



HIDALGO COUNTY PLANNING DEPARTMENT

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

Raul E. Sesin, P.E., CFM
Planning Administrator

HIDALGO COUNTY COMMISSIONERS COURT MEETING

DATE: 12-16-2014

PROPOSED CARDINAL ISLAND SUBDIVISION, PRECINCT No. 1.

ENGINEER: MELDEN & HUNT, INC. DEVELOPER: MORENO FAMILY LIMITED PARTNERSHIP, LTD.

PRELIMINARY APPROVAL FINAL APPROVAL FINAL APPROVAL WITH FINANCIAL GUARANTEE WITH VARIANCE

NUMBER OF LOTS: 94 *SINGLE FAMILY *MULTI-FAMILY COMMERCIAL INSTITUTIONAL

LOCATION DESCRIPTION: Northeast corner of FM 493 & FM 2812.

SUBDIVISION LIES WITHIN THE: *The rural area of the County*

DRAINAGE REPORT WAS APPROVED BY HCDD#1: ON 06-03-14 PROPERTY LIES WITHIN FLOOD ZONE: "X" AS PER FEMA.

DRAINAGE DESIGN: Storm Drainage Pipe System. Detention will be accomplished by the widening existing drain ditch along the north property line.

ROAD R.O.W. DEDICATION: 20 feet on FM 493 and 20 feet on FM 2812

H.C.R.O.W. FINAL APPROVAL DATE: 11-25-14 : By, Roy Gonzalez PCT 1 R.O.W. AGENT

H.C.H.D FINAL APPROVAL DATE: 10-29-14 by: Elizardo "Chardo" Ramos, Environmental Health Division Manager

SEWER SYSTEM: OSSF & SOIL ANALYSIS WERE CONDUCTED BY: Jose Angel Gonzalez

OSSF HAVE BEEN INSTALLED AND INSPECTED BY HCHD ON: 12-05-14

WATER SERVICE PROVIDER: N.A.W.S.C. LINE SIZE: 8" LOCATION: FM 2812

H.C.O.E.C. FINAL APPROVAL DATE: 11-10-14 .: By Martin Ramirez, Director of Office of Environmental Compliance

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:

AUGUST 12, 2014

STAFF RECOMMENDS: **Preliminary Approval** *subject to comments and future recommendations by planning and other departments.*

Final Approval *subject to recommendations other departments*

Final Approval *with financial guarantee.*

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.

RIGHT OF WAY EASEMENT

KNOWN ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED OWNERS OF THE PROPERTY SHOWN ON THIS PLAT, THEIR SUCCESSORS, ASSIGNS, AND TRANSFEREES (HEREINAFTER CALLED "GRANTOR" WHETHER ONE OR MORE PERSONS ARE NAMED), IN CONSIDERATION OF ONE DOLLAR (\$1.00) AND OTHER GOOD AND VALUABLE CONSIDERATION PAID BY NORTH ALAMO WATER SUPPLY CORPORATION, (HEREINAFTER CALLED "GRANTEE"), THE RECEIPT AND SUFFICIENCY OF WHICH IS HEREBY ACKNOWLEDGED, DOES HEREBY GRANT, BARGAIN, SELL, TRANSFER AND CONVEY TO SAID GRANTEE, ITS SUCCESSORS AND ASSIGNS, A PERPETUAL EASEMENT WITH THE RIGHT TO ERECT, CONSTRUCT, INSTALL AND LAY AND THEREAFTER USE, OPERATE, INSPECT, REPAIR, MAINTAIN, REPLACE AND REMOVE WATER DISTRIBUTION LINES AND APPURTENANCES OVER AND ACROSS LANDS SHOWN ON THIS PLAT, TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS OVER GRANTOR'S ADJACENT LANDS FOR THE PURPOSE FOR WHICH THE ABOVE-MENTIONED RIGHTS ARE GRANTED. THE EASEMENT HEREBY GRANTED SHALL NOT EXCEED 15' IN WIDTH, AND GRANTEE IS HEREBY AUTHORIZED TO DESIGNATE THE COURSE OF THE EASEMENT HEREIN CONVEYED EXCEPT THAT WHEN THE PIPELINE(S) IS INSTALLED, THE EASEMENT HEREIN GRANTED SHALL BE LIMITED TO A STRIP OF LAND 15' IN WIDTH THE CENTER LINE THEREOF BEING THE PIPELINE INSTALLED.

IN THE EVENT THE EASEMENT HEREBY GRANTED ABUTS ON A PUBLIC ROAD AND THE COUNTY OR STATE HEREAFTER WIDENS OR RELOCATES THE PUBLIC ROAD SO AS TO REQUIRE THE RELOCATION OF THIS WATER LINE AS INSTALLED, GRANTOR FURTHER GRANTS TO GRANTEE AN ADDITIONAL EASEMENT OVER AND ACROSS THE LAND DESCRIBED ABOVE FOR THE PURPOSE OF LATERALLY RELOCATING SAID WATER LINE AS MAY BE NECESSARY TO CLEAR THE ROAD IMPROVEMENTS, WHICH EASEMENT HEREBY GRANTED SHALL BE LIMITED TO A STRIP OF LAND 15' IN WIDTH THE CENTER LINE THEREOF BEING THE PIPELINE AS RELOCATED.

THE CONSIDERATION RECITED HEREIN SHALL CONSTITUTE PAYMENT IN FULL FOR ALL DAMAGES SUSTAINED BY GRANTOR BY REASON OF THE INSTALLATION, MAINTENANCE, REPAIR, REPLACEMENT AND RELOCATION OF THE STRUCTURES REFERRED TO HEREIN. THIS AGREEMENT TOGETHER WITH OTHER PROVISIONS OF THIS GRANT SHALL CONSTITUTE A COVENANT RUNNING WITH THE LAND FOR THE BENEFIT OF THE GRANTEE, ITS SUCCESSORS, AND ASSIGNS. THE GRANTEE COVENANTS THAT SHE IS THE OWNER OF THE ABOVE-DESCRIBED LANDS AND THAT SAID LANDS ARE FREE AND CLEAR OF ALL ENCUMBRANCES AND LIENS, EXCEPT THE FOLLOWING:

THE EASEMENT CONVEYED HEREIN WAS OBTAINED OR IMPROVED THROUGH FEDERAL FINANCIAL ASSISTANCE. THIS EASEMENT IS SUBJECT TO THE PROVISIONS OF THE TITLE VI OF THE CIVIL RIGHTS ACT OF 1964 AND THE REGULATIONS ISSUED PURSUANT THERETO FOR SO LONG AS THE EASEMENT CONTINUES TO BE USED FOR THE SAME OR SIMILAR PURPOSE FOR WHICH FINANCIAL ASSISTANCE WAS EXTENDED OR FOR SO LONG AS THE GRANTEE OWNS IT, WHICHEVER IS LONGER.

IN WITNESS WHEREOF, THE SAID GRANTOR HAS EXECUTED THIS INSTRUMENT THE

_____ DAY OF _____ 20 ____

(GRANTOR'S SIGNATURE)

ACKNOWLEDGMENT

THE STATE OF TEXAS §
COUNTY OF HIDALGO §

BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED _____ 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 CONSIDERATION THEREIN EXPRESSED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS THE _____ DAY OF _____, 20 ____

NOTARY PUBLIC, STATE OF TEXAS
MY COMMISSION EXPIRES: _____

SUBDIVISION MAP OF
CARDINAL ISLAND SUBDIVISION

BEING A RESUBDIVISION OF 60.000 ACRES
OUT OF ALL OF LOTS 20, 22, 24, 26, 28 AND 30
DELTA ORCHARD'S UNIT No. 2
VOLUME 6, PAGE 33, H.C.M.R.
HIDALGO COUNTY, TEXAS.

DESCRIPTION OF CARDINAL ISLAND SUBDIVISION
METES AND BOUNDS DESCRIPTION

A TRACT OF LAND CONTAINING 60.00 ACRES, SITUATED IN THE COUNTY OF HIDALGO, TEXAS, COMPRISED OF ALL OF LOTS 20, 22, 24, 26, 28 AND 30 OUT OF DELTA ORCHARD'S UNIT No. 2, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 6, PAGE 33, HIDALGO COUNTY MAP RECORDS, SAID 60.000 ACRES ALSO BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A PK NAIL SET FOR THE SOUTHWEST CORNER OF SAID LOT 20, AND THE INTERSECTION OF F.M. 493 AND F.M. 2812 FOR THE SOUTHWEST CORNER OF THIS TRACT;
THENCE, N 08° 58' 20" E ALONG THE WEST LINE OF SAID LOT 20 AND WITHIN F.M. 493 RIGHT-OF-WAY, A DISTANCE OF 1320.00 FEET TO A PK NAIL SET FOR THE NORTHWEST CORNER OF SAID LOT 20, AND THE NORTHWEST CORNER OF THIS TRACT;

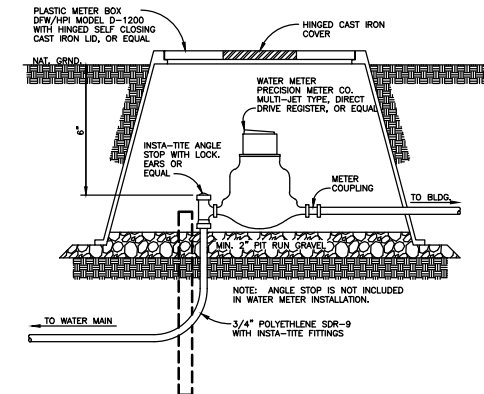
THENCE, S 81° 01' 40" E ALONG THE NORTH LINE OF SAID LOTS 20, 22, 24, 26, 28 AND 30 AND WITHIN THE DELTA IRRIGATION EASEMENT VOLUME 449, PAGE 349 H.C.M.R., AT A DISTANCE OF 40.00 FEET PASS THE EAST RIGHT-OF-WAY OF F.M. 493, AND CONTINUING A TOTAL DISTANCE OF 1980.00 FEET TO AN NO. 4 REBAR FOUND FOR THE NORTHEAST CORNER OF SAID LOT 30 AND THE NORTHEAST CORNER OF THIS TRACT;

THENCE, S 08° 58' 20" W ALONG THE EAST LINE OF SAID LOT 30, AT A DISTANCE OF 1280.00 FEET PASS A No. 4 REBAR FOUND ON THE NORTH RIGHT-OF-WAY LINE OF F.M. 2812 AND CONTINUE 1320.00 FEET TO PK NAIL SET ON THE SOUTHEAST CORNER OF SAID LOT 30 FOR THE SOUTHEAST CORNER OF THIS TRACT;

THENCE, N 81° 01' 40" W ALONG THE SOUTH LINE OF LOTS 30, 28, 26, 24, 22, AND 20 AND WITHIN THE F.M. 2812 RIGHT-OF-WAY, A DISTANCE OF 1980.00 FEET TO THE POINT OF BEGINNING, AND CONTAINING 60.000 ACRES OF LAND OF WHICH 1.212 ACRES LIES WITHIN THE F.M. 493 RIGHT-OF-WAY AND 1.781 ACRES LIES WITHIN F.M. 2812 RIGHT-OF-WAY LEAVING 57.007 ACRES MORE OR LESS.

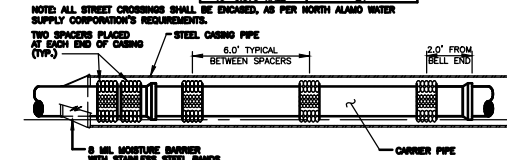
GENERAL PLAT NOTES & RESTRICTIONS:
HIDALGO COUNTY GENERAL SUBDIVISION PLAT NOTES

- FLOOD ZONE STATEMENT: FLOOD ZONE DESIGNATION: ZONE "X"(UNSHADED) AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN COMMUNITY-PANEL NO. 480334 0350 C EFFECTIVE DATE: JUNE 6, 2000 REVISED TO REFLECT MAY 17, 2001.
THE AREAS WITHIN THE DRAINAGE EASEMENTS AND THE PROPOSED STREET RIGHT-OF-WAY ARE WITHIN THE 100-YEAR FLOOD PLAIN.
COMMUNITY PANEL NO. 480334 0350 C EFFECTIVE DATE: MAY 17, 2001 OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS FOR HIDALGO COUNTY, TEXAS AND THE LOCAL FLOOD PLAIN ADMINISTRATOR HAVE IDENTIFIED NO OTHER AREAS AS SHOWN ON THIS PLAT ARE WITHIN THE PROPOSED SUBDIVISION TO BE WITHIN THE 100-YEAR FLOOD PLAIN.
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).
- SETBACKS:
FRONT: 25.00 FEET
REAR: 15.00 FEET OR EASEMENT WHICHEVER IS GREATER
SIDE: 6.00 FEET OR EASEMENT WHICHEVER IS GREATER
CORNER SIDE: 10.00 FEET CORNER GARAGE SIDE: 18.00 FEET
CORNER GARAGE FRONT: 18.00 FEET
CORNER SIDE WHERE R.O.W. IS GREATER THAN 50.00 FEET: 20.00 FEET
- NO MORE THAN ONE-SINGLE FAMILY DETACHED DWELLING SHALL BE LOCATED ON EACH LOT. THIS MUST BE STIPULATED ON ALL DEEDS AND CONTRACTS FOR DEEDS. (ANY OTHER USE SHALL REQUIRE PLANNING DEPARTMENT, OFFICE OF ENVIRONMENTAL COMPLIANCE, HEALTH DEPARTMENT AND FIRE MARSHALL APPROVAL). APPLICATIONS FOR CONSTRUCTION ARE REQUIRED PRIOR TO OCCUPYING THE LOT.
- MINIMUM FINISHED FLOOR ELEVATION SHALL BE 18" ABOVE THE CENTER LINE OF STREET OR 18" 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 AND POST CONSTRUCTION FINISHED FLOOR ELEVATIONS. AN ELEVATION CERTIFICATE SHALL BE REQUIRED FOR ALL LOTS WITHIN A DESIGNATED FLOOD ZONE AT THE TIME FOR A DEVELOPMENT PERMIT APPLICATION.
THE FOLLOWING BENCHMARKS ARE IDENTIFIED ON THE FACE OF THE PLAT AND ON THE ATTACHED ENGINEERING PLANS.
--B.M. NO. 1--ELEV. 64.31 N.G.V.D. 29 DESCRIPTIONS: SQUARE CUT FOUND ON CONCRETE CULVERT ALONG THE EAST SIDE OF F.M. 493 AND APPROXIMATELY 788.00 FEET NORTH OF F.M. 2812. N: 16661305.63, E: 1139469.62.
--B.M. NO. 2--ELEV. 67.45 N.G.V.D. 29 DESCRIPTIONS: 2'X2' CONCRETE SLAB SET APPROXIMATELY 2.00 FEET FROM THE NORTHWEST CORNER OF LOT 70 OF THIS SUBDIVISION. N: 16660498.56 E: 1140369.94.
- IN ACCORDANCE WITH THE HIDALGO COUNTY DRAINAGE DISTRICT NO. 1 AND HIDALGO COUNTY REQUIREMENTS, THIS DEVELOPMENT WILL BE REQUIRED TO DETAIN A TOTAL OF 58,653 CUBIC-FEET 1.346 ACRE-FEET) OF STORM WATER RUNOFF. DRAINAGE RETENTION IN ACCORDANCE WITH THE LOCAL REQUIREMENTS WILL BE ACCOMPLISHED AS FOLLOWS: (SEE SHEET No. 3 FOR STORM SEWER IMPROVEMENTS) THE DEVELOPER SHALL BE RESPONSIBLE TO DETAIN AND ACCOMMODATE MORE THAN THE DETAINED VOLUME SHOWN ABOVE IF ITS DETERMINES AT THE DEVELOPMENT PERMIT STATE ABOVE DUE TO THE IMPERVIOUS AREA BEING GREATER THAT PLAT ENGINEER CONSIDERED FOR HIS CALCULATIONS OF THIS SUBDIVISION.
- 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 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 DEDICATED 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.
- AN OFF-STREET PARKING LOT SITE PLAN & DRAINAGE PLAN APPROVED BY THE HIDALGO COUNTY PLANNING DEPARTMENT AND THE OFFICE OF ENVIRONMENTAL COMPLIANCE SHALL BE REQUIRED FOR SCHOOLS, COMMERCIAL USE AT THE TIME OF APPLICATION FOR CONSTRUCTION PRIOR TO THE ISSUANCE OF A BUILDING AND/OR DEVELOPMENT PERMIT. NO WATER OR LIGHT CLEARANCES SHALL BE ISSUED UNTIL THE SITE PLAN, DRAINAGE PLAN AND OSSF PLAN ARE APPROVED AND PROPOSED IMPROVEMENTS ARE CONSTRUCTED IN ACCORDANCE WITH COUNTY AND STATE STANDARDS.
- 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 ALL LOTS.
A. OSSF SYSTEM IS BEING DESIGNED FOR DISPOSAL OF DOMESTIC SEWAGE ONLY. A SEPARATE DESIGN SHALL BE SUBMITTED FOR COMMERCIAL USE.
B. EACH LOT ON THIS PLAT COMPLIES WITH THE MINIMUM 21,780 SQUARE FEET LOT AREA WITH POTABLE WATER SUPPLY.
C. OSSF SYSTEM SHALL REQUIRE INSPECTION AND APPROVAL BY HIDALGO COUNTY AUTHORIZED DEPARTMENT
D. SOIL ANALYSIS 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 DRAIN FIELD SYSTEM.
E. APPROVED "OSSF" PERMIT APPLICATION IS REQUIRED INCLUDING INDIVIDUAL LOT PLANNING MATERIALS PRIOR TO OCCUPYING A LOT.
- A SPECIAL DESIGN IS REQUIRED FOR ALL OSSF SYSTEMS LOCATED WITHIN A DESIGNATED FLOOD ZONE. THE DESIGN SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING ITEMS:
1. ANCHORING OF SEPTIC TANK(S)
2. BACK FLOW VALVES
3. SEPTIC TANK COVER SHALL BE ABLE TO SEAL.
- THERE ARE NO VISIBLE WATER WELLS WITHIN 150 FEET FROM THE BOUNDARIES ON THIS SUBDIVISION
- CARDINAL LOTS, LTD., THE OWNER & SUBDIVIDER OF CARDINAL ISLAND, RETAINS A BLANKET EASEMENT ON EACH LOT FOR THE PURPOSE OF INSTALLING AN APPROVED OSSF ON THE LOT AS DESCRIBED ON SHEET NO.3 OF THIS PLAT.
- NO ACCESS SHALL BE PERMITTED ON TO F.M. 493 AND F.M. 2812 (2 1/2' NORTH ROAD).
- A BUFFER FENCE SHALL BE INSTALLED ALONG FM 493.

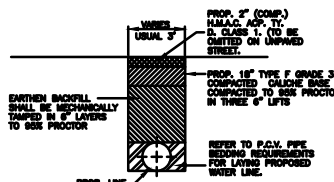


TYPICAL WATER METER INSTALLATION
N.T.S.

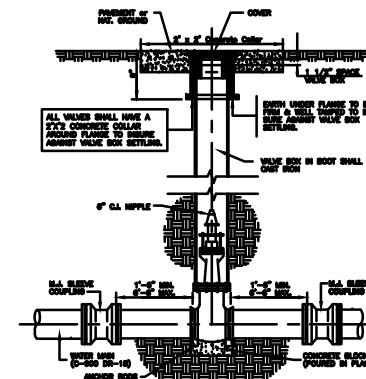
PIPE CASING SIZE	CARRIER PIPE SIZE
12" 0.375 WALL	6"-6"
16" 0.375 WALL	8"-8"
18" 0.375 WALL	10"-10"
20" 0.375 WALL	12"-12"
24" 0.375 WALL	14"-14"
26" 0.375 WALL	16"-16"
30" 0.375 WALL	18"-18"
36" 0.375 WALL	20"-20"
42" 0.375 WALL	24"-24"



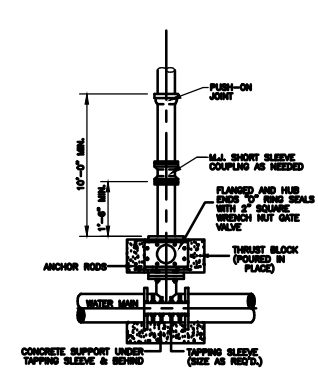
BORING and CASING DETAIL
N.T.S.



**PAVED and UNPAVED
STREET BACKFILL DETAIL**
N.T.S.



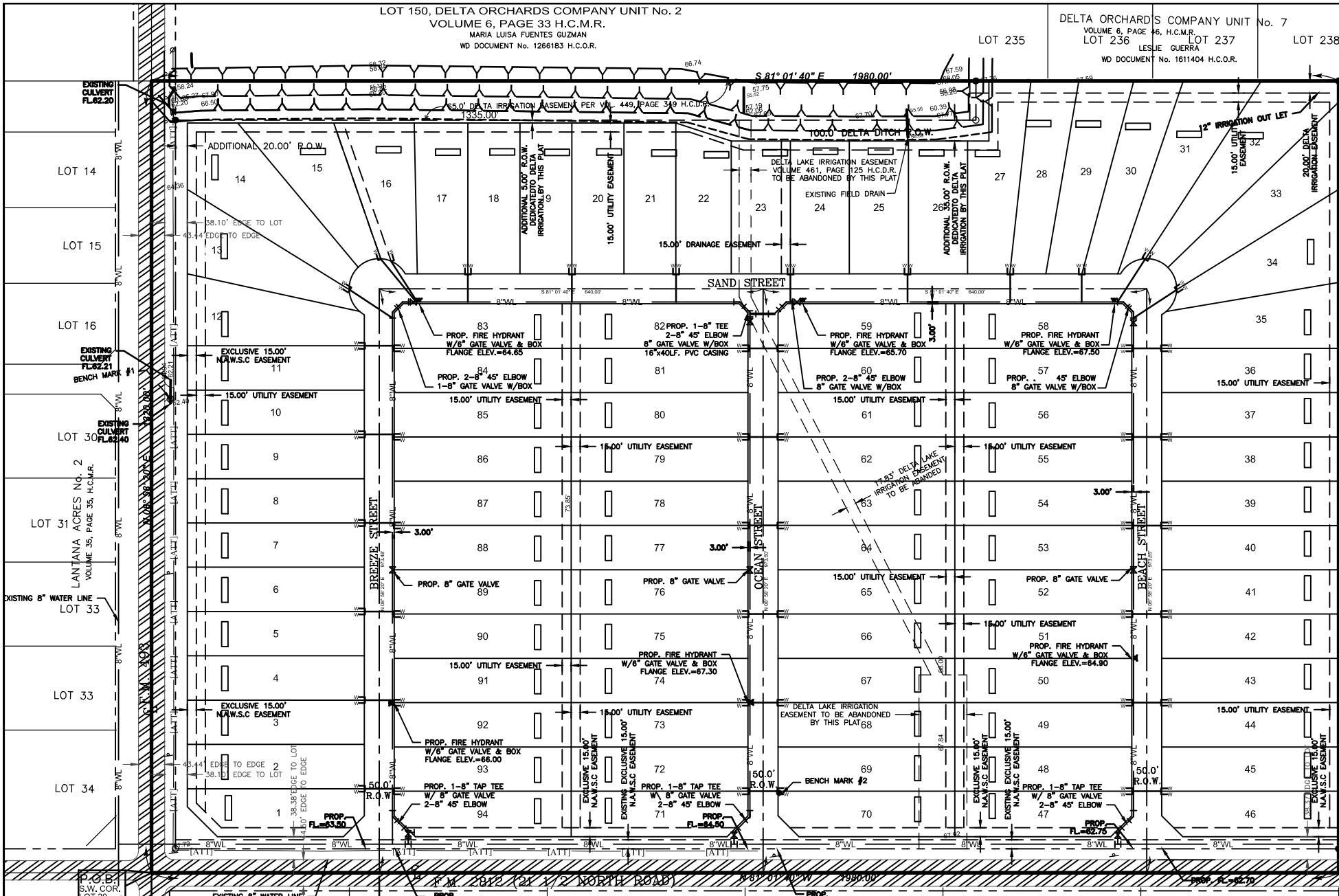
**TYPICAL VALVE and
VALVE BOX INSTALLATION**
N.T.S.



**TAPPING SLEEVE
and VALVE INSTALLATION**
N.T.S.



MELDEN & HUNT INC.
CONSULTANTS ENGINEERS SURVEYORS
115 W. MONTGOMERY
DALLAS, TX 75241
OFF: (972) 381-0881
FAX: (972) 381-1839
227 W. F.M. 3167
NO. GRANDVIEW CITY, TX 75082
OFF: (972) 487-8888
FAX: (972) 488-8881
E-MAIL: (www.meldenandhunt.com) (972) 381-1839



FINAL WATER AND SEWER ENGINEERING REPORT FORMAT
(If you will be installing the Water Distribution System and OSSF prior to the subdivision receiving final approval.)

WATER SUPPLY: DESCRIPTION, COST, AND OPERABILITY DATE:
CARDINAL ISLAND SUBDIVISION WILL BE PROVIDED WITH POTABLE WATER BY NORTH ALAMO WATER SUPPLY CORPORATION (N.A.W.S.C.). THE SUBDIVIDER AND N.A.W.S.C. HAVE ENTERED INTO A CONTRACT IN WHICH N.A.W.S.C. HAS PROMISED TO PROVIDE SUFFICIENT WATER TO THE SUBDIVISION FOR AT LEAST 30 YEARS AND N.A.W.S.C. 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.

N.A.W.S.C. HAS AN EXISTING 8" DIAMETER WATER LINE RUNNING ALONG THE WEST SIDE OF THE RIGHT-OF-WAY OF F.M. 493 AND AN EXISTING 8" DIAMETER WATER LINE RUNNING WITHIN AN EXCLUSIVE N.A.W.S.C. EASEMENT ALONG THE NORTH SIDE OF THE RIGHT-OF-WAY OF F.M. 2812. THE SUBDIVIDER SYSTEM FOR CARDINAL ISLAND SUBDIVISION CONSISTS OF A 8" DIAMETER WATER LINES THAT TAP INTO THE EXISTING 8" LINE WITHIN AN EXCLUSIVE 15 FOOT N.A.W.S.C. EASEMENT ALONG THE NORTH SIDE OF F.M. 2812. AN 8" WATER LINE CONNECT TO THE PREVIOUSLY MENTIONED 8" WATER LINE AT THE SOUTHWEST CORNER OF LOT 94 THEN RUNS NORTH ALONG THE EAST SIDE OF WEST STREET RIGHT-OF-WAY THEN TURN EAST AT THE NORTHWEST CORNER OF LOT 83 AND CONTINUES EAST ALONG THE SOUTH RIGHT-OF-WAY OF NORTH STREET THEN TURNING SOUTH AT THE NORTHEAST CORNER OF LOT 58 AND CONTINUES SOUTH ALONG THE WEST SIDE OF EAST STREET RIGHT-OF-WAY TAPPING INTO THE EXISTING 8" LINE ON THE NORTH SIDE OF F.M. 2812. ANOTHER 8" LINE TAPS INTO THE EXISTING 8" WATER LINE ALONG THE NORTH SIDE OF THE RIGHT-OF-WAY OF F.M. 2812 RUNNING NORTH ALONG THE WEST SIDE OF CENTER AVENUE, TAPPING TO THE PROPOSED 8" WATER LINE ALONG THE SOUTH RIGHT-OF-WAY OF NORTH STREET AT THE NORTHEAST CORNER OF LOT 82.

WATER DISTRIBUTION FOR THE CARDINAL ISLAND SUBDIVISION CONSISTS OF FORTY-SEVEN (47) DIAMETER DUAL SERVICE LINES RUN TO PAIRS OF LOTS BEFORE SPLITTING INTO 1/2" DIAMETER SERVICE LINES. SAID SERVICES TERMINATE AT THE WATER METER BOXES FOR EACH LOT. THE 8" LINE, THE DUAL SERVICES, AND THE METER BOXES HAVE ALREADY BEEN INSTALLED, AT A TOTAL COST OF \$124,055.00, OR \$1,319.73 PER LOT. IN ADDITION, THE SUBDIVIDER HAS PAID N.A.W.S.C. THE SUM OF \$600,000.00, WHICH COVERS THE \$600.00 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 N.A.W.S.C. UPON REQUEST BY THE LOT OWNER, N.A.W.S.C. WILL PROMPTLY INSTALL AT NO CHARGE THE WATER METER FOR THAT LOT. THE SUBDIVIDER HAS INSTALLED 5 FIRE HYDRANTS AT A UNIT COST OF \$1,500.00 FOR A TOTAL COST OF \$7,500.00. THE ENTIRE WATER FACILITIES HAVE BEEN APPROVED AND ACCEPTED BY N.A.W.S.C. AND SAID DISTRIBUTION SYSTEM IS OPERABLE AS OF THE DATE OF THE RECORDING OF THE PLAT.

SEWAGE FACILITIES DESCRIPTION: COST AND OPERABILITY DATES
SEWAGE FROM CARDINAL ISLAND SUBDIVISION WILL BE TREATED BY INDIVIDUAL ON-SITE SEWAGE FACILITIES ("OSSF") CONSISTING OF A STANDARD DESIGN DUAL COMPARTMENT SEPTIC TANK AND A DRAIN FIELD ON EACH LOT. THE UNDERSIGNED PROFESSIONAL ENGINEER HAS EVALUATED THE SUITABILITY OF THE SUBDIVISION SITE FOR OSSF AND SUBMITTED A REPORT CONCLUDING THAT 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 ENDS OF THE PROPOSED DISPOSAL AREA. (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 GROUND WATER OR A RESTRICTIVE LAYER WITHIN 24" OF BOTTOM OF THE PROPOSED EXCAVATIONS. THE SUBDIVISION DRAINS WELL.

COST TO INSTALL A SEPTIC SYSTEM ON AN INDIVIDUAL LOT IS 1,500.00, INCLUDING THE COST FOR THE REQUIRED PERMIT AND LICENSE. ALL OSSFS HAVE BEEN INSTALLED AS OF THE TIME OF APPLICATION FOR FINAL PLAT APPROVAL AT A TOTAL COST OF \$141,000.00. THE HIDALGO COUNTY HEALTH DEPARTMENT HAS INSPECTED AND APPROVED THE INSTALLATION OF ALL OSSF ON 01-02-2015.

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 \$83,650.00 WHICH EQUALS TO \$1,327.77 PER LOT.

SEWAGE FACILITIES - SEPTIC SYSTEM IS ESTIMATED TO COST \$1,500.00 PER LOT (ALL INCLUSIVE), FOR A TOTAL OF \$141,000.00 FOR THE ENTIRE SUBDIVISION.

ENGINEER'S SIGNATURE _____ DATE _____

FINAL WATER AND SEWER ENGINEERING REPORT IN SPANISH (WATER DISTRIBUTION SYSTEM AND OSSF BEING INSTALLED)
PROVISIÓN DE AGUA: DESCRIPCIÓN, GASTOS Y FECHAS DE INICIO

LA SUBDIVISION CARDINAL ISLAND SUBDIVISION RECIBIRÁ SU PROVISIÓN DE AGUA DE NORTH ALAMO WATER SUPPLY CORPORATION (LA COMPAÑIA DE AGUA (N.A.W.S.C.)). EL DUEÑO DE LA SUBDIVISION Y N.A.W.S.C. HAN FIRMADO UN CONTRATO POR EL CUAL LA SUBDIVISION RECIBIRÁ SU PROVISIÓN DE AGUA POR LOS PRÓXIMOS 30 AÑOS. N.A.W.S.C. HA PRESENTADO DOCUMENTACIÓN PARA DEMOSTRAR A LARGO PLAZO LA CANTIDAD Y CALIDAD DE AGUA ACCESIBLE PARA SERVIR EL FUTURO DESARROLLO DE LA SUBDIVISION.

EL SISTEMA DE PROVISIÓN DE AGUA PARA LA SUBDIVISION CARDINAL ISLAND CONSISTE DE UN CONDUCTO DE AGUA DE 8 PULGADAS DE DIÁMETRO QUE PASA EL LADO OESTE DEL DERECHO DE VÍA (RIGHT OF WAY) DE LA CARRETERA F.M. 493 Y UN CONDUCTO DE AGUA DE 8 PULGADAS DE DIÁMETRO QUE PASA POR EL LADO NORTE DEL DERECHO DE VÍA DE LA CARRETERA F.M. 2812 DENTRO DE UNA CONCESION EXCLUSIVA DE 15 PIES. EL SISTEMA DE PROVISIÓN DE AGUA DE LA SUBDIVISION CARDINAL ISLAND CONSISTE DE UN CONDUCTO DE AGUA DE 8 PULGADAS DE DIÁMETRO QUE SE CONECTA CON EL CONDUCTO DE AGUA EXISTENTE EN EL LADO NORTE DE F.M. 2812. OTRA LINEA DE 8 PULGADAS SE CONECTA A LA LINEA DE 8 PULGADAS PREVIAMENTE MENCIONADA EN EL LADO NORTE DEL LOTE 94 Y SIGUE HACIA EL NORTE POR EL LADO ESTE DE LA CALLE WEST STREET ASTA EL LOTE 83, LUEGO SIGUE HACIA AL ESTE EN EL LADO SUR DE LA CALLE NORTH STREET ASTA LA ESCINA NORTOESTE DE LOTE 58 LUEGO SIGUE AL SUR POR EL LADO OESTE DE LA CALLE EAST DRIVE Y CONECTANDO A LA LINEA DE 8 PULGADAS EXISTENTE EN EL LADO NORTE DE F.M. 2812. OTRA LINEA DE 8 PULGADAS SERÁ CONECTADA A LA LINEA DE AGUA EXISTENTE EN EL LADO NORTE DE F.M. 2812 EN LA ESCINA SURESTE DE LOTE 71 Y SIGUE AL NORTE EN EL LADO OESTE DE LA CALLE CENTER DRIVE CONECTANDO A LA LINEA PROPUESTA DE 8 PULGADAS EN LA ESCINA NORTOESTE DE LOTE 82.

DEL CONDUCTO DE AGUA DE 8 PULGADAS SE PRODUCEN CUARENTA-SETE DOBLE-CONDUCTOS DE AGUA DE 1 PULGADA DE DIÁMETRO PARA CADA DOS LOTES. ESTOS CONDUCTOS SE SEPARAN PARA PRODUCIR DOS CONDUCTOS DE AGUA DE 1/2 PULGADA DE DIÁMETRO PARA CADA LOTE. SE HAN INSTALADO LOS CONDUCTOS DE AGUA DE 8 PULGADAS DE DIÁMETRO, LOS DOBLE-CONDUCTOS DE AGUA DE 1 PULGADA DE DIÁMETRO Y LOS MEDIDORES MECÁNICOS DE AGUA A UN COSTO TOTAL DE \$ 124,055.00 O \$ 1,319.73 POR LOTE. EL DUEÑO DE LA SUBDIVISION TAMBIÉN LE HA PAGADO A LA COMPAÑIA N.A.W.S.C. \$ 600,000.00, QUE CUBRE EL COSTO DEL MEDIDOR MECÁNICO DE AGUA PARA CADA LOTE, \$600.00. ESTE PRECIO INCLUYE EL COSTO DE LA INSTALACION DE CADA MEDIDOR Y LOS GASTOS DE CONEXION. CUANDO EL DUEÑO DE CADA LOTE SOLICITE UN MEDIDOR DE AGUA, LA COMPAÑIA N.A.W.S.C. LO INSTALARA SIN ALGUN GASTO AL DUEÑO. EL DUEÑO DE LA SUBDIVISION TAMBIÉN HA INSTALADO 3 BOCAS DE RIEGO (FIRE HYDRANT) A UN COSTO DE \$ 1,500.00 POR CADA UNO CUAL GASTA UNA CANTIDAD TOTAL \$7,500.00. 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 INSTALARA UNA FOSA SEPTICA EN CADA SOLAR. ESTA FOSA SETICA CONSISTE DE UN TANQUE SEPTICO DE MODELO DUAL Y DE UN CAMPO DE DRENAJE PARA 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.

CADA LOTE EN LA SUBDIVISION MIDE MEDIO ACRE. SE HICIERON DOS ES EXCAVACIONES DE EVALUACION EN LUGARES OPUESTOS EN LA SUBDIVISION (EXCAVACIONES ADICIONALES NO FUERON NECESARIAS PORQUE EL TERRENO EN ESTA AREA ES SIGNIFICATIVAMENTE 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 FOSAS SEPTICAS POR SOLAR ES \$ 1,500.00 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 \$ 141,000.00. EL DEPARTAMENTO DE SALUBRIDAD DEL CONDADO DE HIDALGO HA INSPECCIONADO TODOS LAS FOSAS SEPTICAS Y AH APROBADO LA INSTALACION DE LAS FOSAS SEPTICAS DESDE (FECHA DE INSPECCION).

CERTIFICACION:
CON MI FIRMA, CERTIFICO QUE LOS SERVICIOS Y SISTEMAS DE AGUA Y DE DRENAJE, DESCRITOS EN ESTE DOCUMENTO CUMPLEN CON LAS MODEL SUBDIVISION RULES (LAS REGLAS GOBERNANDO A 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 DE DRENAJE SON:

AGUA: EL SISTEMA/SERVICIO DE AGUA SERA INSTALADO Y COMPLETAMENTE CONSTRUIDO MENOS EL MEDIDOR MECÁNICO DE AGUA QUE COSTARA UN TOTAL DE \$ 83,650.00 O \$ 1,327.77 POR LOTE.

DRENAJE: SE ESTIMA QUE LA FOSA SEPTICA COSTARA \$1,500.00 A UN COSTO TOTAL DE \$141,000.00 TODA LA SUBDIVISION.

ENGINEER'S SIGNATURE _____ DATE _____

SUBDIVIDER CERTIFICATION

1. 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 AND OR WATER WELLS FOR EACH LOT(S) MEET SUCH STANDARDS AND (b) SEWER CONNECTIONS TO THE LOTS OR SEPTIC TANKS MEET OR WILL MEET SUCH STANDARDS AND WILL BE CONSTRUCTED IN ACCORDANCE WITH STATE AND COUNTY REGULATIONS.

SUBDIVIDER STATEMENT:

1. I, CARDINAL LOTS, LTD., SUBDIVIDER OF CARDINAL ISLAND SUBDIVISION, HEREBY CERTIFY SEWER PERMITS HAVE BEEN PAID AND COPIES OF RECEIPTS ARE ON FILE WITH THE HIDALGO COUNTY HEALTH DEPARTMENT THAT ANY ADEQUATE DRINKING WATER SOURCE IS IMMEDIATELY AVAILABLE TO EACH LOT OF THE TYPE, QUALITY & 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.

CARDINAL LOTS, LTD.
BY: CARDINAL ADMINISTRATION, LLC
BY: REINHOLD SCHAMBERGER (PRESIDENT)

STATE OF TEXAS
COUNTY OF HIDALGO:

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED FRANZ R. SCHAMBERGER, KNOWN TO ME THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO BE THAT HE EXECUTED THE SAME FOR PURPOSED AND CONSIDERATION THEREIN STATED, EVEN UNDER MY HAND AND SEAL OF OFFICE

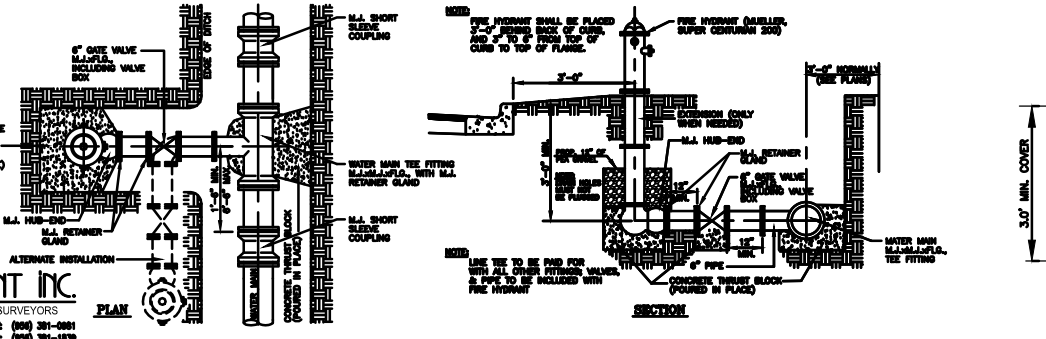
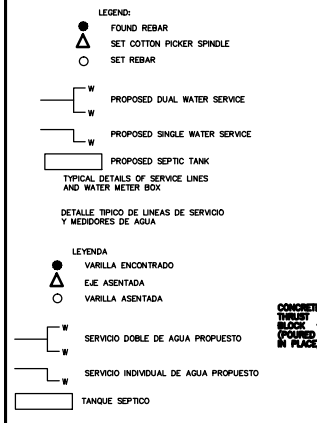
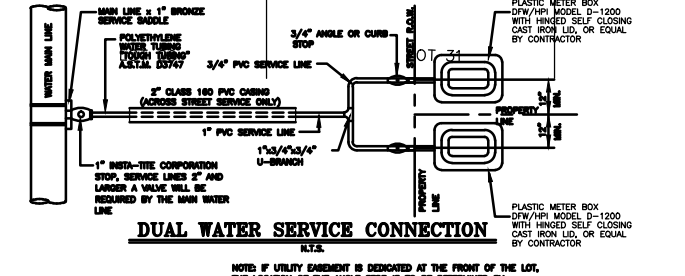
THIS THE _____ DAY OF _____ 20____.

NOTARY PUBLIC
MY COMMISSION EXPIRES _____

MAP OF WATER DISTRIBUTION SYSTEM
MAPA DE SISTEMA DE DISTRIBUCION DE AGUA
SUBDIVISION MAP OF
CARDINAL ISLAND SUBDIVISION
BEING A RESUBDIVISION OF 60.000 ACRES
OUT OF ALL OF LOTS 20, 22, 24, 26, 28 AND 30
DELTA ORCHARD'S UNIT No. 2
VOLUME 6, PAGE 33, H.C.M.R.
HIDALGO COUNTY, TEXAS.

COST ESTIMATE:	
PAVING IMPROVEMENTS:	\$ 307,010.00
DRAINAGE IMPROVEMENTS:	\$ 97,645.00
WATER DISTRIBUTION:	\$ 124,055.00
SEPTIC TANK IMPROVEMENTS / OSSF:	\$ 141,000.00

ESTIMACION DE COSTOS:	
PAVIMENTACION DE CALLES:	\$ 307,010.00
DREAJE PLUVIAL:	\$ 97,645.00
SERVICIO DE AGUA POTABLE:	\$ 124,055.00
FOSA SEPTICAS:	\$ 141,000.00



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