



AGENDA

PLANNING & ZONING COMMISSION REGULAR MEETING

THURSDAY, AUGUST 11, 2022, AT 5:30 P.M.

COUNCIL CHAMBERS, CITY HALL BUILDING

100 SOUTH MONROE STREET, EAGLE PASS, MAVERICK COUNTY, TEXAS

ESTABLISHMENT OF QUORUM

CITIZENS COMMUNICATIONS

MINUTES

1. Approval of the minutes of the June 23, 2022 meeting.

PUBLIC HEARING(S)

2. Public hearing on the proposed preliminary Replat of Tract 21 & 22 in Block 7 of Riverside Acres Subdivision, creating Santa Rosa Subdivision, including a variance from *City of Eagle Pass Code of Ordinances Chapter 23 Article IV Section 23-61(a)(4)* regulating 2 points of vehicular access for ingress and egress to a subdivision; closing of public hearing and possible action.
3. Public hearing on the proposed request to recommend or disapprove proposed changes in the official map of the City for the petition for annexation of approximately 1.892 acres of land lying and situated in Maverick County, Texas, out of the I&G.N.RR.CO. Survey 1, Abstract 426, and being a part of the Eagle Pass Partnership 823.38 acres, described in Volume 407, Page 28 of the Maverick County Deed Records. (Eagle Pass Ranch Access Road Subdivision); closing of public hearing and possible action.

ADJOURNMENT

NOTE: The Commission reserves the right to consider business out of the posted agenda order and reserves the right to adjourn into executive session to discuss an item(s) not listed as an executive session on the posted agenda, but which qualifies to be discussed in closed session pursuant to Texas Government Code Chapter 551.

CERTIFICATION

I, THE UNDERSIGNED PLANNING DIRECTOR, do hereby certify that the agenda mentioned above was posted on the Bulletin Board located in the Lobby at City Hall, 100 S. Monroe Street, Eagle Pass, Texas on August 8, 2022, at 4:15 p.m.

Placido C. Madera
Planning Director

Item # 1

THE STATE OF TEXAS)(
COUNTY OF MAVERICK)(
CITY OF EAGLE PASS)(

The Planning and Zoning Commission of the City of Eagle Pass a Special Meeting on Thursday, June 23, 2022, at 5:30 p.m. 100 South Monroe Street, Eagle Pass, Texas. All legal notices were duly posted in accordance with the law.

ESTABLISHMENT OF QUORUM

Present: Vice-Chairperson, Luis Velez; and Commission Members, Kenneth Gross, and Aaron Valdez.

Absent: Chairperson, Rolando Jasso; Commission Member, Doris Salinas-Sanchez; Ex-Officio, Mayor, Rolando Salinas and City Manager, George Antuna.

Staff present: Planning Director, Placido Madera; Assistant Planning Director, Mariebelle Rodriguez; City Attorney Representatives, Kassandra Flores; and City Secretary, Imelda B. Rodriguez.

With a quorum being present, Vice Chairperson Velez called the meeting to order, and the Planning & Zoning Commission considered the items as follows.

CITIZENS COMMUNICATIONS

Vice Chairperson Velez asked whether anyone in the audience wished to address the Commission on any item which did not appear on the agenda, reminding them at the same time, that although the Commission would be unable to take formal action on such items, they would be glad to take it under advisement. City Secretary, Imelda B. Rodriguez stated no citizens communications were submitted.

MINUTES

1. Approval of the minutes of the March 10, 2022, meeting and the May 12, 2022, meeting.

Commission Member Valdez moved to approve minutes of March 10, 2022, and May 12, 2022. Commission Member Gross. **MOTION PASSED** – Unanimously

AYES: Velez, Gross, and Valdez
NAYS: None
ABSTAIN: None
ABSENT: Jasso and Salinas-Sanchez

The Commission considered the following item out of order.

4. Consideration and possible action on the final plat of the Castle Rock Subdivision Unit 3, including a subdivision variance from the requirement to construct concrete curb and gutter section parallel to the cul-de-sacs.

Planning Director, Placido Madera informed the Commission of the request for final plat approval subdividing an approximately 5.29 acres tract into 29 residential lots with R-2 zoning, including a subdivision variance from the requirement to construct concrete curb and gutter section parallel to the cul-de-sac. Mr. Madera went further into details regarding the cul-de-sacs and is recommending a construction agreement between the developer and the city be in place. He also briefed on the proposed retaining wall and berm location to be completed.

The Planning Department is recommending (1) grant the curb and gutter subdivision variance request (2) grant approval of the proposed final plat subject to comply with the provisions of Article III of City of Eagle Pass Code of Ordinances Chapter 23 governing procedures and specifications for final plats and subject to the following conditions prior to plat recordation:

1. Complete grading of lots or provide a new drainage design for lots 12-16 that have portions to the rear that grade toward the abutting properties in Castle Rock Unit 2, including the construction of a berm along Unit 2, as shown in Exhibit A. The approved design has all lots grading toward the street.
2. Revise the plat drawing to reflect the temporary cul-de-sacs as "Access Easements" and providing a plat note indicating that the cul-de-sacs are to be dedicated to the city within five years (from January 1, 2023) and be built to city standards.
3. Provide Fire Flow Test that is compliant, as required by Appendix B Fire-Flow Requirements for building in Section 105B of the 2018 International Fire Code (IFC) adopted by the City Council.

In response to a question posed by Commission Member Gross regarding the height drop off between the properties for retaining wall. Mr. Madera responded it starts at around a foot to goes to about five feet. The developer chimed in giving more details. Discussed was also material for fencing Mr. Madera stated this will be as per city ordinance.

Vice-Chairperson Velez asked on this development is there a masterplan. Mr. Madera responded they don't have one.

Planning Director Madera asked legal counsel if everything was covered clearly during the presentation. Legal counsel representative Kassandra Flores stated that everything was covered clearly. She reiterated to have the document in the plat the easement dedication agreement, due to the fact this can't be put in afterwards so this needs to go in with the plat. The developer concurred and will comply.

Commission Member Valdez moved to approve the final plat as recommended by the Planning

Department with the conditions stated. Seconded by Commission Member Gross. **MOTION PASSED** – Unanimously

AYES: Velez, Gross, and Valdez
NAYS: None
ABSTAIN: None
ABSENT: Jasso, and Salinas-Sanchez

PUBLIC HEARINGS

2. Public hearing on the proposed final Re-Plat of Lot 124 of Chula Vista Subdivision Unit 2, including a (a) sidewalk waiver request, (b) a subdivision variance from the requirement to construct concrete curb and gutter section parallel to FM 2030, and (c) a subdivision variance from the preliminary plat requirement as required by City of Eagle Pass Code of Ordinances Section 23-36(a), closing of public hearing and possible action.

Vice Chairperson Velez opened the public hearing at 6:07 p.m.

Assistant Planning Director, Mariebelle Rodriguez briefed the Commission on the details on the proposed final replat. Consisting of 0.64-acre tract being subdivided into two residential lots. The Planning Department reviewed this and is recommending to (a) grant a sidewalk waiver request, (b) grant a subdivision variance request from the requirement to construct concrete curb and gutter section parallel to FM 2030, (c) grant variance from the preliminary plat requirement as required by City of Eagle Pass Code of Ordinances Section 23-36(a) and (d) grant final approval of the replating of property legal described as Lot 124 in Chula Vista Subdivision Unit 2, to create two residential lots, subject to the plat complying with the provisions of Article III of City of Eagle Pass Code of Ordinances Chapter 23 governing procedures and specifications for Final Plats.

There being no further comments from the public. Vice Chairperson Velez closed the public hearing at 6:11 p.m.

Commission Member Valdez moved to approve the recommendation from the Planning Department. Seconded by Commission Member Gross. **MOTION PASSED**

AYES: Velez, Gross, and Valdez
NAYS: None
ABSTAIN: None
ABSENT: Jasso, and Salinas-Sanchez

NEW BUSINESS

3. Consideration and possible action the final Plat Amendment of Lots 1 & 2 in Block 6 of Townsite of Fabrica, including a (a) sidewalk waiver request, and (b) a subdivision variance request to reduce the required rear yard setback area from 16 feet to 5 feet.

Assistant Planning Director Rodriguez briefed the Commission on the details on the final replat amendment. The Planning Department reviewed this and is recommending granting approval of a final plat amendment adjusting the property line between Lots 1 and 2 in Block of Townsite of Fabric including a sidewalk waiver request, and a subdivision variance request to reduce the required rear yard setback area from 16 feet to 5 feet.

Commission Member Gross moved to approve the final plat amendment as recommended by the Planning Department. Seconded by Commission Member Valdez. **MOTION PASSED** – Unanimously

AYES: Velez, Gross, and Valdez
NAYS: None
ABSTAIN: None
ABSENT: Jasso, and Salinas-Sanchez

OLD BUSINESS

5. Consideration and possible action on the final plat of Santa Maria Estates Subdivision Unit 1.

Planning Director Madera briefed the Commission on the details of the final plat being a 7.92-acre tract of land. Being divided into 29 residential lots zoning R-2. The Planning Department reviewed this and is recommending granting final plat approval of the Santa Maria Estates Subdivision Unit 1 subject to the final plat complying with the provisions of Article III of the City of Eagle Pass Code of Ordinance Chapter 23 governing procedures and specifications for final plats and the following conditions:

1. Provide Fire Flow Test that is compliant, as required by Appendix B Fire-Flow Requirements for building in Section 105B of the 2018 International Fire Code (IFC) adopted by the City Council.
2. Deceleration lane contribution (not exceed \$15,000.00 total, divided into four equal payments, paid annually beginning on June 1, 2022).
3. Dedicate, design, and construct a secondary vehicular access road connecting the subdivision to Calle de Los Santos or other city approved right-of-way upon the development of Phase II of the subdivision or three(3) years after the sale of 23 of 29 of units including in Phase I, whichever comes first.

Commission Member Gross moved to approve the final plat as recommended by the Planning Department. Seconded by Commission Member Valdez. **MOTION PASSED** – Unanimously

AYES: Velez, Gross, and Valdez
NAYS: None
ABSTAIN: None
ABSENT: Jasso, and Salinas-Sanchez

ADJOURNMENT

Commission Member Valdez moved to adjourn meeting at 6:30 p.m. Seconded by Commission Member Gross. **MOTION PASSED**- Unanimously .

Passed and approved on August 11, 2022

Luis Velez
Vice-Chairperson

ATTEST:

Imelda B. Rodriguez
City Secretary

Item # 2



Planning Department Executive Summary
REPORT TO THE PLANNING & ZONING COMMISSION

Preliminary Replat of Tract 21 and 22 in Block 7 of Riverside Acres Subdivision, creating
Santa Rosa Subdivision

I. BACKGROUND

A. General Information

Applicant: Crane Engineering
1310 Junction Drive, Suite B
Laredo, Texas 78041

Property Owner: Terrenos Con Futuro, LLC
Uvalde, Texas 78801

Location: Rosita Valley Road/CR251 in the ETJ

Legal Description: Tracts 21 and 22, Block 7, Riverside Acres Subdivision

Property ID Number(s): 17435 and 17436

Request: preliminary plat approval to subdivide an approximately 10.04-acre tract into 54 residential lots, including a variance from *City of Eagle Pass Code of Ordinances Chapter 23 Article IV Section 23-61(a)(4)* regulating 2 points of vehicular access for ingress and egress to a subdivision.

B. Subject Property Information

Parcel Size: 10.04-acres

Vegetation: Native vegetation

Existing Use: This site is undeveloped

Zoning: *R-5 Garden Home District*

Master Plan: Not Applicable as site is in the ETJ

C. Vicinity Data

The surrounding area is comprised of developed residential-zoned tracts of land between Rosita Valley Road and County Road 251.

D. Infrastructure

The property is currently served by public utilities/franchises, including water, sanitary sewer, storm sewer, telephone, electric service, tele communication, and garbage service. Access to the site is provided by Rosita Valley Road.

II. RECOMMENDED FINDINGS OF FACT

A. Conclusions

1. The applicant's request contains sufficient information for consideration by the Planning and Zoning Commission. Information contained in this report and the Commission's public meeting will be used as part of the City Council's and County Commissioners' Court deliberation process for preliminary approval of the subdivision. Please refer to Attachment 1.
2. The preliminary approval of this subdivision rests entirely upon whether the applicant has demonstrated that the proposal complies with the subdivision variance criteria. Please refer to Attachment 2.
3. The *City of Eagle Pass Master Plan* provides direction to both the Eagle Pass Planning and Zoning Commission and City Council in their deliberation of a subdivision.

As this subdivision is not located within the City, the area in which the plat is located is not shown on the *Master Plan Map*. Please refer to Attachment 4 for a copy of the *Master Plan Map*.

As a result, *Master Plan Map* does not provide clear direction as to the nexus between the goals, policies, and objectives, of the *Master Plan* and subdivision. The policies of the *Master Plan*, however, do provide direction regarding the subdivision of the 10.04-acre tract into 54-lots.

4. The *Master Plan* emphasizes the importance of maintaining the character of the City's neighborhoods. The following is a summary of the applicable sections of the *Master Plan* to the plat:
 - ✓ The subdivision is consistent with the *Housing Goals* of the *Master Plan*, as the subdivision process will ensure appropriate land development regulation with appropriate lot sizes, paved streets with curb and gutters, and adequate utility services.
 - ✓ The subdivision is consistent with the *Land Use Development Goals* of the *Master Plan*, as the project is designed to provide for a building lot density that is consistent with the purpose of the *R-5 Garden Home District*. This design will allow for the continuing development of the community, retaining the neighborhood character and scale, and providing utility services in the most efficient and equitable manner.
 - ✓ The subdivision is consistent with the *Street Goal* of the *Master Plan*, as access to the site from Rosita Valley Road has been designed to provide the residents of and visitors to Eagle Pass with a street system that will enable them to travel safely and conveniently.
 - ✓ The subdivision is consistent with the *Thoroughfare Goals* of the *Master Plan*, as Rosita Valley Road has been designed to be part of a safe and efficient thoroughfare system.

- ✓ The subdivision is consistent with the *Storm Drainage Goals* of the *Master Plan*, as the drainage for the proposed subdivision will be conveyed into a proposed on-site detention facility that meets City and County specifications.
5. The subdivision of the property is in conformance with the provisions of the *Master Plan* and the *Eagle Pass Code of Ordinances* by facilitating the following benefits:
- Protect private rights while considering public health, safety, and welfare.
 - Provide for efficient and economical ways to move people and goods outside the City and County by an adequate plan for streets and highways.
 - Guide future development in an orderly manner, by stages according to a pattern, so that the City and the County may have a balanced land use.
 - Encourage a diversified economic base and encourage public and private investments in land and improvements.
 - Prevent and eliminate blight and slums, making the City and the County attractive to people, commerce, and industry.
 - Create the desire for a more pleasing appearance of the City and the County, and incorporate into its physical development the basic principles of good design.
 - Protect and preserve the identity of each neighborhood through use of the guidance provided by the *Master Plan* and the *Code of Ordinances*.
 - Locate all land uses on land best suited for their needs, arranged in such a way as to be mutually beneficial and functional, with ample area to meet long-term needs.
 - Establish a proper relationship between open space, developed areas, building bulk, light, and air space, in all future development programs of land use.
 - Encourage and abet the development of civic, cultural, and other public and quasi-public buildings in harmonious and functional groupings.
6. The subdivision design is consistent with the residential purposes of the *R-5 District*.
7. The subdivision is consistent with City design and specifications, as the project is designed and conditioned to conform to the following sections of *Article IV* in *Eagle Pass Code of Ordinances Chapter 23*:
- ✓ *Section 23-62* governing utility easements
 - ✓ *Section 23-64* governing sidewalks
 - ✓ *Section 23-66* governing sanitary sewage disposal
 - ✓ *Section 23-67* governing potable water supply and fire flow

- ✓ *Section 23-68 governing storm drainage*
- ✓ *Section 23-69 governing the size of building lots, including lot width, lot depth, lot orientation, and building setback areas.*
- ✓ *Section 23-71 governing the installation and inspection of utility lines*
- ✓ *Section 23-94 governing fences*

Please refer to Attachment 3 for a copy of the *Engineering Report* for the subdivision.

8. The subdivision and the subsequent development of the property is consistent with City design and specifications for landscape and tree preservation set forth in *Article VI in Eagle Pass Code of Ordinances Chapter 23*.
9. The subdivision will conform with the parkland dedication requirements set forth in *Article V in Eagle Pass Code of Ordinances Chapter 23*.
10. The subdivision will allow for a use of the property that is consistent with the residential purpose of the *R-5 District*, as well as the surrounding area for the following reasons:
 - A. The subdivision design bears a substantial relationship to the public's health, safety, and welfare.
 - B. The subdivision is in accordance with the policies of the Master Plan and the residential purpose of the *R-5 District*.
 - C. The subdivision is warranted because of the necessity to create additional building lots in the *R-5 District*, and because the proposed development is appropriate to accomplish the reasonable use of the property.
 - D. The subject property is suitable for development in general conformance with development standards of the *R-5 District*.
 - E. The subdivision will benefit the City and the County as a whole and will not be detrimental to nearby land uses of a similar nature.
 - F. The subsequent development will be designed and conditioned to comply with all applicable subdivision criteria and standards of the City of Eagle Pass.
11. The preliminary approval of this plat request is warranted, as the project conforms to the *City of Eagle Pass Master Plan* and the *City of Eagle Pass Code of Ordinances* as noted in Conclusion 1 through and including Conclusion 10 of this report.

B. Planning Department Recommendation

The Planning and Zoning Commission (1) **GRANT** a variance from *City of Eagle Pass Code of Ordinances Chapter 23 Article IV Section 23-61(a)(4)* regulating 2 points of vehicular access for ingress and egress to a subdivision, and (2) **GRANT** preliminary plat approval of the *Replat of Tracts 21 and 22 in Block 7 of Riverside Acres Subdivision, creating the Santa Rosa Subdivision* subject to the plat complying with the provisions of

Article III of City of Eagle Pass Code of Ordinances Chapter 23 governing procedures and specifications for Final Plats.

TRANSMITTED to the parties listed hereafter:

Crane Engineering via e-mail
City of Eagle Planning and Zoning Commission via e-mail
Maverick County Planning Director, Rex McBeath via e-mail
Eagle Pass Planning Department Report dated July 7, 2022

Attachment 1 Application



PLANNING DEPARTMENT

3295 Bob Rogers Drive, Eagle Pass, TX 78852 • Telephone: (830) 773-7781 • Fax: (830) 773-7803
www.eaglepasstx.us • planning@eaglepasstx.us

SUBDIVISION APPLICATION

PH#7768

TYPE OF SUBDIVISION (check one):

☒ Preliminary ☐ Final ☐ Replat ☐ Amendment ☐ Short Form Final

Tracts 21 and 22, in block 7, Riverside Acres Subdivision, in Maverick
Property Legal Description: County, Texas, Envelope 71, Side 1

Maverick County Property Identification Number(s): 17435 & 17436

Name of Addition: Santa Rosa Subdivision

Location of Addition: Rosita Valley Road/ CR251

Number of Residential Lots: 54 Number of Commercial Lots: _____ Gross Acreage: 10.03

Number of New Street Intersections 1 Linear feet of Streets 1,900 LF

Is Subdivision inside city limits? Yes () No ☒ If so, Zoning District: N/A ETJ (R-5)

Existing Land Use: Vacant Proposed Land Use: Residential

Requested Variances: Request approval of one point of access instead of two as required
under section 23-61.a.4 of City of Eagle Pass code of ordinances, Chapter 23

PROPERTY OWNER:

Terrenos Con Futuro, LLC

Name: Chad Foster (Title) Member

Address: 106 N. East Street

City: Uvalde

State: TX Zip: 78801

Signature: [Signature]

Contact: Kaeleigh Dumas

Phone: 210-415-3018

Fax: N/A

E-mail: Kaeleigh.fosterranches@gmail.com

Date: 2-21-2022

PROPERTY OWNER:

Name: _____

Contact: _____

Address: _____

Phone: _____

City: _____

Fax: _____

State: _____ Zip: _____

E-mail: _____

Signature: _____

Date: _____

RECEIVED
2-17-22
pending county acceptance
[Signature]

APPLICANT/SUBDIVIDER:

Name: Crane Engineering
Address: 1310 Junction Drive, Suite B
City: Laredo
State: TX Zip: 78041
Signature: _____

Contact: Edward D. Garza, P.E., CFM
Phone: (956) 712-1996
Fax: (956) 712-2378
E-mail: eddie-crane@sbcglobal.net
Date: _____

SURVEYOR:

Name: D. G. Smyth & Co. Inc.
Address: 235 N. Getty Street, Suite B
City: Uvalde
State: TX Zip: 78801
Signature: [Signature] 3-2-22

Contact: Mark E. Logrbrinck, RPLS
Phone: (830) 591-0858
Fax: _____
E-mail: kerry.nolasco@yahoo.com
Date: _____

ENGINEER:

Name: Crane Engineering
Address: 1310 Junction Drive, Suite B
City: Laredo
State: TX Zip: 78041
Signature: _____

Contact: Edward D. Garza, P.E., CFM
Phone: (956) 712-1996
Fax: (956) 712-2378
E-mail: eddie-crane@sbcglobal.net
Date: _____

PRINCIPAL CONTACT: ☐ Owner ☐ Applicant ☐ Surveyor ☒ Engineer

All City communication regarding the subdivision will be directed only to the designated principal contact.

STATEMENT OF APPLICANT

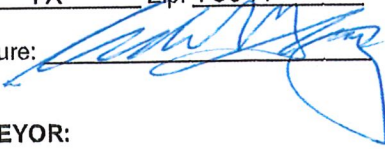
The information contained in this subdivision application contains true and accurate information provided to the best of my ability. I acknowledge that the City of Eagle Pass will use the information contained herein as the basis for the review of the subdivision application's conformance with the provisions of City of Eagle Pass Code of Ordinances Chapter 23.

I understand that the City of Eagle Pass may use third party engineering peer review services. I acknowledge and agree that I am responsible for the payment of services attributable to my project, and that the preliminary approval process or final approval process will not proceed until and unless I have provided payment for the aforementioned services.

[Signature]
Applicant Signature

2-7-22
Date

APPLICANT/SUBDIVIDER:

Name: Crane Engineering
Address: 1310 Junction Drive, Suite B
City: Laredo
State: TX Zip: 78041
Signature: 

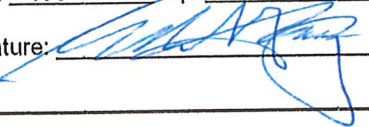
Contact: Edward D. Garza, P.E., CFM
Phone: (956) 712-1996
Fax: (956) 712-2378
E-mail: eddie-crane@sbcglobal.net
Date: 3/2/22

SURVEYOR:

Name: D. G. Smyth & Co. Inc.
Address: 235 N. Getty Street, Suite B
City: Uvalde
State: TX Zip: 78801
Signature: _____

Contact: Mark E. Logrbrinck, RPLS
Phone: (830) 591-0858
Fax: _____
E-mail: kerry.nolasco@yahoo.com
Date: _____

ENGINEER:

Name: Crane Engineering
Address: 1310 Junction Drive, Suite B
City: Laredo
State: TX Zip: 78041
Signature: 

Contact: Edward D. Garza, P.E., CFM
Phone: (956) 712-1996
Fax: (956) 712-2378
E-mail: eddie-crane@sbcglobal.net
Date: 3/2/22

PRINCIPAL CONTACT: _____ Owner _____ Applicant _____ Surveyor ☒ Engineer

All City communication regarding the subdivision will be directed only to the designated principal contact.

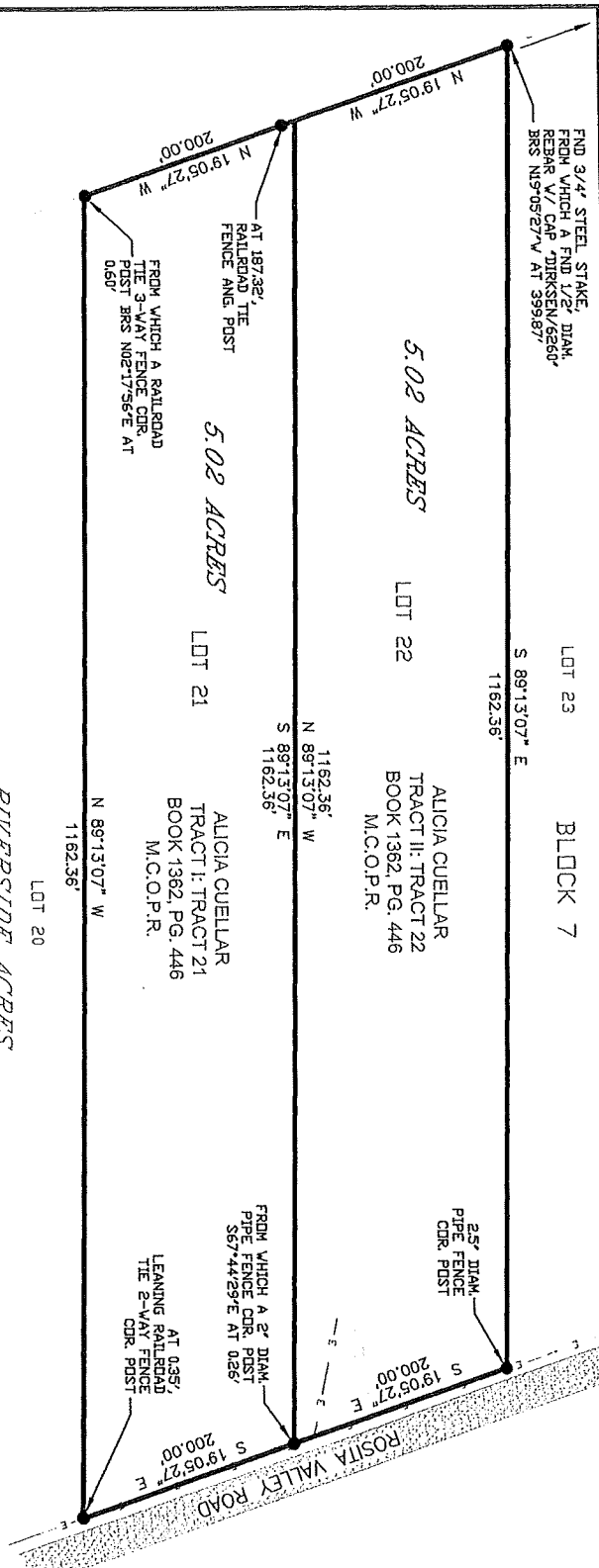
STATEMENT OF APPLICANT

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I understand that the City of Eagle Pass may use third party engineering peer review services. I acknowledge and agree that I am responsible for the payment of services attributable to my project, and that the preliminary approval process or final approval process will not proceed until and unless I have provided payment for the aforementioned services.


Applicant Signature

3-7-22
Date



LOT 23 BLOCK 7

S 89°13'07" E

5.02 ACRES

LOT 22

ALICIA CUELLAR
TRACT II: TRACT 22
BOOK 1362, PG. 446
M.C.O.P.R.

N 1162.36' 89°13'07" W
S 89°13'07" 1162.36' E

5.02 ACRES

LOT 21

Alicia Cuellar
Tract 1: Tract 21
Book 1362, Pg. 446
M.C.O.P.R.

1162.36'

LOT 20

RIVERSIDE ACRES
RECORDED IN ENV. 72, SIDE 1

RECORDED IN ENV. 72, SIDE 1
H.C.M.R.

PLAT SHOWING:

Being a Boundary Retracement and Improvement Survey of Tract 21 (5.02 acres, more or less), and Tract 22 (5.02 acres, more or less), Block 7, of Riverside Acres, recorded in Envelope 72, Side 1 of the Maverick County Map Records, and also being those same certain tracts called Tract I (Tract 21, and Tract II (Tract 22) as described in conveyance document to Alicia Cuellar recorded in Book 1362, Page 446 of the Maverick County Official Public Records, Maverick County, Texas.

This survey was prepared without the benefit of a current title commitment. Easements, restrictions, appurtenances, and encumbrances may exist in addition to those shown hereon. Survey is subject to revision upon the receipt of a title insurance commitment or attorney's title opinion.

WARNING: UNAUTHORIZED ALTERATION OF CERTIFIED MATERIAL IS PROHIBITED.

D. G. Smyth & Co. Inc. *TYPE #10008800*

235 N. GETTY STREET
SUITE B
LIVALDE, TEXAS 78801
PHONE 830-591-0858

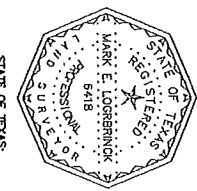
THIS GRAPH WORK REPRESENTS THE RESULTS OF A SURVEY BEING PROVIDED BY D. C. SMITH & CO., INC. SOLELY FOR THE EXCLUSIVE USE OF THE PARTIES SHOWN HEREON AND FOR THE PURPOSES SHOWN ABOVE. THE GRAPHIC REPRESENTATION SHOWN HEREON DEPICTS CERTAIN CONDITIONS FOUND EXISTING AS OF THE DATE OF THE ACTUAL SURVEY, AND IS LIMITED TO THESE CONDITIONS FOUND AT THAT TIME. NO LICENSE HAS BEEN GRANTED, EXPRESSED OR IMPLIED, TO COPY THIS GRAPHIC WORK. ALL RIGHTS RESERVED. COPYRIGHT © 2004, D.C. SMITH AND CO., INC. ©

NOTES:

[illegible]

PREPARED FOR:
TERRENOS CON FUTURO (BUYER)
ALICIA CUELLAR (SELLER)
I TEGAS LONE STAR TITLE
CT# 20-0330-CP

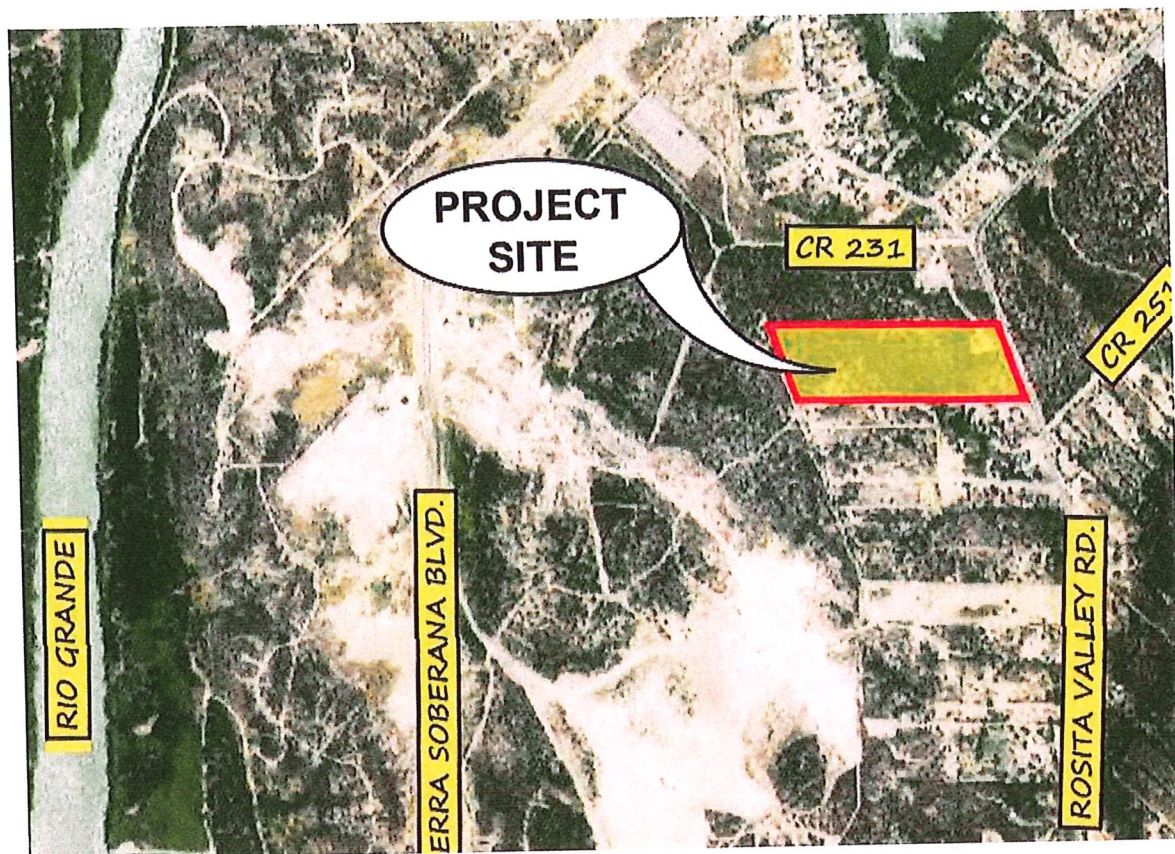
CERTIFICATE
D. C. Smyth & Company, Inc. a Texas Corporation and the president of which is Mark E. Loggbrock, a Registered Professional Land Surveyor #6418 Does hereby certify to:
The Principal Parties of This Transaction.

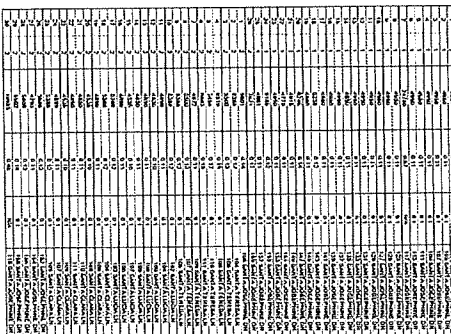


1. LANE E. LORENGER, DO HERBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND BY MEN WORKING UNDER MY SUPERVISION AND THAT SAID IS TRUE AND CORRECT ACCORDING TO A CHECK OF MY RECORDS IN THE COAL RED IMPRESSION SEAL. IF THIS PLAT DOES NOT HAVE THESE TWO CONDITIONS FULFILLED, IT SHALL BE VOID AND OF NO EFFECT AND I ASSUME NO RESPONSIBILITY FOR COPIES OF THE PLAT OTHER THAN THE COPIES BEARING MY ORIGINAL SEALS AND SIGNATURE.

COMPLETED: NOVEMBER 5, 2020

PROJECT NO.	20-0325	CHK'D BY:
DRAWING NO.	20-0325	
DATE:	NOVEMBER 6, 2020	





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1 Zone

Course	Length	Remain	Q
C1	17 AS	20:00	48
C2	14 DV	20:00	46

C4	30.47	58.00	34
C5	43.96	58.00	50
C6	19.47	82.00	17
C7	17.48	20.00	48
C8	17.48	20.00	48

C11	20.37	60.07	48.07
C12	08.87	50.07	10.07
C13	23.37	30.07	20.07
C14	17.47	20.07	40.07
C16	17.46	20.07	40.07
C15	1.18	20.07	20.07

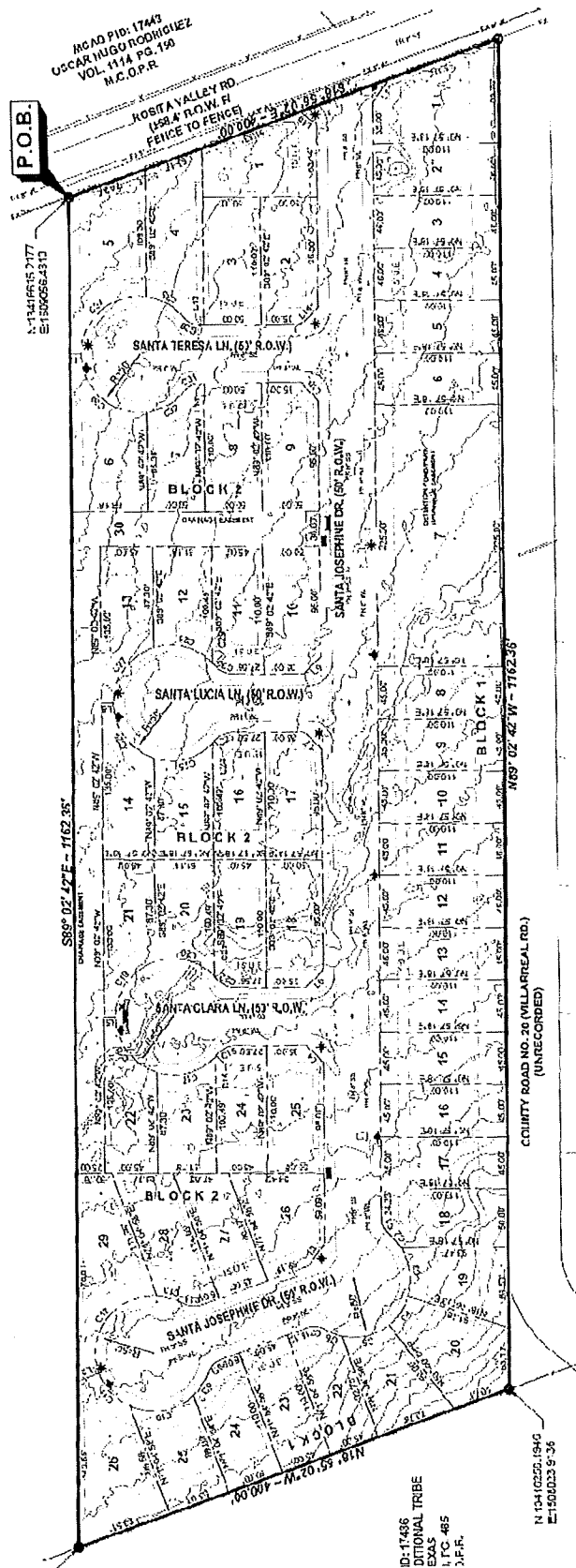
C18	83.31	26.00	72
C19	83.31	26.00	72
C20	83.31	26.00	72
C21	83.31	26.00	72
C22	83.31	26.00	72
C23	83.31	26.00	72

C26	63.3°	16.00°	77°
C27	63.3°	16.00°	77°
C28	16.00°	16.00°	77°
C29	2.18°	16.00°	77°
C30	17.45°	16.00°	77°

CM	61.74	58.00	5
CM	64.74	58.00	5
CM	51.47	58.00	4
CM	17.45	28.00	4

Rosa Subdivi

Preliminary Plat Drawing



Attachment 2
Variance Application



PLANNING DEPARTMENT

3295 Bob Rogers Drive, Eagle Pass, Texas 78852 • Phone: (830) 773-778 • Fax: (830) 773-7803

SUBDIVISION VARIANCE APPLICATION

Applicant Information

Applicant (If not owner): Crane Engineering - Edward D. Garza, P.E., CFM
Address: 1310 Junction Dr., Suite B, Laredo Texas 78041
Phone: (956) 712-1996 E-mail: eddie-crane@sbcglobal.net
Owner: Terrenos Con Futuro, LLC
Address: 106 N. East St., Uvalde, Texas 78801
Phone: (830) 776-3605 E-mail: katy.fosterranches@gmail.com

Property Information

Site Address: Rosita Valley Road/ CR251 MCAD Property ID No. 17435/17436
Legal Description (from deed): Tracts 21 and 22, in block 7, Riverside Acres Subdivision, in Maverick County, Texas, Envelope 71, Side 1

Description of Subdivision Variance Request

Request approval of one point of access instead of two as required under section 23-61.a.4
of City of Eagle Pass code of ordinances, Chapter 23

Detailed Explanation of Subdivision Variance Request

Please answer, on a separate sheet of paper if necessary, the following questions:

What are the special circumstances or conditions affecting the land involved such that the strict application of the provisions of the subdivision code would deprive the application of the reasonable use of their land?

Property frontage along Rosita Valley Rd. is only 400ft and does not lend itself to provide two
forms of access with adequate spacing to provide safe circulation. Second drive would add additional
point of conflict onto Rosita Valley Road.

How is the variance necessary for the preservation and enjoyment of a substantial property right of the applicant?

It provides a safe and effective access intersection with Rosita Valley Road and promotes good
traffic circulation within the subdivision. Our subdivision will have at least 4 areas where emergency
vehicles can turn around effectively in the event of a traffic conflict.

Describe how the granting of the variance will not be detrimental to the public health, safety or welfare, or injurious to other property in the area.

Proposed street plan will promote safe & effective ingress/egress from Rosita Valley Rd. to proposed subdivision.

Initial discussion with Maverick County to utilize existing CR20 (Villarreal Rd) to the South of our development

resulted in County not supporting use of CR20 as form of access due to county not recognizing this right of way.

Describe how the granting of the variance will not have the effect of preventing the orderly subdivision of the other land in the area in accordance with the provisions of the subdivision code.

It will allow for proper spacing between existing & proposed streets with Rosita Valley Road

and allow for future adjoining landowners to properly plan for their access streets when they

plat their land. This will promote proper spacing between intersections.

Required Application Attachments

The following documentation is required to be attached to this application:

- A copy of a survey map prepared by a licensed surveyor.
- A copy of a 'run sheet' for the property detailing prior deed history, which can typically be obtained at a title company.

Applicant Authorization

I authorize the City of Eagle Pass to conduct any site visits necessary to evaluate this subdivision variance application.

I hereby state that I have prepared this application and that, to the best of my knowledge, the information contained herein is complete, accurate, and a true representation of the subdivision variance request. I further attest that I have the authority to submit this application and agree to comply with any and all conditions if a subdivision variance approval. I agree to provide any additional information requested by the City of Eagle Pass as they deem necessary for the processing of this application.



Applicant Signature

5/28/21

Date

Attachment 3
Engineering & Drainage Reports

Preliminary Engineering Report

Santa Rosa Subdivision

Eagle Pass, Maverick County, Texas

A Development By: Terrenos Con Futuro, LLC
106 N East St. Uvalde,
Texas 78801

Submitted By:



Firm # F-3353
1310 Junction Drive, Ste. B
Laredo, Texas 78041



November 18, 2021

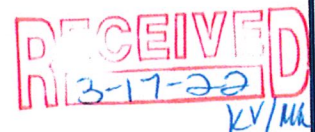


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 - B. Future Drainage Conditions
 - C. Detention Pond Requirements
- III. Water Service
- IV. Sanitary Sewer Service
- V. Streets
- VI. Parkland Dedication

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- 2. FEMA Firmette Map
- 3. Pre-Development Condition Overall Watershed Map
- 4. Pre-Development Hydrologic Analysis Calculations
- 5. Post Development Condition Overall Watershed Map
- 6. Overall Post Development Hydrologic Analysis Calculations
- 7. Post Development Condition Sub-Watersheds Map
- 8. Post Development Hydrologic Analysis Calculations
- 9. Channel Cross Section Calculations
- 10. Box Culvert Calculation
- 11. PondPack Master Report for Detention Facility
- 12. Off Site Pre-Development Hydrologic Analysis Calculations
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Executive Summary

I. General Description

Santa Rosa Subdivision is a 10.04-acre, 54 lot single family development located outside of Eagle Pass city limits but within Maverick County in the City's Extra Territorial Jurisdiction (ETJ). Refer to Attachment #1 for Site Location Map. Santa Rosa Subdivision is situated Northwest of County Road 251, adjacent to Rosita Valley Road, and east of Tierra Soberana Blvd. The proposed 54 lots have an average lot area of 4,950 SF and proposes to tie into existing EPWWS water and wastewater lines and access from Rosita Valley Road. All streets and utilities will be installed within public dedicated right-of-way. A combination concrete and earthen channel will manage stormwater entering and leaving Santa Rosa with a 0.5-acre detention pond at the watershed low point to manage post development flow and discharge pre-development downstream following existing natural topographic features. A combination of park and park improvement fees is proposed to comply with park requirements.

II. Drainage Analysis

A. Existing Drainage Conditions

The proposed development lies clear of the nearest effective floodplain as identified on FIRM panel number 48323C0475D (Attachment 2). The existing undeveloped site condition indicates one watershed area (WS-1), total of 73.42 acres respectively, contributing runoff to this site, which naturally drains runoff to the southeast. As per City of Eagle Pass Construction Specifications Manual – Division G, the hydrologic calculations of the existing conditions have been developed for the 10-yr, 25-yr, 50-yr, and 100-yr storm events utilizing the Rational Method.

$$Q = C \times I \times A$$

Where Q = Peak Discharge (cfs)
 C* = Runoff Coefficient
 I = Rainfall intensity (in/hr)
 A = Watershed Area (acres)

*Runoff coefficients have been modified for each storm event as per Table 1 Notes of the above-mentioned manual.

Below is a summary of existing conditions hydrologic calculations for 10-yr, 25-yr, and 100-yr storm event, resulting from the respective watershed characteristics:

Discharge (Q)		Calculated (in/hr)					Existing Conditions				
Area	Time of Conc. (min)	I-10	I-25	I-50	I-100	Area (acres)	"C"- 10yr	Q-10 (cfs)	Q-25 (cfs)	Q-50 (cfs)	Q-100 (cfs)
WS-1	24.55	4.49	5.24	5.83	6.42	73.42	0.30	99.70	128.06	155.37	178.07

*Pre-development intensities for a time of concentration (Tc) of 24.55 mins. was interpolated from table 5 in the EP construction manual between times 15 and 30 mins.



Refer to Attachment #3 for Pre-Development Condition Overall Watershed Map. Refer to Attachment #4 "Pre-Development Hydrologic Analysis Calculations" for Pre development Hydrologic Calculations.

B. Future Drainage Conditions

Overall post development/ existing condition watershed PP-1 contributes the flows summarized in the table below, Refer to Attachment #5 "Post Development Condition Overall Watershed Map" for overall post development watershed. The runoff coefficient "C" for PP-1 is a composite value of existing condition's "C" for the area that will remain undeveloped within the overall watershed and post development's "C" for the area that will be developed through this proposed subdivision. Refer to Attachment #6 "Overall Post Development Hydrologic Analysis Calculations" for overall watershed post development Hydrologic Calculations.

Discharge (Q)

Discharge (Q)											
		Calculated (in/hr)					Post Development/ Existing Conditions				
Area	Time of Conc. (min)	I-10	I-25	I-50	I-100	Area (acres)	"C"- 10yr	Q-10 (cfs)	Q-25 (cfs)	Q-50 (cfs)	Q-100 (cfs)
PP-1	24.00	4.03	4.76	5.32	5.88	73.42	0.34	101.52	131.65	160.59	184.85

Post development sub watersheds P-1 thru P-6 have acreages that vary from 0.65 to 3.45 acres respectively (refer to table below for acreage), were delineated based on the proposed grading plan, and where the existing drainage patterns will primarily remain the same as the natural existing conditions. Post development peak discharge rates were calculated using the rational method mentioned in Section II-A of this report. The hydrologic calculations of the post development conditions are computed as follows:

		Calculated (in/hr)					Post-Development Conditions				
Area	Time of Conc. (min)	I-10	I-25	I-50	I-100	Area (acres)	"C"-10yr	Q-10 (cfs)	Q-25 (cfs)	Q-50 (cfs)	Q-100 (cfs)
P-1	16.88	5.29	6.10	6.73	7.36	3.45	0.60	10.95	13.89	16.72	19.04
P-2	19.11	5.29	6.10	6.73	7.36	1.72	0.60	5.46	6.92	8.33	9.49
P-3	15.00	5.29	6.10	6.73	7.36	1.17	0.60	3.71	4.71	5.67	6.46
P-4	15.00	5.29	6.10	6.73	7.36	1.73	0.60	5.49	6.96	8.38	9.55
P-5	15.00	5.29	6.10	6.73	7.36	0.65	0.60	2.06	2.62	3.15	3.59
P-6	15.00	5.29	6.10	6.73	7.36	0.75	0.60	2.38	3.02	3.63	4.14

*Intensities used for the post conditions are as per table 2 in the appendix of EP construction manual for single family residential maximum recommend inlet time of 15 minutes.

Refer to Attachment #7 for Post Development Condition Sub-Watersheds Map. Refer to Attachment #8 "Post Development Hydrologic Analysis Calculations" for Post development Hydrologic Calculations.

The post development runoff will be conveyed by proposed grading through streets and channel easement following the natural drainage patterns that flow to a 3-run box culvert and ultimately discharge flow into the proposed detention pond to be platted with this subdivision that will be discussed in the following section.



The proposed channel is comprised of concrete lining and earthen sections and is designed to manage the design event, as per EP construction manual, from watersheds WS-1, P2, and P3 which yields a flow of 139 cfs. Using the manning's equation and the cross sections of the channel, a flow of 189 cfs was calculated to be the available Q within the channel design; This flow was calculated while also providing a half foot of freeboard as per EP construction manual. See Attachment #9 for Channel Cross Section Calculations.

The three runs of 16"X80" concrete box culverts shall receive the flow of the channel. The culvert has a slope of 0.58% and a maximum capacity of 170 cfs ending or discharging within the proposed detention pond at an invert elevation of 734.14. See Attachment #10 for Box Culvert Capacity Calculation.

C. Detention Pond Requirements

Runoff conveyed by proposed streets and channel mentioned in section "II.B" will be received by the box culverts mentioned above through 2-10ft inlets and a 15ft concrete flume respectively. The proposed box culverts ultimately discharge flow into a proposed detention facility within Santa Rosa Subdivision.

As per City of Eagle Pass Construction Specifications Manual – Division G, the proposed detention pond was analyzed to detain the increased stormwater runoff resulting from the proposed development for a 100-yr storm event while maintaining the required freeboard based on depth of flow. Although the mentioned manual specifies a required freeboard of 10% of the flow depth when the flow is 5-10ft deep, the proposed detention pond was analyzed to satisfy a 1ft freeboard instead of 0.6ft. Utilizing flows discussed in section II.A, the proposed 6ft deep detention pond will be discharging no more than the pre-development flow of a 100-yr storm at 178.07 cfs. The proposed detention pond will be receiving post development flow for a 100-yr storm of 184.85 cfs, and is designed to release flow of 176.98 cfs through an outlet structure consisting of 3 – 36" HDPE runs, while detaining 7.87 cfs. The proposed detention pond has a volume of 0.986 ac-ft which is confirmed to maintain the increased flow from the proposed development to have a maximum water surface elevation of 738.43 ft, while maintaining 1' freeboard to the top of the proposed pond at an elevation of 740.00 ft.

Watershed Area (acres)	Storm Event Flow (cfs)	Pre-Development (cfs)	Existing/ Post Development (cfs)
73.42	Q-10	99.70	101.52
	Q-25	128.06	131.65
	Q-50	155.37	160.59
	Q-100	178.07	184.85

Refer to Attachment #11 "PondPack Master Report for Proposed Detention Facility" For detention volumes, pond analysis calculations, and outlet structure report.

III. Water Service

Water is available at the boundary of the project site through a water main owned by Eagle Pass Waterworks and Sewer System (EPWWS) which is proposed to be extended to feed each individual lot. Improvements for the proposed development include a tie-in to the mentioned existing City of Eagle Pass 12" waterline, and extend it down Street A for approximately 1,281.50 LF including single and double services (to serve each individual lot), fire hydrants, air release valves, etc. Streets B, C, and D will tee from the main on Street A for an average extension of 211 LF to end at a fire hydrant assembly at each cul-de-sac.

Demand flows specified in City of Eagle Pass Waterworks and Sewer System Code (EPWWS), were used in the analysis for the design of the waterline serving the proposed development. Based on water demand calculations a 6" waterline is the minimum adequate but an 8" pipe recommended for the development which is calculated to accommodate for the average day demand of 165 gal/capita/day, peak day demand of 500 gal/capita/day, and peak hour demand of 750 gal/capita/day. Refer to table below for water demand calculations summary.

PHASE	# OF UNITS	CAPACITY/UNIT	AVERAGE DAY DEMAND (GPD)	PEAK DAY DEMAND (GPD)	PEAK FLOW (GPD)	PEAK FLOW (GPM)	PEAK FLOW (CFS)	MINIMUM PIPE DIAMETER (IN)	RECOMMENDED MINIMUM PIPE DIAMETER (IN)
Santa Rosa Subdivision	54	4	165	500	108,000	75.00	0.17	3.92	8

IV. Sanitary Sewer Service

Sewer system owned by Eagle Pass Waterworks and Sewer System (EPWWS) is available at the intersection nearest the site location at CR 251 and Rosita Valley Rd., which is proposed to be extended to service each individual lot. Wastewater improvements for the proposed development include a tie-in to the mentioned existing City of Eagle Pass 8" sanitary sewer line manhole, and extend it for approximately 1,611 LF including single and double services (to serve each individual lot), manholes, and cleanouts. Likewise, the connecting streets will tie-into intersecting manholes with an average linear footage of 176 LF.

Parameters used in the sewer demand calculations include the average day flow for a single family of 100 gal/capita/day specified in EPWWS code, an average of 4 people per dwelling unit, and a peak factor (M); where $M = 1 + 14 / (4 + P^{0.5})$, and P= the population serve (thousands). A 6" sewer line is the minimum pipe required but an 8" pipe is recommended for the proposed development, calculations summary listed below.

PHASE	# OF UNITS	CAPACITY/UNIT	FLOW (GPD)	AVERAGE FLOW (GPD)	AVERAGE FLOW (GPM)	EPWWS PEAKING FACTOR (M)	PEAK FLOW (GPM)	PEAK FLOW (CFS)	Roughness (n)	Minimum Slope (ft/ft)	Minimum Diameter (IN)	RECOMMENDED MINIMUM PIPE DIAMETER (IN)
Santa Rosa Subdivision	54	4	100	21,600	15.00	4.14	63.15	0.14	0.013	0.0033	4.41	8

V. Streets

Streets proposed within this development will consist of the extension of one street, "Street A" to be extended for 1230 LF that extends from existing Rosita Valley Rd., and three perpendicular extensions off of Street A; Streets B, C, and D to be extended for an average street length of 156 LF. Width of Right-Of-Way (ROW) of each street is proposed at 50', consisting of a paved area with concrete curb and gutter for a total width of 31' B/B. As we are crossing an existing drainage course, the curb and gutter of the streets have been designed to hold the 25-yr



capacity for all post and offsite pre-development flows that will contribute to the natural drainage course. Refer to attachments #12 for off-site pre development hydrologic analysis calculations. As well as attachment #7 for Post Development Condition Sub-Watersheds Map and #13 for Street Capacity Calculations. As per City of Eagle Pass Code of Ordinances, all the proposed streets classify as minor streets and shall have a minimum design grade of 0.20% and a maximum of 7.0%.

VI. Parkland Dedication

As this proposed project is in the ETJ limits, it is our understanding that Maverick County requires a park development fee for single family development. The developer shall contribute a fee of \$575 per dwelling unit for single family. Also, as per City of Eagle Pass Code of Ordinances, Santa Rosa Subdivision is classified as a major residential subdivision. Developers of major subdivisions with fifty (50) lots or more may be required to dedicate parkland, then the Planning & Zoning Commission will decide if the proposed dedicated property is desirable, if not, developer shall pay cash contribution in lieu of parkland dedication.

In our parkland dedication assessment, we are proposing a combination of parkland dedication plus cash contribution in lieu of parkland. Formula used to determine the parkland dedication was obtained from City of Eagle Pass Code of Ordinances; where:

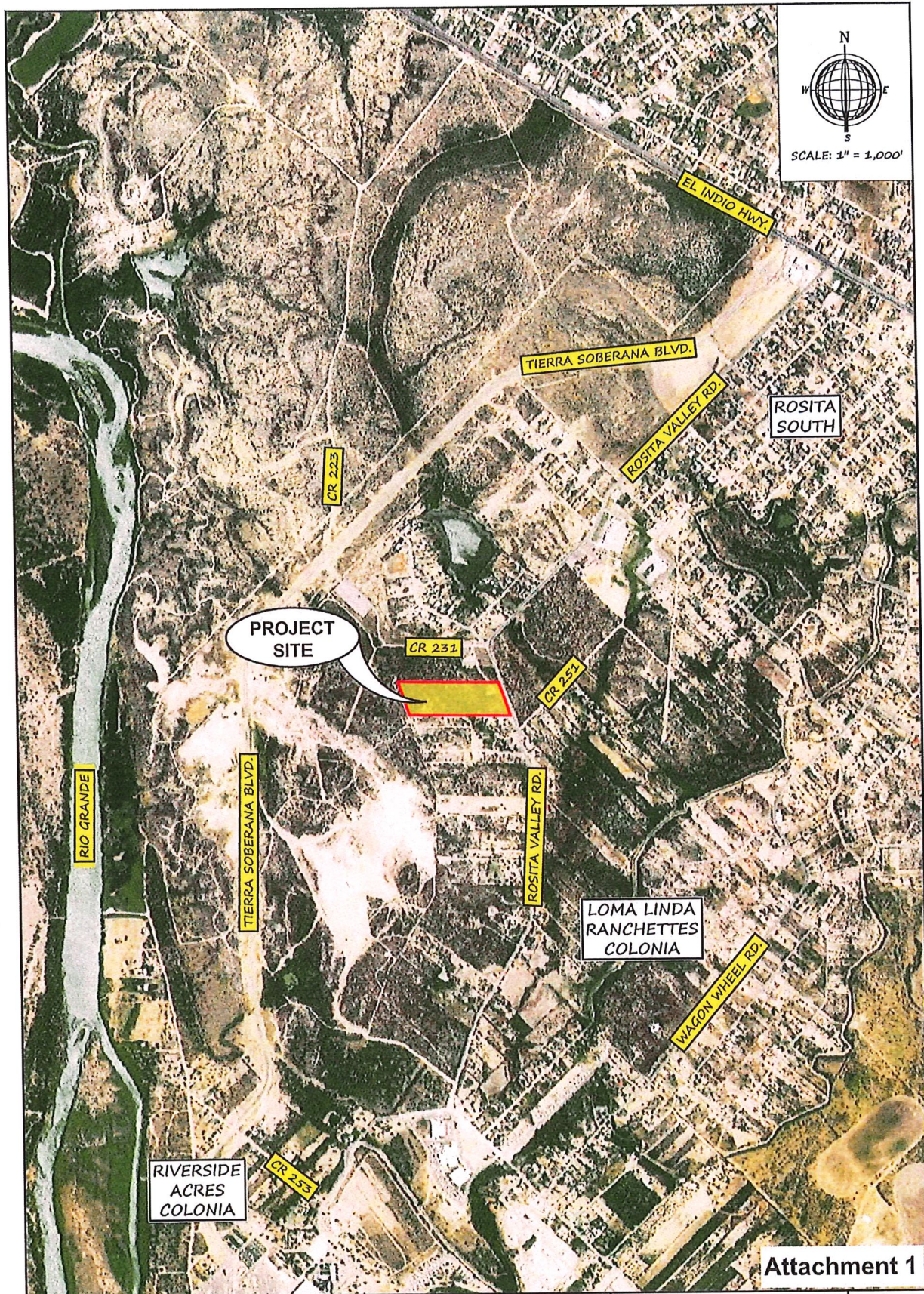
$$\text{Acres to be dedicated} = \frac{(8) \times (\text{number of units}) \times (3.6 \text{ persons/unit (for single family)})}{1000}$$

$$\text{Cash contribution in lieu of parkland} = 575 \times \text{Number of units}$$

The following table represent our findings of Cash contribution in lieu of parkland requirement compared to the proposed combination of parkland dedication and cash contribution, followed by calculations break down:

Santa Rosa Subdivision	Number of Dwelling Units for Single Family	Required Parkland Dedication as Per City Requirement (Acres)	Cash Contribution In Lieu of Parkland Dedication	Proposed Parkland Dedication (Acres)	Proposed Cash Contribution in Addition of Proposed Parkland Dedication
Proposed layout after parkland dedication	54	1.56	\$31050	0.57	\$19717

After dedicating parkland, Santa Rosa Subdivision will consist of 54 lots, which as per City of Eagle Pass will result in a required total of parkland dedication of 1.56 acres. We are proposing to dedicate 36.5% of the required parkland which results in dedicating 0.57 acres. In addition, we are proposing cash contribution for the remaining 63.5% of a total of \$19,717.00.



SCALE: 1" = 1,000'

Attachment 1



CRANE ENGINEERING CORP.
 1310 JUNCTION DRIVE
 LAREDO, TX 78041
 FIRM REGISTRATION NO. F-3353

SUITE B
 956-712-1996

Santa Rosa Subdivision

Location Map

1

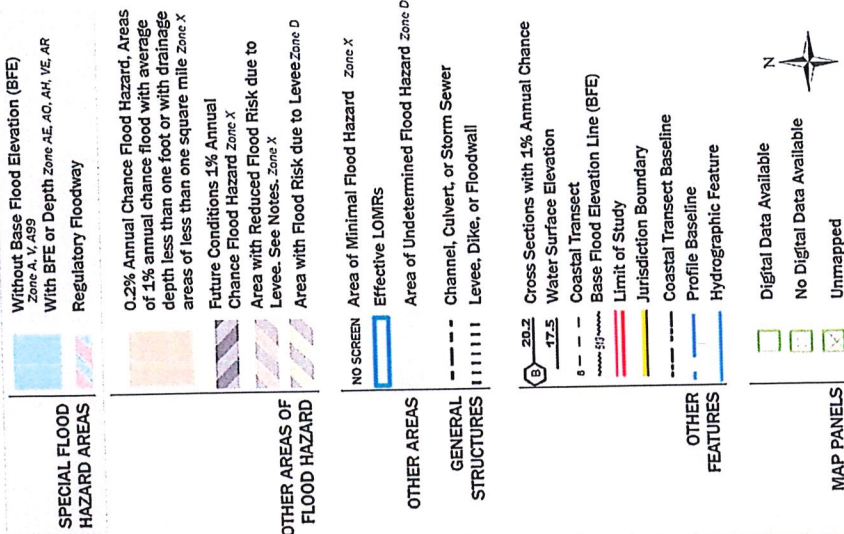
National Flood Hazard Layer FIRMette



ATTACHMENT #2

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

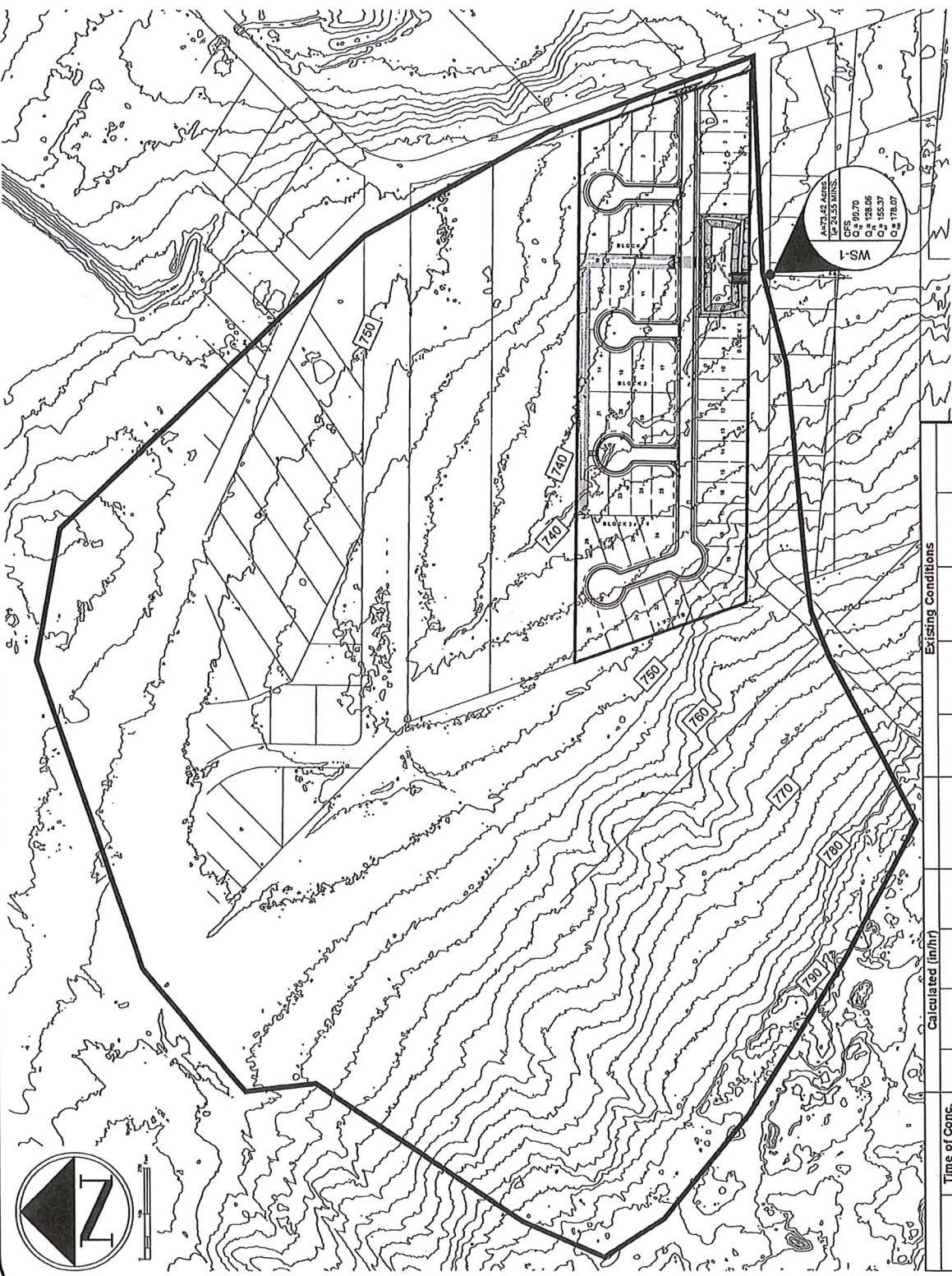


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This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/16/2021 at 7:08 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



CRANE ENGINEERING CORP.
11111 CRANE DRIVE
DALLAS, TX 75243
PHONE: (214) 343-1111
FAX: (214) 343-1112
WWW.CRANEENGINEERING.COM

Attachment #3

CRANE ENGINEERING CORP.
11111 CRANE DRIVE
DALLAS, TX 75243
PHONE: (214) 343-1111
FAX: (214) 343-1112
WWW.CRANEENGINEERING.COM

SANTA ROSA SUBDIVISION
EAGLE PASS, TX

3

		Calculated (in/hr)					Existing Conditions				

GENERAL NOTES:



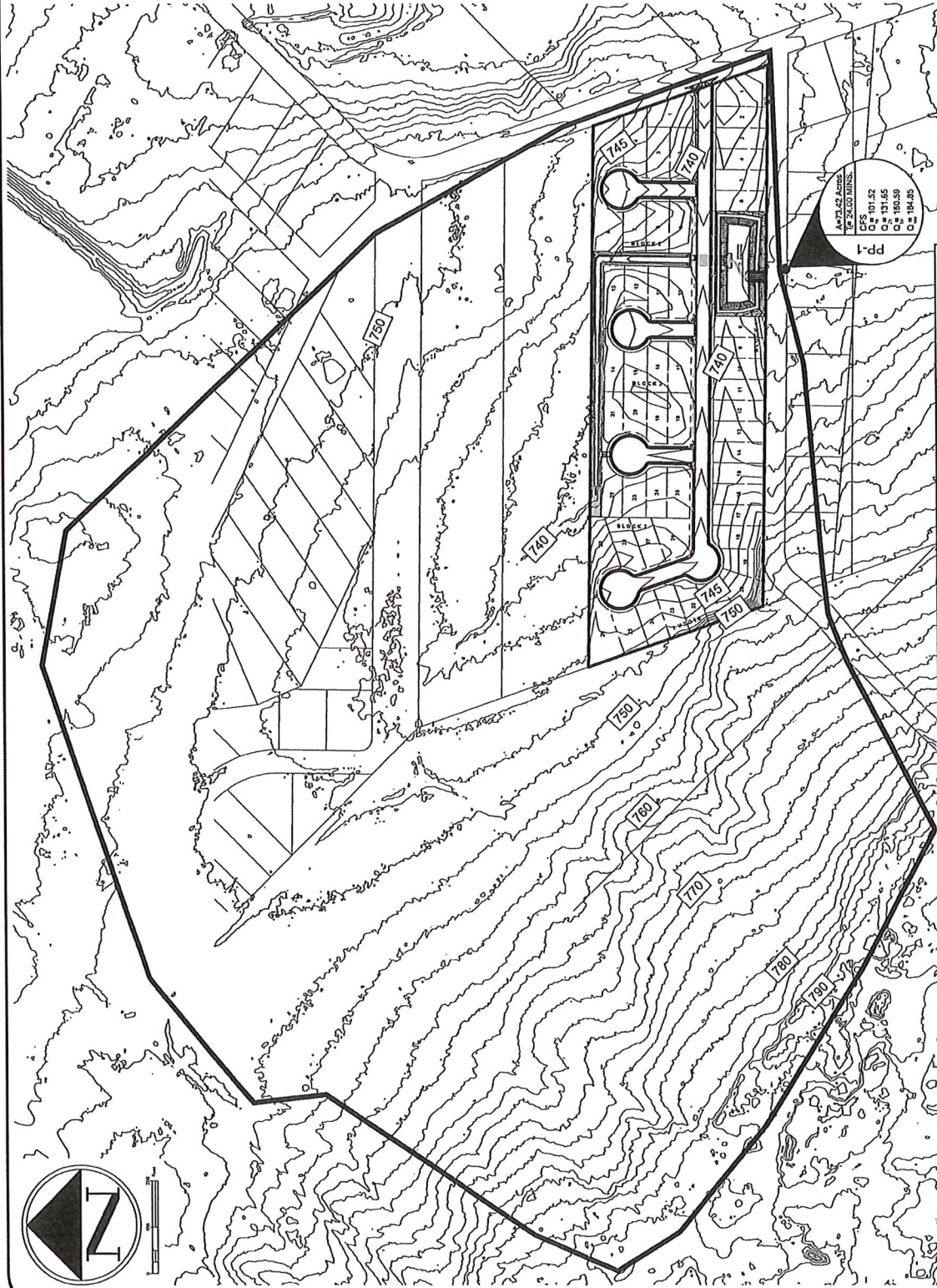
Attachment #5

No.	Revision/Name	Date

PREPARED AND CHECKED BY
CRANE ENGINEERING CORP.
 10000 N. DALLAS STREET
 DALLAS, TX 75243
 PHONE: (214) 343-1111
 FAX: (214) 343-1112
 E-MAIL: info@crane-engineering.com

PROJECT NAME AND ADDRESS
SANTA ROSA SUBDIVISION
 EAGLE PASS, TX
 PROJECT NO.
 POST DEVELOPMENT OVERALL WATERSHED

DATE	9/3/2021
SCALE	H: 1"=100'
SHEET NO.	3



		Post Development/ Existing Conditions									
		Calculated (in/hr)									
Area	Time of Conc. (min)	I-10	I-25	I-50	I-100	Area (acres)	"C"-10yr	Q-10 (cfs)	Q-25 (cfs)	Q-50 (cfs)	Q-100 (cfs)
PP-1	24.00	4.03	4.76	5.32	5.88	73.42	0.34	101.52	131.65	160.59	184.85

SANTA ROSA SUBDIVISION
POST DEVELOPMENT HYDROLOGY ANALYSIS

Formulas:

Rational Method ($Q=CIA$)

$$T_c = \frac{.007 (nL)^{.8}}{P^{.5} S^{.4}}$$

$$T_c = \frac{L}{3600V}$$

$$V_{Shallow} = 16.1345\sqrt{S} (Unpaved)$$

$$V_{Shallow} = 20.3282\sqrt{20.3282} (Paved)$$

Time of Concentration (T_c)

Post Development (PP-1)	Reach	Length (L)	Manning's "n"	Slope (s)	Two-yr 24-hr Rainfall	Cross-Sectional Area (A)	Wetted Perimeter (Pw)	Hydraulic Radius (Rh)	Velocity (V)	Time (t)
Sheet Flow		100.00	0.100	6.00%	3.80	N/A	N/A	N/A	N/A	4.2
Shallow Concentrated 1		2157.00	-	2.00%	3.80	N/A	N/A	N/A	2.28	15.8
Shallow Concentrated 2		696.00	-	2.00%	3.80	N/A	N/A	N/A	2.87	4.0
										24.0

Discharge (Q)

Discharge (Q)		Calculated (in/hr)					Post Development/ Existing Conditions				
Area	Time of Conc. (min)	I-10	I-25	I-50	I-100	Area (acres)	"C"-10yr	Q-10 (cfs)	Q-25 (cfs)	Q-50 (cfs)	Q-100 (cfs)
PP-1	24.00	4.03	4.76	5.32	5.88	73.42	0.34	101.52	131.65	160.59	184.85

NOTES:
- C VALUE FOR PP-1 IS A COMPOSITE FACTOR TO INCLUDE A POST AND PRE CONDITION FLOW VALUES FOR DETENTION PURPOSES.

NOTES:
1. WATERSHED FLOODS TO ACCOUNT FOR
PROPOSED DEVELOPMENT TO BE CALCULATED
EXTENDING TO THE SUBDIVISION LINE.



Attachment #7

No.	Revision/Issue	Date

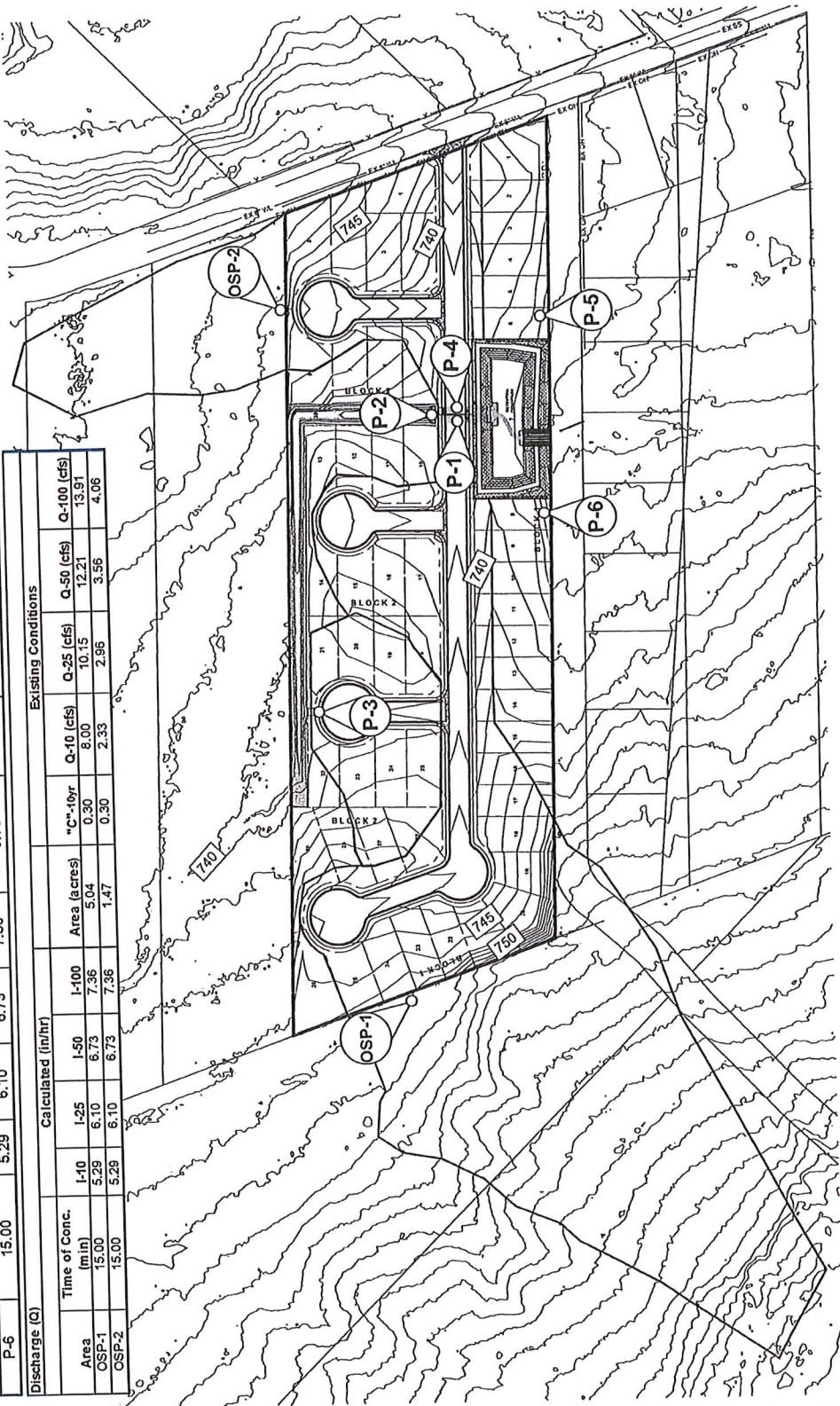
CRANE ENGINEERING CORP.
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SANTA ROSA SUBDIVISION
EAGLE PASS, TX
POST DEVELOPMENT SUB-WATERSHEDS

9/3/2021
4
H: 1"=70'

Discharge (Q)		Calculated (in/hr)				Post-Development Conditions			
		Time of Conc. (min)	I-10	I-25	I-50	I-100	Area (acres)	"C"-10yr	Q-10 (cfs)
Area									
P-1		16.88	5.29	6.10	6.73	7.36	3.45	0.60	10.95
P-2		19.11	5.29	6.10	6.73	7.36	1.72	0.60	5.46
P-3		15.00	5.29	6.10	6.73	7.36	1.17	0.60	3.71
P-4		15.00	5.29	6.10	6.73	7.36	1.73	0.60	5.49
P-5		15.00	5.29	6.10	6.73	7.36	0.65	0.60	2.06
P-6		15.00	5.29	6.10	6.73	7.36	0.75	0.60	2.36
									3.02
									3.63
									4.14

Discharge (Q)		Calculated (in/hr)				Existing Conditions			
		Time of Conc. (min)	I-10	I-25	I-50	I-100	Area (acres)	"C"-10yr	Q-10 (cfs)
Area									
OSP-1		15.00	5.29	6.10	6.73	7.36	5.04	0.30	8.00
OSP-2		15.00	5.29	6.10	6.73	7.36	1.47	0.30	2.33
									2.95
									3.56
									4.06



**SANTA ROSA SUBDIVISION
HYDROLOGY ANALYSIS**

Formulas:
Rational Method (Q=CIA)

Time of Concentration (Tc)

$$T_c = \frac{.007 (nL)^{.8}}{P^{.5} S^{.4}}$$

$$T_c = \frac{L}{3600V}$$

$$V_{Shallow} = 16.1345\sqrt{S} (Unpaved)$$

$$V_{Shallow} = 20.3282\sqrt{20.3282} (Paved)$$

Post Development (P-1)	Reach	Length (L)	Manning's "n"	Slope (s)	Two-yr 24-hr Rainfall	Cross-Sectional Area (A)	Wetted Perimeter (Pw)	Hydraulic Radius (Rh)	Velocity (V)	Time (t)
Sheet Flow		100.00	0.100	2.30%	3.80	N/A	N/A	N/A	N/A	6.15
Shallow Concentrated 1		900.00	-	0.75%	3.80	N/A	N/A	N/A	1.40	10.74
										16.88

Post Development (P-2)	Reach	Length (L)	Manning's "n"	Slope (s)	Two-yr 24-hr Rainfall	Cross-Sectional Area (A)	Wetted Perimeter (Pw)	Hydraulic Radius (Rh)	Velocity (V)	Time (t)
Sheet Flow		100.00	0.100	3.60%	3.80	N/A	N/A	N/A	N/A	5.14
Shallow Concentrated 1		800.00	-	0.35%	3.80	N/A	N/A	N/A	0.95	13.97
										19.11

Post Development (P-3)	Reach	Length (L)	Manning's "n"	Slope (s)	Two-yr 24-hr Rainfall	Cross-Sectional Area (A)	Wetted Perimeter (Pw)	Hydraulic Radius (Rh)	Velocity (V)	Time (t)
Sheet Flow		100.00	0.100	1.50%	3.80	N/A	N/A	N/A	N/A	7.29
Shallow Concentrated 1		136.00	-	0.56%	3.80	N/A	N/A	N/A	1.21	1.88
										9.17

Post Development (P-4)	Reach	Length (L)	Manning's "n"	Slope (s)	Two-yr 24-hr Rainfall	Cross-Sectional Area (A)	Wetted Perimeter (Pw)	Hydraulic Radius (Rh)	Velocity (V)	Time (t)
Sheet Flow		100.00	0.020	3.40%	3.80	N/A	N/A	N/A	N/A	1.45
Shallow Concentrated 1		335.00	-	2.80%	3.80	N/A	N/A	N/A	3.40	1.64
										3.09

Post Development (P-5)	Reach	Length (L)	Manning's "n"	Slope (s)	Two-yr 24-hr Rainfall	Cross-Sectional Area (A)	Wetted Perimeter (Pw)	Hydraulic Radius (Rh)	Velocity (V)	Time (t)
Sheet Flow		100.00	0.020	4.20%	3.80	N/A	N/A	N/A	N/A	1.33
Shallow Concentrated 1		0.00	-	0.00%	3.80	N/A	N/A	N/A	0.06	0.00
										1.33

Post Development (P-6)	Reach	Length (L)	Manning's "n"	Slope (s)	Two-yr 24-hr Rainfall	Cross-Sectional Area (A)	Wetted Perimeter (Pw)	Hydraulic Radius (Rh)	Velocity (V)	Time (t)
Sheet Flow		100.00	0.020	2.30%	3.80	N/A	N/A	N/A	N/A	1.70
Shallow Concentrated 1		75.00	-	1.80%	3.80	N/A	N/A	N/A	2.73	0.46
										2.15

Discharge (Q)		Calculated (In/hr)					Post-Development Conditions				
Area	Time of Conc. (min)	I-10	I-25	I-50	I-100	Area (acres)	"C"-10yr	Q-10 (cfs)	Q-25 (cfs)	Q-50 (cfs)	Q-100 (cfs)
P-1	16.88	5.29	6.10	6.73	7.36	3.45	0.60	10.95	13.89	16.72	19.04
P-2	19.11	5.29	6.10	6.73	7.36	1.72	0.60	5.46	6.92	8.33	9.49
P-3	15.00	5.29	6.10	6.73	7.36	1.17	0.60	3.71	4.71	5.67	6.46
P-4	15.00	5.29	6.10	6.73	7.36	1.73	0.60	5.49	6.96	8.38	9.55
P-5	15.00	5.29	6.10	6.73	7.36	0.65	0.60	2.06	2.62	3.15	3.59
P-6	15.00	5.29	6.10	6.73	7.36	0.75	0.60	2.38	3.02	3.63	4.14

ATTACHMENT #8

**HYDRAULIC ANALYSIS OF OPEN CHANNEL
DESIGN FOR SANTA ROSA SUBDIVISION**

CONCRETE CHANNEL:

Channel Description	Design Storm Event	Design Flow (cfs)	Channel Flow Capacity (cfs)	Slope (%)	Channel Depth (ft)	Bottom Width (ft)	Top Width (ft)	Lateral Slope (X:1)	Velocity (ft/s)
3+75 to 6+85	25-yr	139	221	0.35	2.25	5	18.5	3	8.36
1+70 to 3+25	25-yr	139	256	0.35	2.25	8	17	2	9.08
0+12.50 to 1+50	25-yr	139	305	0.35	2.25	10	19	2	9.35



ATTACHMENT #9

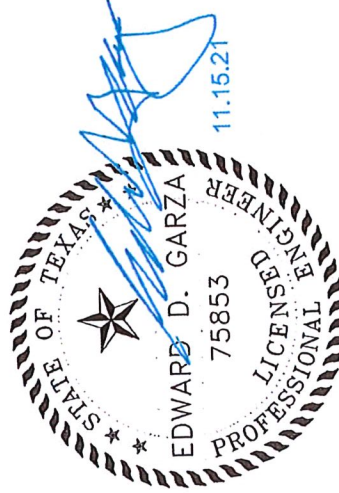
11/15/2021

SANTA ROSA SUBDIVISION
HYDRAULIC ANALYSIS

Box Culvert Analysis									
Design Storm Event	Design Flow (cfs)	Culvert Crossing Flow Capacity (cfs)	Slope (%)	Manning's Coefficient (n)	Material Type	Culvert Width (ft)	Culvert Height (ft)	Pipe Runs	Velocity (ft/s)
25-yr	139	139	0.42	0.012	Concrete	5.00	1.33	4	5.23

NOTES:
- THE MANNINGS EQUATION WAS USED TO DERIVE THE CAPACITY FOR THE BOX CULVERT ANALYSIS.

$$Q = \frac{1.49}{n} (A) (R)^{\frac{2}{3}} (S)^{\frac{1}{2}}$$



ATTACHMENT #10

Santa Rosa Subdivision
Watershed Calculations

11/17/21

Modified Rational Method

$Q = CiA * \text{Units Conversion; Where conversion} = 43560 / (12 * 3600)$

Pre-Development Condition

Frequency (years)	Area (acres)	Adjusted C Coefficient	Duration (hours)	Intensity (in/h)	Flow (Peak) (ft ³ /s)	Flow (Allowable) (ft ³ /s)	Volume (inflow) (ac-ft)	Volume (Storage) (ac-ft)
10	73.420	0.300	0.409	4.489	99.70	99.70	7.639	0.000
25	73.420	0.330	0.409	5.242	128.06	128.06	7.639	0.000
50	73.420	0.360	0.409	5.830	155.37	155.37	7.639	0.000
100	73.420	0.375	0.409	6.414	178.07	178.07	7.639	0.000

Post Development Condition

Frequency (years)	Area (acres)	Adjusted C Coefficient	Duration (hours)	Intensity (in/h)	Flow (Peak) (ft ³ /s)	Flow (Allowable) (ft ³ /s)	Volume (inflow) (ac-ft)	Volume (Storage) (ac-ft)
10	73.420	0.340	0.500	4.033	101.52	99.70	4.195	0.255
25	73.420	0.374	0.500	4.755	131.65	128.06	5.440	0.358
50	73.420	0.408	0.500	5.317	160.59	155.37	6.636	0.455
100	73.420	0.425	0.500	5.875	184.85	178.07	7.639	0.541

Santa Rosa Hydrology.ppc
11/17/2021

Bentley Systems, Inc. Haestad Methods Solution
Center
27 Siemon Company Drive Suite 200 W
Watertown, CT 06795 USA +1-203-755-1666

PondPack CONNECT Edition
[10.02.00.01]

ATTACHMENT #11

Santa Rosa Subdivision

Time of Concentration Calculations

11/17/21

Subsection: Time of Concentration Calculations (Pre-Development)

Return Event: 10, 25, 50, 100 years

Label: Santa Rosa Watershed

Storm Event: EP-Hydro 35 - 10, 25, 50, 100 Year

Scenario: Pre Development 10yr

Time of Concentration Results (Pre-Development)

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00 ft
Manning's n	(N/A)
Slope	0.060 ft/ft
2 Year 24 Hour Depth	3.8 in
Average Velocity	0.40 ft/s
Segment Time of Concentration	0.070 hours

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	2,788.00 ft
Is Paved?	False
Slope	0.020 ft/ft
Average Velocity	2.28 ft/s
Segment Time of Concentration	0.339 hours

Time of Concentration (Composite)

Time of Concentration (Composite)	0.409 hours = 24.5 minutes
-----------------------------------	----------------------------

==== SCS Channel Flow

$$T_c = \frac{R = Q_a / W_p}{V = (1.49 * (R^{2/3}) * (S_f^{0.5})) / n}$$

Where:

- $(L_f / V) / 3600$
- R= Hydraulic radius
- Aq= Flow area, square feet
- Wp= Wetted perimeter, feet
- V= Velocity, ft/sec
- Sf= Slope, ft/ft
- n= Manning's n
- Tc= Time of concentration, hours
- Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

$$T_c = \frac{\text{Unpaved surface:}}{V = 16.1345 * (S_f^{0.5})}$$

$$\text{Paved Surface:}$$

$$V = 20.3282 * (S_f^{0.5})$$

Where:

- $(L_f / V) / 3600$
- V= Velocity, ft/sec
- Sf= Slope, ft/ft
- Tc= Time of concentration, hours
- Lf= Flow length, feet

Santa Rosa Subdivision

Time of Concentration Calculations

11/17/21

Subsection: Time of Concentration Calculations (Post-Development)

Label: Santa Rosa Watershed

Scenario: Post Development 10yr

Return Event: 10, 25, 50, 100 years

Storm Event: EP-Hydro 35 - 10, 25, 50, 100 Year

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	100.00 ft
Manning's n	0.100
Slope	0.060 ft/ft
2 Year 24 Hour Depth	3.8 in
Average Velocity	0.40 ft/s
Segment Time of Concentration	0.070 hours

Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	2,157.00 ft
Is Paved?	False
Slope	0.020 ft/ft
Average Velocity	2.28 ft/s
Segment Time of Concentration	0.263 hours

Segment #3: TR-55 Shallow Concentrated Flow	
Hydraulic Length	696.00 ft
Is Paved?	True
Slope	0.020 ft/ft
Average Velocity	2.87 ft/s
Segment Time of Concentration	0.067 hours

Time of Concentration (Composite)	
Time of Concentration (Composite)	0.400 hours = 24 minutes

==== SCS Channel Flow

$$T_c = \frac{R}{Q_a / W_p}$$

$$V = (1.49 * (R^{2/3}) * (Sf^{*-0.5})) / n$$

Where:

$(L_f / V) / 3600$

R= Hydraulic radius

Aq= Flow area, square feet

Wp= Wetted perimeter, feet

V= Velocity, ft/sec

Sf= Slope, ft/ft

n= Manning's n

Tc= Time of concentration, hours

Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

$$T_c = \frac{V}{16.1345 * (Sf^{*0.5})}$$

$$V = 20.3282 * (Sf^{*0.5})$$

Where:

$(L_f / V) / 3600$

V= Velocity, ft/sec

Sf= Slope, ft/ft

Tc= Time of concentration, hours

Lf= Flow length, feet

Santa Rosa Subdivision Detention Pond

11/17/21

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft ³ /s)
Santa Rosa Watershed	Post -Development 100yr	100	7.639	0.400	184.85

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
Santa Rosa Pond (IN)	Post -Development 100yr	100	7.639	0.400	184.85	(N/A)	(N/A)
Santa Rosa Pond (OUT)	Post -Development 100yr	100	7.639	0.500	176.98	738.43	0.986

Label: Santa Rosa Pond

Return Event: 100 years

Scenario: Post -Development 100yr

Storm Event: EP-Hydro 35 - 100 Year

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ac-ft)	Volume (Total) (ac-ft)
734.14	0.0	0.160	0.000	0.000	0.000
735.00	0.0	0.190	0.524	0.150	0.150
736.00	0.0	0.220	0.614	0.205	0.355
737.00	0.0	0.250	0.705	0.235	0.590
738.00	0.0	0.290	0.809	0.270	0.860
739.00	0.0	0.320	0.915	0.305	1.165
740.00	0.0	0.430	1.121	0.374	1.538

Pond Volume Equations

* Incremental volume computed by the Conic Method for Reservoir Volumes.

$$\text{Volume} = (1/3) * (\text{EL2} - \text{EL1}) * (\text{Area1} + \text{Area2} + \text{sqr}(\text{Area1} * \text{Area2}))$$

where: EL1, EL2 Lower and upper elevations of the increment
Area1, Area2 Areas computed for EL1, EL2, respectively
Volume Incremental volume between EL1 and EL2

Santa Rosa Subdivision

Level Pool Pond Routing Summary

11/17/21

Subsection: Level Pool Pond Routing Summary

Label: Santa Rosa Pond (IN)

Scenario: Post -Development 100yr

Return Event: 100 years

Storm Event: EP-Hydro 35 - 100 Year

Infiltration

Infiltration Method (Computed)	No Infiltration
--------------------------------	-----------------

Initial Conditions

Elevation (Water Surface, Initial)	734.14 ft
Volume (Initial)	0.000 ac-ft
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	0.050 hours

Inflow/Outflow Hydrograph Summary

Flow (Peak In)	184.85 ft ³ /s	Time to Peak (Flow, In)	0.400 hours
Flow (Peak Outlet)	176.98 ft ³ /s	Time to Peak (Flow, Outlet)	0.500 hours

Elevation (Water Surface, Peak)	738.43 ft
Volume (Peak)	0.986 ac-ft

Mass Balance (ac-ft)

Volume (Initial)	0.000 ac-ft
Volume (Total Inflow)	7.639 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	7.639 ac-ft
Volume (Retained)	0.000 ac-ft
Volume (Unrouted)	0.000 ac-ft
Error (Mass Balance)	0.0 %

Santa Rosa Hydrology - Updated.ppc
11/17/2021

Bentley Systems, Inc. Haestad Methods Solution
Center
27 Siemon Company Drive Suite 200 W
Watertown, CT 06795 USA +1-203-755-1666

PondPack CONNECT Edition
[10.02.00.01]

Santa Rosa Subdivision
Outlet Structure

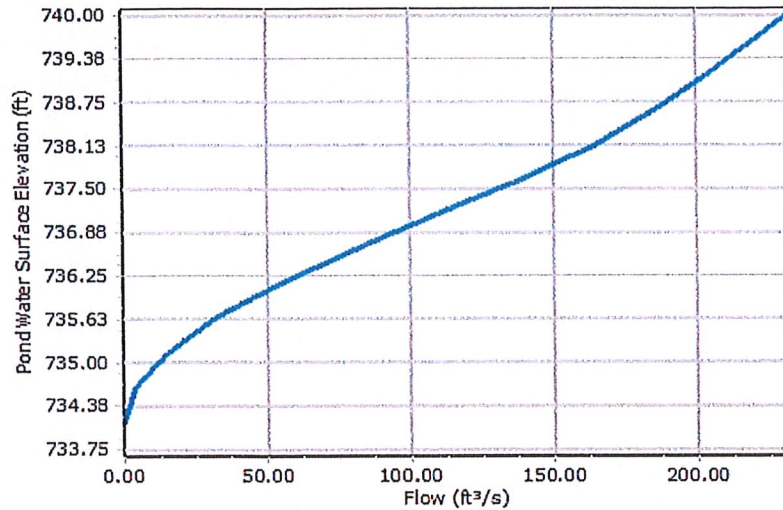
11/17/21

Composite Outlet Structure Detailed Report: Composite Outlet Structure

Element Details			
Label	Composite Outlet Structure	Notes	
Headwater Range			
Headwater Type	User Defined	Increment (Headwater)	0.50 ft
Minimum (Headwater)	Headwater 734.14 ft	Maximum (Headwater)	740.00 ft
SpotElevation (ft)			
Tailwater Setup			
Tailwater Type	Free Outfall		
Tailwater Tolerances			
Maximum Iterations	30	Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft	Flow Tolerance (Minimum)	0.001 ft³/s
Headwater Tolerance (Maximum)	0.50 ft	Flow Tolerance (Maximum)	10.000 ft³/s
Tailwater Tolerance (Minimum)	0.01 ft		
Outlet Structure			
Outlet Structure Type	Culvert	Culvert Type	Circular
Outlet Structure (IDs and Direction)			
Outlet ID	Culvert - 1	Downstream ID	Tailwater
Flow Direction	Forward and Reverse Flow	Notes	
Outlet Structure (Advanced)			
Elevation (On)	0.00 ft	Elevation (Off)	0.00 ft
Culvert Data			
Number of Barrels	3	Downstream Invert	733.61 ft
Length	40.00 ft	Diameter	36.0 in
Upstream Invert	734.14 ft		
Unsubmerged->Submerged			
Specify Transitions	False	Compute Inlet Control Only	False
Culvert Coefficients			
Inlet Description	Concrete - Groove end projecting	C	0.0317
Chart	Chart 1	Y	0.6900
Nomograph	Nomograph 3	Manning's n	0.013
Equation Form	Form 1	Ke	0.200
K	0.0045	Kr	0.000
M	2.0000	Slope Correction Factor	0.000
Culvert (Advanced)			
Convergence Tolerance	0.00 ft	Specify Number of Backwater Sections	False

Santa Rosa Subdivision
Outlet Structure

11/17/21



RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Culvert - 1 (Culvert-Circular)

Mannings open channel maximum capacity: 82.58 ft³/s

Upstream ID = (Pond Water Surface)

Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft³/s)	Tailwater Elevation (ft)	Convergence Error (ft)	Computation Messages
734.14	0.00	(N/A)	0.00	Upstream HW & DNstream TW < Inv.El
734.64	3.94	(N/A)	0.00	CRIT.DEPTH CONTROL Vh= .121ft Dcr=
735.14	15.07	(N/A)	0.00	CRIT.DEPTH CONTROL Vh= .248ft Dcr=
735.64	32.44	(N/A)	0.00	CRIT.DEPTH CONTROL Vh= .382ft Dcr=
736.14	54.80	(N/A)	0.00	CRIT.DEPTH CONTROL Vh= .526ft Dcr=
736.64	81.02	(N/A)	0.00	CRIT.DEPTH CONTROL Vh= .684ft Dcr=
737.14	109.72	(N/A)	0.00	CRIT.DEPTH CONTROL Vh= .861ft Dcr=
737.64	139.34	(N/A)	0.00	CRIT.DEPTH CONTROL Vh= 1.066ft
738.14	165.44	(N/A)	0.00	INLET CONTROL... Submerged: HW
738.64	185.68	(N/A)	0.00	INLET CONTROL... Submerged: HW
739.14	203.85	(N/A)	0.00	INLET CONTROL... Submerged: HW
739.64	220.58	(N/A)	0.00	INLET CONTROL... Submerged: HW
740.00	231.89	(N/A)	0.00	INLET CONTROL... Submerged: HW

Santa Rosa Subdivision Outlet Structure

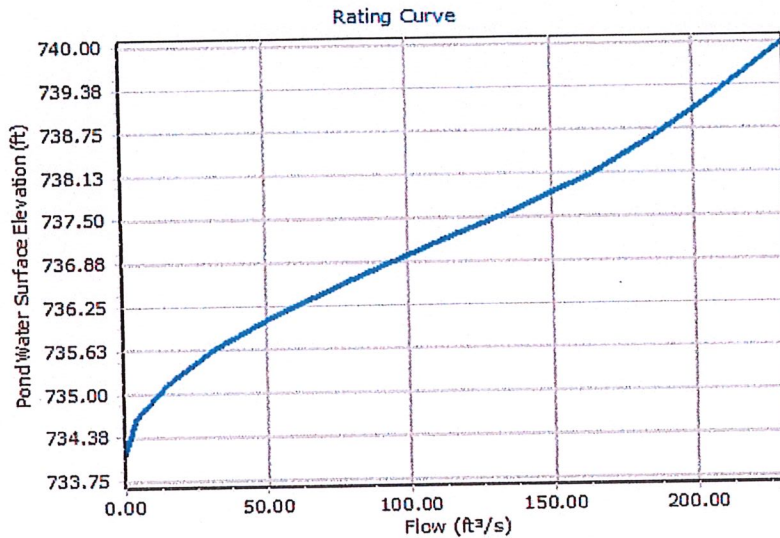
11/17/21

Composite Rating Table

Tailwater Elevation = Free Outfall (Composite Outlet Structure)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)	Contributing Structures
---------------------------------	------------------------------	-----------------------------	---------------------------	-------------------------

734.14	0.00	(N/A)	0.00	None Contributing
734.64	3.94	(N/A)	0.00	Culvert - 1
735.14	15.07	(N/A)	0.00	Culvert - 1
735.64	32.44	(N/A)	0.00	Culvert - 1
736.14	54.80	(N/A)	0.00	Culvert - 1
736.64	81.02	(N/A)	0.00	Culvert - 1
737.14	109.72	(N/A)	0.00	Culvert - 1
737.64	139.34	(N/A)	0.00	Culvert - 1
738.14	165.44	(N/A)	0.00	Culvert - 1
738.64	185.68	(N/A)	0.00	Culvert - 1
739.14	203.85	(N/A)	0.00	Culvert - 1
739.64	220.58	(N/A)	0.00	Culvert - 1
740.00	231.89	(N/A)	0.00	Culvert - 1



Santa Rosa Hydrology .ppc
11/17/2021

Bentley Systems, Inc. Haeslad Methods Solution
Center
27 Siemon Company Drive Suite 200 W
Watertown, CT 06795 USA +1-203-755-1666

PondPack CONNECT Edition
[10.02.00.01]

Santa Rosa Subdivision
HYDROLOGY ANALYSIS

Formulas:

Rational Method ($Q=CIA$)

$$T_c = \frac{.007 (nL)^{.8}}{P^{.5} S^{.4}}$$

$$T_c = \frac{L}{3600V}$$

Time of Concentration (T_c)

$$V_{Shallow} = 16.1345\sqrt{S} (Unpaved)$$

$$V_{Shallow} = 20.3282\sqrt{20.3282} (Paved)$$

Predevelopment (OSP-1)	Reach	Length (L)	Manning's "n"	Slope (s)	Two-yr 24-hr Rainfall	Cross-Sectional Area (A)	Wetted Perimeter (Pw)	Hydraulic Radius (Rh)	Velocity (V)	Time (t)
Sheet Flow		100.00	0.100	7.10%	3.80	N/A	N/A	N/A	N/A	3.92
Shallow Concentrated 1		615.00	-	5.00%	3.80	N/A	N/A	N/A	3.61	2.84
										6.76

Predevelopment (OSP-2)	Reach	Length (L)	Manning's "n"	Slope (s)	Two-yr 24-hr Rainfall	Cross-Sectional Area (A)	Wetted Perimeter (Pw)	Hydraulic Radius (Rh)	Velocity (V)	Time (t)
Sheet Flow		100.00	0.100	1.00%	3.80	N/A	N/A	N/A	N/A	8.58
Shallow Concentrated 1		260.00	-	1.80%	3.80	N/A	N/A	N/A	2.16	2.00
										10.58

Discharge (Q)		Calculated (in/hr)					Existing Conditions				
Area	Time of Conc. (min)	I-10	I-25	I-50	I-100	Area (acres)	"C"-10yr	Q-10 (cfs)	Q-25 (cfs)	Q-50 (cfs)	Q-100 (cfs)
OSP-1	15.00	5.29	6.10	6.73	7.36	5.04	0.30	8.00	10.15	12.21	13.91
OSP-2	15.00	5.29	6.10	6.73	7.36	1.47	0.30	2.33	2.96	3.56	4.06

NOTES:

- OFF SITE PRE (OSP) DEVELOPMENT WATER SHEDS ARE CALCULATED TO PROVIDE A CLEARER VIEW OF WHAT FLOW SHALL BE CAPTURED BY THE PROPOSED STREET CAPACITY AND EVENTUALLY THE DETENTION POND.

08/26/2021

Santa Rosa Subdivision
Street Capacity Calculations

Street A	Street Width per Side (ft)	Max Ponded Width per side (ft)	Ht. Of Curb (ft)	S, longitudinal slope (ft/ft)	Sx, pavement cross slope (ft/ft)	n mannings COEFF.	Z	Capacity per Side (cfs)	Total Capacity (cfs)
Street	15.00	15.00	0.50	0.0242	0.03125	0.013	0.56	28.43	56.86
1+01.34 to 1+48.15	15.00	15.00	0.50	0.0081	0.03125	0.013	0.56	16.45	32.90
2+16.63 to 3+96.82	15.00	15.00	0.50	0.0076	0.03125	0.013	0.56	15.93	31.87
4+78.06 to 9+09.96	15.00	15.00	0.50	0.0100	0.03125	0.013	0.56	18.28	36.55
9+09.96 to 12+82.71	15.00	15.00	0.50						

Street B	Street Width per Side (ft)	Max Ponded Width per side (ft)	Ht. Of Curb (ft)	S, longitudinal slope (ft/ft)	Sx, pavement cross slope (ft/ft)	n mannings COEFF.	Z	Capacity per Side (cfs)	Total Capacity (cfs)
Street	15.00	15.00	0.50	0.0246	0.03125	0.013	0.56	28.67	57.33
0+35.50 to 1+40.02	15.00	15.00	0.50						

Street C	Street Width per Side (ft)	Max Ponded Width per side (ft)	Ht. Of Curb (ft)	S, longitudinal slope (ft/ft)	Sx, pavement cross slope (ft/ft)	n mannings COEFF.	Z	Capacity per Side (cfs)	Total Capacity (cfs)
Street	15.00	15.00	0.50	0.0124	0.03125	0.013	0.56	20.35	40.70
0+35.50 to 1+56.18	15.00	15.00	0.50						

Street D	Street Width per Side (ft)	Max Ponded Width per side (ft)	Ht. Of Curb (ft)	S, longitudinal slope (ft/ft)	Sx, pavement cross slope (ft/ft)	n mannings COEFF.	Z	Capacity per Side (cfs)	Total Capacity (cfs)
Street	15.00	15.00	0.50	0.0050	0.03125	0.013	0.56	12.92	25.85
0+35.50 to 1+56.67	15.00	15.00	0.50						

$$Q = \frac{Z}{n} S_x^{5/3} S^{1/2} T^{8/3}$$

Notes:

- 1) Equation used to calculate street capacity is equation 10-3 adopted from TxDOT Hydraulic Design Manual 2019-1. Where,
Q = Street Capacity (cfs), and Z= 0.56



ATTACHMENT #13

Engineer's Preliminary Opinion of Cost Estimate

10.03 Acres - 54 Lots

I. Street Improvements (31' B/B - 1,900 LF Total)

Item #	Description	Estimated Quantity	Unit	Unit Price	Extended
1	Mobilization	1	LS	\$5,800.00	\$5,800.00
2	Clearing & Grubbing	10.03	AC	\$800.00	\$8,024.00
3	8" Subgrade Prep	8,250	SY	\$2.10	\$17,325.00
4	10" Flexible Base (Under Pavement)	6,975	SY	\$12.50	\$87,187.50
5	5.5" Flexible Base (Type "A" Curb & Gutter)	1,275	SY	\$7.00	\$8,925.00
6	Prime Coat MC-30	6,975	SY	\$3.00	\$20,925.00
7	2 1/2" Type "D" HMAC	6,975	SY	\$20.00	\$139,500.00
8	Type "A" Curb and Gutter	3,810	LF	\$15.50	\$59,055.00
9	Concrete Sidewalk - 4" 3000 psi	4,650	SF	\$4.00	\$18,600.00
10	ADA Ramp Type 10 (Directional Ramps)	6	EA	\$1,200.00	\$7,200.00
11	Street Lights Trenching	2,200	LF	\$7.00	\$15,400.00
12	4" Grey SCH 40 PVC 54" depth w/Trenching	300	LF	\$12.00	\$3,600.00
13	4" PVC SCH 40 Pipe w/Trenching	300	LF	\$8.00	\$2,400.00
14	6" PVC SCH 40 Pipe w/Trenching	300	LF	\$12.00	\$3,600.00
15	Striping, Signage, and Reflectors	1	LS	\$3,500.00	\$3,500.00
16	Stop Sign w/Street Name	4	EA	\$470.00	\$1,880.00
Total Street Improvements					\$402,921.50

II. Existing County Road 251 Replacement Improvements

Item #	Description	Estimated Quantity	Unit	Unit Price	Extended
17	Traffic Control	1	LS	\$15,000.00	\$15,000.00
18	Existing Asphalt Removal & Disposal	315	SY	\$26.00	\$8,190.00
19	8" Subgrade Prep	315	SY	\$2.10	\$661.50
20	10" Flexible Base (Under Pavement)	315	SY	\$12.50	\$3,937.50
21	Prime Coat MC-30	315	SY	\$3.00	\$945.00
22	2 1/2" Type "D" HMAC	315	SY	\$20.00	\$6,300.00
Total Existing County Road 251 Replacement Improvements					\$35,034.00

III. Water Distribution (8" Line)

Item #	Description	Estimated Quantity	Unit	Unit Price	Extended
23	8" C-900 DR 18 PVC Water Main	1,940	LF	\$51.00	\$98,940.00
24	Trench Excavation Protection	1,940	LF	\$4.00	\$7,760.00
25	Tie into Existing 8" Watermain	1	EA	\$2,715.00	\$2,715.00
26	Fire Hydrant Assembly	7	EA	\$5,604.00	\$39,228.00
27	8" Gate Valves w/ Concrete Collars	7	EA	\$2,130.00	\$14,910.00
28	8" 22.50° Bend	2	EA	\$580.00	\$1,160.00
29	8" 45° Bend	1	EA	\$745.00	\$745.00
30	8" x 8" Tee	3	EA	\$910.00	\$2,730.00
31	Double Water Service 1" (-30)	12	EA	\$2,198.00	\$26,376.00
32	Double Water Service 1" (+30)	7	EA	\$2,198.00	\$15,386.00
33	Single Water Service 3/4" (-30)	9	EA	\$1,092.00	\$9,828.00
34	Single Water Service 3/4" (+30)	7	EA	\$1,092.00	\$7,644.00
Total Water Distribution (8" Line)					\$227,422.00

Santa Rosa Subdivision
Engineer's Preliminary Opinion of Cost Estimate
10.03 Acres - 54 Lots

11/18/21

IV. Wastewater Collection (8" Line)

Item #	Description	Estimated Quantity	Unit	Unit Price	Extended
35	Tie-In to Existing Sewer Manhole	1	EA	\$2,498.00	\$2,498.00
36	8" SDR 26 PVC Pipe	2,150	LF	\$47.00	\$101,050.00
37	Fiberglass Manhole w/ Concrete Collar	3	EA	\$8,032.00	\$24,096.00
38	Fiberglass Drop Manhole w/ Concrete Collar	2	EA	\$8,500.00	\$17,000.00
39	Sanitary Sewer Cleanout w/ Concrete Collar	4	EA	\$1,778.00	\$7,112.00
40	Trench Excavation Protection	2,150	LF	\$4.00	\$8,600.00
41	Single Sewer Service (-30)	8	EA	\$1,208.00	\$9,664.00
42	Double Sewer Service (-30)	23	EA	\$2,024.00	\$46,552.00
Total Wastewater Collection (8" Line)					\$216,572.00

V. Storm Water / Pollution Prevention

Item #	Description	Estimated Quantity	Unit	Unit Price	Extended
43	16" X 5' Box Culvert	320	LF	\$120.00	\$38,400.00
44	Headwall (4-16" X 5' Box Culverts)	1	EA	\$5,000.00	\$5,000.00
45	5' Concrete Valley Gutter	525	LF	\$37.00	\$19,425.00
46	8' Concrete Valley Gutter	205	LF	\$60.00	\$12,300.00
47	10' Concrete Valley Gutter	215	LF	\$66.00	\$14,190.00
48	10' Concrete Drainage Flume	385	SF	\$10.00	\$3,850.00
49	Gravel Filter Bags	3	EA	\$700.00	\$2,100.00
50	Curlex Sediment Logs Inlet Protection	4	EA	\$200.00	\$800.00
51	Concrete Rip-Rap (Channel)	13,410	SF	\$8.00	\$107,280.00
52	Pond Outlet Structure (3-36" HDPE) (Water Tight Joint)	120	LF	\$117.00	\$14,040.00
53	Silt Fence	1,500	LF	\$3.00	\$4,500.00
54	Concrete Wash Pit	1	EA	\$1,570.00	\$1,570.00
55	Stabilized Construction Entrance	1	EA	\$1,700.00	\$1,700.00
Total Storm Water/ Pollution Prevention					\$225,155.00

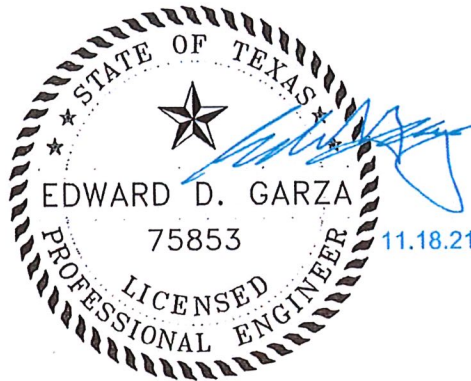
VI. Grading

Item #	Description	Estimated Quantity	Unit	Unit Price	Extended
56	Cut (Compacted Measure)	9,550	CY	\$4.50	\$42,975.00
57	Fill From Site (Compacted Measure)	9,550	CY	\$2.50	\$23,875.00
58	Import Fill (Compacted Measure)	7,700	CY	\$14.00	\$107,800.00
Total Grading					\$174,650.00

Santa Rosa Subdivision
Engineer's Preliminary Opinion of Cost Estimate
10.03 Acres - 54 Lots

11/18/21

Summary	
I. Street Improvements (31' B/B - 1,900 LF Total)	402,921.50
II. Existing County Road 251 Replacement Improvements	35,034.00
III. Water Distribution (8" Line)	227,422.00
IV. Wastewater Collection (8" Line)	216,572.00
V. Storm Water / Pollution Prevention	225,155.00
VI. Grading	\$174,650.00
Construction Cost	1,281,754.50
Materials Testing @ 4%	\$ 51,270.18
Total Estimated Construction Cost	\$ 1,333,024.68



CRANE ENGINEERING CORP.
1310 Junction Drive, Suite B
Laredo, Texas 78041
(956) 712-1996
Firm Registration # F-3353

This opinion of probable construction cost is made on the basis of the Engineer's experience and qualifications and represent the Engineer's best judgment as an experienced and qualified professional. The Engineer cannot guarantee that actual construction cost will not vary from this opinion of probable construction cost as the Engineer has no control over the cost of labor, materials, equipment or services furnished by others.

**Santa Rosa Subdivision
Preliminary Trip Generation**

11/18/2021

Land Use: Single Family Residential
No. of Lots: 54

Trip Generation For Single Family Detached Housing (ITE Code 210)			
Average Weekday (24hr)			
Santa Rosa (54 Lots)	Average Rate (Trips/ Dwelling Unit)	9	
	% Enter/Exit	50%	50%
	No. Trips per Day	486	
	No. Entering/Exiting	243	243
Total Trips		486	

- Notes:**
- 1) Average Rate of trips obtained from City of Eagle Pass Subdivision Information Packet.
 - 2) Percentage of traffic entering and existing the development obtained from ITE, Trip Generation Manual, 6th Edition.

Trip Generation For Single Family Detached Housing (ITE Code 210)			
	AM Peak		PM Peak
Santa Rosa (54 Lots)	Single-Family Detached Housing (ITE Code 210)		
Average Rate:	0.77		1.02
% Enter/Exit	25%	75%	64% 36%
No. Trips*	50		63
No. Enter/Exit	13	38	40 23

*No. of trips for peak hour calculated with Fitted Curve Equation for respective AM/PM weekday Peak Hour (pgs.266-267 of ITE Trip Generation Manual, 6th edition)

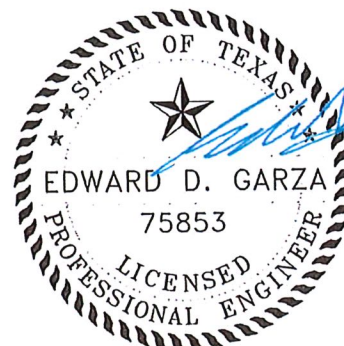
- Notes:**
- 1) Average Rate of trips shown from pgs.266-267 of ITE Trip Generation Manual, 6th edition
 - 2) Percentage of traffic entering and existing the development at peak hours obtained from ITE, Trip Generation Manual, 6th Edition.

AM peak hour Fitted Curve Equation:
 $T = 0.704(x) + 0.605$

T=trips

PM peak hour Fitted Curve Equation:
 $\ln(T) = 0.887L_n(x) + 0.605$

x=dwelling units



11.18.21

TIA Worksheet

Reference # _____

This worksheet was developed to facilitate the TIA scoping process. The developer's representative shall complete and submit this worksheet to the City with the required background information at least two weeks prior to the scoping meeting.



Background Information

Project Name: SANTA ROSA SUBDIVISION

Developer Representative: Crane Engineering Corp.

Representative's Contact Information

Phone: (956)712-1996

Email: eddie-crane@sbcglobal.net

Proposed land uses: Single Family

Include with worksheet:



Trip generation worksheet



Preliminary Trip Distribution and Assignment Diagrams



Site plan with driveway locations



Basis for background traffic growth rate

TIA Parameters

Parameter	Developer Proposed	City Concurrence?		If no, identify modification required
		Yes	No	
Trip Generation Code	ITE, Trip Generation Manual, 6th Edition	☐	☐	
Site Build Out Year	2022	☐	☐	
Background Traffic Growth Rate		☐	☐	
Proposed Peak Periods (check all)	AM ☒ PM ☒ Other ☐	☐	☐	
Special Scenarios for Evaluation (i.e. Phasing, 6-year status, etc.)	1)	☐	☐	
	2)	☐	☐	
Intersection for Analysis (in addition to all site driveways; attach list or map if more than 4 intersections)	1)	☐	☐	
	2)	☐	☐	
	3)	☐	☐	
	4)	☐	☐	

Additional Comments/Concerns to be Addressed in the TIA

Agreement on TIA Parameters

TIA Type: ☐ Worksheet (< 51 PHT)
☒ Minor (<300 PHT & Multiple Land Use, or <500 PHT & Single Land Use)
☐ Major (>301 PHT & Multiple Land Use, or >501 PHT & Single Land Use)

Date: 11 / 18 / 2021

City of Eagle Pass

Maverick County (if applicable)

Developer's Representative

Edward D. Garza

Printed Name of Representative

Printed Name of Representative

Printed Name of Representative

14439 NW Military Hwy
Suite 108 #430
San Antonio, Texas 78231



FPCG
Fire Protection Consulting Group, LLC

www.FIREpcg.com
Main Office +1 210.858.2389

August 5, 2021

Edward D. Garza, P.E.
1310 Junction Dr. Suite B
Laredo, Texas 78041

Via e-mail: Eddie-crane@sbcglobal.net

RE: **Hydraulic Calculations Report**
Santa Rosa Subdivision
Eagle Pass, Texas

Mr. Garza:

The purpose of this report is to describe the private and public fire water pipe network and hydrants, quantify the available flow and pressure provided by the existing public water supply, and thereby, illustrate compliance with the minimum required fire flow in accordance with the applicable provisions of the referenced codes and amendments.

1. **Applicable Codes**

- 2015 International Building Code (IBC)
- 2015 International Fire Code (IFC) with City of Eagle Pass amendments

2. **Description of Project**

The project will consist of multiple new single-family residences of Type V construction. The exact number and size of the residences are not known but all are to be less than 3,600 square feet.

3. **Demands**

Fire Flow Demand

The required fire flow demand for the building has been determined in accordance with IFC Table B105.1 (1).

- Required fire flow for one- and two-family dwellings:
 - Base Demand: 1,000 gpm at 20 psi

4. **Pipe Network Description**

- Water supply (Node 1) for the subject site is derived from an existing 12-inch public main along CR 251 which then feeds an 8-inch line on Rosita Valley Road as based on the static/residual hydrant utilized in the attached flow test.
- The existing 8-inch public main along Rosita Valley Road will be tapped by an 8-inch PVC private main at a single location as noted on the attached exhibit.
- The new 8-inch private main is configured into a dead end and will serve the new residential development.
- Lead-ins to the private hydrants were modeled as 6-inch ductile iron.
- Elevations were derived from civil grading plans provided by Crane Engineering Corp.

Hydraulic Calculations Report
Santa Rosa Subdivision
Eagle Pass, Texas

- Fire main piping is assumed to be 48-inches below finished grade.
- Fire hydrant outlets are assumed to be 24-inches above finished grade.

5. Minor Loss Elements

Minor loss elements are entered into the hydraulic model as equivalent lengths of pipe. Fittings are described as minor loss coefficient items. The common fittings used in the model from AutoSPRINK's fitting database and are as follows in the hydraulic analysis:

- 90° elbow- identified as "E"
- 45° elbow- identified as "EE"
- 22½° elbow- identified as "Ee2"
- Tee where the flow enters a run and is diverted to the branch- identified as "T"
- Tee where the flow enters the branch and is diverted to the runs- identified as "t"
- Tee where the flow travels along the straight run only with no diversion- identified as "u"
- Gate valves identified as "GV"

Minor Losses are then converted to feet of head and included in hydraulic calculations.

6. Water Supply

The hydraulic model is based on the private fire flow test conducted by FPCG, LLC on the private main loop on site, please reference Appendix A of this report for the fire flow test exhibit. The results of the test were as follows:

- Static Pressure: 80 psi
- Residual Pressure: 28 psi
- Pitot Reading: 14 psi (x2)
- Flow at Residual Pressure: 1,260 gpm
- Flow at 20 psi Residual: 1,361 gpm

Summary

One scenario was hydraulically modeled to illustrate that the hydraulically remote hydrant can provide the noted flow and pressure with a safety factor of 10.8 psi below the supply curve (23.5%). The calculation is considered a demand calculation, meaning the required flow at the hydrant will satisfy the demand at the specified minimum working pressure.

As illustrated by the hydraulic calculations provided in Appendix B, the proposed fire pipe network can meet the noted fire flow demand modeled herein at the hydraulically remote hydrant as follows:

Scenario #1

- Remote Hydrant (Node 5): 1,000 gpm at 20 psi

August 5, 2021

Page 3 of 3

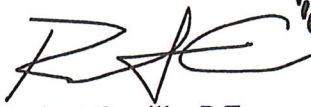
Hydraulic Calculations Report
Santa Rosa Subdivision
Eagle Pass, Texas

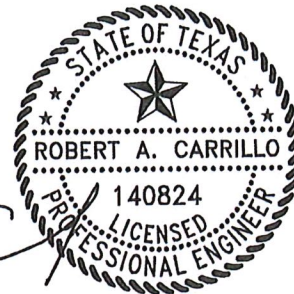
If you have any questions, please contact me by phone at (956-867-7268) or by e-mail at lucas@firepcg.com.

Report written by:

Reviewed and approved by:

Lucas G. Chacon, EIT
Associate Fire Protection Engineer
Fire Protection Consulting Group, LLC


Robert Carrillo, P.E.
Fire Protection Engineer
Fire Protection Consulting Group, LLC



Attachments: Appendix A – Fire Flow Test Exhibit (2 pages)
 Appendix B – Hydraulic Calculations (4 pages)
 Appendix C – Hydraulic Node Map (1 page)

August 5, 2021

APPENDICES

Hydraulic Calculations Report
Santa Rosa Subdivision
Eagle Pass, Texas

Appendix A

Fire Flow Test Exhibit

Fire Protection Consulting Group, LLC

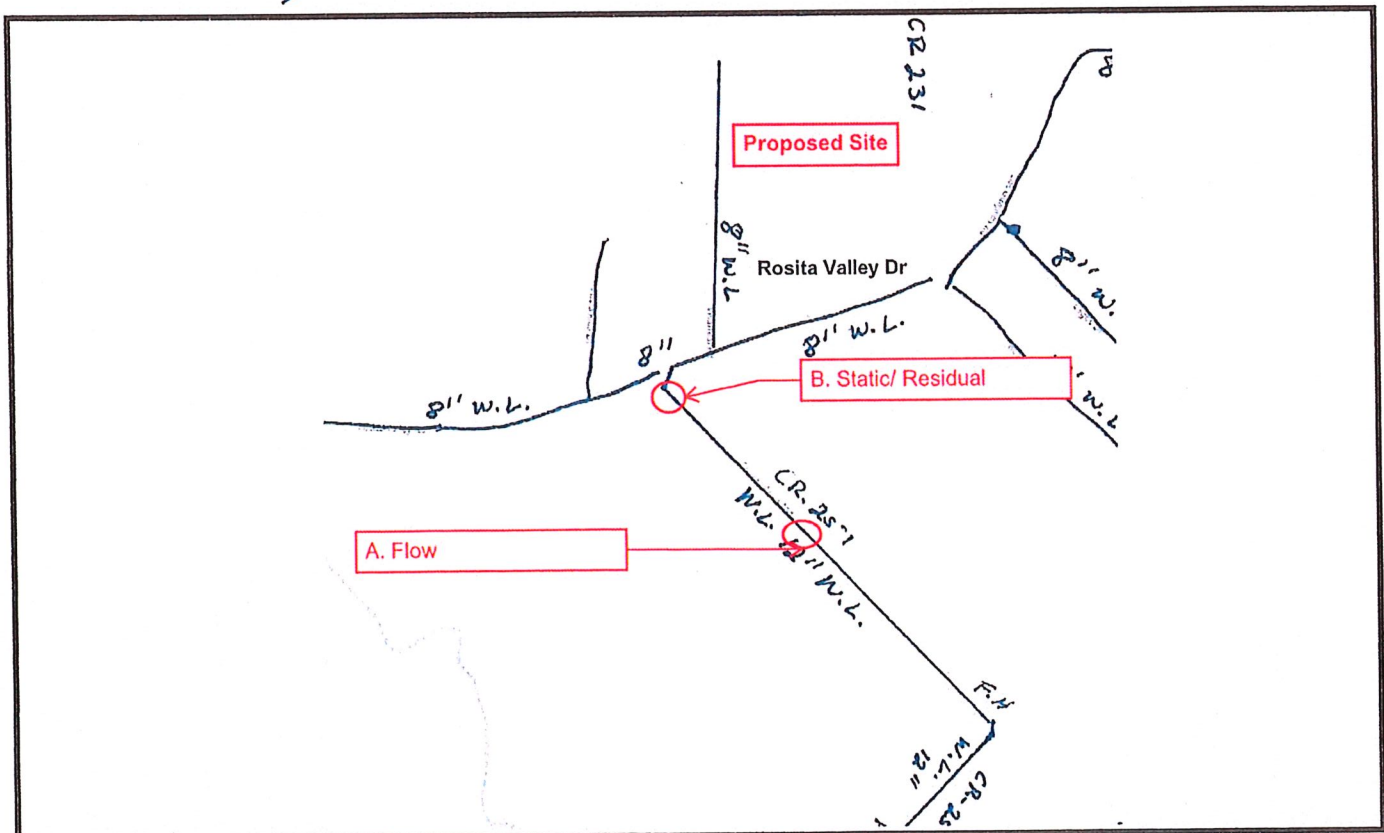
City of Eagle Pass Fire Flow Test Form

Conducted By: Michael Pavlovsky of Fire Protection Consulting Group (FPCG)

Signature:

Witnessed By: Raul Guardiola of City Of Eagle Pass

Signature: 





Project: 21-288 EP Santa Rosa FT

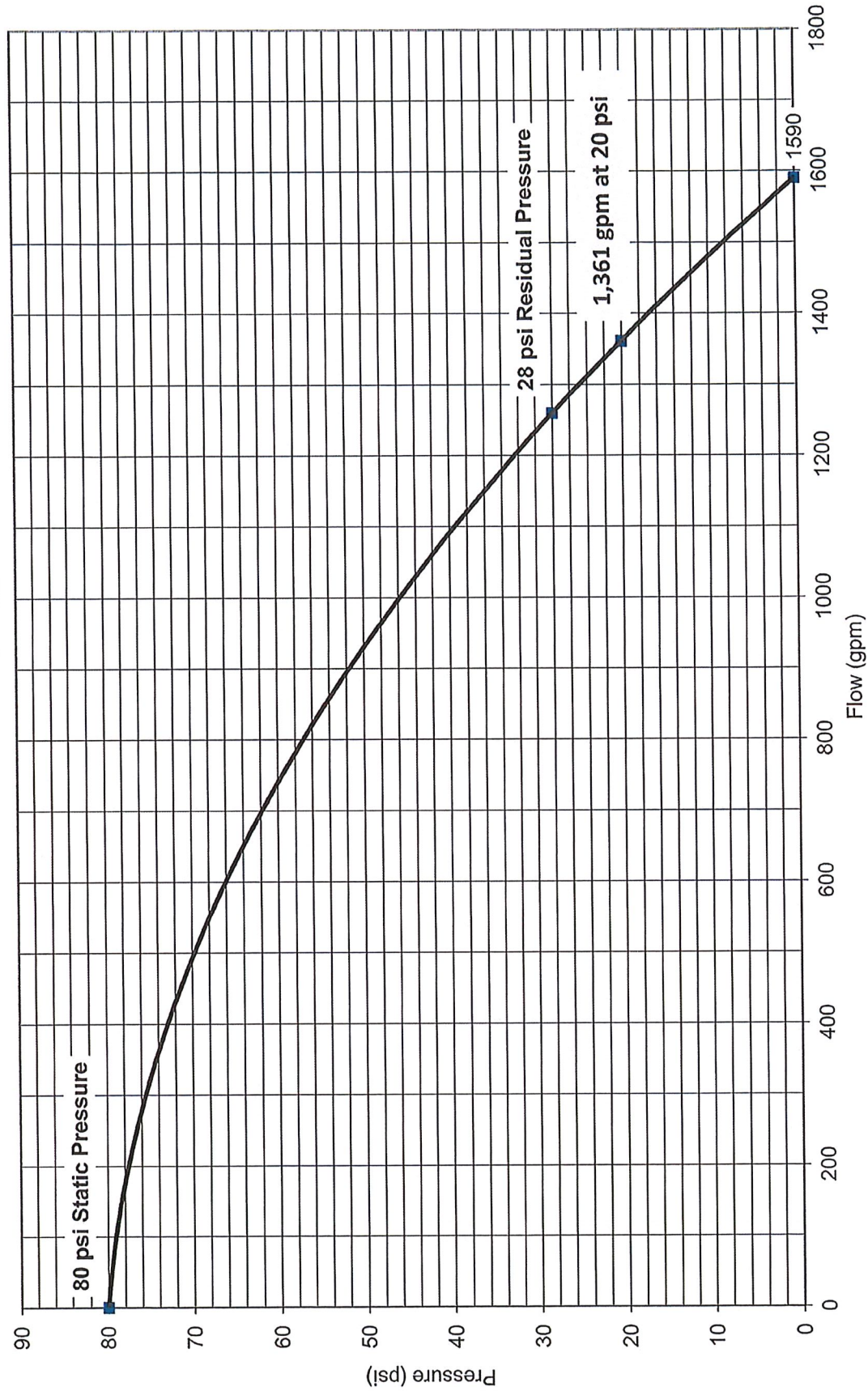
Date: 06/24/2021

Static Pressure: 80 psi

Residual Pressure: 28 psi

Flow: 1,260 gpm

Mike Pavlovsky
210-859-7778
mike@firepcg.com
www.firepcg.com

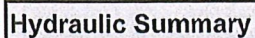


August 5, 2021

Hydraulic Calculations Report
Santa Rosa Subdivision
Eagle Pass, Texas

Appendix B

Hydraulic Calculations

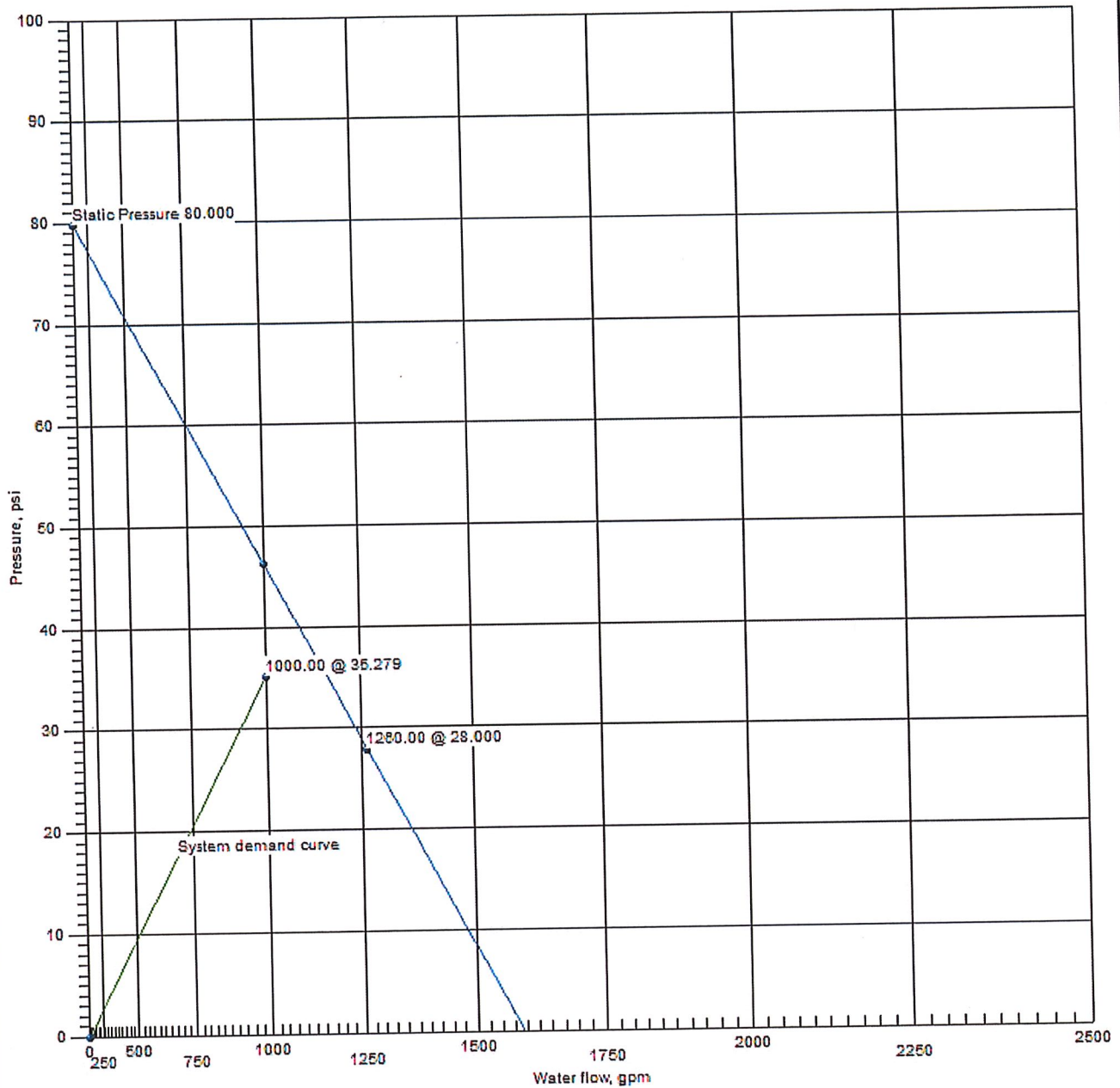


Report Description:

© M.E.P.CAD, Inc.



Supply Flow Test Data at Node 1



Hydraulic Graph

Supply Flow Test Data at Node 1

Static Pressure

80.000

Residual Pressure

28.000 @ 1260.00

Available Pressure at Time of Test

46.091 @ 1000.00

System Demand

35.279 @ 1000.00

System Demand (including Hose Allowance at Source)

35.279 @ 1000.00



Node Analysis

Job Number: 21-288

Report Description:

Node	Elevation(Foot)	Fittings	Pressure(psi)	Discharge(gpm)
1	742'-0½	S	35.279	1000.00
5	751'-5	Hyd(-19.999)	19.999	1000.00
2	742'-0½	EE(15'-9½)	35.228	
3	742'-0½	T(52'-10)	33.157	
4	745'-5		23.232	



Hydraulic Analysis

Job Number: 21-288

Report Description:

Pipe Type	Diameter	Flow	Velocity	HWC	Friction Loss	Length	Pressure
Downstream	Elevation	Discharge	K-Factor	Pt	Pn	Eq. Length	Summary
Upstream					Fittings	Total Length	
***** Route 1 *****							
UG	6.3400	1000.00	10.16	140	0.021312	9'-10"	Pf 0.631
5	751'-5"	1000.00		19.999	Hydrant,	19'-9½"	Pe 2.601
4	745'-5"			23.232	LIE(14'-10½"), GV(4'-11½")	29'-7½"	Pv
UG	7.9800	1000.00	6.41	150	0.006118	1279'-0½"	Pf 8.462
4	745'-5"			23.232		104'-1½"	Pe 1.462
3	742'-0½"			33.157	EE(13'-7"), Ee2(13'-7"), 4GV(6'-0½"), T(52'-10")	1383'-2½"	Pv
UG	8.4500	1000.00	5.72	140	0.005260	377'-10"	Pf 2.071
3	742'-0½"			33.157		15'-9½"	Pe
2	742'-0½"			35.228	EE(15'-9½")	393'-8"	Pv
CM	11.6500	1000.00	3.01	150	0.000969	53'-1½"	Pf 0.052
2	742'-0½"			35.228			Pe
1	742'-0½"			35.279	Supply Flow Test Data	53'-1½"	Pv

Equivalent Pipe Lengths of Valves and Fittings (C=120 only)

C Value Multiplier

$$\left(\frac{\text{Actual Inside Diameter}}{\text{Schedule 40 Steel Pipe Inside Diameter}} \right)^{4.87} = \text{Factor}$$

Value Of C	100	130	140	150
Multiplying Factor	0.713	1.16	1.33	1.51

Pipe Type Legend

AO	Arm-Over
BL	Branch Line
CM	Cross Main
DN	Drain
DR	Drop
DY	Dynamic
FM	Feed Main
FR	Feed Riser
MS	Miscellaneous
OR	Outrigger
RN	Riser Nipple
SP	Sprig
ST	Stand Pipe
UG	Underground

Units Legend

Diameter	Inch
Elevation	Foot
Flow	gpm
Discharge	gpm
Velocity	fps
Pressure	psi
Length	Foot
Friction Loss	psi/Foot
HWC	Hazen-Williams Constant
Pt	Total pressure at a point in a pipe
Pn	Normal pressure at a point in a pipe
Pf	Pressure loss due to friction between points
Pe	Pressure due to elevation difference between indicated points
Pv	Velocity pressure at a point in a pipe

Fittings Legend

ALV	Alarm Valve
AngV	Angle Valve
b	Bushing
BalV	Ball Valve
BFP	Backflow Preventer
BV	Butterfly Valve
C	Cross Flow Turn 90°
cplg	Coupling
Cr	Cross Run
CV	Check Valve
DelV	Deluge Valve
DPV	Dry Pipe Valve
E	90° Elbow
EE	45° Elbow
Ee1	11¼° Elbow
Ee2	22½° Elbow
f	Flow Device
fd	Flex Drop
FDC	Fire Department Connection
fE	90° FireLock(TM) Elbow
fEE	45° FireLock(TM) Elbow
flg	Flange
FN	Floating Node
fT	FireLock(TM) Tee
g	Gauge
GloV	Globe Valve
GV	Gate Valve
Ho	Hose
Hose	Hose
HV	Hose Valve
Hyd	Hydrant
LIE	Long Turn Elbow
mecT	Mechanical Tee
Noz	Nozzle
P1	Pump In
P2	Pump Out
PIV	Post Indicating Valve
PO	Pipe Outlet
PrV	Pressure Relief Valve
PRV	Pressure Reducing Valve
red	Reducer/Adapter
S	Supply
sCV	Swing Check Valve
SFx	Seismic Flex
Spr	Sprinkler
St	Strainer
T	Tee Flow Turn 90°
Tr	Tee Run
U	Union
WirF	Wirsbo
WMV	Water Meter Valve
Z	Cap

August 5, 2021

APPENDICES

Hydraulic Calculations Report
Santa Rosa Subdivision
Eagle Pass, Texas

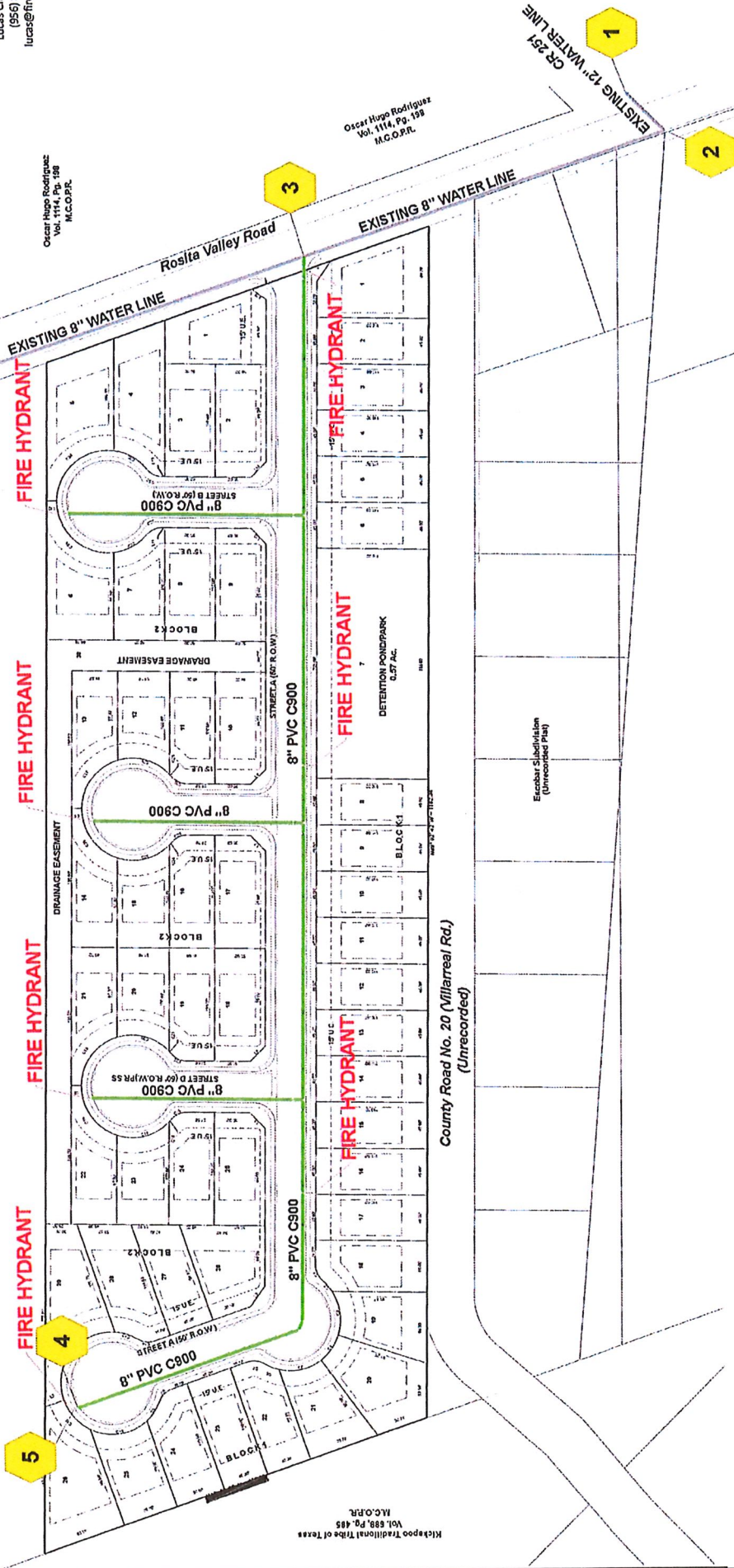
Appendix C

Hydraulic Node Map

21-288 Santa Rosa Subdivision
08/05/21
Lucas Chacon, EIT
(956) 857-7268
lucas@fpcg.com

Oscar Hugo Rodriguez
Vol. 1114, Pg. 198
M.C.O.P.R.

Oscar Hugo Rodriguez
Vol. 1114, Pg. 198
M.C.O.P.R.



Mitchell Traditional Title of Texas
Vol. 889, Pg. 485
M.C.O.P.R.

Supply Flow Test Data	
Test Conducted By	Fire Protection Consulting Group
Test Witnessed By	City of Eagle Pass
Date of Test	6/24/2021
Time of Test	11:05 AM
Location	Rosita Valley & CR 251
Static Pressure	80.000
Residual Pressure	28.000
Flow	1260.00

HYDRAULIC INFORMATION	
TOTAL WATER REQUIRED	1000.00
TOTAL PRESSURE REQUIRED	35.279
SAFETY MARGIN (psf)	+10.612 (23.5%)

Attachment 4
Master Plan and Zoning Map

Item # 3



Planning Department Executive Summary
REPORT TO THE PLANNING & ZONING COMMISSION

Voluntary Annexation of 1.892-Acres

I. BACKGROUND

A. General Information

Applicant: TEC Services | 3292 El Indio Hwy | Eagle Pass, Tx 78852

Property Owner(s): Eagle Pass Ranch Partnership | Houston, Tx 77007

Location: Off US Highway 57 North

Property ID Number: 9008575 and 2983

Legal Description: Being Approximately 1.892 acres of land lying and situated in Maverick County, Texas, out of the I&G.N.RR.CO. Survey 1, Abstract 426, and being a part of the Eagle Pass Partnership 823.38 acres, described in Volume 407, Page 28 of the Maverick County Deed Records. (Eagle Pass Ranch Access Road Subdivision)

Request: owner-requested annexation of approximately 1.892 acres of land lying and situated in Maverick County, Texas, out of the I&G.N.RR.CO. Survey 1, Abstract 426, and being a part of the Eagle Pass Partnership 823.38 acres, described in Volume 407, Page 28 of the Maverick County Deed Records. (Eagle Pass Ranch Access Road Subdivision)

B. Subject Property Information

Existing Land Use: Road under construction, pending final application approval before plat recordation and dedication to City of Eagle Pass.

C. Vicinity Data

The site is located at the intersection of the northwesterly right-of-way line of the U. S. Highway 57, with the southwesterly line of the Texas Conference Association of Seven Day Adventist.

D. Infrastructure

The property is currently served by public utilities/franchises, including water, sanitary sewer, storm drainage, telephone, electric service, gas, cable, and garbage service.

Access to the site is provided by US Highway 57.

II. PUBLIC NOTICE

Public notification of the permanent zoning and annexation requests before the Planning and Zoning Commission was completed consistent with the provisions of *Chapter 211* of the *State of Texas Local Government Code Title 7*.

III. RECOMMENDED FINDINGS OF FACT

A. Conclusions

1. The applicant's request contains sufficient information for consideration by the Planning and Zoning Commission. Information contained in this report and the Commission's public meeting will be used as part of the City Council's deliberation process for establishment of the 1.892-acre tract as proposed in the voluntary annexation petition. Please refer to Attachment 1 for application copy.
2. The annexation petition is consistent with the land use development goals of the *City of Eagle Pass Master Plan*. The request will allow for a continuation of development in the community while retaining the community's character and scale. The change will facilitate the ultimate development of urban uses in a compatible arrangement that will make the community attractive to both residents and visitors as desirable to quality investments, while improving the business and commercial environment of the city. Please refer to Attachment 2 for a copy of the *City of Eagle Pass Master Plan Map*.

The annexation of the tract will allow for the highest and best use of the commercial and Industrial zoned properties located adjacent to a highly travelled state route.

3. The placement of a *Master Plan* designation will be compatible with the Commercial and Industrial District designation of properties located in the vicinity of the site. The proposed commercial *Master Plan* and *Zoning Code* designations will ensure a compatibility of uses.

Section 4 of Appendix A (Zoning Ordinance) of the City of Eagle Pass Code of Ordinances regulating districts states that upon annexation, permanent zoning district classifications may be duly assigned within the territory being annexed in accordance with the procedure provided by law. All territory hereafter annexed to which a permanent zoning district classification is not assigned shall be temporarily classified as R-1, First one-family dwelling district, until permanently zoned by the governing body of the City of Eagle Pass, Texas. The city planning and zoning commission shall, as soon as practicable, after annexed of any territory to the City of Eagle Pass, Texas, institute proceedings on its own motion to give the newly annexed territory permanent zoning, and the procedure to be followed shall be the same as is provided by law for the adoption of original zoning regulations.

4. The *Master Plan's* 'Housing Goals' and 'Housing Strategies' are not applicable to this voluntarily annexation petition as subject property is a road.
5. The subsequent development of the annexation tract will be subject to both state and city transportation system requirements, which ensures conformance with the direction provided by the *Master Plan's* 'Street Objectives', 'Thoroughfare Goals', and 'Thoroughfares Objectives'.
6. The subsequent development of the site will include a requirement to provide on-site drainage facilities consistent with the *City of Eagle Pass Public Works Department Construction Specifications Manual*, which will ensure conformance with the direction provided in the *Master Plan's* 'Storm Drainage Goals' and 'Storm Drainage Objectives'.
7. The voluntary annexation petition is consistent with both the goals and objectives of the *Master Plan* and the purpose of the *Zoning Code*. As a result, the annexation petition should be granted through the adoption of an Ordinance by the City Council.

B. Planning Department Recommendation

The Planning and Zoning Commission recommend that City Council accept and adopt an Ordinance to incorporate an approximately 1.892-acre tract of land, known as Eagle Pass Ranch Access Road Subdivision into the Eagle Pass City Limits.

Attachment 1
Voluntary Annexation Petition



PLANNING DEPARTMENT

3295 Bob Rogers Drive, Eagle Pass, TX 78852 • Telephone: (830) 773-7781 • Fax: (830) 773-7803
www.eaglepasstx.us • planning@eaglepasstx.us

APPLICATION FOR VOLUNTARY ANNEXATION

Applicant Information

Applicant (If not owner): TerraTech Engineering & Construction Services (TEC Services)
Address: 3292 El Indio Hwy, Eagle Pass, TX 78852
Phone: 830-773-0579 E-mail: ajlibson@terratechengineering.com
Owner: Eagle Pass Ranch Partnership
Address: 7800 Washington Ave., Suite 800, Houston, TX, 77007
Phone: 713-268-3719 E-mail: llevine@levcor.com

Property Information

Site Address: Off U.S. Hwy 57 North MCAD Property ID No. 9008575, 2983
Legal Description (from deed): Being a 1.892 Acre tract...out of Survey 1, Abstract 426, being part of Eagle Pass Ranch Partnership 823.38 Acres described in Vol. 407, pg. 28 Deed Records
Acreage: 1.892
Existing Land Use: Unpaved Ingress/Egress Access Road
Proposed Land Use: Paved Ingress/Egress Access Road
Existing Zoning: None
Proposed Zoning: N/A

Required Application Attachments

The following documentation is required to be attached to this application:

- ☒ Letter signed by the property owner, requesting annexation.
- ☒ A warranty deed or other legal document demonstrating current ownership.
- ☒ A \$100 check made out to the "City of Eagle Pass".
- ☒ Twelve (12) signed and sealed surveyor's drawings (1' to 100")
 - a) Drawings must be full size (24" x 36") prints, showing the current city limits and labeled within one year of the application submittal date.
- ☒ One reduced copy (8.5" x 11") of the sealed surveyor's drawing.
- ☒ Signed and sealed metes and bounds from surveyor.

STATEMENT OF OWNER / APPLICANT

I, the undersigned, hereby certify that: (1) I am the owner the land subject to this request for annexation; (2) I authorize TerraTech Engineering & Construction Services to act as my agent for all documents pertaining to this annexation application; (3) the information contained in this annexation application or accompanying information is true and correct; (4) I will advise the City in writing of any inaccurate, misleading or false statements in the annexation application or accompanying information; and (5) the City will be advised in writing of any change in ownership of the property that is the subject of this annexation application provided the change of ownership occurs prior to the recording of the final approved annexation plan, if any.


Owner / Applicant Signature

7/14/2022
Date

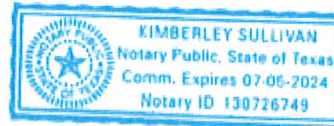
STATE OF TEXAS §

COUNTY OF HARRIS §

Before me, the undersigned authority, a notary public for the State of Texas, on this day personally appeared Herbert L. Levine (Name), Partner (Title), known to me to be the person whose name is subscribed to the foregoing instrument and acknowledge to me that he executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office, this 14TH day of JULY, 2022.


Notary Public, State of Texas



Annexation Notice from Property Owner

This document serves as written notice by property owner, Eagle Pass Ranch Partnership, owner of 3.363 acres located in Eagle Pass, TX, Maverick County, as shown in the Annexation Drawing for the subject tract, that they intend to proceed to voluntarily annex and incorporate a 1.892 acre portion out the 3.363 acres, into the Eagle Pass City Limits.



Date:

7/14/2022

Eagle Pass Ranch Partnership

Name: Herbert L. Levine

Title: Partner

FIELD NOTES FOR A 1.892 ACRE TRACT

City limits line annexation

Being a 1.892 Acre Tract of land lying and situated in Maverick County Texas, out of the I&G.N.R.R.CO. Survey 1, Abstract 426, and being a part of the Eagle Pass Partnership 823.38 acres, described in Volume 407, Page 28 of the Maverick County Deed Records; Said 1.892 acres being more particularly described by metes and bounds as follows:

Starting in quest of a Point of Beginning at an iron rod found to mark the intersection of the northwesterly right of way line of the U.S. Highway 57, with the southwesterly line of the Texas Conference Association of Seven Day Adventist 5.0 acres, described in Deed record, Volume 1254, page 494 of the Maverick County Deed Records, THENCE along the northwesterly right of way line of said U.S. Highway 57, S49°42'46"W, 106.23 feet, to existing 2'X2' brick wall corner, THENCE departing said northwesterly right of way line of the U.S. Highway 57, now along the common line with the Padilla Victor & Maria Cristina 10.0 acres, described in deed record Volume 826, page 173 of the Maverick County Deed Records, N49°11'33"W, 718.4 feet, to a ½" iron rod found to mark the north most corner of said 10.0 acres, THENCE departing said boundary line of 10.0 acres, now across said 823.38 acres, N49°23'55"W, 239.04 feet to intersection with city limits line, for the Point of Beginning and south most corner of the herein described 1.892 acres,

THENCE continuing across said 823.38 acres, N49°23'55"W, 239.14 feet to ½" iron found for the east most corner of the City of Eagle Pass 20.02 acres, described in deed record Volume 789, page 199 of the Maverick County Deed Records,

THENCE along common line with said 20.02 acres, N49°06'37"W, 1012.66 feet to ½" iron found for the north most corner of said 20.02 acres,

THENCE departing said boundary line of 20.02 acres, now across said 823.38 acres, N61°03'20"E, 70.72 feet to ½" iron found for north most of this 1.892 acres, and S49°06'37"E, 1012.05 feet to ½" iron found for common corner with that certain 22.741 acres,

THENCE along common line with said 22.741 acres, S48°57'06"E, 225.27 feet to a point for intersection with city limits line, and for east most corner of this 1.892 acres,

THENCE along said city limits line, S49°36'54"E, 65.31 to the Point of Beginning.

STATE OF TEXAS XXX
COUNTY OF MAVERICK XXX

June 30, 2022

I, Francisco Gaytan, Registered Professional Land Surveyor, hereby certify that the above description of a 1.892 Acre Tract was obtained from a survey conducted on the ground under my supervision.



Frz Gay
Francisco Gaytan
Registered Professional Land Surveyor
Texas No. 5474

07/14/2022

Attachment 2
Master Plan Map
Zoning District Map



Currently no zoning designation

