



HIDALGO COUNTY PLANNING DEPARTMENT

T.J. Arredondo, CFM
Director of Planning

1304 SOUTH 25TH STREET
EDINBURG TEXAS 78539
Tel. 956-318-2840 Fax. 956-318-2844

HIDALGO COUNTY COMMISSIONERS COURT MEETING

DATE: 9-22-2020

PROPOSED EL CRUCERO SUBDIVISION PRECINCT No. 3.

ENGINEER: SOUTH TEXAS INFRASTRUCTURE GROUP DEVELOPER: PEÑA CHAPA DEVELOPMENT

PRELIMINARY APPROVAL FINAL APPROVAL FINAL APPROVAL WITH FINANCIAL GUARANTEE WITH VARIANCE

NUMBER OF LOTS: 25 *SINGLE FAMILY *MULTI-FAMILY COMMERCIAL INDUSTRIAL

ESTIMATED NUMBER OF STREETLIGHTS: N/A

FILLING STATIONS: 4

LOCATION DESCRIPTION: NORTHEAST CORNER OF MILE 5 ROAD AND IOWA ROAD.

SUBDIVISION LIES WITHIN THE: ETJ OF MISSION AND WAS APPROVED BY THE P&Z AND CITY COMMISSION OF SAID CITY

DRAINAGE REPORT WAS APPROVED BY HCDD#1: ON 8-07-2020 PROPERTY LIES WITHIN FLOOD ZONE: "X & A" AS PER FEMA.

DRAINAGE DESIGN: DRAINAGE WILL BE PROVIDED BY NATURAL PERCULATION AND SURFACE RUN-OFF ONTO MILE 5 ROAD AND IOWA ROAD SIDE DITCH.

ROAD R.O.W. DEDICATION: 30.00 FEET ONTO IOWA ROAD & 30.00 FEET ONTO MILE 5 ROAD.

H.C.R.O.W. PRELIMINARY APPROVAL DATE: 8-27-2020 BY VICTOR GALLARDO, PCT. 3 R.O.W. AGENT.

H.C.H.D. PRELIMINARY APPROVAL DATE: 9-15-2020 BY ENVIRONMENTAL HEALTH DIVISION

SEWER SYSTEM: OSSF'S

WATER SERVICE PROVIDER: AGUA SUD EXISTING LINE SIZE: 12" LOCATION: MILE 5 ROAD.

H.C.E.O.C. PRELIMINARY APPROVAL DATE: 7-14-2020: 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.

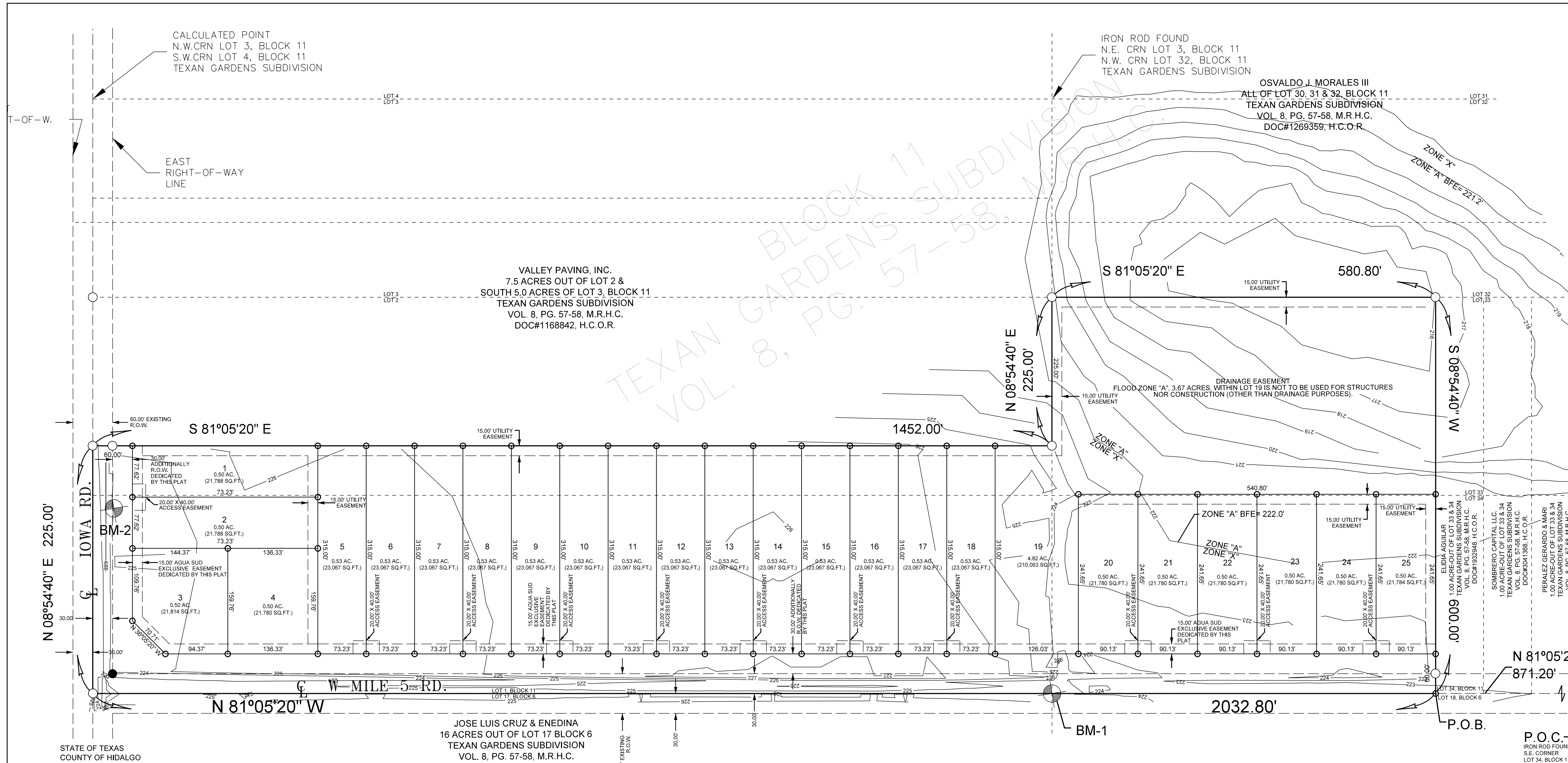
PRELIMINARY APPROVAL FROM THE
HIDALGO COUNTY COMMISSIONERS COURT ON: _____

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

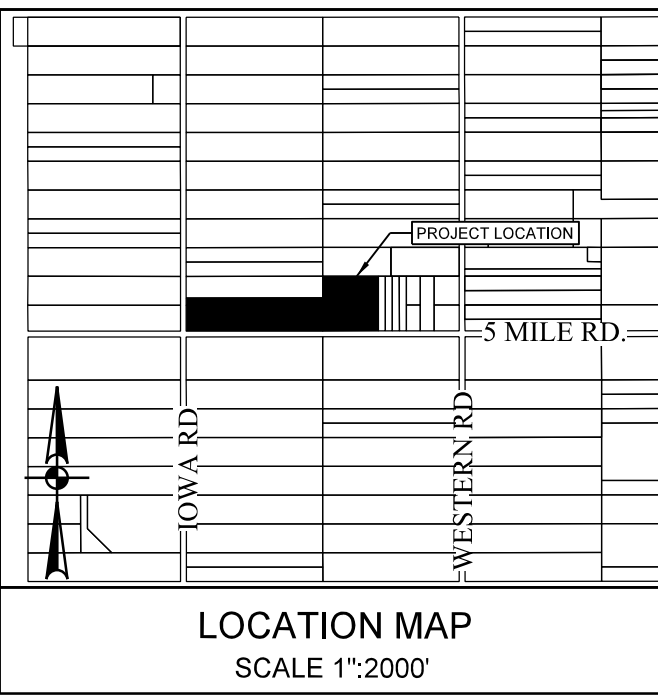
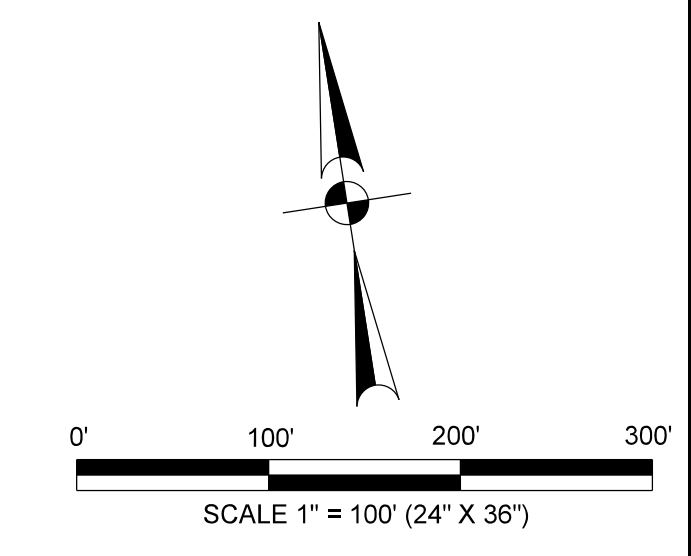
This subdivision plat has been reviewed and complies with the Hidalgo County Subdivision Rules, Texas Water Development Board Model Subdivision Rules and The Texas Local Government Code.

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LEGEND:

- SET # 5/8" IRON ROD WITH PLASTIC CAP STAMPED "ROWSS PROP. COR."
- FOUND IRON ROD



GENERAL NOTES:

- FLOOD ZONE STATEMENT:**
FLOOD ZONE DESIGNATION: "X" & "A" ZONE "X" 500-YEAR FLOOD ZONE
ZONE "A" NO BASE FLOOD ELEVATIONS DETERMINED. COMMUNITY PANEL NO. 480334 0290 D, REVISED JUNE 06, 2000. BASED ON LIDAR AND TOPOGRAPHIC DATA FROM THE SITE. WE HAVE DETERMINED THAT THE BASE FLOOD ELEVATION FOR THIS ZONE "A" ON THIS SPECIFIC PROPERTY IS 222.0 FEET. PROPERTY HAS BEEN TAKEN OUT OF THE FLOOD ZONE, EXCEPT FOR LOT 19 AS SHOWN ON GRADING PLAN, WITH LOMR CASE NO.
- MINIMUM BUILDING SETBACK LINES:**
FRONT SETBACK: 50 FEET FOR LOTS FRONTING 5 MILE
SIDE SETBACK: 6 FEET
REAR SETBACK: 15 FEET OR EASEMENT, WHICHEVER IS GREATER
- NO MORE THAN ONE SINGLE FAMILY DETACHED DWELLING SHALL BE LOCATED ON THE LOT. THIS MUST BE STIPULATED ON ALL DEEDS AND CONTRACTS FOR DEEDS.**
- MINIMUM FINISHED FLOOR ELEVATION SHALL BE 24" ABOVE NATURAL GROUND, WHICHEVER IS GREATER. ELEVATION CERTIFICATE MAY BE REQUIRED FOR LOTS LOCATED OUTSIDE A 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 FOUND COTTON PICKER SPINDLE AT THE CENTERLINE OF 5 MILE LINE.
N = 16,634,632.5630
E = 1,013,746,7284
ELEV = 224.70
BM-2 IS A SET 5/8" IRON PIN WITH PLASTIC CAP "ROWSS CONTROL" LOCATED ON EAST IOWA ROAD & 5 MILE LINE INTERSECTION.
N = 16,635,129.3699
E = 1,012,387,1992
ELEV = 224.97
- NO STRUCTURE SHALL BE PERMITTED OVER ANY EASEMENT. EASEMENTS SHALL BE KEPT CLEAR OF BUILDINGS, SHEDS, SHRUBS, TREES, AND OTHER PLANTINGS (EXCEPT LOW, LESS THAN 8 INCHES MATURE HEIGHT, GROUND COVER, GRASS, OR FLOWERS) AND OTHER OBSTRUCTIONS THAT WOULD INTERFERE WITH THE OPERATIONS AND MAINTENANCE OF THE EASEMENT.**
- EACH PURCHASE 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.**
- ALL PUBLIC UTILITIES EASEMENTS DESIGNATED BY THIS PLAT SHALL BE A MINIMUM WIDTH OF 15.00 FEET AS PER THE HIDALGO COUNTY MODEL SUBDIVISION RULES. BY SIGNING THIS PLAT, DEVELOPER AND ENGINEER CERTIFY THAT ALL OTHER EASEMENTS SHOWN COMPLY WITH THE SIZE REQUIRED BY EACH UTILITY PROVIDER OCCUPYING AN EASEMENT.**
- ON-SITE SEWAGE FACILITIES (OSSF) NOTE: THIS SUBDIVISION SHALL USE ON-SITE SEWAGE FACILITIES IN ACCORDANCE WITH TCEQ AND HIDALGO COUNTY REGULATIONS FOR SEWAGE DISPOSAL. THE SUBDIVIDER IS RESPONSIBLE FOR PROVIDING AN OSSF ON LOT.**
A OSSF SYSTEM IS BEING DESIGNED FOR DISPOSAL OF DOMESTIC SEWAGE ONLY.
- EACH LOT ON THIS PLAT COMPLIES WITH THE MINIMUM 21,780 SQUARE FEET LOT AREA WITH POTABLE WATER SUPPLY.**
- OSSF SYSTEM SHALL REQUIRE INSPECTION AND APPROVAL BY HIDALGO COUNTY AUTHORIZED DEPARTMENT**
- SOIL ANALYSIS HAVE BEEN SUBMITTED TO THE AUTHORIZED HIDALGO COUNTY DEPARTMENT AND EXPERTS 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 SOIL IS SUITABLE FOR A STANDARD SEPTIC TANK AND ABSORPTIVE DRAINFIELD SYSTEM.**
- EAPPROVED "OSSF" PERMIT APPLICATION IS REQUIRED INCLUDING INDIVIDUAL LOT PLANNING MATERIALS PRIOR TO OCCUPYING A LOT.**
- THERE ARE NO WATER WELLS WITHIN 150 FEET FROM THE BOUNDARIES ON THIS SUBDIVISION.**
- PENA CHAPA DEVELOPMENT, THE OWNER & SUBDIVIDER OF EL CRUCERO SUBDIVISION, RETAINS A BLANKET EASEMENT UPON EACH LOT FOR THE PURPOSE OF INSTALLING AN APPROVED OSSF ON THE LOT AS DESCRIBED ON SHEET NO. 3 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 0.25% SLOPE TO ACCOMPLISH POSITIVE DRAINAGE. THIS IS IN ACCORDANCE WITH HIDALGO COUNTY APPENDIX 5, COUNTY CONSTRUCTION SPECIFICATIONS 3.1.4.**
- NO INDIVIDUAL LOT DRIVEWAY ACCESS WILL BE ALLOWED FROM (5 MILE LINE RD) ON TO LOTS 3, 4 & 19. A 24" SHARED DRIVEWAY ENTRANCE SHALL BE CONSTRUCTED BY DEVELOPER BETWEEN LOTS 1 & 2, 5 & 6, 7 & 8, 9 & 10, 11 & 12, 13 & 14, 15 & 16, 17 & 18, 20 & 21, 22 & 23, AND 24 & 25.**
- THE DEVELOPER SHALL BE RESPONSIBLE FOR DETAINING AND ACCOMMODATING MORE THAN THE DETAINED VOLUME SHOWN ON THIS PLAT IF IT IS DETERMINED, AT THE DEVELOPMENT STAGE, THAT THE DETENTION REQUIREMENTS ARE GREATER THAN STATED ON THIS PLAT, DUE TO THE IMPERVIOUS ARE BEING GREATER THAN THE PLAT ENGINEER CONSIDERED IN THE HYDRAULIC CALCULATIONS FOR THIS SUBDIVISION.**

OWNER'S DEDICATION, CERTIFICATION, AND ATTESTATION:

PENA CHAPA DEVELOPMENT AS OWNER OF THE 20.5 ACRE TRACT OF LAND ENCOMPASSED WITHIN THE PROPOSED EL CRUCERO SUBDIVISION, HEREBY SUBDIVIDE THE LAND AS DEPICTED IN THIS SUBDIVISION PLAT AND DEDICATED TO PUBLIC USE THE STREET, PARK, AND EASEMENTS SHOWN HEREIN.

I CERTIFY THAT I HAVE COMPLIED WITH THE REQUIREMENTS 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) SEWER CONNECTIONS TO THE LOTS OR SEPTIC TANKS MEET, OR WILL MEET, THE MINIMUM REQUIREMENTS OF THE STATE STANDARDS.
(C) ELECTRICAL CONNECTIONS PROVIDED TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS.
(D) 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

MANUEL CHAPA (MEMBER) DATE
P.O. BOX 1958
MISSION, TEXAS 78572
STATE OF TEXAS
COUNTY OF HIDALGO
BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED MANUEL CHAPA KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN STATED.
GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS ____ DAY OF _____

NOTARY PUBLIC
STATE OF TEXAS
COUNTY OF HIDALGO
WE, THE UNDERSIGNED CERTIFY THAT THIS PLAT OF EL CRUCERO SUBDIVISION WAS REVIEWED AND APPROVED BY THE HIDALGO COUNTY COMMISSIONERS COURT ON _____

HIDALGO COUNTY JUDGE DATE
ATTEST: HIDALGO COUNTY CLERK DATE

THIS PLAT IS HEREBY APPROVED BY THE HIDALGO COUNTY IRRIGATION DISTRICT NO. 6 ON THIS THE ____ DAY OF _____, 20__

NO IMPROVEMENTS OF ANY KIND (INCLUDING WITHOUT LIMITATION TREES, FENCES AND BUILDINGS) SHALL BE PLACED UPON IRRIGATION DISTRICT NO. 6 RIGHT OF WAYS OR EASEMENTS. APPROVAL OF THIS PLAT DOES NOT RELEASE ANY RIGHTS THAT THE DISTRICT MAY HAVE WHETHER SHOWN OR NOT.
ATTEST: PRESIDENT SECRETARY

STATE OF TEXAS COUNTY OF HIDALGO

KNOW ALL MEN BY THESE PRESENTS:
I, VICTOR H. TREVINO, A REGISTERED PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS, LICENSE NUMBER 128196, DO HEREBY CERTIFY THAT THIS PLAT HAS BEEN GIVEN PROPER AND ADEQUATE ENGINEERING CONSIDERATION.

VICTOR H. TREVINO, P.E.
LICENSED PROFESSIONAL ENGINEER, TEXAS LIC. NO. 128196
STATE OF TEXAS
COUNTY OF HIDALGO
KNOW ALL MEN BY THESE PRESENTS:
I, IVAN GARCIA, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECTLY MADE AND PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY MADE UNDER MY SUPERVISION ON THE GROUND ON _____ UNDER MY DIRECTION.

IVAN GARCIA, R.P.L.S.
REG. PROFESSIONAL LAND SURVEYOR # 6496
CITY OF MISSION CERTIFICATE OF APPROVAL
UNDER LOCAL GOVERNMENT CODE 212.0115(6) WE THE UNDERSIGNED CERTIFY THAT THIS PLAT OF EL CRUCERO SUBDIVISION WAS REVIEWED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF MISSION.

MAYOR CITY OF MISSION DATE
ATTEST: CITY SECRETARY DATE

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 49.211(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. SESIN, P.E., C.F.M. DATE

METES AND BOUNDS

BEING A 20.5 ACRE TRACT OF LAND, LYING AND SITUATED IN HIDALGO COUNTY, TEXAS, SAID 20.5 ACRES TRACT BEING ALL OF ALL OF LOT ONE (1) AND THE SOUTH 1 AND 1/2 (2.50) ACRES OF LOT TWO (2), BLOCK (11), AND BEING OUT OF AND FORMING A PART OF PORTION OF LOTS 33 AND 34, BLOCK 11, TEXAN GARDENS, HIDALGO COUNTY, TEXAS, RECORDED IN VOLUME 8, PAGES 57 AND 58, MAP RECORDS OF HIDALGO COUNTY, TEXAS, AND SAID 20.5 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THENCE N 81°05'20" W ALONG THE SOUTH LINE OF THE SAID LOT 34, SAME BEING ALONG THE CENTERLINE OF W. MILE 5 ROAD, TO THE SOUTHWEST CORNER OF A CALLED 1.00 ACRE TRACT DESCRIBED IN WARRANTY DEED FROM FELIPE E. PERALEZ AND HILDA D. PERALEZ TO ELIDIA AGUILAR, DATED SEPTEMBER 25, 2008, RECORDED IN DOCUMENT NUMBER 1932948, OFFICIAL RECORDS OF HIDALGO COUNTY, TEXAS, A DISTANCE OF 871.20 FEET TO AN IRON ROD SET FOR THE SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT AND POINT OF BEGINNING;

THENCE N 81°05'20" W ALONG THE SOUTH LINE OF THE SAID LOT 34, SAME BEING ALONG THE CENTERLINE OF W. MILE 5 ROAD, TO THE SOUTHWEST CORNER OF THE SAID LOT 34, A DISTANCE OF 2032.80 FEET TO AN IRON ROD SET FOR THE SOUTHWEST CORNER OF THIS HEREIN DESCRIBED TRACT;

THENCE N 08°54'40" E ALONG THE WEST LINE OF THE LOT 1, BLOCK 11, TEXAN GARDENS, SAME BEING ALONG THE CENTERLINE OF IOWA ROAD, TO THE SOUTHWEST CORNER OF THE SAID A CALLED 12.5 ACRES TRACT DESCRIBED IN A WARRANTY DEED FROM NEVA H. BELL TO VALLEY PAVING, DATED FEBRUARY 07, 2003, RECORDED IN DOCUMENT NUMBER 1168842, OFFICIAL RECORDS OF HIDALGO COUNTY, TEXAS, A DISTANCE OF 375.00 FEET TO AN IRON ROD SET FOR THE NORTHWEST CORNER OF THIS HEREIN DESCRIBED TRACT;

THENCE S 81°05'20" W ACROSS THE SAID LOT 2, BLOCK 11, TEXAN GARDENS, SAME BEING ALONG THE SOUTH BOUNDARY LINE OF THE SAID 12.5 ACRES VALLEY PAVING TRACT, PASSING AT 30.00 FEET A 1/2-INCH IRON ROD SET ON THE EXISTING RIGHT-OF-WAY LINE OF IOWA ROAD, AND CONTINUING A TOTAL DISTANCE OF 1452.00 FEET TO AN IRON ROD FOUND FOR AN INTERIOR CORNER OF THIS HEREIN DESCRIBED TRACT;

THENCE N 08°54'40" E ALONG THE WEST LINE OF THE SAID LOTS 33 AND 34, TO THE NORTHWEST CORNER OF THE SAID LOT 33, A DISTANCE OF 225.00 FEET TO AN IRON ROD SET FOR THE NORTHWEST CORNER OF THIS HEREIN DESCRIBED TRACT;

THENCE S 08°54'40" W ACROSS THE SAID LOTS 33 AND 34, SAME BEING PARALLEL TO THE EAST LINE OF THE SAID LOTS 33 AND 34, AND SAME BEING ALONG THE WEST BOUNDARY LINE OF THE SAID 1.00 ACRE ELIDIA AGUILAR TRACT, PASSING 570.00 FEET TO AN IRON ROD SET ON THE EXISTING NORTH RIGHT-OF-WAY OF W. MILE 5 ROAD, AND CONTINUING A TOTAL DISTANCE OF 600.00 FEET TO THE POINT OF BEGINNING AND BEING MORE OR LESS A 20.5 ACRE TRACT OF LAND.

BEARING BASIS, TEXAS COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM OF 1983.
A SURVEY PLAT OF EVEN DATE ACCOMPANIES THIS HEREIN METES AND BOUNDS DESCRIPTION

HIDALGO COUNTY CERTIFICATE OF PLAT APPROVAL
I, THE UNDERSIGNED CERTIFY THAT THIS PLAT OF EL CRUCERO SUBDIVISION WAS REVIEWED AND APPROVED BY THE HIDALGO COUNTY HEALTH DEPARTMENT ON _____
ENVIRONMENTAL HEALTH DIVISION MANAGER DATE

BEARING BASIS, TEXAS COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM OF 1983.

A SURVEY PLAT OF EVEN DATE ACCOMPANIES THIS HEREIN METES AND BOUNDS DESCRIPTION

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

ENVIRONMENTAL HEALTH DIVISION MANAGER DATE

JOSE E. SAENZ
GENERAL MANAGER
AGUA SPECIAL UTILITY DISTRICT

PRINCIPAL CONTACTS

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
SURVEYOR: IVAN GARCIA, R.P.L.S., 921 S. 10TH AVE., EDINBURG, TEXAS 78539, (956) 380-6152, (956) 380-5083

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

REVISION NOTES				
NO.	SHEET	REVISION	DATE	APPROVED

SHEET 1 - HEADING INDEX, LOCATION MAP AND E.T.U., PRINCIPAL CONTACTS, LOT, STREETS AND EASEMENT LAYOUT, ENGINEER'S AND SURVEYOR'S CERTIFICATION, HIDALGO COUNTY CLERK'S RECORDING CERTIFICATE, PLAT NOTES AND RESTRICTIONS, DESCRIPTION (METES & BOUNDS), OWNER'S ACKNOWLEDGMENT, HIDALGO COUNTY HEALTH DEPT. CERTIFICATE, H.C.D., NO. 1 CERTIFICATION, COUNTY CLERK RECORDING CERTIFICATE, H.C.I.D. NO. 6 CERTIFICATE, ENGINEER'S AND SURVEYOR'S CERTIFICATION, CITY OF MISSION CERTIFICATE OF APPROVAL, HIDALGO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT CERTIFICATE.

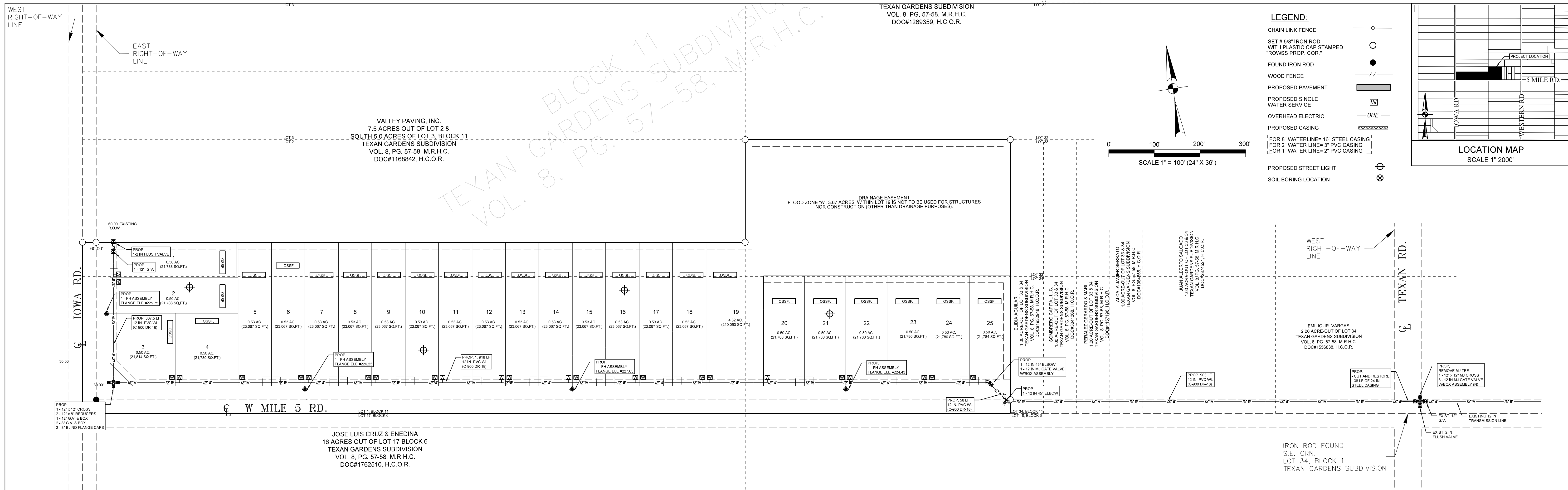
SHEET 2 - WATER DISTRIBUTION AND SANITARY SEWER (OSSF) MAP, ENGINEERING REPORT, INCLUDING DESCRIPTION OF WATER AND WASTE WATER/OSSF AND ENGINEER'S CERTIFICATION (ENGLISH AND SPANISH) SUBDIVIDER CERTIFICATE & STATEMENT.

SHEET 3 - DRAINAGE REPORT INCLUDING DESCRIPTION OF DRAINAGE, MAP OF TOPOGRAPHY, DRAINAGE AND PAVING MAP, ENGINEERING CERTIFICATION, REVISION NOTES.

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

LOT LAYOUT EL CRUCERO SUBDIVISION
BEING A 20.5 ACRE TRACT OF LAND OUT OF ALL OF LOT ONE (1) AND THE SOUTH 2 AND 1/2 (2.5) ACRES OF LOT TWO (2), BLOCK ELEVEN (11), AND A 8.0 ACRE TRACT OF LAND, MORE OR LESS, OUT OF LOTS 33 AND 34, BLOCK 11, TEXAN GARDENS, HIDALGO COUNTY, TEXAS, ACCORDING TO THE MAP RECORDED IN VOLUME 8, PAGES 57-58, MAP RECORDS, HIDALGO COUNTY, TEXAS





WATER AND SEWER ENGINEERING REPORT

WATER SUPPLY (DESCRIPTION, COST, AND OPERABILITY DATE:

EL CRUCERO 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.

AGUA SUD HAS ONE EXISTING WATER LINE RUNNING IN THE 5 MILE LINE RD. THE WATER LINE IS A 12" DIAMETER LINE RUNNING THROUGH THE NORTH SIDE OF THE RIGHT-OF-WAY OF 5 MILE LINE RD AND ITS STOPS WITH A 2" FLUSH VALVE AT THE INTERSECTION OF 5 MILE LINE RD AND TEXAN RD.

EL CRUCERO SUBDIVISION WILL BE CONNECTED TO THE EXISTING WATER SYSTEM, ON 5 MILE LINE RD AND TEXAN RD, WITH ONE (1) 12" x 12" MI CROSS WITH THREE (3) GATE VALVES. AFTER CROSSING THE TEXAN RD. THE WATER LINE WILL CONTINUE, ON THE NORTH SIDE OF THE 5 MILE LINE RD, UP TO THE WHERE THE SUBDIVISION STARTS.

EL CRUCERO SUBDIVISION HAS 25 LOTS. WATER DISTRIBUTION FOR EL CRUCERO SUBDIVISION CONSISTS OF TWENTY (25) 1" DIAMETER SINGLE SERVICE SHORT LINES THAT RUN INTO THE LOTS. THE 12" LINE, THE 1" SINGLE SERVICE LINES AND THE METER BOXES HAVE ALREADY BEEN INSTALLED, AT A TOTAL COST OF \$_____ OR \$_____ PER LOT. IN ADDITION THE SUBDIVIDER HAS PAID AGUA SUD THE SUM OF \$_____ WHICH COVERS THE \$_____ COST PER LOT AS STATED IN THE 30 YEAR WATER SERVICE AGREEMENT WHICH SUM 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 FIVE(5) FIRE HYDRANTS AT A UNIT COST OF \$_____ FOR A TOTAL COST OF \$_____. THE ENTIRE 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.

SEWAGE FACILITIES: DESCRIPTION, COSTS, AND OPERABILITY DATE

SEWAGE FROM EL CRUCERO SUBDIVISION WILL BE TREATED BY INDIVIDUAL ON-SITE SEWAGE FACILITIES ("OSSF") CONSISTING OF A STANDARD DESIGN DUAL COMPARTMENT SEPTIC TANK AND DRAIN FIELD ON LOTS 1 TO 25. 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 WERE PERFORMED ON THE SITE, AT OPPOSITE AREAS OF THE SUBDIVISION, A TOTAL OF 14 SOIL BORING EXCAVATIONS 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 36" 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 \$_____ INCLUDING THE COST FOR THE REQUIRED PERMIT AND LICENSE. ALL OSSF HAVE BEEN INSTALLED AS OF THE TIME OF APPLICATION FOR FINAL PLAT APPROVAL AT A TOTAL COST \$_____. THE HIDALGO COUNTY HEALTH DEPARTMENT HAS INSPECTED AND APPROVED THE INSTALLATION OF ONE OSSF ON _____.

ENGINEER CERTIFICATION:

BY MY SIGNATURE BELOW, I CERTIFY THAT THE WATER AND SEWER 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 SEWAGE FACILITIES, DISCUSSED ABOVE, ARE AS FOLLOWS:
 WATER FACILITIES: THESE FACILITIES FULLY CONSTRUCTED, WITH THE INSTALLATION OF WATER METERS, WILL COST A GRAND TOTAL OF \$_____ SEWAGE FACILITIES: SEPTIC SYSTEM IS ESTIMATED TO COST \$_____

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION, OR PERMIT PURPOSES.

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



REPORTE DE INGENIERIA DE AGUA Y DRENAJE

WATER SUPPLY (DESCRIPCIÓN, GASTOS Y FECHAS DE INICIO):

LA SUBDIVISION EL CRUCERO RECIBIRÁ SU PROVISIÓN 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 RECIBIRÁ SU PROVISIÓN DE AGUA POR LOS PRÓXIMOS 30 AÑOS. AGUA SUD HA PRESENTADO DOCUMENTACIÓN PARA DEMOSTRAR A LARGO PLAZO LA CANTIDAD Y CALIDAD DE AGUA ACCESIBLE PARA SERVIR EL FUTURO DESARROLLO DE LA SUBDIVISION.

AGUA SUD TIENE UNA LINEA EXISTENTE QUE CORRE EN LA 5 MILE LINE RD. LA LINEA DE AGUA ES DE 12 PULGADAS DE DIAMETRO Y CORRE POR EL LADO NORTE DEL DERECHO-DE-VIA DE 5 MILE LINE RD Y SE DETIENE CON UNA VALVULA DE 2 PULGADAS EN LA INTERSECCION DE 5 MILE LINE RD Y TEXAN RD.

LA SUBDIVISION EL CRUCERO SERÁ CONECTADA AL SISTEMA DE AGUA EXISTENTE, UBICADO EN LA 5 MILE LINE RD Y TEXAN RD, CON UNA (1) 12" x 12" MI CROSS CON TRES (3) VALVULAS. DESPUES DE CRUZAR LA TEXAN RD. LA LINEA DE AGUA CONTINUARÁ, EN EL LADO NORTE DE LA 5 MILE LINE RD, HASTA LLEGAR A LA SUBDIVISION.

LA SUBDIVISION EL CRUCERO TIENE 25 LOTES. LA DISTRIBUCION DE AGUA PARA LA SUBDIVISION CARRIZALES CONSISTE EN VEINTE (25) SERVICIOS SENCILLOS CORTOS DE 1" DE DIAMETRO QUE CORREN HACIA LOS LOTES. SE HAN INSTALADO YA LA LINEA DE 12", LOS SERVICIOS DE 1" Y LAS CAJAS DE LOS MEDIDORES A UN COSTO TOTAL DE \$_____ O \$_____ POR LOTE. EL DUEÑO/REPRESENTANTE DE LA SUBDIVISION LE HA PAGADO A AGUA SUD LA CANTIDAD DE \$_____ QUE CUBRE EL COSTO DE LOS MEDIDORES (\$_____ POR CADA LOTE). ESTE PRECIO INCLUYE TAMBIEN EL COSTO DE LA INSTALACION DE CADA MEDIDOR Y LOS GASTOS DE CONEXION CUANDO EL DUEÑO DE ALGUNO DE LOS LOTES SOLICITE UN MEDIDOR DE AGUA, AGUA SUD LO INSTALARÁ SIN COSTO ALGUNO. EL DUEÑO/REPRESENTANTE DE LA SUBDIVISION HA INSTALADO 4 HIDRANTES CONTRA INCENDIO (FIRE HYDRANTS) A UN COSTO DE \$_____ POR CADA UNO, LO CUAL REPRESENTA UNA CANTIDAD TOTAL DE \$_____. EL SISTEMA DE AGUA ESTARÁ EN FUNCIONAMIENTO COMPLETO ANTES O EN LA FECHA EN LA CUAL LA SUBDIVISION SEA REGISTRADA EN EL CONDADO DE HIDALGO.

DRENAJE: DESCRIPCIÓN, GASTOS Y FECHA DE INICIO PARA FACILITAR EL DRENAJE PARA LA SUBDIVISION

SE INSTALARÁ UNA FOSA SÉPTICA EN CADA SOLAR. ESTA FOSA SÉPTICA CONSISTE DE UN TANQUE SÉPTICO DE MODELO DUAL Y DE UN CAMPO DE DRENAJE PARA EL SOLAR. EL INGENIERO AUTOR DE ESTE DOCUMENTO HA EVALUADO EL ÁREA DONDE SE ENCUENTRA LA SUBDIVISION Y HA PREPARADO UN REPORTE QUE CONCLUYE QUE ESTE TERRENO ES ADECUADO PARA ESAS FOSAS SÉPTICAS (OSSF). EL REPORTE FUE APROBADO POR EL DEPARTAMENTO DE SALUBRIDAD DEL CONDADO DE HIDALGO (HIDALGO COUNTY HEALTH DEPARTMENT) SEGUN EL REPORTE.

REPORTE DE EVALUACION DE SUELO:

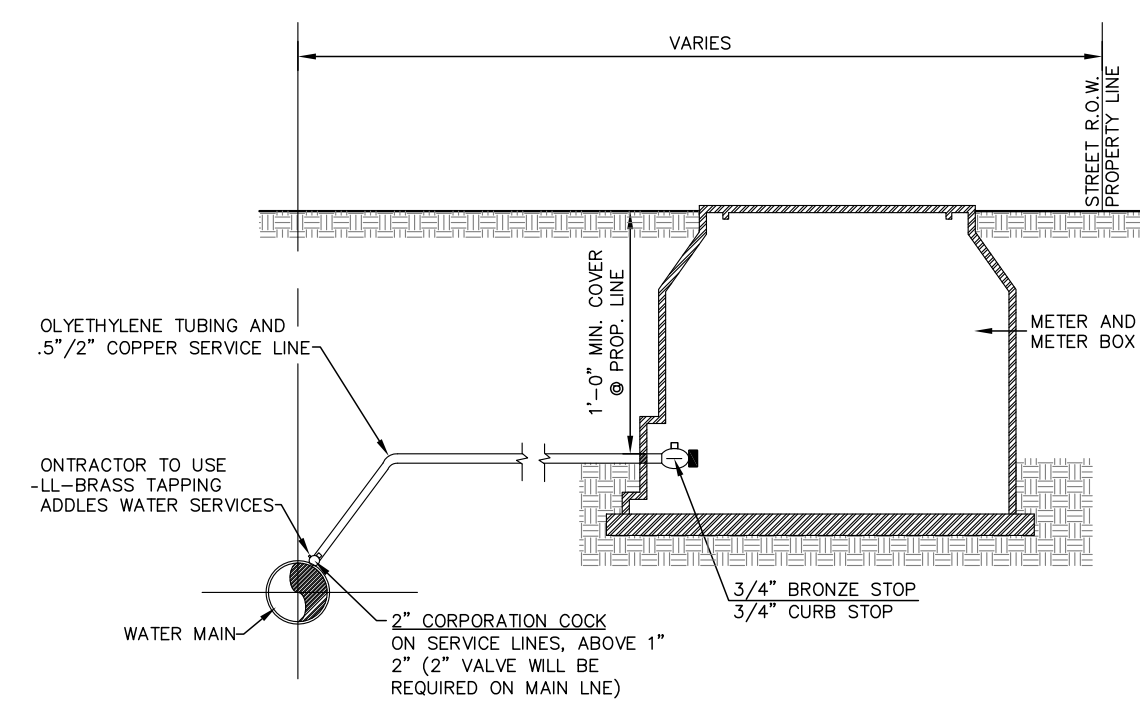
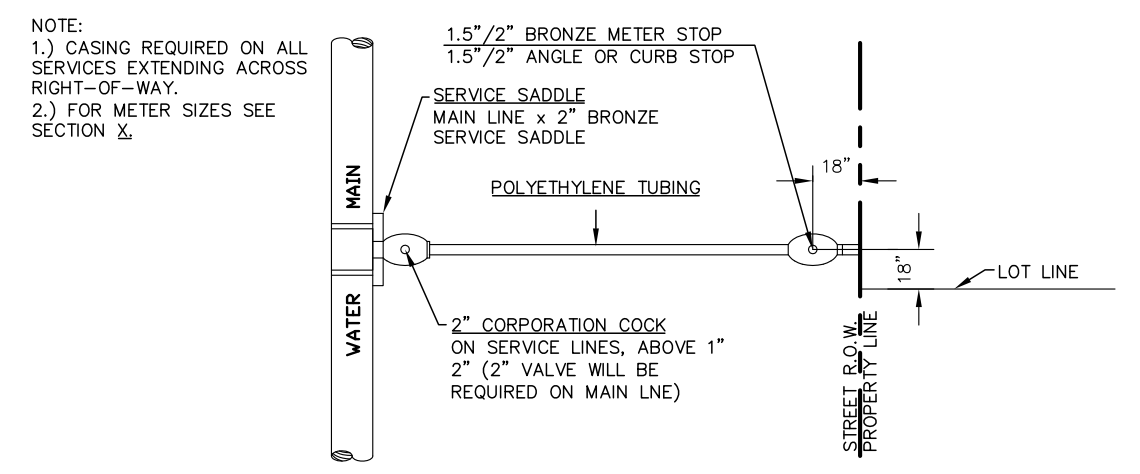
CADA LOTE EN LA SUBDIVISION PROPUESTA MIDE MÁS DE MEDIO ACRO. SE HICIERON DOS EXCAVACIONES DE EVALUACION EN LUGARES OPUESTOS DE LA SUBDIVISION, UN TOTAL DE 14 EXCAVACIONES DE EVALUACION FUERON REALIZADAS. (EXCAVACIONES ADICIONALES NO FUERON NECESARIAS PORQUE EL TERRENO EN ESTA AREA ES SIGNIFICANTEMENTE UNIFORME). EL TERRENO ES UNIFORME (TERRENO ARCILLOSO Y SUELO FRANCO) Y SE EXTIENDE A 36 PULGADAS BAJO TODAS LAS EXCAVACIONES PROPUESTAS. NO EXISTE EVIDENCIA DE AGUA 24 PULGADAS MÁS ARRIBA DE LO MÁS BAJO DE LAS EXCAVACIONES PROPUESTAS. EL AGUA EN ESTA AREA FLUYE BIEN.

EL COSTO TOTAL PARA LA INSTALACION DE UN SISTEMA INDIVIDUAL DE FOSA SÉPTICA ES DE \$2,200.00 DÓLARES, INCLUYENDO EL COSTO DEL PERMISO REQUERIDO Y LICENCIA. EN ESTOS MOMENTOS TODAS LAS FOSAS SÉPTICAS HAN SIDO INSTALADAS EN EL PROCESO DE LA APROBACION FINAL A UN COSTO TOTAL DE \$_____. EL DEPARTAMENTO DE SALUBRIDAD DEL CONDADO DE HIDALGO HA INSPECCIONADO Y HA APROBADO LA INSTALACION DE LA FOSA SÉPTICA DESDE _____/_____/2019.

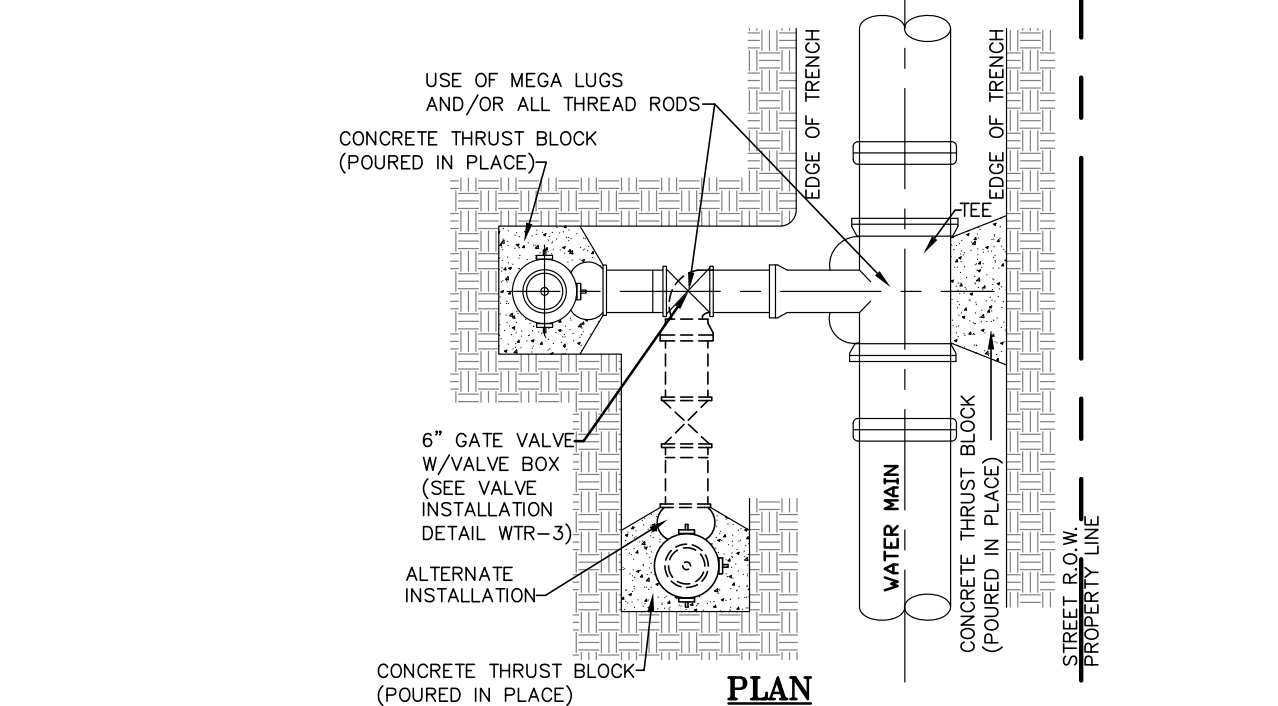
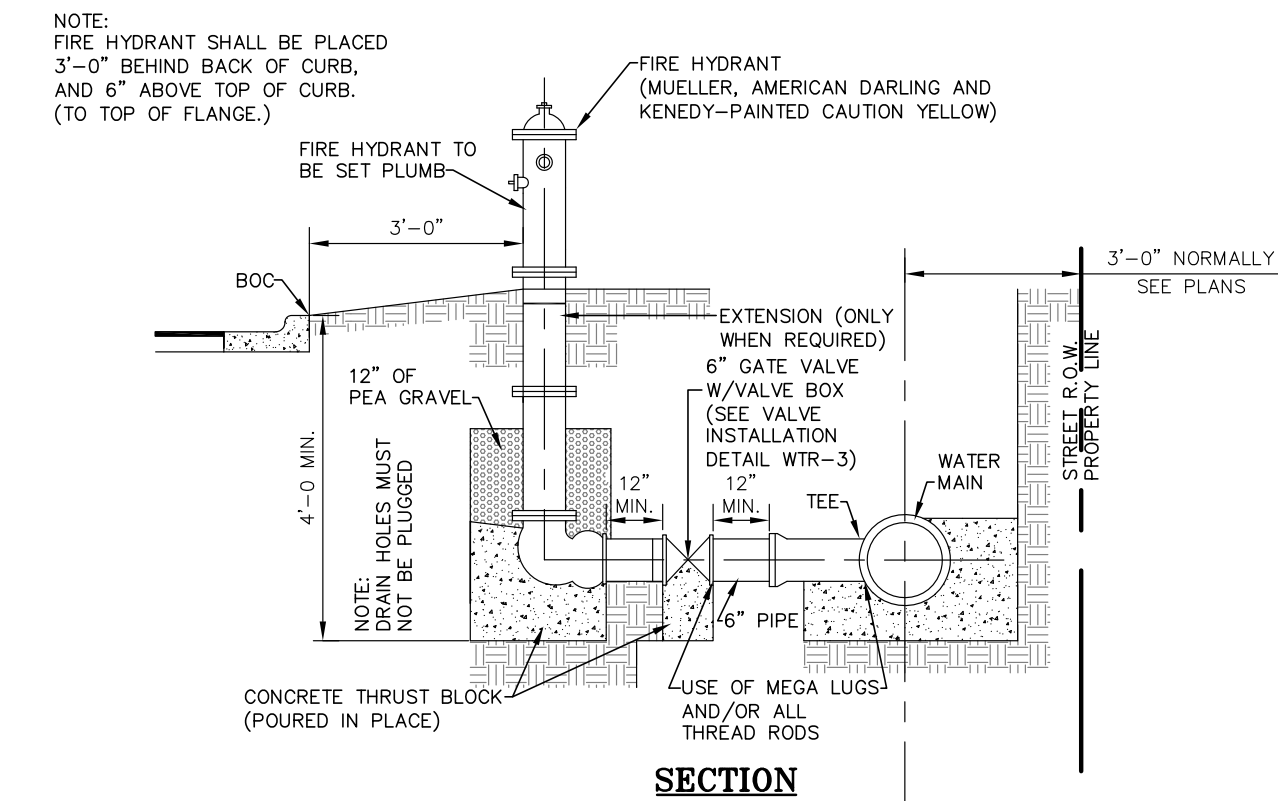
CERTIFICACION:

CON MI FIRMA, CERTIFICO QUE LOS SERVICIOS Y SISTEMAS DE AGUA Y DRENAJE, DESCRITOS EN ESTE DOCUMENTO CUMPLEN CON LAS REGLAS GOBERNANDO LAS SUBDIVISIONES, ADOPTADAS EN LA SECCION 16.343 DEL TEXAS WATER CODE (CÓDIGO DE AGUA DE TEXAS). CERTIFICO QUE LOS GASTOS PARA INSTALAR LOS SISTEMAS DE AGUA Y DRENAJE SON:
 AGUA: EL SISTEMA/SERVICIO DE AGUA SERÁ INSTALADO Y COMPLETAMENTE CONSTRUIDO MENOS EL MEDIDOR MECÁNICO DE AGUA QUE COSTAR UN TOTAL DE \$_____.
 DRENAJE: SE ESTIMA QUE LA FOSA SÉPTICA COSTARÁ \$_____

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION, OR PERMIT PURPOSES.
 VICTOR H. TREVIÑO, P.E.
 LICENSED PROFESSIONAL ENGINEER, TEXAS LIC. NO. 128195



SINGLE WATER SERVICE CONNECTION



UTILITY LAYOUT EL CRUCERO SUBDIVISION

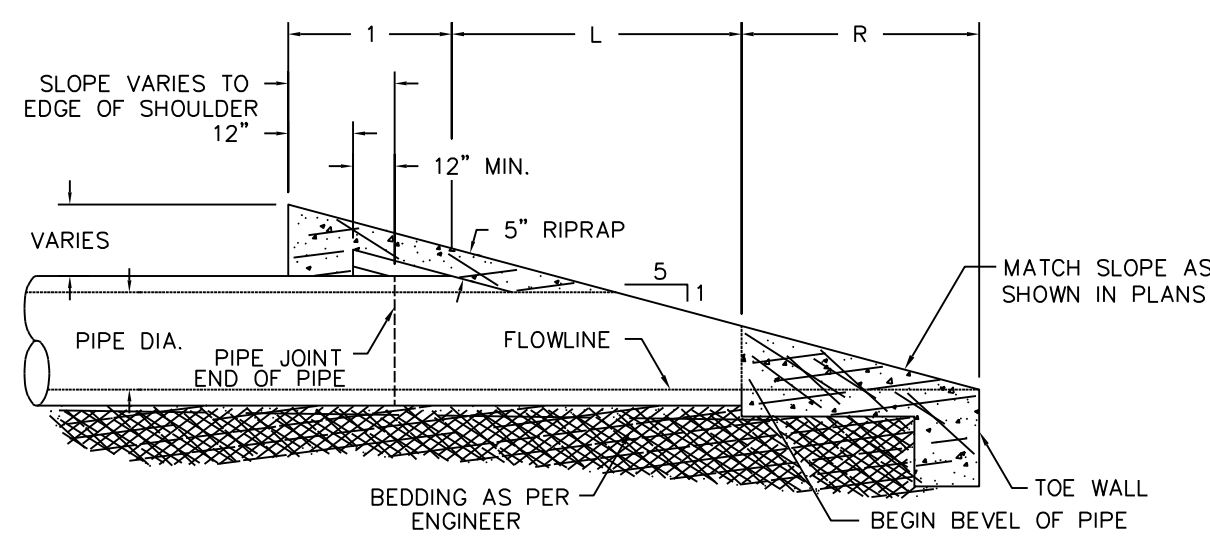
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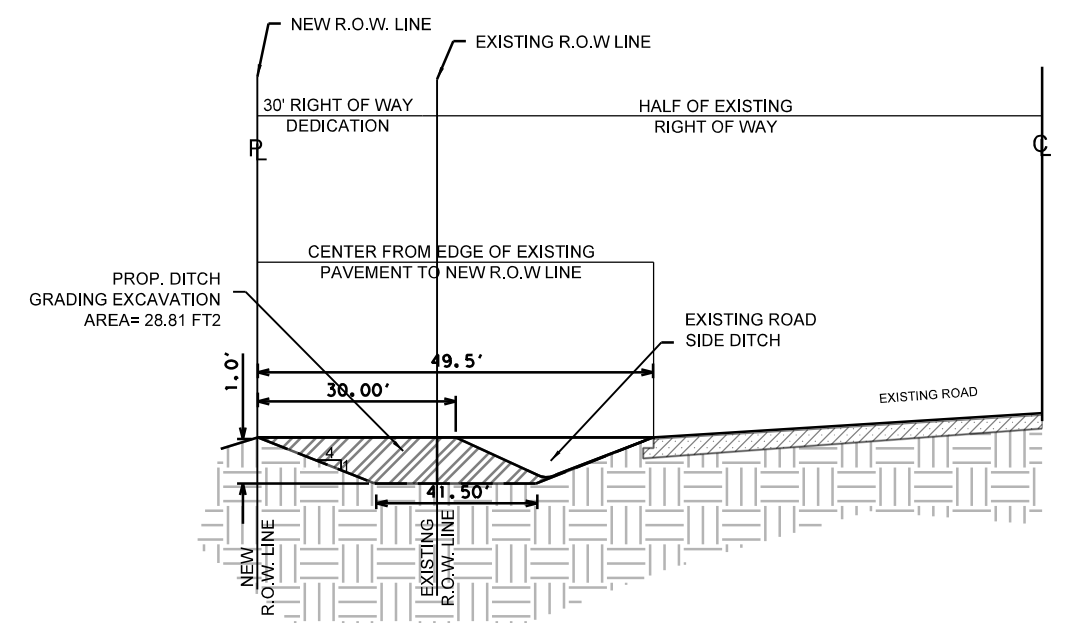
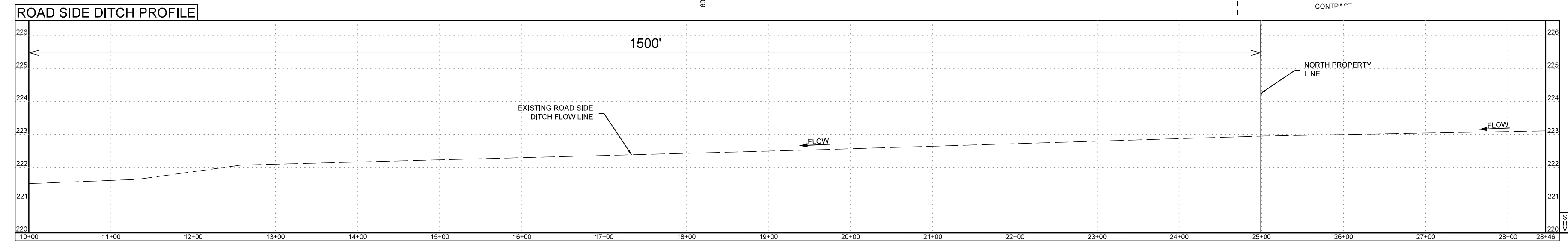
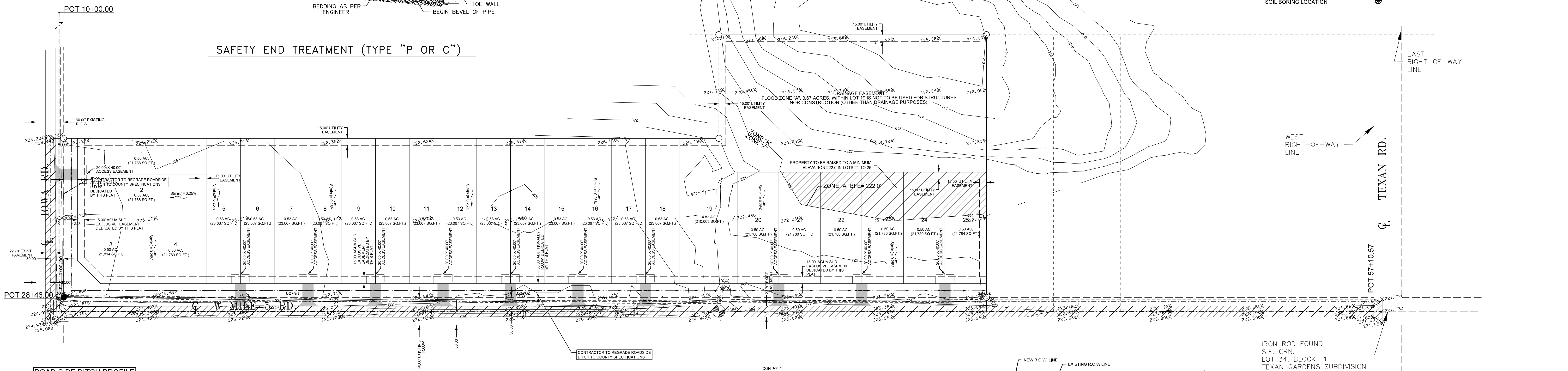
PRINCIPAL CONTACTS					
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ENGINEER:	VICTOR H. TREVIÑO, P.E.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78752	(956) 424-3335	(956) 424-3132
SURVEYOR:	IVAN GARCIA, R.P.L.S.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78752	(956) 424-3335	(956) 424-3132

SOUTH TEXAS INFRASTRUCTURE GROUP
 900 S. STEWART, SUITE 13
 MISSION, TEXAS 78752
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 TBPE REG # 1500

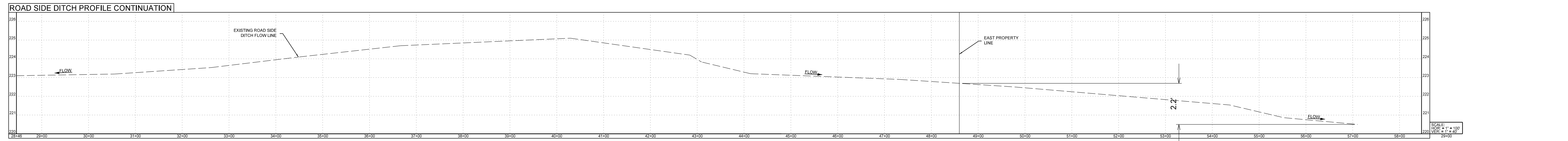
REVISION NOTES				
NO.	SHEET	REVISION	DATE	APPROVED



SAFETY END TREATMENT (TYPE "P OR C")



VOLUME PROVIDED ON ROAD SIDE DITCH
 VOLUME REQUIRED = 44,038 FT³
 VOLUME PROVIDED = 56,093 FT³
 CROSS SECTION AREA = 30 FT²
 LENGTH = 1,947 FT
 VOLUME PROVIDED = (28.81 FT²) (1,947 FT) = 56,093 FT³



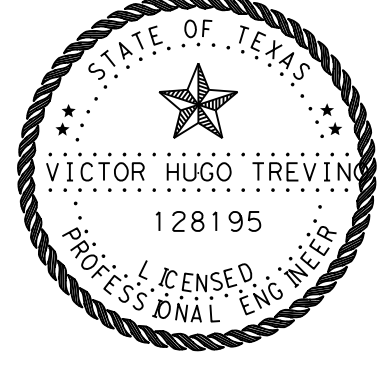
PROJECT LOCATION
 EL CRUCERO SUBDIVISION IS A PROPOSED 25 LOT SINGLE FAMILY RESIDENTIAL SUBDIVISION LOCATED WITHIN THE CITY OF MISSION JURISDICTION, BEING A 20.5 ACRE TRACT OF LAND OUT OF ALL OF LOT ONE (1) AND THE SOUTH 2 AND 1/4 (2.5) ACRES OF LOT TWO (2), BLOCK ELEVEN (11), AND A 8.0 ACRE TRACT OF LAND, MORE LESS, OUT OF LOTS 33 AND 34, BLOCK 11, TEXAN GARDENS, HIDALGO COUNTY, TEXAS, ACCORDING TO THE MAP RECORDED IN VOLUME 8, PAGES 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 PANEL NO. 480334 0290 D, REVISED JUNE 06, 2000, BASED ON LIDAR AND TOPOGRAPHIC DATA FROM THE SITE, WE HAVE DETERMINED THAT THE BASE FLOOD ELEVATION FOR THIS ZONE "A" ON THIS SPECIFIC PROPERTY IS 222.0 FEET. PROPERTY HAS BEEN TAKEN OUT OF THE FLOOD ZONE, EXCEPT FOR LOT 19 AS SHOWN ON GRADING PLAN, WITH LOMR CASE NO. 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 93.1% OF BRENNAN FINE SANDY LOAM(S), WITH 0 TO 1 PERCENT SLOPES; 8.9% OF CUEVITAS-RANDADO COMPLEX(S); 0 TO 1 PERCENT SLOPES. THESE SOILS ARE WELL DRAINED, SURFACE RUNOFF IS NEGLIGIBLE, PERMEABILITY IS MODERATELY HIGH TO HIGH, AND THE WATER CAPACITY IS HIGH. THIS SOILS ARE LISTED IN HYDROLOGIC GROUP B, C-D AND D. SEE APPENDIX C.

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 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 5-YEAR STORM WATER RUNOFF. AS PER ATTACHED CALCULATIONS, THE PEAK RATE WILL BE 43.38 CFS, WHICH WILL GIVE US A NET INCREASE OF 26.7 CFS. FOR PROPOSED EL CRUCERO SUBDIVISION, WE HAVE CALCULATED THAT APPROXIMATELY A TOTAL OF 48,038 CFT OR 1,103 ACRE-FT. WILL NEED TO BE DETAINED IN THE GREEN AREAS OF THE PROPOSED LOTS AND BY RE-GRADING AND EXCAVATING THE EXISTING ROADSIDE DITCH ALONG THE FRONTAGE OF THE PROPERTY (5 MILE RD.).



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

08/05/2020

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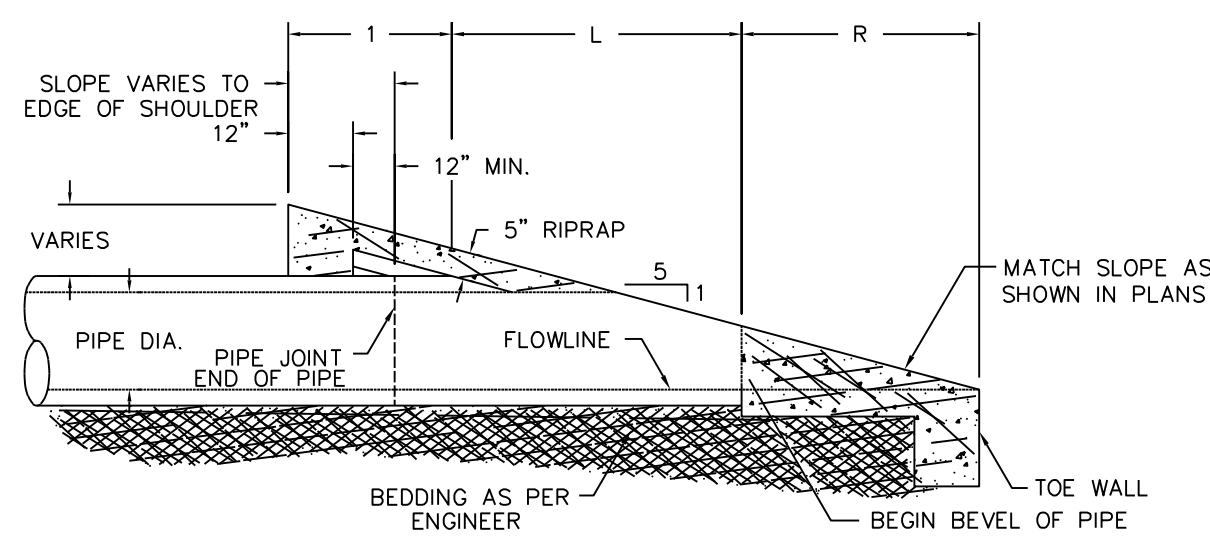
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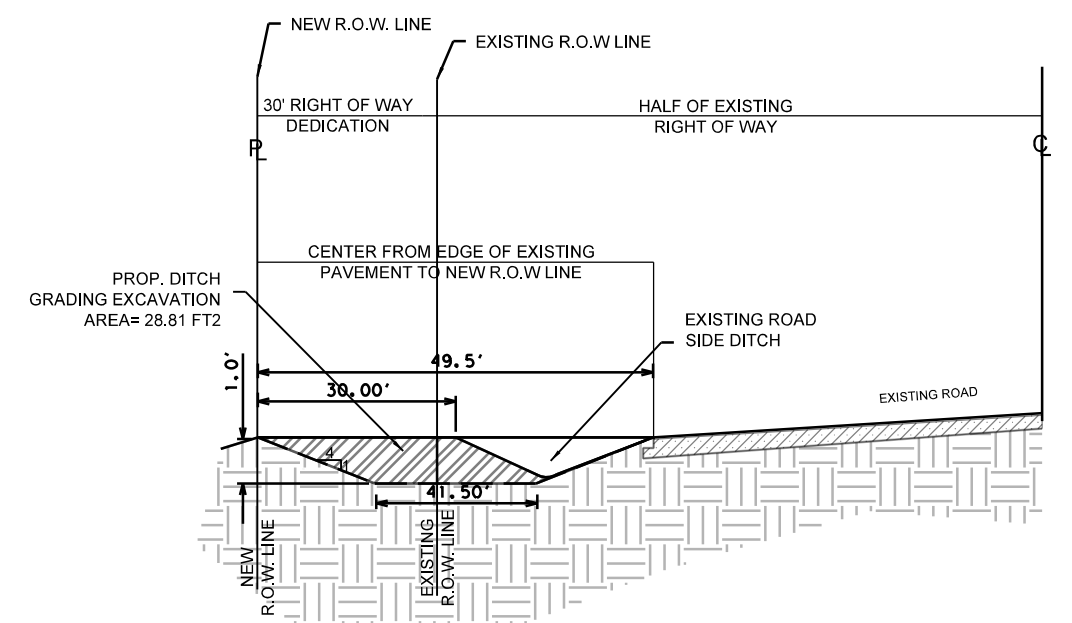
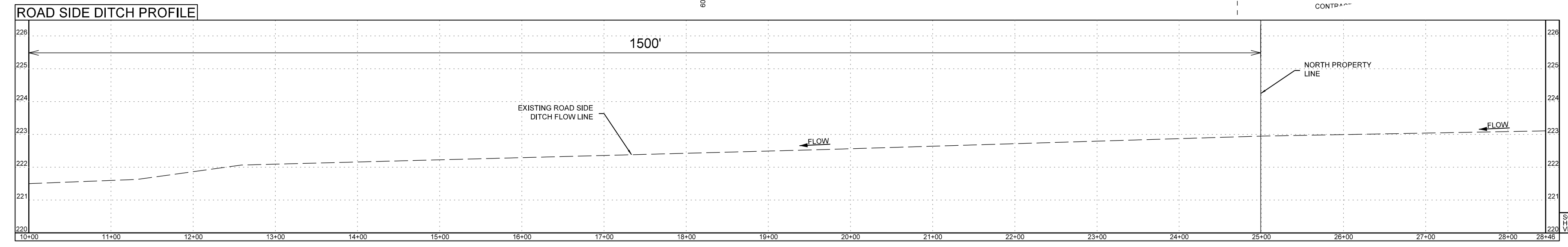
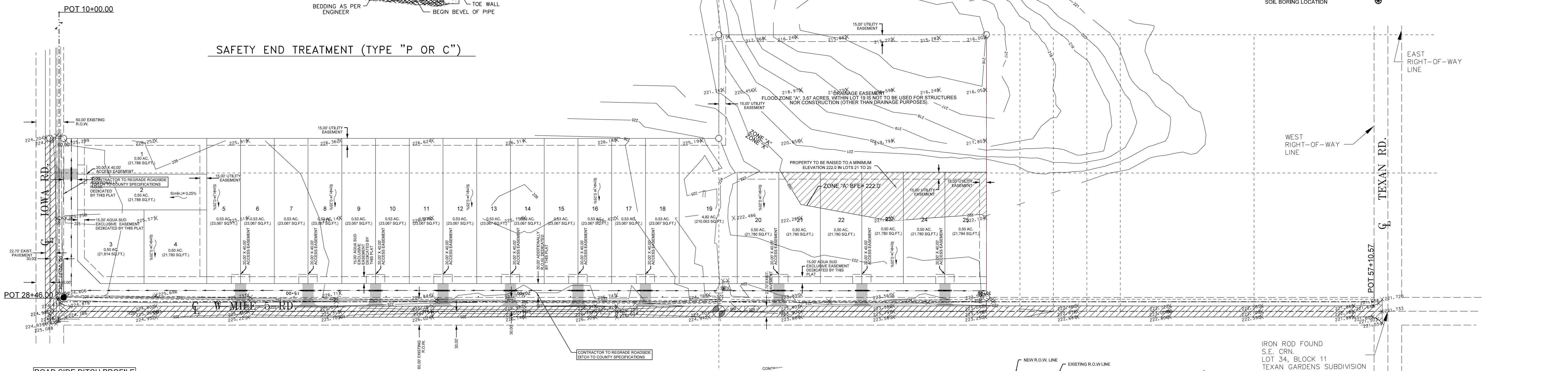
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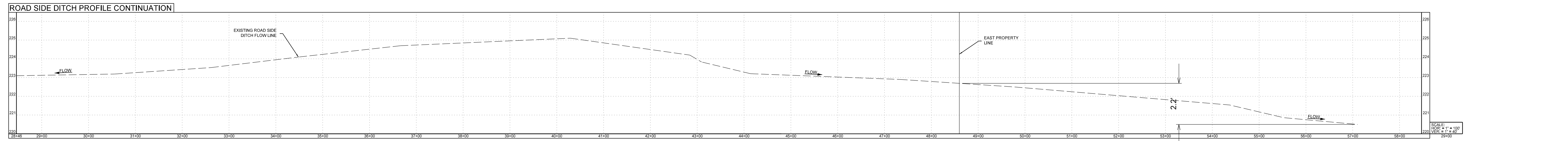
SOUTH TEXAS INFRASTRUCTURE GROUP



SAFETY END TREATMENT (TYPE "P OR C")



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 VOLUME REQUIRED = 44,038 FT³
 VOLUME PROVIDED = 56,093 FT³
 CROSS SECTION AREA = 30 FT²
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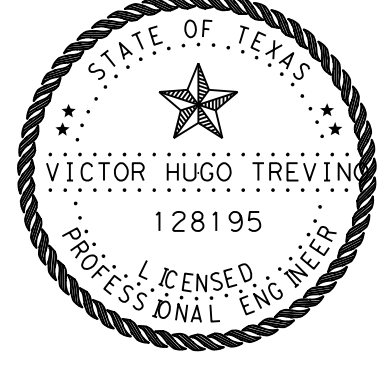
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VICTOR H. TREVINO, P.E.
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08/05/2020

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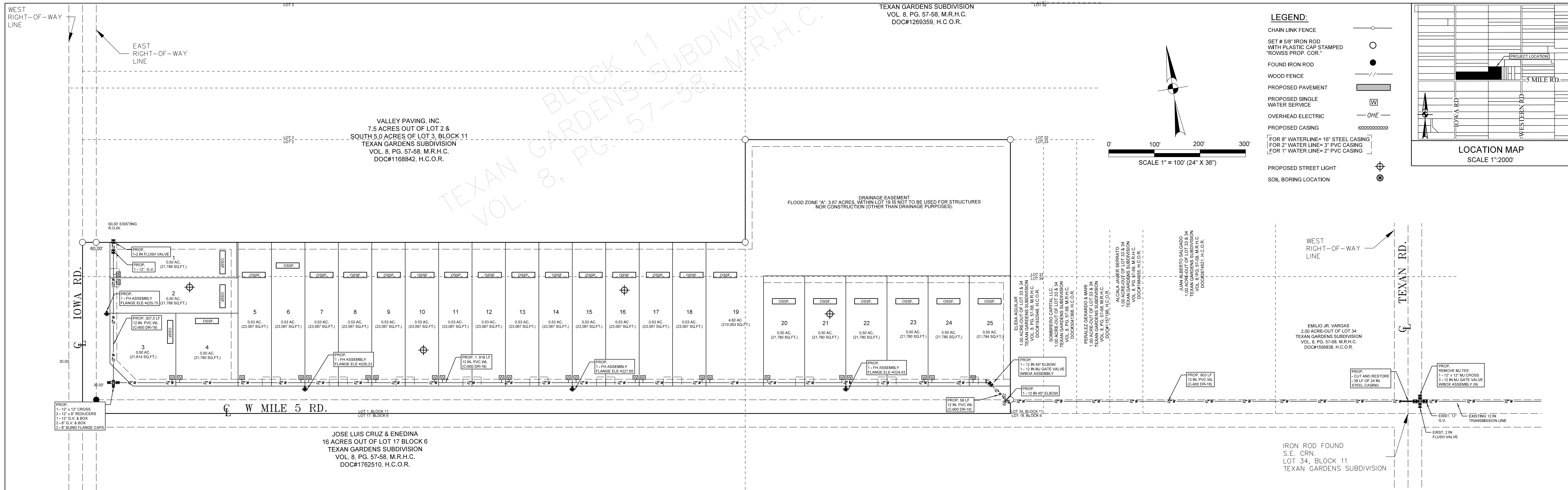
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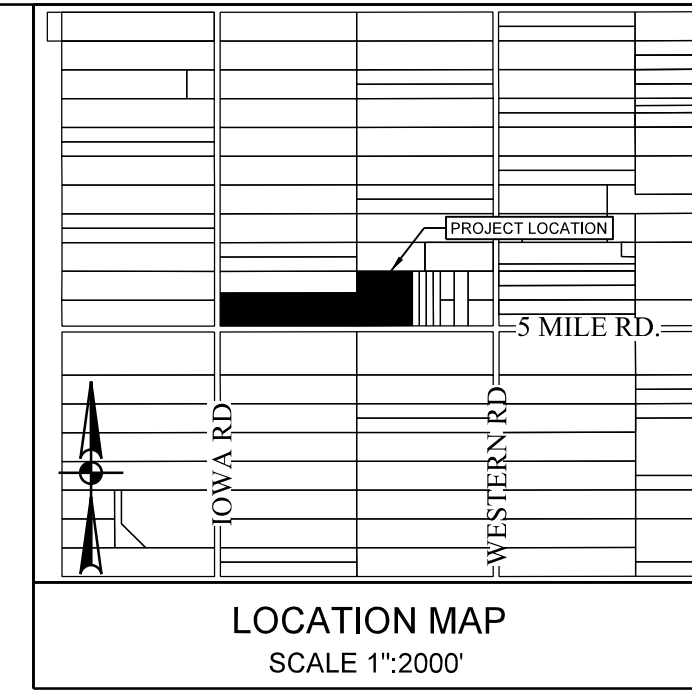
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SOUTH TEXAS INFRASTRUCTURE GROUP



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



WATER AND SEWER ENGINEERING REPORT

WATER SUPPLY (DESCRIPTION, COST, AND OPERABILITY DATE:

EL CRUCERO 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.

AGUA SUD HAS ONE EXISTING WATER LINE RUNNING IN THE 5 MILE LINE RD. THE WATER LINE IS A 12" DIAMETER LINE RUNNING THROUGH THE NORTH SIDE OF THE RIGHT-OF-WAY OF 5 MILE LINE RD AND ITS STOPS WITH A 2" FLUSH VALVE AT THE INTERSECTION OF 5 MILE LINE RD AND TEXAN RD.

EL CRUCERO SUBDIVISION WILL BE CONNECTED TO THE EXISTING WATER SYSTEM, ON 5 MILE LINE RD AND TEXAN RD, WITH ONE (1) 12" x 12" MI CROSS WITH THREE (3) GATE VALVES. AFTER CROSSING THE TEXAN RD. THE WATER LINE WILL CONTINUE, ON THE NORTH SIDE OF THE 5 MILE LINE RD, UP TO THE WHERE THE SUBDIVISION STARTS.

EL CRUCERO SUBDIVISION HAS 25 LOTS. WATER DISTRIBUTION FOR EL CRUCERO SUBDIVISION CONSISTS OF TWENTY (25) 1" DIAMETER SINGLE SERVICE SHORT LINES THAT RUN INTO THE LOTS. THE 12" LINE, THE 1" SINGLE SERVICE LINES AND THE METER BOXES HAVE ALREADY BEEN INSTALLED, AT A TOTAL OF \$ _____ OR \$ _____ PER LOT. IN ADDITION THE SUBDIVIDER HAS PAID AGUA SUD THE SUM OF \$ _____ WHICH COVERS THE \$ _____ COST PER LOT AS STATED IN THE 30 YEAR WATER SERVICE AGREEMENT WHICH SUM 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 FIVE(5) FIRE HYDRANTS AT A UNIT COST OF \$ _____ FOR A TOTAL COST OF \$ _____. THE ENTIRE 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.

SEWAGE FACILITIES: DESCRIPTION, COSTS, AND OPERABILITY DATE

SEWAGE FROM EL CRUCERO SUBDIVISION WILL BE TREATED BY INDIVIDUAL ON-SITE SEWAGE FACILITIES ("OSSF") CONSISTING OF A STANDARD DESIGN DUAL COMPARTMENT SEPTIC TANK AND DRAIN FIELD ON LOTS 1 TO 25. 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 WERE PERFORMED ON THE SITE, AT OPPOSITE AREAS OF THE SUBDIVISION, A TOTAL OF 14 SOIL BORING EXCAVATIONS 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 36" 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 \$ _____ INCLUDING THE COST FOR THE REQUIRED PERMIT AND LICENSE. ALL OSSF HAVE BEEN INSTALLED AS OF THE TIME OF APPLICATION FOR FINAL PLAT APPROVAL AT A TOTAL COST \$ _____. THE HIDALGO COUNTY HEALTH DEPARTMENT HAS INSPECTED AND APPROVED THE INSTALLATION OF ONE OSSF ON _____.

ENGINEER CERTIFICATION:

BY MY SIGNATURE BELOW, I CERTIFY THAT THE WATER AND SEWER 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 SEWAGE FACILITIES, DISCUSSED ABOVE, ARE AS FOLLOWS:

WATER FACILITIES: THESE FACILITIES FULLY CONSTRUCTED, WITH THE INSTALLATION OF WATER METERS, WILL COST A GRAND TOTAL OF \$ _____

SEWAGE FACILITIES: SEPTIC SYSTEM IS ESTIMATED TO COST \$ _____

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

REPORTE DE INGENIERIA DE AGUA Y DRENAJE

WATER SUPPLY (DESCRIPCION, GASTOS Y FECHAS DE INICIO):

LA SUBDIVISION EL CRUCERO RECIBIRASU 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 RECIBIRASU PROVISION DE AGUA POR LOS PROXIMOS 30 ANOS. 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.

AGUA SUD TIENE UNA LINEA EXISTENTE QUE CORRE EN LA 5 MILE LINE RD. LA LINEA DE AGUA ES DE 12 PULGADAS DE DIAMETRO Y CORRE POR EL LADO NORTE DEL DERECHO-DE-VIA DE 5 MILE LINE RD Y SE DETIENE CON UNA VALVULA DE 2 PULGADAS EN LA INTERSECCION DE 5 MILE LINE RD Y TEXAN RD.

LA SUBDIVISION EL CRUCERO SERA CONECTADA AL SISTEMA DE AGUA EXISTENTE, UBICADO EN LA 5 MILE LINE RD Y TEXAN RD, CON UNA (1) 12" x 12" MI CROSS CON TRES (3) VALVULAS. DESPUES DE CRUZAR LA TEXAN RD. LA LINEA DE AGUA CONTINUARA, EN EL LADO NORTE DE LA 5 MILE LINE RD, HASTA LLEGAR A LA SUBDIVISION.

LA SUBDIVISION EL CRUCERO TIENE 25 LOTES. LA DISTRIBUCION DE AGUA PARA LA SUBDIVISION CARRIZALES CONSISTE EN VEINTE (25) SERVICIOS SENCILLOS CORTOS DE 1" DE DIAMETRO QUE CORREN HACIA LOS LOTES. SE HAN INSTALADO YA LA LINEA DE 12", LOS SERVICIOS DE 1" Y LAS CAJAS DE LOS MEDIDORES A UN COSTO TOTAL DE \$ _____ O \$ _____ POR LOTE. EL DUEÑO/REPRESENTANTE DE LA SUBDIVISION LE HA PAGADO A AGUA SUD LA CANTIDAD DE \$ _____ QUE CUBRE EL COSTO DE LOS MEDIDORES (\$ _____ POR CADA LOTE). ESTE PRECIO INCLUYE TAMBIEN EL COSTO DE LA INSTALACION DE CADA MEDIDOR Y LOS GASTOS DE CONEXION CUANDO EL DUEÑO DE ALGUNO DE LOS LOTES SOLICITE UN MEDIDOR DE AGUA, AGUA SUD LO INSTALARA SIN COSTO ALGUNO. EL DUEÑO/REPRESENTANTE DE LA SUBDIVISION HA INSTALADO 4 HIDRANTES CONTRA INCENDIO (FIRE HYDRANTS) A UN COSTO DE \$ _____ POR CADA UNO, LO CUAL REPRESENTA UNA CANTIDAD TOTAL DE \$ _____. EL SISTEMA DE AGUA ESTARA EN FUNCIONAMIENTO COMPLETO ANTES O EN LA FECHA EN LA CUAL LA SUBDIVISION SEA REGISTRADA EN EL CONDADO DE HIDALGO.

DRENAJE: DESCRIPCION, GASTOS Y FECHA DE INICIO PARA FACILITAR EL DRENAJE PARA LA SUBDIVISION

SE INSTALARAN 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.

REPORTE DE EVALUACION DE SUELO:

CADA LOTE EN LA SUBDIVISION PROPUESTA MIDE MAS DE MEDIO ACRO. SE HICIERON DOS EXCAVACIONES DE EVALUACION EN LUGARES OPUESTOS DE LA SUBDIVISION, UN TOTAL DE 14 EXCAVACIONES DE EVALUACION FUERON REALIZADAS. (EXCAVACIONES ADICIONALES NO FUERON NECESARIAS PORQUE EL TERRENO EN ESTA AREA ES SIGNIFICANTEMENTE UNIFORME). EL TERRENO ES UNIFORME (TERRENO ARCILLOSO Y 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 \$2,200.00 DOLARES, INCLUYENDO EL COSTO DEL PERMISO REQUERIDO Y LICENCIA. EN ESTOS MOMENTOS TODAS LAS FOSAS SEPTICAS HAN SIDO INSTALADAS EN EL PROCESO DE LA APROBACION FINAL A UN COSTO TOTAL DE \$ _____. EL DEPARTAMENTO DE SALUBRIDAD DEL CONDADO DE HIDALGO HA INSPECCIONADO Y HA APROBADO LA INSTALACION DE LA FOSA SEPTICA DESDE _____/_____/2019.

CERTIFICACION:

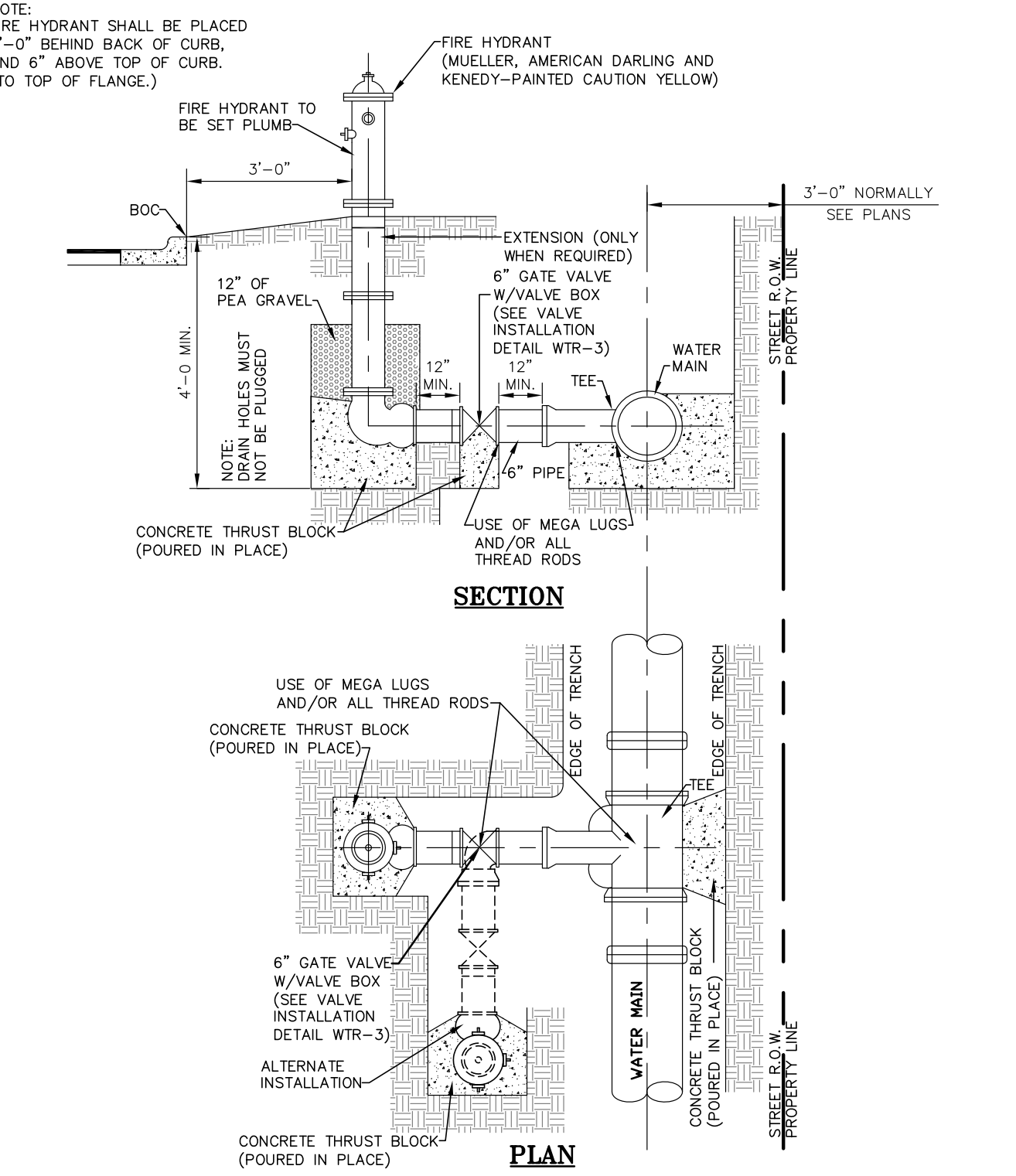
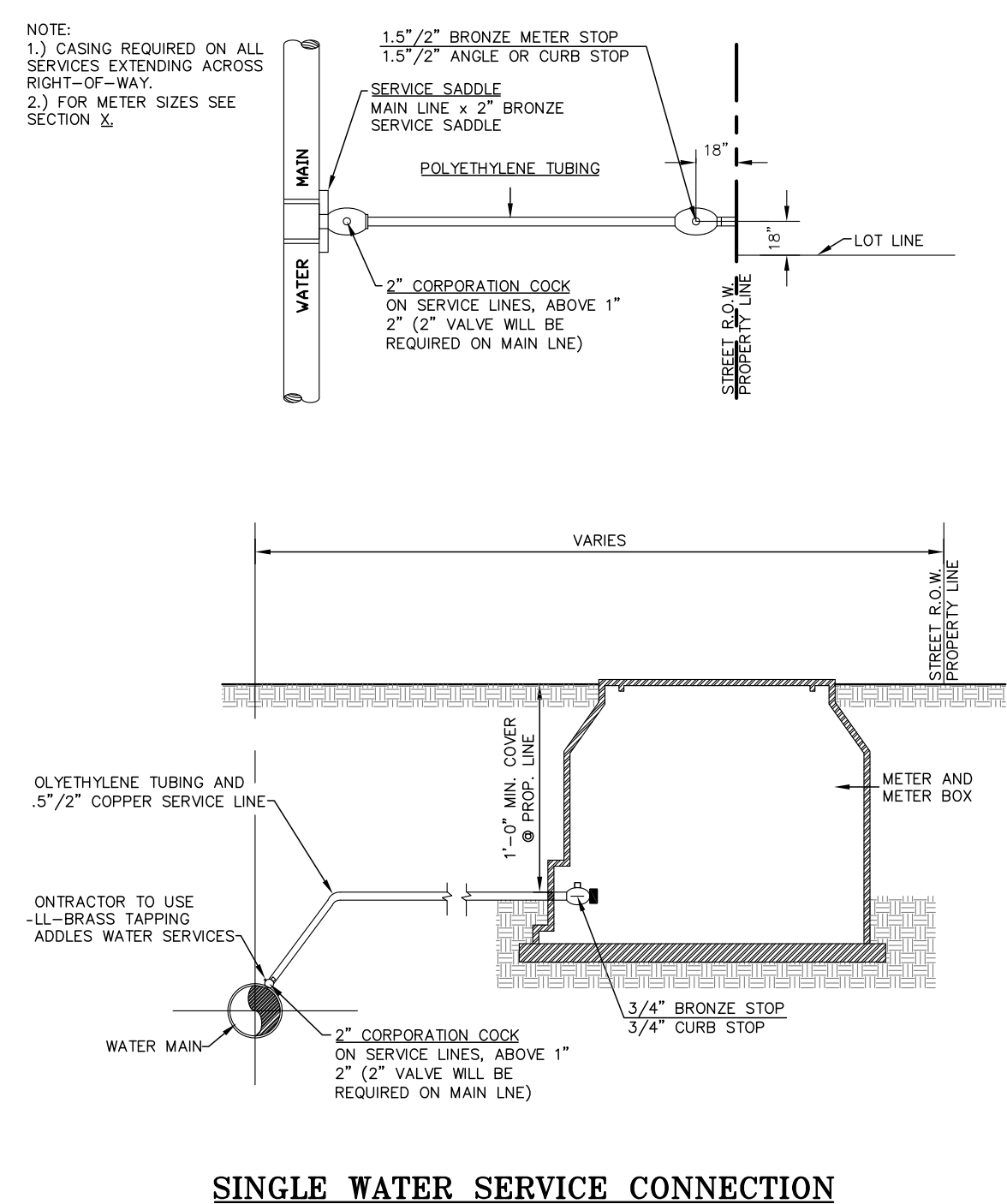
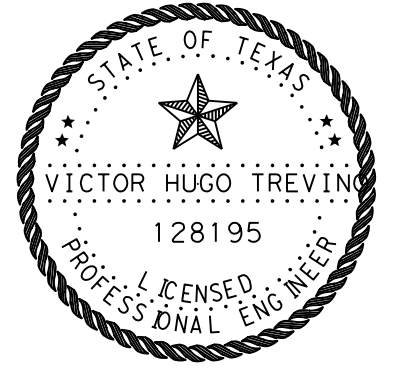
CON MI FIRMA, CERTIFICO QUE LOS SERVICIOS Y SISTEMAS DE AGUA Y DRENAJE, DESCRITOS EN ESTE DOCUMENTO CUMPLEN CON LAS REGLAS GOBERNANDO LAS SUBDIVISIONES, ADOPTADAS EN LA SECCION 16.343 DEL TEXAS WATER CODE (CODIGO DE AGUA DE TEXAS). CERTIFICO QUE LOS GASTOS PARA INSTALAR LOS SISTEMAS DE AGUA Y DRENAJE SON:

AGUA: EL SISTEMA/SERVICIO DE AGUA SERA INSTALADO Y COMPLETAMENTE CONSTRUIDO MENOS EL MEDIDOR MECANICO DE AGUA QUE COSTAR UN TOTAL DE \$ _____.

DRENAJE: SE ESTIMA QUE LA FOSA SEPTICA COSTARA \$ _____.

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UTILITY LAYOUT
EL CRUCERO SUBDIVISION

BEING A 20.5 ACRE TRACT OF LAND OUT OF ALL OF LOT ONE (1) AND THE SOUTH 2 AND 1/2 (2.5) ACRES OF LOT TWO (2), BLOCK ELEVEN (11), AND A 8.0 ACRE TRACT OF LAND, MORE OR LESS, OUT OF LOTS 33 AND 34, BLOCK 11, TEXAN GARDENS, HIDALGO COUNTY, TEXAS, ACCORDING TO THE MAP RECORDED IN VOLUME 8, PAGES 57-58, MAP RECORDS, HIDALGO COUNTY, TEXAS.

SOUTH TEXAS INFRASTRUCTURE GROUP

REVISION NOTES

No.	SHEET	REVISION	DATE	APPROVED