

CITY OF WESLACO

**A REGULAR MEETING OF THE
PLANNING & ZONING
COMMISSION**

June 2, 2021, 5:30 P.M.

**LEGISLATIVE CHAMBERS AND
VIA ZOOM**

255 S. KANSAS AVENUE

David Hernandez, Chairman
Lonnie Berry, Vice-Chairman
Miles 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
MAY 5, 2021**

On Wednesday, May 5, 2021, at 5:30 pm., the Planning and Zoning Commission of the City of Weslaco, Texas, convened in regular session in person

The following commissioners were present:

David Hernandez	Chairman
Lonnie Berry	Vice-Chairman
Jose Treviño	Commissioner
Randy Summers	Commissioner
Jim Forward	Commissioner
Milles Bullion	Commissioner
Rebekah de la Fuente	Planning Director
Kayla A. Arevalo	Planning Secretary

Also, present were Celestino Mejia III, Fire Inspector; Rolando Gonzalez, building official; and citizens.

I. CALL TO ORDER:

Chairman Hernandez called the meeting to order and welcomed everyone in the audience.

A. Roll Call/Establish a Quorum

Ms. de la Fuente called the roll call noting that, Commissioner Torres was absent at the time of roll, a quorum was established.

II. PUBLIC COMMENTS

There were no comments received.

III. APPROVAL OF MINUTES

A. April 7, 2021 Regular Meeting

Commissioner Berry made a motion to approve the minutes of April 7, 2021, seconded by Commissioner Treviño. Motion carried.

IV. PUBLIC HEARING

A. Discussion and consideration to approve Conditional Use Permit to obtain a Mixed Beverage Permit, Mixed Beverage Late Hours Permit, Food and Beverage certificate and Mixed Beverage Restaurant Permit with FB at 303 S. Texas, also being the N ½ Lot 23 & all of Lot 24, Block 26, Weslaco Original Townsite, Weslaco, Hidalgo County, and Texas. Possible Action

Ms. de la Fuente stated that notice appeared in The Monitor on April 19, 2021, there were Twenty-one (21) property owners notified within the 200-foot radius, no letters for or against the item were received. Staff recommended approval.

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

Commissioner Berry made a motion to approve the Conditional Use Permit, with the condition one (1) licensed security guard be on duty from 10pm to closing and owner must comply with all life and safety requirement, seconded by Commissioner Forward. Motion carried.

Commission Bullion arrived at the dais.

B. Discussion and consideration to approve Conditional Use Permit to obtain on-premise alcohol permit at 812 W. Interstate 2, also being lot 2, Re-plat Lot#1 Reyna Office Park Unit #1, Weslaco, Hidalgo County, and Texas. Possible Action

Ms. de la Fuente stated that notice appeared in The Monitor on April 19, 2021, there were five (5) property owners notified within the 200-foot radius, no letters for or against the item were received. Staff recommended approval.

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

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

C. Discussion and consideration to approve Conditional Use Permit to obtain a mixed beverage restaurant permit with FB at 2445 N. International Blvd Ste. 4&5, also being Lot 2, J. Valderas Subdivision, Weslaco, Hidalgo County, and Texas. Possible Action.

Ms. de la Fuente stated that notice appeared in The Monitor on April 19, 2021, there were five (5) property owners notified within the 200-foot radius, no letters for or against the item were received. Staff recommended approval.

Noe Vicencio, owner, stated that they would close everyday by 10:00 p.m. and the ratio of food to alcohol would be 90% to 10%.

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

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

D. Discussion and consideration to approve Conditional Use Permit to obtain an On Premise Mixed Beverage Permit, Mixed Beverage late hours permit and Beverage cartage Permit at 2901 W Business 83 also being the W1.77 acres an Irrigation S881.60'-E179.15', Farm Tract 626, West Tract Subdivision, Weslaco, Hidalgo County, Texas. Possible Action

Ms. de la Fuente stated that notice appeared in The Monitor on April 19, 2021, 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 Bullion made a motion to close the Public Hearing, seconded by Commissioner Treviño Motion carried.

Commissioner Berry made a motion to approve the Conditional Use Permit, with the condition that two (2) licensed security guards be on duty during entire hours of operation due to the size of the facility, seconded by Commissioner Bullion. Motion carried.

E. Discussion and consideration to approve rezone 1108 W Pike Blvd. Also being 0.55-acre tract of land out of, farm Tract 3, West & Adams Tract Subdivision, Weslaco, Hidalgo County, and Texas from R-2 Duplex and apartment district. to B-2 secondary and highway business district.

Ms. de la Fuente stated that notice appeared in The Monitor on April 19, 2021, there were Nineteen (19) property owners notified within the 200-foot radius, no letters for or against the item were received. Staff recommended approval.

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

Commissioner Berry made a motion to approve the rezone based on the 2040 land use map and the surrounding area, seconded by Commissioner Bullion. Motion carried.

V. DISCUSSION AND CONSIDERATION

A. Discussion and consideration for the Preliminary Plat for Moreland Apartments Subdivision– being 2.03 acres out of Farm Tract 1033, the West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located on the Northwest corner of E. Moreland Dr. and Plaza Los Encinos Possible Action.

Ms. de la Fuente stated that this item is a seven (7) lot subdivision located inside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through an 8" waterline and sewer by City of Weslaco services through a 6" sewer line. The property is within a Flood Zone "X". Staff recommended approval of the Preliminary Plat

Commissioner Berry made the motion to approve the Preliminary plat, seconded by Commissioner Summers. Motion carried

B. Discussion and consideration for the Preliminary Plat for Ten fifteen Subdivision– being 10.33 acres being a resubdivision of lots 1A,2A,3A, 4A,5A and 6A, out of Plaza Diez Quince Subdivision, Weslaco, Hidalgo County, Texas located on the Northeast corner of F.M. 1015 and Mile 6 North. Possible Action.

Ms. de la Fuente stated that this item is a thirty-two (32) lot subdivision located inside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through an 8” waterline and sewer by City of Weslaco services through an 8” sewer line. The property is within a Flood Zone “B”. Staff recommended approval of the Preliminary Plat

Commissioner Summers made the motion to approve the Preliminary plat, seconded by Commissioner Berry. Motion carried

C. Discussion and consideration for the Preliminary Plat for Amber Estates– being 19.719 acres acre tract of land, out of farm Tract 192, West Tract Subdivision, Weslaco, Hidalgo County, Texas located on the east side of Mile 6 North ½ a Mile North of Mile 10 North. Possible Action.

Ms. de la Fuente stated that this item is a thirty (30) lot subdivision located outside the City of Weslaco. This subdivision is being serviced with water by the North Alamo Water Supply through a 10” waterline and sewer by OSSF The property is within a Flood Zone “X”. Applicant is requesting a variance for off-site drainage and OSSF. The developer has provided letters of support from the drainage district. Staff recommended approval of the Preliminary Plat and compliance with the ordinance on the variance.

Commissioner Summers made the motion to approve the Preliminary plat, with Engineering review of plat note 6 and letter of support from the irrigation district, seconded by Commissioner Forward. Motion carried

D. Discussion and consideration for the Final Plat for The District North Weslaco Subdivision– being 39.97 acres out of Farm Tract 190, BLK 160, West Tract Subdivision, Weslaco, Hidalgo County, Texas located approximately on the southwest corner of Mile 11 North @ Mile 5 1/2 West Sub. Possible action.

Ms. de la Fuente stated that this item is a fifty-nine (59) lot subdivision located outside the City of Weslaco. This subdivision is being serviced with water by the North Alamo Water Supply through a 6” waterline and sewer by OSSF. The property is within a Flood Zone “X”. Applicant was granted a variance for OSSF and off-site drainage. Staff recommended approval of the Final Plat.

Commissioner Berry made the motion to approve the Final plat, seconded by Commissioner Bullion. Motion carried.

E. Discussion and consideration for the Final Plat for North Park Place Ph II– being 10.589 acres out of Farm Tract 183 and Farm Tract 184, Block 161, West & Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located approximately 800 ft E from the intersection of Mile 10 N and N mile 5 ½ Possible Action

Ms. de la Fuente stated that this item is a proposed thirty-six (36) lot subdivision located inside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through a 6" waterline and sewer by City of Weslaco services through an 8" sewer line. The property is within a Flood Zone "X". Applicant is requesting a variance for off-site drainage. Staff recommended denial of the Final Plat. Support letters have not been received.

Commissioner Summers recused himself.

Commissioner Berry made the motion to deny the Final plat and the variance request because letters of support of off-site drainage have not been received, seconded by Commissioner Treviño. Motion carried.

F. Discussion and consideration Final Plat for Bridge Crossing Ph II– being a re-subdivision of 16.273 acres being part or portion out of farm tract 744, The West And Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located approximately 1370 ft south of the intersection of 18th St. & Mile 5 ½. Possible action.

Ms. de la Fuente stated that this item is a proposed sixty-four (64) lot subdivision located inside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through an 8" waterline and sewer by City of Weslaco services through an 8" sewer line. The property is within a Flood Zone "B" and "AH". Staff recommended approval of the Final plat.

Commissioner Forward made the motion to approve the Final plat, seconded by Commissioner Bullion. Commissioner Summers recused himself. Motion carried.

G. Discussion and consideration for the Final Plat for Domain Subdivision– being a 1 acre out of farm tract 686, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located approximately 701 E. 6th St. Possible action

Ms. de la Fuente stated that this item is a proposed twenty (20) lot subdivision located inside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through an 8" waterline and sewer by City of Weslaco services through a 12" sewer line. The property is within a Flood Zone "B". Staff recommended approval of the Final plat.

Commissioner Berry made the motion to approve the Final plat, seconded by Commissioner Summers. Motion carried.

H. Discussion and consideration for the Final Plat for Stone Oaks Subdivision– being A 35.20 acre tract of land being the north 757.95 feet of Farm Tract 221, West Tract Subdivision, Weslaco, Hidalgo County, Texas located approximately the southwest corner of Mile 11 north and Mile 6 1/2 west. Possible action.

Ms. de la Fuente stated that this item is a proposed fifty-four (54) lot subdivision located outside the City of Weslaco. This subdivision is being serviced with water by the North Alamo Water Supply through an 8" waterline and sewer by OSSF. The property is within a Flood Zone "X".

Applicant was granted a variance for off-site drainage and OSSF. Staff recommended approval of the Final plat.

Commissioner Summers made the motion to approve the Final plat, seconded by Commissioner Bullion. Motion carried.

I. Discussion and consideration for the Final Plat for Greener Pastures Mobile Home Subdivision PH II– being A 3.94-acre tract of land out of Lot 82,133,134,135 and 136, Greener Pastures Mobile Home Subdivision, Weslaco, Hidalgo County, Texas located approximately on Main Gate Drive and Corral Drive. Possible Action

Ms. de la Fuente stated that this item is a proposed fourteen (14) lot subdivision located outside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through a 6” waterline and sewer by City of Weslaco services through a 6” sewer line. The property is within a Flood Zone “B”. Applicant was granted a variance for side and front setbacks and cul de sac. Staff recommended approval of the Final plat.

Commissioner Summers made the motion to approve the Final plat, seconded by Commissioner Berry. Motion carried.

J. Discussion and consideration for the Final Plat for Vaquero Estates– being a re-subdivision of 86.961 acres being all of farm tract 1072 an out of Farm Tract 1065,1066& 1071, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located on FM 1015 & Mile 11 North

Ms. de la Fuente stated that this item is a proposed two hundred fifty-three (253) lot subdivision located outside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8” waterline and sewer by North Alamo Water Supply Company services through a 6” sewer line. The property is within a Flood Zone “X”. Applicant was granted a variance for off-site drainage. Staff recommended approval of the Final plat.

Commissioner Summer made the motion to approve the Final plat, with the noted spelling correction of development on the Owner’s dedication, seconded by Commissioner Bullion. Motion carried.

K. Discussion and consideration on the variance request to section 26-38(a) for Pike District Subdivision– being 36.052 acres out of Farm Tract 163, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located approximately the southeast corner of W. Pike Blvd and Milanos Rd. Possible Action.

Ms. de la Fuente stated that this item approved by City Commission and recorded as County. The City ordinance requires developers to installed sidewalks along perimeter streets; therefore, the developer is requesting a variance to Section 26-38(a). Staff recommends compliance with the ordinance for the variance request.

Commissioner Berry made the motion to deny the variance request, seconded by Commissioner Summers. Motion carried

L. Discussion and consideration for the Voluntary Annexation of West and Adams Tract Subdivision – being a 4.73 acre tract of land out of Farm Tract 1046, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located adjacent to and east of Spanish Oak Dr and Shady Grove Trail. Possible Action.

Ms. de la Fuente stated that this item is a proposed seventeen (17) lot subdivision is outside the City of Weslaco city limits. This subdivision is being serviced with water by the City of Weslaco through an 8” waterline and sewer by the City of Weslaco through an 8” sewer line. The property is within a Flood Zone “X”. Staff recommends approval.

Commissioner Summers made the motion to approve the voluntary annexation, seconded by Commissioner Bullion. Motion carried

VI. ADJOURNMENT

There being no further business to come before the Planning and Zoning Commission, Chairman Hernandez adjourned the meeting at 6:24 p.m.

Planning and Zoning Commission

David Hernandez, Chairman

Lonnie Berry, Vice-Chairman

Randy Summers, Commissioner

Miles Bullion, Commissioner

Jose Treviño, Commissioner

(absent)
Adrian Torres, Commissioner

Jim Forward, Commissioner

ATTEST:

Kayla A. Arevalo, Planning Secretary



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: June 2, 2021	Agenda Item No. (to be assigned by PCE): IV. A.
From: Rebekah de la Fuente, Planning Director, on behalf of Eric Fonseca.	
Subject/Agenda Item: Discussion and consideration to approve Conditional Use Permit to obtain a Retail Dealer's On-Premise Late Hours License at 606 S. Missouri. Also being Lot 4, Block 51, Original Townsite of Weslaco, Weslaco, Hidalgo County, and Texas. Possible Action.	
Discussion/Overview: The applicant is requesting to obtain a Conditional Use Permit to obtain a Retail Dealer's On-Premise Late Hours License Notice of the application and the public hearing for the Planning and Zoning Commission and the City Commission appeared in The Monitor on May 17, 2021. Twenty-one (21) property owners within 200 feet of the applicant's property were notified by letter on May 21, 2021.	
Staff recommendation for Commission's Action: Staff recommends denial based on previous action by City Commission	
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 On January 15, 2019 the City Commission recommended denial of the late hour permit. On January 2, 2019 the P&Z Commission recommended denial of the late hour permit.	
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

RECEIVED

MAY 10 2021

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. Planning & Code Enforcement Dept.

RECEIVED

MAY 10 2021

PROPOSED PROJECT

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

Lot _____ Block _____

Subdivision Name _____

Street Address 606 S. MISSOURI ST

Existing Zoning _____ Existing Land Use _____

Purpose for the Conditional Use Permit Request For Late Hours

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

- _____ \$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 ERIC Fonseca Krisp Gallery Phone (956) (408-5020)

Address 606 S MISSOURI Ave Fax: _____

City Weslaco State TX Zip Code 78596 E-Mail: krispgallery@gmail.com

OWNER

Name ERIC Fonseca Phone 956 408-5020

Address 606 S MISSOURI Ave Fax: _____

City Weslaco State TX Zip Code 78596 E-Mail: krispgallery@gmail.com

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 Eric Fonseca Date 4/19/21
Owner

Signature Eric Fonseca Date 4/19/21
Applicant

Signature Eric Fonseca Date _____
Authorized Agent

STAFF USE ONLY

Accepted By _____ Payment Received By _____ Date Paid _____

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

P & Z Notice of Public Hearing Published in Newspaper Date _____

City Commission Notice of Public Hearing Published in Newspaper Date _____

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

Presented to City Commission Date _____
Approved _____ Disapproved _____ Tabled _____

Rebekah M. De La Fuente

From: Justin Gracia
Sent: Tuesday, May 25, 2021 8:55 AM
To: Rebekah M. De La Fuente
Cc: Joel Rivera
Subject: RE: TABC

Good morning Rebekah,

Since 2019, WPD has responded to 606 S Missouri 10 times.

Below is the list of calls to this location.

Call Type	
Alarm	5
Loud Music	2
Field Contact/Interview	2
Suspicious Vehicle	1

Respectfully,
Justin Gracia
CRIME ANALYST
Weslaco Police Department
901 N. Airport Dr.
Weslaco, TX 78596
Office (956) 968-8591 ext. 2013
Cell (956) 532-9343

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From: Rebekah M. De La Fuente <rdelafuente@weslacotx.gov>
Sent: Tuesday, May 25, 2021 8:42 AM
To: Joel Rivera <Joel.Rivera@weslacotx.gov>
Cc: Justin Gracia <jgracia@weslacotx.gov>
Subject: TABC

Good morning, Chief:

We have an incoming TABC for Mixed Beverage at 606 S Missouri, can you please run a report to see if the City has had any calls out to this location. It is going to be presented to Planning & Zoning Commission on June 2nd for consideration.

Thank you,



TEXAS ALCOHOLIC BEVERAGE COMMISSION

Texas Helping Businesses & Protecting Communities

RECEIVED

MAY 10 2021

COPY

ON-PREMISE

Planning & Code Enforcement Dept.

PREQUALIFICATION PACKET

L-ON (2/2021)

Submit this packet to the proper governmental entities to obtain certification for the type of license/permit for which you are applying as required by Sections 11.37, 11.39, 11.46(b), 61.37, 61.38, 61.42 and Rule §33.13. Contact your local TABC office to verify requirements of Sections 11.391 and 61.381 as you may be required to post a sign at your proposed location 60-days prior to the issuance of your license/permit. All statutory and rule references mentioned in this application refer to and can be found in the Texas Alcoholic Beverage Code or Rules located on our website. www.tabc.texas.gov/laws/code_and_rules.asp

LOCATION INFORMATION

- Application for: ☐ Original ☒ Add Late Hours Only License/Permit Number
☐ Reinstatement ☐ Reinstatement and Change of Trade Name License/Permit Number
☐ Change of Location ☐ Change of Location and Trade Name License/Permit Number
- Type of On-Premise License/Permit

☐ BG Wine and Beer Retailer's Permit	☐ LB Mixed Beverage Late Hours Permit
☐ BE Beer Retail Dealer's On-Premise License	☐ MI Minibar Permit
☒ BL Retail Dealer's On-Premise Late Hours License	☐ CB Caterer's Permit
☐ BP Brewpub License	☐ FB Food and Beverage Certificate
☐ V Wine & Beer Retailer's Permit for Excursion Boats	☐ PE Beverage Cartage Permit
☐ MB Mixed Beverage Permit	☐ RM Mixed Beverage Restaurant Permit with FB
☐ O Private Carrier's Permit - Brewpubs (BP) with a BG only	☐ E Local Cartage Permit - Wine/Beer retailers (BG) Only

- Indicate Primary Business at this Location
☒ Restaurant ☐ Sporting Arena, Civic Center, Hotel ☐ Bar
☐ Grocery/Market ☐ Sexually Oriented ☐ Miscellaneous Art Gallery

- Trade Name of Location (Name of restaurant, bar, store, etc.)

Krisp Gallery

- Location Address

606-S. MISSOURI ST

City

WELACO

County

ITDAD GO

State

Zip Code

TX 78596

- Mailing Address

SAME AS ABOVE

City

State

Zip Code

- Business Phone No.

(956) 405-5020

- Alternate Phone No.

(956) 376-6924

- E-mail Address

KrispGallery6@gmail.com

OWNER INFORMATION

- Type of Owner

☐ Individual	☐ Corporation	☐ City/County/University
☐ Partnership	☒ Limited Liability Company	☐ Other
☐ Limited Partnership	☐ Joint Venture	
☐ Limited Liability Partnership	☐ Trust	

- Owner of Business/Applicant (Name of Corporation, LLC, etc.)

PRIMARY CONTACT PERSON

The primary contact person should be a person who can answer questions TABC may have about the application. The contact phone and email are mandatory and must be active and updated regularly. If additional information is needed, it will be requested from this contact person. Delays in responding to requests may delay the processing and approval of your permit/license.

- Contact Person:

Eric Fonseca

- Relation to Business:

owner

- Phone (mandatory):

(956) 376-6924

- Email (mandatory):

KrispGallery6@gmail.com

TABC DATESTAMP

11. Are you, the applicant, a veteran-owned business?				☐ Yes ☒ No
12. Are you, the applicant, a Historically Underutilized Business (HUB)?				☐ Yes ☒ No
13. As indicated on the chart, enter the individuals that pertain to your business type: (For additional space, use Form L-OIC)				
Individual/Individual Owner		Limited Liability Company/All Officers or Managers		
Partnership/All Partners		Joint Venture/Venturers		
Limited Partnership/All General Partners		Trust/Trustee(s)		
Corporation/All Officers		City, County, University/Official		
Last Name	First Name	MI	Title	
Eric Deane	Fonseca		MANAGER	
Last Name	First Name	MI	Title	
Gilbert Deane	Longoria		MANAGER	
Last Name	First Name	MI	Title	

MEASUREMENT INFORMATION

Section 109.31 et seq.

14. Will your business be located within 300 feet of a church or public hospital?		☐ Yes ☒ No
<i>NOTE: For churches or public hospitals measure from front door to front door, along the property lines of the street fronts and in a direct line across intersections.</i>		
15. Will your business be located within 300 feet of any private/public school, day care or child care facility?		☐ Yes ☒ No
If "YES," are the facilities located on different floors or stories of the building?		☐ Yes ☒ No
<i>NOTE: For private/public schools, day care centers and child care facilities, measure in a direct line from the nearest property line of the school, day care center or child care facility to the nearest property line of the place of business, and in a direct line across intersections.</i>		
<i>NOTE: For multistory building: businesses may be within 300 feet of a day care center or child care facility as long as the facilities are located on different floors of the building.</i>		
<i>NOTE: If located on or above the fifth story of a multistory building: measure in a direct line from the property line of the private/public school to property line of your place of business in a direct line across intersections vertically up the building at the property line to the base of the floor on which your business is located.</i>		
16. Will your business be located within 1,000 feet of a private school?		☐ Yes ☒ No
17. Will your business be located within 1,000 feet of a public school?		☐ Yes ☒ No

60-DAY SIGN

18. If required under Section 11.391 and 61.381, provide exact date the required sign was posted at the location.	Exact Date (MM/DD/YYYY)

ALL APPLICANTS

19. IF YOUR LOCATION IS NOT WITHIN THE CITY LIMITS, CHECK HERE ☐
I, the applicant, have confirmed I am not located in the city limits of any city, therefore, city certifications are not required.

COMPLETE THE FOLLOWING CHECKLIST BEFORE SUBMITTING YOUR APPLICATION

Per Sec. 102.01, a tied house is defined as any overlapping ownership between those engaged in the alcoholic beverage industry at different levels of the three-tier system. No person having an interest in a permit issued by TABC may secure or hold, directly or indirectly, an ownership interest in a business on a different level.

All required forms have been completed.	☐ Yes ☐ No
I have reviewed all forms to ensure they are complete.	☐ Yes ☐ No
I have obtained all required local and state certifications (pages 3-5).	☐ Yes ☐ No
All application packets have been notarized.	☐ Yes ☐ No
Phone numbers and email address for contact person are up to date.	☐ Yes ☐ No
All additional documentation as required by the application packets is attached.	☐ Yes ☐ No
If required, out of state criminal history checks are attached (PHS #7).	☐ Yes ☐ No ☐ N/A
Certification of publication in local newspaper has been completed (page 5).	☐ Yes ☐ No ☐ N/A
A copy of the newspaper publication is attached (page 5).	☐ Yes ☐ No ☐ N/A

WARNING AND SIGNATURE

IF APPLICANT IS SHOWN AS:

Proprietorship
Partnership
Corporation
Limited Partnership
Limited Liability Partnership
Limited Liability Company

WHO MUST SIGN:

Individual Owner
Partner
Officer
General Partner
General Partner
Officer/Manager

WARNING: Section 101.69 of the Texas Alcoholic Beverage Code states: "...a person who knowingly makes a false statement or false representation in an application for a permit or license or in a statement, report, or other instrument to be filed with the commission and required to be sworn commits an offense punishable by imprisonment in the Texas Department of Criminal Justice for not less than 2 nor more than 10 years."

I, UNDER PENALTY OF LAW, HEREBY SWEAR THAT I HAVE READ ALL THE INFORMATION PROVIDED IN THE APPLICATION AND ANY ATTACHMENTS AND THE INFORMATION IS TRUE AND CORRECT. I ALSO UNDERSTAND ANY FALSE STATEMENT OR REPRESENTATION IN THIS APPLICATION CAN RESULT IN MY APPLICATION BEING DENIED AND/OR CRIMINAL CHARGES FILED AGAINST ME. I ALSO AUTHORIZE THE TEXAS ALCOHOLIC BEVERAGE COMMISSION TO USE ALL LEGAL MEANS TO VERIFY THE INFORMATION PROVIDED.

PRINT
NAME

Eric Fonseca

SIGN
HERE

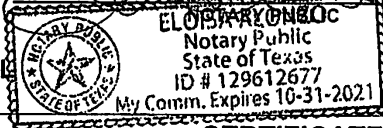
[Signature]

TITLE

Managing Member

Before me, the undersigned authority, on this 19th day of April, 2021, the person whose name is signed to the foregoing application personally appeared and, duly sworn by me, states under oath that he or she has read the said application and that all the facts therein set forth are true and correct.

SIGN
HERE



SEAL

CERTIFICATE OF CITY SECRETARY FOR MB, BG & BE

Section 11.37 & 61.37

Not later than the 30th day after the date a prospective applicant for a license or permit requests certification, the city secretary or clerk shall certify whether the location or address given in the request is in a wet area and whether the sale of alcoholic beverages for which the license or permit is sought is prohibited by ordinance.

I hereby certify on this _____ day of _____, 20____, that the location for which the license/permit is sought is inside the boundaries of this city or town, in a "wet" area for such license/permit, and not prohibited by charter or ordinance in reference to the sale of such alcoholic beverages.

- ☐ MB Mixed Beverage Permit
- ☐ MB/FB (RM) Mixed Beverage Restaurant Permit with Food and Beverage Certificate (MB must also hold a Food and Beverage Certificate)
- ☐ BG/FB Wine and Beer Retailer's Permit with Food and Beverage Certificate (BG must also hold a Food and Beverage Certificate)
- ☐ BG Wine and Beer Retailer's Permit - Election for given location was held for:
- ☐ legal sale of beer/wine (17%) on-premise **AFTER** Sept. 1, 1999
- ☐ legal sale of beer/wine (14%) on-premise **BEFORE** Sept. 1, 1999
- ☐ BE Beer Retail Dealer's On-Premise License

OR

☐ I hereby refuse on this _____ day of _____, 20____ to certify this location.

SIGN
HERE

City Secretary/Clerk

City

TEXAS

SEAL

CERTIFICATE OF CITY SECRETARY FOR LATE HOURS LICENSE/PERMIT LB & BL

Chapters 29 & 70 et seq.

I hereby certify on this _____ day of _____, 20____, that one of the below is correct:

- ☐ The governing body of this city has by ordinance authorized the sale of *mixed beverages* between midnight and 2:00 A.M.; or
- ☐ The governing body of this city has by ordinance authorized the sale of *beer* between midnight and _____ A.M.; or
- ☐ The population of the city or county where premises are located was 500,000 or more according to the 22nd Decennial Census of the United States as released by the Bureau of the Census on March 12, 2001; or
- ☐ The population of the city or county where premises are located was 800,000 or more according to the last Federal Census (2010).

OR

☐ I hereby refuse on this _____ day of _____, 20____ to certify this location.

**SIGN
HERE**

City Secretary/Clerk

City

_____, TEXAS

S E A L

CERTIFICATE OF COUNTY CLERK FOR MB, BG & BE

Section 11.37 & 61.37

Not later than the 30th day after the date a prospective applicant for a license or permit requests certification, the county clerk shall certify whether the location or address given in the request is in a wet area and whether the sale of alcoholic beverages for which the license or permit is sought is prohibited by order.

I hereby certify on this _____ day of _____, 20____, that the location for which the license/permit is sought is in a "wet" area and is not prohibited by any valid order of the Commissioner's Court.

- ☐ **MB** Mixed Beverage Permit
- ☐ **MB/FB (RM)** Mixed Beverage Restaurant Permit with Food and Beverage Certificate (FB must also hold a Food and Beverage Certificate)
- ☐ **BG/FB** Wine and Beer Retailer's Permit with Food and Beverage Certificate (BG must also hold a Food and Beverage Certificate)
- ☐ **BG** Wine and Beer Retailer's Permit - Election for given location was held for:
☐ legal sale of beer/wine (17%) on-premise **AFTER** Sept. 1, 1999
☐ legal sale of beer/wine (14%) on-premise **BEFORE** Sept. 1, 1999
- ☐ **BE** Beer Retail Dealer's On-Premise License

OR

☐ I hereby refuse on this _____ day of _____, 20____ to certify this location.

**SIGN
HERE**

County Clerk

_____, COUNTY

S E A L

CERTIFICATE OF COUNTY CLERK FOR LATE HOURS LICENSE/PERMIT LB & BL

Chapters 29 & 70 et seq

- I hereby certify on this _____ day of _____, 20____, that one of the below are correct:
- ☐ The Commissioner's Court of the county has by order authorized the sale of *mixed beverages* between midnight and 2:00 A.M.; or
- ☐ The Commissioner's Court of the county has by order authorized the sale of *beer* between midnight and _____ A.M.; or
- ☐ The population of the city or county where premises are located was 500,000 or more according to the 22nd Decennial Census of the United States as released by the Bureau of the Census on March 12, 2001; or
- ☐ The population of the city or county where premises are located was 800,000 or more according to the last Federal Census (2010).

OR

- ☐ I hereby refuse on this _____ day of _____, 20____ to certify this location.

SIGN

HERE _____

County Clerk

COUNTY

S E A L

COMPTROLLER OF PUBLIC ACCOUNTS CERTIFICATE

Section 11.46 (b) & 61.42 (b)

This is to certify on this _____ day of _____, 20____, the applicant holds or has applied for and satisfies all legal requirements for the issuance of a Sales Tax Permit under the Limited Sales, Excise and Use Tax Act or the applicant as of this date is not required to hold a Sales Tax Permit.

Sales Tax Permit Number _____ Outlet Number _____

Print Name of Comptroller Employee _____

Print Title of Comptroller Employee _____

SIGN

HERE _____

FIELD OFFICE _____

S E A L

PUBLISHER'S AFFIDAVIT FOR MB, LB, RM, BP, BG, BE, BL & V

Section 11.39 and 61.38

Name of newspaper		ATTACH PRINTED COPY OF THE NOTICE HERE Click here to see example of newspaper publication
City, County		
Dates notice published in daily/weekly newspaper (MM/DD/YYYY)		
<i>Publisher or designee certifies attached notice was published in newspaper stated on dates shown.</i>		
Signature of publisher or designee Sworn to and subscribed before me on this date (MM/DD/YYYY)		
Signature of Notary Public		
S E A L		

PLANNING DEPARTMENT

May 21, 2021

Legal Notice

Dear Occupant:

The Weslaco Planning and Zoning Commission will hold a public hearing on Wednesday, June 2, 2021 at 5:30 p.m. and the City Commission will also hold a public hearing on Tuesday, June 15, 2021 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:

Eric Fonseca is requesting a Conditional Use Permit to obtain a Retail Dealer's On-Premise Late Hours License at 606 S. Missouri. Also being Lot 4, Block 51, Original Townsite of Weslaco, Weslaco, Hidalgo County, and 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,

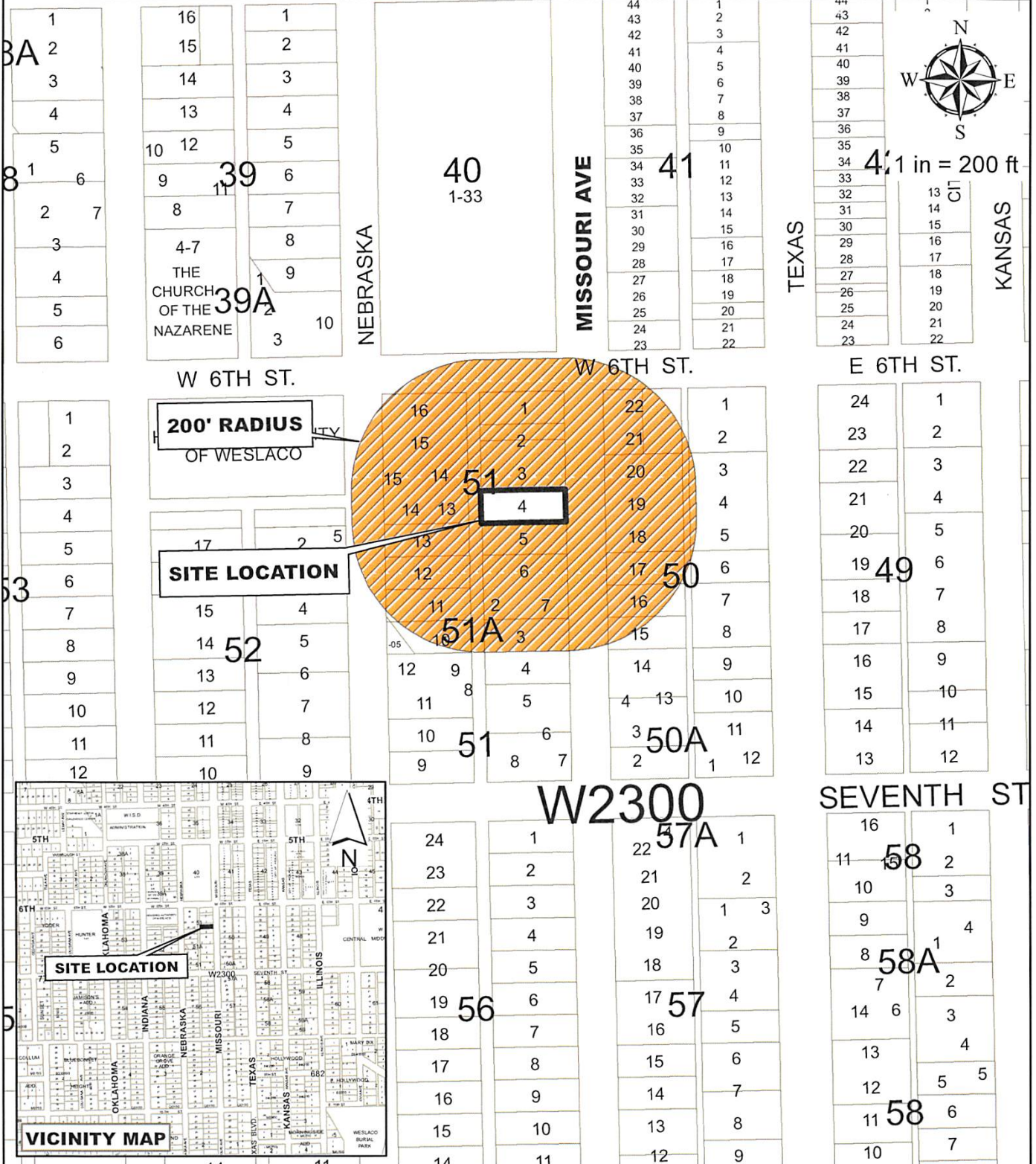


Rebekah de la Fuente, CFM
Planning Director

Planning &
Code Enforcement

CITY OF WESLACO

Planning &
Code Enforcement



Eric Fonseca
Weslaco Original Townsite
606 S Missouri Ave
Lot 4 of Block 51

Purpose for the conditional use
Existing zoning: B-1
Existing land use: Neighborhood Business
CUP request: Late Hours



City of Weslaco Code Enforcement Dept.

DEC 19, 2018

602 SOUTH CORPORATION ATTN: ACCOUNTING DEPT PO BOX 579 MCALLEN TX 78505-0579	W2300-00-050-0001-00 WESLACO ORIGINAL TOWNSITE BLK 50 602 S TEXAS BLVD	L: 72000 B: 43459
IBC BANK PO BOX 579 MCALLEN TX 78505-0579	W2300-00-050-0003-00 WESLACO ORIGINAL TOWNSITE LOTS 3 606 S TEXAS BLVD	L: 252000 B: 1060752
IBC BANK INTERNATIONAL BANK OF PO BOX 579 MCALLEN TX 78505	W2300-00-050-0006-00 WESLACO ORIGINAL TOWNSITE BLK 50 LT 6 610 S TEXAS BLVD	L: 39600 B: 0
RODRIGUEZ ELVIRA B 534 LINAVES WESLACO TX 78596	W2300-00-050-0015-00 WESLACO ORIGINAL TOWNSITE BLK 50 615 S MISSOURI AVE	L: 20100 B: 0
CASTELLANOS LESLEY A 534 LINARES WESLACO TX 78596-5782	W2300-00-050-0016-00 WESLACO ORIGINAL TOWNSITE BLK 50 613 S MISSOURI AVE	L: 20100 B: 45989
GRACIA ELVIA N & EDNA ZAMORA PO BOX 384 WESLACO TX 78599-0384	W2300-00-050-0017-00 WESLACO ORIGINAL TOWNSITE BLK 50 611 S MISSOURI AVE	L: 20100 B: 18497
BRACE ROBERT 2000 N 8TH ST MCALLEN TX 78501-2263	W2300-00-050-0021-00 WESLACO ORIGINAL TOWNSITE BLK 50 107 W 6TH ST	L: 36000 B: 33089
ALMARAZ ROSENDO Jr 1308 FULLERTON AVE MCALLEN TX 78504-5756	W2300-00-050-0021-05 WESLACO ORIGINAL TOWNSITE W1/2 L 6 S MISSOURI AVE	L: 36000 B: 0
EHCP INVESTMENTS LLC 27964 ATLANTIC AVE HIGHLAND CA 92346-2704	W2300-00-051-0004-00 WESLACO ORIGINAL TOWNSITE LOT 4 606 S MISSOURI AVE	L: 39000 B: 36095
EHCP INVESTMENTS LLC 27964 ATLANTIC AVE HIGHLAND CA 92346-2704	W2300-00-051-0005-00 WESLACO ORIGINAL TOWNSITE BLK 51 608 S MISSOURI AVE	L: 39000 B: 25893
SIMMONS JAMES C JR & LORI G 612 S MISSOURI WESLACO TX 78596-6940	W2300-00-051-0006-00 WESLACO ORIGINAL TOWNSITE LT 6, NAL BLK 51,51A 612 S MISSOURI AVE	L: 63050 B: 31711
PEREZ JOSE S & CRISTINA 718 COUNTRY LN WESLACO TX 78599-9330	W2300-00-051-0007-00 WESLACO ORIGINAL TOWNSITE S36.7' S 3 & 4 BLK 51A 614 S MISSOURI AVE	L: 21775 B: 33776

City of Weslaco Code Enforcement Dept.

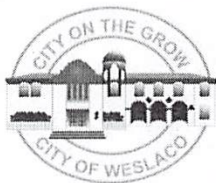
DEC 19, 2018

TALBERT RICHARD S 612 S TEXAS BLVD WESLACO TX 78596-6222	W2300-00-051-0010-00 WESLACO ORIGINAL TOWNSITE LOT 10 621 S NEBRASKA	L: 21775 B: 14917
RAMIREZ MICHAEL A & IRENE R 615 S NEBRASKA AVE WESLACO TX 78596-6923	W2300-00-051-0010-10 WESLACO ORIGINAL TOWNSITE LOT 10 0	L: 18425 B: 0
MEDRANO NESTORA & JOSE 613 S NEBRASKA AVE WESLACO TX 78596-6923	W2300-00-051-0011-00 WESLACO ORIGINAL TOWNSITE ALL OF TRIA SHAPE TR BEING NW 6.7FT OF 613 S NEBRASKA	L: 21775 B: 15809
GARZA ELIDA C 618 S NEBRASKA AVE APT 1 WESLACO TX 78596-6952	W2300-00-051-0011-01 WESLACO ORIGINAL TOWNSITE LOT 11 K 51 & LOTS 8 & 9 BLK 51-A 619 S NEBRASKA	L: 43550 B: 29633
RAMIREZ MICHAEL A & IRENE R 615 S NEBRASKA AVE WESLACO TX 78596-6923	W2300-00-051-0012-05 WESLACO ORIGINAL TOWNSITE S50'-N K 51 615 S NEBRASKA	L: 4110 B: 29268
GOVEA LETICIA 609 S NEBRASKA AVE WESLACO TX 78596-6923	W2300-00-051-0013-00 WESLACO ORIGINAL TOWNSITE S 48.2 609 S NEBRASKA	L: 20904 B: 18748
FIRST CHRISTIAN CHURCH 205 W 6TH ST WESLACO TX 78596-6035	W2300-00-051-0013-01 WESLACO ORIGINAL TOWNSITE N50' L LK 51; LTS 14-16 BLK 51A 205 W 6TH ST	L: 39000 B: 270000
THE FIRST CHRISTIAN CHURCH OF 205 W 6TH ST WESLACO TX 78596-6035	W2300-00-051-0002-00 WESLACO ORIGINAL TOWNSITE S1/2 BLK 51	L: 32663 B: 0
THE FIRST CHRISTIAN CHURCH OF 205 W 6TH ST WESLACO TX 78596-6035	W2300-00-051-0001-00 WESLACO ORIGINAL TOWNSITE LOT 1 51	L: 32663 B: 0



**Planning & Zoning Commission
Standardized Agenda Request Form**

Date of Meeting: JUNE 2, 2021	Agenda Item No. (to be assigned by PCE): V.A.
From: Rebekah de la Fuente, Planning Director, on behalf of Melden & Hunt.	
Subject/Agenda Item: Discussion and consideration for the Preliminary Plat for Highland Manor PH 2– being a re-subdivision of 13.46 acres out of Farm Tract 238 and 239, West And Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located on FM 1015 & Mile 11 North Possible Action.	
Discussion/Overview: The proposed eighteen (18) lot subdivision is located outside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8" waterline and sewer by OSSF. The property is within a Flood Zone "X". Applicant is requesting a variance for OSSF and off-site drainage. A letter of support has been received from the Drainage district, but is pending the letter from the Irrigation District.	
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 Preliminary Plat and compliance with the ordinance for the variance requests.	
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

PIAT-000068-2021

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 PHASE 2 SUBDIVISION

Location: APPROX. 550 FEET NORTH OF THE INTERSECTION OF W MILE 11 N ROAD & N MILE 5-1/2 W ROAD ON THE WEST RIGHT-OF-WAY OF N MILE 5-1/2 W ROAD.

Legal Description: 12.46 ACRES OUT OF FARM TRACT 238 AND 239, 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: SINGLE-FAMILY RESIDENTIAL

Number of Lots Proposed: 18 Gross Acreage: 12.46 AC

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: DAVID GARCIA -DASC INVESTMENTS, LLC Telephone: 956-351-7291

Address: 4104 COCONUT PALM DRIVE

Fax: _____

City: PALMHURST State: TX Zip: 78573 E-mail: dgarcia72@gmail.com

ENGINEER INFORMATION

Name: IVAN GARCIA, P.E. R.P.L.S. Telephone: 956-380-5152

Address: 921 S. 10TH AVE.

Fax: _____

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 W.S.C.

☐ YES ☒ NO Wastewater Provision: _____

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

☒ 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>No.1</u>	☒ YES ☐ NO Irrigation District <u>No.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: David Garcia

Owner Signature: [Signature] Date: 5/20/21

_____ is the authorized agent

Authorized Agent Signature: [Signature] Date: 5/20/21

Authorized Agent Printed Name: Ivan Garcia, PE, RPLS - Rio Delta Engineering

THIS PAGE FOR STAFF USE ONLY

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

P & Z Commission Approval on Preliminary Plat: _____

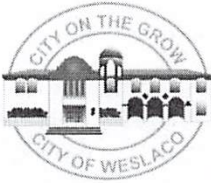
P & Z Commission Approval on Final Plat: _____

City Commission Approval on Final Plat: _____

Preconstruction Meeting Date: _____

Date Recorded: _____ Instrument No. _____

General Comments: _____



APPLICATION FOR SUBDIVISION VARIANCE

VAR-000069-2021

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 PHASE 2 SUBDIVISION

Location: APPROX. 550 FEET NORTH OF THE INTERSECTION OF W MILE 11 N ROAD & N MILE 5-1/2 W ROAD ON THE WEST RIGHT-OF-WAY OF N MILE 5-1/2 W ROAD.

Legal Description: 12.46 ACRES OUT OF FARM TRACT 238 AND 239, 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 AN EXISTING SANITARY SEWER COLLECTION SYSTEM IN THE IMMEDIATE AREA THAT WOULD BE ABLE TO SERVICE THE SUBDIVISION.

☐ 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 AN 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: DAVID GARCIA -DASC INVESTMENTS, LLC Telephone: 956-351-7291

Address: 4104 COCONUT PALM DRIVE Fax: _____

City: PALMHURST State: TX Zip: 78573 E-mail: dgarciatx72@gmail.com

Application fees

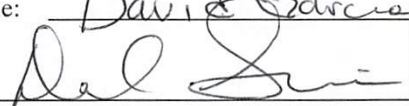
2 \$50.00 Application fee per variance, plus a \$5.00 processing fee

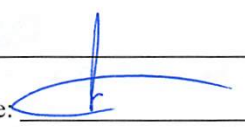
AUTHORIZATION AND ACKNOWLEDGEMENTS

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: David Garcia

Owner Signature:  Date: 5/20/21

_____ is the authorized agent
Authorized Agent Signature:  Date: 5/20/21

Authorized Agent Printed Name: Ivan Garcia, PE, RPLS - Rio Vella Engineering

May 21, 2021

City of Weslaco
Planning and Zoning Commission
255 S Kansas Ave
Weslaco, TX 78596

Re: Highland Manor Phase 2 Subdivision – Looping of Water Line

Dear Sirs,

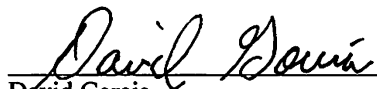
I, David Garcia, Manager of DASC Investments LLC, Owner of the subdivision to be named “Highland Manor Phase 2 Subdivision” shown on the attached preliminary plat and more particularly described as follows:

12.46 ACRES OUT OF FARM TRACT 238 AND 239, 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.

confirm that NAWSC is not allowing the looping within the cul-de-sac, and the looping of the proposed interior 6-inch water line will be completed during the construction stage of the future Highland Manor Phase 3 Subdivision, which will be located just north of Phase 2.

Please call Rio Delta Engineering at (956) 380-5152 or E-mail at riodelta2004@yahoo.com if you have any questions, comments or need anything else regarding this matter.

Respectfully submitted,



David Garcia
DASC Investments, LLC
4104 Coconut Palm Dr.
Palmhurst, TX 78573



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

EVERARDO "EVER" VILLARREAL
Board Member

ELLIE TORRES
Board Member

May 3, 2021

Mike R. Perez
City Manager
255 S. Kansas Ave.
Weslaco, Texas 78596

RE: HIGHLAND MANOR PHASE 2 SUBDIVISION

Dear Mr. Perez,

This letter is in response to a request from the Engineer of record for Highland Manor Phase 2 Subdivision, Ivan Garcia, 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 HCCID9 ditch, maintained by the HCDD1. 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.

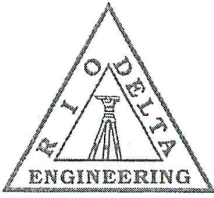
If you have any questions or need additional information, please feel free to give me a call at (956) 292-7080.

Sincerely,
Hidalgo County Drainage District No. 1

A handwritten signature in cursive script that reads "Hector Garcia".

Hector H. Garcia De Pena, EIT
District Engineer in Training

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



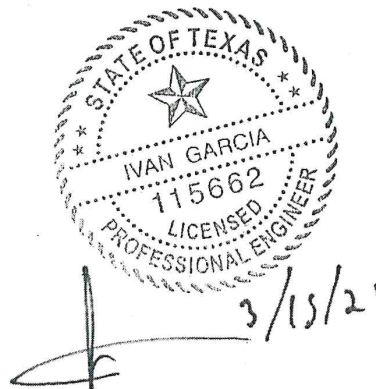
RIO DELTA ENGINEERING

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

HIGHLAND MANOR PHASE 2 SUBDIVISION DRAINAGE REPORT

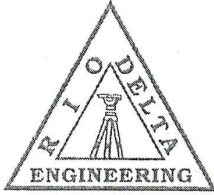
Prepared By:
Ivan Garcia P.E., R.P.L.S.

Date:
March 15, 2021



INDEX SHEET

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



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TEXAS LICENSED SURVEYING FIRM #10194027

DRAINAGE REPORT Highland Manor Phase 2 Subdivision, Hidalgo County, TEXAS

Highland Manor Phase 2 Subdivision is a proposed 18 lot Residential Subdivision, same being a 11.79 acres tract of land out of Farm Tract 238, the West and Adams Tract Subdivision, Hidalgo County, Texas, as per map recorded in Volume 2, Pages 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.

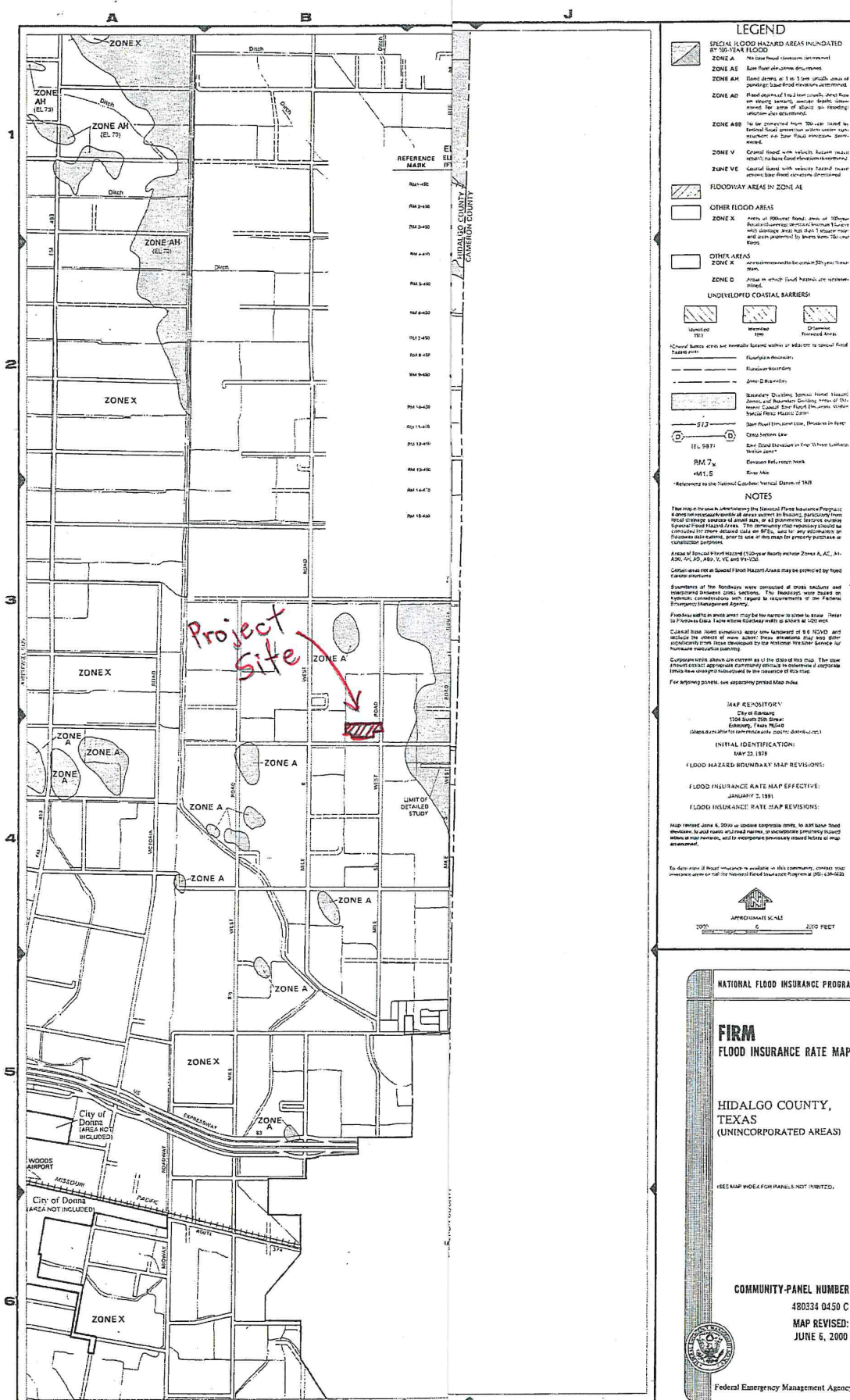
According to the Soil Survey Report prepared for Hidalgo County by the U.S.D.A. Soil Conservation Service, the site consists of 80.5% of Hidalgo fine sandy loam (25), with 0 to 1% slopes, the soil is well drained and surface runoff is negligible, permeability is moderately high to high and the water capacity is moderate. Additionally, it consists of 19.5% 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.

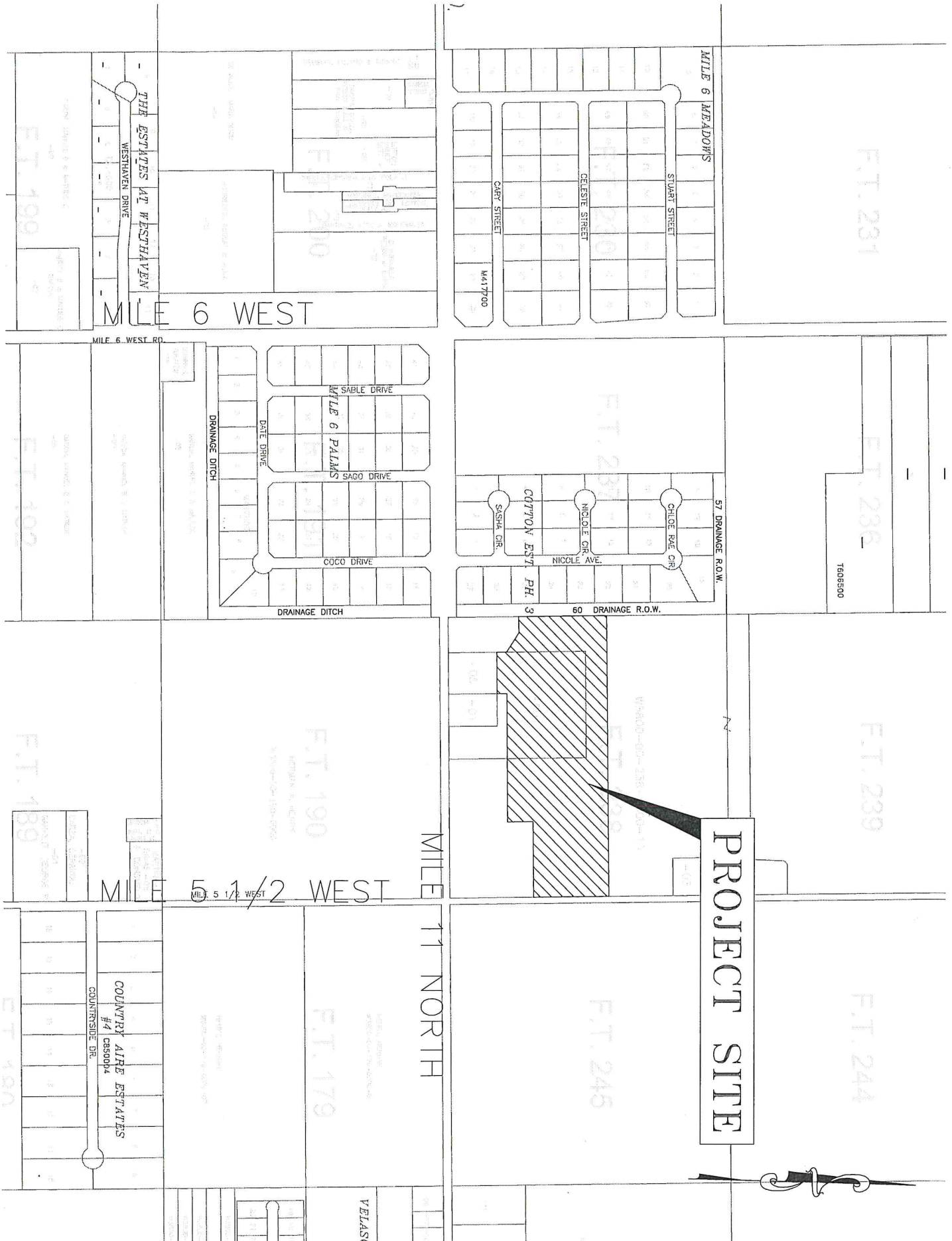
Existing runoff sheet flows overland in a easterly direction and overflows to the existing road side ditch on the west right of way of Mile 5 1/2 West in front of this subdivision, to follow the drainage patterns of the area in an easterly direction with outfall to the 701 drain ditch, then conveyed 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 7.38 CFS of storm runoff. We have also used the Rational Method to determine that the improved site will generate an estimated 16.31 CFS of runoff 50-yr rainfall events respectively. The improved site will have an approximate increase of 8.93 CFS of storm runoff.

In accordance with the County's drainage requirements, we have calculated that approximately a total of 35,520 CF or 0.815 AC-FT, will need to be detained for the complete development of the subdivision for a 50-yr rainfall event. Linear detention will be provided by improving the existing 17B2A1A drain ditch (which belongs to Hidalgo and Cameron Counties Irrigation District 9, and maintained by Hidalgo County Drainage District 1). Storm waters will be collected by an on-site collection system and routed to the existing 17B2A1A 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 PHASE 2 SUBDIVISION**

City: **WESLACO**

State: **Texas**

County: **HIDALGO COUNTY**

Total Area: **11.79** Acres Gross

Total lots: **18**

Area already developed: **0.00** Acres

Area unimproved: **11.79** Acres

Existing Run off: **7.23** cfs

Future Run off: **16.17** cfs

Total on site detention required: **35,520** cft

0.815 Ac-ft

*Pre-existing condition

*10 year storm

*50 year storm

*50 year storm

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

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



[Handwritten signature] 3/18/21

*Pre-existing condition

I. EXISTING RUN OFF (10 YEAR STORM)

*Rational Method

Project Name: **HIGHLAND MANOR PHASE 2 SUBDIVISION**

City: **WESLACO**

State: **Texas**

Highest elevation= **72.00** ft

Lowest elevation= **69.00** ft

Watercourse length, L= **1300.00** ft

Slope, S_o = **0.23** %

Average flow velocity, V = **0.34** 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 = **64.56** min (calculated)

$$t_c = L/60V$$

64.56 min (used)

Intensity, i = **3.06** 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
0.00 ACRES

*Pre-existing condition

Area unimproved= **513,572** SQFT
11.79 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 = **7.23** CFS

$$Q = CiA$$

II. FUTURE RUN OFF (50 YEAR STORM)

*Rational Method

Project Name: **HIGHLAND MANOR PHASE 2 SUBDIVISION**

City: **WESLACO**
State: **Texas**

Highest elevation= **72.00** ft
Lowest elevation= **69.00** ft
Watercourse length, L= **1300.00** ft
Slope, S_p = **0.23** %

Average flow velocity, V = **0.34** 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 = **64.56** min (calculated)

$$t_c = L/60V$$

64.56 min (used)

Intensity, i = **3.95** 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 **108,000** SQFT *Avg 6000 SF home, driveways and walks
2.48 ACRES per lot

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

Area left unimproved= **405,572** SQFT *Remaining area
Total area left unimproved= **9.31** ACRES

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

Weighted Run off Coefficient, C_w = **0.35**

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

Peak flow, Q = **16.17** CFS

$$Q = CiA$$

III. STORAGE CALCULATIONS (50 YEAR STORM)

*Rational Method

Project Name: **HIGHLAND MANOR PHASE 2 SUBDIVISION**

City: **WESLACO**
State: **Texas**

Highest elevation= **72.00** ft
Lowest elevation= **69.00** ft
Watercourse length, L= **1300.00** ft
Slope, S_p = **0.23** %

Average flow velocity, V = **0.34** 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 = **64.56** min (calculated)

$$t_c = L / 60V$$

64.56 min (used)

Intensity, i = **3.95** 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 = **108,000** SQFT *Avg 6000 SF home, driveways and walks
2.48 ACRES per lot

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

Area left unimproved = **405,572** SQFT *Remaining area
Total area left unimproved = **9.31** ACRES

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

Weighted Run off Coefficient, C_w = **0.35**

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

Peak flow, Q = **16.17** 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	76.89	0	7.23	0	0
5	13.57	55.55	16,664	7.23	2,168	14,497
10	10.83	44.31	26,588	7.23	4,336	22,253
15	9.10	37.26	33,535	7.23	6,504	27,031
20	7.91	32.37	38,846	7.23	8,671	30,174
25	7.03	28.76	43,136	7.23	10,839	32,297
30	6.34	25.96	46,734	7.23	13,007	33,727
35	5.80	23.73	49,835	7.23	15,175	34,660
40	5.35	21.90	52,561	7.23	17,343	35,218
45	4.98	20.37	54,996	7.23	19,511	35,486
50	4.66	19.07	57,199	7.23	21,678	35,520
55	4.38	17.94	59,211	7.23	23,846	35,365
60	4.14	16.96	61,066	7.23	26,014	35,051
65	3.93	16.10	62,786	7.23	28,182	34,604
70	3.75	15.33	64,393	7.23	30,350	34,043
75	3.58	14.64	65,900	7.23	32,518	33,383
80	3.43	14.03	67,321	7.23	34,686	32,636

Total on site detention required=

35,520
0.815

 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 $\times$ Qout $\times$ 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)	0.162
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)



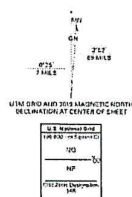
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



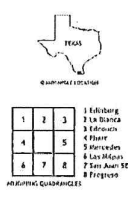
DONNA QUADRANGLE
TEXAS - HIDALGO COUNTY
7.5-MINUTE SERIES



Produced by the United States Geological Survey
Using data from the National Map Accuracy Review
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purposes, consult the official records of the
jurisdiction. For more information, visit
www.usgs.gov/maps

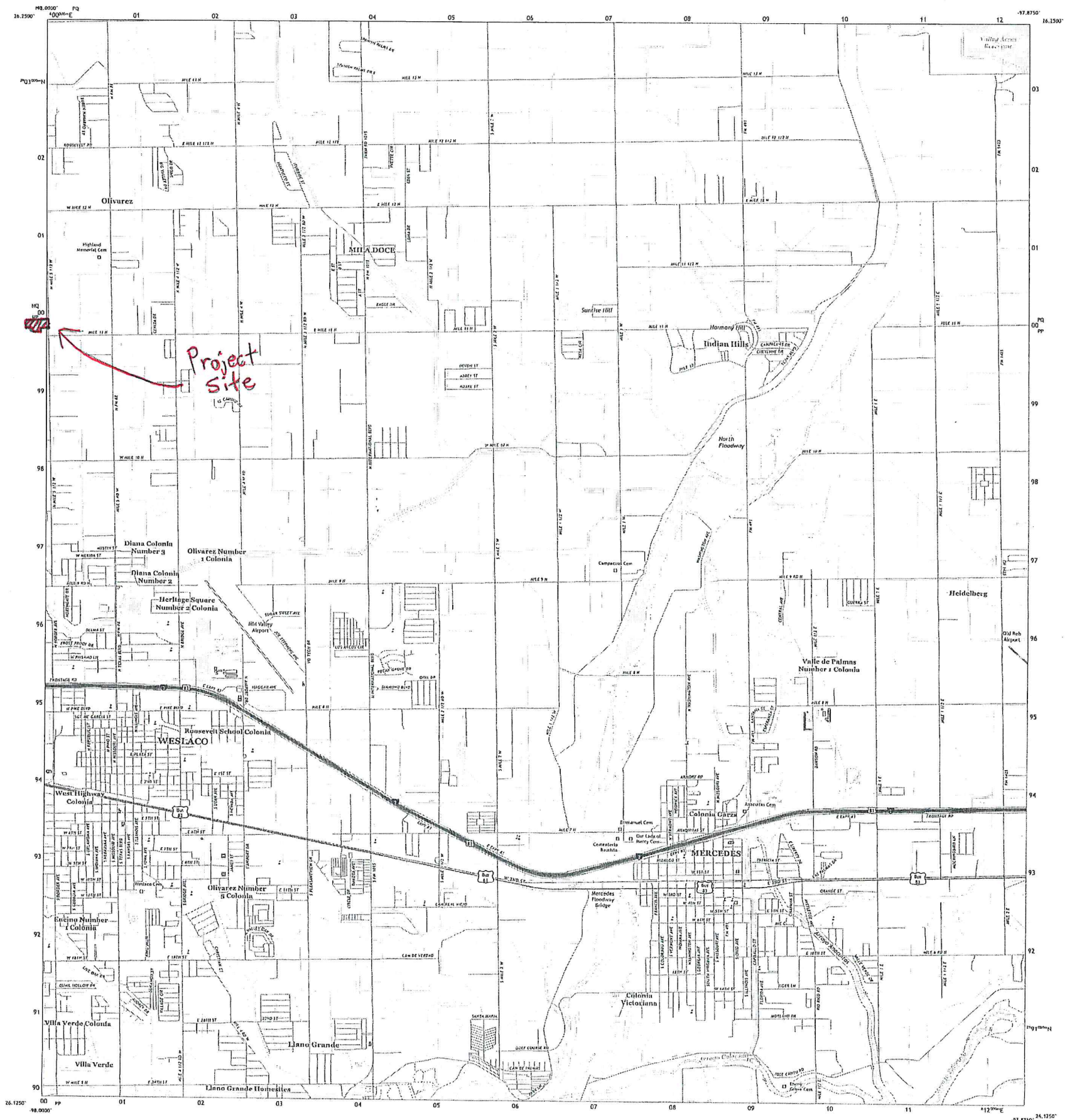
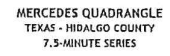
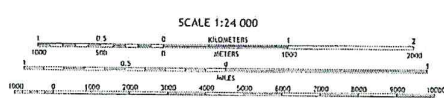
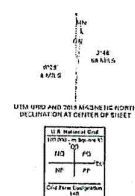


SCALE 1:24 000
EXPLANATION
This map was produced to conform with the
National Map Accuracy Review (NMAP) standards.
A metadata file associated with this product is available at
www.usgs.gov/maps



ROAD CLASSIFICATION
Expressway
Secondary Road
Local Road
Local Connector
Local Road
US Road
State Road



[illegible]

CONTOUR INTERVAL 10 FEET
 NORTH AMERICAN VERTICAL DATUM OF 1988
 This map was produced to conform with the
 National Geospatial Program US Topo Product Standard, 1011.
 A metadata file associated with this product is draft version 0.6.18



2	3
	5
7	8

1 La Blanca
2 Edouche
3 Santa Rosa
4 Dena
5 La Ferra
6 San Juan
7 Frigueras
8 Santa Rosa

ROAD CLASSIFICATION

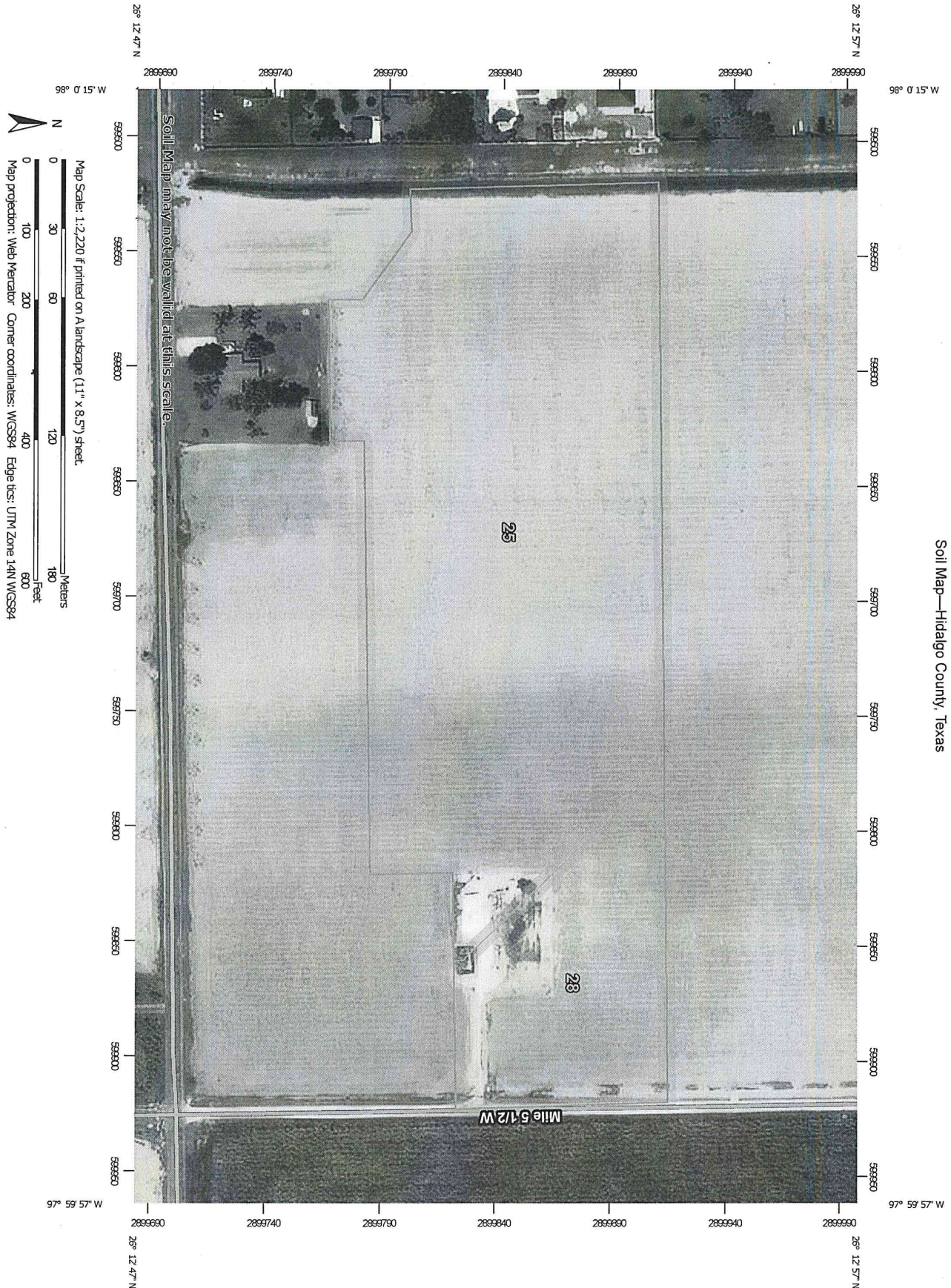
Expressway	_____	Local Connector	_____
Secondary Hwy	_____	Local Road	_____
Ramp	_____	Driv	_____

 Interstate Route  US Route  State Route

MERCEDES, TX
2019



Soil Map—Hidalgo County, Texas



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 19, Jun 11, 2020

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.

Soil Map—Hidalgo County, Texas

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	9.6	80.5%
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	2.3	19.5%
Totals for Area of Interest		11.9	100.0%



Chemical Soil Properties

This table shows estimates of some chemical 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.

Cation-exchange capacity is the total amount of extractable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. It is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil.

Gypsum is expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water. Soils that have a high content of gypsum may collapse if the gypsum is removed by percolating water.

Salinity is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Sodium adsorption ratio (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced saturated hydraulic conductivity and aeration, and a general degradation of soil structure.

Report—Chemical Soil Properties

Chemical Soil Properties—Hidalgo County, Texas									
Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio	
	<i>In</i>	<i>meq/100g</i>	<i>meq/100g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>		
25—Hidalgo fine sandy loam, 0 to 1 percent slopes									
Hidalgo	0-17	2.6-10	—	7.9-8.4	1-5	0	0.0-2.0	0-2	
	17-28	10-20	—	7.9-8.4	2-15	0	0.0-3.0	2-5	
	28-38	10-20	—	7.9-8.4	10-35	0	0.0-4.0	2-6	
	38-80	10-20	—	7.9-8.4	10-35	0	0.0-4.0	4-10	
28—Hidalgo sandy clay loam, 0 to 1 percent slopes									
Hidalgo	0-17	10-18	—	7.9-8.4	1-5	0	0.0-2.0	0-4	
	17-28	10-20	—	7.9-8.4	2-15	0	0.0-3.0	2-5	
	28-38	10-20	—	7.9-8.4	10-35	0	0.0-4.0	2-6	
	38-80	10-20	—	7.9-8.4	10-35	0	0.0-4.0	4-10	

Data Source Information

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 19, Jun 11, 2020

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.

Engineering Properties---Hidalgo County, Texas

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 '*' 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	
			In				L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H
25—Hidalgo fine sandy loam, 0 to 1 percent slopes													
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	15-23-25
													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	30-35-44
			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	30-38-44
			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	30-38-44
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	25-30-39
													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	30-35-44
			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	30-38-44
			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	30-38-44
													11-17-22

Data Source Information

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 19, Jun 11, 2020



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

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	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	micro m/sec	In/In	Pct	Pct					
25—Hidalgo fine sandy loam, 0 to 1 percent slopes														
Hidalgo	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 19, Jun 11, 2020



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

Component Legend—Hidalgo County, Texas

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 19, Jun 11, 2020



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: 2sxn

Elevation: 20 to 500 feet

Map Unit Description---Hidalgo County, Texas

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
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 content: 35 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water capacity: Moderate (about 7.8 inches)

Interpretive groups

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

Minor Components

Willacy

Percent of map unit: 10 percent
Landform: Terraces



Map Unit Description---Hidalgo County, Texas

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: R083EY023TX - Sandy Loam
Hydric soil rating: No

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

Map Unit Setting

National map unit symbol: 2sxxv
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
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

Map Unit Description---Hidalgo County, Texas

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

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 2c
Hydrologic Soil Group: B
Ecological site: R083DY019TX - Gray Sandy Loam
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: R083DY025TX - Clay Loam
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: R083DY025TX - Clay Loam
Hydric soil rating: No

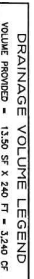
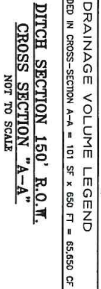
Willacy

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 19, Jun 11, 2020

DASC INVESTMENTS LLC.
REMAINDER OF 23.92 ACRES
DOC#2258166, M.R.H.C.



RECONSTRUCTION OF ROAD SIDE DITCH
DETAIL B-B

DETAIL, B-B

IVAN GARCIA, P.E., R.P.L.S.



DATE _____

SUBSIDIZED CERTIFICATION

1. BY COMPLETING THE PHOTOGRAPHS DESCRIBED ON THE PLAN, SUBDIVIDER WILL COMPLY WITH MINIMUM STATE STANDARDS AND THAT (a) WATER QUALITY AND CONNECTIONS INCLUDING WATER METERS TO THE LOTS MEET SUCH STANDARDS AND (b) SEWER CONNECTIONS TO THE LOTS OR SEPTIC TANKS MEET OR WILL MEET SUCH STANDARDS AND WILL BE CONSTRUCTED IN ACCORDANCE WITH STATE AND COUNTY REGULATIONS.

SUPPLIER STATEMENT:

1. I, DAVID GARCEL, SUBDIVIDER OF HIGH-AND-PAVING PAVING & SUBDIVISION, HEREBY CERTIFY, UNDER PENALTY OF PERJURY, THAT THE ABOVE DESCRIBED WATER SOURCE IS PERMANENTLY AVAILABLE TO EACH LOT OF THE TYPE, QUALITY & QUANTITY TO ENABLE EACH PERSON PURCHASING A LOT TO HAVE SUFFICIENT WATER TO COMPLY WITH THE REGULATIONS AND THE LAWS OF THE STATE AS REQUIRED BY STATE AND COUNTY REGULATIONS.

DAVID GARCIA • MANAGING EMER
DASC INVESTMENTS, LLC.

STATE OF TEXAS
COUNTY OF HIDALGO

BEFORE ME, THE UNDERSIGNED TO THE HONOR AND SEAL OF

THE RATE OF

NOTARY PUBLIC

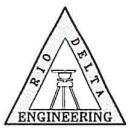
MY CONSTITUENT EXP

[illegible]

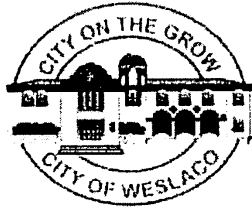
PREPARED BY: IVAN GARCIA P.E. R.P.L.S.
DRAWN: DANIEL RODRIGUEZ
SCALE: 1"=60'
DATE: MARCH 9, 2023
PROJECT: SUB 20 046
REVISIONS:
PAGE NO. 3-OF-3

PROJECT :
DRAINAGE LAYOUT
HIGHLAND MANOR PHASE 2 SUBDIVISION
WESLACO, TEXAS
HIDALGO COUNTY

THIS DOCUMENT IS
RELEASED FOR THE
PURPOSE OF INTERIM
REVIEW UNDER THE
AUTHORITY OF
IVAN GARCIA,
PE 115662 ON
MARCH, 2021
IT IS NOT TO BE
USED FOR CONSTRUCTION
BIDDING OR PERMIT
PURPOSES.



RIO DELTA ENGINEERING
FIRM REGISTRATION No. F-7628
SURVEY FIRM No. 10194027
21 S. 10TH AVENUE EDINBURG, TEXAS 78539
(TEL) 956-380-5152 (FAX) 956-380-5083



**City of Weslaco
Engineering Division**
255 S. Kansas ♦ Weslaco, TX 78570 ♦ (956)

TRIP GENERATION WORKSHEET

Complete parts A and B as an aid to determine if your project requires a Traffic Impact Analysis (TIA).

A. Subdivision Information

Subdivision Name: HIGHLAND MANOR PHASE 2 SUBDIVISION
Location: APPROX. 500 FEET NORTH OF THE INTERSECTION OF MILE 11 NORTH ROAD AND MILE 5 1/2 WEST
Applicant: DAVID GARCIA ☒ Owner ☐ Agent
Address: 2130 W. MILE 11 NORTH Phone Number: 956-380-5152

B. Trip Generation Calculation

The texts needed to complete this table are available at the Planning Department. See back of sheet for more information.

ITE Code	Anticipated Land Use	Project Size			AM Peak Hour Trips	PM Peak Hour Trips	Weekday Trips
		Acres	GFA	# of Units			
210	SINGLE-FAMILY DETACHED HOUSING	11.79	n/a	18	25	33	58

Comments: _____
Prepared by: RIO DELTA ENGINEERING Date: _____
Address: 921 S. 10TH AVENUE Phone Number: 956-380-5152

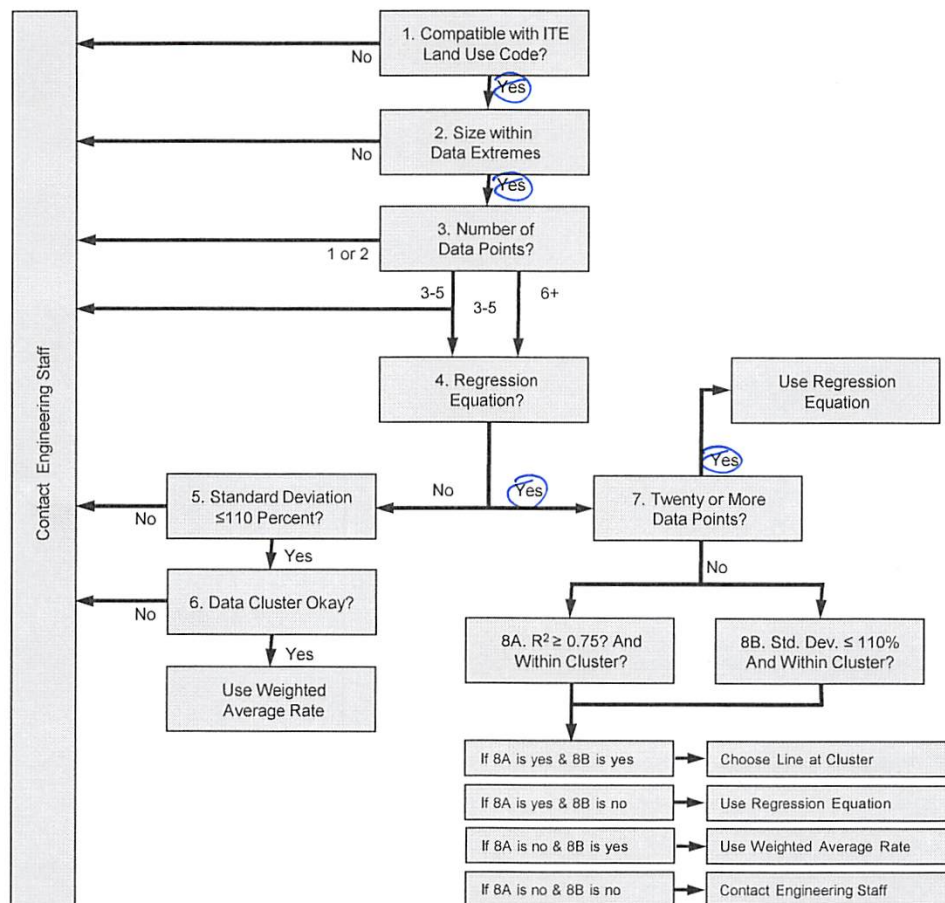
(For Official Use Only, Do Not Write In This Box)

_____ A traffic impact analysis is required. The agent preparing the study must meet with City staff to discuss the scope and requirements of the study before beginning the study.
_____ A traffic impact analysis is not required. The traffic generated by the proposed development does not exceed the threshold requirements.

Comments: _____

Reviewed by: _____ Date: _____ STID#: _____

Recommended Procedure for Selecting Between Trip Generation Average Rates and Equations



From ITE Trip Generation Handbook

City of Weslaco
Engineering Division
255 S. Kansas Ave
Weslaco, TX 78596
(956)
(956) 973-3128 (fax)

Single-Family Detached Housing (210)

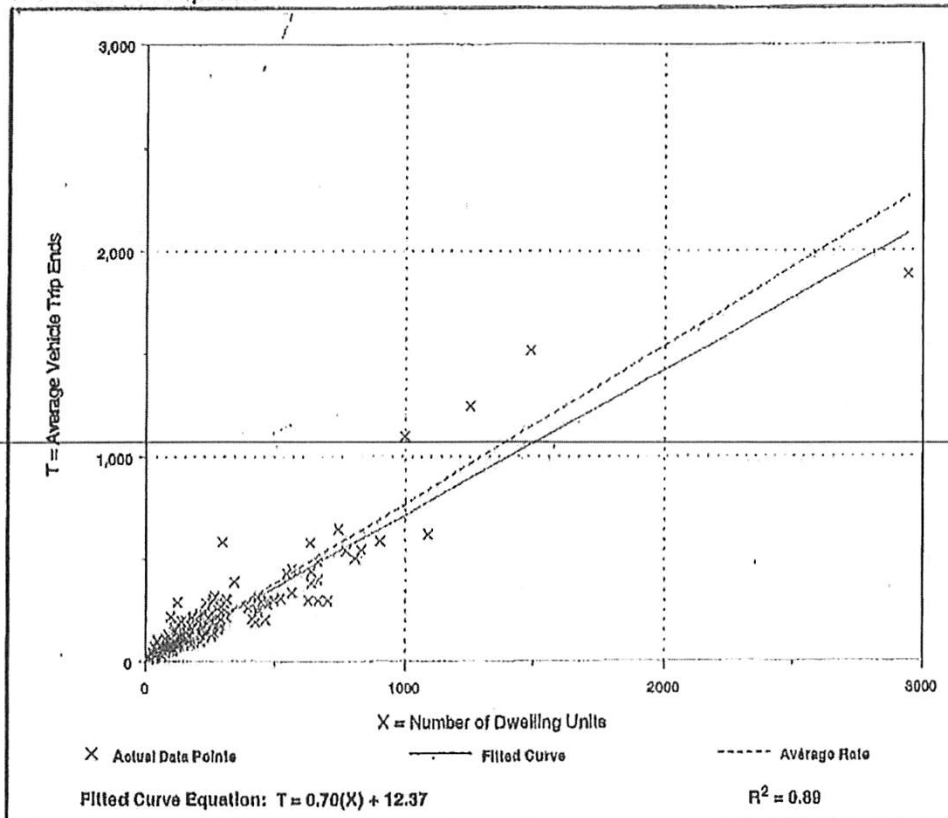
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
A.M. Peak Hour of Generator

Number of Studies: 341
Avg. Number of Dwelling Units: 181
Directional Distribution: 26% entering, 74% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.77	0.33 - 2.27	0.91

Data Plot and Equation



A.M. Trip Generation, 8th Edition

203

Institute of Transportation Engineers

$$T = 0.7(x) + 12.37$$

$$T = 0.7(18) + 12.37$$

$$T = 12.6 + 12.37$$

$$T = 24.97 \approx 25 \text{ Trip Ends}$$

Single-Family Detached Housing (210)

Average Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

P.M. Peak Hour of Generator

Number of Studies: 360

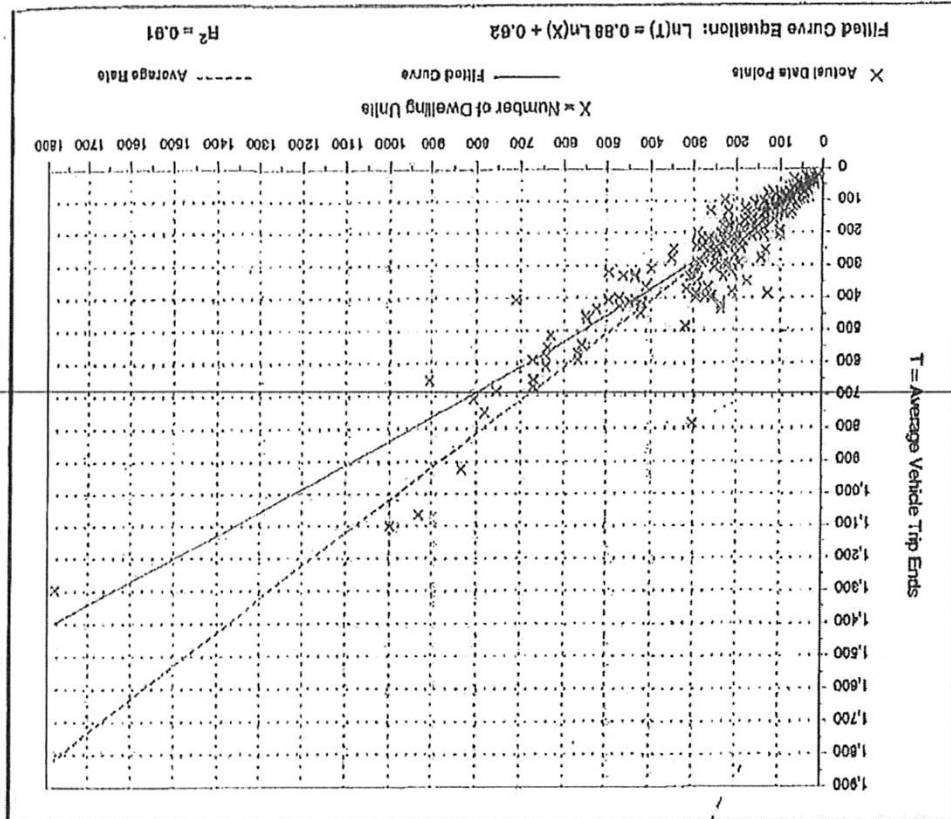
Avg. Number of Dwelling Units: 174

Directional Distribution: 64% entering, 36% exiting

Trip Generation per Dwelling Unit

Average Rate	1.02
Range of Rates	0.42 - 2.98
Standard Deviation	1.08

Data Plot and Equation



Institute of Transportation Engineers

284

Trip Generation, 8th Edition

P.M.

$$\begin{aligned} \ln(T) &= 0.88 \ln(X) + 0.62 \\ \ln(T) &= 0.88 \ln(18) + 0.62 \\ \ln(T) &= 2.89 + 0.62 \\ T &= e^{2.89 + 0.62} \end{aligned}$$

$$T = 33.45 \approx 33 \text{ Trip Ends}$$



**Planning & Zoning Commission
Standardized Agenda Request Form**

Date of Meeting: JUNE 2, 2021	Agenda Item No. (to be assigned by PCE): V.B.
From: Rebekah de la Fuente, Planning Director, on behalf of Willie Arratia.	
Subject/Agenda Item: Discussion and consideration for the Preliminary Plat for Chavez De Los Santos Subdivision—being a 6.364 acre tract out of Farm Tract 256, West Tract Subdivision, Weslaco, Hidalgo County, Texas located on the West side of Mile 4 ½ West, approximately 1770ft south of Mile 12 North Possible Action.	
Discussion/Overview: The proposed two (2) lot subdivision is located outside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through a 6" waterline and sewer by OSSF. The property is within a Flood Zone "X". Applicant is requesting 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 Preliminary Plat and compliance with the ordinance for the variance request.	
Additional Action Prompted: [X] 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

PIAT-000071-2021

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: CHAVEZ DE LOS SANTOS SUBDIVISION

Location: WEST SIDE OF MILE 4 1/2 WEST, 6770 FEET SOUTH OF MILE 12 NORTH

Legal Description: A 6.364 ACRE TRACT OF LAND OUT OF FARM TRACT 256, WEST 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: RESIDENTIAL

Existing Land Use: VACANT Proposed Land Use: RESIDENTIAL

Number of Lots Proposed: 2 Gross Acreage: _____

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: Jaime Chavez Telephone: 376-6366

Address: 6745 N. MILE 4 1/2 WEST Fax: _____

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

ENGINEER INFORMATION

Name: Willie Aratic Telephone: 784-0218

Address: 526 N. 5th St. Fax: /

City: Donna State: TX Zip: 78537 E-mail: naengineering@yahoo.com

UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: P.A.W.S.C.

☐ YES ☒ NO Wastewater Provision: DSSF

☒ YES ☐ NO Electric Company: Magic Valley

☐ YES ☒ NO Phone Utility	☐ 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

\$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: Jaime Chavez

Owner Signature: [Signature] Date: 5/22/21

_____ is the authorized agent

Authorized Agent Signature: [Signature] Date: 5/22/21

Authorized Agent Printed Name: Willie Arreola

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: _____



APPLICATION FOR VARIANCE

VAR-000072-2021

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: CHAVEZ DE LOS SANTOS SUBDIVISION

Location: WEST SIDE OF MILE 4 1/2 WEST 1,770 FEET SOUTH OF MILE 12 NORTH

Legal Description: A 6.364 ACRE TRACT OF LAND OUT OF FARM TRACT 256, WEST 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:

THERE IS NO SANITARY SEWER AVAILABLE AT THIS TIME
OSCF WILL BE USE

☐ 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:

OWNER INFORMATION

Owner's Name: _____ Telephone: _____

Address: _____ Fax: _____

City: _____ State: _____ Zip: _____ 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: JARME CHAVEZ

Owner Signature: [Signature] Date: 5/21/21

_____ is the authorized agent

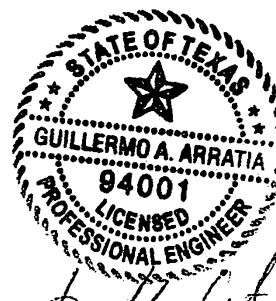
Authorized Agent Signature: [Signature] Date: 5/21/21

Authorized Agent Printed Name: Wille Arctic

NAIN ENGINEERING, L.L.C.
CONSULTING ENGINEER
526 N. 5TH STREET, DONNA, TEXAS. 78537 PH. (956) 784-0218
FIRM No. F-9050

DRAINAGE REPORT
For
CHAVEZ DE LOS SANTOS SUBDIVISION

Prepared by : Guillermo A. Arratia, P.E.



Guillermo A. Arratia, P.E.
1/4/2021

INDEX OF SHEETS

- 1. Cover Sheet**
- 2. Index of Sheets**
- 3. Drainage Report**
- 4. Drainage Calculations – Exhibit "A"**
- 5. Rainfall Intensity Table**
- 6. Runoff Coefficient Table**
- 7. Location Map – Exhibit "B"**
- 8-9 FEMA Map Location "Exhibit "C"**
- 10-11 Soil Map – Exhibit "D"**

NAIN ENGINEERING, L.L.C.
CONSULTING ENGINEER
526 N. 5TH STREET, DONNA, TEXAS. 78537 PH. (956) 784-0218
FIRM No. F-9050

DRAINAGE REPORT
For
CHAVEZ DE LOS SANTOS SUBDIVISION

I. PROJECT LOCATION

A 6.364 acre Tract of land out of Farm Tract 256, West Tract Subdivision, according to the map recorded in volume 2, pages 34-37, map records, Hidalgo County, Texas. Property I.D. 584473 and is located on the east side of Mile 4 ½ West Road, 1,770.00 feet south of Mile 12 North Road and is located in the County of Hidalgo and lies within the 3.5 mile ETJ of the city of Weslaco. (Refer to Exhibit B).

II. FLOOD PLAIN

The subject tract lies in Zone "X", (shaded) Areas of 500-year flood; areas for 100-year flood with average depths less than 1 square mile; and are protected by levees from 100-year flood. F.E.M.A.-F.I.R.M. Map No. 480334 0450 C, Map Revised June 6, 2000. Map Revised to Reflect LOMR: May 30, 2002. (Refer to Exhibit C).

III. SOIL CONDITIONS

A review of the Soil Survey of Hidalgo County indicates the subject tract lies in an area of predominantly Hidalgo (25) (28) sandy clay loam soil that has a low shrink-swell potential and is listed in Hydrological Group B. (Refer to Exhibit D)

IV. EXISTING CONDITIONS

The subject tract is currently undeveloped. The existing terrain has a grade of approximately (0.1%). Existing runoff (2.42 cfs) from the site is by form of sheet flow runs towards the southeast side of this tract.

V. PROPOSED CONDITIONS

The proposed conditions for this subject tract is for 2 lots for residential use. The storm runoff after development will increase 2.08 cfs for a total 4.5 cfs, I have calculated that 13,409 cf of storm runoff for a 50 year design frequency, will be detained within the property by existing natural low areas, and will be out falling into the re-graded road side ditch of Mile 4 ½ West Road. A 24 inch pipe with safety end treatment will be required at driveways.

☐ REJECTED	
☒ APPROVED FOR SUBMITTAL	
☒ TO H.C. PLANNING DEPT.	
☒ TO CITY	
☐ DISCHARGE PERMIT REQUIRED	
☐ DISTRICT FACILITY	
☐ CITY FACILITY	
☐ OTHER	
<i>Hector Garcia</i>	<i>2/25/21</i>
H.C.D.D. NO. 1	DATE



Guillermo A. Arratia
1/31/2021

DRAINAGE CALCULATIONS EXHIBIT "A"

AREA= 6.364 Ac. TxDOT Intensity Constants for $I=b/(Tc+d)^e$

Existing Conditions

Length=	1320	ft.	<u>10 year storm</u>
Slope=	0.1	%	b= 87
Cexist.=	0.2		e= 0.778
Time of Concentration=	127	min.	d= 9.2
Texist. =	127	min.	
Iexist. =	1.90	in/hr	
Qexist. =	2.42	cfs.	

Proposed Conditions

Length=	1320	ft.	<u>50 year storm</u>
Slope=	0.15	%	b= 99
Cfut.=	0.25		e= 0.749
Time of Concentration=	105	min.	d= 9.2
Tfut.=	105	min.	
Ifut.=	2.85	in/hr	
Qfut.=	4.5	cfs.	
Qin=	1.59	i	

tp (Min.)	I50 (in/hr)	Qin (cfs)	Vin (cubic ft.)	Qout (cfs)	Vout (cubic ft.)	Ev (cubic ft.)
10	10.83	17.22	10334	2.42	8332	2,002
20	7.91	12.58	15098	2.42	9059	6,039
30	6.34	10.09	18164	2.42	9786	8,378
40	5.35	8.51	20428	2.42	10513	9,915
50	4.66	7.41	22231	2.42	11240	10,991
60	4.14	6.59	23734	2.42	11967	11,767
70	3.75	5.96	25027	2.42	12694	12,333
80	3.43	5.45	26165	2.42	13421	12,744
90	3.16	5.03	27184	2.42	14148	13,036
110	2.76	4.39	28955	2.42	15601	13,353
120	2.60	4.13	29737	2.42	16328	13,409

Storage Requires= 13,409 cubic feet = 0.31 ac-ft



Guillermo A. Arratia
1/4/2021

Water Management Manual

permanent high water table, soils with a clay pan or clay layer at or near the surface, and shallow soils over nearly impervious material.

Table 1: Runoff coefficients for the Rational method

Hydrologic Soil Group	A			B			C			D		
Recurrence Interval	5	10	100	5	10	100	5	10	100	5	10	100
Land Use Or Surface Characteristics												
Business:												
A. Commercial Area	.75	.80	.95	.80	.85	.95	.80	.85	.95	.85	.90	.95
B. Neighborhood Area	.50	.55	.65	.55	.60	.70	.60	.65	.75	.65	.70	.80
Residential:												
A. Single Family	.25	.25	.30	.30	.35	.40	.40	.45	.50	.4	.51	.55
B. Multi-Unit (Detached)	.35	.40	.45	.40	.45	.50	.45	.50	.55	.51	.52	.65
C. Multi-Unit (Attached)	.45	.50	.55	.50	.55	.65	.55	.60	.70	.60	.65	.75
D. 1/2 Lot Or Larger	.20	.20	.25	.25	.25	.30	.35	.40	.45	.40	.45	.50
E. Apartments	.50	.55	.60	.55	.60	.70	.60	.65	.75	.65	.70	.80
Industrial												
A. Light Areas	.55	.60	.70	.60	.65	.75	.65	.70	.80	.70	.75	.90
B. Heavy Areas	.75	.80	.95	.80	.85	.95	.80	.85	.95	.80	.85	.95
Parks, Cemeteries												
Playgrounds	.10	.10	.15	.20	.20	.25	.30	.35	.40	.35	.40	.45
Schools	.30	.35	.40	.40	.45	.50	.45	.50	.55	.50	.55	.65
Railroad Yard Areas	.20	.20	.25	.30	.35	.40	.40	.45	.45	.45	.50	.55
Streets												
A. Driveways	.85	.90	.95	.85	.90	.95	.85	.90	.95	.85	.90	.95
B. Sidewalks, Walks, & Roofs	.25	.25	.30	.35	.40	.45	.40	.45	.50	.40	.45	.50
Lawns												
A. 50%-75% Grass (Fair Condition)	.10	.10	.15	.20	.20	.25	.30	.35	.40	.30	.35	.40
B. 75% Or More Grass (Good Condition)	.05	.05	.10	.15	.15	.20	.25	.25	.30	.30	.35	.40
Undeveloped Surface ¹ (By Slope) ²												
A. Flat (0-1%)	0.04-0.09			0.07-0.12			0.11-0.16			0.15-0.20		
B. Average (2-6%)	0.09-0.14			0.12-0.17			0.16-0.21			0.20-0.25		
C. Steep	0.13-0.18			0.18-0.24			0.23-0.31			0.28-0.38		

¹ Undeveloped Surface Definition: Forest and agricultural land, open space.

² Source: Storm Drainage Design Manual, Erie and Niagara Counties Regional Planning Board.

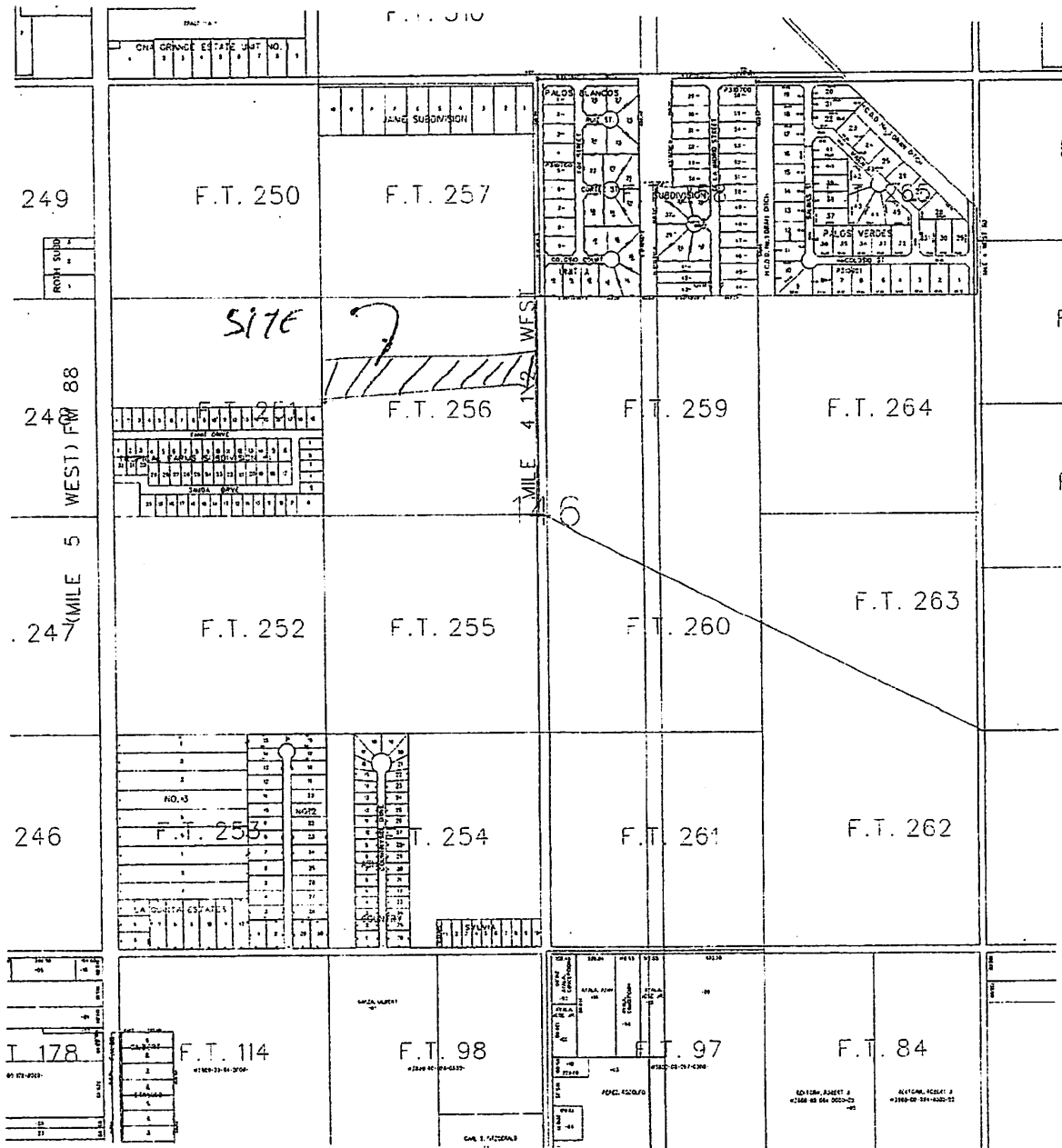
- Composite runoff analysis.** Care should be taken not to average runoff coefficients for large segments that have multiple land uses of a wide variety (i.e., business to agriculture). However, within similar land uses, it is often desirable to develop a composite runoff coefficient based on the percentage of different types of surface in the drainage area. The composite procedure can be applied to an entire drainage area, or to typical sample blocks as a guide to selection of reasonable values of the coefficient for an entire area.
- Rainfall intensity.** The intensity (I) is the average rainfall rate in inches per hour for the period of maximum rainfall of a given frequency, with a duration equal to the time of concentration. The time of concentration is defined as the time required for a drop of water falling on the most remote point of a drainage basin to reach the outlet in question. The time of concentration is

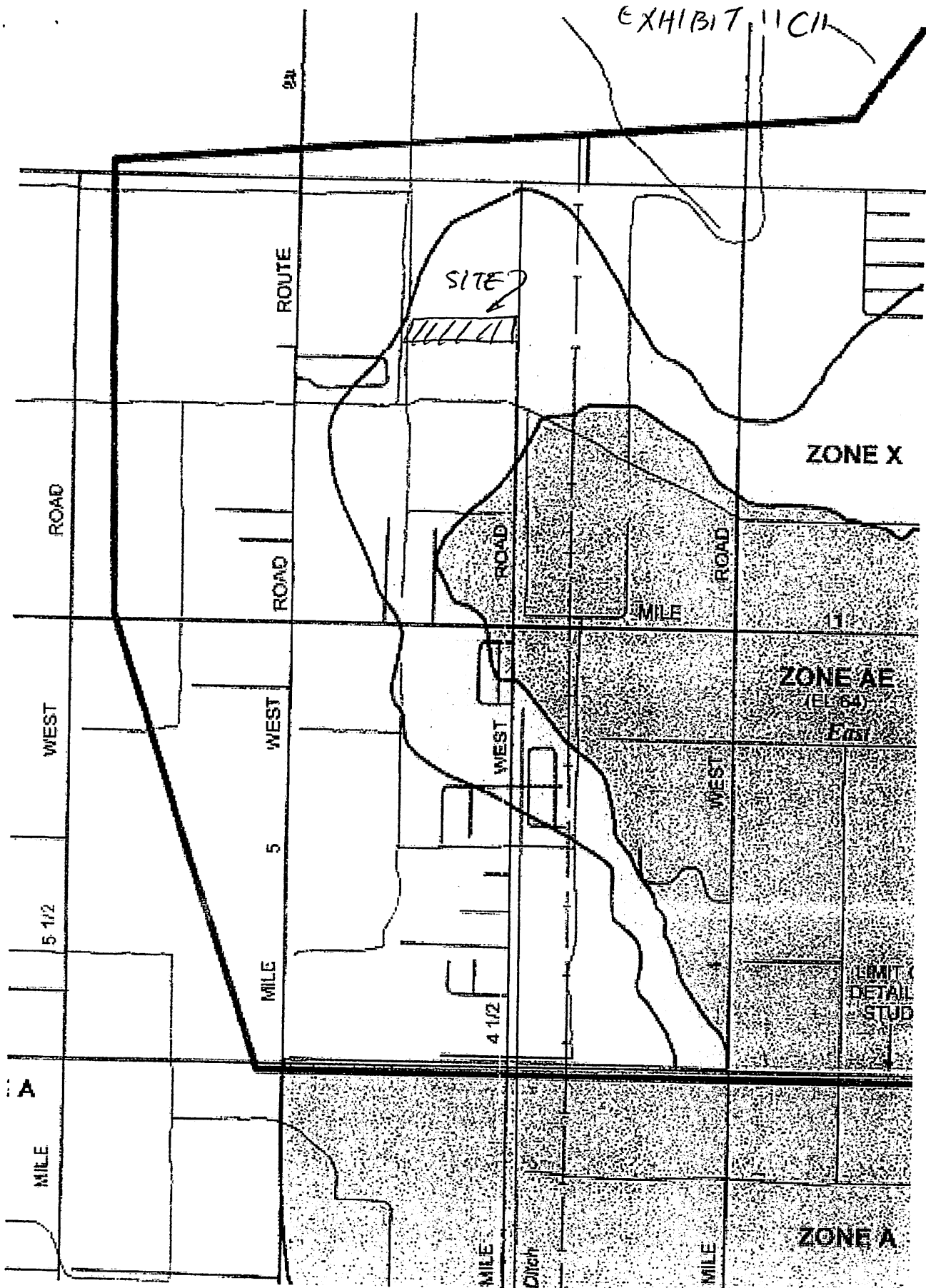
BRIDGE DIVISION HYDRAULIC MANUAL
2 - 19
12-03

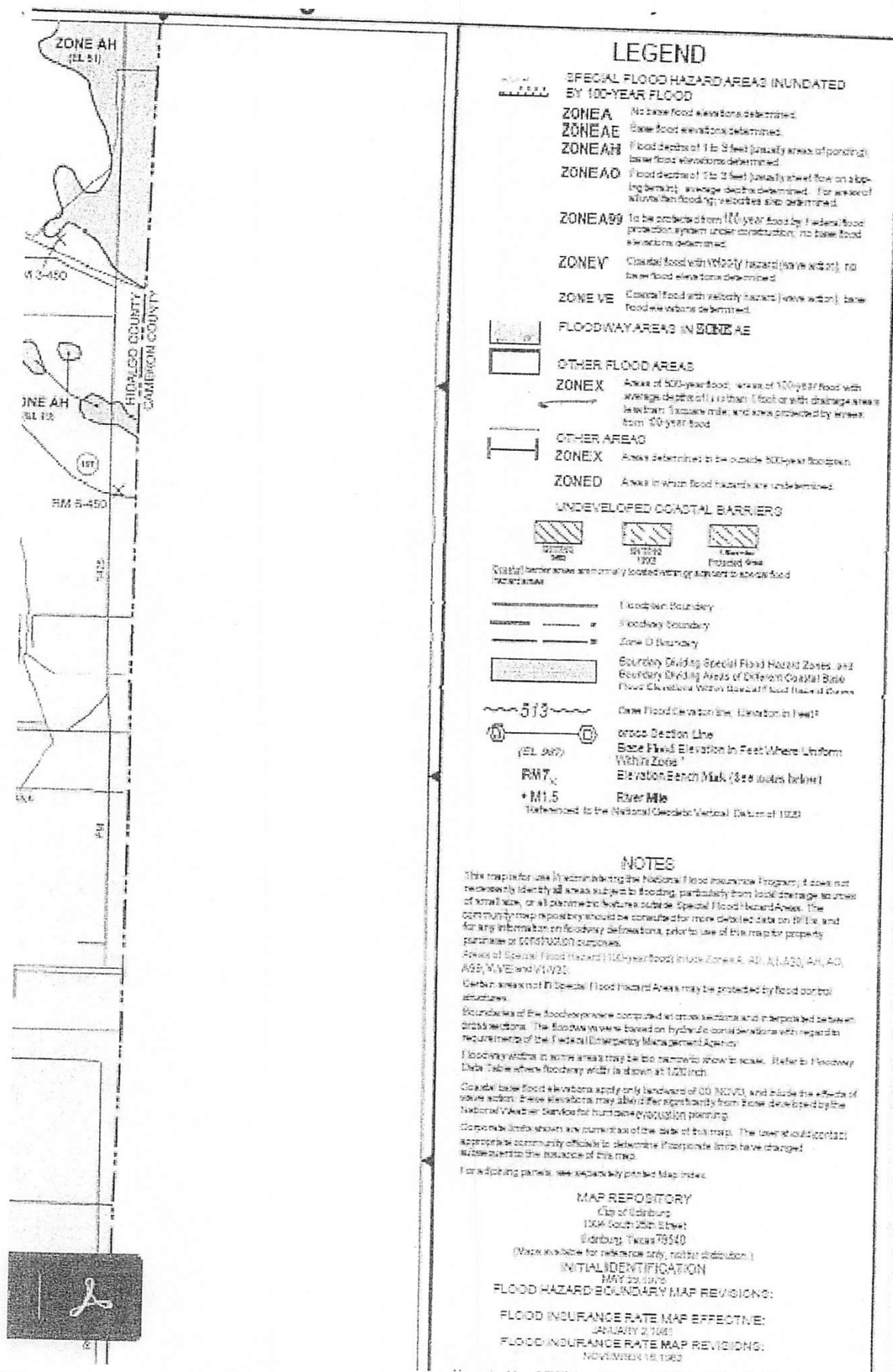
TABLE 6. CONSTANTS FOR USE IN FORMULA 1 = $b/(t_c + d)^e$ (Continued)

COUNTY	2 year				5 year				10 year				25 year				50 year				100 year			
	e	b	d		e	b	d		e	b	d		e	b	d		e	b	d		e	b	d	
Hempfl	0.845	56	10.6		0.861	76	10.7		0.842	87	10.7		0.843	103	10.7		0.840	115	10.7		0.847	132	10.7	
Hendersen	0.800	60	8.7		0.796	77	9.0		0.770	79	9.0		0.773	93	9.0		0.752	93	9.0		0.749	102	8.7	
Hidalgo	0.831	74	9.6		0.795	80	9.2		0.778	87	9.2		0.771	98	9.2		0.745	98	9.2		0.740	103	8.7	
Hill	0.799	57	8.2		0.790	72	8.8		0.777	78	8.8		0.773	91	8.8		0.764	98	8.8		0.759	105	8.2	
Hockley	0.832	46	9.9		0.832	60	10.0		0.807	64	10.0		0.812	78	10.0		0.810	87	10.0		0.817	101	9.9	
Hood	0.782	48	7.7		0.773	63	8.3		0.773	75	8.3		0.782	90	8.3		0.773	98	8.3		0.766	105	7.7	
Hopkins	0.788	54	8.3		0.783	70	9.1		0.775	77	9.1		0.767	88	9.1		0.754	93	9.1		0.750	100	8.3	
Houston	0.797	63	8.2		0.780	73	8.3		0.757	78	8.3		0.748	86	8.3		0.740	93	8.3		0.727	94	8.2	
Howard	0.805	42	9.2		0.800	56	10.1		0.802	65	10.0		0.796	76	10.1		0.791	85	10.1		0.788	95	9.2	
Hudspeth	0.800	27	9.4		0.840	44	11.4		0.827	50	11.4		0.819	60	11.4		0.856	78	11.4		0.833	77	7.4	
Hunt	0.793	55	8.4		0.786	69	9.2		0.783	80	9.2		0.776	93	9.2		0.764	99	9.2		0.758	104	8.4	
Hutchinson	0.860	56	10.4		0.844	70	11.0		0.837	80	11.0		0.851	100	11.0		0.863	121	11.0		0.837	115	10.4	
Irion	0.780	37	8.1		0.789	55	9.6		0.775	61	9.6		0.783	77	9.6		0.759	81	9.6		0.770	90	8.1	
Jack	0.789	48	8.5		0.779	63	8.5		0.766	75	8.5		0.782	88	8.5		0.782	98	8.5		0.775	109	8.5	
Jackson	0.809	68	8.8		0.769	73	8.5		0.757	86	8.5		0.745	89	8.5		0.737	95	8.5		0.720	97	8.8	
Jasper	0.782	55	8.1		0.743	65	7.4		0.736	73	7.4		0.719	78	7.4		0.715	84	7.4		0.700	87	8.1	
Jeff Davis	0.821	35	9.6		0.865	63	10.8		0.853	69	10.8		0.802	65	10.8		0.818	77	10.8		0.832	93	9.6	
Jefferson	0.799	74	9.2		0.733	65	7.5		0.727	74	7.5		0.730	85	7.5		0.710	87	7.5		0.687	84	9.2	
Jim Hogg	0.881	73	9.4		0.813	82	9.4		0.786	87	9.4		0.780	98	9.4		0.756	99	9.4		0.750	104	9.4	
Jim Wells	0.825	71	9.4		0.797	79	8.9		0.765	80	8.9		0.768	98	8.9		0.748	98	8.9		0.740	102	9.4	
Johnson	0.789	52	8.1		0.779	67	8.6		0.773	77	8.6		0.776	90	8.6		0.771	99	8.6		0.763	106	8.1	
Jones	0.780	41	8.5		0.771	55	9.0		0.794	73	9.0		0.780	82	9.0		0.803	102	9.0		0.784	104	8.5	
Karnes	0.800	60	8.8		0.791	75	8.9		0.766	77	8.9		0.767	91	8.9		0.751	95	8.9		0.749	106	8.8	
Kaufman	0.797	57	8.6		0.790	72	9.0		0.776	80	9.0		0.777	93	9.0		0.763	98	9.0		0.757	104	8.6	
Kendall	0.791	53	8.6		0.771	64	8.3		0.773	74	8.3		0.764	84	8.3		0.762	94	8.3		0.763	104	8.6	
Kendry	0.826	73	9.2		0.793	79	8.7		0.771	84	8.7		0.763	94	8.7		0.735	96	8.7		0.731	100	9.2	
Kent	0.801	43	9.0		0.801	60	10.0		0.796	70	10.0		0.806	85	10.0		0.799	93	10.0		0.798	104	9.0	
Kerr	0.789	49	8.4		0.765	58	8.0		0.764	69	8.0		0.763	80	8.0		0.768	91	8.0		0.768	104	8.4	
Kimble	0.775	42	8.2		0.788	53	7.6		0.763	66	7.6		0.757	75	7.6		0.778	88	7.6		0.768	100	8.2	
King	0.804	45	9.4		0.794	59	9.6		0.804	74	9.6		0.802	87	9.6		0.811	103	9.6		0.802	111	9.4	
Kinney	0.812	53	8.8		0.780	62	8.0		0.773	70	8.0		0.777	82	8.0		0.790	97	8.0		0.781	108	8.8	
Krieberg	0.826	72	9.4		0.794	79	8.7		0.764	81	8.7		0.761	93	8.7		0.739	96	8.7		0.731	99	9.4	
Knox	0.800	46	9.4		0.788	58	9.3		0.801	76	9.3		0.798	88	9.3		0.809	104	9.3		0.798	111	9.4	
Lamar	0.783	53	8.2		0.777	66	8.9		0.770	74	8.9		0.769	87	8.9		0.759	93	8.9		0.752	98	8.2	
Lamb	0.837	47	10.1		0.828	60	9.6		0.800	63	9.6		0.821	80	9.6		0.818	88	9.6		0.820	103	10.1	

EXHIBIT "B"







and 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) 638-6520.



SCALE 1" = 2000'

2000

0

2000

1" = 2000'

NFIP

PANEL 0450 C

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

**HIDALGO COUNTY,
TEXAS
(UNINCORPORATED AREAS)**

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER

480334 0450 C

MAP REVISED:

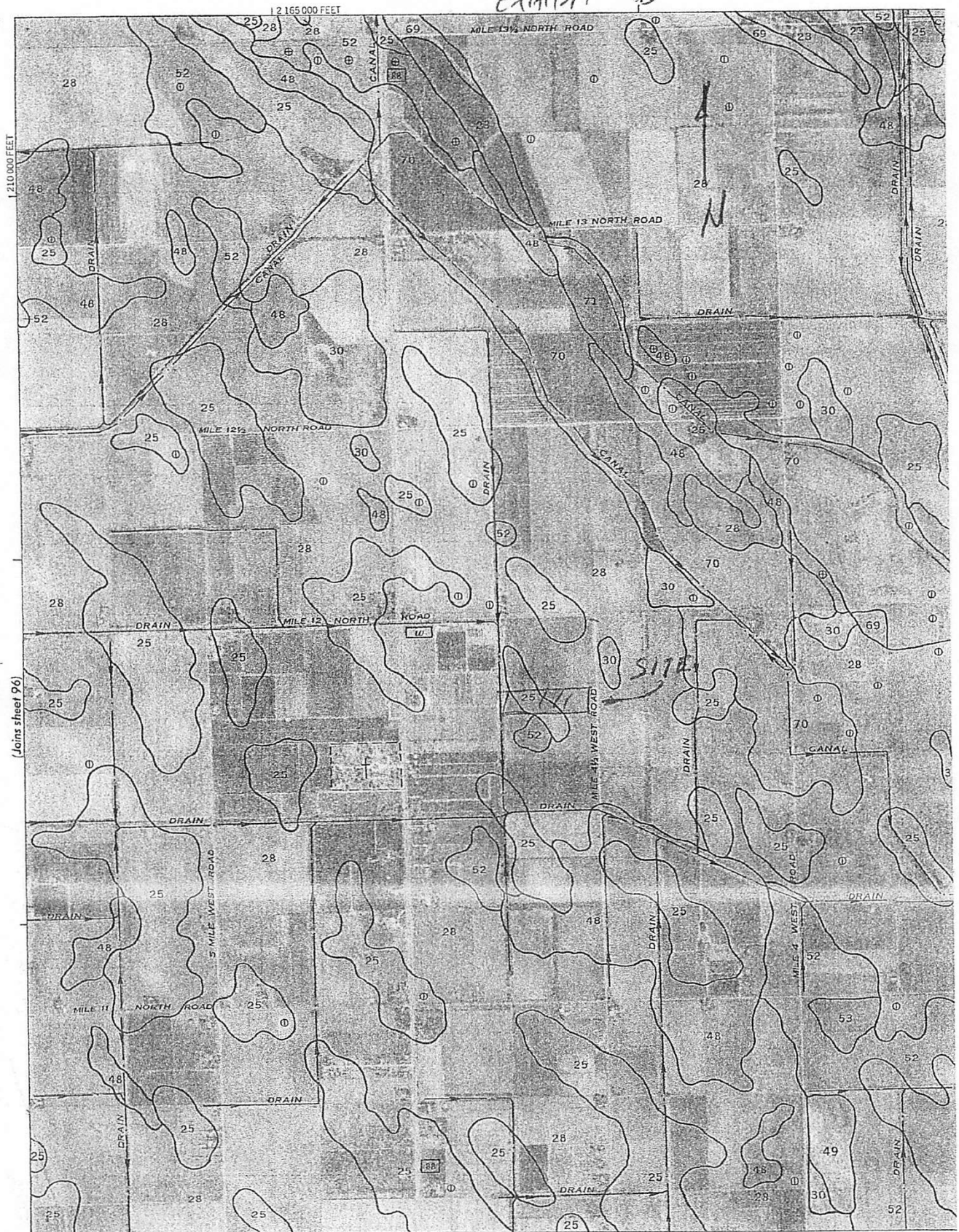
JUNE 6, 2000



REVISED TO
REFLECT LOMR
DATE: 11/1/2002

Federal Emergency Management Agency

EXHIBIT "D"



166

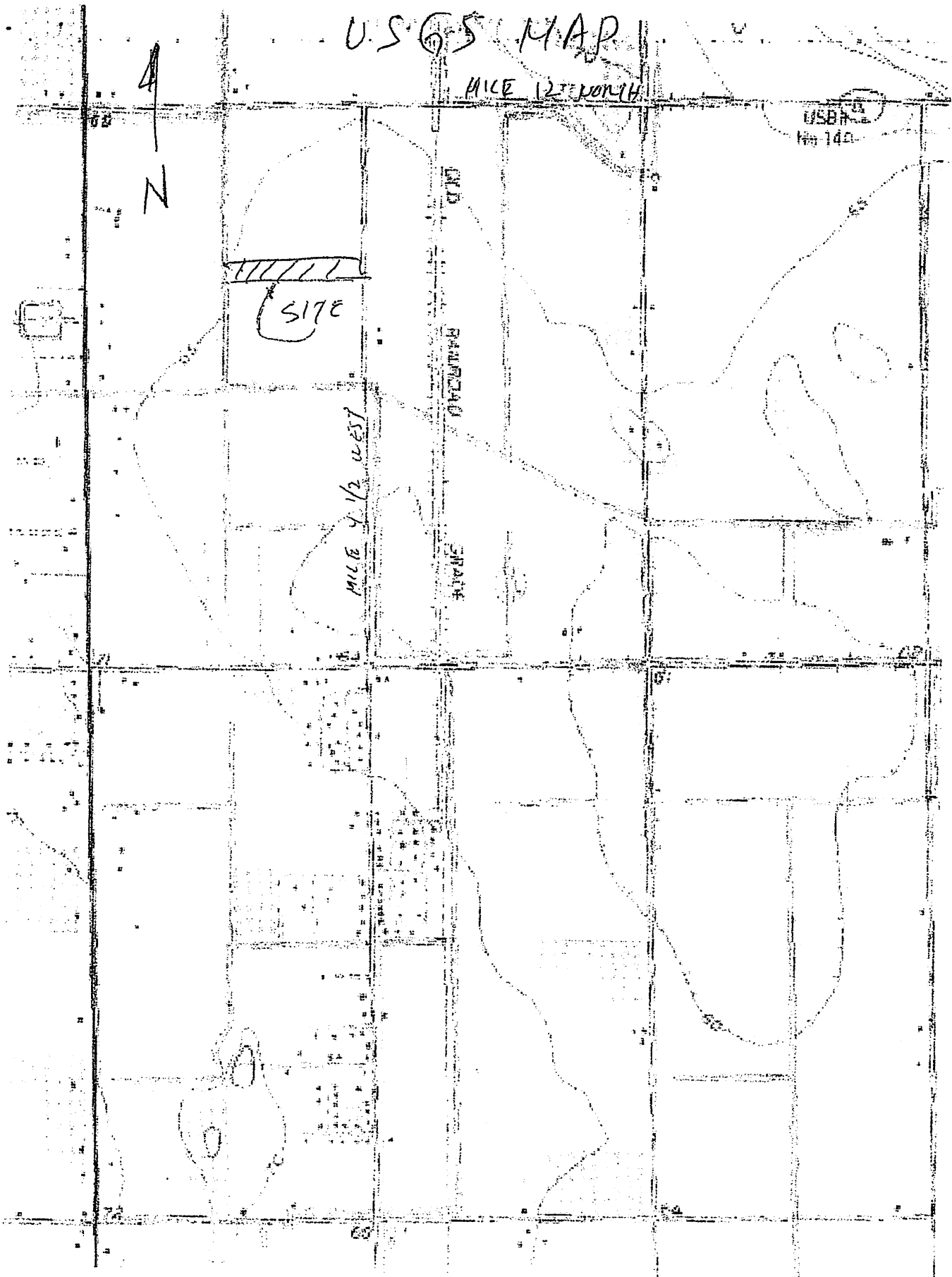
Soil survey

TABLE 18.--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	Hydro-logic group	Flooding			High water table			Cemented pan		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hard-ness	Uncoated steel	Concrete
1.* Arents					<u>Ft</u>			<u>In</u>			
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	D	None-----	---	---	5.0-6.0	Apparent	Sep-May	---	---	High-----	Low.
8----- Comitas	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
9, 10, 11----- Delfina	B	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.
----- Randado-----	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	+2-6.0	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	D	None-----	---	---	5.0-6.0	---	---	---	---	High-----	Moderate.
21:* Harlingen-----	D	None to rare	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
22, 23, 24----- Hebbronville	B	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
(25, 26, 27, (28) 29----- Hidalgo	(B)	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
30----- Hidalgo	B	None-----	---	---	2.5-5.0	Apparent	Sep-May	---	---	High-----	Low.
31:* Hidalgo-----	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
32:* Jimenez-----	C	None-----	---	---	>6.0	---	---	7-20	Thin	High-----	Low.

See footnotes at end of table.





Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: June 2, 2021	Agenda Item No. (to be assigned by PCE): V.C.
From: Rebekah de la Fuente, Planning Director, on behalf of Trevino Engineering.	
Subject/Agenda Item: Discussion and consideration for the Final Plat for Moreland Apartments Subdivision– being 2.03 acres out of Farm Tract 1033, the West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located on the Northwest corner of E. Moreland Dr. and Plaza Los Encinos Possible Action.	
Discussion/Overview: The proposed seven (7) lot subdivision is located inside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through a 8” waterline and sewer by City of Weslaco services through an 6” sewer line. The property is within a Flood Zone “X”.	
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: [X] 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: MORELAND APARTMENTS SUBDIVISION

Location: NORTHWEST CORNER OF E. MORELAND DR. AND PLAZA LOS ENCINOS IN WESLACO, TEXAS

Legal Description: A 2.03-ACRE TRACT OF LAND OUT OF FARM TRACT 1033, THE WEST AND ADAMS TRACT SUBDIVISION, AS PER MAP THEREOF RECORDED VOLUME 2, PAGED 34-37, OF THE MAP RECORDS OF SAID COUNTY; BEING ON THE NORTHWEST CORNER OF THE PLAZA LOS ENCINOS DRIVE AND MORELAND DRIVE INTERSECTION IN THE CITY OF WESLACO.

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 SECONDARY & HIGHWAY DISTRICT

Existing Land Use: R-2 Proposed Land Use: DUPLEX & APARTMENTS

Number of Lots Proposed: 7 Gross Acreage: 2.098-ACRE

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: LEONARDO MUNOZ Telephone: _____

Address: 3533 MORELAND DRIVE SUITE "A" Fax: _____

City: WESLACO State: TX Zip: 78596 E-mail: LEO.MUNOZ@WESLACOTX.GOV

ENGINEER INFORMATION

Name: IDEN I. TREVINO Telephone: 956-283-8847

Address: 200 S. 10TH ST. STE 1303 Fax: _____

City: MCALLEN State: TX Zip: 78501 E-mail: IDENT@TREVINOENGINEERING.COM
KARIME@TREVINOENGINEERING.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: CITY OF WESLACO

☒ YES ☐ NO Electric Company: A E P

☐ YES ☒ NO Phone Utility _____	☐ 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

\$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

AUTHORIZATION AND ACKNOWLEDGEMENTS

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 Signature: Date: 04/14/2021

Authorized Agent Signature: _____ Date: 04/14/2021

THIS PAGE FOR STAFF USE ONLY

General Comments:

Proposed MORELAND APARTMENTS SUBDIVISION

Weslaco, Texas

DRAINAGE REPORT

Prepared For:

**Hidalgo County Drainage District
902 N. Doolittle
Edinburg, Texas, 78541**

Prepared By:

Iden I. Treviño, P.E.

Reg. Engineering No. F-7906

TREVIÑO ENGINEERING

**200 S. 10th Street, Suite 1303 Tel 956.283.8847
McAllen, Texas 78501**

February 2021



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DRAINAGE REPORT
Moreland Apartments Subdivision
Weslaco, Texas

Introduction:

The proposed Moreland Apartments Subdivision is located on the northwest corner of E. Moreland Dr. and Plaza Los Encinos in Weslaco, Texas. The property is 2.098 acres gross area and 1.709 acres net area. The propose Moreland Apartments Subdivision will consist of 7 lots for apartments development. This report is intended to fulfill the drainage requirements of Moreland Apartments Subdivision. Please see the attached Plat for more details.

This property is located on the northwest corner of E. Moreland Dr. and Plaza Los Encinos in Weslaco, Texas, within the City limits of Weslaco, Texas. Currently, the property is vacant. Commercial developments are adjacent to the property to the west and south, a residential development to the east. Please see the attached Location Map and Plat for reference.

FEMA:

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, the subdivision is located in "*Zone X*" Community Panel Number 480334 0450 C Map Revised , June 6, 2000. "*Zone X*" are areas determined to be outside of the 500-year flood plain; Base flood elevation and flood hazard factors not determined. Please see the attached FEMA Maps for reference. The QUAD Maps has also been included in Attachments.

Soil:

According to the Soil Survey Report prepared for Hidalgo County by the U.S.D.A. Soil Conservation Services, the site consists of two soil types; (25)-Hidalgo fine sandy loam, with 0 to 1 percent slopes; **Soil Group B** defined as 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. (28)-Hidalgo sandy clay loam, with 0 to 1 percent slopes; **Soil Group B** defined as 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. More details may be found in the Soil Properties portion of this document.

Existing Drainage Conditions:

Existing storm runoff within this property currently flows overland in both west and south directions. Runoff currently flows into drainage system along Moreland Drive.

Drainage Requirements:

The post-developed storm runoff in the amount of 1575 cubic feet will be detained within detention ponds at each lot. The existing peak runoff from a 10-year storm determined using the rational method is 0.42 cfs for a 10-year return frequency and the anticipated peak runoff after development is calculated to be 1.77 cfs for a 50-year return frequency for each lot.

In accordance with the County's drainage requirements of not increasing the amount of existing runoff, we have calculated that 1575 cubic feet of storm runoff to be detained within detention ponds. Lot owner will main the detention pond.

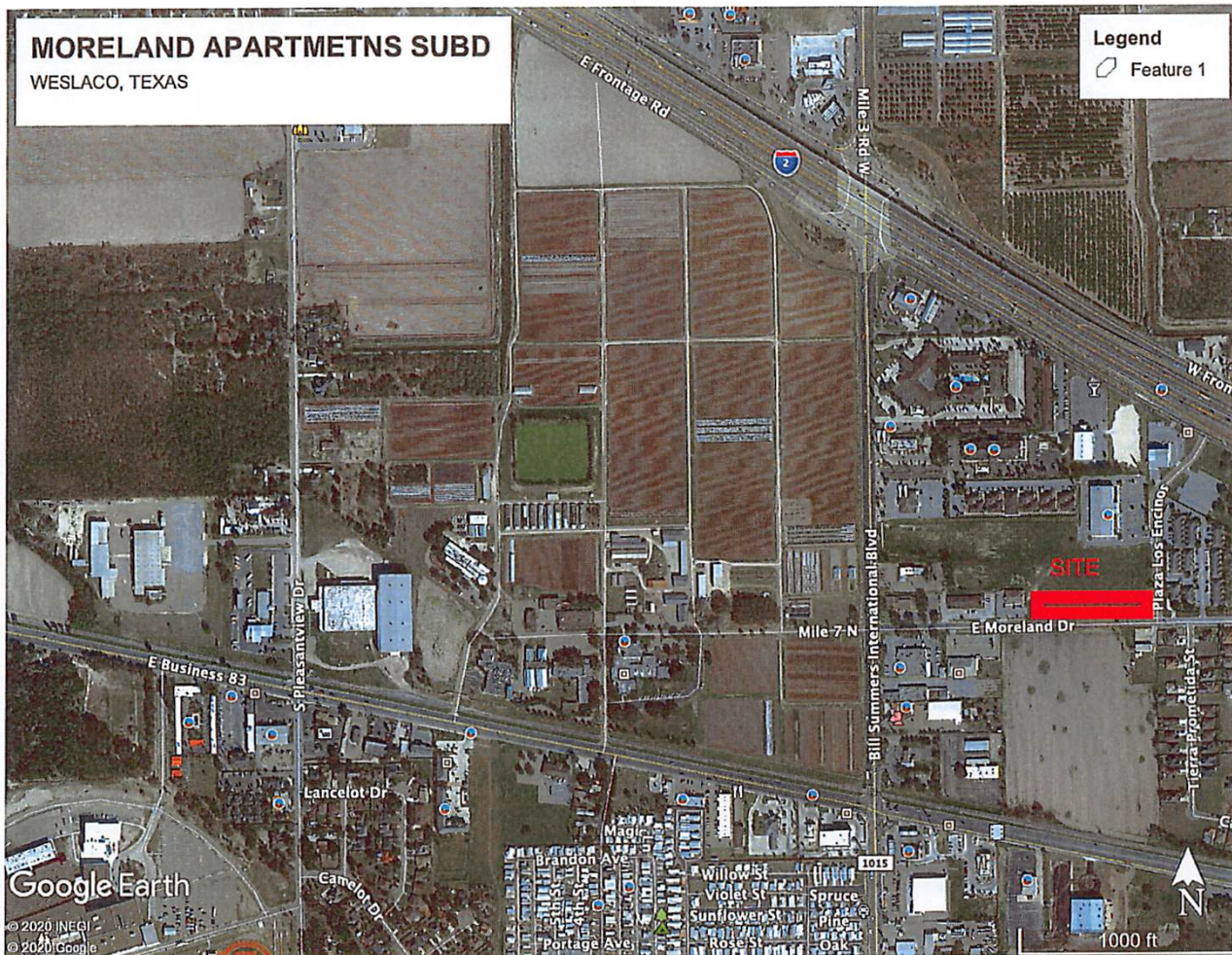


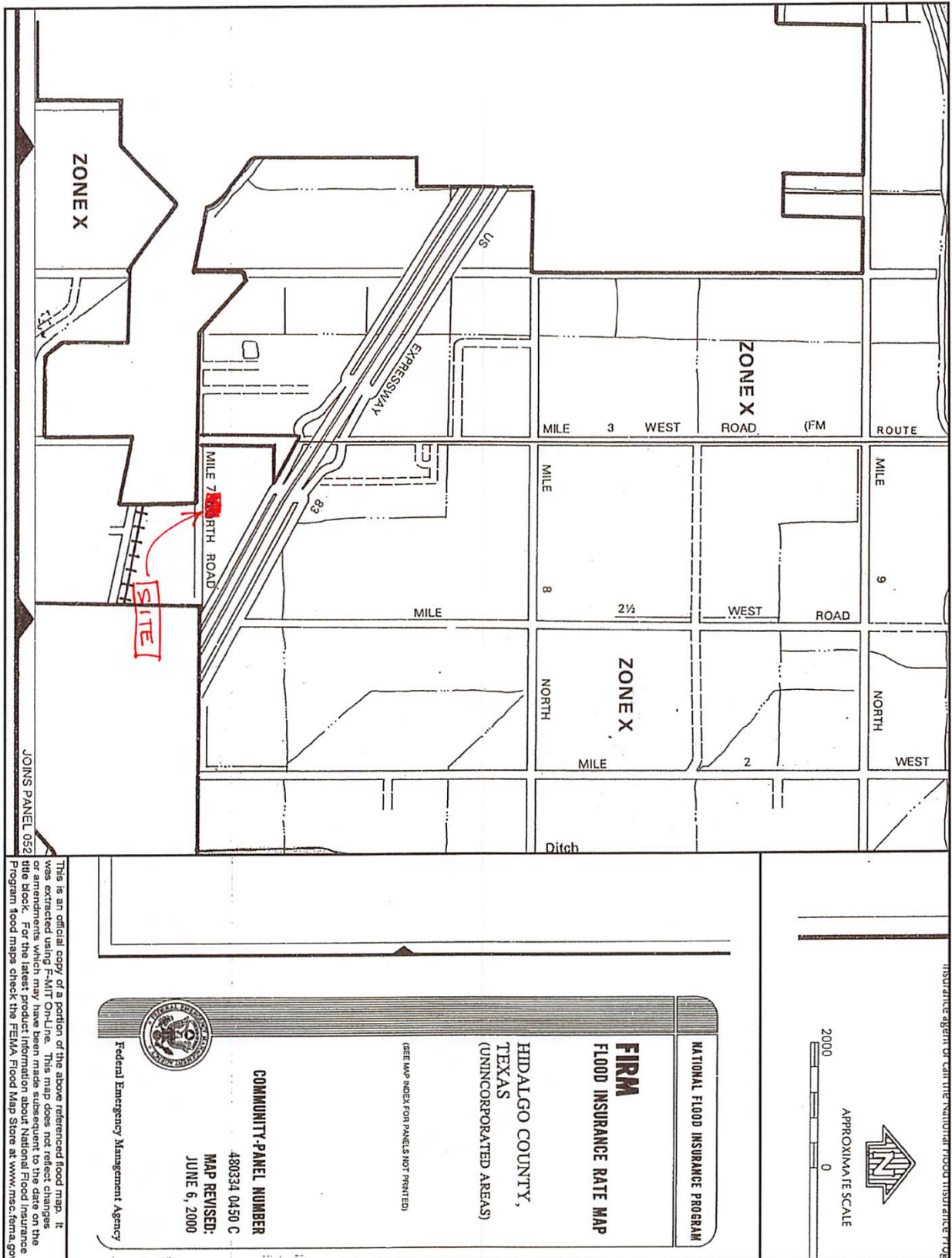
Iden I. Trevino, P.E.
Treviño Engineering F-7906

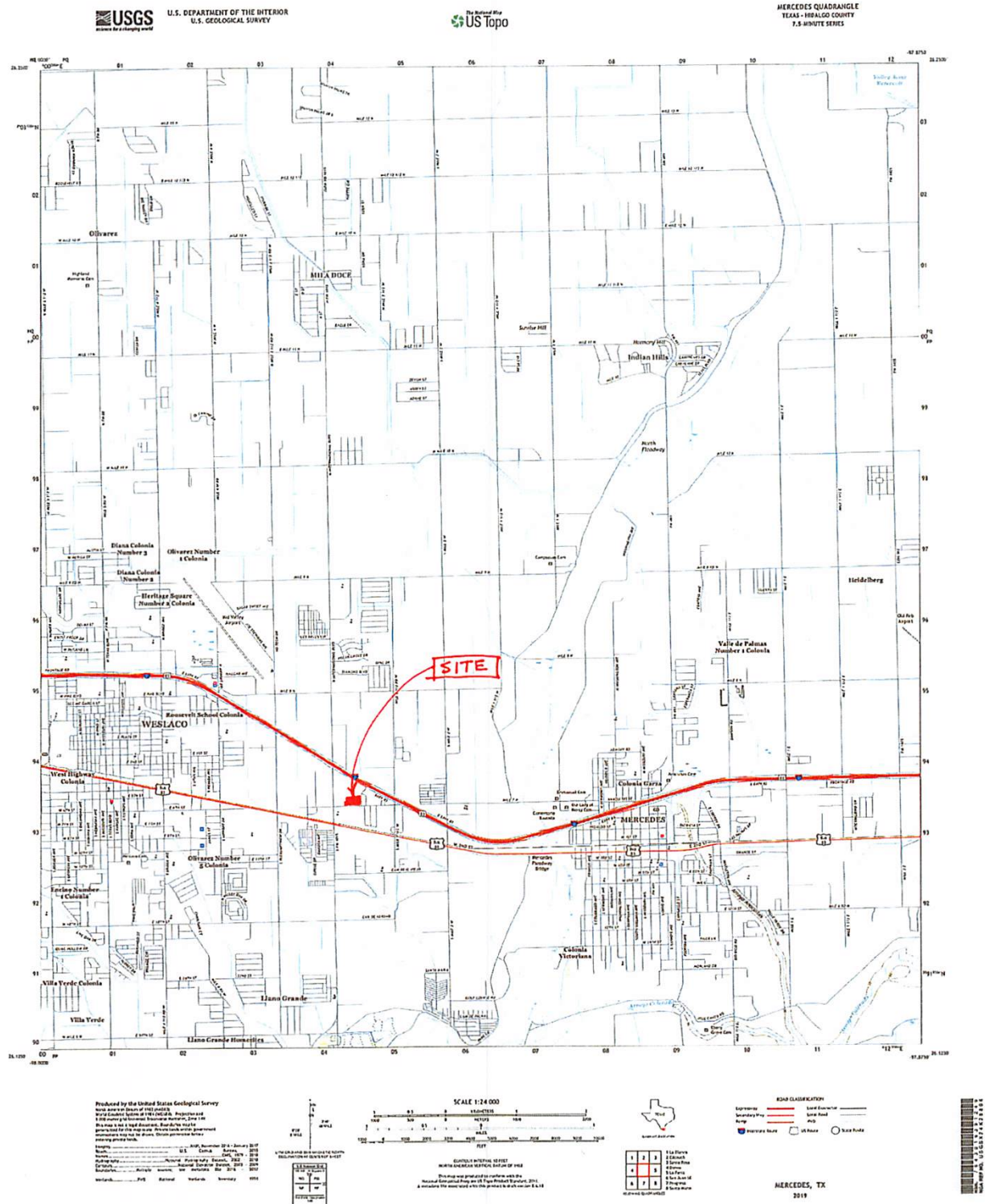


ATTACHMENTS









DRAINAGE CALCULATIONS

TREVIÑO ENGINEERING
FIRM REGISTRATION NO. F-7906
200 S. 10th St. Ste. 1303
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EXHIBIT A
Drainage Calculations, Area 1

Project Name: MORELAND APARTMENTS SUBDIVISION
Project No.: 20-196

I. General Information

1. Governing Equation: $Q = CIA$ (Rainl. Method), TxDOT IDF Curves for **Hidalgo County** & Mannings Equation (normal depth calculations)

2. TxDOT Intensity Constants for $i = b/(Tc+d)^e$

Undeveloped	Developed	Slope =	%	proposed	Length =	Drop =
(1) year storm	10 year storm	0.38	0.51	existing	130 ft	6 in
b = 0.77	b = 0.77	k = 0.457	k = 0.616	grassed waterway	130 ft	6 in
e = 0.77	e = 0.77	Ku = 1.27		paved area		
d = 9.2	d = 9.2					

where Tc, is calculated with an average overland flow velocity (0-10% slopes):

$$V = (Ku)(k)(Sp)^{1/2}$$

a) existing unimproved conditions: vel = 1.07 ft/sec
b) proposed commercial conditions: vel = 1.26 ft/sec

3) Accepted Runoff Coefficients

a) Building/Roofs	c = 0.90	Runoff	Description
b) Asphalt	c = 0.90	Coeff.	
c) Detention/Trench Trough	c = 0.20		
d) Concrete	c = 0.90		
e) Unimproved area (grass)	c = 0.20		
4) Total Area =	0.242 ac	0.68	Cumulative Areas
Area 1	0.096 ac	0.90	Building/Roofs
Area 2	0.000 ac	0.90	Asphalt
Area 3	0.023 ac	0.20	Detention/Trench Trough
Area 4	0.059 ac	0.90	Concrete
Area 5	0.054 ac	0.20	Unimproved area (grass)

FROM SITE PLAN
C
0.90 ROOF : $4,166/43560 = 0.096$
0.20 DETENTION : $1000/43560 = 0.023$
0.90 CONCRETE : $3,027/43560 = 0.069$
0.20 Unimproved : $2340/43560 = 0.054$
green

Weighted Runoff C = 0.68

II. Existing Conditions

A) Drainage area	Length of runoff =	130 ft
Tc =	$130 / (V \text{ ft/sec} \times 60 \text{ sec}) =$	2.0 min.
I(10 yr) = $b/(Tc+d)^e =$	8.73 in/hr	Use 10.0 min
Q=CIA=	0.20 8.73 0.24 =	0.42 cfs

III. Ultimate Developed Conditions

Weighted Runoff Coefficient

$$C = (C1A1 + C2A2 + C3A3 + C4A4 + \dots) / A_{\text{total}} = 0.68$$

A) Drainage area	Length of runoff =	130 ft
Drainage area =	0.24 ac	
Tc =	$130 / (V \text{ ft/sec} \times 60 \text{ sec}) =$	1.7 min.
I(10 yr) = $b/(Tc+d)^e =$	10.83 in/hr	Use 10.0 min
Q=CIA=	0.68 10.83 0.24 =	1.77 cfs

IV. Comments

Qdev = 1.77 cfs
Qexist = 0.42 cfs
Difference = 1.35 cfs



TREVIÑO ENGINEERING

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Project Name: MORELAND APARTMENTS SUBD
20-196

Exhibit B Detention Storage Requirements for

Runoff C = 0.68 Exist Runoff C = 0.2
Area = 0.242 Exist. Intensity = 8.73
Post Dev. Tc = 10 min

Time (minutes)	1 50 yrs (in./hr.)	Q (c.f.s.)	Vol. (c.f.)	Qexist. (c.f.s.)	Vol. exist. (c.f.)	Vol. stored (c.f.)
5	13.57	2.23	670	0.42	190	480
10	10.83	1.78	1,069	0.42	254	815
15	9.10	1.50	1,348	0.42	317	1,031
20	7.91	1.30	1,562	0.42	380	1,181
25	7.03	1.16	1,734	0.42	444	1,290
30	6.34	1.04	1,879	0.42	507	1,372
35	5.80	0.95	2,003	0.42	570	1,433
40	5.35	0.88	2,113	0.42	634	1,479
45	4.98	0.82	2,211	0.42	697	1,514
50	4.66	0.77	2,299	0.42	761	1,539
55	4.38	0.72	2,380	0.42	824	1,556
60	4.14	0.68	2,455	0.42	887	1,568
65	3.93	0.65	2,524	0.42	951	1,573
70	3.75	0.62	2,589	0.42	1,014	1,575
75	3.58	0.59	2,649	0.42	1,077	1,572
80	3.43	0.56	2,706	0.42	1,141	1,565
85	3.29	0.54	2,760	0.42	1,204	1,556
90	3.16	0.52	2,812	0.42	1,268	1,544
95	3.05	0.50	2,861	0.42	1,331	1,530
100	2.94	0.48	2,907	0.42	1,394	1,513
105	2.85	0.47	2,952	0.42	1,458	1,494



Runoff Coefficient	Runoff Coefficient
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
Reference: FHWA, <i>Urban Drainage Design Manual HEC-22</i> , (2001)	

Table 3-3: Runoff Coefficients

In order to assist designers, a flow rate determination table is included in Appendix A.

SOIL PROPERTIES



A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Hidalgo County, Texas

**MORELAND APARTMENTS
SUBD**



December 8, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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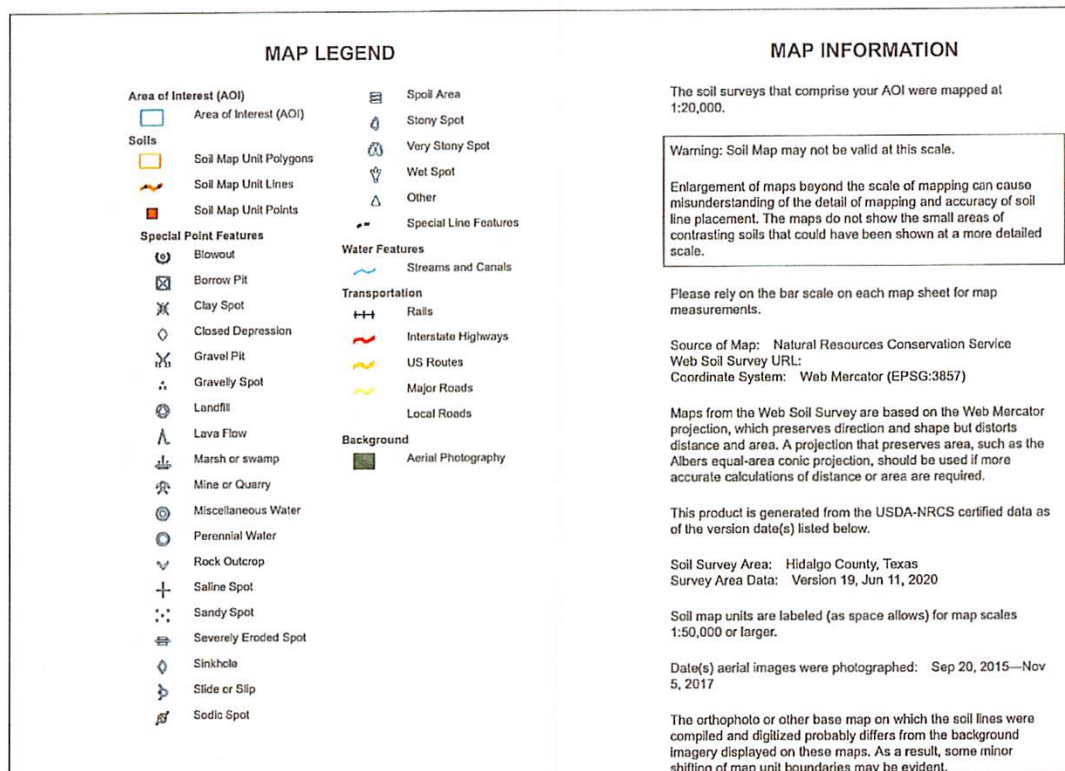
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



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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	0.8	37.4%
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	1.3	62.6%
Totals for Area of Interest		2.0	100.0%

Map Unit Descriptions

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, 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 and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils 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. Other minor components, however, have properties and behavioral 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,

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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*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one 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.

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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
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 content: 35 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water capacity: Moderate (about 7.8 inches)

Interpretive groups

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

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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: R083EY023TX - Sandy Loam
Hydric soil rating: No

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

Map Unit Setting

National map unit symbol: 2sxxl
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

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Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
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 content: 35 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water capacity: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 2c
Hydrologic Soil Group: B
Ecological site: R083DY019TX - Gray Sandy Loam
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: R083DY025TX - Clay Loam
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: R083DY025TX - Clay Loam
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

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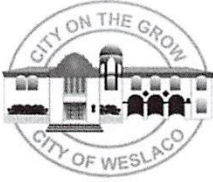
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United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf



**Planning & Zoning Commission
Standardized Agenda Request Form**

Date of Meeting: June 2, 2021	Agenda Item No. (to be assigned by PCE): V.D.
From: Rebekah de la Fuente, Planning Director, on behalf of Javier Hinojosa Engineering.	
Subject/Agenda Item: Discussion and consideration for the Final Plat for Ten fifteen Subdivision– being 10.33 acres being a resubdivision of lots 1A,2A,3A, 4A,5A and 6A, out of Plaza Diez Quince Subdivision, Weslaco, Hidalgo County, Texas located on the Northeast corner of F.M. 1015 and Mile 6 North. Possible Action.	
Discussion/Overview: The proposed thirty-two (32) lot subdivision is located inside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through an 8” waterline and sewer by City of Weslaco services through an 8” 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 Final Plat.	
Additional Action Prompted: [X] 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

PIAT-000059-2021

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: Ten Fifteen Subdivision

Location: Northeast corner of F.M. 1015 and Mile 6 North (18th Street)

Legal Description: 10.33 Acres being a resubdivision of Lots 1A, 2A, 3A, 4A, 5A and 6A, out of Plaza Diez Quince Subdivision as recorded in Volume 55, Page 103, Hidalgo County Map Records.

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 Secondary and Highway District

Existing Land Use: B-2 Proposed Land Use: Duplexes and Apartments

Number of Lots Proposed: 32 Gross Acreage: 10.33

Title Report Submitted: ☒ YES ☐ NO

OWNER INFORMATION

Owner's Name: Ezequial Reyna Telephone: (956) 497-3962

Address: 702 W. Expressway 83 Fax: _____

City: Weslaco State: Tx Zip: 78596 E-mail: dominicareyna@gmail.com

ENGINEER INFORMATION

Name: Javier Hinojosa Engineering Telephone: (956) 668-1588

Address: 416 E. Dove Ave. Fax: _____

City: McAllen State: Tx Zip: 78504 E-mail: jayhin@rgv.rr.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: City of Weslaco

☒ YES ☐ NO Electric Company: AEP

☒ 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>H.C.D.D. #1</u>	☒ YES ☐ NO Irrigation District <u>H.C.I.D. #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: Ezequial Reyna

Owner Signature: [Signature] Date: 4-27-21

_____ is the authorized agent

Authorized Agent Signature: [Signature] Date: 4/27/21

Authorized Agent Printed Name: Javier Hinojosa, 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: _____



**City of Weslaco
Engineering Division**
255 S. Kansas ♦ Weslaco, TX 78570 ♦ (956)

TRIP GENERATION WORKSHEET

Complete parts A and B as an aid to determine if your project requires a Traffic Impact Analysis (TIA).

A. Subdivision Information

Subdivision Name: Ten Fifteen Subdivision
Location: N.E. Corner of F.M. 1015 and Mile 6 North (18th Street)
Applicant: Javier Hinojosa, P.E. ☐ Owner ☒ Agent
Address: 416 E. Dove, McAllen, Tx. 78552 Phone Number: (956) 668-1588

B. Trip Generation Calculation

The texts needed to complete this table are available at the Planning Department. See back of sheet for more information.

ITE Code	Anticipated Land Use	Project Size			AM Peak Hour Trips	PM Peak Hour Trips	Weekday Trips
		Acres	GFA	# of Units			
220	Multi-Family (Low Rise)	10.33	N.A.	128 Units	72	86	937

Comments: This development will be completed in one phase
Prepared by: Javier Hinojosa Engineering March 30, 2021 Date:
Address: 416 E. Dove, McAllen, Tx. 78552 Phone Number: (956) 668-1588

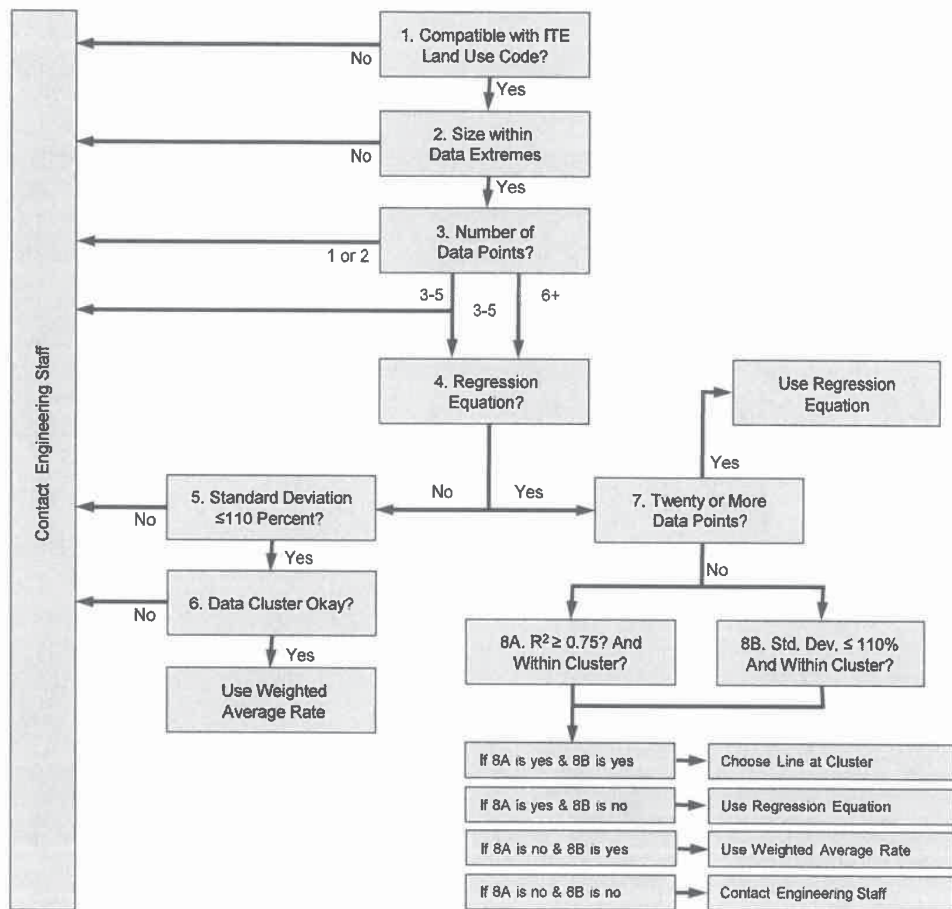
(For Official Use Only, Do Not Write In This Box)

☐ A traffic impact analysis is required. The agent preparing the study must meet with City staff to discuss the scope and requirements of the study before beginning the study.
☐ A traffic impact analysis is not required. The traffic generated by the proposed development does not exceed the threshold requirements.

Comments:

Reviewed by: _____ Date: _____ STID#: _____

Recommended Procedure for Selecting Between Trip Generation Average Rates and Equations



From ITE Trip Generation Handbook

City of Weslaco
Engineering Division
255 S. Kansas Ave
Weslaco, TX 78596
(956)
(956) 973-3128 (fax)

Subdivision Name: Ten Fifteen Subdivision

Location: N.E. corner of F.M. 1015 and Mile 6 North (18th Street)

Applicant: Javier Hinojosa, P.E. (Agent)

Address: 416 E. Dove Ave., McAllen, Texas 78504 Ph. (956) 668-1588

Number of Lots: 32 Number of Dwellings: 128

ITE Code: 220 Multifamily Housing (Low-Rise)

TRIP GENERATION CALCULATIONS:

Weekday, Peak Hour of Adjacent Street Traffic between 7 and 9 am

Avg. Rate: 0.46

$$0.46 \times 128 \text{ Dwellings} = 58.9 \text{ trips}$$

Fitted Curve: $\ln(T) = 0.95 \ln(x) - 0.51$
 $= 0.95 \ln(128) - 0.51$
 $\ln(T) = 4.0994$
 $T = e^{4.0994}$
 $= 60.3 \text{ trips}$

use 60 trips

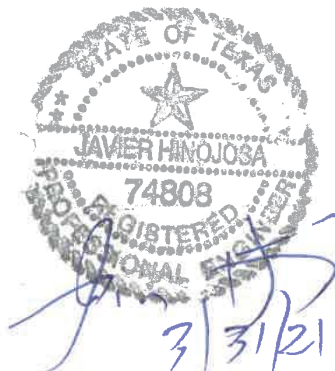
Weekday, Peak Hour of Adjacent Street Traffic between 4 and 6 pm

Avg. Rate: 0.56

$$0.56 \times 128 \text{ Lots} = 71.7 \text{ trips}$$

Fitted Curve: $\ln(T) = 0.89 \ln(x) - 0.02$
 $= 0.89 \ln(128) - 0.02$
 $\ln(T) = 4.2983$
 $T = e^{4.2983}$
 $= 73.6 \text{ trips}$

use 74 trips



Weekday, AM Peak Hour of Generator

Avg. Rate: 0.56

$$0.56 \times 128 \text{ Lots} = 71.7 \text{ trips}$$

Fitted Curve: $\ln(T) = 0.94 \ln(x) - 0.29$
 $= 0.94 \ln(128) - 0.29$
 $\ln(T) = 4.2709$
 $T = e^{4.2709}$
 $= 71.6 \text{ trips}$

use 72 trips

Weekday, PM Peak Hour of Generator

Avg. Rate: 0.67

$$0.67 \times 128 \text{ Lots} = 85.8 \text{ trips}$$

Fitted Curve: $T = 0.66(x) + 1.41$
 $= 0.66(128) + 1.41$
 $= 85.9 \text{ trips}$

use 86 trips

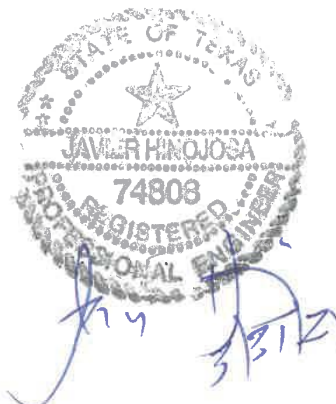
Weekday Trips

Avg. Rate: 7.32

$$7.32 \times 128 \text{ Lots} = 937.0 \text{ trips}$$

Fitted Curve: $T = 7.56(x) - 40.86$
 $= 7.56(128) - 40.86$
 $= 926.8 \text{ trips}$

use 937 trips



**Proposed
Ten Fifteen Subdivision
Weslaco, Texas**

DRAINAGE REPORT

Prepared For:

**City of Weslaco
255 S. Kansas Ave.
Weslaco, Texas 78596**

Prepared By:

JAVIER HINOJOSA ENGINEERING
CONSULTING ENGINEERS

**TBPE FIRM NO. F-1295
416 E. Dove Avenue
McAllen, Texas 78504
(956) 668-1588
Fax: (956) 994-8102
e-mail: javhin@rgv.rr.com**

March 31, 2021

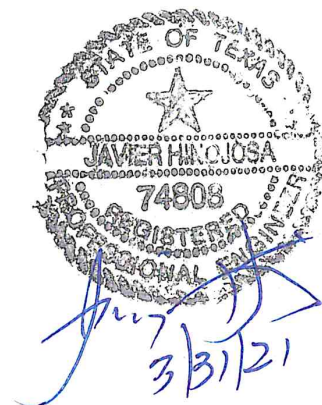


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Drainage Statement Ten Fifteen Subdivision Weslaco, Texas

Introduction

Ten Fifteen Subdivision is a 10.33 acre tract of land, being a resubdivision of Lots 1a, 2a, 3a, 4a, 5a and 6a, out of Plaza Diez Quince Subdivision as recorded in Volume 55, Page 103, Hidalgo County Map Records. This subdivision is located at the northeast corner of Mile 6 North (18th Street) and F.M. 1015 (International Blvd.) and is located within the city limits of Weslaco, Texas.

Flood Plain

The subject tract of land is located within Zone "B" on a Flood Insurance Rate Map, Community Panel No. 480334 0525B, effective date January 2, 1981. Zone "B" is defined as "areas between the 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 (medium shading)". The minimum finish floor elevation shall be 18" above the top of curb as measured at the center of the lot or 18" above natural ground, whichever is higher.

Soil Conditions

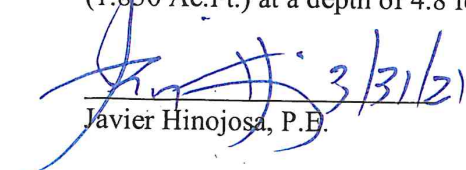
According to the soil survey report prepared for Hidalgo County by the USDA Soil Conservation Service; the soils in this subdivision are found to be Hidalgo Fine Sandy Loam (25), Hidalgo County Sandy Loam (28), and Racombes Sandy Clay Loam (48). Soils group 25, 28 and 48 are in hydrologic group "B" and are moderately pervious with a relatively low plasticity index.

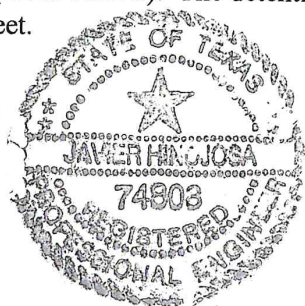
Pre-developed Conditions

The current land use for this property has been an open field and has an existing runoff generally in a southerly direction. Based on an existing 10-year storm, a total storm runoff of 10.06 cubic feet per second is being generated by this site.

Proposed Conditions

Ten Fifteen Subdivision is a 32 multi-family lot subdivision (two duplexes per lot). Drainage shall be accomplished within this development with the placement of curb inlets to intercept drainage runoff generated by this subdivision. Pipe sizes shall be a 24" throughout this development and shall discharge into a proposed detention pond located adjacent to F.M. 1015. The detention pond shall discharge into a City of Weslaco drainage ditch located along the north side of this subdivision via an existing 24" pipe. The proposed development will increase runoff to a maximum of 34.42 cubic feet per second for an increase Q of 24.36 cubic feet per second based on a 50-year storm. Required detention for this subdivision is 43,769 cubic feet (1.005 Ac.Ft.). The detention pond has a capacity of 79,710 cubic feet (1.830 Ac.Ft.) at a depth of 4.8 feet.

 3/31/21
Javier Hinojosa, P.E.



DRAINAGE ANALYSIS

PROJECT NAME: **Ten Fifteen Subdivision**

DATE: March 31, 2021

I. Existing Condition-10 year

Ex. Area:	449,868 sf	Int. Coeff. "k	0.213 Table 3-2
	10.328 ac	K _u	3.28
Imp. Area:	- sf	Length	600
% Imp. :	0.00	Velocity	0.312441 ft/sec
Slope :	0.2 %		
tc :	32.01 min		
Rainfall Intensity (10yr)			4.820 in/hr
c factor			0.213
Q peak existing condition:			10.60 cfs

II. Future Condition-50 year

Future area:	449,868.00 sf		
	10.33 ac		
Estimated Imp. Area:	279,024 sf		
% Imp. :	0.62		
Slope :	0.20%		
tc :	22.67 min		
Rainfall Intensity (50yr)			7.406 in/hr
c factor			0.450
Q future cond. = Aci = i *	=	34.42 *	0.45
			4.64739669 i

time min.	time hour	iso in/hr	Q50 in cfs	Vin cf	Q10 out cfs	Vout cf	REQ'D V cf	
30	0.50	6.343	29.48	53,057	10.60	16,755	36,303	
40	0.67	5.350	24.86	59,673	10.60	19,936	39,737	
50	0.83	4.658	21.65	64,938	10.60	23,117	41,821	
60	1.00	4.144	19.26	69,328	10.60	26,298	43,030	
70	1.17	3.745	17.41	73,105	10.60	29,479	43,626	
80	1.33	3.426	15.92	76,430	10.60	32,660	43,769	MAX.
90	1.50	3.164	14.70	79,406	10.60	35,842	43,564	
100	1.67	2.944	13.68	82,105	10.60	39,023	43,082	
110	1.83	2.757	12.81	84,578	10.60	42,204	42,374	
120	2.00	2.596	12.06	86,864	10.60	45,385	41,480	

Storage Required: 43,769 cf
Storage Required: 1.005 Ac.-Ft.
w/ release rate of: 10.60 cfs



TABLE 3-2: Intercept Coefficients	
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

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

$$C_w = (C_1 A_1 + C_2 A_2 + C_3 A_3 + \dots + C_n A_n) / A_{\text{total}}$$

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 (POST DEVELOPMENT CONDITIONS)				
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	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
Railroad yard areas	0.2	0	0.000	0.000
Parks, cemeteries	0.1	0	0.000	0.000
Unimproved Areas				
Bare Surface	0.3	0	0.000	0.000
Grassland	0.25	137895	3.166	0.791
Cultivated	0.2	0	0.000	0.000
Woodlands	0.15	0	0.000	0.000
Detention	0.25	32949	0.756	0.189
Streets				
Asphalt	0.7	54584	1.253	0.877
Concrete	0.75	0	0.000	0.000
Parking/Driveways	0.75	90720	2.083	1.562
Sidewalks	0.75	26712	0.613	0.460
Buildings	0.75	107008	2.457	1.842
Total:		449,868	10.328	3.420
Weighted "c":			0.331	

$$C_w = (C_1 A_1 + C_2 A_2 + C_3 A_3 + \dots + C_n A_n) / A_{\text{total}}$$

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)

TABLE I											
TIME OF CONCENTRATION DETERMINATION											
Ten Fifteen Subdivision											
COMPUTATION POINT	DESCRIPTION OF RUNOFF MEDIUM	OVERLAND FLOW				CHANNEL, PIPE, STREET, ETC. FLOW					
		C	LENGTH (FT.)	GRADE (%)	TIME (MIN)	WIDTH/ID. (FT)	GRADE (%)	LENGTH (FT)	VELOCITY (FPS)	TIME (MIN)	TOTAL TIME (MIN)
Existing	Overland	0.213	600		32.01						32.01
D.A. #1	Overland & Gutter	0.450	145		7.73			295	1.0	4.92	12.65
D.A. #1-D.A.#2	Pipe Flow	0.450						36	3.0	0.20	12.85
D.A. #2	Overland & Gutter	0.450	130		6.93			297	1.0	4.95	11.88
D.A.#2-OUTFALL #1	Pipe Flow	0.450						162	3.0	0.90	13.75
D.A.#3	Overland & Gutter	0.450	145		7.73			127	1.0	2.12	9.85
D.A.#3-D.A.#4	Pipe Flow	0.450						36	3.0	0.20	10.05
D.A.#4	Overland & Gutter	0.450	130		6.93			137	1.0	2.28	9.22
D.A.#4-OUTFALL #2	Pipe Flow	0.450						162	3.0	0.90	10.95
D.A.#5	Overland & Gutter	0.450	145		7.73			260	1.0	4.33	12.07
D.A.#5-D.A.#6	Pipe Flow	0.450						36	3.0	0.20	12.27
D.A.#6	Overland & Gutter	0.450	130		6.93			280	1.0	4.67	11.60
D.A.#6-OUTFALL#3	Pipe Flow	0.450						162	3.0	0.90	13.17
OUTFL1-OUTFL2	Channel Flow	0.450						362	2.0	3.02	16.77
OUTFL2-OUTFL3	Channel Flow	0.450						362	2.0	3.02	19.78
OUTFL3-DA.#7	Channel Flow	0.450						273	2.0	2.28	22.06
D.A.#7	Overland & Gutter	0.450	45		2.40			103	1.0	1.72	4.12
D.A.#7-D.A.#8	Pipe Flow	0.450						36	3.0	0.20	22.26
D.A.#8	Overland & Gutter	0.450	7		0.37			223	1.0	3.72	4.09
D.A.#-DITCH	Pipe Flow	0.450						74	3.0	0.41	22.67

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

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

TABLE 1A FLOWRATE DETERMINATION Ten Fifteen Subdivision								
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 SIZE (inches)	MIN. SLOPE (FT./FT.)
Existing	10.328	0.213	32.01	10	4.820	10.60		
D.A. #1	1.701	0.450	12.65	10	7.896	6.04		
D.A. #1-D.A.#2	1.701	0.450	12.85	10	7.840	6.00	24	0.071%
D.A. #2	2.096	0.450	11.88	10	8.118	7.66		
D.A.#2-OUTFALL #1	3.797	0.450	13.75	10	7.600	12.99	24	0.330%
D.A.#3	0.763	0.450	9.85	10	8.785	3.02		
D.A.#3-D.A.#4	0.763	0.450	10.05	10	8.714	2.99	24	0.018%
D.A.#4	0.944	0.450	21.04	10	6.132	7.16		
D.A.#4-OUTFALL #2	1.707	0.450	21.28	10	6.096	4.68	24	0.043%
D.A.#5	1.911	0.450	12.07	10	8.064	6.93		
D.A.#5-D.A.#6	1.911	0.450	12.27	10	8.005	6.88	24	0.093%
D.A.#6	2.263	0.450	11.60	10	8.204	8.35		
D.A.#6-OUTFALL #3	4.174	0.450	13.17	10	7.754	14.56	24	0.415%
OUTFL1-OUTFL2	3.797	0.450	16.77	10	6.904	11.80		
OUTFL2-OUTFL3	5.504	0.450	19.78	10	6.338	15.70		
OUTFL3-DA.#7	9.678	0.450	22.06	10	5.976	26.03		
D.A.#7	0.279	0.450	4.12	10	11.607	1.46		
D.A.#7-D.A.#8	9.957	0.450	22.26	10	5.947	26.64	24	1.390%
D.A.#8	0.149	0.450	4.09	10	11.626	0.78		
D.A.#-DITCH	10.106	0.450	22.67	10	5.887	26.77	24	1.403%

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

$$I = \frac{b}{(T_c + d)^{0.6}}$$

HIDALGO COUNTY RAINFALL INTENSITY TABLES

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

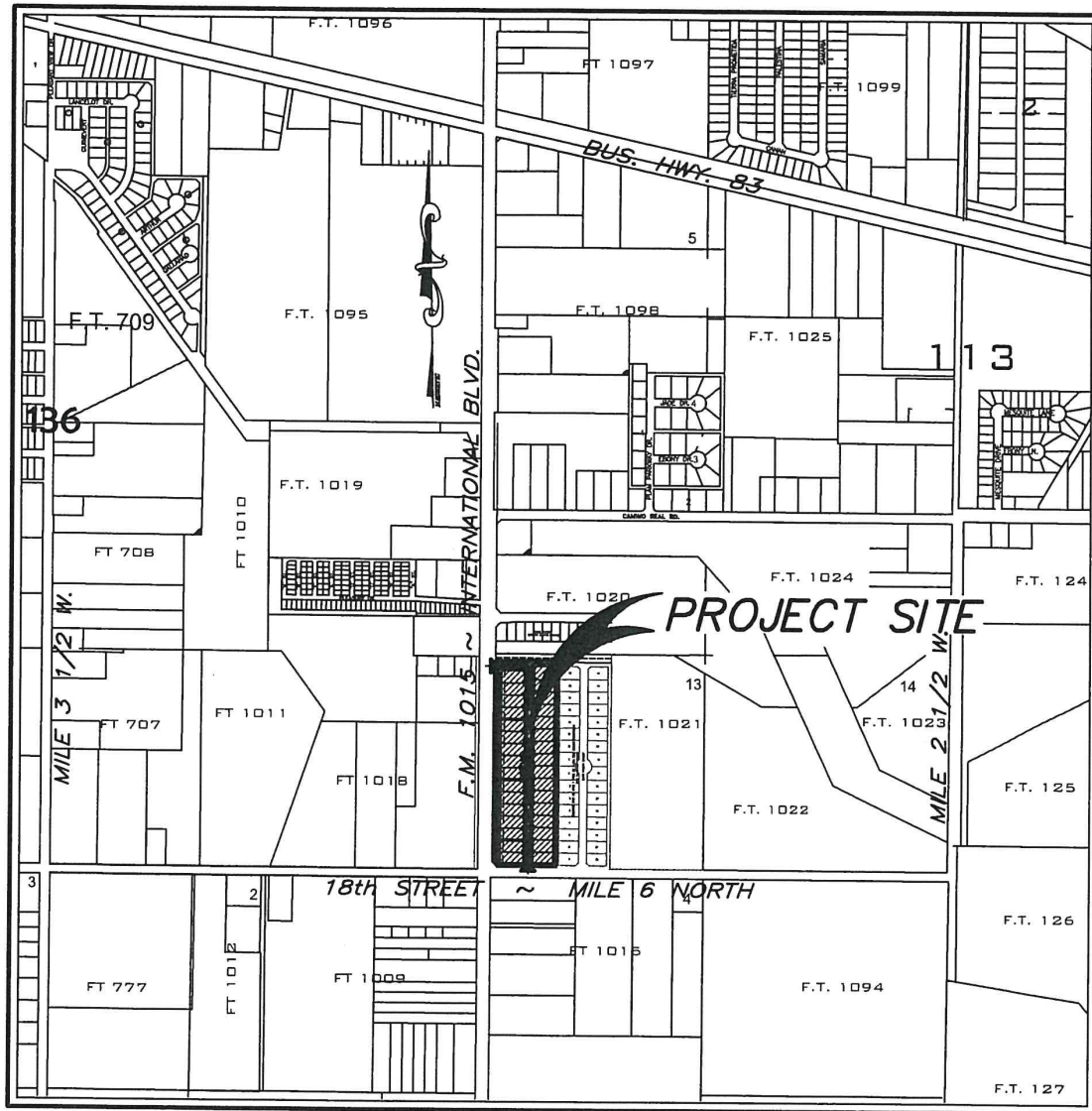
$$\text{formula } I = b/(t_c + d)^e$$

TIME	2 yr.	5 yr.	10 yr.	25 yr.	50 yr.	100 yr.
1	10.404	12.626	14.283	16.353	17.386	17.952
2	9.653	11.721	13.281	15.215	16.210	16.793
3	9.012	10.950	12.426	14.244	15.204	15.797
4	8.458	10.286	11.687	13.405	14.333	14.929
5	7.974	9.706	11.042	12.671	13.570	14.165
6	7.546	9.194	10.472	12.023	12.895	13.487
7	7.167	8.740	9.966	11.447	12.294	12.881
8	6.827	8.334	9.512	10.930	11.755	12.336
9	6.520	7.968	9.103	10.464	11.268	11.841
10	6.243	7.636	8.732	10.042	10.825	11.391
11	5.990	7.334	8.394	9.656	10.421	10.979
12	5.758	7.058	8.084	9.303	10.051	10.601
13	5.546	6.804	7.799	8.978	9.710	10.252
14	5.350	6.569	7.536	8.678	9.395	9.928
15	5.169	6.353	7.293	8.400	9.102	9.628
16	5.000	6.151	7.067	8.142	8.831	9.348
17	4.843	5.964	6.856	7.902	8.577	9.087
18	4.697	5.789	6.659	7.677	8.340	8.842
19	4.560	5.625	6.475	7.466	8.117	8.612
20	4.432	5.472	6.302	7.268	7.908	8.396
21	4.311	5.327	6.139	7.082	7.711	8.192
22	4.198	5.191	5.985	6.906	7.525	8.000
23	4.090	5.062	5.840	6.740	7.349	7.817
24	3.989	4.941	5.703	6.583	7.183	7.644
25	3.893	4.825	5.572	6.434	7.025	7.480
26	3.802	4.716	5.449	6.293	6.875	7.324
27	3.715	4.612	5.331	6.158	6.732	7.176
28	3.633	4.513	5.220	6.030	6.596	7.034
29	3.554	4.419	5.113	5.908	6.467	6.899
30	3.480	4.329	5.011	5.792	6.343	6.769
31	3.408	4.244	4.914	5.680	6.224	6.646
32	3.340	4.161	4.821	5.574	6.111	6.527
33	3.275	4.083	4.732	5.472	6.002	6.413
34	3.212	4.008	4.646	5.374	5.897	6.304
35	3.152	3.935	4.564	5.280	5.797	6.199

TIME	2 yr.	5 yr.	10 yr.	25 yr.	50 yr.	100 yr.
36	3.095	3.866	4.486	5.189	5.701	6.098
37	3.040	3.799	4.410	5.103	5.608	6.001
38	2.986	3.735	4.337	5.019	5.519	5.908
39	2.935	3.673	4.267	4.939	5.433	5.817
40	2.886	3.614	4.199	4.861	5.350	5.730
41	2.838	3.557	4.134	4.786	5.270	5.646
42	2.793	3.501	4.071	4.714	5.193	5.565
43	2.748	3.448	4.010	4.644	5.118	5.487
44	2.706	3.396	3.951	4.577	5.046	5.411
45	2.665	3.346	3.895	4.511	4.976	5.337
46	2.625	3.298	3.840	4.448	4.908	5.266
47	2.586	3.251	3.786	4.387	4.843	5.197
48	2.549	3.206	3.735	4.328	4.779	5.130
49	2.513	3.162	3.685	4.270	4.717	5.065
50	2.477	3.120	3.636	4.215	4.658	5.002
51	2.443	3.078	3.589	4.161	4.600	4.941
52	2.410	3.038	3.543	4.108	4.543	4.881
53	2.378	2.999	3.499	4.057	4.488	4.824
54	2.347	2.962	3.456	4.007	4.435	4.767
55	2.317	2.925	3.414	3.959	4.383	4.713
56	2.288	2.889	3.373	3.912	4.333	4.659
57	2.259	2.854	3.333	3.867	4.284	4.608
58	2.231	2.821	3.295	3.822	4.236	4.557
59	2.204	2.788	3.257	3.779	4.189	4.508
60	2.178	2.756	3.220	3.737	4.144	4.460
65	2.056	2.607	3.050	3.541	3.933	4.237
70	1.948	2.475	2.899	3.368	3.745	4.038
75	1.852	2.358	2.765	3.212	3.577	3.860
80	1.765	2.252	2.643	3.073	3.426	3.699
85	1.688	2.156	2.533	2.946	3.289	3.554
90	1.617	2.069	2.434	2.831	3.164	3.421
95	1.552	1.990	2.342	2.726	3.050	3.299
100	1.493	1.917	2.258	2.629	2.944	3.187
105	1.439	1.850	2.181	2.540	2.847	3.083
110	1.389	1.788	2.109	2.457	2.757	2.988

where:	2yr	5yr	10yr
e=	0.831	0.795	0.778
b=	74	80	87
d=	9.6	9.2	9.2

25yr	50yr	100yr
0.771	0.749	0.740
98	99	103
9.2	9.2	9.6



LOCATION MAP

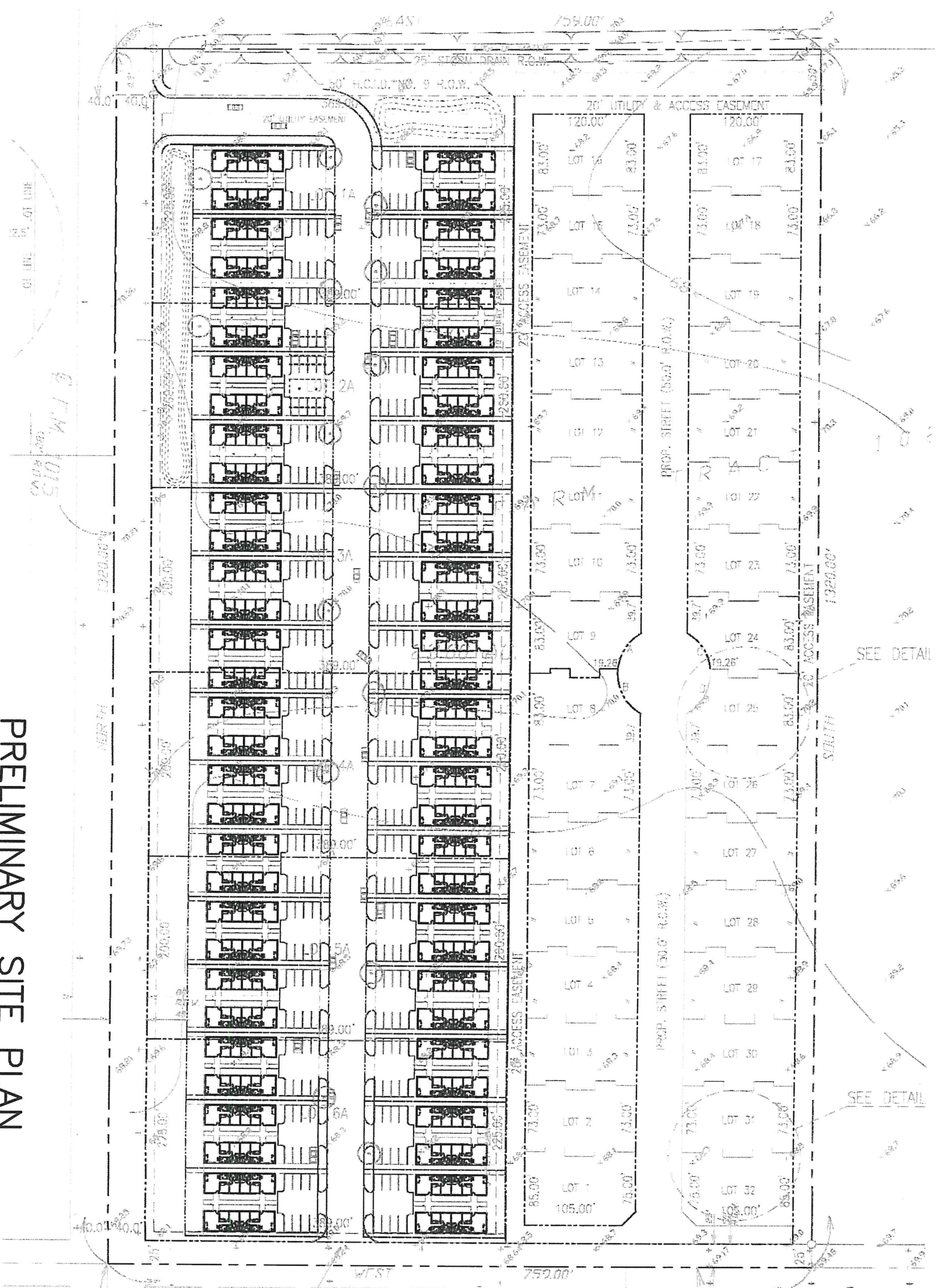
SCALE: 1" = 1,000'



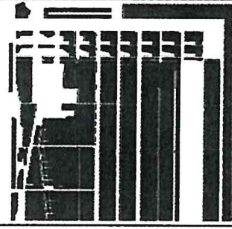
1
1" = 50'

MASTER PLAN

PRELIMINARY SITE PLAN
TEN FIFTEEN SUBDIVISION



Parking Count Schedule	
Row Number	No. of Spaces
16	4
17	4
18	4
19	4
20	4
21	4
22	4
23	4
24	4
25	4
26	4
27	4
28	4
29	4
30	4
31	4
32	4
33	4
34	4
35	4
36	4
37	4
38	4
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77	4
78	4
79	4
80	4



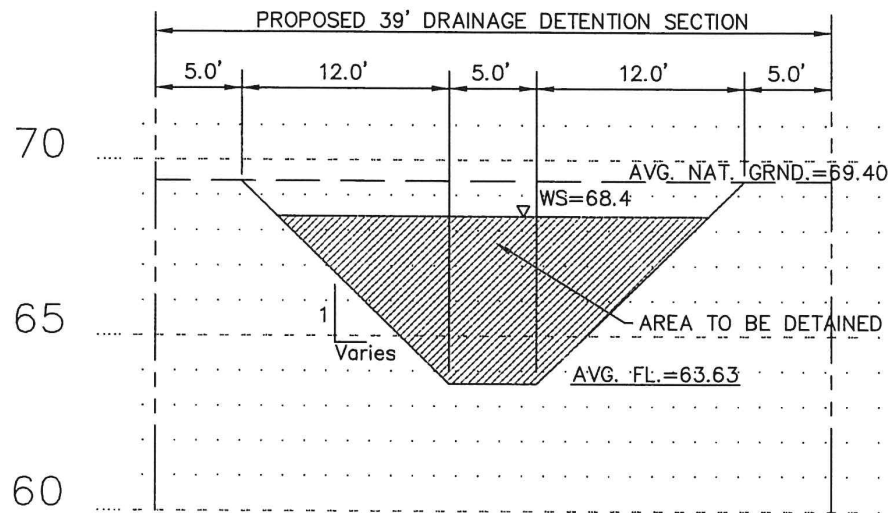
PRELIMINARY
NOT FOR BUILDING
PERMIT OR
CONSTRUCTION

FRANK J. KEY & ASSOCIATES, INC.
1100 E. BROADWAY, SUITE 1100
DALLAS, TEXAS 75202
TEL: 214-411-1111 FAX: 214-411-1112
www.frankkey.com

DATE	REVISION	BY
06-01-20	ISSUE FOR PERMIT	JK

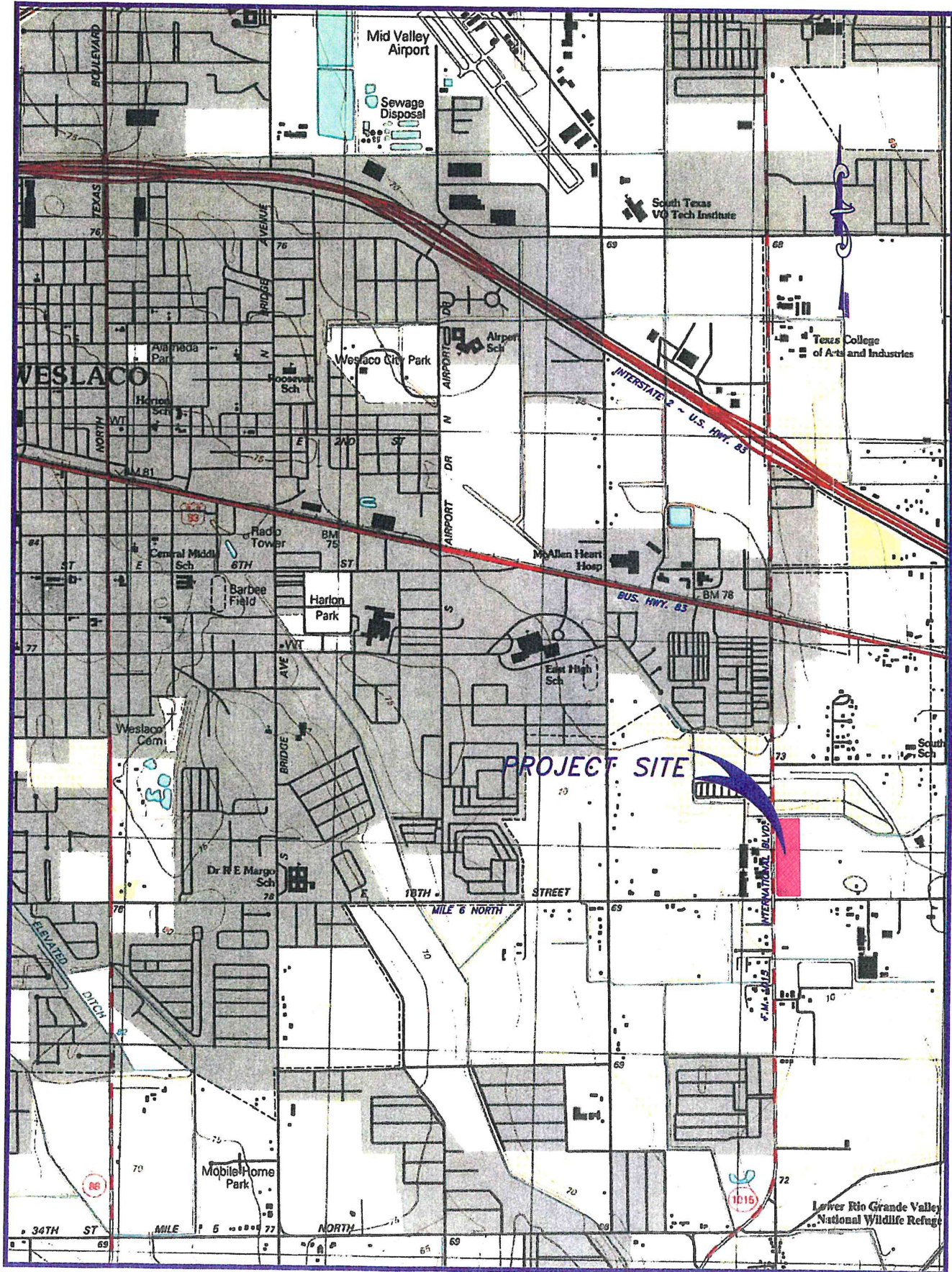
FRANK J. KEY & ASSOCIATES, INC.
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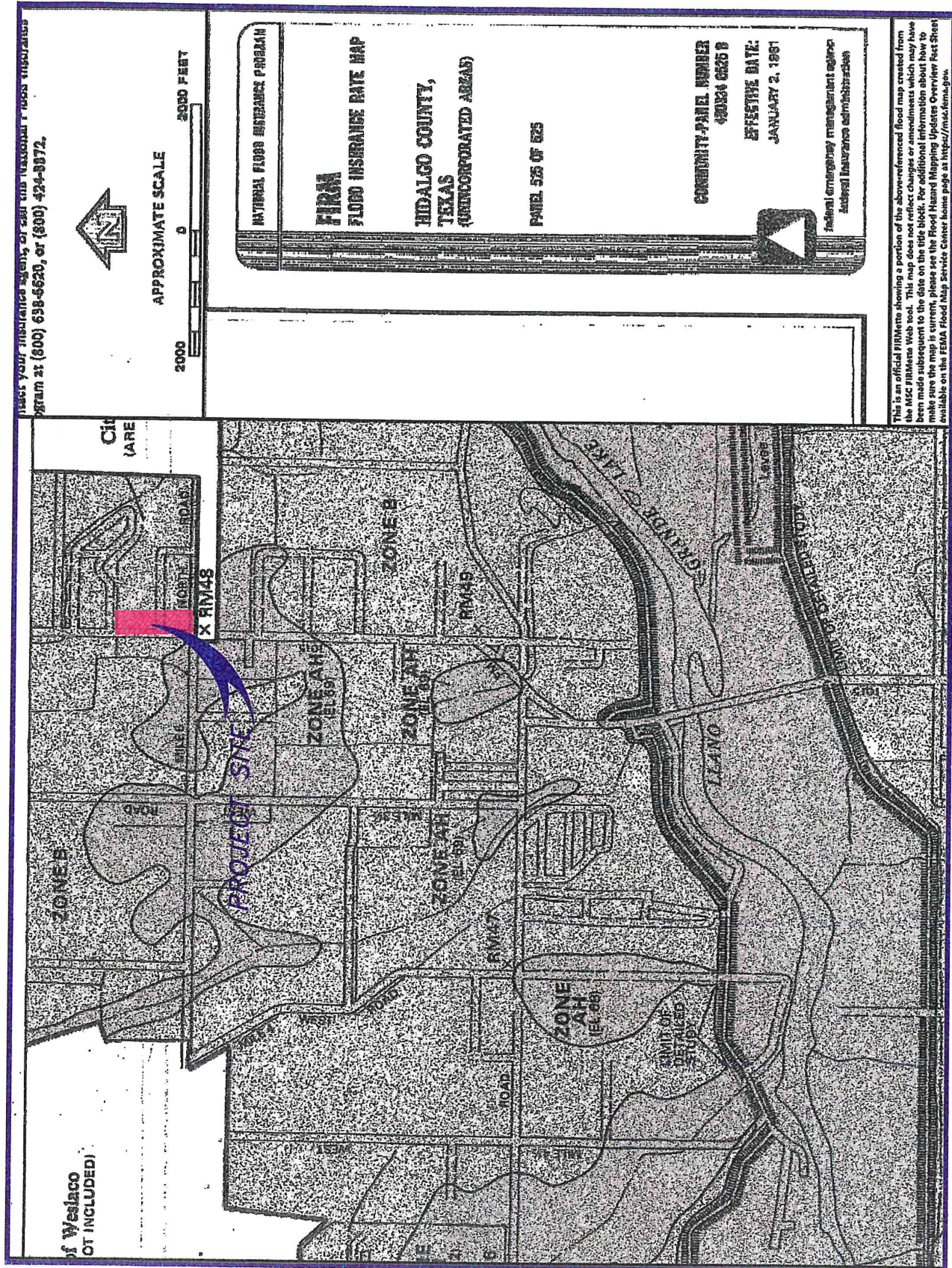
DIEZ QUINCE
DUPLICES
PM 1015, 78828
WESLACO, TX



DETENTION SECTION

TOTAL DETENTION AREA THIS SECTION: 538.8 S.F.
DETENTION CALCULATION: 71.17 S.F. x 1120 FT. = 79,710.4 C.F.
SCALE: HORIZ. = 1" = 10'
VERT. = 1" = 5'



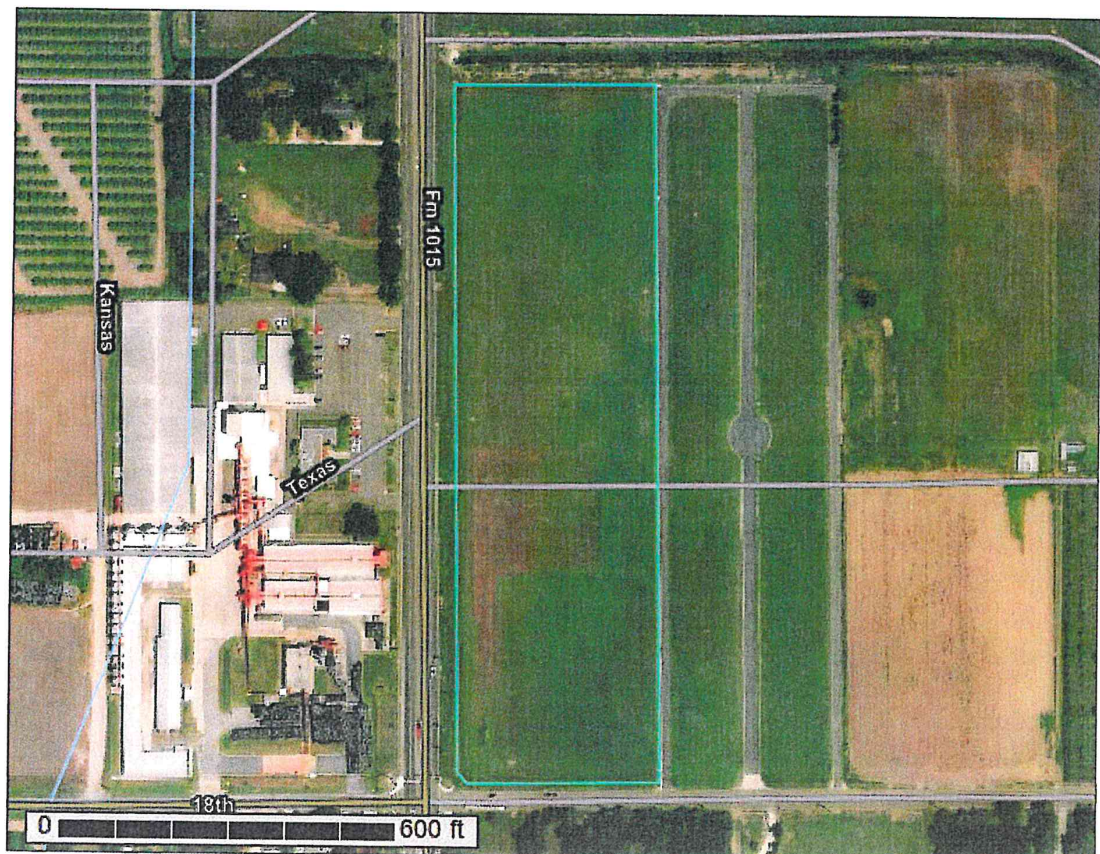




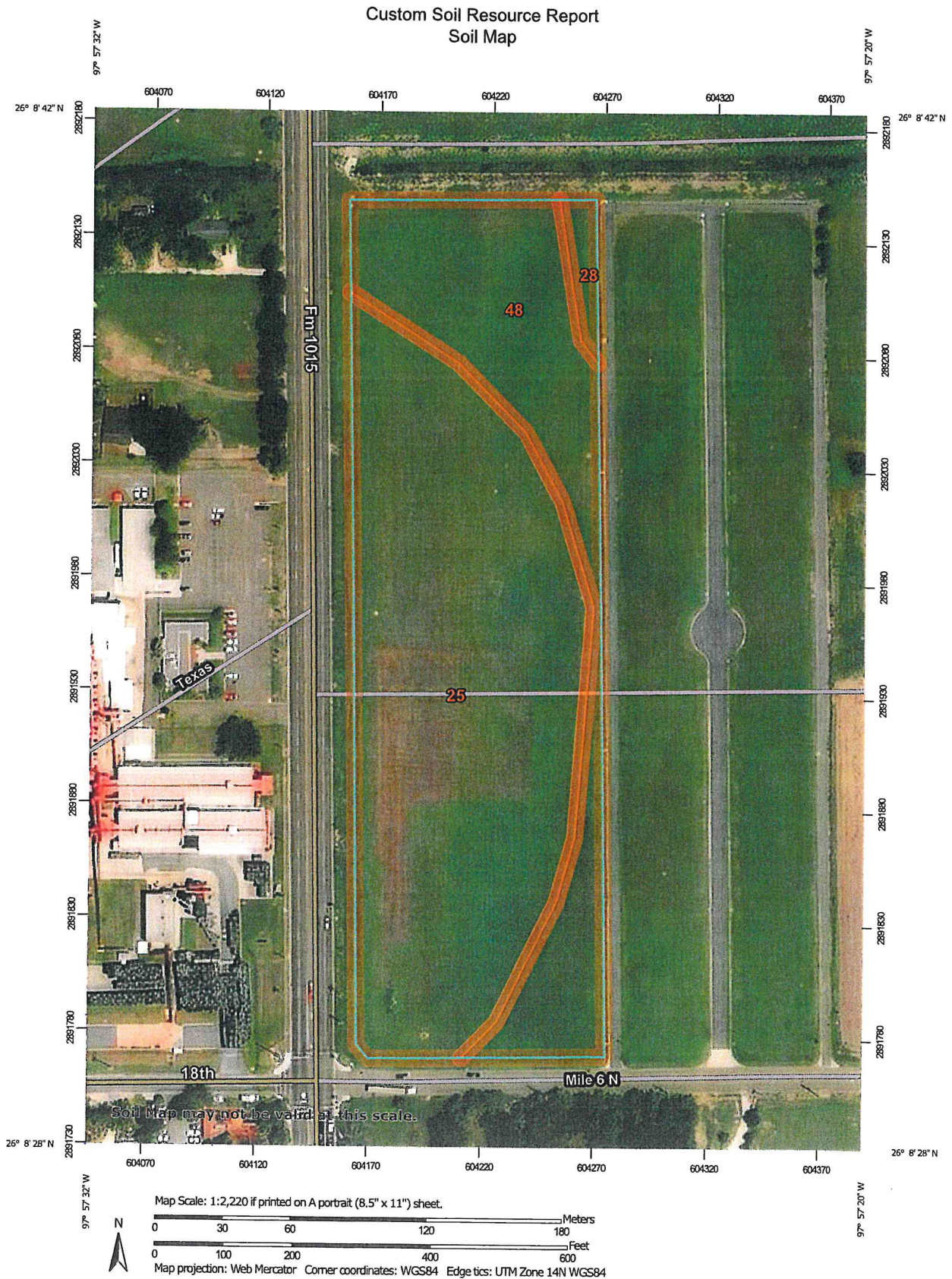
A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Hidalgo County, Texas

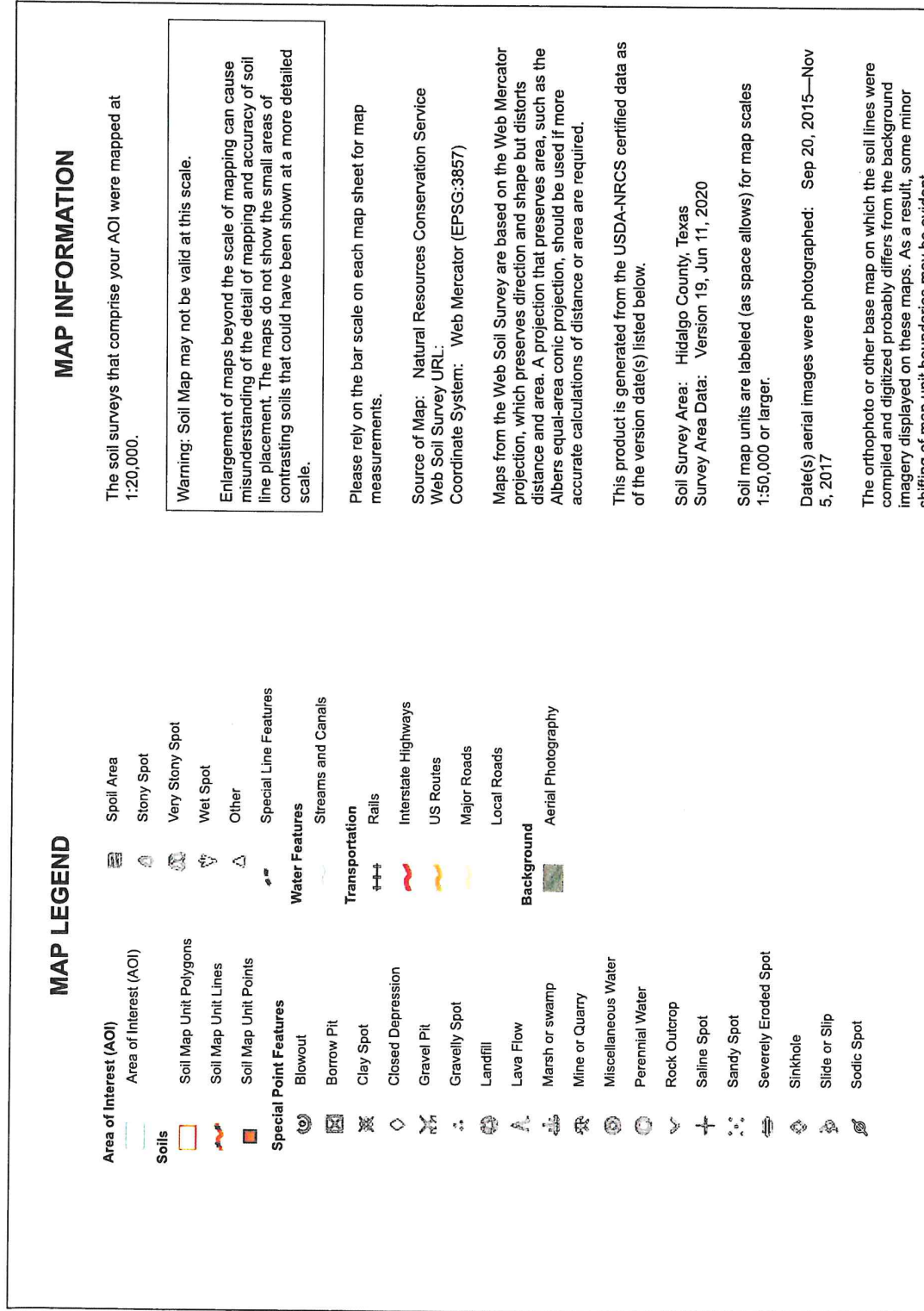
TEN FIFTEEN SUBDIVISION



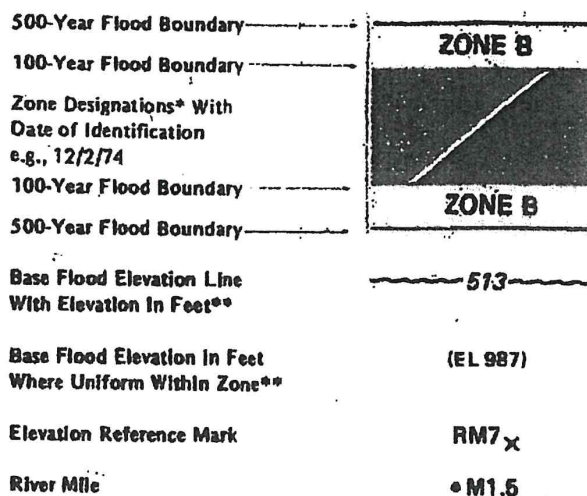
March 30, 2021



Custom Soil Resource Report



KEY TO MAP



**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
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 contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

Custom Soil Resource Report

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	6.9	67.0%
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	0.2	1.9%
48	Racombes sandy clay loam, 0 to 1 percent slopes	3.2	31.2%
Totals for Area of Interest		10.3	100.0%

Map Unit Descriptions

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, 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 and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils 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. Other minor components, however, have properties and behavioral 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

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TABLE 16. -- ENGINEERING INDEX PROPERTIES--CONTINUED

Map symbol and soil name	Depth	USDA texture	Classification		Percentage passing sieve number				Liquid limit	Plas- ticity index
			Unified	AASHTO	4	10	40	200		
13:*	In								Pct	
Randado----	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, sand 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----- Grulla	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	Sand clay loam	SC, CL	A-6	100	95-100	95-100	40-55	30-40	11-20
	63-80	Sand 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:*\br/>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
Urban land.										
22, 23, 24--- Hebbronville	0-17	Sandy loam-----	SM	A-2-4	100	100	75-100	13-24	<25	NP-4
	17-58	Fine sandy loam, loam.	SM, SM-SC	A-2-4	100	100	90-100	20-30	<30	NP-7
	58-65	Fine sandy loam, loam.	SM-SC, SC	A-2-4 A-4 A-2-6 A-6	95-100	95-100	90-100	20-40	20-30	4-13
25, 26, 27--- Hidalgo	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--- Hidalgo	0-17	Sandy clay loam	SC, CL	A-6	100	95-100	90-100	36-55	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	40-44	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

SOILS LEGEND

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TABLE 16. -- ENGINEERING INDEX PROPERTIES--CONTINUED

Map symbol and soil name	Depth	USDA texture	Classification		Percentage passing sieve number				Liquid limit	Plast. index
			Unified	AASHTO						
					4	10	40	200		
45,* 46,* 47.- Pits	In								Pct	
48, 49----- Ramadero	0-13	Sandy clay loam	CL, SC	A-4, A-6	100	100	95-100	45-65	27-35	8-15
	13-49	Sandy clay loam, clay loam.	CL, SC	A-6, A-7	100	95-100	90-100	45-65	34-43	15-22
	49-72	Sandy clay loam, clay loam.	CL, SC	A-6	90-100	80-100	80-95	40-65	30-40	22-20
50----- Ramadero	0-21	Sandy clay loam	CL, SC	A-6, A-4	100	100	95-100	45-65	27-39	9-18
	21-65	Sandy clay loam, clay loam.	CL, SC	A-6, A-7	100	95-100	90-100	46-65	32-42	13-21
51*----- Ramadero	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 caly 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-----	---	---	---	---	---	---	---	---
Cuevitas-----	0-8	Fine sandy loam	SM, SM-SC, SC-	A-2-4	80-100	80-100	80-100	20-35	<28	NP-9
	8-60	Cemented-----	---	---	---	---	---	---	---	---
52, 53----- Raymondville	0-15	Clay loam-----	CL	A-6, A-7-6	100	100	95-100	51-85	37-50	18-30
	15-43	Clay, clay loam	CL, CH	A-6, A-7-6	100	95-100	95-100	75-95	38-55	19-35
	43-65	Clay, clay loam	CL, CH	A-7-6	100	85-100	80-100	75-95	40-53	20-30
54:*----- Raymondville	0-15	Clay loam-----	CL	A-6, A-7-6	100	100	95-100	51-85	37-50	18-30
	15-43	Clay, clay loam	CL, CH	A-6, A-7-6	100	95-100	95-100	75-95	38-55	19-35
	43-65	Clay, clay loam	CL, CH	A-7-6	100	85-100	80-100	75-95	40-53	20-30
55,56----- Reynosa	0-15	Silty clay loam	CL, CL-ML	A-6, A-4, A-7-6	100	100	95-100	80-100	25-45	7-25
	15-48	Sandy clay loam, silt loam.	CL	A-6, A-4, A-7-6	100	100	95-100	80-100	28-44	9-23
	48-65	Stratified silty clay loam to silt loam.	CL, CL-ML	A-6, A-4, A-7-6	100	100	90-100	70-100	20-49	4-29
57:*----- Reynosa	0-15	Silty clay loam	CL, CL-ML	A-6, A-4, A-7-6	100	100	95-100	80-100	25-45	7-25
	15-48	Silty clay loam, silt loam.	CL	A-6, A-4, A-7-6	100	100	95-100	80-100	28-44	9-23
	48-65	Stratified silty clay loam to silt loam.	CL, CL-ML	A-6, A-4, A-7-6	100	100	90-100	70-100	20-49	4-29
Urban land.										
58, 59----- Rio	0-12	Fine sandy loam	SC, SM-SC	A-2-4, A-4	95-100	95-100	95-100	30-48	<30	5-10
	12-38	Clay loam, clay	CL, CH	A-7-6	95-100	95-100	95-100	75-95	43-57	21-32
	38-63	Clay loam, snady clay sandy clay loam.	CL	A-7-6	95-100	95-100	85-95	55-80	41-50	20-27

SOILS LEGEND

TABLE 18. -- 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 corrol	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness	Uncoated steel	Conc.
					ft			in			
1.* Arents											
2----- Benito	D	Occasional	Long-----	Sep-May	4.0-6.0	Apparent	Sep-May	---	---	High-----	Low.
3,4----- Brennan	B	None-----	---	---	M	---	---	---	---	Moderate	Low
5,6----- Camargo	B	Rare-----	Brief-----	Sep-May	>6.0	---	---	---	---	Moderate	Low
7----- Cameron	D	None-----	---	---	5.0-6.0	Apparent	Sep-May	---	---	High-----	Low
8----- Comitas	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low
9, 10, 11----- Delfina	B	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
Randado-----	C	None-----	---	---	>6.0	---	---	8-20	Thin	Low-----	Low
14----- Falfurrias	A	None-----	---	---	>6.0	---	---	---	---	High-----	Low
15**----- Grulla	D	Frequent-----	Very long	Sep-May	+2-6.0	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	D	None-----	---	---	5.0-6.0	---	---	---	---	High-----	Moderate
21.* Harlingen-----	D	None to rare	---	---	>6.0	---	---	---	---	High-----	Low
Urban land.											
22, 23, 24----- Hebbronville	B	None-----	---	---	>6.0	---	---	---	---	Low-----	Low
25, 26, 27, 28 29 Hidalgo	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low
30----- Hidalgo	B	None-----	---	---	2.5-5.0	Apparent	Sep-May	---	---	High-----	Low
31.* Hidalgo-----	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low

HYDROLOGIC LEGEND

TABLE 18. -- 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 corrol	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness	Uncoated steel	Conc.
					Ft			In			
Urban land.											
32:* Jimenez-----	C	None-----	---	---	>6.0	---	---	7-20	---	High-----	Low
32:* Quemado-----	C	None-----	---	---	>6.0	---	---	10-20	Thin	Moderate	Low.
33----- Benito	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
34----- Matamoros	C	Occasional	Long-----	Sep-May	>6.0	---	---	---	---	High-----	Low.
35, 36, 37, 38- McAllen	C	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
39, 40, 41----- Mercedes	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
42----- Nueces	C	None-----	---	---	>6.0	---	---	---	---	Moderate	Low.
43:* Nueces-----	C	None-----	---	---	>6.0	---	---	---	---	Moderate	Low.
Sarita	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
44, 44----- Olmito	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
45,* 46,* 47.* Pits											
48----- Racombes	B	Rare-----	---	---	>6.0	---	---	---	---	High-----	Low.
49----- Racombes	B	Rare-----	---	---	1.5-4.5	Apparent	Sep-May	---	---	High-----	Low.
50----- Racombes	B	Common-----	Brief-----	Sep-May	>6.0	---	---	---	---	High-----	Low.
51:* Randado-----	C	None-----	---	---	>6.0	---	---	8-20	Thin	Moderate	Low.
Cuevitas-----	D	None-----	---	---	>6.0	---	---	8-14	Thin	Moderate	Low.
52----- Raymondville	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
53----- Raymondville	D	None-----	---	---	2.5-4.5	Apparent	Sep-May	---	---	High-----	Low.
54:* Raymondville---	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
55----- Reynosa	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.

HYDROLOGIC LEGEND



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: June 2, 2021	Agenda Item No. (to be assigned by PCE): V.E.
From: Rebekah de la Fuente, Planning Director, on behalf of Willie Arratia.	
Subject/Agenda Item: Discussion and consideration for the Final Plat for Amber Estates– being 19.719 acres acre tract of land, out of farm Tract 192, West Tract Subdivision, Weslaco, Hidalgo County, Texas located on the east side of Mile 6 North ½ a Mile North of Mile 10 North. Possible Action.	
Discussion/Overview: The proposed thirty (30) lot subdivision is located outside the City of Weslaco. This subdivision is being serviced with water by the North Alamo Water Supply through a 10" waterline and sewer by OSSF. The property is within a Flood Zone "X". Applicant is requesting a variance for off-site drainage and OSSF. Applicant has provided letters of support from the Irrigation District and the Drainage District.	
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 and compliance with the ordinance on the variance.	
Additional Action Prompted: [X] 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

PIAT-000060-2021

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: AMBER ESTATES

Location: EAST SIDE OF HIGHWAY 102 1/2 MILE NORTH OF HIGHWAY 102

Legal Description: A 19.719 ACRE TRACT OF LAND OUT OF FARM TRACT 192 WEST 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: R1

Existing Land Use: VACANT Proposed Land Use: RESIDENTIAL

Number of Lots Proposed: 30 Gross Acreage: _____

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: ALBERT HANES Telephone: 630-0216

Address: 502 E. Expressway 83, Suite 5 Fax: _____

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

ENGINEER INFORMATION

Name: Wille Anatic Telephone: 784-0218

Address: 526 N. 5th St. Fax: _____

City: Donna State: Tx Zip: 78537 E-mail: namengineering@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: PAUSE
- ☒ YES ☐ NO Wastewater Provision: OSSF
- ☒ YES ☐ NO Electric Company: MAGIC VALLEY

☐ YES ☒ NO Phone Utility _____	☒ 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
- _____ \$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: Albert J Hanks Jr.

Owner Signature: [Signature] Date: _____

_____ is the authorized agent

Authorized Agent Signature: [Signature] Date: 4/29/21

Authorized Agent Printed Name: Willie Armat, s

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: _____



APPLICATION FOR VARIANCE

VAR-000062-2021

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: AMBER ESTATES

Location: EAST SIDE OF MILE 6 NORTH, 1/2 MILE NORTH OF MILE 10

Legal Description: A 19.719 ACRE TRACT OF LAND OUT OF FARM TRACT 192, WEST 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:

☐ 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:

OWNER INFORMATION

Owner's Name: Albert Hankes Telephone: 956-630-0216
Address: 502 E. Expressway #3 SUITE 6 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: Albert Hankes

Owner Signature: [Signature] Date: 4/28/21

_____ is the authorized agent

Authorized Agent Signature: [Signature] Date: 4/27/21

Authorized Agent Printed Name: Willie Aratis



APPLICATION FOR VARIANCE

VAR-000061-2021

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: AMBER ESTATES

Location: EAST SIDE OF MILE 6, 1/2 MILE NORTH OF MILE 10 NORTH

Legal Description: 19.719 ACRE TRACT OF LAND OUT OF FARM TRACT 192, WEST AND ADAMS TRACT, 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:

NOT TO REQUIRED ON SITE DETENTION, REQUIRED DETENTION WILL BE ACCOMPLISHED AT EXISTING DRAIN DITCH ON EAST SIDE

☐ 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:

OWNER INFORMATION

Owner's Name: _____ Telephone: _____

Address: _____ Fax: _____

City: _____ State: _____ Zip: _____ 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: Albert Hank

Owner Signature: [Signature] Date: 4/28/21

_____ is the authorized agent

Authorized Agent Signature: [Signature] Date: 4/28/21

Authorized Agent Printed Name: Willie Anatic

Hidalgo and Cameron Counties Irrigation District No. 9

General Office

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

E-Mail
hccid9@hotmail.com



Randy Winston
General Manager

Judy Beall
Tax Assessor-Collector

P O Box 237 Mercedes, Texas 78570

Date: 05/07/2021

Mr. Guillermo A. Arratia P.E
Nain Engineering, LLC
526 N 5th Street
Donna, TX 78537

RE: **AMBER ESTATES** Subd. Drainage and Detention

Good Morning Mr. Arratia:

I have received your revised cross section and calculations dated 04-08-21 for the **AMBER ESTATES** Subdivision modified to include the 50 year detention volume in the proposed drain ditch as shown on your provided cross sections.

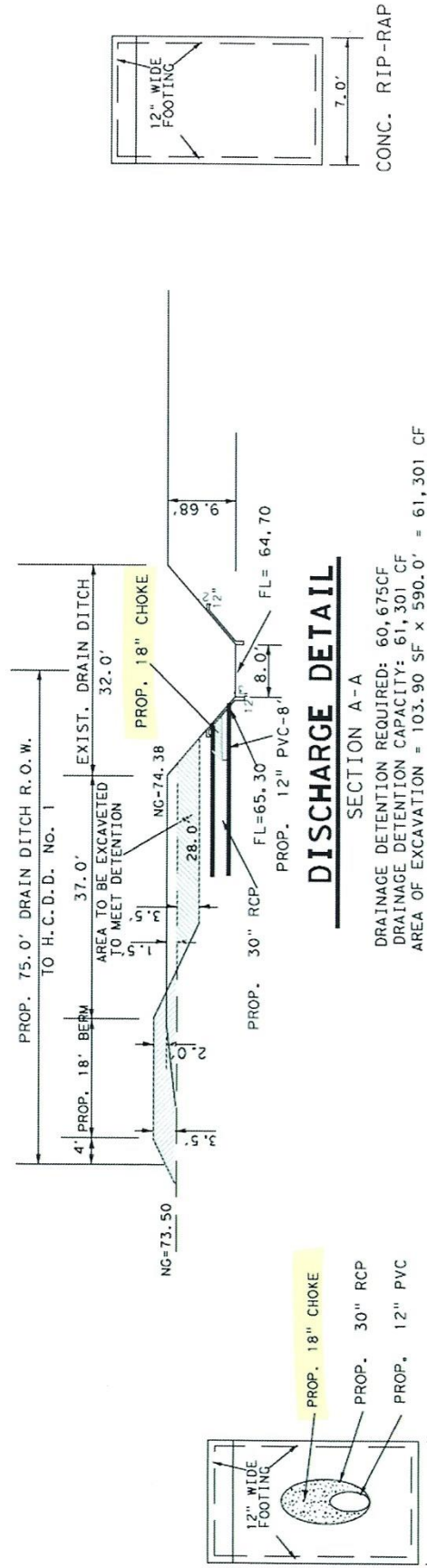
HCCID #9 does not object to storing the mandated 50 year detention with the proposed ditch as shown on the cross sections. This Subdivision will require the following:

1. The Proposed Ditch widening, and Detention Area will require outlet controls going into existing ditch
2. Discharge Permit will be required.

The maintenance of this section is outside of the City Limits of Weslaco and will be done by HCDD #1. Please verify final designs with Raul Sesin PE, CFM Hidalgo County Drainage District No. 1 District Manager.

Randall Winston
General Manager

HCCID #9
Mercedes, Texas
956-565-2411



NOTE:
CONCRETE TO HAVE 3000 PSI
28 DAYS COMPRESSION STRENGTH
ALL REINFORCED STEEL SHALL
BE GRADE 60

NAIN ENGINEERING, L.L.C.
CONSULTING ENGINEER
526 N. 5TH STREET, DONNA, TEXAS. 78537 PH. (956) 784-0218
FIRM No. F-9050

DRAINAGE REPORT
For
AMBER ESTATES

I. PROJECT LOCATION

A 19.719 acre Tract of land out of the south half of Farm Tract 192, Subdivision, according to the map recorded in volume 2, pages 34-37, map records, Hidalgo County, Texas. Property I.D. 324803 and is located on the east side of Mile 6 North Road, 2,640.00 feet north of Mile 10 North Road and is located in the County of Hidalgo and lies within the 3.5 mile ETJ of the city of Weslaco. (Refer to Exhibit B).

II. FLOOD PLAIN

The subject tract lies in Zone "X", Areas determined to be outside 500-year flood plain. F.E.M.A.-F.I.R.M. Map No. 480334 0450 C, Map Revised June 6, 2000. Map Revised to Reflect LOMR: May 30, 2002. (Refer to Exhibit C).

III. SOIL CONDITIONS

A review of the Soil Survey of Hidalgo County indicates the subject tract lies in an area of predominantly Hidalgo (25) (28) sandy clay loam soil that has a pour low shrink-swell potential and is listed in Hydrological Group B. (Refer to Exhibit D)

IV. EXISTING CONDITIONS

The subject tract is currently undeveloped. The existing terrain has a grade of approximately (0.1%). Existing runoff (7.77 cfs) from the site is by form of sheet flow runs towards the east side of this tract.

V. PROPOSED CONDITIONS

The proposed conditions for this subject tract is for 30 lots for residential use. The storm runoff after development will be increase 10.47 cfs for a total 18.2 cfs. I have calculated that 60,675 cf of storm runoff for a 50 year design frequency, and will be out falling into a proposed storm sewer system pipes ranging from 18" to 30" RCP with curb inlets and out falling into Drain Ditch located on the east side of this subdivision and owned by H.C.C.I.D No.9. and will be dedicated to H.C.D.D. No. 1. Detention of 60,675 CF will be accomplished by excavating this volume on the existing Drain Ditch.

☐ REJECTED	
☒ APPROVED FOR SUBMITTAL	
☐ TO H.C. PLANNING DEPT.	
☐ TO CITY	
☒ DISCHARGE PERMIT REQUIRED	
☒ DISTRICT FACILITY	
☐ CITY FACILITY	
☐ OTHER	
<i>Hector Sanchez</i>	
H.C.D.D. NO. 1	DATE <i>4/29/21</i>



Guillermo A. Arratia
4/8/21

INDEX OF SHEETS

1. Cover Sheet
2. Index of Sheets
3. Drainage Report
4. Drainage Calculations – Exhibit "A"
5. Rainfall Intensity Table
6. Runoff Coefficient Table
7. Location Map – Exhibit "B"
- 8-9 FEMA Map Location "Exhibit "C"
- 10-11 Soil Map – Exhibit "D"

DRAINAGE CALCULATIONS EXHIBIT "A"
AMBER ESTATES

AREA= 19.71 Ac.

TxDOT Intensity Constants for $I = b / (T_c + d)^e$

Existing Conditions

Length= 1200 ft.
Slope= 0.1 %
Cexist.= 0.2
Time of Concentration=
Texist. = 121 min.
Iexist.= 1.97 in/hr
Qexist.= 7.77 cfs.

121 min.

10 year storm

b= 87
e= 0.778
d= 9.2

Proposed Conditions

Length= 1200 ft.
Slope= 0.15 %
Cfut.= 0.3
Time of Concentration=
Tfut.= 94 min.
Ifut.= 3.07 in/hr
Qfut.= 18.2 cfs.
Qin= 5.91

94 min.

50 year storm

b= 99
e= 0.749
d= 9.2

tp (Min.)	I50 (in/hr)	Qin (cfs)	Vin (cubic ft.)	Qout (cfs)	Vout (cubic ft.)	Ev (cubic ft.)
10	10.83	64.01	38406	7.77	24210	14,197
20	7.91	46.76	56112	7.77	26540	29,572
30	6.34	37.50	67506	7.77	28870	38,636
40	5.35	31.63	75923	7.77	31201	44,722
50	4.66	27.54	82622	7.77	33531	49,091
60	4.14	24.50	88208	7.77	35862	52,346
70	3.75	22.15	93014	7.77	38192	54,821
80	3.43	20.26	97244	7.77	40523	56,721
90	3.16	18.71	101030	7.77	42853	58,177
110	2.76	16.30	107611	7.77	47514	60,097
120	2.60	15.35	110520	7.77	49845	60,675

Storage Requires= 60,675 cubic feet = 1.39 ac-ft



Paul A. P.E.
4/9/21

TABLE 6. CONSTANTS FOR USE IN FORMULA $I = b/(t_c + d)^e$ (Continued)

COUNTY	2 year				5 year				10 year				25 year				50 year				100 year			
	a	b	d	e	a	b	d	e	a	b	d	e	a	b	d	e	a	b	d	e	a	b	d	e
Hemphill	0.845	55	10.6	0.851	76	10.7	0.842	87	10.7	0.843	103	10.7	0.843	103	10.7	0.840	115	10.7	0.847	132	10.5	10.5	10.5	10.5
Henderson	0.800	60	8.7	0.796	77	9.0	0.770	79	9.0	0.773	93	9.0	0.773	93	9.0	0.752	93	9.0	0.749	102	8.7	8.7	8.7	8.7
Hidalgo	0.831	74	9.6	0.795	80	9.2	0.778	87	9.2	0.771	98	9.2	0.771	98	9.2	0.749	99	9.2	0.740	103	9.6	9.6	9.6	9.6
Hill	0.799	57	8.2	0.790	72	8.8	0.777	78	8.8	0.773	91	8.8	0.773	91	8.8	0.764	98	8.8	0.759	105	8.2	8.2	8.2	8.2
Hockley	0.832	46	9.9	0.832	60	10.0	0.807	64	10.0	0.812	78	10.0	0.812	78	10.0	0.810	87	10.0	0.817	101	9.9	9.9	9.9	9.9
Hood	0.782	48	7.7	0.773	53	8.3	0.773	75	8.3	0.782	90	8.3	0.782	90	8.3	0.773	98	8.3	0.766	105	7.7	7.7	7.7	7.7
Hopkins	0.788	54	8.3	0.783	70	9.1	0.775	77	9.1	0.767	88	9.1	0.767	88	9.1	0.754	93	9.1	0.750	100	8.3	8.3	8.3	8.3
Houston	0.797	63	8.2	0.780	73	8.3	0.757	78	8.3	0.748	86	8.3	0.748	86	8.3	0.740	93	8.3	0.727	94	8.2	8.2	8.2	8.2
Howard	0.805	42	9.2	0.800	56	10.1	0.802	65	10.0	0.796	76	10.1	0.796	76	10.1	0.791	86	10.1	0.788	95	9.2	9.2	9.2	9.2
Hudspeth	0.800	27	9.4	0.840	44	11.4	0.827	50	11.4	0.819	69	11.4	0.819	69	11.4	0.855	78	11.4	0.833	77	9.4	9.4	9.4	9.4
Hunt	0.793	55	8.4	0.785	69	9.2	0.783	80	9.2	0.776	93	9.2	0.776	93	9.2	0.764	99	9.2	0.758	104	8.4	8.4	8.4	8.4
Hutchinson	0.880	56	10.4	0.844	70	11.0	0.837	80	11.0	0.851	100	11.0	0.851	100	11.0	0.863	121	11.0	0.837	115	10.4	10.4	10.4	10.4
Irion	0.780	37	8.1	0.789	55	9.6	0.775	61	9.6	0.783	77	9.6	0.783	77	9.6	0.759	81	9.6	0.770	90	8.1	8.1	8.1	8.1
Jack	0.789	48	8.5	0.779	63	8.5	0.786	75	8.5	0.782	88	8.5	0.782	88	8.5	0.782	96	8.5	0.775	109	8.5	8.5	8.5	8.5
Jackson	0.809	68	8.8	0.769	73	8.5	0.757	80	8.5	0.745	89	8.5	0.745	89	8.5	0.737	95	8.5	0.720	97	8.8	8.8	8.8	8.8
Jasper	0.782	66	8.1	0.743	55	7.4	0.736	73	7.4	0.719	78	7.4	0.719	78	7.4	0.715	84	7.4	0.700	87	8.1	8.1	8.1	8.1
Jeff Davis	0.821	35	9.5	0.865	63	10.8	0.853	69	10.8	0.802	65	10.8	0.802	65	10.8	0.818	77	10.8	0.832	93	9.5	9.5	9.5	9.5
Jefferson	0.799	74	9.2	0.733	65	7.5	0.727	74	7.5	0.730	86	7.5	0.730	86	7.5	0.710	87	7.5	0.687	84	9.2	9.2	9.2	9.2
Jim Hogg	0.831	73	9.4	0.813	82	9.4	0.786	87	9.4	0.780	98	9.4	0.780	98	9.4	0.756	99	9.4	0.750	104	9.4	9.4	9.4	9.4
Jim Wells	0.825	71	9.4	0.797	79	8.9	0.765	80	8.9	0.763	94	8.9	0.763	94	8.9	0.748	98	8.9	0.740	102	9.4	9.4	9.4	9.4
Johnson	0.789	52	8.1	0.779	67	8.6	0.773	77	8.6	0.776	90	8.6	0.776	90	8.6	0.771	99	8.6	0.763	106	8.1	8.1	8.1	8.1
Jones	0.780	41	8.5	0.771	55	9.0	0.794	73	9.0	0.780	82	9.0	0.780	82	9.0	0.803	102	9.0	0.784	104	8.5	8.5	8.5	8.5
Karnes	0.800	60	8.8	0.791	75	8.9	0.766	77	8.9	0.767	91	8.9	0.767	91	8.9	0.751	95	8.9	0.749	106	8.8	8.8	8.8	8.8
Kaufman	0.797	57	8.6	0.790	72	9.0	0.776	80	9.0	0.777	93	9.0	0.777	93	9.0	0.763	98	9.0	0.757	104	8.6	8.6	8.6	8.6
Kendall	0.791	53	8.6	0.771	64	8.3	0.773	74	8.3	0.764	84	8.3	0.764	84	8.3	0.752	94	8.3	0.753	104	8.6	8.6	8.6	8.6
Kenedy	0.826	73	9.2	0.793	79	8.7	0.771	84	8.7	0.763	94	8.7	0.763	94	8.7	0.735	96	8.7	0.731	100	9.2	9.2	9.2	9.2
Kent	0.801	43	9.0	0.801	60	10.0	0.796	70	10.0	0.805	85	10.0	0.805	85	10.0	0.799	93	10.0	0.798	104	9.0	9.0	9.0	9.0
Kerr	0.789	49	8.4	0.765	58	8.0	0.764	69	8.0	0.763	80	8.0	0.763	80	8.0	0.751	91	8.0	0.738	104	8.4	8.4	8.4	8.4
Kimble	0.775	42	8.2	0.758	53	7.6	0.763	66	7.6	0.757	75	7.6	0.757	75	7.6	0.748	88	7.6	0.749	106	8.2	8.2	8.2	8.2
King	0.804	45	9.4	0.794	59	9.6	0.804	74	9.6	0.802	87	9.6	0.802	87	9.6	0.811	103	9.6	0.802	111	9.4	9.4	9.4	9.4
Kinney	0.812	53	8.8	0.780	62	8.0	0.773	70	8.0	0.777	82	8.0	0.777	82	8.0	0.790	97	8.0	0.781	108	8.8	8.8	8.8	8.8
Kleberg	0.826	72	9.4	0.794	79	8.7	0.764	81	8.7	0.761	93	8.7	0.761	93	8.7	0.739	96	8.7	0.731	99	9.4	9.4	9.4	9.4
Knox	0.800	46	9.4	0.788	58	9.3	0.801	76	9.3	0.798	88	9.3	0.798	88	9.3	0.809	104	9.3	0.798	111	9.4	9.4	9.4	9.4
Lamar	0.783	53	8.2	0.777	66	8.9	0.770	74	8.9	0.769	87	8.9	0.769	87	8.9	0.759	93	8.9	0.752	98	8.2	8.2	8.2	8.2
Lamb	0.837	47	10.1	0.828	60	9.6	0.800	63	9.6	0.821	80	9.6	0.821	80	9.6	0.818	88	9.6	0.820	103	10.1	10.1	10.1	10.1

Stormwater Management Manual

permanent high water table, soils with a clay pan or clay layer at or near the surface, and shallow soils over nearly impervious material.

Table 1: Runoff coefficients for the Rational method

Hydrologic Soil Group	A			B			C			D		
Recurrence Interval	5	10	100	5	10	100	5	10	100	5	10	100
Land Use Or Surface Characteristics												
Business:												
A. Commercial Area	.75	.80	.95	.80	.85	.95	.80	.85	.95	.85	.90	.95
B. Neighborhood Area	.50	.55	.65	.55	.60	.70	.60	.65	.75	.65	.70	.80
Residential:												
A. Single Family	.25	.25	.30	.30	.35	.40	.40	.45	.50	.45	.50	.55
B. Multi-Unit (Detached)	.35	.40	.45	.40	.45	.50	.45	.50	.55	.50	.55	.60
C. Multi-Unit (Attached)	.45	.50	.55	.50	.55	.65	.55	.60	.70	.60	.65	.75
D. 1/2 Lot Or Larger	.20	.20	.25	.25	.25	.30	.35	.40	.45	.40	.45	.50
E. Apartments	.50	.55	.60	.55	.60	.70	.60	.65	.75	.65	.70	.80
Industrial												
A. Light Areas	.55	.60	.70	.60	.65	.75	.65	.70	.80	.70	.75	.90
B. Heavy Areas	.75	.80	.95	.80	.85	.95	.80	.85	.95	.80	.85	.95
Parks, Cemeteries												
Playgrounds	.10	.10	.15	.20	.20	.25	.30	.35	.40	.35	.40	.45
Schools	.30	.35	.40	.40	.45	.50	.45	.50	.55	.50	.55	.65
Railroad Yard Areas	.20	.20	.25	.30	.35	.40	.40	.45	.45	.45	.50	.55
Streets												
A. Paved	.85	.90	.95	.85	.90	.95	.85	.90	.95	.85	.90	.95
B. Unpaved	.25	.25	.30	.35	.40	.45	.40	.45	.50	.40	.45	.50
Walks, &												
Roofs	.85	.90	.95	.85	.90	.95	.85	.90	.95	.85	.90	.95
Lawns												
A. 50%-75% Grass (Fair Condition)	.10	.10	.15	.20	.20	.25	.30	.35	.40	.30	.35	.40
B. 75% Or More Grass (Good Condition)	.05	.05	.10	.15	.15	.20	.25	.25	.30	.30	.35	.40
Undeveloped Surface ¹ (By Slope) ²												
A. Flat (0-1%)	0.04-0.09			0.07-0.12			0.11-0.16			0.15-0.20		
B. Average (2-6%)	0.09-0.14			0.12-0.17			0.16-0.21			0.20-0.25		
C. Steep	0.13-0.18			0.18-0.24			0.23-0.31			0.28-0.38		

¹ Undeveloped Surface Definition: Forest and agricultural land, open space.

² Source: Storm Drainage Design Manual, Erie and Niagara Counties Regional Planning Board.

2. **Composite runoff analysis.** Care should be taken not to average runoff coefficients for large segments that have multiple land uses of a wide variety (i.e., business to agriculture). However, within similar land uses, it is often desirable to develop a composite runoff coefficient based on the percentage of different types of surface in the drainage area. The composite procedure can be applied to an entire drainage area, or to typical sample blocks as a guide to selection of reasonable values of the coefficient for an entire area.
3. **Rainfall intensity.** The intensity (I) is the average rainfall rate in inches per hour for the period of maximum rainfall of a given frequency, with a duration equal to the time of concentration. The time of concentration is defined as the time required for a drop of water falling on the most remote point of a drainage basin to reach the outlet in question. The time of concentration is



HIDALGO COUNTY DRAINAGE DISTRICT No. 1

RAUL E. SESIN, PE, CFM

District General Manager

Hidalgo County Floodplain Administrator

BOARD OF DIRECTORS

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Board Member

ELLIE TORRES
Board Member

April 22, 2021

Mike R. Perez
City Manager
255 S. Kansas Ave.
Weslaco, Texas 78596

RE: AMBER ESTATES

Dear Mr. Perez,

This letter is in response to a request from the Engineer of record for Amber Estates, Guillermo Arratia, 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 HCCID9 ditch, maintained by the HCDD1. 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 East 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

A handwritten signature in blue ink that reads "Hector Garcia".

Hector H. Garcia De Pena, EIT
District Engineer in Training

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

NAIN ENGINEERING, L.L.C.
CONSULTING ENGINEER
526 N. 5TH STREET, DONNA, TEXAS. 78537 PH. (956) 784-0218
FIRM No. F-9050

DRAINAGE REPORT
For
AMBER ESTATES

Prepared by : Guillermo A. Arratia, P.E.



Guillermo A. Arratia, P.E.
4/8/21

INDEX OF SHEETS

- 1. Cover Sheet**
- 2. Index of Sheets**
- 3. Drainage Report**
- 4. Drainage Calculations – Exhibit “A”**
- 5. Rainfall Intensity Table**
- 6. Runoff Coefficient Table**
- 7. Location Map – Exhibit “B”**
- 8-9 FEMA Map Location “Exhibit “C”**
- 10-11 Soil Map – Exhibit “D”**

NAIN ENGINEERING, L.L.C.
CONSULTING ENGINEER
526 N. 5TH STREET, DONNA, TEXAS. 78537 PH. (956) 784-0218
FIRM No. F-9050

DRAINAGE REPORT
For
AMBER ESTATES

I. PROJECT LOCATION

A 19.719 acre Tract of land out of the south half of Farm Tract 192, Subdivision, according to the map recorded in volume 2, pages 34-37, map records, Hidalgo County, Texas. Property I.D. 324803 and is located on the east side of Mile 6 North Road, 2,640.00 feet north of Mile 10 North Road and is located in the County of Hidalgo and lies within the 3.5 mile ETJ of the city of Weslaco. (Refer to Exhibit B).

II. FLOOD PLAIN

The subject tract lies in Zone "X", Areas determined to be outside 500-year flood plain. F.E.M.A.-F.I.R.M. Map No. 480334 0450 C, Map Revised June 6, 2000. Map Revised to Reflect LOMR: May 30, 2002. (Refer to Exhibit C).

III. SOIL CONDITIONS

A review of the Soil Survey of Hidalgo County indicates the subject tract lies in an area of predominantly Hidalgo (25) (28) sandy clay loam soil that has a pour low shrink-swell potential and is listed in Hydrological Group B. (Refer to Exhibit D)

IV. EXISTING CONDITIONS

The subject tract is currently undeveloped. The existing terrain has a grade of approximately (0.1%). Existing runoff (7.77 cfs) from the site is by form of sheet flow runs towards the east side of this tract.

V. PROPOSED CONDITIONS

The proposed conditions for this subject tract is for 30 lots for residential use. The storm runoff after development will be increase 10.47 cfs for a total 18.2 cfs, I have calculated that 60,675 cf of storm runoff for a 50 year design frequency, and will be out falling into a proposed storm sewer system pipes ranging from 18" to 30" RCP with curb inlets and out falling into Drain Ditch located on the east side of this subdivision and owned by H.C.C.I.D No.9. and will be dedicated to H.C.D.D. No. 1. Detention of 60,675 CF will be accomplished by excavating this volume on the existing Drain Ditch.

☐ REJECTED	
☒ APPROVED FOR SUBMITTAL	
☒ TO H.C. PLANNING DEPT.	
☒ TO CITY	
☒ DISCHARGE PERMIT REQUIRED	
☒ DISTRICT FACILITY	
☐ CITY FACILITY	
☐ OTHER	
<i>Hector Garcia</i>	
H.C.D.D. NO. 1	DATE <i>4/29/21</i>



Pauli Col. PE
4/8/21

DRAINAGE CALCULATIONS EXHIBIT "A"
AMBER ESTATES

AREA= 19.71 Ac.

TxDOT Intensity Constants for $I = b / (T_c + d)^e$

Existing Conditions

Length= 1200 ft.

Slope= 0.1 %

Cexist.= 0.2

Time of Concentration= 121 min.

Text. = 121 min.

Iexist.= 1.97 in/hr

Qexist.= 7.77 cfs.

10 year storm

b= 87

e= 0.778

d= 9.2

Proposed Conditions

Length= 1200 ft.

Slope= 0.15 %

Cfut.= 0.3

Time of Concentration= 94 min.

Tfut.= 94 min.

Ifut.= 3.07 in/hr

Qfut.= 18.2 cfs.

Qin= 5.91 i

50 year storm

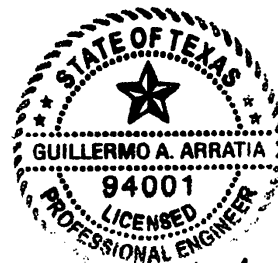
b= 99

e= 0.749

d= 9.2

tp (Min.)	I50 (in/hr)	Qin (cfs)	Vin (cubic ft.)	Qout (cfs)	Vout (cubic ft.)	Ev (cubic ft.)
10	10.83	64.01	38406	7.77	24210	14,197
20	7.91	46.76	56112	7.77	26540	29,572
30	6.34	37.50	67506	7.77	28870	38,636
40	5.35	31.63	75923	7.77	31201	44,722
50	4.66	27.54	82622	7.77	33531	49,091
60	4.14	24.50	88208	7.77	35862	52,346
70	3.75	22.15	93014	7.77	38192	54,821
80	3.43	20.26	97244	7.77	40523	56,721
90	3.16	18.71	101030	7.77	42853	58,177
110	2.76	16.30	107611	7.77	47514	60,097
120	2.60	15.35	110520	7.77	49845	60,675

Storage Requires= 60,675 cubic feet = 1.39 ac-ft



Guillermo A. Arratia P.E.
4/9/21

TABLE 5. CONSTANTS FOR USE IN FORMULA $I = b/(t+d)^e$ (Continued)

COUNTY	2 year					5 year					10 year					25 year					50 year					100 year				
	e	b	d	e	b	d	e	b	d	e	b	d	e	b	d	e	b	d	e	b	d	e	b	d	e	b	d	e	b	d
Hempflitt	0.845	55	10.6	0.851	76	10.7	0.842	87	10.7	0.843	103	10.7	0.840	115	10.7	0.837	132	10.7	0.837	132	10.7	0.840	115	10.7	0.837	132	10.7	0.837	132	10.7
Henderson	0.800	60	8.7	0.796	77	9.0	0.770	79	9.0	0.773	93	9.0	0.762	93	9.0	0.749	102	8.7	0.749	102	8.7	0.762	93	9.0	0.749	102	8.7	0.749	102	8.7
Hidalgo	0.831	74	9.5	0.795	80	9.2	0.778	87	9.2	0.771	98	9.2	0.745	98	9.2	0.740	103	9.6	0.740	103	9.6	0.771	98	9.2	0.740	103	9.6	0.740	103	9.6
Hill	0.799	67	8.2	0.790	72	8.8	0.777	78	8.8	0.773	91	8.8	0.764	98	8.8	0.759	105	8.2	0.759	105	8.2	0.773	91	8.8	0.759	105	8.2	0.759	105	8.2
Heckley	0.832	46	9.9	0.832	60	10.0	0.807	64	10.0	0.812	78	10.0	0.810	87	10.0	0.817	101	9.9	0.817	101	9.9	0.812	78	10.0	0.810	87	10.0	0.817	101	9.9
Hood	0.782	48	7.7	0.773	63	8.3	0.773	75	8.3	0.782	90	8.3	0.773	98	8.3	0.766	105	7.7	0.766	105	7.7	0.773	98	8.3	0.766	105	7.7	0.766	105	7.7
Hopkins	0.788	54	8.3	0.783	70	9.1	0.775	77	9.1	0.767	88	9.1	0.754	93	9.1	0.750	100	8.3	0.750	100	8.3	0.767	88	9.1	0.754	93	9.1	0.750	100	8.3
Houston	0.797	63	8.2	0.780	73	8.3	0.757	78	8.3	0.748	86	8.3	0.740	93	8.3	0.727	94	8.2	0.727	94	8.2	0.757	78	8.3	0.740	93	8.3	0.727	94	8.2
Howard	0.805	42	9.2	0.800	55	10.1	0.802	65	10.0	0.796	76	10.1	0.791	86	10.1	0.788	95	9.2	0.788	95	9.2	0.802	65	10.0	0.791	86	10.1	0.788	95	9.2
Hudspeth	0.800	27	9.4	0.840	44	11.4	0.827	50	11.4	0.819	60	11.4	0.856	78	11.4	0.833	77	7.4	0.833	77	7.4	0.819	60	11.4	0.856	78	11.4	0.833	77	7.4
Hunt	0.793	55	8.4	0.785	69	9.2	0.783	80	9.2	0.776	93	9.2	0.764	99	9.2	0.758	104	8.4	0.758	104	8.4	0.783	80	9.2	0.776	93	9.2	0.764	99	9.2
Hutchinson	0.850	56	10.4	0.844	70	11.0	0.837	80	11.0	0.851	100	11.0	0.863	121	11.0	0.837	115	10.4	0.837	115	10.4	0.837	80	11.0	0.851	100	11.0	0.863	121	11.0
Irion	0.780	37	8.1	0.789	55	9.6	0.779	61	9.6	0.783	77	9.6	0.759	81	9.6	0.770	90	8.1	0.770	90	8.1	0.779	61	9.6	0.783	77	9.6	0.759	81	9.6
Jack	0.789	48	8.5	0.779	63	8.5	0.786	75	8.5	0.782	88	8.5	0.782	98	8.5	0.775	109	8.5	0.775	109	8.5	0.782	88	8.5	0.782	98	8.5	0.775	109	8.5
Jackson	0.809	68	8.8	0.769	73	8.5	0.757	80	8.5	0.745	89	8.5	0.737	95	8.5	0.720	97	8.8	0.720	97	8.8	0.757	80	8.5	0.745	89	8.5	0.737	95	8.5
Jasper	0.782	55	8.1	0.743	65	7.4	0.736	73	7.4	0.719	78	7.4	0.715	84	7.4	0.700	87	8.1	0.700	87	8.1	0.736	73	7.4	0.719	78	7.4	0.715	84	7.4
Jeff Davis	0.821	35	9.5	0.865	63	10.8	0.853	69	10.8	0.802	65	10.8	0.818	77	10.8	0.832	93	9.5	0.832	93	9.5	0.853	69	10.8	0.802	65	10.8	0.818	77	10.8
Jefferson	0.799	74	9.2	0.733	65	7.5	0.727	74	7.5	0.730	86	7.5	0.710	87	7.5	0.687	84	9.2	0.687	84	9.2	0.733	65	7.5	0.727	74	7.5	0.730	86	7.5
Jim Hogg	0.831	73	9.4	0.813	82	9.4	0.786	87	9.4	0.780	98	9.4	0.756	99	9.4	0.750	104	9.4	0.750	104	9.4	0.813	82	9.4	0.786	87	9.4	0.780	98	9.4
Jim Wells	0.825	71	9.4	0.797	79	8.9	0.765	80	8.9	0.768	94	8.9	0.748	98	8.9	0.740	102	9.4	0.740	102	9.4	0.797	79	8.9	0.765	80	8.9	0.768	94	8.9
Johnson	0.789	52	8.1	0.779	67	8.6	0.773	77	8.6	0.778	90	8.6	0.771	99	8.6	0.763	106	8.1	0.763	106	8.1	0.779	67	8.6	0.773	77	8.6	0.778	90	8.6
Jones	0.780	41	8.5	0.771	55	9.0	0.794	73	9.0	0.780	82	9.0	0.803	102	9.0	0.784	104	8.5	0.784	104	8.5	0.771	55	9.0	0.794	73	9.0	0.803	102	9.0
Karnas	0.800	60	8.8	0.791	75	8.9	0.766	77	8.9	0.767	91	8.9	0.751	95	8.9	0.749	106	8.8	0.749	106	8.8	0.791	75	8.9	0.766	77	8.9	0.767	91	8.9
Kaufman	0.797	57	8.6	0.780	72	9.0	0.776	80	9.0	0.777	93	9.0	0.763	98	9.0	0.757	104	8.6	0.757	104	8.6	0.780	72	9.0	0.776	80	9.0	0.777	93	9.0
Kendall	0.791	53	8.6	0.771	64	8.3	0.773	74	8.3	0.764	84	8.3	0.762	94	8.3	0.757	104	8.6	0.757	104	8.6	0.771	64	8.3	0.773	74	8.3	0.764	84	8.3
Kenedy	0.826	73	9.2	0.793	79	8.7	0.771	84	8.7	0.763	94	8.7	0.735	96	8.7	0.731	100	9.2	0.731	100	9.2	0.793	79	8.7	0.771	84	8.7	0.763	94	8.7
Kent	0.801	43	9.0	0.801	60	10.0	0.796	70	10.0	0.806	85	10.0	0.799	93	10.0	0.798	104	9.0	0.798	104	9.0	0.801	43	9.0	0.801	60	10.0	0.796	70	10.0
Kerr	0.789	49	8.4	0.765	58	8.0	0.764	69	8.0	0.763	80	8.0	0.761	93	8.0	0.751	99	8.4	0.751	99	8.4	0.765	58	8.0	0.764	69	8.0	0.763	80	8.0
Kimble	0.776	42	8.2	0.758	53	7.6	0.753	56	7.6	0.757	75	7.6	0.742	88	7.6	0.738	94	8.2	0.738	94	8.2	0.758	53	7.6	0.753	56	7.6	0.757	75	7.6
King	0.804	45	9.4	0.794	59	9.6	0.804	74	9.6	0.802	87	9.6	0.811	103	9.6	0.802	111	9.4	0.802	111	9.4	0.794	59	9.6	0.804	74	9.6	0.802	87	9.6
Kimney	0.812	53	8.8	0.780	62	8.0	0.773	70	8.0	0.777	82	8.0	0.790	97	8.0	0.781	108	8.8	0.781	108	8.8	0.780	62	8.0	0.773	70	8.0	0.777	82	8.0
Kieberg	0.826	72	9.4	0.794	79	8.7	0.764	81	8.7	0.761	93	8.7	0.739	96	8.7	0.731	100	9.4	0.731	100	9.4	0.794	79	8.7	0.764	81	8.7	0.761	93	8.7
Knox	0.800	46	9.4	0.788	58	9.3	0.801	76	9.3	0.798	88	9.3	0.809	104	9.3	0.798	111	9.4	0.798	111	9.4	0.788	58	9.3	0.801	76	9.3	0.798	88	9.3
Lamar	0.783	53	8.2	0.777	66	8.9	0.770	74	8.9	0.769	87	8.9	0.759	93	8.9	0.752	98	8.2	0.752	98	8.2	0.777	66	8.9	0.770	74	8.9	0.769	87	8.9
Lamb	0.837	47	10.1	0.828	60	9.6	0.800	63	9.6	0.821	80	9.6	0.818	88	9.6	0.820	103	10.1	0.820	103	10.1	0.828	60	9.6	0.800	63	9.6	0.821	80	9.6

Water Management Manual

permanent high water table, soils with a clay pan or clay layer at or near the surface, and shallow soils over nearly impervious material.

Table 1: Runoff coefficients for the Rational method

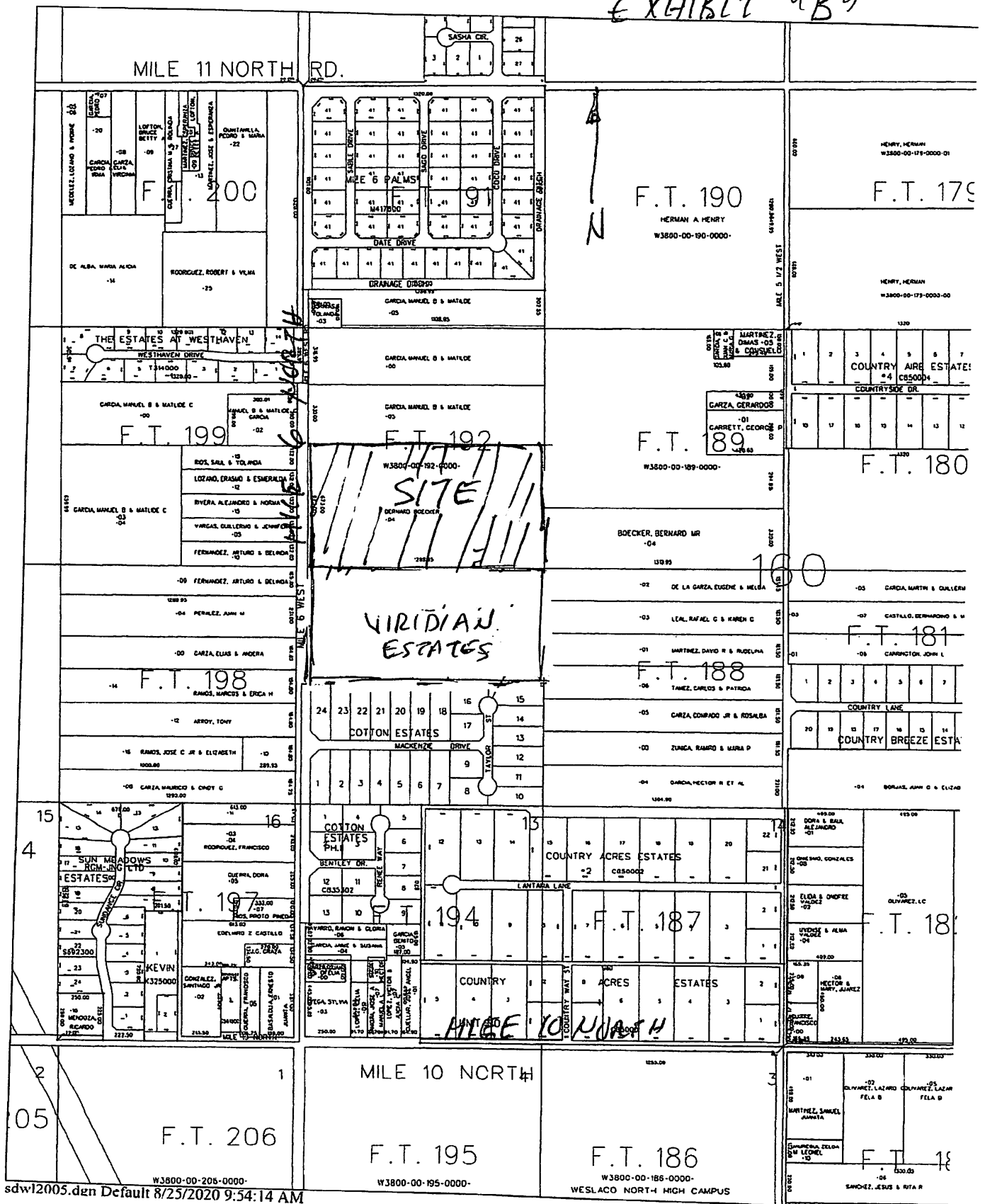
Hydrologic Soil Group	A			B			C			D		
Recurrence Interval	5	10	100	5	10	100	5	10	100	5	10	100
Land Use Or Surface Characteristics												
Business:												
A. Commercial Area	.75	.80	.95	.80	.85	.95	.80	.85	.95	.85	.90	.95
B. Neighborhood Area	.50	.55	.65	.55	.60	.70	.60	.65	.75	.65	.70	.80
Residential:												
A. Single Family	.25	.25	.30	.30	.35	.40	.40	.45	.50	.40	.50	.55
B. Multi-Unit (Detached)	.35	.40	.45	.40	.45	.50	.45	.50	.55	.50	.55	.65
C. Multi-Unit (Attached)	.45	.50	.55	.50	.55	.65	.55	.60	.70	.60	.65	.75
D. 1/2 Lot Or Larger	.20	.20	.25	.25	.25	.30	.35	.40	.45	.40	.45	.50
E. Apartments	.50	.55	.60	.55	.60	.70	.60	.65	.75	.65	.70	.80
Industrial												
A. Light Areas	.55	.60	.70	.60	.65	.75	.65	.70	.80	.70	.75	.90
B. Heavy Areas	.75	.80	.95	.80	.85	.95	.80	.85	.95	.80	.85	.95
Parks, Cemeteries												
Playgrounds	.10	.10	.15	.20	.20	.25	.30	.35	.40	.35	.40	.45
Schools	.30	.35	.40	.40	.45	.50	.45	.50	.55	.50	.55	.65
Railroad Yard Areas	.20	.20	.25	.30	.35	.40	.40	.45	.45	.45	.50	.55
Streets												
A. Paved	.85	.90	.95	.85	.90	.95	.85	.90	.95	.85	.90	.95
B. Unpaved	.25	.25	.30	.35	.40	.45	.40	.45	.50	.40	.45	.50
Driveways, Walks, & Roofs												
A. 50%-75% Grass (Fair Condition)	.10	.10	.15	.20	.20	.25	.30	.35	.40	.30	.35	.40
B. 75% Or More Grass (Good Condition)	.05	.05	.10	.15	.15	.20	.25	.25	.30	.30	.35	.40
Undeveloped Surface ¹ (By Slope) ²												
A. Flat (0-1%)	0.04-0.09			0.07-0.12			0.11-0.16			0.15-0.20		
B. Average (2-6%)	0.09-0.14			0.12-0.17			0.16-0.21			0.20-0.25		
C. Steep	0.13-0.18			0.18-0.24			0.23-0.31			0.28-0.38		

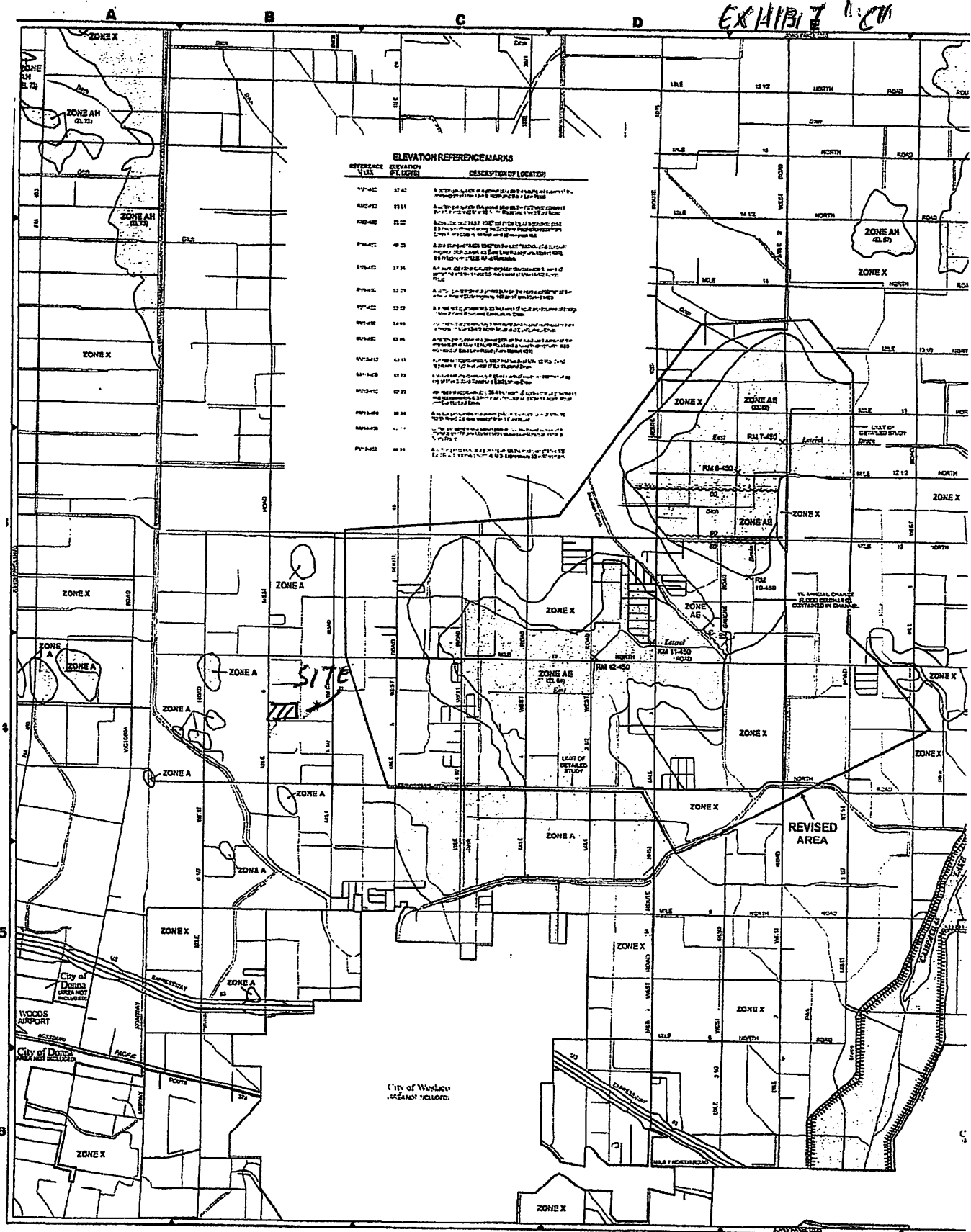
¹ Undeveloped Surface Definition: Forest and agricultural land, open space.

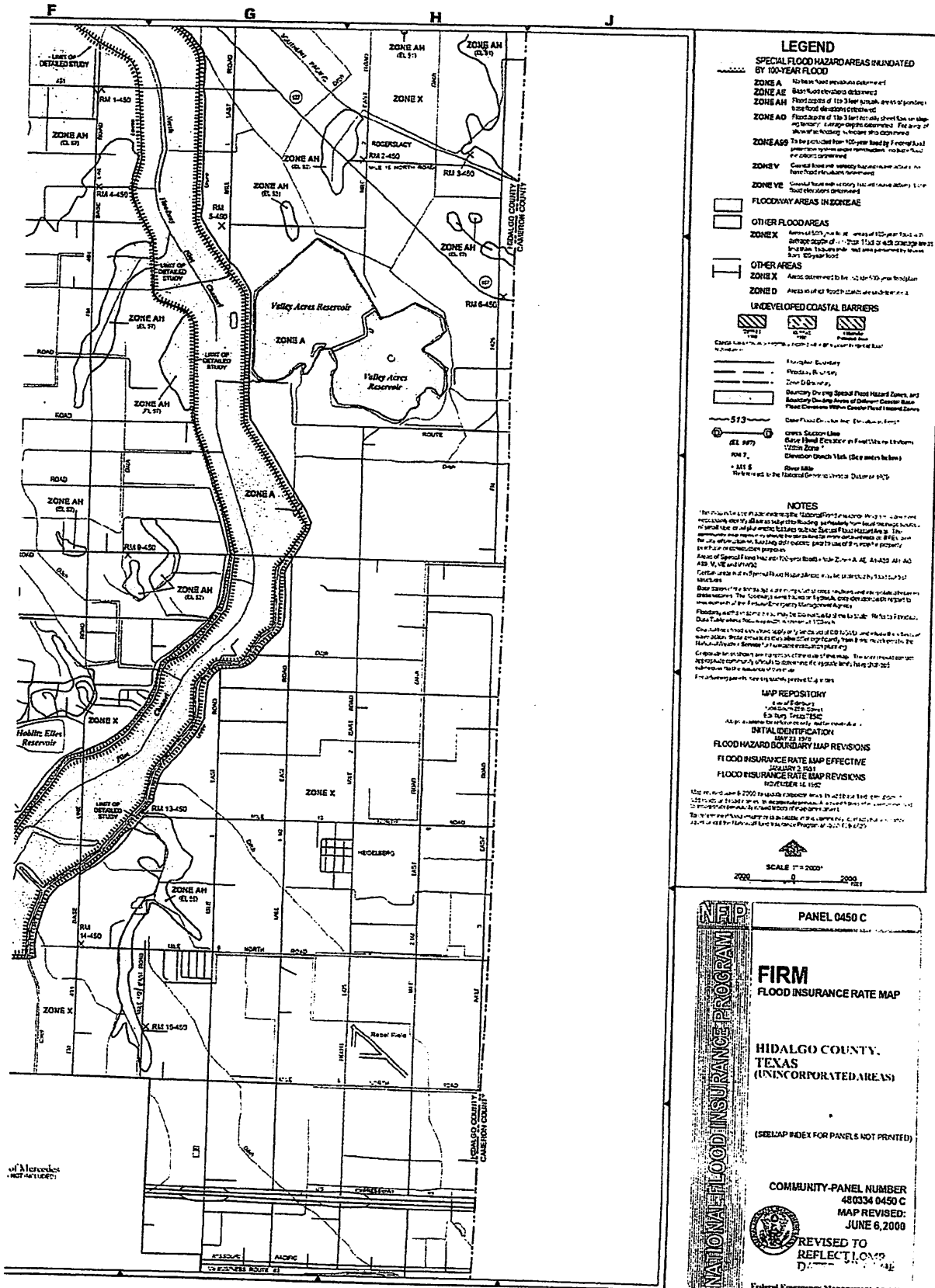
² Source: Storm Drainage Design Manual, Erie and Niagara Counties Regional Planning Board.

2. **Composite runoff analysis.** Care should be taken not to average runoff coefficients for large segments that have multiple land uses of a wide variety (i.e., business to agriculture). However, within similar land uses, it is often desirable to develop a composite runoff coefficient based on the percentage of different types of surface in the drainage area. The composite procedure can be applied to an entire drainage area, or to typical sample blocks as a guide to selection of reasonable values of the coefficient for an entire area.
3. **Rainfall intensity.** The intensity (I) is the average rainfall rate in inches per hour for the period of maximum rainfall of a given frequency, with a duration equal to the time of concentration. The time of concentration is defined as the time required for a drop of water falling on the most remote point of a drainage basin to reach the outlet in question. The time of concentration is

EXHIBIT 4B4









HIDALGO COUNTY, TEXAS

EXHIBIT "D"

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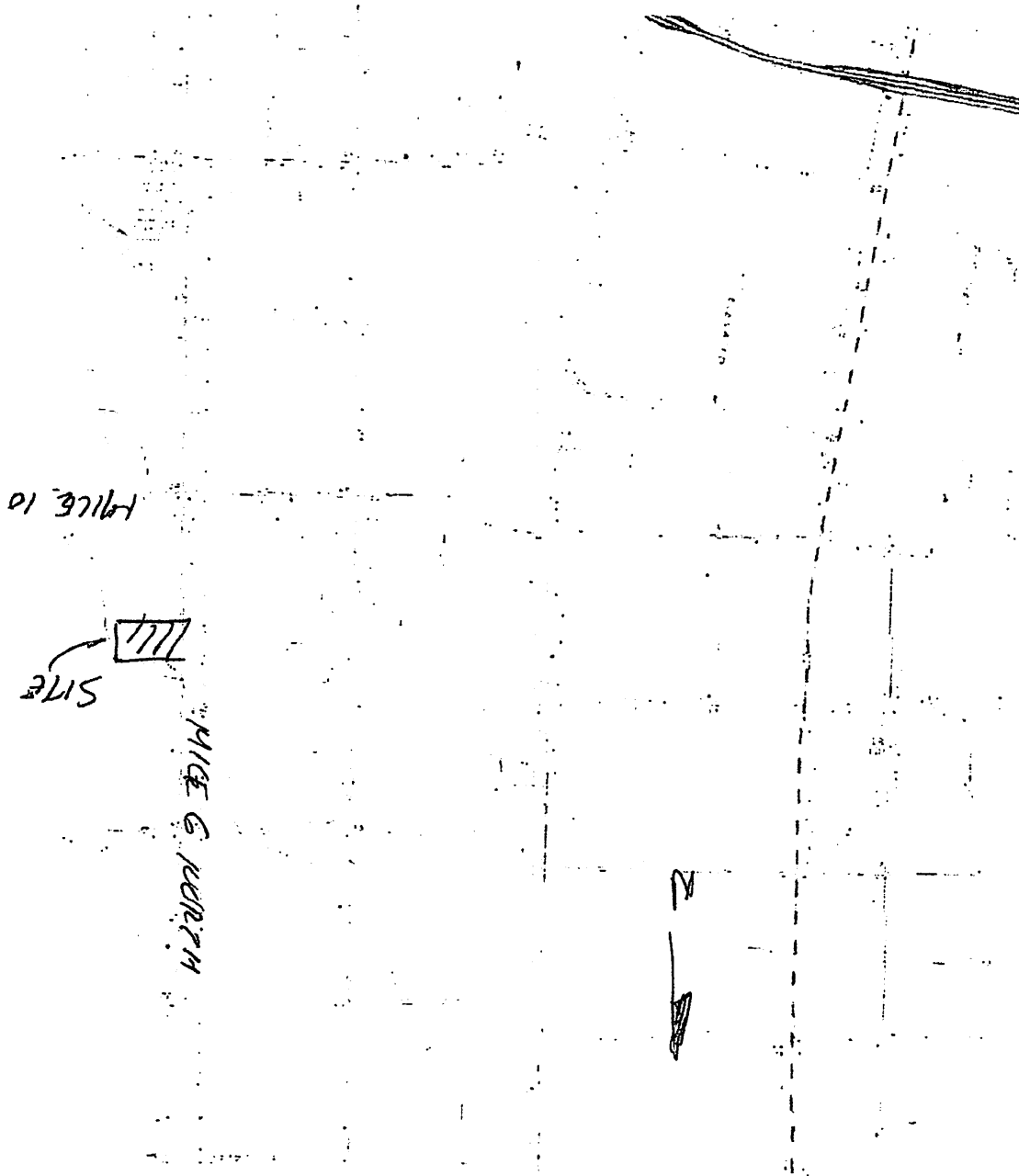
Soil survey

TABLE 18.--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	Hydro-logic group	Flooding			High water table			Cemented pan		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hard-ness	Uncoated steel	Concrete
1.* Arents					<u>Ft</u>			<u>In</u>			
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	D	None-----	---	---	5.0-6.0	Apparent	Sep-May	---	---	High-----	Low.
8----- Comitas	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
9, 10, 11----- Delfina	B	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.
----- Randado	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	+2-6.0	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	D	None-----	---	---	5.0-6.0	---	---	---	---	High-----	Moderate.
21.* Harlingen	D	None to rare	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
22, 23, 24----- Hebronville	B	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
25, 26, 27, 28----- Hidalgo	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
30----- Hidalgo	B	None-----	---	---	2.5-5.0	Apparent	Sep-May	---	---	High-----	Low.
31.* Hidalgo	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
32.* Jimenez	C	None-----	---	---	>6.0	---	---	7-20	Thin	High-----	Low.

See footnotes at end of table.



U.S.G.S MAP

