

CITY OF WESLACO

A REGULAR MEETING OF THE PLANNING & ZONING COMMISSION

**JANUARY 8, 2020, 5:30 P.M.
LEGISLATIVE CHAMBERS**

255 S. KANSAS AVENUE

David Hernandez, Chairman

Lonnie Berry, Vice-Chairman

Milles Bullion, PZ Commissioner

Randy Summers, PZ Commissioner

Adrian Torres, PZ Commissioner

Jose Treviño, PZ Commissioner

Jim Forward, PZ Commissioner

**CITY OF WESLACO
PLANNING & ZONING COMMISSION
REGULAR MEETING
DECEMBER 4, 2019**

On Wednesday the 4th day of December 2019, at 5:30 p.m., the Planning and Zoning Commission of the City of Weslaco, Texas, convened in regular session at the Weslaco City Hall Legislative Chambers, located at 255 South Kansas Avenue.

The following commissioners were present:

Lonnie Berry	Vice-Chairman
Jose Treviño	Commissioner
Adrian Torres	Commissioner
Jim Forward	Commissioner

Rebekah de la Fuente	Assistant Planning Director
Kayla A. Arevalo	Planning Secretary

Also present were: Mike Swinnea, Assistant Fire Marshall; Peter Hermida, Engineering Technician III; Rolando Gonzalez Building Official; and citizens.

I. CALL TO ORDER:

Vice-Chairman Berry called the meeting to order and welcomed everyone in the audience.

A. Roll Call/Establish a Quorum

Ms. de la Fuente called the roll noting that Chairman Hernandez, Commissioner Bullion and Commissioner Summers, were absent at the time of roll, a quorum was established.

II. PUBLIC COMMENTS

There were no comments received.

III. APPROVAL OF MINUTES

A. November 6, 2019 Regular Meeting

Commissioner Forward made a motion to approve the minutes of November 6, 2019, with the noted change, seconded by Commissioner Treviño Motion carried.

IV. PUBLIC HEARINGS

A. Discussion and consideration to approve Conditional Use Permit to obtain a Wine and Beer Retailer's Permit at 418 S. Texas Blvd. Suite A, also being lot 4 and 5, Block 34, Weslaco Original Townsite, Weslaco, Hidalgo County, Texas. Possible Action.

Ms. de la Fuente stated that there were twenty-eight (28) property owners notified within the 200-foot radius, no letters for or against the item were received. Staff recommended approval.

Commissioner Torres made a motion to close the Public Hearing, seconded by Commissioner Treviño. Motion carried.

Commissioner Torres made a motion to approve the Conditional Use Permit, seconded by Commissioner Treviño with the stipulation that one (1) security guard be on duty during peak hours. Motion carried.

B. Discussion and consideration to approve Conditional Use Permit to operate an Event Center at 1002 E. Expy 83, also being a 1.15-acre tract, IRR TR W 140.27'-E 290.40'-S387.48' out of Farm Tract 41, West Tract Subdivision, Weslaco, Hidalgo County, Texas. Possible Action.

Ms. de la Fuente stated that there were thirteen (13) property owners notified within the 200-foot radius, no letters for or against the item were received. Staff recommended approval.

Commissioner Forward made a motion to close the Public Hearing, seconded by Commissioner Torres. Motion carried.

Commissioner Treviño made a motion to approve the Conditional Use Permit, seconded by Commissioner Forward. Motion carried.

C. Discussion and consideration to rezone 1531 N. International Blvd. Also being Adams Tract N25AC-S28.84AC FT 1038 EXC S660'-E330 20AC NET, Weslaco, Hidalgo County, and Texas from R-1 One-family dwelling district to R-2 Duplex and apartment district. Possible Action.

Ms. de la Fuente stated that there were eighty-four (84) property owners notified within the 200-foot radius, no letters for or against the item were received. Staff recommended approval based on 2040 land use map.

Commissioner Forward made a motion to close the Public Hearing, seconded by Commissioner Torres. Motion carried.

Commissioner Torres made a motion to approve the rezone request, seconded by Commissioner Treviño. Motion carried.

V. DISCUSSION AND CONSIDERATION

A. Discussion and consideration for the Preliminary Plat of San Pedro Estates Subdivision – being 20-acre tract of land out of Farm Tract 647, West & Adams Tract Subdivision, Hidalgo County, Texas. Approximately 2,964 ft. North of the Intersection of 18th and Hooper Rd. Possible Action

Ms. de la Fuente stated that this item is a sixteen (16) lot subdivision outside the City of Weslaco city limits. This subdivision is being serviced with water by City of Weslaco through an 8" waterline and sanctuary sewer by OSSF. The property is within a Flood Zone "X". Applicant is requesting a variance for OSSF. Staff recommends approval of the preliminary plat and compliance with the ordinance for the variance.

Commissioner Torres made the motion to approve the Preliminary Plat, with the stipulation the easements for the OSSF be relocated towards the front of the lots, for a plat note to be added regarding the installation of the OSSF prior to recording and for the developer to enter a development agreement for the waterline, seconded by Commissioner Treviño. Motion carried.

B. Discussion and consideration for the Preliminary Plat Highland Manor Subdivision – being 8.25 acres out of Farm Tract 238, West & Adams Tract Subdivision, Hidalgo County, Texas. Approximately on the Northwest corner of Mile 11 North and Mile 5 ½ West. Possible Action

Ms. de la Fuente stated that this item is an eleven (11) lot subdivision is outside city limits. This subdivision is being serviced with water by the NAWSC through a 6” waterline and sanitary sewer by OSSF. The property is within a Flood Zone “B”. Applicant is requesting a variance for OSSF and off-site drainage. Staff recommends approval of the preliminary plat and compliance with the ordinance for the variance.

Commissioner Berry made the motion to approve the Preliminary Plat, and tabled the variances until Final Plat approval, seconded by Commissioner Torres. Motion carried.

C. Discussion and consideration for the Preliminary Plat of San Jacinto Estates No. 10 Phase II being 13.49-acre tract of land out of Farm Tract 94, West & Adams Tract Subdivision, Hidalgo County, Texas. Approximately on the Northwest corner of Mile 10 North Road and Mile 4 West Road. Possible Action.

Ms. de la Fuente stated that this item is a forty-eight (48) lot subdivision is outside city limits. This subdivision is being serviced with water by the NAWSC through an 8” waterline and sewer by the City of Weslaco through an 8” sanitary sewer line. The property is within a Flood Zone “B”. The Developer is requesting a variance for off-site drainage. Letters of support for the off-site drainage has been provided from HCDD#1 and HCCID #9. Staff recommends approval of preliminary plat and compliance with the ordinance for the variance.

Commissioner Forward made the motion to approve the Preliminary Plat and variances, seconded by Commissioner Treviño. Motion carried.

D. Discussion and consideration cancel January 1, 2020 meeting and choose an alternate date.

Next Meeting will be January 8, 2020 at 5:30 pm.

VI. ADJOURNMENT

There being no further business to come before the Planning and Zoning Commission, Chairman Hernandez adjourned the meeting at 6:04 p.m.

Planning and Zoning Commission

Absent

David Hernandez, Chairman

Lonnie Berry, Vice-Chairman

Absent
Randy Summers, Commissioner

Absent
Miles Bullion, Commissioner

Jose Treviño, Commissioner

Adrian Torres, Commissioner

Jim Forward, Commissioner

ATTEST:

Kayla A. Arevalo, Planning Secretary



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: January 8, 2020	Agenda Item No. (to be assigned by PCE): IV. A.
From: Rebekah de la Fuente, Planning Director, on behalf of Tomasita Hernandez.	
Subject/Agenda Item: Discussion and consideration to approve Conditional Use Permit to operate an Event Center at 215B S. Texas Blvd. Suite A, also being lot 27, Block 13, Weslaco Original Townsite, Weslaco, Hidalgo County, Texas. Possible Action.	
Discussion/Overview: The applicant is requesting to obtain a Conditional Use Permit to operate an event center. Notice of the application and the public hearing for the Planning and Zoning Commission and the City Commission. Notice appeared in The Monitor on December 23, 2019. Thirty-two (32) property owners within 200 feet of the applicant's property were notified by letter on December 27, 2019.	
Staff recommendation for Commission's Action: Staff recommends approval.	
Additional Action Prompted: ☒ Mayor's Signature ☒ Public Hearing ☐ Budget Amendment ☐ Resolution ☐ Ordinance – First Reading ☐ Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Conditional Use Permit with attachments.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



APPLICATION FOR CONDITIONAL USE PERMIT

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

RECEIVED
DEC 05 2019
Planning &
Code Enforcement Dept.

PROPOSED PROJECT

Legal Description of Property for which Conditional Use Permit is requested:

Lot _____ Block _____

Subdivision Name _____

Street Address 215 B SOUTH TEXAS BLVD, WESLACO, TX 78596

Existing Zoning ✓ Existing Land Use ✓

Purpose for the Conditional Use Permit Request OPEN SOME EVENT CENTER

What, if anything, is planned to minimize the impact on the surrounding land uses:

TRIPLE WALL (These Building have 3 wall)
and these wall have insulation 3 times before

- ☒ \$300.00 non-refundable filing fee.
- ☐ Detailed dimensioned site plan/map must be submitted with this request.
- ☐ Survey and metes and bounds if the legal description is a portion of a lot.
- ☐ City and school tax receipts attached.
- ☐ I have received a copy of "CUP Application Instructions"

APPLICANT

Name TOMASITA HERNANDEZ Phone 956-463-0120

Address 403 R ST. Fax: _____

City WESLACO State TX Zip Code 78596 E-Mail: _____

OWNER

Name TOMASITA HERNANDEZ Phone 956-463-0120

Address 403 R ST. Fax: _____

City WESLACO State TX Zip Code 78596 E-Mail: _____

To the best of your knowledge are there any deed restrictions, restrictive covenants, etc., which would prevent the utilization of the property in the manner indicated?

Yes ✓ No _____

I certify that I am the actual owner of the property described above and this application is being submitted with my consent or I am authorized by the actual owner to submit this application and have attached written evidence of such authorization.

Signature  Date DEC. 05, 2019
Owner

Signature _____ Date _____
Applicant

Signature _____ Date _____
Authorized Agent

STAFF USE ONLY

Accepted By _____ Payment Received By _____ Date Paid _____

Notice of Public Hearing Sent to Property Owners Within _____ Date _____
200' of Proposed Site

P & Z Notice of Public Hearing Published in Newspaper

City Commission Notice of Public Hearing Published
in Newspaper

Presented to P & Z Commission
Approved _____ Disapproved _____ Tabled _____

Presented to City Commission
Approved _____ Disapproved _____ Tabled _____

CITY OF WESLACO
956-968-3181

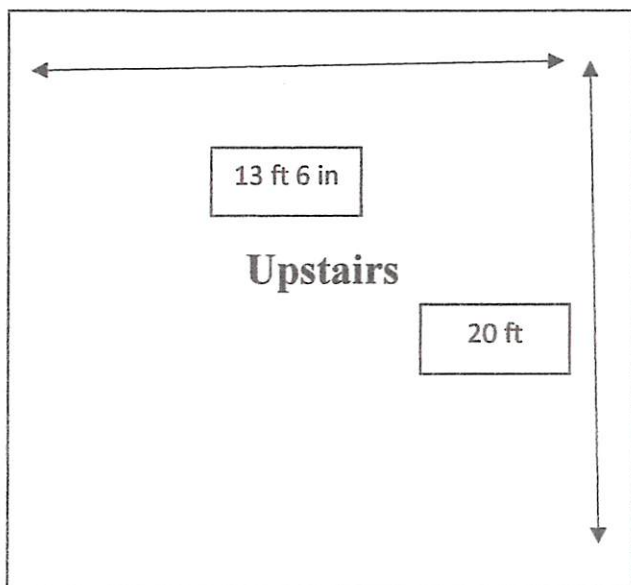
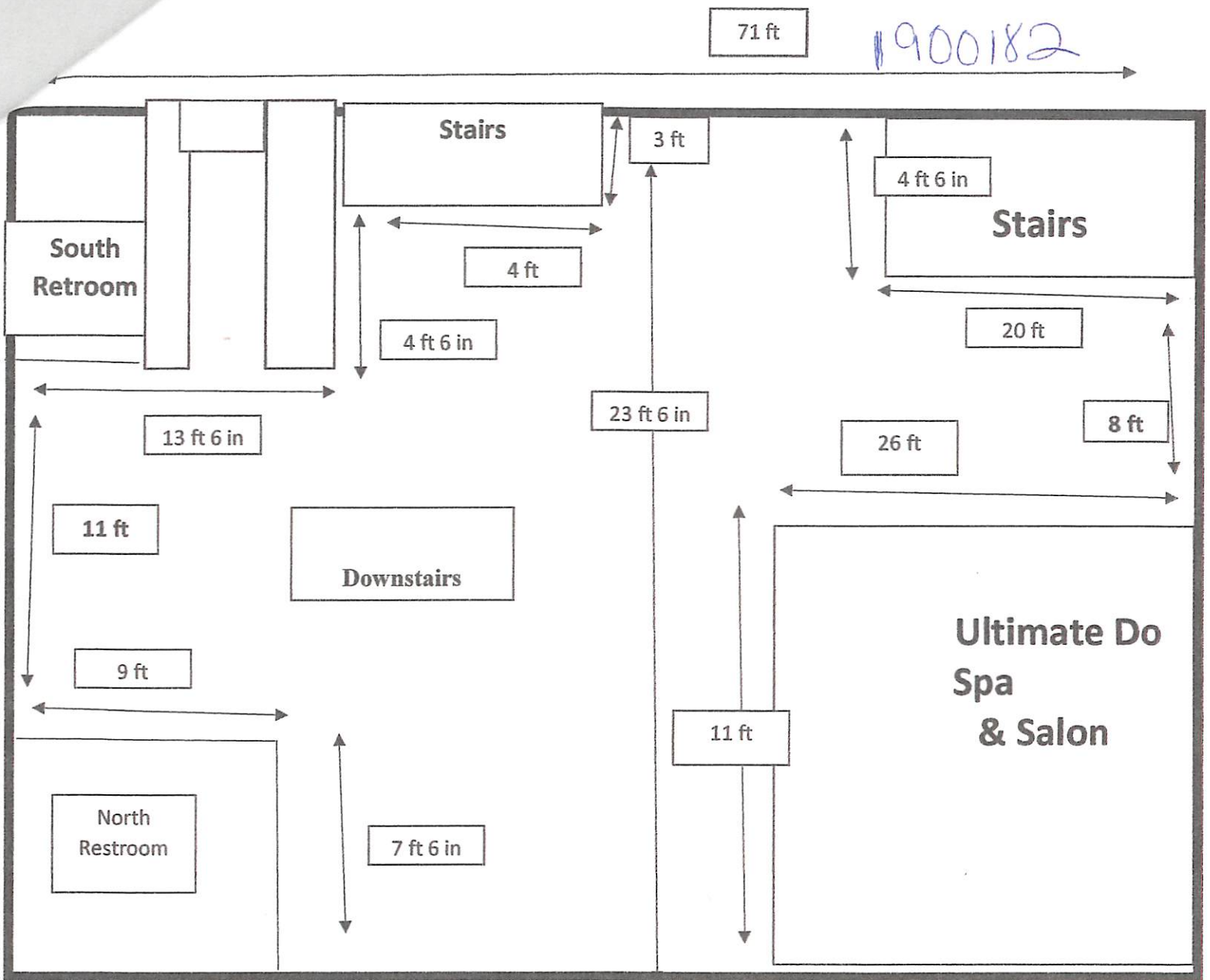
***** REPRINT RECEIPT*****

REC#: 02579613 12/05/2019 10:25 AM
OPER: NV TERM: 039
REF#: 120
PAID BY:

TRAN: 202.0000 CONDITIONAL USE PERM
215 S TEXAS SUIT B
101-400-1026
CONDITIONAL USE PER 305.00CR

TENDERED: 305.00 CHECK
APPLIED: 305.00-

CHANGE: 0.00



Renatta's Event Center

Downstairs	1,418 Sq. Ft.
Upstairs	270 Sq. Ft.
TOTAL	1,688 Sq.FT.

City of Weslaco

"The City on the Grow"



David Suarez, Mayor
Letty Lopez, Mayor Pro-Tem, District 5
Leo Muñoz, Commissioner, District 1
Greg Kerr, Commissioner, District 2
Jose "J.P." Rodriguez, Commissioner, District 3
Adrian Farias, Commissioner, District 4
Josh Pedraza, Commissioner, District 6

Mike R. Perez, City Manager

PLANNING DEPARTMENT

December 27, 2019

Legal Notice

Dear Occupant:

The Weslaco Planning and Zoning Commission will hold a public hearing on Wednesday, January 8, 2020, for the Planning and Zoning Commission and on or before January 21, 2020 at 5:30 p.m. at the City Hall Legislative Chambers located at 255 South Kansas Avenue to consider the following request:

CONDITIONAL USE PERMIT REQUEST:

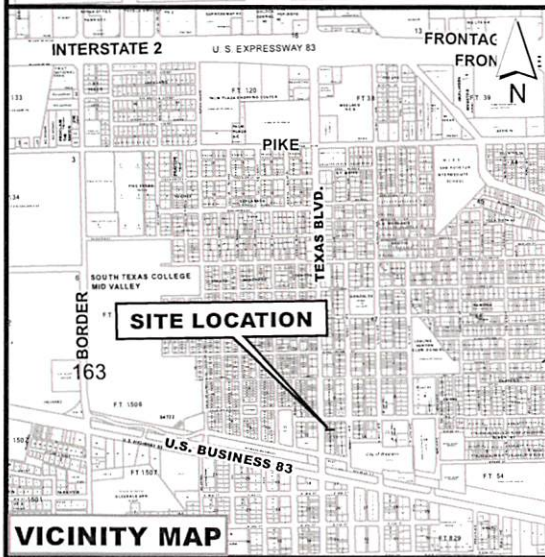
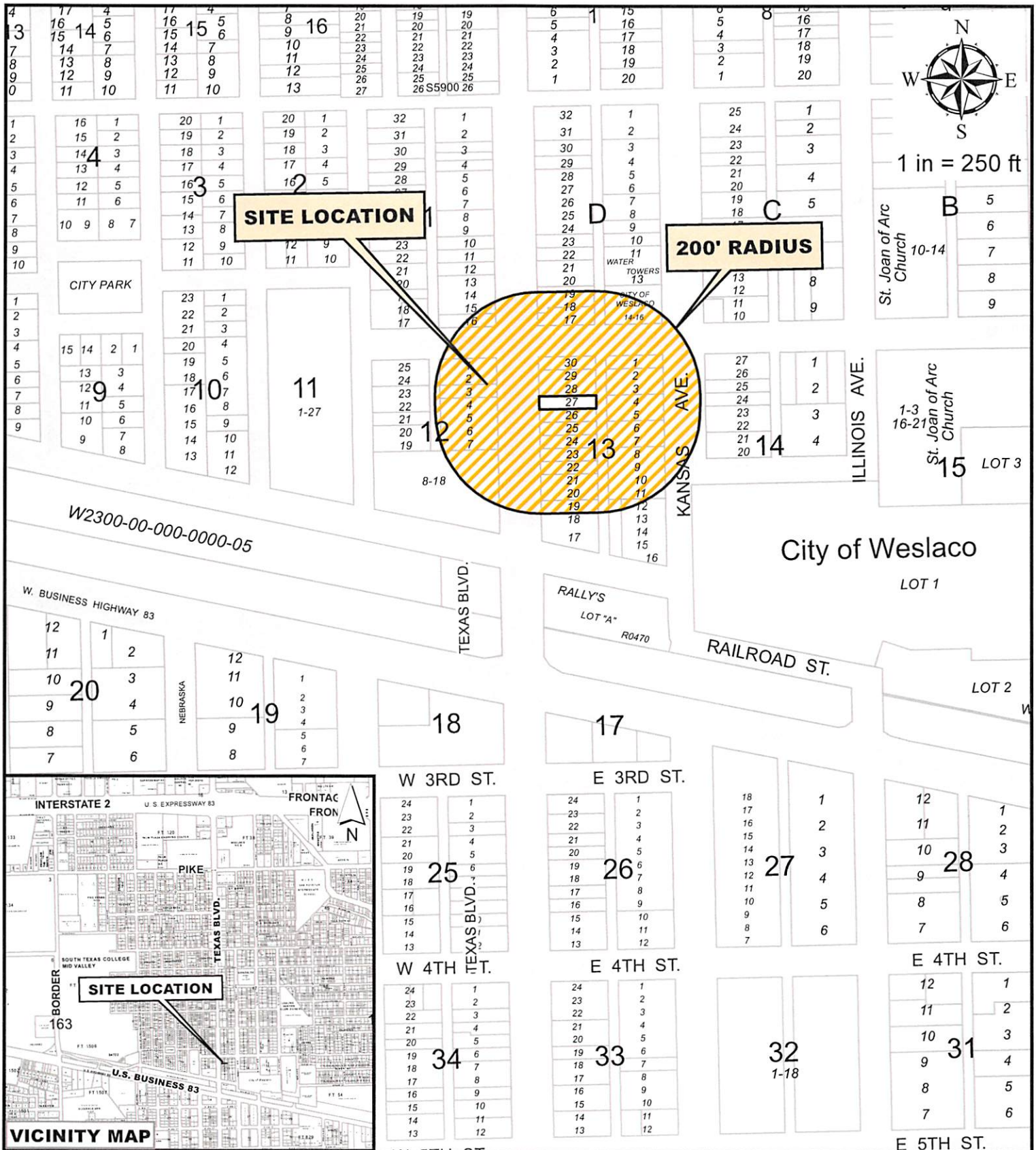
Tomasita Hernandez is requesting a Conditional Use Permit to operate an Event Center at 215 B South Texas Blvd also being lot 27, Block 13, Weslaco Original Townsite, Weslaco, Hidalgo County, Texas.

The public is hereby invited to attend and express their support or opposition to the request. You may also file a written notice supporting or protesting this action. For more information please call the Planning Department at (956) 447-3403.

Si desea información en español, por favor llame al departamento de Planeación de la ciudad de Weslaco, (956) 447-3403.

Sincerely,

Rebekah de la Fuente, CFM
Interim Planning Director



Tomasita Hernandez
215 B South Texas Blvd.
Weslaco Original Townsite
LOT 27 BLOCK 13

Purpose for the Conditional Use Permit request

Existing zoning: B-3 Central Business District

Existing land use: Retail

CUP request: Event Center



DEC 18, 2019

RAMOS MANUEL & SYLVIA 314 W MILE 10 N WESLACO TX 78599-8405	W2300-00-001-0013-00 WESLACO ORIGINAL TOWNSITE BLK 1 LT 13, 14 & 15 164 S TEXAS BLVD	L: 57750 B: 126213
RAMOS MANUEL & SYLVIA 314 W MILE 10 N WESLACO TX 78596	W2300-00-001-0014-00 WESLACO ORIGINAL TOWNSITE BLK 1 LT 14 162 S TEXAS BLVD	L: 32313 B: 89091
RAMOS, MANUEL & SYLVIA 314 W MILE 10 WESLACO TX 78596	W2300-00-001-0015-00 WESLACO ORIGINAL TOWNSITE BLK 1 LT 15 154 S TEXAS BLVD	L: 32313 B: 0
OLIVAREZ FAMILY PARTNERSHI PO BOX 22 WESLACO TX 78599-0022	W2300-00-001-0016-00 WESLACO ORIGINAL TOWNSITE BLK 1 LT 16 168 S TEXAS BLVD	L: 32313 B: 87821
CITY OF WESLACO 255 S KANSAS AVE WESLACO TX 78596-6158	W2300-00-00D-0014-00 WESLACO ORIGINAL TOWNSITE BLK D LTS 14-15-16 0 S KANSAS AVE	L: 40013 B: 31639
TORRES JOSE JR 163 S TEXAS BLVD WESLACO TX 78596-6103	W2300-00-00D-0017-00 WESLACO ORIGINAL TOWNSITE LOT 17 & S 10' - E 90' - LOT 18 163 S TEXAS BLVD	L: 33398 B: 40736
GARZA CARLOS J 161 S TEXAS BLVD WESLACO TX 78596-6103	W2300-00-00D-0018-00 WESLACO ORIGINAL TOWNSITE N15' L OT 18 & ALL LOT 19 BLK D 161 S TEXAS BLVD	L: 40260 B: 100018
OLIVAREZ FAMILY PARTNERSHI PO BOX 22 WESLACO TX 78599-0022	W2300-00-012-0001-00 WESLACO ORIGINAL TOWNSITE BLK 12 LTS 1-2 200 S TEXAS BLVD	L: 50325 B: 71732
OLIVAREZ FAMILY PARTNERSHI PO BOX 22 WESLACO TX 78599-0022	W2300-00-012-0003-00 WESLACO ORIGINAL TOWNSITE BLK 12 LT 3 204 S TEXAS BLVD	L: 32313 B: 0
MONTALVO RAMON III TRUSTEE PO BOX 2 WESLACO TX 78599-0002	W2300-00-012-0004-00 WESLACO ORIGINAL TOWNSITE BLK 12 LT 4-7 212 S TEXAS BLVD	L: 77000 B: 60189
MONTALVO, RAMON III TRUSTE MONTALVO LIVING TRUST PO BOX 2 WESLACO TX 78599-0002	W2300-00-012-0005-00 WESLACO ORIGINAL TOWNSITE BLK 12 LT 5 208 S TEXAS BLVD	L: 13750 B: 34097
MONTALVO, RAMON III TRUSTE MONTALVO LIVING TRUST PO BOX 2 WESLACO TX 78599-0002	W2300-00-012-0006-00 WESLACO ORIGINAL TOWNSITE BLK 12 LTS 6-7 210 S TEXAS BLVD	L: 27500 B: 4675

DEC 18, 2019

LONE STAR NATIONAL BANK PO BOX 1127 PHARR TX 78577-1621	W2300-00-012-0008-00 WESLACO ORIGINAL TOWNSITE BLK 12 LTS 8-18 214 S TEXAS BLVD	L: 211750 B: 512339
WISE BARBARA PO BOX 1442 WESLACO TX 78599-1442	W2300-00-013-0001-00 WESLACO ORIGINAL TOWNSITE BLK 13 LT 1 200 S KANSAS AVE	L: 9213 B: 0
WISE BARBARA PO BOX 1442 WESLACO TX 78599-1442	W2300-00-013-0002-00 WESLACO ORIGINAL TOWNSITE BLK 13 LTS 2-3 204 S KANSAS AVE	L: 18426 B: 0
RODRIGUEZ, ISAAC D & ROSAL 225 S TEXAS BLVD WESLACO TX 78596-6105	W2300-00-013-0004-00 WESLACO ORIGINAL TOWNSITE BLK 13 LTS 4-5 208 S KANSAS AVE	L: 18426 B: 3888
BUSTILLOS, ADELA & ELENA 210 S KANSAS AVE WESLACO TX 78596-6159	W2300-00-013-0006-00 WESLACO ORIGINAL TOWNSITE BLK 13 LT 6 & 7 210 S KANSAS AVE	L: 19681 B: 11672
BUSTILLOS, ADELA 210 S KANSAS AVE WESLACO TX 78596-6159	W2300-00-013-0007-00 WESLACO ORIGINAL TOWNSITE BLK 13 LT 7 0 S KANSAS	L: 9213 B: 0
MENDEZ, GEORGE & JUANITA V 216 S KANSAS AVE WESLACO TX 78596-6159	W2300-00-013-0008-00 WESLACO ORIGINAL TOWNSITE LOTS 8 THRU 11 & E86' OF LOT 12 THRU 1 1 1ST ST	L: 104699 B: 304728
SILVA MANUEL PEREZ & LILIA M 2207 LARGO ST WESLACO TX 78596-9136	W2300-00-013-0012-00 WESLACO ORIGINAL TOWNSITE W24'-L OT 12 THRU 16 & ALL OF LOTS 17 T 253	L: 76686 B: 87656
HENDERSON RUBY JOHNSON CHERYL L M & MARSHA R BARNETT 2001 LA CANTERA DR UNIT D3 HARLINGEN TX 78552-6781	W2300-00-013-0017-00 WESLACO ORIGINAL TOWNSITE W35' O F LOTS 17 THRU 19 BLK 13 253 S TEXAS BLVD	L: 34428 B: 105045
SILVA MANUEL PEREZ & MARGARITA 2207 LARGO ST WESLACO TX 78596-9136	W2300-00-013-0020-00 WESLACO ORIGINAL TOWNSITE BLK 13 LTS 20,21 241 S TEXAS BLVD	L: 50326 B: 46877
WISE, BARBARA PO BOX 1442 WESLACO TX 78599-1442	W2300-00-013-0022-00 WESLACO ORIGINAL TOWNSITE BLK 13 LT 22 233 S TEXAS BLVD	L: 32313 B: 1328
WISE, BARBARA PO BOX 1442 WESLACO TX 78599-1442	W2300-00-013-0023-00 WESLACO ORIGINAL TOWNSITE BLK 13 LT 23 229 S TEXAS	L: 32313 B: 28562

DEC 18, 2019

WESLACO LOAN CO 225 S TEXAS BLVD WESLACO TX 78596-6105	W2300-00-013-0024-00 WESLACO ORIGINAL TOWNSITE BLK 13 LT 24 225 S TEXAS BLVD	L: 32313 B: 26728
RODRIGUEZ, ISAAC D 225 S TEXAS BLVD WESLACO TX 78596-6105	W2300-00-013-0025-00 WESLACO ORIGINAL TOWNSITE BLK 13 LT 25 221 S TEXAS BLVD	L: 32313 B: 0
WESLACO TOWNSITE LLC 2403 DANESWOOD COURT SPRING TX 77388-2710	W2300-00-013-0026-00 WESLACO ORIGINAL TOWNSITE E31'-L OT 26 BLK 13 219 S TEXAS BLVD	L: 32312 B: 10000
AVALOS, ALBERTO G DECEASED MINERVA T AVALOS 219 S TEXAS BLVD WESLACO TX 78596-6105	W2300-00-013-0026-05 WESLACO ORIGINAL TOWNSITE W79'-L OT 26 BLK 13	L: 23206 B: 21980
HERNANDEZ TOMASITA 403 R ST WESLACO TX 78596-2046	W2300-00-013-0027-00 WESLACO ORIGINAL TOWNSITE BLK 13 LT 27 215 S TEXAS BLVD	L: 32313 B: 113146
MARINES MIGUEL ANGEL & ALMA 1503 E CHERRY BLOSSOM CIR WESLACO TX 78596-7232	W2300-00-013-0028-00 WESLACO ORIGINAL TOWNSITE BLK 13 LTS 28-29 203 S TEXAS BLVD	L: 50325 B: 229136
MARINES, MIGUEL A & ALMA R 1503 E CHERRY BLOSSOM CIR WESLACO TX 78596-7232	W2300-00-013-0030-00 WESLACO ORIGINAL TOWNSITE BLK 13 LT 30 201 S TEXAS BLVD	L: 32313 B: 92231
CITY OF WESLACO 255 S KANSAS AVE WESLACO TX 78596-6158	W2300-00-00D-0011-00 WESLACO ORIGINAL TOWNSITE LOTS 1 1 & 12 BLK D	L: 18425 B: 55410



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: January 8, 2020	Agenda Item No. (to be assigned by PCE): V. A.
From: Rebekah de la Fuente, Planning Director, on behalf of Melden & Hunt, Inc.	
Subject/Agenda Item: Discussion and consideration for the Preliminary Plat for Harbor Freight Subdivision – A Tract of land containing 4.015 acres being a part or portion out of Farm Tract 137, Block 162, West & Adams Tract Subdivision, Hidalgo County, Texas. Approximately 726 ft. East of the intersection of Westgate Drive & U.S. Expressway 83.	
Discussion/Overview: The proposed two (2) lot subdivision inside the City of Weslaco city limits. This subdivision is being serviced with water by City of Weslaco through an 8" waterline and sewer by sewer by the City of Weslaco services through a 10" sewer line. The property is within a Flood Zone "B".	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission's Action: Staff recommends approval of the preliminary plat.	
Additional Action Prompted: ☒ Mayor's Signature ☐ Public Hearing ☐ Budget Amendment ☐ Resolution ☐ Ordinance – First Reading ☐ Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. 20-00003

This form shall be completed by the Property Owner or Applicant and submitted to the Planning Department along with the required number of copies of the respective plat, review fee and all other required information listed below and in the Subdivision Ordinance. The submittal of an application does not constitute acceptance for processing until the staff reviews and determines the application is complete.

STAFF USE ONLY

☐ Single Lot Variance ☐ Minor Plat ☐ Planned Unit Development ☐ Standard Subdivision

GENERAL INFORMATION

Name of Subdivision: HARBOR FREIGHT SUBDIVISION

Location: Approximately 726 ft. East of the Intersection of Westgate Drive & U.S. Expswy 83

Legal Description: Being a part or portion our of F.T. 137, Blk. 162, West & Adams Tract

Is subdivision inside city limits? ☒ YES ☐ NO

If subdivision is in the ETJ, indicate? ☐ 3.5 Mile ☐ 5 Mile

If no submit letter of Annexation (Contiguous or Consensual)

Existing Zoning: B-2 & I

Existing Land Use: Open Proposed Land Use: Commercial

Number of Lots Proposed: 2 Gross Acreage: 4.00

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: BS Management, LLC Telephone: C/O 381-0981

Address: 1806 S. Closner Fax: c/o 381-1839

City: Edinburg, State: TX Zip: 78539q E-mail: c/o mario@meldenandhunt.com

ENGINEER INFORMATION

Name: Melden & Hunt, Inc. c/o Mario A. Reyna Telephone: 381-0981

Address: 115 W. McIntyre Street Edinburg, TX 78541 Fax: 381-1839

City: Edinburg State: TX Zip: 78541 E-mail: mario@meldenandhunt.com

UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: CITY OF WESLACO

☐ YES ☐ NO Wastewater Provision: CITY OF WESLACO

☐ YES ☐ NO Electric Company: AEP

☒ YES ☐ NO Phone Utility <u>Frontier Communications</u>	☒ YES ☐ NO Gas Utility	☒ YES ☐ NO Cable Utility
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Proposed subdivision is in the following districts:

☒ YES ☐ NO Drainage District <u>HCDD#1</u>	☒ YES ☐ NO Irrigation District <u>HCCID#9</u>
---	--

Has the property been assessed as flat rate irrigable property: ☐ YES ☒ NO

Have Water Rights been conveyed to City/Water Supplier? ☒ YES ☐ NO

(Attach written proof of such assessment or that it has never been assessed as such a property) If YES, attach an estimate from the irrigation district of the proportional water rights for the subdivision as calculated under Texas Water Code § 49.505.

SUBMITTALS REQUIRED FOR MINOR PLAT REVIEW

- ☒ Two (2) sets of plats **folded and stapled** (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov
- ☒ \$350.00 Planning Review fee
- ☒ One 11" X 17" reduced copy of plat
- ☒ Plat Layout
 - ☒ Existing & Proposed Easements
 - ☒ Existing & Proposed ROW
 - ☒ Existing & Proposed Drainage Easements
 - ☒ Contours
 - ☒ Flood Zones
 - ☒ Adjoiners
 - ☒ Existing street names
- ☒ Drainage plans and calculations with engineer's seal
 - ☒ Elevations
 - ☒ Flood directional arrows
 - ☒ Detention areas
 - ☒ Street names
- ☒ Proof of ownership of the property
- ☐ If septic tank system required, submit soil evaluation report
- ☐ Water Rights associated with the property
- ☐ Tax Receipt for all taxing entities showing that taxes are paid in full

SUBMITTALS REQUIRED FOR PRELIMINARY (P & Z)

- ☒ Twelve (12) sets of preliminary plat **folded and stapled** (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov
- ☒ \$350.00 (one time fee for preliminary and final plat)
- ☒ One 11" X 17" reduced copy of plat
- ☒ Plat Layout
 - ☒ Existing & Proposed Easements
 - ☒ Existing & Proposed ROW
 - ☒ Existing & Proposed Drainage Easements

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

- ☒ Contours
- ☒ Flood Zones
- ☒ Adjoiners
- ☒ Existing & Proposed street names
- ☒ Utility Layout
- ☒ Existing & Proposed Utilities
- ☒ Proposed Fire Hydrants
- ☒ Adjoiners
- ☒ Street names
- ☒ Drainage plans and calculations with engineer's seal
- ☒ Elevations
- ☒ Flood directional arrows
- ☒ Detention areas
- ☒ Street names
- ☒ Proof of ownership of the property
- ☐ If septic tank system required, submit soil evaluation report
- ☐ Water Rights associated with the property
- ☒ Tax Receipt for all taxing entities showing that taxes are paid in full
- ☒ Number of fire hydrants proposed for subdivision
- ☒ Trip Generation Worksheet

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- ☐ Twelve (12) sets of plans **FOLDED & STAPLED** (24 x 36) & PDF copy **with all corrections**
- ☐ Plats to be sealed by Professional Engineer
- ☐ Approved Drainage Report
- ☐ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- ☐ One set of 8 ½ x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- ☐ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- ☐ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- ☐ Notice of Intent
- ☐ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- ☐ Electronic file of final plat and as-builds
- ☐ Reproducible plat to be recorded with all required signatures
- ☐ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- ☐ 2% inspection fee
- ☐ Park Fees
- ☐ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- ☐ Tax certificates
- ☐ Memo from engineering inspector releasing subdivision
- ☐ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- ☐ 30 Year Water and 30 Year Sewer Service Agreements
- ☐ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- ☐ Sealed engineering cost estimates
- ☐ Letter of Credit/Performance Bond/Escrow

** Any revisions requested would require resubmission of plats and reduced copy reflecting changes.

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: _____

Owner Signature: _____ Date: _____

_____ is the authorized agent

Authorized Agent Signature:  Date: 12/23/2019

Authorized Agent Printed Name: Mario A. Reyna, P.E.

THIS PAGE FOR STAFF USE ONLY

Date Received: _____ Received By: _____ Date Paid: _____

P & Z Commission Approval on Preliminary Plat: _____

P & Z Commission Approval on Final Plat: _____

City Commission Approval on Final Plat: _____

Preconstruction Meeting Date: _____

Date Recorded: _____ Instrument No. _____

General Comments: _____

Kayla A. Arevalo

From: Rebekah M. De La Fuente
Sent: Monday, October 28, 2019 1:16 PM
To: Lydia Flores
Cc: Mario Reyna
Subject: RE: Harbor Freight Subdivision - Pdf's of Plat/Utility/Drainage Report
Attachments: Harbor Frieght.pdf

Good Afternoon,

Please see the attached comment from staff. Please revise the plat sheets and resubmit a pdf copy for staff to review. Once all comments have been addressed, I will notify you so that you can submit the platting application.

Fire Comments:

- Plat does not show the fire hydrant or the water line to the hydrant that was discussed in the meeting.

Public Works Comments:

- There is not a water line located on the north side. Please verify the utility lay out.

Engineering Comments:

- Extend SS Line towards Frontage if possible, will also need to obtain permission from adjacent owner for proposed SS.
- Water Line must extend to and through property and tie-in to water line in west adjacent property for a loop.
- All Block Corners shall have a concrete monument with noted elevation

Thank you,

Rebekah de la Fuente, CFM
Interim Planning & Code Enforcement Director

City of Weslaco
255 S. Kansas Avenue
Weslaco, TX 78596
Ph: (956) 447-3401
Fax: (956) 973-3128
rdelafuente@weslacotx.gov



From: Lydia Flores <Lydia@meldenandhunt.com>
Sent: Monday, October 21, 2019 5:00 PM
To: Rebekah M. De La Fuente <rdelafuente@weslacotx.gov>
Cc: Mario Reyna <Mario@meldenandhunt.com>
Subject: Harbor Freight Subdivision - Pdf's of Plat/Utility/Drainage Report

Here you go my friend, hope you are doing well and yay get to work with you again!!!!

Thanks,

City of Weslaco

"The City on the Grow"



David Suarez, Mayor
Greg Kerr, Mayor Pro-Tem, District 2
Leo Muñoz, Commissioner, District 1
Jose "J.P." Rodriguez, Commissioner, District 3
Adrian Farias, Commissioner, District 4
Letty Lopez, Commissioner, District 5
Josh Pedraza, Commissioner, District 6

Mike R. Perez, City Manager

October 23, 2019

Melden & Hunt Inc
c/o Mario Reyna
115 W. McIntyre Street
Edinburg, Texas 78541

Re: Harbor Freight Subdivision

Dear Applicant:

As per the plan set received, please find below general comments that need to be addressed for the above-mentioned subdivision:

1. Metes and bounds description must match plan view as provided
2. Adjacent properties must be identified on all sides.
3. Submit Trip Generation Worksheet
4. Update Plate Note 9: Streetlight must be located every 300 feet
5. Submit variance for proposed 6' utility easement

Should you need additional information or have any questions, please call the Planning Department at (956) 447-3401.

Sincerely,

Rebekah de la Fuente, CFM
Interim Planning & Code Enforcement Director

FIRM NAME: MELDEN & HUNT, INC. – #F1435

TITLE: HARBOR FREIGHT SUBDIVISION

PREPARED BY: MARIO A. REYNA, P.E

DATE: October 21, 2019



M - R
10-21-19

INDEX

- 1. Drainage Statement**
- 2. Drainage Calculations**
- 3. Weighted C Calculations**
- 4. Location Map**
- 5. Subdivision Plat**
- 6. Utility Layout**
- 7. USGS Topographical Map**
- 8. Rainfall Intensity Table**
- 9. Street Velocities & Capacities Flowing Curb Full Table**
- 10. USDA Soils Map**
- 11. USDA Soils Legend & Description**
- 12. FEMA FIRM with site location**



TBPE Firm # F-1435
TBPLS # 10096900

MELDEN & HUNT INC.

CONSULTANTS • ENGINEERS • SURVEYORS
FRED L. KURTH • ALLAN F. BOOE • KELLEY A. HELLER-VELA • ROBERT TAMEZ

Drainage Statement
HARBOR FREIGHT SUBDIVISION
Project #19177.00 Date: October 21, 2019

HARBOR FREIGHT SUBDIVISION A tract of land containing 4.015 acres [174,874.848 square feet] situated in the City of Weslaco, Hidalgo County, Texas, being a part or portion out of Farm Tract 137, Block 162, West & Adams Tract, according to the plat thereof recorded in Volume 2, Page 36, Hidalgo County Map Records, which said 4.015-acre tract was conveyed to BS Management, LLC, a Texas limited liability company, by virtue of a Warranty Deed with Vendor's Lien, recorded under Document Number 2727813, Hidalgo County Official Records. This subdivision falls in "Zone B" according to FEMA FIRM Community-Panel number: 480349 0005 B. 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 square mile; or areas protected by levees from the base flood." The property is located approximately 726 feet east of the intersection of Westgate Drive & U.S. Expressway 83 (I2). The property is currently open with a proposed use of 2 commercial lots in the to City of Weslaco, Texas.

The soils in this area is (28) Hidalgo Sandy Clay Loam, (70) Willacy fine sandy loam & (71) Willacy fine sandy loam, which are in Hydrologic Group "B". This soils are moderately pervious and have a relatively low plasticity index. (See excerpts from "Soil Survey of Hidalgo County, Texas").

Existing runoff is in a northeasterly direction, with a runoff of 3.57 c.f.s. during the 10-year storm frequency as per the attached calculations. Proposed runoff after development is 21.13 c.f.s., during the 50-year storm frequency, per the attached calculation, which is an increase of 17.56 c.f.s.

The proposed drainage for this subdivision shall consist of surface runoff from buildings onto the parking lot and green areas and sheet flow towards a proposed detention pond located with in each lot. An 8" storm pipe shall discharge of the site into an existing TxDot inlet located on the northwest corner of the property.

In accordance with the City of Weslao drainage policy, the peak rate of runoff in this subdivision will not be increased during the 50-year rainfall event due to the building of this subdivision. Therefore, as per attached calculations, the required detention will be provided within the Proposed Detention Ponds in each lot. Lot 1 will require to provide 19,531 cubic feet of detention and Lot 2 will provide 28,192 cubic feet for a total of 47, 723 cubic feet required for this subdivision.

Mario A. Reyna, P.E. #117368

10-21-19

Date



DRAINAGE REPORT

PROJECT NAME: **Harbor Freight Subdivision**
 PROJECT NUMBER: **19177.00**
 DATE: **October 21, 2019**

I. Existing Condition-10 year

Ex. Area:	174,874.85 sf	Int. Coeff. "k"	0.213 Table 3-2
	4.01 ac	K _p	3.28
Imp. Area:	455 sf	Length	593 ft
% Imp. :	0.00	Velocity	0.270582 ft/sec
Slope :	0.15 %		
t _c :	36.53 min		
Rainfall Intensity (10yr)			4.445 in/hr
c factor			0.200
Q peak existing condition:			3.57 cfs

II. Future Condition-50 year

Future area: 174,874.85 sf
 4.01 ac
 Estimated Imp. Area: **465,560** sf
 % Imp. : 2.66
 Slope : 15.00%
 t_c : **30.00** min
 Rainfall Intensity (50yr) 6.343 in/hr
 c factor 0.830
 Q future cond. = Aci = i * = 19159.00 * 0.83
 3.33209651 i

time min.	time hour	i in/hr	Q _{in} cfs	V _{in} cf	Q _{out} cfs	V _{out} cf	REQ'D V cf
5	0.08	13.57	45.22	13565	3.57	3748	9817
10	0.17	10.83	36.07	21642	3.57	4283	17359
15	0.25	9.10	30.33	27296	3.57	4819	22477
20	0.33	7.91	26.35	31620	3.57	5354	26266
25	0.42	7.03	23.41	35112	3.57	5889	29223
30	0.50	6.34	21.14	38044	3.57	6425	31619
35	0.58	5.80	19.32	40564	3.57	6960	33604
40	0.67	5.35	17.83	42784	3.57	7495	35289
45	0.75	4.98	16.58	44767	3.57	8031	36737
50	0.83	4.66	15.52	46563	3.57	8566	37996
60	1.00	4.14	13.81	49710	3.57	9637	40072
90	1.50	3.16	10.54	56931	3.57	12849	44081
120	2.00	2.60	8.65	62281	3.57	16062	46219
180	3.00	1.95	6.50	70210	3.57	22486	47723
240	4.00	1.59	5.29	76148	3.57	28911	47237

Storage Required: 47,723 cf
 Storage Required: 1.096 Ac.-Ft.
 w/ release rate of: 3.57 cfs
 Storage / Ac. Development: 0.273 Ac.Ft. per Ac.



M
 10-21-19

H.C.D.D. No. 1 "c" values for Rational Method	
Type of Drainage Area	Runoff Coefficient "c"
Residential	
Single Family (Lots less than 1/4 acre)	0.35
Single Family (Lots 1/4 to 1/2 acre)	0.3
Single Family (Lots greater than 1/2 acre)	0.25
Multi-Family (Less than 20 DU / AC)	0.45
Multi-Family (Greater than 20 DU / AC)	0.55
Business Districts:	0.7
Industrial	
Light areas	0.5
Heavy areas	0.6
Railroad yard areas	0.2
Parks, cemeteries	0.1
Unimproved Areas	
Bare Surface	0.3
Grassland	0.25
Cultivated	0.2
Woodlands	0.15
Streets	
Asphalt	0.7
Concrete	0.75
Drives and walks	0.75

$$C_W = (C_1A_1 + C_2A_2 + C_3A_3 + \dots C_nA_n) / A_{\text{total}}$$

C_W = Weighted Runoff Coefficient (Composite Coefficient)

C_n = Runoff Coefficient n-th term

A_n = Area of n-th term

A_{total} = Total Area (acres)

Weighted "c" value				
Type of Drainage Area	"c" value:	Square Footage	Acreage	partial "c"
Residential				
Single Family (Lots less than 1/4 acre)	0.35	0	0.000	0.000
Single Family (Lots 1/4 to 1/2 acre)	0.3	0.00	0.000	0.000
Single Family (Lots greater than 1/2 acre)	0.25	0	0.000	0.000
Multi-Family (Less than 20 DU / AC)	0.45	0	0.000	0.000
Multi-Family (Greater than 20 DU / AC)	0.55	0	0.000	0.000
Business Districts:	0.7	0	0.000	0.000
Industrial				
Light areas	0.5	0	0.000	0.000
Heavy areas	0.6	0	0.000	0.000
Roofs	0.75	16005	0.367	0.276
Parks, cemeteries	0.1	0	0.000	0.000
Unimproved Areas				
Bare Surface	0.3	121404.91	2.787	0.836
Grassland	0.25	0	0.000	0.000
Cultivated	0.2	0	0.000	0.000
Woodlands	0.15	0	0.000	0.000
Streets				
Asphalt	0.9	37468	0.860	0.774
Concrete	0.9	0	0.000	0.000
Drives and walks	0.9	3200	0.073	0.066
Total:		178,078	4.088	1.952
Weighted "c":			0.477	

$$C_W = (C_1A_1 + C_2A_2 + C_3A_3 + \dots + C_nA_n) / A_{\text{total}}$$

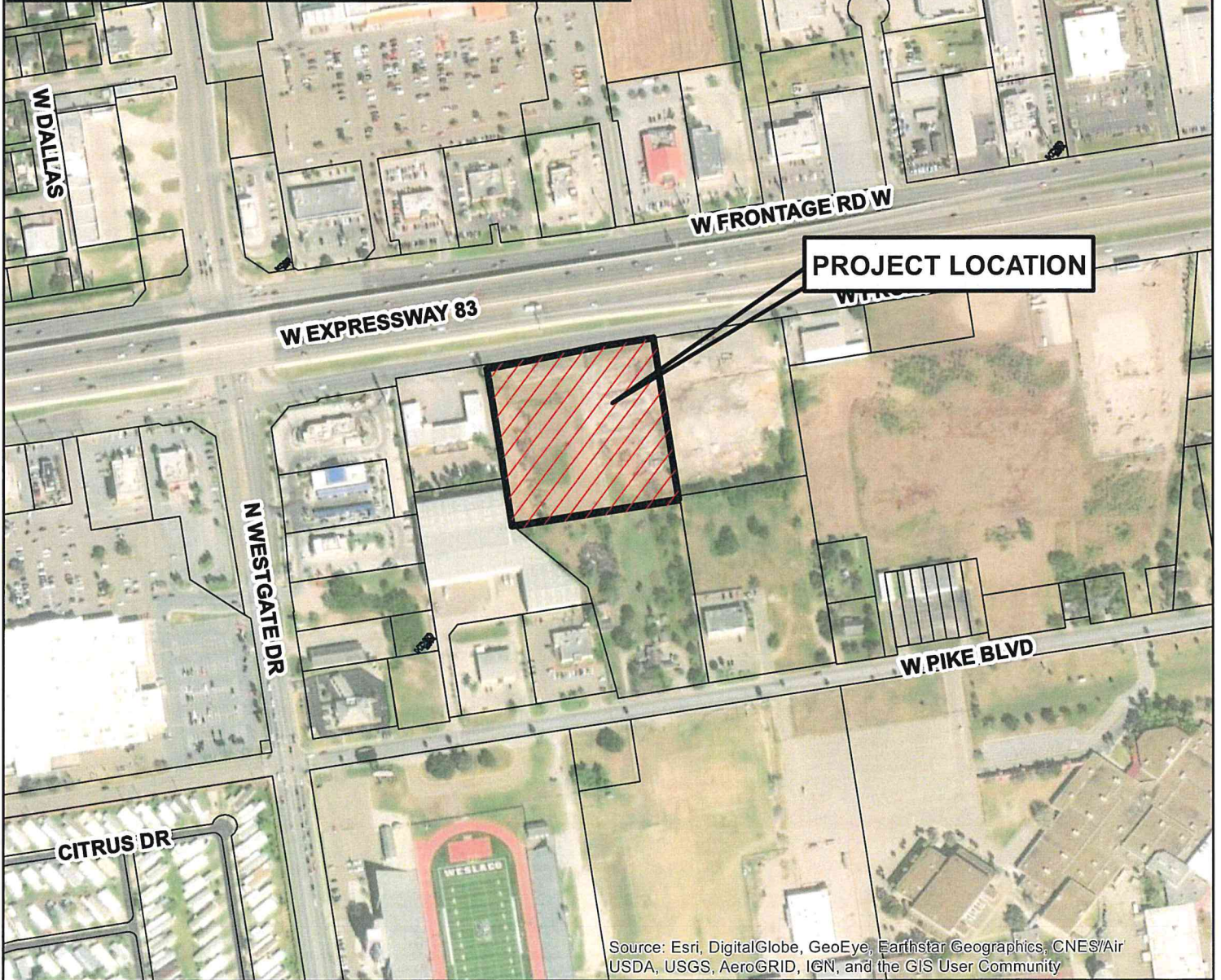
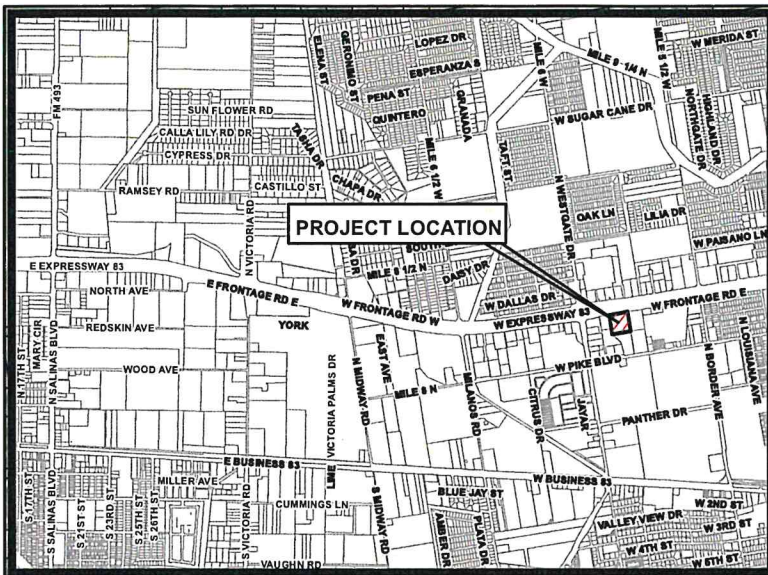
C_W = Weighted Runoff Coefficient (Composite Coefficient)

C_n = Runoff Coefficient n-th term

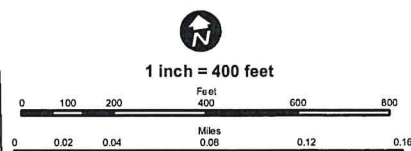
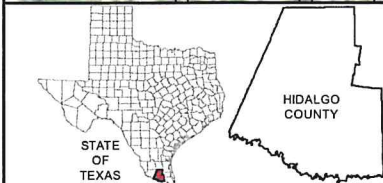
A_n = Area of n-th term

A_{total} = Total Area (acres)

A_{total} = Total Area (acres)



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Air
USDA, USGS, AeroGRID, IGN, and the GIS User Community



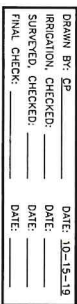
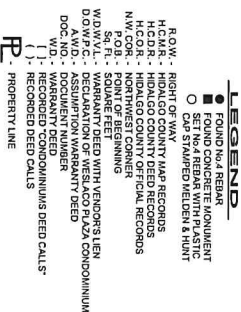
CITY OF WESLACO
HIDALGO COUNTY, TEXAS
PROJECT LOCATION MAP

M **MILLEN & HUNT INC**
227 N. F.M. 3157
12 JAMES CITY, TX 77401
PH: (281) 487-8236
FAX: (281) 487-8236

115 W. NIGHTYRE
LUBBOCK, TX 79401
PH: (806) 381-0888
FAX: (806) 381-1828
WWW.MILLEN-HUNT.COM

DATE: 10/10/19
JOB NO: 10177-08
FILE NAME:
DRAWN BY: A. Mena

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MELDEN & HUNT INC.
CONSULTANTS • ENGINEERS • SURVEYORS

M

115 W. MCINTYRE • EDINBURG, TX 78541
PH: (856) 381-0981 • FAX: (956) 381-1833
ESTABLISHED 1947 • www.meldenandhunt.com

DBFLA No. 10069600

GENERAL NOTES :

1. THIS SUBDIVISION IS IN FLOOD ZONE "B".
ZONE "B" 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 FLOODING IS LIMITED TO ONE(1) SQUARE FEET OR AREAS PROTECTED BY LEVEES.
FROM THE BASE FLOOD (MEDIAN STAGING).
- COMMUNITY-PANEL NUMBER: 48340 0005 B
EFFECTIVE DATE: MARCH 4, 1980

- [illegible]

METES AND BOUNDS DESCRIPTION:

A SUBDIVISION CONTAINING .015 ACRES (17,484.848 SQUARE FEET) SITUATED IN THE CITY OF WESLACO, HDALOJO COUNTY, TEXAS, BEING A PART OR PORTION OUT OF FARM TRACT 137, BLOCK 42, WEST & ADAMS TRACT, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 2, PAGE 38, HDALOJO COUNTY MAP RECORDS, WHICH SAID .015-ACRE TRACT WAS CONVEYED TO BS MANAGEMENT, L.L.C. A TEXAS LIMITED LIABILITY COMPANY, BY VIRTUE OF A WARRANTY DEED WITH VENDOR'S URN, RECORDED UNDER DOCUMENT NUMBER 227813, HDALOJO COUNTY OFFICIAL RECORDS, SAID .015 ACRES ALSO BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A NO. 4 REBAR SET ON THE NORTHWEST CORNER OF LOT 1, MESILACO PLAZA SUBDIVISION, ACCORDING TO THE PLAT THEREOF RECORDED IN INSTRUMENT NUMBER 2895575, HIDALGO COUNTY MAP RECORDS, FOR THE NORTHEAST CORNER OF THIS HEREIN DESCRIBED TRACT;

- [illegible]

STATE OF TEXAS
COUNTY OF HIDALGO

JAVESH S. BHAKTA, MEMBER
BS MANAGEMENT, LLC
5807 N. 3rd LANE
MCALLEN, TEXAS 78504

DATE: _____

BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, ON THIS DAY PERSONALLY APPEARED JAMES S. BILAKA, WHO HAS BEEN IDENTIFIED TO ME BY MYSELF AND BY THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND BEING BY ME FIRST DULY SWORN, DECLARED THAT THE STATEMENTS THEREIN ARE TRUE AND CORRECT AND SIGNED BY HIM, AND THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREBY EXPRESSED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS _____ DAY OF _____, 2018.

NOTARY PUBLIC, STATE OF TEXAS
MY COMMISSION EXPIRES:

DATED THIS THE _____ DAY OF _____, 20____.

WEDGEN & HUNT, INC.

MARIO A. REYNA, PROFESSIONAL ENGINEER No. 117369
STATE OF TEXAS

DATE PREPARED: 10/15/19
ENGINEERING JOB # 19177.00



HERBY, A. WORTH, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECTLY MADE FROM AN ACTUAL SURVEY MADE ON THE GROUND OF THE PROPERTY LEGALLY DESCRIBED HEREON, AND THAT THERE ARE NO ADVERSE DISSEMINATIONS, CONFLICTS, OR LAPPING OF IMPROVEMENTS, VISIBLE TITLES OR RIGHTS IN CONNECTION WITH THIS PLAT. THE SURVEY WAS MADE IN ACCORDANCE WITH THE SURVEYING ACTS AND ORDINANCES OF THE STATE OF TEXAS, AND THE SURVEYING REGULATIONS OF THE CITY OF MISSION, TEXAS.

REFEED L. KURTH, PROFESSIONAL LAND SURVEYOR No.4750
STATE OF TEXAS
DATE SURVEYED: 10/01/2019
T-1083, PG.70
SURVEY JOB # 19177.08



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

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

HIDALGO COUNTY RAINFALL INTENSITY TABLES

based on Weather Bureau (NWS) Technical Paper No. 40 "Rainfall Frequency Atlas of the United States"

TIME	5 yr.	10 yr.	25 yr.	50 yr.
------	-------	--------	--------	--------

1	12.626	14.283	16.353	17.386
2	11.721	13.281	15.215	16.210
3	10.950	12.426	14.244	15.204
4	10.286	11.687	13.405	14.333
5	9.706	11.042	12.671	13.570
6	9.194	10.472	12.023	12.895
7	8.740	9.966	11.447	12.294
8	8.334	9.512	10.930	11.755
9	7.968	9.103	10.464	11.268
10	7.636	8.732	10.042	10.825
11	7.334	8.394	9.656	10.421
12	7.058	8.084	9.303	10.051
13	6.804	7.799	8.978	9.710
14	6.569	7.536	8.678	9.395
15	6.353	7.293	8.400	9.102
16	6.151	7.067	8.142	8.831
17	5.964	6.856	7.902	8.577
18	5.789	6.659	7.677	8.340
19	5.625	6.475	7.466	8.117
20	5.472	6.302	7.268	7.908
21	5.327	6.139	7.082	7.711
22	5.191	5.985	6.906	7.525
23	5.062	5.840	6.740	7.349
24	4.941	5.703	6.583	7.183
25	4.825	5.572	6.434	7.025
26	4.716	5.449	6.293	6.875
27	4.612	5.331	6.158	6.732
28	4.513	5.220	6.030	6.596
29	4.419	5.113	5.908	6.467
30	4.329	5.011	5.792	6.343
31	4.244	4.914	5.680	6.224
32	4.161	4.821	5.574	6.111
33	4.083	4.732	5.472	6.002
34	4.008	4.646	5.374	5.897
35	3.935	4.564	5.280	5.797

TIME	5 yr.	10 yr.	25 yr.	50 yr.
------	-------	--------	--------	--------

36	3.866	4.486	5.189	5.701
37	3.799	4.410	5.103	5.608
38	3.735	4.337	5.019	5.519
39	3.673	4.267	4.939	5.433
40	3.614	4.199	4.861	5.350
41	3.557	4.134	4.786	5.270
42	3.501	4.071	4.714	5.193
43	3.448	4.010	4.644	5.118
44	3.396	3.951	4.577	5.046
45	3.346	3.895	4.511	4.976
46	3.298	3.840	4.448	4.908
47	3.251	3.786	4.387	4.843
48	3.206	3.735	4.328	4.779
49	3.162	3.685	4.270	4.717
50	3.120	3.636	4.215	4.658
51	3.078	3.589	4.161	4.600
52	3.038	3.543	4.108	4.543
53	2.999	3.499	4.057	4.488
54	2.962	3.456	4.007	4.435
55	2.925	3.414	3.959	4.383
56	2.889	3.373	3.912	4.333
57	2.854	3.333	3.867	4.284
58	2.821	3.295	3.822	4.236
59	2.788	3.257	3.779	4.189
60	2.756	3.220	3.737	4.144
61	2.724	3.185	3.696	4.099
62	2.694	3.150	3.656	4.056
63	2.664	3.116	3.617	4.014
64	2.635	3.083	3.578	3.973
65	2.607	3.050	3.541	3.933
66	2.579	3.019	3.505	3.894
67	2.552	2.988	3.469	3.855
68	2.526	2.958	3.435	3.818
69	2.500	2.928	3.401	3.781
70	2.475	2.899	3.368	3.745

HIDALGO COUNTY RAINFALL INTENSITY TABLES (cont.)

based on Weather Bureau (NWS) Technical Paper No. 40 "Rainfall Frequency Atlas of the United States"

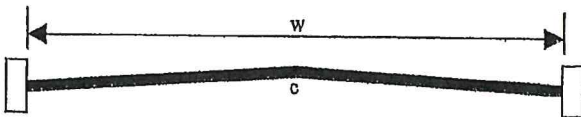
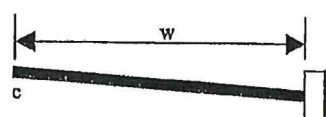
TIME	5 yr.	10 yr.	25 yr.	50 yr.
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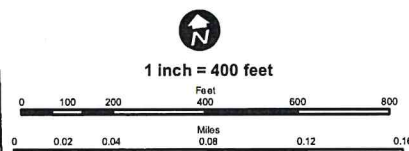
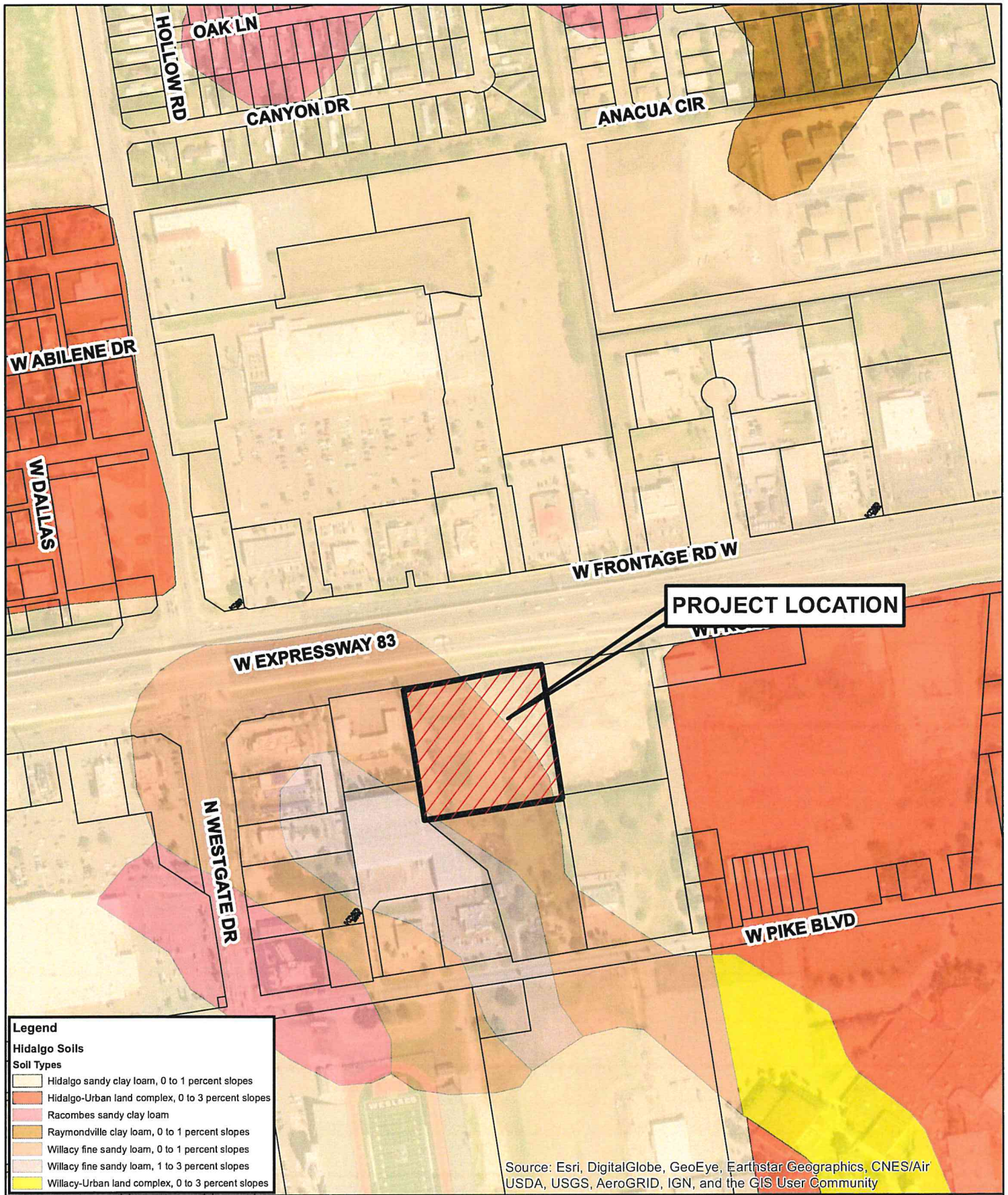
71	2.451	2.871	3.335	3.710
72	2.427	2.844	3.303	3.676
73	2.403	2.817	3.272	3.642
74	2.380	2.790	3.242	3.610
75	2.358	2.765	3.212	3.577
76	2.336	2.739	3.183	3.546
77	2.314	2.715	3.155	3.515
78	2.293	2.690	3.127	3.485
79	2.272	2.667	3.099	3.455
80	2.252	2.643	3.073	3.426
81	2.232	2.620	3.046	3.398
82	2.213	2.598	3.020	3.370
83	2.193	2.576	2.995	3.342
84	2.175	2.555	2.970	3.315
85	2.156	2.533	2.946	3.289
86	2.138	2.513	2.922	3.263
87	2.121	2.492	2.899	3.238
88	2.103	2.472	2.876	3.213
89	2.086	2.453	2.853	3.188
90	2.069	2.434	2.831	3.164
91	2.053	2.415	2.809	3.140
92	2.037	2.396	2.788	3.117
93	2.021	2.378	2.767	3.094
94	2.005	2.360	2.746	3.072
95	1.990	2.342	2.726	3.050
96	1.975	2.325	2.706	3.028
97	1.960	2.308	2.686	3.007
98	1.946	2.291	2.667	2.986
99	1.931	2.275	2.648	2.965
100	1.917	2.258	2.629	2.944
101	1.904	2.242	2.610	2.924
102	1.890	2.227	2.592	2.905
103	1.876	2.211	2.574	2.885
104	1.863	2.196	2.557	2.866
105	1.850	2.181	2.540	2.847

TIME	5 yr.	10 yr.	25 yr.	50 yr.
------	-------	--------	--------	--------

106	1.838	2.166	2.523	2.829
107	1.825	2.152	2.506	2.811
108	1.813	2.137	2.489	2.793
109	1.800	2.123	2.473	2.775
110	1.788	2.109	2.457	2.757
110	1.788	2.109	2.457	2.757
112	1.765	2.082	2.426	2.723
113	1.753	2.069	2.410	2.707
114	1.742	2.056	2.395	2.690
115	1.731	2.043	2.380	2.674
116	1.720	2.030	2.366	2.658
117	1.709	2.018	2.351	2.642
118	1.698	2.006	2.337	2.626
119	1.688	1.993	2.323	2.611
120	1.677	1.981	2.309	2.596
125	1.628	1.924	2.242	2.523
130	1.581	1.870	2.180	2.455
135	1.537	1.819	2.122	2.391
140	1.496	1.771	2.067	2.331
145	1.457	1.727	2.015	2.274
150	1.421	1.684	1.966	2.220
155	1.386	1.644	1.919	2.169
160	1.354	1.606	1.876	2.121
165	1.323	1.570	1.834	2.075
170	1.293	1.536	1.794	2.032
175	1.265	1.504	1.757	1.990
180	1.239	1.473	1.721	1.951
185	1.213	1.443	1.686	1.913
190	1.189	1.415	1.654	1.877
195	1.166	1.388	1.622	1.842
200	1.144	1.362	1.592	1.809
210	1.102	1.313	1.536	1.747
220	1.063	1.268	1.484	1.690
230	1.028	1.227	1.436	1.637
240	0.995	1.189	1.392	1.587

Appendix 3.0
Street Velocities and Capacities Flowing Curb Full
Manning's n = 0.018

										
	Local Street		Local Street		Collector Street		Secondary Street (half-section)		Primary Street (half-section)	
	w = 30'		w = 40'		w = 44'		w = 24'			
Slope %	c = 4" wp = 31.16 A = 12.45 r = 0.40		c = 4" wp = 41.17 A = 16.67 r = 0.405		c = 5" wp = 45.17 A = 16.50 r = 0.365		c = 6" wp = 24.66 A = 7.92 r = 0.32		c = 9" wp = 28.52 A = 8.12 r = 0.28	
	V ft/sec	Q cfs	V ft/sec	Q cfs	V ft/sec	Q cfs	V ft/sec	Q cfs	V ft/sec	Q cfs
0.10	1.42	17.68	1.43	23.81	1.33	22.01	1.22	9.66	1.12	9.09
0.15	1.74	21.66	1.74	29.17	1.63	26.96	1.50	11.88	1.37	11.12
0.20	2.00	24.90	2.02	33.68	1.89	31.13	1.73	13.70	1.58	12.83
0.25	2.24	27.89	2.26	37.66	2.11	34.80	1.93	15.29	1.77	14.37
0.30	2.46	30.63	2.47	41.25	2.31	38.13	2.12	16.79	1.94	15.75
0.35	2.65	32.99	2.67	44.56	2.50	41.18	2.29	18.14	2.09	16.97
0.40	2.84	35.36	2.86	47.64	2.67	44.02	2.44	19.32	2.24	18.19
0.45	3.01	37.47	3.03	50.53	2.83	46.69	2.59	20.51	2.37	19.24
0.50	3.17	39.47	3.19	53.26	2.98	49.22	2.73	21.62	2.50	20.30
0.55	3.32	41.33	3.35	55.86	3.13	51.62	2.87	22.73	2.62	21.27
0.60	3.47	43.20	3.50	58.34	3.27	53.92	2.99	23.68	2.74	22.25
0.65	3.61	44.94	3.64	60.72	3.40	56.12	3.12	24.71	2.86	23.14
0.70	3.75	46.62	3.78	63.02	3.53	58.24	3.23	25.58	2.96	24.04
0.75	3.88	48.31	3.91	66.23	3.65	60.28	3.35	26.53	3.06	24.85
0.80	4.01	49.92	4.04	67.37	3.77	62.26	3.46	27.40	3.16	25.66
0.85	4.13	51.42	4.17	69.44	3.89	64.17	3.56	28.20	3.26	26.47
0.90	4.25	52.91	4.29	71.45	4.00	66.03	3.67	29.07	3.35	27.20
0.95	4.37	54.41	4.40	73.41	4.11	67.84	3.77	29.86	3.44	27.93
1.00	4.48	55.78	4.52	75.31	4.22	69.61	3.86	30.57	3.53	28.66
1.50	5.49	68.35	5.53	92.25	5.17	85.25	4.73	37.46	4.33	35.16
2.00	6.34	78.93	6.39	106.52	5.97	98.44	5.46	43.24	5.00	40.60
2.50	7.09	88.27	7.14	119.09	6.67	110.06	6.11	48.39	5.59	45.39
3.00	7.76	96.61	7.83	130.46	7.31	120.56	6.69	52.98	6.12	49.59
3.50	8.39	104.46	8.45	140.91	7.89	130.22	7.23	57.26	6.61	53.67
4.00	8.97	111.68	9.04	150.64	8.44	139.21	7.73	61.22	7.07	57.41
4.50	9.51	118.40	9.58	159.78	8.95	147.66	8.20	64.94	7.50	60.90
5.00	10.02	124.75	10.10	168.42	9.43	155.65	8.64	68.43	7.90	64.15
5.50	10.51	130.85	10.60	176.64	9.89	163.24	9.06	71.76	8.29	67.31
6.00	10.98	136.70	11.07	184.49	10.33	170.50	9.46	74.92	8.65	70.24
6.50	11.43	143.30	11.52	192.03	10.76	177.46	9.85	78.01	9.01	73.16
7.00	11.86	147.66	11.95	199.28	11.16	184.16	10.22	80.94	9.35	75.92
7.50	12.28	152.89	12.37	206.27	11.55	190.63	10.58	83.79	9.68	78.60
8.00	12.68	157.85	12.78	213.04	11.93	196.88	10.93	86.57	9.99	81.12
8.50	13.07	162.72	13.17	219.59	12.30	202.94	11.26	89.18	10.30	83.64
9.00	13.45	167.45	13.55	225.96	12.66	208.82	11.59	91.79	10.60	86.07
9.50	13.82	172.06	13.93	232.15	13.00	214.54	11.91	94.33	10.89	88.43
10.00	14.18	176.54	14.29	238.18	13.34	220.12	12.22	96.78	11.17	90.70



CITY OF WESLACO
HIDALGO COUNTY, TEXAS
SOIL MAP

M **MILLEN & HUNT INC.**

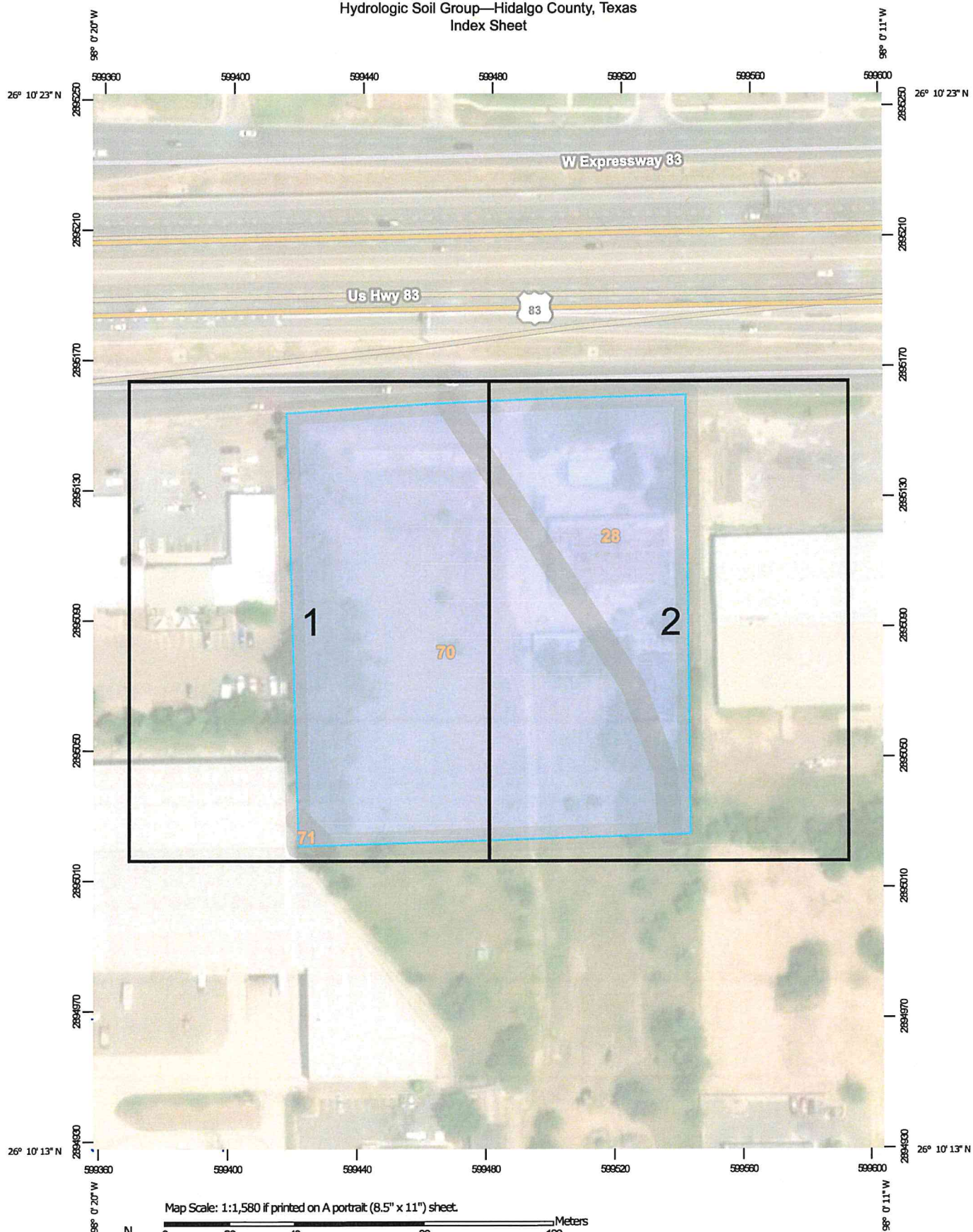
227 N. F.M. 2167
RD 2167 BOX 121
P.O. BOX 121
WESLACO, TEXAS 77679

115 W. MONTGOMERY
LUBBOCK, TX 79401
TEL: (806) 791-0991
FAX: (806) 791-1832
WWW.MILLEN-HUNT.COM

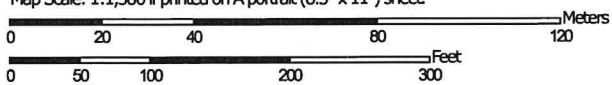
DATE: 10/15/2016
JOB NO: 19177-08
FILE NAME:
DRAWN BY: A. MORA

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Hydrologic Soil Group—Hidalgo County, Texas Index Sheet



Map Scale: 1:1,580 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

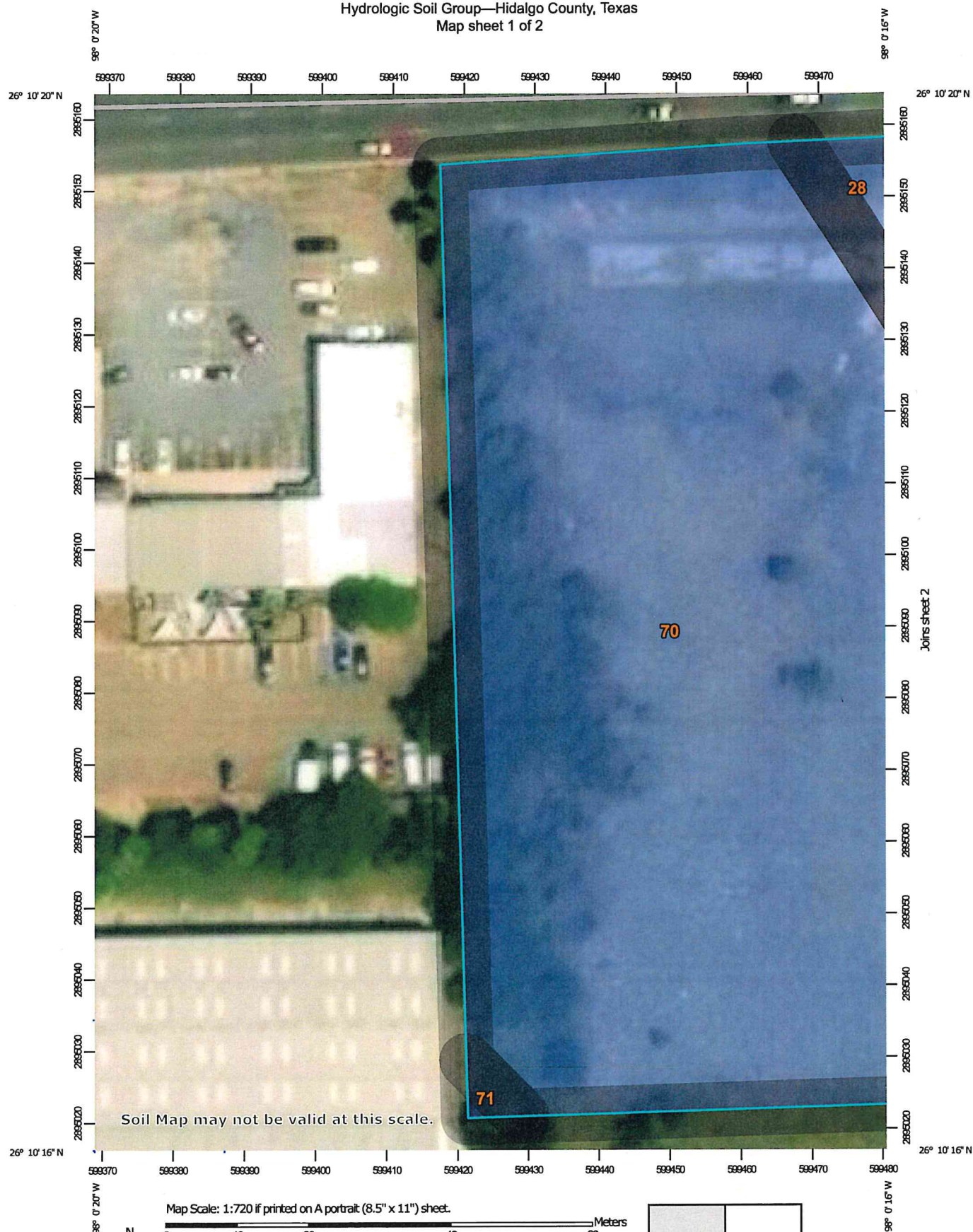


**Natural Resources
Conservation Service**

**Web Soil Survey
National Cooperative Soil Survey**

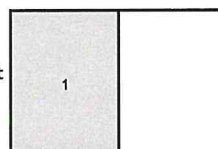
10/15/2019
Page 1 of 6

Hydrologic Soil Group—Hidalgo County, Texas Map sheet 1 of 2



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey



Map Sheet Location

10/15/2019
Page 2 of 6

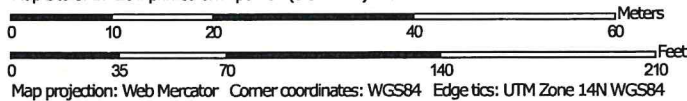
Hydrologic Soil Group—Hidalgo County, Texas Map sheet 2 of 2



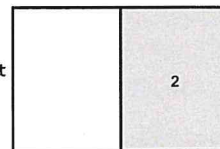
Joins sheet 1



Map Scale: 1:720 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84



Map Sheet Location



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

10/15/2019
Page 3 of 6

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D

C
C/D
D
Not rated or not available

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 18, Sep 12, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 20, 2015—Nov 5, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	B	1.1	27.4%
70	Willacy fine sandy loam, 0 to 1 percent slopes	B	3.0	72.4%
71	Willacy fine sandy loam, 1 to 3 percent slopes	B	0.0	0.2%
Totals for Area of Interest			4.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

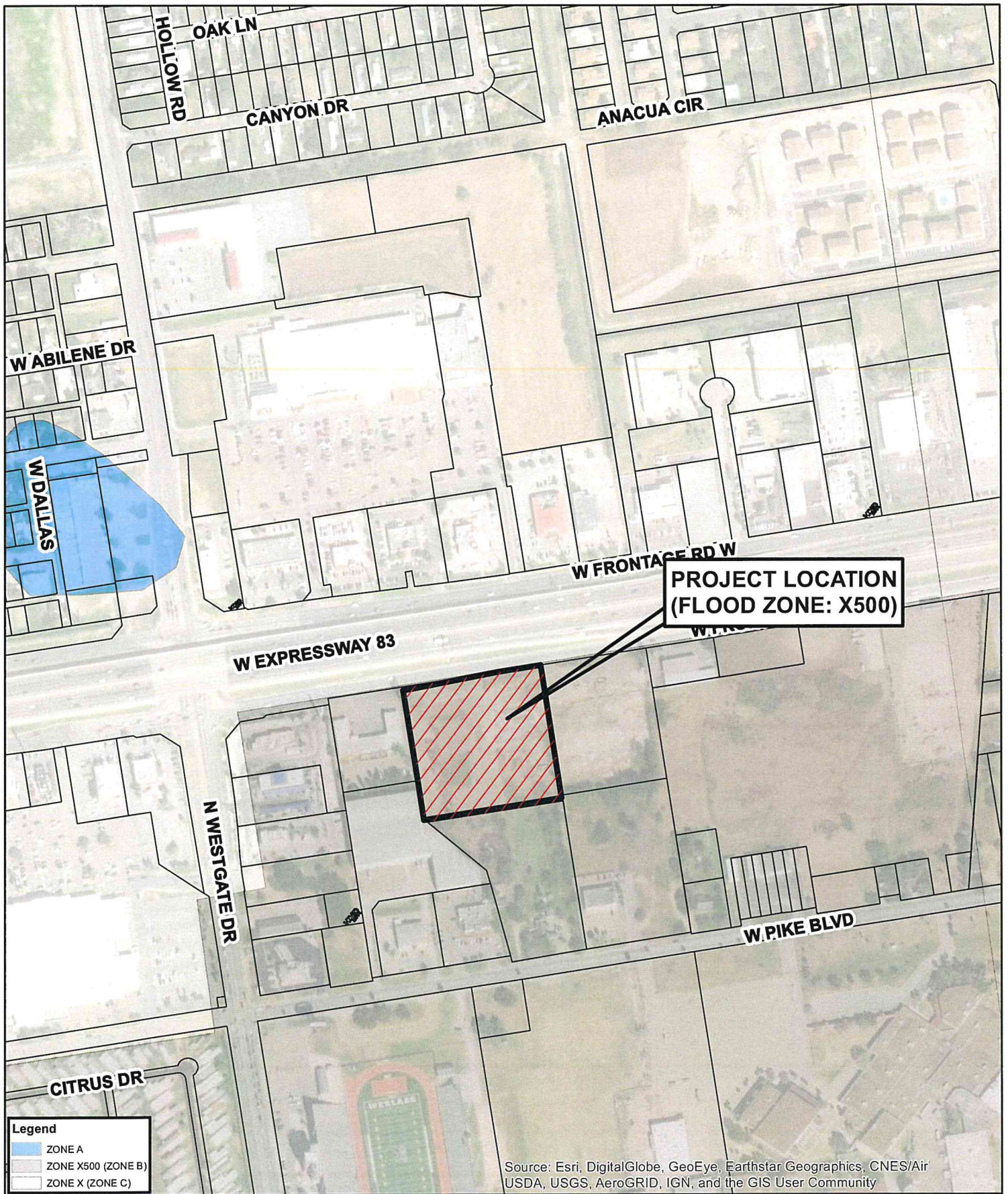
The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

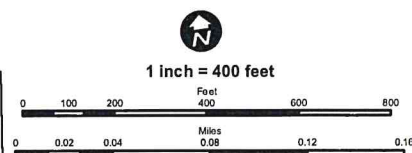
The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.



Legend

- ZONE A
- ZONE X500 (ZONE B)
- ZONE X (ZONE C)

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Air
USDA, USGS, AeroGRID, IGN, and the GIS User Community



CITY OF WESLACO
HIDALGO COUNTY, TEXAS
FEMA MAP

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DATE: 10/10/19
JOB NO: 19177-08
FILE NAME: 19177-08
DRAWN BY: A. Mena

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- ☒ Contours
- ☒ Flood Zones
- ☒ Adjoiners
- ☒ Existing & Proposed street names
- ☒ Utility Layout
- ☒ Existing & Proposed Utilities
- ☒ Proposed Fire Hydrants
- ☒ Adjoiners
- ☒ Street names
- ☒ Drainage plans and calculations with engineer's seal
- ☒ Elevations
- ☒ Flood directional arrows
- ☒ Detention areas
- ☒ Street names
- ☒ Proof of ownership of the property
- ☐ If septic tank system required, submit soil evaluation report
- ☐ Water Rights associated with the property
- ☒ Tax Receipt for all taxing entities showing that taxes are paid in full
- ☒ Number of fire hydrants proposed for subdivision
- ☒ Trip Generation Worksheet

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- ☐ **Twelve (12) sets of plans FOLDED & STAPLED (24 x 36) & PDF copy with all corrections**
- ☐ Plats to be sealed by Professional Engineer
- ☐ Approved Drainage Report
- ☐ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- ☐ One set of 8 ½ x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- ☐ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- ☐ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- ☐ Notice of Intent
- ☐ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- ☐ Electronic file of final plat and as-builds
- ☐ Reproducible plat to be recorded with all required signatures
- ☐ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- ☐ 2% inspection fee
- ☐ Park Fees
- ☐ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- ☐ Tax certificates
- ☐ Memo from engineering inspector releasing subdivision
- ☐ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- ☐ 30 Year Water and 30 Year Sewer Service Agreements
- ☐ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- ☐ Sealed engineering cost estimates
- ☐ Letter of Credit/Performance Bond/Escrow

Date: 12/10/2019

			Project Size			
	ITE Code	Anticipated Land Use	Acres	GFA	# of Units	
Lot #						
	1	816 Hardware/Paint Store		16,005		AM Peak Hour Trips
	2	820 Shopping Center		28,000		PM Peak Hour Trips
Total:				0	44005	0
						106
						136

Graph Look Up

Query Filter

DATA SOURCE: Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE: 816

LAND USE CATEGORY: (800-899) Retail

LAND USE: 816 - Hardware/Paint Store

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday

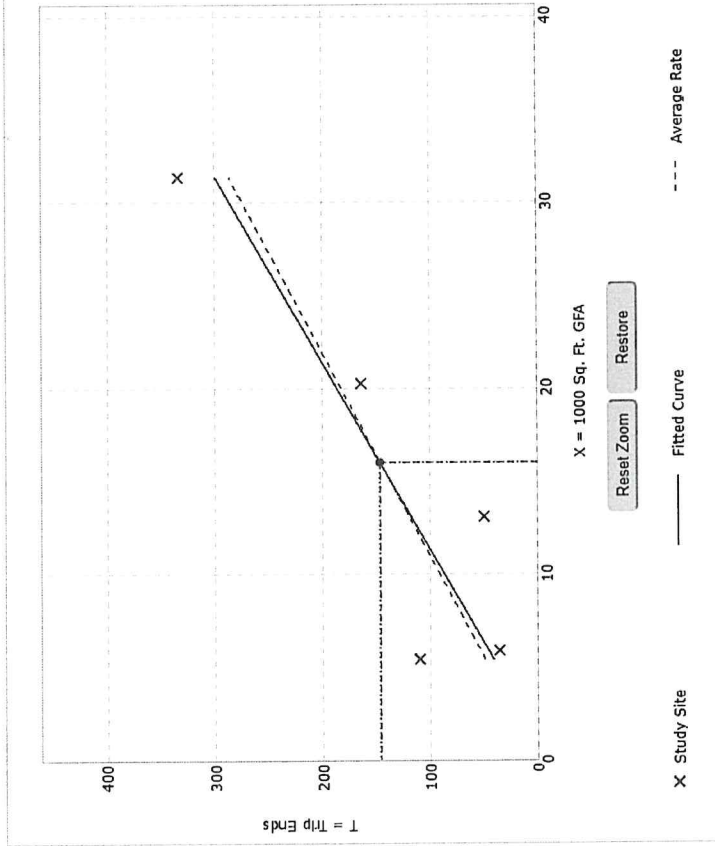
SETTING/LOCATION: General Urban/Suburban

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 16.0 Calculate

Data Plot and Equation

Caution - Small Sample Size



DATA STATISTICS

Land Use:	Hardware/Paint Store (816) Click for more details
Independent Variable:	1000 Sq. Ft. GFA
Time Period:	Weekday
Setting/Location:	General Urban/Suburban
Trip Type:	Vehicle
Number of Studies:	5
Avg. 1000 Sq. Ft. GFA:	15
Average Rate:	9.14
Range of Rates:	3.82 - 20.33
Standard Deviation:	4.43
Fitted Curve Equation:	$T = 9.94(X) - 12.22$
R^2 :	0.81
Directional Distribution:	50% entering, 50% exiting
Calculated Trip Ends:	Average Rate: 146 (Total), 73 (Entry), 73 (Exit)
Fitted Curve:	147 (Total), 73 (Entry), 74 (Exit)

Graph Look Up

Query Filter

DATA SOURCE: Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE: 816

LAND USE CATEGORY: (800-899) Retail

LAND USE: 816 - Hardware/Paint Store

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

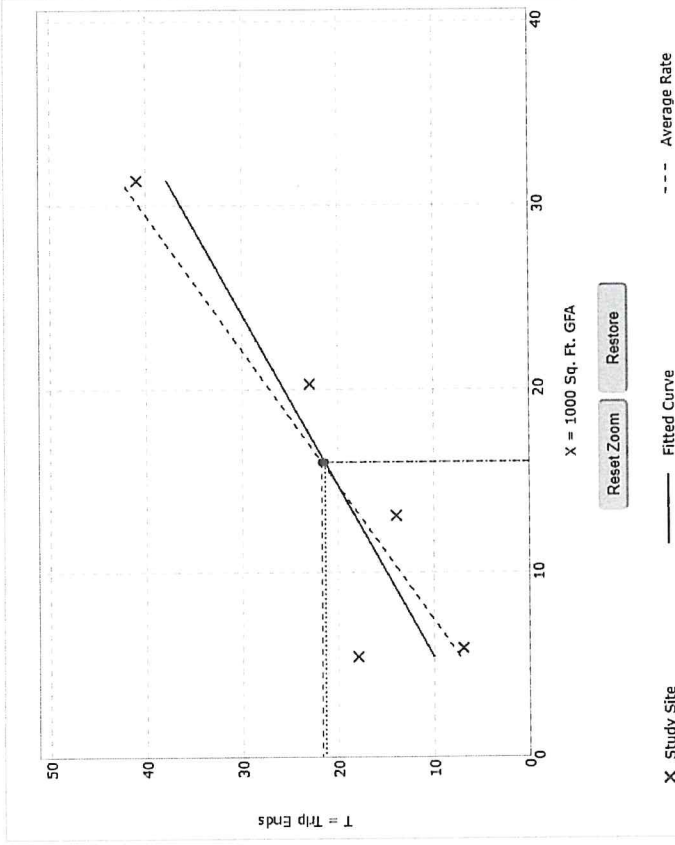
TIME PERIOD: Weekday, AM Peak Hour of Generator

SETTING/LOCATION: General Urban/Suburban

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 16.0 Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:	Hardware/Paint Store (816)
Independent Variable:	1000 Sq. Ft. GFA
Time Period:	Weekday
Setting/Location:	AM Peak Hour of Generator
Trip Type:	General Urban/Suburban
Vehicle:	
Number of Studies:	5
Avg. 1000 Sq. Ft. GFA:	15
Average Rate:	1.36
Range of Rates:	1.07 - 3.33
Standard Deviation:	0.62
Fitted Curve Equation:	$T = 1.07(X) + 4.31$
R^2 :	0.63
Directional Distribution:	52% entering, 48% exiting
Calculated Trip Ends:	
Average Rate:	22 (Total), 11 (Entry), 11 (Exit)
Fitted Curve:	21 (Total), 11 (Entry), 10 (Exit)

Graph Look Up

Query Filter

DATA SOURCE: Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE: 816

LAND USE CATEGORY: (800-899) Retail

LAND USE: 816 - Hardware/Paint Store

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

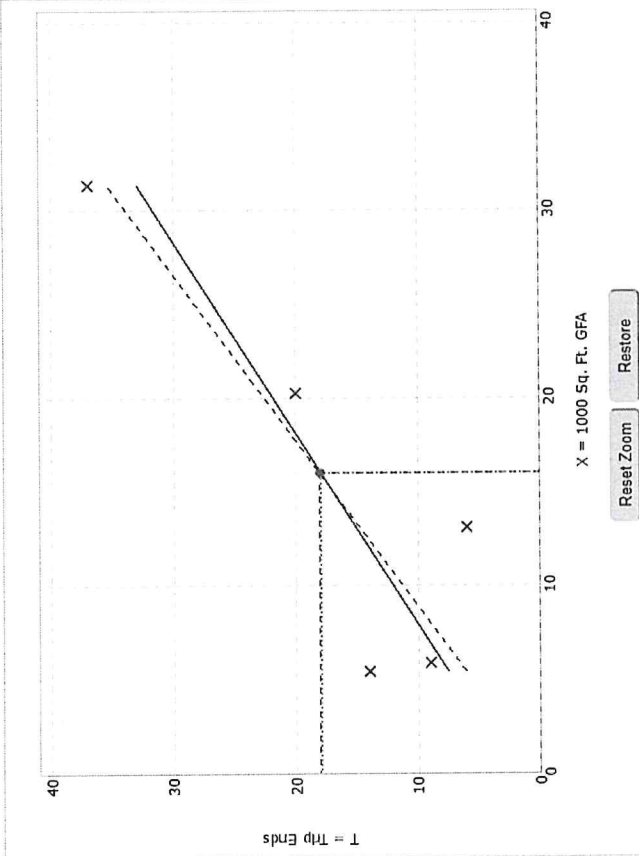
TIME PERIOD: Weekday, PM Peak Hour of Generator

SETTING/LOCATION: General Urban/Suburban

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 16.0 Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:	Hardware/Paint Store (816)	Click for more details
Independent Variable:	1000 Sq. Ft. GFA	
Time Period:	Weekday	
PM Peak Hour of Generator	General Urban/Suburban	
Setting/Location:	General Urban/Suburban	
Trip Type:	Vehicle	
Number of Studies:	5	
Avg. 1000 Sq. Ft. GFA:	15	
Average Rate:	1.13	
Range of Rates:	0.46 - 2.59	
Standard Deviation:	0.56	
Fitted Curve Equation:	$T = 0.98(X) + 2.27$	
R ² :	0.76	
Directional Distribution:	50% entering, 50% exiting	
Calculated Trip Ends:	Average Rate: 18 (Total), 9 (Entry), 9 (Exit)	
Fitted Curve:	18 (Total), 9 (Entry), 9 (Exit)	

Assumed 350' x 80' building (similar to property to east; but longer to fit Lot 2)

Graph Look Up

Query Filter

DATA SOURCE: Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE: 820

LAND USE CATEGORY: (800-899) Retail

LAND USE: 820 - Shopping Center

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GLA

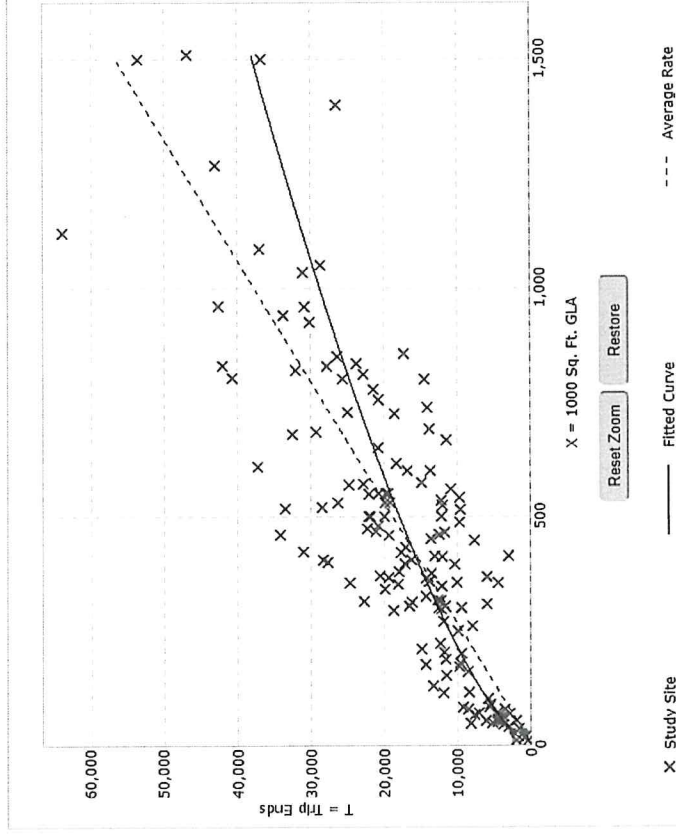
TIME PERIOD: Weekday

SETTING/LOCATION: General Urban/Suburban

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 28 Calculate

Data Plot and Equation



DATA STATISTICS

Land Use: Shopping Center (820) [Click for more details](#)

Independent Variable: 1000 Sq. Ft. GLA

Time Period: Weekday

Setting/Location: General Urban/Suburban

Trip Type: Vehicle

Number of Studies: 147

Avg. 1000 Sq. Ft. GLA: 453

Average Rate: 37.75

Range of Rates: 7.42 - 207.98

Standard Deviation: 16.41

Fitted Curve Equation: $\ln(T) = 0.69 \ln(X) + 5.57$

R^2 : 0.76

Directional Distribution: 50% entering, 50% exiting

Calculated Trip Ends: Average Rate: 1057 (Total), 528 (Entry), 529 (Exit)

Fitted Curve: 2530 (Total), 1265 (Entry), 1265 (Exit)

Graph Look Up

Query

Filter

DATA SOURCE:

Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:

820

LAND USE CATEGORY:

(800-899) Retail

LAND USE:

820 - Shopping Center

INDEPENDENT VARIABLE (IV):

1000 Sq. Ft. GLA

TIME PERIOD:

Weekday, AM Peak Hour of Generator

SETTING/LOCATION:

General Urban/Suburban

TRIP TYPE:

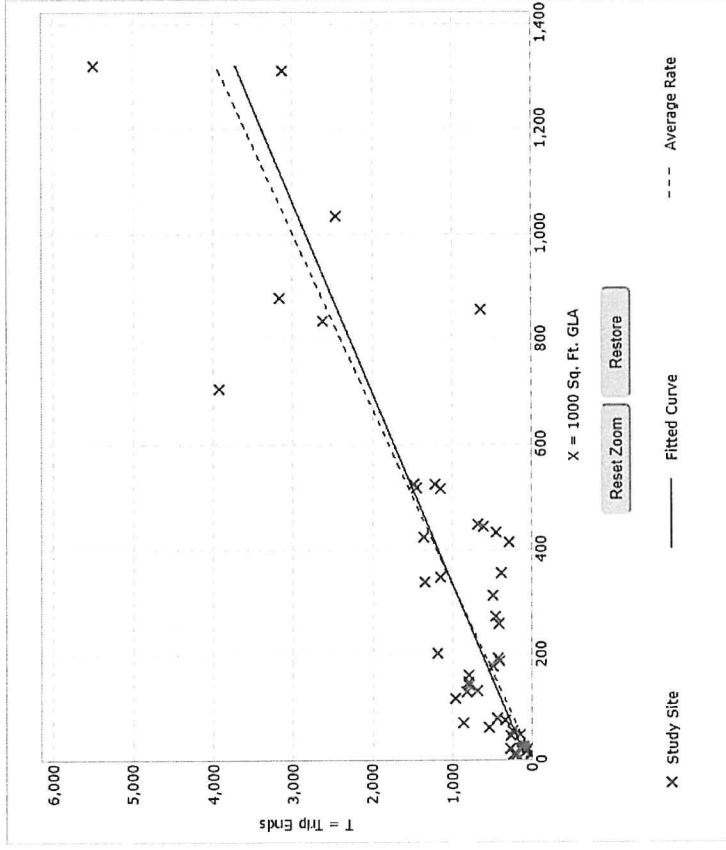
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

28

Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:

Shopping Center (820) [Click for more details](#)

Independent Variable:

1000 Sq. Ft. GLA

Time Period:

Weekday

AM Peak Hour of Generator

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

47

Avg. 1000 Sq. Ft. GLA:

323

Average Rate:

3.00

Range of Rates:

0.70 - 23.74

Standard Deviation:

1.85

Fitted Curve Equation:

 $T = 2.76(X) + 77.28$ R^2

0.71

Directional Distribution:

54% entering, 45% exiting

Calculated Trip Ends:

Average Rate: 84 (Total), 45 (Entry), 39 (Exit)

Fitted Curve: 155 (Total), 83 (Entry), 72 (Exit)

Graph Look Up

Query Filter

DATA SOURCE: Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE: 820

LAND USE CATEGORY: (800-899) Retail

LAND USE: 820 - Shopping Center

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GLA

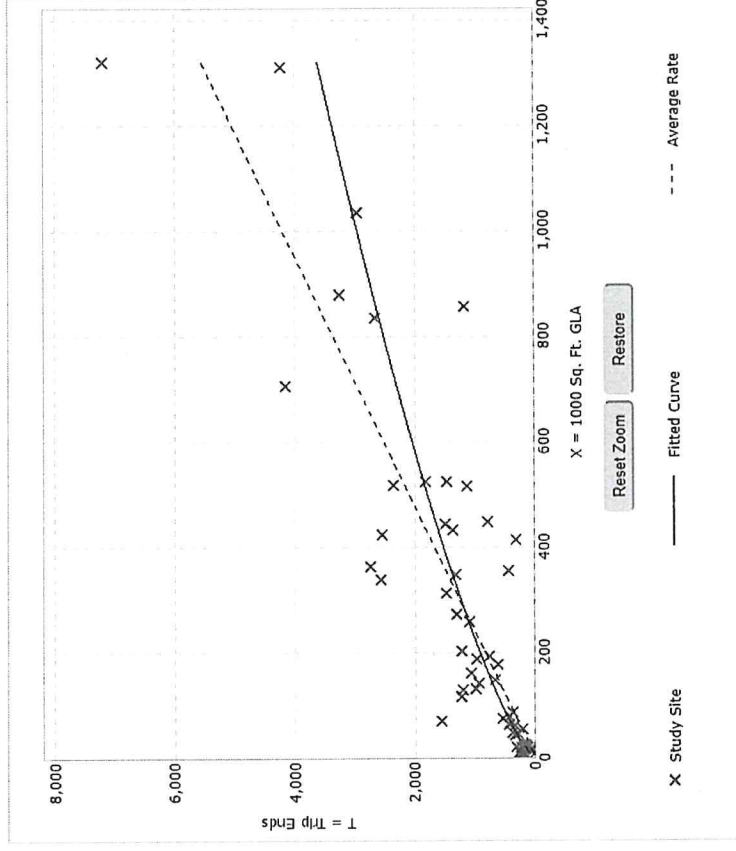
TIME PERIOD: Weekday, PM Peak Hour of Generator

SETTING/LOCATION: General Urban/Suburban

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 28 Calculate

Data Plot and Equation



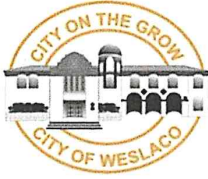
DATA STATISTICS

Land User:	Shopping Center (820) Click for more details
Independent Variable:	1000 Sq. Ft. GLA
Time Period:	Weekday
PM Peak Hour of Generator	
Setting/Location:	General Urban/Suburban
Trip Type:	Vehicle
Number of Studies:	53
Avg. 1000 Sq. Ft. GLA:	298
Average Rate:	4.21
Range of Rates:	0.78 - 27.27
Standard Deviation:	2.47
Fitted Curve Equation:	$\text{Ln}(T) = 0.72 \text{Ln}(X) + 3.02$
R^2 :	0.76
Directional Distribution:	50% entering, 50% exiting
Calculated Trip Ends:	
Average Rate:	118 (Total), 59 (Entry), 59 (Exit)
Fitted Curve:	226 (Total), 113 (Entry), 113 (Exit)



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: January 8, 2020	Agenda Item No. (to be assigned by PCE): V. B.
From: Rebekah de la Fuente, Planning Director, on behalf of Eddie Garcia.	
Subject/Agenda Item: Discussion and consideration for the Final Plat for San Pedro Estates Subdivision – being 20 acre tract of land out of Farm Tract 647, West & Adams Tract Subdivision, Hidalgo County, Texas. Approximately 2,964 ft. North of the Intersection of 18 th and Milanos Rd. Possible Action.	
Discussion/Overview: The proposed sixteen (16) lot subdivision outside the City of Weslaco city limits. This subdivision is being serviced with water by City of Weslaco through an 8” waterline and sewer by OSSF. The property is within a Flood Zone “X”. Developer will be required to enter into a development agreement for the waterline. Developer was granted a variance for OSSF.	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission’s Action: Staff recommends approval of the Final plat, with a note that OSSF shall be installed prior to recording.	
Additional Action Prompted: ☒ Mayor’s Signature ☐ Public Hearing ☐ Budget Amendment ☐ Resolution ☐ Ordinance – First Reading ☐ Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff’s comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission’s Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

This form shall be completed by the Property Owner or Applicant and submitted to the Planning Department along with the required number of copies of the respective plat, review fee and all other required information listed below and in the Subdivision Ordinance. The submittal of an application does not constitute acceptance for processing until the staff reviews and determines the application is complete.

STAFF USE ONLY

☐ Single Lot Variance ☐ Minor Plat ☐ Planned Unit Development ☒ Standard Subdivision

GENERAL INFORMATION

Name of Subdivision: San Pedro Estates

Location: NE corner of Milanos Rd 1/2 mile 6 1/2 N

Legal Description: 20.0 acres of land being all of Farm Tract (47), west 1/2 Adams Tracts Subdivision

Is subdivision inside city limits? ☐ YES ☒ NO

If subdivision is in the ETJ, indicate? ☒ 3.5 Mile ☐ 5 Mile

If no submit letter of Annexation (Contiguous or Consensual)

Existing Zoning: N/A

Existing Land Use: Ag Proposed Land Use: Single Family Residential

Number of Lots Proposed: 16 Gross Acreage: 20.0 acres

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: Eddie Garcia Telephone: (956) 314-9553

Address: 2010 Mexico Ave Fax: _____

City: Weslaco State: TX Zip: 78596 E-mail: _____

ENGINEER INFORMATION

Name: Dustin Moore Telephone: (956) 245-4651

Address: 14216 Palis Dr. Fax: _____

City: La Feria State: TX Zip: 78559 E-mail: d.moorelandsurveying@gmail.com

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: City of Weslaco

☐ YES ☒ NO Wastewater Provision: _____

☒ YES ☐ NO Electric Company: Magic Valley Electric

☐ YES ☒ NO Phone Utility _____	☐ YES ☒ NO Gas Utility _____	☐ YES ☒ NO Cable Utility _____
---	---	---

Proposed subdivision is in the following districts:

☒ YES ☐ NO Drainage District <u>HCD01</u>	☒ YES ☐ NO Irrigation District <u>HCCID9</u>
--	---

Has the property been assessed as flat rate irrigable property: ☒ YES ☐ NO

Have Water Rights been conveyed to City/Water Supplier? ☐ YES ☒ NO

(Attach written proof of such assessment or that it has never been assessed as such a property) If **YES**, attach an estimate from the irrigation district of the proportional water rights for the subdivision as calculated under Texas Water Code § 49.505.

SUBMITTALS REQUIRED FOR MINOR PLAT REVIEW

Two (2) sets of plats **folded and stapled** (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov

\$355.00 Planning Review fee

One 11" X 17" reduced copy of plat

Plat Layout

Existing & Proposed Easements

Existing & Proposed ROW

Existing & Proposed Drainage Easements

Contours

Flood Zones

Adjoiners

Existing street names

Drainage plans and calculations with engineer's seal

Elevations

Flood directional arrows

Detention areas

Street names

Proof of ownership of the property

If septic tank system required, submit soil evaluation report

Water Rights associated with the property

Tax Receipt for all taxing entities showing that taxes are paid in full

SUBMITTALS REQUIRED FOR PRELIMINARY (P & Z)

Twelve (12) sets of preliminary plat **folded and stapled** (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov

\$350.00 (one time fee for preliminary and final plat)

One 11" X 17" reduced copy of plat

Plat Layout

Existing & Proposed Easements

Existing & Proposed ROW

Existing & Proposed Drainage Easements

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

- _____ Contours
- _____ Flood Zones
- _____ Adjoiners
- _____ Existing & Proposed street names
- _____ Utility Layout
- _____ Existing & Proposed Utilities
- _____ Proposed Fire Hydrants
- _____ Adjoiners
- _____ Street names
- _____ Drainage plans and calculations with engineer's seal
- _____ Elevations
- _____ Flood directional arrows
- _____ Detention areas
- _____ Street names
- _____ Proof of ownership of the property
- _____ If septic tank system required, submit soil evaluation report
- _____ Water Rights associated with the property
- _____ Tax Receipt for all taxing entities showing that taxes are paid in full
- _____ Number of fire hydrants proposed for subdivision
- _____ Trip Generation Worksheet

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- _____ **Twelve (12) sets of plans FOLDED & STAPLED (24 x 36) & PDF copy with all corrections**
- _____ Plats to be sealed by Professional Engineer
- _____ Approved Drainage Report
- _____ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- _____ One set of 8 ½ x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- _____ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- _____ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- _____ Notice of Intent
- _____ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- _____ Electronic file of final plat and as-builds
- _____ Reproducible plat to be recorded with all required signatures
- _____ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- _____ 2% inspection fee
- _____ Park Fees
- _____ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- _____ Tax certificates
- _____ Memo from engineering inspector releasing subdivision
- _____ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- _____ 30 Year Water and 30 Year Sewer Service Agreements
- _____ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- _____ Sealed engineering cost estimates
- _____ Letter of Credit/Performance Bond/Escrow

** Any revisions requested would require resubmission of plats and reduced copy reflecting changes.

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: _____

Owner Signature: _____ Date: _____

_____ is the authorized agent

Authorized Agent Signature: _____ Date: 11/21/19

Authorized Agent Printed Name: DUSTIN MORRIS

THIS PAGE FOR STAFF USE ONLY

Date Received: _____ Received By: _____ Date Paid: _____

P & Z Commission Approval on Preliminary Plat

P & Z Commission Approval on Final Plat

City Commission Approval on Final Plat

Preconstruction Meeting Date: _____

Date Recorded: _____

General Comments: _____

CITY OF WESLACO
956-968-3181

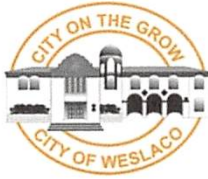
REC#: 02574554 11/21/2019 11:40 AM
OPER: NV TERM: 039
REF#:
PAID BY:

ACCT #: XXXX-XXXX-XXXX-5748
AUTH #: 00554D
TRAN #: 000000002252
TYPE: PURCHASE

TRAN: 207.0000 SUBDIVISION APPLICAT
SAN PEDRO
101-400-1025
SUBDIVISION FEES 355.00CR

TENDERED: 355.00 CREDIT CARD
APPLIED: 355.00-

CHANGE: 0.00



RECEIVED

AUG 22 2019

APPLICATION FOR SUBDIVISION VARIANCE

Planning &
Code Enforcement Dept.

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO.

VAR19-00041

GENERAL INFORMATION

Name of Subdivision: SAN PEDRO ESTATES

(formerly Evergreen Estates)

Location: NORTHWEST CORNER OF MILANOS RD & MILE 6 1/2 NORTH

Legal Description: 20.00 AC. OUT OF FT 647 WEST TRACT SUBDIVISION VOL 2, PG 34-37, MRHCT

VARIANCE TYPE:

☐ Streetlights ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☒ Sanitary Sewer ☐ YES ☐ NO

Describe in detail the reason for the variance request:

THERE IS NO ACCESS TO BE ABLE TO EXTEND OFFSITE SEWER AND AFTER SPEAKING WITH MARCELO COSME
HE STATED THE CITY DID NOT WANT ANOTHER LIFT STATION AND THAT WE SHOULD PROPOSE OSSF.

☐ Fire Hydrants ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Setbacks ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Drainage ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Minimum Lot Size ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Sidewalks ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Easement Requirements ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☒ Other ANNEXATION ☐ YES ☐ NO

Describe in detail the reason for the variance request:

OWNER REQUESTS TO REMAIN IN COUNTY IN ORDER TO BETTER DEVELOP THE PROPERTY ACCORDING TO THE MARKET.

OWNER WILL INSTALL NEW WATER FACILITIES IN ACCORDANCE WITH CITY OF WESLACO STANDARDS.

OWNER INFORMATION

Owner's Name: HERIBERTO GARCIA Telephone: 956-463-7474

Address: 413 W. PIKE BLVD Fax: _____

City: WESLACO State: TX Zip: 78596 E-mail: _____

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: _____

Owner Signature: _____ Date: _____

MOORE LAND SURVEYING, LLC is the authorized agent

Authorized Agent Signature:  Date: 8/12/19

Authorized Agent Printed Name: DUSTIN MOORE, PE

Rebekah M. De La Fuente

From: Rebekah M. De La Fuente
Sent: Thursday, August 1, 2019 3:25 PM
To: DUSTIN MOORE
Cc: Kayla A. Arevalo
Subject: Evergreen Estates

Good Afternoon:

Please see comments below from each department:

Planning:

1. Include metes and bounds description of the property
2. Add Plat Note: Streetlight must be located every 300 feet
3. Add Plat Note: No permanent structures are permitted over any easements.
4. Add Plat Note: A 4 ft. sidewalk is required along exterior perimeter upon the issuance of a building permit.
5. All subdivisions located within the city's extraterritorial jurisdiction and connected to one or more of the city utilities, must request *annexation* to the city prior to the approval of the final subdivision plat.

Engineering:

1. Utility Sheet
 - a. Water is provided by NAWSC (Marcelo must confirm)
 - b. Plat note for Sewer states City of Weslaco, if OSSF is proposed please add [lat note denoting this.
2. Drainage Sheet
 - a. Swales, grading and minimum house area, as per drainage report, must be shown on plat.
 - b. Flow arrows are needed
 - c. If 0.35 development coefficient is used, at least 1.96 ac-ft must be detained and released at a rate of 11.72 cfs. On-site detention must be provided or a variance is needed for off-site.
3. Access Management for each lot must be shown, a plat note must be provided for this as well.

Remove plat note 13 and 16

Fire:

Hydrant location appears to be adequate

Please clarify if using 8 inch or 6 inch pipe for new water line (6 inch noted in notes)

All water mains shall be looped to provide adequate water supply (minimum 6 inch)

Once you have revised the plat please resubmit a PDF copy so review by staff. Once staff has cleared the subdivision you will be able to formal submit the subdivision application.

Thank you,

Rebekah de la Fuente, CFM
Assistant Planning & Code Enforcement Director

City of Weslaco
255 S. Kansas Avenue
Weslaco, TX 78596
Ph: (956) 447-3401
Fax: (956) 973-3128



Rebekah M. De La Fuente

From: Rebekah M. De La Fuente
Sent: Thursday, September 19, 2019 10:43 AM
To: 'DUSTIN MOORE'
Subject: RE: SAN PEDRO ESTATES (FKA EVERGREEN ESTATES)

Good Morning,

Below are the comments from the departments below please resubmit a new PDF. Marcelo Cosme, Public Works is requesting a phone call regarding the interlocal.

Planning Comments:
All comments have been addressed.

Engineering Comments:

1. Detention of this subdivision must be at least 2.1 ac-ft
2. Access easements must have a hammerhead for maneuvering in and out of lots.
3. Off-site Variance must be applied for, for off-site drainage prior to issuance of building permits.

Fire Comments:

1. They have not addressed our comment about looping the fire hydrant water line.

Utility Comments:
Need water tie in details included with interlocal

Thank you,

Rebekah de la Fuente, CFM
Assistant Planning & Code Enforcement Director

City of Weslaco
255 S. Kansas Avenue
Weslaco, TX 78596
Ph: (956) 447-3401
Fax: (956) 973-3128
rdelafuente@weslacotx.gov



From: DUSTIN MOORE <d.moorelandsurveying@gmail.com>
Sent: Thursday, September 5, 2019 5:00 PM
To: Rebekah M. De La Fuente <rdelafuente@weslacotx.gov>
Subject: SAN PEDRO ESTATES (FKA EVERGREEN ESTATES)

Rebekah,

Attached are the revisions to the subdivision and drainage report that has been submitted to HCDD No. 1 also. Also attached is the inter-local Marcelo gave me that has been provided to NAWSC for review as well in regards to City of Weslaco providing the water.

Let me know if y'all have any questions or comments.

City of Weslaco

"The City on the Grow"



David Suarez, Mayor
Greg Kerr, Mayor Pro-Tem, District 2
Leo Muñoz, Commissioner, District 1
Jose "J.P." Rodriguez, Commissioner, District 3
, Commissioner, District 4
Letty Lopez, Commissioner, District 5
Josh Pedraza, Commissioner, District 6

Mike R. Perez, City Manager

INTERNAL MEMO

DATE: July 30, 2019

TO: Zenaida Guerrero, Engineer I
Pete Garcia, Public Works Director/ Marcelo Cosme
Chris Sanchez, Fire Marshal/Mike Swinnea
Rolando Gonzalez, Building Official
Police Chief Joel Rivera, Police Department/ Eric Hernandez

FROM: Rebekah de la Fuente, Assistant Planning & Code Enforcement Director 

SUBJECT: Subdivision Review Meeting

A **subdivision review meeting** will be held on **Thursday, August 1, 2019** in the Planning Department Conference Room B. It is imperative that you attend. Listed below is the subdivision that will be discussed:

➤ **Evergreen Estates Subdivision- 1:30 p.m.**

Please make every effort to attend or send a representative, if you or a representative is unable to attend, submit your comments in writing. **Be advised that all comments must be received before the scheduled meeting in order to avoid delays of construction.**

Should you have any questions, please call 447-3401.

#NUMBER

**INTERLOCAL AGREEMENT BETWEEN THE CITY OF WESLACO AND
THE NORTH ALAMO WATER SUPPLY CORPORATION FOR
TEMPORARY UTILITY SERVICES TO A SPECIFIC WESLACO TRACT**

STATE OF TEXAS §

COUNTY OF HIDALGO §

The City of Weslaco ("Weslaco") and the North Alamo Water Supply Corporation ("NAWSC") for the consideration and purposes herein expressed enter into the following agreement for the temporary provision of potable water, and also wastewater service to property adjacent and adjoining Weslaco's city limits along Milanos Road, more particularly described as follows: 20.0 AC. OUT OF FARM TRACT 647, WEST & ADAMS TRACTS SUBDIVISION (PROPOSED SAN PEDRO ESTATES), hereafter referred to as *Farm Tract 647*, said property being in the northwest corner of the intersection of Milanos Road and Mile 6 ½ North; and,

WHEREAS, Weslaco is a home rule city located in Hidalgo County, Texas, and operates a potable water system and wastewater system in its service area under Certificates of Convenience and Necessity ("CCN") issued by the Texas Commission on Environmental Quality, and is in good standing with full power to enter into this Agreement and execute all required documents; and,

WHEREAS, NAWSC is a rural water supplier in Hidalgo County, Texas, and operates a potable water system and wastewater system in its service area under Certificates of Convenience and Necessity, and is in good standing with full power to enter into this Agreement and execute all required documents; and,

WHEREAS, NAWSC has requested assistance from the City of Weslaco to provide potable water and wastewater to the *Farm Tract 647* pending the NAWSC' striving diligently to provide such utility service(s) to the site; and,

WHEREAS, it is recognized that the temporary provision of potable water service, and wastewater service, to the subject adjoining site is in the public's best interests, too; and,

WHEREAS, it is the desire of Weslaco and NAWSC to provide for this interlocal governmental agreement by and through the appropriate resolutions of the respective parties setting out the agreement for the temporary provision of potable water system to the *Farm Tract 647* described above; and for Weslaco to provide sanitary sewer service to the same tract, pending NAWSC's extension of this service.

NOW, THEREFORE, Weslaco and NAWSC agree as follows:

- 1) Recitals. The parties agree and warrant that the above Recitals and Representation of the Parties are true and correct.
- 2) Term. The initial term of this Agreement, subject to the provisions herein for earlier termination, is eighteen (18) months for the provision of potable water service.

- 3) Compliance with Applicable Law. Potable water provided by Weslaco to the *Farm Tract 647* shall comply with the City of Weslaco's policies, building permit regulations, utility rates, and any applicable TCEQ or other applicable State laws and requirements.
- 4) Notices. Any notice or communications required or permitted to be given hereunder of a nature that requires City notification shall be sufficiently given by electronic transmission or by hand delivery to:

CITY OF WESLACO
Attention: City Manager
255 S. Kansas St.
Weslaco, Texas 78596
Telephone: (956) 968-3181
Fax: (956) 968-6717

NORTH ALAMO WSC
Attention: General Manager
420 S. Doolittle Rd.
Edinburg, Texas 78542
Telephone: (956) 383-1618
Fax: (956) 383-1372

- 5) Entire Agreement. This Agreement constitutes the entire agreement, both written and oral, between Weslaco and NAWSC, with respect to temporary utility service as cited herein.

IN WITNESS WHEREOF, this Agreement is executed on behalf of City of Weslaco and NAWSC.

Executed on the ____ day of _____, 2019.

CITY OF WESLACO

BY: _____
David Suarez, Mayor

NAWSC

BY: _____
Steven Sanchez,
General Manager

ATTEST:

Print Name:
City Secretary

DRAINAGE STATEMENT

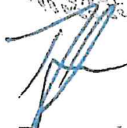
FOR

SAN PEDRO ESTATES

(FKA EVERGREEN ESATES)

SEPTEMBER 2019



 Prepared by:

Moore Land Surveying, LLC

14216 Palis Drive,
La Feria, TX 78559

(956)245-0988

TBPLS Firm No. 10194186
TBPE Firm No. 19190

DRAINAGE STATEMENT SAN PEDRO ESTATES

05 SEPTEMBER 2019

San Pedro Estates is a 20.00 ac. tract of land inside the ETJ of the City of Weslaco. The property is located on the northwest corner of the intersection of Milanos Rd. and West Mile 6 1/2 North. The property is being developed into sixteen (16) lots to be developed into single family residential lots ranging from 1.29 ac. To 0.505 ac. The property currently has an existing house on the south east corner where Lot 12 will be and the rest is undeveloped in row crop production, the time of concentration was calculated using the velocity for "Minimum Tillage" per the City of Weslaco's request because it produces a more conservative detention volume. The subdivision lies in Zone "X-Shaded" according to FEMA's Flood Insurance Rate Map, Community Panel No. 480334 0450 C, Effective June 6, 2000 and Revised May 30, 2002, December 24, 2015, and October 5, 2018. Zone "X-Shaded" is an "area between the limits of the 100 and 500-year flood plain with depths less than one foot". The plat will call for the structure's finished floor elevation to be at elevation 80.50 ft. or 24" above natural ground whichever is higher in order to ensure the finished floor elevation is above the 100-year flood plain in order to mitigate flood damage.

The soils are 71% Hidalgo Sandy Clay Loam (28), 16% Racombes Sandy Clay Loam (48), and 13% Hidalgo Fine Sandy Loam (25), all of which are in hydrologic soil group "B" with moderate infiltration. (See excerpts from "Soil Survey of Hidalgo County, Texas")

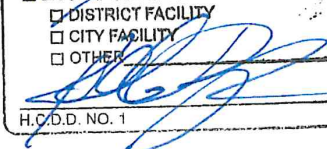
Existing runoff of the land is by surface flow in a northeasterly direction into the borrow ditch along Milanos Rd., where it flows north along Milanos Rd. for 1320' to the northeast corner of the property, thence through an 18" RCP culvert across Milanos Road to the east, thence into a Hidalgo County Drainage District No. 1 Ditch, thence south to the Arroyo Colorado, thence to the Laguna Madre. It has an existing runoff of 10.00 CFS during the 10-year storm frequency as per the attached calculations.

The proposed drainage for San Pedro Estates shall consist of allowing runoff to continue to surface flow from the rear of the lots to the front of the lots in a northeasterly direction and into the borrow ditch along W. Mile 6 1/2 North and Milanos Road where it flows north along Milanos Rd. for 1320' to the northeast corner of the property, thence through an 18" RCP culvert across Milanos Road to the east, thence into a Hidalgo County Drainage District No. 1 Ditch, thence south to the Arroyo Colorado, thence to the Laguna Madre. Per the City of Weslaco Drainage Policy, storage large enough to detain the post development 50-year event runoff (29.75 CFS) while discharging the pre-developed 10-year event (10.00 CFS) is required. For this site, the event that requires the largest volume to be detained is the 1 hour storm event and the increase in runoff and rate at which the storm water is detained is 19.75 CFS. Based on the attached calculations, the existing drain ditch along north property line will be re-graded and widened which will provide 74,250 CF of detention which is more than the 71,693 CF or 1.65 Ac.-Ft of detention that is required as per the attached calculations. The volume of water detained was calculated assuming a water surface elevation of 74.50, which is assuming that the ditch is flowing full. but overtopping the banks. Run-off and detention were calculated assuming each lot would be single family residential.



By: 
Dustin Moore, PE

5/28/19
Date

☐ REJECTED	
☒ APPROVED FOR SUBMITTAL	
☒ TO H.C. PLANNING DEPT.	
☒ TO CITY	
☒ DISCHARGE PERMIT REQUIRED	
☐ DISTRICT FACILITY	
☐ CITY FACILITY	
☐ OTHER	
	
H.C.D.D. NO. 1	05/25/2019 DATE

SAN PEDRO ESTATES
Drainage Calculations
9/5/2019

Pre-developed Conditions

Area = 20.00 AC
"C" = 0.20 (10) YR
Tc = 97 MIN 2.50 (110)=IN/HR
Q10pre = 10.00 CFS

** The proposed lot will conservatively have 5,000 SF or .11 Ac. of improvements.
These improvements will include a driveway, sidewalks, house, and porches, with the remainder of the lot consisting of landscape, lawn, and light brush.

**"C" = $0.80((0.11*16)/20) + .20(18.24/20) = .25$

SINCE 0.35 OFF OF RUNOFF COEFFICIENT CHART IS MORE CONSERVATIVE, IT WILL BE USED.

Developed Conditions

C FACTOR	STORM		Detention...50 year storm				
	DURATION T (HR)	I (IN/HR)	DRAINAGE	INFLOW RATE	RELEASE RATE	STORAGE RATE	STORAGE REQ'D
			AREA A (AC)	Q1=CIA (CFS)	Qo (CFS)	Q1-Qo (CFS)	1/12(Q1-Qo)xT (AC-FT)
0.35	0.08	13.50	20.00	94.50	10.00	84.50	0.563
0.35	0.17	11.00	20.00	77.00	10.00	67.00	0.949
0.35	0.25	9.00	20.00	63.00	10.00	53.00	1.104
0.35	0.33	8.00	20.00	56.00	10.00	46.00	1.265
0.35	0.50	6.50	20.00	45.50	10.00	35.50	1.479
0.35	0.67	5.25	20.00	36.75	10.00	26.75	1.494
0.35	0.83	4.75	20.00	33.25	10.00	23.25	1.608
0.35	1.00	4.25	20.00	29.75	10.00	19.75	1.646
0.35	1.50	3.25	20.00	22.75	10.00	12.75	1.594
0.35	2.00	2.75	20.00	19.25	10.00	9.25	1.542
0.35	3.00	1.90	20.00	13.30	10.00	3.30	0.825
0.35	4.00	1.50	20.00	10.50	10.00	0.50	0.167
Detention required =			1.646 Ac.-Ft.	71,692.500 CF			

TIME OF CONCENTRATION

A) FOR OVERLAND FLOW: $TII \frac{1.8*(1.1 - C)*SQRT(L)}{CUBEROOT(S)}$

$\frac{1.8*(1.1-.20)*SQRT(1225')}{CUBEROOT(0.2\%)} \quad Tc=97 \text{ MIN}$

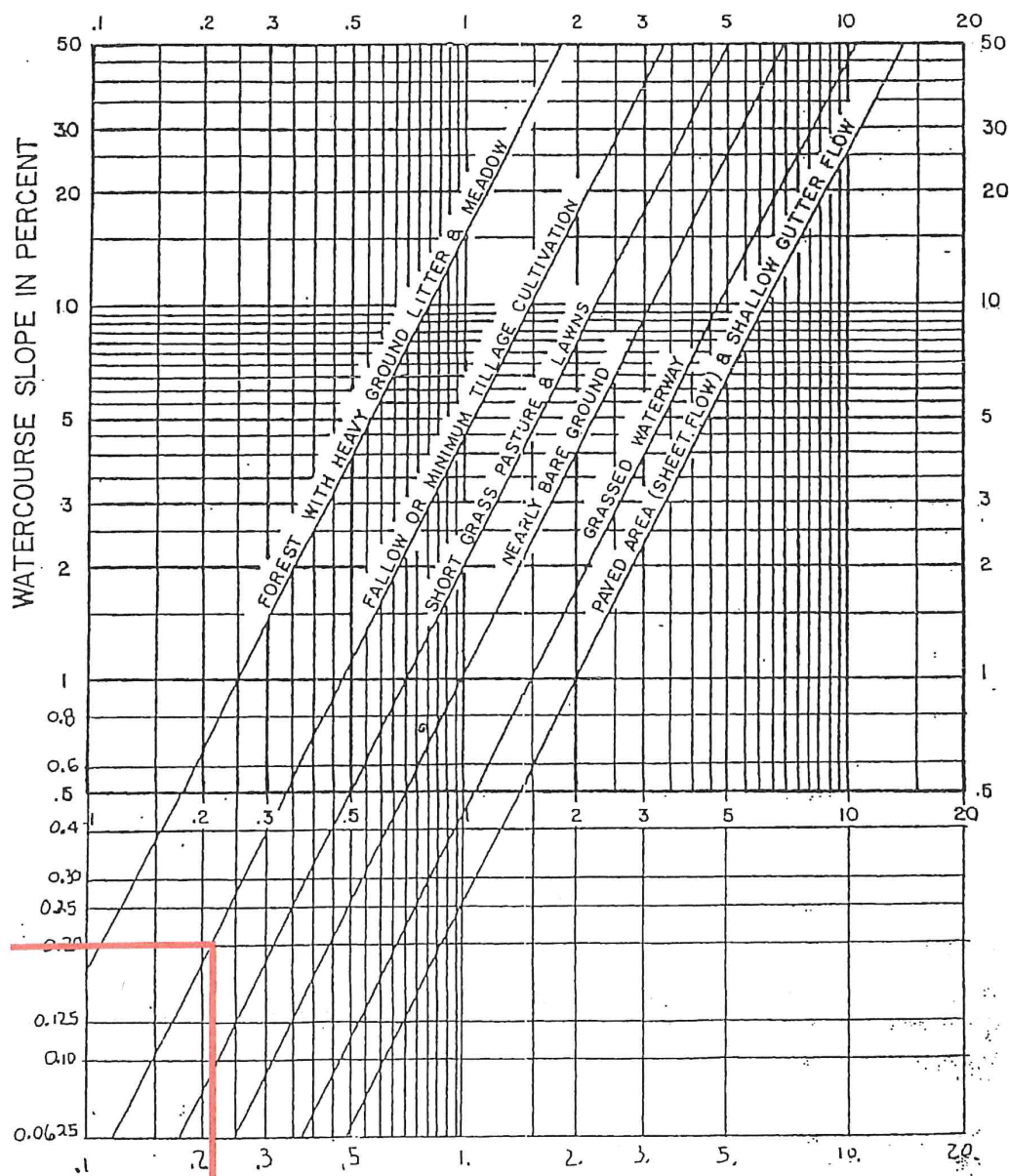
***Run-off and detention were calculated assuming each lot would be single family residential.



Handwritten signature and date: 5/28/19

RATIONAL METHOD RUNOFF COEFFICIENTS

<u>Description of Area</u>	<u>Runoff Coefficients</u>	
Business:		
Downtown areas	0.70 to 0.95	
Neighborhood areas	0.50 to 0.70	
Residential:		
Single-family areas	0.35 to 0.50	0.35
Multi units, detached	0.40 to 0.60	
Multi units, attached	0.60 to 0.75	
Residential (1/2 acre lots or more)	0.30 to 0.45	
Apartment dwelling areas	0.50 to 0.70	
Industrial:		
Light areas	0.50 to 0.80	
Heavy areas	0.60 to 0.90	
Parks, cemeteries	0.10 to 0.25	
Playgrounds	0.20 to 0.35	
Railroad yard areas	0.20 to 0.40	
Unimproved areas	0.10 to 0.30	0.20
<u>Character of surface</u>	<u>Runoff Coefficients</u>	
Streets:		
Asphaltic	0.70 to 0.95	
Concrete	0.80 to 0.95	
Drives and Walks	0.75 to 0.85	
Roofs	0.75 to 0.95	
Lawns, Sandy Soil:		
Flat, 2%	0.05 to 0.10	
Average, 2 to 7%	0.10 to 0.15	
Steep, 7%	0.15 to 0.20	
Lawns, Heavy Soil:		
Flat, 2%	0.15 to 0.20	
Average, 2 to 7%	0.20 to 0.25	
Steep, 7%	0.25 to 0.35	



.21 FPS

VELOCITY, V (FT/SEC)

2-85

BRIDGE DIVISION HYDRAULIC MANUAL

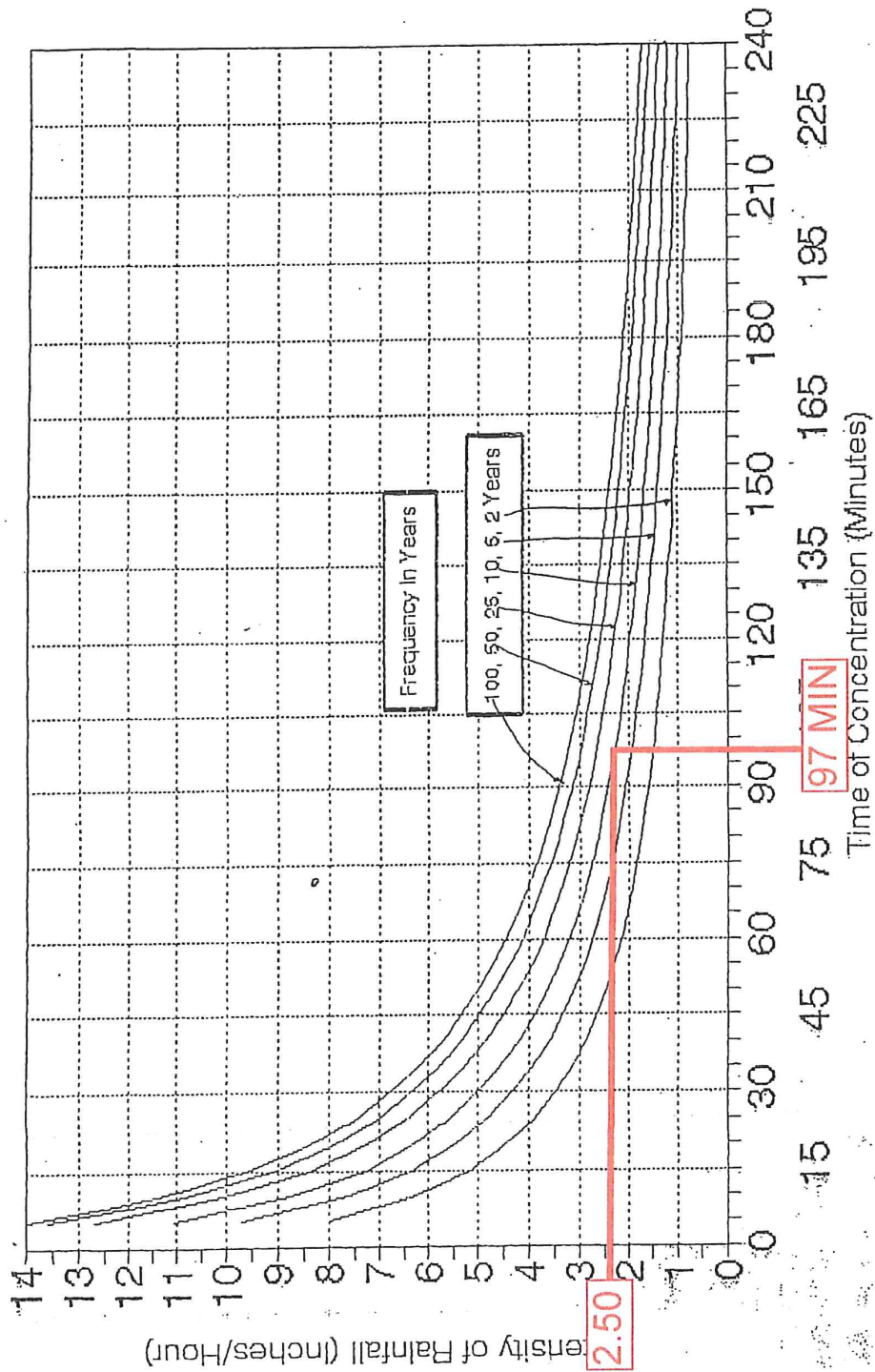
2 - 24

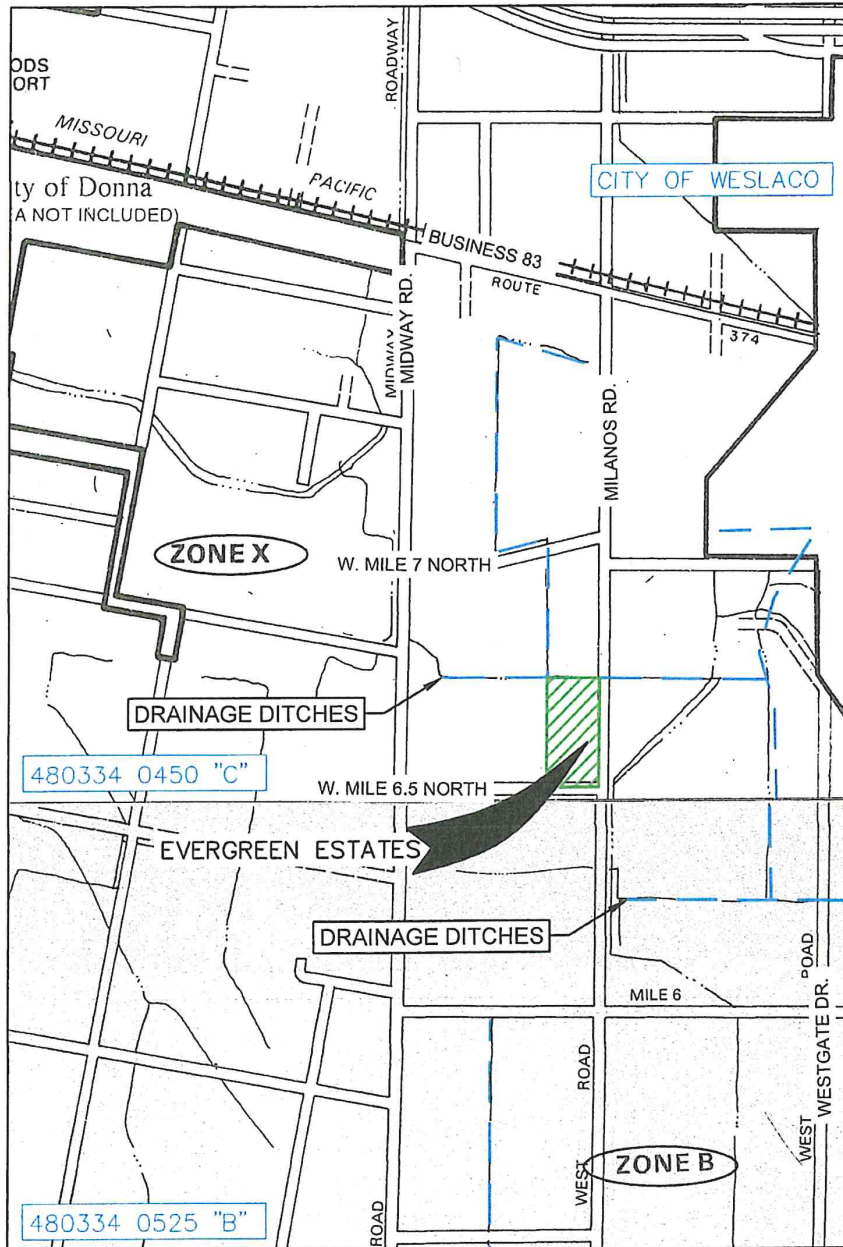
S=0.20%
D=1225'
V=0.21 FPS

$V=D/T \Rightarrow T=D/V \Rightarrow T=(1225') / (0.21 \text{ FPS})$
 $T= 5833 \text{ S} \Rightarrow 97 \text{ MIN}$

Rainfall Intensity for , tidalgo County

Based on NWS Tech Paper No. 40





LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet locally sheet flow on sloping terrain; surge depths determined; for areas of flood (see flood) volumes are determined.
- ZONE AD** Flood depths of 1 to 3 feet locally sheet flow on sloping terrain; surge depths determined; for areas of flood (see flood) volumes are determined.
- ZONE A99** To be protected from 100-year flood by federal flood protection system under construction; no base flood elevations determined.
- ZONE V** Coastal flood with velocity hazard (wave action); base flood elevations determined.
- ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with average wave less than 1 foot; and areas protected by levees from 100-year flood.
- OTHER AREAS** Areas determined to be outside 100-year floodplain.
- ZONE D** Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

- Identified 1981
- Identified 1991
- Other areas

Coastal barrier areas are normally located within or adjacent to special flood hazard areas.

Floodplain Boundary
Floodway Boundary
Zone D Boundary

Boundary of Special Flood Hazard Zones and Boundary of Special Flood Hazard Zones of Different Coastal Flood Elevations Within Special Flood Hazard Zones

Base Flood Elevation Line; Elevation in Feet

EL 9971
RM 7.4
+M1.5

Cross Section Line
Base Flood Elevation in Feet Where Uniform Within Zone

Elevation Reference Mark
Base Elevation

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This map is to be used in determining the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding; preliminary maps based on drainage records of small creeks or on preliminary estimates of Special Flood Hazard Areas. The community map repository should be consulted for more detailed data on SFHA, and for any information on floodway determinations, prior to use of this map for property purchase or construction purposes.

Areas of Special Flood Hazard (100-year Flood) include Zones A, AE, A1, A99, AE, AD, AH, V, VE and V1-V25.

Certain areas within Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and longitudinal between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Refer to Floodway Data Table where floodway widths are shown at 1000 inch.

Coastal base flood elevations apply only to the extent of 8.8 feet, and include the effects of wave action; these elevations may show other significant flood hazards developed by the National Weather Service for hurricane evacuation planning.

Corporate limits shown are current as of the date of this map. The user should contact appropriate governmental officials to determine if corporate limits have changed subsequent to the issuance of this map.

For adjoining parcels, see separately printed Map Index.

MAP REPOSITORY
City of Edinburg
1501 South 25th Street
Edinburg, Texas 78541
(Maps available for reference only; not for distribution.)

INITIAL IDENTIFICATION:
MAY 21, 1978

FLOOD HAZARD BOUNDARY MAP REVISIONS:

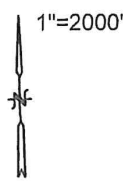
FLOOD INSURANCE RATE MAP EFFECTIVE:
JANUARY 2, 1981

FLOOD INSURANCE RATE MAP REVISIONS:

Map revised June 6, 2004 to update corporate limits, to add base flood elevations, to add roads and road names, to incorporate previously issued letters of map revision, and to incorporate previously issued letters of map amendment.

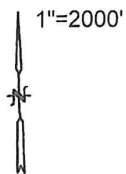
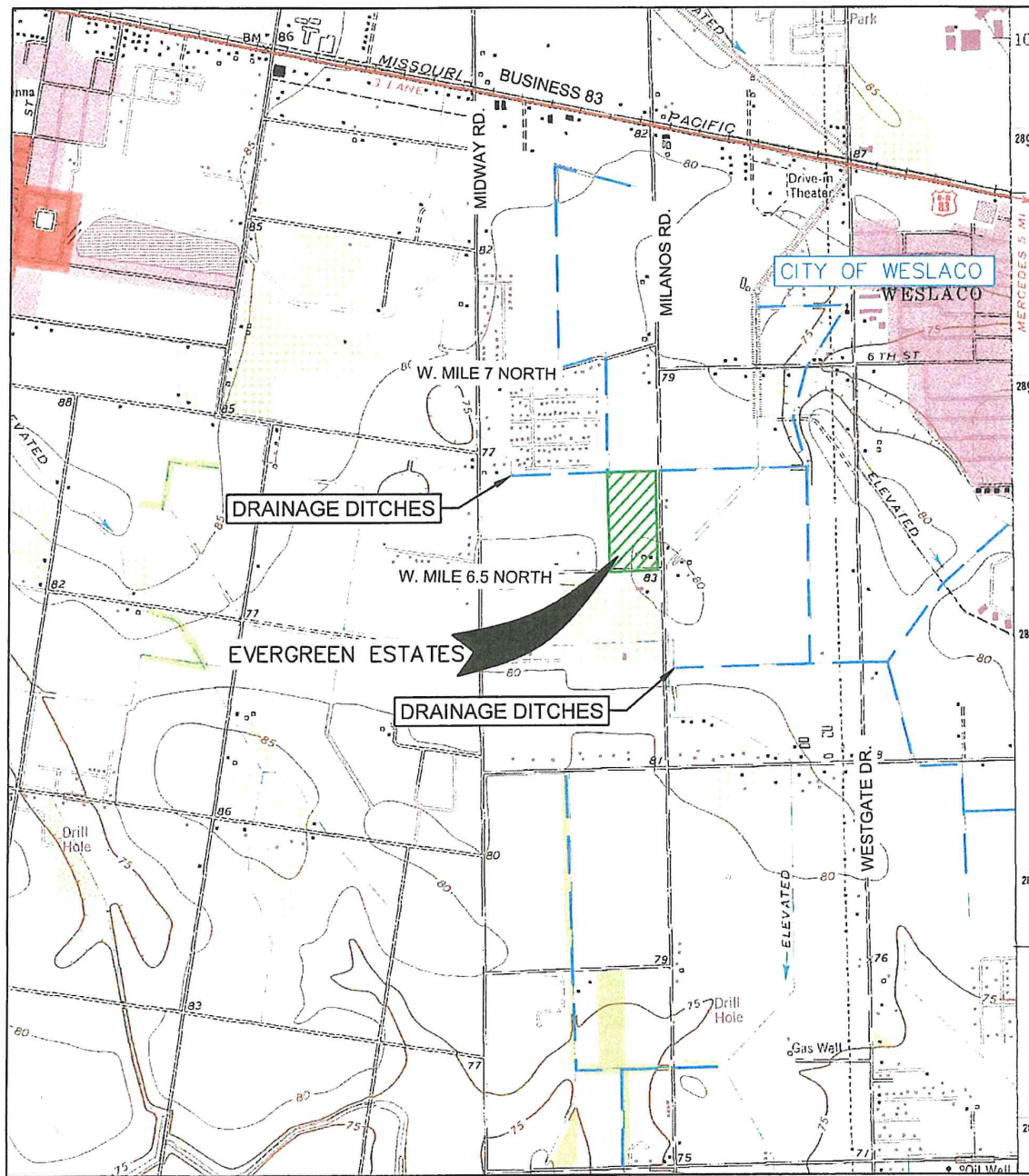
To determine if Flood Insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 485-6226.

APPROXIMATE SCALE
0 1000 2000 FEET



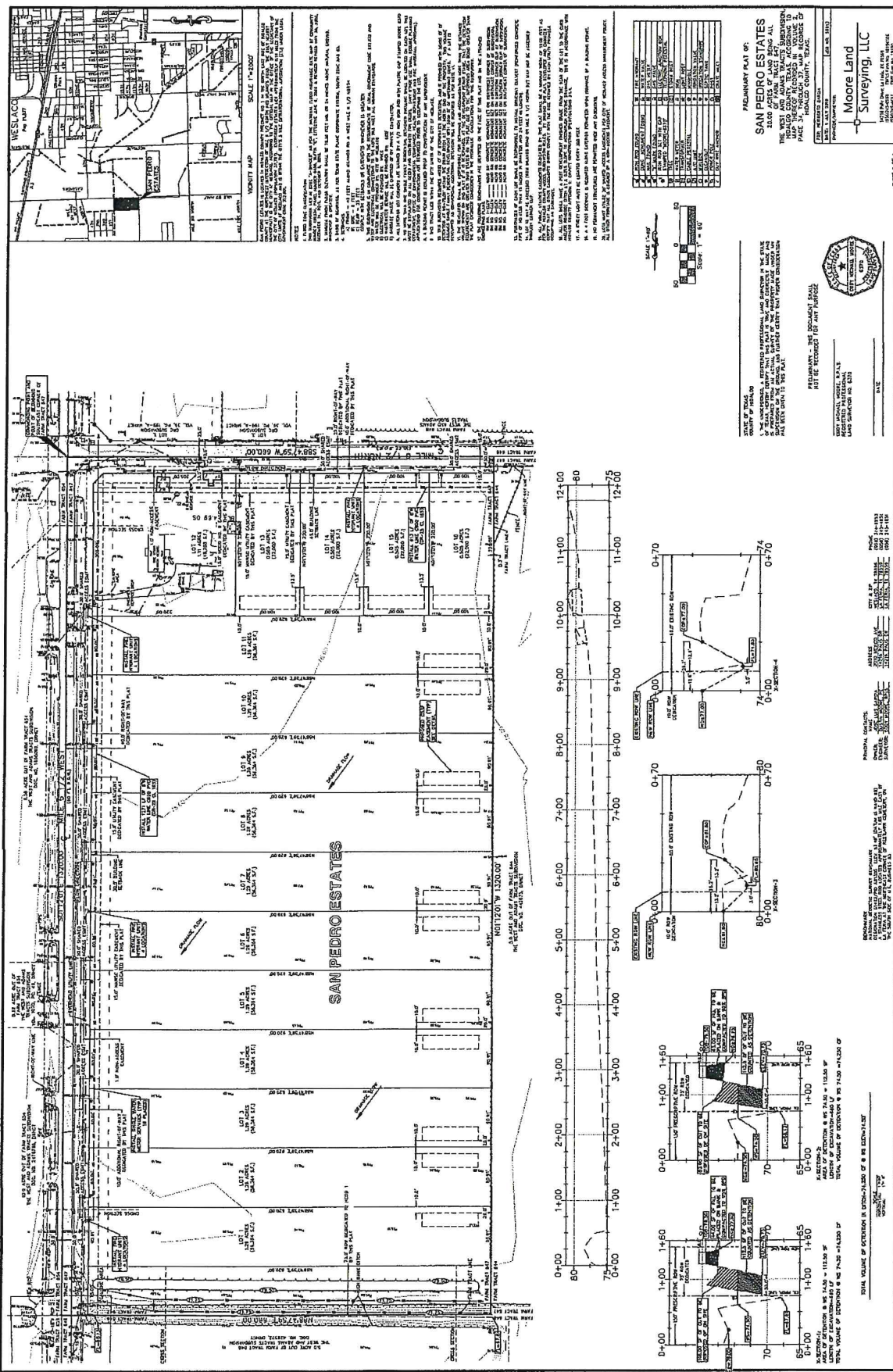
Moore Land
Surveying, LLC

14216 Palis Drive, La Feria, TX 78559
(956)245-0988 TBPLS Firm No. 10194186
(956)245-4651 TBPE Firm No. 19190



Moore Land Surveying, LLC

14216 Palis Drive, La Feria, TX 78559
 (956)245-0988 TBPLS Firm No. 10194186
 (956)245-4651 TBPE Firm No. 19190



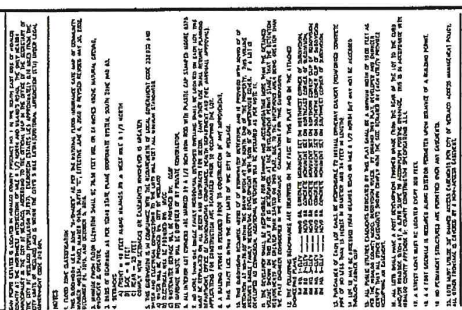
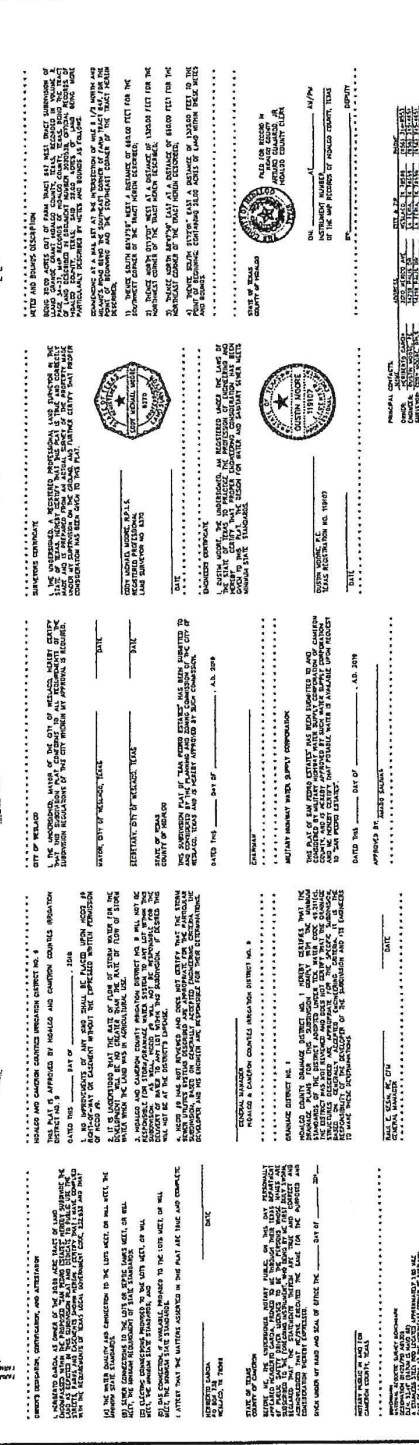
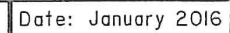
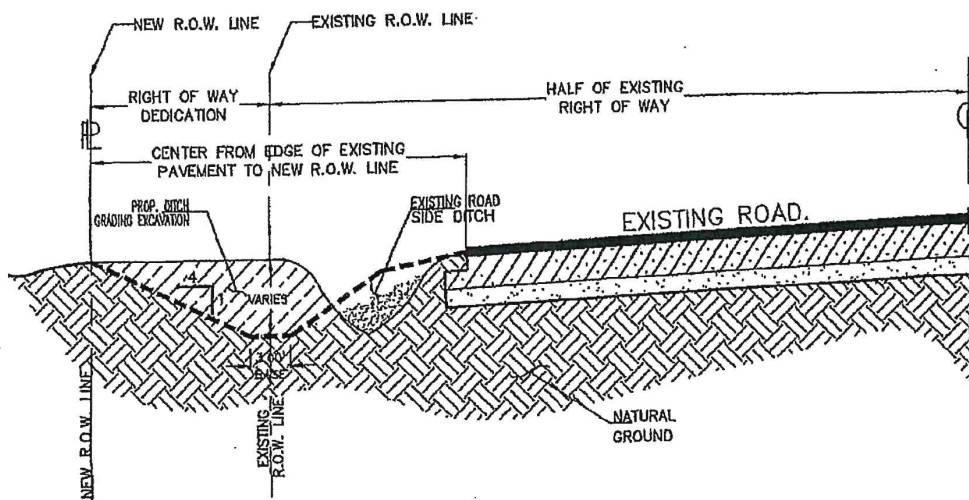


TABLE 1. *Continued*







RECONSTRUCTION OF ROAD SIDE DITCH



HIDALGO COUNTY PLANNING DEPARTMENT

1304 S. 25 TH. STREET
 EDINBURG TX. 78539
 TEL: (956) 318-2840 ★ FAX: (956) 318-2844

RE CONSTRUCTION OF COUNTY ROAD SIDE DITCH

SCALE: N.T.S.	
DATE: 11-28-2016	
CHECKED BY: T.J.	
DRAWN BY: J.TOVAR	PLATE No. : 9.37

Hydrologic Soil Group—Hidalgo County, Texas
(EVERGREEN ESTATES)



Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
25	Hidalgo fine sandy loam, 0 to 1 percent slopes	B	2.6	13.3%
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	B	14.1	71.2%
48	Racombes sandy clay loam	B	3.1	15.5%
Totals for Area of Interest			19.8	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

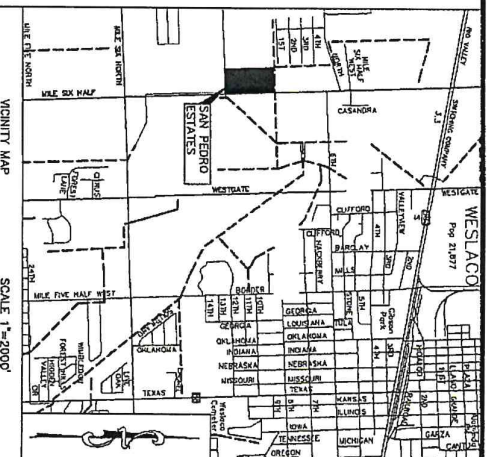
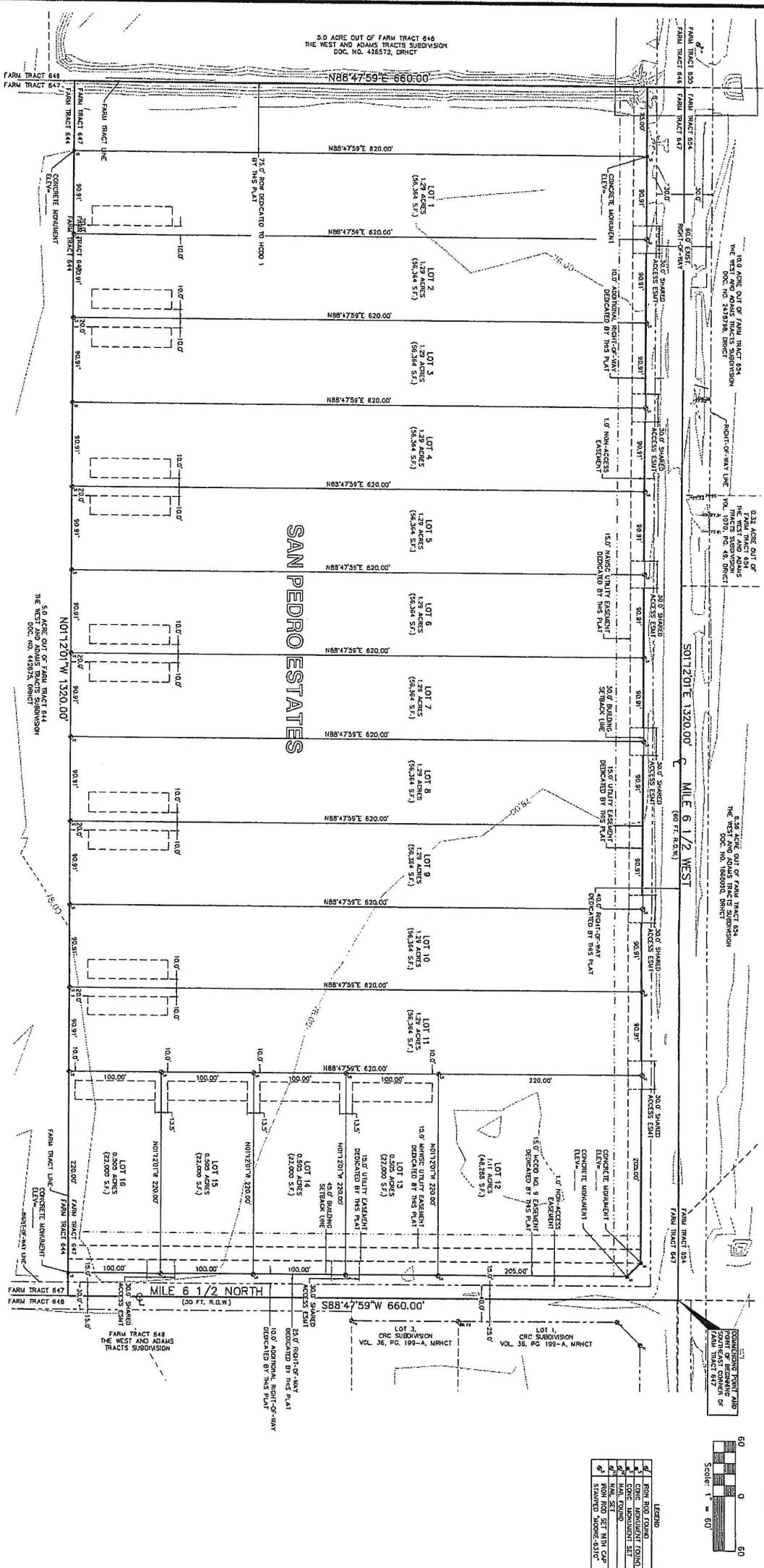
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

[illegible][illegible]

FINAL PLAT OF:
SAND PEDRO ESTATES
20.00 ACRES OF LAND BEING ALL
THE WEST AND ADAMS TRACTS SUBDIVISION,
HIDALGO COUNTY, TEXAS, ACCORDING TO
MAP THEREOF RECORDED IN VOLUME 2,
PAGE 108, OF THE PUBLIC RECORDS OF
HIDALGO COUNTY, TEXAS.

CITY: HENDERSON, CALIFORNIA	
DATE: 1 MAY 2013	
INTEGRITY/SIGNATURE:	200 MG. 00013

Moore Land
Surveying, LLC

14116 PAUL DRUM, LA POCA, TX 76559
855-524-5068 780CS Item No. 1013405
05/24/24-5-061 10/07/2014 No. 13170

SHEET 1 OF 1

[illegible][illegible]

CITY OF MESQUITE

I, THE UNDERSIGNED, MAYOR OF THE CITY OF MESQUITE, HEREBY CERTIFY THAT THE SUBDIVISION PLAT CONTAINED HEREON IS IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF THIS CITY WHENEVER APPROVAL IS REQUIRED.

DATE

LIVINE, CITY OF MESQUITE, TEXAS

DATE

BERGEMAN, CITY OF MESQUITE, TEXAS

CITY OF TEXAS
COUNTY OF HOLLAND

THIS SUBDIVISION PLAT OF "SAN PEDRO ESTATES" HAS BEEN SUBMITTED TO MESQUITE, TEXAS AND IS HEREBY APPROVED BY SUCH COMMISSION.

DATED THIS _____ DAY OF _____, A.D. 2019

CROOKMAN

.....

MELHART MEADOW WATER SUPPLY CORPORATION

THIS PLAT OF "SAN PEDRO ESTATES" HAS BEEN SUBMITTED TO AND APPROVED BY THE COMMISSIONERS OF THE WATER SUPPLY COMMISSION OF MESQUITE, TEXAS AND IS HEREBY APPROVED BY SUCH WATER SUPPLY CORPORATION AND IS HEREBY APPROVED BY SUCH WATER SUPPLY CORPORATION TO SAN PEDRO ESTATES.

DATED THIS _____ DAY OF _____, A.D. 2019

APPROVED BY: JAMES STARKS

.....

[illegible][illegible]

16. A POOL SHEDDLE IS LOCATED ALONG OUTSIDE PROPERTY LINE (SHOWN
IN NO FURNISHED DIMENSIONS ARE PLANNED WITH ANY ELEVATIONS.
26. USE WEST TRAIL 30' SHOWN ACCESS (SHOWN FOR CITY OF MICHIGAN
ALL OTHER INFORMATION IS CONTAINED IN A REVISIONS SHEET.

FINAL P.L.A.

SAN PEDRO
20.00 ACRES OF L.
OF PARR TR.
HIDALGO COUNTY, TEX.
MAP THEREOF RECORDED
PAGE 34 THROUGH 37
HIDALGO COUNTY

FOR: UBERGOTT DOW
DATE: 1 MAY 2013
DROUGHT/SURVEYOR

MOORE
Survey

11115 84th, Oak Hills
95042-0568 19043
95043-0681 19047

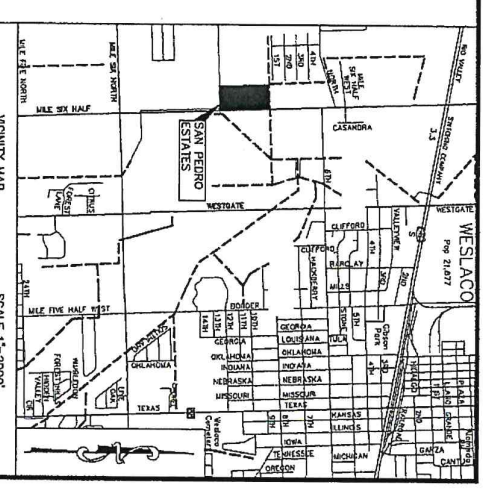
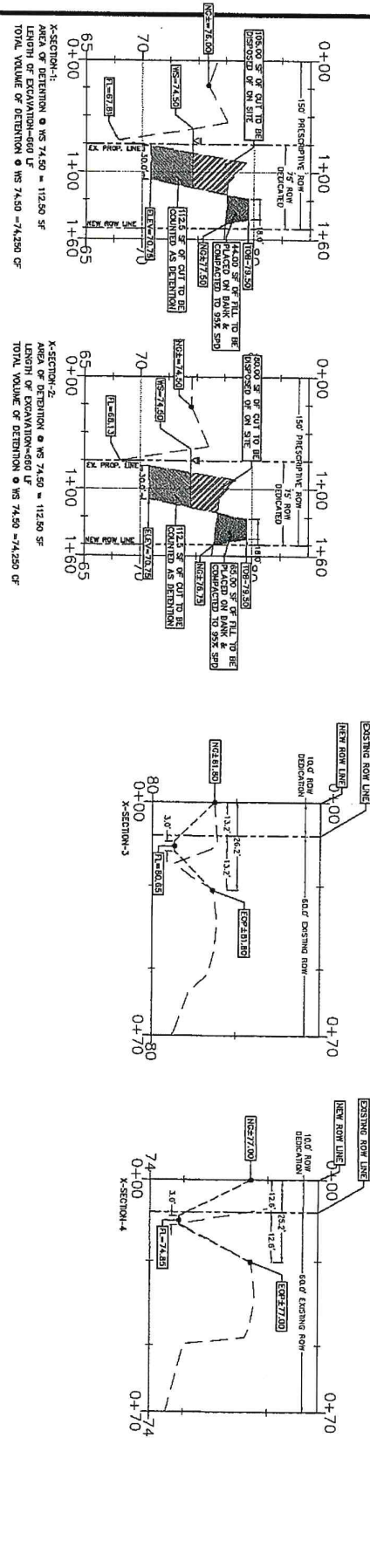
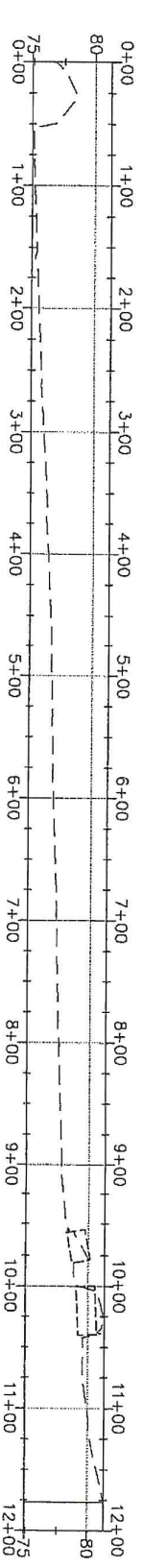
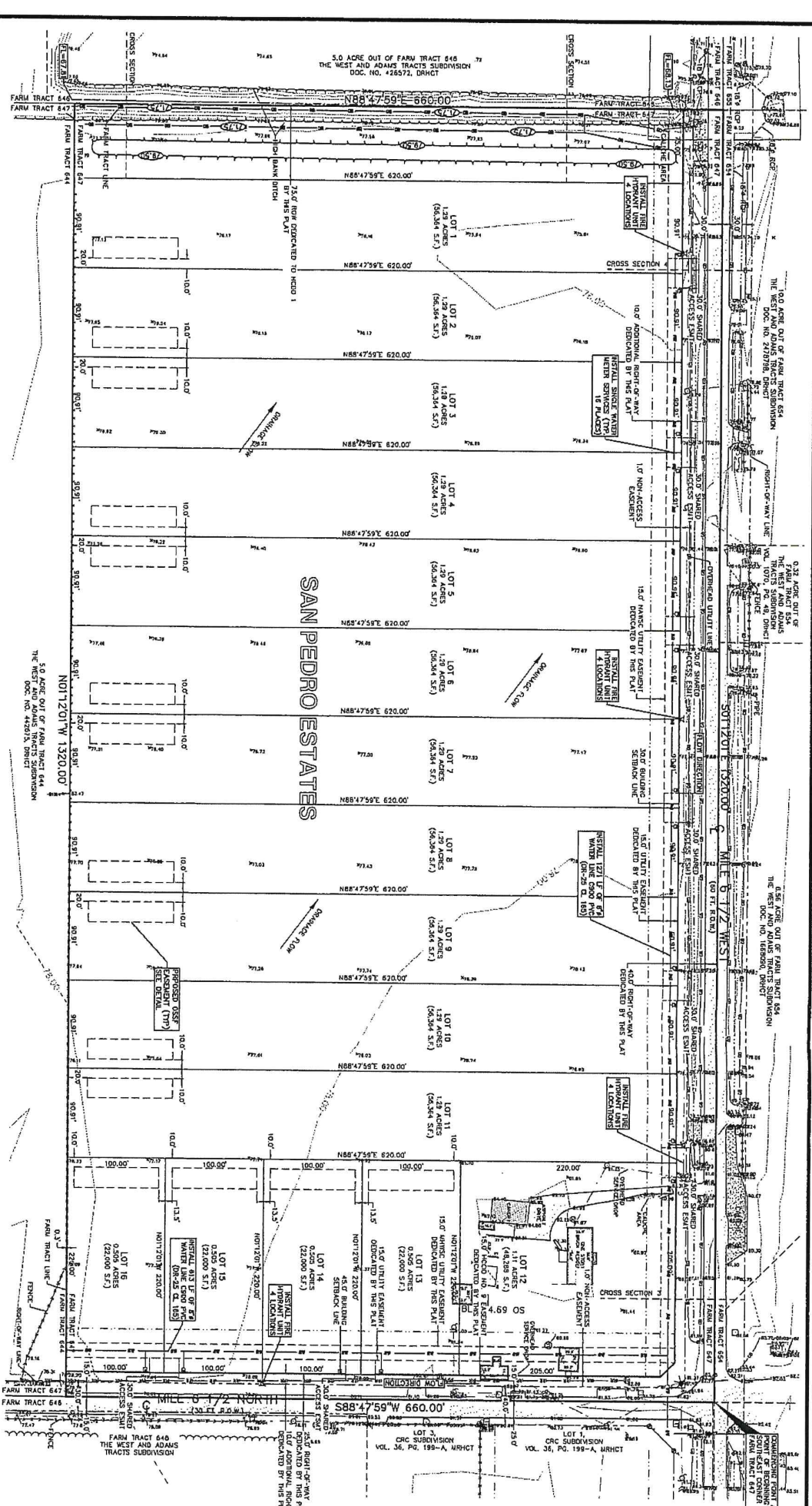
SHEET 1 OF 1

MAINTENANCE PROJECT
ADJUTANT GENERAL
RECORDS OF
THE
UNITED STATES ARMY
SERIES ALL
STANDARDIZATION,
ECONOMIC TO
VOLUME 2,
RECORDS OF
EXAMS

100 MG 58013

d _____
LLC

99 101946
799



NOTES

1. ALL LOTS ARE TO BE CONVEYED TO THE CITY OF SAN PEDRO, TEXAS, BY DEED.
2. THE SUBDIVISION IS LOCATED IN HONOLULU COUNTY, HAWAII, AND IS SUBJECT TO THE HAWAIIAN LAND USE ZONING ACT, CHAPTER 205, HRS.
3. THE SUBDIVISION IS SUBJECT TO THE HAWAIIAN LAND USE ZONING ACT, CHAPTER 205, HRS.
4. THE SUBDIVISION IS SUBJECT TO THE HAWAIIAN LAND USE ZONING ACT, CHAPTER 205, HRS.
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14. THE SUBDIVISION IS SUBJECT TO THE HAWAIIAN LAND USE ZONING ACT, CHAPTER 205, HRS.
15. THE SUBDIVISION IS SUBJECT TO THE HAWAIIAN LAND USE ZONING ACT, CHAPTER 205, HRS.
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17. THE SUBDIVISION IS SUBJECT TO THE HAWAIIAN LAND USE ZONING ACT, CHAPTER 205, HRS.
18. THE SUBDIVISION IS SUBJECT TO THE HAWAIIAN LAND USE ZONING ACT, CHAPTER 205, HRS.
19. THE SUBDIVISION IS SUBJECT TO THE HAWAIIAN LAND USE ZONING ACT, CHAPTER 205, HRS.
20. THE SUBDIVISION IS SUBJECT TO THE HAWAIIAN LAND USE ZONING ACT, CHAPTER 205, HRS.

NO.	DESCRIPTION	DATE	BY
1	RECORD	10/1/2000	J. L. MOORE
2	RECORD	10/1/2000	J. L. MOORE
3	RECORD	10/1/2000	J. L. MOORE
4	RECORD	10/1/2000	J. L. MOORE
5	RECORD	10/1/2000	J. L. MOORE
6	RECORD	10/1/2000	J. L. MOORE
7	RECORD	10/1/2000	J. L. MOORE
8	RECORD	10/1/2000	J. L. MOORE
9	RECORD	10/1/2000	J. L. MOORE
10	RECORD	10/1/2000	J. L. MOORE

PRELIMINARY PLAT OF:
SAN PEDRO ESTATES
2000 LOTS OF LAND BEING ALL
THE WEST AND ADJACENT TRACTS SUBDIVISION,
HONOLULU COUNTY, TEXAS, ACCORDING TO
PAGE 37, THROUGH 37, AND RECORDS 20,
HONOLULU COUNTY, TEXAS.

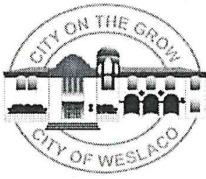


Surveying, LLC
1620 East 11th Ave., Suite 100
Tomball, TX 77375
(281) 355-1111
www.surveyingllc.com



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: January 8, 2020	Agenda Item No. (to be assigned by PCE): V. C.
From: Rebekah de la Fuente, Planning Director, on behalf of DASC Investments, LLC.	
Subject/Agenda Item: Discussion and consideration for the Final Plat for Highland Manor Subdivision – being 8.25 acres out of Farm Tract 238, West & Adams Tract Subdivision, Hidalgo County, Texas. Approximately on the Northwest corner of Mile 11 North and Mile 5 ½ West. Possible Action.	
Discussion/Overview: The proposed eleven (11) lot subdivision outside the City of Weslaco city limits. This subdivision is being serviced with water by NAWSC 6" waterline and sewer by OSSF. The property is within a Flood Zone "X". Developer is requesting a variance to permit OSSF and off-site drainage.	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission's Action: Staff recommends denial of the Final plat and compliance with ordinance for variance. Staff has still not received the letter of support for the proposed off-site drainage.	
Additional Action Prompted: ☒ Mayor's Signature ☐ Public Hearing ☐ Budget Amendment ☐ Resolution ☐ Ordinance – First Reading ☐ Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

This form shall be completed by the Property Owner or Applicant and submitted to the Planning Department along with the required number of copies of the respective plat, review fee and all other required information listed below and in the Subdivision Ordinance. The submittal of an application does not constitute acceptance for processing until the staff reviews and determines the application is complete.

STAFF USE ONLY

☐ Single Lot Variance ☐ Minor Plat ☐ Planned Unit Development ☐ Standard Subdivision

GENERAL INFORMATION

Name of Subdivision: HIGHLAND MANOR SUBDIVISION

Location: MILE 5 1/2 AND MILE 11 NORTH ROAD

Legal Description: 8.25 ACRES OUT OF FARM TRACT 238, THE WEST AND ADAMS TRACT SUBDIVISION, HIDALGO COUNTY, TEXAS

AS PER MAP RECORDED IN VOLUME 2, PAGE 34-37 MAP RECORDS OF HIDALGO COUNTY, TEXAS.

Is subdivision inside city limits? ☐ YES ☒ NO

If subdivision is in the ETJ, indicate? ☒ 3.5 Mile ☐ 5 Mile

If no submit letter of Annexation (Contiguous or Consensual)

Existing Zoning: N/A

Existing Land Use: AGRICULTURAL Proposed Land Use: RESIDENTIAL

Number of Lots Proposed: 11 Gross Acreage: 8.25

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: DASC INVESTMENTS, LLC. Telephone: _____

Address: 12130 W. MILE 11 NORTH Fax: _____

City: WESLACO State: TX Zip: 78596 E-mail: _____

ENGINEER INFORMATION

Name: IVAN GARCIA P.E. Telephone: (956) 380-5152

Address: 921 S. 10TH AVE. Fax: (956) 380-5083

City: EDINBURG State: TX Zip: 78539 E-mail: RIODELTA2004@YAHOO.COM

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: NORTH ALAMO WATER SUPPLY CORP.

☐ YES ☒ -NO Wastewater Provision: _____

☒ YES ☐ NO Electric Company: MAGIC VALLEY ELECTRIC CORP.

☒ YES ☐ NO Phone Utility <u>AT&T</u>	☐ YES ☒ NO Gas Utility	☒ YES ☐ NO Cable Utility
---	---	---

Proposed subdivision is in the following districts:

☒ YES ☐ NO Drainage District <u>#1</u>	☒ YES ☐ NO Irrigation District <u>#9</u>
---	---

Has the property been assessed as flat rate irrigable property: ☐ YES ☒ NO

Have Water Rights been conveyed to City/Water Supplier? ☐ YES ☒ NO

(Attach written proof of such assessment or that it has never been assessed as such a property) If **YES**, attach an estimate from the irrigation district of the proportional water rights for the subdivision as calculated under Texas Water Code § 49.505.

SUBMITTALS REQUIRED FOR MINOR PLAT REVIEW

_____ **Two (2) sets of plats folded and stapled (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov**

_____ **\$355.00 Planning Review fee**

_____ **One 11" X 17" reduced copy of plat**

_____ **Plat Layout**

_____ Existing & Proposed Easements

_____ Existing & Proposed ROW

_____ Existing & Proposed Drainage Easements

_____ Contours

_____ Flood Zones

_____ Adjoiners

_____ Existing street names

_____ **Drainage plans and calculations with engineer's seal**

_____ Elevations

_____ Flood directional arrows

_____ Detention areas

_____ Street names

_____ **Proof of ownership of the property**

_____ **If septic tank system required, submit soil evaluation report**

_____ **Water Rights associated with the property**

_____ **Tax Receipt for all taxing entities showing that taxes are paid in full**

SUBMITTALS REQUIRED FOR PRELIMINARY (P & Z)

_____ **Twelve (12) sets of preliminary plat folded and stapled (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov**

_____ **\$350.00 (one time fee for preliminary and final plat)**

_____ **One 11" X 17" reduced copy of plat**

_____ **Plat Layout**

_____ Existing & Proposed Easements

_____ Existing & Proposed ROW

_____ Existing & Proposed Drainage Easements

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

- _____ Contours
- _____ Flood Zones
- _____ Adjoiners
- _____ Existing & Proposed street names
- _____ Utility Layout
 - _____ Existing & Proposed Utilities
 - _____ Proposed Fire Hydrants
 - _____ Adjoiners
 - _____ Street names
- _____ Drainage plans and calculations with engineer's seal
 - _____ Elevations
 - _____ Flood directional arrows
 - _____ Detention areas
 - _____ Street names
- _____ Proof of ownership of the property
- _____ If septic tank system required, submit soil evaluation report
- _____ Water Rights associated with the property
- _____ Tax Receipt for all taxing entities showing that taxes are paid in full
- _____ Number of fire hydrants proposed for subdivision
- _____ Trip Generation Worksheet

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- _____ **Twelve (12) sets of plans FOLDED & STAPLED (24 x 36) & PDF copy with all corrections**
- _____ Plats to be sealed by Professional Engineer
- _____ Approved Drainage Report
- _____ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- _____ One set of 8 ½ x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- _____ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- _____ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- _____ Notice of Intent
- _____ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- _____ Electronic file of final plat and as-builds
- _____ Reproducible plat to be recorded with all required signatures
- _____ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- _____ 2% inspection fee
- _____ Park Fees
- _____ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- _____ Tax certificates
- _____ Memo from engineering inspector releasing subdivision
- _____ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- _____ 30 Year Water and 30 Year Sewer Service Agreements
- _____ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- _____ Sealed engineering cost estimates
- _____ Letter of Credit/Performance Bond/Escrow

** Any revisions requested would require resubmission of plats and reduced copy reflecting changes.

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: Cricelda Hinojosa

Owner Signature: Cricelda Hinojosa Date: 10-31-19

_____ is the authorized agent

Authorized Agent Signature: _____ Date: _____

Authorized Agent Printed Name: _____

THIS PAGE FOR STAFF USE ONLY

Date Received: _____ Received By: _____ Date Paid: _____

P & Z Commission Approval on Preliminary Plat: _____

P & Z Commission Approval on Final Plat: _____

City Commission Approval on _____

Preconstruction Meeting Date: _____

Date Recorded: _____

General Comments: _____

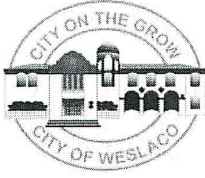
CITY OF WESLACO
956-968-3181

REC#: 02573500 11/19/2019 8:18 AM
OPER: NV TERM: 039
REF#: 1129
PAID BY:

TRAN: 208.0000 SUBDIVISION REVIEW
HIGHLAND MANOR
101-400-1025
SUBDIVISION FEES 355.00CR

TENDERED: 355.00 CHECK
APPLIED: 355.00-

CHANGE: 0.00



APPLICATION FOR SUBDIVISION VARIANCE

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

GENERAL INFORMATION

Name of Subdivision: HIGHLAND MANOR SUBDIVISION

Location: MILE 5 1/2 AND MILE 11 NORTH ROAD

Legal Description: 8.25 ACRES OUT OF FARM TRACT 238, THE WEST AND ADAMS TRACT SUBDIVISION, HIDALGO COUNTY, TEXAS
AS PER MAP RECORDED IN VOLUME 2, PAGE 34-37 MAP RECORDS OF HIDALGO COUNTY, TEXAS.

VARIANCE TYPE:

☐ Streetlights ☐ YES ☒ NO

Describe in detail the reason for the variance request:

☐ Sanitary Sewer ☒ YES ☐ NO

Describe in detail the reason for the variance request:

THERE IS NOT AND EXISTING SANITARY SEWER COLLECTION SYSTEM IN THE IMMEDIATE AREA THAT WOULD BE ABLE TO SERVICE THE SUBDIVISION.

☐ Fire Hydrants ☐ YES ☒ NO

Describe in detail the reason for the variance request:

☐ Setbacks ☐ YES ☒ NO

Describe in detail the reason for the variance request:

☒ Drainage ☒ YES ☐ NO

Describe in detail the reason for the variance request:

THERE IS NOT AND EXISTING DRAINAGE SYSTEM IN THE IMMEDIATE AREA THAT WOULD BE ABLE TO SERVICE THE SUBDIVISION.

☐ Minimum Lot Size ☐ YES ☒ NO

Describe in detail the reason for the variance request:

☐ Sidewalks ☐ YES ☒ NO

Describe in detail the reason for the variance request:

☐ Easement Requirements ☐ YES ☒ NO

Describe in detail the reason for the variance request:

☐ Other _____ ☐ YES ☒ NO

Describe in detail the reason for the variance request:

OWNER INFORMATION

Owner's Name: DASC INVESTMENTS, LLC. Telephone: 9567788689
Address: 12130 W. MILE 11 NORTH Fax: _____
City: WESLACO State: TX Zip: 78596 E-mail: _____

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: Cricelda Hinojosa

Owner Signature: Cricelda Hinojosa Date: 10-10-19

_____ is the authorized agent

Authorized Agent Signature: _____ Date: _____

Authorized Agent Printed Name: _____

City of Weslaco

"The City on the Grow"



David Suarez, Mayor
Greg Kerr, Mayor Pro-Tem, District 2
Leo Muñoz, Commissioner, District 1
Jose "J.P." Rodriguez, Commissioner, District 3
Adrian Farias, Commissioner, District 4
Letty Lopez, Commissioner, District 5
Josh Pedraza, Commissioner, District 6

Mike R. Perez, City Manager

October 23, 2019

Rio Delta Engineering
c/o Ivan Garcia
921 S 10th Ave
Edinburg, Texas 78539

Re: Highland Manor Subdivision

Dear Applicant:

As per the plan set received, please find below general comments that need to be addressed for the above-mentioned subdivision:

1. Add Plat Note: Streetlight must be located every 300 feet
2. Update Plat Note 2: Minimum Building Setback lines shall be as follows:

Rear: 20% of lot depth, maximum of 25' - Proposed rear setback will require a variance

3. Add Plat Note: 4 ft sidewalks are required along all exterior streets upon the issuance of a building permit.
4. Submit variance request application for installation of OSSF
5. Identify all adjacent property owners

Should you need additional information or have any questions, please call the Planning Department at (956) 447-3401.

Sincerely,

Rebekah de la Fuente, CFM
Interim Planning & Code Enforcement Director

CRUZ-HOGAN *Consultants, Inc.*

ENGINEERS | PLANNERS | CONSULTANTS

McAllen | Harlingen | Weslaco
TBPE Firm Reg No. F-4860

To: Rebekah de la Fuente, CFM
Interim Planning & Code Enforcement Director

From: Orlando S. Cruz, P.E. 
CRUZ-HOGAN Consultants, Inc.

Re: Highland Manor Subdivision

Date: October 22, 2019

Legal: 7.06 Acre Tract of land out of Farm Tract 2.38, the West and Adams Tract Subdivision, Hidalgo County, Texas

Physical Location: Intersection of Mile 11 North Road and Mile 5 ½ West Road.
Outside City Limits.

Review: *PRELIMINARY REVIEW OF SUBDIVISION*

Water System:

Subdivision located in Military Highway CCN Area. Water provided by MHWSC.

Sewer System:

Sewer system not available. Septic systems proposed in accordance with the Model Subdivision Requirements.

Fire Protection:

1. Fire Department must approve locations of proposed fire hydrants.

Plat Drawing:

1. Sidewalks are required for all lots and to be indicated on plat note.
2. 10-foot utility easement required along perimeter of subdivision.
3. Street light requirements to be indicated on plat note.
4. Subdivision boundary corners shall have concrete monuments and all lot corners shall have iron rod markers.

Rebekah de la Fuente, LLM
Page 2 - Highland Manor Subdivision
October 22, 2019

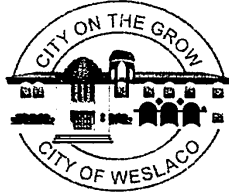
Miscellaneous:

1. Plat shall include Final Engineering Report. See Section 3.2, Article IV Model Subdivision Rules.

If you have any questions, please feel free to call us at 956-854-4227.

City of Weslaco

"The City on the Grow"



David Suarez, Mayor
Greg Kerr, Mayor Pro-Tem, District 2
Leo Muñoz, Commissioner, District 1
Jose "J.P." Rodriguez, Commissioner, District 3
Adrian Farias, Commissioner, District 4
Lety Lopez, Commissioner, District 5
Josh Padraza, Commissioner, District 6

Mike R. Perez, City Manager

INTERNAL MEMO

DATE: October 15, 2019

TO: Orlando Cruz/ Peter Hermida, Engineer III
Pete Garcia, Public Works Director/ Marcelo Cosme
Chris Sanchez, Fire Marshal/Mike Swinnea
Rolando Gonzalez, Building Official
Police Chief Joel Rivera, Police Department/ Eric Hernandez

FROM: Rebekah de la Fuente, Interim Planning & Code Enforcement Director 

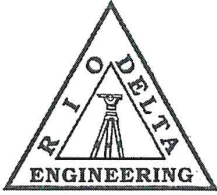
SUBJECT: Subdivision Review Meeting

A subdivision review meeting will be held on Thursday, October 24, 2019 in the Planning Department Conference Room B. It is imperative that you attend. Listed below is the subdivision that will be discussed:

➤ Highland Manor Subdivision- 9:00 a.m.

Please make every effort to attend or send a representative, if you or a representative is unable to attend, submit your comments in writing. Be advised that all comments must be received before the scheduled meeting in order to avoid delays of construction.

Should you have any questions, please call 447-3401.



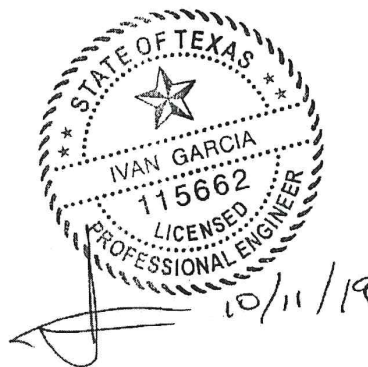
RIO DELTA ENGINEERING

CIVIL ENGINEERING • PROJECT MANAGEMENT • LAND DEVELOPMENT
TEXAS REGISTERED ENGINEERING FIRM F-7628
TEXAS LICENSED SURVEYING FIRM #10194027

HIGHLAND MANOR SUBDIVISION DRAINAGE REPORT

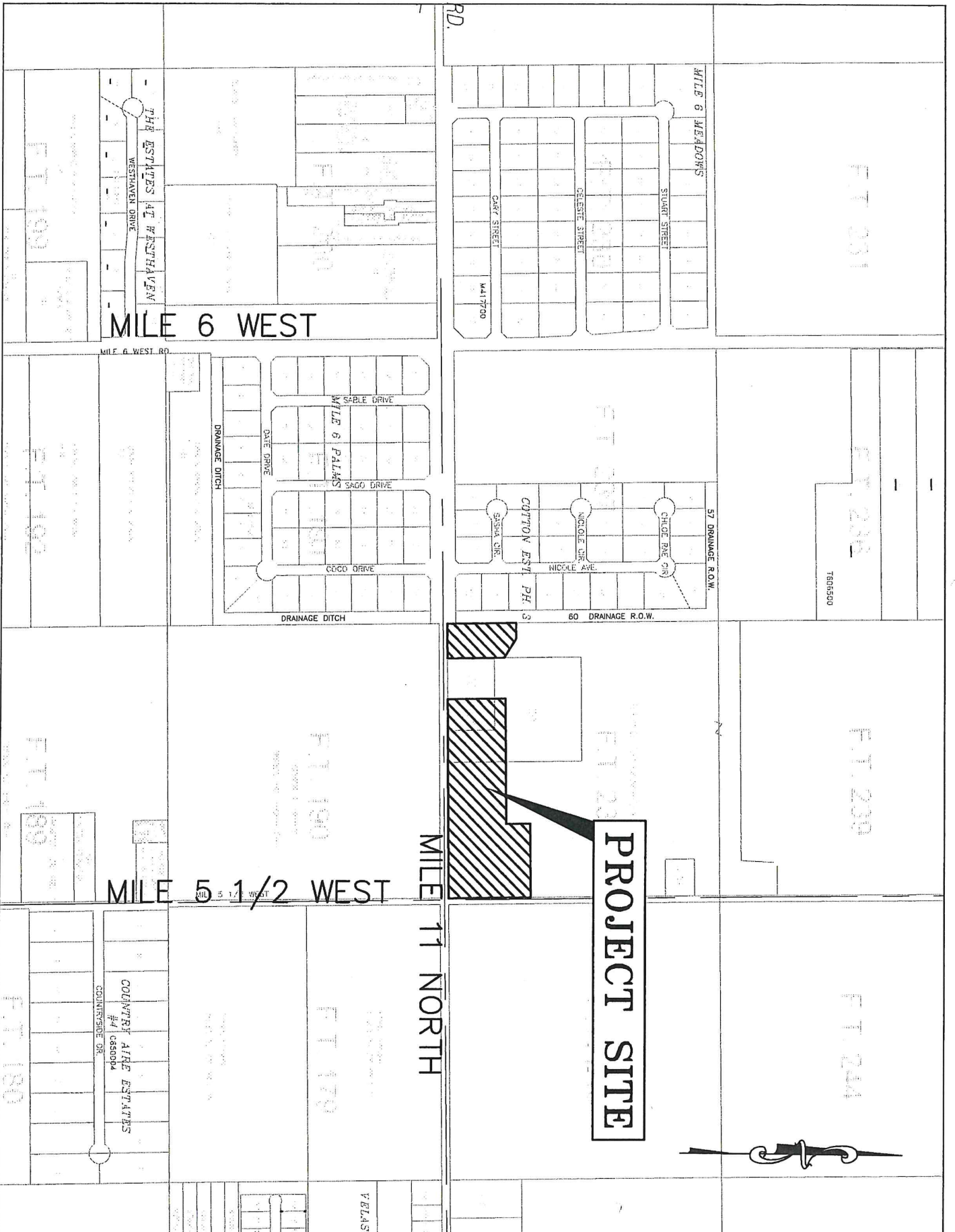
Prepared By:
Ivan Garcia P.E., R.P.L.S.

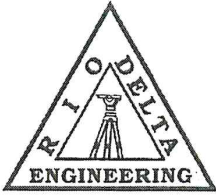
Date:
October 11, 2019



INDEX SHEET

1. COVER SHEET
2. INDEX SHEET
3. DRAINAGE REPORT
4. PROJECT LOCATION MAP
5. HYDRAULIC CALCULATIONS
6. "C" VALUES FOR METHOD
7. RAINFALL INTENSITY FOR HIDALGO COUNTY
8. FLOOD PLAIN
9. SOIL SURVEY
10. PRELIMINARY PLAT AND UTILITY & DRAINAGE LAYOUT





RIO DELTA ENGINEERING

CIVIL ENGINEERING • PROJECT MANAGEMENT • LAND DEVELOPMENT

TEXAS REGISTERED ENGINEERING FIRM F-7628

TEXAS LICENSED SURVEYING FIRM #10194027

DRAINAGE REPORT

Highland Manor Subdivision,

City of Weslaco ETJ

Hidalgo County, TEXAS

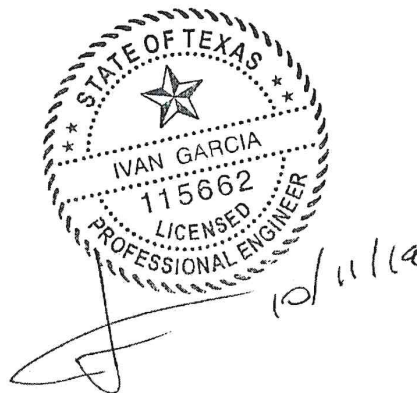
Highland Manor Subdivision is a proposed 11 lot Residential Subdivision, same being a 8.25 acres out of Farm Tracts 238 of the West and Adams Tract Subdivision, Hidalgo County, Texas, Volume 2, Page 34-37, map records of Hidalgo County, Texas. These lots will be used for single-family homes.

The subdivision is in zone "X" of the flood insurance rate, areas determined to be outside 500-year floodplain according to the FEMA's Flood Insurance Rate Map Community Panels No.: 480334 0450 C dated: June 6, 2000

According to the Soil Survey Report prepared for Hidalgo County by the U.S.D.A. Soil Conservation Service, the site consists of 71.0% of Hidalgo fine sandy loam (25), with 0 to 1% slopes, the soil is well drained and surface runoff is negligible, permeability is moderately high to high and the water capacity is moderate. Additionally, it consists of 29.0% of Hidalgo sandy clay loam (28), with 0 to 1% slopes, the soil is well drained and surface runoff is negligible, permeability moderately is high to high and the water capacity is moderate. These soils are classified as Group (B). Please see the attached tables for the engineering, physical and chemical properties of these soils.

Existing runoff sheet flows overland in a southeasterly direction and overflows to the existing road side ditch on the north right of way of Mile 11 North in front of this subdivision, to follow the existing drainage patterns of the area in an easterly direction with outfall to the 701 drain ditch, then conveyed to the East Lateral drain, then conveyed to the Main Flood Water Channel, and final outfall to the Laguna Madre. Using the Rational Method, we have determined that a 10-yr rainfall event will generate approximately 4.19 CFS of storm runoff. We have also used the Rational Method to determine that the improved site will generate an estimated 5.68 CFS of runoff 50-yr rainfall events respectively. The improved site will have an approximate increase of 1.49 cfs of storm runoff.

In accordance with the City of Weslaco and County's drainage requirements, we have calculated that approximately a total of 12,160 CF or 0.279 AC-FT, will need to be detained for the complete development of the subdivision for a 50-yr rainfall event. Storm water will be detained in the green areas of the proposed lots and by re-grading and excavating the existing roadside ditch along the frontage of the property along Mile 11 North, to follow the existing drainage patterns of the area in an easterly direction with outfall to the 701 drain ditch, then conveyed to the East Lateral drain, then conveyed to the Main Flood Water Channel, and final outfall to the Laguna Madre. Tables and calculations, are attached.



STORM WATER DETENTION CALCULATIONS

SUMMARY SHEET

Project Name: **HIGHLAND MANOR SUBDIVISION**
 City: **WESLACO ETJ**
 State: **Texas**
 County: **HIDALGO COUNTY**
 Total Area: **8.25** Acres Gross
 Total lots: **11**

Area already developed:	0.00	Acres	*Pre-existing condition
Area unimproved:	8.25	Acres	
Existing Run off:	4.19	cfs	*10 year storm
Future Run off:	5.68	cfs	*50 year storm
Total on site detention required:	12,160	cft	*50 year storm
	0.279	Ac-ft	

*References for calculations and procedure: **1) TxDOT Hydraulic Design Manual
Revised March 2009**

**2) FHWA, Urban Drainage Design Manual HEC-22
Revised September 2009**

3) City of Edinburg 2014 Standards Manual



*Pre-existing condition

I. EXISTING RUN OFF (10 YEAR STORM)

*Rational Method

Project Name: **HIGHLAND MANOR SUBDIVISION**

City: **WESLACO ETJ**

State: **Texas**

Highest elevation= **72.00** ft

Lowest elevation= **70.00** ft

Watercourse length, L= **1360.00** ft

Slope, S_p = **0.15** %

Average flow velocity, V = **0.27** ft/sec

$$V = K_u k S_p^{0.5}$$

K_u =3.28

k = 0.213

*From Table 3-2 - Intercept Coefficients

*For short grass pasture

Time of concentration, t_c = **84.60** min (calculated)

$$t_c = L/60V$$

84.60 min (used)

Intensity, i = **2.54** in/hr

$$i = \frac{b}{(t_c + d)^e}$$

*From table 3-1- Intensity-Frequency-Duration

*Coefficients for HIDALGO, County, Texas from TXDOT IDF Coefficients

*For a recurrence interval of 10 years

e = **0.778**

b = **87**

d = **9.2**

Area already developed= **0.00** SQFT
(buildings and driveway) **0.00** ACRES

*Pre-existing condition

Area unimproved= **359,370** SQFT
8.25 ACRES

*Pre-existing condition

Existing Run off Coefficient: **0.2** *For Unimproved areas
*From Table 3-3 - Run off Coefficients

Weighted Run off Coefficient, C_w = **0.20**

$$C_w = (C_1 A_1 + C_2 A_2) / A_{Total}$$

Peak flow, Q = **4.19** CFS

$$Q = C i A$$

II. FUTURE RUN OFF (50 YEAR STORM)

*Rational Method

Project Name: **HIGHLAND MANOR SUBDIVISION**

City: **WESLACO ETJ**

State: **Texas**

Highest elevation= **72.00** ft

Lowest elevation= **70.00** ft

Watercourse length, L= **1360.00** ft

Slope, S_p = **0.15** %

Average flow velocity, V= **0.27** ft/sec

$$V = K_u k S_p^{0.5}$$

K_u =3.28

k= 0.213

*From Table 3-2 - Intercept Coefficients

*For short grass pasture

Time of concentration, t_c = **84.60** min (calculated)

$$t_c = L/60V$$

84.60 min (used)

Intensity, i= **3.30** min

$$i = \frac{b}{(t_c + d)^e}$$

*From table 3-1- Intensity-Frequency-Duration

*Coefficients for HIDALGO, County, Texas from TXDOT IDF Coefficients

*For a recurrence interval of 50 years

e= 0.749

b= 99.0

d= 9.2

Area to be developed **4,500** SQFT
0.10 ACRES

4500 SF home, driveways and walks

Existing Run off Coefficient: **0.9** *Average for roofs, driveways and walks
*From Table 3-3 - Run off Coefficients

Area left unimproved= **354,870** SQFT
Total area left unimproved= **8.15** ACRES *Remaining area

Existing Run off Coefficient: **0.2** *For Unimproved areas
*From Table 3-3 - Run off Coefficients

Weighted Run off Coefficient, C_w = **0.21**

$$C_w = (C_1 A_1 + C_2 A_2) / A_{Total}$$

Peak flow, Q= **5.68** CFS

$$Q = C i A$$

III. STORAGE CALCULATIONS (50 YEAR STORM)

*Rational Method

Project Name: **HIGHLAND MANOR SUBDIVISION**

City: **WESLACO ETJ**

State: **Texas**

Highest elevation= **72.00** ft

Lowest elevation= **70.00** ft

Watercourse length, L= **1360.00** ft

Slope, S_p = **0.15** %

Average flow velocity, V= **0.27** ft/sec

$$V = K_u k S_p^{0.5}$$

K_u = 3.28

k = 0.213

*From Table 3-2 - Intercept Coefficients

*For short grass pasture

Time of concentration, t_c = **84.60** min

(calculated)

$$t_c = L / 60V$$

84.60 min

(used)

Intensity, i = **3.30** min

$$i = \frac{b}{(t_c + d)^e}$$

*From table 3-1- Intensity-Frequency-Duration

*Coefficients for HIDALGO, County, Texas from TXDOT IDF Coefficients

*For a recurrence interval of 50 years

e = 0.749

b = 99.0

d = 9.2

Area already developed= **4,500** SQFT

4500 SF home, driveways and walks

0.10 ACRES

Existing runoff coefficient: **0.9**

*Average for roofs, driveways and walks

*From Table 3-3 - Run off Coefficients

Area left unimproved= **354,870** SQFT

*Remaining area

Total area left unimproved= **8.15** ACRES

Existing Run off Coefficient: **0.2**

*For Unimproved areas

*From Table 3-3 - Run off Coefficients

Weighted Run off Coefficient, C_w = **0.21**

$$C_w = (C_1 A_1 + C_2 A_2) / A_{Total}$$

Peak flow, Q = **5.68** CFS

$$Q = C_i A$$

IV. STORM WATER DETENTION CALCULATIONS

*Rational Method

Duration (min)	Intensity (in/hr)	Q in (cfs)	Vol in (cft)	Q out (cfs)	V out (cft)	Storage (cft)
0	18.78	32.35	0	4.19	0	0
5	13.57	23.37	7,011	4.19	1,258	5,753
10	10.83	18.64	11,187	4.19	2,516	8,670
15	9.10	15.68	14,110	4.19	3,774	10,335
20	7.91	13.62	16,344	4.19	5,033	11,311
25	7.03	12.10	18,149	4.19	6,291	11,858
30	6.34	10.92	19,663	4.19	7,549	12,114
35	5.80	9.98	20,967	4.19	8,807	12,160
40	5.35	9.21	22,114	4.19	10,065	12,049
45	4.98	8.57	23,139	4.19	11,323	11,816
50	4.66	8.02	24,066	4.19	12,582	11,484

Total on site detention required=

12,160
0.279

 cft
acres-ft

Duration: Duration in minutes

Intensity: Intensity for respective duration (50-year event)

Q in: Developed conditions peak discharge ($C_{dev} \times i_{50} \times \text{Area}$)

Vol in: Developed conditions run off volume ($Q_{in} \times \text{Duration} \times 60$)

Q out: Pre-developed peak discharge ($C_{pre} \times i_{10} \times \text{Area}$)

V out: (duration x Qout x 60)

Storage: Required storage ($V_{in} - V_{out}$)

Table 3-1. Rainfall Intensity-Duration-Frequency Coefficients for Hidalgo County

Coefficient	2-year	5-year	10-year	25-year	50-year	100-year
e (in)	0.831	0.797	0.778	0.771	0.749	0.740
b	74	79	87	98	99	103
d (mins)	9.6	8.9	9.2	9.2	9.2	9.6

Reference: TxDOT Hydraulic Design Manual, (2009)

Table 3-2. Intercept Coefficients for Velocity vs. Slope Relationship

Land Cover/Flow Regime	k
Forest with heavy ground litter; hay meadow (overland flow)	0.076
Trash fallow or minimum tillage cultivation; contour or strip cropped; woodland (overland flow)	0.152
Short grass pasture (overland flow)	0.213
Cultivated straight row (overland flow)	0.274
Nearly bare and untilled (overland flow); alluvial fans in western mountain regions	0.305
Grassed waterway (shallow concentrated flow)	0.457
Unpaved (shallow concentrated flow)	0.491
Paved area (shallow concentrated flow); small upland gullies	0.619

Reference: FHWA, Urban drainage Design Manual HEC-22, (2009)

Table 3-3. Runoff Coefficients for Rational Formula

Type of Drainage Area	Runoff Coefficient, C*
Business:	
Downtown areas	0.70 - 0.95
Neighborhood areas	0.50 - 0.70
Residential:	
Single-family areas	0.30 - 0.50
Multi-units, detached	0.40 - 0.60
Multi-units, attached	0.60 - 0.75
Suburban	0.25 - 0.40
Apartment dwelling areas	0.50 - 0.70
Industrial:	
Light areas	0.50 - 0.80
Heavy areas	0.60 - 0.90
Parks, cemeteries	0.10 - 0.25
Playgrounds	0.20 - 0.40
Railroad yard areas	0.20 - 0.40
Unimproved areas	0.10 - 0.30
Lawns:	
Sandy soil, flat, 2%	0.05 - 0.10
Sandy soil, average, 2 - 7%	0.10 - 0.15
Sandy soil, steep, 7%	0.15 - 0.20
Heavy soil, flat, 2%	0.13 - 0.17
Heavy soil, average, 2 - 7%	0.18 - 0.22
Heavy soil, steep, 7%	0.25 - 0.35
Streets:	
Asphaltic	0.70 - 0.95
Concrete	0.80 - 0.95
Brick	0.70 - 0.85
Drives and walks	0.75 - 0.85
Roofs	0.75 - 0.95
*Higher values are usually appropriate for steeply sloped areas and longer return periods because infiltration and other losses have a proportionally smaller effect on runoff in these cases.	

Reference: FHWA, Urban drainage Design Manual HEC-22, (2009)

Soil Map—Chicago County, Texas

Soil Map may not be valid at this scale.

26° 12' 54" N

2899690 2899640 2899690 2899740 2899790 2899840 2899890

98° 0' 14" W

599500 599550 599600 599650 599700 599750 599800 599850 599900 599950

Mile 11 N

25

28

23

Mile 5 1/2 W

2899690 2899640 2899690 2899740 2899790 2899840 2899890

26° 12' 54" N

97° 59' 57" W



Web Soil Survey
National Cooperative Soil Survey

MAP LEGEND

	Area of Interest (AOI)		Spoil Area
	Area of Interest (AOI)		Stony Spot
	Soils		Very Stony Spot
	Soil Map Unit Polygons		Wet Spot
	Soil Map Unit Lines		Other
	Soil Map Unit Points		Special Line Features
	Special Point Features		Water Features
	Blowout		Streams and Canals
	Borrow Pit		Transportation
	Clay Spot		Rails
	Closed Depression		Interstate Highways
	Gravel Pit		US Routes
	Gravelly Spot		Major Roads
	Landfill		Local Roads
	Lava Flow		Background
	Marsh or swamp		Aerial Photography
	Mine or Quarry		
	Miscellaneous Water		
	Perennial Water		
	Rock Outcrop		
	Saline Spot		
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 18, Sep 12, 2019
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 20, 2015—Nov 5, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
25	Hidalgo fine sandy loam, 0 to 1 percent slopes	5.1	71.0%
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	2.1	29.0%
Totals for Area of Interest		7.2	100.0%

Component Legend

This report presents general information about the map units and map unit components in the selected area. It shows map unit symbols and names and the components in each map unit. It also shows the percent of the components in the map units, the kind of component, and the slope range of each component.

Report—Component Legend

Component Legend—Hidalgo County, Texas							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
25—Hidalgo fine sandy loam, 0 to 1 percent slopes	60,332						
		85	Hidalgo	Series	0.0	0.5	1.0
28—Hidalgo sandy clay loam, 0 to 1 percent slopes	133,968						
		85	Hidalgo	Series	0.0	0.5	1.0

Data Source Information

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 18, Sep 12, 2019

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description

Hidalgo County, Texas

25—Hidalgo fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2sxvn

Elevation: 20 to 500 feet

Mean annual precipitation: 20 to 27 inches
Mean annual air temperature: 72 to 74 degrees F
Frost-free period: 300 to 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hidalgo and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hidalgo

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous loamy alluvium

Typical profile

Ap - 0 to 17 inches: fine sandy loam
Bk1 - 17 to 28 inches: sandy clay loam
Bk2 - 28 to 38 inches: clay loam
Ck - 38 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat):
Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 35 percent
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 10.0
Available water storage in profile: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: B
Ecological site: Gray Sandy Loam (R083DY019TX)
Hydric soil rating: No

Minor Components

Willacy

Percent of map unit: 10 percent
Landform: Terraces

Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Brennan

Percent of map unit: 5 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Sandy Loam (R083EY023TX)
Hydric soil rating: No

28—Hidalgo sandy clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2sxl
Elevation: 20 to 500 feet
Mean annual precipitation: 20 to 27 inches
Mean annual air temperature: 72 to 74 degrees F
Frost-free period: 300 to 365 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Hidalgo and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hidalgo

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous loamy alluvium

Typical profile

Ap - 0 to 17 inches: sandy clay loam
Bk1 - 17 to 28 inches: sandy clay loam
Bk2 - 28 to 38 inches: clay loam
Ck - 38 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat):
Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 35 percent
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 10.0
Available water storage in profile: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 2c
Hydrologic Soil Group: B
Ecological site: Gray Sandy Loam (R083DY019TX)
Hydric soil rating: No

Minor Components

Raymondville

Percent of map unit: 7 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Clay Loam (R083DY025TX)
Hydric soil rating: No

Racombes

Percent of map unit: 6 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Clay Loam (R083DY025TX)
Hydric soil rating: No

Willacy

Percent of map unit: 2 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Data Source Information

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 18, Sep 12, 2019

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Report—Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk ¹ denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007 (<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties—Hidalgo County, Texas													
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200	
25—Hidalgo fine sandy loam, 0 to 1 percent slopes			<i>In</i>				L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H
Hidalgo	85 B		0-17	Fine sandy loam	CL, SM, SC-SM, SC	A-4, A-2-4	0-0-0	0-0-0	100-100-100	94-96-100	84-94-100	35-47-56	1-7-8
			17-28	Sandy clay loam, clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	100-100-100	94-98-100	85-96-100	50-60-75	11-17-22
			28-38	Clay loam, sandy clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	95-97-100	91-94-100	81-93-100	54-68-81	11-17-22
			38-80	Clay loam, sandy clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	96-97-100	91-95-100	82-94-100	57-72-84	11-17-22
28—Hidalgo sandy clay loam, 0 to 1 percent slopes													
Hidalgo	85 B		0-17	Sandy clay loam	CL, SC	A-6	0-0-0	0-0-0	100-100-100	95-98-100	86-96-100	44-54-63	11-15-18
			17-28	Sandy clay loam, clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	100-100-100	94-98-100	85-96-100	50-60-75	11-17-22
			28-38	Clay loam, sandy clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	95-97-100	91-94-100	81-93-100	54-68-81	11-17-22
			38-80	Sandy clay loam, clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	96-97-100	91-95-100	82-94-100	57-72-84	11-17-22

Data Source Information

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 18, Sep 12, 2019

Physical Soil Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (K_{sat}), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (oven-dry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates in the table are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The content of organic matter in a soil can be maintained by returning crop residue to the soil.

Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and Ksat. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Reference:

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (<http://soils.usda.gov>)

Report—Physical Soil Properties

Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Physical Soil Properties—Hidalgo County, Texas														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density <i>g/cc</i>	Saturated hydraulic conductivity <i>micro m/sec</i>	Available water capacity <i>In/in</i>	Linear extensibility <i>Pct</i>	Organic matter <i>Pct</i>	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
25—Hidalgo fine sandy loam, 0 to 1 percent slopes	<i>In</i>	<i>Pct</i>	<i>Pct</i>	<i>Pct</i>										
	0-17	53-63- 75	5-19- 35	5-18- 20	1.35-1.45 -1.65	14.00-28.00-42.00	0.10-0.13-0.15	0.3- 1.4- 1.7	0.5- 1.0- 1.5	.24	.24	5	3	86
	17-28	25-48- 70	10-25- 50	23-27- 35	1.20-1.40 -1.50	4.00-9.00-14.00	0.10-0.13-0.18	1.2- 2.1- 5.0	0.3-0.6- 1.0	.28	.28			
	28-38	25-35- 70	10-35- 50	23-30- 35	1.20-1.40 -1.60	4.00-9.00-14.00	0.10-0.13-0.18	1.2- 2.3- 5.9	0.1-0.3- 0.5	.32	.32			
	38-80	25-30- 70	10-40- 50	23-30- 35	1.40-1.50 -1.80	4.00-9.00-14.00	0.10-0.13-0.18	1.0- 2.2- 5.0	0.1-0.2- 0.3	.32	.32			
28—Hidalgo sandy clay loam, 0 to 1 percent slopes														
Hidalgo	0-17	45-55- 70	5-18- 28	20-27- 30	1.35-1.50 -1.65	4.00-9.00-14.00	0.10-0.13-0.18	1.5- 2.7- 5.0	1.0- 1.5- 2.0	.17	.17	5	5	56
	17-28	25-48- 70	10-25- 50	23-27- 35	1.20-1.40 -1.50	4.00-9.00-14.00	0.10-0.13-0.18	1.2- 2.1- 5.0	0.3-0.6- 1.0	.28	.28			
	28-38	25-35- 70	10-35- 50	23-30- 35	1.20-1.40 -1.60	4.00-9.00-14.00	0.10-0.13-0.18	1.2- 2.3- 5.9	0.1-0.3- 0.5	.32	.32			
	38-80	25-30- 70	10-40- 50	23-30- 35	1.40-1.50 -1.80	4.00-9.00-14.00	0.10-0.13-0.18	1.0- 2.2- 5.0	0.1-0.2- 0.3	.32	.32			

Data Source Information

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 18, Sep 12, 2019



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: January 8, 2020	Agenda Item No. (to be assigned by PCE): V. D.
From: Rebekah de la Fuente, Planning Director, on behalf of San Jacinto Enterprises, LLC.	
Subject/Agenda Item: Discussion and consideration for the Final Plat for San Jacinto Estates No10. Phase II Subdivision – being 13.49-acre tract of land out of Farm Tract 94, West & Adams Tract Subdivision, Hidalgo County, Texas. Approximately on the Northwest corner of Mile 10 North Road and Mile 4 West Road. Possible Action.	
Discussion/Overview: The proposed forty-eight (48) lot subdivision outside the City of Weslaco city limits. This subdivision is being serviced with water by NAWSC through an 8” waterline and sewer serviced by City of Weslaco through an 8” line. The property is within a Flood Zone “X”. Developer was granted a variance for off-site drainage.	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission’s Action: Staff recommends approval of Final plat.	
Additional Action Prompted: ☒ Mayor’s Signature ☐ Public Hearing ☐ Budget Amendment ☐ Resolution ☐ Ordinance – First Reading ☐ Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff’s comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission’s Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

This form shall be completed by the Property Owner or Applicant and submitted to the Planning Department along with the required number of copies of the respective plat, review fee and all other required information listed below and in the Subdivision Ordinance. The submittal of an application does not constitute acceptance for processing until the staff reviews and determines the application is complete.

STAFF USE ONLY

☐ Single Lot Variance ☐ Minor Plat ☐ Planned Unit Development ☐ Standard Subdivision

GENERAL INFORMATION

Name of Subdivision: San Jacinto Estates No. 10 Phase II

Location: Northwest corner of Mile 10 North Road and Mile 4 West Road

Legal Description: A 13.49 acre tract of land out of Farm Tract 94, West and Adams Tract Subdivision, Hidalgo County, Texas.

Is subdivision inside city limits? ☐ YES ☒ NO

If subdivision is in the ETJ, indicate? ☒ 3.5 Mile ☐ 5 Mile

If no submit letter of Annexation (Contiguous or Consensual)

Existing Zoning: N/A

Existing Land Use: Agricultural Proposed Land Use: Residential

Number of Lots Proposed: 48 Gross Acreage: _____

Title Report Submitted: ☒ YES ☐ NO

OWNER INFORMATION

Owner's Name: San Jacinto Enterprises, LLC Telephone: (956) 565-9813

Address: 2100 W. Expressway 83 Fax: _____

City: Mercedes State: TX Zip: 78570 E-mail: _____

ENGINEER INFORMATION

Name: Quintanilla, Headley & Associates, Inc. Telephone: (956) 381-6480

Address: 124 E. Stubbs St. Fax: _____

City: Edinburg State: TX Zip: 78539 E-mail: alfonsoq@qha-eng.com

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: NAWSC

☒ YES ☐ NO Wastewater Provision: City of Weslaco

☒ YES ☐ NO Electric Company: MVEC

☒ YES ☐ NO Phone Utility <u>AT&T</u>	☐ YES ☒ NO Gas Utility	☒ YES ☐ NO Cable Utility
---	---	---

Proposed subdivision is in the following districts:

☒ YES ☐ NO Drainage District <u>HCDD #1</u>	☒ YES ☐ NO Irrigation District <u>HCCID #9</u>
--	---

Has the property been assessed as flat rate irrigable property: ☐ YES ☐ NO

Have Water Rights been conveyed to City/Water Supplier? ☐ YES ☐ NO

(Attach written proof of such assessment or that it has never been assessed as such a property) If **YES**, attach an estimate from the irrigation district of the proportional water rights for the subdivision as calculated under Texas Water Code § 49.505.

SUBMITTALS REQUIRED FOR MINOR PLAT REVIEW

_____ **Two (2) sets of plats folded and stapled (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov**

_____ **\$350.00 Planning Review fee**

_____ **One 11" X 17" reduced copy of plat**

_____ **Plat Layout**

_____ Existing & Proposed Easements

_____ Existing & Proposed ROW

_____ Existing & Proposed Drainage Easements

_____ Contours

_____ Flood Zones

_____ Adjoiners

_____ Existing street names

_____ **Drainage plans and calculations with engineer's seal**

_____ Elevations

_____ Flood directional arrows

_____ Detention areas

_____ Street names

_____ **Proof of ownership of the property**

_____ **If septic tank system required, submit soil evaluation report**

_____ **Water Rights associated with the property**

_____ **Tax Receipt for all taxing entities showing that taxes are paid in full**

SUBMITTALS REQUIRED FOR PRELIMINARY (P & Z)

_____ **Twelve (12) sets of preliminary plat folded and stapled (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov**

_____ **\$350.00 (one time fee for preliminary and final plat)**

_____ **One 11" X 17" reduced copy of plat**

_____ **Plat Layout**

_____ Existing & Proposed Easements

_____ Existing & Proposed ROW

_____ Existing & Proposed Drainage Easements

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

- _____ Contours
- _____ Flood Zones
- _____ Adjoiners
- _____ Existing & Proposed street names
- _____ Utility Layout
- _____ Existing & Proposed Utilities
- _____ Proposed Fire Hydrants
- _____ Adjoiners
- _____ Street names
- _____ Drainage plans and calculations with engineer's seal
- _____ Elevations
- _____ Flood directional arrows
- _____ Detention areas
- _____ Street names
- _____ Proof of ownership of the property
- _____ If septic tank system required, submit soil evaluation report
- _____ Water Rights associated with the property
- _____ Tax Receipt for all taxing entities showing that taxes are paid in full
- _____ Number of fire hydrants proposed for subdivision
- _____ Trip Generation Worksheet

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- _____ **Twelve (12) sets of plans FOLDED & STAPLED (24 x 36) & PDF copy with all corrections**
- _____ Plats to be sealed by Professional Engineer
- _____ Approved Drainage Report
- _____ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- _____ One set of 8 ½ x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- _____ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- _____ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- _____ Notice of Intent
- _____ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- _____ Electronic file of final plat and as-builds
- _____ Reproducible plat to be recorded with all required signatures
- _____ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- _____ 2% inspection fee
- _____ Park Fees
- _____ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- _____ Tax certificates
- _____ Memo from engineering inspector releasing subdivision
- _____ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- _____ 30 Year Water and 30 Year Sewer Service Agreements
- _____ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- _____ Sealed engineering cost estimates
- _____ Letter of Credit/Performance Bond/Escrow

** Any revisions requested would require resubmission of plats and reduced copy reflecting changes.

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: Jacinto Garza

Owner Signature: [Signature] Date: 9/11/19

_____ is the authorized agent

Authorized Agent Signature: _____ Date: _____

Authorized Agent Printed Name: _____

THIS PAGE FOR STAFF USE ONLY

Date Received: _____ Received By: _____ Date Paid: _____

P & Z Commission Approval on Preliminary Plat: _____

P & Z Commission Approval on Final Plat: _____

City Commission Approval on Final Plat: _____

Preconstruction Meeting Date: _____

Date Recorded: _____

General Comments: _____

CITY OF WESLACO
956-968-3181

REC#: 02575754 11/25/2019 9:13 AM
OPER: NV TERM: 039
REF#: 012439
PAID BY:

TRAN: 207.0000 SUBDIVISION APPLICAT
SAN JACINTO SUBDIVISON
101-400-1025
SUBDIVISION FEES 355.00CR

TENDERED: 355.00 CHECK
APPLIED: 355.00-

CHANGE: 0.00

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV



APPLICATION FOR SUBDIVISION VARIANCE

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

GENERAL INFORMATION

Name of Subdivision: San Jacinto Estates No. 10 Phase II

Location: Northwest corner of Mile 10 North Road and Mile 4 West Road

Legal Description: A 13.49 acre tract of land out of Farm Tract 94, West and Adams Tract Subdivision, Hidalgo County, Texas.

VARIANCE TYPE:

☐ Streetlights ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Sanitary Sewer ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Fire Hydrants ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Setbacks ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☒ Drainage ☒ YES ☐ NO

Describe in detail the reason for the variance request:

Drainage detention on off-site ditch excavation in lieu of on-site detention pond. HCDD #1 does not allow on-site detention ponds.

☐ Minimum Lot Size ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Sidewalks ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Easement Requirements ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Other _____ ☐ YES ☐ NO

Describe in detail the reason for the variance request:

OWNER INFORMATION

Owner's Name: San Jacinto Enterprises, LLC Telephone: (956) 565-9813
Address: 2100 W. Expressway 83 Fax: _____
City: Mercedes State: TX Zip: 78570 E-mail: _____

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

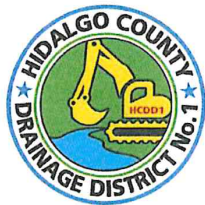
Owner Printed Name: Jaime Garza

Owner Signature: [Signature] Date: 9/11/19

_____ is the authorized agent

Authorized Agent Signature: _____ Date: _____

Authorized Agent Printed Name: _____



HIDALGO COUNTY DRAINAGE DISTRICT No. 1

RAUL E. SESIN, PE, CFM

District General Manager

Hidalgo County Floodplain Administrator

BOARD OF DIRECTORS

DAVID L. FUENTES
Board Member

EDUARDO "EDDIE" CANTU
Board Member

RICHARD F. CORTEZ
Chairman of the Board

JOE M. FLORES
Board Member

ELLIE TORRES
Board Member

July 31, 2019

Rebekah De La Fuente
Senior Planner at City of Weslaco
255 S. Kansas Ave.
Weslaco, Texas 78596

RE: San Jacinto Estates No. 10

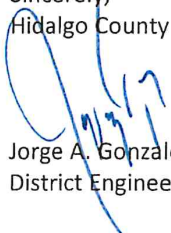
Dear Ms. De La Fuente,

This letter is in response to a request from the Engineer of record for San Jacinto Estates No. 10, Alfonso Quintanilla, P.E. Our office has reviewed the proposed drainage statement for the above-mentioned development and sees no objections to the engineer's plan, to discharge into the existing HCCID No. 9 ditch. Although as part of our requirement we ask that if development is adjacent to a ditch, Right-of-way dedication will be required either 75' from the center of the existing ditch or 75' from the property line whichever is greater. Our office also requires that the new development accounts for the volume associated with the stormwater runoff generated from the developed property for a 50-year frequency storm event.

In summary, HCDD No.1 approves the concept of the drainage detention being provided by excavating the existing drainage ditch along the west of the subdivision and dedicating 75.0 feet of right of way from the property line.

If you have any questions or need additional information, please feel free to give me a call at (956) 292-7080.

Sincerely,
Hidalgo County Drainage District No. 1


Jorge A. Gonzalez, PE, SIT, CFM
District Engineer III

CC: Mr. Raul E. Sesin, PE CFM – Hidalgo County Drainage District General Manager

General Office

(956) 565-2411
(956) 565-0521 Fax

E-Mail
hccid9general@hccid9.org



RANDALL WINSTON P.E.
General Manager

JUDY BEALL
Tax Assessor-Collector

P O Box 237 Mercedes, Texas 78570

August 30, 2019

Mr. Eulalio Ramirez, P.E.
Quintanilla, Headley & Associates
124 E. Stubbs
Edinburg, Texas 78539

RE: San Jacinto No. 10 Phase I & II Proposed Subd. Drainage and Detention

Good morning Mr. Ramirez:

I have received your HCDD #1 approved Drainage Report dated 7/17/2019 for the San Jacinto No. 10 Subdivision Phase I & II which includes the 50 year detention volume. As this is the policy for HCDD #1 to have the linear detention within the ditch, HCCID #9 does not object to storing the mandated 50 year detention within the ditch. We understand that the maintenance of this section will be by HCDD #1 personnel.

If you have any questions, please feel free to call.

Sincerely,

Randall Winston
General Manager

HCCID #9
Mercedes, Texas
956-565-2411

Rebekah M. De La Fuente

From: Rebekah M. De La Fuente
Sent: Tuesday, October 15, 2019 11:08 AM
To: Alfonso Quintanilla
Subject: RE: SAN JACINTO ESTATES No.10 PHASE II
Attachments: 10-15-19 Memo for Planning Dept (San Jacinto Estates-Ph II).pdf

Good Morning,

Please see comments below and attached for San Jacinto Estates Phase II. Once corrected resubmit a PDF copy so that I may distribution back out to staff to ensure all comments have been addressed.

On another note can you verify the Flood Zone in phase I was taking out of the AE area, you LOMAR only reflects the areas for flood zone X and the elevation on Phase I should be 65.5 you currently have 65.00. Just a quick not change.

Fire Comments:

The fire hydrant travel distances exceeds 400 feet. Additional fire hydrants are needed.

Planning Comments:

1. Use large font and Bold for the POB and POC
2. Contours must be shown on plat every foot
3. Update plat note to include sidewalks along interior streets as well
4. Include legend for the plat
5. Add lines to outline buildable space especially for lots 188 and 149.

Rebekah de la Fuente, CFM
Assistant Planning & Code Enforcement Director

City of Weslaco
255 S. Kansas Avenue
Weslaco, TX 78596
Ph: (956) 447-3401
Fax: (956) 973-3128
rdelafuente@weslacotx.gov

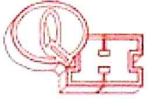


From: Alfonso Quintanilla <alfonsoq@qha-eng.com>
Sent: Wednesday, October 2, 2019 8:27 AM
To: Rebekah M. De La Fuente <rdelafuente@weslacotx.gov>
Cc: 'Clarissa Quintanilla' <clarissa@qha-eng.com>
Subject: RE: SAN JACINTO ESTATES No.10 PHASE II

Of course, see attached.

Best Regards,

Alfonso Quintanilla, P.E., R.P.L.S.
President



Quintanilla, Headley & Associates, Inc.
Consulting Engineers and Land Surveyors
Engineering Firm Registration No. F-1513
Surveying Firm Registration No. 100411-00
124 E. Stubbs
Edinburg, Texas 78539
Ph: (956) 381-6480
Cell: (956) 624-6699
Fax: (956) 381-0527

From: Rebekah M. De La Fuente [<mailto:rdelafuente@weslacotx.gov>]
Sent: Wednesday, October 02, 2019 8:24 AM
To: Alfonso Quintanilla <alfonsoq@gha-eng.com>
Subject: RE: SAN JACINTO ESTATES No.10 PHASE II

Can you please email me the pdf copies of the documents you sent over

Rebekah de la Fuente, CFM
Assistant Planning & Code Enforcement Director

City of Weslaco
255 S. Kansas Avenue
Weslaco, TX 78596
Ph: (956) 447-3401
Fax: (956) 973-3128
rdelafuente@weslacotx.gov



From: Alfonso Quintanilla <alfonsoq@gha-eng.com>
Sent: Wednesday, October 2, 2019 8:05 AM
To: Rebekah M. De La Fuente <rdelafuente@weslacotx.gov>
Cc: lalor@gha-eng.com; 'Clarissa Quintanilla' <clarissa@gha-eng.com>
Subject: SAN JACINTO ESTATES No.10 PHASE II

Good morning Rebekah,

Hope you are doing well. Yesterday we delivered to your office the initial submittal. Please review the plans and send me your comments at soon as you can.

I really appreciate it.

Best Regards,

Alfonso Quintanilla, P.E., R.P.L.S.
President



Quintanilla, Headley & Associates, Inc.
Consulting Engineers and Land Surveyors
Engineering Firm Registration No. F-1513
Surveying Firm Registration No. 100411-00
124 E. Stubbs
Edinburg, Texas 78539
Ph: (956) 381-6480
Cell: (956) 624-6699
Fax: (956) 381-0527

CRUZ-HOGAN *Consultants, Inc.*

ENGINEERS | PLANNERS | CONSULTANTS

McAllen | Harlingen | Weslaco

TBPE Firm Reg No. F-4860

To: Rebekah de la Fuente, CFM
Interim Planning & Code Enforcement Director

From: Orlando S. Cruz, P.E.
CRUZ-HOGAN Consultants, Inc.

Re: San Jacinto Estates – Phase II

Date: October 15, 2019

Legal: A 13.49 Acre Tract of land out of Farm Tract 94, West and Adams Tracts Subdivision, Hidalgo County, Texas.

Physical Location: Mile 10 North Road, approximately 1,370 feet west of Mile 4 West Road (Outside current Weslaco City Limits).

Review: ***PRELIMINARY REVIEW OF SUBDIVISION***

Water System:

Subdivision located in Military Highway CCN Area. Water provided by MHWSC.

Sewer System:

Subdivision located in Weslaco CCN Area. Sewer provided by City of Weslaco.

Fire Protection:

1. All fire hydrant locations must be within 400 feet of residential lots. Distance must follow the waterline/streets. Fire hydrants proposed in Phase I do not provide the required coverage.
2. Fire Department must approve all final fire hydrant locations.

Storm Drainage:

1. Unsure where proposed storm pipe connects. Drawings submitted do not indicate.
2. Engineer needs to provide drainage calculations with submittal of construction plans.

Plat Notes:

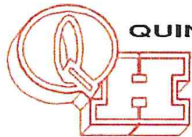
1. Need to indicate minimum floor elevations for residences.
2. Drainage Statement is not complete.
3. Sidewalks should be installed in front of all lots.
4. Will City require that Developer install storm drainage and curb & gutter along the north side of Mile 10 North Road?
5. Proper subdivision monumentation (concrete) required at subdivision corners.
6. Suggest “Non Access Easements” on lots along Salinas Street and Mile 10 Road North.
7. Benchmark Note is not complete.
8. Submit Street Lighting Plan.

If you have any questions, please feel free to call us at 956-854-4227.

Quintanilla, Headley & Associates, Inc.

Hidalgo County Drainage District No. 1 Drainage Report San Jacinto Estates No. 10 Phase I & Phase II Master Plan Hidalgo County, Texas

Prepared By:



QUINTANILLA, HEADLEY AND ASSOCIATES, INC.

Consulting Engineers ★ Land Surveyors

Alfonso Quintanilla, P.E. # 95534 - R.P.L.S. # 4856

Eulalio Ramirez, P.E. # 77062

Engineering Firm Registration No. F-1513

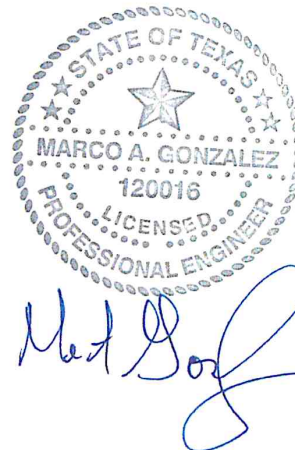
Surveying Firm Registration No. 100411-00

124 E. Stubbs St. Edinburg, Texas 78539

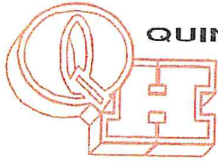
Phone: (956) 381-6480 Fax: (956) 381-0527

Email: alfonsoq@qha-eng.com

July 3, 2019



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QUINTANILLA, HEADLEY AND ASSOCIATES, INC.

Consulting Engineers ★ Land Surveyors

Alfonso Quintanilla, P.E. #95534 R.P.L.S. #4856 Eulalio Ramirez, P.E. #77062
Engineering Firm Registration No. F-1513
Surveying Firm Registration No. 100411-00
Municipal & County Projects ★ Subdivisions ★ Surveys

**DRAINAGE REPORT FOR
SAN JACINTO ESTATES No. 10
PHASE I & II - MASTER PLAN**

A 56.65 acre tract of land being all of Farm Tract 87 and 16.65 acres out of Farm Tract 94, West and Adams Tracts Subdivision, Hidalgo County, Texas, according to the map or plat thereof recorded in volume 2, pages 34-37, map records, Hidalgo County, Texas, and according to warranty deeds recorded under document number 444190 and 444191, official records, Hidalgo County, Texas. This subdivision is located on the northwest corner of Mile 4 West Road and Mile 10 North Road. The site is currently open land and is located within the city of Weslaco E.T.J.. The proposed subdivision will consist of 193 single-family lots.
(Phase 1 - 42.25 acres, Phase 2 - 14.40 acres).

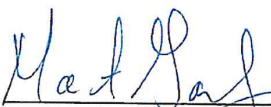
The tract is Zone "X" (unshaded), areas determined to be outside the 500-year floodplain and Zone "X" (shaded), areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and area protected by levees from 100-year flood, as per FEMA Flood Insurance Rate Map Community Panel No. 480334 0450 C dated June 6, 2000 with LOMR dated May 30, 2002 and Letter of Map Revision based on fill (LOMR-R) dated September 21, 2018 FEMA Case No. 18-06-3447A. The calculated water elevation is 64.00 and is based on the BFE from the adjoining property.

The majority of the soil is Hidalgo (25, 28, & 30) and is in soil group "B". It is Fine Sandy Loam, Sandy Clay Loam, and Clay Loam. This soil is well drained. Permeability is moderate. Plasticity Index has a range of 4-23. See attached Soil Survey of Hidalgo County, Texas tables.

Presently, the site has very minimal runoff in a southerly direction with an approximate 0.5 % slope. The existing runoff for the proposed subdivision is $Q=22.15$ cubic feet per second based on a 10-year storm.

After development the runoff will be $Q=83.60$ cubic feet per second for an increase of $Q=61.45$ cubic feet per second (50 year storm). Detention will be 173,909.51 cubic feet (3.99 acre feet) and will be accomplished by excavating the existing Hidalgo Cameron County Irrigation District No. 9 drain ditch located on the west side of the subdivision and regrading the roadside ditch along the west side of Mile 4 West Road and the north side of Mile 10 North Road. In addition, the developer is proposing to install a storm sewer system consisting of 18", 24", 30", 36" and 42" storm pipes and Type "A" inlets that will collect the runoff from the roads that will outfall in the drain ditch. 45.00 feet of Drain Ditch Right of Way to Hidalgo County Drainage District No. 1 is being dedicated by this plat. This drain ditch flows north, then turns east and connects with H.C.D.D. No. 1 Mercedes Lateral.

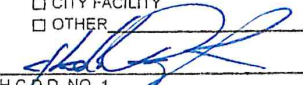
Drainage calculations are attached.


Marco A. Gonzalez, P.E.

July 3, 2019



124 E. Stubbs, Edinburg, TX 78539 ★ Phone 956/361-6480 ★ Fax 956/361-0527

☐ REJECTED	
☒ APPROVED FOR SUBMITTAL	
☒ TO H.C. PLANNING DEPT.	 DATE
☒ TO CITY	
☒ DISCHARGE PERMIT REQUIRED	
☐ DISTRICT FACILITY	
☐ CITY FACILITY	
☐ OTHER	

EXISTING:

Area = 56.65 acres (Phase 1 - 42.25 acres)
 V = 0.15 (Phase 2 - 14.40 acres)
 D = 1100.00 Ft
 c = 0.20

$$t = D / V(3600)$$

$$t = 2.04 \text{ Hrs} = 122.22 \text{ min}$$

From Rainfall Intensity Curve: $i = 1.96$

$$Q = ciA$$

$$Q = 22.15 \text{ cfs}$$

FUTURE:

Area = 56.65 Acres
 V = 0.40
 D = 1100.00 Ft
 c = 0.30

$$t = D / V(3600)$$

$$t = 0.76 \text{ Hrs} = 45.83 \text{ min}$$

From Rainfall Intensity Curve: $i = 4.92$

$$Q = ciA$$

$$Q = 83.60 \text{ cfs}$$



Ma A. Gonzalez 23-79

t (hr)	i(50 yr) (in/hr)	Qfut (cfs)	Vfut (cf)	Qext (cfs)	Vext (cf)	Vfut - Vext (cf)
0.25	9.10	154.70	139226.26	22.15	19937.35	119288.92
0.50	6.34	107.79	194024.96	22.15	39874.69	154150.27
0.75	4.98	84.57	228325.63	22.15	59812.04	168513.59
1.00	4.14	70.42	253524.19	22.15	79749.38	173774.80
1.25	3.58	60.80	273596.24	22.15	99686.73	173909.51 Peak
1.50	3.16	53.77	290377.45	22.15	119624.07	170753.37
2.00	2.60	44.12	317653.20	22.15	159498.77	158154.44
3.00	1.95	33.15	358068.56	22.15	239248.15	118820.41
4.00	1.59	26.97	388422.50	22.15	318997.53	69424.96
5.00	1.35	22.95	413085.07	22.15	398746.92	14338.15
6.00	1.18	20.09	434041.35	22.15	478496.30	-44454.95

PEAK VOLUME = 173909.51 cf (50 Year storm)
 Peak Volume = 3.99 Ac-ft

HIDALGO COUNTY DRAINAGE DISTRICT NO. 1

" C " - VALUES FOR RATIONAL METHOD

Type of Drainage Area	Runoff Coefficient
Residential Districts:	
Single Family (Lots less than 1/4 acre)	0.35
Single Family (Lots 1/4 to 1/2 acre)	0.30
Single Family (Lots greater than 1/2 acre)	0.25
Multi - Family (Less than 20 DU / AC)	0.45
Multi - Family (Greater than 20 DU / AC)	0.55
Business District:	0.70
Industrial Districts:	
Light Areas	0.50
Heavy Areas	0.60
Railroad Yard Areas:	0.20
Parks:	0.10
Unimproved Areas:	
Bare Surface	0.30
Grassland	0.25
Cultivated	0.20
Woodlands	0.15
Streets:	
Asphalt	0.70
Concrete	0.75
Caliche	0.70
Drives & Walks:	
Concrete	0.75
Rooftop	0.75

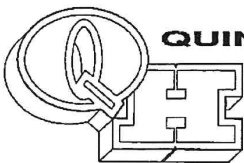
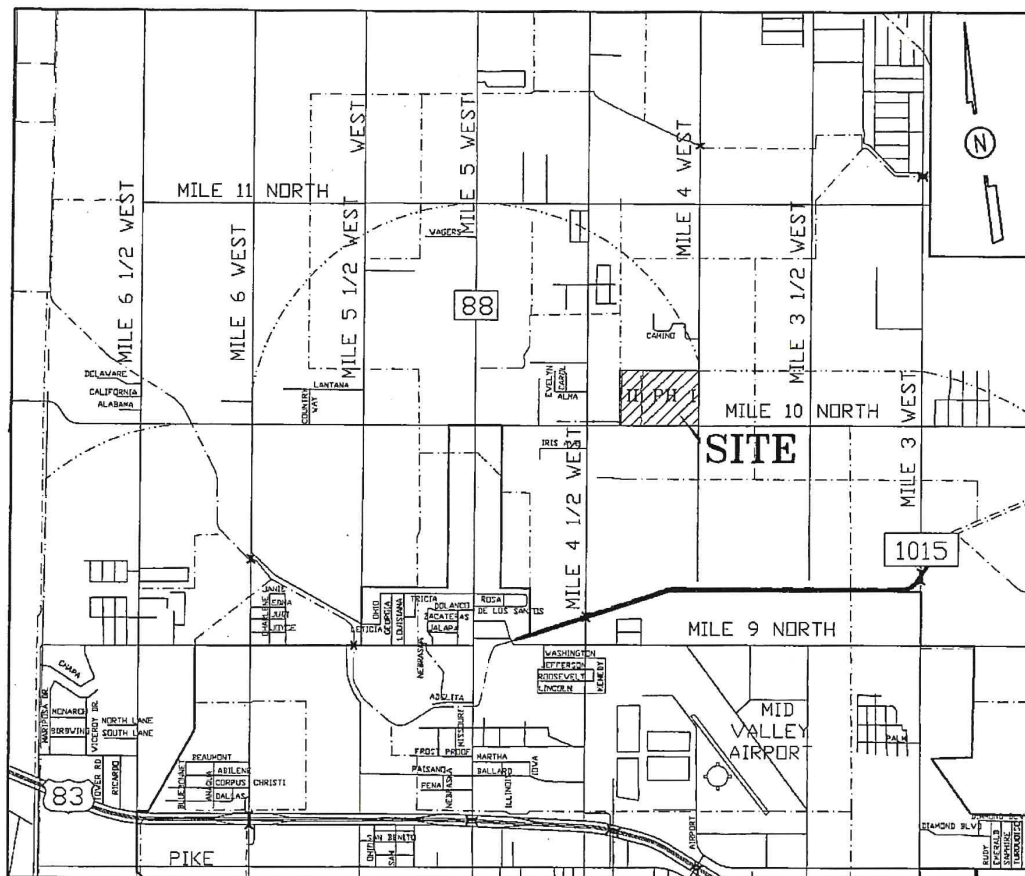
**SAN JACINTO ESTATES No. 10
PHASE I & II - MASTER PLAN**

RAINFALL INTENSITY FOR HIDALGO COUNTY								
TIME (Min)	10 YEAR (In / Hr)	50 YEAR (In / Hr)	TIME (Min)	10 YEAR (In / Hr)	50 YEAR (In / Hr)	TIME (Min)	10 YEAR (In / Hr)	50 YEAR (In / Hr)
1	14.283	17.386	31	4.913	6.224	61	3.184	4.099
2	13.28	16.210	32	4.820	6.111	62	3.149	4.056
3	12.425	15.204	33	4.731	6.002	63	3.115	4.014
4	11.687	14.333	34	4.646	5.897	64	3.082	3.973
5	11.041	13.570	35	4.584	5.797	65	3.050	3.933
6	10.472	12.895	36	4.485	5.701	66	3.018	3.894
7	9.965	12.294	37	4.409	5.608	67	2.987	3.855
8	9.512	11.755	38	4.337	5.519	68	2.957	3.818
9	9.102	11.268	39	4.266	5.433	69	2.928	3.781
10	8.731	10.825	40	4.199	5.350	70	2.890	3.745
11	8.393	10.421	41	4.134	5.270	71	2.871	3.710
12	8.084	10.051	42	4.071	5.193	72	2.843	3.676
13	7.799	9.710	43	4.010	5.118	73	2.818	3.642
14	7.536	9.395	44	3.951	5.046	74	2.700	3.610
15	7.293	9.102	45	3.894	4.976	75	2.784	3.577
16	7.068	8.831	46	3.839	4.908	76	2.730	3.546
17	6.856	8.577	47	3.786	4.843	77	2.714	3.515
18	6.659	8.340	48	3.734	4.779	78	2.890	3.485
19	6.474	8.117	49	7.684	4.717	79	2.666	3.455
20	8.301	7.908	50	3.636	4.658	80	2.643	3.426
21	8.138	7.711	51	3.589	4.600	81	2.620	3.398
22	5.985	7.525	52	3.543	4.543	82	2.598	3.370
23	5.839	7.349	53	3.499	4.488	83	2.576	3.342
24	5.702	7.183	54	3.455	4.435	84	2.554	3.315
25	5.572	7.025	55	3.413	4.383	85	2.533	3.289
26	5.448	6.875	56	3.373	4.333	90	2.434	3.164
27	5.331	6.732	57	3.333	4.284	100	2.258	2.944
28	5.219	6.596	58	3.294	4.236	120	1.981	2.596
29	5.112	6.467	59	3.257	4.189	180	1.473	1.951
30	5.011	6.343	60	3.220	4.144	210	1.313	1.747

SAN JACINTO ESTATES No. 10 PHASE I & II

LOCATION MAP

SCALE 1" = 4000'



QUINTANILLA, HEADLEY AND ASSOCIATES, INC.

CONSULTING ENGINEERS

124 E. STUBBS ST.

EDINBURG, TEXAS 78539

ENGINEERING REGISTRATION NUMBER F-1513

SURVEYING REGISTRATION NUMBER 100411-00

LAND SURVEYORS

PHONE 956-381-6480

FAX 956-381-0527

ALFONSOQ@QHA-ENG.COM

NIP

PANEL 0450 C

FIRM

FLOOD INSURANCE RATE MAP

HIDALGO COUNTY,
TEXAS
(UNINCORPORATED AREAS)

ZONE "AE"

ZONE "X"
(UNSHADED)

ZONE "K" (SHADED)

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER

480334 0450 C

MAP REVISED:

JUNE 6, 2000



REVISED TO
REFLECT LOMR
DATE MAY 2002

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.
- ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- ZONE X** Areas of 100-year flood, or areas of 100-year flood with average depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

OTHER AREAS

- ZONE D** Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS



Coastal barrier areas are normally located within or adjacent to special flood hazard areas.



Floodplain Boundary



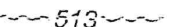
Floodway Boundary



Zone D Boundary



Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.



Base Flood Elevation line; Elevation in Feet*



cross section line
Base Flood Elevation in Feet Where Uniform Within Zone*

(EL 987)

RM 7_x

Elevation Bench Mark (See notes below)

* M1.5

River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

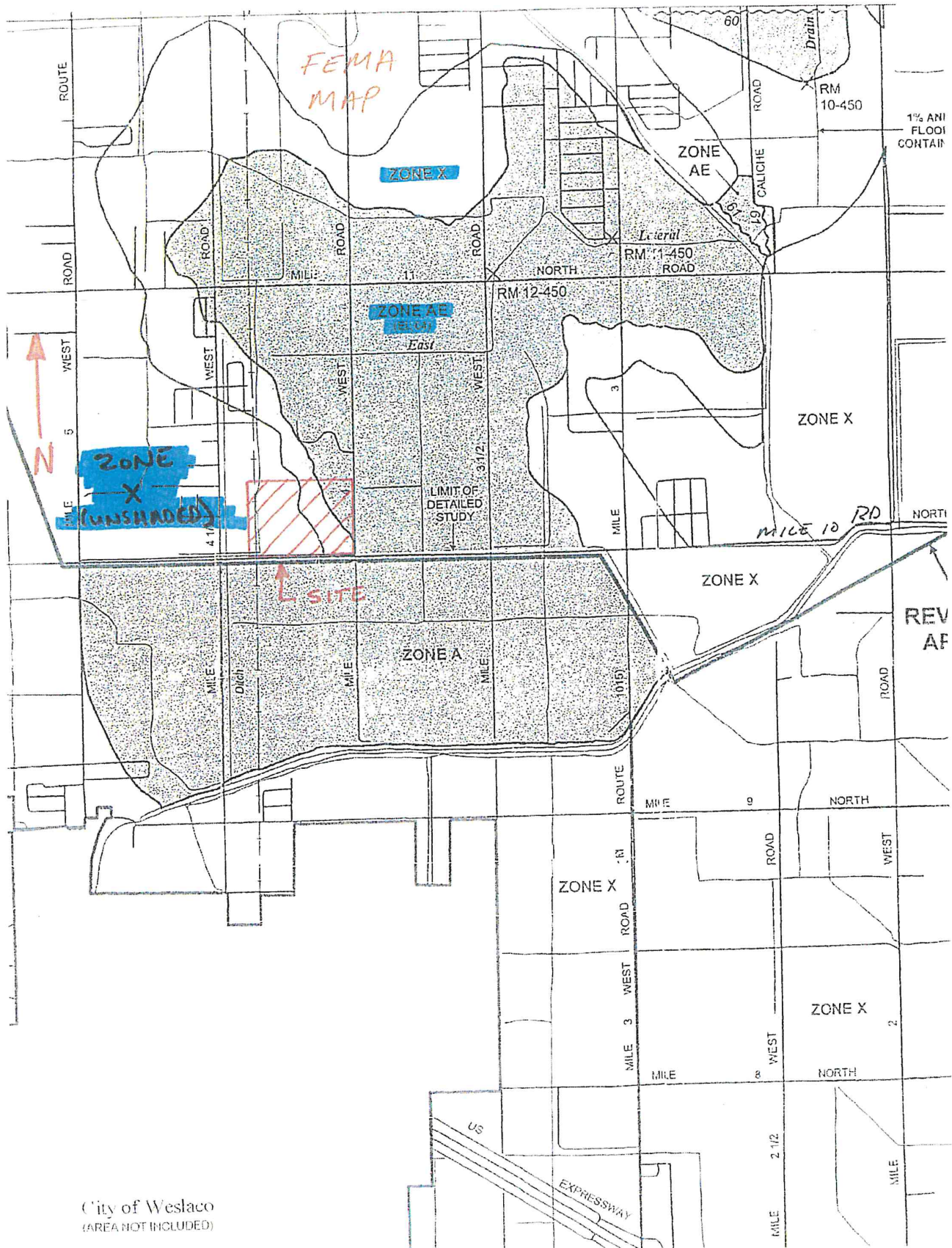
This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas. The community map repository should be consulted for more detailed data on BFEs, and for any information on floodway delineations, prior to use of this map for property purchase or construction purposes.

Areas of Special Flood Hazard (100-year flood) include Zones A, AE, A1-A30, AH, AO, A99, V, VE and V1-V30.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Refer to Floodway





Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION BASED ON FILL DETERMINATION DOCUMENT (REMOVAL)

COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION
COMMUNITY	HIDALGO COUNTY, TEXAS (Unincorporated Areas)	Tract 87, West and Adams Tracts, as described in the Warranty Deed with Vendor's Lien recorded as Document No. 2873886, in the Office of the County Clerk, Hidalgo County, Texas The portion of property is more particularly described by the following metes and bounds:
	COMMUNITY NO.: 480334	
AFFECTED MAP PANEL	NUMBER: 4803340450C	
	DATE: 6/6/2000	
FLOODING SOURCE: EAST LATERAL DRAIN		APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 26.201449, -97.976140 SOURCE OF LAT & LONG: LOMA LOGIC DATUM: NAD 83

DETERMINATION

LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NGVD 29)	LOWEST ADJACENT GRADE ELEVATION (NGVD 29)	LOWEST LOT ELEVATION (NGVD 29)
Tract 87	--	West and Adams Tracts	4401 Mile 4 West Road	Portion of Property	X (shaded)	--	--	64.1 feet

Special Flood Hazard Area (SFHA) - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equalled or exceeded in any given year (base flood).

ADDITIONAL CONSIDERATIONS (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)

LEGAL PROPERTY DESCRIPTION
FILL RECOMMENDATION
PORTIONS REMAIN IN THE SFHA

This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Revision based on Fill for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the described portion(s) of the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equalled or exceeded in any given year (base flood). This document revises the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.

Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION BASED ON FILL DETERMINATION DOCUMENT (REMOVAL)

ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

LEGAL PROPERTY DESCRIPTION (CONTINUED)

BEGINNING AT A COTTON PICKER SPINDLE FOUND IN THE CENTERLINE OF MILE 4 WEST ROAD FOR THE NORTHEAST CORNER OF FARM TRACT 87, AND THE NORTHEAST CORNER OF THIS TRACT. THENCE; SOUTH, ALONG THE EAST LINE OF FARM TRACT 87, AND THE CENTERLINE OF MILE 4 WEST ROAD, A DISTANCE OF 1,116.65 FEET TO A COTTON PICKER SPINDLE SET FOR THE SOUTHEAST CORNER OF THIS TRACT. THENCE; N 20°06'26" W, PASSING A 1/2" IRON ROD WITH CAP STAMPED RPLS 4856 SET AT 72.72 FEET FOR THE WEST RIGHT OF WAY LINE OF MILE 4 WEST ROAD, A TOTAL DISTANCE OF 191.65 FEET TO A 1/2" IRON ROD WITH CAP STAMPED RPLS 4856 FOR AN INTERIOR CORNER OF THIS TRACT. THENCE; ALONG THE ARC OF A CURVE TO THE LEFT (CURVE DATA: DELTA = 25°45'32", RADIUS = 350.00 FEET), A DISTANCE OF 157.35 FEET TO A 1/2" IRON ROD WITH CAP STAMPED RPLS 4856 SET FOR AN INTERIOR CORNER OF THIS TRACT. THENCE; N 45°51'58" W, A DISTANCE OF 165.34 FEET TO A 1/2" IRON ROD WITH CAP STAMPED RPLS 4856 SET FOR AN EXTERIOR CORNER OF THIS TRACT. THENCE; N 35°18'54" W, A DISTANCE OF 480.28 FEET TO A 1/2" IRON ROD WITH CAP STAMPED RPLS 4856 SET FOR AN EXTERIOR CORNER OF THIS TRACT. THENCE; ALONG THE ARC OF A CURVE TO THE RIGHT (CURVE DATA: DELTA = 30°52'54", RADIUS = 600.00 FEET), A DISTANCE OF 323.39 FEET TO A 1/2" IRON ROD WITH CAP STAMPED RPLS 4856 SET ON THE NORTH LINE OF FARM TRACT 87 FOR THE NORTHWEST CORNER OF THIS TRACT. THENCE; EAST, ALONG THE NORTH LINE OF FARM TRACT 87, PASSING A 1/2" IRON ROD FOUND AT 635.36 FEET FOR THE WEST RIGHT OF WAY LINE OF MILE 4 WEST ROAD, A TOTAL DISTANCE OF 660.36 FEET TO THE POINT OF BEGINNING

FILL RECOMMENDATION (This Additional Consideration applies to the preceding 1 Property.)

The minimum NFIP criteria for removal of the subject area based on fill have been met for this request and the community in which the property is located has certified that the area and any subsequent structure(s) built on the filled area are reasonably safe from flooding. FEMA's Technical Bulletin 10-01 provides guidance for the construction of buildings on land elevated above the base flood elevation through the placement of fill. A copy of Technical Bulletin 10-01 can be obtained by calling the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or from our web site at <http://www.fema.gov/mit/tb1001.pdf>. Although the minimum NFIP standards no longer apply to this area, some communities may have floodplain management regulations that are more restrictive and may continue to enforce some or all of their requirements in areas outside the Special Flood Hazard Area.

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.


Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration

**Federal Emergency Management Agency**

Washington, D.C. 20472

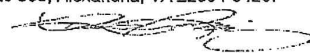
**LETTER OF MAP REVISION BASED ON FILL
DETERMINATION DOCUMENT (REMOVAL)****ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)****PORTIONS OF THE PROPERTY REMAIN IN THE SFHA (This Additional Consideration applies to the preceding 1 Property.)**

Portions of this property, but not the subject of the Determination/Comment document, may remain in the Special Flood Hazard Area. Therefore, any future construction or substantial improvement on the property remains subject to Federal, State/Commonwealth, and local regulations for floodplain management.

REVISED BY LETTER OF MAP REVISION (This Additional Consideration applies to the preceding 1 Property.)

The effective National Flood Insurance Program map for the subject property, has since been revised by a Letter of Map Revision (LOMR) dated 5/30/2002. The 5/30/2002 LOMR has been used in making the determination/comment for the subject property.

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.


Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration

HIDALGO COUNTY, TEXAS

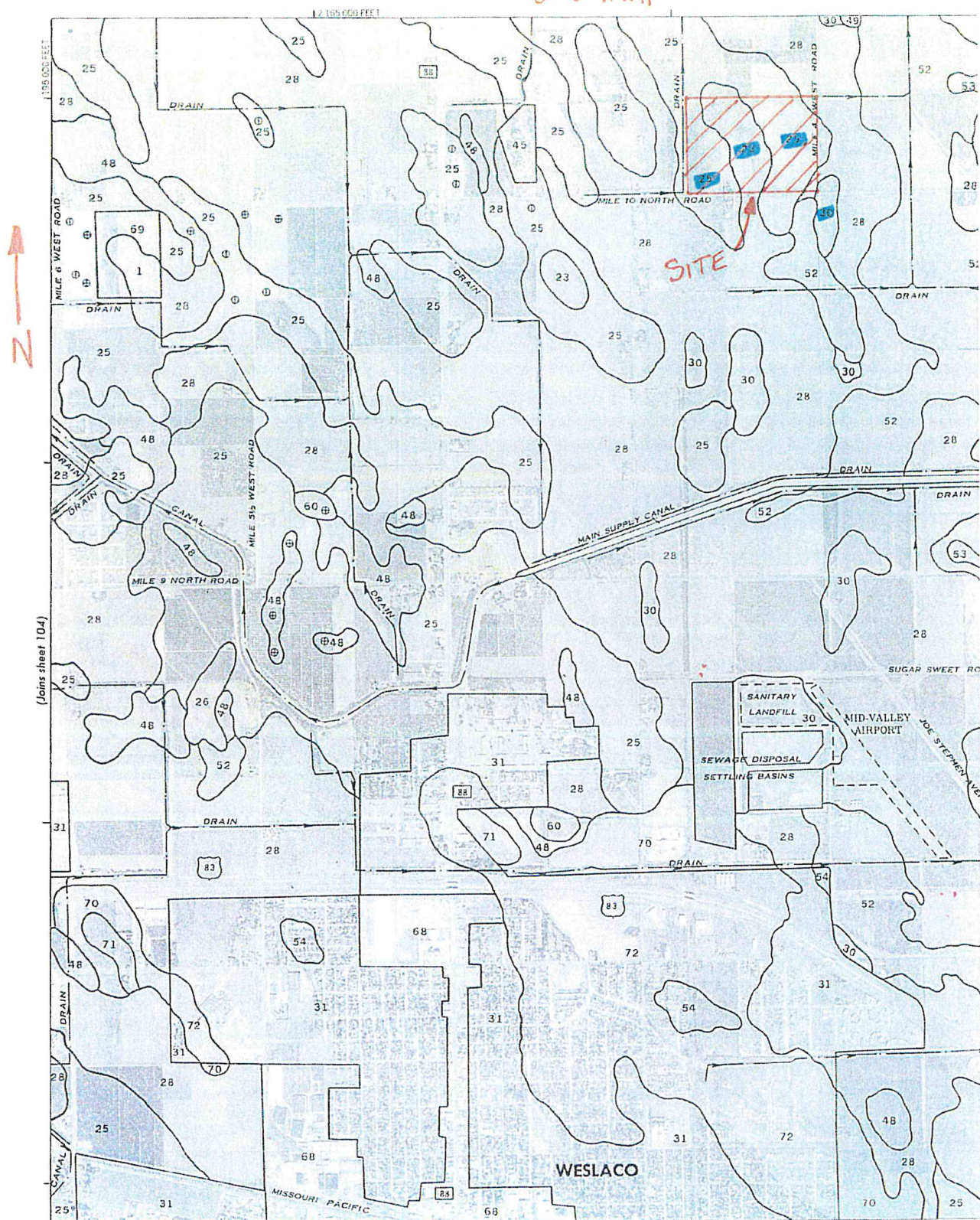


TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth in	USDA texture	Classification		Percentage passing sieve number--				Liquid limit Fct	Plas- ticity index
			Unified	AASHTO	#	10	40	200		
13:*										
Sandedo-----	0-9	Fine sandy loam	SM, SM-SC	A-2-4	75-100	70-100	70-100	20-35	<25	NP-7
	9-16	Fine sandy loam, sandy clay loam	SC, SM-SC, GC	A-2-4, A-2-6, A-4, A-6	65-100	60-100	60-100	25-50	25-34	7-14
	16-60	Cemented-----	---	---	---	---	---	---	---	---
14-----										
Falfurrias-----	0-80	Fine sand-----	SP-SM, SM	A-2-4, A-3	100	100	75-100	5-25	<25	NP-3
15-----										
Grolla-----	0-7	Clay-----	CL, CH	A-7-6	100	100	100	90-100	41-55	20-30
	7-65	Silty clay, clay	CH	A-7-6	100	100	100	90-100	52-66	28-39
16, 17, 18-----										
Hargill-----	0-18	Fine sandy loam	SC, SM-SC, SM	A-2-4	100	95-100	95-100	17-35	<30	NP-8
	18-63	Sandy clay loam	SC, CL	A-6	100	95-100	95-100	40-55	30-40	11-20
	63-80	Sandy clay loam	SC	A-2-4, A-2-6, A-4, A-6	85-100	80-100	75-100	34-50	28-39	9-18
19, 20-----										
Harlingen-----	0-8	Clay-----	CH	A-7-6	100	100	100	90-100	51-85	32-60
	8-35	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
	35-72	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
21:*										
Harlingen-----	0-8	Clay-----	CH	A-7-6	100	100	100	99-100	51-85	32-60
	8-35	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
	35-72	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
Urban land.										
22, 23, 24-----										
Hebronville-----	0-17	Sandy loam-----	SM	A-2-4	100	100	75-100	13-24	<25	NP-4
	17-56	Fine sandy loam, loam.	SM, SM-SC	A-2-4	100	100	90-100	20-30	<30	NP-7
	56-65	Fine sandy loam, loam.	SM-SC, SC	A-2-4, A-4, A-2-6, A-6	95-100	90-100	90-100	20-40	20-30	4-13
25, 26, 27-----										
Harlingen-----	0-17	Fine sandy loam	SC, SM-SC	A-4, A-6	100	95-100	90-100	36-50	20-30	4-11
	17-28	Sandy clay loam, clay loam.	SC, CL	A-6	100	95-100	90-100	36-80	30-40	11-20
	28-80	Clay loam, sandy clay loam.	CL, SC	A-6, A-7-6	90-100	80-100	75-99	44-80	30-44	11-23
28, 29, 30-----										
Harlingen-----	0-17	Sandy clay loam	SC, CL	A-6	100	95-100	90-100	36-50	29-40	11-20
	17-28	Sandy clay loam, clay loam.	SC, CL	A-6	100	95-100	90-100	36-80	30-40	11-20
	28-80	Clay loam, sandy clay loam.	CL, SC	A-6, A-7-6	90-100	80-100	75-99	44-80	30-44	11-23
31:*										
Hidalgo-----	0-17	Sandy clay loam	SC, CL	A-6	100	95-100	90-100	36-50	29-40	11-20
	17-28	Sandy clay loam, clay loam.	SC, CL	A-6	100	95-100	90-100	36-80	30-40	11-20
	28-80	Clay loam, sandy clay loam.	CL, SC	A-6, A-7-6	90-100	80-100	75-99	44-80	30-44	11-23
Urban land.										

See footnote at end of table.

TABLE 17.--PHYSICAL AND CHEMICAL PROPERTIES OF SOILS--continued

Map symbol and soil name	Depth	Clay	Permeability	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Frost heave factor		Organic matter
	In	Fcl	In/hr	In/in	pH	mmhos/cm		S	F	Pct
22, 23, 24----- Hebbronville	0-17 17-58 58-65	8-15 12-18 10-17	2.0-6.0 2.0-6.0 2.0-6.0	0.07-0.14 0.11-0.17 0.11-0.17	6.4-7.0 5.6-6.4 7.9-8.4	<2 12 12	Low----- Low----- Low-----	0.20 0.24 0.24	5	<1
25, 26, 27----- Hidalgo	0-17 17-30 30-40	15-20 15-20 15-20	0.6-2.0 0.6-2.0 0.6-2.0	0.05-0.10 0.05-0.10 0.05-0.10	7.9-8.4 7.9-8.4 7.9-8.4	<2 12 12	Low----- Low----- Low-----	0.20 0.24 0.24	5	<1
28, 29----- Hidalgo	0-17 17-30 30-40	15-20 15-20 15-20	0.6-2.0 0.6-2.0 0.6-2.0	0.05-0.10 0.05-0.10 0.05-0.10	7.9-8.4 7.9-8.4 7.9-8.4	<2 12 12	Moderate----- Moderate----- Moderate-----	0.20 0.24 0.24	5	<1
30----- Hidalgo	0-17 17-30 30-40	15-20 15-20 15-20	0.6-2.0 0.6-2.0 0.6-2.0	0.05-0.10 0.05-0.10 0.05-0.10	7.9-8.4 7.9-8.4 7.9-8.4	<2 12 12	Moderate----- Moderate----- Moderate-----	0.20 0.24 0.24	5	<1
31:* Hidalgo-----	0-17 17-28 28-30	20-20 23-35 23-35	0.6-2.0 0.6-2.0 0.6-2.0	0.05-0.17 0.08-0.17 0.08-0.20	7.9-8.4 7.9-8.4 7.9-8.4	<4 14 14	Moderate----- Moderate----- Moderate-----	0.20 0.24 0.24	5	1-3
Urban land.										
32:* Jimenez-----	0-8 8-10 10-60	12-24 --- ---	0.6-2.0 --- ---	0.05-0.10 --- ---	7.9-8.4 --- ---	<2 --- ---	Low----- --- ---	0.10 --- ---	1	1-3
Quemado-----	0-6 6-12 12-18 18-60	10-18 18-27 --- ---	0.6-2.0 0.6-2.0 --- ---	0.09-0.13 0.05-0.10 --- ---	5.1-7.5 5.6-7.8 --- ---	<2 12 --- ---	Low----- Low----- --- ---	0.10 0.10 --- ---	1	<1
33----- Laredo	0-14 14-55	12-35 18-35	0.6-2.0 0.6-2.0	0.15-0.32 0.15-0.20	7.9-8.4 7.9-8.4	<2 14	Moderate----- Moderate-----	0.27 0.41	5	1-3
34----- Matamoros	0-65	35-55	0.05-0.2	0.14-0.19	7.9-8.4	<4	Very high----	0.32	5	0.5-1
35, 36, 37, 38--- McAllen	0-14 14-72	14-25 20-31	0.6-2.0 0.6-2.0	0.11-0.16 0.09-0.18	7.9-8.4 7.9-8.4	<2 14	Low----- Low-----	0.24 0.28	5	0.5-1
39----- Mercedes	0-19 19-57 57-65	40-60 45-60 45-60	<0.05 0.05 0.05	0.12-0.18 0.09-0.15 0.06-0.20	7.9-8.4 7.9-9.0 7.9-9.0	<4 18 14	Very high---- Very high---- Very high----	0.32 0.32 0.32	5	1-3
40----- Mercedes	0-19 19-57 57-65	40-60 45-60 45-60	<0.05 0.05 0.05	0.02-0.12 0.02-0.09 0.02-0.07	7.9-9.0 7.9-9.0 7.9-9.0	>4 18 18	Very high---- Very high---- Very high----	0.32 0.32 0.32	5	1-3
41----- Mercedes	0-19 19-57 57-65	40-60 45-60 45-60	<0.05 0.05 0.05	0.12-0.18 0.09-0.15 0.06-0.20	7.9-8.4 7.9-8.4 7.9-9.0	<4 18 14	Very high---- Very high---- Very high----	0.32 0.32 0.32	5	1-3
42----- Nueces	0-29 29-72	2-12 12-34	0.2-6.0 0.2-0.6	0.05-0.10 0.12-0.17	6.1-7.3 5.6-6.4	<2 12	Low----- Moderate-----	0.17 0.24	5	<1
43:* Nueces-----	0-29 29-72	2-12 12-34	2.0-6.0 0.2-0.6	0.05-0.10 0.12-0.17	6.1-7.3 5.6-6.4	<2 12	Low----- Moderate-----	0.17 0.24	5	<1
Sanita-----	0-46 46-60	1-10 12-35	0.6-2.0 0.6-0.0	0.05-0.10 0.13-0.19	6.1-7.3 5.6-6.4	<2 12	Low----- Moderate-----	0.17 0.24	5	0.5-1
44----- Elmido	0-47 47-60	35-55 35-55	0.6-0.0 0.56-1.7	0.13-0.18 0.06-0.18	7.9-8.4 7.9-8.4	<4 14	Very high---- Very high----	0.32 0.32	5	1-3
45,* 46,* 47,* Figs										

See footnote at end of table.

TABLE 16.--SOIL AND WATER FEATURES

"Flooding" and "water table" and terms such as "rare," "brief," "apparent," and "perched" are explained in the text. The symbol / means more than. Absence of an entry indicates that the feature is not a concern.

Map symbol and soil name	Hydrologic group	Flooding			High water table			Cemented pan		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness	Uncoated steel	Concrete
1.* Arents					Fe			In			
2----- Benito	D	Occasional	Long-----	Sep-May	4.0-6.0	Apparent	Sep-May	---	---	High-----	Low.
3, 4----- Brennan	B	None-----	---	---	>6.0	---	---	---	---	Moderate	Low.
5, 6----- Camargo	B	Rare-----	Brief-----	Sep-May	>6.0	---	---	---	---	Moderate	Low.
7----- Cameron	F	None-----	---	---	5.0-6.0	Apparent	Sep-May	---	---	High-----	Low.
8----- Comitas	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
9, 10, 11----- Delfina	D	None-----	---	---	2.5-5.0	Apparent	Sep-May	---	---	High-----	Low.
12----- Delmita	C	None-----	---	---	>6.0	---	---	20-40	Thin	Moderate	Low.
13.* Delmita-----	C	None-----	---	---	>6.0	---	---	20-40	Thin	Moderate	Low.
Bandado-----	C	None-----	---	---	>6.0	---	---	8-20	Thin	Moderate	Low.
14----- Falfurrias	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
15**----- Grulla	D	Frequent-----	Very long	Sep-May	4.0-6.0	Apparent	Sep-May	---	---	High-----	Low.
16, 17, 18----- Hargill	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
19----- Harlingen	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
20----- Harlingen	F	None-----	---	---	5.0-6.0	---	---	---	---	High-----	Moderate.
21.* Harlingen-----	F	None to rare	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
22, 23, 24----- Hebbronville	B	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
25, 26, 27, 28----- Hidalgo	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
29----- Hidalgo	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
30----- Hidalgo	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
31.* Hidalgo-----	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
32.* Jimenez-----	C	None-----	---	---	>6.0	---	---	7-20	Thin	High-----	Low.

See footnotes at end of table.



TABLE I
TIME OF CONCENTRATION DETERMINATION
San Jacinto Estates No. 10 PH I & II (Master Plan)

COMPUTATION POINT	DESCRIPTION OF RUNOFF MEDIUM	OVERLAND FLOW				CHANNEL, PIPE, STREET, ETC. FLOW					
		C	LENGTH (FT.)	GRADE (%)	TIME (MIN)	WIDTH/DIA. (FT)	GRADE (%)	LENGTH (FT)	VELOCITY (FPS)	TIME (MIN)	TOTAL TIME (MIN)
Existing	Overland	0.2									0.00
D.A. No. 1	Overland & Gutter	0.35	140		15.56			520.00	0.30	28.89	44.44
D.A. No. 2 - D.A. No. 2	Pipe Flow	0.35						40.00	3.00	0.22	44.67
D.A. No. 2	Overland & Gutter	0.35	140		15.56			520.00	0.30	28.89	44.44
D.A. No. 2 - D.A. No. 4	Pipe Flow	0.35						262.00	3.00	1.46	45.90
D.A. No. 3	Overland & Gutter	0.35	140		15.56			520.00	0.30	28.89	44.44
D.A. No. 3 - D.A. No. 4	Pipe Flow	0.35						40.00	3.00	0.22	44.67
D.A. No. 4	Overland & Gutter	0.35	140		15.56			520.00	0.30	28.89	44.44
D.A. No. 4 - D.A. No. 8	Pipe Flow	0.35						575.00	3.00	3.19	47.64
D.A. No. 5	Overland & Gutter	0.35	140		15.56			500.00	0.30	27.78	43.33
D.A. No. 5 - D.A. No. 6	Pipe Flow	0.35						40.00	3.00	0.22	43.56
D.A. No. 6	Overland & Gutter	0.35	140		15.56			500.00	0.30	27.78	43.33
D.A. No. 6 - D.A. No. 8	Pipe Flow	0.35						262.00	3.00	1.46	44.79
D.A. No. 7	Overland & Gutter	0.35	140		15.56			500.00	0.30	27.78	43.33
D.A. No. 7 - D.A. No. 8	Pipe Flow	0.35						40.00	3.00	0.22	43.56
D.A. No. 8	Overland & Gutter	0.35	140		15.56			500.00	0.30	27.78	43.33
D.A. No. 8 - D.A. No. 12	Pipe Flow	0.35						372.00	3.00	2.07	45.40

FORMULA FOR TIME OF CONCENTRATION
 USING THE RATIONAL METHOD, AS PER
 "TXDOT BRIDGE HYDRAULIC MANUAL"

$$T_c = \frac{L}{(V \times 60)}$$



[illegible]
$$T_c = \frac{L}{(V \times 60)}$$

TABLE I

TIME OF CONCENTRATION DETERMINATION
San Jacinto Estates No. 10 PH I & II (Master Plan)

COMPUTATION POINT	DESCRIPTION OF RUNOFF MEDIUM	OVERLAND FLOW				CHANNEL, PIPE, STREET, ETC. FLOW					
		C	LENGTH (FT.)	GRADE (%)	TIME (MIN)	WIDTH/DIA. (FT)	GRADE (%)	LENGTH (FT)	VELOCITY (FPS)	TIME (MIN)	TOTAL TIME (MIN)
Existing	Overland	0.2									0.00
D.A. No. 13	Overland & Gutter	0.35	140		15.56			520.00	0.30	28.89	44.44
D.A. No. 13 - D.A. No. 14	Pipe Flow	0.35						40.00	3.00	0.22	44.67
D.A. No. 14	Overland & Gutter	0.35	140		15.56			520.00	0.30	28.89	44.44
D.A. No. 14 - D.A. No. 15	Pipe Flow	0.35						262.00	3.00	1.46	45.90
D.A. No. 15	Overland & Gutter	0.35	140		15.56			520.00	0.30	28.89	44.44
D.A. No. 15 - D.A. No. 16	Pipe Flow	0.35						40.00	3.00	0.22	44.67
D.A. No. 16	Overland & Gutter	0.35	140		15.56			520.00	0.30	28.89	44.44
D.A. No. 16 - D.A. No. 20	Pipe Flow	0.35						575.00	3.00	3.19	47.64
D.A. No. 17	Overland & Gutter	0.35	140		15.56			500.00	0.30	27.78	43.33
D.A. No. 17 - D.A. No. 18	Pipe Flow	0.35						40.00	3.00	0.22	43.56
D.A. No. 18	Overland & Gutter	0.35	140		15.56			500.00	0.30	27.78	43.33
D.A. No. 18 - D.A. No. 19	Pipe Flow	0.35						262.00	3.00	1.46	44.79
D.A. No. 19	Overland & Gutter	0.35	140		15.56			500.00	0.30	27.78	43.33
D.A. No. 19 - D.A. No. 20	Pipe Flow	0.35						40.00	3.00	0.22	43.56
D.A. No. 20	Overland & Gutter	0.35	140		15.56			500.00	0.30	27.78	43.33
D.A. No. 20 - D.A. No. 24	Pipe Flow	0.35						372.00	3.00	2.07	45.40

FORMULA FOR TIME OF CONCENTRATION
 USING THE RATIONAL METHOD, AS PER
 "TXDOT BRIDGE HYDRAULIC MANUAL"

$$T_c = \frac{L}{(V \times 60)}$$

[illegible]
$$T_c = \frac{L}{(V \times 60)}$$

TABLE 1A
FLOWRATE DETERMINATION
San Jacinto Estates No. 10 PH I & II (Master Plan)

COMPUTATION POINT	TOTAL DRAINAGE AREA CONTRIBUTING TO POINT (acres)	C	TIME (SEE TABLE 1) (minutes)	RETURN FREQUENCY (years)	INTENSITY (in./hr.)	FLOWRATE (c.f.s.)	PIPE DIMENSION (Slope & Dia.)	Pipe Flowrate (c.f.s.)
Existing			0.00	10				
D.A. No. 1	2.860	0.35	44.44	10	3.926	3.93	0.38%	
D.A. No. 2 - D.A. No. 2	2.860	0.35	44.67	10	3.913	3.93	2	15.14
D.A. No. 2	1.550	0.35	44.44	10	3.926	2.13	0.20%	
D.A. No. 2 - D.A. No. 4	4.410	0.35	45.90	10	3.845	6.06	2	10.98
D.A. No. 3	2.130	0.35	44.44	10	3.926	2.93	0.38%	
D.A. No. 3 - D.A. No. 4	6.540	0.35	44.67	10	3.913	8.99	2	15.14
D.A. No. 4	2.130	0.35	44.44	10	3.926	2.93	0.24%	
D.A. No. 4 - D.A. No. 8	8.670	0.35	47.64	10	3.753	11.91	2	12.03
D.A. No. 5	2.540	0.35	43.33	10	3.990	3.55	0.38%	
D.A. No. 5 - D.A. No. 6	2.540	0.35	43.56	10	3.977	3.55	2	15.14
D.A. No. 6	2.380	0.35	43.33	10	3.990	3.32	0.20%	
D.A. No. 6 - D.A. No. 8	4.920	0.35	44.79	10	3.906	6.87	2	10.98
D.A. No. 7	2.380	0.35	43.33	10	3.990	3.32	0.38%	
D.A. No. 7 - D.A. No. 8	7.300	0.35	43.56	10	3.977	10.20	2	15.14
D.A. No. 8	2.380	0.35	43.33	10	3.990	3.32	0.15%	
D.A. No. 8 - D.A. No. 12	18.350	0.35	0.00	10	15.477	25.43	3	28.05

FORMULA FOR INTENSITY
 USING THE RATIONAL METHOD, AS PER
 "TXDOT BRIDGE HYDRAULIC MANUAL"

$$I = \frac{b}{(Tc + d)^e}$$

San Jacinto Estates No. 10 PH I & II (Master Plan)

[illegible]
$$I = \frac{b}{e(Tc+d)}$$

TABLE 1A
FLOWRATE DETERMINATION
San Jacinto Estates No. 10 PH I & II (Master Plan)

COMPUTATION POINT	TOTAL DRAINAGE AREA CONTRIBUTING TO POINT (acres)	C	TIME (SEE TABLE 1) (minutes)	RETURN FREQUENCY (years)	INTENSITY (in./hr.)	FLOWRATE (c.f.s.)	PIPE DIMENSION (Slope & Dia.)	Pipe Flowrate (c.f.s.)
Existing			0.00	10				
D.A. No. 13	2.860	0.35	44.44	10	3.926	3.93	0.38%	
D.A. No. 13 - D.A. No. 14	2.860	0.35	44.67	10	3.913	3.93	2	15.14
D.A. No. 14	1.550	0.35	44.44	10	3.926	2.13	0.20%	
D.A. No. 14 - D.A. No. 15	4.410	0.35	45.90	10	3.845	6.06	2	10.98
D.A. No. 15	2.130	0.35	44.44	10	3.926	2.93	0.38%	
D.A. No. 15 - D.A. No. 16	6.540	0.35	44.67	10	3.913	8.99	2	15.14
D.A. No. 16	2.130	0.35	44.44	10	3.926	2.93	0.24%	
D.A. No. 16 - D.A. No. 20	8.670	0.35	47.64	10	3.753	11.91	2	12.03
D.A. No. 17	2.540	0.35	43.33	10	3.990	3.55	0.38%	
D.A. No. 17 - D.A. No. 18	2.540	0.35	43.56	10	3.977	3.55	2	15.14
D.A. No. 18	2.380	0.35	43.33	10	3.990	3.32	0.20%	
D.A. No. 18 - D.A. No. 19	4.920	0.35	44.79	10	3.906	6.87	2	10.98
D.A. No. 19	2.380	0.35	43.33	10	3.990	3.32	0.38%	
D.A. No. 19 - D.A. No. 20	7.300	0.35	43.56	10	3.977	10.20	2	15.14
D.A. No. 20	2.380	0.35	43.33	10	3.990	3.32	0.15%	
D.A. No. 20 - D.A. No. 24	18.350	0.35	0.00	10	15.477	25.43	3	28.05

FORMULA FOR INTENSITY
 USING THE RATIONAL METHOD, AS PER
 "TXDOT BRIDGE HYDRAULIC MANUAL"

$$I = \frac{b}{e(Tc + d)}$$

San Jacinto Estates No. 10 PH I & II (Master Plan)

[illegible]
$$l = \frac{b}{e(Tc + d)}$$