WATER POLLUTION ABATEMENT PLAN FOR HALFTIME #1 – CONVENIENCE STORE



SAN ANTONIO ETJ, BEXAR COUNTY, TX

BULVERDE AND MARSHALL RD.

Prepared by:



11903 Jones Maltsberger Rd, Suite 102 San Antonio, TX 78216 210-774-5504 TBPE FIRM 17992

Prepared for:

HALFTIME Karim Ali 7410 Blanco Road, Suite 225 San Antonio, TX 78216



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 <u>30 TAC 213</u>.

Administrative Review

1. <u>Edwards Aquifer applications</u> 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: <u>http://www.tceq.texas.gov/field/eapp</u>.

- 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 review 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: Halftime 1			2. Regulated Entity No.:						
3. Customer Name: Bulverde Marshall LLC		4. Cı	4. Customer No.:						
5. Project Type: (Please circle/check one)	New				Exter	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)	Resider	ntial	Non-r	esiden	tial]	8. Sit	e (acres):	12.30
9. Application Fee:			10. Permanent BMP(s		s):				
11. SCS (Linear Ft.):			12. AST/UST (No. Tanks)		nks):				
13. County:	Bexa	ar	14. Watershed:				Salado Cr	eek Watershed	

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)	XEdwards 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 San Antonio (SAWS) Shavano Park	Bulverde Fair Oaks Ranch Garden Ridge New Braunfels Schertz	NA	XSan 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.

Print Name of Customer/Authorized Agent

2mmules

Signature of Customer/Authorized Agent

Date

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

General Information Form

In this Section:

TCEQ-0587 General Information Form

> Attachment A Road Map

Attachment B USGS/Edwards Recharge Zone Map

> Attachment C Project Description



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: Karim Ali

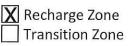
Date: 03/24/2023

Signature of Customer/Agent:

Lunna

Project Information

- 1. Regulated Entity Name: Halftime 1
- 2. County: Bexar
- 3. Stream Basin: Salado Creek Watershed
- 4. Groundwater Conservation District (If applicable): Edwards Aquifer Authority
- 5. Edwards Aquifer Zone:



6. Plan Type:



AST X UST Exception Request

TCEQ-0587 (Rev. 02-11-15)

1 of 4

7. Customer (Applicant):

Contact Person: <u>Karim</u> Ali Entity: <u>Bulve</u>rde Marshall LLC Mailing Address: <u>7410</u> Blanco Rd, St. 225 City, State: <u>San Antonio, Texas</u> Zip Telephone: <u>FA</u> Email Address:

Zip: <u>7821</u>6 FAX: _____

8. Agent/Representative (If any):

Contact Person: Tyler Smith
Entity: UP Engineering LLC
Mailing Address: 11903 Jones Maltsberger Rd, Suite 102
City, State: TXCity, State: TXZip: 78216
FAX: ____Telephone: 210-774-5504FAX: _____Email Address: _____Email Address: _____

9. Project Location:

The project site is located inside the city limits of _____.

The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of <u>San Antonio</u>

- The project site is not located within any city's limits or ETJ.
- 10. X 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.

Summit Church Rd and Bulverde Rd, City of San Antonio ETJ, Texas, 78259

- 11. X 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. X 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:
 - X Project site boundaries.

X 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. X 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: <u>N/A</u>

- 14. X 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)
X	Undeveloped (Undisturbed/Uncleared)
	Other:

Prohibited Activities

- 16. X 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. MA 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. X 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)

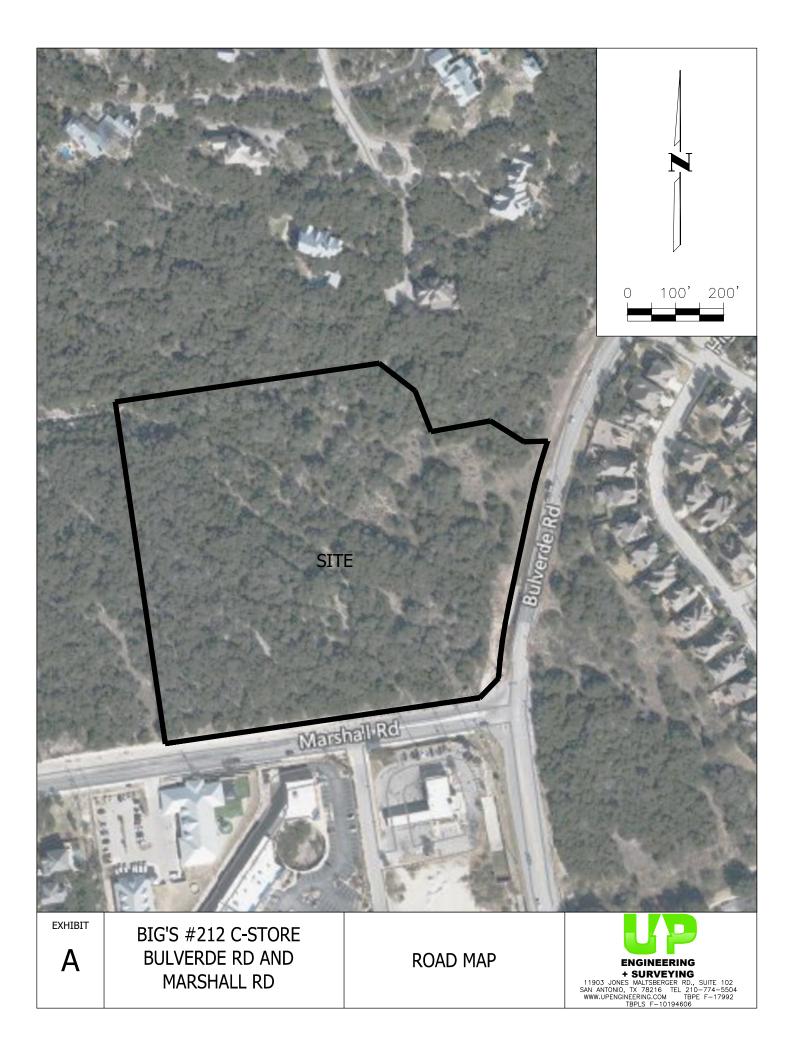
San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

- 20. X 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. X 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.

Attachment A

Road Map

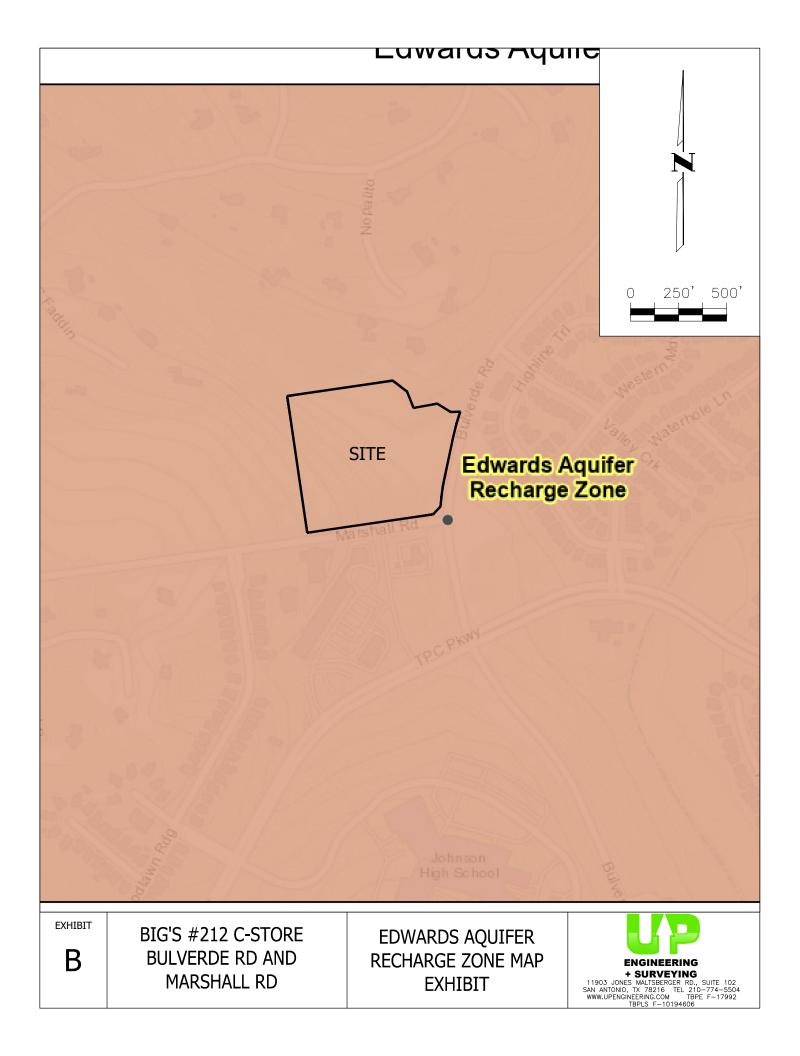




Attachment B

USGS/Edwards Recharge Zone Map





Attachment C

Project Description



Project Description

The project site consists of approximately 12.3 acres located at the intersection of the Summit Church Road (Previously Marshall Road) and Bulverde Rd. in the City of San Antonio ETJ. The site is currently undeveloped. The proposed development will be the development of a convenience store with fuel stations, driveways, and parking areas. Approximately 7.55 acres of undeveloped offsite runoff is conveyed onto the site from the west. A earthen drainage channel will be used to bypass all offsite runoff.

The proposed improvements for the site consist of a convenience store with fuel stations, driveways, and parking areas. The proposed impervious cover will consist of parking and associated access drives. Due to the SAWS Category letter the site will be limited to 15% impervious cover. A water quality pond and vegetative filter strips are proposed to reduce TSS exiting the site. A portion of the site lies within the 100-year floodplain area. Runoff from the site is ultimately conveyed to Mud Creek.



Geologic Assessment

In this Section:

TCEQ-0585 Geologic Assessment Form

Attachment A Geologic Assessment Table

Attachment B Soil Profile and Narrative of Soil Units

> Attachment C Stratigraphic Column

Attachment D Narrative of Site Specific Geology

Site Geologic Map(s)



Geologic Assessment of the 12.3-Acre Marshall and Bulverde Roads Project, San Antonio, Bexar County, Texas

MAY 2021

(REVISED JUNE 2022)

PREPARED FOR
UP Engineering + Surveying

PREPARED BY

SWCA Environmental Consultants Texas Board of Professional Geoscientists, Firm Registration No. 50159 This page intentionally left blank.

GEOLOGIC ASSESSMENT OF THE 12.3-ACRE MARSHALL AND BULVERDE ROADS PROJECT, SAN ANTONIO, BEXAR COUNTY, TEXAS

Prepared for

UP Engineering + Surveying 11903 Jones Maltsberger Rd., Suite 102 San Antonio, TX 78216

Prepared by

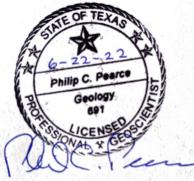
Philip Pearce, P.G. Kenadi Sutton

SWCA ENVIRONMENTAL CONSULTANTS

Texas Board of Professional Geoscientists, Firm Registration No. 50159 4949 N Loop 1604 W, Suite 235 San Antonio, TX 78249 www.swca.com

SWCA Project Number 66055

May 2021 (Revised June 2022)



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2.0 Methodology	1
3.0 Results	1
3.1 Site Overview	1
3.2 Geology	3
3.3 Soils	
3.4 Site Hydrogeologic Assessment	3
4.0 References	4

FIGURES

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Figure I.	Project Area location mai]	
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APPENDICES

Appendix A Texas Commission on Environmental Quality (TCEQ) Forms

- Attachment A Geologic Assessment Table •
- Attachment B Stratigraphic Column •
- Attachment C Narrative Description of Site Geology •
- Attachment D Site Geologic Map and Soils Map Attachment E Photographic Documentation •
- •

Appendix B: Site Photographs

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1 INTRODUCTION

This narrative Geologic Assessment accompanies the Texas Commission on Environmental Quality (TCEQ) Geologic Assessment form TCEQ-0585 completed of a 12.3-acre tract, and a portion of a proposed off-site sanitary sewer line, located northwest of the intersection of Bulverde Road and Marshall Road (Project Site) in San Antonio, northern Bexar County, Texas (Figure 1).

2 METHODOLOGY

An SWCA scientist conducted field surveys on 5 April and 11 November 2021, and 14 and 22 June 2022. The pedestrian survey was completed by walking parallel transects spaced approximately 50 feet apart as directed by the TCEQ in the <u>Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones</u> (Rev. 10-01-04). Closer spacing was used where vegetation inhibited clear observation. The SWCA scientist carefully examined all potential karst features, including depressions, holes, and animal burrows, for subsurface extent evidence. SWCA used several techniques for this effort, including probing with a digging implement to determine the thickness and consistency of fill material and feeling for air flow which may indicate the presence of a sub-surface void space. Other techniques included recording notable feature site characteristics such as vegetation types or a semi-circular burrow mound produced by small mammal activity.

3 RESULTS

3.1 Site Overview

The Project Site lies within the Edwards Aquifer Recharge Zone (TCEQ 2020). Topography generally slopes to the east towards Elm Waterhole Creek, with elevations ranging from approximately 1,120 to 1,060 feet above mean sea level.

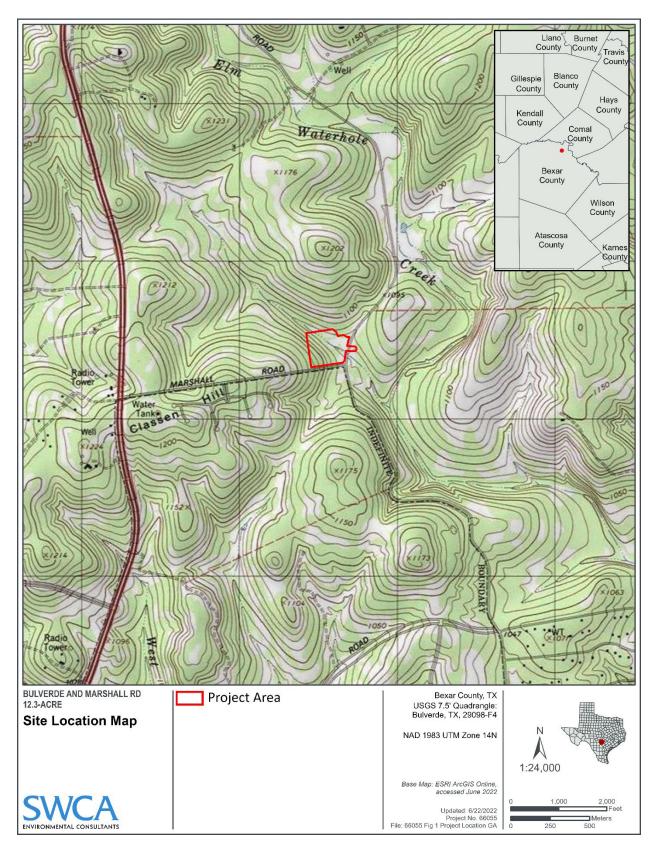


Figure 1. Project Site location map.

3.2 Geology

The Project Site is underlain by the Kainer Formation (Blome 2005) (Attachment D). The geology of the Project Site has been mapped most recently at a useful scale by Blome (2005) and SWCA finds this interpretation of the geology to be generally accurate. A Stratigraphic Column is included as Attachment B within Appendix A.

The Project Site occurs along the Balcones Fault Zone (BFZ) within the Edwards Aquifer Recharge Zone. Structural down-warping occurred with the Gulf of Mexico's ancestral formation during the middle Tertiary. The earth's crust was stretched in response and the BFZ formed along a zone of weakness, which currently marks the boundary between the Edwards Plateau and the Gulf Coastal Plain in central Texas. This zone is characterized by a series of northeast trending, predominantly normal, nearly vertical, en echelon faults. No faults cross the Project Site (Blome 2005).

The Project Site is within the Edwards Aquifer Recharge Zone (EARZ). Recharge into the Edwards Aquifer primarily occurs in areas where the Edwards Group and Georgetown Formation are exposed at the surface. Most recharge is from direct infiltration via precipitation and streamflow loss. Recharge occurs predominantly along secondary porosity features such as faults, fractures, and karst features (caves, solution cavities, sinkholes, etc.). Karst features are commonly formed along joints, fractures, and bedding plane surfaces in the Edwards Group and Georgetown Formation.

3.3 Soils

The Natural Resources Conservation Service (NRCS) identifies two soil unit within the Project Area (NRCS 2022).

- Eckrant very cobbly clay, 5 to 15 percent slopes (TaC)
- Eckrant cobbly clay, 1 to 8 percent slopes (TaD)

The TaC and TaD soil types are considered in the "D" hydrologic soil group classification, which have a very slow infiltration rate when thoroughly wet. A map of the Project Site displaying soil units is included in Attachment D.

3.4 Site Hydrogeologic Assessment

SWCA did not identify any geologic or manmade features on the Project Site, other than an existing sanitary sewer line that will be tied into (Feature S-1). The overall potential for fluid migration to the Edwards Aquifer for the site appears relatively low compared to background infiltration rates due to the presence of no geologic recharge features.

Feature S-1 is an existing sanitary sewer line that will be tied into. Typically trenches for sanitary sewer lines are cut into bedrock, and the trenches are backfilled with a mixture of fine and coarse material, which might have a greater probability for rapid infiltration than the surrounding undisturbed areas. Therefore, the probability of rapid infiltration is intermediate.

4 REFERENCES

- Blome, C.D., Faith, J.R., Pedraza, D.E., Ozuna, G.B., Cole, J.C., Clark, A.K., Small, T.A., and Morris, R.R. 2005. Geologic Map of the Edwards Aquifer Recharge Zone, South-central Texas. U.S. Geological Survey, Scientific Investigations Map SIM-2873. 1:200,000.
- Natural Resource Conservation Service (NRCS). 2022. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available at: http://websoilsurvey.nrcs.usda.gov/. Accessed June 2022.
- Texas Commission on Environmental Quality. 2022. Edwards Aquifer Viewer v3.8. Available at: http://tceq.maps.arcgis.com/apps/webappviewer/index.html?id=2e5afa3ba8144c30a49d3dc1ab49 edcd. Accessed June 2022.
- Texas Water Development Board (TWDB). 2022. Water Data Interactive, interactive GIS database. Available at: http://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer. Accessed June 2022.

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APPENDIX A

Texas Commission on Environmental Quality (TCEQ) Forms

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: Philip Pearce, P.G.

Telephone: 210.877.2847

Date: <u>June</u> 22, 2022

Fax: <u>210.877.2848</u>

Representing: <u>SWCA Environmental Consultants- TBPG No. 50159</u> (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:

Regulated Entity Name: 12.3-acre Marshall and Bulverde Roads Project

Project Information

- 1. Date(s) Geologic Assessment was performed: <u>April 5 and November 9, 2021, June 14 and</u> 22, 2022
- 2. Type of Project:

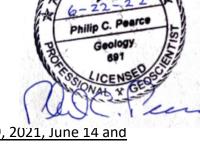
\boxtimes	WPAP
\boxtimes	SCS

3. Location of Project:

\times	Recharge	Zone

Transition Zone

Contributing Zone within the Transition Zone



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- 4. X 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.

Soil Name	Group*	Thickness(feet)
	Group	metricss(reet)
Eckrant very cobbly clay, 5 to		
15 percent		
slopes (TaC)	D	<2.0
Eckrant cobbly		
clay, 1 to 8		
percent slopes (TaD)	D	<2.0
	U	~2.0

Table 1 - Soil Units, InfiltrationCharacteristics and Thickness

Soil Name	Group*	Thickness(feet)

- * 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" = <u>60</u>' Site Geologic Map Scale: 1" = <u>60</u>' Site Soils Map Scale (if more than 1 soil type): 1" = <u>416</u>'

9. Method of collecting positional data:

Global Positioning System (GPS) technology.

TCEQ-0585 (Rev.02-11-15)

Other method(s). Please describe method of data collection:

- 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.

ATTACHMENT A

Geologic Assessment Table

GEOLOG	SIC ASSES	SMENT TA	BLE				PR	OJEC.	Γ ΝΑΜ	E: '	12.3-A	cre N	larshall	and	Bul	/erd	le Ro	ads	Projec	t
	LOCATION					FE	ATU	RE CH	ARACT	ERI	STICS				EVA	LUA	TION	PH	YSICAL	SETTING
1A	1B *	1C*	2A	2B	3	4 5 5A 6 7 8A							8A	8B	9 10		10	11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATIO N	DIME	NSIONS (I	FEET)	TREND (DEGREES)	TREND D (DEGREES) D		APERTUR E (FEET)		RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						х	Y	Z		10						<40	<u>>40</u>	<1.6	<u>>1.6</u>	
S-1	29.663592°	-98.434756°	MB	30	Kek	2.5	100	?		0			Fine	20	50		Х		Х	Floodplain
									-											
									-											
																			-	
					1				1											
			l						1	1				1						
										1										

CCave30NNone, exposed bedrockSCSolution cavity20CCoarse - cobbles, breakdown, sand, gravelSFSolution-enlarged fracture(s)20OLoose or soft mud or soil, organics, leaves, sticks, dark colorsFFault20FFines, compacted clay-rich sediment, soil profile, gray or red colorsOOther natural bedrock features5VVegetation. Give details in narrative descriptionMBManmade feature in bedrock30FSFlowstone, cements, cave depositsSWSwallow hole30XOther materialsSHSinkhole20CCoarse - cobbles, breakdown, sand, gravel	^ DATUM: N	IAD 83			
SCSolution cavity20CCoarse - cobbles, breakdown, sand, gravelSFSolution-enlarged fracture(s)20CCoarse - cobbles, breakdown, sand, gravelFFault20CLoose or soft mud or soil, organics, leaves, sticks, dark colorsOOther natural bedrock features5VVegetation. Give details in narrative descriptionMBManmade feature in bedrock30FSFlowstone, cements, cave depositsSWSwallow hole30XOther materialsSHSinkhole2012 TOPOGRAPHY	2A TYPE	TYPE	2B POINTS		8A INFILLING
SF Solution-enlarged fracture(s) 20 C Loose or soft mud or soil, organics, leaves, sticks, dark colors F Fault 20 F Fines, compacted clay-rich sediment, soil profile, gray or red colors O Other natural bedrock features 5 V Vegetation. Give details in narrative description MB Manmade feature in bedrock 30 FS Flowstone, cements, cave deposits SW Swallow hole 30 X Other materials SH Sinkhole 20 12 TOPOGRAPHY	С	Cave	30	Ν	None, exposed bedrock
F Fault 20 F Fines, compacted clay-rich sediment, soil profile, gray or red colors O Other natural bedrock features 5 V Vegetation. Give details in narrative description MB Manmade feature in bedrock 30 FS Flowstone, cements, cave deposits SW Swallow hole 30 X Other materials SH Sinkhole 20 12 TOPOGRAPHY	SC	Solution cavity	20	С	Coarse - cobbles, breakdown, sand, gravel
O Other natural bedrock features 5 V Vegetation. Give details in narrative description MB Manmade feature in bedrock 30 FS Flowstone, cements, cave deposits SW Swallow hole 30 X Other materials SH Sinkhole 20 CD Non-karst closed depression 5 12 TOPOGRAPHY	SF	Solution-enlarged fracture(s)	20	0	Loose or soft mud or soil, organics, leaves, sticks, dark colors
MB Manmade feature in bedrock 30 FS Flowstone, cements, cave deposits SW Swallow hole 30 X Other materials SH Sinkhole 20 CD Non-karst closed depression 5 12 TOPOGRAPHY	F	Fault	20	F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
SW Swallow hole 30 X Other materials SH Sinkhole 20 CD Non-karst closed depression 5 12 TOPOGRAPHY	0	Other natural bedrock features	5	V	Vegetation. Give details in narrative description
SH Sinkhole 20 CD Non-karst closed depression 5 12 TOPOGRAPHY	MB	Manmade feature in bedrock	30	FS	Flowstone, cements, cave deposits
CD Non-karst closed depression 5 12 TOPOGRAPHY	SW	Swallow hole	30	х	Other materials
	SH	Sinkhole	20		
Z Zone, clustered or aligned features 30 Cliff, Hillstop, Hillside, Drainage, Floodplain, Streambed	CD	Non-karst closed depression	5		12 TOPOGRAPHY
	Z	Zone, clustered or aligned features	30	Clif	iff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

Philip C. Pearce Geology 691

My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213. earca

Date 6/22/2022

Sheet 1 of 1

TCEQ-0585-Table (Rev. 10-01-04)

ATTACHMENT B

Stratigraphic Column

Stratigraphic Column

Note: The shaded areas represent the lithology that outcrops on the property.¹

aceous	Upper			Navarro and Taylor Groups, undivided; 600 feet thick Austin Group; 130-150 feet thick							
Upper Cretaceous	Confi Units	ning		Eagle Ford Group; 30-50 feet thick							
Upp				Buda Limestone; 40-50 feet thick							
				Del Rio Clay; 40-50 feet thick							
	Ι			Georgetown Formation	10-40 feet thick						
	Π			Person Formation;	Cyclic and Marine member, undivided						
	III	quifer		170-200 feet thick	Leached and Collapsed member, undivided						
aceous	IV	Edwards Aquifer	: Group		Regional Dense member						
Lower Cretaceous	V	Edw	Edwards Group	Kainer Formation;	Grainstone member						
Low	VI		Щ	260-310 feet thick	Kirschberg Evaporite member Dolomitic member						
	VII										
	VIII				Basal Nodular member						
	Lower Confining Units			Upper member of Glen Rose Formation; 350-500 feet thick							

¹ Blome, C.D., Faith, J.R., Pdraza, D.E, Ozuna, G.B, Cole, J.C., Clark, A.K., Small, T.A., and Morris, R.R. 2005. Geologic map of the Edwards aquifer recharge zone, south-central-Texas. U.S. Geological Survey SIM-2873. Scale 1:200,000.

ATTACHMENT C

Narrative Description of Site Geology

PLEASE REFER TO SECTION 3.0 OF THIS REPORT FOR GEOLOGIC NARRATIVE DESCRIPTION

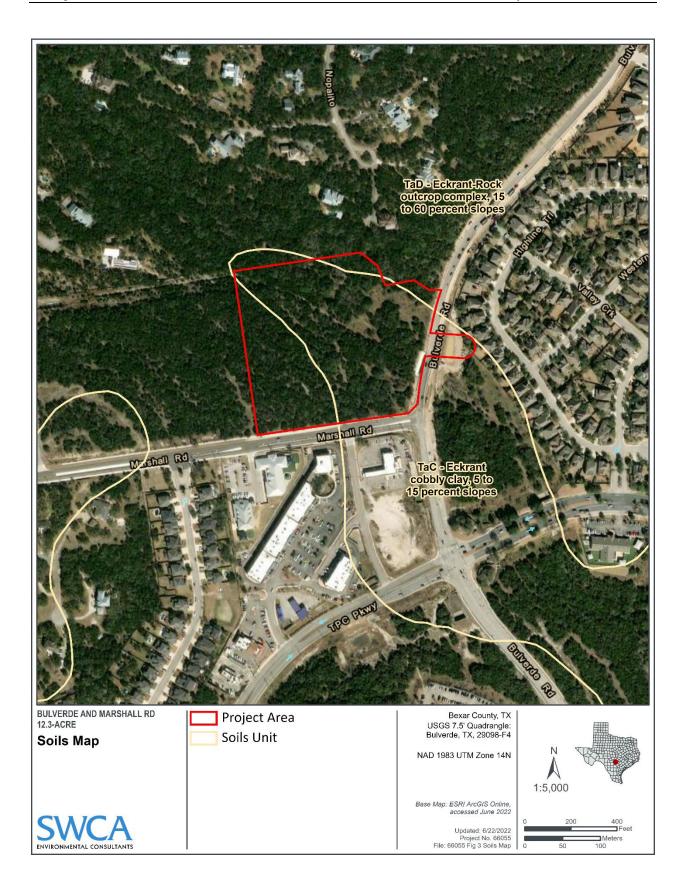
ATTACHMENT D

Site Geologic and Soil Unit Maps





Base Map: ESRI ArcGIS Online, accessed June 2022 Updated: 6/22/2022 Project No. 66055 File: 66055 Fig 2 Geology Map



Water Pollution Abatement Plan Application Form

In this Section:

TCEQ-0584 Water Pollution Abatement Plan Application Form

> Attachment A Factors Affecting Water Quality

Attachment B Volume and Character of Stormwater

Attachment C Suitability Letter from Authorized Agent (if OSSF is proposed)

Attachment D Exception to the Required Geologic Assessment (if requesting an exception)

Site 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: Tyler_Smith

Date: 03/24/2023

Signature of Customer/Agent:

Regulated Entity Name: _____

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): <u>12.30</u>
- 3. Estimated projected population: N/A
- 4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	7,400	÷ 43,560 =	0.17
Parking	45,308	÷ 43,560 =	1.04
Other paved surfaces	18,295	÷ 43,560 =	0.42
Total Impervious Cover	71,003	÷ 43,560 =	1.63

 Table 1 - Impervious Cover Table

Total Impervious Cover <u>1.63</u> ÷ Total Acreage <u>12.30</u> X **100** = <u>13.25</u>% Impervious Cover

- 5. X 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. X 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 = _____ Ft² \div 43,560 Ft²/Acre = _____ acres.

10. Length of pavement area: _____ feet.

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

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. X 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:

<u>100 </u> % Domestic	1 <u>,125</u> Gallons/day
% Industrial	Gallons/day
% Commingled	Gallons/day
TOTAL gallons/day	

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.

X 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_____.

- \mathbf{X} 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 _____ (name) Treatment Plant. The treatment facility is:

Х	Existing.
	Proposed

16. X 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. X The Site Plan must have a minimum scale of 1'' = 400'.

Site Plan Scale: 1" = <u>1:40</u> '.

18. 100-year floodplain boundaries:

Х	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 o
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.

X 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. X The drainage patterns and approximate slopes anticipated after major grading activities.
- 23. X Areas of soil disturbance and areas which will not be disturbed.
- 24. X Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
- 25. X Locations where soil stabilization practices are expected to occur.
- 26. Surface waters (including wetlands).

X N/A

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

 \mathbf{X} There will be no discharges to surface water or sensitive features.

28. X Legal boundaries of the site are shown.

Administrative Information

- 29. X 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. X 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



Factors Affecting Water Quality

Potential sources of pollution that may be expected to affect the quality of storm water discharges from the site during construction include:

- Soil erosion due to clearing of the site.
- Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle drippings.
- Hydrocarbons from asphalt paving.
- Trash and litter from construction workers and material wrappings.
- Concrete truck washout.
- Tar, fertilizers, cleaning solvents, detergents, and petroleum-based products.

Potential sources of pollution that may be expected to affect the quality of stormwater discharges from the site after development include:

- Oil, grease, fuel and hydraulic fluid contamination from vehicle drippings.
- Dirt and dust from vehicles.
- Trash and litter.



Attachment B

Volume and Character of Stormwater



Volume and Character of Stormwater

The overall contributing drainage area for Halftime 1 is limited to the project area. The site's location at the intersection of two roadways lends itself to limiting the runoff conveyed onsite to only the project site, therefore eliminating potential runoff from the road rights-of-way. All upstream runoff is captured within an earthen drainage channel and bypass the development.

Under pre-project conditions, runoff on the site is generally conveyed from southwest to northeast across the property. The site is currently undeveloped with grass covering a majority of the site, and slopes ranging between 1% and 3% with a C-value of 0.55.

Due to the small project area, the Rational Method was used to calculate the stormwater runoff for the existing and proposed conditions of the site. The characteristics of the post-project stormwater runoff generated from the site will be influenced by non-point pollution. This will include oil and grease from paved areas, suspended solids, sedimentation, and at a minimum, nutrients for lawn care and possible pesticides and herbicides. Once discharged from the permanent and temporary BMPs, runoff will flow across pervious areas of rocky soils with native grasses prior to discharging into Mud Creek.



Attachment C

Suitability Letter from Authorized Agent



Suitability Letter from Authorized Agent

An OSSF is not proposed as part of this project; therefore, a Suitability Letter was not provided.



Attachment D

Exception to the Required Geologic Assessment



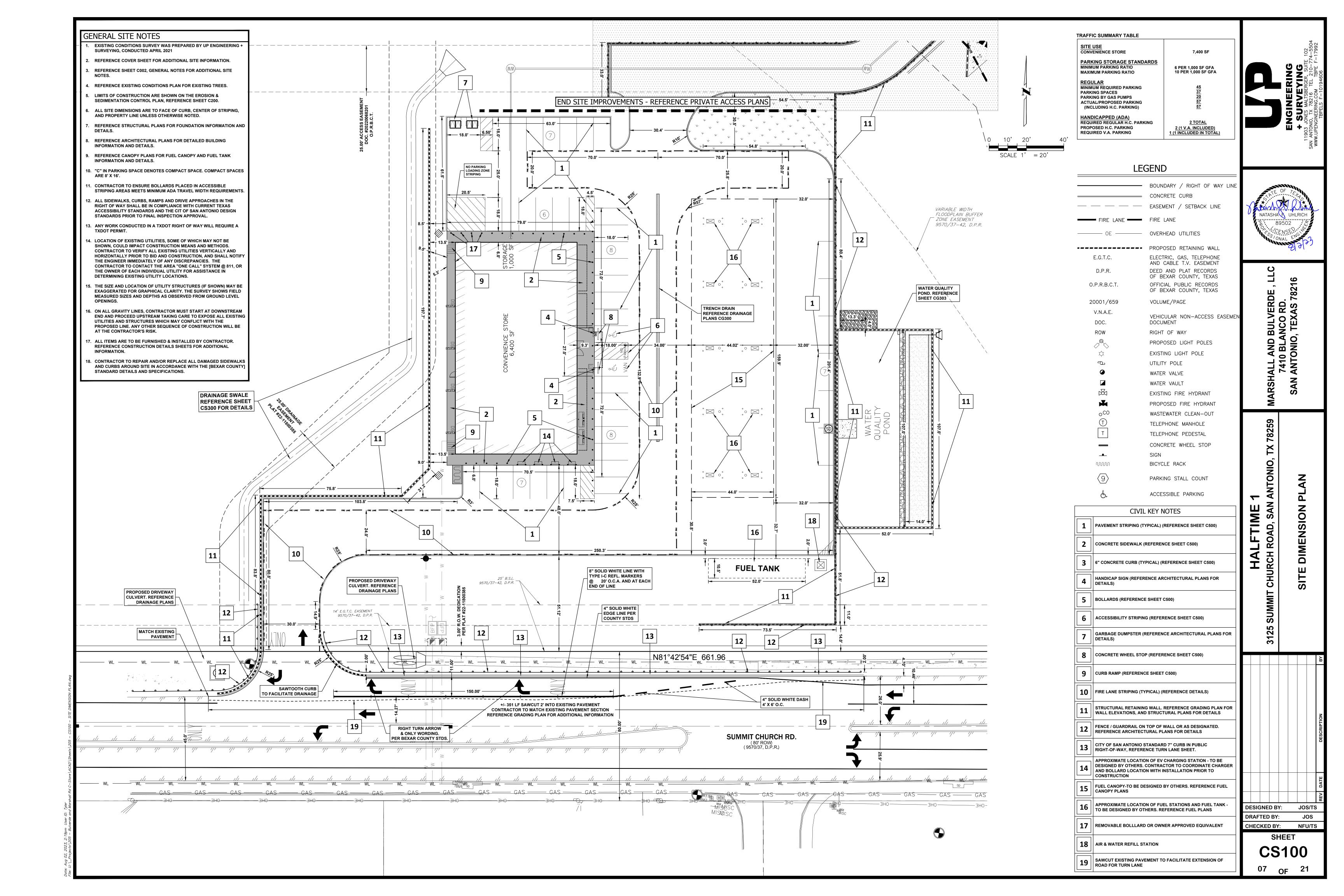
Exception to the Required Geologic Assessment

No exceptions to the required geologic assessment are proposed; therefore, this section is not applicable.



Site Plan





Temporary Stormwater Section

In this Section:

TCEQ-0602 Temporary Stormwater Section

> Attachment A Spill Response Actions

Attachment B Potential Sources of Contamination

> Attachment C Sequence of Major Activities

Attachment D Temporary Best Management Practices and Measures

> Attachment E Request to Temporarily Seal a Feature

> > Attachment F Structural Practices

Attachment G Drainage Area Map

Attachment H Temporary Sediment Pond(s) Plans and Calculations

> Attachment I Inspection and Maintenance for BMPs

Attachment J Schedule of Interim and Permanent Soil Stabilization Practices



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: Karim Ali

Date: 03/24/22

Signature of Customer/Agent:

2milling

Regulated Entity Name: Halftime 1

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.
- X Fuels and hazardous substances will not be stored on the site.
- 2. X 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. MA 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. X 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. X 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. X 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: <u>Mud Creek</u>

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. X 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:

Х	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.

Х	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. X 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.

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

9. X 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.
 - **X** N/A
- 12. X 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. X 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. X 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. X 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. X 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. X 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. X 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. X Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

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



Spill Response Action

Spill Prevention and Control

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 stormwater impacts of leaks and spills:

Education

- 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 an appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spills must be reported to the TCEQ. Information available in 30 TAC 372.4 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 u 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 run-on during rainfall to the extent that it doesn't compromise cleanup activities.
- 7. Do not bury or wash spills with water.
- 8. Store and dispose of used cleanup 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 Safety Data Sheets (SDS), 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 equipment 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 material on small spills rather than hosing down or burying the spill.
- 3. Absorbent material should be promptly removed and disposed of properly.
- 4. Follow the practice below for a minor spill:
 - a. Contain the spread of the spill.
 - b. Recover spilled material.
 - c. 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 before 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:

- 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 spill 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 include, but are not limited to, the County Sheriff's Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at:

https://www.tceq.texas.gov/response/spills

Vehicle and Equipment Preventative Maintenance

- 1. If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the run-on of stormwater and the runoff of spills.
- 2. Regularly inspect onsite vehicles and equipment for leaks and repair immediately.
- Check incoming vehicles and equipment (including delivery trucks and employee/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 absorbent materials promptly and dispose of properly.
- 7. Promptly transfer used fluids to the proper waste or recycle drums. Don't leave full drip pans or other open containers lying around.
- 8. Oil filters disposed of in trash cans 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 onsite, use designated areas, located away from drainage courses, to prevent the run-on 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 Sources of Contamination

- Oil, grease, fuel and hydraulic contamination from construction equipment and vehicle leakage.
 Remedy: Lubrication and fueling will be performed in a designated area. This area
- Miscellaneous trash and litter from construction works. Remedy: Designated receptacles will be strategically located, and works will be directed to deposit trash there.
- 3. Construction debris.

will be monitored daily for contamination.

Remedy: Debris will be collected weekly and deposited in bins for offsite disposal. Situations requiring immediate attention will be handled on a case-by-case basis.

4. Asphalt products.

Remedy: After placement of asphalt, emulsion or coatings, the contractor will be responsible for immediate cleanup should an unexpected rain occur. For the duration of the asphalt product curing time, the contractor will maintain standby personnel and equipment to control asphalt wash-off should an unexpected rain occur. The contractor will be instructed not to place asphalt products on the ground within 48 hours of a forecasted rain.

5. Tar, fertilizers, cleaning solvents, detergents, and petroleum-based products. Remedy: The contractor will be responsible for immediate cleanup should an unexpected rain occur. Debris will be collected weekly and deposited in bins for offsite disposal. Situations requiring immediate attention will be handled on a case-by-case basis.



Attachment C

Sequence of Major Activities



Sequence of Major Activities

- 1. Install erosion and sedimentation controls (i.e. silt fences and stabilized construction entrances) as indicated on the approved construction plans.
- 2. Perform mass grading of the site (+/- 1.63 acres).
- 3. Install utilities.
- 4. Establish building foundation and pour concrete.
- 5. Install landscaping or hydromulch to disturbed areas.
- 6. Re-vegetate disturbed areas.
- 7. Remove temporary erosion and sedimentation controls.



Attachment D

Temporary Best Management Practices and Measures



Temporary Best Management Practices and Measures

The temporary Best Management Practices (BMP's) shall be installed as the first construction activity and will remain in place until all construction activities are complete and 70% of the vegetative cover has been established. Construction will be conducted in one phase, with a designated construction exit, a silt fence along the down gradient side of the tract, and tree protection for the undisturbed trees where applicable. The existing native grasses will be left undisturbed in areas not under construction. Rock berms will be placed where streets end at discharge points and flood plain crossings are to be installed. The temporary BMP's shall be installed according to details on the Water Pollution Abatement Plan detail sheet. The silt fences will be anchored six (6) inches into the soil and shall be monitored weekly for any failures of the silt fence or problems associated with silt build up. Buffer areas for recharge features shall be established prior to any construction on the site.

- a. To prevent pollution of surface water, groundwater or storm water that originates upgradient from the site and flows across the site, silt fencing will be placed along the down gradient side of the site and around indicated sensitive features.
- b. To prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated storm water runoff from the site, silt fencing will be placed along the down gradient sides of the site and rock berms will be placed at the grade-to-drain areas at the ends of the streets (if applicable). A construction exit will also be installed at the entrance to the location and a storage and refueling area will be designated on the site for the unit.
- c. To prevent pollutants from entering surface streams, sensitive features, or the aquifer, the silt fence and rock berms mentioned in item b above will be installed. Once identified, sensitive features will be protected using hay bale dikes, sand bag berms or other methods acceptable to TCEQ.
- d. To maintain flow to naturally occurring sensitive features identified in the geologic assessment, inspections, or during construction, the hay bale dikes or sand bag berms mentioned in item c above will be installed. If a feature must be sealed, when possible the feature will be filled with boulders and gravel and capped with concrete.



Attachment E

Request to Temporarily Seal a Feature



Request to Temporarily Seal a Feature

Not Applicable



Attachment F

Structural Practices



STRUCTURAL PRACTICES

Silt fences will be used on site to trap sediments and pollutants from leaving the areas of construction. A rock berm will trap excess sediment and debris from travelling downstream and filter the storm water that passes through it.



Attachment G

Drainage Area Map



Drainage Area Map

The drainage area is not greater than 10 acres that will be disturbed at one time. A water quality pond and silt fences will be used to limit pollutant discharges before becoming concentrated channel flow. A rock berm will be used to further limit runoff discharge of pollutants from the site.



Attachment H

Temporary Sediment Pond(s) Plans and Calculations



Temporary Sediment Pond(s) Plans and Calculations

Not Applicable



Attachment I

Inspection and Maintenance for BMPs



INSPECTION AND MAINTENANCE FOR BMP'S

The temporary BMP's will be scheduled for inspection and repair once every week (7 days) and following any rainfall event that is greater than 0.5 inch. The contractor is responsible for logging all inspections, rainfall events and repairs. The contractor is also responsible for cleaning up any sediment that is released onto adjacent roadways after any rainfall event. The following forms shall be used for inspection and maintenance reports that are required to be kept on the project site by the contractor.



STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

REASONS FOR CHANGES:

INSPECTOR'S SIGNATURE:_____

DATE:_____



Silt Fence

Description

This item shall consist of providing and placing a filter fabric fence including maintenance of the fence, removal of accumulated silt and removal of the fence upon completion of the project.

Materials

- (1) Fabric
 - (a) General: The filter fabric shall be of nonwoven polypropylene, polyethylene or polyamide thermoplastic fibers with non-raveling edges. The fabric shall be non-biodegradable, inert to most soil chemicals, ultraviolet resistant, unaffected by moisture or other weather conditions, and permeable to water while retaining sediment. The filter fabric shall be supplied in rolls a minimum of 36 inches wide.
 - (b) Physical Requirements: The fabric shall meet the following requirements when sampled and tested in accordance with the methods indicated.

Physical Properties	Method	Requirements
Fabric Weight(oz/sy)	TEX-616-J	4.5 minimum
Water Flow Rate (gal/sq. ft/minute)	TEX-616-J	40 maximum
Equivalent Opening Size: US	CW-02215, US Army	40 to 100
Standard sieve(number)	Corps of Engineers	
Mullen Burst Strength(psi)	ASTM D 3786	300 minimum
Ultraviolet Resistance; Strength retention (%)	ASTM D 1682	70 minimum

(2) Posts: Posts shall be painted or galvanized steel Tee or Y-posts with anchor plates, not less than 4 feet in length with a minimum weight of 1.25 pounds per foot with a minimum Brinell Hardness of 140. Hangers shall be adequate to secure fence and fabric to posts. Posts and anchor plates shall conform to ASTM A 702.



(3) Wire Fence: Wire fence shall be woven wire backing to support the fabric should be $2'' \times 4''$ welded wire, 12 gauge minimum.

Construction Methods

The silt fence fabric shall be securely attached to the posts and the wire support fence with the bottom 12 inches of the filter material buried in a trench a minimum of 6 inches deep and 6 inches wide to prevent sediment form passing under the fence. When the silt fence is constructed on impervious material, a 12-inch flap of fabric shall be extended upstream from the bottom of the silt fence and weighted to limit particulate loss. No horizontal joints will be allowed in the filter fabric. Vertical joints shall be overlapped a minimum of 12 inches with the ends sewn or otherwise securely tied.

The silt fence shall be a minimum of 24 inches high. Posts shall be embedded a minimum of 12 inches in the ground, placed a maximum of 8 feet apart and set on a slight angle toward the anticipated runoff source. When directed by the Engineer, posts shall be set at specified intervals to support concentrated loads.

The silt fence shall be repaired, replaced, and/or relocated when necessary or as directed by the Engineer. Accumulated silt shall be removed when it reaches a depth of 6 inches.

Measurement

The work performed, and the materials furnished under this item will be measured by the linear foot of "Silt Fence", complete in place.



Stabilized Construction Exit

Description

This item involves constructing a stabilized pad of crushed stone located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking or deposition of sediment onto public right-of-way.

Materials

Aggregate for construction shall conform to the following gradation:

Table 1: Aggregate Gradation Chart (TEX 401-A, Percent Retained)			
8 inch	5 inch	2 inch	
0	90-100	100	

Construction Methods

All trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed of so as not to interfere with the excavation and construction of the entrance as indicated. The entrance shall not drain onto the public right-of-way or leave the construction site.

When necessary, vehicle wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch or watercourse through use of sand bags, gravel, boards, silt fence or other approved methods.

The entrance shall be maintained in a condition which will prevent tracking or disposition of sediment onto public right-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. All sediment spilled, dropped, washed or tracked onto public right-of-way must be removed immediately.

Measurement

Acceptable work performed as prescribed in this item will be measured by unit of each stabilized construction entrance installed.



Rock Filter Dams

Description

This Item shall govern for the materials to be furnished and for the installation, maintenance and removal of rock filter dams of the dimensions shown on the plans. The rock filter dams shall be constructed at the locations shown on the plans and as directed by the Engineer. This Item will be used during construction to control erosion and sedimentation.

Materials

Unless otherwise specified, all aggregate used for the construction of the rock filter dams shall be hard, durable, clean, open-graded, and shall naturally resist crumbling, flaking and eroding. Aggregate gradation shall be 3 to 6 inches for rock filter dams Types 1, 2 and 4 and shall be 4 to 8 inches for Type 3.

The galvanized steel wire mesh and tie wires for Types 2 and 3 shall be a minimum 20 gauge unless specified otherwise on the plans.

For Type 4: Steel wire mesh shall utilize a double twisted hexagonal weave; mesh opening shall be a nominal 2.50" x 3.25"; steel wire for netting shall be 0.0866" (U.S. Gauge No. 13) minimum; steel wire for selvedges and corners shall be 0.1063" (U.S. Gauge No. 110 minimum; and binding or tie wire shall be 0.0866" (U.S. Gauge No. 13) minimum.

Unless otherwise specified, the sandbag material shall be made of polypropylene, polyethylene or polyamide woven fabric, minimum unit weight four (4) ounces per square yard, Mullen burst strength exceeding 300 psi and ultraviolet stability exceeding 70 percent. The sandbag size shall be 24 to 30 inches in length, 16 to 18 inches in width, six (6) to eight (8) inches thick and weight 90 to 125 pounds. The sand shall be course grade.

Construction Methods

Trees, brush, stumps and other objectionable material shall be removed and disposed of as necessary so as not to interfere with the construction of the filter dams.

The filter dams shall be constructed according to the following criteria unless otherwise shown on the plans:

- 1. Type 1 (non-reinforced)
 - a. Height
 - i. 18 inches minimum, measured vertically from existing ground to top of filter dam.
 - b. Top Width



- i. 2 feet minimum
- c. Slopes
 - i. 2:1 maximum
- 2. Type 2 (reinforced)
 - a. Height
 - i. 18 inches minimum, measured vertically from existing ground to top of filter dam.
 - b. Top Width
 - i. 2 feet minimum
 - c. Slopes
 - i. 2:1 maximum

The aggregate shall be placed on the galvanized wire mesh to the lines, height and slopes specified without resulting in undue voids, and to the satisfaction of the Engineer. The mesh shall be folded at the upstream side over the aggregate and secured to itself on the downstream side. The mesh shall be attached to itself with wire ties, hog rings, or as directed by the Engineer.

- 3. Type 3 (reinforced)
 - a. Height
 - i. 36 inches minimum, measured vertically from existing ground to top of filter dam.
 - b. Top Width
 - i. 2 feet minimum
 - c. Slopes
 - i. 2:1 maximum

The aggregate shall be placed on the galvanized wire mesh to the lines, height and slopes specified without resulting in undue voids, and to the satisfaction of the Engineer. The mesh shall be folded at the upstream side over the aggregate and secured to itself on the downstream side. The mesh shall be attached to itself with wire ties, hog rings, or as directed by the Engineer.

4. Type 4 (Sack Gabions)

Sack gabions are supplied folded flat, packed in bundles. Single sacks shall be removed from the bundle, unfolded flat on the ground, and all kinks and bends stepped out.

For vertical filling, the two sides edge wires are connected by using the lacing wire in a "single loop – double loop" pattern on a 4" to 5" spacing. At one end, the "end lacing rod" must be pulled tight, wrapped around the end and twisted 4 times. At the filling end, the rod shall be pulled tight, cut, leaving about 6" length and twisted 4 times.



For horizontal filling, the sack shall be placed flat in a filling trough, filled with stone and then sides connected as described above. The ends shall be secured as described above.

Lifting and placing shall be accomplished by placing a No. 6 rebar (or equal) 5' long in the mesh, perpendicularly to the longitudinal axis and close to the knot of one end. Lifting should be made from the central point. Sack gabions shall conform to existing contours.

5. Type 5. Type 5 as shown on the plans.

Maintenance

The area upstream from the filter dams shall be maintained in a condition which will allow sediment to be removed following the runoff of a rainfall event. When the silt reaches a depth equal to 1/3 the height of the dam or 1 foot, whichever is less, the Contractor shall remove the accumulated sediment and dispose of it at an approved site in a manner that will not contribute to additional siltation. The filter dams shall be reshaped as needed and as directed by the Engineer.

The filter dams shall be maintained in place until all upstream areas are adequately stabilized. When the special Specification, "Temporary Erosion, Sedimentation and Water Pollution Prevention and Control" is in the contract, stabilization shall be as described in Subarticle 4.C of that specification. The area beneath the filter dams and area damaged by the removal process shall then be stabilized by the Contractor using appropriate methods as approved by the Engineer.

Measurement

This Item will be measured by the linear foot or by the cubic yard, as shown on the plans. When measured by the linear foot, measurement will be along the centerline of the top of the dam. When measured by the cubic yard, measurement will be the volume for rock computed in its final position by the method of average end areas or in vehicles at the point of delivery. The measured volume will include sandbags, if they are used.

Each time the Engineer directs that the filter dam (or portions thereof) be removed or removed and replaced, it will be measured for payment.



INSPECTIONS

DATE OF INSPECTION	CONTROL INSPECTED	OBSERVATIONS		ANCE WITH VPPP	INSPECTOR'S SIGNATURE	TITLE/ QUALIFICATIONS
			YES	NO		

RECORD OF CONSTRUCTION ACTIVITY

DATE STARTED	DATE ENDED	TYPE OF ACTIVITY	CONTROL MEASURES	INSPECTOR SIGNATURE	TITLE/ COMPANY

NON-STORMWATER DISCHARGES

DATE	INSPECTOR	TITLE	COMPANY	DISHARGE TYPE	POLLUTION CONTROL MEASURE

CONSTRUCTION MATERIALS

DATE STORED	DATE REMOVED		INSPECTOR'S		
ONSITE	FROM SITE	DESCRIPTION	SIGNATURE	TITLE	COMPANY

STABILIZATION RECORD

CONSTRUCTION/GRADING		STABILIZATION			SIGNATURE		
DATE BEGAN	DATE ENDED	DATE BEGAN	AREA OF SITE STABILIZATION	TYPE OF STABILIZATION USED	INSPECTOR	TITLE	COMPANY

RAINFALL DATA

DATE OF RECORDED RAINFALL	AMOUNT OF RAINFALL (INCHES)	SIGNATURE OF INSPECTOR	TITLE/COMPANY

SUBCONTRACTOR RESPONSIBILITIES

				INIT	IALS
DATE	SUBCONTRACTOR COMPANY	CONSTRUCTION ACTIVITY TO BE PERFORMED	DESCRIPTION OF POLLUTION PREVENTION RESPONSIBILITY	SUBCONTRACTOR	CONTRACTOR

Attachment J

Schedule of Interim and Permanent Soil Stabilization Practices

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 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 arid conditions, stabilization measures shall be initiated as soon as practicable.

After all sanitary sewer construction has been completed, final stabilization of the construction area on all unpaved areas and areas not covered by permanent structures shall be completed by even distribution of 70% of the native background vegetative cover or equivalent permanent stabilization measures.

Revegetation will be necessary for soil stabilization of any offsite sanitary sewer construction. Seeding should be used for these areas. The specified seeding requirements are based on the seasonal San Antonio District Seeding Requirement as specified by Item 164 of the 2004 Texas Department of Transportation specifications Book.



Permanent Stormwater Section

In this Section:

TCEQ-0600 Permanent Stormwater Section

Attachment A 20% or Less Impervious Cover Waiver

> Attachment B BMPs for Upgradient Stormwater

> > Attachment C BMPs for On-site Stormwater

> > > Attachment D BMPs for Surface Streams

Attachment E Request to Seal Features

> Attachment F Construction Plans

Attachment G Inspection, Maintenance, Repair and Retrofit Plan

> Attachment H Pilot-Scale Field Testing Plan

Attachment I Measures for Minimizing Surface Stream Contamination



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: Tyler Smith

Date: 03/24/2023

Signature of Customer/Agent

Regulated Entity Name: Halftime 1

Permanent Best Management Practices (BMPs)

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

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



2. X 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. X 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.

X 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 multifamily 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. X 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.
_		flows across the site, and an explanation is attached.
7.	X	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.
	Χ	N/A
9.	X	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.	X	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. X 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

- X Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
- X 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.

X N/A

Responsibility for Maintenance of Permanent BMP(s)

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

14. X 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. X 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 A

20% or Less Impervious Cover Waiver



20% or Less Impervious Cover Waiver

Not Applicable



Attachment B

BMPs for Upgradient Stormwater



BMPs for Upgradient Stormwater

No BMP for upgradient stormwater are being proposed from the site. Approximately 7.55 acres of undeveloped runoff is conveyed onto the site from the west. Due to the development of the site being limited to 15% of impervious cover +/-5.41 acres of offsite runoff bypasses the development and is discharged directly into the floodplain. The remaining +/- 2.41 acres of the site will bypass the development and subsequent detention pond due to a proposed earthen drainage channel.



Attachment C

BMPs for On-site Stormwater



BMPs for On-site Stormwater

One separate on-site partial sedimentation/filtration basin is designed to provide permanent onsite stormwater control; the basin is located near an existing low where storm water discharges and naturally drains from the site. The basin is designed to treat the required 80% of the difference in the total suspended solids in pre-and post-developed conditions in accordance with Edwards Aquifer Technical Guidance Manual RG-348 (revised July 2005). The flow into the pond will travel through paved parking lot areas and enter the pond via an underground drainage system. The first flush storm water enters the sedimentation chamber of the pond where heavy sediment settles. The sedimentation and filtration chambers are separated by gabion walls, which allow for free flow into the filtration chamber. Gravity forces the storm water in the filtration basin through a layer of sand and gravel into a pipe under the drain system, which filters out fine sediment from the flow. The drain system releases the treated storm water into a discharge pipe. Runoff that exceeds the first flush overtops the sedimentation basin weir and discharged outside of the sedimentation/filtration basin. Runoff leaving the basin (and bypass weir) will be discharged to an existing natural low in a non-erosive manner to minimize surface water contamination.

Vegetative filter strips are also proposed throughout the project site. Filter strips have been implemented on either side of the private access road, treating runoff that is unable to drain to the water quality basin. The filter strips will consist of both engineered, which will reduce the incremental increase in the site generated annual mass loading of total suspended solids by 80%.

See the attached calculations for details.



Attachment D

BMPs for Surface Streams



BMPs for Surface Streams

Not Applicable



Attachment E

Request to Seal Features



Request to Seal Features

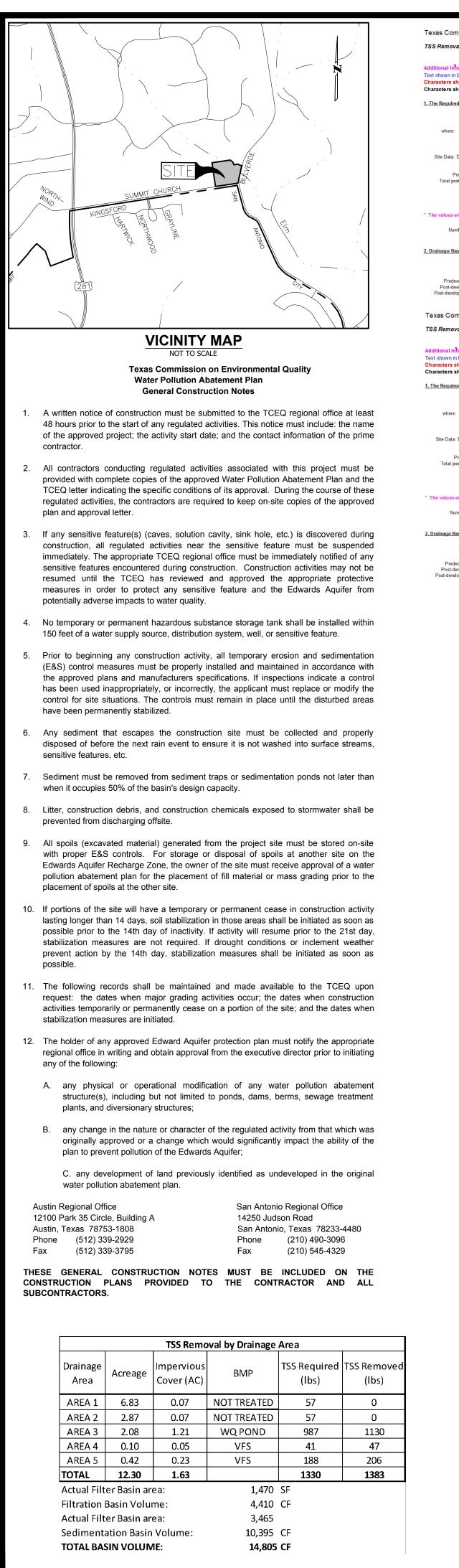
Not Applicable



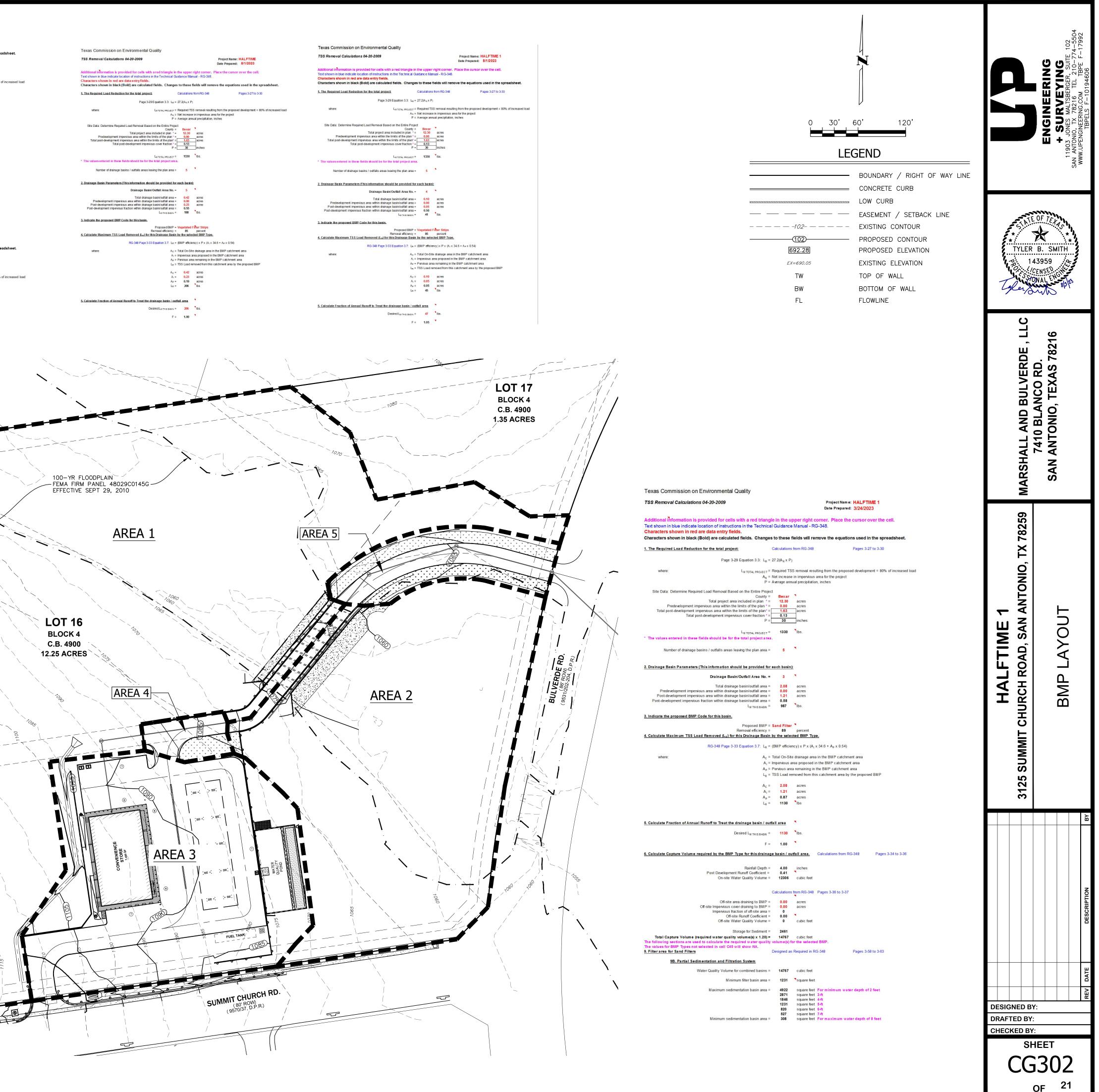
Attachment F

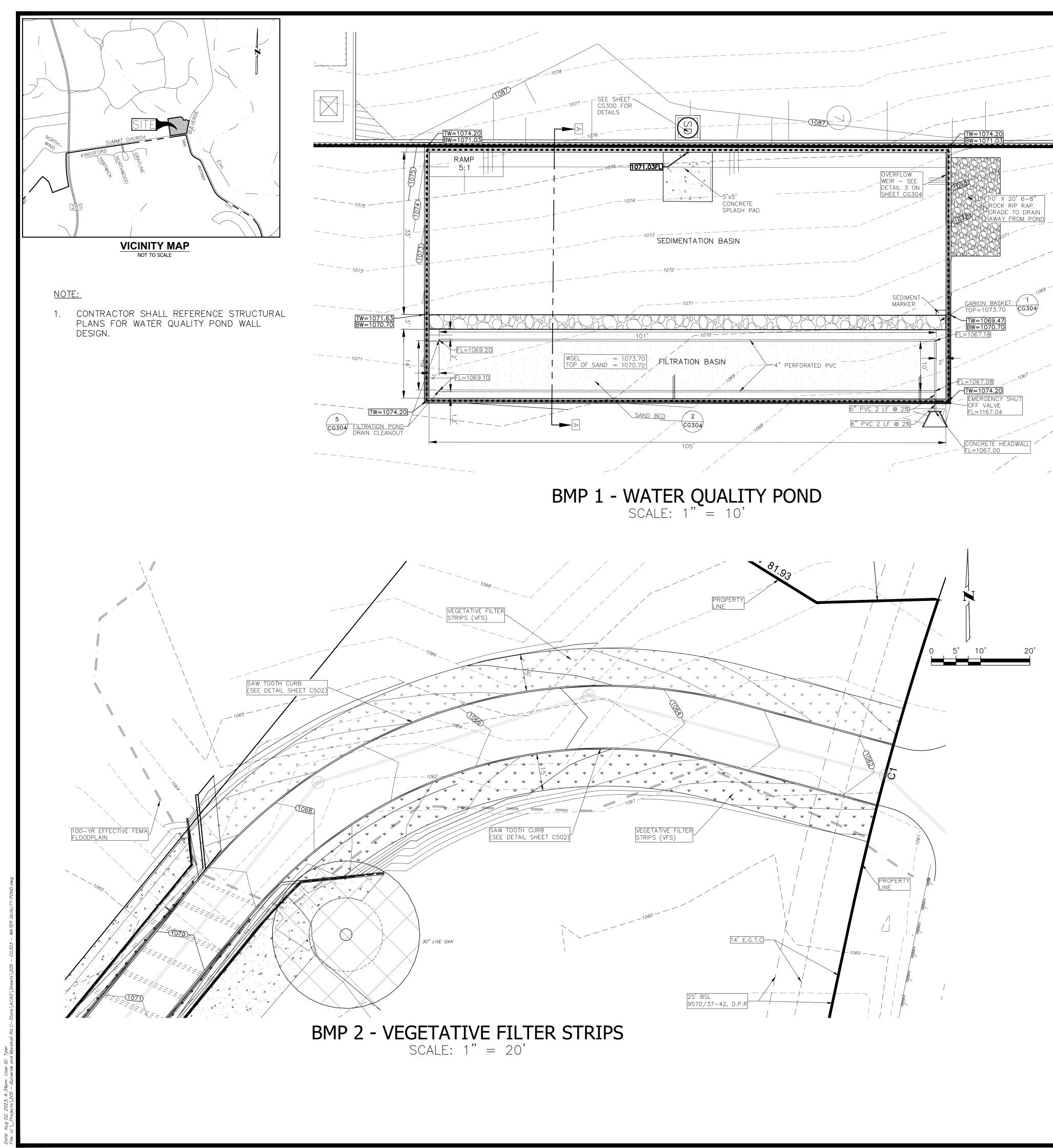
Construction Plans





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	I Load Removal Based on the Entire Project County = Total project area included in plan * = nvious area within the limits of the plan * =	Bexar 12.30 0.00	acres acres		
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Texas Commission on E TSS Removal Calculations				Project Name:	HALFTIME 1
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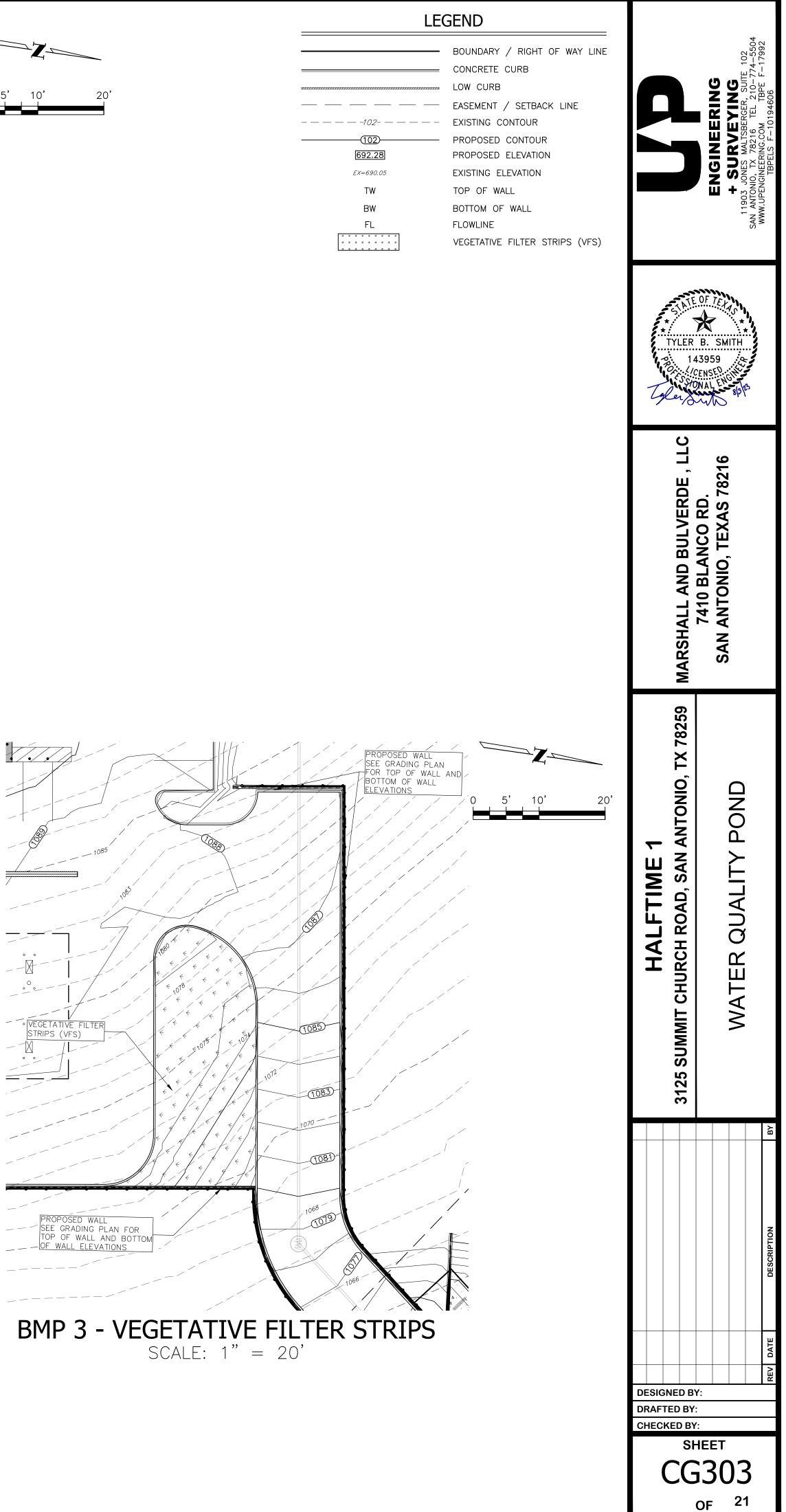




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GABION WALL NOTES

594S DESCRIPTION

THIS ITEM SHALL INCLUDE FURNISHING, ASSEMBLING, FILLING, AND TYING ROCK-FILLED WIRE MESH COMPARTMENTED GABIONS AND REVET MATTRESSESS IN ACCORDANCE WITH THE LINES, GRADES, AND DIMENSIONS SHOWN ON THE DRAWINGS OR OTHERWISE ESTABLISHED IN THE FIELD BY THE ENGINEER OR DESIGNATED REPRESENATIVE. 594S.2 MATERIALS

(1) GABION AND REVET MATTRESS WIRE

GABION WIRE SHALL BE GALVANIZED STEEL, CLASS 3 OR A COATING, SOFT TEMPER CONFORMING TO ASTM A 641, AND SHALL SPECIFICALLY MEET THE REQUIREMENTS GIVEN BELOW FOR GABIONS (12 GUAGE WIRE) AND/OR REVET MATTRESSES (13.5 WIRE GUAGE) AS CALLED OUT IN DRAWINGS. PVC COATING OF WIRE MAY BE FUSEBONDED OR EXTRUDED ONTO THE WIRE. GALVANIZATION OF WELDED WIRE SHALL BE PERFORMED EITHER BEFORE OR AFTER WELDING.

CHARACTERISTIC	GABIONS	REVET MATTRESSES
WIRE GUAGE	12 GUAGE	13.5 GUAGE
MAX. TENSILE STRENGTH	70,000 PSI.	75,000 PSI.
(ASTM 641)	(483 mPa)	(517 mPa)
NOMINAL WIRE DIAMETER	0.106 INCH	0.0866 INCH
(ASTM A 641)	(2.7 mm)	(2.2 mm)
MINIMUM DIAMETER	0.102 INCH	0.0826 INCH
(ASTM A 641, TABLE 3)	(2.6 mm)	(2.9 mm)
GALVANIZED, ZINC	0.80 0Z/FT ²	0.70 OZ/FT ²
(ASTM A 641, TABLE 1)	(245 GR/M ³)	(215 GR/M ²

GABION MESH (2)

> (A) WOVEN MESH WOVEN MESH SHALL BE OF A UNIFORM NONRAVELING, DOUBLE TWIST HEXAGONAL PATTERN NOMINALLY OF DIMENSIONS 3.25 INCHES BY 4.5 INCHES (83 mm BY 144mm). SELVEDGE WIRE SHALL BE 10 GUAGE (NOMINAL DIAMETER OF 3.4 mm). (B) WELDED MESH

MESH OPENING SHALL BE NOMINALLY 3 INCHES BY 3 INCHES (75 mm BY 75 mm). STRENGTH OF WELDS SHALL BEET THE FOLLOWING REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH SECTION 13.4 OF ASTM, A-974:

TYPE OF STRUCTURE	WIRE SIZE	MINIMUM AVERAGE
	(DIAMETER)	WELD SHEAR STRENGTH
	GUAGE (mm)	ENGLISH UNITS (SI UNITS)
GABIONS	12 (2.7)	475 lbf (2.10 kN)
REVET MATRESS	13.5 (2.2)	292 lbf (1.30 kN)

(C) MANUFACTURING TWISTED WIRE MESH GABIONS SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-975, WHILE WELDED WIRE MESH GABIONS SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-974.

(3) REVET MATRESSES

- (A) WOVEN MESH WOVEN MESH SHALL BE OF A UNIFORM NONRAVELING, DOUBLE TWIST HEXAGONAL PATTERN NOMINALLY OF DIMENSIONS 2.5 INCHES BY 3.25 INCHES (64 mm BY 83mm). SELVEDGE WIRE SHALL BE 12 GUAGE (NOMINAL DIAMETER OF 2.7 mm).
- (B) WELDED MESH MESH OPENING SHALL BE NOMINALLY 1.5 INCHES BY 3 INCHES (38 mm BY 76 mm). STRENGTH OF WELDS SHALL BEET THE REQUIREMENTS LISTED IN TABLE 2 FOR 13.5 GUAGE (2.2 mm) WIRE WHEN TESTED IN ACCORDANCE WITH SECTION 13.4 OF ASTM, A-974: (C) MANUFACTURING
- TWISTED WIRE MESH REVET MATRESSES SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-975, WHILE WELDED WIRE MESH REVET MATRESSES SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-974. PVC COATING

SEE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO 594S GABIONS AND REVET MATTRESSES

STONE (5)

(4)

(A) GABION BASKET STONES STONE FILL SHALL BE DURABLE AND OF SUITABLE QUALITY TO ENSURE PERMINANENCE IN THE STRUCTURE. THE STONE USED TO FILL THE GABION BASKETS SHALL BE A CLEAN, SOUND, AND DURABLE ROCK MEETING THE FOLLOWING REQUIREMENTS. IT SHALL HAVE A WEARING LOSS LESS THAN 35% WHEN THE STONE IS TESTED WITH THE LOS ANGELES ABBASION MACHINE IN ACCORDAN TEST METHOD C535 (TXDOT TEST METHOD TEX-410A).THE LOSS OF MATERIAL EXPERIENCED DURING FIVE CYCLES OF MAGNESIUM SULFATE EXPOSURE CONDUCTED IN ACCORDANCE WITH TXDOT TEST METHOD TEX-411A FOR ROCK RIP RAP SHALL NOT EXCEED 18%. THE STONE SHALL BE WELL GRADED TO PRODUCE A DENSE FILL, ANGULAR IN TEXTURE, WHILE MEETING THE FOLLOWING

CRADATION	REQUIREMENTS:	

SIEVE SIZE	PERCENT BY WEIGHT (MASS)			
US (SI)	% PASSING EACH INDIVIDUAL SIEVE			
8 INCH (200 mm)	100			
4 INCH (100 mm)	0–5			
3 INCH (75 mm)	0			

THE MINIMUM UNIT WEIGHT (UNIT MASS) OF A ROCKFILLED GABION SHALL BE 120 pcf [1.92 MEGAGRAMS (mg) PER CUBIC METER]. VERIFICATION OF UNIT WEIGHT (MASS) SHALL BE PERFORMED WHEN ORDERED BY THE ENGINEER, BY CONSTRUCTING A TEST GABION WITH MATERIALS SUPPLIED FOR CONSTRUCTION WITH THE SAME EFFORT AND METHOD INTENDED FOR PRODUCTION GABIONS.

CONNECTIONS

(6)

SEE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO 594S GABIONS AND REVET MATTRESSES. FASTENER SYSTEM (7)

SEE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO 594S GABIONS AND REVET MATTRESSES. PANEL TO PANEL JOINT STRENGTH (8)

SEE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO 594S GABIONS AND REVET MATTRESSES.

NOTE: CONCRETE WALL OF THE WATER QUALITY POND SHALL BE CONSTRUCTED WITH WATER TIGHT JOINTS. SEE STRUCTURAL PLANS FOR REINFORCING, JOINTS, AND OTHERS DETAILS. NOTE: WHERE A GEOMEMBRANE LINER IS USED IT SHALL HAVE A MINIMUM THICKNESS OF THIRTY (30) MILS. IT SHALL ALSO HAVE A 3"-4" FUSION WELD AT ALL SEAMS WITHIN THE LINER. ALL WELDS ARE TO BE AIR TESTED FOR ONE MINUTE. IF TEST FAILS REWELD SEAM AND TEST AGAIN.

FILTRATION BED SPECIFICATIONS

SAND	MINIMUM 18 INCHES OF 0.02-0.04 INCH DIAMETER SAND WHICH CORRESPONDS TO ASTM C-33 CONCRETE SAND (SMALLER SIZE SAND IS NOT ACCEPTABLE)
<u>GRAVEL</u> -	0.5 INCH MIN. TO 1.5 INCH DIAMETER WASHED ROUNDED RIVER GRAVEL WITH A MIN. 3 INCH COVER OVER TOP OF UNDERDRAIN LATERAL PIPING
<u>e fabric –</u>	SAND & GRAVEL TO BE SEPARATED BY A LAYER OF GEOTEXTILE FABRIC THE FOLLOWING SPECIFICATIONS:

TOP OF POND= 1074.20⊣

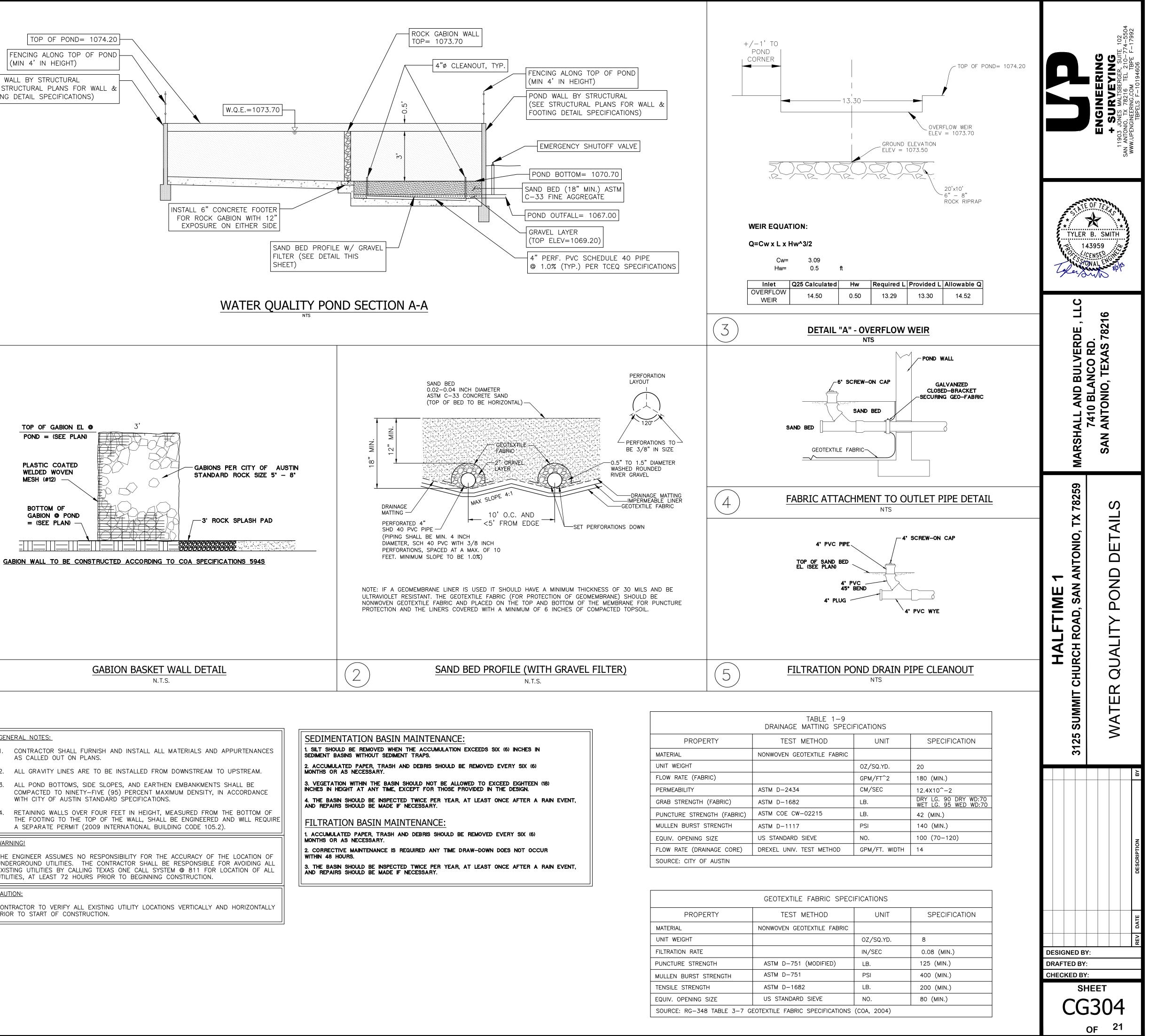
FENCING ALONG TOP OF POND (MIN 4' IN HEIGHT)

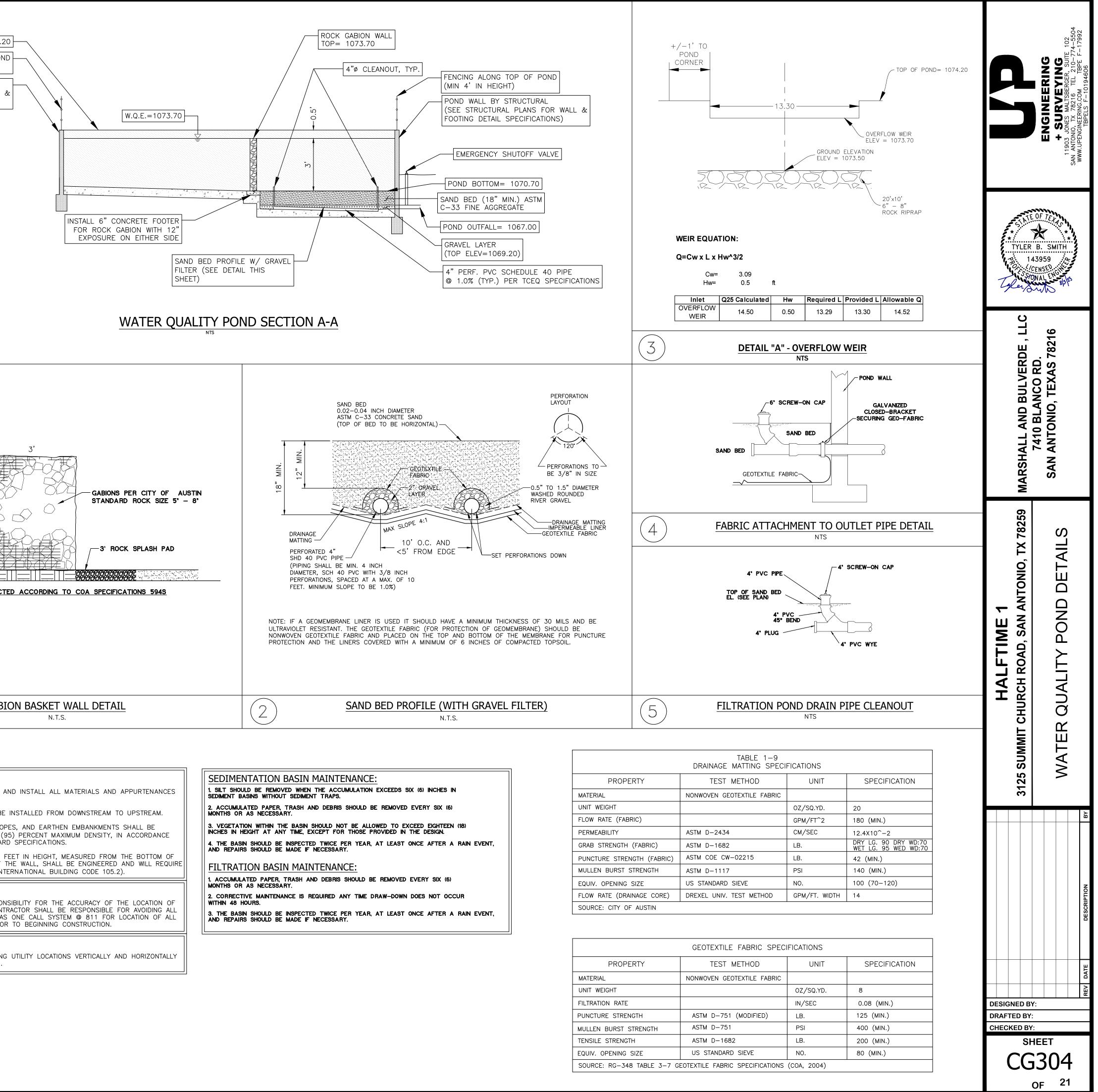
POND WALL BY STRUCTURAL (SEE STRUCTURAL PLANS FOR WALL & FOOTING DETAIL SPECIFICATIONS)

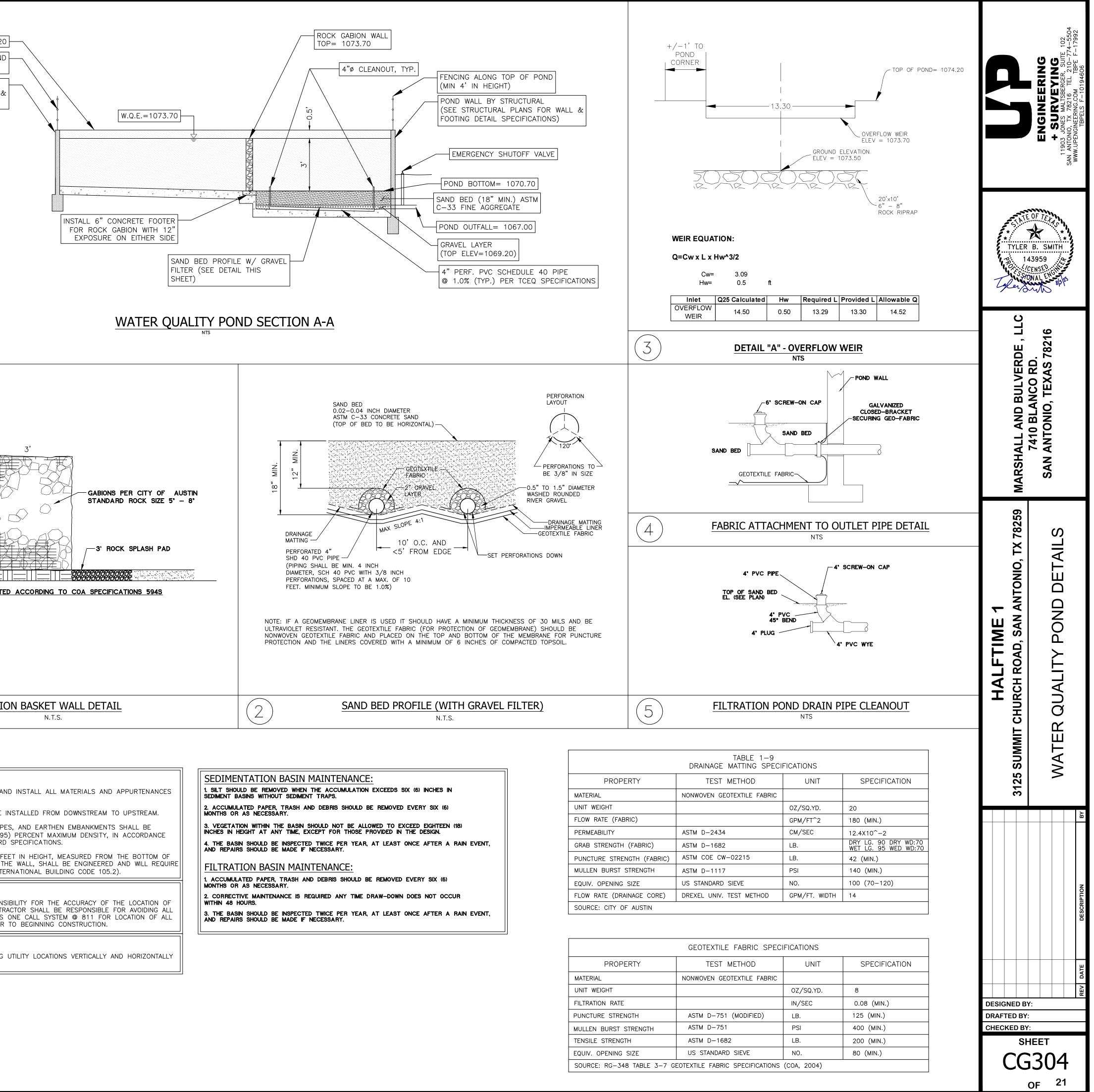
TOP OF GABION EL @ POND = (SEE PLAN)PLASTIC COATED WELDED WOVEN MESH (#12) — BOTTOM OF GABION @ POND = (SEE PLAN) -

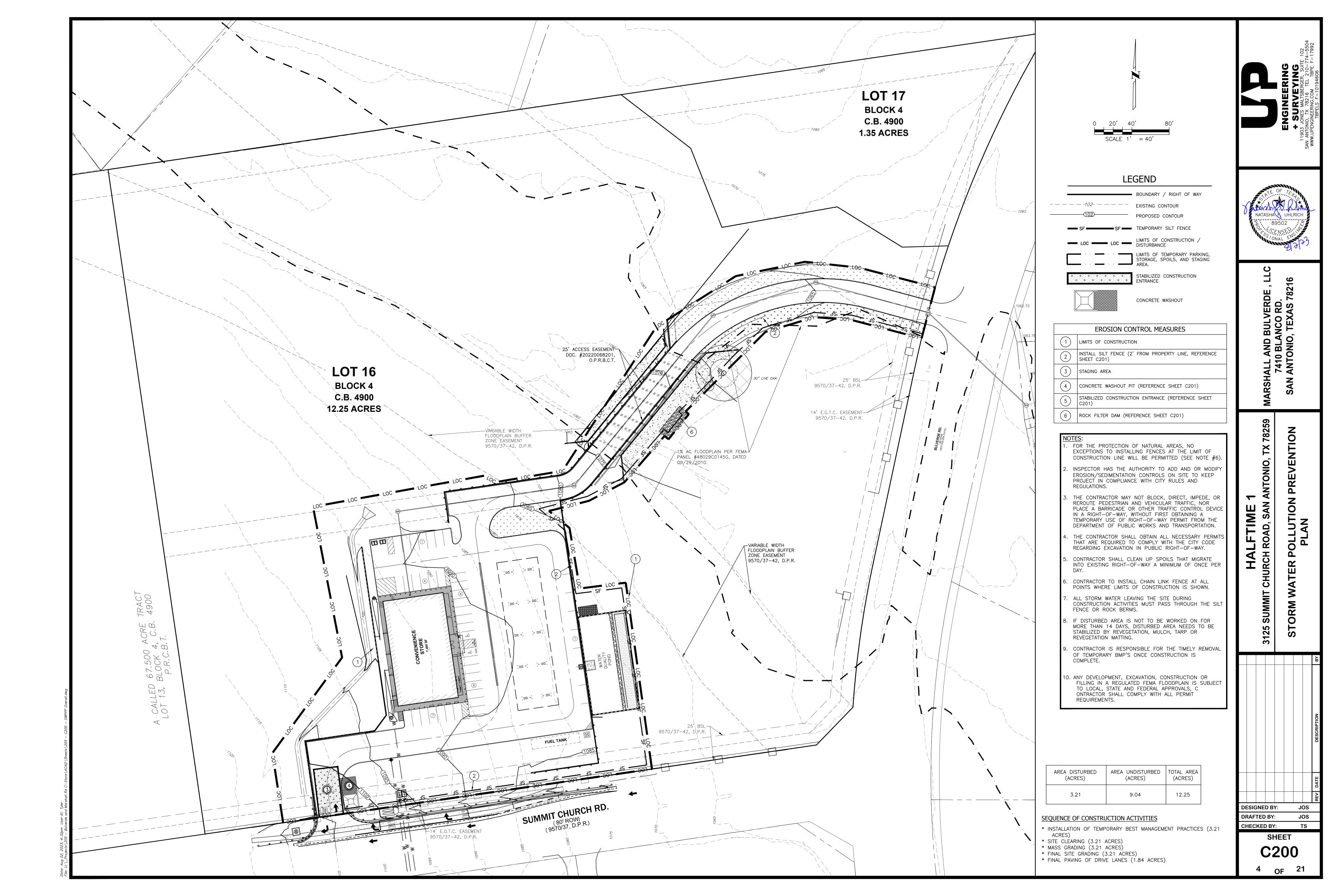
GENE	ERAL NOTES:
1.	CONTRACTOR SHALL FURNISH AS CALLED OUT ON PLANS.
2.	ALL GRAVITY LINES ARE TO E
3.	ALL POND BOTTOMS, SIDE SLO COMPACTED TO NINETY-FIVE WITH CITY OF AUSTIN STANDA
4.	RETAINING WALLS OVER FOUR THE FOOTING TO THE TOP OF A SEPARATE PERMIT (2009 IN
WARN	IING!
UNDE EXIST	ENGINEER ASSUMES NO RESPO RGROUND UTILITIES. THE CON ING UTILITIES BY CALLING TEX. TIES, AT LEAST 72 HOURS PRI
CAUTI	ON:
	RACTOR TO VERIFY ALL EXISTIN TO START OF CONSTRUCTION

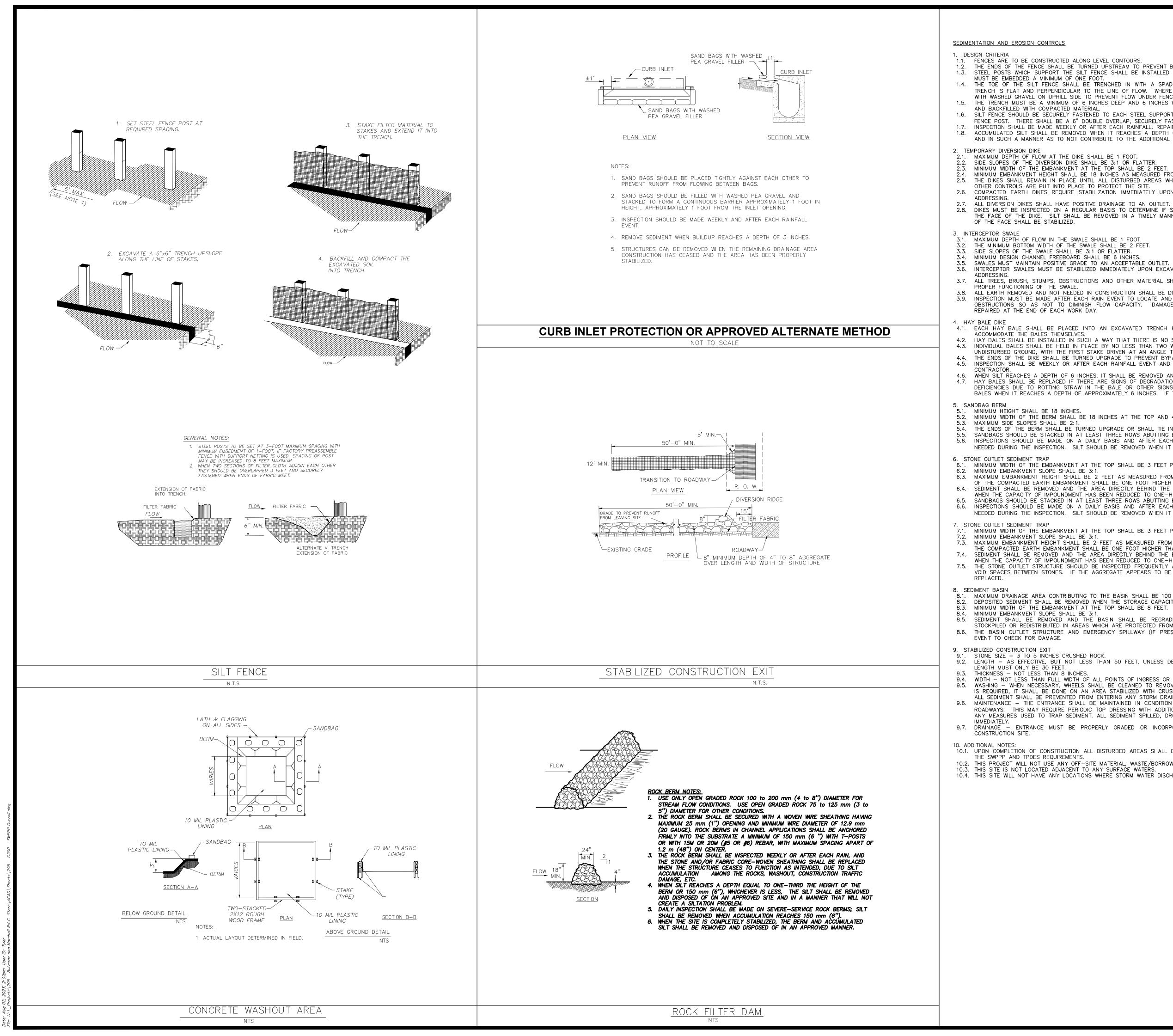
GEOTEXTILI











1.1. FENCES ARE TO BE CONSTRUCTED ALONG LEVEL CONTOURS.

 THE ENDS OF THE FENCE SHALL BE TURNED UPSTREAM TO PREVENT BYPASS OF STORMWATER.
 STEEL POSTS 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. 1.4. 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 CANNOT BE TRENCHED IN (E.G. PAVEMENT). WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE. 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 1.6. 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. THERE SHALL BE A 6" DOUBLE OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

1.7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED. 1.8. 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 THE ADDITIONAL SILTATION.

SIDE SLOPES OF THE DIVERSION DIKE SHALL BE 3:1 OR FLATTER.

2.4. MINIMUM EMBANKMENT HEIGHT SHALL BE 18 INCHES AS MEASURED FROM THE TOE OF SLOPE ON THE UPGRADE SIDE OF THE BERM. THE DIKES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS WHICH ARE PROTECTED BY THE DIKE ARE PERMANENTLY STABILIZED UNLESS OTHER CONTROLS ARE PUT INTO PLACE TO PROTECT THE SITE. COMPACTED EARTH DIKES REQUIRE STABILIZATION IMMEDIATELY UPON PLACEMENT SO AS NOT TO CONTRIBUTE TO THE PROBLEM THEY ARE

2.8. DIKES MUST BE INSPECTED ON A REGULAR BASIS TO DETERMINE IF SILT IS BUILDING UP BEHIND THE DIKE, OR IF EROSION IS OCCURRING ON THE FACE OF THE DIKE. SILT SHALL BE REMOVED IN A TIMELY MANNER. IF EROSION IS OCCURRING ON THE FACE OF THE DIKE, THE SLOPES OF THE FACE SHALL BE STABILIZED.

3.1. MAXIMUM DEPTH OF FLOW IN THE SWALE SHALL BE 1 FOOT. THE MINIMUM BOTTOM WIDTH OF THE SWALE SHALL BE 2 FEET. 3.3. SIDE SLOPES OF THE SWALE SHALL BE 3:1 OR FLATTER.

3.5. SWALES MUST MAINTAIN POSITIVE GRADE TO AN ACCEPTABLE OUTLET. 3.6. INTERCEPTOR SWALES MUST BE STABILIZED IMMEDIATELY UPON EXCAVATION SO AS NOT TO CONTRIBUTE TO THE EROSION PROBLEM THEY ARE

3.7. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE. 3.8. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE DISPOSED OF IN AN APPROVED SPOILS SITE. 3.9. INSPECTION MUST BE MADE AFTER EACH RAIN EVENT TO LOCATE AND REPAIR ANY DAMAGE TO THE CHANNEL OR TO CLEAR DEBRIS OR OTHER OBSTRUCTIONS SO AS NOT TO DIMINISH FLOW CAPACITY. DAMAGES WHICH RESULT FROM NORMAL CONSTRUCTION ACTIVITIES SHALL BE

4.1. EACH HAY BALE SHALL BE PLACED INTO AN EXCAVATED TRENCH HAVING A DEPTH OF 4 INCHES AND A WIDTH JUST WIDE ENOUGH TO HAY BALES SHALL BE INSTALLED IN SUCH A WAY THAT THERE IS NO SPACE BETWEEN TO ALLOW FOR ANY KIND OF SEEPAGE.

4.3. INDIVIDUAL BALES SHALL BE HELD IN PLACE BY NO LESS THAN TWO WOOD OR STEEL STAKES DRIVEN A MINIMUM DISTANCE OF 6 INCHES INTO UNDISTURBED GROUND, WITH THE FIRST STAKE DRIVEN AT AN ANGLE TOWARD THE PREVIOUSLY INSTALLED BALE. THE ENDS OF THE DIKE SHALL BE TURNED UPGRADE TO PREVENT BYPASS OF STORMWATER.

4.5. INSPECTION SHALL BE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE 4.6. WHEN SILT REACHES A DEPTH OF 6 INCHES, IT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED SIT.4.7. HAY BALES SHALL BE REPLACED IF THERE ARE SIGNS OF DEGRADATION SUCH AS STRAW LOCATED DOWNSTREAM FROM THE BALES, STRUCTURAL

DEFICIENCIES DUE TO ROTTING STRAW IN THE BALE OR OTHER SIGNS OF DETERIORATION. SEDIMENT SHOULD BE REMOVED FROM BEHIND THE BALES WHEN IT REACHES A DEPTH OF APPROXIMATELY 6 INCHES. IF THE BALES BECOME CLOGGED, THEY SHOULD BE REPLACED IMMEDIATELY.

5.2. MINIMUM WIDTH OF THE BERM SHALL BE 18 INCHES AT THE TOP AND 48 INCHES MEASURED AT THE BOTTOM.

5.4. THE ENDS OF THE BERM SHALL BE TURNED UPGRADE OR SHALL TIE INTO NATURAL GRADES TO PREVENT BYPASS OF STORMWATER. 5.5. SANDBAGS SHOULD BE STACKED IN AT LEAST THREE ROWS ABUTTING EACH OTHER, AND IN STAGGERED ARRANGEMENT. 5.6. INSPECTIONS SHOULD BE MADE ON A DAILY BASIS AND AFTER EACH RAIN EVENT. THE SANDBAGS SHALL BE RESHAPED OR REPLACED AS NEEDED DURING THE INSPECTION. SILT SHOULD BE REMOVED WHEN IT REACHES A DEPTH OF SIX (6) INCHES.

6.1. MINIMUM WIDTH OF THE EMBANKMENT AT THE TOP SHALL BE 3 FEET PERPENDICULAR TO THE FLOW.

6.3. MAXIMUM EMBANKMENT HEIGHT SHALL BE 2 FEET AS MEASURED FROM THE TOE OF SLOPE TO THE CREST OF THE STONE OUTLET. THE HEIGHT OF THE COMPACTED EARTH EMBANKMENT SHALL BE ONE FOOT HIGHER THAN THE CREST OF THE OUTLET. 6.4. SEDIMENT SHALL BE REMOVED AND THE AREA DIRECTLY BEHIND THE BERM SHALL BE REGRADED TO ITS ORIGINAL DIMENSIONS AT SUCH POINT WHEN THE CAPACITY OF IMPOUNDMENT HAS BEEN REDUCED TO ONE-HALF OF ITS ORIGINAL STORAGE CAPACITY. SANDBAGS SHOULD BE STACKED IN AT LEAST THREE ROWS ABUTTING EACH OTHER, AND IN STAGGERED ARRANGEMENT.

6.6. INSPECTIONS SHOULD BE MADE ON A DAILY BASIS AND AFTER EACH RAIN EVENT. THE SANDBAGS SHALL BE RESHAPED OR REPLACED AS NEEDED DURING THE INSPECTION. SILT SHOULD BE REMOVED WHEN IT REACHES A DEPTH OF SIX (6) INCHES.

7.1. MINIMUM WIDTH OF THE EMBANKMENT AT THE TOP SHALL BE 3 FEET PERPENDICULAR TO THE FLOW.

7.3. MAXIMUM EMBANKMENT HEIGHT SHALL BE 2 FEET AS MEASURED FROM THE TOE OF SLOPE TO THE CREST OF THE STONE OUTLET. THE HEIGHT OF THE COMPACTED EARTH EMBANKMENT SHALL BE ONE FOOT HIGHER THAN THE CREST OF THE OUTLET. 7.4. SEDIMENT SHALL BE REMOVED AND THE AREA DIRECTLY BEHIND THE BERM SHALL BE REGRADED TO ITS ORIGINAL DIMENSIONS AT SUCH POINT WHEN THE CAPACITY OF IMPOUNDMENT HAS BEEN REDUCED TO ONE-HALF OF ITS ORIGINAL STORAGE CAPACITY. 7.5. THE STONE OUTLET STRUCTURE SHOULD BE INSPECTED FREQUENTLY AND AFTER EACH MAJOR RAIN EVENT TO CHECK FOR CLOGGING OF THE VOID SPACES BETWEEN STONES. IF THE AGGREGATE APPEARS TO BE SILTED IN SUCH THAT EFFICIENCY IS DIMINISHED, THE STONE SHOULD BE

8.1. MAXIMUM DRAINAGE AREA CONTRIBUTING TO THE BASIN SHALL BE 100 ACRES. 8.2. DEPOSITED SEDIMENT SHALL BE REMOVED WHEN THE STORAGE CAPACITY OF THE BASIN HAS BEEN DEPLETED BY ONE-HALF.

MINIMUM WIDTH OF THE EMBANKMENT AT THE TOP SHALL BE 8 FEET.

8.5. SEDIMENT SHALL BE REMOVED AND THE BASIN SHALL BE REGRADED TO ITS ORIGINAL DIMENSIONS. THE REMOVED SEDIMENT SHALL BE STOCKPILED OR REDISTRIBUTED IN AREAS WHICH ARE PROTECTED FROM EROSION. 8.6. THE BASIN OUTLET STRUCTURE AND EMERGENCY SPILLWAY (IF PRESENT) SHOULD BE CHECKED FREQUENTLY AND AFTER EACH MAJOR RAIN

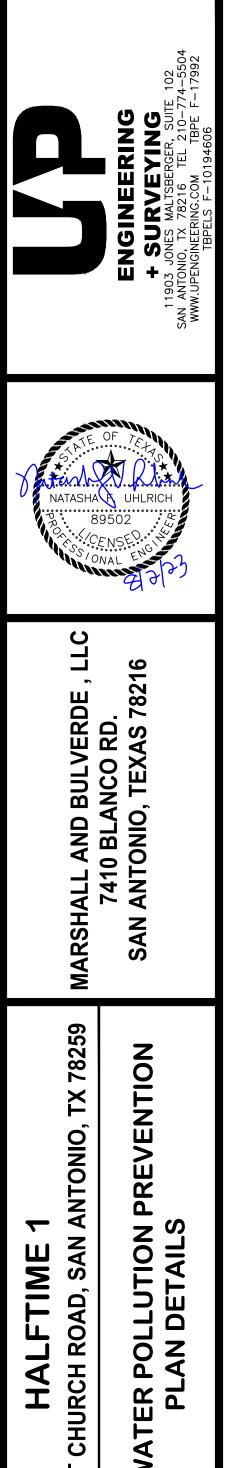
9.2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET, UNLESS DEPTH OF LOT IS LESS THAN 150 FEET FROM EDGE OF PAVEMENT WHERE

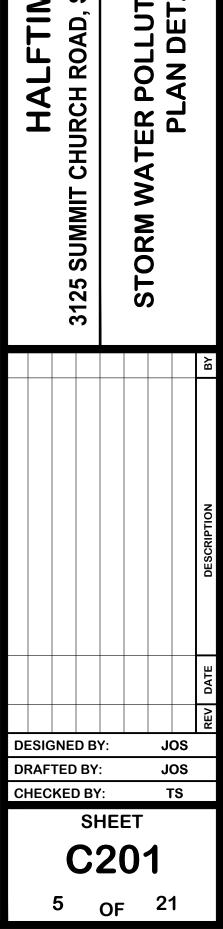
9.4. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.

9.5. 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 TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS. 9.6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN 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 9.7. DRAINAGE - ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE

10.1. UPON COMPLETION OF CONSTRUCTION ALL DISTURBED AREAS SHALL BE REVEGETATED TO 85% OF EXISTING CONDITIONS IN ACCORDANCE WITH 10.2. THIS PROJECT WILL NOT USE ANY OFF-SITE MATERIAL, WASTE/BORROW/FILL, OR EQUIPMENT STORAGE AREAS.

10.4. THIS SITE WILL NOT HAVE ANY LOCATIONS WHERE STORM WATER DISCHARGES DIRECTLY TO A SURFACE WATER BODY.





Attachment G

Inspection, Maintenance, Repair and Retrofit Plan



Inspection, Maintenance, Repair and Retrofit Plan

Project Name	Halftime 1
Address 7410 Bla	nco Road, Suite 225
City, State, Zip Cod	e San Antonio, TX 78216

SEDIMENTATION BASINS

<u>Weekly</u> :	While construction of lots is ongoing within the basin drainage area, the basin shall be checked for accumulation of trash and debris. Trash and debris shall be removed if excessive.
	The level of accumulated silt shall also be checked weekly while construction of lots is ongoing within the basin drainage area. If depth of silt exceeds 6-inches, it shall be removed and disposed of "properly".
<u>Monthly</u> :	The vegetative growth in the basin shall be checked. The growth shall not exceed 18 inches in height.
<u>Quarterly</u> :	The level of accumulated silt shall be checked. If depth of silt exceeds 6 inches, it shall be removed and disposed of "properly".
	The basin shall be checked for accumulation of debris and trash. The debris and trash shall be removed if excessive. All debris and trash shall be removed at least every six months.
<u>Annually</u> :	The basin shall be inspected for structural integrity and repaired if necessary.
<u>After Rainfall</u> :	The basin shall be checked after each rainfall occurrence to ensure that it drains within 24-hours after the storm is over. If it does not drain within this time, corrective maintenance will be accomplished.
FILTRATION BASINS	
<u>Weekly</u> :	While construction of lots is ongoing within the basin drainage area, the basin shall be checked for accumulation of trash and debris. Trash and debris shall be removed if excessive.
	The level of accumulated silt shall also be checked weekly while construction of lots is ongoing within the basin drainage area. If depth of silt exceeds $\frac{1}{2}$ inch, it shall be removed and disposed of "properly".
<u>Monthly</u> :	The vegetative growth shall be checked. Vegetation in the basin shall not exceed 18 inches in height.
<u>Quarterly</u> :	The level of accumulated silt shall be checked. If depth of silt/pollutants exceeds ½ inch, it shall be removed and disposed of "properly".



The accumulation of pollutants/oils shall be checked. If the pollutants have significantly reduced the designed capacity of the sand filter, the pollutants shall be removed.

The basin shall be checked for accumulation of debris and trash. The debris and trash shall be removed if excessive. All debris and trash shall be removed at least every six months.

- <u>Annually</u>: The basin shall be inspected for structural integrity and repaired if necessary.
- <u>After Rainfall</u>: The basin shall be checked after each rainfall occurrence to ensure that it drains within 36 hours after the sedimentation basin has been emptied. If it does not drain within this time, corrective maintenance will be accomplished.

Following any required maintenance, the surface of the filtration basin shall be raked and leveled to restore the system to its designed condition.

*"Proper" disposal of accumulated silt shall be accomplished following Texas Water Commission and City of San Antonio guidelines and specifications.

VEGETATIVE FILTER STRIPS

Once a vegetated area is well established, little additional maintenance is generally necessary. The key to establishing a viable vegetated feature is the care and maintenance it receives in the first few months after it is planted. Once established, all vegetated BMPs require some basic maintenance to insure the health of the plants including:

- *Pest Management.* An Integrated Pest Management (IPM) Plan should be developed for vegetated areas. This plan should specify how problem insects and weeds will be controlled with minimal or no use of insecticides and herbicides.
- Seasonal Mowing and Lawn Care. If the filter strip is made up of turf grass, it should be
 mowed as needed to limit vegetation height to 18 inches, using a mulching mower (or
 removal of clippings). If native grasses are used, the filter may require less frequent
 mowing, but a minimum of twice annually. Grass clippings 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 (Urbonas et al., 1992).
 Healthy grass can be maintained without using fertilizers because runoff usually contains
 sufficient nutrients. Irrigation of the site can help assure a dense and healthy vegetative
 cover.
- Inspection. Inspect filter strips at least twice annually for erosion or damage to vegetation; however, additional inspection after periods of heavy runoff is 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 during the first few years after establishment will help 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 must be replanted and restored to meet specifications. Construction of a level spreader device may be necessary to reestablish shallow overland flow.

- Debris and Litter Removal. Trash tends to accumulate in vegetated areas, particularly along highways. Any filter strip structures (i.e. level spreaders) should be kept free of obstructions to reduce floatables being flushed downstream, and for aesthetic reasons. The need for this practice is determined through periodic inspection but should be performed no less than 4 times per year.
- Sediment Removal. Sediment removal is not normally required in filter strips, since the vegetation normally grows through it and binds it to the soil. However, sediment may accumulate along the upstream boundary of the strip preventing uniform overland flow. Excess sediment should be removed by hand or with flat-bottomed shovels.
- 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. If possible, flow should be diverted 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 particularly dry periods, particularly as the vegetation is initially established.

*"Proper" disposal of accumulated silt shall be accomplished following Texas Commission on Environmental Quality and City of San Antonio guidelines and specifications.

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

Responsible Party for Maintenance	Marshall Bulverde LLC
Address	7410 Blanco Road, Suite 225
City, State Zip	San Antonio, TX 78249
Telephone Number	210-316-8880
Signature of Responsible Party	2ummig

Plan prepared by UP Engineering in conformance with TCEQ regulations

Wer Smith



Attachment H

Pilot-Scale Field Testing Plan



Pilot-Scale Field Testing Plan

Not Applicable



Attachment I

Measures for Minimizing Surface Stream Contamination



Measures for Minimizing Surface Stream Contamination

Vegetative filter strips and an on-site sedimentation/filtration basin will be used as permanent controls to treat storm water runoff before it enters the stream. Bypass areas not captured and treated by the basins will continue to drain naturally into Long Creek. The velocities of any proposed drainage swales will be designed for 6 fps or less to prevent erosion and allow natural grass lined channels to be used if necessary.



Agent Authorization Form (TCEQ-0599)



Agent Authorization Form For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999 Karim Ali Print Name Owner Title - Owner/President/Other

Marshall Bulverde LLC Corporation/Partnership/Entity Name

UP Engineering + Surveying have authorized

Print Name of Agent/Engineer

UP Engineering + Surveying 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:

of

of

- 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 Aguifer 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

4-4-2023

Date

THE STATE OF Texas §

County of <u>Bexar</u> §

BEFORE ME, the undersigned authority, on this day personally appeared 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 <u>474</u> day of <u>Apeil</u> <u>2023</u>.

YRUBLIC

Trayce L Cerwick My Commission Expires 12/9/2025 Notary ID 133483210

TRAYCE L. CERWICK Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 12 9 2025



Application Fee Form

Texas Commission on Environmenta Name of Proposed Regulated Entity:					
Regulated Entity Location: Corner of	Bulverde Rd and	Marshall Rd			
Name of Customer: Bulverde Marsh					
Contact Person: <u>Karim</u> Ali		ne:			
Customer Reference Number (if issue					
Regulated Entity Reference Number (if issued):RN	-			
Austin Regional Office (3373)					
🗌 Hays	Travis		W	illiam	ison
San Antonio Regional Office (3362)					
🔀 Bexar	Medina		Uv	/alde	
Comal	Kinney				
Application fees must be paid by chee		or money ord	er, pavab	ole to	the Texas
Commission on Environmental Quali			· · · ·		
form must be submitted with your fe	=		-		-
Austin Regional Office		San Antonio R	-		
Mailed to: TCEQ - Cashier		Overnight Deli	-		- Cashier
Revenues Section		12100 Park 35	-		Casille
Mail Code 214		Building A, 3rc			
P.O. Box 13088		Austin, TX 787			
Austin, TX 78711-3088		(512)239-0357			
Site Location (Check All That Apply):		(312)239-0357			
		_			
X Recharge Zone	Contributing Zone	2	Transi	tion	Zone
Type of Plan		Size	,	1	Fee Due
Water Pollution Abatement Plan, Cor	-			<u> </u>	
Plan: One Single Family Residential D	-		Acres	\$	
Water Pollution Abatement Plan, Cor	-			<u> </u>	
Plan: Multiple Single Family Residenti			Acres	\$	
Water Pollution Abatement Plan, Cor	tributing Zone	12.30		<u>~</u>	\$6,500
Plan: Non-residential			Acres	\$	
Sewage Collection System		845	L.F.	\$	\$650
Lift Stations without sewer lines			Acres	\$	
Underground or Aboveground Storag	e Tank Facility		Tanks	\$	
Piping System(s)(only)			Each	\$	
Exception			Each	\$	
Extension of Time			Each	\$	
Signature: Wer Smith	Date	e: <u>07/31</u> /2023			

Signature: Uper Smith

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	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6,500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial, institutional,	< 1	\$3,000
multi-family residential, schools, and other sites	1 < 5	\$4,000
where regulated activities will occur)	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$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				





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.)						
X New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)						
Renewal (Core Data Form should be submitted w	Other					
2. Customer Reference Number (if issued)	Follow this link to search	3. Regulated Entity Reference Number (if issued)				
CN	for CN or RN numbers in Central Registry**	RN				

SECTION II: Customer Information

4. General Custome	Information	5. Effective Date	5. Effective Date for Customer Information Updates (mm/dd/yyyy)								
X New Customer Update to Customer Information											
Change in Legal N	ame (Verifiable wit	h the Texas Secret	tary of St	ate or	Texas (Comp	ptrolle	ler of F	Public Accounts		
The Customer N	ame submitted	here may be u	pdated	auto	matica	ally	bas	sed o	on what is cu	rrent and	l active with the
Texas Secretary	of State (SOS)	or Texas Com	otroller	of Pu	ublic A	lcce	oun	nts (C	PA).		
6. Customer Legal N	ame (If an individua	l, print last name first	: eg: Doe,	John)		<u> </u>	lf nev	w Cust	tomer, enter prev	ious Custon	ner below:
Marshall and Bu	Ilverde, LLC										
7. TX SOS/CPA Filin	g Number	8. TX State Tax	ID (11 digit	:s)		ç	9. Fe	ederal	Tax ID (9 digits)	10. DUN	IS Number (if applicable)
803843003											
11. Type of Custom	r: Corporat	ion		Individ	ual			Partr	nership: 🔲 Gene	ral 🗌 Limited	
Government: 🗖 City [] County 🔲 Federal [🛾 State 🔲 Other		Sole P	roprieto	rship	р	X	Other: LLC		
12. Number of Empl									endently Owned	d and Oper	ated?
X] 0-20 🗌 21-10) 🗌 101-250	251-500	_ 501 ar	nd high	er		ΧY	Yes	□ No		
14. Customer Role (Proposed or Actual) -	- as it relates to the R	Regulated	Entity li	isted on i	his f	form. I	Please	e check one of the	following	
Owner	🗌 Opera	tor	X 0\	wner 8	Operat	or					
Occupational Lice	isee 🗌 Respo	onsible Party	🗌 Va	oluntar	y Clean	up A	Applic	cant	Other:		
) Blanco Road	1									
15. Mailing Address: Suit	e 225										
City	San Antonio)	State	ТΧ		ZIP	7	78216	6	ZIP + 4	4363
16. Country Mailing	nformation (if outs	ide USA)			17. E-	Mail	l Add	dress	(if applicable)		
18. Telephone Num	er	19.	Extensio	on or (Code	ode 20. Fax Number (if applicable)				able)	
(210)960-5540 () -											

SECTION III: Regulated Entity Information

21. General Regulated En	tity Information (If 'New Regulated Entity	" is selected below this form should be accompanied by a permit application)
X New Regulated Entity	Update to Regulated Entity Name	Update to Regulated Entity Information
The Regulated Entity	Name submitted may be update	d 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.)

Halftime 1

23. Street Address of	3125 S	3125 Summit Church Road									
the Regulated Entity: (No PO Boxes)	Regulated Entity:					2189					
24. County	Bexar	8	A	31							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	NW co	rner of Sur	nmit Church R	load and	Bulverde	Road	I			
26. Nearest City	st City State Nearest ZIP Code								rest ZIP Code	
San Antonio						ТΧ			7	78261
27. Latitude (N) In Decin	nal:	29.66	6306	28. L	.ongitude (W) In De	ecimal:	- 9	8.43	3639
Degrees	Minutes		Seconds	Degre	es		Minutes			Seconds
29	3	9	47		98			26		11
29. Primary SIC Code (4	C Code (4 digits)						2. Secondary NAICS Code			
5983		5541			457110	10 N/A				
33. What is the Primary	Business o	f this entity?	(Do not repeat the SI	C or NAICS des	cription.)					
Convenience Sto	re with F	uel Sales								
	7410 E	lanco Road	d							
34. Mailing	Suite 2	225								
Address: City San Antonio State T		ТХ	ZIP	78	216	ZIP	+ 4	4363		
35. E-Mail Address:	kns	3bigs@gm	ail.com			•				
36. Telepho	one Number		37. Extensi	sion or Code 38. Fax Nu			umber (if applicable)			
(210)960 5540							() -		

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	X Edwards Aquifer	Emissions Inventory Air	Industrial Hazardous Waste
Municipal Solid Waste	New Source Review Air	OSSF	Petroleum Storage Tank	
Sludge	Storm Water	Title V Air	Tires	Used Oil
Voluntary Cleanup	Waste Water	Wastewater Agriculture	Water Rights	Cther:

SECTION IV: Preparer Information

40. Name:	UP Engineering + Survey	ing	41. Title:	Engineer	
42. Tele	phone Number 43. Ext./Code	44. Fax Number	45. E-Mail	Address	
(210)	774- 5504	() -			

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:	Marshall and Bulverde, LLC Job Title: Presid				
Name (In Print):	Karim Ali				(210) 960-5504
Signature:	Burnie			Date:	5/16/2023





SAN ANTONIO ETJ, BEXAR COUNTY, TX

BULVERDE AND MARSHALL RD.

Prepared by:

ENGINEERING

+ SURVEYING 11903 Jones Maltsberger Rd, Suite 102 San Antonio, TX 78216 210-774-5504 TBPE FIRM 17992

Prepared for:

HALFTIME Karim Ali 7410 Blanco Road, Suite 225 San Antonio, TX 78216

July 31, 2023



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 <u>30 TAC 213</u>.

Administrative Review

1. <u>Edwards Aquifer applications</u> 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: <u>http://www.tceq.texas.gov/field/eapp</u>.

- 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 review 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: Halftime 1				2. Regulated Entity No.:					
3. Customer Name: Bulverde Marshall LLC				4. Customer No.:					
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)	Resider	ntial	Non-residential			8. Site (acres):		e (acres):	12.30
9. Application Fee:			10. Permanent BMP(s):						
11. SCS (Linear Ft.):			12. A	12. AST/UST (No. Tanks):					
13. County:	Bexa	ar	14. Watershed:					Salado Creek Watershed	

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 San Antonio (SAWS) Shavano Park	Bulverde Fair Oaks Ranch Garden Ridge New Braunfels Schertz	NA	XSan 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.

Karim Ali

Print Name of Customer/Authorized Agent

2minules

Signature of Customer/Authorized Agent

06/01/2023

Date

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

General Information Form

In this Section:

TCEQ-0587 General Information Form

> Attachment A Road Map

Attachment B USGS/Edwards Recharge Zone Map

> Attachment C Project Description



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: Karim Ali

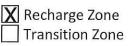
Date: 03/24/2023

Signature of Customer/Agent:

Lunna

Project Information

- 1. Regulated Entity Name: Halftime 1
- 2. County: Bexar
- 3. Stream Basin: Salado Creek Watershed
- 4. Groundwater Conservation District (If applicable): Edwards Aquifer Authority
- 5. Edwards Aquifer Zone:



6. Plan Type:



AST X UST Exception Request

TCEQ-0587 (Rev. 02-11-15)

1 of 4

7. Customer (Applicant):

Contact Person: <u>Karim</u> Ali Entity: <u>Bulve</u>rde Marshall LLC Mailing Address: <u>7410</u> Blanco Rd, St. 225 City, State: <u>San Antonio, Texas</u> Zip Telephone: <u>FA</u> Email Address:

Zip: <u>7821</u>6 FAX: _____

8. Agent/Representative (If any):

Contact Person: Tyler Smith
Entity: UP Engineering LLC
Mailing Address: 11903 Jones Maltsberger Rd, Suite 102
City, State: TXCity, State: TXZip: 78216
FAX: ____Telephone: 210-774-5504FAX: _____Email Address: _____Email Address: _____

9. Project Location:

The project site is located inside the city limits of _____.

The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of <u>San Antonio</u>

- The project site is not located within any city's limits or ETJ.
- 10. X 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.

Summit Church Rd and Bulverde Rd, City of San Antonio ETJ, Texas, 78259

- 11. X 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. X 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:
 - **X** Project site boundaries.

X 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. X 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: <u>N/A</u>

- 14. X 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)
X	Undeveloped (Undisturbed/Uncleared)
	Other:

Prohibited Activities

- 16. X 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. MA 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. X 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)

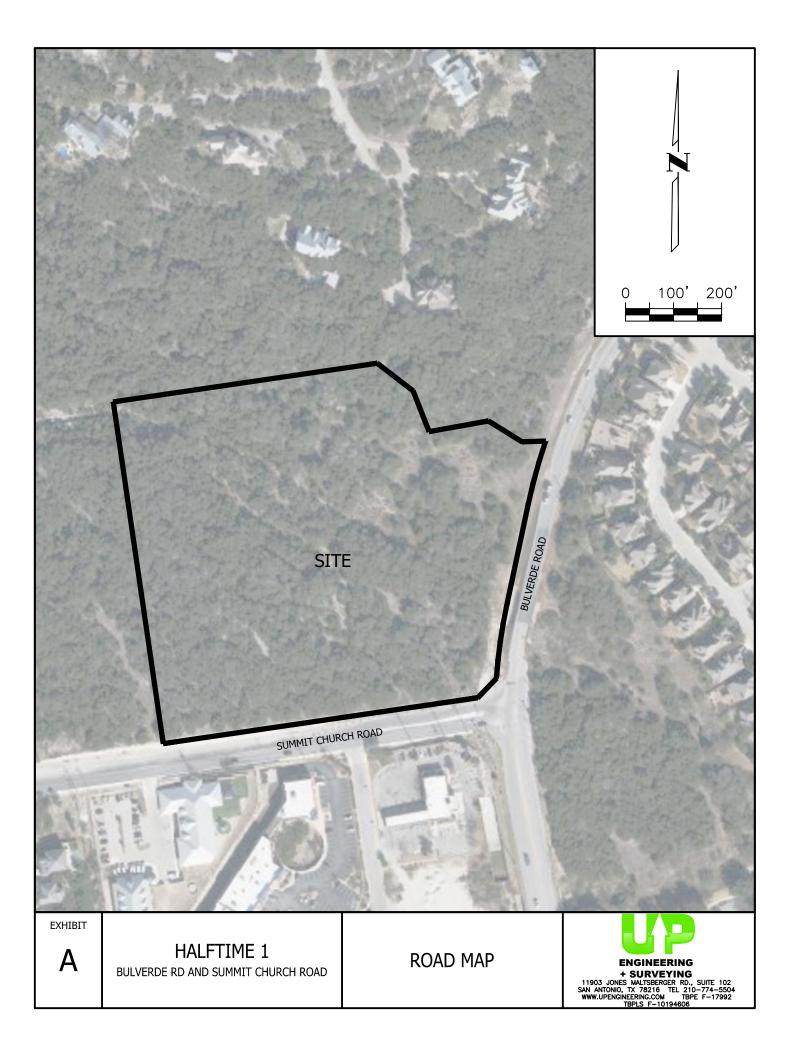
San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

- 20. X 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. X 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.

Attachment A

Road Map

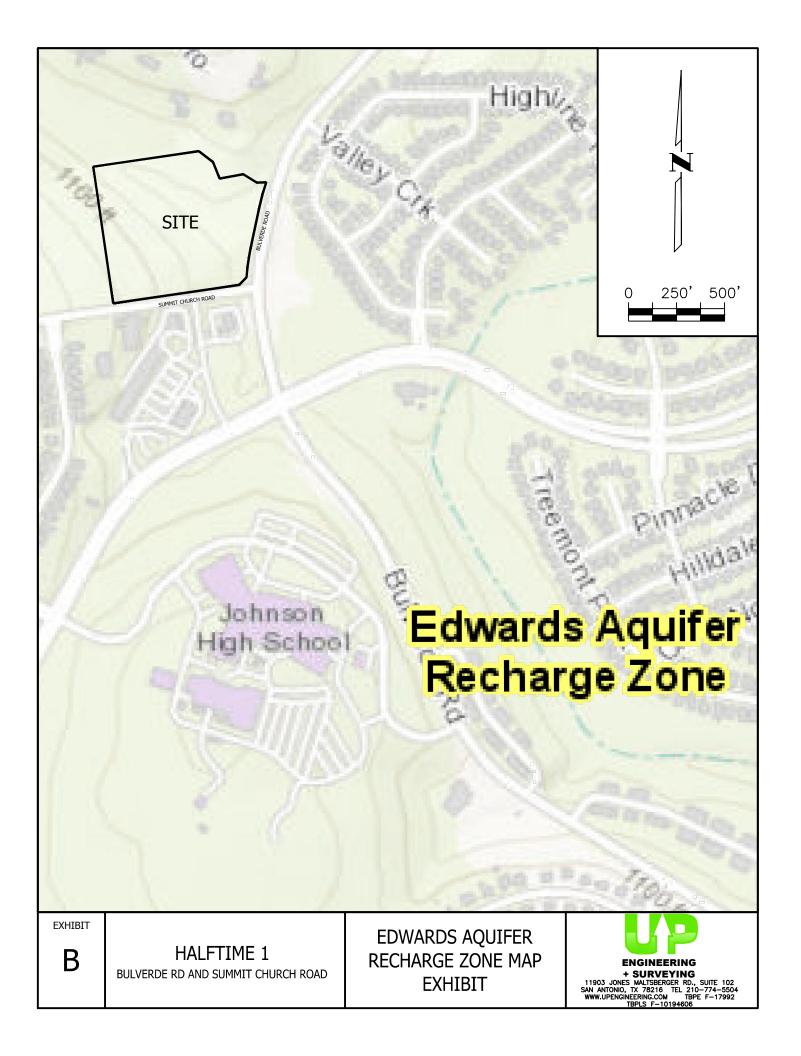




Attachment B

USGS/Edwards Recharge Zone Map





Attachment C

Project Description



Project Description

The project site consists of approximately 12.3 acres located at the intersection of the Summit Church Road (Previously Marshall Road) and Bulverde Rd. in the City of San Antonio ETJ. The site is currently undeveloped. The proposed development will be the development of a convenience store with fuel stations, driveways, and parking areas. Approximately 7.55 acres of undeveloped offsite runoff is conveyed onto the site from the west. A earthen drainage channel will be used to bypass all offsite runoff.

The proposed improvements for the site consist of a convenience store with fuel stations, driveways, and parking areas. The proposed impervious cover will consist of parking and associated access drives. Due to the SAWS Category letter the site will be limited to 15% impervious cover. A water quality pond and vegetative filter strips are proposed to reduce TSS exiting the site. A portion of the site lies within the 100-year floodplain area. Runoff from the site is ultimately conveyed to Mud Creek.



Geologic Assessment

In this Section:

TCEQ-0585 Geologic Assessment Form

Attachment A Geologic Assessment Table

> Attachment B Stratigraphic Column

> > Attachment C Site Geology

Attachment D Site Geologic Map(s)



Geologic Assessment of the 2.5-Acre Marshall and Bulverde Roads Project, San Antonio, Bexar County, Texas

MAY 2021

PREPARED FOR
UP Engineering + Surveying

PREPARED BY

SWCA Environmental Consultants Texas Board of Professional Geoscientists, Firm Registration No. 50159 This page intentionally left blank.

GEOLOGIC ASSESSMENT OF THE 2.5-ACRE MARSHALL AND BULVERDE ROADS PROJECT, SAN ANTONIO, BEXAR COUNTY, TEXAS

Prepared for

UP Engineering + Surveying 11903 Jones Maltsberger Rd., Suite 102 San Antonio, TX 78216

Prepared by

Philip Pearce, P.G. Debbie J. Duran, G.I.T.

SWCA ENVIRONMENTAL CONSULTANTS

Texas Board of Professional Geoscientists, Firm Registration No. 50159 4949 N Loop 1604 W, Suite 235 San Antonio, TX 78249 www.swca.com

SWCA Project Number 66055

May 2021



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1.0 Introduction	1
2.0 Methodology	1
3.0 Results	1
3.1 Site Overview	1
3.2 Geology	3
3.3 Soils	
3.4 Site Hydrogeologic Assessment	
4.0 References	4

FIGURES

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Figure 1.	Project Area location maj	0	2

APPENDICES

Appendix A Texas Commission on Environmental Quality (TCEQ) Forms

- Attachment A Geologic Assessment Table •
- Attachment B Stratigraphic Column •
- Attachment C Narrative Description of Site Geology •
- Attachment D Site Geologic Map and Soils Map
 Attachment E Photographic Documentation

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1 INTRODUCTION

This narrative Geologic Assessment accompanies the Texas Commission on Environmental Quality (TCEQ) Geologic Assessment form TCEQ-0585 completed of a 2.5-acre tract and a proposed off-site sanitary sewer line located northwest of the intersection of Bulverde Road and Marshall Road (Project Site) in San Antonio, northern Bexar County, Texas (Figure 1).

2 METHODOLOGY

An SWCA scientist conducted a field survey on 5 April 2021. The pedestrian survey was completed by walking parallel transects spaced approximately 50 feet apart as directed by the TCEQ in the <u>Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones</u> (Rev. 10-01-04). Closer spacing was used where vegetation inhibited clear observation. The SWCA scientist carefully examined all potential karst features, including depressions, holes, and animal burrows, for subsurface extent evidence. SWCA used several techniques for this effort, including probing with a digging implement to determine the thickness and consistency of fill material and feeling for air flow which may indicate the presence of a sub-surface void space. Other techniques included recording notable feature site characteristics such as vegetation types or a semi-circular burrow mound produced by small mammal activity.

3 RESULTS

3.1 Site Overview

The Project Site lies within the Edwards Aquifer Recharge Zone (TCEQ 2020). Topography generally slopes to the east towards Elm Waterhole Creek, with an elevations ranging from approximately 1,100 to 1,040 feet above mean sea level.

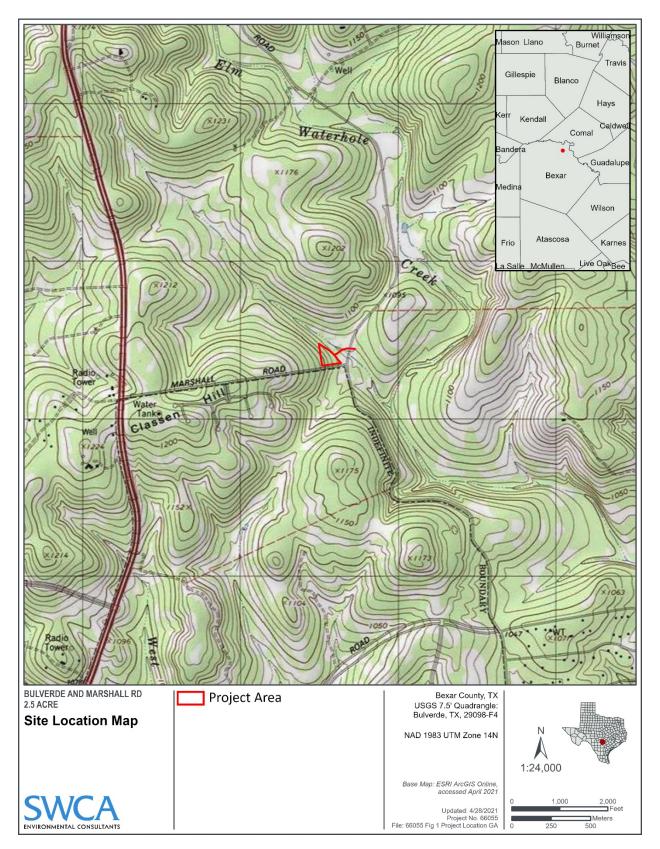


Figure 1. Project Site location map.

3.2 Geology

The Project Site is underlain by the Kainer Formation (Blome 2005) (Attachment D). The geology of the Project Site has been mapped most recently at a useful scale by Blome (2005) and SWCA finds this interpretation of the geology to be generally accurate. A Stratigraphic Column is included as Attachment B within Appendix A.

The Project Site occurs along the Balcones Fault Zone (BFZ) within the Edwards Aquifer Recharge Zone. Structural down-warping occurred with the Gulf of Mexico's ancestral formation during the middle Tertiary. The earth's crust was stretched in response and the BFZ formed along a zone of weakness, which currently marks the boundary between the Edwards Plateau and the Gulf Coastal Plain in central Texas. This zone is characterized by a series of northeast trending, predominantly normal, nearly vertical, en echelon faults. No faults cross the Project Site (Blome 2005).

The Project Site is within the Edwards Aquifer Recharge Zone (EARZ). Recharge into the Edwards Aquifer primarily occurs in areas where the Edwards Group and Georgetown Formation are exposed at the surface. Most recharge is from direct infiltration via precipitation and streamflow loss. Recharge occurs predominantly along secondary porosity features such as faults, fractures, and karst features (caves, solution cavities, sinkholes, etc.). Karst features are commonly formed along joints, fractures, and bedding plane surfaces in the Edwards Group and Georgetown Formation.

3.3 Soils

The Natural Resources Conservation Service (NRCS) identifies two soil unit within the Project Area (NRCS 2021).

- Eckrant very cobbly clay, 5 to 15 percent slopes (TaC)
- Eckrant cobbly clay, 1 to 8 percent slopes (TaD)

The TaC and TaD soil types are considered in the "D" hydrologic soil group classification, which have a very slow infiltration rate when thoroughly wet. A map of the Project Site displaying soil units is included in Attachment D.

3.4 Site Hydrogeologic Assessment

SWCA did not identify any geologic or manmade features on the Project Site, other than an existing sanitary sewer line that will be tied into (Feature S-1). The overall potential for fluid migration to the Edwards Aquifer for the site appears relatively low compared to background infiltration rates due to the presence of no geologic recharge features.

Feature S-1 is an existing sanitary sewer line that will be tied into. Typically trenches for sanitary sewer lines are cut into bedrock, and the trenches are backfilled with a mixture of fine and coarse material, which might have a greater probability for rapid infiltration than the surrounding undisturbed areas. Therefore, the probability of rapid infiltration is intermediate.

4 REFERENCES

- Blome, C.D., Faith, J.R., Pedraza, D.E., Ozuna, G.B., Cole, J.C., Clark, A.K., Small, T.A., and Morris, R.R. 2005. Geologic Map of the Edwards Aquifer Recharge Zone, South-central Texas. U.S. Geological Survey, Scientific Investigations Map SIM-2873. 1:200,000.
- Natural Resource Conservation Service (NRCS). 2021. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available at: http://websoilsurvey.nrcs.usda.gov/. Accessed April 2021.
- Texas Commission on Environmental Quality. 2021. Edwards Aquifer Viewer v3.8. Available at: http://tceq.maps.arcgis.com/apps/webappviewer/index.html?id=2e5afa3ba8144c30a49d3dc1ab49 edcd. Accessed April 2021.
- Texas Water Development Board (TWDB). 2021. Water Data Interactive, interactive GIS database. Available at: http://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer. Accessed April 2021.

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APPENDIX A

Texas Commission on Environmental Quality (TCEQ) Forms

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: Philip Pearce, P.G.

Telephone: 210.877.2847

Date: _____

Fax: <u>210.877.2848</u>

Representing: <u>SWCA Environmental Consultants- TBPG No. 50159</u> (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:

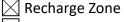
Regulated Entity Name: 2.5-acre Marshall and Bulverde Roads Project

Project Information

- 1. Date(s) Geologic Assessment was performed: April 5, 2021
- 2. Type of Project:
 - ⊠ WPAP ⊠ SCS

AST
UST

3. Location of Project:



____ Transition Zone

Contributing Zone within the Transition Zone



- 4. X 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, InfiltrationCharacteristics and Thickness

Soil Name	Group*	Thickness(feet)
Eckrant very cobbly clay, 5 to 15 percent slopes (TaC)	D	<2.0
Eckrant cobbly clay, 1 to 8 percent slopes (TaD)	D	<2.0

Soil Name	Group*	Thickness(feet)					

- * 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'' = 416'

9. Method of collecting positional data:

Global Positioning System (GPS) technology.

Other method(s). Please describe method of data collection: _____

TCEQ-0585 (Rev.02-11-15)

- 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.

 \square 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.

ATTACHMENT A

Geologic Assessment Table

GEOLO	GIC ASSES	SMENT TA	BLE				PR	DJECI		E: :	2.5-Ac	cre M	arshall	and E	Bulve	erde	Roa	ds P	roject	
	LOCATION	4				FE	ATU	RE CH/	ARACT	ERI	STICS				EVA	LUA	TION	PH)	YSICAL	SETTING
1A	1B * 1C* 2A 2B 3				3	3 4 5 5A 6 7 8A 8B								9 10		11		12		
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATIO N	DIME	NSIONS (FEET)	TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTUR E (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENS	SITIVITY		MENT AREA CRES)	TOPOGRAPHY
						х	Y	Z		10						<40	<u>>40</u>	<1.6	<u>>1.6</u>	
S-1	29.663592°	-98.434756°	MB	30	Kek	2.5	100	?		0			Fine	20	50		Х		Х	Floodplain
	_														-					
* DATUM: N	AD 83																			
2A TYPE		TYPE		2B	POINTS						8A INI	FILLING	i							
0	Cave				30		N None, exposed bedrock													
SC	Solution cavity				20		C Coarse - cobbles, breakdown, sand, gravel													
SF	Solution-enlarge	ed fracture(s)			20		0	Loose or	soft mud	or so	il, organio	cs, leave	es, sticks, da	rk colors	6					
=	Fault				20		F Fines, compacted clay-rich sediment, soil profile, gray or red colors													
C	Other natural bedrock features 5						V Vegetation. Give details in narrative description													
ИB	Manmade feature in bedrock 30						FS Flowstone, cements, cave deposits													
SW	Swallow hole				30		Х	Other ma	iterials											
SH	Sinkhole		20 5 12 TOPOGRAPHY																	
	Non-karst close		12 TOPOGRAPHY Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed																	
Z	Zone, clustered	or aligned feature	es		30		Cliff,	Hilltop,	Hillside,	Drai	nage, Fl	oodplai	in, Streaml	bed]					

I have read, I understood, and I have followed the Texas Commission on Environmental Quality'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 Chapter 213.



Date

Sheet _____ of ____

1

TCEQ-0585-Table (Rev. 10-01-04)

ATTACHMENT B

Stratigraphic Column

Stratigraphic Column

Note: The shaded areas represent the lithology that outcrops on the property.¹

S				Navarro and Taylor Groups, undivided; 600 feet thick					
ceou	TT			Austin Group; 130-150 feet thick					
Upper Cretaceous	Uppe Confi Units	ning		Eagle Ford Group; 30-50 feet thick					
Uppe	Onits			Buda Limestone; 40-50	feet thick				
				Del Rio Clay; 40-50 feet thick					
	Ι			Georgetown Formation	10-40 feet thick				
	II			Person Formation;	Cyclic and Marine member, undivided				
	III	quifer		170-200 feet thick	Leached and Collapsed member, undivided				
aceous	IV	Edwards Aquifer	Group		Regional Dense member				
Lower Cretaceous	V	Edw	Edwards Ac	Edwa	lwards	Kainer Formation;	Grainstone member		
Low	VI			260-310 feet thick	Kirschberg Evaporite member				
	VII				Dolomitic member				
	VIII				Basal Nodular member				
	Lower Confining Units			Upper member of Glen Rose Formation; 350-500 feet thick					

¹ Blome, C.D., Faith, J.R., Pdraza, D.E, Ozuna, G.B, Cole, J.C., Clark, A.K., Small, T.A., and Morris, R.R. 2005. Geologic map of the Edwards aquifer recharge zone, south-central-Texas. U.S. Geological Survey SIM-2873. Scale 1:200,000.

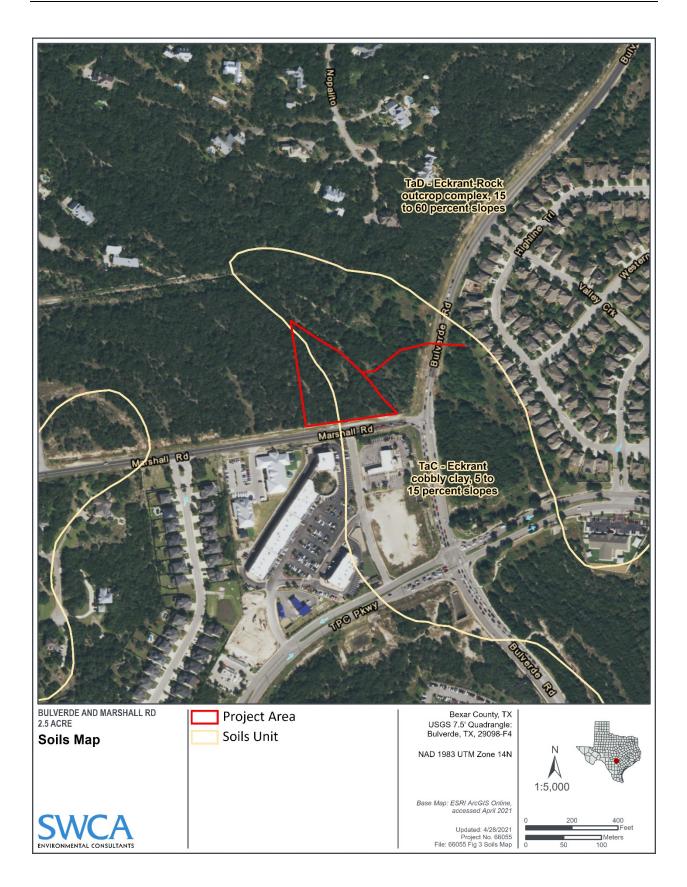
ATTACHMENT C

Narrative Description of Site Geology

PLEASE REFER TO SECTION 3.0 OF THIS REPORT FOR GEOLOGIC NARRATIVE DESCRIPTION

ATTACHMENT D

Site Geologic and Soil Unit Maps





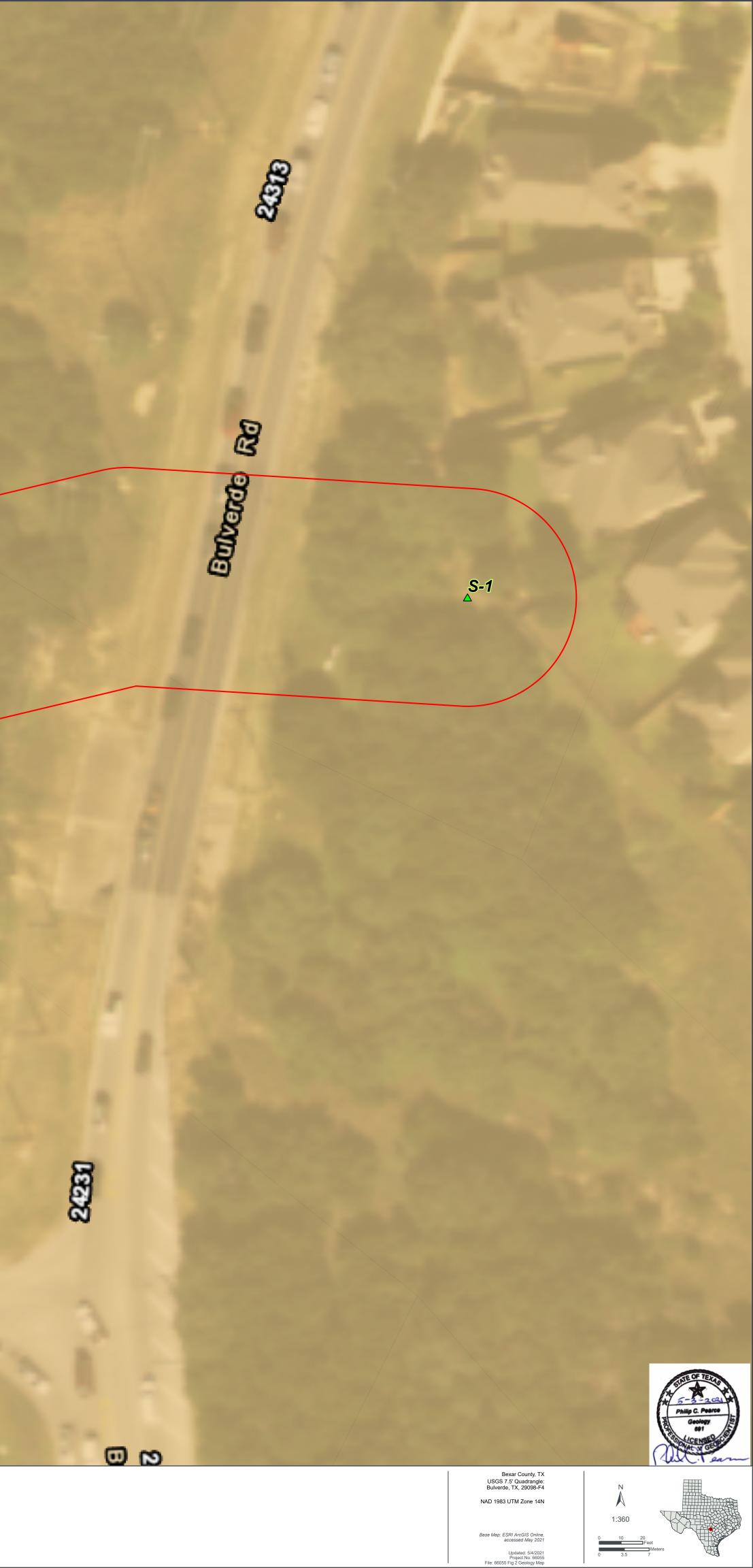
Geology Map 1 inch = 30 feet







Feature
 Project Area
 Geologic Unit
 Kek - Kainer Formation



Organized Sewage Collection System Plan

In this Section:

TCEQ-0582 Organized Sewer Collection System Plan

> Attachment A SCS Engineering Design Report

Attachment B Justification and Calculations for Deviation in Straight Alignment Without Manholes

> Attachment C Justification For Variance from Maximum Manhole Spacing

Attachment D Calculations for Slopes for Flows Greater Than 10.0 Feet Per Second

Site Plan

Final Plan and Profile Sheets



Organized Sewage Collection System Application

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(c), 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.

Regulated Entity Name: Halftime 1

 X Attachment A – SCS Engineering Design Report. This Engineering Design Report is provided to fulfill the requirements of 30 TAC Chapter 217, including 217.10 of Subchapter A, §§217.51 – 217.70 of Subchapter C, and Subchapter D as applicable, and is required to be submitted with this SCS Application Form.

Customer Information

 The entity and contact person responsible for providing the required engineering certification of testing for this sewage collection system upon completion (including private service connections) and every five years thereafter to the appropriate TCEQ region office pursuant to 30 TAC §213.5(c) is:

Contact Person: Karim Ali							
Entity: Bulverde Marshall LLC							
Mailing Address: 7410 Blanco Rd, St. 225							
City, State: San Antonio, Texas	Zip: <u>7821</u> 6						
Telephone:	Fax:						
Email Address:							
The appropriate regional office must be infor	med of any changes in this informa	tion					
within 30 days of the change.							

3. The engineer responsible for the design of this sewage collection system is:

Contact Person: <u>Natas</u> ha Uhlrich						
Texas Licensed Professional Engineer's Number:						
Entity: <u>UP E</u> ngineering and Surveying						
Mailing Address: 11903 Jones Maltsberger Rd, St. 102						
City, State: <u>San A</u> ntonio, Texas	Zip: <u>7821</u> 6					
Telephone:	Fax:					
Email Address: natasha@upengineering.com						

Project Information

4. Anticipated type of development to be served (estimated future population to be served, plus adequate allowance for institutional and commercial flows):

Residential: Number of single-family lots:
Multi-family: Number of residential units:
X Commercial
🗌 Industrial
Off-site system (not associated with any development)
Other:

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

<u>100</u> % Domestic	<u>1,125</u> gallons/day
<u>0</u> % Industrial	gallons/day
<u>0</u> % Commingled	gallons/day
Total gallons/day: <u>1,125</u>	

- 6. Existing and anticipated infiltration/inflow is _____ gallons/day. This will be addressed by:
- 7. A Water Pollution Abatement Plan (WPAP) is required for construction of any associated commercial, industrial or residential project located on the Recharge Zone.

The WPAP application for this development was approved by letter dated _____. A copy of the approval letter is attached.

The WPAP application for this development was submitted to the TCEQ on Concurrently, but has not been approved.

A WPAP application is required for an associated project, but it has not been submitted.

There is no associated project requiring a WPAP application.

8. Pipe description:

Table 1 - Pipe Description

Pipe Diameter(Inches)	Linear Feet (1)	Pipe Material (2)	Specifications (3)
8"	846	PVC	SDR 26 ASTM D3034

Total Linear Feet: 846

- (1) Linear feet Include stub-outs and double service connections. Do not include private service laterals.
- (2) Pipe Material If PVC, state SDR value.
- (3) Specifications ASTM / ANSI / AWWA specification and class numbers should be included.

9. The sewage collection system will convey the wastewater to the (name) Treatment Plant. The treatment facility is:

Χ	Existing
	Proposed

- 10. All components of this sewage collection system will comply with:

San Antonio Water Systems standard specifications. Other. Specifications are attached.

- 11. X No force main(s) and/or lift station(s) are associated with this sewage collection system.
 - A force main(s) and/or lift station(s) is associated with this sewage collection system and the Lift Station/Force Main System Application form (TCEQ-0624) is included with this application.

Alignment

- 12. X There are no deviations from uniform grade in this sewage collection system without manholes and with open cut construction.
- 13. X There are no deviations from straight alignment in this sewage collection system without manholes.

Attachment B - Justification and Calculations for Deviation in Straight Alignment without Manholes. A justification for deviations from straight alignment in this sewage collection system without manholes with documentation from pipe manufacturer allowing pipe curvature is attached.

For curved sewer lines, all curved sewer line notes (TCEQ-0596) are included on the construction plans for the wastewater collection system.

Manholes and Cleanouts

14. X Manholes or clean-outs exist at the end of each sewer line(s). These locations are listed below: (Please attach additional sheet if necessary)

Line	Shown on Sheet	Station	Manhole or Clean- out?
A	CU200	10+00	MH A-1
A	CU200	11+45	MH A-2
A	CU200	12+70	MH A-3
A	CU200	13+85	MH A-4
A	CU200	16+20	MH A-5
A	CU200	18+11	MH A-7
	Of		

Table	2	- Manholes	and	Cleanouts
Table	~		and	orcanouts

Line	Shown on Sheet	Station	Manhole or Clean- out?
	Of		
	Of		
	Of		

- 15. X Manholes are installed at all Points of Curvature and Points of Termination of a sewer line.
- 16. X The maximum spacing between manholes on this project for each pipe diameter is no greater than:

Pipe Diameter (inches)	Max. Manhole Spacing (feet)
6 - 15	500
16 - 30	800
36 - 48	1000
≥54	2000

- Attachment C Justification for Variance from Maximum Manhole Spacing. The maximum spacing between manholes on this project (for each pipe diameter used) is greater than listed in the table above. A justification for any variance from the maximum spacing is attached, and must include a letter from the entity which will operate and maintain the system stating that it has the capability to maintain lines with manhole spacing greater than the allowed spacing.
- 17. X All manholes will be monolithic, cast-in-place concrete.

The use of pre-cast manholes is requested for this project. The manufacturer's specifications and construction drawings, showing the method of sealing the joints, are attached.

Site Plan Requirements

Items 18 - 25 must be included on the Site Plan.

18. X The Site Plan must have a minimum scale of 1'' = 400'.

```
Site Plan Scale: 1" = <u>40</u>'.
```

- 19. X The Site Plan must include the sewage collection system general layout, including manholes with station numbers, and sewer pipe stub outs (if any). Site plan must be overlain by topographic contour lines, using a contour interval of not greater than ten feet and showing the area within both the five-year floodplain and the 100-year floodplain of any drainage way.
- 20. Lateral stub-outs:
 - The location of all lateral stub-outs are shown and labeled.
 - No lateral stub-outs will be installed during the construction of this sewer collection system.

- 21. Location of existing and proposed water lines:
 - The entire water distribution system for this project is shown and labeled.
 - If not shown on the Site Plan, a Utility Plan is provided showing the entire water and sewer systems.
 - X There will be no water lines associated with this project.
- 22. 100-year floodplain:
 - After construction is complete, no part of this project will be in or cross a 100-year floodplain, either naturally occurring or manmade. (Do not include streets or concrete-lined channels constructed above of sewer lines.)
 - After construction is complete, all sections located within the 100-year floodplain will have water-tight manholes. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 3 - 100-Year Floodplain

Line	Sheet	Station
A	CU200	13+85 to 16+20
	of	to
	of	to
	of	to

23. 5-year floodplain:

- After construction is complete, no part of this project will be in or cross a 5-year floodplain, either naturally occurring or man-made. (Do not include streets or concrete-lined channels constructed above sewer lines.)
- After construction is complete, all sections located within the 5-year floodplain will be encased in concrete or capped with concrete. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 4 - 5-Year Floodplain	
1 in a	

Line	Sheet	Station	
A	CU200	13+85 to 16+20	
	of	to	
	of	to	
	of	to	

- 24. X Legal boundaries of the site are shown.
- 25. X The *final plans and technical specifications* are submitted for the TCEQ's review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

Items 26 - 33 must be included on the Plan and Profile sheets.

26. All existing or proposed water line crossings and any parallel water lines within 9 feet of sewer lines are listed in the table below. These lines must have the type of pressure rated pipe to be installed shown on the plan and profile sheets. Any request for a variance from the required pressure rated piping at crossings must include a variance approval from 30 TAC Chapter 290.

There will be no water line crossings.

X There will be no water lines within 9 feet of proposed sewer lines.

Table 5 - Water Line Crossings

Line	Station or Closest Point	Crossing or Parallel	Horizontal Separation Distance	Vertical Separation Distance
8" PVC	11+20	30" DI SAWS 86-1551		
8" PVC	10+00	8" PVC SAWS 03-1729		

27. Vented Manholes:

No part of this sewer line is within the 100-year floodplain and vented manholes are not required by 30 TAC Chapter 217.

A portion of this sewer line is within the 100-year floodplain and vented manholes will be provided at less than 1500 foot intervals. These water-tight manholes are listed in the table below and labeled on the appropriate profile sheets.

A portion of this sewer line is within the 100-year floodplain and an alternative means of venting shall be provided at less than 1500 feet intervals. A description of the alternative means is described on the following page.

A portion of this sewer line is within the 100-year floodplain; however, there is no interval longer than 1500 feet located within. No vented manholes will be used.

Line	Manhole	Station	Sheet

Table 6 - Vented Manholes

Line	Manhole	Station	Sheet

28. Drop manholes:

There are no drop manholes associated with this project.

Sewer lines which enter new or existing manholes or "manhole structures" higher than 24 inches above the manhole invert are listed in the table below and labeled on the appropriate profile sheets. These lines meet the requirements of 30 TAC §217.55(I)(2)(H).

Table 7 - Drop Manholes

Line	Manhole	Station	Sheet

29. Sewer line stub-outs (For proposed extensions):

The placement and markings of all sewer line stub-outs are shown and labeled.

No sewer line stub-outs are to be installed during the construction of this sewage collection system.

30. Lateral stub-outs (For proposed private service connections):

X The placement and markings of all lateral stub-outs are shown and labeled.

No lateral stub-outs are to be installed during the construction of this sewage collection system.

31. Minimum flow velocity (From Appendix A)

Assuming pipes are flowing full; all slopes are designed to produce flows equal to or greater than 2.0 feet per second for this system/line.

32. Maximum flow velocity/slopes (From Appendix A)

Assuming pipes are flowing full, all slopes are designed to produce maximum flows of less than or equal to 10 feet per second for this system/line.

Attachment D – Calculations for Slopes for Flows Greater Than 10.0 Feet per Second. Assuming pipes are flowing full, some slopes produce flows which are greater than 10 feet per second. These locations are listed in the table below. Calculations are attached.

Line	Profile Sheet	Station to Station	FPS	% Slope	Erosion/Shock Protection

Table 8 - Flows Greater Than 10 Feet per Second

33. Assuming pipes are flowing full, where flows are ≥ 10 feet per second, the provisions noted below have been made to protect against pipe displacement by erosion and/or shock under 30 TAC §217.53(I)(2)(B).

Concrete encasement shown on appropriate Plan and Profile sheets for the locations listed in the table above.

Steel-reinforced, anchored concrete baffles/retards placed every 50 feet shown on appropriate Plan and Profile sheets for the locations listed in the table above.
 N/A

Administrative Information

- 34. X The final plans and technical specifications are submitted for TCEQ review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.
- 35. X Standard details are shown on the detail sheets, which are dated, signed, and sealed by the Texas Licensed Professional Engineer, as listed in the table below:

Standard Details	Shown on Sheet		
Lateral stub-out marking [Required]	of		
Manhole, showing inverts comply with 30 TAC §217.55(I)(2) [Required]	of		
Alternate method of joining lateral to existing SCS line for potential future connections [Required]	of		
Typical trench cross-sections [Required]	of		
Bolted manholes [Required]	of		
Sewer Service lateral standard details [Required]	of		
Clean-out at end of line [Required, if used]	of		
Baffles or concrete encasement for shock/erosion protection [Required, if flow velocity of any section of pipe >10 fps]	of		
Detail showing Wastewater Line/Water Line Crossing [Required, if crossings are proposed]	of		
Mandrel detail or specifications showing compliance with 30 TAC §217.57(b) and (c) [Required, if Flexible Pipe is used]	of		

Table 9 - Standard Details

Standard Details	Shown on Sheet
Drop manholes [Required, if a pipe entering a manhole is more than 24 inches above manhole invert]	of

- 36. X All organized sewage collection system general construction notes (TCEQ-0596) are included on the construction plans for this sewage collection system.
- 37. X All proposed sewer lines will be sufficiently surveyed/staked to allow an assessment prior to TCEQ executive director approval. If the alignments of the proposed sewer lines are not walkable on that date, the application will be deemed incomplete and returned.

Survey staking was completed on this date:

- 38. X 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.
- 39. X Any modification of this SCS application will require TCEQ approval, prior to construction, and may require submission of a revised application, with appropriate fees.

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 **Organized Sewage Collection System Application** is hereby submitted for TCEQ review and executive director approval. The system was designed in accordance with the requirements of 30 TAC §213.5(c) and 30 TAC §217 and prepared by:

Print Name of Licensed Professional Engineer: Natasha Uhlrich

Date: 08/31/2023

Place engineer's seal here:

Signature of Licensed Professional Engineer:

Appendix A-Flow Velocity Table

Flow Velocity (Flowing Full) All gravity sewer lines on the Edwards Aquifer Recharge Zone shall be designed and constructed with hydraulic slopes sufficient to give a velocity when flowing full of not less than 2.0 feet per second, and not greater than 10 feet per second. The grades shown in the following table are based on Manning's formula and an n factor of 0.013 and shall be the minimum and maximum acceptable slopes unless provisions are made otherwise.

Pipe Diameter(Inches)	% Slope required for minimum flow velocity of 2.0 fps	% Slope which produces flow velocity of 10.0 fps
6	0.50	12.35
8	0.33	8.40
10	0.25	6.23
12	0.20	4.88
15	0.15	3.62
18	0.11	2.83
21	0.09	2.30
24	0.08	1.93
27	0.06	1.65
30	0.055	1.43
33	0.05	1.26
36	0.045	1.12
39	0.04	1.01
>39	*	*

Table 10 - Slope Velocity

*For lines larger than 39 inches in diameter, the slope may be determined by Manning's formula (as shown below) to maintain a minimum velocity greater than 2.0 feet per second when flowing full and a maximum velocity less than 10 feet per second when flowing full.

$$v = \frac{1.49}{n} \times R_h^{0.67} \times \sqrt{S}$$

Figure 1 - Manning's Formula

Where:

v = velocity (ft/sec)
n = Manning's roughness coefficient
(0.013)
Rh = hydraulic radius (ft)
S = slope (ft/ft)

Attachment A SCS Engineering Design Report



SCS Engineering Design Report

Under existing conditions the site is undeveloped and covered in natural vegetation and trees. The proposed commercial development will establish a convenience store with fuel sales. The site is within the San Antonio Water Systems (SAWS) CCN. The site will be services by a public water main located within Summit Church Road. An sanitary sewer extension will be require to service the site. The proposed sewer extension will connect to the existing SAWS public sewer main on the east side of Bulverde Road. Approximately +/- 846 linear feet of 8 inch main will be extended to service the site. See exhibit A for the current service area and proposed service area. At this time no areas are being proposed for future expansion.

As-previously mentioned, the proposed commercial development will establish a convenience store with fuel sales. The development will not include any fast food or restaurant, only an area for meal prep and quick service items. Based on the usage the design flow required for the development was determined using the SAWS design guidelines and EDU calculation sheet. It is anticipated the commercial development estimate sewer design flow is 1,125 GPD.

SAWS DESIGN GUIDELINES FOR RETAIL SPACES IS 0.07 GPD/SF

$$7500 SF X \frac{0.07 GPD}{SF} = 525 GPD$$

FOR SERVICE STATIONS 1 EDU FOR FUEL SALES AND 2 EDU FOR TAKE OUT

$$3 EDU X \frac{200 GPD}{EDU} = 600 GPD$$

The slope design of the sewer pipes was based velocities such that the velocity when flowing full is not less than 2 fps and no more than 10 fps. Manning formula with an assumed value of 0.013, to determine the maximum velocity of an 8 inch pipe is 0.33% and maximum slope is 8.40%. The site is within the SAWS CCN therefore the SAWS standard of minimum 0.40% slope was adhered to.



Attachment B

Justification and Calculations for Deviation in Straight



Justification and Calculations for Deviation in Straight

Not Applicable



Attachment C

Justification for Variance from Maximum Manhole Spacing



Justification for Variance from Maximum Manhole Spacing

Not Applicable



Attachment D

Exception to the Required Geologic Assessment



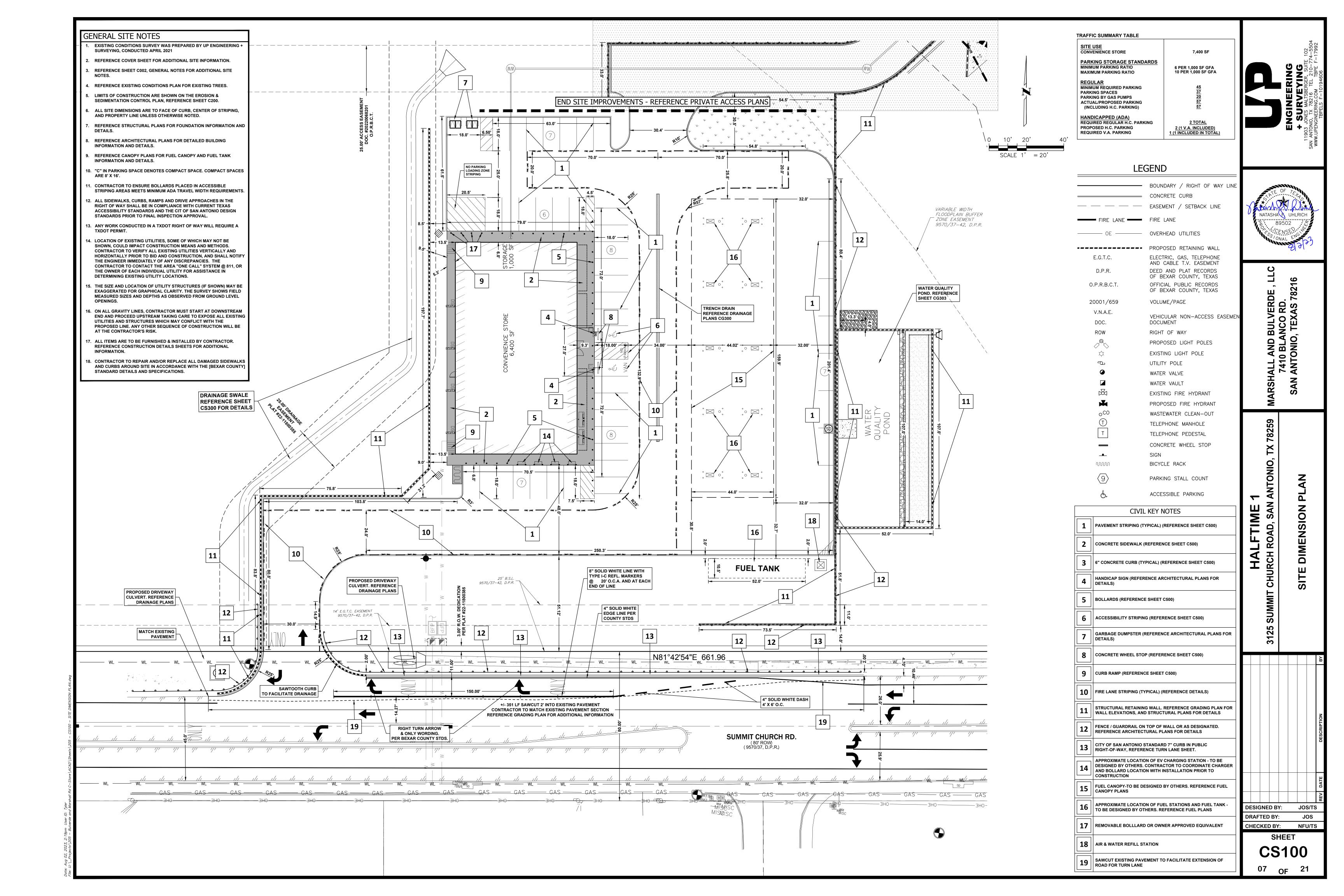
Exception to the Required Geologic Assessment

Not Applicable



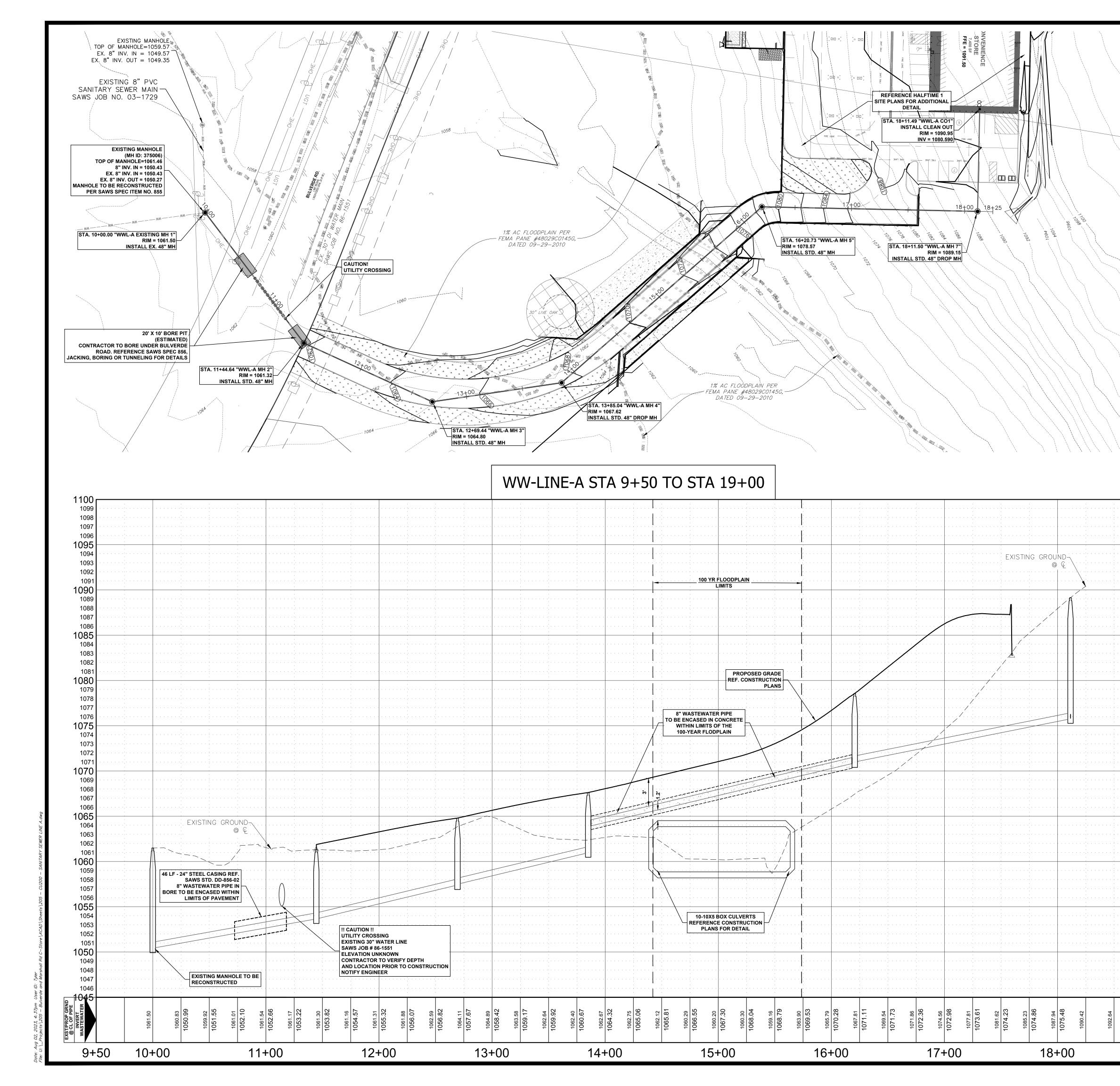
Site Plan





Final Plan and Profile Sheets





CAUTION!!! CONTRACTOR TO VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING ALL EXISTING UTILITIES BY CALLING DIGTESS @ 1-800-DIG-TESS FOR LOCATION OF ALL UTILITIES, AT LEAST 2 WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION.

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Temporary Stormwater Section

In this Section:

TCEQ-0602 Temporary Stormwater Section

> Attachment A Spill Response Actions

Attachment B Potential Sources of Contamination

> Attachment C Sequence of Major Activities

Attachment D Temporary Best Management Practices and Measures

> Attachment E Request to Temporarily Seal a Feature

> > Attachment F Structural Practices

Attachment G Drainage Area Map

Attachment H Temporary Sediment Pond(s) Plans and Calculations

> Attachment I Inspection and Maintenance for BMPs

Attachment J Schedule of Interim and Permanent Soil Stabilization Practices



Attachment A

Spill Response Actions



Spill Response Action

Spill Prevention and Control

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 stormwater impacts of leaks and spills:

Education

- 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 an appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spills must be reported to the TCEQ. Information available in 30 TAC 372.4 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 u 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 run-on during rainfall to the extent that it doesn't compromise cleanup activities.
- 7. Do not bury or wash spills with water.
- 8. Store and dispose of used cleanup 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 Safety Data Sheets (SDS), 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 equipment 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.
- 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 material on small spills rather than hosing down or burying the spill.
- 3. Absorbent material should be promptly removed and disposed of properly.
- 4. Follow the practice below for a minor spill:
 - a. Contain the spread of the spill.
 - b. Recover spilled material.
 - c. 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 before 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:

- 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 spill 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 include, but are not limited to, the County Sheriff's Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at:

https://www.tceq.texas.gov/response/spills

Vehicle and Equipment Preventative Maintenance

- 1. If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the run-on of stormwater and the runoff of spills.
- 2. Regularly inspect onsite vehicles and equipment for leaks and repair immediately.
- Check incoming vehicles and equipment (including delivery trucks and employee/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 absorbent materials promptly and dispose of properly.
- 7. Promptly transfer used fluids to the proper waste or recycle drums. Don't leave full drip pans or other open containers lying around.
- 8. Oil filters disposed of in trash cans 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 onsite, use designated areas, located away from drainage courses, to prevent the run-on 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 Sources of Contamination

- Oil, grease, fuel and hydraulic contamination from construction equipment and vehicle leakage.
 Remedy: Lubrication and fueling will be performed in a designated area. This area
- Miscellaneous trash and litter from construction works. Remedy: Designated receptacles will be strategically located, and works will be directed to deposit trash there.
- 3. Construction debris.

will be monitored daily for contamination.

Remedy: Debris will be collected weekly and deposited in bins for offsite disposal. Situations requiring immediate attention will be handled on a case-by-case basis.

4. Asphalt products.

Remedy: After placement of asphalt, emulsion or coatings, the contractor will be responsible for immediate cleanup should an unexpected rain occur. For the duration of the asphalt product curing time, the contractor will maintain standby personnel and equipment to control asphalt wash-off should an unexpected rain occur. The contractor will be instructed not to place asphalt products on the ground within 48 hours of a forecasted rain.

5. Tar, fertilizers, cleaning solvents, detergents, and petroleum-based products. Remedy: The contractor will be responsible for immediate cleanup should an unexpected rain occur. Debris will be collected weekly and deposited in bins for offsite disposal. Situations requiring immediate attention will be handled on a case-by-case basis.



Attachment C

Sequence of Major Activities



Sequence of Major Activities

- 1. Install erosion and sedimentation controls (i.e. silt fences and stabilized construction entrances) as indicated on the approved construction plans.
- 2. Perform mass grading of the site (~12.3 acres).
- 3. Install utilities.
- 4. Establish building foundation and pour concrete.
- 5. Install landscaping or hydromulch to disturbed areas.
- 6. Re-vegetate disturbed areas.
- 7. Remove temporary erosion and sedimentation controls.



Attachment D

Temporary Best Management Practices and Measures



Temporary Best Management Practices and Measures

The temporary Best Management Practices (BMP's) shall be installed as the first construction activity and will remain in place until all construction activities are complete and 70% of the vegetative cover has been established. Construction will be conducted in one phase, with a designated construction exit, a silt fence along the down gradient side of the tract, and tree protection for the undisturbed trees where applicable. The existing native grasses will be left undisturbed in areas not under construction. Rock berms will be placed where streets end at discharge points and flood plain crossings are to be installed. The temporary BMP's shall be installed according to details on the Water Pollution Abatement Plan detail sheet. The silt fences will be anchored six (6) inches into the soil and shall be monitored weekly for any failures of the silt fence or problems associated with silt build up. Buffer areas for recharge features shall be established prior to any construction on the site.

- a. To prevent pollution of surface water, groundwater or storm water that originates upgradient from the site and flows across the site, silt fencing will be placed along the down gradient side of the site and around indicated sensitive features.
- b. To prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated storm water runoff from the site, silt fencing will be placed along the down gradient sides of the site and rock berms will be placed at the grade-to-drain areas at the ends of the streets (if applicable). A construction exit will also be installed at the entrance to the location and a storage and refueling area will be designated on the site for the unit.
- c. To prevent pollutants from entering surface streams, sensitive features, or the aquifer, the silt fence and rock berms mentioned in item b above will be installed. Once identified, sensitive features will be protected using hay bale dikes, sand bag berms or other methods acceptable to TCEQ.
- d. To maintain flow to naturally occurring sensitive features identified in the geologic assessment, inspections, or during construction, the hay bale dikes or sand bag berms mentioned in item c above will be installed. If a feature must be sealed, when possible the feature will be filled with boulders and gravel and capped with concrete.



Attachment E

Request to Temporarily Seal a Feature



Request to Temporarily Seal a Feature

Not Applicable



Attachment F

Structural Practices



STRUCTURAL PRACTICES

Silt fences will be used on site to trap sediments and pollutants from leaving the areas of construction. A rock berm will trap excess sediment and debris from travelling downstream and filter the storm water that passes through it.



Attachment G

Drainage Area Map

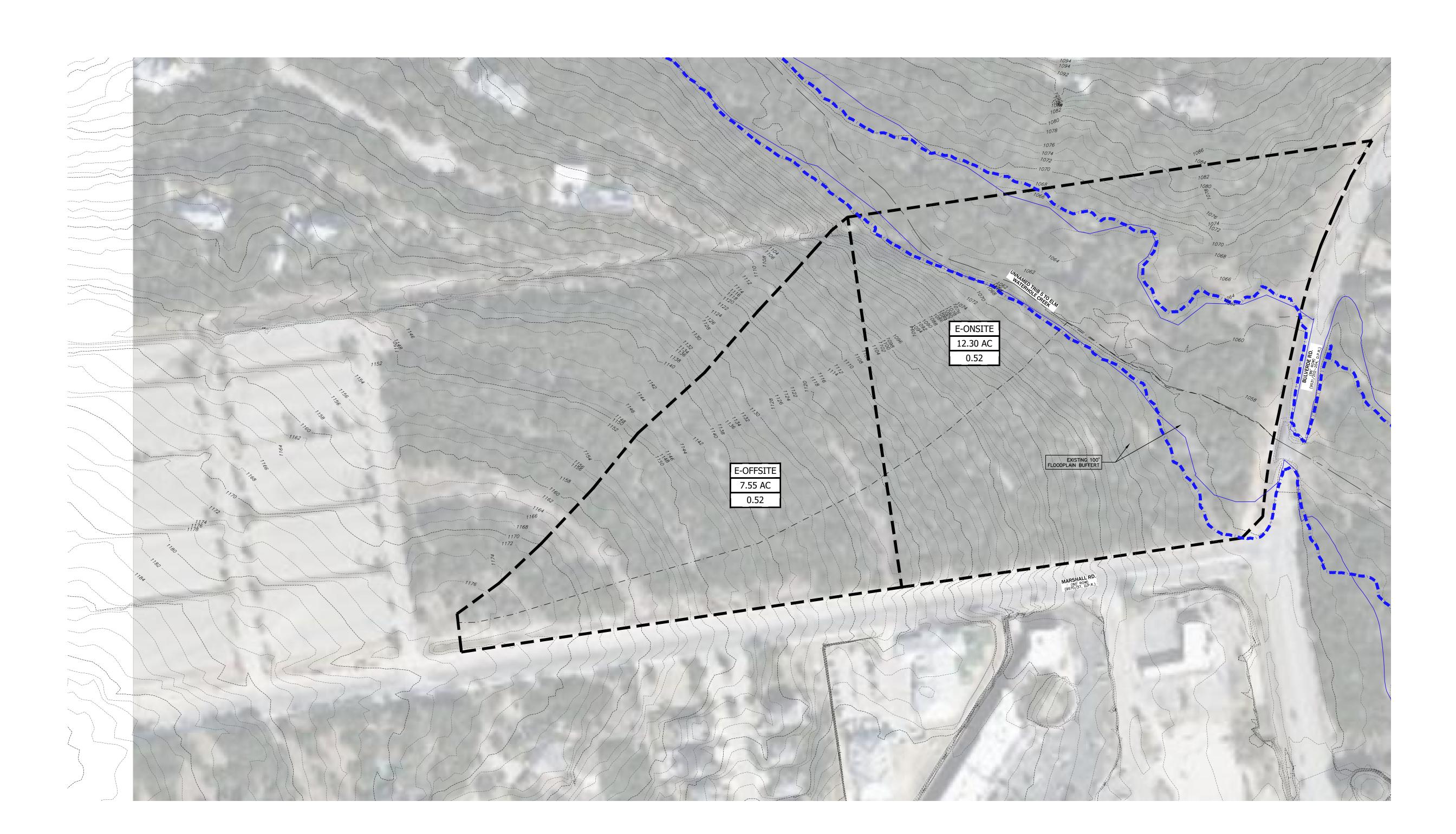


Drainage Area Map

The drainage area is not greater than 10 acres that will be disturbed at one time. A water quality pond and silt fences will be used to limit pollutant discharges before becoming concentrated channel flow. A rock berm will be used to further limit runoff discharge of pollutants from the site.



	Existing Runoff Flow Rates											
Ref Point	Drainage Areas	С	Drainage Area (ac)	Tc (min)	l₅ (in/hr)	I ₁₀ (in/hr)	I ₂₅ (in/hr)	I ₁₀₀ (in/hr)	Q₅ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
1	E-OFFSITE	0.52	7.55	25.4	4.04	4.70	5.61	6.99	15.9	18.5	22.0	27.4
2	E-ONSITE	0.52	13.65	15.0	5.31	6.19	7.39	9.26	37.7	44.0	52.5	65.7



0	50'	100'	200'

$\langle 1 \rangle$
1
5.2
0.47

920----

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DRAINAGE POINT

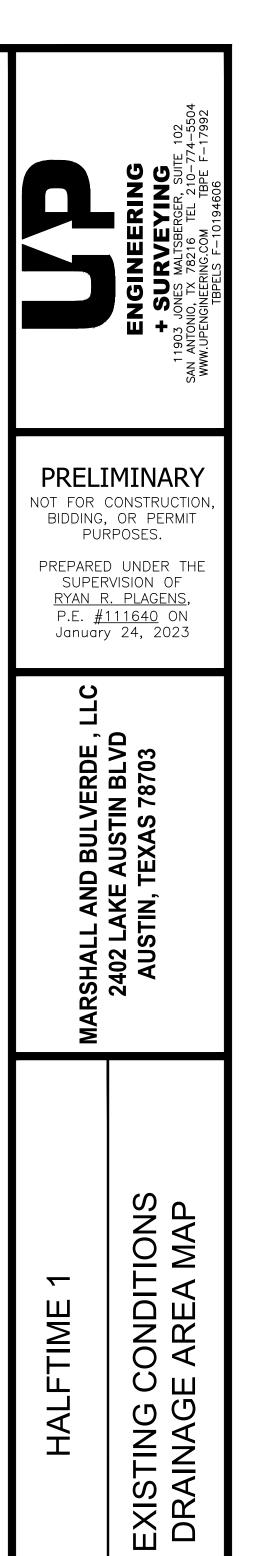
DRAINAGE AREA ACREAGE C-VALUE

EXIST. CONTOUR

Tc PATH

FEMA REGULATORY 100-YR FLOODPLAIN

ATLAS 14 ULTIMATE 100-YR FLOODPLAIN



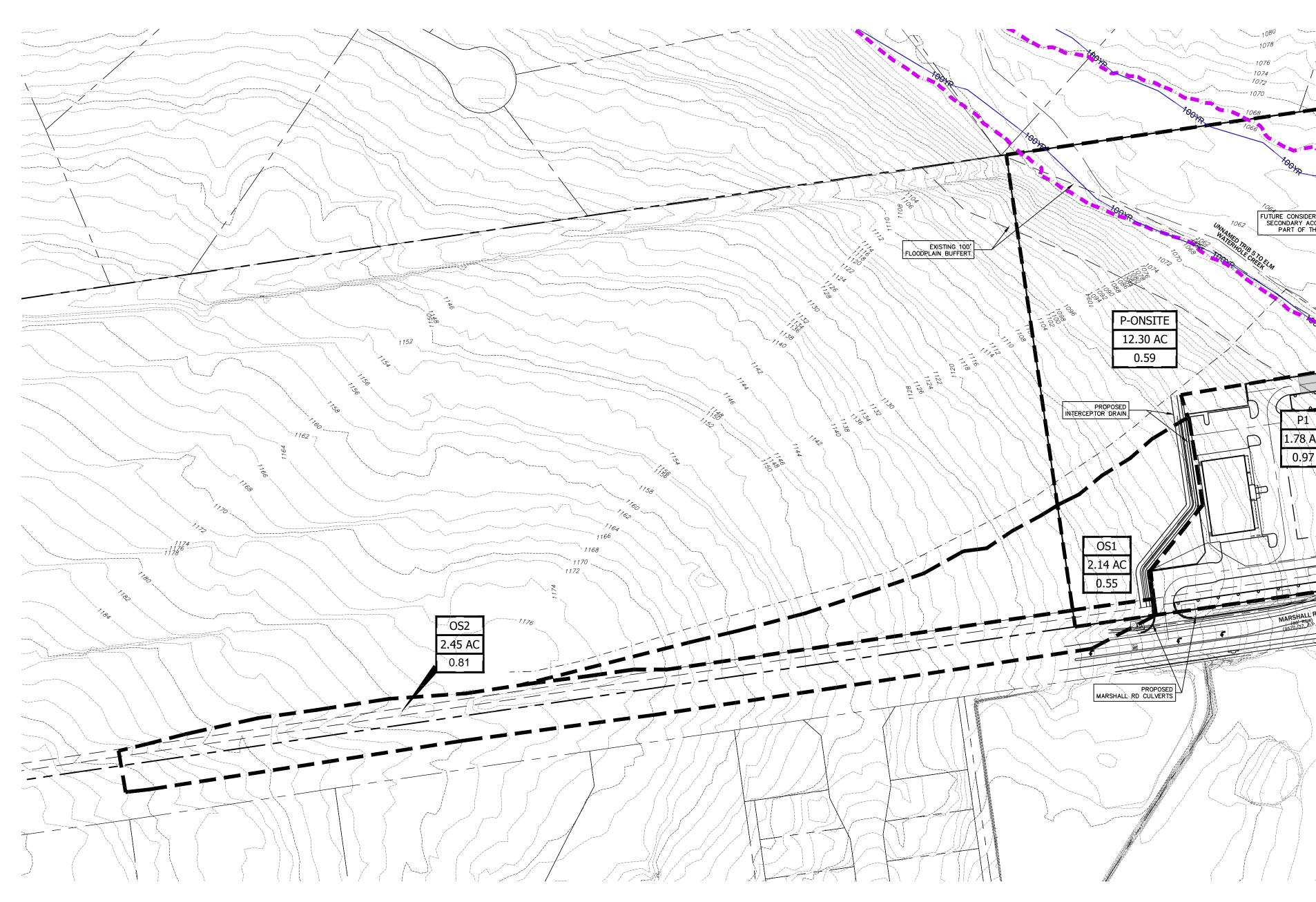
 $\overline{}$

HALFTIME

FIG 5

048

	Proposed Runoff Flow Rates											
Ref	Drainage	C	Drainage	Тс	I ₅	I_{10}	I ₂₅	I ₁₀₀	Q 5	Q ₁₀	Q ₂₅	Q ₁₀₀
Poin	t Areas	Ľ	Area (ac)	(min)	(in/hr)	(in/hr)	(in/hr)	(in/hr)	cfs)	(cfs)	(cfs)	(cfs)
1	OS1	0.65	2.14	25.4	4.04	4.70	5.61	6.99	5.6	6.5	7.8	9.7
2	OS2	0.81	2.45	15.0	5.31	6.19	7.39	9.26	10.5	12.3	14.7	18.4
3	P1	0.97	1.78	15.8	5.18	6.03	7.19	9.01	8.9	10.4	12.4	15.5
4	P-ONSITE	0.58	13.65	11.9	5.94	6.94	8.28	10.45	47.0	54.9	65.6	82.7



	(1) 1 5.2 0.47 920-	DRAINAGE POINT DRAINAGE AREA ACREAGE C-VALUE EXIST. CONTOUR Tc PATH FEMA REGULATORY		ENGINEERING + SURVEYING 11903 JONES MALTSBERGER, SUITE 102 SAN ANTONIO, TX 78216 TEL 210-774-5504 WWW.UPENGINEERING.COM TBPE F-17992 TBPELS F-10194606
		100-YR FLOODPLAIN ATLAS 14 ULTIMATE 100-YR FLOODPLAIN	NOT FOR BIDDING PU PREPARE SUPE <u>RYAN</u> P.E. <u>#</u>	IMINARY CONSTRUCTION, 6, OR PERMIT RPOSES. D UNDER THE RVISION OF <u>R. PLAGENS</u> , 111640 ON ry 24, 2023
		M	MARSHALL AND BULVERDE , LLC	2402 LAKE AUSTIN BLVD AUSTIN, TEXAS 78703
P1 .78 AC 0.97	Hurten Burten Bu		HALFTIME 1	PROPOSED/ULTIMATE CONDITIONS DRAINAGE AREA MAP
		TOOM		
			F]	IG 6

Attachment H

Temporary Sediment Pond(s) Plans and Calculations



Temporary Sediment Pond(s) Plans and Calculations

Not Applicable



Attachment I

Inspection and Maintenance for BMPs



INSPECTION AND MAINTENANCE FOR BMP'S

The temporary BMP's will be scheduled for inspection and repair once every week (7 days) and following any rainfall event that is greater than 0.5 inch. The contractor is responsible for logging all inspections, rainfall events and repairs. The contractor is also responsible for cleaning up any sediment that is released onto adjacent roadways after any rainfall event. The following forms shall be used for inspection and maintenance reports that are required to be kept on the project site by the contractor.



STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

REASONS FOR CHANGES:

INSPECTOR'S SIGNATURE:_____

DATE:_____



Silt Fence

Description

This item shall consist of providing and placing a filter fabric fence including maintenance of the fence, removal of accumulated silt and removal of the fence upon completion of the project.

Materials

- (1) Fabric
 - (a) General: The filter fabric shall be of nonwoven polypropylene, polyethylene or polyamide thermoplastic fibers with non-raveling edges. The fabric shall be non-biodegradable, inert to most soil chemicals, ultraviolet resistant, unaffected by moisture or other weather conditions, and permeable to water while retaining sediment. The filter fabric shall be supplied in rolls a minimum of 36 inches wide.
 - (b) Physical Requirements: The fabric shall meet the following requirements when sampled and tested in accordance with the methods indicated.

Physical Properties	Method	Requirements
Fabric Weight(oz/sy)	TEX-616-J	4.5 minimum
Water Flow Rate (gal/sq. ft/minute)	TEX-616-J	40 maximum
Equivalent Opening Size: US	CW-02215, US Army	40 to 100
Standard sieve(number)	Corps of Engineers	
Mullen Burst Strength(psi)	ASTM D 3786	300 minimum
Ultraviolet Resistance; Strength retention (%)	ASTM D 1682	70 minimum

(2) Posts: Posts shall be painted or galvanized steel Tee or Y-posts with anchor plates, not less than 4 feet in length with a minimum weight of 1.25 pounds per foot with a minimum Brinell Hardness of 140. Hangers shall be adequate to secure fence and fabric to posts. Posts and anchor plates shall conform to ASTM A 702.



(3) Wire Fence: Wire fence shall be woven wire backing to support the fabric should be $2'' \times 4''$ welded wire, 12 gauge minimum.

Construction Methods

The silt fence fabric shall be securely attached to the posts and the wire support fence with the bottom 12 inches of the filter material buried in a trench a minimum of 6 inches deep and 6 inches wide to prevent sediment form passing under the fence. When the silt fence is constructed on impervious material, a 12-inch flap of fabric shall be extended upstream from the bottom of the silt fence and weighted to limit particulate loss. No horizontal joints will be allowed in the filter fabric. Vertical joints shall be overlapped a minimum of 12 inches with the ends sewn or otherwise securely tied.

The silt fence shall be a minimum of 24 inches high. Posts shall be embedded a minimum of 12 inches in the ground, placed a maximum of 8 feet apart and set on a slight angle toward the anticipated runoff source. When directed by the Engineer, posts shall be set at specified intervals to support concentrated loads.

The silt fence shall be repaired, replaced, and/or relocated when necessary or as directed by the Engineer. Accumulated silt shall be removed when it reaches a depth of 6 inches.

Measurement

The work performed, and the materials furnished under this item will be measured by the linear foot of "Silt Fence", complete in place.



Stabilized Construction Exit

Description

This item involves constructing a stabilized pad of crushed stone located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking or deposition of sediment onto public right-of-way.

Materials

Aggregate for construction shall conform to the following gradation:

Table 1: Aggregate Gradation Chart (TEX 401-A, Percent Retained)							
8 inch 5 inch 2 inch							
0	90-100	100					

Construction Methods

All trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed of so as not to interfere with the excavation and construction of the entrance as indicated. The entrance shall not drain onto the public right-of-way or leave the construction site.

When necessary, vehicle wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch or watercourse through use of sand bags, gravel, boards, silt fence or other approved methods.

The entrance shall be maintained in a condition which will prevent tracking or disposition of sediment onto public right-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. All sediment spilled, dropped, washed or tracked onto public right-of-way must be removed immediately.

Measurement

Acceptable work performed as prescribed in this item will be measured by unit of each stabilized construction entrance installed.



Rock Filter Dams

Description

This Item shall govern for the materials to be furnished and for the installation, maintenance and removal of rock filter dams of the dimensions shown on the plans. The rock filter dams shall be constructed at the locations shown on the plans and as directed by the Engineer. This Item will be used during construction to control erosion and sedimentation.

Materials

Unless otherwise specified, all aggregate used for the construction of the rock filter dams shall be hard, durable, clean, open-graded, and shall naturally resist crumbling, flaking and eroding. Aggregate gradation shall be 3 to 6 inches for rock filter dams Types 1, 2 and 4 and shall be 4 to 8 inches for Type 3.

The galvanized steel wire mesh and tie wires for Types 2 and 3 shall be a minimum 20 gauge unless specified otherwise on the plans.

For Type 4: Steel wire mesh shall utilize a double twisted hexagonal weave; mesh opening shall be a nominal 2.50" x 3.25"; steel wire for netting shall be 0.0866" (U.S. Gauge No. 13) minimum; steel wire for selvedges and corners shall be 0.1063" (U.S. Gauge No. 110 minimum; and binding or tie wire shall be 0.0866" (U.S. Gauge No. 13) minimum.

Unless otherwise specified, the sandbag material shall be made of polypropylene, polyethylene or polyamide woven fabric, minimum unit weight four (4) ounces per square yard, Mullen burst strength exceeding 300 psi and ultraviolet stability exceeding 70 percent. The sandbag size shall be 24 to 30 inches in length, 16 to 18 inches in width, six (6) to eight (8) inches thick and weight 90 to 125 pounds. The sand shall be course grade.

Construction Methods

Trees, brush, stumps and other objectionable material shall be removed and disposed of as necessary so as not to interfere with the construction of the filter dams.

The filter dams shall be constructed according to the following criteria unless otherwise shown on the plans:

- 1. Type 1 (non-reinforced)
 - a. Height
 - i. 18 inches minimum, measured vertically from existing ground to top of filter dam.
 - b. Top Width



- i. 2 feet minimum
- c. Slopes
 - i. 2:1 maximum
- 2. Type 2 (reinforced)
 - a. Height
 - i. 18 inches minimum, measured vertically from existing ground to top of filter dam.
 - b. Top Width
 - i. 2 feet minimum
 - c. Slopes
 - i. 2:1 maximum

The aggregate shall be placed on the galvanized wire mesh to the lines, height and slopes specified without resulting in undue voids, and to the satisfaction of the Engineer. The mesh shall be folded at the upstream side over the aggregate and secured to itself on the downstream side. The mesh shall be attached to itself with wire ties, hog rings, or as directed by the Engineer.

- 3. Type 3 (reinforced)
 - a. Height
 - i. 36 inches minimum, measured vertically from existing ground to top of filter dam.
 - b. Top Width
 - i. 2 feet minimum
 - c. Slopes
 - i. 2:1 maximum

The aggregate shall be placed on the galvanized wire mesh to the lines, height and slopes specified without resulting in undue voids, and to the satisfaction of the Engineer. The mesh shall be folded at the upstream side over the aggregate and secured to itself on the downstream side. The mesh shall be attached to itself with wire ties, hog rings, or as directed by the Engineer.

4. Type 4 (Sack Gabions)

Sack gabions are supplied folded flat, packed in bundles. Single sacks shall be removed from the bundle, unfolded flat on the ground, and all kinks and bends stepped out.

For vertical filling, the two sides edge wires are connected by using the lacing wire in a "single loop – double loop" pattern on a 4" to 5" spacing. At one end, the "end lacing rod" must be pulled tight, wrapped around the end and twisted 4 times. At the filling end, the rod shall be pulled tight, cut, leaving about 6" length and twisted 4 times.



For horizontal filling, the sack shall be placed flat in a filling trough, filled with stone and then sides connected as described above. The ends shall be secured as described above.

Lifting and placing shall be accomplished by placing a No. 6 rebar (or equal) 5' long in the mesh, perpendicularly to the longitudinal axis and close to the knot of one end. Lifting should be made from the central point. Sack gabions shall conform to existing contours.

5. Type 5. Type 5 as shown on the plans.

Maintenance

The area upstream from the filter dams shall be maintained in a condition which will allow sediment to be removed following the runoff of a rainfall event. When the silt reaches a depth equal to 1/3 the height of the dam or 1 foot, whichever is less, the Contractor shall remove the accumulated sediment and dispose of it at an approved site in a manner that will not contribute to additional siltation. The filter dams shall be reshaped as needed and as directed by the Engineer.

The filter dams shall be maintained in place until all upstream areas are adequately stabilized. When the special Specification, "Temporary Erosion, Sedimentation and Water Pollution Prevention and Control" is in the contract, stabilization shall be as described in Subarticle 4.C of that specification. The area beneath the filter dams and area damaged by the removal process shall then be stabilized by the Contractor using appropriate methods as approved by the Engineer.

Measurement

This Item will be measured by the linear foot or by the cubic yard, as shown on the plans. When measured by the linear foot, measurement will be along the centerline of the top of the dam. When measured by the cubic yard, measurement will be the volume for rock computed in its final position by the method of average end areas or in vehicles at the point of delivery. The measured volume will include sandbags, if they are used.

Each time the Engineer directs that the filter dam (or portions thereof) be removed or removed and replaced, it will be measured for payment.



INSPECTIONS

DATE OF INSPECTION	CONTROL INSPECTED	OBSERVATIONS	COMPLIANCE WITH SWPPP		INSPECTOR'S SIGNATURE	TITLE/ QUALIFICATIONS
			YES	NO		



RECORD OF CONSTRUCTION ACTIVITY

DATE STARTED	DATE ENDED	TYPE OF ACTIVITY	CONTROL MEASURES	INSPECTOR SIGNATURE	TITLE/ COMPANY
JIANILD	LINDED		CONTROL MEASORES	INSPECTOR SIGNATORE	CONFANT



NON-STORMWATER DISCHARGES

DATE	INSPECTOR	TITLE	COMPANY	DISHARGE TYPE	POLLUTION CONTROL MEASURE

CONSTRUCTION MATERIALS

DATE STORED	DATE REMOVED		INSPECTOR'S		
ONSITE	FROM SITE	DESCRIPTION	SIGNATURE	TITLE	COMPANY

STABILIZATION RECORD

CONSTRUCT	ION/GRADING		STABILIZATION		SIGNATURE		
DATE BEGAN	DATE ENDED	DATE BEGAN	AREA OF SITE STABILIZATION	TYPE OF STABILIZATION USED	INSPECTOR	TITLE	COMPANY

RAINFALL DATA

DATE OF RECORDED RAINFALL	AMOUNT OF RAINFALL (INCHES)	SIGNATURE OF INSPECTOR	TITLE/COMPANY

SUBCONTRACTOR RESPONSIBILITIES

				INIT	IALS
DATE	SUBCONTRACTOR COMPANY	CONSTRUCTION ACTIVITY TO BE PERFORMED	DESCRIPTION OF POLLUTION PREVENTION RESPONSIBILITY	SUBCONTRACTOR	CONTRACTOR

Attachment J

Schedule of Interim and Permanent Soil Stabilization Practices



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 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 arid conditions, stabilization measures shall be initiated as soon as practicable.

After all sanitary sewer construction has been completed, final stabilization of the construction area on all unpaved areas and areas not covered by permanent structures shall be completed by even distribution of 70% of the native background vegetative cover or equivalent permanent stabilization measures.

Revegetation will be necessary for soil stabilization of any offsite sanitary sewer construction. Seeding should be used for these areas. The specified seeding requirements are based on the seasonal San Antonio District Seeding Requirement as specified by Item 164 of the 2004 Texas Department of Transportation specifications Book.

Agent Authorization Form For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999 Karim Ali Print Name Owner Title - Owner/President/Other

Marshall Bulverde LLC Corporation/Partnership/Entity Name

UP Engineering + Surveying have authorized

Print Name of Agent/Engineer

UP Engineering + Surveying 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:

of

of

- 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 Aguifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

Filed by Alamo Title Company

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

SPECIAL WARRANTY DEED WITH VENDOR'S LIEN

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STATE OF TEXAS

COUNTY OF BEXAR

KNOW ALL MEN BY THESE PRESENTS THAT:

THAT, SUMMIT CHRISTIAN CHURCH, a Texas Non-Profit Corporation fka EAGLE'S NEST CHRISTIAN FELLOWSHIP CHURCH, INC. ("Grantor"), for and in consideration for cash and a Note of even date executed by MARSHALL AND BULVERDE, LLC., a Texas limited liability company, Grantee, and payable to the order of FIRST NATIONAL BANK in the principal amount of Two Million Twenty-Five Thousand Dollars (\$2,025,000.00). The note is secured by a first and superior vendor's lien and superior title retained in this deed in favor of FIRST NATIONAL BANK and by a first-lien deed of trust of even date from Grantee to Greg Massey, trustee, the receipt and sufficiency of which are hereby acknowledged and confessed, subject to the exceptions, liens, encumbrances, terms and provisions hereinafter set forth and described, has GRANTED, BARGAINED, SOLD and CONVEYED and by these presents does hereby GRANT, BARGAIN, SELL and CONVEY unto Grantee the property situated in Bexar County, Texas, and being described in Exhibit "A" attached hereto and incorporated herein by reference for all purposes

TOGETHER WITH, any and all improvements, located thereon; Grantor's right, title and interest in and to any and all oil, gas and mineral rights associated with the Land, if any; and all of Grantor's right, title and interest in and to any easements, interests, benefits, privileges, rights and appurtenances pertaining to the Land, including any right, title and interest of Grantor in and to any adjacent strips, gores, roads, streets, alleys or rights-of-way to the extent that the same relate to the Land (all of the Land, improvements, mineral rights, easements, interests, benefits, privileges, rights and appurtenances being herein collectively referred to as the "Subject Property").

This conveyance is made and accepted subject to all items set forth on Exhibit "B" attached hereto, to the extent same are valid and affect the Property (such matters being referred to herein as the "Permitted Exceptions").

Real property ad valorem taxes and assessments having been prorated to the date hereof, Grantee hereby assumes and agrees to pay when due all such ad valorem property taxes and assessments for the year 2022.

TO HAVE AND TO HOLD the Subject Property, subject to the Permitted Exceptions as aforesaid, unto Grantee and Grantee's heirs, executors, administrators, personal representatives, successors and assigns forever; and Grantor does hereby bind Grantor and Grantor's heirs, executors, administrators, personal representatives, successors and assigns to WARRANT and

787265.1

FOREVER DEFEND, all and singular, the Subject Property, subject to the Permitted Exceptions, unto Grantee and Grantee's heirs, executors, administrators, personal representatives, successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof by, through or under Grantor, but not otherwise.

A first and prior Vendor's Lien and Superior Title in and to the Subject Property are hereby retained until the above referenced note has been fully paid according to its terms. For consideration received, the first and prior Vendor's Lien and Superior Title are hereby transferred, assigned, sold and conveyed to FIRST NATIONAL BANK without recourse. When the note is fully paid, this Deed shall become absolute.

EXECUTED as of March 2022 SELLER: SUMMIT CHRISTIAN CENTER By:

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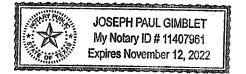
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Richard L. Godwin, President

ACKNOWLEDGMENT

STATE OF TEXAS COUNTY OF BEXAR

This instrument was acknowledged before me on this $\frac{| \bigcirc}{| \bigcirc}$ day of March, 2022 by Richard L. Godwin, President of SUMMIT CHRISTIAN CHURCH, a Texas Non-Profit Corporation fka EAGLE'S NEST CHRISTIAN FELLOWSHIP CHURCH, INC on behalf of said entity.



By:

Notary Public, State of Texas

AFTER RECORDING, RETURN TO: Marshall and Bulverde, LLC 2402 Lake Austin Boulevard Austin, Texas 78703 Doc# 20220068200 03/17/2022 3:12PM Page 3 of 6 Lucy Adame-Clark, Bexar County Clerk

EXHIBIT "A" LEGAL DESCRIPTION

12.30 ACRES OF LAND

A metes and bounds description of a 12.30 acre (535,792 sq. ft.) tract of land, being out of a 67.50 acre tract, recorded in Volume 9570, Pages 37-42, Deed and Plat Records of Bexar County, Texas (D.P.R.B.C.T.), situated in the WM Brisbin, Survey No. 89 1/2, Abstract No. 54, County Block 4900, situated in Bexar County, Texas, being more particularly described as follows:

BEGINNING: at a found 1/2-inch iron rod on the north right-of-way line of Marshall Road, an 80foot right-of-way recorded in Volume 9570, Pages 37-42, D.P.R.B.C.T., the west right-of-way line of Bulverde Road, an 86-foot right-of-way recorded in Volume 9531, Pages 202-204, D.P.R.B.C.T., an angle of the aforementioned 67.50 acre tract, and the herein described tract, having a State Flane Grid Coordinate NAD 83, Texas South Central Zone, (N: 13,788,970.77, E: 2,147,772.21);

THENCE: South 81°42'54" West, departing the west right-of-way line of Bulverde Road, along and with the north right-of-way line of Marshall Road, a distance of 661.96 feet to a set 1/2-inch iron rod with green plastic cap "UP ENG & SURVEY", the southwest corner of the herein described tract;

THENCE: North 08°18'45" West, departing the north right-of-way line of Marshall Road, a distance of 719.41 feet to a set 1/2-inch iron rod with green plastic cap "UP ENG & SURVEY", on the south line of a 58.99 acre tract, recorded in Volume 9535, Page 173, D.P.R.B.C.T., on the north line of the aforementioned 67.50 acre tract, the northwest corner of the herein described tract;

THENCE: North 81°41'15" East, a distance of 555.47 feet to a set 1/2-inch iron rod with green plastic cap "UP ENG & SURVEY", the north corner of the herein described tract;

THENCE: over and across the 67.50 acre tract, the following five (5) courses and distances:

- 1. South 52°24'01" East, a distance of 94.24 feet to a set 1/2-inch iron rod with green plastic cap "UP ENG & SURVEY", an angle of the herein described tract;
- South 21°33'35" East, a distance of 91.18 feet to a set 1/2-inch iron rod with green plastic cap "UP ENG & SURVEY", an angle of the herein described tract;
- 3. North 79°51'18" East, a distance of 125.45 feet to a set 1/2-inch iron rod with green plastic cap "UP ENG & SURVEY", an angle of the herein described tract;
- 4. South 58°10'15" East, a distance of 81.93 feet to a set 1/2-inch iron rod with green plastic cap "UP ENG & SURVEY", an angle of the herein described tract;
- 5. North 88°22'08" East, a distance of 49.53 feet to a set 1/2-inch iron rod with green plastic cap "UP ENG & SURVEY", on the west right-of-way line of Bulverde Road, the east corner of the horein described tract, being the beginning of a non-tangent curve to the left, whose radius bears

787265.1

South 71°20'55" East, a distance of 1,184.31 feet:

THENCE: along and with the west right-of-way line of Bulverde Road, the following three (3) courses and distances:

- 1. 136.75 feet with the curve to the left, having a radius of 1,184.31 feet, a central angle of 06°36'56", and a chord bearing and length of South 15°20'37" West, 136.67 feet to a found 1/2-inch iron rod, the end of a curve, an angle of the herein described tract;
- 2. South 12°02'08" West, distance of 214.58 feet to a found X on concrete, an angle of the herein described tract, being the beginning of a curve to the left, whose radius bears South 77°57'51" East, a distance of 1,085.00 feet;
- 3. 154.28 feet with the curve to the left, having a radius of 1,085.00 feet, a central angle of 08°08'50", and a chord bearing and length of South 07°57'44" West, 154.15 feet to a set 1/2-inch iron rod with green plastic cap "UP ENG & SURVEY", the end of a curve, on the southeast corner of the herein described tract;

THENCE: South 44°01'50" West, a distance 56.25 feet to the POINT OF BEGINNING and containing 12.30 acres (535,792 sq. ft.) more or less.

Schedule B Exceptions Summit – Marshall & Bulverde

20 foot building setback line along Bulverde Road, as shown on plat recorded in Volume 9570, Pages 37-42, Deed and Plat Records, Bexar County, Texas.

14 foot electric, gas, telephone and catv easement along Bulverde Road, as shown on plat recorded in Volume 9570, Pages 37-42, Deed and Plat Records, Bexar County, Texas.

Portion of a 78 foot wide floodplain buffer zone easement along Bulverde Road, as shown on plat recorded in Volume 9570, Pages 37-42, Deed and Plat Records, Bexar County, Texas.

Remainder of a 0.0446 acre drainage easement along Bulverde Road, recorded in Volume 4747, Page 2077, Real Property Records, Bexar County, Texas, as depicted on plat recorded in Volume 9570, Pages 37-42, Deed and Plat Records, Bexar County, Texas.

A 0.08 acre Quit Clamed in Volume 7015, Page 581, Real Property Records, Bexar County, Texas, as depicted on plat recorded in Volume 9570, Pages 37-42, Deed and Plat Records, Bexar County, Texas.

150' Radius Septic System setback line as shown on plat recorded in Volume 9570, Page s 37-42, Deed and Plat Records, Bexar County, Texas.

Terms and provisions of Sewer Service Allocation Agreement recorded in Volume 8496, Page 1769, Real Property Records, Bexar County, Texas.

Terms and provisions of sewer service allocation agreement, recorded in Volume 8496, Page 1789, Real Property Records, Bexar County, Texas.

Terms and provisions of Edwards Aquifer Protection Plan referenced by Affidavit recorded in Volume 11919, Page 1571, Volume 14412, Page 2435, Real Property Records, Bexar County, Texas.

File Information

eFILED IN THE OFFICIAL PUBLIC eRECORDS OF BEXAR COUNTY LUCY ADAME-CLARK, BEXAR COUNTY CLERK

Document Number:	20220068200
Recorded Date:	March 17, 2022
Recorded Time:	3:12 PM
Total Pages:	6

Total Fees: \$42.00

** THIS PAGE IS PART OF THE DOCUMENT **

** Do Not Remove **

Any provision herein which restricts the sale or use of the described real property because of race is invalid and unenforceable under Federal law

STATE OF TEXAS, COUNTY OF BEXAR

I hereby Certify that this instrument was eFILED in File Number Sequence on this date and at the time stamped hereon by me and was duly eRECORDED in the Official Public Record of Bexar County, Texas on: 3/17/2022 3:12 PM



Lucy Adame- Clark

Lucy Adame-Clark Bexar County Clerk SIGNATURE PAGE:

Applicant's Signature

4-4-2023

Date

THE STATE OF Texas §

County of <u>Bexar</u> §

BEFORE ME, the undersigned authority, on this day personally appeared 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 <u>474</u> day of <u>Apeil</u> <u>2023</u>.

YRUBLIC

Trayce L Cerwick My Commission Expires 12/9/2025 Notary ID 133483210

TRAYCE L. CERWICK Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 12 9 2025

Application Fee Form

Texas Commission on Environmental Quality							
Name of Proposed Regulated Entity: <u>Halftime</u> 1							
Regulated Entity Location: Corner of Bulverde Rd and Marshall Rd							
Name of Customer: <u>Bulve</u> rde Ma							
Contact Person: <u>Karim</u> Ali		one:					
Customer Reference Number (if is							
Regulated Entity Reference Numb	er (if issued):RN						
Austin Regional Office (3373)							
🗌 Hays	Travis		W	illiamson			
San Antonio Regional Office (336	2)						
X Bexar	Medina		Uv	valde			
Comal	Kinney						
Application fees must be paid by o	check. certified check	. or money or	ler, pavab	le to the	Texas		
Commission on Environmental Q		=					
form must be submitted with you	=		-	-	-		
Austin Regional Office	<u> </u>		-				
Mailed to: TCEQ - Cashier			San Antonio Regional Office Overnight Delivery to: TCEQ - Cashier				
Revenues Section			12100 Park 35 Circle				
Mail Code 214			Building A, 3rd Floor				
P.O. Box 13088		-	Austin, TX 78753				
Austin, TX 78711-3088		(512)239-0357					
Site Location (Check All That App	lv):	(312)233 033					
			□ <u>-</u> .				
X Recharge Zone	Contributing Zor	ie					
Type of Pla	n	Size	2	Fee	Due		
Water Pollution Abatement Plan,	-						
Plan: One Single Family Residentia	al Dwelling		Acres	\$			
Water Pollution Abatement Plan,	Contributing Zone						
Plan: Multiple Single Family Reside	ential and Parks		Acres	\$			
Water Pollution Abatement Plan,	Contributing Zone	10.00		¢¢	500		
Plan: Non-residential	12.30	Acres	ې	6,500			
Sewage Collection System	845	L.F.		\$650			
Lift Stations without sewer lines		Acres	\$				
Underground or Aboveground Sto		Tanks	\$				
Piping System(s)(only)		Each	\$				
Exception		Each	\$				
Extension of Time		Each	\$				
Signature: Uper Smith	Da	te: <u>07/31/</u> 2023					

Signature: Uper Smith

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	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6,500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial, institutional,	< 1	\$3,000
multi-family residential, schools, and other sites	1 < 5	\$4,000
where regulated activities will occur)	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$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



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 w	Other					
2. Customer Reference Number (if issued)	3. Regulated Entity Reference Number (if issued)					
CN	Follow this link to search for CN or RN numbers in Central Registry**	RN				

SECTION II: Customer Information

4. General Custome	er Information 5. Effective Date for Customer Information Updates (mm/dd/yyyy)										
X New Customer									Entity Ownership		
Change in Legal N	ame (Verifiable wit	h the Texas Secret	tary of St	ate or	Texas (Comp	ptrolle	ler of F	Public Accounts		
The Customer N	ame submitted	here may be u	pdated	auto	matica	ally	bas	sed o	on what is cu	rrent and	l active with the
Texas Secretary	of State (SOS)	or Texas Com	otroller	of Pu	ublic A	lcce	oun	nts (C	PA).		
6. Customer Legal N	ame (If an individua	l, print last name first	: eg: Doe,	John)		<u> </u>	lf nev	w Cust	tomer, enter prev	ious Custon	ner below:
Marshall and Bu	Ilverde, LLC										
7. TX SOS/CPA Filin	g Number	8. TX State Tax	ID (11 digit	:s)		ç	9. Fe	ederal	Tax ID (9 digits)	10. DUN	IS Number (if applicable)
803843003											
11. Type of Custom	r: Corporat	ion		Individ	ual			Partr	nership: 🔲 Gene	ral 🗌 Limited	
Government: 🗖 City [] County 🔲 Federal [🛾 State 🔲 Other		Sole P	roprieto	rship	р	X	Other: LLC		
12. Number of Empl									endently Owned	d and Oper	ated?
X] 0-20 🗌 21-10) 🗌 101-250	251-500	_ 501 ar	nd high	er		ΧY	Yes	□ No		
14. Customer Role (Proposed or Actual) -	- as it relates to the R	Regulated	Entity li	isted on i	his f	form. I	Please	e check one of the	following	
Owner	🗌 Opera	tor	X 0\	wner 8	Operat	or					
Occupational Lice	isee 🗌 Respo	onsible Party	🗌 Va	oluntar	y Clean	up A	Applic	cant	Other:		
) Blanco Road	1									
15. Mailing Address: Suite 225											
City	Addie55.					ZIP	P 78216 ZIP+4 4363			4363	
16. Country Mailing Information (if outside USA) 17. E-Mail Address (if applicable)											
18. Telephone Num	er	19.	Extensio	on or (Code		20. Fax Number (if applicable)				
(210)960-554								()	-		

SECTION III: Regulated Entity Information

21. General Regulated En	tity Information (If 'New Regulated Entity	" is selected below this form should be accompanied by a permit application)			
X 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.)

Halftime 1

23. Street Address of the Regulated Entity: <u>(No PO Boxes)</u>	3125 Summit Church Road									
	City	San Antonio	State	ТХ	ZIP	78259	ZIP + 4	2189		
24. County	Bexar	il .								

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	NW co	rner of Sur	nmit Church R	Road and	Bulverde	Road	I			
26. Nearest City						State			Nea	rest ZIP Code
San Antonio					TX 78261					78261
27. Latitude (N) In Decimal: 29.66			6306	28. L	28. Longitude (W) In Decimal:			- 98.43639		
Degrees	Minutes		Seconds	Degre	es		Minutes	Seconds		Seconds
29	3	9	47		98 26			26		11
29. Primary SIC Code (4	C Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)				32. Secondary NAICS Code (5 or 6 digits)				
5983 5541				457110			N/A			
33. What is the Primary	(Do not repeat the SI	C or NAICS des	cription.)							
Convenience Sto	re with F	uel Sales								
	7410 Blanco Road									
34. Mailing	Suite 225									
Address:	City	San Anto	nio State	ТХ	ZIP	78	216	ZIP	+ 4	4363
35. E-Mail Address: kns3bigs@gma			ail.com			•				
36. Telephone Number			37. Extensi	on or Code	or Code 38. Fax Number (if applicable)			cable)		
(210)960-5540							() -		

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		Industrial Hazardous Waste		
Municipal Solid Waste	New Source Review Air	OSSF	Petroleum Storage Tank			
Sludge	Storm Water	Title V Air	Tires	Used Oil		
Voluntary Cleanup	Waste Water	Wastewater Agriculture	Water Rights	Other:		

SECTION IV: Preparer Information

40. Name:	UP Engineering + Survey	ing	41. Title:	Engineer	
42. Tele	phone Number 43. Ext./Code	44. Fax Number	45. E-Mail	Address	
(210)	774- 5504	() -			

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:	Marshall and Bulverde, LLC Job Title: President			lent/Owner			
Name (In Print):	Karim Ali		Phone:	(210) 960-5504			
Signature:	Burnie			Date:	5/16/2023		