



Anthony Uresti
Director of Planning

HIDALGO COUNTY PLANNING DEPARTMENT

2818 S. BUSINESS HWY 281
EDINBURG TEXAS 78539
Tel. 956-318-2840

HIDALGO COUNTY COMMISSIONERS COURT MEETING

DATE: 6-20-2024

PROPOSED EI CORDERO SUBDIVISION, PRECINCT No. 3.

ENGINEER SOUTH TEXAS INFRASTRUCTURE DEVELOPER: PEÑA-CHAPA DEVELOPMENT

PRELIMINARY APPROVAL FINAL APPROVAL FINAL APPROVAL WITH FINANCIAL GUARANTEE WITH VARIANCE

NUMBER OF LOTS: 33 *SINGLE FAMILY *MULTI-FAMILY COMMERCIAL INSTITUTIONAL

NUMBER OF STREETLIGHTS: 7

FILLING STATIONS: 3

LOCATION DESCRIPTION: WEST OF WESTERN ROAD, APPROXIMATELY ½ OF MILE NORTH OF MILE 6 ROAD.

SUBDIVISION LIES WITHIN THE: ETJ OF MISSION

DRAINAGE REPORT WAS APPROVED BY HCDD#1: ON 3-30-2023 PROPERTY LIES WITHIN FLOOD ZONE: "X" AS PER FEMA.

DRAINAGE DESIGN: DRAINAGE WILL BE PROVIDED BY A STORM SEWER SYSTEM AND DETENTION WILL BE PROVIDED BY A NEW DRAIN DITCH.

ROAD R.O.W. DEDICATION: 20.0 FEET ONTO WESTERN ROAD.

H.C.R.O.W. FINAL APPROVAL DATE: 6-06-2024 BY PRECINCT 3 R.O.W. AGENT

H.C.H.D. FINAL APPROVAL DATE: 6-06-2024 BY ENVIRONMENTAL HEALTH DIVISION MANAGER

SEWER SYSTEM: OSSF'S HAVE BEEN INSTALLED.

WATER SERVICE PROVIDER: AGUA SUD LINE SIZE: 8" LOCATION: WESTERN ROAD.

H.C.E.O.C. FINAL APPROVAL DATE: 6-04-2024 : BY ENVIRONMENTAL COMPLIANCE COORDINATOR

LARGE CONSTRUCTION

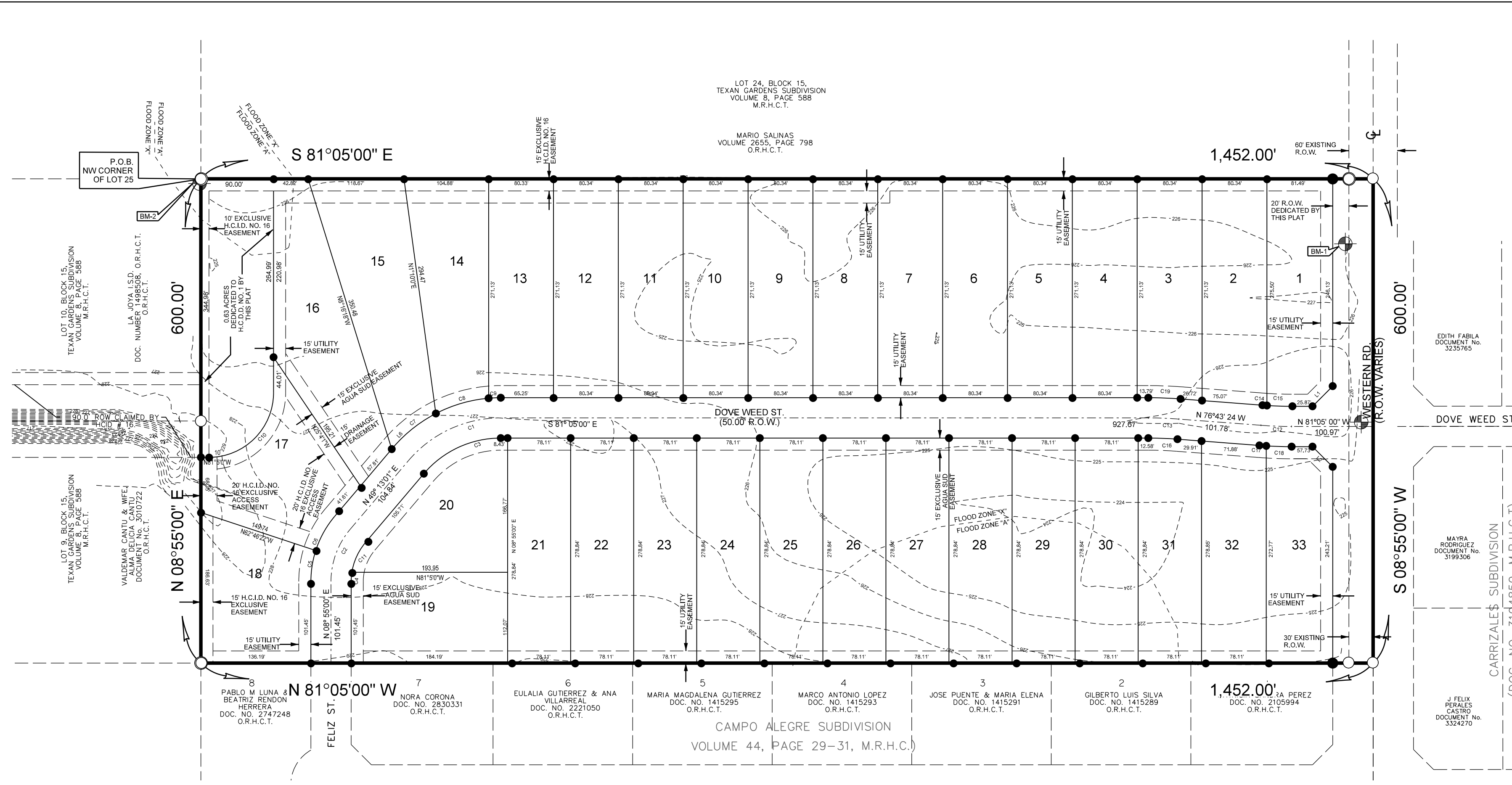
The applicant has submitted the required NOI as per Part II, Section E of the TPDES General Permit for Construction Activities (TXR150000) along with a copy of the Erosion Control Plan for the proposed Project.

PRELIMINARY APPROVAL FROM THE
HIDALGO COUNTY COMMISSIONERS COURT ON: 6/30/2023

STAFF RECOMMENDS: **Preliminary Approval** subject to comments and future recommendations by planning, Other departments, and the approval of the City of MISSION.

Final Approval subject to recommendations other departments

* This subdivision plat has been reviewed and complies with the Hidalgo County Subdivision Rules, Texas Water Development Board Model Subdivision Rules and The Texas Local Government Code.



CURVE TABLE

CURVE	DELTA	RADIUS	ARC LENGTH	CHORD BEARING	CHORD DISTANCE
C1	46°00'41"	150	80.31	S75°54'40"W	78.16
C2	43°59'19"	100	76.77	S30°54'40"W	74.9
C3	46°00'41"	75	60.23	S75°54'40"W	58.62
C4	107°22'04"	75	133.57	S14°06'02"W	133.55
C5	190°12'17"	125	41.50	S18°25'37"W	41.3
C6	24°58'07"	125	54.47	S40°25'16"W	54.04
C7	11°11'37"	125	24.42	S58°30'08"W	24.38
C8	11°11'37"	125	69.53	S80°01'59"W	68.63
C9	43°03'43"	125	6.44	N82°32'29"W	6.4343
C10	90°00'00"	80	125.66	N53°55'00"E	113.13
C11	33°32'15"	75	44.01	S36°05'42"W	43.38
C12	04°21'36"	500	38.05	S78°54'12"E	38.04
C13	04°21'36"	500	38.05	S78°54'12"E	38.04
C14	00°39'50"	475	5.5	S77°03'19"E	5.5
C15	03°41'46"	475	30.64	S79°14'06"E	30.64
C16	04°21'36"	475	36.14	S77°03'19"E	24.45
C17	00°55'24"	525	8.46	S77°11'06"E	8.46
C18	03°26'11"	525	31.49	S79°21'54"E	31.48
C19	04°21'36"	525	39.95	S78°28'45"E	33.75

LOT AREAS

LOT	SQUARE FT.	ACRES
1	2948	0.07
2-14	22000	0.51
15	21996	0.50
16	2608	0.06
17	26580	0.61
18	21879	0.50
19	22391	0.51
20	25321	0.58
21-33	21998	0.51
34	22486	0.52

UNETABLE

LINE	BEARING	DISTANCE
L1	N53°55'00"E	35.35'
L2	N36°05'00"W	35.35'
L3	N73°13'21"W	64.00'
L4	N73°13'21"W	0.58'
L5	S81°05'00"E	0.94'

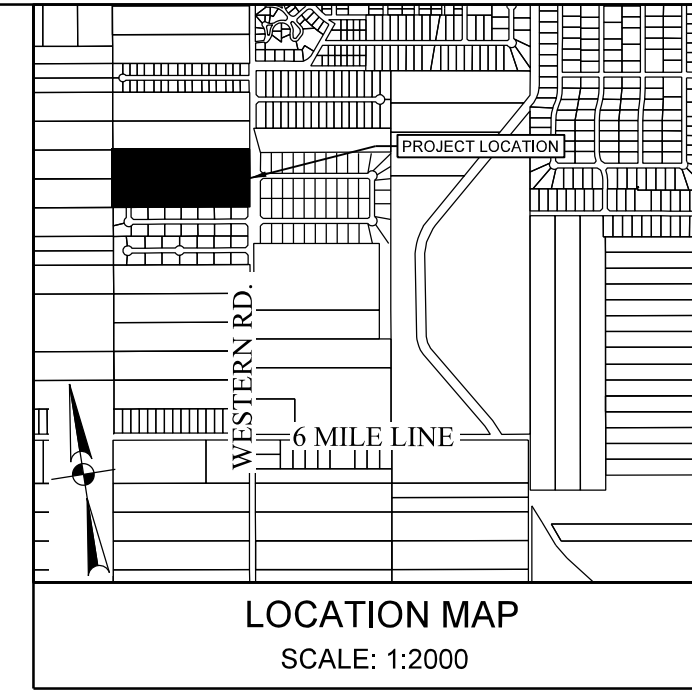
LEGEND:

- SET # 8" IRON ROD WITH PLASTIC CAP STAMPED "ROWS PROP. COR."
- FOUND IRON ROD WITH PLASTIC CAP STAMPED "ROWS PROP. COR.", UNLESS OTHERWISE NOTED
- OFFICIAL RECORDS HIDALGO COUNTY TEXAS
- MAP RECORDS HIDALGO COUNTY TEXAS
- DEED RECORDS HIDALGO COUNTY TEXAS
- RIGHT-OF-WAY HIDALGO COUNTY DRAINAGE DISTRICT

LOCATION MAP
SCALE: 1:2000

GENERAL NOTES:

- FLOOD ZONE STATEMENT: FLOOD ZONE DESIGNATION: "1" & "2" ZONE "1" 100-YEAR FLOOD ZONE. ZONE "2" NO BASE FLOOD ELEVATIONS DETERMINED; COMMUNITY PANEL NO. 48034 0200 D. REVISED JUNE 06, 2000. BASED ON RECENT IMPROVEMENTS TO THE SITE, WE HAVE DETERMINED THAT THE BASE FLOOD ELEVATION FOR THIS ZONE "2" ON THIS SPECIFIC PROPERTY IS _____ PROPERTY HAS BEEN TAKEN OUT OF THE FLOOD ZONE WITH LOMA CASE NO. _____
- MINIMUM BUILDING SETBACK LINES: FRONT SETBACK: 25 FEET OR EASEMENT WHICHEVER IS GREATER. 18 FEET FRONT GARAGE SIDE SETBACK: 10 FEET OR EASEMENT WHICHEVER IS GREATER. REAR SETBACK: 15.00 FEET OR EASEMENT WHICHEVER IS GREATER.
- NO MORE THAN ONE SINGLE FAMILY DETACHED DWELLING SHALL BE LOCATED ON LOTS 1 THROUGH 33. THIS MUST BE STIPULATED ON ALL DEEDS AND CONTRACTS FOR DEEDS.
- NO COMMERCIAL USE SHALL BE ALLOWED ON ALL INTERNAL LOTS 1 THROUGH 33.
- MINIMUM FINISHED FLOOR ELEVATION SHALL BE 1' ABOVE TOP OF CURB, WHICHEVER IS GREATER. ELEVATION CERTIFICATE MAY BE REQUIRED FOR LOTS LOCATED OUTSIDE DESIGNATED FLOOD ZONE AT THE TIME OF APPLICATION FOR CONSTRUCTION TO VERIFY PRE AND POST CONSTRUCTION FINISHED FLOOR ELEVATIONS. AN ELEVATION CERTIFICATE SHALL BE REQUIRED FOR ALL LOTS WITHIN A DESIGNATED FLOOD ZONE AT THE TIME FOR DEVELOPMENT PERMIT APPLICATION.
- THE FOLLOWING BENCHMARKS ARE IDENTIFIED ON THE FACE OF THE PLAT AND ON THE ATTACHED ENGINEERING PLANS.
 - BM-1 IS A SET 8" IRON ROD WITH BLUE PLASTIC CAP "R.O.W.S. CONTROL" LOCATED ON WEST RIGHT-OF-WAY OF WESTERN ROAD AT 21.12 FEET WEST OF WESTERN ROAD CENTERLINE. N= 16462.372322 E= 1019.050573 ELEV= 225.87'
 - BM-2 IS A SET 8" IRON ROD WITH BLUE PLASTIC CAP "R.O.W.S. CONTROL" N= 16464.484618 E= 1019.918148 ELEV= 227.11'
- IN ACCORDANCE WITH THE HIDALGO COUNTY DRAINAGE DISTRICT NO. 1 A TOTAL OF 73,753 CUBIC FEET, 1.693 ACRE-FEET OF DETENTION IS REQUIRED FOR THIS SUBDIVISION. DRAINAGE REQUIREMENT IN ACCORDANCE WITH THE LOCAL REQUIREMENTS WILL BE ACCOMPLISHED AS FOLLOWS: (SEE SHEET 4 FOR PAVING LAYOUT AND DRAINAGE DESIGN).
- NO STRUCTURE SHALL BE PERMITTED OVER ANY EASEMENT. EASEMENTS SHALL BE KEPT CLEAR OF BUILDINGS, SHEDS, SHRUBS, TREES, AND OTHER PLANTINGS (EXCEPT LOG LESS THAN 18 INCHES MATURE HEIGHT, GROUND COVER, GRASS, OR FLOWERS) AND OTHER OBSTRUCTIONS THAT WOULD INTERFERE WITH THE OPERATION AND MAINTENANCE OF THE EASEMENT.
- EACH PURCHASER CONTRACT MADE BETWEEN A SUBDIVIDER AND PURCHASER OF A LOT IN THIS SUBDIVISION SHALL CONTAIN A STATEMENT DESCRIBING HOW AND WHEN WATER, SEWER, ELECTRICITY, AND GAS SERVICES WILL BE MADE AVAILABLE TO THE SUBDIVISION.
- OSDF SYSTEM IS BEING DESIGNED FOR DISPOSAL OF DOMESTIC SEWAGE ONLY.
- BEACH LOT ON THIS PLAT COMPLIES WITH THE MINIMUM 21,780 SQUARE FEET LOT AREA WITH POTABLE WATER SUPPLY.
- OSDF SYSTEM SHALL REQUIRE INSPECTION AND APPROVAL BY HIDALGO COUNTY AUTHORIZED DEPARTMENT.
- SOIL ANALYSIS HAS BEEN SUBMITTED TO THE AUTHORIZED HIDALGO COUNTY DEPARTMENT AND EXCEPTS MAY BE ALSO SEEN ON THE UTILITY LAYOUT FOR THIS SUBDIVISION AS SUBMITTED TO THE HIDALGO COUNTY PLANNING DEPARTMENT. THE ENGINEER HAS DETERMINED THAT THE SOILS IS SUITABLE FOR A STANDARD SEPTIC TANK AND ABSORPTIVE DRAINFIELD SYSTEM.
- APPROVED "OSDF" PERMIT APPLICATION IS REQUIRED INCLUDING INDIVIDUAL LOT PLANNING MATERIALS PRIOR TO OCCUPANCY A LOT.
- THERE ARE NO WATER WELLS WITHIN 150 FEET FROM THE BOUNDARIES ON THIS SUBDIVISION.
- MANUEL CHAPA, THE OWNER & SUBDIVIDER OF CARRIZALES SUBDIVISION, RETAINS A BLANKET EASEMENT UPON EACH LOT FOR THE PURPOSE OF INSTALLING AN APPROVED OSDF ON THE LOT AS DESCRIBED ON SHEET NO. 2 OF THIS PLAT.
- ALL LOTS SHALL HAVE A POST DEVELOPMENT FINISHED GRADE FROM THE REAR OF THE LOT TO THE CURB AND/OR ROADSIDE DITCH AT A 2.0% SLOPE TO ACCOMPLISH POSITIVE DRAINAGE. THIS IS IN ACCORDANCE WITH HIDALGO COUNTY APPENDIX 5, COUNTY CONSTRUCTION SPECIFICATIONS 5.1.4.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR DETAINING AND ACCOMMODATING MORE THAN THE DETAINED VOLUME SHOWN ON THIS PLAT IF IT TERMINATES AT THE DEVELOPER'S FACE, THAT THE DETENTION REQUIREMENTS ARE GREATER THAN STATED ON THIS PLAT. DUE TO THE IMPERVIOUS AREA BEING GREATER THAN THE PLAN ENGINEER CONSIDERED IN THE HYDRAULIC CALCULATIONS FOR THIS SUBDIVISION.
- ALL IRRIGATION EASEMENTS ARE EXCLUSIVE TO HIDALGO COUNTY IRRIGATION DISTRICT NO. 16 AND THE DISTRICT ALLOWS NO OTHER UTILITIES OR USE WITHOUT EXPRESS APPROVAL.
- NO UTILITY COMPANY OR OTHER PERSON IS ALLOWED TO CROSS ABOVE OR BELOW GROUND ANY DISTRICT EASEMENT OR RIGHT-OF-WAY WITH THE LINES, POLES, OPEN DITCHES OR OTHER USE WITHOUT FIRST OBTAINING A CROSSING PERMIT FROM THE DISTRICT.
- NO PERMANENT STRUCTURE (EXAMPLE: FENCES OR DRIVEWAYS OF ANY CONSTRUCTION) WILL BE ALLOWED TO BE CONSTRUCTED OR EXIST ON ANY DISTRICT EASEMENT AREA IS SUBJECT TO REMOVAL.
- NO UTILITY COMPANY OR OTHER PERSONS ALLOWED TO CONNECT TO ANY DISTRICT FACILITY WITHOUT FIRST OBTAINING A PERMIT FROM THE HIDALGO COUNTY DRAINAGE DISTRICT #16. ANY CONNECTION NOT AUTHORIZED BY THE DISTRICT IS SUBJECT TO REMOVAL.
- LOTS 1 & 33 SHALL NOT HAVE ACCESS/DRIVEWAY ONTO WESTERN ROAD.



LOCATION DESCRIPTION

EL CORDERO SUBDIVISION IS LOCATED WITHIN HIDALGO COUNTY PRECINCT NO. 3 IN THE WEST SIDE OF HIDALGO COUNTY, APPROXIMATE 0.4 MILES WEST OF THE INTERSECTION OF 6 MILE LINE AND WESTERN RD. THE ONLY NEARBY MUNICIPALITY IS THE CITY OF MISSION, ACCORDING TO THE OFFICIAL MAP IN THE CITY OFFICE OF PLANNING AND ZONING (POPULATION 83,394, 2015 CENSUS). EL CORDERO SUBDIVISION LIES APPROXIMATELY 2 1/2 MILE FROM THE CITY LIMITS OF MISSION AND IS WITHIN THE CITY'S 0 TO 3/2 MILE EXTRATERRITORIAL JURISDICTION (ETJ) UNDER LOCAL GOVERNMENT CODE 42.021 AND 212.001.

FILED FOR RECORD IN
HIDALGO COUNTY
ARTURO GUJARDO, JR.
HIDALGO COUNTY CLERK

ON _____ AT _____ AM/PM
INSTRUMENT NUMBER _____
OF THE MAP RECORDS OF HIDALGO COUNTY, TEXAS
BY _____ DEPUTY

OWNER ACKNOWLEDGMENT

STATE OF TEXAS
COUNTY OF HIDALGO

OWNERS DESIGNATION, CERTIFICATION, AND ATTESTATION:

PENA CHAPA DEVELOPMENT AS OWNER OF THE 20.0 ACRE TRACT OF LAND ENCOMPASSED WITHIN THE PROPOSED EL CORDERO SUBDIVISION, HEREBY SUBDIVIDE THE LAND AS DEPICTED IN THIS SUBDIVISION PLAT AND DEDICATED TO PUBLIC USE OF THE STREET, PARK, AND EASEMENTS SHOWN HEREIN.

I CERTIFY THAT I HAVE COMPLIED WITH THE REQUIREMENTS OF TEXAS LOCAL GOVERNMENT CODE 202.032 AND THAT:

- THE WATER QUALITY AND CONNECTIONS TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS.
- SEWER CONNECTIONS TO THE LOTS OR SEPTIC TANKS MEET, OR WILL MEET, THE MINIMUM REQUIREMENTS OF THE STATE STANDARDS.
- ELECTRICAL CONNECTIONS PROVIDED TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS.
- GAS CONNECTIONS, IF AVAILABLE, PROVIDED TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS.

I ATTEST THAT THE MATTERS ASSERTED IN THIS PLAT ARE TRUE AND COMPLETE.

PENA CHAPA DEVELOPMENT
MANUEL CHAPA (MEMBER)
P.O. BOX 1958
MISSION, TEXAS 78572

DATE _____

HIDALGO COUNTY

STATE OF TEXAS
COUNTY OF HIDALGO

WE, THE UNDERSIGNED CERTIFY THAT THIS PLAT OF EL CORDERO SUBDIVISION WAS REVIEWED AND APPROVED BY THE HIDALGO COUNTY COMMISSIONERS COURT ON _____

HIDALGO COUNTY JUDGE: _____ DATE _____

ATTEST: HIDALGO COUNTY CLERK: _____ DATE _____

HIDALGO COUNTY CERTIFICATE OF PLAT APPROVAL

I, THE UNDERSIGNED CERTIFY THAT THIS PLAT OF EL CORDERO SUBDIVISION WAS REVIEWED AND APPROVED BY THE HIDALGO COUNTY HEALTH DEPARTMENT ON _____

ENVIRONMENTAL HEALTH DIVISION MANAGER: _____ DATE _____

CITY OF MISSION

THIS PLAT OF EL CORDERO SUBDIVISION HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING AND ZONING COMMISSION OF THE CITY OF MISSION, TEXAS AND IS HEREBY APPROVED BY SUCH COMMISSION.

DATED THIS _____ DAY OF _____, 20____.

CHAIRMAN _____

CITY OF MISSION CERTIFICATE OF APPROVAL

UNDER LOCAL GOVERNMENT CODE 212.011(8) WE, THE UNDERSIGNED CERTIFY THAT THIS PLAT OF EL CORDERO SUBDIVISION WAS REVIEWED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF MISSION.

MAYOR CITY OF MISSION: _____ DATE _____

ATTEST: CITY SECRETARY: _____ DATE _____

HIDALGO COUNTY IRRIGATION DISTRICT NO. 16

THIS PLAT IS HEREBY APPROVED BY THE HIDALGO COUNTY IRRIGATION DISTRICT NO. 16, ON THIS THE _____ DAY OF _____, 20____.

NO IMPROVEMENTS OF ANY KIND INCLUDING WITHOUT LIMITATION TREES, FENCES AND BUILDINGS) SHALL BE PLACED UPON UNDED IRRIGATION DISTRICT RIGHT OF WAY OR EASEMENTS. APPROVAL OF THIS PLAT DOES NOT RELEASE ANY RIGHTS THAT THE DISTRICT MAY HAVE WITH RESPECT TO SUCH IMPROVEMENTS.

ATTEST:

PRESIDENT: _____ DATE _____

SECRETARY: _____ DATE _____

AGUA SPECIAL UTILITY DISTRICT

I, ROBERTO SALINAS, HEREBY CERTIFY THAT THE AGUA SPECIAL UTILITY DISTRICT HAS APPROVED THE POTABLE WATER SUPPLY FOR THE CARRIZALES SUBDIVISION, HIDALGO COUNTY, TEXAS. THE AGUA SPECIAL UTILITY DISTRICT IS THE HOLDER OF THE CERTIFICATE OF CONVENIENCE AND NECESSITY (CCN) ISSUED BY THE STATE OF TEXAS TO FURNISH POTABLE WATER TO AN AREA IN HIDALGO COUNTY, TEXAS THAT INCLUDES THIS SUBDIVISION AND IS THEREFORE OBLIGATED TO SERVE THIS SUBDIVISION WITH POTABLE WATER TO THE EXTENT REQUIRED BY THE LAWS OF THE STATE OF TEXAS. THE AGUA SPECIAL UTILITY DISTRICT AGREES THAT IT WILL PROVIDE WATER TO THIS SUBDIVISION AT THE TIME WHEN ALL OF THE INFRASTRUCTURE REQUIREMENTS FOR THE SUBDIVISION ARE MET. WATER METERS ARE IMMEDIATELY AVAILABLE FOR THIS PURPOSE UPON COMPLETION OF THE WATER FACILITIES SHOWN ON THE PLAT OF THE SUBDIVISION.

KNOW ALL MEN BY THESE PRESENTS:

I, VICTOR H. TREVIÑO, A REGISTERED PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS, LICENSE NUMBER 128199, DO HEREBY CERTIFY THAT THIS PLAT HAS BEEN GIVEN PROPER AND ADEQUATE ENGINEERING CONSIDERATION.

VICTOR H. TREVIÑO, P.E.
LICENSED PROFESSIONAL ENGINEER, TEXAS LIC. NO. 128199

HIDALGO COUNTY DRAINAGE DISTRICT NO. 1

APPROVED BY DRAINAGE DISTRICT:

HIDALGO COUNTY DRAINAGE DISTRICT NO. 1 HEREBY CERTIFIES THAT THE DRAINAGE PLANS FOR THIS SUBDIVISION COMPLY WITH THE MINIMUM STANDARDS OF THE DISTRICT ADOPTED UNDER TEXAS WATER CODE 46.11(C). THE DISTRICT HAS NOT REVIEWED AND DOES NOT CERTIFY THAT THE DRAINAGE STRUCTURES DESCRIBED ARE APPROPRIATE FOR THE SPECIFIC SUBDIVISION BASED ON GENERALLY ACCEPTED ENGINEERING CRITERIA. IT IS THE RESPONSIBILITY OF THE DEVELOPER AND HIS ENGINEER TO MAKE THEIR DETERMINATIONS.

HIDALGO COUNTY DRAINAGE DISTRICT NO. 1

RAUL E. SEEN, P.E., C.F.M.
GENERAL MANAGER

DATE _____

REVISION NOTES

NO.	SHEET	REVISION	DATE	APPROVED

PRINCIPAL CONTACTS

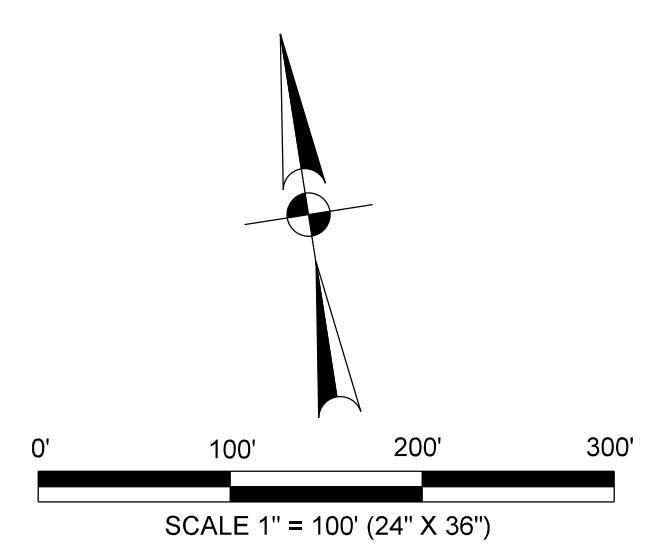
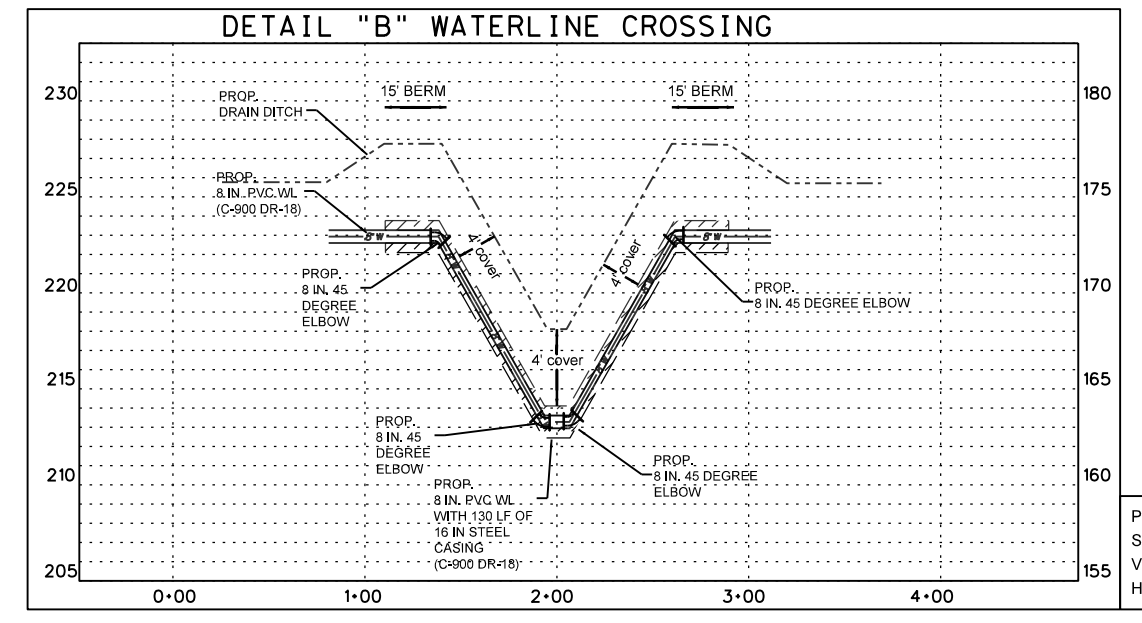
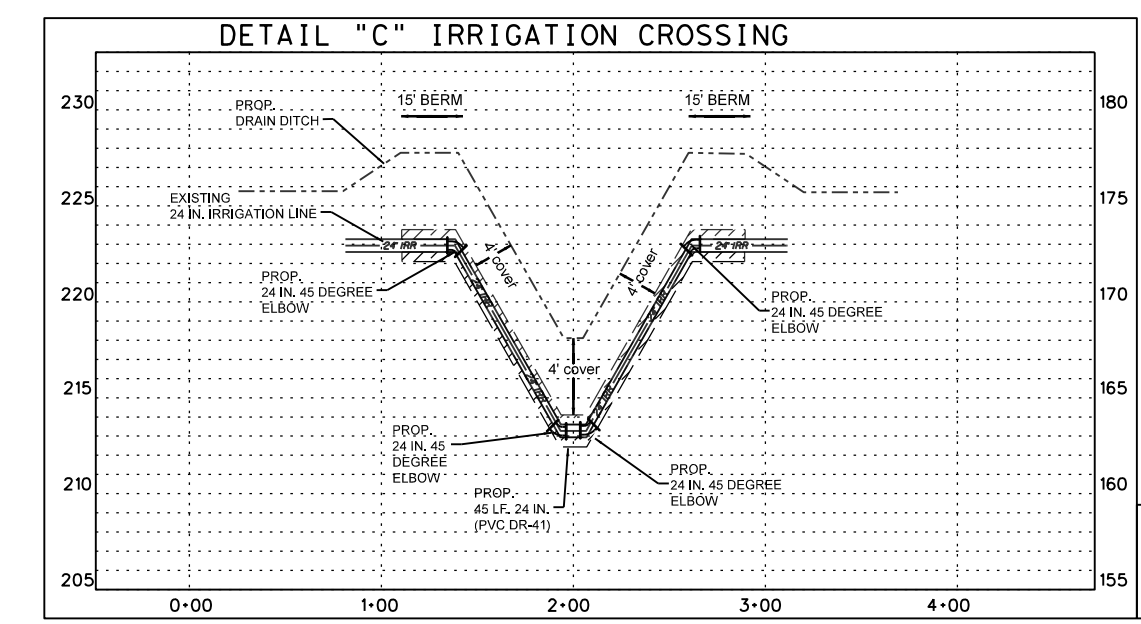
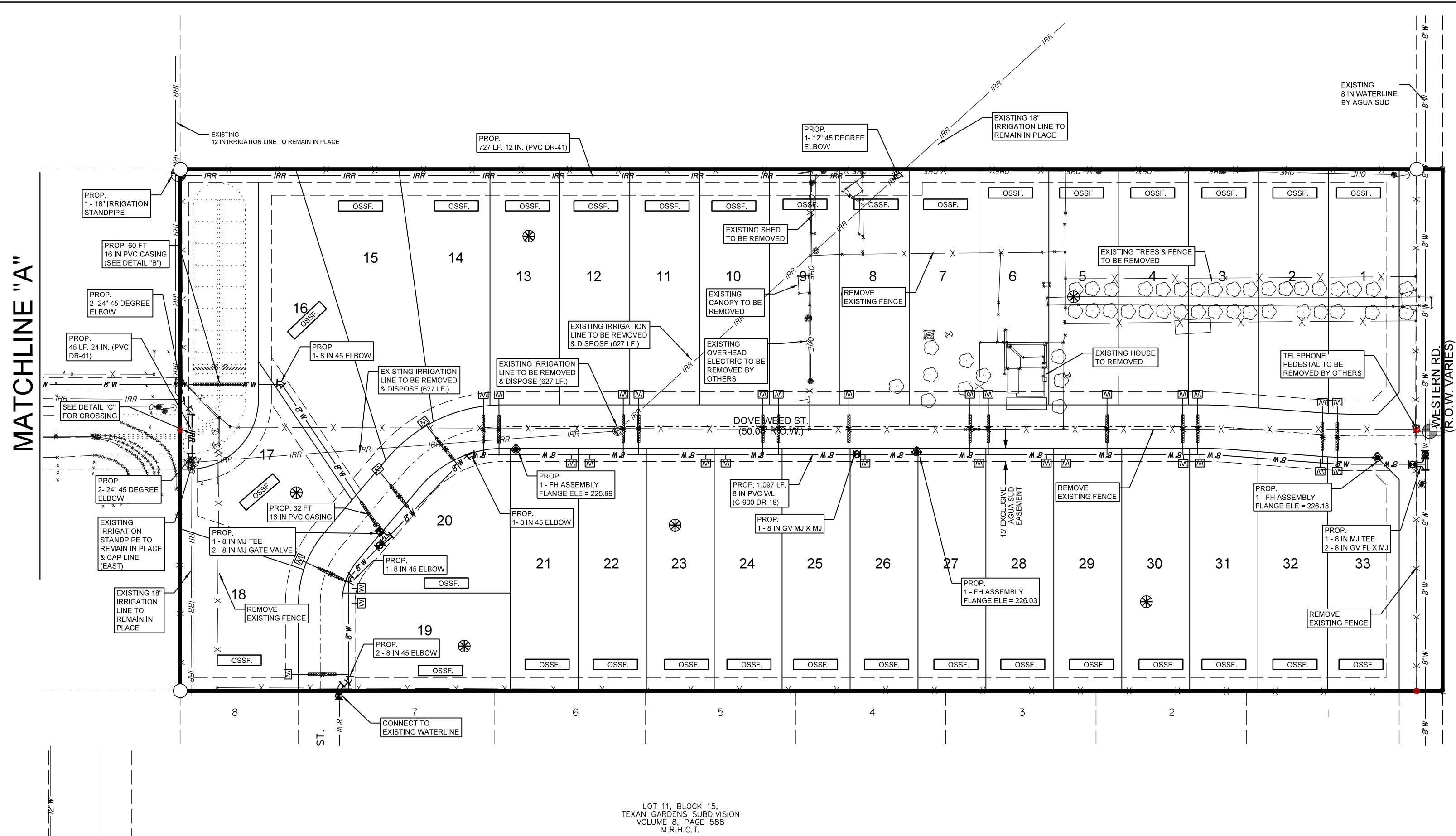
	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	PENA CHAPA DEVELOPMENT	P.O. BOX 1958	MISSION, TEXAS 78572	(956) 581-3918	
ENGINEER:	VICTOR H. TREVIÑO, P.E.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78572	(956) 424-3335	(956) 424-3132
SURVEYOR:	VICTOR H. TREVIÑO, R.P.L.S.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78572	(956) 424-3335	(956) 424-3132

SOUTH TEXAS INFRASTRUCTURE GROUP

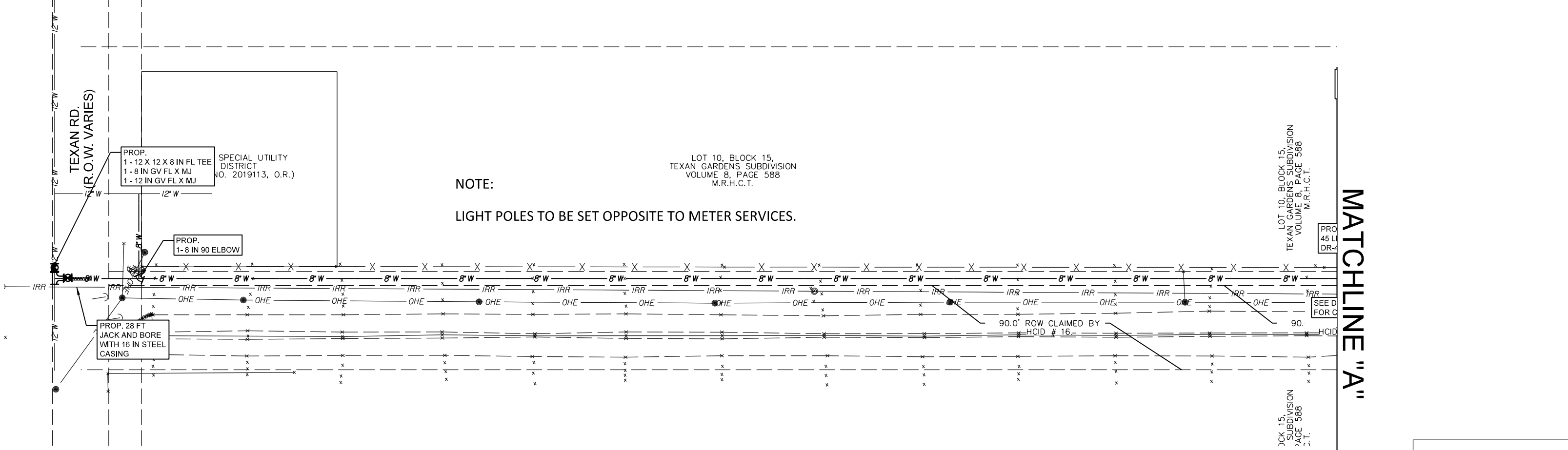
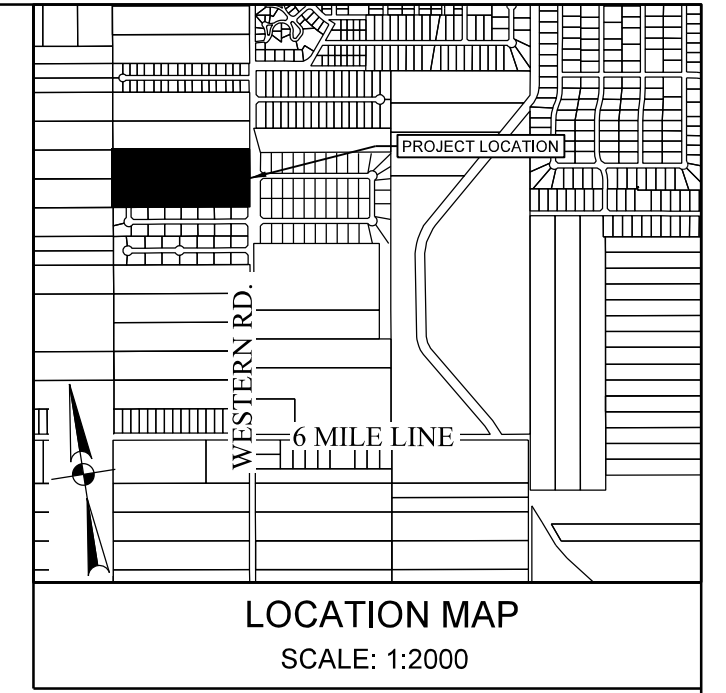
900 S. STEWART, SUITE 13
MISSION, TEXAS 78572
PH: (956) 424-3335
FAX: (956) 424-3132
TBP# REG # 15000

LOT LAYOUT
EL CORDERO SUBDIVISION

BEING A 20.0 ACRE TRACT SITUATED IN YOJEFONSON RAMIREZ SURVEY, ABSTRACT 584, PORCION 78, AND THE MARIA DE LUNA SURVEY, ABSTRACT 570, PORCION 80, HIDALGO COUNTY TEXAS, BEING LOT 25 AND 26, BLOCK 15, TEKAN GARDENS SUBDIVISION, AS PER MAP OR PLAT THERE OF RECORDED IN VOLUME 8, PAGES 67-68, MAP RECORDS, HIDALGO COUNTY, TEXAS.



- LEGEND:**
- CHAIN LINK FENCE
 - SET # 5/8" IRON ROD WITH PLASTIC CAP STAMPED "RWSS PROP. COR"
 - FOUND IRON ROD
 - WOOD FENCE
 - PROPOSED PAVEMENT
 - OVERHEAD ELECTRIC
 - PROPOSED CASING
 - FOR 8" WATERLINE = 16" STEEL CASING
 - FOR 2" WATER LINE = 3" PVC CASING
 - FOR 1" WATER LINE = 2" PVC CASING
 - PROPOSED STREET LIGHT
 - SOIL BORING LOCATION
 - EXISTING POWER POLE
 - 1 IN SINGLE WATER SERVICE
 - 2 IN DOUBLE WATER SERVICE



NOTE:
LIGHT POLES TO BE SET OPPOSITE TO METER SERVICES.

SUBDIVIDER CERTIFICATION
1. BY COMPLETING THE IMPROVEMENTS DESCRIBED ON THE PLAN, SUBDIVIDER WILL COMPLY WITH MINIMUM STATE STANDARDS AND THAT ALL WATER QUALITY AND CONNECTIONS INCLUDING WATER METERS TO THE LOTS MEET SUCH STANDARDS AND (B) SEWER CONNECTIONS TO THE LOTS OR SEPTIC TANKS MEET OR WILL MEET SUCH STANDARDS AND WILL BE CONSTRUCTED IN ACCORDANCE WITH STATE AND COUNTY REGULATIONS.

SUBDIVIDER STATEMENT:
1. I, PEÑA CHAPA DEVELOPMENT SUBDIVIDER FOR EL CORDERO SUBDIVISION HEREBY CERTIFY SEWER PERMITS, AS APPLICABLE, HAVE BEEN PAID AND COPIES OF RECEIPTS ARE ON FILE WITH THE HIDALGO COUNTY HEALTH DEPARTMENT AND THAT AN ADEQUATE DRINKING WATER SOURCE IS IMMEDIATELY AVAILABLE TO EACH LOT OF THE TYPE, QUALITY AND QUANTITY TO ENABLE EACH PERSON PURCHASING A LOT HAVE ADEQUATE WATER TO COMPLY WITH THE REGULATIONS AND LAWS OF THE STATE AS REQUIRED BY STATE AND COUNTY REGULATIONS.

WATER AND SEWER ENGINEERING REPORT
WATER SUPPLY (DESCRIPTION, COST, AND OPERABILITY DATE):
EL CORDERO SUBDIVISION WILL BE PROVIDED WITH POTABLE WATER BY AGUA SPECIAL UTILITY DISTRICT (AGUA SUD). THE SUBDIVIDER AND AGUA SUD HAVE ENTERED INTO A CONTRACT IN WHICH AGUA SUD HAS PROMISED TO PROVIDE SUFFICIENT WATER TO THE SUBDIVISION FOR AT LEAST 30 YEARS AND AGUA SUD HAS PROVIDED DOCUMENTATION TO SUFFICIENTLY ESTABLISH THE LONG TERM QUANTITY AND QUALITY OF THE AVAILABLE WATER SUPPLIES TO SERVE THE FULL DEVELOPMENT OF THIS SUBDIVISION.

EL CORDERO SUBDIVISION HAS 33 LOTS. AGUA SUD HAS ONE EXISTING 8" DIAMETER WATER LINE RUNNING THROUGH THE WEST SIDE OF THE RIGHT-OF-WAY OF WESTERN RD.

EL CORDERO SUBDIVISION SUBDIVIDER WILL BE CONNECTED TO THE EXISTING WATER SYSTEM WITH ONE (1) 1/2" M.J. TEE EACH WITH ONE (1) GATE VALVE. WATER DISTRIBUTION FOR EL CORDERO SUBDIVISION CONSISTS OF FIFTEEN (15) 1" DIAMETER SINGLE SERVICES SHORT AND EIGHTEEN (18) 1" DIAMETER SINGLE SERVICE LONG THAT RUN INTO THE LOTS. THE 8" LINE, THE 1" SINGLE SERVICE LINES AND THE METER BOXES HAVE ALREADY BEEN INSTALLED AT A TOTAL COST OF \$ 199,455.00. ON \$ 6,044.00 PER LOT. IN ADDITION THE SUBDIVIDER HAS PAID AGUA SUD THE SUM OF \$ 90,750.00 WHICH COVERS THE \$ 2,750.00 COST PER LOT AS STATED IN THE 30 YEAR WATER SERVICE AGREEMENT WHICH REPRESENTS THE TOTAL COST OF WATER METER, RIGHTS ACQUISITION FEES, AND ALL MEMBERSHIP OR OTHER FEES ASSOCIATED WITH CONNECTING THE INDIVIDUAL LOTS IN THE SUBDIVISION TO AGUA SUD UPON REQUEST BY THE LOT OWNER. AGUA SUD WILL PROMPTLY INSTALL AT NO CHARGE THE WATER METER FOR THAT LOT. THE SUBDIVIDER HAS INSTALLED THREE (3) FIRE HYDRANTS AT A UNIT COST OF \$ 6,250.00 FOR A TOTAL COST OF \$ 18,750.00. THE EXISTING WATER FACILITIES HAVE BEEN APPROVED AND ACCEPTED BY AGUA SUD AND SAID DISTRIBUTION SYSTEM OPERABLE AS OF THE DATE OF THE RECORDING OF THE PLAT.

SEWER FACILITIES: DESCRIPTION, COSTS, AND OPERABILITY DATE:
SEWERAGE FROM EL CORDERO SUBDIVISION WILL BE TREATED BY INDIVIDUAL ON-SITE SEWAGE FACILITIES ("OSSF") CONSISTING OF A STANDARD DESIGN DUAL COMPARTMENT SEPTIC TANK AND BRAIN FIELD ON LOTS 1 TO 33. THE UNDERSIGNED PROFESSIONAL ENGINEER HAS EVALUATED THE SUITABILITY OF THE SUBDIVISION SITE FOR OSSF AND SUBMITTED A REPORT CONCLUDING THE SITE IS SUITABLE FOR OSSF. THE REPORT WAS REVIEWED AND APPROVED BY THE HIDALGO COUNTY HEALTH DEPARTMENT. EACH LOT HAS ADEQUATE AREA FOR A REPLACEMENT DRAIN FIELD.

SOIL EVALUATION REPORT:
EACH LOT IN THE PROPOSED SUBDIVISION IS AT LEAST 1/2 ACRE IN SIZE. THE NATURAL RESOURCE CONSERVATION SERVICE SOIL SURVEY BOOK INDICATED A SANDY LOAM SOIL FOR THE AREA. AT LEAST TWO SOIL EXCAVATIONS WITH PERFORMED ON THE SITE, AT OPPOSITE AREAS OF THE SUBDIVISION, A TOTAL OF 10 SOIL BORING EXCAVATION WERE PERFORMED. (ADDITIONAL BORINGS WERE UNNECESSARY BECAUSE THE SOILS ARE VERY UNIFORM WITHIN THIS LIMIT AREA). THE SOIL IS A UNIFORM SANDY LOAM EXTENDING UP TO 30" BELOW THE BOTTOM OF ANY PROPOSED EXCAVATIONS. THERE IS NO INDICATION OF GROUNDWATER OR A RESTRICTIVE LAYER WITHIN 24" OF BOTTOM OF THE PROPOSED EXCAVATIONS. THE SUBDIVISION DRAINS WELL.

THE COST TO INSTALL A SEPTIC SYSTEM ON AN INDIVIDUAL LOT IS \$ 2,750.00, INCLUDING THE COST FOR THE REQUIRED PERMIT AND LICENSE. LOTS ALL OSSF HAVE BEEN INSTALLED AS OF THE TIME OF APPLICATION FOR FINAL PLAT APPROVAL AT A TOTAL COST \$ 90,750.00. THE HIDALGO COUNTY HEALTH DEPARTMENT HAS INSPECTED AND APPROVED THE INSTALLATION OF ONE OSSF ON 03/15/25.

ENGINEER CERTIFICATION:
BY MY SIGNATURE BELOW, I CERTIFY THAT THE WATER AND SEWERAGE SERVICE FACILITIES DESCRIBED ABOVE ARE IN COMPLIANCE WITH THE MODEL RULES ADOPTED UNDER SECTION 16.343, WATER CODE. I CERTIFY THAT THE COSTS TO INSTALL THE WATER AND THE UNCONSTRUCTED ON-SITE SEWERAGE FACILITIES, DISCUSSED ABOVE, ARE AS FOLLOWS:
WATER FACILITIES- THESE FACILITIES FULLY CONSTRUCTED, WITH THE INSTALLATION OF WATER METERS, WILL COST A GRAND TOTAL OF \$ 199,455.00.
SEWER FACILITIES- SEPTIC SYSTEMS IS ESTIMATED TO COST \$ 2,750.00 PER LOT (ALL INCLUSIVE) FOR A TOTAL OF \$ 90,750.00 FOR THE ENTIRE SUBDIVISION.



VICTOR H. TREVINO, P.E.
LICENSED PROFESSIONAL ENGINEER, TEXAS LIC. NO. 128195
DATE: 07/20/23

REPORT DE INGENIERIA DE AGUA Y DRENAJE
WATER SUPPLY (DESCRIPCION, GASTOS Y FECHAS DE INICIO):
LA SUBDIVISION EL CORDERO RECIBIRA SU PROVISION DE AGUA DE AGUA SPECIAL UTILITY DISTRICT (AGUA SUD). EL DUEÑO DE LA SUBDIVISION Y AGUA SUD HAN FIRMADO UN CONTRATO POR EL CUAL LA SUBDIVISION RECIBIRA SU PROVISION DE AGUA POR LOS PROXIMOS 30 AÑOS. AGUA SUD HA PRESENTADO DOCUMENTACION PARA DEMOSTRAR A LARGO PLAZO LA CANTIDAD Y CALIDAD DE AGUA ACCESIBLE PARA SERVIR EL FUTURO DESARROLLO DE LA SUBDIVISION.

LA SUBDIVISION EL CORDERO TIENE 33 LOTES. AGUA SUD TIENE UNA LINEA EXISTENTE DE AGUA DE 8 PULGADAS DE DIAMETRO Y CORRE SOBRE EL LADO OESTE DE LA CALLE WESTERN.

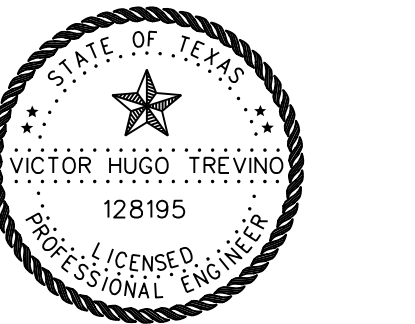
LA SUBDIVISION EL CORDERO SERA CONECTADA CON UN 1/2" TEE EXISTENTE DE 8 PULGADAS DE DIAMETRO UNIVALEVULA. LA DISTRIBUCION DE AGUA PARA LA SUBDIVISION EL CORDERO CONSISTE EN QUINCE (15) SERVICIOS SINGULOS CORTOS DE 1" DE DIAMETRO Y DIECIOCHO (18) SERVICIOS SINGULOS LARGOS DE 1" DE DIAMETRO QUE CORREN HACIA LOS LOTES. SE HAN INSTALADO YA LA LINEA DE 8" LOS SERVICIOS DE 1" LAS CASAS DE LOS MEDIDORES A UN COSTO TOTAL DE \$ 199,455.00. ON \$ 6,044.00 POR LOTE. EL DUEÑO REPRESENTANTE DE LA SUBDIVISION LE HA PAGADO A AGUA SUD LA CANTIDAD DE \$ 90,750.00 QUE CUBRE EL COSTO DE LOS MEDIDORES (15) \$ 2,750.00 POR CADA LOTE). ESTE PRECIO INCLUYE TAMBIEN EL COSTO DE LA INSTALACION DE CADA MEDIDOR Y LOS GASTOS DE CONDUCCION COMO EL DOLNO DE ALGUNO DE LOS LOTES SOLICITE UN MEDIDOR DE AGUA. AGUA SUD LO INSTALARA EN COSTO AGUANO. EL DUEÑO REPRESENTANTE DE LA SUBDIVISION HA INSTALADO 3 HIDRANTES CONTRA INCENDIO (FIRE HYDRANTS) A UN COSTO DE \$ 6,250.00 POR CADA UNO, LO CUAL REPRESENTA UNA CANTIDAD TOTAL DE \$ 18,750.00. EL SISTEMA DE AGUA ESTARA EN FUNCIONAMIENTO COMO SE MUESTRA EN LA FICHA EN LA CUAL LA SUBDIVISION SE REGISTRARA EN EL CONDOMIO DE HIDALGO.

DRENAJE: DESCRIPCION, GASTOS Y FECHA DE INICIO PARA FACILITAR EL DRENAJE PARA LA SUBDIVISION
SE INSTALARA UNA FOSA SEPTICA EN CADA SOLAR. ESTA FOSA SEPTICA CONSISTE DE UN TANQUE SEPTICO DE MODELO DUAL Y DE UN CAMPO DE DRENAJE PARA EL SOLAR. EL INGENIERO AUTOR DE ESTE DOCUMENTO HA EVALUADO EL AREA DONDE SE ENCUENTRA LA SUBDIVISION Y HA PREPARADO UN REPORTE QUE CONCLUYE QUE ESTE TERRENO ES ADECUADO PARA ESAS FOSAS SEPTICAS (OSSF). EL REPORTE FUE APROBADO POR EL DEPARTAMENTO DE SALUBRIDAD DEL CONDADO DE HIDALGO (HIDALGO COUNTY HEALTH DEPARTMENT) SEGUN EL REPORTE.

REPORT DE EVALUACION DE SUELO:
CADA LOTE EN LA SUBDIVISION PROPUESTA MIDE MAS DE MEDIO ACRE. SE HICIERON DOS EXCAVACIONES DE EVALUACION EN LUGARES OPUESTOS DE LA SUBDIVISION, UN TOTAL DE 10 EXCAVACIONES DE EVALUACION FUERON REALIZADAS. (EXCAVACIONES ADICIONALES NO FUERON NECESARIAS PORQUE EL TERRENO EN ESTA AREA ES SIGNIFICATIVAMENTE UNIFORME). EL TERRENO ES UNIFORME (TERRENO ACILLOSO O SUELO FRANCO) Y SE EXTIENDE A 36 PULGADAS BAJO TODAS LAS EXCAVACIONES PROPUESTAS. NO EXISTE EVIDENCIA DE AGUA 24 PULGADAS MAS ARRIBA DE LO MAS BAJO DE LAS EXCAVACIONES PROPUESTAS. EL AGUA EN ESTA AREA FLUYE BIEN.

EL COSTO TOTAL PARA LA INSTALACION DE UN SISTEMA INDIVIDUAL DE FOSA SEPTICA ES DE \$ 2,750.00. DOBLES, INCLuyendo EN EL COSTO DEL PERMISO REQUERIDO Y LICENCIA. TODAS LAS FOSAS SEPTICAS HAN SIDO INSTALADAS EN EL PROCESO DE LA APROBACION FINAL A UN COSTO TOTAL DE \$ 90,750.00. EL DEPARTAMENTO DE SALUBRIDAD DEL CONDADO DE HIDALGO HA INSPECCIONADO Y HA APROBADO LA INSTALACION DE LA FOSA SEPTICA DESDE 03/15/25.

CERTIFICACION:
CON MI FIRMA, CERTIFICO QUE LOS SERVICIOS Y SISTEMAS DE AGUA Y DRENAJE, DESCRITOS EN ESTE DOCUMENTO CUMPLEN CON LAS REGLAS GOBERNANDO A LOS SUBDIVISIONES, ADOPTADAS EN LA SECCION 16.343 DEL TEXAS WATER CODE (CONDADO DE AGUA DE TEXAS). CERTIFICO QUE LOS GASTOS PARA INSTALAR LOS SISTEMAS DE AGUA Y DRENAJE SON: AGUA- EL SISTEMA DE SERVICIO DE AGUA SERA INSTALADO Y COMPLETAMENTE CONSTRUIDO MIENTAS EL MEDIDOR MECANICO DE AGUA QUE COSTAR UN TOTAL DE \$ 199,455.00. DRENAJE- SE ESTIMA QUE LA FOSA SEPTICA COSTARA \$ 2,750.00 A UN COSTO TOTAL DE \$ 90,750.00. TODA LA SUBDIVISION.

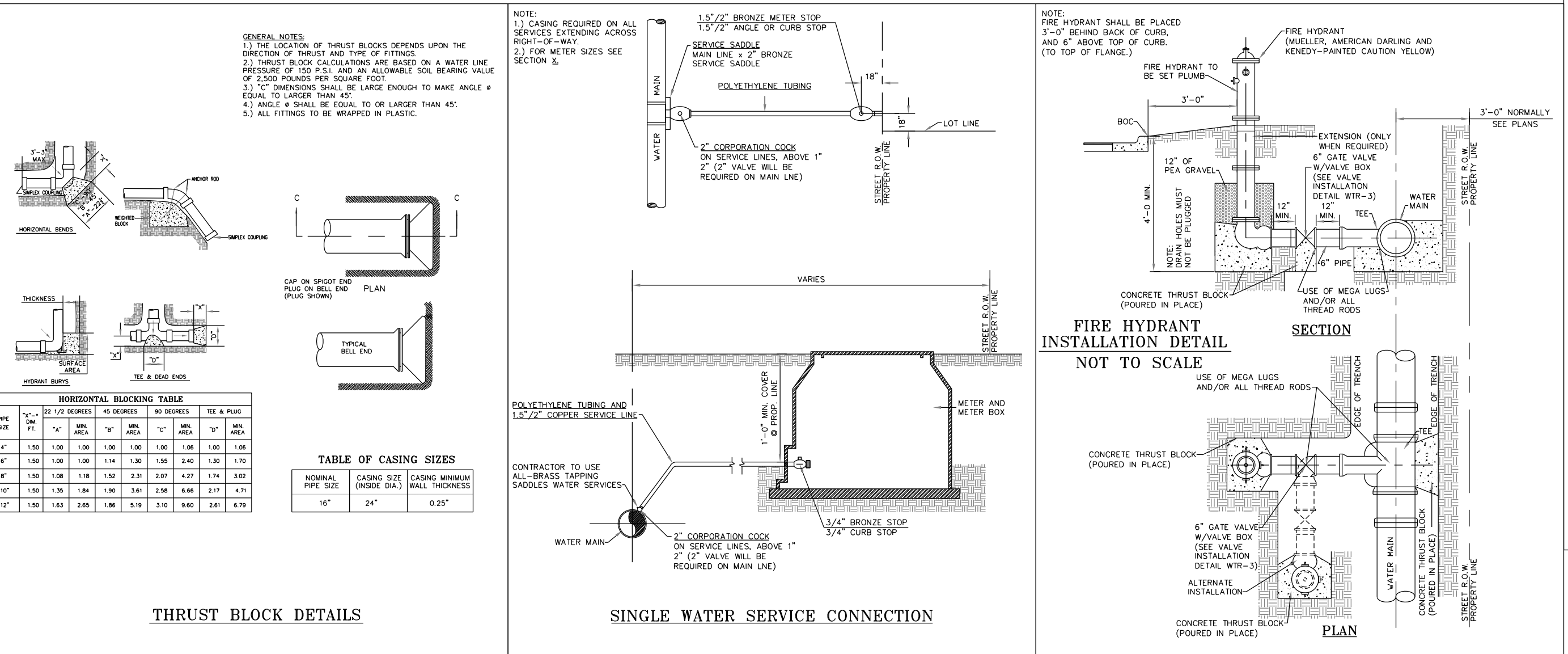


VICTOR H. TREVINO, P.E.
LICENSED PROFESSIONAL ENGINEER, TEXAS LIC. NO. 128195
DATE: 07/20/23

REVISION NOTES

No.	SHEET	REVISION	DATE	APPROVED

UTILITY LAYOUT
EL CORDERO SUBDIVISION
BEING A 20 ACRE TRACT SITUATED IN VOLENSON RAMIREZ SURVEY, ABSTRACT 584, PORTION 7B, AND THE MARIA DE LOA SURVEY, ABSTRACT 570, PORTION 8B, HIDALGO COUNTY TEXAS, BEING LOT 25 AND 26, BLOCK 15, TEXAN GARDENS SUBDIVISION, AS PER MAP OR PLAT THERE OF RECORDED IN VOLUME 8, PAGES 87-88, MAP RECORDS, HIDALGO COUNTY, TEXAS.



THRUST BLOCK DETAILS

PIPE SIZE	1 1/2" (100#)	2" (150#)	3" (200#)	4" (250#)	6" (300#)	8" (350#)	10" (400#)	12" (450#)
MIN. THICKNESS	1 1/2"	2"	3"	4"	6"	8"	10"	12"
MAX. THICKNESS	1 1/2"	2"	3"	4"	6"	8"	10"	12"

TABLE OF CASING SIZES

NOMINAL PIPE SIZE	CASING SIZE	CASING MINIMUM THICKNESS
16"	24"	0.25"

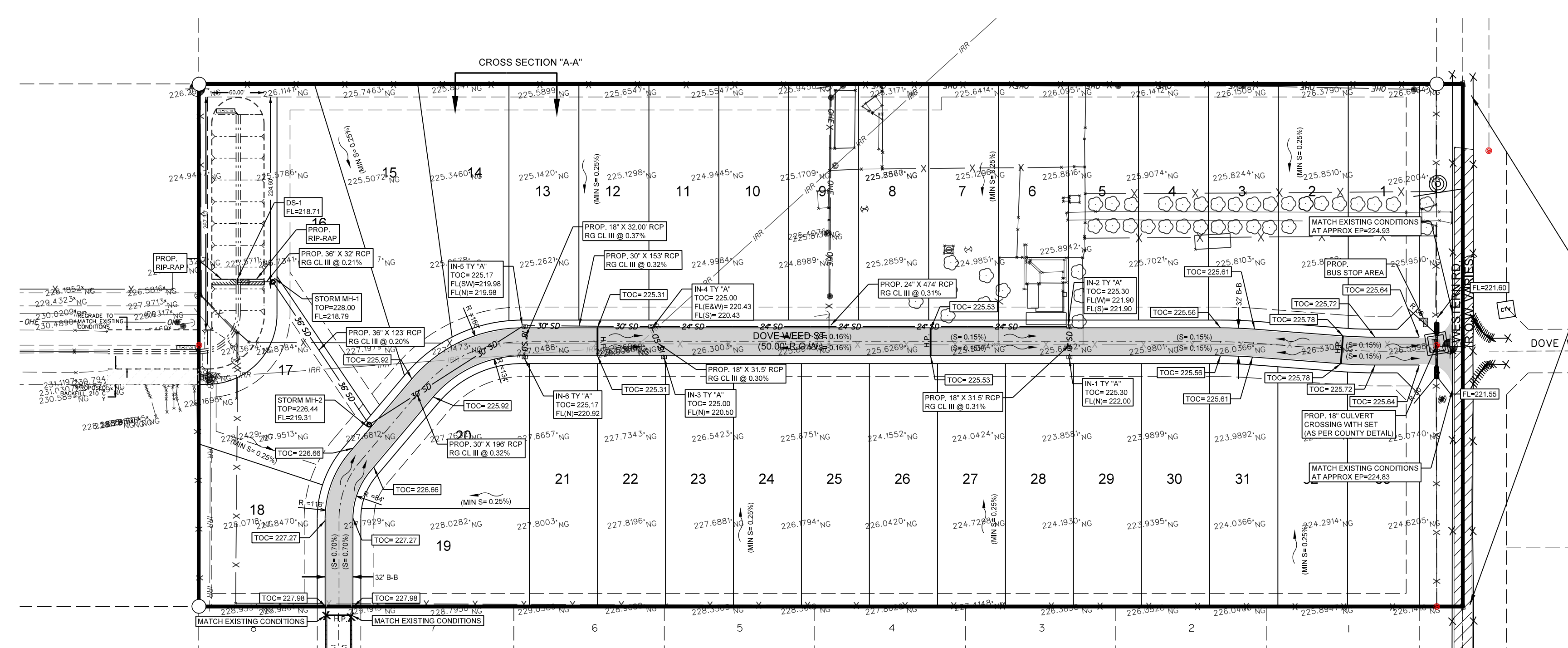
COST ESTIMATE

WATER DISTRIBUTION:	\$ 199,455.00
DRAINAGE IMPROVEMENT:	\$ 179,011.50
PAVING IMPROVEMENT:	\$ 243,671.80
SEPTIC TANK (OSSF):	\$ 90,750.00
FIRE HYDRANT:	\$ 18,750.00
EROSION CONTROL:	\$ 15,400.00

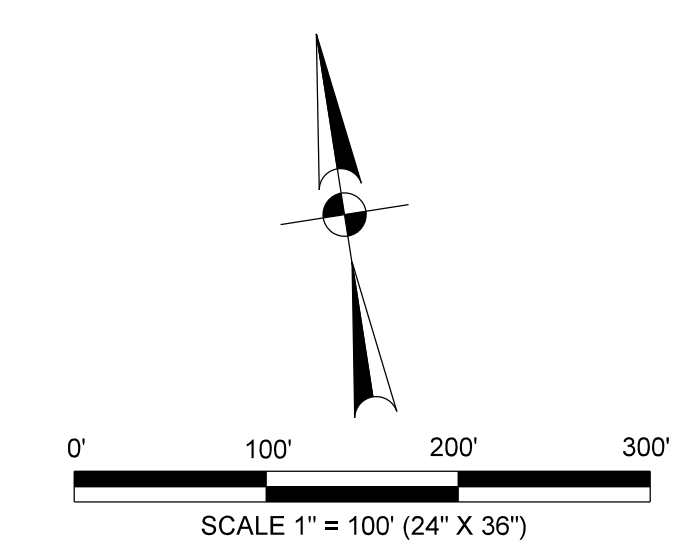
PRINCIPAL CONTACTS

NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	PEÑA CHAPA DEVELOPMENT P.O. BOX 1658	MISSION, TEXAS 78752	(956) 581-3918	
ENGINEER:	VICTOR H. TREVINO, P.E.	800 S. STEWART RD., STE. 13 MISSION, TEXAS 78752	(956) 424-3335	(956) 424-3132
SURVEYOR:	VICTOR H. TREVINO, R.P.L.S.	800 S. STEWART RD., STE. 13 MISSION, TEXAS 78752	(956) 424-3335	(956) 424-3132

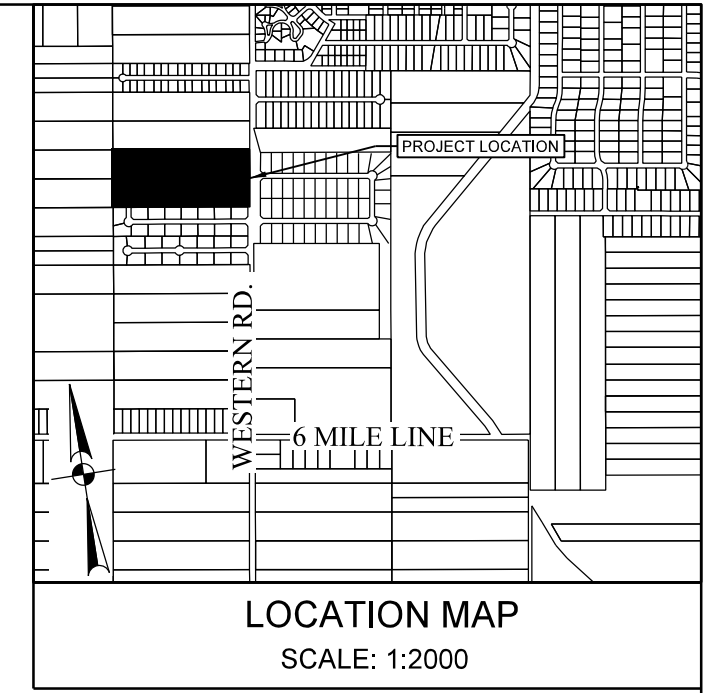
SOUTH TEXAS INFRASTRUCTURE GROUP
800 S. STEWART, SUITE 13
MISSION, TEXAS 78752
PH: (956) 424-3335
FAX: (956) 424-3132
TPE REG # 15000



CONTRACTOR TO WIDEN/IMPROVE THE ROAD SIDE DITCH ALONG WESTERN RD. TO COUNTY SPECS



- LEGEND:**
- CHAIN LINK FENCE
 - SET # 5/8" IRON ROD WITH PLASTIC CAP STAMPED "ROWSS PROP. COR."
 - FOUND IRON ROD
 - WOOD FENCE
 - PROPOSED PAVEMENT
 - OVERHEAD ELECTRIC
 - PROPOSED CASING
 - FOR 8" WATER LINE= 16" STEEL CASING
 - FOR 2" WATER LINE= 3" PVC CASING
 - FOR 1" WATER LINE= 2" PVC CASING
 - PROPOSED STREET LIGHT
 - SOIL BORING LOCATION
 - EXISTING POWER POLE
 - 1 IN SINGLE WATER SERVICE
 - 2 IN DOUBLE WATER SERVICE



DRAINAGE REPORT

El Cordero Subdivision is a proposed 34 Lot Single Family Residential lots subdivision located within the city of Mission 3 1/2 Mile extrajurisdiction (E.L.). The property is located on Western Rd. and approximately 2,700 feet north of 6 Mile Line Rd. Being a 20 acre tract of land out of Lots 25 and 26 Block 15, Texan Gardens Subdivision, recorded in Volume 8, Page 57-58, Map Records, Hidalgo County, Texas.

FLOOD PLAIN
The property is in zone "X" & "A". Zone "X" are areas of 500-year flood and Zone "A" are areas with No base flood elevations determined. Community Flood No. 480334 0209 D, revised June 16, 2000. Based on recent improvements to the site, we have determined that the Base Flood Elevation for this Zone "A" on this specific property is 224.58. Property is in process to be taken out of the flood zone with LOMA Case No 24-05-0744A.

SOIL CONDITIONS
According to the Soil Survey Report prepared for Hidalgo County by the U.S.D.A. Soil Conservation Service, the site consists of 96.5% of Brennan fine sandy loam, with 0 to 1 percent slopes and 3.5% of Ramadero sandy clay loam, with 0 to 1 percent slopes. Existing terrain has a westerly natural flow direction. These soils are well drained, surface runoff is negligible, permeability is moderately high to high, and the water capacity is high. Both soils are listed in Hydrologic Group B, having moderate infiltration rate when thoroughly wet. See Appendix C.

EXISTING CONDITIONS
The subject property is currently undeveloped. Topographic elevations obtained from the site indicate that the existing terrain has a very slight grade approximately (0.8%). In accordance with the Drainage policies of the City of Mission and County of Hidalgo, the Rational Method, 15-year frequency storm event was utilized to determine the existing storm water runoff for this site. The total contributing 15-year existing storm water runoff from this site is approximately 17.17 cfs.

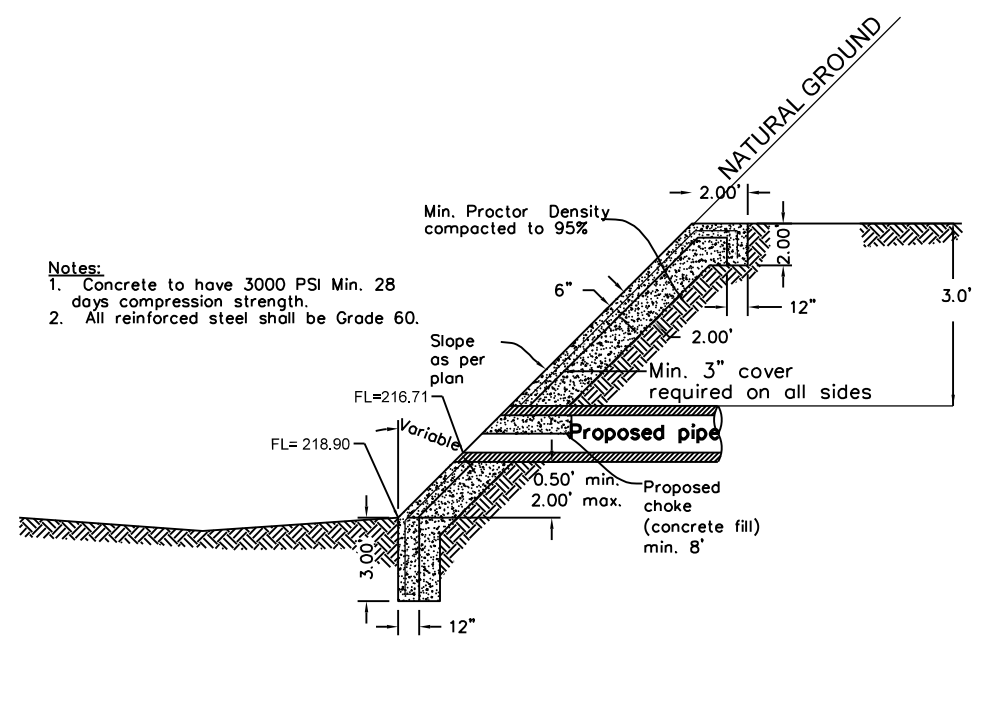
PROPOSED CONDITIONS
The proposed drainage system shall consist on the installation of an internal storm sewer system with in-lets in the street to collect surface runoff from lots and street. This system will be sized as per calculations on Appendix F. Pipe sizes range from 18" to 30" and will consist of a proposed outlet to P.D.Lateral (E.D. 1250), maintained by HCD No. 1.

In accordance with the City of Mission and County of Hidalgo Drainage Policy, the peak rate for runoff for this development will be mitigated to the proposed 50-year storm water runoff. The peak rate will be 59.95 cfs which will give us a net increase of 39.79 cfs. For proposed Cordero Subdivision only 73.73 cubic-feet, or 1.693 acre-feet of storm water runoff will be required to detain. We are proposing an extension for the existing drain ditch (P.D.LATERAL, E.D.1250) located at the west of the proposed subdivision.

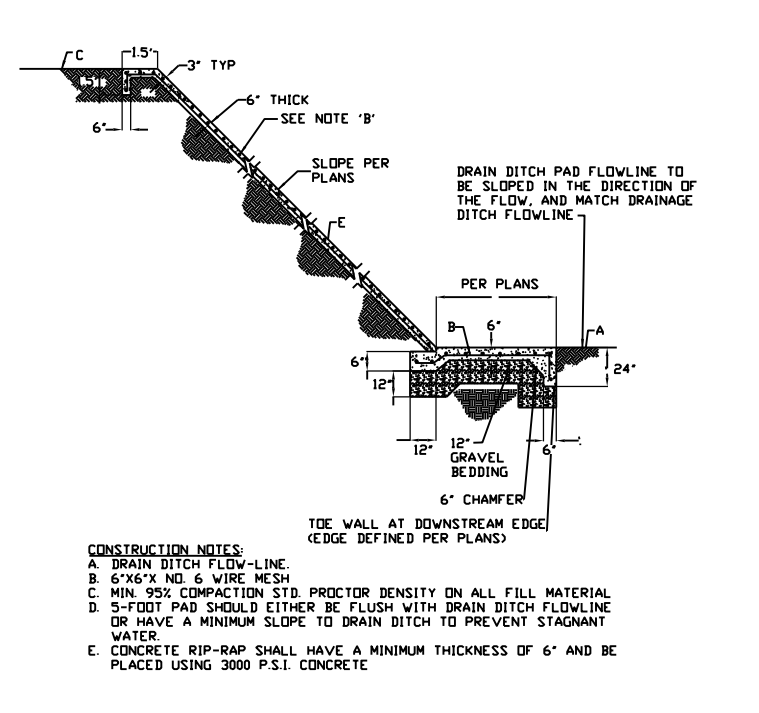


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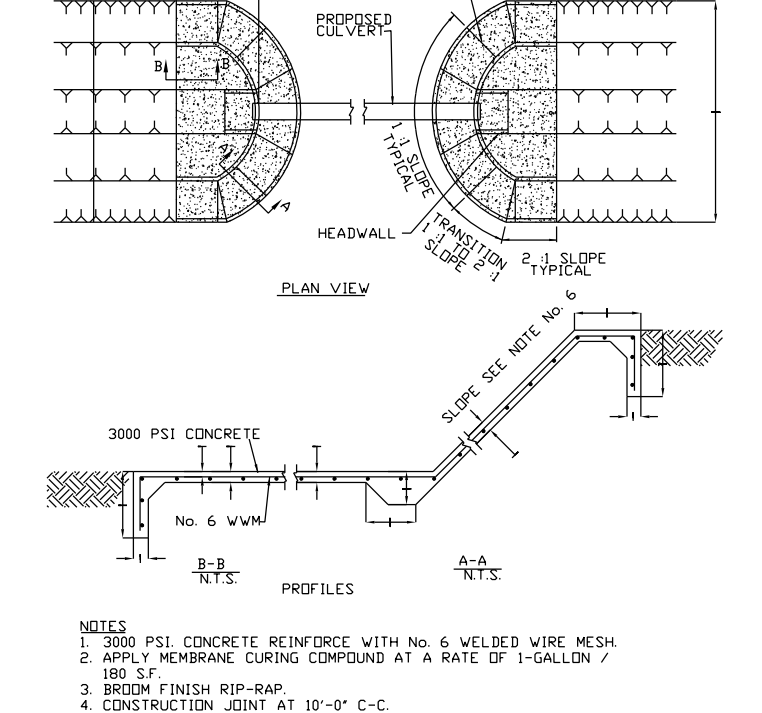
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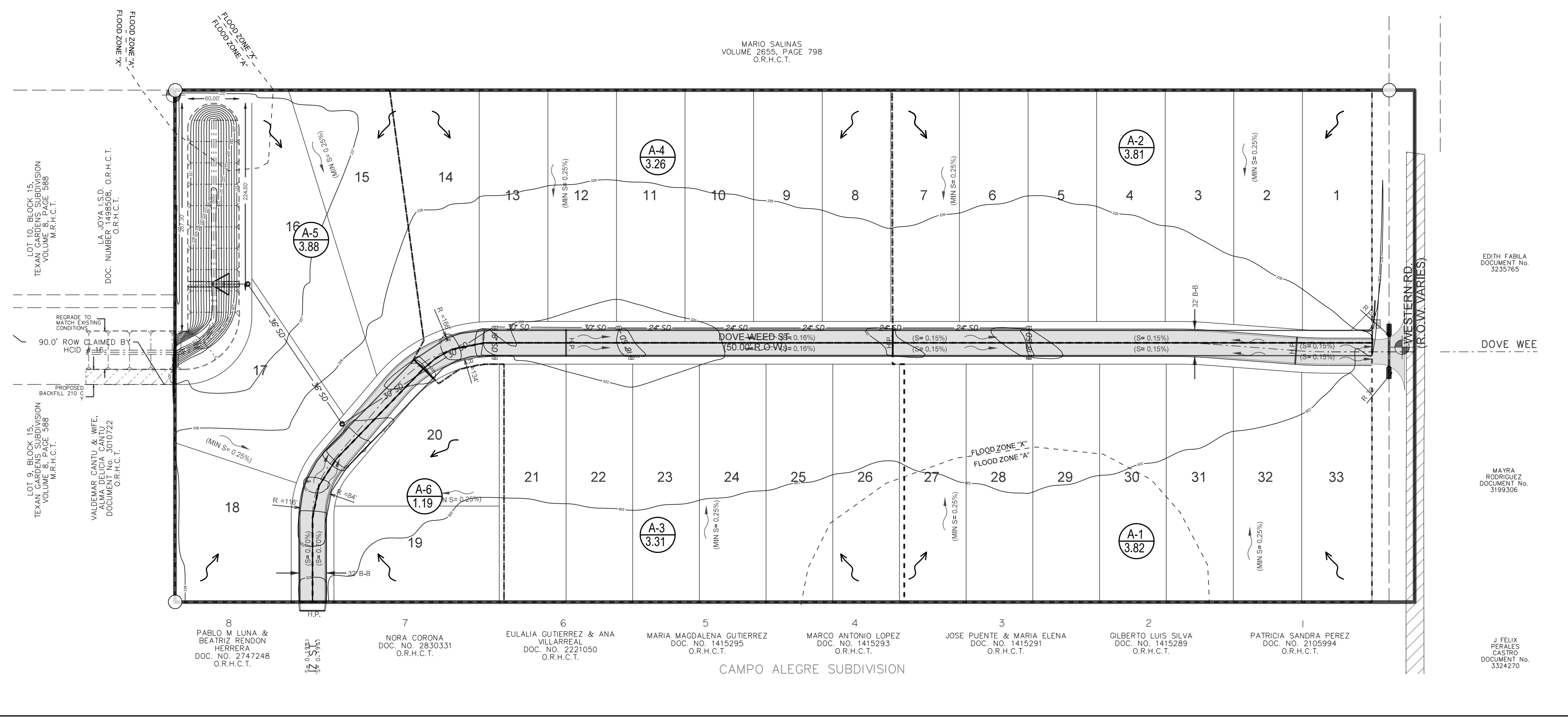
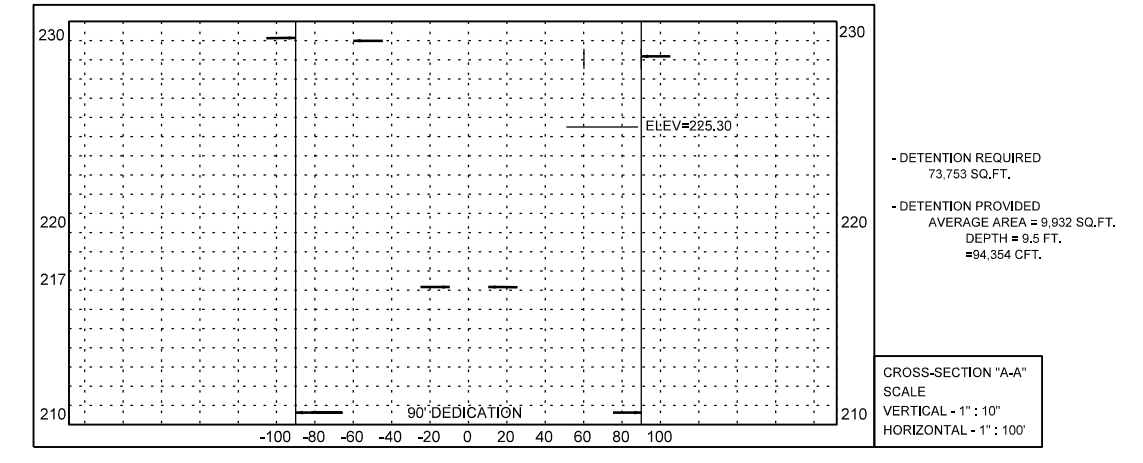
D-2 STORM DISCHARGE STRUCTURE



D-12 CONCRETE RIP RAP SLOPE PROTECTION (1 OF 2)



D-11 CONCRETE RIP RAP SLOPE PROTECTION (2 OF 2)



Hydraulic Calculation

ID	ID	ID	HGL	HGL	Discharge	Capacity	Slope	Loss	Velocity	Depth	Velocity	Depth
SD6	MH1	DS1	221.16	220.52	31.24	35.79	0.22	0.33	5.400	2.29	7.00	1.81
SD5	IN5	MH1	221.65	221.16	31.24	34.71	0.20	0.08	5.203	2.38	5.22	2.37
SD9	IN6	IN5	222.04	221.65	25.04	47.56	0.37	0.37	6.390	1.63	4.04	2.46
SD7	MH2	IN6	222.75	222.04	23.45	27.18	0.32	0.15	5.84	1.91	4.78	2.50
SD4	IN4	MH2	224.22	222.75	23.45	27.01	0.32	1.04	5.84	1.91	4.78	2.50
SD2	IN2	IN4	225.96	224.22	13.12	14.66	0.31	0.36	4.92	1.58	4.18	2.00
SD3	IN3	IN4	224.49	224.22	5.78	6.52	0.28	0.17	3.85	1.19	3.27	1.50
SD1	IN1	IN2	226.29	225.96	6.59	6.84	0.32	0.22	4.11	1.28	3.73	1.50

Drainage Area	Combined C Value	Drainage Area(Ac.)	Time of Conc. (Min)	Intensity (Sf/seg)	Discharge (Cfs/seg)
A1	0.33	3.829	22	5.217	6.589
A2	0.33	3.818	22	5.217	6.571
A3	0.334	3.314	22	5.217	5.783
A4	0.322	3.264	21	5.344	5.619
A5	0.329	3.887	21	5.344	6.841
A6	0.36	1.196	21	5.344	2.303

PRINCIPAL CONTACTS

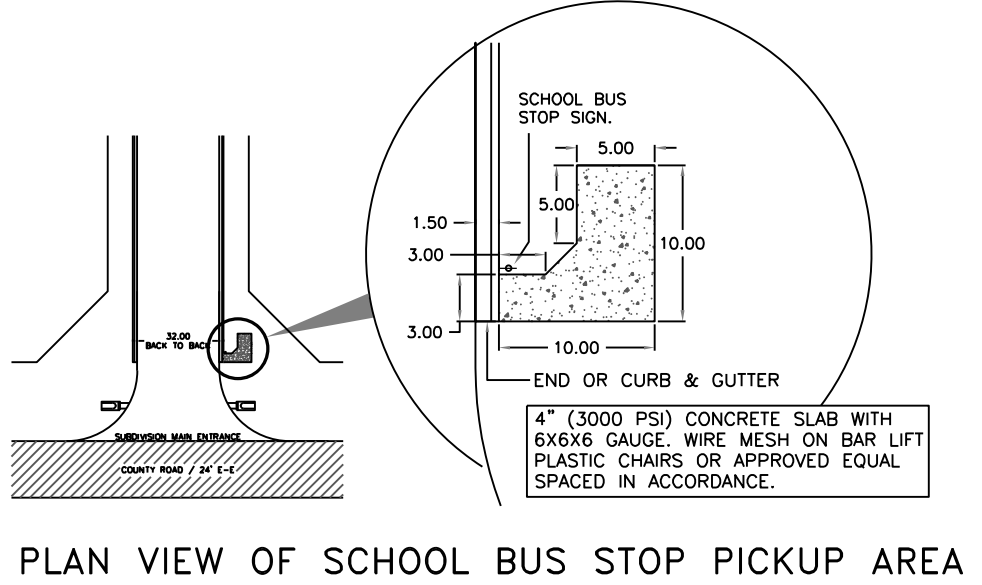
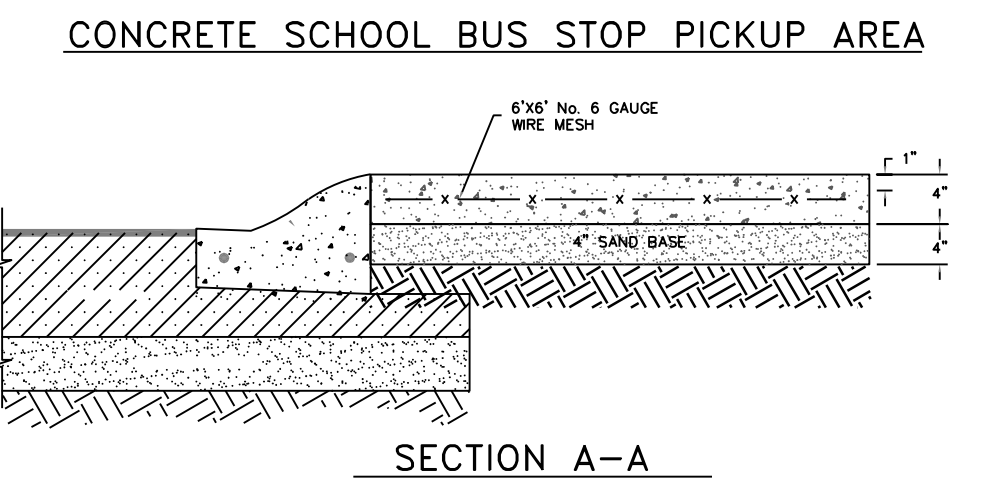
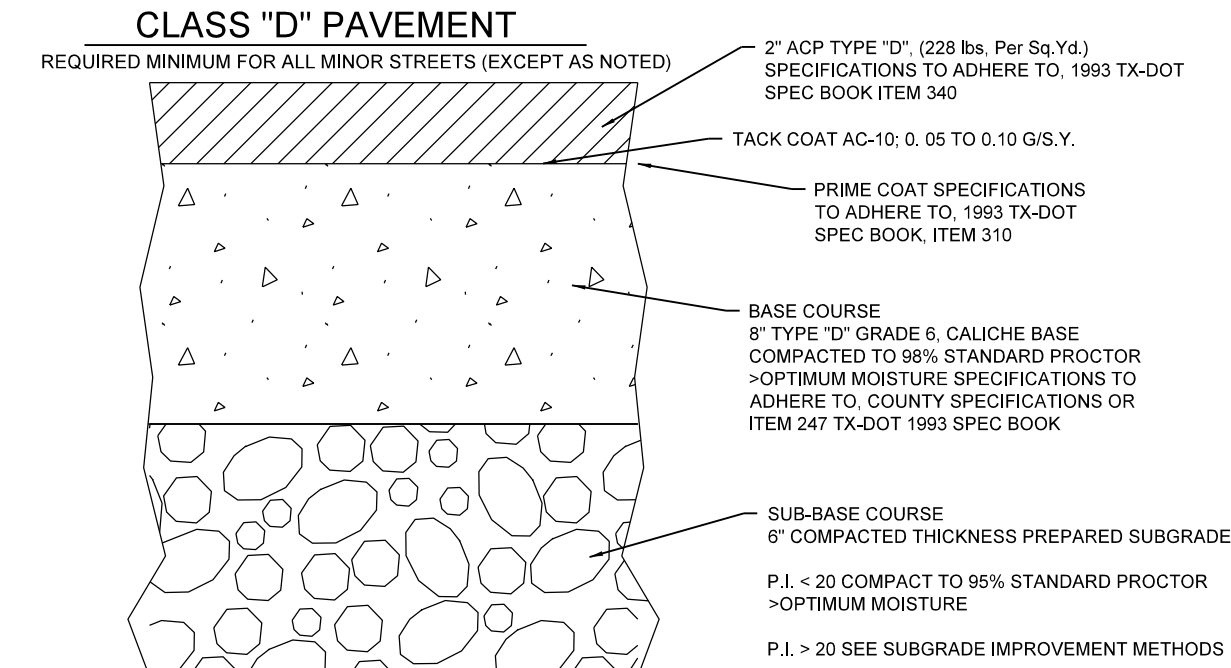
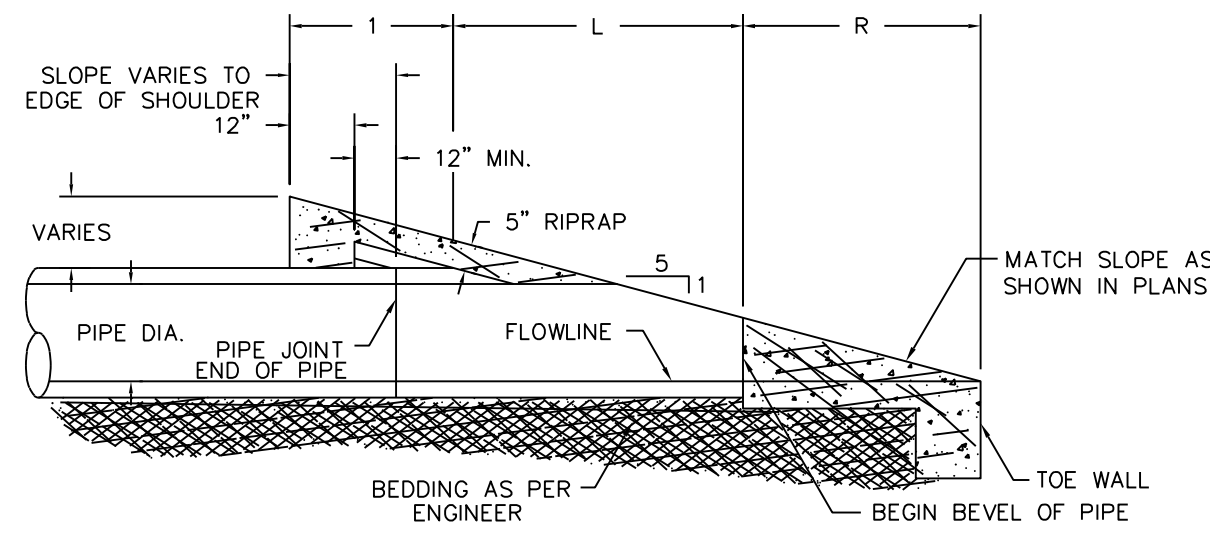
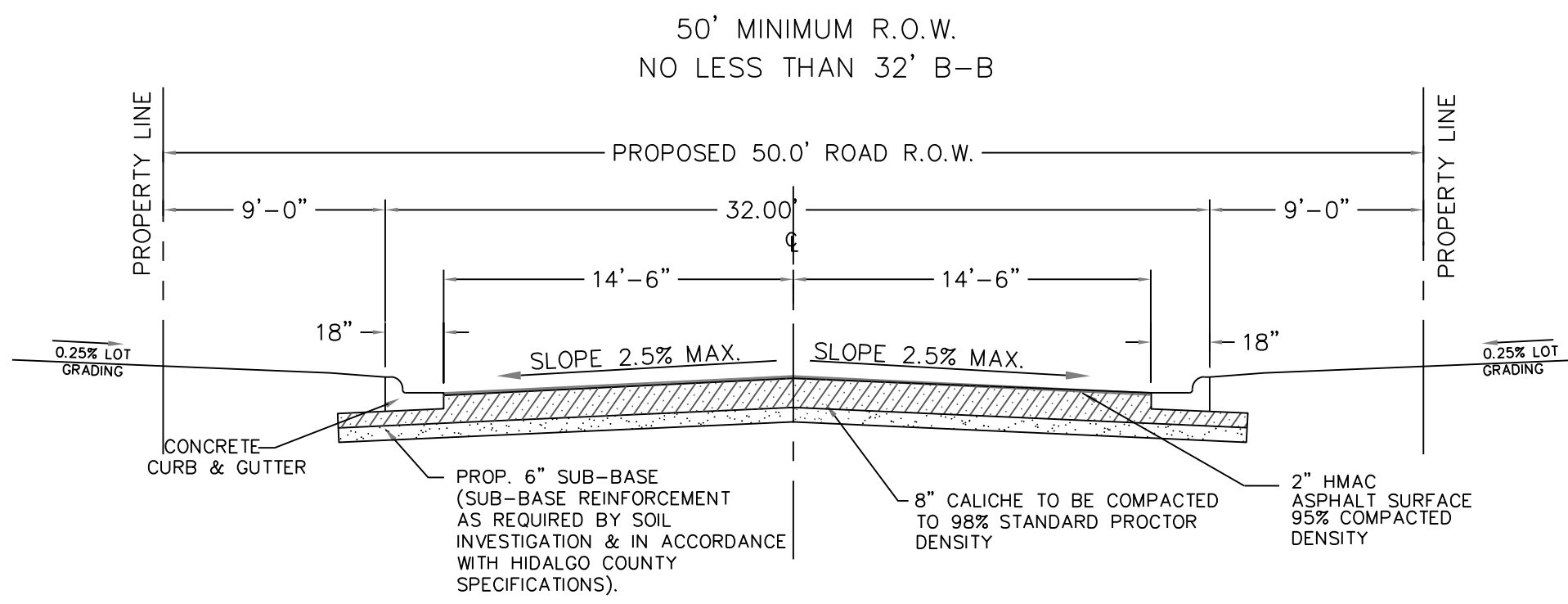
NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	PENA CHAPA DEVELOPMENT	P.O. BOX 1698	MISSION, TEXAS 78572	(956) 581-3918
ENGINEER:	VICTOR H. TREVINO, P.E.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78572	(956) 424-3335 (956) 424-3132
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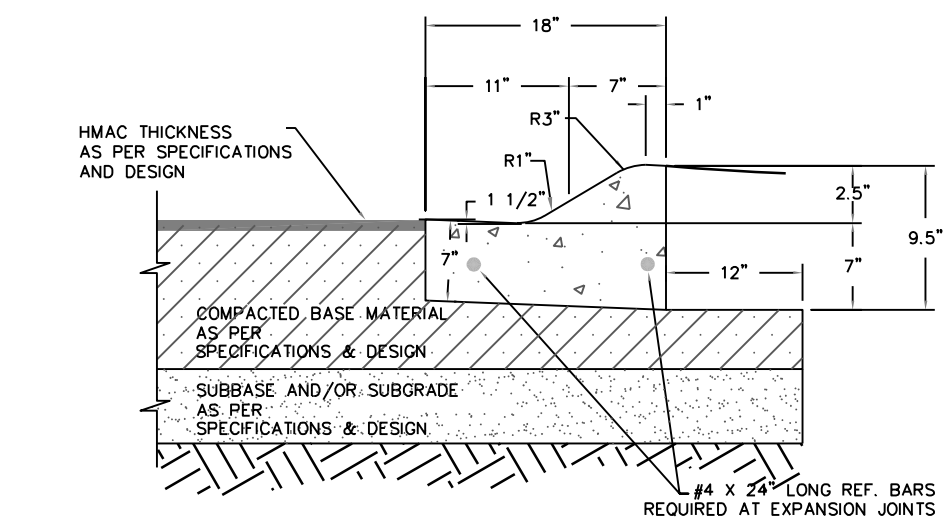
PAVING AND DRAINAGE
EL CORDERO SUBDIVISION

BEING A 20.0 ACRE TRACT SITUATED IN YDELINSON RAMIREZ SURVEY, ABSTRACT 584, PORCION 78, AND THE MARIA DE LUANA SURVEY, ABSTRACT 570, PORCION 80, HIDALGO COUNTY TEXAS, BEING LOT 25 AND 26, BLOCK 15, TEXAN GARDENS SUBDIVISION, AS PER MAP OR PLAT THERE OF RECORDED IN VOLUME 8, PAGES 57-58, MAP RECORDS, HIDALGO COUNTY, TEXAS.

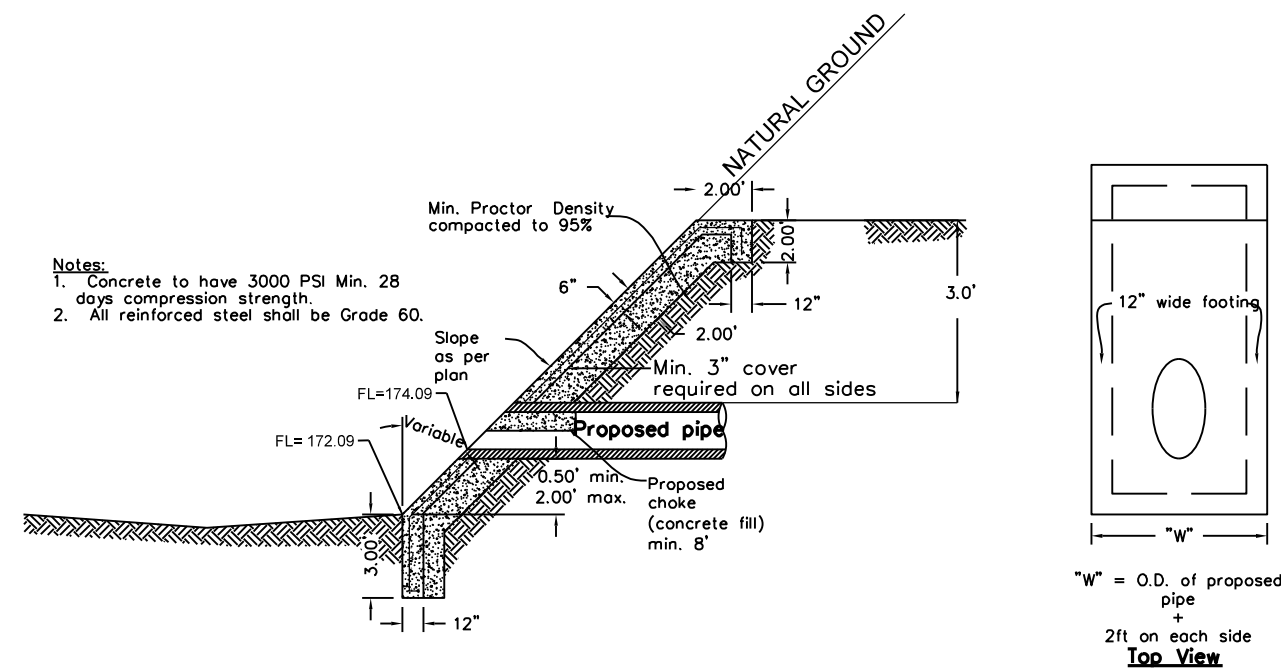
MINOR RESIDENTIAL STREET SECTION



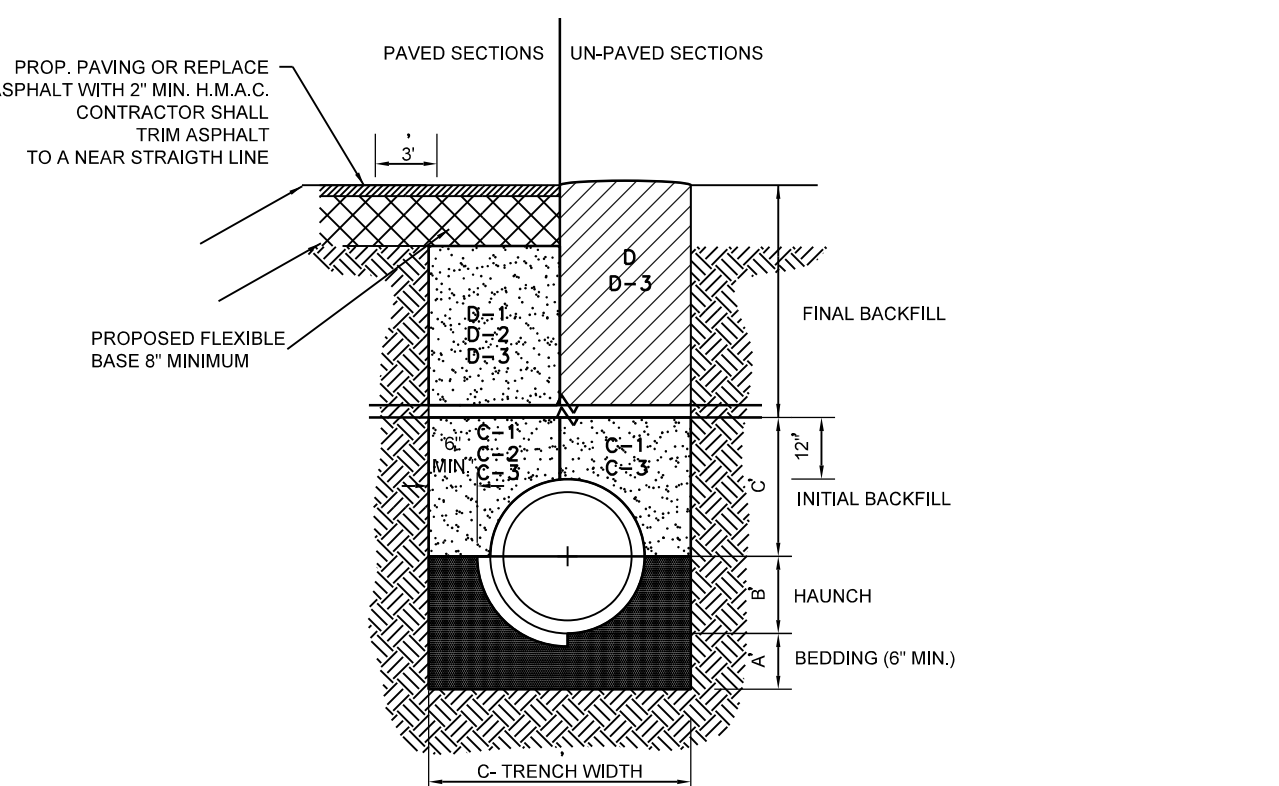
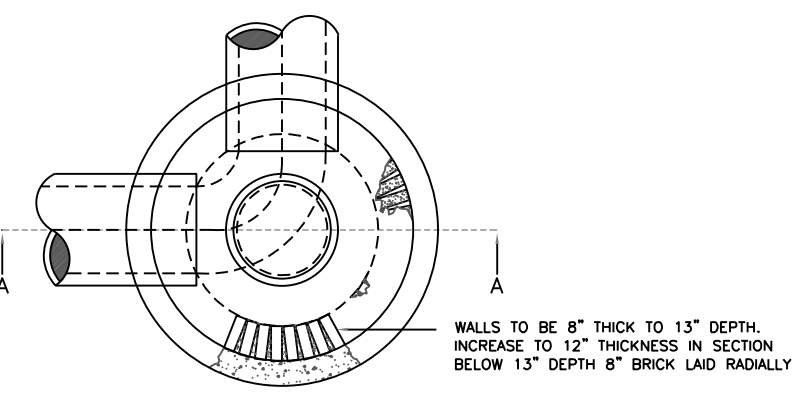
TYPICAL LOW PROFILE CURB & GUTTER SECTION



- ALL HONEYCOMBING SHALL BE GROUTED TO PROVIDE A UNIFORM SURFACE.
- WHEN HONEYCOMBING IS EXCESSIVE AS DETERMINED BY THE COUNTY OF HIDALGO DESIGNATED REPRESENTATIVE, CURB AND GUTTER SHALL BE REPLACED.
- BACKFILL BEHIND CURBS SHALL BE ACCOMPLISHED WITHIN 24 HOURS AFTER BACK FORM IS REMOVED OR 48 HOURS AFTER SLIP FORMING.
- CURB AND GUTTER CONCRETE SHALL BE CLASS "A" (3000 PSI).
- REINFORCING STEEL AS SHOWN.
- MAX. LENGTH OF CURB AND GUTTER SECTION IS 80' BETWEEN 3/4" EXPANSION JOINT.



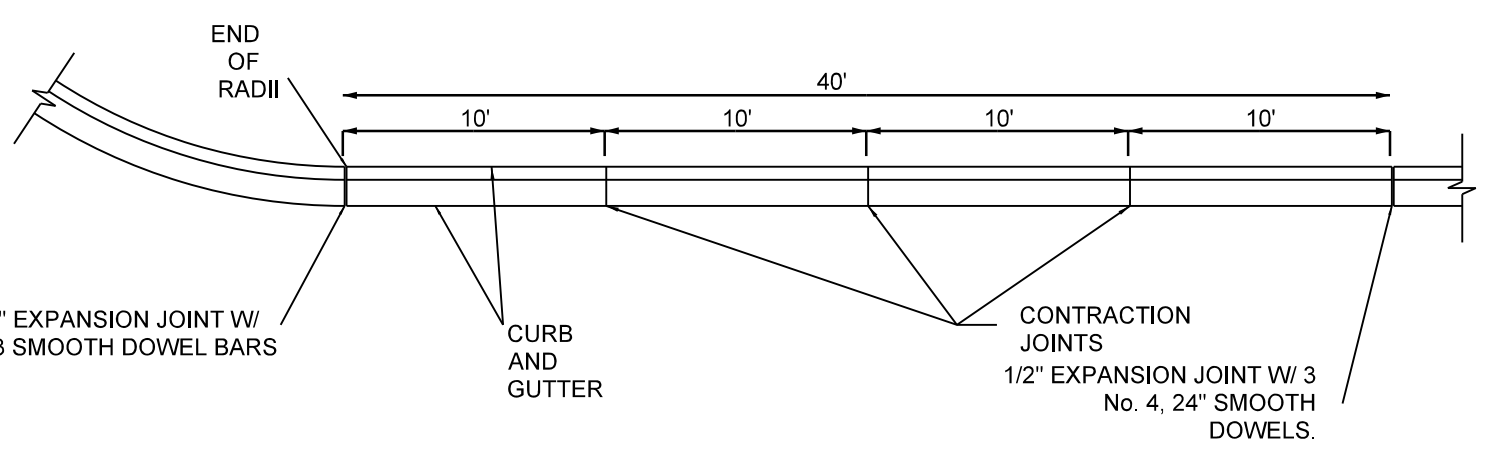
DRAINAGE MANHOLE DETAILS



D-3 STORM TRENCH BEDDING AND BACKFILL DETAILS

- A. BEDDING FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SAND AND/OR GRAVEL MIX BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW OF PIPE (MIN. COMPACTED THICKNESS = 6") - PIT RUN GRAVEL 3/4" MAX SIZE.
- B. HAUNCH FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SHALL BE CLASS I OR CLASS II (ASTM D2321) BACKFILL MATERIAL COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.
- C. TRENCH WIDTH - SHALL BE BELL O.D. X 1.5 X 12". MINIMUM TRENCH WIDTH SHALL EQUAL STRUCTURE WIDTH + 4 FT. THROUGHOUT THE HEIGHT OF THE STRUCTURE.
- C-1. INITIAL BACKFILL FOR RCP CLASS III STORM DRAIN PIPE ON CITY STREETS, PARKING AREAS, DRIVEWAYS AND UNPAVED AREAS - SHALL BE SOIL TYPE A1, A2, A3 WITH A MAXIMUM P.I. OF 19 (ASHTO M145) COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.
- C-2. INITIAL BACKFILL FOR RCP CLASS III STORM DRAIN PIPE ON STATE MAINTAINED ROADWAYS - COMPACTED SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT, COMPACTED TO 92% S.P.D. AS PER ASTM D4253 AND ASTM D698, 8" LOOSE LIFTS, MECHANICAL COMPACTION.
- C-3. INITIAL BACKFILL FOR HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SHALL BE CLASS I OR CLASS II WITH A MAXIMUM P.I. OF 19 (ASTM D2321) BACKFILL MATERIAL COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.
- D. FINAL BACKFILL FOR CLASS III HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE UNDER UNPAVED SECTIONS - SHALL BE CLASS I, III OR IV, COMPACTED TO 92% S.P.D. (12" LOOSE LIFT, MECHANICAL COMPACTION).
- D-1 FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE ON CITY STREETS, PARKING AREAS, DRIVEWAYS AND CITY COUNTY ROADS - SHALL BE SOIL TYPE A1, A2, A3 WITH A MAXIMUM P.I. OF 19 (ASHTO M145) COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.
- D-2 FINAL BACKFILL FOR RCP CLASS III HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE ON STATE MAINTAINED ROADWAYS - COMPACTED SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT, COMPACTED TO 92% S.P.D. AS PER ASTM D 4253 AND ASTM D698, 8" LOOSE LIFTS, MECHANICAL COMPACTION.
- D-3 FINAL BACKFILL FOR STRUCTURES (INLETS, MANHOLES, ETC.) - STRUCTURES UNDER THE ROADWAY AND UP TO 5 FT. BEYOND THE EDGE OF PAVEMENT/BACK OF CURB SHALL HAVE CLASS I, III, OR IV (ASTM D2321) OR SOIL TYPE A1, A2, OR A3 (ASHTO M145) WITH A MAXIMUM P.I. OF 19 BACKFILL MATERIAL STRUCTURES BEYOND 5 FT FROM THE E.O.P./B.O.C. SHALL HAVE CLASS I, III, OR IV (ASTM D2321) BACKFILL MATERIAL. FOUNDATION PREPARATION (WELLPONTS, MIN. 4" GRAVEL OR CEMENTS STABILIZATION OR APPROVED SUBSTITUTE) SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% S.P.D. USE RELATIVE DENSITY TEST PER ASTM D4253 & ASTM D698). THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 8".

- NOTE:
- MINIMUM COVER SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
 - FOR D-1 AND D-2 THE COMPACTION REQUIREMENT SHALL BE 95% S.P.D. WITHIN 12" IN. BELOW THE FLEXIBLE BASE.
 - FOR PAVED SECTIONS THE ABOVE REQUIREMENTS SHALL APPLY WHEN ANY PART OF THE TRENCH WIDTH IS WITHIN 5 FT. FROM THE E.O.P./B.O.C.
 - THE ABOVE REQUIREMENTS SHALL APPLY TO UTILITY PIPELINES AND UTILITY STRUCTURES OF OTHER UTILITY ENTITIES.



GENERAL NOTES

- THE GUIDELINES SHOW HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



VICTOR H. TREVINO, P.E.
LICENSED PROFESSIONAL ENGINEER, TEXAS LIC. NO. 128195

07/03/2023

REVISION NOTES				
NO.	SHEET	REVISION	DATE	APPROVED

PRINCIPAL CONTACTS					
	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	PENA CHAPA DEVELOPMENT	P.O. BOX 1658	MISSION, TEXAS 78572	(956) 581-3918	
ENGINEER:	VICTOR H. TREVINO, P.E.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78572	(956) 424-3335	(956) 424-3132
SURVEYOR:	VICTOR H. TREVINO, R.P.L.S.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78572	(956) 424-3335	(956) 424-3132

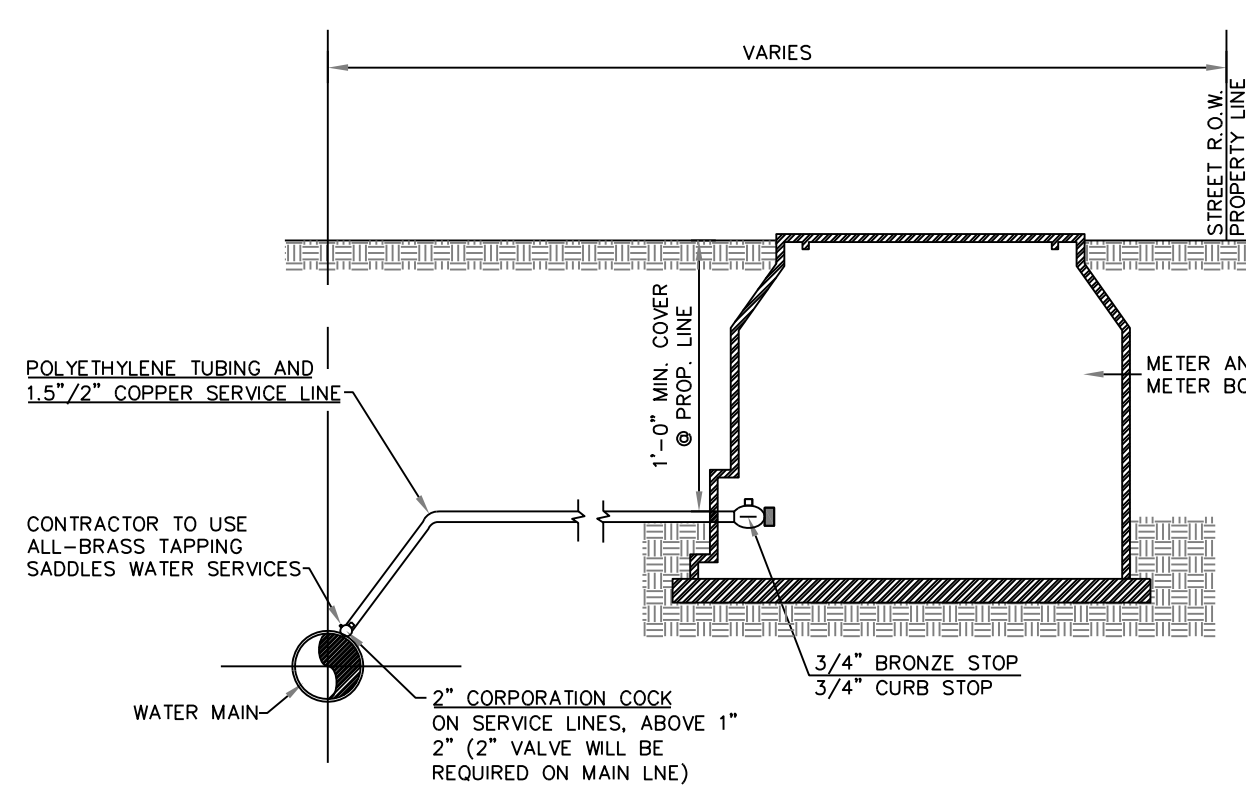
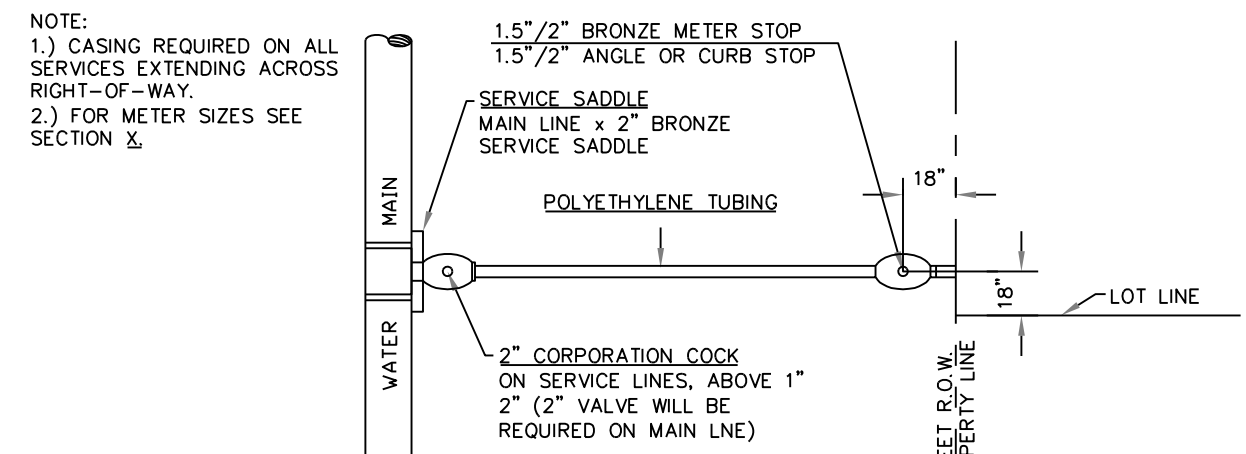
SOUTH TEXAS INFRASTRUCTURE GROUP
900 S. STEWART, SUITE 13
MISSION, TEXAS 78572
PH: (956) 424-3335
FAX: (956) 424-3132
TBP REG # 1500



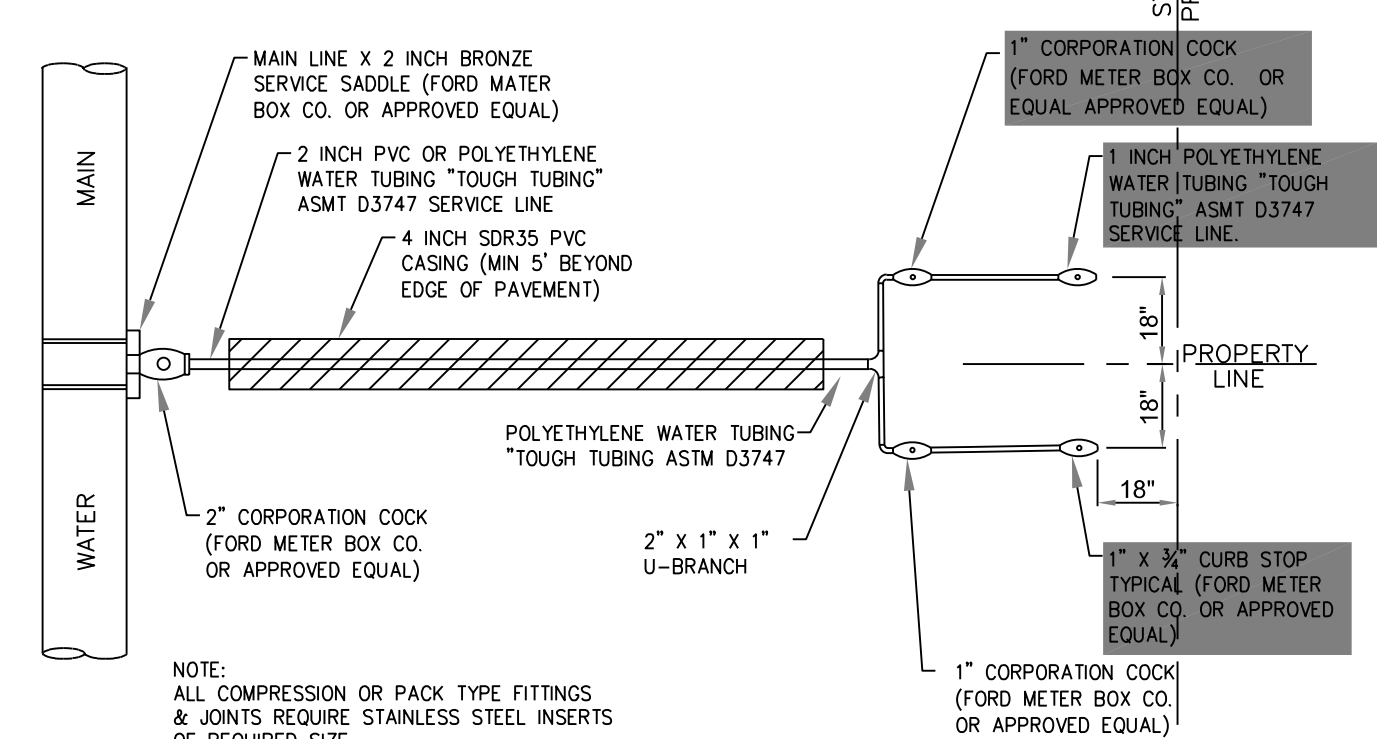
PAVING & DRAINAGE DETAILS
EL CORDERO SUBDIVISION

BEING A 20.0 ACRE TRACT SITUATED IN VOELLFONSON RAMIREZ SURVEY, ABSTRACT 584, PORTION 7N, AND THE MARIA DE LUVA SURVEY, ABSTRACT 570, PORTION 8N, HIDALGO COUNTY, TEXAS, BEING LOT 25 AND 26, BLOCK 15, TEXAN GARDENS SUBDIVISION, AS PER MAP OR PLAT THERE OF RECORDED IN VOLUME 8, PAGES 57-58, MAP RECORDS, HIDALGO COUNTY, TEXAS.

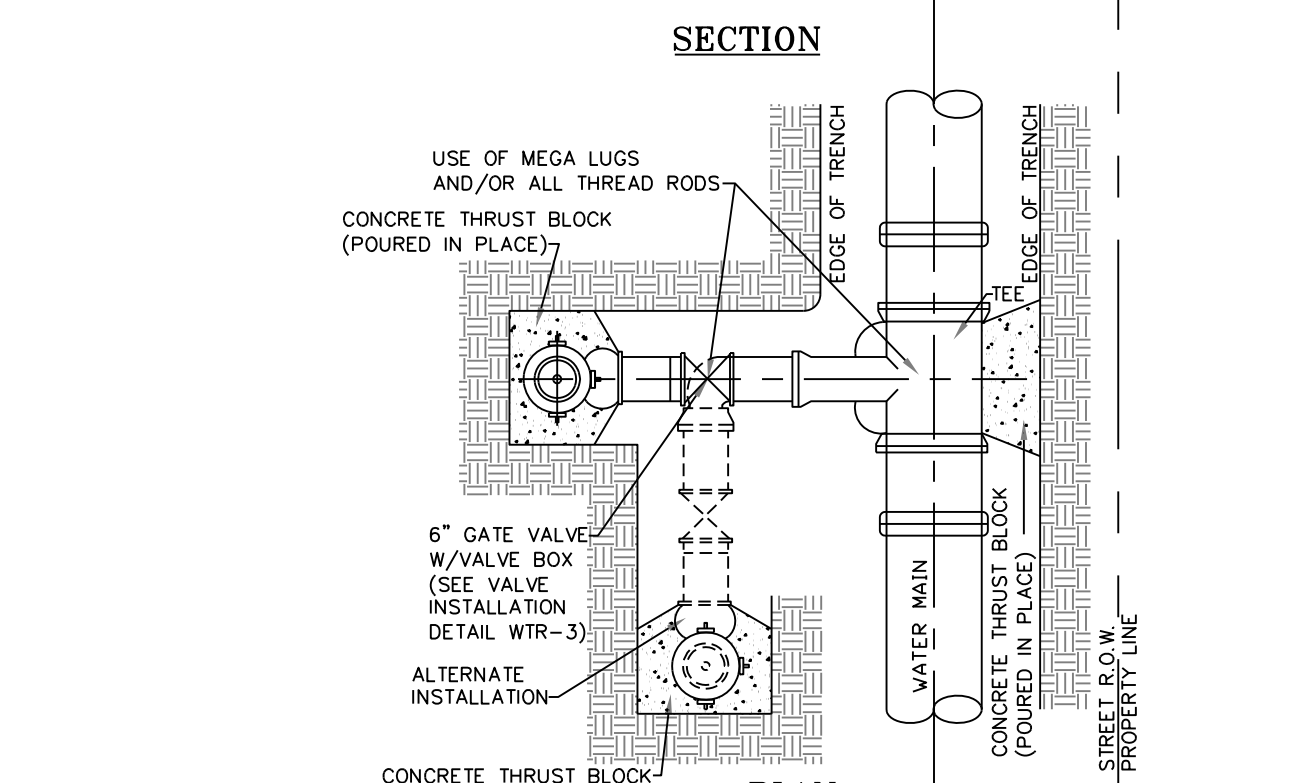
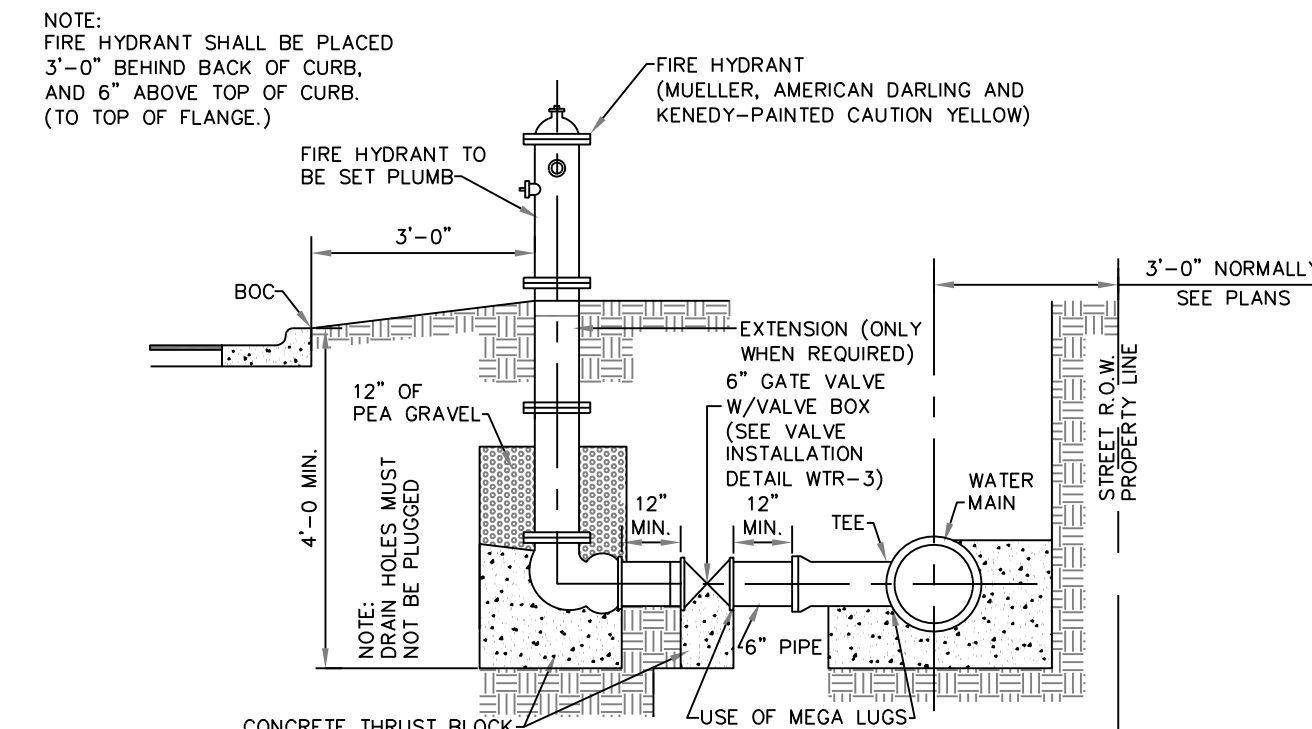
SHEET 4 OF 5



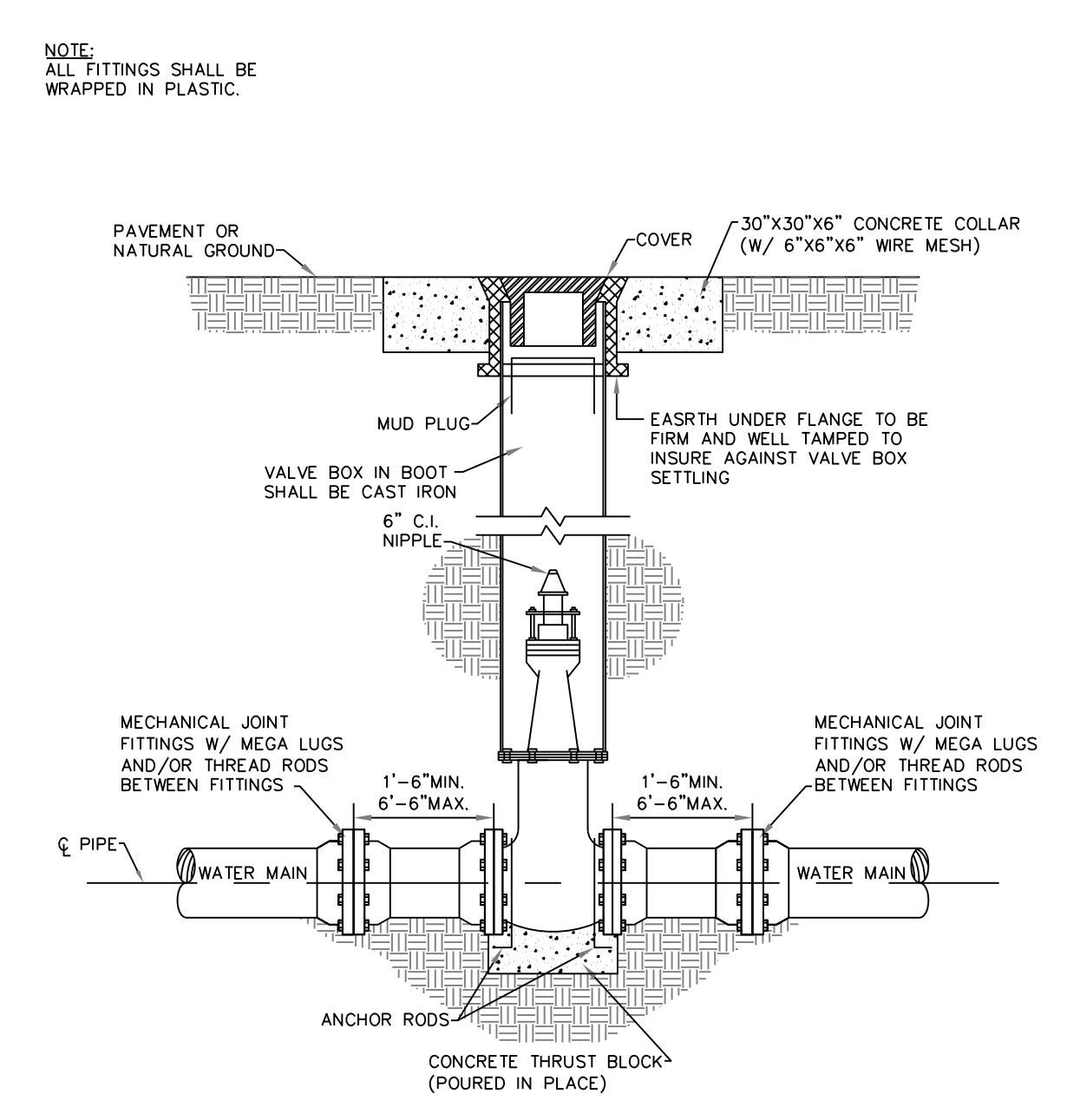
SINGLE WATER SERVICE CONNECTION



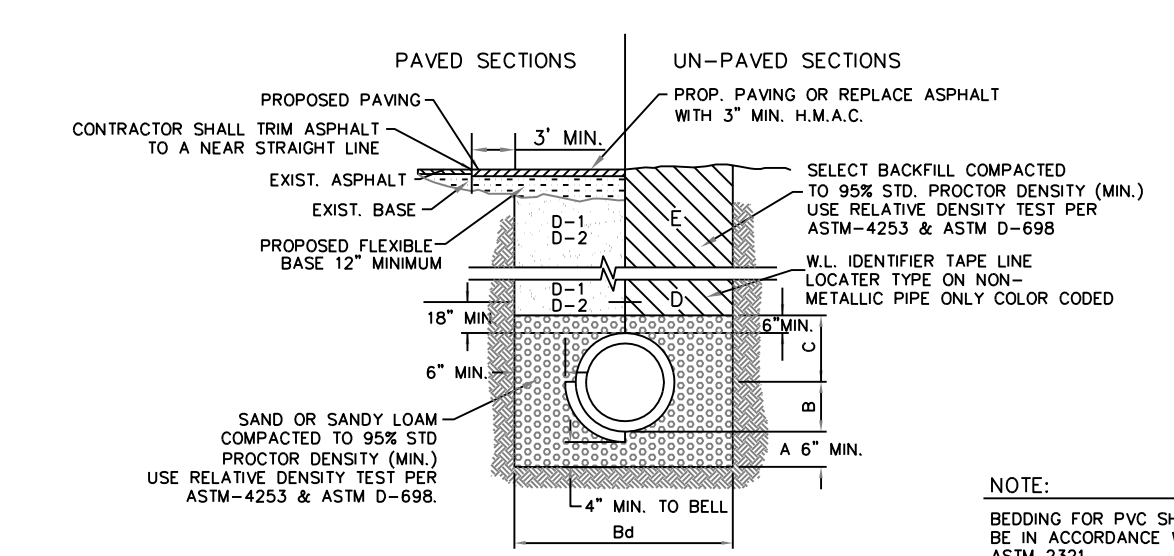
DUAL WATER SERVICE CONNECTION
N.T.S.



SECTION
PLAN
NOT TO SCALE
FIRE HYDRANT INSTALLATION DETAIL



VALVE & VALVE BOX INSTALLATION DETAIL



TRENCH BEDDING (WATER) DETAIL

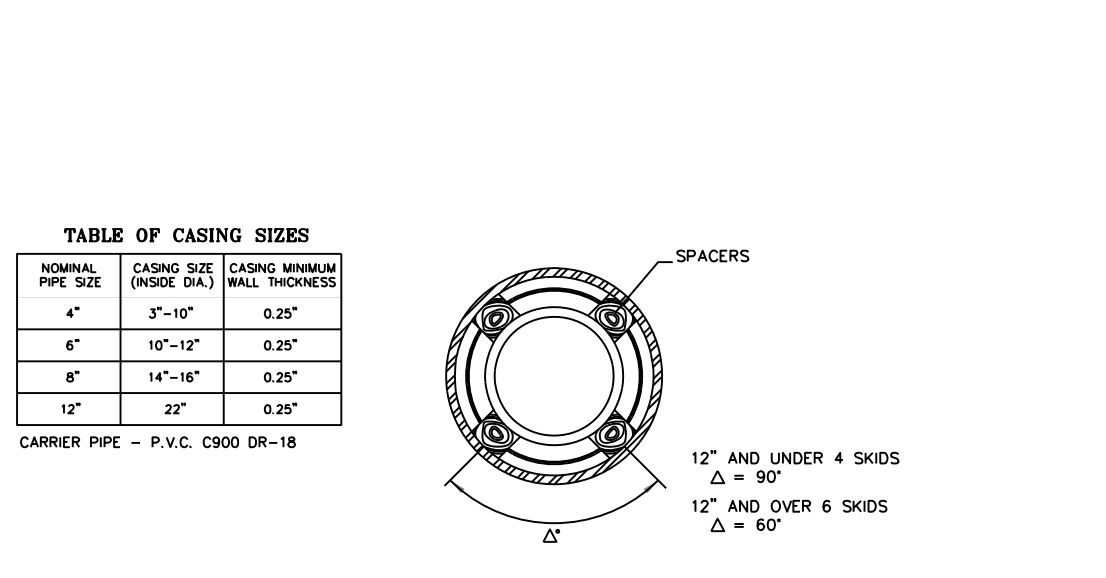
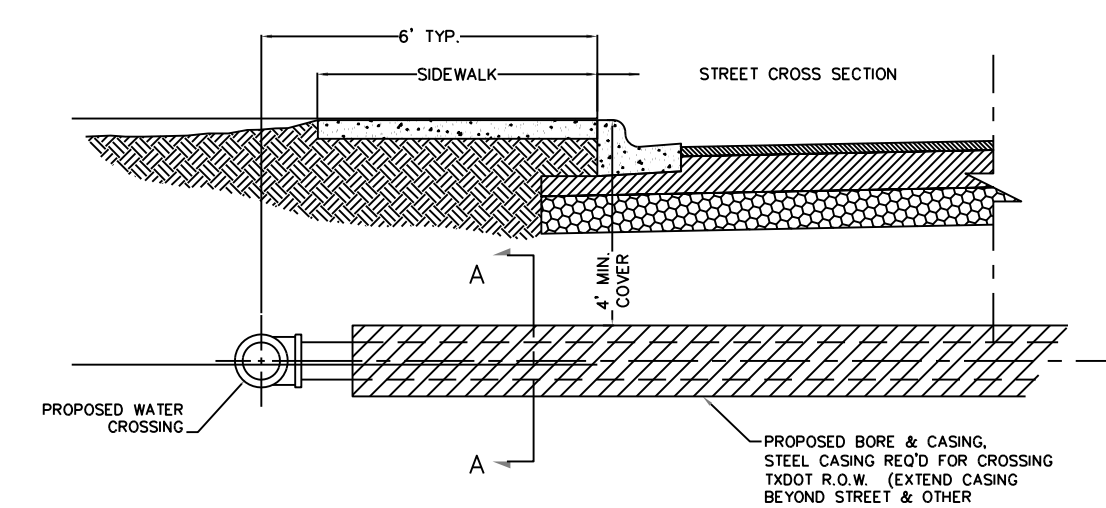
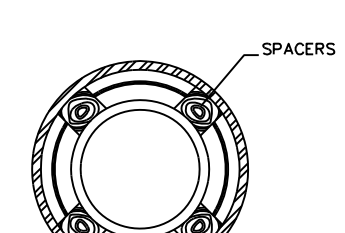
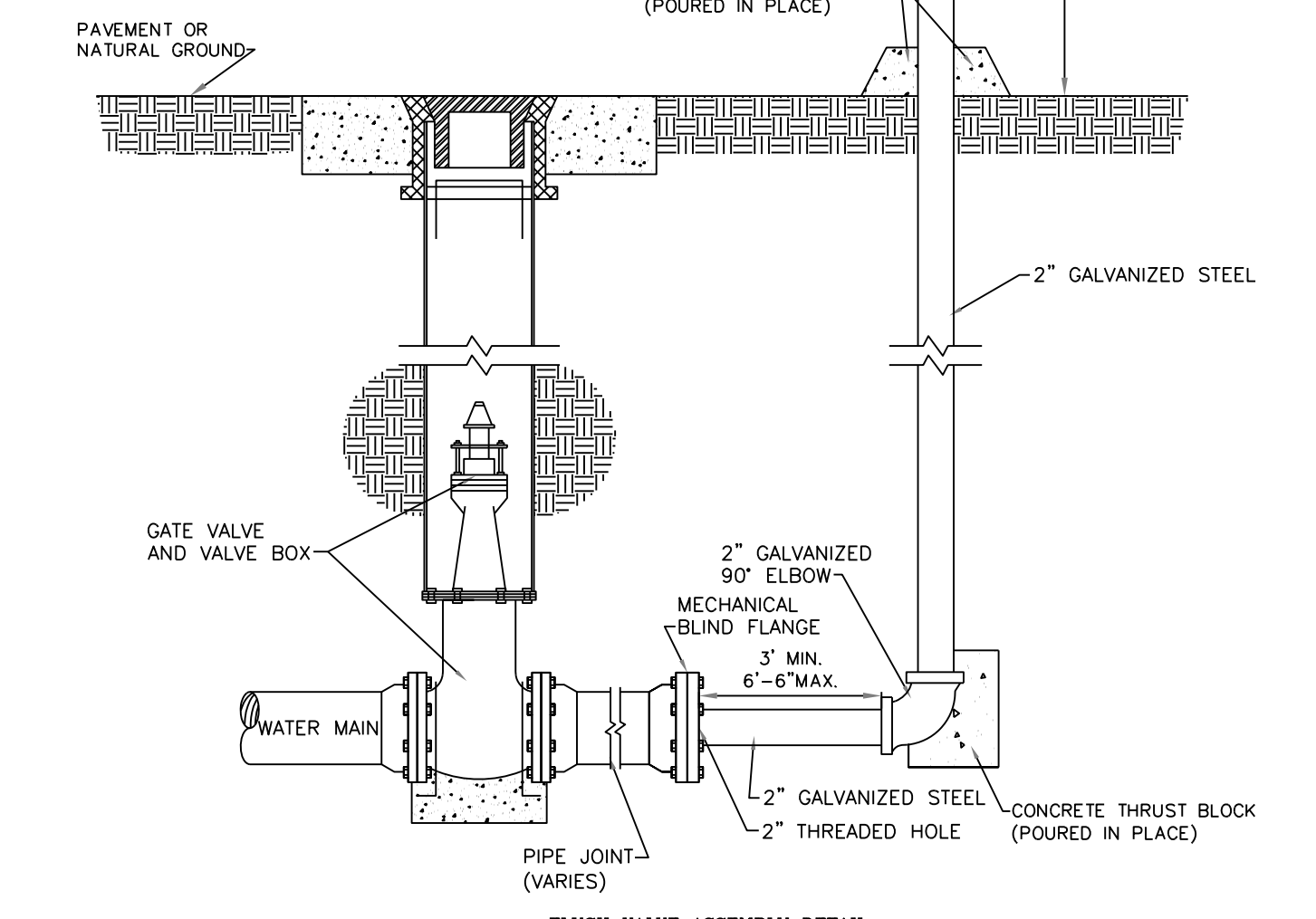


TABLE OF CASING SIZES

NOMINAL PIPE SIZE	CASING SIZE (INSIDE DIA.)	CASING MINIMUM WALL THICKNESS
4"	3"-10"	0.25"
6"	10"-12"	0.25"
8"	14"-16"	0.25"
12"	20"	0.25"

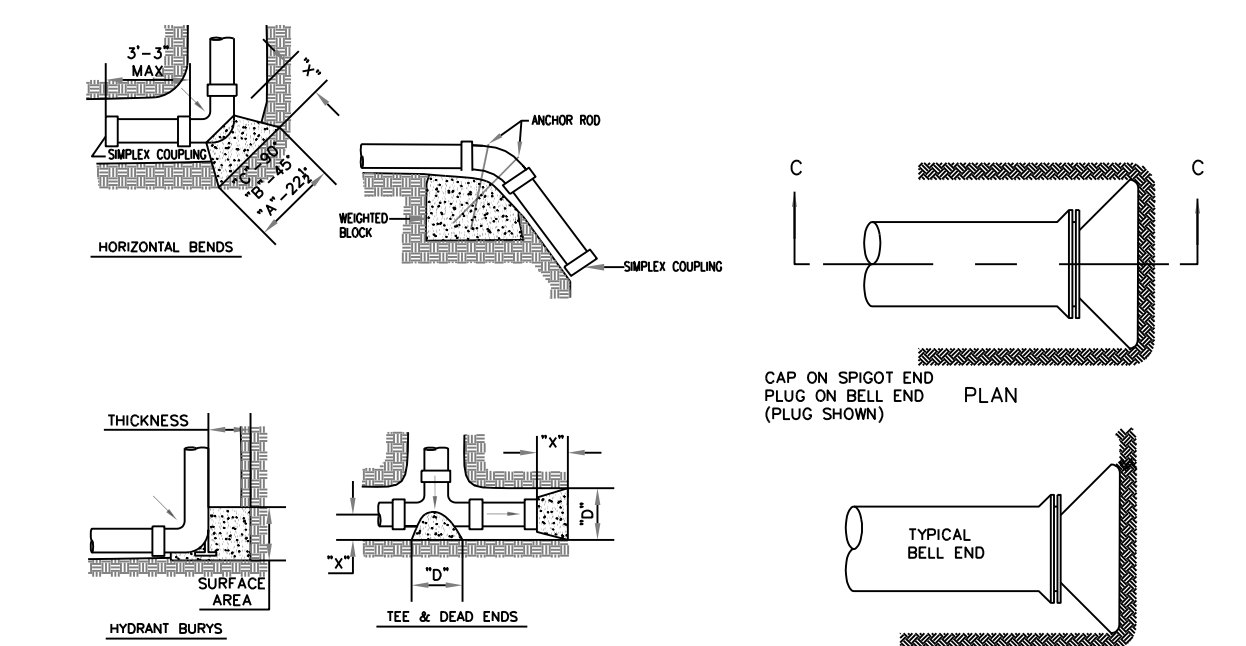


NOTE:
WATERLINE TO BE SLOPED DOWN OR UP @ CROSSING IF IT CONFLICTS W/ EXISTING SEWER LINE OR EXISTING P.E. STRUCTURES.
01/03/2023
BORR & CASING DETAIL
LICENSED PROFESSIONAL ENGINEER, TEXAS LIC. NO. 128195



FLUSH VALVE ASSEMBLY DETAIL

- GENERAL NOTES:**
- 1.) THE LOCATION OF THRUST BLOCKS DEPENDS UPON THE DIRECTION OF THRUST AND TYPE OF FITTINGS.
 - 2.) THRUST BLOCK CALCULATIONS ARE BASED ON A WATER LINE PRESSURE OF 150 P.S.I. AND AN ALLOWABLE SOIL BEARING VALUE OF 2,500 POUNDS PER SQUARE FOOT.
 - 3.) "C" DIMENSIONS SHALL BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO LARGER THAN 45°.
 - 4.) ANGLE Θ SHALL BE EQUAL TO OR LARGER THAN 45°.
 - 5.) ALL FITTINGS TO BE WRAPPED IN PLASTIC.



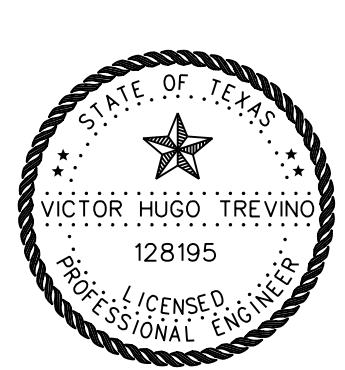
HORIZONTAL BLOCKING TABLE

PIPE SIZE	22 1/2 DEGREES		45 DEGREES		90 DEGREES		TEE & PLUG	
	"A"	MIN. AREA	"B"	MIN. AREA	"C"	MIN. AREA	"D"	MIN. AREA
4"	1.50	1.00	1.00	1.00	1.00	1.06	1.00	1.06
6"	1.50	1.00	1.00	1.14	1.30	1.55	2.40	1.30
8"	1.50	1.08	1.18	1.52	2.31	2.07	4.27	1.74
10"	1.50	1.35	1.84	1.90	3.61	2.58	6.66	2.17
12"	1.50	1.63	2.65	1.86	5.19	3.10	9.60	2.61

TABLE OF CASING SIZES

NOMINAL PIPE SIZE	CASING SIZE (INSIDE DIA.)	CASING MINIMUM WALL THICKNESS
16"	24"	0.25"

THRUST BLOCK DETAILS



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REVISION NOTES

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TBP REG # 1500

WATER STANDARD DETAILS
EL CORDERO SUBDIVISION
BEING A 20.0 ACRE TRACT SITUATED IN YODERSON RAMIREZ SURVEY, ABSTRACT 384, PORCION 7A, AND THE MARIA DE LUCA SURVEY, ABSTRACT 570, PORCION 8D, HIDALGO COUNTY TEXAS, BEING LOT 25 AND 26, BLOCK 15, TEXAN GARDENS SUBDIVISION, AS PER MAP OR PLAT THERE OF RECORDED IN VOLUME 8, PAGES 57-58, MAP RECORDS, HIDALGO COUNTY, TEXAS.