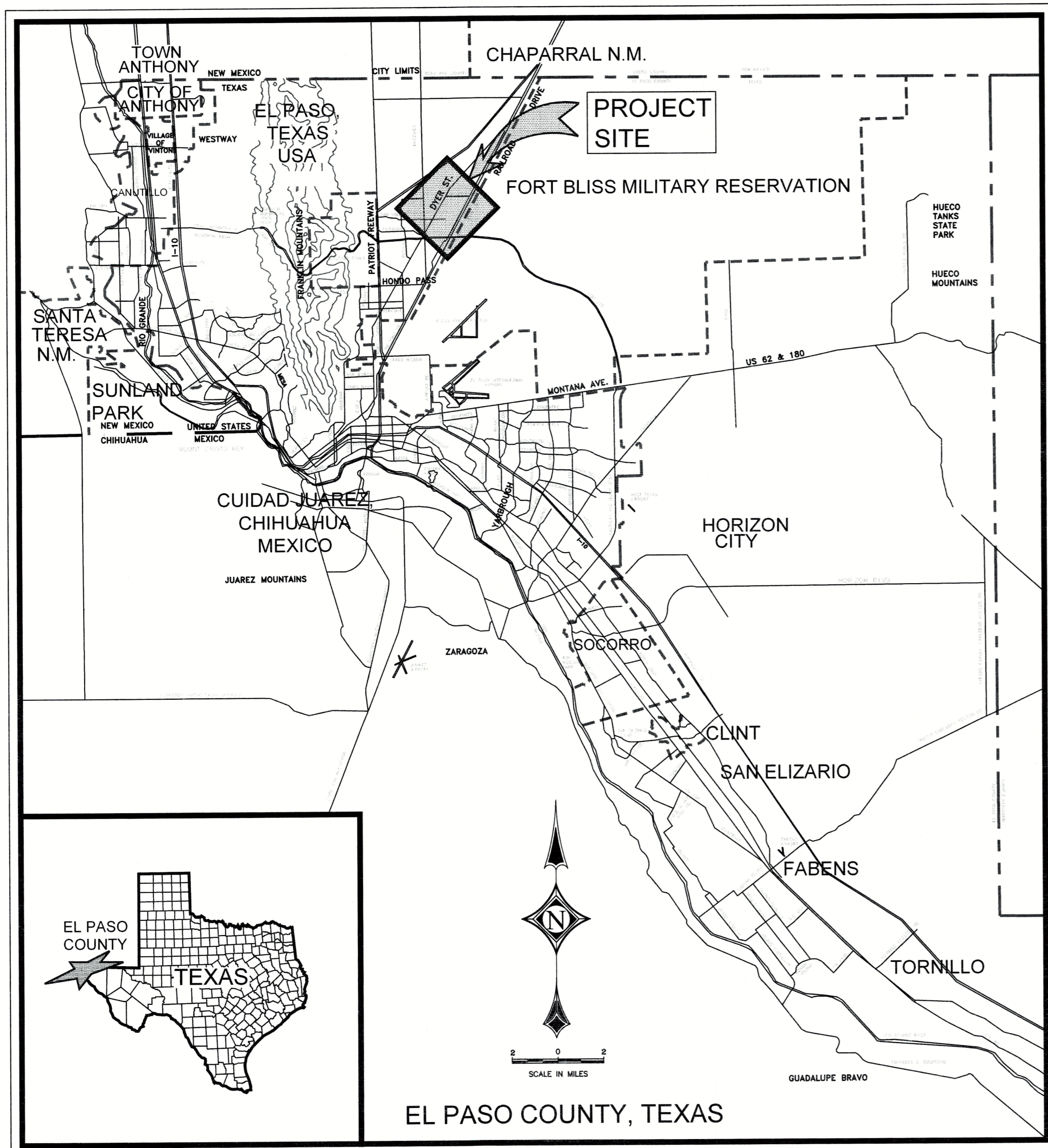


SANDSTONE VIEW SUBDIVISION

BEING LOT 1, BLOCK 1 EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ.FT. OR 14.930 ACRES

VICINITY MAP



INDEX SHEET

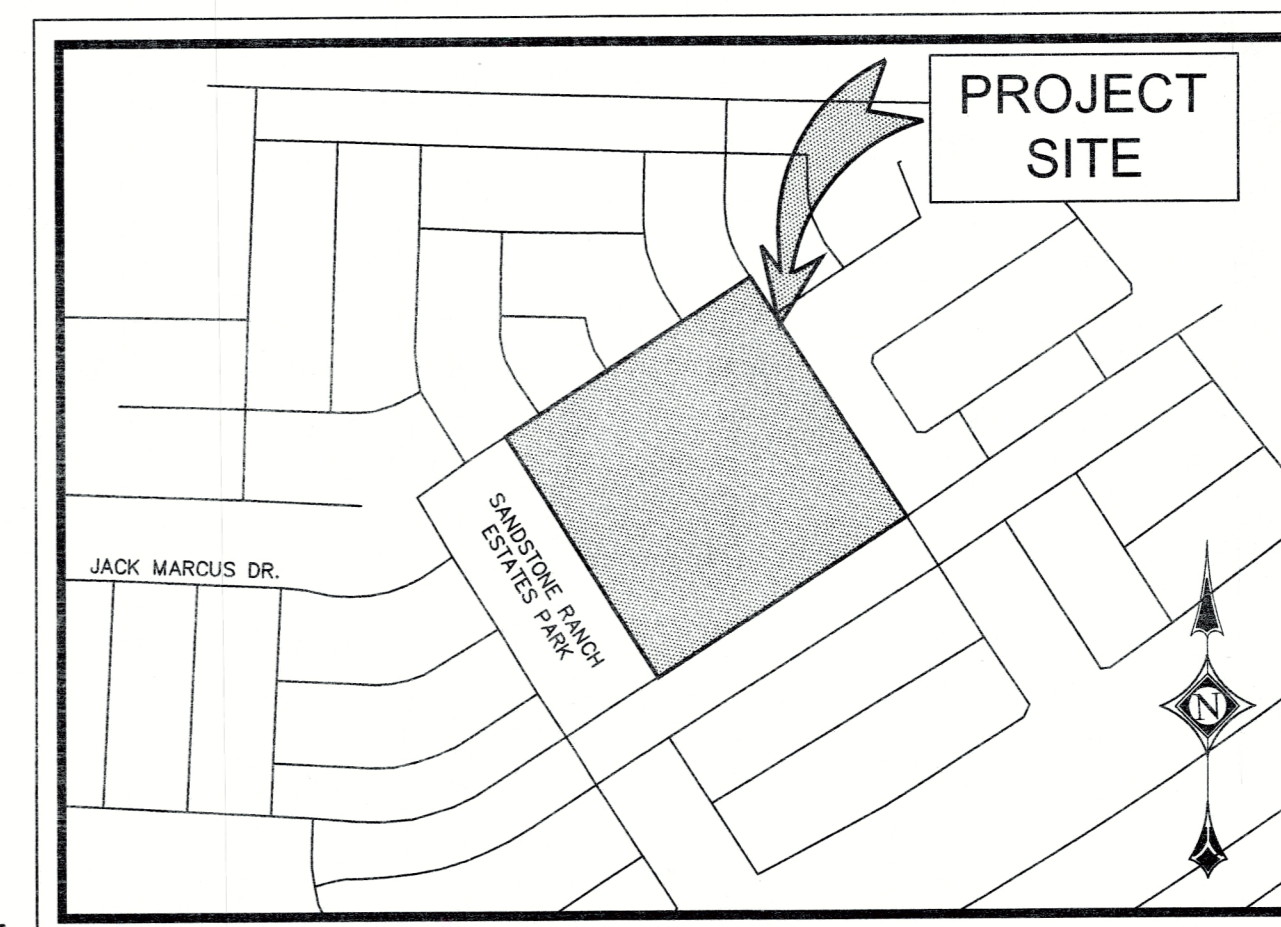
C-00	COVER SHEET	C-22	ROADWAY STANDARD DETAILS
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C-19	STANDARD DETAILS	C-41	SWPPP
C-20	STANDARD DETAILS		
C-21	STANDARD DETAILS		

CITY DEVELOPMENT DEPARTMENT

Reviewed For Conformance For Condition Related To:

- Submittal
- Grading & Driveway
- Wetland Buffer
- On Site Parking Layout
- Driveway
- Retaining Back Wall
- On Site Parking of Street Width

1/23/2019



LOCATION MAP

SCALE: 1"=600'

Plans prepared by:
CIVIL ENGINEER



DRE Del Rio Engineering, Inc.
P.O. Box 220251 El Paso, Texas 79913 915/833-2400
TBPE Firm Reg. No.: F-1093

LOCATION MAP

SCALE: 1"=600'



- NOTES:
1. THE BASIS OF BEARING CONFORM TO THOSE BEARINGS FOUND ON THE PLAT OF EPISD E-17 INSTRUMENT NO. 20160026873 PLAT RECORDS OF EL PASO COUNTY, LOCATED IN THE CITY OF EL PASO, EL PASO COUNTY, TEXAS.
2. VISIBLE UTILITIES WHERE LOCATED AND ARE SHOWN HEREIN WHETHER PUBLIC OR PRIVATE.
3. THIS SURVEY WAS PERFORMED FOR THE BENEFIT OF DVEP LAND, LLC.
4. THIS SURVEY WAS PERFORMED WITH THE BENEFIT OF A TITLE COMMITMENT FOUND ON OF No. 18403859 DATED NOVEMBER 12, 2018.
5. THIS PROPERTY LIES WITHIN FLOOD HAZARD ZONE 'C', AS DESIGNATED BY THE FIRM: FLOOD INSURANCE RATE MAP, DATED SEPTEMBER 4, 1991, COMMUNITY No. 480214, PLAN NUMBER 0014D.
6. THIS PLAT OF SURVEY CONFORMS TO THE TEXAS BOARD OF PROFESSIONAL LAND SURVEYING GENERAL RULES AND PROCEDURES CITED IN SECTIONS 663.13 THROUGH 663.21.
7. LAND SURVEYING IS UNDER THE JURISDICTION OF THE TEXAS BOARD OF PROFESSIONAL LAND SURVEYING. COMPLAINTS REGARDING SURVEYING SERVICES MAY BE ADDRESSED TO: 12100 PARK 35 CIRCLE, BUILDING A, SUITE 156, MC-230, AUSTIN, TEXAS 78753, PHONE (512) 239-5263.

LEGEND

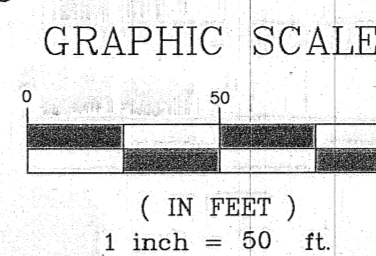
- EL PASO COUNTY DEED RECORDS
CITY OF EL PASO MONUMENT
SET 1/2 INCH REINFORCING BAR WITH A PLASTIC CAP STAMPED TX RLPNO.5679 C-3/NC UNLESS OTHERWISE SHOWN
PROPERTY CORNERS
PROPOSED CITY OF EL PASO MONUMENT
MAIL BOX DELIVERY UNIT
ADDITIONAL RIGHT-OF-WAY INSTRUMENT NO. 20160026873

Parcel Line Table with columns: Line No., Direction, Length. Includes lines L1 and L2 with bearings and distances.

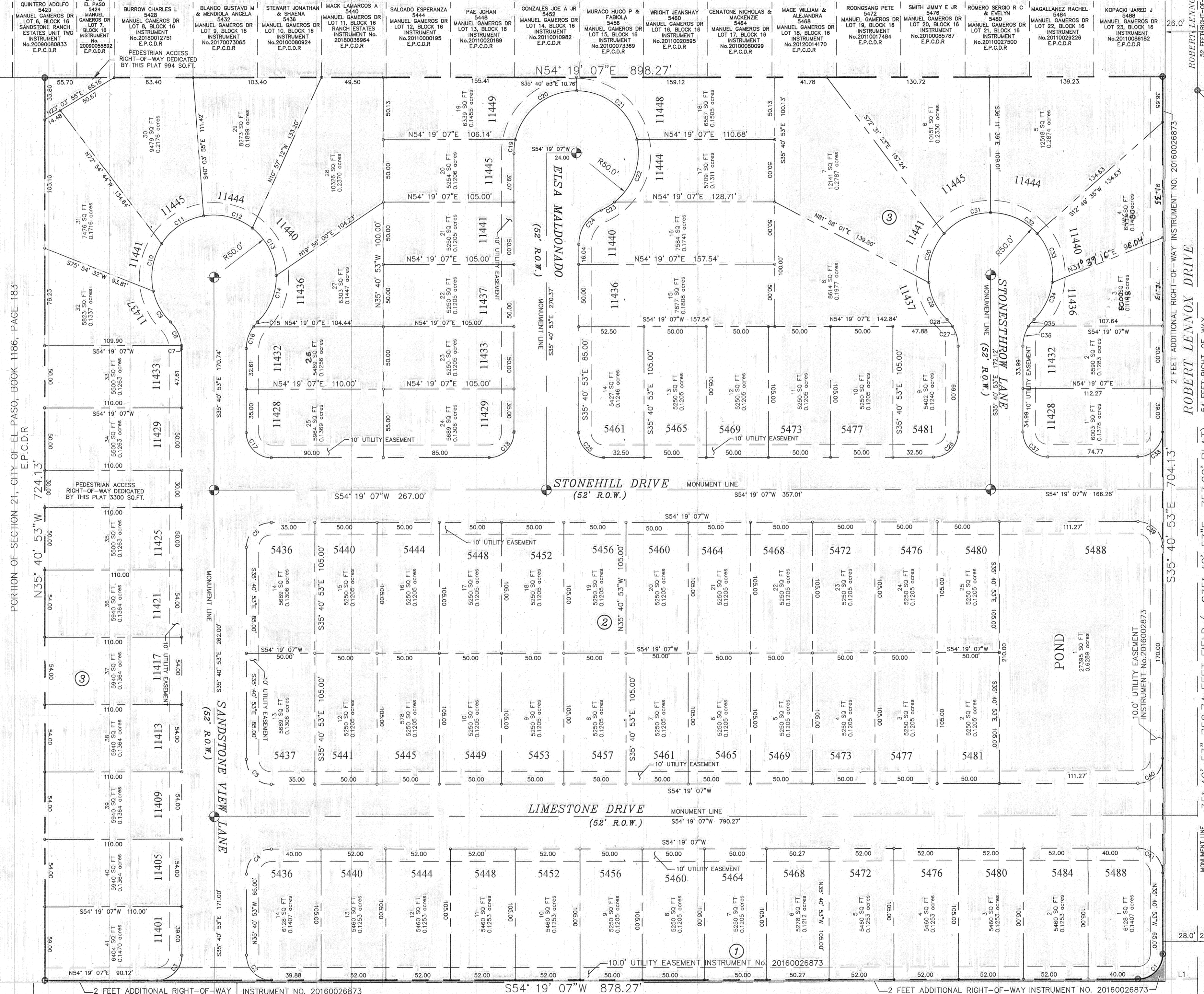
- NOTES AND RESTRICTIONS:
1. Buildings shall be set as follows:
a. From the Public right-of-way, 15 feet with the required 20 feet driveway setback
b. From the side street right-of-way, 10 feet
c. From other adjoining property lines, 5 feet
d. From rear property, 20 feet.
2. No more than one single-family detached dwelling shall be located on each lot.
3. Restrictive Covenants for this property are filed in the El Paso County Clerk's Office, Instrument No. [blank] Date [blank]
4. Tax Certificates for this property are filed in the El Paso County Clerk's Office, Instrument No. [blank] Date [blank]
5. Water supply will be provided by the El Paso Water Utilities.
6. Sewer service will be provided by the El Paso Water Utilities.
7. Postal delivery service within the subdivision will be provided using Neighborhood Delivery And Collection Box Units.
8. All ponds will be constructed at time of development.
9. Lot owner is responsible for maintaining driveways, sidewalks and parkways abutting their property.
10. Vehicular access to lots 1-14, Block 1, abutting Marcus Uribe Drive, and lots 1-4, Block 3, abutting Robert Lennox Drive, shall be from other dedicated street only. The instrument assuring release of access is filed in the El Paso County Clerk's Office, Instrument No. [blank] Book [blank] Page [blank] Date [blank]

SCHOOL DISTRICT EL PASO INDEPENDANT SCHOOL DISTRICT

THE PURPOSE OF THE REPLAT IS TO BUILD A NEW RESIDENTIAL SUBDIVISION.



SANDSTONE RANCH ESTATES UNIT FIVE AMENDING



Curve Table with columns: Curve No., Length, Radius, Delta, Chord Direction, Chord Length. Lists curves C1 through C41 with their respective geometric data.

PRINCIPAL CONTACTS:

Table with columns: NAME, ADDRESS, CITY & ZIP, PHONE, FAX. Lists contact information for DVEP Land, LLC, G-Engineering, LLC, and Del Rio Engineering, Inc.

DRE Del Rio Engineering, Inc. logo and address information.

SANDSTONE VIEW SUBDIVISION

BEING LOT 1, BLOCK 1, E.P.I.S.D. E-17, CITY OF EL PASO, EL PASO COUNTY, TEXAS 14.9306 ACRES OR 650,378 SQ. FT.

STATE OF TEXAS COUNTY OF EL PASO

OWNER'S DEDICATION, CERTIFICATION AND ATTESTATION
We, DVEP Land, LLC, as owners of the 14.9306 acres of land encompassed with the proposed Sandstone View, hereby subdivide the land as described in this subdivision plat and dedicate to public use the streets, drives, and Ponding area located at Lot 1, Block 2 (approximately 0.629 acres), pedestrian access, right-of-way, utility easements as hereon laid down and designated, including easements for overhead of service wires for pole type utilities and the right for installation of service poles alongside lot lines as may be required, easements for buried service wires, conduits and pipes for underground utilities, and the right to ingress and egress for service and construction, and the right to trim interfering trees and shrubs, shown hereon.

I certify that I have complied with the requirement of Texas Local Government Code 232.032 and that:

- A) the water quality and connections to the lots meet, or will meet, the minimum state standards;
B) electrical connections provided to the lots meet, or will meet, the minimum state standards;
C) gas connections, if available, provided to the lots meet, or will meet, the minimum state standards; and
D) sewer connections provided to the lots meet, or will meet, the minimum state standards.
I swear that the matters asserted in this plat are true and complete.

Signature of Patrick J. Woods, SVP, dated 8/26/2020.

ACKNOWLEDGEMENT

STATE OF TEXAS COUNTY OF EL PASO

BEFORE ME, the undersigned authority, on this day personally appeared Patrick J. Woods, proved to me through his Texas Department of Public Safety Drivers License to be the person whose name is subscribed to the foregoing instrument, who, being by me first duly sworn, declared that the statements therein are true and correct and acknowledged that he executed the same for the purposes and consideration thereby expressed.
Given under my hand and seal of office this 26 day of August 2020.

Signature of Irene Schweitz, Notary Public in and for El Paso County, dated August 22, 2020.

CITY PLAN COMMISSION

UNDER LOCAL GOVERNMENT CODE 212
This subdivision is hereby approved as to the platting and as to the condition of the dedication in accordance with Chapter 212 of the Local Government Code of Texas 22 day of August 2020.

Signature of Executive Secretary, Planning and Inspections Director, dated 8/26/2020.

COUNTY CLERK'S RECORDING CERTIFICATE

I certify that the plat bearing this certificate was filed and recorded under instrument Number 20200075737 in the Plat Records of El Paso County.

Signature of County Clerk, dated 9-21-2020.

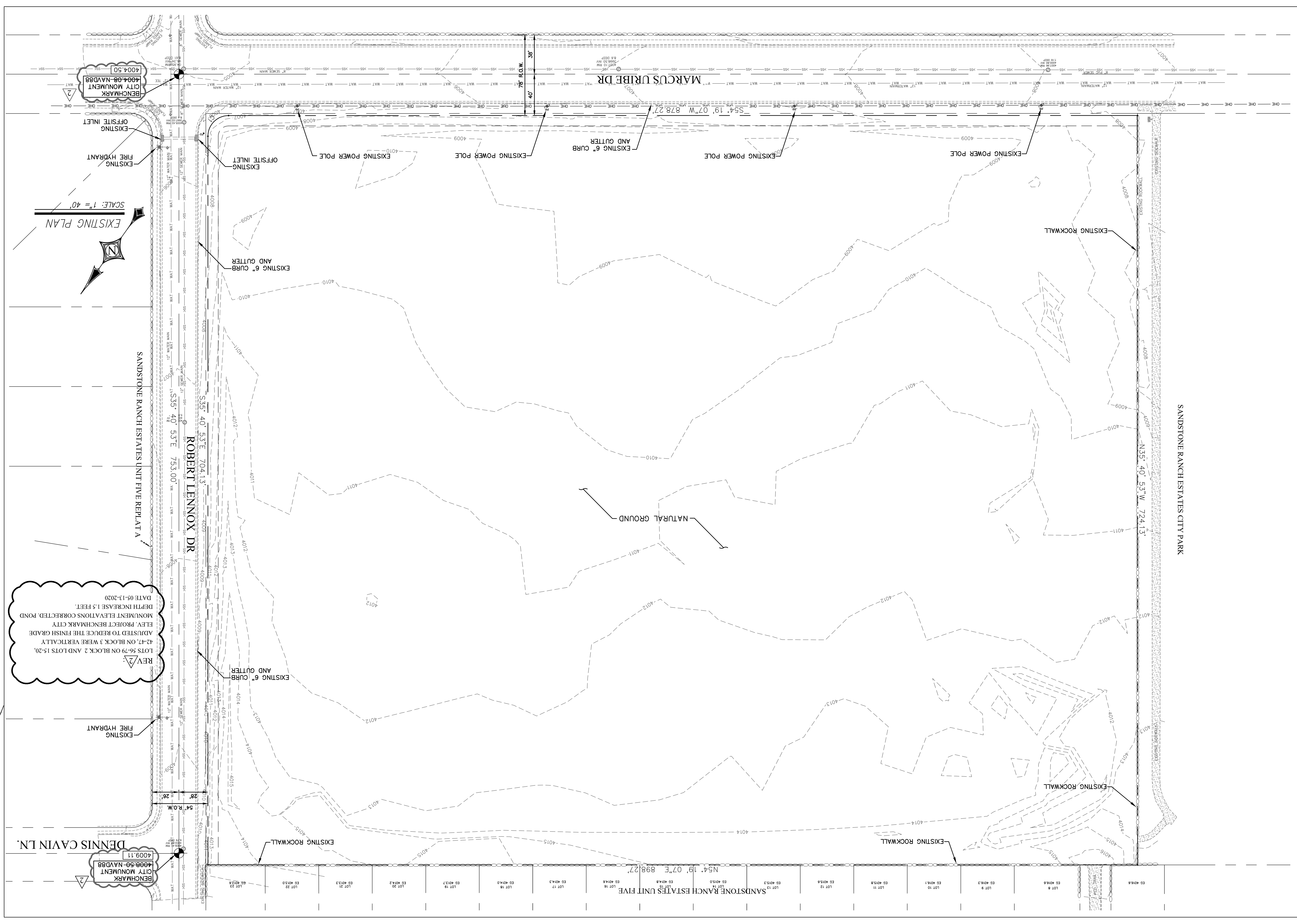
Signature of Deputy County Clerk, dated 9-21-2020.

I, James D. Whitaker, a Registered Professional Land Surveyor, certify this plat is a correct representation of the facts found at the time of a ground survey performed by me or under my supervision on the date shown herein. This survey conforms to the General Rules of Procedures and Practices listed in Sections 663.13 through 663.21 promulgated by the Texas Board of Professional Land Surveying.

Signature of James D. Whitaker, Registered Professional Land Surveyor, dated August 21, 2020.

SUBDIVISION IMPROVEMENT PLANS WERE PREPARED BY AND UNDER THE SUPERVISION OF SAL B. MASOUD, REGISTERED PROFESSIONAL ENGINEER # 70774

Signature of Sal B. Masoud, P.E. #70774.



REV 2:
 LOTS 56-79 ON BLOCK 2 AND LOTS 15-20, 42-47, ON BLOCK 3 WERE VERTICALLY ADJUSTED TO REDUCE THE FINISH GRADE ELEV. PROJECT BENCHMARK CITY MONUMENT ELEVATIONS CORRECTED. POND DEPTH INCREASE 1.5 FEET.
 DATE 05-13-2020

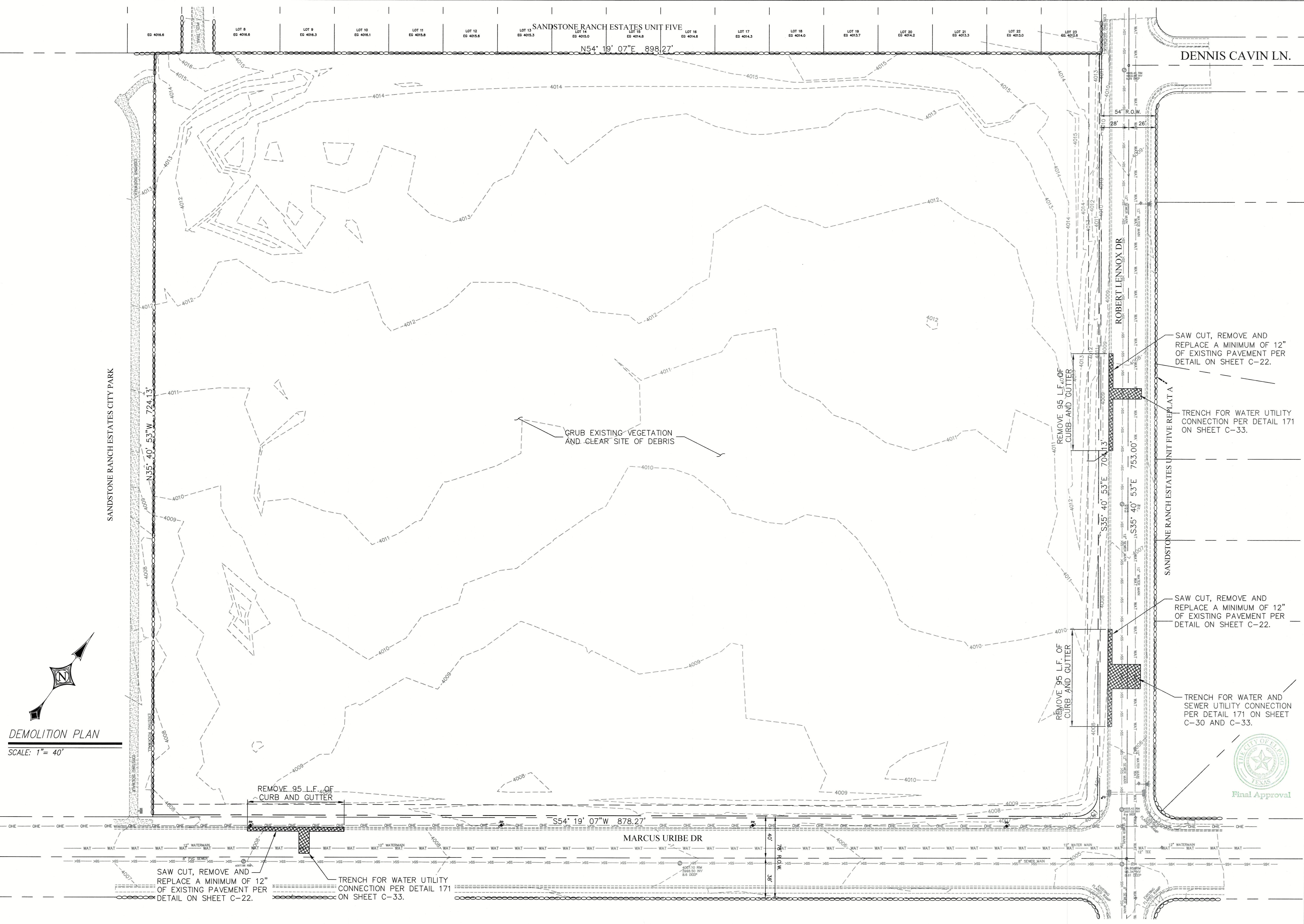
Project #: J18-070	Design By: SM/LU
Plot Date: 05/13/20	Drawn By: LU/ME
SHEET: C-02	Scale: 1"=40'

EXISTING CONDITIONS PLAN	
SANDSTONE VIEW SUBDIVISION	
BEING LOT 1, BLOCK 1 EPISD E-17, CITY OF EL PASO, EL PASO COUNTY, TEXAS 650,378 SQ. FT. OR 14.930 ACRES	

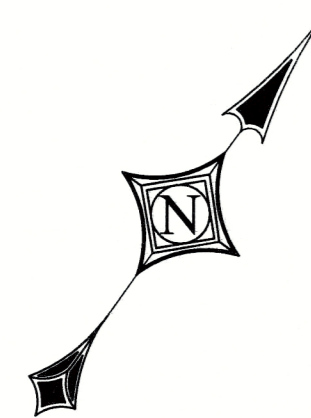
DRE Del Rio Engineering, Inc.	P.O. Box 220251, El Paso, Texas 79913 915.833.2400 TDRP Firm #: F-1093
<small>This document, whether in hard copy or electronic media format, is computerized and an amendment to the project for which it was prepared. This document is not intended to be used as a substitute for the original drawings. It is the responsibility of the user to verify the accuracy of the information contained herein. The user shall be responsible for any errors or omissions. The user shall be responsible for any damage or loss resulting from the use of this document. The user shall be responsible for any damage or loss resulting from the use of this document.</small>	

	THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY S.B. MASOUD, P.E. 7074, AT THE TIME OF THE ORIGINAL DESIGN. ANY ALTERATIONS TO THE DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.
Release Dates:	05/13/20

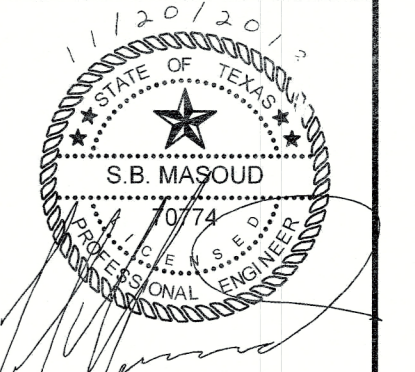
FILE Z:\J18-WORK DIRECTORY\J18-070 E-17 Land Subdivision\DWG in Progress\Sheets\C-03 DEMOLITION PLAN.dwg



DEMOLITION PLAN
SCALE: 1" = 40'



Release Dates:
Revisions:



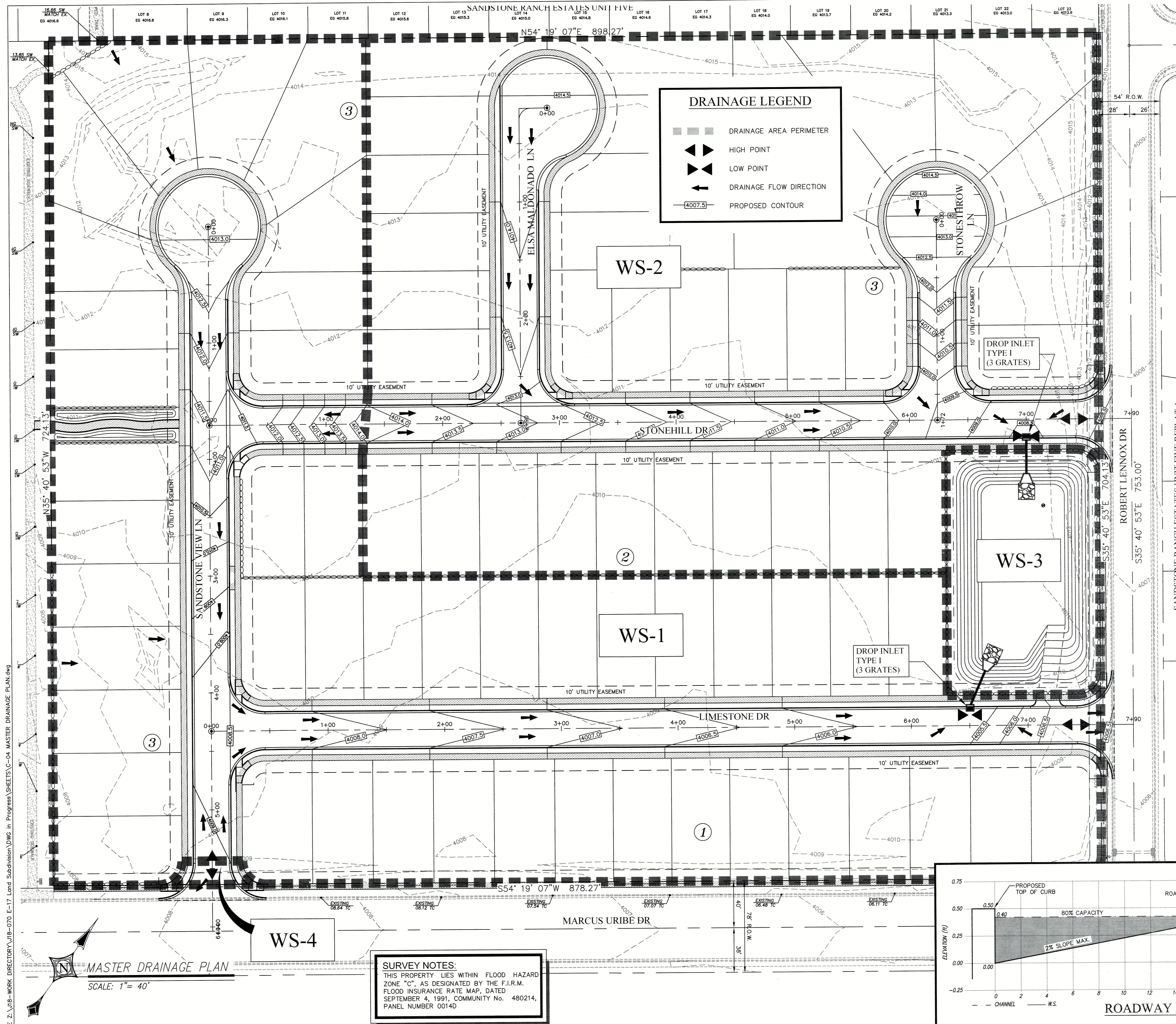
All drawings submitted in relation to this project, Architecture, Civil, Mechanical, Structural, Electrical, Landscaping, etc. are interrelated. The Contractor and Subcontractors shall review and coordinate the Entire Set of drawings and project specifications. The Contractor shall be responsible for verifying all data shown on the plans. If discrepancies are found, the Contractor shall notify the owner or Engineer immediately so that proper corrections can be made.

Del Rio Engineering, Inc.
P.O. Box 230251 El Paso, Texas 79912 915.833.2400 TBE Firm #: F-1093

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DEMOLITION PLAN
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK 1, EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070
Plot Date:	11/20/19
SHEET:	C-03
Design By:	SM/LU
Drawn By:	LU/ME
Scale:	1"=40'



DRAINAGE PONDING CALCULATIONS

DRAINAGE PONDING CALCULATIONS (100 YEAR)

DRAINAGE WATERSHED (WS)	RUNOFF COEFFICIENT "C"	RAINFALL (INCHES) "R"	AREA (ACRES) "A"	REQUIRED ESTIMATED RUNOFF (C*R*A/12) = "QT" (AC-FT)
WS-1	0.60	4.0	7.852	1.570
WS-2	0.60	4.0	6.344	1.269
WS-3	0.50	4.0	0.629	0.105
WS-4	0.60	4.0	0.105	0.021
TOTAL PONDING REQUIRED				2.965

PONDING REQUIRED VS PROVIDED

DRAINAGE WATERSHED (WS)	REQUIRED PONDING (AC-FT)	REQUIRED PONDING (CU.FT.)	PROVIDED PONDING (AC-FT)	PROVIDED PONDING (CU.FT.)
WS-1	1.059	46,130		
WS-2	1.780	77,537		
WS-3	0.105	4,574		
TOTAL PONDING REQUIRED			2.974	129,528
TOTAL PONDING PROVIDED				

PROPOSED POND - WATERSHED 3 (WS-3) STAGE STORAGE TABLE

ELEV	AREA (sq. ft.)	DEPT (ft)	AVG END INC. VOL. cu. ft.	AVG END TOTAL VOL. cu. ft.
3,997.00	9,384.59	N/A	N/A	0.00
3,998.00	11,355.43	1.00	10670.01	10670.01
3,999.00	12,809.04	1.00	12082.24	22752.25
4,000.00	14,345.43	1.00	13577.24	36329.49
4,001.00	15,964.60	1.00	15155.02	51484.50
4,002.00	17,669.10	1.00	16816.85	68301.35
4,003.00	19,453.07	1.00	18561.08	86862.43
4,004.00	21,302.45	1.00	20377.76	107240.19
4,005.00	23,272.09	1.00	22287.27	129527.46
HIGH WATER				

DRAINAGE RUN-OFF CALCULATIONS

CENTRAL INTENSITY EQUATION (100 YEAR STORM)
URBAN CONDITIONS WITH DRAINAGE AREAS LESS THAN 200 ACRES
RATIONAL METHOD

$$I_{100} = \frac{111.04}{(T_c + 26.09)^{0.9177}}$$

(T_c = 10 MIN.)

$$I_{100} = \frac{111.04}{(10 + 26.09)^{0.9177}}$$

$$I_{100} = \frac{111.04}{26.867}$$

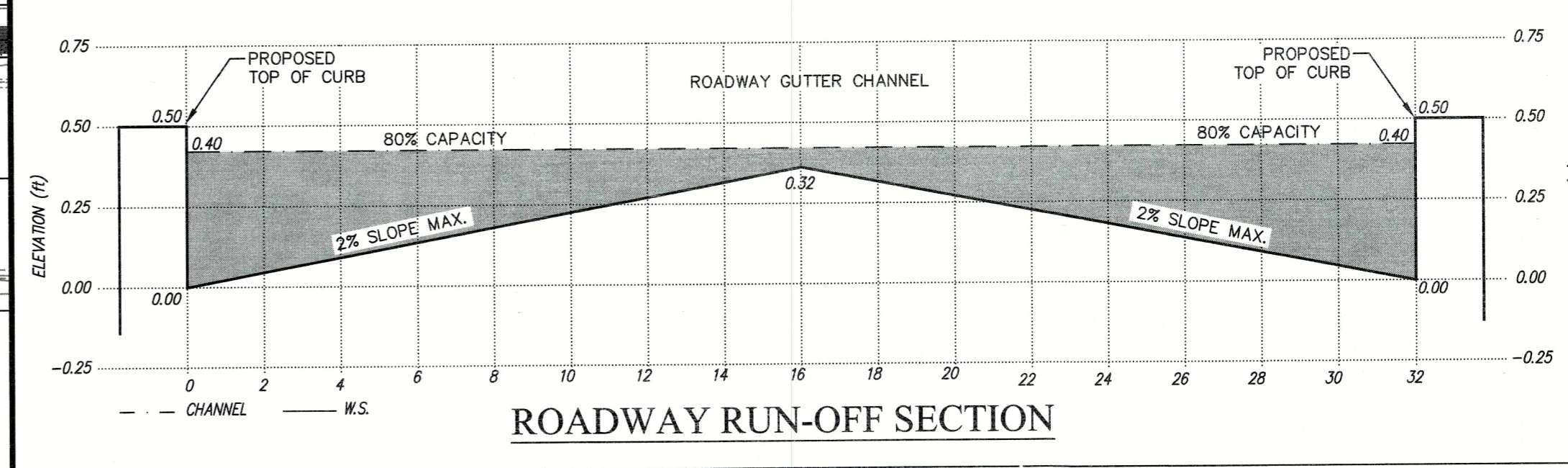
I₁₀₀ = 4.13 IN/HR

DRAINAGE RUN-OFF CALCULATIONS (100 YEAR)

DRAINAGE WATERSHED (WS)	RUNOFF COEFFICIENT "C"	RAINFALL (INCHES) "R"	AREA (ACRES) "A"	T _c "MIN"	Q ₁₀₀ = C*I*A "CFS"
WS-1	0.60	4.13	7.852	10	19.45
WS-2	0.60	4.13	6.344	10	15.72
WS-3	0.60	4.13	0.629	10	1.559
WS-4	0.60	4.13	0.105	10	0.260

ROADWAY CAPACITY CALCULATIONS

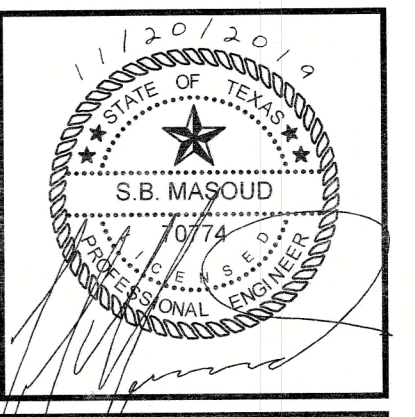
ROADWAY GUTTER CHANNEL PARAMETERS (INPUT)		ROADWAY GUTTER CHANNEL (OUTPUT)	
PARAMETER	VALUE	DEPTH	CAPACITY
ROADWAY CROSS SLOPE	0.02 FT/FT	0.10	0.56 CFS
GUTTER CROSS SLOPE	0.02 FT/FT	0.20	3.54 CFS
GUTTER WIDTH	1.5 FT	0.30	10.42 CFS
LONGITUDINAL SLOPE	0.0055 FT/FT	0.40	22.48 CFS
N-VALUE COEFFICIENT	0.016	0.45	30.78 CFS
		0.50	40.78 CFS



SURVEY NOTES:
THIS PROPERTY LIES WITHIN FLOOD HAZARD ZONE "C", AS DESIGNATED BY THE F.I.R.M. FLOOD INSURANCE RATE MAP, DATED SEPTEMBER 4, 1991, COMMUNITY No. 480214, PANEL NUMBER 0014D

MASTER DRAINAGE PLAN
SCALE: 1" = 40'

Release Dates:
Revisions:



All drawings submitted in relation to this project, Architectural, Civil, Mechanical, Structural, Electrical, Landscaping, etc. are intended. The Contractor and Subcontractors shall review and coordinate the entire set of drawings and project specifications. The Contractor shall be responsible for verifying all data shown on the plans. If discrepancies are found, the Contractor shall notify the owner or Engineer immediately so that proper corrections can be made.

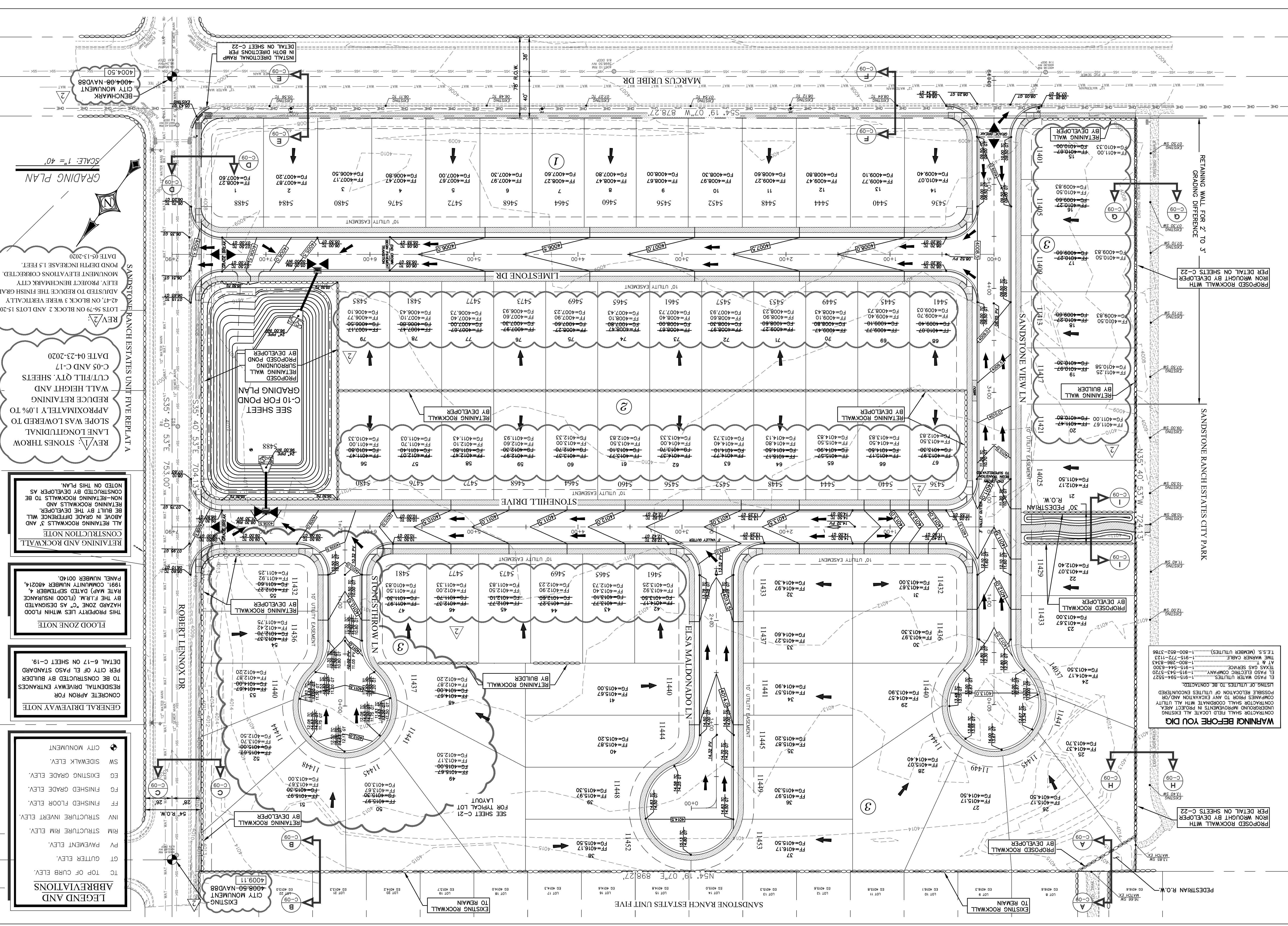
DRE Del Rio Engineering, Inc.

P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TBE Firm # : F-1093

This document contains the best copy of records available. It is not intended to be used for any other purpose. The accuracy of the information contained herein is not intended to be used for any other purpose. The accuracy of the information contained herein is not intended to be used for any other purpose.

MASTER DRAINAGE PLAN
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK 1 EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES

Project #: J18-070
Drawn By: SM/LU
Date: 11/20/19
Scale: 1"=40'
Sheet: C-04



REVISIONS
REV 1 SANDSTONE RANCH ESTATES UNIT FIVE REPLAT A
DATE 04-23-2020
C-05 AND C-17
CUT/FILL QTY. SHEETS
WALL HEIGHT AND
REDUCE RETAINING
SLOPE WAS LOWERED TO
APPROXIMATELY 1.0% TO
REVERSE LONGITUDINAL
LANE THROWS
REV 2
DATE 05-13-2020
POND DEPTH INCREASE 1.5 FEET.
MONUMENT ELEVATIONS CORRECTED.
ELEV. PROJECT BENCHMARK CITY
ADJUSTED TO REDUCE THE FINISH GRADE

- LEGEND AND ABBREVIATIONS**
- TC TOP OF CURB ELEV.
 - GT GUTTER ELEV.
 - PA PAVEMENT ELEV.
 - RI STRUCTURE RIM ELEV.
 - INV STRUCTURE INVERT ELEV.
 - FF FINISHED FLOOR ELEV.
 - FG FINISHED GRADE ELEV.
 - EG EXISTING GRADE ELEV.
 - SW SIDEWALK ELEV.
 - CM CITY MONUMENT
- GENERAL DRIVEWAY NOTE**
CONCRETE APRON FOR RESIDENTIAL DRIVEWAY ENTRANCES TO BE CONSTRUCTED PER CITY OF EL PASO STANDARD DETAIL 6-17 ON SHEET C-19.
- FLOOD ZONE NOTE**
THIS PROPERTY LIES WITHIN FLOOD HAZARD ZONE "C" AS DESIGNATED BY THE F.I.R.M. (FLOOD INSURANCE RISK MAP) DATED SEPTEMBER 4, 1991. COMMUNITY NUMBER 480214.
- RETAINING AND ROCKWALL CONSTRUCTION NOTE**
ALL RETAINING ROCKWALLS TO BE BUILT BY THE DEVELOPER. RETAINING ROCKWALLS TO BE CONSTRUCTED BY DEVELOPER AS NOTED ON THIS PLAN.
- WARNING BEFORE YOU DIG**
CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES IN PROJECT AREA PRIOR TO ANY EXCAVATION AND/OR POSSIBLE RELOCATION OF UTILITIES ENCOUNTERED. LISTING OF UTILITIES TO BE CONTACTED:
EL PASO WATER UTILITIES.....915-543-5200
EL PASO ELECTRIC COMPANY.....915-543-5200
AT & T.....915-544-8300
TELECOM SERVICES.....915-772-1123
THE WARNER CABLE.....915-772-1123
T.E.S. (MEMBER UTILITIES).....1-800-852-3786

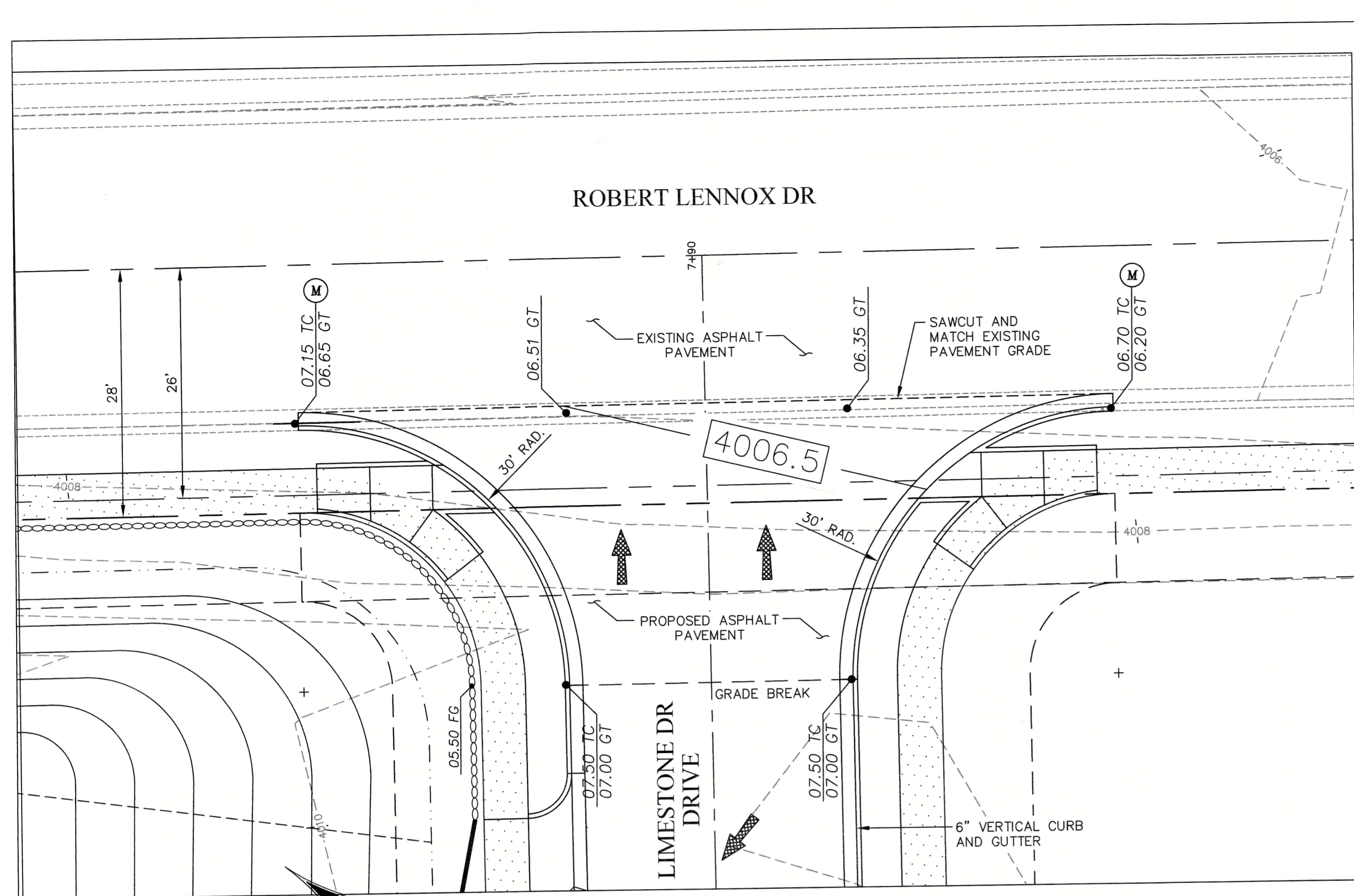
Project #: J18-070
Design By: SM/LU
Drawn By: LU/ME
Date: 05/13/20
Scale: 1"=40'

Project #: J18-070
Design By: SM/LU
Drawn By: LU/ME
Date: 05/13/20
Scale: 1"=40'

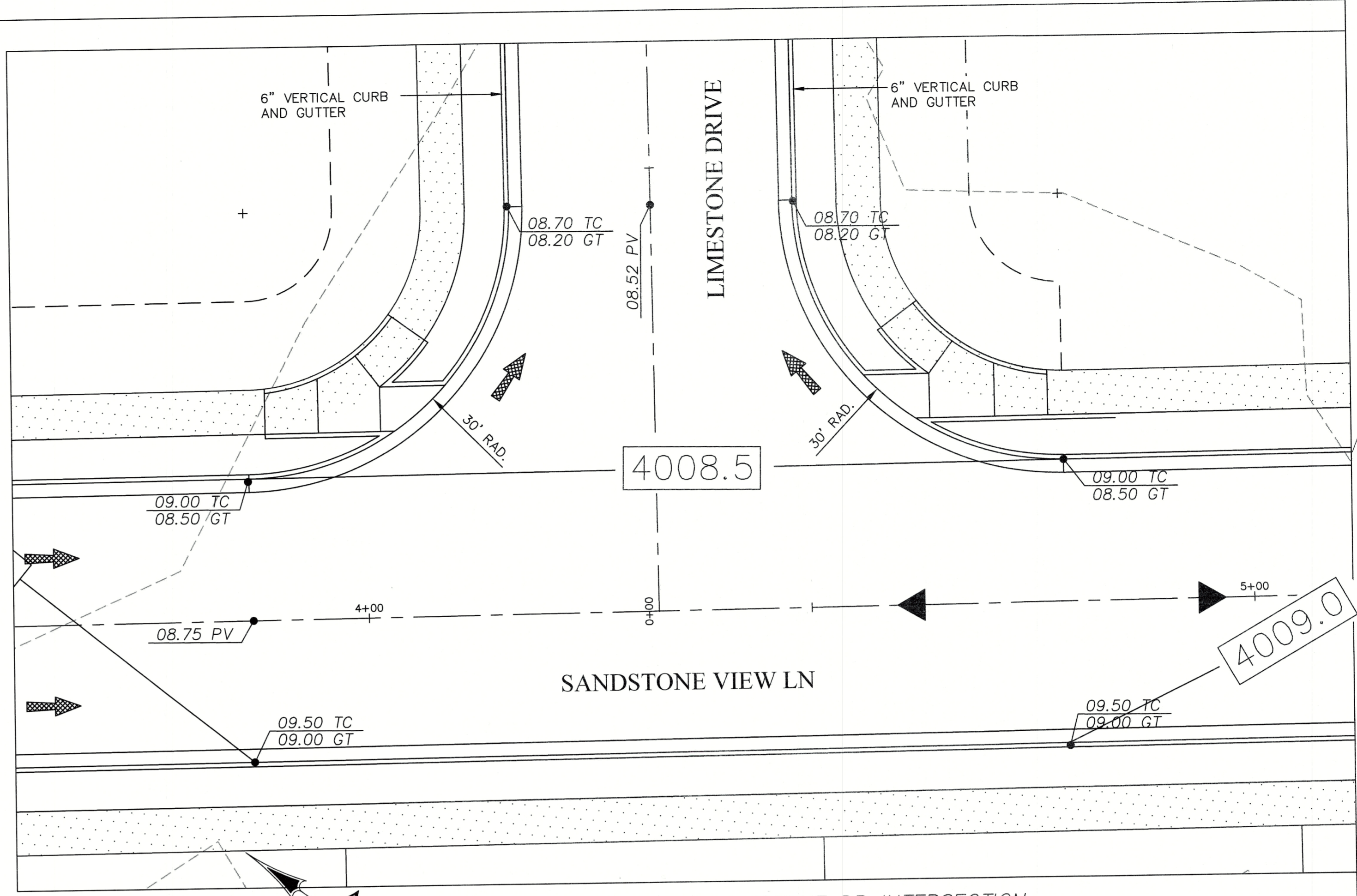
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK 1 EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES

DRRE
Del Rio Engineering, Inc.
P.O. Box 20251, El Paso, Texas 79913 915.833.2400 TBBE Firm #7-F-1093

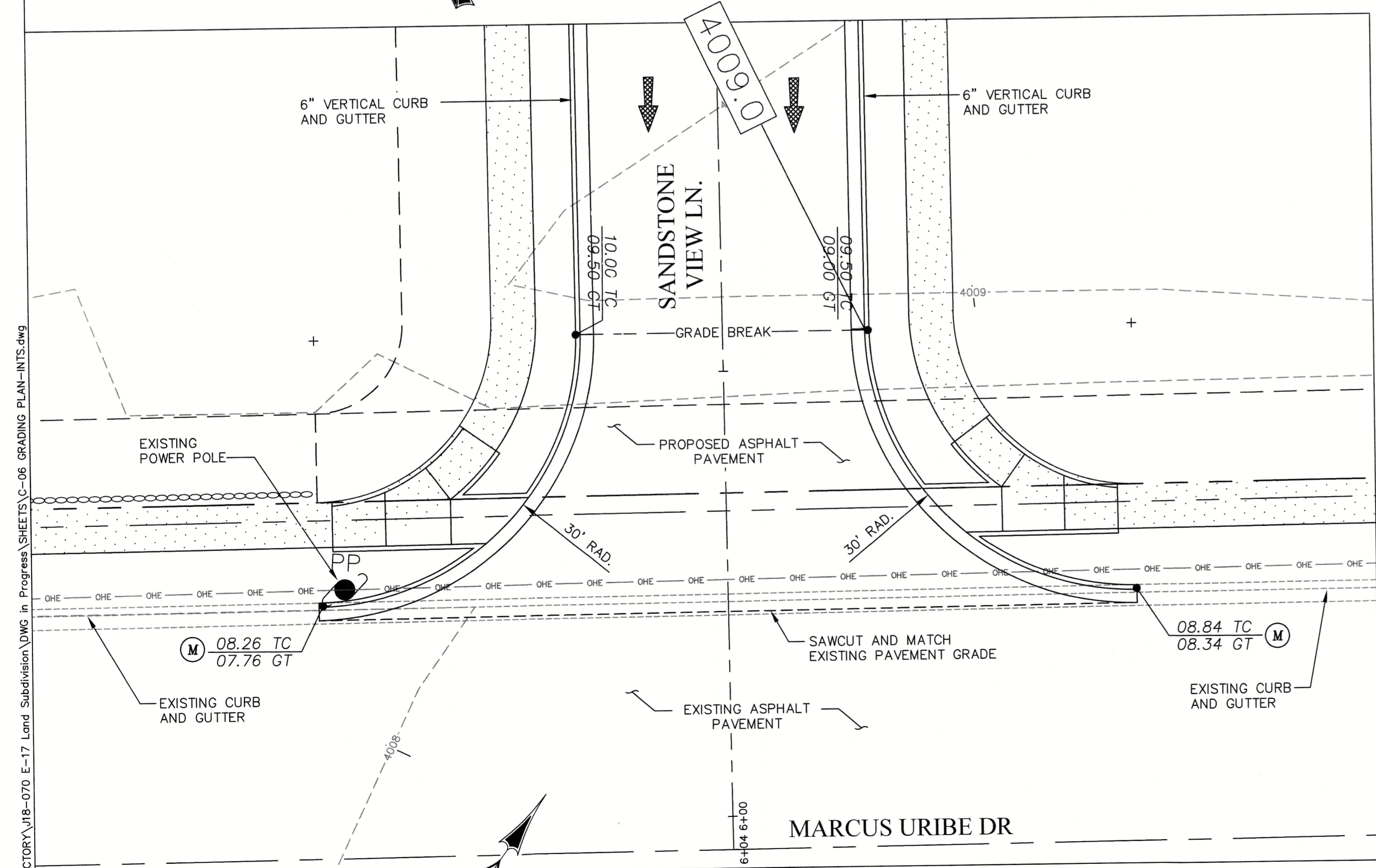
Release Dates: 04/23/20, 05/13/20



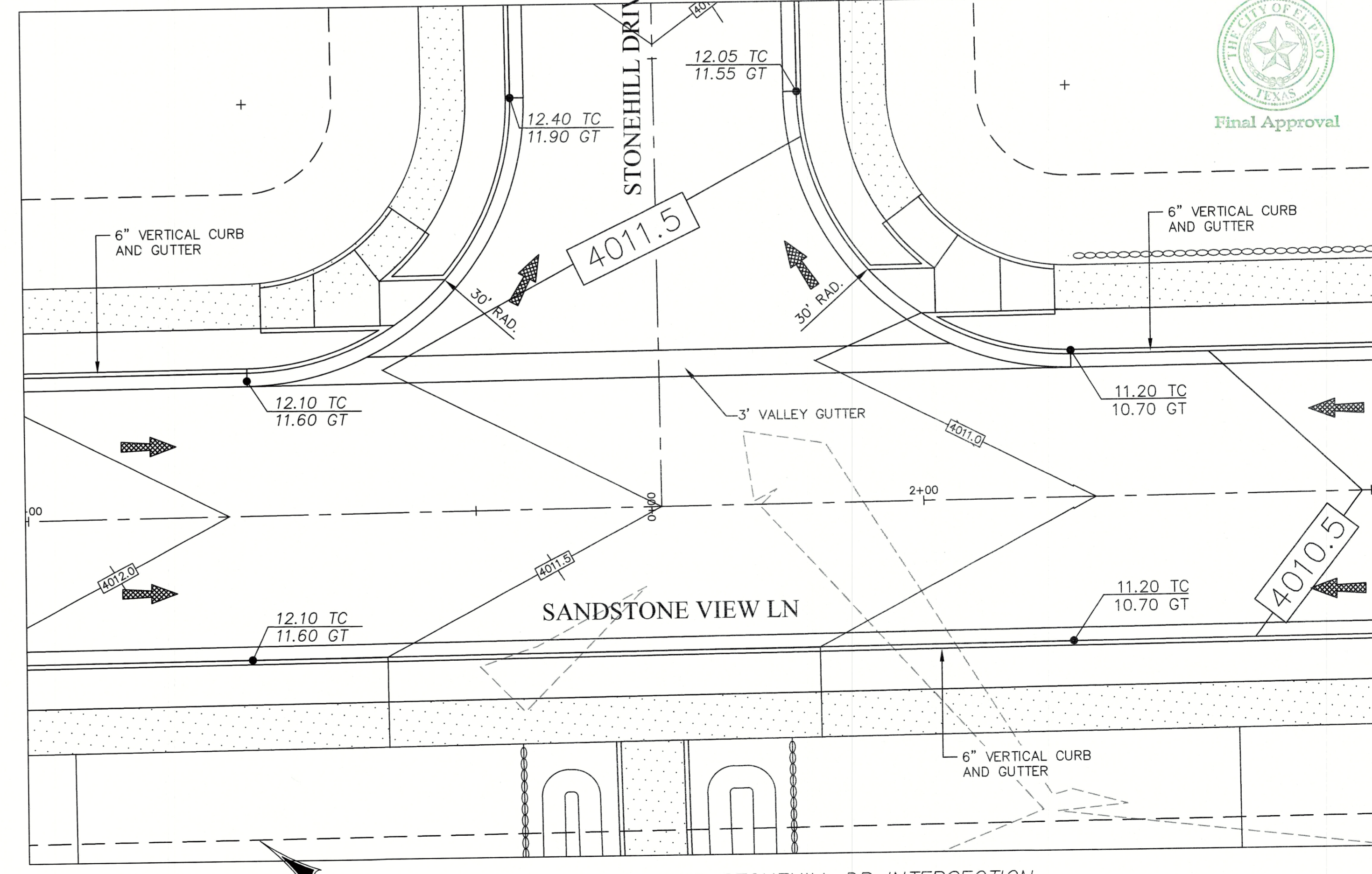
ROBERT LENNOX DR AND LIMESTONE DR INTERSECTION
SCALE: 1" = 10'



SANDSTONE VIEW LN AND LIMESTONE DR INTERSECTION
SCALE: 1" = 10'



MARCUS URIBE DR AND SANDSTONE VIEW INTERSECTION
SCALE: 1" = 10'



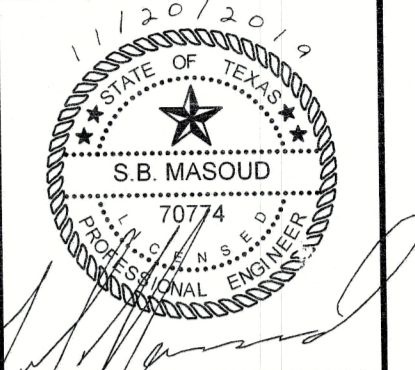
SANDSTONE VIEW LN AND STONEHILL DR INTERSECTION
SCALE: 1" = 10'

CONSTRUCTION KEY NOTES

(M) MATCH TO EXISTING.

Release Dates:

Revisions:



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Del Rio Engineering, Inc.
P.O. Box 220251 El Paso, Texas 79913 915.833.2400 TBPE Firm #: F-1093

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GRADING PLAN INTERSECTION

SANDSTONE VIEW SUBDIVISION

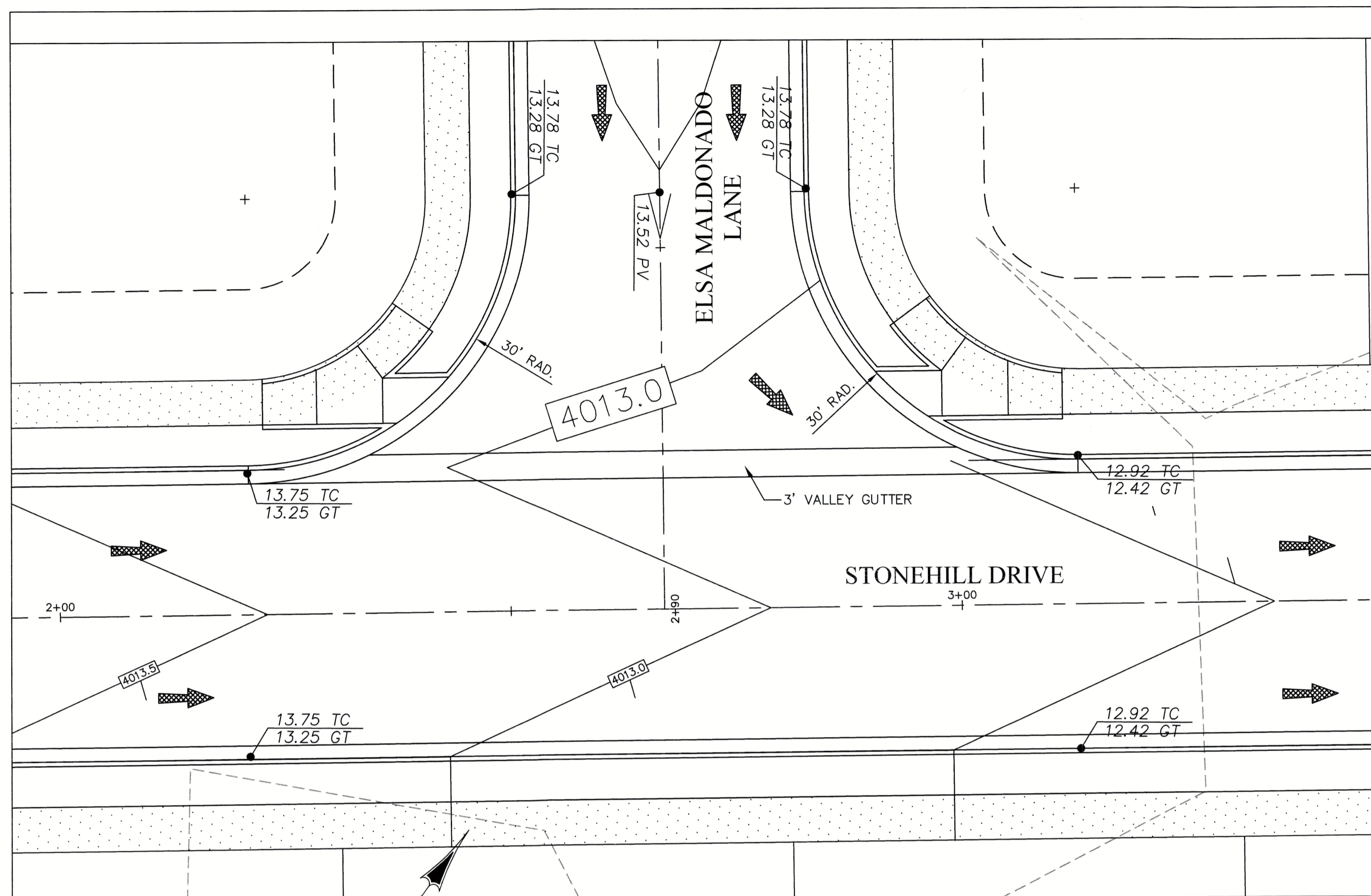
BEING LOT 1, BLOCK I, EPISODE E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14,930 ACRES

Project #:	J18-070
Design By:	SM/LU
Drawn By:	LU/ME
Plot Date:	11/20/19
Scale:	AS-SHOWN
SHEET:	C-06

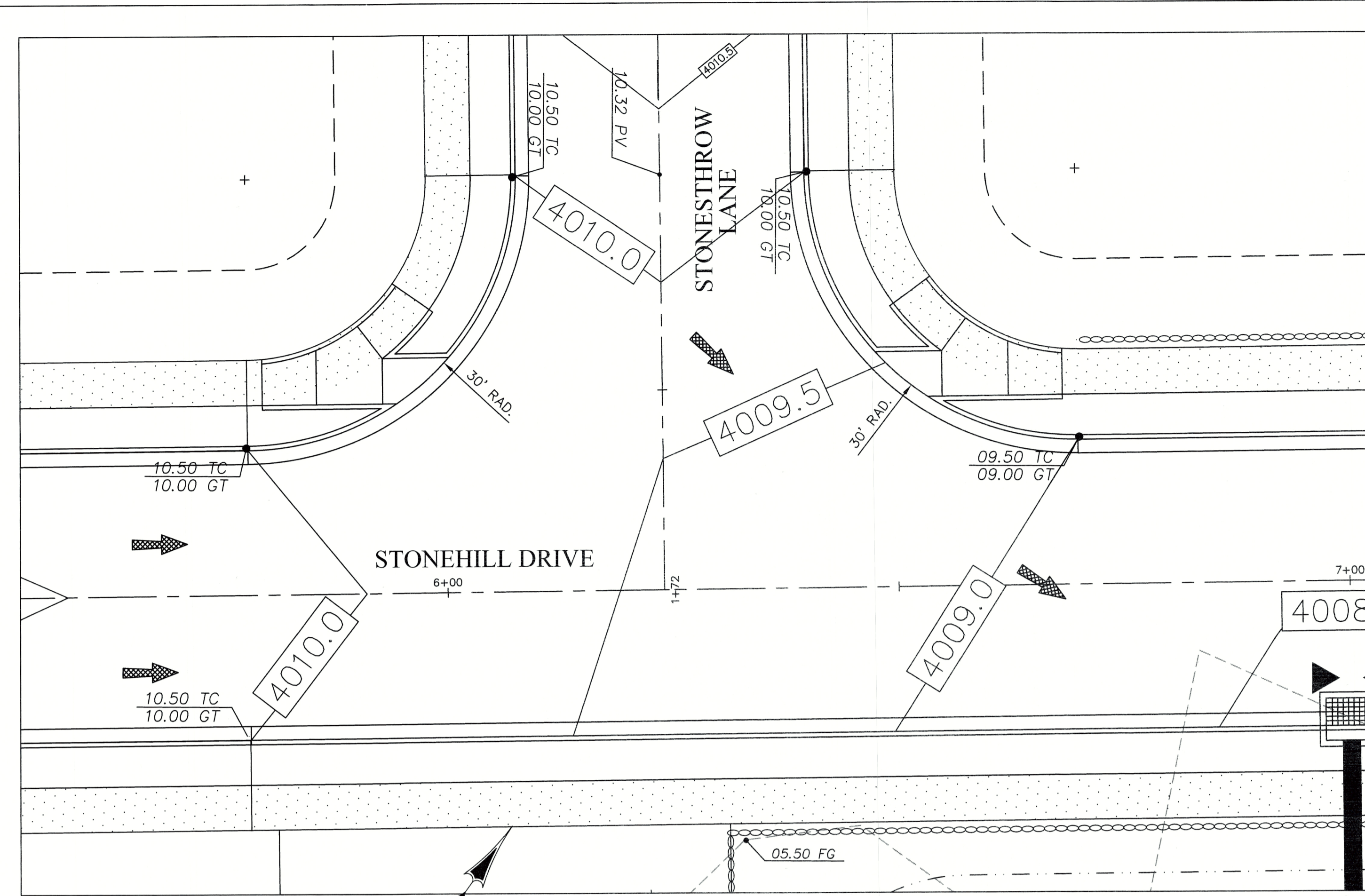
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FILE Z:\J18-WORK DIRECTORY\J18-070 E-17 Land Subdivision\DWG in Progress\SHEETS\C-07 GRADING PLAN-INTS.dwg

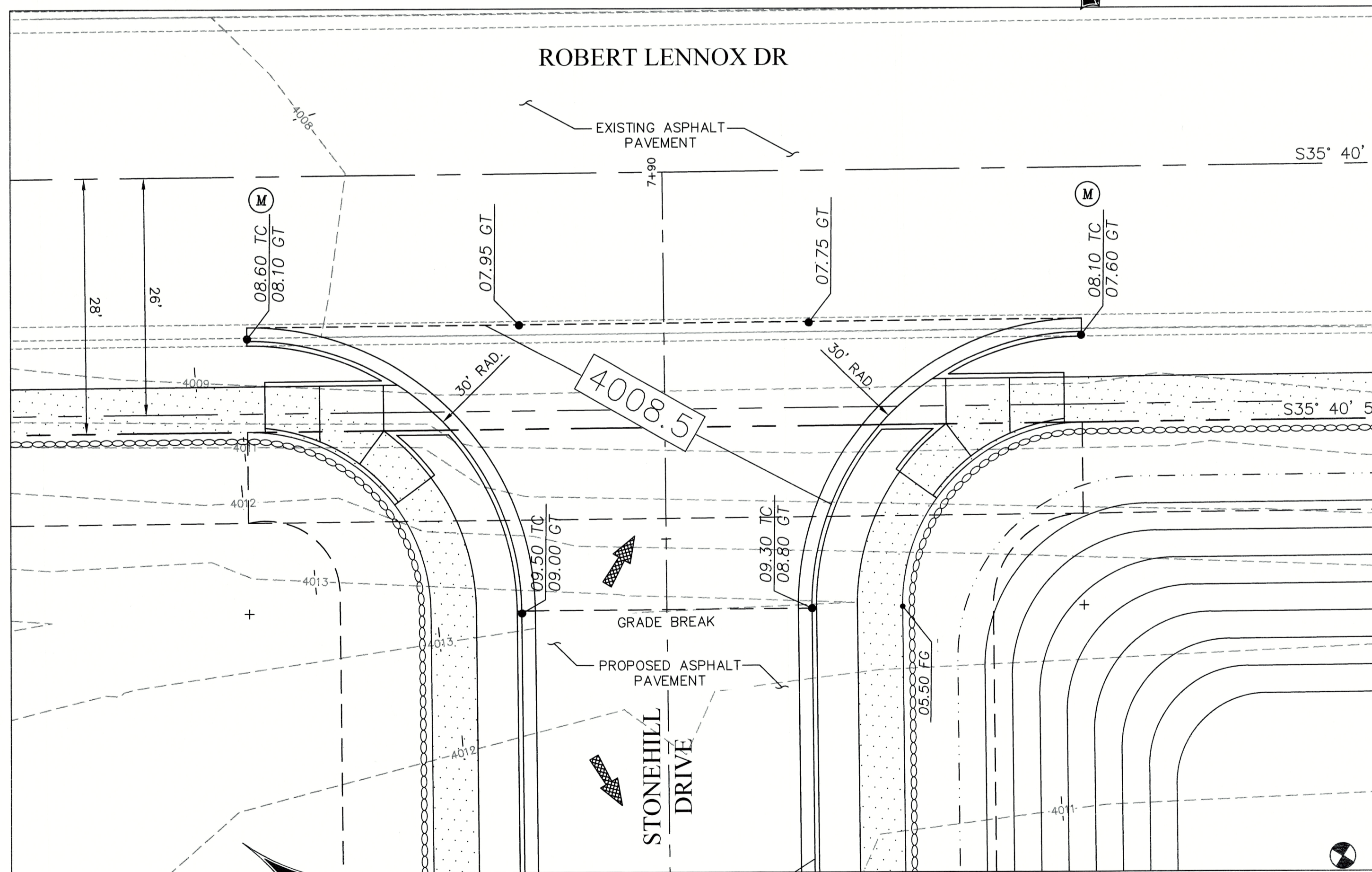


STONEHILL DR AND ELSA MALDONADO LN INTERSECTION
SCALE: 1" = 10'



STONEHILL DR AND STONESTROW LN INTERSECTION
SCALE: 1" = 10'

CONSTRUCTION KEY NOTES
(M) MATCH TO EXISTING.

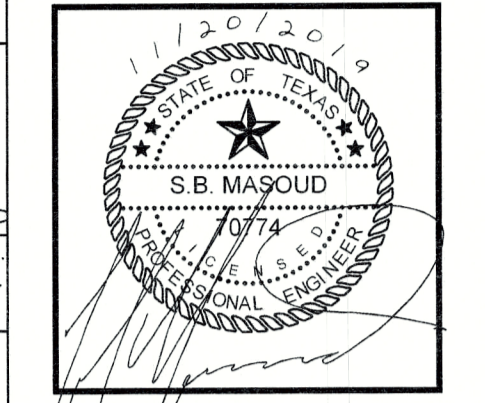


STONEHILL DR AND ROBERT LENNOX DR INTERSECTION
SCALE: 1" = 10'



Release Dates:

Revisions:

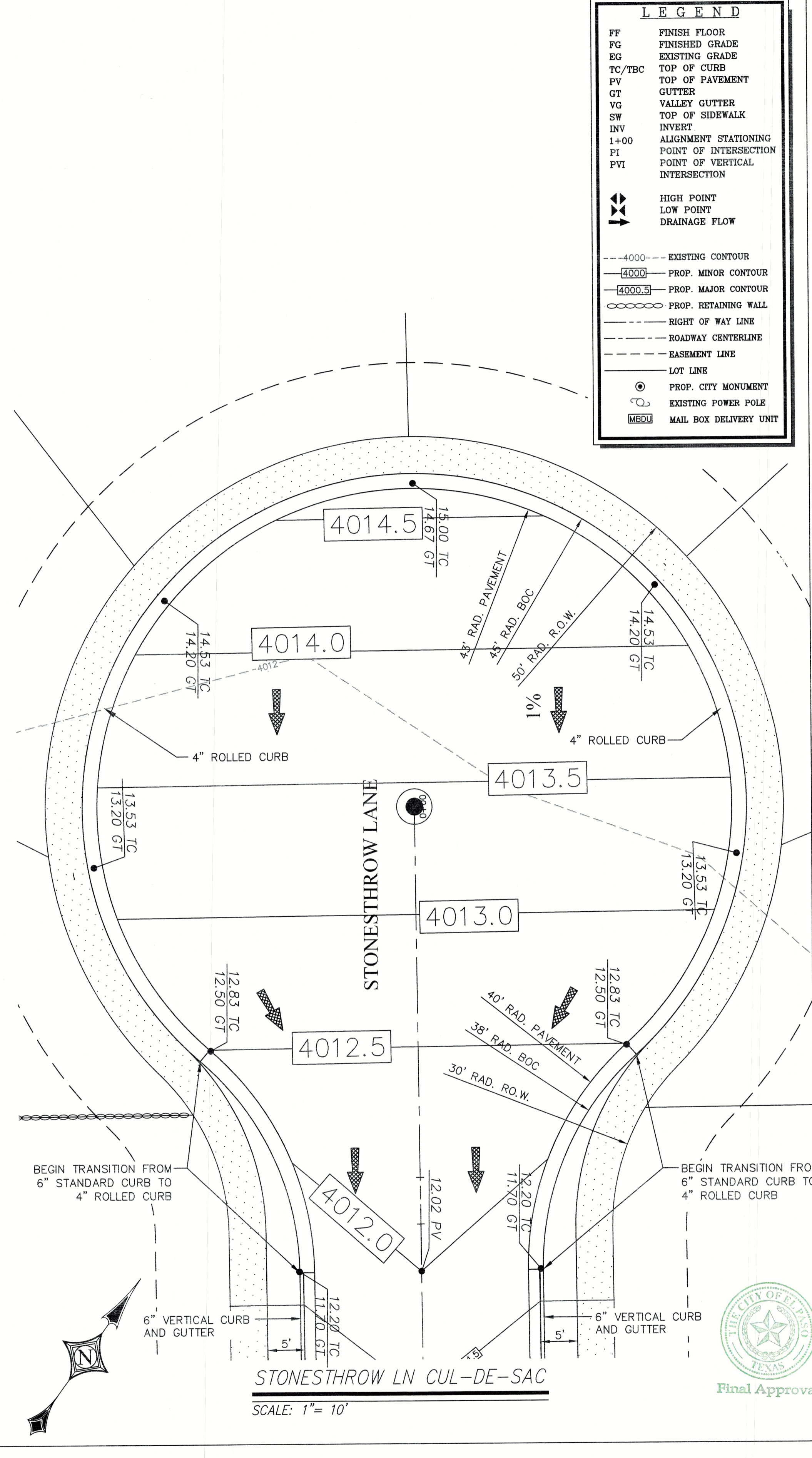
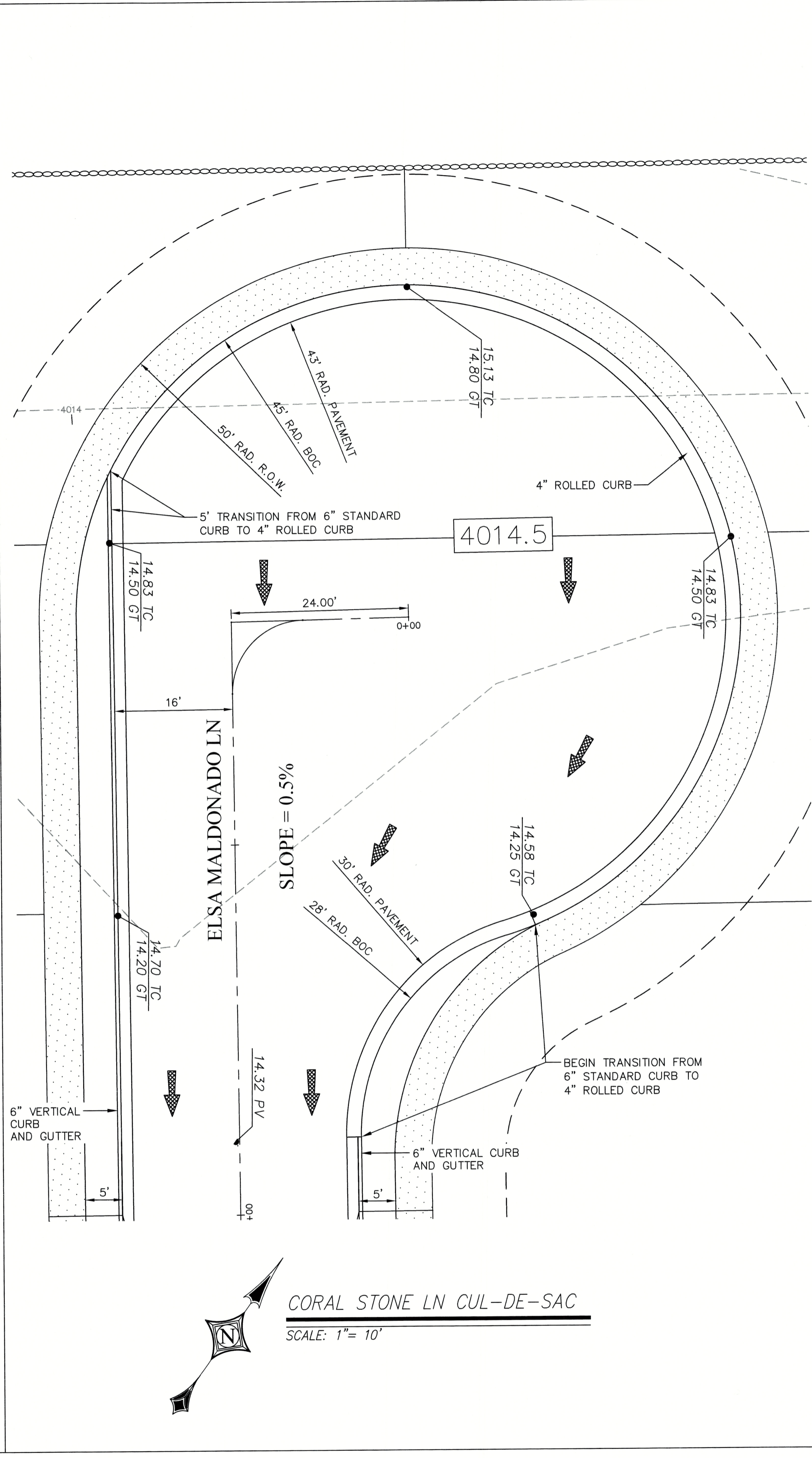
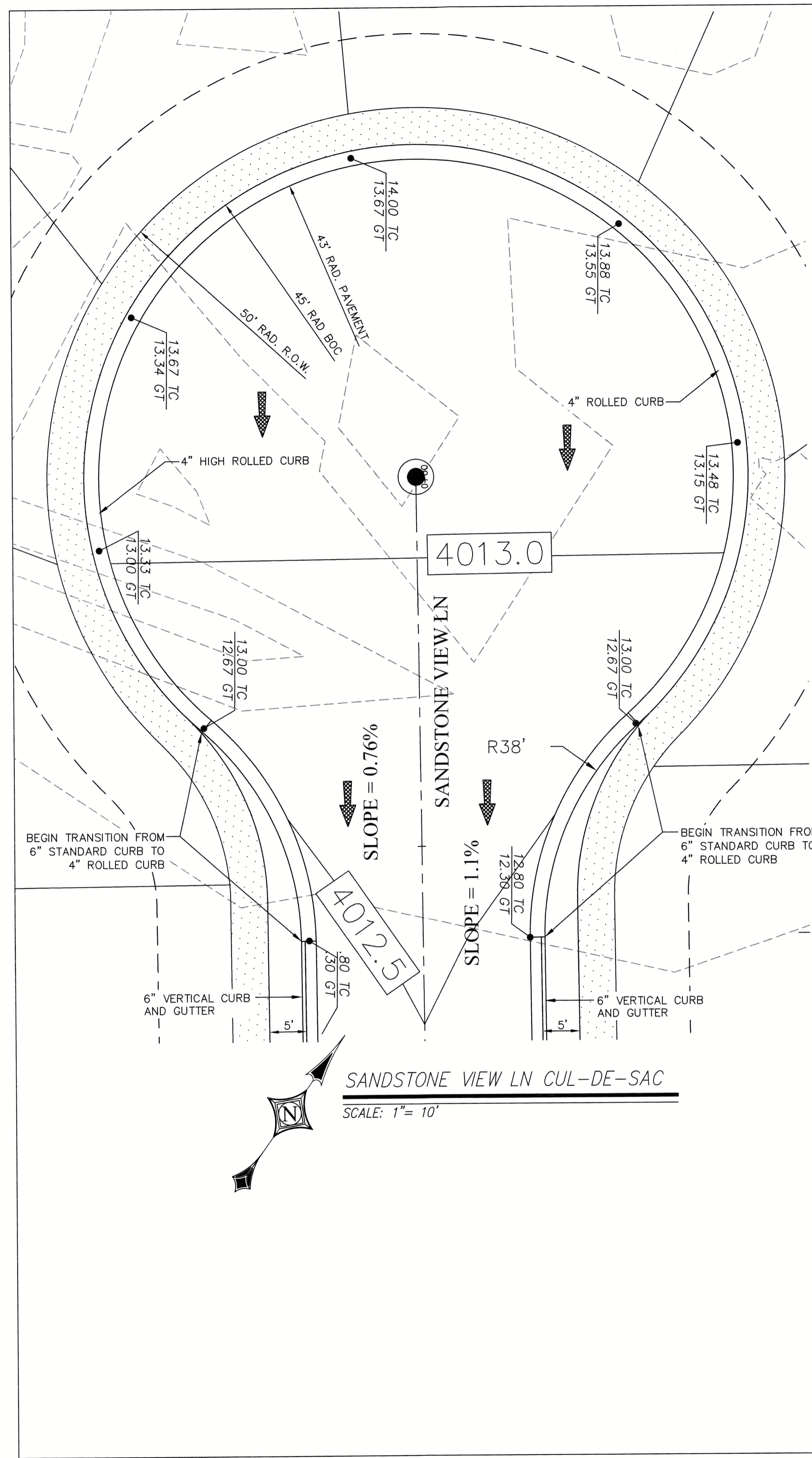


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DRE Del Rio Engineering, Inc.
P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TBPE Firm #: F-1093
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GRADING PLAN INTERSECTION
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK I EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070	Design By:	SM/LU
Plot Date:	11/20/19	Drawn By:	LU/ME
SHEET:	C-07	Scale:	AS-SHOWN



LEGEND

FF	FINISH FLOOR
FG	FINISHED GRADE
EG	EXISTING GRADE
TC/TBC	TOP OF CURB
TP	TOP OF PAVEMENT
GT	GUTTER
VG	VALLEY GUTTER
SW	TOP OF SIDEWALK
INV	INVERT
1+00	ALIGNMENT STATIONING
PT	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
▲	HIGH POINT
▼	LOW POINT
→	DRAINAGE FLOW
---	EXISTING CONTOUR
---	PROP. MINOR CONTOUR
---	PROP. MAJOR CONTOUR
---	PROP. RETAINING WALL
---	RIGHT OF WAY LINE
---	ROADWAY CENTERLINE
---	EASEMENT LINE
---	LOT LINE
○	PROP. CITY MONUMENT
○	EXISTING POWER POLE
MBU	MAIL BOX DELIVERY UNIT

Release Dates:	
Revisions:	

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Scale:
PLAN
SCALE: AS NOTED

PROFILES
SCALE: HORIZONTAL: AS NOTED
VERTICAL: AS NOTED

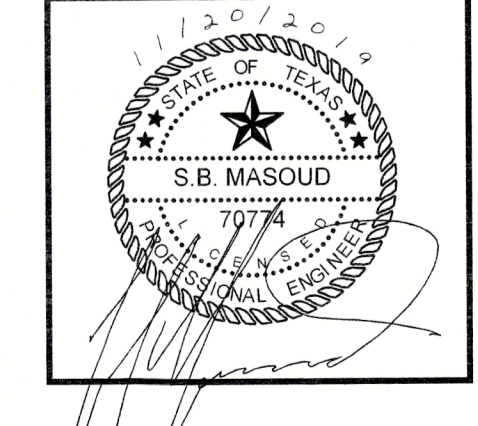
DRE Del Rio Engineering, Inc.
P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TBPE Firm #: F-1093

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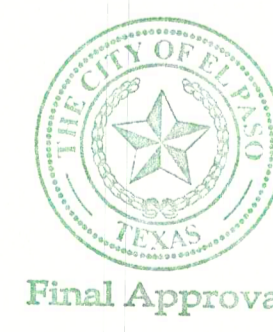
GRADING PLAN CUL-DE-SAC

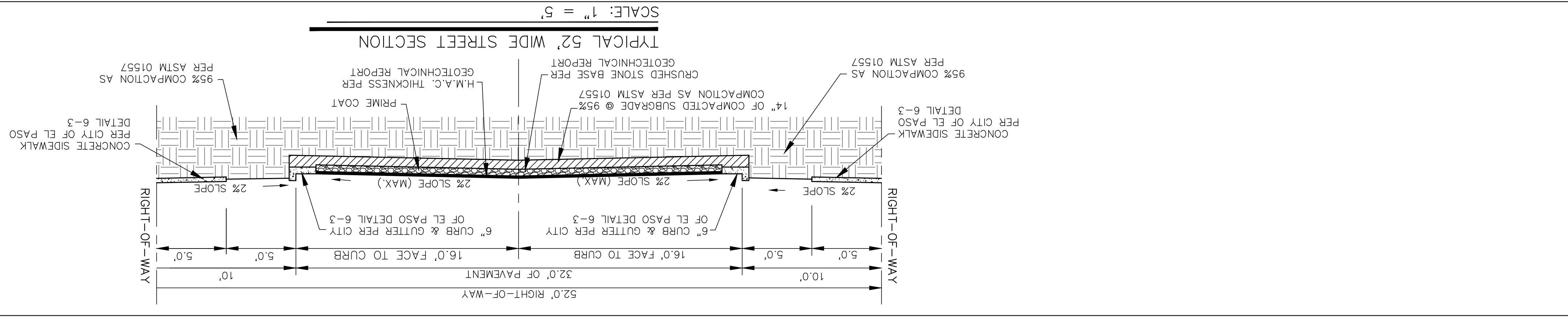
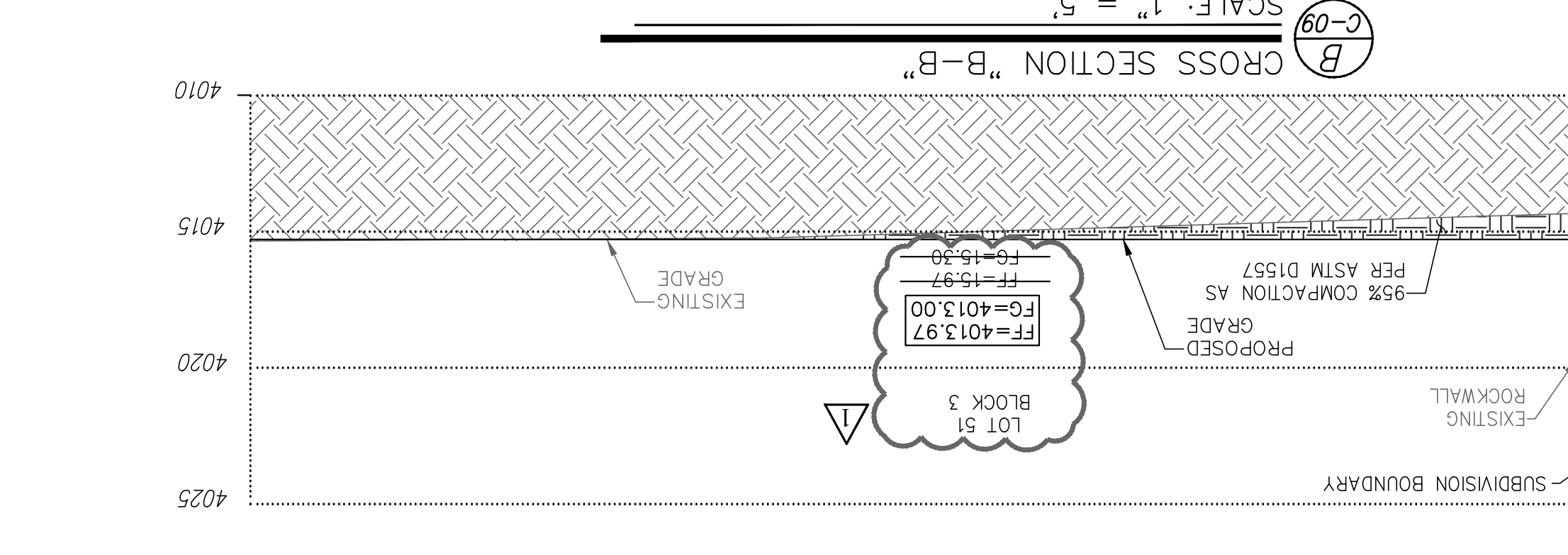
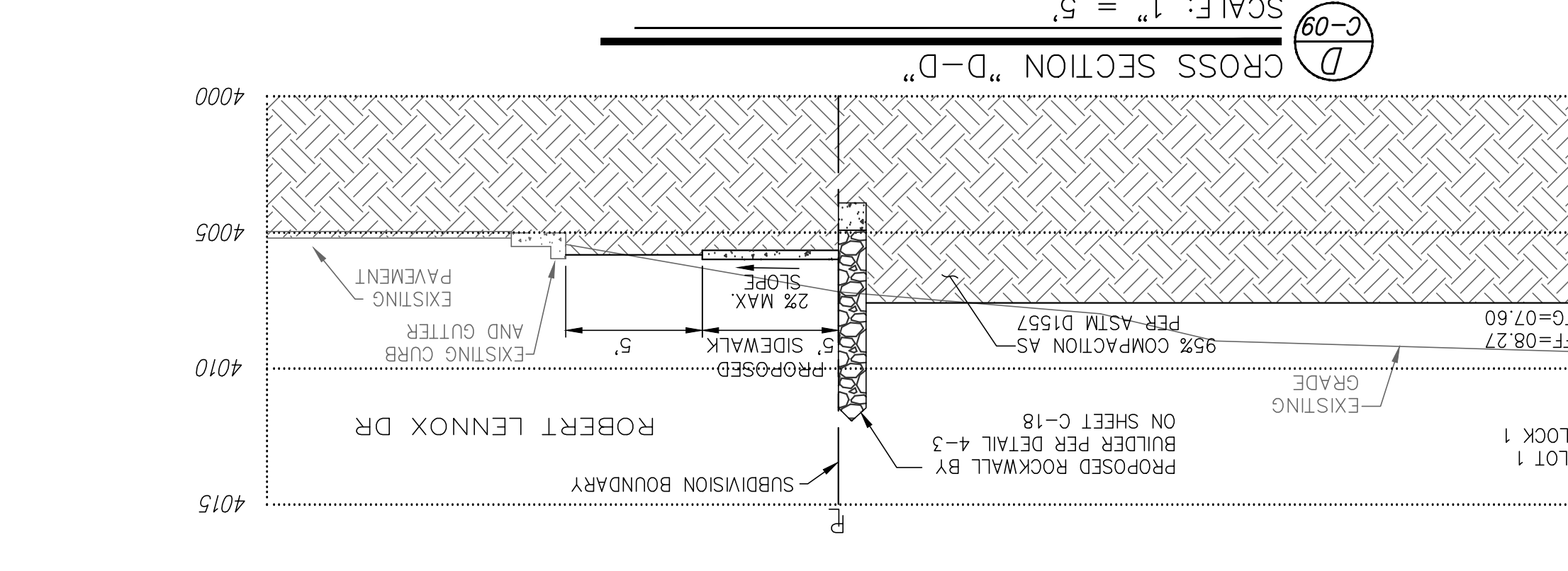
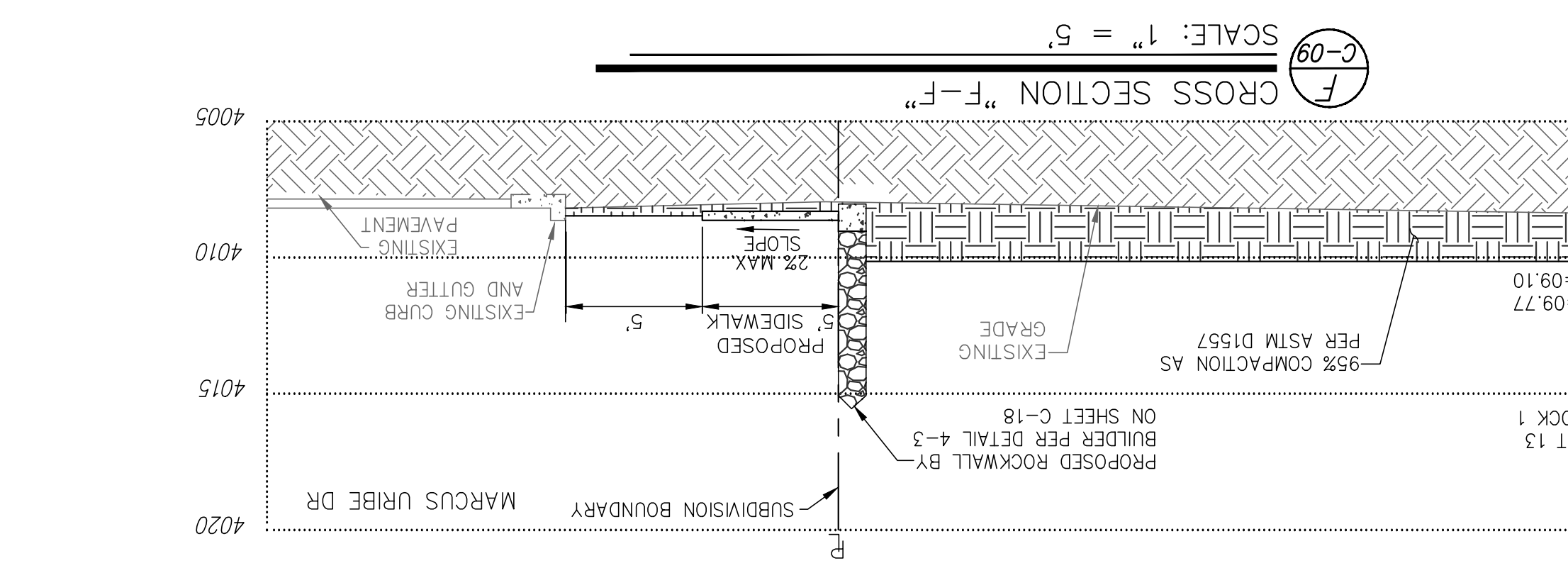
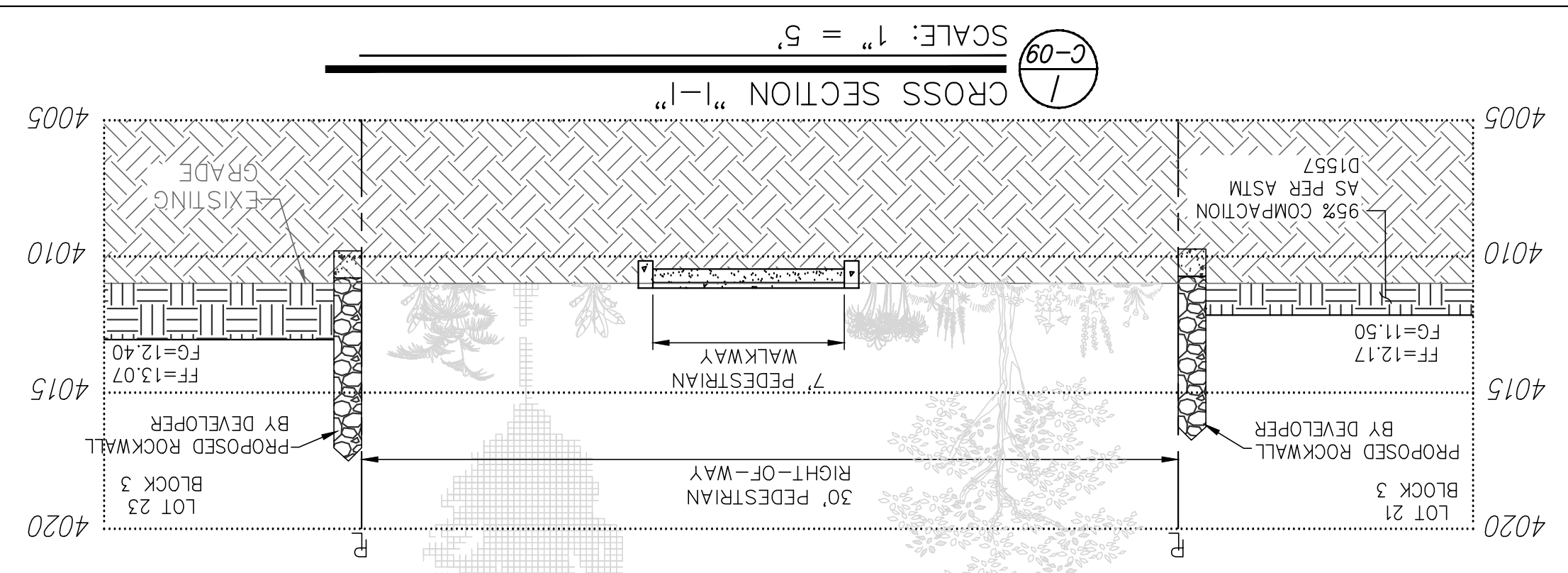
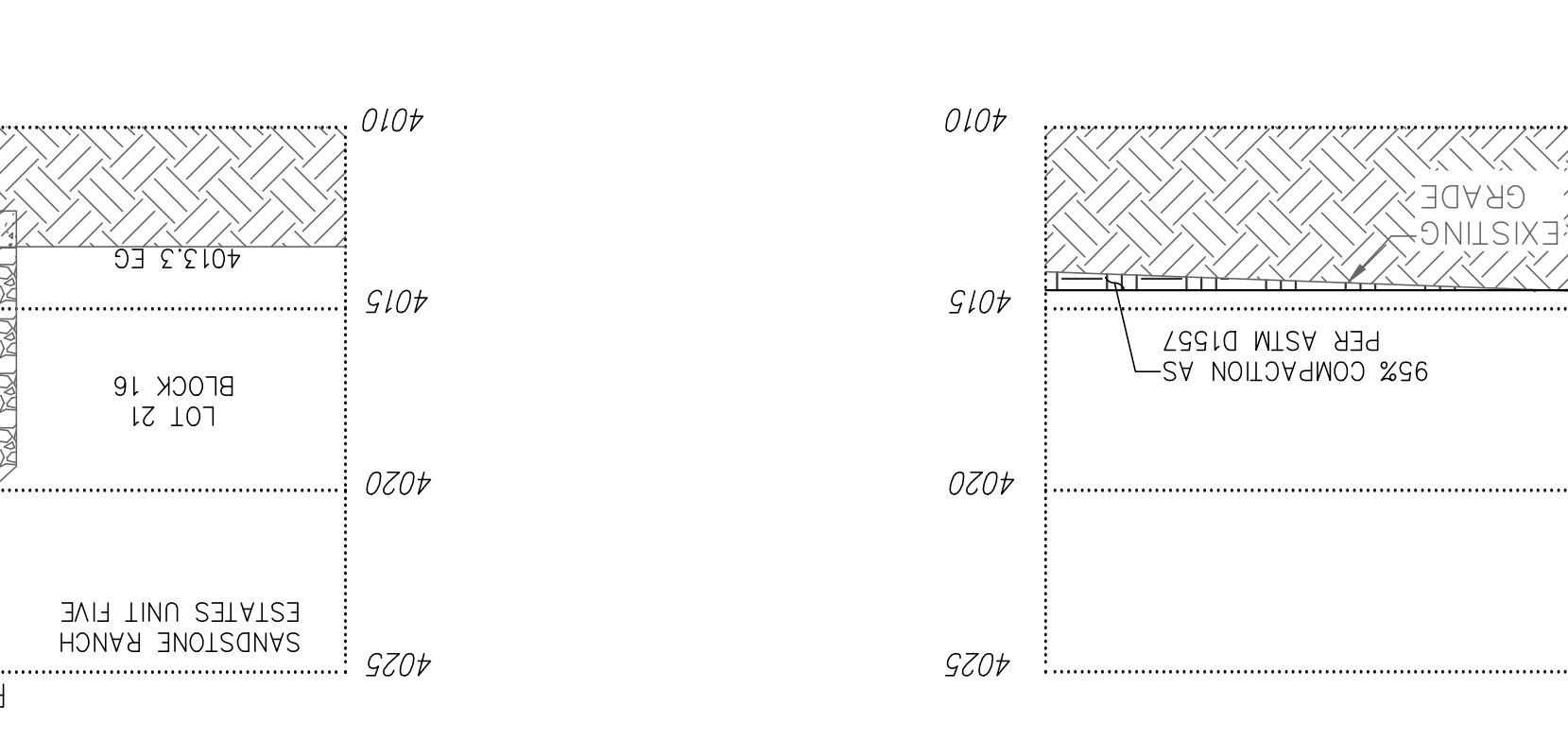
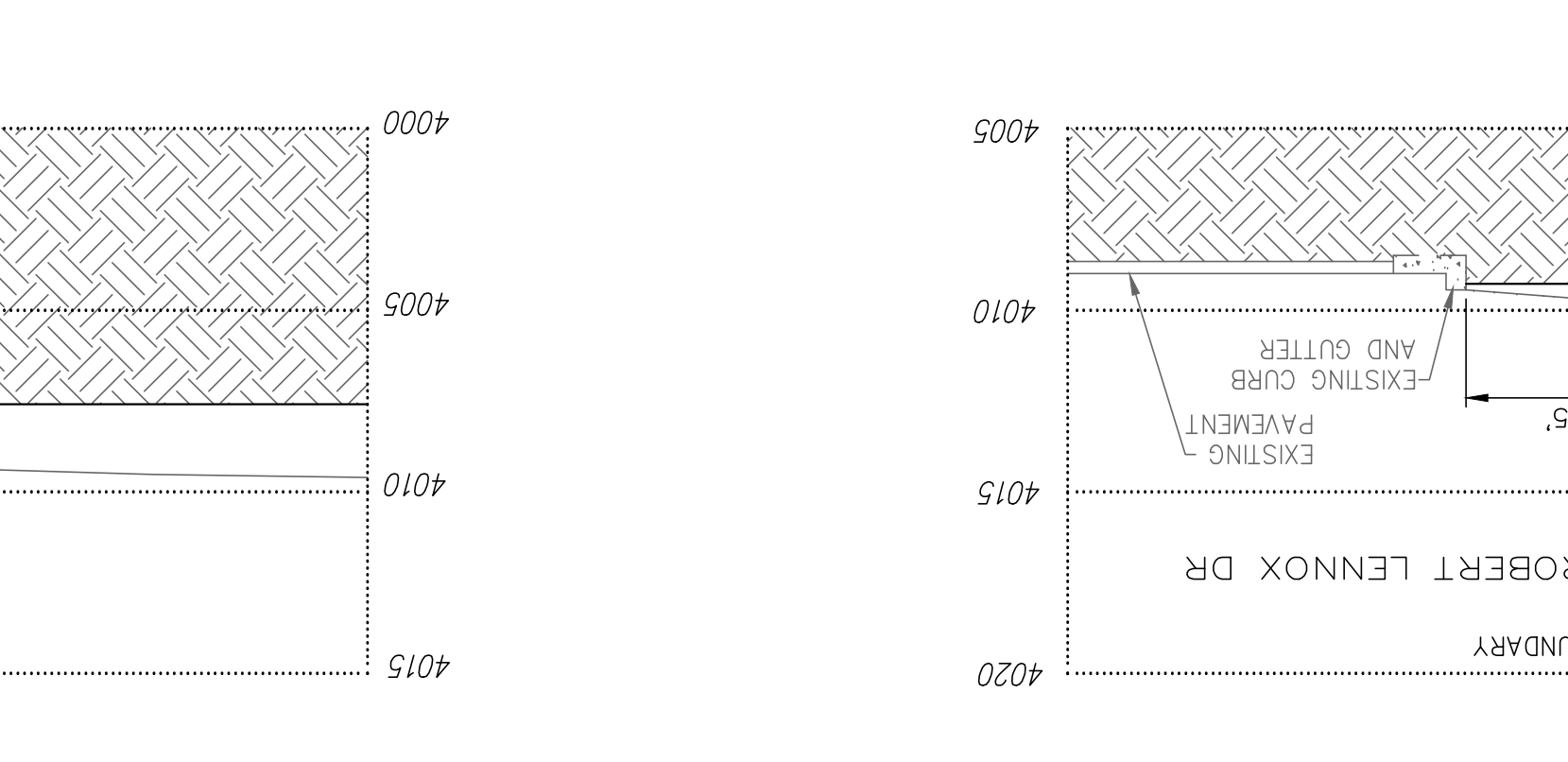
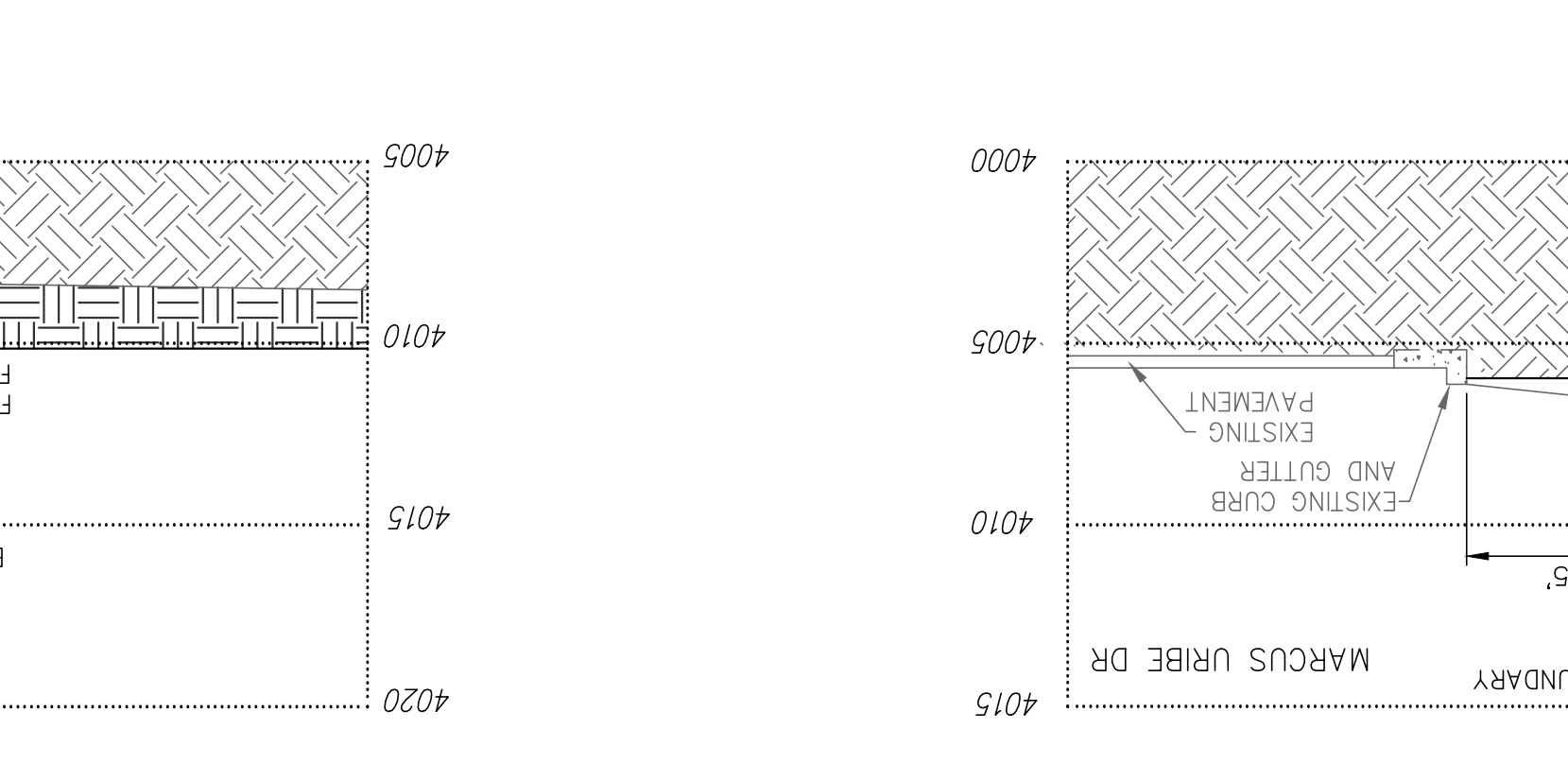
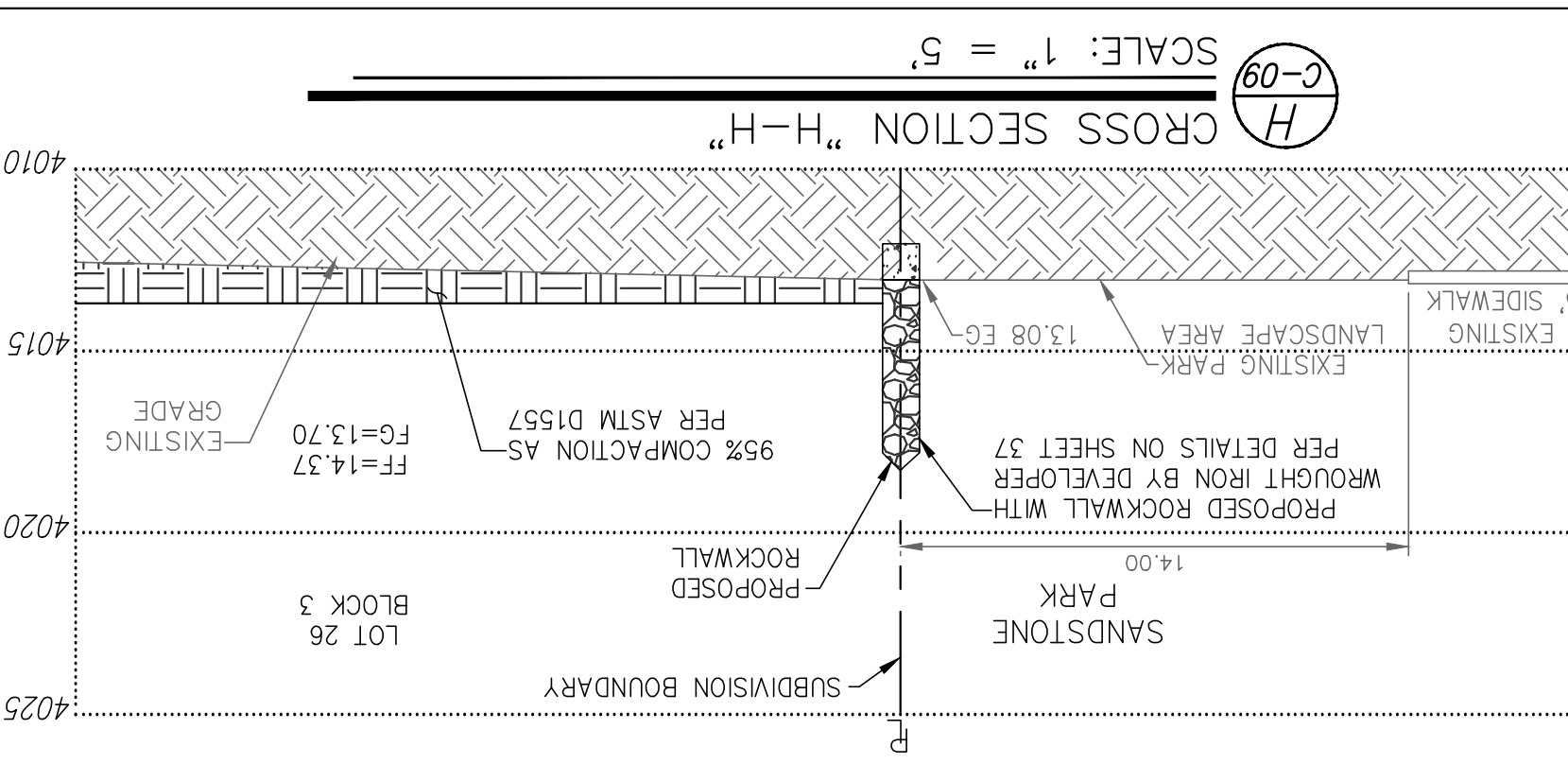
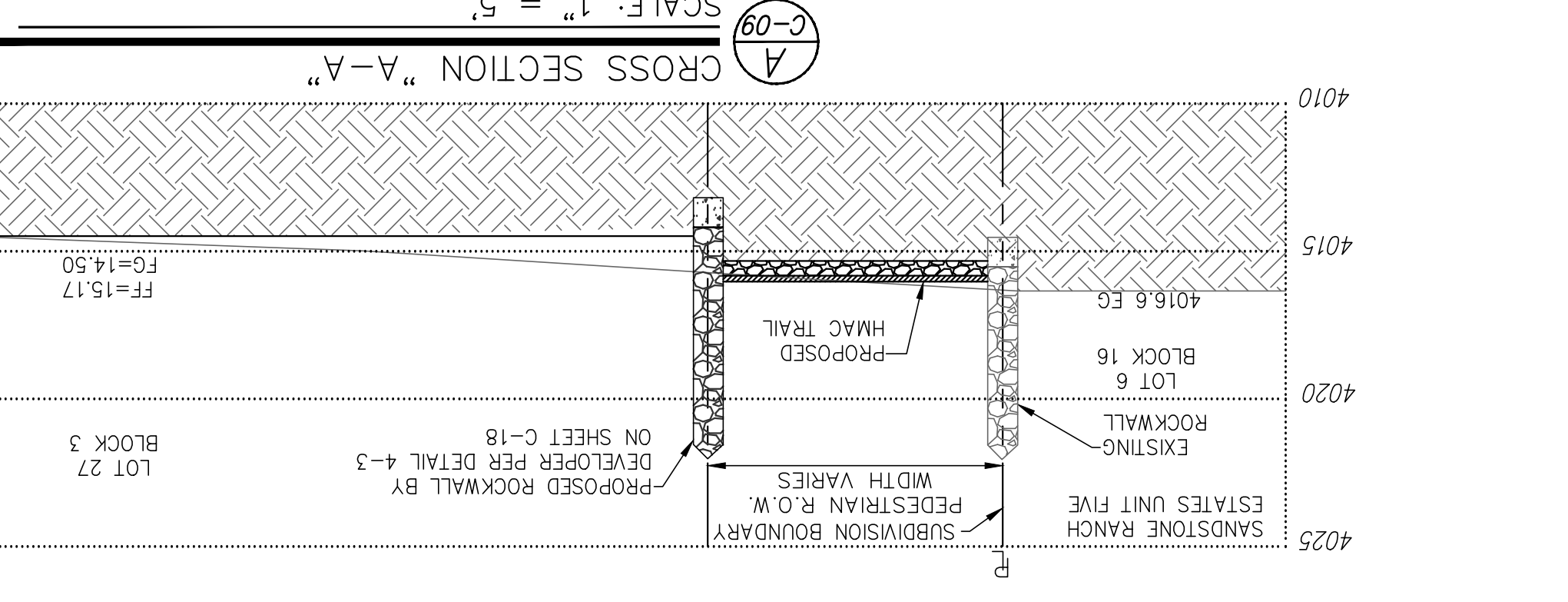
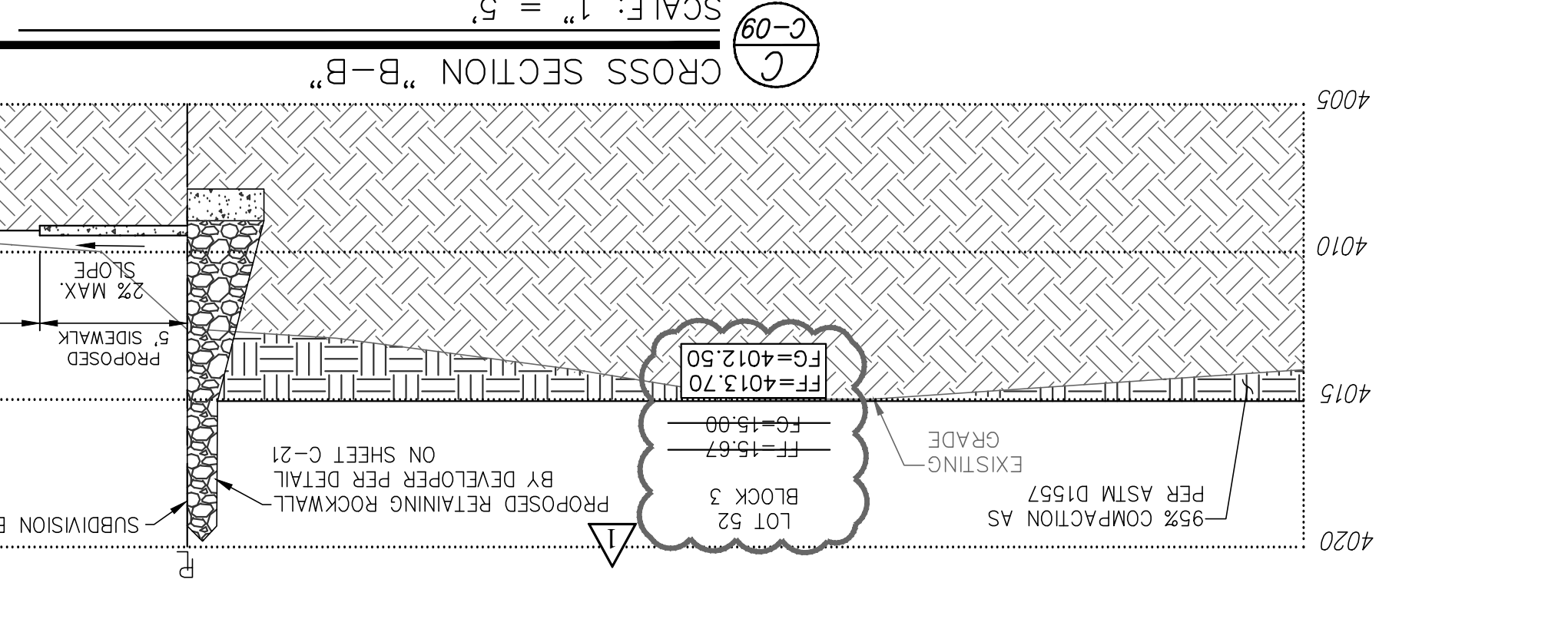
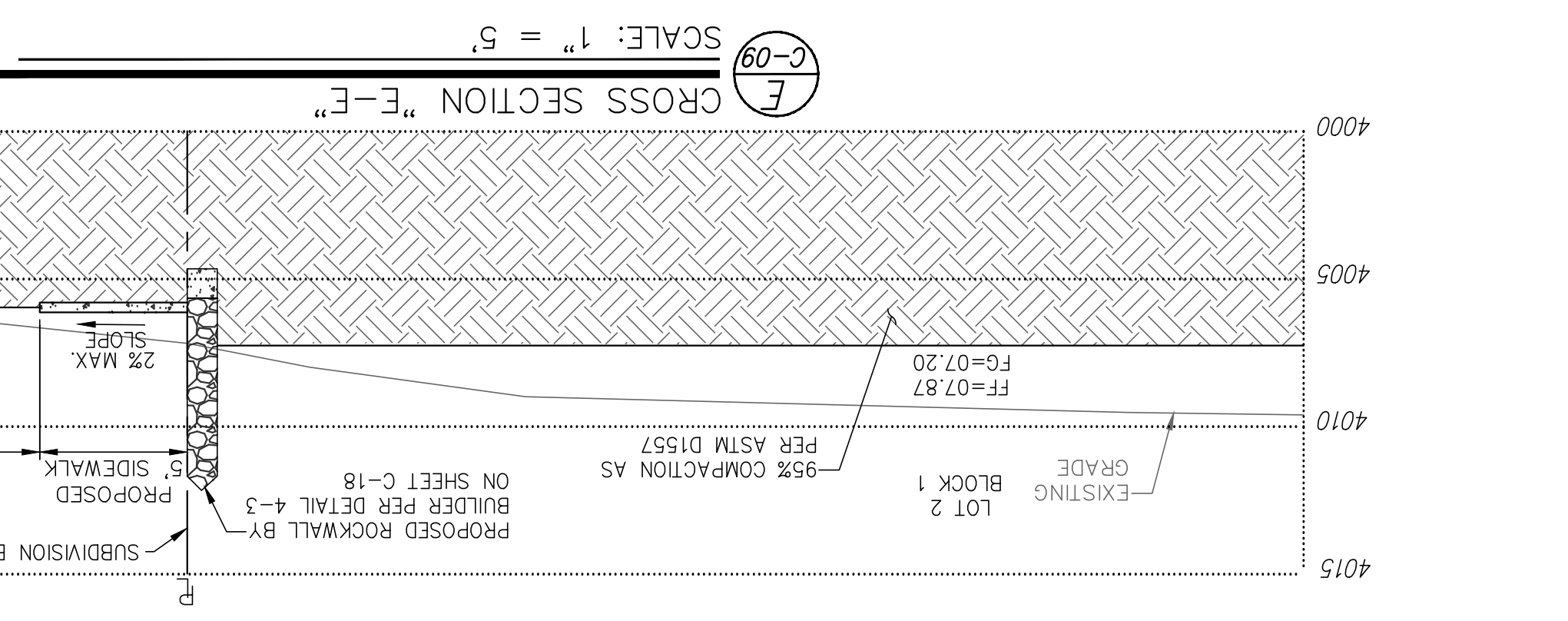
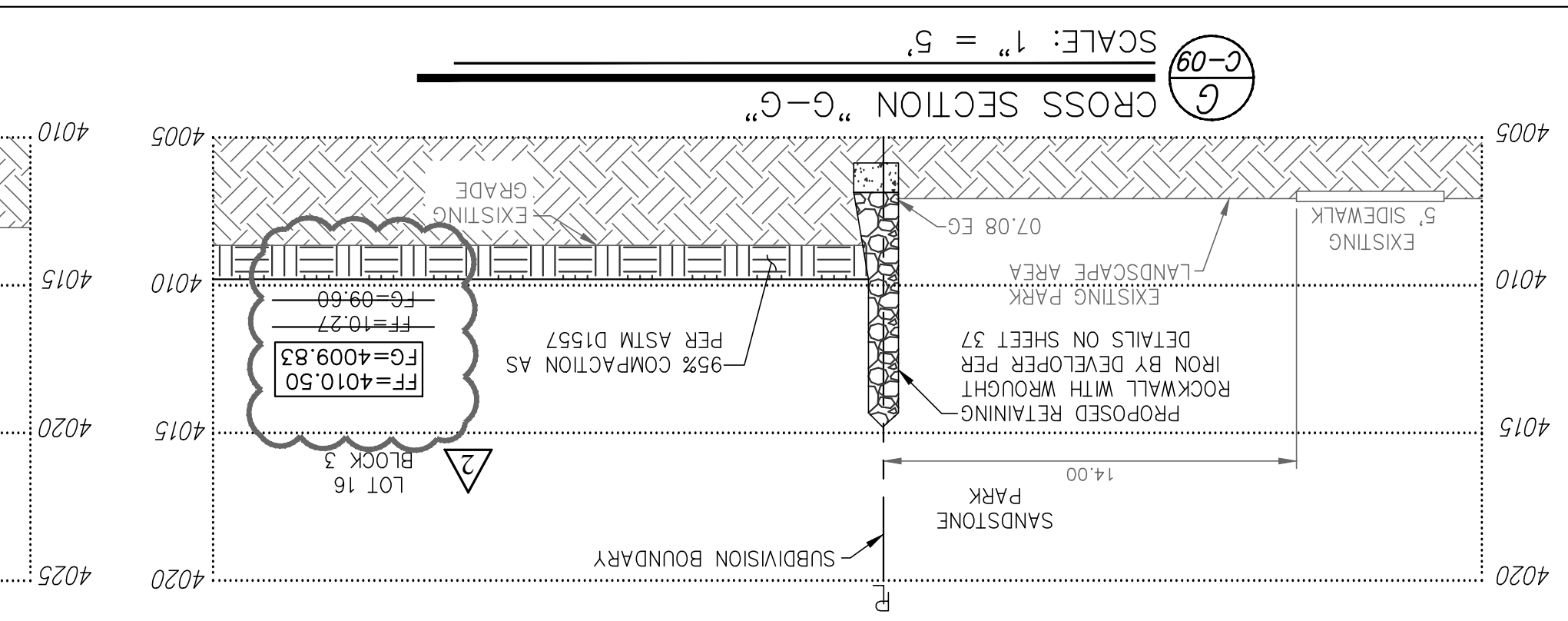
SANDSTONE VIEW SUBDIVISION

BEING LOT 1, BLOCK 1 EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES



Project #:	J18-070	Design By:	LU
Plot Date:	11/20/2019	Drawn By:	LU
SHEET:	C-08		AS-SHOWN





REV 2: STONES THROW SLOPE WAS LOWERED TO APPROXIMATELY 1.0% TO REDUCE RETAINING WALL HEIGHT AND CUT/FILL QTY. SHEETS C-05 AND C-17 DATE 04-23-2020

REV 1: LOTS 56-79 ON BLOCK 2 AND LOTS 15-20, 42-47, ON BLOCK 3 WERE VERTICALLY ADJUSTED TO REDUCE THE FINISH GRADE ELEV. PROJECT BENCHMARK CITY

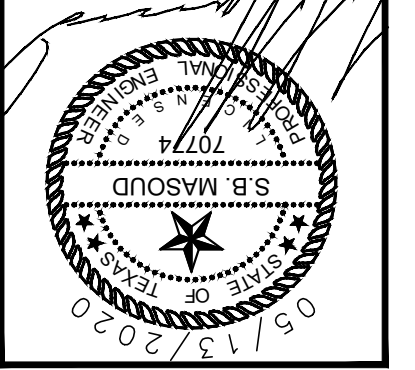
NONUMENT ELEVATIONS CORRECTED, POND DEPTH INCREASE 1.5 FEET. DATE 05-13-2020

Project #:	J18-070	Design By:	SM/LU
Plot Date:	05/13/20	Drawn By:	LU/ME
SHEET:	C-09	Scale:	AS-SHOWN

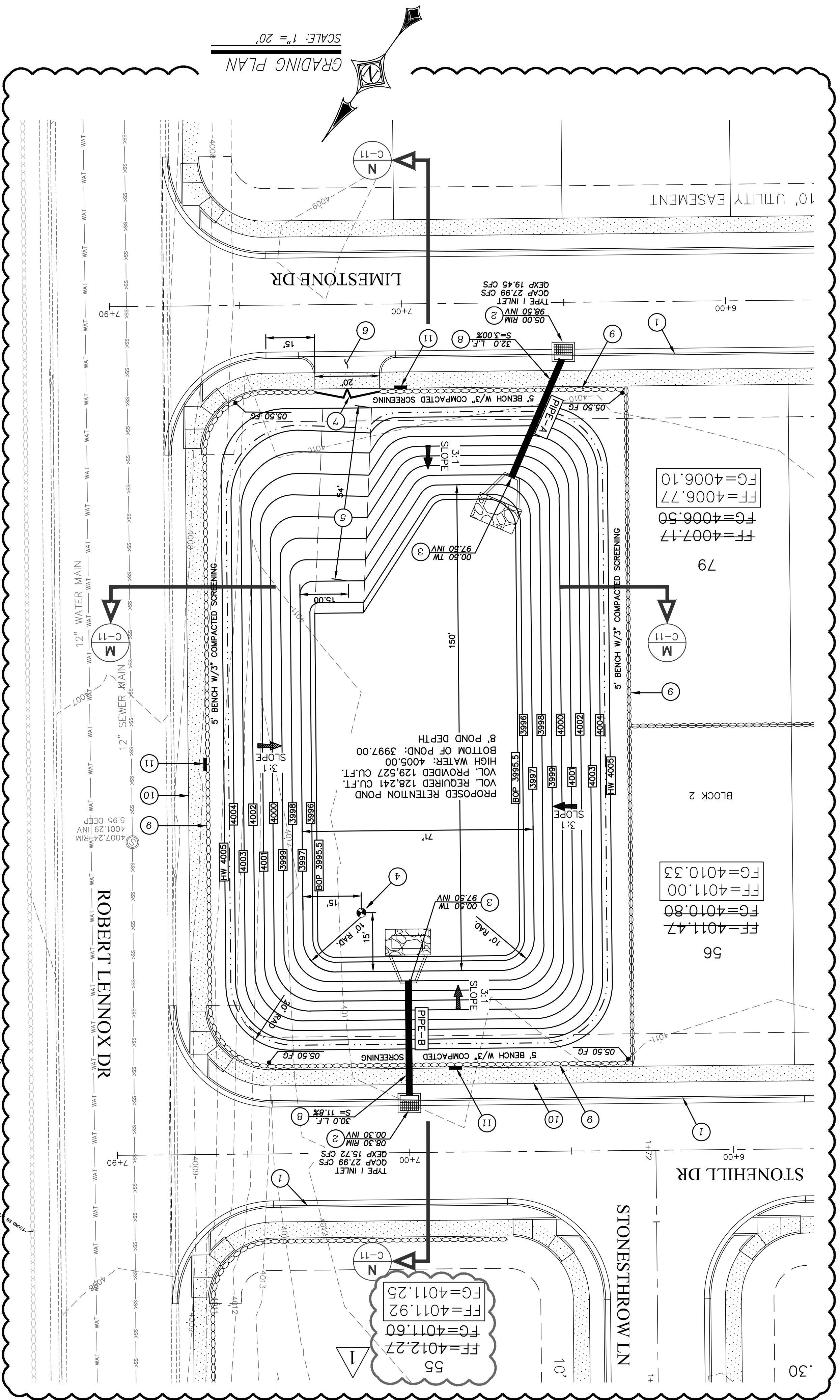
CROSS SECTIONS AND TYPICAL SECTIONS
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14,930 ACRES

DRE Del Rio Engineering, Inc.
 P.O. Box 20251, El Paso, Texas 79913 915.833.2400 TBBE Firm #: F-1095

All work submitted in relation to this project, Architectural, Civil, Mechanical, Electrical, Sanitary, and Structural, shall be the responsibility of the contractor and shall be coordinated with the City of El Paso. The contractor shall be responsible for obtaining all necessary permits and for the proper connections. The contractor shall be responsible for the proper connections. The contractor shall be responsible for the proper connections.



Release Dates:	04/23/20
	05/13/20



LEGEND

- ⑤ CONSTRUCTION KEY NOTE
- DEPTH GAUGE
- L.F. LEANER FOOTAGE
- BOP BOTTOM OF POND ELEV.
- HW HIGH WATER ELEV.
- TW TOP OF HEADWALL ELEV.
- FG FINISHED GRADE ELEV.
- FF FINISHED FLOOR ELEV.
- INV INVERT ELEV.
- RIM STRUCTURE RIM ELEV.

DRAINAGE CALCULATIONS
 CURB OPENING
 COMBINATION GRATE WITH DROP INLET TYPE I (3 GRATE)
 WHERE:
 Q=CAPACITY
 A=AREA OF GRATE (SQ.FT.)
 H=HEAD (FT.)
 $Q_{CAP} = 46.44 \text{ cfs} \times 0.50 \text{ (CLOSING FACTOR)}$
 $Q_{CAP} = 23.22 \text{ c.f.s.}$
 $Q_{CAP} = 3.33 \times L \times H^{3/2}$
 $3.33 \times L \times 5.67 \times 0.4^{3/2}$
 $Q_{CAP} = 4.77 \text{ c.f.s.}$

WEIR + ORIFICE
 WHERE:
 Q=CAPACITY
 L=LENGTH (FT)
 H=HEAD (FT)
 $Q_{CAP} = 0.61 \times A \times (64.4 \times H)^{1/2}$
 $Q_{CAP} = 0.61 \times 15 \times (64.4 \times 0.4)^{1/2}$
 $Q_{CAP} = 48.44 \text{ cfs} \times 0.50 \text{ (CLOSING FACTOR)}$
 $Q_{CAP} = 23.22 \text{ c.f.s.}$
 $Q_{CAP} = 3.33 \times L \times H^{3/2}$
 $3.33 \times L \times 5.67 \times 0.4^{3/2}$
 $Q_{CAP} = 4.77 \text{ c.f.s.}$

PROPOSED POND - WATERSHED 3 (WS-3) STAGE STORAGE TABLE

AVG END	DEPT	AREA	ELEV	TOTAL VOL.	INC. VOL.	DEPT (cu. ft.)	AREA (sq. ft.)	BOTTOM OF POND
1.00	N/A	9,984.59	0.00	3,997.00	11,355.43	1.00	106,70.01	106,70.01
2.00	N/A	9,984.59	0.00	3,998.00	11,355.43	1.00	106,70.01	106,70.01
3.00	1.00	12,809.04	3,999.00	17,669.10	15,964.60	1.00	15,155.02	5,1484.50
4.00	1.00	14,345.43	4,000.00	19,453.07	17,669.10	1.00	16,816.85	6,8301.35
5.00	1.00	15,964.60	4,001.00	21,302.45	19,453.07	1.00	18,561.08	8,862.43
6.00	1.00	17,669.10	4,002.00	23,272.09	21,302.45	1.00	20,377.76	10,7240.19
7.00	1.00	19,453.07	4,003.00	25,274.19	23,272.09	1.00	22,287.27	12,9527.46
8.00	1.00	21,302.45	4,004.00	27,299.00	25,274.19	1.00	24,287.27	15,527.46

SURVEY NOTES:
 THIS PROPERTY LIES WITHIN FLOOD HAZARD ZONE "C", AS DESIGNATED BY THE F.I.R.M. FLOOD INSURANCE RATE MAP, DATED SEPTEMBER 4, 1991, COMMUNITY NO. 480214, PANEL NUMBER 0014D

RETENTION POND SLOPE STABILITY
 Soil Improvement at the crest area
 We recommend a minimum of 1.5-ft of existing loose soil at the top crest of the slopes be excavated and then backfilled with engineered fill. The fill material should be placed at 8 to 10-inches loose lifts. Each lift should be compacted to at least 95% of the maximum dry density per ASTM D 1557.
 The earthwork operation should be extended from slope surfaces to a minimum of 5-ft into the slopes. Density tests should be performed at the crest improved area to confirm the compaction. See Slope Stability Analysis (SPG191965) prepared by Spee Soil, Inc. for further specifications.

PROPOSED POND PERCOLATION CALCULATIONS
 PERCOLATION RATE OF WATER = 20 minutes per inch
 Proposed pond = 8 feet deep.
 $8 \times 12" = 96"$
 $96 \text{ in.} \times 20 \text{ min/in.} = 1920 \text{ min.}$
 $1920 \text{ min.} / 60 \text{ min.} = 32 \text{ hrs.}$
 $32 \text{ hrs.} / 24 \text{ hrs.} = 1.33 \text{ days}$
 See Percolation Test Analysis (SPG19196) prepared by Spee Soil, Inc. for further specifications.

- CONSTRUCTION KEY NOTES:**
- ① CONSTRUCT 6" CURB AND GUTTER PER C.O.E.P. STANDARD DETAIL 6-3 ON SHEET C-19.
 - ② INSTALL TYPE I DROP INLET (3 GRATES) PER C.O.E.P. STANDARD DETAIL 2-30 ON SHEET C-18.
 - ③ CONSTRUCT CONCRETE HEADWALL FOR 24" STORM DRAIN PIPE OUTFALL PER DETAIL ON SHEET C-21. CONSTRUCT 8"x14" WIRE WRAPPED RIP-RAP PER C.O.E.P. STANDARD DETAIL 5-3 ON SHEET C-19
 - ④ INSTALL 10" DEPTH GAUGE PER C.O.E.P. STANDARD DETAIL 2-8 ON SHEET C-18.
 - ⑤ CONSTRUCT 15" WIDE MAINTENANCE POND ACCESS GRADED AT 15% MAXIMUM LONGITUDINAL SLOPE.
 - ⑥ CONSTRUCT 20" WIDE COMMERCIAL DRIVEWAY FOR MAINTENANCE ACCESS PER C.O.E.P. STANDARD DETAIL 6-17 ON SHEET C-19.
 - ⑦ INSTALL WROUGHT IRON DOUBLE SWING GATE PER DETAIL 500-3 ON SHEET C-20.
 - ⑧ INSTALL 24" DIAMETER RCP STORM DRAIN PIPE.
 - ⑨ CONSTRUCT ROCKWALL ALONG PERIMETER OF POND LOT C.O.E.P. STANDARD DETAIL 4-3 ON SHEET C-18. SEE RETAINING WALL DETAIL FOR GRADE DIFFERENCE OF 2 FEET OR MORE.
 - ⑩ CONSTRUCT 5" WIDE CONCRETE SIDEWALK PER C.O.E.P. STANDARD DETAIL 6-3 ON SHEET C-19.
 - ⑪ INSTALL NO TRAFFIC SIGN PER C.O.E.P. DETAIL 2-43 ON SHEET C-18.
 - ⑫ MATCH EXISTING

REV 2
 STONES THROW
 LANE LONGITUDINAL
 SLOPE WAS LOWERED TO
 APPROXIMATELY 1.0% TO
 REDUCE RETAINING
 WALL HEIGHT AND
 CUT/FILL QTY. SHEETS
 C-05 AND C-17
 DATE 04-23-2020

REV 2
 MONUMENT ELEVATIONS CORRECTED. POND
 DEPTH INCREASE 1.5 FEET.
 DATE 05-13-2020

Project #:	J18-070	Design By:	SM/LU
Plot Date:	05/13/20	Drawn By:	LU/ME
SHEET:	C-10	Scale:	1"=20'

GRADING PLAN - POND
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

DRE Del Rio Engineering, Inc.
 P.O. Box 220251, El Paso, Texas 79913 915833-2400 TBBE Firm #: F-1093
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Release Dates:
 05/13/20

COMBINATION GRADE W/CURB OPENING

DROP INLET TYPE 1 (3 GRADE)

WHERE:
 Q-CAPACITY = 3.33 x L x H^{3/2}
 A-AREA OF GRADE (SQ.FT.)
 H=HEAD (FT.)

DROP INLET GRADE - ORIDGE

WHERE:
 Q-CAPACITY = 0.61 x A x (64 x H)^{3/2}
 O-CAPACITY = 0.61 x A x (64 x H)^{3/2}
 O-CAPACITY = 46.44 cfs x 0.50 (CLOSING FACTOR)
 Q-CAP = 23.22 cfs

CURB OPENING - WEIR

WHERE:
 Q-CAP = 3.33 x L x H^{3/2}
 O-CAP = 3.33 x 5.67 x 0.4^{3/2}
 Q-CAP = 4.77 cfs

WEIR + ORIDGE

WHERE:
 Q-CAP = 23.22 cfs + 4.77 cfs
 O-CAP = 27.99 cfs

PROPOSED POND - WATERSHED 3 (WS-3)

STAGE STORAGE TABLE 3 (WS-3)

ELEV	AREA (sq. ft.)	DEPT (ft)	INC. VOL. (cu. ft.)	TOTAL VOL. (cu. ft.)	AVG END
4,005.00	9,984.59	N/A	N/A	0.00	
3,998.00	11,355.43	1.00	10670.01	10670.01	
3,999.00	12,809.04	1.00	22752.25	22752.25	
4,000.00	14,345.43	1.00	36329.49	36329.49	
4,001.00	15,964.60	1.00	51484.50	51484.50	
4,002.00	17,669.10	1.00	68301.35	68301.35	
4,003.00	19,453.07	1.00	86862.43	86862.43	
4,004.00	21,302.45	1.00	107240.19	107240.19	
4,005.00	23,272.09	1.00	129527.46	129527.46	

RETENTION POND SLOPE STABILITY

Soil improvement at the crest area. We recommend a minimum of 1.5-ft of existing loose soil at the top crest of the slopes be excavated and then backfilled with engineered fill. The fill material should be placed at 8 to 10-inches loose lifts. Each lift should be compacted to at least 95% of the maximum dry density per ASTM D 1557.

The earthwork operation should be extended from slope surfaces to a minimum of 5-ft into the slopes. Density tests should be performed at the crest improved area to confirm the compaction. See Slope Stability Analysis (SPG191965) prepared by Speosol, Inc. for further specifications.

PIPE-A

Calculations

Q vs Depth = 4
 Compute by: = 0.012
 N-Value = 5.00
 Invert Elev (ft) = 2.00
 Slope (%) = 6.25
 Wetted Perm (ft) = 15.14
 Velocity (ft/s) = 1.58
 Area (sqft) = 2.667
 Q (cfs) = 0.80
 Depth (ft) = 3.85

Highlighted

Depth (ft) = 2.00
 Q (cfs) = 0.80
 Area (sqft) = 2.667
 Velocity (ft/s) = 1.58

Highlighted

Depth	Area	Q	Velocity
2.00	61.25	3.14	19.50
1.50	55.88	2.53	22.10
1.00	30.85	1.58	19.53
0.50	8.47	0.62	13.70

PIPE-B

Calculations

Q vs Depth = 6
 Compute by: = 0.012
 N-Value = 5.00
 Invert Elev (ft) = 2.00
 Slope (%) = 11.10
 Wetted Perm (ft) = 20.18
 Velocity (ft/s) = 0.92
 Area (sqft) = 16.02
 Q (cfs) = 0.60
 Depth (ft) = 6.00

Highlighted

Depth (ft) = 2.00
 Q (cfs) = 0.60
 Area (sqft) = 16.02
 Velocity (ft/s) = 0.92

Highlighted

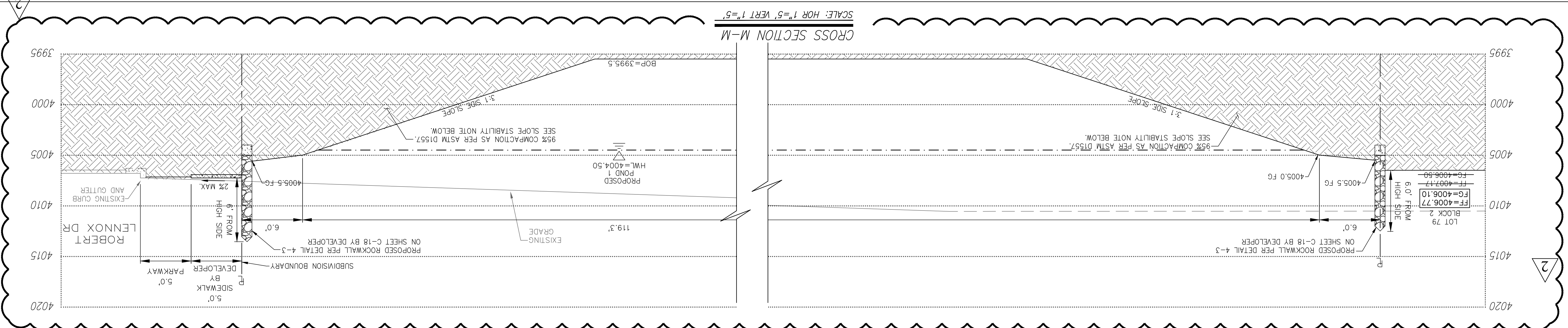
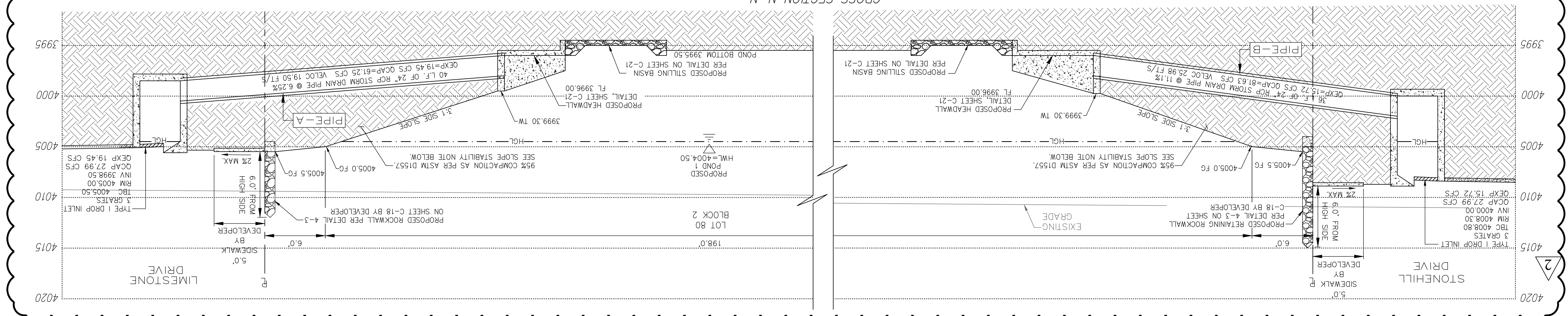
Depth	Area	Q	Velocity
2.00	81.63	3.14	25.98
1.67	82.95	2.80	29.60
1.33	64.27	2.23	28.79
1.00	41.11	1.58	26.03
0.67	19.78	0.92	21.41

REV: 2/21

DATE: 05-13-2020

DEPTH INCREASE 1.5 FEET.

MONUMENT ELEVATIONS CORRECTED. POND ADJUSTED TO REDUCE THE FINISH GRADE 42-47' ON BLOCK 3 WERE VERTICALLY ADJUSTED TO REDUCE THE FINISH GRADE ELEV. PROJECT BENCHMARK CITY



Project #: J18-070
 Design By: SM/LU
 Plot Date: 05/13/20
 Drawn By: LU/ME
 Scale: AS SHOWN
 SHEET: C-11

GRADING PLAN - POND SECTIONS

SANDSTONE VIEW SUBDIVISION

BING LOT 1, BLOCK1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

DRE Del Rio Engineering, Inc.

P.O. Box 220251, El Paso, Texas 79913 915.833.2400 TBBE Firm # 7-F-1003

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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY S.B. MASOUD, P.E. 70772, IN CONNECTION WITH THE PROPOSED GRADING PLAN FOR SANDSTONE VIEW SUBDIVISION, PROJECT BENCHMARK CITY, EPISD E-17, BING LOT 1, BLOCK 1, SANDSTONE VIEW SUBDIVISION, EL PASO COUNTY, TEXAS. THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY S.B. MASOUD, P.E. 70772, IN CONNECTION WITH THE PROPOSED GRADING PLAN FOR SANDSTONE VIEW SUBDIVISION, PROJECT BENCHMARK CITY, EPISD E-17, BING LOT 1, BLOCK 1, SANDSTONE VIEW SUBDIVISION, EL PASO COUNTY, TEXAS.

05/13/20
 04/23/20
 Release Dates:

SHEET C-37

SHEET C-37

SHEET C-16

SHEET C-17

SHEET C-15

SHEET C-14

SHEET C-13

SHEET C-10

MARCUS URIBE DRIVE

STONEHILL DRIVE

LIMESTONE DR

DENNIS CAVIN LN.

ROBERT LENNOX DRIVE



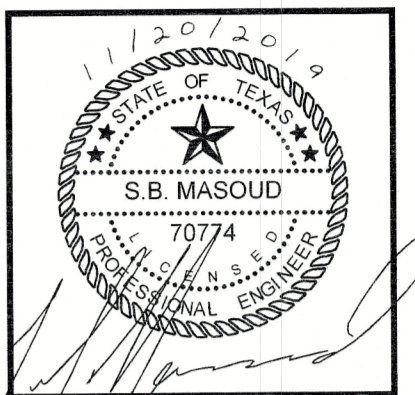
Final Approval

PLAN AND PROFILE KEYMAP

SCALE: 1"=40'

Release Dates:

Revisions:



All drawings submitted in relation to this project, including but not limited to, Mechanical, Structural, Electrical, Landscaping, etc., are intended. The Contractor and Subcontractors shall review and coordinate the entire set of drawings and project specifications. The Contractor shall be responsible for verifying all data shown on the plans. If discrepancies are found, the Contractor shall notify the owner or Engineer immediately so that proper corrections can be made.

DRE Del Rio Engineering, Inc.

P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TBPE Firm #: F-1093

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ROADWAY PLAN AND PROFILE KEYMAP

SANDSTONE VIEW SUBDIVISION

BEING LOT 1, BLOCK 1, EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070
Plot Date:	11/20/19
Design By:	SM/LU
Drawn By:	LU/ME
Scale:	1"=40'
SHEET:	C-12

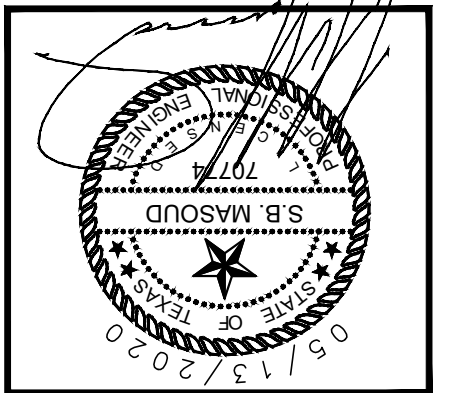
Release Dates:	
Revisions:	
05/13/20	

Scale:
PLAN
 HORIZONTAL SCALE: 1"=30'
PROFILES
 VERTICAL SCALE: 1"=5'

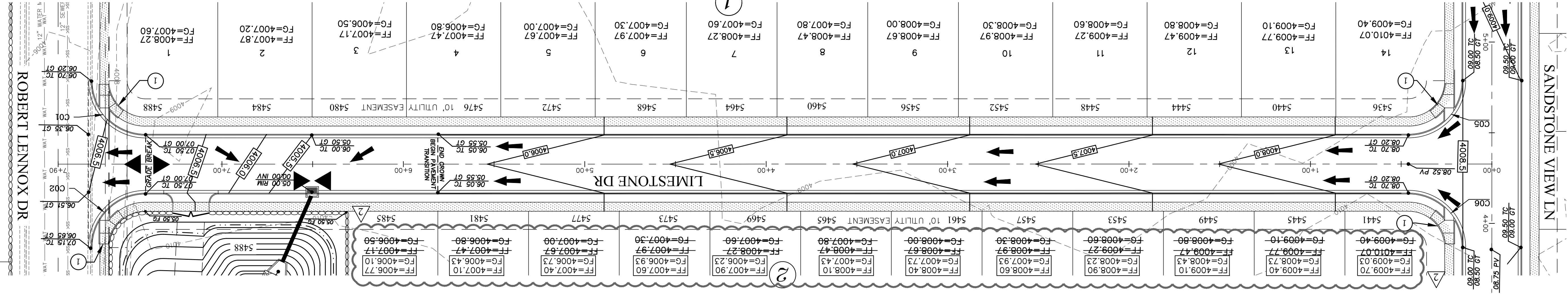
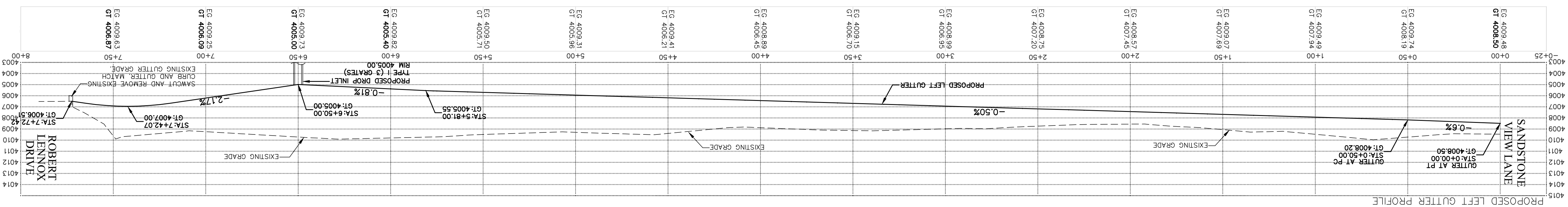
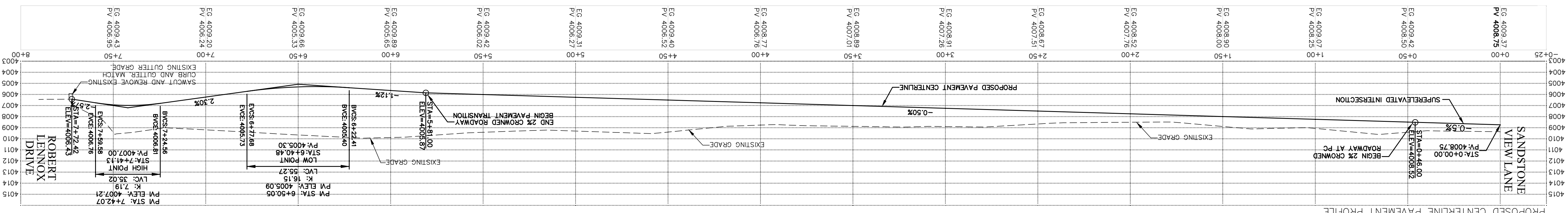
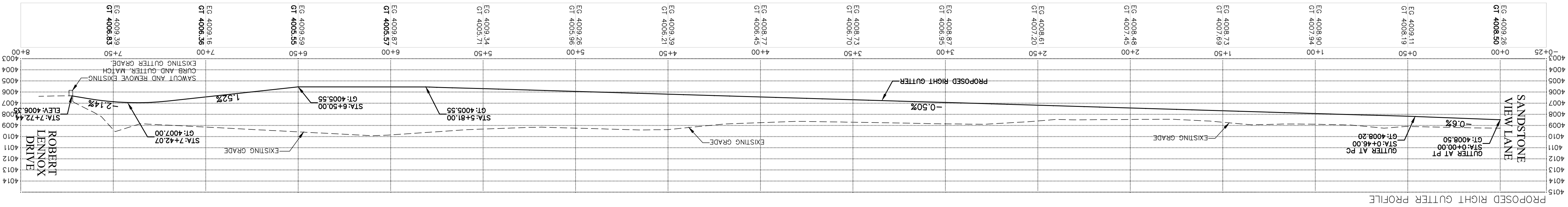
Del Rio Engineering, Inc.
 P.O. Box 20251 El Paso, Texas 79913 915/833-2400 TRPE Firm #: F-1093

DRE
 Del Rio Engineering, Inc.
 P.O. Box 20251 El Paso, Texas 79913 915/833-2400 TRPE Firm #: F-1093

SANDSTONE VIEW SUBDIVISION
 ROADWAY PLAN AND PROFILE - LIMESTONE DRIVE
 BEING LOT 1, BLOCK 1 EPISD E-17
 650,378 SQ. FT. OR 14,930 ACRES
 CITY OF EL PASO, EL PASO COUNTY, TEXAS



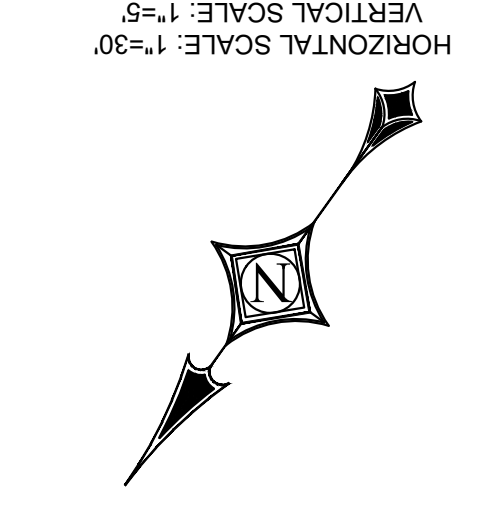
Project #:	J18-070	Drawn By:	LU
Plot Date:	05/13/2020	Design By:	LU
SHEET:	C-13	AS-SHOWN	



FACE OF CURB AND CURB INFORMATION

Curve #	Length	Radius	Chord Bearing	Chord	Delta
C05	47.124	30,001	S12° 27' 20" W	A=90°00'00"	
C06	47.124	30,001	S77° 32' 40" E	A=90°00'00"	

REV 2
 DATE 05-13-2020
 DEPTH INCREASE 1.5 FEET.
 MONUMENT ELEVATIONS CORRECTED. POND
 ELEV. PROJECT BENCHMARK CITY
 ADJUSTED TO REDUCE THE FINISH GRADE
 42-47, ON BLOCK 3 WERE VERTICALLY
 LOTS 56-79 ON BLOCK 2 AND LOTS 15-20



KEY NOTES:
 1 DIRECTIONAL RAMP PER SHEET C-20

LEGEND

PF	FINISHED FLOOR
FG	EXISTING GRADE
FG/TBC	TOP OF CURB
PV	TOP OF PAVEMENT
GT	GUTTER
VG	VALLEY GUTTER
SW	TOP OF SIDEWALK
INV	INVERT
INT	POINT OF INTERSECTION
1+00	POINT OF VERTICAL INTERSECTION
HP	HIGH POINT
LP	LOW POINT
DR	DRAINAGE FLOW
4000	EXISTING CONTOUR
4000.5	PROP. MINOR CONTOUR
4000.5	PROP. MAJOR CONTOUR
---	PROP. RETAINING WALL
---	RIGHT OF WAY LINE
---	ROADWAY CENTERLINE
---	EASEMENT LINE
---	LOT LINE
○	PROP. CITY MONUMENT
○	EXISTING POWER POLE
○	MAIL BOX DELIVERY UNIT

Release Dates:	
Revisions:	
05/13/20	

Scale:
PLAN
 HORIZONTAL SCALE: 1"=30'
PROFILES
 HORIZONTAL SCALE: 1"=30'
 VERTICAL SCALE: 1"=5'

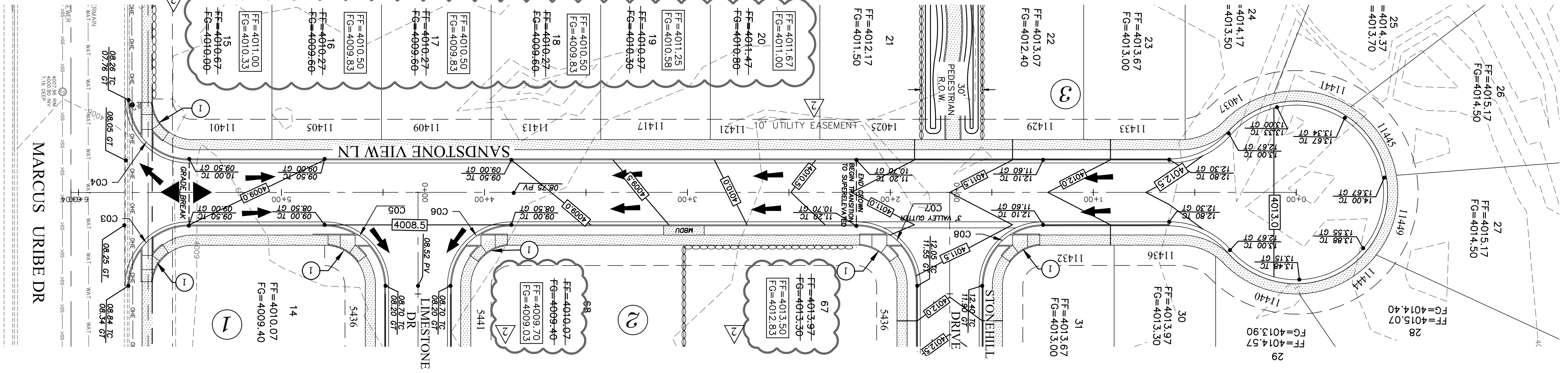
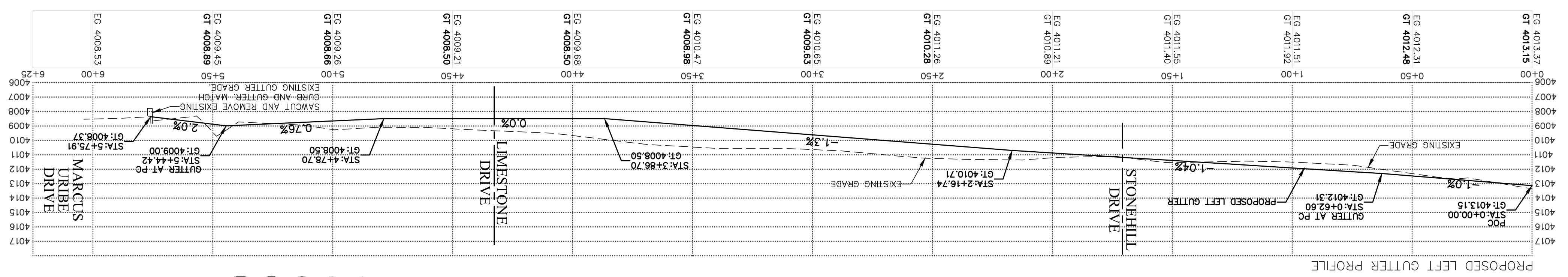
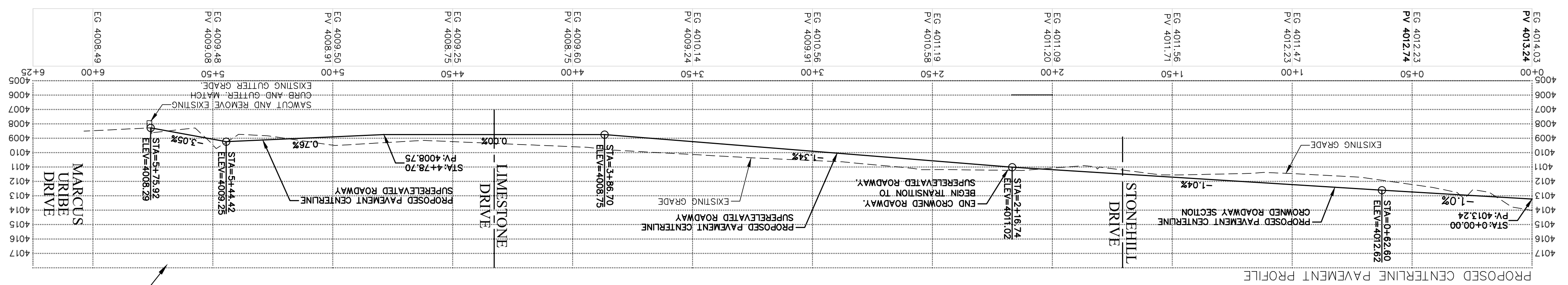
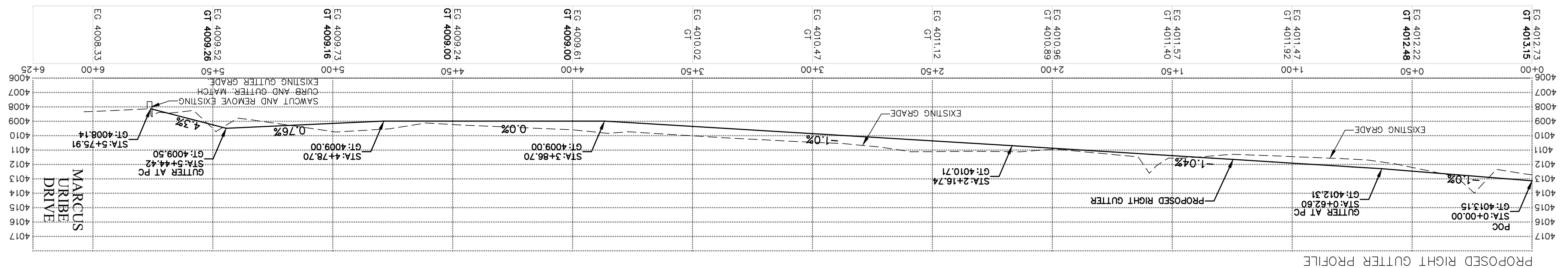
Del Rio Engineering, Inc.
 P.O. Box 20251 El Paso, Texas 79913 915/833-2400 TRPE Firm #: F-1093

DR E
 BEING LOT 1, BLOCK 1 EPISD E-17
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14,930 ACRES

SANDSTONE VIEW SUBDIVISION
 ROADWAY PLAN AND PROFILE - SANDSTONE VIEW LN



Project #:	J18-070	Design By:	LU
Plot Date:	05/13/2020	Drawn By:	LU
SHEET:	C-14	AS-SHOWN	



REV 2:
 LOTS 56-79 ON BLOCK 2 AND LOTS 15-20, 42-47, ON BLOCK 3 WERE VERTICALLY ADJUSTED TO REDUCE THE FINISH GRADE ELEV. PROJECT BENCHMARK CITY MONUMENT ELEVATIONS CORRECTED, POND DEPTH INCREASE 1.5 FEET.
 DATE 05-13-2020

Curve #	Length	Radius	Chord Bearing	Chord Direction	Delta
C03	47.093	30.00	N77.30° 55' W	CH 42.40	A=89°56'28"
C04	47.155	30.00	N12.29° 05' E	CH 42.45	A=90°03'32"
C05	47.124	30.00	S12.27° 20' W	CH 42.43	A=90°00'00"
C06	47.124	30.00	S77.32° 40' E	CH 42.43	A=90°00'00"
C07	47.124	30.00	S12.27° 20' W	CH 42.43	A=90°00'00"
C08	47.124	30.00	S77.32° 39' E	CH 42.43	A=90°00'02"

KEY NOTES:
 1 DIRECTIONAL RAMP PER SHEET C-20

LEGEND

FF	FINISH FLOOR
FG	EXISTING GRADE
FG/TBC	TOP OF CURB
PG	TOP OF PAVEMENT
GT	GUTTER
VG	VALLEY GUTTER
SW	TOP OF SIDEWALK
INV	INVERT
1+00	ALIGNMENT STATIONING
PI	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
LOW POINT	LOW POINT
↑	DRAINAGE FLOW
---	EXISTING CONTOUR
---	PROP. MINOR CONTOUR
---	PROP. MAJOR CONTOUR
---	PROP. RETAINING WALL
---	RIGHT OF WAY LINE
---	ROADWAY CENTERLINE
---	EASEMENT LINE
---	LOT LINE
○	PROP. CITY MONUMENT
○	EXISTING POWER POLE
□	MAIL BOX DELIVERY UNIT



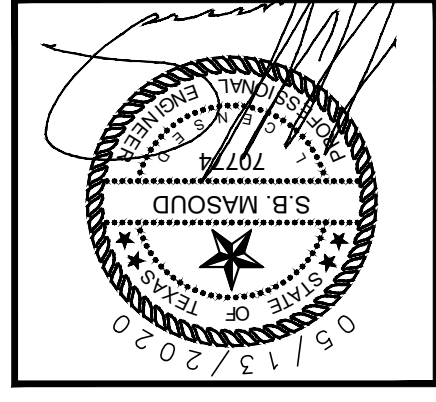
Release Dates:	
Revisions:	
05/13/20	

Scale: PLAN
 HORIZONTAL SCALE: 1"=30'
 VERTICAL SCALE: 1"=5'

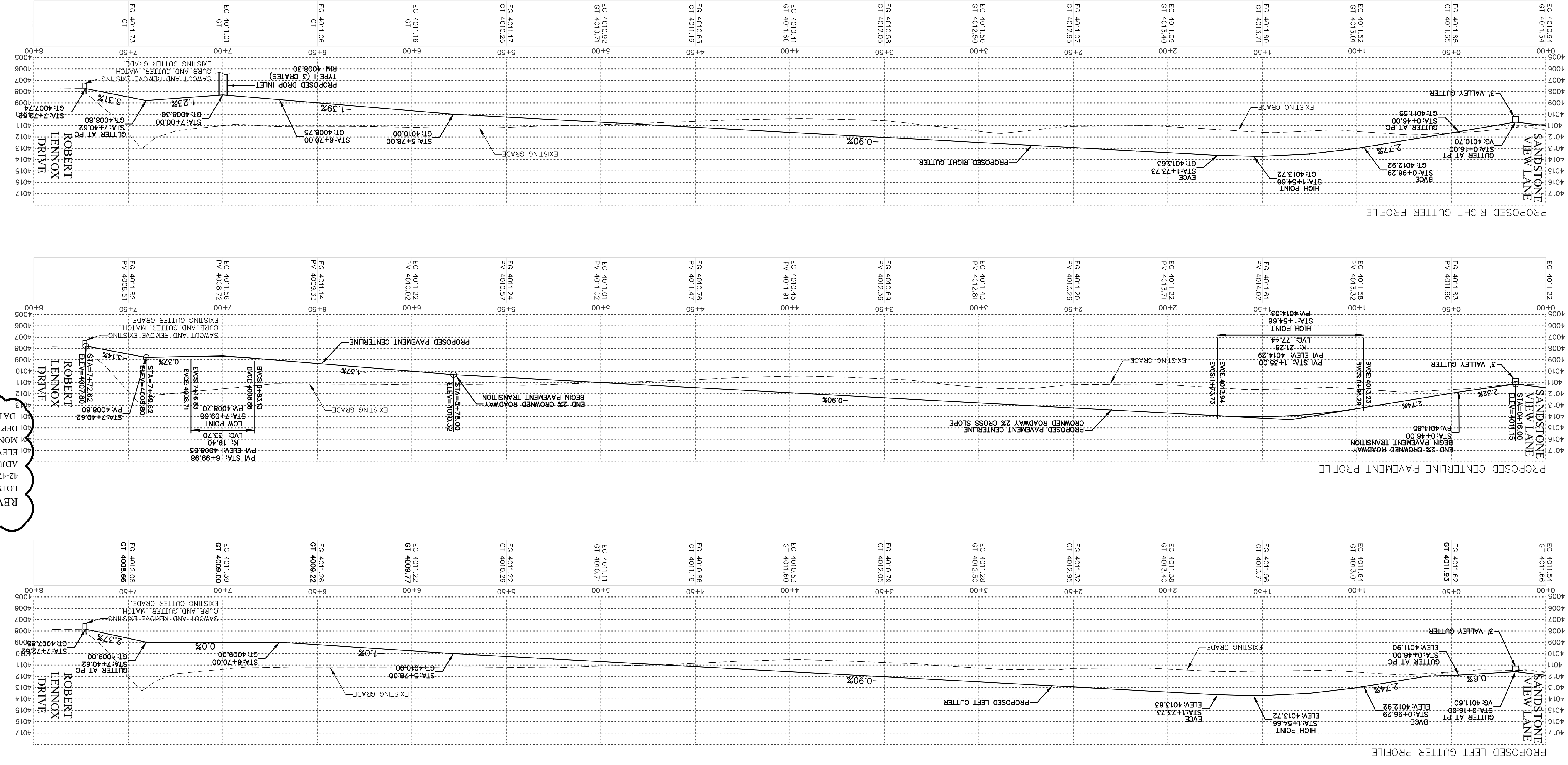
Scale: PROFILES
 HORIZONTAL SCALE: 1"=30'
 VERTICAL SCALE: 1"=5'

DRE
 Del Rio Engineering, Inc.
 P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TRPE Firm #: F-1093

SANDSTONE VIEW SUBDIVISION
 ROADWAY PLAN AND PROFILE - STONEHILL DR
 BEING LOT 1, BLOCK 1 EPPS E-17
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES



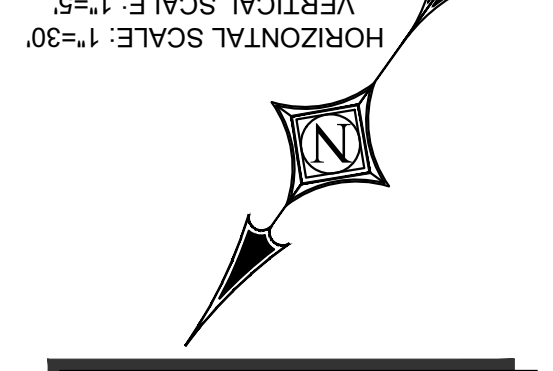
Project #:	J18-070
Design By:	LU
Drawn By:	LU
Plot Date:	05/13/2020
SHEET:	C-15
AS-SHOWN	



FACE OF CURB AND CURB INFORMATION

Curve #	Length	Radius	Chord Bearing	Chord Direction	Delta
C07	47.124	30.00	S12° 27' 20" W	CH 42.43	A=90°00'00"
C08	47.124	30.00	S77° 39' 39" E	CH 42.43	A=90°00'00"
C09	47.124	30.00	N12° 27' 20" E	CH 42.43	A=90°00'00"
C10	47.124	30.00	S77° 32' 41" E	CH 42.43	A=90°00'00"
C11	47.124	30.00	N12° 27' 20" E	CH 42.43	A=90°00'00"
C12	47.124	30.00	S77° 32' 40" E	CH 42.43	A=90°00'00"
C13	47.156	30.02	N77° 32' 03" W	CH 42.45	A=90°00'21"
C14	47.099	30.00	N12° 28' 44" E	CH 42.41	A=89°57'10"

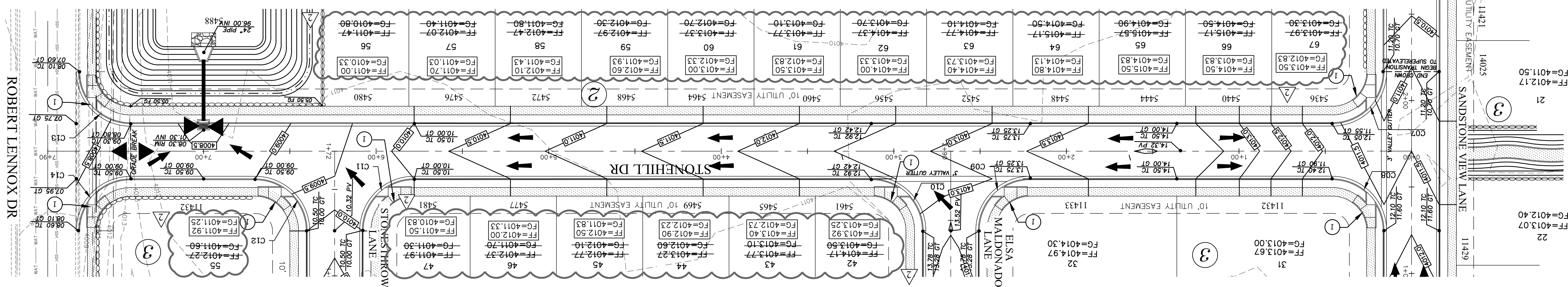
REV 2:
 LOTS 56-79 ON BLOCK 2 AND LOTS 15-20 ADJUSTED TO REDUCE THE FINISH GRADE ELEV. PROJECT BENCHMARK CITY NONUMENT ELEVATIONS CORRECTED. POND DEPTH INCREASE 1.5 FEET.
 DATE 05-13-2020



KEY NOTES:
 1 DIRECTIONAL RAMP PER SHEET C-20

LEGEND

FF	FINISHED FLOOR
FG	EXISTING GRADE
FG/TBC	TOP OF CURB
GT	GUTTER
VG	VALLEY GUTTER
INV	TOP OF SIDEWALK
INTV	INVERT
INTV	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
HP	HIGH POINT
LP	LOW POINT
DR	DRAINAGE FLOW
---	EXISTING CONTOUR
---	PROP. MAJOR CONTOUR
---	PROP. REMAINING MAIL
---	PROP. RIGHT OF WAY LINE
---	ROADWAY CENTERLINE
---	EXISTING LINE
---	LOT LINE
---	PROP. CITY MONUMENT
---	EXISTING POWER POLE
---	MAIL BOX DELIVERY UNIT



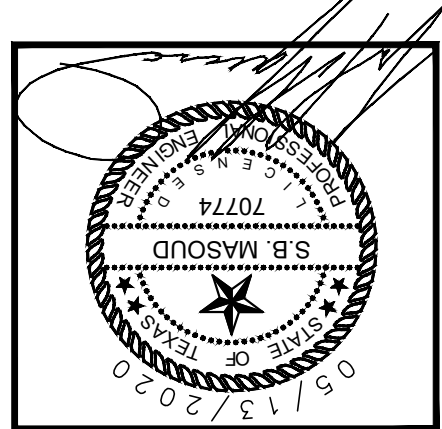
Release Dates:	
Revisions:	
	05/13/20

All drawings submitted in relation to this project shall be prepared in accordance with the standards, specifications, and codes of the State of Texas. The Engineer shall be responsible for verifying the data shown on this plan. If discrepancies are found, the Contractor shall notify the owner or engineer immediately so that proper corrections can be made.

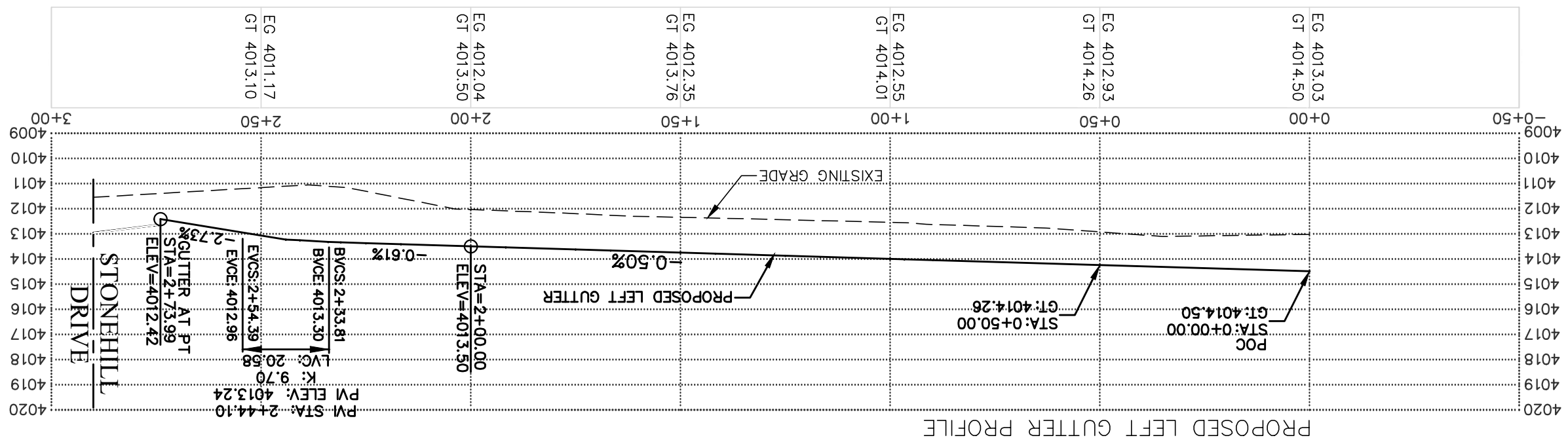
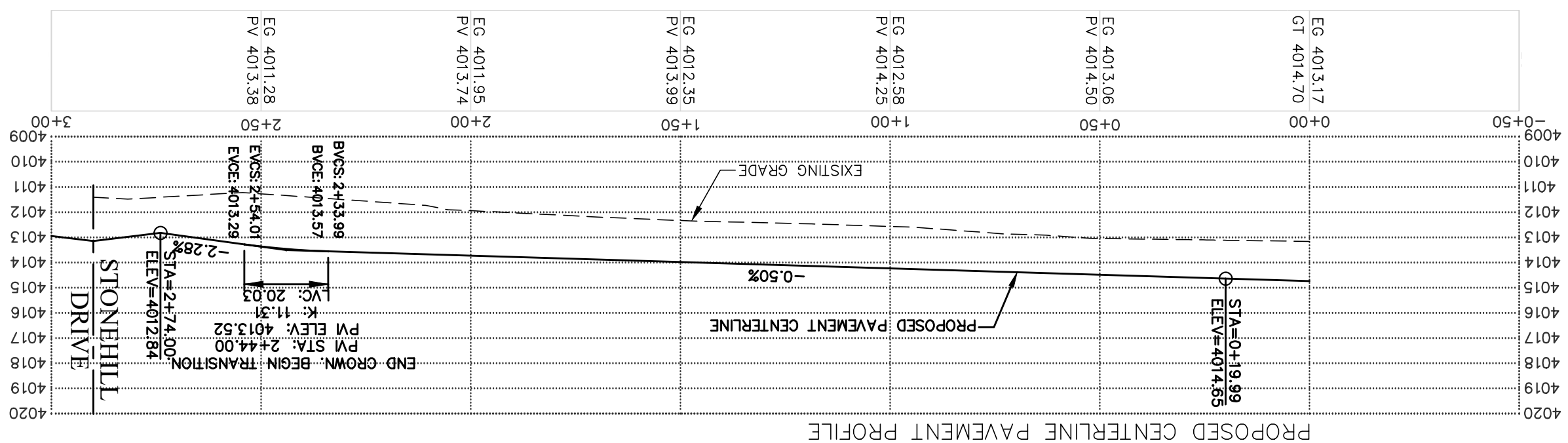
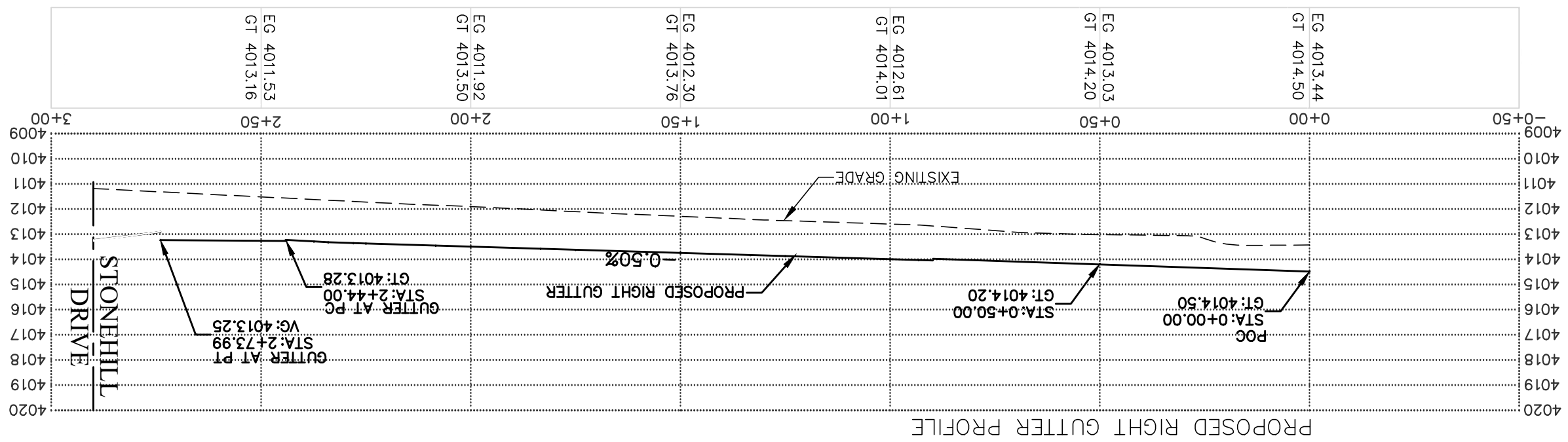
PLAN
Scale:
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=5'

DRE
Del Rio Engineering, Inc.
P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TRPE Firm #: F-1093
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ROADWAY PLAN AND PROFILE - ELSA MALDONADO LN
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK1 EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14,930 ACRES



Project #:	J18-070	Design By:	LU
Plot Date:	05/13/2020	Drawn By:	LU
SHEET:	C-16	AS-SHOWN	



FACE OF CURB AND CURB INFORMATION

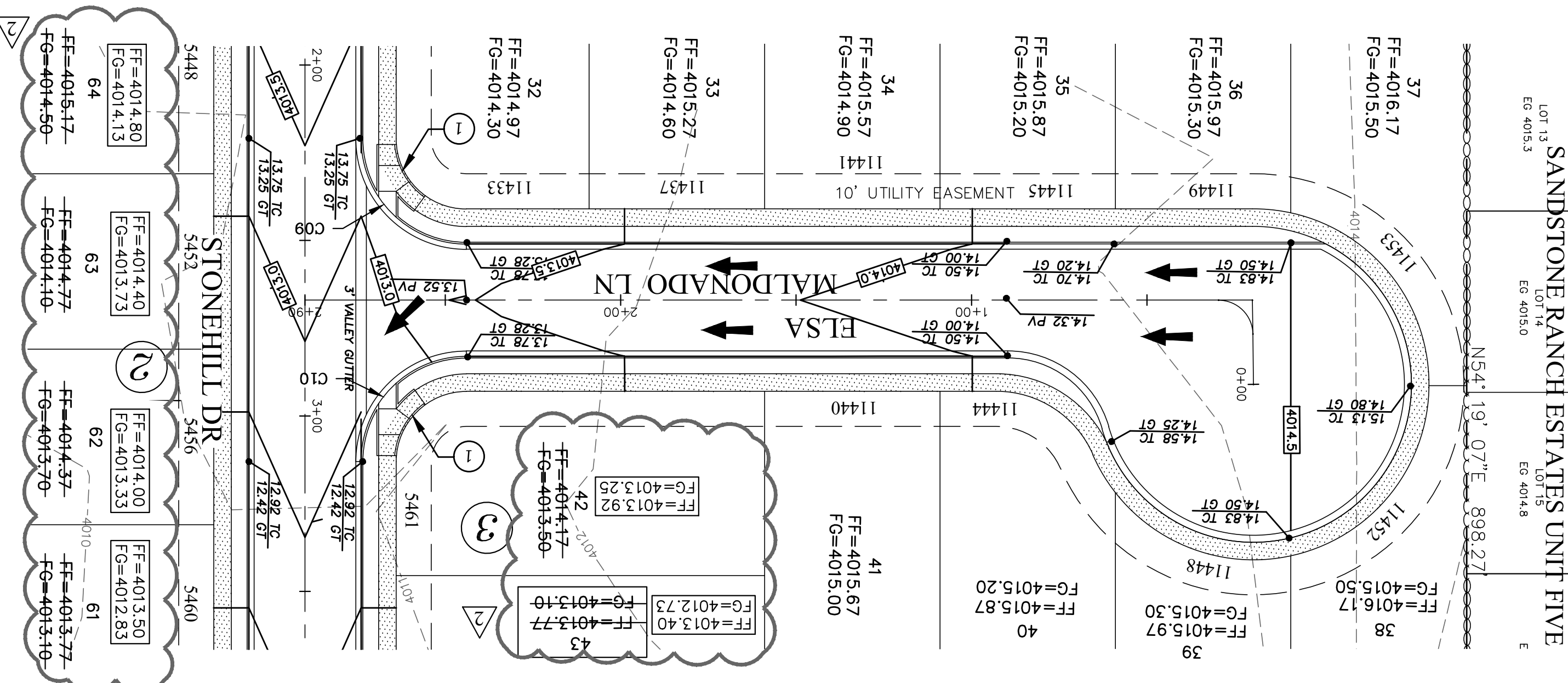
Curve #	Length	Radius	Chord Bearing	Direction	Delta
C10	47.124	30.00	S77.32° 41'E	CH 42.43	A=90°00'00"
C09	47.124	30.00	N12.27° 20'E	CH 42.43	A=90°00'00"

KEY NOTES:
1 DIRECTIONAL RAMP PER SHEET C-20

LEGEND

- FINISH FLOOR
- FINISHED GRADE
- EXISTING GRADE
- TOP OF CURB
- TOP OF PAVEMENT
- GUTTER
- VALLEY GUTTER
- TOP OF SIDEWALK
- INVERT
- MONUMENT ELEVATIONS CORRECTED, POND DEPTH INCREASE 1.5 FEET.
- POINT OF INTERSECTION
- 1+00
- PVI
- INTERSECTION
- LOW POINT
- DRAINAGE FLOW
- EXISTING CONTOUR
- 4000.0
- PROP. MINOR CONTOUR
- 4000.5
- PROP. MAJOR CONTOUR
- PROP. RETAINING WALL
- RIGHT OF WAY LINE
- ROADWAY CENTERLINE
- EASEMENT LINE
- LOT LINE
- PROP. CITY MONUMENT
- EXISTING POWER POLE
- MAIL BOX DELIVERY UNIT

REV 2
42-47, ON BLOCK 3 WERE VERTICALLY ADJUSTED TO REDUCE THE FINISH GRADE ELEV. PROJECT BENCHMARK CITY MONUMENT ELEVATIONS CORRECTED, POND DEPTH INCREASE 1.5 FEET.
DATE 05-13-2020



VERTICAL SCALE: 1"=30'
HORIZONTAL SCALE: 1"=5'

Release Dates:	
Revisions:	
	04/23/20
	05/13/20

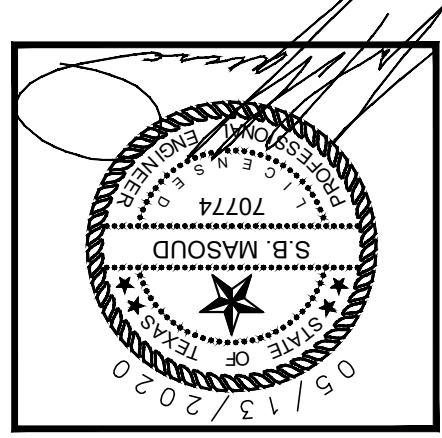
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Scale:
PLAN
 HORIZONTAL SCALE: 1"=30'
PROFILES
 HORIZONTAL SCALE: 1"=30'
 VERTICAL SCALE: 1"=5'

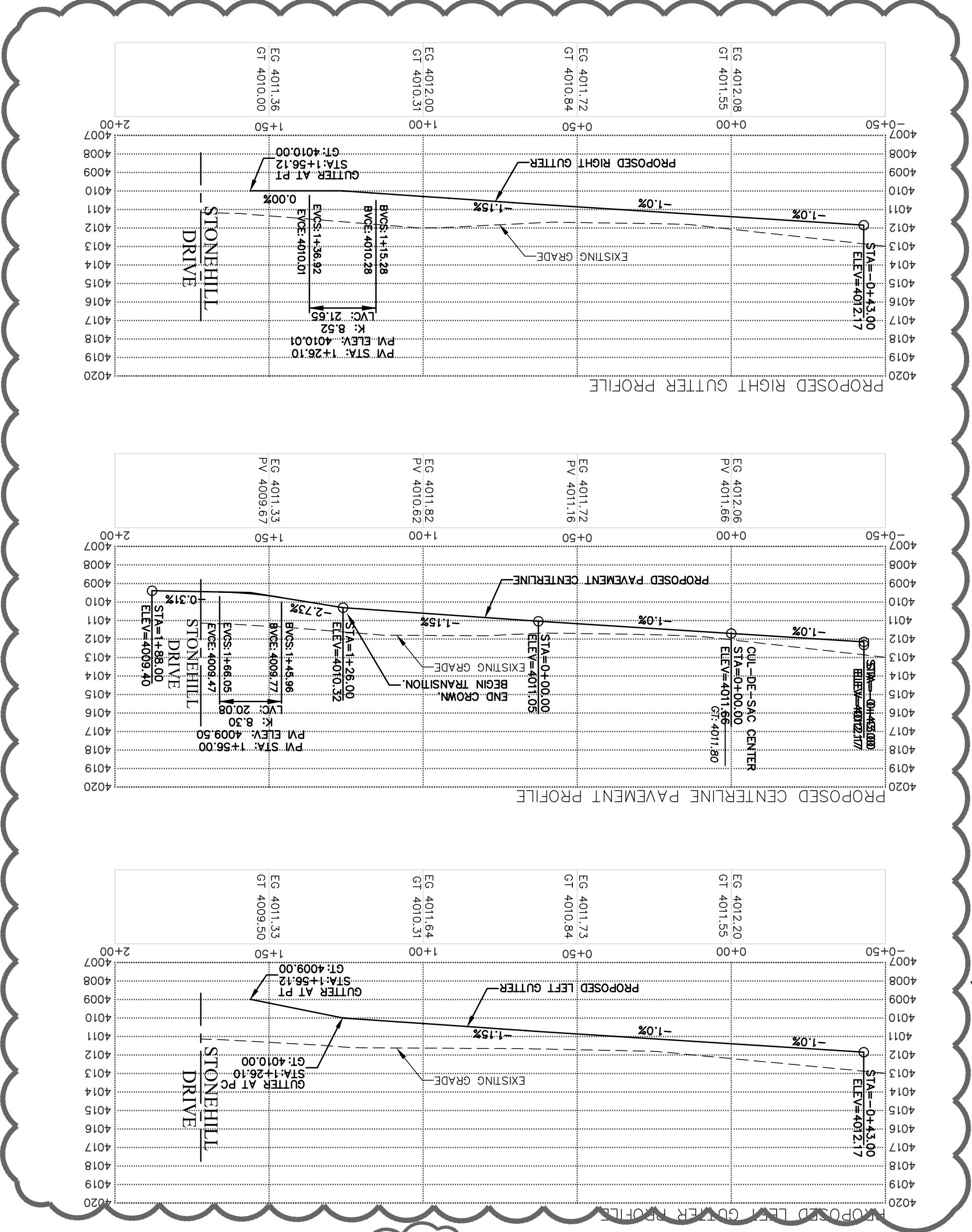
DR E
 Del Rio Engineering, Inc.
 P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TRPE Firm #: F-1093

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SANDSTONE VIEW SUBDIVISION
 PLAN AND PROFILE - STONEHILL ROW
 BEING LOT 1, BLOCK 1 EPISD E-17
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

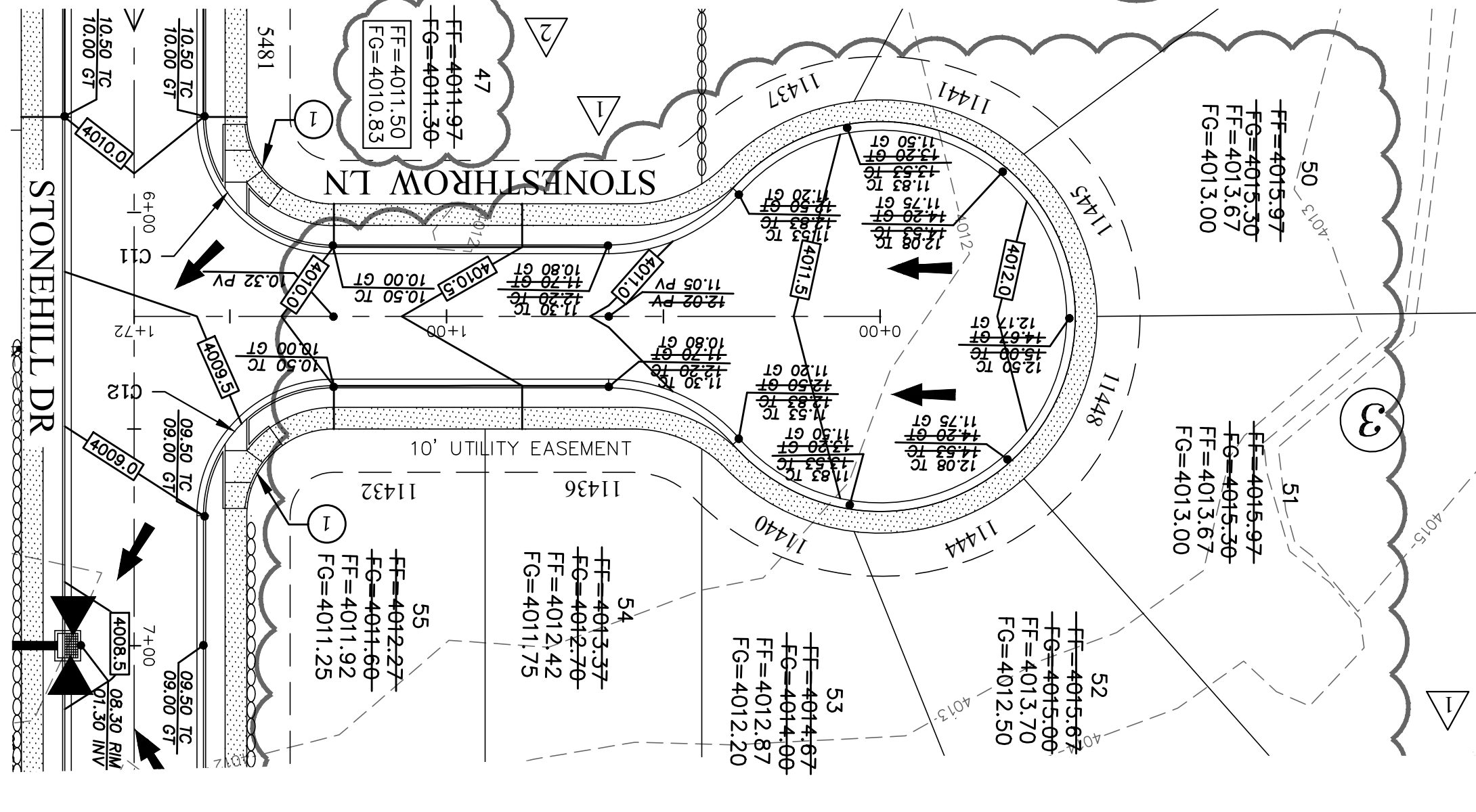


Project #:	J18-070	Design By:	LU
Plot Date:	05/13/2020	Drawn By:	LU
SHEET:	C-17	AS-SHOWN:	



FACE OF CURB AND CURB INFORMATION

Curve #	Length	Radius	Chord Bearing	Direction	Delta
C11	47.12	30.00	N12° 27' 20"E	CH 42.43	A=90°00'00"
C12	47.12	30.00	S77° 32' 40"E	CH 42.43	A=90°00'00"



REV: STONE THROW LANE
 LONGITUDINAL SLOPE WAS LOWERED TO APPROXIMATELY 1.0% TO REDUCE RETAINING WALL HEIGHT AND CUT/FILL QTY.
 DATE 04-23-2020

REV: 2
 LOTS 56-79 ON BLOCK 2 AND LOTS 15-20, ADJUSTED TO REDUCE THE FINISH GRADE ELEV. PROJECT BENCHMARK CITY. ELEV. PROJECT BENCHMARK CITY ADJUSTED TO REDUCE THE FINISH GRADE 42-47, ON BLOCK 3 WERE VERTICALLY LOWERED TO APPROXIMATELY 1.0% TO REDUCE RETAINING WALL HEIGHT AND CUT/FILL QTY.
 DATE 05-13-2020

KEY NOTES:
 1 DIRECTIONAL RAMP PER SHEET C-20

LEGEND

FINISH FLOOR	PF
FINISHED GRADE	FG
EXISTING GRADE	FG/TC
TOP OF PAVEMENT	PT
TOP OF CURB	TC
GUTTER	GT
VALLEY GUTTER	VG
TOP OF SIDEWALK	SW
INVERT	INV
ALIGNMENT STATIONING	1+00
POINT OF INTERSECTION	PI
POINT OF VERTICAL INTERSECTION	PVI
LOW POINT	LP
HIGH POINT	HP
DRAINAGE FLOW	DR
EXISTING CONTOUR	4000
PROP. MINOR CONTOUR	4000.5
PROP. MAJOR CONTOUR	4000
PROP. RETAINING WALL	RM
RIGHT OF WAY LINE	ROW
ROADWAY CENTERLINE	RC
EASEMENT LINE	EL
LOT LINE	LL
PROP. CITY MONUMENT	CM
EXISTING POWER POLE	PP
MAIL BOX DELIVERY UNIT	MBU

FILE Z:\018-WORK DIRECTOR\018-070 E-17 Land Subdivision\DWG in Progress\SHEETS\C-18 RDWY-DTL-1.dwg

NOTE
ALTERNATES WILL BE ALLOWED WITH THE PRIOR REVIEW AND APPROVAL OF THE CITY ENGINEER.

PIPE CAP

6" DIA. GALVANIZED STEEL PIPE PAINT WITH ANTI-RUST WHITE METAL PAINT WITH RUST INHIBITIVE RESINS (TWO COATS) WITH BASE COAT OF RUST PRIMER.

1" MARK ON OPPOSITE SIDES OF PIPE. USE ONE COAT OF BLACK ANTI-RUST METAL PAINT WITH RUST INHIBITIVE RESINS.

BOTTOM OF POND

CONCRETE 2500 PSI

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

NOTES:
1. CONSULT WITH PAINT MANUFACTURER FOR PRODUCTS THAT CAN SUSTAIN LONG PERIODS OF MOISTURE.
2. 2" = depth

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

POND DEPTH GAUGE
2-8

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QEC/J.R.

HRMS BAR 1" X 3" X 1'-10 3/8"

HRMS BAR SLANTED AT 50°

HRMS BAR 1/2" X 1" X 1'-7 7/8"

GRATE SECTION

HRMS BAR 5/8" X 3" X 2'-9 5/8" SLANTED AT 50°

GRATE SECTION

3 1/2" X 3 1/2" X 1/2" X 1'-10 5/8"

HRMS BAR 1/2" X 3 1/2" X 3'-1"

3/8" NELSON STUDS 2 EACH SIDE

SLANTED BAR DETAIL

FRAME SECTION

TYP. AT ALL CORNERS

3'-0" INSIDE

1'-10 5/8" INSIDE

1'-10 3/8" INSIDE

GRATE

FRAME

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

GRATE AND FRAME FOR DROP INLET
2-29

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QEC/J.R.

SECTION B

SECTION A

PLAN VIEW

NO. OF GRATES	L	LENGTH	MINIMUM SIZES
2	5'-11 1/8"	4'-7 1/8"	W1212, S1012, S1012.5, M1212.5, M1212.5, S1712.5, M1212.5, M1212.5
3	7'-0 1/4"	6'-5 1/8"	W1212, S1712.5, M1212.5, M1212.5, S1712.5, M1212.5, M1212.5
4	8'-9 7/8"	8'-3 7/8"	W1212, S1712.5, M1212.5, M1212.5, S1712.5, M1212.5, M1212.5
5	10'-0"	10'-0"	W1212, S1712.5, M1212.5, M1212.5, S1712.5, M1212.5, M1212.5
6	12'-4 5/8"	12'-0 5/8"	W1212, S1712.5, M1212.5, M1212.5, S1712.5, M1212.5, M1212.5

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

DROP INLET TYPE I
2-30

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QEC/J.R.

3 1/2"

3/4" WIDE BORDER (WHITE)

3 1/4"

1 1/2"

3 1/2"

1 1/2"

6 1/2"

30"

3/4" WIDE LETTERS WHITE ON BLACK BACKGROUND

5/8" WIDE LETTERS WHITE ON BLACK BACKGROUND

BLACK LETTERS ON WHITE BACKGROUND

3/4" WIDE LETTERS WHITE ON BLACK BACKGROUND

5/8" WIDE LETTERS WHITE ON BLACK BACKGROUND

1 1/2"

3 1/2"

1 1/2"

1 3/4"

NO TRESPASSING WARNING SIGN

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

NO TRESPASSING WARNING SIGN
2-43

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QEC/J.R.

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

OUTSIDE RADIUS OF STAR = 3/4"

INSIDE RADIUS OF STAR = 3/16"

BRONZE MONUMENT CAP

MONUMENT BOX

ALL HOLES 1/2" DIA

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

BOX COVER

SECTION VIEW

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

CITY SURVEY MONUMENT
3-52

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QEC/J.R.

REPAIRS MUST BE MADE IN ACCORDANCE WITH ENGINEERING AND CONSTRUCTION MANAGEMENT DEPARTMENT'S DESIGN STANDARDS FOR CONSTRUCTION-ADDENDUM I

EXISTING REPAIRED STREET CUT

2" H.M.A.C.

EXISTING REPAIRED STREET CUT

COMPACT TO SPECIFICATION REQUIREMENTS

12" OF TWO SACK

SELECT STRUCTURAL BACKFILL COMPACTED IN 6" LAYERS TO 95% AS PER ASTM D1557 (NO ROCKS GREATER THAN 4") OR USE TWO-SACK MIXTURE

PIPEZONE SHALL BE COMPACTED IN 6" LAYERS TO 95% AS PER ASTM D1557 OR TWO-SACK AS APPROVED BY UTILITY COMPANY.

PLAN VIEW

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING and CONSTRUCTION MANAGEMENT DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

ADDENDUM I
PAVEMENT CUT TRENCH REPAIR
3-59B

Approved By: R. A. SHUBERT
Date: SEPT. 20, 2010
Checked By: JAS/RL/PS
Drawn By: C&EP STAFF

PAVEMENT REPLACEMENT

36" TRENCH WIDTH

PAVEMENT REPLACEMENT WIDTH DEPENDS ON SOIL TYPE

152" (12'-8")

100" (8'-4")

86" (7'-2")

60" (5'-0")

VARIES 22"-38"

40"

40"

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING and CONSTRUCTION MANAGEMENT DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

ADDENDUM I
PAVEMENT CUT TRENCH REPAIR
3-59D

Approved By: R. A. SHUBERT
Date: SEPT. 20, 2010
Checked By: JAS/RL/PS
Drawn By: C&EP STAFF

ROCK WALL ADJACENT TO RESIDENTIAL LOTS

NOTES:

- STONE FOR ROCK WALL SHALL BE AS NEARLY UNIFORM IN SECTIONS AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO AIR AND WATER.
- MORTAR SHALL BE TYPE "S" 1800 P.S.I. AS PER ASTM C270
- MASONRY WALLS OVER SIX (6) FEET IN HEIGHT AND THOSE USED FOR EARTH RETENTION OVER TWO (2) FEET SHALL BE DESIGNED AS STRUCTURAL WALLS.
- WALLS ADJACENT TO PONDING AREAS OR DRAINAGE DITCHES MAY BE CONSTRUCTED OF BRICK OR CINDER BLOCK AND SHALL NOT BE LESS THAN SIX (6) FEET HIGH.
- ROCKWALL MORTAR JOINTS SHALL NOT EXCEED TWO (2) INCHES.
- PROVIDE ONE (1) INCH EXPANSION JOINTS AT EVERY 100 FEET.
- ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED.
- NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

ROCK WALL DESIGN
4-3

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QEC/J.R.

Release Dates:

Revisions:

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ALL DRAWINGS SUBMITTED IN RELATION TO THIS PROJECT, ARCHITECTURAL, CIVIL, MECHANICAL, STRUCTURAL, ELECTRICAL, LANDSCAPING, ETC., ARE INTERRELATED. THE CONTRACTOR AND SUBCONTRACTORS SHALL REVIEW AND COORDINATE THE ENTIRE SET OF DRAWINGS AND PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DATA SHOWN ON THE PLANS. IF DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE OWNER OR ENGINEER IMMEDIATELY SO THAT PROPER CORRECTIONS CAN BE MADE.

Del Rio Engineering, Inc.
P.O. Box 220251 | El Paso, Texas 79913 | 915.833.2400 | TBE Firm #: F-1093

STANDARD DETAILS

SANDSTONE VIEW SUBDIVISION

BEING LOT 1, BLOCK 1 EPISD E-17, CITY OF EL PASO, EL PASO COUNTY, TEXAS 650,378 SQ. FT. OR 14.930 ACRES

Project #: J18-070
Plot Date: 11/20/19
SHEET: C-18

Design By: SM/LU
Drawn By: L/ME
Scale: NTS

WIRE FABRIC AND SPLICE DETAIL
(FOR NON-COHESSIVE SOIL) N.T.S.

TYPICAL SECTION

WIRE WRAPPED RIP-RAP DETAIL
N.T.S.

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

WIRE WRAPPED
RIP-RAP
6-3

Approved By: R. A. SHUBERT Date: JUNE 03, 2008 Checked By: H. M. E. Drawn By: QEC/J.R.

CURB & GUTTER WITH SIDEWALK SECTION

NOTES:

1. CONCRETE SHALL BE 3000 P.S.I. MIN.
2. DUMMY JOINT REQUIRED AT 10' O.C. FOR CURB & GUTTER AND 5' O.C. FOR SIDEWALK.
3. EXPANSION MATERIAL REQUIRED AT CURB RETURNS AND AT 20' ON CENTER FOR SIDEWALKS WITH 1/2" PRE-MOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
4. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR CURBS.

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

CURB WITH
SIDEWALK SECTION
6-3

Approved By: R. A. SHUBERT Date: JUNE 03, 2008 Checked By: H. M. E. Drawn By: QEC/J.R.

6" ROLLED CURB WITH SIDEWALK SECTION

4" ROLLED CURB WITH SIDEWALK SECTION

NOTES:

1. CONCRETE SHALL BE 3000 P.S.I. MINIMUM.
2. DUMMY JOINT REQUIRED AT 10' O.C. FOR HEADERS AND 5' O.C. FOR SIDEWALK.
3. EXPANSION JOINT MATERIAL REQUIRED AT CURB RETURNS, AND AT 20' O.C. FOR SIDEWALKS WITH 1/2" PRE-MOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL.
4. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR HEADERS.
5. PROVIDE EXPANSION JOINT MATERIAL WHERE SIDEWALK MEETS CURB, AND AT ALL SIDES WHERE CONCRETE PARKWAY MEETS SIDEWALK AND CURB.

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

ROLLED CURB SECTIONS
WITH SIDEWALK
AGAINST CURB
6-5

Approved By: R. A. SHUBERT Date: JUNE 03, 2008 Checked By: H. M. E. Drawn By: QEC/J.R.

Type I and Type II Two-Way Driveway Standards

Driveway	Type of Development	Curb				Minimum Edge to Edge Spacing Between Drives (ft.)
		Width (ft.)		Radius (ft.)		
		Min.	Max.	Min.	Max.	
Type I	Single-Family-60' lots	10	20	5	5	10
	Less than 60' lots, Duplex and Townhouse	15	25	10	10	20
	Multi-Resident Apartments	25	30*	10	10	20
Type II	Office, Commercial and Parking Lots	25	35	10	15	20
	Industrial	24	45	10	15	20
	Banks, Service Stations, and Convenience Stores with Gasoline Pumps	25	35**	10	15	1/3 x Frontage

* On 50 MPH streets

** Special approval required by City Engineer, or designee depending on location, traffic count, speed and angle of driveway

(TO BE MODIFIED BY THE CITY OF EL PASO TRAFFIC AND TRANSPORTATION DEPARTMENT)

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

DRIVEWAY
APPROACHES
6-16

Approved By: R. A. SHUBERT Date: JUNE 03, 2008 Checked By: H. M. E. Drawn By: QEC/J.R.

RESIDENTIAL DRIVEWAY BY BUILDER

DRIVEWAY PLAN
N.T.S.

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

DRIVEWAY SECTION
N.T.S.

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

CONCRETE APRON FOR
DRIVEWAYS/ALLEYS
6-17

Approved By: R. A. SHUBERT Date: JUNE 03, 2008 Checked By: H. M. E. Drawn By: QEC/J.R.

RESIDENTIAL DRIVEWAY BY BUILDER

ASPHALTIC WALKWAY/JOGGING PATH
SCALE: N.T.S.

NOTES:

1. CONCRETE HEADER CURBS SHALL BE 3,000 P.S.I. MIN.
2. DUMMY JOINT REQUIRED AT 10' O.C.
3. 1/2" PRE-MOLDED 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 & DRAINAGE PLAN FOR DIRECTION OF FLOW.

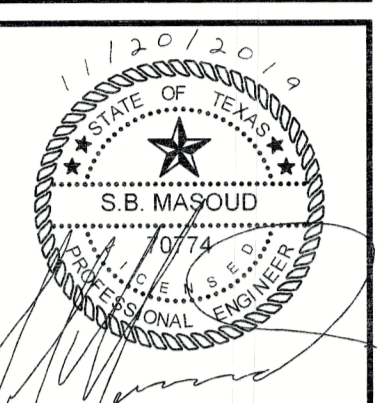
TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

ASPHALTIC
WALKWAY/JOGGING PATH
6-19

Approved By: R. A. SHUBERT Date: JUNE 03, 2008 Checked By: H. M. E. Drawn By: QEC/J.R.



Release Dates:
Revisions:



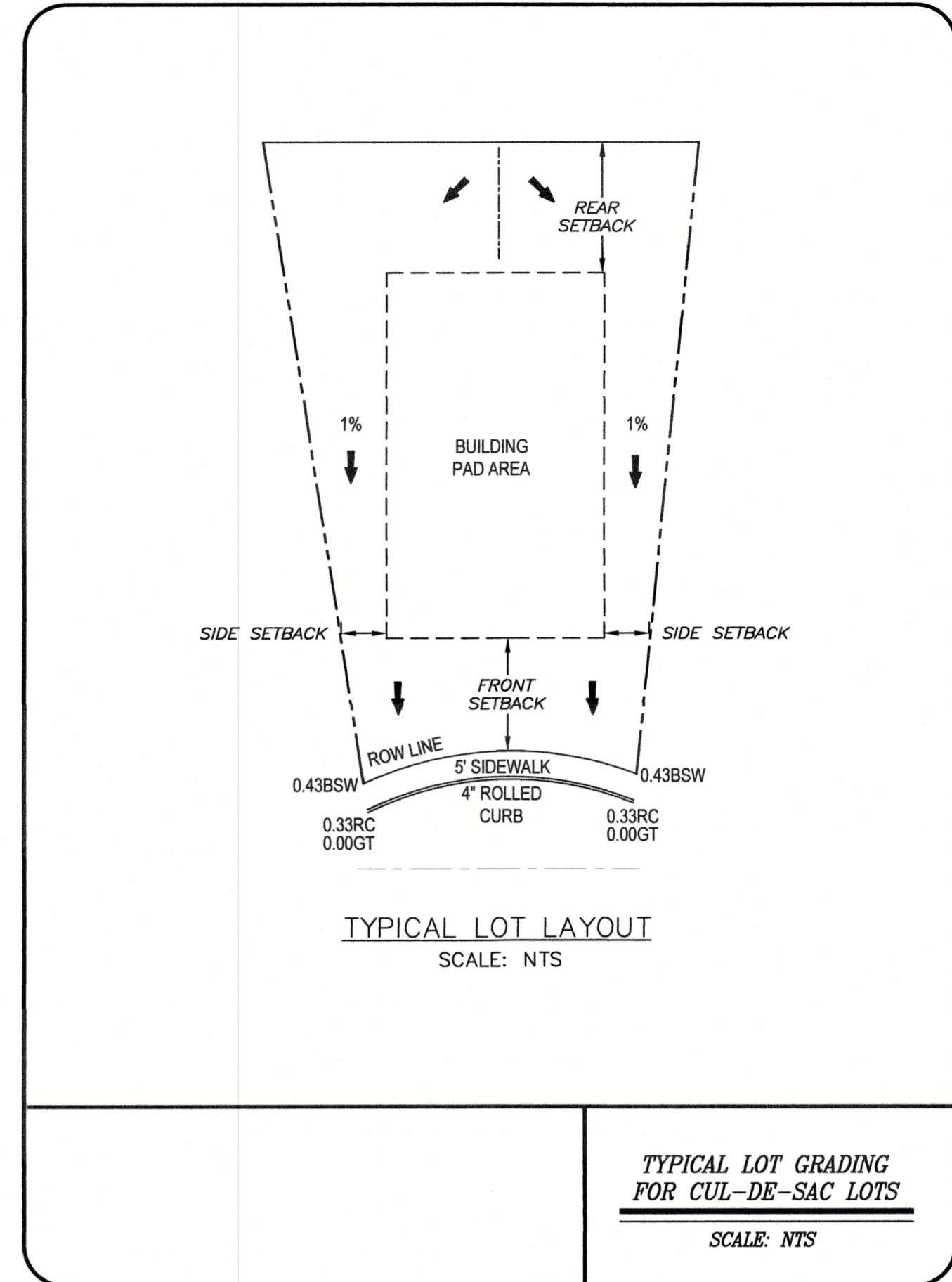
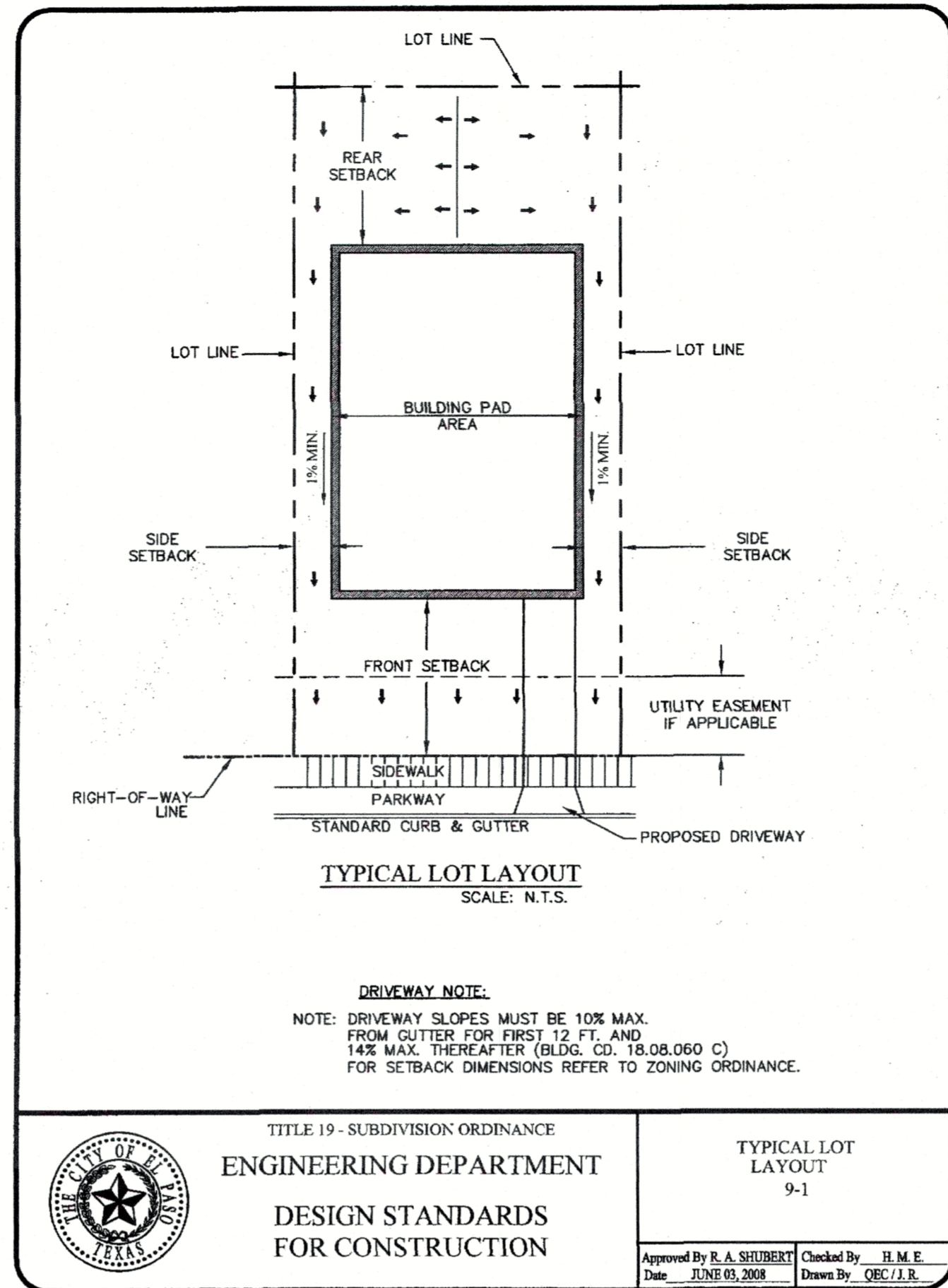
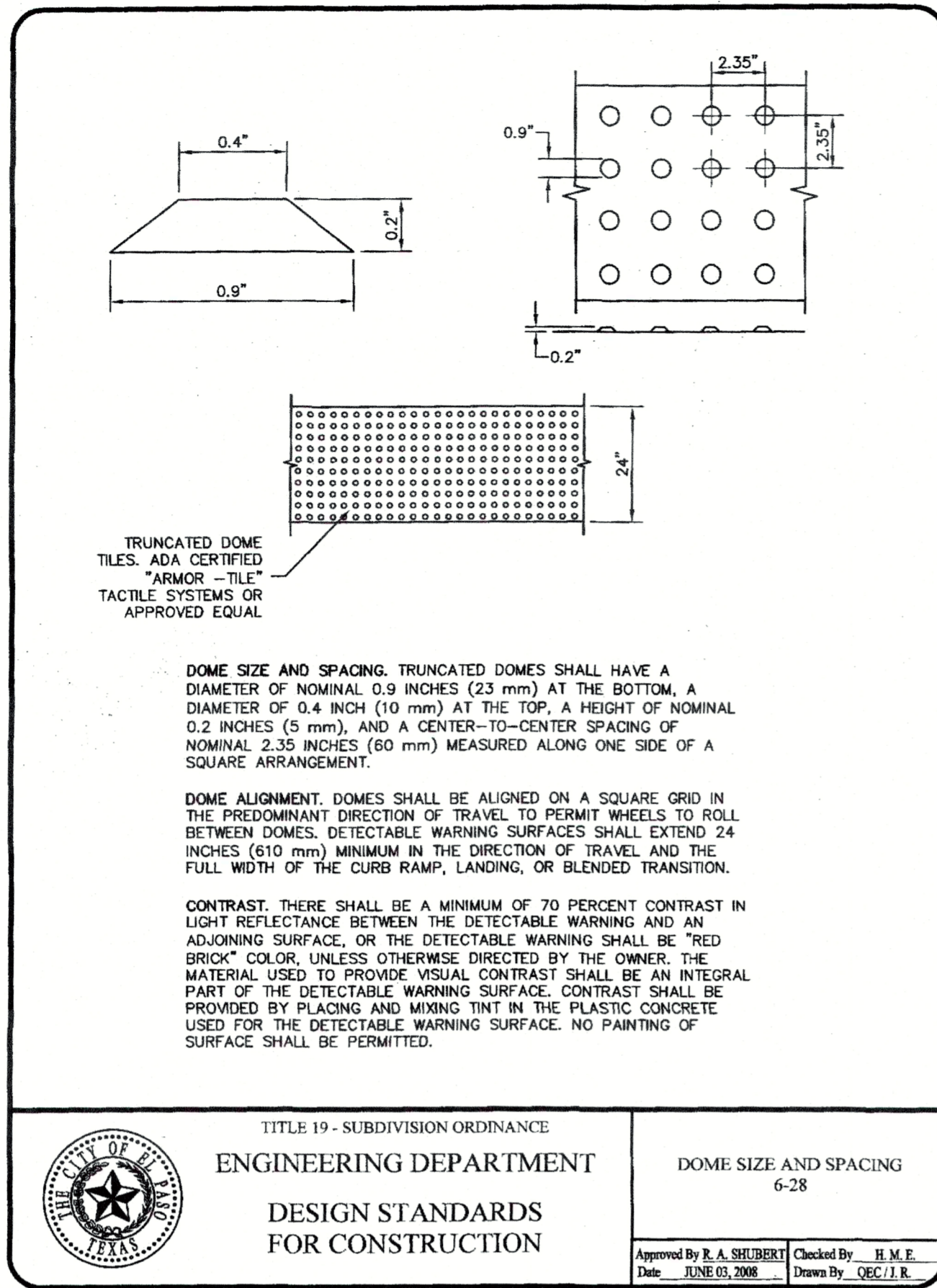
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P.O. Box 220251 El Paso, Texas 79913-1813-2400 TIRE Firm #: F-1093

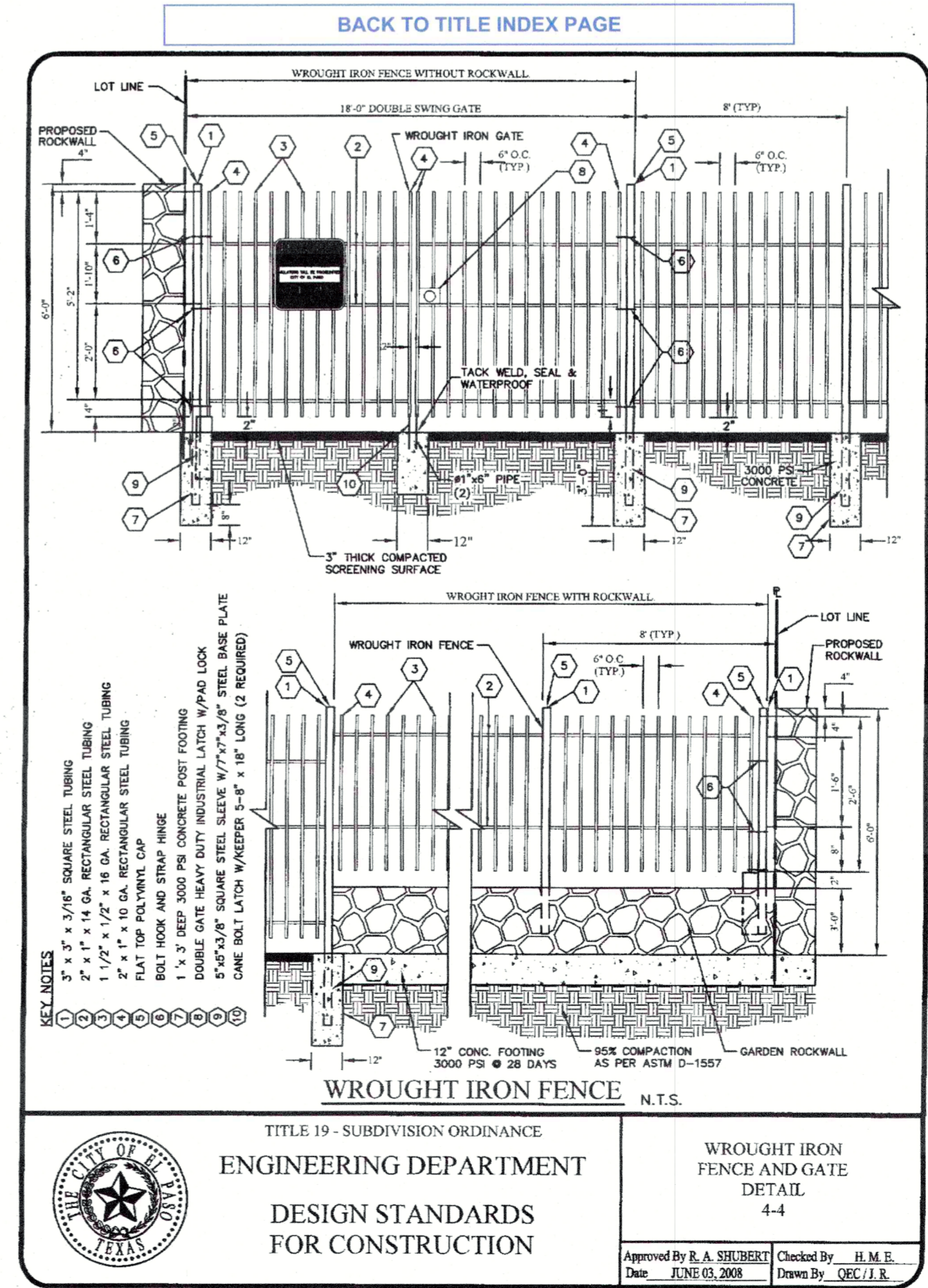
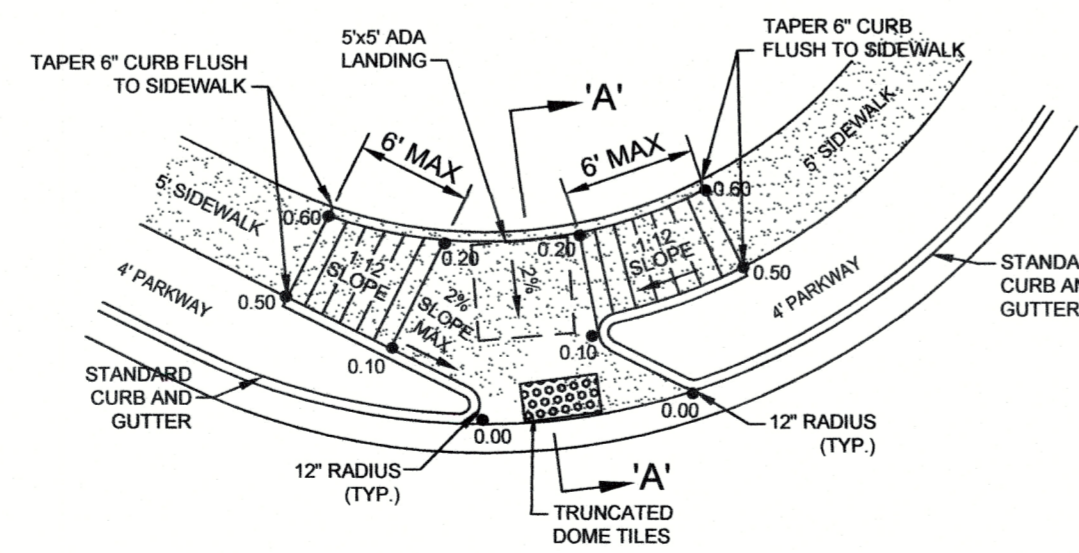
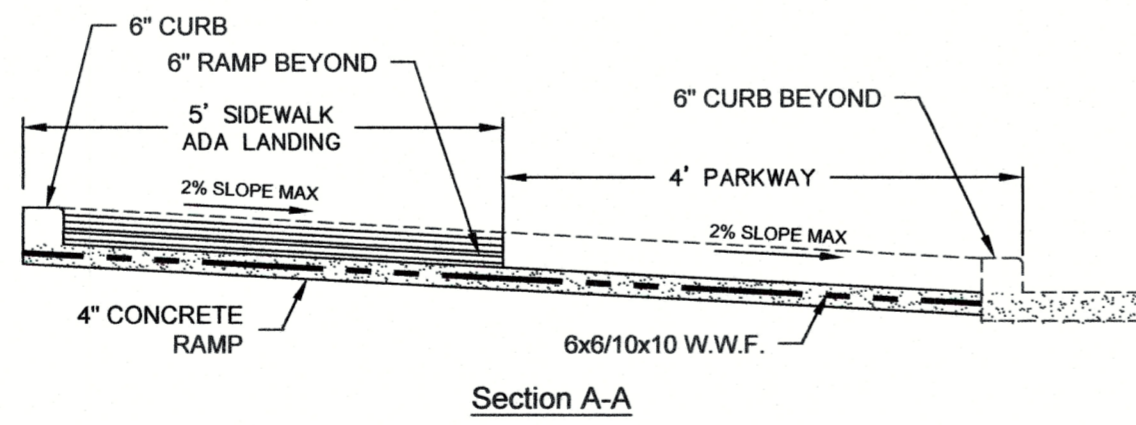
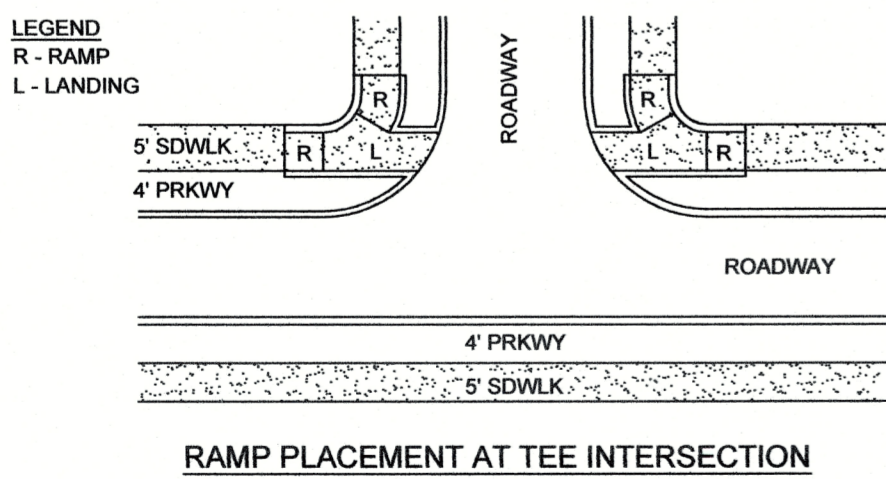
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STANDARD DETAILS
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK I, EPISODE E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14,930 ACRES

Design By: SML/	LU/ME	Scale: NTS
Drawn By: LU/ME		
Project #: J18-070	Plot Date: 11/20/19	SHEET: C-19



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



Release Dates:
Revisions:

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DR E Del Rio Engineering, Inc.
P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TIBPE Firm #: F-1093

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ROADWAY STANDARD DETAILS

SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK 1 EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14,930 ACRES

Design By: SM/LU
Drawn By: LU/ME
Scale: NTS

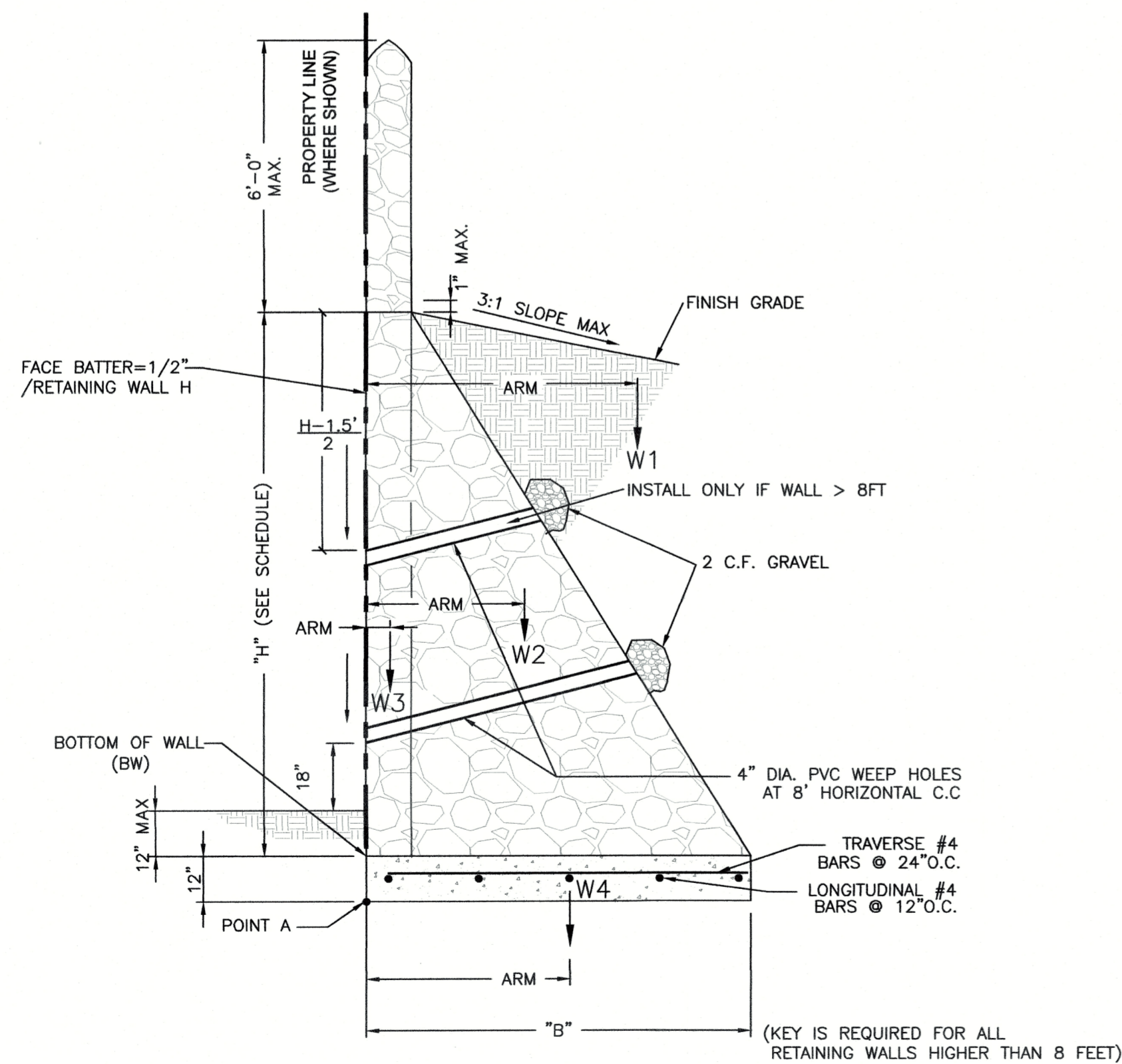
Project #: J18-070
Post Date: 11/20/19
SHEET: C-20

ROCKWALL AND RETAINING WALL NOTES:

- STONE FOR THE ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTIONS AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO AIR AND WATER.
- MORTAR SHALL BE TYPE "S" 1800 P.S.I. AS PER ASTM C270.
- MASONRY WALLS OVER SIX (6) FEET IN HEIGHT AND THOSE USED FOR EARTH RETENTION OVER TWO (2) FEET MUST BE DESIGNED AS STRUCTURAL WALLS.
- WALLS ADJACENT TO PONDING AREA OR DRAINAGE DITCHES MAY BE CONSTRUCTED OF BRICK OR CINDER BLOCK AND SHALL NOT BE LESS THAN SIX (6) FEET HIGH TO BE BUILT BY DEVELOPER.
- ROCKWALL MORTAR JOINTS MUST NOT EXCEED TWO (2) INCHES.
- PROVIDE ONE (1) INCH EXPANSION JOINTS AT EVERY 100 FEET.
- ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED.
- NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.
- CONCRETE F(C)= 3,000 PSI @ 28 DAYS.
- REINFORCING STEEL SHALL BE ASTM #15 GRADE 40, F(Y)= 40,000 PSI.
- WALL FOOTING SHALL BE ON COMPACTED (95% COMPACTION AS PER ASTM D1557) OR FIRM UNDISTURBED GROUND. DRE RECOMMENDS THE OWNER/CONTRACTOR OBTAIN A PROPER SOILS REPORT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION TO ASSURE THAT THE SOIL HAS SUFFICIENT BEARING CAPACITY FOR THE ROCK WALL AND FOUNDATION.
- NO VOIDS SHALL BE LEFT INSIDE THE ROCKWALL.
- BACKFILL MATERIAL SHALL CONSIST OF WELL-DRAINED, COARSE GRAINED SOILS, OR FINE SILTY SANDS WITH NO CLAY CONTENT. BACKFILL MATERIAL SHALL EXERT A HORIZONTAL FORCE OF AN EQUIVALENT FLUID PRESSURE NOT TO EXCEED 30#/FT.
- ADDITIONAL SURCHARGE WILL REQUIRE ADDITIONAL DESIGN (BUILDING, SWIMMING POOLS, ADDITIONAL GRADED SLOPES, ETC).
- THE BACKFILL DRAINAGE SHALL BE PROVIDED BY 6-INCH PVC LOCATED ON HORIZONTAL DISTANCE OF 5 FEET O.C. AND VERTICAL DISTANCE OF NO MORE THAN 4 FEET WITH THE BOTTOM ROW AT 18" ABOVE THE TOP OF FOOTING.
- THE TOP ROW OF WEEP HOLES SHALL BE INSTALLED ONLY IF D > 8 FEET AND STAGGER SPACING THE BOTTOM ROW.
- THE FIRST ROCK LAYER SHALL BE SUFFICIENTLY EMBEDDED IN THE CONCRETE FOOTING.
- RETAINING WALLS WILL BE REQUIRED WHERE THERE IS A GRADE DIFFERENCE OF 2 OR MORE FEET BETWEEN LOTS AND STREET. RETAINING WALL DESIGN AT TIME OF BUILDING PERMIT.
- ALLOWABLE SOIL BEARING PRESSURE = 2,000 PSF MINIMUM.
- SURCHARGE LOADS WILL REQUIRE ADDITIONAL DESIGN.

Soil pressure		Safety factors			
H	B	q(max)	q(m/n)	O.T	sliding
2'-0"	1'-0"	1868.9	734.6	5.19	6.98
2'-6"	1'-6"	1639.9	163.5	4.5	5.25
3'-0"	2'-0"	2304.8	32.1	3.82	4.78
4'-0"	2'-6"	2036	92.2	4.76	4.17
5'-0"	3'-0"	2161.9	139.3	4.44	3.56
6'-0"	3'-6"	2301.1	203.3	4.27	3.2
7'-0"	4'-0"	2233.8	357.8	4.12	2.83
8'-0"	4'-6"	2415.8	425.5	4.07	2.69
9'-0"	5'-0"	2787.1	417.9	4.07	2.67
10'-0"	6'-0"	2750	645.3	4.7	2.76

* MORTAR CUBE TESTING FOR RETAINING/ROCKWALL AROUND THE POND SHALL BE TESTED IN ACCORDANCE TO ASTM C-270-73, WITH ONE SAMPLE TAKEN FOR EVERY TWO FEET OF HEIGHT AND 200 FEET LONG OF COMPLETED WALL CONSTRUCTION



2'-10' RETAINING ROCKWALL
SCALE: NTS

**UPLAND METHOD
TIME OF CONCENTRATION**

$$T_c = L/V60$$

$$T_c = 30/18.51 \times 60$$

$$T_c = 0.027 \text{ MINUTES} \times 60 = 1.6 \text{ SECONDS}$$

WHERE:
 T_c = TIME OF CONCENTRATION FROM UPSTREAM TO DOWNSTREAM, IN MINUTES
 L = DRAINAGE LENGTH FROM UPSTREAM TO DOWNSTREAM, 30 FT
 V = VELOCITY OF WATERWAY, 18.51 FT/S

**24" STORM DRAIN RCP
ACCELERATION FORMULA**

$$A = \frac{V_f - V_i}{t} = \frac{\Delta V}{t}$$

$$A = \frac{18.51 - 0}{1.6} = 11.6 \text{ FT/S}^2$$

a = acceleration (ft/s²)
 v_f = the final velocity (ft/s)
 v_i = the initial velocity (ft/s)
 t = the time in which the change occurs (s)
 Δv = short form for "the change in" velocity (ft/s)

$$11.6 \text{ FT/S}^2 < 32.2 \text{ FT/S}^2$$

RIP-RAP DESIGN CALCULATION

HEC-14 RIP-RAP APRON FORMULA - SIZE

$$D50 = 0.2 \times D(Q/(\sqrt{G} \times D^{3/2}))^{1/2} (D/TW)$$

$$D50 = 0.2 \times 2 (20/(\sqrt{32.2} \times 2^{3/2}))^{1/2} (2/1)$$

$$D50 = .4984 \text{ FEET} = 6 \text{ INCHES}$$

WHERE:
 D50 = riprap size, (ft)
 Q = design discharge, (ft³/s)
 D = culvert diameter (circular), (ft)
 TW = tailwater depth, (ft)
 G = acceleration due to gravity, (32.2 ft/s²)

HEC-14 RIP-RAP APRON FORMULA - LENGTH

APRON LENGTH = 4 x D
 APRON LENGTH = 4 x 2 = 8 FEET

WHERE:
 D = culvert diameter (circular), (ft)

HEC-14 RIP-RAP APRON FORMULA - WIDTH

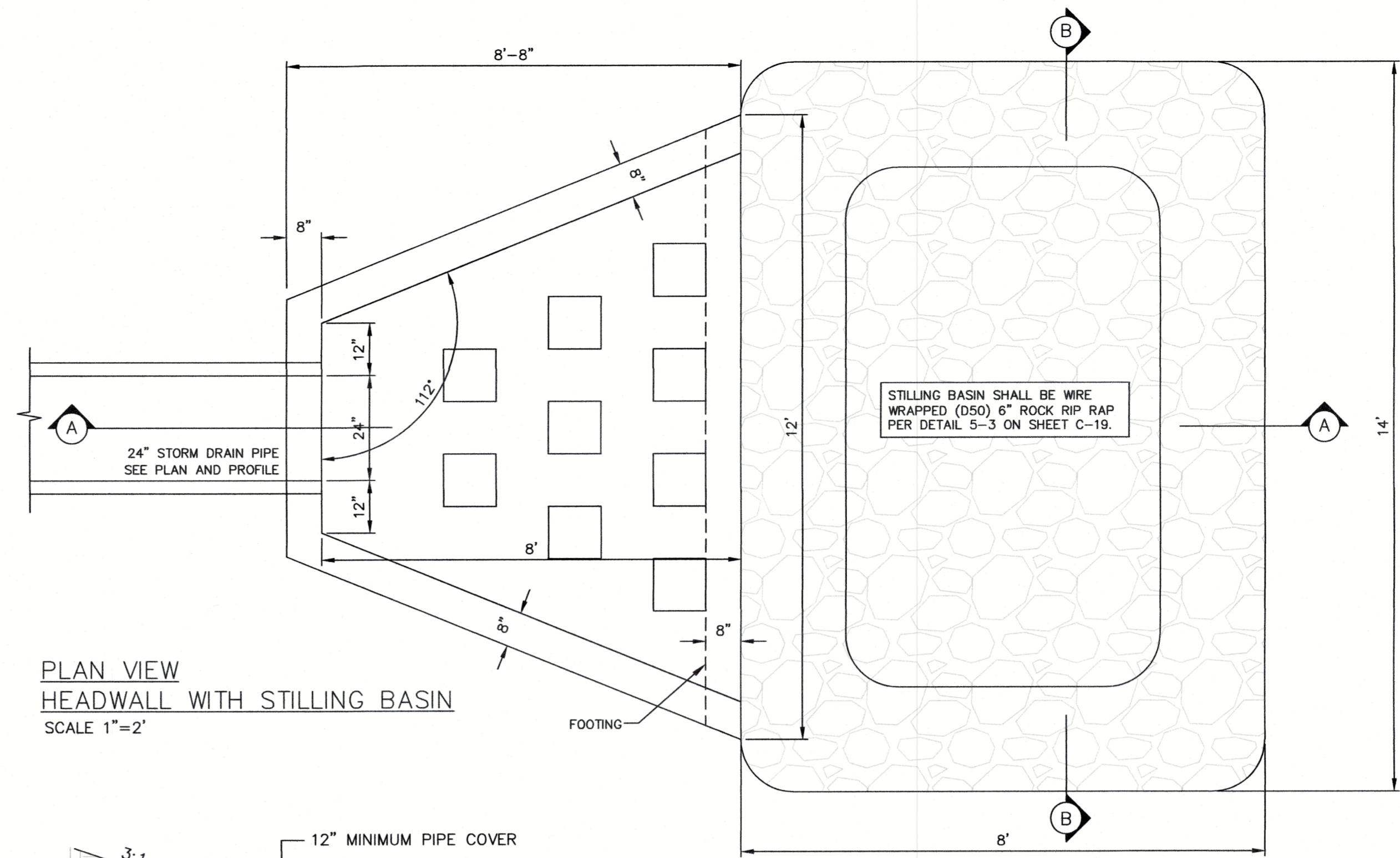
APRON LENGTH = 3 x D + (2/3) x L
 APRON LENGTH = 3 x 2 + (2/3) x 8
 APRON LENGTH = 11.33 feet = 11 feet 4 inches

WHERE:
 D = culvert diameter (circular), (ft)
 L = apron length, (ft)

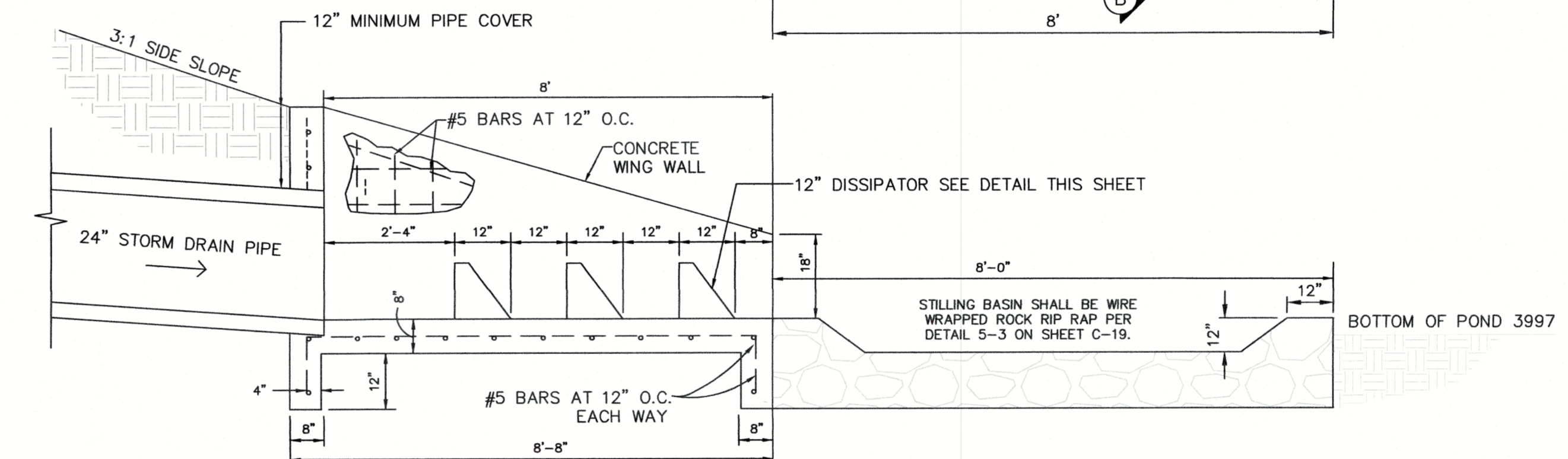
HEC-14 RIP-RAP APRON FORMULA - DEPTH

APRON LENGTH = 3.3 x D50
 APRON LENGTH = 3.3 x 0.5
 APRON LENGTH = 1.65 feet deep = 1 foot 8 inches

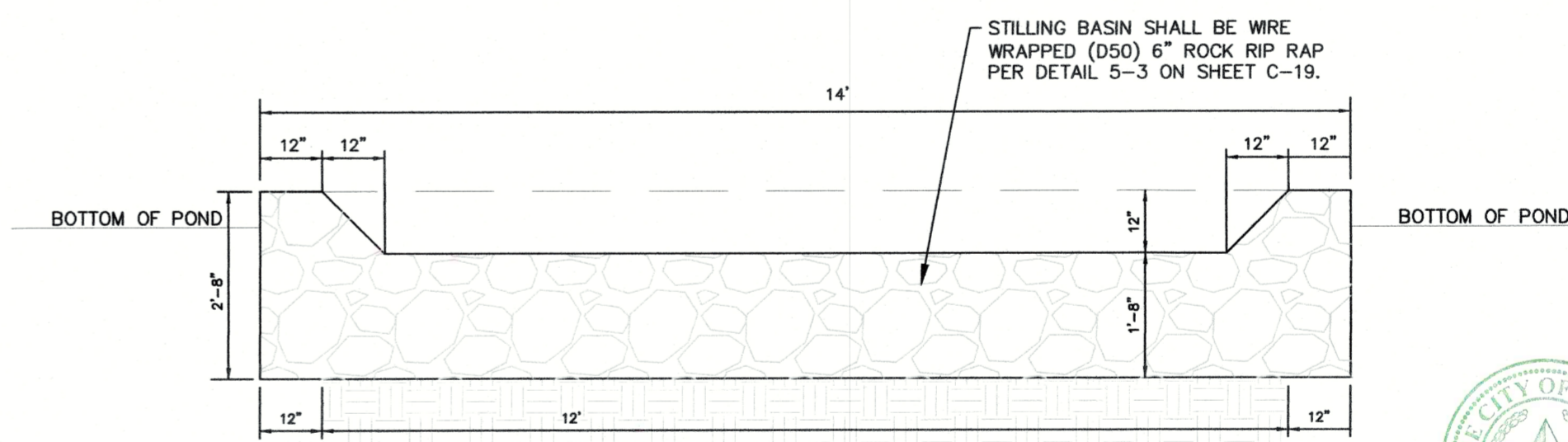
WHERE:
 D = culvert diameter (circular), (ft)
 L = apron length, (ft)



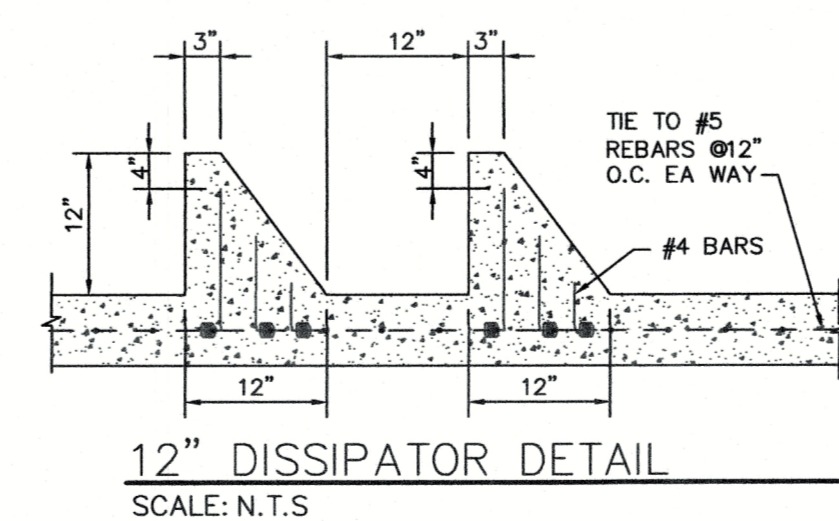
**PLAN VIEW
HEADWALL WITH STILLING BASIN**
SCALE 1"=2'



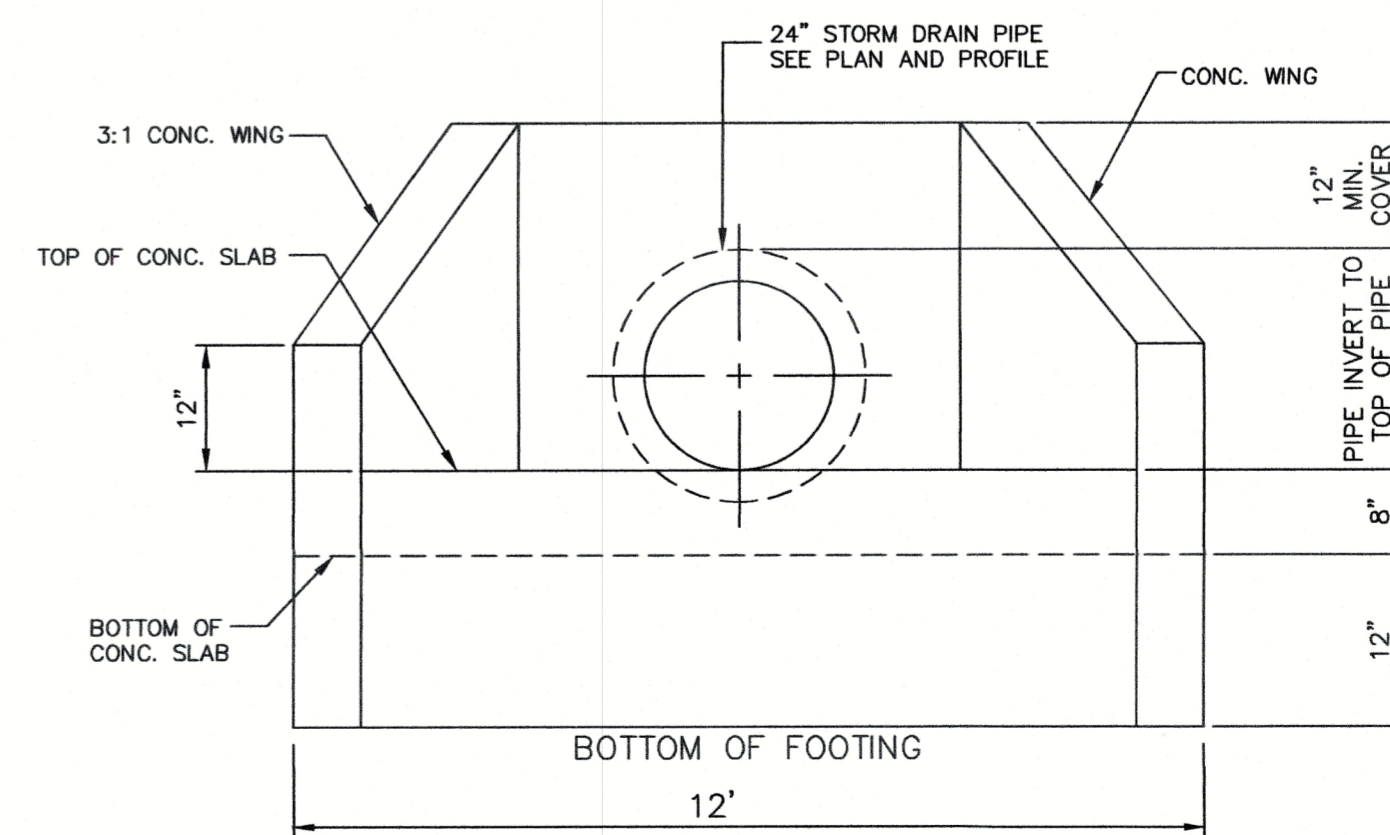
HEADWALL WITH DISSIPATORS WITH STILLING BASIN - SECTION A-A
SCALE 1"=2'



STILLING BASIN SECTION B-B
1"=10'



12" DISSIPATOR DETAIL
SCALE: N.T.S

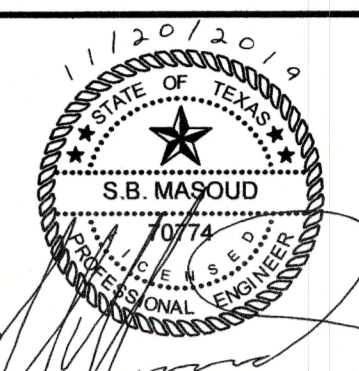


HEADWALL FRONT VIEW
SCALE: 1"=1'

Release Dates:

Revisions:

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All drawings submitted in relation to this project, Architectural, Civil, Mechanical, Structural, Electrical, Plumbing, etc. are interrelated. The Contractor and Subcontractors shall review and coordinate the Entire Set of drawings and project specifications. The Contractor shall be responsible for verifying all data shown on the plans. If discrepancies are found, the contractor shall notify the owner or Engineer immediately so that proper corrections can be made.

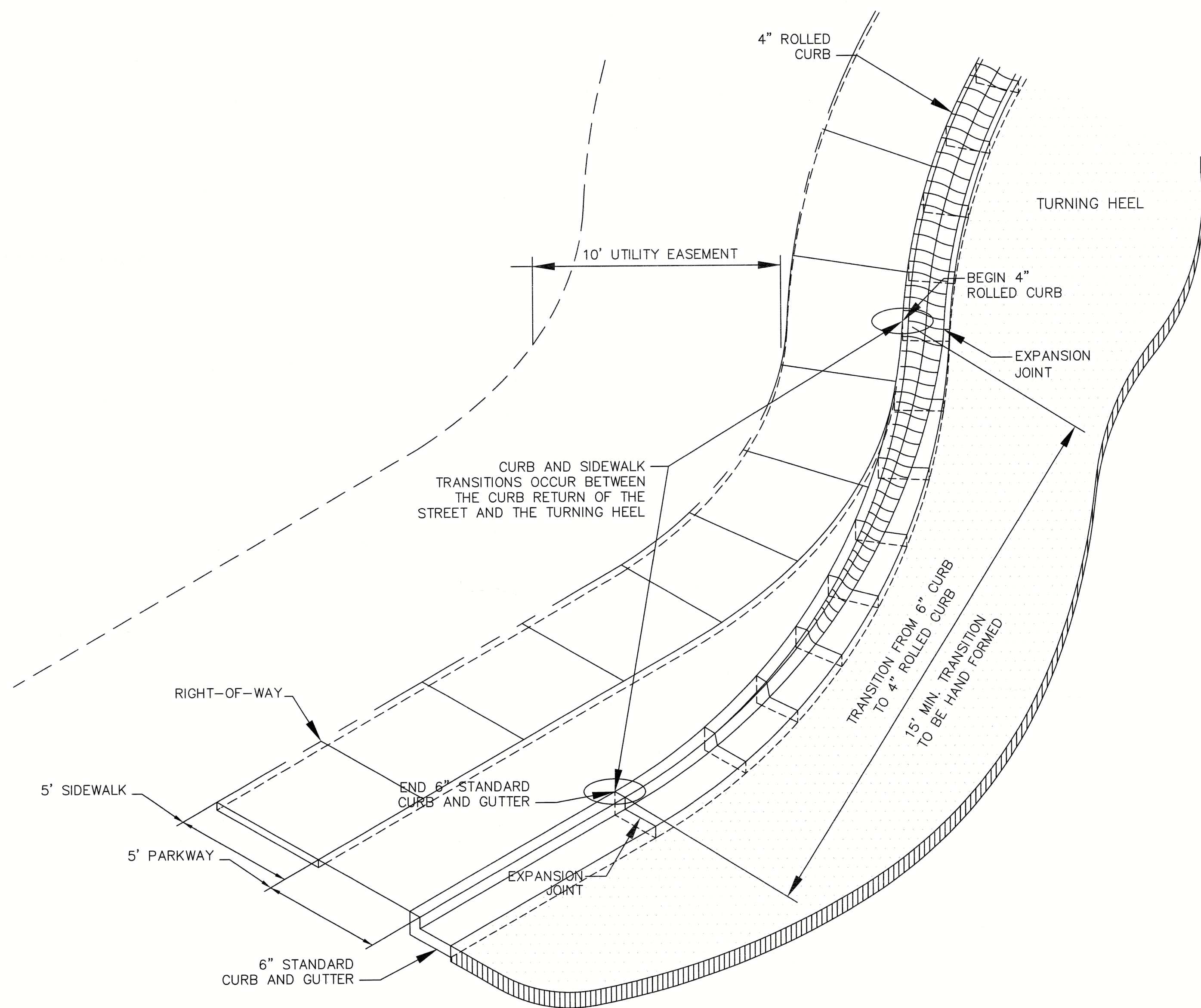
DRE Del Rio Engineering, Inc.
 P.O. Box 220251 El Paso, Texas 79913 915.833.2400 TBPE Firm #: F-1093
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ROADWAY STANDARD DETAILS
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070
Plot Date:	11/20/19
Sheet:	C-21
Design By:	SM/LU
Drawn By:	LU/ME
Scale:	NTS

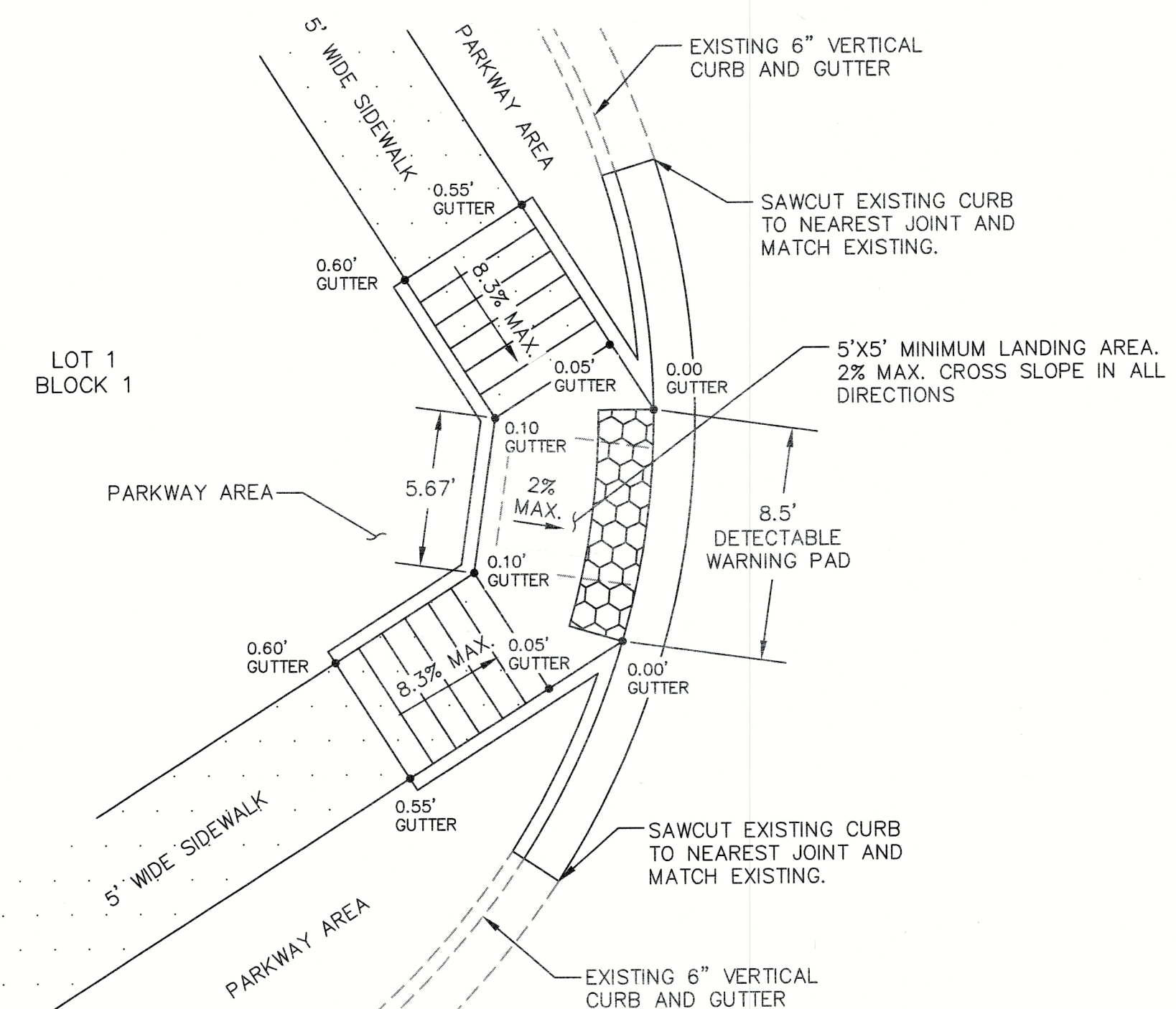


FILE Z:\18-WORK DIRECTORY\18-070 E-17 Land Subdivision\DWG in Progress\SHEETS\C-22 RDWK-DLS-5.dwg



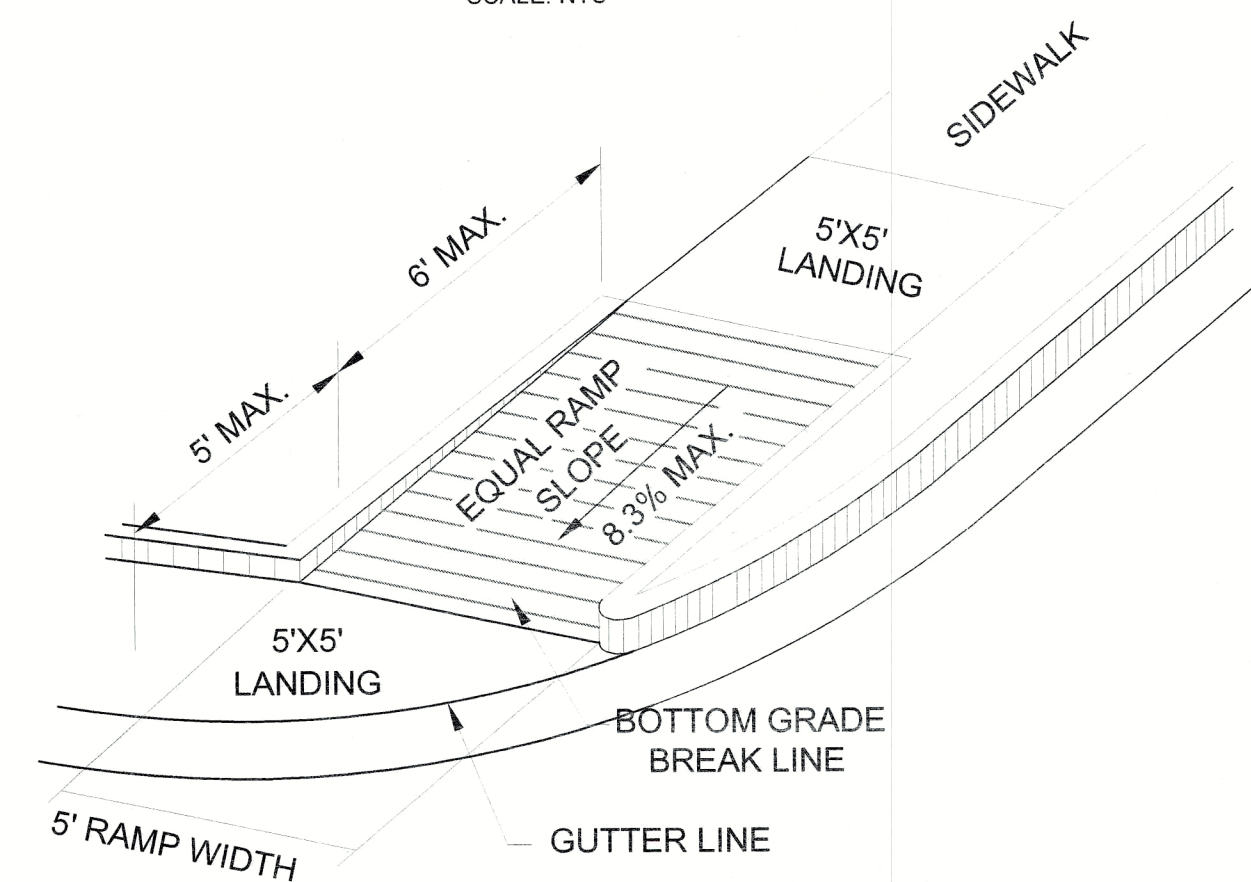
TRANSITION FROM 6" CURB & GUTTER TO 4" ROLLED CURB

SCALE: NTS



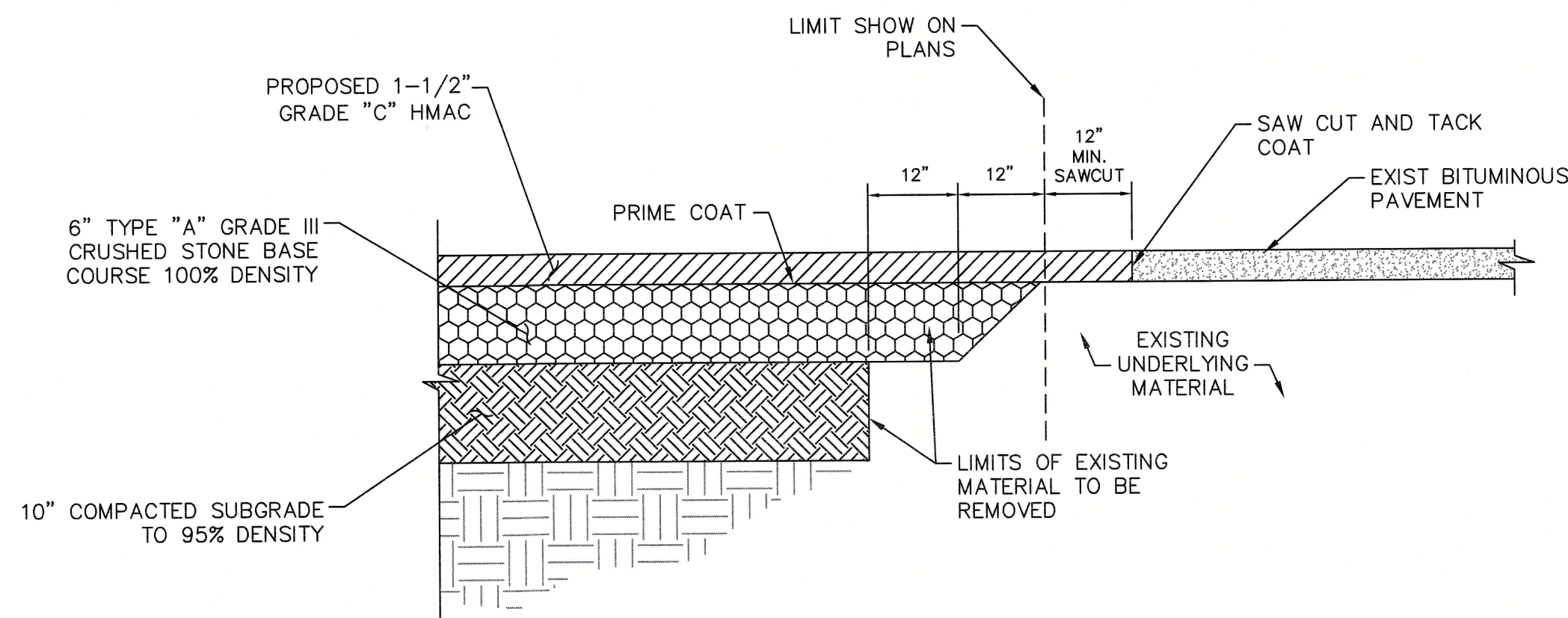
PLAN VIEW

SCALE: NTS



DIRECTIONAL RAMP DETAIL AT INTERSECTION OF MARCUS URIBE DRIVE AND ROBERT LENNOX DRIVE

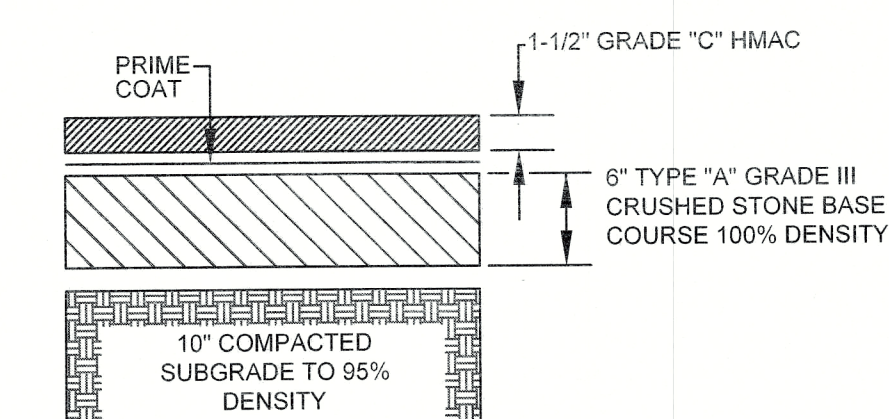
SCALE: NTS



PAVEMENT SAWCUT AND REPLACEMENT DETAIL

SCALE: 1"=2'

NOTES:
 A PAVEMENT DESIGN CRITERIA WERE BASED ON RECOMMENDATIONS FROM SPEE SOIL ENGINEERING REPORT NO. SPG 19196P. IF SIGHT CONDITIONS WERE FOUND DIFFERENT THAN THE SOIL DESCRIBED IN SPEE SOIL REPORT NO. SPG 19196P, CONTRACTOR/OWNER MUST NOTIFY THE ENGINEER (DEL RIO ENGINEERING)



PAVEMENT DETAIL

SCALE: NTS SEE SPEE SOIL REPORT SPG19196P FOR DETAILS



Final Approval

Release Dates:
 Revisions:

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SAL B. MASOUD, P.E. 70774. ALTERATIONS OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

S.B. MASOUD
 P.E. 70774
 DEL RIO ENGINEERING, INC.

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Del Rio Engineering, Inc.
 P.O. Box 2210251 El Paso, Texas 79913 915.833.2400 TBE Firm #: F-1093

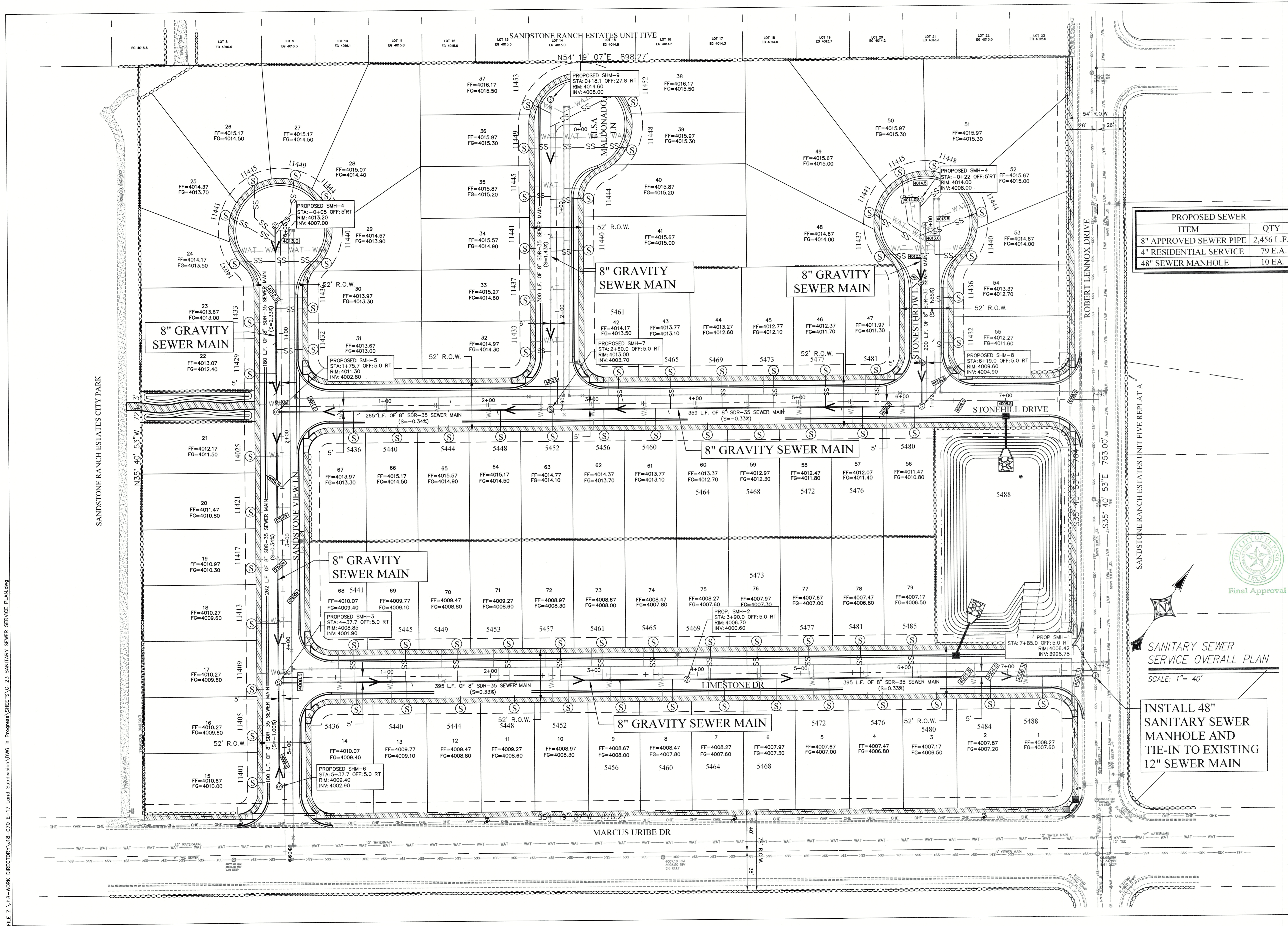
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STANDARD DETAILS

SANDSTONE VIEW SUBDIVISION

BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070	Design By:	SM/LU
Plot Date:	11/20/19	Drawn By:	LU/ME
SHEET:	C-22	Scale:	NTS



PROPOSED SEWER	
ITEM	QTY
8" APPROVED SEWER PIPE	2,456 L.F.
4" RESIDENTIAL SERVICE	79 E.A.
48" SEWER MANHOLE	10 EA.

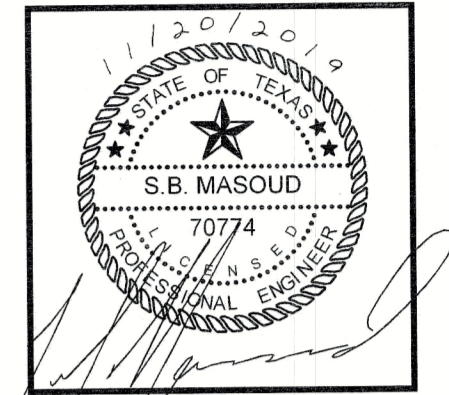
SANITARY SEWER SERVICE OVERALL PLAN
SCALE: 1" = 40'

INSTALL 48" SANITARY SEWER MANHOLE AND TIE-IN TO EXISTING 12" SEWER MAIN



Release Dates:

Revisions:



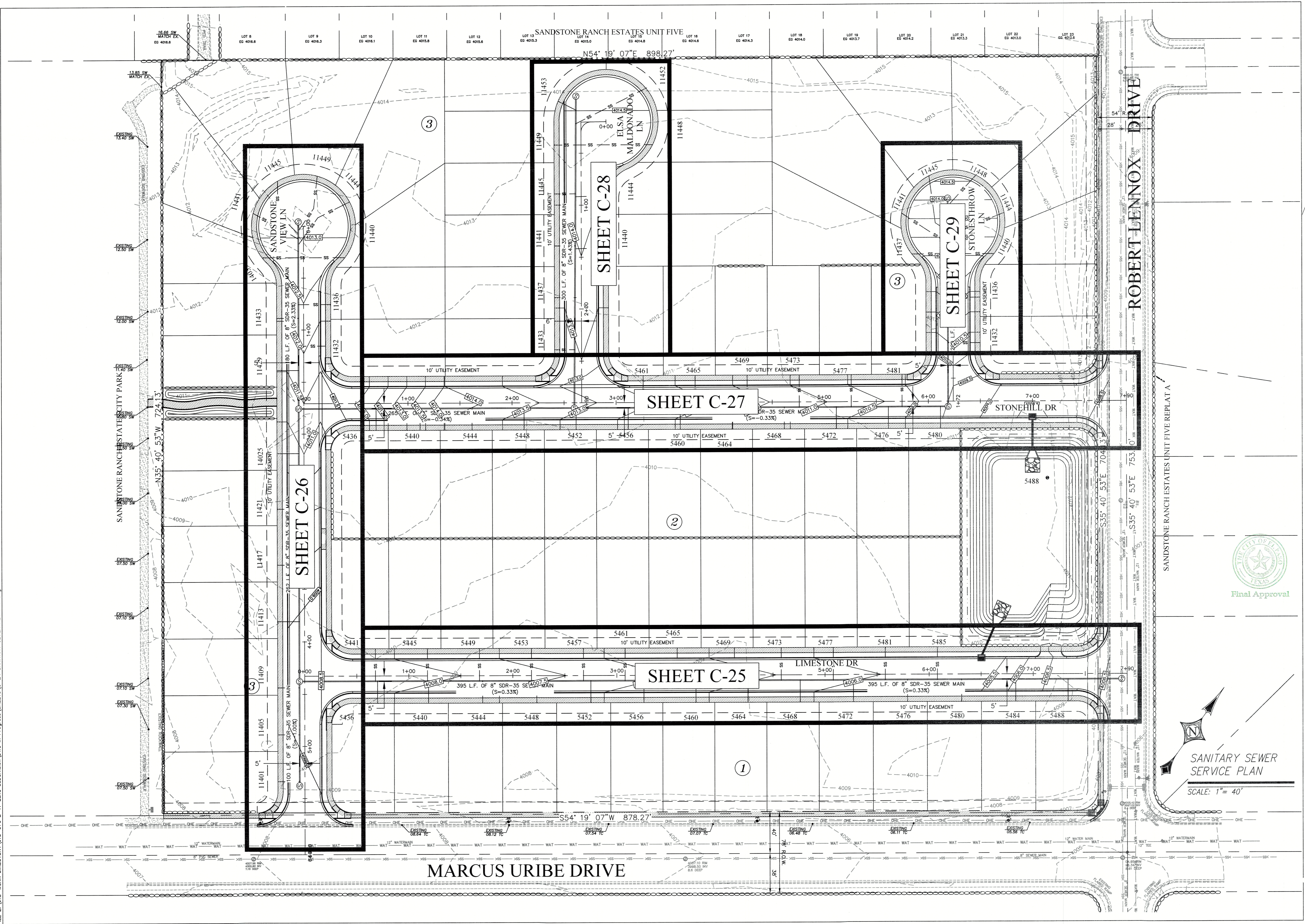
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P.O. Box 280251 El Paso, Texas 79913 915833-2400 TPE Firm # F-1093

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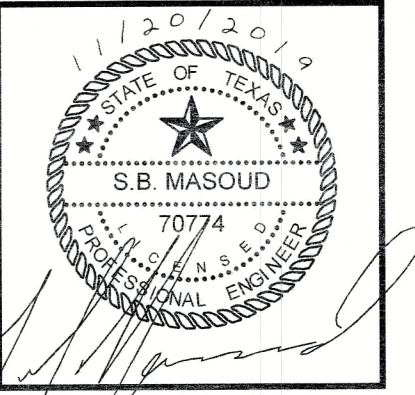
SANITARY SEWER SERVICE PLAN
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK 1, EPISODE E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070
Plot Date:	11/20/19
SHEET:	C-23
Design By:	SM/LU
Drawn By:	LU/ME
Scale:	1"=40'



SANITARY SEWER SERVICE PLAN
SCALE: 1" = 40'

Release Dates:
Revisions:

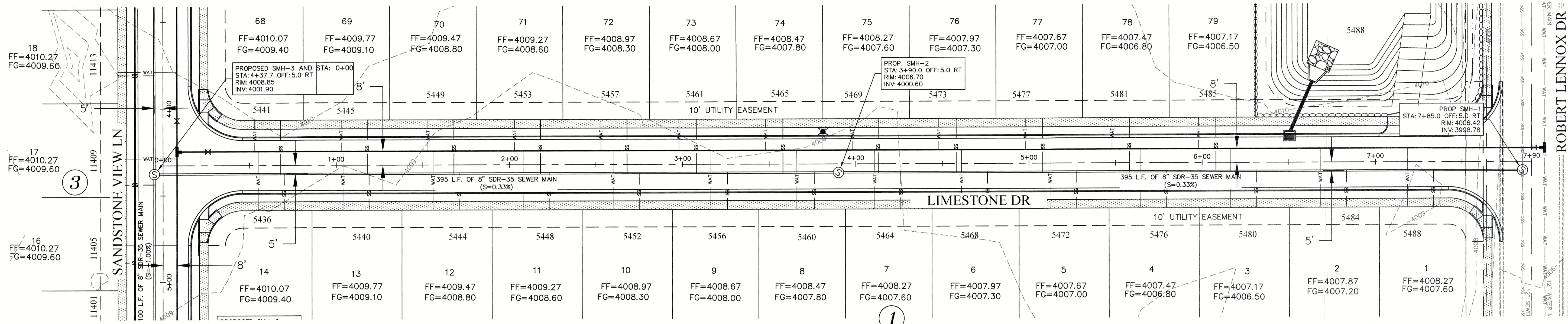


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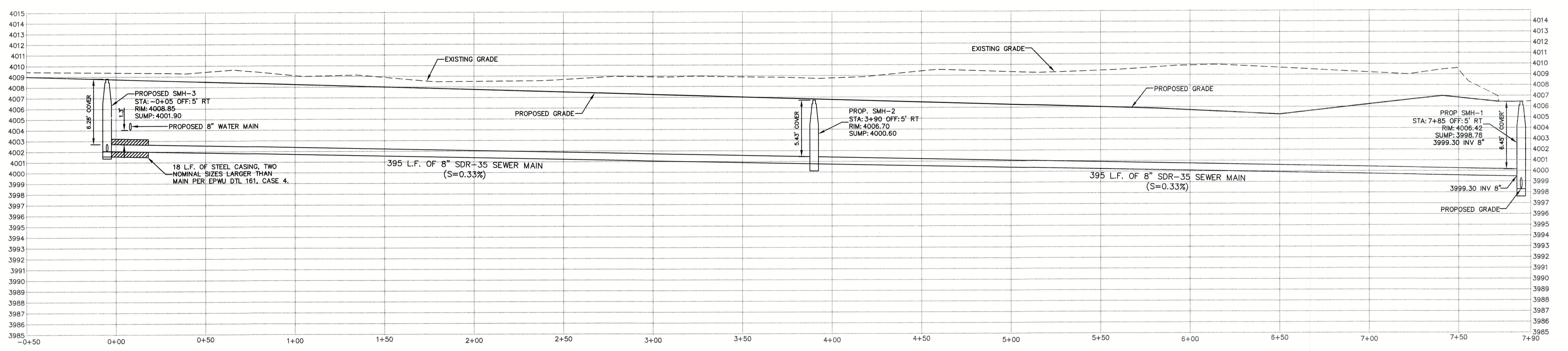
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P.O. Box 220251 El Paso, Texas 79913 915.833.2400 TBPE Firm #: F-1093
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SANITARY SEWER KEY PLAN
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK 1 EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14,930 ACRES

Project #:	J18-070
Design By:	SM/LU
Plot Date:	11/20/19
Drawn By:	LU/ME
Scale:	1"=40'
SHEET:	C-24



LEGEND	
FF	FINISH FLOOR
FG	FINISHED GRADE
EG	EXISTING GRADE
TC/TBC	TOP OF CURB
PV	TOP OF PAVEMENT
GT	GUTTER
VG	VALLEY GUTTER
SW	TOP OF SIDEWALK
INV	INVERT
1+00	ALIGNMENT STATIONING
PI	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
▲	HIGH POINT
▼	LOW POINT
→	DRAINAGE FLOW
---	EXISTING CONTOUR
---	PROP. MINOR CONTOUR
---	PROP. MAJOR CONTOUR
---	PROP. RETAINING WALL
---	RIGHT OF WAY LINE
---	ROADWAY CENTERLINE
---	EASEMENT LINE
---	LOT LINE
⊙	PROP. CITY MONUMENT
⊙	EXISTING POWER POLE
MBU	MAIL BOX DELIVERY UNIT



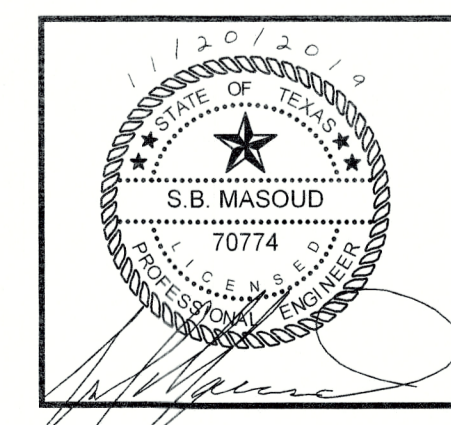
Release Dates:	
Revisions:	

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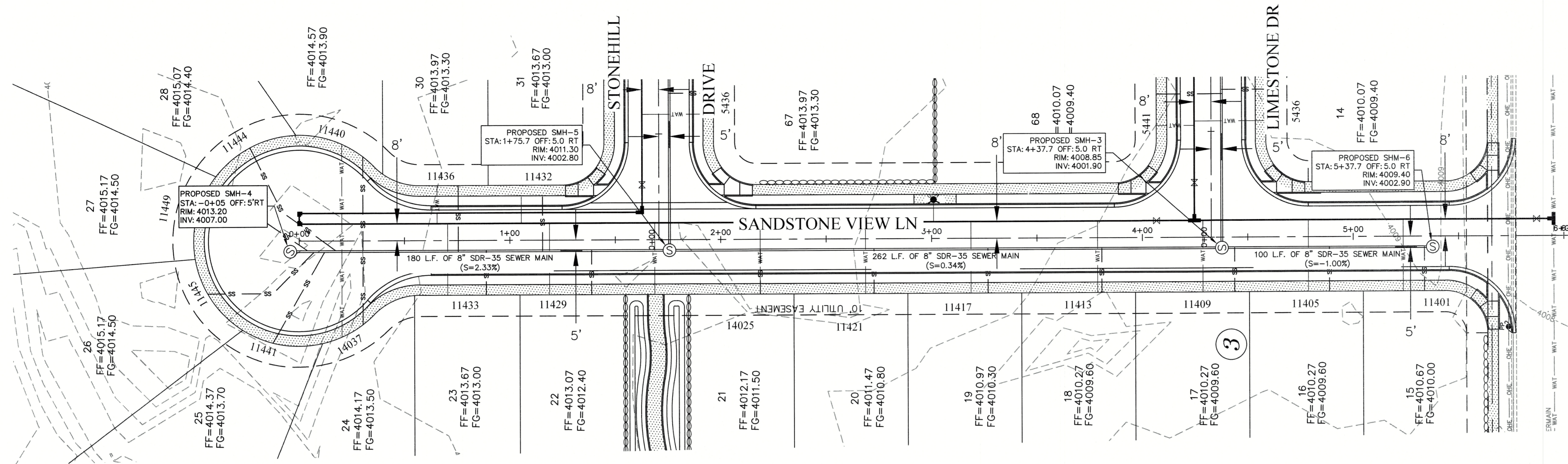
Scale:
PLAN
 SCALE: AS NOTED
PROFILES
 SCALE: HORIZONTAL: AS NOTED
 VERTICAL: AS NOTED

DRE Del Rio Engineering, Inc.
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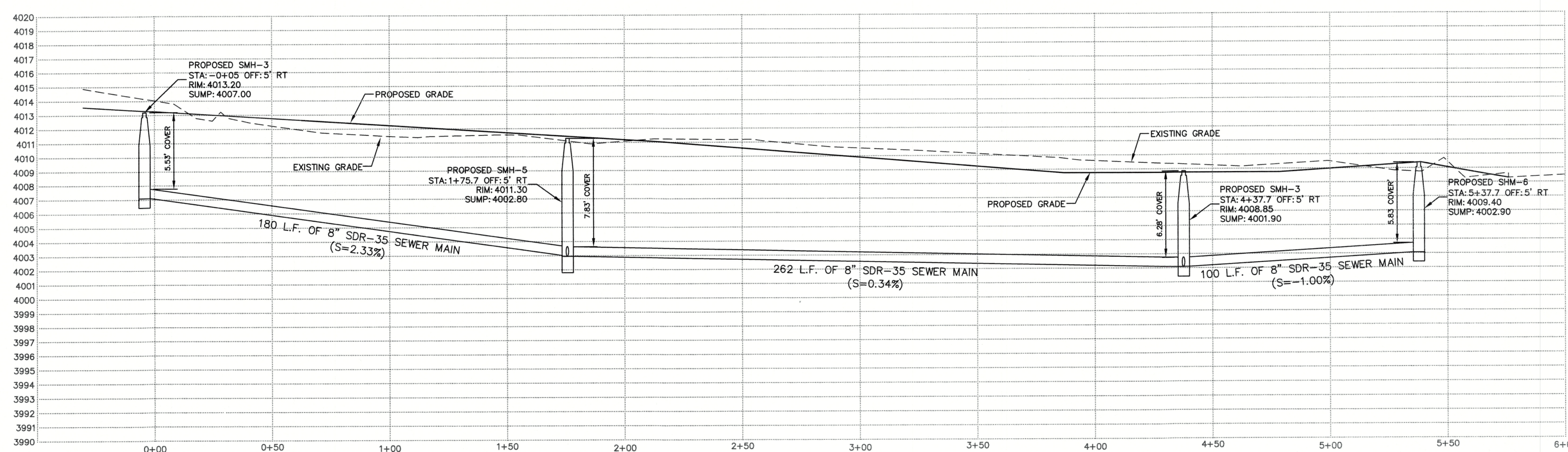
SEWER PLAN AND PROFILE - LIMESTONE DR
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES



Project #:	J18-070	Design By:	LU
Plot Date:	11/20/2019	Drawn By:	LU
SHEET:	C-25		AS-SHOWN



LEGEND	
FF	FINISH FLOOR
FG	FINISHED GRADE
EG	EXISTING GRADE
TC/TBC	TOP OF CURB
PV	TOP OF PAVEMENT
GT	GUTTER
VG	VALLEY GUTTER
SW	TOP OF SIDEWALK
INV	INVERT
I+00	ALIGNMENT STATIONING
PI	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
▲	HIGH POINT
▼	LOW POINT
→	DRAINAGE FLOW
- - - 4000 - - -	EXISTING CONTOUR
- - - 4000.5 - - -	PROP. MINOR CONTOUR
- - - 4000.5 - - -	PROP. MAJOR CONTOUR
⊖	PROP. RETAINING WALL
—	RIGHT OF WAY LINE
- - -	ROADWAY CENTERLINE
- - -	EASEMENT LINE
- - -	LOT LINE
⊙	PROP. CITY MONUMENT
⊕	EXISTING POWER POLE
MBU	MAIL BOX DELIVERY UNIT



Release Dates:
Revisions:

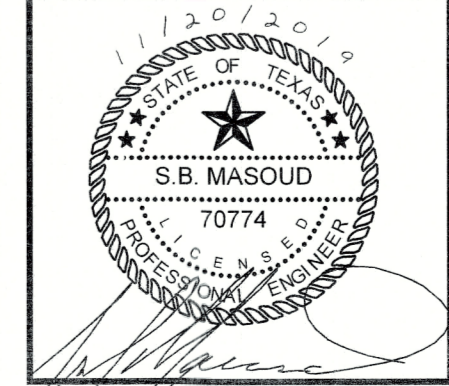
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Scale:
PLAN
 SCALE: AS NOTED
PROFILES
 SCALE
 HORIZONTAL: AS NOTED
 VERTICAL: AS NOTED

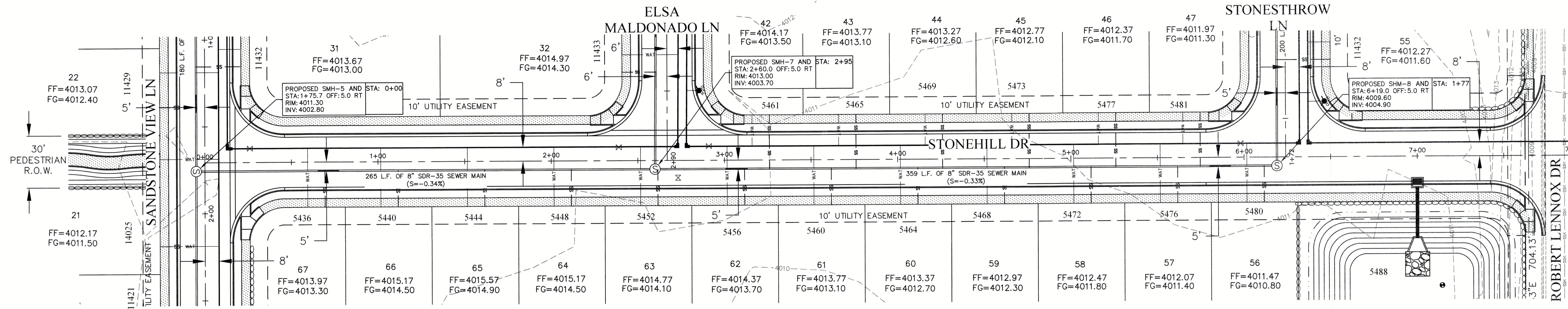
DRE Del Rio Engineering, Inc.
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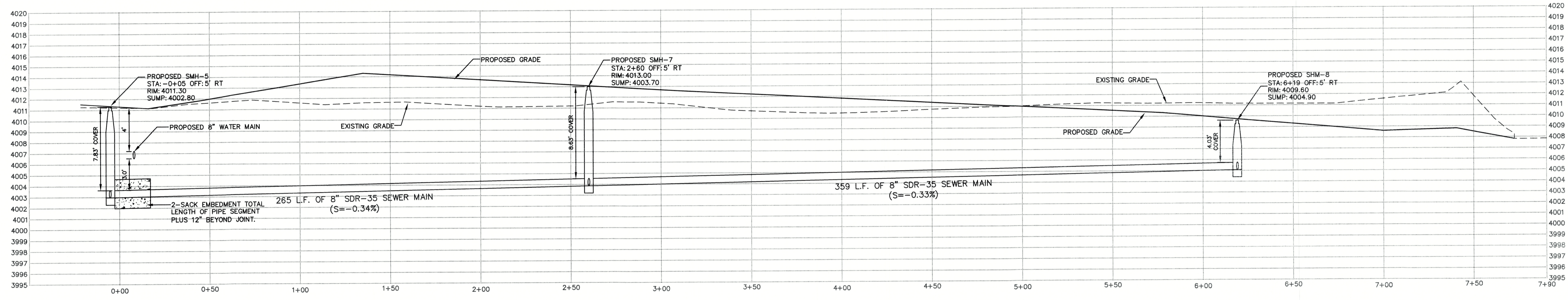
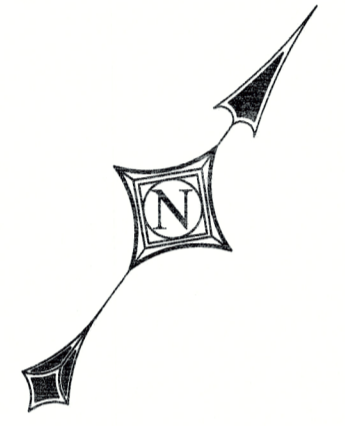
SEWER PLAN AND PROFILE - SANDSTONE VIEW LN
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES



Project #:	J18-070	Design By:	LU
Plot Date:	11/20/2019	Drawn By:	LU
SHEET:	C-26		AS-SHOWN



LEGEND	
FF	FINISH FLOOR
FG	FINISHED GRADE
EG	EXISTING GRADE
TC/TBC	TOP OF CURB
PV	TOP OF PAVEMENT
GT	GUTTER
VG	VALLEY GUTTER
SW	TOP OF SIDEWALK
INV	INVERT
1+00	ALIGNMENT STATIONING
PI	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
▲	HIGH POINT
▼	LOW POINT
—	DRAINAGE FLOW
---	EXISTING CONTOUR
----	PROP. MINOR CONTOUR
-----	PROP. MAJOR CONTOUR
-----	PROP. RETAINING WALL
-----	RIGHT OF WAY LINE
-----	ROADWAY CENTERLINE
-----	EASEMENT LINE
-----	LOT LINE
○	PROP. CITY MONUMENT
○	EXISTING POWER POLE
MBDU	MAIL BOX DELIVERY UNIT



Release Dates:	
Revisions:	

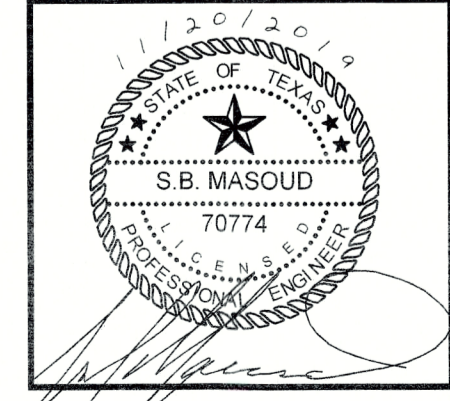
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Scale:
PLAN
 SCALE: AS NOTED
PROFILES
 SCALE: HORIZONTAL: AS NOTED
 VERTICAL: AS NOTED

DRE Del Rio Engineering, Inc.
 P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TBPE Firm #: F-1093

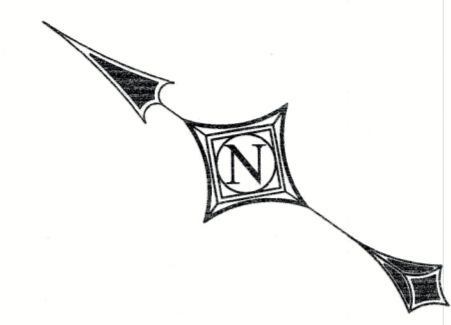
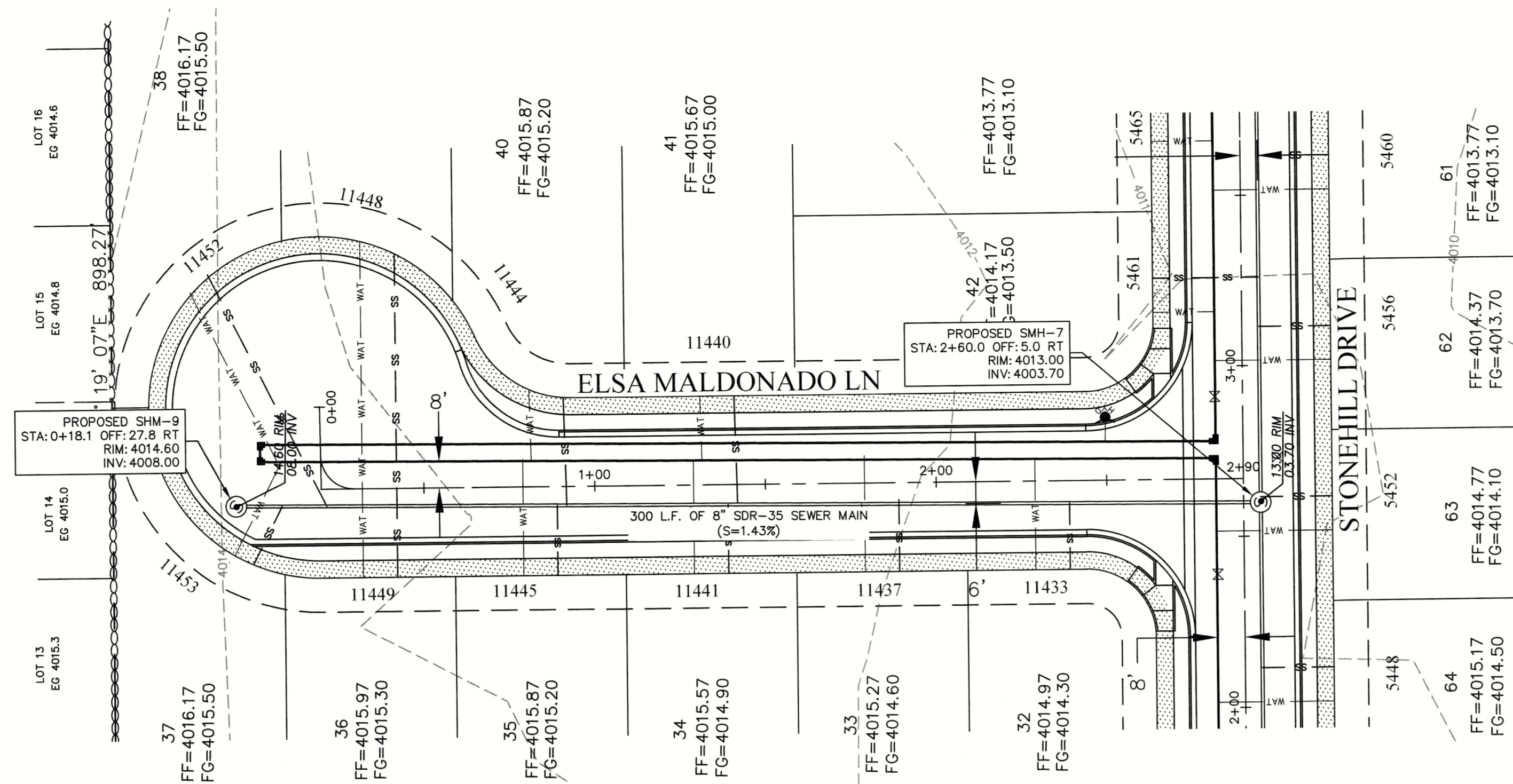
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SEWER PLAN AND PROFILE - STONEHILL DR
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

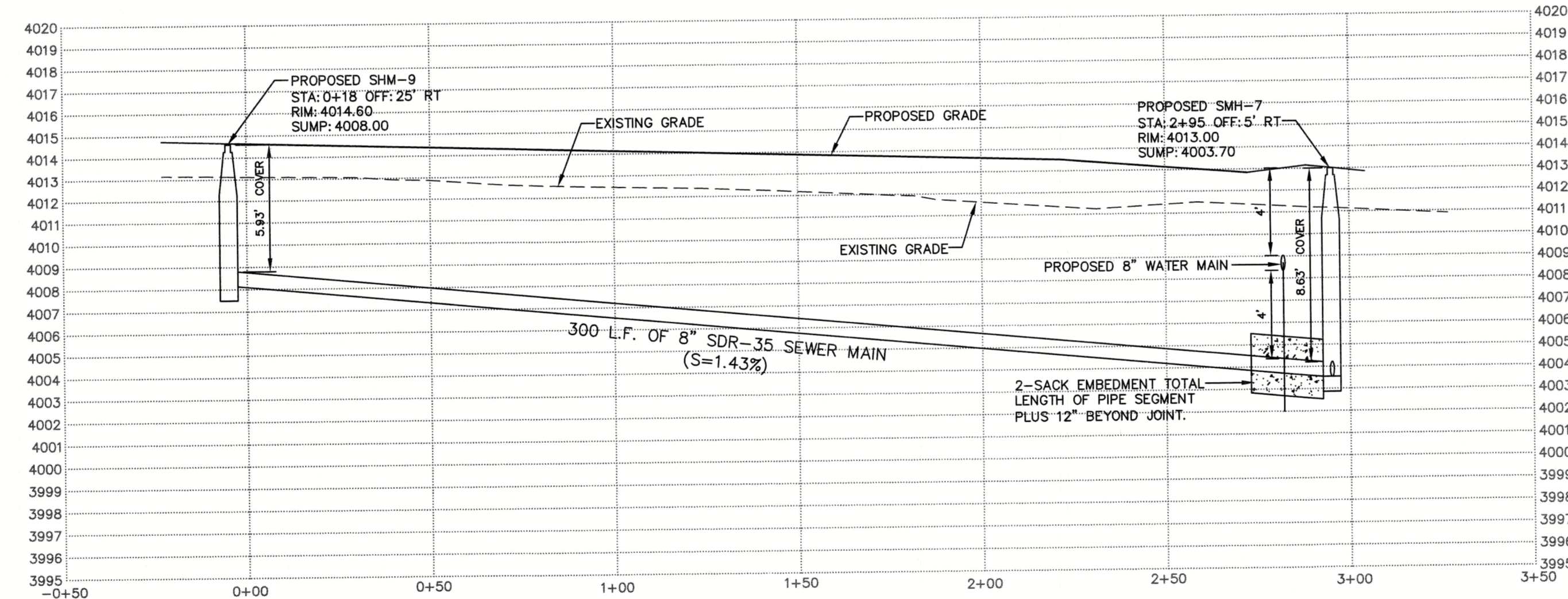


Project #:	J18-070	Design By:	LU
Plot Date:	11/20/2019	Drawn By:	LU
SHEET:	C-27		AS-SHOWN

SANDSTONE RANCH ESTATES UNIT FIVE



LEGEND	
FF	FINISH FLOOR
FG	FINISHED GRADE
EG	EXISTING GRADE
TC/TBC	TOP OF CURB
PV	TOP OF PAVEMENT
GT	GUTTER
VG	VALLEY GUTTER
SW	TOP OF SIDEWALK
INV	INVERT
1+00	ALIGNMENT STATIONING
PI	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
	HIGH POINT LOW POINT
	DRAINAGE FLOW
	---4000--- EXISTING CONTOUR
	4000 PROP. MINOR CONTOUR
	4000.5 PROP. MAJOR CONTOUR
	PROP. RETAINING WALL
	RIGHT OF WAY LINE
	ROADWAY CENTERLINE
	EASEMENT LINE
	LOT LINE
	PROP. CITY MONUMENT
	EXISTING POWER POLE
	MAIL BOX DELIVERY UNIT



Final Approval

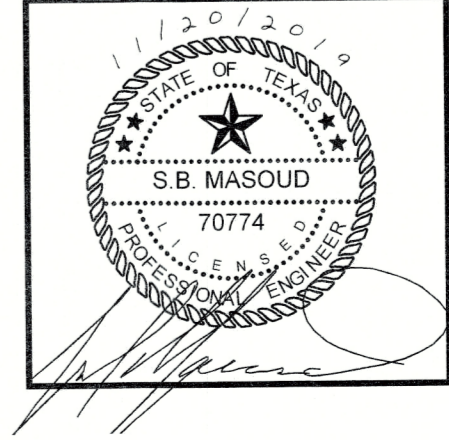
Release Dates:	
Revisions:	

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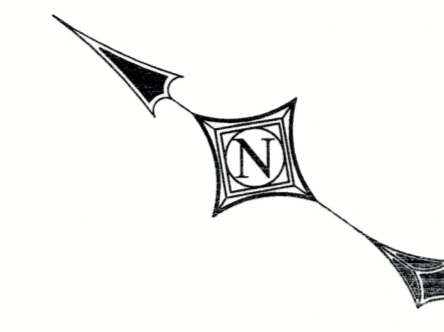
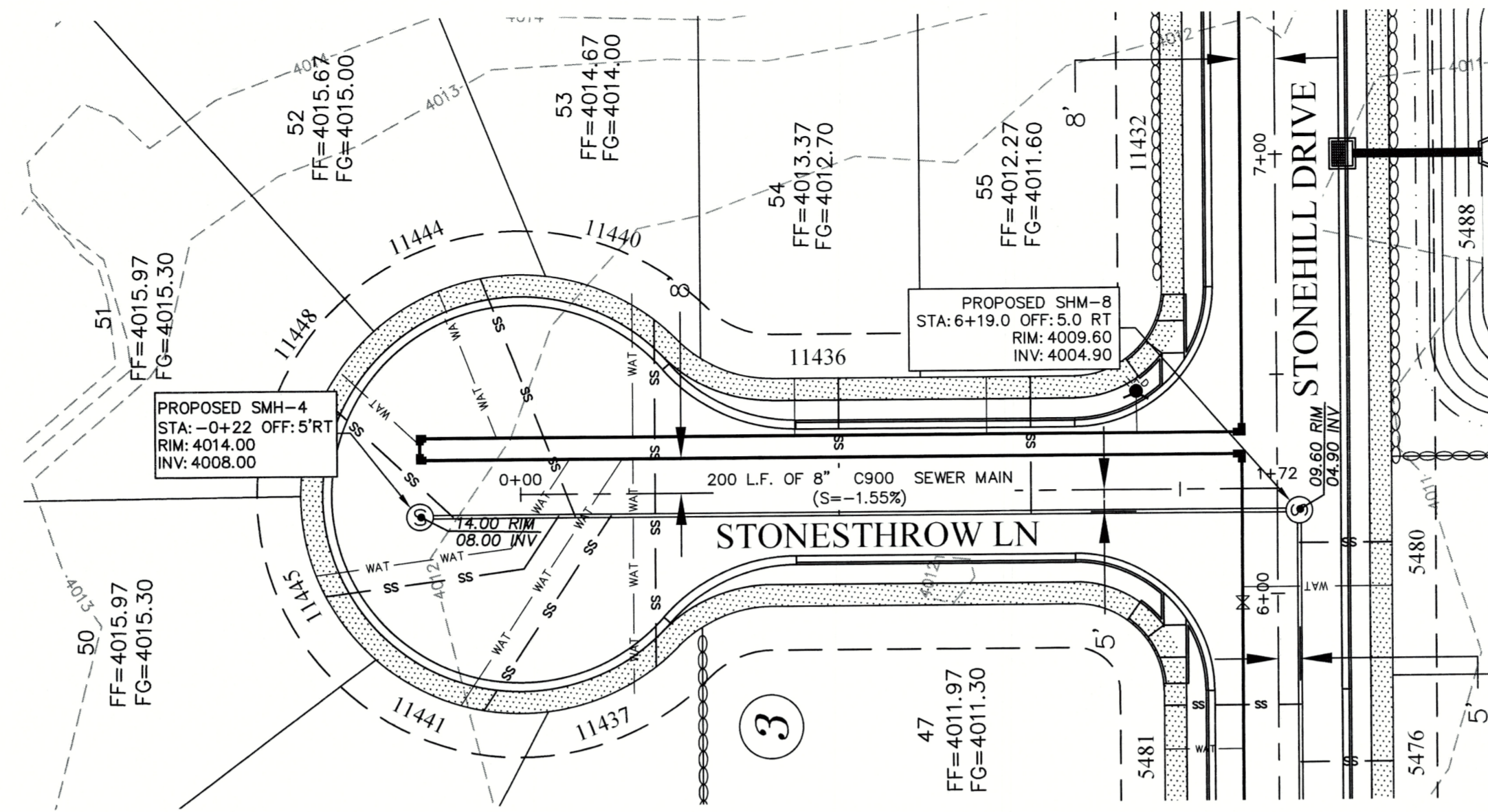
Scale:
PLAN
SCALE: AS NOTED
PROFILES
SCALE HORIZONTAL: AS NOTED
VERTICAL: AS NOTED

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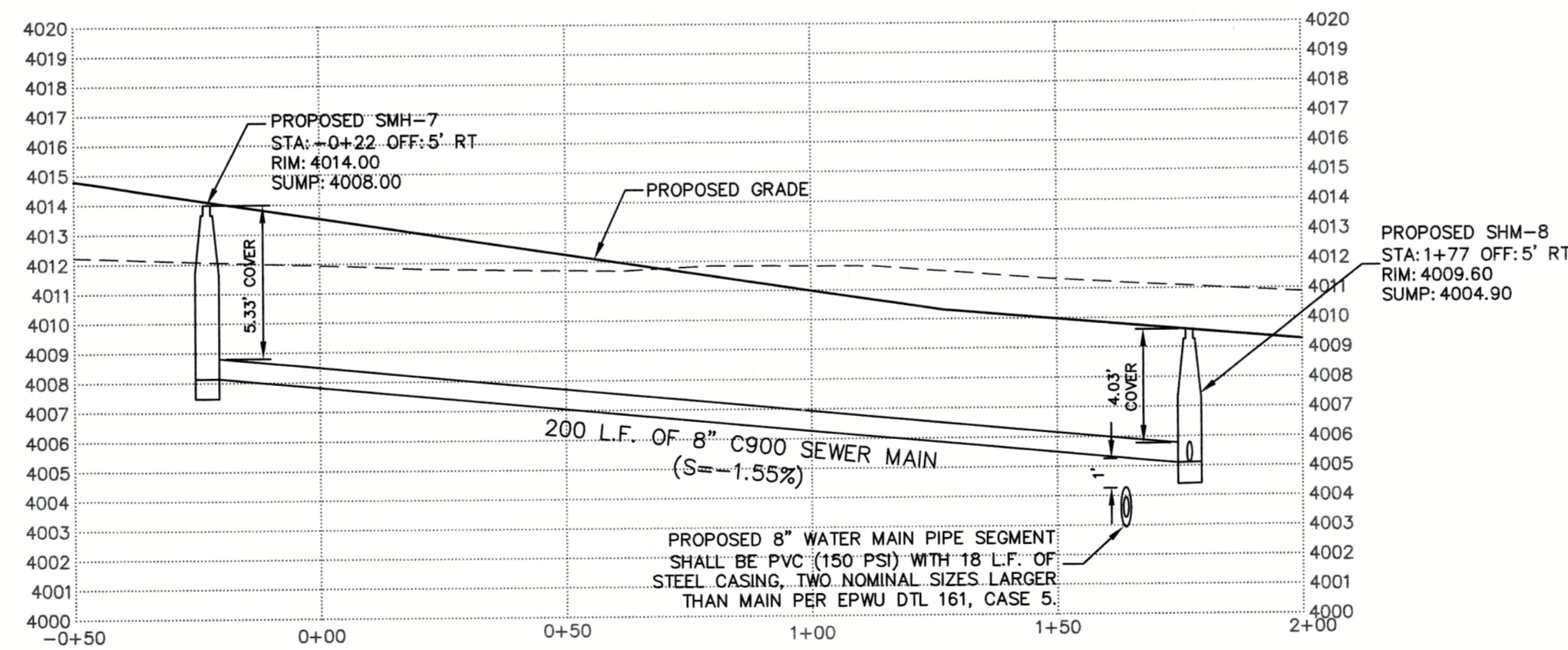
SEWER PLAN AND PROFILE - ELSA MALDONADO LN
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK 1 EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES



Project #:	J18-070	Design By:	LU
Plot Date:	11/20/2019	Drawn By:	LU
SHEET:	C-28		AS-SHOWN



LEGEND	
FF	FINISH FLOOR
FG	FINISHED GRADE
EG	EXISTING GRADE
TC/TBC	TOP OF CURB
PV	TOP OF PAVEMENT
GT	GUTTER
VG	VALLEY GUTTER
SW	TOP OF SIDEWALK
INV	INVERT
1+00	ALIGNMENT STATIONING
PI	POINT OF INTERSECTION
FVI	POINT OF VERTICAL INTERSECTION
▲	HIGH POINT
▼	LOW POINT
---	DRAINAGE FLOW
---	EXISTING CONTOUR
---	PROP. MINOR CONTOUR
---	PROP. MAJOR CONTOUR
---	PROP. RETAINING WALL
---	RIGHT OF WAY LINE
---	ROADWAY CENTERLINE
---	EASEMENT LINE
---	LOT LINE
⊙	PROP. CITY MONUMENT
⊙	EXISTING POWER POLE
MBU	MAIL BOX DELIVERY UNIT



Release Dates:
Revisions:

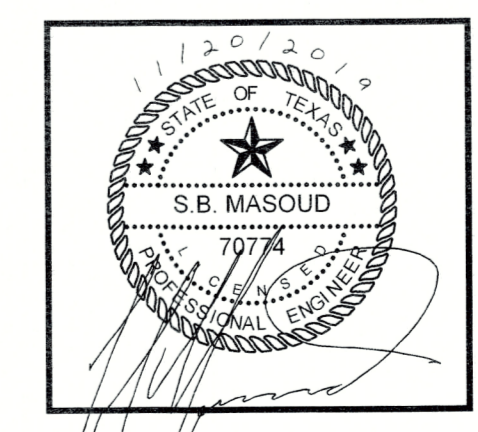
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Scale:
PLAN
 SCALE: AS NOTED
PROFILES
 SCALE: AS NOTED
 HORIZONTAL: AS NOTED
 VERTICAL: AS NOTED

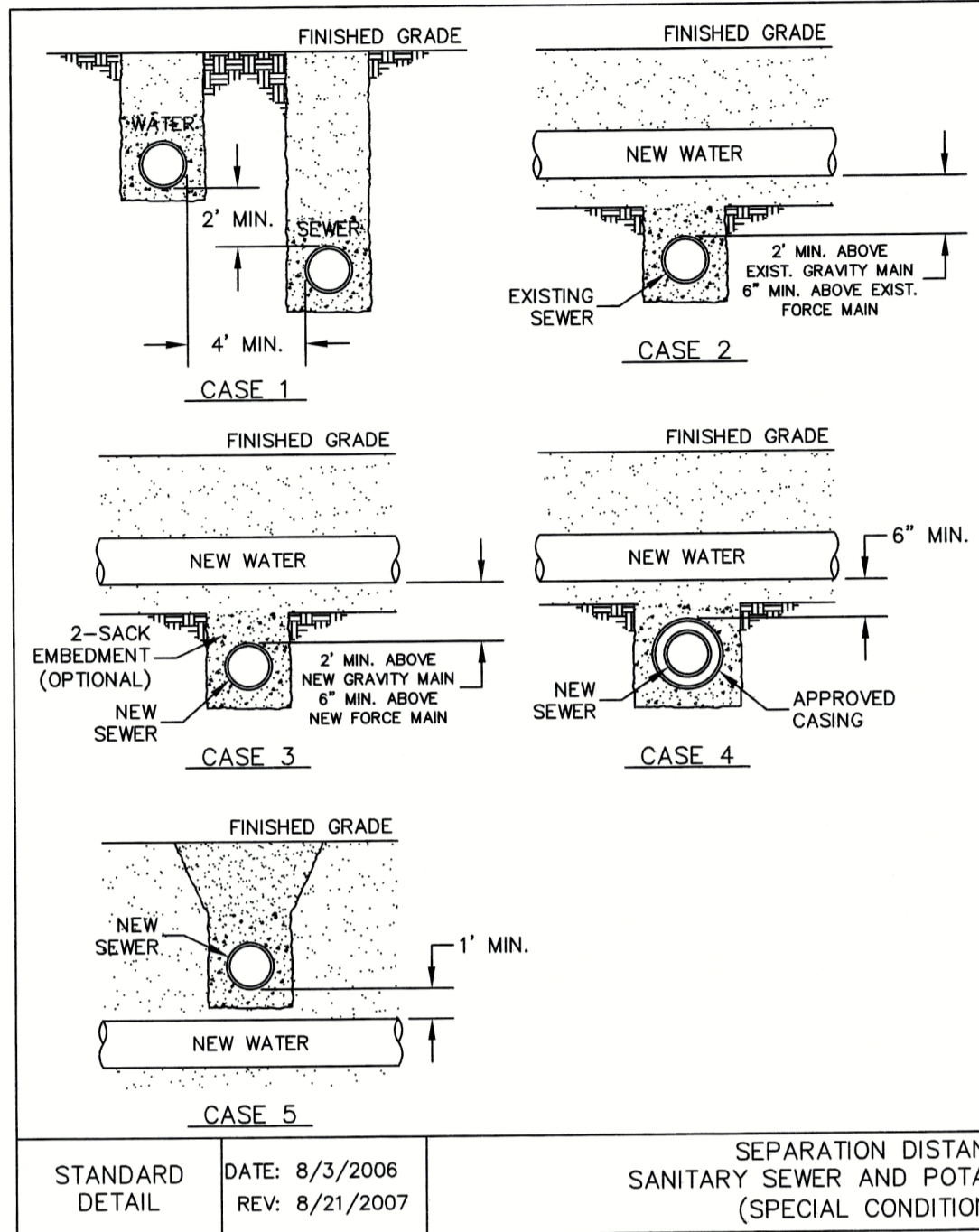
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SEWER PLAN AND PROFILE - STONESTROW LN
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES



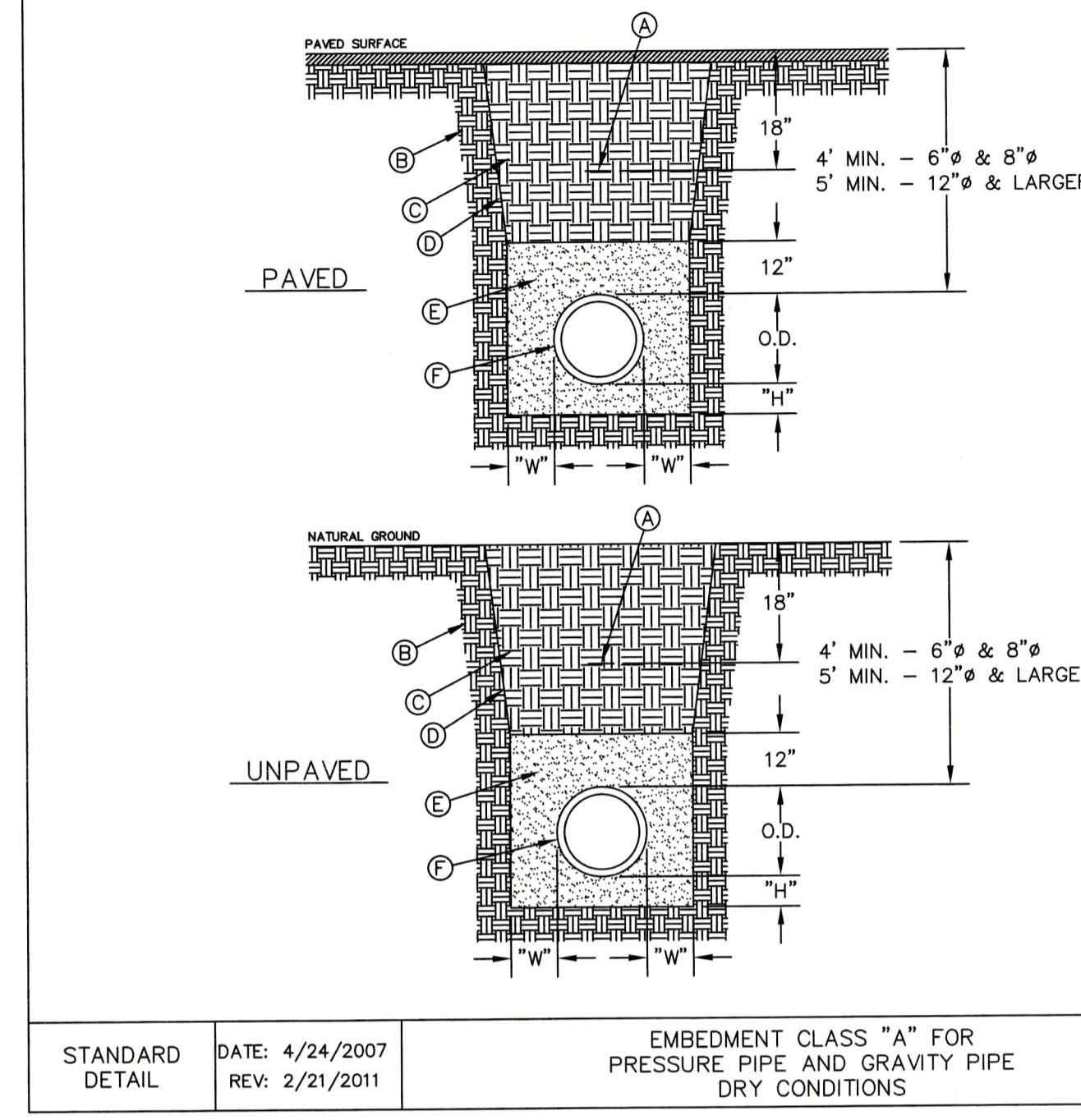
Project #:	J18-070	Design By:	LU
Plot Date:	11/20/2019	Drawn By:	LU
SHEET:	C-29		AS-SHOWN



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

CONSTRUCTION KEY NOTES:
 WHEN STANDARD NINE (9) FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, SEPARATION SHALL BE DETERMINED ACCORDING TO THE FOLLOWING CONDITIONS:
 CASE 1. GRAVITY SANITARY SEWER MAIN OR FORCE MAIN PARALLEL TO POTABLE WATER MAIN (PER TCEQ §290.44A(4)(A))
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING; MUST BE REPLACED WITH PVC (150 PSI) OR DI (NEW GRAVITY MAIN OR FORCE MAIN REQUIRES PVC (150 PSI) OR DI)
 • SEPARATE TRENCHES SHALL BE USED.
 CASE 2. NEW POTABLE WATER MAIN CROSSING EXISTING GRAVITY SANITARY SEWER MAIN OR EXISTING FORCE MAIN (PER TCEQ §290.44A(4)(B)(i) AND §290.44A(4)(B)(ii))
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING; REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG
 CASE 3. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44A(4)(B)(iii), §290.44A(4)(B)(iv) AND §290.44A(4)(B)(v))
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN
 • SEWER MATERIALS: NEW GRAVITY MAIN (PVC (150 PSI) OR DI REQUIRED, CENTER UNDER WATER MAIN; NEW FORCE MAIN - PVC (150 PSI) OR DI REQUIRED; FORCE MAIN TO BE EMBEDDED IN CEMENT STABILIZED BACKFILL THE TOTAL LENGTH OF ONE PIPE PLUS 12' BEYOND THE JOINT AT EACH END.
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER AND SEWER SHALL BE 18 FEET LONG
 • FOR NEW GRAVITY SEWER ONLY IN LIEU OF PVC (150 PSI) OR DI, INSTALL ONE PIPE SEGMENT OF SDR35 SEWER MAIN MUST BE EMBEDDED IN CEMENT STABILIZED BACKFILL THE TOTAL LENGTH OF ONE PIPE PLUS 12' BEYOND THE JOINT AT EACH END.
 CASE 4. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44A(4)(B)(vi))
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN
 • SEWER MATERIALS: NEW GRAVITY MAIN - SDR35 ACCEPTABLE; NEW FORCE MAIN (150 PSI) OR DI REQUIRED; IN ADDITION, SEWER MAIN OR FORCE MAIN MUST BE ENCASED IN DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG
 • CENTER CASING PIPE ON WATER MAIN
 CASE 5. NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN CROSSING NEW POTABLE WATER MAIN (PER TCEQ §290.44A(4)(B)(vii))
 • LOCATION: SEWER OR FORCE MAIN ABOVE WATER
 • NEW GRAVITY MAIN OR FORCE MAIN REQUIRES ONE PIPE SEGMENT OF PVC (150 PSI) OR DI; IN ADDITION, WATER MUST BE DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG
 • CENTER ONE SEGMENT OF SEWER PIPE ON WATER MAIN.

STANDARD DETAIL	DATE: 8/3/2006 REV: 8/21/2007	SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS)	N.T.S.	el PASO WATER	DETAIL No. 161
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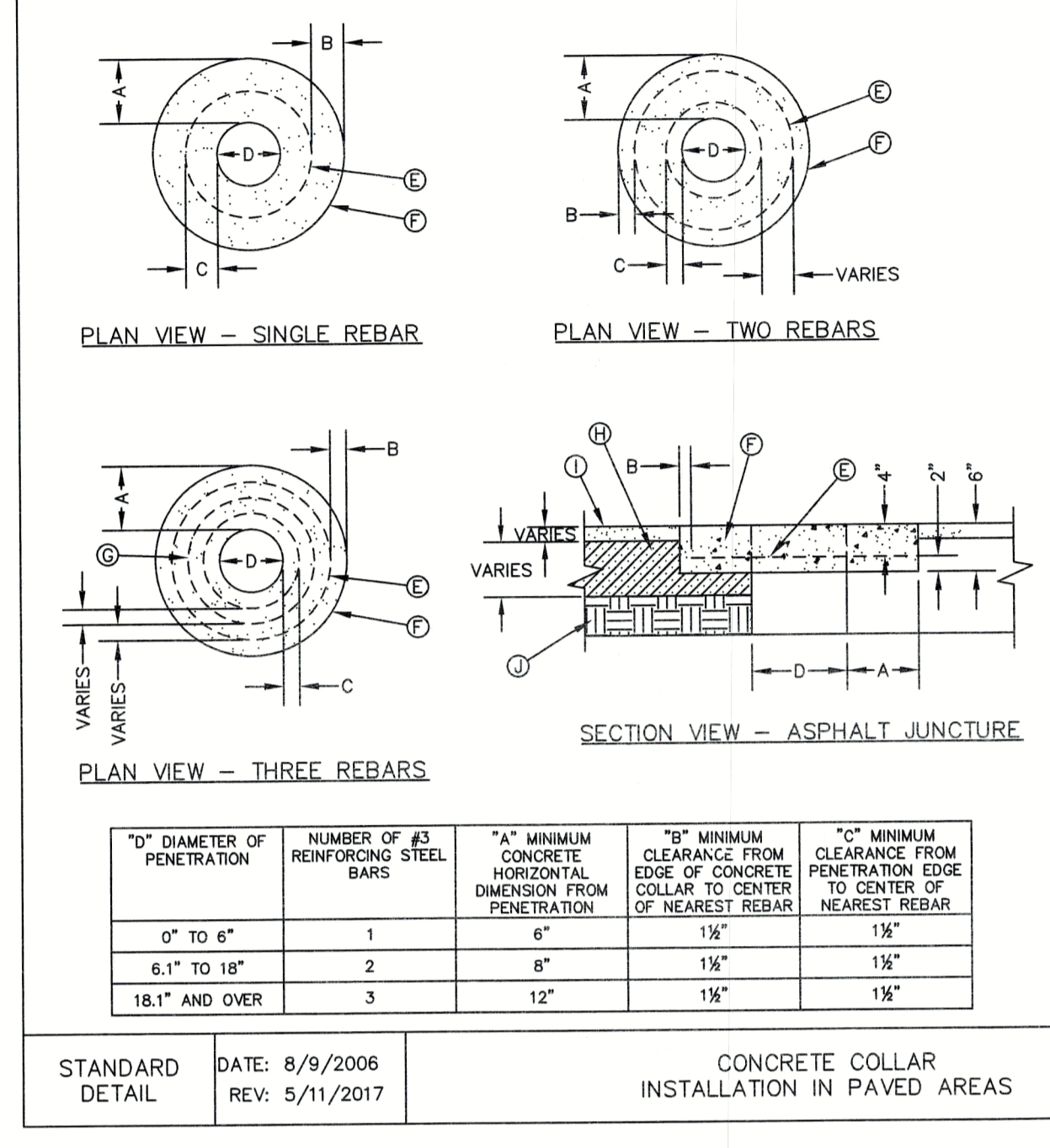


GENERAL NOTES:
 1. BEDDING FOR PRESSURE AND GRAVITY PIPE IN DRY CONDITIONS.
 2. PROVIDE TRENCH SAFETY SYSTEM FOR TRENCH DEPTHS GREATER THAN 5 FEET.
 3. IF THE NATIVE MATERIAL EXCAVATED FROM THE TRENCH IS UNSUITABLE AS BACKFILL MATERIAL, OR THE REQUIRED COMPACTION IS UNATTAINABLE, THE CONTRACTOR SHALL,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

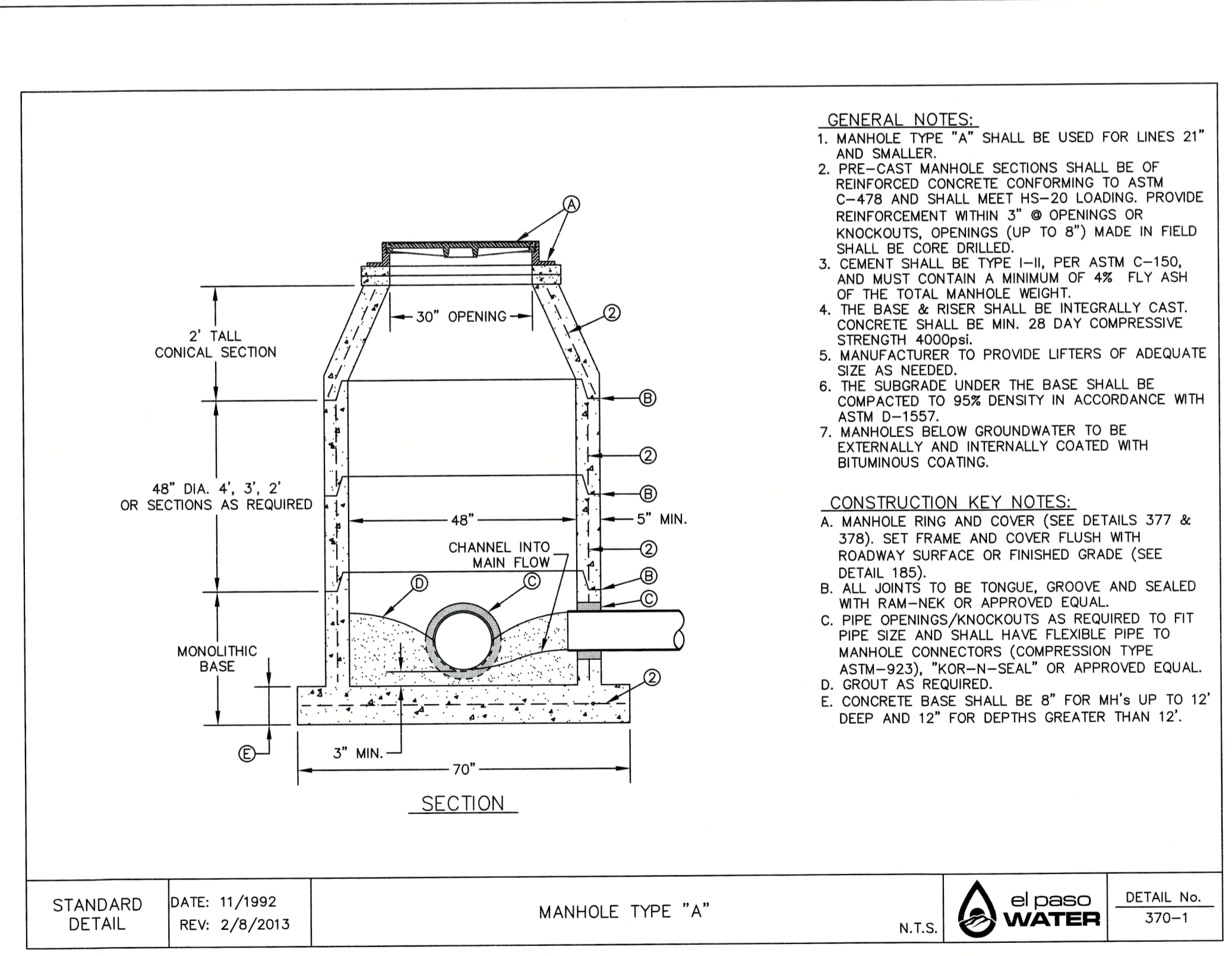
CONSTRUCTION KEY NOTES:
 A. APPROVED MARKING TAPE.
 B. UNDISTURBED STABLE MATERIAL.
 C. NATIVE MATERIAL BACKFILL.
 PAVED CONDITION: COMPACT TO 90% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
 UNPAVED CONDITION: COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
 (SEE NOTE #3 IF THESE PREVIOUS CONDITIONS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

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

STANDARD DETAIL	DATE: 4/24/2007 REV: 2/21/2011	EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS	N.T.S.	el PASO WATER	DETAIL No. 171
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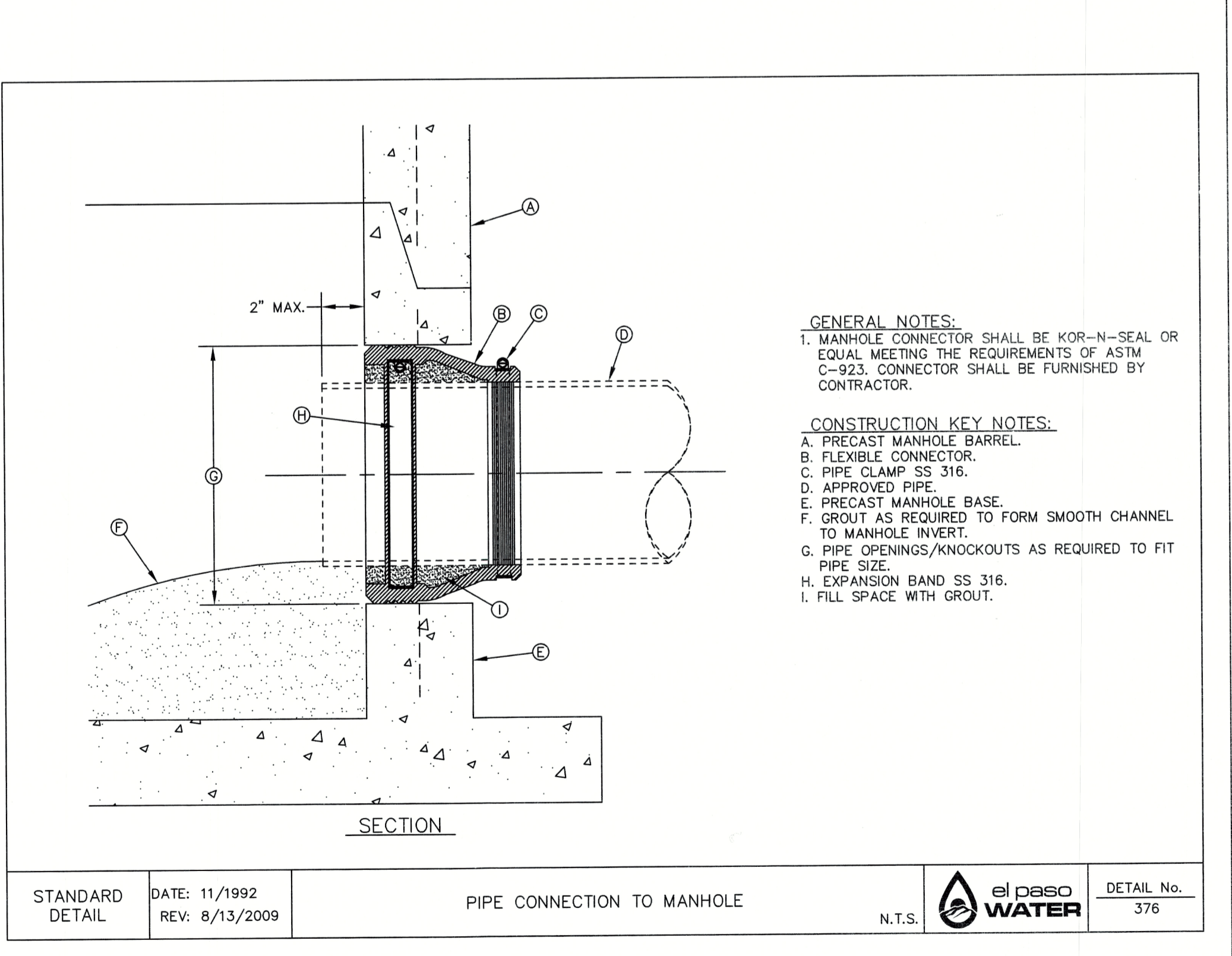
STANDARD DETAIL	DATE: 8/9/2006 REV: 5/11/2017	CONCRETE COLLAR INSTALLATION IN PAVED AREAS	N.T.S.	el PASO WATER	DETAIL No. 184-1
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GENERAL NOTES:
 1. MANHOLE TYPE "A" SHALL BE USED FOR LINES 21" AND SMALLER.
 2. PRE-CAST MANHOLE SECTIONS SHALL BE OF REINFORCED CONCRETE CONFORMING TO ASTM C-478 AND SHALL MEET HS-20 LOADING. PROVIDE REINFORCEMENT WITHIN 3" Ø OPENINGS OR KNOCKOUTS. OPENINGS (UP TO 6") MADE IN FIELD SHALL BE CORE DRILLED.
 3. CEMENT SHALL BE TYPE I-II, PER ASTM C-150, AND MUST CONTAIN A MINIMUM OF 4% FLY ASH OF THE TOTAL MANHOLE WEIGHT.
 4. THE BASE & RISER SHALL BE INTEGRALLY CAST. CONCRETE SHALL BE MIN. 28 DAY COMPRESSIVE STRENGTH 4000psi.
 5. MANUFACTURER TO PROVIDE LIFTERS OF ADEQUATE SIZE AS NEEDED.
 6. THE SUBGRADE UNDER THE BASE SHALL BE COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM D-1557.
 7. MANHOLES BELOW GROUNDWATER TO BE EXTERNALLY AND INTERNALLY COATED WITH BITUMINOUS COATING.

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

STANDARD DETAIL	DATE: 11/1992 REV: 2/8/2013	MANHOLE TYPE "A"	N.T.S.	el PASO WATER	DETAIL No. 370-1
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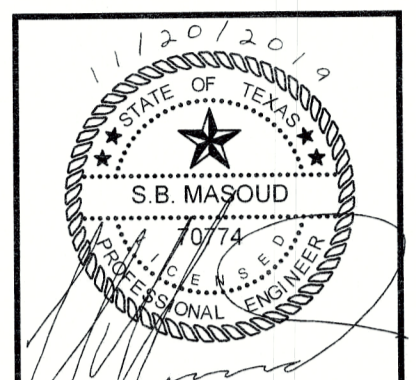


GENERAL NOTES:
 1. MANHOLE CONNECTOR SHALL BE KOR-N-SEAL OR EQUAL MEETING THE REQUIREMENTS OF ASTM C-923. CONNECTOR SHALL BE FURNISHED BY CONTRACTOR.

CONSTRUCTION KEY NOTES:
 A. PRECAST MANHOLE BARREL.
 B. FLEXIBLE CONNECTOR.
 C. PIPE CLAMP SS 316.
 D. APPROVED PIPE.
 E. PRECAST MANHOLE BASE.
 F. GROUT AS REQUIRED TO FORM SMOOTH CHANNEL TO MANHOLE INVERT.
 G. PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE.
 H. EXPANSION BAND SS 316.
 I. FILL SPACE WITH GROUT.

STANDARD DETAIL	DATE: 11/1992 REV: 8/13/2009	PIPE CONNECTION TO MANHOLE	N.T.S.	el PASO WATER	DETAIL No. 376
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Release Dates:
Revisions:



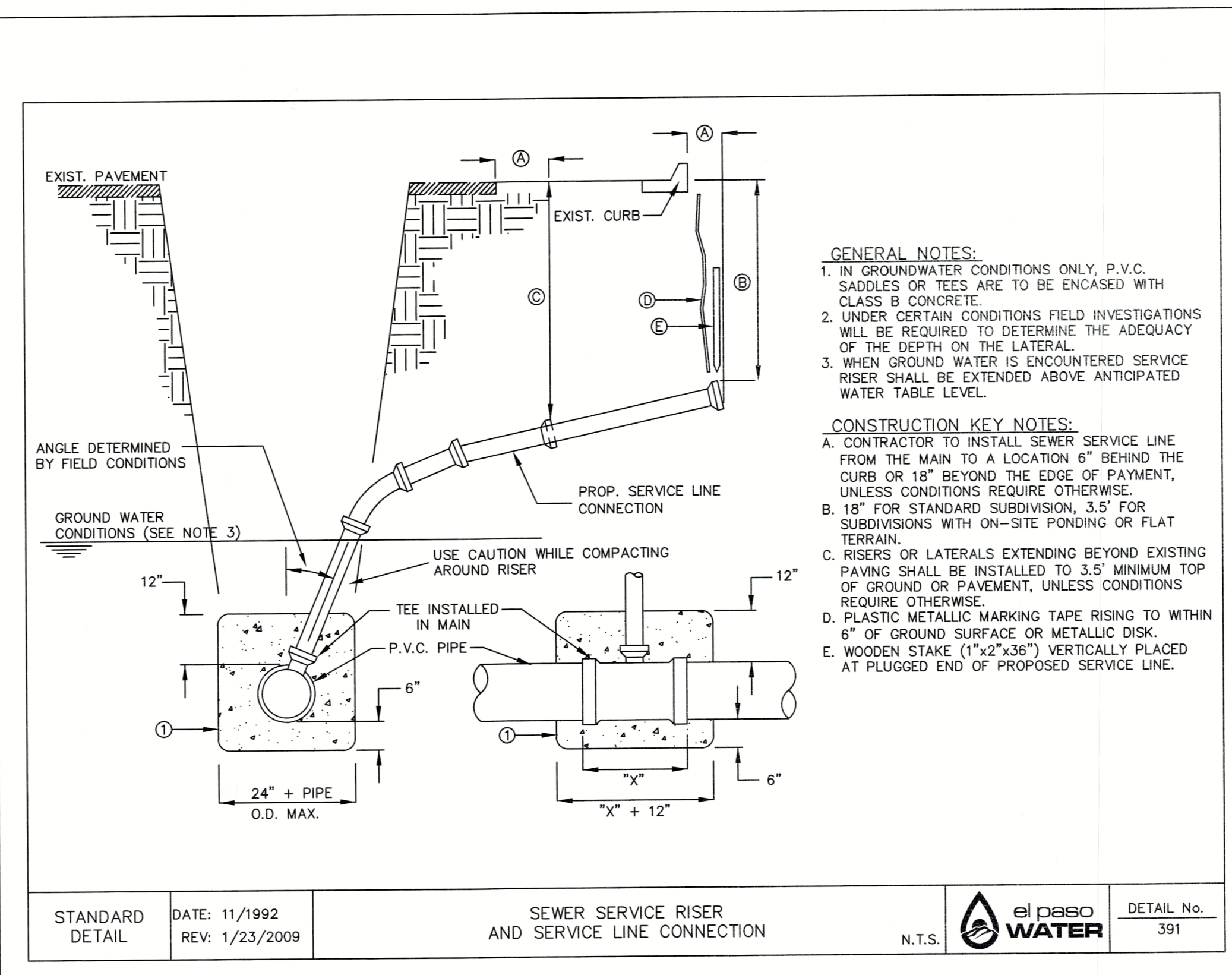
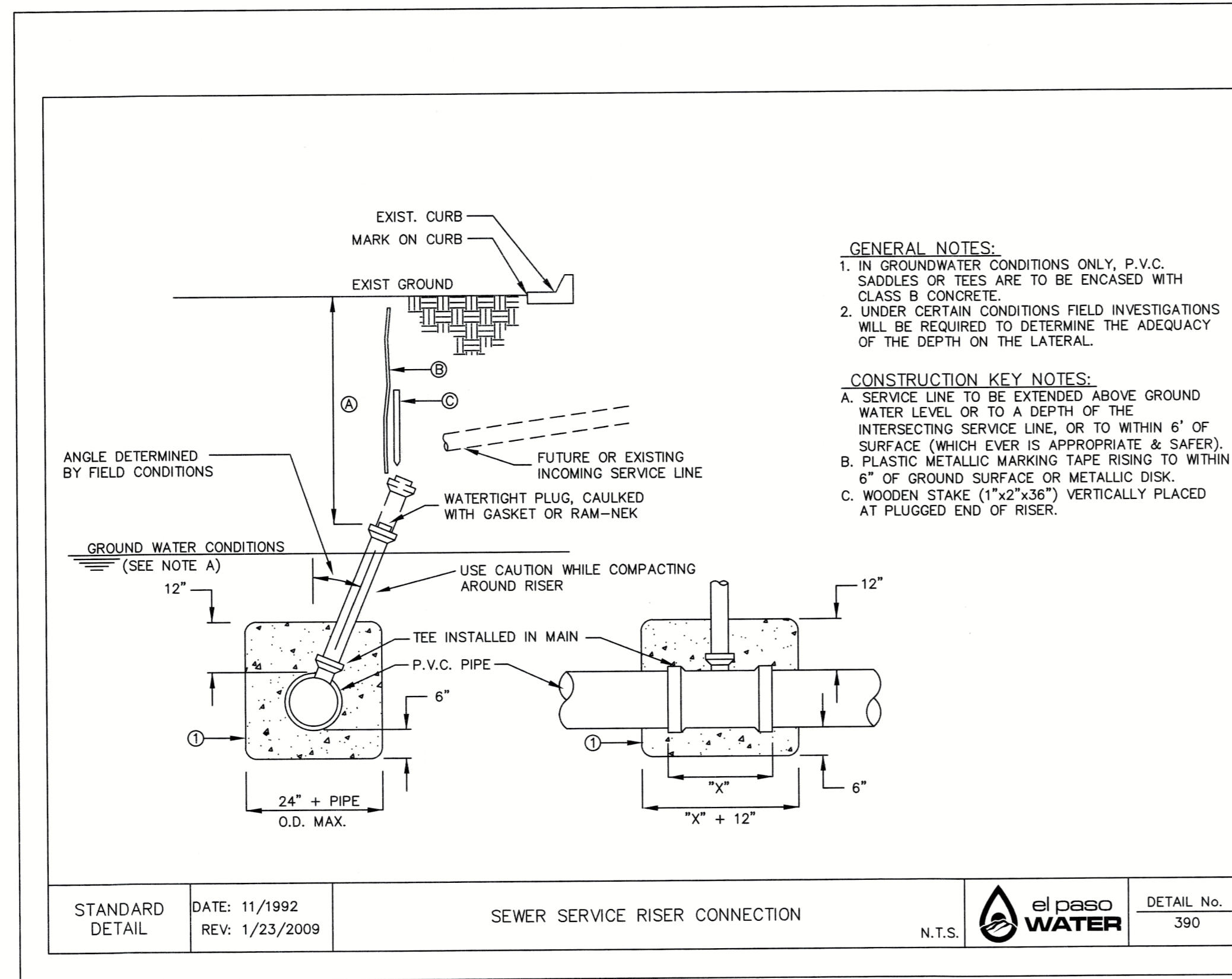
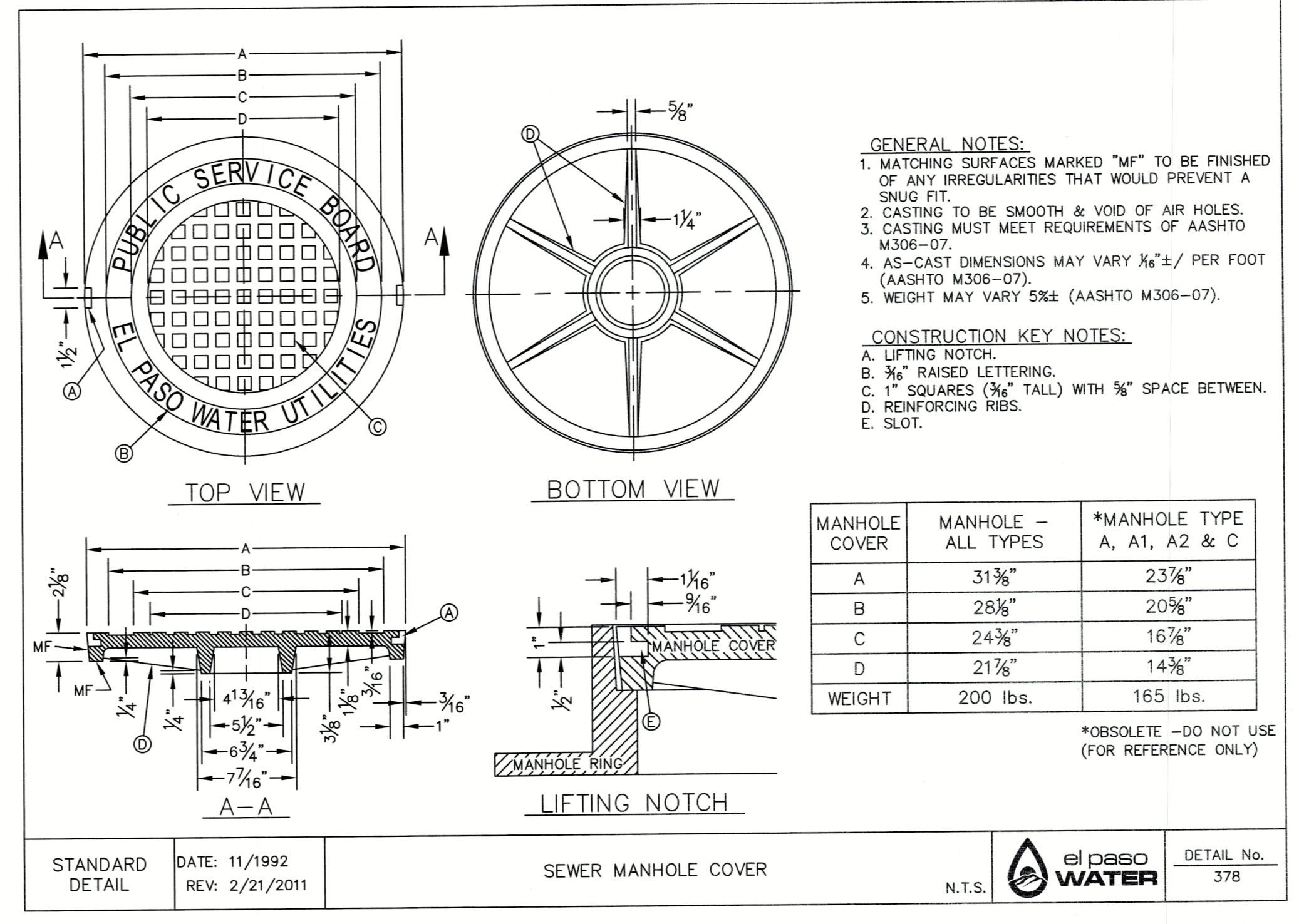
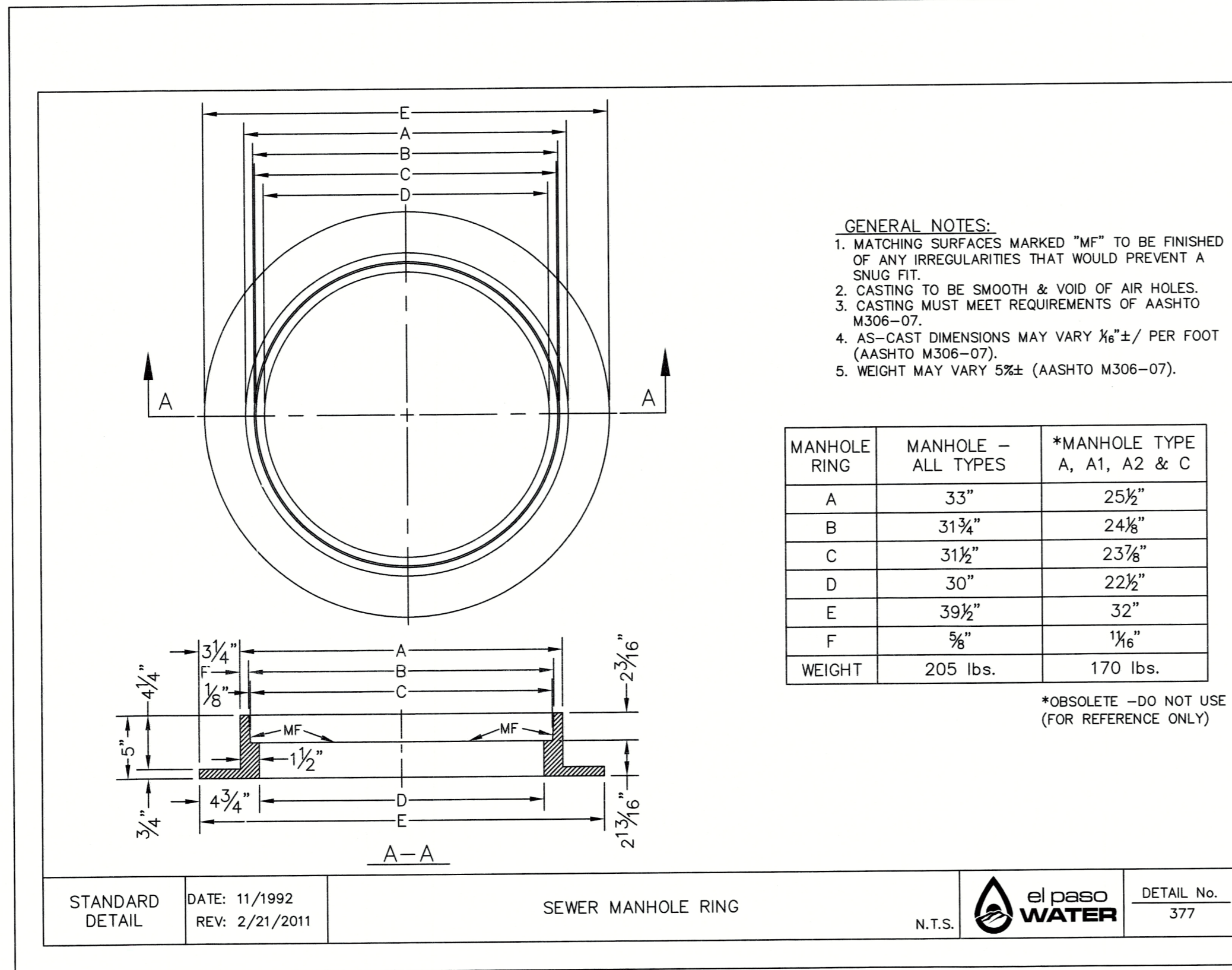
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EPWU - SANITARY SEWER SERVICE DETAILS
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCKI EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070
Design By:	SM/LU
Drawn By:	LU/ME
Plot Date:	11/20/19
Scale:	AS SHOWN
SHEET:	C-30





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11/20/2019
 S.B. MASOUD
 70774

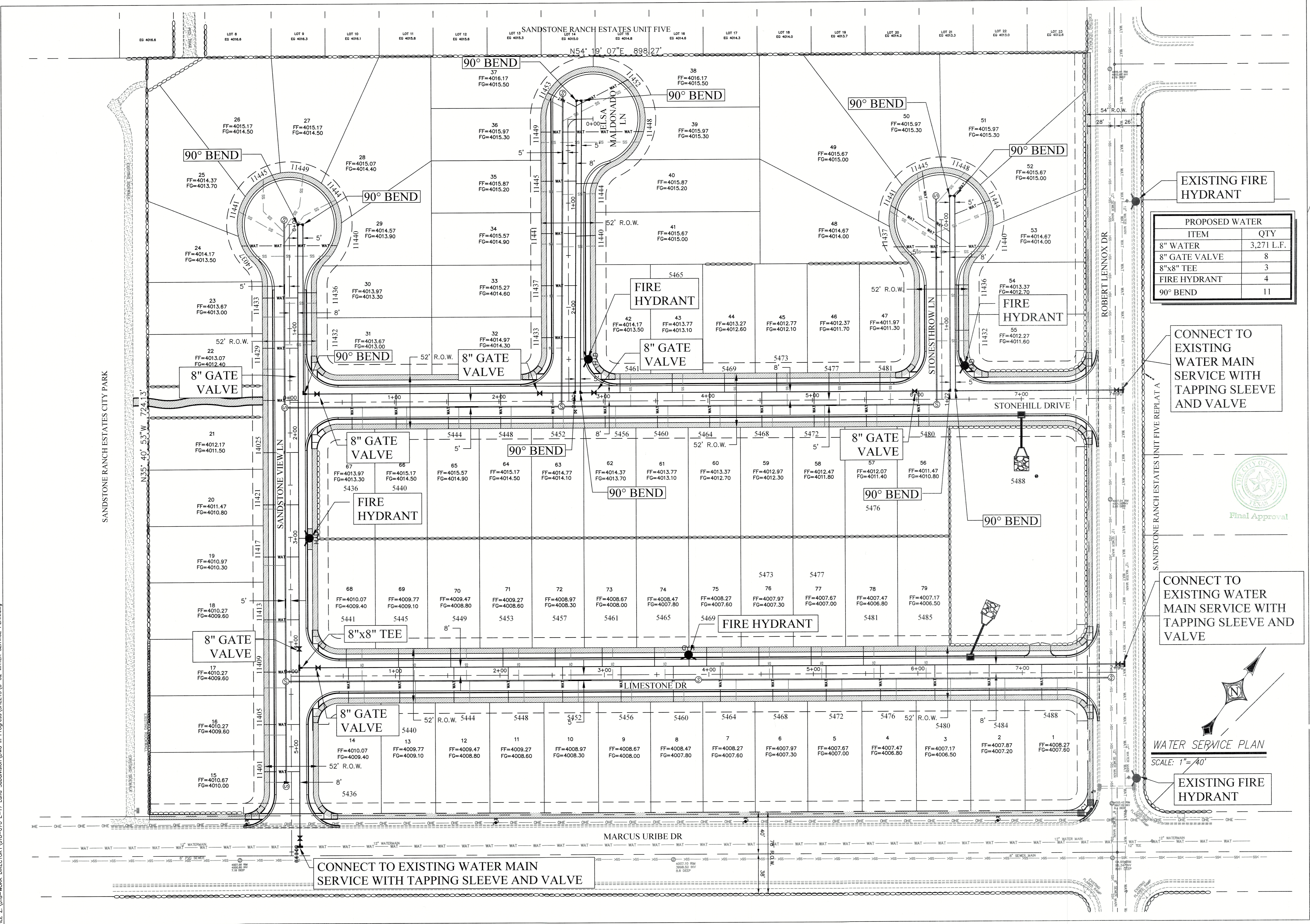
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EPWU - SANITARY SEWER SERVICE DETAILS
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK I, EPISODE E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070
Plot Date:	11/20/19
SHEET:	C-31
Design By:	SM/LU
Drawn By:	LU/ME
Scale:	AS SHOWN

FILE Z:\18-WORK DIRECTORY\18-070 E-17 Land Subdivision\DWG in Progress\SHEETS\C-32 WATER SERVICE PLAN.dwg



PROPOSED WATER

ITEM	QTY
8" WATER	3,271 L.F.
8" GATE VALVE	8
8"x8" TEE	3
FIRE HYDRANT	4
90° BEND	11

CONNECT TO EXISTING WATER MAIN SERVICE WITH TAPPING SLEEVE AND VALVE

CONNECT TO EXISTING WATER MAIN SERVICE WITH TAPPING SLEEVE AND VALVE

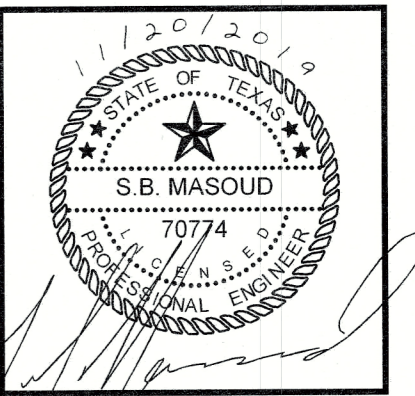
CONNECT TO EXISTING WATER MAIN SERVICE WITH TAPPING SLEEVE AND VALVE

WATER SERVICE PLAN
SCALE: 1"=40'

EXISTING FIRE HYDRANT



Release Dates:
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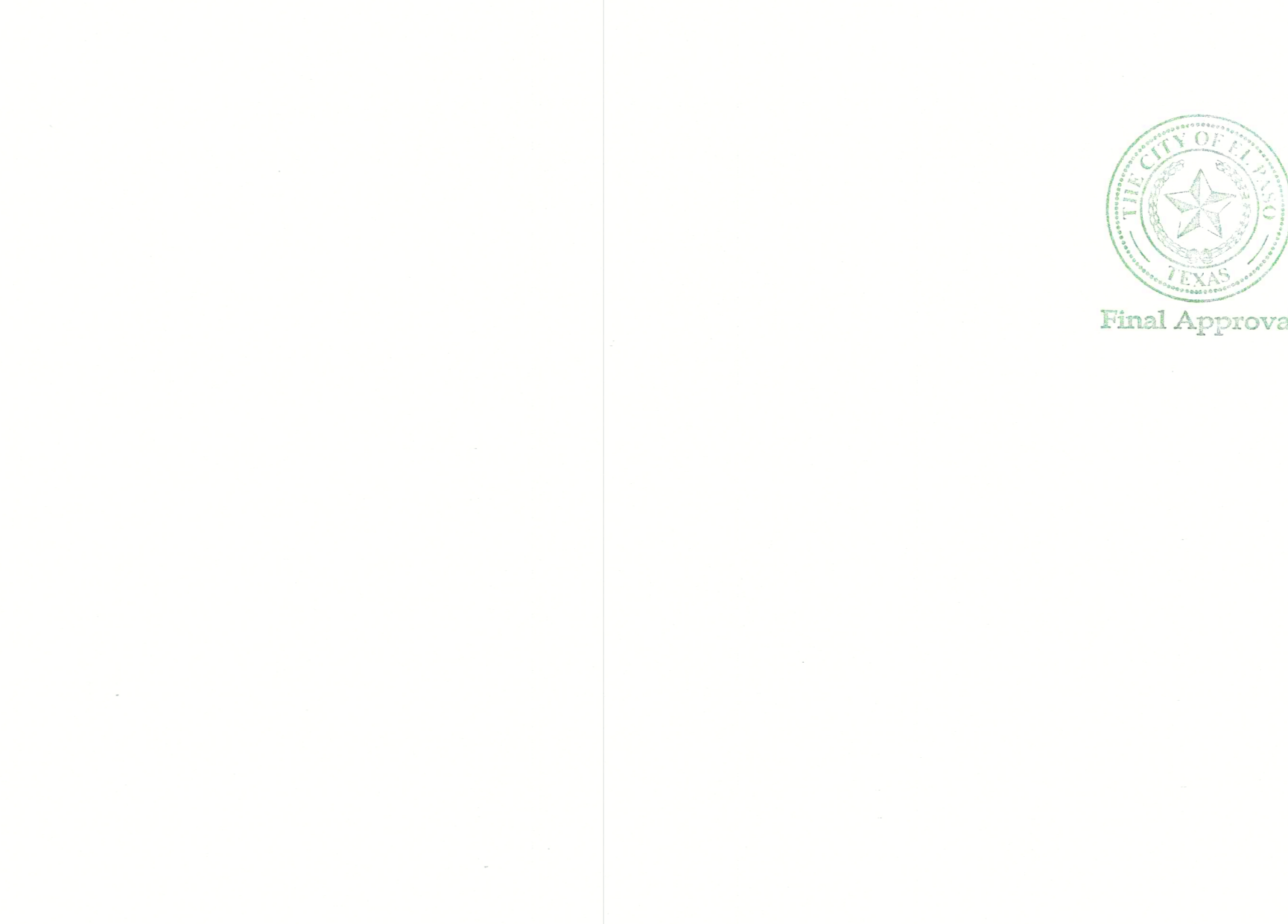
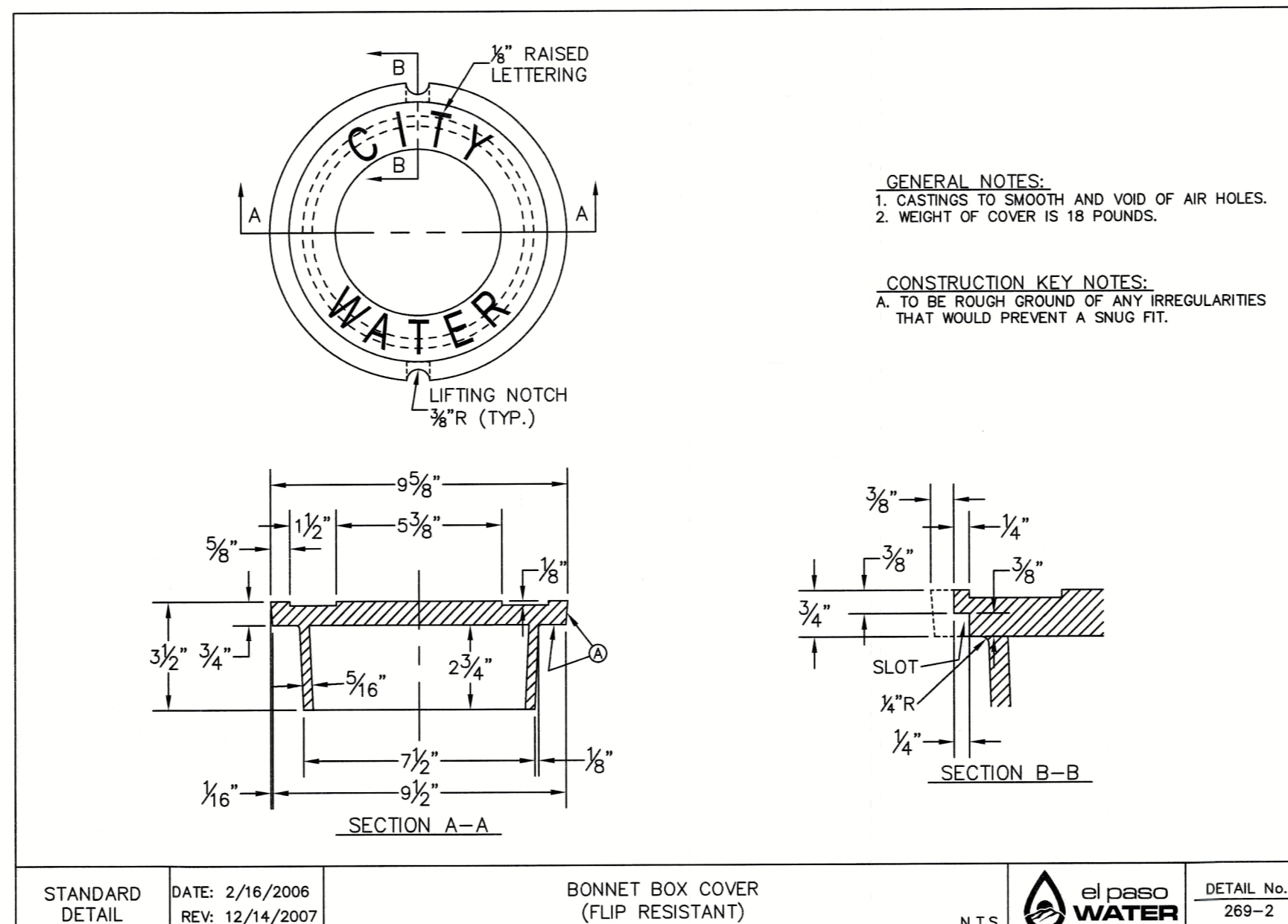
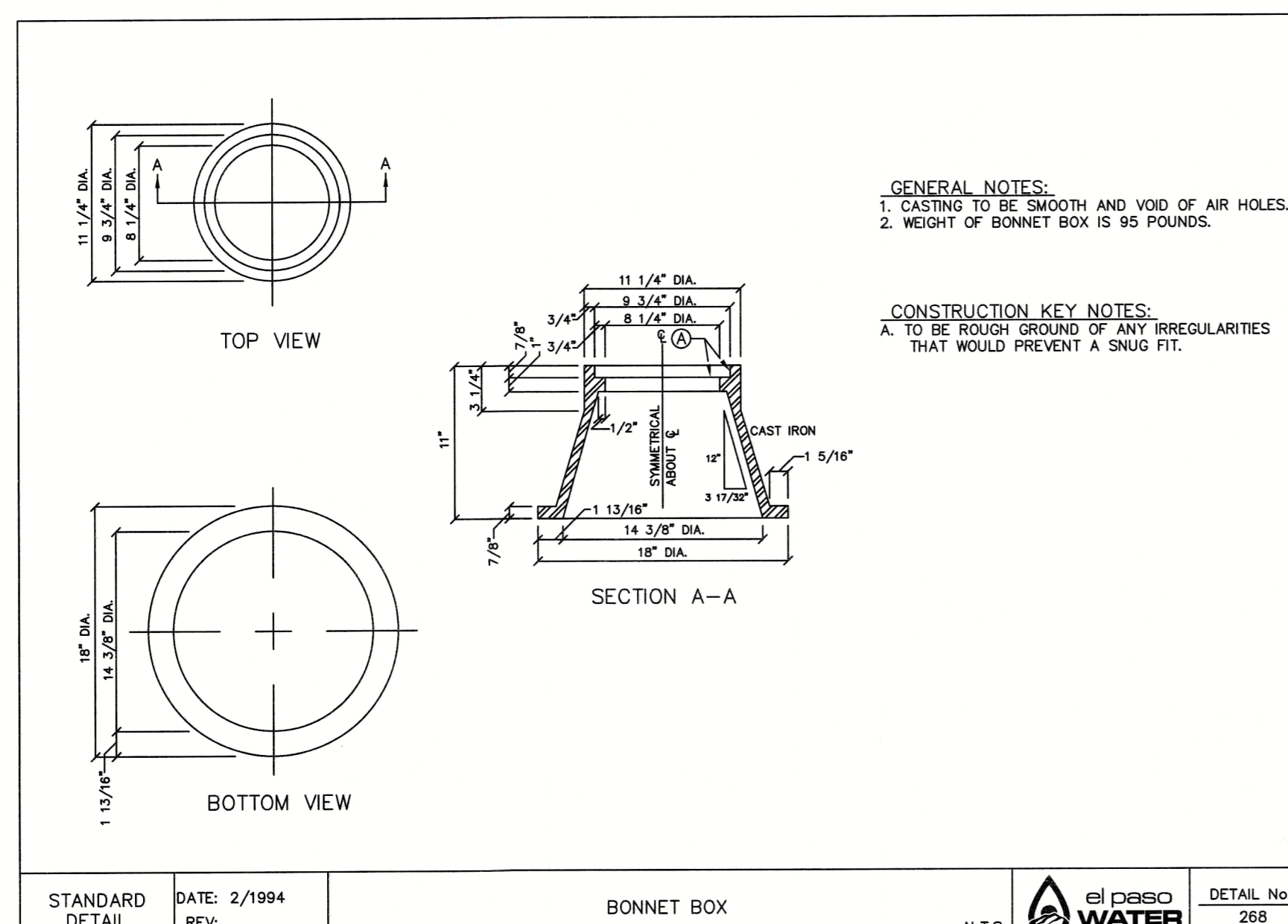
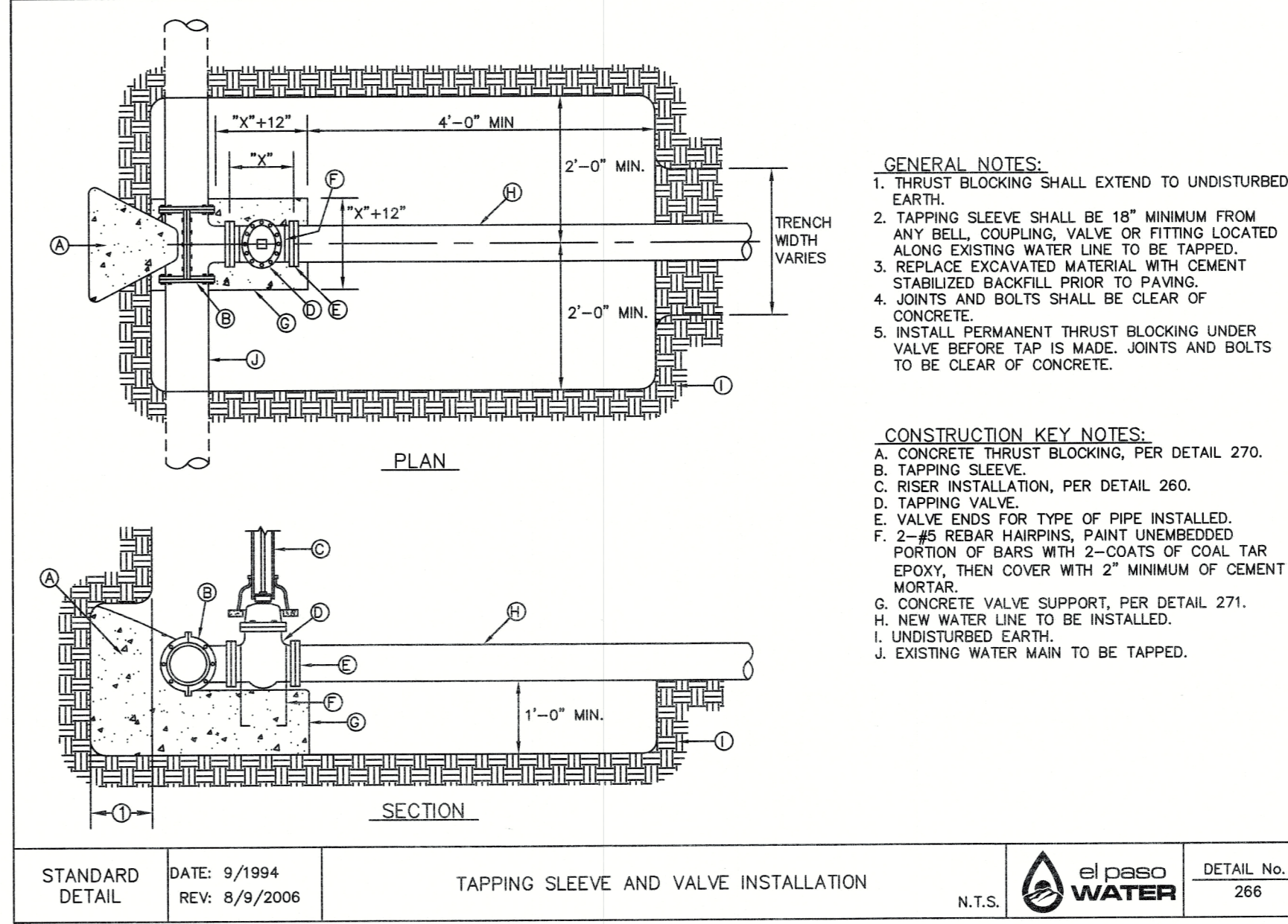
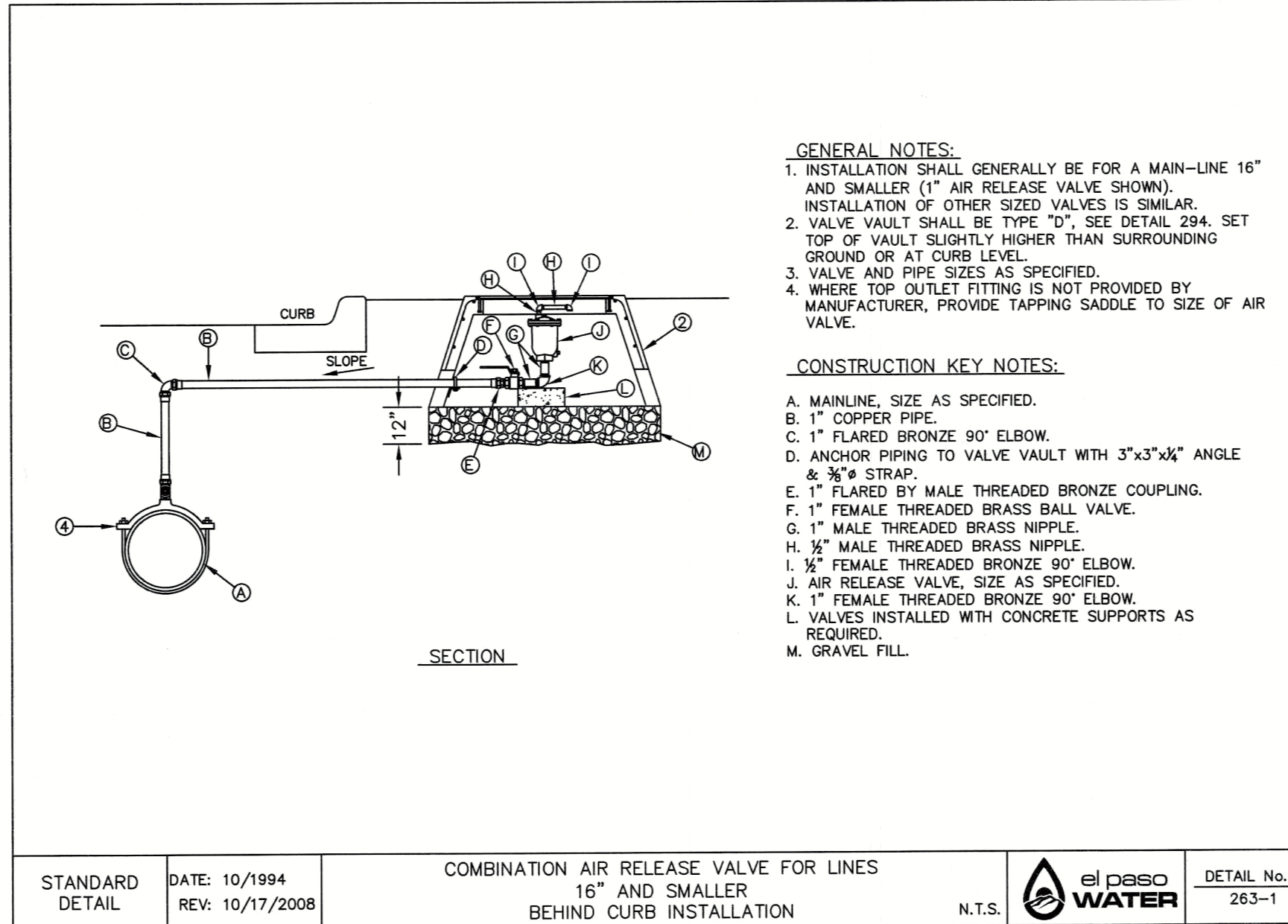
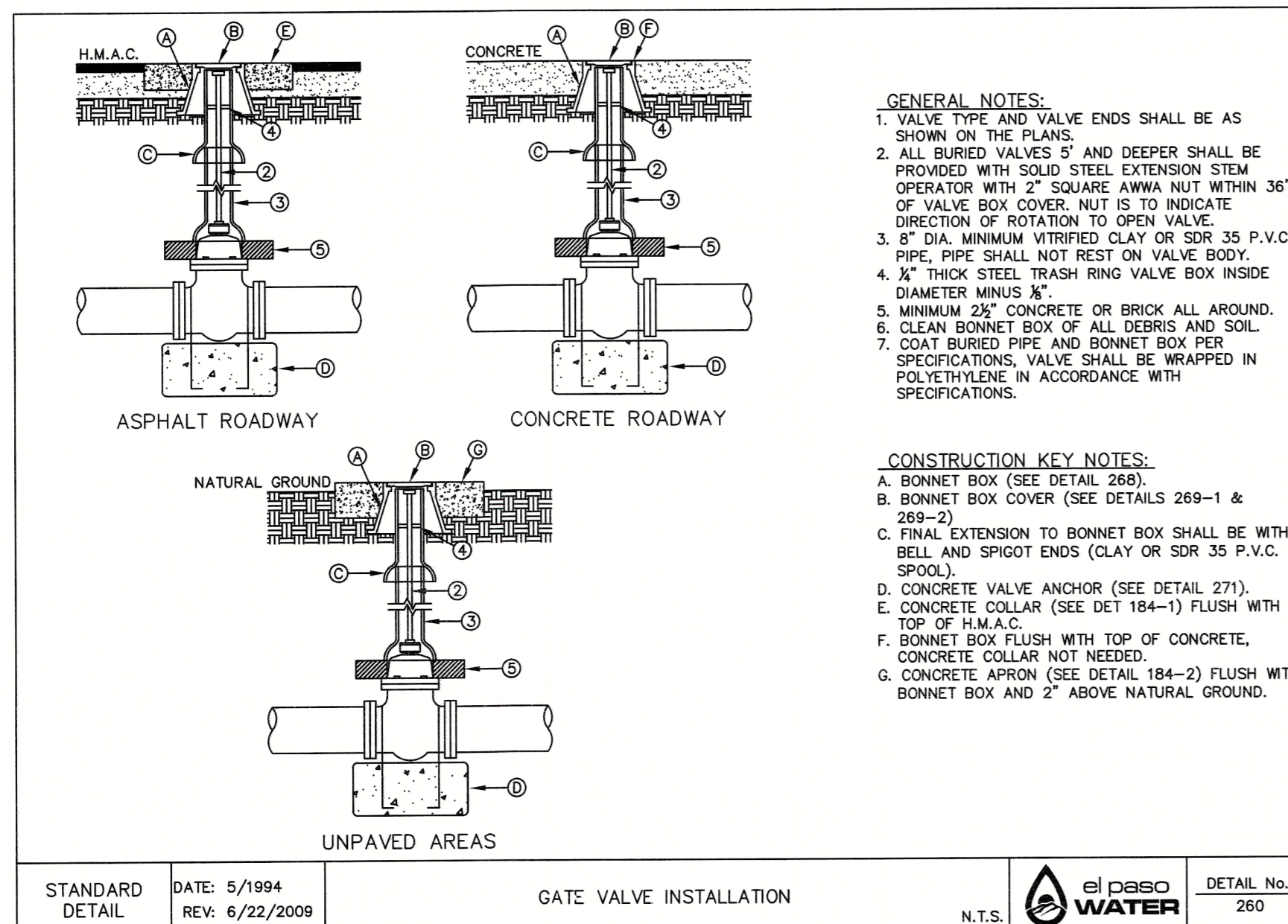
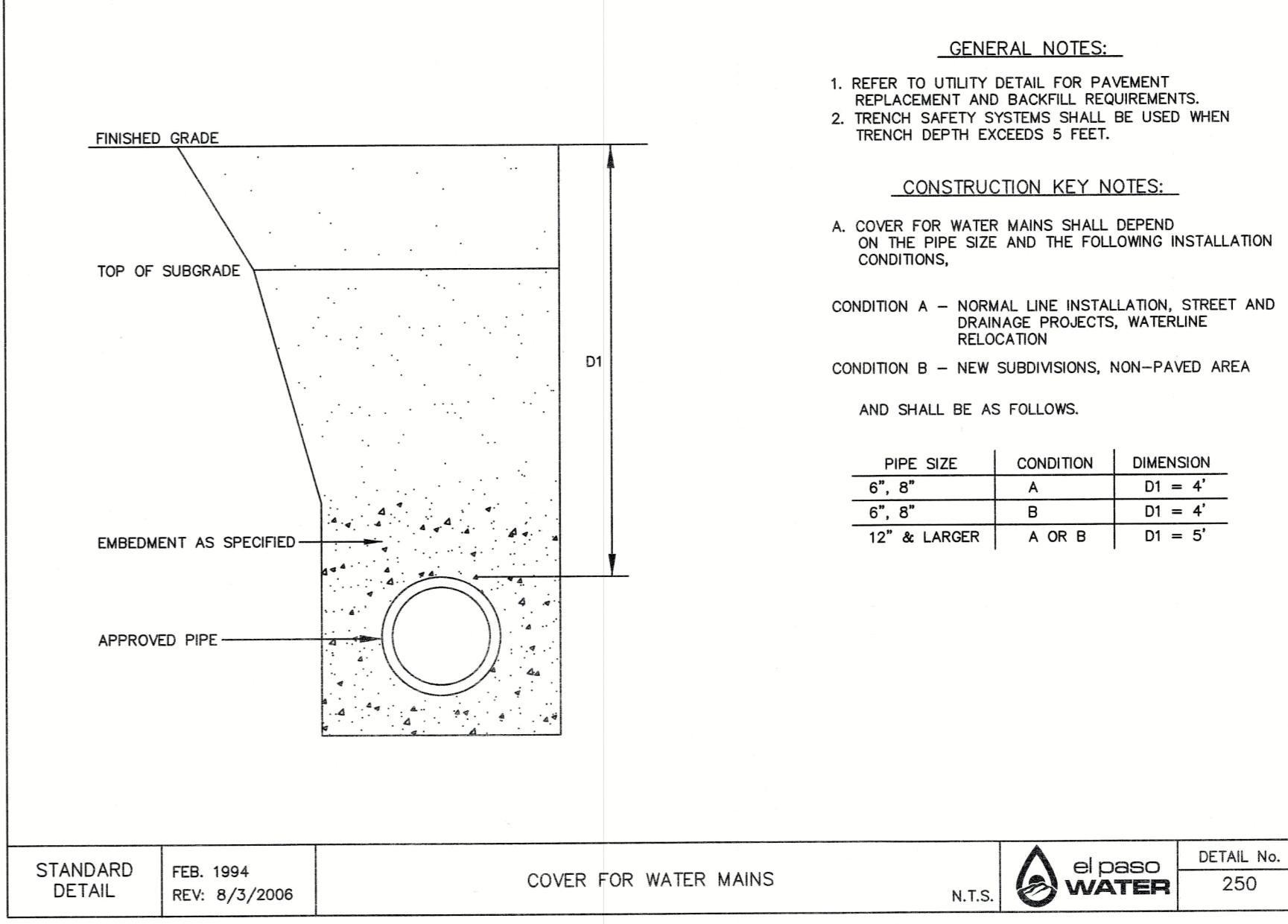
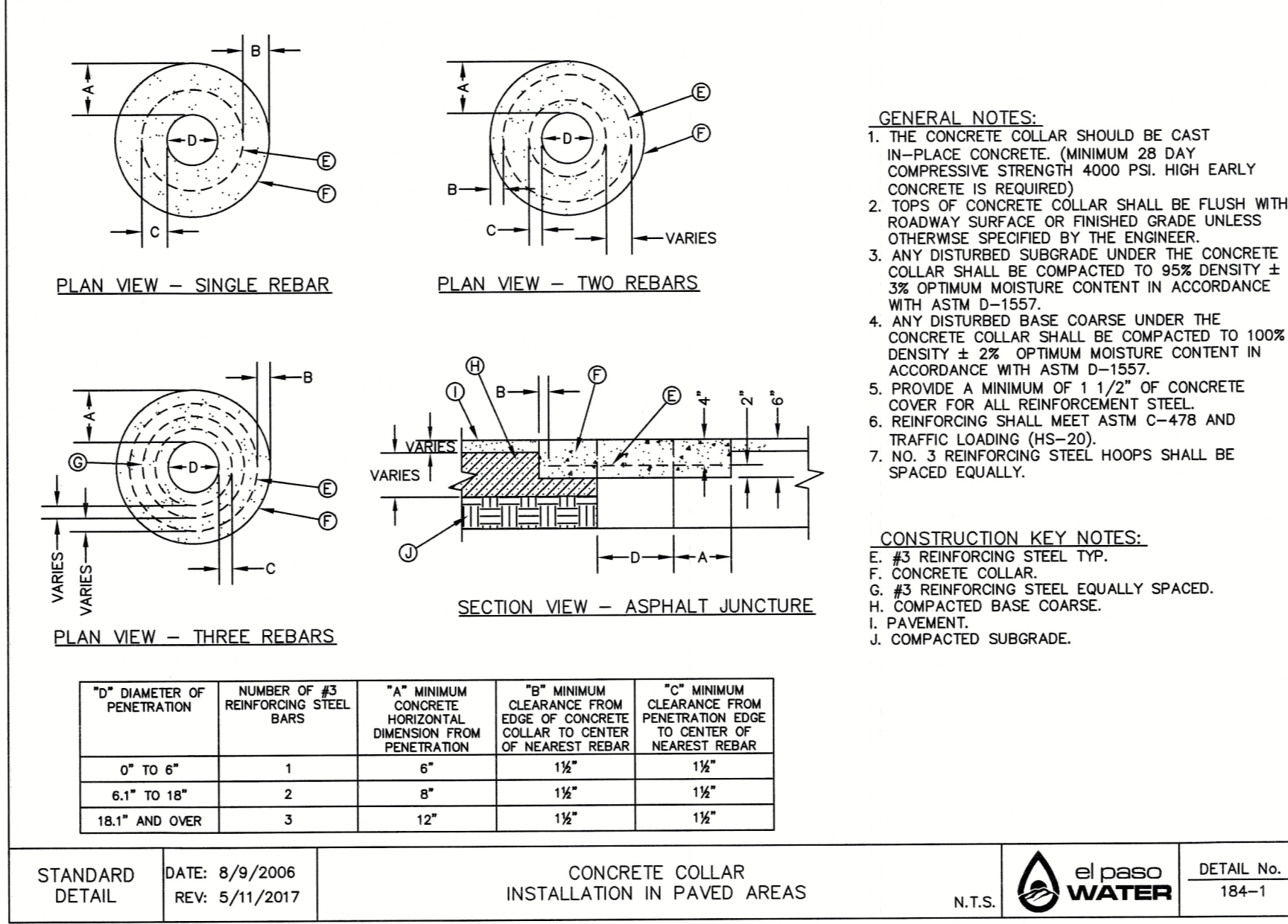
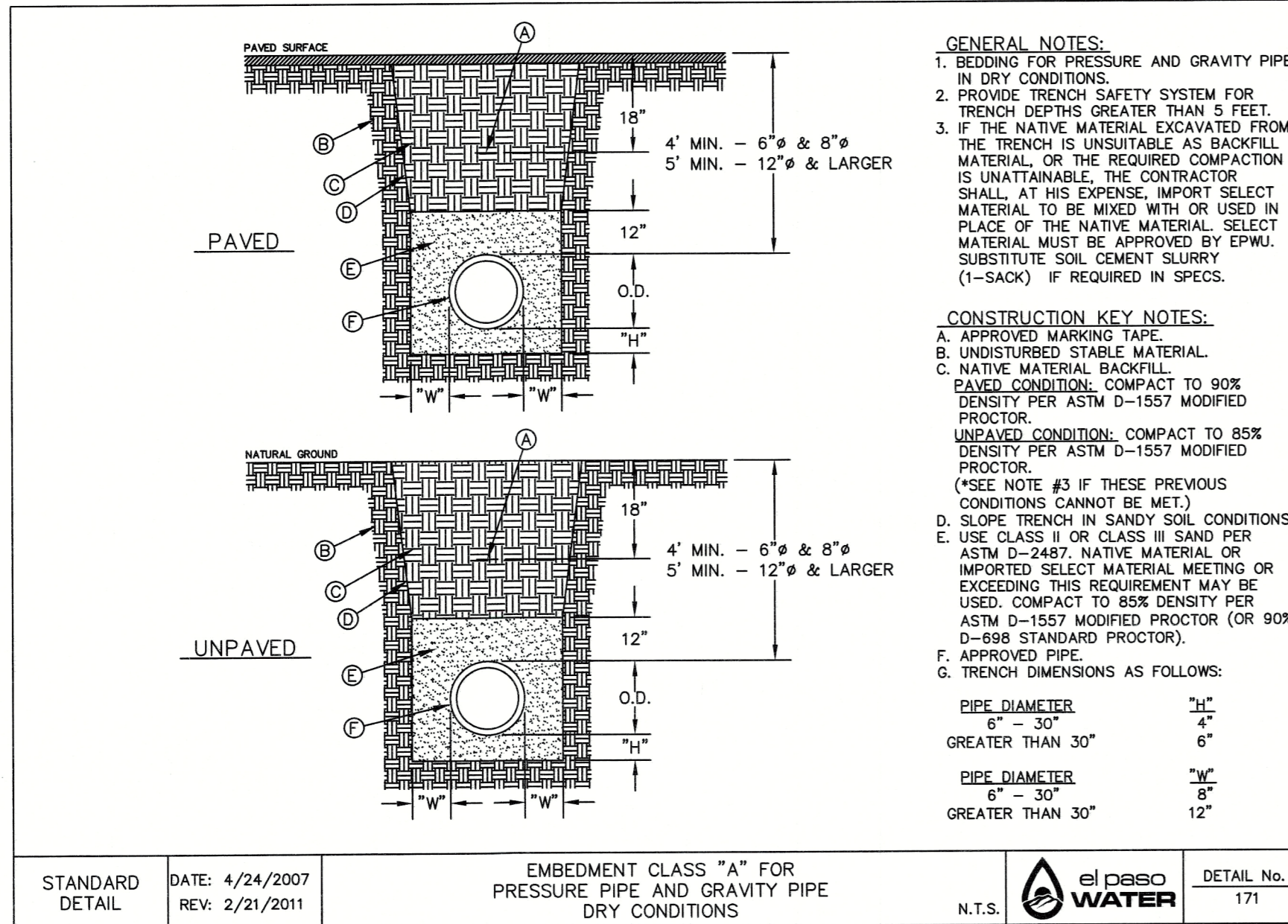


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WATER SERVICE PLAN
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK I, EPISODE E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES

Design By: SM/LU
Drawn By: LU/ME
Scale: 1"=40'
Project #: J18-070
Plot Date: 11/20/19
SHEET: C-32



Release Dates:
 Revisions:

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11/20/19
 S.B. MASOUD
 70774
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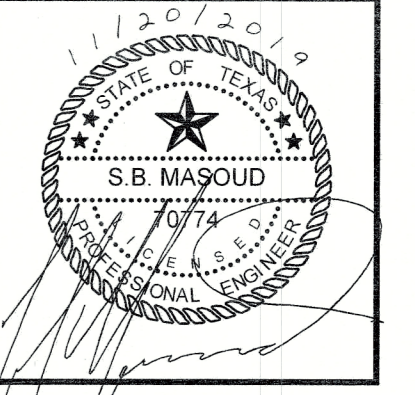
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EPWU WATER SERVICE DETAILS
 SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14,930 ACRES

Project #: J18-070
 Design By: SM/LU
 Plot Date: 11/20/19
 Drawn By: LUME
 Scale: AS SHOWN
 SHEET: C-33

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GENERAL NOTES:

- TABLE IS BASED ON 2000#/SQ. FT. SOIL. IF CONDITIONS ARE FOUND TO INDICATE SOIL BEARING IS LESS, THE AREAS SHALL BE INCREASED ACCORDINGLY.
- AREAS FOR PIPE LARGER THAN 18" SHALL BE CALCULATED.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2500 PSI.
- THRUST BLOCK IS TO EXTEND TO UNDISTURBED SOIL.
- SIZE MAY BE DECREASED FOR LESSER DEGREE BENDS AS DETERMINED BY ENGINEER.
- KEEP CONCRETE CLEAR OF M.J. OR BELL AND SPIGOT JOINTS.
- BLOCK IN A SIMILAR MANNER AT TEES, HYDRANTS, PLUG OR OTHER LOCATIONS AS REQUIRED.
- WHEN NECESSARY ADDITIONAL THRUST RESTRAINT METHODS MAY BE USED, SUCH AS MECHANICAL JOINT RESTRAINTS, TIE-RODS (INSTALLED PER MANUFACTURERS' RECOMMENDATIONS) OR OTHER APPROVED METHODS.

CONSTRUCTION KEY NOTES:

- LENGTH "Y" & "W" AS REQUIRED TO OBTAIN BEARING AREA AGAINST UNDISTURBED SOIL.
- ADDITIONAL EXCAVATION IF NECESSARY TO OBTAIN REQUIRED BEARING AREA.
- MINIMUM THRUST BLOCK AREA REQUIREMENTS FOR (Y & W) AS FOLLOWS:

PIPE SIZE	TEE, DEAD END 90° BEND	45° AND 1/2° BENDS
4" & LESS	3 SQ. FEET	3 SQ. FEET
6"	4 SQ. FEET	3 SQ. FEET
8"	6 SQ. FEET	3 SQ. FEET
10"	9 SQ. FEET	5 SQ. FEET
12"	13 SQ. FEET	7 SQ. FEET
16"	23 SQ. FEET	12 SQ. FEET
18"	29 SQ. FEET	15 SQ. FEET

STANDARD DETAIL DATE: 2/1994 REV: 8/7/2006 CONCRETE THRUST BLOCKING N.T.S. el paso WATER DETAIL No. 270

GENERAL NOTES:

- THE ENGINEER SHALL PROVIDE DESIGN FOR ALL VALVES GREATER THAN 12".
- COMPLY WITH REQUIREMENTS OF AWWA C-550, PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES.

CONSTRUCTION KEY NOTES:

- TWO No. 5 REBAR HAIR PINS, PAINT UNEMBEDDED PORTION OF REBARS WITH TWO COATS OF COAL TAR EPOXY.
- CONCRETE VALVE SUPPORT, 2500 PSI. CONCRETE.
- APPROVED PIPE.

STANDARD DETAIL DATE: 2/1994 REV: 12/12/2011 VALVE ANCHOR N.T.S. el paso WATER DETAIL No. 271

GENERAL NOTES:

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

CONSTRUCTION KEY NOTES:

- FIRE HYDRANT PER SPEC'S.
- PUMPER NOZZLE 4" TO BE FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED IN THE PLANS.
- HOSE NOZZLE 2 1/2".
- 3/4" x 8" CONC. SQ. PAD, TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONC. AREA.
- #10; 6/8 WWP.
- CONTROLLED ELEVATION LINE, LEVEL IN ALL DIRECTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF THE HYDRANT TO CONTROLLED ELEVATION.
- CONC. THRUST BLOCK, APPROX. 2' x 2' x 3' TO BE POURED AGAINST UNDISTURBED EARTH, F.H. WEEP HOLE MUST BE UNOBSTRUCTED.
- 2" x 1/4" STEEL ANCHOR PINS.
- TOP OF SLAB SHALL BE AT CURB LEVEL, 4" TO 6" BELOW THE BREAK LINE OF THE HYDRANT.
- MAXIMUM OF ONE (1) SPOOL EXTENSION ALLOWED TO MAINTAIN THE CONTROLLED ELEVATION LINE TO TOP OF SLAB. ADDITIONAL ADJUSTMENT MUST BE MADE WITH OFFSETS & FITTINGS AS NEEDED.
- REQUIRED - DAVIDSON ANTI TERRORISM CORROSION RESISTANT VALVE KIT (DATV).

STANDARD DETAIL DATE: 2/1993 REV: 5/8/2017 FIRE HYDRANT INSTALLATION N.T.S. el paso WATER DETAIL No. 280-1

GENERAL NOTES:

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

STANDARD DETAIL FEB. 1993 REV: FEB. 1994 FIRE HYDRANT CAP N.T.S. el paso WATER DETAIL No. 281

GENERAL NOTES:

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

STANDARD DETAIL DATE: 5/1994 REV: 5/8/2017 FIRE HYDRANT LOCATIONS N.T.S. el paso WATER DETAIL No. 282

GENERAL NOTES:

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

CONSTRUCTION KEY NOTES:

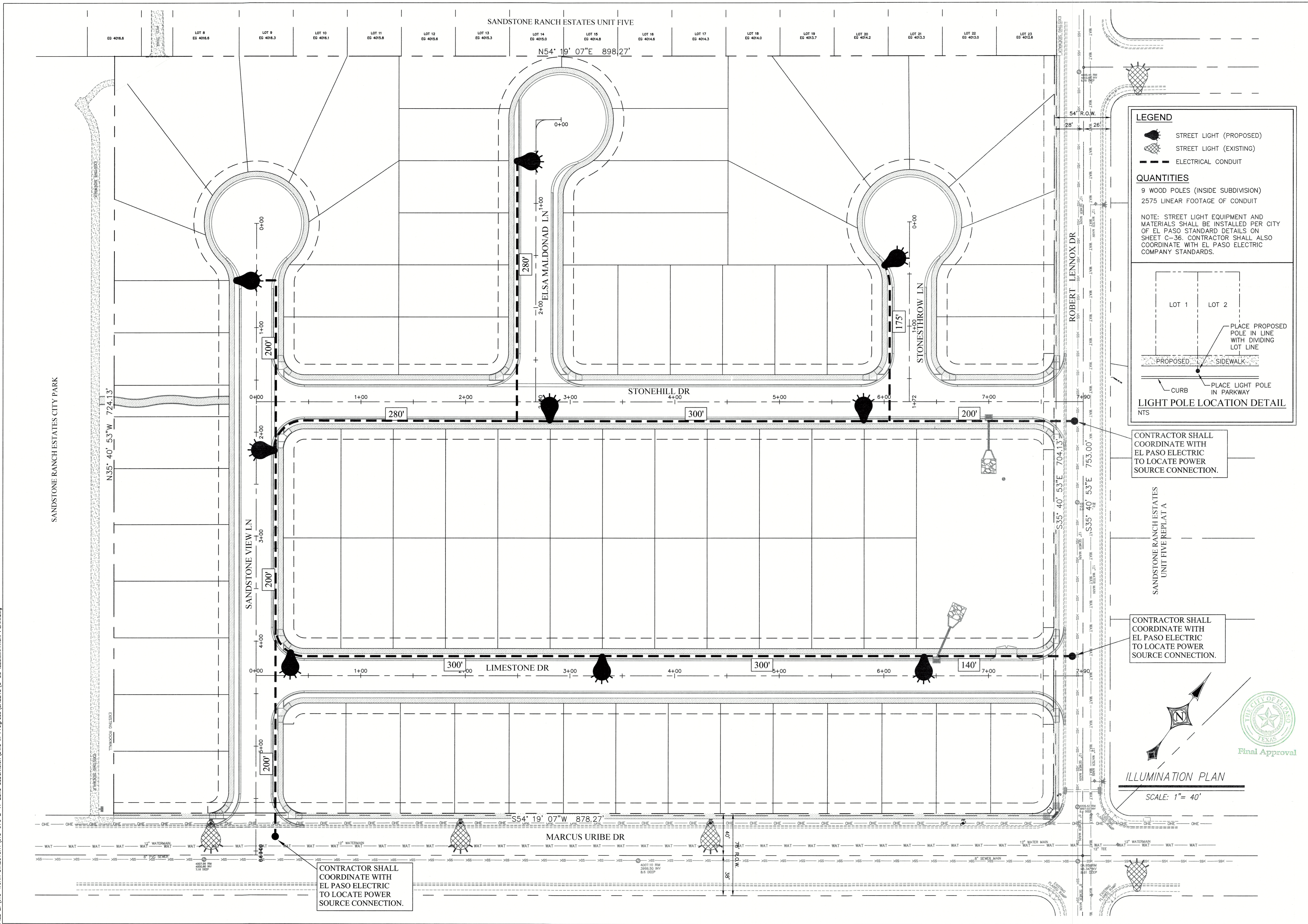
- METER BOX TYPE "A" (SEE DETAILS 291 & 292) SHALL BE SET SLIGHTLY HIGHER THAN SURROUNDING GROUND OR AT CURB LEVEL.
- 3/4" ANGLE SERVICE VALVE.
- WATER METER (CENTER INSIDE METER BOX).
- WHEN REQUIRED BY EPWU, A DUAL CHECK BACKFLOW PREVENTER SHALL BE INSTALLED ON THE OUTLET SIDE OF THE METER.
- END FLARE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

STANDARD DETAIL DATE: 12/1994 REV: 5/2/2007 SERVICE LINE 3/4" AND 1" INSTALLATION BY EPWU N.T.S. el paso WATER DETAIL No. 290-1

EPWU WATER SERVICE DETAILS
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK 1 EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES

Project #: J18-070
Plan Date: 11/20/19
SHEET: C-34
Design By: SM/LU
Drawn By: LU/ME
Scale: AS SHOWN



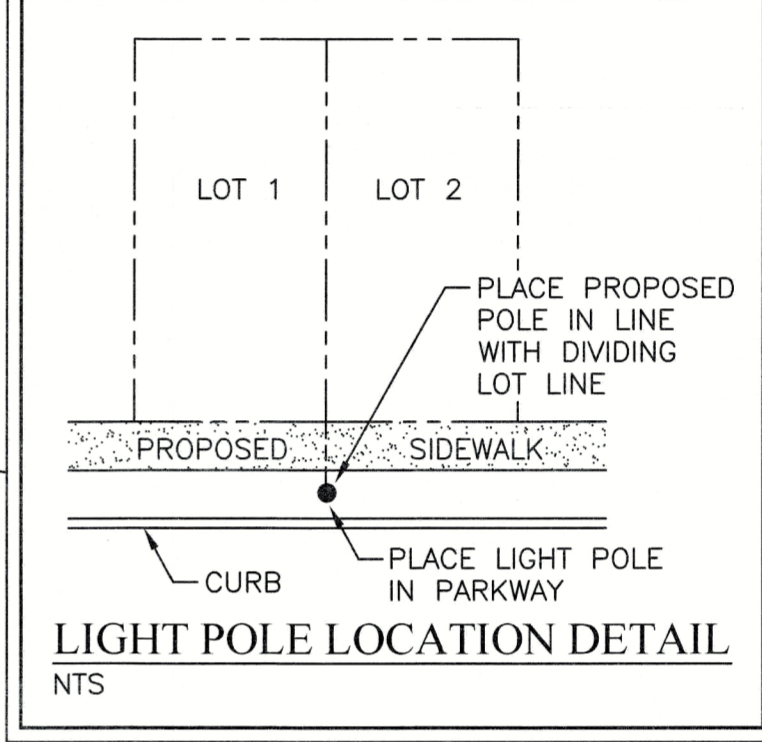


LEGEND

- STREET LIGHT (PROPOSED)
- STREET LIGHT (EXISTING)
- ELECTRICAL CONDUIT

QUANTITIES
 9 WOOD POLES (INSIDE SUBDIVISION)
 2575 LINEAR FOOTAGE OF CONDUIT

NOTE: STREET LIGHT EQUIPMENT AND MATERIALS SHALL BE INSTALLED PER CITY OF EL PASO STANDARD DETAILS ON SHEET C-36. CONTRACTOR SHALL ALSO COORDINATE WITH EL PASO ELECTRIC COMPANY STANDARDS.



CONTRACTOR SHALL COORDINATE WITH EL PASO ELECTRIC TO LOCATE POWER SOURCE CONNECTION.

SANDSTONE RANCH ESTATES UNIT FIVE REPLAT A

CONTRACTOR SHALL COORDINATE WITH EL PASO ELECTRIC TO LOCATE POWER SOURCE CONNECTION.

CONTRACTOR SHALL COORDINATE WITH EL PASO ELECTRIC TO LOCATE POWER SOURCE CONNECTION.

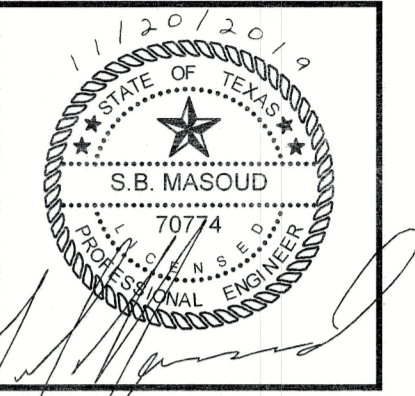
CONTRACTOR SHALL COORDINATE WITH EL PASO ELECTRIC TO LOCATE POWER SOURCE CONNECTION.

ILLUMINATION PLAN
 SCALE: 1" = 40'

CONTRACTOR SHALL COORDINATE WITH EL PASO ELECTRIC TO LOCATE POWER SOURCE CONNECTION.

Release Dates:

Revisions:



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DRE Del Rio Engineering, Inc.
 P.O. Box 220251 El Paso, Texas 79913 915833-2400 TDEP Firm #: F-1093
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ILLUMINATION PLAN
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070
Design By:	SM/LU
Plot Date:	11/20/19
Drawn By:	LU/ME
Scale:	1"=40'
SHEET:	C-35

FILE Z:\18-WORK DIRECTOR\118-070 E-17 Land Subdivision\DWG in Progress\SHEETS\C-36 ILLUM-DTL.S.dwg

The Subdivider shall furnish and install street lights along all public and private streets, whether within the corporate limits or within the extraterritorial jurisdiction. Such street lights shall comply with the City of El Paso lighting ordinance found at Chapter 18.18 of the El Paso Municipal Code. The following standards shall apply in determining the number of street lights required, and are based on approved standards of the American National Standards Institute and the Illuminating Engineering Society of North America, a copy of which is maintained by the City Engineer:

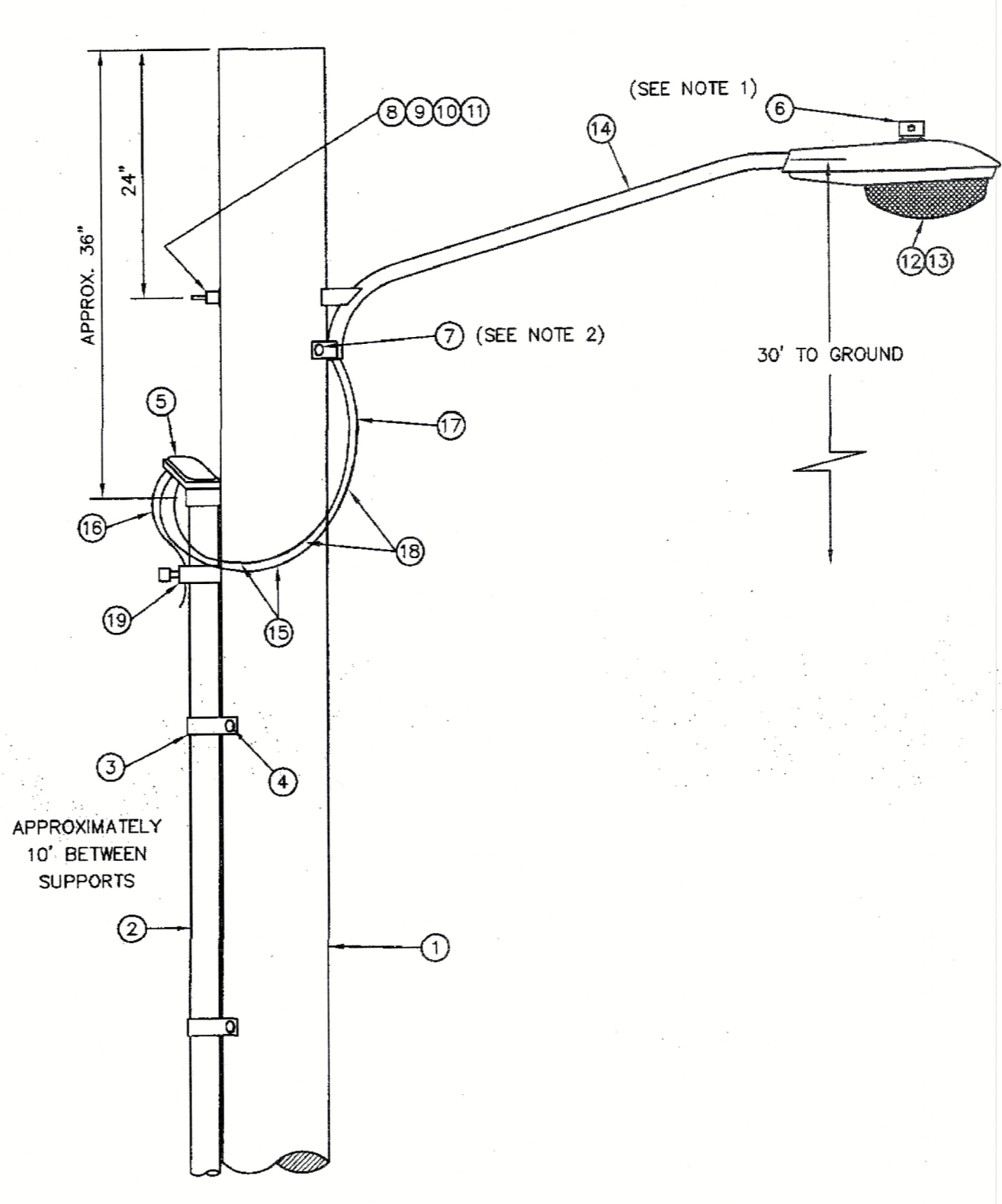
Street Type	Required Spacing	Pole Type	Lamp Type	Height
Local streets	At intervals of not more than three hundred feet (300')	Wood or Metal	100 watt high pressure sodium	30 feet
Collector arterials	At intervals of not more than three hundred feet (300')	Wood or Metal	100 watt high pressure sodium	30 feet




TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

RESIDENTIAL STREET LIGHTING
8-1

Approved By: R. A. SHUBERT Checked By: H. M. E.
Date: JUNE 03, 2008 Drawn By: OEC/J.R.

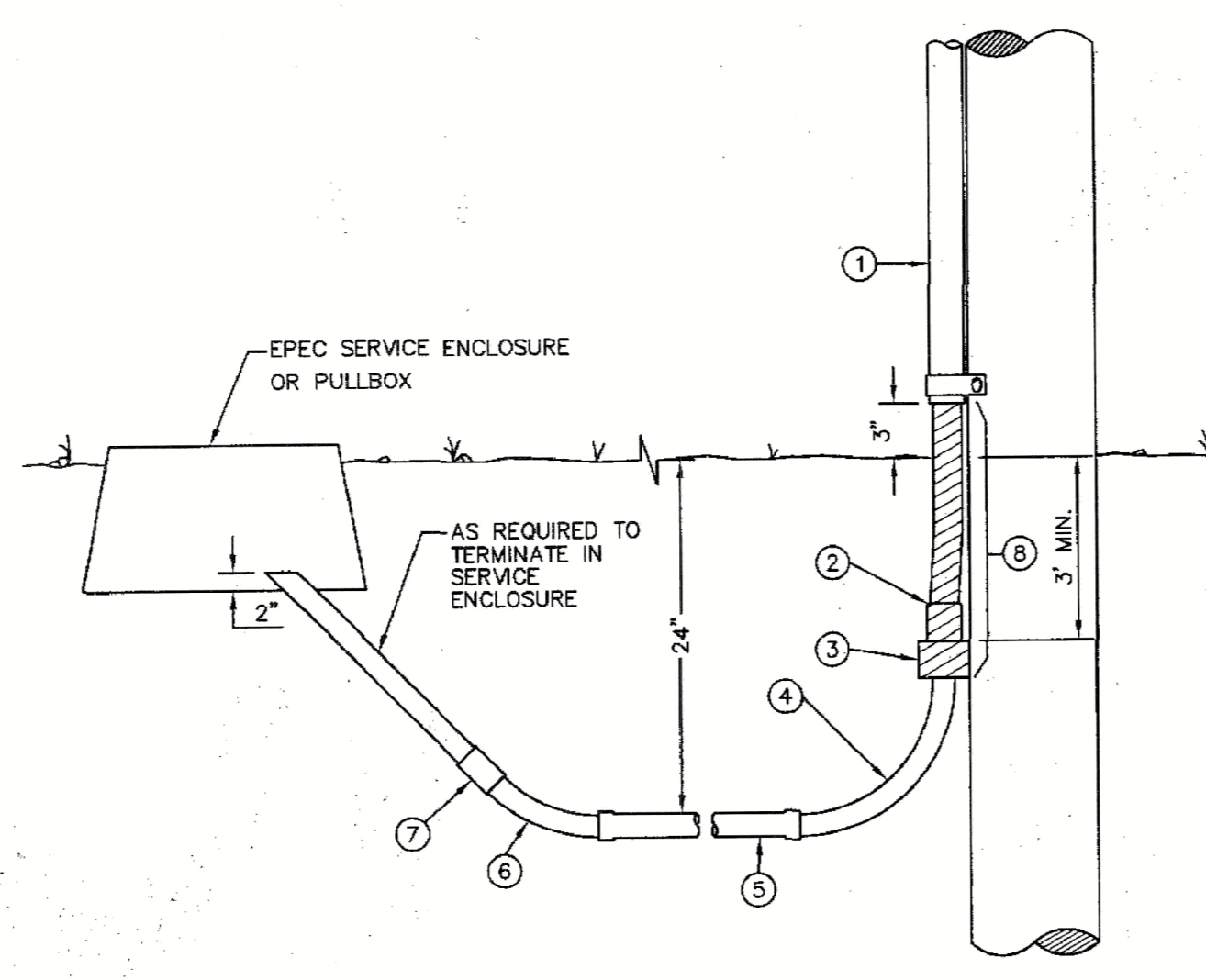




TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION


RESIDENTIAL STREET LIGHT WOOD POLE
8-2

Approved By: R. A. SHUBERT Checked By: H. M. E.
Date: JUNE 03, 2008 Drawn By: OEC/J.R.



KEY NOTES:

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



TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

RESIDENTIAL STREET LIGHT WOOD POLE
(connection to service enclosure)
8-3

Approved By: R. A. SHUBERT Checked By: H. M. E.
Date: JUNE 03, 2008 Drawn By: OEC/J.R.


ITEM No.	DESCRIPTION	STOCK No.	QTY.
1	POLE, 35 FT.-CLASS IV	009-035	1
2	GALVANIZED RIGID 1/2" CONDUIT	017-292	3
3	PIPE STRAP FOR 1/2" CONDUIT, 2-HOLE	017-334	7
4	LAG BOLT, 1/4" x 2"	002-330	6
5	WEATHERHEAD, 1/2" CONDUIT	017-293	1
6	PHOTOCELL, 240V-SEE NOTE 1	021-225	1
7	LAG BOLT, 1/2" x 4"	002-370	2
8	MACHINE BOLT, 5/8" x 8"	002-450	1
9	SQUARE GALV. WASHER, 2-1/4"x2"-1/4"	002-760	1
10	COIL-SPRING WASHER, 5/8"	002-786	1
11	LOCKNUT, 5/8"	002-705	1
12	LUMINAIRE, 100W H. P. S.	021-335	1
13	HPS LAMP, 100W	021-085	1
14	MAST ARM, 6' x 1-1/4"	021-200	1
15	COPPER CABLE, #12, 19 STRAND, 600 V	013-665	
16	COPPER CABLE, #12, SOLID, 600 V, GREEN	013-701	
17	CABLE, #10, 2 CONDUCTOR, 600 V, UF	013-600	8
18	SLEEVES, #12-10	005-140	2
19	GROUNDING CLAMP	021-215	1

KEYNOTES

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

DESIGN NOTES

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



TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

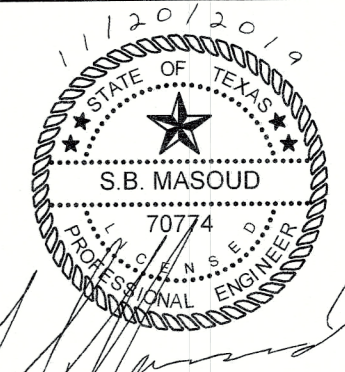
RESIDENTIAL STREET LIGHTING MATERIAL LIST
8-4

Approved By: R. A. SHUBERT Checked By: H. M. E.
Date: JUNE 03, 2008 Drawn By: OEC/J.R.

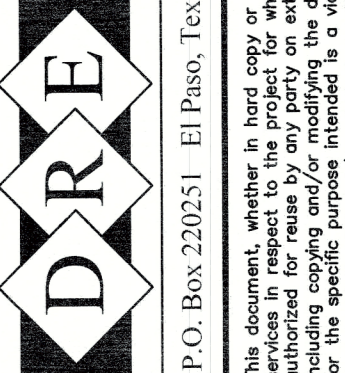

 Final Approval

Release Dates:
Revisions:

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SAL B. MASOUD, P.E. 70774. ALTERATIONS OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.



All drawings submitted in relation to this project, Architectural, Civil, Mechanical, Structural, Electrical, Landscaping, etc. are interrelated. The Contractor and Subcontractors shall review and coordinate the Entire Set of drawings and project specifications. The Contractor shall be responsible for verifying all data shown on the plans. If discrepancies are found, the Contractor shall notify the owner or Engineer immediately so that proper corrections can be made.



Del Rio Engineering, Inc.
P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TBP# Firm #: F-1093

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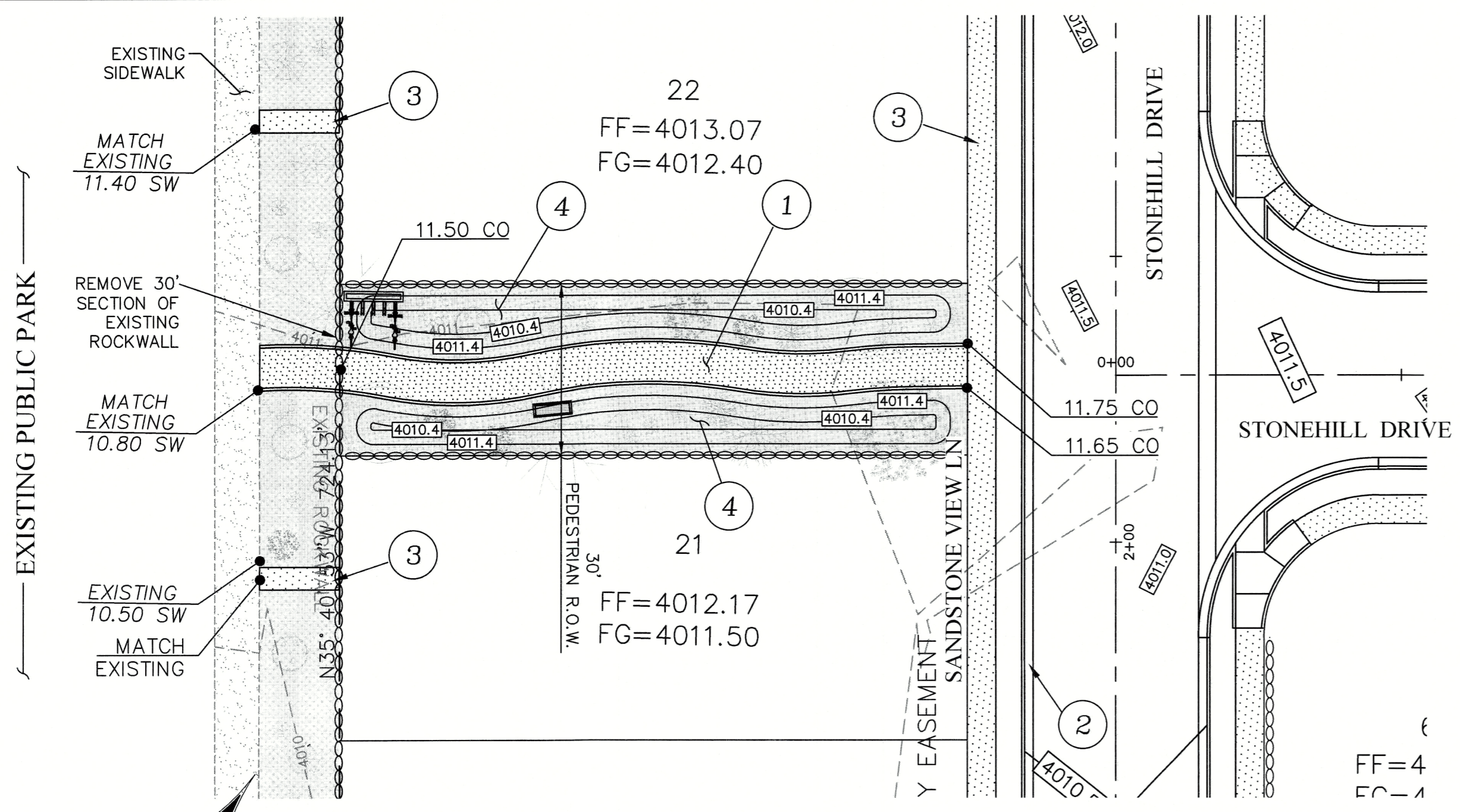
ILLUMINATION DETAILS

SANDSTONE VIEW SUBDIVISION

BEING LOT 1, BLOCK I, EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14,930 ACRES

Project #:	J18-070	Design By:	SM/LU
Plot Date:	11/20/19	Drawn By:	LU/ME
SHEET:	C-36	Scale:	AS NOTED

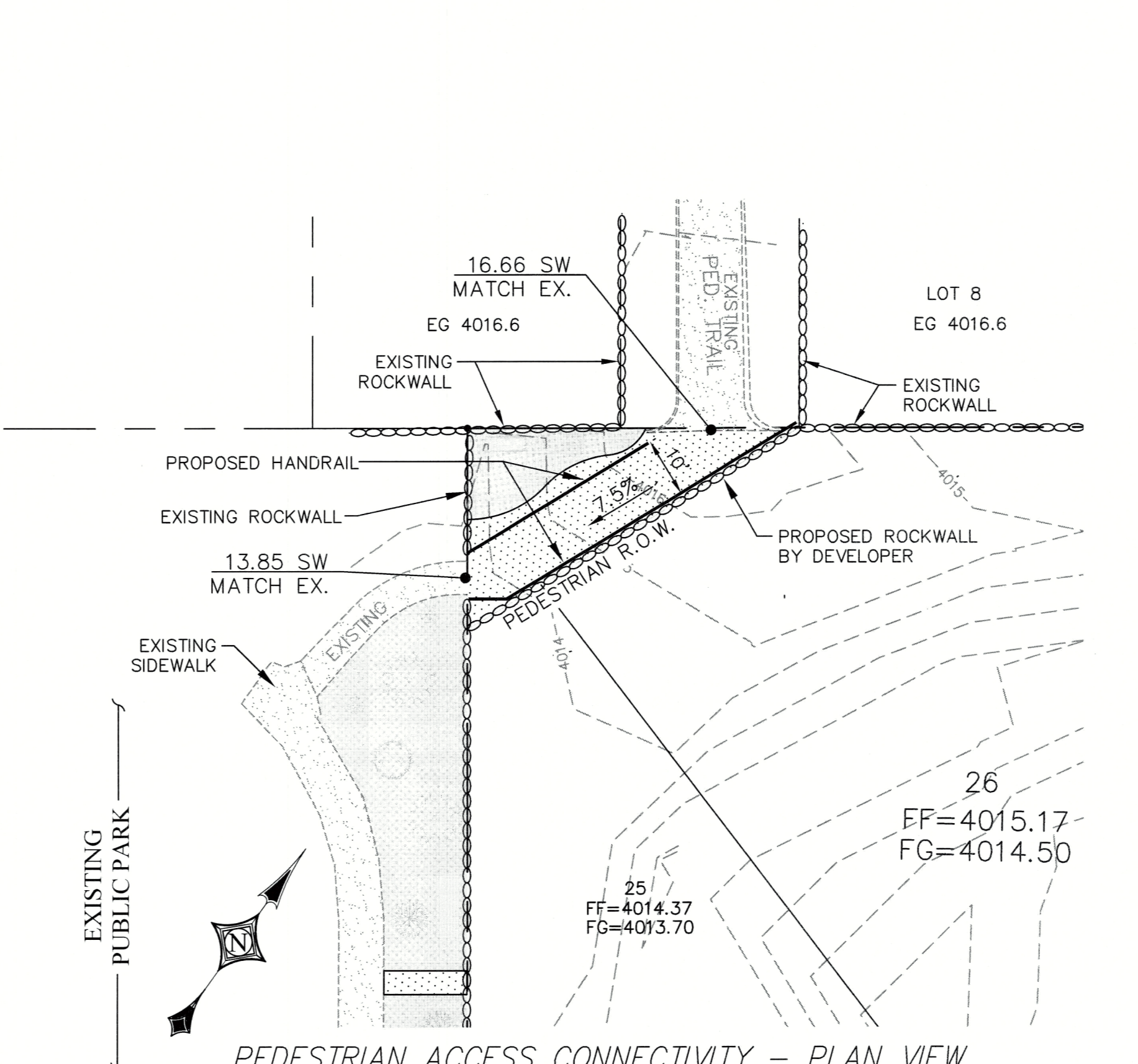
FILE 2: VIB-WORK DIRECTORY-VIB-070 E-17 Land Subdivision-VIB in Progress-SHEETS-C-37 PARKWAY PLAN AND DETAILS.dwg



PEDESTRIAN ACCES TO PARK - PLAN VIEW

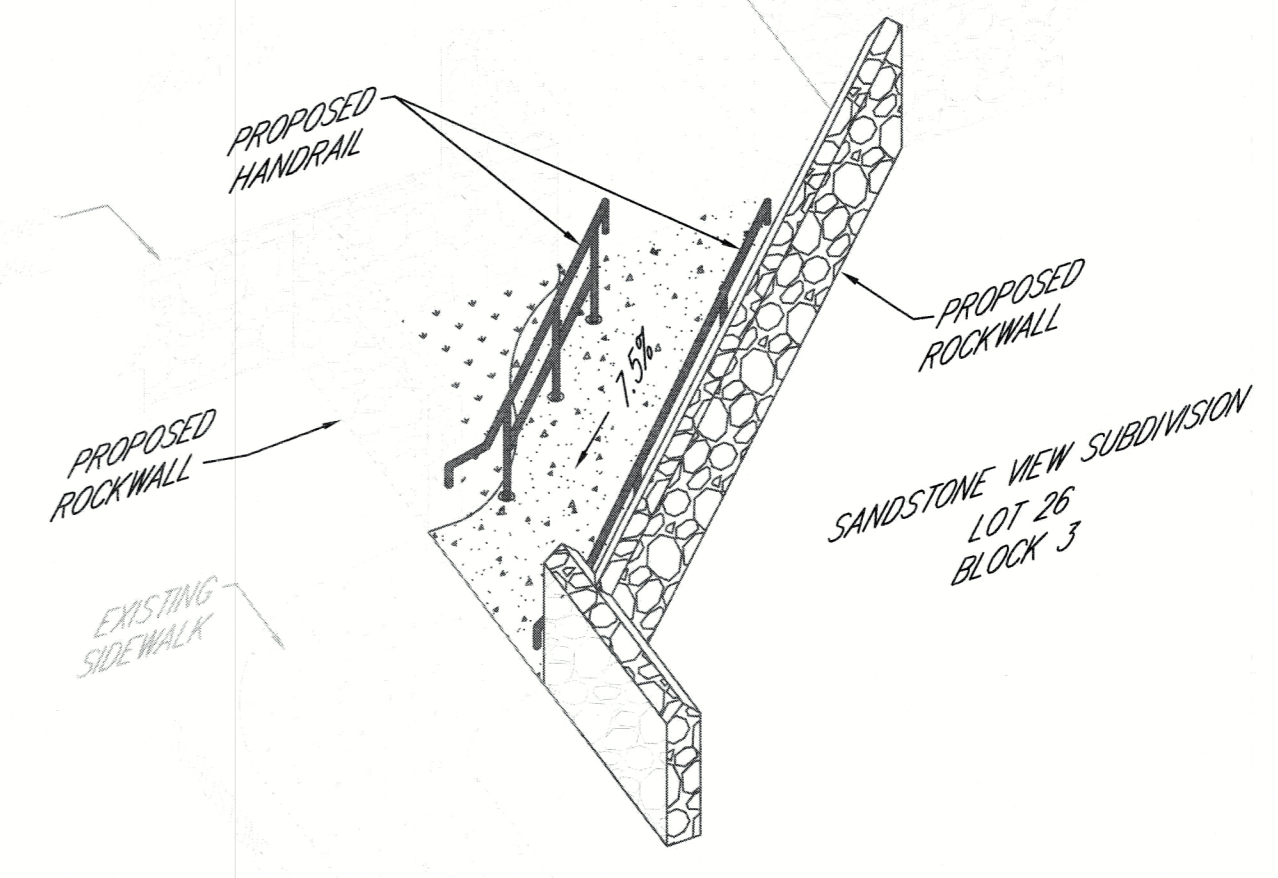
SCALE: 1" = 20'

- LEGEND**
- ① INSTALL PEDESTRIAN PATH PER DETAIL 6-19 ON THIS SHEET.
 - ② PROPOSED CURB AND GUTTER
 - ③ 5' PROPOSED SIDEWALK
 - ④ GRADE 12" DEEP HARVESTING PONDS PER ELEVATIONS SHOWN. PROPOSED LANDSCAPE BY OTHERS



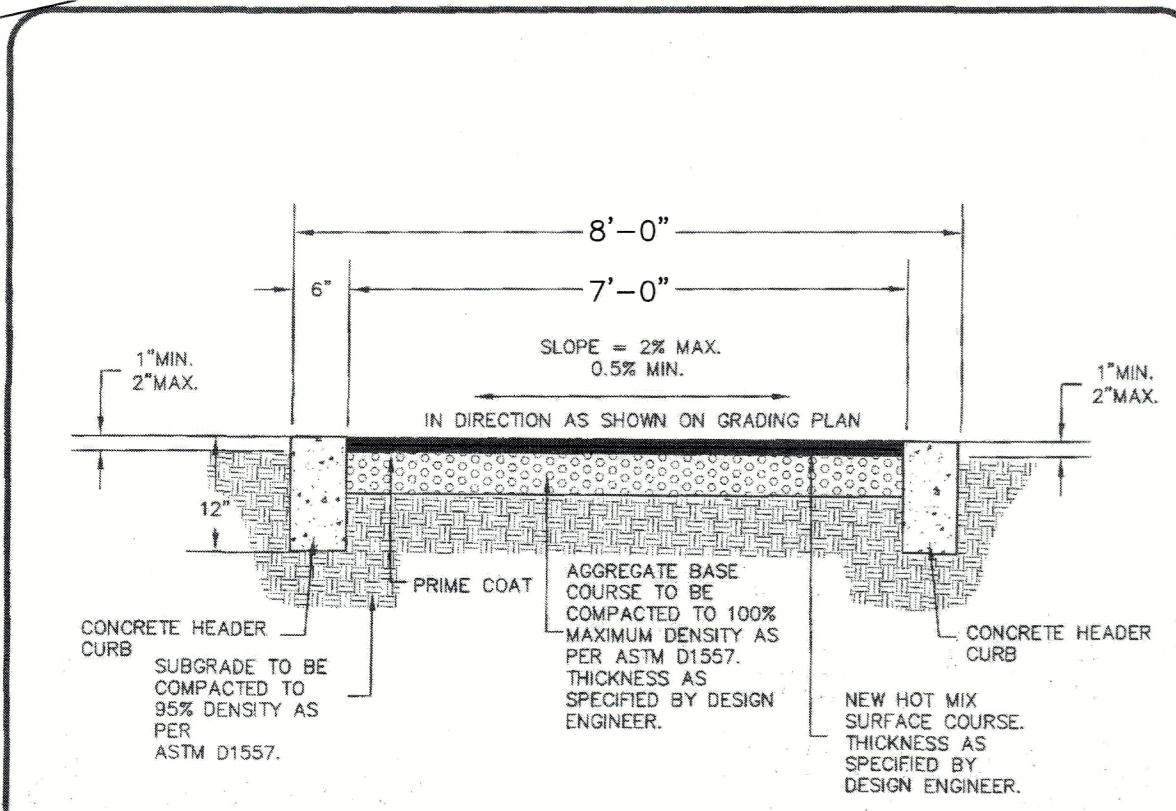
PEDESTRIAN ACCESS CONNECTIVITY - PLAN VIEW

SCALE: 1" = 20'



3D VIEW

SCALE: N.T.S.



ASPHALTIC WALKWAY/JOGGING PATH

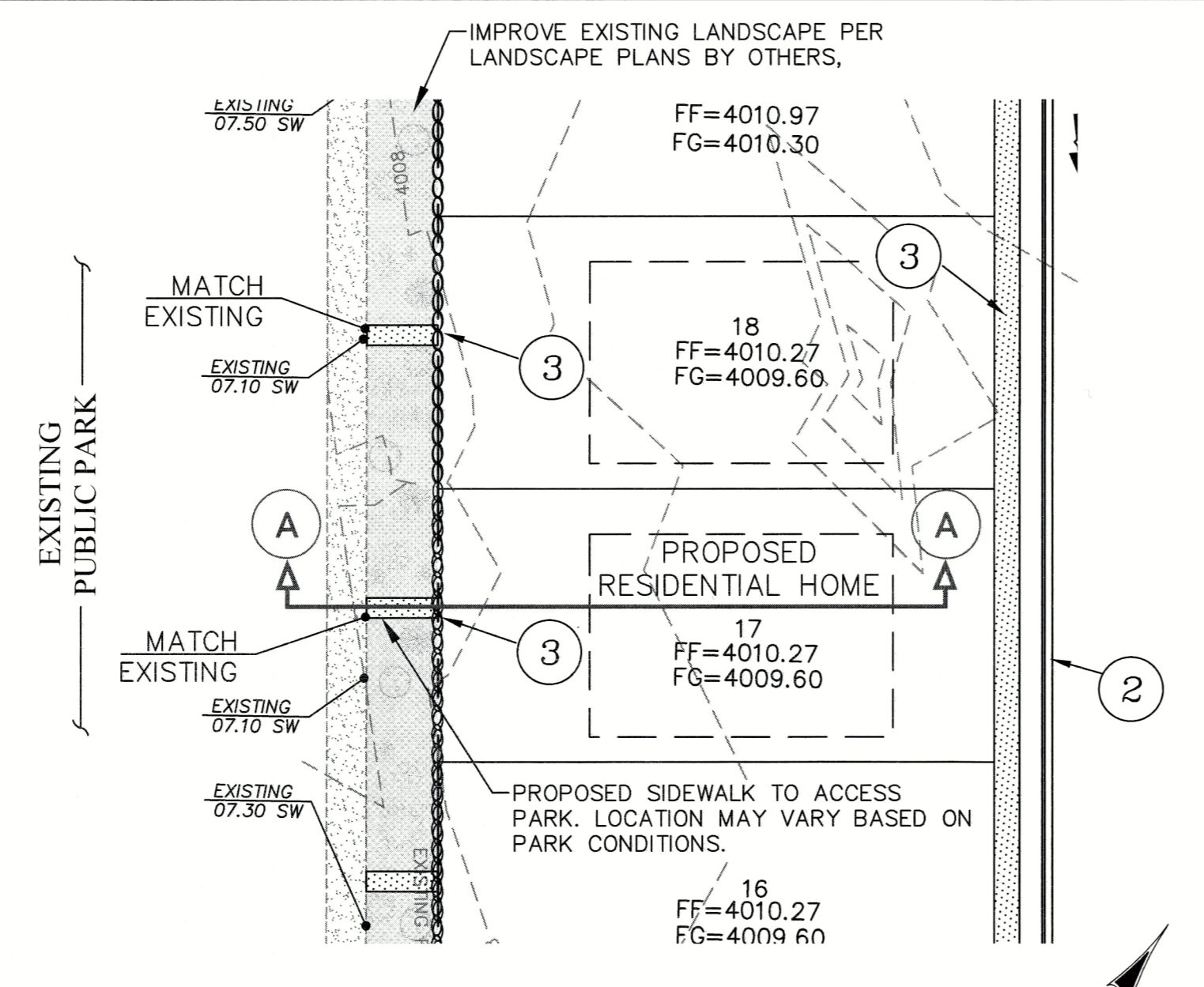
SCALE: N.T.S.

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

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
 DESIGN STANDARDS FOR CONSTRUCTION

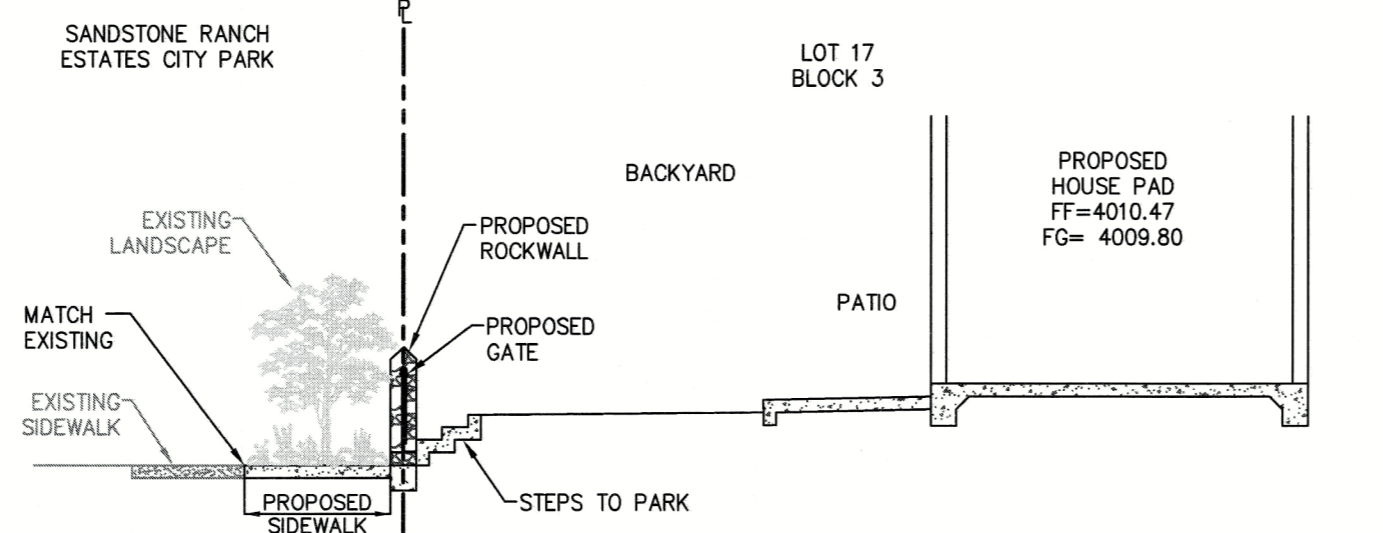
ASPHALTIC WALKWAY/JOGGING PATH
 6-19

Approved By: *[Signature]* Checked By: *[Signature]*
 Date: JUN 03, 2008 Drawn By: CEC, J.R.



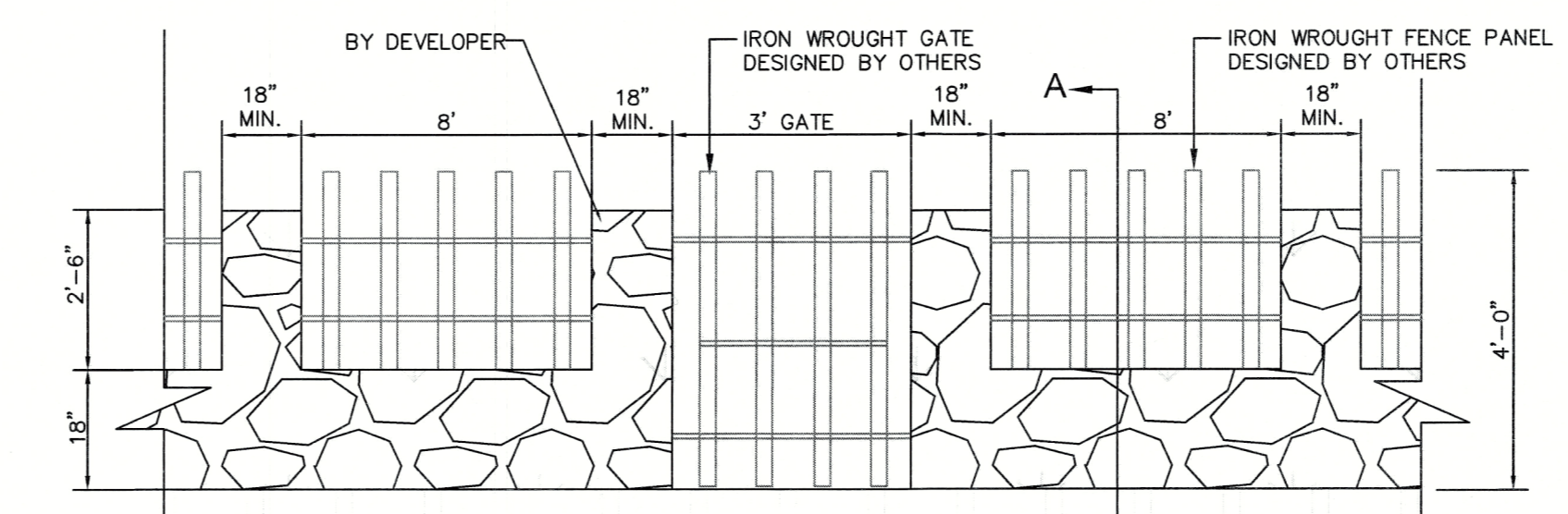
PARK ACCESS FROM RESIDENTIAL HOME

SCALE: 1" = 30'



CROSS SECTION "A-A"

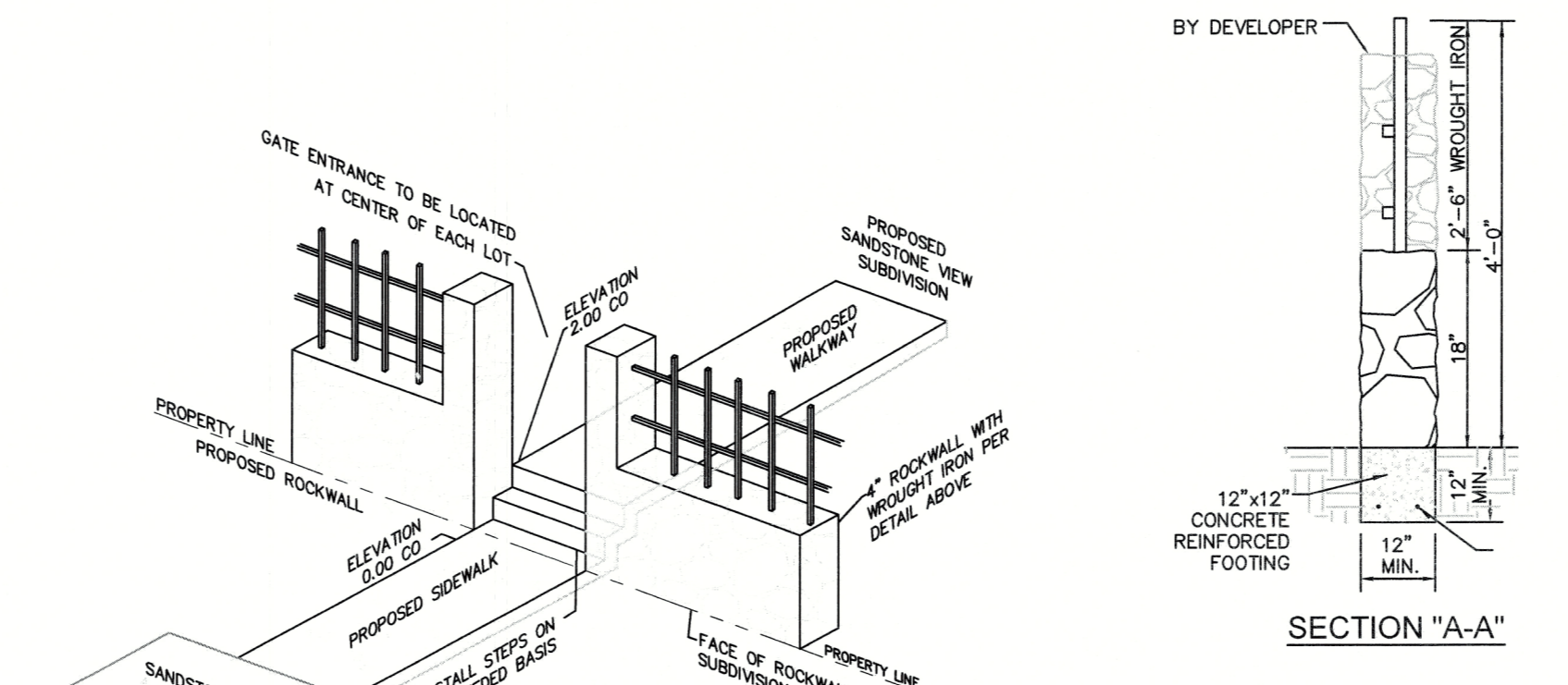
SCALE= NTS



NOTE: CONTRACTOR SHALL INSTALL MOUNTING SUPPORT OR RE-INFORCEMENT BASED ON GATE AND PANEL DESIGN.

4' ROCK WALL WITH WROUGHT IRON DETAIL

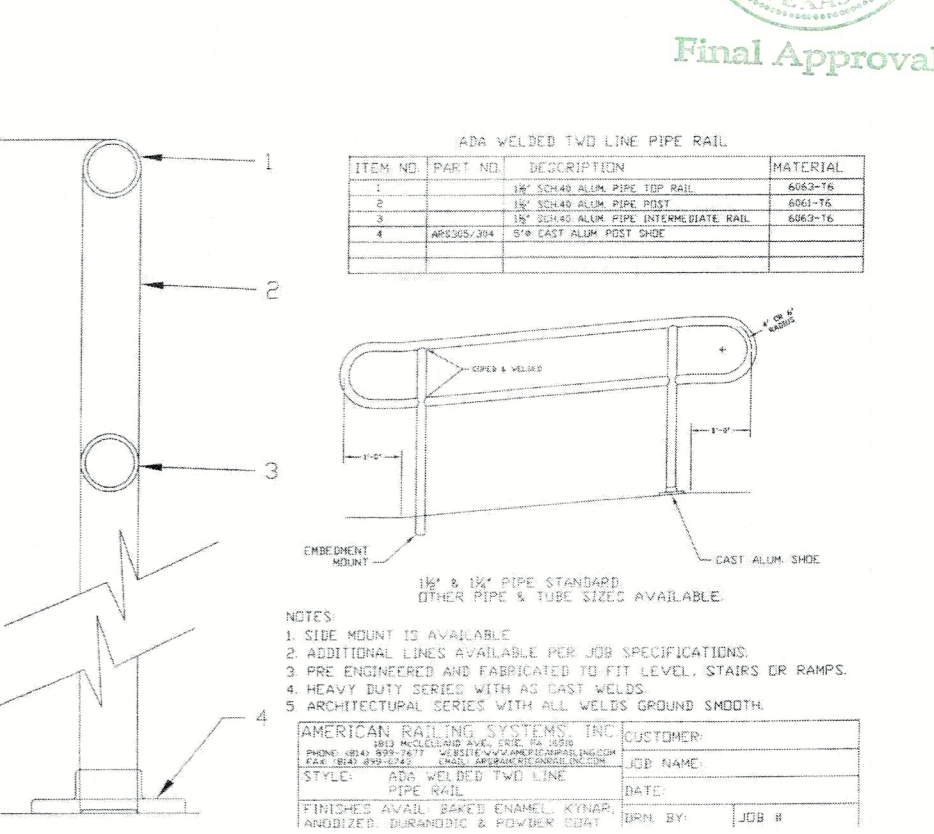
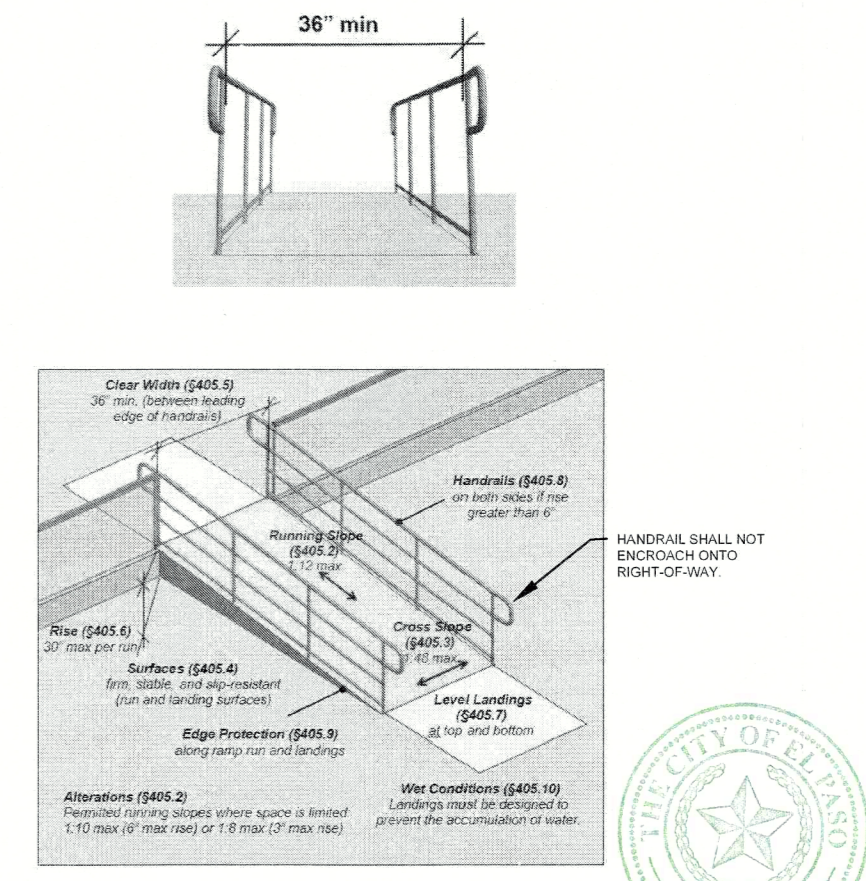
SCALE= NTS



INSET "A"

SCALE= NTS

NOTE:
 ROCKWALL AND WROUGHT IRON GATES AT THE LOTS ADJACENT TO PARK SHALL BE INCLUDED IN THE COVENANT NOT TO BE REMOVED OR ALTERED TO MAINTAIN THE OPEN VIEW LOOK.

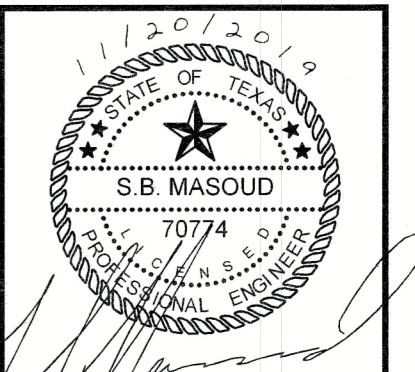


INSTALL ADA WELDED TWO LINE PIPE RAIL OR EQUAL.

HAND RAIL SPECIFICATIONS SHALL COMPLY TO UNITED STATES ACCESS BOARD ADA STANDARDS CHAPTER 4 - RAMPS AND CURB RAMPS

SCALE= NTS

Release Dates:
 Revisions:



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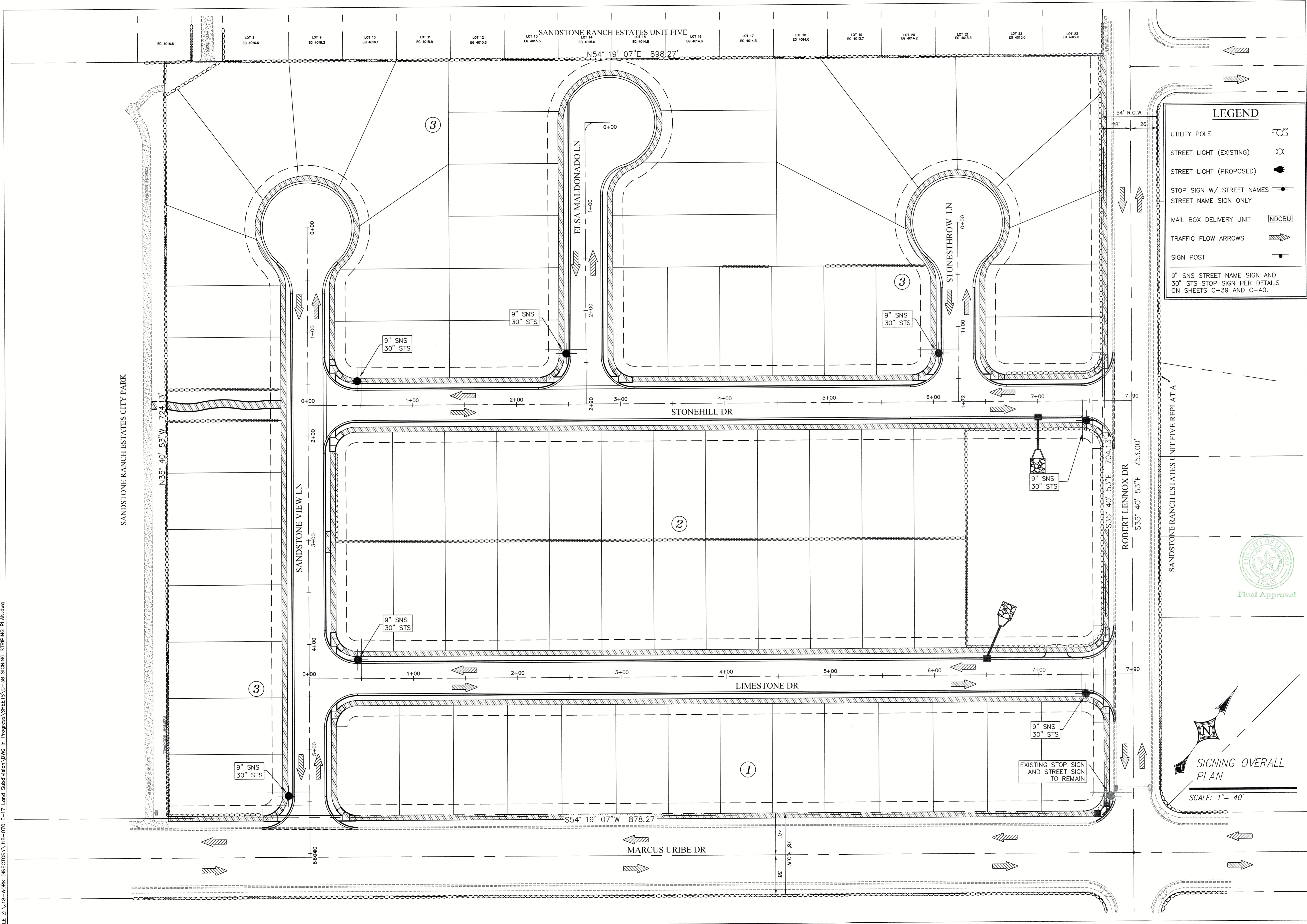
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 P.O. Box 220251 El Paso, Texas 79913 915.833.2400 TBPE Firm #: F-1093

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PARKWAY PLAN AND DETAILS
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

Project #: J18-070
 Plot Date: 11/20/19
 SHEET: C-37

Design By: SM/LU
 Drawn By: LU/ME
 Scale: 1"=30'

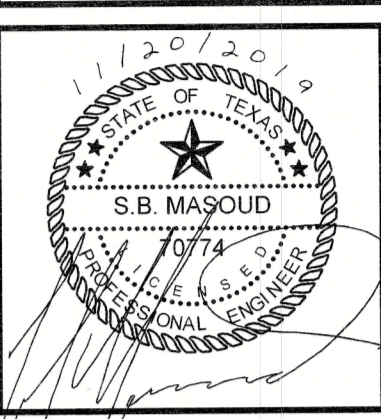


LEGEND

- UTILITY POLE
- STREET LIGHT (EXISTING)
- STREET LIGHT (PROPOSED)
- STOP SIGN W/ STREET NAMES
- STREET NAME SIGN ONLY
- MAIL BOX DELIVERY UNIT
- TRAFFIC FLOW ARROWS
- SIGN POST

9" SNS STREET NAME SIGN AND 30" STS STOP SIGN PER DETAILS ON SHEETS C-39 AND C-40.

Release Dates:
Revisions:



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 P.O. Box 220251 El Paso, Texas 79913 915.833-2400 TBE Firm #: F-1093
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SIGNING OVERALL PLAN
 SCALE: 1" = 40'


SIGNING AND STRIPING PLAN
SANDSTONE VIEW SUBDIVISION
 BEING LOT 1, BLOCK 1 EPISD E-17,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070
Design By:	SM/LU
Print Date:	11/20/19
Drawn By:	LUME
Scale:	1"=40'
SHEET:	C-38

SPECIFICATIONS FOR ALUMINUM SIGN BLANKS

THESE SPECIFICATIONS DESCRIBE DETAILS AND MINIMUM REQUIREMENTS FOR ALUMINUM SIGN BLANKS, TO WHICH REFLECTIVE SHEETING WILL BE APPLIED.

- ALL MATERIALS SHALL BE NEW AND UNWEATHERED AND SHALL BE OF DOMESTIC ORIGIN, MILLED, ROLLED, AND FINISHED IN DOMESTIC MILLS.
- SIGN BLANKS SHALL BE 0.080 GAUGE ALODIZED-TREATED ALUMINUM, 5052-H38 ALLOY, FREE OF BURRS, CORROSION, WHITE RUST, AND DIRT, SUITABLE FOR APPLICATION OF REFLECTIVE SHEETING WITHOUT FURTHER PREPARATION.
- EDGES OF BLANKS SHALL BE CUT TRUE AND SQUARE. CORNER RADIUS, HOLE DIAMETERS AND HOLE LOCATIONS SHALL BE AS DESCRIBED IN THE ALUMINUM SIGN BLANK BID D.H.T. STANDARDS.
- ALL SIGN BLANKS WILL BE TREATED AS FOLLOWS:
 - A. DEGREASING
 - VAPOR DEGREASING - BY TOTAL IMMERSION OF THE SIGN BLANK IN A SATURATED VAPOR OF TRICHLOROETHYLENE OR PERCHLOROETHYLENE. TRADEMARK PRINTING SHALL BE REMOVED WITH LAQUER THINNER BEFORE DEGREASING.
 - OR
 - ALKALINE DEGREASING - BY TOTAL IMMERSION OF THE SIGN BLANK IN A TANK CONTAINING ALKALINE SOLUTIONS, CONTROLLED AND TITRATED TO THE SOLUTION MANUFACTURER'S SPECIFICATIONS FOR TIME, TEMPERATURE, AND CONCENTRATION. IMMERSION TIME SHALL DEPEND UPON THE AMOUNT OF SOIL PRESENT, GAUGE OF THE METAL, AND SOLUTION STRENGTH. RINSE THOROUGHLY WITH RUNNING WATER.



TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

SPECIFICATIONS FOR
ALUMINUM SIGN BLANKS
7-1


Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QRC/J.R.

B. ETCHING

- ACID ETCH - ETCH WELL IN 6-8% PHOSPHORIC ACID SOLUTION AT 100 DEGREES FAHRENHEIT OR PROPRIETARY ACID ETCHING SOLUTION. RINSE THOROUGHLY WITH RUNNING WATER.
- OR
- ALKALINE ETCH - ETCH WELL THE PRE-CLEANED ALUMINUM SURFACE IN AN ALKALINE ETCHING MATERIAL THAT IS CONTROLLED BY TITRATION. USE TIME, TEMPERATURE, AND CONCENTRATION SPECIFIED BY THE SOLUTION MANUFACTURER. RINSE THOROUGHLY. REMOVE SMUT WITH AN ACIDIC CHROMIUM COMPOUND-TYPE SOLUTION AS SPECIFIED BY THE SOLUTION MANUFACTURER AND THEN RINSE THOROUGHLY.

C. CHROMATE CONVERSION COATING

COAT THE ALUMINUM BLANKS ACCORDING TO THE CHROMATE CONVERSION COATING MANUFACTURER'S INSTRUCTIONS. THE COATING SHALL CONFORM TO ASTM B449, CLASS 2, AND SHALL RANGE IN COLOR FROM SILVERY IRIDESCENT TO PALE YELLOW. THE COATING WEIGHT SHALL BE 10 TO 35 MG. PER SQ. FT. WITH A MEDIAN OF 25 MG. PER SQ. FT. AS THE OPTIMUM COATING WEIGHT.

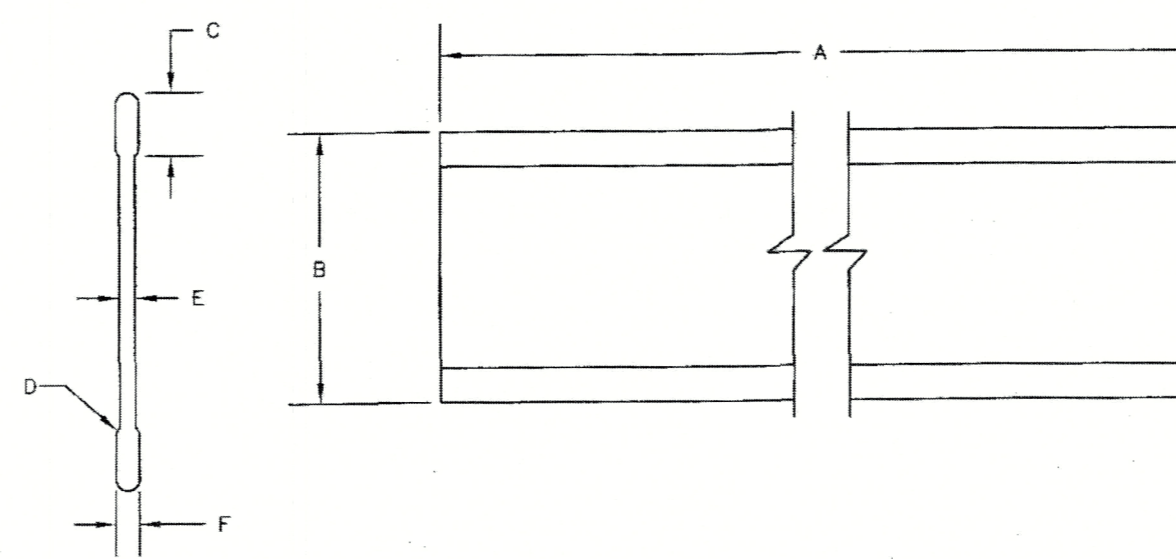


TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

SPECIFICATIONS FOR
ALUMINUM SIGN BLANKS
(continued)
7-2


Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QRC/J.R.

9" STREET NAME SIGN
EXTRUDED ALUMINUM SIGN BLANK



DIMENSIONS (INCHES)

A	B	C	D	E	F
30	9	0.800	1/4R	0.091	0.25
36	9	0.800	1/4R	0.091	0.25
42	9	0.800	1/4R	0.091	0.25
48	9	0.800	1/4R	0.091	0.25

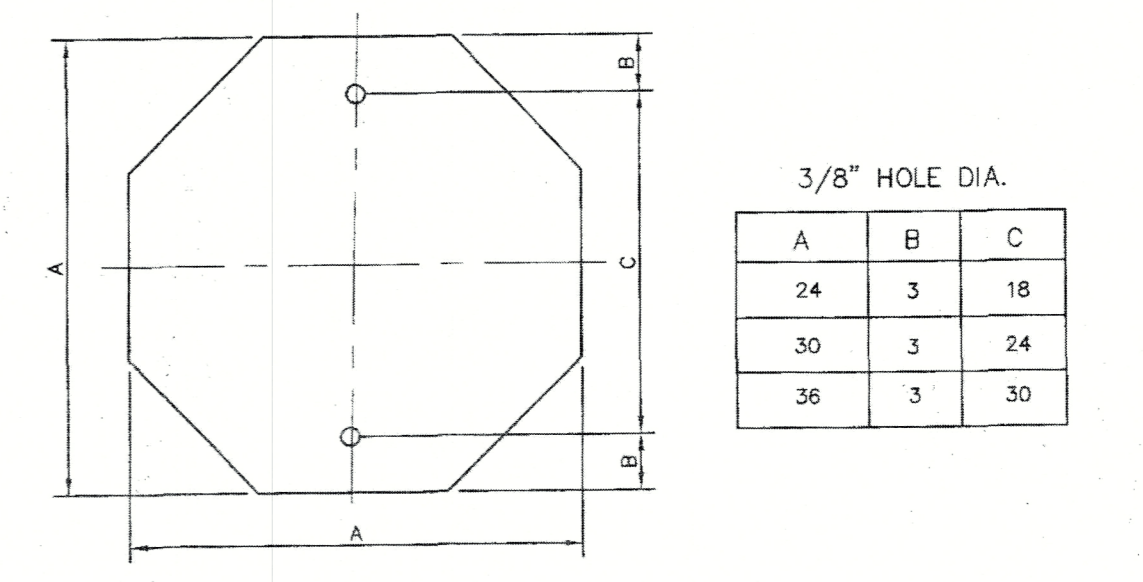


TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

9" STREET NAME SIGN
EXTRUDED ALUMINUM
SIGN BLANK
7-3

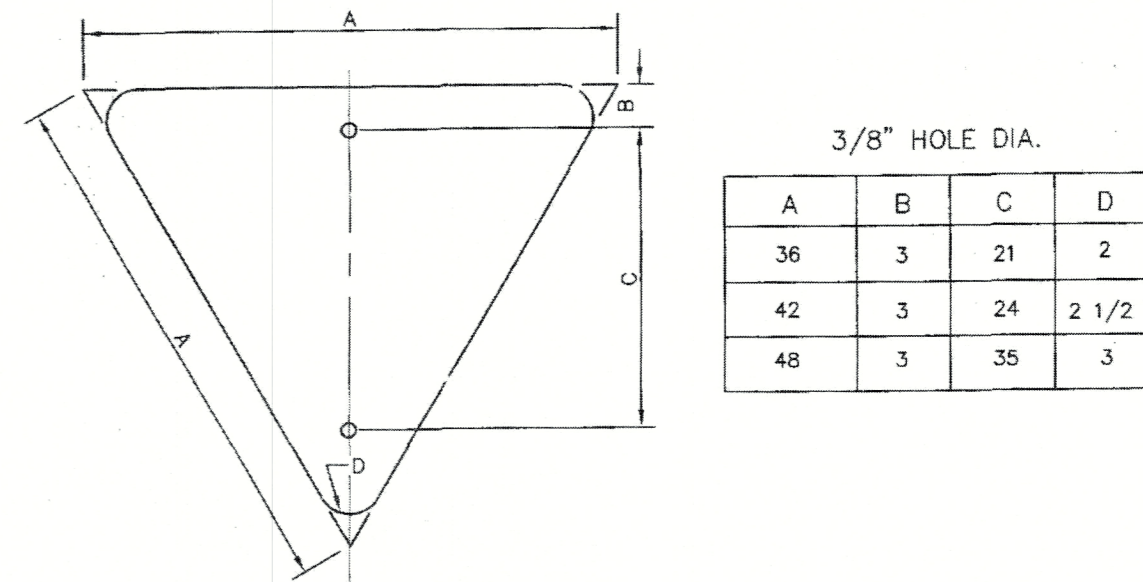
Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QRC/J.R.

OCTAGON
N.T.S.

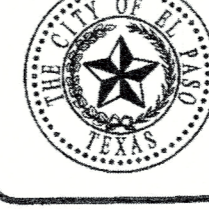


A	B	C
24	3	18
30	3	24
36	3	30

EQUILATERAL TRIANGLE
N.T.S.



A	B	C	D
36	3	21	2
42	3	24	2 1/2
48	3	35	3



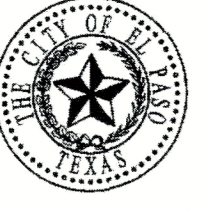
TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

D.H.T. BLANK
STANDARDS
7-4

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QRC/J.R.

CITY OF EL PASO
SPECIFICATIONS FOR REFLECTORIZED
STREET NAME SIGNS

- COLOR OF SIGNS: THE FINISHED SIGN MUST HAVE A REFLECTORIZED GREEN BACKGROUND. THE GREEN MUST CONFORM WITH THE BUREAU OF PUBLIC ROADS HIGHWAY GREEN. THE LEGEND MUST BE REFLECTORIZED SILVER WHITE (GREEN REVERSE SCREENED BACKGROUND WITH SILVER COPY).
- 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.
- 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.
- 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.
- 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".
- THE WORD SPACE MUST BE EXPANDED UP TO 25% IN 5% INCREMENTS BUT NOT CONDENSED.

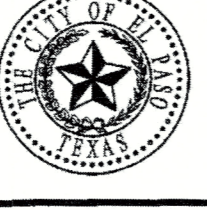


TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

SPECIFICATIONS FOR
REFLECTORIZED
STREET NAME SIGNS
7-7

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QRC/J.R.

- SPACE BETWEEN PRIMARY AND BLOCK NUMBER AREA MUST BE 1/2 THE AESTHETIC WORK SPACE USED IN THE PRIMARY LEGEND.
- SUFFIX LETTER SIZE FOR ALL LENGTHS MUST BE 2" CAPITALS, "C" SERIES, EXCEPT THAT SERIES "A" OR "B" WHERE SUFFIX ABBREVIATION EXCEEDS TWO LETTERS, MAY BE USED.
- 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 ONE-HALF INCHES (2 1/2") HIGH.
- SUFFIX LETTER SIZE FOR ALL LENGTHS MUST BE 2 1/2" CAPITALS, "C" SERIES, EXCEPT THAT SERIES "A" OR "B" WHERE SUFFIX ABBREVIATION EXCEEDS TWO LETTERS, MAY BE USED.
- 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.
- 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 BY THE SHEETING MANUFACTURER. CUT-OUT OR APPLIED LEGENDS ARE NOT PERMITTED. SIGN FACES MUST BE COMPRISED OF ONE PIECE OR PANEL OF REFLECTIVE SHEETING.
- TYPE OF SHEETING: ENGINEER GRADE REFLECTIVE SHEETING MUST BE USED IN THE FABRICATION OF THE STREET NAME SIGN FACES.

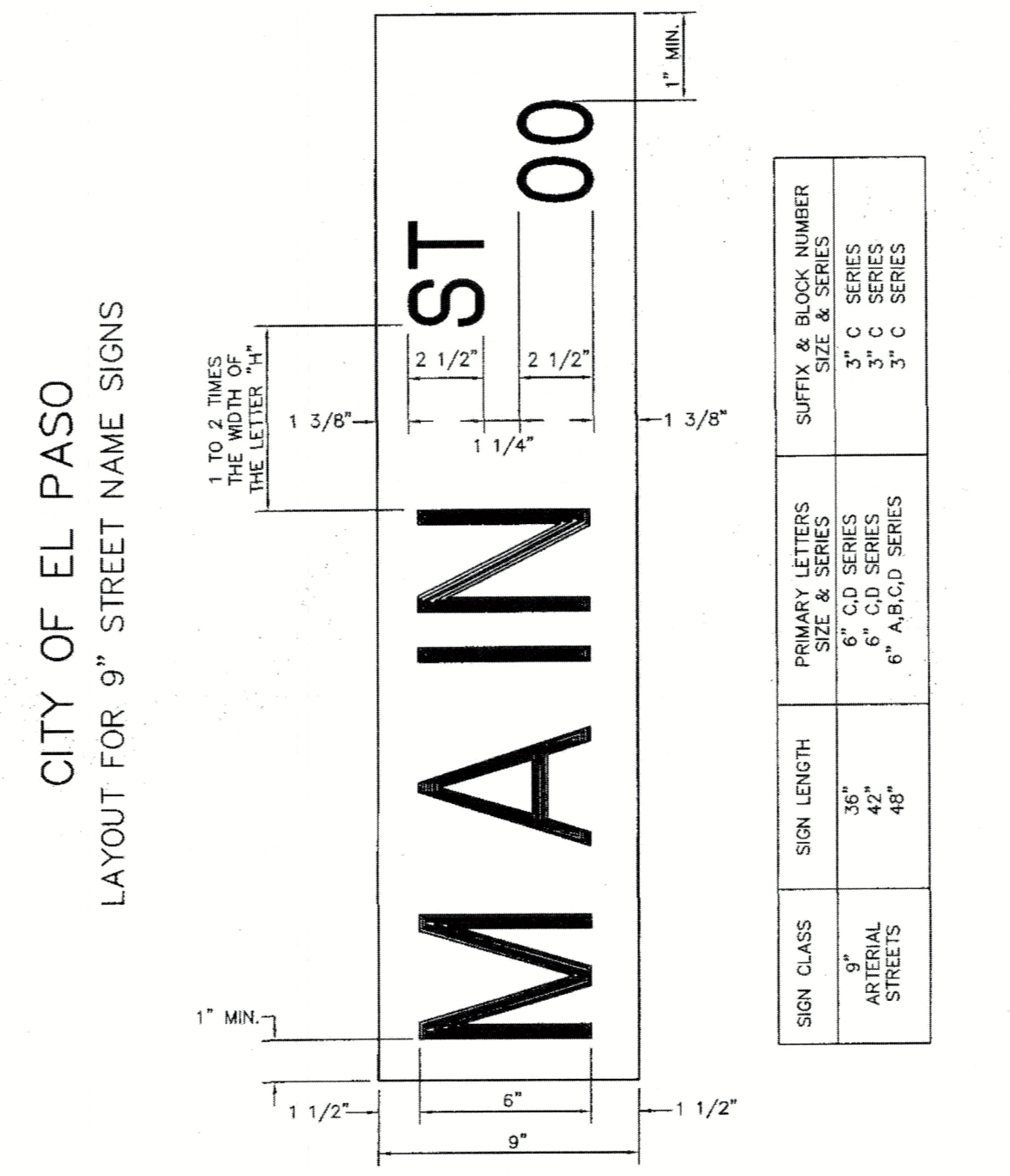


TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

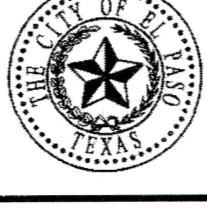
SPECIFICATIONS FOR
REFLECTORIZED
STREET NAME SIGNS
(continued)
7-8

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QRC/J.R.

CITY OF EL PASO
LAYOUT FOR 9" STREET NAME SIGNS



SIGN CLASS	SIGN LENGTH	PRIMARY LETTERS SIZE & SERIES	SUFFIX & BLOCK NUMBER SIZE & 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	3" C. SERIES

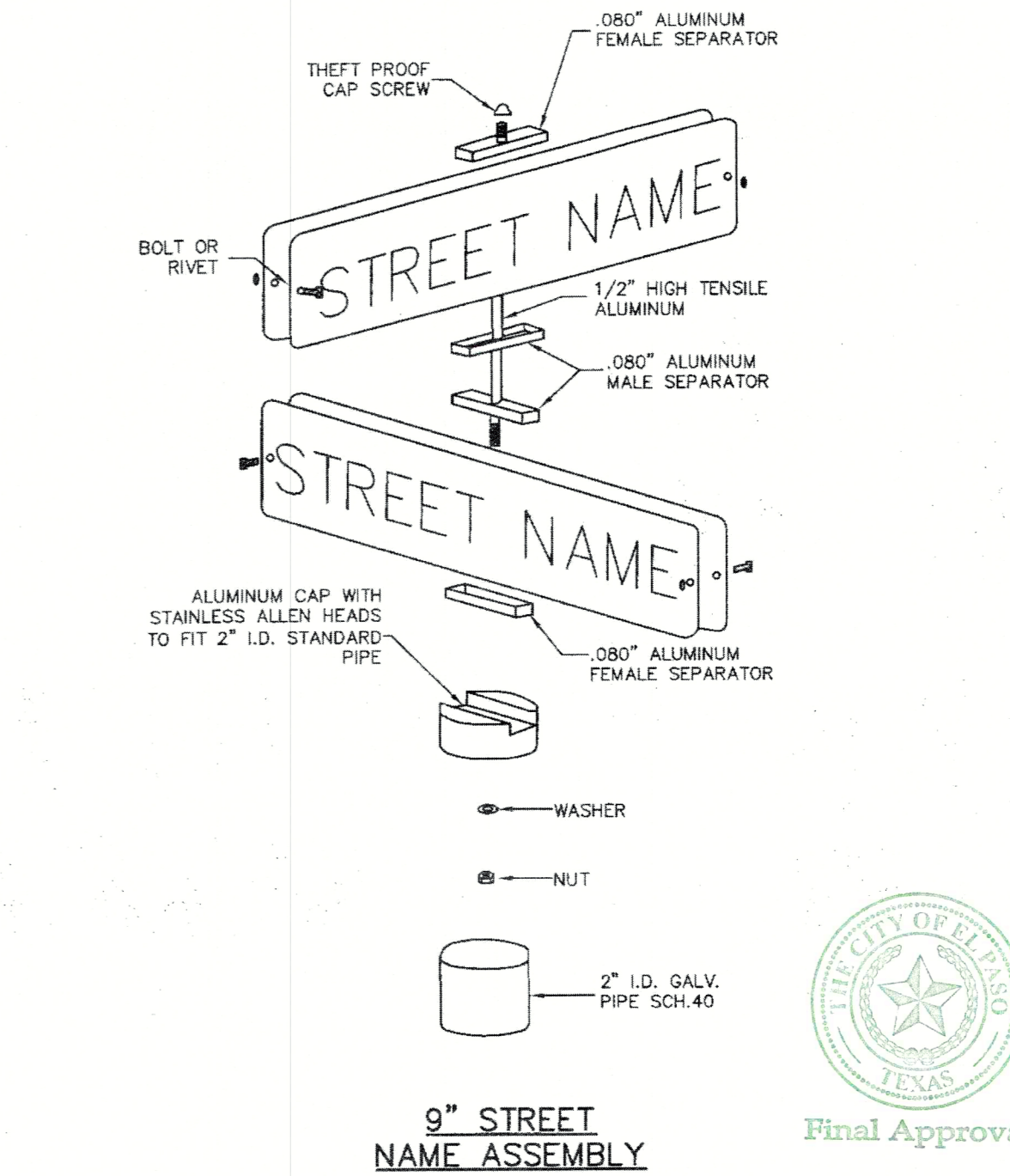


TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

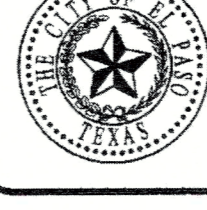
9" STREET NAME SIGN
7-9

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QRC/J.R.

9" STREET
NAME ASSEMBLY



Final Approval



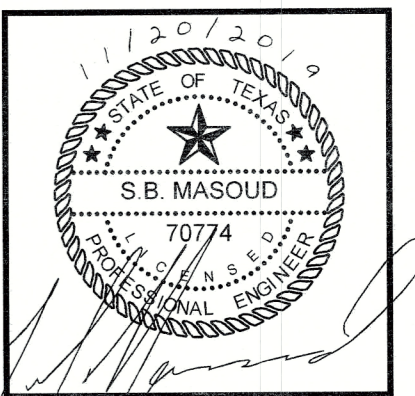
TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS
FOR CONSTRUCTION

9" STREET NAME SIGN
ASSEMBLY
7-10

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QRC/J.R.

Release Dates:

Revisions:



All drawings submitted in relation to this project, Architectural, Civil, Mechanical, Structural, Electrical, Landscaping, etc., are interrelated. The Contractor and Subcontractors shall review and coordinate the entire set of drawings and project specifications. The Contractor shall be responsible for verifying all data shown on the plans. If discrepancies are found, the Contractor shall notify the owner or Engineer immediately so that proper corrections can be made.

DRE Del Rio Engineering, Inc.

P.O. Box 220251 El Paso, Texas 79913 915833-2400 TBPB Firm # F-1093

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SIGNING AND STRIPING DETAILS

SANDSTONE VIEW SUBDIVISION

BEING LOT 1, BLOCK I, EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14,930 ACRES

Project #: J18-070	Design By: SM/LU	Scale: AS NOTED	
Plot Date: 11/20/19	Drawn By: LU/ME		
SHEET: C-39			

FILE Z:\18-WORK DIRECTORY\18-070 E-17 Land Subdivision\DWG in Progress\SHEETS\C-40 SIGNING STRIPING DTLS.dwg

POST CAP BRACKET (FOR EXTRUDED BLADES)

5 1/4"
3 7/8"
1/4" HOLE
1/16"
5/16" x 5/16" SET SCREW (INTERNAL ALLEN HEAD TAMPER-PROOF CENTER PIN DESIGN)
2 3/8" O.D. SIGN POST
5/16"-10-1" BUTTONHEAD BOLT (INTERNAL ALLEN HEAD TAMPER-PROOF CENTER PIN DESIGN)
7/8"
3/16" - 18 THREAD WITH LOCK WASHER
1/4"

GENERAL NOTES
BRACKET MATERIALS TO BE 385 ALUMINUM ALLOY TENSILE STRENGTH 4900 P.S.I.
DIE CAST FREE OF BURRS, PITS, & HOLES

RECESSED TO ACCEPT BUTTONHEAD BOLTS

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

9" STREET NAME SIGN ASSEMBLY (continued)
7-11

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QBC/J.R.

90° SIGN TO SIGN BRACK (FOR EXTRUDED BLADES)

SIGN
5 1/4"
3 7/8"
1/4" HOLES
3/16" - 18 THREAD 1 1/2" BOLT WITH LOCK WASHER
15/16"
3/16" - 18 THREAD 1 1/2" BOLT
1 1/8"

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

9" STREET NAME SIGN ASSEMBLY (continued)
7-12

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QBC/J.R.

SIGN POST INSTALLATION

STREET
STREET

LENGTH A
LENGTH B
LENGTH C
DEPTH

2" I.D. GALVANIZED PIPE - SCHEDULE 40
2" MIN.
FILL W/CONC.
PIPE TO EXTEND TO FULL DEPTH OF CONC.
CONCRETE
DIA. = 8" MIN IN SOIL OR GRAVEL
3" MIN. UNDER CONC SIDEWALK

LENGTH A	LENGTH B	LENGTH C	DEPTH
10 FT	7 FT	LARGER THAN 24"	2 FT
9 FT	7 FT	SMALLER THAN 24"	1 1/2 FT

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

SIGN POST INSTALLATION
7-13

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QBC/J.R.

ALUMINUM SIGN CLAMP BRACKET FOR TRAFFIC CONTROL SIGNS

1/8"
3/8"
3/32"
1 3/16"
1/4"
2 1/4"
3 3/4"
2 1/2"
9/32" R
1/2"
3/32"
1 3/16"
7/8" R
3/8"
1/8"
1/2"
1/8"
3/16"
1/2"
5"
N.T.S.

NOTES:
1. ALL HOLES 3/8" PUNCH
2. FILLETS & ROUNDS 1/16" R
3. FURNISH THE FOLLOWING HARDWARE FOR EACH BRACKET:
1 - 5/16" x 3/4" BOLTS
1 - 5/16" x 1 1/4" BOLT
2 - 5/16" NUTS & LOCK WASHERS
2 - FLAT WASHERS
4. THE BRACKET IS TO BE MADE FROM HIGH STRENGTH ALUMINUM ALLOY. THE BRACKET IS TO EMPLOY AN EXTRUDED INTERLOCKING FEATURE OFFERING A RIGID MEANS OF ATTACHING A FLAT SIGN TO A STANDARD 2" (2/8" O.D.) TUBULAR POST.

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

ALUMINUM SIGN CLAMP BRACKET FOR TRAFFIC CONTROL SIGNS
7-14

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QBC/J.R.

SIGN POST SPECIFICATIONS

12'-0" FOR SIGNS 24" OR MORE
2.375"
MIN. WALL THICKNESS = 0.13"
10'-6" FOR SIGNS 24" OR LESS

NOTES:
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 POST PER BUNDLE.

TITLE 19 - SUBDIVISION ORDINANCE
ENGINEERING DEPARTMENT
DESIGN STANDARDS FOR CONSTRUCTION

SIGN POST SPECIFICATIONS
7-15

Approved By: R. A. SHUBERT
Date: JUNE 03, 2008
Checked By: H. M. E.
Drawn By: QBC/J.R.

STREET
STREET

STOP SIGN DETAIL SEE THIS SHEET FOR INFORMATION.

10'-0"
30"
7'-0"
27"

2" I.D. GALVANIZED PIPE - SCHEDULE 40
2" MIN.
WEDGE
"BREAK-AWAY" ASSEMBLY (AS MANUFACTURED BY POZ-LOC ANCHOR SYSTEM, OR APPROVED EQUAL)
TUBULAR SOCKET 2 7/8" O.D. X 27" LONG THICKNESS

NOTE FOR SANDY SOIL CONDITIONS, 2.0 SACK CEMENT STABILIZED BACKFILL IS RECOMMENDED.

SIGN POST INSTALLATION
SCALE: N.T.S.

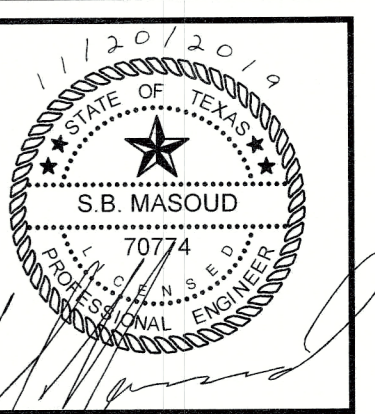
30"
3"
1-3/8" 1-1/8" 1-5/8"
30"
10"
10" C
10"
3/8" HOLES
3/4"

STOP SIGN DETAIL
SCALE: 1"=5'-0"

LETTERS - WHITE REFLECTIVE
BORDER - WHITE REFLECTIVE
BACKGROUND - RED REFLECTIVE

Release Dates:

Revisions:



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Del Rio Engineering, Inc.
P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TBE Firm #: F-1093

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SIGNING AND STRIPING DETAILS

SANDSTONE VIEW SUBDIVISION

BEING LOT 1, BLOCK I EPISD E-17,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES

Project #:	J18-070	Design By:	SM/LU
Plot Date:	11/20/19	Drawn By:	LU/ME
SHEET:	C-40	Scale:	AS NOTED



SITE DESCRIPTION:
THIS CONSTRUCTION SITE WILL BE A RESIDENTIAL SITE UPON COMPLETION. ALL ACTIVITY INVOLVED TO COMPLETE THIS CONSTRUCTION SHALL INCLUDE GRADING THE EXISTING LAND, INSTALLATION OF ALL REQUIRED UTILITIES, AND CONSTRUCTION OF DRIVEWAYS AS PER THE CONSTRUCTION PLANS. THIS LAND SLOPES EAST TO WEST. ALL STORMWATER RUNOFF IS DESIGNED TO GO TO OFF-SITE DRAINAGE STRUCTURES. THE FINAL GRADING OF THE LOT WILL MAINTAIN THE SAME SLOPED TERRAIN. REFER TO THE GRADING AND DRAINAGE PLANS FOR DESIGN CRITERIA (INCLUDING THE DESIGN COEFFICIENT FOR RUNOFF). ALL POTENTIAL SILT DURING CONSTRUCTION ACTIVITY WILL BE CONTAINED ON THE SITE USING SILT FENCING OR BERMS, AND THE LOTS WILL BE DESILTED DURING FINAL GRADING. REFER TO THE GRADING AND DRAINAGE PLAN.

PLANS FOR DESIGN CRITERIA (INCLUDING THE DESIGN COEFFICIENT FOR RUNOFF): SHOWN IN THIS PLAN IS A TYPICAL LOT PONDING DESIGN FOR REFERENCE PURPOSES. ALL POTENTIAL SILT DURING CONSTRUCTION ACTIVITY WILL BE CONTAINED IN THE LOT BY SILT FENCE, AND THE LOTS WILL BE DESILTED DURING FINAL GRADING.

ALL POTENTIAL POLLUTANTS FROM THE CONSTRUCTION ACTIVITIES INCLUDE ALL FLUIDS ASSOCIATED WITH HEAVY EQUIPMENT, AND SOILS TRANSPORTED OFF-SITE BY THE CONSTRUCTION VEHICLES. ALL PROCEDURES AS SHOWN IN THIS SWPPP PLAN AND FOLLOWING EPA, TCEQ, AND CITY OF EL PASO REGULATIONS WILL MINIMIZE THE POLLUTION POTENTIAL.

BEST MANAGEMENT PRACTICES:
1. STRUCTURAL MEASURES SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT IN EFFECTIVE OPERATING CONDITION.
2. DOCUMENTATION OF MAINTENANCE ACTIVITIES INCLUDING FREQUENCY, LOT DESIGNATION, INSPECTION OF STRUCTURAL CONTROLS, MATERIAL STORAGE AREAS VEHICLES ENTRANCE AND EXITS: ACTIONS TAKEN AND INSPECTOR'S NAME.
3. CONSTRUCTION SITE NOTICE WILL BE MAINTAINED ON SITE.
4. PERIMETER MUST RETAIN THE SWPPS NOI AND INSPECTION LOG FOR A MINIMUM OF 3 YEARS FROM THE TERMINATION AND FINAL STABILIZATION OF PROJECT.

WASTE MATERIALS:
A. ALL WASTE MATERIALS, INCLUDING CONSTRUCTION MATERIALS, SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. NO CONSTRUCTION WASTE MATERIAL SHALL BE BURIED ON SITE.
B. THE TRANSIT DUMPSTER SHALL COMPLY WITH ORDINANCE 18.52.010 (ENCLOSURE & 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.

HAZARDOUS WASTE: (LISTED POLLUTANTS NON-ALLOWABLE)
A. 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.
B. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION AND CONTACT THE FIRE DEPT. AND TCEQ.

SANITARY WASTE:
A. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE CONSTRUCTION PORTABLE UNITS AS NECESSARY OR AS REQUIRED, CHAPTER 18.06 (BUILDING CODE) BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.
B. ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

SPILL PREVENTION:
A. THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURES OF MATERIALS TO STORM WATER RUNOFF:
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 OF THE CONTAINER
F. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL

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

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

SPILL CONTROL PRACTICES:
A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES.
B. MATERIALS AND EQUIPMENT NECESSARY FOR 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 GOVERNMENT AGENCY
F. MEASURES SHALL BE TAKEN TO PREVENT A SPILL FROM REOCCURRING

MAINTENANCE AND INSPECTION PROCEDURES:
A. ALL POLLUTION PREVENTION MEASURES SHALL BE INSPECTED AT LEAST ONCE A MONTH OR WITHIN 24-HOURS PRIOR TO ANTICIPATED STORM EVENT AND FOLLOWING A STORM EVENT OF 0.5 INCHES OR MORE.
B. 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.
C. A REPORT SUMMARIZING THE SCOPE OF INSPECTION SHALL BE DONE AND RETAINED ALONG WITH THE SWPPP. THE CONTRACTOR MUST MAINTAIN A LOG OF ALL MAINTENANCE AND INSPECTIONS PERFORMED ON-SITE WITH THE SWPPP PLAN AND PERMIT AS PER EPA, TCEQ AND CITY OF EL PASO REGULATIONS. THE DESIGN ENGINEER AND TCEQ MUST BE NOTIFIED IMMEDIATELY AS TO ANY MODIFICATIONS TO THE SWPPP PLAN IN WRITING.

ALLOWABLE NON-STORMWATER:
A) WATER FROM LINE FLUSHINGS
B) PAVEMENT WASH WATERS (WHERE NO SPILLS HAVE OCCURRED)
C) UNCONTAMINATED GROUND WATER (FROM DEWATERING)
D) FIRE FIGHTING

ASPHALT BATCH PLANT:
THERE WILL BE NO ASPHALT BATCH PLANT LOCATED ON THIS PROPERTY.

ENDANGERED SPECIES NOTE:
THERE ARE NO ENDANGERED SPECIES LOCATED ON THE PROPERTY AT THE TIME OF CONSTRUCTION.

HISTORICAL SURVEY:
NO HISTORICAL SURVEY WAS CONDUCTED AT THE TIME OF CONSTRUCTION.

REMARKS:
A. 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 @ ANY WETLAND, WATERBODY OR STREAMLINE.
B. 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.
C. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS. ALL SERVICES TO THE VEHICLES MUST BE PERFORMED IN THIS AREA. ALL POTENTIAL POLLUTANTS AND RUNOFF MUST BE CONFINED IN THIS STAGING AREA. FOLLOW ALL EPA AND TCEQ GUIDELINES WHEN CONSTRUCTING THIS AREA.
D. 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.

OFFSITE VEHICLE TRACKING:
IN ADDITION TO THE STABILIZED CONSTRUCTION ENTRANCES, THE FOLLOWING MEASURES SHALL BE OBSERVED DURING CONSTRUCTION:
HAUL ROADS SHALL BE DAMPENED FOR DUST CONTROL.
LOADED HAUL TRUCKS SHALL BE COVERED WITH TARP/PAULIN.
EXCESS DIRT ON ROAD SHALL BE REMOVED IMMEDIATELY.
STABILIZED CONSTRUCTION ENTRANCE.
OTHER:

NARRATIVE - SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES:
1. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS (E.G. TEMPORARY DESILTING BASINS AND STABILIZED CONSTRUCTION ENTRANCE).-----TIME FRAME: 2 DAYS.
2. PERFORM CLEANING AND GRUBBING.-----TIME FRAME: 2 WEEKS.
3. COMPLETE LOT GRADING.-----TIME FRAME: 2 WEEKS.
4. WHEN ALL CONSTRUCTION ACTIVITY RELATED TO DEVELOPMENT OF THE SITE IS COMPLETE, REMOVE TEMPORARY CONTROLS IN #1 ABOVE AND SUBMIT NOTICE OF TERMINATION FORM TO EPA, TCEQ, AND CITY OF EL PASO ENGINEERING.

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 MANGE 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 NAME: _____ SIGNED DATE: _____
OWNER NAME PRINTED: _____ TITLE: _____

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: _____
NAME: _____ ADDRESS: _____
TITLE: _____
DATE: _____ TELEPHONE: _____

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 CONTROL MEASURES.

SIGNED: _____ COMPANY: _____
NAME: _____ ADDRESS: _____
TITLE: _____
DATE: _____ TELEPHONE: _____

EROSION CONTROL ELEMENTS NOTES:
THE CONTRACTOR SHALL ERECT THIS EROSION CONTROL ELEMENTS PRIOR TO THE COMMENCEMENT OF ANY SITE IMPROVEMENTS. DURING CONSTRUCTION THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL ELEMENTS REGULARLY & SPECIALLY AFTER EA STORM IN ORDER THAT THEY MAINTAIN THEIR EFFECTIVENESS. THE CONTRACTOR SHALL IMMEDIATELY REPAIR THE ELEMENT THAT HAS BEEN DAMAGED OR THAT SHOWS SIGNS OF EROSION OR POTENTIAL FAILURE. (THIS INCLUDES REMOVING SEDIMENT WHEN IT HAS ACCUMULATED TO 1/3 THE HEIGHT OF THE SILT FENCE & REPLACING ANY DAMAGED HAY BALES IMMEDIATELY.)

WIND EROSION: WATER DURING & AFTER COMPLETION OF GRADING. THE PROJECT AREA SHALL BE COMPLETELY WATERED AS NEEDED TO CONTROL WIND EROSION (OR AS DIRECTED BY THE DEPUTY DIRECTOR ENGINEER).

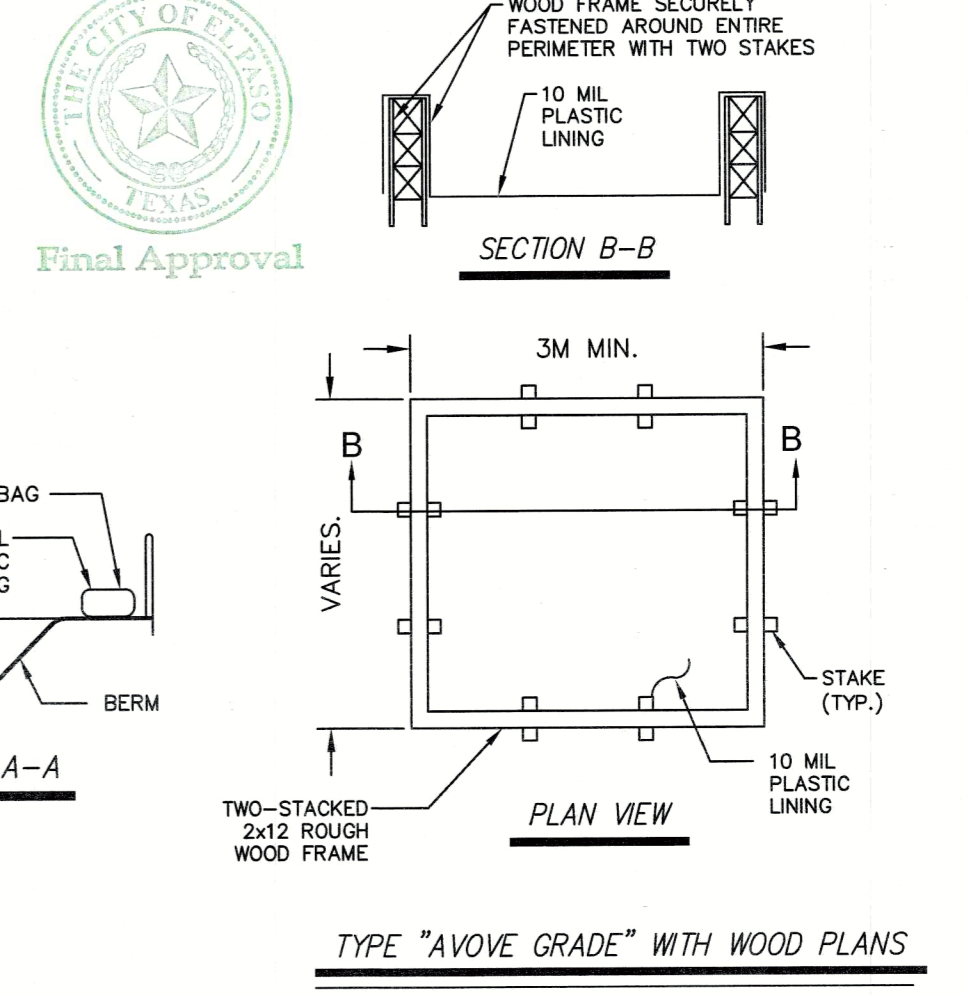
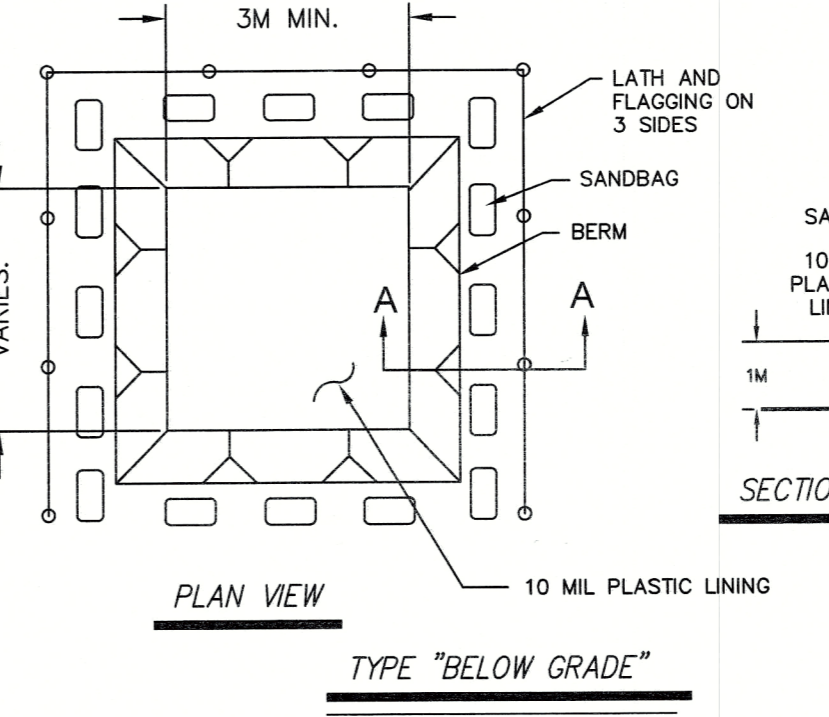
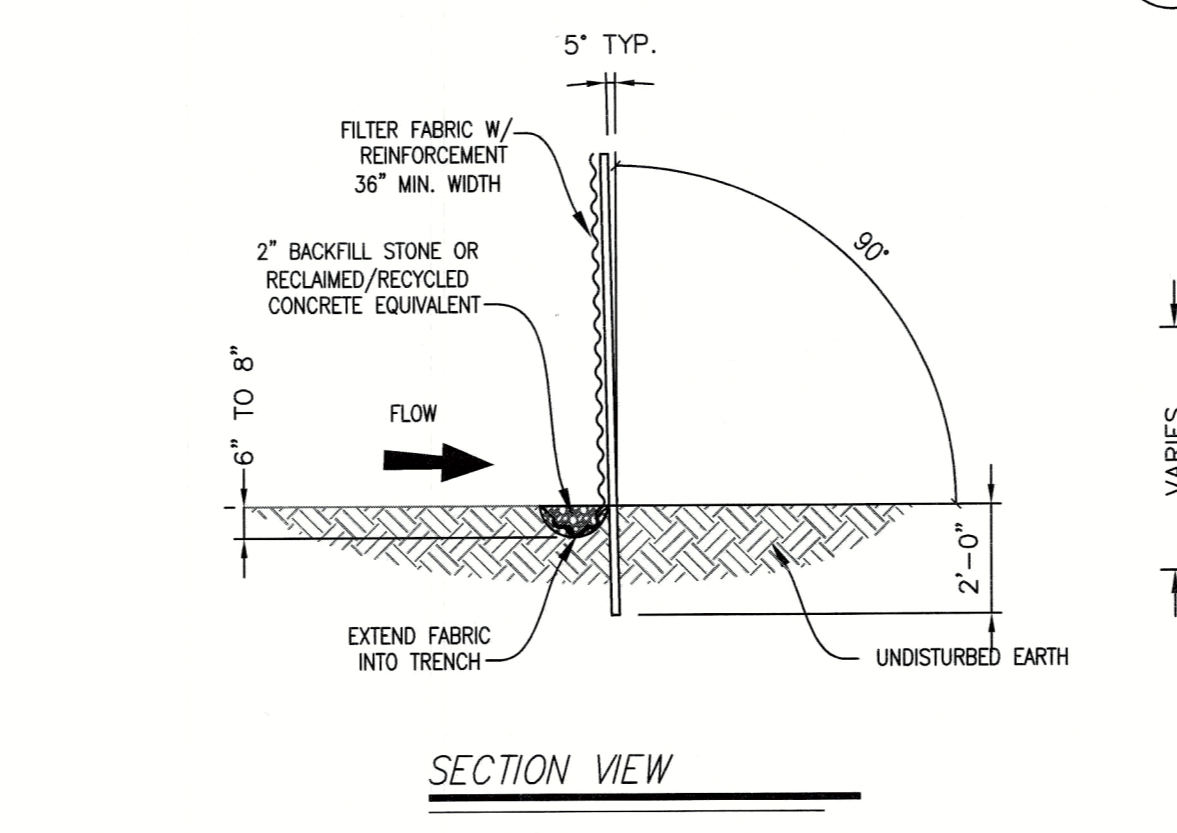
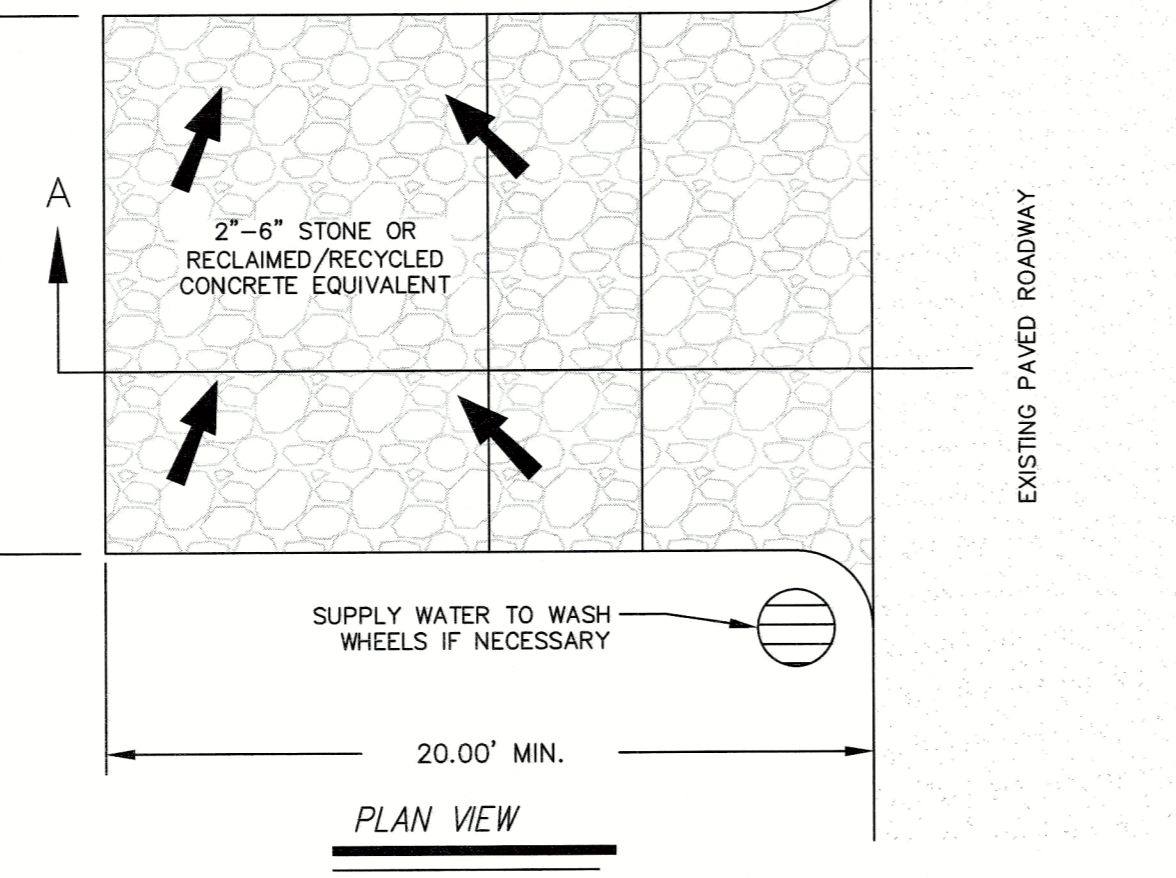
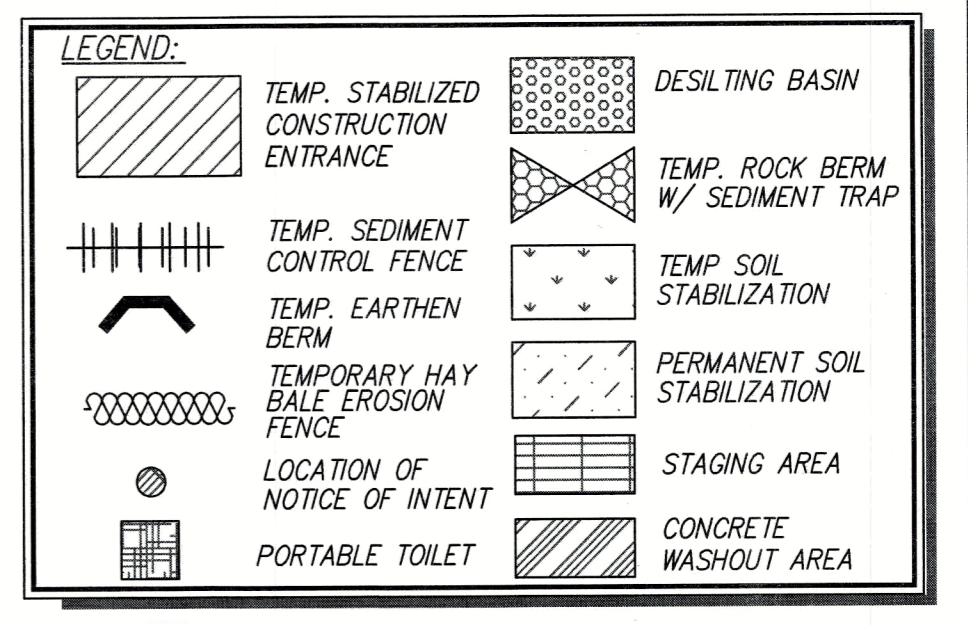
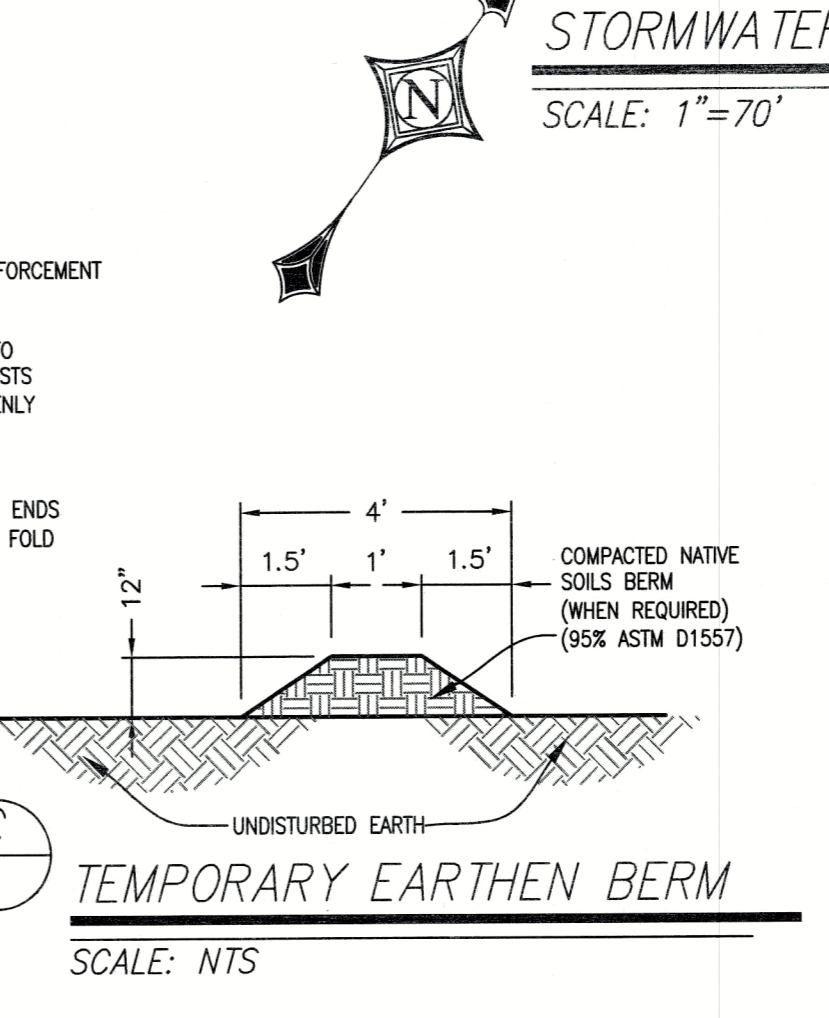
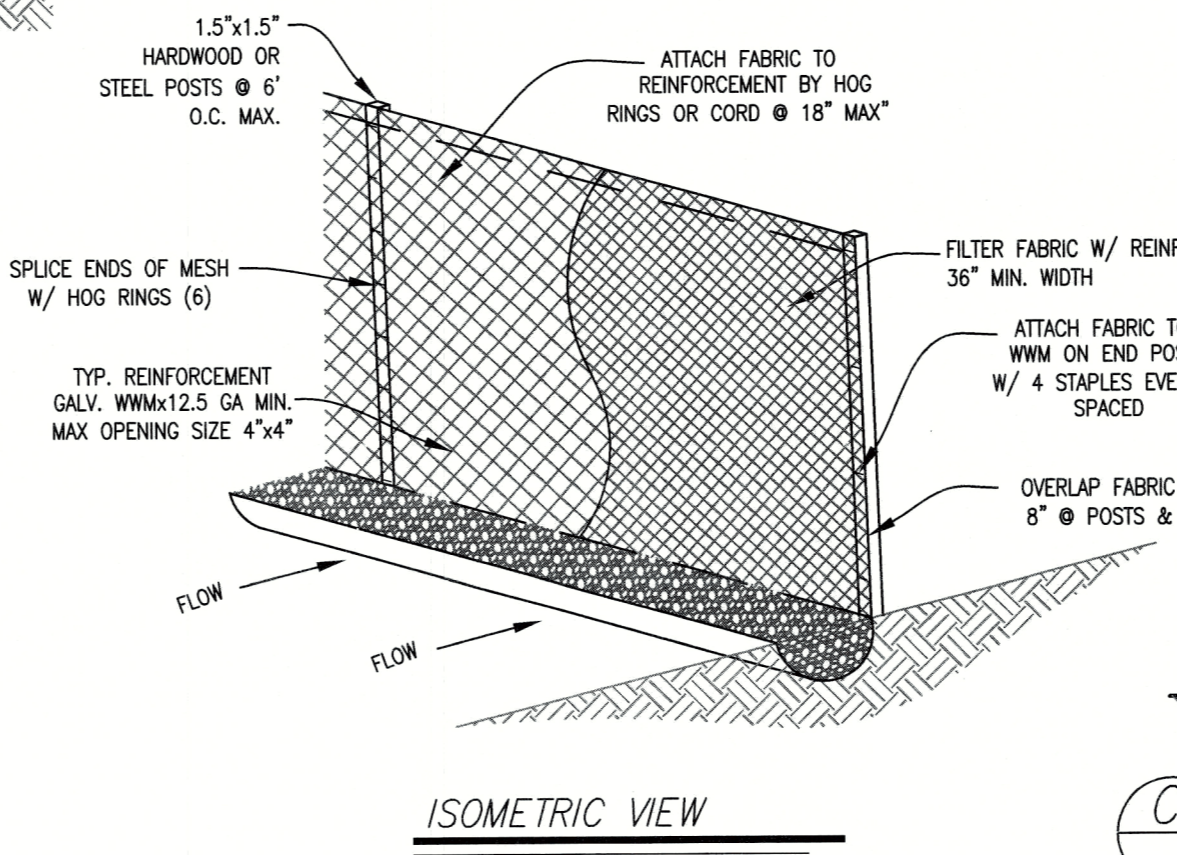
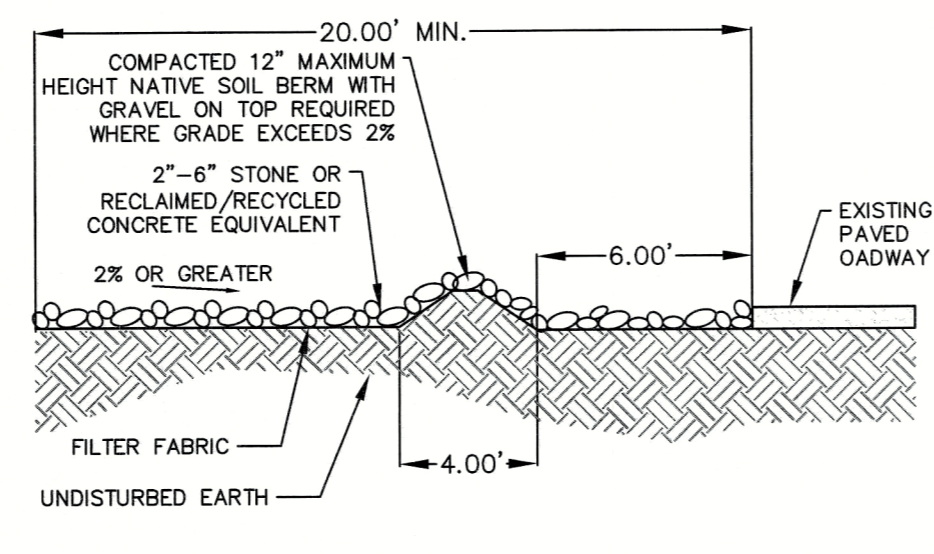
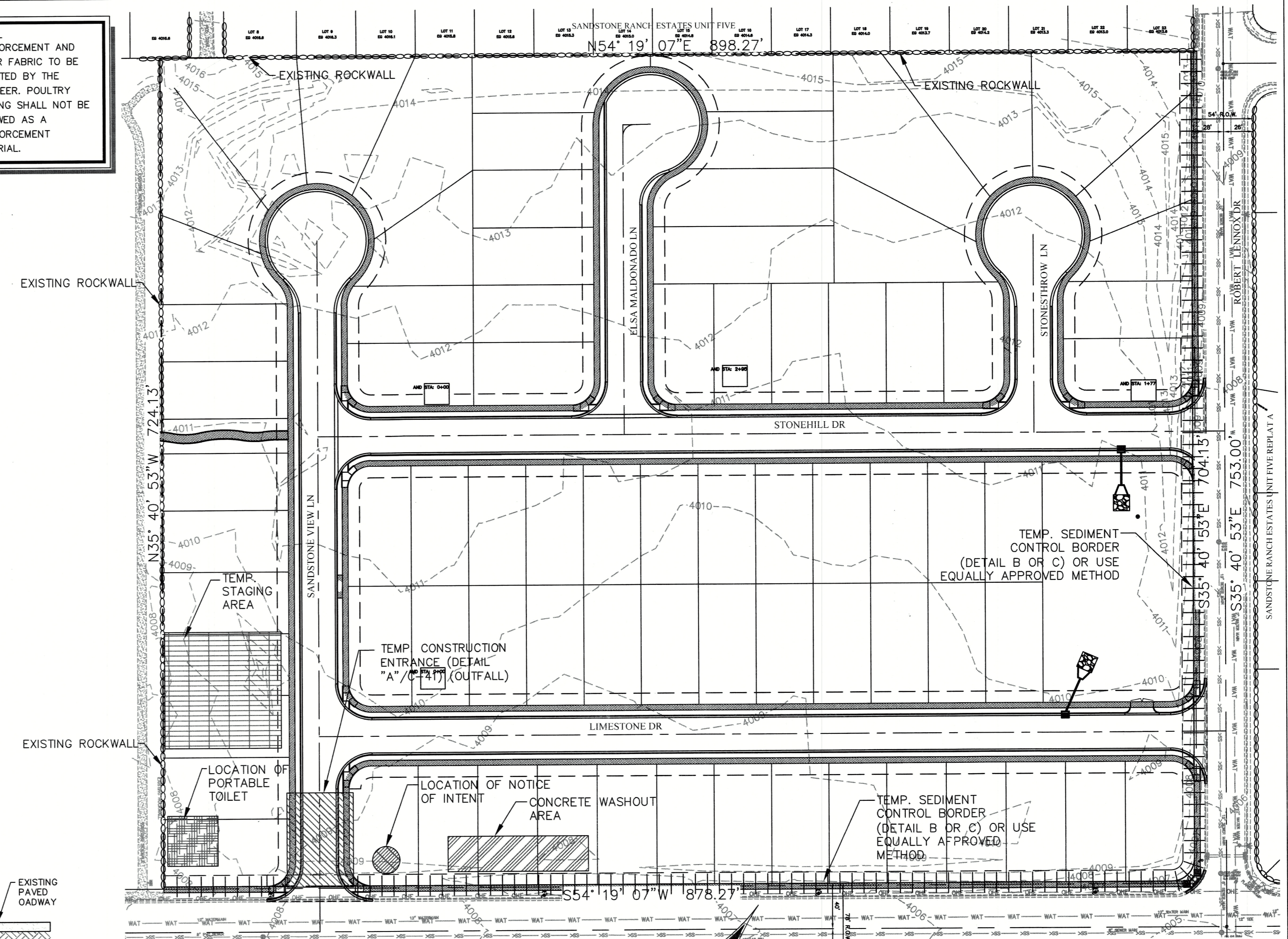
DURING CONSTRUCTION THE CONTRACTOR SHALL CONSTRUCT A 50'x25'x8" TEMPORARY GRAVEL ROADBED @ POINTS OF EXIT UNTO PUBLIC ROADWAYS.

THE CONTRACTOR IS ALSO RESPONSIBLE FOR MAINTAINING PROPER DRAINAGE DURING CONSTRUCTION & NOT ALLOWING SEDIMENT WATER TO ENTER UNTO PUBLIC STREETS.

EROSION & SEDIMENT CONTROL:
SOIL STABILIZATION PRACTICES:
____ TEMPORARY SEEDING.
____ PERMANENT PLANTING, SODDING, OR SEEDING.
____ MULCHING.
____ SOIL RETENTION BLANKET.
____ BUFFER ZONES.
____ RESERVATION OF NATURAL RESOURCES.
OTHER: _____

STRUCTURAL PRACTICES:
____ TEMP. STABILIZED CONSTRUCTION ENTRANCE (STONE).
____ TEMP. SEDIMENT CONTROL FENCE.
____ DESILTING BASIN.
____ TEMP. HAY BALE EROSION FENCE.
____ ROCK BERM W/ SEDIMENT TRAP.
____ DIVERSION, INTERCEPTION, OR PERIMETER DIGS.
____ DIVERSION DIKES & SWALE COMBINATION.
____ PIPE SLOPE DRAINS.
____ CONCRETE FLUMES.
____ TIMBER MATTING @ CONST. EXIT.
____ CHANNEL LINERS.
____ STORM INLET PROTECTION BARRIER.
____ STORM INLET SEDIMENT TRAP.
____ STONE PIPE OUTLET STRUCTURES.
____ CURBS & GUTTERS.
____ STORM DRAINS.
____ VELOCITY CONTROL DEVICES.
____ VEGETATED SWALES & NATURAL DEPRESSIONS.
OTHER: _____

NOTE:
REINFORCEMENT AND FILTER FABRIC TO BE DIRECTED BY THE ENGINEER. POULTRY NETTING SHALL NOT BE ALLOWED AS A REINFORCEMENT MATERIAL.

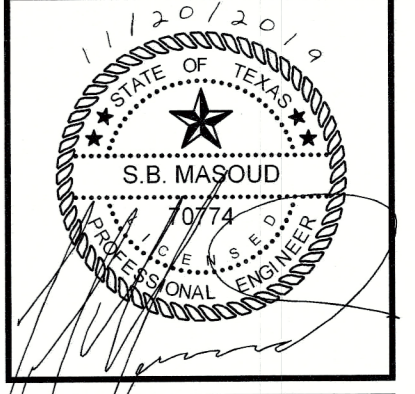


A TEMPORARY STABILIZED RESIDENTIAL CONSTRUCTION ENTRANCE/EXIT
SCALE: NTS

B TEMPORARY SEDIMENT CONTROL FENCE OPTION
SCALE: NTS

D CONCRETE WASHOUT AREA
SCALE: NTS

Release Dates:
Revisions:



All drawings submitted in relation to this project, Architectural, Civil, Mechanical, Structural, Electrical, Landscaping, etc., are intended. The Contractor and Subcontractors shall review and coordinate the entire set of drawings and specifications. The Contractor shall be responsible for verifying all data shown on the plans. If discrepancies are found, the Contractor shall notify the owner or Engineer immediately so that proper corrections can be made.

Del Rio Engineering, Inc.
P.O. Box 220251 El Paso, Texas 79913 915/833-2400 TBBE Firm #: F-1093
This seal is the property of Del Rio Engineering, Inc. and shall not be used for any other project without the written consent of Del Rio Engineering, Inc. The seal is not valid if it is used for any other project or if it is used for any other purpose. The seal is not valid if it is used for any other purpose.

STORMWATER POLLUTION PREVENTION PLAN
SANDSTONE VIEW SUBDIVISION
BEING LOT 1, BLOCK I, EPISD E-17
CITY OF EL PASO, EL PASO COUNTY, TEXAS
650,378 SQ. FT. OR 14.930 ACRES

Design By: SM/LU
Drawn By: LU/ME
Scale: 1"=70'
Project #: J18-070
Plot Date: 11/20/19
Sheet: C-41