

CITY OF WESLACO

A REGULAR MEETING OF THE PLANNING & ZONING COMMISSION

November 2, 2022, 5:30P.M.

LEGISLATIVE CHAMBERS

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
OCTOBER 5, 2022**

On Wednesday, October 5, 2022, 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
Jim Forward	Commissioner
Adrian Torres	Commissioner
Jose Treviño	Commissioner
Rebekah de la Fuente	Planning Director
Kayla Arevalo	Secretary

Also, present were Johanna Maldonado, City Planner; Joe Pedraza, Assistant PCE Director; Jessie Valderas, Fire Inspector; Marcelo Cosme, Water & Sewer Superintendent, 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

Mrs. Maldonado called the roll call noting that, Commissioner Summers and Commissioner Bullion were absent at the time of roll, a quorum was established.

II. PUBLIC COMMENTS

There were no comments received.

III. APPROVAL OF MINUTES

A. September 7, 2022, Regular Meeting

Commissioner Berry made a motion to approve the minutes of September 7, 2022, seconded by Commissioner Treviño. Motion carried.

IV. PUBLIC HEARING

A. Discussion and consideration to approve rezone 835 N Martinez. Also being Lot 1&2, Block 5, Villa Vista Subdivision, Hidalgo County, Texas from R-1 One-family dwelling district to B-1 neighborhood business district

Mrs. Maldonado stated that notice appeared in the Monitor on September 19, 2022, there were Twenty-five (25) property owners notified within the 200-foot radius, no letters for or against the item were received. Staff recommended approval based on 2040 land use map and surrounding land use.

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

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

B. Discussion and consideration to approve a Conditional Use Permit to operate an event center at 310 W IH 2 STE. 1&2, also being Lot 2, 400 West Expressway 83 Subdivision, Hidalgo County, Texas

Mrs. Maldonado stated that notice appeared in the Monitor on September 19, 2022, there were Twelve (12) 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 Forward. Motion carried.

Commissioner Berry made a motion to approve the conditional use request, seconded by Commissioner Treviño. Motion carried.

V. DISCUSSION AND CONSIDERATION

A. Discussion and consideration for the Preliminary and/or Final Plat for Pike Terrace - being a 36.092-acre out of farm tract 163, block 178, The West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the southeast Corner of w. pike Blvd. and Milanos Rd. Possible Action.

Mrs. Maldonado stated that this item is a one hundred and five (105) lot subdivision and is located inside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8" waterline and sewer by the City of Weslaco through a 12" sewer line. The property is within a Flood Zone "B". Applicant has submitted his TIA to Engineering. Access for lots 18 & 19 and lots 4 & 5 have been restricted to fronting streets only with no access to Milanos or Pike. Staff recommended approval.

Commissioner Berry made the motion to approve the Preliminary and Final plat, seconded by Commissioner Forward. Motion carried

B. Discussion and consideration for the Preliminary and/or Final Plat for Rock Ridge - being 15.092 acres out of Farm Tract 631 & 633, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located approximately 500 ft west of Bus. 83 and Westgate on the south side of Bus. 83. Possible Action.

Mrs. Maldonado stated that this item is a two (2) lot subdivision is inside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through an 8" waterline and sewer by the City of Weslaco through a 12" sewer line. The property is within a Flood Zone "X". Developer has removed original plat note 7 and updated easement to reflect utility and access easement. Staff recommended approval.

Commissioner Torres made the motion to approve the Preliminary and Final plat, seconded by Commissioner Berry. Motion carried

C. Discussion and consideration for the Final Plat for Sayyed Commercial Development being a 2.960-acre out of farm tracts 1065, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the Southeast corner of Mile 11 North & FM 1015. Possible Action.

Mrs. Maldonado stated that this item is a one (1) lot subdivision and 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 the City of Weslaco through an 8" sewer line. The property is within a Flood Zone "B". Applicant is requesting a variance for a zero-foot side setback. Staff recommends approval.

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

D. Discussion and consideration for the Final Plat for Mi Fortuna Estates being a 4.52-acre out of farm tract 790, West Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the Southeast corner of Mile 11 North & FM 1015. Possible Action.

Mrs. Maldonado stated that this item is an eight (8) lot subdivision and is located inside the City of Weslaco. This subdivision is being serviced with water by City of Weslaco through a 12" waterline and sewer by the City of Weslaco through a 10" sewer line. The property is within a Flood Zone "B". Staff recommended approval.

Commissioner Forward made the motion to approve the Final plat, seconded by Commissioner Torres. Motion carried

E. Discussion and consideration for the Final Plat for Gilberto Estates being a 4.56-acre out of farm tract 101, West & Adams Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the Northeast corner of Mile 4 ½ W & Mile 10 N. Possible Action.

Mrs. Maldonado stated that this item is a six (6) lot subdivision and is located currently 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". Staff recommended approval. Applicant is requesting variance for OSSF.

Commissioner Berry made the motion to approve the Final plat and Variance Request for OSSF, seconded by Commissioner Torres. Motion carried

F. Discussion and re-consideration for the Final Plat for Mid Valley International Industrial Park – being a 146.09 acre tract of land out of acre tract of land out of farm tract 1056, 1057 and 1058, Block 116, West Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the Northeast corner of intersection Mile 9 & FM 1015

Mrs. Maldonado stated that the proposed twenty-six (26) lot subdivision is located inside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8" waterline and sewer by City of Weslaco services through a 10" sewer line. The property is within a Flood Zone "X". Staff recommends approval of Final Plat.

Commissioner Berry made the motion to approve the Final Plat, seconded by Commissioner Treviño. Motion carried

G. Discussion and consideration on the variance request to section 26-34 for Chelsea Park Villas Subdivision – being 6.83 acres being the West 6.83 Acres of Chelsea Park Subdivision, Weslaco, Hidalgo County, Texas located on the Southwest Corner of W 9th & s Border Ave. Possible Action

Mrs. Maldonado stated that the Developers is requesting a 50 ft right of way dedication along the adjacent ditch. The city ordinance requires a 75-foot drainage ditch easement from the centerline of the drainage ditch; therefore, the developer is requesting a variance to Section 26-34.

Commissioner Berry made the motion to approve the Variance Request, seconded by Commissioner Forward. Motion carried

VI. ADJOURNMENT

There being no further business to come before the Planning and Zoning Commission, Chairman Hernandez adjourned the meeting at 6:03p.m.

Planning and Zoning Commission

David Hernandez, Chairman

Lonnie Berry, Vice-Chairman

Absent
Randy Summers, Commissioner

Absent
Miles Bullion, Commissioner

Jose Treviño, Commissioner

Adrian Torres, Commissioner

Jim Forward, Commissioner

ATTEST:

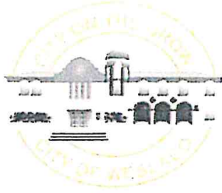
Kayla A. Arevalo, Secretary



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: November 2, 2022	Agenda Item No. (to be assigned by PCE): IV.A.
From: Rebekah de la Fuente, Planning Director, on behalf of Columbus Club of Weslaco	
Subject/Agenda Item: Discussion and consideration to approve rezone 3030 N Texas Blvd. Also being the West 2.5 acres of the North 5 acres of the South 20 acres of Farm Tract 108, West Tract, Hidalgo County, Texas from R-1 One-family dwelling district to B-1 neighborhood business district	
Discussion/Overview: The applicant is requesting to rezone property from R-1 One Family Dwelling District to B-1 neighborhood business district. Notice of the application and the Public Hearing for the Planning and Zoning Commission appeared in The Monitor on October 17, 2022. Twelve (12) property owners within 200 feet of the applicant's property were notified by letter on October 21, 2022.	
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 based on 2040 land use map and surrounding land use.	
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): Request letter.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	

RZNE-000322-2022



APPLICATION FOR REZONING



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. _____

PROPOSED PROJECT

Legal Description of Property to be rezoned:

Lot The West 2.5 acres of the North 5 acres of the South 20 Block

Subdivision Name acres of Farm tract 108 2.5 acres net

Street Address 3030 N. Texas Blvd.

Existing Zoning R1 Existing Land Use Vacant

Proposed Zoning B1 Proposed Land Use Commercial Use

- ☒ \$305.00 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 "The Intent of Zoning Application Instructions".

APPLICANT

Name Columbus Club of Weslaco Phone 956-968-6800

Address 2623 N. Texas Fax: 956-969-2893

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

OWNER

Name _____ Phone _____

Address _____ Fax: _____

City _____ State _____ Zip Code _____ E-Mail: _____

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); or I am authorized by the actual owner to submit this application and have attached written evidence of such authorization.

Signature Juan T. Reyes Date 10/11/22
Owner

Signature _____ Date _____
Applicant

Signature _____ Date _____
Authorized Agent

City of Weslaco

"The City on the Grow"



David Suarez, Mayor
Josh Pedraza, Mayor Pro-Tem, District 1
Leo Muñoz, Commissioner, At-Large
Greg Kerr, Commissioner, At-Large
Letty Lopez, Commissioner, District 2
Jose "JP" Rodriguez, Commissioner, District 3
Adrian Farias, Commissioner, District 4

Martin Garza, Interim City Manager

PLANNING DEPARTMENT

October 21, 2022

Legal Notice

Dear Occupant:

The Weslaco Planning and Zoning Commission will hold a public hearing on Wednesday, November 2, 2022, and the City Commission will hold a public hearing on November 15, 2022, at 5:30 p.m. at the City Hall Legislative Chambers located at 255 South Kansas Avenue

Members of the public who wish to participate in Public Hearing on an agenda item must send their name, address and phone number via email to karevalo@weslacotx.gov by 12:00 pm on November 2, 2022. A staff member will contact you with instructions via phone call to address your public comment.

REZONE REQUEST:

Columbus Club of Weslaco is requesting to rezone 3030 N Texas Blvd. Also being the West 2.5 acres of the North 5 acres of the South 20 acres of Farm Tract 108, West Tract, Hidalgo County, Texas from R-1 One-family dwelling district to B-1 neighborhood business district.

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.

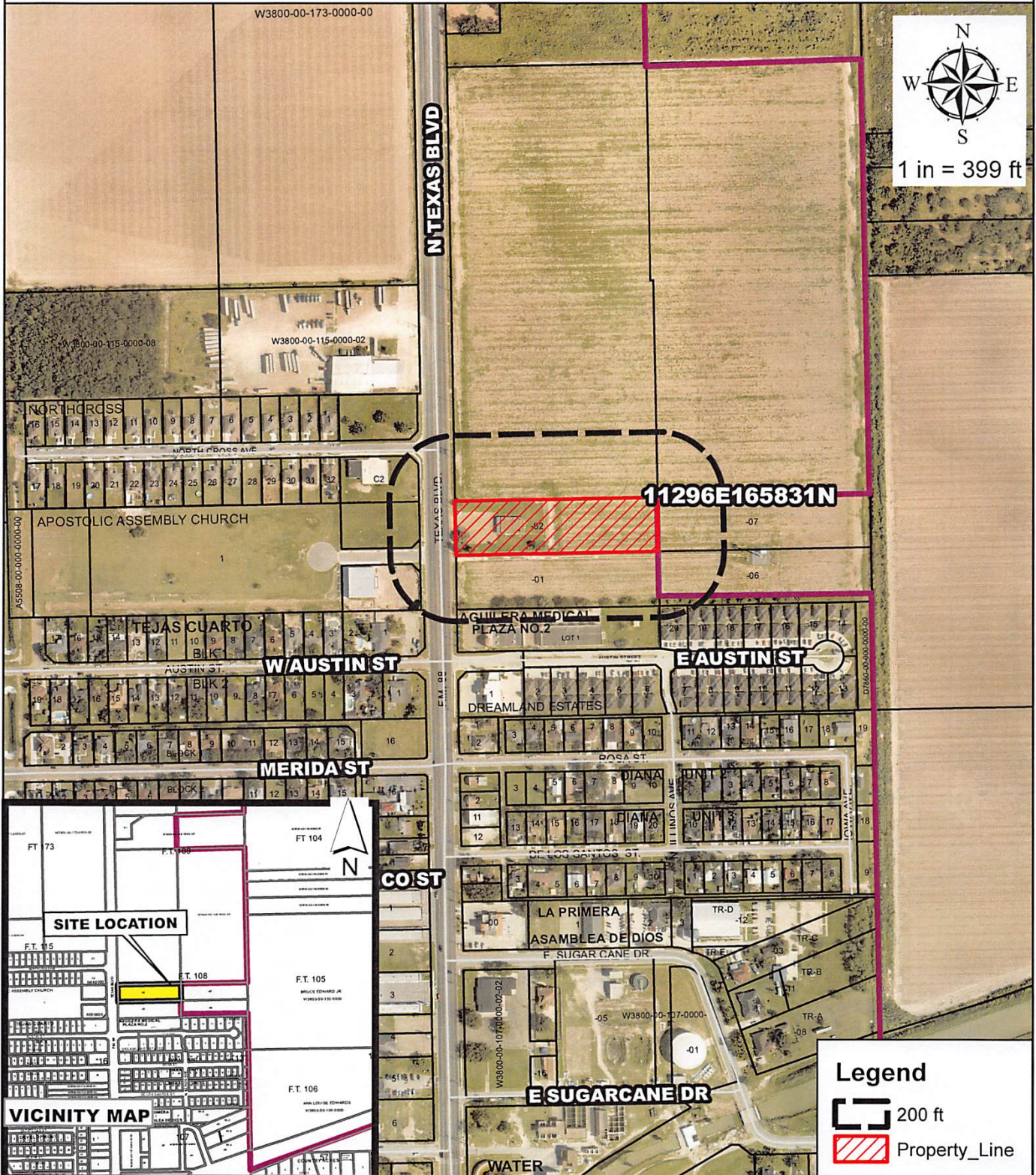
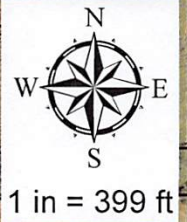
Sincerely,

Rebekah de la Fuente, CFM
Planning Director

Planning &
Code Enforcement

CITY OF WESLACO

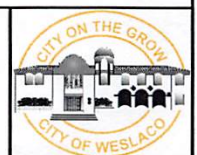
Planning &
Code Enforcement



Columbus Club of Weslaco
3030 N. Texas Blvd
Weslaco Tx 78596

Purpose for the Rezone Request

Existing zoning: R-1
Existing land use: Building
Prop Zone: B-1



City of Weslaco Code Enforcement Dept.

OCT 17, 2022

AGUILERA REAL ESTATE HOLDINGS 920 S CLOSNER BLVD EDINBURG TX 78539	A1311-02-000-000A-00 AGUILERA MEDICAL PLAZA NO. 2 LOT A 2990 N TEXAS BLVD	L: 396500 B: 973326
OCANAS JOSE G & MARIA 2921 N TEXAS BLVD WESLACO TX 78599	T1250-00-001-0001-00 TEJAS CUATRO LOT 1 & LOT 2 BLK 1 2921 N TEXAS BLVD	L: 195120 B: 159990
88 PROPERTIES LLC N TEXAS BLVD WESLACO TX 78596	W3800-00-108-0000-00 WEST TRACT E10AC-N20AC FT 108 & 20AC NET	L: 580000 B: 0
GARZA CARLOS I PO BOX 6105 MCALLEN TX 78502-6105	W3800-00-108-0000-01 WEST TRACT-E660'-N165'-S495' FT 108 2.50AC	L: 0 B: 0
88 PROPERTIES LLC N TEXAS BLVD WESLACO TX 78596	W3800-00-108-0000-05 WEST TRACT-THE WEST 10.0ACRES OF ES OF FARM TRACT 108 & WEST 10AC'S	L: 580000 B: 0
I & I RENTALS LLC 1720 W BUSINES HWY 83 MISSION TX 78573	W3800-00-108-0000-06 WEST TRACT-W660'-N165'-S495' FT 108 AC NET	L: 1740 B: 0
COLUMBUS CLUB OF WESLACO 850 S IOWA AVE WESLACO TX 78596-7038	W3800-00-108-0000-07 WEST TRACT-THE EAST 2.5 ACRES OF THE NORTH 5 ACRES OF THE SOUTH	L: 0 B: 0
GARCIA JUAN M JR 3125 N TEXAS BLVD WESLACO TX 78599	N4490-00-000-00C2-00 NORTHCROSS LOT C2	L: 249660 B: 138340
PALMS CABANAS LLC 509 E PIKE BLVD STE A WESLACO TX 78596	D7860-00-000-0019-00 DREAMLAND ESTATES LOT 19	L: 26180 B: 145645
PALMS CABANAS LLC 509 E PIKE BLVD STE A WESLACO TX 78596	D7860-00-000-0020-00 DREAMLAND ESTATES LOT 20	L: 25498 B: 142229
GONZALEZ NELDA G & JUAN 3308 ROSEWOOD DR WESLACO TX 78599	A5508-00-000-00C1-00 APOSTOLIC ASSEMBLY CHURCH LOT C1	L: 249599 B: 0
V & M PROPERTY RENTALS INC 2012 E UNIVERSITY DR EDINBURG TX 78542	A5508-00-000-00C2-00 APOSTOLIC ASSEMBLY CHURCH LOT C2	L: 249599 B: 0

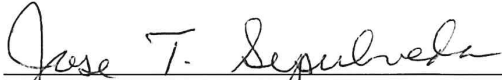
**The Columbus Club of Weslaco.
A non Profit Organization**

CORPORATE RESOLUTION

I, **Jose Sepulveda**, Secretary of The Columbus Club of Weslaco, a Texas Corporation, do hereby certify that I am the keeper of the records and the minutes of the proceedings of the Board of Directors of said Corporation, and that on the 10th day of October, 2022, there was held a meeting of the Board of Directors of said corporation which was duly called Corporation, and at which meeting a quorum of the Directors was present: and that at said meeting the following resolution was duly and legally passed:

RESOLVED, THAT either **Juan Reyes Chairman** of the Corporation was authorized to sign any and all documents necessary, proper and advisable for the application to obtain from the City of Weslaco a zone change from R-1 to Commercial Zoning at the building located at 3030 N. Texas Blvd. Weslaco, Texas.

I further certify that I **Jose Sepulveda** am the is the duly elected, qualified and acting Secretary of this Corporation and **Juan Reyes** is duly elected, qualified and acting Chairman of this Corporation and that the signatures shown here on are the true signatures of Jose Sepulveda and Juan Reyes.


Jose Sepulveda., Secretary

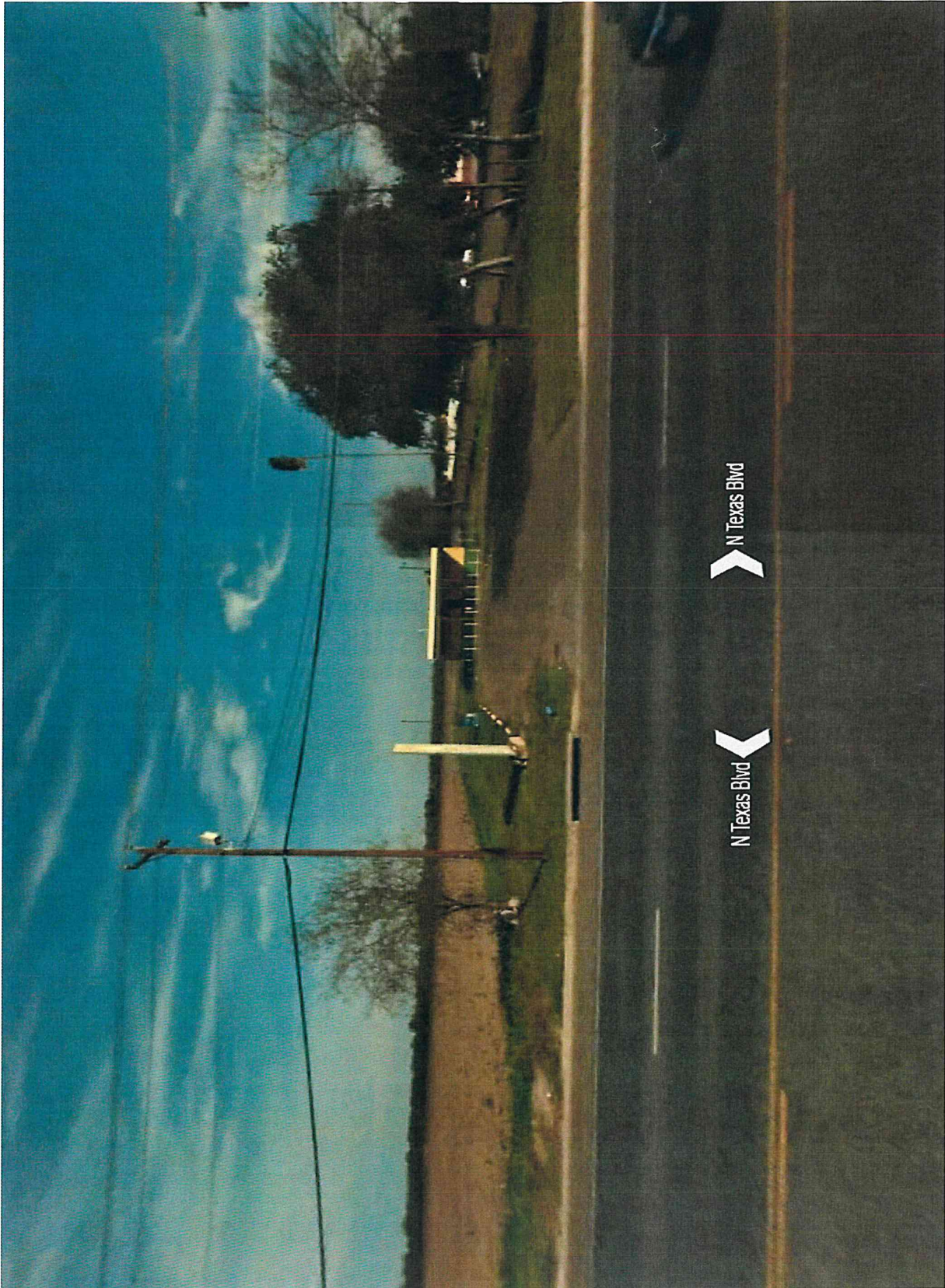

Juan Reyes., Chairman Secretary

In witness hereof I have hereunto set my hand as Secretary of said corporation and have attached hereto the official seal of said corporation, this the **1st day of March, 2022.**


Secretary Jose Sepulveda

South

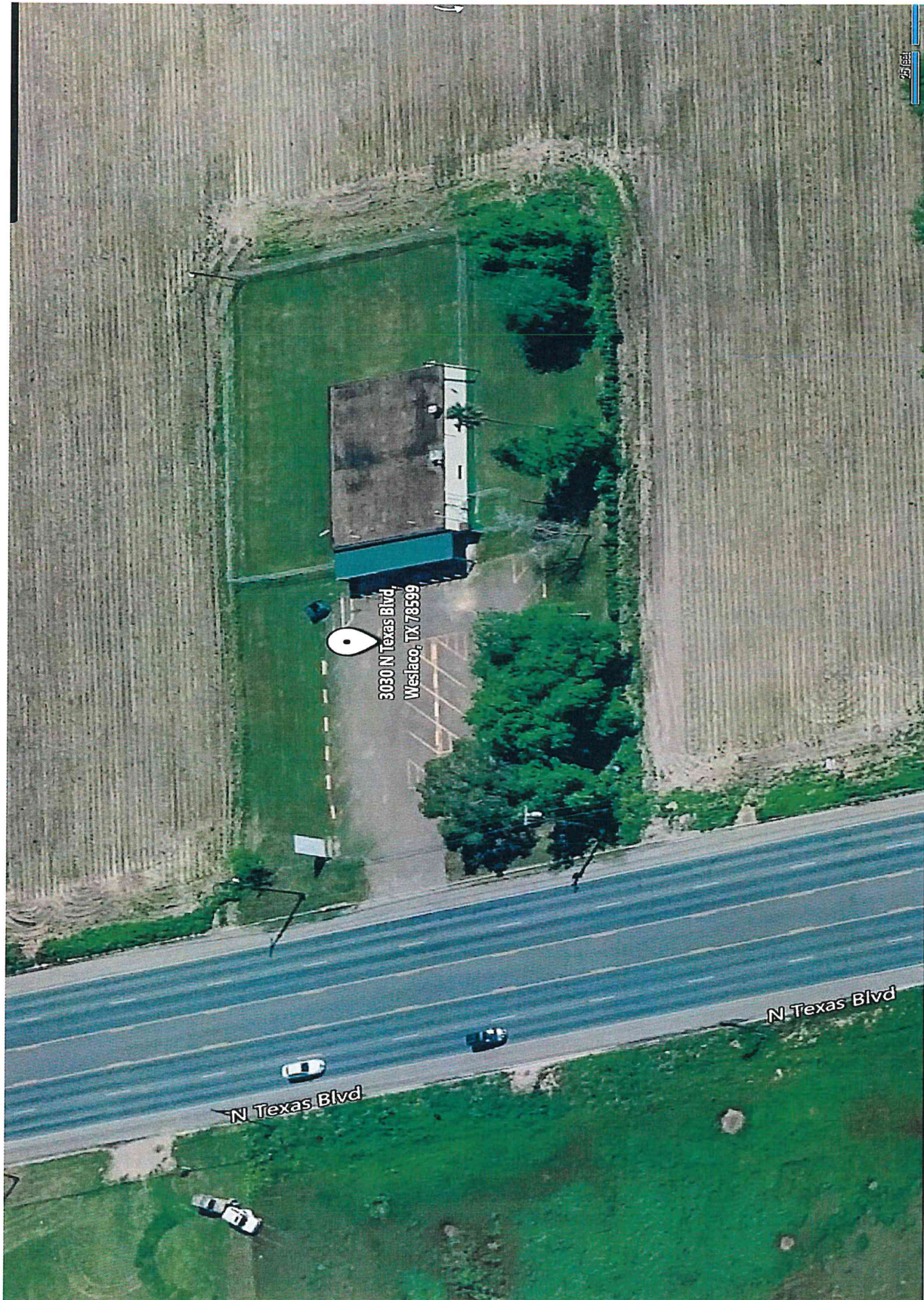
East



North

West







Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: November 2, 2022	Agenda Item No. (to be assigned by PCE): IV. B.
From: Rebekah de la Fuente, Planning Director, on behalf of Viridiana Treviño.	
Subject/Agenda Item: Discussion and consideration to approve Conditional Use Permit to obtain a Mixed Beverage Permit at 529 S. Texas Blvd., also being block 42, Lot 30-33, Weslaco Original Townsite, Hidalgo County, Texas	
Discussion/Overview: The applicant is requesting to obtain a Conditional Use Permit to Conditional Use Permit to obtain a Mixed Beverage. Notice of the application and the public hearing for the Planning and Zoning Commission and the City Commission. Notice appeared in The Monitor on October 17, 2022. Twenty -six (26) property owners within 200 feet of the applicant's property were notified by letter on October 21, 2022.	
Staff recommendation for Commission's Action: Staff recommends approval of the conditional use permit.	
Additional Action Prompted: [☒] Mayor's Signature [☒] Public Hearing [☐] Budget Amendment [☐] Resolution [☐] Ordinance – First Reading [☐] Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Conditional Use Permit with attachments.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	

Use: 000312-2022



APPLICATION FOR CONDITIONAL USE PERMIT

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm. Deadline to submit request is 30 days prior to the meeting.

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

FILE NO. _____

PROPOSED PROJECT

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

Lot 30-33 Block 42

Subdivision Name Weslaco Original Townsite

Street Address 529 South Texas Boulevard Weslaco TX 78596

Existing Zoning _____ Existing Land Use _____

Purpose for the Conditional Use Permit Request _____

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

N/A

- ☒ \$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 Viviana Trevino Phone 956-998-2541

Address 1809 Harrison St Apt 3 Fax: _____

City Weslaco State TX Zip Code 78599 E-Mail: Viviana154@gmail.com

OWNER

Name Maurice We Hon Phone 956-778-0604

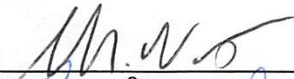
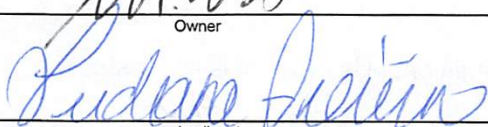
Address 5301 N. 17th St. Apt 16 Fax: _____

City McAllen State TX Zip Code 78501 E-Mail: mwehon1@hotmail.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  Date 9/20/22
Owner
Signature  Date 6/19/22
Applicant
Signature _____ 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 _____

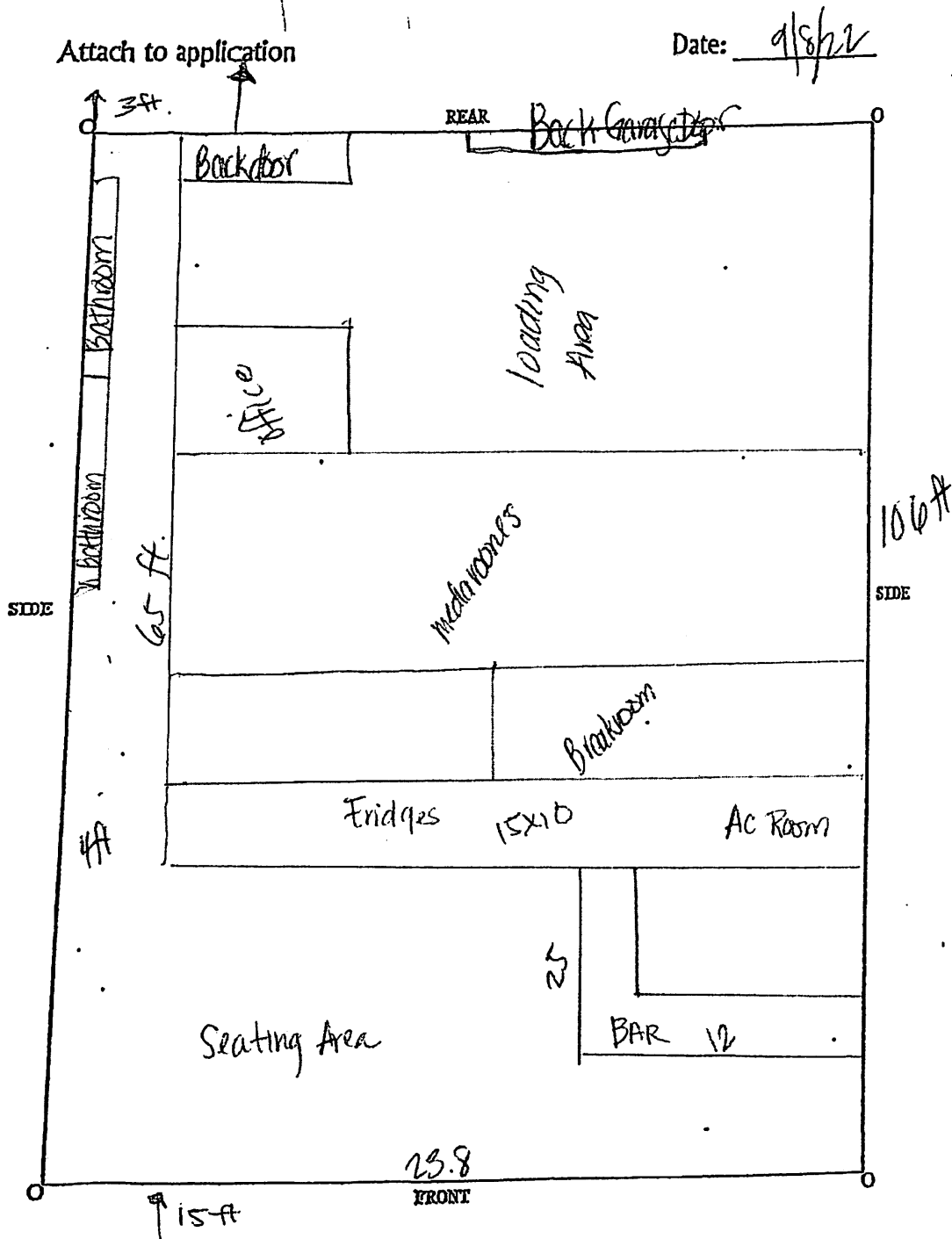


529 south texas blvd
529 south texas



Google





Description of improvement: _____

Width of lot: 23.8 ft

Depth of lot: 106 ft

Also indicate the distance between structures on site plan.

For review you must indicate the front, side, and rear setbacks from property

9/15/22, 6:32 PM

Document



**TEXAS ALCOHOLIC
BEVERAGE COMMISSION**
Taxpayers Helping Businesses & Protecting Communities

Document reference ID : 155357

Licensing Application Summary

You must review your application and confirm that the information displayed here is correct. Select **Review and Confirm** to continue and make the payment. If the information is not correct, select **Next** to return to the application, edit the data as needed and finalize the submission. If you need to store the application packet for your records, select **Download**.

Application ID: 155357
Applicant Name: AVee LLC
License Type applied for: Mixed Beverage Permit (MB)

Entity Information

Business Structure: Limited liability company
FEIN/SSN Number: 884013584
Member Managed or Manager Managed: Member Managed
Historically Underutilized Business: No
Veteran-owned business: No
Fraternal Owned: No
Secretary of State Filing Number: 804711614
Date Filed: 8/31/2022
Filing State: TX

Initial Application Information

Authority Type: I am a principal or authorized user with binding authority
Prefix: Ms
Legal First Name: viridiana
Legal Middle Name: gonzalez
Legal Last Name: Trevino
Email Address: viri254@gmail.com

9/15/22, 6:32 PM

Document

Phone Number:

956-998-2541

Principal Parties

Principal Parent Entity	Principal Party	Role	%Ownership
AVee LLC	viridiana trevino	Member	100

9/15/22, 6:32 PM

Document

Basic Business information

Business/Trade Name: Buzzed Bull Creamery

What is your primary business at this location? Other

Location's Phone Numbers

Business Phone Number 956-998-2541

Alternate Phone Number 956-998-2541

Location Address

Address: 529 south texas, weslaco, TX, United States, Hidalgo 78596

Is your location within city limits? Yes

Mailing Address Information

Address: 529 S Texas Blvd, Weslaco, TX, United States, Hidalgo 78596

Measurement Information

Measuring from the public entrance of your location along street lines and directly across intersections, will your location be within 1,000 feet of the nearest property line of a public or private school? No

Is a residential address or established neighborhood association located within 300 feet of any property line of your premises? No

9/15/22, 6:32 PM

Document

Sixty Day Sign Requirements

Posted the 60 day sign: Yes

Date Posted: 9/14/2022

Projected Sales Information

Sales Year: 2023

Alcohol Sale: \$261,133.00

Food Sales: \$391,700.00

Total Sales: \$652,833.00

Property Ownership

Do you, the applicant, own the land, building, and/or No
warehouse at this proposed licensed location?

Are you operating under? Lease

Franchise Agreement

Do you or anyone else at the location operate under a franchise agreement? Yes

As required under Section 109.53, do you maintain exclusive control of ALL phases of the Yes
purchase, sale, service and brands of alcoholic beverages?

Are there any agreements, exclusive of a franchise agreement, which involve alcohol in any No
way?

9/15/22, 6:32 PM

Document

Shared premise information

Do you share the premises with another business entity?

No

Property Ownership Details

Property Type

Property Ownership Type

Entity Name

Building

Lessor

AVee LLC

9/15/22, 6:32 PM

Document

Location Diagram

Posted the 60 day sign:

Yes

9/15/22, 6:32 PM

Document



**TEXAS ALCOHOLIC
BEVERAGE COMMISSION**
Texas Helping Businesses & Protecting Communities

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 _____, _____, 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 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

BE/FB Retail Dealer's On-Premise License with required Food and Beverage Certificate

OR

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

SIGN HERE

City Secretary/Clerk

City

_____, TEXAS

SEAL

9/15/22, 6:32 PM

Document



**TEXAS ALCOHOLIC
BEVERAGE COMMISSION**
Texas Helping Businesses & Protecting Communities

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 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 _____, _____, that the location for which the license/permit is sought is in a "wet" and is not prohibited by any valid order of the Commissioner's Court.

MB Mixed Beverage Permit

MB/FB Mixed Beverage Restaurant Permit with Required Food and Beverage Certificate

BG/FB Wine and Beer Retailer's Permit with Required 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

BE/FB Retail Dealer's On-Premise License with required Food and Beverage Certificate

OR

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

SIGN HERE

County Clerk

County

SEAL

9/15/22, 6:32 PM

Document



**TEXAS ALCOHOLIC
BEVERAGE COMMISSION**
Texas: Helping Businesses & Protecting Communities

COMPTROLLER OF PUBLIC ACCOUNTS CERTIFICATES

I hereby certify on this _____ day of _____, _____, 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

Comptroller Representative

City

_____, TEXAS

SEAL

9/15/22, 5:32 PM

Document



**TEXAS ALCOHOLIC
BEVERAGE COMMISSION**
Texas Helping Businesses & Protecting Communities

PUBLISHER'S AFFIDAVIT	
Name of newspaper	
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	
Signature of Notary Public	
S E A L	
ATTACH PRINTED COPY OF THE NOTICE	

City of Weslaco

"The City on the Grow"



David Suarez, Mayor
Josh Pedraza, Mayor Pro-Tem, District 1
Leo Muñoz, Commissioner, At-Large
Greg Kerr, Commissioner, At-Large
Letty Lopez, Commissioner, District 2
Jose "JP" Rodriguez, Commissioner, District 3
Adrian Farias, Commissioner, District 4

Martin Garza, Interim City Manager

PLANNING DEPARTMENT

October 21, 2022

Legal Notice

Dear Occupant:

The Weslaco Planning and Zoning Commission will hold a public hearing on Wednesday, November 2, 2022, and the City Commission will hold a public hearing on November 15, 2022, at 5:30 p.m. at the City Hall Legislative Chambers located at 255 South Kansas Avenue

Members of the public who wish to participate in Public Hearing on an agenda item must send their name, address and phone number via email to karevalo@weslacotx.gov by 12:00 pm on November 2, 2022. A staff member will contact you with instructions via phone call to address your public comment.

CONDITIONAL USE PERMIT REQUEST:

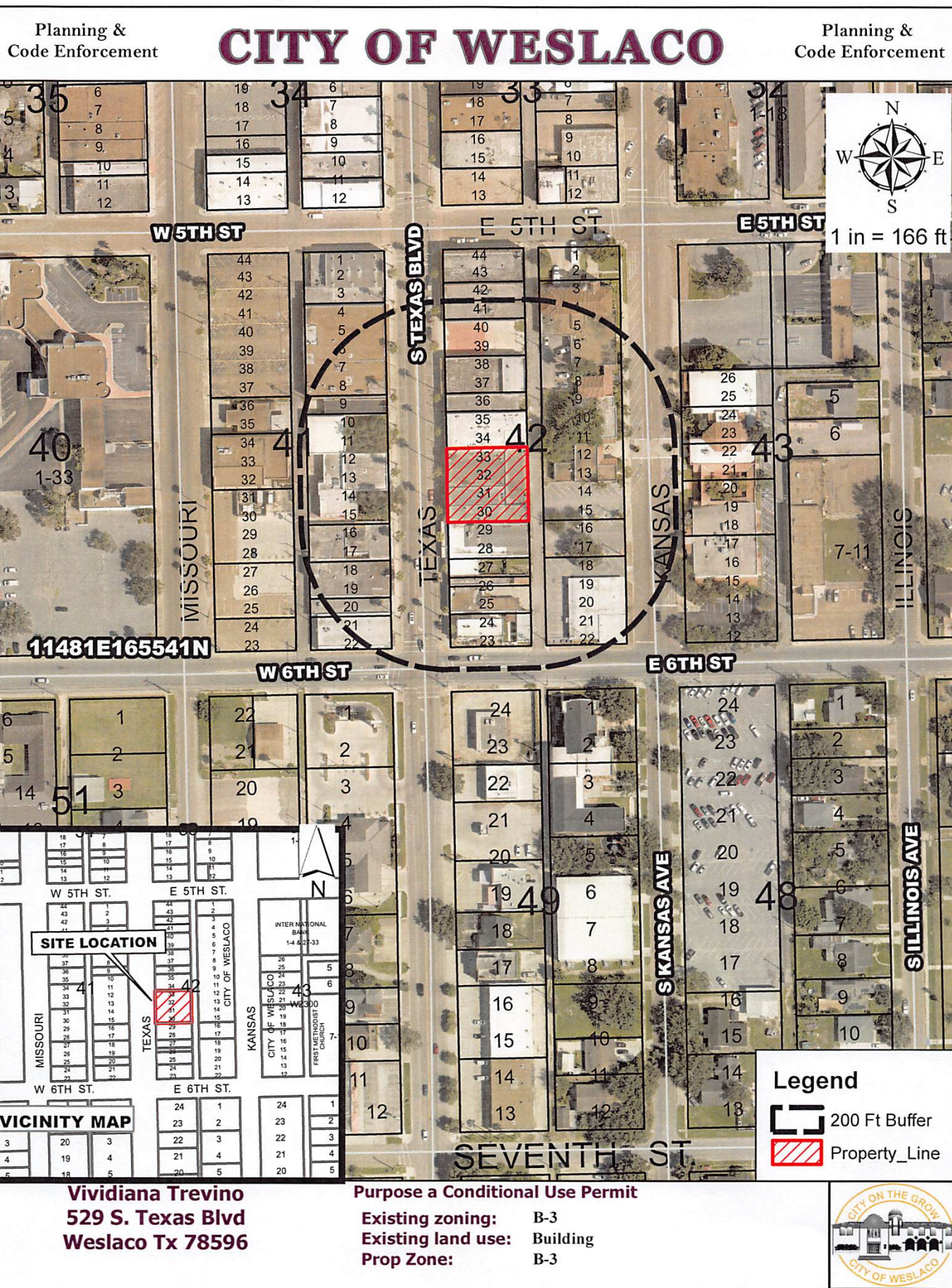
Viridiana Treviño is requesting a Conditional Use Permit to obtain a Mixed Beverage Permit at 529 S. Texas Blvd., also being block 42, Lot 30-33, Weslaco Original Townsite, Hidalgo County, Texas.

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

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

Sincerely,

Rebekah de la Fuente, CFM
Planning Director



City of Weslaco Code Enforcement Dept.

OCT 17, 2022

WESLACO BI-CULTURAL MUSEUM PO BOX 8062 WESLACO TX 78599	W2300-00-041-0001-00 WESLACO ORIGINAL TOWNSITE BLK 41 500 S TEXAS BLVD	L: 50820 B: 290469
START SAVING LLC 3512 N 23RD ST STE B MCALLEN TX 78501	W2300-00-041-0004-00 WESLACO ORIGINAL TOWNSITE LOTS 4 4 BLK 41 516 S TEXAS BLVD	L: 150700 B: 562014
BRISENO NOEMI 4020 N TEXAS BLVD WESLACO TX 78599	W2300-00-041-0009-05 WESLACO ORIGINAL TOWNSITE LOT 9 512 S TEXAS BLVD	L: 19800 B: 72391
ACOSTA LELIA SOBERANES DE 2002 S WESTGATE DR WESLACO TX 78596	W2300-00-041-0010-00 WESLACO ORIGINAL TOWNSITE BLK 41 522 S TEXAS BLVD	L: 90750 B: 185671
PHOENIX DBD LLC 337 S TEXAS BLVD WESLACO TX 78596	W2300-00-041-0016-00 WESLACO ORIGINAL TOWNSITE BLK 41 530 S TEXAS BLVD	L: 36300 B: 104367
PHOENIX DBD LLC 337 S TEXAS BLVD WESLACO TX 78596	W2300-00-041-0018-00 WESLACO ORIGINAL TOWNSITE BLK 41 536 S TEXAS BLVD	L: 36300 B: 107497
PHOENIX DBD LLC 337 S TEXAS BLVD WESLACO TX 78596	W2300-00-041-0020-00 WESLACO ORIGINAL TOWNSITE LOT 20 538 S TEXAS BLVD	L: 19800 B: 116522
ACSS PROPERTIES LLC 306 S TEXAS BLVD WESLACO TX 78596	W2300-00-041-0021-00 WESLACO ORIGINAL TOWNSITE LOTS 21 588 S TEXAS BLVD	L: 59400 B: 148681
CITY OF WESLACO 255 S KANSAS AVE WESLACO TX 78596	W2300-00-042-0001-00 WESLACO ORIGINAL TOWNSITE LOTS 1 & 500 S KANSAS AVE	L: 29700 B: 250000
CITY OF WESLACO 255 S KANSAS AVE WESLACO TX 78596	W2300-00-042-0003-00 WESLACO ORIGINAL TOWNSITE LOTS 3 115 E 5TH ST	L: 155513 B: 1000000
CITY OF WESLACO 255 S KANSAS AVE WESLACO TX 78596	W2300-00-042-0016-00 WESLACO ORIGINAL TOWNSITE LOTS 16	L: 33000 B: 6520
AEP TEXAS CENTRAL COMPANY PO BOX 16428 TAX DEPARTMENT 27TH FLOOR COLUMBUS OH 43216	W2300-00-042-0018-00 WESLACO ORIGINAL TOWNSITE LOTS 18 BLK 42 540 S KANSAS AVE	L: 64020 B: 209756

City of Weslaco Code Enforcement Dept.

OCT 17, 2022

MENDIOLA MARIO & CYNTHIA R 1506 VIDA DULCE WESLACO TX 78596	W2300-00-042-0023-00 WESLACO ORIGINAL TOWNSITE BLK 42 100 E 6TH ST	L: 32670 B: 128771
WILD AUGUST LLC 260 S TEXAS BLVD STE 400 WESLACO TX 78596	W2300-00-042-0025-00 WESLACO ORIGINAL TOWNSITE ALL LOT 6 BLK 42 539 S TEXAS BLVD	L: 27225 B: 69659
MONTES LEONARDO JR & BENITA E JASON C MONTES 1105 W 4TH ST WESLACO TX 78596	W2300-00-042-0026-00 WESLACO ORIGINAL TOWNSITE N1/2 LOT 537 S TEXAS BLVD	L: 9900 B: 37134
MONTES JASON C 535 S TEXAS BLVD WESLACO TX 78596	W2300-00-042-0027-00 WESLACO ORIGINAL TOWNSITE BLK 42 535 S TEXAS BLVD	L: 19800 B: 27097
DAVIS RONALD B 1206 S BORDER AVE APT 626 WESLACO TX 78596	W2300-00-042-0028-00 WESLACO ORIGINAL TOWNSITE BLK 42 533 S TEXAS BLVD	L: 36300 B: 74712
WELTON MAURICE 5301 N 17TH ST APT 16 MCALLEN TX 78504	W2300-00-042-0030-00 WESLACO ORIGINAL TOWNSITE BLK 42 529 S TEXAS BLVD	L: 66000 B: 288558
DAVIS, RONALD B 1701 WEST 18TH ST WESLACO TX 78596-9495	W2300-00-042-0032-00 WESLACO ORIGINAL TOWNSITE BLK 42 LT 32 525 S TEXAS BLVD	L: 16500 B: 65096
DAVIS, RONALD B 1701 WEST 18TH ST WESLACO TX 78596-9495	W2300-00-042-0033-00 WESLACO ORIGINAL TOWNSITE BLK 42 LT 33 525 S TEXAS BLVD	L: 16500 B: 87909
SOUTH TEXAS EDUCATIONAL TECH 1222 W SUGAR CANE DR WESLACO TX 78599	W2300-00-042-0034-00 WESLACO ORIGINAL TOWNSITE LOTS 34 521 S TEXAS BLVD	L: 36300 B: 190327
AVENDANO GUADALUPE 513 S TEXAS BLVD WESLACO TX 78596	W2300-00-042-0036-00 WESLACO ORIGINAL TOWNSITE BLK 42 517 S TEXAS BLVD	L: 19800 B: 79913
AVENDANO GUADALUPE 513 S TEXAS BLVD WESLACO TX 78596	W2300-00-042-0037-00 WESLACO ORIGINAL TOWNSITE BLK 42 513 S TEXAS BLVD	L: 36300 B: 147291
GARCIA AARON 1001 CHRYSOLITE DR WESLACO TX 78596	W2300-00-042-0039-00 WESLACO ORIGINAL TOWNSITE BLK 42 509 S TEXAS BLVD	L: 36300 B: 14520

City of Weslaco Code Enforcement Dept.

OCT 17, 2022

TARPON INVESTMENTS LLC	W2300-00-042-0041-00	L: 19800
2101 NORTHGATE CIR	WESLACO ORIGINAL TOWNSITE BLK 42	B: 56637
WESLACO TX 78599	507 S TEXAS BLVD	
FUENTES DAVID L & YVONNE M	W2300-00-042-0042-01	L: 19800
3619 S BORDER AVE	WESLACO ORIGINAL TOWNSITE BLK 42	B: 56637
WESLACO TX 78596		



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: November 2, 2022	Agenda Item No. (to be assigned by PCE): V.A.
From: Rebekah de la Fuente, Planning Director, on behalf of Rio Delta Engineering.	
Subject/Agenda Item: Discussion and consideration for the Preliminary and/or Final Plat for Chelsea Park Villas Subdivision being the west 6.83 acres tract of land out of Chelsea Park Subdivision, Weslaco, Hidalgo County, Texas Located on the SW corner of W 9th & S. Border Ave. Possible Action.	
Discussion/Overview: The proposed sixteen (16) 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 the City of Weslaco through an 8" sewer line. The property is within a Flood Zone "B". Applicant is requesting a variance for side setback and Off-site Drainage and is pending the letter of support from 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 Preliminary and Final Plat and compliance with the ordinance on the variance.	
Additional Action Prompted: ☒ Mayor's Signature ☐ Public Hearing ☐ Budget Amendment ☐ Resolution ☐ Ordinance – First Reading ☐ Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

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

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

FILE NO. _____

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

STAFF USE ONLY

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

GENERAL INFORMATION

Name of Subdivision: Chelsea Park Villas

Location: SW CORNER OF W 9TH & S BORDER AVE

Legal Description: 6.83 ACRES, MORE OR LESS, BEING THE WEST 6.83 ACRES OF CHELSEA PARK SUBDIVISIONS, AN ADDITION TO THE CITY OF WESLACO, HIDALGO COUNTY, TEXAS AS PER MAP OR PLAT THEREOF IN VOLUME 22, PAGE 159 M.R.H.C.

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: R-2 DUPLEX & APARTMENTS

Existing Land Use: VACANT Proposed Land Use: MULTI-FAMILY

Number of Lots Proposed: 16 Gross Acreage: 6.83 ACRES

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: LF TRINITY DEVELOPMENT GROUP, LLC Telephone: _____

Address: 3533 MORELAND DRIVE, SUITE A Fax: _____

City: WESLACO State: TX Zip: 78596 E-mail: leo@trinitymep.com

ENGINEER INFORMATION

Name: IVAN GARCIA, P.E., R.P.L.S. - RIO DELTA ENGINEERING Telephone: (956) 380-5152

Address: 921 S. 10TH AVENUE 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: CITY OF WESLACO

☒ YES ☐ NO Wastewater Provision: CITY OF WESLACO

☒ YES ☐ NO Electric Company: MVEC

☒ YES ☐ NO Phone Utility _____	☐ 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>H.C.C.I.D. 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: Leonardo Muñoz

Owner Signature: [Signature] Date: 8.8.22

IVAN GARCIA, P.E., R.P.L.S. - RIO DELTA ENGINEERING is the authorized agent

Authorized Agent Signature: [Signature] Date: 10/26/22

Authorized Agent Printed Name: Ivan Garcia, P.E., R.P.L.S. - Rio Delta Eng.

THIS PAGE FOR STAFF USE ONLY

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

P & Z Commission Approval on Preliminary Plat: _____

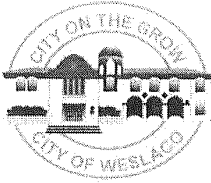
P & Z Commission Approval on Final Plat: _____

City Commission Approval on Final Plat: _____

Preconstruction Meeting Date: _____

Date Recorded: _____ Instrument No. _____

General Comments: _____



APPLICATION FOR SUBDIVISION VARIANCE

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: CHELSEA PARK VILLAS SUBDIVISION

Location: SW CORNER OF W 9TH & S BORDER AVE

Legal Description: 6.83 ACRES, MORE OR LESS, BEING THE WEST 6.83 ACRES OF CHELSEA PARK SUBDIVISIONS, AN ADDITION TO THE CITY OF WESLACO, HIDALGO COUNTY, TEXAS AS PER MAP OR PLAT THEROF IN VOLUME 22, PAGE 159 M.R.H.C.

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:

We are requesting a variance to reduce the building side setback from 6.00 feet to 5.00 feet for better site planning.

☐ Drainage ☐ YES ☒ NO

Describe in detail the reason for the variance request:

1)

☐ 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

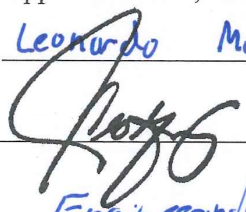
Owner's Name: LF Trinity Development Corp, LLC Telephone: _____
Address: 3533 Moreland Drive, Suite A Fax: _____
City: Weslaco State: TX Zip: 78596 E-mail: leo@trinitymep.com

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.

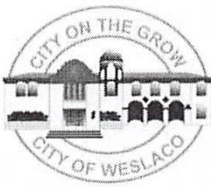
Owner Printed Name: Leonardo Munoz, P.E.

Owner Signature:  Date: 10.25.22

Rio Delta Engineering is the authorized agent

Authorized Agent Signature:  Date: 10/26/22

Authorized Agent Printed Name: Ivan Garcia, P.E., P.P.L.S.



APPLICATION FOR SUBDIVISION VARIANCE

VAR-000307-2022

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: CHELSEA PARK VILLAS SUBDIVISION

Location: SW CORNER OF W 9TH & S BORDER AVE

Legal Description: 6.83 ACRES, MORE OR LESS, BEING THE WEST 6.83 ACRES OF CHELSEA PARK SUBDIVISIONS, AN ADDITION TO THE CITY OF WESLACO, HIDALGO COUNTY, TEXAS AS PER MAP OR PLAT THEROF IN VOLUME 22, PAGE 159 M.R.H.C.

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:

☒ WE ARE REQUESTING AN EXEMPTION TO THE 75.00-FOOT R.O.W. DEDICATION & PROPOSE TO DEDICATE 50.00-FEET IN LIEU OF THE 75.00 FEET REQUESTED BY CITY STAFF.

THE NEIGHBORING DEVELOPMENTS HAVE AT MOST 50.00-FOOT R.O.W. DEDICATION, WITH SOME OF THEM HAVING NO R.O.W. DEDICATION. ADDITIONALLY, THE PROPERTY JUST SOUTH OF THIS PROJECT HAS LESS THAN 50.00-FOOT R.O.W. DEDICATION.

2) WE ARE ALSO PROPOSING TO EXCAVATE THE EXISTING DITCH IN LIEU OF ONSITE DETENTION.

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

☐ 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: LF TRINITY DEVELOPMENT GROUP, LLC Telephone: _____

Address: 3533 MORELAND DRIVE, SUITE A Fax: _____

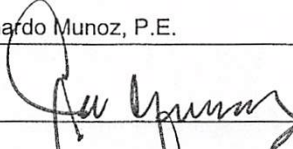
City: WESLACO State: TX Zip: 78596 E-mail: leo@trinitymep.com

AUTHORIZATION AND ACKNOWLEDGEMENTS

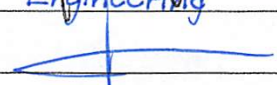
I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

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: Leonardo Munoz, P.E.

Owner Signature:  Date: 9.9.22

Rio Delta Engineering is the authorized agent

Authorized Agent Signature:  Date: 9/9/22

Authorized Agent Printed Name: Ivan Garcia, P.E., R.P.L.S.

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

Debra Pena
Tax Assessor-Collector

P O Box 237 Mercedes, Texas 78570

Date: 9/30/2022

Ivan Garcia
Rio Delta Engineering
921 S. 10th Ave
Edinburg, Texas 78539

RE: CHELSEA PARK VILLA Subd. Drainage and Detention

Good Morning Mr. Garcia:

I have received your revised cross section and calculations dated 8/12/22 for the **CHELSEA PARK VILLA** Subdivision modified to include the 50 year detention volume in the proposed drain ditch as shown on your provided cross sections.

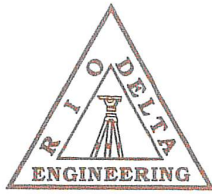
HCCID #9 does not object to storing the mandated 50 year detention with the proposed ditch as shown on the cross sections. This Subdivision will require the following:

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 within of the City Limits of Weslaco and will be done by their personnel. Please verify final designs with Mr. Albert Aldana, P.E., City Engineer with the City of Weslaco.

Randall Winston
General Manager

HCCID #9
Mercedes, Texas
956-565-2411



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TEXAS LICENSED SURVEYING FIRM #10194027

DRAINAGE REPORT

Chelsea Park Villas Subdivision,
Hidalgo County, TEXAS

Chelsea Park Villas Subdivision is a proposed 16 lot Residential Subdivision, same being the west 6.83 acres tract of land out of Chelsea Park Subdivision, Hidalgo County, Texas, as per map recorded in Volume 22, Page 159, Map Records of Hidalgo County, Texas. These lots will be used for multi-family homes.

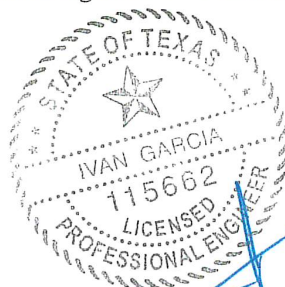
The subdivision is in zone "B" (medium shading), areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. The Subdivision also resides in zone "C" of the flood insurance rate, areas of minimal flooding according to the FEMA's Flood Insurance Rate Map Community Panels No.: 480349 0005 B dated: March 4, 1980.

According to the Soil Survey Report prepared for Hidalgo County by the U.S.D.A. Soil Conservation Service, the site consists of 54.4% of Hidalgo sandy clay loam (28), with 0 to 1% slopes, the soil is well drained and surface runoff is negligible, permeability is high to high and the water capacity is moderate. This soil is classified as Group B. Additionally, the site consists of 44.4% of Raymondville clay loam (52), with 0 to 1% slopes, the soil is moderately well drained and surface runoff is medium, permeability is moderately low to moderately high and the water capacity is moderate. This soil are classified as Group (C). Additionally, the site consists of 1.2% of Hidalgo-Urban land complex (31), with 0 to 1% slopes, the soil is well drained and surface runoff is negligible, permeability is moderately high to high and water capacity is moderate. This soil is 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 south westerly direction and overflows to the existing Hidalgo and Cameron Counties Irrigation District 9 37E drain ditch on the west side of this subdivision, to follow the drainage patterns of the area in an easterly direction with outfall to the Hidalgo and Cameron Counties Irrigation District 9 37D drain ditch, then conveyed to the South Donna Drain ditch, and final outfall to the Laguna Madre.

Using the Rational Method, we have determined that a 10-yr rainfall event will generate approximately 6.83 CFS of storm runoff. We have also used the Rational Method to determine that the improved site will generate an estimated 44.70 CFS of runoff 50-yr rainfall events respectively. The improved site will have an approximate increase of 37.87 CFS of storm runoff.

In accordance with the County's drainage requirements, we have calculated that approximately a total of 31,653 CF or 0.727 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 37E 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 37E drain ditch, then conveyed to the 37D drain, then conveyed to the South Donna Drain Ditch, and final outfall to the Laguna Madre. Tables and calculations, are attached.



STORM WATER DETENTION CALCULATIONS

SUMMARY SHEET

Project Name: **CHELSEA PARK VILLAS SUBDIVISION**

City: **WESLACO**

State: **Texas**

County: **HIDALGO**

Total Area: **6.83** Acres Gross

Total lots: **16**

Area already developed: **0.00** Acres

*Pre-existing condition

Area unimproved: **6.83** Acres

Existing Run off: **10.73** cfs

*10 year storm

Future Run off: **44.70** cfs

*50 year storm

Total on site detention required: **31,653** cft

*50 year storm

0.727 Ac-ft

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

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



III. STORAGE CALCULATIONS (50 YEAR STORM)

*Rational Method

Project Name: **CHELSEA PARK VILLAS SUBDIVISION**

City: **WESLACO**

State: **Texas**

Highest elevation= **83.00** ft

Lowest elevation= **73.00** ft

Watercourse length, L= **660.00** ft

Slope, S_p = **1.52** %

Average flow velocity, V= **2.50** ft/sec

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

K_u = 3.28

k = 0.619

*From Table 3-2 - Intercept Coefficients

*For Paved Areas

Time of concentration, t_c = **4.40** min (calculated)

$$t_c = L / 60V$$

10.00 min (used)

Intensity, i = **10.83** 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 = **192,000** SQFT

4.41 ACRES

*Avg 12000 SF Fourplexes, driveways,
and walks per lot

Existing runoff coefficient: **0.9** *Average for roofs, driveways and walks

*From Table 3-3 - Run off Coefficients

Area left unimproved = **105,515** SQFT

Total area left unimproved = **2.42** ACRES

*Remaining area

Existing Run off Coefficient: **0.2** *For Unimproved areas

*From Table 3-3 - Run off Coefficients

Weighted Run off Coefficient, C_w = **0.65**

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

Peak flow, Q = **48.19** CFS

$$Q = C i A$$

*Pre-existing condition

I. EXISTING RUN OFF (10 YEAR STORM)

*Rational Method

Project Name: **CHELSEA PARK VILLAS SUBDIVISION**

City: **WESLACO**

State: **Texas**

Highest elevation= **83.00** ft

Lowest elevation= **73.00** ft

Watercourse length, L= **660.00** ft

Slope, S_p = **1.52** %

Average flow velocity, V= **0.86** 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 = **12.79** min (calculated)

$$t_c = L / 60V$$

12.79 min (used)

Intensity, i= **7.86** 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= **297,515** SQFT
6.83 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= **10.73** 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	83.61	0	10.73	0	0
5	13.57	60.40	18,121	10.73	3,220	14,902
10	10.83	48.19	28,913	10.73	6,439	22,473
15	9.10	40.52	36,467	10.73	9,659	26,807
20	7.91	35.20	42,242	10.73	12,879	29,363
25	7.03	31.27	46,907	10.73	16,099	30,808
30	6.34	28.23	50,820	10.73	19,318	31,501
35	5.80	25.81	54,191	10.73	22,538	31,653
40	5.35	23.81	57,156	10.73	25,758	31,398
45	4.98	22.15	59,804	10.73	28,978	30,826
50	4.66	20.73	62,199	10.73	32,197	30,002
55	4.38	19.51	64,388	10.73	35,417	28,970
60	4.14	18.45	66,404	10.73	38,637	27,767

Total on site detention required=

31,653
0.727

 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 ($V_{in} - V_{out}$)



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TEXAS REGISTERED ENGINEERING FIRM F-7628
TEXAS LICENSED SURVEYING FIRM #10194027

CHELSEA PARK VILLAS SUBDIVISION DRAINAGE REPORT

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

Date:
October 25, 2022



10/25/22

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6. HYDRAULIC CALCULATIONS
7. "C" VALUES FOR METHOD
8. RAINFALL INTENSITY FOR HIDALGO COUNTY
9. FLOOD PLAIN
10. SOIL SURVEY
11. PRELIMINARY PLAT
12. PRELIMINARY DRAINAGE LAYOUT



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TEXAS REGISTERED ENGINEERING FIRM F-7628
TEXAS LICENSED SURVEYING FIRM #10194027

DRAINAGE REPORT Chelsea Park Villas Subdivision, City of Weslaco, Texas

Chelsea Park Villas Subdivision is a proposed 16 lot Residential Subdivision, located within the City of Weslaco city limits, same being the west 6.83 acres tract of land out of Chelsea Park Subdivision, Hidalgo County, Texas, as per map recorded in Volume 22, Page 159, Map Records of Hidalgo County, Texas. These lots will be used for multi-family homes.

The subdivision is in zone "B" (medium shading), areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. The Subdivision also resides in zone "C" of the flood insurance rate, areas of minimal flooding according to the FEMA's Flood Insurance Rate Map Community Panels No.: 480349 0005 B dated: March 4, 1980.

According to the Soil Survey Report prepared for Hidalgo County by the U.S.D.A. Soil Conservation Service, the site consists of 54.4% of Hidalgo sandy clay loam (28), with 0 to 1% slopes, the soil is well drained and surface runoff is negligible, permeability is high to high and the water capacity is moderate. This soil is classified as Group B. Additionally, the site consists of 44.4% of Raymondville clay loam (52), with 0 to 1% slopes, the soil is moderately well drained and surface runoff is medium, permeability is moderately low to moderately high and the water capacity is moderate. This soil is classified as Group (C). Additionally, the site consists of 1.2% of Hidalgo-Urban land complex (31), with 0 to 1% slopes, the soil is well drained and surface runoff is negligible, permeability is moderately high to high and water capacity is moderate. This soil is classified as Group B. Please see the attached tables for the engineering, physical and chemical properties of these soils.

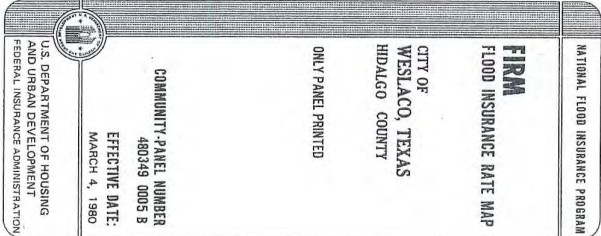
Existing runoff sheet flows overland in a south westerly direction and overflows to the existing Hidalgo and Cameron Counties Irrigation District 9 37E drain ditch on the west side of this subdivision, to follow the drainage patterns of the area in an easterly direction with outfall to the Hidalgo and Cameron Counties Irrigation District 9 37D drain ditch, then conveyed to the South Donna Drain ditch, and final outfall to the Laguna Madre.

Using the Modified Rational Method, we have determined that a 10-yr rainfall event will generate approximately 10.73 CFS of storm runoff. We have also used the Rational Method to determine that the improved site will generate an estimated 44.01 CFS of runoff 50-yr rainfall events respectively. The improved site will have an approximate increase of 33.28 CFS of storm runoff.

In accordance with the County's drainage requirements, we have calculated that approximately a total of 38,212 CF or 0.877 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 37E drain ditch (which belongs to Hidalgo and Cameron Counties Irrigation District 9, and maintained by the City of Weslaco). Storm waters will be collected by an on-site collection system and routed to the existing 37E drain ditch, then conveyed to the 37D drain, then conveyed to the South Donna Drain Ditch, and final outfall to the Laguna Madre. Tables and calculations, are attached.



10/25/22

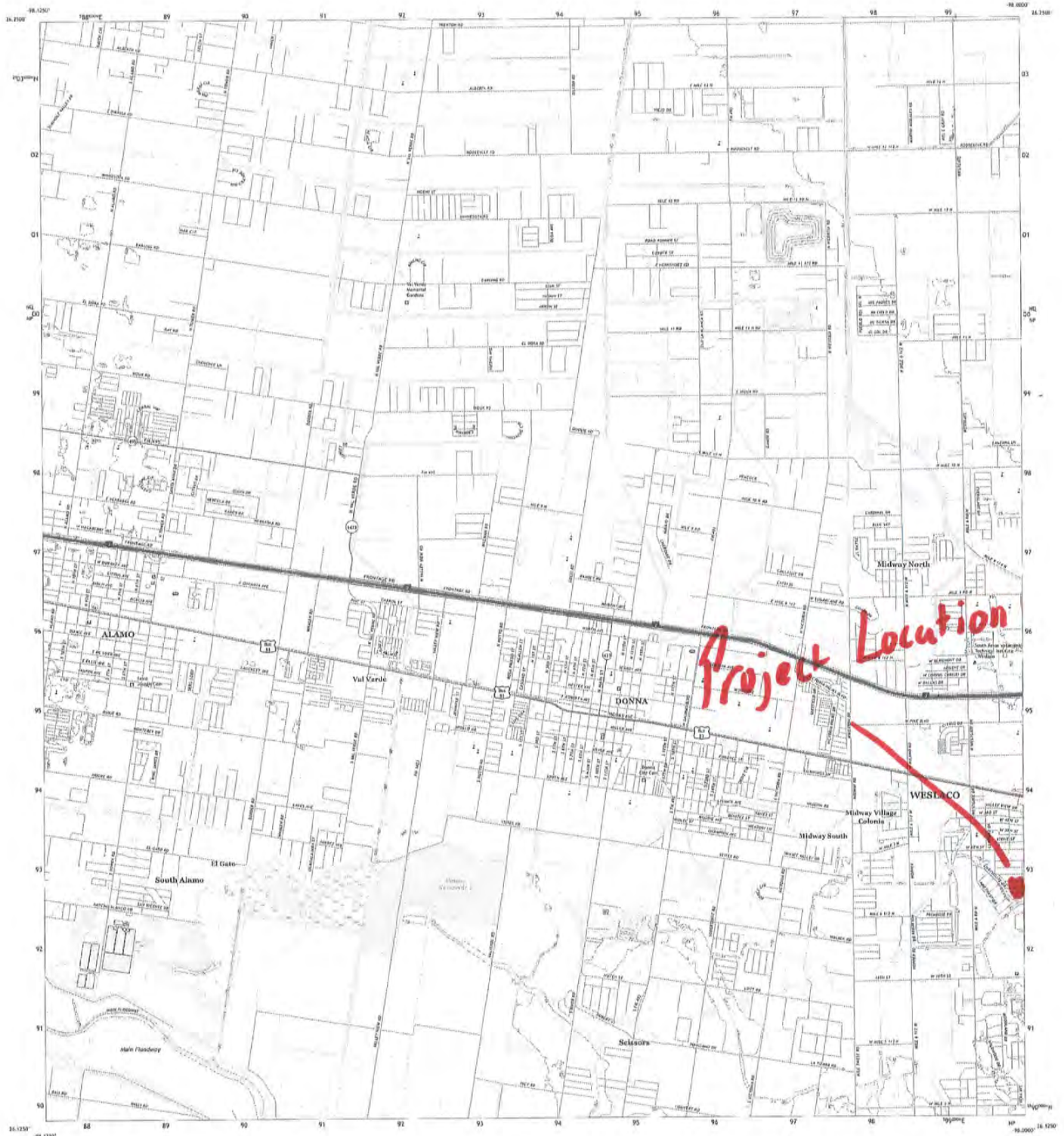




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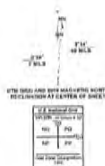


DONNA QUADRANGLE
TEXAS - HIDALGO COUNTY
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
Vertical Datum of 1988 (VD88)
This map is not a legal document. Boundary lines may be generalized for display only. Please refer to the original source for legal descriptions. Use at your own risk.

Imagery: U.S. Census Bureau, 2011
Aerial: U.S. Census Bureau, 2011
Topography: National Hydrography Dataset, 2004
Cultural: National Hydrography Dataset, 2004
Boundaries: National Hydrography Dataset, 2004
Water: National Hydrography Dataset, 2004



SCALE 1:24,000
CONTAINING INTERVALS OF 5 FEET
NORTH AMERICAN DATUM OF 1983
This map was produced in accordance with the
National Geographic Society's Topographic Series.



1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

ROAD CLASSIFICATION
Expressway, Arterial, Collector, Local, Road, Interstate, State, County, City, Private

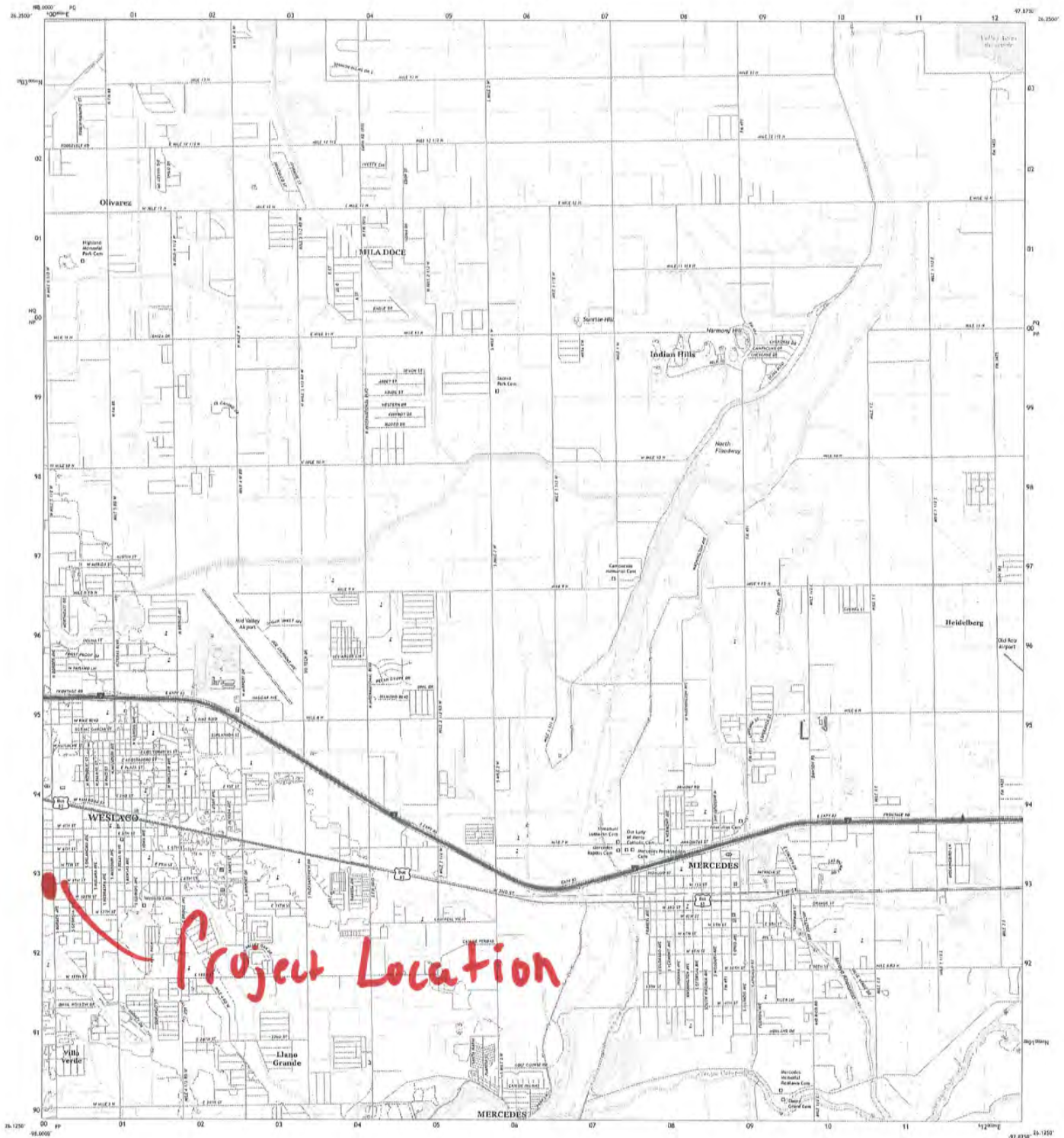
DONNA, TX
1972



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MERCEDES QUADRANGLE
TEXAS - HIDALGO COUNTY
7.5-MINUTE SERIES



Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)

World Geodetic System of 1984 (WGS84) - Projected and

1983 datum and datum transformation accuracy: 100 m

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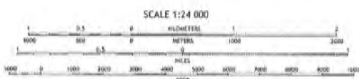
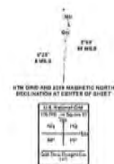
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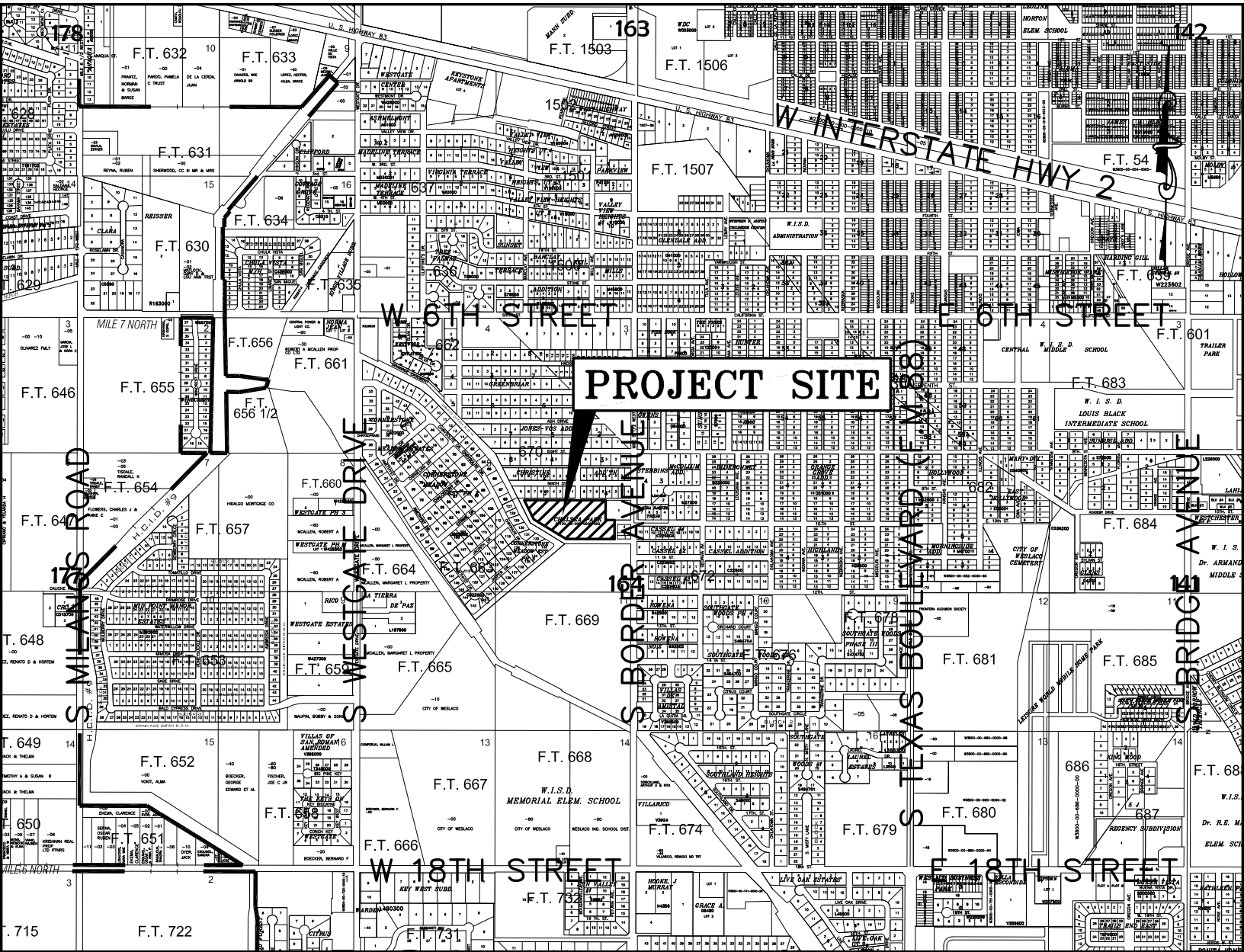
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1	2	3
4	5	6
7	8	9

MERCEDES, TX
2022



STORM WATER DETENTION CALCULATIONS

SUMMARY SHEET

Project Name: **CHELSEA PARK VILLAS SUBDIVISION**

City:	WESLACO
State:	Texas
County:	HIDALGO
Total Area:	6.83 Acres Gross
Total lots:	16

Area already developed:	0.00	Acres	*Pre-existing condition
Area unimproved:	6.83	Acres	
Existing Run off:	10.73	cfs	*10 year storm
Future Run off:	44.01	cfs	*50 year storm
Total on site detention required:	38,212	cft	*50 year storm
	0.877	Ac-ft	

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

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



[Handwritten signature] 10/25/22

*Pre-existing condition

I. EXISTING RUN OFF (10 YEAR STORM)

*Rational Method

Project Name: **CHELSEA PARK VILLAS SUBDIVISION**

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

Highest elevation= **83.00** ft
Lowest elevation= **73.00** ft
Watercourse length, L= **660.00** ft
Slope, S_p = **1.52** %

Average flow velocity, V= **0.86** 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 = **12.79** min (calculated)

$$t_c = L/60V$$

12.79 min (used)

Intensity, i = **7.86** 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 *Pre-existing condition
0.00 ACRES

Area unimproved= **297,515** SQFT *Pre-existing condition
6.83 ACRES

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 = **10.73** CFS

$$Q = C i A$$

II. FUTURE RUN OFF (25 YEAR STORM)

*Rational Method

Project Name: **CHELSEA PARK VILLAS SUBDIVISION**

City: **WESLACO**

State: **Texas**

Highest elevation= **83.00** ft

Lowest elevation= **73.00** ft

Watercourse length, L= **660.00** ft

Slope, S_p = **1.52** %

Average flow velocity, V= **2.50** ft/sec

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

$K_u = 3.28$
 $k = 0.619$

*From Table 3-2 - Intercept Coefficients
*For Paved Areas

Time of concentration, t_c = **4.40** min (calculated)

$$t_c = L/60V$$

10.00 min (used)

Intensity, i = **10.04** 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 25 years

$e = 0.771$
 $b = 98.0$
 $d = 9.2$

Area to be developed **128,000** SQFT
2.94 ACRES

*Avg 8000 SF Fourplexes, driveways,
and walks per lot

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

Area to be developed **40,000** SQFT
0.92 ACRES

*For streets and sidewalks within ROW

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

Area left unimproved= **129,515** SQFT
Total area left unimproved= **2.97** ACRES

*Remaining area

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

Weighted Run off Coefficient, C_w = **0.60**

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

Peak flow, Q= **40.83** CFS

$$Q = C i A$$

III. STORAGE CALCULATIONS (50 YEAR STORM)

*Rational Method

Project Name: **CHELSEA PARK VILLAS SUBDIVISION**

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

Highest elevation= **83.00** ft
Lowest elevation= **73.00** ft
Watercourse length, L= **660.00** ft
Slope, S_o = **1.52** %

Average flow velocity, V= **2.50** ft/sec

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

$K_u = 3.28$

k= **0.619**

*From Table 3-2 - Intercept Coefficients

*For Paved Areas

Time of concentration, t_c = **4.40** min (calculated)

$$t_c = L/60V$$

10.00 min (used)

Intensity, i= **10.83** 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= **128,000.0** SQFT

*From Table 3-3 - Run off Coefficients

#REF!

2.94 ACRES

Future Run off Coefficient:

0.9

#REF!

*From Table 3-3 - Run off Coefficients

Area to be developed= **40,000** SQFT

*For streets and sidewalks within ROW

0.92 ACRES

Existing Run off Coefficient:

0.9

*Average for roofs, driveways and walks

*From Table 3-3 - Run off Coefficients

Area left unimproved= **129,515** SQFT

*Remaining area

Total area left unimproved=

2.97 ACRES

Existing Run off Coefficient:

0.2

*For Unimproved areas

*From Table 3-3 - Run off Coefficients

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

Peak flow, Q=un off Coefficient, C_w = **0.60**

$$Q = C_i A$$

44.01 CFS

IV. STORM WATER DETENTION CALCULATIONS

* Modified Rational Method

Storage

Duration (min)	Intensity (in/hr)	Q in (cfs)	Vol in (cft)	Q out (cfs)	V out (cft)	(cft)
0	18.78	76.37	0	10.73	3,220	-3,220
5	13.57	55.17	16,551	10.73	4,830	11,722
10	10.83	44.01	26,408	10.73	6,439	19,968
15	9.10	37.01	33,307	10.73	8,049	25,258
20	7.91	32.15	38,582	10.73	9,659	28,923
25	7.03	28.56	42,843	10.73	11,269	31,574
30	6.34	25.79	46,417	10.73	12,879	33,538
35	5.80	23.57	49,496	10.73	14,489	35,007
40	5.35	21.75	52,204	10.73	16,099	36,105
45	4.98	20.23	54,622	10.73	17,709	36,914
50	4.66	18.94	56,810	10.73	19,318	37,492
55	4.38	17.82	58,809	10.73	20,928	37,881
60	4.14	16.85	60,651	10.73	22,538	38,113
65	3.93	15.99	62,360	10.73	24,148	38,212
70	3.75	15.23	63,955	10.73	25,758	38,197
75	3.58	14.55	65,453	10.73	27,368	38,085
80	3.43	13.93	66,864	10.73	28,978	37,886
85	3.29	13.37	68,199	10.73	30,588	37,612
90	3.16	12.86	69,467	10.73	32,197	37,270
95	3.05	12.40	70,675	10.73	33,807	36,868
100	2.94	11.97	71,828	10.73	35,417	36,411
105	2.85	11.58	72,933	10.73	37,027	35,906
110	2.76	11.21	73,992	10.73	38,637	35,355

Total on site detention required=

38,212
0.877

 cft
acres-ft

Average detention required per lot=

2,388
0.055

 cft
acres-ft

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. I

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

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

Table 3-3. Runoff Coefficients for Rational Formula

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

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

CHELSEA PARK VILLAS SUBDIVISION - 18" (CHOKE)

	$Q = 1.49/n \cdot A \cdot R^{2/3} \cdot S^{1/2}$	Q= flow(cfs)
Given:	Q = 10.73 cfs	A=area(SF)
	Q = 4816.74 gpm	R=hydraulic radius(ft)
	D = 18.00 in.	S=% slope(ft/ft)
	S = 0.005000 ft/ft	n=Manning's coeff. of friction
	n = 0.009	V=velocity (ft/sec)
	V = 3.00 ft/sec	
	(Input known data above)	

Calculations

Q =	10.73 cfs	$A = (3.14 \cdot D^2)/4$
A =	1.77 SF	= 1.77 SF
R =	0.38 ft	$R = (A/P)$ (assume full flow)
S =	0.005000 ft/ft	= 0.38 ft
n =	0.009	
V =	3.00 ft/sec	

Solve for Q

$$Q = V \cdot A = \left(\frac{1.49}{n} \right) A \cdot R^{2/3} \cdot \sqrt{S} = 10.72 \text{ cfs}$$

Solve for V

$$V = \frac{Q}{A} = \frac{1.49 \cdot R^{2/3} \cdot S^{1/2}}{n} = 6.091631 \text{ ft/sec}$$

Solve for S

$$S = \left(\frac{V \cdot n}{1.49 \cdot R^{2/3}} \right)^2 = \frac{0.1213}{0.001213} \%$$

Solve for D

$$D = \sqrt{\frac{\left(\frac{Q}{V} \right) \cdot 4}{\pi}} = 25.610929 \text{ in}$$

Solve for R

$$R = \frac{A}{P} = \left(\frac{V \cdot n}{1.49 \cdot S^{1/2}} \right)^{3/2} = 0.1297$$

CHELSEA PARK VILLAS SUBDIVISION
HYDRAULIC GRADE LINE CALCULATIONS

symbol	description	units
d	pipe diameter	in
s	pipe slope	ft/ft
n	Manning's coefficient	0.012
C	Hazen Williams coefficient	100
L	Length of pipe	ft
A	cross-sectional pipe area	ft ²
P	pipe perimeter	ft
R	hydraulic radius	ft
Q	discharge flow	ft ³ /s
V	velocity	ft/s
Hf	Major head loss	
Kq	coefficient	0.46
mh	manhole	
HGL	hydraulic grade line	
Ht=Sf*L	Major Losses	ft
Sf=(2Q*n/KqD ^{2.67}) ^{1/2}	Friction Slope	ft
L	Length of Conduit	ft

From contributing drainage areas @ structure

AREA 1	104,544	SF	2.4	AC	13.99
AREA 2	142,006	SF	3.26	AC	17.40
			5.66		31.39

MAJOR AND MINOR HEAD LOSSES

AREAS 1

INLET-2

top: 77.40

flowline: 69.45

HGL: 74.92

link	d	s	L	Q	Sf	Hf	
INLET-2 TO INLET-4	30	0.0015	528	>>>>	13.99	0.001	0.53

AREAS 1 AND 2

INLET-4

top: 75.20

flowline: 67.99

HGL: 74.39

link	d	s	L	Q	Sf	Hf	
INLET-4 TO MH1	30	0.0015	108	>>>>	31.39	0.005	0.54

AREAS 1 AND 2

MH1

top: 75.40

flowline: 67.81

HGL: 73.85

link	d	s	L	Q	Sf	Hf	
MH1 TO HW1	18	0.005	63	>>>>	31.39	0.077	4.85

*AT DRAIN DITCH

HEADWALL

flowline: 67.50

HGL: 69.00

I. FUTURE RUN OFF (10 YEAR STORM) FOR AREA A1

***Rational Method**

Project Name: **CHELSEA PARK VILLAS SUBDIVISION**

AREA: **2.4** ACRES

City: **WESLACO**

NUMBER OF LOTS: **7** LOTS

County: **HIDALGO**

State: **TEXAS**

Highest elevation= **78.00** ft

Lowest elevation= **77.40** ft

Watercourse length, L= **310.00** ft

Slope, S_p = **0.19** %

Average flow velocity, V= **0.89** ft/sec

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

K_u = 3.28

k = 0.619

*From Table 3-2 - Intercept Coefficients
*for paved areas

Time of concentration, t_c = **5.78** min

(calculated)

$$t_c = L / 60V$$

10.00 min

(used)

Intensity, i = **8.73** 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=	87.0
d=	9.20

Area to be developed= **56,000** SQFT

*Avg 8000 SF Fourplexes, driveways & walks
7 lots

1.29 ACRES

Future Run off Coefficient: **0.90**

*Average for roofs, driveways and walks
*From Table 3-3 - Run off Coefficients

Area to be developed= **34,684** SQFT

*Remaining green areas

0.80 ACRES

Future Run off Coefficient: **0.20**

*For Unimproved areas
*From Table 3-3 - Run off Coefficients

32' B-B STREET SECTION PLUS SIDEWALKS

width	32 FT	back-to-back
length	330 FT	

Area to be developed= **13,860** SQFT

0.32 ACRES

Future Run off Coefficient: **0.90**

*MIN ASPHALTIC/CONCRETE SURFACE
*From Table 3-3 - Run off Coefficients

Weighted Run off Coefficient, C_w = **0.67**

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

Peak flow, Q = **13.99** CFS

$$Q = C i A$$

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

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

Reference: TxDOT Hydraulic Design Manual, (2009)

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

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

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

Table 3-3. Runoff Coefficients for Rational Formula

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

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

I. FUTURE RUN OFF (10 YEAR STORM) FOR AREA A2

***Rational Method**

Project Name: **CHELSEA PARK VILLAS SUBDIVISION**

AREA: **3.26** ACRES

City: **WESLACO**

NUMBER OF LOTS: **9** LOTS

County: **HIDALGO**

State: **TEXAS**

Highest elevation= **76.20** ft

Lowest elevation= **75.70** ft

Watercourse length, L= **340.00** ft

Slope, S_p = **0.15** %

Average flow velocity, V= **0.78** ft/sec

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

K_u = 3.28

k = 0.619

*From Table 3-2 - Intercept Coefficients
*for paved areas

Time of concentration, t_c = **7.28** min

(calculated)

$$t_c = L / 60V$$

10.00 min

(used)

Intensity, i = **8.73** 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 = **87.0**

d = **9.20**

Area to be developed= **72,000** SQFT

*Avg 8000 SF Fourplexes, driveways & walks
9 lots

1.65 ACRES

Future Run off Coefficient: **0.90**

*Average for roofs, driveways and walks
*From Table 3-3 - Run off Coefficients

Area to be developed= **54,046** SQFT

*Remaining green areas

1.24 ACRES

Future Run off Coefficient: **0.20**

*For Unimproved areas
*From Table 3-3 - Run off Coefficients

32' B-B STREET SECTION

Area to be developed= **15,960** SQFT

width	32	FT back-to-back
length	380	FT

0.37 ACRES

Future Run off Coefficient: **0.70**

*MIN ASPHALTIC/CONCRETE SURFACE
*From Table 3-3 - Run off Coefficients

Weighted Run off Coefficient, C_w = **0.61**

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

Peak flow, Q = **17.40** CFS

$$Q = C i A$$

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

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

Reference: TxDOT Hydraulic Design Manual, (2009)

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

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

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

Table 3-3. Runoff Coefficients for Rational Formula

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

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

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	
28—Hidalgo sandy clay loam, 0 to 1 percent slopes	<i>In</i>	<i>meq/100g</i>	<i>meq/100g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>		
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	
31—Hidalgo-Urban land complex, 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	
Urban land	—	—	—	—	—	—	—	—	
52—Raymondville clay loam, 0 to 1 percent slopes									
Raymondville	0-15	25-40	—	7.9-8.4	1-5	0	0.0-4.0	0-2	
	15-43	25-40	—	7.9-8.4	5-10	0	0.0-4.0	0-2	
	43-65	25-40	—	7.9-8.4	5-10	0	0.0-4.0	0-8	

Data Source Information

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 20, Sep 13, 2021



Engineering Properties

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

References:

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

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

Report—Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk "*" 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—				Liquid limit	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	L-R-H
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	95-98-1 00	86-96-1 00	44-54- 63	25-30 -39	11-15-1 8
			17-28	Sandy clay loam, clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	100-100 -100	94-98-1 00	85-96-1 00	50-60- 75	30-35 -44	11-17-2 2
			28-38	Clay loam, sandy clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	95-97-1 00	91-94-1 00	81-93-1 00	54-68- 81	30-38 -44	11-17-2 2
			38-80	Sandy clay loam, clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	96-97-1 00	91-95-1 00	82-94-1 00	57-72- 84	30-38 -44	11-17-2 2
31—Hidalgo-Urban land complex, 0 to 1 percent slopes														
Hidalgo	65	B	0-17	Sandy clay loam	CL, SC	A-6	0-0-0	0-0-0	100-100 -100	95-98-1 00	86-96-1 00	44-54- 63	25-30 -39	11-15-1 8
			17-28	Sandy clay loam, clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	100-100 -100	94-98-1 00	85-96-1 00	50-60- 75	30-35 -44	11-17-2 2
			28-38	Clay loam, sandy clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	95-97-1 00	91-94-1 00	81-93-1 00	54-68- 81	30-38 -44	11-17-2 2
			38-80	Clay loam, sandy clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	96-97-1 00	91-95-1 00	82-94-1 00	57-72- 84	30-38 -44	11-17-2 2

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—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
52—Raymondville clay loam, 0 to 1 percent slopes														
Raymondville	85	C	0-15	Clay loam	CL	A-6, A-7-6	0-0-0	0-0-0	100-100 -100	100-100 -100	95-98-1 00	51-68- 85	37-44 -50	18-24-3 0
			15-43	Clay, clay loam	CH, CL	A-6, A-7-6	0-0-0	0-0-0	100-100 -100	95-98-1 00	95-98-1 00	75-85- 95	38-47 -55	19-27-3 5
			43-65	Clay, clay loam	CH, CL	A-7-6	0-0-0	0-0-0	100-100 -100	85-93-1 00	80-90-1 00	75-85- 95	40-47 -53	20-25-3 0

Data Source Information

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 20, Sep 13, 2021

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 (Ksat), 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 (ovendry) 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		
28—Hidalgo sandy clay loam, 0 to 1 percent slopes	In	Pct	Pct	Pct	g/cc	micro m/sec	In/in	Pct	Pct					
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			
31—Hidalgo-Urban land complex, 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			
Urban land	—	—	—	—	—	—	—	—	—				8	0



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					
52— Raymondville clay loam, 0 to 1 percent slopes														
Raymondville	0-15	-31-	-33-	32-37- 42	1.20-1.33 -1.45	1.40-2.70-4.00	0.12-0.15-0. 18	6.0- 7.5- 8.9	1.0- 2.0- 3.0	.28 .28 5	4	86		
	15-43	-30-	-32-	35-38- 50	1.25-1.35 -1.45	0.42-1.00-1.40	0.12-0.15-0. 18	6.0- 7.5- 8.9	0.5- 0.8- 1.0	.28 .28				
	43-65	-30-	-30-	35-40- 45	1.25-1.35 -1.45	0.42-1.00-1.40	0.12-0.15-0. 18	6.0- 7.5- 8.9	0.1- 0.3- 0.5	.28 .28				

Data Source Information

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 20, Sep 13, 2021

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
28—Hidalgo sandy clay loam, 0 to 1 percent slopes	133,968						
		85	Hidalgo	Series	0.0	0.5	1.0
31—Hidalgo-Urban land complex, 0 to 1 percent slopes	22,509						
		65	Hidalgo	Series	0.0	0.5	1.0
		25	Urban land	Miscellaneous area	0.0	0.5	1.0
52—Raymondville clay loam, 0 to 1 percent slopes	37,287						
		85	Raymondville	Series	0.0	0.5	1.0

Data Source Information

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 20, Sep 13, 2021

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

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
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 supply, 0 to 60 inches: 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

31—Hidalgo-Urban land complex, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2t12b
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: Not prime farmland

Map Unit Composition

Hidalgo and similar soils: 65 percent
Urban land: 25 percent
Minor components: 10 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

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 supply, 0 to 60 inches: 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

Description of Urban Land

Setting

Landform: Terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Human-transported material

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Racombes

Percent of map unit: 4 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: 3 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Raymondville

Percent of map unit: 3 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

52—Raymondville clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: dbm1
Elevation: 20 to 200 feet
Mean annual precipitation: 23 to 33 inches
Mean annual air temperature: 72 to 73 degrees F
Frost-free period: 300 to 340 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

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

Description of Raymondville

Setting

Landform: Delta plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous clayey alluvium

Typical profile

H1 - 0 to 15 inches: clay loam
H2 - 15 to 43 inches: clay loam
H3 - 43 to 65 inches: clay

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0
mmhos/cm)

Sodium adsorption ratio, maximum: 8.0

Available water supply, 0 to 60 inches: Moderate (about 9.0
inches)

Interpretive groups

Land capability classification (irrigated): 2s

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: C

Ecological site: R083DY025TX - Clay Loam

Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 15 percent

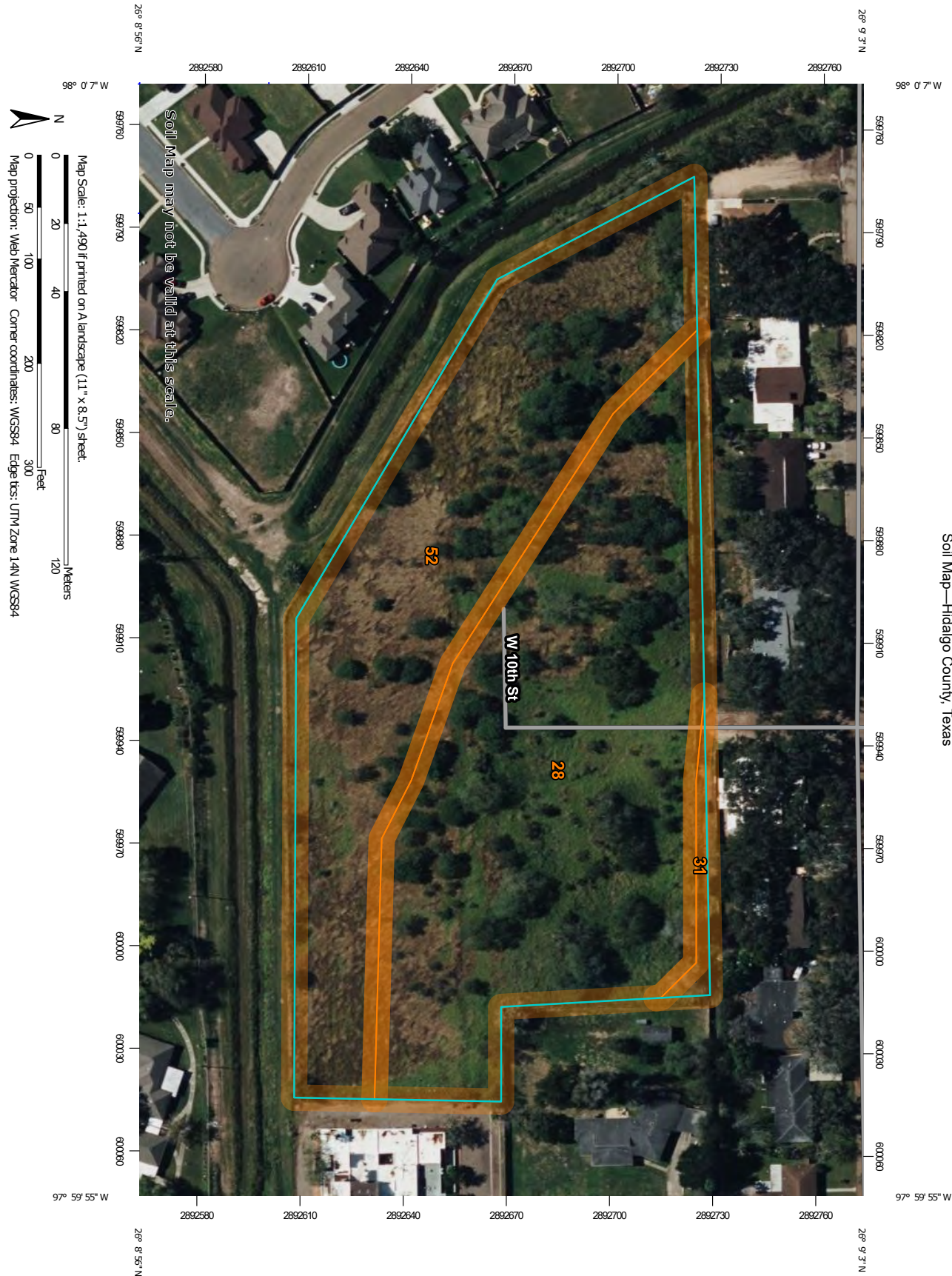
Hydric soil rating: No

Data Source Information

Soil Survey Area: Hidalgo County, Texas

Survey Area Data: Version 20, Sep 13, 2021

Soil Map—Hidalgo County, Texas



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

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 20, Sep 13, 2021

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

Date(s) aerial images were photographed: Dec 21, 2021—Mar 2, 2022

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

MAP 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		

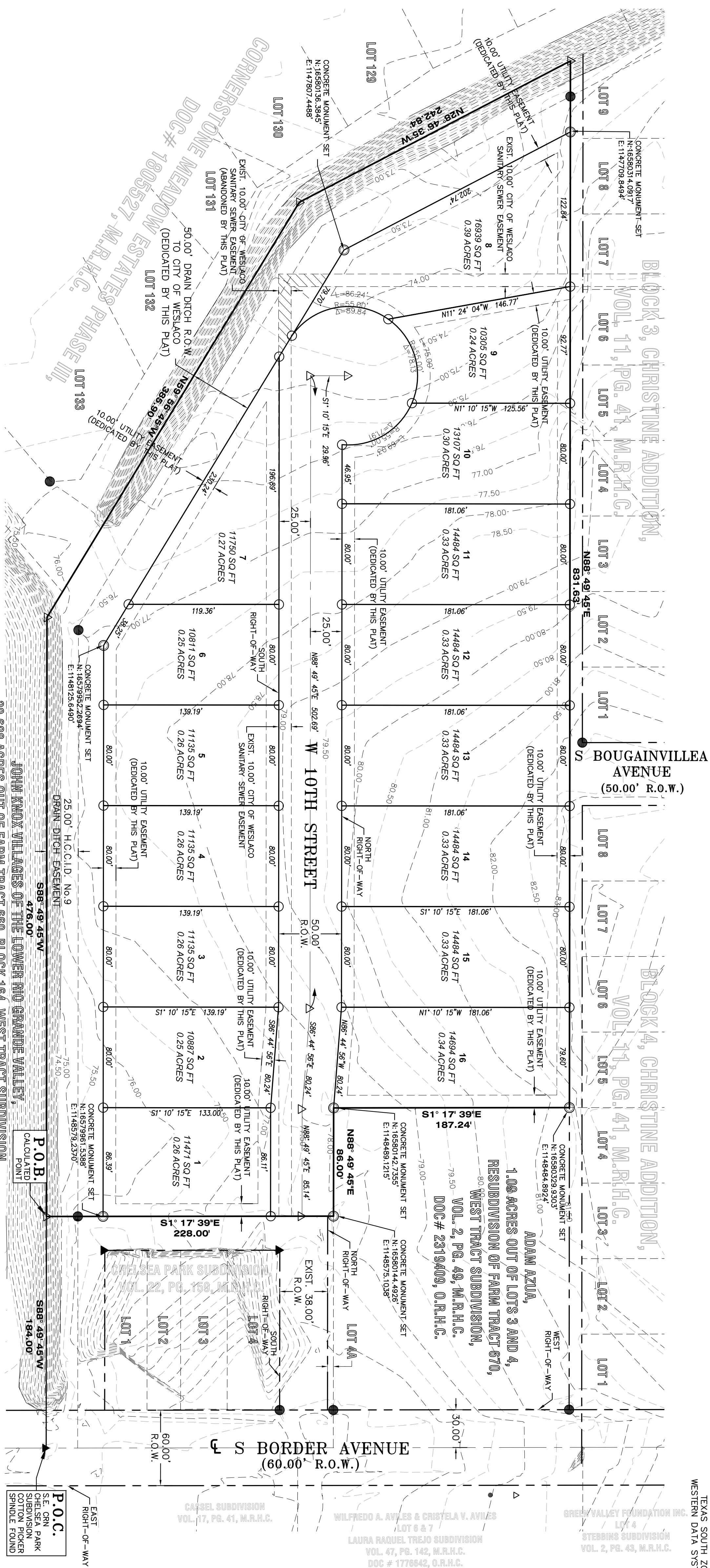
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	3.3	54.4%
31	Hidalgo-Urban land complex, 0 to 1 percent slopes	0.1	1.2%
52	Raymondville clay loam, 0 to 1 percent slopes	2.7	44.4%
Totals for Area of Interest		6.1	100.0%

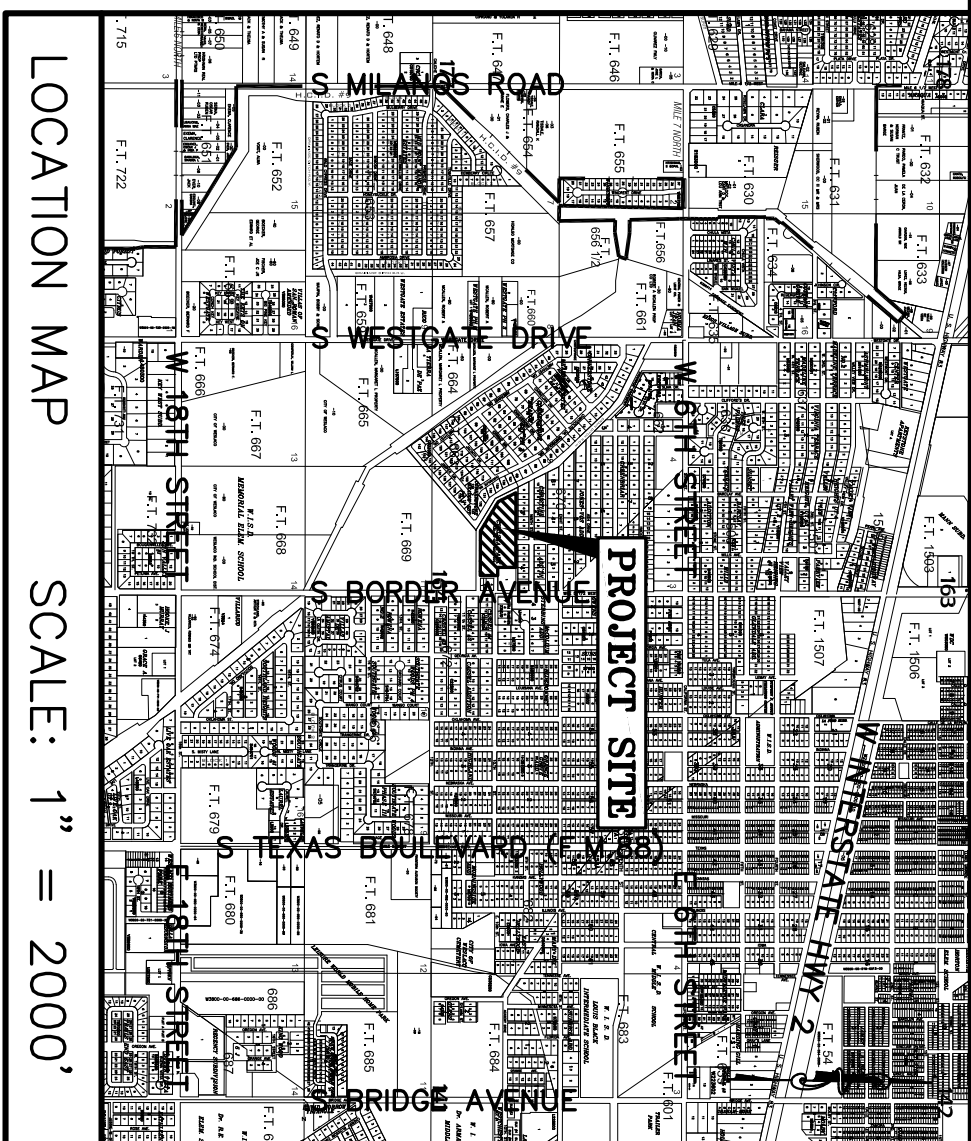
CHELSEA PARK VILLAS SUBDIVISION

AS PER MAP OR PLAT THEREOF RECORDED IN VOLUME 22, PAGE 159, MAP RECORDS OF HIDALGO COUNTY, TEXAS

DATE OF PREPARATION: OCTOBER 25, 2022

Page 94
November 2, 2022

SCALE: 1" = 50'
BEARING OF BASIS
TEXAS STATE PLANE
COORDINATES NAD 83
TEXAS SOUTH ZONE (4205)
WESTERN DATA SYSTEMS NETWORK



LOCATION MAP

SCALE: 1" = 2000'

ABBREVIATION LEGEND	
R.O.M.	RIGHT-OF-WAY
P.O.C.	POINT OF BEGINNING
P.O.D.	POINT OF DISCONTINUITY
S.T.C.	STREET CORNER
S.T.I.C.	STREET INTERSECTION
F.M.	FARM-TO-MARKET
C.L.	CENTER LINE
L	LOT LINE

LEGEND	
○	SET 1/2 INCH IRON ROD
●	FOUND 1/2 INCH IRON ROD
▲	FOUND CORNER PICKER SPINDLE
◆	FOUND CORNER PICKER SET
■	CONCRETE MONUMENT SET
■	CONCRETE MONUMENT FOUND
△	CALCULATED POINT
△	SPREAD POINT
(xxxx)	RECORD CALL
xxxx	NATURAL GROUND
x	FOUND "x" MARK IN CONCRETE

GENERAL NOTES:

1. THIS SLURBVISN IS IN ZONE "C", AREAS OF MINIMAL FLOODING, AND ZONE "B", AREAS 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, ACCORDING TO THE FEMA'S FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO. 480349 0005 B, REVISED MARCH 4, 1980.

FROM: 20.00 FEET OR EASEMENT WHICHEVER IS GREATER

REAR: 15.00 FEET OR EASEMENT WHICHEVER IS GREAT

4. MINIMUM FINISHED FLOOR ELEVATIONS ESTABLISHED SHALL BE 18" OR NATURAL GROUND, WHICHEVER IS GREATER.

3. THE FOLLOWING BENCHMARKS ARE IDENTIFIED ON THE FACE OF THE ENGINEERING PLANS.

---38.M. NO.2-- ELEV. 75.61 N.G.V.D. 88, DESCRIPTION: COLLISION PILE
CENTERLINE OF S BORDER AVENUE. GPS POINT, GRID COORDINATES

6. IN ACCORDANCE WITH THE HIDALGO COUNTY DRAINAGE DISTRICT IN REQUIREMENTS, THIS DEVELOPMENT WILL BE REQUIRED TO DETAIN

SHALL BE RESPONSIBLE TO DETAIN AND ACCOMMODATE MORE THAN ABOVE IF IT IS DETERMINED AT THE DEVELOPMENT PERMIT STAGE

GREATER THAN THE ENGINEER CONSIDERED FOR HIS CALCULATION

INCHES MATURE HEIGHT, GROUND COVER, GRASS, OR FLOWERS) AND WOULD INTERFERE WITH THE OPERATIONS AND MAINTENANCE OF THE

SUBDIVISION SHALL CONTAIN A STATEMENT DESCRIBING HOW AND ELECTRICITY AND GAS SERVICES WILL BE MADE AVAILABLE TO THE

10. CORNER LOT DRIVEWAYS SHOULD BE CONSTRUCTED AT ELIEST POINT OF THE LOT LINE FROM THE BOUNDARY LINE TO WATER WELLS WITHIN 100 FEET FROM THE BOUNDARY LINE.

11. ALL SUBDIVISION BOUNDARY LOT CORNERS HAVE CONCRETE MONUMENTS.

12. A 5.00 FOOT SIDEWALKS ARE REQUIRED ALONG ALL INTERIOR STREET FRONTAGE. ON CORNER LOTS, THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING A 5.00 FOOT SIDEWALK ON THE CORNER LOT.

13. A 5.00 FOOT SIDEWALK IS REQUIRED ALONG EXTERIOR OF A NOTICE TO PROCEED.

.....



ON: _____

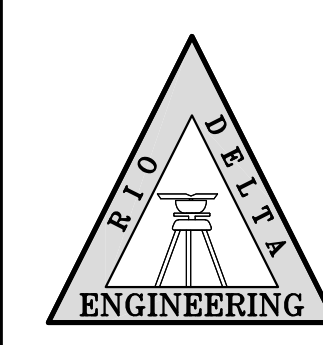
OF THE MA

BY: _____

DATE: OCTOBER 25, 2022
 PROTOCOL: SUB 22_034
 REVISIONS:
 DRAWN: VIVIAN GARCIA P.E., R.P.L.S.
 CHECKED: DANIEL RODRIGUEZ E.I., I.T.
 SCALE: 1"=50'
 PAGE NO. 1-OF-1

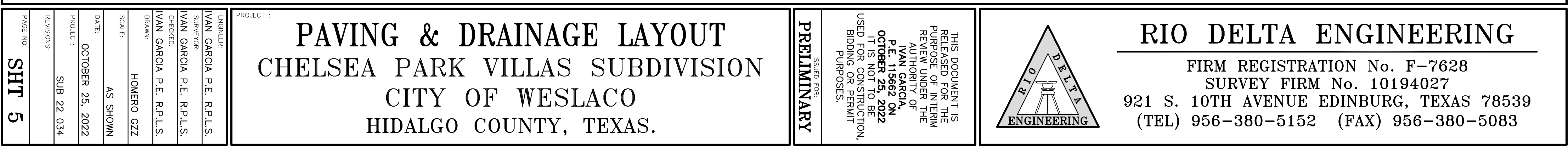
PROJECT :
PLAT SHEET
CHELSEA PARK VILLAS SUBDIVISION
CITY OF WESLACO
HIDALGO COUNTY, TEXAS.

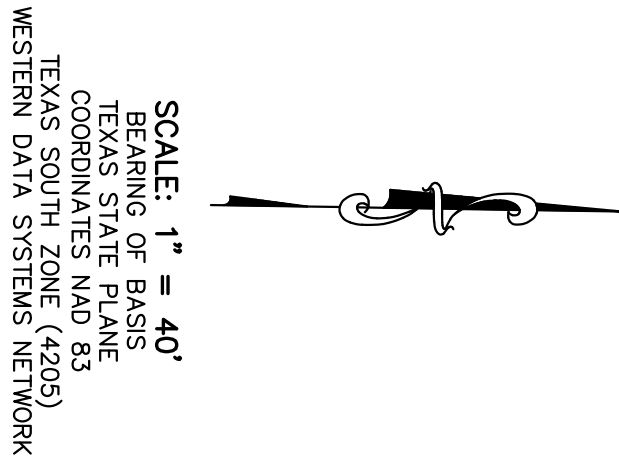
ISSUED FOR:
FINAL



RIO DELTA ENGINEERING

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

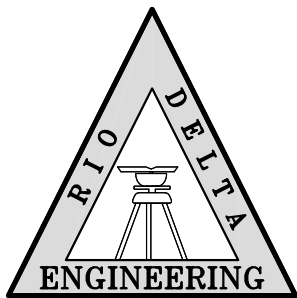




LEGEND	
	EXIST. GRATE INLET
	EXIST. CURB INLET
	EXIST. TELEPHONE PEDESTAL
	EXIST. GRATE INLET
	EXIST. LAMP POLE
	EXIST. FLUSH VALVE
	EXIST. IRRIGATION VALVE
	EXIST. FIREFIGHTANT
	EXIST. MAIL BOX
	EXIST. BRICK MAIL BOX
	EXIST. OVERHEAD ELECTRIC LINE
	EXIST. UNDERGROUND CABLE
	EXIST. UNDERGROUND GAS LINE
	1/2" IRON ROD SET
	1/2" IRON ROD FOUND
	FENCE CORNER FOUND

[illegible]

THIS DOCUMENT IS
RELEASED FOR THE
PURPOSE OF INTERIM
REVIEW UNDER THE
AUTHORITY OF
IVAN GARCIA,
P.E. 115662 ON
OCTOBER 25, 2022
IT IS NOT TO BE
USED FOR CONSTRUCTION,
BIDDING OR PERMIT
PURPOSES.



RIO DELTA ENGINEERING

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

DRAINAGE AREA MAP
CHELSEA PARK VILLAS SUBDIVISION
WESLACO, TEXAS
HIDALGO COUNTY

ENGINEER	IVAN GARCIA P.E. R.P.L.S.
SUPERVISOR	IVAN GARCIA P.E. R.P.L.S.
CHECKED	IVAN GARCIA P.E. R.P.L.S.
DRAWN	DANIEL RODRIGUEZ E.I.T.
SCALE	1"=40'
DATE	OCTOBER 25, 2022
PROJECT	SUB 22_034
REVISIONS	
PAGE NO.	SHT 1



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: November 2, 2022	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 and/or Final Plat for Sienna Subdivision being a 31.06-acre out of Farm Tracts 216, West Tract Subdivision, Weslaco, Hidalgo County, Texas Located on West side of Mile 6 ½ West, 1015' South of Mile 10 North. Possible Action.	
Discussion/Overview: The proposed fifty-two (52) 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 and is pending letters of support 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 Final and compliance with the ordinance on the variance.	
Additional Action Prompted: ☒ Mayor's Signature ☐ Public Hearing ☐ Budget Amendment ☐ Resolution ☐ Ordinance – First Reading ☐ Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

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

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

FILE NO. PIAT-000296-2022

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: SIENNA SUBDIVISION

Location: WEST SIDE OF HIGH 6 1/2 WEST, 1050 FEET SOUTH OF HIGH 10 NORTH

Legal Description: A 31.06 ACRE TRACT OF LAND OUT OF FARM TRACT 218, 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: 52 Gross Acreage: 31.06

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: ALBERT HANKS Telephone: (956) 630-0216

Address: 502 E. EXPRESSWAY 83 SUITE G Fax: _____

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

ENGINEER INFORMATION

Name: WILLIE APPARITA Telephone: (956) 784-0218

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

City: Dallas State: TX Zip: 75337 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: NAWSC.
☐ YES ☐ NO Wastewater Provision: OSSF
☒ YES ☐ NO Electric Company: MAGIC UTILITY

☐ 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: DII Investments, LP

Owner Signature: [Signature] Date: 8/19/22

_____ is the authorized agent

Authorized Agent Signature: [Signature] Date: 8/19/22

Authorized Agent Printed Name: Albert Hanks

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

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. VAR-000297-2022

GENERAL INFORMATION

Name of Subdivision: SIENNA SUBDIVISION

Location: WEST SIDE OF MILE 6 1/2 WEST, 1050 FEET SOUTH OF MILE 10 NORTH

Legal Description: A 31.00 ACRE TRACT OF LAND OUT OF FARM TRACT 216, 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:

TO USE OSSF, THERE IS NO SANITARY SEWER AVAILABLE AT TIME.

☐ 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: DII Investments, LP

Owner Signature: [Signature] Date: 8/19/22

_____ is the authorized agent

Authorized Agent Signature: [Signature] Date: 8/19/22

Authorized Agent Printed Name: Albert Hambs



APPLICATION FOR VARIANCE

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

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

FILE NO. _____

GENERAL INFORMATION

Name of Subdivision: SIENNA SUBDIVISION

Location: WEST SIDE OF MILE 6 1/2 WEST, 1050 FEET SOUTH OF MILE 10 NORTH

Legal Description: A 31.06 ACRE TRACT OF LAND OUT OF FARM TRACT 216, 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:

TO ALLOW DETENTION ON EXISTING DRAIN DITCH LOCATED ON THE WEST SIDE OF THIS TRACT

☐ 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: DII Investments, LP

Owner Signature: [Signature] Date: 8/19/22

_____ is the authorized agent

Authorized Agent Signature: [Signature] Date: 8/19/22

Authorized Agent Printed Name: Albert Hanker

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
SIENNA RIDGE SUBDIVISION

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



Guillermo A. P.E.
8/28/2022

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
SIENNA RIDGE SUBDIVISION

I. PROJECT LOCATION

A 31.02 acre Tract of land out of Farm Tract 216, West Tract Subdivision, according to the map recorded in volume 2, pages 34-37, map records, Hidalgo County, Texas, and is located on the west side of Mile 6 ½ North Road, 1,050.78 feet south 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: Effective: October 5, 2018. (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 (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 (15.18 cfs) from the site is by form of sheet flow runs towards the west side of this tract.

V. PROPOSED CONDITIONS

The proposed conditions for this subject tract is for 52 lots for residential use. The storm runoff after development will be increase 19.82 cfs for a total 35.0 cfs, I have calculated that 83,827 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 48" RCP with curb inlets and out falling into Drain Ditch located on the west 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 83,827 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	
<u>9-27-22</u>	DATE
H.C.D.D. NO. 1	



pull ut. P.E.
8/28/22

DRAINAGE CALCULATIONS EXHIBIT "A"

SIENNA RIDGE SUBDIVISION

AREA= 30.06 Ac.

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

Existing Conditions

Length= 599 ft.

Slope= 0.1 %

Cexist.= 0.2

Time of Concentration= 85 min.

Texist. = 85 min.

Iexist.= 2.52 in/hr

Qexist.= 15.18 cfs.

10 year storm

b= 87

e= 0.778

d= 9.2

Proposed Conditions

Length= 599 ft.

Slope= 0.15 %

Cfut.= 0.3

Time of Con= 66 min.

Tfut.= 66 min.

Ifut.= 3.88 in/hr

Qfut.= 35.0 cfs.

Qin= 9.02 i

50 year storm

b= 99

e= 0.749

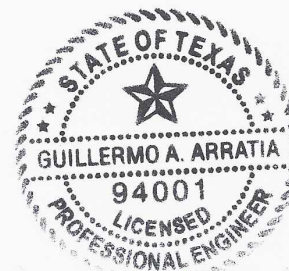
d= 9.2

tp (Min.)	I50 (in/hr)	Qin (cfs)	Vin (cubic ft.)	Qout (cfs)	Vout (cubic ft.)	Ev (cubic ft.)
10	10.83	97.62	58574	15.18	34757	23,817
20	7.91	71.31	85577	15.18	39310	46,266
30	6.34	57.20	102955	15.18	43864	59,091
40	5.35	48.25	115791	15.18	48417	67,374
50	4.66	42.00	126008	15.18	52971	73,037
60	4.14	37.37	134527	15.18	57524	77,002
70	3.75	33.78	141857	15.18	62078	79,779
80	3.43	30.90	148308	15.18	66631	81,676
90	3.16	28.53	154082	15.18	71185	82,897
110	2.76	24.87	164119	15.18	80292	83,827
120	2.60	23.41	168555	15.18	84845	83,710
130	2.45	22.14	172685	15.18	89399	83,286
140	2.33	21.02	176552	15.18	93952	82,600
150	2.22	20.02	180191	15.18	98506	81,685
160	2.12	19.13	183630	15.18	103059	80,571
170	2.03	18.32	186894	15.18	107612	79,282
180	1.95	17.59	190001	15.18	112166	77,835
190	1.88	16.93	192967	15.18	116719	76,247
200	1.81	16.32	195806	15.18	121273	74,533
210	1.75	15.76	198530	15.18	125826	72,704

DRAINAGE CALCULATIONS

EXHIBIT "A"

220	1.69	15.24	201149	15.18	130380	70,769
230	1.64	14.76	203672	15.18	134933	68,739
240	1.59	14.31	206107	15.18	139487	66,620
250	1.54	13.90	208461	15.18	144040	64,420
260	1.50	13.51	210738	15.18	148594	62,145
270	1.46	13.14	212946	15.18	153147	59,799
Storage Requires=		83,827	cubic feet	=	1.92	ac-ft



Guillermo A. P.E.
8/28/22

Chapter 5 — Hydrology

Section 6 — The Rational Method

Runoff Coefficients for Urban Watersheds	
Type of Drainage Area	Runoff Coefficient
Business:	
♦ downtown areas	0.70-0.95
♦ neighborhood areas	0.30-0.70
Residential:	
♦ single-family areas	0.30-0.50
♦ multi-units, detached	0.40-0.60
♦ multi-units, attached	0.60-0.75
♦ suburban	0.35-0.40
♦ apartment dwelling areas	0.30-0.70
Industrial:	
♦ light areas	0.30-0.80
♦ heavy areas	0.60-0.90
Parks, cemeteries	0.10-0.25
Playgrounds	0.30-0.40
Railroad yards	0.30-0.40
Unimproved areas:	
♦ sand or sandy loam soil, 0-3%	0.15-0.20
♦ sand or sandy loam soil, 3-5%	0.20-0.25
♦ black or loessial soil, 0-3%	0.18-0.25
♦ black or loessial soil, 3-5%	0.25-0.30
♦ black or loessial soil, >5%	0.70-0.80
♦ deep sand area	0.05-0.15
♦ steep grassed slopes	0.70
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	0.85-0.95
♦ concrete	0.90-0.95
♦ brick	0.70-0.85
Drives and walks	0.75-0.95
Roofs	0.75-0.95

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			
	e	b	d	a	e	b	d	a	e	b	d	a	e	b	d	a	e	b	d	a	e	b	d	a
Hemphill	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	0.847	132	10.6						
Henderson	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	0.773	98	9.2	0.749	99	9.2	0.740	103	9.6						
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	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	9.4						
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						
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	0.779	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	0.786	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	80	8.5	0.745	89	8.5	0.737	95	8.5	0.720	97	8.8						
Jasper	0.782	66	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	86	7.5	0.710	87	7.5	0.687	84	9.2						
Jim Hogg	0.831	73	9.4	0.813	82	9.4	0.786	87	9.4	0.780	98	9.4	0.756	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	94	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						
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						
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	0.763	91	8.0	0.768	100	8.4						
Kimble	0.775	42	8.2	0.758	53	7.6	0.763	66	7.6	0.757	75	7.6	0.772	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						
Kleberg	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	9.5	0.800	63	9.5	0.821	80	9.5	0.818	88	9.5	0.820	103	10.1						

EXHIBIT "B"

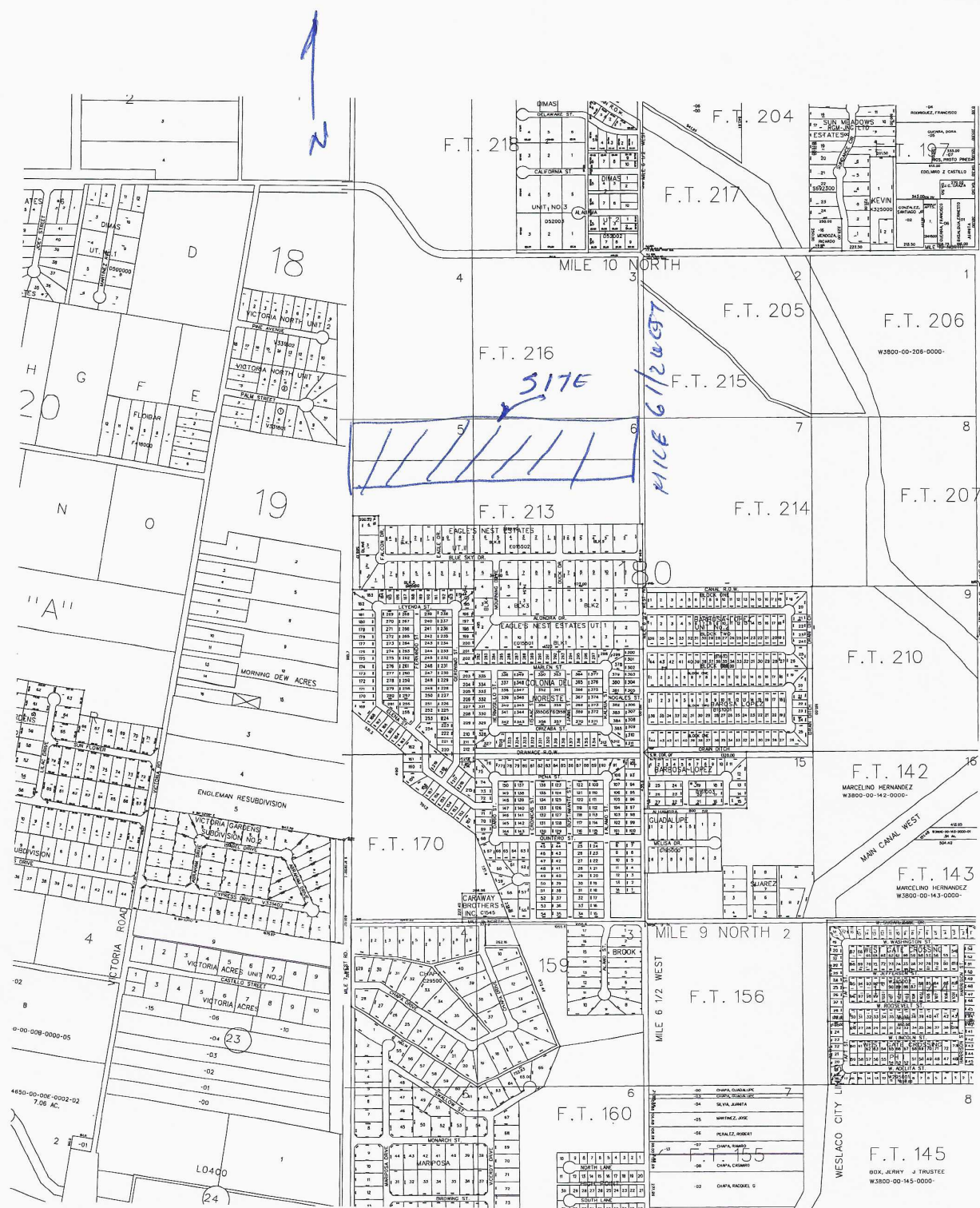


EXHIBIT "C"

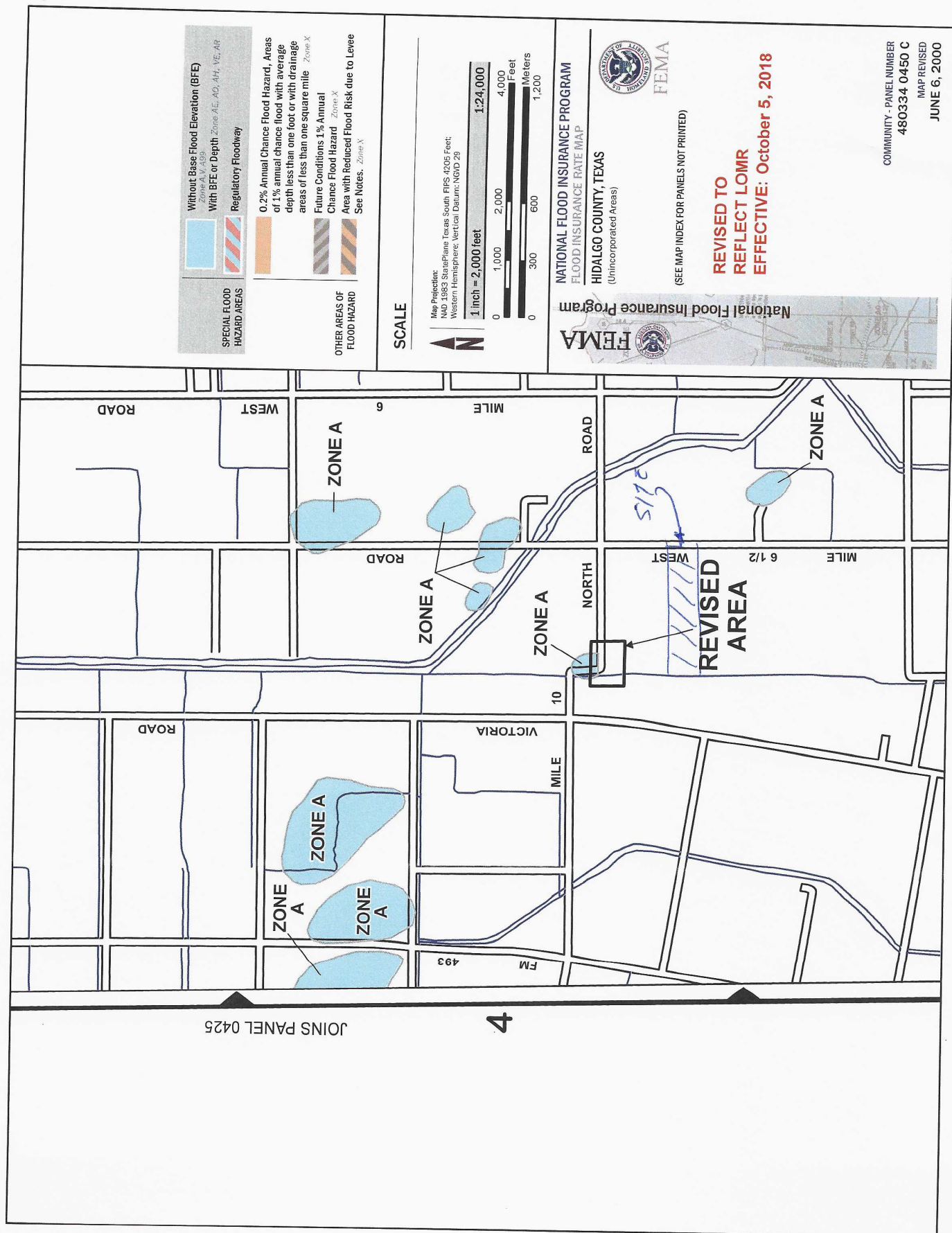


EXHIBIT "D"



This map is compiled on 1975 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

3

Soil survey

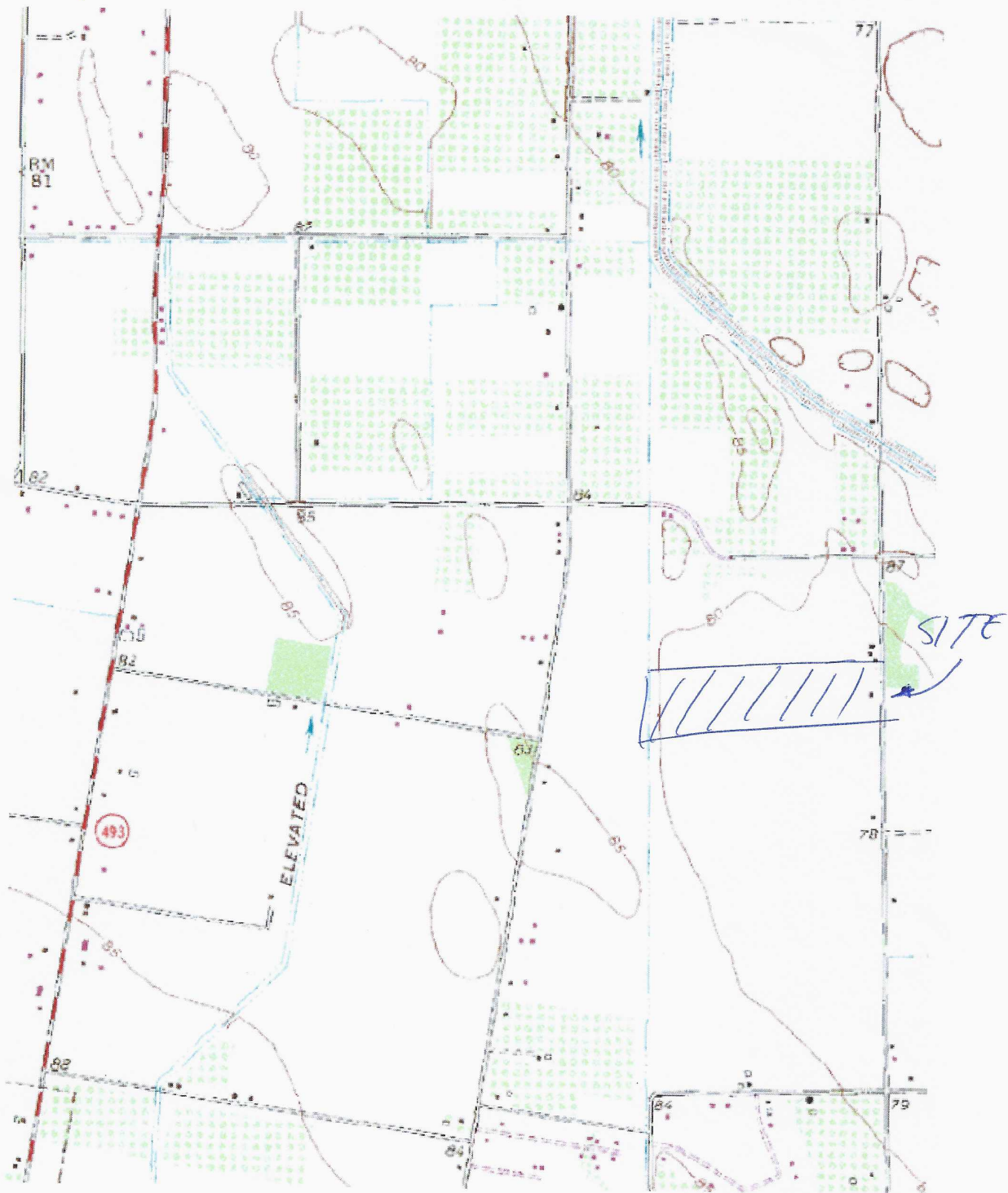
TABLE 18.--SOIL AND WATER FEATURES

"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
					<u>Ft</u>			<u>In</u>			
.# Arents											
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----- Hebbbronville	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.

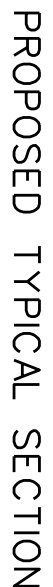
See footnotes at end of table.

15



SIENNA RIDGE SUBDIVISION

PAGES 34-37, MAP RECORDS, HIDALGO COUNTY, TEXAS.



PRINCIPAL CONTACTS:	
NAME	ADDRESS
OWNER: ALBERT HANNS	502 E. EXPRESSWAY 83, SUITE C WESTCAJO, TEXAS 78956
OWNER: CULLEMIN A. ABARUA	506 N. 3TH ST., DONNA, TX 78537
SILVERTOR: HOFER GUERRERAZ	2600 SAN DIEGO MISSION, TX
	(956) 363-0988

ENGINEERING@YAHOO.COM

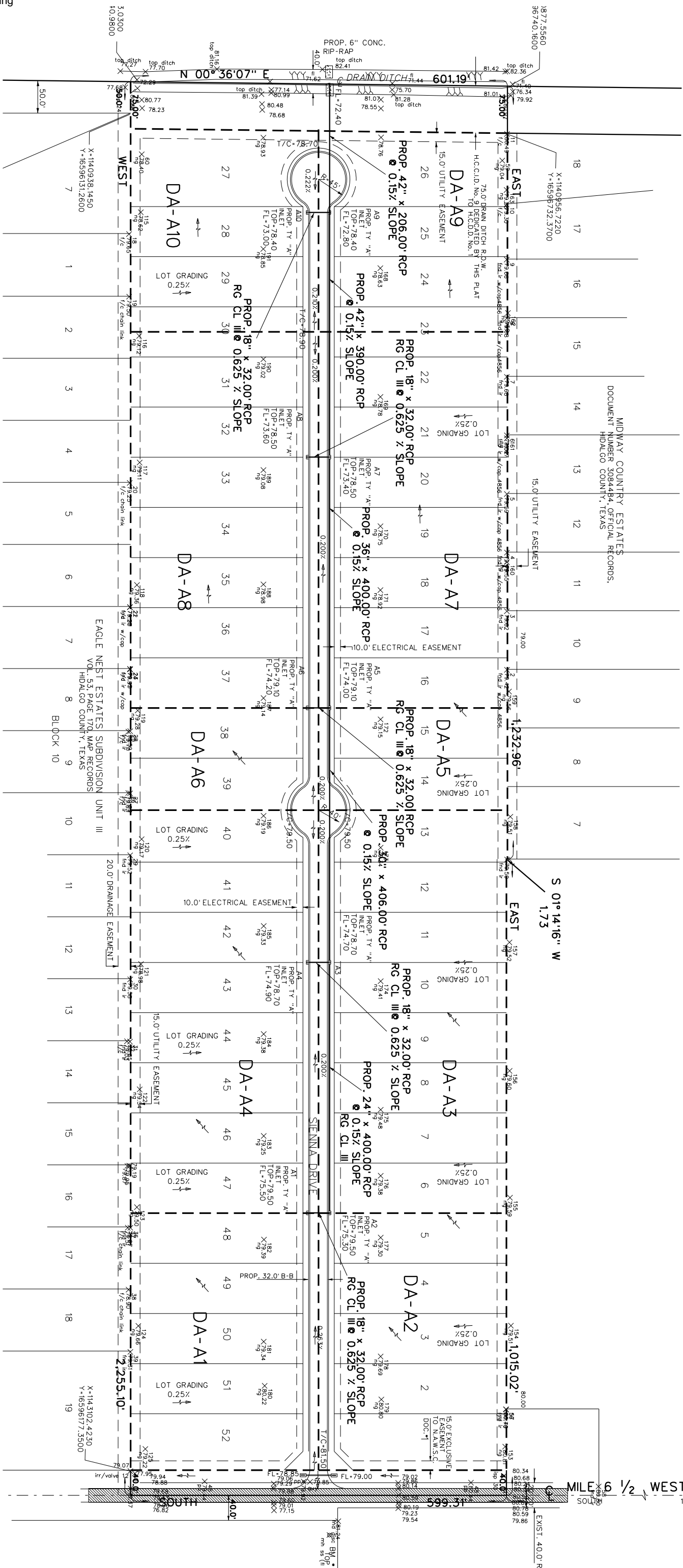
SHEET 3

THIS DEVELOPMENT: MAP OF TOPOGRAPHY AND DRAINAGE, AND ENGINEER'S CERTIFICATION: REVISION NOTES: CONSTRUCTION DETAILS

SHEET 3 OF 3

A circular professional engineer seal for the State of Texas. The outer ring contains the text "STATE OF TEXAS" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars on each side. The inner circle contains the name "GUILLERMO A. ARRATIA" at the top, the license number "94001" in the center, and a five-pointed star at the bottom.

1 MILE 10 NORTH ROAD



WinStorm (STORM DRAIN DESIGN)

Version 3.05, Jan. 25, 2002
Run @ 8/10/2022 8:27:09 PM

PROJECT NAME : Untitled
JOB NUMBER :
PROJECT DESCRIPTION : SIENNA SUBDIVISION

DESIGN FREQUENCY : 5 Years
ANALYSIS FREQUENCY : 10 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY of: 5 Years

=====

Runoff Computation for Design Frequency.

ID	C Value	Area (acre)	Tc (min)	Tc Used (min)	Intensity (in/hr)	Supply Q (cfs)	Total Q (cfs)
A-1	0.331	2.81	43.66	43.66	3.41	0.000	3.178
	0.85	0.16	Pavement				
	0.3	2.65	Single family				
A-2	0.331	2.81	43.66	43.66	3.41	0.000	3.178
	0.85	0.16	Pavement				
	0.3	2.65	Single family				
A-3	0.331	4.37	44.86	44.86	3.35	0.000	4.857
	0.85	0.25	Pavement				
	0.3	4.12	Single family				
A-4	0.331	4.37	44.86	44.86	3.35	0.000	4.857
	0.85	0.25	Pavement				
	0.3	4.12	Single family				
A-5	0.34	1.10	28.33	28.33	4.48	0.000	1.676
	0.85	0.08	Pavement				
	0.3	1.02	Single family				
A-6	0.34	1.10	28.33	28.33	4.48	0.000	1.676
	0.85	0.08	Pavement				
	0.3	1.02	Single family				
A-7	0.499	4.06	42.86	42.86	3.46	0.000	7.002
	0.85	1.47	Pavement				
	0.3	2.59	Single family				
A-8	0.499	4.06	42.86	42.86	3.46	0.000	7.002
	0.85	1.47	Pavement				
	0.3	2.59	Single family				
A-9	0.331	3.50	43.20	43.20	3.44	0.000	3.987
	0.85	0.20	Pavement				
	0.3	3.30	Single family				
A-10	0.331	3.50	43.20	43.20	3.44	0.000	3.987
	0.85	0.20	Pavement				

0.3 3.30 Single family

On Grade Inlet Configuration Data

Inlet ID	Inlet Type	Inlet Length (ft)	Slopes Long (%)	Slopes Trans (%)	Gutter n	Gutter Depr. (ft)	Grate Width (ft)	Grate Type	Pond Width Allowed (ft)	Critic Elev. (ft)
A-1	Curb	10.00	0.26	2.00	0.014	0.33	n/a	n/a	16.00	79.50
A-2	Curb	10.00	0.26	2.00	0.014	0.33	n/a	n/a	16.00	79.50
A-5	Curb	10.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	79.10
A-6	Curb	15.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	79.10
A-7	Curb	15.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	78.50
A-8	Curb	10.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	78.50
A-9	Curb	10.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	77.70
A-10	Curb	10.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	77.70

On Grade Inlets Computation Data.

Inlet ID	Inlet Type	Total Q (cfs)	Intercept Capacity (cfs)	Q Bypass Allow (cfs)	Q Bypass Actual (cfs)	To Inlet ID	Required Length (ft)	Actual Length (ft)	Ponded Width (ft)
A-1	Curb	3.178	3.178	0.000	0.000		7.35	10.00	13.60
A-2	Curb	3.178	3.178	0.000	0.000		7.35	10.00	13.60
A-5	Curb	1.676	1.676	0.000	0.000		4.75	10.00	11.25
A-6	Curb	1.676	1.676	0.000	0.000		4.75	15.00	11.25
A-7	Curb	7.002	7.002	0.000	0.000		11.31	15.00	19.25
A-8	Curb	7.002	6.857	0.000	0.145		11.31	10.00	19.25
A-9	Curb	3.987	3.987	0.000	0.000		7.99	10.00	15.55
A-10	Curb	3.987	3.987	0.000	0.000		7.99	10.00	15.55

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Length/Perim. (ft)	Grate Area (sf)	Left-Slope Long (%)	Slope Trans (%)	Right-Slope Long (%)	Slope Trans (%)	Gutter n	Grate DeprW (ft)	Depth Allowed (ft)	Critic Elev. (ft)
A-3	Curb	5.00	n/a	0.20	2.00	0.20	2.00	0.014	1.50	0.50	78.70
A-4	Curb	5.00	n/a	0.20	2.00	0.20	2.00	0.014	1.50	0.50	78.70

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length	Grate Perim Area	Total Q	Inlet Capacity	Total Head	Ponded Left	Width Right
----------	------------	--------	------------------	---------	----------------	------------	-------------	-------------

		(ft)	(ft)	(sf)	(cfs)	(cfs)	(ft)	(ft)	(ft)
A-3	Curb	5.00	n/a	n/a	4.857	6.261	0.422	12.95	12.95
A-4	Curb	5.00	n/a	n/a	4.857	6.261	0.422	12.95	12.95

Cumulative Junction Discharge Computations

Node I.D.	Node Type	Weighted C-Value	Cumulat. Dr.Area (acres)	Cumulat. Tc (min)	Intens. (in/hr)	User Supply Q (cfs)	Additional Q in Node (cfs)	Total Disch. (cfs)
A-1	Curb	0.331	2.81	43.66	3.41	0.000	0.00	3.178
A-2	Curb	0.331	5.62	43.77	3.41	0.000	0.00	6.345
A-3	Curb	0.331	14.36	45.82	3.31	0.000	0.00	15.737
A-4	Curb	0.331	4.37	44.86	3.35	0.000	0.00	4.857
A-5	Curb	0.333	16.56	47.44	3.23	0.000	0.00	17.794
A-6	Curb	0.340	1.10	28.33	4.48	0.000	0.00	1.676
A-7	Curb	0.387	24.68	49.03	3.16	0.000	0.00	30.219
A-8	Curb	0.499	4.06	42.86	3.46	0.000	0.00	7.002
A-9	Curb	0.375	31.68	50.39	3.10	0.000	0.00	36.869
A-10	Curb	0.331	3.50	43.20	3.44	0.000	0.00	3.987
OUT	Outlet	0.375	31.68	50.39	3.10	0.000	0.00	36.869

Conveyance Configuration Data

Run#	Node I.D.	Flowline Elev.	Shape #	Span	Rise	Length	Slope	n_value
	US DS	US DS (ft) (ft)		(ft)	(ft)	(ft)	(%)	
10	A-1 A-2	75.50 75.30	Circ 1	0.00	1.50	32.00	0.63	0.012
20	A-2 A-3	75.30 74.70	Circ 1	0.00	2.00	400.00	0.15	0.012
30	A-4 A-3	74.90 74.70	Circ 1	0.00	1.50	32.00	0.63	0.012
40	A-3 A-5	74.70 74.00	Circ 1	0.00	2.50	406.00	0.17	0.012
50	A-6 A-5	74.20 74.00	Circ 1	0.00	1.50	32.00	0.63	0.012
60	A-5 A-7	74.00 73.40	Circ 1	0.00	3.00	400.00	0.15	0.012
70	A-8 A-7	73.60 73.40	Circ 1	0.00	1.50	32.00	0.63	0.012
80	A-7 A-9	73.40 72.80	Circ 1	0.00	3.50	390.00	0.15	0.012
90	A-10 A-9	73.00 72.80	Circ 1	0.00	1.50	32.00	0.63	0.012
100	A-9 OUT	72.80 72.40	Circ 1	0.00	3.50	206.00	0.19	0.012

Conveyance Hydraulic Computations. Tailwater = 0.000 (ft)

Run#	Hydraulic US Elev (ft)	Gradeline DS Elev (ft)	Fr.Slope (%)	Depth Unif. (ft)	Actual (ft)	Velocity Unif. (f/s)	Actual (f/s)	Q (cfs)	Cap (cfs)	Junc Loss (ft)
------	------------------------	------------------------	--------------	------------------	-------------	----------------------	--------------	---------	-----------	----------------

10	76.77	76.76	0.078	0.62	1.46	4.66	1.81	3.18	9.00	0.000
20	76.76	76.52	0.067	1.19	1.82	3.26	2.12	6.35	9.49	0.000
30	76.58	76.52	0.182	0.79	1.50	5.19	2.75	4.86	9.00	0.000
40	76.52	75.92	0.125	1.80	1.92	4.17	3.88	15.74	18.45	0.000
50	75.93	75.92	0.022	0.44	1.50	3.89	0.95	1.68	9.00	0.000
60	75.92	75.61	0.061	1.73	2.21	4.20	3.19	17.79	27.99	0.000
70	75.73	75.61	0.378	1.00	1.50	5.62	3.96	7.00	9.00	0.000
80	75.61	75.10	0.077	2.19	2.30	4.78	4.51	30.22	42.76	0.000
90	75.14	75.10	0.123	0.70	1.50	4.96	2.26	3.99	9.00	0.000
100	75.10	74.70	0.114	2.30	2.30	5.51	5.51	36.87	48.03	0.000

=====

OUTPUT FOR ANALYSYS FREQUENCY of: 10 Years

=====

Runoff Computation for Analysis Frequency.

ID	C Value	Area (acre)	Tc (min)	Tc Used (min)	Intensity (in/hr)	Supply Q (cfs)	Total Q (cfs)

A-1	0.331	2.81	43.66	43.66	3.97	0.000	3.697
	0.85	0.16	Pavement				
	0.3	2.65	Single family				
A-2	0.331	2.81	43.66	43.66	3.97	0.000	3.697
	0.85	0.16	Pavement				
	0.3	2.65	Single family				
A-3	0.331	4.37	44.86	44.86	3.90	0.000	5.653
	0.85	0.25	Pavement				
	0.3	4.12	Single family				
A-4	0.331	4.37	44.86	44.86	3.90	0.000	5.653
	0.85	0.25	Pavement				
	0.3	4.12	Single family				
A-5	0.34	1.10	28.33	28.33	5.18	0.000	1.939
	0.85	0.08	Pavement				
	0.3	1.02	Single family				
A-6	0.34	1.10	28.33	28.33	5.18	0.000	1.939
	0.85	0.08	Pavement				
	0.3	1.02	Single family				
A-7	0.499	4.06	42.86	42.86	4.02	0.000	8.144
	0.85	1.47	Pavement				
	0.3	2.59	Single family				
A-8	0.499	4.06	42.86	42.86	4.02	0.000	8.144
	0.85	1.47	Pavement				
	0.3	2.59	Single family				
A-9	0.331	3.50	43.20	43.20	4.00	0.000	4.638
	0.85	0.20	Pavement				

	0.3	3.30	Single family				
A-10	0.331	3.50	43.20	43.20	4.00	0.000	4.638
	0.85	0.20	Pavement				
	0.3	3.30	Single family				

On Grade Inlet Configuration Data

Inlet ID	Inlet Type	Inlet Length (ft)	Slopes Long (%)	Slopes Trans (%)	Gutter n	Gutter Depr. (ft)	Grate Width (ft)	Grate Type	Pond Width Allowed (ft)	Critic Elev. (ft)
A-1	Curb	10.00	0.26	2.00	0.014	0.33	n/a	n/a	16.00	79.50
A-2	Curb	10.00	0.26	2.00	0.014	0.33	n/a	n/a	16.00	79.50
A-5	Curb	10.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	79.10
A-6	Curb	15.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	79.10
A-7	Curb	15.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	78.50
A-8	Curb	10.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	78.50
A-9	Curb	10.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	77.70
A-10	Curb	10.00	0.20	2.00	0.014	0.33	n/a	n/a	16.00	77.70

On Grade Inlets Computation Data.

Inlet ID	Inlet Type	Total Q (cfs)	Intercept Capacity (cfs)	Q Bypass Allow (cfs)	Q Bypass Actual (cfs)	To Inlet ID	Required Length (ft)	Actual Length (ft)	Ponded Width (ft)
A-1	Curb	3.697	3.697	0.000	0.000		8.06	10.00	14.40
A-2	Curb	3.697	3.697	0.000	0.000		8.06	10.00	14.40
A-5	Curb	1.939	1.939	0.000	0.000		5.18	10.00	11.90
A-6	Curb	1.939	1.939	0.000	0.000		5.18	15.00	11.90
A-7	Curb	8.144	8.144	0.000	0.000		12.41	15.00	20.35
A-8	Curb	8.144	7.718	0.000	0.425		12.41	10.00	20.35
A-9	Curb	4.638	4.638	0.000	0.000		8.78	10.00	16.50
A-10	Curb	4.638	4.638	0.000	0.000		8.78	10.00	16.50

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Inlet Length/Perim. (ft)	Grate Area (sf)	Left-Slope Long (%)	Left-Slope Trans (%)	Right-Slope Long (%)	Right-Slope Trans (%)	Gutter n	Gutter DeprW (ft)	Depth Allowed (ft)	Critic Elev. (ft)
A-3	Curb	5.00	n/a	0.20	2.00	0.20	2.00	0.014	1.50	0.50	78.70
A-4	Curb	5.00	n/a	0.20	2.00	0.20	2.00	0.014	1.50	0.50	78.70

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length (ft)	Grate Perim (ft)	Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Left (ft)	Width Right (ft)
A-3	Curb	5.00	n/a	n/a	5.653	6.261	0.467	13.70	13.70
A-4	Curb	5.00	n/a	n/a	5.653	6.261	0.467	13.70	13.70

Cumulative Junction Discharge Computations

Node I.D.	Node Type	Weighted C-Value	Cumulat. Dr.Area (acres)	Cumulat. Tc (min)	Intens. (in/hr)	User Supply Q (cfs)	Additional Q in Node (cfs)	Total Disch. (cfs)
A-1	Curb	0.331	2.81	43.66	3.97	0.000	0.00	3.697
A-2	Curb	0.331	5.62	43.77	3.96	0.000	0.00	7.383
A-3	Curb	0.331	14.36	45.74	3.85	0.000	0.00	18.339
A-4	Curb	0.331	4.37	44.86	3.90	0.000	0.00	5.653
A-5	Curb	0.333	16.56	47.32	3.77	0.000	0.00	20.760
A-6	Curb	0.340	1.10	28.33	5.18	0.000	0.00	1.939
A-7	Curb	0.387	24.68	48.90	3.69	0.000	0.00	35.274
A-8	Curb	0.499	4.06	42.86	4.02	0.000	0.00	8.144
A-9	Curb	0.375	31.68	50.20	3.63	0.000	0.00	43.086
A-10	Curb	0.331	3.50	43.20	4.00	0.000	0.00	4.638
OUT	Outlt	0.375	31.68	50.20	3.63	0.000	0.00	43.086

Conveyance Configuration Data

Run#	Node US	I.D. DS	Flowline US (ft)	Elev. DS (ft)	Shape #	Span (ft)	Rise (ft)	Length (ft)	Slope (%)	n_value
10	A-1	A-2	75.50	75.30	Circ 1	0.00	1.50	32.00	0.63	0.012
20	A-2	A-3	75.30	74.70	Circ 1	0.00	2.00	400.00	0.15	0.012
30	A-4	A-3	74.90	74.70	Circ 1	0.00	1.50	32.00	0.63	0.012
40	A-3	A-5	74.70	74.00	Circ 1	0.00	2.50	406.00	0.17	0.012
50	A-6	A-5	74.20	74.00	Circ 1	0.00	1.50	32.00	0.63	0.012
60	A-5	A-7	74.00	73.40	Circ 1	0.00	3.00	400.00	0.15	0.012
70	A-8	A-7	73.60	73.40	Circ 1	0.00	1.50	32.00	0.63	0.012
80	A-7	A-9	73.40	72.80	Circ 1	0.00	3.50	390.00	0.15	0.012
90	A-10	A-9	73.00	72.80	Circ 1	0.00	1.50	32.00	0.63	0.012
100	A-9	OUT	72.80	72.40	Circ 1	0.00	3.50	206.00	0.19	0.012

Conveyance Hydraulic Computations. Tailwater = 0.000 (ft)

Run#	Hydraulic Gradeline			Depth		Velocity		Q (cfs)	Cap (cfs)	Junc Loss (ft)
	US Elev (ft)	DS Elev (ft)	Fr.Slope (%)	Unif. (ft)	Actual (ft)	Unif. (f/s)	Actual (f/s)			
10	77.04	77.01	0.106	0.67	1.50	4.86	2.09	3.70	9.00	0.000
20	77.01	76.84	0.091	1.31	2.00	3.38	2.35	7.38	9.49	0.000
30	76.92	76.84	0.247	0.86	1.50	5.38	3.20	5.65	9.00	0.000
40	76.84	76.23	0.170	2.03	2.23	4.29	3.97	18.34	18.45	0.000
50	76.24	76.23	0.029	0.47	1.50	4.04	1.10	1.94	9.00	0.000
60	76.23	75.91	0.083	1.97	2.51	4.22	3.28	20.76	27.99	0.000
70	76.08	75.91	0.512	1.13	1.50	5.73	4.61	8.14	9.00	0.000
80	75.91	75.43	0.105	2.41	2.63	5.00	4.56	35.27	42.76	0.000
90*	75.48	75.43	0.166	0.76	1.50	5.15	2.62	4.64	9.00	0.000
100	75.43	75.03	0.156	2.63	2.63	5.57	5.57	43.09	48.03	0.000
=====END=====										

NORMAL TERMINATION OF WINSTORM.



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: November 2, 2022	Agenda Item No. (to be assigned by PCE): V.C.
From: Rebekah de la Fuente, Planning Director, on behalf of Willie Arratia.	
Subject/Agenda Item: Discussion and consideration for the Preliminary and/or Final Plat for Heron's Landing Subdivision being a 29.29-acre out of farm tracts 1036, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas Located on SW corner of Pike Blvd. and Mile 2 ½ West. Possible Action.	
Discussion/Overview: The proposed seventy-one (71) lot subdivision is located inside the City of Weslaco. This subdivision is being serviced with water by City of Weslaco through an 8" waterline and sewer by City of Weslaco through an 8" 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 Preliminary Plat and Final Plat.	
Additional Action Prompted: ☒ Mayor's Signature ☐ Public Hearing ☐ Budget Amendment ☐ Resolution ☐ Ordinance – First Reading ☐ Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

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

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

FILE NO. PIAT-000336-2022

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: HERON'S LANDING SUBDIVISION

Location: SOUTH WEST CORNER OF PIKE BLVD AND MILE 2 1/2 WEST

Legal Description: A 29.29 ACRE TRACT OF LAND OUT OF FARM TRACT 1036, WESTLAND ADAMS TRACT, 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: APARTMENTS / OFFICE

Number of Lots Proposed: _____ Gross Acreage: _____

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: ALBERT HANICS Telephone: 956-630-0216

Address: 502 E. EXPRESSWAY 83 SUITE G Fax: _____

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

ENGINEER INFORMATION

Name: Willie Annika Telephone: (956) 784-0218

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

City: Donna State: TX Zip: 78536 E-mail: hannengineering@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: N.A.U.S.
☒ YES ☐ NO Wastewater Provision: City of Weslaco
☒ YES ☐ NO Electric Company: Magie 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>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

\$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 1/2 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 Hank

Owner Signature: [Signature] Date: 10/27/22

is the authorized agent

Authorized Agent Signature: [Signature] Date: 10/27/22

Authorized Agent Printed Name: Willie Avatic

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: _____

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
HERON'S LANDING SUBDIVISION

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



Guillermo A. Arratia, P.E.
10/17/22

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
HERON'S LANDING SUBDIVISION

I. PROJECT LOCATION

A 29.50 acre tract of land out of Farm Tract 1036, west and Adams Tract Subdivision, according to the map recorded in volume 2, page 2, map records, Hidalgo County, Texas, and is located at the southwest corner of Pike Boulevard and Mile 2 ½ West and is located within the city of limits of Weslaco. (Refer to Exhibit B).

II. FLOOD PLAIN

Zone "X"

Areas of 500 year flood; areas of 100 year flood with average depths less than 1 foot or with drainage areas less than one square mile; areas protected by levees from 100-year base flood F.E.M.A.-F.I.R.M. Map No. 480334 0450 C, Map Revised: June 6, 2000. (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 and Raymondville (28)(52) 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 (12.89 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 70 lots for Multi Family use, and 1 lot for commercial use. The storm runoff after development will be increase 47.61 cfs for a total 60.5 cfs, I have calculated that 220,690 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 36" RCP with curb inlets and out falling into a Proposed detention area on the north side of this subdivision, and ultimately out falling into an existing 18" storm sewer with a proposed manhole with a 12" RCP located at the northwest corner of this subdivision, on the south side of Pike Boulevard and own by the city of Weslaco,



Guillermo A. Arratia
10/17/22

DRAINAGE CALCULATIONS EXHIBIT "A"

MORELAND HEIGHTS

AREA= 29.5 Ac.

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

Existing Conditions

Length= 900 ft.

Slope= 0.1 %

Cexist.= 0.2

Time of Concentration= 105 min.

Texist. = 105 min.

Iexist.= 2.19 in/hr

Qexist.= 12.89 cfs.

10 year storm

b= 87

e= 0.778

d= 9.2

Proposed Conditions

Length= 900 ft.

Slope= 0.15 %

Cfut.= 0.5

Time of Con= 61 min.

Tfut.= 61 min.

Ifut.= 4.10 in/hr

Qfut.= 60.5 cfs.

Qin= 14.75 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	159.67	95804	12.89	27456	68,349
20	7.91	116.64	139971	12.89	31324	108,647
30	6.34	93.55	168395	12.89	35192	133,203
40	5.35	78.91	189390	12.89	39060	150,330
50	4.66	68.70	206101	12.89	42928	163,173
60	4.14	61.12	220034	12.89	46796	173,238
70	3.75	55.24	232023	12.89	50664	181,359
80	3.43	50.54	242575	12.89	54533	188,042
90	3.16	46.67	252019	12.89	58401	193,619
110	2.76	40.67	268436	12.89	66137	202,299
120	2.60	38.29	275692	12.89	70005	205,687
130	2.45	36.21	282446	12.89	73873	208,573
140	2.33	34.38	288771	12.89	77741	211,030
150	2.22	32.75	294723	12.89	81609	213,114
160	2.12	31.29	300349	12.89	85478	214,872
170	2.03	29.97	305687	12.89	89346	216,342
180	1.95	28.77	310769	12.89	93214	217,555
190	1.88	27.69	315620	12.89	97082	218,538
200	1.81	26.69	320264	12.89	100950	219,314
210	1.75	25.77	324719	12.89	104818	219,901

DRAINAGE CALCULATIONS EXHIBIT "A"

220	1.69	24.92	329003	12.89	108686	220,317
230	1.64	24.14	333130	12.89	112554	220,576
240	1.59	23.41	337113	12.89	116423	220,690
250	1.54	22.73	340962	12.89	120291	220,671
260	1.50	22.10	344688	12.89	124159	220,529
270	1.46	21.50	348298	12.89	128027	220,272
Storage Requires= 220,690 cubic feet = 5.07 ac-ft						



Chapter 4 — Hydrology

Section 12 — Rational Method

Table 4-10: Runoff Coefficients for Urban Watersheds

Type of drainage area	Runoff coefficient
Business:	
Downtown areas	0.70-0.95
Neighborhood areas	0.30-0.70
Residential:	
Single-family areas	0.30-0.50
Multi-units, detached	0.40-0.60
Multi-units, attached	0.60-0.75
Suburban	0.35-0.40
Apartment dwelling areas	0.30-0.70
Industrial:	
Light areas	0.30-0.80
Heavy areas	0.60-0.90
Parks, cemeteries	0.10-0.25
Playgrounds	0.30-0.40
Railroad yards	0.30-0.40
Unimproved areas:	
Sand or sandy loam soil, 0-3%	0.15-0.20
Sand or sandy loam soil, 3-5%	0.20-0.25
Black or loessial soil, 0-3%	0.18-0.25
Black or loessial soil, 3-5%	0.25-0.30
Black or loessial soil, > 5%	0.70-0.80
Deep sand area	0.05-0.15
Steep grassed slopes	0.70
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

12-85

BRIDGE DIVISION HYDRAULIC MANUAL

2 - 19

TABLE 6. 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	
Hemphill	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		0.847	132	10.6	
Henderson	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		0.749	99	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		0.765	105	7.7	
Hopkins	0.786	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		0.767	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	66	10.0		0.796	76	10.1		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	
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	
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	
Irion	0.780	37	8.1		0.789	55	9.6		0.775	61	9.6		0.783	77	9.6		0.769	81	9.6		0.770	90	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	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	
Jasper	0.782	66	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	66	7.5		0.727	74	7.5		0.730	86	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	94	8.9		0.748	98	8.9		0.740	102	9.4	
Johnson	0.789	52	8.1		0.779	67	8.5		0.773	77	8.5		0.776	90	8.5		0.771	99	8.5		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	
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	
Kent	0.801	43	9.0		0.801	60	10.0		0.796	70	10.0		0.806	85	10.0		0.798	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		0.761	91	8.0		0.768	104	8.4	
Kimbble	0.775	42	8.2		0.758	53	7.6		0.763	56	7.6		0.757	75	7.6		0.758	88	7.6		0.768	104	8.4	
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	
Kleberg	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"

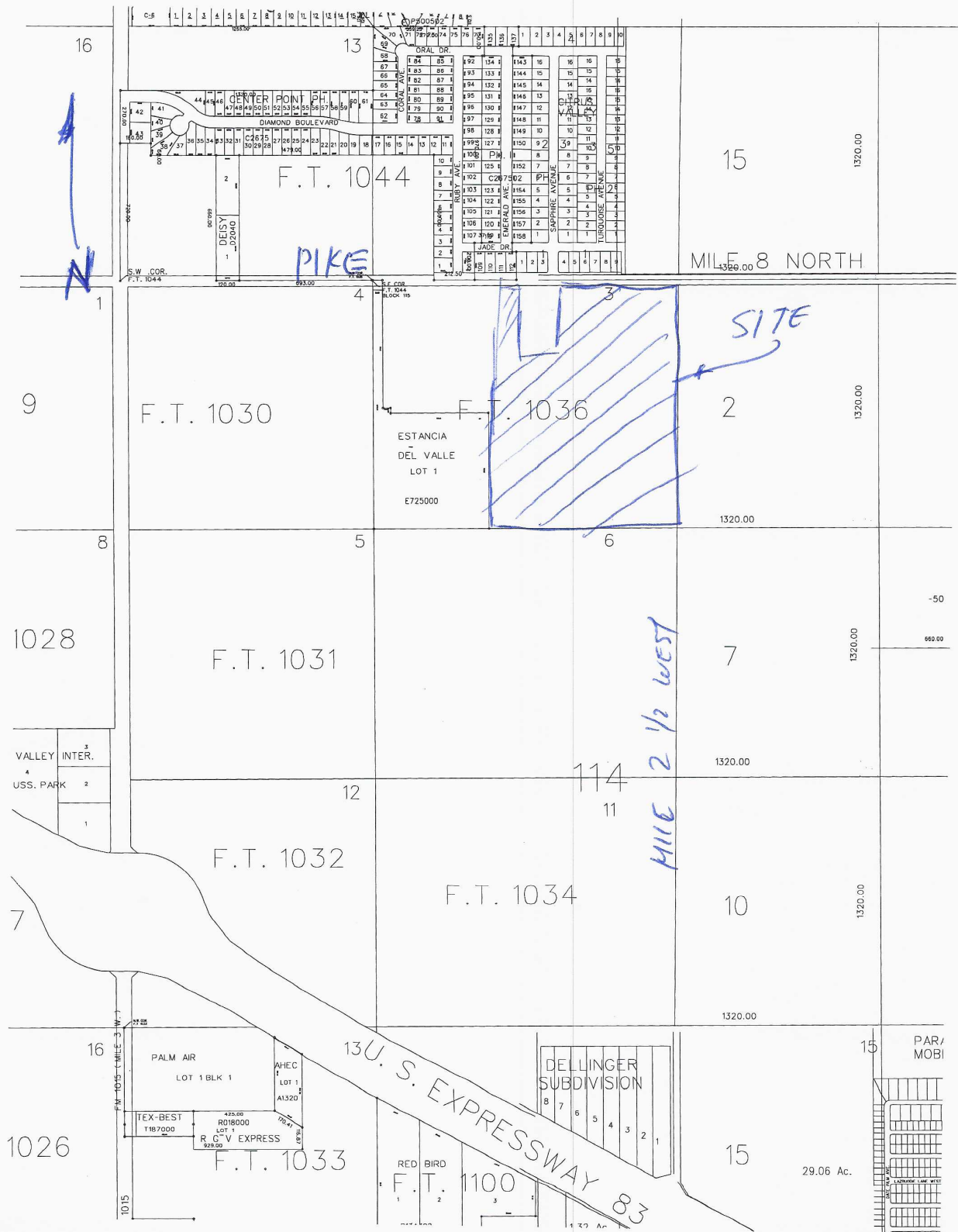
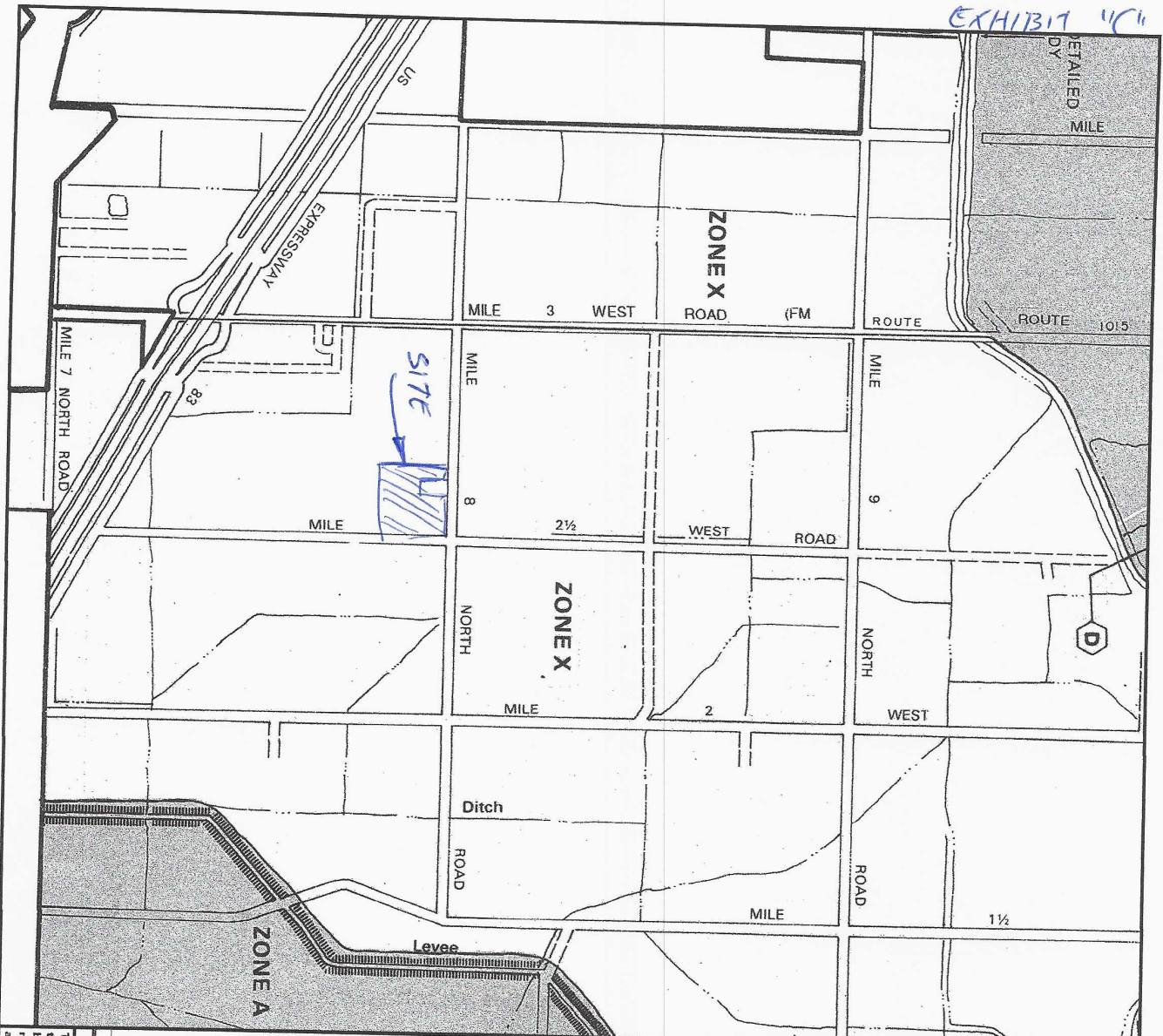


EXHIBIT 11C



Determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 636-6520.



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

HIDALGO COUNTY, TEXAS
(UNINCORPORATED AREAS)

(SEE MAP INDEX FOR PANELS NOT PRINTED)

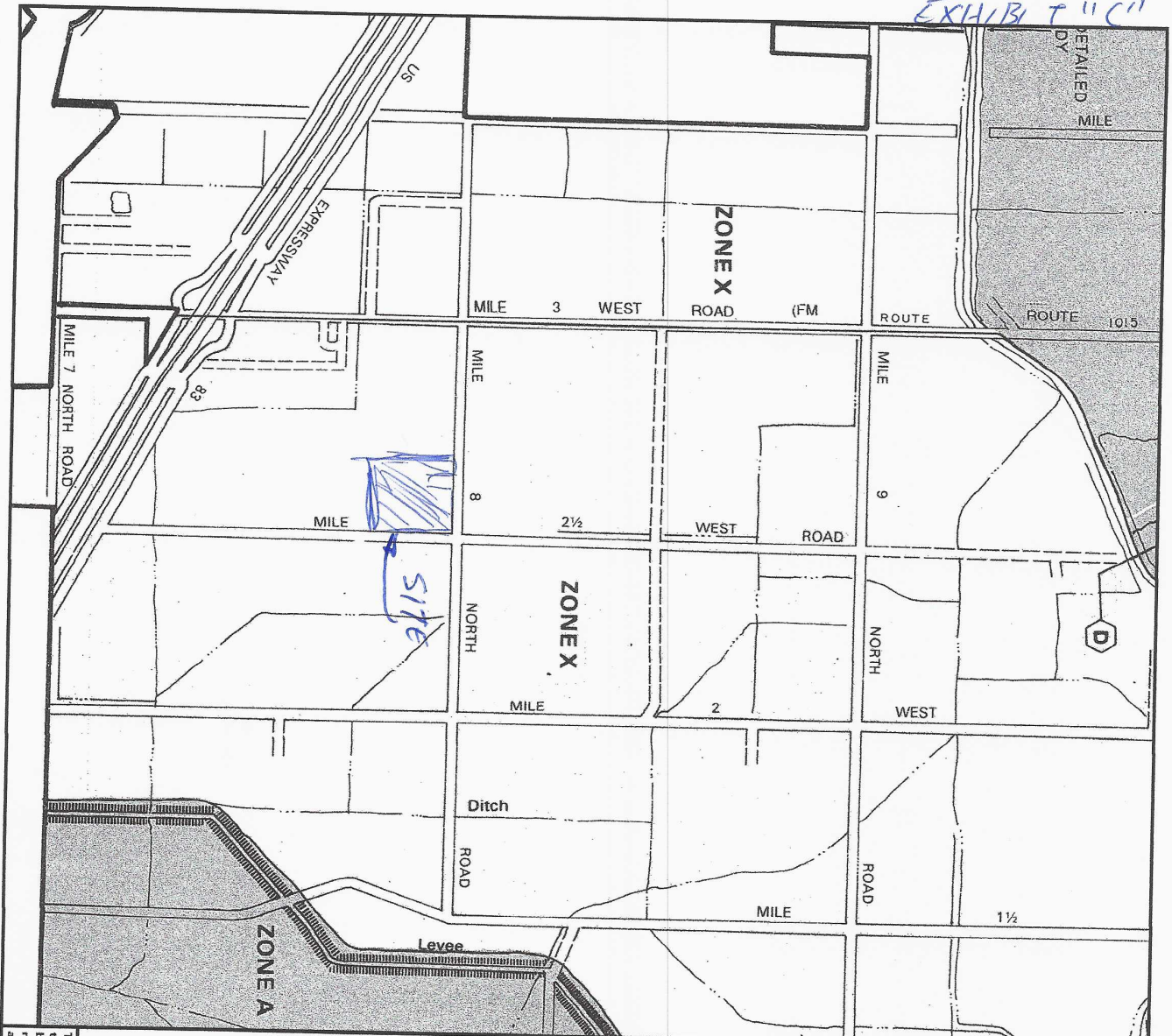
COMMUNITY PANEL NUMBER
480334 0450 C

MAP REVISED:
JUNE 6, 2000

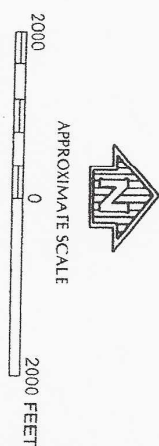
Federal Emergency Management Agency

This is an official FEMA map showing a portion of the above-referenced flood map created from the MSC RPL/Releta Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

EXHIBIT "C"



determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620.



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A
No base flood elevation identified.
Base flood elevation identified.

ZONE AH
Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO
Flood depths of 1 to 3 feet (usually sheet flow); base flood elevations determined.

ZONE A99
To be protected from 100-year flood by federal flood protection system under construction; no base flood elevations determined.

ZONE V
Coastal flood with velocity hazard (wave action); no base flood elevation determined.

ZONE VE
Coastal flood with velocity hazard (wave action); base flood elevation determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X
Areas of 50-year flood, areas of 100-year flood with average depths of between 1 foot and 3 feet, and areas protected by levees from 100-year flood.

OTHER AREAS
Areas determined to be outside 99-year floodplain.

ZONE D
Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

Identified 1983

Identified 1996

Protected Areas

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

Floodplain Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Area of Ditch, Special Flood Hazard Zones

Special Flood Hazard Zone

Base Flood Elevation Line: Elevation in feet

Cross Section Line

Base Flood Elevation in feet (where uniform within zone)

RM 7x

Boundary Reference Mark

This is an official FIRMMap showing a portion of the above-referenced flood map created from the MSC FIRMMap Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

SHEET NUMBER 105

EXHIBIT "D"



This map is compiled on 1975 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.

j

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 Ft	Kind	Months	Depth In	Hard-ness	Uncoated steel	Concrete
1.* Arents											
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.

Hidalgo County, Texas

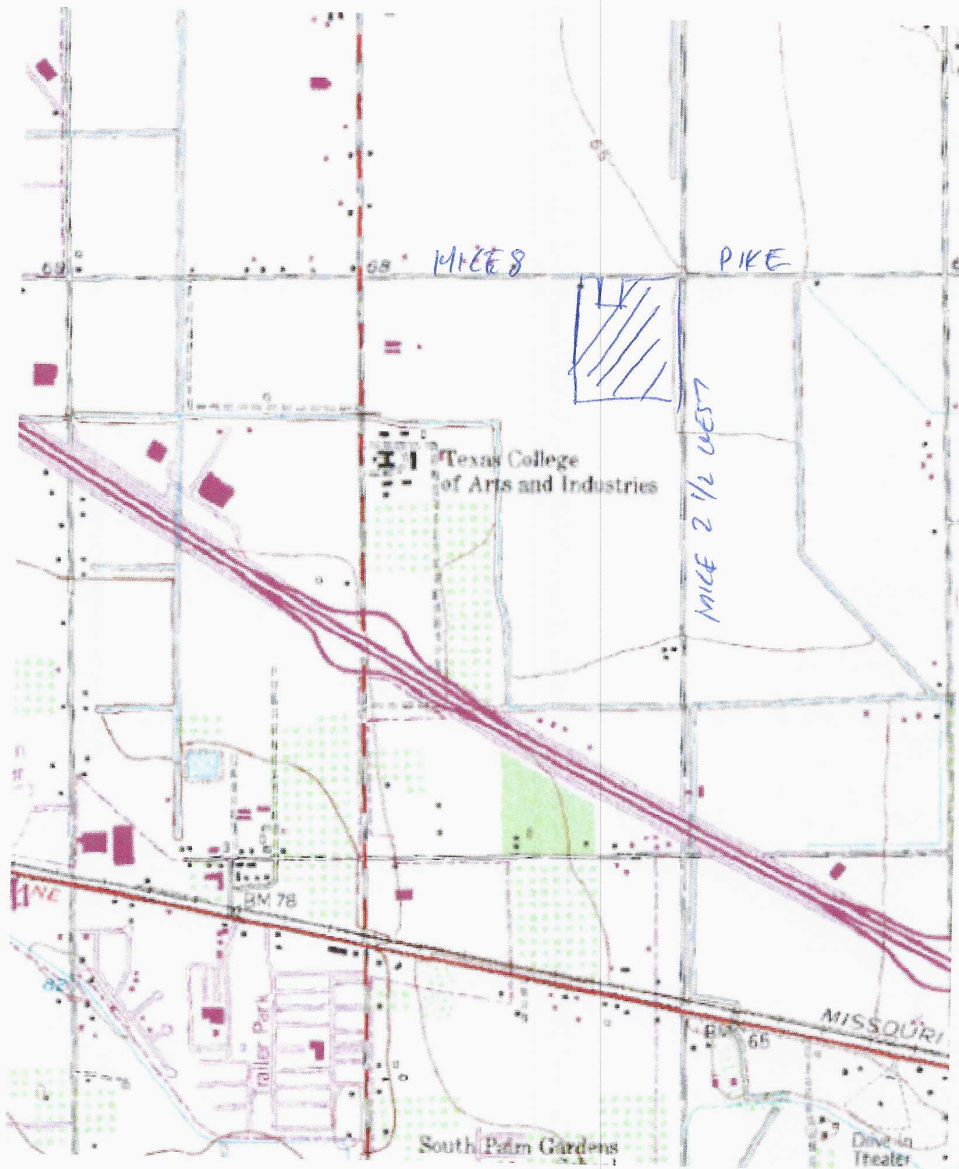
167

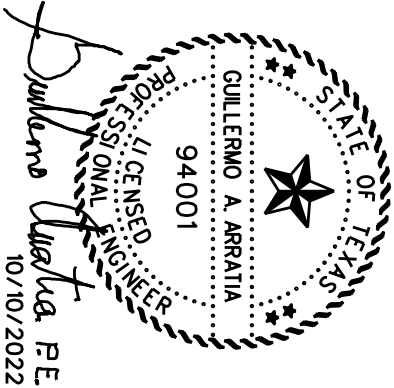
TABLE 18.--SOIL AND WATER FEATURES--Continued

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
					Ft			In			
32:* Quemado-----	C	None-----	---	---	>6.0	---	---	10-20	Thin	Moderate	Low.
33----- Laredo	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----- Ramadero	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.
Urban land.											
55----- Reynosa	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
56----- Reynosa	B	None-----	---	---	1.5-4.5	Apparent	Sep-May	---	---	High-----	Low.
57:* Reynosa-----	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
58** Rio	D	Frequent-----	Long-----	Sep-May	+2-6.0	Apparent	Sep-May	---	---	High-----	Low.
59** Rio	D	Frequent-----	Long-----	Sep-May	+2-4.5	Apparent	Sep-May	---	---	High-----	Low.

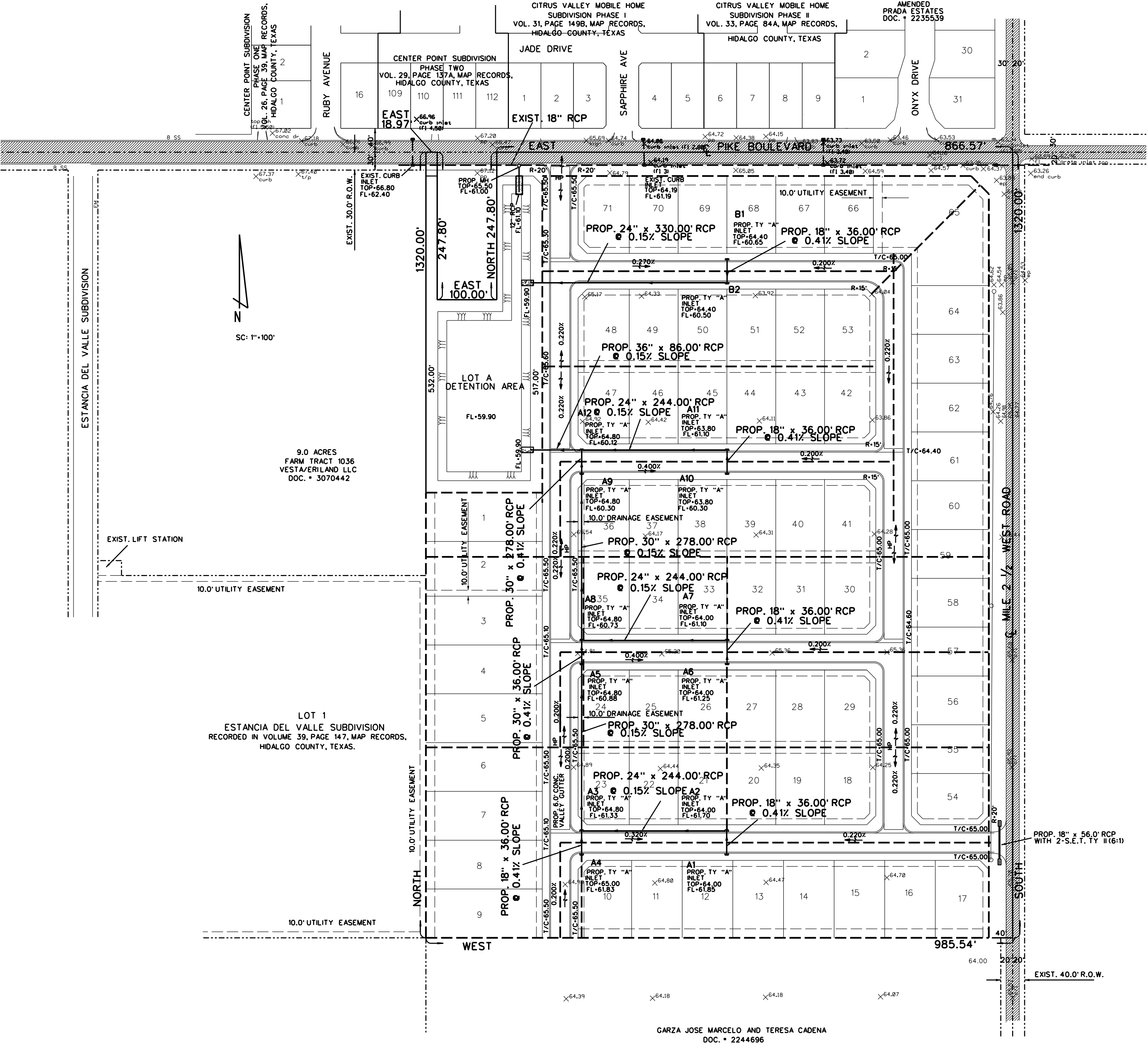
See footnotes at end of table.

USGS MAP





DRAINAGE AREAS
HERON'S LANDING
SUBDIVISION



GARZA JOSE MARCELO AND TERESA CADENA
DOC. • 2244696

stmOutput

WinStorm (STORM DRAIN DESIGN)

Version 3.05, Jan. 25, 2002
Run @ 10/17/2022 1:10:52 PM

PROJECT NAME : HERONS LAMADING
JOB NUMBER : 01
PROJECT DESCRIPTION : SYSTEM "A"

DESIGN FREQUENCY : 5 Years
ANALYSIS FREQUENCY : 10 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY of: 5 Years

Runoff Computation for Design Frequency.

ID	C Value	Area (acre)	Tc (min)	Tc Used (min)	Intensity (in/hr)	Supply Q (cfs)	Total Q (cfs)
A-1	0.616	2.34	48.33	48.33	3.19	0.000	4.600
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-2	0.616	2.34	48.33	48.33	3.19	0.000	4.600
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-3	0.637	1.61	27.45	27.45	4.57	0.000	4.686
	0.85	0.24	Pavement				
	0.6	1.37	Multi family				
A-4	0.739	0.09	18.33	18.33	5.73	0.000	0.381
	0.85	0.05	Pavement				
	0.6	0.04	Multi family				
A-5	0.739	0.09	18.33	18.33	5.73	0.000	0.381
	0.85	0.05	Pavement				
	0.6	0.04	Multi family				
A-6	0.616	2.34	48.33	48.33	3.19	0.000	4.600
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-7	0.616	2.34	48.33	48.33	3.19	0.000	4.600
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-8	0.637	1.61	27.45	27.45	4.57	0.000	4.686
	0.85	0.24	Pavement				
	0.6	1.37	Multi family				
A-9	0.725	0.08	18.33	18.33	5.73	0.000	0.333
	0.85	0.04	Pavement				
	0.6	0.04	Multi family				
A-10	0.616	2.34	48.33	48.33	3.19	0.000	4.600
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-11	0.616	2.34	48.33	48.33	3.19	0.000	4.600
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-12	0.665	0.92	27.45	27.45	4.57	0.000	2.795
	0.85	0.24	Pavement				
	0.6	0.68	Multi family				

On Grade Inlet Configuration Data

Inlet	Inlet	Inlet	Slopes	Gutter	Grate	Pond Width	Critic
-------	-------	-------	--------	--------	-------	------------	--------

stmOutput

ID	Type	Length (ft)	Long (%)	Trans (%)	n	Depr. (ft)	Width (ft)	Type	Allowed (ft)	Elev. (ft)
A-3	Curb	15.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	64.80
A-4	Curb	5.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	65.00
A-5	Curb	5.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	64.80
A-8	Curb	15.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	64.80
A-9	Curb	5.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	64.80
A-12	Curb	10.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	64.80

On Grade Inlets Computation Data.

Inlet ID	Inlet Type	Total Q (cfs)	Intercept Capacity (cfs)	Q Bypass Allow (cfs)	Actual (cfs)	To Inlet ID	Required Length (ft)	Actual Length (ft)	Ponded Width (ft)
A-3	Curb	4.686	4.686	0.000	0.000		10.66	15.00	13.95
A-4	Curb	0.381	0.381	0.000	0.000		2.66	5.00	5.45
A-5	Curb	0.381	0.381	0.000	0.000		2.66	5.00	5.45
A-8	Curb	4.686	4.686	0.000	0.000		10.66	15.00	13.95
A-9	Curb	0.333	0.333	0.000	0.000		2.49	5.00	5.15
A-12	Curb	2.795	2.795	0.000	0.000		7.82	10.00	11.50

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Length/ Perim. (ft)	Grate Area (sf)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	DeprW (ft)	Depth Allowed (ft)	Critic Elev. (ft)		
A-1	Curb	10.00	n/a	0.50	2.00	0.50	2.00	0.014	1.50	0.50	64.00
A-2	Curb	10.00	n/a	0.50	2.00	0.50	2.00	0.014	1.50	0.50	64.00
A-6	Curb	10.00	n/a	0.50	2.00	0.50	2.00	0.014	1.50	0.50	64.00
A-7	Curb	10.00	n/a	0.50	2.00	0.50	2.00	0.014	1.50	0.50	64.00
A-10	Curb	10.00	n/a	0.50	2.00	0.50	2.00	0.014	1.50	0.50	63.80
A-11	Curb	10.00	n/a	0.50	2.00	0.50	2.00	0.014	1.50	0.50	63.80

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length (ft)	Grate Perim (ft)	Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Left (ft)	Width Right (ft)
A-1	Curb	10.00	n/a	n/a	4.600	10.327	0.292	10.65	10.65
A-2	Curb	10.00	n/a	n/a	4.600	10.327	0.292	10.65	10.65
A-6	Curb	10.00	n/a	n/a	4.600	10.327	0.292	10.65	10.65
A-7	Curb	10.00	n/a	n/a	4.600	10.327	0.292	10.65	10.65
A-10	Curb	10.00	n/a	n/a	4.600	10.327	0.292	10.65	10.65
A-11	Curb	10.00	n/a	n/a	4.600	10.327	0.292	10.65	10.65

Cumulative Junction Discharge Computations

Node I.D.	Node Type	Weighted C-Value	Cumulat. Dr.Area (acres)	Cumulat. Tc (min)	Intens. (in/hr)	User Supply Q (cfs)	Additional Q in Node (cfs)	Total Disch. (cfs)
A-1	Curb	0.616	2.34	48.33	3.19	0.000	0.00	4.600
A-2	Curb	0.616	4.68	48.47	3.18	0.000	0.00	9.182
A-3	Curb	0.623	6.38	49.69	3.13	0.000	0.00	12.454
A-4	Curb	0.739	0.09	18.33	5.73	0.000	0.00	0.381

stmOutput

A-5	Curb	0.625	6.47	50.89	3.08	0.000	0.00	12.461
A-6	Curb	0.616	2.34	48.33	3.19	0.000	0.00	4.600
A-7	Curb	0.616	4.68	48.47	3.19	0.000	0.00	9.183
A-8	Curb	0.623	12.76	50.99	3.08	0.000	0.00	24.478
A-9	Curb	0.624	12.84	50.99	3.08	0.000	0.00	24.656
A-10	Curb	0.616	2.34	48.33	3.19	0.000	0.00	4.600
A-11	Curb	0.616	4.68	48.48	3.18	0.000	0.00	9.182
A-12	Curb	0.624	18.44	52.01	3.04	0.000	0.00	34.949
OUT	Outlt	0.624	18.44	52.01	3.04	0.000	0.00	34.949

Conveyance Configuration Data

Run#	Node	I.D.	Flowline Elev.		Shape	#	Span	Rise	Length	Slope	n_value
	US	DS	US	DS			(ft)	(ft)	(ft)	(%)	
10	A-1	A-2	61.95	61.80	Circ	1	0.00	1.50	36.00	0.42	0.013
20	A-2	A-3	61.70	61.33	Circ	1	0.00	2.00	244.00	0.15	0.012
30	A-4	A-3	61.90	61.33	Circ	1	0.00	1.50	36.00	1.58	0.012
40	A-3	A-5	61.33	60.88	Circ	1	0.00	2.50	278.00	0.16	0.012
50	A-5	A-8	60.88	60.73	Circ	1	0.00	2.50	36.00	0.42	0.012
60	A-6	A-7	61.25	61.10	Circ	1	0.00	1.50	36.00	0.42	0.012
70	A-7	A-8	61.10	60.73	Circ	1	0.00	2.50	244.00	0.15	0.012
80	A-8	A-9	60.73	60.30	Circ	1	0.00	2.50	278.00	0.15	0.012
90	A-9	A-12	60.30	60.12	Circ	1	0.00	2.50	36.00	0.50	0.012
100	A-10	A-11	60.60	60.48	Circ	1	0.00	1.50	36.00	0.33	0.012
110	A-11	A-12	60.48	60.12	Circ	1	0.00	2.00	244.00	0.15	0.012
120	A-12	OUT	60.12	59.90	Circ	1	0.00	3.50	86.00	0.26	0.012

Conveyance Hydraulic Computations. Tailwater = 0.000 (ft)

Run#	Hydraulic Gradeline			Depth		Velocity		Q	Cap	Junc
	US Elev	DS Elev	Fr.Slope	Unif.	Actual	Unif.	Actual			
	(ft)	(ft)	(%)	(ft)	(ft)	(f/s)	(f/s)	(cfs)	(cfs)	(ft)
10	63.71	63.64	0.192	0.90	1.50	4.14	2.60	4.60	6.78	0.000
20	63.64	63.43	0.140	1.63	2.00	3.36	2.92	9.18	9.54	0.000
30*	63.43	63.43	0.001	0.17	1.50	3.50	0.22	0.38	14.32	0.000
40	63.43	63.26	0.079	1.56	2.38	3.86	2.58	12.45	17.88	0.000
50*	63.26	63.23	0.079	1.15	2.50	5.64	2.54	12.46	28.69	0.000
60	63.37	63.31	0.163	0.86	1.50	4.42	2.60	4.60	7.35	0.000
70	63.31	63.23	0.043	1.29	2.50	3.60	1.87	9.18	17.31	0.000
80	63.23	62.19	0.303	2.50	2.50	4.99	4.99	24.48	17.48	0.000
90*	62.19	62.14	0.308	1.68	2.02	7.03	5.79	24.66	31.42	0.000
100	62.50	62.44	0.163	0.93	1.50	4.02	2.60	4.60	6.57	0.000
110	62.44	62.14	0.140	1.63	2.00	3.36	2.92	9.18	9.41	0.000
120	62.14	61.92	0.103	2.02	2.02	6.06	6.06	34.95	55.13	0.000

OUTPUT FOR ANALYSIS FREQUENCY of: 10 Years

Runoff Computation for Analysis Frequency.

ID	C Value	Area	Tc	Tc Used	Intensity	Supply Q	Total Q
		(acre)	(min)	(min)	(in/hr)	(cfs)	(cfs)

stmOutput

A-1	0.616	2.34	48.33	48.33	3.72	0.000	5.360
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-2	0.616	2.34	48.33	48.33	3.72	0.000	5.360
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-3	0.637	1.61	27.45	27.45	5.28	0.000	5.418
	0.85	0.24	Pavement				
	0.6	1.37	Multi family				
A-4	0.739	0.09	18.33	18.33	6.60	0.000	0.439
	0.85	0.05	Pavement				
	0.6	0.04	Multi family				
A-5	0.739	0.09	18.33	18.33	6.60	0.000	0.439
	0.85	0.05	Pavement				
	0.6	0.04	Multi family				
A-6	0.616	2.34	48.33	48.33	3.72	0.000	5.360
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-7	0.616	2.34	48.33	48.33	3.72	0.000	5.360
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-8	0.637	1.61	27.45	27.45	5.28	0.000	5.418
	0.85	0.24	Pavement				
	0.6	1.37	Multi family				
A-9	0.725	0.08	18.33	18.33	6.60	0.000	0.383
	0.85	0.04	Pavement				
	0.6	0.04	Multi family				
A-10	0.616	2.34	48.33	48.33	3.72	0.000	5.360
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-11	0.616	2.34	48.33	48.33	3.72	0.000	5.360
	0.85	0.15	Pavement				
	0.6	2.19	Multi family				
A-12	0.665	0.92	27.45	27.45	5.28	0.000	3.232
	0.85	0.24	Pavement				
	0.6	0.68	Multi family				

On Grade Inlet Configuration Data

Inlet ID	Inlet Type	Inlet Length (ft)	Slopes Long (%)	Slopes Trans (%)	Gutter n	Gutter Depr. (ft)	Grate Width (ft)	Grate Type	Pond Width Allowed (ft)	Critic Elev. (ft)
A-3	Curb	15.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	64.80
A-4	Curb	5.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	65.00
A-5	Curb	5.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	64.80
A-8	Curb	15.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	64.80
A-9	Curb	5.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	64.80
A-12	Curb	10.00	0.50	2.00	0.014	0.33	n/a	n/a	16.00	64.80

On Grade Inlets Computation Data.

Inlet ID	Inlet Type	Total Q (cfs)	Intercept Capacity (cfs)	Q Bypass Allow (cfs)	Q Bypass Actual (cfs)	To Inlet ID	Required Length (ft)	Actual Length (ft)	Ponded Width (ft)
A-3	Curb	5.418	5.418	0.000	0.000		11.63	15.00	14.70
A-4	Curb	0.439	0.439	0.000	0.000		2.85	5.00	5.75
A-5	Curb	0.439	0.439	0.000	0.000		2.85	5.00	5.75

stmOutput

A-8	Curb	5.418	5.418	0.000	0.000	11.63	15.00	14.70
A-9	Curb	0.383	0.383	0.000	0.000	2.66	5.00	5.45
A-12	Curb	3.232	3.232	0.000	0.000	8.51	10.00	12.10

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Length/Perim. (ft)	Grate Area (sf)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	Depth DeprW (ft)	Depth Allowed (ft)	Critic Elev. (ft)
A-1	Curb	10.00	n/a	0.50	2.00	0.014	1.50	0.50	64.00
A-2	Curb	10.00	n/a	0.50	2.00	0.014	1.50	0.50	64.00
A-6	Curb	10.00	n/a	0.50	2.00	0.014	1.50	0.50	64.00
A-7	Curb	10.00	n/a	0.50	2.00	0.014	1.50	0.50	64.00
A-10	Curb	10.00	n/a	0.50	2.00	0.014	1.50	0.50	63.80
A-11	Curb	10.00	n/a	0.50	2.00	0.014	1.50	0.50	63.80

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length (ft)	Grate Perim (ft)	Grate Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Left (ft)	Width Right (ft)
A-1	Curb	10.00	n/a	n/a	5.360	10.327	0.323	11.30	11.30
A-2	Curb	10.00	n/a	n/a	5.360	10.327	0.323	11.30	11.30
A-6	Curb	10.00	n/a	n/a	5.360	10.327	0.323	11.30	11.30
A-7	Curb	10.00	n/a	n/a	5.360	10.327	0.323	11.30	11.30
A-10	Curb	10.00	n/a	n/a	5.360	10.327	0.323	11.30	11.30
A-11	Curb	10.00	n/a	n/a	5.360	10.327	0.323	11.30	11.30

Cumulative Junction Discharge Computations

Node I.D.	Node Type	Weighted C-Value	Cumulat. Dr.Area (acres)	Cumulat. Tc (min)	Intens. (in/hr)	User Supply Q (cfs)	Additional Q in Node (cfs)	Total Disch. (cfs)
A-1	Curb	0.616	2.34	48.33	3.72	0.000	0.00	5.360
A-2	Curb	0.616	4.68	48.47	3.71	0.000	0.00	10.699
A-3	Curb	0.623	6.38	49.67	3.65	0.000	0.00	14.520
A-4	Curb	0.739	0.09	18.33	6.60	0.000	0.00	0.439
A-5	Curb	0.625	6.47	50.81	3.60	0.000	0.00	14.542
A-6	Curb	0.616	2.34	48.33	3.72	0.000	0.00	5.360
A-7	Curb	0.616	4.68	48.46	3.71	0.000	0.00	10.700
A-8	Curb	0.623	12.76	50.92	3.59	0.000	0.00	28.568
A-9	Curb	0.624	12.84	50.92	3.59	0.000	0.00	28.777
A-10	Curb	0.616	2.34	48.33	3.72	0.000	0.00	5.360
A-11	Curb	0.616	4.68	48.48	3.71	0.000	0.00	10.698
A-12	Curb	0.624	18.44	51.79	3.55	0.000	0.00	40.871
OUT	Outlt	0.624	18.44	51.79	3.55	0.000	0.00	40.871

Conveyance Configuration Data

Run#	Node I.D. US	Node I.D. DS	Flowline Elev. US (ft)	Flowline Elev. DS (ft)	Shape	#	Span (ft)	Rise (ft)	Length (ft)	Slope (%)	n_value
10	A-1	A-2	61.95	61.80	Circ	1	0.00	1.50	36.00	0.42	0.013
20	A-2	A-3	61.70	61.33	Circ	1	0.00	2.00	244.00	0.15	0.012

stmOutput

30	A-4	A-3	61.90	61.33	Circ 1	0.00	1.50	36.00	1.58	0.012
40	A-3	A-5	61.33	60.88	Circ 1	0.00	2.50	278.00	0.16	0.012
50	A-5	A-8	60.88	60.73	Circ 1	0.00	2.50	36.00	0.42	0.012
60	A-6	A-7	61.25	61.10	Circ 1	0.00	1.50	36.00	0.42	0.012
70	A-7	A-8	61.10	60.73	Circ 1	0.00	2.50	244.00	0.15	0.012
80	A-8	A-9	60.73	60.30	Circ 1	0.00	2.50	278.00	0.15	0.012
90	A-9	A-12	60.30	60.12	Circ 1	0.00	2.50	36.00	0.50	0.012
100	A-10	A-11	60.60	60.48	Circ 1	0.00	1.50	36.00	0.33	0.012
110	A-11	A-12	60.48	60.12	Circ 1	0.00	2.00	244.00	0.15	0.012
120	A-12	OUT	60.12	59.90	Circ 1	0.00	3.50	86.00	0.26	0.012

Conveyance Hydraulic Computations. Tailwater = 0.000 (ft)

Run#	Hydraulic Gradeline			Depth		Velocity		Q	Cap	Junc Loss
	US Elev (ft)	DS Elev (ft)	Fr.Slope (%)	Unif. (ft)	Actual (ft)	Unif. (f/s)	Actual (f/s)			
10	64.80	64.71	0.260	1.01	1.50	4.25	3.03	5.36	6.78	0.000
20	64.71	64.25	0.191	2.00	2.00	3.41	3.41	10.70	9.54	0.000
30	64.25	64.25	0.001	0.18	1.50	3.65	0.25	0.44	14.32	0.000
40	64.25	63.95	0.107	1.72	2.50	4.04	2.96	14.52	17.88	0.000
50	63.95	63.91	0.107	1.26	2.50	5.87	2.96	14.54	28.69	0.000
60	64.13	64.05	0.222	0.95	1.50	4.55	3.03	5.36	7.35	0.000
70	64.05	63.91	0.058	1.41	2.50	3.76	2.18	10.70	17.31	0.000
80	63.91	62.46	0.413	2.50	2.50	5.82	5.82	28.57	17.48	0.000
90	62.46	62.36	0.419	1.88	2.24	7.29	6.20	28.78	31.42	0.000
100	62.91	62.83	0.222	1.03	1.50	4.14	3.03	5.36	6.57	0.000
110	62.83	62.36	0.191	2.00	2.00	3.41	3.41	10.70	9.41	0.000
120	62.36	62.14	0.141	2.24	2.24	6.28	6.28	40.87	55.13	0.000

=====END=====

NORMAL TERMINATION OF WINSTORM.

stmOutput

WinStorm (STORM DRAIN DESIGN)

Version 3.05, Jan. 25, 2002
Run @ 10/17/2022 1:43:31 PM

PROJECT NAME : HERONS LANDING
JOB NUMBER : 02
PROJECT DESCRIPTION : SYSTEM "B"
DESIGN FREQUENCY : 5 Years
ANALYSIS FREQUENCY : 10 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY of: 5 Years

Runoff Computation for Design Frequency.

ID	C Value	Area (acre)	Tc (min)	Tc Used (min)	Intensity (in/hr)	Supply Q (cfs)	Total Q (cfs)
B-1	0.634	2.29	48.33	48.33	3.19	0.000	4.632
	0.85	0.31	Pavement				
	0.6	1.98	Multi family				
B-2	0.701	1.84	48.33	48.33	3.19	0.000	4.114
	0.96	0.30	Pavement				
	0.65	1.54	Multi family				

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Inlet Length/ Perim. (ft)	Grate Area (sf)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	Depth DeprW (ft)	Critic Allowed (ft)	Elev. (ft)
B-1	Curb	10.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	64.40
B-2	Curb	10.00	n/a	0.50 2.00	0.50 2.00	0.014	1.50	0.50	64.40

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Inlet Length (ft)	Grate Perim (ft)	Grate Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Left (ft)	Width Right (ft)
B-1	Curb	10.00	n/a	n/a	4.632	10.327	0.293	10.70	10.70
B-2	Curb	10.00	n/a	n/a	4.114	10.327	0.271	10.25	10.25

Cumulative Junction Discharge Computations

Node I.D.	Node Type	Weighted C-Value	Cumulat. Dr. Area (acres)	Cumulat. Tc (min)	Intens. (in/hr)	User Supply Q (cfs)	Additional Q in Node (cfs)	Total Disch. (cfs)
B-1	Curb	0.634	2.29	48.33	3.19	0.000	0.00	4.632
B-2	Curb	0.664	4.13	48.48	3.18	0.000	0.00	8.728
OUT	Outlt	0.664	4.13	48.48	3.18	0.000	0.00	8.728

Conveyance Configuration Data

stmOutput

Run#	Node I.D.	Flowline Elev.	Shape #	Span	Rise	Length	Slope	n_value
	US DS	US DS (ft) (ft)		(ft)	(ft)	(ft)	(%)	
10	B-1 B-2	60.65 60.50	Circ 1	0.00	1.50	36.00	0.42	0.013
20	B-2 OUT	60.50 59.90	Circ 1	0.00	2.00	330.00	0.18	0.012

Conveyance Hydraulic Computations. Tailwater = 0.000 (ft)

Run#	Hydraulic	Gradeline	Fr.Slope	Depth		Velocity		Q	Cap	Junc
	US Elev	DS Elev		Unif.	Actual	Unif.	Actual			
	(ft)	(ft)	(%)	(ft)	(ft)	(f/s)	(f/s)	(cfs)	(cfs)	(ft)
10	61.92	61.88	0.194	0.91	1.38	4.11	2.73	4.63	6.78	0.000
20	61.88	61.28	0.127	1.38	1.38	3.79	3.79	8.73	10.45	0.000

OUTPUT FOR ANALYSIS FREQUENCY of: 10 Years

Runoff Computation for Analysis Frequency.

ID	C Value	Area (acre)	Tc (min)	Tc Used (min)	Intensity (in/hr)	Supply Q (cfs)	Total Q (cfs)
B-1	0.634	2.29	48.33	48.33	3.72	0.000	5.397
	0.85	0.31	Pavement				
	0.6	1.98	Multi family				
B-2	0.701	1.84	48.33	48.33	3.72	0.000	4.793
	0.96	0.30	Pavement				
	0.65	1.54	Multi family				

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Length/ Perim. (ft)	Grate Area (sf)	Left-Slope Long (%)	Right-Slope Trans (%)	Gutter n	Depth Allowed (ft)	Critic Elev. (ft)
B-1	Curb	10.00	n/a	0.50	2.00	0.014	1.50	64.40
B-2	Curb	10.00	n/a	0.50	2.00	0.014	1.50	64.40

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length (ft)	Grate Perim Area (ft) (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Left (ft)	Width Right (ft)
B-1	Curb	10.00	n/a n/a	5.397	10.327	0.324	11.35	11.35
B-2	Curb	10.00	n/a n/a	4.793	10.327	0.300	10.85	10.85

Cumulative Junction Discharge Computations

Node I.D.	Node Type	Weighted C-Value	Cumulat. Dr.Area	Cumulat. Tc	Intens.	User Supply Q	Additional O in Node	Total Disch.
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stmOutput

		(acres)	(min)	(in/hr)		cfs)	(cfs)	(cfs)
B-1	Curb	0.634	2.29	48.33	3.72	0.000	0.00	5.397
B-2	Curb	0.664	4.13	48.47	3.71	0.000	0.00	10.170
OUT	Outlt	0.664	4.13	48.47	3.71	0.000	0.00	10.170

Conveyance Configuration Data

Run#	Node	I.D.	Flowline Elev.		Shape #	Span	Rise	Length	Slope	n_value
	US	DS	US	DS		(ft)	(ft)	(ft)	(%)	
10	B-1	B-2	60.65	60.50	Circ 1	0.00	1.50	36.00	0.42	0.013
20	B-2	OUT	60.50	59.90	Circ 1	0.00	2.00	330.00	0.18	0.012

Conveyance Hydraulic Computations. Tailwater = 0.000 (ft)

Run#	Hydraulic Gradeline			Depth		Velocity		Q	Cap	Junc Loss
	US Elev (ft)	DS Elev (ft)	Fr.Slope (%)	Unif. (ft)	Actual (ft)	Unif. (f/s)	Actual (f/s)			
10	62.22	62.13	0.264	1.01	1.50	4.27	3.05	5.40	6.78	0.000
20	62.13	61.53	0.172	1.63	1.63	3.72	3.72	10.17	10.45	0.000
=====END=====										

END

NORMAL TERMINATION OF WINSTORM.