

ITEM #3.0

PRELIMINARY & FINAL PLAT APPROVAL:

Sendero Phase I Subdivision
Being a resubdivision of 51.376-acre tract
of land out of the south end of Porcion 52
PUD (R-1)
Developer: Rhodes Development, Inc.
Engineer: Melden & Hunt, Inc.

REVIEW DATA

PLAT DATA

The proposed subdivision is part of a master plan located approximately 397' west of S. Inspiration Road and along the south side of Mile One South Road — **see vicinity map**. The developer is proposing (156) One Hundred Fifty-Six Single Family Residential lots — see plat for actual dimensions, square footages, and land uses.

WATER

The developer is proposing to connect to an existing 12" water line located along the south R.O.W. of Mile One South Rd. and extend an 8" water line through the subdivision providing a 2" water service to each lot. There are 11 proposed fire hydrants via direction of the Fire Marshal's office. – **see utility plan**

SEWER

The developer is proposing to connect to an existing manhole within the R.O.W. at the southern access of the development and extend a 12" line west along the north side of the Perezville Ditch. A proposed 8" Sanitary Sewer line will run through the subdivision and collect from each lot through a 4" front and center stub out service. The Capital Sewer Recovery Fee is required at \$200.00/Lot which equates to \$30,600.00 (\$200 x 156 Lots).

STREETS & STORM DRAINAGE

The proposed internal street is a 32' Back-to-Back within a 50' Right of Way, access will be from Mile One South Rd. and/or Inspiration Rd. The proposed storm drainage system will consist of multiple curb inlets ranging in size from 24" to 42" RCP. Surface and street runoff will be caught by said inlets and conveyed via storm lines into the Perezville Drain (owned by H.C.D.D. No. 1) adjacent to south side of this property and ultimately have an outfall into the Mission Pilot Channel system of the H.C.D.D No.1 via 5'x5' box culvert under the United Main Canal. The development is included in Drainage Basins 26 & 32 of the Bentsen Palms Master Drainage Study. The required detention of 278,000 cubic feet (6.336 ac-ft) shall be provided within the Perezville Drain Ditch widening. The City Engineer has reviewed and approved the drainage report.

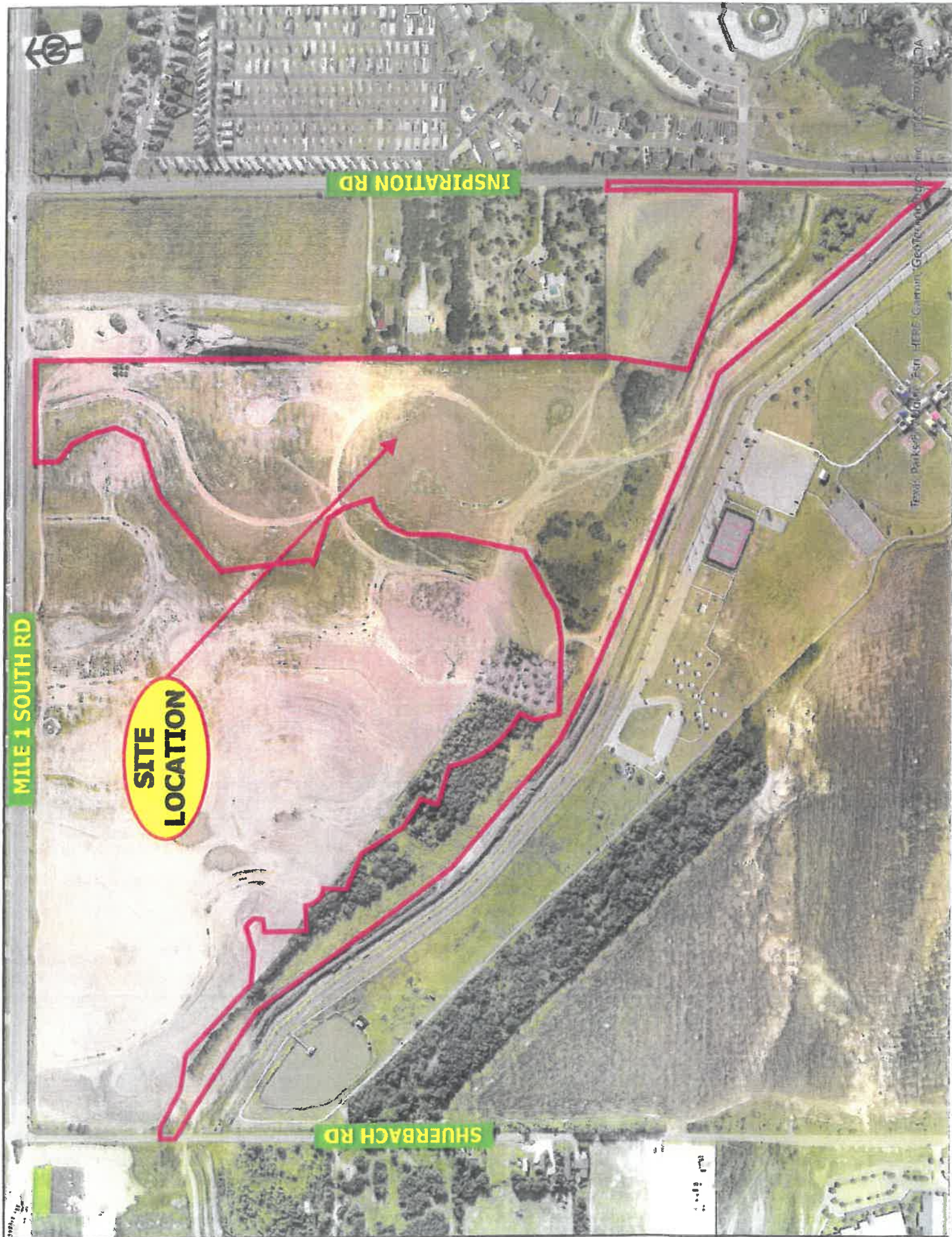
OTHER COMMENTS

No Park Fees – Mike Rhodes dedication of park land still stratifies the park Dedication Ord.
Installation of Street Lighting as per City Standards

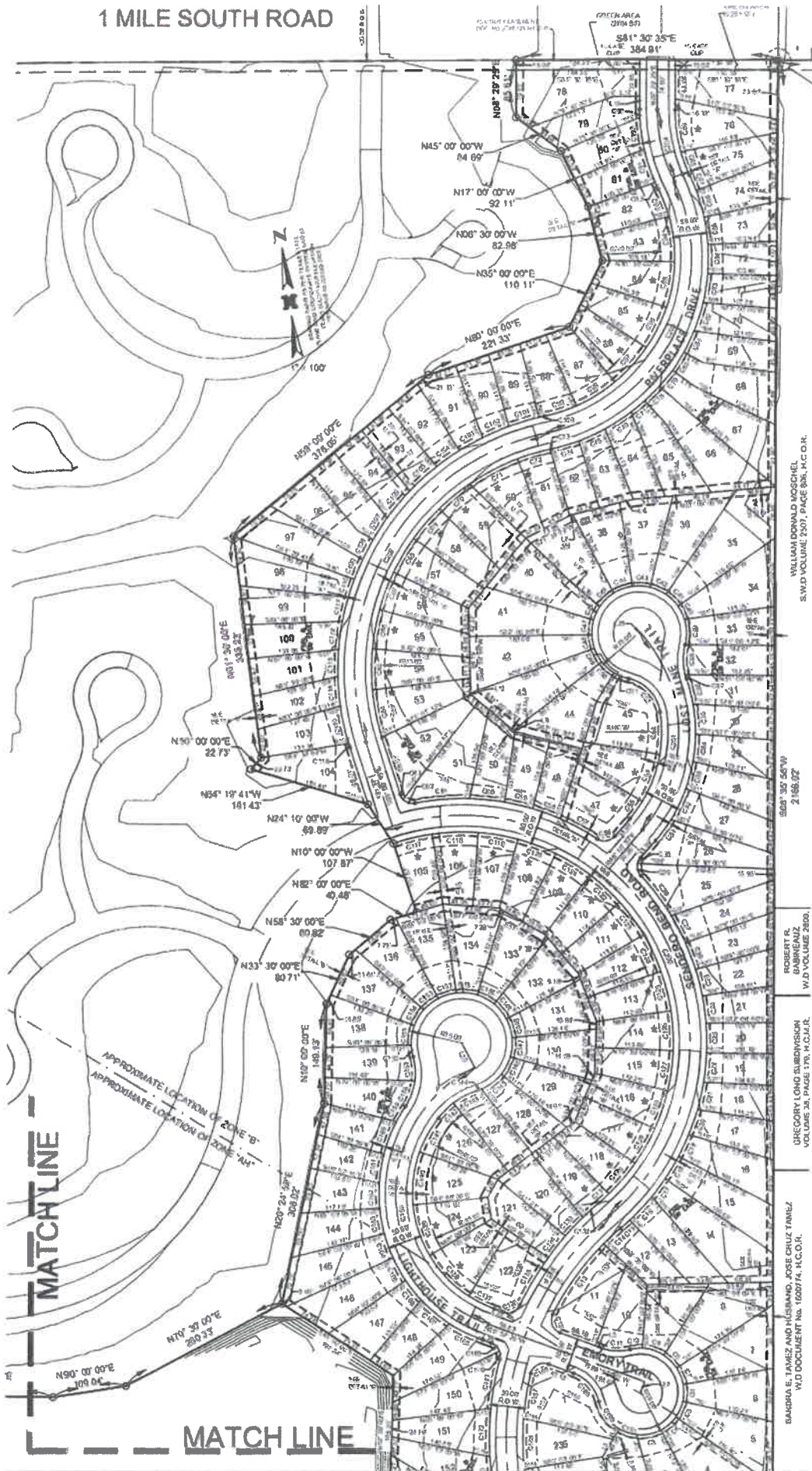
RECOMMENDATION

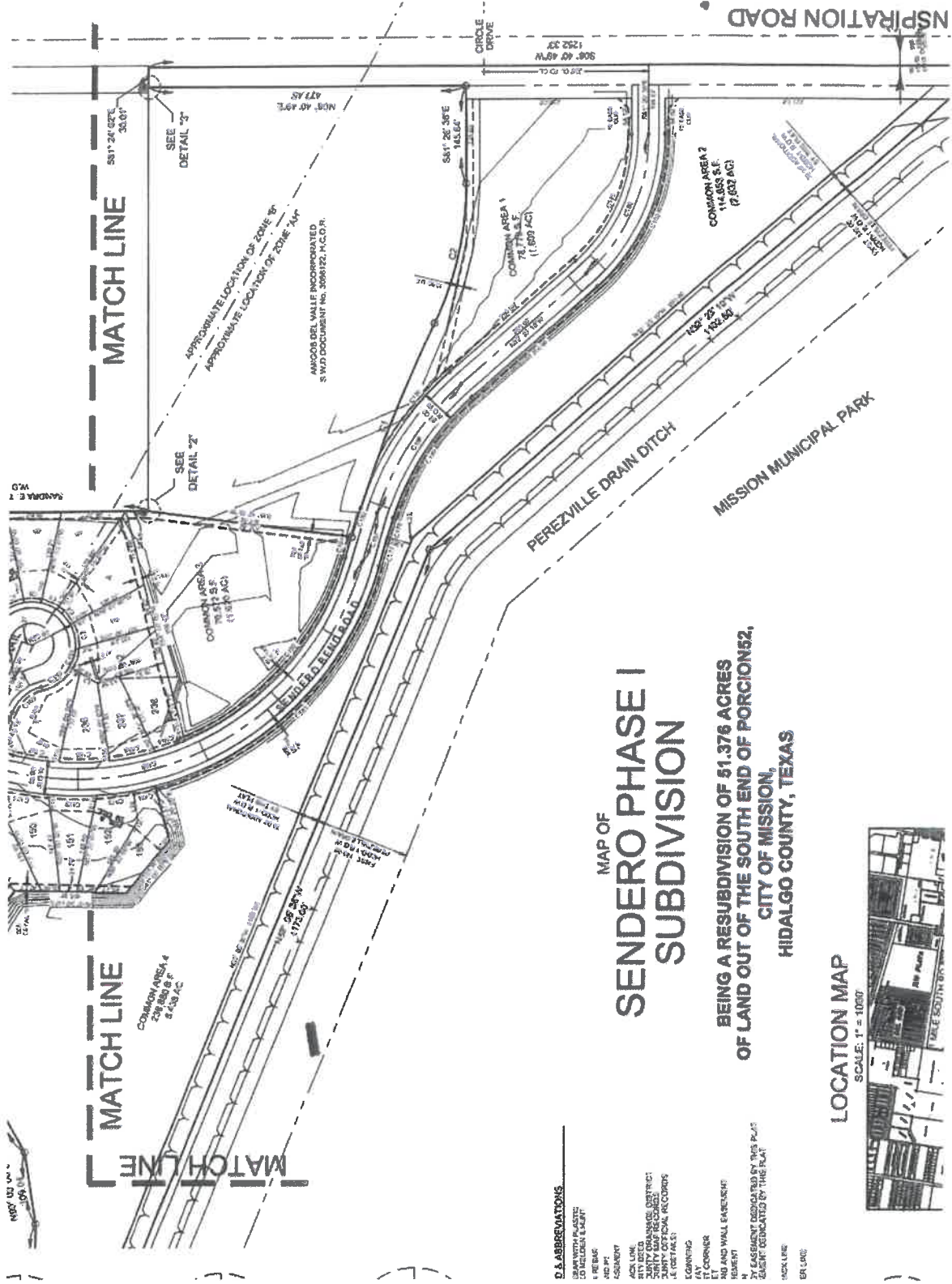
Staff recommends approval subject to:

1. Payment of Capital Sewer Recovery Fees
2. Provide Water District Exclusion
3. Comply with all other format findings



1 MILE SOUTH ROAD





- D. ABBREVIATIONS**
- 1" REBAS
 - 2" REBAS
 - 3" REBAS
 - 4" REBAS
 - 5" REBAS
 - 6" REBAS
 - 7" REBAS
 - 8" REBAS
 - 9" REBAS
 - 10" REBAS
 - 11" REBAS
 - 12" REBAS
 - 13" REBAS
 - 14" REBAS
 - 15" REBAS
 - 16" REBAS
 - 17" REBAS
 - 18" REBAS
 - 19" REBAS
 - 20" REBAS
 - 21" REBAS
 - 22" REBAS
 - 23" REBAS
 - 24" REBAS
 - 25" REBAS
 - 26" REBAS
 - 27" REBAS
 - 28" REBAS
 - 29" REBAS
 - 30" REBAS
 - 31" REBAS
 - 32" REBAS
 - 33" REBAS
 - 34" REBAS
 - 35" REBAS
 - 36" REBAS
 - 37" REBAS
 - 38" REBAS
 - 39" REBAS
 - 40" REBAS
 - 41" REBAS
 - 42" REBAS
 - 43" REBAS
 - 44" REBAS
 - 45" REBAS
 - 46" REBAS
 - 47" REBAS
 - 48" REBAS
 - 49" REBAS
 - 50" REBAS
 - 51" REBAS
 - 52" REBAS
 - 53" REBAS
 - 54" REBAS
 - 55" REBAS
 - 56" REBAS
 - 57" REBAS
 - 58" REBAS
 - 59" REBAS
 - 60" REBAS
 - 61" REBAS
 - 62" REBAS
 - 63" REBAS
 - 64" REBAS
 - 65" REBAS
 - 66" REBAS
 - 67" REBAS
 - 68" REBAS
 - 69" REBAS
 - 70" REBAS
 - 71" REBAS
 - 72" REBAS
 - 73" REBAS
 - 74" REBAS
 - 75" REBAS
 - 76" REBAS
 - 77" REBAS
 - 78" REBAS
 - 79" REBAS
 - 80" REBAS
 - 81" REBAS
 - 82" REBAS
 - 83" REBAS
 - 84" REBAS
 - 85" REBAS
 - 86" REBAS
 - 87" REBAS
 - 88" REBAS
 - 89" REBAS
 - 90" REBAS
 - 91" REBAS
 - 92" REBAS
 - 93" REBAS
 - 94" REBAS
 - 95" REBAS
 - 96" REBAS
 - 97" REBAS
 - 98" REBAS
 - 99" REBAS
 - 100" REBAS

MAP OF SENDERO PHASE I SUBDIVISION

BEING A RESUBDIVISION OF 51.376 ACRES
OF LAND OUT OF THE SOUTH END OF PORCION 52,
CITY OF MISSION,
HIDALGO COUNTY, TEXAS

LOCATION MAP

SCALE: 1" = 1000'



PROPOSED CHAIN VALUES

Line	From	To	Distance	Area (Acres)	Permit
1	0+00	0+100	100.00	0.00	0.00
2	0+100	0+200	100.00	0.00	0.00
3	0+200	0+300	100.00	0.00	0.00
4	0+300	0+400	100.00	0.00	0.00
5	0+400	0+500	100.00	0.00	0.00
6	0+500	0+600	100.00	0.00	0.00
7	0+600	0+700	100.00	0.00	0.00
8	0+700	0+800	100.00	0.00	0.00
9	0+800	0+900	100.00	0.00	0.00
10	0+900	1+000	100.00	0.00	0.00

PERMITTING COSTS

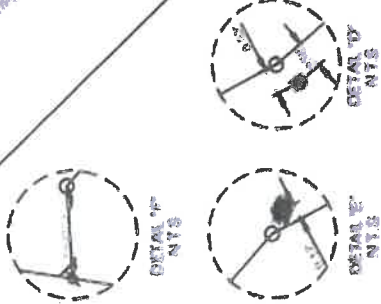
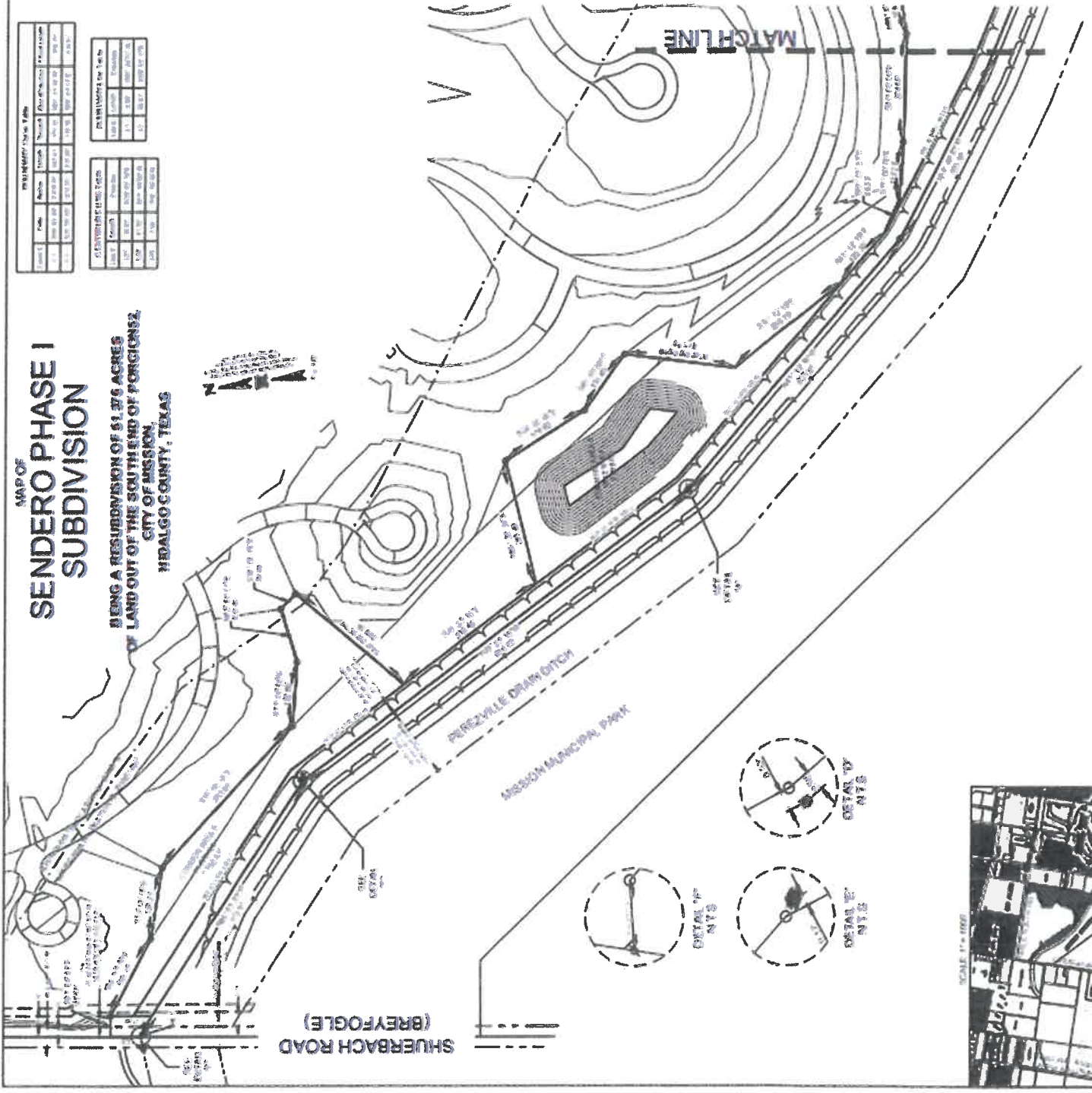
Line	From	To	Distance	Area (Acres)	Permit
1	0+00	0+100	100.00	0.00	0.00
2	0+100	0+200	100.00	0.00	0.00
3	0+200	0+300	100.00	0.00	0.00
4	0+300	0+400	100.00	0.00	0.00
5	0+400	0+500	100.00	0.00	0.00
6	0+500	0+600	100.00	0.00	0.00
7	0+600	0+700	100.00	0.00	0.00
8	0+700	0+800	100.00	0.00	0.00
9	0+800	0+900	100.00	0.00	0.00
10	0+900	1+000	100.00	0.00	0.00

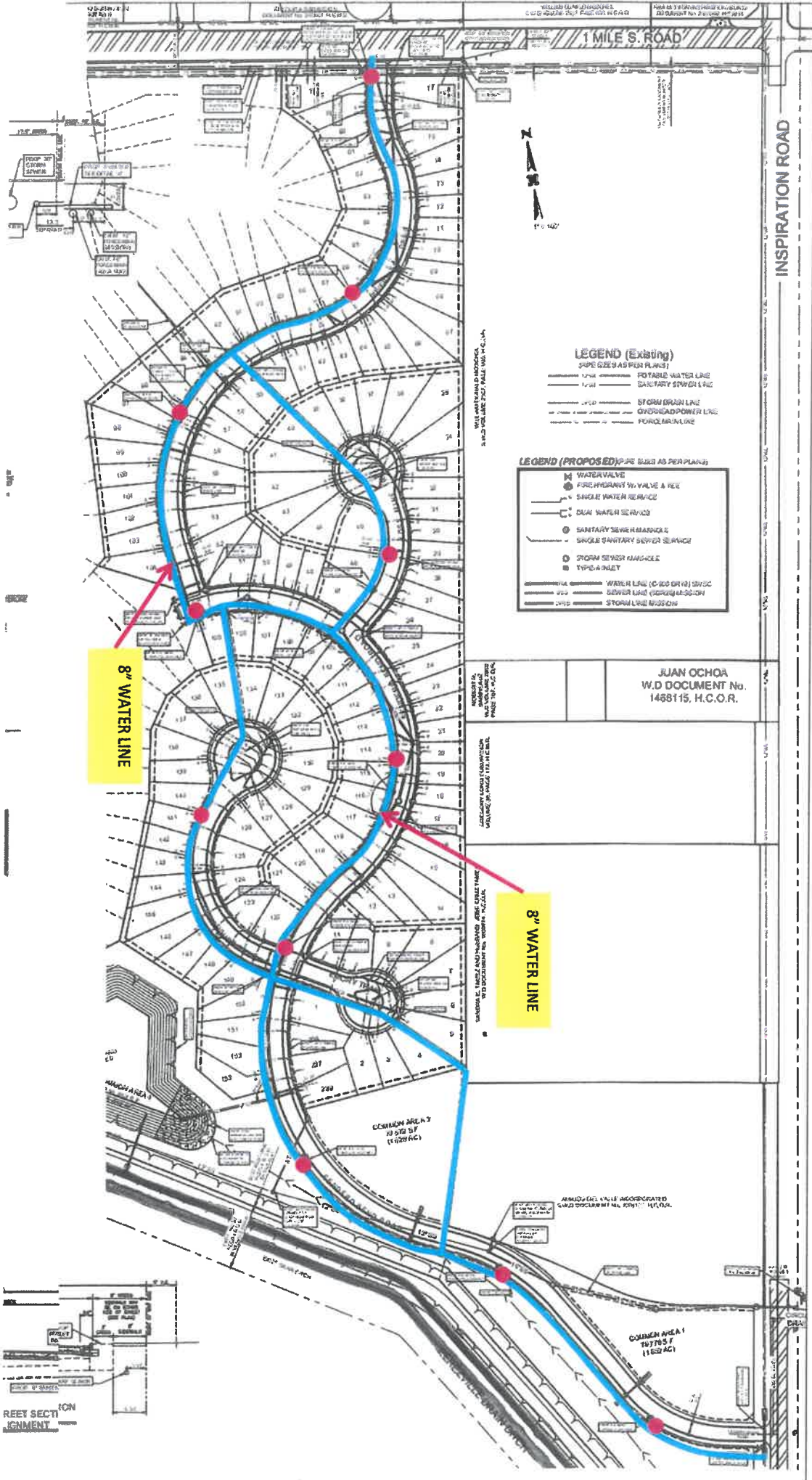
PERMITTING COSTS

Line	From	To	Distance	Area (Acres)	Permit
1	0+00	0+100	100.00	0.00	0.00
2	0+100	0+200	100.00	0.00	0.00
3	0+200	0+300	100.00	0.00	0.00
4	0+300	0+400	100.00	0.00	0.00
5	0+400	0+500	100.00	0.00	0.00
6	0+500	0+600	100.00	0.00	0.00
7	0+600	0+700	100.00	0.00	0.00
8	0+700	0+800	100.00	0.00	0.00
9	0+800	0+900	100.00	0.00	0.00
10	0+900	1+000	100.00	0.00	0.00

MAP OF SENDERO PHASE I SUBDIVISION

BEING A RESUBDIVISION OF 61.376 ACRES
OF LAND OUT OF THE SOUTHEAST OF FORGIONS 2,
CITY OF MISSION,
HIDALGO COUNTY, TEXAS





LEGEND (Existing)

- 12" POTABLE WATER LINE
- 12" SANITARY SEWER LINE
- 12" STORM DRAIN LINE
- 12" OVERHEAD POWER LINE
- 12" FENCE LINE

LEGEND (PROPOSED) (PIPE SIZES AS PER PLANS)

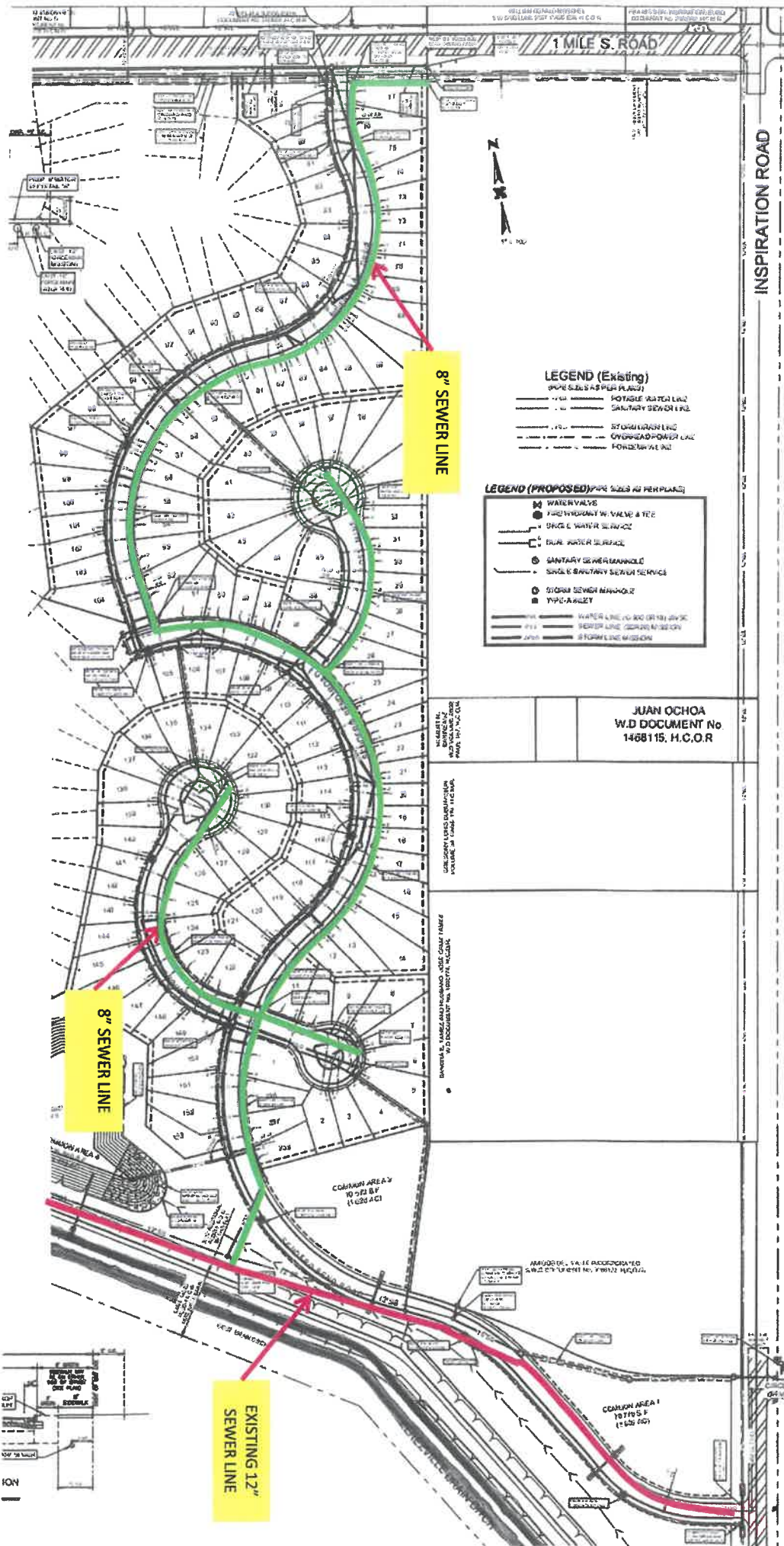
- WATER VALVE
- FIRE HYDRANT W/ VALVE & KEY
- SINGLE WATER SERVICE
- DEAL WATER SERVICE
- SANITARY SEWER MANHOLE
- SINGLE SANITARY SEWER SERVICE
- STORM SEWER MANHOLE
- TYPICAL INLET
- WATER LINE (CROSS DRIV) SWCC
- SEWER LINE (CROSS DRIV) SWCC
- STORM LINE (CROSS DRIV) SWCC

JUAN OCHOA
W.D. DOCUMENT No.
1468115, H.C.O.R.

8" WATER LINE

8" WATER LINE

REET SECTION
IGNMENT



- LEGEND (Existing)**
(PIPE SIZES AS PER PLANS)
- POTABLE WATER LINE
 - SANITARY SEWER LINE
 - STORMWATER LINE
 - OVERHEAD POWER LINE
 - POWERWIRE LINE

- LEGEND (PROPOSED)** (PIPE SIZES AS PER PLANS)
- WATER VALVE
 - WATER VALVE & TEE
 - SINGLE WATER SERVICE
 - DUAL WATER SERVICE
 - SANITARY SEWER MANHOLE
 - SINGLE SANITARY SEWER SERVICE
 - STORM SEWER MANHOLE
 - TYPICAL
 - WATER LINE (4\"/>

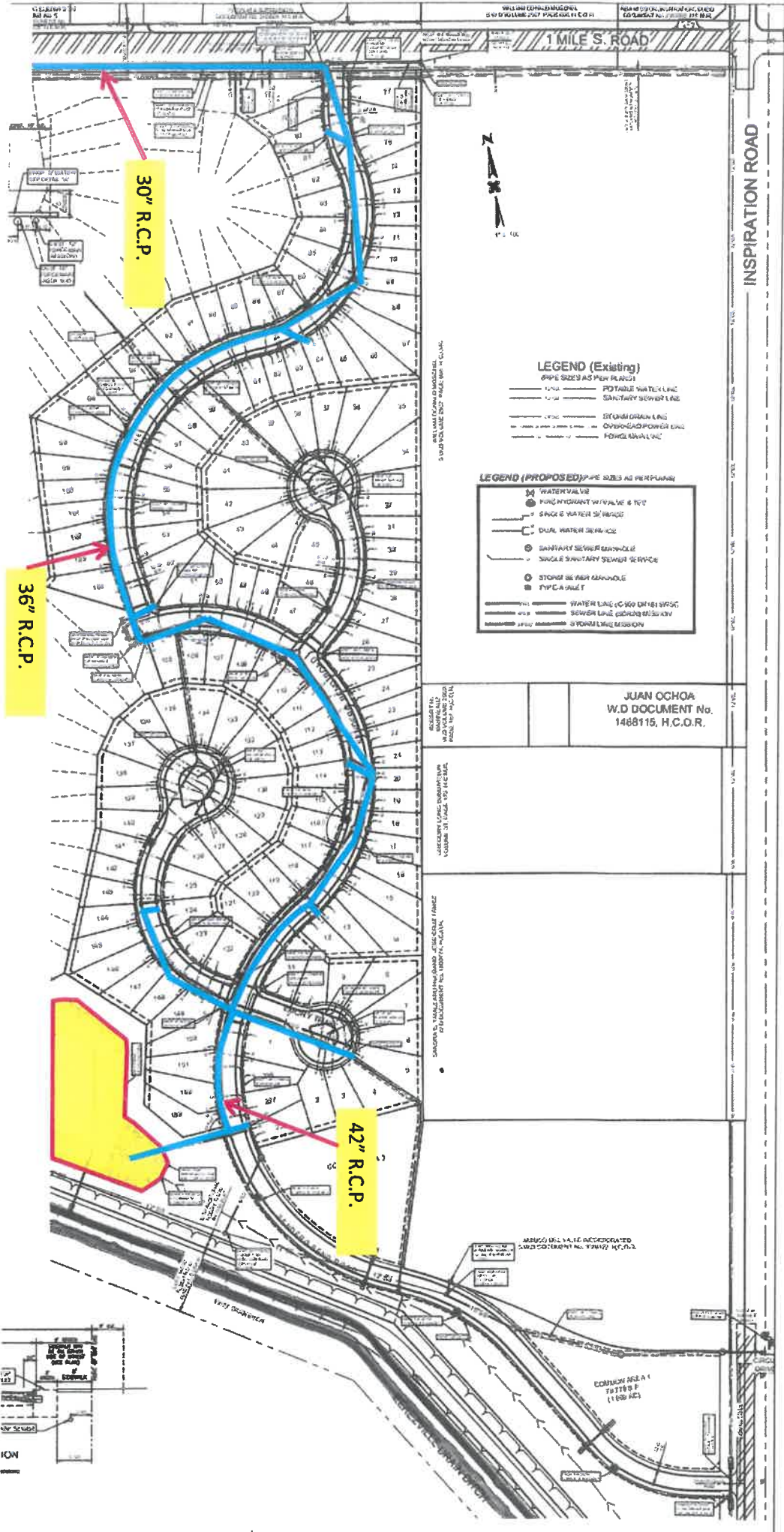
JUAN OCHOA
W.D DOCUMENT No
1468115, H.C.O.R

INSPIRATION ROAD

CAUTION AREA 2
10' x 20' x 8'
(1:250 & C)

CAUTION AREA 1
10' x 20' x 8'
(1:250 & C)

ION





TBPELS Firm # F-1435
TBPELS # 10096900

MELDEN & HUNT INC.

CONSULTANTS • ENGINEERS • SURVEYORS

MARIO A. REYNA • ALLAN F. BOOE • KELLEY A. HELLER-VELA • ROBERTO N. TAMEZ • RUBEN JAMES DE JESUS • MICHAEL HERNANDEZ

DRAINAGE STATEMENT

SENDERO PHASE I SUBDIVISION Job No.: 20133

Approved: June 10, 2021; Approved: April 17, 2022; Revised: October 11, 2022

SENDERO PHASE I SUBDIVISION is a resubdivision of 51.376 acres of land out of the south end of Porcion 52, in the City of Mission, County of Hidalgo, Texas. The tract is currently vacant with a proposed land use of 156 residential lots. This property is located mostly in Zone "B" and partially in Zone "AH" on FEMA's Flood Insurance Rate Map, Community Panel No. 480334 0400 C Map Revised: November 16, 1982. Zone "B" is defined as areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot, or where the contributing drainage area is less than one (1) square mile; or areas protected by levees from the base flood (medium shading). Zone "AH" is defined as areas of 100-year shallow flooding where depths are between one(1) and three(3) feet; base flood elevation has been determined to be , but no flood hazard factors are determined.

The soils in this area are (20) Harlingen clay saline with "D" rating, (28) Hidalgo sandy clay loam with "B" rating, (29) Hidalgo sandy clay loam with "B" rating, (44) Olmito silty clay with "C" rating, (56) Reynosa clay loam saline with "C" rating, (64) Runn silty clay with "C" rating and (65) Runn silty clay saline with "C" rating. For the purpose of this report we will use rating "B" in Hydrologic Group Soils. Hidalgo Sandy clay loam has moderate infiltration rate when thoroughly wet. This soil consist chiefly of moderate fine texture to moderate coarse texture and has a moderate rate of water transmission (See excerpts from "Soil Survey of Hidalgo County, Texas).

Storm runoff on this tract is by surface flow, with a southerly direction. The volume of storm runoff is 19.71 c.f.s. based on the 10-year storm frequency, as per attached calculations. Proposed runoff after development is 178.86 c.f.s., during the 100-year storm frequency, as per the attached calculations, which is an increase of 159.15 c.f.s.

In accordance with the City of Mission's drainage policy, the proposed storm drainage system for this subdivision will consist of multiple curb inlets placed at strategic locations interconnected with storm pipes ranging in size from 24" to 42", see Flow Rate Determination Tables for sizing and design slope. Surface runoff from the lots and the proposed streets will be caught by said inlets and conveyed via said storm lines into a proposed system of detention ponds within a common area along the entire south boundary. Said detention ponds will discharge at a pre-development rate of 19.71 c.f.s. based on the 10-year storm frequency into the Perezville Drain (owned by HCDD-1) adjacent to south side of this property. This development is included in Drainage Basins 26 & 32 of the Bentsen Palms Master Drainage Study (see attached Drainage Area Map). Said Perezville Drain has an ultimate outfall into the Mission Pilot Channel system of the HCDD-1 via a 5'x5' box culvert under the United Main Canal. In accordance with the City's drainage policy, the difference between pre and post development storm runoff shall not increase during the 10-100 year rainfall event... (continued next page)



TBPELS Firm # F-1435
TBPELS # 10096900

MELDEN & HUNT INC.

CONSULTANTS • ENGINEERS • SURVEYORS



MARIO A. REYNA • ALLAN F. BOOE • KELLEY A. HELLER-VELA • ROBERTO N. TAMEZ • RUBEN JAMES DE JESUS • MICHAEL HERNANDEZ

Therefore, as per attached calculations, and in accordance to the Approved Master Drainage Plan for the development, the required detention of 263,138 c.f. (6.04 ac-ft) shall be provided within said detention ponds with a design detention capacity of 674,185 c.f. Additionally the widening of the Perezville Drain ditch has been completed as requested by HCDD-1 (see widening detail). The overall master plan has been developed in accordance with City and County requirements.

By:

Mario A. Reyna, P.E.

Date

<input type="checkbox"/> REJECTED	
<input checked="" type="checkbox"/> APPROVED FOR SUBMITTAL	
<input type="checkbox"/> TO H.C. PLANNING DEPT.	
<input checked="" type="checkbox"/> TO CITY	
<input checked="" type="checkbox"/> DISCHARGE PERMIT REQUIRED	
<input type="checkbox"/> DISTRICT FACILITY	
<input type="checkbox"/> CITY FACILITY	
<input type="checkbox"/> OTHER	
	
H.C.D.D. NO. 1	DATE 10-12-22

