

ITEM # 5.0

PRELIMINARY & FINAL PLAT APPROVAL:

Sendero Phase II Subdivision
Being a resubdivision of 17.942 acres
of land out of the south end of Porcion 52
PUD
Developer: Rhodes Development, Inc.
Engineer: Melden & Hunt, Inc.

REVIEW DATA

PLAT DATA

The proposed subdivision is part of a master plan located approximately 1,800' east of Schuerbach Road on the south side of Mile 1 South Road — see **vicinity map**. The developer is proposing (81) Eight-One Single Family Residential lots — see plat for actual dimensions, square footages, and land uses.

WATER

The developer shall connect from an existing 12" water line located along the south side of Mile 1 South Road and looped with a proposed 8" water line to service each lot. They are proposing 5 fire hydrants as via direction of the Fire Marshal's office. – see **utility plan**

SEWER

An internal 8" sewer line system will provide sewer service to all the lots as it ties into an existing 12" sanitary sewer line along the south side of the development. The Capital Sewer Recovery Fee is required at \$200/Lot which equates to \$16,200 (\$200 x 81Lots).

STREETS & STORM DRAINAGE

The proposed internal street is a 32' Back-to-Back within a 50' Right of Way. Access will be from 1 Mile South Road. The proposed drainage system shall consist of 8 Inlets within the streets to collect surface runoff from the lots and streets. Storm Pipes ranges from 24" to 42" and will discharge into the Perezville Drain. This Development is included in Drainage Basins 26 & 32 of the Bentsen Palms Master Drainage Study. The Perezville Drain has an ultimate outfall into the Mission Pilot Channel system of the H.C.D.D No. 1 via a 5'x5' box culvert under the United Main Canal. The City Engineer has reviewed and approved the drainage report.

OTHER COMMENTS

Water District Exclusion

No Park Fees – Mike Rhodes dedication of park land still stratifies the park Dedication Ord.

Installation of Street Lighting as per City Standards

Must Comply with all other format findings

RECOMMENDATION

Staff recommends approval subject to:

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



S. INSPIRATION ROAD

MILE 1 SOUTH ROAD

**SITE
LOCATION**

1 MILE SOUTH ROAD

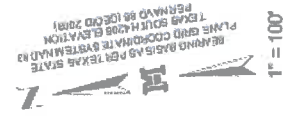
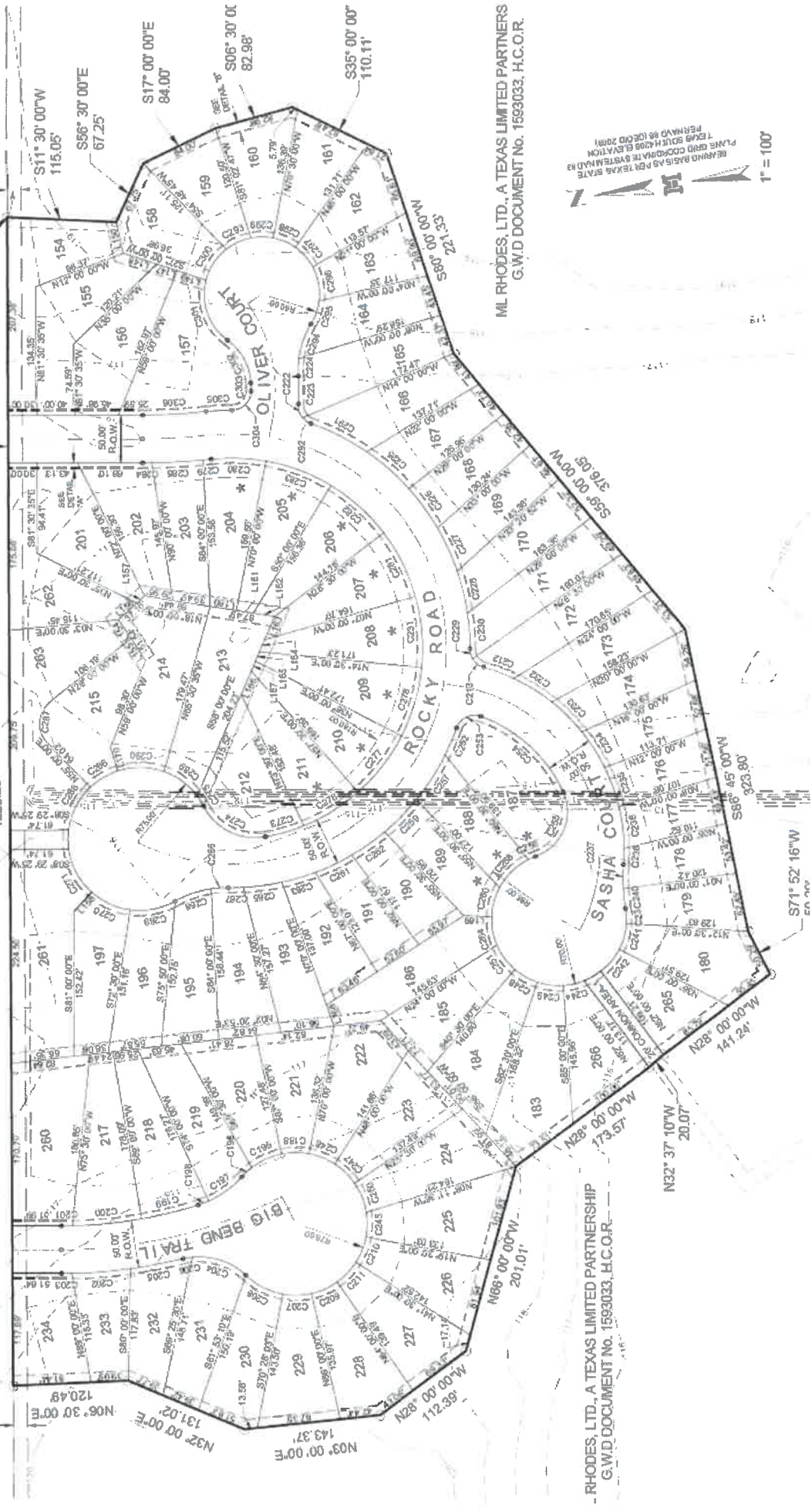
P.O.B.

15 UTILITY EASEMENT
DOC. NO. 274828, H.C.O.R.

20' COMMON AREA

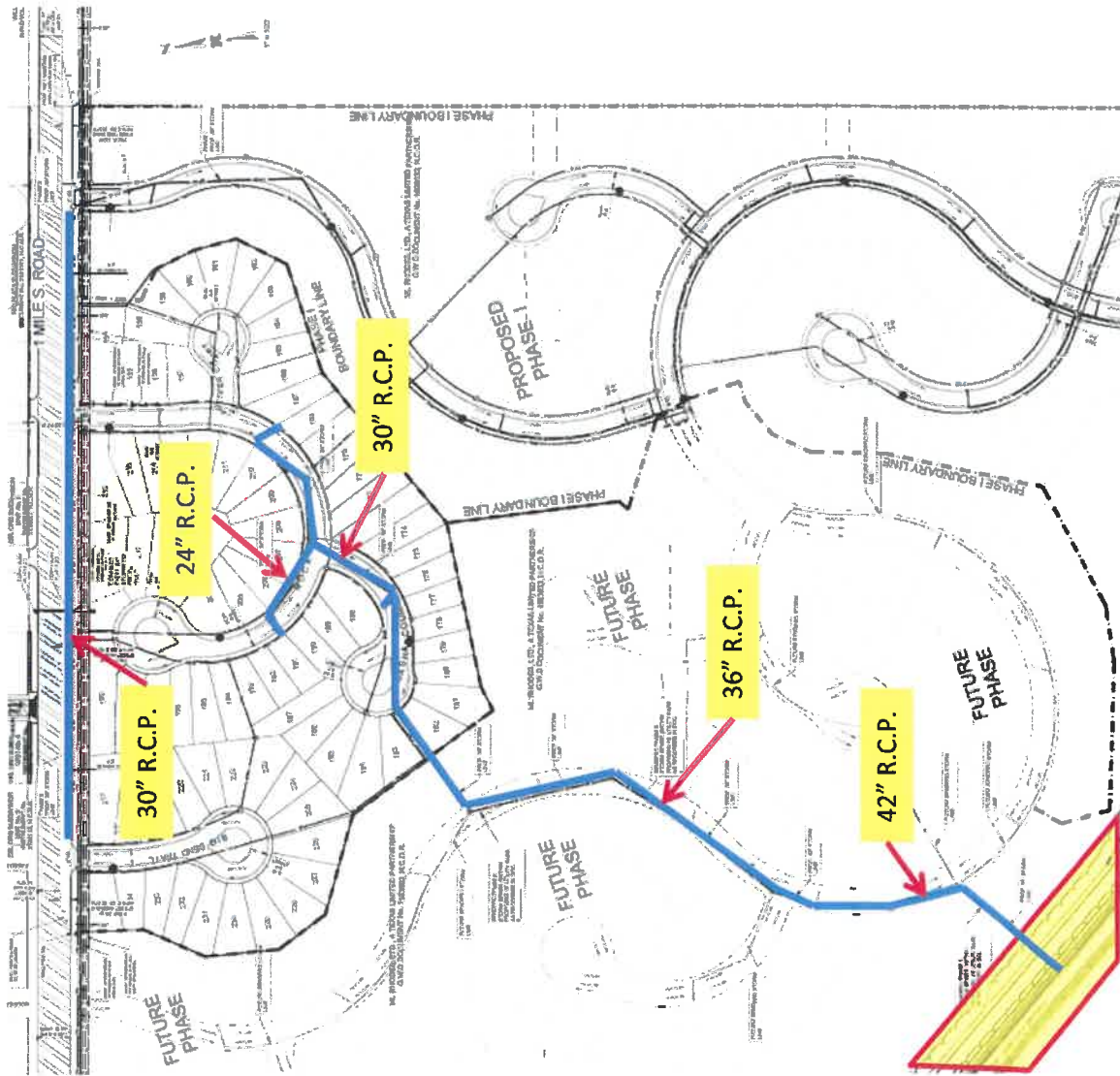
4109 15, T.L.U.M.R.

TV EASEMENT
274828, H.C.O.R.



ML RHODES, LTD., A TEXAS LIMITED PARTNERSHIP
G.W.D. DOCUMENT NO. 1593033, H.C.O.R.

RHODES, LTD., A TEXAS LIMITED PARTNERSHIP
G.W.D. DOCUMENT NO. 1593033, H.C.O.R.





MELDEN & HUNT INC.
CONSULTANTS • ENGINEERS • SURVEYORS

TEPELS FIRM # F-1482
TEPELS # 1006950
FRED RUPP • ALVIN BODE • CELIA HERRERA • ROBERTO NUNEZ • MARIO A. REYNA • RIGBEN JAMBER JEONG

DRAINAGE STATEMENT

SENDERO (Master) Job # 20133

Date: March 02, 2021; REVISED April 01, 2021; April 9, 2021; May 27, 2021

SENDERO (Master) is a subdivision of 126.756 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 50 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. According to FEMA's Flood Insurance Rate Map the BFE is elevation 113 (see attached). **LOWR-F will be submitted upon completion of site grading.**

The soils in this area are (20) Hattingen clay saline with "D" rating, (28) Hidalgo sandy clay loam with "B" rating, (29) Hidalgo sandy clay loam with "B" rating, (44) Omito silty clay with "C" rating, (56) Reynosa clay loam saline with "C" rating, (64) Kuma 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 26.01 c.f.s. based on the 10-year storm frequency, as per attached calculations. Proposed runoff after development is 154.97 c.f.s., during the 100-year storm frequency, as per the attached calculations, which is an increase of 128.96 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", refer to 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 the Perezville Drain (owned by H.C.D.D. No. 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 H.C.D.D. No. 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.



MELDEN & HUNT INC.
CONSULTANTS • ENGINEERS • SURVEYORS

TEPELS FIRM # F-1482
TEPELS # 1006950
FRED RUPP • ALVIN BODE • CELIA HERRERA • ROBERTO NUNEZ • MARIO A. REYNA • RIGBEN JAMBER JEONG

Therefore, as per attached calculations, and in accordance to the Approved Master Drainage Plan for the development, the required detention of 649,228 cubic feet (14,904 ac-ft) shall be provided within the Perezville Drain ditch widening (see widening detail) and will increase detention capacity from 1,747,500 c.f. to 2,903,180 c.f. for an additional 1,155,680 c.f. The overall master plan has been developed in accordance with City and County requirements.

Detention requirements for each Phase will be pro-rated accordingly by acreage as follows:

- Phase 1 (54,320 acres) = 278,220 c.f.
- Phase 2 (24,474 acres) = 125,353 c.f.
- Phase 3 (27,996 acres) = 143,392 c.f.
- Phase 4 (19,966 acres) = 102,263 c.f.

For a total of 649,228 c.f. for entire 126.756 acre development.

The Perezville ditch widening will be excavated in its entirety before or in conjunction with Phase 1.

M.A. 5-27-21

BY: Mario A. Reyna, P.E. Date





TBPELS Firm # F-1435
TBPELS # 10096900

MELDEN & HUNT INC.

CONSULTANTS • ENGINEERS • SURVEYORS

FRED L. KURTH • ALLAN F. BOOE • KELLEY A. HELLER-VELA • ROBERTO N. TAMEZ • MARIO A. REYNA • RUBEN JAMES DE JESUS

DRAINAGE STATEMENT

SENDERO (Master) Job # 20133

Date: March 02, 2021; REVISED April 01, 2021; April 9, 2021; May 27, 2021

SENDERO (Master) is a resubdivision of 126.756 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 50 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. According to FEMA's Flood Insurance Rate Map the BFE is elevation 113 (see attached). *LOMR-F will be submitted upon completion of site grading.*

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 26.01 c.f.s. based on the 10-year storm frequency, as per attached calculations. Proposed runoff after development is 154.97 c.f.s., during the 100-year storm frequency, as per the attached calculations, which is an increase of 128.96 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", refer to 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 the Perezville Drain (owned by H.C.D.D. No. 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 H.C.D.D. No. 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.





MELDEN & HUNT INC.

CONSULTANTS • ENGINEERS • SURVEYORS

FRED L. KURTH • ALLAN F. BOOE • KELLEY A. HELLER-VELA • ROBERTO N. TAMEZ • MARIO A. REYNA • RUBEN JAMES DE JESUS


Therefore, as per attached calculations, and in accordance to the Approved Master Drainage Plan for the development, the required detention of 649,228 cubic feet (14.904 ac-ft) shall be provided within the Perezville Drain ditch widening (see widening detail) and will increase detention capacity from 1,747,500 c.f. to 2,903,180 c.f. for an additional 1,155,680 c.f. The overall master plan has been developed in accordance with City and County requirements.


Detention requirements for each Phase will be pro-rated accordingly by acreage as follows:

- Phase 1 (54.320 acres) = 278,220 c.f.
- Phase 2 (24.474 acres) = 125,353 c.f.
- Phase 3 (27.996 acres) = 143,392 c.f.
- Phase 4 (19.966 acres) = 102,263 c.f.

For a total of 649,228 c.f. for entire 126.756 acre development.

The Perezville ditch widening will be excavated in its entirety before or in conjunction with Phase 1.

By:  5-27-71
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 checked="" type="checkbox"/> DISTRICT FACILITY	
<input type="checkbox"/> CITY FACILITY	
<input type="checkbox"/> OTHER _____	
<u>Hector Garcia</u>	<u>6/10/21</u>
H.C.D.D. NO. 1	DATE

