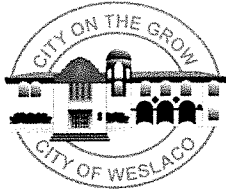


## **CITY OF WESLACO**

**A REGULAR MEETING OF THE  
PLANNING & ZONING  
COMMISSION JULY 25, 2018, 8:00  
A.M. LEGISLATIVE CHAMBERS  
255 S. KANSAS AVENUE**

*David Hernandez, Chairman*  
*Lonnie Berry, Vice-Chairman*  
*Randy Summers, PZ Commissioner*  
*Jose Treviño, PZ Commissioner*  
*Jim Forward, PZ Commissioner*  
*Adrian Torres, PZ Commissioner*  
*Miles Bullion, PZ Commissioner*



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

<b>Date of Meeting:</b> July 25, 2018	<b>Agenda Item No. (to be assigned by PCE):</b> II. A.
<b>From:</b> Mardoqueo Hinojosa, P.E., Planning Director/City Engineer, on behalf of Reyna Family Development.	
<b>Subject/Agenda Item:</b> Discussion and consideration for the Preliminary Plat for the Amended Plat of Lot 1 through 32 Plaza Diez Quince – being a 9.24 acres land out of Plaza Diez Quince Subdivision, Weslaco, Hidalgo County, and Texas located approximately 400 feet east of FM 1015. Possible Action.	
<b>Discussion/Overview:</b> The proposed thirty-two (32) lot subdivision is inside the City of Weslaco city limits. This subdivision is being serviced with water by City of Weslaco through an existing 8" waterline and sewer services through an existing 8" sewer line. The property is within a Flood Zone "B". Owner is requesting variance for drainage dedication requirements and alley paving requirements.	
<b>If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners:</b> N/A	
<b>Staff recommendation for Commission's Action:</b> Staff recommends approval with compliance with the ordinance for the variance requests.	
<b>Additional Action Prompted:</b> [ X ] Mayor's Signature [ ] Public Hearing [ ] Budget Amendment [ ] Resolution [ ] Ordinance – First Reading [ ] Ordinance – Final Reading	
<b>Advisory Review, (if any):</b> (name of board/committee, date of action, recommendation): N/A	
<b>If item previously considered, provide date and action by Commission:</b> N/A	
<b>Attachments,(if any):</b> Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
<b>Responsibilities upon Commission's Action:</b> Planning staff will advise applicant.	



## SUBDIVISION PLATTING APPLICATION

**RECEIVED**

JUL 17 2018

Planning &  
Code Enforcement Dept.

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

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

FILE NO. SUB18-00014

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: Amended Plat of Lot 1 - Lot 32 Plaza Diez Quince Subdivision

Location: NEC of intersection of Mile 6 North and FM1015

Legal Description: BEING 9.24 ACRES OUT OF PLAZA DIEZ QUINCE SUBDIVISION, AN ADDITION TO THE CITY OF WESLACO, HIDALGO COUNTY, TEXAS, AS PER MAP RECORDED IN VOLUME 55, PAGE 103, M.R.H.C., 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: R-2 Duplex & Apartments District

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

Number of Lots Proposed: 32    Gross Acreage: 9.24 Acres

Title Report Submitted:    ☐ YES    ☒ NO

### OWNER INFORMATION

Owner's Name: Reyna Family Development    Telephone: (956)477-3962

Address: 702 W. Expressway 83    Fax: \_\_\_\_\_

City: Weslaco    State: TX    Zip: 78596    E-mail: \_\_\_\_\_

### ENGINEER INFORMATION

Name: R. Gutierrez Engineering Corp    Telephone: (956)782-2557

Address: 130 E. Park Ave    Fax: \_\_\_\_\_

City: Pharr    State: TX    Zip: 78577    E-mail: rgutierrez@rgec.net

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

### UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: City of Weslaco

☒ YES ☐ NO Wastewater Provision: City of Weslaco

☒ YES ☐ NO Electric Company: AEP

<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Phone Utility _____	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Gas Utility _____	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Cable Utility _____
---	---	---

Proposed subdivision is in the following districts:

<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Drainage District <u>HCDD1</u>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Irrigation District <u>HC&amp;CCID9</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](mailto:mhinojosa@weslacotx.gov) & [rdelafuente@weslacotx.gov](mailto: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)

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

\$355.00 \_\_\_\_\_ \$350.00 (one time fee for preliminary and final plat) (plus \$5.00 Admin Fee = \$355.00)

x \_\_\_\_\_ One 11" X 17" reduced copy of plat

x \_\_\_\_\_ Plat Layout

x \_\_\_\_\_ Existing & Proposed Easements

x \_\_\_\_\_ Existing & Proposed ROW

x \_\_\_\_\_ Existing & Proposed Drainage Easements

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ [WWW.WESLACOTX.GOV](http://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: Reyna Family Development

Owner Signature: [Signature] Date: July 17, 2018

R. Gutierrez Engineering Corp / Ramiro Gutierrez, P.E. is the authorized agent

Authorized Agent Signature: [Signature] Date: July 17, 2018

Authorized Agent Printed Name: Ramiro Gutierrez

\*\*\*\*\*

**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. \_\_\_\_\_

C

**CITY OF WESLACO**  
956-968-3181

REC#: 02405113 7/17/2018 4:26 PM  
OPER: LVALD TERM: 036  
REF#: 5529  
PAID BY:

TRAN: 235.1000 PROCESSING FEE  
9161  
101-400-3200  
PROCESSING FEE-ONLI 5.00CR

TRAN: 203.0000 SUBDIVISION INSPECT  
9161  
101-400-1025  
SUBDIVISION INSPECT 350.00CR

-447-3401 ■ (Fax) 956-973-3128 ■ [WWW.WESLACOTX.GOV](http://WWW.WESLACOTX.GOV)

Re TENDERED: 355.00 CHECK  
APPLIED: 355.00-  
CHANGE: 0.00

Please do not alter this application.  
Page 4

From: [Rebekah M. De La Fuente](mailto:Rebekah.M.DeLaFuente@wslacotx.gov)  
To: [Javier Gutierrez](mailto:Javier.Gutierrez@rgec.net)  
Subject: FW: plaza 1015  
Date: Wednesday, July 18, 2018 9:19:45 AM  
Attachments: [plaza1015.jpg](#)  
[plaza1015.jpg](#)

From: Javier Gutierrez [mailto:javier@rgec.net]  
Sent: Wednesday, July 18, 2018 8:16 AM  
To: Mardoqueo Hinojosa <mhinojosa@wslacotx.gov>; Rebekah M. De La Fuente <rde lafuente@wslacotx.gov>  
Cc: raul.sesin@hccid1.org; dannyreyna2148@gmail.com; rgutierrez@rgec.net; jorge.gonzalez@hccid1.org; randall@hccid9.org; blanca@hccid9.org  
Subject: FW: plaza 1015

Mr. Hinojosa,

Please see email below. It is a response from Mr. Randy Winston, HCCID9 General Manager, where he states that he will not be asking for additional right-of-way where the road/alley is already constructed. Please let us know if you will be needing anything else.

Regards,

*Javier Gutierrez*

R. Gutierrez Engineering Corporation  
Firm Number: F-406  
130 East Park Avenue  
Pharr, Texas 78577  
(956)782-2557  
Email: [javier@rgec.net](mailto:javier@rgec.net)

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From: Blanca Garza <[blanca@hccid9.org](mailto:blanca@hccid9.org)>  
Sent: Wednesday, July 18, 2018 7:59 AM  
To: [rgutierrez@rgec.net](mailto:rgutierrez@rgec.net); [javier@rgec.net](mailto:javier@rgec.net)  
Subject: FW: plaza 1015

Mr. Gutierrez,

Please see below.

Thanks,  
Blanca Garza



Blanca Naomi Garza  
GIS Specialist  
Hidalgo & Cameron Counties Emergency District #9  
P.O. Box 237  
Mercedes, Texas 79070  
(956) 565-2121  
(956) 565-0123 Fax  
[blanca@hccid9.org](mailto:blanca@hccid9.org)

From: Randall Winston, P.E. [mailto:[randall@hccid9.org](mailto:randall@hccid9.org)]  
Sent: Thursday, May 17, 2018 11:17 AM  
To: Blanca Garza  
Subject: plaza 1015

Good Morning Blanca:

They are re-subdividing the section with the roads and alleys already installed. Ditch was widened previously for the detention. I would ask for additional ditch ROW on the West side where there is no road, but the section where the road and alley exists, no additional ROW needed.



Sincerely,

Randall Winston, P.E.  
General Manager

Hidalgo & Cameron Counties  
Irrigation District #9

P.O. Box 237  
Mercedes, Texas 78570  
(956)565-2411

[Randall@hccid9.org](mailto:Randall@hccid9.org)

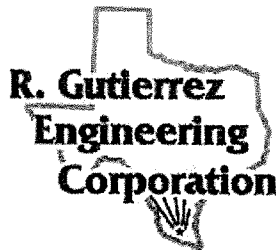


This email has been checked for viruses by AVG antivirus software  
[www.avg.com](http://www.avg.com)

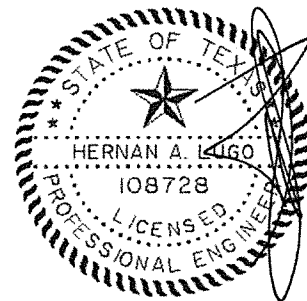


**DRAINAGE STATEMENT  
FOR AMENDED PLAT OF LOT 1 – LOT 32  
PLAZA DIEZ QUINCE SUBDIVISION  
(9.24-ACRE RESIDENTIAL DEVELOPMENT)  
HIDALGO COUNTY, TEXAS**

Prepared by



130 East Park  
Pharr, Texas 78577  
Tel: 956-782-2557  
Fax: 956-782-2558



04/25/2018

**Prepared  
April 25, 2018**

R. Gutierrez Engineering Corporation  
T.B.P.E. FIRM: F486

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II. FLOOD PLAIN .....	1
III. SOIL CONDITIONS .....	1
IV. PREDEVELOPMENT CONDITIONS .....	2
V. DEVELOPED CONDITIONS .....	2

#### EXHIBITS

- A. Subdivision Plat
- B. FEMA Flood Insurance Map
- C. Soil Survey of Hidalgo County
- D. Storm Water Calculations

## **DRAINAGE STATEMENT**

### **FOR**

### **Amended Plat of Lot 1 – Lot 32, Plaza Diez Quince Subdivision**

#### **I. PROJECT LOCATION**

Amended Plat of Lot 1 – Lot 32 of Plaza Diez Quince Subdivision is a 9.24 acres of land out of Plaza Diez Quince Subdivision, Hidalgo County, Texas, as per map recorded in Volume 55, Page 103, Map Records of Hidalgo County, Texas. The subject property is located in the northeast intersection of FM-1015 (International Blvd) and Mile 6 North Road, approximately 429-ft east of FM 1015. Said property is currently located in the within the city limits of the City of Weslaco. The proposed subdivision will consist of thirty-two (32) residential lots. (Refer to Exhibit A)

#### **II. FLOOD PLAIN**

In accordance with F.E.M.A.-F.I.R.M. Map No. 480334 0525 B, Effective Date January 2, 1981, the subject tract lays in "Zone B", defined by FEMA as areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths of less than 1 foot or where the contributing drainage area is less than 1 square mile; or areas protected by levees from base. (Refer to Exhibit B).

#### **III. SOIL CONDITIONS**

A review of the Soil Survey of Hidalgo County (Refer to Exhibit C) indicates that about 68% of the tract lies in Hidalgo sandy clay loam (Map Unit #28) with a Plasticity Index between 11 and 22, the soil is well drained, permeability is at a moderate high to high, and it is within Hydrological Group "B". This area is also known to have a depth to water table of more than 80-inches. The rest of the tract lies in Racombes sandy clay loam (Map Unit #48) with a Plasticity Index between 8 and 22, the soil is moderately well drained, permeability is at a moderate high to high, and it is within Hydrological Group "B". This area is also known to have a depth to water table of about 42 to 72 inches (Refer to Exhibit C)

#### **IV. PREDEVELOPMENT CONDITIONS**

The runoff of the subject tract at the predevelopment conditions consisted of overland flow in a northerly direction with a terrain has a grade of approximately 0.15%. The excess runoff leaving the property was captured by Hidalgo County Irrigation District No. 9 drain ditch located north and adjacent of the subject tract of land. The total contributing 10-year existing storm water runoff from this site is approximately **9.57-cfs.** (Refer to Exhibit D).

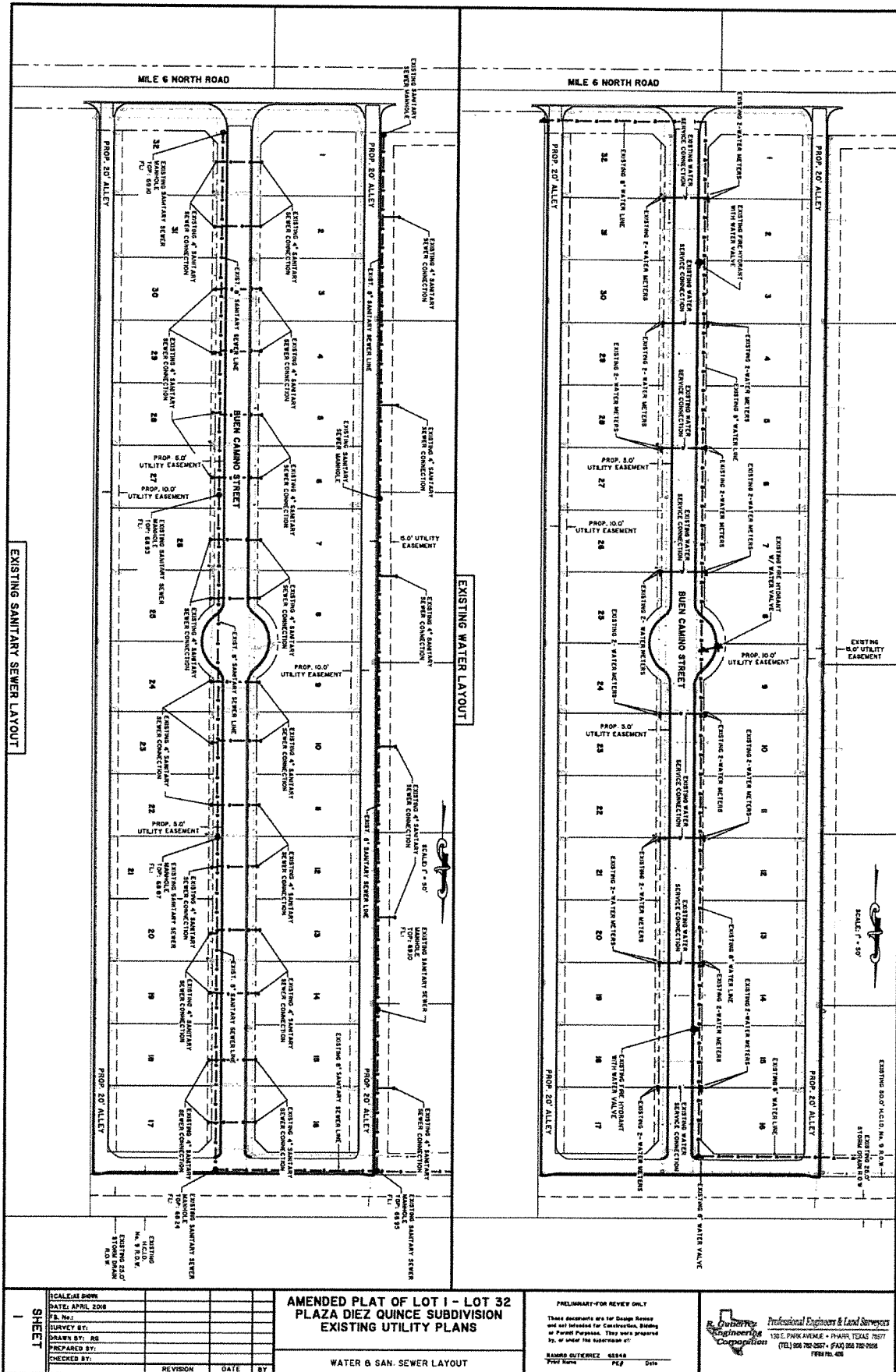
#### **V. DEVELOPED CONDITIONS**

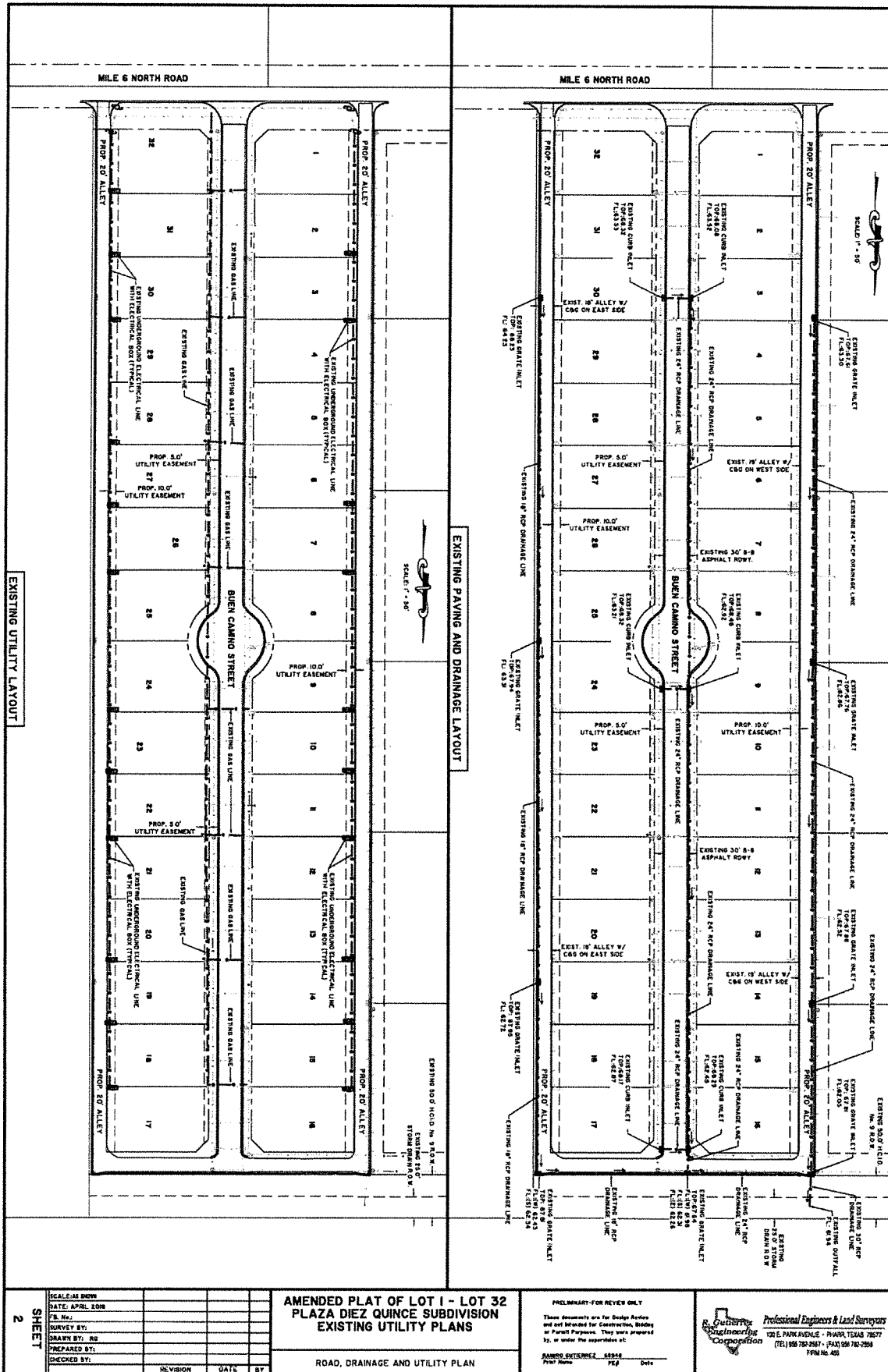
The developed conditions for this subject tract will consist of thirty-two (32) lots residential lots subdivision. Development in the form of impervious pavement and buildings will increase the ultimate storm water runoff. The additional runoff will be conveyed by an existing storm drainage conveyance system consisting of curb and gutter roadway section, curb inlets and storm drainage pipes which will capture and convey the storm water runoff offsite and into the Hidalgo County Irrigation District No. 9 drain ditch. In accordance with the City of Weslaco and Hidalgo County Drainage District No. 1 (HCDD1), the peak runoff shall be maintained at the predevelopment conditions rate of **9.57-cfs.** The total developed 10-year runoff will be approximately **41.51-cfs** with an increase of 31.94-cfs. All of the excess runoff volume for the entire development is approximately **1.080 acre-feet (47.027 c.f.)** or 0.034 acre-feet (1,470 cf) per lot. Said volume will be detained offsite in the Hidalgo County Irrigation District No. 9 drain ditch which was widened to provide approximately 47,000 cf of storage volume for this development (Refer to Exhibit D).

04/25/2018

**EXHIBIT A  
Subdivision Plat  
&  
Existing Improvements**

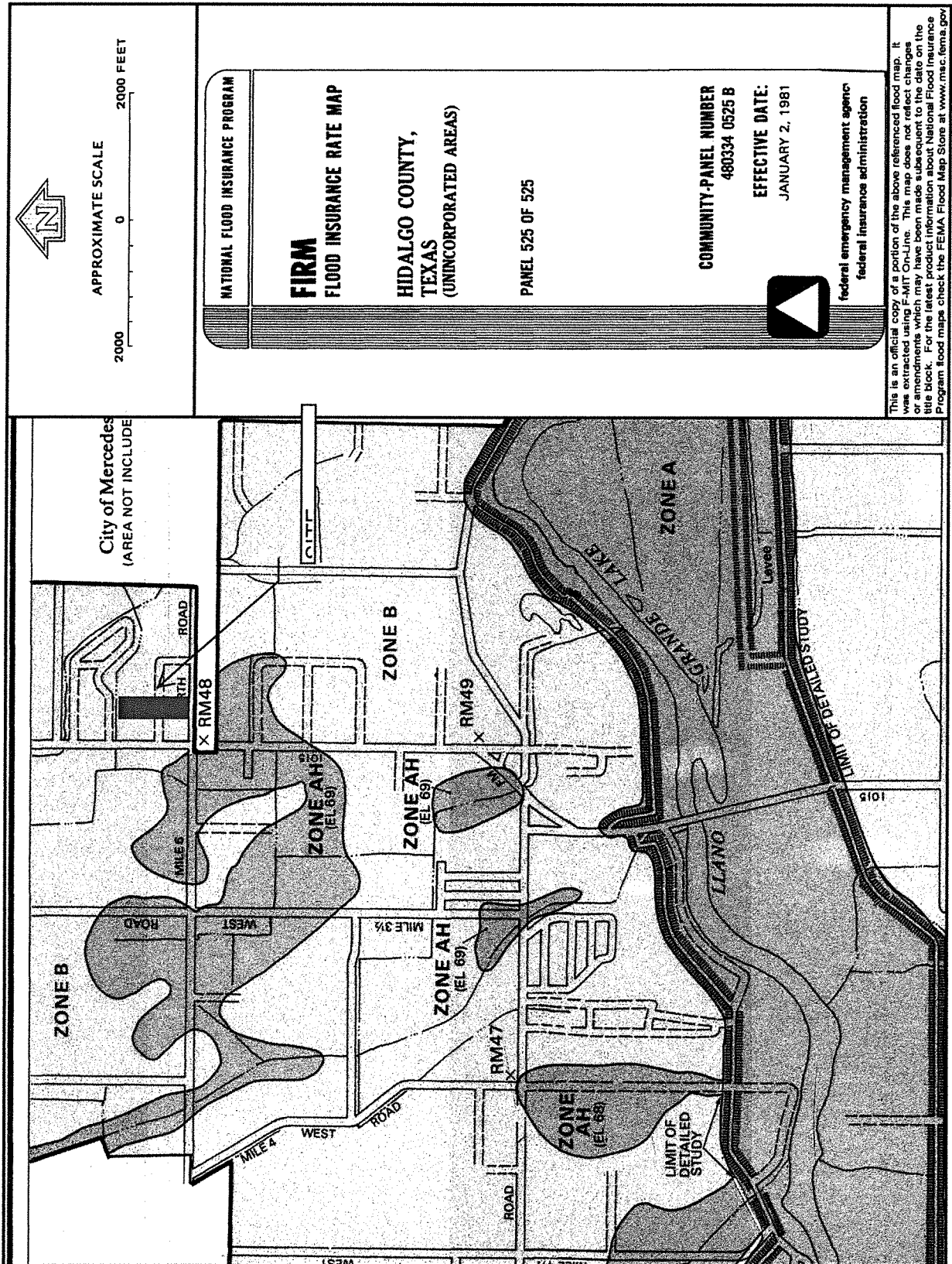
[illegible]



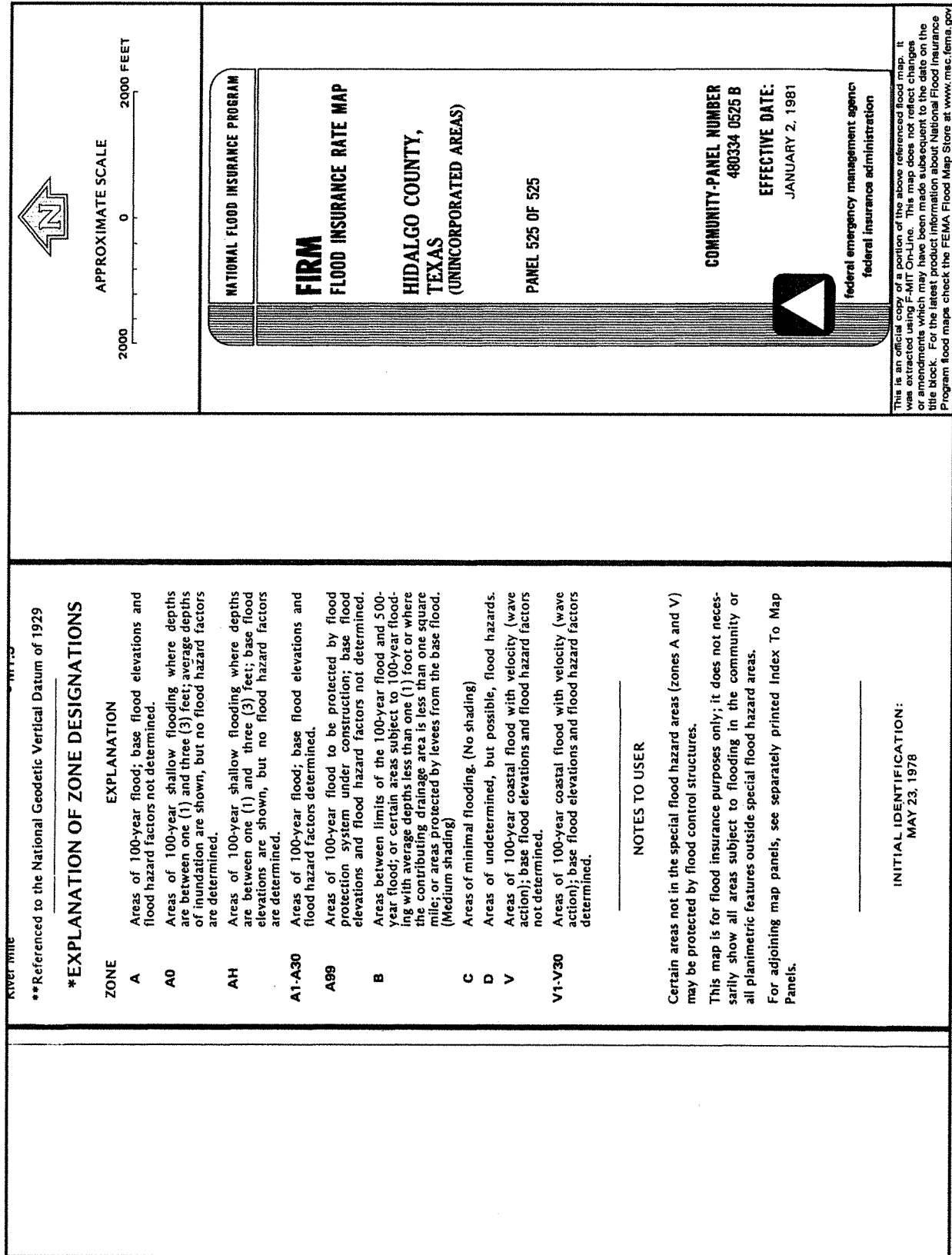




**EXHIBIT B**  
**FEMA Flood Insurance Map (FIRM)**



This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



**EXHIBIT C**  
**Soil Survey of Hidalgo County**



United States  
Department of  
Agriculture

NRCS

Natural  
Resources  
Conservation  
Service

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

# Custom Soil Resource Report for Hidalgo County, Texas

REPLAT OF PLAZA DIEZ QUINCE  
SUBD.



## Preface

---

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

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

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

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

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

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

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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## How Soil Surveys Are Made

---

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

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

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

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

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

## Custom Soil Resource Report

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

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

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

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

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

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

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

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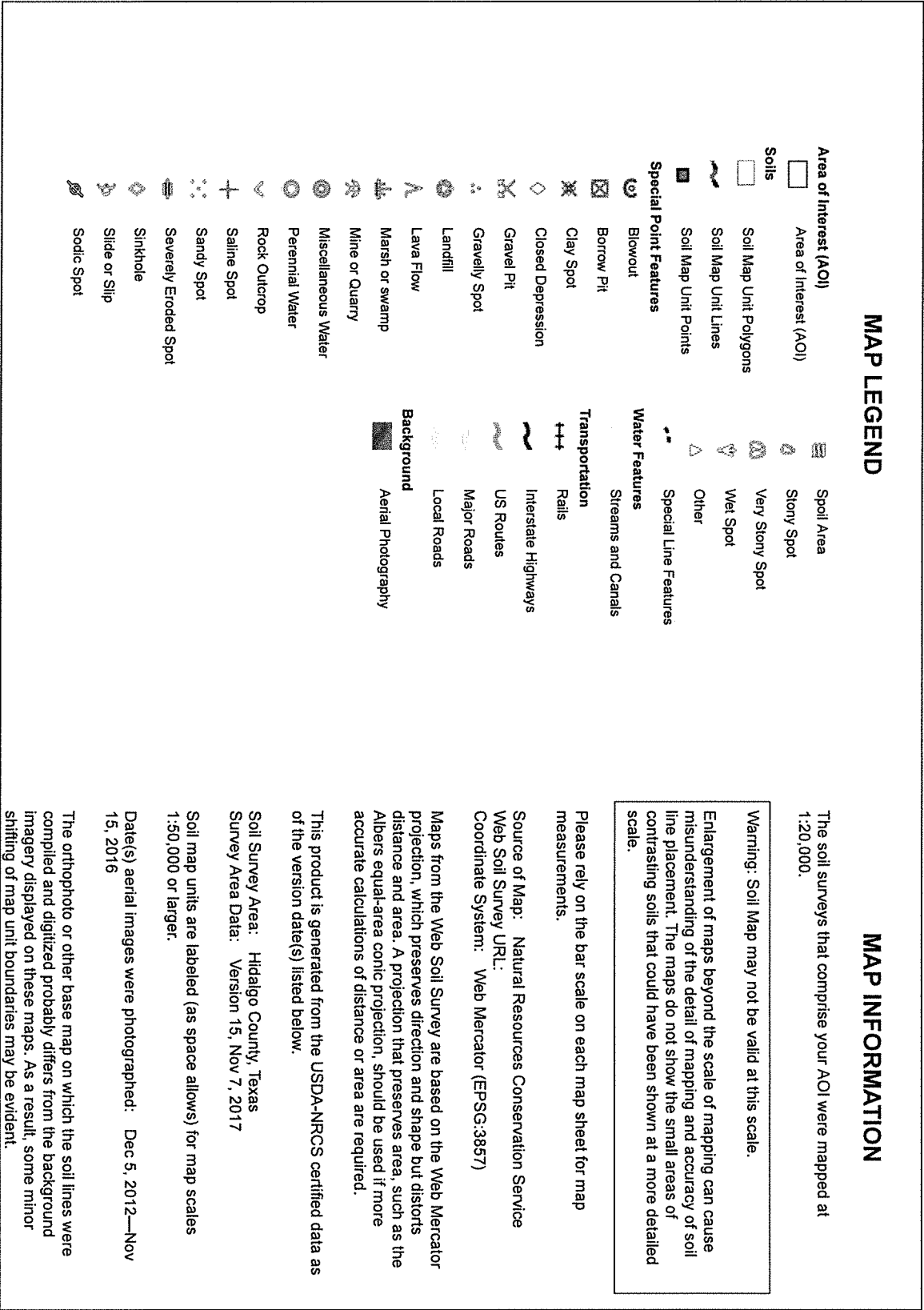
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

## Soil Map

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





## Custom Soil Resource Report

### Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
26	Hidalgo fine sandy loam, 1 to 3 percent slopes	0.2	1.6%
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	6.8	67.8%
48	Racombes sandy clay loam	3.1	30.7%
<b>Totals for Area of Interest</b>		<b>10.1</b>	<b>100.0%</b>

### Map Unit Descriptions

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

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

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

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The

### Custom Soil Resource Report

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

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

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

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

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

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

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



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## Hidalgo County, Texas

### 26—Hidalgo fine sandy loam, 1 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2sxvp  
*Elevation:* 20 to 500 feet  
*Mean annual precipitation:* 20 to 27 inches  
*Mean annual air temperature:* 72 to 74 degrees F  
*Frost-free period:* 300 to 365 days  
*Farmland classification:* Prime farmland if irrigated

#### Map Unit Composition

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

#### Description of Hidalgo

##### Setting

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

##### Typical profile

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

##### Properties and qualities

*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 35 percent  
*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 10.0  
*Available water storage in profile:* Moderate (about 7.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 2e  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* B  
*Ecological site:* GRAY SANDY LOAM 20-25" PZ (R083DY501TX)  
*Hydric soil rating:* No

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### Minor Components

#### Willacy

*Percent of map unit:* 10 percent  
*Landform:* Terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Ecological site:* SANDY LOAM 25-35" PZ (R083DY519TX)  
*Hydric soil rating:* No

#### Brennan

*Percent of map unit:* 5 percent  
*Landform:* Terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Ecological site:* SANDY LOAM 20-30" PZ (R083EY702TX)  
*Hydric soil rating:* No

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

### Map Unit Setting

*National map unit symbol:* 2sxvl  
*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

## Custom Soil Resource Report

### Properties and qualities

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

### Interpretive groups

*Land capability classification (irrigated):* 1  
*Land capability classification (nonirrigated):* 2c  
*Hydrologic Soil Group:* B  
*Ecological site:* GRAY SANDY LOAM 20-25" PZ (R083DY501TX)  
*Hydric soil rating:* No

### Minor Components

#### Raymondville

*Percent of map unit:* 7 percent  
*Landform:* Terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* CLAY LOAM 20-25" PZ (R083DY493TX)  
*Hydric soil rating:* No

#### Racombes

*Percent of map unit:* 6 percent  
*Landform:* Terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* CLAY LOAM 20-25" PZ (R083DY493TX)  
*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  
*Ecological site:* SANDY LOAM 25-35" PZ (R083DY519TX)  
*Hydric soil rating:* No

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### 48—Racombes sandy clay loam

#### Map Unit Setting

*National map unit symbol:* dblw  
*Elevation:* 20 to 400 feet  
*Mean annual precipitation:* 23 to 30 inches  
*Mean annual air temperature:* 70 to 73 degrees F  
*Frost-free period:* 280 to 350 days  
*Farmland classification:* All areas are prime farmland

#### Map Unit Composition

*Racombes and similar soils:* 80 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Racombes

##### Setting

*Landform:* Delta plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Parent material:* Calcareous loamy alluvium

##### Typical profile

*H1 - 0 to 13 inches:* sandy clay loam  
*H2 - 13 to 49 inches:* sandy clay loam  
*H3 - 49 to 72 inches:* sandy clay loam

##### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Moderately 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:* About 42 to 72 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 15 percent  
*Salinity, maximum in profile:* Nonsaline to slightly saline (1.0 to 4.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 6.0  
*Available water storage in profile:* High (about 10.6 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 2w  
*Land capability classification (nonirrigated):* 2w  
*Hydrologic Soil Group:* B  
*Ecological site:* CLAY LOAM 20-25" PZ (R083DY493TX)  
*Hydric soil rating:* No

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**Minor Components**

**Unnamed**

*Percent of map unit:* 15 percent

*Ecological site:* CLAY LOAM 20-25" PZ (R083DY493TX)

*Hydric soil rating:* No

**Rio**

*Percent of map unit:* 5 percent

*Landform:* Depressions

*Hydric soil rating:* Yes

# **Soil Information for All Uses**

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## **Soil Reports**

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

## **Soil Physical Properties**

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

## **Engineering Properties (Replat of Plaza Diez Quince Subd)**

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

## Custom Soil Resource Report

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.

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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.



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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
26—Hidalgo fine sandy loam, 1 to 3 percent slopes														
Hidalgo	85	B	0-17	Fine sandy loam	CL, SC-SM, SM, SC	A-4, A-2-4	0-0-0	0-0-0	100-100-100	94-96-100	84-94-100	35-47-56	15-23-25	1-7-8
			17-28	Sandy clay loam, clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	100-100-100	94-98-100	85-96-100	50-60-75	30-35-44	11-17-2
			28-38	Clay loam, sandy clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	95-97-100	91-94-100	81-93-100	54-68-81	30-38-44	11-17-2
			38-80	Clay loam, sandy clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	96-97-100	91-95-100	82-94-100	57-72-84	30-38-44	11-17-2
28—Hidalgo sandy clay loam, 0 to 1 percent slopes														
Hidalgo	85	B	0-17	Sandy clay loam	CL, SC	A-6	0-0-0	0-0-0	100-100-100	95-98-100	86-96-100	44-54-63	25-30-39	11-15-1
			17-28	Sandy clay loam, clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	100-100-100	94-98-100	85-96-100	50-60-75	30-35-44	11-17-2
			28-38	Clay loam, sandy clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	95-97-100	91-94-100	81-93-100	54-68-81	30-38-44	11-17-2
			38-80	Sandy clay loam, clay loam	CL, SC	A-6, A-7-6	0-0-0	0-0-0	96-97-100	91-95-100	82-94-100	57-72-84	30-38-44	11-17-2

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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>
48—Racombe sandy clay loam														
Racombe	80	B	0-13	Sandy clay loam	CL, SC	A-4, A-6	0-0-0	0-0-0	100-100 -100	100-100 -100	95-98-1 00	45-55- 65	27-31 -35	8-12-15
			13-49	Sandy clay loam, clay loam	CL, SC	A-6, A-7	0-0-0	0-0-0	100-100 -100	95-98-1 00	90-95-1 00	45-55- 65	34-39 -43	15-19-2 2
			49-72	Sandy clay loam, clay loam	CL, SC	A-6	0-0-0	0-0-0	90-95-1 00	80-90-1 00	80-88- 95	40-53- 65	30-35 -40	11-16-2 0

## Custom Soil Resource Report

### Physical Soil Properties (Replat of Plaza Diez Quince Subd)

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

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

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

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

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

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

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

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

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

*Saturated hydraulic conductivity (K<sub>sat</sub>)* 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

## Custom Soil Resource Report

(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

### Custom Soil Resource Report

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>)

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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		
26—Hidalgo fine sandy loam, 1 to 3 percent slopes	In	Pct	Pct	Pct	g/cc	micro m/sec	In/in	Pct	Pct					
	0-17	53-63-75	5-19-35	5-18-20	1.35-1.45-1.65	14.00-28.00-42.00	0.10-0.13-0.15	0.3-1.4-1.7	0.5-1.0-1.5	.24	.24	5	3	86
	17-28	25-48-70	10-25-50	23-27-35	1.20-1.40-1.50	4.00-9.00-14.00	0.10-0.13-0.18	1.2-2.1-5.0	0.3-0.6-1.0	.28	.28			
	28-38	25-35-70	10-35-50	23-30-35	1.20-1.40-1.60	4.00-9.00-14.00	0.10-0.13-0.18	1.2-2.3-5.9	0.1-0.3-0.5	.32	.32			
28—Hidalgo sandy clay loam, 0 to 1 percent slopes	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			
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			

# Custom Soil Resource Report

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					
48—Raconbes sandy clay loam														
Raconbes	0-13	-60-	-18-	16-22-28	1.40-1.53-1.65	4.00-9.00-14.00	0.14-0.17-0.19	0.0-1.5-2.9	1.0-2.0-3.0	.15	.15	5	5	56
	13-49	-56-	-15-	26-30-34	1.45-1.58-1.70	4.00-9.00-14.00	0.15-0.18-0.20	3.0-4.5-5.9	1.0-1.5-2.0	.17	.17			
	49-72	-56-	-15-	25-30-34	1.50-1.60-1.70	4.00-9.00-14.00	0.15-0.18-0.20	3.0-4.5-5.9	0.5-0.8-1.0	.17	.17			

## Custom Soil Resource Report

### Water Features

This folder contains tabular reports that present soil hydrology information. The reports (tables) include all selected map units and components for each map unit. Water Features include ponding frequency, flooding frequency, and depth to water table.

### Hydrologic Soil Group and Surface Runoff (Replat of Plaza Diez Quince Subd)

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

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

The four hydrologic soil groups are:

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

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

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

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

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

*Surface runoff* refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.



Custom Soil Resource Report

**Report—Hydrologic Soil Group and Surface Runoff (Replat of  
Plaza Diez Quince Subd)**

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

Hydrologic Soil Group and Surface Runoff—Hidalgo County, Texas			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
26—Hidalgo fine sandy loam, 1 to 3 percent slopes			
Hidalgo	85	Low	B
28—Hidalgo sandy clay loam, 0 to 1 percent slopes			
Hidalgo	85	Negligible	B
48—Racombes sandy clay loam			
Racombes	80	Negligible	B

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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

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United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\\_054242](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242)

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\\_053624](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624)

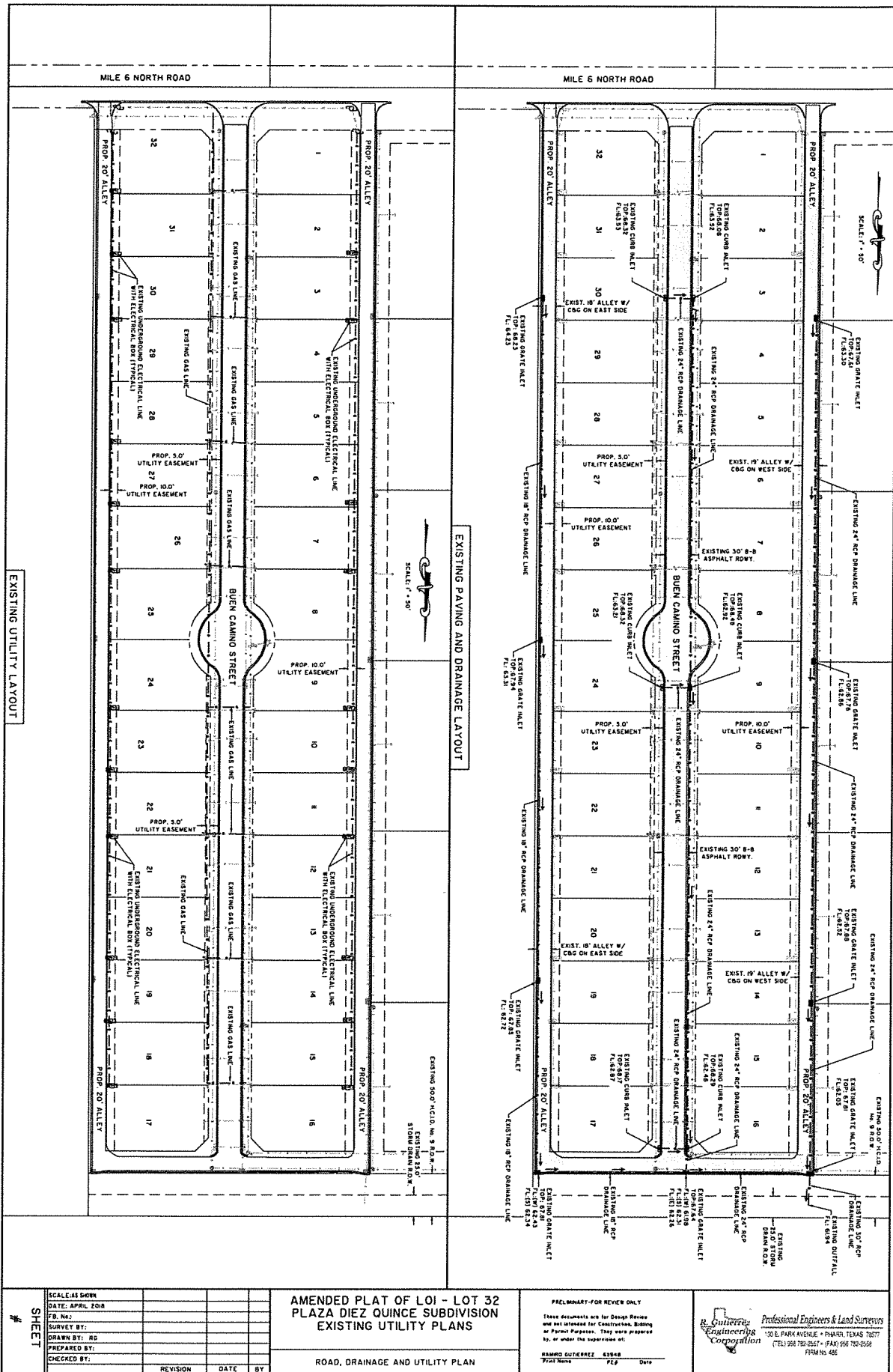
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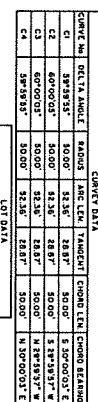
**Exhibit D**  
**Detention Storage Requirements**  
**for**  
**Replat of Plaza Diez Quince Subdivision**  
**10-Year Return Frequency**

Time (minutes)	I (in./hr.)	Q <sub>DEVELOPED</sub> (c.f.s.)	Vol. TOTAL (c.f.)	Q <sub>ALLOWED</sub> (c.f.s.)	Vol. DISCH. (c.f.)	Vol. STORED (c.f.)	Vol. STORED (Ac-Ft)
5	11.04	76.52	22,956	9.57	2,872	20,084	0.461
10	8.73	60.51	36,307	9.57	5,744	30,564	0.702
15	7.29	50.54	45,487	9.57	8,615	36,872	0.846
20	6.30	43.67	52,404	9.57	11,487	40,917	0.939
25	5.57	38.62	57,926	9.57	14,359	43,567	1.000
30	5.01	34.73	62,510	9.57	17,231	45,279	1.039
35	4.56	31.63	66,425	9.57	20,103	46,323	1.063
40	4.20	29.10	69,842	9.57	22,974	46,867	1.076
<b>45</b>	<b>3.89</b>	<b>26.99</b>	<b>72,873</b>	<b>9.57</b>	<b>25,846</b>	<b>47,027</b>	<b>1.080</b>
50	3.64	25.20	75,598	9.57	28,718	46,880	1.076
55	3.41	23.66	78,074	9.57	31,590	46,484	1.067
60	3.22	22.32	80,344	9.57	34,462	45,882	1.053
65	3.05	21.14	82,441	9.57	37,333	45,108	1.036
70	2.90	20.09	84,391	9.57	40,205	44,185	1.014
75	2.76	19.16	86,213	9.57	43,077	43,136	0.990
80	2.64	18.32	87,924	9.57	45,949	41,976	0.964
85	2.53	17.56	89,539	9.57	48,820	40,718	0.935
90	2.43	16.86	91,067	9.57	51,692	39,375	0.904
95	2.34	16.23	92,518	9.57	54,564	37,954	0.871
100	2.26	15.65	93,900	9.57	57,436	36,464	0.837
105	2.18	15.11	95,220	9.57	60,308	34,913	0.801
110	2.11	14.62	96,484	9.57	63,179	33,304	0.765
115	2.04	14.16	97,696	9.57	66,051	31,644	0.726
120	1.98	13.73	98,860	9.57	68,923	29,937	0.687



4/25/2018





CURRENCY DATA				
DATE	AMOUNT	NO. EXCH.	UNIT PRICE	AMOUNT
10/1/50	100.00	100	1.00	100.00
10/2/50	200.00	200	1.00	200.00
10/3/50	300.00	300	1.00	300.00
10/4/50	400.00	400	1.00	400.00
10/5/50	500.00	500	1.00	500.00
10/6/50	600.00	600	1.00	600.00
10/7/50	700.00	700	1.00	700.00
10/8/50	800.00	800	1.00	800.00
10/9/50	900.00	900	1.00	900.00
10/10/50	1000.00	1000	1.00	1000.00
10/11/50	1100.00	1100	1.00	1100.00
10/12/50	1200.00	1200	1.00	1200.00
10/13/50	1300.00	1300	1.00	1300.00
10/14/50	1400.00	1400	1.00	1400.00
10/15/50	1500.00	1500	1.00	1500.00
10/16/50	1600.00	1600	1.00	1600.00
10/17/50	1700.00	1700	1.00	1700.00
10/18/50	1800.00	1800	1.00	1800.00
10/19/50	1900.00	1900	1.00	1900.00
10/20/50	2000.00	2000	1.00	2000.00
10/21/50	2100.00	2100	1.00	2100.00
10/22/50	2200.00	2200	1.00	2200.00
10/23/50	2300.00	2300	1.00	2300.00
10/24/50	2400.00	2400	1.00	2400.00
10/25/50	2500.00	2500	1.00	2500.00
10/26/50	2600.00	2600	1.00	2600.00
10/27/50	2700.00	2700	1.00	2700.00
10/28/50	2800.00	2800	1.00	2800.00
10/29/50	2900.00	2900	1.00	2900.00
10/30/50	3000.00	3000	1.00	3000.00
10/31/50	3100.00	3100	1.00	3100.00
11/1/50	3200.00	3200	1.00	3200.00
11/2/50	3300.00	3300	1.00	3300.00
11/3/50	3400.00	3400	1.00	3400.00
11/4/50	3500.00	3500	1.00	3500.00
11/5/50	3600.00	3600	1.00	3600.00
11/6/50	3700.00	3700	1.00	3700.00
11/7/50	3800.00	3800	1.00	3800.00
11/8/50	3900.00	3900	1.00	3900.00
11/9/50	4000.00	4000	1.00	4000.00
11/10/50	4100.00	4100	1.00	4100.00
11/11/50	4200.00	4200	1.00	4200.00
11/12/50	4300.00	4300	1.00	4300.00
11/13/50	4400.00	4400	1.00	4400.00
11/14/50	4500.00	4500	1.00	4500.00
11/15/50	4600.00	4600	1.00	4600.00
11/16/50	4700.00	4700	1.00	4700.00
11/17/50	4800.00	4800	1.00	4800.00
11/18/50	4900.00	4900	1.00	4900.00
11/19/50	5000.00	5000	1.00	5000.00
11/20/50	5100.00	5100	1.00	5100.00
11/21/50	5200.00	5200	1.00	5200.00
11/22/50	5300.00	5300	1.00	5300.00
11/23/50	5400.00	5400	1.00	5400.00
11/24/50	5500.00	5500	1.00	5500.00
11/25/50	5600.00	5600	1.00	5600.00
11/26/50	5700.00	5700	1.00	5700.00
11/27/50	5800.00	5800	1.00	5800.00
11/28/50	5900.00	5900	1.00	5900.00
11/29/50	6000.00	6000	1.00	6000.00
11/30/50	6100.00	6100		

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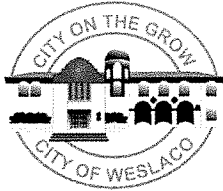
**WESLACO FIRE MARSHAL'S OFFICE**  
255 S. Kansas  
Weslaco, Texas 78596  
(956) 447-3415 Fax (956) 969-4921

DATE: 05/04/18 OCCUPANCY CLASS: Subdivision  
FACILITY NAME: Plaza Diez Quince  
PHYSICAL & MAILING ADDRESS: Mile 6 North by FM 1015  
PHONE #: \_\_\_\_\_ OWNER/MANAGER: \_\_\_\_\_

**PLAN REVIEW – CHECK OFF LIST**

X		Approved as submitted	X	with notes
	A	Illuminated exit signs and emergency lighting shall be combination with 90 minute battery pack back-up.		
	B	All restrooms shall have emergency lighting with 90 minute battery pack back-up.		
	C	Shall provide minimum 5 lb. ABC dry chemical extinguisher at 50' intervals for non-sprinklered building, 75' intervals for sprinklered building, annually inspected & tagged by a licensed agency and mounted no higher than 48" from top to ground. NFPA 10, Latest Edition & IFC 2015 Edition, Section 906.		
	D	Shall have fire alarm company submit plans for proposed fire alarm.		
	E	Shall have fire alarm system installed in accordance with the latest editions of NFPA 70 & 72, by a licensed agency and monitored 24/7 by an outside agency. Shall call our office 24 hours in advance for trip test. NFPA 101, Life Safety Code, 2015 Edition		
	F	Shall have fire alarm system tied into the sprinkler system to monitor flow and tamper switches. Shall also be tied into the suppression system for the kitchen hood. NFPA 101, Life Safety Code, 2015 Edition.		
	G	Shall have automatic sprinkler system installed by a licensed agency and in accordance with the latest edition of NFPA 13. Sprinkler company shall submit plans to our office and ISO for review. Shall contact our office 24 hours in advance for underground & aboveground hydrostatic tests. IFC, 2015 Edition, Section 903 & 912 and latest edition of NFPA 13. <b>No ceiling shall be in place until aboveground hydrostatic test has been approved.</b>		
	H	If cooking that releases grease latent vapors, shall provide hood suppression system installed by a licensed agency; hood shall vent to exterior of building. NFPA 96, Latest edition. An approved method shall be provided that will ensure that the appliance(s) is returned to an approved design location, NFPA 96, Section 12.1.2.3.1 Shall call our office 24 hours in advance for trip test. IFC, 2015 Edition, Section 904.		
	I	Shall have 1 – K extinguisher for kitchen annually inspected by a licensed agency. IFC, 2015 Edition, Section 904.11.5		
X	J	Shall have fire hydrant within 400'. Shall have 4 ½" outlet facing the street with 18" to 24" clearance from bottom of outlet to grade level for hydrant wrench. Hydrants shall be marked on the streets with reflective blue marker to show location of hydrants. Hydrants shall have 3' clearance from any fences, poles, brush, etc. <b>Fire Hydrants shall be checked to ensure they are functioning due to length of time since installation.</b>		
	K	Fire department connection shall be free-standing, away from the building, minimum 1 ½ times the building height, out of the collapse zone, and within 100' of a fire hydrant. FDC shall be protected from impact with 4" diameter concrete filled bollards, cemented 4' into the ground with 3' above ground. Shall be spaced 3' apart. Shall have a reflective sign indicating "FDC" with 6" high letters, ½" wide. IFC, 2015 Edition, Section 903.3.7 and all of section 912, IFC, 2015 Edition, and latest edition of NFPA 13. The FDC connection shall be the 5 inch storz with a 30 to 40 degree downward deflection angle adapter. Tamper protection for backflow preventer shall be of an approved type and approved by Authority Having Jurisdiction.		
X	L	Access roads shall be 26' minimum with hydrant unobstructed, 20' without hydrant unobstructed. All weather surface road that supports the imposed loads of fire apparatus shall be in place (concrete or asphalt).		
X	M	Fire apparatus access road shall comply with IFC 2015 Edition, Appendix D. (Cul-de-sac, wye, hammerhead)		
	N	Shall have evacuation routes, with primary & secondary exits marked, in place. IFC, 2015 Edition, Section 404.		
	O	Shall maintain a clear path for means of egress in the following areas:		
	P	Shall have all exit doors open in the direction of egress travel. If equipped with a locking device, it shall be of an approved type.		
	Q	Every room or space that is an Assembly occupancy shall have the occupant load posted in a conspicuous place.		
	R	Shall maintain 44" clearance between aisles.		
X	S	Gated community shall submit specs on gate and shall maintain a 20' clearance on each side of island prior to installation of gate. Shall provide combination for access to subdivision. Shall provide Knox Box Gate Entry System.		
	T	Shall post address in front of building plainly visible from the street with 6" x ½" stroke letters or numbers.		
	U	Shall have Knox Box, 3200 Series, with hinged door, installed for fire department access. <a href="http://www.KnoxBox.com">www.KnoxBox.com</a>		
	V	Shall have Knox FDC 5 inch Storz Caps in place. <a href="http://www.KnoxBox.com">www.KnoxBox.com</a>		
	W	Shall have an exterior door to Riser Room. Shall label Riser Room with a white reflective sign to read "Riser Room" with 6" x ¾" stroke red letters.		
X	X	Shall provide fire lane painted with 6" red striping, with white lettering 4" x ¾" stroke to read <b>"No Parking Fire Lane"</b> spaced every 10 to 12 feet.		
	Y	Shall submit a complete set of plans for construction to my office for further requirements.		
	Z	Shall pay appropriate fees for the following:	Plan review	Fire alarm plan review
		Sprinkler system plan review	Aboveground hydro test	Underground hydro test
				Fire alarm trip test
				Suppression system trip test

Asst. Fire Marshal Mike Swinnea  
FIRE MARSHAL/FIRE INSPECTOR



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

<b>Date of Meeting:</b> July 25, 2018	<b>Agenda Item No. (to be assigned by PCE):</b> II. B.
<b>From:</b> Mardoqueo Hinojosa, P.E., Planning Director/City Engineer, on behalf of Reyna Family Development.	
<b>Subject/Agenda Item:</b> Discussion and consideration for the Final Plat for the Amended Plat of Lot 1 through 32 Plaza Diez Quince – being a 9.24 acres land out of Plaza Diez Quince Subdivision, Weslaco, Hidalgo County, and Texas located approximately 400 feet east of FM 1015. Possible Action.	
<b>Discussion/Overview:</b> The proposed thirty-two (32) lot subdivision is inside the City of Weslaco city limits. This subdivision is being serviced with water by City of Weslaco through an existing 8" waterline and sewer services through an existing 8" sewer line. The property is within a Flood Zone "B". Owner is requesting variance for drainage dedication requirements and alley paving requirements.	
<b>If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners:</b> N/A	
<b>Staff recommendation for Commission's Action:</b> Staff recommends approval with compliance with the ordinance for the variance requests.	
<b>Additional Action Prompted:</b> [ X ] Mayor's Signature [ ] Public Hearing [ ] Budget Amendment [ ] Resolution [ ] Ordinance – First Reading [ ] Ordinance – Final Reading	
<b>Advisory Review, (if any):</b> (name of board/committee, date of action, recommendation): N/A	
<b>If item previously considered, provide date and action by Commission:</b> N/A	
<b>Attachments,(if any):</b> Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
<b>Responsibilities upon Commission's Action:</b> Planning staff will advise applicant.	