



HIDALGO COUNTY PLANNING DEPARTMENT

T.J. Arredondo
Director of Planning

2818 S. BUSINESS HWY 281
EDINBURG TEXAS 78539
Tel. 956-318-2840 Fax. 956-318-2844

HIDALGO COUNTY COMMISSIONERS COURT MEETING

DATE: 7-11-2023

PROPOSED LAS COMADRES NO 10, PRECINCT No. 3.

ENGINEER SOUTH TEXAS INFRASTRUCTURE GROUP DEVELOPER: CARLOS LEAL

PRELIMINARY APPROVAL FINAL APPROVAL FINAL APPROVAL WITH FINANCIAL GUARANTEE WITH VARIANCE

NUMBER OF LOTS: 56 *SINGLE FAMILY *MULTI-FAMILY COMMERCIAL INSTITUTIONAL

ESTIMATED NUMBER OF STREETLIGHTS: 12

FILLING STATIONS: 7

LOCATION DESCRIPTION: SOUTHEAST CORNER OF MILE 4 ROAD AND ABRAM ROAD.

SUBDIVISION LIES WITHIN THE: ETJ OF MISSION

DRAINAGE REPORT WAS APPROVED BY HCDD#1: ON 4-23-2023 PROPERTY LIES WITHIN FLOOD ZONE: "X" AS PER FEMA.

DRAINAGE DESIGN: DRAINAGE WILL BE PROVIDED BY STORM SEWER SYSTEM AND DETENTION WILL BE PROVIDED BY HCDD NO 1 REGIONAL FACILITY.

ROAD R.O.W. DEDICATION: 35.0 FEET ONTO MILE 4 ROAD, 42.0 FEET ONTO ABRAM ROAD AND 15.0 FEET ONTO BRUSHLINE ROAD.

H.C.R.O.W. PRELIMINARY APPROVAL DATE: 6-06-2023 BY, PCT. 3 R.O.W. AGENT

H.C.H.D. PRELIMINARY APPROVAL DATE: 5-30-2023 BY, ENVIRONMENTAL HEALTH DIVISION MANAGER
SEWER SYSTEM: OSSF'S

WATER SERVICE PROVIDER: AGUA SUD. LINE SIZE: 8" LOCATION: ABRAM ROAD AND BRUSHLINE

H.C.E.O.C. PRELIMINARY APPROVAL DATE: 5-24-2023 : 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.

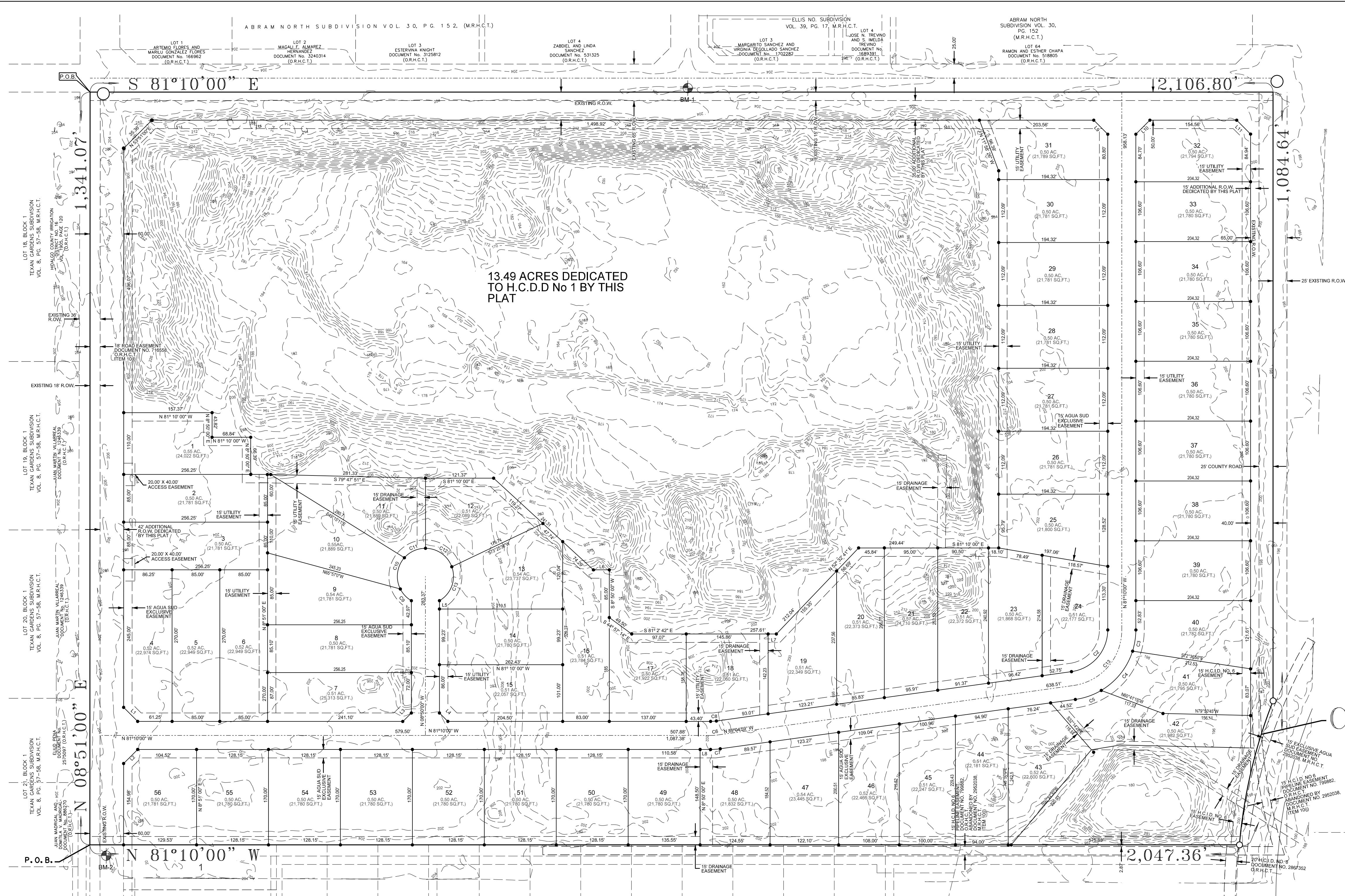
PRELIMINARY APPROVAL FROM THE
HIDALGO COUNTY COMMISSIONERS COURT ON: N/A

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

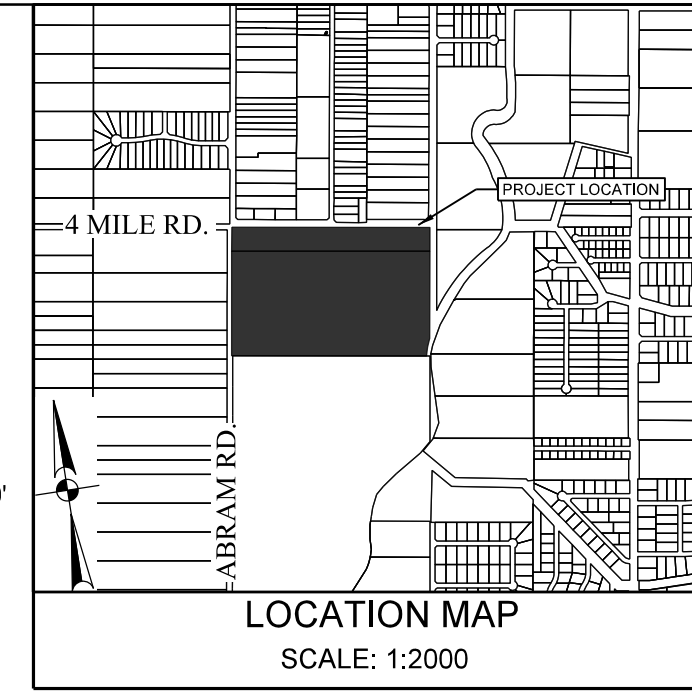
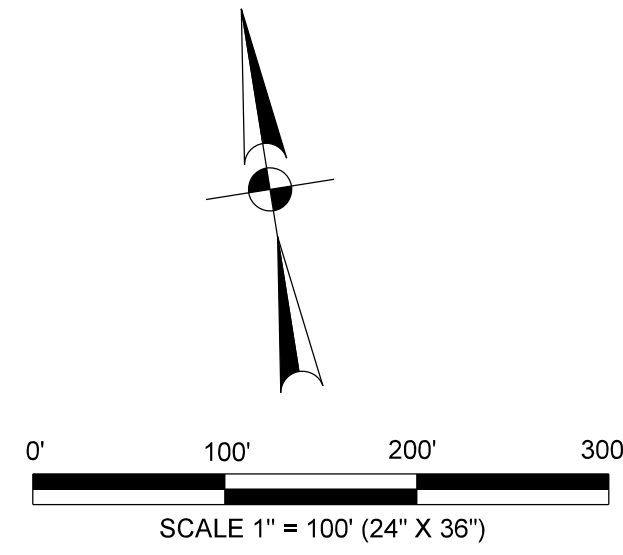
*This subdivision plat has been reviewed and complies with the Hidalgo County Subdivision Rules,
Texas Water Development Board Model Subdivision Rules and The Texas Local Government Code.*

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LEGEND:

- SET # 5/8" IRON ROD WITH PLASTIC CAP STAMPED "R.O.W.S. PROF. COR."
- FOUND IRON ROD WITH PLASTIC CAP STAMPED "R.O.W.S. PROF. 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
- R.O.H.C.T.
- M.R.H.C.T.
- D.R.H.C.T.
- R.O.W.
- H.C.D.D.



LOCATION DESCRIPTION

LAS COMADRES NO. 10 SUBDIVISION IS LOCATED WITHIN HIDALGO COUNTY PRECONTRACT NO. 3 IN THE WEST SIDE OF HIDALGO COUNTY, AT THE INTERSECTION OF 4 MILE LINE AND ABRAM 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). LAS COMADRES NO. 10 SUBDIVISION LIES APPROXIMATELY 2 1/2 MILE FROM THE CITY LIMITS OF MISSION AND IS WITHIN THE CITY'S 0 TO 3/4 MILE EXTRATERRITORIAL JURISDICTION (E.T.) UNDER LOCAL GOVERNMENT CODE 42.021 AND 212.001.

- GENERAL NOTES:**
- FLOOD ZONE STATEMENT: THE PROPERTY IS IN ZONE "X". ZONE "X" ARE AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD-PLAIN. COMMUNITY PANEL NO. 480334 2020-01 REVISED JUNE 26, 2020.
 - CONSTRUCTION OF RESIDENTIAL HOUSING WITHIN ANY AREA OF THE SUBDIVISION THAT IS IN THE 100-YEAR FLOOD-PLAIN IS PROHIBITED UNLESS THE HOUSING QUALIFIES FOR INSURANCE UNDER THE NATIONAL FLOOD INSURANCE ACT OF 1968 (42 U.S.C. SECTIONS 4001 THROUGH 4127).
 - MINIMUM BUILDING SETBACK LINES: FRONT SETBACK: 25 FEET FOR INTERNAL LOTS 50 FEET FOR LOTS FRONTING ABRAM ROAD 50 FEET FOR LOTS FRONTING MILE 4 ROAD SIDE SETBACK: 8 FT REAR SETBACK: 15 FEET OR EASEMENT, WHICHEVER IS GREATER GARAGE SETBACK: 8 FT
 - 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 2" ABOVE THE CENTERLINE OF THE ROAD, 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 WITH 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 5/8" IRON ROD WITH BLUE PLASTIC CAP "R.O.W.S. CONTROL" N= 1902948.909 E= 102138.2421 ELEV = 203.70
 - BM-2 IS A SET 5/8" IRON ROD WITH BLUE PLASTIC CAP "R.O.W.S. CONTROL" N= 1902948.7035 E= 102138.2421 ELEV = 203.70
 - IN ACCORDANCE WITH THE HIDALGO COUNTY DRAINAGE DISTRICT NO. 1 A TOTAL OF 164,179 CUBIC FEET, 3.76 ACRE-FEET OF DETENTION IS REQUIRED FOR THIS SUBDIVISION. DRAINAGE REQUIREMENT IN ACCORDANCE WITH THE LOCAL REQUIREMENTS WILL BE ACCOMPLISHED AS FOLLOWS: (SEE SHEET 1 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 LOW, LESS THAN 18 INCHES MATURE HEIGHT, GROUND COVER, GRASS, OR FLOWERS) AND OTHER OBSTRUCTIONS THAT 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 UTILITY EASEMENTS DEDICATED BY THIS PLAT SHALL BE A MINIMUM WIDTH OF 10.00 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 RESOLUTION FOR SEWAGE DISPOSAL. THE SUBDIVIDER IS RESPONSIBLE FOR PROVIDING AN OSSF ON LOT. OSSF SYSTEM IS BEING DESIGNED FOR DISPOSAL OF DOMESTIC SEWERAGE ONLY. BEACH LOT ON THIS PLAT COMPLIES WITH THE MINIMUM 21,700 SQUARE FEET LOT AREA WITH POTABLE WATER SUPPLY. OSSF SYSTEM SHALL REQUIRE INSPECTION AND APPROVAL BY HIDALGO COUNTY AUTHORIZED DEPARTMENT.
 - SOIL ANALYSES HAVE BEEN SUBMITTED TO THE AUTHORIZED HIDALGO COUNTY DEPARTMENT AND EXCERPTS 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. APPROVED "OSSF" 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 OF THIS SUBDIVISION.
 - CARLOS LEAL, JR., THE OWNER & SUBDIVIDER OF LAS COMADRES NO. 10 SUBDIVISION, RETAINS A BLANKET EASEMENT UNDER EACH LOT FOR THE PURPOSE OF INSTALLING AN APPROVED OSSF 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 3.25% SLOPE TO ACCOMPLISH POSITIVE DRAINAGE. THIS IS IN ACCORDANCE WITH HIDALGO COUNTY APPENDIX 5: COUNTY CONSTRUCTION SPECIFICATIONS SECTION 114.
 - THE DEVELOPER SHALL BE RESPONSIBLE FOR DETAINING AND ACCOMMODATING MOREN THAN THE DETAILED 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 AREA BEING GREATER THAN THE PLAT ENGINEER CONSIDERED IN THE HYDRAULIC CALCULATIONS FOR THIS SUBDIVISION.
 - NO ACCESS FROM BRUSHLINE ROAD FOR LOT 45 AND FROM ABRAM ROAD FOR LOT 27.

CURVE	DELTA	RADIUS	LENGTH	ARC BEARING	CHORD DISTANCE
C1	87°00'00"	300	143.26	N49°23'30"	131.12
C2	87°00'00"	75	107.45	S42°32'30"	88.49
C3	17°15'37"	125	35.37	S17°32'30"	38.22
C4	41°59'10"	125	91.60	N47°24'52"	89.56
C5	27°30'13"	125	49.10	S72°39'44"	48.79
C6	07°54'59"	125	31.82	S82°02'30"	31.81
C7	07°54'59"	125	17.27	N82°02'30"	17.26
C8	07°54'59"	75	35.36	N82°02'30"	35.35
C9	33°15'04"	90	29.02	S34°24'28"	28.61
C10	68°18'30"	90	59.61	N14°14'09"	56.34
C11	48°17'20"	90	42.43	S74°41'53"	41.37
C12	69°19'28"	90	62.95	S48°04'08"	57.25
C13	79°58'48"	90	69.80	N35°52'36"	64.27

LINE	BEARING	DISTANCE
L1	N50°00'45"E	35.36
L2	N53°15'15"E	35.37
L3	N53°50'00"E	21.21
L4	N52°10'00"W	21.21
L5	N08°50'00"W	14.84
L6	S81°20'00"E	28.30
L7	S81°20'00"E	14.84
L8	N81°10'00"W	35.61
L9	N38°10'00"W	35.36
L10	N52°50'00"E	35.36

STATE OF TEXAS
COUNTY OF HIDALGO

OWNERS DEDICATION, CERTIFICATION, AND ATTESTATION:

CARLOS LEAL AS OWNER OF THE 64.65 ACRE TRACT OF LAND ENCOMPASSED WITHIN THE PROPOSED LAS COMADRES NO. 10 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:

- 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

CARLOS LEAL, DATE _____
1801 MOZELLE ST.
PHARR, TEXAS 78777

STATE OF TEXAS
COUNTY OF HIDALGO

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED CARLOS LEAL 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 _____, 20__.

NOTARY PUBLIC

THIS PLAT IS HEREBY APPROVED BY THE HIDALGO COUNTY IRRIGATION DISTRICT NO. 6 ON THIS ____ 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

HIDALGO COUNTY
CERTIFICATE OF PLAT APPROVAL

I, THE UNDERSIGNED CERTIFY THAT THIS PLAT OF LAS COMADRES NO. 10 SUBDIVISION WAS REVIEWED AND APPROVED BY THE HIDALGO COUNTY HEALTH DEPARTMENT ON _____ DATE _____

ENVIRONMENTAL HEALTH DIVISION MANAGER _____ DATE _____

STATE OF TEXAS
COUNTY OF HIDALGO

WE, THE UNDERSIGNED CERTIFY THAT THIS PLAT OF LAS COMADRES NO. 10 SUBDIVISION WAS REVIEWED AND APPROVED BY THE HIDALGO COUNTY COMMISSIONERS COURT ON _____ DATE _____

HIDALGO COUNTY JUDGE _____ DATE _____

ATTEST: _____ HIDALGO COUNTY CLERK _____ DATE _____

I, ROBERTO SALINAS, HEREBY CERTIFY THAT THE AGUA SPECIAL UTILITY DISTRICT HAS APPROVED THE POTABLE WATER SUPPLY FOR THE CARREPALES SUBDIVISION, HIDALGO COUNTY, TEXAS. THE AGUA SPECIAL UTILITY DISTRICT IS THE HOLDER OF THE CERTIFICATE OF CONFORMANCE AND NECESSITY GRANTED 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 FURNISH THIS SUBDIVISION WITH POTABLE WATER TO THE EXTENT PERMITTED 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.

ROBERTO SALINAS, P.E.
GENERAL MANAGER
AGUA SPECIAL UTILITY DISTRICT

THIS PLAT OF LAS COMADRES NO. 10 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__.

CITY OF MISSION CERTIFICATE OF APPROVAL

UNDER LOCAL GOVERNMENT CODE 212.01(16) WE, THE UNDERSIGNED CERTIFY THAT THIS PLAT OF LAS COMADRES NO. 10 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 49.21(G). 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 THESE DETERMINATIONS.

HIDALGO COUNTY DRAINAGE DISTRICT NO. 1

RAUL E. GEBIN, P.E., C.F.M.A. DATE _____

STATE OF TEXAS
COUNTY OF HIDALGO

KNOW ALL MEN BY THESE PRESENTS:

I, VICTOR H. TREVIÑO, A REGISTERED PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS, LICENSE NUMBER 129105, 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. 129105

STATE OF TEXAS
COUNTY OF CAMERON

KNOW ALL MEN BY THESE PRESENTS:

I, JUAN E. GALVAN, 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.

JUAN E. GALVAN, R.P.L.S.
REG. PROFESSIONAL LAND SURVEYOR #4011

METES AND BOUNDS

BEGIN 64.65 ACRE TRACT OF LAND OUT OF A PART OF A CERTAIN 243.51 ACRE TRACT OUT OF PORCION 48 HIDALGO COUNTY TEXAS LYING WEST OF HIDALGO COUNTY BRUSHLINE DISTRICT NO. 6 CANAL RIGHT-OF-WAY HIDALGO COUNTY TEXAS AS RECORDED BY SPECIAL WARRANTY DEED CONVEYED TO CARLOS LEAL, JR. AS RECORDED IN DOCUMENT NO. 3351902, HIDALGO, TEXAS. SAID TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING, AT A POINT ON THE CENTERLINE OF ABRAM RD., AT THE SOUTHWEST CORNER OF SAID 64.65 ACRE TRACT OF LAND;

THENCE NORTH 09°10'00" EAST 1341.07 FEET WITH THE WEST LINE OF BLOCK 16 ALONGSIDE THE CENTERLINE OF THE ABRAM ROAD TO A COMMON CORNER BETWEEN SAID 64.65 ACRE TRACT OF LAND AND THE INTERSECTION AT MILE 4 RD. AND BRUSHLINE RD.;

THENCE SOUTH 81°10'00" EAST 2,047.36 FEET CONTINUING WITH THE CENTERLINE OF MILE 4 RD. TO THE COMMON NORTHEAST CORNER OF SAID 64.65 ACRE TRACT OF LAND AND THE INTERSECTION AT MILE 4 RD. AND BRUSHLINE RD.;

THENCE SOUTH 08°50'00" WEST 1,084.64 FEET ALONGSIDE THE BRUSHLINE RD. TO A POINT OF CURVATURE AND BEING A CORNER OF SAID 64.65 ACRE TRACT OF LAND;

THENCE WITH A CURVE TO THE LEFT HAVING A RADIUS OF 911.60 FEET AN ARC LENGTH OF 264.24 FEET A CHORD BEARING OF SOUTH 21°18'00" WEST AND A CHORD LENGTH OF 283.22 FEET TO THE SOUTHEAST CORNER OF SAID 64.65 ACRE TRACT OF LAND;

THENCE NORTH 81°10'00" WEST 2,047.36 FEET WITH THE NORTH LINE OF CAMINO DE ABRA SUBDIVISION AS PER DOCUMENT NUMBER 2926308, MAP RECORDS, HIDALGO COUNTY, TEXAS;

THENCE NORTH 09°10'00" EAST 1341.07 FEET WITH THE WEST LINE OF BLOCK 16 ALONGSIDE THE CENTERLINE OF THE ABRAM ROAD TO THE POINT OF BEGINNING AND CONTAINING A COMPUTED AREA OF 64.65 ACRES TRACT OF LAND.

PRINCIPAL CONTACTS

	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	CARLOS LEAL JR.	P.O. BOX 631	MISSION, TEXAS 78753	(956) 907-0444	
ENGINEER:	VICTOR H. TREVIÑO, P.E.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78752	(956) 424-3335	(956) 424-3132
SURVEYOR:	JUAN E. GALVAN, 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
PH: (956) 424-3335
FAX: (956) 424-3132
TBP# REG # 1500

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

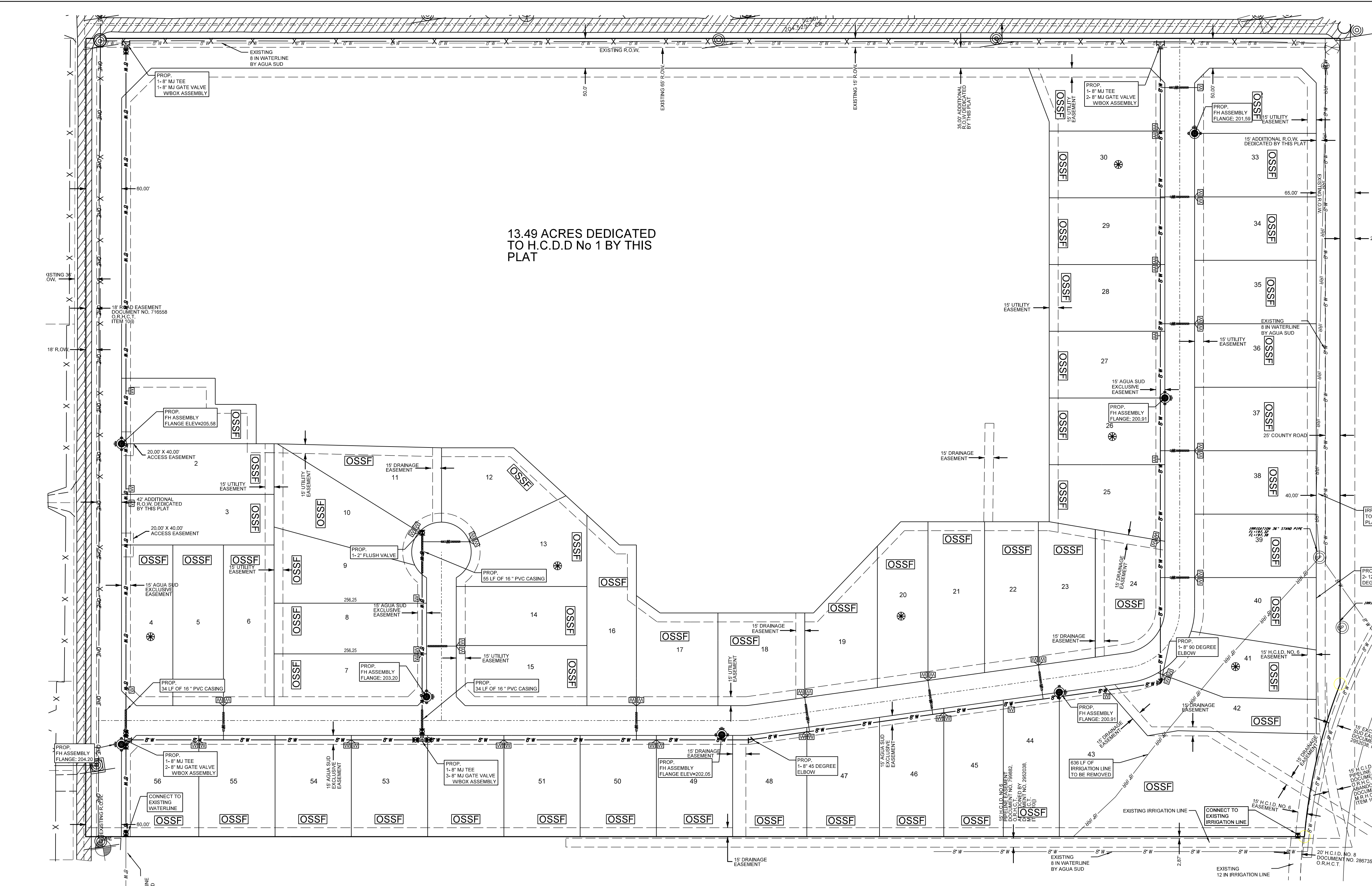
ON _____ AT _____ AM/PM
INSTRUMENT NUMBER _____
OF THE MAP RECORDS OF HIDALGO COUNTY, TEXAS

BY: _____ DEPUTY

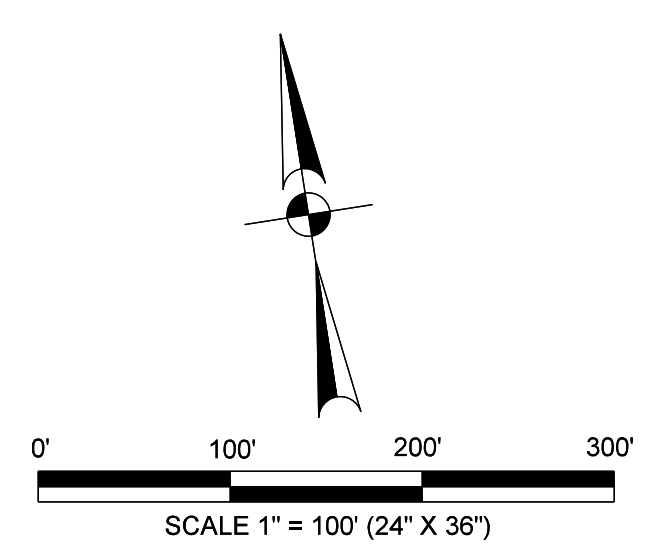
LOT LAYOUT

LAS COMADRES NO. 10 SUBDIVISION

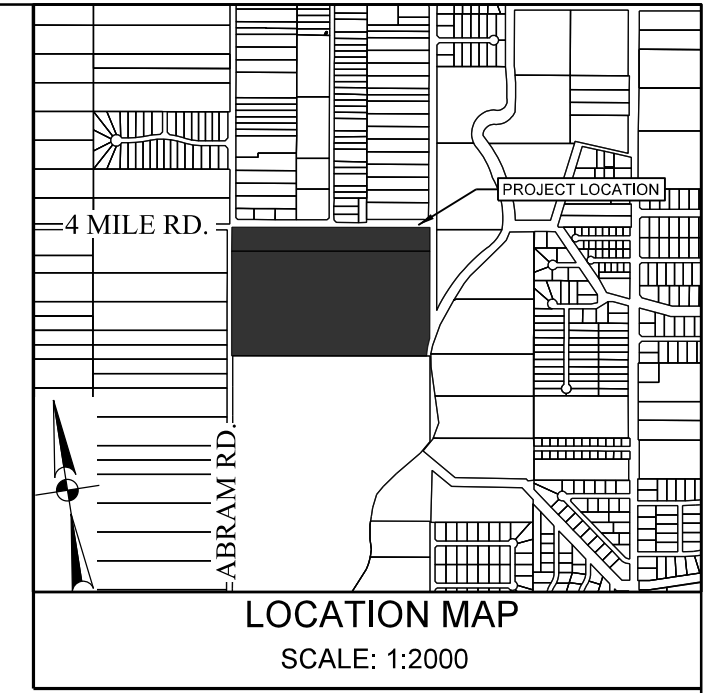
BEING A 64.65 ACRE TRACT OF LAND OUT OF A PART OF A CERTAIN 243.51 ACRE TRACT OUT OF PORCION 48, HIDALGO COUNTY, TEXAS, LYING WEST OF HIDALGO COUNTY IRRIGATION DISTRICT NO. 6 CANAL RIGHT-OF-WAY, HIDALGO COUNTY, TEXAS.



13.49 ACRES DEDICATED TO H.C.D.D No 1 BY THIS PLAT



- LEGEND:**
- CHAIN LINK FENCE
 - SET # 5/8" IRON ROD WITH PLASTIC CAP STAMPED "ROVSS 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



WATER AND SEWER ENGINEERING REPORT
 WATER SUPPLY (DESCRIPCIÓN, GASTOS Y FECHAS DE INICIO):
 WATER SUPPLY (DESCRIPCIÓN, COST, AND OPERABILITY DATE):
 LAS COMADRES NO. 10 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.
 LAS COMADRES NO. 10 SUBDIVISION HAS 56 LOTS. AGUA SUD HAS ONE EXISTING WATER LINE RUNNING IN MILE 4 RD. BEING A 8" DIAMETER LINE RUNNING THROUGH THE SOUTH SIDE OF THE RIGHT-OF-WAY OF MILE 4 RD. AND CONNECTING TO ANOTHER EXISTING 8" DIAMETER WATER LINE RUNNING THROUGH THE EAST SIDE OF THE RIGHT-OF-WAY OF BRUSHLINE RD.
 LAS COMADRES NO. 10 SUBDIVISION WILL BE CONNECTED TO THE EXISTING WATER SYSTEM WITH A TWO (2) 1/2" DIAMETER TEE EACH WITH TWO (2) GATE VALVES. WATER DISTRIBUTION FOR CARRIZALES SUBDIVISION CONSISTS OF TEN (10) 1" DIAMETER DOUBLE SERVICE SHORT LINES, FORTY-FOUR (44) 1" DIAMETER DOUBLE SERVICE SHORT LINES, TWO (2) 1" DIAMETER DOUBLE SERVICE SHORT AND TWO (2) 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 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 WATERING 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 (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 THIS PLAT.
 SEWAGE FACILITIES, DESCRIPTION, COSTS, AND OPERABILITY DATE
 SEWAGE FROM LAS COMADRES NO. 10 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 56. 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 5 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 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 \$ _____ 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 OF \$ _____. THE HIDALGO COUNTY HEALTH DEPARTMENT HAS REVIEWED AND APPROVED THE INSTALLATION OF ONE OSSF ON _____.
 ENGINEER CERTIFICATION:
 BY MY SIGNATURE BELOW, I CERTIFY THAT THE WATER AND SEWAGE 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 \$ _____ PER LOT (ALL INCLUSIVE), FOR A TOTAL OF \$ _____ FOR THE ENTIRE SUBDIVISION.
 SEWAGE FACILITIES: SEPTIC SYSTEM IS ESTIMATED TO COST \$ _____ PER LOT (ALL INCLUSIVE), FOR A TOTAL OF \$ _____ FOR THE ENTIRE SUBDIVISION.

REPORT DE INGENIERIA DE AGUA Y DRENAJE
 WATER SUPPLY (DESCRIPCIÓN, GASTOS Y FECHAS DE INICIO):
 LA SUBDIVISION LAS COMADRES NO. 10 RECIBIRÁ SU PROVISIÓN DE AGUA DE LA AGUA SPECIAL UTILITY DISTRICT (AGUA SUD). EL DUEÑO DE LA SUBDIVISIÓN Y AGUA SUD HAN FIRMADO UN CONTRATO POR EL CUAL LA SUBDIVISIÓN 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 SUBDIVISIÓN.
 LA SUBDIVISION LAS COMADRES NO. 10 TIENE 56 LOTES. AGUA SUD TIENE UNA LINEA DE AGUA EXISTENTE CORRIENDO EN LA MILLA 4 RD. SIENDO UNA LINEA DE 8" DE DIÁMETRO QUE CORRE A TRAVÉS DEL LADO SUR DEL DERECHO DE VÍA DE MILE 4 RD. Y SE CONECTA A OTRA LINEA DE AGUA EXISTENTE DE 8" DE DIÁMETRO QUE CORRE A TRAVÉS DEL LADO ESTE DEL DERECHO DE VÍA DE BRUSHLINE RD.
 LA SUBDIVISION LAS COMADRES NO. 10 SERÁ CONECTADA CON DOS (2) MUELTAS DE 1/2" DE DIÁMETRO CADA UNA CON DOS VALVULAS. LA DISTRIBUCIÓN DE AGUA PARA LA SUBDIVISION CARRIZALES CONSISTE EN DIEZ (10) SERVICIOS DOBLES CORTOS DE 1" DE DIÁMETRO, CUARENTA Y CUATRO (44) SERVICIOS DOBLES CORTOS DE 1" DE DIÁMETRO Y DOS (2) SERVICIOS SENCILLOS LARGOS DE 1" DE DIÁMETRO QUE CORREN HACIA LOS LOTES. SE HAN INSTALADO LA LINEA DE 8" DE DIÁMETRO Y LAS CAJAS DE LOS MEDIDORES A UN COSTO TOTAL DE \$ _____ POR LOTE. EL DISEÑO REPRESENTANTE DE LA SUBDIVISION YA HA PAGADO A AGUA SUD LA CANTIDAD DE \$ _____ QUE CUBRE EL COSTO DE LOS MEDIDORES Y \$ _____ POR CADA LOTE. ESTE PRECIO INCLUYE TAMBIÉN EL COSTO DE LA INSTALACIÓN DE CADA MEDIDOR Y LOS GASTOS DE CONEXIÓN 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 5 HIDRANTES CONTRA INCENDIO (FIRE HYDRANTS) A UN COSTO DE \$ _____ POR CADA UNO, LO CUAL REPRESENTA UNA CANTIDAD TOTAL DE \$ _____. EL SISTEMA DE AGUA ESTARÁ OPERABLE COMO TAL EN EL MOMENTO DE LA FIRMADA DE ESTE DOCUMENTO.
 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) SEGÚN SU REPORTE.
 REPORTE DE EVALUACIÓN DE SUELO:
 CADA LOTE EN LA SUBDIVISION PROPUESTA MIDE MÁS DE MEDIO ACRE. SE HICIERON DOS EXCAVACIONES DE EVALUACIÓN EN LUGARES OPUESTOS DE LA SUBDIVISION, UN TOTAL DE 5 EXCAVACIONES DE EVALUACIÓN FUERON REALIZADAS. (EXCAVACIONES ADICIONALES NO FUERON NECESARIAS PORQUE EL TERRENO EN ESTA ÁREA ES SIGNIFICATIVAMENTE UNIFORME). EL TERRENO ES UNIFORME (TERRENO APLICOSO Y SUELO FRANCO) Y SE EXTIENDE A 36 PULGADAS BAJO TODAS LAS EXCAVACIONES PROPUESTAS. NO EXISTE EVIDENCIA DE AGUA A 24 PULGADAS MÁS ARRIBA DE LO MÁS BAJO DE LAS EXCAVACIONES PROPUESTAS. EL AGUA EN ESTA ÁREA FLUJE BIEN.
 EL COSTO TOTAL PARA LA INSTALACIÓN DE UN SISTEMA INDIVIDUAL DE FOSA SÉPTICA ES DE \$ _____ DÓLARES, INCLUYENDO EL COSTO DEL PERMISO REQUERIDO Y LICENCIA. EN ESTOS MOMENTOS TODAS LAS FOSAS SÉPTICAS HAN SIDO INSTALADAS EN EL PROCESO DE LA APROBACIÓN FINAL A UN COSTO TOTAL DE \$ _____. EL DEPARTAMENTO DE SALUBRIDAD DEL CONDADO DE HIDALGO HA INSPECCIONADO Y HA APROBADO LA INSTALACIÓN DE LA FOSA SÉPTICA DESDE _____.
 CERTIFICACIÓN:
 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 SECCIÓN 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 CONSTRUÍDO MENOS EL MEDIDOR MECÁNICO DE AGUA QUE COSTARÁ UN TOTAL DE \$ _____.
 DRENAJE: SE ESTIMA QUE LA FOSA SÉPTICA COSTARÁ \$ _____ A UN COSTO TOTAL DE \$ _____ TODA LA SUBDIVISION.

SUBDIVIDER CERTIFICATION
 I, BY COMPLETING THE IMPROVEMENTS DESCRIBED ON THE PLAT, SUBDIVIDER WILL COMPLY WITH MINIMUM STATE STANDARDS AND THAT (a) 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:
 I, CARLOS LEAL SUBDIVIDER FOR LAS COMADRES NO. 10 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 THE LAWS OF THE STATE AS REQUIRED BY STATE AND COUNTY REGULATIONS

CARLOS LEAL JR. _____ DATE _____

STATE OF TEXAS
 COUNTY OF HIDALGO

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED CARLOS LEAL, 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

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION OR PERMIT PURPOSES.
 04/24/2023
 DATE

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

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

REVISION NOTES			
No.	SHEET	REVISION	DATE

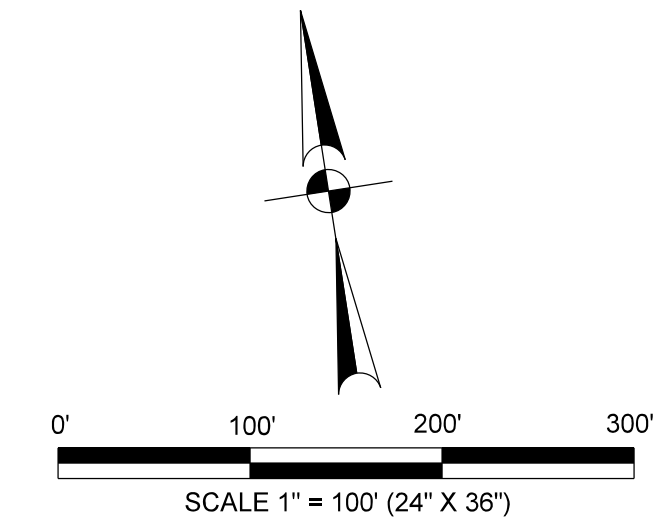
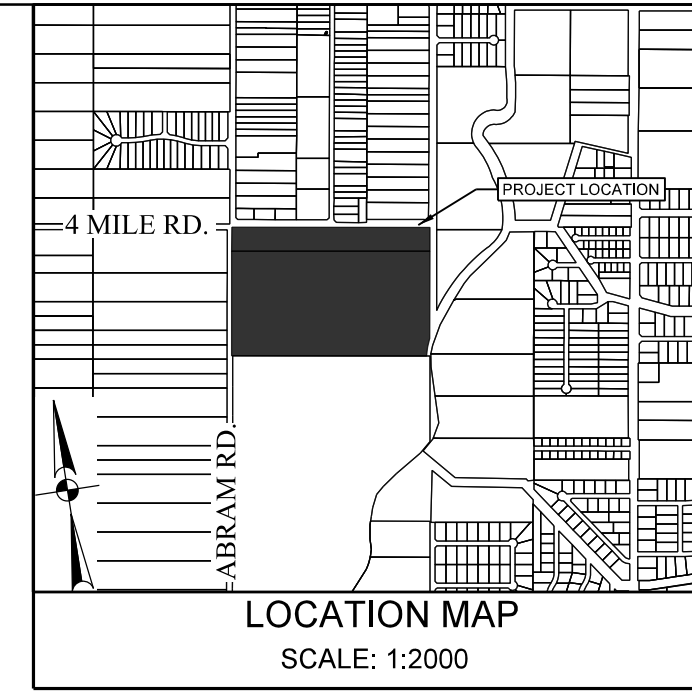
COST ESTIMATE	
WATER DISTRIBUTION:	\$ _____
DRAINAGE IMPROVEMENT:	\$ _____
PAVING IMPROVEMENT:	\$ _____
SEPTIC TANK (OSSF):	\$ _____
FIRE HYDRANT:	\$ _____
EROSION CONTROL:	\$ _____

PRINCIPAL CONTACTS					
NAME	ADDRESS	CITY & ZIP	PHONE	FAX	
OWNER:	CARLOS LEAL JR.	P.O. BOX 631	MISSION, TEXAS 78573		
ENGINEER:	VICTOR H. TREVIÑO, P.E.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78572	(956) 424-3335	(956) 424-3132
SURVEYOR:	JUAN E. GALVAN, 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
 TBPE REG # 1500

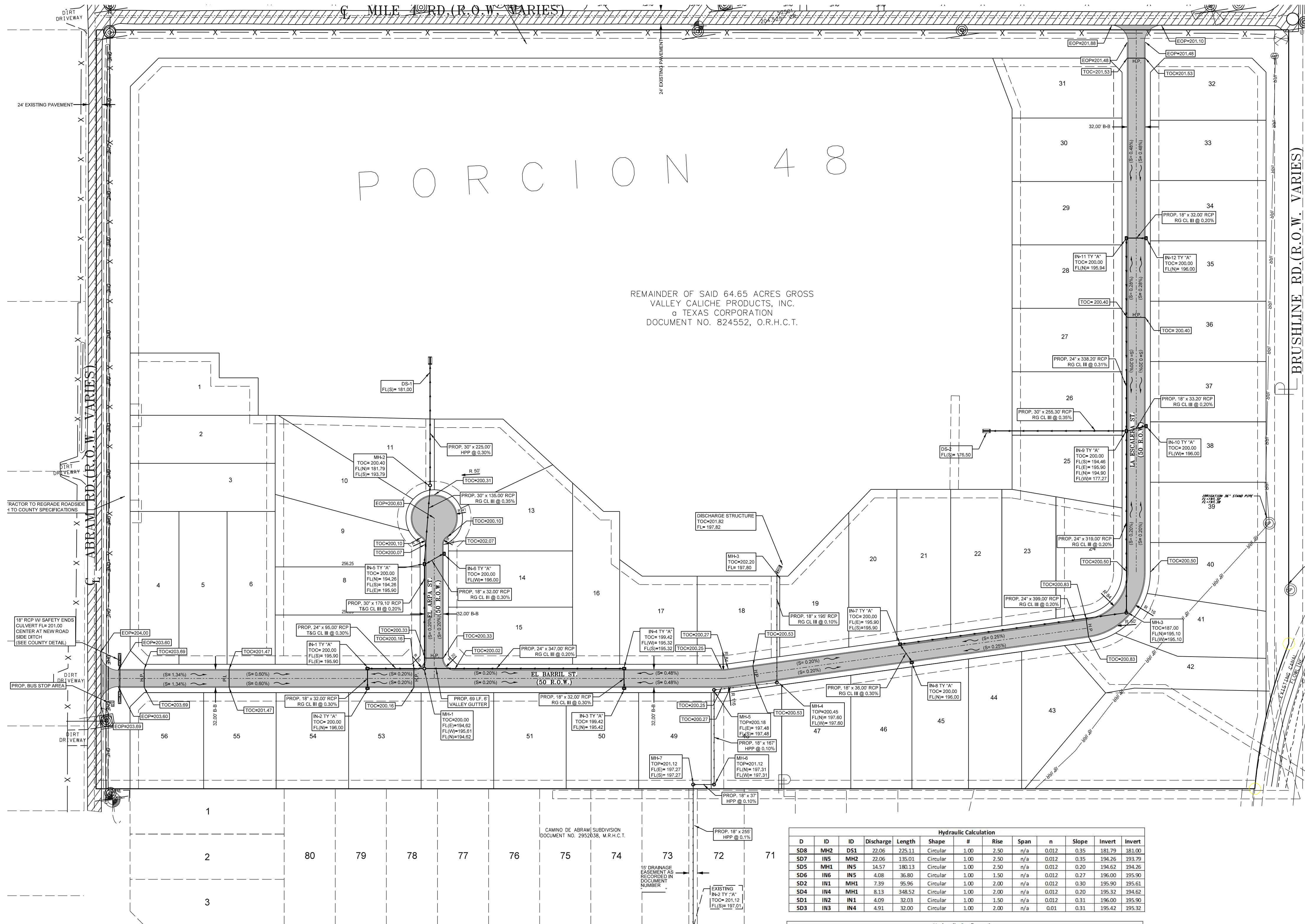
UTILITY LAYOUT
LAS COMADRES NO. 10 SUBDIVISION
 BEING A 64.85 ACRE TRACT OF LAND OUT OF A PART OF A CERTAIN 243.51 ACRE TRACT OUT OF PORTION 48, HIDALGO COUNTY, TEXAS, LYING WEST OF HIDALGO COUNTY IRRIGATION DISTRICT NO. 6 CANAL RIGHT-OF-WAY, HIDALGO COUNTY, TEXAS.

SOUTH TEXAS INFRASTRUCTURE GROUP



PORCION 48

REMAINDER OF SAID 64.65 ACRES GROSS VALLEY CALICHE PRODUCTS, INC. TEXAS CORPORATION DOCUMENT NO. 824552, O.R.H.C.T.



PROJECT LOCATION
LAS COMADRES NO. 10 SUBDIVISION IS A PROPOSED 56 LOT SINGLE FAMILY RESIDENTIAL LOTS SUBDIVISION LOCATED WITHIN THE CITY OF MISSION 3 1/2 MILE EXTRATERRITORIAL JURISDICTION E.T.A. BEING A 64.65 ACRE TRACT OF LAND OUT OF PORCION 48, HIDALGO COUNTY, TEXAS, LYING WEST OF HIDALGO COUNTY IRRIGATION DISTRICT NO. 6 CANAL RIGHT OF WAY, HIDALGO COUNTY, TEXAS BETWEEN MILES 3 & 4. RECORDED IN VOLUME 8, PAGE 57-58, MAP RECORDS, HIDALGO COUNTY, TEXAS.

FLOOD PLAN
THE PROPERTY IS IN ZONE "X". ZONE "X" ARE AREAS OF 500-YEAR FLOOD; COMMUNITY PANEL NO. 48034 0200 D, REVISED JUNE 06, 2000.

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 73% HIDALGO FINE SANDY LOAM WITH 1 TO 1 PERCENT SLOPES, 3% OF HIDALGO SANDY CLAY LOAM WITH 1 TO 3 PERCENT SLOPES, AND 3% OF BRENNAN FINE SANDY LOAM WITH 1 TO 1 PERCENT SLOPES. EXISTING TERRAIN HAS A WESTERLY NATURAL FLOOD DIRECTION. THESE SOILS ARE WELL DRAINED, SURFACE RUNOFF IS NEGLECTABLE, PERMEABILITY IS MODERATELY HIGH TO HIGH, AND THE WATER CAPACITY IS HIGH. THE SOILS ARE LISTED IN HYDROLOGIC GROUPS B, D, AND C. SEE APPENDIX C.

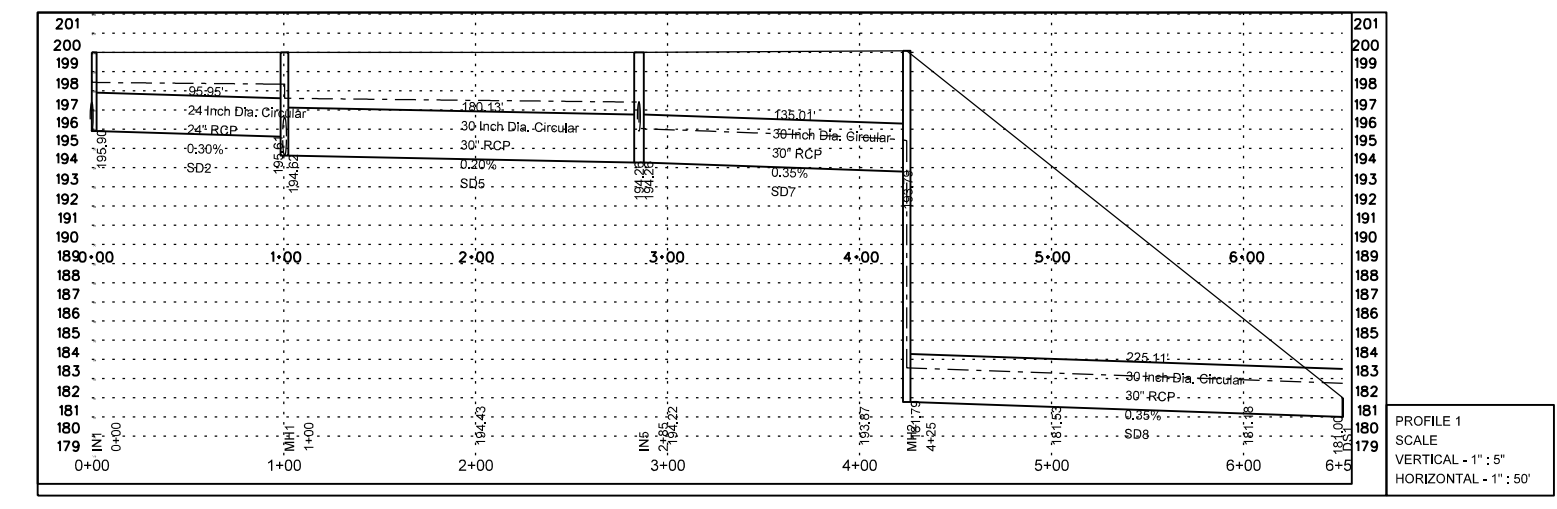
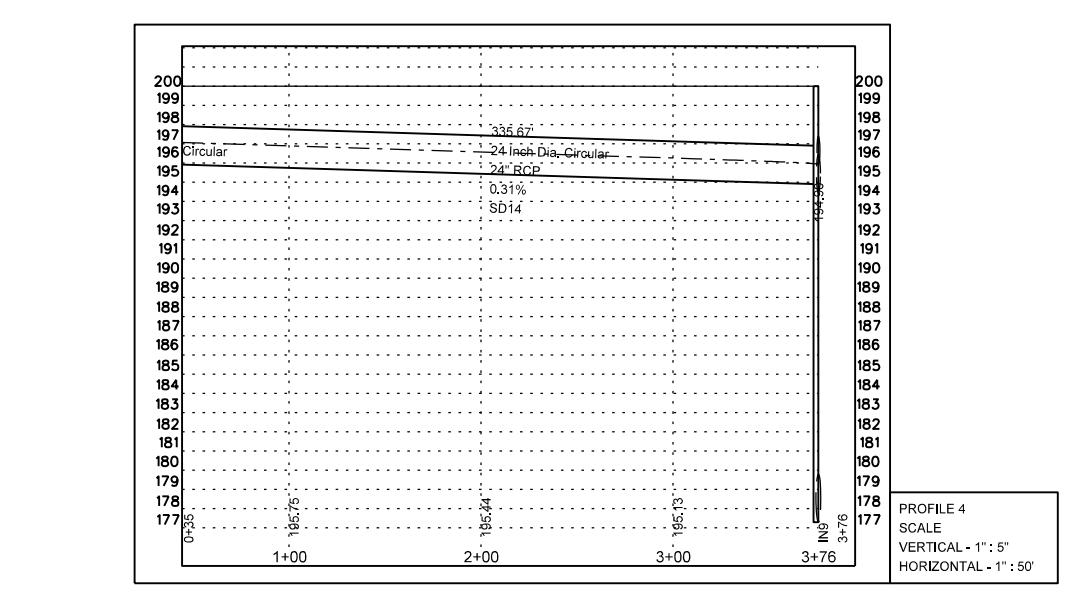
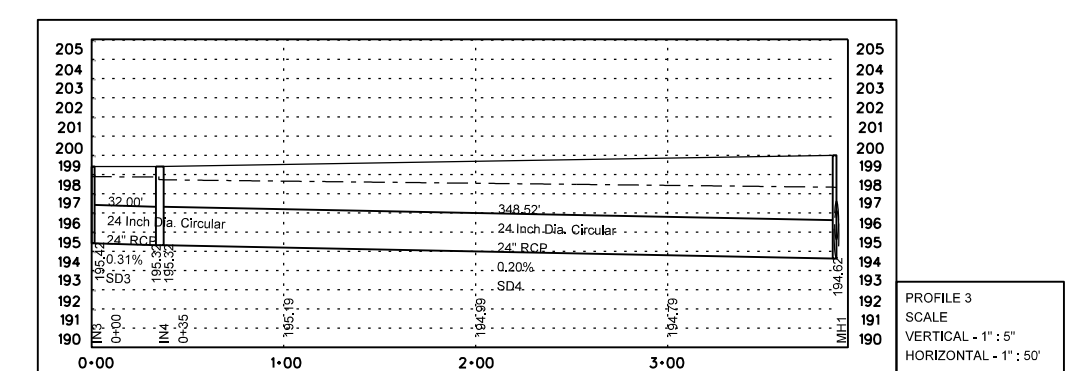
EXISTING CONDITIONS
THE SUBJECT PROPERTY IS CURRENTLY UNDEVELOPED. TOPOGRAPHIC ELEVATIONS OBTAINED FROM THE SITE INDICATE THAT THE EXISTING TERRAIN HAS A VERY SLIGHT GRADE APPROXIMATELY (0.4%). IN ACCORDANCE WITH THE DRAINAGE POLICIES OF THE CITY OF MISSION AND COUNTY OF HIDALGO, THE NATIONAL METHOD, 10-YEAR FREQUENCY STORM EVENT WAS UTILIZED TO DETERMINE THE EXISTING STORM WATER RUNOFF FOR THIS SITE. THE TOTAL CONTRIBUTING 10-YEAR EXISTING STORM WATER RUNOFF FROM THIS SITE IS APPROXIMATELY 46.47 CFS.

PROPOSED CONDITIONS
THE PROPOSED DRAINAGE SYSTEM SHALL CONSIST OF AN INTERNAL STORM SEWER SYSTEM WITH INLETS IN THE STREET TO COLLECT SURFACE RUNOFF FROM LOTS AND STREETS. THIS SYSTEM WILL BE SIZED AS PER CALCULATIONS ON APPENDIX D. PIPE SIZES RANGE FROM 18" TO 30" AND WILL CONSIST OF A PROPOSED OUTFALL TO A REGIONAL DETENTION POND, THAT BEING REGULATED BY PLAT TO THE HIDALGO COUNTY DRAINAGE DISTRICT #1. A TOTAL OF 13.66 ACRES WILL BE DONATED BY THE OWNER OF LAS COMADRES NO. 10 SUBDIVISION TO THE HIDALGO COUNTY DRAINAGE DISTRICT #1 FOR DRAINAGE DETENTION PURPOSES. THIS REGIONAL DETENTION POND WITH AN AVERAGE DEPTH OF 20.50 FT. WILL PROVIDE A TOTAL CAPACITY OF 210.12 ACRES-FT (5,152,872.2 FT³).

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 10-YEAR STORM WATER RUNOFF. THE PEAK RATE WILL BE 154.55 CFS WHICH WILL GIVE US A NET INCREASE OF 109.08 CFS. FOR PROPOSED LAS COMADRES NO. 10 ONLY 154.176 CFS CURB-CURB FEET OR 3.76 ACRES-FEET OF STORM WATER RUNOFF WILL BE REQUIRED TO BE DETAINED. THE TOTAL 3.76 ACRES-FEET WILL BE DETAINED ON THE REGIONAL DETENTION POND LOCATED ON THE NORTH SIDE OF LAS COMADRES NO. 10 SUBDIVISION, EXCEEDING THE DETENTION REQUIRED FOR LAS COMADRES NO. 10 SUBDIVISION. THE SURPLUS DETENTION PROVIDED BY THIS PROJECT, WILL BE TAKEN INTO ACCOUNT FOR LAS COMADRES NO. 11.

THE REGIONAL DETENTION POND WILL ACCOMMODATE MORE THAN ENOUGH VOLUME FOR PROPOSED LAS COMADRES 10 & 11. BOTH DEVELOPMENT WILL HAVE A TOTAL AREA OF 52.61 ACRES AND REQUIRE A COMBINED DETENTION OF APPROXIMATE 6.14 ACRES-FT.

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04/24/2023
VICTOR H. TREVINO, P.E.
LICENSED PROFESSIONAL ENGINEER, TEXAS LIC. NO. 128195



ID	ID	ID	Discharge	Length	Shape	#	Rise	Span	n	Slope	Invert	Invert
SDB	MH2	DS1	22.06	225.13	Circular	1.00	2.50	n/a	0.012	0.35	183.79	181.08
SD7	IN5	MH2	22.06	135.01	Circular	1.00	2.50	n/a	0.012	0.35	194.26	193.79
SD5	MH1	IN5	14.57	180.13	Circular	1.00	2.50	n/a	0.012	0.20	194.62	194.26
SD6	IN6	IN5	4.08	36.80	Circular	1.00	1.50	n/a	0.012	0.27	196.00	195.90
SD2	IN1	MH1	7.39	95.96	Circular	1.00	2.00	n/a	0.012	0.30	195.90	195.61
SD4	IN4	MH1	8.13	348.52	Circular	1.00	2.00	n/a	0.012	0.20	195.32	194.62
SD1	IN2	IN1	4.09	32.03	Circular	1.00	1.50	n/a	0.012	0.31	196.00	195.90
SD3	IN3	IN4	4.91	32.00	Circular	1.00	2.00	n/a	0.01	0.31	195.42	195.32

D	ID	ID	HGL	HGL	Discharge	Capacity	Slope	Loss	Velocity	Depth	Velocity	Depth
SD8	MH2	DS1	183.59	182.76	22.06	28.32	0.35	0.03	5.973	1.76	5.97	1.76
SD7	IN5	MH2	197.41	195.39	22.06	28.20	0.35	1.38	5.973	1.76	6.66	1.60
SD5	MH1	IN5	198.34	197.41	14.57	21.37	0.19	0.74	4.35	1.61	2.97	2.50
SD6	IN6	IN5	197.54	197.41	4.08	6.38	0.26	0.08	3.67	0.92	2.31	1.50
SD2	IN1	MH1	198.55	198.34	7.39	14.49	0.30	0.11	4.39	1.06	2.35	2.00
SD4	IN4	MH1	198.88	198.34	8.13	11.82	0.20	0.15	3.79	1.29	2.59	2.00
SD1	IN2	IN1	198.67	198.55	4.09	6.84	0.31	0.08	3.80	0.88	2.32	1.50
SD3	IN3	IN4	198.99	198.88	4.91	14.74	0.32	0.04	4.04	0.82	1.56	2.00

ID	ID	ID	Discharge	Length	Shape	#	Rise	Span	n	Slope	Invert	Invert
SD15	IN9	DS2	26.68	252.27	Circular	1.00	2.50	n/a	0.012	0.31	177.29	176.50
SD11	MH9	IN9	10.11	316.59	Circular	1.00	2.00	n/a	0.012	0.30	195.10	194.46
SD12	IN10	IN9	6.46	33.17	Circular	1.00	1.50	n/a	0.012	0.30	196.00	195.90
SD14	IN11	IN9	8.33	335.68	Circular	1.00	2.00	n/a	0.01	0.31	195.94	194.90
SD10	IN7	MH3	10.11	398.99	Circular	1.00	2.00	n/a	0.01	0.20	195.90	195.30
SD13	IN12	IN11	4.19	32.08	Circular	1.00	1.50	n/a	0.01	0.19	196.00	195.94
SD9	IN8	IN7	5.16	85.78	Circular	1.00	1.50	n/a	0.01	0.28	196.00	195.90

ID	ID	ID	HGL	HGL	Discharge	Capacity	Slope	Loss	Velocity	Depth	Velocity	Depth
SD15	IN9	DS2	181.30	178.85	26.68	26.75	0.31	1.66	5.576	2.35	5.58	2.35
SD11	MH9	IN9	196.87	196.60	10.11	11.85	0.20	0.28	3.983	1.53	5.48	1.14
SD12	IN10	IN9	197.54	196.08	6.46	6.72	0.30	0.31	4.030	1.28	5.26	0.98
SD14	IN11	IN9	197.55	196.93	8.33	14.67	0.31	0.47	4.507	1.13	5.12	1.03
SD10	IN7	MH3	197.80	196.87	10.11	11.81	0.20	0.29	3.993	1.53	5.48	1.14
SD13	IN12	IN11	197.69	197.55	4.19	5.29	0.09	0.09	3.448	1.06	2.37	1.50
SD9	IN8	IN7	198.01	197.80	5.16	6.47	0.29	0.13	3.88	1.06	2.92	1.50

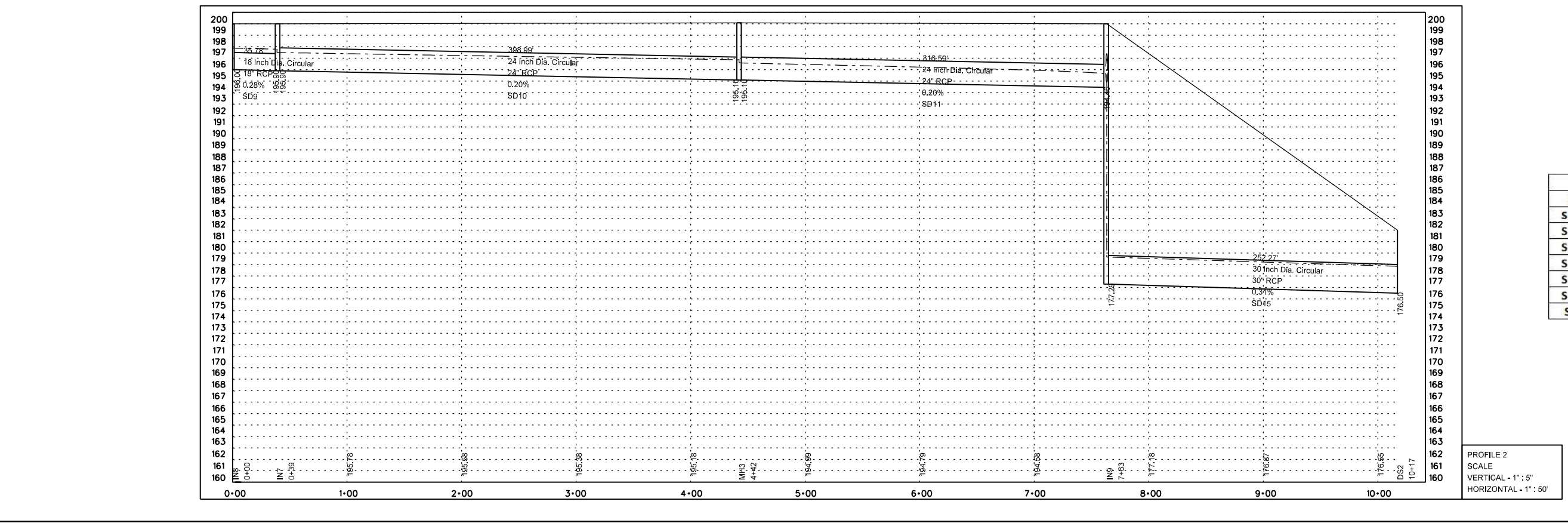
PRINCIPAL CONTACTS

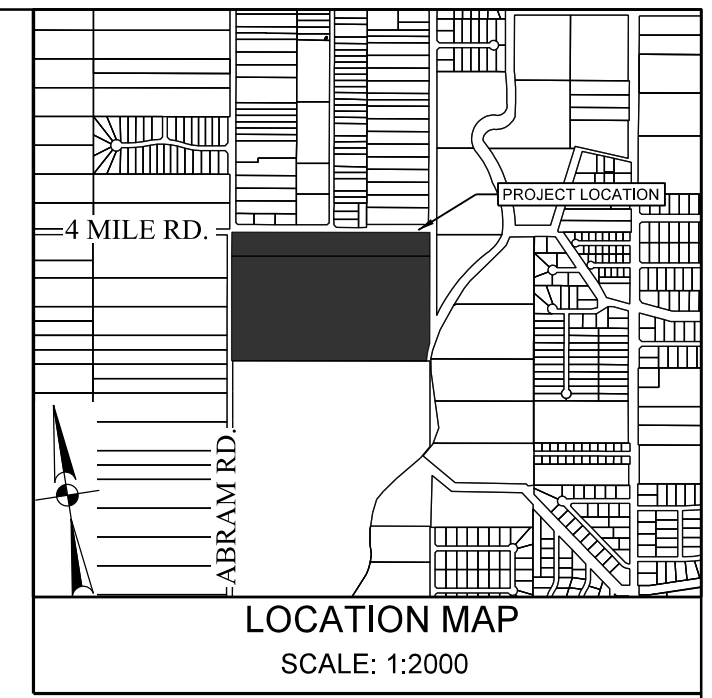
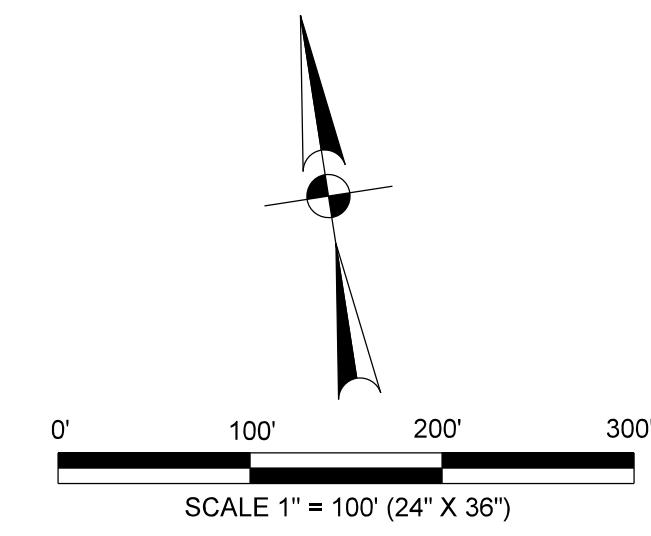
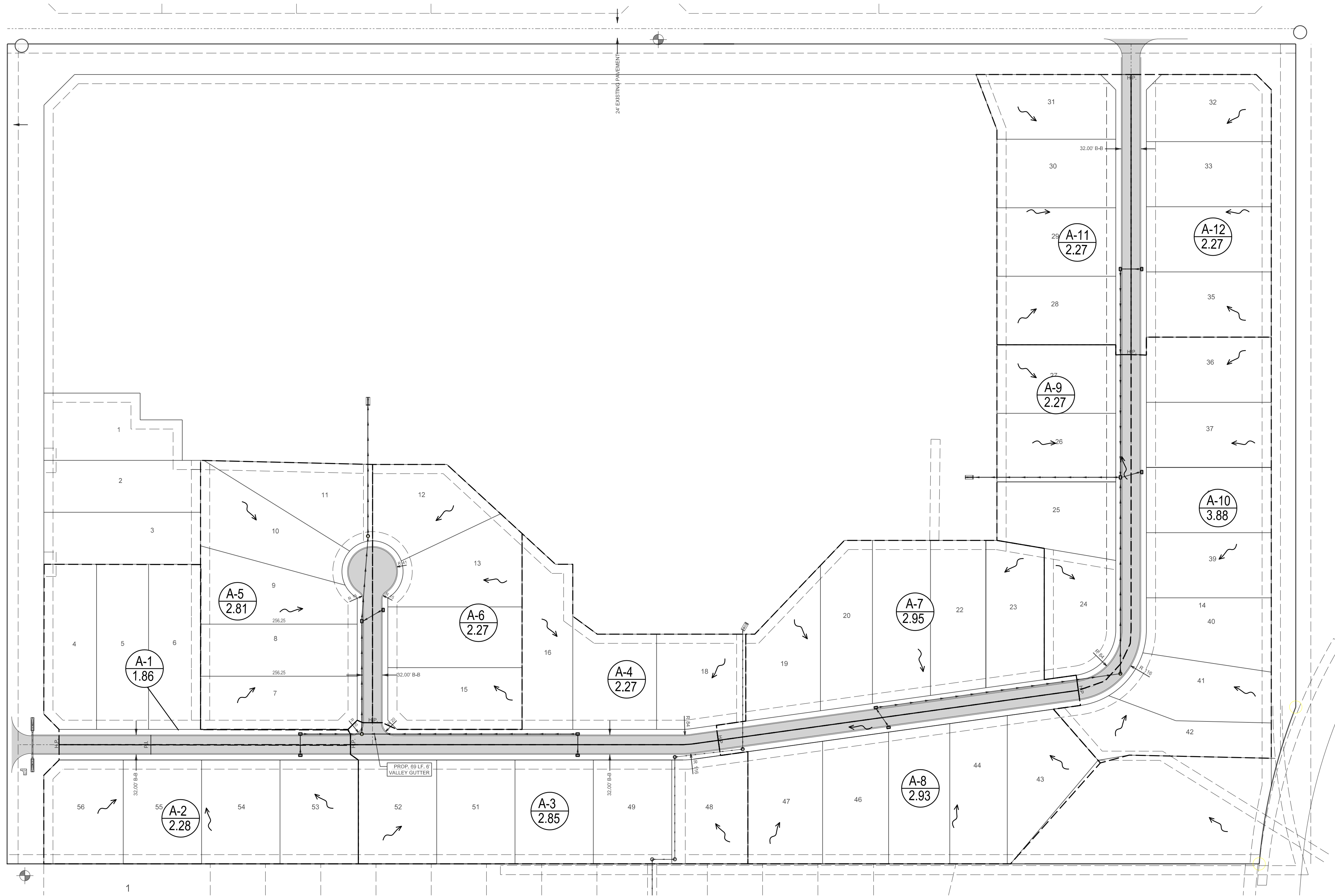
OWNER:	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	CARLOS LEAL JR.	P.O. BOX 631	MISSION, TEXAS 78753		
ENGINEER:	VICTOR H. TREVINO, P.E.	800 S. STEWART RD., STE. 13	MISSION, TEXAS 78752	(956) 424-3335	(956) 424-3132
SURVEYOR:	JUAN E. GALVAN, R.P.L.S.	800 S. STEWART RD., STE. 13	MISSION, TEXAS 78752	(956) 424-3335	(956) 424-3132

SOUTH TEXAS INFRASTRUCTURE GROUP
900 S. STEWART, SUITE 13
MISSION, TEXAS 78752
PH: (956) 424-3335
FAX: (956) 424-3132
TBPE REG # 1500

PAVING & DRAINAGE
LAS COMADRES NO. 10 SUBDIVISION
BEING A 64.65 ACRE TRACT OF LAND OUT OF A PART OF A CERTAIN 243.51 ACRE TRACT OUT OF PORCION 48, HIDALGO COUNTY, TEXAS, LYING WEST OF HIDALGO COUNTY IRRIGATION DISTRICT NO. 6 CANAL RIGHT-OF-WAY, HIDALGO COUNTY, TEXAS.

SOUTH TEXAS INFRASTRUCTURE GROUP





Identification	Runoff C	Drainage areas				Discharge
		Drainage Area	Time of Conc.	Time Used	Intensity	
IN1	0.36	1.86	23.00	23.00	5.10	3.39
IN2	0.35	2.28	22.00	22.00	5.22	4.09
IN3	0.35	2.85	24.00	24.00	4.98	4.91
IN4	0.38	1.92	26.00	26.00	4.77	3.43
IN5	0.33	2.81	22.00	22.00	5.22	4.84
IN6	0.34	2.27	21.00	21.00	5.34	4.08
IN7	0.35	2.95	24.00	24.00	4.98	5.07
IN8	0.35	2.93	23.00	23.00	5.10	5.16
IN9	0.35	2.34	24.00	24.00	4.98	4.12
IN10	0.33	3.88	24.00	24.00	4.98	6.46
IN11	0.35	2.27	21.00	21.00	5.34	4.19
IN12	0.35	2.27	21.00	21.00	5.34	4.19

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

04/24/2023

DRAINAGE AREAS
LAS COMADRES NO. 10 SUBDIVISION

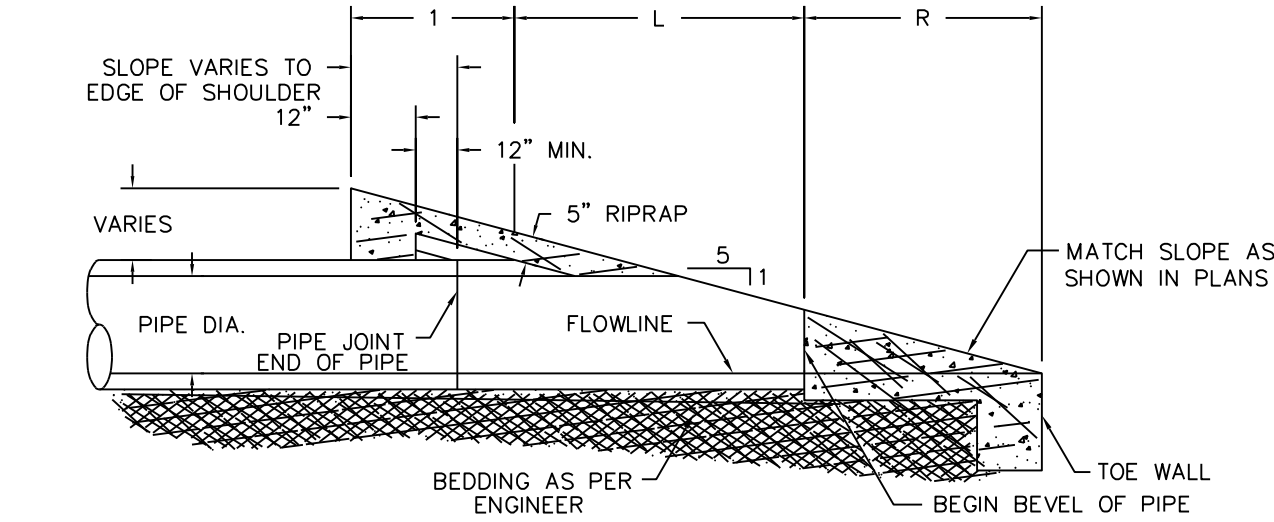
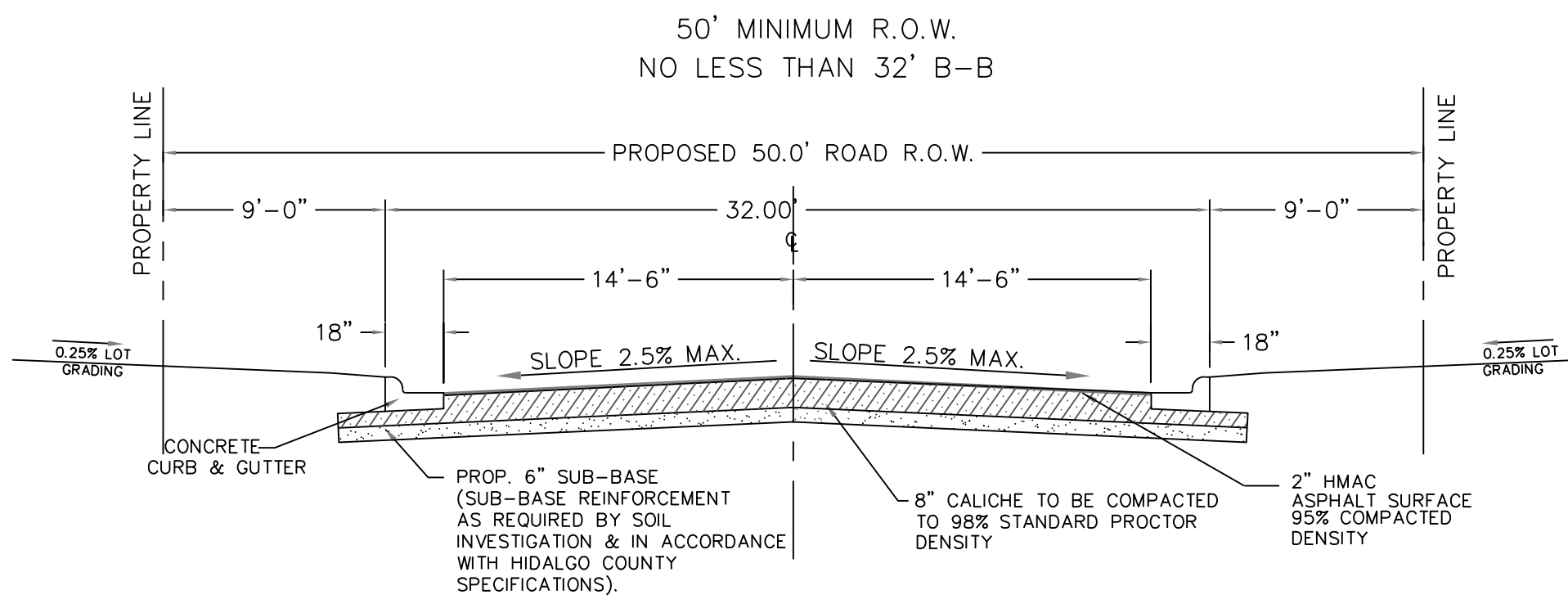
BEING A 64.85 ACRE TRACT OF LAND OUT OF A PART OF A CERTAIN 243.51 ACRE TRACT OUT OF PORCION 46, HIDALGO COUNTY, TEXAS, LYING WEST OF HIDALGO COUNTY IRRIGATION DISTRICT NO. 6 CANAL RIGHT-OF-WAY, HIDALGO COUNTY, TEXAS.

PRINCIPAL CONTACTS					
	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	CARLOS LEAL JR.	P.O. BOX 631	MISSION, TEXAS 78573		
ENGINEER:	VICTOR H. TREVINO, P.E.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78572	(956) 424-3335	(956) 424-3132
SURVEYOR:	JUAN E. GALVAN, 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
TBPPE REG # 1500

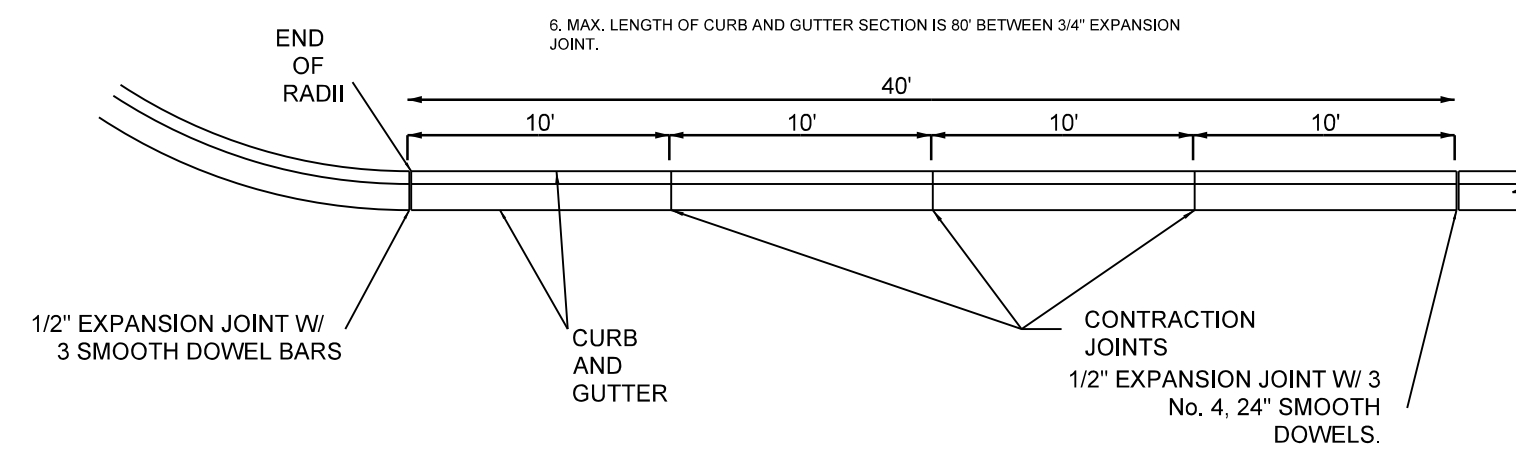


MINOR RESIDENTIAL STREET SECTION



SAFETY END TREATMENT (TYPE "P OR C")

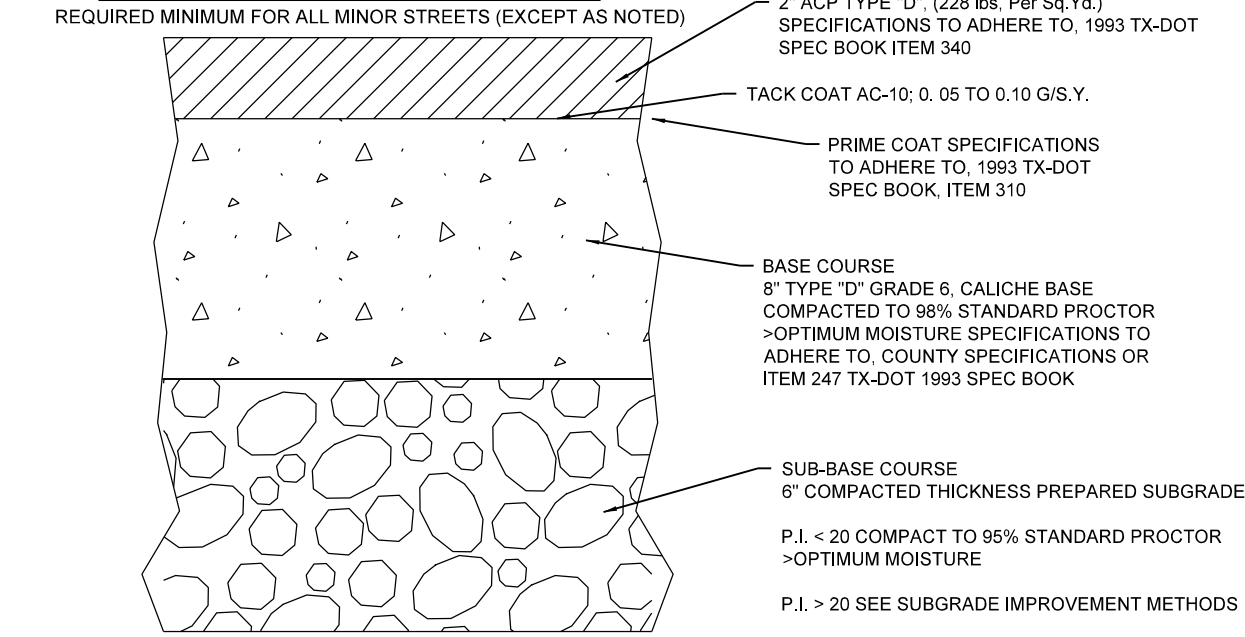
1. ALL HONEYCOMBING SHALL BE GROUTED TO PROVIDE A UNIFORM SURFACE.
2. WHEN HONEYCOMBING IS EXCESSIVE AS DETERMINED BY THE COUNTY OF HIDALGO DESIGNATED REPRESENTATIVE, CURB AND GUTTER SHALL BE REPLACED.
3. BACKFILL BEHIND CURBS SHALL BE ACCOMPLISHED WITHIN 24 HOURS AFTER BACK FORM IS REMOVED OR 48 HOURS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



P-3 TYPICAL JOINTS N.T.S.

GENERAL NOTES
1. THE GUIDELINES SHOW HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CLASS "D" PAVEMENT



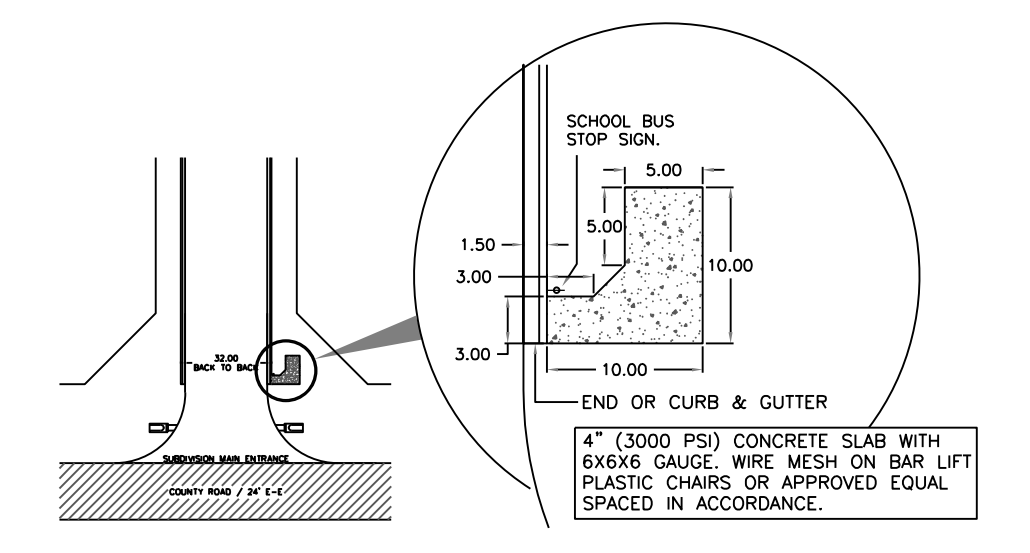
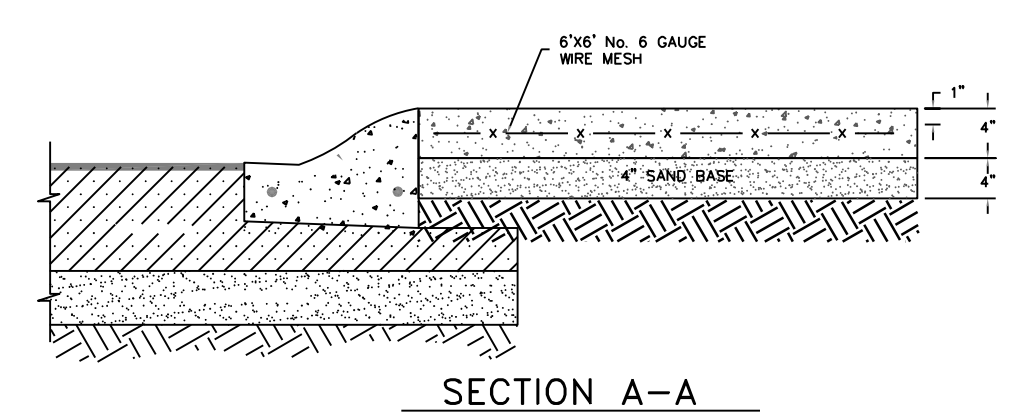
GENERAL NOTES:
1. IN LIEU OF THE ABOVE BASE DESIGN, AN ALTERNATE BASE MAY BE USED THAT USES 5" OF TYPE "A" GRADE 1 (CRUSHED Limestone) COMPACTED TO STANDARD PROCTOR > OPTIMUM MOISTURE SPECIFICATIONS TO ADHERE TO, COUNTY SPECIFICATIONS OR ITEM 247 TX-DOT 1993 SPEC BOOK.

SUBGRADE IMPROVEMENT METHODS:

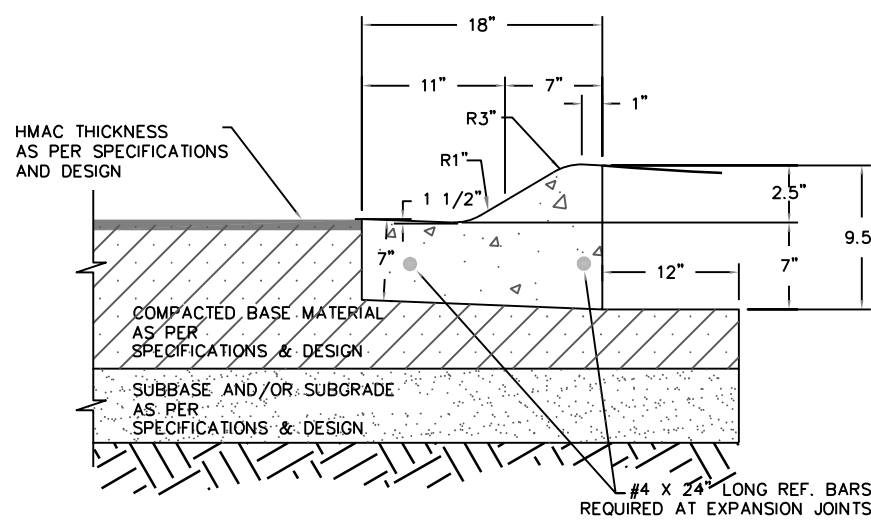
1. MECHANICAL STABILIZATION—AN APPROVED GEOGRID PLACED UNDERNEATH THE BASE COURSE PER COUNTY SPECIFICATIONS.
2. CHEMICAL STABILIZATION—MODIFY SUBBASE COURSE THICKNESS AS FOLLOWS:
20-P.I. < 40 3% LIME BY WEIGHT COMPACTED TO 95% STANDARD PROCTOR > OPTIMUM MOISTURE
P.I. > 40 6% LIME BY WEIGHT COMPACTED TO 95% STANDARD PROCTOR > OPTIMUM MOISTURE
3. OVER EXCAVATION & REPLACEMENT—A MINIMUM OF 18" OF SELECT FILL WITH A P.I. < 20 COMPACTED TO 95% STANDARD PROCTOR > OPTIMUM MOISTURE

DESIGN ENGINEER MAY SPECIFY A DIFFERENT PAVEMENT SECTION TO ADDRESS FIELD AND TRAFFIC CONDITIONS. THESE SPECIFICATIONS OUTLINE THE MINIMUM REQUIREMENTS FOR THE COUNTY OF HIDALGO. WHERE FURTHER GUIDANCE FOR CONSTRUCTION SPECIFICATIONS IS NEEDED, THE COUNTY PLANNING DEPARTMENT MAY REQUIRE CONSTRUCTION IN ACCORDANCE WITH THE 1993 TX DOT STANDARD SPECIFICATIONS BOOK.

CONCRETE SCHOOL BUS STOP PICKUP AREA



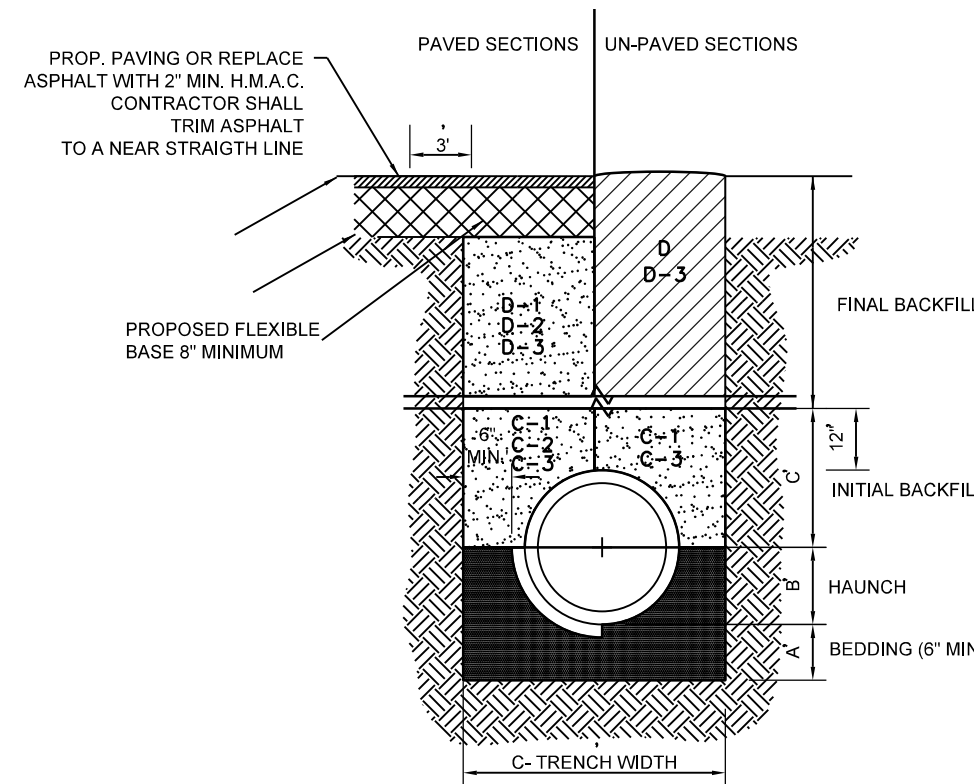
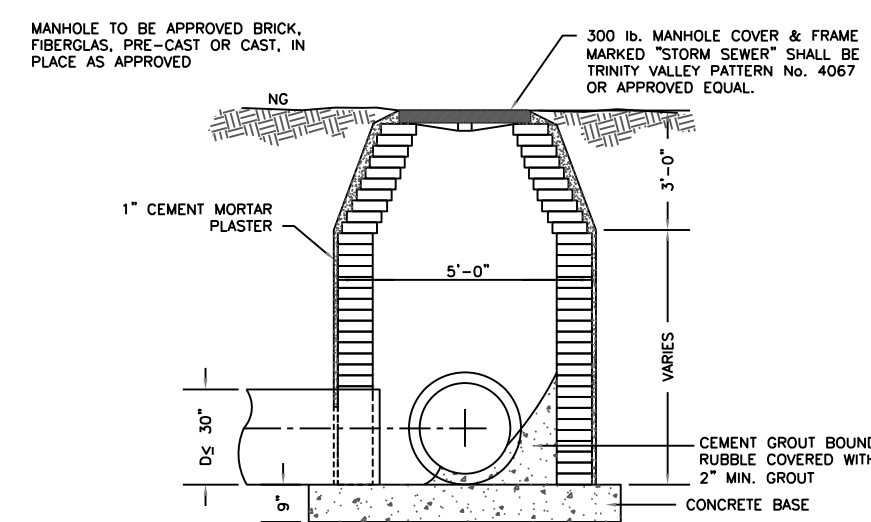
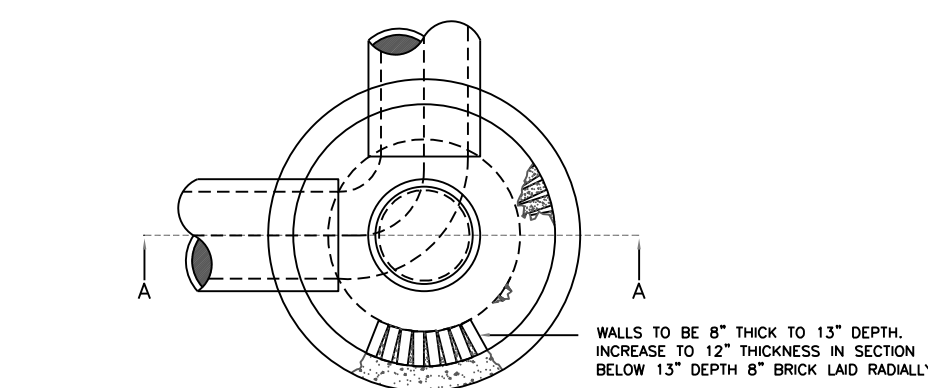
PLAN VIEW OF SCHOOL BUS STOP PICKUP AREA



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

P-2 TYPICAL CURB AND GUTTER DETAIL N.T.S.

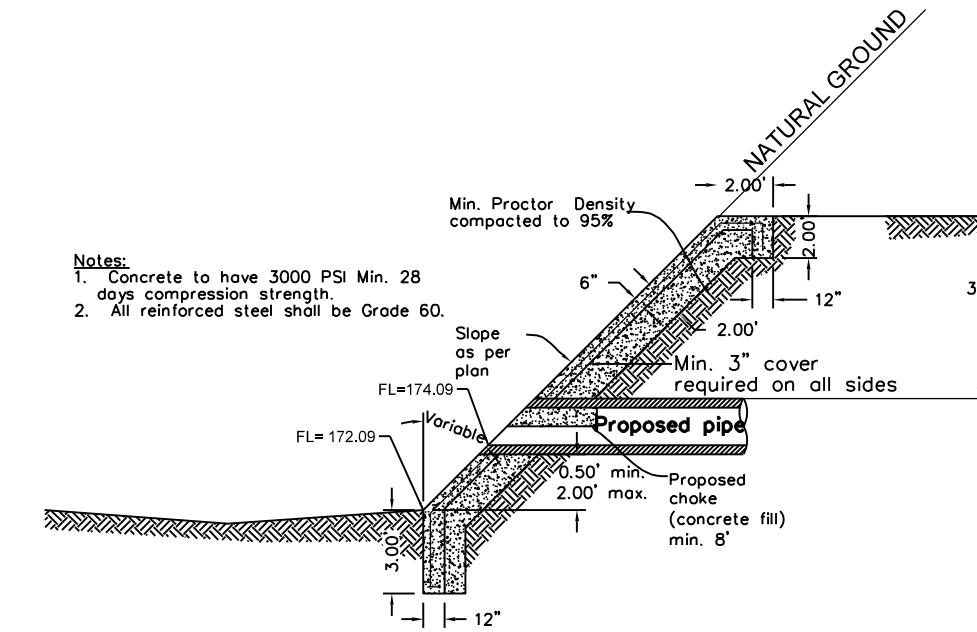
DRAINAGE MANHOLE DETAILS



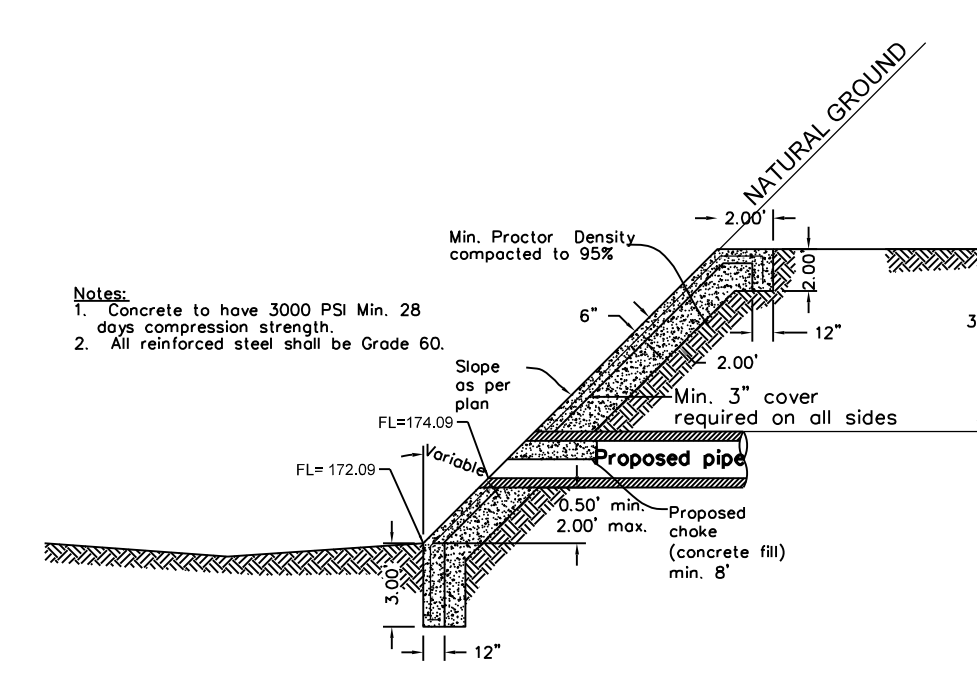
D-3 STORM TRENCH BEDDING AND BACKFILL DETAILS N.T.S.

- 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") - FIT 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 + 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, COUNTY ROADS & 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, II, 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 D4253 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 OR CLASS II (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, II, III, OR IV (ASTM D2321) BACKFILL MATERIAL. FOUNDATION PREPARATION (WELLPOINTS, MIN. 4" GRAVEL OR CEMENTS STABILIZATION, OR APPROVED SUBSTITUTES) 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 6".

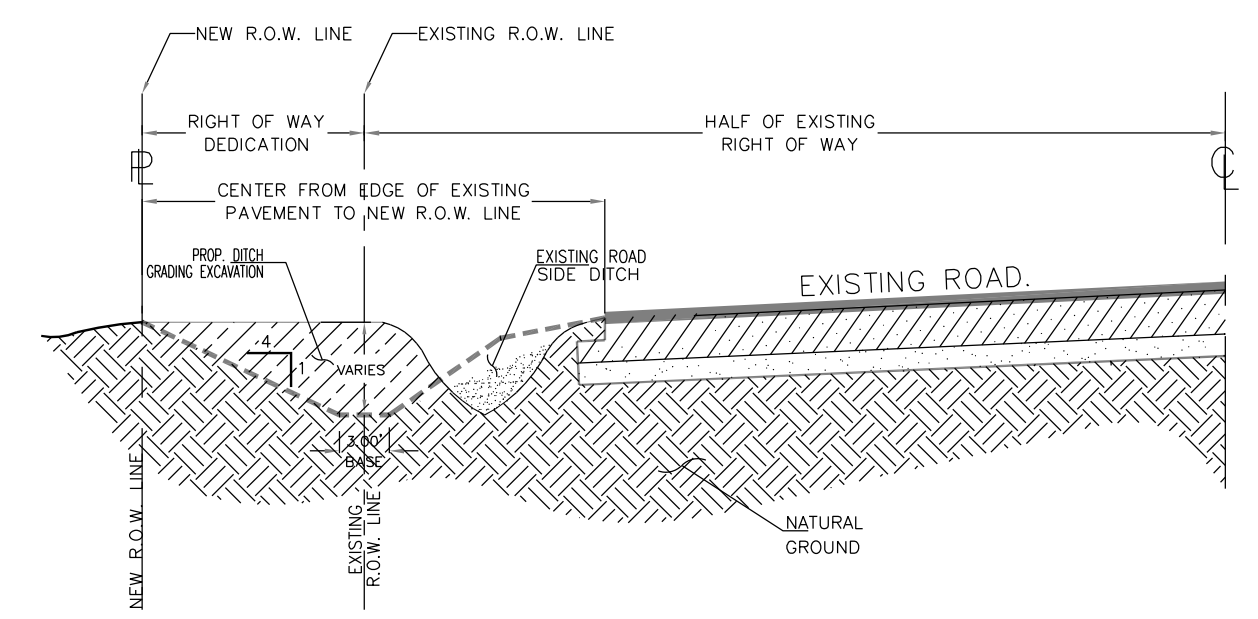
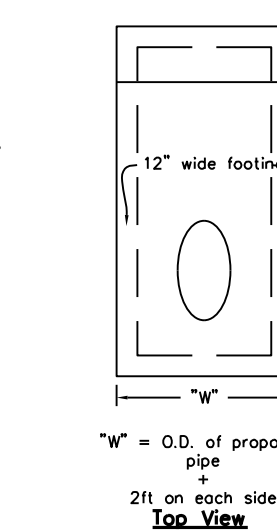
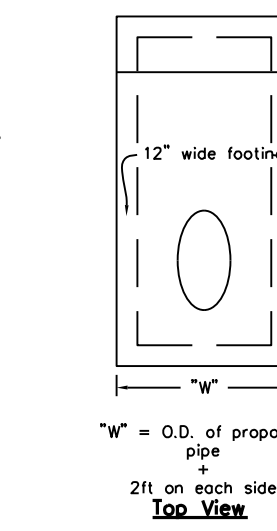
- NOTE: 1. MAXIMUM COVER SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. FOR D-1 AND D-2 THE COMPACTION REQUIREMENT SHALL BE 95% S.P.D. WITHIN 12 IN. BELOW THE FLEXIBLE BASE.
3. FOR PAVED SECTIONS THE ABOVE REQUIREMENTS SHALL APPLY WHEN ANY PART OF THE TRENCH WIDTH IS WITHIN 8 FT. FROM THE E.O.P./B.O.C.
4. THE ABOVE REQUIREMENTS SHALL APPLY TO UTILITY PIPELINES AND UTILITY STRUCTURES OF OTHER UTILITY ENTITIES.



D-2 STORM DISCHARGE STRUCTURE

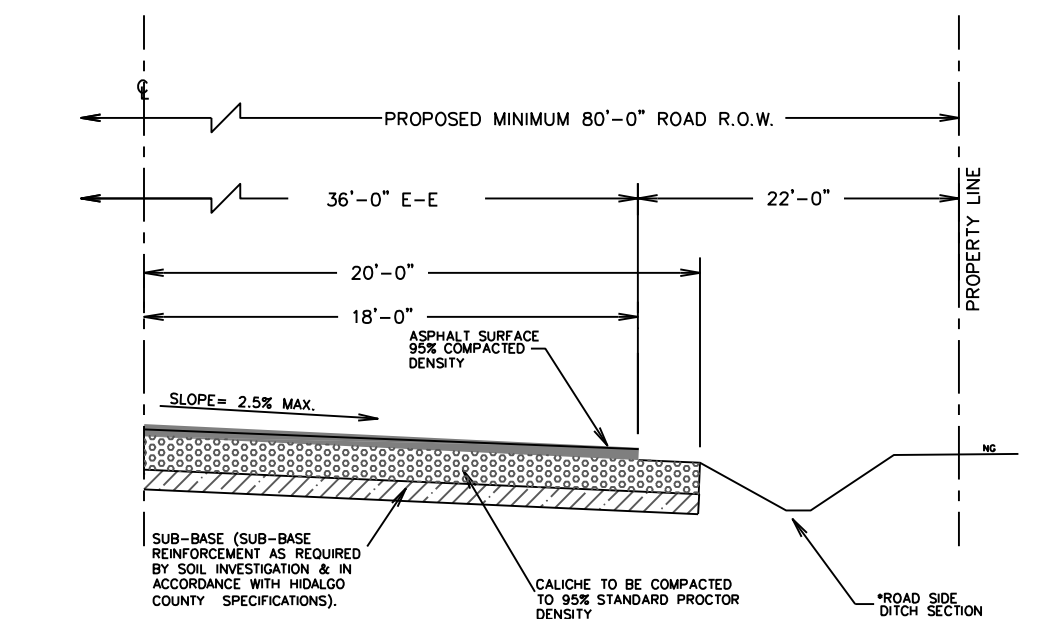


D-2 STORM DISCHARGE STRUCTURE



RECONSTRUCTION OF ROAD SIDE DITCH

COLLECTOR STREET PAVEMENT WIDTH OF NO LESS THAN 36' E-E



REFER TO ROAD SIDE DITCH CROSS SECTION DETAIL PLAT No. 9.37

HORIZONTAL CLEARANCE TO OBSTRUCTIONS TO BE DETERMINED BY THE ENGINEER

ROAD SECTION DETAIL APPLIES TO ANY SUBSECTION IN WHICH ALL LOTS HAVE AN AREA OF GREATER THAN ONE ACRE, NET OF ALL EASEMENTS AND RIGHT OF WAYS

REVISION NOTES			
No.	SHEET	REVISION	DATE

PRINCIPAL CONTACTS					
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OWNER:	CARLOS LEAL JR.	P.O. BOX 631	MISSION, TEXAS 78753	(956) 607-0444	
ENGINEER:	VICTOR H. TREVIÑO, P.E.	900 S. STEWART RD., STE. 13	MISSION, TEXAS 78752	(956) 424-3335	(956) 424-3132
SURVEYOR:	JOSE MARIO GONZALEZ, R.P.L.S.	24593 FM 88	MONTE ALTO, TEXAS 78538	(956) 380-6154	(956) 380-6156

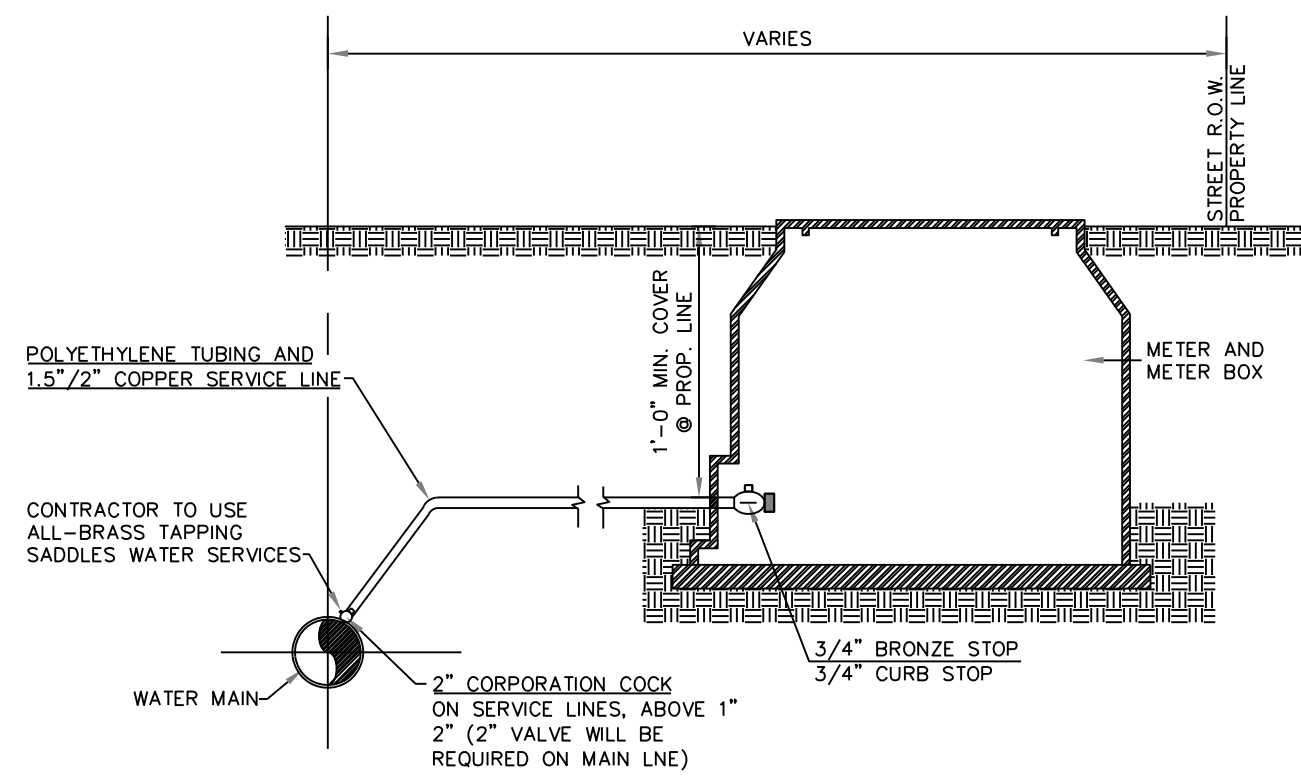
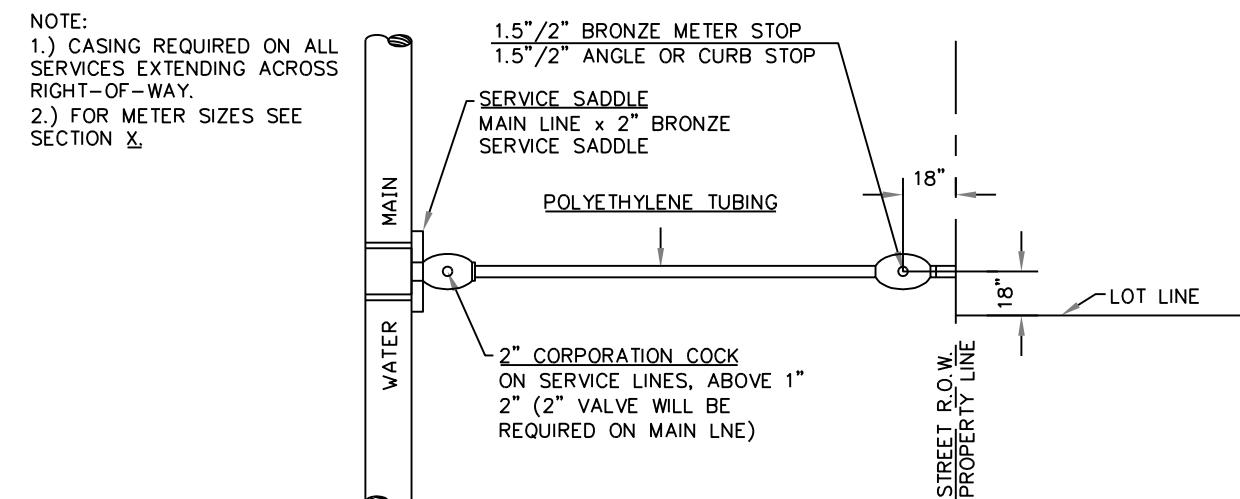
SOUTH TEXAS INFRASTRUCTURE GROUP
900 S. STEWART, SUITE 13
MISSION, TEXAS 78752
PH: (956) 424-3335
FAX: (956) 424-3132
TBP# REG # 1500

PAVING & DRAINAGE DETAILS

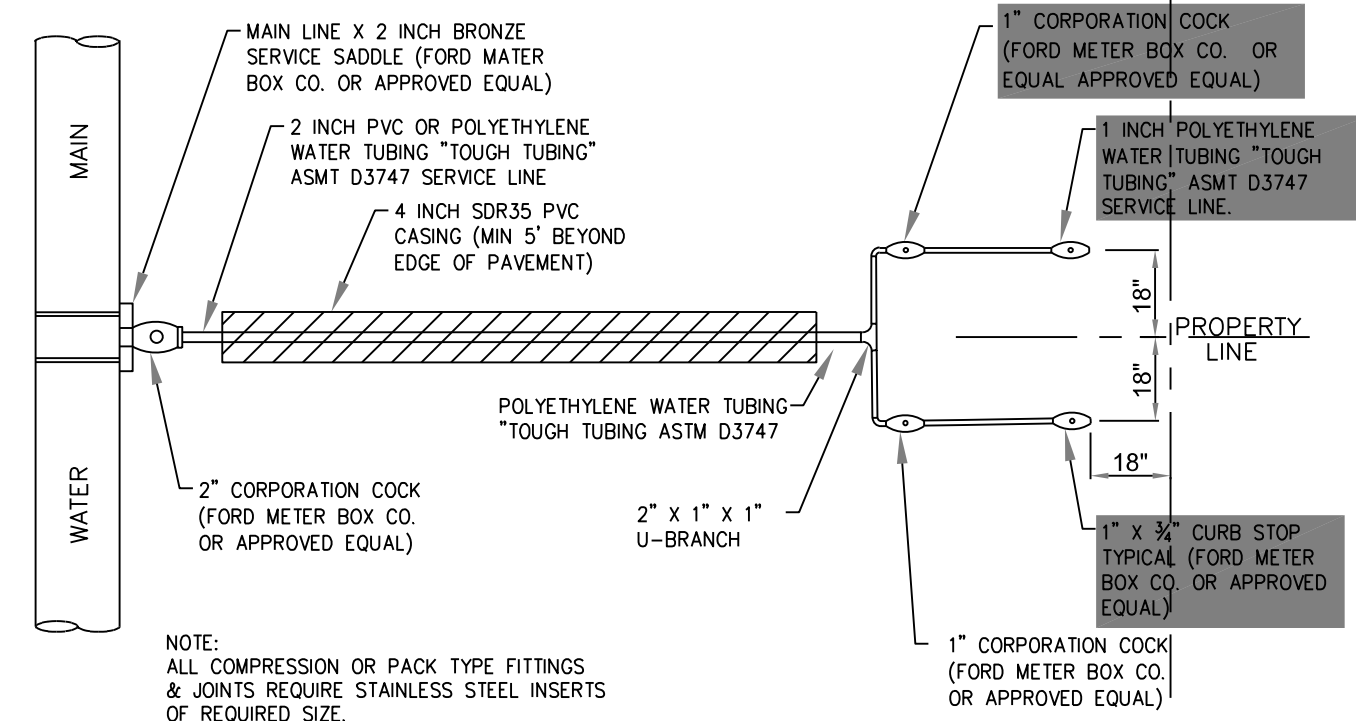
LAS COMADRES NO. 10 SUBDIVISION

BEING A 64.65 ACRE TRACT OF LAND OUT OF A PART OF A CERTAIN 243.51 ACRE TRACT OUT OF PORTION 48, HIDALGO COUNTY, TEXAS, LYING WEST OF HIDALGO COUNTY IRRIGATION DISTRICT NO. 6 CANAL, RIGHT-OF-WAY, HIDALGO COUNTY, TEXAS.

SOUTH TEXAS INFRASTRUCTURE GROUP

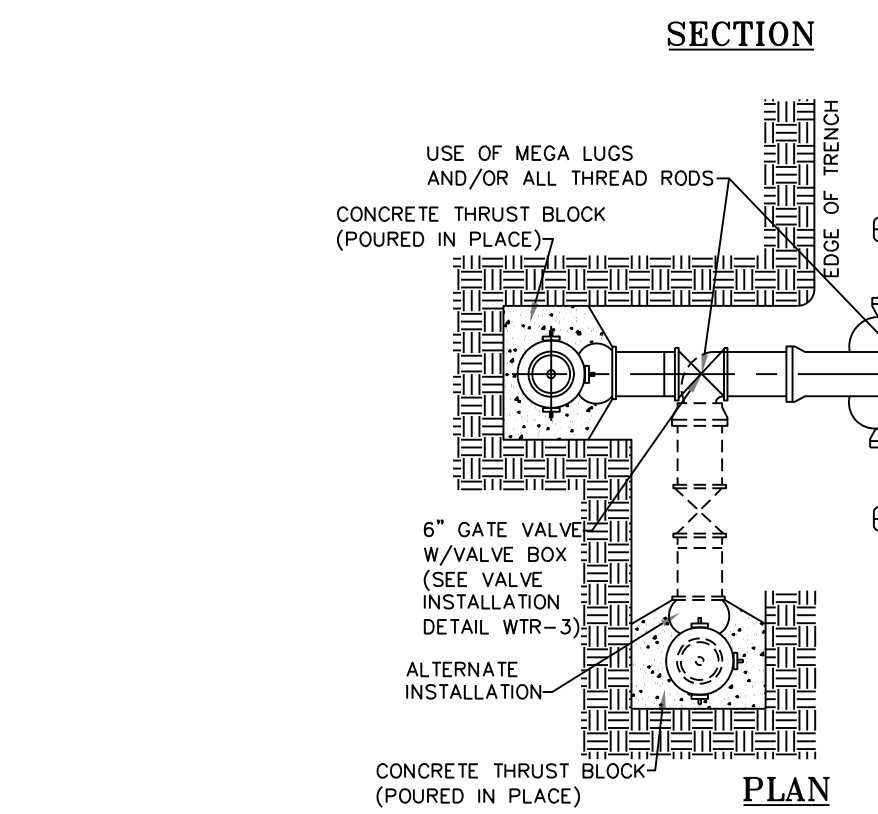
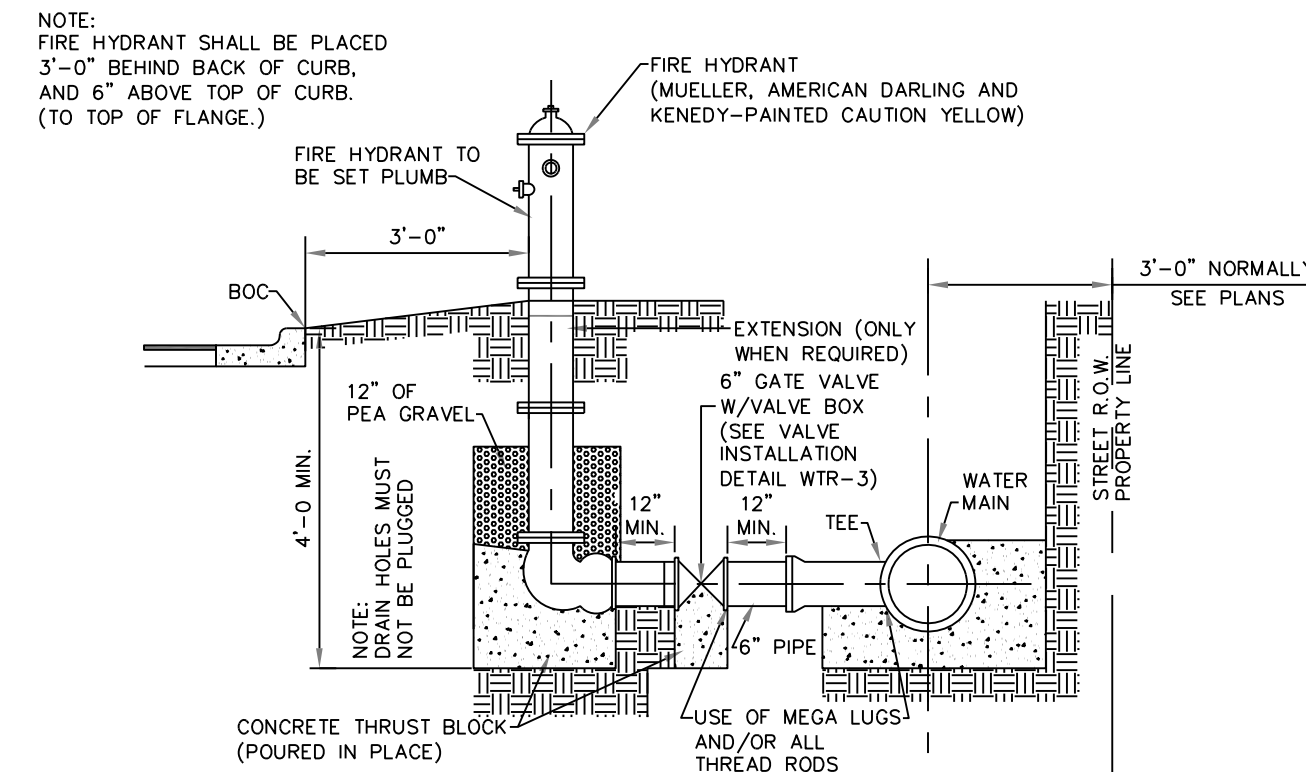


SINGLE WATER SERVICE CONNECTION

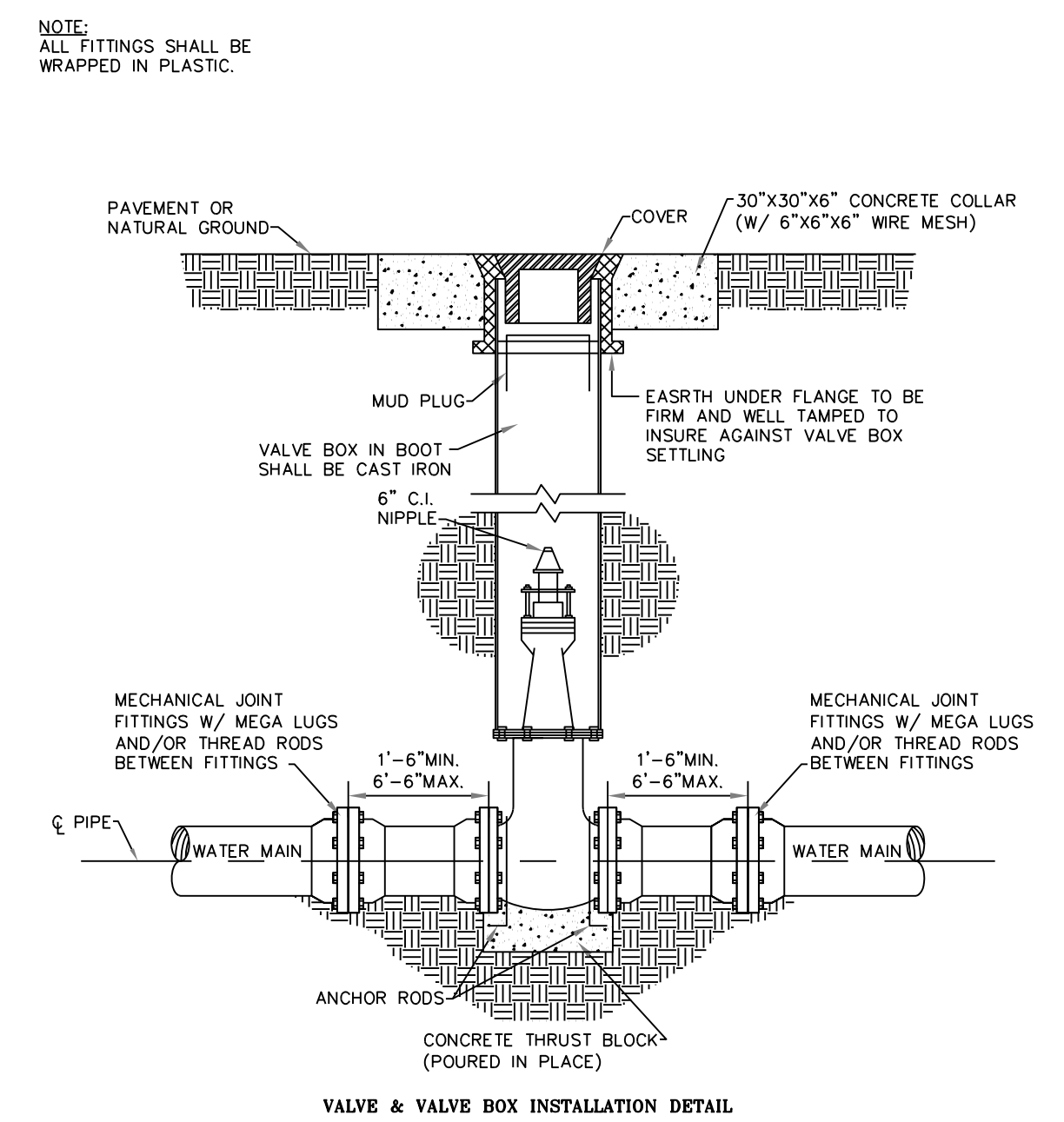


NOTE: ALL COMPRESSION OR PACK TYPE FITTINGS & JOINTS REQUIRE STAINLESS STEEL INSERTS OF REQUIRED SIZE.

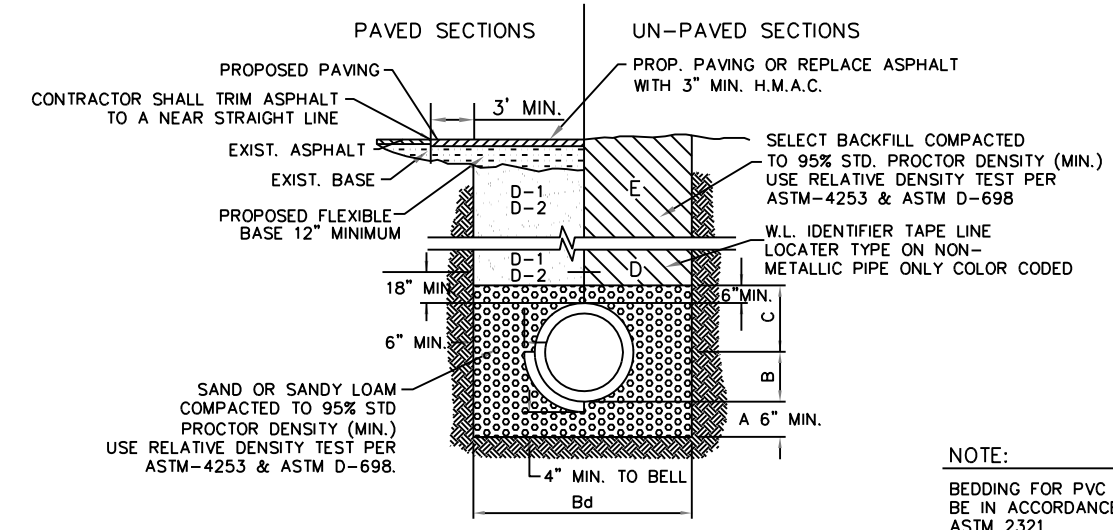
DUAL WATER SERVICE CONNECTION
N.T.S.



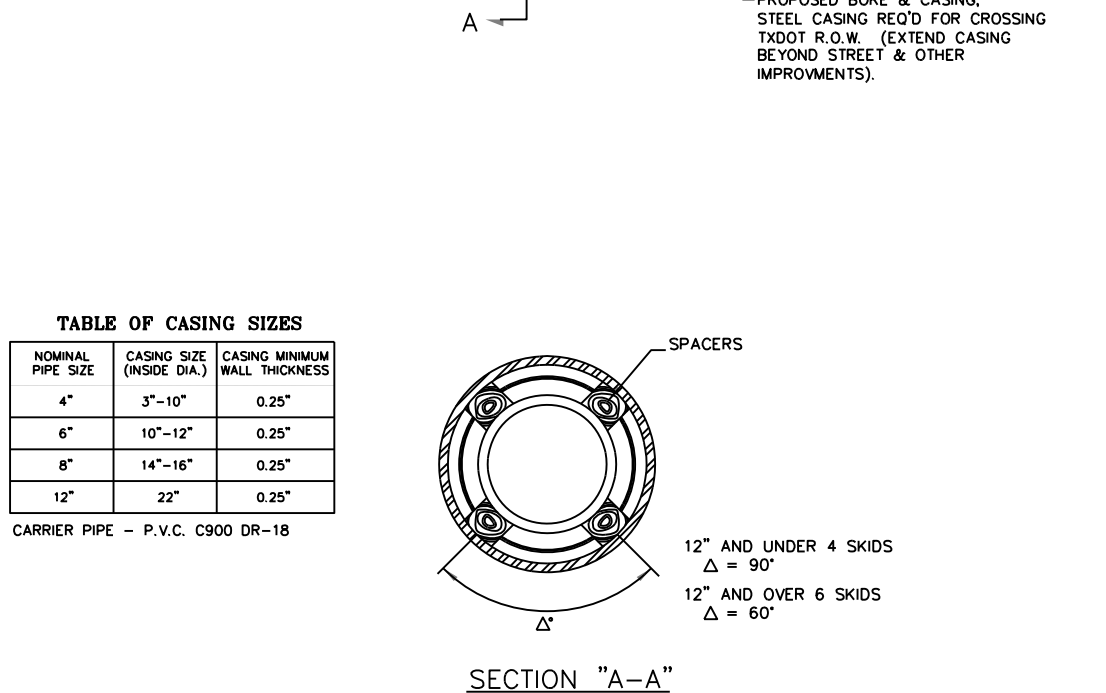
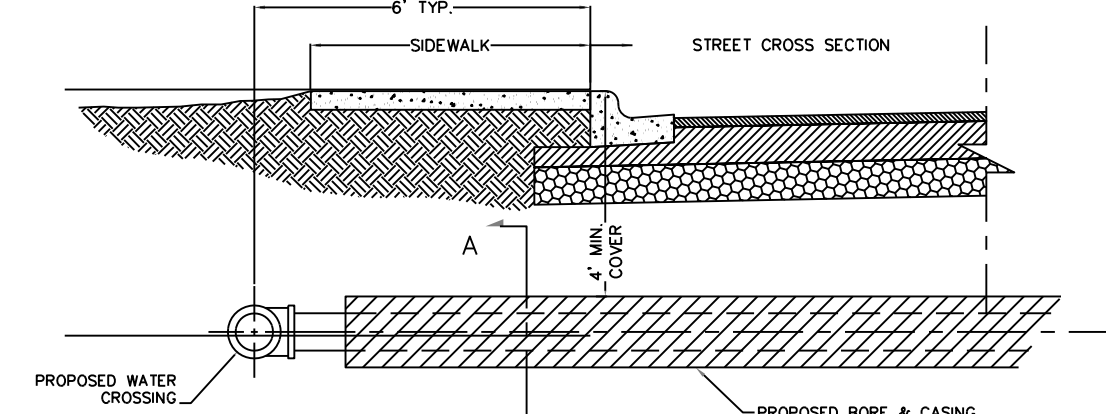
NOT TO SCALE
FIRE HYDRANT INSTALLATION DETAIL



VALVE & VALVE BOX INSTALLATION 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.
- TRENCH BEDDING (WATER) DETAIL**
- A. SAND OR SANDY LOAM BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE. (MIN. THICKNESS=4")
 - B. SAND OR SANDY LOAM BACKFILL PLACED AFTER PIPE IS LAID FROM BOTTOM OF PIPE TO SPRING LINE OF PIPE. (4" LIFTS, HAND TAMPED) B4 TRENCH WIDTHS SHALL BE PIPE O.D. + 12" OR IN ACCORDANCE WITH ASTM 2331 FOR PVC PIPE.
 - C. SAND OR SANDY LOAM BACKFILL PLACED FROM SPRING LINE OF PIPE TO 6" ABOVE TOP OF PIPE. (6" LIFTS, HAND TAMPED).
 - D-1. (CITY STREETS, PARKING AREA, SELECT EXCAVATED BACKFILL MATERIAL COMPACTED TO 95% STD. (8" LIFTS, MECHANICAL COMPACTION)
 - D-2. (STATE MAINTAINED ROADWAY) COMPACTED SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT COMPACTED AS PER ASTM D-4253 AND ASTM D-698.
 - E. SELECTED EARTH BACKFILL COMPACTED TO 90% STANDARD PROCTOR DENSITY (12" LIFT, MECHANICAL COMPACTION). FOUNDATION PREPARATION (WELPPONTS, GRAVEL OR CEMENT STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO 95% STANDARD PROCTOR DENSITY (USE RELATIVE DENSITY TEST PER ASTM D-4253 & ASTM D-698). THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 6". STRUCTURE BACKFILL MATERIAL SHALL BE SAND, APPROVED SITE SOIL, OR OTHER APPROVED SUBSTITUTE.
- NOTE: BEDDING FOR PVC SHALL BE IN ACCORDANCE WITH ASTM 2331.



NOTE:
WATERLINE TO BE SLOPED DOWN OR UP @ CROSSING IF IT CONFLICTS W/ EXISTING SEWER LINES OR DRAINAGE STRUCTURES.

BORE & CASING DETAIL

HORIZONTAL BLOCKING TABLE

PIPE SIZE	DIA. FT.	22 1/2 DEGREES		45 DEGREES		90 DEGREES		TEE & PLUG
		"A"	MIN. AREA	"B"	MIN. AREA	"C"	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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VICTOR H. TREVINO, P.E.
LICENSED PROFESSIONAL ENGINEER, TEXAS LIC. NO. 128195

04/24/2023

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



WATER DISTRIBUTION STANDARD DETAILS

LAS COMADRES NO. 10 SUBDIVISION

BEING A 64.65 ACRE TRACT OF LAND OUT OF A PART OF A CERTAIN 243.51 ACRE TRACT OUT OF PORTION 46, HIDALGO COUNTY, TEXAS, LYING WEST OF HIDALGO COUNTY IRRIGATION DISTRICT NO. 6 CANAL, RIGHT-OF-WAY, HIDALGO COUNTY, TEXAS.