Water Pollution Abatement Plan for:

**[In compliance with 30 TAC 213.5(b) & 217 -
TCEQ Edwards Aquifer Protection Program]**

Rosenblatt Law Firm Expansion

Project Address:
16731 Huebner Rd
(NW of the Huebner Rd. & Deerfield Wood Intersection)
San Antonio, Texas 78248

Legal Description:
Being 1.80 acres being Lot 92, Block 1, New County Block 18908, San Antonio, Bexar County, Texas of HRDW Property Development, LTD. Subdivision Replat, Recorded in Vol. 9597, PG. 164 of the Deed and Plat Records of Bexar County, Texas.

PREPARED BY:

March 25, 2024

ADA Consulting Group, Inc.
221 W. Rhapsody, Ste. 102 San Antonio, TX 78216
(210) 340-5670 fax: (210) 340-5728 www.adacg.com
TBPE Registered Engineering Firm No. F-003512

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with 30 TAC 213.

Administrative Review

1. Edwards Aquifer applications must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

   To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: http://www.tceq.texas.gov/field/eapp.

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.

3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.

4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

   An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.

6. If the geologic assessment was completed before October 1, 2004 and the site contains “possibly sensitive” features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.

2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.

3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.

4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical revi1ew of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: Rosenblatt Offices					**2. Regulated Entity No.: RN109734038**			
3. Customer Name: Brettonwoods Properties, LLC					**4. Customer No.: CN605399435**			
5. Project Type: **(Please circle/check one)**	New		Modification		Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential		**8. Site (acres):**		1.8	
9. Application Fee:	$4,000		**10. Permanent BMP(s):**		Stormfilter & Vegetative Filter Strips			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**		N/A			
13. County:	Bexar		**14. Watershed:**		Upper Salado Creek			

Application Distribution

Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the EAPP Boundaries" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	__	__	__
Region (1 req.)	__	__	__
County(ies)	__	__	__
Groundwater Conservation District(s)	___Edwards Aquifer Authority __Barton Springs/ Edwards Aquifer __Hays Trinity __Plum Creek	__Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	__Austin __Buda __Dripping Springs __Kyle __Mountain City __San Marcos __Wimberley __Woodcreek	__Austin __Bee Cave __Pflugerville __Rollingwood __Round Rock __Sunset Valley __West Lake Hills	__Austin __Cedar Park __Florence __Georgetown __Jerrell __Leander __Liberty Hill __Pflugerville __Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	__	__	__	__	__
Region (1 req.)	__	__	__	__	__
County(ies)	__	__	__	__	__
Groundwater Conservation District(s)	_X_ Edwards Aquifer Authority __Trinity-Glen Rose	__Edwards Aquifer Authority	__Kinney	__EAA __Medina	__EAA __Uvalde
City(ies) Jurisdiction	__Castle Hills __Fair Oaks Ranch __Helotes __Hill Country Village __Hollywood Park _X_San Antonio (SAWS) __Shavano Park	__Bulverde __Fair Oaks Ranch __Garden Ridge __New Braunfels __Schertz	NA	__San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. Michael P. Sepeda, P.E. Print Name of Customer/Authorized Agent Signature of Customer/Authorized Agent 3/22/24 Date

FOR TCEQ INTERNAL USE ONLY				
Date(s)Reviewed:		Date Administratively Complete:		
Received From:		Correct Number of Copies:		
Received By:		Distribution Date:		
EAPP File Number:		Complex:		
Admin. Review(s) (No.):		No. AR Rounds:		
Delinquent Fees (Y/N):		Review Time Spent:		
Lat./Long. Verified:		SOS Customer Verification:		
Agent Authorization Complete/Notarized (Y/N):		Fee Check:	Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):			Signed (Y/N):	
Core Data Form Incomplete Nos.:			Less than 90 days old (Y/N):	

GENERAL INFORMATION FORM

Modification to a Previously Approved Plan

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: Michael P. Sepeda, P.E.

Date: 3/22/2024

Signature of Customer/Agent:

Project Information

1. Regulated Entity Name: Rosenblatt Law Firm Expansion
2. County: Bexar
3. Stream Basin: Upper Salado Creek
4. Groundwater Conservation District (If applicable): Edwards Aquifer Authority
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

   ☒ WPAP
   ☐ SCS
   ☐ Modification
   ☐ AST
   ☐ UST
   ☐ Exception Request

7. Customer (Applicant):

   Contact Person: James D. Rosenblatt
   Entity: Brettonwoods Properties, LLC
   Mailing Address: 16731 Huebner Rd
   City, State: San Antonio, TX Zip: 78248
   Telephone: 210-562-2900 FAX: N/A
   Email Address: _____

8. Agent/Representative (If any):

   Contact Person: Michael P. Sepeda, P.E.
   Entity: ADA Consulting Group, Inc.
   Mailing Address: 221 W. Rhapsody, Suite 102
   City, State: San Antonio, TX Zip: 78216
   Telephone: 210-340-5670 FAX: 210-340-5728
   Email Address: mike@adacg.com

9. Project Location:

   ☒ The project site is located inside the city limits of San Antonio, TX.
   ☐ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
   ☐ The project site is not located within any city's limits or ETJ.

10. ☐ The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

    At the NW corner of Huebner Rd. & Deerfield Wood intersection.

11. ☒ **Attachment A – Road Map**. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.

12. ☒ **Attachment B - USGS / Edwards Recharge Zone Map**. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:

    ☒ Project site boundaries.
    ☒ USGS Quadrangle Name(s).
    ☒ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
    ☒ Drainage path from the project site to the boundary of the Recharge Zone.

13. ☒ **The TCEQ must be able to inspect the project site or the application will be returned**. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

    ☐ Survey staking will be completed by this date: _____

14. ☒ **Attachment C – Project Description**. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:

- ☒ Area of the site
- ☒ Offsite areas
- ☒ Impervious cover
- ☒ Permanent BMP(s)
- ☒ Proposed site use
- ☒ Site history
- ☒ Previous development
- ☒ Area(s) to be demolished

15. Existing project site conditions are noted below:

- ☒ Existing commercial site
- ☐ Existing industrial site
- ☐ Existing residential site
- ☐ Existing paved and/or unpaved roads
- ☐ Undeveloped (Cleared)
- ☐ Undeveloped (Undisturbed/Uncleared)
- ☐ Other: _____

Prohibited Activities

16. ☒ I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);

(2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;

(3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;

(4) The use of sewage holding tanks as parts of organized collection systems; and

(5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).

(6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

17. ☒ I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);

(2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

(3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

18. The fee for the plan(s) is based on:

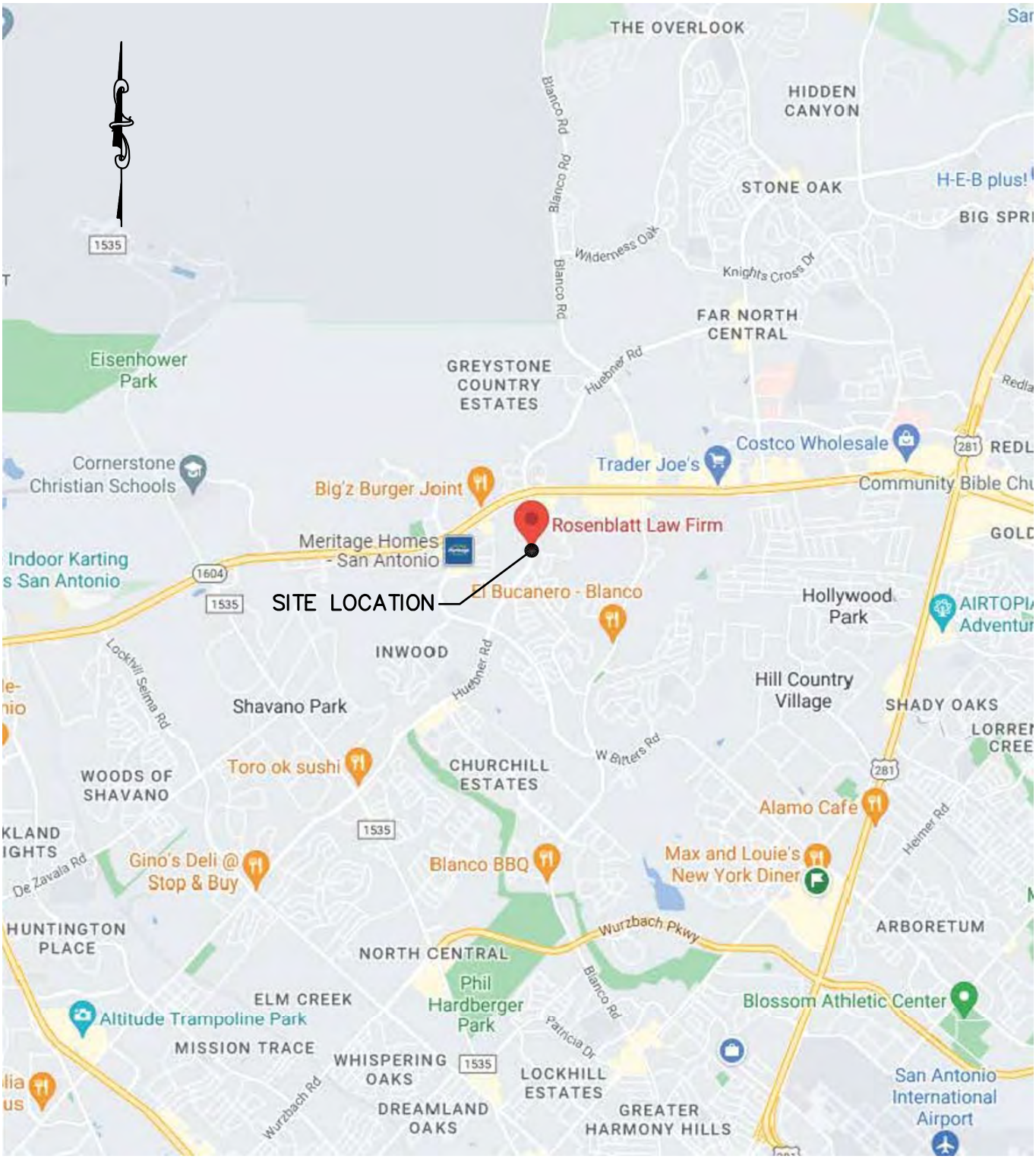
- ☒ For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
- ☐ For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
- ☐ For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
- ☐ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
- ☐ A request for an extension to a previously approved plan.

19. ☒ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

- ☐ TCEQ cashier
- ☐ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
- ☒ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

21. ☒ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.



ROAD MAP – ATTACHMENT A

ROSENBLATT LAW FIRM EXPANSION

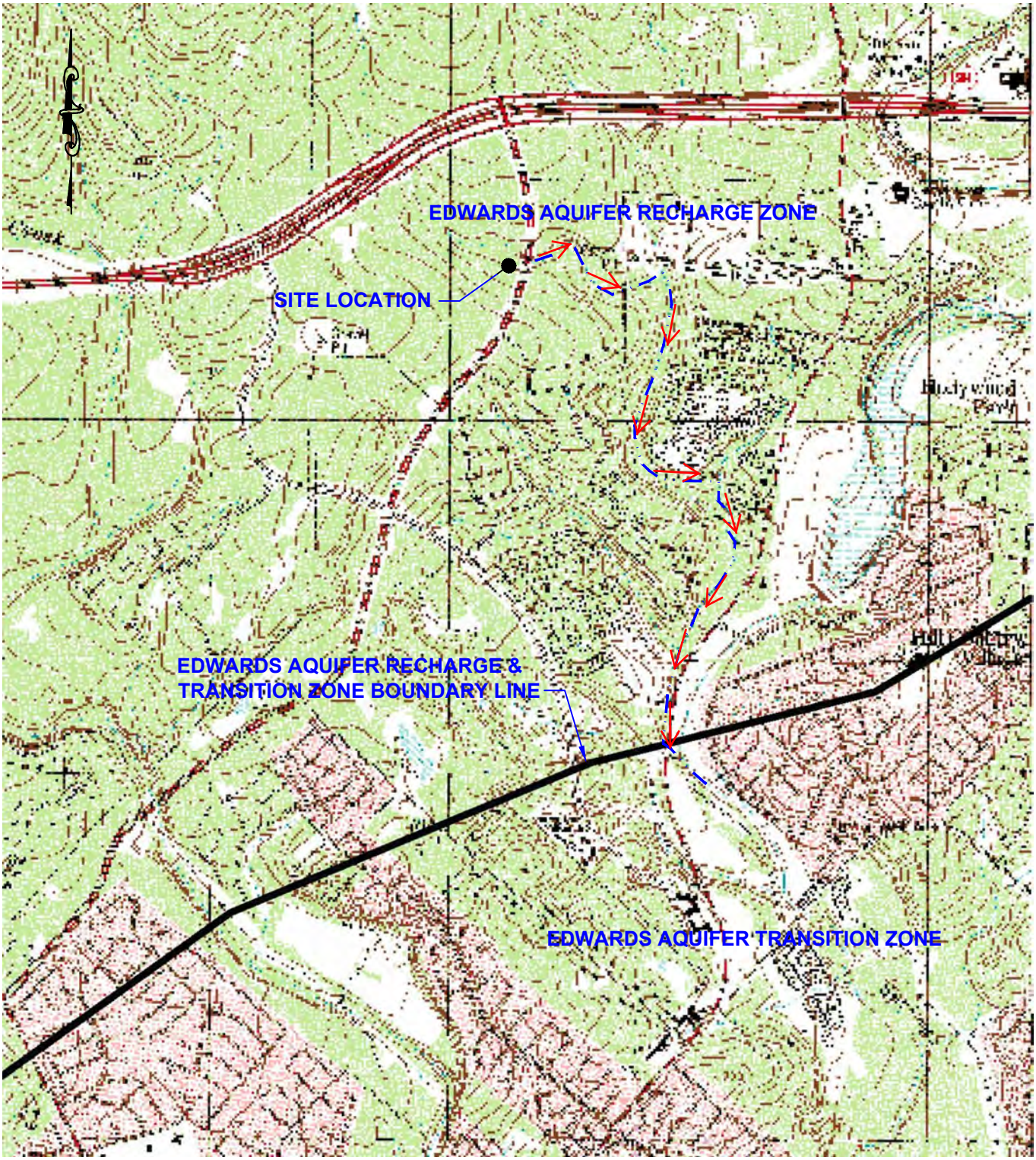
16731 HUEBNER RD., SAN ANTONIO, TX 78248

DATE:	JOB NUMBER:	SHEET NO.
10-6-2023	074-89	1 of 1
DWG NAME:	SCALE:	
074-89 Road Map (GIF-A)	N.T.S.	

ADA CONSULTING GROUP, INC.

221 W. RHAPSODY, STE. 102 SAN ANTONIO, TX 78216
(210) 340-5670 FAX:(210) 340-5728

A TEXAS REGISTERED ENGINEERING FIRM (REGISTRATION No. F-003512)



ATTACHMENT B

USGS/EDWARDS RECHARGE ZONE MAP – ATTACHMENT B

ROSENBLATT LAW FIRE EXPANSION

16731 HUEBNER RD.; SAN ANTONIO, TX 78248

DATE:	JOB NUMBER:	SHEET NO.
10-6-2023	074-89	1 of 1
DWG NAME:	SCALE:	
074-89 USGS Map (GIF-B)	1" = 2000'	

ADA CONSULTING GROUP, INC.

221 W. RHAPSODY, STE. 102 SAN ANTONIO, TX 78216
(210) 340-5670 FAX:(210) 340-5728

A TEXAS REGISTERED ENGINEERING FIRM (REGISTRATION NO. F-003512)

ATTACHMENT C
Project Description

The subject site is a 1.80-acre tract of land that is located at the northwest corner of Huebner Rd. and Deerfield Wood intersection that is approximately 2,000' south from the Huebner Rd. and Loop 1604 intersection within the City of San Antonio city limits. This property is currently developed as a law firm office currently comprised of a +/-9,200 s.f. office building, +/-13,500 sf parking lot with about 33 spaces, concrete sidewalks and landscape improvements. This development has an existing *Filterra Stormfilter* system being an 8' x 14' peak diversion unit to treat the localized storm water runoff in accordance with the approved Water Pollution Abatement Plan. The excess / overflow runoff is diverted through the stormfilter unit and discharged via the outlet pipe and headwall directly into the adjacent creek. Also, a portion of the roof runoff is being treated by engineered filter strips.

The proposed improvements to this site entail adding a new +/-3,790 s.f. office building onto the site and reconstruct portions of the existing parking lot to add more parking. There will be some regrading within the reconstruction areas however all the storm water runoff will ultimately drain to the same existing stormfilter system. But before it enters the existing stormfilter system, the storm water runoff will be conveyed to a proposed grate inlet and underground 18" pipe storage system to allow for treatment flow through equalization. The roof area runoff being treated by the engineering filter strips generally remains the same.

The required impervious cover treatment for the proposed conditions does not vastly deviate from the existing conditions. Specifically, for the two buildings (accumulatively) there will be a proposed footprint area of approximately 13,067 s.f. (0.300 acres). The proposed asphalt drives and sidewalk areas is approximately 20,994 s.f. (0. acres). This totals to 34,061 s.f. (0.782 acres – 40.8%) of project site impervious cover. The remaining project area will remain natural or landscaped.

GEOLOGIC ASSESSMENT

Modification to a Previously Approved Plan

GEOLOGICAL ASSESSMENT

TCEQ-0585

Geologic Site Assessment (WPAP)

The Rosenblatt Tract
San Antonio, Texas

Frost GeoSciences, Inc.
Project No.: FGS-E17132

March 23, 2017

Prepared exclusively for

JMS Architects, Inc.
2115 Anchor Drive, Suite #3
San Antonio, Texas 78213

Frost GeoSciences

Geotechnical ▪ Construction Materials
Forensics ▪ Environmental

13402 Western Oak Helotes, Texas 78023 Phone: (210) 372-1315 Fax: (210) 372-1318

Frost GeoSciences
Geotechnical • Construction Materials
Forensics • Environmental

13402 Western Oak
Helotes, Texas 78023
Phone (210) 372-1315
Fax (210) 372-1318
www.frostgeosciences.com
SDVOSB VBE DIBE SBE
TBPE Firm Registration # F-9227
TBPG Firm Registration # 50040

March 23, 2017

JMS Architects, Inc.
2115 Anchor Drive, Suite #3
San Antonio, Texas 78213

Attn: Mr. Joseph M. Smith, LEED, AP, AIA

Re: Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
The Rosenblatt Tract
San Antonio, Texas

Frost GeoSciences, Inc. Control # FGS-E17132

Dear Sir:

Attached is a copy of the Geologic Assessment Report completed for the above referenced project site as it relates to 30 TAC §213.5(b)(3), effective June 1, 1999. Our investigation was conducted and this report was prepared in general accordance with the "Instructions to Geologists", TCEQ-0585-Instructions (Rev. 10-1-04). The results of our investigation, along with any recommendations for Best Management Practices (BMP's), are provided in the following report.

If you have any questions regarding this report, or if Frost GeoSciences, Inc. may be of additional assistance to you on this project, please feel free to call our office. It has been a pleasure to work with you and we wish to thank you for the opportunity to be of service to you on this project. We look forward to being of continued service.

Sincerely,
Frost GeoSciences, Inc.

STATE OF TEXAS
Steve M. Frost
Geology
License No. 315
LICENSED PROFESSIONAL GEOSCIENTIST

Steve Frost, C.P.G.
President, Senior Geologist

Distribution: (6) Coursen-Kuehler Engineering & Associates.

Table of Contents

GEOLOGIC ASSESSMENT FORM 1
STRATIGRAPHIC COLUMN 4
GEOLOGIC ASSESSMENT TABLE 5
LOCATION 6
METHODOLOGY 6
RESEARCH & OBSERVATIONS 7
7.5 Minute Quadrangle Map Review 7
Recharge/Transition Zone 7
100-Year Floodplain 8
Soils 8
Narrative Description of the Site Geology 9
BEST MANAGEMENT PRACTICES 11
DISCLAIMER 11
REFERENCES 12

APPENDIX

A: Site Location Plates
Plate 1: Site Plan
Plate 2: Street Map
Plate 3: USGS Topographic Map
Plate 4: Official Edwards Aquifer Recharge Zone Map
Plate 5: FEMA Flood Map
Plate 6: USDA Soil Survey Aerial Photograph, 1"=500'
Plate 7: U.S. Geological Survey, Water Resources Investigation # 95-4030
Plate 8: 2017 Aerial Photograph, 1"=500'
Plate 9: 2017 Aerial Photograph with PRF's, 1"=200'
B: Site Photographs
C: Site Geologic Map

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Steve Frost, C.P.G., P.G. Telephone: (210) 372-1315

Date: March 23, 2017 Fax: (210) 372-1318

Representing: Frost GeoSciences, Inc., TBPE #F-9227, TBPG # 50040

Signature of Geologist:

Steve Frost

Regulated Entity Name: The Rosenblatt Tract

Project Information

1. Date(s) Geologic Assessment was performed: March 9, 2017
2. Type of Project:
   - ☑ WPAP
   - ☐ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☑ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

4. ☑ **Attachment A - Geologic Assessment Table.** Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☑ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Cb	D	0 to 1

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

6. ☑ **Attachment B – Stratigraphic Column.** A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☑ **Attachment C – Site Geology.** A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☑ **Attachment D – Site Geologic Map(s).** The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

   Applicant's Site Plan Scale: 1" = 30 '
   Site Geologic Map Scale: 1" = 30 '
   Site Soils Map Scale (if more than 1 soil type): 1" = 500 '

9. Method of collecting positional data:

   ☑ Global Positioning System (GPS) technology.
   ☑ Other method(s). Please describe method of data collection: 2015 Aerial Photograph

10. ☑ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.

11. ☑ Surface geologic units are shown and labeled on the Site Geologic Map.

12. ☑ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☐ Geologic or manmade features were not discovered on the project site during the field investigation.

13. ☑ The Recharge Zone boundary is shown and labeled, if appropriate.

14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☐ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☐ The wells are not in use and will be properly abandoned.
    - ☐ The wells are in use and comply with 16 TAC Chapter 76.

    ☑ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. ☑ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

Stratigraphic Column

[Hydrogeologic subdivisions modified from Maclay and Small (1976); groups, formations, and members modified from Rose (1972); lithology modified from Dunham (1962); and porosity type modified from Choquette and Pray (1970). CU, confining unit; AQ, aquifer]

Hydrogeologic subdivision			Group, formation, or member			Hydrologic function	Thickness (feet)	Lithology	Field identification	Cavern development	Porosity/ permeability type
Upper Cretaceous	Upper confining units		Eagle Ford Group			CU	30 – 50	Brown, flaggy shale and argillaceous limestone	Thin flagstones; petroliferous	None	Primary porosity lost/ low permeability
			Buda Limestone			CU	40 – 50	Buff, light gray, dense mudstone	Porcelaneous limestone with calcite-filled veins	Minor surface karst	Low porosity/low permeability
			Del Rio Clay			CU	40 – 50	Blue-green to yellow-brown clay	Fossiliferous; *Ilymatogyra arietina*	None	None/primary upper confining unit
Lower Cretaceous	I	Edwards aquifer	Georgetown Formation			Karst AQ; not karst CU	2 – 20	Reddish-brown, gray to light tan marly limestone	Marker fossil; *Waconella wacoensis*	None	Low porosity/low permeability
	II		Edwards Group	Person Formation	Cyclic and marine members, undivided	AQ	80 – 90	Mudstone to packstone; *miliolid* grainstone; chert	Thin graded cycles; massive beds to relatively thin beds; crossbeds	Many subsurface; might be associated with earlier karst development	Laterally extensive; both fabric and not fabric/water-yielding
	III				Leached and collapsed members, undivided	AQ	70 – 90	Crystalline limestone; mudstone to grainstone; chert; collapsed breccia	Bioturbated iron-stained beds separated by massive limestone beds; stromatolitic limestone	Extensive lateral development; large rooms	Majority not fabric/one of the most permeable
	IV				Regional dense member	CU	20 – 24	Dense, argillaceous mudstone	Wispy iron-oxide stains	Very few; only vertical fracture enlargement	Not fabric/low permeability; vertical barrier
	V			Kainer Formation	Grainstone member	AQ	50 – 60	*Miliolid* grainstone; mudstone to wackestone; chert	White crossbedded grainstone	Few	Not fabric/ recrystallization reduces permeability
	VI				Kirschberg evaporite member	AQ	50 – 60	Highly altered crystalline limestone; chalky mudstone; chert	Boxwork voids, with neospar and travertine frame	Probably extensive cave development	Majority fabric/one of the most permeable
	VII				Dolomitic member	AQ	110 – 130	Mudstone to grainstone; crystalline limestone; chert	Massively bedded light gray, *Toucasia* abundant	Caves related to structure or bedding planes	Mostly not fabric; some bedding plane-fabric/water-yielding
	VIII				Basal nodular member	Karst AQ; not karst CU	50 – 60	Shaly, nodular limestone; mudstone and *miliolid* grainstone	Massive, nodular and mottled, *Exogyra texana*	Large lateral caves at surface; a few caves near Cibolo Creek	Fabric; stratigraphically controlled/large conduit flow at surface; no permeability in subsurface
	Lower confining unit		Upper member of the Glen Rose Limestone			CU; evaporite beds AQ	350 – 500	Yellowish tan, thinly bedded limestone and marl	Stair-step topography; alternating limestone and marl	Some surface cave development	Some water production at evaporite beds/relatively impermeable

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: The Rosenblatt Tract FGS-E17132

LOCATION			FEATURE CHARACTERISTICS											EVALUATION			PHYSICAL SETTING		
1A	1B*	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						< 40	≥ 40	<1.6	≥1.6	
S-1	N29° 36' 9.306"	W98° 31' 21.574"	F	20	Kep/Kep	-	-	-	N 63°	-	-	-	F/C	15	35	35		Yes		Hillside
S-2	N29° 36' 10.082"	W98° 31' 20.492"	MB	30	Kep	3	3	-	-	-	-	-	F	5	35	35		Yes		Floodplain
S-3	N29° 36' 9.887"	W98° 31' 20.567"	MB	30	Kep	3	3	-	-	-	-	-	F	5	35	35		Yes		Floodplain
S-4	N29° 36' 10.182"	W98° 31' 21.235"	MB	30	Kep	3	3	-	-	-	-	-	F	5	35	35		Yes		Hillside

* DATUM 1983 North American Datum (NAD83)

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution Cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow Hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING

N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Natural Resource Conservation Commission's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field. My signature certifies that I am qualified as a geologist as defined by 30 TAC 213.

STATE OF TEXAS
Steve M. Frost
Geology
License No. 315
LICENSED PROFESSIONAL GEOSCIENTIST

Signature Steve Frost Date December 3, 2016 Sheet 1 of 1

LOCATION

The project site consists of approximately 1.8 acres of partially developed land located along and west of Huebner Road in San Antonio, Texas. An overall view of the area is shown on copies of the site plan, a street map, the U.S.G.S. Topographic Map, the Official Edwards Aquifer Recharge Zone Map, the FIRM Map, a 1962 Aerial Photo at a scale of 1"=500', a geologic map, a 2017 Aerial Photo at a scale of 1"=500', and a 2017 Aerial Photo at a scale of 1"=200', Plates 1 through 9 in Appendix A.

METHODOLOGY

The Geologic Assessment was performed by Mr. Steve Frost, C.P.G., President and Senior Geologist with Frost GeoSciences, Inc.. Mr. Frost is a Licensed Professional Geoscientist in the State of Texas (License # 315), and is a Certified Professional Geologist with the American Institute of Professional Geologist (Certification # 10176).

Frost GeoSciences, Inc. researched the geology of the area near the project site. The research included, but was not limited to, the Geologic Atlas of Texas, San Antonio Sheet, FEMA maps, Edwards Aquifer Recharge Zone Maps, U.S.G.S. 7.5 Minute Quadrangle Maps, the Bureau of Economic Geology-Geologic Atlas of Texas, the Geologic Map of the New Braunfels, Texas 30 X 60 Minute Quadrangle, the U.S.G.S. Water-Resources Investigations Report 95-4030, and the U.S.D.A. Soil Survey of Bexar County, Texas.

After reviewing the available information, a field investigation was performed to identify any geologic or man made potential recharge features. A transect spacing of approximately 50 feet, or less depending on vegetation thickness, was used to inspect the project area. A 2017 aerial photograph, in conjunction with a hand held Global Positioning System with an Estimated Potential Error of 10 feet, was used to navigate around the property and identify the locations of potential recharge features, as recommended in the "Instructions to Geologists", TCEQ-0585-Instructions (Rev. 10-

1-04). The locations of any potential recharge features noted in the field were marked with blue and white flagging. The flagging is numbered with the same potential recharge feature I.D. # that is used on the Site Geologic Map. The Site Geologic Map, indicating the limits of the project site, and the locations of potential recharge features and rock outcrops noted on the project site, is included in Appendix C. A copy of a 2017 Aerial Photograph at an approximate scale of 1"=200' indicating the limits of the project site, and the locations of potential recharge features and rock outcrops noted on the project site, is included on Plate 9 in Appendix A. The Geologic Assessment Form TCEQ-0585, (Rev. 2-11-15), Stratigraphic Column, and the Geologic Assessment Table have been filled with the appropriate information for this project site and are included on pages 1-5 of this report.

RESEARCH & OBSERVATIONS

7.5 Minute Quadrangle Map Review

According to the U.S.G.S. 7.5 Minute Quadrangle Map, Castle Hills, Texas Sheet (1992), the elevation across the project site ranges from 950 feet above mean sea level along the northern property line to 960 feet above mean sea level at the southern property line. Runoff from the project site flows to the north into an unnamed tributary of Panther Creek. Huebner Road is visible immediately east of the site. Loop 1604 is visible north of the site. A copy of the U.S.G.S. 7.5 Minute Quadrangle Map indicating the location of the project site is included on Plate 3 in Appendix A.

Recharge / Transition Zone

According to the Edwards Underground Water District Reference Map, (March 1988), and the Official Edwards Aquifer Recharge Zone Map, Castle Hills, Texas Sheet (2014), the project site is located within the Recharge Zone of the Edwards Aquifer. A copy of the Official Edwards Aquifer Recharge Zone Map, Castle Hills, Texas (2014) indicating the location of the project site is included on Plate 4 in Appendix A.

100-Year Floodplain

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the Bexar County, Texas, Community Panel Number 48029C0235G (Revised September 29, 2010) was reviewed to determine if the project site is located in areas prone to flooding. A review of the above mentioned Panel No., indicates that the project site is located within "Zone AE" and "Zone X". According to the Panel Legend, Zone AE represents areas determined to be within the 100 year floodplain where base flood elevations have been determined. According to the above mentioned Panel No., elevations between 944 and 945 are within the 100 year floodplain. Zone X represents areas determined determined to be outside the 0.2% annual chance floodplain. A copy of the above referenced FIRM panel indicating the location of the project site is included on Plate 5 in Appendix A.

Soils

According to the United States Department of Agriculture, Soil Conservation Service, Soil Survey of Bexar County, Texas, Sheet 16, (1966), the project site is located on the Crawford & Bexar Stoney Soils (Cb). A copy of the 1962 aerial photo (approximate scale: 1"=500') from the U.S.D.A. Soil Survey of Bexar County, Texas indicating the location of the project site and the soil types is included on Plate 6 in Appendix A.

The Crawford and Bexar Stony Soils (Cb) are very dark grayish brown to reddish brown clay. They are stony clay in texture and are shallow to moderately deep over hard limestone. These soils are extensive in the northern part of the county. The surface layer is noncalcareous, about 8 inches thick, and very dark grayish brown or very dark brown. It has fine, subangular blocky and granular structure. When moist, this layer is very firm but breaks easily to a mass of fine clods. When dry, is very hard and contains many large cracks. Angular fragments of chert and limestone are common. These fragments may range in size from a quarter of an inch to 24 inches in diameter. The subsurface layer is dense, angular blocky clay. This layer

is neutral or slightly acidic, but it may be limy in the lower parts. It is about 26 inches thick and either overlies a thin layer of yellowish red to pale brown, limy clay or, if the limy layer is lacking, rests on hard, fractured limestone. Crawford soils are naturally well drained. Internal drainage and permeability vary according to moisture content. Water moves rapidly when the soil is dry and cracked, but very slowly when the soil is wet.

This soil has a USDA Texture Classification of Cherty Clay Loam to Loam. The Unified Classification is CG or CL. The AASHO Classification is A-2, A-4 or A-6. This soil has an average permeability from 1.0 to 1.5 inches/hour.

Narrative Description of the Site Geology

Based on a visual inspection of the ground surface, the overall potential for fluid flow from the project site into the Edwards Aquifer appears to be low.

The locations of the Potential Recharge Features are identified on the 2017 aerial photograph on Plate 9 in Appendix A, and on the Site Geologic Map provided in Appendix C. Color photos of the project site and some of the potential recharge features are included in Appendix B.

Potential Recharge Features # S-1 is a fault. This fault was identified during the research of the property and appears on both the U.S.G.S. WRI 95-4030 Geologic Map of Bexar County, Texas (1995) and the Bureau of Economic Geology, Geologic Map of the New Braunfels, Texas 30x60 Minute Quadrangle (2000). No evidence of the fault was noted in the field during the on-site inspection or within the streambed immediately north of the site. According to these maps, the fault occurs on a strike of N 63^{o}. Frost GeoSciences, Inc., rates the relative infiltration rate of this feature as low on figure 1 of the TCEQ-0585-Instructions (Rev. 10-01-04). This feature scores a 35 on the sensitivity scale, column 10 in the Geologic Assessment Table on page 5 of this report. Frost GeoSciences, Inc. does not consider this to be a sensitive feature.

Potential Recharge Features # S-2 through S-4 consists of sanitary sewer manhole covers along an existing sewer line. Frost GeoSciences, Inc. rates the relative infiltration rate of these features as low on Figure 1 of the TCEQ-0585-Instructions (Rev. 10-01-04). These features score a 35 on the sensitivity scale, column 10 in the Geologic Assessment Table on Page 5 of this report. Frost GeoSciences, Inc. does not consider these to be sensitive features.

The majority of the project site appears to be covered in several feet of fill material. Boulders and cobbles are placed around existing trees on the site and leveled out between them. A driveway and parking area are located across the central portion of the site. Portion of this parking area appear to have from 3 to 7 feet of fill material. Site visit photographs indicating the condition of the property at the time of the on-site inspection are included in Appendix B. Overall vegetation on the project site consists of ashe juniper (*Juniperus ashei*), live oak (*Quercus virginiana*), and cedar elm (*Ulmus crassifolia*), with Texas persimmon (*Diospyros texana*), agarita (*Berberis trifoliolata*), yucca (*Yucca treculeana*), and prickly pear cactus (*Opuntia lindheimeri*). The variations in the vegetative cover on the property are visible in the 2017 aerial photograph on Plates 8 and 9 in Appendix A.

A copy of the site plan indicating the boundary of the project site and the elevations is included on the site plan on Plate 1 in Appendix A and on the Site Geologic Map in Appendix C of this report.

According to the United States Geologic SurveyWater Resources Investigations #95-4030 Geologic Map of Bexar County, Texas the project site is located on the Cyclic & Marine Member and the Leached & Collapsed Member of the Cretaceous Edwards Person Limestone (Kep).

The Cyclic and Marine Member of the Cretaceous Edwards Person Limestone consists of mudstone to packstone and miliolid grainstone with chert. The member is characterized by massive beds of limestone to relatively thin beds of limestone with some crossbedding. The Cyclic and Marine Member forms a few caves some that are laterally

extensive. Overall thickness ranges from 80 to 90 feet thick.

The Leached and Collapsed Member of the Edwards Person Limestone consists of crystalline limestone, mudstone to grainstone with chert, and collapsed breccia. This member is stromatolitic limestone. The Leached and Collapsed Member is characterized by bioturbated iron stained beds separated by massive limestone beds. This member is typically one of the most permeable and has extensive lateral development with large rooms. Overall thickness ranges from 70 to 90 feet thick.

A copy of the above referenced map indicating the location of the project site is included on Plate 7 in Appendix A. A copy of the Stratigraphic Collum highlighting the outcropping formations is included on Page 5 of this report.

BEST MANAGEMENT PRACTICE (BMP)

Based on a visual inspection of the ground surface, the overall potential for fluid flow from the project site into the Edwards Aquifer appears to be low. The potential always exists to encounter solution cavities within the subsurface during excavating activities. Particularly along the fault that runs through the property. Frost GeoSciences, Inc. is of the opinion that it is very important for construction personnel to be informed of the potential to encounter cavities in the subsurface that lack a surface expression. Construction personnel should also be informed of the proper protocol to follow in the event a karst feature is encountered during the development of the project site.

DISCLAIMER

This report has been prepared in general accordance with the "Instructions to Geologists", TCEQ-0585-Instructions (Rev. 10-1-04) by a Licensed Texas Professional Geoscientist. All areas of the project site were carefully inspected for features that could contribute to the recharge of the Edwards Aquifer, however, this survey cannot preclude the presence of subsurface karst features that lack surface expression. This report is not intended to be a definitive investigation of all

possible geologic or karst features at this site. All conclusions, opinions, and recommendations for Best Management Practices (BMP's) in this report are based on information obtained while researching the project, and on the site conditions at the time of our field investigation.

This report has been prepared for the exclusive use of JMS Architects, Inc. This report is based on available known records, a visual inspection of the project site, and the work generally accepted for a Geologic Assessment for Regulated Activities / Developments on the Edwards Aquifer Recharge / Transition Zone, relating to 30 TAC §213.5(b)(3), effective June 1, 1999.

REFERENCES

1) U.S.G.S. 7.5 Minute Quadrangle Map, Castle Hills, Texas Sheet (1992).

2) Edwards Underground Water District Reference Map, (March 1988).

3) Official Edwards Aquifer Recharge Zone Map, Castle Hills, Texas Sheet (2014).

4) Stein, W.G. and Ozuna, G.B., 1995, Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Recharge Zone, Bexar County, Texas. U.S. Geological Survey Water Resources Investigations 95-4030.

5) Barnes, V.L., 1983, Geologic Atlas of Texas, San Antonio Sheet, Bureau of Economic Geology, The University of Texas at Austin, Texas.

6) Federal Emergency Management Agency (FEMA), September 29, 2010, Bexar County, Texas and Incorporated Areas, Flood Insurance Rate Map (FIRM), Panel #48029C0235G, FEMA, Washington D.C.

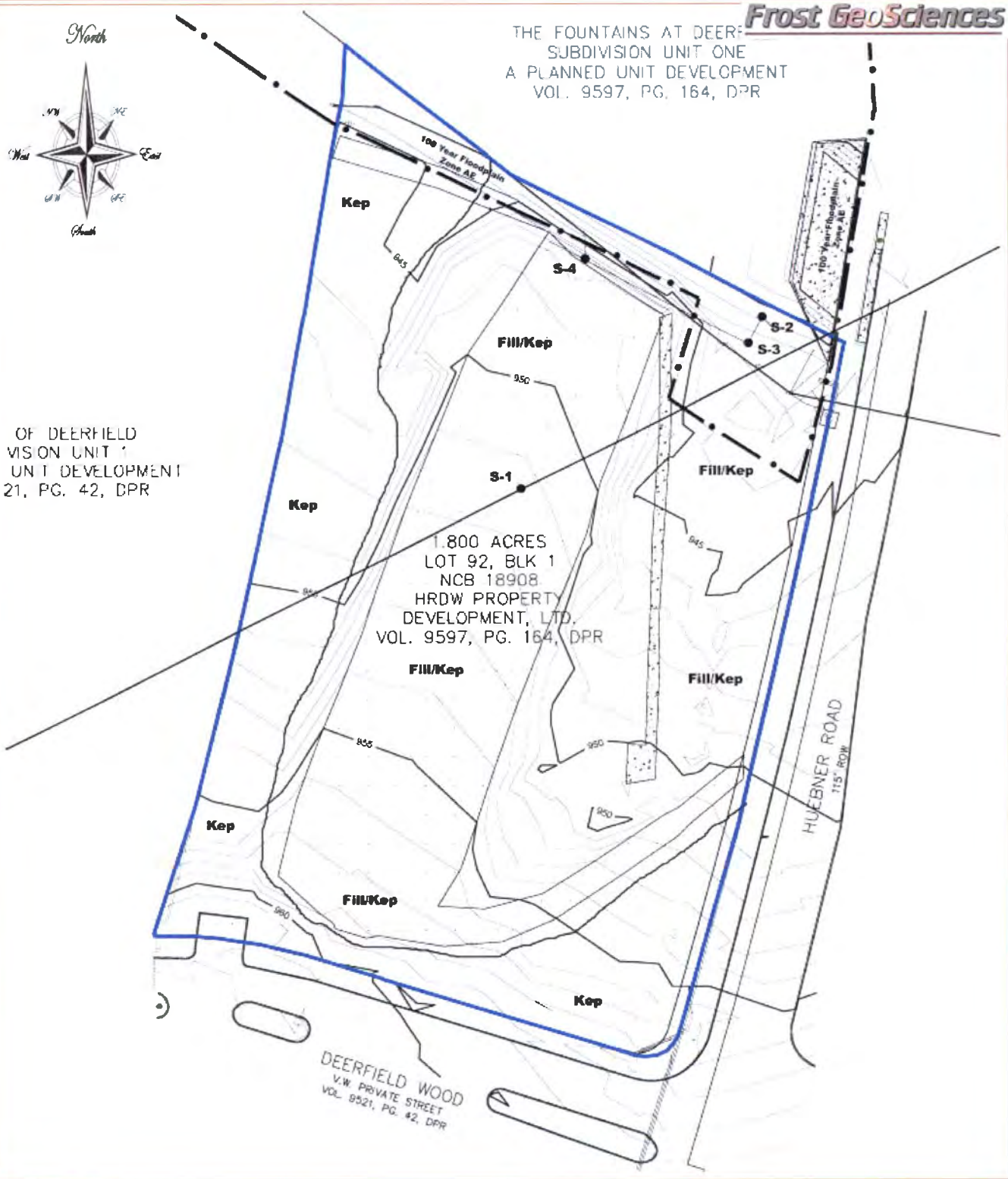
7) U.S.D.A. Soil Conservation Service, Soil Survey of Bexar County, Texas (1966).

8) TCEQ-0585-Instructions (Rev. 10-1-04). "Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zone".

9) Collins, Edward, W., 2000, Geologic Map of the New Braunfels, Texas 30 X 60 Minute Quadrangle, Bureau of Economic Geology, The University of Texas at Austin, Texas.

Appendix A

Site Location Plates



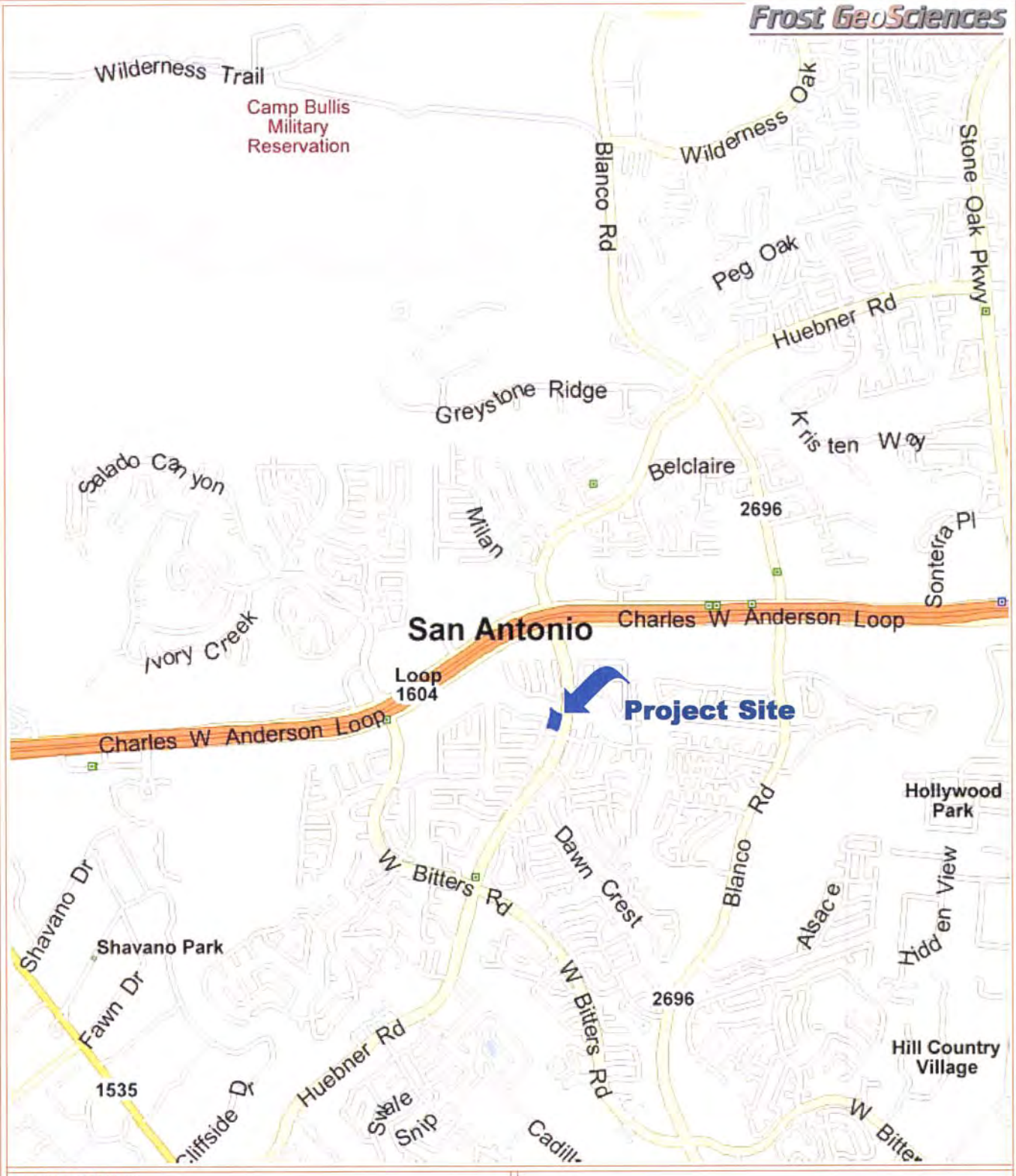
PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
The Rosenblatt Tract
San Antonio, Texas

Site Plan

PROJECT NO.: FGS-E17132

DATE: March 23, 2017

Frost GeoSciences

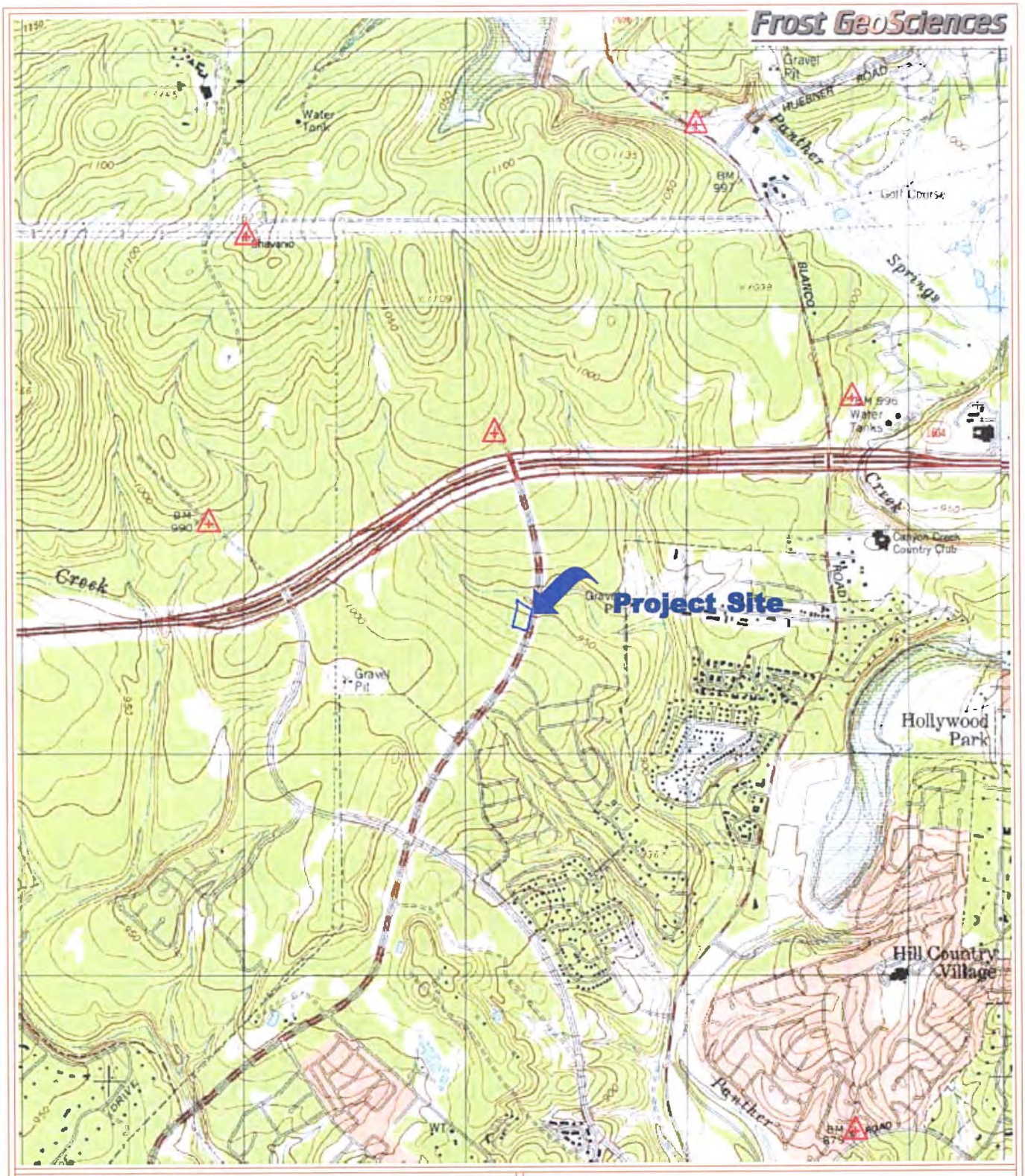


PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
The Rosenblatt Tract
San Antonio, Texas

Street Map

PROJECT NO.: FGS-E17132

DATE: March 23, 2017



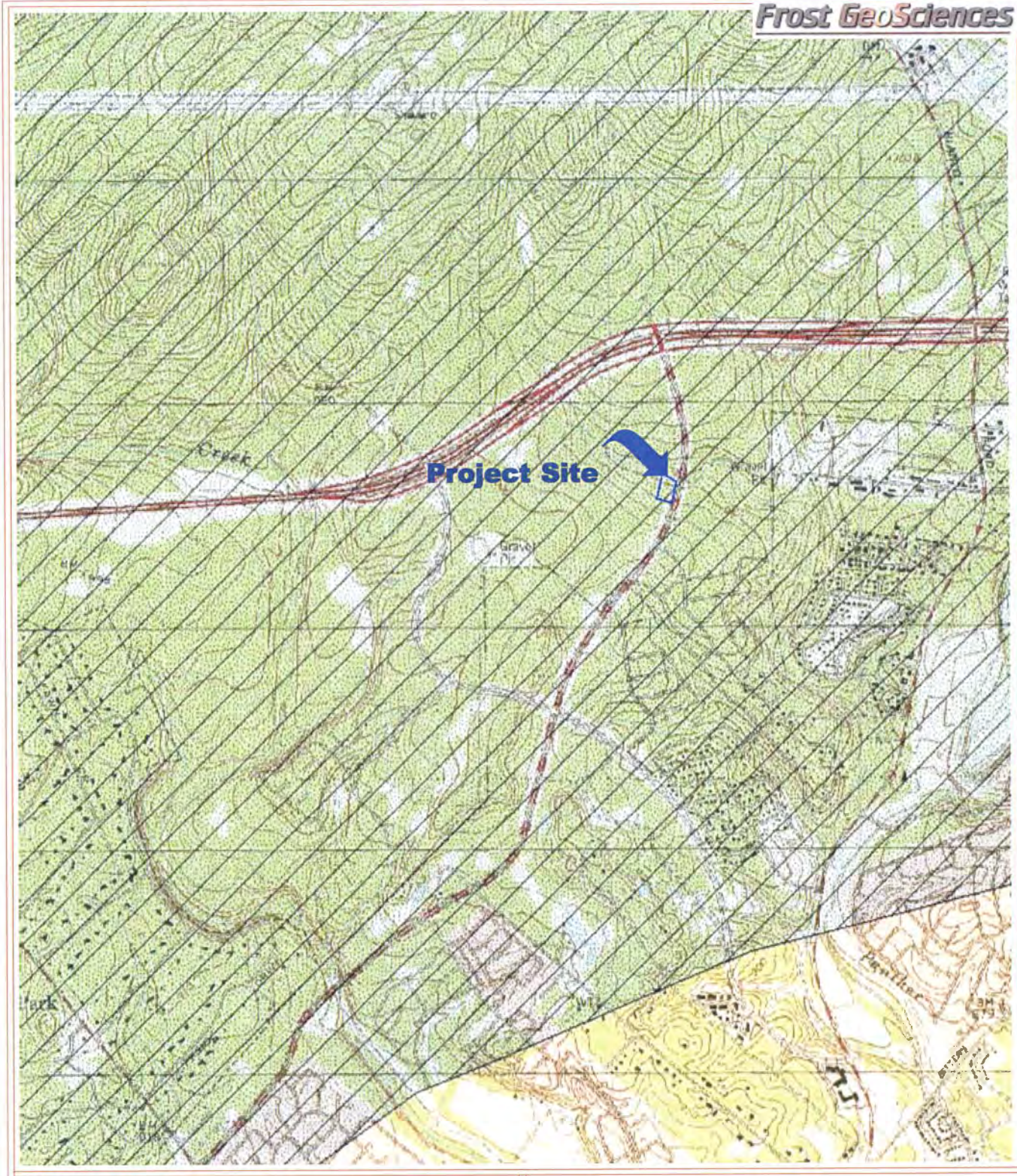
PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
The Rosenblatt Tract
San Antonio, Texas

U.S.G.S. 7.5 Minute Quadrangle Map
Castle Hills, Texas Sheet (1992)

PROJECT NO.: FGS-E17132

DATE: March 23, 2017

Frost GeoSciences

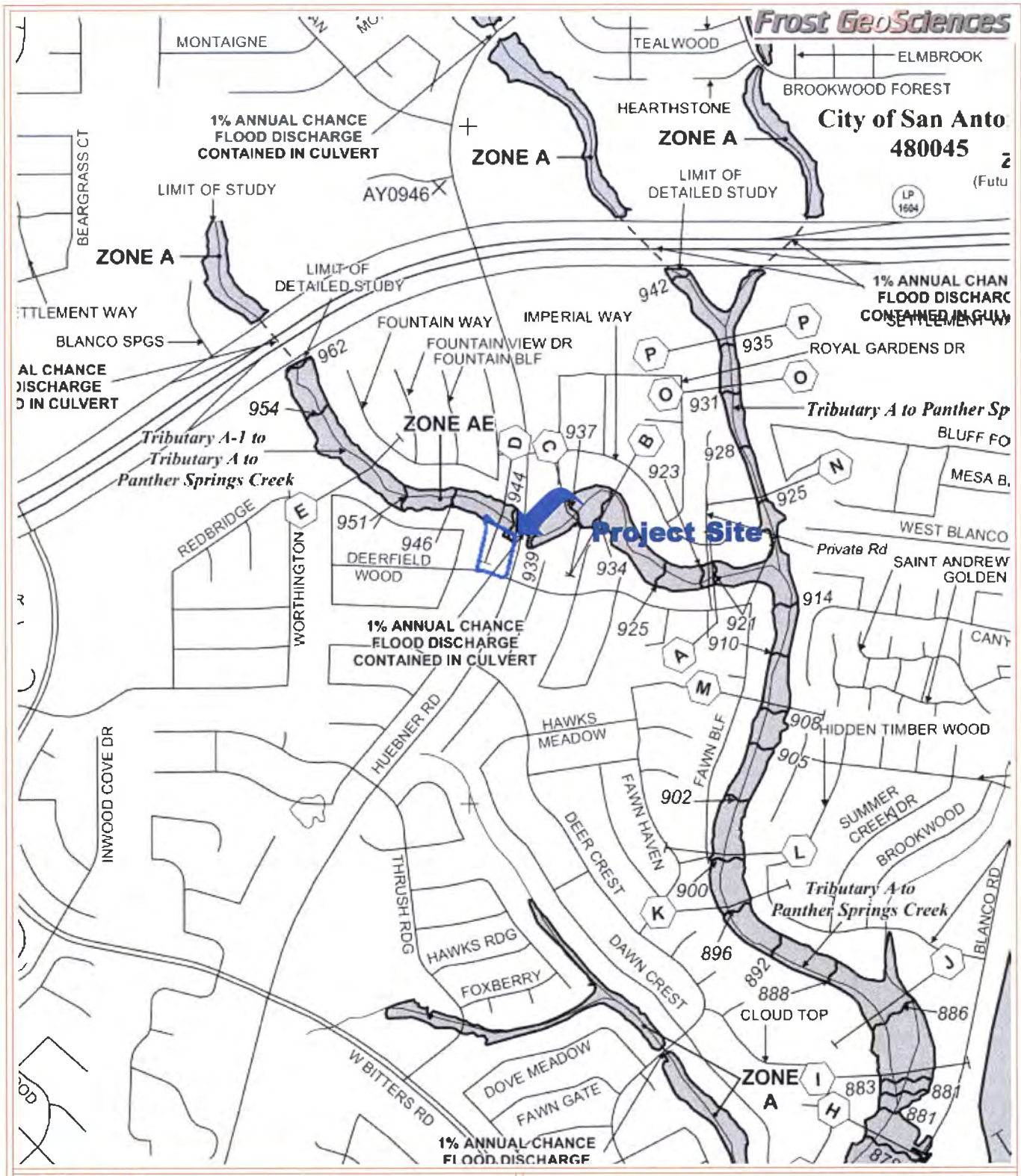


PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
The Rosenblatt Tract
San Antonio, Texas

Official Edwards Aquifer Reference Map
Castle Hills, Texas (2014)

PROJECT NO.: FGS-E17132

DATE: March 23, 2017



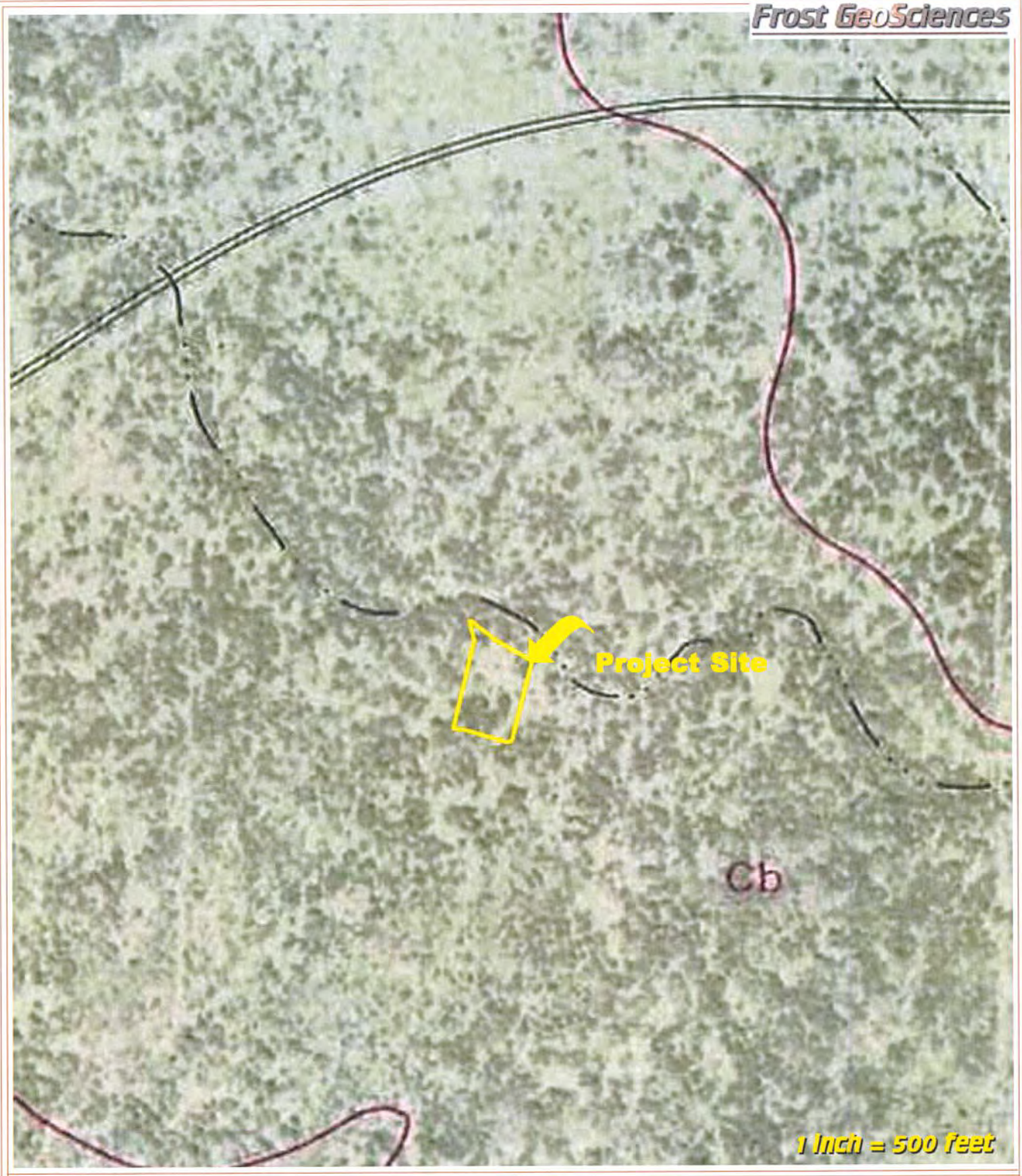
PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
The Rosenblatt Tract
San Antonio, Texas

Flood Insurance Rate Map (FIRM)
Community Panel # 48029C0235G
(September 29, 2010)

PROJECT NO.: FGS-E17132

DATE: March 23, 2017

Frost GeoSciences



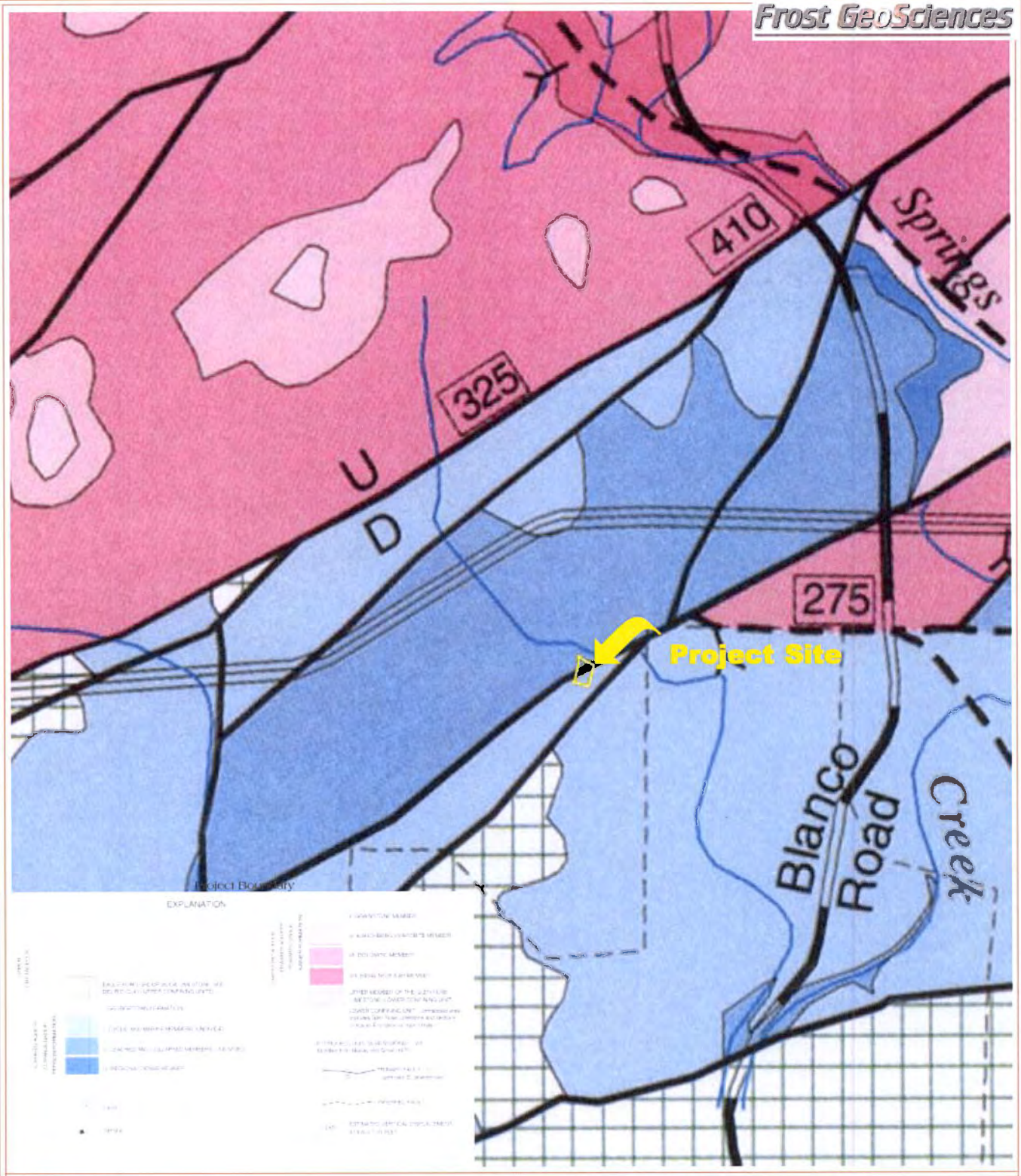
PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
The Rosenblatt Tract
San Antonio, Texas

1962 Aerial Photograph
U.S.D.A. Soil Survey of Bexar County, Texas

PROJECT NO.: FGS-E17132

DATE: March 23, 2017

Frost GeoSciences



PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
The Rosenblatt Tract
San Antonio, Texas

United States Geologic Survey
Water Resources Investigations #95-4030
Geologic Map of Bexar County, Texas

PROJECT NO.: FGS-E17132

DATE: March 23, 2017

Frost GeoSciences

PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
The Rosenblatt Tract
San Antonio, Texas

2017 Aerial Photograph
Google Earth

PROJECT NO.: FGS-E17132

DATE: March 23, 2017

Frost GeoSciences

PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
The Rosenblatt Tract
San Antonio, Texas

2017 Aerial Photograph
Google Earth

PROJECT NO.:	DATE:
FGS-E17132	March 23, 2017

Appendix B

Site Inspection Photographs

View to the north, of the project site along the eastern property line.

View to the south, of the project site along the eastern property line.

View of fill material along the parking area in the central portion of the project site.

View of fill material around a cluster of trees in the eastern central portion of the site.

View of fill material around a cluster of trees in the northern central portion of the site.

View of fill material along the parking area in the central portion of the project site.

View of Potential Recharge Feature # S-2.

View of Potential Recharge Feature # S-4.

View to the south, of the parking area in the central portion of the project site.

View to the north, of the parking area in the central portion of the project site.

View to the east, of the project site along the northern property line.

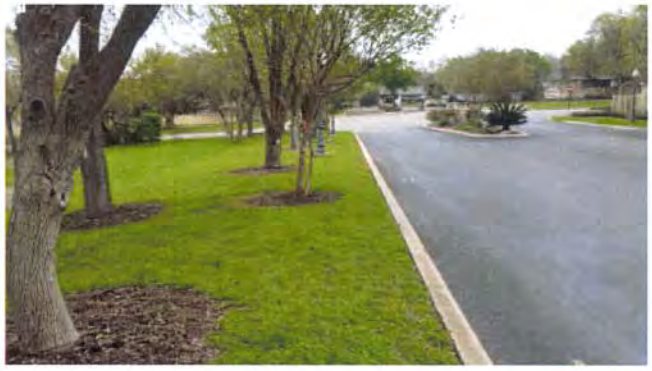
View to the south, of the project site along the western property line.

View to the southeast, from the northwestern property corner.

View of fill material along the western side of the parking area in the central portion of the project site.

View to the south, along the western property line near the southwestern property corner.

View of fill material along the western side of the parking area in the southern portion of the project site.



View to the east, of the project site along the southern property line.

View to the west, of the project site along the southern property line.

Appendix C

Site Geologic Map

Location Map

THE FOUNTAINS AT DEERFIELD
SUBDIVISION UNIT ONE
A PLANNED UNIT DEVELOPMENT
VOL. 9597, PG. 164, DPR

WOODS OF DEERFIELD
SUBDIVISION UNIT 1
A PLANNED UNIT DEVELOPMENT
VOL. 9521, PG. 42, DPR

1.800 ACRES
LOT 92, BLK 1
NCB 18908
HRDW PROPERTY
DEVELOPMENT, LTD.
VOL. 9597, PG. 164, DPR

DEERFIELD WOOD
V.W. PRIVATE STREET
VOL. 9521, PG. 42, DPR

HUEBNER ROAD
115' ROW

100 Year Floodplain Zone AE

100 Year Floodplain Zone AE

Kep

Fill/Kep

S-1

S-2

S-3

S-4

945

950

955

960

STATE OF TEXAS
Steve M. Frost
Geology
License No. 315
LICENSED
PROFESSIONAL GEOSCIENTIST
3/24/17

Signature of Texas Licensed Geoscientist
Steve Frost, TPG# 315, AIPG # 10176

North
NW NE
West East
SW SE
South

RECEIVED
TCEQ-R13 (EAPP)
APR 11 2017
SAN ANTONIO

Frost GeoSciences

Geotechnical • Construction Materials
Forensics • Environmental

13402 Western Oak Dr. • Helotes, Texas 78023
Phone: (210) 372-1315 Fax: (210) 372-1318

Site Geologic Map

Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
for
Rosenblatt Tract
1.8 Acres
San Antonio, Texas

Frost GeoSciences, Inc. Control # FGS-E17132

Legend

- Fill - Fill Material
- Qal - Alluvium
- Kau - Austin Chalk
- Kef - Eagle Ford Shale
- Kbu - Buda Limestone
- Kdr - Del Rio Clay
- Kgt - Georgetown Limestone
- Kep - Edwards Person Limestone
- Kek - Edwards Kainer Limestone
- Kgr - Glen Rose Formation

- S-# - Potential Recharge Feature (PRF)
- Formation Contact
- 100-Year Floodplain - Zone A
- 100-Year Floodplain - Zone AE
- Other Flood Hazard Area - Zone X (shaded)

Fault Information Obtained From:
Bureau of Economic Geology, Geologic Atlas of Texas, San Antonio Sheet (1983)
U.S. Geological Survey, Water Resources Investigations Report 95-4030 (1995)
Geologic Map of the New Braunfels, Texas 30 X 60 Minute Quadrangle (2000)

Floodplain Information Obtained From
FIRM: Flood Insurance Rate Map
Bexar County, Texas: Panel # 48029C0235G, Revised 9/29/10

Graphic Scale

30 0 15 30 60

(In Feet)

1 inch = 30 feet
Representative Fraction 1:360

Contour Interval - 1 foot

MODIFICATION OF A PREVIOUSLY APPROVED PLAN

Modification to a Previously Approved Plan

Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This request for a **Modification of a Previously Approved Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Michael P. Sepeda, P.E.

Date: 3/22/2024

Signature of Customer/Agent:

Project Information

1. Current Regulated Entity Name: Rosenblatt Law Firm Expansion
   Original Regulated Entity Name: Rosenblatt Offices
   Regulated Entity Number(s) (RN): 109734038
   Edwards Aquifer Protection Program ID Number(s): 13000381
   ☒ The applicant has not changed and the Customer Number (CN) is: 605399435
   ☐ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. ☒ **Attachment A: Original Approval Letter and Approved Modification Letters.** A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):
   - ☐ Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
   - ☒ Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
   - ☐ Development of land previously identified as undeveloped in the original water pollution abatement plan;
   - ☐ Physical modification of the approved organized sewage collection system;
   - ☐ Physical modification of the approved underground storage tank system;
   - ☐ Physical modification of the approved aboveground storage tank system.

4. ☒ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	1.87	1.80
Type of Development	Commercial (prof. offices)	Commercial (prof. offices)
Number of Residential Lots	N/A	N/A
Impervious Cover (acres)	0.83	0.78
Impervious Cover (%	45	41
Permanent BMPs	VFS & StormFilter	VFS & StormFilter
Other	_____	_____

SCS Modification Summary	***Approved Project***	***Proposed Modification***
Linear Feet	_____	_____
Pipe Diameter	_____	_____
Other	_____	_____

AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs	_____	_____
Volume of ASTs	_____	_____
Other	_____	_____

UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs	_____	_____
Volume of USTs	_____	_____
Other	_____	_____

5. ☒ **Attachment B: Narrative of Proposed Modification**. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved, including any previous modifications, and how this proposed modification will change the approved plan.

6. ☒ **Attachment C: Current Site Plan of the Approved Project**. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
   - ☐ The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
   - ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
   - ☒ The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. ☐ The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage.
   ☒ Acreage has not been added to or removed from the approved plan.

8. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

SCANNED

PI2-20170133237-6

Deed Recordation Affidavit
Edwards Aquifer Protection Plan

THE STATE OF TEXAS §

County of Bexar §

BEFORE ME, the undersigned authority, on this day personally appeared James Rosenblatt who, being duly sworn by me deposes and says:

(1) That my name is James Rosenblatt and that I ~~own~~ am the Member of Dietton Woods Property LLC who owns the real property described below.

(2) That said real property is subject to an EDWARDS AQUIFER PROTECTION PLAN which was required under the 30 Texas Administrative Code (TAC) Chapter 213.

(3) That the EDWARDS AQUIFER PROTECTION PLAN for said real property was approved by the Texas Commission on Environmental Quality (TCEQ) on June 21, 2017.

A copy of the letter of approval from the TCEQ is attached to this affidavit as Exhibit A and is incorporated herein by reference.

(4) The said real property is located in Bexar County, Texas, and the legal description of the property is as follows:

1.80 ACRES BEING LOT 92, BLOCK 1, NEW COUNTY BLOCK 18908, SAN ANTONIO, BEXAR COUNTY, TEXAS OF HRDW PROPERTY DEVELOPMENT, LTD. SUBDIVISION REPLAT, RECORDED IN VOL. 9597, PG. 164 OF THE DEED AND PLAT RECORDS OF BEXAR COUNTY, TEXAS .

By: Dietton Woods Properties, LLC

LANDOWNER-AFFIANT

SWORN AND SUBSCRIBED TO before me, on this 29 day of June, 2017.

NOTARY PUBLIC

THE STATE OF Texas §

County of Bexar §

BEFORE ME, the undersigned authority, on this day personally appeared James D. Rosenblatt known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 29 day of June, 2017.

NOTARY PUBLIC

CARRIE SWANSON
Notary Public State of Texas
My Commission Expires
DECEMBER 18, 2017

Carrie Swanson
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 12/18/17

Book 18616 Page 825 6pgs

TCEQ-0625 (Rev. 10/01/04)

ATTACHMENT A

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 21, 2017

Mr. Robert Stanley
HRDW Property Development, Ltd.
17211 Eagle Hollow
San Antonio, Texas 78248

Re: Edwards Aquifer, Bexar County

NAME OF PROJECT: Rosenblatt Office; Located northwest of the Huebner Road and Deerfield Wood intersection; San Antonio, Texas

TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer

Regulated Entity No. RN109734038; Additional ID No. 13000381

Dear Mr. Stanley:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP for the above-referenced project submitted to the San Antonio Regional Office by Coursen-Koehler Engineering & Associates on behalf of HRDW Property Development, Ltd. on April 11, 2017. Final review of the WPAP was completed after additional material was received on June 8, 2017. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were selected and prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed commercial project will have an area of approximately 1.87 acres. It will include the construction of two office buildings, parking, drainage improvements, and grading. The impervious cover will be 0.83 acres (45 percent). Project wastewater will be disposed of by conveyance to the existing Salado Creek Water Recycling Center owned by the San Antonio Water System.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, two engineered vegetative filter strips, and one StormFilter, designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 677 pounds of TSS generated from the 0.83 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project. The individual treatment measures consist of following best management practices:

BMP	Total Area (ac)	Imp. Cover (ac)	Req. TSS Removed (lb/yr)	Design TSS Removed (lb/yr)
StormFilter	0.69	0.60	490	541
Vegetative Filter Strip	0.48	0.12	98	98
Vegetative Filter Strip	0.29	0.05	41	41
Uncaptured*	0.14	0.06	48	-
Pervious	0.27	-	-	-
Project Total	1.87	0.83	677	680

*Uncaptured TSS load of 48 lb/yr will be overtreated in the StormFilter System.

GEOLOGY

According to the geologic assessment included with the application, the site lies within the cyclic and marine members and the leached and collapsed members of the Person Formation. Three non-sensitive manmade features and one non-sensitive geologic feature were assessed by the project geologist in the assessment. The San Antonio Regional Office site assessment conducted on May 25, 2017 revealed that the site was generally as described in the application.

SPECIAL CONDITIONS

I. The permanent pollution abatement measures shall be operational prior to first occupancy of a facility within the measure's drainage area.

II. All sediment and/or media removed from the permanent pollution abatement measures during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the

approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.

3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

4. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.
5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
6. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.
9. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

During Construction:

10. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.

11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.
12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.
13. No wells exist on site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.
15. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

<u>After Completion of Construction:</u>

18. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
19. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.

20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
21. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
22. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Monica Reyes of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210)403-4012.

Sincerely,

Lynn Bumguardner, Water Section Manager
San Antonio Region
Texas Commission on Environmental Quality

LB/MR/eg

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625

cc: Mr. David Brodbeck, P.E., Coursen-Koehler Engineering & Associates
Ms. Renee Green, P.E., Bexar County Public Works
Mr. Scott Halty, San Antonio Water System
Mr. Roland Ruiz, General Manager, Edwards Aquifer Authority

ATTACHMENT B
Narrative of Proposed Modifications

The proposed improvements to this site entail adding a new +/-3,790 s.f. office building onto the site and reconstruct portions of the existing parking lot to add more parking. There will be some regrading within the reconstruction areas however all the storm water runoff will ultimately drain to the same existing StormFilter system. But before it enters the existing stormfilter system, the storm water runoff will be conveyed to a proposed grate inlet and underground 18" pipe storage system to allow for treatment flow through equalization. The roof area runoff being treated by the engineering filter strips generally remains the same.

The required impervious cover treatment for the proposed conditions does not vastly deviate from the existing conditions. Specifically, the attached table breaks down the previously approved WPAP values versus the Modification of a Previously Approved Plan utilizing the same StormFilter system. Only the underground detention volume used to equalize the treatment outflow for the StormFilter has been designed specifically for this Modification.

TSS Summary Table - Previously Approved WPAP vs. Modification of PAP

	Total Area (Ac.)		Impervious Cover Area (Ac.)		Req. TSS Removed (lbs/yr)		Design TSS Removed (lbs/yr)	
BMP	Previous*	**Modification**	Previous*	**Modification**	Previous*	**Modification**	Previous*	**Modification**
StormFilter	0.69	**0.68**	0.60	**0.61**	490	**494**	541	**545**
Veg. Filter Strip	0.48	**0.48**	0.12	**0.11**	98	**98**	98	**98**
Veg. Filter Strip	0.29	**---**	0.05	**---**	41	**---**	41	**---**
Uncaptured	0.14	**0.13**	0.06	**0.06**	48	**51**	---	**---**
Pervious	0.27	**0.63**	---	**---**	---	**---**	---	**---**
Project Total	1.87	**1.92**	0.83	**0.78**	677	**643**	680	**643**

*Values from previously approved Water Pollution Abatement Plan

Note that the overall TSS was reduced from 680 lbs/yr to 643 lbs/yr since there is less overall amount of impervious cover than shown and as approved with the original previously approved plan. For the uncaptured area that produces 51 lbs/yr of TSS, the StormFilter and detention system treats a total of 545 lbs/yr which is 51 lbs/yr over than the indicated 494 lbs/yr required TSS removal.

GENERAL NOTES:

1. THE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST MEET ALL APPLICABLE CRITERIA OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY SET FORTH IN 30 TEXAS ADMINISTRATIVE CODE (TAC) 213.5(B) -- WATER POLLUTION ABATEMENT PLAN FOR REGULATED ACTIVITIES UNDERTAKEN ON THE RECHARGE ZONE OF THE EDWARDS AQUIFER.

2. TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE REQUIRED DURING CONSTRUCTION. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED. THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE INSPECTED PERIODICALLY FOR DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES AND FOLLOWING EVERY RAINFALL. DAMAGED OR OBSTRUCTED CONTROLS MUST BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN PROPER OPERATION.

3. IF ANY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE OWNER MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY OF THE SENSITIVE FEATURE DISCOVERED. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY WHILE MAINTAINING THE STRUCTURAL INTEGRITY OF THE LINE.

4. ANY MODIFICATION TO THE APPROVED WATER POLLUTION ABATEMENT PLAN MUST BE SUBMITTED TO THE APPROPRIATE REGIONAL OFFICE FOR APPROVAL BY THE EXECUTIVE DIRECTOR OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY BEFORE CONSTRUCTION OF THE PROPOSED MODIFICATION MAY COMMENCE.

5. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

6. AN INSPECTION WILL BE PERFORMED BY THE CONTRACTOR ONCE EVERY SEVEN (7) DAYS, AND WITHIN 24 HOURS AFTER A STORM EVENT OF A 1/2 INCH OR GREATER RAINFALL. CONTROLS WILL BE REPAIRED, REPLACED, AND/OR REVISED AS NECESSARY.

7. CONTRACTOR TO PLACE TRENCH EXCAVATION MATERIAL ON THE UPGRADIENT (HIGH) SIDE OF THE TRENCH.

8. ALL SOIL, SAND, GRAVEL, AND EXCAVATED MATERIALS STOCKPILED ON-SITE WILL HAVE APPROPRIATELY SIZED SILT FENCE.

9. CONTRACTOR TO INDICATE AND UTILIZE APPROPRIATE CONTROL METHODS AS NECESSARY.

MAINTENANCE:
FILTER STRIPS:
SEASONAL MOWING AND LAWN CARE
IF THE FILTER STRIP IS MADE OF TURF GRASS, IT SHOULD BE MOWED AS NEEDED TO LIMIT VEGETATION HEIGHT TO 18 INCHES, USING A MULCHING MOWER (OR REMOVAL OF CLIPPING). IF NATIVE GRASSES ARE USED, THE FILTER MAY REQUIRE LESS FREQUENT MOWING, BUT A MINIMUM OF TWICE ANNUALLY. GRASS CLIPPING AND BRUSH DEBRIS SHOULD NOT BE DEPOSITED ON VEGETATED FILTER STRIP AREAS. REGULAR MOWING SHOULD ALSO INCLUDE WEED CONTROL PRACTICES, HOWEVER HERBICIDE USE SHOULD BE KEPT TO A MINIMUM. HEALTHY GRASS MAY BE MAINTAINED WITHOUT USING FERTILIZERS BECAUSE RUNOFF USUALLY CONTAINS SUFFICIENT NUTRIENTS. IRRIGATION OF THE SITE MAY ALSO HELP ASSURE A DENSE AND HEALTHY VEGETATIVE COVER.

INSPECTION
INSPECTION OF FILTER STRIPS SHOULD BE DONE AT LEAST TWICE ANNUALLY FOR EROSION OR DAMAGE TO VEGETATION; HOWEVER, ADDITIONAL INSPECTIONS AFTER PERIODS OF HEAVY RUNOFF ARE MOST DESIRABLE. THE STRIP SHOULD BE CHECKED FOR UNIFORMITY OF GRASS COVER, DEBRIS AND LITTER, AND AREAS OF SEDIMENT ACCUMULATION. MORE FREQUENT INSPECTIONS OF THE GRASS COVER WILL BE MADE DURING THE FIRST FEW YEARS AFTER ESTABLISHMENT TO DETERMINE IF ANY PROBLEMS ARE DEVELOPING, AND TO PLAN FOR LONG-TERM RESTORATIVE MAINTENANCE NEEDS. BARE SPOTS AND AREAS OF EROSION IDENTIFIED DURING SEMI-ANNUAL INSPECTIONS SHOULD BE REPLANTED AND RESTORED TO MEET SPECIFICATIONS. CONSTRUCTION OF A LEVEL SPREADER DEVISE MAY BE NECESSARY TO REESTABLISH SHALLOW OVERLAND FLOW.

DEBRIS AND LITTER REMOVAL.
ANY FILTER STRIP OR FILTER STRIP STRUCTURES (I.E. LEVELED SPREADERS) SHOULD BE KEPT FREE OF OBSTRUCTIONS TO REDUCE FLOATABLES FROM BEING FLUSHED DOWNSTREAM, AND FOR AESTHETIC REASONS. THE NEED FOR THIS PRACTICE WILL BE DETERMINED THROUGH PERIODIC INSPECTION, BUT WILL BE PERFORMED NO LESS THAN 4 TIMES PER YEAR.

SEDIMENT REMOVAL.
SEDIMENT REMOVAL IS NOT NORMALLY REQUIRED IN FILTER STRIPS. HOWEVER, SEDIMENT MAY ACCUMULATE ALONG THE UPSTREAM BOUNDARY OF THE STRIP PREVENTING UNIFORM OVERLAND FLOW. EXCESS SEDIMENT SHOULD BE REMOVED BY HAND, WITH FLAT-BOTTOMED SHOVELS, OR LIGHT CONSTRUCTION EQUIPMENT.

GRASS RESEEDING AND MULCHING.
A HEALTHY DENSE GRASS SHOULD BE MAINTAINED ON THE FILTER STRIP. IF AREAS ARE ERODED, THEY SHOULD BE FILLED, COMPACTED AND RESEEDED SO THAT THE FINAL GRADE IS LEVEL. GRASS DAMAGED DURING THE SEDIMENT REMOVAL PROCESS SHOULD BE PROMPTLY REPLACED USING THE SAME SEED MIX USED DURING FILTER STRIP ESTABLISHMENT. FLOW SHOULD BE DIVERTED, IF POSSIBLE, FROM THE DAMAGED AREAS UNTIL THE GRASS IS FIRMLY ESTABLISHED. BARE SPOTS AND AREAS OF EROSION IDENTIFIED DURING SEMI-ANNUAL INSPECTIONS MUST BE REPLANTED AND RESTORED TO MEET SPECIFICATIONS. CORRECTIVE MAINTENANCE, SUCH AS WEEDING OR REPLANTING SHOULD BE DONE MORE FREQUENTLY IN THE FIRST TWO TO THREE YEARS AFTER INSTALLATION TO ENSURE STABILIZATION. DENSE VEGETATION MAY REQUIRE IRRIGATION IMMEDIATELY AFTER PLANTING, AND DURING DRY PERIODS, PARTICULARLY AS THE VEGETATION IS INITIALLY ESTABLISHED.

MAINTENANCE:
GRASSY SWALES
SEASONAL MOWING AND LAWN CARE
CHANNEL MOWING WILL BE PERFORMED ROUTINELY AS NEEDED THROUGHOUT THE GROWING SEASON. GRASS WILL BE MOWED AS NEEDED TO LIMIT VEGETATION HEIGHT TO 2 INCHES, ABOVE THE DESIGN WATER DEPTH USING A MULCHING MOWER (OR REMOVAL OF CLIPPING). IF NATIVE GRASSES ARE USED, THE SWALE MAY REQUIRE LESS FREQUENT MOWING, BUT A MINIMUM OF TWICE ANNUALLY. GRASS CLIPPING AND BRUSH DEBRIS WILL NOT BE DEPOSITED WITHIN THE CHANNEL. REGULAR MOWING WILL ALSO INCLUDE WEED CONTROL PRACTICES, HOWEVER HERBICIDE USE WILL BE KEPT TO A MINIMUM. HEALTHY GRASS MAY BE MAINTAINED WITHOUT USING FERTILIZERS BECAUSE RUNOFF USUALLY CONTAINS SUFFICIENT NUTRIENTS. IRRIGATION OF THE SITE MAY ALSO HELP ASSURE A DENSE AND HEALTHY VEGETATIVE COVER.

INSPECTION
INSPECTION OF FILTER STRIPS SHOULD BE DONE AT LEAST TWICE ANNUALLY FOR EROSION OR DAMAGE TO VEGETATION; HOWEVER, ADDITIONAL INSPECTIONS AFTER PERIODS OF HEAVY RUNOFF ARE MOST DESIRABLE. THE STRIP SHOULD BE CHECKED FOR UNIFORMITY OF GRASS COVER, DEBRIS AND LITTER, AND AREAS OF SEDIMENT ACCUMULATION. MORE FREQUENT INSPECTIONS OF THE GRASS COVER WILL BE MADE DURING THE FIRST FEW YEARS AFTER ESTABLISHMENT TO DETERMINE IF ANY PROBLEMS ARE DEVELOPING, AND TO PLAN FOR LONG-TERM RESTORATIVE MAINTENANCE NEEDS. BARE SPOTS AND AREAS OF EROSION IDENTIFIED DURING SEMI-ANNUAL INSPECTIONS SHOULD BE REPLANTED AND RESTORED TO MEET SPECIFICATIONS. CONSTRUCTION OF A LEVEL SPREADER DEVISE MAY BE NECESSARY TO REESTABLISH SHALLOW OVERLAND FLOW.

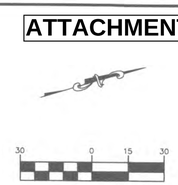
DEBRIS AND LITTER REMOVAL.
ANY FILTER STRIP OR FILTER STRIP STRUCTURES (I.E. LEVELED SPREADERS) SHOULD BE KEPT FREE OF OBSTRUCTIONS TO REDUCE FLOATABLES FROM BEING FLUSHED DOWNSTREAM, AND FOR AESTHETIC REASONS. THE NEED FOR THIS PRACTICE WILL BE DETERMINED THROUGH PERIODIC INSPECTION, BUT WILL BE PERFORMED NO LESS THAN 4 TIMES PER YEAR.

SEDIMENT REMOVAL.
SEDIMENT REMOVAL IS NOT NORMALLY REQUIRED IN FILTER STRIPS. HOWEVER, SEDIMENT MAY ACCUMULATE ALONG THE UPSTREAM BOUNDARY OF THE STRIP PREVENTING UNIFORM OVERLAND FLOW. EXCESS SEDIMENT SHOULD BE REMOVED BY HAND, WITH FLAT-BOTTOMED SHOVELS, OR LIGHT CONSTRUCTION EQUIPMENT.

GRASS RESEEDING AND MULCHING.
A HEALTHY DENSE GRASS SHOULD BE MAINTAINED ON THE FILTER STRIP. IF AREAS ARE ERODED, THEY SHOULD BE FILLED, COMPACTED AND RESEEDED SO THAT THE FINAL GRADE IS LEVEL. GRASS DAMAGED DURING THE SEDIMENT REMOVAL PROCESS SHOULD BE PROMPTLY REPLACED USING THE SAME SEED MIX USED DURING FILTER STRIP ESTABLISHMENT. FLOW SHOULD BE DIVERTED, IF POSSIBLE, FROM THE DAMAGED AREAS UNTIL THE GRASS IS FIRMLY ESTABLISHED. BARE SPOTS AND AREAS OF EROSION IDENTIFIED DURING SEMI-ANNUAL INSPECTIONS MUST BE REPLANTED AND RESTORED TO MEET SPECIFICATIONS. CORRECTIVE MAINTENANCE, SUCH AS WEEDING OR REPLANTING SHOULD BE DONE MORE FREQUENTLY IN THE FIRST TWO TO THREE YEARS AFTER INSTALLATION TO ENSURE STABILIZATION. DENSE VEGETATION MAY REQUIRE IRRIGATION IMMEDIATELY AFTER PLANTING, AND DURING DRY PERIODS, PARTICULARLY AS THE VEGETATION IS INITIALLY ESTABLISHED.

NOTE:
WATER POLLUTION ABATEMENT CONTROLS SHOWN ARE SCHEMATIC ONLY, CONTROLS MAY BE FIELD LOCATED FOR BEST USE AND REPORTED TO ENGINEER. ADJUSTMENTS SHALL BE INDICATED ON PLAN BY CONTRACTOR.

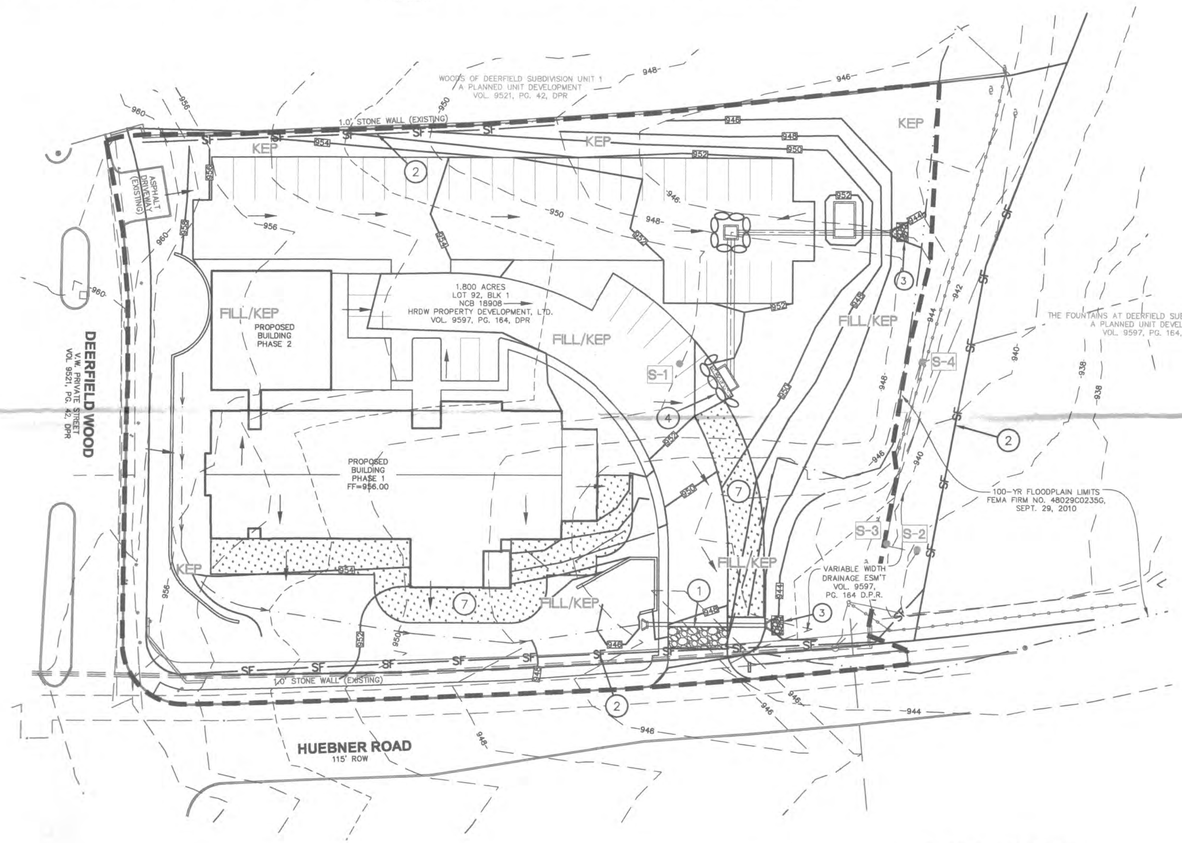
ATTACHMENT C

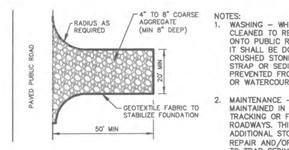


SCALE: 1" = 30'

LEGEND

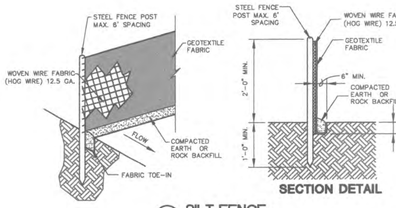
- EXISTING CONTOURS — 885 —
- FLOW ARROW
- AREA OF SOIL DISTURBANCE
- APPROXIMATE 100YR WATER SURFACE
- SWALE
- STABILIZED CONSTRUCTION ENTRANCE/EXIT (1)
- SILT FENCE AND/OR APPROPRIATE SUBSTITUTE (2) —SF—SF—
- ROCK BERM OR GABION (3)
- BAGGED GRAVEL INLET FILTER AND/OR APPROPRIATE SUBSTITUTE (4)
- *CONCRETE WASH OUT PIT (5)
- *EQUIPMENT STAGING AREA (6)
- ENGINEERED FILTER STRIP (7)
- **POTENTIAL RECHARGE FEATURE ● S-1
- EDWARDS PERSON LIMESTONE KEP
- FILL MATERIAL/EDWARDS PERSON LIMESTONE FILL/KEP





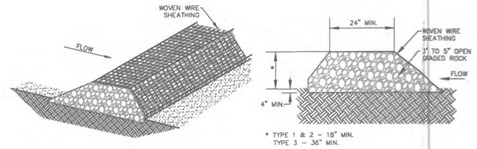
NOTES:
1. WASHING – WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE USING APPROVED METHODS.
2. MAINTENANCE – THE ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
3. DRAINAGE – ENTRANCE/EXIT MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

(1) STABILIZED CONSTRUCTION ENTRANCE \ EXIT
N.T.S.



SECTION DETAIL

(2) SILT FENCE
N.T.S.

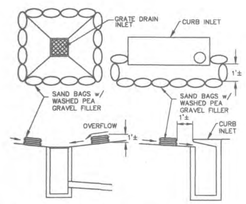


ISOMETRIC PLAN VIEW

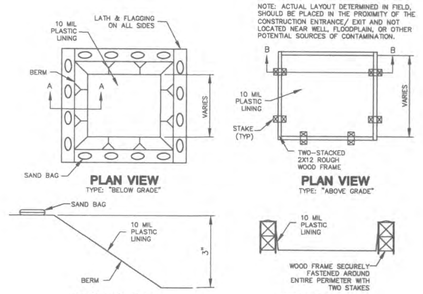
SECTION DETAIL

* TYPE 1 & 2 – 18" MIN.
TYPE 3 – 36" MIN.

(3) ROCK BERM
N.T.S.



(4) BAGGED GRAVEL INLET FILTER
N.T.S.



(5) CONCRETE WASH OUT PIT
N.T.S.

* NOTE: ACTUAL LAYOUT DETERMINED IN FIELD, SHOULD BE PLACED IN THE PROXIMITY OF THE CONSTRUCTION ENTRANCE/ EXIT AND NOT LOCATED NEAR A WELL, FLOODPLAIN, OR OTHER POTENTIAL SOURCES OF CONTAMINATION.

** REFER TO GEOLOGIC SITE ASSESSMENT PREPARED BY: ROCK ENGINEERING AND TESTING LABORATORY, INC. DATE PREPARED: MAY 6, 2008.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES

1. WRITTEN CONSTRUCTION NOTIFICATION MUST BE GIVEN TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION MUST INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR AND THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

3. IF ANY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.

5. PRIOR TO COMMENCEMENT OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE TEMPORARY STORM WATER SECTION OF THE APPROVED EDWARDS AQUIFER PROTECTION PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.

6. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS TO WATER QUALITY (E.G., FUGITIVE SEDIMENT IN STREET BEING WASHED INTO SURFACE STREAMS OR SENSITIVE FEATURES BY THE NEXT RAIN).

7. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES (E.G., SCREENING OUTFALLS, PICKED UP DAILY).

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARY OR PERMANENTLY CEASE IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 21 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE. IN AREAS EXPERIENCING DROUGHTS WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SEASONAL AND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:

A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;

B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;

C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

AUSTIN REGIONAL OFFICE
2800 S. IH 35, SUITE 100
AUSTIN, TEXAS 78704-5712
PHONE (512) 339-2929
FAX (512) 339-3795

SAN ANTONIO REGIONAL OFFICE
14250 JUDSON ROAD
SAN ANTONIO, TEXAS 78233-4480
PHONE (210) 490-3096
FAX (210) 545-4329

COURSEN-KOEHLER
ENGINEERING & ASSOCIATES
a division of Westwood
1718 Dry Creek Way, Suite 110 • San Antonio, Texas 78259
Office: 210.545.6500 • Fax: 210.545.6530
TBPE Firm No. F-11756 • TBPLS Firm No. 10194064
www.westwoodps.com

NO.	DATE	REVISIONS	BY

STATE OF TEXAS
DAVID BRODBECK
100203
LICENSED PROFESSIONAL ENGINEER
6/8/17

ROSENBLATT OFFICES
16731 HUEBNER ROAD
WATER POLLUTION ABATEMENT PLAN
SITE PLAN / SEDIMENTATION AND EROSION CONTROL PLAN

JOB NO.:	11223.01
DATE:	MARCH 24, 2017
DESIGN:	JV
DRAWN:	
CHECKED:	

SHEET
1 OF 1

Date: Jan 08, 2017, 7:48am User ID: JRussell
File: Z:\Rosenblatt\Dwg\11223.01 WPAP.dwg

WPAP APPLICATION

Modification to a Previously Approved Plan

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

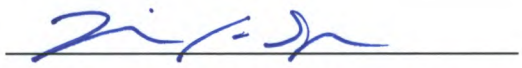
Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Print Name of Customer/Agent: Michael P. Sepeda, P.E.

Date: 3/22/24

Signature of Customer/Agent:



Regulated Entity Name: Rosenblatt Law Firm Expansion

Regulated Entity Information

1. The type of project is:

   ☐ Residential: Number of Lots:_____
   ☐ Residential: Number of Living Unit Equivalents:_____
   ☒ Commercial
   ☐ Industrial
   ☐ Other:_____

2. Total site acreage (size of property):1.8

3. Estimated projected population:16

4. The amount and type of impervious cover expected after construction are shown below:

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	13067	÷ 43,560 =	0.300
Parking	13108	÷ 43,560 =	0.301
Other paved surfaces	7886	÷ 43,560 =	0.181
Total Impervious Cover	34061	÷ 43,560 =	0.782

Total Impervious Cover 0.782 **÷ Total Acreage** 1.915 **X 100 =** 40.8**% Impervious Cover**

5. ☒ **Attachment A - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.

6. ☒ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

For Road Projects Only

Complete questions 7 - 12 if this application is exclusively for a road project.

7. Type of project:

   ☐ TXDOT road project.
   ☐ County road or roads built to county specifications.
   ☐ City thoroughfare or roads to be dedicated to a municipality.
   ☐ Street or road providing access to private driveways.

8. Type of pavement or road surface to be used:

   ☐ Concrete
   ☐ Asphaltic concrete pavement
   ☐ Other: _____

9. Length of Right of Way (R.O.W.): _____ feet.

   Width of R.O.W.: _____ feet.
   L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

10. Length of pavement area: _____ feet.

    Width of pavement area: _____ feet.
    L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
    Pavement area _____ acres ÷ R.O.W. area _____ acres x 100 = _____% impervious cover.

11. ☐ A rest stop will be included in this project.

    ☐ A rest stop will not be included in this project.

12. ☐ Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

Stormwater to be generated by the Proposed Project

13. ☒ **Attachment B - Volume and Character of Stormwater**. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on the area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

14. The character and volume of wastewater is shown below:

100% Domestic	~800Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day ~800	

15. Wastewater will be disposed of by:

☐ On-Site Sewage Facility (OSSF/Septic Tank):

☐ **Attachment C - Suitability Letter from Authorized Agent**. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.

☐ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

☒ Sewage Collection System (Sewer Lines):

☒ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.

☐ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.

☐ The SCS was previously submitted on_____.

☐ The SCS was submitted with this application.

☐ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

☒ The sewage collection system will convey the wastewater to the Steven M. Clouse (Dos Rios) (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

16. ☒ All private service laterals will be inspected as required in 30 TAC §213.5.

Site Plan Requirements

Items 17 – 28 must be included on the Site Plan.

17. ☒ The Site Plan must have a minimum scale of 1" = 400'.

Site Plan Scale: 1" = 30'.

18. 100-year floodplain boundaries:

☒ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
☐ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): _____

19. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, open space, etc. are shown on the plan.

☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, open space, etc. are shown on the site plan.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

☐ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

☐ The wells are not in use and have been properly abandoned.
☐ The wells are not in use and will be properly abandoned.
☐ The wells are in use and comply with 16 TAC §76.

☒ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:

☐ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
☒ No sensitive geologic or manmade features were identified in the Geologic Assessment.
☐ **Attachment D - Exception to the Required Geologic Assessment**. A request and justification for an exception to a portion of the Geologic Assessment is attached.

22. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

23. ☒ Areas of soil disturbance and areas which will not be disturbed.

24. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

25. ☒ Locations where soil stabilization practices are expected to occur.

26. ☐ Surface waters (including wetlands).

    ☒ N/A

27. ☐ Locations where stormwater discharges to surface water or sensitive features are to occur.

    ☒ There will be no discharges to surface water or sensitive features.

28. ☒ Legal boundaries of the site are shown.

Administrative Information

29. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

30. ☒ Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

ATTACHMENT A
Factors Affecting Water Quality

Landscaping, vehicular traffic, site grading and various construction activities may affect the quality of stormwater originating on the proposed site. These factors may cause small amounts of oil, grease, suspended solids, fertilizers, and pesticides to enter into the stormwater runoff. However, BMPs, both temporary and permanent, have been designed on the basis of the current Technical Guidance Manual to treat the required amount of stormwater runoff as to not adversely affect water quality entering into any surface water or groundwater.

ATTACHMENT B
Volume and Character of Stormwater

Stormwater runoff generated from the rooftops, driveways, sidewalks and landscape areas for the subject development may be impregnated with small amounts of oil, grease, suspended solids, fertilizers and pesticides. Storm water runoff within the site generally drains from south to north directly into the adjacent creek, known as Tributary A1 to Tributary A to Panther Springs Creek. A Contech *StormFilter* water quality system in conjunction with an underground detention pipe system for system equalization will be in place at the downstream end of the development to treat the collected detention storage storm water runoff before it is discharged offsite into the creek. As a result, both temporary and permanent BMP's have been designed on the basis of the Technical Guidance Manual to treat the required volume and character of storm water runoff to remove at least 80% of the increased TSS due to the proposed development. Reference calculations are listed below for the amount of storm water generated on the site in accordance with the attached WPAP Drainage Area Map.

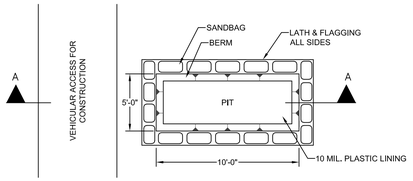
A small area within the Huebner Rd and Deerfield Wood R.O.W. will be left as uncaptured storm water runoff however the *StormFilter* system will overtreat to compensate for the uncaptured runoff.

Runoff Coefficient "c" value

c = 0.47 for undeveloped areas (grass cover over 75%, slopes 3% to 5%)
c = 0.97 for commercial areas (slopes 3% to 5%)

RATIONAL METHOD HYDROLOGY
Onsite Existing / Proposed Development

	TOTAL DA-A, B, C Existing		TOTAL DA-A, B, C Proposed		
Area =	1.785	(acres)	1.785	(acres)	
"c" =	0.64		0.69		
tc =	7.1	(min)	7.1		
I_5 =	7.08	(in/hr)	7.08		
I_{25} =	9.90	(in/hr)	9.90		Flowrate Increase Ex vs. Prop
I_{100} =	12.43	(in/hr)	12.43		
Q_5 =	8.12	(cfs)	8.72	(cfs)	**0.60**
Q_{25} =	11.36	(cfs)	12.20	(cfs)	**0.84**
Q_{100} =	14.26	(cfs)	15.31	(cfs)	**1.05**



PLAN
TYPE "BELOW GRADE"

SECTION A–A

NOTES:

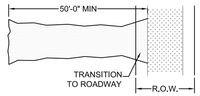
1. DETAIL ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.
2. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.
3. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.

CONCRETE TRUCK WASHOUT PIT

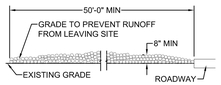
NOT TO SCALE

NOTES:

1. STONE SIZE - 3 TO 5 INCH OPEN GRADED ROCK.
2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN 8 INCHES.
4. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED STRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE - ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.



PLAN VIEW



PROFILE

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

NOTES:

1. STEELPOSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CAN NOT BE TREATED (e.g. pavement) WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. CONTRACTOR SHALL PROVIDE TRIANGULAR SEDIMENT FILTER DIKE PER DETAIL THIS SHEET WHERE SILT FENCE IS REQUIRED BUT NOT INSTALLABLE.

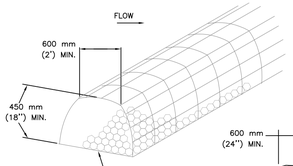
TRENCH SECTION

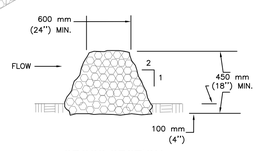
SILT FENCE

NOT TO SCALE

NOTES:

1. USE ONLY OPEN GRADED ROCK 100 to 200 mm (4 to 8") DIAMETER FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR OTHER CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE), ROCK BERMS IN CHANNEL APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MINIMUM OF 150 mm (6 ") WITH T-POSTS OR WITH 15M OR 20M (#5 OR #6) REBAR, WITH MAXIMUM SPACING APART OF 1,2 m (48") ON CENTER.
3. THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS. THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SILTATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE-SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 150 mm (6").
6. WHEN THE SITE IS COMPLETELY STABILIZED,THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

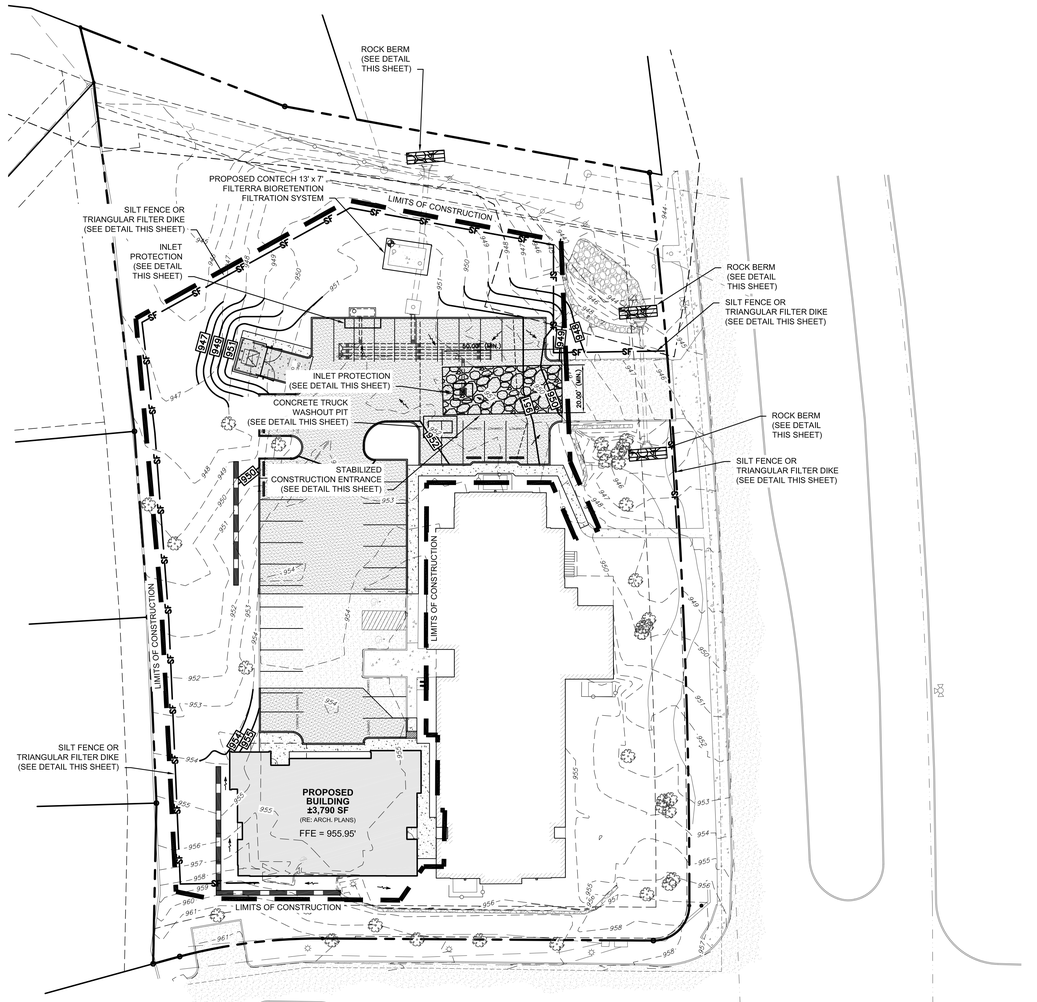




CROSS-SECTION

ROCK BERM

NOT TO SCALE



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES (REV JULY 15, 2015)

1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
   – the name of the approved project;
   – the activity start date; and
   – the contact information of the prime contractor.
2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan (WPAP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on–site copies of the approved plan and approval letter.
3. If any sensitive feature(s) (caves, solution cavity, sink hole, etc.) is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. Construction activities may not be resumed until the TCEQ has reviewed and approved the appropriate protective measures in order to protect any sensitive feature and the Edwards Aquifer from potentially adverse impacts to water quality.
4. No temporary or permanent hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.
5. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the approved plans and manufacturers specifications. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.
6. Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams, sensitive features, etc.
7. Sediment must be removed from sediment traps or sedimentation basins not later than when it occupies 50% of the basin's design capacity.
8. Litter, construction debris, and construction cheminals exposed to stormwater shall be prevented from being discharged offsite.
9. All spoils (excavated material) generated from the project site must be stored on–site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.
10. If portions of the site will have a temporary or permanent cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.
11. The following records shall be maintained and made available to the TCEQ upon request:
   – the dates when major grading activities occur;
   – the dates when construction activities temporarily or permanently cease on a portion of the site; and
   – the dates when stabilization measures are initiated.
12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:

A. any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;

B. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;

C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office
12100 Park 35 Circle, Building A
Austin, Texas 78753–1808
Phone (512) 339–2929
Fax (512) 339–3795

San Antonio Regional Office
14250 Judson Road
San Antonio, Texas 78233–4480
Phone (210) 490–3096
Fax (210) 545–4329

BENCHMARK

TEMPORARY BM #1: MAGNAIL W/ WASHER
ELEV.=951.36

TEMPORARY BM #2: MAGNAIL W/ WASHER
ELEV.=955.28

NOTE:
NOTED TBM'S (TEMPORARY BENCHMARKS) ON THESE PLANS ARE BASED ON SURVEY INFORMATION PROVIDED TO ENGINEER. CONTRACTOR TO FIELD VERIFY ACCURACY OF ANY NOTED/SUGGESTED TBM'S PRIOR TO CONSTRUCTION. IF DESIRED, REQUESTED ADDITIONAL TBM'S SHALL BE COORDINATED WITH LISTED PROJECT SURVEYOR AS A SEPARATE PAY ITEM.

LEGAL DESCRIPTION

1.80 ACRES
LOT 1, BLOCK 1, N.C.B. 18908
HRDW PROPERTY DEVELOPMENT, LTD.
VOLUME 9597, PAGE 164, D.P.R.
PLAT No. 070071

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	2740.00'	307.97'	6°26'24"	S 13°27'22" W	307.81'
C2	15.00'	23.32'	89°04'29"	S 62°23'40" W	21.04'
C3	230.00'	60.58'	15°05'29"	N 80°36'45" W	60.41'

SCALE: 1" = 30 FT
0 15 30 60

LEGEND

	PROPERTY LINE
652	EXISTING CONTOUR LINE -- IN FEET
×651.90	EXISTING SPOT ELEVATION (IN FEET)
	EXISTING CONC. CURB
6"SS	EXISTING SANITARY SEWER LINE (MATERIAL)
W(PVC)	EXISTING WATER LINE (MATERIAL)
OE/UE	EXISTING OVERHEAD/UNDERGROUND ELECTRIC
	EXISTING WOOD FENCE
	EXISTING/PROPOSED FIRE HYDRANT
	EXISTING/PROPOSED UTILITY POLE
	EXISTING LIGHT POLE
WV / WV	EXISTING/PROPOSED WATER VALVE
WM / WM	EXISTING/PROPOSED WATER METER
CO / CO	EXISTING/PROPOSED CLEAN OUT
SSMH / SSMH	EXISTING/PROPOSED SEWER MANHOLE
STMH / STMH	EXISTING/PROPOSED STORM MANHOLE
	EXISTING CONCRETE/ASPHALT
	EXISTING TREE
	PROPOSED CONCRETE/ASPHALT
	PROPOSED CONCRETE DUMPSTER PAD
	PROPOSED CONCRETE SLOTTED CURB
	PROPOSED CONCRETE CURB RETAINING WALL
COMPACT	PROPOSED COMPACT PARKING
	PROPOSED 2'x2'x4' LIMESTONE BLOCKS
	STABILIZED CONSTRUCTION ENTRANCE
SF	SILT FENCE
	CONCRETE TRUCK WASHOUT PIT
	ROCK BERM
IP	GRATE INLET PROTECTION BARRIER

TBPE FIRM# F-3512

STATE OF TEXAS
DONALD OROIAN
90244
LICENSED PROFESSIONAL ENGINEER
3–18–2024

DATE	REVISION	DESCRIPTION

ADA CONSULTING GROUP, INC.
221 W. RHAPSODY, STE. 102 SAN ANTONIO, TX 78216
(210)340-5670 FAX: (210)340-5728
A TEXAS REGISTERED ENGINEERING FIRM (REGISTRATION No. F-003512)

WPAP SITE PLAN & TEMPORARY POLLUTION ABATEMENT PLAN

ROSENBLATT LAW FIRM EXPANSION
16731 HUEBNER RD.
SAN ANTONIO, TX. 78248

DRAWN/CHECK BY:	DATE:	JOB #:	DWG NAME:
RL/DO	3/18/24	074-89	074-89 (C2) WPAP_TPAP

SHEET
1 of 2

X:\CLIENTS\074489\TCEQ\WPAP PLANS\074-89 (C2) WPAP_TPAP.DWG

TEMPORARY STORMWATER SECTION

Modification to a Previously Approved Plan

Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

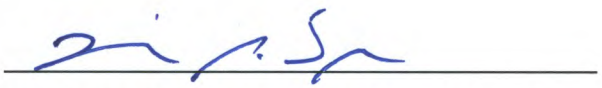
Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Michael P. Sepeda, P.E.

Date: 3/22/24

Signature of Customer/Agent:



Regulated Entity Name: Rosenblatt Law Firm Expansion

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

   ☐ The following fuels and/or hazardous substances will be stored on the site: _____

   These fuels and/or hazardous substances will be stored in:

   ☐ Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

☒ Fuels and hazardous substances will not be stored on the site.

2. ☒ **Attachment A - Spill Response Actions**. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.

3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ☒ **Attachment B - Potential Sources of Contamination**. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

5. ☒ **Attachment C - Sequence of Major Activities**. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.

   ☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

   ☒ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

6. ☒ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: Panther Springs Creek

Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. ☒ **Attachment D – Temporary Best Management Practices and Measures**. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

☐ A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

☒ A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

☒ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

☒ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. ☒ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

☐ **Attachment E - Request to Temporarily Seal a Feature**. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. ☒ **Attachment F - Structural Practices**. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.

10. ☒ **Attachment G - Drainage Area Map**. A drainage area map supporting the following requirements is attached:

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

☒ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

11. ☐ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations**. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

☒ N/A

12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.

13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. ☒ **Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices**. A schedule of the interim and permanent soil stabilization practices for the site is attached.

18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

ATTACHMENT A
Spill Response Actions

The objective of this section is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

The following steps will help reduce the storm water impacts of leaks and spills:

Education

(1) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.

(2) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.

(3) Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).

(4) Establish a continuing education program to indoctrinate new employees.

(5) Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

(1) To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.

(2) Store hazardous materials and wastes in covered containers and protect from vandalism.

(3) Place a stockpile of spill cleanup materials where it will be readily accessible.

(4) Train employees in spill prevention and cleanup.

(5) Designate responsible individuals to oversee and enforce control measures.

(6) Spills should be covered and protected from stormwater runon during rainfall to the extent that it doesn't compromise clean up activities.

(7) Do not bury or wash spills with water.

(8) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.

(9) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.

(10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.

(11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

(12) Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

(1) Clean up leaks and spills immediately.

(2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.

(3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

(1) Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.

(2) Use absorbent materials on small spills rather than hosing down or burying the spill.

(3) Absorbent materials should be promptly removed and disposed of properly.

(4) Follow the practice below for a minor spill:

(5) Contain the spread of the spill.

(6) Recover spilled materials.

(7) Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up immediately:

(1) Contain spread of the spill.

(2) Notify the project foreman immediately.

(3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.

(4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

(5) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

(1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.

(2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.

(3) Notification should first be made by telephone and followed up with a written report.

(4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

(5) Other agencies which may need to be consulted includ e, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tceq.state.tx.us/enforcement/emergency_response.html

Vehicle and Equipment Maintenance

(1) If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.

(2) Regularly inspect onsite vehicles and equipment for leaks and repair immediately.

(3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.

(4) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

(5) Place drip pans or absorbent materials under paving equipment when not in use.

(6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.

(7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.

(8) Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.

(9) Store cracked batteries in a non- leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

(1) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.

(2) Discourage "topping off" of fuel tanks.

(3) Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

ATTACHMENT B
Potential Sources of Contamination

Potential Source	Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle dripping.
Preventive Measure	Vehicle maintenance when possible will be performed within a construction staging area specified by the General Contractor.
Potential Source	Miscellaneous trash and litter from construction workers and material wrappings.
	Preventive Measure Trash containers will be placed throughout the site to encourage proper trash disposal.
Potential Source	Construction debris.
Preventive Measure	Construction debris will be monitored daily by contractor. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis.
Potential Source	Stormwater contamination from excess application of fertilizers, herbicides and pesticides.
Preventive Measure	Fertilizers, herbicides and pesticides will be applied only when necessary and in accordance with manufacturers directions.
Potential Source	Soil and mud from construction vehicle tires as they leave the site.
Preventive Measure	A stabilized construction exit shall be utilized as vehicles leave the site. Any soil, mud, etc. carried from the project onto public roads shall be cleaned up within 24 hours.
Potential Source	Sediment from soil, sand, gravel and excavated materials stockpiled on site.
Preventive Measure	Silt fence shall be installed on the downgradient side of all stockpiled materials. Reinforced rock berms shall be installed at all downstream discharge locations.

ATTACHMENT C
Sequence of Major Activities

Below is a general sequence of events to be followed:	Approximate Area Disturbed
1. Install erosion and sedimentation controls identified by plans	N/A
2. Install tree protection (as required)	N/A
3. Begin site clearing and earthwork	0.75 Acres
4. Construct site utilities	0.10 Acres
5. Construct building foundation	0.14 Acres
6. Construct paving and drainage infrastructure (concrete walls)	0.63 Acres
7. Complete construction	N/A
8. Install landscaping/irrigation system & revegetate disturbed areas	0.50 Acres
9. Receive permit and city clearance for occupancy	N/A
10. Remove temporary erosion and sedimentation controls	N/A

ATTACHMENT D
Temporary Best Management Practices and Measures

1. Temporary Construction Entrance/Exit – A stabilized pad of crushed stone located at any point where traffic will be entering or leaving the construction site from a public R.O.W., street, alley, sidewalk or parking area. It shall be a minimum of 50 feet long, 20 feet wide (or width of exit) and 8 inches thick. The rock shall be 4" to 8" in size.

2. Silt Fence – A barrier consisting of geotextile fabric supported by metal posts to prevent soil and sediment loss from a site. Silt fences shall be installed on the downgradient side of the proposed areas to be disturbed that have a drainage area of no more than ¼ acre per 100 feet of fence.

3. Rock Berm – A sediment trap consisting of 3" to 5" diameter rock wrapped in woven wire sheathing. The berm shall have a minimum height of 18" and a minimum top width of 2 feet. A rock berm shall be placed at locations of concentrated flows where drainage area is between 2 and 5 acres.

4. Filter Curb Inlet Protection – Sandbags filled with washed pea gravel and stacked to form a continuous barrier along the inlets to hold filter fabric in place. The filter must be secured to wire backing with clips or hog rings. The bags should be tightly abutted against each other to prevent runoff from flowing between the bags.

5. Grate Inlet Protection – Wire mesh shall be laid over the inlet at least 1 ft. beyond each side of inlet. Aggregate shall be placed over the wire mesh at least 12 inches over the inlet and at least 18 inches beyond inlet opening on all sides.

6. Concrete Washout Pit – To be a 12" minimum depth pit area lined with 10 mil. plastic lining with sandbags along pit perimeter. Washout pit to be located in an area easily accessible to construction traffic.

7. Temporary Seeding – Temporary seeding of disturbed areas shall be performed if disturbed areas are expected to have no construction activity for a period of at least 21 days.

<u>Sequence of installation during construction process</u>

1. The Temporary Construction Entrance/Exit shall be installed prior to disturbing any soil except at the location of the Temporary Construction Entrance/Exit. It shall stay in place and be maintained until the onsite pavement is in place.

2. A silt fence shall be installed along the downgradient sides of the site prior to any disturbance of the site. A silt fence shall be installed prior to Temporary Construction Entrance/Exit.

3. Filter Curb Inlet and Grate Inlet Protection shall be installed immediately after installation of each drainage inlet that they are intended to protect.

4. Concrete washout pit shall be installed in an area easily accessible to construction traffic.

5. Rock Berms shall be installed at concentrated stormwater discharge locations as indicated on the WPAP Site Plan prior to any disturbance of the site.

Description of Temporary BMP Practices

a) The site area will generally drain from south to north directly to the adjacent creek. Silt fence and/or triangular filter dike shall be placed along the downgradient portions of the site (north and eastern lot lines). A rock berm will be placed in front of the outlet headwall from the filtration system. Also, a stabilized construction entrance is shown at the main construction ingress/egress location(s).

b) Temporary BMP's as described in section (b) will be set in place upgradient to any surface streams or sensitive features to prevent any pollution from going into the Aquifer.

c) Naturally occurring sensitive features will be identified in the field as per the Geologic Assessment or if identified during construction. As mentioned in section (c), BMP's shall be located upgradient or even around the perimeter of such feature to prevent pollution from the entering the feature. As needed, the feature will be permanently sealed as per the TCEQ requirements described in TCEQ-0602.

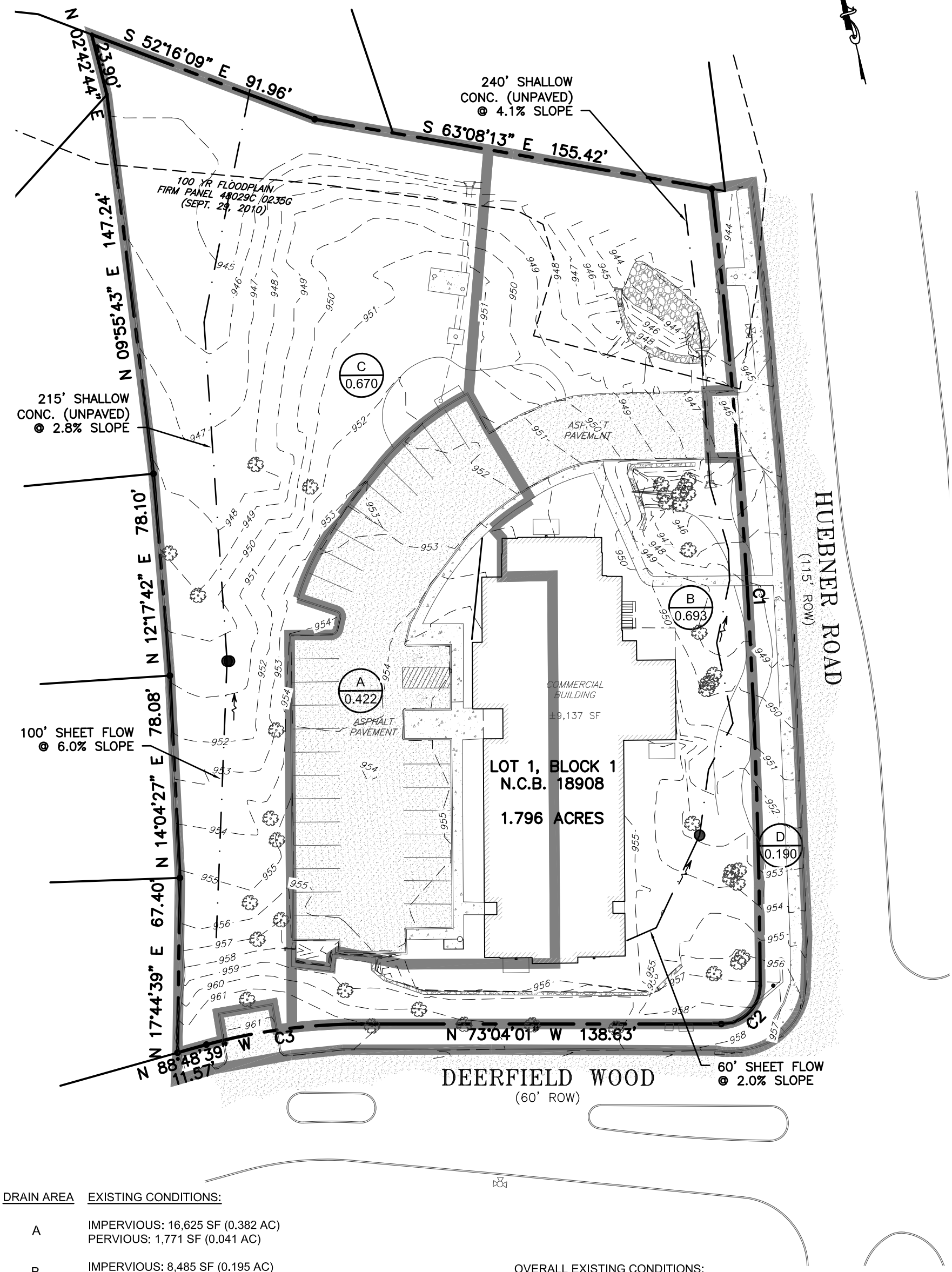
ATTACHMENT F
Structural Practices

Pollutants of storm water runoff discharge from exposed areas of the site will be controlled through the utilization of temporary BMPs. Prior to leaving the site, flows containing pollutant discharges will be treated by a silt fence and stabilized construction entrance at locations as shown on the WPAP Site & Temporary Pollution Abatement Plan which will limit and control the amount of pollutants leaving the site.

CURVE TABLE

ATTACHMENT G

CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	2740.00'	307.97'	6°26'24"	S 13°27'22" W	307.81'
C2	15.00'	23.32'	89°04'29"	S 62°23'40" W	21.04'
C3	230.00'	60.58'	15°05'29"	N 80°36'45" W	60.41'



DRAIN AREA — EXISTING CONDITIONS:

A	IMPERVIOUS: 16,625 SF (0.382 AC) PERVIOUS: 1,771 SF (0.041 AC)
B	IMPERVIOUS: 8,485 SF (0.195 AC) PERVIOUS: 21,660 SF (0.497 AC)
C	IMPERVIOUS: 224 SF (0.005 AC) PERVIOUS: 28,974 SF (0.665 AC)
D	IMPERVIOUS: 4,914 SF (0.113 AC) PERVIOUS: 3,315 SF (0.076 AC)

LEGEND

DA1 / X.XX — DRAINAGE AREA / ACREAGE

DRAINAGE AREA BOUNDARY

FLOWLINE PATH

DRAINAGE FLOW ARROWS

OVERALL EXISTING CONDITIONS:

IMPERVIOUS COVER AREA
EX. BUILDING = 9,200 SF (0.211 AC) +
EX. PAVING & SIDEWALK = 16,612 SF (0.381 AC)
TOTAL = 25,812 SF (0.593 AC OUT OF 1.796 AC) = 33.00% I.C.

WPAP EXISTING DRAINAGE AREA MAP

ROSENBLATT LAW FIRM EXPANSION

16731 HUEBNER RD.; SAN ANTONIO, TX 78248

DATE:	JOB NUMBER:	SHEET NO.
3/18/2024	074-89	1 of 2
DWG NAME: 074-89 WPAP DA MAP		SCALE: 1" = 40'

ADA CONSULTING GROUP, INC.

221 W. RHAPSODY, STE. 102 SAN ANTONIO, TX 78216
(210) 340-5670 FAX: (210) 340-5728

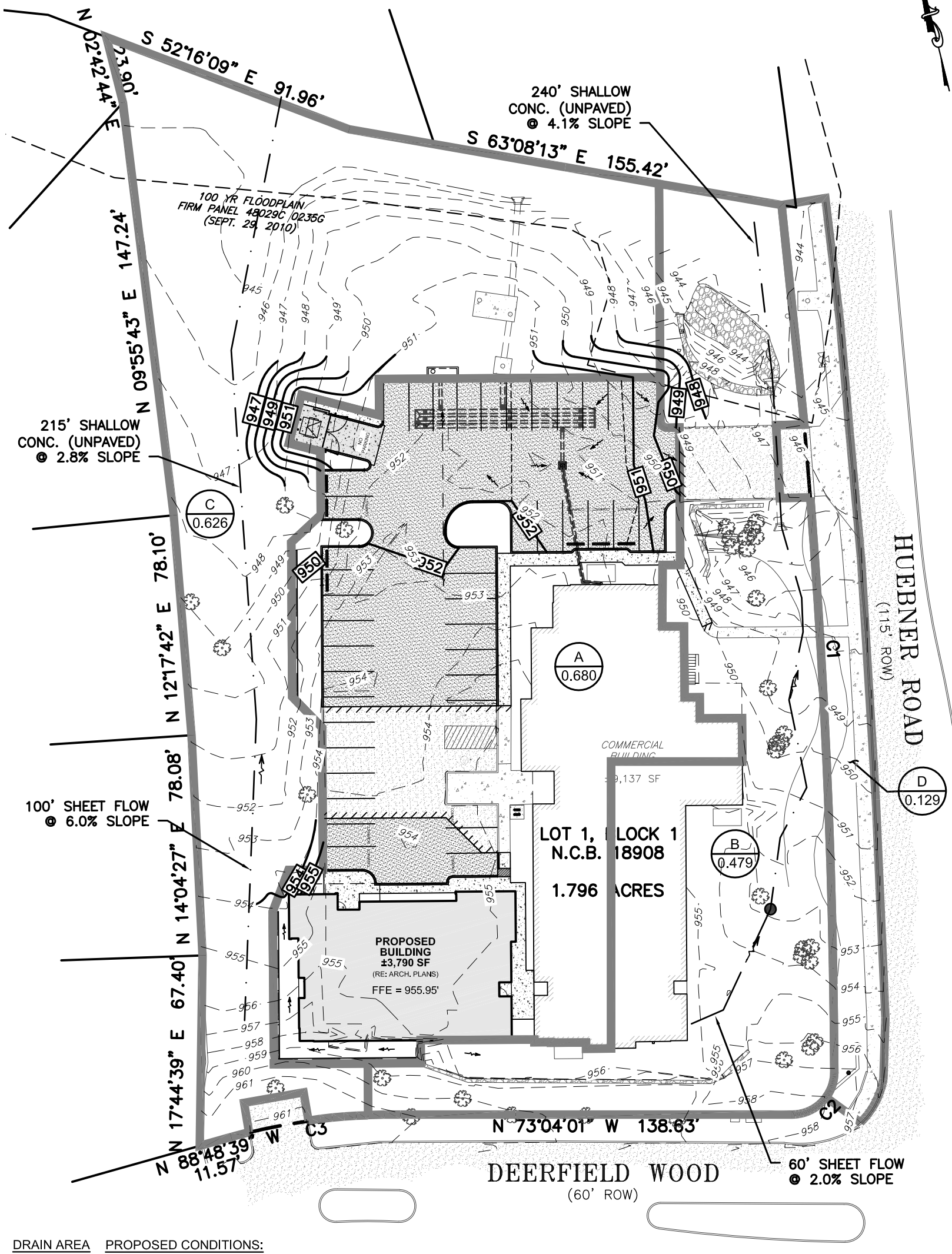
A TEXAS REGISTERED ENGINEERING FIRM (REGISTRATION No. F-003512)

X:\CLIENTS\074-89\TCEQ\074-89 WPAP DA MAP.DWG

CURVE TABLE

ATTACHMENT G

CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	2740.00'	307.97'	6°26'24"	S 13°27'22" W	307.81'
C2	15.00'	23.32'	89°04'29"	S 62°23'40" W	21.04'
C3	230.00'	60.58'	15°05'29"	N 80°36'45" W	60.41'



DRAIN AREA	PROPOSED CONDITIONS:
A	IMPERVIOUS: 26,379 SF (0.606 AC) PERVIOUS: 3,239 SF (0.074 AC)
B	IMPERVIOUS: 4,748 SF (0.109 AC) PERVIOUS: 16,146 SF (0.371 AC)
C	IMPERVIOUS: 215 SF (0.005 AC) PERVIOUS: 27,054 SF (0.621 AC)
D	IMPERVIOUS: 2,744 SF (0.063 AC) PERVIOUS: 2,880 SF (0.066 AC)
TOTAL	**IMPERVIOUS: 34,061 SF (0.782 AC; 40.8% I.C.)** **PERVIOUS: 49,344 SF (1.133 AC)** **TOTAL: 83,405 SF (1.915 AC)**

OVERALL PROPOSED CONDITIONS:

IMPERVIOUS COVER AREA
PROP. BUILDING = 13,040 SF (0.299 AC) +
PROP. PAVING & SIDEWALK = 18,321 SF (0.421 AC)
TOTAL = 31,361 SF (0.720 AC OUT OF 1.796 AC) = 40.09% I.C.

LEGEND

DA1 / X.XX — DRAINAGE AREA / ACREAGE
DRAINAGE AREA BOUNDARY
FLOWLINE PATH
DRAINAGE FLOW ARROWS

WPAP PROPOSED DRAINAGE AREA MAP

ROSENBLATT LAW FIRM EXPANSION
16731 HUEBNER RD.; SAN ANTONIO, TX 78248

DATE:	JOB NUMBER:	SHEET NO.
3/18/2024	074-89	2 of 2
DWG NAME: 074-89 WPAP DA MAP		SCALE: 1" = 40'

ADA CONSULTING GROUP, INC.
221 W. RHAPSODY, STE. 102 SAN ANTONIO, TX 78216
(210) 340-5670 FAX: (210) 340-5728
A TEXAS REGISTERED ENGINEERING FIRM (REGISTRATION No. F-003512)

X:\CLIENTS\074\89\TCEQ\074-89 WPAP DA MAP.DWG

ATTACHMENT I
Inspection and Maintenance for BMPs

Silt Fence

1. Inspect all fencing weekly, and after any rainfall.

2. Remove sediment when buildup reaches 6 inches, or install a second line of fencing parallel to the old fence.

3. Replace any torn fabric or install a second line of fencing parallel to the torn section.

4. Replace or repair any sections crushed or collapsed in the course of construction activity.

Temporary Construction Entrance and Exits

1. The entrance should be maintained in a condition, which will prevent tracking or following of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

2. All sediment spilled, dropped, washed or tracked on to public rights-of-ways should be removed immediately by contractor.

3. When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

4. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

5. All sediment should be prevented from entering any storm drain, ditch, or water course by using approved methods.

Triangular Filter Dike

1. Inspect all fencing weekly, and after any rainfall.

2. Remove sediment when buildup after each rainfall and disposed of in a manner which will not cause additional siltation.

3. Inspect and realign dikes as needed to prevent gaps between section.

Rock Berm (if shown)

1. Inspection should be made weekly and after each rainfall by the responsible party.For installations in streambeds, additional daily inspections should be made.

2. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

3. Repair any loose wire sheathing.

4. The berm should be reshaped as needed during inspection.

5. The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

6. The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

ROSENBLATT LAW FIRM EXPANSION
San Antonio, Texas

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

SILT/FILTER FABRIC FENCE

INSPECTOR:_____ DATE:_____

DAYS SINCE LAST RAINFALL: ☐ AMOUNT OF LAST RAINFALL: ☐ INCHES

LOCATION	BOTTOM OF FABRIC STILL BURIED?	FABRIC TORN OR SAGGING?	POSTS TIPPING OVER?	HOW DEEP IS THE SEDIMENT?

MAINTENANCE REQUIRED FOR SILT FENCE:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

ROSENBLATT LAW FIRM EXPANSION
San Antonio, Texas

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

STABILIZED CONSTRUCTION ENTRANCE / STAGING AREA

INSPECTOR:_____ DATE:_____

DAYS SINCE LAST RAINFALL: [ ] AMOUNT OF LAST RAINFALL: [ ] INCHES

LOCATION	IS SEDIMENT BEING TRACKED ONTO ROAD?	ENTRY SURFACE CLEAN OR SEDIMENT FILLED?	DOES ALL TRAFFIC USE ENTRANCE?

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

ROSENBLATT LAW FIRM EXPANSION
San Antonio, Texas

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

INLET PROTECTION BARRIERS

INSPECTOR:_____ DATE:_____

DAYS SINCE LAST RAINFALL: [ ] AMOUNT OF LAST RAINFALL: [ ] INCHES

LOCATION	IN PLACE?/ CONDITION?	DEPTH OF SEDIMENT	CONDITION OF INLET

MAINTENANCE REQUIRED FOR INLET PROTECTION BARRIERS:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

ROSENBLATT LAW FIRM EXPANSION
San Antonio, Texas

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

TRIANGULAR SEDIMENT FILTER DIKES

INSPECTOR:_____ DATE:_____

DAYS SINCE LAST RAINFALL: ☐ AMOUNT OF LAST RAINFALL: ☐ INCHES

LOCATION	IN PLACE?/ CONDITION?	DEPTH OF SEDIMENT	CONDITION OF INLET

MAINTENANCE REQUIRED FOR ROCK BERMS:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

ROSENBLATT LAW FIRM EXPANSION
San Antonio, Texas

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

CONSTRUCTION ACTIVITIES LOG

NAME	DATE	Major Grading Activities	Temporary Suspension of Construction Activities	Permanent Suspension of Construction Activities	Stabilization Measures Initiated	COMMENTS

DATE	ADDITIONAL COMMENTS

ROSENBLATT LAW FIRM EXPANSION
San Antonio, Texas

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

REASONS FOR CHANGES:

ATTACHMENT J
Schedule of interim and Permanent Soil Stabilization Practices

Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the l4th day after construction activity temporarily or permanently ceases is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of the site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

As the development site is completed, permanent landscaping and sod will be planted and irrigated. Onsite grading for each residential lot will sheet flow localized runoff over vegetative filter strip area prior to the storm water runoff being collected within short concrete wall for minor detention storage.

PERMANENT STORMWATER SECTION

Modification to a Previously Approved Plan

Permanent Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(C), (D)(Ii), (E), and (5), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Permanent Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Michael P. Sepeda, P.E.

Date: 3/22/24

Signature of Customer/Agent

Regulated Entity Name: _____

Permanent Best Management Practices (BMPs)

Permanent best management practices and measures that will be used during and after construction is completed.

1. ☐ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

   ☐ N/A

2. ☐ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

   ☐ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____

☐ N/A

3. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

   ☐ N/A

4. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.
   ☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.
   ☒ The site will not be used for low density single-family residential development.

5. The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ **Attachment A - 20% or Less Impervious Cover Waiver**. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.
   ☐ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
   ☒ The site will not be used for multi-family residential developments, schools, or small business sites.

6. ☒ **Attachment B - BMPs for Upgradient Stormwater**.

☐ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.

☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.

☒ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

7. ☒ **Attachment C - BMPs for On-site Stormwater**.

☒ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.

☐ Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.

8. ☒ **Attachment D - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.

☐ N/A

9. ☒ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

☒ The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.

☐ **Attachment E - Request to Seal Features**. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.

10. ☒ **Attachment F - Construction Plans**. All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:

☒ Design calculations (TSS removal calculations)

☒ TCEQ construction notes

☒ All geologic features

☒ All proposed structural BMP(s) plans and specifications

☐ N/A

11. ☒ **Attachment G - Inspection, Maintenance, Repair and Retrofit Plan**. A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
    ☒ A discussion of record keeping procedures

    ☐ N/A

12. ☐ **Attachment H - Pilot-Scale Field Testing Plan**. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.

    ☒ N/A

13. ☐ **Attachment I -Measures for Minimizing Surface Stream Contamination**. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.

    ☒ N/A

Responsibility for Maintenance of Permanent BMP(s)

Responsibility for maintenance of best management practices and measures after construction is complete.

14. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

    ☐ N/A

15. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

    ☐ N/A

ATTACHMENT B
BMPs for Upgradient Stormwater

Little to no offsite storm water runoff is expected to enter the site since the upgradient areas are either curbed streets or the upgradient stormwater is conveyed directly to the creek and not towards the site. As a result, most of the offsite runoff will by collected and conveyed into the adjacent streets while the stormwater along the adjacent home properties to the west are conveyed directly to the creek via a natural low that runs near the property line.

ATTACHMENT C
BMPs for On-Site Stormwater

The BMP employed to prevent pollution of on-site originating storm water is an existing 8' x 14' Contech *StormFilter* system. The filtration system in a concrete vault shall provide where at least 80% of the increase TSS load generated by the site will be removed. Upstream from the filtration system, the storm water will be collected by a grate inlet located within the proposed parking lot and then conveyed into an underground storm drain pipe detention system. The detention volume will allow for the stormwater to have time (equalize) to filter through the system prior to having the excess stormwater bypass the filtration system. The runoff will slowly discharge out of an outlet pipe that is already in place from the previously approved pollution abatement plan. The *StormFilter* is already in place as well from the previously approved plan but TSS removal calculations have been provided to show that the existing *StormFilter* system can adequately treat the proposed office expansion development. Therefore, the *StormFilter* system does not have to be modified or altered for this modification plan.

Attached are the calculations from the TCEQ spreadsheet. The immediate watershed for the proposed development is approximately 0.68 acres. The required 80% TSS removal rate is 494 lbs. A small amount of proposed impervious cover measuring 0.013 acre will not be directed into the filtration system therefore the system has been sized to overtreat this amount of TSS.

Other areas that are not being disturbed will remain to be treated utilizing vegetative filter strips.

Anticipated pollutants can be oil and grease from vehicles as well as suspended solids and sediments that are transported by vehicles entering the site and that are transported through the air and accumulate on impervious cover surfaces. These BMP's are to designed in accordance with the current TCEQ Technical Guidance Manual.

ATTACHMENT D
BMPs for Surface Streams

No surface streams exist on the property. Therefore, it is not necessary to implement any additional permanent BMPs or measures other than the proposed filtration system.

ATTACHMENT F
Construction Plans

Contech Engineered Solutions Calculations for Texas Commission on Environmental Quality
TSS Removal Calculations

Project Name: Rosenblatt Expansion
Date Prepared: 3/23/2024

1. The Required Load Reduction for the total project:

Calculations from RG-348
Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Bexar	
Total project area included in plan * =	1.915	acres
Predevelopment impervious area within the limits of the plan * =	0.000	acres
Total post-development impervious area within the limits of the plan* =	0.782	acres
Total post-development impervious cover fraction * =	0.41	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	638	lbs.
Number of drainage basins / outfalls areas leaving the plan area =	4	

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. =	A	
Total drainage basin/outfall area =	0.680	acres
Predevelopment impervious area within drainage basin/outfall area =	0.000	acres
Post-development impervious area within drainage basin/outfall area =	0.606	acres
Post-development impervious fraction within drainage basin/outfall area =	0.89	
$L_{M\ THIS\ BASIN}$ =	494	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	CS	abbreviation
Removal efficiency =	89	percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7:
$LR = (\text{BMP efficiency}) \times P \times (A_I \times 34.6 + A_P \times 0.54)$

A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	0.680	acres
A_I =	0.606	acres
A_P =	0.07	acres
L_R =	561	lbs.

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ =	545	lbs.
F =	0.97	

6. Calculate Treated Flow required by the BMP Type for this drainage basin / outfall area.

Calculations from RG-348
Pages Section 3.4.14

Offsite area draining to BMP =	0.00	acres
Offsite impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0.00	
Off-site Runoff Coefficient =	0.00	
Rainfall Depth =	3.00	inches
Post Development Runoff Coefficent =	0.73	
Effective Area =	0.55	acres
On-site Water Quality Volume =	5389	cubic feet
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	1078	cubic feet
Total Capture Volume (required water quality volume) x 1.20 =	6466	cubic feet

3/25/24

7. Storm Filter

Designed as Required in RG-348
Section 3.4.14

Cartridge Infiltration Rate =	1	GPM per ft^2
Cartridge Height =	27	inches
Cartridge Capacity =	11.25	GPM

StormFilter Equalization Design

Flow Rate for Flow-Through Configuration w/ Equalization =	0.63	cfs
Number of Cartridges for Flow-Through Configuration w/ Equalization =	25	
Volume for Flow-Through Configuration w/ Equalization =	582	cubic feet
Minimum Required Equalization Storage (Calculated Volume +20%) =	699	cubic feet

Contech Engineered Solutions Calculations for Texas Commission on Environmental Quality
TSS Removal Calculations

Project Name: Rosenblatt Expansion
Date Prepared: 2/28/2024

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. =	**D**	
Total drainage basin/outfall area =	**0.129**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.000**	acres
Post-development impervious area within drainage basin/outfall area =	**0.063**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.49**	
$L_{M\ THIS\ BASIN}$ =	**51**	lbs.

3/25/24

EARTHWORK NOTES:

1. PREPARE SUBGRADE BY EXCAVATION OR EMBANKMENT FOR BUILDING SLABS, WALKS AND PAVEMENTS. EXCAVATION AND BACKFILL FOR UNDERGROUND UTILITIES AND DRAINAGE FILL COURSE FOR SUPPORT OF BUILDING SLABS ARE INCLUDED IN THIS ITEM.
2. EXECUTION:

   ALL EXCAVATION, BACKFILL AND COMPACTION SHALL BE PERFORMED AS SHOWN IN THE PLANS AND APPLICABLE GEOTECHNICAL REPORT FOR THE SITE.
3. EXCESS MATERIAL RESULTING FROM EXCAVATION OPERATIONS IS THE PROPERTY OF THE EXCAVATION CONTRACTOR. APPROPRIATE DISPOSAL SHALL BE AT SAID CONTRACTOR'S EXPENSE.
4. ALL EXCAVATION SHALL BE PERFORMED AS DIRECTED IN THE PLANS AND IN COMPLIANCE WITH OSHA STANDARDS.
5. OWNER WILL ENGAGE, AT THE OWNER'S COST, SOIL TESTING AND INSPECTION SERVICE IN ACCORDANCE WITH MATERIAL TESTING SPECIFICATION TO VERIFY COMPLIANCE WITH THE PLANS & SPECIFICATIONS. REPLACEMENT AND RETESTING OF DEFICIENT WORK SHALL BE DONE BY EXCAVATION CONTRACTOR AT NO ADDITIONAL COMPENSATION.
6. DATA ON SUBSURFACE CONDITIONS, IF AVAILABLE, WILL BE MADE AVAILABLE TO THE CONTRACTOR BY THE OWNER AS REQUESTED. THE OWNER MAKES NO WARRANTY AS TO THE CORRECTNESS OF THESE REPORTS PREPARED BY OUTSIDE CONSULTANTS. THE CONTRACTOR MAY, AT HIS OWN EXPENSE, PERFORM ADDITIONAL TEST BORINGS.
7. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ALL AFFECTED UTILITY COMPANIES. THIS SHALL INCLUDE LOCATION OF FACILITIES, PROTECTION DURING CONSTRUCTION, DAMAGE REPAIRS AND DISRUPTION OF SERVICE.
8. THE EXCAVATION IS UNCLASSIFIED, AND CONTRACTOR SHALL PERFORM EXCAVATION TO THE ELEVATIONS INDICATED IN THE PLANS, REGARDLESS OF CHARACTER OF MATERIAL WITH NO ADDITIONAL COMPENSATION FROM THE OWNER. USE OF EXPLOSIVE IS PROHIBITED.
9. CONTRACTOR IS RESPONSIBLE FOR PROVIDING BARRICADES REQUIRED TO WARN AND/OR PREVENT ACCESS TO CONSTRUCTION AREA.
10. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ADJACENT FACILITIES FROM DAMAGE.
11. EARTHWORK SHALL BE PERFORMED IN COMPLIANCE WITH LANDSCAPE PROTECTION REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (CITY, COUNTY, TXDOT, ETC.).
12. OVER-EXCAVATION IS NONCOMPENSABLE, AND SHALL BE BACKFILLED AND COMPACTED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COMPENSATION.
13. CONTRACTOR SHALL PROVIDE ALL LABOR AND EQUIPMENT NECESSARY TO PROPERLY DEWATER EXCAVATION AREAS – AS REQUIRED.
14. EXCAVATED MATERIAL SHALL BE STOCKPILED WHERE DIRECTED IN THE PLANS. STOCKPILE SHALL BE MAINTAINED IN COMPLIANCE WITH ALL RELEVANT POLLUTION PREVENTION PLANS.
15. EARTHWORK SHALL BE PERFORMED TO THE TOLERANCES SHOWN IN THE PLANS AND/OR SPECIFIED IN THE APPLICABLE GEOTECHNICAL REPORT FOR THE PROJECT.
16. TRENCHES SHALL BE BACKFILLED ONLY AFTER INSPECTION AND APPROVAL OF THE TESTING LAB. BACKFILL MATERIAL AND PROCEDURES FOR TRENCHES SHALL BE IN COMPLIANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION 2014 STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES, ITEM 400 – EXCAVATION AND BACKFILL FOR STRUCTURES.

GRADING NOTES:

1. ALL SIDEWALKS, STRIPED PEDESTRIAN WALKS, OR ANY OTHER PEDESTRIAN PATH OF TRAVEL SHALL BE 2% MAX CROSS SLOPE.
2. CHANGE IN DIRECTIONS AT ANY PEDESTRIAN ROUTE, ACCESSIBLE OR OTHERWISE, SHALL BE BE AT 2% MAX SLOPE ANY DIRECTION.
3. ACCESSIBLE PARKING SPACES AND ASSOCIATED ACCESS AISLES SHALL BE 2% MAX SLOPE IN ANY DIRECTION.
4. DWELLING UNIT PORCH LANDINGS SHALL BE 2% MAX SLOPE IN ANY DIRECTION.
5. ANY CHANGE IN LEVEL EXPERIENCED FROM ONE GROUND/FLOOR SURFACE TO AN ADJOINING GROUND/FLOOR SURFACE, SUCH AS ENTRY FROM DWELLING UNIT PORCHES ACROSS THRESHOLD AND INTO THE DWELLING UNIT, SHALL BE LIMITED TO 1/4" (OR 1/2" IF BEVELED 1:2).
6. CURB RAMPS MUST NOT EXCEED THE MAXIMUM SLOPE OF 1V:12H (8.33%) SLOPE SO RAMP LENGTH CAN EXCEED 6 FEET TO TRANSITION A MAXIMUM 6" HIGH DROP/CURB.
7. SEE LANDSCAPE AND IRRIGATION PLANS FOR ALL PROPOSED LANDSCAPE AND FINISHED NATURAL GROUND AREAS. IF LANDSCAPE PLANS ARE NOT PROVIDED, CONTRACTOR SHALL RESOD EXISTING GRASS AREAS AND/OR RESTORE EXISTING LANDSCAPE AREAS.
8. CONTRACTOR AND SUBCONTRACTORS SHALL CONTRACT WITH SURVEYOR TO VERIFY PROJECT ELEVATIONS AND BENCHMARK ELEVATION(S) PRIOR TO CONSTRUCTION. "MATCH EXISTING" SHALL BE UNDERSTOOD TO SIGNIFY BOTH VERTICAL AND HORIZONTAL ALIGNMENT. ALL FINISHED EARTHEN GRADES SHALL NOT EXCEED 3:1 (H:V) SLOPE.

HOT MIX ASPHALT PAVEMENT NOTES:

1. PROVIDE NECESSARY LABOR AND MATERIALS TO INSTALL THE HOT MIX ASPHALT PAVING IN LOCATION AS SHOWN ON THE PLANS, USING DESIGN & SPECIFICATIONS FROM PROJECT SPECIFIC GEOTECHNICAL REPORT (BY OTHERS). REFER TO GEOTECHNICAL REPORT FOR ALL ASPECTS OF ASPHALT PAVEMENT DESIGN INCLUDING BUT NOT LIMITED TO: SUBGRADE PREPARATION, AGGREGATE, ASPHALT MATERIALS, MINERAL FILLER, PRIME COAT, TACK COAT AND FINAL ASPHALT PAVING SURFACE.
2. ALL ASPHALT MUST MEET A RETAINED STRENGTH OF AT LEAST 70% ON THE TXDOT 531-C TEST OR HAVE ALL LIMESTONE AGGREGATE. IF SILICEOUS AGGREGATES (WHICH INCLUDE GRAVEL, CRUSHED GRAVEL OR GRANITE) ARE USED, ADD HYDRATED LIME (AT LEAST 1%) OR ANTI-STRIP AGENT TO THE MIX TO MEET THE RETAINED STRENGTH REQUIREMENTS. THE MIXTURE MUST BE DESIGNED FOR 97% OF OPTIMUM LABORATORY DENSITY. ASPHALT GRADE SHALL BE PG 64-22.
3. EXECUTION:

A. START OF THIS WORK ITEM INDICATES ACCEPTANCE BY THE CONTRACTOR OF THE SUBGRADE PREPARATION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE FINAL RESULTS.
B. CONTRACTOR SHALL ESTABLISH AND MAINTAIN REFERENCE POINTS TO HOLD PROPER ELEVATIONS AND GRADES. ALL PAVEMENT SHOULD BE WITHIN 0.5 INCH OF PROPOSED GRADES.
C. UNLESS OTHERWISE SHOWN ON THE PLANS, RECOMMENDED BY THE GEOTECHNICAL ENGINEER OR APPROVED BY THE ENGINEER, MATERIALS AND INSTALLATION OF SUCH SHALL COMPLY WITH THE FOLLOWING ITEMS WITHIN THE TEXAS DEPARTMENT OF TRANSPORTATION 2014 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES:
   - ITEM 247 – FLEXIBLE BASE, GRADE 1 OR 2.
   - ITEM 340 – HOT MIX ASPHALTIC CONCRETE PAVEMENT. HMAC SHOULD ACHIEVE AT LEAST 70% STRENGTH WHEN TESTED IN ACCORDANCE WITH TEX 531-C.

4. IN PLACE COMPACTED THICKNESS WILL NOT BE ACCEPTABLE IF EXCEEDING THE FOLLOWING ALLOWABLE VARIATION FROM REQUIRED THICKNESS:
   - HMAC SURFACE COURSE: 1/4", PLUS OR MINUS
   - SURFACE SMOOTHNESS: TEST FINISHED SURFACE OF EACH ASPHALT CONCRETE COURSE FOR SMOOTHNESS, USING 10' STRAIGHTEDGE APPLIES PARALLEL WITH AND AT RIGHT ANGLES TO CENTERLINE OF PAVED AREA. SURFACE SMOOTHNESS WILL NOT BE ACCEPTABLE IS THE WEARING COURSE SURFACE EXCEEDING 3/16".

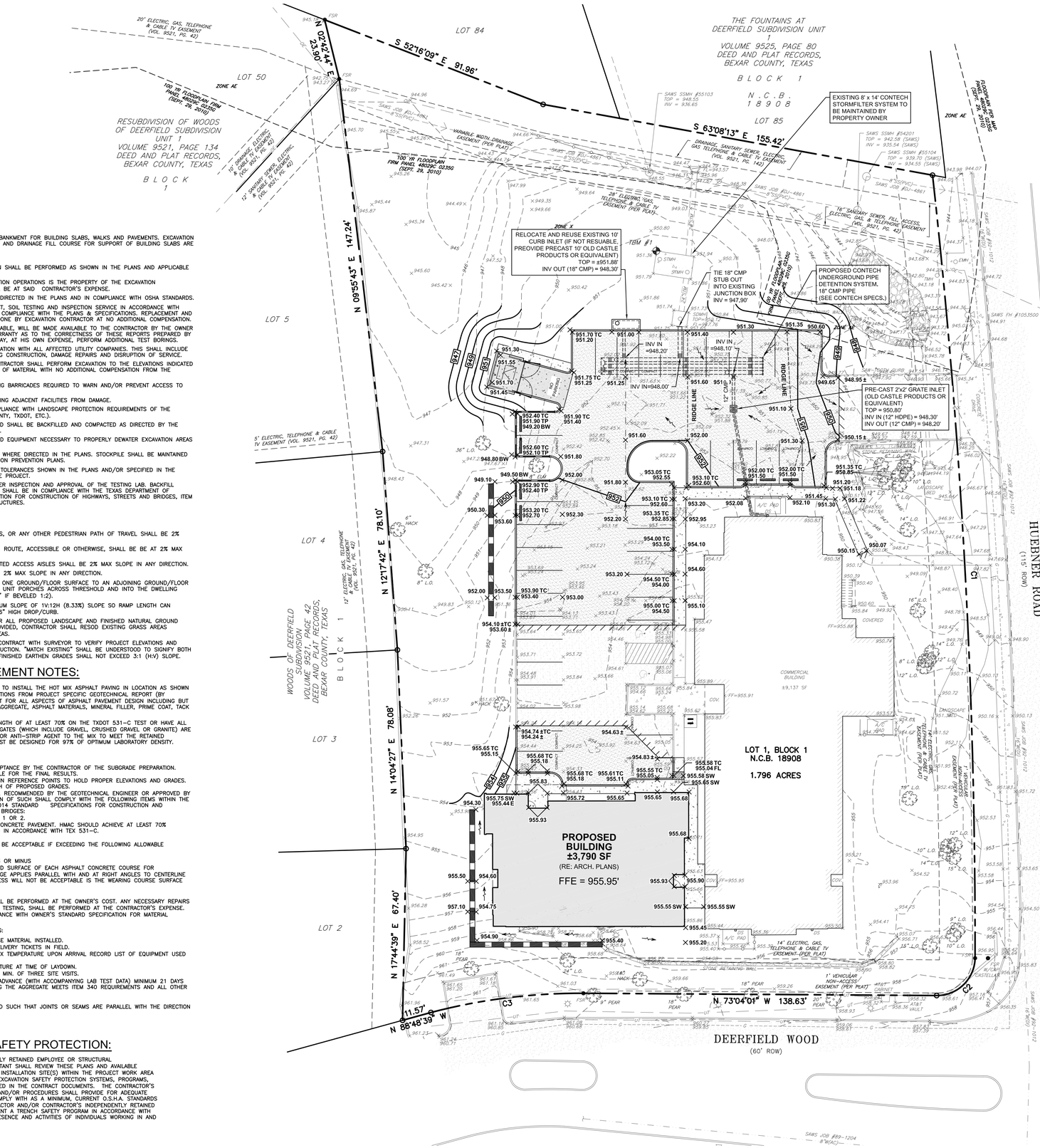
5. THE INITIAL QUALITY CONTROL TESTING SHALL BE PERFORMED AT THE OWNER'S COST. ANY NECESSARY REPAIRS OR REPLACEMENTS, ALONG WITH ADDITIONAL TESTING, SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE. TESTING PROCEDURES SHALL BE IN COMPLIANCE WITH OWNER'S STANDARD SPECIFICATION FOR MATERIAL TESTING.
6. CONTRACTOR SHALL ENSURE THE FOLLOWING:

A. TESTING LAB TO VERIFY THICKNESS OF BASE MATERIAL INSTALLED.
B. VERIFY APPROVED MIX DESIGN MATCHES DELIVERY TICKETS IN FIELD.
C. RECORD ARRIVAL TIMES OF TRUCKS AND MIX TEMPERATURE UPON ARRIVAL RECORD LIST OF EQUIPMENT USED TO LAY AND COMPACT ASPHALT.
D. RECORD AIR TEMPERATURE & MIX TEMPERATURE AT TIME OF LAYDOWN.
E. GEO-TECH ENGINEER OF RECORD TO MAKE MIN. OF THREE SITE VISITS.
F. ASPHALT JOB MIX FORMULA APPROVED IN ADVANCE (WITH ACCOMPANYING LAB TEST DATA) MINIMUM 21 DAYS PRIOR TO PAVING. THIS INCLUDES VERIFYING THE AGGREGATE MEETS ITEM 340 REQUIREMENTS AND ALL OTHER SPECIFICATIONS REQUIREMENTS.

7. HMAC SURFACE COURSE SHALL BE ORIENTED SUCH THAT JOINTS OR SEAMS ARE PARALLEL WITH THE DIRECTION OF TRAFFIC.

TRENCH EXCAVATION SAFETY PROTECTION:

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS, AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS, AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, CURRENT O.S.H.A. STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OF SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH CURRENT O.S.H.A. STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.



SCALE: 1" = 20 FT
0 10 20 40

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	2740.00'	307.97'	6°26'24"	S 13°27'22" W	307.81'
C2	15.00'	23.32'	89°04'29"	S 62°23'40" W	21.04'
C3	230.00'	60.58'	15°05'29"	N 80°36'45" W	60.41'

LEGEND

- PROPERTY LINE
- 652 — EXISTING CONTOUR LINE -- IN FEET
- ×651.90 — EXISTING SPOT ELEVATION (IN FEET)
- EXISTING CONC. CURB
- 6"SS — EXISTING SANITARY SEWER LINE (MATERIAL)
- W(PVC) — EXISTING WATER LINE (MATERIAL)
- OE/UE — EXISTING OVERHEAD/UNDERGROUND ELECTRIC
- EXISTING WOOD FENCE
- EXISTING/PROPOSED FIRE HYDRANT
- EXISTING/PROPOSED UTILITY POLE
- EXISTING LIGHT POLE
- WV — EXISTING/PROPOSED WATER VALVE
- WM — EXISTING/PROPOSED WATER METER
- CO — EXISTING/PROPOSED CLEAN OUT
- SSMH — EXISTING/PROPOSED SEWER MANHOLE
- STMH — EXISTING/PROPOSED STORM MANHOLE
- EXISTING CONCRETE/ASPHALT
- EXISTING TREE
- PROPOSED CONCRETE/ASPHALT
- PROPOSED CONCRETE DUMPSTER PAD
- PROPOSED CONCRETE SLOTTED CURB
- PROPOSED CONCRETE CURB RETAINING WALL
- COMPACT — PROPOSED COMPACT PARKING
- PROPOSED 2'x2'x4' LIMESTONE BLOCKS
- 712 — PROPOSED CONTOUR -- IN FEET
- DRAINAGE FLOW ARROWS (GRADE TO DRAIN)
- ACCESSIBLE AREA (2% MAXIMUM SLOPE ANY DIRECTION)
- ×712.00 — PROPOSED SPOT ELEVATIONS (IN FEET)
- MATCH EXISTING GRADE
- 2"W — PROPOSED WATER LINE
- 6"SS — PROPOSED SANITARY SEWER
- OE/UE — PROPOSED OVERHEAD (OE) OR UNDERGROUND (UE) ELECTRIC, PHONE, CABLE, DATA SECONDARY TO BUILDING (SEE MEP PLANS)
- PROPOSED STORM PIPE
- PROPOSED FIRE DEPARTMENT CONNECTION
- IRR CON — PROPOSED IRRIGATION CONDUIT
- PROPOSED GAS LINE
- T — PROPOSED PAD MOUNTED TRANSFORMRER

BENCHMARK

TEMPORARY BM #1: MAGNAIL W/ WASHER ELEV.=951.36

TEMPORARY BM #2: MAGNAIL W/ WASHER ELEV.=955.28

NOTE:
NOTED TBM'S (TEMPORARY BENCHMARKS) ON THESE PLANS ARE BASED ON SURVEY INFORMATION PROVIDED TO ENGINEER. CONTRACTOR TO FIELD VERIFY ACCURACY OF ANY NOTED/SUGGESTED TBM'S PRIOR TO CONSTRUCTION. IF DESIRED, REQUESTED ADDITIONAL TBM'S SHALL BE COORDINATED WITH LISTED PROJECT SURVEYOR AS A SEPARATE PAY ITEM.

LEGAL DESCRIPTION

1.80 ACRES
LOT 1, BLOCK 1, N.C.B. 18908
HRDW PROPERTY DEVELOPMENT, LTD.
VOLUME 9597, PAGE 164, D.P.R.
PLAT No. 070071

TBPE FIRM# F-3512
STATE OF TEXAS
DONALD OROIAN
90244
LICENSED PROFESSIONAL ENGINEER
3-18-2024

REVISION	DESCRIPTION	DATE

ADA CONSULTING GROUP, INC.
221 W. RHAPSODY, STE. 102 SAN ANTONIO, TX 78216
(210) 340-5670 FAX: (210) 340-5728
A TEXAS REGISTERED ENGINEERING FIRM (REGISTRATION No. F-003512)

GRADING & DRAINAGE/PERMANENT POLLUTION ABATEMENT PLAN

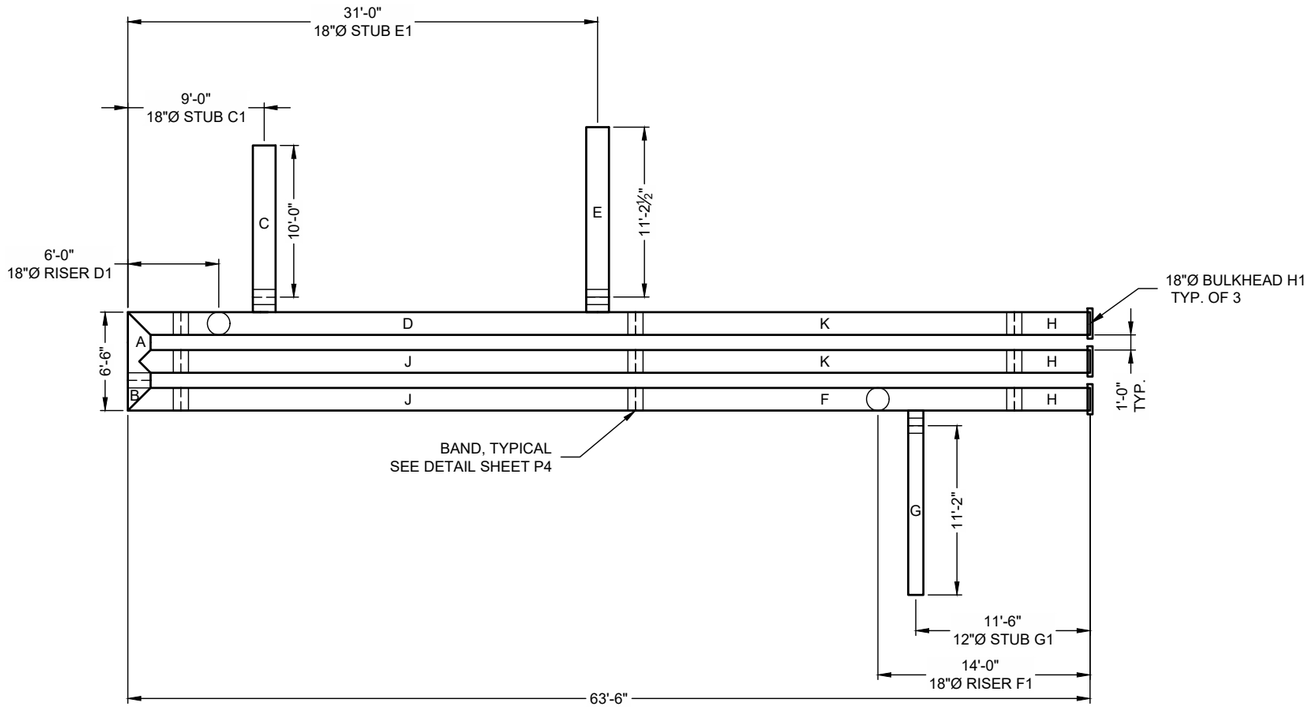
ROSENBLATT LAW FIRM EXPANSION
16731 HUEBNER RD.
SAN ANTONIO, TX 78248

DRAWN/CHECK BY: AL/DO | DATE: 3/18/24 | JOB # 074-89 | DWG #MC 074-89 (C1) GRPD_PPAP

SHEET 2 of 2

X:\CLIENTS\074089TCE\DWP\AP PLANS\074-89 (C1) GRPD_PPAP.DWG

NORTH ARROW PROVIDED FOR
REFERENCE ONLY.
REFER TO ENGINEERED SITE PLANS FOR
EXACT LOCATION AND ORIENTATION



STUB INFORMATION		
PIECE	STUB INVERT	SYSTEM INVERT
18"Ø STUB C1	948.00	948.00
18"Ø STUB E1	948.00	948.00
12"Ø STUB G1	948.10	948.00

RISER INFORMATION		
PIECE	RIM ELEV.	SYSTEM INVERT
18"Ø RISER D1	951.15	948.00
18"Ø RISER F1	951.05	948.00

EOR TO CONFIRM ALL ELEVATIONS

THE UNDERSIGNED HEREBY APPROVES THE ATTACHED (5) PAGES INCLUDING THE FOLLOWING:

- **PIPE STORAGE = 386 CF**
- **MAINLINE PIPE GAGE = 16**
- **WALL TYPE = SOLID W/ XFILTRATION**
- **DIAMETER = 18, 12"**
- **FINISH = ALT2**
- **CORRUGATION = 2 2/3x1/2**

CUSTOMER _____ DATE _____

ASSEMBLY

SCALE: 1" = 10'
STRUCTURAL BACKFILL STORAGE: 385 CF
TOTAL STORAGE PROVIDED: 772 CF
LOADING: H20
PIPE INV. = 948.00'±

ASSUMES 12" OF PERIMETER WITH 40% VOIDS

ASSUMES 6" STONE ABOVE PIPE AND NONE BELOW

STONE STORAGE VOLUME OF SYSTEM WILL BE ACHIEVED THROUGH THE USE OF CONTECH'S X-FILTRATION JOINTS

NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD (EOR) PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2⅔" x ½" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ACCESS CASTINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE NOT SUPPLIED BY CONTECH.

MARK	DATE	REVISION DESCRIPTION	BY

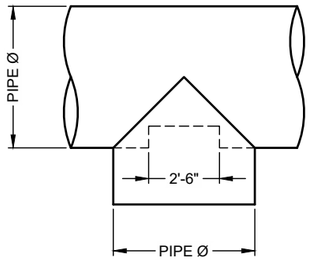
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9100 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH **PROPOSAL** DRAWING

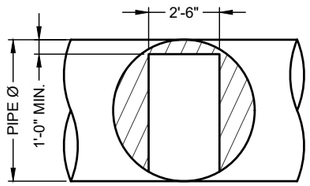
18"Ø UNDERGROUND RETENTION SYSTEM - 778912-010
ROSENBLATT LAW FIRM EXPANSION
SAN ANTONIO, TX
SITE DESIGNATION: UDS

PROJECT No.:	SEQ. No.:	DATE:
778912	010	3/4/2024
DESIGNED: RKD		DRAWN: CER
CHECKED: RKD		APPROVED: RKD
SHEET NO.: P1	OF	5

I:\MERLIN\PROJECT\ACTIVE\778900\778912\778912-10-CMP DETENTION\DRAWINGS\778912-010-CMP CONFAB.DWG 3/14/2024 11:57 AM



PLAN

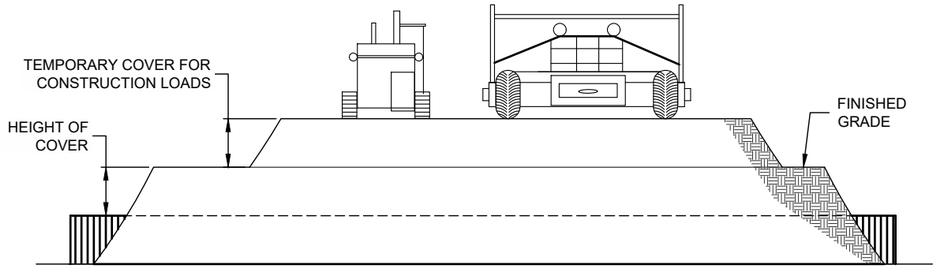


FRONT

48"Ø to 90"Ø FITTING REINFORCEMENT MAY BE REQUIRED BASED ON HEIGHT OF COVER AND LIVE LOAD CONDITION

TYPICAL MANWAY DETAIL

NOT TO SCALE



CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM

NOT TO SCALE

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL

SCOPE

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL

THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A929.

PIPE

THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M36 OR ASTM A760. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

HANDLING AND ASSEMBLY

SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSPA)

INSTALLATION

SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A798 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

ANTI-FLOTATION PROVISIONS DUE TO HIGH GROUNDWATER OR OTHER FLOTATION CONCERNS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

MATERIAL SPECIFICATION

NOT TO SCALE

MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9100 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH **PROPOSAL** DRAWING

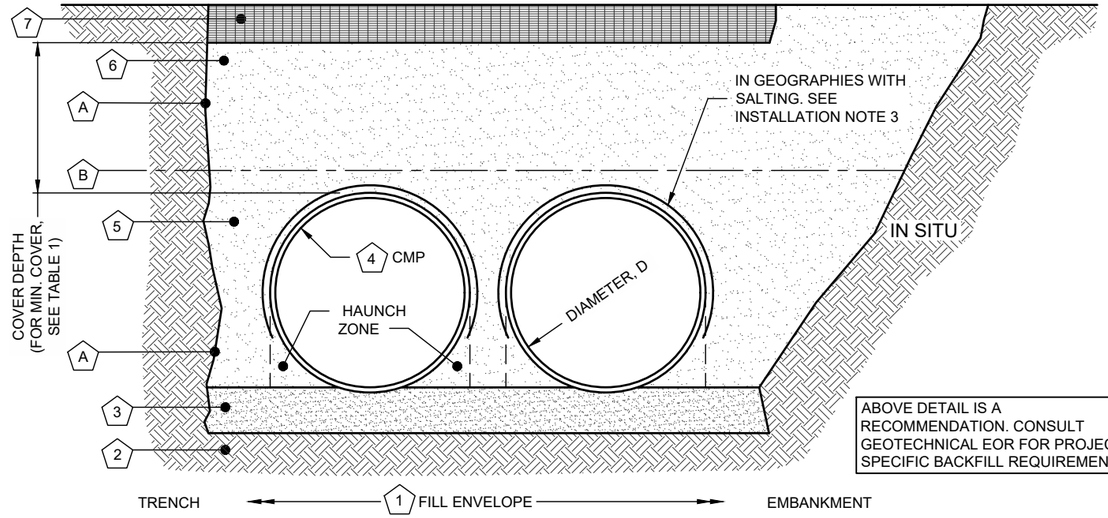
18"Ø UNDERGROUND RETENTION SYSTEM - 778912-010
ROSENBLATT LAW FIRM EXPANSION
SAN ANTONIO, TX
SITE DESIGNATION: UDS

PROJECT No.:	SEQ. No.:	DATE:
778912	010	3/4/2024
DESIGNED: RKD		DRAWN: CER
CHECKED: RKD		APPROVED: RKD
SHEET NO.: P2	OF	5

TABLE 1:

DIAMETER, D	MIN. COVER	CORR. PROFILE
6"-10"	12"	1 1/2" x 1/4"
12"-48"	12"	2 2/3" x 1/2"
>48"-96"	12"	3" x 1", 5" x 1"
>96"	D/8	3" x 1", 5" x 1"

- STRUCTURAL BACKFILL MUST EXTEND TO LIMITS OF THE TABLE
- TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT.



MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT

INSTALLATION NOTES

1. WHEN PLACING THE FIRST LIFTS OF BACKFILL IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE HAUNCHES.
2. OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER.
3. IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, A GEOMEMBRANE BARRIER IS RECOMMENDED OVER THE UPPER HALF OF THE PIPE. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

TABLE 2:

XFILTRATION© JOINT STANDARD BACKFILL SPECIFICATIONS

	MATERIAL LOCATION	MATERIAL SPECIFICATION	DESCRIPTION	
1	FILL ENVELOPE WIDTH	PER ENGINEER OF RECORD	MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE SUGGESTED MINIMUM TRENCH WIDTH, OR EOR RECOMMENDATION: PIPE ≤ 12": D + 16" PIPE > 12": 1.5D + 12"	MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE: PIPE < 24": 3.0D PIPE 24" - 144": D + 4'0" PIPE > 144": D + 10'0"
2	FOUNDATION	**AASHTO 26.5.2** - PER ENGINEER OF RECORD	PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND FOUNDATION BROUGHT BACK TO GRADE WITH A FILL MATERIAL APPROVED BY THE ENGINEER OF RECORD.	
3	BEDDING	**AASHTO M 43: 3, 357, 4, 467, 5, 56, 57**	ENGINEER OF RECORD TO DETERMINE IF BEDDING IS REQUIRED. PIPE MAY BE PLACED ON THE TRENCH BOTTOM OF A RELATIVELY LOOSE, NATIVE SUITABLE WELL GRADED GRANULAR MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE, 2" MIN DEPTH. THE BEDDING MATERIAL MAY BE SUITABLE OPEN GRADED GRANULAR BEDDING CONFORMING TO AASHTO SOIL CLASSIFICATIONS A1, A2, OR A3 WITH MAXIMUM PARTICLE SIZE OF 3" PER AASHTO 26.3.8.1	
4	CORRUGATED METAL PIPE			
5	BACKFILL	FREE-DRAINING, ANGULAR, WASHED-STONE PER **AASHTO M 43: 3, 357, 4, 467, 5, 56, 57** OR APPROVED EQUAL *	HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION WITHOUT SOFT SPOTS. BACKFILL SHALL BE PLACED IN 8" +/- LOOSE LIFTS AND COMPACTED TO 90% STANDARD PROCTOR PER AASHTO T 99. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO LIFT (16") DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACKFILL SHOULD BE ADVANCED ALONG THE LENGTH OF THE SYSTEM TO AVOID DIFFERENTIAL LOADING. WHERE CONVENTIONAL COMPACTION TESTING IS NOT PRACTICAL, THE MATERIAL SHALL BE MECHANICALLY COMPACTED UNTIL NO FURTHER YIELDING OF MATERIAL IS OBSERVED UNDER THE COMPACTOR. **IN AREAS WITH HIGH WATER TABLE FLUCTUATIONS THAT INTERACT WITH THE PIPE ZONE, CONSIDER INSTALLING A GEOTEXTILE SEPARATION LAYER TO PREVENT SOIL MIGRATION.	
6	COVER MATERIAL	UP TO MIN. COVER - **AASHTO M 145: A-1, A-2, A-3** ABOVE MIN. COVER - PER ENGINEER OF RECORD	COVER MATERIAL MAY INCLUDE NON-BITUMINOUS, GRANULAR ROADBASE MATERIAL WITHIN MIN COVER LIMITS	
7	RIGID OR FLEXIBLE PAVEMENT (IF APPLICABLE)	PER ENGINEER OF RECORD	FLEXIBLE PAVEMENT SHOULD NOT BE COUNTED AS PART OF THE FILL HEIGHT OVER THE CMP. FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD.	
A	SIDE GEOTEXTILE	NONE	GEOTEXTILE LAYER IS RECOMMENDED ON SIDES OF EXCAVATION TO PREVENT SOIL MIGRATION WHEN STONE BEDDING IS USED. IF NO STONE BEDDING IS USED, THEN SIDE GEOTEXTILE IS REQUIRED.	
B	GEOTEXTILE BETWEEN LAYERS	NONE	IF SOIL TYPES DIFFER AT ANY POINT ABOVE PIPE INVERT, A GEOTEXTILE LAYER IS RECOMMENDED TO BE PLACED BETWEEN THE LAYERS TO PREVENT SOIL MIGRATION.	

NOTES:
- FOR MULTIPLE BARREL INSTALLATIONS, THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE THE PIPE DIAMETER /2 BUT NO LESS THAN 12" FOR DIAMETERS <72". FOR 72" AND LARGER DIAMETERS, THE MINIMUM SPACING IS 36". CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING.

* APPROVED REGIONAL EQUIVALENTS FOR SECTION 5 INCLUDE CA-7, MIDOT 6AA, 6A, OR 5G, PROVIDED THEY MEET THE PARTICLE SIZES INDICATED.

MANUFACTURER RECOMMENDED BACKFILL

NOT TO SCALE

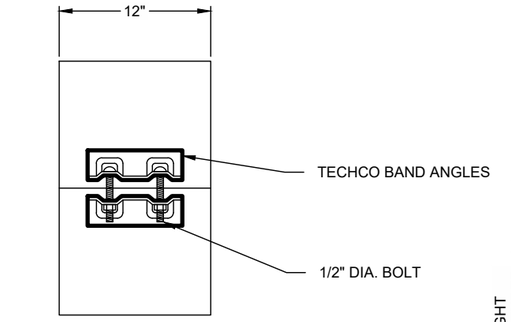
MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9100 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

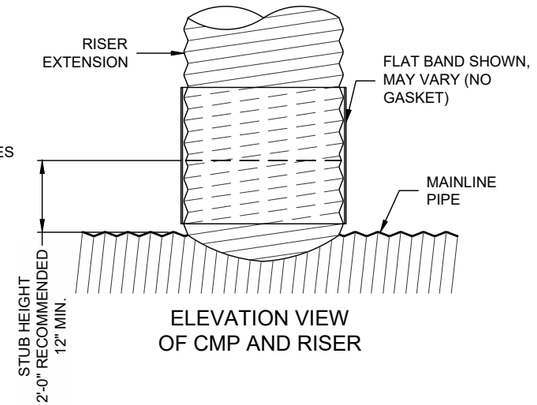
CONTECH CMP DETENTION SYSTEMS
CONTECH **PROPOSAL** DRAWING

18"Ø UNDERGROUND RETENTION SYSTEM - 778912-010
ROSENBLATT LAW FIRM EXPANSION
SAN ANTONIO, TX
SITE DESIGNATION: UDS

PROJECT No.:	SEQ. No.:	DATE:
778912	010	3/4/2024
DESIGNED: RKD	DRAWN: CER	
CHECKED: RKD	APPROVED: RKD	
SHEET NO.: P3	OF 5	



CONNECTION DETAIL
7 1/2" TECHCO SHOWN - MAY VARY



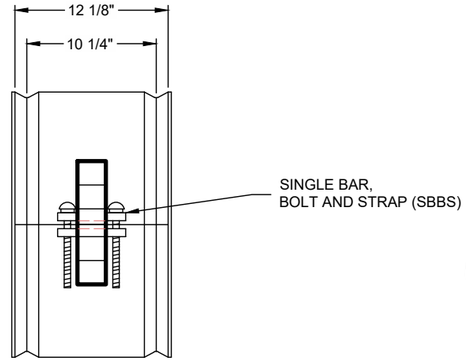
ELEVATION VIEW
OF CMP AND RISER

PLAIN END CMP RISER PIPE

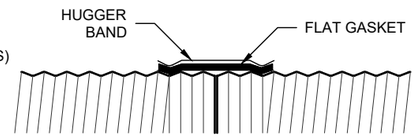
GENERAL NOTES:

1. **DELIVERED BAND STYLE AND FASTENER TYPE MAY VARY BY FABRICATION PLANT.**
2. JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SEC 26.4.2.4.
3. BAND MATERIAL AND GAGE TO BE SAME AS RISER MATERIAL.
4. IF RISER HAS A HEIGHT OF COVER OF 10' OR MORE, USE A SLIP JOINT.
5. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   - 12" THRU 48" 1-PIECE
   - 54" 2-PIECES
6. ALL RISER JOINT COMPONENTS WILL BE FIELD ASSEMBLED.
7. MANHOLE RISERS IN APPLICATIONS WHERE TRAFFIC LOADS ARE IMPOSED REQUIRE SPECIAL DESIGN CONSIDERATIONS.
8. DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.

12" RISER BAND DETAIL
NOT TO SCALE



CONNECTION DETAIL
(SBBS)



FLAT GASKET

2 2/3"x1/2" RE-ROLLED END HEL-COR PIPE

GENERAL NOTES:

1. JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SEC 26.4.2.4.
2. BAND MATERIALS AND/OR COATING CAN VARY BY LOCATION. CONTACT YOUR CONTECH REPRESENTATIVE FOR AVAILABILITY.
3. BANDS ARE SHAPED TO MATCH THE PIPE-ARCH WHEN APPLICABLE.
4. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   - 12" THRU 48" 1-PIECE
   - 54" THRU 96" 2-PIECES
   - 102" THRU 144" 3-PIECES
5. BAND FASTENERS ARE ATTACHED WITH SPOT WELDS, RIVETS OR HAND WELDS.
6. ALL CMP IS REROLLED TO HAVE ANNULAR END CORRUGATIONS OF 2 2/3"x1/2"
7. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
8. ORDER SHALL DESIGNATE GASKET OPTION, IF REQUIRED (SEE DETAILS ABOVE).

H-12 HUGGER BAND DETAIL
NOT TO SCALE

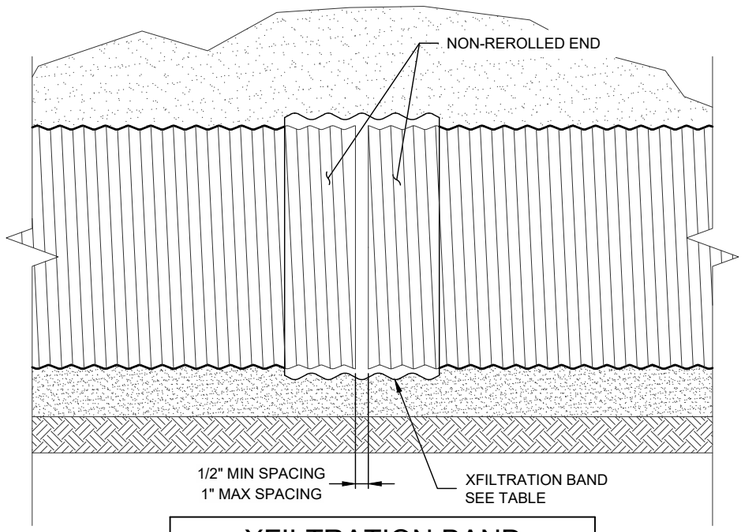
MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9100 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH **PROPOSAL** DRAWING

18"Ø UNDERGROUND RETENTION SYSTEM - 778912-010
ROSENBLATT LAW FIRM EXPANSION
SAN ANTONIO, TX
SITE DESIGNATION: UDS

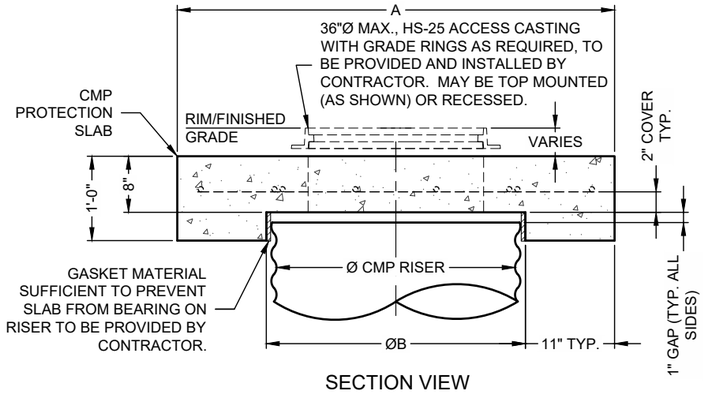
PROJECT No.:	SEQ. No.:	DATE:
778912	010	3/4/2024
DESIGNED: RKD		DRAWN: CER
CHECKED: RKD		APPROVED: RKD
SHEET NO.: P4	OF	5



XFILTRATION BAND		
DIAMETER	BAND	FASTENER
UP TO 84"Ø	5-C OR H-12	STD. PLANT FASTENER WITH NO GASKET
84"Ø +	10-C	STD. PLANT FASTENER WITH NO GASKET

XFILTRATION JOINT DETAIL

NOT TO SCALE

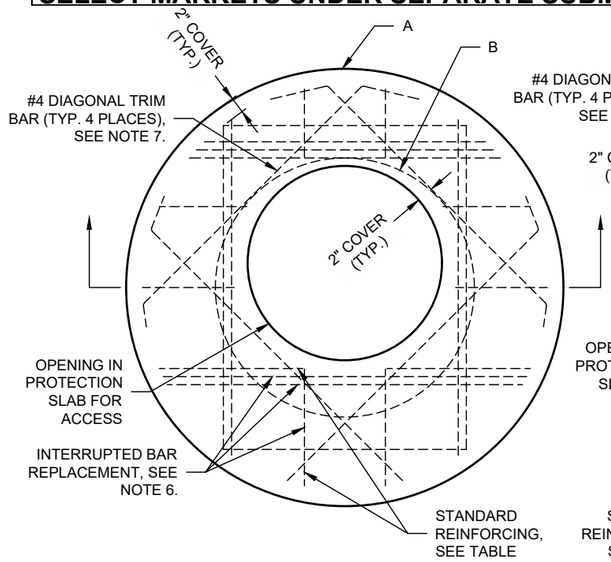


SECTION VIEW

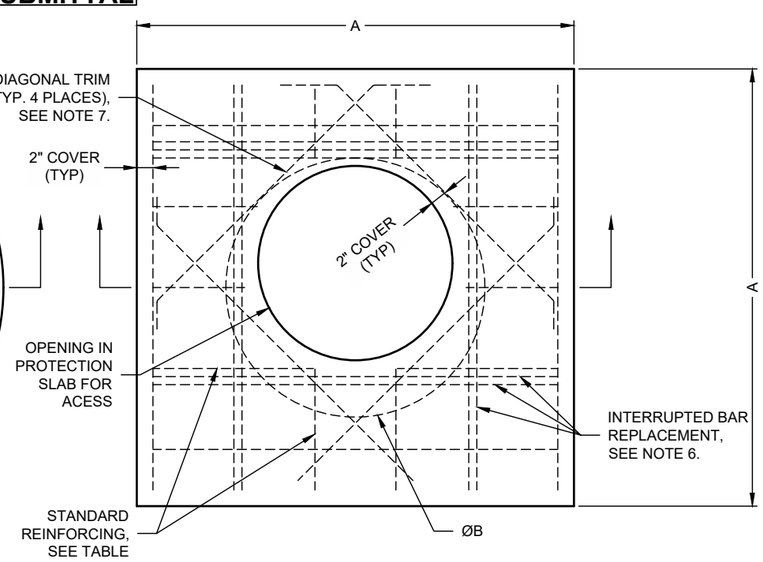
REINFORCING TABLE				
Ø CMP RISER	A	B Ø	REINFORCING	**BEARING PRESSURE (PSF)
24"	4'Ø 4'x4'	26"	#5 @ 10" OCEW #5 @ 10" OCEW	2,540 1,900
30"	4'-6"Ø 4'-6" x 4'-6"	32"	#5 @ 10" OCEW #5 @ 9" OCEW	2,260 1,670
36"	5'Ø 5' x 5'	38"	#5 @ 9" OCEW #5 @ 8" OCEW	2,060 1,500
42"	5'-6"Ø 5'-6" x 5'-6"	44"	#5 @ 8" OCEW #5 @ 8" OCEW	1,490 1,370
48"	6'Ø 6' x 6'	50"	#5 @ 7" OCEW #5 @ 7" OCEW	1,210 1,270

** ASSUMED SOIL BEARING CAPACITY

ACCESS CASTING SUPPLIED BY CONTECH IN SELECT MARKETS UNDER SEPARATE SUBMITTAL



ROUND OPTION PLAN VIEW



SQUARE OPTION PLAN VIEW

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION AND ACI 350.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 4,000 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERS, ARCHITECTS AND LAND SURVEYORS, ENDWELL, NY.

MANHOLE CAP DETAIL

NOT TO SCALE

MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9100 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS

CONTECH **PROPOSAL** DRAWING

18"Ø UNDERGROUND RETENTION SYSTEM - 778912-010
ROSENBLATT LAW FIRM EXPANSION
SAN ANTONIO, TX
SITE DESIGNATION: UDS

PROJECT No.:	SEQ. No.:	DATE:
778912	010	3/4/2024
DESIGNED: RKD	DRAWN: CER	
CHECKED: RKD	APPROVED: RKD	
SHEET NO.: P5 OF 5		

Contech® CMP Detention Inspection and Maintenance Guide

Underground stormwater detention and infiltration systems must be inspected and maintained at regular intervals for purposes of performance and longevity.

Inspection

Inspection is the key to effective maintenance of CMP detention systems and is easily performed. Contech recommends ongoing, annual inspections. Sites with high trash load or small outlet control orifices may need more frequent inspections. The rate at which the system collects pollutants will depend more on-site specific activities rather than the size or configuration of the system.

Inspections should be performed more often in equipment washdown areas, in climates where sanding and/or salting operations take place, and in other various instances in which one would expect higher accumulations of sediment or abrasive/corrosive conditions. A record of each inspection is to be maintained for the life of the system.

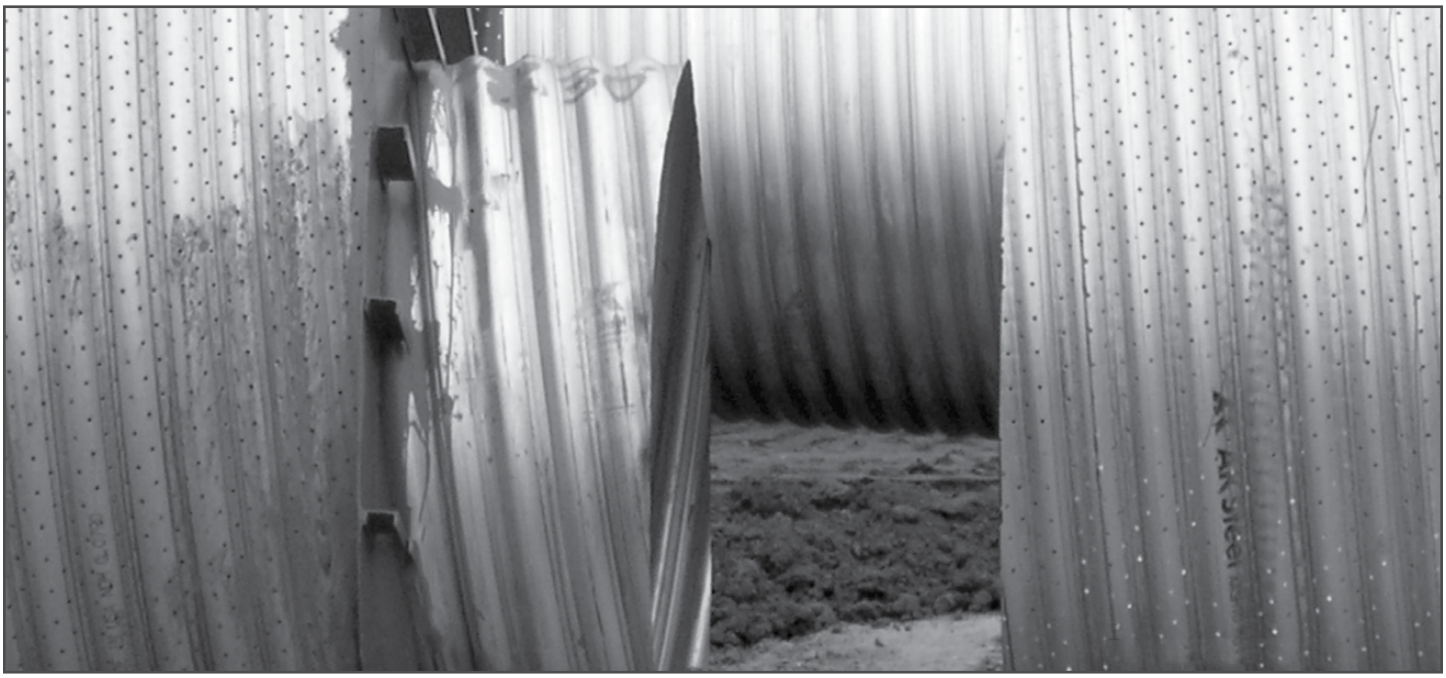
Maintenance

CMP detention systems should be cleaned when an inspection reveals accumulated sediment or trash is clogging the discharge orifice. Accumulated sediment and trash can typically be evacuated through the manhole over the outlet orifice. If maintenance is not performed as recommended, sediment and trash may accumulate in front of the outlet orifice. Manhole covers should be securely seated following cleaning activities. Contech suggests that all systems be designed with an access/inspection manhole situated at or near the inlet and the outlet orifice. Should it be necessary to get inside the system to perform maintenance activities, all appropriate precautions regarding confined space entry and OSHA regulations should be followed.

Annual inspections are best practice for all underground systems. During this inspection if evidence of salting/de-icing agents is observed within the system, it is best practice for the system to be rinsed, including above the spring line soon after the spring thaw as part of the maintenance program for the system.

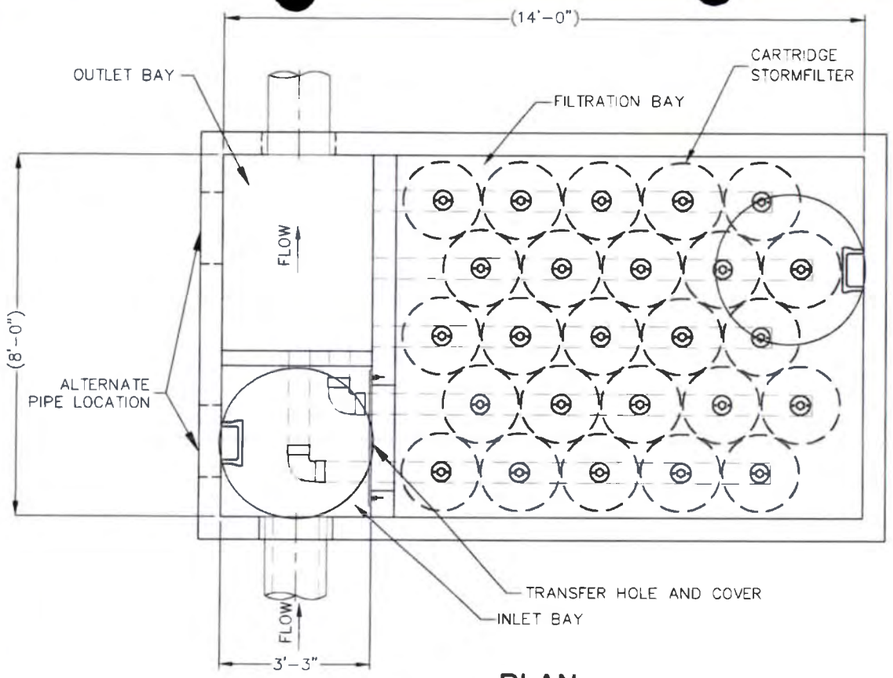
Maintaining an underground detention or infiltration system is easiest when there is no flow entering the system. For this reason, it is a good idea to schedule the cleanout during dry weather.

The foregoing inspection and maintenance efforts help ensure underground pipe systems used for stormwater storage continue to function as intended by identifying recommended regular inspection and maintenance practices. Inspection and maintenance related to the structural integrity of the pipe or the soundness of pipe joint connections is beyond the scope of this guide.



CONTECH®
CMP DETENTION SYSTEMS

CONTECH®
ENGINEERED SOLUTIONS



PLAN

STORMFILTER DESIGN TABLE

THE 8' x 14' PEAK DIVERSION STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.
THE PEAK DIVERSION STORMFILTER IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR RIGHT INLET CONFIGURATION.
ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.

CARTRIDGE HEIGHT	27"		~~18"~~		~~LOW DROP~~	
SYSTEM HYDRAULIC DROP (REQ'D. MIN.)	3.05' MIN		~~2.3'~~		~~1.8'~~	
HEIGHT OF WEIR (W)	3.00" MIN		~~2"~~		~~2"~~	
TREATMENT BY MEDIA SURFACE AREA	2 gpm/ft²	1 gpm/ft²	~~2 gpm/ft²~~	~~1 gpm/ft²~~	~~2 gpm/ft²~~	~~1 gpm/ft²~~
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	~~15~~	~~7.5~~	~~10~~	~~5~~

SITE SPECIFIC DATA REQUIREMENTS

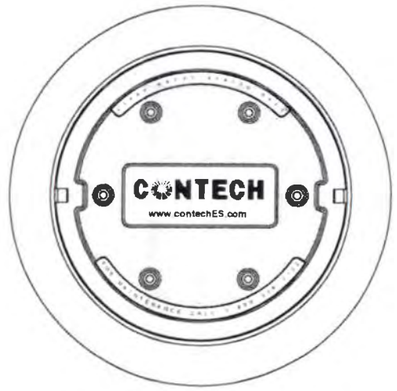
STRUCTURE ID – AREA "A"	1
WATER QUALITY FLOW RATE (cfs)–TOTAL	0.63
PEAK FLOW RATE (cfs)	6.51
RETURN PERIOD OF PEAK FLOW (yrs)	25–YR
# OF CARTRIDGES REQUIRED	25
CARTRIDGE FLOW RATE (cfs)	0.025
MEDIA TYPE (CSF, PERLITE, ZPG)	ZPG

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE*	947.05	HDPE	24"
OUTLET PIPE*	944.00	HDPE	18"

RIM ELEVATION (TOP OF BOX)*	952.25

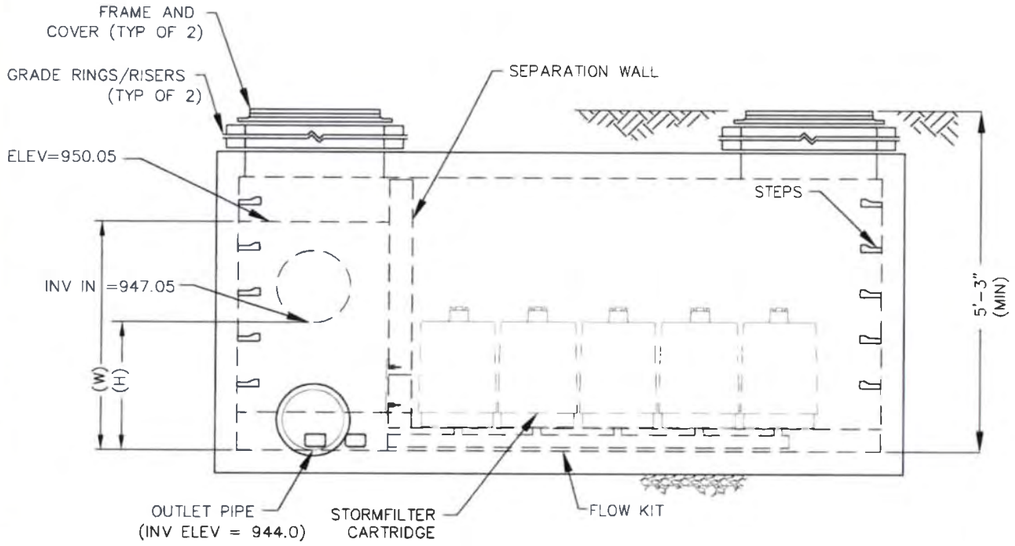
NOTES/SPECIAL REQUIREMENTS:
CONTRACTOR TO COORDINATE WITH MANUFACTURER FOR ADDITIONAL SPECIFICATIONS.

*CONTRACTOR TO REFER TO CONSTRUCTION PLANS FOR EXACT LOCATION, ELEVATIONS, AND PLACEMENT OF DRAINAGE STRUCTURES.



FRAME AND COVER

(DIAMETER VARIES)
N.T.S.



ELEVATION

CONTRACTOR TO REFER TO CONSTRUCTION PLANS FOR EXACT LOCATION, ELEVATIONS, AND PLACEMENT OF DRAINAGE STRUCTURES.

PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA–FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7–INCHES**. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST **37 SECONDS**.
SPECIFIC FLOW RATE SHALL BE **2 GPM/SF (MAXIMUM)**. SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF OF MEDIA (MAXIMUM)**.

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.contechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' – 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

INSTALLATION NOTES
A. ANY SUB–BASE, BACKFILL DEPTH, AND/OR ANTI–FLOTATION PROVISIONS ARE SITE–SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION–RELATED EROSION RUNOFF.
F. CONTRACTOR TO REMOVE THE TRANSFER HOLE COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

The Stormwater Management StormFilter®
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,322,629; 5,324,519; 5,707,521; 5,865,637; 6,027,639; 6,649,048; 6,802,963; 6,991,724; 7,186,333; 7,296,692; 7,297,266; 7,390,411; 7,425,262; 7,470,369; 7,563,363; 7,857,966; 8,431,016; 8,501,014; 8,512,561; 8,607,983; 8,622,223; 8,622,224; 8,622,225; 8,668,830; 8,673,151; 8,673,152; 8,679,338; 8,679,339; 8,685,242; 8,702,970; 8,715,495; 8,741,151; 8,741,152; 8,741,153; 8,753,513; 8,758,607; 8,758,608; 8,764,977; 8,771,506; 8,790,515; 8,790,516; 8,790,517; 8,795,517; 8,840,778; 8,840,779; 8,840,780; 8,840,781; 8,840,782; 8,840,783; 8,840,784; 8,840,785; 8,840,786; 8,840,787; 8,840,788; 8,840,789; 8,840,790; 8,840,791; 8,840,792; 8,840,793; 8,840,794; 8,840,795; 8,840,796; 8,840,797; 8,840,798; 8,840,799; 8,840,800; 8,840,801; 8,840,802; 8,840,803; 8,840,804; 8,840,805; 8,840,806; 8,840,807; 8,840,808; 8,840,809; 8,840,810; 8,840,811; 8,840,812; 8,840,813; 8,840,814; 8,840,815; 8,840,816; 8,840,817; 8,840,818; 8,840,819; 8,840,820; 8,840,821; 8,840,822; 8,840,823; 8,840,824; 8,840,825; 8,840,826; 8,840,827; 8,840,828; 8,840,829; 8,840,830; 8,840,831; 8,840,832; 8,840,833; 8,840,834; 8,840,835; 8,840,836; 8,840,837; 8,840,838; 8,840,839; 8,840,840; 8,840,841; 8,840,842; 8,840,843; 8,840,844; 8,840,845; 8,840,846; 8,840,847; 8,840,848; 8,840,849; 8,840,850; 8,840,851; 8,840,852; 8,840,853; 8,840,854; 8,840,855; 8,840,856; 8,840,857; 8,840,858; 8,840,859; 8,840,860; 8,840,861; 8,840,862; 8,840,863; 8,840,864; 8,840,865; 8,840,866; 8,840,867; 8,840,868; 8,840,869; 8,840,870; 8,840,871; 8,840,872; 8,840,873; 8,840,874; 8,840,875; 8,840,876; 8,840,877; 8,840,878; 8,840,879; 8,840,880; 8,840,881; 8,840,882; 8,840,883; 8,840,884; 8,840,885; 8,840,886; 8,840,887; 8,840,888; 8,840,889; 8,840,890; 8,840,891; 8,840,892; 8,840,893; 8,840,894; 8,840,895; 8,840,896; 8,840,897; 8,840,898; 8,840,899; 8,840,900; 8,840,901; 8,840,902; 8,840,903; 8,840,904; 8,840,905; 8,840,906; 8,840,907; 8,840,908; 8,840,909; 8,840,910; 8,840,911; 8,840,912; 8,840,913; 8,840,914; 8,840,915; 8,840,916; 8,840,917; 8,840,918; 8,840,919; 8,840,920; 8,840,921; 8,840,922; 8,840,923; 8,840,924; 8,840,925; 8,840,926; 8,840,927; 8,840,928; 8,840,929; 8,840,930; 8,840,931; 8,840,932; 8,840,933; 8,840,934; 8,840,935; 8,840,936; 8,840,937; 8,840,938; 8,840,939; 8,840,940; 8,840,941; 8,840,942; 8,840,943; 8,840,944; 8,840,945; 8,840,946; 8,840,947; 8,840,948; 8,840,949; 8,840,950; 8,840,951; 8,840,952; 8,840,953; 8,840,954; 8,840,955; 8,840,956; 8,840,957; 8,840,958; 8,840,959; 8,840,960; 8,840,961; 8,840,962; 8,840,963; 8,840,964; 8,840,965; 8,840,966; 8,840,967; 8,840,968; 8,840,969; 8,840,970; 8,840,971; 8,840,972; 8,840,973; 8,840,974; 8,840,975; 8,840,976; 8,840,977; 8,840,978; 8,840,979; 8,840,980; 8,840,981; 8,840,982; 8,840,983; 8,840,984; 8,840,985; 8,840,986; 8,840,987; 8,840,988; 8,840,989; 8,840,990; 8,840,991; 8,840,992; 8,840,993; 8,840,994; 8,840,995; 8,840,996; 8,840,997; 8,840,998; 8,840,999; 8,841,000; AND OTHER PATENTS PENDING

CONTECH®
ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

THE STORMWATER MANAGEMENT STORMFILTER 8' X 14' PEAK DIVERSION STORMFILTER STANDARD DETAIL

COURSEN·KOEHLER
ENGINEERING & ASSOCIATES
a division of Westwood
1718 Dry Creek Way, Suite 110 · San Antonio, Texas 78259
Tel: 210.265.6300 · Fax: 210.855.5530
TBPE Firm No. F-11756 · TBPLS Firm No. 10194064
www.westwoodpa.com

STATE OF TEXAS
DAVID BRODBECK
100203
LICENSED PROFESSIONAL ENGINEER
6/8/17

ROSENBLATT OFFICES
16731 HUEBNER ROAD

WATER POLLUTION ABATEMENT PLAN
WATER QUALITY DETAILS

JOB NO.:	11223.01
DATE:	JUNE 2017
DRAWN:	JV
SHEET:	1 OF 1
REVISION:	

File: Z:\Rosenblatt\TCEQ\WPAP\Report\NOD1\WPAP-Storm Filter Details.dwg

Rosenblatt Offices

Permanent Stormwater Section

ATTACHMENT G

INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

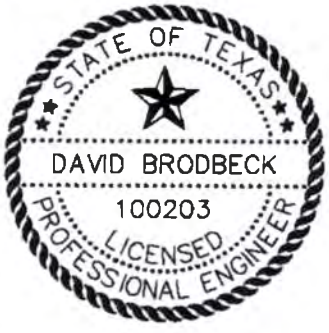
The following sheets include the inspection, maintenance, repair, and retrofit plans for the following:

- Storm Filter (Peak Diversion)
- Vegetative Filter Strips

It should be noted that the timing and procedures presented herein are general guidelines. Adjustments to the timing and procedures may have to be made depending on project specific characteristics as well as weather related conditions.

Engineer Certification:

I certify that the suggested inspection, maintenance, repair, and retrofit plans provided within ATTACHMENT G of the PERMANENT STORMWATER SECTION were prepared by the engineer designing the permanent BMPs and measures.



David Brodbeck, PE
Print Name of Engineer

Signature of Engineer

June 8, 2017
Date

SUGGESTED MAINTENANCE PLAN & SCHEDULE
STORMFILTER SYSTEM

PROJECT NAME: Rosenblatt Offices

ADDRESS: 16731 Huebner Road

CITY, STATE ZIP: San Antonio, Texas 78148

The StormFilter System should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend on site specific activities. Typical designs are intended for an annual maintenance cycle. The attached manufacturer recommended guidelines are included in the *Suggested Maintenance Plan and Schedule* and should be followed.

Inspections: Inspection of the storage component (and sedimentation manhole, if appropriate) should occur at a minimum of twice a year. It is recommended to wait 7-14 days after the last storm event, prior to making an inspection. This should allow for improved water clarity for observations in the storage facility. Sediment depth can be measured with a rod or other means. If sediment depth is greater than 1 foot, sediment removal in the storage facility is warranted.

Cartridge Replacement: Cartridges should initially be replaced annually. If inspection of the removed cartridges indicates that their life expectancy exceeds one year, a modified maintenance plan should be provided to TCEQ specifying the new replacement schedule. Cartridge replacement also may be required in the event of a chemical spill or due to excessive sediment loading from site erosion or extreme storms.

Sediment Removal: Sediment removal should occur before the accumulated sediment occupies 20% of the settling chamber. Typically includes cartridge replacement and sediment removal from the vault.

Debris and Litter Removal: Debris and Litter must be removed when its presence threatens the proper operation of the system.

StormFilter System Sample Inspection & Maintenance Log

Model:							**Location:**	
Date	1	2	3	4	5	Maintenance Performed	Maintenance Personnel	Comments

Reasons for Maintenance:

1. Sediment loading on the vault floor is greater than 4"
2. Sediment loading on the top of the cartridge is greater than ¼"
3. Submerged Cartridge in greater than 4" of static water for more than 24 hours
4. Plugged media
5. Pronounced scum line is greater than ¼" above top cap.

For more general guidelines, refer to Contech Stormwater Solutions Maintenance Decision Tree.

"Proper" disposal of accumulated silt shall be accomplished following the Texas Commission on Environmental Quality (TCEQ) and City of New Braunfels guidelines (if within jurisdiction of City of New Braunfels) and specifications.

After all inspections, results shall be recorded and maintained. Records should be made available on request by TCEQ and/or City of New Braunfels officials. Upon transfer of ownership or maintenance responsibility: The seller must inform the buyer of all requirements of the BMP maintenance. TCEQ must be notified and receive the form "TCEQ-10623 change in responsibility for maintenance on permanent Best Management Practices and Measures". In addition, TCEQ and the City of New Braunfels shall receive a signed, dated copy of this maintenance plan from the new owner.

The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another's entity having ownership or control of the property (such as without limitation, an owner's association, new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity assumes such obligation in writing or ownership is transferred.

An amended copy of this document will be provided to the Texas Commission on Environmental Quality within thirty (30) days of any changes in the following information.

Owner / Responsible Party:

Contact Person: James Rosenblatt

Entity: Brentonwoods Development, LLC

Mailing Address: 16719 Huebner Road, Bldg 1

City, State and Zip: San Antonio, TX 78248

Telephone: 210.562.2900 Facsimile: 210.562.2929

Email: james@rosenblattlawfirm.com

Signature of Owner/Responsible Party

April 5, 2017
Date

CONTECH®
ENGINEERED SOLUTIONS

StormFilter Inspection and Maintenance Procedures

The Stormwater Management StormFilter®

Maintenance Guidelines

The primary purpose of the Stormwater Management StormFilter® is to filter and prevent pollutants from entering our waterways. Like any effective filtration system, periodically these pollutants must be removed to restore the StormFilter to its full efficiency and effectiveness.

Maintenance requirements and frequency are dependent on the pollutant load characteristics of each site. Maintenance activities may be required in the event of a chemical spill or due to excessive sediment loading from site erosion or extreme storms. It is a good practice to inspect the system after major storm events.

Maintenance Procedures

Although there are many effective maintenance options, we believe the following procedure to be efficient, using common equipment and existing maintenance protocols. The following two-step procedure is recommended::

1. **Inspection**
   - Inspection of the vault interior to determine the need for maintenance.
2. **Maintenance**
   - Cartridge replacement
   - Sediment removal

Inspection and Maintenance Timing

At least one scheduled inspection should take place per year with maintenance following as warranted.

First, an inspection should be done before the winter season. During the inspection the need for maintenance should be determined and, if disposal during maintenance will be required, samples of the accumulated sediments and media should be obtained.

Second, if warranted, a maintenance (replacement of the filter cartridges and removal of accumulated sediments) should be performed during periods of dry weather.

In addition to these two activities, it is important to check the condition of the StormFilter unit after major storms for potential damage caused by high flows and for high sediment accumulation that may be caused by localized erosion in the drainage area. It may be necessary to adjust the inspection/ maintenance schedule depending on the actual operating conditions encountered by the system. In general, inspection activities can be conducted at any time, and maintenance should occur, if warranted, during dryer months in late summer to early fall.

Maintenance Frequency

The primary factor for determining frequency of maintenance for the StormFilter is sediment loading.

A properly functioning system will remove solids from water by trapping particulates in the porous structure of the filter media inside the cartridges. The flow through the system will naturally decrease as more and more particulates are trapped. Eventually the flow through the cartridges will be low enough to require replacement. It may be possible to extend the usable span of the cartridges by removing sediment from upstream trapping devices on a routine as-needed basis, in order to prevent material from being re-suspended and discharged to the StormFilter treatment system.

The average maintenance lifecycle is approximately 1-5 years. Site conditions greatly influence maintenance requirements. StormFilter units located in areas with erosion or active construction may need to be inspected and maintained more often than those with fully stabilized surface conditions.

Regulatory requirements or a chemical spill can shift maintenance timing as well. The maintenance frequency may be adjusted as additional monitoring information becomes available during the inspection program. Areas that develop known problems should be inspected more frequently than areas that demonstrate no problems, particularly after major storms. Ultimately, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual StormFilter system or site. It is recommended that the site owner develop a database to properly manage StormFilter inspection and maintenance programs..

Inspection Procedures

The primary goal of an inspection is to assess the condition of the cartridges relative to the level of visual sediment loading as it relates to decreased treatment capacity. It may be desirable to conduct this inspection during a storm to observe the relative flow through the filter cartridges. If the submerged cartridges are severely plugged, then typically large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, then maintenance is warranted and the cartridges need to be replaced.

Warning: In the case of a spill, the worker should abort inspection activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct an inspection:

Important: Inspection should be performed by a person who is familiar with the operation and configuration of the StormFilter treatment unit.

1. If applicable, set up safety equipment to protect and notify surrounding vehicle and pedestrian traffic.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the access portals to the vault and allow the system vent.
4. Without entering the vault, visually inspect the inside of the unit, and note accumulations of liquids and solids.
5. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the flow of water per drainage pipe. Record all observations. Digital pictures are valuable for historical documentation.
6. Close and fasten the access portals.
7. Remove safety equipment.
8. If appropriate, make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
9. Discuss conditions that suggest maintenance and make decision as to whether or not maintenance is needed.

Maintenance Decision Tree

The need for maintenance is typically based on results of the inspection. The following Maintenance Decision Tree should be used as a general guide. (Other factors, such as Regulatory Requirements, may need to be considered)

1. Sediment loading on the vault floor.
   a. If >4" of accumulated sediment, maintenance is required.
2. Sediment loading on top of the cartridge.
   a. If >1/4" of accumulation, maintenance is required.
3. Submerged cartridges.
   a. If >4" of static water above cartridge bottom for more than 24 hours after end of rain event, maintenance is required. (Catch basins have standing water in the cartridge bay.)
4. Plugged media.
   a. If pore space between media granules is absent, maintenance is required.
5. Bypass condition.
   a. If inspection is conducted during an average rain fall event and StormFilter remains in bypass condition (water over the internal outlet baffle wall or submerged cartridges), maintenance is required.
6. Hazardous material release.
   a. If hazardous material release (automotive fluids or other) is reported, maintenance is required.
7. Pronounced scum line.
   a. If pronounced scum line (say ≥ 1/4" thick) is present above top cap, maintenance is required.

Maintenance

Depending on the configuration of the particular system, maintenance personnel will be required to enter the vault to perform the maintenance.

Important: If vault entry is required, OSHA rules for confined space entry must be followed.

Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flows is occurring.

Replacement cartridges can be delivered to the site or customers facility. Information concerning how to obtain the replacement cartridges is available from Contech Engineered Solutions.

Warning: In the case of a spill, the maintenance personnel should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct cartridge replacement and sediment removal maintenance:

1. If applicable, set up safety equipment to protect maintenance personnel and pedestrians from site hazards.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors (access portals) to the vault and allow the system to vent.
4. Without entering the vault, give the inside of the unit, including components, a general condition inspection.
5. Make notes about the external and internal condition of the vault. Give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
6. Using appropriate equipment offload the replacement cartridges (up to 150 lbs. each) and set aside.
7. Remove used cartridges from the vault using one of the following methods:

Method 1:

A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

   Using appropriate hoisting equipment, attach a cable from the boom, crane, or tripod to the loose cartridge. Contact Contech Engineered Solutions for suggested attachment devices.

B. Remove the used cartridges (up to 250 lbs. each) from the vault.

Important: Care must be used to avoid damaging the cartridges during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner.

C. Set the used cartridge aside or load onto the hauling truck.

D. Continue steps a through c until all cartridges have been removed.

Method 2:

A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

B. Unscrew the cartridge cap.

C. Remove the cartridge hood and float.

D. At location under structure access, tip the cartridge on its side.

E. Empty the cartridge onto the vault floor. Reassemble the empty cartridge.

F. Set the empty, used cartridge aside or load onto the hauling truck.

G. Continue steps a through e until all cartridges have been removed.

8. Remove accumulated sediment from the floor of the vault and from the forebay. This can most effectively be accomplished by use of a vacuum truck.
9. Once the sediments are removed, assess the condition of the vault and the condition of the connectors.
10. Using the vacuum truck boom, crane, or tripod, lower and install the new cartridges. Once again, take care not to damage connections.
11. Close and fasten the door.
12. Remove safety equipment.
13. Finally, dispose of the accumulated materials in accordance with applicable regulations. Make arrangements to return the used **empty** cartridges to Contech Engineered Solutions.

Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads.

Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.

Related Maintenance Activities - Performed on an as-needed basis

StormFilter units are often just one of many structures in a more comprehensive stormwater drainage and treatment system.

In order for maintenance of the StormFilter to be successful, it is imperative that all other components be properly maintained. The maintenance/repair of upstream facilities should be carried out prior to StormFilter maintenance activities.

In addition to considering upstream facilities, it is also important to correct any problems identified in the drainage area. Drainage area concerns may include: erosion problems, heavy oil loading, and discharges of inappropriate materials.

Inspection Report

Date: Personnel:

Location: System Size:

System Type: Vault ☐ Cast-In-Place ☐ Linear Catch Basin ☐ Manhole ☐ Other ☐

Sediment Thickness in Forebay: Date:

Sediment Depth on Vault Floor:

Structural Damage:

Estimated Flow from Drainage Pipes (if available):

Cartridges Submerged: Yes ☐ No ☐ Depth of Standing Water:

StormFilter Maintenance Activities (check off if done and give description)

☐ Trash and Debris Removal:

☐ Minor Structural Repairs:

☐ Drainage Area Report

Excessive Oil Loading: Yes ☐ No ☐ Source:

Sediment Accumulation on Pavement: Yes ☐ No ☐ Source:

Erosion of Landscaped Areas: Yes ☐ No ☐ Source:

Items Needing Further Work:

Owners should contact the local public works department and inquire about how the department disposes of their street waste residuals.

Other Comments:

Review the condition reports from the previous inspection visits.

StormFilter Maintenance Report

Date: _____ Personnel: _____

Location: _____ System Size: _____

System Type: Vault ☐ Cast-In-Place ☐ Linear Catch Basin ☐ Manhole ☐ Other ☐

List Safety Procedures and Equipment Used: _____

_____

_____

System Observations

Months in Service:

Oil in Forebay (if present): Yes ☐ No ☐

Sediment Depth in Forebay (if present): _____

Sediment Depth on Vault Floor: _____

Structural Damage: _____

Drainage Area Report

Excessive Oil Loading: Yes ☐ No ☐ Source: _____

Sediment Accumulation on Pavement: Yes ☐ No ☐ Source: _____

Erosion of Landscaped Areas: Yes ☐ No ☐ Source: _____

StormFilter Cartridge Replacement Maintenance Activities

Remove Trash and Debris: Yes ☐ No ☐ Details: _____

Replace Cartridges: Yes ☐ No ☐ Details: _____

Sediment Removed: Yes ☐ No ☐ Details: _____

Quantity of Sediment Removed (estimate?):

Minor Structural Repairs: Yes ☐ No ☐ Details: _____

Residuals (debris, sediment) Disposal Methods: _____

Notes:

_____

_____

_____

_____

_____

_____

_____

RECYCLED PAPER

CONTECH®
ENGINEERED SOLUTIONS

800-338-1122

www.ContechES.com

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater and earth stabilization products. For information on other Contech division offerings, visit www.ContechES.com or call 800.338.1122.

Support

- Drawings and specifications are available at www.conteches.com.
- Site-specific design support is available from our engineers.

ATTACHMENT I
Measures for Minimizing Surface Stream Contamination

Development of this site will increase the peak discharge rates above pre-development conditions due to the construction of the proposed expansion development however the accumulated site's storm water runoff will mainly be conveyed into a storm drain system and a *Contech StormFilter* filtration system downstream from the proposed development to treat the storm water runoff per TCEQ regulations. Since this is an expansion project of an existing office site development, storm water flows discharging from the filtration system will discharge in approximately the same manner that it did prior to the development as per City of San Antonio requirements.

AGENT AUTHORIZATION

Modification to a Previously Approved Plan

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I James D. Rosenblatt,
Print Name

Its Managing Member,
Title - Owner/President/Other

of **Brettonwoods Properties, LLC**,
Corporation/Partnership/Entity Name

have authorized **Michael P. Sepeda, P.E.**
Print Name of Agent/Engineer

of **ADA Consulting Group, Inc.**
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

9/26/2023
Date

THE STATE OF Texas §

County of Bexar §

BEFORE ME, the undersigned authority, on this day personally appeared June Rosenblatt known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 26 day of September, 2023

Carrie Flowers
NOTARY PUBLIC

CARRIE FLOWERS
My Notary ID # 10454117
Expires December 18, 2025

Carrie Flowers
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 12/18/2025

FEE APPLICATION

Modification to a Previously Approved Plan

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Rosenblatt Offices
Regulated Entity Location: 16731 Huebner Rd.
Name of Customer: James D. Rosenblatt
Contact Person: Michael P. Sepeda, P.E. Phone: 210-340-5670
Customer Reference Number (if issued):CN 605399435
Regulated Entity Reference Number (if issued):RN 109734038

Austin Regional Office (3373)

☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362)

☒ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment**. This payment is being submitted to:

☐ Austin Regional Office
☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☒ San Antonio Regional Office
☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	*Size*	*Fee Due*
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	1.8 Acres	$ 4,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____

Date: 3/22/24

Application Fee Schedule

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	*Project Area in Acres*	*Fee*
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

Project	*Cost per Linear Foot*	*Minimum Fee-Maximum Fee*
Sewage Collection Systems	$0.50	$650 - $6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	*Cost per Tank or Piping System*	*Minimum Fee-Maximum Fee*
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

CORE DATA FORM

Modification to a Previously Approved Plan

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☒ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal (*Core Data Form should be submitted with the renewal form*) ☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN **605399435**		RN **109734038**

SECTION II: Customer Information

4. General Customer Information | 5. Effective Date for Customer Information Updates (mm/dd/yyyy)

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership

☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* | *If new Customer, enter previous Customer below:*

Brettonwoods Properties, LLC c/o James D. Rosenblatt

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
801404161	32043929713	45-2055325	N/A

11. Type of Customer: ☒ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☐ City ☐ County ☐ Federal ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ Yes ☐ No

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☒ Owner ☐ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:

Brettonwoods Properties, LLC Attn. James D. Rosenblatt

16731 Huebner Rd

City	San Antonio	State	TX	ZIP	78248	ZIP + 4	

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(210) 562-2900		(210) 562-2929

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

Rosenblatt Offices

23. Street Address of the Regulated Entity: *(No PO Boxes)*	16731 Huebner Rd							
	City	SanAntonio	**State**	TX	**ZIP**	78248	**ZIP + 4**	
24. County	Bexar							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	NWC of Huebner Rd. & Deerfield Wood Intersection					
26. Nearest City				**State**		**Nearest ZIP Code**
27. Latitude (N) In Decimal:	29.601944		**28. Longitude (W) In Decimal:**	98.5225		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	
29	36	07	98	31	21	

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
8111	N/A	541110	N/A

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Professional Offices - Attorney

34. Mailing Address:	**Brenttonwoods Properties, LLC Attn. James D. Rosenblatt**							
	16731 Huebner Rd							
	City	**San Antonio**	**State**	**TX**	**ZIP**	**78248**	**ZIP + 4**	
35. E-Mail Address:	**Carrie@RosenblattLawFirm.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(210) 562-2900		**( ) -**

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

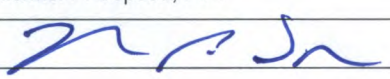
SECTION IV: Preparer Information

40. Name:	Michael P. Sepeda, P.E.	**41. Title:**	Sr. Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(210) 340-5670		(210) 340-5728	mike@adacg.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	ADA Consulting Group, Inc.	**Job Title:**	Sr. Project Manager
Name *(In Print):*	Michael P. Sepeda, P.E.	**Phone:**	(210) 340- **5670**
Signature:		**Date:**	3/22/24