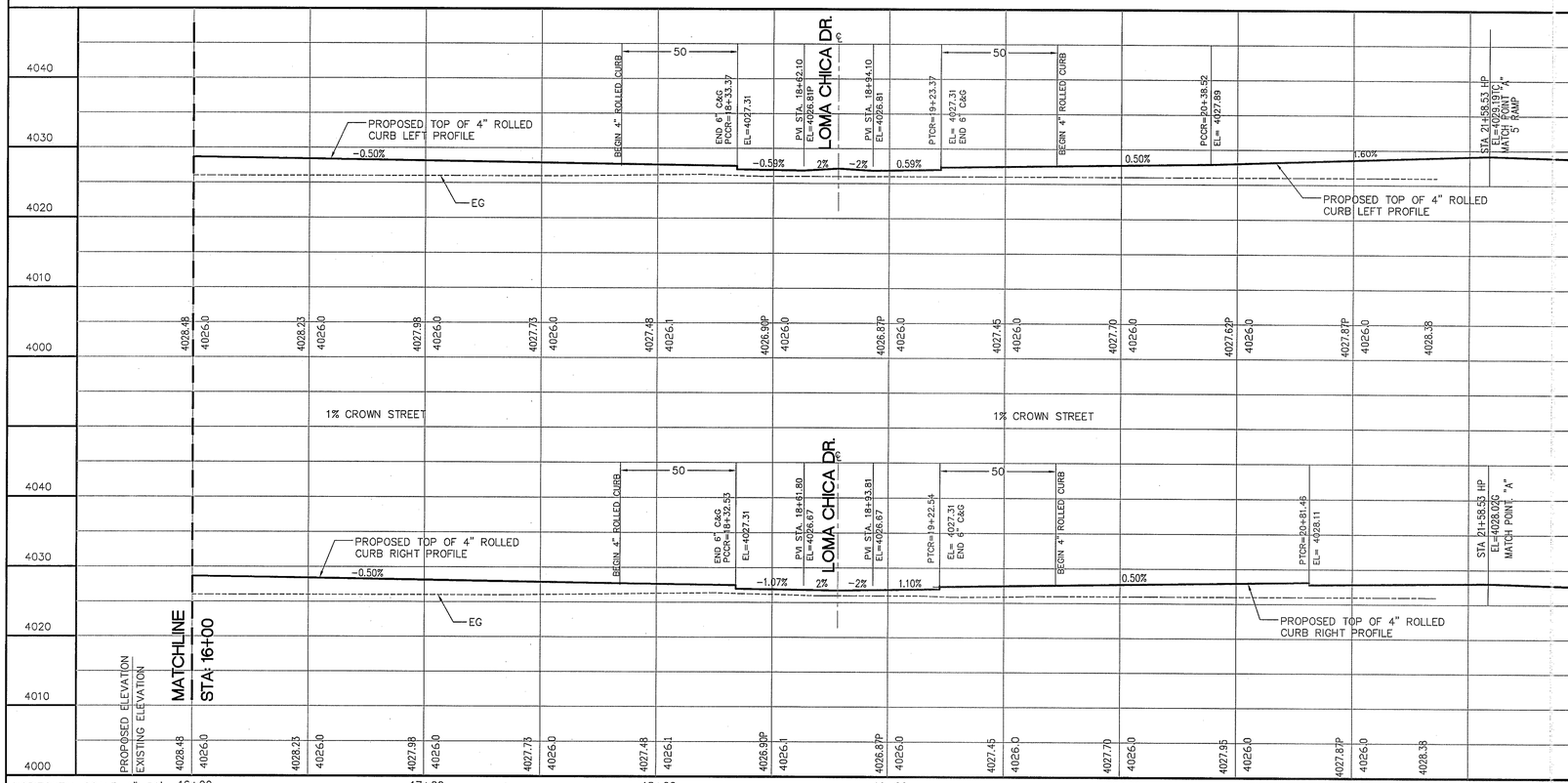

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REVISIONS			BY
DATE			
4/10/12	1	CHANGED 6" CURB TO 4" ROLLED CURB	
	2		
	3		
	4		
	5		

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, J7, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

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STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE
PLAN AND PROFILE
LOMA JACINTO
DRIVE
STA 16+00.00
STA 21+35.97
(SHT 3 OF 3)

C-08.2

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

L E G E N D

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
[T] = PVMT. TRANSITION (FLAT TO CROWN)

P R O F I L E

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

Know what's **below.** **Call** before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	19.55	60.00	9.86	19.47	S56°48'06"E	18°40'18"
C2	7.47	3.00	8.88	5.68	N42°32'03"E	142°39'24"
C3	19.55	60.00	9.86	19.47	N38°07'48"W	18°40'18"
C4	30.60	60.00	15.64	30.27	S32°51'16"E	29°13'22"
C5	10.61	5.00	8.94	8.73	S42°32'03"W	121°33'15"
C6	30.60	60.00	15.64	30.27	N62°04'38"W	29°13'22"
C7	47.12	30.00	30.00	42.43	N87°32'03"E	90°00'00"
C8	47.12	30.00	30.00	42.43	S02°27'57"E	90°00'00"
C9	43.98	28.00	28.00	39.60	S87°32'03"W	90°00'00"
C10	43.98	28.00	28.00	39.60	S02°27'57"E	90°00'00"
C11	43.98	28.00	28.00	39.60	S87°32'03"W	90°00'00"
C12	43.98	28.00	28.00	39.60	S02°27'57"E	90°00'00"
C13	692.21	828.00	367.78	672.23	S66°29'02"W	47°53'57"
C14	482.50	772.00	249.42	474.69	S60°26'21"W	35°48'36"
C15	555.52	800.00	289.49	544.43	S62°25'38"W	39°47'10"

1

COMMERCIAL LOT

SCALE: 1"=30'

JOHN HAYES ST.
LOMA CRISTOBAL DR.
LOMA REINA WAY
BERNARD DR.
MATCH LINE STA.8+00
STD. 6" CURB & GUTTER
PROP. 5' SIDEWALK BY BUILDER
FUTURE AT TIME OF DEVELOPMENT PROP. 5' SIDEWALK
PROP. 4" ROLLED CURB
2% CROWN STREET
50' TRANSITION FLAT TO CROWN
BEGIN 6" CURB & GUTTER
PROP. CURB & GUTTER

FG=30.50 | FG=30.25 | FG=30.00 | FG=27.75 | FG=27.50 | FG=27.25 | FG=26.50 | FG=26.00 | FG=25.50 | FG=25.00 | FG=24.25 | FG=23.75 | FG=23.25

PROFILE GRADE LINE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

JOHN HAYES ST. PVI STA = 0+42.50, PVI ELEV = 4029.51, PTCR = 0+72.50 30.52TC, −2%, 1.71%
PROPOSED TOP OF 6" CURB AND GUTTER LEFT PROFILE
E.G.
PVI STA = 4+49.50, PVI ELEV = 4026.35, PCCR = 5+03.39 25.60TC, −1.11%, −1.40%
STA: 8+00
JOHN HAYES ST. PVI STA = 0+42.50, PVI ELEV = 4029.76, PTCR = 0+72.50 30.52TC, −2%, 0.86%
PCCR = 1+47.50 28.69TC
LOMA CRISTOBAL DR.
PTCR = 2+35.50 28.72TC
PROPOSED TOP OF 6" CURB AND GUTTER RIGHT PROFILE
PCCR = 4+05.50 26.84TC
PVI STA = 4+49.50, PVI ELEV = 4026.35
LOMA REINA WAY
PTCR = 4+93.50 25.74TC
PCCR = 5+03.39 25.60TC
MATCHLINE

PROPOSED ELEVATION / EXISTING ELEVATION

0+00	1+00	2+00	3+00	4+00	5+00	6+00	7+00	8+00
4030.16 / 4028.0	4030.41 / 4028.0	4030.21 / 4028.0	4029.66 / 4028.0	4029.11 / 4028.0	4028.56 / 4027.7	4028.00 / 4027.3	4027.45 / 4027.0	4026.90 / 4026.6
4028.61P / 4028.0	4028.56 / 4027.7	4028.00 / 4027.3	4027.45 / 4027.0	4026.90 / 4026.6	4025.84P / 4026.2	4025.65 / 4025.6	4024.95 / 4024.6	4024.25 / 4023.4
								4023.55 / 4022.1
								4022.86 / 4020.9
								4022.16 / 4019.5
								4021.46 / 4018.2

2% CROWN STREET

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-BERNARD-1.dwg 10/24/2012 5:25:35 PM MDT

REVISIONS			
	BY	DATE	
1		4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB
2			
3			
4			
5			

BENCHMARK: SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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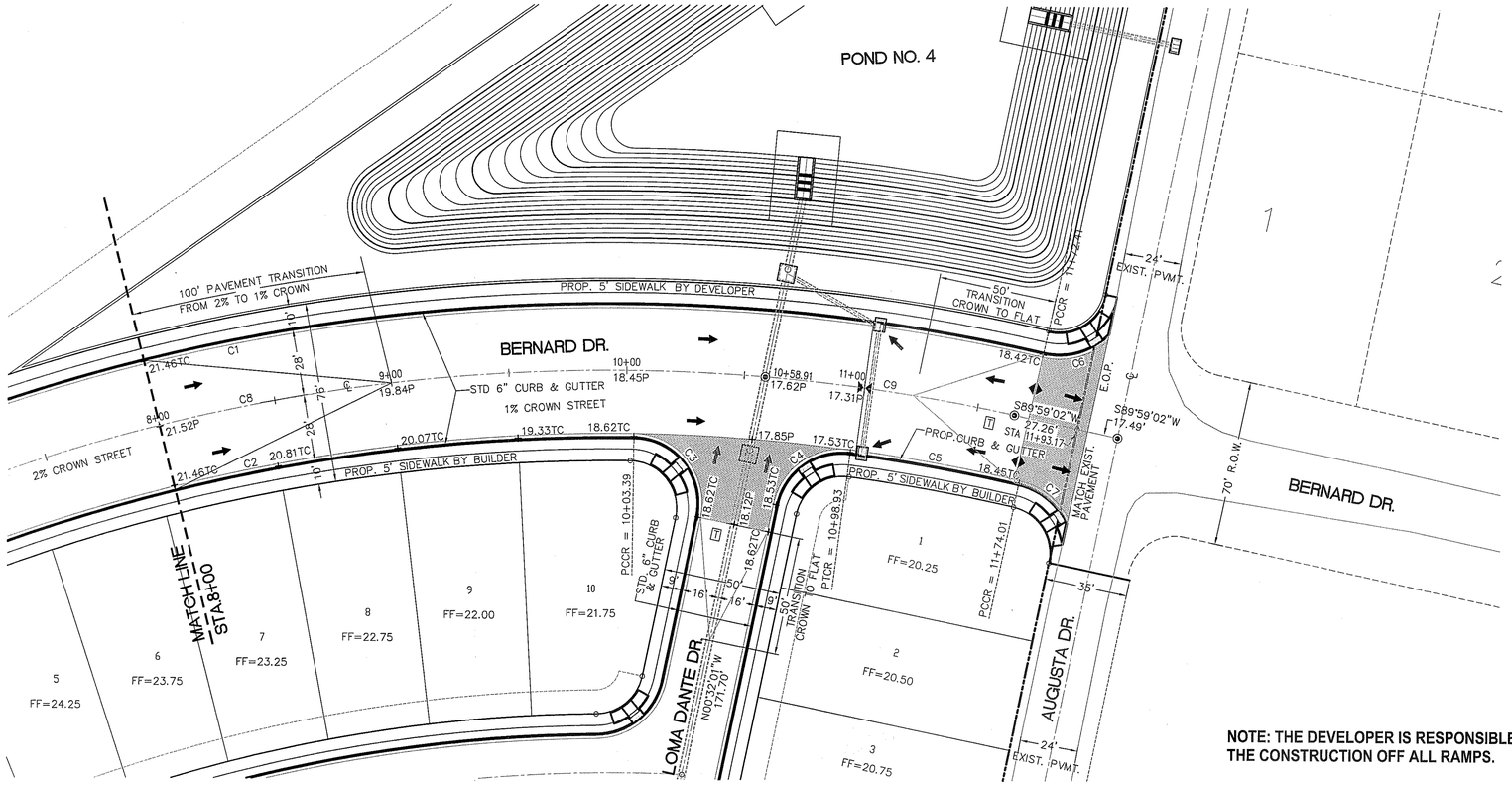
PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

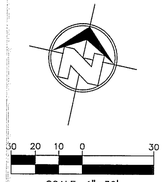
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS 79912
(915) 584-0288
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92106
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE
PLAN AND PROFILE
BERNARD DRIVE
STA 0+00.00
STA 8+00.00
(SHT 1 OF 2)

C-09.0





CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	692.21	828.00	367.78	672.23	S66°29'02"W	47°53'57"
C2	482.50	772.00	249.42	474.69	S60°26'21"W	35°48'36"
C3	49.42	28.00	34.04	43.25	N51°05'41"W	101°07'20"
C4	41.89	28.00	25.98	38.09	S42°19'36"W	85°43'13"
C5	72.73	772.00	36.39	72.70	S87°53'09"W	5°23'52"
C6	30.21	30.00	16.53	28.95	N61°35'09"E	57°41'42"
C7	27.22	30.00	14.63	26.29	N63°25'27"W	51°58'56"
C8	555.52	800.00	289.49	544.43	S62°25'38"W	39°47'10"
C9	107.00	800.00	53.58	106.92	S86°09'08"W	7°39'49"

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
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= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
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P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
[T] = PVMT TRANSITION (FLAT TO CROWN)

PROFILE

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

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Call 811 TWO Working days Before you dig
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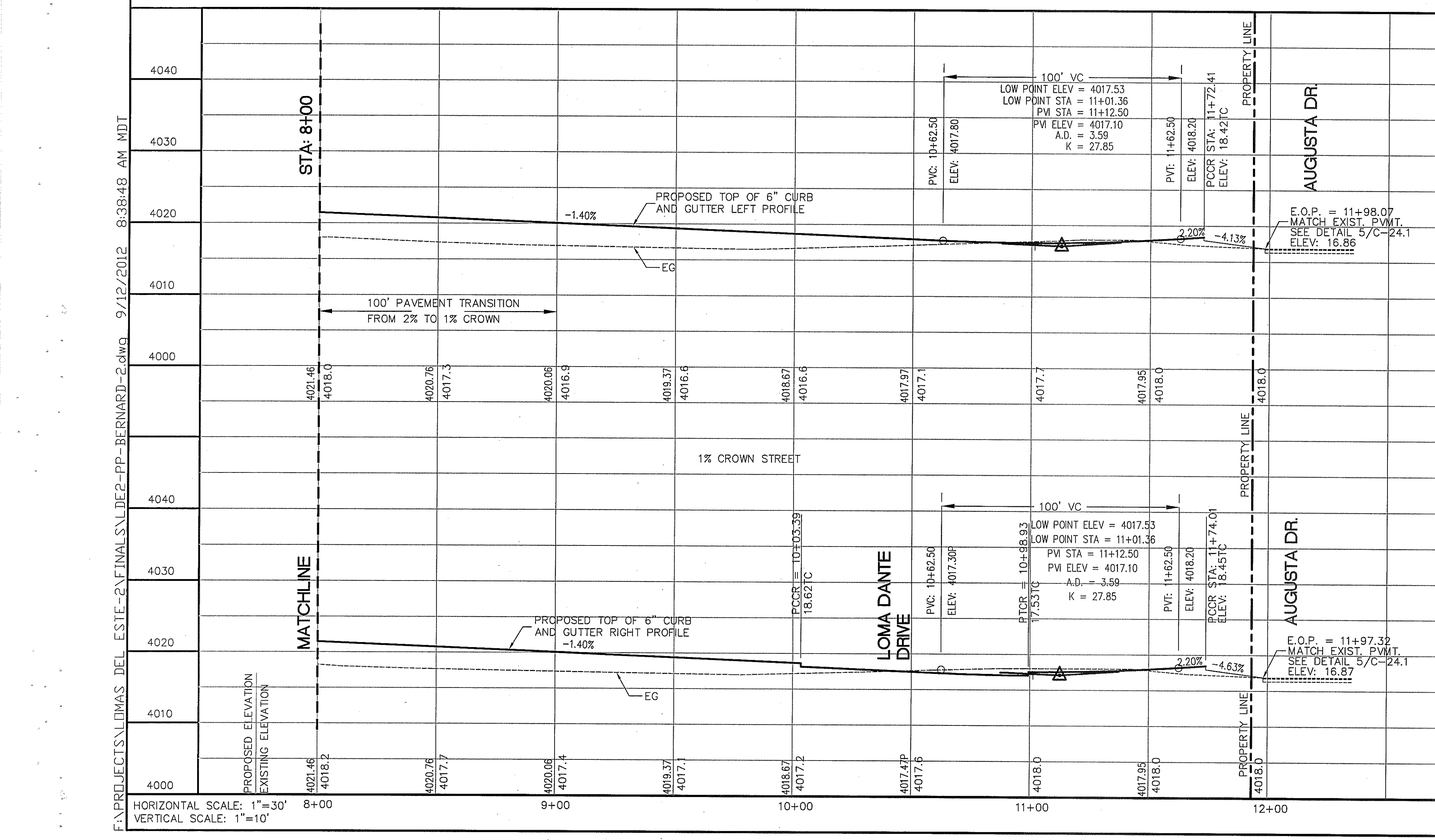

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NO.	DATE	REVISIONS	BY
1			
2			
3			
4			
5			
6			

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, J7, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: C.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

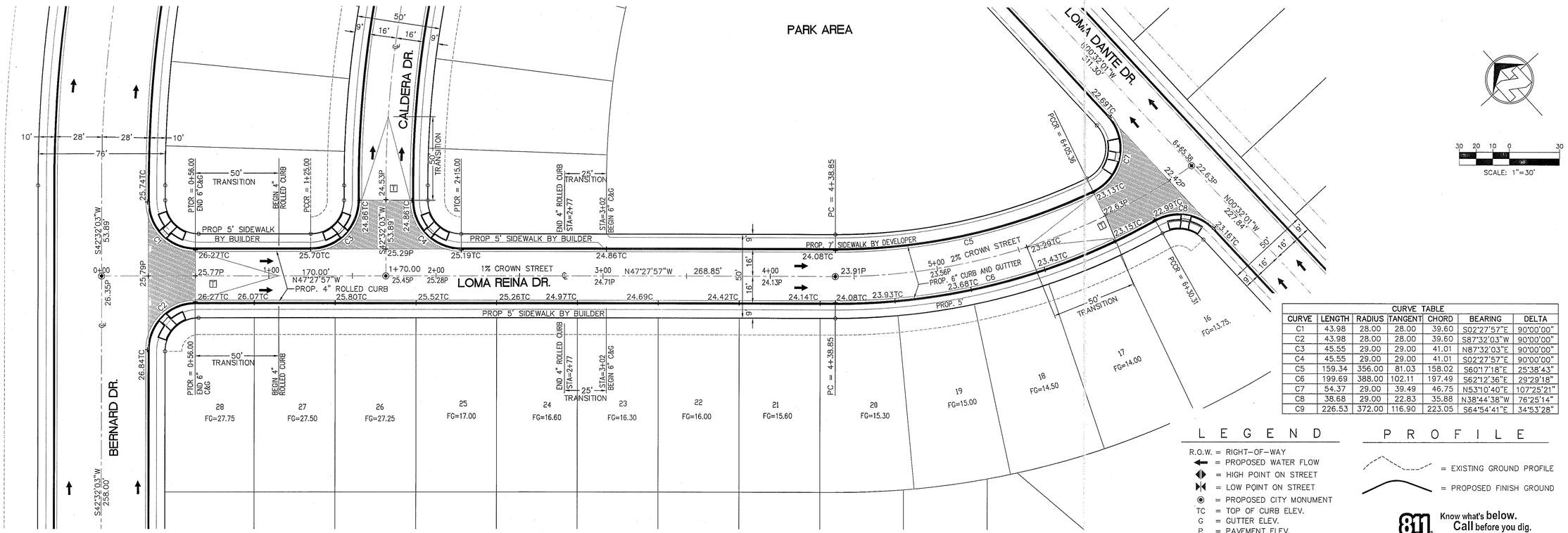
SLI ENGINEERING, INC.
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6500 WESTWIND DRIVE
EL PASO, TEXAS
(915) 544-4522

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE
PLAN AND PROFILE
BERNARD
DRIVE
STA 8+00.00
STA 11+93.17
(SHT 2 OF 2)

C-09.1



SCALE: 1"=30'

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	43.98	28.00	28.00	39.60	S02°27'57"E	90°00'00"
C2	43.98	28.00	28.00	39.60	S87°32'03"W	90°00'00"
C3	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C4	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C5	159.34	356.00	81.03	158.02	S60°17'18"E	25°38'43"
C6	199.69	388.00	102.11	197.49	S62°12'36"E	29°29'18"
C7	54.37	29.00	39.49	46.75	N53°10'40"E	107°25'21"
C8	38.68	29.00	22.83	35.88	N38°44'38"W	76°25'14"
C9	226.53	372.00	116.90	223.05	S64°54'41"E	34°53'28"

LEGEND

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- = HIGH POINT ON STREET
- = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
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- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- E.O.P. = EDGE OF PAVEMENT
- = PVMT TRANSITION (FLAT TO CROWN)

PROFILE

= EXISTING GROUND PROFILE

= PROPOSED FINISH GROUND

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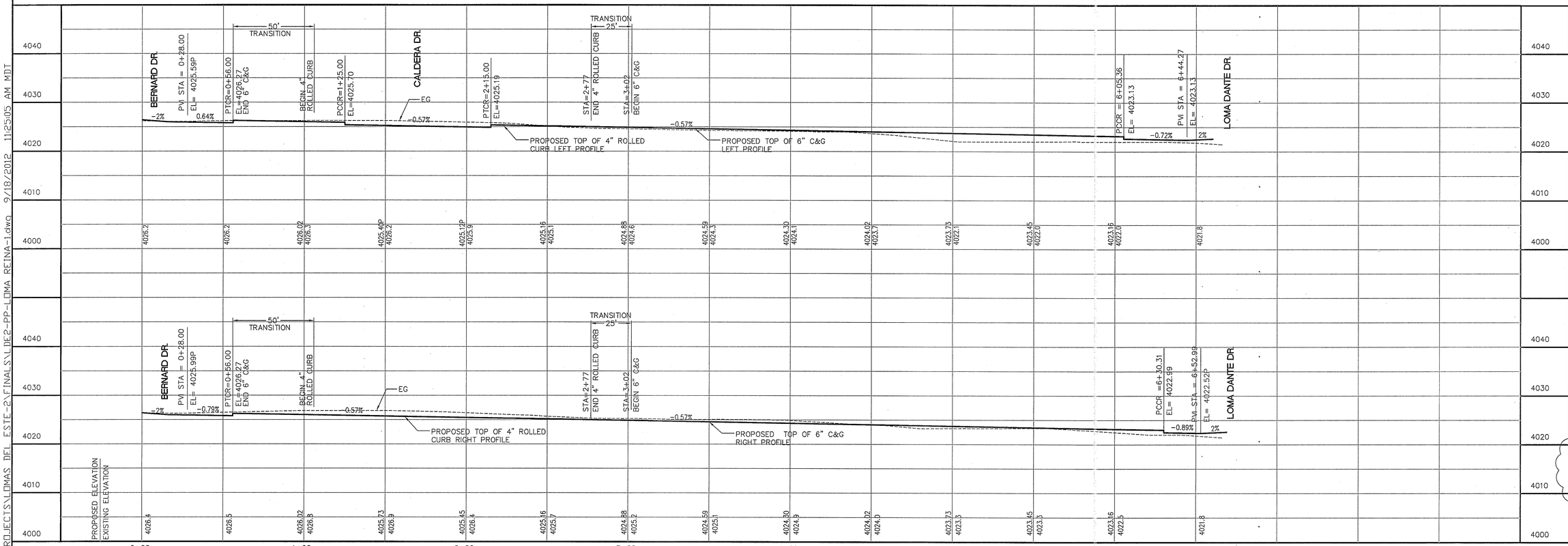

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

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NO	DATE	REVISIONS	BY
1	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6080 RESPINDO DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

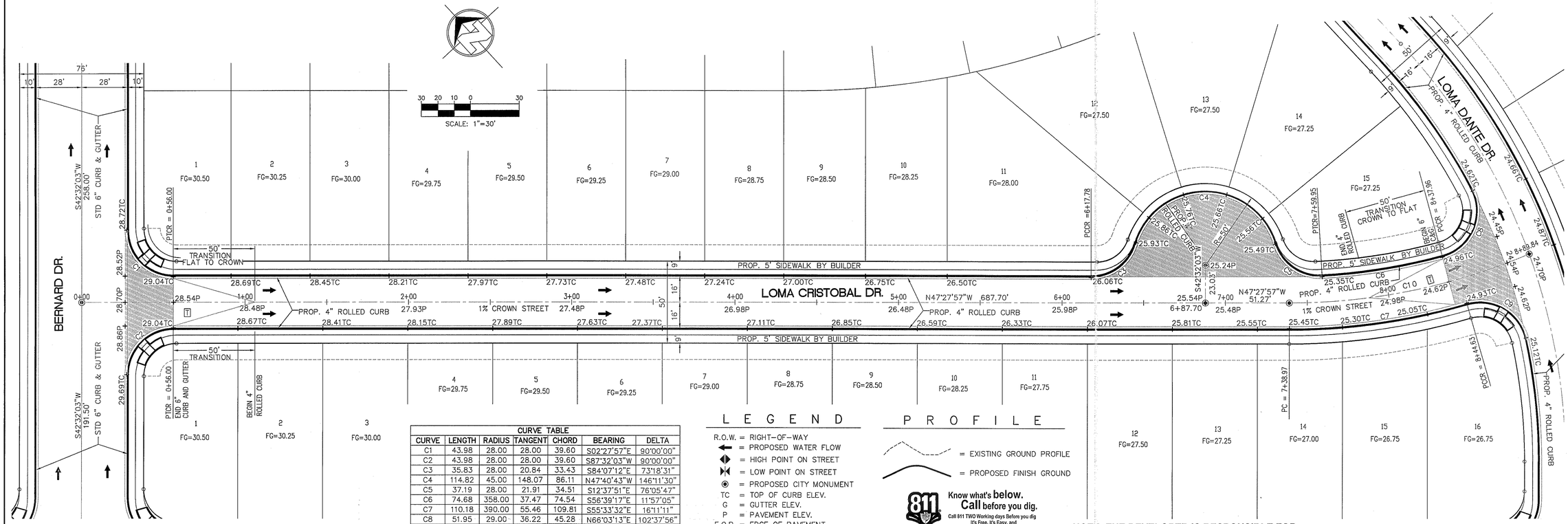
STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE

PLAN AND PROFILE
LOMA REINA
2 DRIVE
STA 0+00.00
STA 6+65.38

(SHT 1 OF 1)

C-10.0



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	43.98	28.00	28.00	39.60	S02°27'57"E	90°00'00"
C2	43.98	28.00	28.00	39.60	S87°32'03"W	90°00'00"
C3	35.83	28.00	20.84	33.43	S84°07'12"E	73°18'31"
C4	114.82	45.00	148.07	86.11	N47°40'43"W	146°11'30"
C5	37.19	28.00	21.91	34.51	S12°37'51"E	76°05'47"
C6	74.68	358.00	37.47	74.54	S56°39'17"E	11°57'05"
C7	110.18	390.00	55.46	109.81	S55°33'32"E	16°11'11"
C8	51.95	29.00	36.22	45.28	N66°03'13"E	102°37'56"
C9	47.66	29.00	31.18	42.47	N16°34'29"W	94°09'19"
C10	150.87	374.00	76.47	149.85	S59°01'20"E	23°06'45"

LEGEND

- R.O.W. = RIGHT-OF-WAY
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- = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
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= EXISTING GROUND PROFILE

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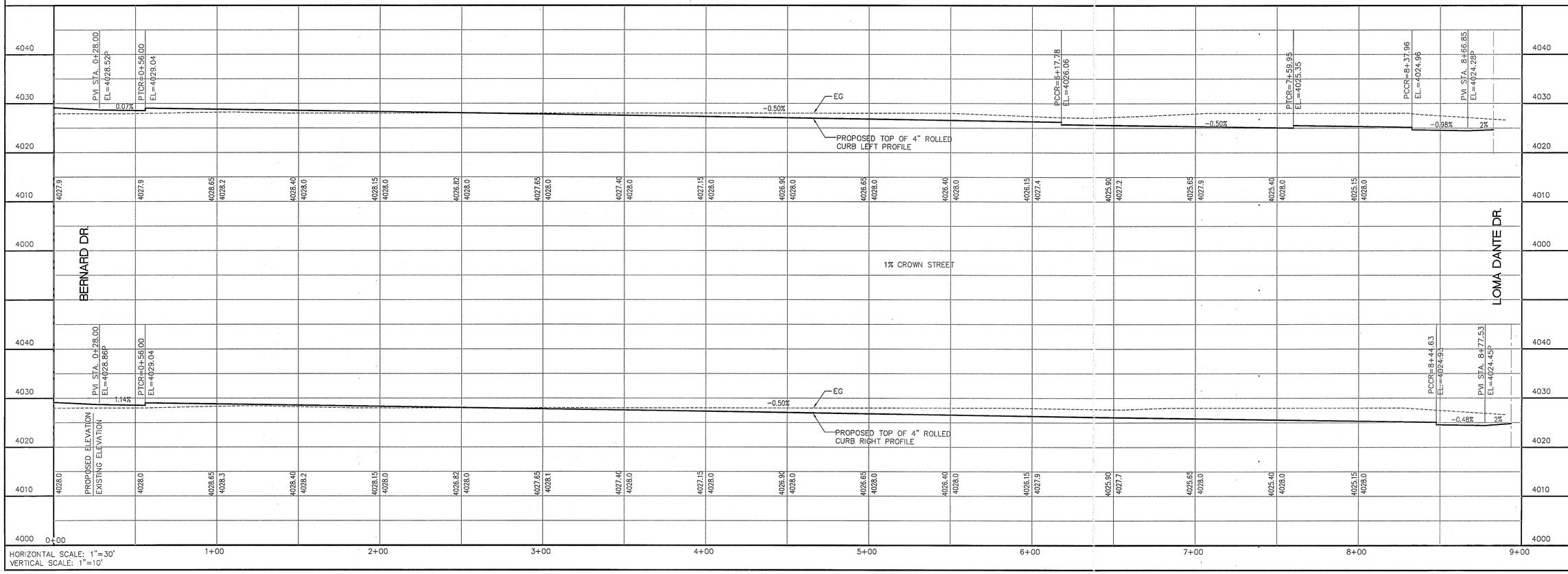

REVISIONS			
	DATE		BY
1	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK:
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

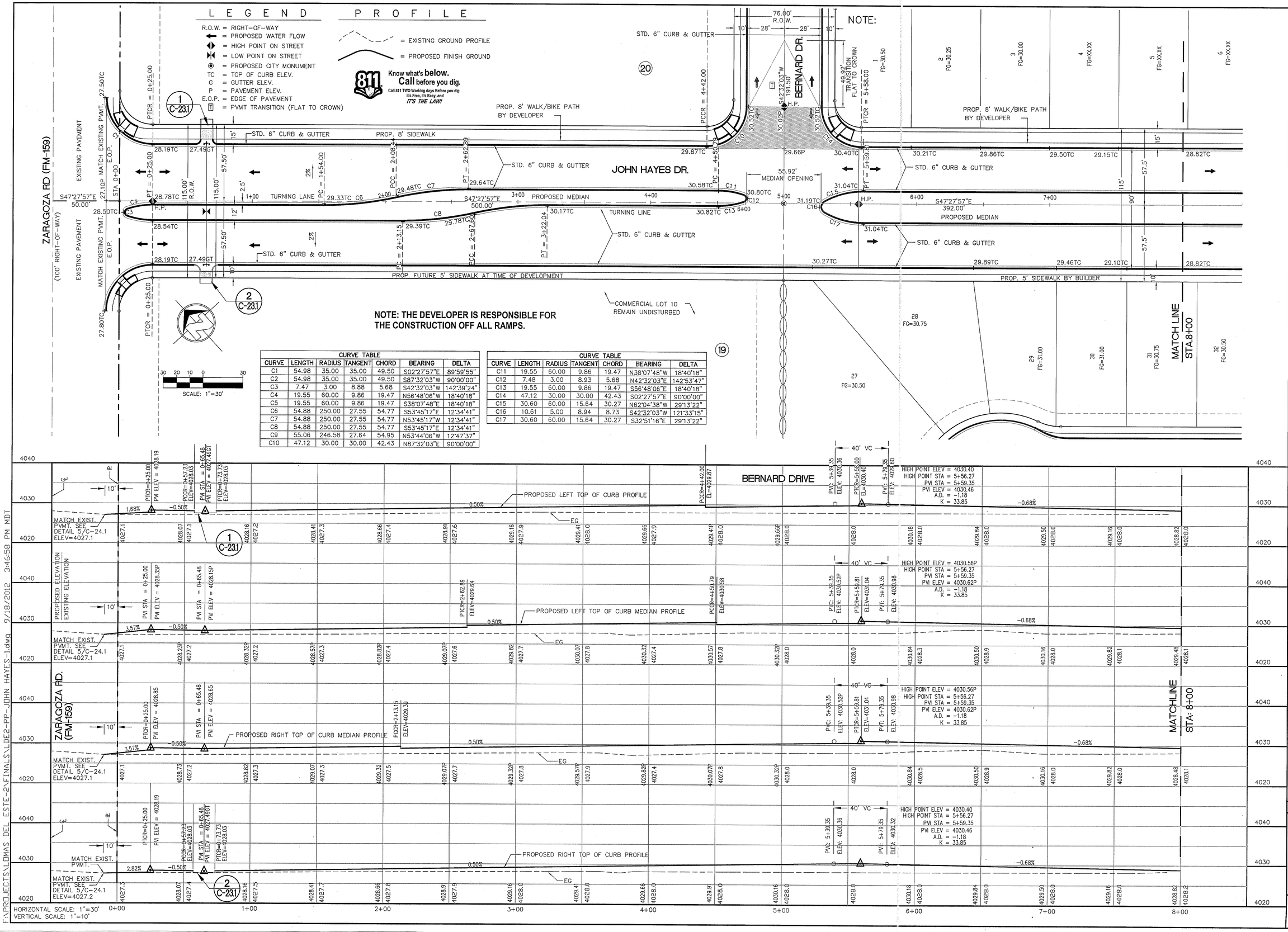
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
8600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE
PLAN AND PROFILE
LOMA CRISTOBAL DRIVE
STA 0+00.00
STA 8+89.84
(SHT 1 OF 1)

C-11.0



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	54.98	35.00	35.00	49.50	S02°27'57"E	89°59'55"
C2	54.98	35.00	35.00	49.50	S87°32'03"W	90°00'00"
C3	7.47	3.00	8.88	5.68	S42°32'03"W	142°39'24"
C4	19.55	60.00	9.86	19.47	N56°48'06"W	18°40'18"
C5	19.55	60.00	9.86	19.47	S38°07'48"E	18°40'18"
C6	54.88	250.00	27.55	54.77	S53°45'17"E	12°34'41"
C7	54.88	250.00	27.55	54.77	N53°45'17"W	12°34'41"
C8	54.88	250.00	27.55	54.77	S53°45'17"E	12°34'41"
C9	55.06	246.58	27.64	54.95	N53°44'06"W	12°47'37"
C10	47.12	30.00	30.00	42.43	N87°32'03"E	90°00'00"

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C11	19.55	60.00	9.86	19.47	N38°07'48"W	18°40'18"
C12	7.48	3.00	8.93	5.68	N42°32'03"E	142°53'47"
C13	19.55	60.00	9.86	19.47	S56°48'06"E	18°40'18"
C14	47.12	30.00	30.00	42.43	S02°27'57"E	90°00'00"
C15	30.60	60.00	15.64	30.27	N62°04'38"W	29°13'22"
C16	10.61	5.00	8.94	8.73	S42°32'03"W	121°33'15"
C17	30.60	60.00	15.64	30.27	S32°51'16"E	29°13'22"

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REVISIONS | DATE | BY

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
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A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

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STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE
PLAN AND PROFILE
JOHN HAYES DRIVE
STA 0+00.00
STA 8+00.00
(SHT 1 OF 5)

C-12.0

LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
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811 Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

SCALE: 1"=30'

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	30.60	60.00	15.64	30.27	N32°51'16"W	29°13'32"
C2	10.61	5.00	8.94	8.73	N22°34'03"E	121°33'15"
C3	30.60	60.00	15.64	30.27	S62°04'38"E	29°13'22"
C4	47.12	30.00	30.00	42.43	N02°27'57"W	90°00'00"
C5	19.55	60.00	9.86	19.47	N56°48'06"W	18°40'18"
C6	7.47	3.00	8.88	5.68	S42°32'03"W	142°39'24"
C7	19.55	60.00	9.86	19.47	S38°07'48"E	18°40'18"
C8	47.12	30.00	30.00	42.43	S87°32'03"W	90°00'00"
C9	54.88	250.00	27.55	54.77	S53°45'17"E	12°34'41"
C10	54.88	250.00	27.55	54.77	N53°45'17"W	12°34'41"
C11	54.88	250.00	27.55	54.77	S53°45'17"E	12°34'41"
C12	54.88	250.00	27.55	54.77	N53°45'17"W	12°34'41"
C13	51.28	1142.50	25.65	51.28	N46°10'48"W	2°34'18"
C14	50.45	1109.50	25.23	50.44	N46°09'48"W	2°36'19"
C15	49.90	1097.50	24.96	49.90	N46°09'48"W	2°36'19"
C16	54.18	1052.50	27.10	54.17	N45°59'28"W	2°56'58"

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C17	48.47	30.00	31.38	43.37	N88°49'12"E	92°34'18"
C18	19.55	60.00	9.86	19.47	N35°31'29"W	18°40'18"
C19	7.47	3.00	8.88	5.68	N45°08'22"E	142°39'24"
C20	19.55	60.00	9.86	19.47	S54°11'47"E	18°40'18"
C21	45.58	30.00	28.49	41.32	N00°59'28"W	87°03'02"
C22	43.41	30.00	26.50	39.72	S01°04'36"W	82°54'55"
C23	15.94	60.00	8.02	15.89	N47°02'58"W	15°13'22"
C24	7.83	3.00	11.02	5.79	S50°33'43"W	149°33'16"
C25	15.94	60.00	8.02	15.89	S31°49'36"E	15°13'22"
C26	51.38	30.00	34.59	45.33	N88°24'02"W	98°07'50"
C27	385.25	1142.50	194.47	383.43	N30°43'16"W	19°19'13"
C28	132.33	1095.50	66.24	132.24	N35°58'39"W	6°55'15"
C29	265.82	1085.50	133.58	265.16	N32°25'21"W	14°01'51"
C30	712.77	1052.50	370.66	699.23	N19°56'04"W	38°48'06"
C31	47.16	250.00	23.65	47.09	S37°55'17"E	10°48'31"
C32	98.74	1100.00	49.41	98.71	N44°53'39"W	5°08'36"
C33	802.29	1100.00	419.93	784.63	N21°25'41"W	41°47'20"

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-JOHN HAYES-2.dwg 10/25/2012 10-47:13 AM MDT

PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

REVISIONS

BY	DATE

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2891
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6400 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
JOHN HAYES DRIVE
STA 8+00.00
STA 16+00.00
(SHT 2 OF 5)

C-12.1

AUGUSTA LANE

PROP. 8' HIKE/BIKE TRAIL BY DEVELOPER

POND No. 3

COMMERCIAL DRIVEWAY AND GATE BY DEVELOPER

20'

34.98'

AUGUSTA LANE

178

60' ROADWAY EASEMENT

HILL CREST ESTATES

177

PTCR =22+10.42

RET. ROCKWALL BY DEVELOPER

PROP. 8' HIKE/BIKE TRAIL BY DEVELOPER

SCALE: 1"=30'

STD 6" CURB & GUTTER

JOHN HAYES DR.

SD LINE 3A

PROPOSED MEDIAN

STD. 6" CURB & GUTTER

PROP. 5' SIDEWALK BY BUILDER

TURNING LANE

LP STA 17+92.54

RET. ROCKWALL BY BUILDER

PROP. 5' SIDEWALK BY BUILDER

MATCH LINE STA.16+00

MATCH LINE STA.24+00

N00°32'01"W 460.18'

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	47.16	250.00	23.65	47.09	S37°55'17"E	10°48'31"
C2	74.49	250.00	37.52	74.21	N34°47'24"W	17°04'17"
C3	16.40	1109.50	8.20	16.40	N25°49'51"W	0°50'50"
C4	637.60	1142.50	327.34	629.36	N16°31'16"W	31°58'32"
C5	481.66	1109.50	244.69	477.89	N12°58'13"W	24°52'25"
C6	265.82	1085.50	133.58	265.16	N32°25'21"W	14°01'51"
C7	471.25	1085.50	239.39	467.55	N12°58'13"W	24°52'25"
C8	712.77	1052.50	370.66	699.23	N19°56'04"W	38°48'06"
C9	802.29	1100.00	419.93	784.63	N21°25'41"W	41°47'20"

LEGEND

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- = HIGH POINT ON STREET
- = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- E.O.P. = EDGE OF PAVEMENT

PROFILE

= EXISTING GROUND PROFILE

= PROPOSED FINISH GROUND

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

LOW POINT ELEV = 4022.15
LOW POINT STA = 17+92.54
PVI STA = 17+88.69
PVI ELEV = 4022.08
A.D. = 1.18
K = 42.31
50' VC
PVC: 17+63.69 ELEV: 4022.25
PVT: 18+13.69 ELEV: 4022.20
-0.68%
EG
PROPOSED LEFT TOP OF CURB PROFILE
0.50%

LOW POINT ELEV = 4022.81
LOW POINT STA = 17+92.54
PVI STA = 17+88.69
PVI ELEV = 4022.74
A.D. = 1.18
K = 42.31
PCCR=17+16.62 ELEV=4023.23
PVC: 17+63.69 ELEV: 4022.91
PVT: 18+13.69 ELEV: 4022.86
PROPOSED LEFT TOP OF CURB MEDIAN PROFILE

MATCHLINE STA: 16+00
STA: 24+00
PROPOSED RIGHT TOP OF CURB MEDIAN PROFILE

MATCHLINE
PROPOSED RIGHT TOP OF CURB PROFILE

PROPOSED ELEVATION
EXISTING ELEVATION

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

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DATE	REVISIONS	BY

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3859.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-1457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

PLAN AND PROFILE
JOHN HAYES DRIVE
STA 16+00.00
STA 24+00.00

(SHT 3 OF 5)

C-12.2

NOTE: THE DEVELOPER IS RESPONSIBLE FOR CONSTRUCTION OF ACCESSIBLE RAMPS.

SCALE: 1"=30'

60' ROADWAY EASEMENT

HILL CREST ESTATES

JOHN HAYES DR.

DAVIDSON BLVD.

LOMA CHICA DR.

PROP. RET. ROCKWALL BY DEVELOPER

PROP. 8' WALK/BIKE PATH BY DEVELOPER

PROP. 8' WALK/BIKE PATH

PROP. 6" CURB & GUTTER

PROPOSED MEDIAN

47.93' MEDIAN OPENING

TURNING LANE

(2) 4" GREY CONDUITS L=50.00 FT

PROP. 5' SIDEWALK BY BUILDER

MATCH EXIST. PVMT. SEE DETAIL 5/C-24.1

SECTION 37 BLOCK 79, TSP 2

SECTION 38 BLOCK 79, TSP 2

MATCH LINE STA.24+00

MATCH LINE STA.32+00

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	30.60	60.00	15.64	30.27	N14°04'41"E	29°13'22"
C2	10.61	5.00	8.94	8.73	N89°27'59"E	121°33'15"
C3	30.60	60.00	15.64	30.27	S15°08'42"E	29°13'22"
C4	7.47	3.00	8.88	5.68	S89°27'59"W	142°39'24"
C5	19.55	60.00	9.86	19.47	N09°52'10"W	18°40'18"
C6	19.55	60.00	9.86	19.47	S08°48'08"W	18°40'18"
C7	47.40	30.00	30.28	42.62	N44°44'00"E	90°32'01"
C8	46.84	30.00	29.72	42.23	N45°16'00"W	89°27'59"
C9	54.88	250.00	27.55	54.77	S06°49'21"E	12°34'41"
C10	54.88	250.00	27.55	54.77	N06°49'21"W	12°34'41"
C11	46.84	30.00	29.72	42.23	S45°16'00"E	89°27'59"
C12	47.40	30.00	30.28	42.62	S44°44'00"W	90°32'01"
C13	221.08	1957.50	110.66	220.96	S03°46'08"E	6°28'16"
C14	224.81	1990.50	112.52	224.69	S03°46'08"E	6°28'16"
C15	198.97	2014.50	99.57	198.89	S03°21'47"E	5°39'33"
C16	231.25	2047.50	115.75	231.12	S03°46'08"E	6°28'16"
C17	225.88	2000.00	113.06	225.76	S03°46'08"E	6°28'16"

L E G E N D

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
= PVMT TRANSITION

P R O F I L E

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig It's Free, It's Easy, and IT'S THE LAW!

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

PVI STA = 28+06.16
PVI ELEV = 4027.16
PROPOSED TOP OF 6" CURB AND GUTTER LEFT PROFILE

PVI STA = 28+06.16
PVI ELEV = 4027.32
PROPOSED 6" LEFT TC MEDIAN PROFILE

PVI STA = 28+06.16
PVI ELEV = 4027.82
PROPOSED 6" RIGHT TC MEDIAN PROFILE

PVI STA = 28+06.16
PVI ELEV = 4027.16
PROPOSED TOP OF 6" CURB AND GUTTER RIGHT PROFILE

PROPOSED ELEVATION
EXISTING ELEVATION

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-JOHN HAYES-4.dwg 10/30/2012 11:06:04 AM MDT

REVISIONS			
	DATE	BY	
1			
2			
3			
4			
5			
6			

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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NAME OF PROJECT

LOMAS DEL ESTE SUBDIVISION

A PORTION OF SECTION 37, BLOCK 79, TSP2, A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6660 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92705
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

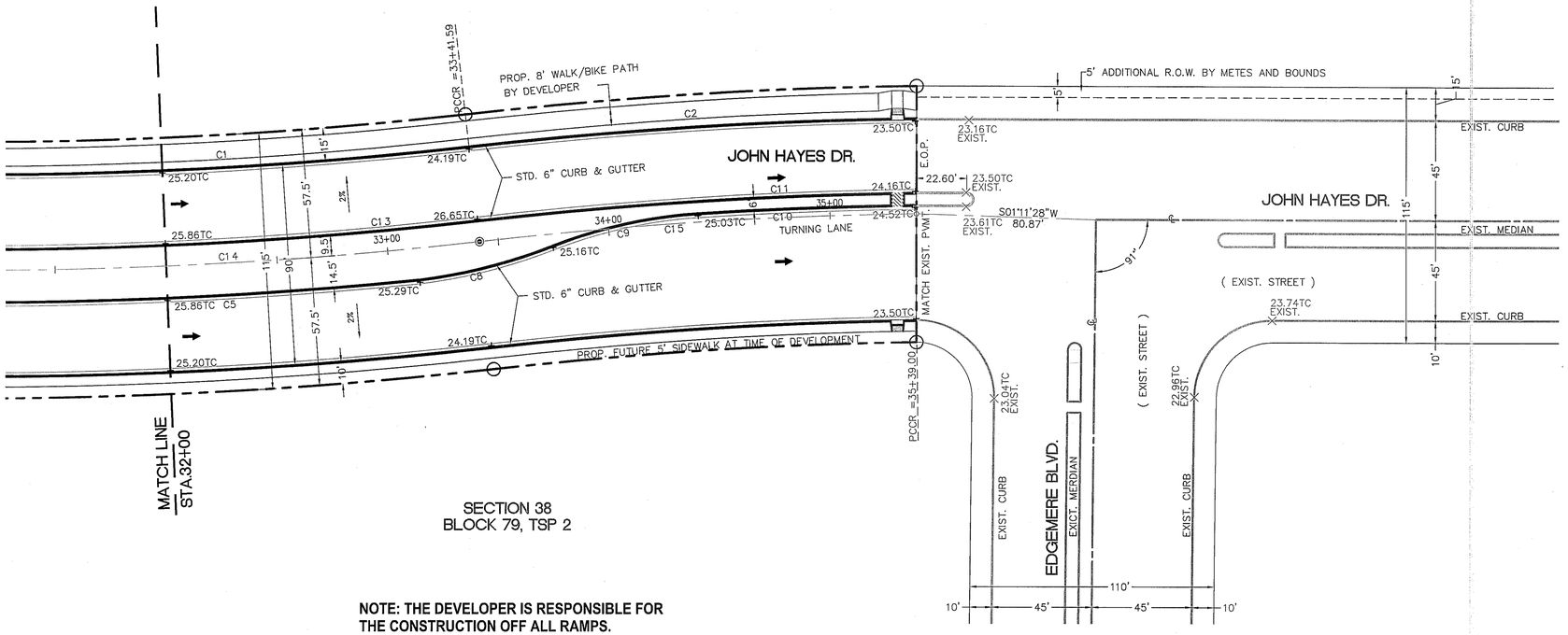
SHEET TITLE

PLAN AND PROFILE
JOHN HAYES DRIVE
STA 24+00.00
STA 32+00.00

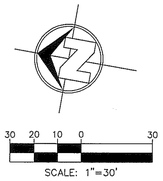
(SHT 4 OF 5)

C-12.3

SECTION 37
BLOCK 79, TSP 2



NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	221.08	1957.50	110.66	220.96	S03°46'08"E	6°28'16"
C2	201.57	2077.68	100.86	201.49	N04°13'31"W	5°33'31"
C3	224.81	1990.50	112.52	224.69	S03°46'08"E	6°28'16"
C4	198.01	2044.68	99.08	197.93	N04°13'49"W	5°32'55"
C5	198.97	2014.50	99.57	198.89	S03°21'47"E	5°39'33"
C6	231.25	2047.50	115.75	231.12	S03°46'08"E	6°28'16"
C7	191.98	1987.68	96.06	191.91	N04°14'15"W	5°32'02"
C8	61.54	250.00	30.93	61.38	S14°47'03"E	14°06'14"
C9	67.67	220.00	34.10	67.40	N13°01'27"W	17°37'25"
C10	87.45	2038.68	43.73	87.45	N02°59'01"W	2°27'28"
C11	187.48	2044.68	93.81	187.42	N04°22'40"W	5°15'13"
C12	DELETED					
C13	224.81	1990.50	112.52	224.69	S03°46'08"E	6°28'16"
C14	225.88	2000.00	113.06	225.76	S03°46'08"E	6°28'16"
C15	197.46	2035.18	98.81	197.38	N04°13'30"W	5°33'32"

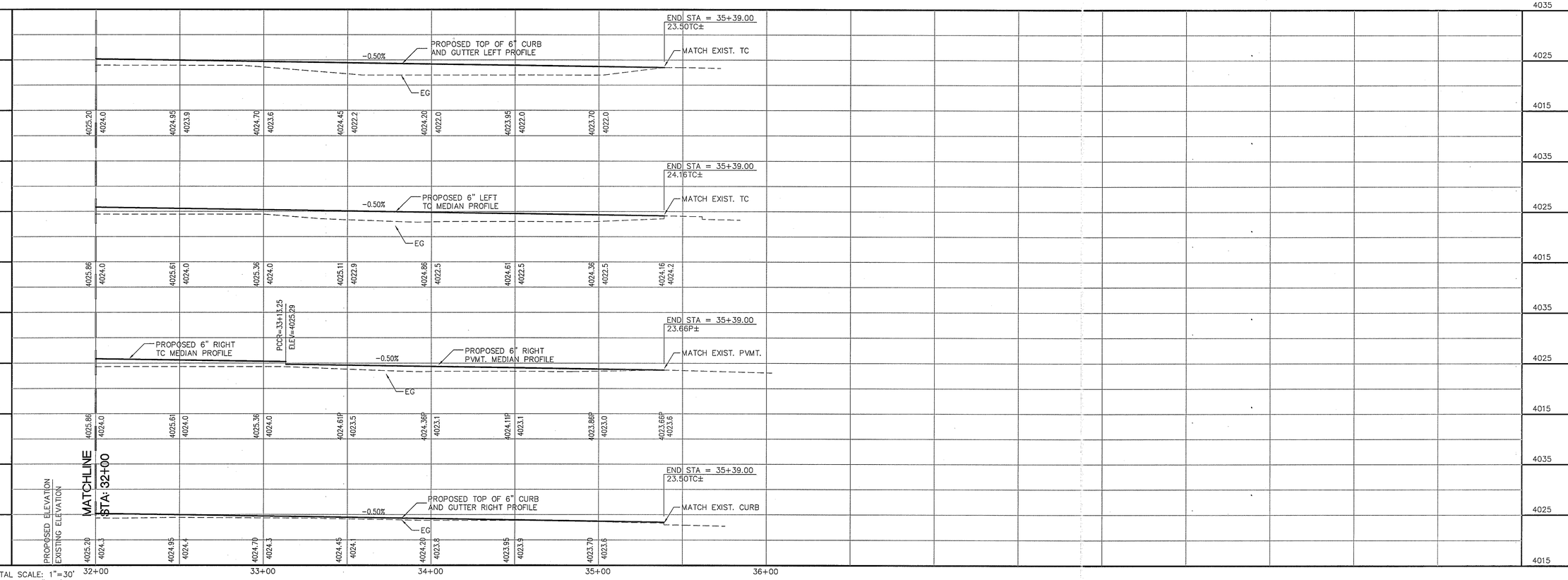
L E G E N D

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT

P R O F I L E

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

Know what's **below.**
Call before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!



HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-JOHN HAYES-5.dwg 10/24/2012 3:31:51 PM MDT

DATE	REVISIONS	BY

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS, AND ADOPTED R.R. SURVEYS
ELEVATION 3859.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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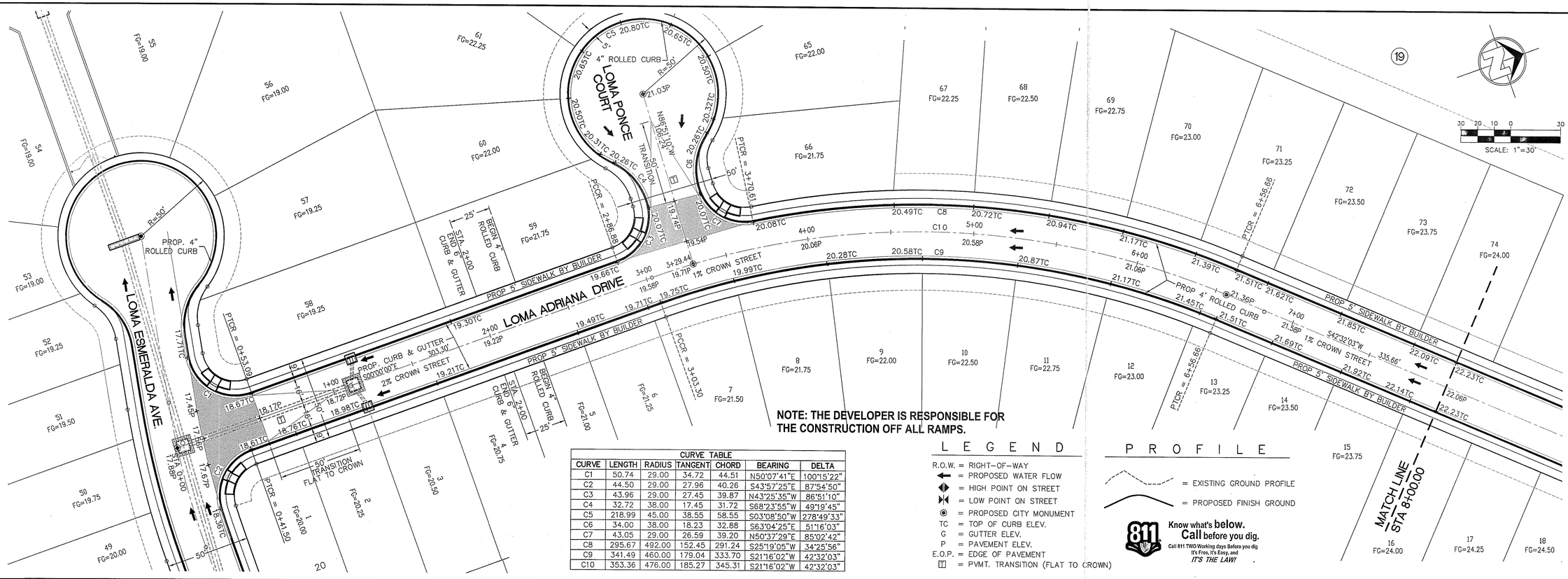
PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
JOHN HAYES DRIVE
STA 32+00.00
STA 35+39.00
(SHT 5 OF 5)

C-12.4



NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	50.74	29.00	34.72	44.51	N50°07'41"E	100°15'22"
C2	44.50	29.00	27.96	40.26	S43°57'25"E	87°54'50"
C3	43.96	29.00	27.45	39.87	N43°25'35"W	86°51'10"
C4	32.72	38.00	17.45	31.72	S68°23'55"W	49°19'45"
C5	218.99	45.00	38.55	58.55	S03°08'50"W	278°49'33"
C6	34.00	38.00	18.23	32.88	S63°04'25"E	51°16'03"
C7	43.05	29.00	26.59	39.20	N50°37'29"E	85°02'42"
C8	295.67	492.00	152.45	291.24	S25°19'05"W	34°25'56"
C9	341.49	460.00	179.04	333.70	S21°16'02"W	42°32'03"
C10	353.36	476.00	185.27	345.31	S21°16'02"W	42°32'03"

LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
= PVMT. TRANSITION (FLAT TO CROWN)

PROFILE

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

811 Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig
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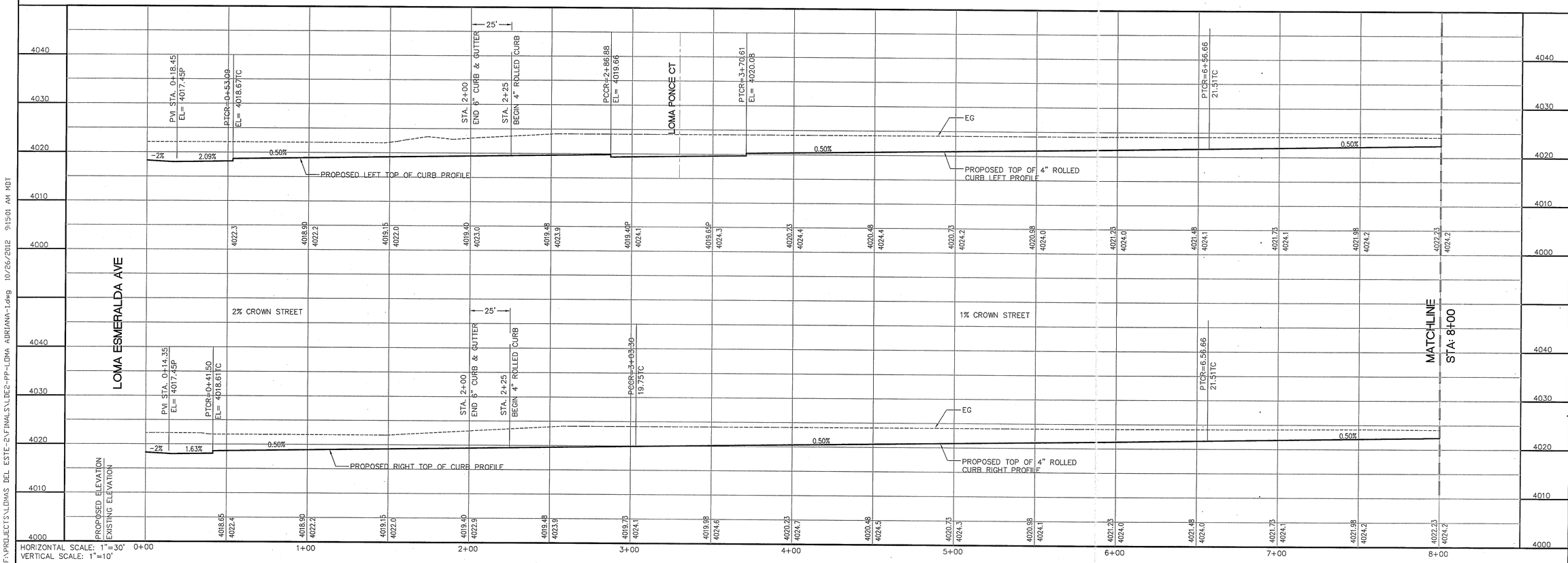
IT'S THE LAW!



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DATE	REVISIONS	BY
4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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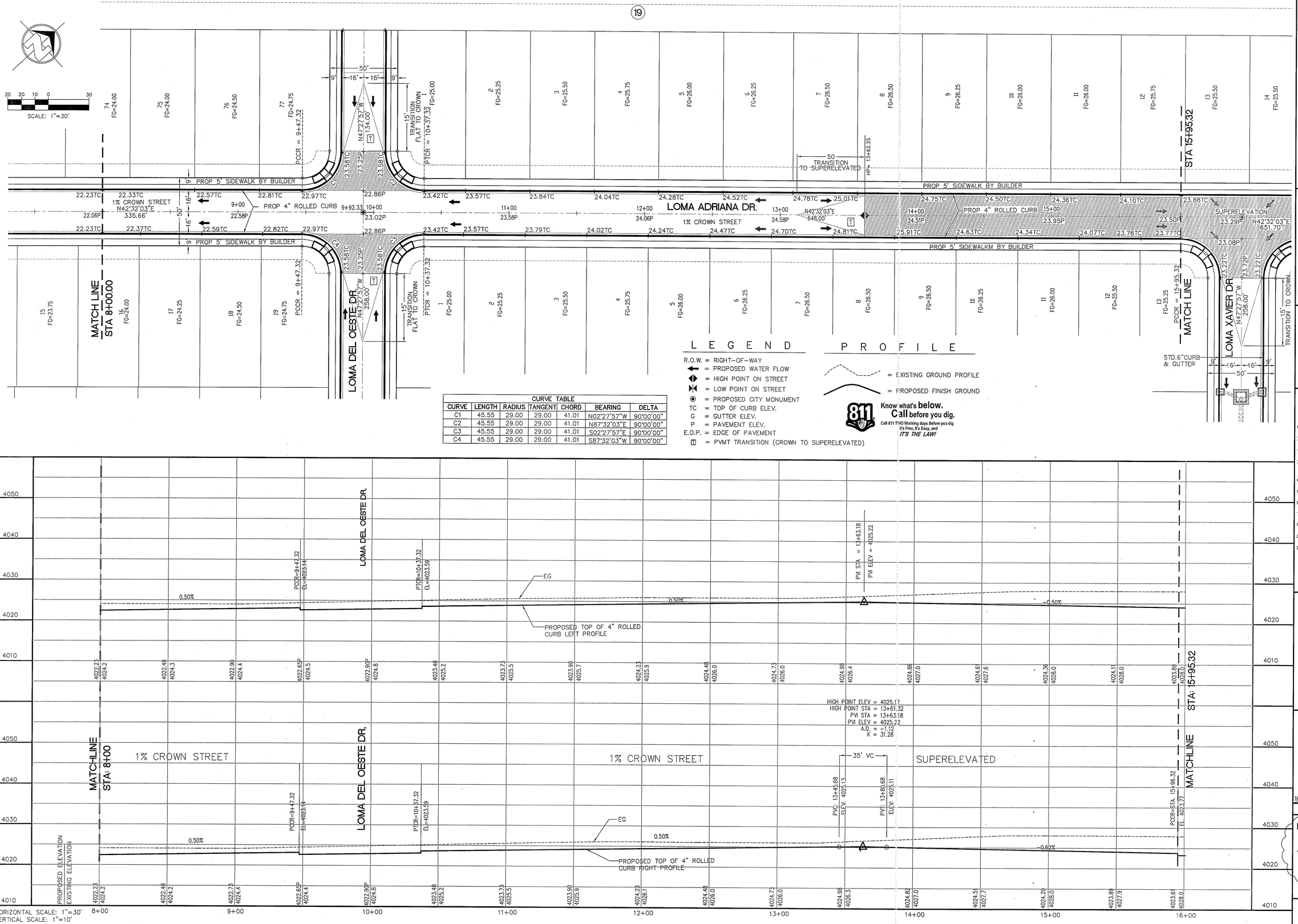
PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
LOMA ADRIANA DRIVE
STA 0+00.00
STA 8+00.00
(SHT 1 OF 3)

C-13.0



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C2	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C3	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C4	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"

LEGEND

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- = HIGH POINT ON STREET
- = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- E.O.P. = EDGE OF PAVEMENT
- = PVMT TRANSITION (CROWN TO SUPERELEVATED)

PROFILE

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\DE2-PP-LOMA ADRIANA-2.dwg 9/17/2012 4:01:34 PM MDT

REVISIONS			
	DATE		BY
1	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

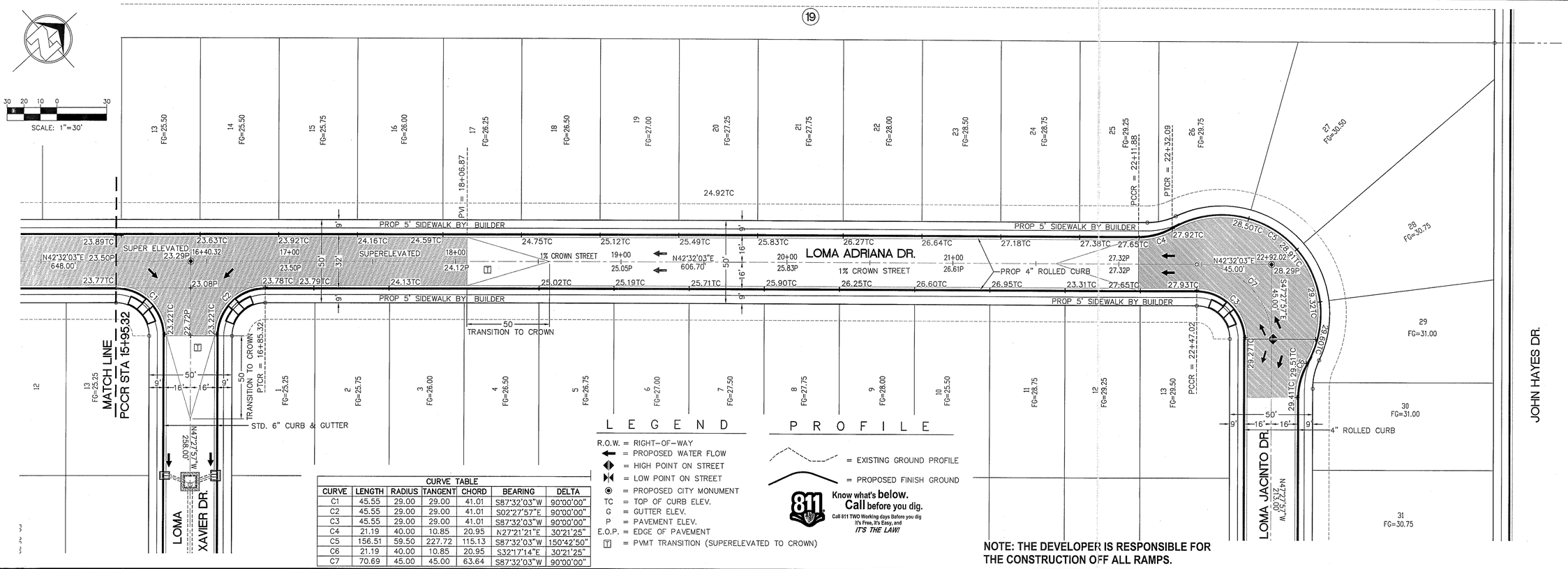
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92103
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

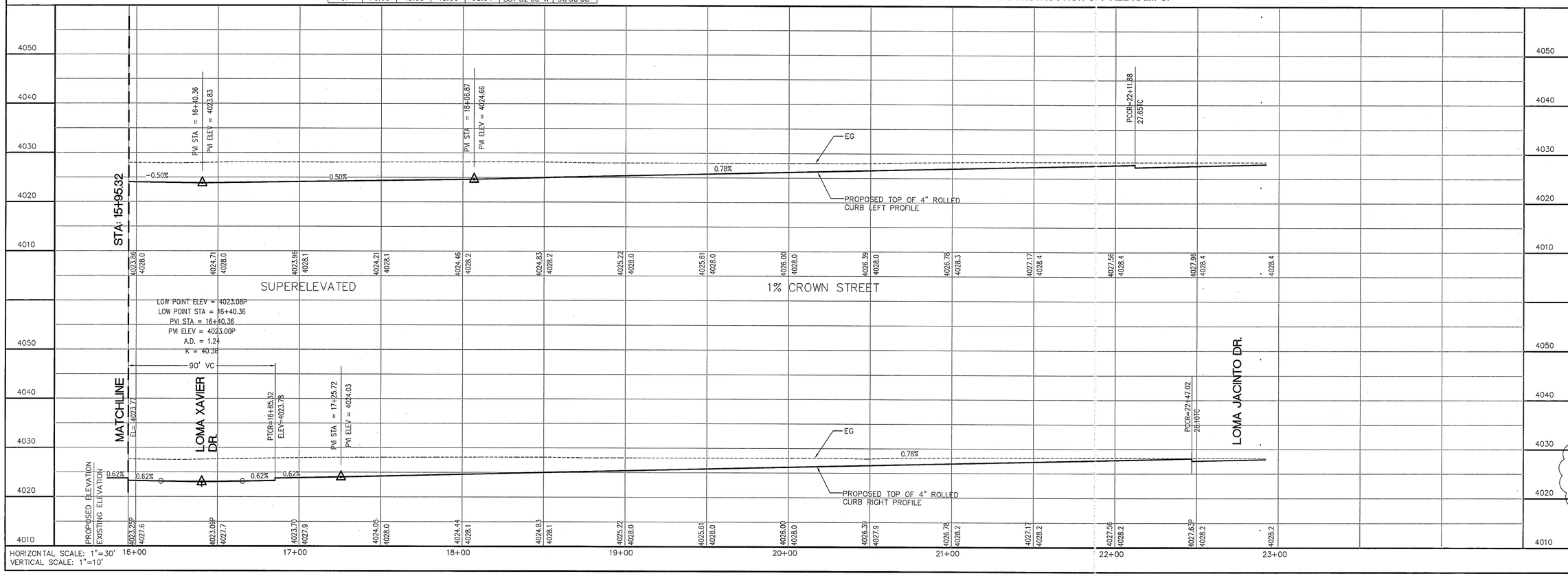
SHEET TITLE

PLAN AND PROFILE
LOMA ADRIANA DRIVE
STA 8+00.00
STA 15+95.32
(SHT 2 OF 3)

C-13.1



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C2	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C3	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C4	21.19	40.00	10.85	20.95	N27°21'21"E	30°21'25"
C5	156.51	59.50	227.72	115.13	S87°32'03"W	150°42'50"
C6	21.19	40.00	10.85	20.95	S32°17'14"E	30°21'25"
C7	70.69	45.00	45.00	63.64	S87°32'03"W	90°00'00"



REVISIONS			BY
DATE			
4/10/12		CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF SECTION 35, A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6660 NESTHING DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

PLAN AND PROFILE
LOMA ADRIANA
DRIVE
STA 15+95.32
STA 22+92.02

(SHT 3 OF 3)

C-13.2

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA ADRIANA-3.dwg 10/24/2012 3:40:01 PM MDT

LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
= PVMT. TRANSITION (FLAT TO CROWN)

PROFILE

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

811 Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

SCALE: 1"=30'

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	46.03	29.00	29.48	41.35	N44°31'53"E	90°56'14"
C2	45.08	29.00	28.53	40.68	S45°28'07"E	89°03'46"
C3	46.03	29.00	29.48	41.35	S44°31'53"W	90°56'14"
C4	45.28	29.00	28.73	40.82	S45°16'00"E	89°27'59"
C5	147.99	376.50	74.96	147.04	N11°47'40"W	22°31'18"
C6	197.99	408.50	100.98	196.05	N14°25'05"W	27°46'10"
C7	221.83	392.50	113.96	218.89	N16°43'27"W	32°22'53"

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

FG=26.60
12 FG=26.50
13 FG=26.75
14 FG=27.00
4" ROLLED CURB
50' TRANSITION FLAT TO CROWN
PTCR = 0+45.74
END 4" ROLLED CURB
BEGIN 6" CURB & GUTTER
PC = 2+22.80
PT = 2+93.26
PARK AREA No.1
1 C-242 COMMERCIAL DRIVEWAY AND GATE BY DEVELOPER
20' GATE
POND AREA No. 1
6" ROCKWALL
PC = 7+11.62
PROP 5' SIDEWALK BY BUILDER
PROP 7' SIDEWALK DEVELOPER
PROP 7' SIDEWALK BY DEVELOPER
PROP 5' SIDEWALK BY DEVELOPER
LOMA ESTHER DR.
2% CROWN STREET
STD 6" CURB & GUTER
PROP. 6" CURB & GUTTER
N00°55'24"W 258.03
N00°32'29"W 453.59'
C-L STA. 5+41.15
STA 0+00
N90°00'00"E 741.23'
N90°00'00"E 459.70'
LOMA ESMERALDA DR.
PTCR = 0+44.27
HP. STA 0+95.29
PCCR = 2+12.29
PCCR = 3+02.62
PTCR = 3+02.62
S90°00'00"E 297.55'
TRANSITION FLAT TO CROWN
9 FG=27.75
10 FG=27.50
19 FG=26.75
20 FG=26.50
2 FG=25.75
3 FG=25.50
4 FG=25.25
5 FG=25.00
6 FG=24.75
7 FG=24.50
8 FG=24.50
9 FG=24.75
10 FG=25.00
11 FG=25.25
12 FG=25.50
LP STA. 6+29.50
STA. 7+00
MATCH LINE STA 8+00.00

HIGH POINT ELEV = 4026.42
HIGH POINT STA = 0+95.29
PVI STA = 1+05.58
PVI ELEV = 4026.51
A.D. = -1.70
K = 29.43
50' VC
PTCR=0+45.74 ELEV: 4026.21
PVC: 0+80.58 ELEV: 4026.38
PVI: 1+30.58 ELEV: 4026.21
PVI STA = 2+58.03
PVI ELEV = 4024.68
A.D. = 0.70
K = 42.92
30' VC
PVC: 2+43.03 ELEV: 4024.86
PVI: 2+73.03 ELEV: 4024.61
EG
-2%
1.93%
0.50%
-1.20%
-0.50%
0.70%
0.50%
STA 5+41.15 POND DRIVEWAY
LOW POINT PVI=STA 6+29.50 ELEV: 4022.83
PVI=STA 7+29.50 ELEV: 4023.53
PROPOSED TOP OF 6" CURB AND GUTTER LEFT PROFILE
LOMA ESMERALDA DR
LOMA CHICA DR
MATCHLINE STA: 8+00
1% CROWN STREET
2% CROWN STREET
PROPOSED ELEVATION
EXISTING ELEVATION
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'
0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00
4050 4040 4030 4020 4010

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA ESTHER-1.dwg 10/30/2012 11:37:41 AM MDT

NO.	DATE	REVISIONS	BY
1	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3639.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2951
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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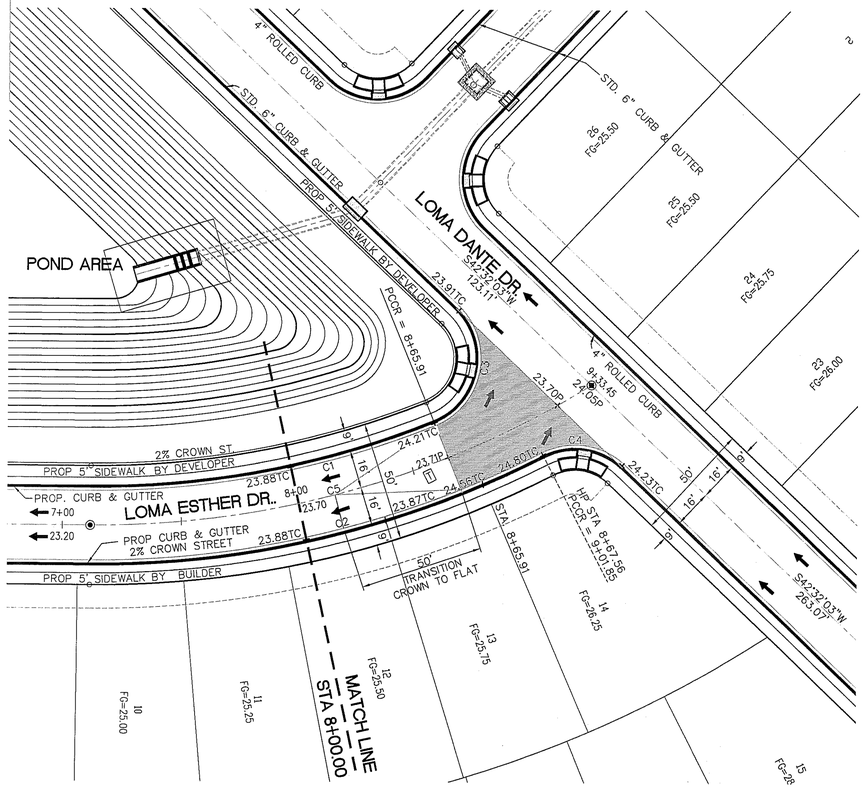
PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

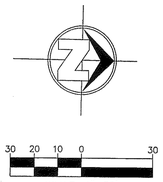
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6500 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
LOMA ESTHER DRIVE
STA 0+00.00
STA 8+00.00
(SHT 1 OF 2)

C-14.0





CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	147.99	376.50	74.96	147.04	N11°47'40"W	22°31'18"
C2	197.99	408.50	100.98	196.05	N14°25'05"W	27°46'10"
C3	57.91	29.00	45.01	48.76	N80°15'38"W	114°24'38"
C4	35.85	29.00	20.62	33.61	S07°06'56"W	70°50'14"
C5	221.83	392.50	113.96	218.89	N16°43'27"W	32°22'53"

L E G E N D

R.O.W. = RIGHT-OF-WAY
◄ = PROPOSED WATER FLOW
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E.O.P. = EDGE OF PAVEMENT
◫ = PAVEMENT TRANSITION (CROWN TO SUPERELEVATED)

P R O F I L E

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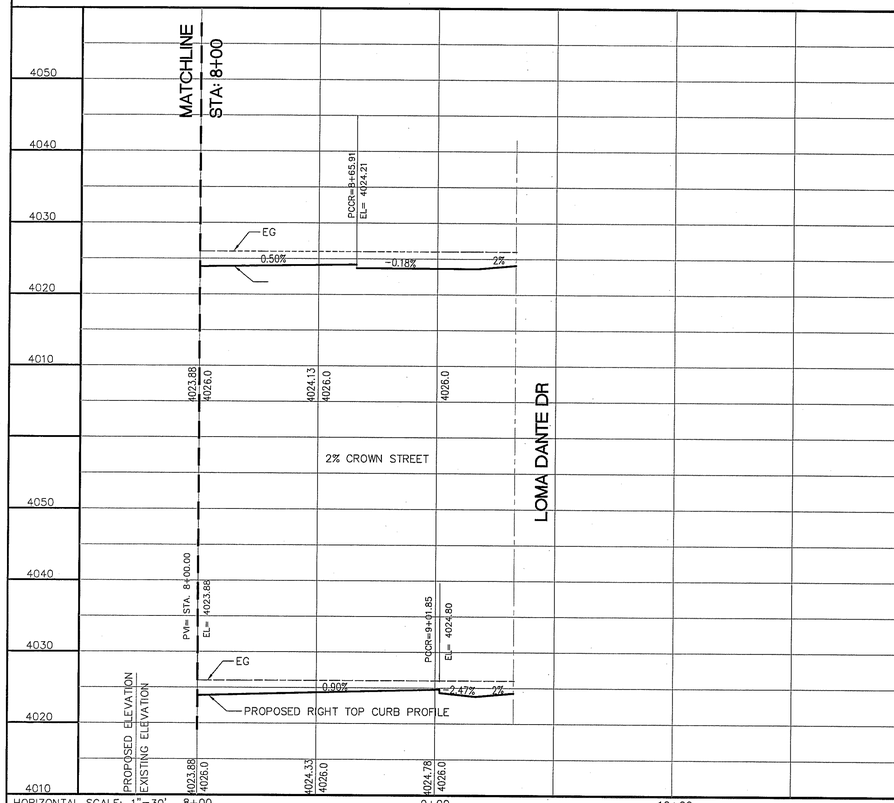

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA ESTHER-2.dwg 10/26/2012 9:10:11 AM MDT

DATE	REVISIONS	BY
4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.99 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 48, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

SLI ENGINEERING, INC.
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
LOMA ESTHER
⚠ DRIVE
STA 8+00.00
STA 9+33.45
(SHT 2 OF 2)

C-14.1

LEGEND

R.O.W. = RIGHT-OF-WAY
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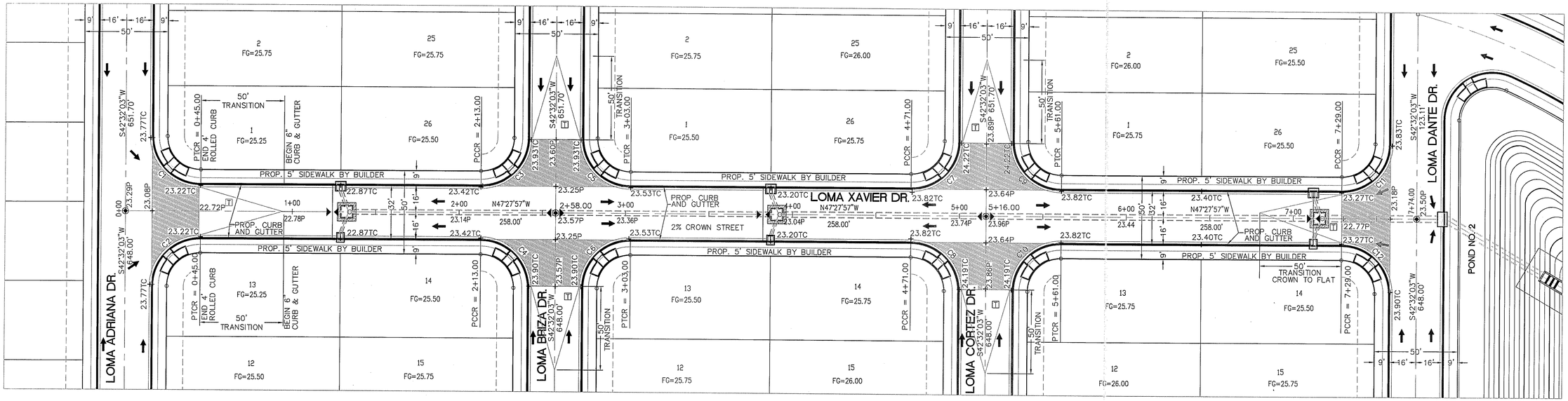
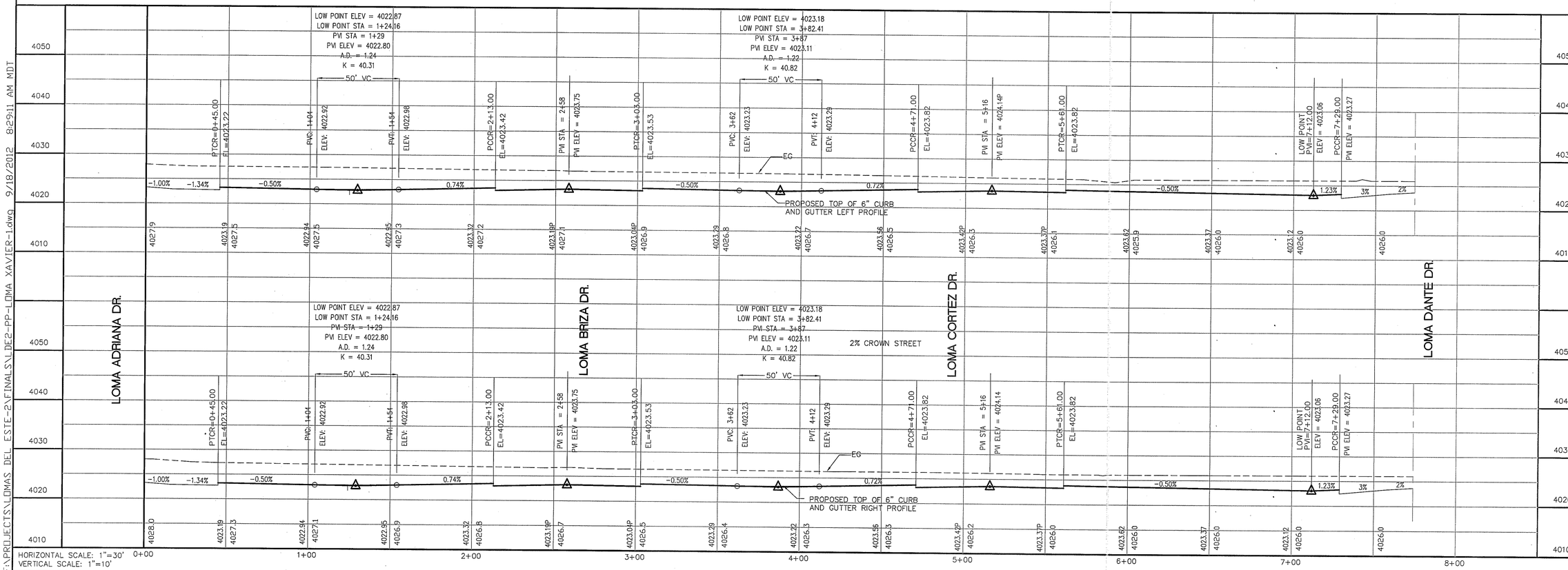
SCALE: 1"=30'

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C2	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C3	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C4	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C5	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C6	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C7	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C8	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C9	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C10	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C11	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C12	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.





REVISIONS		
	DATE	BY
1		
2		
3		
4		
5		

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 08-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 48, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
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6600 WESTWIND DRIVE
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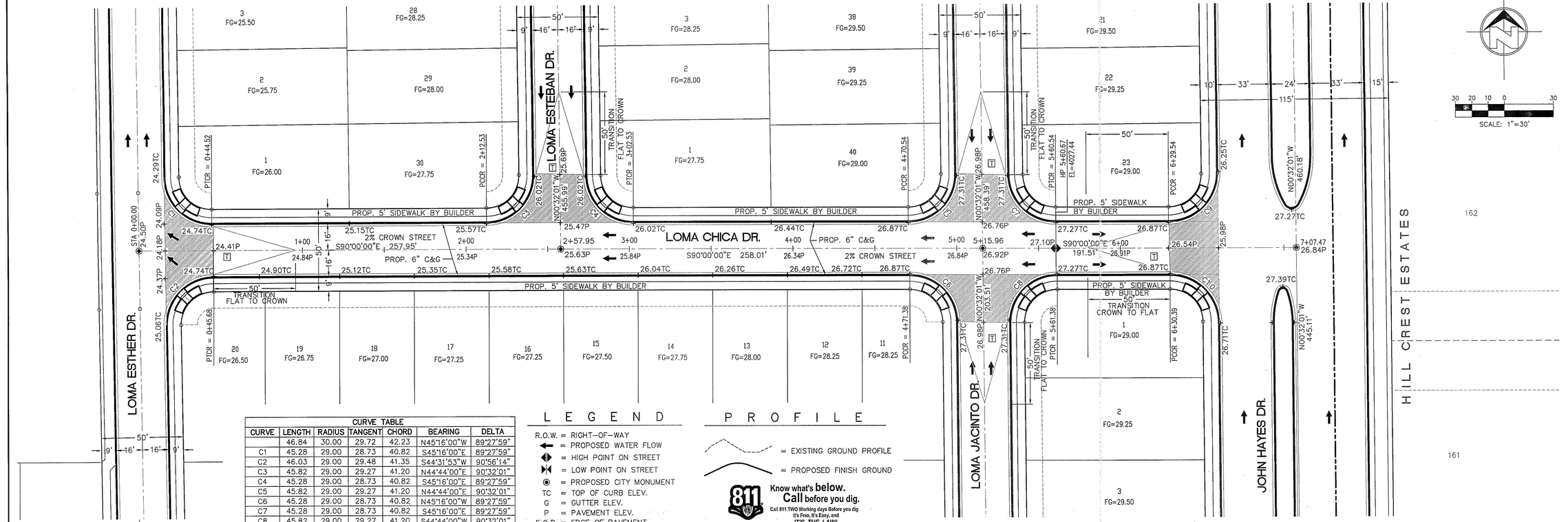
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
LOMA XAVIER DRIVE
STA 0+00.00
STA 7+74.00
(SHT 1 OF 1)

C-15.0

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA XAVIER-1.dwg 9/18/2012 8:29:11 AM MDT



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
	46.84	30.00	29.72	42.23	N45°16'00"W	89°27'59"
C1	45.28	29.00	28.73	40.82	S45°16'00"E	89°27'59"
C2	46.03	29.00	29.48	41.35	S44°31'53"W	90°56'14"
C3	45.82	29.00	29.27	41.20	N44°44'00"E	90°32'01"
C4	45.28	29.00	28.73	40.82	S45°16'00"E	89°27'59"
C5	45.82	29.00	29.27	41.20	N44°44'00"E	90°32'01"
C6	45.28	29.00	28.73	40.82	N45°16'00"W	89°27'59"
C7	45.28	29.00	28.73	40.82	S45°16'00"E	89°27'59"
C8	45.82	29.00	29.27	41.20	S44°44'00"W	90°32'01"
C9	47.40	30.00	30.28	42.62	N44°44'00"E	90°32'01"
C10	46.84	30.00	29.72	42.23	N45°16'00"W	89°27'59"

LEGEND

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- = HIGH POINT ON STREET
- = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- E.O.P. = EDGE OF PAVEMENT
- T = PAVEMENT TRANSITION (FLAT TO CROWN)

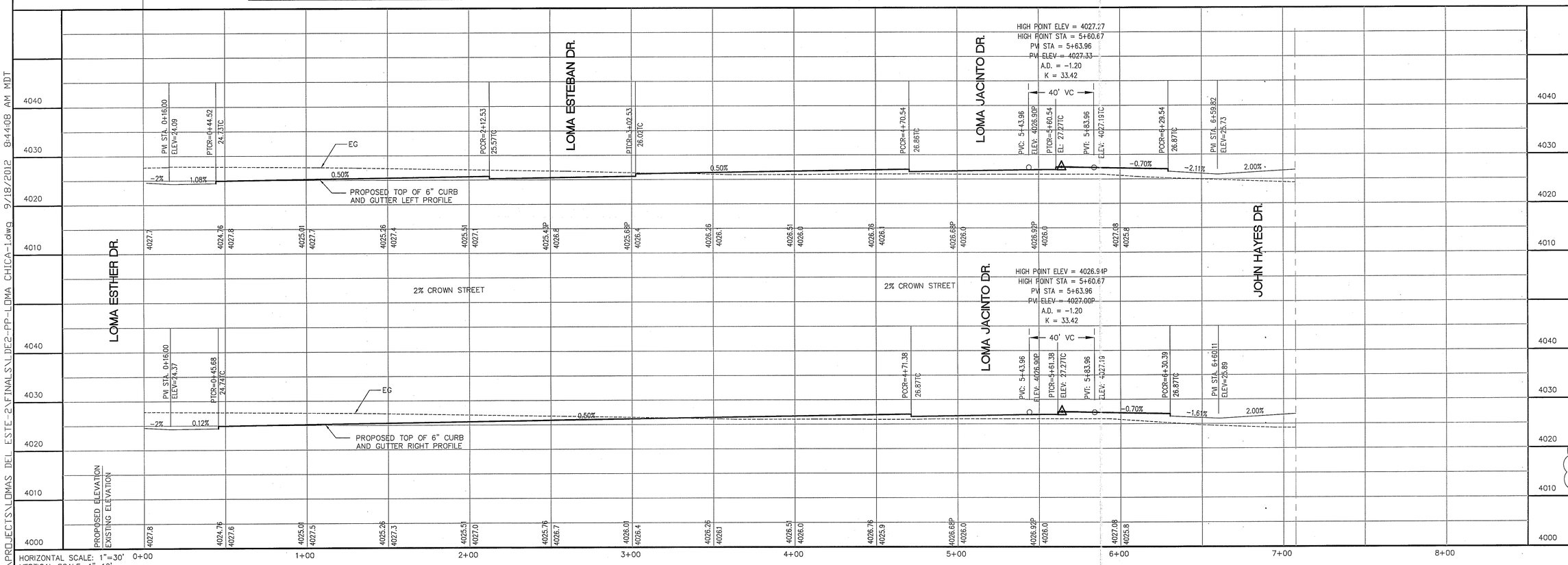
PROFILE

= EXISTING GROUND PROFILE

= PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig It's Free, It's Easy, and IT'S THE LAW!

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.



HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA CHICA-1.dwg 9/18/2012 8:44:08 AM MDT

REVISIONS			BY
DATE			
4/10/12	1	CHANGED 6" CURB TO 4" ROLLED CURB	
	2		
	3		
	4		
	5		
	6		

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF SECTION 37, A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 594-1457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

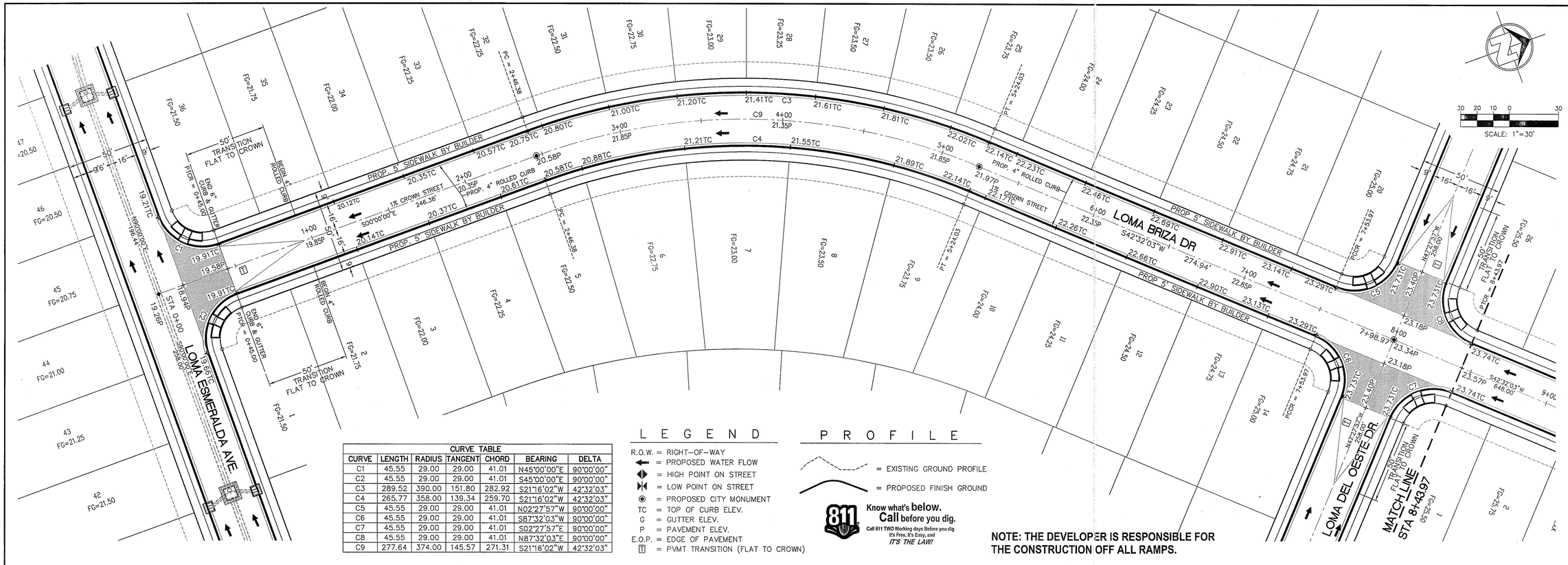
STATE OF TEXAS
GEORGES S. HALLOUL
92107
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

PLAN AND PROFILE
LOMA CHICA DRIVE
STA 0+00.00
STA 7+07.47

(SHT 1 OF 1)

C-16.0



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N45°00'00"E	90°00'00"
C2	45.55	29.00	29.00	41.01	S45°00'00"E	90°00'00"
C3	289.52	390.00	151.80	282.92	S21°16'02"W	42°32'03"
C4	265.77	358.00	139.34	259.70	S21°16'02"W	42°32'03"
C5	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C6	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C7	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C8	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C9	277.64	374.00	145.57	271.31	S21°16'02"W	42°32'03"

LEGEND

- R.O.W. = RIGHT-OF-WAY
- ← = PROPOSED WATER FLOW
- ◆ = HIGH POINT ON STREET
- ⋈ = LOW POINT ON STREET
- ◉ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- E.O.P. = EDGE OF PAVEMENT
- T = PVMT TRANSITION (FLAT TO CROWN)

PROFILE

= EXISTING GROUND PROFILE

= PROPOSED FINISH GROUND

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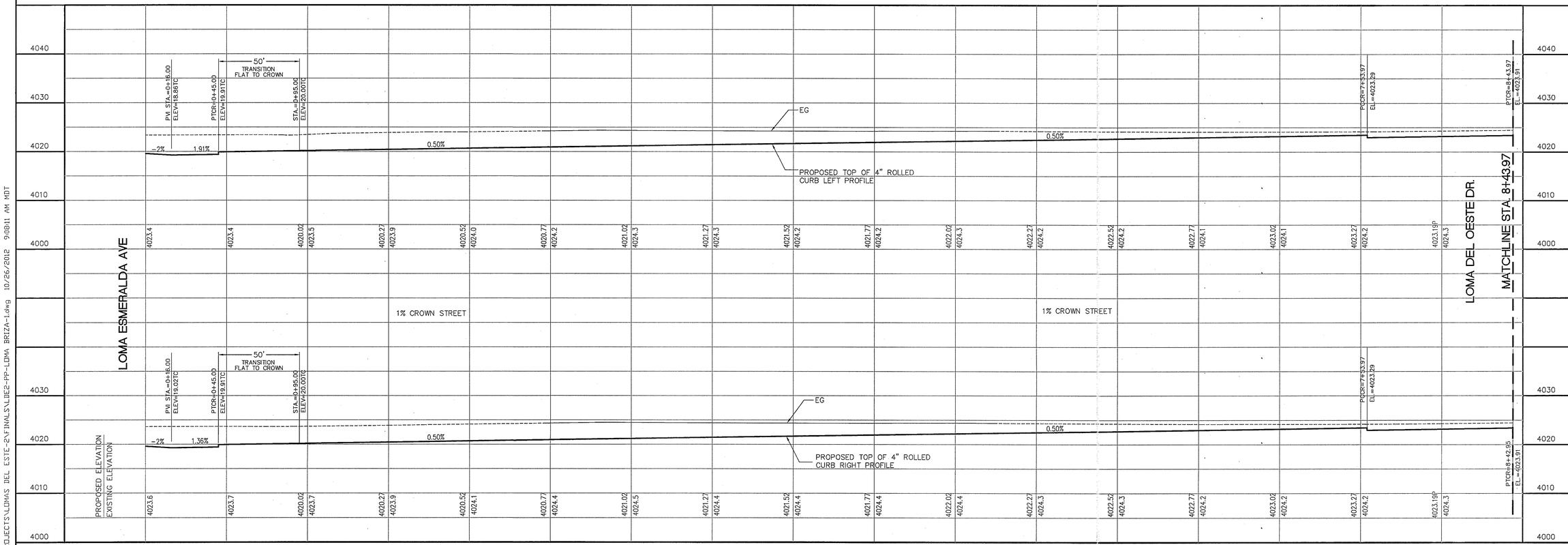

NO.	DATE	REVISIONS	BY
1	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	
2			
3			
4			
5			
6			

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6800 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOTA
92104
LICENSED PROFESSIONAL ENGINEER

NOVEMBER 30, 2012

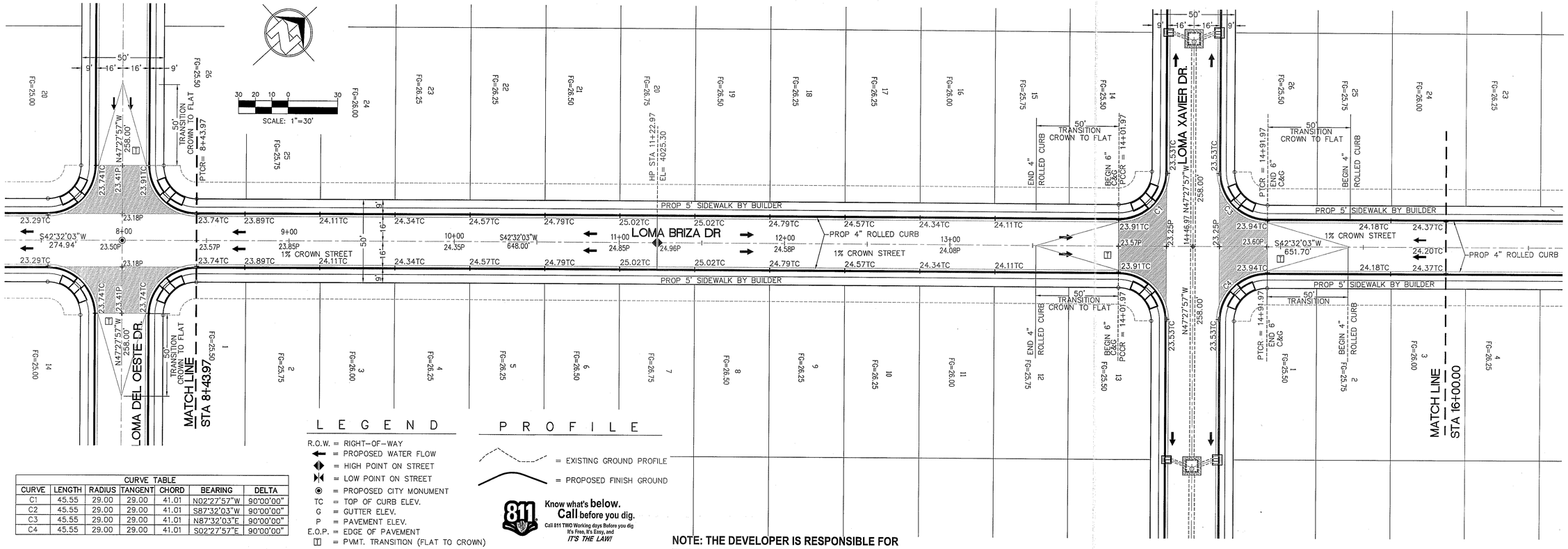
SHEET TITLE

PLAN AND PROFILE
LOMA BRIZA DRIVE
STA 0+00.00
STA 8+43.97

(SHT 1 OF 3)

C-17.0

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA BRIZA-1.dwg 10/26/2012 9:08:11 AM MDT



LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
= PVMT. TRANSITION (FLAT TO CROWN)

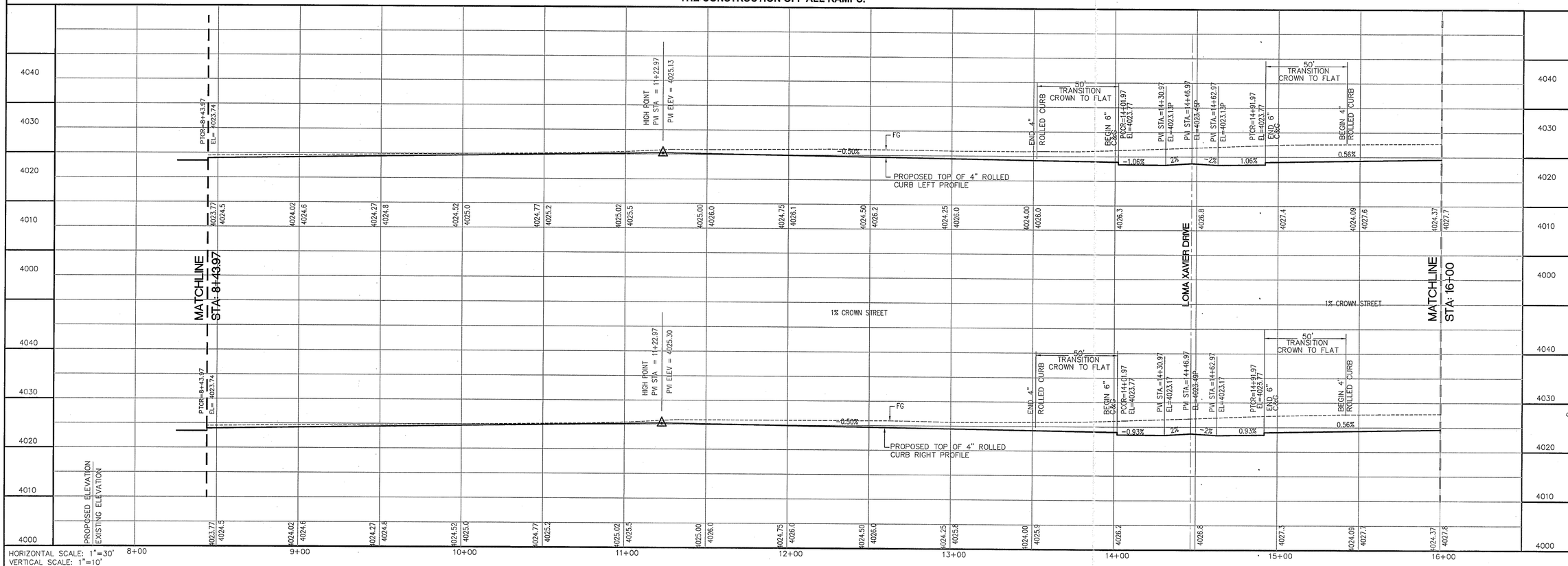
PROFILE

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

811 Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C2	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C3	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C4	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.



F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA BRIZA-2.dwg 10/26/2012 9:06:32 AM MDT

REVISIONS		
	DATE	BY
1		
2	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB
3		
4		
5		
6		
7		

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

PLAN AND PROFILE
LOMA BRIZA
DRIVE
STA 8+43.97
STA 16+00.00

(SHT 2 OF 3)

C-17.1

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C2	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C3	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C4	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C5	47.12	30.00	30.00	42.43	N02°27'57"W	90°00'00"
C6	47.12	30.00	30.00	42.43	S87°32'03"W	90°00'00"
C7	30.60	60.00	15.64	30.27	S62°04'38"E	29°13'22"
C8	10.61	5.00	8.94	8.73	N22°34'03"E	121°33'15"
C9	30.60	60.00	15.64	30.27	N32°51'16"W	29°13'32"
C10	19.55	60.00	9.86	19.47	S38°07'48"E	18°40'18"
C11	7.47	3.00	8.88	5.68	S42°32'03"W	142°39'24"
C12	19.55	60.00	9.86	19.47	N56°48'06"W	18°40'18"

LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
T = PVMT TRANSITION (CROWN TO FLAT)

PROFILE

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

811 Know what's **below.** **Call** before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!!

NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.

SCALE: 1"=30'

MATCH LINE STA 16+00.00

LOMA BRIZA DR — PROP 5' SIDEWALK BY BUILDER — PROP 4" ROLLED CURB — 1% CROWN STREET — S42°32'03"W 651.70' — S42°32'03"W 191.50'

LOMA JACINTO DR. N47°27'57"W 258.00'

JOHN HAYES DR. N47°27'57"W 392.00' / N47°27'57"W 417.98'

PCCR = 20+53.67 — PTCR = 21+43.67 — 50' TRANSITION FLAT TO CROWN — 50' TRANSITION CROWN TO FLAT — END 4" ROLLED CURB — BEGIN 6" CURB AND GUTTER PCCR PVI STA = 22+12.67 PVI ELEV = 4028.46 — PVI STA = 22+42.67 PVI ELEV = 4027.69P

PROFILE VERTICAL SCALE: 1"=10'

EG — PROPOSED TOP OF 4" ROLLED CURB LEFT PROFILE — PROPOSED TOP OF 4" ROLLED CURB RIGHT PROFILE

0.56% — 0.86% — 1.00% — 2.00% — 1.47%

PROPOSED ELEVATION
EXISTING ELEVATION

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA BRIZA-3.dwg 11/7/2012 9:36:19 AM MST

NO	DATE	REVISIONS	BY
1	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK: SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS, AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS — GEORGES S. HALLOUL — 92106 — LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
LOMA BRIZA
DRIVE
STA 16+00.00
STA 22+90.17
(SHT 3 OF 3)

C-17.2

LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
T =PVMT TRANSITION (FLAT TO CROWN)

SCALE: 1"=30'

PROFILE

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

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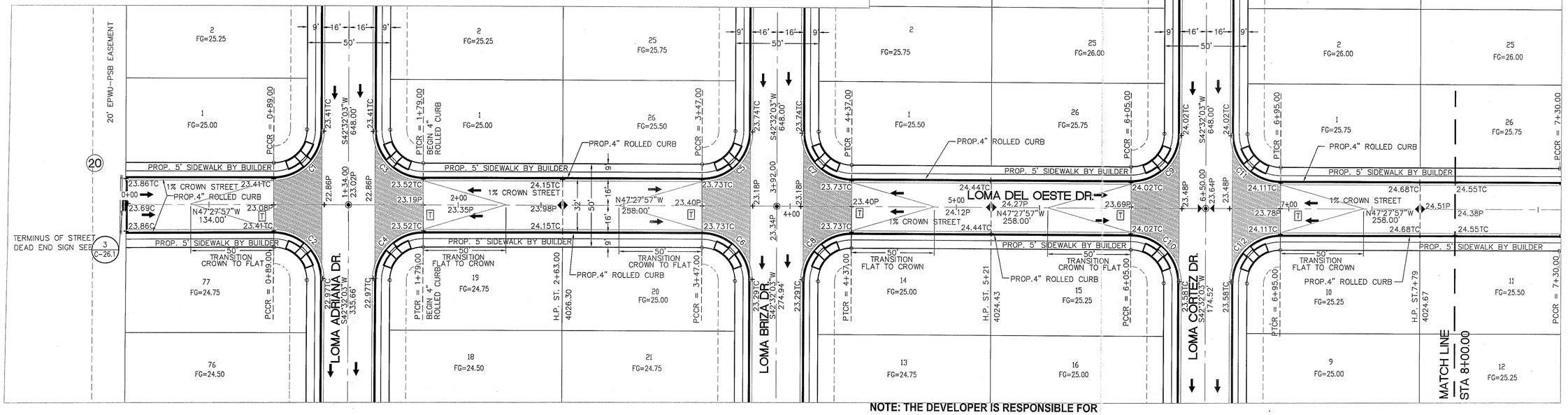
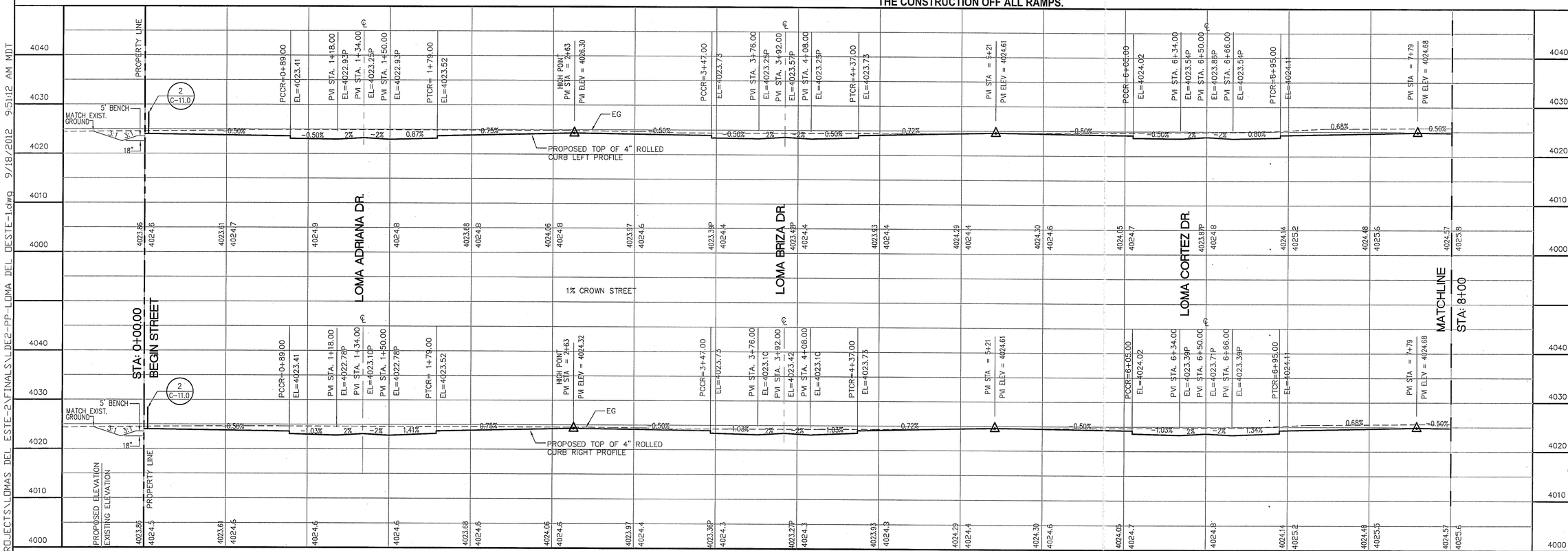
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C2	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C3	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C4	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C5	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C6	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C7	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C8	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"
C9	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C10	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"
C11	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C12	45.55	29.00	29.00	41.01	S87°32'03"W	90°00'00"



NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.



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REVISIONS	DATE	BY
1	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB
2		
3		
4		
5		
6		
7		

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

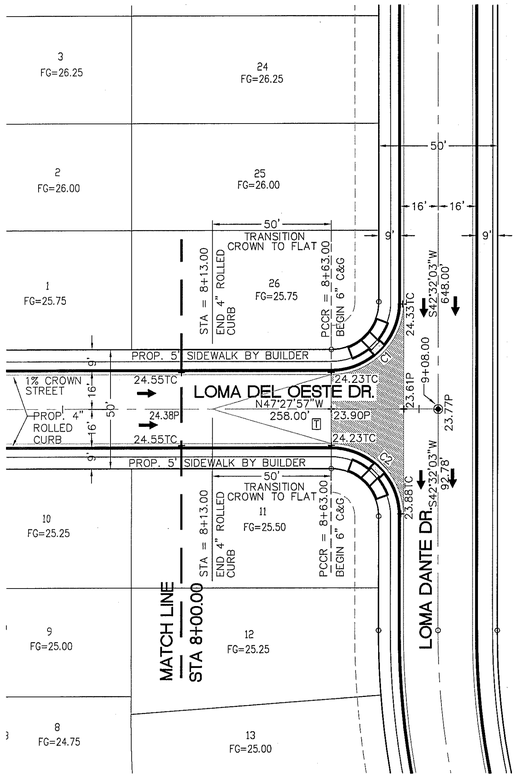
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.

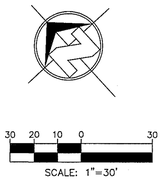
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
LOMA DEL OESTE DRIVE
STA 0+00.00
STA 8+00.00
(SHT 1 OF 2)

C-18.0





PARK AREA

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C2	45.55	29.00	29.00	41.01	N02°27'57"W	90°00'00"

L E G E N D

R.O.W. = RIGHT-OF-WAY
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= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
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G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
= PAVEMENT TRANSITION (CROWN TO FLAT)

P R O F I L E

= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

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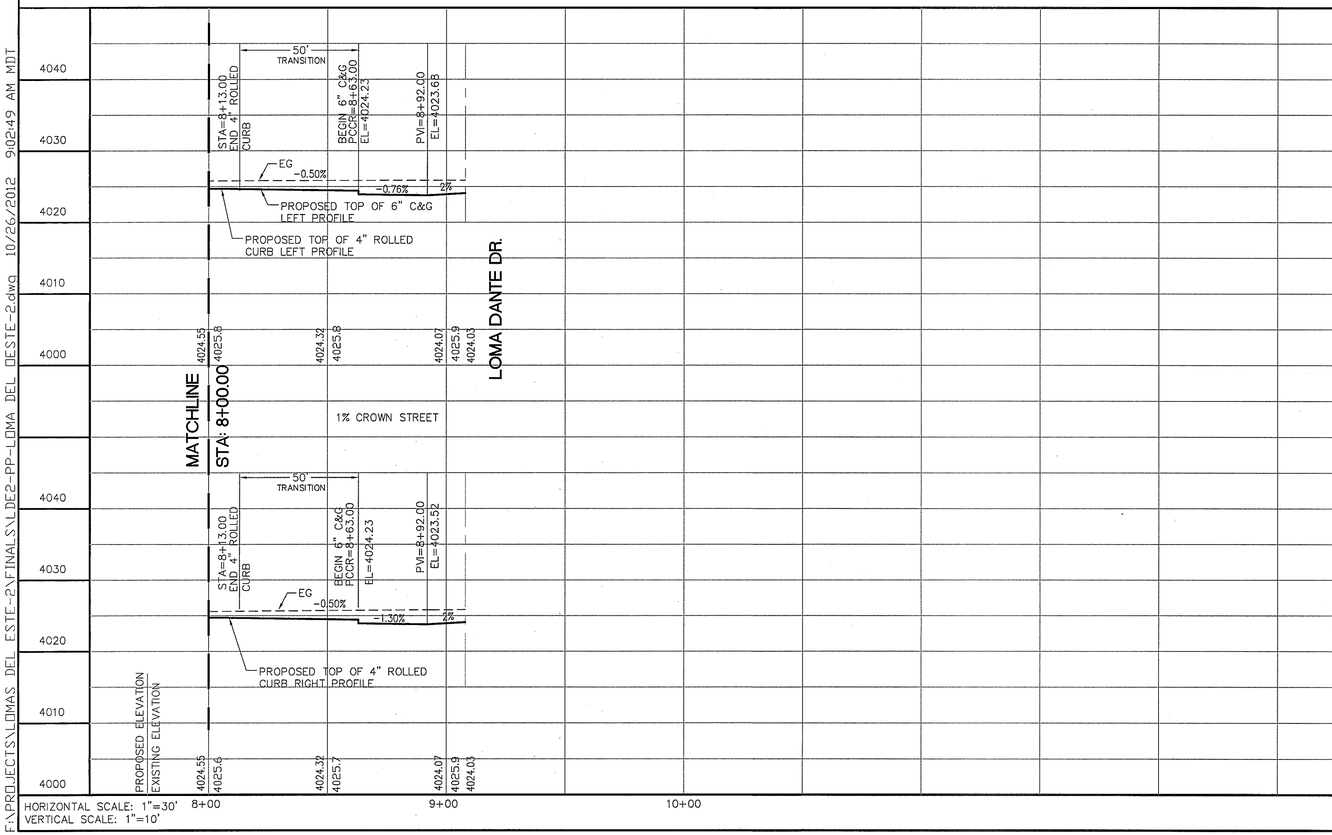

HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-PP-LOMA DEL OESTE-2.dwg 10/26/2012 9:02:49 AM MDT

DATE	REVISIONS	BY
4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB	

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TSRVYS AND 2 FOUND BRASS DISKS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER, 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF SECTION 37, A PORTION OF SECTION 35, A PORTION OF TR. 3, SECTION 38, BLOCK 79, TSP2, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92405
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
LOMA DEL OESTE
⚠ DRIVE
STA 8+00.00
STA 9+08.00
(SHT 2 OF 2)

C-18.1

CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.82	29.00	29.27	41.20	N44°44'00"E	90°32'01"
C2	45.28	29.00	28.73	40.82	S45°16'00"E	89°27'59"
C3	367.80	634.50	189.23	362.67	N17°08'23"W	33°12'44"
C4	407.32	666.50	210.25	401.02	N18°02'29"W	35°00'57"
C5	52.50	29.00	36.93	45.62	N85°36'21"W	103°43'12"
C6	39.52	29.00	23.52	36.53	S03°29'33"W	78°05'00"
C7	433.85	650.50	225.34	425.85	N19°38'24"W	38°12'47"

LEGEND

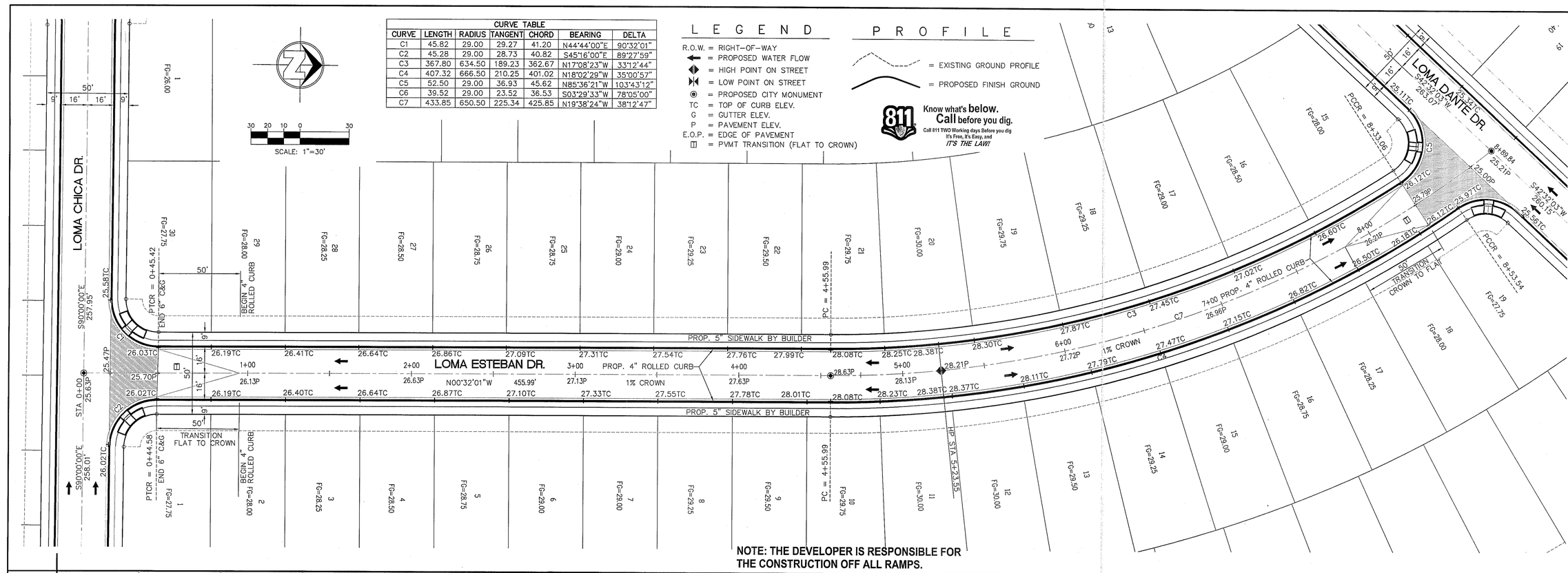
R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
G = GUTTER ELEV.
P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
= PVMT TRANSITION (FLAT TO CROWN)

PROFILE

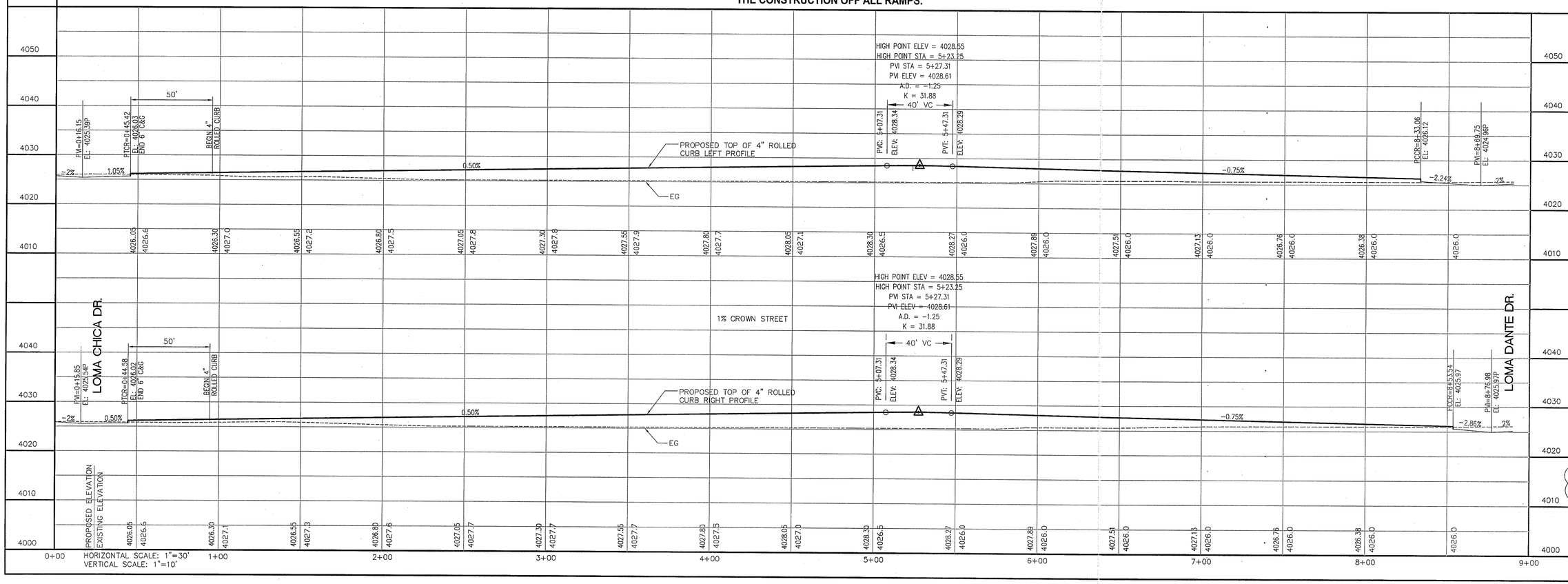
= EXISTING GROUND PROFILE
= PROPOSED FINISH GROUND

811 Know what's below. Call before you dig.
Call 811 TWO Working days Before you dig
It's Free, It's Easy, and
IT'S THE LAW!

SCALE: 1"=30'



NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.



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REVISIONS	DATE	BY
1		
2	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB
3		
4		
5		
6		
7		

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

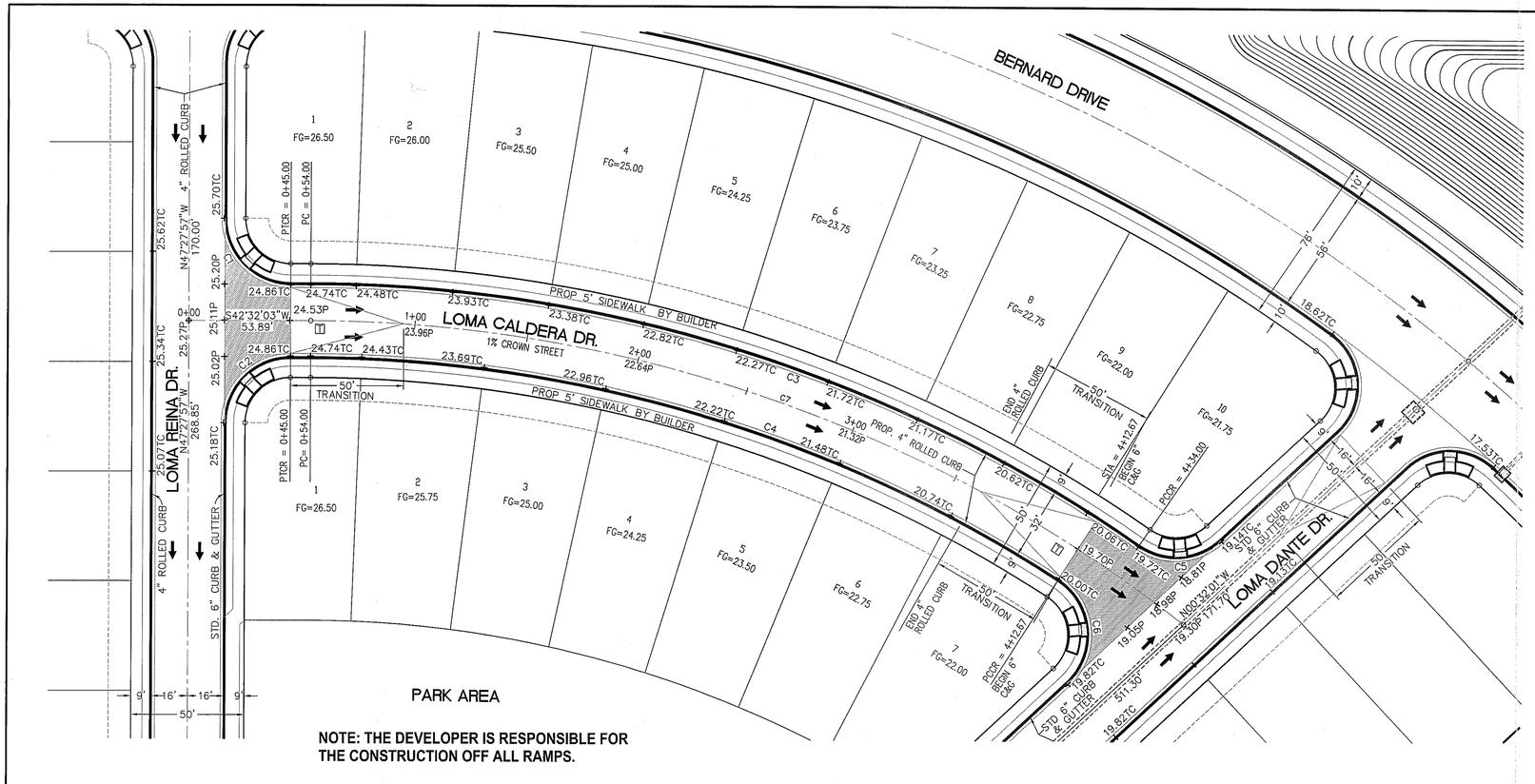
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

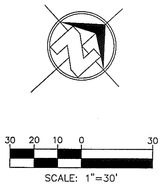
STATE OF TEXAS
GEORGES S. HALLOUE
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
LOMA ESTEBAN DRIVE
STA 0+00.00
STA 8+89.84
(SHT 1 OF 1)

C-19.0



NOTE: THE DEVELOPER IS RESPONSIBLE FOR THE CONSTRUCTION OFF ALL RAMPS.



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	45.55	29.00	29.00	41.01	N87°32'03"E	90°00'00"
C2	45.55	29.00	29.00	41.01	S02°27'57"E	90°00'00"
C3	389.76	646.00	201.02	383.88	S59°49'08"W	34°34'09"
C4	349.67	614.00	179.72	344.96	S58°50'57"W	32°37'47"
C5	39.30	29.00	23.33	36.36	N38°17'06"E	77°38'13"
C6	52.79	29.00	37.32	45.80	N52°41'05"W	104°18'09"
C7	416.11	630.00	215.96	408.59	S61°27'21"W	37°50'36"

LEGEND

R.O.W. = RIGHT-OF-WAY
= PROPOSED WATER FLOW
= HIGH POINT ON STREET
= LOW POINT ON STREET
= PROPOSED CITY MONUMENT
TC = TOP OF CURB ELEV.
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P = PAVEMENT ELEV.
E.O.P. = EDGE OF PAVEMENT
= PVMT. TRANSITION (FLAT TO CROWN)

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= EXISTING GROUND PROFILE
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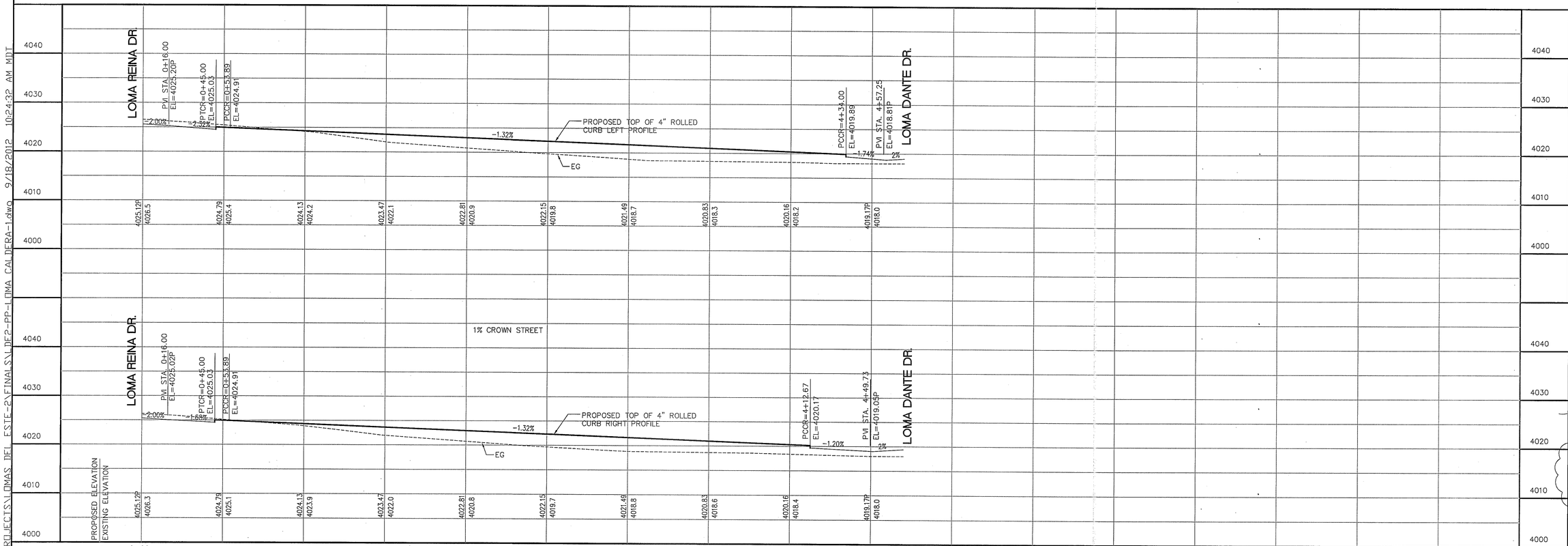

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REVISIONS	DATE	BY
1		
2	4/10/12	CHANGED 6" CURB TO 4" ROLLED CURB
3		
4		
5		
6		
7		

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

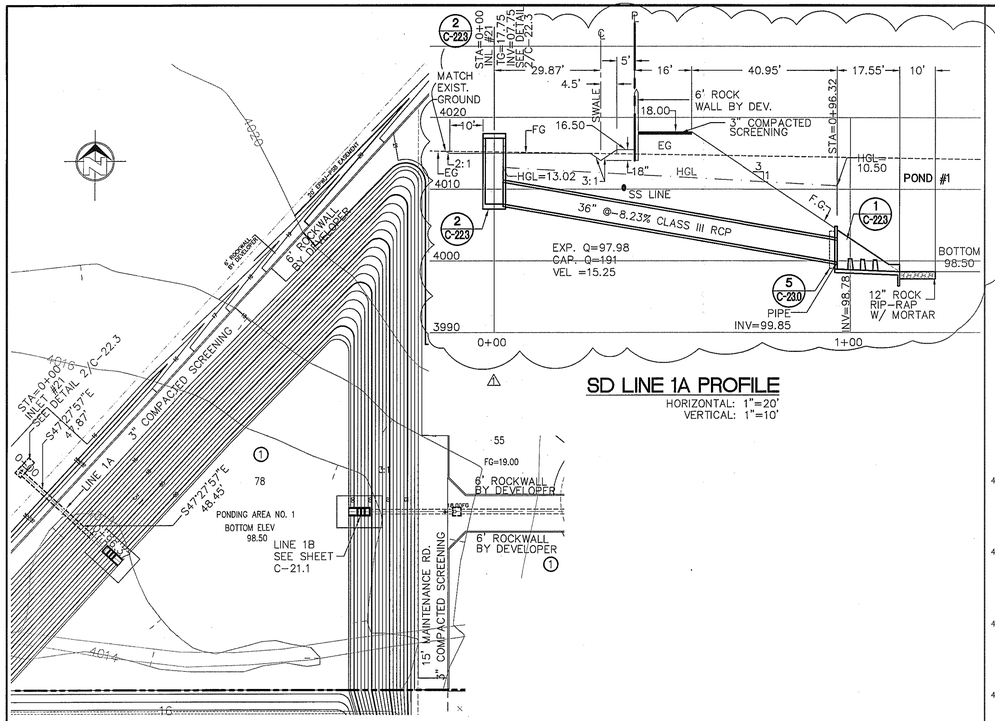
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED
PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
PLAN AND PROFILE
LOMA CALDERA DRIVE
STA 0+00.00
STA 4+69.90
(SHT 1 OF 1)

C-20.0



SD LINE 1A PROFILE

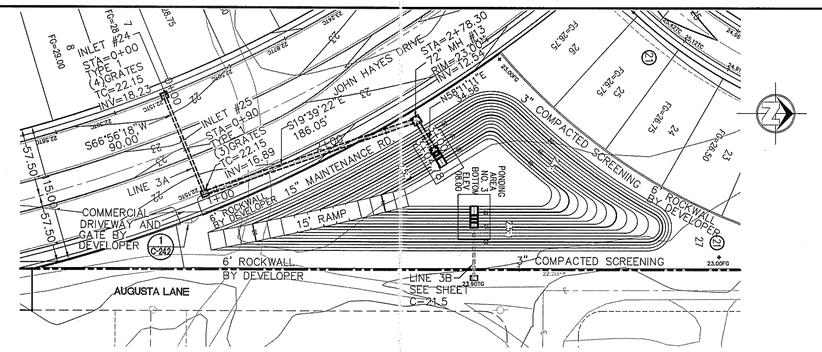
HORIZONTAL: 1"=20'
VERTICAL: 1"=10'

PLAN VIEW: SD LINE 1A

SCALE: 1"=60'

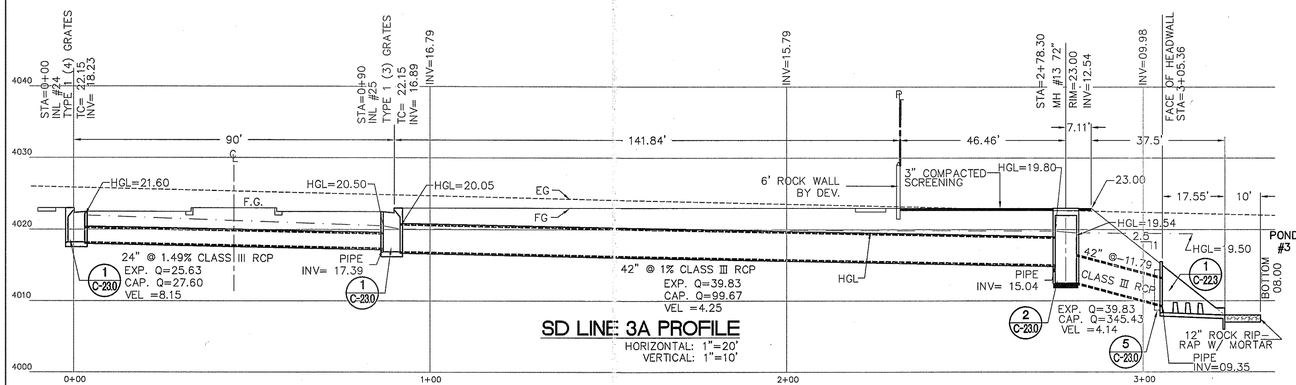
1 C-210 STORM DRAIN LINES INTO POND NO. 1

(STORM DESIGN=50 YEARS)



PLAN VIEW: SD LINE 3A

SCALE: 1"=60'

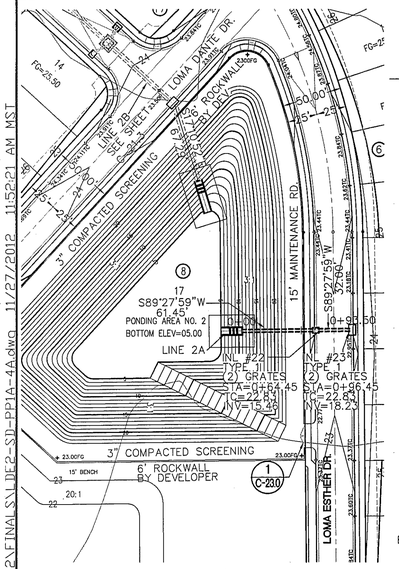


SD LINE 3A PROFILE

HORIZONTAL: 1"=20'
VERTICAL: 1"=10'

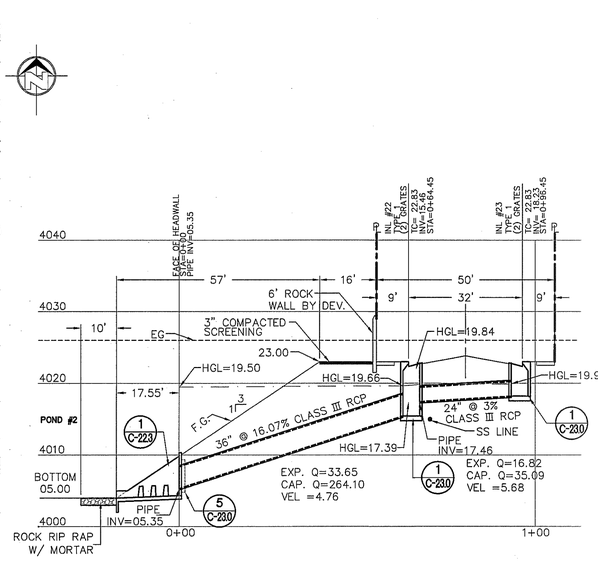
3 C-210 STORM DRAIN LINES INTO POND NO. 3

(STORM DESIGN=50 YEARS)



PLAN VIEW: SD LINE 2A

SCALE: 1"=60'

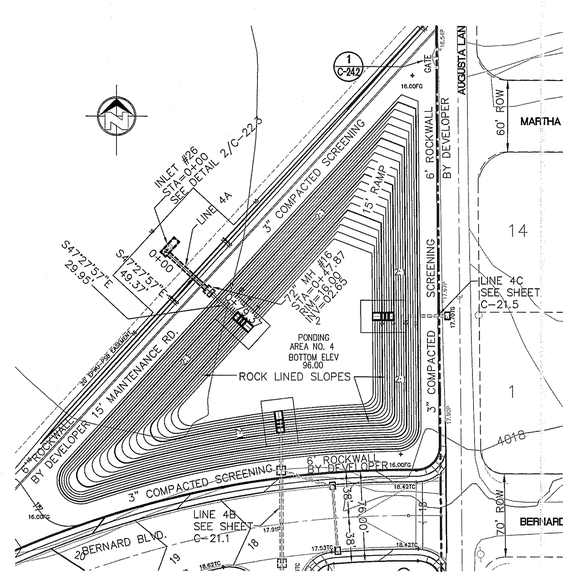


SD LINE 2A PROFILE

HORIZONTAL: 1"=20'
VERTICAL: 1"=10'

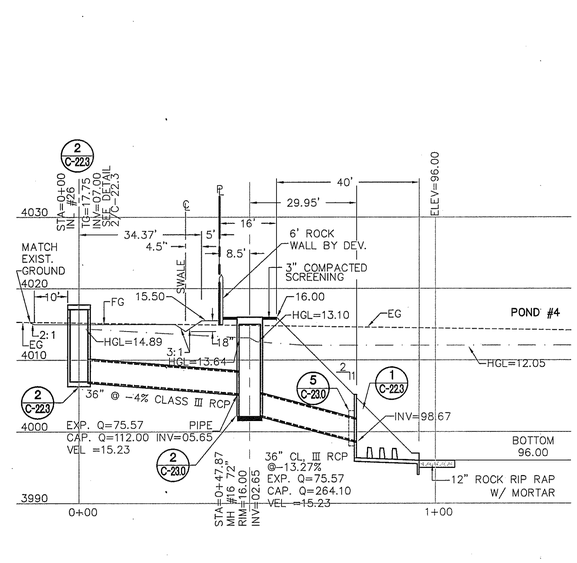
2 C-210 STORM DRAIN LINES INTO POND NO. 2

(STORM DESIGN=50 YEARS)



PLAN VIEW: SD LINE 4A

SCALE: 1"=60'



SD LINE 4A PROFILE

HORIZONTAL: 1"=20'
VERTICAL: 1"=10'

4 C-210 STORM DRAIN LINES INTO POND NO. 4

(STORM DESIGN=50 YEARS)

DATE	REVISIONS	BY
9/27/12	REVISED SD TO CLEAR SANITARY SEWER	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6800 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOU
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30 2012

SHEET TITLE

STORM DRAINS LINES 1A TO 4A PLAN + PROFILE

C-21.0

E:\PROJECTS\LOMAS DEL ESTE-2\FINAL\SLIDE2-SD-PP1A-4A.dwg 11/27/2012 11:52:21 AM MST

SCALE: 1"=30'

NOTE: ALL SUBGRADES ARE TO BE COMPACTED TO 95% DENSITY PER ASTM D-1557

STORM DESIGN=50 YEAR

PROFILE SD LINE-1B

SCALE: 1"=30'HOR. 1"=10' VER.

LATERAL-A

LATERAL-C

MATCH LINE STA.6+00

REVISIONS			
BY	DATE		
	4/10/12	1	REVISED SD TO CLEAR SANITARY SEWER

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, T&P R.R. SURVEYS, EL PASO COUNTY, TEXAS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 4, SECTION 36, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS AND A PORTION OF TR. 1B, SECTION 37, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
8600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOM
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

STORM DRAIN LINE-1B PLAN + PROFILE

(1 OF 2)

C-21.1

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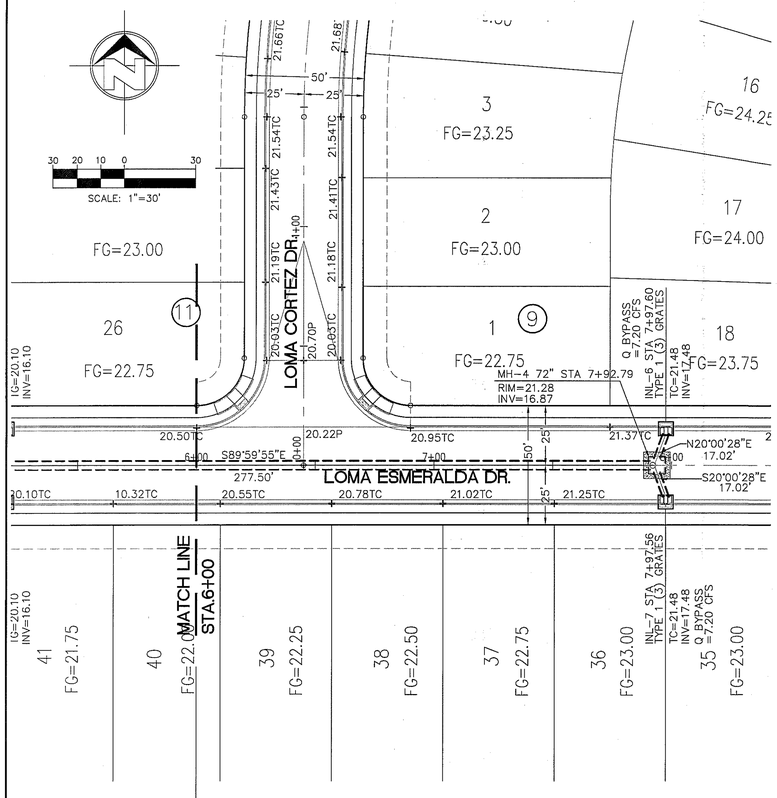

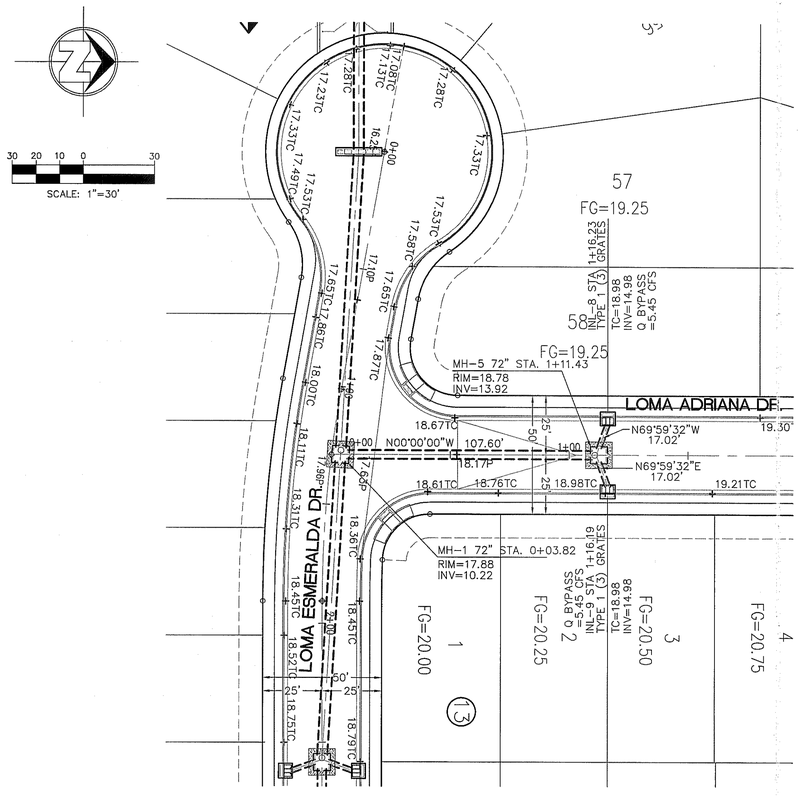

NOTE: ALL SUBGRADES ARE TO BE COMPACTED TO 95% DENSITY PER ASTM D-1557

STORM DESIGN=50 YEAR

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NAME	DATE	REVISIONS	BY

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3859.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, AND A PORTION OF TR. 4B, SECTION 36, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

STORM DRAIN
LINE-1B
PLAN + PROFILE

(2 OF 2)

C-21.2

SCALE: 1"=30'

LOMA ADRIANA DR.

LOMA XAVIER DR. / LOMA XAVIER DRIVE

LOMA BRIZA DR.

LOMA CORTEZ DR.

LOMA DANTE DR.

ROW LINE

INL-10 STA 1+29.00 TYPE 1 (3) GRATES TC=23.10 INV=19.10

INL-11 STA 1+29.00 TYPE 1 (3) GRATES TC=23.10 INV=19.10

INL-12 STA 3+87.00 TYPE 1 (3) GRATES TC=23.40 INV=17.80

INL-13 STA 3+87.00 TYPE 1 (2) GRATES TC=23.40 INV=17.80

INL-14 STA 7+12.00 TYPE 1 (3) GRATES TC=23.06 INV=17.46

INL-15 STA 7+12.00 TYPE 1 (2) GRATES TC=23.06 INV=17.46

MH-6 72" STA 1+33.78 RIM=22.94 INV=18.13

MH-7 72" STA 3+91.78 RIM=23.24 INV=15.55

MH-8 72" STA. 7+16.78 RIM=22.86 INV=12.30

INL-16 TYPE 1 (4) GRATES TC=23.68 INV=08.11

HEAD WALL STA. 8+58.87 INV=10.80

PONDING AREA NO. 2 BOTTOM ELEV=05.00

NOTE: ALL SUBGRADES ARE TO BE COMPACTED TO 95% DENSITY PER ASTM D-1557

STORM DESIGN=50 YEAR

PROFILE SD LINE-2B

SCALE: 1"=30'HOR.
1"=10' VER.

LATERAL-F

LATERAL-G

LATERAL-H

36" CLASS III RCP @ -1%

42" CLASS III RCP @ -1%

54" CLASS III RCP @ -1%

24" RCP CLASS III SLOPE=2%

18" RCP CLASS III SLOPE=2%

EXP. Q=31.60 CAP. Q=66.69 VEL = 4.47

EXP. Q=50.36 CAP. Q=100.60 VEL = 5.24

EXP. Q=67.86 CAP. Q=196.90 VEL = 3.97

EXP. Q=76.74 CAP. Q=306.26 VEL = 4.83

EXP. Q=9.38 CAP. Q=32.03 VEL = 2.99

EXP. Q=9.38 CAP. Q=14.87 VEL = 5.32

EXP. Q=8.75 CAP. Q=31.99 VEL = 2.79

EXP. Q=8.75 CAP. Q=14.87 VEL = 4.95

EXP. Q=15.80 CAP. Q=32.03 VEL = 5.03

EXP. Q=15.80 CAP. Q=14.87 VEL = 8.94

12" ROCK RIP RAP W/ MORTAR

68.87'

NAME	DATE	REVISIONS	BY
	4/10/12	REVISED STORM DRAIN	

BENCHMARK: SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME: LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS 79912
(915) 584-4429
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

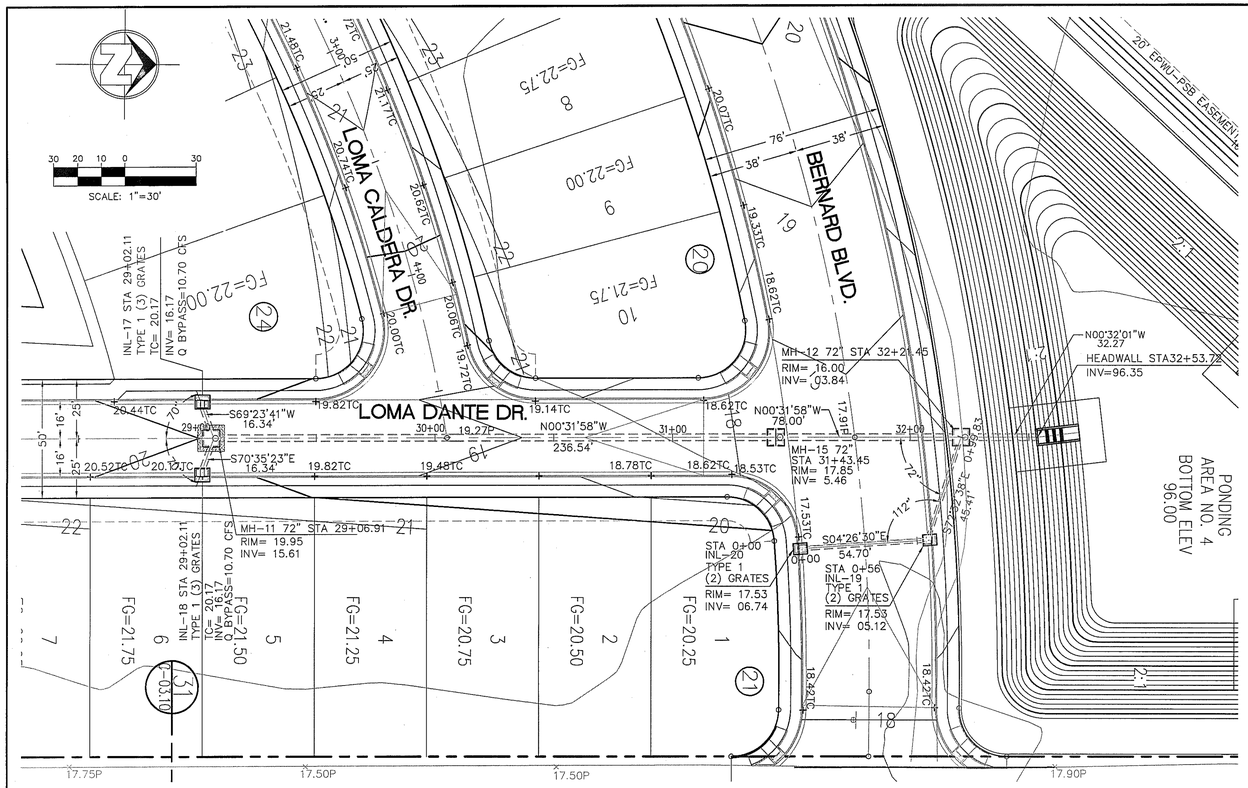
STATE OF TEXAS
GEORGES S. HALOUL
92165
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

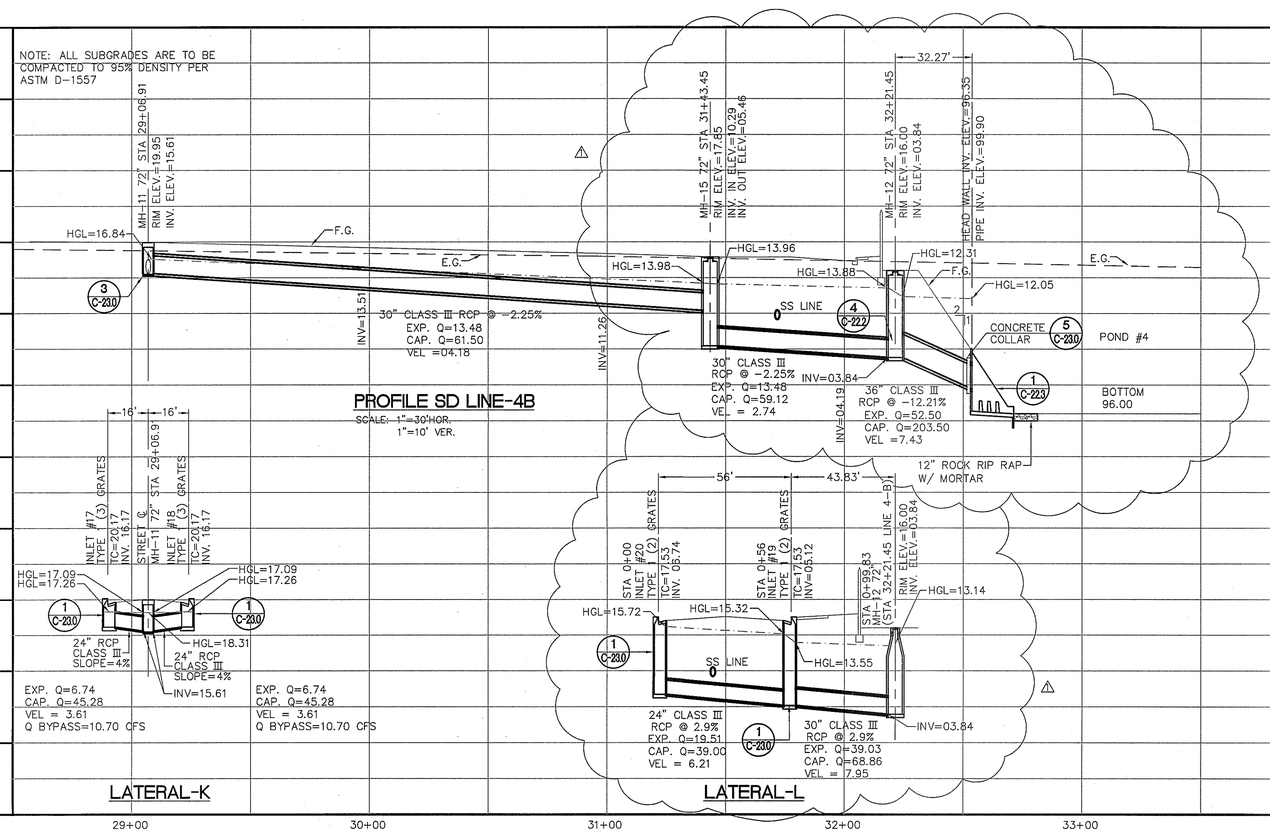
STORM DRAIN LINE-2B PLAN + PROFILE

C-21.3

F:\PROJECTS\LOMAS DEL ESTE-2\FINAL SVLDE2-SD-PP2B.dwg 2/8/2012 1:45:00 PM MST



NOTE: ALL SUBGRADES ARE TO BE COMPACTED TO 95% DENSITY PER ASTM D-1557



29+00 30+00 31+00 32+00 33+00

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-SD-PP4B.dwg 11/12/2012 2:24:16 PM MST

NO.	DATE	REVISIONS	BY
1	9/27/12	REVISED SD TO CLEAR SANITARY SEWER	
2	4/10/12	REVISED STORM DRAIN	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF AND A PORTION OF TR. 4B, SECTION 38, BLOCK TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6800 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

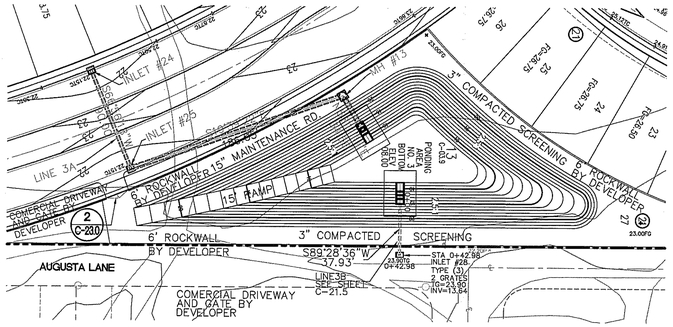
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

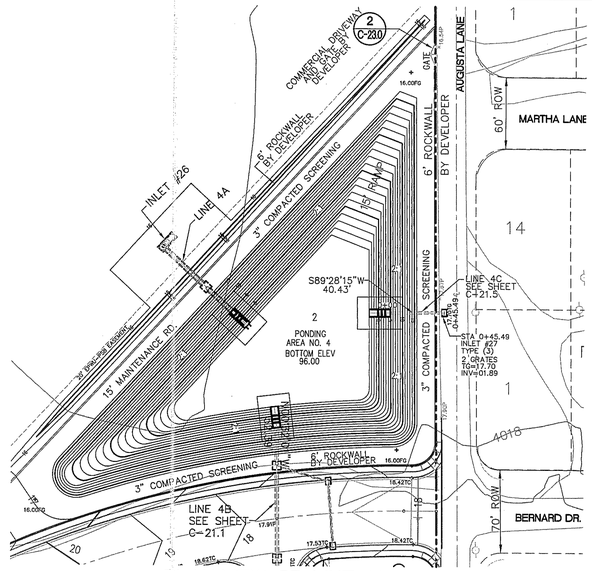
STORM DRAIN
LINE-4B
PLAN + PROFILE

C-21.4



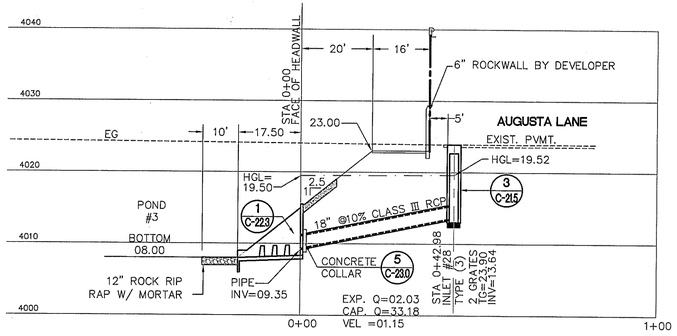
PLAN VIEW: SD LINE 3B

SCALE: 1"=60'



PLAN VIEW: SD LINE 4C

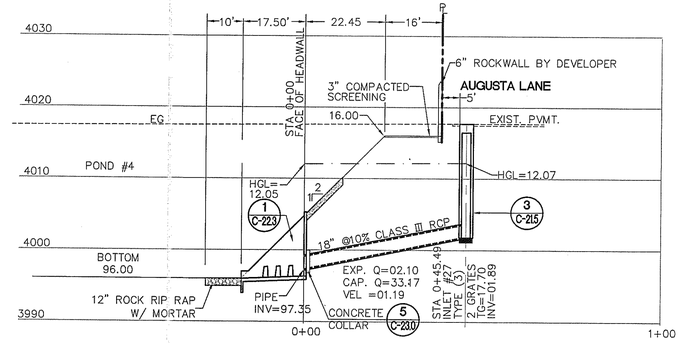
SCALE: 1"=60'



1 C-21.5 SD LINE 3B PROFILE

STORM DESIGN=50 YEAR

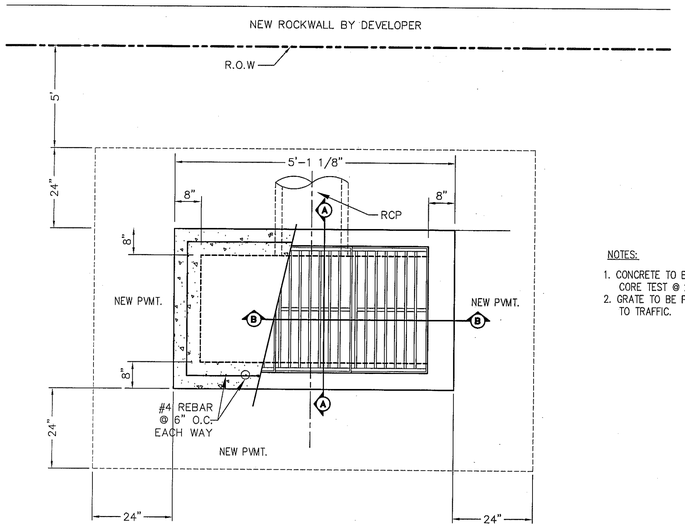
HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



2 C-21.5 SD LINE 4C PROFILE

STORM DESIGN=50 YEAR

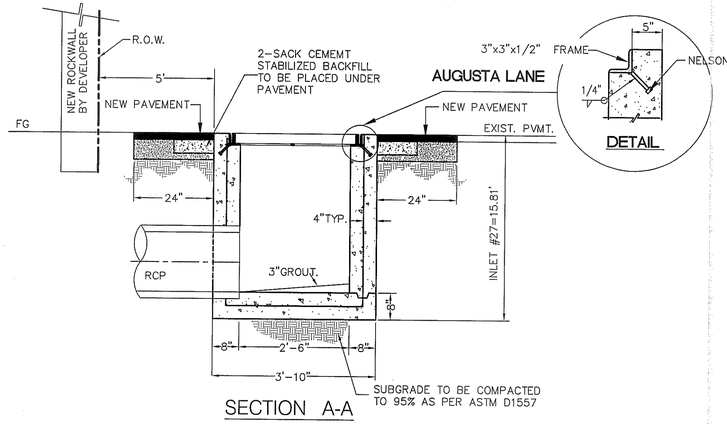
HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



PLAN: GRATE INLET TYPE 3

NOTES:

1. CONCRETE TO BE 3000 P.S.I. MIN. CORE TEST @ 28 DAYS.
2. GRATE TO BE PERPENDICULAR TO TRAFFIC.

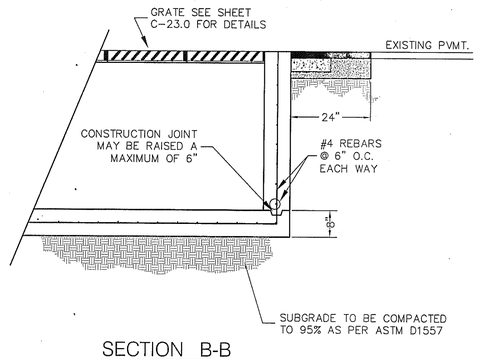


SECTION A-A

(INLETS # 27 AND # 28)

3 C-21.5 GRATE INLET TYPE 3 DETAIL

N.T.S.



SECTION B-B

DATE	REVISIONS	BY
4/10/12	ADDED/REVISED MH'S	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2391
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
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6500 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

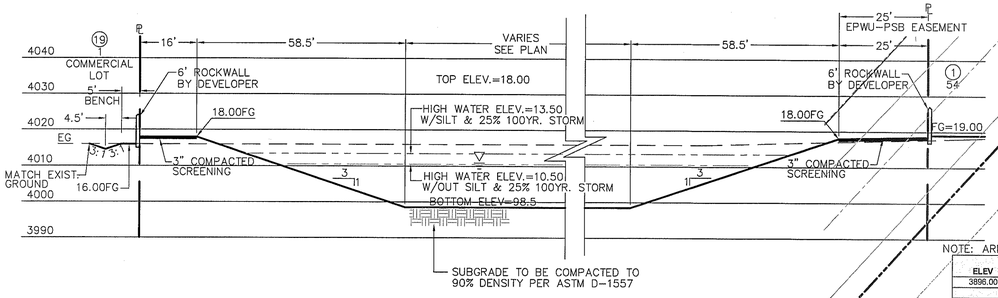
STATE OF TEXAS
GEORGES S. HALLOU
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

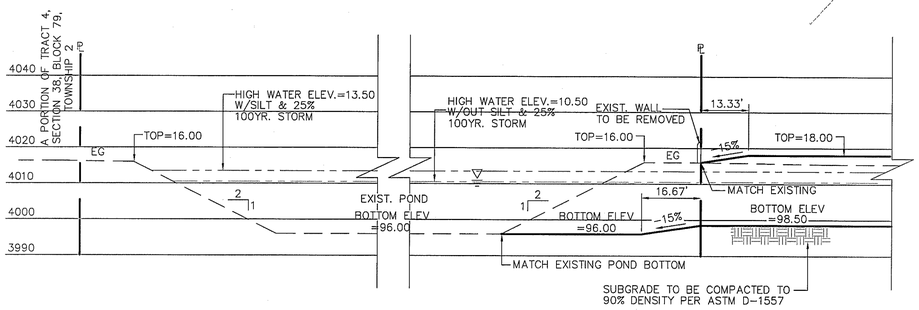
STORM DRAINS LINES 3B AND 4C PLAN + PROFILE

C-21.5

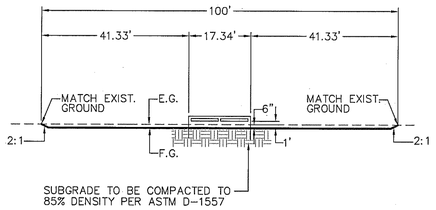
F:\PROJECTS\LOMAS DEL ESTE-2\FINAL SUBDE2-SD-PP1A-4B.dwg 11/12/2012 2:18:57 PM MST



SECTION "A-A"
SCALE: 1"=20'



SECTION "B-B"
SCALE: 1"=20'



DESILTING BASIN SECTION "C-C"
SCALE: 1"=20'

NOTE: A PERCOLATION TEST WITHIN THE PROPOSED PONDS SHALL BE PERFORMED AT THE TIME OF EXCAVATION ACCORDING TO ASTM 5126 AND THE REPORT SUBMITTED FOR REVIEW AND APPROVAL BY EPWU STORM WATER ENGINEERING. SUBSURFACE SOIL PROFILES SHALL BE PROVIDED TO A MINIMUM OF 5' (FEET) BELOW THE PROPOSED POND INVERT. STORM WATER SHALL PERCOLATE WITHIN 72 HOURS UNDER WET CONDITIONS IN ACCORDANCE WITH SECTION 11.4.3 OF THE CITY OF EL PASO'S DRAINAGE DESIGN MANUAL AND DETAIL 2-2 OF THE CITY OF EL PASO'S DESIGN STANDARDS FOR CONSTRUCTION. APPROVAL OF ALL SUBMITTED DOCUMENTATION IS REQUIRED PRIOR TO ACCEPTANCE OF ANY STORM WATER MANAGEMENT FACILITIES.

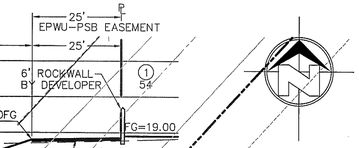
PONDING DATA **FORMULA = Qt=ARC/12 + (A X 0.012) 100 YRS. STORM FREQUENCY**

POND DESIGNATION	'A' (AREA IN AC.)	'R'	C (AVG.)	REQUIRED VOLUME W/OUT SILT & 25%	HIGH WATER ELEV. W/OUT SILT & 25%	REQUIRED VOLUME (AC-FT) W/ SILT & 25%	HIGH WATER ELEV W/SILT & 25%	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.
POND NO. 1	79.09	4"/3 HRS.	0.74	19.51 ***48.76	4010.50	25.33 ***62.32	4013.50	72.05	3998.50	4018.00

***REQUIRED STORAGE VOLUME COMBINED WITH TIERRA COMMERCIAL UNIT 11

NOTE: AREAS INCLUDE EXISTING POND TIERRA COMMERCIAL 11

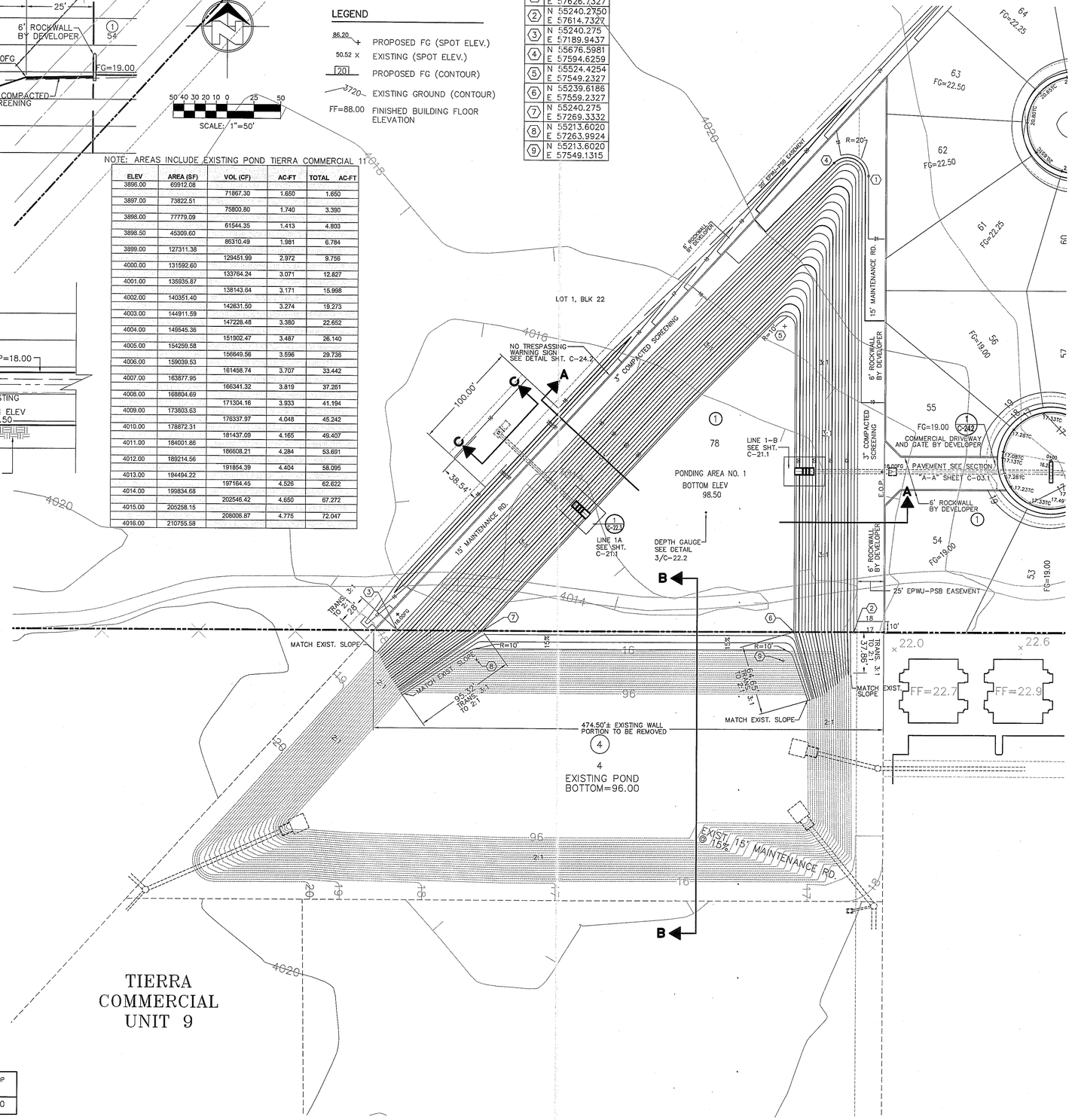
ELEV	AREA (SF)	VOL (CF)	AC-FT	TOTAL AC-FT
3896.00	69912.08			
		71867.30	1.650	1.650
3897.00	73822.51			
		75800.80	1.740	3.390
3898.00	77779.09			
		61544.35	1.413	4.803
3898.50	45309.60			
		86310.49	1.981	6.784
3899.00	127311.38			
		129451.99	2.972	9.756
4000.00	131592.60			
		133764.24	3.071	12.827
4001.00	135935.87			
		138143.64	3.171	15.998
4002.00	140351.40			
		142831.50	3.274	19.273
4003.00	144911.59			
		147228.48	3.380	22.652
4004.00	149545.36			
		151902.47	3.487	26.140
4005.00	154259.58			
		156649.56	3.596	29.736
4006.00	159039.53			
		161458.74	3.707	33.442
4007.00	163877.95			
		166341.32	3.819	37.261
4008.00	168804.69			
		171304.16	3.933	41.194
4009.00	173803.63			
		176337.97	4.048	45.242
4010.00	178872.31			
		181437.09	4.165	49.407
4011.00	184001.86			
		186608.21	4.284	53.691
4012.00	189214.56			
		191854.39	4.404	58.095
4013.00	194494.22			
		197164.45	4.526	62.622
4014.00	199834.68			
		202546.42	4.650	67.272
4015.00	205258.15			
		208008.87	4.775	72.047
4016.00	210755.58			



LEGEND

- 86.20 + — PROPOSED FG (SPOT ELEV.)
- 50.52 X — EXISTING (SPOT ELEV.)
- [20] — PROPOSED FG (CONTOUR)
- 3720 — EXISTING GROUND (CONTOUR)
- FF=88.00 — FINISHED BUILDING FLOOR ELEVATION

KEY NOTES	
1	N 55664.6638 E 57626.7327
2	N 55240.2750 E 57614.7327
3	N 55240.275 E 57189.9437
4	N 55676.5981 E 57594.6259
5	N 55524.4254 E 57549.2327
6	N 55239.6186 E 57559.2327
7	N 55240.275 E 57269.3332
8	N 55213.6020 E 57263.9924
9	N 55213.6020 E 57549.1315



1/C-220 RETENTION POND NO. 1 LAYOUT
SCALE: 1"=40'

BY	DATE	REVISIONS

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, EL PASO COUNTY, TEXAS AND ADJOINING SUBDIVISIONS ELEVATION 3839.09 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, EL PASO COUNTY SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6500 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-1457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

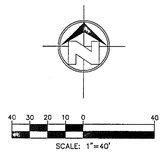
STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

RETENTION POND NO.1 LAYOUT AND DETAILS

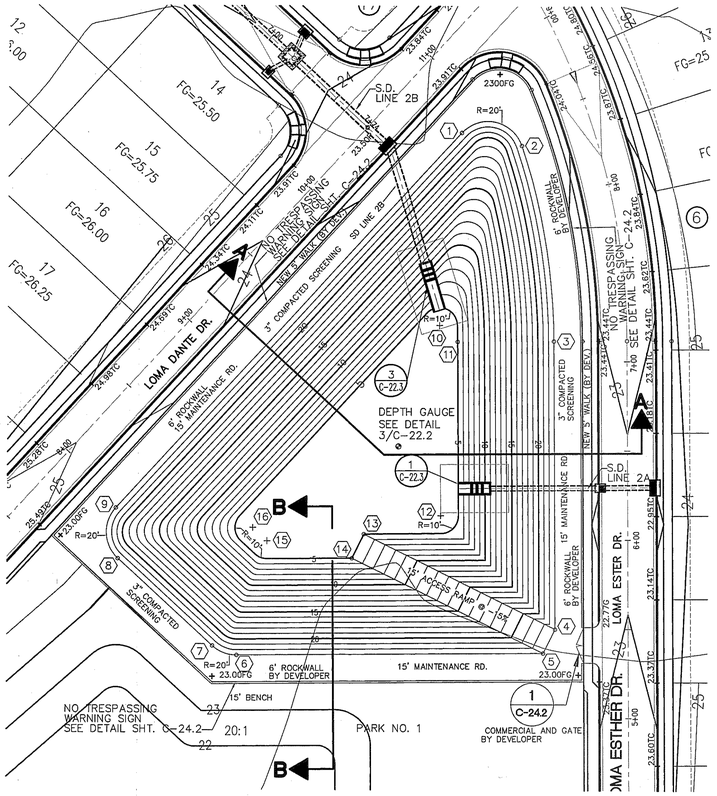
C-22.0

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-POND-1.dwg 11/27/2012 11:04:35 AM MST

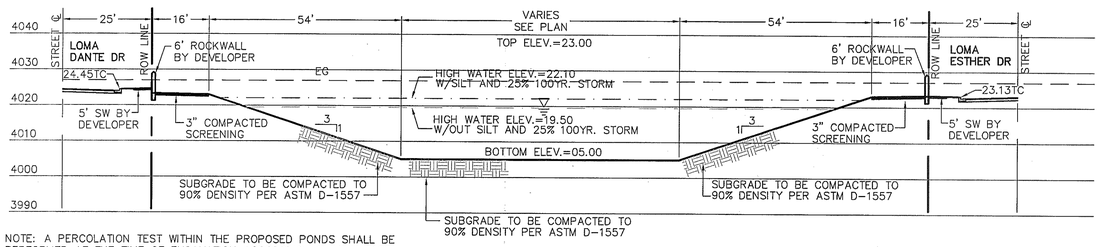


POND COORDINATES			
1	N 56201.9011 E 59338.3291	9	N 55991.2695 E 59145.0892
2	N 56194.7873 E 59372.0126	10	N 56094.1066 E 59326.2865
3	N 56085.4609 E 59390.5205	11	N 56084.9581 E 59336.5228
4	N 55923.9915 E 59392.024	12	N 55987.3928 E 59327.4309
5	N 55910.5338 E 59385.3991	13	N 55976.9914 E 59284.3624
6	N 55908.9306 E 59213.2258	14	N 55963.5337 E 59277.7375
7	N 55914.1923 E 59199.519	15	N 55973.0895 E 59229.9912
8	N 55963.0114 E 59146.306	16	N 55980.4260 E 59221.9944

ELEV	AREA (SF)	VOL (CF)	AC-FT	TOTAL AC-FT
4005.00	10090.25			
		10861.15	0.249	0.249
4006.00	11632.05			
		12432.39	0.285	0.535
4007.00	13232.72			
		14073.57	0.323	0.858
4008.00	14914.41			
		15795.43	0.363	1.220
4009.00	16676.44			
		17597.31	0.404	1.624
4010.00	18518.18			
		19478.62	0.447	2.072
4011.00	20439.06			
		21438.80	0.492	2.564
4012.00	22438.53			
		23477.30	0.539	3.103
4013.00	24516.07			
		25593.65	0.588	3.690
4014.00	26671.23			
		27787.38	0.638	4.328
4015.00	28903.53			
		30058.06	0.690	5.018
4016.00	31212.58			
		32405.28	0.744	5.762
4017.00	33597.97			
		23415.35	0.538	6.300
4018.00	13232.72			
		25914.14	0.595	6.895
4019.00	38595.56			
		39892.07	0.916	7.810
4020.00	41188.58			
		42499.53	0.976	8.786
4021.00	43810.48			
		45151.64	1.037	9.823
4022.00	46492.79			
		47864.15	1.099	10.921
4023.00	49235.51			

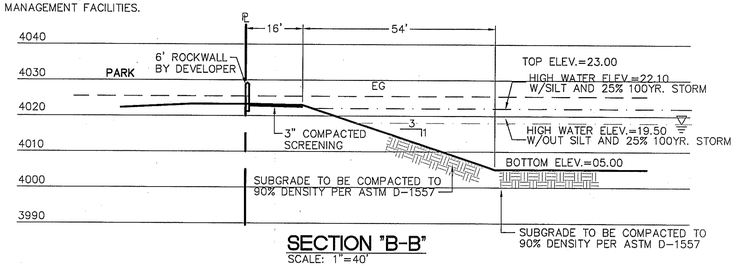


1 C-22.1 RETENTION POND NO. 2 LAYOUT
SCALE: 1"=40'



NOTE: A PERCOLATION TEST WITHIN THE PROPOSED PONDS SHALL BE PERFORMED AT THE TIME OF EXCAVATION ACCORDING TO ASTM 5126 AND THE REPORT SUBMITTED FOR REVIEW AND APPROVAL BY EPWU STORM WATER ENGINEERING. SUBSURFACE SOIL PROFILES SHALL BE PROVIDED TO A MINIMUM OF 5' (FEET) BELOW THE PROPOSED POND INVERT. STORM WATER SHALL PERCOLATE WITHIN 72 HOURS UNDER WET CONDITIONS IN ACCORDANCE WITH SECTION 11.4.3 OF THE CITY OF EL PASO'S DRAINAGE DESIGN MANUAL AND DETAIL 2-2 OF THE CITY OF EL PASO'S DESIGN STANDARDS FOR CONSTRUCTION. APPROVAL OF ALL SUBMITTED DOCUMENTATION IS REQUIRED PRIOR TO ACCEPTANCE OF ANY STORM WATER MANAGEMENT FACILITIES.

SECTION "A-A"
SCALE: 1"=40'



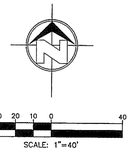
SECTION "B-B"
SCALE: 1"=40'

PONDING DATA **FORMULA = Qt=ARC/12 + (A X 0.012) 100 YRS. STORM FREQUENCY**

POND DESIGNATION	'A' (AREA IN AC.)	'R'	C (AVG.)	REQUIRED VOLUME W/OUT SILT & 25%	HIGH WATER ELEV. W/OUT SILT & 25%	REQUIRED VOLUME (AC-FT) W/ SILT & 25%	HIGH WATER ELEV. W/SILT & 25%	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.
POND NO. 2	35.83	4"/3 HRS.	0.65	07.76	4019.50	10.13	4022.10	10.92	4005.00	4023.00

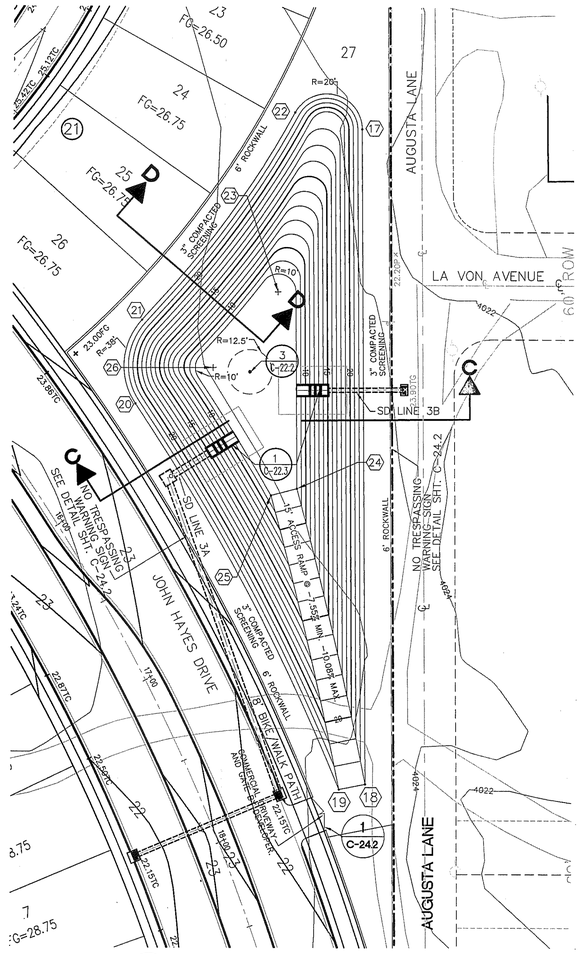
LEGEND

- 86.20 + PROPOSED FG (SPOT ELEV.)
- 50.52 X EXISTING (SPOT ELEV.)
- 20 PROPOSED FG (CONTOUR)
- 3720 EXISTING GROUND (CONTOUR)
- FF=88.00 FINISHED BUILDING FLOOR ELEVATION

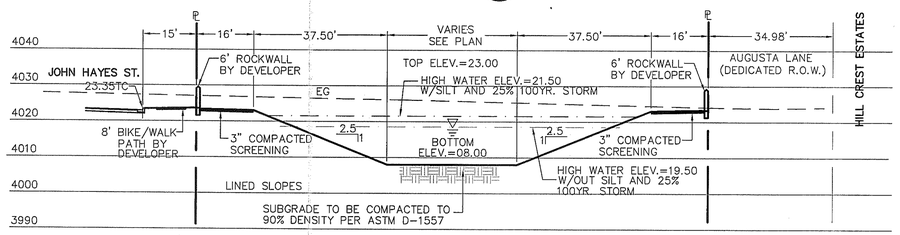


POND COORDINATES	
17	N 56892.9065 E 60138.0508
18	N 56525.4955 E 60141.4721
19	N 56522.6179 E 60126.7506
20	N 56738.8166 E 60011.6307
21	N 56785.7686 E 60015.1238
22	N 56902.214 E 60100.4486
23	N 56801.5307 E 60091.3996
24	N 56691.2879 E 60102.4266
25	N 56687.4642 E 60087.9216
26	N 56759.1641 E 60055.1776

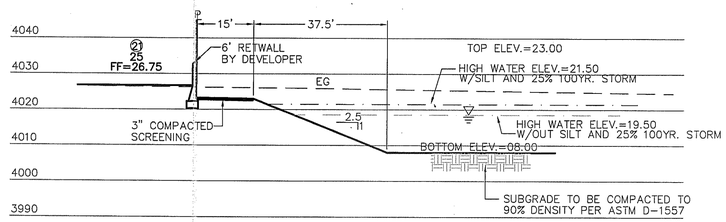
ELEV	AREA (SF)	VOL (CF)	AC-FT	TOTAL AC-FT
4008.00	4440.93			
		4935.55	0.113	0.113
4009.00	5430.16			
		5973.48	0.137	0.250
4010.00	6516.79			
		7110.52	0.163	0.414
4011.00	7704.24			
		8348.73	0.192	0.605
4012.00	8993.21			
		9687.12	0.222	0.828
4013.00	10381.03			
		15699.46	0.360	1.188
4014.00	21017.89			
		17246.93	0.396	1.584
4015.00	13475.96			
		14330.97	0.329	1.913
4016.00	15185.98			
		16098.93	0.370	2.283
4017.00	17011.88			
		17983.28	0.413	2.695
4018.00	18954.67			
		19986.28	0.459	3.154
4019.00	21017.89			
		22037.63	0.506	3.660
4020.00	23057.37			
		24120.76	0.554	4.214
4021.00	25184.14			
		26292.14	0.604	4.818
4022.00	27400.14			
		28553.82	0.656	5.473
4023.00	29707.50			
		29707.50	0.682	6.155



2 C-221 RETENTION POND NO. 3 LAYOUT
SCALE: 1"=40'



SECTION "C-C"
SCALE: 1"=20'



SECTION "D-D"
SCALE: 1"=20'

PONDING DATA **FORMULA = Qt=ARC/12 + (A X 0.012) 100 YRS. STORM FREQUENCY**

POND DESIGNATION	'A' (AREA IN AC.)	'R'	C (AVG.)	REQUIRED VOLUME W/OUT SILT & 25%	HIGH WATER ELEV. W/OUT SILT & 25%	REQUIRED VOLUME (AC-FT) W/ SILT & 25%	HIGH WATER ELEV. W/SILT & 25%	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.
POND NO. 3	14.53	4"/3 HRS.	0.68	03.29	4019.50	04.28	4021.50	06.16	4008.00	4023.00

PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

REVISIONS	DATE	BY
1		
2		
3		
4		
5		

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2891
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS 79912
(915) 584-4457
SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
RETENTION POND NO. 2 + 3 LAYOUT AND DETAIL

C-22.1

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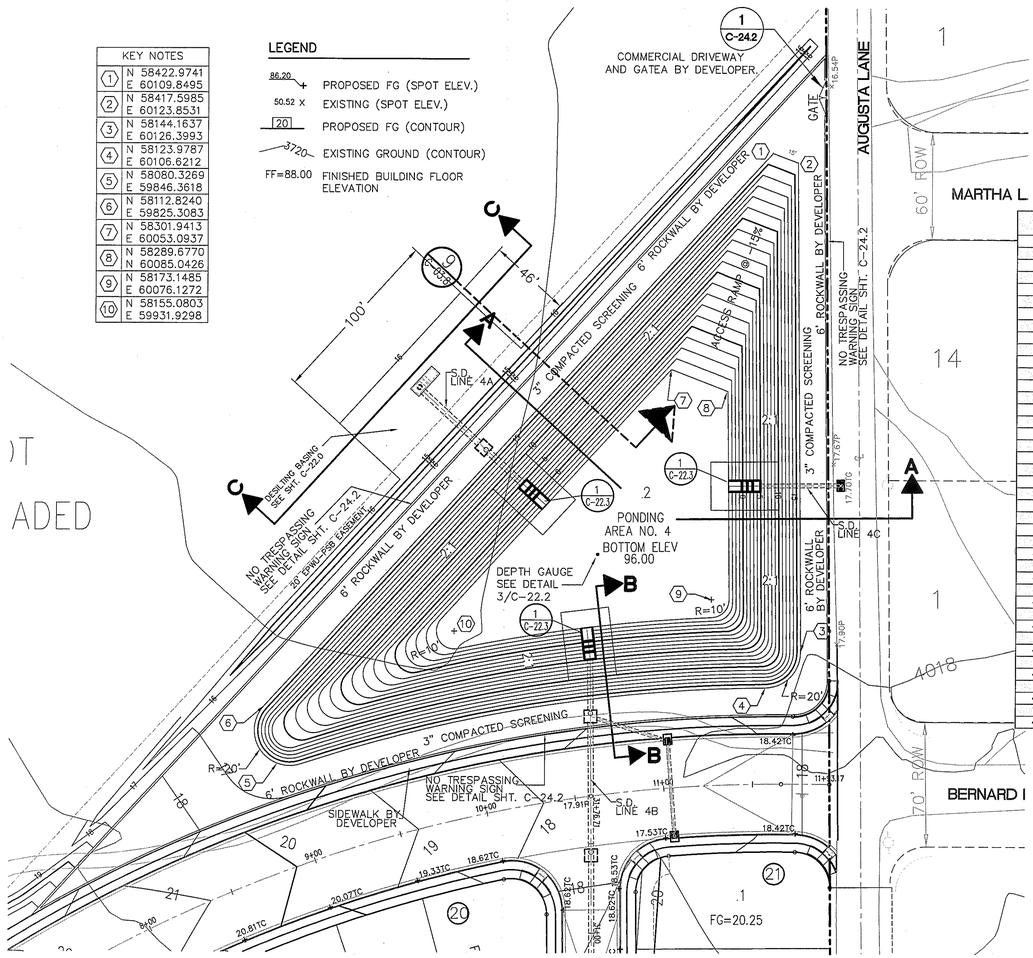
KEY NOTES	
1	N 58422.9741 E 60109.8495
2	N 58417.5985 E 60123.8531
3	N 58144.1637 E 60126.3993
4	N 58123.9787 E 60106.6212
5	N 58080.3269 E 59846.3618
6	N 58112.8240 E 59825.3083
7	N 58301.9413 E 60053.0937
8	N 58289.6770 N 60085.0426
9	N 58173.1485 E 60076.1272
10	N 58155.0803 E 59931.9298

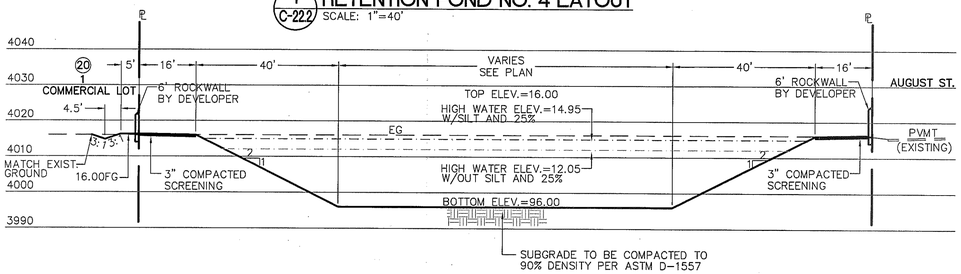
LEGEND

- 86.20 + — PROPOSED FG (SPOT ELEV.)
- 50.52 X — EXISTING (SPOT ELEV.)
- [20] — PROPOSED FG (CONTOUR)
- 3720 — EXISTING GROUND (CONTOUR)
- FF=88.00 — FINISHED BUILDING FLOOR ELEVATION

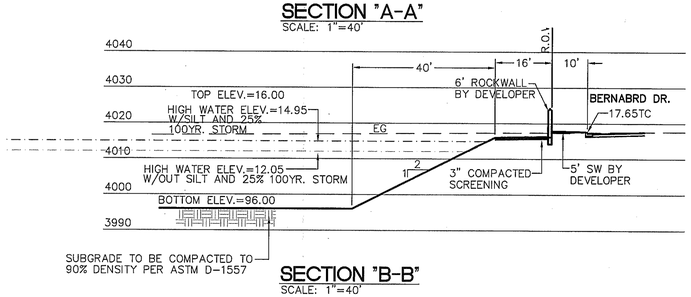


ELEV	AREA (SF)	VOL (CF)	AC-FT	TOTAL AC-FT
3996.00	14306.89			
		14971.51	0.344	0.344
3997.00	15634.12			
		16319.69	0.375	0.718
3998.00	17005.25			
		17717.35	0.407	1.125
3999.00	18429.45			
		19167.89	0.440	1.565
4000.00	19906.32			
		20672.41	0.475	2.040
4001.00	21438.50			
		22231.31	0.510	2.550
4002.00	23024.11			
		23844.21	0.547	3.097
4003.00	24664.31			
		25511.93	0.586	3.683
4004.00	26359.54			
		27229.74	0.625	4.308
4005.00	28099.94			
		29003.05	0.666	4.974
4006.00	29906.16			
		30837.49	0.708	5.682
4007.00	31768.82			
		32728.64	0.751	6.433
4008.00	33688.45			
		34677.03	0.796	7.229
4009.00	35665.60			
		36683.23	0.842	8.072
4010.00	37700.85			
		38747.85	0.890	8.961
4011.00	39794.85			
		40810.20	0.937	9.898
4012.00	41825.55			
		42858.24	0.984	10.882
4013.00	43890.93			
		44940.96	1.032	11.914
4014.00	45990.98			
		47058.35	1.080	12.994
4015.00	48125.71			
		49210.43	1.130	14.124
4016.00	50295.14			

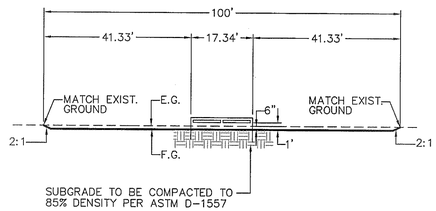
1 C-222 RETENTION POND NO. 4 LAYOUT
SCALE: 1"=40'



SECTION "A-A"
SCALE: 1"=40'



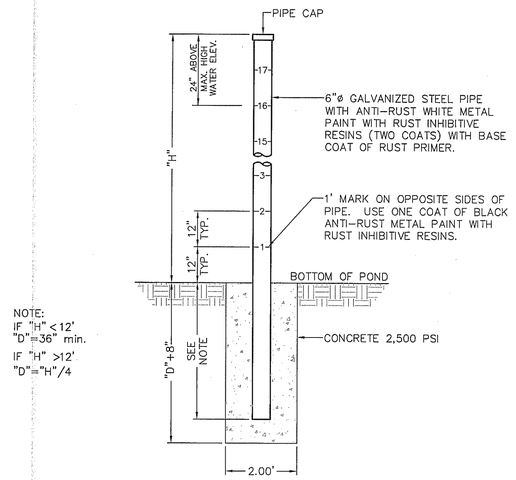
SECTION "B-B"
SCALE: 1"=40'



DESILTING BASIN SECTION "C-C"
SCALE: 1"=20'

PONDING DATA **FORMULA = Qt=ARC/12 + (A X 0.012) 100 YRS. STORM FREQUENCY**

POND DESIGNATION	'A' (AREA IN AC.)	'R'	C (AVG.)	REQUIRED VOLUME W/OUT SILT & 25%	HIGH WATER ELEV. W/OUT SILT & 25%	REQUIRED VOLUME (AC-FT) W/ SILT & 25%	HIGH WATER ELEV. W/SILT & 25%	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.
POND NO. 4	39.65	4"/3 HRS.	0.75	09.91	4012.05	12.87	4014.95	14.12	3996.00	4016.00



NOTE:
IF "H" < 12'
"D"=36" min.
IF "H" >12'
"D"="H"/4

NOTES:

1. CONSULT WITH PAINT MANUFACTURER FOR PRODUCTS THAT CAN SUSTAIN LONG PERIODS OF MOISTURE.
2. GAUGE REQUIRED IN PONDS OF GREATER THAN 5' DEPTH ONLY.
3. "D" = DEPTH
   "H" = HEIGHT
4. ALTERNATES WILL BE ALLOWED WITH THE PRIOR REVIEW AND APPROVAL OF THE CITY ENGINEER.

3 C-222 POND DEPTH GAUGE
SCALE: 1/2"=1'-0"

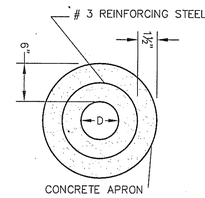
CONCRETE APRON FOR CIRCULAR PENETRATIONS IN ASPHALT PAVEMENTS				
"D" DIAMETER OF PENETRATION (INCHES)	"A" CONCRETE HORIZONTAL DIMENSION FROM PENETRATION (INCHES)	NUMBER OF NO. 3 REINFORCING STEEL BARS (INCHES)	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE APRON TO CENTER OF NEAREST REBAR (INCHES)	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR (INCHES)
0 TO 6.01	6	1	1½	1½
6.01 TO 18.01	8	2	1½	1½
18.01 AND OVER	12	3	1½	1½

CONSTRUCTION NOTES:

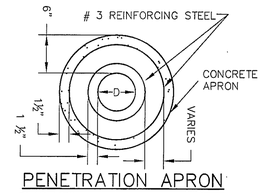
1. ANY DISTURBED SUBGRADE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 95% DENSITY ± 3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
2. ANY DISTURBED COARSE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 100% DENSITY ± 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
3. PROVIDE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

GENERAL NOTES:

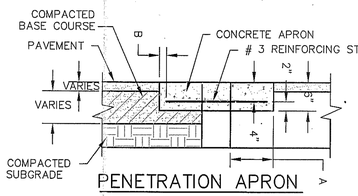
1. THE PENETRATION APRON SHOULD BE CAST IN-PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED)
2. TOPS OF PENETRATION APRON SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.



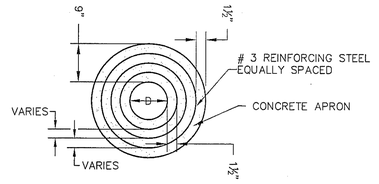
PENETRATION APRON
PLAN VIEW – SINGLE REBAR



PENETRATION APRON
PLAN VIEW – 2 REBAR



PENETRATION APRON
SECTION VIEW



PENETRATION APRON
PLAN VIEW – THREE REBAR

NO.	DATE	REVISIONS	BY
1	4/10/12	ADDED NM DETAIL	

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37 AND 38, BLOCK 79, T5P2, TEXAS AND PACIFIC R.R. SURVEYS. ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF TR. 4B, SECTION 36, BLOCK 79, T5P2, AND A PORTION OF TR. 4B, SECTION 37, BLOCK 79, T5P2, TEXAS & PACIFIC R.R. SURVEYS.
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
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EL PASO, TEXAS
(915) 587-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
RETENTION POND NO.4 LAYOUT AND DETAILS

C-22.2

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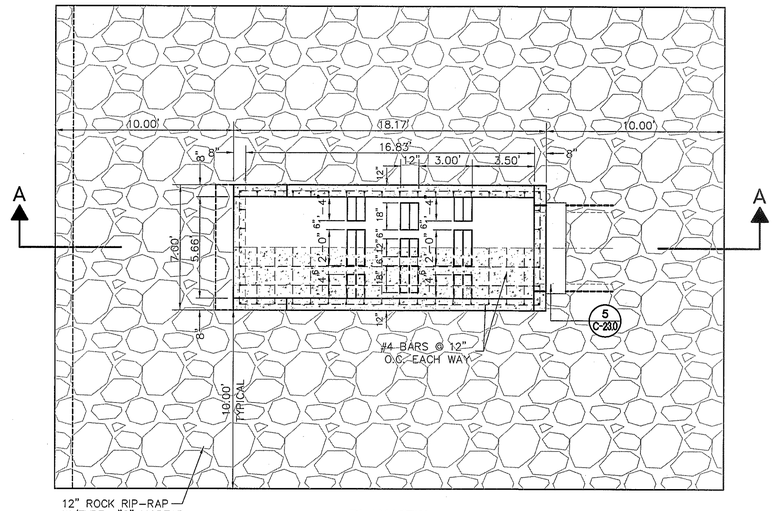
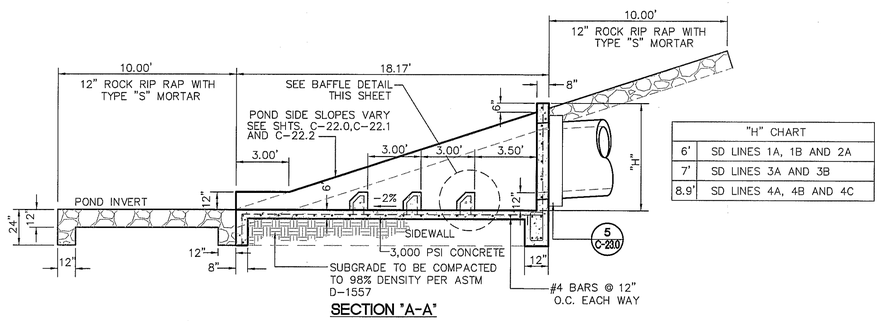


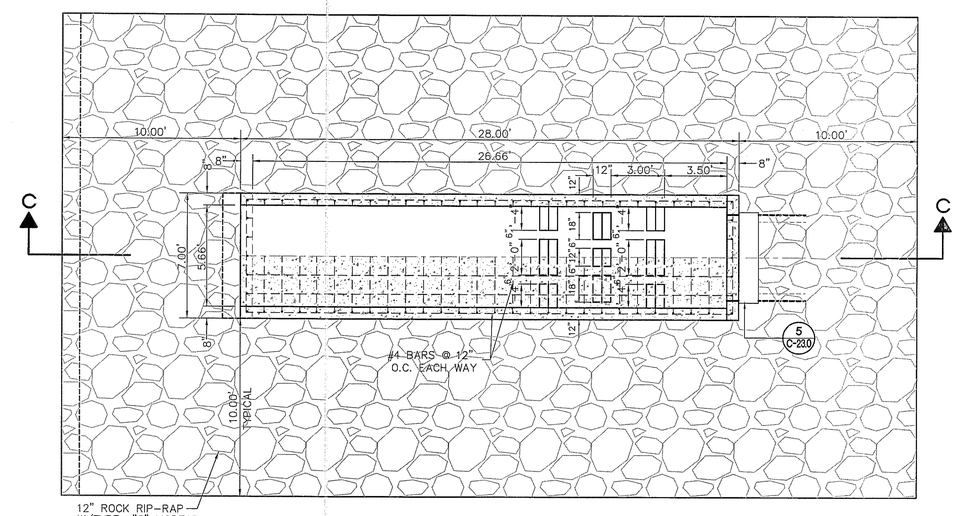
PLAN VIEW
1"=4'



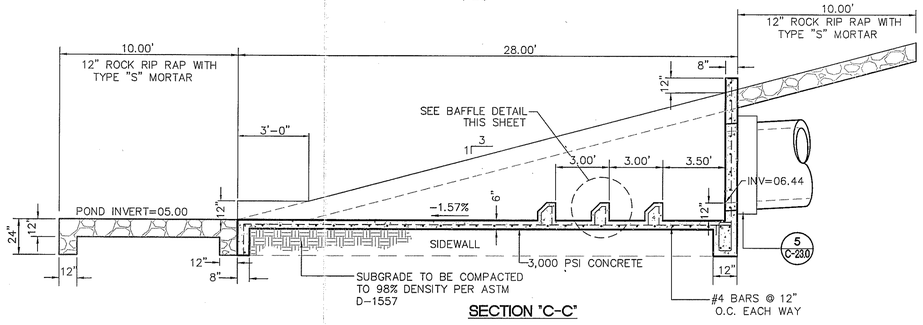
"H" CHART	
6'	SD LINES 1A, 1B AND 2A
7'	SD LINES 3A AND 3B
8.9'	SD LINES 4A, 4B AND 4C

SECTION "A-A"

1 C-223 POND ENERGY DISSIPATER
N.T.S.

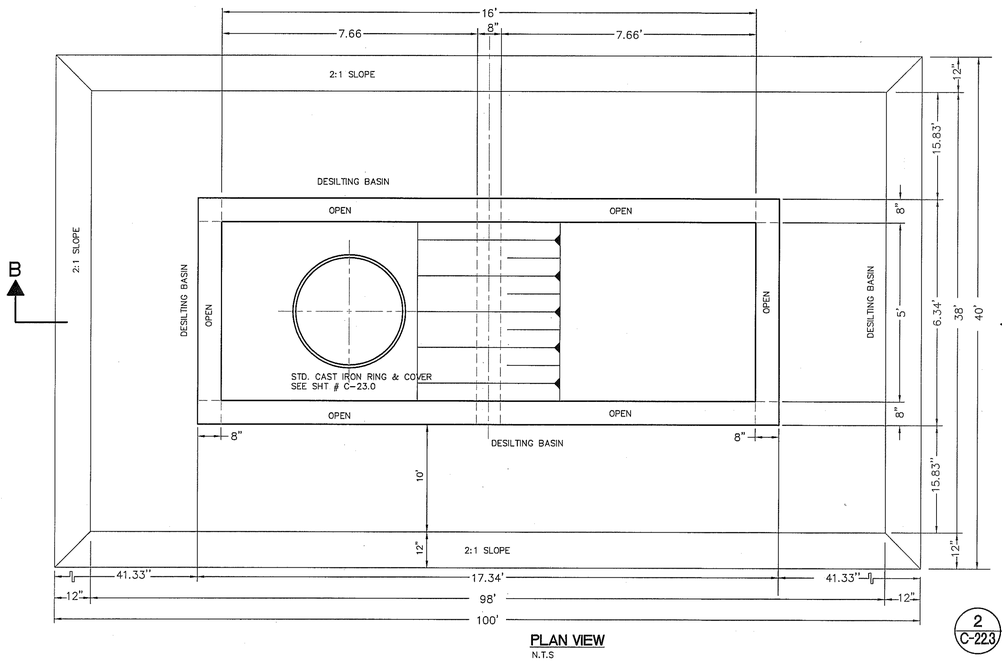


PLAN VIEW
1"=4'

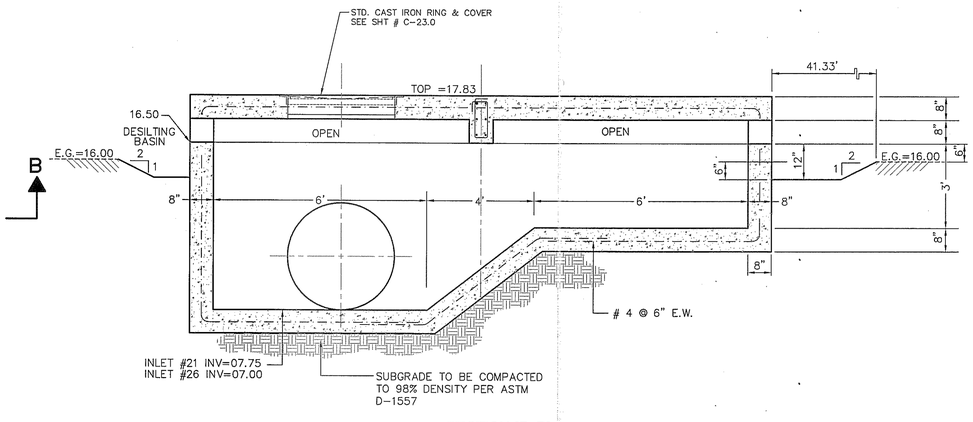


SECTION "C-C"

3 C-223 POND#2 LINE 2B ENERGY DISSIPATER
N.T.S.

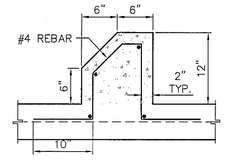


PLAN VIEW
N.T.S



SECTION "B-B"
N.T.S.

2 C-223 INLETS #21 AND #26 DETAILS
N.T.S.



BAFFLE DETAIL
SCALE: 1"=1'

BY	DATE	REVISIONS
	4/10/12	ADDED DISSAPATER DETAIL / REVISED DETAIL

BENCHMARK:
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: C.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6080 SURETY DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92102
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
STORM DRAIN HEADWALL AND INLETS #21 AND #26 DETAILS

C-22.3

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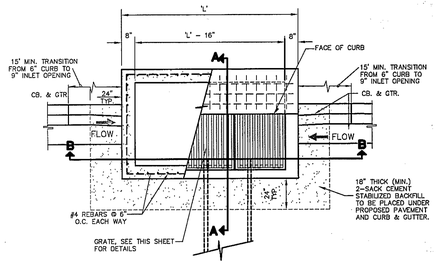
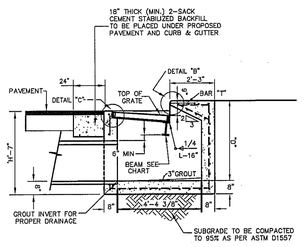


PLAN VIEW



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

SECTION AA

NOTES: (ALL INLETS)

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 CURRENT STANDARD SPECIFICATIONS.
3. SHARP EDGES RESULTING FROM FABRICATION SHALL BE DULLED BY ANY ACCEPTABLE METHOD FOR SAFETY IN HANDLING.
4. 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 ASSHTO 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.
5. 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.
6. ALL WELDS SHALL BE 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.
7. 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.
8. 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 NOR BRITTLE.
9. ALL CASTINGS SHALL BE MANUFACTURED TRUE TO PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER.
10. ALL CONCRETE TO BE 3000 PS. CHAMFER ALL EXPOSED EDGES 3/4". ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
11. MINIMUM CONCRETE COVER SHALL BE 1-1/2" FOR STEEL REINFORCING.
12. EXPANSION MATERIAL TO BE 1/2" BITUMINOUS FIBER AND BE PLACED WHERE PROPOSED CONCRETE COMES IN CONTACT WITH ANY EXISTING OR PROPOSED CONCRETE OR MASONRY STRUCTURE.
13. STRUCTURAL STEEL SHALL BE PAINTED IN ACCORDANCE WITH T.H.D. ITEM 446 "PAINT AND PAINTING".
14. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE AND GRADE TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO INLETS.
15. ALL REINFORCING BARS TO #4 BARS (GRADE 60K) AT 6" O.C. GRADE 60. BEND BARS AROUND PIPE OPENINGS.
16. THE GRATES OF ALL INLETS WITHIN THE STREET PAVEMENT MUST BE CONSTRUCTED WITH THE GRATE BARS PERPENDICULAR TO THE CURB.

DROP INLETS

INLET NO.	REQ. FLOW CAP. Q REQ. (CFS)	AVAIL. FLOW CAP. Q AVAIL. (CFS)	FLOW BYPASS	FLOW CAPTURED
1	37.32	36.00 ++	–	37.32
2	19.47	27.00 +	8.80	10.65
3	19.47	27.00 +	8.80	10.65
4	17.30	27.00 +	7.55	9.75
5	17.30	27.00 +	7.55	9.75
6	16.75	27.00 +	7.20	9.53
7	16.75	27.00 +	7.20	9.53
8	13.61	27.00 +	5.45	8.16
9	13.61	27.00 +	5.45	8.16
10	15.80	27.00 +	–	15.80
11	15.80	27.00 +	–	15.80
12	9.38	27.00 +	–	9.38
13	9.38	18.00 +	–	9.38
14	8.75	27.00 +	–	8.75
15	8.75	18.00 +	–	8.75
16	8.88	36.00 +	–	8.88
17	17.44	27.00 +	10.70	6.74
18	17.44	27.00 +	10.70	6.74
19	19.51	18.00 +	–	19.51
20	19.51	18.00 +	–	19.51
21	97.98	120.00	–	97.98
22	16.83	18.00 +	–	16.83
23	16.83	18.00 +	–	16.83
24	25.63	36.00 +	–	25.63
25	14.22	27.00 +	–	14.22
26	75.57	120.00	–	75.57
27	2.10	12.00 ++	–	2.10
28	2.03	12.00 ++	–	2.03

INLET TABLE

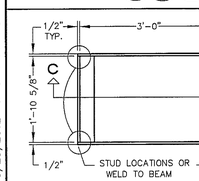
INLET NO.	TYPE	GRATES	"L"	"D"	BEAM SIZE	T.C.	T.G.	INVERT	CAP. Q (CFS)
1	2	6	19.43'	8.19'	W6x15.5	–	16.20	08.01	36.00 ++
2	1	3	7'-0 1/4"	4.00'	W8x15	18.81	–	14.81	27.00 +
3	1	3	7'-0 1/4"	4.00'	W8x15	18.81	–	14.81	27.00 +
4	1	3	7'-0 1/4"	4.00'	W8x15	20.10	–	16.10	27.00 +
5	1	3	7'-0 1/4"	4.00'	W8x15	20.10	–	16.10	27.00 +
6	1	3	7'-0 1/4"	4.00'	W8x15	21.48	–	17.48	27.00 +
7	1	3	7'-0 1/4"	4.00'	W8x15	21.48	–	17.48	27.00 +
8	1	3	7'-0 1/4"	4.00'	W8x15	18.98	–	14.98	27.00 +
9	1	3	7'-0 1/4"	4.00'	W8x15	18.98	–	14.98	27.00 +
10	1	3	7'-0 1/4"	4.00'	W8x15	23.10	–	19.10	27.00 +
11	1	3	7'-0 1/4"	5.69'	W8x15	23.10	–	17.41	27.00 +
12	1	3	7'-0 1/4"	5.60'	W8x15	23.40	–	17.80	27.00 +
13	1	2	5'-1 1/8"	5.60'	W6x12	23.40	–	17.80	18.00 +
14	1	3	7'-0 1/4"	5.60'	W8x15	23.06	–	17.46	27.00 +
15	1	2	5'-1 1/8"	5.60'	W6x12	23.06	–	17.46	18.00 +
16	1	4	9'-1 1/2"	15.57'	W8x18	23.68	–	08.11	36.00 +
17	1	3	7'-0 1/4"	4.00'	W8x15	20.17	–	16.17	27.00 +
18	1	3	7'-0 1/4"	4.00'	W8x15	20.17	–	16.17	27.00 +
19	1	2	5'-1 1/8"	7.63'	W6x12	17.53	–	09.90	18.00 +
20	1	2	5'-1 1/8"	4.00'	W6x12	17.53	–	13.53	18.00 +
21	–	–	–	–	–	–	17.83	07.75	120.00
22	1	2	5'-1 1/8"	7.37'	W6x12	22.83	–	15.46	18.00 +
23	1	2	5'-1 1/8"	4.60'	W6x12	22.83	–	18.23	18.00 +
24	1	4	9'-1 1/2"	3.92'	W9x18	22.15	–	18.23	36.00 +
25	1	3	7'-0 1/4"	5.26'	W8x15	22.15	–	16.89	27.00 +
26	–	–	–	–	–	–	17.83	07.00	120.00
27	3	2	5'-1 1/8"	16.31'	W6x15.5	–	17.70	01.89	12.00 ++
28	3	2	5'-1 1/8"	10.76'	W6x15.5	–	23.90	13.64	12.00 ++

+ TYPE 1 INLET CAPACITY INCLUDES A 50% CF FOR THE GRATE AND 33.33% CF FOR CURB OPENING
++ TYPE 2 INLET CAPACITY INCLUDES A 50% CF FOR THE GRATE
CF= CLOGGING FACTOR

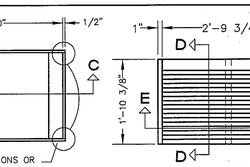
DETAIL "B"

BAR "T"

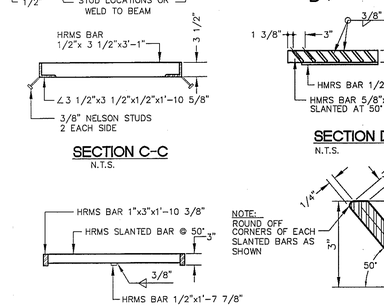
1 C-23.0 TYPICAL INLET DETAILS : TYPE I
N.T.S.



DETAIL "C"



SECTION BB



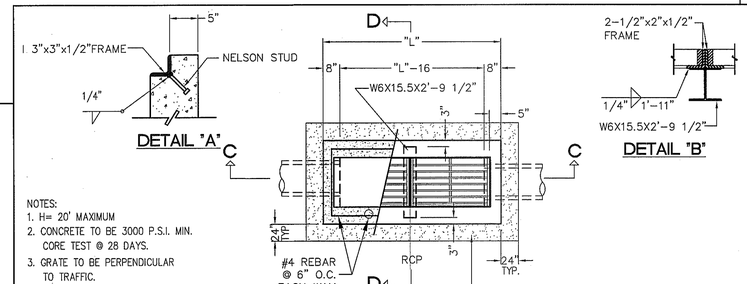
SECTION C-C
N.T.S.

SECTION D-D
N.T.S.

SECTION E-E
N.T.S.

SLANTED BAR DETAIL
N.T.S.

FRAME AND GRATE DETAILS
N.T.S.



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

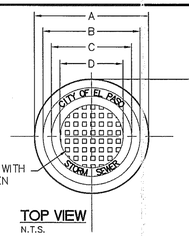
SECTION C-C

SECTION D-D

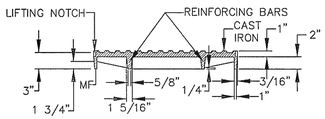
4 C-23.0 TYP. GRATE INLET TYPE- 2
N.T.S.

MANHOLE RING AND COVER DETAILS

MANHOLE COVER	72" MANHOLE
WEIGHT	310 LBS.
A	2'-7 1/4"
B	2'-4 1/8"
C	2'-3/8"
D	1'-9 7/8"
E	1'-3 5/8"

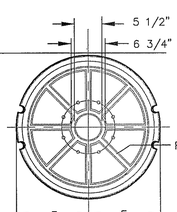


TOP VIEW
N.T.S.



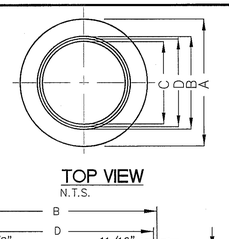
SECTION VIEW
N.T.S.

STD. MH COVER
N.T.S.

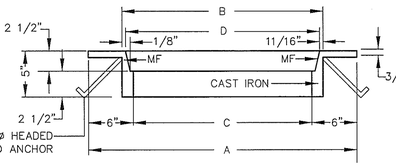


BOTTOM VIEW
N.T.S.

MANHOLE RING	72" MANHOLE
WEIGHT	225 LBS.
A	3'-6"
B	2'-8 3/4"
C	2'-6"
D	2'-7 3/8"



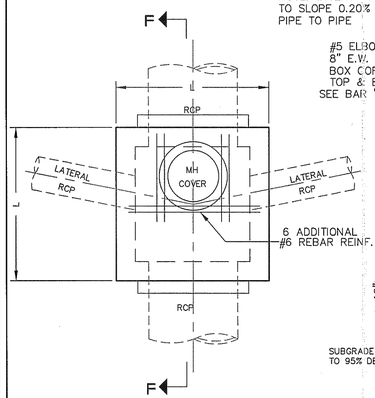
TOP VIEW
N.T.S.



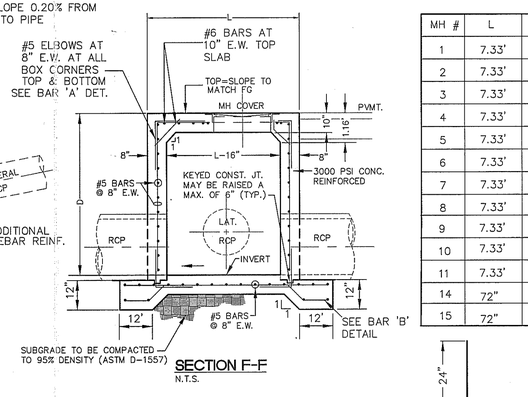
SLAB TYPE RING SECTION
N.T.S.

MANHOLE RING
N.T.S.

MANHOLE RING AND COVER DETAILS
N.T.S.

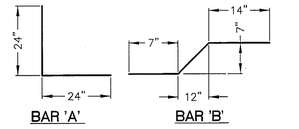


PLANVIEW



SECTION F-F
N.T.S.

MH #	L	RIM ELEV.	INV. ELEV.	DEPTH (D)
1	7.33'	17.88	10.22	07.66'
2	7.33'	18.60	11.51	07.09'
3	7.33'	19.89	14.09	05.80'
4	7.33'	21.28	16.87	04.41'
5	7.33'	18.78	13.92	04.86'
6	7.33'	22.94	17.13	05.81'
7	7.33'	23.24	14.55	08.69'
8	7.33'	22.86	11.30	11.56'
9	7.33'	23.18	11.87	11.31'
10	7.33'	23.35	11.37	11.98'
11	7.33'	19.95	15.61	04.34'
14	72"	18.00	02.05	16.38'
15	72"	18.00	05.46	13.35'



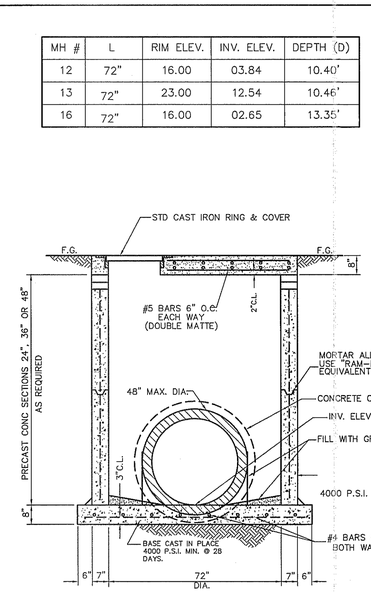
BAR 'A' BAR 'B'

BENT BARS DETAILS

CAST-IN-PLACE

2 C-23.0 JUNCTION BOX DETAILS
N.T.S.

MH #	L	RIM ELEV.	INV. ELEV.	DEPTH (D)
12	72"	16.00	03.84	10.40'
13	72"	23.00	12.54	10.46'
16	72"	16.00	02.65	13.35'



3 C-23.0 72" DIAMETER PRECAST MANHOLE SECTION
NTS

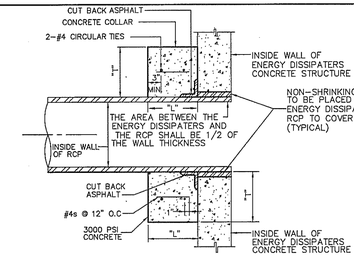


TABLE		
D	L	T
18"	12"	12"
24"	12"	12"
36"	18"	18"

5 C-23.0 CONCRETE COLLAR DETAIL
N.T.S.

STANDARD PRECAST MANHOLE NOTES

1. 48" DIA. MANHOLE SHALL BE USED FOR LINES W/ 24" I.D. MAX. DIAMETER AND 72" MANHOLES SHALL BE USED FOR LINES W/ 48" I.D. MAX. DIAMETER
2. SET FRAME AND COVER FLUSH WITH ROADWAY SURFACE OF FINISHED GRADE.
3. MANUFACTURER TO PROVIDE LIFTERS OF ADEQUATE SIZE AS NEEDED.
4. PRE-CAST MANHOLE SECTIONS SHALL BE OF REINFORCED CONFORMING CONFORMING TO ASTM C-478 AND SHALL MEET HS-20 LOADING. PROVIDE REINFORCEMENT WITHIN 3" Ø OPENINGS OR KNOCKOUTS. OPENING (UP TO 8") MADE IN FIELD SHALL BE CORE DRILLED.
5. CEMENT SHALL BE TYPE I-II, PER ASTM C-150, AND MUST CONTAIN A MINIMUM OF 4% FLY ASH OF THE TOTAL MANHOLE WEIGHT.
6. ALL JOINTS TO BE TONGUE, GROOVE AND SEALED WITH MORTAR OR RAM-NEK (OR APPROVED EQUAL).
7. PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE TO MANHOLE. FOR LATERAL CONNECTORS SEE (COMPRESSION TYPE ASTM-923), "KOR-N-SEAL" OR APPROVED EQUAL.
8. GROUT AS REQUIRED.
9. THE SUBGRADE UNDER THE BASE SHALL BE COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM D-1557.
10. THE BASE SHALL BE CAST CONCRETE AND SHALL BE MIN. 28 DAY COMPRESSIVE STRENGTH 4000psi.
11. CONCRETE BASE SHALL BE 8" (MIN.) FOR MH's UP TO 12' DEEP AND 12" (MIN.) FOR DEPTHS GREATER THAN 12'.

REVISIONS

BY	DATE	
	4/10/12	REVISED INLETS ADDED MH NOTE

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, BLOCK 79, TSP 2, AND A PORTION OF SECTION 37, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.67 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6500 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

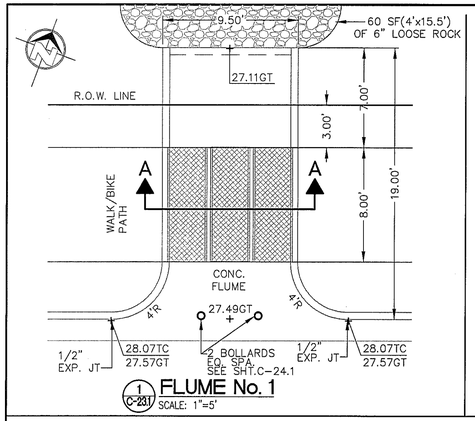
STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 08, 2012

SHEET TITLE

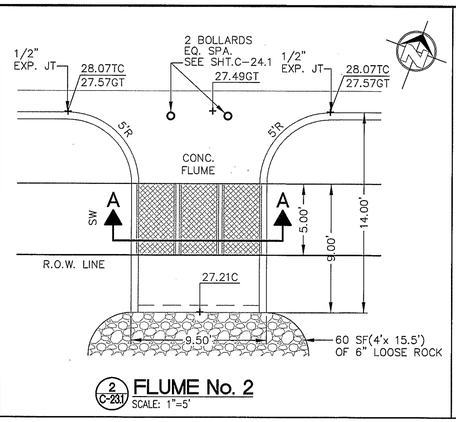
INLET AND MANHOLE DETAILS

C-23.0

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-INLETS-MHS.dwg 10/29/2012 1:43:17 PM MDT



1 C-23.1 **FLUME No. 1**
SCALE: 1"=5'



2 C-23.1 **FLUME No. 2**
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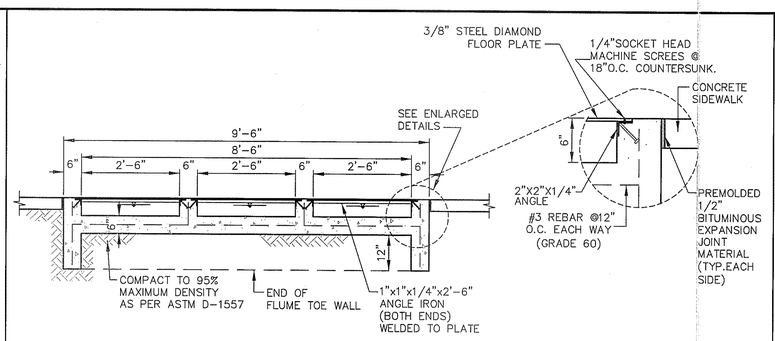
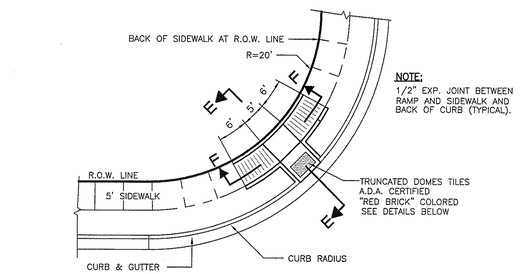


MULTIPLE PLATES CONCRETE FLUME SECTION A-A
N.T.S.

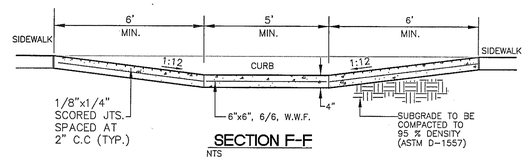
WHEEL CHAIR RAMP NOTES

1. CONCRETE TO BE CLASS 'A' W/ COMPRESSIVE STRENGTH OF 3000 PSI (MIN.) AT 28 DAYS AND RAMP SURFACE SHALL HAVE A ROUGH NON-SKID TYPE FINISH. (PER LATEST EDITION OF ADA REGULATIONS).
2. CONSTRUCTION METHODS SHALL CONFORM WITH THE CITY OF EL PASO STANDARD SPECIFICATIONS.

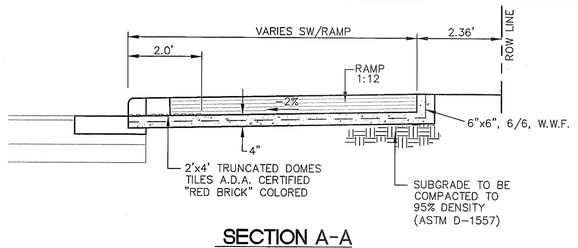


NOTE:
1/2" EXP. JOINT BETWEEN RAMP AND SIDEWALK AND BACK OF CURB (TYPICAL).

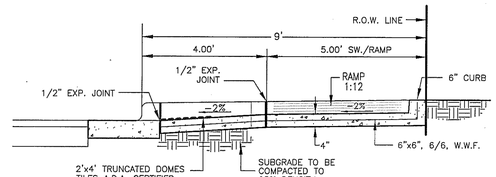
TYP. RAMP DETAIL
NTS



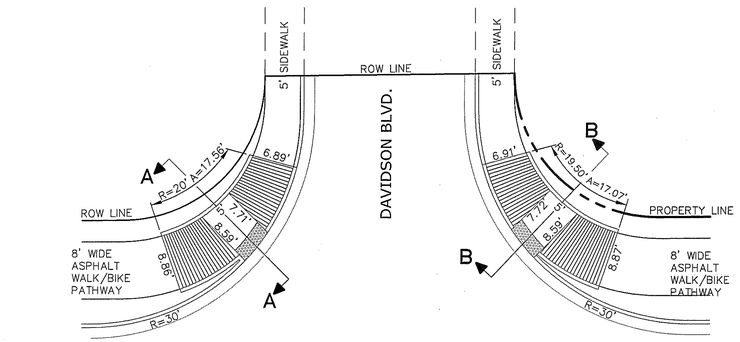
SECTION F-F
NTS



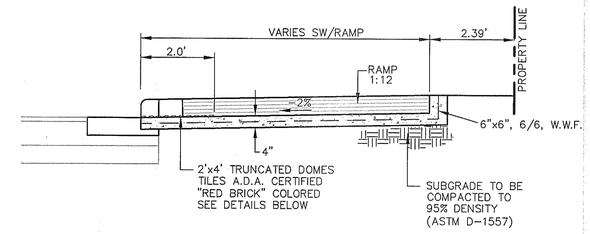
SECTION A-A
NTS



SECTION E-E
NTS

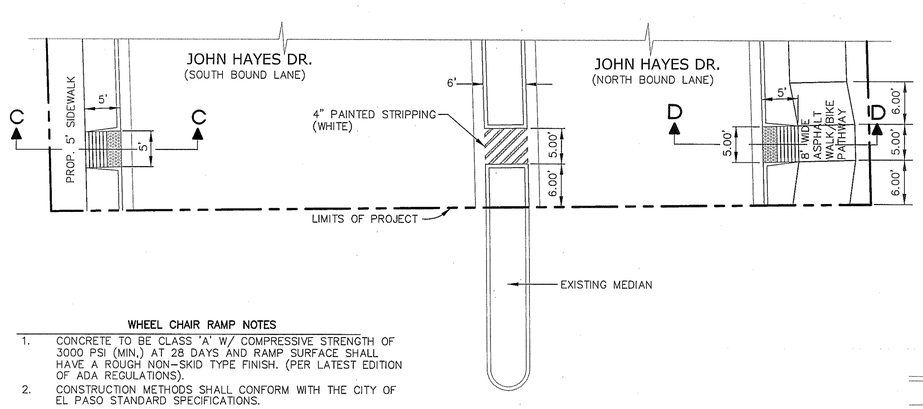


AUGUSTA LANE
(EXISTING)



SECTION B-B
NTS

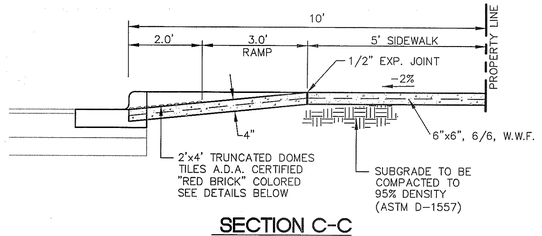
3 C-23.1 **JOHN HAYES DR. AND AUGUSTA LANE RAMP DETAIL**
SCALE: 1"=10'



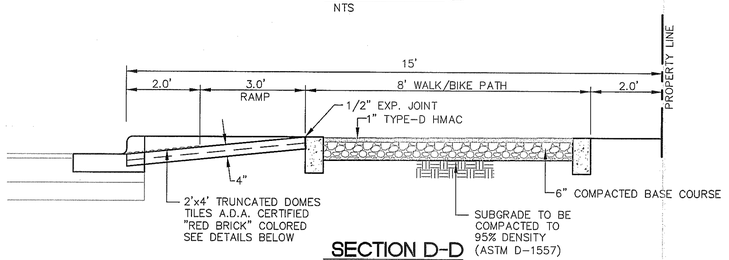
WHEEL CHAIR RAMP NOTES

1. CONCRETE TO BE CLASS 'A' W/ COMPRESSIVE STRENGTH OF 3000 PSI (MIN,) AT 28 DAYS AND RAMP SURFACE SHALL HAVE A ROUGH NON-SKID TYPE FINISH. (PER LATEST EDITION OF ADA REGULATIONS).
2. CONSTRUCTION METHODS SHALL CONFORM WITH THE CITY OF EL PASO STANDARD SPECIFICATIONS.

4 C-23.1 **END OF CONSTRUCTON-RAMP DETAIL**
SCALE: 1"=10'



SECTION C-C
NTS

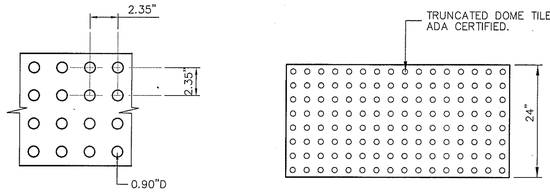


SECTION D-D
NTS

DOME SIZE AND SPACING:
TRUNCATED DOMES SHALL HAVE A DIAMETER OF NOMINAL 0.90 INCHES (23mm) AT THE BOTTOM, A DIAMETER OF 0.4 INCHS (10mm) AT THE TOP, A HEIGHT OF NOMINAL 0.2 INCHES (5mm), AND A CENTER-TO-CENTER SPACING OF 2.35 INCHES (60mm) MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT.

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

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



N.T.S
DOME SIZE AND SPACING

WHEELCHAIR RAMP DETAILS
N.T.S.

REVISIONS	DATE	BY
1		
2		
3		
4		
5		
6		
7		
8		

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS, ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION
A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4A, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6800 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

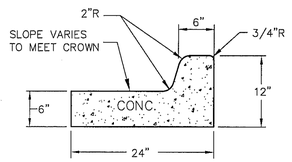
SHEET TITLE
FLUMES AND RAMPS

C-23.1

F:\PROJECTS\LOMAS DEL ESTE-PVT\NALS\DEC-RAMPS AND FLUMES 1.dwg 7/12/2012 9:04:14 AM MDT

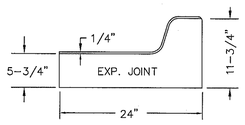
GENERAL NOTES

1. PROVIDE 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION JOINT AT ALL CURVE POINTS AND WHERE THE NEW CURB WILL ABUT ANY EXISTING CURB. EXPANSION JOINT IS REQUIRED BETWEEN BACK OF CURB AND ANY STRUCTURE ABUTTING DIRECTLY AGAINST IT AND SHALL BE PLACED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
2. TRIM EXPANSION JOINT MATERIAL 1/4" LESS THAN THE NEAT CURB AND GUTTER DIMENSION.
3. SUBGRADE UNDER CURB MUST BE FORMED AND COMPACTED. (95% ASTM D-1557)
4. CONCRETE SHALL BE CLASS 'A', AND HAVE A COMPRESSIVE STRENGTH OF 3000 PSI (MIN) AT 28 DAYS.
5. EXPANSION JOINTS FOR CURBS ARE TO BE PROVIDED AT CHANGES OF DIRECTIONS, AT ALL CURB RETURNS, AND WHERE CURB ABUTS OTHER MASONRY STRUCTURES.
6. 1/4-INCH MINIMUM SCORED JOINTS ARE TO BE PROVIDED EVERY 10 FT. FOR CURB AND GUTTER.
7. REJECTED DEFECTIVE CURB MUST BE REPLACED IN 10.0 LONG SECTIONS, MINIMUM.

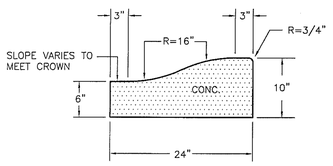


CURB AND GUTTER

N.T.S.

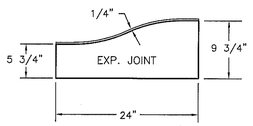


EXPANSION JOINT



4" ROLLED CURB AND GUTTER

(AT CUL-DE-SACS AND TURNING HEELS)



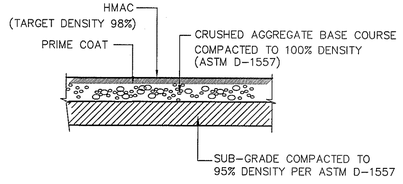
EXPANSION JOINT

TYPICAL CONC. CURB DETAILS

NTS.

NOTES : (APPLICABLE TO DRIVEWAYS AND PARKING AREAS)

1. SUB-GRADE TO BE COMPACTED TO 95% DENSITY (ASTM D-1557). IF THE BASE COURSE IS NOT PLACED IMMEDIATELY AFTER SUB-GRADE PREPARATION IS COMPLETED THEN AN APPLICATION OF A TACK COAT UTILIZING A COMPOUND EMULSION TYPE FM-1 OR EQUIVALENT APPROVED BY THE GEOTECHNICAL ENGINEER SHALL BE APPLIED PRIOR TO PLACING BASE COURSE. SUCH COMPOUND SHALL BE APPLIED AT A RATE OF 0.33 GAL. PER SQUARE YARD.
2. BASE TO BE COMPACTED TO 100% DENSITY (ASTM D-1557).
3. PRIME COAT SHALL CONSIST OF CATIONIC ASPHALT EMULSION SLOW SETTING TYPE, GRADE CSS-1H, APPLIED AT THE RATE OF 0.25 TO 0.30 GALLONS PER SQUARE YARD.
4. SUB-GRADE UNDER CURB MUST BE FORMED AND COMPACTED AS SHOWN OR EXCESS CUT MUST BE BACK FILLED WITH CONCRETE.
5. H.M.A.C. SHALL CONFORM TO SECTION K3305 GRADE "B" OR "C", OF THE CITY SPECIFICATIONS. (SEE SECTIONS BELOW FOR STREET TYPE USAGE.
6. CRUSHED AGGREGATE BASE COURSE SHALL CONFORM TO ITEM 247 TYPE "A", GRADE III CRUSHED STONE OF TXDOT PAVEMENT CONSTRUCTION DETAILS.

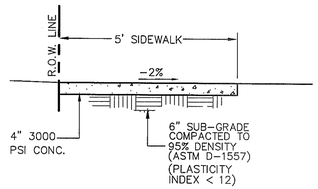


TYPICAL PAVEMENT SECTION

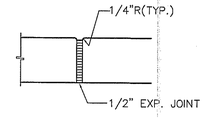
NTS.

GENERAL NOTES

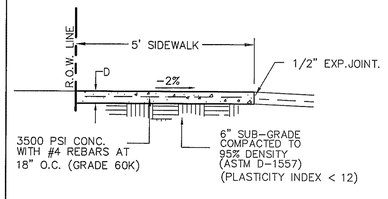
1. PROVIDE 1/2" PRE MOLDED ASPHALT IMPREGNATED EXPANSION JOINT AT ALL CURVE POINTS AND WHERE THE NEW CURB WILL ABUT ANY EXISTING CURB. EXPANSION JOINT IS REQUIRED BETWEEN BACK OF CURB AND ANY STRUCTURE ABUTTING DIRECTLY AGAINST IT AND SHALL BE PLACED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
   PLACE 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT FILLER (AASHTO M-33) AT 20' O.C.
2. TRIM EXPANSION JOINT MATERIAL 1/4" LESS THAN THE NEAT CURB AND GUTTER DIMENSION.
3. SUB-GRADE UNDER AND BEHIND CURB MUST BE FORMED AND COMPACTED TO 95% DENSITY PER ASTM D-1557.
4. CONCRETE SHALL BE CLASS 'A', AND HAVE A COMPRESSIVE STRENGTH OF 3000 PSI (MIN) AT 28 DAYS. (UNLESS OTHERWISE INDICATED)
5. 1/4" DEEP SCORED DUMMY JOINTS AT 5' O.C. (TYP)
6. ALL SIDEWALKS TO BUILT BY BUILDER EXCEPT ALONG PONDING AREAS, DRAINAGE R.O.W.S AND PARK FRONTAGE, WHICH SHALL BE CONSTRUCTED BY THE DEVELOPER.



TYPICAL SIDEWALK SECTION



JOINT DETAIL

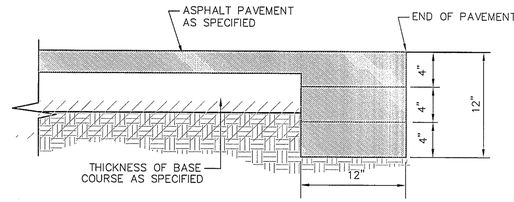


SIDEWALK SECTION AT DRIVEWAYS

DRIVEWAY TYPE	D
RESIDENTIAL	4"
COMMERCIAL	6"

TYPICAL SIDEWALK DETAILS

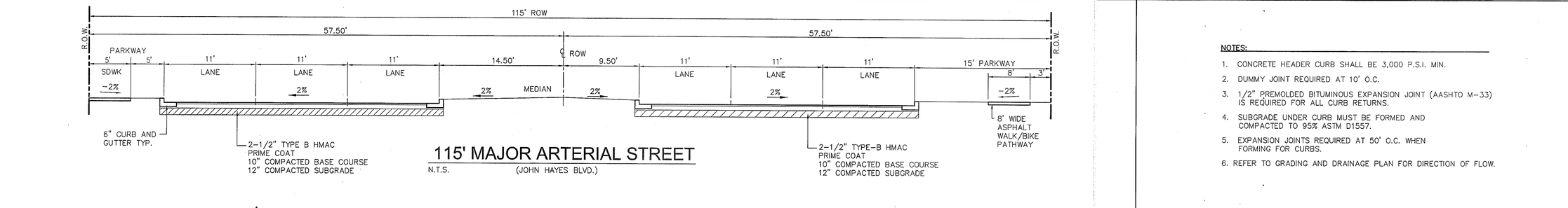
NTS.



TERMINUS OF STREET

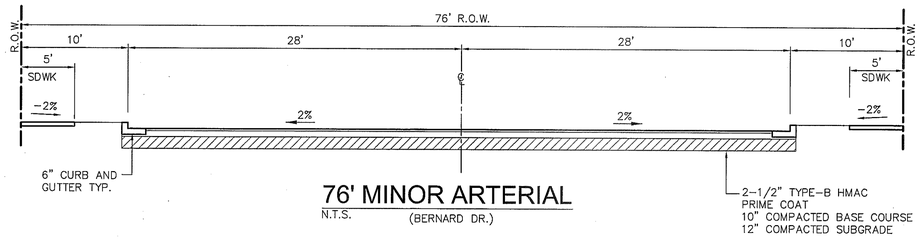
NOTE:

TERMINUS MUST BE CONSTRUCTED IN 4" LIFTS. FINAL LIFT MUST BE PLACED WITH FINAL PAVEMENT COURSE. COMPACTION REQUIREMENTS SHALL BE 98% MINIMUM AS PER ASTM D1557 OR AS RECOMMENDED BY THE PROJECT GEOTECHNICAL ENGINEER.



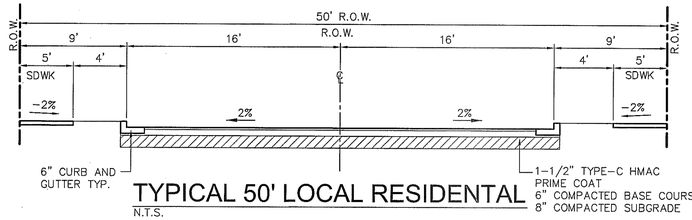
115' MAJOR ARTERIAL STREET

N.T.S. (JOHN HAYES BLVD.)



76' MINOR ARTERIAL

N.T.S. (BERNARD DR.)

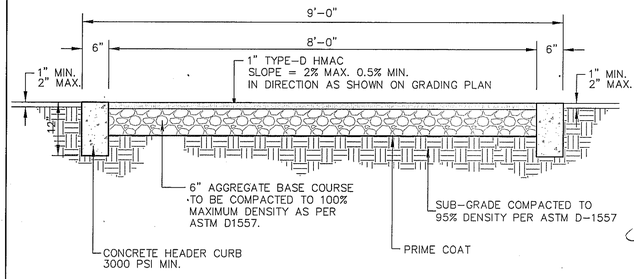


TYPICAL 50' LOCAL RESIDENTAL

N.T.S.

NOTES:

1. CONCRETE HEADER CURB SHALL BE 3,000 P.S.I. MIN.
2. DUMMY JOINT REQUIRED AT 10' O.C.
3. 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT (AASHTO M-33) IS REQUIRED FOR ALL CURB RETURNS.
4. SUBGRADE UNDER CURB MUST BE FORMED AND COMPACTED TO 95% ASTM D1557.
5. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR CURBS.
6. REFER TO GRADING AND DRAINAGE PLAN FOR DIRECTION OF FLOW.



TYPICAL WALK/BIKE PATH SECTION

N.T.S.

PROJECT NAME: LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

REVISIONS

NO.	DATE	BY
1		
2		
3		
4		
5		
6		

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6500 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

MISCELLANEOUS DETAILS

(1 OF 2)

C-24.0

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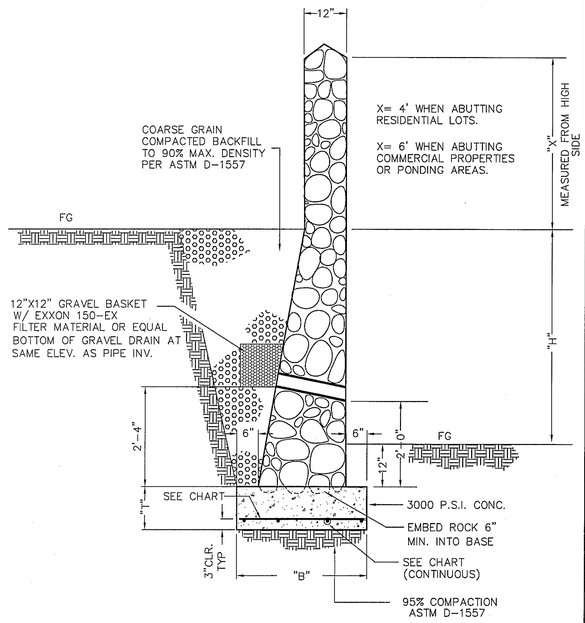


1 RETAINING ROCKWALL
NO SCALE

WALL SCHEDULE			
"H"	"T"	"B"	REINFORCEMENT
3'-0"	12"	2'-0"	#4 @ 12" O.C.(BOTHWAYS)
4'-0"	12"	2'-8"	#4 @ 12" O.C.(BOTHWAYS)
5'-0"	12"	3'-4"	#4 @ 12 "O.C.(BOTHWAYS)
6'-0"	12"	4'-0"	#4 @ 12" O.C.(BOTHWAYS)

THE BACKFILL FOR THE ROCKWALL SHALL BE SIMILAR TO THE EXISTING SOIL AND SHALL BE WELL COMPACTED AND FREE DRAINING (COARSE GRAIN TYPE)

NOTES:

STONE FOR ROCKWALLS SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO THE ACTION OF AIR AND WATER.

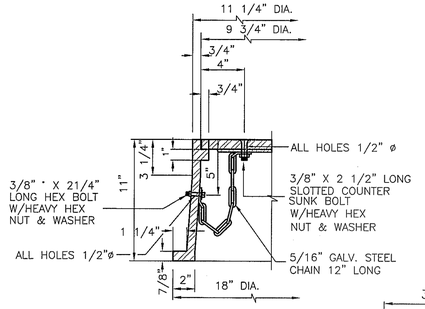
MORTAR FOR ROCKWALL SHALL BE A.S.T.M. TYPE "S"; USE ONE PART PORTLAND CEMENT, 1/4 TO 1/2 PARTS HYDRATED LIME AND 3 PARTS SAND (2 1/4 TO 3 TIMES THE SUM OF THE VOLUMES OF CEMENT AND LIME COMBINED) SEE CITY BUILDING CODE, PP. 14-3 AND 14-4.

IF ROCKWALL IS FREQUENTLY EXPOSED TO WATER LIME SHALL NOT BE USED, AND THE PROPORTIONS SHALL BE 1 PART PORTLAND CEMENT AND 3 PARTS SAND.

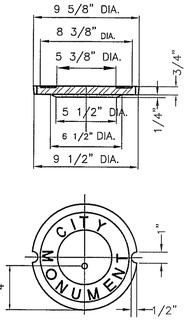
FILL ALL VOIDS WITH SMALLER STONE AND MORTAR.

ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED.

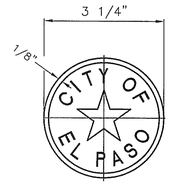
NO RIVER ROCK SHALL BE ALLWED FOR ROCKWALLS.



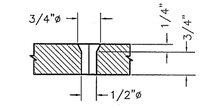
FRAME SECTION



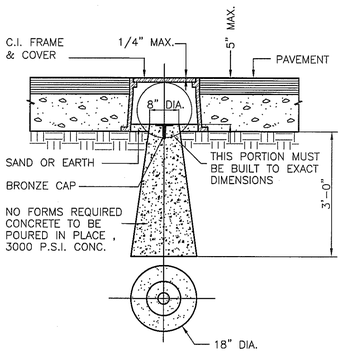
COVER



BRONZE MONUMENT CAP



COUNTERSUNK DET.

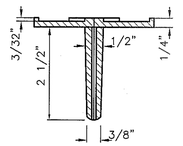


BRONZE MONUMENT CAP

FOUNDATION

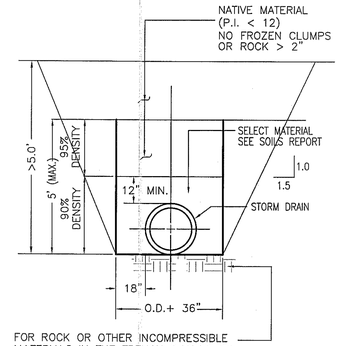
HEIGHT OF LETTERS = 7/16"
WIDTH OF LETTER BODY = 3/16"
RADII FOR POSITION OF LETTERING 13/16" AND 1 1/4"

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



COVER

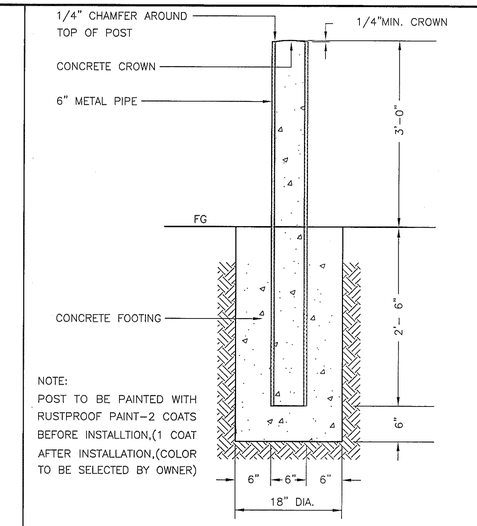
3 CITY SURVEY MONUMENT DETAILS
NTS



FOR ROCK OR OTHER INCOMPRESSIBLE MATERIALS IN THE TRENCH SHOULD BE OVER EXCAVATED A MIN., OF 6" AND REFILLED WITH GRANULAR MATERIAL. COMPACT TO 95% DENSITY (ASTM D-1557)

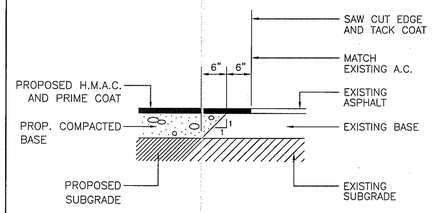
NOTE:
THE CONTRACTOR SHALL ABIDE BY ALL OF THE LATEST OSHA REGULATIONS CONCERNING PIPE INSTALLATIONS AND TRENCH SAFETY PROCEDURES. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A TRENCH SAFETY PLAN, FOR APPROVAL, PRIOR TO BEGINNING WORK ON THE SITE.

4 TRENCH SECTION: STORM DRAIN
NTS

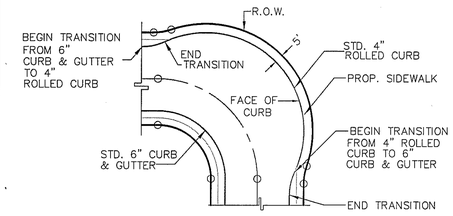


NOTE:
POST TO BE PAINTED WITH RUSTPROOF PAINT-2 COATS BEFORE INSTALLTION,(1 COAT AFTER INSTALLATION.(COLOR TO BE SELECTED BY OWNER)

6 BOLLARD DETAIL
N.T.S.

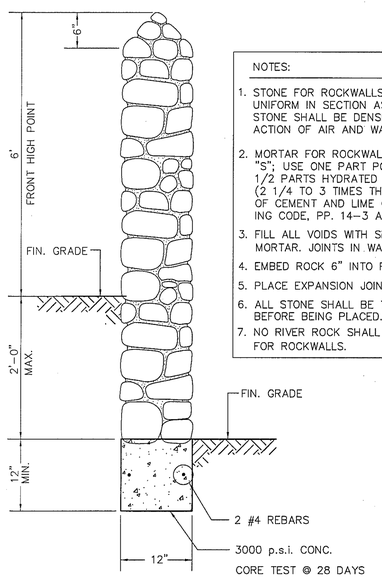


5 ASPHALT PAVEMENT JUNCTURE
NTS



NOTE:
USE SAME BEGINNING AND ENDING TRANSITION POINTS FOR CUL-DE-SAC.

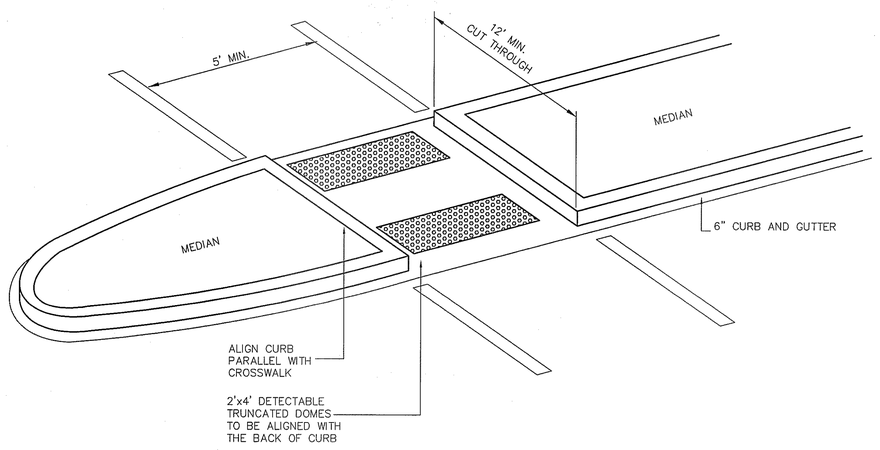
7 TYPICAL TURNING HEEL
NTS.



NOTES:

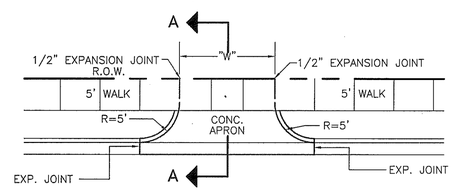
1. STONE FOR ROCKWALLS SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO THE ACTION OF AIR AND WATER.
2. MORTAR FOR ROCKWALL SHALL BE A.S.T.M. TYPE "S"; USE ONE PART PORTLAND CEMENT, 1/4 TO 1/2 PARTS HYDRATED LIME AND 3 PARTS SAND (2 1/4 TO 3 TIMES THE SUM OF THE VOLUMES OF CEMENT AND LIME COMBINED) SEE CITY BUILDING CODE, PP. 14-3 AND 14-4.
3. FILL ALL VOIDS WITH SMALLER STONE OR MORTAR. JOINTS IN WALL SHALL NOT EXCEED 2"
4. EMBED ROCK 6" INTO FOOTING
5. PLACE EXPANSION JOINT IN WALL EVERY 100'
6. ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED.
7. NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.

2 6' RIOCKWALL DETAIL
NO SCALE



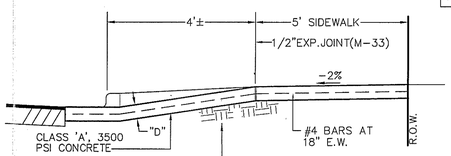
TYPICAL CURB RAMPS AT MEDIAN ISLANDS

NOTE:
ALL RESDIENTIAL DRIVEWAYS ARE TO BE BUILT BY HOME BUILDER.



PLAN VIEW
SCALE 1"=10'

DRIVEWAY WIDTH	W (MIN.)	W (MAX.)
COMMERCIAL/ INDUSTRIAL	24'	35'
RESIDENTIAL	15'	25'



DRIVEWAY TYPE	D
RESIDENTIAL	4"
COMMERCIAL	6"

MAXIMUM SLOPES
10% FROM CURB TO SIDEWALK
2% SIDEWALK CROSS SLOPE (MAX.)
14% FROM SIDEWALK TO BUILDING

DRIVEWAY SECTION A-A
SCALE 1"=3'

8 TYPICAL RESIDENTIAL CONC. DRIVEWAY
N.T.S.

BY	DATE	REVISIONS

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2891
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME
LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6500 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457
SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HAJJOU
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
MISCELLANEOUS DETAILS
(2 OF 2)

C-24.1

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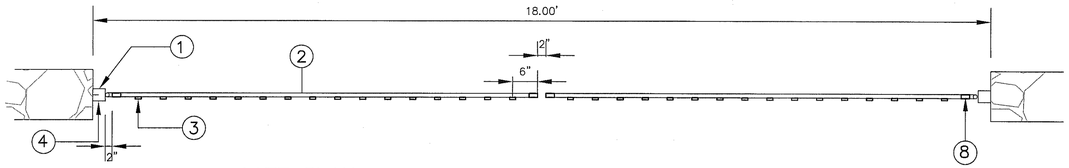
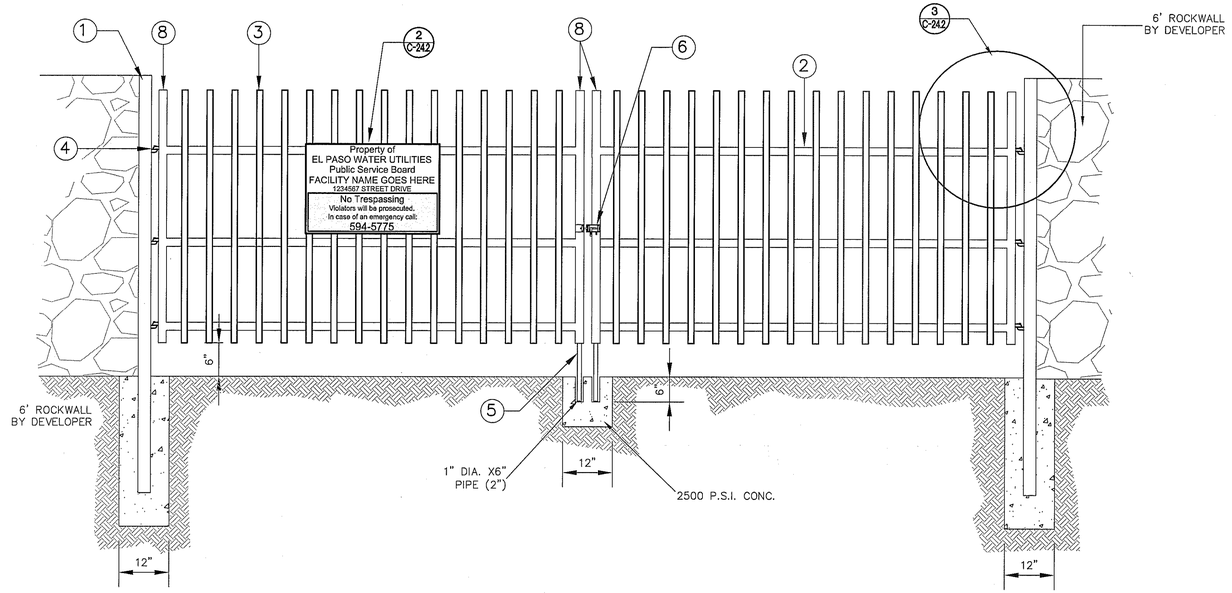
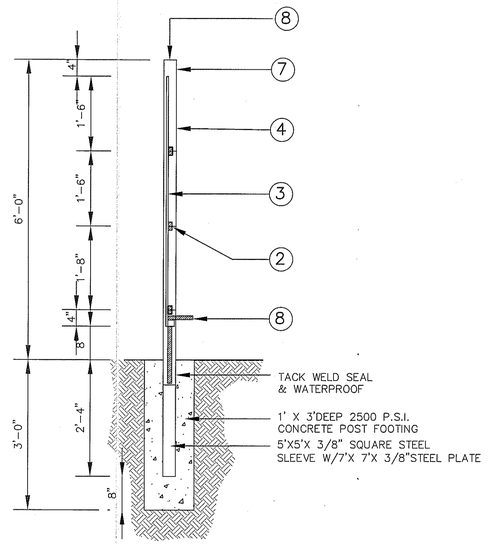


GATE PLAN



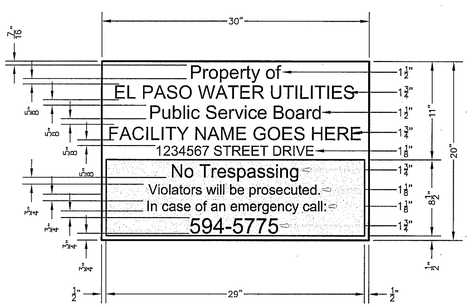
1 C-242 WROUGHT IRON GATE AND PANEL SECTION
NTS



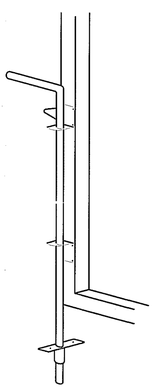
GATE SECTION

GENERAL NOTES:

1. SIGN MATERIAL TO BE 16 GAUGE GALVANIZED SHEET METAL.
2. TOP PART OF SIGN SHALL SHOW BLACK LETTERS ON A WHITE BACKGROUND.
3. BOTTOM PART OF SIGN SHALL SHOW WHITE LETTERS ON A BLACK BACKGROUND.

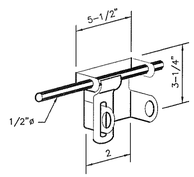


2 C-242 NO TRESPASSING WARNING SIGN
N.T.S.



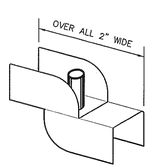
CANE BOLT LATCH W/KEEPER

NOT TO SCALE
No. 14.2023
Standard Duty 1/2" steel bolt 16" long.



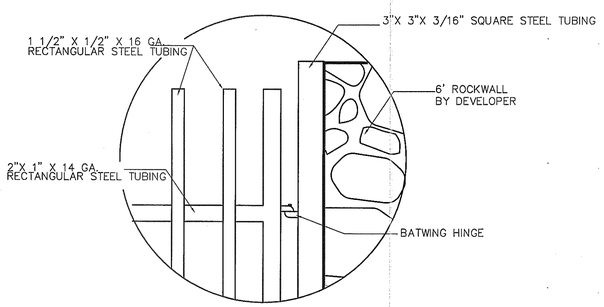
SLIDE BOLT

NOT TO SCALE
HEAVY DUTY
(1/2"ø SOLID STEEL BOLT WITH WELDED FLAP FOR PAD LOCK)
No. 14.2001



BATWING HINGE

NOT TO SCALE
No. 14.1300 (Female)
No. 14.1302 (Male)



3 C-242 DETAIL
SCALE: 1" = 6"

NOTES:

1. 3"X 3"X 3/16" SQUARE STEEL TUBING
2. 2"X 1" X 14 GA. RECTANGULAR STEEL TUBING
3. 1 1/2" X 1/2" X 16 GA. RECTANGULAR STEEL TUBING
4. BATWING HINGE
5. CANE BOLT LATCH W/KEEPER
6. SLIDE BOLT, HEAVY DUTY 1/2"ø SOLID STEEL BOLT WITH WELDED FLAP FOR PAD LOCK
7. FLAT TOP POLYVINYL CAP
8. 2"X 1" X 10 GA. RECT.STL. TUBING

REVISIONS

	DATE	BY
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BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS & PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: C.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 37, BLOCK 79, TSP2, TR. 4B, SECTION 38, BLOCK 79, TSP2, AND A PORTION OF TR. 4, PONCHO R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6800 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

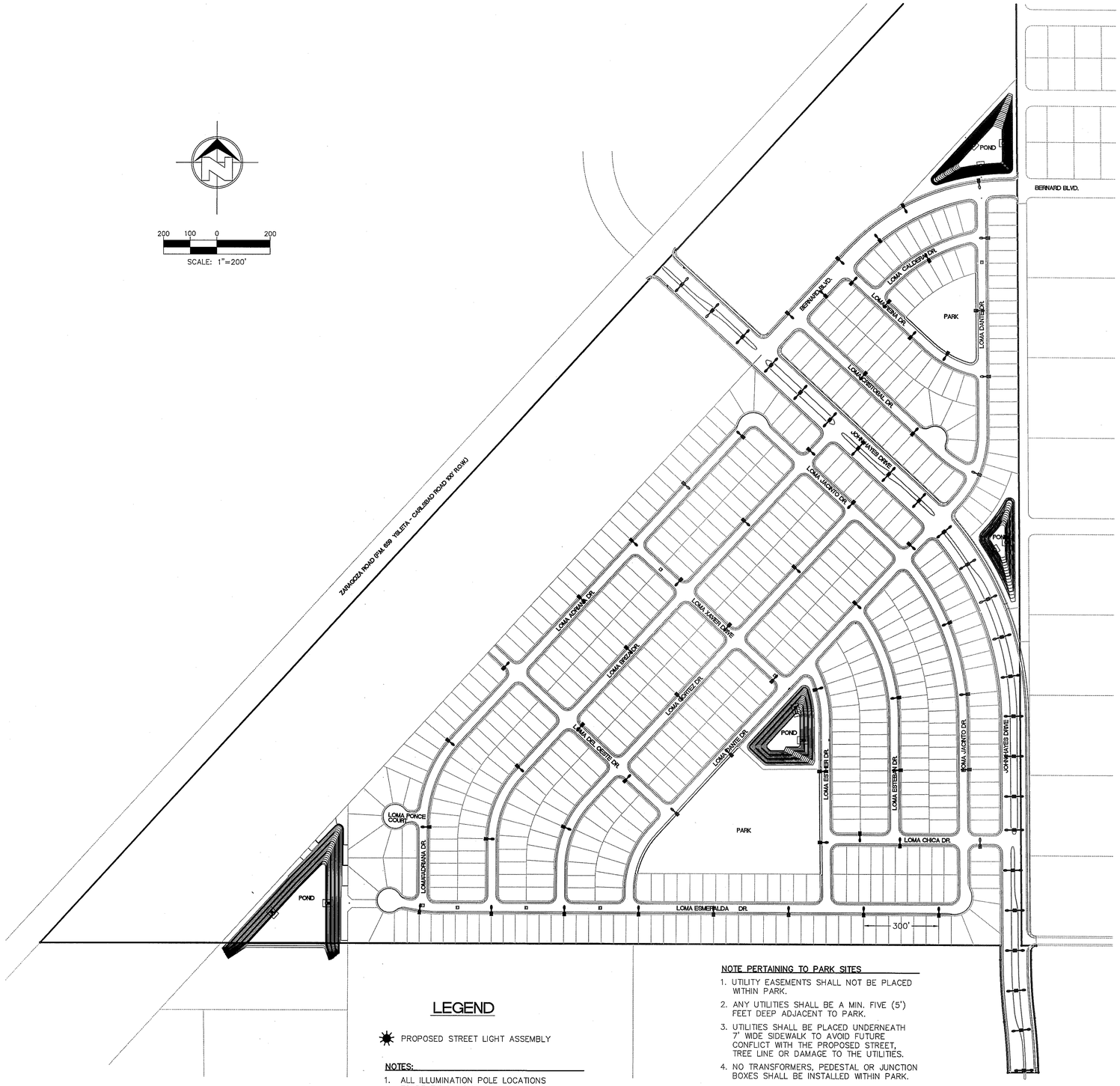
STATE OF TEXAS
GEORGES S. HALLOUL
92108
LICENSED
PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

GATE DETAILS

C-24.2

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-TYP.dwg 2/13/2012 11:30:30 AM MST



LEGEND

✸ PROPOSED STREET LIGHT ASSEMBLY

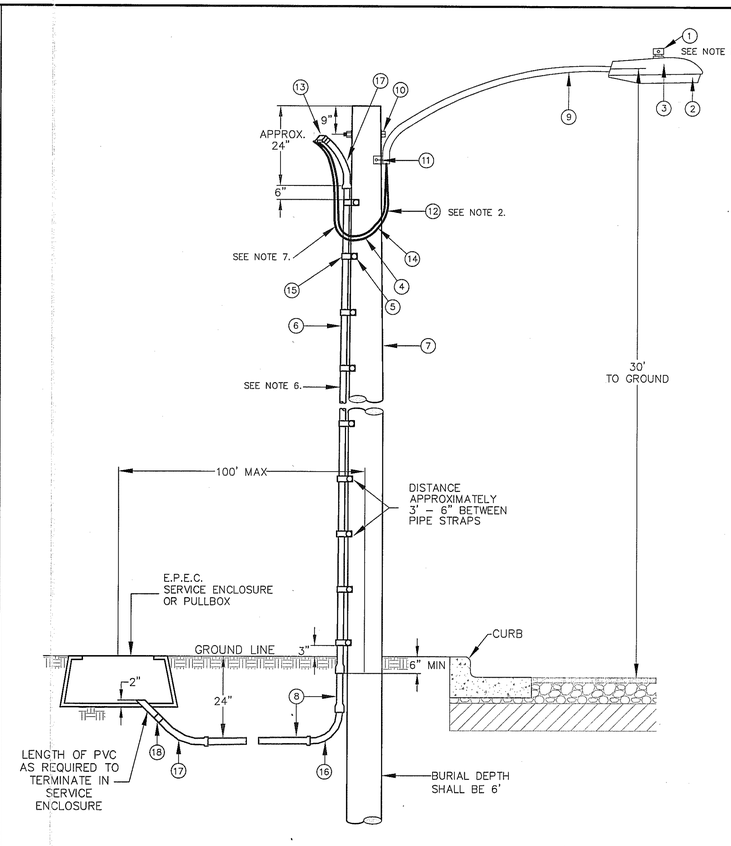
NOTES:

1. ALL ILLUMINATION POLE LOCATIONS TO BE FIELD VERIFIED.
2. CONTRACTOR TO COORDINATE WITH EL PASO ELECTRIC CO. FOR DESIGN AND ILLUMINATION INSTALLATION.
3. ALL ROADWAYS INTERSECTING EXISTING PUBLIC ROADWAYS SHALL REMAIN COMPLETELY CLOSED FOR PUBLIC USED UNTIL ACCEPTED FOR MAINTENANCE BY THE CITY.

NOTE PERTAINING TO PARK SITES

1. UTILITY EASEMENTS SHALL NOT BE PLACED WITHIN PARK.
2. ANY UTILITIES SHALL BE A MIN. FIVE (5') FEET DEEP ADJACENT TO PARK.
3. UTILITIES SHALL BE PLACED UNDERNEATH 7' WIDE SIDEWALK TO AVOID FUTURE CONFLICT WITH THE PROPOSED STREET, TREE LINE OR DAMAGE TO THE UTILITIES.
4. NO TRANSFORMERS, PEDESTAL OR JUNCTION BOXES SHALL BE INSTALLED WITHIN PARK.

STREET TYPE	REQUIRED SPACING	POLE TYPE	LAMP TYPE	HEIGHT
LOCAL STREETS	AT INTERVALS OF NOT MORE THAN THREE HUNDRED FEET (300').	WOOD	100 WATT HIGH PRESSURE SODIUM	30 FEET
COLLECTOR ARTERIALS	AT INTERVALS OF NOT MORE THAN THREE HUNDRED FEET (300').	WOOD	100 WATT HIGH PRESSURE SODIUM	30 FEET



ITEM	DESCRIPTION	STOCK/DSU	QTY.	C/U CODE	FEATURE
1	PHOTO CELL, 240 V – SEE NOTE 1	21–225	1	LCOBRAHD	
2	HPS LAMP, 100W	21–085	1		
3	LUMINAIRE, 100W H.P.S.	21–335	1		
4	COPPER CABLE, #12, SOILID, 600V, BLUE	13–702	60'	LC#12CU	
5	NAIL, STAINLESS STEEL SCREW 2.5 IN.	14–427	.25#	LNAL14*2	
6	SCHEDULE 80 1" PVC CONDUIT	17–280	30'	DSCH801	
7	POLE, 35 FT. – CLASS 4	09–035	1	P354	
8	1" PVC CONDUIT	17–299	AS–REQ	DPVC1	
9	MAST ARM, 6'x 1 1/4"	21–200	1	LBRKT1*6	
10	MACHINE BOLT, 5/8" x 12"	02–470	1	PMB5/812	
	SQUARE GALV. WASHER, 2 1/4" X 2 1/4"	02–760	1	DCOIL58	
	COIL SPRING, WASHER, 5/8"	02–786	1	PNUTLUCK58	
	LOCK NUT, 5/8"	02–705	1		
11	LAG BOLT, 3/8" X 3"	02–343	2		
12	CABLE, #10, 2 CONDUCTOR, 600V, UF	13–600	8'	L2C#10S	LCOBRAUG
13	SERVICE ENTRANCE CAP FOR 1" PVC CONDUIT	17–281	1	LSVCCAP1	
14	SLEEVES, #12–10	05–140	2	ESLV1210	
15	PIPE STRAP FOR 1" CONDUIT, 2–HOLE	17–283	9	LPVCSTRP	
16	1" PVC 90 DEGREE BELOW	17–297	1	DEL901	
17	1" PVC 45 DEGREE BELOW	17–298	2	DEL451	
18	1" PVC COUPLING	17–296	1	DCPLG1	

NOTES:

1. MOUNT SO THAT PHOTO CELL IS FACING NORTH.
2. ITEM #12 SHALL NOT BE SPLICED INSIDE ITEM #10.
3. INSTALLATION MUST COMPLY WITH LOCAL CODE REQUIREMENTS.
4. FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING THIS STANDARD, CALL THE EL PASO ELECTRIC COMPANY DISTRIBUTION DESIGN DEPARTMENT.
5. THE CONDUIT RISER SHALL BE INSTALLED ON THE BACK OF THE WOOD POLE (AWAY FROM THE STREET).
6. THE WIRE LEADS FROM THE WEATHER HEAD TO THE MAST ARM SHALL HAVE A MINIMUM 4" DRIP LOOP BELOW THE WEATHER HEAD.

RESIDENTIAL STREET LIGHT WOOD POLE ASSEMBLY

N.T.S.

DATE | REVISIONS | BY

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3859.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09–10–2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6500 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584–4457

SLI ENGINEERING, INC.

SLI LICENSE No. F–1902

STATE OF TEXAS
GEORGES S. HALLOUL
82124
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

ILUMINATION PLAN

C-25.0

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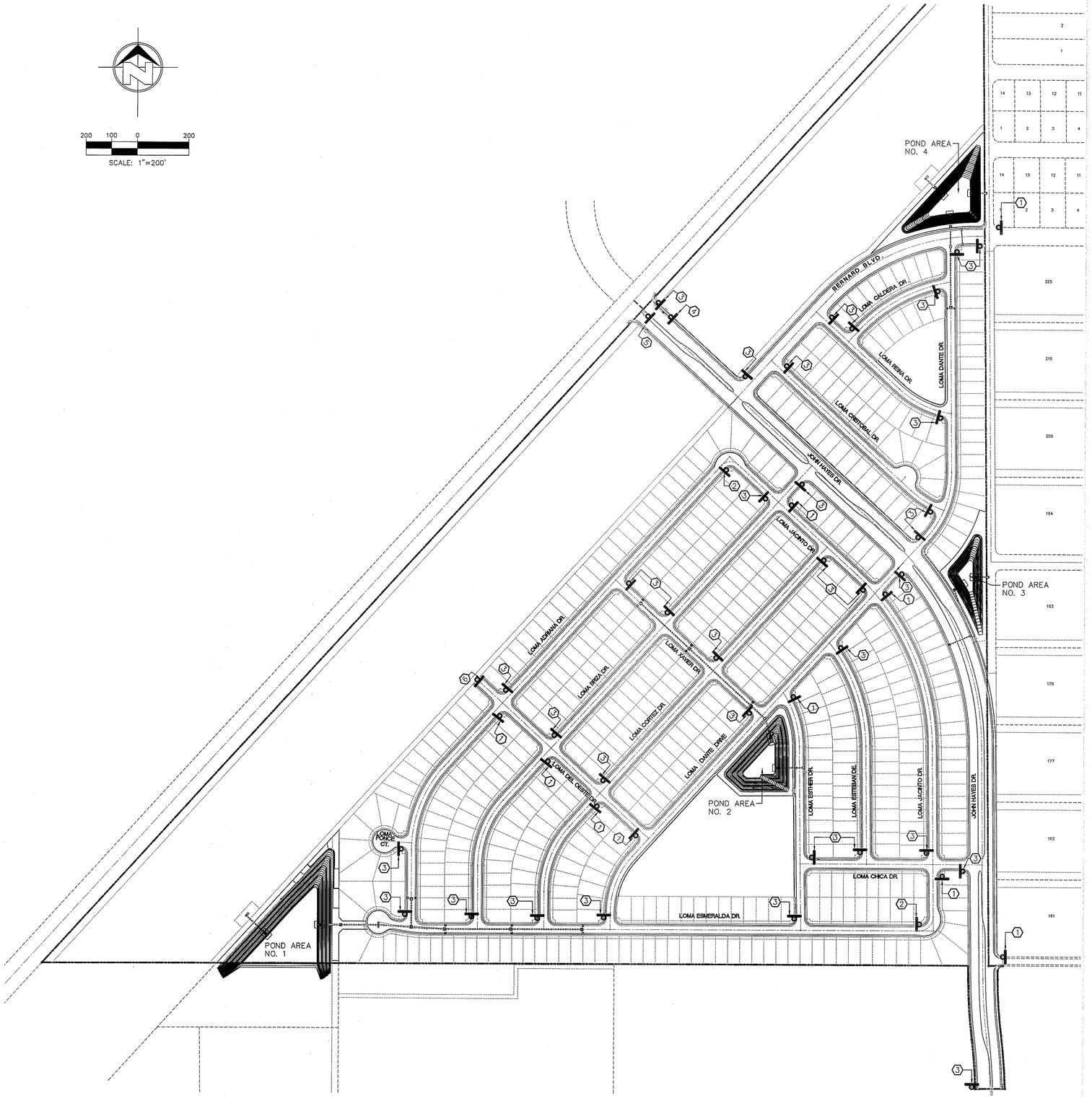

KEY NOTES

1. =STOP SIGN
2. =STREET NAME SIGN
3. =STOP & STREET NAME SIGN
4. =RIGHT TURN ONLY
5. =LEFT TURN ONLY
6. =DEAD END SIGN

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REVISIONS	DATE	BY
1		
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BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
660 MESTINO DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

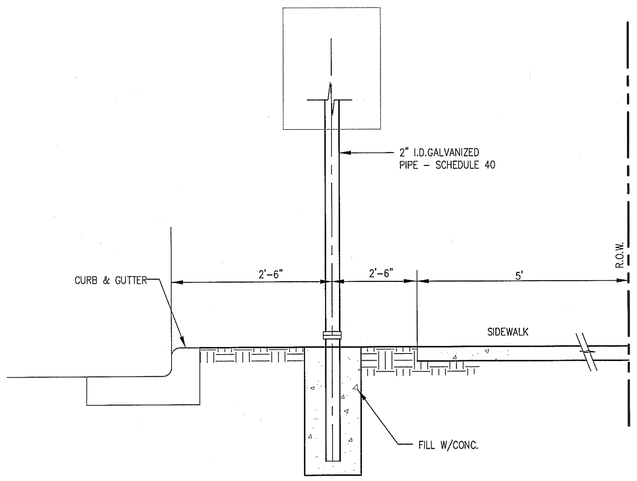
STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED
PROFESSIONAL ENGINEER

NOVEMBER 30, 2012

SHEET TITLE

SIGNAGE PLAN

C-26.0



TYPICAL SIGN LOCATION
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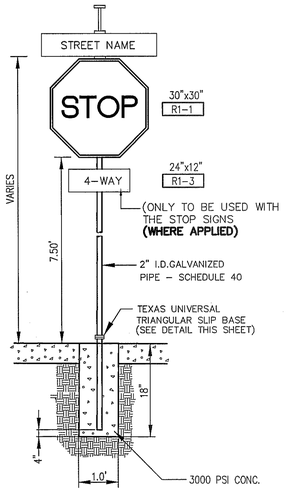
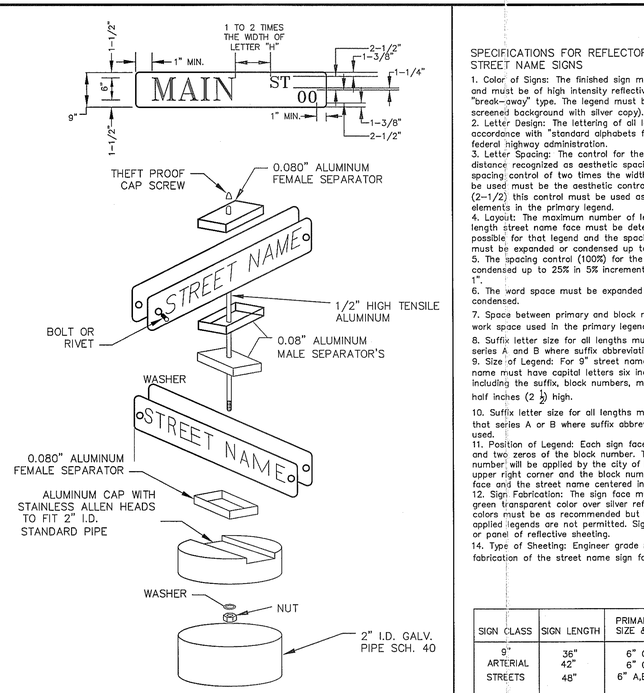


1 C-26.1 **TYPICAL SIGN PLACEMENT**
N.T.S.



STREET NAME SIGN ASSEMBLY

SPECIFICATIONS FOR REFLECTORIZED STREET NAME SIGNS

1. Color of Signs: The finished sign must have a reflectorized blue background and must be of high intensity reflective sheeting and must be of the "break-away" type. The legend must be reflectorized silver white (blue reverse screened background with silver copy).
2. Letter Design: The lettering of all legends must be upper case letters in accordance with "standard alphabets for highway signs" published by the federal highway administration.
3. Letter Spacing: The control for the spacing values in traffic layout is the distance recognized as aesthetic spacing between two straight letters (HN). A spacing control of two times the width of the stroke of the letter series to be used must be the aesthetic control (100%). Two and one-half times (2-1/2) this control must be used as the aesthetic word space between elements in the primary legend.
4. Layout: The maximum number of letters to be accommodated on a given length street name face must be determined by the widest letter series possible for that legend and the spacing control (100%) for the series used must be expanded or condensed up to 25% in 5% increments.
5. The spacing control (100%) for the series used must be expanded or condensed up to 25% in 5% increments for the end margin with minimum of 1".
6. The word space must be expanded up to 25% in 5% increments but not condensed.
7. Space between primary and block number area must be $\frac{1}{2}$ the aesthetic work space used in the primary legend.
8. Suffix letter size for all lengths must be 2" capitals, C series, except that series A and B where suffix abbreviation exceeds two letters, may be used.
9. Size of Legend: For 9" street name signs, the primary legend, or street name must have capital letters six inches (6") high and all secondary legends, including the suffix, block numbers, must have upper case letters two and a half inches (2 $\frac{1}{2}$) high.
10. Suffix letter size for all lengths must be 2 $\frac{1}{2}$" capitals, C series, except that series A or B where suffix abbreviation exceeds two letters, may be used.
11. Position of Legend: Each sign face will consist of the street name, suffix and two zeros of the block number. The additional numbers of the block number will be applied by the city of El Paso. The suffix will be located in the upper right corner and the block number in the lower right corner of the sign face and the street name centered in the remaining space.
12. Sign Fabrication: The sign face must be fabricated by reverse screening green transparent color over silver reflective sheeting. Transparent process colors must be as recommended but the sheeting manufacturer. Cut-out or applied legends are not permitted. Sign faces must be comprised or one piece or panel of reflective sheeting.
14. Type of Sheeting: Engineer grade reflective sheeting must be used in the fabrication of the street name sign faces.

SIGN CLASS	SIGN LENGTH	PRIMARY LETTERS SIZE & SERIES	SUFFIX & BLOCK NUMBER SIZE AND SERIES
9" ARTERIAL STREETS	36"	6" C,D, SERIES	3" C SERIES
	42"	6" C,D, SERIES	3" C SERIES
	48"	6" A,B,C,D, SERIES	2" C SERIES

KEY NOTES:

1. 12" WHITE STOP BAR (THERMOPLASTIC)
2. 4" WHITE PARKING STRIPE (HIGH PROFILE)
3. 6" DOUBLE YELLOW STRIPE (THERMOPLASTIC)

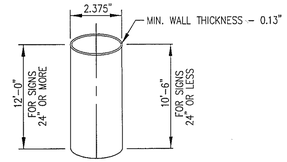
LEGEND:

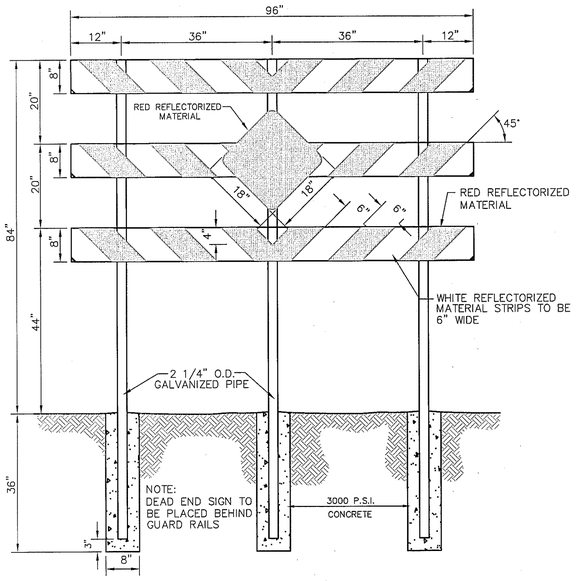
- PROPOSED SIGN
- PROPOSED STRIPING
- PROP. SIDEWALK

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

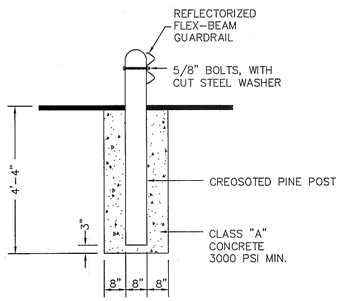
SIGN POST SPECIFICATIONS

1. WELD ALONG ITS LENGTH TO FORM VIRTUALLY SEAMLESS.
2. POST SHALL BE HOT-DIPPED ZINC GALVANIZED UNIFORMLY ON THE OUTSIDE WITH A NOMINAL ZINC WEIGHT OF 1.0 OUNCE PER SQUARE FOOT.
3. THE ZINC COATING IS TO BE OVER-COATED WITH A CHROMITE CONVERSION AND ACRYLIC COATING TO PROVIDE RESISTANCE TO RUSTING AND CORROSION.
4. THE INSIDE OF THE POST SHALL BE COATED WITH AN ORGANIC MATERIAL FOR PROTECTION AGAINST RUST.
5. BOTH ENDS ARE TO BE SQUARELY CUT WITHOUT FLARE.
6. POST SHALL BE FREE OF WARPS, CORROSION, OR OTHER DEFECTS.
7. RING WELDS OR SPLICES WILL NOT BE ACCEPTABLE.
8. BENDING STRENGTH AS SPECIFIED BY AASHTO FOR SCHEDULE 40 PIPE.
9. POST SHALL BE BUNDLED WITH METAL STRAPS AND SHALL NOT EXCEED 37 POSTS PER BUNDLE.





2 C-26.1 **DEAD END SIGN**
NTS



POST DETAIL
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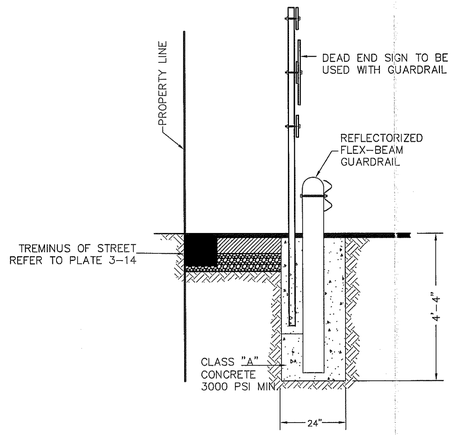
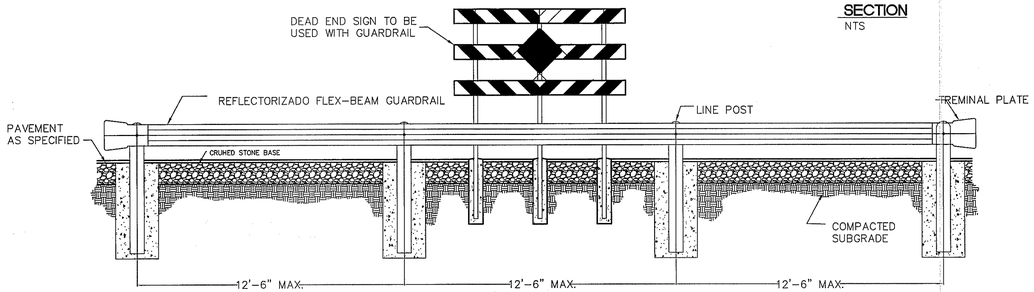
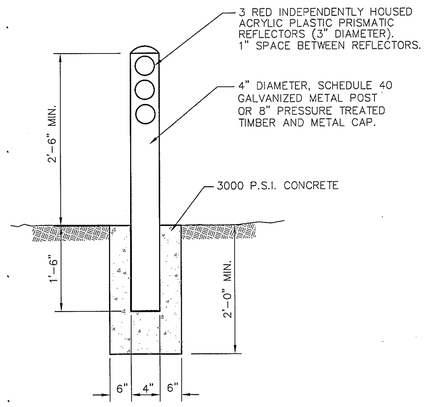


SECTION
NTS



3 C-26.1 **GUARDRAIL/SIGN ASSEMBLY AT DEAD STREET DETAIL**
NTS



METAL GUARD POST DETAIL
N.T.S.

DATE	REVISIONS	BY

BENCHMARK
SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2391
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-0428
SLI ENGINEERING, INC.
SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED
PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE
SIGNAGE PLAN

C-26.1

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\LDE2-SIGNAGE.dwg 12/29/2011 9:35:03 AM MST

PONDING DATA FORMULA = Qt=ARC/12 + (A X 0.012) 100 YRS. STORM FREQUENCY

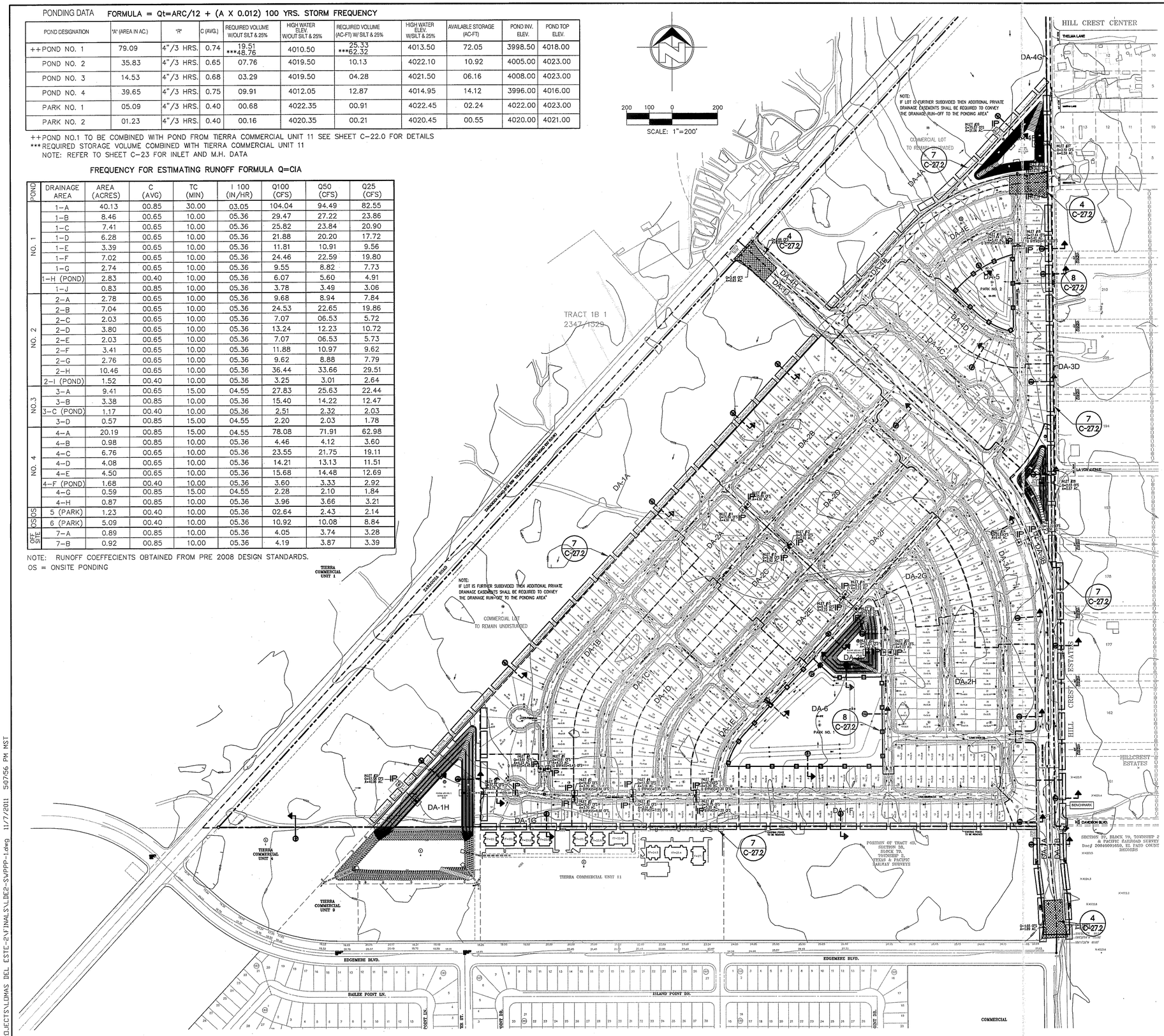
POND DESIGNATION	"A" (AREA IN AC.)	"R"	C (AVG.)	REQUIRED VOLUME W/OUT SILT & 25%	HIGH WATER ELEV. W/OUT SILT & 25%	REQUIRED VOLUME (AC-FT) W/ SILT & 25%	HIGH WATER ELEV. W/SILT & 25%	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.
++POND NO. 1	79.09	4"/3 HRS.	0.74	19.51 ***48.76	4010.50	25.33 ***62.32	4013.50	72.05	3998.50	4018.00
POND NO. 2	35.83	4"/3 HRS.	0.65	07.76	4019.50	10.13	4022.10	10.92	4005.00	4023.00
POND NO. 3	14.53	4"/3 HRS.	0.68	03.29	4019.50	04.28	4021.50	06.16	4008.00	4023.00
POND NO. 4	39.65	4"/3 HRS.	0.75	09.91	4012.05	12.87	4014.95	14.12	3996.00	4016.00
PARK NO. 1	05.09	4"/3 HRS.	0.40	00.68	4022.35	00.91	4022.45	02.24	4022.00	4023.00
PARK NO. 2	01.23	4"/3 HRS.	0.40	00.16	4020.35	00.21	4020.45	00.55	4020.00	4021.00

++POND NO.1 TO BE COMBINED WITH POND FROM TIERRA COMMERCIAL UNIT 11 SEE SHEET C-22.0 FOR DETAILS
***REQUIRED STORAGE VOLUME COMBINED WITH TIERRA COMMERCIAL UNIT 11
NOTE: REFER TO SHEET C-23 FOR INLET AND M.H. DATA

FREQUENCY FOR ESTIMATING RUNOFF FORMULA Q=CIA

POND	DRAINAGE AREA	AREA (ACRES)	C (AVG)	TC (MIN)	I 100 (IN/HR)	Q100 (CFS)	Q50 (CFS)	Q25 (CFS)
NO. 1	1-A	40.13	00.85	30.00	03.05	104.04	94.49	82.55
	1-B	8.46	00.65	10.00	05.36	29.47	27.22	23.86
	1-C	7.41	00.65	10.00	05.36	25.82	23.84	20.90
	1-D	6.28	00.65	10.00	05.36	21.88	20.20	17.72
	1-E	3.39	00.65	10.00	05.36	11.81	10.91	9.56
	1-F	7.02	00.65	10.00	05.36	24.46	22.59	19.80
	1-G	2.74	00.65	10.00	05.36	9.55	8.82	7.73
	1-H (POND)	2.83	00.40	10.00	05.36	6.07	5.60	4.91
	1-J	0.83	00.85	10.00	05.36	3.78	3.49	3.06
NO. 2	2-A	2.78	00.65	10.00	05.36	9.68	8.94	7.84
	2-B	7.04	00.65	10.00	05.36	24.53	22.65	19.86
	2-C	2.03	00.65	10.00	05.36	7.07	06.53	5.72
	2-D	3.80	00.65	10.00	05.36	13.24	12.23	10.72
	2-E	2.03	00.65	10.00	05.36	7.07	06.53	5.73
	2-F	3.41	00.65	10.00	05.36	11.88	10.97	9.62
	2-G	2.76	00.65	10.00	05.36	9.62	8.88	7.79
	2-H	10.46	00.65	10.00	05.36	36.44	33.66	29.51
	2-I (POND)	1.52	00.40	10.00	05.36	3.25	3.01	2.64
NO.3	3-A	9.41	00.65	15.00	04.55	27.83	25.63	22.44
	3-B	3.38	00.85	10.00	05.36	15.40	14.22	12.47
	3-C (POND)	1.17	00.40	10.00	05.36	2.51	2.32	2.03
	3-D	0.57	00.85	15.00	04.55	2.20	2.03	1.78
NO. 4	4-A	20.19	00.85	15.00	04.55	78.08	71.91	62.98
	4-B	0.98	00.85	10.00	05.36	4.46	4.12	3.60
	4-C	6.76	00.65	10.00	05.36	23.55	21.75	19.11
	4-D	4.08	00.65	10.00	05.36	14.21	13.13	11.51
	4-E	4.50	00.65	10.00	05.36	15.68	14.48	12.69
	4-F (POND)	1.68	00.40	10.00	05.36	3.60	3.33	2.92
	4-G	0.59	00.85	15.00	04.55	2.28	2.10	1.84
	4-H	0.87	00.85	10.00	05.36	3.96	3.66	3.21
OS	5 (PARK)	1.23	00.40	10.00	05.36	02.64	2.43	2.14
OS	6 (PARK)	5.09	00.40	10.00	05.36	10.92	10.08	8.84
OFF SITE	7-A	0.89	00.85	10.00	05.36	4.05	3.74	3.28
OFF SITE	7-B	0.92	00.85	10.00	05.36	4.19	3.87	3.39

NOTE: RUNOFF COEFFECIENTS OBTAINED FROM PRE 2008 DESIGN STANDARDS.
OS = ONSITE PONDING



FLOOD ZONE

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCEY FLOOD INSURANCE RATE MAP COMMUNIT– PANEL NO. 480212 0175 B DATED SEPTEMBER 4, 1991
IN FLOOD ZONE X, THIS PROPERTY LIES
X AREAS OF MINIMAL FLOODING.

BENCHMARK

SECTION CORNER FOR SECTIONS 35–36–37 & 38
BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION: 3839.38

EROSION CONTROL

1. WIND EROSION CONTROL: WATERING DURING AND AFTER COMPLETION OF SITE GRADING, THE PROJECT AREA SHALL BE COMPLETELY WATERED AS NEEDED TO CONTROL WIND EROSION OR AS DIRECTED BY THE CITY ENGINEER.
2. THE CONTRACTOR SHALL CLEAN UP ANY DIRT OR DEBRIS THAT IS SPILLED ON THE EXISTING PUBLIC ROADWAY AS A RESULT OF THIS CONSTRUCTION PROJECT. CLEAN UP IS TO BE DONE ON A REGULAR BASIS OR AS DIRECTED BY THE CITY ENGINEER.
3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SLOPES IN GOOD CONDITION AND PROTECTING THEM FROM EROSION UNTIL THE FINAL LANDSCAPING ELEMENTS ARE IN PLACE.

LEGEND

- 62.25P+ PROPOSED FINISH GRADES
- 3364.55 × EXISTING (SPOT ELEV.)
- —65— PROPOSED FG (CONTOUR)
- FG=65.25 LOT PAD FINSH GRADE
- 3864 EXISTING GROUND (CONTOUR)
- HIGH POINT
- PROPOSED FLOW
- EXISTING FLOW
- WATERSHED
- GRAVEL ENTRANCE
- IP INLET SEDIMENT PROTECTION
- PORT-O-JOHNS
- EARTH BERM
- SILT FENCE

BEFORE YOU DIG - CALL
1–800–DIG–TESS 1–800–344–8377

NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) STUDY FOR THIS PROJECT. THE STUDY MUST MEET ALL FEDERAL, STATE, AND LOCAL AUTHORITY GUIDELINES. THE EROSION CONTROL PLAN AND DETAILS INCLUDED IN THIS DRAWING SET HAVE BEEN INCLUDED AS A GUIDE/SUGGESTION AND MAY BE MODIFIED BY THE OWNER'S REPRESENTATIVE AND/OR THE CITY OF EL PASO ENVIRONMENTAL SPECIALIST, AS REQUIRED, TO PREVENT CONSTRUCTION DEBRIS AND RUN–OFF FROM LEAVING THE SITE. ADDITIONAL BMP MEASURES MAY BE REQUIRED, AT NO ADDITIONAL COST TO THE OWNER.
2. SILT FENCE TO BE INSTALLED AND MAINTAINED BE DEVELOPER ALONG THE PERIMETER OF BOTH "PARK SITES" UNTIL ALL ABUTTING RESIDENCES ARE DEVELOPED.

GRADING AND STABILIZATION NOTE

1. FINAL STABILIZATION FOR THIS SUBDIVISION WILL BE CONSTRUCTED WITH ROAD AND HOMES OR LOTS.

REVISIONS

DATE	BY
1	
2	
3	
4	
5	
6	

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37 AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09–10–2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF SECTION 37, BLOCK 79, TSP2, SECTION 38, BLOCK 79, TSP 2, AND A PORTION OF TR. 4B, SECTION 35, BLOCK 79, TSP 2 EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
6600 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584–4457

SLI ENGINEERING, INC.

SLI LICENSE No. F–1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

GRADING STABILIZATION AND STORM WATER POLLUTION PREVENTION PLAN

(SHT 1 OF 3)

C–27.0

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GRADING STABILIZATION ACTIVITIY PLAN

1. SEDIMENT CAUSED BY EXCESSIVE EROSION SHALL BE REMOVED FROM RUNOFF WATER BEFORE LEAVING THE SITE.
2. PROJECT AREAS PHYSICALLY DISTURBED DURING DEVELOPMENT SHALL BE EXPOSED TO EROSION PRODUCING INFLUENCES FOR THE SHORTEST PERIOD OF TIME.
3. AFTER COMPLETION OF THE SITE GRADING THE PROJECT AREAS SHALL BE WATERED AS REQUIRED TO CONTROL WIND EROSION.
4. SITE MONITORING SHALL BE PERFORMED BY THE PERMITTEE RESPONSIBLE FOR THE GRADING. ALL STABILIZATION MEASURES SHALL BE CHECKED ON A MONTHLY BASIS AND SHALL CONTINUE TO BE MAINTAINED.
5. A MONITORING AND INSPECTION PROGRAM SHALL BE IMPLEMENTED UNTIL A STABILIZED SITE IS ACHIEVED AND BUILDING RESUMES. INACTIVE/IDLE SITES SHALL BE INSPECTED AND MAINTAINED ON ONE OF THE FOLLOWING SCHEDULES:
   A. AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A WIND EVENT.
   B. AT LEAST ONCE EVERY 7 CALENDAR DAYS ON A SET SPECIFIC DAY.
6. AFTER PERMITTEE COMPLETES THE GRADING, THE PERMIT SHALL BE CLOSED AS PART OF THE CLOSEOUT PROCEDURES. THE APPLICANT MUST SUBMIT THE FOLLOWING:
   A. A STATEMENT FROM THE ENGINEER OF RECORD THAT STATES "THE GRADING OPERATION HAS BEEN SUBSTANTIALLY COMPLETED AND GENERALLY CONFORMS TO THE APPROVED SET OF PLANS".

   THE PERMITTEE SHALL CALL THE PERMIT OFFICIAL TO ESTABLISH THE BEGINNING OF THE WARRANTY PERIOD AND NOTIFY THE PERMIT OFFICIAL GSP HAS BEEN IMPLEMENTED.

   B. SHALL SUBMIT A COPY OF THE NOTICE OF TERMINATION FILED WITH THE STATE.

GRADING STABILIZATION MAINTENANCE AND SCHEDULE PLAN

STABILIZATION MEASURES	INSPECTION DATE	MAINT. DATE	MAINTENANCE TYPE
WATERING OF SITE			
WEED PREVENTION AND MOWING			
RE-GRADING OF SITE DUE TO EROSION			
SEDIMENT FROM EROSION SHALL BE REMOVED FROM SITE			
ASSURE MAINTENANCE OF S.W.P.P.P. MEASURES			

PERMITTEE CERTIFICATION

" I CERTIFY AND AGREE TO WARRANT AND MAINTAIN THE SITE AS DESCRIBED IN THIS GSP UNTIL BUILDING PERMIT IS ISSUED OR THE CITY CLOSES THE PERMIT AS SPECIFIED IN MUNICIPAL CODE SECTION 18.44.090."

PERMITTEE: (SIGNED) _____ DATE: _____

OWNER: (NAME) _____

PHONE NUMBER: _____

SWPPP INSPECTION REPORT

PROJECT NAME: LOMAS DEL ESTE SUBDIVISION

CONTRACTOR : _____ DATE OF INSPECTION : _____

INSPECTION CONDUCTED BY: _____ _____
PRINTED NAME SIGNATURE

QUALIFICATIONS OF THE INSPECTOR: _____

REPORT PREPARED BY: (Circle One) CONTRACTOR OWNER

7 DAY INSPECTION 14 DAY INSPECTION AFTER-RAIN EVENT INSPECTION

SITE DESCRIPTION

PROJECT TITLE:	LOMAS DEL ESTE SUBDIVISION
OWNER AND ADDRESS:	RANCHOS REAL XV, LLC 6080 SURETY DR. SUITE 300 EPT EL PASO, TEXAS
DESCRIPTION:	CONSTRUCTION OF SUBDIVISION HOUSING UNITS
SITE AREA:	THE SITE IS APPROXIMATELY 170 ACRES OF WHICH APPROX. 115 ACRES WILL BE DISTURBED BY THE CONSTRUCTION ACTIVITIES.

INSPECTION ISSUE	Y	N	N/A	COMMENTS
ARE NPDES PERMITS, FOR ALL PERMITEES POSTED AT THE CONSTRUCTION ENTRANCE ?				
IS CONTACT INFORMATION FOR ALL PERMITS POSTED AT THE CONSTRUCTION ENTRANCE ?				
ARE COPIES OF INSPECTION REPORT INCLUDED WITH THE SWPPP				
IS A COPY OF THE SWPPP CERTIFICATIONS FOR ALL PERMITS INCLUDED WITH SWPPP ?				
IF THE BMP's HAVE BEEN MODIFIED, HAS THE SWPPP BEEN MODIFIED ?				
ARE THERE ANY SIGNS OF DISCHARGE LEAVING THE SITE ?				
ARE ALL BMP's FUNCTIONING AS INTENDED ?				
ANY ADDITIONAL BMS's REQUIRED ?				
ARE STABILIZED ENTRANCES/EXITS PREVENTING STREET CONTAMINATION ?				
ARE ANY BMP's IN NEED OF REPAIR AND/OR MAINTENANCE ?				
ARE ANY HAZARDOUS MATERIALS BEING EXPOSED TO STORM WATER RUNOFF ?				
HAVE THERE BEEN ANY REPORTABLE SPILLS OF HAZARDOUS MATERIALS ?				
HAVE ALL AREAS OF THE SITE NOT COVERED BY IMPERVIOUS MATERIALS ACHIEVED THE REQUIRED COVERAGE ?				
ARE ALL SOIL-DISTURBING ACTIVITIES COMPLETE?				
HAS A NOTICE OF TERMINATION (NOT) BEEN FILED ?				

NOTE: ALL ITEMS OF NON-COMPLIANCE SHALL BE REPAIRED/INSTALLED WITHIN SEVEN (7) CALENDAR DAYS OF INSPECTION. REPAIRS/INSTALLATION SHALL BE COMPLETED IMMEDIATELY, IF STORM CONDITIONS ARE IMMINENT

NOTE INCIDENTS OF NON-COMPLIANCE: _____

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

SIGNATURE: _____ DATE: _____

PRINTED NAME: _____

TITLE: _____

INSPECTIONS

A. GENERAL

1. EACH CONTRACTOR WILL DESIGNATE A QUALIFIED PERSON OR PERSONS TO PERFORM THE FOLLOWING INSPECTIONS:
   a. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION WILL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS CONTAMINATING THE AREA.
   b. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN WILL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY.
   c. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY WILL BE INSPECTED TO ASCERTAIN WHERE EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE SURROUNDING AREA.
   d. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE DISTURBED AREAS OF SITE WILL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.
2. THE INSPECTION WILL BE CONDUCTED BY THE RESPONSIBLE PERSON AT LEAST ONCE EVERY 7 CALENDAR DAYS INSPECTIONS SHALL TAKE PLACE ON TUESDAY OF THE WORKWEEK, ALLOWING SUFFICIENT TIME DURING THE SAME WORKWEEK FOR NECESSARY MAINTENANCE AND/OR REPAIR OF SITE CONTROLS.
3. AFTER A PORTION OF THE SITE IS FINALLY STABILIZED, INSPECTION WILL BE CONDUCTED AT LEAST ONCE EVERY MONTH.
4. BASED ON THE RESULTS OF THE INSPECTION, THE SITE EROSION AND SEDIMENT CONTROL DRAWING (SWPPP DRAWING) WILL BE REVISED AS APPROPRIATE, BUT IN NO CASE LATER THAN 7 CALENDAR DAYS FOLLOWING THE INSPECTION.
5. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF SWPPP, AND ACTIONS TAKEN IN ACCORDANCE WITH THIS SECTION WILL BE MADE AND RETAINED AS PART OF THE SWPPP FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED. THE REPORT WILL BE SIGNED BY THE BY THE QUALIFIED INSPECTOR

NOTES

1. THERE ARE NO HISTORICAL STRUCTURES SITUATED ON THIS SITE.
2. THERE ARE NO ENDANGERED SPECIES AFFECTED BY THIS CONSTRUCTION PROJECT.
3. THE SOILS CONSIST OF TOP LAYERS OF BROWN CLAY AND SILT WITH VARYING AMOUNTS OF SAND AND VARIES FROM MOIST TO WET AND AT A SOFT TO STIFF CONSISTENCY TO DRY AND AT A SOFT TO FIRM CONSISTENCY.
4. SOIL C VALUE = 0.40

EROSION AND SEDIMENT CONTROL

SOIL STABILIZATION PRACTICES

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

STRUCTURAL PRACTICES

X SILT FENCES
X EARTH BERMS
___ DIVERSION, INTERCEPTOR OR PERIMETER DIKES
X DIVERSION, INTERCEPTOR OR PERIMETER SWALES
___ DIVERSION DIKES AND SWALE COMBINATIONS
X CONCRETE FLUMES
X ROCK BEDDING AT CONSTRUCTION EXIT
___ TIMBER MATTING AT CONSTRUCTION EXIT
___ CHANNEL LINERS
X SEDIMENT TRAPS
X RETENTION POND
X STORM INLET SEDIMENT TRAP
___ STONE OUTLET STRUCTURES
X CURBS AND GUTTERS
X STORM DRAINS
X VELOCITY CONTROL DEVICES
___ ROCK LINE SWALES
OTHER _____

NARRATIVE: SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES

1. SUBMIT NOTICE OF INTENT, SECURE SITE AND INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS (e.g. SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE, etc.)
2. EXECUTE GRADING.
3. COMPLETE SITE GRADING.
4. EXCAVATION FOR UTILITIES.
5. COMPLETION OF SITE IMPROVEMENTS.
6. WHEN ALL CONSTRUCTION ACTIVITIES RELATED TO THE DEVELOPMENT OF THE SITE ARE COMPLETED, REMOVE TEMPORARY CONTROLS MENTIONED IN NOTE NO.1 ABOVE, AND THEN SUBMIT NOTICE OF TERMINATION FORM.
7. APPROXIMATE SCHEDULE OF MAJOR ACTIVES:
   SITE GRADING = _____, 20 12 THROUGH _____, 20 12
   TERMINATION OF GRADING TO END OF PROJECT = _____, 20 12 THROUGH _____, 20 13

MATERIALS OR SUBSTANCES EXPECTED TO BE PRESENT ON SITE DURING CONSTRUCTION

X CONCRETE	X PETROLEUM BASED PRODUCTS	X FUELS
___ DETERGENTS	___ CLEANING SOLVANTS	___ WATER WASHINGS
X OILS	___ WOOD	X CURING COMPOUNDS

(NO ASBESTOS ON SITE)

GENERAL CONTRACTOR CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT THAT AUTHORIZES STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SIGNED: _____ COMPANY: ROBERT F. FOSTER INC.
NAME: ROBERT F. FOSTER ADDRESS: 608 SURETY DR., SUITE 300 EPT
TITLE: PRESIDENT TELEPHONE: (915) 595-2775
DATE: _____

SUB – CONTRACTOR CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I WILL COORDINATE EITHER THROUGH THE GENERAL CONTRACTOR, OWNER, OR DIRECTLY, WITH THE CONTRACTOR(S) AND/OR SUBCONTRACTOR(S) IDENTIFIED IN THE POLLUTION PREVENTION PLAN, HAVING RESPONSIBILITY FOR IMPLEMENTING STORM WATER CONTROL MEASURES TO MINIMIZE ANY IMPACT MY ACTIONS MAY HAVE ON THE EFFECTIVENESS OF THESE STORM WATER CONTROLS MEASURES.

SIGNED: _____ SIGNED: _____
NAME: _____ NAME: _____
TITLE: _____ TITLE: _____
COMPANY: _____ COMPANY: _____
ADDRESS: _____ ADDRESS: _____
TELEPHONE: _____ TELEPHONE: _____
DATE: _____ DATE: _____

OWNER CERTIFICATION

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

OWNER : SIGNED DATE

RANCHOS REAL XV, LLC
OWNER : NAME DATE

BY: DOUGLAS A. SCHWARTZ, MANAGER
TITLE: DATE

BEST MANAGEMENT PRACTICES CONTROLS

I WASTE MATERIALS:

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

II HAZARDOUS WASTE:

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

VI HAZARDOUS PRODUCTS:

PRACTICES 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 PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS.

VII PETROLEUM PRODUCTS:

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

VIII SPILL CONTROL PRACTICES:

A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES.
B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL 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 0.50 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. A REPORT SUMMARIZING THE SCOPE OF INSPECTION SHALL BE DONE AND RETAINED ALONG WITH THE SDPCP.

X REMARKS:

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

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

REVISIONS | BY | DATE

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SWOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
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LAND PLANNERS
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SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALCOUT
92105
REGISTERED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

GRADING STABILIZATION AND STORM WATER POLLUTION PREVENTION NOTES

(SHT 2 OF 3)

C-27.1

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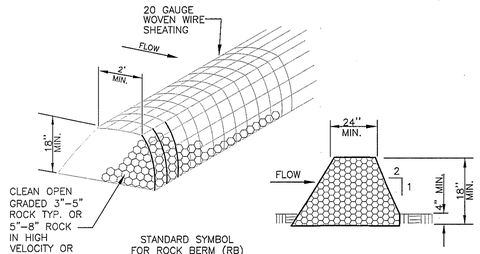


Rock Berm Cross Section

NOTES:

1. ROCK BERMS SERVE AS A CHECK DAM IN AREAS OF CONCENTRATED FLOW, TO INTERCEPT SEDIMENT-LADEN RUNOFF, DETAIN THE SEDIMENT AND RELEASE THE WATER IN SHEET FLOW. ROCK BERMS CAN BE USED WHEN THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 5 ACRES AND WHERE THE VOLUME OF RUNOFF IS TOO GREAT FOR A SILT FENCE TO CONTAIN. OFTEN USED IN AREAS OF CHANNEL FLOWS (DITCHES, GULLIES, ETC.).
2. USE ONLY OPEN GRADED CLEAN ROCK 5" TO 8" DIAMETER FOR STREAM FLOW CONDITIONS. USE OPEN GRADED CLEAN ROCK 3" TO 5" DIAMETER FOR OTHER CONDITIONS.
3. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 1" OPENING AND MINIMUM WIRE DIAMETER OF 20 GAUGE. THE ENDS OF THE SHEATHING SHALL OVERLAP AT LEAST 2 INCHES AND THE BERM SHALL RETAIN ITS SHAPE WHEN WALKED UPON. BERM SHALL HAVE A TOP WIDTH OF 2 FT. MIN. WITH SIDE SLOPES BEING 2:1 OR FLATTER. ROCK BERMS IN CHANNEL APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MIN. OF 6" WITH T-POSTS OR WITH #5 OR #6 REBAR WITH MAX. SPACING APART OF 48" ON CENTER. TIE THE ENDS OF THE BERM INTO THE EXISTING UPSLOPE GRADE.
4. THE ROCK BERM SHALL BE INSPECTED WEEKLY AND AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
5. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 6", WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SILTATION PROBLEM.
6. DAILY INSPECTION SHALL BE MADE ON SEVERE-SERVICE ROCK BERMS (I.E., IN STREAM BEDS); SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 6"
7. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

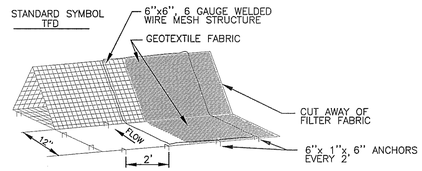
01 Rock Berm

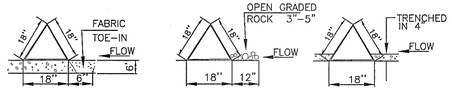
N.T.S.

NOTE:
FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.

INSTALLATION DETAIL OPTIONS:

1. TOE-IN 6" MINIMUM.
2. WEIGHTED WITH 3" – 5" OPEN GRADED ROCK.
3. TRENCHED IN 4".
4. CONTINUOUS BACKING/PLANKS ON IMPERVIOUS SURFACES.



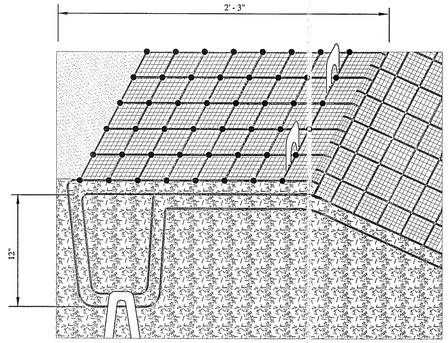


GENERAL NOTES:

1. TRIANGULAR SEDIMENT FILTER DIKES ARE USED IN AREAS WHERE THERE IS NO CONCENTRATION OF OF WATER IN A CHANNEL OR OTHER DRAINAGE WAY ABOVE THE BARRIER AND THE CONTRIBUTING DRAINAGE AREA IS LESS THAN ONE ACRE. THIS MEASURE IS EFFECTIVE ON PAVED AREAS WHERE INSTALLATION OF SILT FENCE IS NOT POSSIBLE OR WHERE VEHICLE ACCESS MUST BE MAINTAINED.
2. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
3. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
4. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 3-5" OPEN GRADED ROCK OR TOED-IN 6" WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 4".
5. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 6" WIRE STAPLES ON 2' CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 3/8 " DIAMETER RE-BAR WITH TEE ENDS.
6. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 6" TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
7. THE DIKE STRUCTURE SHALL BE MW40-6 GA. 6"X6" WIRE MESH, 18" ON A SIDE.
8. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
9. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6" AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
10. AFTER THE DEVELOPMENT SITE IS COMPLETLY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED WITH PERMISSION FROM ENGINEER OR OWNER. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 AVOVE.

02 Triangular Sediment Filter Dike

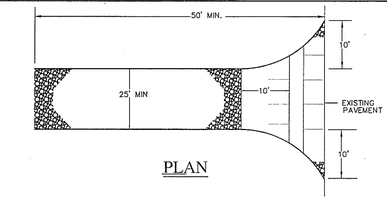
N.T.S.



1. BLANKETS AND MATTING SHALL BE USED AS AN AID TO CONTROL EROSION IN CHANNELS, ON INTERCEPTOR SWALES AND DIVERSION DIKES ON SHORT, STEEP SLOPES WHERE EROSION HAZARD IS HIGH AND PLANTING IS LIKELY TO BE SLOW TO ESTABLISH ADEQUATE PROTECTIVE COVER, ON TIDAL OR STREAM BANKS WHERE MOVING WATER IS LIKELY TO WASH OUT NEW VEGITATIVE PLANTINGS, AND USED TO CREATE EROSION STOPS ON STEEP HIGHLY ERODIBLE WATERCOURSES.
2. BLANKETS AND MATTING SHALL BE INSTALLED AND ANCHORED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL FASTENERES SHALL CONFORM TO THE RECOMMENDATIONS OF THE MANUFACTURER FOR THE SELECTED SOIL RETENTION BLANKET.
3. THE GROUND AREA SHALL BE MADE SMOOTH AND FREE FROM CLODS AND ROCKS MORE THAN 1.5 INCHES IN DIAMETER AND ANY FOREIGN MATERIAL THAT WILL PREVENT CONTACT OF THE PROTECTIVE MAT WITH THE SOIL SURFACE. THE GROUND SHALL ALSO BE FREE OF RUTS AND OTHER DEPRESSIONS.
4. IF THE PREPARED SEEDBED BECOMES CRESTED OR ERODED AS A RESULT OF RAIN OR IF ANY ERODED PLACES, RUTS OR DEPRESSIONS EXIST FOR ANY REASON, THE CONTRACTOR SHALL REWORK THE SOIL UNTIL IT IS SMOOTH AND RESEED THE AREA AT HIS OWN EXPENSE.
5. SOIL RETENTION BLANKETS SHALL BE PLACED, WHERE REQUIRED, WITHIN 24 HOURS AFTER SEEDING OR SODDING EROSION CONTROL OPERATIONS HAVE BEEN COMPLETED, OR AS APPROVED BY THE CONTRACTING OFFICER'S REPRESENTATIVE.

Blankets and Matting
03 Terminal Anchor Trench

N.T.S.



PLAN

PROFILE

LOCATION FOR INSTALLATION IS IDENTIFIED ON THE PROJECT'S EROSION CONTROL PLAN. AN ALTERNATE LOCATION MUST BE APPROVED BY THE PROJECT ENGINEERING.

REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.

THE MIN. WIDTH OF THE ENTRANCE/EXIT SHALL BE 20 FT. OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.

THE CONSTRUCTION ENTRANCE SHALL BE AT LEAST 50 FT. LONG. EXTEND BEYOND THE 30 FT MIN., AS NECESSARY, IF THE PAD IS TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC.

PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY.

DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.

ENTRANCE SHALL BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

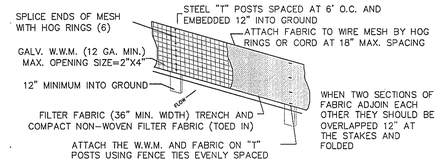
ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY BY CONTRATOR.

WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVED SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMNET BASIN.

ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

04 Stabilized Construction Entrance/Exit

N.T.S.



STAND ALONE

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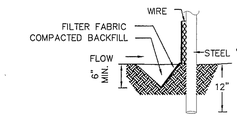

EXTENSION OF FABRIC TRENCH

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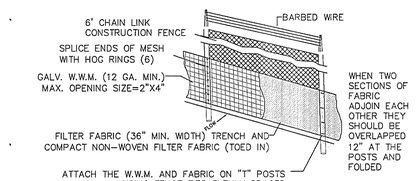


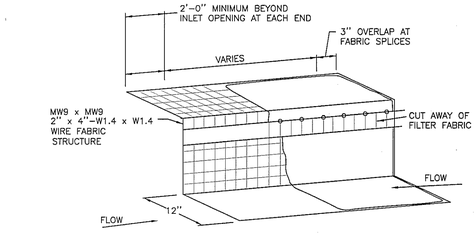
ON CONTRACTOR'S FENCE

N.T.S.

1. SILT FENCE SHALL NOT BE USED WHERE THERE IS A CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY. IF CONCENTRATED FLOW OCCURS AFTER INSTALLATION, PLACE A ROCK BERM IN THE AREAS OF CONCENTRATED FLOW.
2. SILT FENCE MATERIAL SHALL BE NONWOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC WITH NON-RAVELING EDGES. THE FABRIC SHALL BE NON-BIODEGRADEABLE, INERT TO MOST SOIL CHEMICALS, ULTRAVIOLET RESISTANT, UNAFFECTED BY MOISTURE OR OTHER WEATHER CONDITIONS, AND PERMEABLE TO WATER WHILE RETAINING SEDIMENT. THE FABRIC WIDTH SHALL BE 18" MIN.
3. FENCE POSTS SHALL BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FT. LONG WITH TEE CROSS SECTION, SURFACE PAINTED OR GALVANIZED. POSTS SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS SHALL BE EMBEDDED A MINIMUM OF 1 FT. DEEP AND SPACED NOT MORE THAN 8 FEET ON CENTER OR AS DIRECTED BY THE GOVERNMENT.
4. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHALL BE GALVANIZED 2"x4" WELDED WIRE, 12 GAUGE MINIMUM.
5. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHNICAL TRENCHER, SO THAT THE DOWN-SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G., PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP WITH 3 IN. OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE. THE TRENCH MUST BE A MIN. OF 6 IN. WIDE AND 6 IN. DEEP TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
6. SILT FENCE SHALL BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOWEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3-FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
7. SILT FENCE SHALL BE REMOVED, WITH THE GOVERNMENT'S APPROVAL, WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

08 Tempory Sediment Control Fence

N.T.S.



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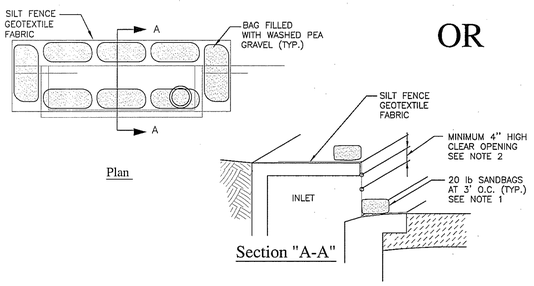
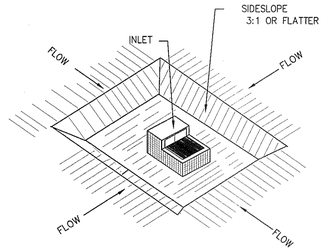


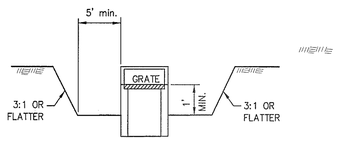
NOTES:

1. WHERE MINIMUM CLEARANCES CAUSE TRAFFIC TO DRIVE IN THE GUTTER, THE CONTRACTOR MAY SUBSTITUTE A 1" x 4" BOARD SECURED WITH CONCRETE NAILS 8" O.C. NAILED INTO THE GUTTER IN LIEU OF SANDBAGS TO HOLD THE FILTER DIKE IN PLACE. UPON REMOVAL, CLEAN ANY DIRT/DEBRIS FROM NAILING LOCATIONS, APPLY CHEMICAL SANDING AGENT AND APPLY NON-SHRINK GROUT FLUSH WITH SURFACE OF GUTTER.
2. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
3. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
4. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVERTOP THE CURB.
5. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

05 Silt Fence Inlet Protection



PROFILE

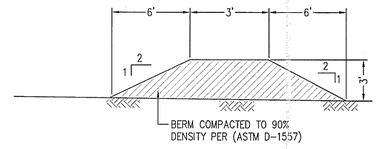


SECTION

1. THE EXCAVATED TRAP SHALL BE SIZED TO PROVIDE A MINIMUM STORAGE CAPACITY CALCULATED AT 500 CUBIC FEET. THE TRAP SHALL BE NO LESS THAN ONE FOOT NOR MORE THAN TWO FEET DEEP MEASURED FROM THE TOP OF THE INLET STRUCTURE.
2. WHERE AN INLET IS LOCATED SO AS TO RECEIVE CONCENTRATED FLOWS, THE BASIN SHALL HAVE A RECTANGULAR SHAPE IN A 3:1 (LENGTH/WIDTH) RATIO, WITH THE LENGTH ORIENTED IN THE DIRECTION OF THE FLOW.
3. SEDIMENT SHALL BE REMOVED AND RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP.

06 Inlet Sediment Trap

N.T.S.



07 Earthen Berm

NOTE:
NOT ALL DETAILS SHOWN ON THIS SHEET ARE BEING USED ON THE EROSION/ SEDIMENT CONTROL PLAN. ADDITIONAL DETAILS PROVIDED IF NEEDED DURING CONSTRUCTION FOR UNFORSEEN EVENTS.

BY | DATE | REVISIONS

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

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DESIGN BY: E.I.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
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CONTAINING: 169.87 ACRES±

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SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

GRADING STABILIATION AND STORM WATER POLLUTION PREVENTION DETAILS

(SHT 3 OF 3)

C-27.2

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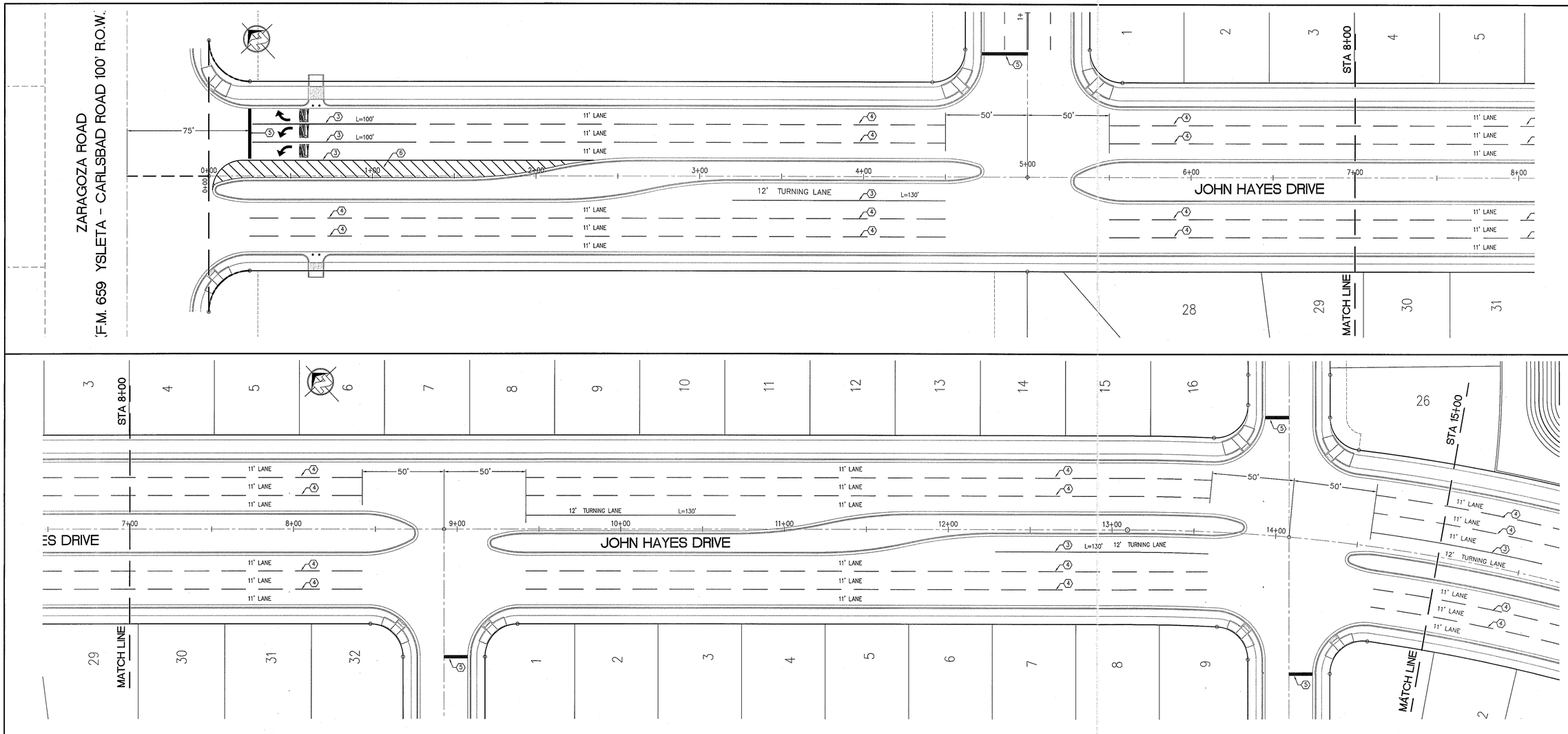

KEY NOTES

1. 4" SOLID WHITE THERMO PLASTIC TRAFFIC STRIPE
2. 4" DOUBLE SOLID THERMO PLASTIC YELLOW TRAFFIC STRIPES
3. 6" SOLID WHITE THERMO PLASTIC WHITE STRIPE
4. 4" DASHED WHITE THERMO PLASTIC TRAFFIC STRIPE
5. 12" WIDE SOLID WHITETHERMO PLASTIC TRAFFIC STRIPE
6. 6" SOLID WHITE THERMO PLASTIC WHITE STRIPES AT 45° ANGLE

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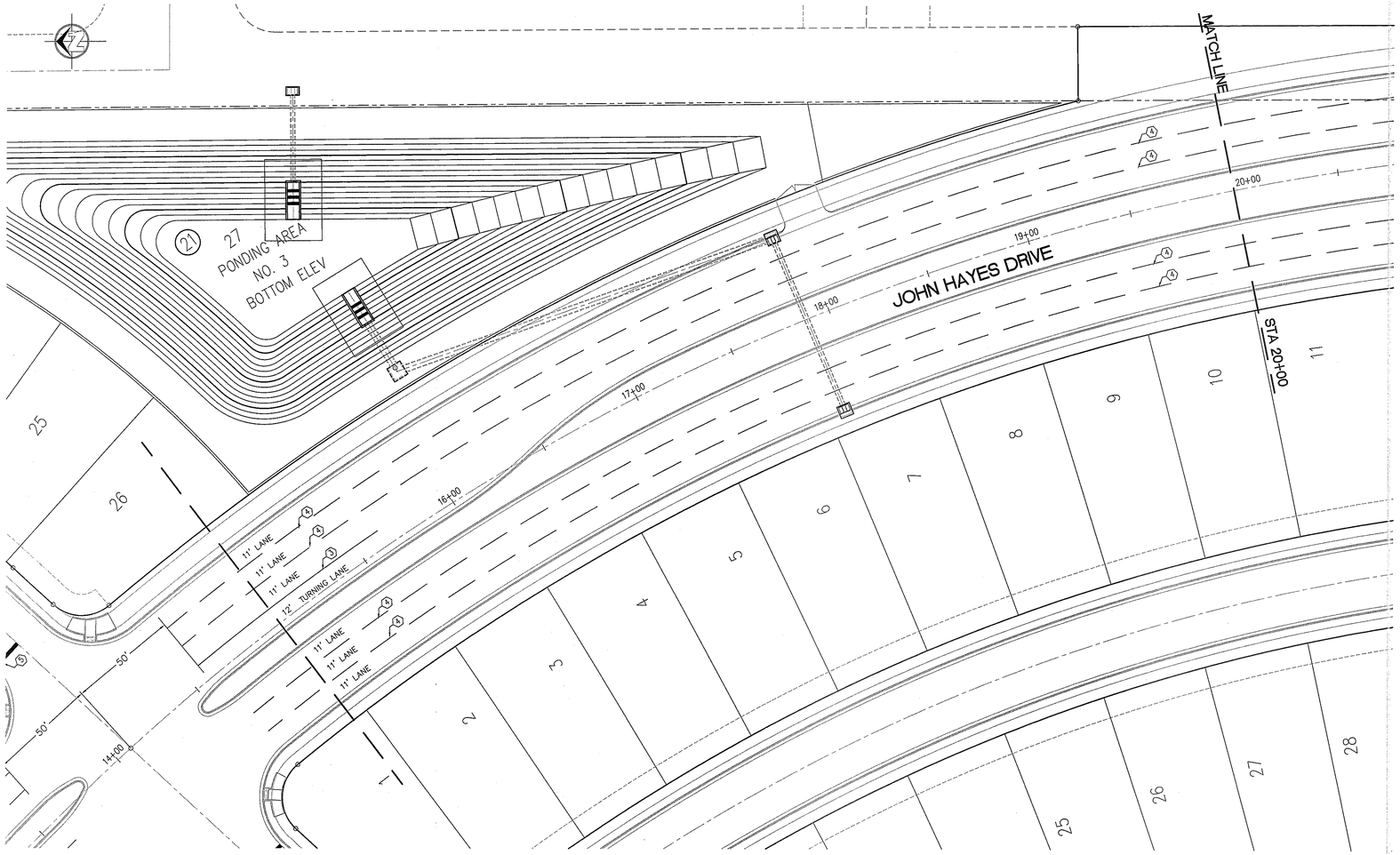
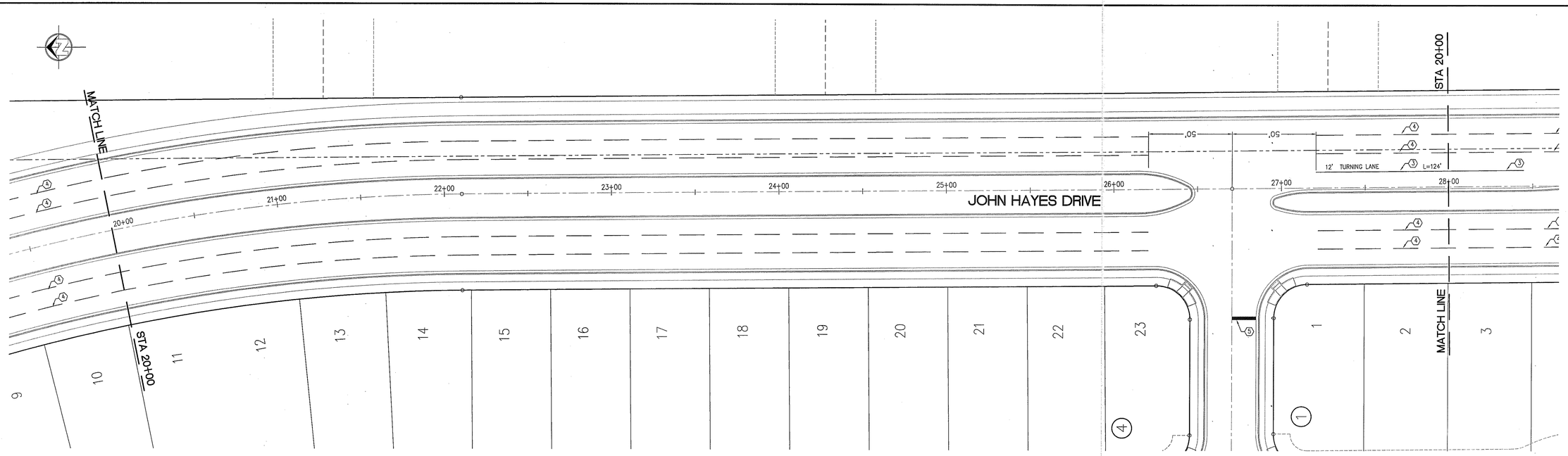
92105
LICENSED
PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

JOHN HAYES DR.
STRIPING PLAN

C-28.0





KEY NOTES

1. 4" SOLID WHITE THERMO PLASTIC TRAFFIC STRIPE
2. 4" DOUBLE SOLID THERMO PLASTIC YELLOW TRAFFIC STRIPES
3. 6" SOLID WHITE THERMO PLASTIC WHITE STRIPE
4. 4" DASHED WHITE THERMO PLASTIC TRAFFIC STRIPE
5. 12" WIDE SOLID WHITETHERMO PLASTIC TRAFFIC STRIPE

REVISIONS

	DATE	BY
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BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS
ELEVATION 3839.39 NAVD88 DATUM

SCALE: AS SHOWN
JOB NO.: 09-10-2991
DESIGN BY: E.T.
CHECKED BY: G.H.
DATE: NOVEMBER 2012

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PROJECT NAME

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37, AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2, TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 169.87 ACRES±

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
660 WESTWIND DRIVE
EL PASO, TEXAS
(915) 584-4457

SLI ENGINEERING, INC.

SLI LICENSE No. F-1902

STATE OF TEXAS
GEORGES S. HALLOUL
92105
LICENSED PROFESSIONAL ENGINEER
NOVEMBER 30, 2012

SHEET TITLE

JOHN HAYES DR. STRIPING PLAN

C-28.1

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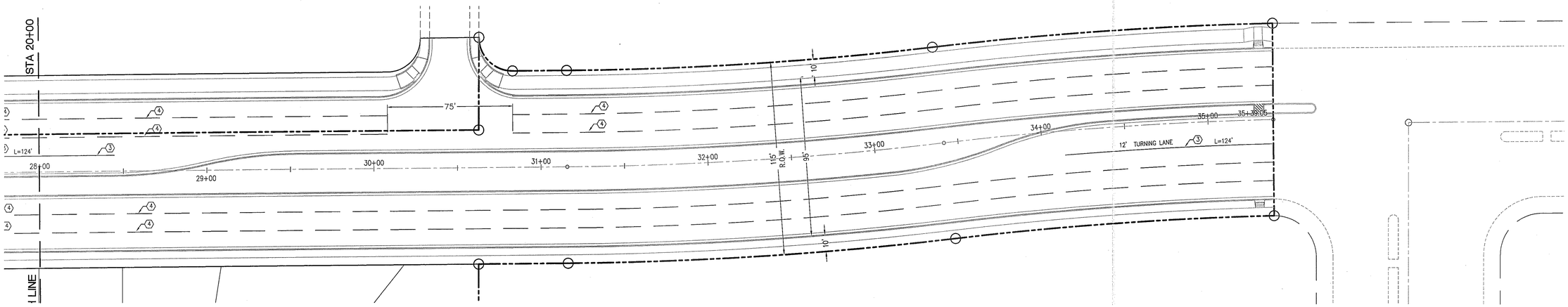

KEY NOTES

1. 4" SOLID WHITE THERMO PLASTIC TRAFFIC STRIPE
2. 4" DOUBLE SOLID THERMO PLASTIC YELLOW TRAFFIC STRIPES
3. 6" SOLID WHITE THERMO PLASTIC WHITE STRIPE
4. 4" DASHED WHITE THERMO PLASTIC TRAFFIC STRIPE
5. 12" WIDE SOLID WHITETHERMO PLASTIC TRAFFIC STRIPE
6. 6" SOLID WHITE THERMO PLASTIC WHITE STRIPES AT 45° ANGLE

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DATE	REVISIONS	BY

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

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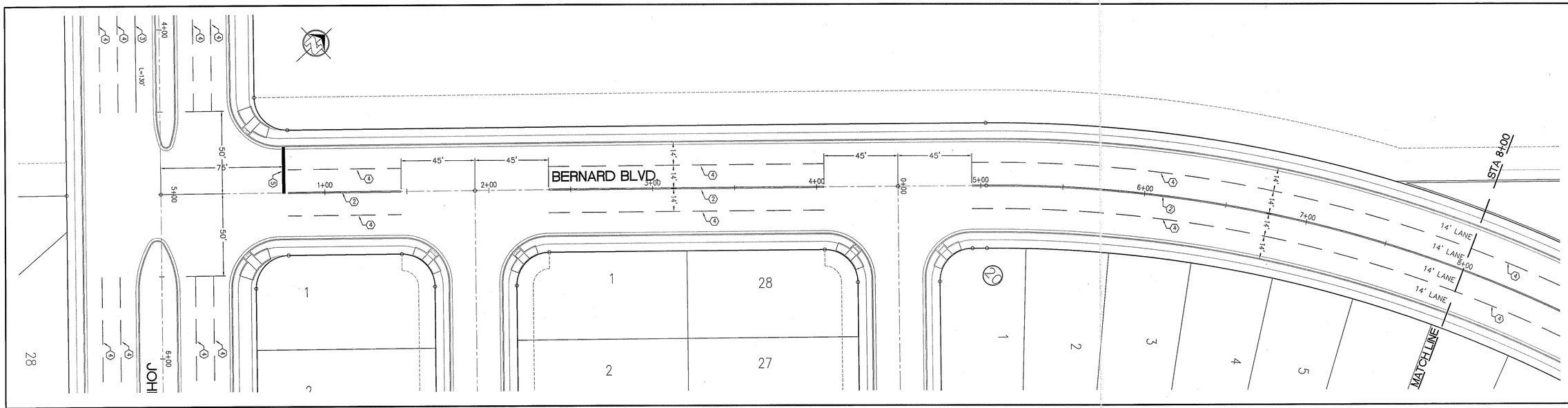
STATE OF TEXAS
GEORGES S. HALLOUL
92165
LICENSED
PROFESSIONAL ENGINEER

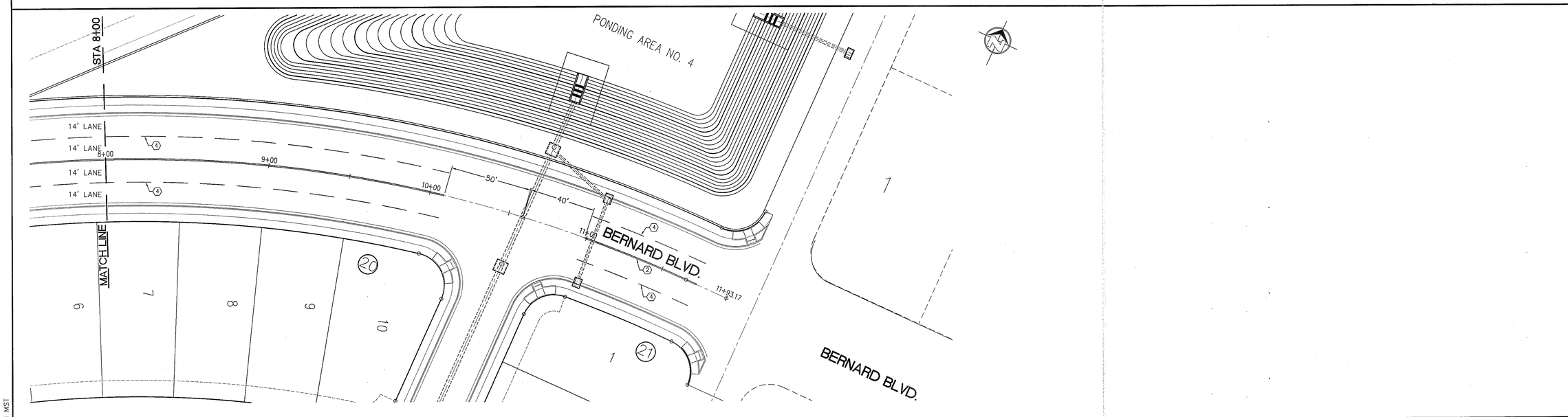
NOVEMBER 30, 2012

SHEET TITLE

JOHN HAYES DR.
STRIPING PLAN

C-28.2



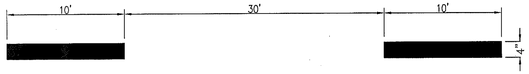


NOTE:
(1) CENTER LINE STRIPING FOR COLLECTOR ARTERIAL.

(2) PERMANENT PAVEMENT MARKING MATERIALS TO BE USED AS PER CITY SPECIFICATIONS.

(3) LANE MARKINGS TO BE FURNISHED AND INSTALLED MAY INCLUDE PERMANENT THERMAL-PLASTIC MARKING, TRAFFIC BUTTONS OR OTHER STRIPING MATERIALS APPROVED BY THE DEPUTY DIRECTOR FOR ENGINEERING.

DOUBLE YELLOW LINE



LANE LINES

KEY NOTES

1. 4" SOLID WHITE THERMO PLASTIC TRAFFIC STRIPE
2. 4" DOUBLE SOLID THERMO PLASTIC YELLOW TRAFFIC STRIPES
3. 6" SOLID WHITE THERMO PLASTIC WHITE STRIPE
4. 4" DASHED WHITE THERMO PLASTIC TRAFFIC STRIPE
5. 12" WIDE SOLID WHITE THERMO PLASTIC TRAFFIC STRIPE
6. 6" SOLID WHITE THERMO PLASTIC WHITE STRIPES AT 45° ANGLE

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BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

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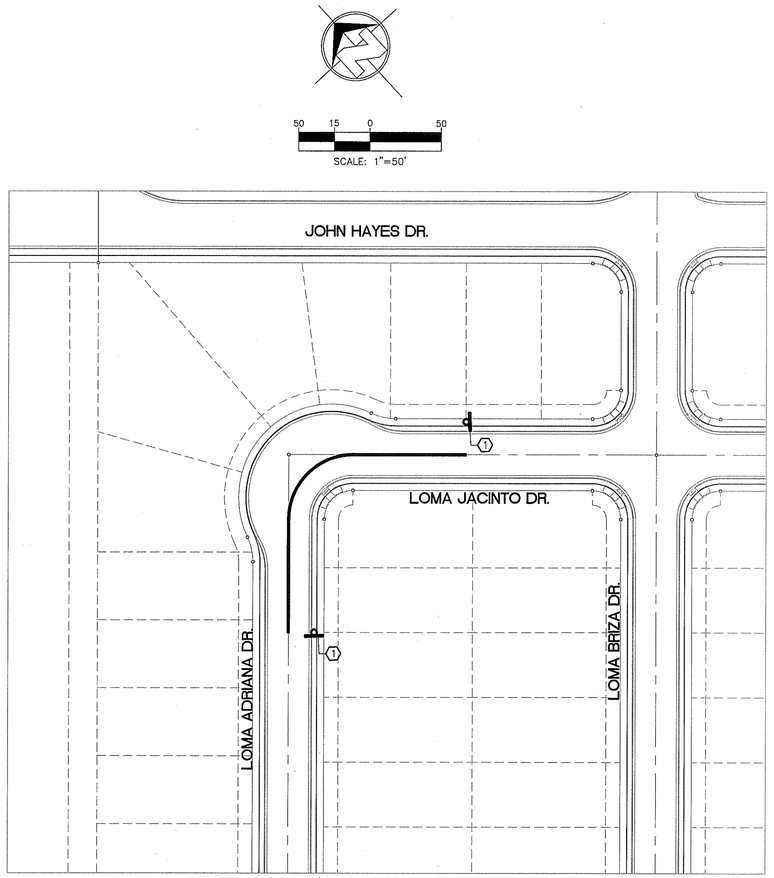
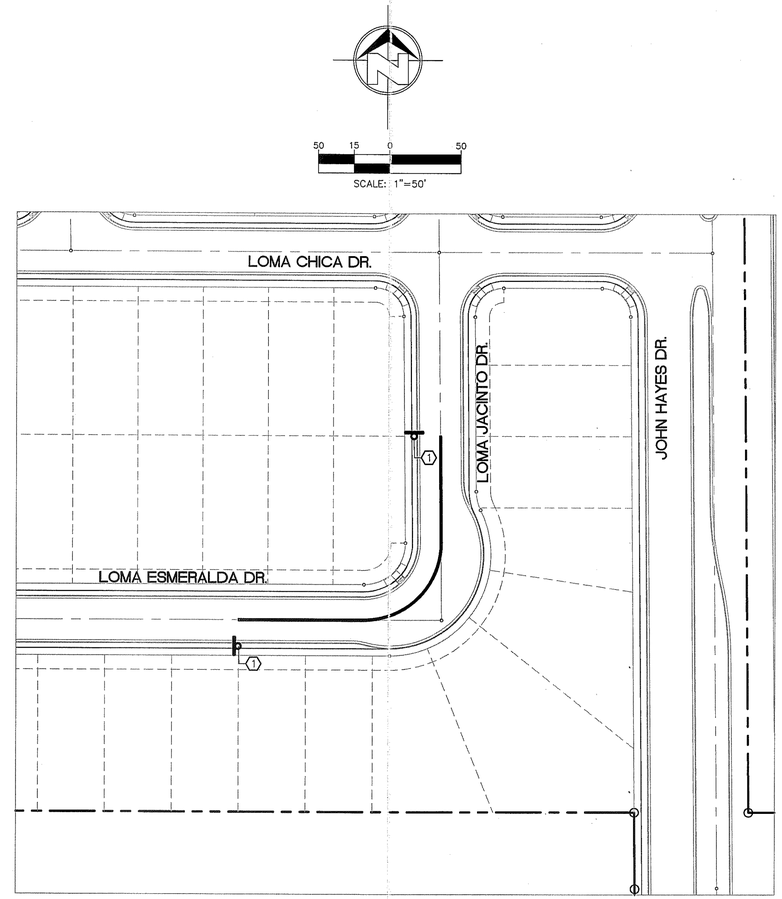
NOVEMBER 30, 2012

SHEET TITLE

BERNARD BLVD.
STRIPING PLAN

C-28.3





KEY NOTES

1 =W1-1 SIGNS (RIGHT OR LEFT)

=4" DOUBLE YELLOW STRIPES

DATE	REVISIONS	BY
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BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37, AND 38, BLOCK 79, TSP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION 3839.39 NAVD88 DATUM

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NOVEMBER 30, 2012

SHEET TITLE

TURNING HEELS STRIPING PLAN

C-28.4

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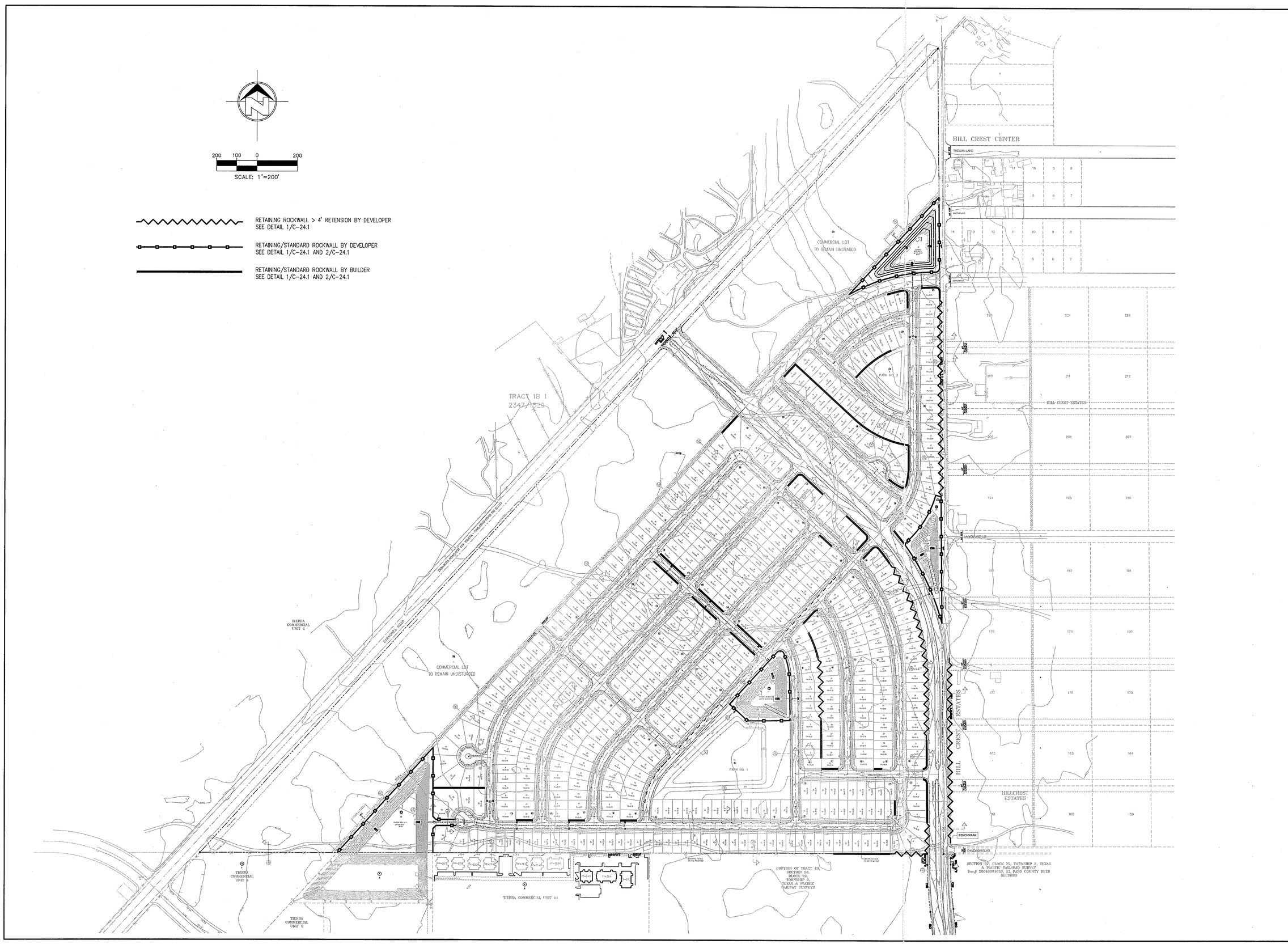

DATE	REVISIONS	BY

BENCHMARK

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STATE OF TEXAS
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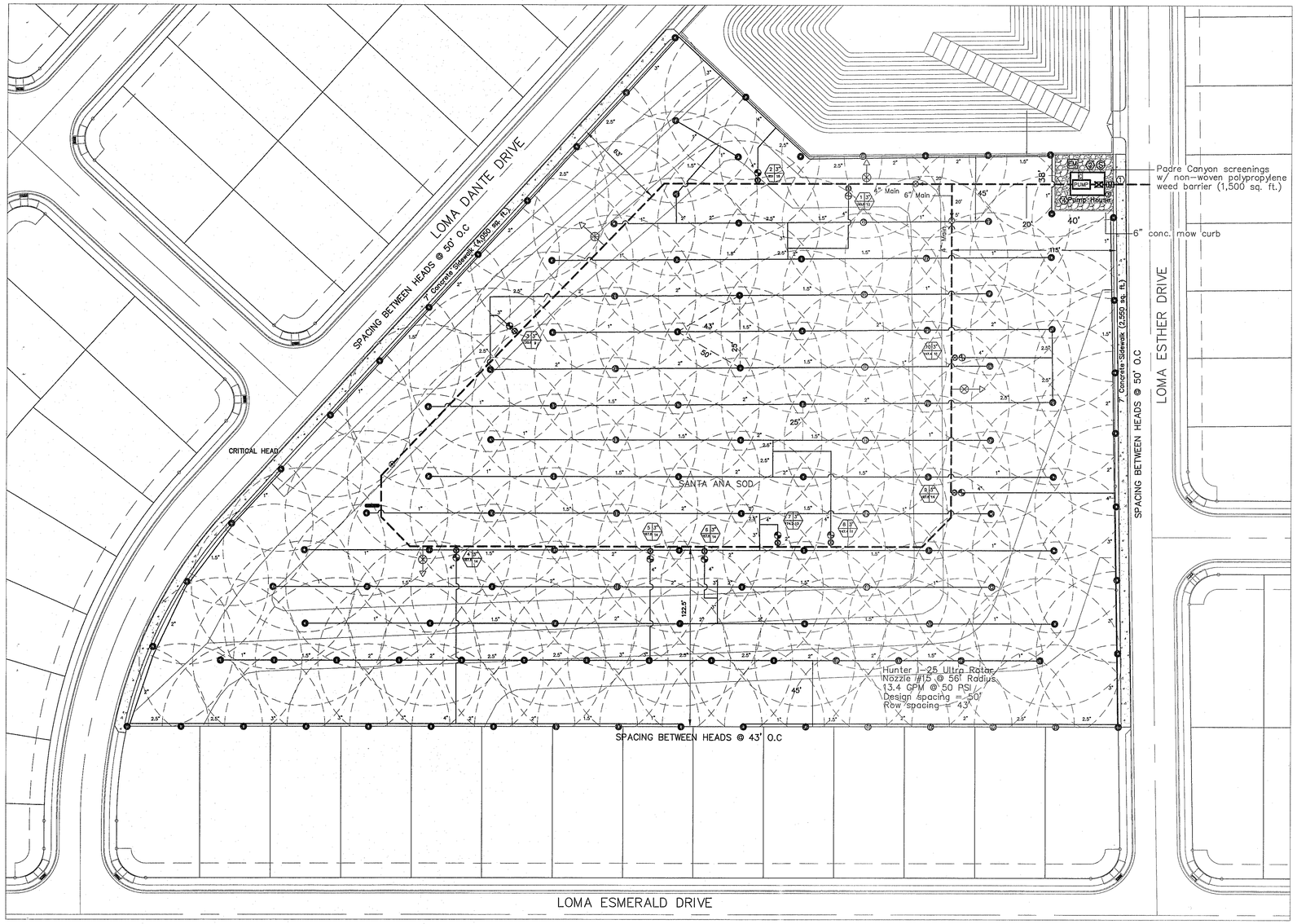
92105
LICENSED
PROFESSIONAL ENGINEER

NOVEMBER 30, 2012

SHEET TITLE

ROCKWALL
LAYOUT
PLAN

C-29.0



SCALE: 1"=40'

GENERAL NOTES

1. Contractor shall contact all utility companies & Park Dept. before any trenching operation, to locate and mark their lines in the area of work.
2. Electrical wire splices will not be permitted between controller and valves, all connections will be permitted in valve boxes only. No splices will be buried.
3. All manual valves shall be placed in valve boxes, placed at proper depth in relation to finish grade.
4. All electrical valves shall be installed in plastic valve boxes with locking covers. Valve boxes shall be manufactored by Carson Industries, model series 1419 box with 1419-2B hinged cover, bolt down.
5. Actual conditions in the field may necessitate adding or adjusting heads to insure uniform coverage and distribution, contractor shall be responsible for field changes with Landscape Designer, Licensed Irrigator and Parks Dept.
6. Contractor will not willfully install the irrigation system as designed, when it is obvious that field conditions exist that were not considered at time of designing the system. Any conditions noted as such shall be reported to the Landscape Designer, Licensed Irrigator and Parks Dept. If the contractor fails to do so, the contractor assumes full responsibility for any corrections needed.
7. All valves shall be tagged with a waterproof tag at each valve showing valve number and controller number as shown on plan. Label all wiring at controllers and panel.
8. Location of drip emitters shall be installed exactly as shown on plans. Piping and valves are diagrammatically shown and may vary with approval from Landscape Designer, Licensed Irrigator and Parks Dept.
9. All access boxes for drip emitters shall be installed flush with grade.
10. All access boxes, valve boxes and sprinkler heads along walkways within interior grounds of the site shall be installed min. 6" from the edge of all walkways to the back of the sprinkler head or valve box.
11. Meter shown within right-of-way for clarity only.
12. Each irrigation controller shall have an independent common wire of any other irrigation controller.
13. All trenching shall be a 10'-6" min. distance from the center of the trunk of any tree.
14. Drip distribution tubing shall be placed in a circular pattern around the trunk of each tree, min. 24" from the trunk. Use 1/4" tubing stake at each tube to hold the end of the tubing in place.
15. All unsuitable excacavated materials from trenches shall be removed from the project site. Approved backfill shall be used to backfill trenches.
16. Contractor shall verify the exact location of all existing and proposed utilities and all site conditions prior to beginning construction. Any damage caused by the Contractor shall be repaired or replaced at no additional cost to owner.
17. Locate all heads and valves away from low spots or areas of drainage flow.
18. Electric control wire (#14 gauge) and common ground (#12 gauge) shall be direct burial, color coded and all connections shall be waterproofed. Provide expansion coils at all valves and 200' on center maximum. Provide separate common wire for each controller. No splicing will be permitted between valve and controller.
19. All piping/wiring running beneath paved surfaces (driveways, sidewalks, etc.) shall be installed in Class 200 PVC sleeve. Sleeve shall be of the size so that the inside diameter of the sleeve is 2 times greater than that of the outer diameter of the item installed in the sleeve.
20. Sleeves must extend 24" beyond edge of paved or concrete surfaces and ends wrapped and taped with 4 mil plastic.
21. Contractor shall fine tune and adjust the irrigation system so that no water/spray will run onto street, walks, or hit any building, walls, etc. This shall include adjusting heads, nozzles, spray arcs, radius, etc.
22. Contractor shall provide the owner with as-built drawings on mylar prior to approval of final payment.
23. Use only Lasco fitting on all 45's and tees.
24. Remove non-biodegradable netting from sod during installation.

IRRIGATION NOTES

1. Testing:
   a. Pressure Test Main Line – after all main line piping, related work and installation of all irrigation remote control valves is completed for a period of 24-hours. Test main water line at 50 psi above static pressure or design pressure, based on highest value, with a maximum loss of 1% to pass. Water main must be pressurized hydraulically and not pneumatically.
   b. Pressure Test Lateral Lines – for a period of 2-hours, test lateral lines at static or design pressure, based on highest value, with a maximum loss of 2% to pass. Lateral lines must be pressurized hydraulically.
   c. The main line pressure test must be include a licensed Irrigation Inspector and Parks Department Representative..
   d. Perform system testing upon completion of each section. Make necessary repairs and re-test repaired sections as required.
   e. test and demonstrate the controller by operating appropriate day, hour, and station selection features as required to automatically start and shut down irrigation cycles to accommodate plant requirements and weather conditions.
2. For additional irrigation requirements not set forth here, use the approved Parks Design and Construction Guidelines.

MATERIALS

A. General:
   1. Provide only new material, without flaws or defects of the highest quality of their specified class and kind.
   2. Comply with pipe sizes indicated. No substitution of smaller pipes will be permitted. Larger pipe sizes may be used subject to acceptance by the Designer (Landscape Architect) and Parks and Recreation Staff. Remove damage and defective pipe from the site immediately.
   3. Provide pipe continuously and permanently marked with manufacturer's name or trademark, size, schedule, type of pipe, working pressure at 73 degrees F., and National Sanitation Foundation (NSF) approval.

B. Plastic pipe, fittings, and connections:
   1. Polyvinyl chloride pipe: ASTM D2241, rigid, un-plasticized PVC, extruded from virgin parent material. Provide pipe homogeneous throughout and free from visible cracks, holes, foreign materials, blisters, wrinkles, and dents.
      a. Distribution laterals: SDR 21, Class 200.
      b. Pressure mains: PVC Schedule 40 IPS Plastic Pipe for 4-inch or smaller main lines.
      c. Pressure mains: PVC Class 200 IPS Plastic Pipe for main lines larger than 4-inch.
   2. PVC Pipe Fittings: ASTM D2241 Schedule 40 PVC molded fittings suitable for solvent weld, or screwed connections. Fittings made of other materials are not permitted.
      a. Size slip fitting socket and taper to permit a dry un-softened pipe end to be inserted no more than halfway into the socket. Saddle fittings are not permitted.
      b. Schedule 80 PVC pipe may be threaded.
      c. Use male adapters for plastic to metal connections. Hand tighten male adapters plus one turn with a strap wrench.
   3. Insert fittings: ASTM D2466 Insert type fittings.
      a. Saddle and cross fittings not permitted.

C. Soil and Turf:
   1. A site inspection by the Parks Department will be made to determine if one foot of top soil is in place or will need to be imported.
   2. If caliche is found, it will be ripped to a two foot depth below the bottom of the one foot layer of top soil.
   3. Use Santo Ana Sod.

Wind Deration for Rotary Sprinklers
Spacing with wind deration as follows:

Miles/Hour	Multiply Diameter in Table by:	
	△	□
5	.55	.50
10	.50	.45

Exemplary Rotary Sprinkler Performance page 287

Turf Irrigation Manual – The Complete Guide to Landscape Irrigation Design
By Richard B. Choate

TRIANGULATION SPACING USED:
DESIGN SPACING – 50'
ROW SPACING – 43'

This design complies with the City of El Paso Parks Department Design Standards that restricts spacing to a maximum of 50 feet and requires a 10 percent overspray.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Chapter 344 – Landscape Irrigation
Subchapter A: Definitions
344.1. Definitions
(44) WATER CONSERVATION – The design, installation, service, and operation of an irrigation system in a manner that prevents the waste of water, promotes the most efficient use of water, and applies the least amount of water that is required to maintain healthy individual plant material or turf, reduce dust, and control erosion.
344.60. WATER CONSERVATION
All irrigation systems shall be designed, installed, maintained, altered, repaired, serviced, and operated in a manner that will promote water conservation as defined in 344.1 (44) of this title (relating to Definitions).

07/01/12 COMPLY W/REDS
01/07/13 Revisions Red lines

BRISA DEL ESTE PARK
LOMAS DEL ESTE SUBDIVISION
3701 LOMA ESTHER DRIVE
LOT 16, BLOCK 8
(220,883 S.F./5.07 AC.)

01/09/13
STATE OF TEXAS
REYMUNDO MARTINEZ
9000
LICENSED IRRIGATOR

PARKS DEPARTMENT
REVIEWED BY
Jan. 14, 2013

LANDSCAPE IRRIGATION
Drawn/Design by:
Design/Checked by: RV
PROJECT:
LI20120501LDE
PHASE:
PRELIM-FINAL
Sheet no.
LI-1
Sheet no. 1 of 9

IRRIGATION LEGEND

⊠	4" FEBCO 825YD MASTER SERIES REDUCED PRESSURE ASSEMBLY ENCLOSED IN TUFF SHED INSULATED STRUCTURE
⊗	BRASS BALL ISOLATION VALVE IN CARSON H.D. 11X17 BOX
M	4" WATER METER (INSTALLED BY DEVELOPER)
	WEATHERMATIC 8200CR-10 3" VALVE
ⓢ	HUNTER RAIN-CLIK RAIN SENSOR Mounted on 10' pole
EM	ELECTRIC METER
C	RAINBIRD ESP-24 SAT TW STATION CONTROLLER
	LATERAL PIPE CLASS 200 IPS PLASTIC PIPE (SIZE AS NOTED ON PLAN)
	4" SCHEDULE 40 IPS PLASTIC PIPE UNLESS OTHERWISE NOTED
◁⊗	1" Buckner DBL Lug QC Snap Lok w/Male brass stabalizer elbow/with 11"x17" purple boxes and bolt down covers. Install water proof tags: "non-potable, not safe for drinking."
●	HUNTER I-25 ULTRA STAINLESS STEEL GEAR DRIVEN ROTOR NOZZLES: #15 (GRAY) @ 50 PSI 13.4 GPM 56' Radius
	PUMP- BERKELEY B2-1/2ZRM 15 HP 375 GPM 110 FT. OF HD. OR EQUAL
A B C D	A) VALVE # B) VALVE SIZE C) GPMS D)HEADS
PH	PUMP HOUSE TO BE LARGE ENOUGH TO HOUSE PUMP AND BACKFLOW
⊗	PVC BALL VALVE (SIZE SAME AS LATERAL)

LOT 16, BLOCK 8 DESIGN/STATIC PRESSURE 93.12/50 PSI
PRESSURE LOSS CALCULATIONS: STATION 4 SECTION 187.6 GPM

4" Water meter @ 375 gpm	11.38 Psi Loss
4" Type 'K' Copper 25' @ 375 gpm	1.03 Psi Loss
4" Febco 825YD Backflow @ 375 gpm	12.00 Psi Loss
6" C150 200 PSI PVC Pipe 110' @ 375 gpm	0.46 Psi Loss
4" SCHEDULE 40 IPS PVC Pipe 540' @ 375 gpm (looped)	7.40 Psi Loss
3" Weathermatic 8200 CR-10 Valve @ 187.6 gpm	4.0 Psi Loss
4" C150 200 PSI PVC Pipe 120' @ 187.6 gpm	0.91 Psi Loss
4" C150 200 PSI PVC Pipe 17' @ 134 gpm	0.07 Psi Loss
3" C 150 200 PSI PVC Pipe 43 @ 120.6 gpm	0.49 Psi Loss
3" C 150 200 PSI PVC Pipe 43' @ 107.2 gpm	0.43 Psi Loss
3" C 150 200 PSI PVC Pipe 43' @ 93.8 gpm	0.31 Psi Loss
2.5" C 150 200 PSI PVC Pipe 43' @ 80.4 gpm	0.50 Psi Loss
2.5" C 150 200 PSI PVC Pipe 37' @ 67 gpm	0.37 Psi Loss
2" C 150 200 PSI PVC Pipe 50' @ 53.6 gpm	0.90 Psi Loss
2" C 150 200 PSI PVC Pipe 50' @ 40.2 gpm	0.51 Psi Loss
1.5" C 150 200 PSI PVC Pipe 50' @ 26.8 gpm	0.79 Psi Loss
1" C 150 200 PSI PVC Pipe 50' @ 17.8 gpm	0.37 Psi Loss
TOTAL PRESSURE LOSS	43.12 Psi Loss
AVAILABLE PRESSURE LESS THE LOSS (50-43.12)	6.88 Psi
PRESSURE REQUIRED AT CRITICAL HEAD	50.00 Psi

* Pump requirements (psi at critical head less available) 50-6.88=43.12 psi
43.12 psi x 2.31 ft. hd.= 99.60 (add 10%) = 109.57 ft. hd. @ 375 GPM

NOTE: PROJECT EABPRJB3806258 TO BE COORDINATED WITH TDLR TO INSURE COMPLIANCE WITH TAS REQUIREMENTS TO INCLUDE INSPECTION, AND CERTIFICATE OF SUBSTANTIAL COMPLETION.

NOTE: PARK IMPROVEMENTS (SIDEWALKS, RAMPS, AND PAVED HIKE/BIKE TRAILS) TO BE COMPLIANT WITH ACCESSSIBILITY CRITERIA AS SET FORTH IN ADAAG STANDARDS AS MANDATED BY FEDERAL GOVERNMENT AND ARCHITECTURAL BARRIERS (TEXAS ACCESSIBILITY STANDARDS).

PARK
CITY PARK PRECIPITATION SCHEDULE

STATION NO.	TOTAL GPM	PRECIPITATION RATE	WATERING REQUIREMENTS	HEAD TYPE	NO. OF HEADS	NOZZLE SIZE	VALVE SIZE
1	160.8	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	12	#15	3"
2	187.6	1.19 IN/HR	60.5 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	14	#15	3"
3	120.6	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	9	#15	3"
4	187.6	1.19 IN/HR	60.5 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	14	#15	3"
5	187.6	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	14	#15	3"
6	107.6	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	14	#15	3"
7	174.2	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	13	#15	3"
8	147.4	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	11	#15	3"
9	187.6	1.19 IN/HR	60.5 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	14	#15	3"
10	147.4	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	11	#15	3"

Total Run Time: 10 hrs.

WATERING SCHEDULE FOR MONTH OF JUNE (100%)

Zones 1 & 3 = 120 minutes
281.4 gpm

Zones 2 & 4 = 60 minutes
375 gpm

Zones 5 & 6 = 120 minutes
375 gpm

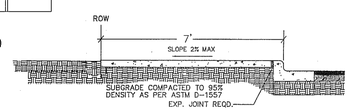
Zones 7 & 8 = 120 minutes
321.6 gpm

Zones 9 = 60 minutes
187.6 gpm

Zones 10 = 120 minutes
147.4 gpm

KEYED NOTES

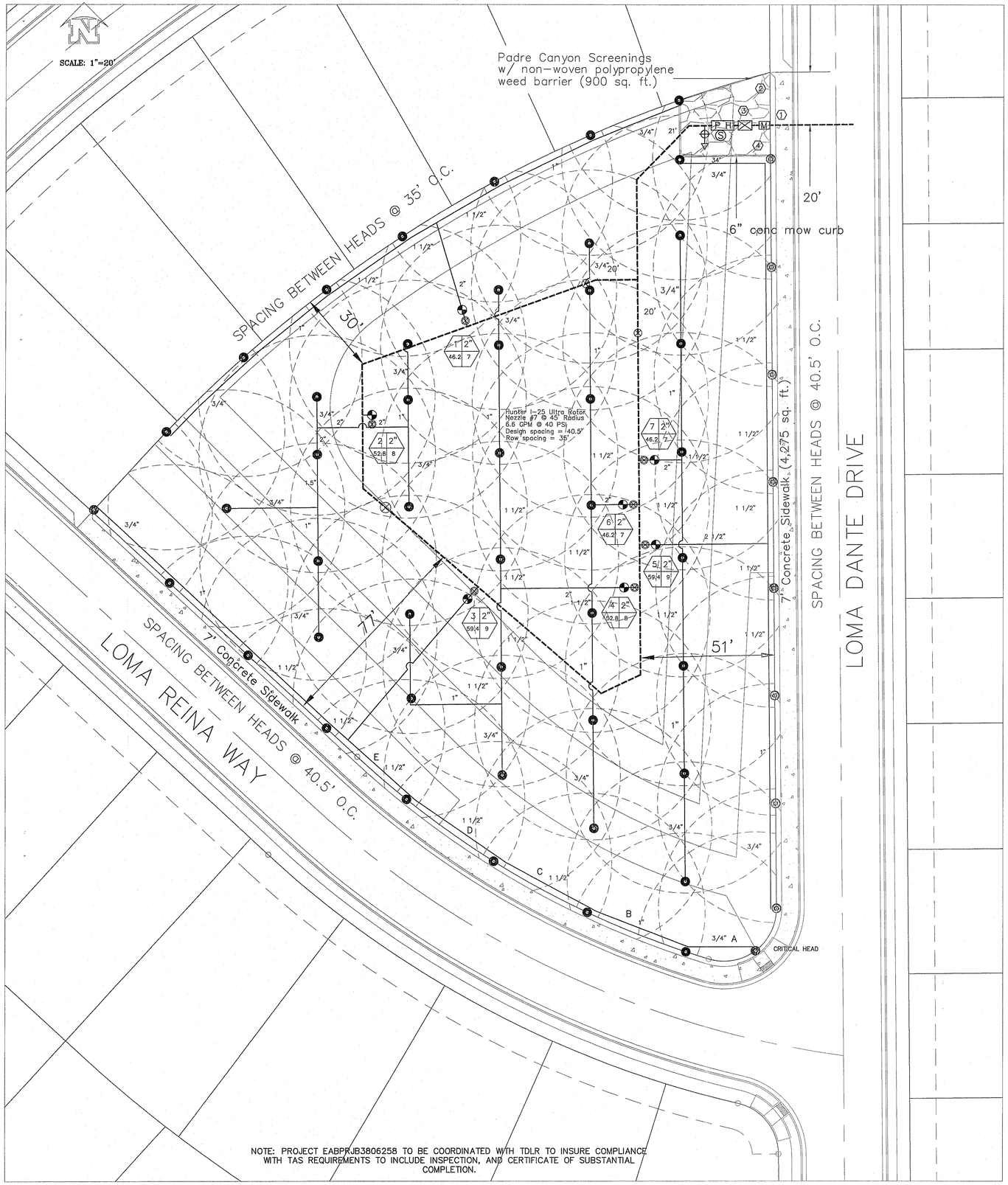
1. Irrigation system top point: verify 50 psi and 356 gpm (pump will be required). Notify owner in writing if the above criteria not met.
2. Controller Location: 110V Power by Developer. Coordinate exact location in field.
3. Coordinate with contractor for enclosures on backflow.
4. Contractor to obtain the building permit for the Pump House and for all electrical work and irrigation permit; coordinate and obtain all related inspections and finalize building permit card and obtain certificate of completion.
5. No signs, fire hydrants, lights, NDCBU, electrical/water boxes, telephone pedestals, shall be placed into proposed perimeter sidewalk.



SIDEWALK SECTION ADJACENT TO CURB AND GUTTER
SCALE: NTS

NOTES:
1. CONCRETE SIDEWALK SHALL BE 3000 P.S.I. MINIMUM AND 4" THICK.
2. DUMMY JOINTS AT 5' ON CENTER FOR SIDEWALK.
3. EXPANSION MATERIAL REQUIRED AT 20' O.C. FOR SIDEWALKS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.

NOTE: IRRIGATION IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY TCEQ) (MC-178), P.O. BOX 13087, AUSTIN, TEXAS 78711-3087, TCEQ'S WEB SITE IS: www.tceq.state.tx.us.



NOTE: PROJECT EABPRJB3806258 TO BE COORDINATED WITH TDLR TO INSURE COMPLIANCE WITH TAS REQUIREMENTS TO INCLUDE INSPECTION, AND CERTIFICATE OF SUBSTANTIAL COMPLETION.

NOTE: PARK IMPROVEMENTS (SIDEWALKS, RAMPS, AND PAVED HIKE/BIKE TRAILS) TO BE COMPLIANT WITH ACCESSSIBLITY CRITERIA AS SET FORTH IN ADAAG STANDARDS AS MANDATED BY FEDERAL GOVERNMENT AND ARCHITECTURAL BARRIERS (TEXAS ACCESSIBILITY STANDARDS).

LOT 8, BLOCK 24 PRESSURE LOSS CALCULATIONS: STATION 3 SECTION	Static Pressure 55 PSI 59.4 GPM
2" Water meter @ 59.4 gpm	2.640 Psi Loss
2" Type 'K' Copper 35' @ 59.4 gpm	1.292 Psi Loss
2" Febco 825YA Backflow @ 59.4 gpm	12.00 Psi Loss
2 1/2" SCHEDULE 40 PVC Pipe 105' @ 59.4 gpm (MAIN)	1.237 Psi Loss
2 1/2" SCHEDULE 40 PVC Pipe 195' @ 59.4 gpm (LOOPED)	1.026 Psi Loss
2" Weathermatic 8200 CR-10 Valve @ 59.4 gpm	2.000 Psi Loss
(F) 2 1/2" C 150 200 PSI PVC Pipe 79.85 @ 59.4 gpm	0.645 Psi Loss
(E) 1 1/2" C 150 200 PSI PVC Pipe 32' @ 33 gpm	0.666 Psi Loss
(D) 1 1/2" C 150 200 PSI PVC Pipe 40.5' @ 26.4 gpm	0.558 Psi Loss
(C) 1 1/2" C 150 200 PSI PVC Pipe 40.5' @ 19.8 gpm	0.327 Psi Loss
(B) 1" C 150 200 PSI PVC Pipe 40.5' @ 13.2 gpm	0.955 Psi Loss
(A) 3/4" C 150 200 PSI PVC Pipe 26.5' @ 6.6 gpm	0.589 Psi Loss
TOTAL PRESSURE LOSS	23.935 Psi Loss
AVAILABLE PRESSURE LESS THE LOSS (55-23.935)	31.065 Psi
PRESSURE REQUIRED AT CRITICAL HEAD	40.00 Psi

Pump required - (Pressure required (40) Psi less available (31.065) = 8.935 Psi
8.935 Psi x 2.31 = 20.640 Ft. Hd. @ 59.4 GPM x (10%) =
22.703 Ft. Hd. @ 65.34 GPM

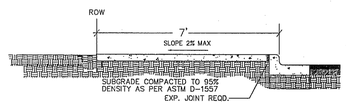
IRRIGATION LEGEND

⊠	2" FEBCO 825YA MASTER SERIES REDUCED PRESSURE ASSEMBLY
⊗	BRASS BALL ISOLATION VALVE IN CARSON H.D. 11X17 BOX
M	2" WATER METER (INSTALLED BY DEVELOPER)
⊕	WEATHERMATIC 8200CR-10 2" VALVE
S	HUNTER RAIN-CLIK RAIN SENSOR Mounted on 10' pole
EM	ELECTRIC METER
C	RAINBIRD ESP-24 SAT TW STATION CONTROLLER
	LATERAL PIPE CLASS 200 IPS PLASTIC PIPE (SIZE AS NOTED ON PLAN)
	2.5" SCHEDULE 40 IPS PLASTIC PIPE
△	1" Buckner DBL Lug QC Snap Lok w/Male brass stabalizer elbow/with 11" x 17" boxes that have hinged and bolt down purple cover. Install weather proof tag: "non-potable, not safe for drinking."
◎	HUNTER I-25 ULTRA STAINLESS STEEL GEAR DRIVEN ROTOR NOZZLES: #7 @ 40 PSI 6.6 GPM 45' Radius
	PUMP REQUIRED (See sheet 3 of 9 for typical layout in shed)
A/B	A) VALVE # B) VALVE SIZE C) GPMS D)HEADS
⊗	PVC BALL VALVE SIZE SAME AS BRASS VALVE
P.H.	PUMP HOUSE

CITY PARK PRECIPITATION SCHEDULE

STATION NO.	TOTAL GPM	PRECIPITATION RATE	WATERING REQUIREMENTS	HEAD TYPE	NO. OF HEADS	NOZZLE SIZE	VALVE SIZE
1	46.2	1.24 IN/HR	58 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	7	#7	2"
2	52.8	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	8	#7	2"
3	59.4	1.24 IN/HR	58 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	9	#7	2"
4	52.8	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	8	#7	2"
5	59.4	1.24 IN/HR	58 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	9	#7	2"
6	46.2	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	7	#7	2"
7	46.2	0.60 IN/HR	120 MINS. PER DAY FOR AN APPLICATION OF 1.2" PER DAY	ADJ.	7	#7	2"
					8		

Total Run Time: 10 hrs. 54 min.



SIDEWALK SECTION ADJACENT TO CURB AND GUTTER
SCALE: NTS

NOTES:
1. CONCRETE SIDEWALK SHALL BE 3000 P.S.I. MINIMUM AND 4" THICK.
2. DUMMY JOINTS AT 5' ON CENTER FOR SIDEWALK.
3. EXPANSION MATERIAL REQUIRED AT 20' O.C. FOR SIDEWALKS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.

Wind Deration for Rotary Sprinklers
Spacing with wind deration as follows:

Miles/Hour	Multiply Diameter in Table by:	
	△	□
5	.55	.50
10	.50	.45

Exemplary Rotary Sprinkler Performance page 287

Turf Irrigation Manual - The Complete Guide to Landscape Irrigation Design
By Richard B. Choate

Triangular spacing design
Design spacing = 45° radius x 2 = 90° x .50 = 45' (Head to Head coverage)
Row spacing = Design spacing (45') x .866 = 39'

TRIANGULAR SPACING USED:

DESIGN SPACING - 40.5'
ROW SPACING - 35'

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Chapter 344 - Landscape Irrigation
Subchapter A: Definitions
344.1. Definitions
(44) WATER CONSERVATION - The design, installation, service, and operation of an irrigation system in a manner that prevents the waste of water, promotes the most efficient use of water, and applies the least amount of water that is required to maintain healthy individual plant material or turf, reduce dust, and control erosion.

344.60. WATER CONSERVATION
All irrigation systems shall be designed, installed, maintained, altered, repaired, serviced, and operated in a manner that will promote water conservation as defined in 344.1 (44) of this title (relating to Definitions).

GENERAL NOTES

1. Contractor shall contact all utility companies & Park Dept. before any trenching operation, to locate and mark their lines in the area of work.
2. Electrical wire splices will not be permitted between controller and valves, all connections will be permitted in valve boxes only. No splices will be buried.
3. All manual valves shall be placed in valve boxes, placed at proper depth in relation to finish grade.
4. All electrical valves shall be installed in plastic valve boxes with locking covers. Valve boxes shall be manufactored by Carson Industries, model series 1419 box with 1419-2B hinged cover, bolt down.
5. Actual conditions in the field may necessitate adding or adjusting heads to insure uniform coverage and distribution, contractor shall be responsible for field changes with Landscape Designer, Licensed Irrigator and Parks Dept.
6. Contractor will not willfully install the irrigation system as designed, when it is obvious that field conditions exist that were not considered at time of designing the system. Any conditions noted as such shall be reported to the Landscape Designer, Licensed Irrigator and Parks Dept. If the contractor fails to do so, the contractor assumes full responsibility for any corrections needed.
7. All valves shall be tagged with a waterproof tag at each valve showing valve number and controller number as shown on plan. Label all wiring at controllers and panel.
8. Location of drip emitters shall be installed exactly as shown on plans. Piping and valves are diagrammatically shown and may vary with approval from Landscape Designer, Licensed Irrigator and Parks Dept.
9. All access boxes for drip emitters shall be installed flush with grade.
10. All access boxes, valve boxes and sprinkler heads along walkways within interior grounds of the site shall be installed min. 6" from the edge of all walkways to the back of the sprinkler head or valve box.
11. Meter shown within right-of-way for clarity only.
12. Each irrigation controller shall have an independent common wire of any other irrigation controller.
13. All trenching shall be a 10'-6" min. distance from the center of the trunk of any tree.
14. Drip distribution tubing shall be placed in a circular pattern around the trunk of each tree, min. 24" from the trunk. Use 1/4" tubing stake at each tube to hold the end of the tubing in place.
15. All unsuitable excavated materials from trenches shall be removed from the project site. Approved backfill shall be used to backfill trenches.
16. Contractor shall verify the exact location of all existing and proposed utilities and all site conditions prior to beginning construction. Any damage caused by the Contractor shall be repaired or replaced at no additional cost to owner.
17. Locate all heads and valves away from low spots or areas of drainage flow.
18. Electric control wire (#14 gauge) and common ground (#12 gauge) shall be direct burial, color coded and all connections shall be waterproofed. Provide expansion coils at all valves and 200' on center maximum. Provide seperate common wire for each controller. No splicing will be permitted between valve and controller.
19. All piping/wiring running beneath paved surfaces (driveways, sidewalks, etc.) shall be installed in Class 200 PVC sleeve. Sleeve shall be of the size so that the inside diameter of the sleeve is 2 times greater than that of the outer diameter of the item installed in the sleeve.
20. Sleeves must extend 24" beyond edge of paved or concrete surfaces and ends wrapped and taped with 4 mil plastic.
21. Contractor shall fine tune and adjust the irrigation system so that no water/spray will run onto street, walks, or hit any building, walls, etc. This shall include adjusting heads, nozzles, spray arcs, radius, etc.
22. Contractor shall provide the owner with as-built drawings on mylar prior to approval of final payment.
23. Use only Lasco fitting on all 45's and tees.

IRRIGATION NOTES

1. Testing:
   a. Pressure Test Main Line - after all main line piping, related work and installation of all irrigation remote control valves is completed for a period of 24-hours. Test main water line at 50 psi above static pressure or design pressure, based on highest value; with a maximum loss of 1% to pass. Water main must be pressurized hydraulically and not pneumatically.
   b. Pressure Test Lateral Lines - for a period of 2-hours, test lateral lines at static or design pressure, based on highest value, with a maximum loss of 2% to pass. Lateral lines must be pressurized hydraulically.
   c. The main line pressure test must be include a licensed Irrigation Inspector and Parks Department Representative..
   d. Perform system testing upon completion of each section. Make necessary repairs and re-test repaired sections as required.
   e. test and demonstrate the controller by operating appropriate day, hour, and station selection features as required to automatically start and shut down irrigation cycles to accommodate plant requirements and weather conditions.
2. For additional irrigation requirements not set forth here, use the approved Parks Design and Construction Guidelines.

MATERIALS

A. General:
   1. Provide only new material, without flaws or defects of the highest quality of their specified class and kind.
   2. Comply with pipe sizes indicated. No substitution of smaller pipes will be permitted. Larger pipe sizes may be used subject to acceptance by the Dssigner (Landscape Architect) and Parks and Recreation Staff. Remove damage and defective pipe from the site immediately.
   3. Provide pipe continuously and permanently marked with manufacturer's name or trademark, size, schedule, type of pipe, working pressure at 73 degrees F., and National Sanitation Foundation (NSF) approval.

B. Plastic pipe, fittings, and connections:
   1. Polyvinyl chloride pipe: ASTM D2241, rigid, un-plasticized PVC, extruded from virgin parent material. Provide pipe homogeneous throughout and free from visible cracks, holes, foreign materials, blisters, wrinkles, and dents.
      a. Distribution laterals: SDR 21, Class 200.
      b. Pressure mains: PVC Schedule 40 IPS Plastic Pipe for 4-inch or smaller main lines.
      c. Pressure mains: PVC Class 200 IPS Plastic Pipe for main lines larger than 4-inch.
   2. PVC Pipe Fittings: ASTM D2241 Schedule 40 PVC molded fittings suitable for solvent weld, or screwed connections. Fittings made of other materials are not permitted.
      a. Size slip fitting socket and taper to permit a dry un-softened pipe end to be inserted no more than halfway into the socket. Saddle fittings are not permitted.
      b. Schedule 80 PVC pipe may be threaded.
      c. Use male adapters for plastic to metal connections. Hand tighten male adapters plus one turn with a strap wrench.
   3. Insert fittings: ASTM D2466 insert type fittings.
      a. Saddle and cross fittings not permitted.

C. Soil and Turf:
   1. A site inspection by the Parks Department will be made to determine if one foot of top soil is in place or will need to be imported.
   2. If caliche is found, it will be ripped to a two foot depth below the bottom of the one foot layer of top soil.
   3. Use Santa Ana Sod.
   4. Remove mesh as Sod is being installed.

KEYED NOTES

1. Irrigation system top point: verify 55 psi and 60 gpm (if not pump will be required). Notify owner in writing if the above criteria not met.
2. Controller Location: 110V Power by Developer. Coordinate exact location in field.
3. Coordinate with contractor for enclosures on backflow.
4. Contractor required to apply for and obtain all permits (irrigation, building and electrical) and pass all inspections.
5. No signs, fire hydrants, lights, NDCBU, electrical/water boxes, telephone pedestals, shall be placed into proposed perimeter sidewalk.

PARKS DEPARTMENT
REVIEWED BY
Jan. 14. 2013

NOTE: IRRIGATION IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY TCEQ (MC-178), P.O. BOX 13087, AUSTIN, TEXAS 78711-3087, TCEQ'S WEB SITE IS: www.tceq.state.tx.us.

07/01/12 COMPLY W/REDS
01/07/13 COMPLY W/REDS

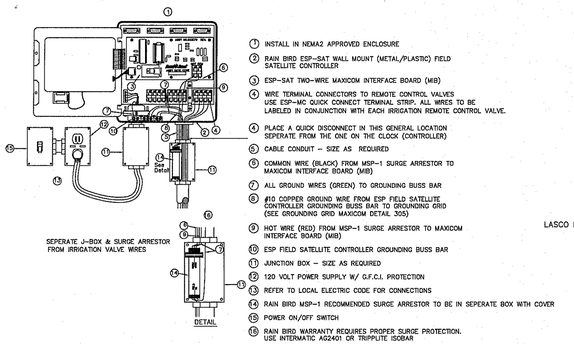
LOMA CHICA PARK
LOMAS DEL ESTE SUBDIVISION
4061 LOMA DANTE DRIVE
LOT 8, BLOCK 24
(53,551 S.F./1.23 AC.)

01/09/13
STATE OF TEXAS
REYMUNDO MARTINEZ
6900
LICENSED IRRIGATOR

LANDSCAPE IRRIGATION
Drawn/Design by:
Design/Checked by: RV

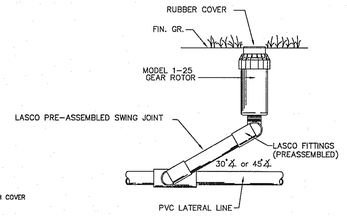
PROJECT:
LI20120501LDE
PHASE:
PRELIM-FINAL

Sheet no.
LI-2
Sheet no. 2 of 9



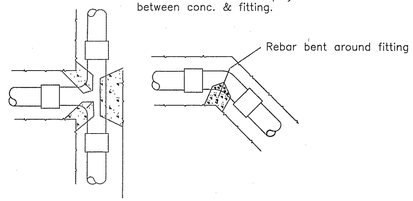
ESP-24MC INSTALLATION DETAIL

N.T.S.



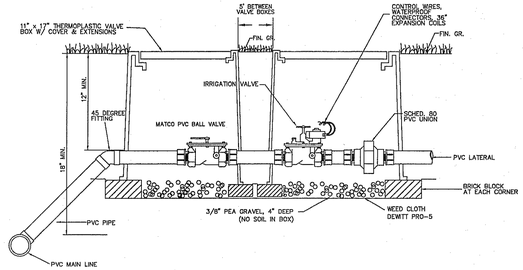
I-25 GEAR DRIVE DETAIL

NOT TO SCALE



Thrust Blocking Detail

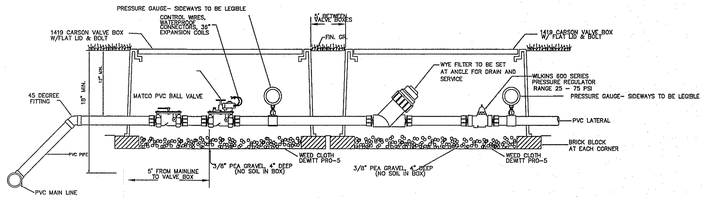
NOT TO SCALE



ALL VALVE BOXES TO HAVE ONE COURSE OF BLOCKS AT BOTTOM AND INSTALL EXTENSION BOXES TO SET TOP AT GRADE. INSURE THAT THERE IS A GAP BETWEEN VALVE BOX AND PIPE.

ELECTRIC CONTROL VALVE DETAIL

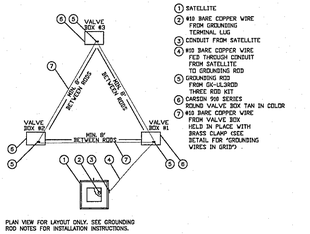
NOT TO SCALE



ALL WEED CLOTH AROUND VALVE AND EMITTER BOXES SHOULD BE TAPED AND SEALED AROUND PENETRATIONS TO PREVENT SOILS FROM ERODING INTO BOXES.

ELECTRIC CONTROL VALVE W/ FILTER & PRESSURE REGULATOR DETAIL

NOT TO SCALE



1. SATELLITE
2. #10 BARE COPPER WIRE FROM GROUNDING TERMINAL LUG
3. CONDUIT FROM SATELLITE
4. #10 BARE COPPER WIRE FED THROUGH CONDUIT FROM SATELLITE TO GROUNDING ROD
5. GROUNDING ROD FROM GK-ULTRAROD THREE ROD KIT
6. CARSON 910 SERIES ROUND VALVE BOX TAN IN COLOR
7. #10 BARE COPPER WIRE FROM VALVE BOX HELD IN PLACE WITH BRASS CLAMP (SEE DETAIL FOR "GROUNDING WIRES IN GRID")

PLAN VIEW FOR LAYOUT ONLY. SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

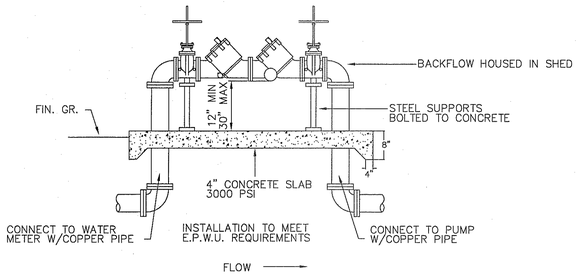
TRIANGULAR GROUNDING GRID PLAN VIEW

NOT TO SCALE

GROUNDING ROD NOTES:

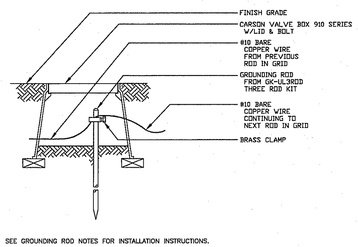
GROUNDING RODS SERVE AS ELECTRODES FOR SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. REMEMBER THESE TIPS WHEN INSTALLING THEM:

1. ALWAYS USE A 5/8-INCH X 8-FOOT COPPER CLAD ROD.
2. RUN A #10 OR LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.
3. KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.
4. CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.
5. ALWAYS USE A SEPERATE CLAMP TO ATTACH EACH WIRE TO A ROD.
6. TO INSTALL GROUNDING ROD, USE GK-TOOLS ROD DRIVING SLEEVE.
7. SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8 FEET APART FROM THE OTHERS IN THE GRID. CONNECT ALL THREE RODS WITH A SOLID #10 COPPER WIRE.
8. WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GREATER THAN 15 OHMS.
9. WHENEVER MORE THAN ONE WIRE IS ATTACHED TO A GROUNDING ROD ALWAYS USE A SEPERATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE PER CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESDISTANCE LEVELS.



REDUCED PRESSURE B.F.P DETAIL

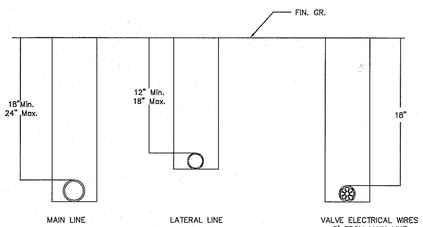
NOT TO SCALE



SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

GROUNDING WIRES IN GRID DETAIL

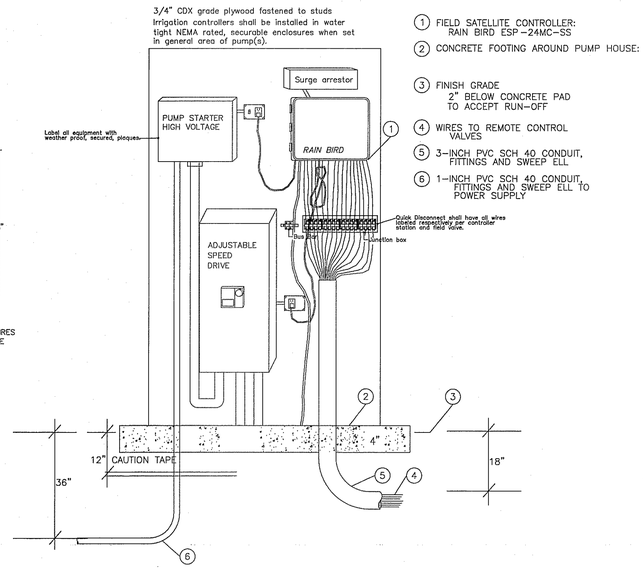
NOT TO SCALE



MAIN LINE, LATERAL LINE AND VALVE ELECTRICAL WIRES SHALL EACH BE INSTALLED IN SEPERATE TRENCHES.

TRENCHING STANDARD DETAIL

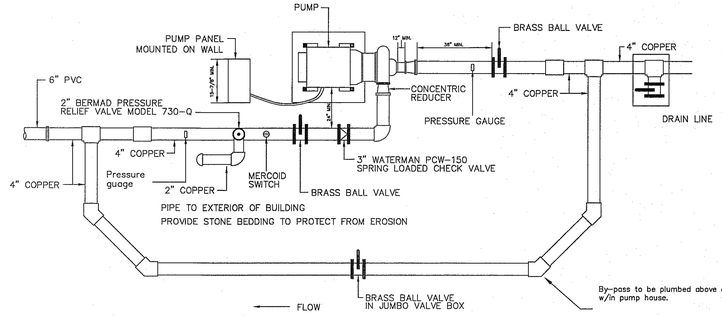
NOT TO SCALE



TYPICAL PUMP, CONTROLLER PANEL INSIDE PUMP HOUSE

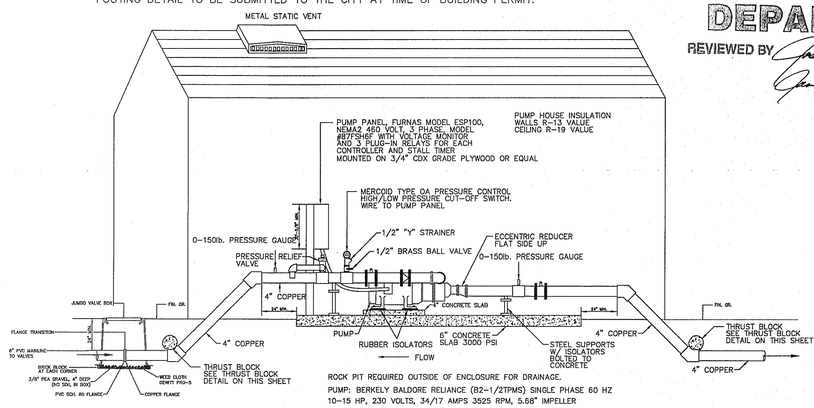
PUMPS

A. Pump start relay shall be installed as required to meet pressure demands of system.
B. Pump relays shall be minimum of 8' from irrigation controller.
C. Pump control wiring shall be on a separate circuits.
D. Pumps shall be installed with high-pressure and low-pressure limit switches, relief valves, and pressure gauges on inlet and outlet sides of pump.
E. Pumps shall be installed with cutoff valves on inlet and outlet sides.
F. Pumps shall be installed with bypass piping and isolation valve.
G. Pump houses shall be properly vented and allow for drainage to exterior of building.
H. Pump relief valves shall be vented to exterior of pump houses.
I. Irrigation controllers shall be installed in water tight NEMA rated, securable enclosures when set in general area of pump(s).



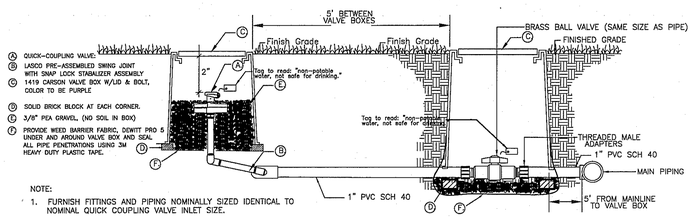
PUMP ENCLOSURE TO BE A TUFF SHED OR EQUIVALENT INSULATED AND BOLTED ON CONCRETE FOOTING. SIZE OF TUFF SHED SHALL BE SIZED TO ACCOMODATE PUMP AND BACKFLOW.

FOOTING DETAIL TO BE SUBMITTED TO THE CITY AT TIME OF BUILDING PERMIT.



ROCK PIT REQUIRED OUTSIDE OF ENCLOSURE FOR DRAINAGE.
PUMP: BERKELY BALDORE RELIANCE (B2-1/2TPMS) SINGLE PHASE 60 HZ
10-15 HP, 230 VOLTS, 34/17 AMPS 3525 RPM, 5.68" IMPELLER

FOOTING DETAIL FOR PUMP HOUSE TO BE PROVIDED TO PARKS DEPARTMENT UPON SUBMITTAL FOR BUILDING PERMIT.



NOTE:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

QUICK COUPLER VALVE DETAIL

NOT TO SCALE

QUICK COUPLER ISOLATION VALVE DETAIL

NOT TO SCALE

NOTE: ALL ASSEMBLIES OF ELECTRIC CONTROL VALVES, QUICK COUPLER, DRIP ZONE VALVES, ETC., TO BE DONE WITH PVC UNIONS FOR PIPE SIZES LESS THAN THREE INCHES (3") IN DIAMETER AND PVC FLANGES FOR PIPE SIZES LARGER THAN THREE INCHES (3") IN DIAMETER.

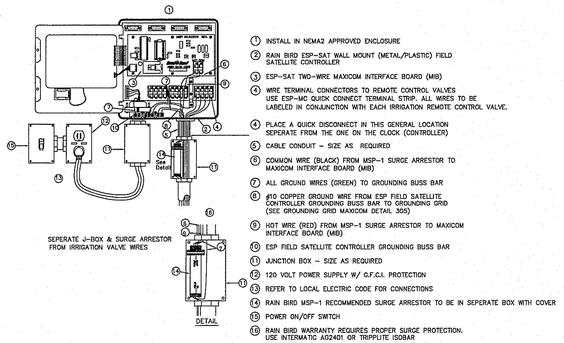
07/01/12 COMPLY W/REDS
01/07/13 COMPLY W/REDS

BRISA DEL ESTE PARK
LOMAS DEL ESTE SUBDIVISION
3701 LOMA ESTHER DRIVE
LOT 16, BLOCK 8
(220,883 S.F./5.07 AC.)

PARKS DEPARTMENT
REVIEWED BY
Jan 14, 2013

LANDSCAPE IRRIGATION
Drawn/Design by:
Design/Checked by: RV
PROJECT: LI20120501LDE
PHASE: PRELIM–FINAL

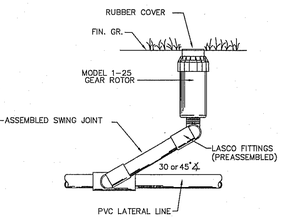
Sheet no.
LI–3
Sheet no. 3 of 9



1. INSTALL IN NEMA2 APPROVED ENCLOSURE
2. RAIN BIRD ESP-SAT WALL MOUNT (METAL/PLASTIC) FIELD SATELLITE CONTROLLER
3. ESP-SAT TWO-WIRE MAXICOM INTERFACE BOARD (MIB)
4. WIRE TERMINAL CONNECTORS TO REMOTE CONTROL VALVES USE ESP-MC QUICK CONNECT TERMINAL STRIP. ALL WIRES TO BE LABELED IN CONJUNCTION WITH EACH IRRIGATION REMOTE CONTROL VALVE.
4. PLACE A QUICK DISCONNECT IN THIS GENERAL LOCATION SEPERATE FROM THE ONE ON THE CLOCK (CONTROLLER)
5. CABLE CONDUIT – SIZE AS REQUIRED
6. COMMON WIRE (BLACK) FROM MSP-1 SURGE ARRESTOR TO MAXICOM INTERFACE BOARD (MIB)
7. ALL GROUND WIRES (GREEN) TO GROUNDING BUSS BAR
8. #10 COPPER GROUND WIRE FROM ESP FIELD SATELLITE CONTROLLER GROUNDING BUSS BAR TO GROUNDING GRID (SEE GROUNDING GRID MAXICOM DETAIL 305)
9. HOT WIRE (RED) FROM MSP-1 SURGE ARRESTOR TO MAXICOM INTERFACE BOARD (MIB)
10. ESP FIELD SATELLITE CONTROLLER GROUNDING BUSS BAR
11. JUNCTION BOX – SIZE AS REQUIRED
12. 120 VOLT POWER SUPPLY W/ G.F.C.I. PROTECTION
13. REFER TO LOCAL ELECTRIC CODE FOR CONNECTIONS
14. RAIN BIRD MSP-1 RECOMMENDED SURGE ARRESTOR TO BE IN SEPERATE BOX WITH COVER
15. POWER ON/OFF SWITCH
16. RAIN BIRD WARRANTY REQUIRES PROPER SURGE PROTECTION. USE INTERMATIC AG2401 OR TRIPPLITE ISOBAR

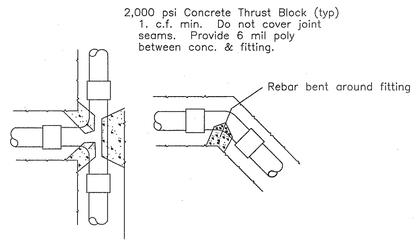
ESP-12MC INSTALLATION DETAIL WITH METAL PEDESTALS (STAINLESS)

N.T.S.



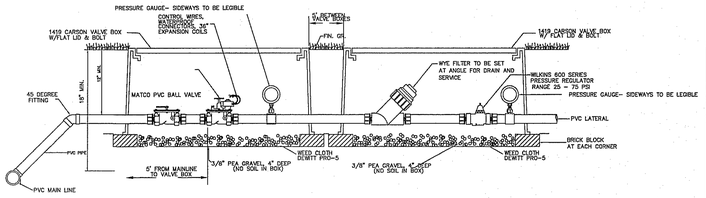
I-25 GEAR DRIVE DETAIL

NOT TO SCALE



Thrust Blocking Detail

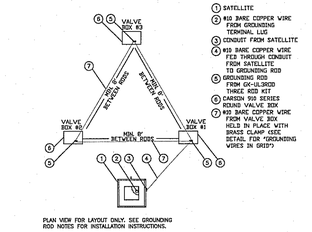
NOT TO SCALE



ALL WEED CLOTH AROUND VALVE AND EMITTER BOXES SHOULD BE TAPED AND SEALED AROUND PENETRATIONS TO PREVENT SOILS FROM ERODING INTO BOXES.

ELECTRIC CONTROL VALVE W/ FILTER & PRESSURE REGULATOR DETAIL

NOT TO SCALE



1. SATELLITE
2. #10 BARE COPPER WIRE FROM GROUNDING TERMINAL LUG
3. CONDUIT FROM SATELLITE
4. #10 BARE COPPER WIRE FED THROUGH CONDUIT FROM SATELLITE TO GROUNDING ROD
5. GROUNDING ROD FROM GK-ULTRA2 THREE ROD KIT
6. CARSON 910 SERIES ROUND VALVE BOX
7. #10 BARE COPPER WIRE FROM VALVE BOX HELD IN PLACE WITH BRASS CLAMP (SEE DETAIL FOR GROUNDING WIRES IN GRID?)

PLAN VIEW FOR LAYOUT ONLY. SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

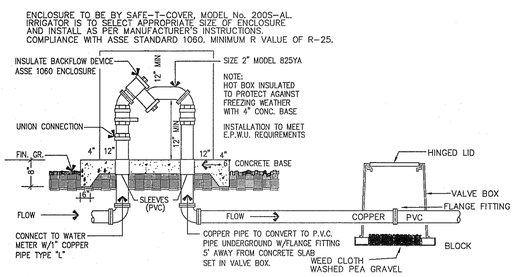
TRIANGULAR GROUNDING GRID PLAN VIEW

NOT TO SCALE

GROUNDING ROD NOTES:

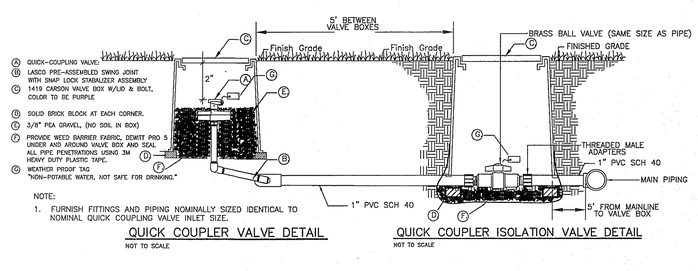
GROUNDING RODS SERVE AS ELECTRODES FOR SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. REMEMBER THESE TIPS WHEN INSTALLING THEM:

1. ALWAYS USE A 5/8-INCH X 8-FOOT COPPER CLAD ROD.
2. RUN A #10 OR LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.
3. KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.
4. CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.
5. ALWAYS USE A SEPERATE CLAMP TO ATTACH EACH WIRE TO A ROD.
6. TO INSTALL GROUNDING ROD, USE GK-TOOLS ROD DRIVING SLEEVE.
7. SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8 FEET APART FROM THE OTHERS IN THE GRID. CONNECT ALL THREE RODS WITH A SOLID #10 COPPER WIRE.
8. WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GREATER THAN 15 OHMS.
9. WHENEVER MORE THAN ONE WIRE IS ATTACHED TO A GROUNDING ROD ALWAYS USE A SEPERATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE PER CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESDISTANCE LEVELS.



BACKFLOW DEVICE DETAIL

NOT TO SCALE



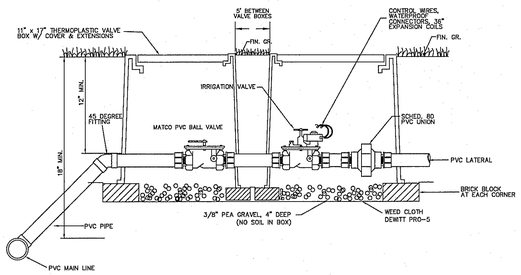
NOTE:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

QUICK COUPLER VALVE DETAIL

NOT TO SCALE

QUICK COUPLER ISOLATION VALVE DETAIL

NOT TO SCALE

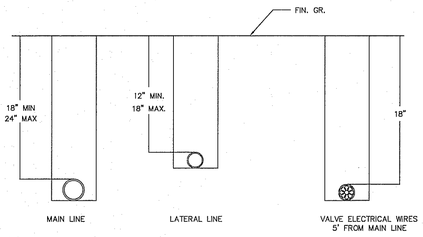


ALL VALVE BOXES TO HAVE ONE COURSE OF BLOCKS AT BOTTOM AND INSTALL EXTENSION BOXES TO SET TOP AT GRADE. INSURE THAT THERE IS A GAP BETWEEN VALVE BOX AND PIPE.

ELECTRIC CONTROL VALVE DETAIL

NOT TO SCALE

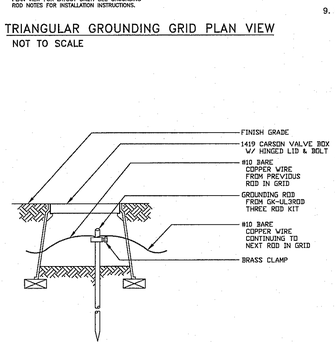
NOTE: ALL ASSEMBLIES OF ELECTRIC CONTROL VALVES, QUICK COUPLER, DRIP ZONE VALVES, ETC., TO BE DONE WITH PVC UNIONS FOR PIPE SIZES LESS THAN THREE INCHES (3") IN DIAMETER AND PVC FLANGES FOR PIPE SIZES LARGER THAN THREE INCHES (3") IN DIAMETER.



MAIN LINE, LATERAL LINE AND VALVE ELECTRICAL WIRES SHALL EACH BE INSTALLED IN SEPERATE TRENCHES.

TRENCHING STANDARD DETAIL

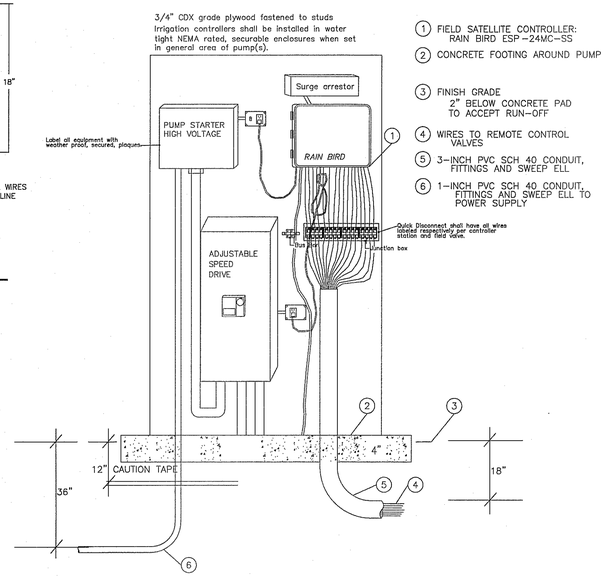
NOT TO SCALE



SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

GROUNDING WIRES IN GRID DETAIL

NOT TO SCALE

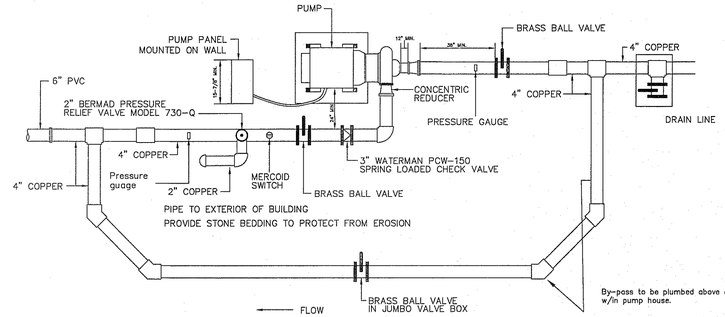


1. FIELD SATELLITE CONTROLLER: RAIN BIRD ESP-24MC-SS
2. CONCRETE FOOTING AROUND PUMP HOUSE:
3. FINISH GRADE 2" BELOW CONCRETE PAD TO ACCEPT RUN-OFF
4. WIRES TO REMOTE CONTROL VALVES
5. 3-INCH PVC SCH 40 CONDUIT, FITTINGS AND SWEEP ELL
6. 1-INCH PVC SCH 40 CONDUIT, FITTINGS AND SWEEP ELL TO POWER SUPPLY

TYPICAL PUMP, CONTROLLER PANEL INSIDE PUMP HOUSE

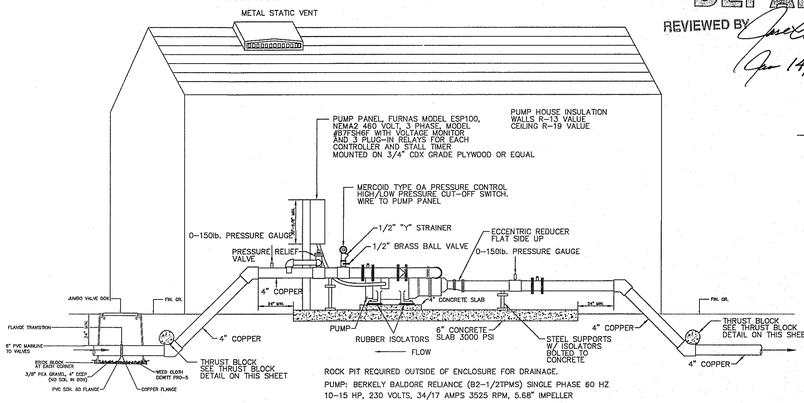
PUMPS

A. Pump start relay shall be installed as required to meet pressure demands of system.
B. Pump relays shall be minimum of 8' from irrigation controller.
C. Pump control wiring shall be on a separate circuits.
D. Pumps shall be installed with high-pressure and low-pressure limit switches, relief valves, and pressure gauges on inlet and outlet sides of pump.
E. Pumps shall be installed with cutoff valves on inlet and outlet sides.
F. Pumps shall be installed with bypass piping and isolation valve.
G. Pump houses shall be properly vented and allow for drainage to exterior of building.
H. Pump relief valves shall be vented to exterior of pump houses.
I. Irrigation controllers shall be installed in water tight NEMA rated, securable enclosures when set in general area of pump(s).



PUMP ENCLOSURE TO BE A TUFF SHED OR EQUIVALENT INSULATED AND BOLTED ON CONCRETE FOOTING. SIZE OF TUFF SHED SHALL BE SIZED TO ACCOMODATE PUMP AND BACKFLOW.

FOOTING DETAIL TO BE SUBMITTED TO THE CITY AT TIME OF BUILDING PERMIT.



FOOTING DETAIL FOR PUMP HOUSE TO BE PROVIDED TO PARKS DEPARTMENT UPON SUBMITTAL FOR BUILDING PERMIT.

PARKS DEPARTMENT
REVIEWED BY
Jan 14, 2013

07/01/12 COMPLY W/REDS
01/07/13 COMPLY W/REDS

LOMA CHICA PARK
LOMAS DEL ESTE SUBDIVISION
4061 LOMA DANTE DRIVE
LOT 8, BLOCK 24
(53,551 S.F./1.23 AC.)

LANDSCAPE IRRIGATION

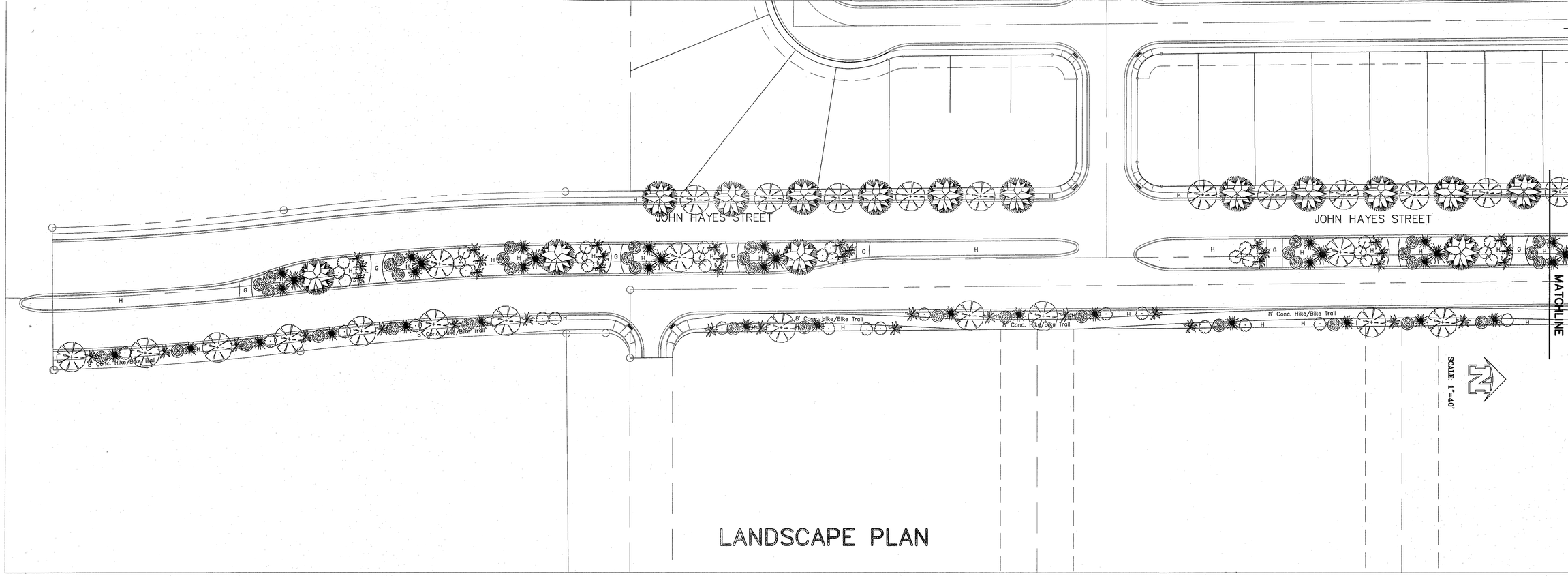
Drawn/Design by:
Design/Checked by: RV

PROJECT:
LI20120501LDE

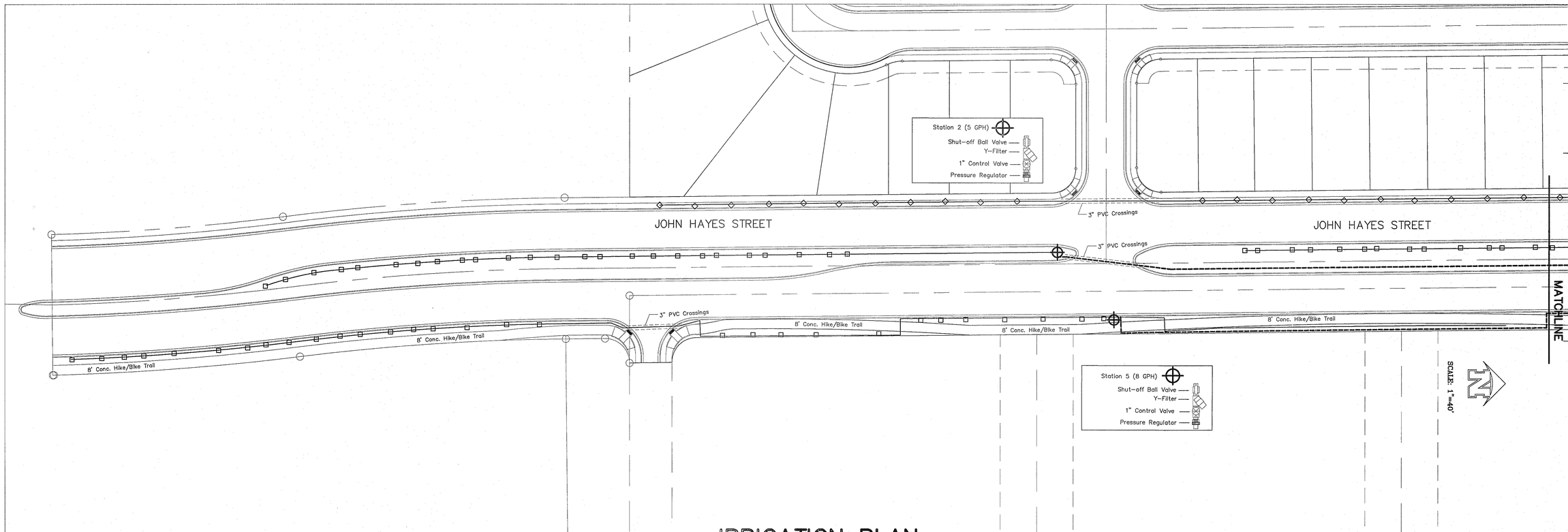
PHASE:
PRELIM-FINAL

Sheet no.
LI-4

Sheet no. 4 of 9



LANDSCAPE PLAN



IRRIGATION PLAN

NOTE: PARK IMPROVEMENTS (SIDEWALKS, RAMPS, AND PAVED HIKE/BIKE TRAILS) TO BE COMPLIANT WITH ARCHITECTURAL BARRIERS (TEXAS ACCESSIBILITY STANDARDS).

NOTE: IRRIGATION IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY TCEQ) (MC-178), P.O. BOX 13087, AUSTIN, TEXAS 78711-3087, TCEQ'S WEB SITE IS: www.tceq.state.tx.us.

07/01/12 COMPLY W/REDS

07/01/12 Revisions Red lines

JOHN HAYES STREET MEDIAN/DOUBLE FRONTAGE
JOHN HAYES STREET HIKE/BIKE TRAIL
LOMAS DEL ESTE SUBDIVISION
EL PASO, TEXAS

01/09/13
STATE OF TEXAS
REYMUNDO MARTINEZ
9000
LICENSED IRRIGATOR

LANDSCAPE IRRIGATION

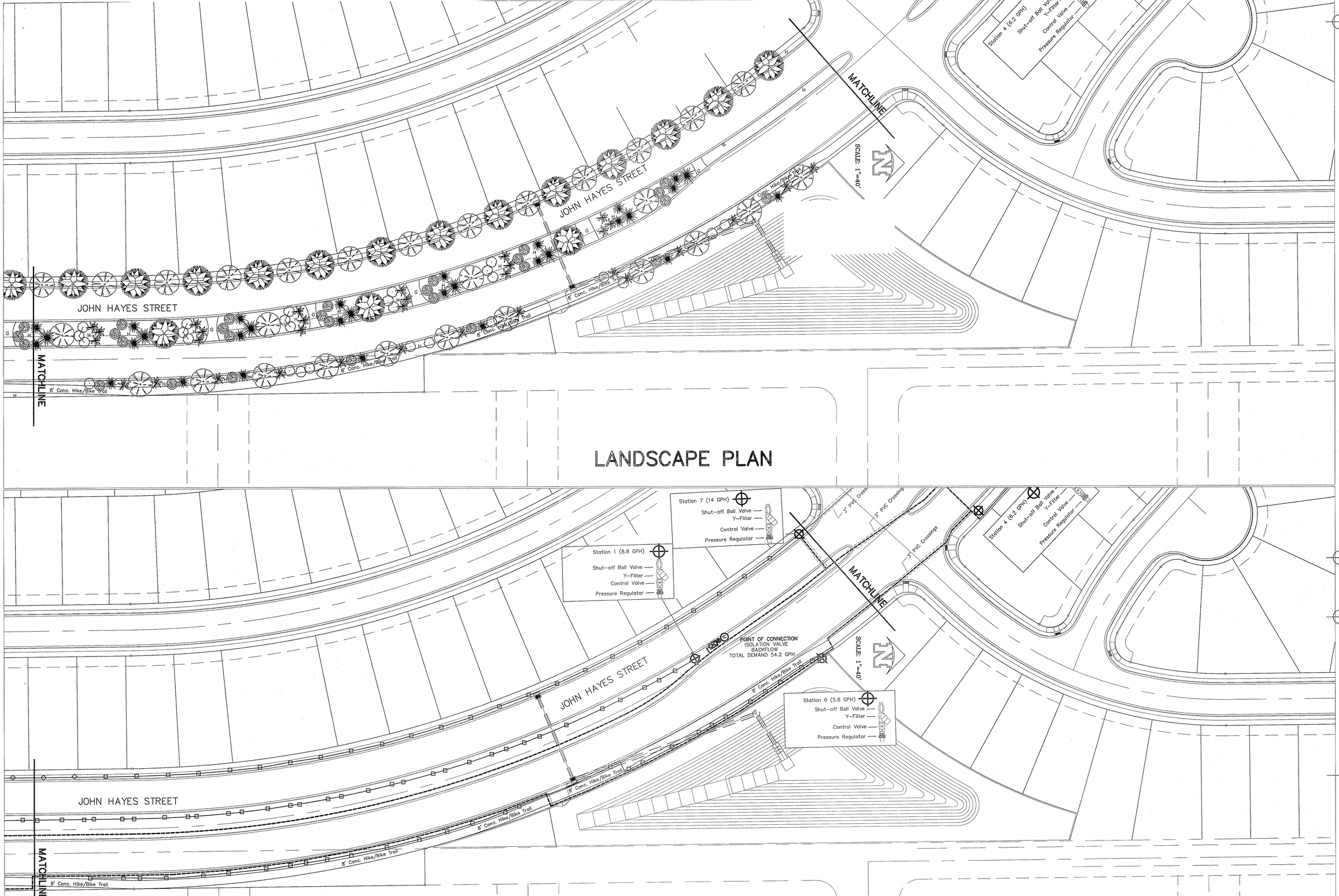
Drawn/Design by:
Design/Checked by: RV

PROJECT:
LI20120501LDE

PHASE:
PRELIM-FINAL

Sheet no.
LI-5

Sheet no. 5 of 9



LANDSCAPE PLAN

IRRIGATION PLAN

NOTE: PARK IMPROVEMENTS (SIDEWALKS, RAMPS, AND PAVED HIKE/BIKE TRAILS) TO BE COMPLIANT WITH ARCHITECTURAL BARRIERS (TEXAS ACCESSIBILITY STANDARDS).

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07/01/12 COMPLY W/REDS

07/01/12 Revisions Red lines

JOHN HAYES STREET MEDIAN/DOUBLE FRONTAGE
JOHN HAYES STREET HIKE/BIKE TRAIL
LOMAS DEL ESTE SUBDIVISION
EL PASO, TEXAS

6/29/13
STATE OF TEXAS
REYMUNDO MARTINEZ
8000
LICENSED IRRIGATOR

LANDSCAPE
IRRIGATION

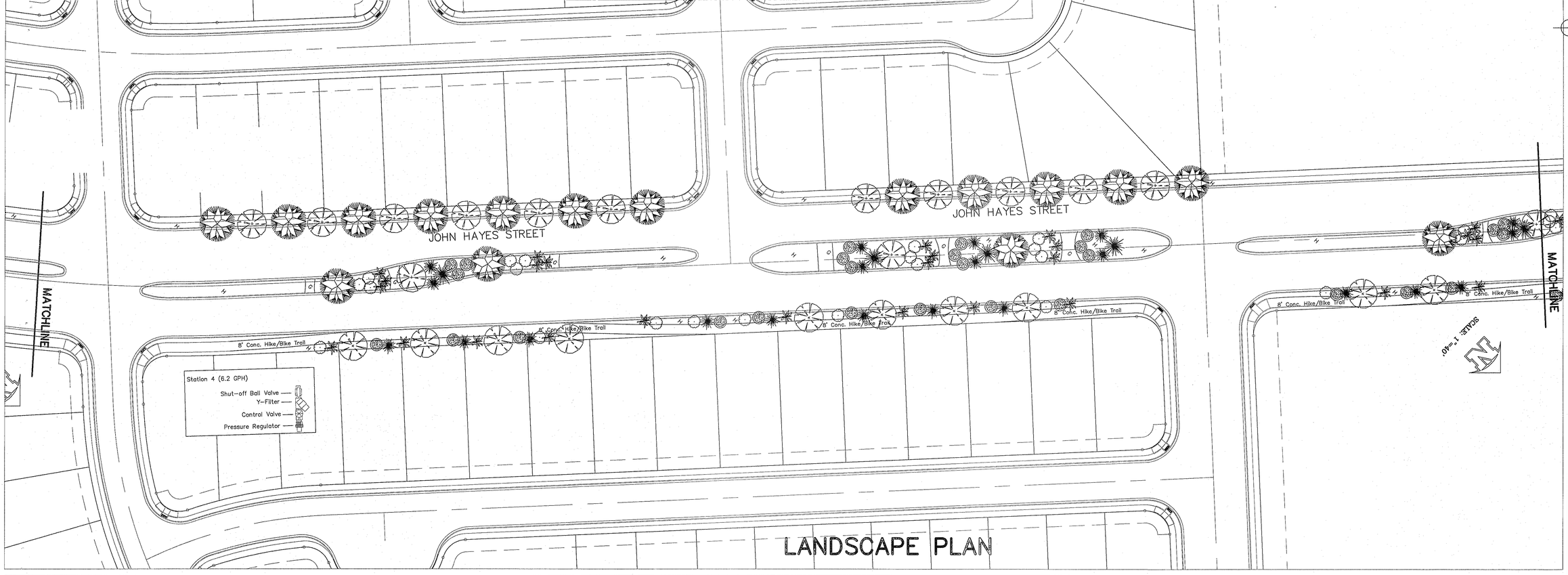
Drawn/Design by:
Design/Checked by: RV

PROJECT:
LI20120501LDE

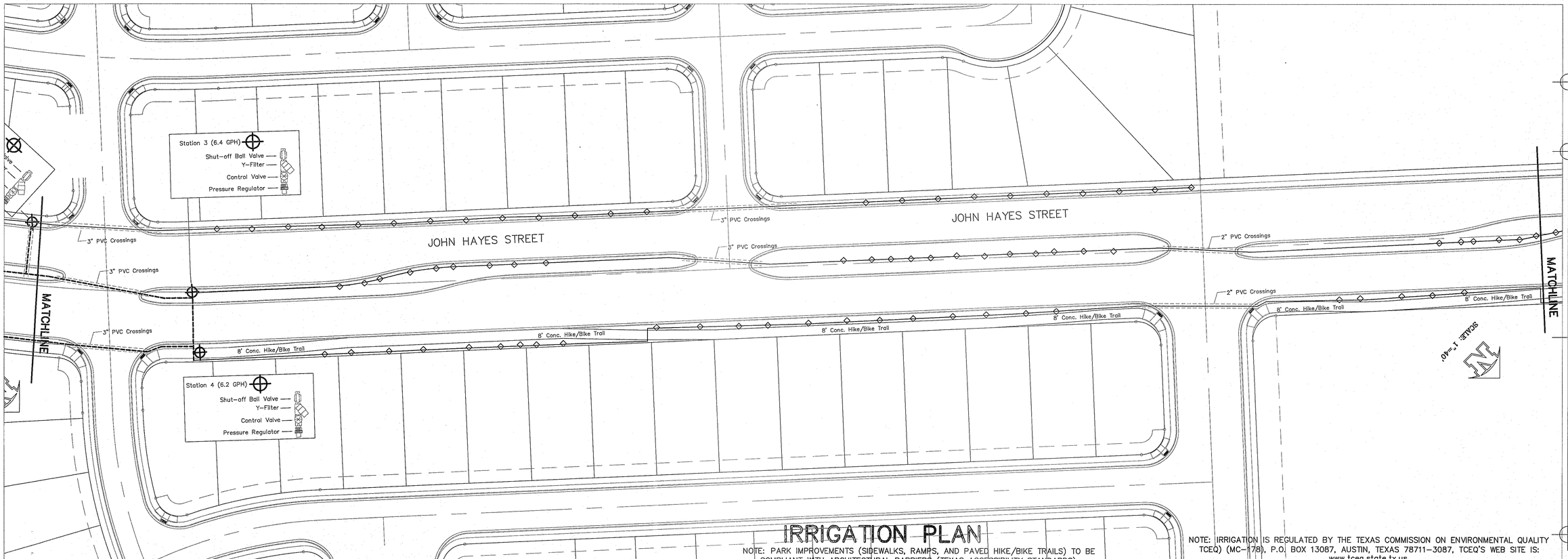
PHASE:
PRELIM-FINAL

Sheet no.
LI-6

Sheet no. 6 of 9



LANDSCAPE PLAN



IRRIGATION PLAN

NOTE: PARK IMPROVEMENTS (SIDEWALKS, RAMPS, AND PAVED HIKE/BIKE TRAILS) TO BE COMPLIANT WITH ARCHITECTURAL BARRIERS (TEXAS ACCESSIBILITY STANDARDS).

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07/01/12 COMPLY W/REDS
07/01/12 Revisions Red lines

JOHN HAYES STREET MEDIAN/DOUBLE FRONTAGE JOHN HAYES STREET HIKE/BIKE TRAIL LOMAS DEL ESTE SUBDIVISION EL PASO, TEXAS

01/09/13
STATE OF TEXAS
REYMUNDO MARTINEZ
6080
LICENSED IRRIGATOR

LANDSCAPE
IRRIGATION

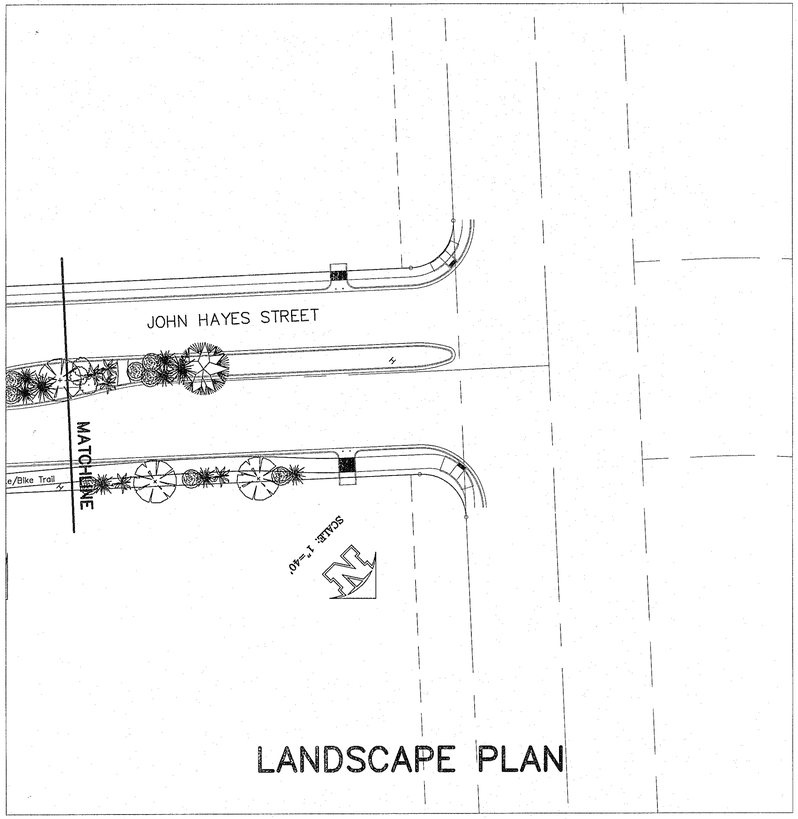
Drawn/Design by:
Design/Checked by: RV

PROJECT:
LI20120501LDE

PHASE:
PRELIM-FINAL

Sheet no.
LI-7

Sheet no. 7 of 9



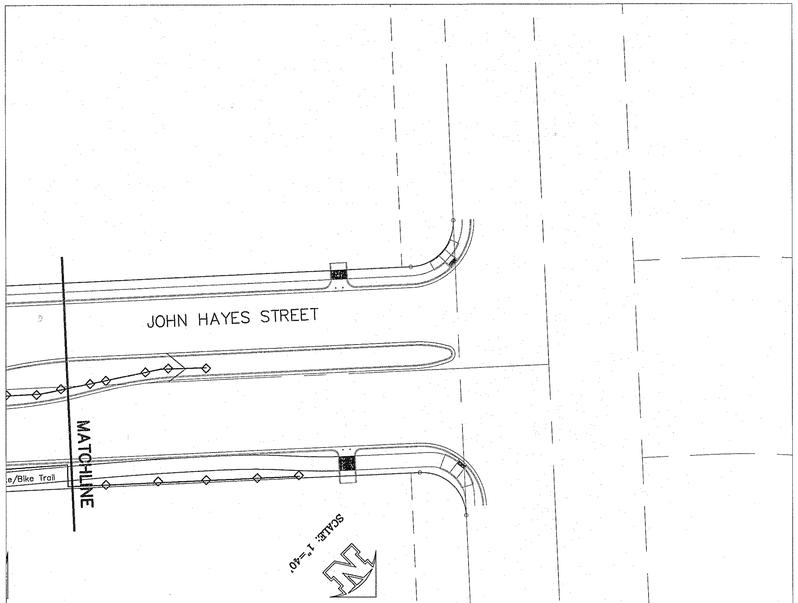
LANDSCAPE PLAN

PLANT SCHEDULE (MEDIAN AND DOUBLE FRONTAGE)

SYM.	TYPE	QTY.	COMMON NAME	BOTANICAL NAME	SIZE	HT.	WT.	FORM	DESCRIPTION
		54	RAYWOOD ASH	FRAXINUS ANGUISTIFOLIA	2"	10'		TREE	DECIDUOUS
		53	HONEY MESQUITE	PROSOPIS GLANDULOSA	2"	10'		TREE	DECIDUOUS
		63	RED YUCCA	HESPERALOE PARVIFLORA	5 GAL.			SHRUB	EVERGREEN
		60	AUTUMN SAGE	SALVI GREGGI	5 GAL.			SHRUB	SEMI-EVERGREEN
		57	DESERT ROSEMARY	POLIOMINTHA INCANA	5 GAL.			SHRUB	SEMI-EVERGREEN
		60	INDIAN HAWTHORNE	RAPHIOLEPSIS INDICA	5 GAL.			SHRUB	EVERGREEN
GROUND COVERS									
	G		RIVER ROCK		1"-3"			ROCK	GROUND COVER
	H		MT. FRANKLIN RED ROCK W/NON WOVEN POLYPROPYLENE WEED BARRIER		1"-3"			ROCK	GROUND COVER

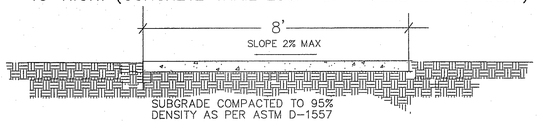
IRRIGATION LEGEND

	1" FEBCO 825YA; REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY.
	RAINBIRD PE SERIES 1" CONTROL VALVE UNIK SYSTEM w/ 30M PRESSURE REGULATOR AND RAINBIRD "v" FILTER
M	1" WATER METER (BY OTHERS)
	MULTI PORT EMITTER MANIFOLD-RAINBIRD XERI-BIRD-XBD-80; 2 PER SHRUB, 1 PER TREE.
	SLEEVE, PVC PIPE, CLASS 200. SIZE AS NOTED
	1 1/2" MAIN LATERAL PIPE, PVC, CLASS 200
	1" LATERAL PIPE, PVC, CLASS 200



IRRIGATION PLAN

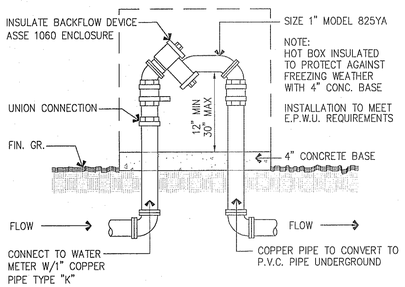
15' R.O.W (CONCRETE TRAIL LOCATION VARIES WITHIN R.O.W)



CONCRETE HIKE/BIKE TRAIL SECTION

SCALE: NTS

NOTES:
1. CONCRETE SIDEWALK SHALL BE 3000 P.S.I. MINIMUM AND 4" THICK.
2. DUMMY JOINTS AT 5' ON CENTER FOR SIDEWALK.
3. EXPANSION MATERIAL REQUIRED AT 20' O.C. FOR SIDEWALKS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.



BACKFLOW DEVICE DETAIL

NOT TO SCALE

NOTE: PARK IMPROVEMENTS (SIDEWALKS, RAMPS, AND PAVED HIKE/BIKE TRAILS) TO BE COMPLIANT WITH ARCHITECTURAL BARRIERS (TEXAS ACCESSIBILITY STANDARDS)

PLANT SCHEDULE (HIKE/BIKE PATH)

SYM.	TYPE	QTY.	COMMON NAME	BOTANICAL NAME	SIZE	HT.	WT.	FORM	DESCRIPTION
		0	RAYWOOD ASH	FRAXINUS ANGUISTIFOLIA	2"	10'		TREE	DECIDUOUS
		35	HONEY MESQUITE	PROSOPIS GLANDULOSA	2"	10'		TREE	DECIDUOUS
		36	RED YUCCA	HESPERALOE PARVIFLORA	5 GAL.			SHRUB	EVERGREEN
		37	AUTUMN SAGE	SALVI GREGGI	5 GAL.			SHRUB	SEMI-EVERGREEN
		36	DESERT ROSEMARY	POLIOMINTHA INCANA	5 GAL.			SHRUB	SEMI-EVERGREEN
		44	INDIAN HAWTHORNE	RAPHIOLEPSIS INDICA	5 GAL.			SHRUB	EVERGREEN
GROUND COVERS									
	G		RIVER ROCK		1"-3"			ROCK	GROUND COVER
	H		MT. FRANKLIN RED ROCK W/NON WOVEN POLYPROPYLENE WEED BARRIER		1"-3"			ROCK	GROUND COVER

GENERAL NOTES:

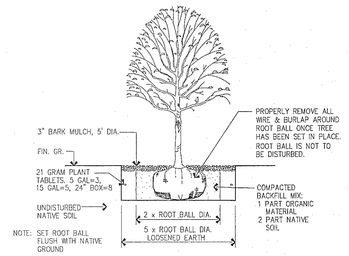
1. Contractor shall visit site and become familiar with all existing conditions.
2. All work shall be laid out by contractor for Owner approval prior to start.
3. Contractor to provide daily cleanup and removal of waste materials.
4. The Contractor shall contact Dig Tess for line locate prior to excavating.

NOTES FOR PLANTING:

1. Plant substitutions will be permitted if requested in writing giving reasons for substitutions.
2. Eradicate all existing weeds and grasses with Roundup before planting.
3. Topsoil material for planting, shall be free from hard clods, stiff clay, hard pan, stones larger than 1" in diameter, noxious weeds and plants, sod, partially disintegrated debris, insects or any other undesirable material plants or seeds that would be toxic or harmful to growth.

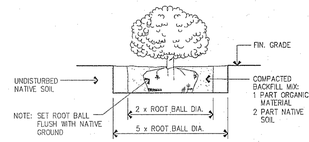
NOTES FOR IRRIGATION:

1. Some pipes and valves may be shown in paving or outside of boundary for clarity only.
2. Pressure at point of connection to water service is 35 psi operation pressure, if not, contact irrigator. Maximum demand of irrigation shall be 10 GPM.
3. All electrical valves shall be installed in plastic valve boxes with locking covers.
4. All valves shall be tagged with a waterproof tag at each valve showing valve number and controller number as shown on plans.



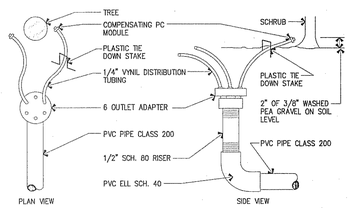
TREE PLANTING DETAIL

NOT TO SCALE



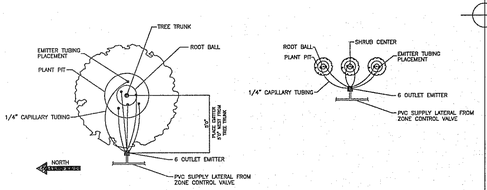
SHRUB PLANTING DETAIL

NOT TO SCALE



DRIP EMITTERS/CAPILLARY TUBING DETAIL

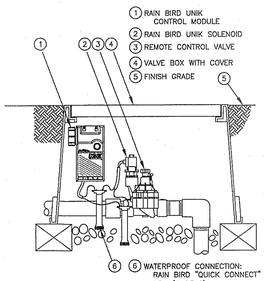
NOT TO SCALE



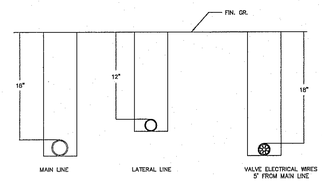
NOTE: DRIP EMITTER- RAINBIRD XET-2P-4, 6 OUTLET EMITTER, 2GPH, WITH CAPILLARY TUBING, E.O.C.V., & TUBING STAKE. INSTALL 2 EMITTERS PER SHRUB AND 6 PER TREE AND ENCLOSE IN ACCESS SLEEVE.

EMITTER OUTLET PLACEMENT DETAIL

NOT TO SCALE



CONTROL VALVE UNIK SYSTEM



TRENCHING STANDARD DETAIL

NOT TO SCALE

NOTE: IRRIGATION IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY TCEQ) (MC-178), P.O. BOX 13087, AUSTIN, TEXAS 78711-3087, TCEQ'S WEB SITE IS: www.tceq.state.tx.us.

07/01/12 COMPLY W/REDS
07/01/12 Revisions Red lines

JOHN HAYES STREET MEDIAN/DOUBLE FRONTAGE
JOHN HAYES STREET HIKE/BIKE TRAIL
LOMAS DEL ESTE SUBDIVISION
EL PASO, TEXAS

01/07/13

STATE OF TEXAS
REYMONDO MARTINEZ
9000
LICENSED IRRIGATOR

LANDSCAPE
IRRIGATION

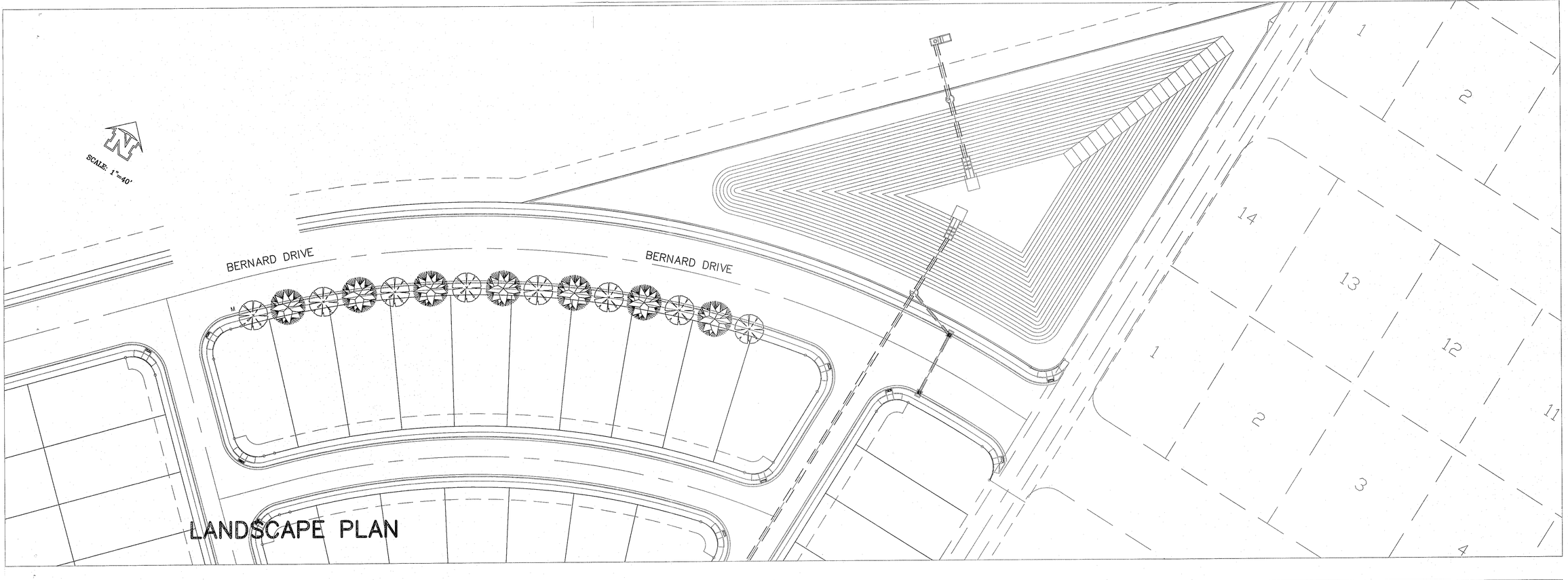
Drawn/Design by:
Design/Checked by: RV

PROJECT:
LI20120501LDE

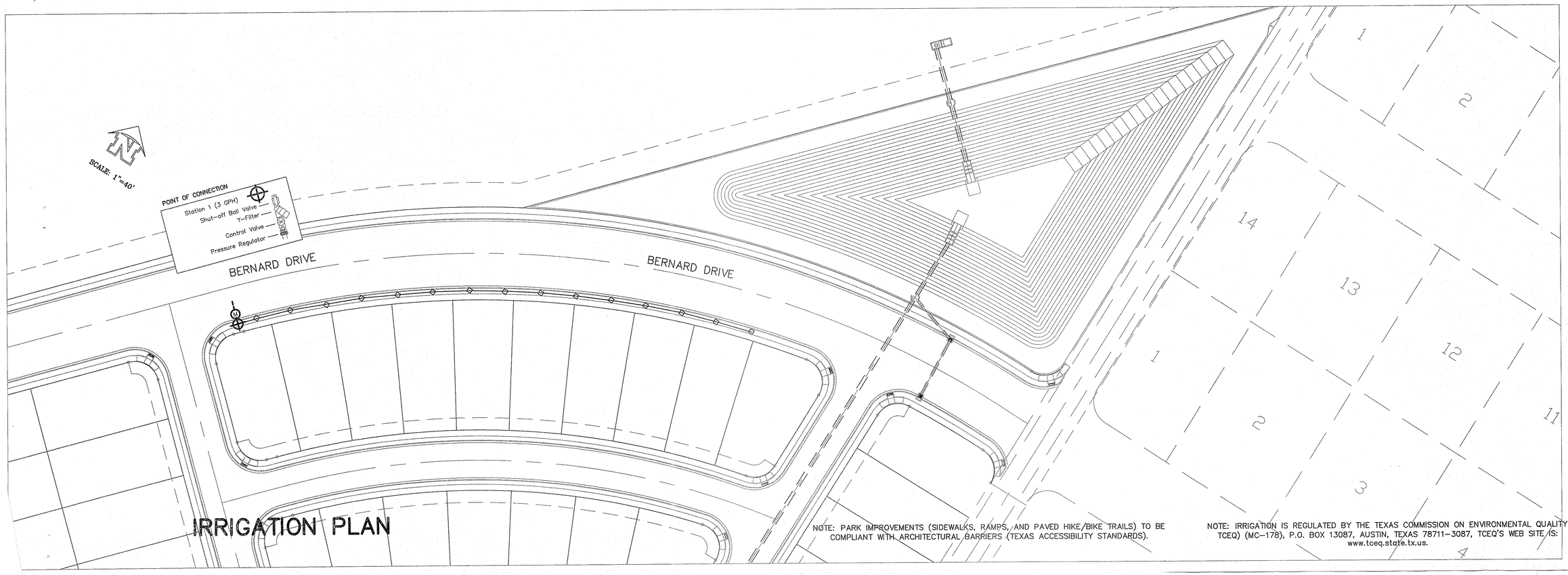
PHASE:
PRELIM-FINAL

Sheet no.
LI-8

Sheet no. 8 of 8



LANDSCAPE PLAN



IRRIGATION PLAN

NOTE: PARK IMPROVEMENTS (SIDEWALKS, RAMPS, AND PAVED HIKE/BIKE TRAILS) TO BE COMPLIANT WITH ARCHITECTURAL BARRIERS (TEXAS ACCESSIBILITY STANDARDS).

NOTE: IRRIGATION IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY TCEQ) (MC-178), P.O. BOX 13087, AUSTIN, TEXAS 78711-3087, TCEQ'S WEB SITE IS: www.tceq.state.tx.us.

07/01/12 COMPLY W/REDS
07/01/12 Revisions Red lines

BERNARD DRIVE DOUBLE FRONTAGE

LOMAS DEL ESTE SUBDIVISION
EL PASO, TEXAS

01/09/13
STATE OF TEXAS
REYMUNDO MARTINEZ
9608
LICENSED IRRIGATOR

LANDSCAPE
IRRIGATION

Drawn/Design by:
Design/Checked by: RV

PROJECT:
LI20120501LDE

PHASE:
PRELIM-FINAL

Sheet no.
LI-9

Sheet no. 9 of 9

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37,
AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2,
TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 168.97 ACRES±

DEDICATION

STATE OF TEXAS
COUNTY OF EL PASO

RANCHOS REAL XV, LLC AND RIVER OAKS PROPERTIES, LTD PROPERTY OWNERS OF THIS LAND, HEREBY PRESENT THIS PLAT AND DEDICATE TO THE USE OF THE PUBLIC AS HEREON LAID DOWN AND DESIGNATED THE RETENTION PONDS, STREETS, PARKS, THE TEXAS GAS CO. R.O.W., THE 30' DRAINAGE AND P.S.B. R.O.W., AND UTILITY EASMENTS FOR OVERHANG OF SERVICE WIRES, POLE TYPE UTILITIES, BURIED SERVICE WIRES, CONDUITS AND PIPES FOR UNDERGROUND UTILITIES, AND THE RIGHT OF INGRESS AND EGRESS FOR SERVICE AND CONSTRUCTION AND THE RIGHT TO TRIM INTERFERING TREES AND SHRUBS.

DATE: 1/16/13

RANCHOS REAL XV, LLC
BY: ROBERT L. FOSTER, MANAGER

DATE: 1/16/13

RIVER OAKS PROPERTIES, LTD
BY: ADAM FRANK, PRESIDENT

NOTARY PUBLIC, STATE OF TEXAS

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY ROBERT L. FOSTER MANAGER OF RANCHOS REAL XV, LLC. ON BEHALF OF SAID LIMITED LIABILITY COMPANY, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME AS THE ACT AND DEED OF SAID COMPANY FOR THE PURPOSE AND CONSIDERATONS HEREIN EXPRESSED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS 16th DAY OF January 2013

NOTARY PUBLIC IN AND FOR EL PASO COUNTY — 01-31-2014 MY COMMISSION EXPIRES

ANA M. GRIEGO — NOTARY PUBLIC — STATE OF TEXAS — COMM. EXP. JANUARY 31, 2014

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY ADAM FRANK, PRESIDENT OF RIVER OAKS PROPERTIES, ON BEHALF OF SAID COMPANY, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME AS THE ACT AND DEED OF SAID COMPANY FOR THE PURPOSE AND CONSIDERATONS HEREIN EXPRESSED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS 16th DAY OF January 2013

NOTARY PUBLIC IN AND FOR EL PASO COUNTY — 8/15/2014 MY COMMISSION EXPIRES

SANDRA MARTINEZ — NOTARY PUBLIC — STATE OF TEXAS — COMM. EXP. August 15, 2014

CITY PLAN COMMISSION

THIS SUBDIVISION IS HEREBY APPROVED AS TO THE PLATTING AND AS TO THE CONDITIONS OF THE DEDICATION IN ACCORDANCE WITH CHAPTER 212 OF THE LOCAL GOVERNMENT CODE OF TEXAS THIS 7th DAY OF February, 2013 A.D..

EXECUTIVE SECRETARY — CHAIRPERSON

APPROVED FOR FILING THIS 4th DAY OF February 2013

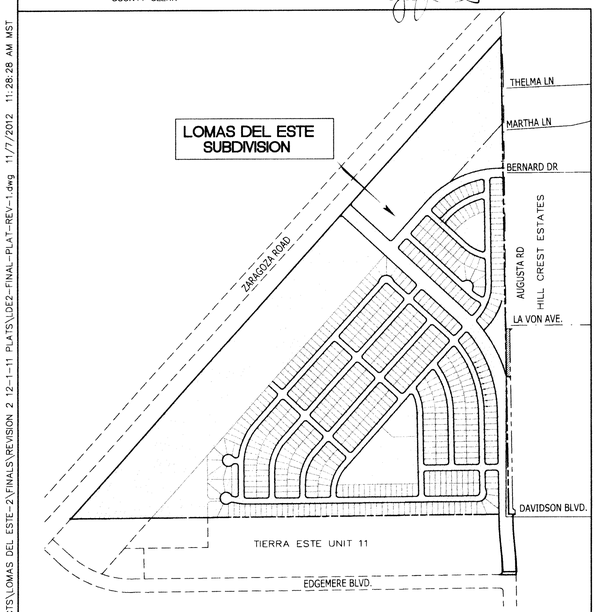
CITY DEVELOPMENT DIRECTOR

FILING

FILED AND RECORDED IN THE OFFICE OF THE COUNTY CLERK OF EL PASO COUNTY, TEXAS, THIS 20 DAY OF 2013.

FILE NO. 20130092950

FOR RECORDING PURPOSES ONLY — COUNTY CLERK — BY/DEPUTY



LOCATION MAP
SCALE: 1"=600'

THIS PLAT REPRESENTS A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION AND IS IN COMPLIANCE WITH THE CURRENT TEXAS BOARD OF PROFESSIONAL LAND SURVEYING PROFESSIONAL AND TECHNICAL STANDARDS.

STATE OF TEXAS — GUILLERMO LICON — 2998 — PROFESSIONAL LAND SURVEYOR

GUILLERMO LICON, RPLS 2998

SUBDIVISION IMPROVEMENT PLANS PREPARED BY AND UNDER THE SUPERVISION OF GEORGES S. HALLOUL, REGISTERED PROFESSIONAL ENGINEER NO. 92105

STATE OF TEXAS — GEORGES B. HALLOUL — 92105 — REGISTERED PROFESSIONAL ENGINEER

GEORGES S. HALLOUL, P.E. TX 92105

THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO LOMAS DEL ESTE BY THE EL PASO WATER UTILITY/ PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR REGULATIONS AND WITH SECTION 16.343 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON ZARAGOZA ROAD AND AND WILL BE CONSTRUCTED TO SERVE THIS SUBDIVISION.

TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT NO. 20130092951-52

RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT NO. 20130092953 20130092955

NOTES

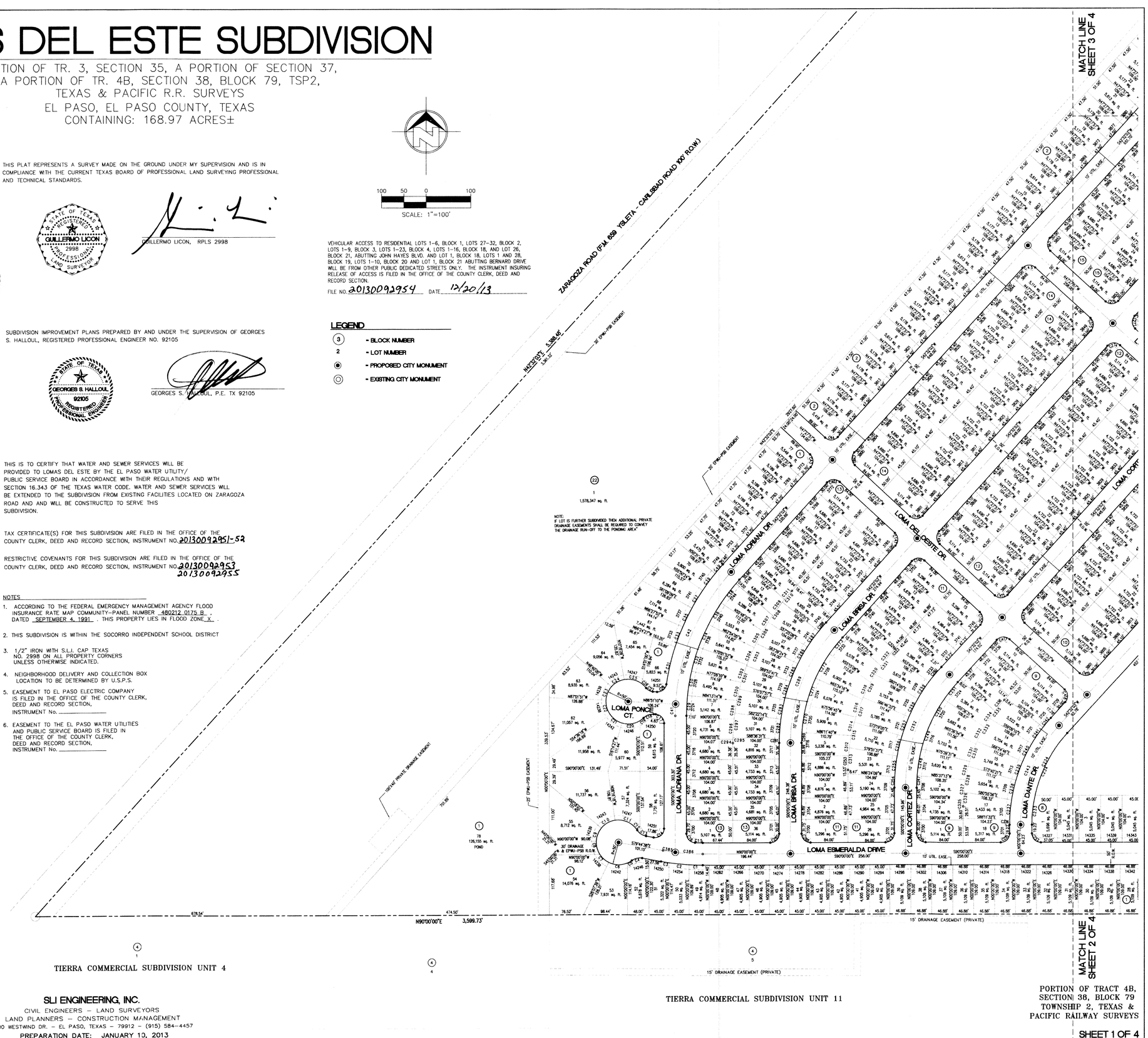
1. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 480212 0175 B, DATED SEPTEMBER 4, 1991. THIS PROPERTY LIES IN FLOOD ZONE X.
2. THIS SUBDIVISION IS WITHIN THE SOCORRO INDEPENDENT SCHOOL DISTRICT
3. 1/2" IRON WITH S.L.I. CAP TEXAS NO. 2998 ON ALL PROPERTY CORNERS UNLESS OTHERWISE INDICATED.
4. NEIGHBORHOOD DELIVERY AND COLLECTION BOX LOCATION TO BE DETERMINED BY U.S.P.S.
5. EASEMENT TO EL PASO ELECTRIC COMPANY IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT No. ____
6. EASEMENT TO THE EL PASO WATER UTILITIES AND PUBLIC SERVICE BOARD IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT No. ____

100 50 0 100
SCALE: 1"=100'

VEHICULAR ACCESS TO RESIDENTIAL LOTS 1-6, BLOCK 1, LOTS 27-32, BLOCK 2, LOTS 1-9, BLOCK 3, LOTS 1-23, BLOCK 4, LOTS 1-16, BLOCK 18, AND LOT 26, BLOCK 21, ABUTTING JOHN HAYES BLVD. AND LOT 1, BLOCK 18, LOTS 1 AND 28, BLOCK 19, LOTS 1-10, BLOCK 20 AND LOT 1, BLOCK 21 ABUTTING BERNARD DRIVE WILL BE FROM OTHER PUBLIC DEDICATED STREETS ONLY. THE INSTRUMENT INSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
FILE NO. 20130092954 DATE 12/20/13

LEGEND

- (3) - BLOCK NUMBER
- 2 - LOT NUMBER
- ◉ - PROPOSED CITY MONUMENT
- ◎ - EXISTING CITY MONUMENT



(22) 1 1,578,347 sq. ft.

NOTE:
IF LOT IS FURTHER SUBDIVIDED THEN ADDITIONAL PRIVATE DRAINAGE EASEMENTS SHALL BE REQUIRED TO CONVEY THE DRAINAGE RUN-OFF TO THE PONDING AREA."

(1) 78 126,155 sq. ft. POND

(4) 1 TIERRA COMMERCIAL SUBDIVISION UNIT 4

(4) 4

(4) 5 TIERRA COMMERCIAL SUBDIVISION UNIT 11

SLI ENGINEERING, INC.
CIVIL ENGINEERS – LAND SURVEYORS
LAND PLANNERS – CONSTRUCTION MANAGEMENT
6600 WESTWIND DR. – EL PASO, TEXAS – 79912 – (915) 584-4457
PREPARATION DATE: JANUARY 10, 2013

PORTION OF TRACT 4B,
SECTION 38, BLOCK 79
TOWNSHIP 2, TEXAS &
PACIFIC RAILWAY SURVEYS

SHEET 1 OF 4

F:\PROJECTS\LOMAS DEL ESTE-2\FINALS\REVISION 2 12-1-11 PLATS\LDE2-FINAL-PLAT-REV-1.dwg 11/7/2012 11:28:28 AM MST

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37,
AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2,
TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 168.97 ACRES±

100 50 0 100
SCALE: 1"=100'

LEGEND

- (3) = BLOCK NUMBER
- 2 = LOT NUMBER
- ◉ = PROPOSED CITY MONUMENT
- ◉ = EXISTING CITY MONUMENT

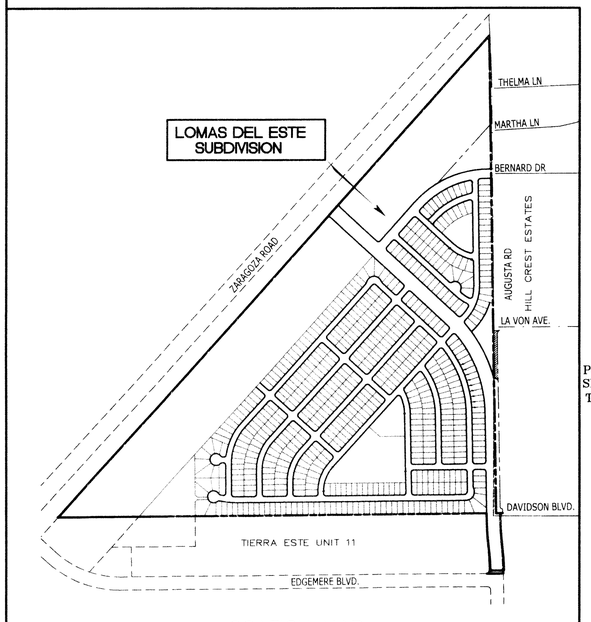
ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

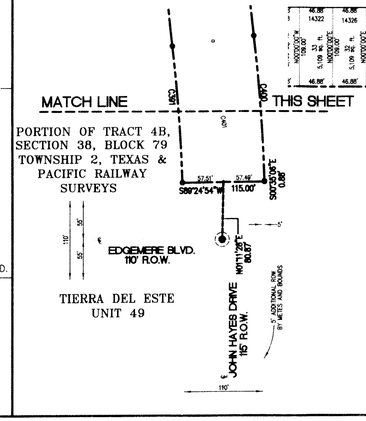
THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 20_____ BY _____.

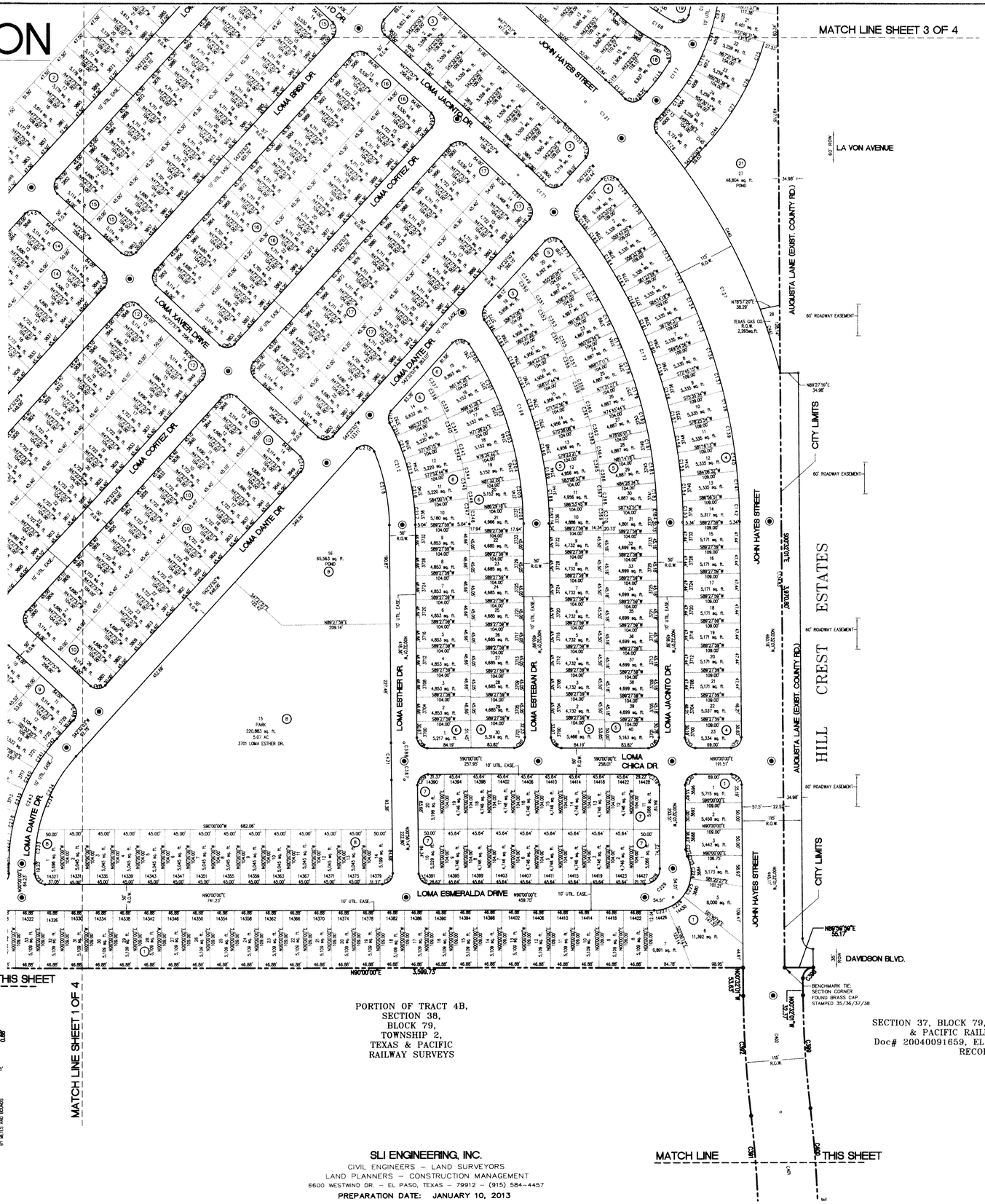
_____
NOTARY PUBLIC, STATE OF TEXAS

_____
MY COMMISSION EXPIRES:



LOCATION MAP
SCALE: 1"=600'





SLI ENGINEERING, INC.
CIVIL ENGINEERS – LAND SURVEYORS
LAND PLANNERS – CONSTRUCTION MANAGEMENT
6600 WESTWIND DR. – EL PASO, TEXAS – 79912 – (915) 584-4457

PREPARATION DATE: JANUARY 10, 2013

LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37,
AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2,
TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 168.97 ACRES±

100 50 0 100

SCALE: 1"=100'

LEGEND

(3) - BLOCK NUMBER
2 - LOT NUMBER
◉ - PROPOSED CITY MONUMENT
◉ - EXISTING CITY MONUMENT

A C K N O W L E D G E M E N T

STATE OF TEXAS
COUNTY OF EL PASO

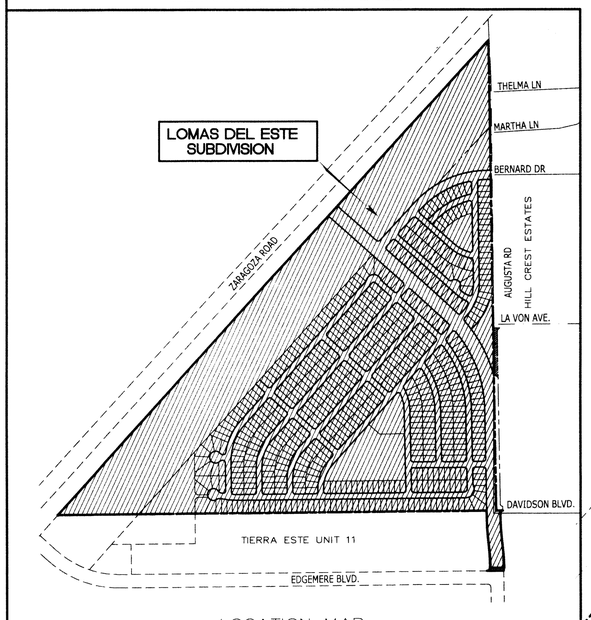
THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 20_____ BY _____.

_____
NOTARY PUBLIC, STATE OF TEXAS

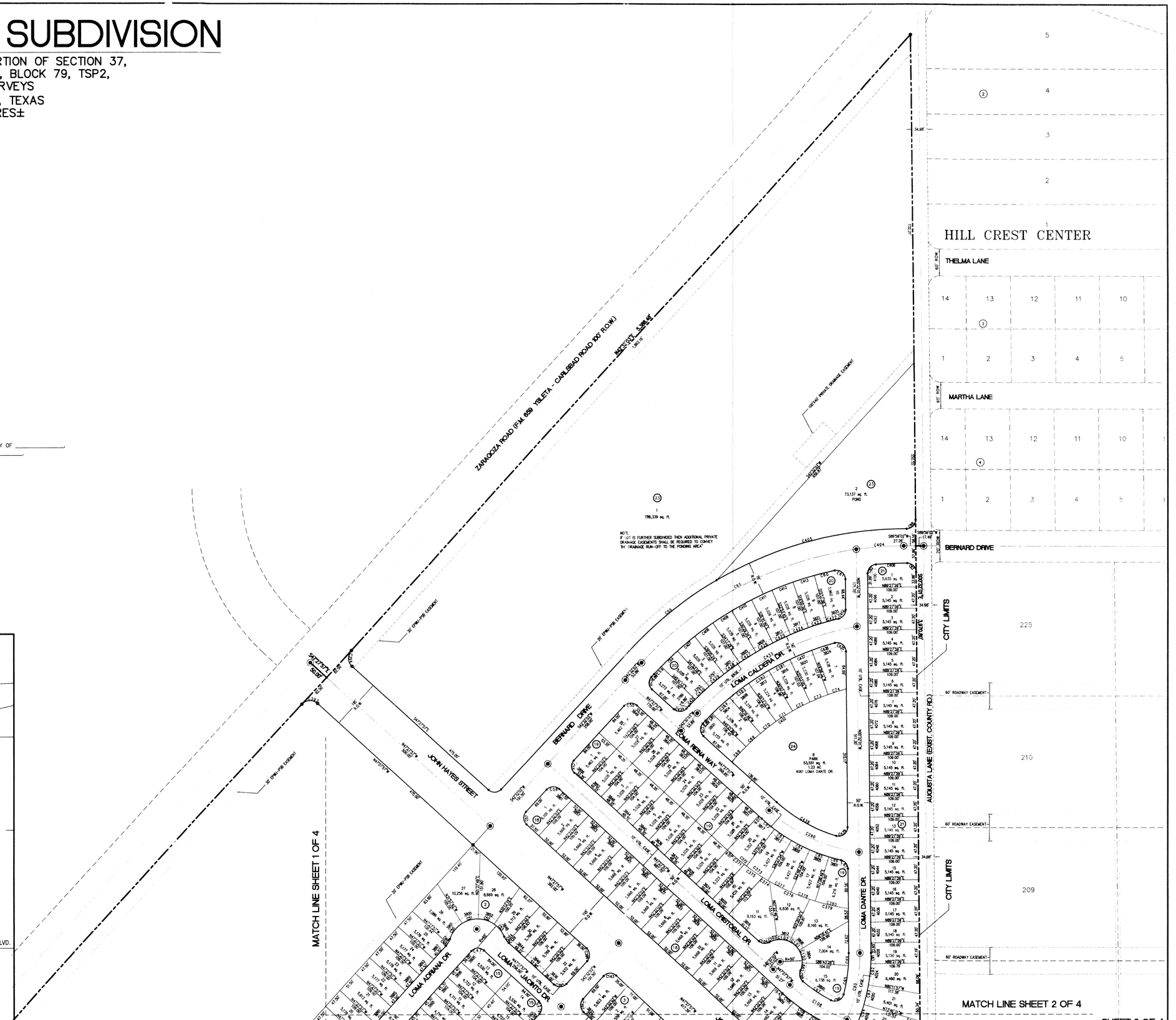
_____
MY COMMISSION EXPIRES:

SLI ENGINEERING, INC.
CIVIL ENGINEERS – LAND SURVEYORS
LAND PLANNERS – CONSTRUCTION MANAGEMENT
6600 WESTWIND DR. – EL PASO, TEXAS – 79912 – (915) 584-4457

PREPARATION DATE: JANUARY 3, 2013



LOCATION MAP
SCALE: 1"=600'



LOMAS DEL ESTE SUBDIVISION

A PORTION OF TR. 3, SECTION 35, A PORTION OF SECTION 37,
AND A PORTION OF TR. 4B, SECTION 38, BLOCK 79, TSP2,
TEXAS & PACIFIC R.R. SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 168.97 ACRES±

CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	30.62	525.00	15.31	30.61	S88°19'45"E	3°20'29"
C2	45.25	525.00	22.64	45.23	S84°11'23"E	4°56'17"
C3	18.11	525.00	9.06	18.11	S80°43'56"E	1°58'37"
C4	24.38	30.00	12.91	23.72	S76°58'21"W	46°34'03"
C5	11.15	50.00	5.60	11.13	N60°04'40"E	12°46'41"
C6	43.34	50.00	23.14	41.99	S89°42'10"E	49°39'38"
C7	26.84	50.00	13.75	26.51	S48°29'49"E	30°45'05"
C8	31.58	50.00	16.34	31.06	S15°01'28"E	36°11'35"
C9	31.96	50.00	16.55	31.42	S21°23'06"W	36°37'34"
C10	36.15	50.00	18.91	35.37	S60°24'37"W	41°25'29"
C11	57.33	50.00	32.29	54.24	N66°01'36"W	65°42'03"
C12	9.23	30.00	4.65	9.19	S41°59'25"E	17°37'40"
C13	15.15	30.00	7.74	14.99	S65°16'26"E	28°56'23"
C14	35.00	20.00	23.94	30.70	N50°07'41"E	100°15'22"
C15	17.30	475.00	8.65	17.29	S88°57'25"E	2°05'10"
C16	30.69	20.00	19.28	27.76	S43°57'25"E	87°54'50"
C17	30.32	20.00	18.93	27.50	N43°25'35"W	86°51'10"
C18	24.38	30.00	12.91	23.72	S69°51'48"W	46°34'03"
C19	10.12	50.00	5.08	10.11	N52°22'49"E	11°36'04"
C20	41.94	50.00	22.29	40.72	N82°17'39"E	48°03'37"
C21	33.48	50.00	17.39	32.86	S54°34'37"E	38°21'51"
C22	33.48	50.00	17.39	32.86	S16°12'46"E	38°21'51"
C23	33.48	50.00	17.39	32.86	S22°09'05"W	38°21'51"
C24	33.48	50.00	17.39	32.86	S60°30'56"W	38°21'51"
C25	40.54	50.00	21.46	39.44	N77°04'24"W	46°27'30"
C26	14.82	50.00	7.47	14.77	N45°21'04"W	16°59'10"
C27	17.45	20.00	9.33	16.90	S61°51'20"E	49°59'41"
C28	29.69	20.00	18.34	27.04	N50°37'29"E	85°02'42"
C29	45.49	451.00	22.77	45.47	S02°53'23"W	5°46'46"
C30	55.64	451.00	27.85	55.60	S09°18'48"W	7°04'05"
C31	86.24	501.00	43.23	86.13	S13°02'00"W	9°51'46"
C32	56.06	451.00	28.06	56.02	S16°24'29"W	7°07'17"
C33	48.71	501.00	24.37	48.69	S19°45'00"W	5°34'13"
C34	56.12	451.00	28.10	56.09	S23°32'02"W	7°07'47"
C35	46.45	501.00	23.24	46.44	S26°11'29"W	5°18'44"
C36	55.83	451.00	27.95	55.79	S30°38'42"W	7°05'33"
C37	46.45	501.00	23.24	46.44	S31°30'13"W	5°18'44"
C38	54.44	451.00	27.25	54.40	S37°38'56"W	6°54'56"
C39	46.45	501.00	23.24	46.44	S36°48'58"W	5°18'44"
C40	26.77	501.00	13.39	26.77	S41°00'12"W	3°03'43"
C41	26.15	476.00	13.08	26.14	S01°34'25"W	3°08'50"
C42	327.22	476.00	170.37	320.81	S22°50'26"W	39°23'13"
C43	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C44	31.42	20.00	20.00	28.28	N87°32'03"E	90°00'00"
C45	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C46	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C47	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C48	6.71	40.00	3.36	6.70	N37°43'39"E	9°36'48"
C49	11.01	40.00	5.54	10.98	N25°01'57"E	15°46'37"
C50	46.39	65.00	24.23	45.41	S37°35'28"W	40°53'40"
C51	38.11	65.00	19.62	37.57	S74°50'03"W	33°35'30"
C52	38.11	65.00	19.62	37.57	N71°34'26"W	33°35'30"
C53	37.10	65.00	19.07	36.60	N38°25'37"W	32°42'10"
C54	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C55	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C56	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C57	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C58	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C59	23.66	762.00	11.83	23.66	S43°25'25"W	1°46'44"
C60	47.00	762.00	23.51	46.99	S76°28'05"W	3°32'02"
C61	35.34	20.00	24.36	30.92	N51°08'57"W	101°13'53"
C62	29.95	20.00	18.58	27.23	S42°21'35"W	85°47'11"
C63	31.03	20.00	19.61	28.01	N44°58'28"W	88°52'55"
C64	50.52	762.00	25.27	50.51	S46°12'44"W	3°47'55"
C65	555.52	800.00	289.49	544.43	S62°25'38"W	39°47'10"
C66	253.33	838.00	127.64	252.36	S51°11'40"W	17°19'14"
C67	25.99	398.00	13.00	25.98	N42°42'49"W	3°44'27"
C68	47.27	504.89	23.65	47.25	S42°16'55"W	5°21'50"
C69	44.16	504.89	22.09	44.14	S47°28'10"W	5°00'40"
C70	44.14	504.89	22.08	44.13	S52°28'47"W	5°00'33"
C71	44.13	504.89	22.08	44.11	S57°29'17"W	5°00'27"
C72	44.12	504.89	22.07	44.11	S62°29'42"W	5°00'24"
C73	44.12	504.89	22.07	44.10	S67°30'06"W	5°00'23"
C74	43.13	504.89	21.58	43.11	S72°27'06"W	4°53'39"
C75	56.40	503.00	28.23	56.37	N19°26'13"E	6°25'26"
C76	56.40	503.00	28.23	56.37	N25°51'39"E	6°25'26"
C77	56.40	503.00	28.23	56.37	N32°17'05"E	6°25'26"
C78	37.50	20.00	27.24	32.24	N53°10'40"E	107°25'21"
C79	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C80	59.63	347.00	29.89	59.56	S57°31'30"E	9°50'47"
C81	22.28	605.00	11.14	22.28	S43°35'22"W	2°06'37"
C82	37.49	397.00	18.76	37.47	S50°10'15"E	5°24'37"
C83	46.14	397.00	23.10	46.11	S56°12'20"E	6°39'32"
C84	46.14	397.00	23.10	46.11	S62°51'52"E	6°39'32"
C85	46.14	397.00	23.10	46.11	S69°31'24"E	6°39'32"
C86	28.42	397.00	14.21	28.41	S74°54'13"E	4°06'04"
C87	26.68	20.00	15.74	24.74	N38°44'38"W	76°25'14"
C88	31.75	20.00	20.34	28.52	N44°57'00"E	90°58'01"
C89	27.55	349.00	13.78	27.54	N01°43'41"E	4°31'23"
C90	151.56	374.00	76.84	150.53	N11°04'33"E	23°13'08"
C91	24.56	399.00	12.28	24.56	N01°13'47"E	3°31'36"
C92	47.41	399.00	23.73	47.38	N06°23'49"E	6°48'28"
C93	44.74	399.00	22.39	44.71	N13°00'46"E	6°25'26"
C94	44.74	399.00	22.39	44.71	N19°26'13"E	6°25'26"
C95	65.47	349.00	32.83	65.37	N09°21'48"E	10°44'52"
C96	35.83	20.00	24.98	31.22	N66°03'13"E	102°37'56"
C97	76.37	349.00	38.34	76.22	S56°21'42"E	12°32'15"
C98	25.84	20.00	15.08	24.08	S13°04'23"E	74°02'23"
C99	18.04	50.00	9.12	17.94	N13°36'40"E	20°40'17"
C100	29.64	50.00	15.27	29.21	N13°42'24"W	33°57'51"

CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C101	29.64	50.00	15.27	29.21	N47°40'15"W	33°57'51"
C102	28.56	50.00	14.68	28.17	N81°00'58"W	32°43'36"
C103	19.02	50.00	9.63	18.91	S71°43'19"W	21°47'51"
C104	25.02	20.00	14.45	23.43	S83°19'17"E	71°42'40"
C105	32.61	399.00	16.31	32.60	S49°48'26"E	4°40'58"
C106	52.51	399.00	26.34	52.57	S55°55'34"E	7°32'17"
C107	27.50	399.00	13.75	27.49	S61°40'40"E	3°56'56"
C108	150.87	374.00	76.47	149.85	S59°01'20"E	23°06'45"
C109	32.87	20.00	21.51	29.29	N16°34'29"W	94°09'19"
C110	44.74	399.00	22.39	44.71	N25°51'39"E	6°25'26"
C111	44.74	399.00	22.39	44.71	N32°17'05"E	6°25'26"
C112	44.74	399.00	22.39	44.71	N38°42'31"E	6°25'26"
C113	4.27	399.00	2.14	4.27	N42°13'39"E	0°36'49"
C114	14.04	40.00	7.09	13.97	S32°07'53"E	20°06'42"
C115	73.28	349.00	36.78	73.15	N36°31'07"E	12°01'52"
C116	32.33	20.00	20.93	28.92	N88°50'20"E	92°36'34"
C117	129.56	374.00	65.44	128.92	N32°36'35"E	19°50'56"
C118	28.97	20.00	17.69	26.50	S01°02'13"W	82°59'41"
C119	14.16	1157.50	7.08	14.16	N47°06'55"W	0°42'03"
C120	38.56	1157.50	19.28	38.56	N45°48'38"W	1°54'32"
C121	98.74	1100.00	49.41	98.71	N44°53'39"W	5°08'36"
C122	19.61	1042.50	9.81	19.61	N46°55'37"W	1°04'41"
C123	35.07	1042.50	17.54	35.07	N45°25'27"W	1°55'39"
C124	30.37	20.00	18.98	27.53	N00°57'47"W	86°59'40"
C125	34.23	20.00	23.04	30.21	N88°25'44"W	98°04'26"
C126	87.58	1157.50	43.81	87.56	N38°17'34"W	4°20'07"
C127	802.29	1100.00	419.93	784.63	N21°25'41"W	41°47'20"
C128	3.69	40.00	1.84	3.68	S44°49'35"E	5°16'43"
C129	41.40	1042.50	20.70	41.40	N38°15'15"W	2°16'32"
C130	51.65	1042.50	25.83	51.64	N35°41'49"W	2°50'19"
C131	51.65	1042.50	25.83	51.64	N32°51'30"W	2°50'19"
C132	51.65	1042.50	25.83	51.64	N30°01'10"W	2°50'19"
C133	51.65	1042.50	25.83	51.64	N27°10'52"W	2°50'19"
C134	51.65	1042.50	25.83	51.64	N24°20'33"W	2°50'19"
C135	51.65	1042.50	25.83	51.64	N21°30'14"W	2°50'19"
C136	51.65	1042.50	25.83	51.64	N18°39'54"W	2°50'19"
C137	51.65	1042.50	25.83	51.64	N15°49'35"W	2°50'19"
C138	51.65	1042.50	25.83	51.64	N12°59'16"W	2°50'19"
C139	51.65	1042.50	25.83	51.64	N10°08'57"W	2°50'19"
C140	51.65	1042.50	25.83	51.64	N07°18'38"W	2°50'19"
C141	51.65	1042.50	25.83	51.64	N04°28'19"W	2°50'19"
C142	45.83	1042.50	22.92	45.83	N01°47'35"W	2°31'08"
C143	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C144	56.40	503.00	28.23	56.37	N38°42'31"E	6°25'26"
C145	5.39	503.00	2.69	5.39	N42°13'39"E	0°36'49"
C146	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C147	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C148	31.42	20.00	20.00	28.28	N87°32'03"E	90°00'00"
C149	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C150	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C151	31.60	20.00	20.19	28.42	N44°44'00"E	90°32'01"
C152	31.23	20.00	19.81	28.15	S45°16'00"E	89°27'59"
C153	41.04	933.50	20.52	41.04	N01°47'35"W	2°31'08"
C154	46.25	933.50	23.13	46.24	N04°28'19"W	2°50'19"
C155	46.25	933.50	23.13	46.24	N07°18'38"W	2°50'19"
C156	46.25	933.50	23.13	46.24	N10°08'57"W	2°50'19"
C157	46.25	933.50	23.13	46.24	N12°59'16"W	2°50'19"
C158	46.25	933.50	23.13	46.24	N15°49'35"W	2°50'19"
C159	46.25	933.50	23.13	46.24	N18°39'54"W	2°50'19"
C160	46.25	933.50	23.13	46.24	N21°30'14"W	2°50'19"
C161	46.25	933.50	23.13	46.24	N24°20'33"W	2°50'19"
C162	46.25	933.50	23.13	46.24	N27°10'52"W	2°50'19"
C163	46.25	933.50	23.13	46.24	N30°01'11"W	2°50'19"
C164	46.25	933.50	23.13	46.24	N32°51'30"W	2°50'19"
C165	46.25	933.50	23.13	46.24	N35°41'49"W	2°50'19"
C166	27.48	933.50	13.74	27.48	N37°57'35"W	1°41'13"
C167	28.39	20.00	17.18	26.07	S01°51'56"W	81°20'15"
C168	32.54	20.00	21.16	29.07	N89°08'45"E	93°13'24"
C169	30.17	20.00	18.79	27.39	N00°41'10"W	86°26'26"
C170	34.76	20.00	23.66	30.55	N87°40'44"W	99°34'25"
C171	98.81	908.50	49.45	98.76	N44°21'00"W	6°13'53"
C172	645.37	908.50	336.97	631.88	N20°53'02"W	40°42'03"
C173	49.75	883.50	24.88	49.75	N36°16'44"W	3°13'36"
C174	49.93	883.50	24.97	49.92	N33°02'48"W	3°14'17"
C175	49.93	883.50	24.97	49.92	N29°48'31"W	3°14'17"
C176	49.93	883.50	24.97	49.92	N26°34'14"W	3°14'17"
C177	49.93	883.50	24.97	49.92	N23°19'58"W	3°14'17"
C178	49.93	883.50	24.97	49.92	N20°05'41"W	3°14'17"
C179	49.93	883.50	24.97	49.92	N16°51'24"W	3°14'17"
C180	49.93	883.50	24.97	49.92	N13°37'08"W	3°14'17"
C181	49.93	883.50	24.97	49.92	N10°22'51"W	3°14'17"
C182	49.93	883.50	24.97	49.92	N07°08'34"W	3°14'17"
C183	49.93	883.50	24.97	49.92	N03°54'17"W	3°14'17"
C184	27.02	883.50	13.51	27.02	N01°24'35"W	1°45'08"
C185	31.60	20.00	20.19	28.42	N44°44'00"E	90°32'01"
C186	31.23	20.00	19.81	28.15	S45°16'00"E	89°27'59"
C187	30.31	675.50	15.16	30.30	N01°49'08"W	2°34'14"
C188	44.25	675.50	22.13	44.24	N04°58'51"W	3°45'12"
C189	44.25	675.50	22.13	44.24	N08°44'03"W	3°45'12"
C190	44.25	675.50	22.13	44.24	N12°29'15"W	3°45'12"
C191	44.25	675.50	22.13	44.24	N16°14'28"W	3°45'12"
C192	44.25	675.50	22.13	44.24	N19°59'40"W	3°45'12"
C193	44.25	675.50	22.13	44.24	N23°44'52"W	3°45'12"
C194	44.25	675.50	22.13	44.24	N27°30'04"W	3°45'12"
C195	44.25	675.50	22.13	44.24	N31°15'16"W	3°45'12"
C196	28.51	675.50	14.26	28.51	N34°20'25"W	2°25'05"
C197	27.26	20.00	16.22	25.20	S03°29'33"W	78°05'00"
C198	36.21	20.00	25.47	31.46	N85°36'21"W	103°43'12"
C199	433.85	650.50	225.34	425.85	N19°38'24"W	38°12'47"
C200	59.90	625.50	29.97	59.88	N31°00'08"W	5°29'12"

CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C201	54.03	625.50	27.03	54.02	N25°47'03"W	4°56'58"
C202	54.03	625.50	27.03	54.02	N20°50'05"W	4°56'58"
C203	54.03	625.50	27.03	54.02	N15°53'07"W	4°56'58"
C204	54.03	625.50	27.03	54.02	N10°56'09"W	4°56'58"
C205	54.03	625.50	27.03	54.02	N05°59'11"W	4°56'58"
C206	32.51	625.50	16.26	32.51	N02°01'21"W	2°58'42"
C207	31.60	20.00	20.19	28.42	N44°44'00"E	90°32'01"
C208	31.23	20.00	19.81	28.15	S45°16'00"E	89°27'59"
C209	31.74	20.00	20.33	28.51	S44°31'53"W	90°56'14"
C210	39.94	20.00	31.04	33.62	N80°15'38"W	114°24'38"
C211	24.73	20.00	14.22	23.18	S07°06'56"W	70°50'14"
C212	221.83	392.50	113.96	218.89	N16°43'27"W	32°22'53"
C213	28.65	417.50	14.33	28.65	N26°20'13"W	3°55'55"
C214	44.63	417.50	22.34	44.61	N21°18'30"W	6°07'30"
C215	44.63	417.50	22.34	44.61	N15°11'01"W	6°07'30"
C216	44.63	417.50	22.34	44.61	N09°03'31"W	6°07'30"
C217	39.81	417.50	19.92	39.79	N03°15'54"W	5°27'46"
C218	144.46	367.50	73.17	143.53	N11°47'40"W	22°31'18"
C219	31.23	20.00	19.81	28.15	N45°16'00"W	89°27'59"
C220	31.60	20.00	20.19	28.42	S44°44'00"W	90°32'01"
C221	31.23	20.00	19.81	28.15	N45°16'00"W	89°27'59"
C222	11.70	30.00	5.93	11.63	S11°42'21"E	22°20'41"
C223	2.71	0.88	25.21	1.76	N24°33'42"W	175°59'35"
C224	43.25	71.00	22.32	42.59	N08°47'34"W	34°54'15"
C225	36.76	71.00	18.80	36.36	N23°29'37"E	29°40'07"
C226	36.76	71.00	18.80	36.36	N53°09'44"E	29°40'07"
C227	27.27	71.00	13.80	27.10	N78°59'54"E	22°00'12"
C228	45.82	29.00	29.27	41.20	N44°44'00"E	90°32'01"
C229	85.33	54.00	54.51	76.72	N44°44'00"E	90°32'01"
C230	31.09	20.00	19.68	28.05	S45°28'07"E	89°03'46"
C231	31.74	20.00	20.33	28.51	N44°31'53"E	90°56'14"
C232	31.42	20.00	20.00	28.28	S45°00'00"E	90°00'00"
C233	65.28	301.00	32.77	65.16	S26°12'48"E	12°25'36"
C234	158.17	301.00	80.96	156.35	S27°28'50"W	30°06'27"
C235	31.42	20.00	20.00	28.28	N45°00'00"E	90°00'00"
C236	11.07	351.00	5.54	11.07	S00°54'14"W	1°48'28"
C237	44.47	351.00	22.27	44.44	S05°26'16"W	7°15'35"
C238	44.47	351.00	22.27	44.44	S12°41'51"W	7°15'35"
C239	44.47	351.00	22.27	44.44	S19°57'27"W	7°15'35"
C240	44.47	351.00	22.27	44.44	S27°13'02"W	7°15'35"
C241	44.47	351.00	22.27	44.44	S34°28'37"W	7°15'35"
C242	27.12	351.00	13.57	27.12	S40°19'14"W	4°25'38"
C243	242.01	326.00	126.89	236.49	S21°16'02"W	42°32'03"
C244	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C245	31.42	20.00	20.00	28.28	N87°32'03"E	90°00'00"
C246	31.42	20.00	20.00	28.28	S45°00'00"E	90°00'00"
C247	26.68	349.00	13.35	26.67	S02°11'23"W	4°22'47"
C248	60.68	349.00	30.42	60.60	S09°21'38"W	9°57'43"
C249	61.18	349.00	30.67	61.10	S19°21'48"W	10°02'37"
C250	60.95	349.00	30.55	60.87	S29°23'18"W	10°00'23"
C251	49.60	349.00	24.84	49.56	S38°27'46"W	8°08'34"
C252	277.64	374.00	145.57	271.31	S21°16'02"W	42°32'03"
C253	16.57	398.00	8.29	16.57	S01°11'34"W	2°23'09"
C254	25.05	399.00	12.53	25.05	S01°47'55"W	3°35'51"
C255	45.56	399.00	22.80	45.53	S06°52'07"W	6°32'32"
C256	45.56	399.00	22.80	45.53	S13°24'39"W	6°32'32"
C257	45.56	399.00	22.80	45.53	S19°57'11"W	6°32'32"
C258	45.56	399.00	22.80	45.53	S26°29'44"W	6°32'32"
C259	45.56	399.00	22.80	45.53	S33°02'16"W	6°32'32"
C260	43.35	399.00	21.70	43.33	S39°25'18"W	6°13'31"
C261	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C262	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C263	31.42	20.00	20.00	28.28	N87°32'03"E	90°00'00"
C264	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C265	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C266	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C267	31.42	20.00	20.00	28.28	N45°00'00"E	90°00'00"
C268	31.42	20.00	20.00	28.28	S45°00'00"E	90°00'00"
C269	23.18	349.00	11.59	23.18	S01°54'10"W	3°48'20"
C270	62.43	349.00	31.30	62.34	S08°55'48"W	10°14'56"
C271	63.19	349.00	31.68	63.11	S19°14'30"W	10°22'29"
C272	62.85	349.00	31.51	62.77	S29°35'18"W	10°19'08"
C273	47.43	349.00	23.75	47.39	S38°38'28"W	7°47'11"
C274	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C275	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C276	31.42	20.00	20.00	28.28	N87°32'03"E	90°00'00"
C277	31.42	20.00	20.00	28.28	S02°27'57"E	90°00'00"
C278	31.42	20.00	20.00	28.28	S87°32'03"W	90°00'00"
C279	31.42	20.00	20.00	28.28	N02°27'57"W	90°00'00"
C280	31.42	20.00	20.00	28.28	N45°00'00"E	90°00'00"
C281	9.69	399.00	4.85	9.69	S00°41'45"W	1°23'29"
C282	43.44	399.00	21.74	43.42	S04°30'38"W	6°14'17"
C283	43.44	399.00	21.74	43.42	S10°44'54"W	6°14'17"
C284	43.44	399.00	21.74	43.42	S16°59'11"W	6°14'17"
C285	43.44	399.00	21.74	43.42	S23°13'27"W	6°14'17"
C286	43.44	399.00	21.74	43.42	S29°27'44"W	6°14'17"
C287	43.44	399.00	21.74	43.42	S35°42'01"W	6°14'17"
C288	25.87	399.00	12.94	25.87	S40°40'36"W	3°42'54"
C289	277.64	374.00	145.57	271.31	S21°16'02"W	42°32'03"
C290	226.53	372.00	116.90	223.05	S64°54'41"E	34°53'28"
C291	54.89	883.50	27.45	54.88	N45°41'10"W	3°33'34"
C292	19.61	933.50	9.81	19.61	N46°51'50"W	1°12'14"
C293	32.90	933.50	16.45	32.90	N45°15'08"W	2°01'10"
C294	8.62	503.00	4.31	8.62	S00°29'27"W	0°58'54"
C295	4.53	503.00	2.27	4.53	S01°38'00"W	0°30'58"
C296	45.10	503.00	22.57	45.09	S03°33'01"W	5°08'15"
C297	54.76	503.00	27.41	54.74	S04°30'38"W	6°14'17"
C298	41.78	503.00	20.90	41.77	S08°29'54"W	4°45'32"
C299	54.76	503.00	27.41	54.74	S10°44'54"W	6°14'17"
C300	41.81	503.00	20.92	41.80	S13°15'33"W	4°45'45"

CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C301	54.76	503.00	27.41	54.74	S16°59'11"W	6°14'17"
C302	41.79	503.00	20.91	41.78	S18°01'14"W	4°45'33"
C303	54.76	503.00	27.41	54.74	S23°13'27"W	6°14'17"
C304	41.79	503.00	20.91	41.78	S27°46'51"W	4°45'36"
C305	41.80	503.00	20.91	41.79	S27°32'30"W	4°45'42"
C306	54.76	503.00	27.41	54.74	S29°27'44"W	6°14'17"
C307	41.25	503.00	20.64	41.24	S32°16'19"W	4°41'56"
C308	54.76	503.00	27.41	54.74	S35°42'01"W	6°14'17"
C309	44.40	503.00	22.21	44.39	S37°09'01"W	5°03'28"
C310	32.61	503.00	16.31	32.61	S40°40'36"W	3°42'54"
C311	25.07	503.00	12.54	25.06	S41°06'24"W	2°51'19"
C312	45.24	400.00	22.64	45.22	S07°43'59"W	6°28'49"
C313	49.45	400.00	24.76	49.42	S03°32'29"W	7°04'58"
C314	42.40	400.00	21.22	42.38	S14°00'36"W	6°04'26"
C315	58.18	400.00	29.14	58.13	S11°14'58"W	8°20'00"
C316	42.36	400.00	21.20	42.34	S20°04'51"W	6°04'04"
C317	58.29	400.00	29.19	58.23	S19°35'26"W	8°20'55"
C318	42.38	400.00	21.21	42.36	S26°09'00"W	6°04'14"
C319	58.24	400.00	29.17	58.19	S27°56'10"W	8°20'32"
C320	43.48	400.00	21.76	43.45	S32°17'58"W	6°13'43"
C321	58.04	400.00	29.07	57.99	S36°15'51"W	8°18'50"
C322	46.90	400.00	23.48	46.88	S38°46'23"W	6°43'06"
C323	14.75	400.00	7.38	14.75	S41°28'40"W	2°06'47"
C324	2.81	400.00	1.40	2.81	S42°20'00"W	0°24'07"
C325	15.42	350.00	7.71	15.42	S01°15'44"W	2°31'28"
C326	16.14	350.00	8.07	16.14	S03°50'44"W	2°38'33"
C327	44.11	350.00	22.08	44.08	S06°08'06"W	7°13'16"
C328	58.47	350.00	29.30	58.40	S09°57'11"W	9°34'20"
C329	41.66	350.00	20.86	41.64	S13°09'21"W	6°49'14"
C330	58.61	350.00	29.37	58.54	S19°32'12"W	9°35'42"
C331	41.63	350.00	20.84	41.61	S19°58'26"W	6°48'56"
C332